Compounds other than ethylene oxide were not quantitated.

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

Sequence ID: U9CA 1903004	**Instrument:** MS	**Batch:** B9C0104
Cal Curve (Method): 9020003 ~~9030002~~ 9030003 3/6/19	**Analyst:** MAK	**Date Analyzed:** 3-1-19
10% Review Sample IDs: 9030101-01, 9030101-09	**Reviewer:** G. Nash	**Date:** 3/6/19
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	— 3-5-19	RMB 3/6/19	GCN 3/6/19		
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)	— 3-5-19	RMB 3/6/19	GCN 3/6/19		U9BL
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	— 3-5-19	RMB 3/6/19	GCN 3/6/19		U9BL
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	— 3-5-19	RMB 3/6/19	GCN 3/6/19		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	— 3-5-19	RMB 3/6/19	GCN 3/6/19		

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	✓ 3-5-19	RMB 3/6/19	QCW 3/6/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	—	RMB 3/6/19	QCW 3/6/19		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	✓ 3-5-19	RMB 3/6/19	QCW 3/6/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	✓ 3-5-19	RMB 3/6/19	QCW 3/6/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	✓ 3-5-19	RMB 3/6/19	QCW 3/6/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	✓ 3-5-19	RMB 3/6/19	QCW 3/6/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 3/6/19	QCW 3/6/19		9030101-09, EtO $\frac{240(4.77)}{40279(0.2728)} = 0.104$ ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	✓ 3-5-19	RMB 3/6/19	QCW 3/6/19		

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

L19CA002 ethylene oxide $\frac{5265 \times 4.77}{47053 \times 0.2728} = 1.96$ ppbv

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

1903004

Instrument: ERGMS#1

Calibnration ID: 9020003

Printed: 3/1/2019 4:08:53PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1903004-CCV1	QC		1		9B27007	8L13002		
B9C0104-BLK1	QC		2			8L13002		
9022202-10	TO-15 2019	A	3			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022616-15	TO-15 2019	A	4			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030101-01	TO-15 2019	A	5			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030101-02	TO-15 2019	A	6			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030101-03	TO-15 2019	A	7			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030101-04	TO-15 2019	A	8			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030101-05	TO-15 2019	A	9			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030101-06	TO-15 2019	A	10			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030101-07	TO-15 2019	A	11			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030101-08	TO-15 2019	A	12			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
B9C0104-DUP1	QC		13			8L13002		
B9C0104-DUP2	QC		14			8L13002		
9030101-09	TO-15 2019	A	15			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only

Samples Loaded By 3-1-19 Date

Data Processed By 3-5-19 Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19CA.s
Comment: ANALYZE 3/1/19,9020003 exp 5/13/19, L19CA
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19CA\
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	L19CA001	BFB	BFB
2)	Sample	2	L19CA002	9020003	1903004-CCV1
3)	Sample	3	L19CA003	9020003	FLUSH
4)	Sample	4	L19CA004	9020003	B9C0104-BLK1
5)	Sample	5	L19CA005	9020003	9022202-10
6)	Sample	6	L19CA006	9020003	9022616-15
7)	Sample	7	L19CA007	9020003	9030101-01
8)	Sample	8	L19CA008	9020003	9030101-02
9)	Sample	9	L19CA009	9020003	9030101-03
10)	Sample	10	L19CA010	9020003	9030101-04
11)	Sample	11	L19CA011	9020003	9030101-05
12)	Sample	12	L19CA012	9020003	9030101-06
13)	Sample	13	L19CA013	9020003	9030101-07
14)	Sample	14	L19CA014	9020003	9030101-08
15)	Sample	15	L19CA015	9020003	B9C0104-DUP1
16)	Sample	16	L19CA016	9020003	B9C0104-DUP2
17)	Sample	17	L19CA017	9020003	9030101-09
18)	Sample	100	OFF	FIDOFF	OFF

3-5-19

ED_002475_00000345-00004

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19CA001	80 ML 8L13001	1
Sample	2	1903004-CCV1	9020003	L19CA002	80 ML 8L13001,9B27007	1
Sample	3	FLUSH	9020003	L19CA003	80 ML 8L13001	1
Sample	4	B9C0104-BLK1	9020003	L19CA004	80 ML 8L13001	1
Sample	5	9022202-10	9020003	L19CA005	WB TRIP BLANK 2/20/19	1
Sample	6	9022616-15	9020003	L19CA006	WB TRIP BLANK 2/23/19	1
Sample	7	9030101-01	9020003	L19CA007	WEST NEIGHBORHOOD 2/27/19	1
Sample	8	9030101-02	9020003	L19CA008	WILLOW POND PARK 2/27/19	1
Sample	9	9030101-03	9020003	L19CA009	EPA WB WAREHOUSE 2/27/19	1
Sample	10	9030101-04	9020003	L19CA010	WATER TOWER 2/27/19	1
Sample	11	9030101-05	9020003	L19CA011	GOWER ES 2/27/19	1
Sample	12	9030101-06	9020003	L19CA012	GOWER MS 2/27/19	1
Sample	13	9030101-07	9020003	L19CA013	WB VILLAGE HALL C1 2/27/19	1
Sample	14	9030101-08	9020003	L19CA014	WB VILLAGE HALL C2 2/27/19	1
Sample	15	B9C0104-DUP1	9020003	L19CA015	WB VILLAGE HALL R1 2/27/19	1
Sample	16	B9C0104-DUP2	9020003	L19CA016	WB VILLAGE HALL R2 2/27/19	1
Sample	17	9030101-09	9020003	L19CA017	HINSDALE S. HS 2/27/19	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

5-5-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19CA.SEQ
Date: 03-04-2019
Time: 06:29:07
Int. Std Volume: 80 cc

Sample Name	Inlet #	Auto Pos	Samp Vol.	Cal Std Vol.	Method	Time
BFB	1	1	0	0	C:\Smart\BFB.MPT	12:00
1903004-CCV1	2	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	2	250	0	C:\Smart\BFB.MPT	12:00
B9C0104-BLK1	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-10	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022616-15	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030101-01	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030101-02	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030101-03	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030101-04	1	8	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030101-05	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030101-06	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030101-07	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030101-08	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9C0104-DUP1	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9C0104-DUP2	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030101-09	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00

3-5-19

Compounds other than ethylene oxide were not quantitated.

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

3/4/2019 7:01:32 AM
Leak Check for C:\Smart\L19CA.SEQ
Report File: C:\Smart\L19CA.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	---	---	1.1	1.2	0.10
1	5	---	---	1.1	1.2	0.10
1	6	---	---	1.2	1.4	0.20
1	7	---	---	1.1	1.2	0.10
1	8	---	---	1.1	1.2	0.10
1	9	---	---	1.1	1.2	0.10
1	10	---	---	1.1	1.2	0.10
1	11	---	---	1.1	1.2	0.10
1	12	---	---	1.1	1.2	0.10
1	13	---	---	1.2	1.2	0.00

3-5-19

Compounds other than ethylene oxide were not quantitated.

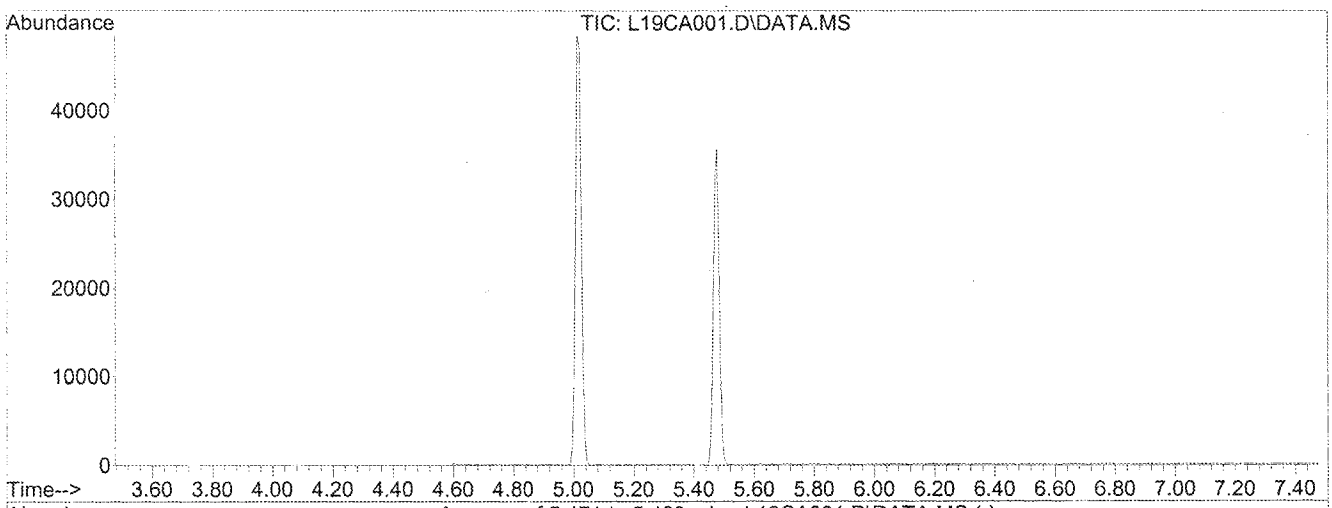
BFB

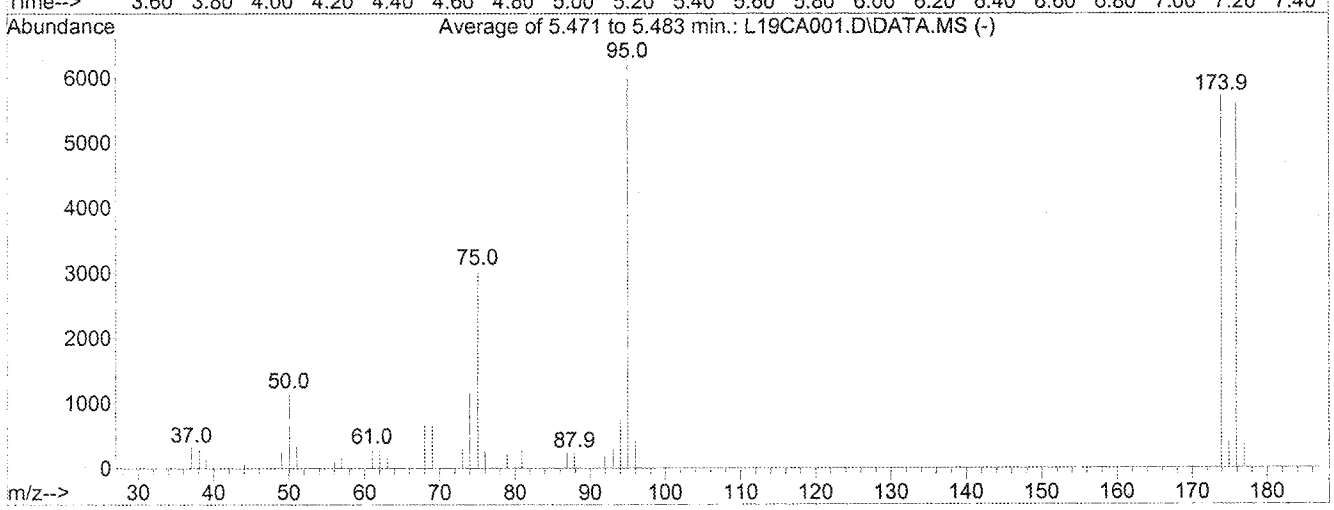
Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA001.D
Acq On : 1 Mar 2019 3:45 pm
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

3-5-19

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	18.5	1162	PASS
75	95	30	66	48.5	3049	PASS
95	95	100	100	100.0	6293	PASS
96	95	5	9	6.8	428	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.9	5719	PASS
175	174	4	9	6.9	396	PASS
176	174	93	101	98.1	5608	PASS
177	176	5	9	6.6	368	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19CA\L19B#001.D
Tune Time : 1 Mar 2019 3:45 pm

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

File	Sample	Internal Standard Responses		
L19CA002.D	1903004-CCV1	47053	115829	84897
L19CA004.D	B9C0104-BLK1	47819	118023	83441
L19CA005.D	9022202-10	45881	113330	80388
L19CA006.D	9022616-15	44773	109357	76774
L19CA007.D	9030101-01	40426	97579	71298
L19CA008.D	9030101-02	44430	111097	77202
L19CA009.D	9030101-03	44750	113382	77511
L19CA010.D	9030101-04	43777	112077	77730
L19CA011.D	9030101-05	42097	105682	72851
L19CA012.D	9030101-06	44176	112348	76336
L19CA013.D	9030101-07	42914	109231	75217
L19CA014.D	9030101-08	43902	111035	76881
L19CA015.D	B9C0104-DUP2	42204	106846	73452
L19CA016.D	B9C0104-DUP2	42821	109080	74799
L19CA017.D	9030101-09	40279	99060	70489

(#'s) - fails 24hr time check * - fails criteria

Created: Tue Mar 05 08:55:52 2019 MS1

3-5-19

Compounds other than ethylene oxide were not quantitated.

[illegible]\L19CA\L19CA017.D

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
	3/2/2019 7:38	L19CA017.D	40279	19.99	99060	23.15	70489	30.09
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**	
	3/1/2019 16:29	L19CA002.D	47053	97	19.99	0	115829	98	23.15	0	84897	98	30.10	-0.01
	3/1/2019 18:27	L19CA004.D	47819	98	19.99	0	118023	100	23.15	0	83441	96	30.09	-0.02
	3/1/2019 19:28	L19CA005.D	45881	94	19.97	-0.02	113330	96	23.13	-0.02	80388	93	30.10	-0.01
	3/1/2019 20:30	L19CA006.D	44773	92	19.99	0	109357	93	23.15	0	76774	89	30.10	-0.01
	3/1/2019 21:33	L19CA007.D	40426	83	19.99	0	97579	83	23.15	0	71298	82	30.10	-0.01
	3/1/2019 22:33	L19CA008.D	44430	91	19.99	0	111097	94	23.15	0	77202	89	30.10	-0.01
	3/1/2019 23:33	L19CA009.D	44750	92	19.99	0	113382	96	23.15	0	77511	90	30.09	-0.02
	3/2/2019 12:34	L19CA010.D	43777	90	19.99	0	112077	95	23.1[illegible]	0	77730	90	30.10	-0.01
	3/2/2019 1:34	L19CA011.D	42097	87	19.99	0	105682	89	23.15	0	72851	84	30.11	0
	3/2/2019 2:34	L19CA012.D	44176	91	19.99	0	112348	95	23.15	0	76336	88	30.09	-0.02
	3/2/2019 3:35	L19CA013.D	42914	88	19.99	0	109231	92	23.15	0	75217	87	30.10	-0.01
	3/2/2019 4:35	L19CA014.D	43902	90	19.99	0	111035	94	23.15	0	76881	89	30.10	-0.01
	3/2/2019 5:35	L19CA015.D	42204	87	19.99	0	106846	90	23.15	0	73452	85	30.10	-0.01
	3/2/2019 6:36	L19CA016.D	42821	88	19.99	0	109080	92	23.15	0	74799	86	30.09	-0.02
	3/2/2019 7:38	L19CA017.D	40279	83	19.99	0	99060	84	23.15	0	70489	81	30.09	-0.02

3-5-19

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 3-5-19

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)
8J25001	TO-15 Secondary Stock Standard	10/25/18	** Vendor **	10/04/19	11/20/18 11:30 by RMB	30
8K20015	Ethylene Oxide Secondary Stock St	11/12/18	** Vendor **	11/12/19	11/20/18 12:14 by MH	15

Reviewed By

3-5-19
Date

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA002.D
Acq On : 1 Mar 2019 4:29 pm
Operator : MAH
Sample : 1903004-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 08:53:14 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%

RMB 3/5/19

		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	0.399	-2.0	100	0.00
3	CT	Propylene	0.487	0.525	-7.8	100	0.00
4	CT	Dichlorodifluoromethane	2.300	2.488	-8.2	100	0.00
5	CT	Chloromethane	0.592	0.591	0.2	100	0.00
6	CT	Dichlorotetrafluoroethane	2.013	2.378	-18.1	100	0.00
7	CT	Vinyl Chloride	0.662	0.683	-3.2	100	0.00
8	CT	1,3-Butadiene	0.450	0.452	-0.4	100	0.00
9	CT	Ethylene oxide	0.273	0.213	22.0	100	0.00
10	CT	Bromomethane	0.627	0.655	-4.5	100	0.00
11	CT	Chloroethane	0.263	0.262	0.4	100	0.00
12	CT	Acetonitrile	0.414	0.373	9.9	100	0.00
13	CT	Acrolein	0.209	0.182	12.9	100	0.00
14	CT	Trichlorofluoromethane	1.944	1.742	10.4	100	0.00
15	CT	Acrylonitrile	0.330	0.302	8.5	100	0.00
16	CT	1,1-Dichloroethene	0.843	0.902	-7.0	100	0.00
17	CT	Methylene Chloride	0.557	0.561	-0.7	100	0.00
18	CT	Carbon Disulfide	1.716	1.766	-2.9	100	0.00
19	CT	Trichlorotrifluoroethane	1.307	1.419	-8.6	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.467	0.472	-1.1	100	0.00
21	CT	1,1-Dichloroethane	0.786	0.798	-1.5	100	0.00
22	CT	Methyl tert-Butyl Ether	1.318	1.309	0.7	100	0.00
23	CT	Chloroprene	0.639	0.642	-0.5	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.620	0.600	3.2	100	0.00
25	CT	Bromochloromethane	0.335	0.331	1.2	100	0.00
26	CT	Chloroform	0.912	0.969	-6.2	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.260	1.256	0.3	100	0.00
28	CT	1,2-Dichloroethane	0.560	0.573	-2.3	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.370	0.385	-4.1	100	0.00
31	CT	Benzene	0.529	0.561	-6.0	100	0.00
32	CT	Carbon Tetrachloride	0.396	0.468	-18.2	100	0.00
33	CT	tert-Amyl Methyl Ether	0.449	0.447	0.4	100	0.00
34	CT	1,2-Dichloropropane	0.201	0.201	0.0	100	0.00
35	CT	Ethyl Acrylate	0.171	0.230	-34.5#	100	0.00
36	CT	Bromodichloromethane	0.356	0.340	4.5	100	0.00
37	CT	Trichloroethylene	0.252	0.241	4.4	100	0.00
38	CT	Methyl Methacrylate	0.513	0.617	-20.3	100	0.00
39	CT	cis-1,3-Dichloropropene	0.175	0.202	-15.4	100	0.00
40	CT	Methyl Isobutyl Ketone	0.377	0.372	1.3	100	0.00
41	CT	trans-1,3-Dichloropropene	0.117	0.138	-17.9	100	0.00
42	CT	1,1,2-Trichloroethane	0.184	0.185	-0.5	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.779	0.793	-1.8	100	0.00
45	CT	Dibromochloromethane	1.529	1.586	-3.7	100	0.00
46	CT	1,2-Dibromoethane	0.292	0.316	-8.2	100	0.00

- EtO only GW 3/6/19

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA002.D
Acq On : 1 Mar 2019 4:29 pm
Operator : MAH
Sample : 1903004-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 08:53:14 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)
47 CT	n-Octane	0.469	0.454	3.2	100	0.00
48 CT	Tetrachloroethylene	0.375	0.383	-2.1	100	0.00
49 CT	Chlorobenzene	0.497	0.497	0.0	100	0.00
50 CT	Ethylbenzene	0.819	0.832	-1.6	100	0.00
51 CT	m,p-Xylene	0.691	0.686	0.7	100	0.00
52 CT	Bromoform	0.296	0.303	-2.4	100	0.00
53 CT	Styrene	0.392	0.380	3.1	100	0.00
54 CT	1,1,2,2-Tetrachloroethane	0.446	0.449	-0.7	100	0.00
55 CT	o-Xylene	0.682	0.708	-3.8	100	0.00
56 CT	1,3,5-Trimethylbenzene	0.732	0.717	2.0	100	0.00
57 CT	1,2,4-Trimethylbenzene	0.633	0.623	1.6	100	0.00
58 CT	m-Dichlorobenzene	0.333	0.277	16.8	100	0.00
59 CT	p-Dichlorobenzene	0.271	0.240	11.4	100	0.00
60 CT	o-Dichlorobenzene	0.305	0.279	8.5	100	0.00
61 CT	1,2,4-Trichlorobenzene	0.103	0.094	8.7	100	0.00
62 CT	Hexachloro-1,3-butadiene	0.264	0.247	6.4	100	0.00

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA002.D
Acq On : 1 Mar 2019 4:29 pm
Operator : MAH
Sample : 1903004-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 08:53:14 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	47053	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	115829	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	84897	4.7400 ppbv	-0.02

RMB 3/5/19

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.418	26	9454	2.4535 ppbv	100
3) Propylene	7.838	41	12681	2.6382 ppbv	100
4) Dichlorodifluoromethane	8.685	85	58420	2.5745 ppbv	100
5) Chloromethane	9.740	50	14455	2.4741 ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	57237	2.8818 ppbv	100
7) Vinyl Chloride	11.119	62	16840	2.5769 ppbv	100
8) 1,3-Butadiene	11.783	54	11008	2.4780 ppbv	98
9) Ethylene oxide	12.393	29	5265m	1.9564 ppbv	
10) Bromomethane	12.588	94	16151	2.6118 ppbv	100
11) Chloroethane	13.280	64	6449	2.4841 ppbv	100
12) Acetonitrile	14.356	41	9303	2.2781 ppbv	99
13) Acrolein	14.611	56	4346	2.1121 ppbv	98
14) Trichlorofluoromethane	15.190	101	42971	2.2412 ppbv	100
15) Acrylonitrile	15.933	53	7440	2.2834 ppbv	99
16) 1,1-Dichloroethene	16.420	61	21715	2.6105 ppbv	99
17) Methylene Chloride	16.744	49	13722	2.4968 ppbv	96
18) Carbon Disulfide	16.930	76	43208	2.5527 ppbv	100
19) Trichlorotrifluoroethane	17.278	101	34144	2.6478 ppbv	99
20) trans-1,2-Dichloroethy...	18.313	96	11454	2.4842 ppbv	99
21) 1,1-Dichloroethane	18.630	63	19131	2.4684 ppbv	100
22) Methyl tert-Butyl Ether	18.789	73	32807	2.5238 ppbv	99
23) Chloroprene	19.537	53	15697	2.4898 ppbv	98
24) cis-1,2-Dichloroethylene	19.945	61	14805	2.4194 ppbv	98
25) Bromochloromethane	20.172	128	8069	2.4394 ppbv	98
26) Chloroform	20.398	83	23894	2.6570 ppbv	99
27) Ethyl tert-Butyl Ether	21.182	59	31842	2.5613 ppbv	99
28) 1,2-Dichloroethane	21.476	62	14067	2.5485 ppbv	100
30) 1,1,1-Trichloroethane	21.867	97	22050	2.5681 ppbv	96
31) Benzene	22.533	78	32700	2.6632 ppbv	100
32) Carbon Tetrachloride	22.768	117	27358	2.9749 ppbv	100
33) tert-Amyl Methyl Ether	23.499	73	27000	2.5893 ppbv	100
34) 1,2-Dichloropropane	23.788	63	11815	2.5311 ppbv	96
35) Ethyl Acrylate	23.870	55	13561	3.4195 ppbv	99
36) Bromodichloromethane	24.076	83	20215	2.4471 ppbv	100
37) Trichloroethylene	24.159	130	14081	2.4074 ppbv	99
38) Methyl Methacrylate	24.530	41	36358	3.0546 ppbv	99
39) cis-1,3-Dichloropropene	25.528	75	11923	2.9414 ppbv	99
40) Methyl Isobutyl Ketone	25.604	43	21864	2.4987 ppbv	99
41) trans-1,3-Dichloropropene	26.367	75	7883	2.9027 ppbv	96
42) 1,1,2-Trichloroethane	26.615	97	10644	2.4921 ppbv	100
44) Toluene	27.092	91	34647	2.4836 ppbv	100
45) Dibromochloromethane	27.734	129	72168	2.6353 ppbv	100
46) 1,2-Dibromoethane	28.155	107	14166	2.7080 ppbv	99
47) n-Octane	28.857	43	20475	2.4367 ppbv	98
48) Tetrachloroethylene	28.997	166	17067	2.5418 ppbv	98

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA002.D
Acq On : 1 Mar 2019 4:29 pm
Operator : MAH
Sample : 1903004-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 08:53:14 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

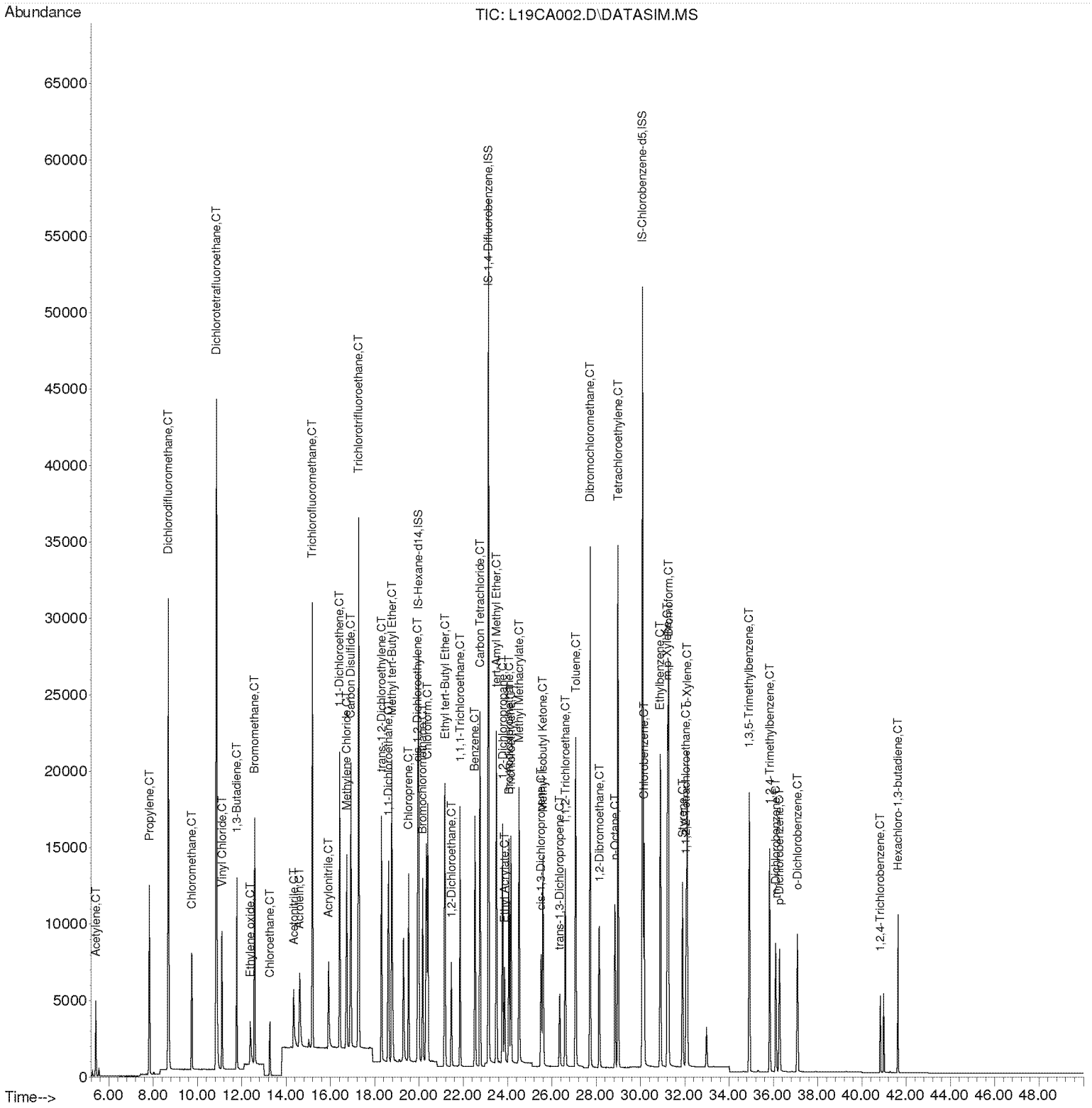
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	30.172	112	21892	2.4587 ppbv	100
50) Ethylbenzene	30.898	91	37234	2.5385 ppbv	99
51) m,p-Xylene	31.222	91	61203	4.9474 ppbv	99
52) Bromoform	31.279	173	13794	2.6051 ppbv	99
53) Styrene	31.909	104	17009	2.4252 ppbv #	99
54) 1,1,2,2-Tetrachloroethane	32.062	83	20359	2.5499 ppbv	100
55) o-Xylene	32.119	91	30960	2.5359 ppbv	100
56) 1,3,5-Trimethylbenzene	34.919	105	32375	2.4683 ppbv	100
57) 1,2,4-Trimethylbenzene	35.845	105	26554	2.3408 ppbv	99
58) m-Dichlorobenzene	36.112	146	11897	1.9948 ppbv	99
59) p-Dichlorobenzene	36.291	146	11207	2.3067 ppbv	99
60) o-Dichlorobenzene	37.092	146	12497	2.2909 ppbv	100
61) 1,2,4-Trichlorobenzene	40.841	180	4180	2.2593 ppbv	99
62) Hexachloro-1,3-butadiene	41.635	225	11044	2.3374 ppbv	100

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

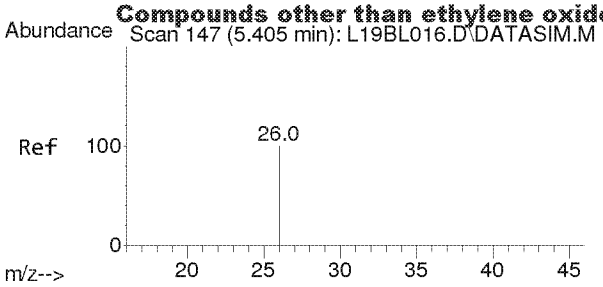
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA002.D
Acq On : 1 Mar 2019 4:29 pm
Operator : MAH
Sample : 1903004-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 08:53:14 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

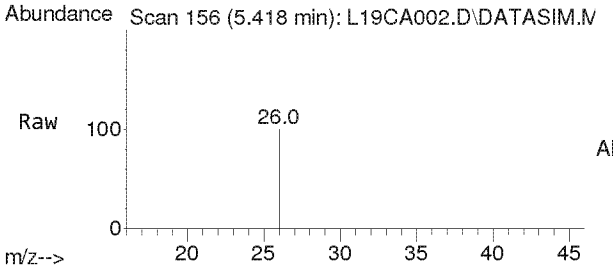


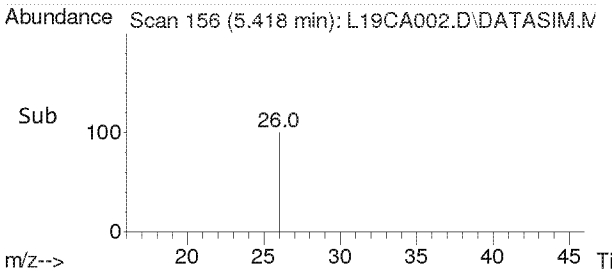
Compounds other than ethylene oxide were not quantitated.

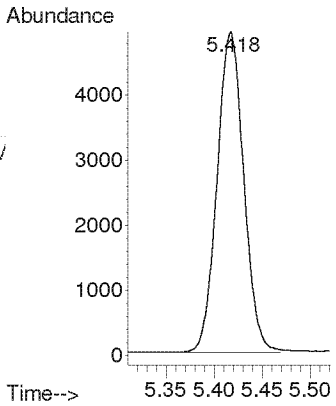


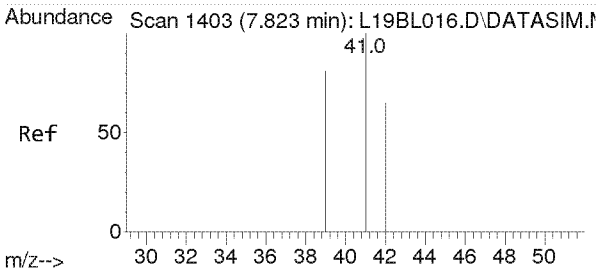
#2
Acetylene
Concen: 2.454 ppbv
RT: 5.418 min Scan# 156
Delta R.T. 0.013 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 26 Resp: 9454





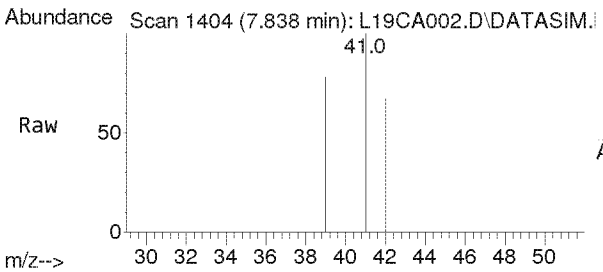


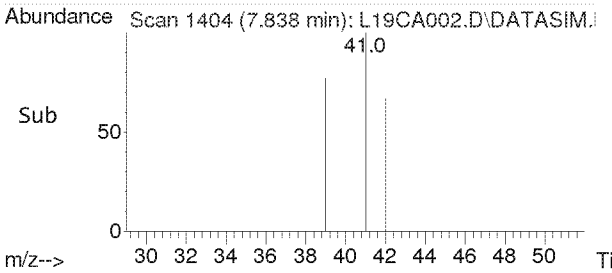


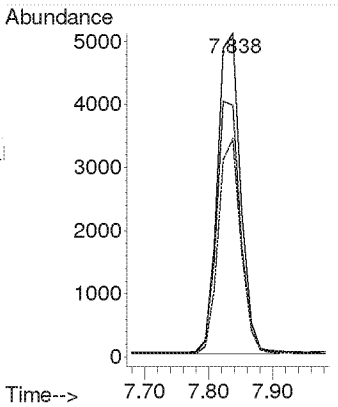
#3
Propylene
Concen: 2.638 ppbv
RT: 7.838 min Scan# 1404
Delta R.T. 0.014 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 41 Resp: 12681

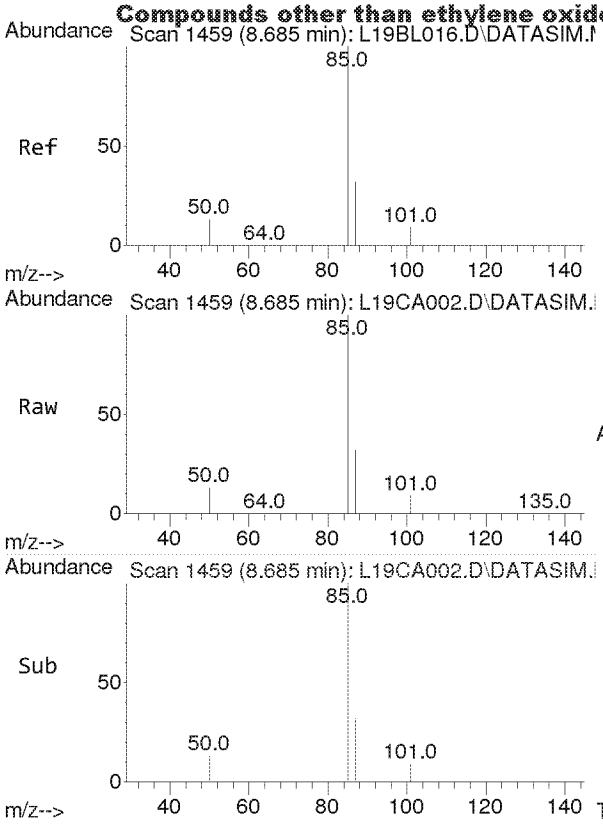
Ion	Ratio	Lower	Upper
41	100		
39	79.6	64.2	96.2
42	66.0	52.6	79.0







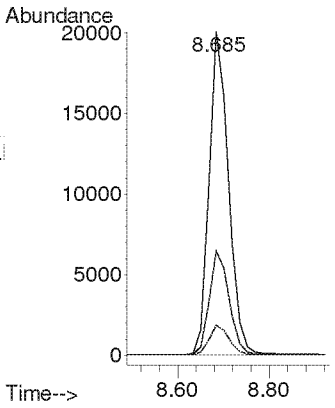
Compounds other than ethylene oxide were not quantitated.

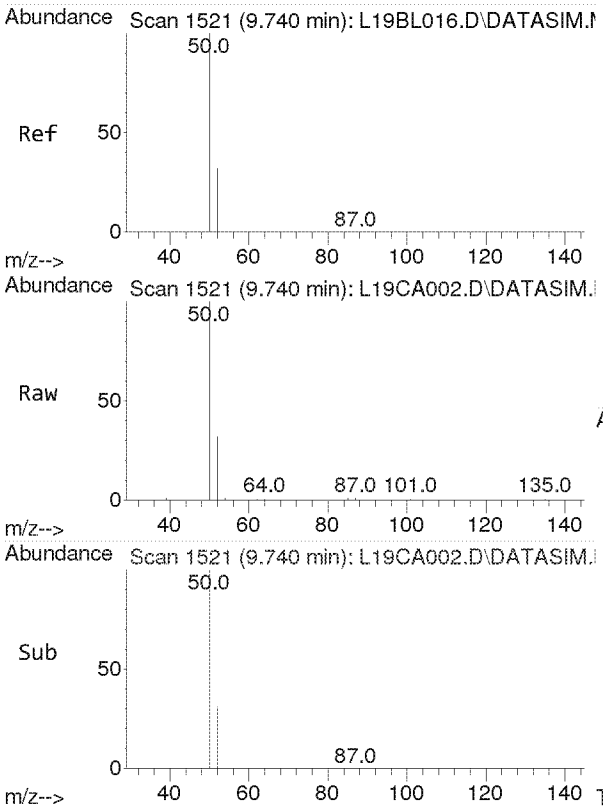


#4
Dichlorodifluoromethane
Concen: 2.575 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 85 Resp: 58420

Ion	Ratio	Lower	Upper
85	100		
87	32.6	26.0	39.0
101	9.2	7.3	10.9

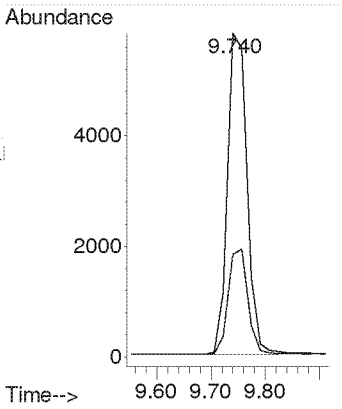




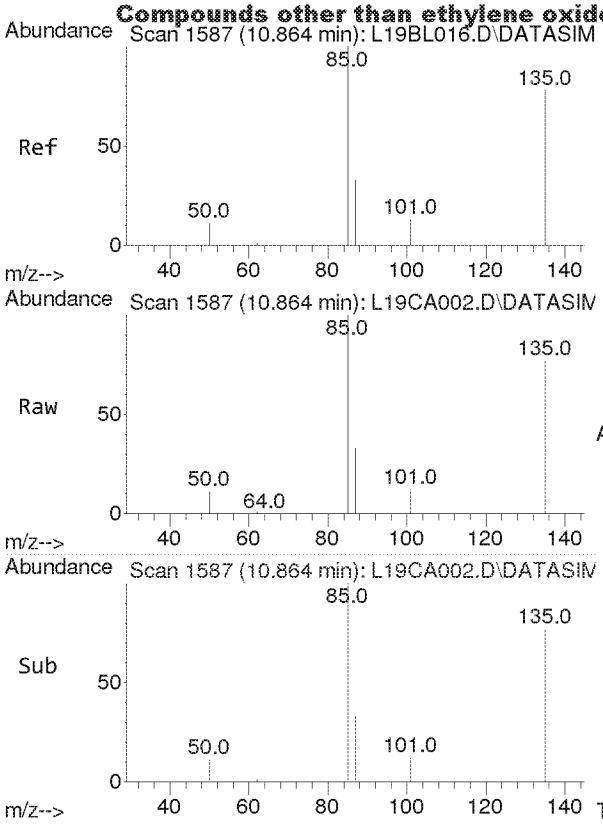
#5
Chloromethane
Concen: 2.474 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 50 Resp: 14455

Ion	Ratio	Lower	Upper
50	100		
52	32.8	26.1	39.1



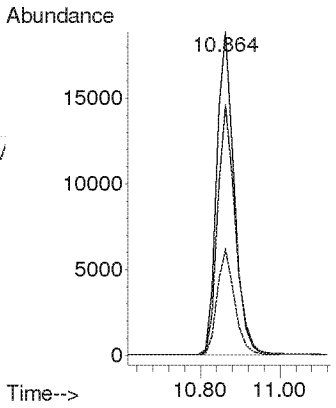
Compounds other than ethylene oxide were not quantitated.

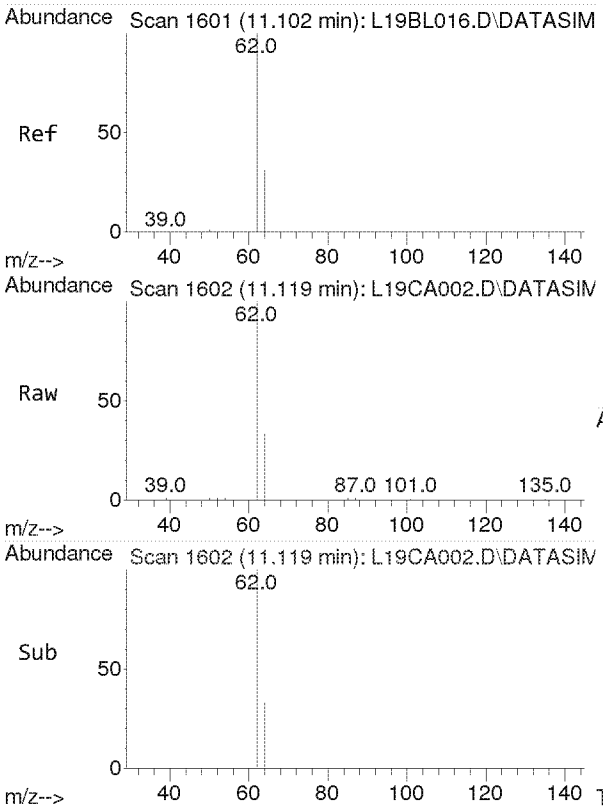


#6
Dichlorotetrafluoroethane
Concen: 2.882 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 85 Resp: 57237

Ion	Ratio	Lower	Upper
85	100		
135	79.2	63.2	94.8
87	32.3	25.9	38.9

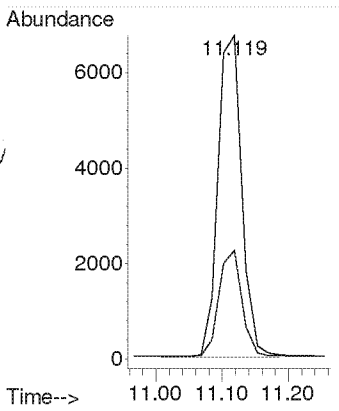




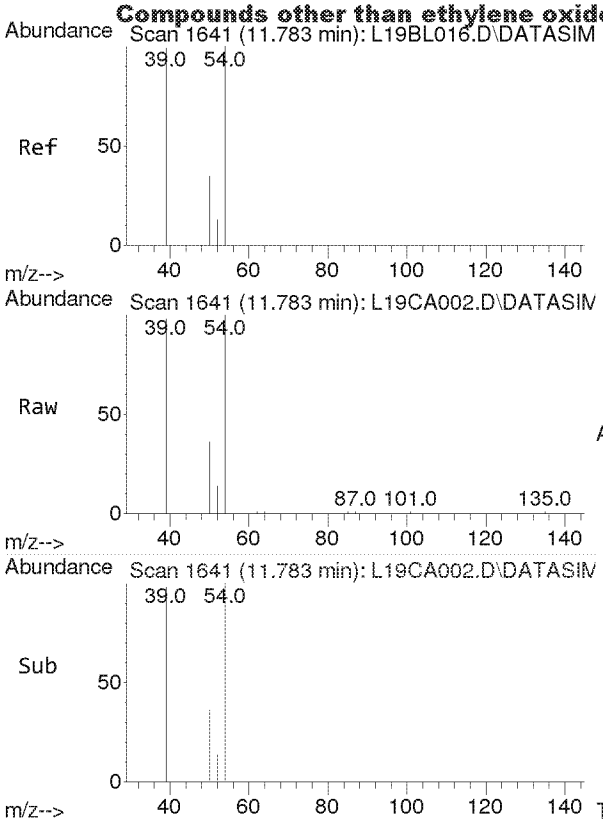
#7
Vinyl Chloride
Concen: 2.577 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. 0.017 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 62 Resp: 16840

Ion	Ratio	Lower	Upper
62	100		
64	32.0	25.4	38.0



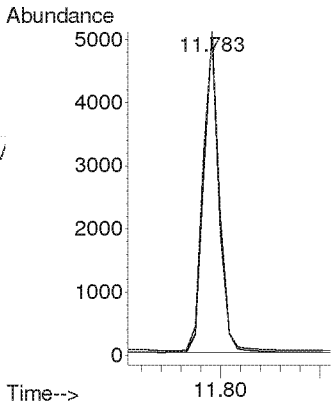
Compounds other than ethylene oxide were not quantitated.

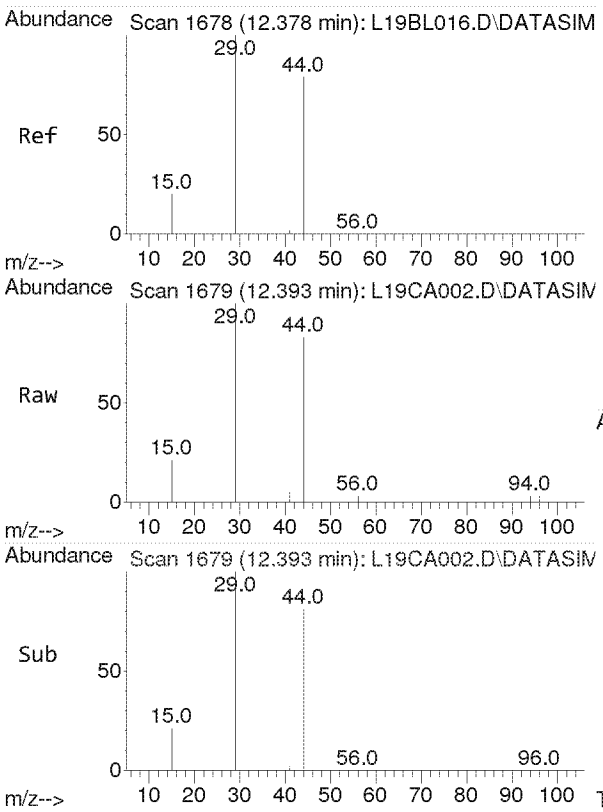


#8
1,3-Butadiene
Concen: 2.478 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 54 Resp: 11008

Ion	Ratio	Lower	Upper
54	100		
39	100.3	81.6	122.4

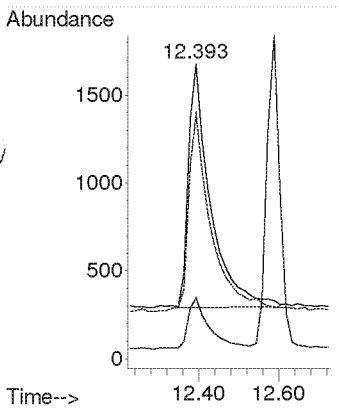




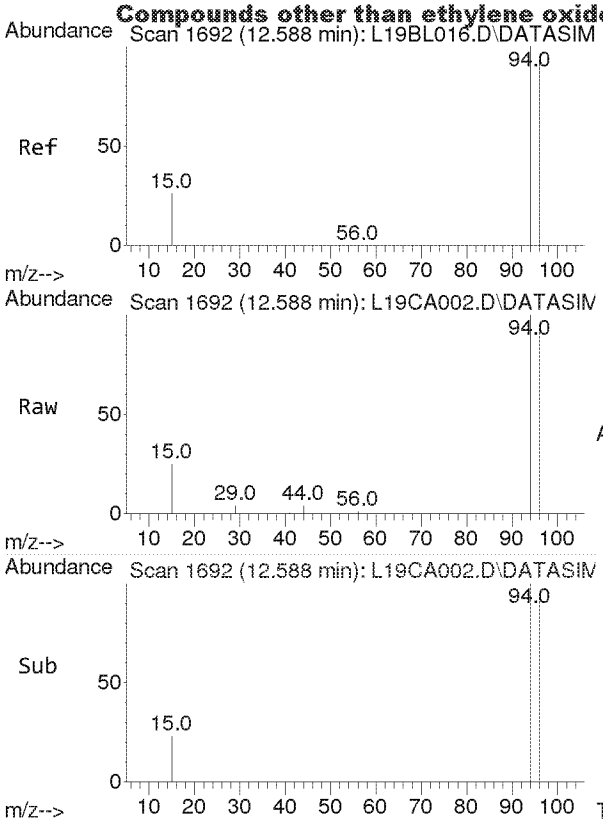
#9
Ethylene oxide
Concen: 1.956 ppbv m
RT: 12.393 min Scan# 1679
Delta R.T. -0.057 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 29 Resp: 5265

Ion	Ratio	Lower	Upper
29	100		
15	16.6	16.0	24.0
44	76.1	65.4	98.2



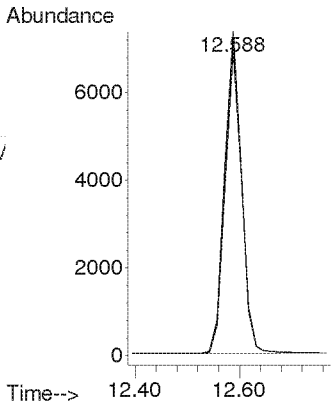
Compounds other than ethylene oxide were not quantitated.

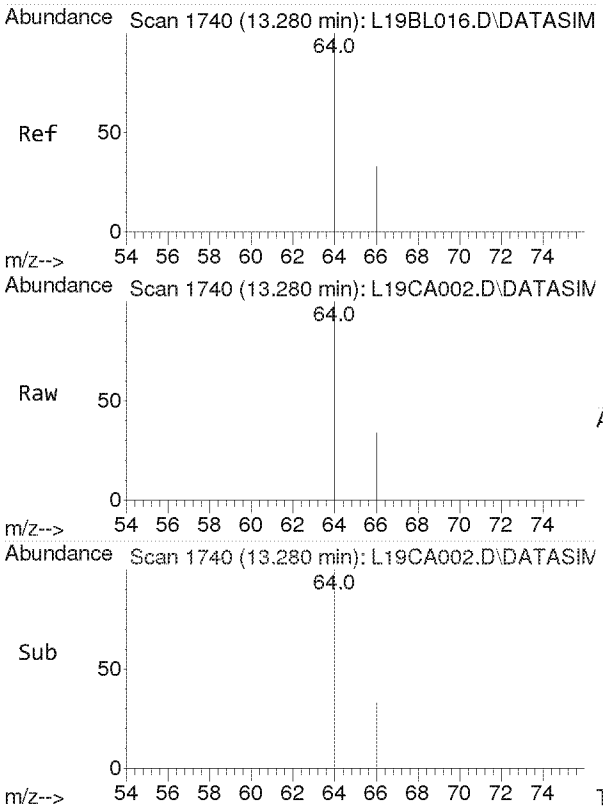


#10
Bromomethane
Concen: 2.612 ppbv
RT: 12.588 min Scan# 1692
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 94 Resp: 16151

Ion	Ratio	Lower	Upper
94	100		
96	94.7	75.5	113.3

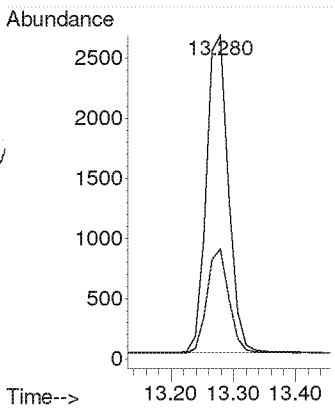




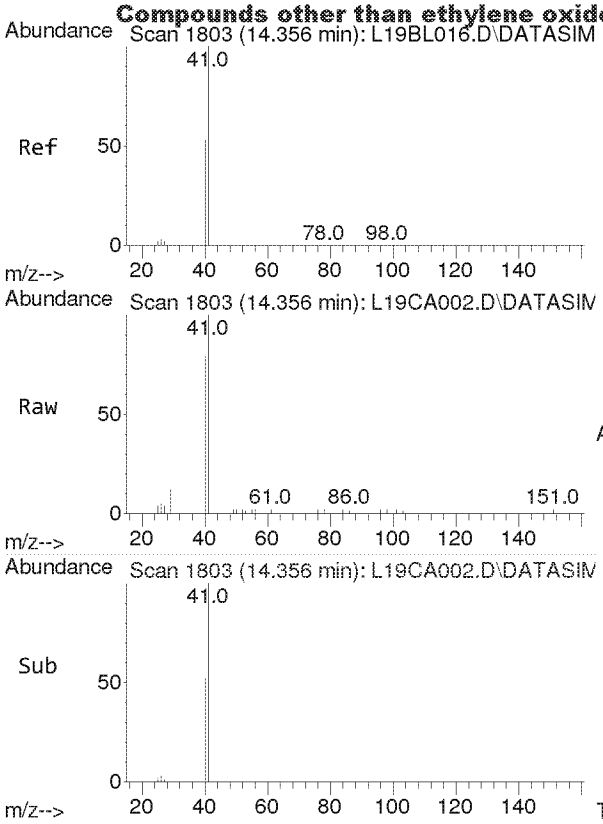
#11
Chloroethane
Concen: 2.484 ppbv
RT: 13.280 min Scan# 1740
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 64 Resp: 6449

Ion	Ratio	Lower	Upper
64	100		
66	32.3	25.8	38.6



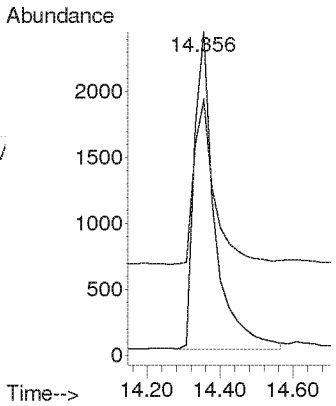
Compounds other than ethylene oxide were not quantitated.

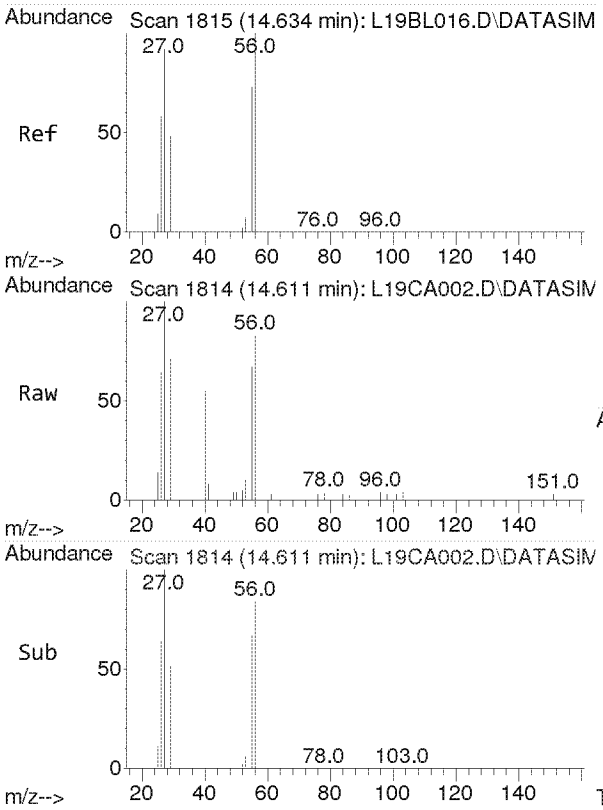


#12
Acetonitrile
Concen: 2.278 ppbv
RT: 14.356 min Scan# 1803
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 41 Resp: 9303

Ion	Ratio	Lower	Upper
41	100		
40	51.9	42.2	63.4

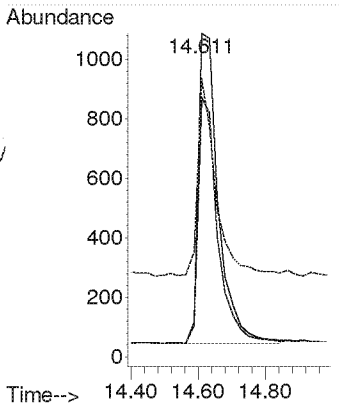




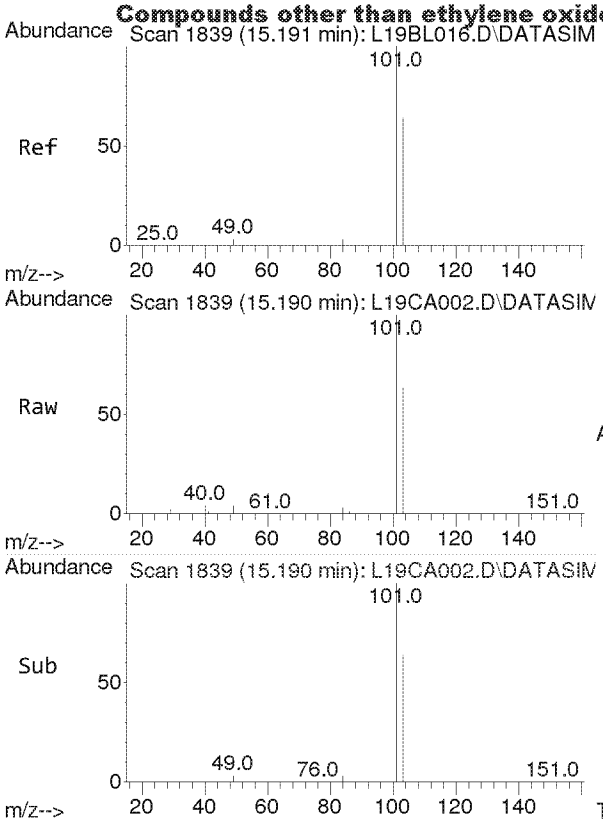
#13
Acrolein
Concen: 2.112 ppbv
RT: 14.611 min Scan# 1814
Delta R.T. -0.023 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 56 Resp: 4346

Ion	Ratio	Lower	Upper
56	100		
55	77.0	60.8	91.2
29	56.6	43.8	65.6



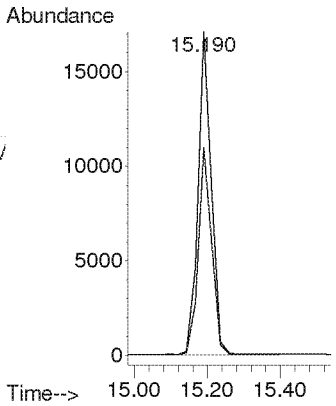
Compounds other than ethylene oxide were not quantitated.

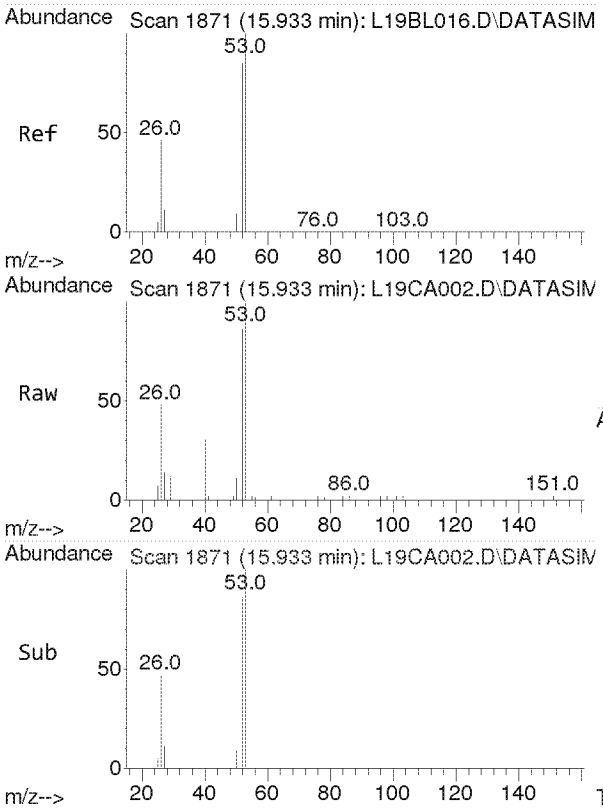


#14
Trichlorofluoromethane
Concen: 2.241 ppbv
RT: 15.190 min Scan# 1839
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:101 Resp: 42971

Ion	Ratio	Lower	Upper
101	100		
103	64.6	51.7	77.5

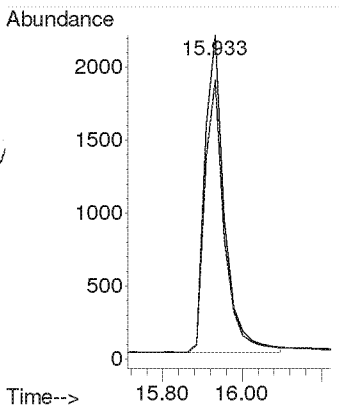




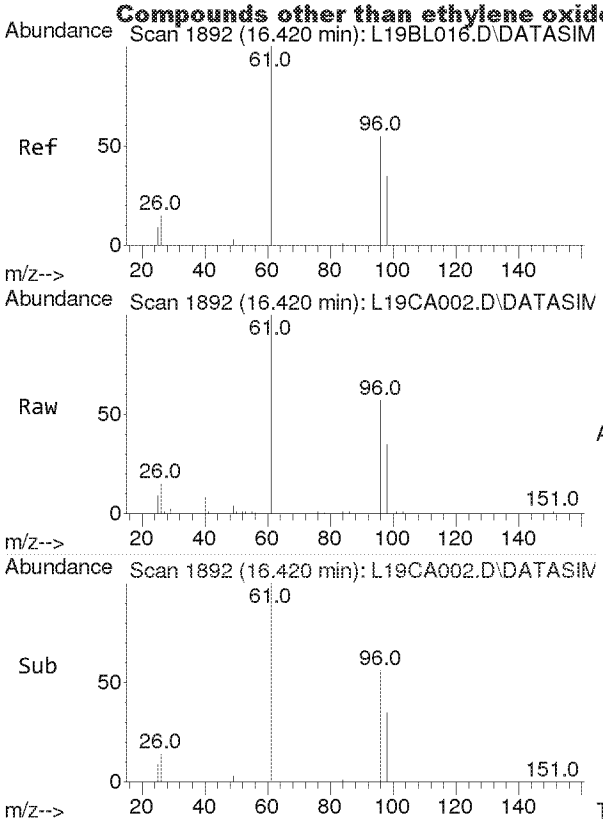
#15
Acrylonitrile
Concen: 2.283 ppbv
RT: 15.933 min Scan# 1871
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 53 Resp: 7440

Ion	Ratio	Lower	Upper
53	100		
52	86.0	69.5	104.3



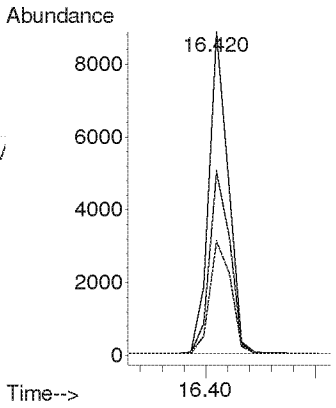
Compounds other than ethylene oxide were not quantitated.

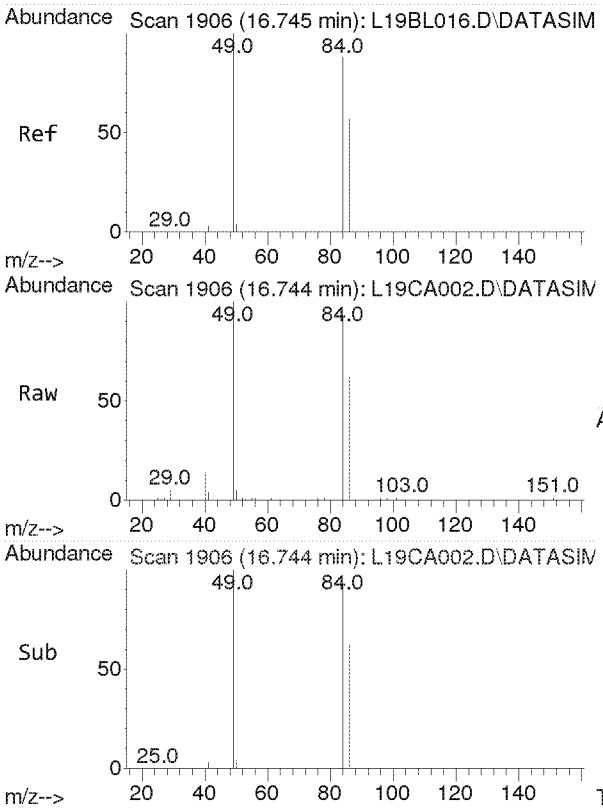


#16
1,1-Dichloroethene
Concen: 2.610 ppbv
RT: 16.420 min Scan# 1892
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 61 Resp: 21715

Ion	Ratio	Lower	Upper
61	100		
96	60.0	47.3	70.9
98	38.4	30.6	45.8

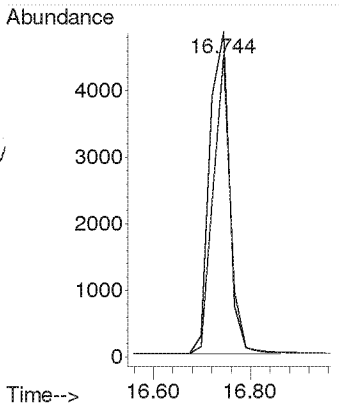




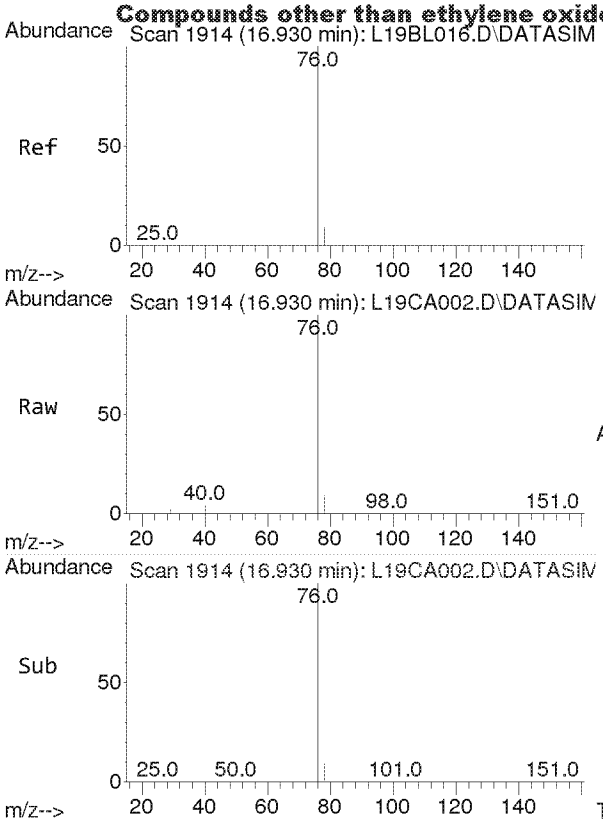
#17
Methylene Chloride
Concen: 2.497 ppbv
RT: 16.744 min Scan# 1906
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 49 Resp: 13722

Ion	Ratio	Lower	Upper
49	100		
84	80.7	54.0	100.4



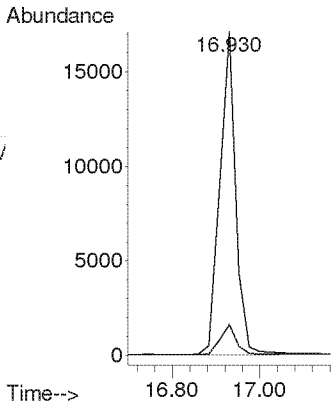
Compounds other than ethylene oxide were not quantitated.

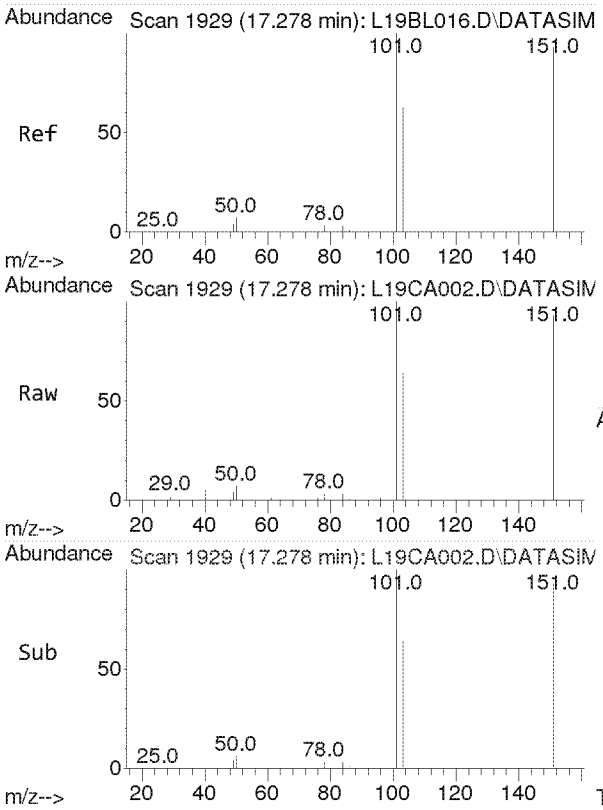


#18
Carbon Disulfide
Concen: 2.553 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 76 Resp: 43208

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.4	11.0

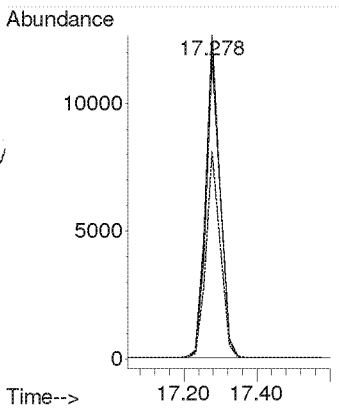




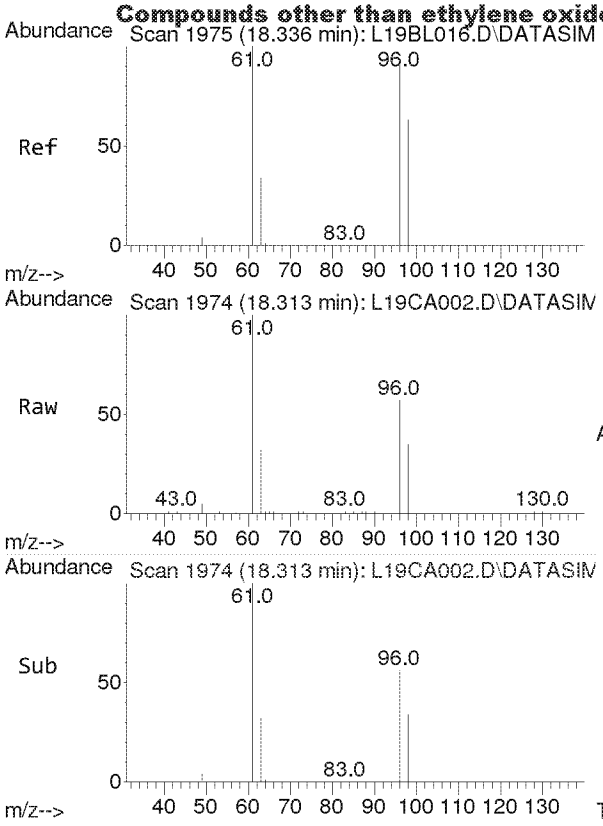
#19
Trichlorotrifluoroethane
Concen: 2.648 ppbv
RT: 17.278 min Scan# 1929
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:101 Resp: 34144

Ion	Ratio	Lower	Upper
101	100		
151	94.0	75.8	113.8
103	64.6	51.1	76.7



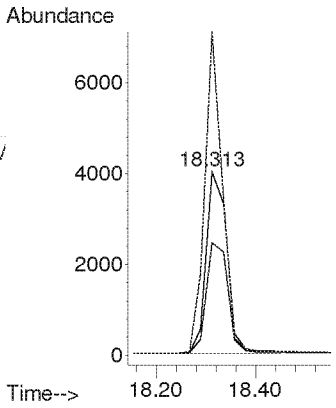
Compounds other than ethylene oxide were not quantitated.

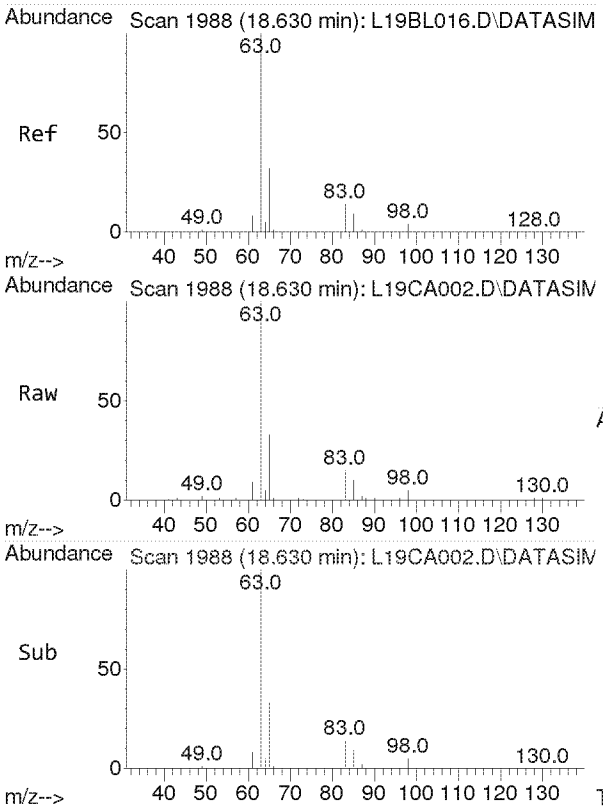


#20
trans-1,2-Dichloroethylene
Concen: 2.484 ppbv
RT: 18.313 min Scan# 1974
Delta R.T. -0.023 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 96 Resp: 11454

Ion	Ratio	Lower	Upper
96	100		
98	63.8	51.5	77.3
61	152.0	122.9	184.3

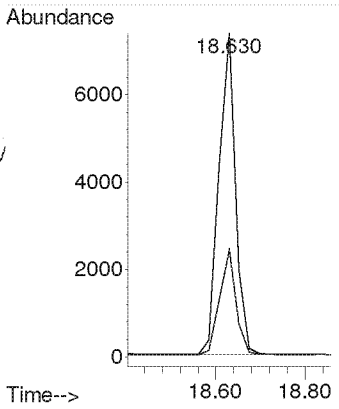




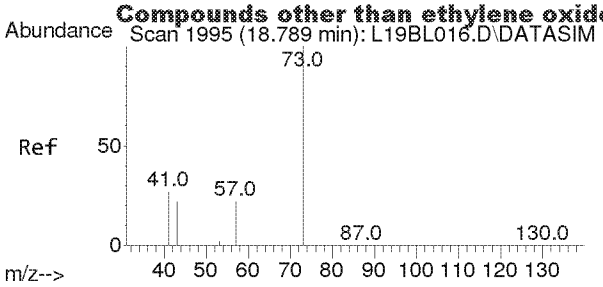
#21
1,1-Dichloroethane
Concen: 2.468 ppbv
RT: 18.630 min Scan# 1988
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 63 Resp: 19131

Ion	Ratio	Lower	Upper
63	100		
65	32.0	25.4	38.0



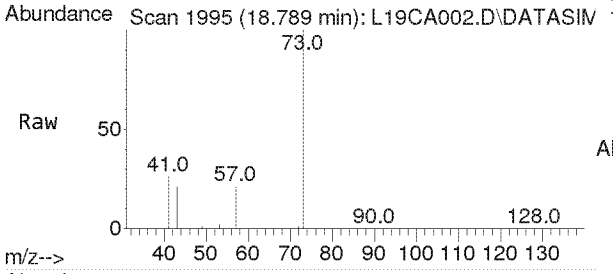
Compounds other than ethylene oxide were not quantitated.

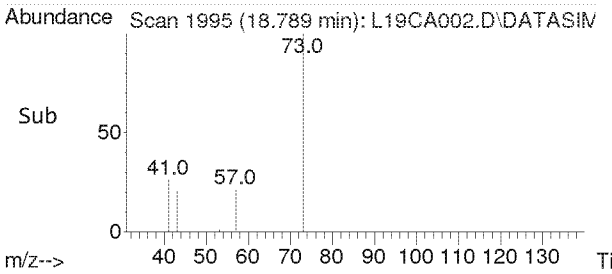


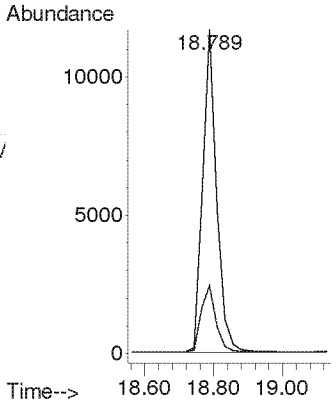
#22
Methyl tert-Butyl Ether
Concen: 2.524 ppbv
RT: 18.789 min Scan# 1995
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

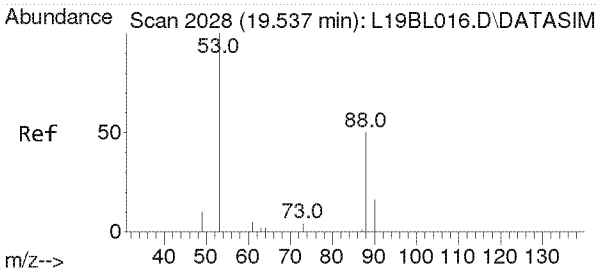
Tgt Ion: 73 Resp: 32807

Ion	Ratio	Lower	Upper
73	100		
57	21.9	18.0	27.0





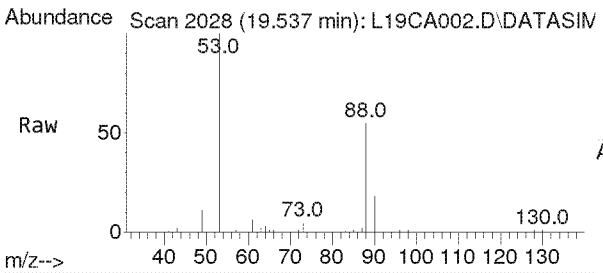


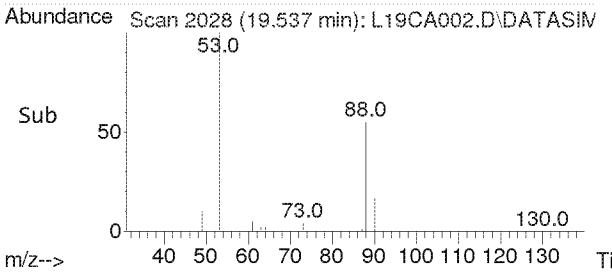


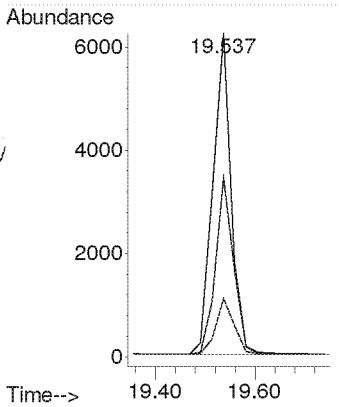
#23
Chloroprene
Concen: 2.490 ppbv
RT: 19.537 min Scan# 2028
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 53 Resp: 15697

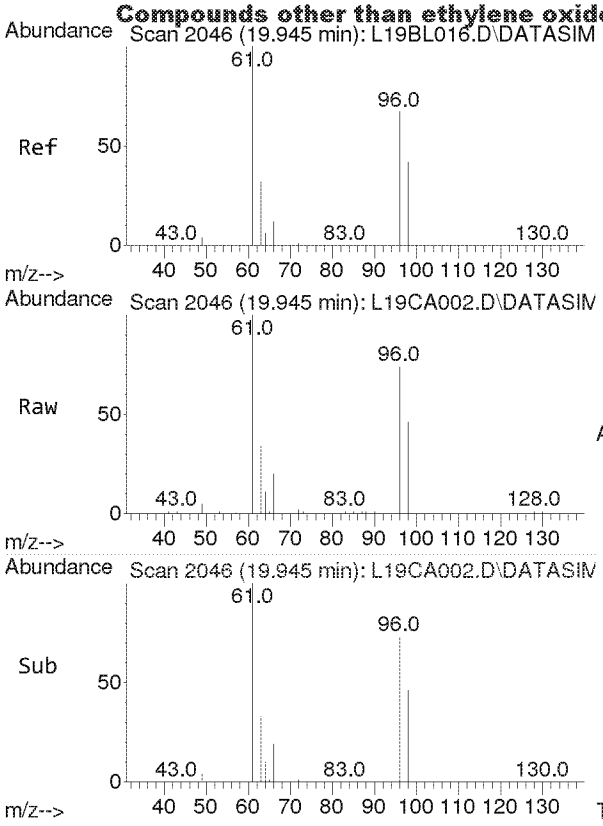
Ion	Ratio	Lower	Upper
53	100		
88	54.9	42.6	64.0
90	17.7	13.9	20.9







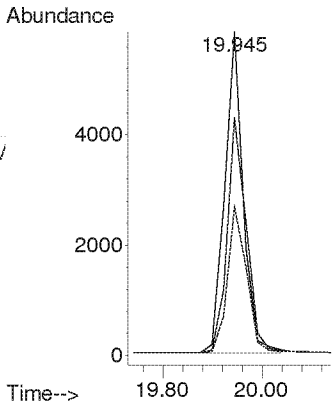
Compounds other than ethylene oxide were not quantitated.

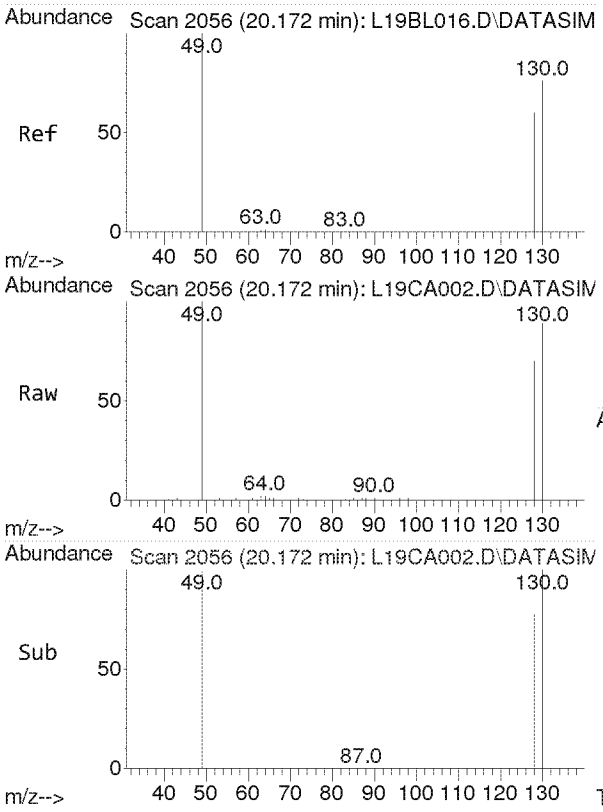


#24
cis-1,2-Dichloroethylene
Concen: 2.419 ppbv
RT: 19.945 min Scan# 2046
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 61 Resp: 14805

Ion	Ratio	Lower	Upper
61	100		
96	76.0	59.0	88.6
98	47.4	37.6	56.4

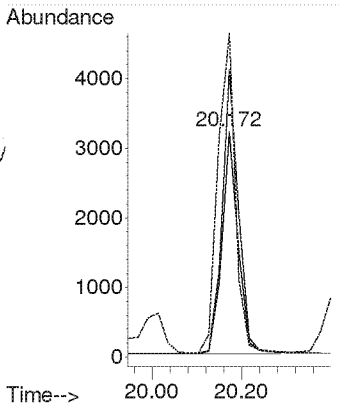




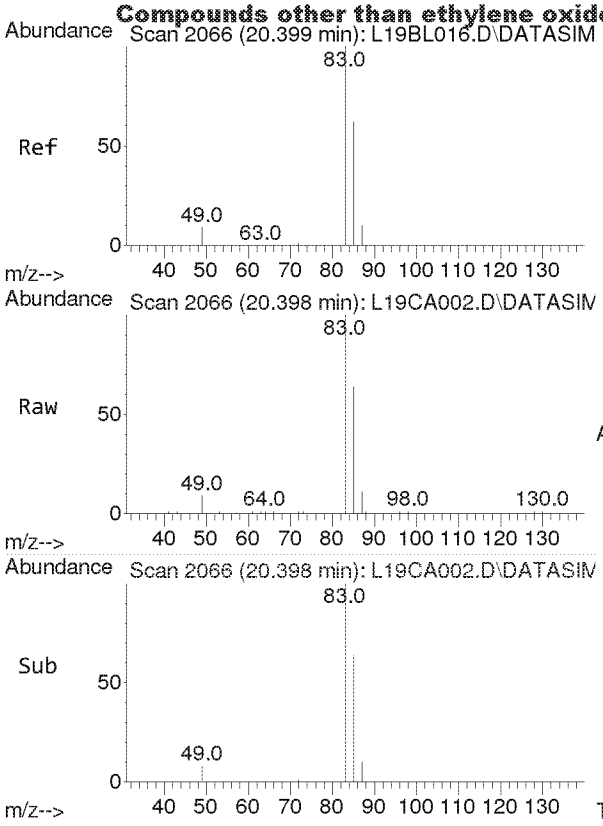
#25
Bromochloromethane
Concen: 2.439 ppbv
RT: 20.172 min Scan# 2056
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:128 Resp: 8069

Ion	Ratio	Lower	Upper
128	100		
130	128.5	103.3	154.9
49	155.6	128.3	192.5



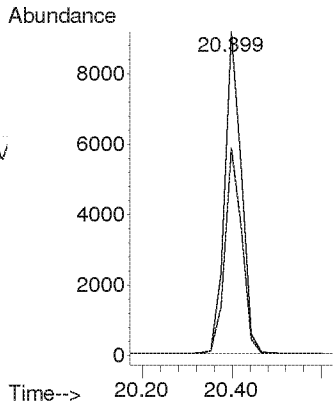
Compounds other than ethylene oxide were not quantitated.

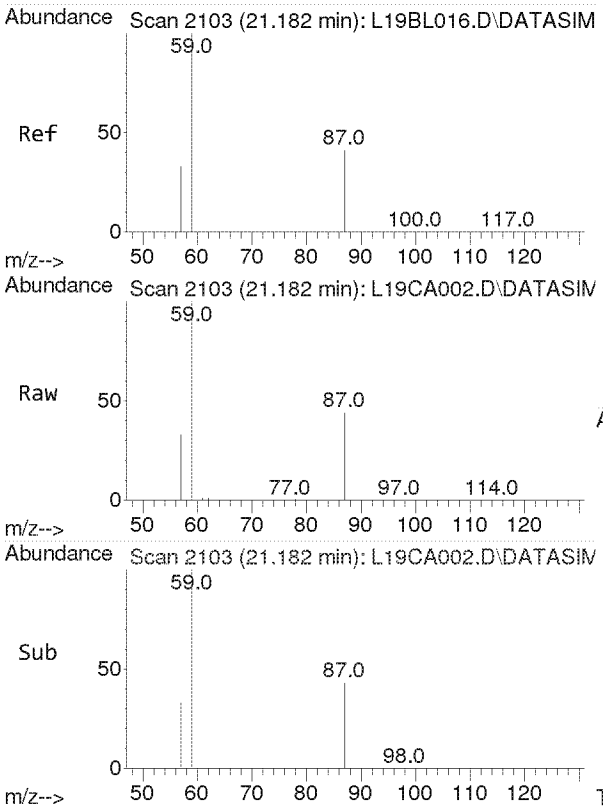


#26
Chloroform
Concen: 2.657 ppbv
RT: 20.398 min Scan# 2066
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 83 Resp: 23894

Ion	Ratio	Lower	Upper
83	100		
85	65.0	51.5	77.3

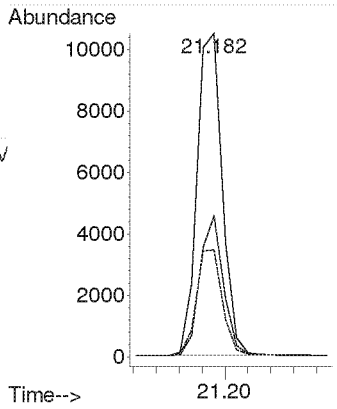




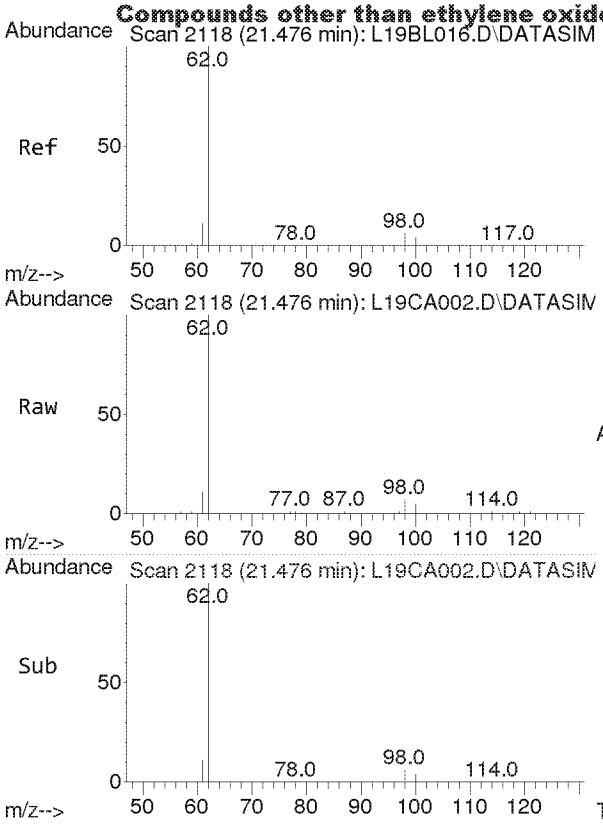
#27
Ethyl tert-Butyl Ether
Concen: 2.561 ppbv
RT: 21.182 min Scan# 2103
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 59 Resp: 31842

Ion	Ratio	Lower	Upper
59	100		
87	40.1	31.5	47.3
57	33.2	26.6	39.8



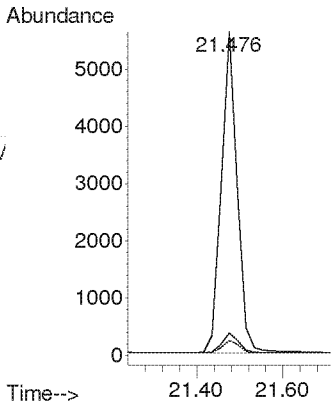
Compounds other than ethylene oxide were not quantitated.

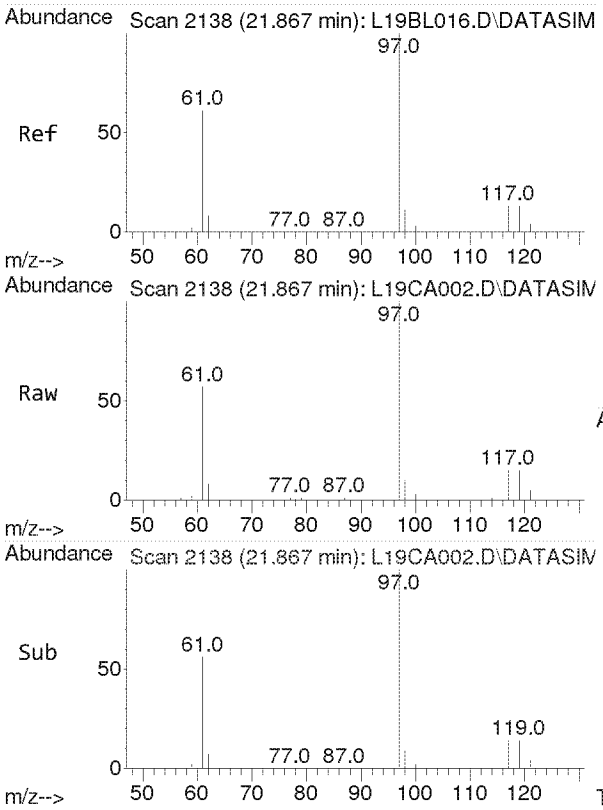


#28
1,2-Dichloroethane
Concen: 2.549 ppbv
RT: 21.476 min Scan# 2118
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 62 Resp: 14067

Ion	Ratio	Lower	Upper
62	100		
98	6.4	5.0	7.6
100	4.0	3.2	4.8

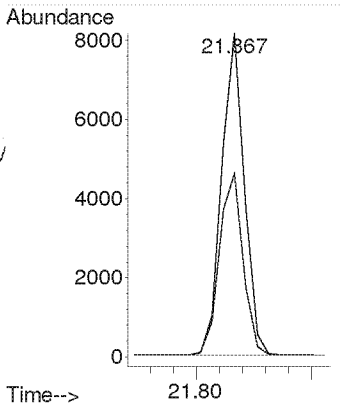




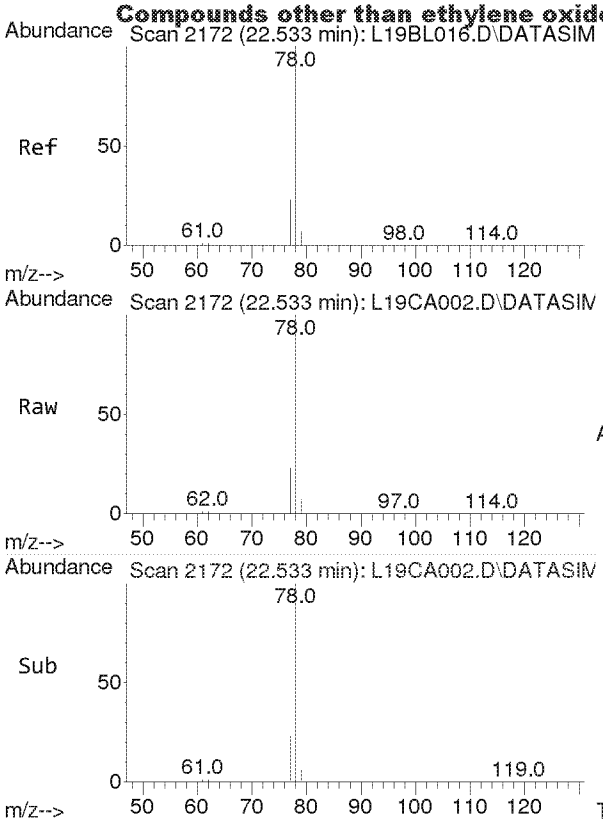
#30
1,1,1-Trichloroethane
Concen: 2.568 ppbv
RT: 21.867 min Scan# 2138
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 97 Resp: 22050

Ion	Ratio	Lower	Upper
97	100		
61	58.9	49.7	74.5



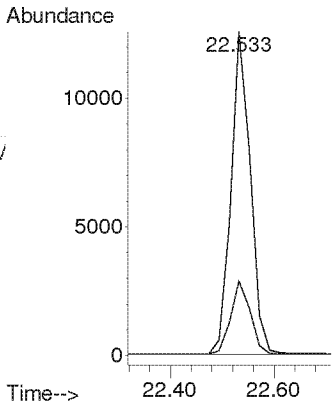
Compounds other than ethylene oxide were not quantitated.

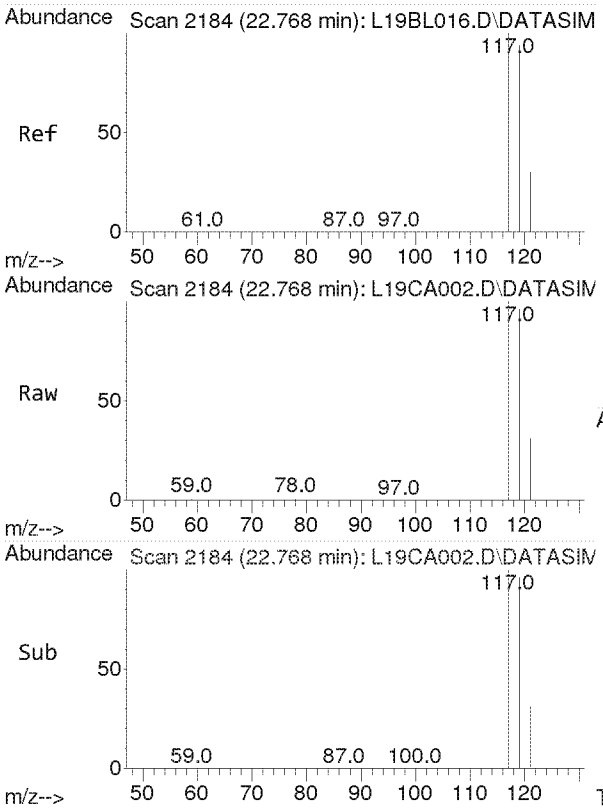


#31
Benzene
Concen: 2.663 ppbv
RT: 22.533 min Scan# 2172
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 78 Resp: 32700

Ion	Ratio	Lower	Upper
78	100		
77	22.8	18.2	27.4

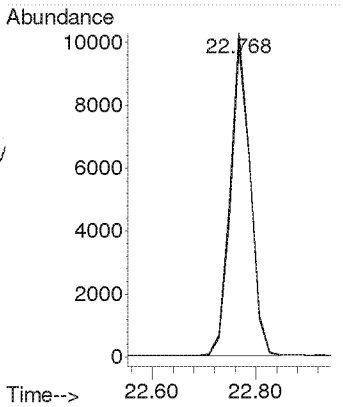




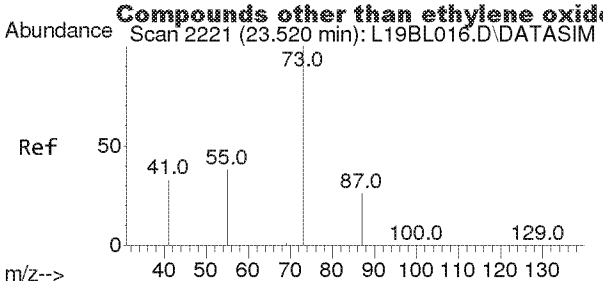
#32
Carbon Tetrachloride
Concen: 2.975 ppbv
RT: 22.768 min Scan# 2184
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:117 Resp: 27358

Ion	Ratio	Lower	Upper
117	100		
119	96.2	77.0	115.6



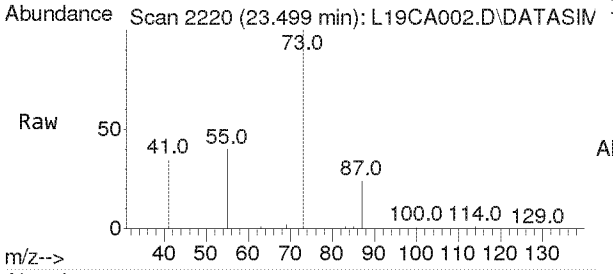
Compounds other than ethylene oxide were not quantitated.

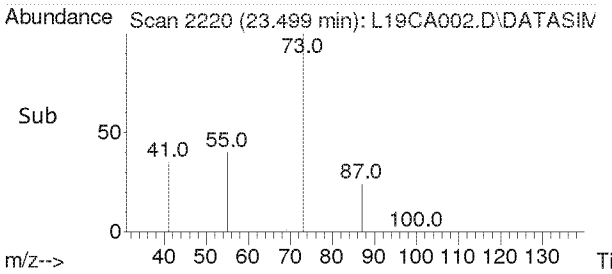


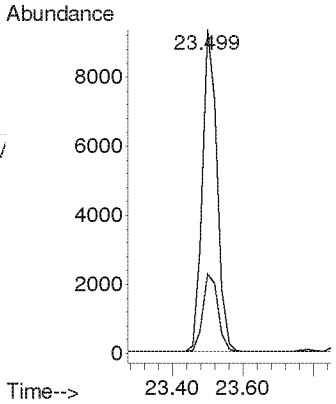
#33
tert-Amyl Methyl Ether
Concen: 2.589 ppbv
RT: 23.499 min Scan# 2220
Delta R.T. -0.021 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

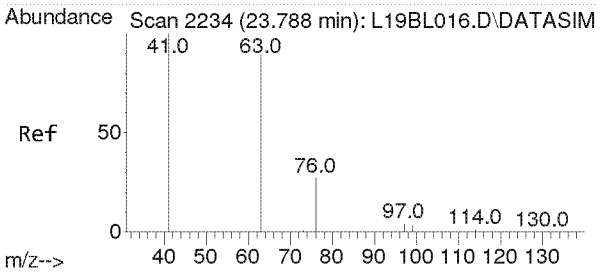
Tgt Ion: 73 Resp: 27000

Ion	Ratio	Lower	Upper
73	100		
87	25.0	20.1	30.1





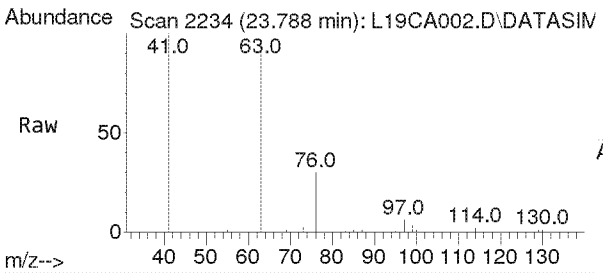


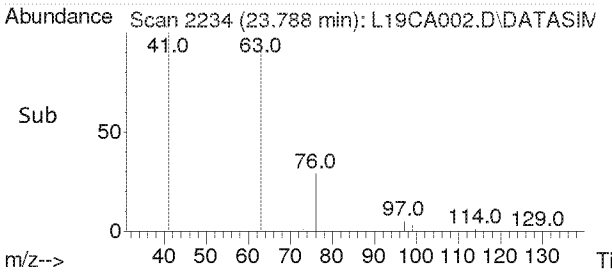


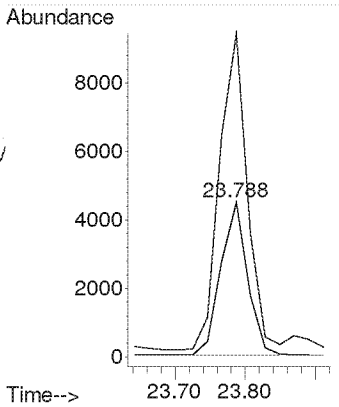
#34
1,2-Dichloropropane
Concen: 2.531 ppbv
RT: 23.788 min Scan# 2234
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 63 Resp: 11815

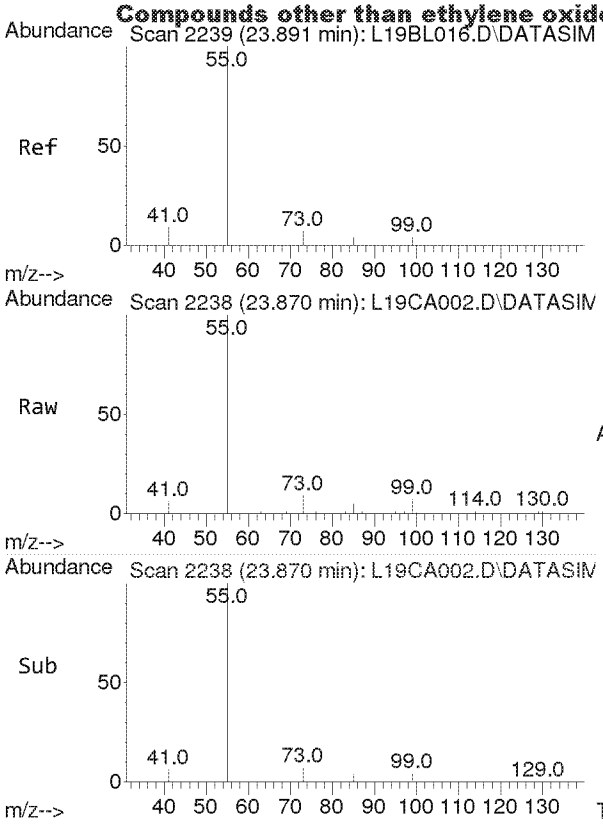
Ion	Ratio	Lower	Upper
63	100		
41	213.5	175.9	263.9







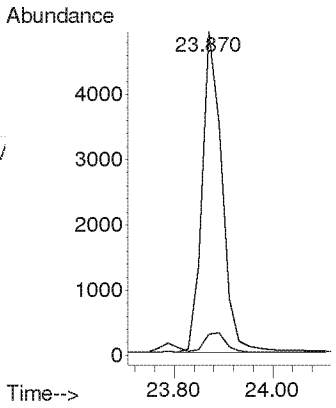
Compounds other than ethylene oxide were not quantitated.

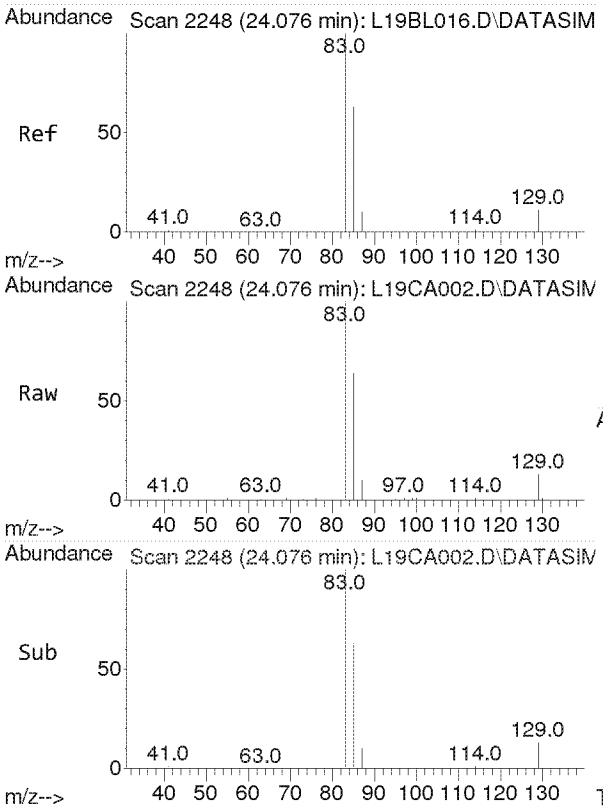


#35
Ethyl Acrylate
Concen: 3.419 ppbv
RT: 23.870 min Scan# 2238
Delta R.T. -0.021 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 55 Resp: 13561

Ion	Ratio	Lower	Upper
55	100		
99	6.5	5.0	7.6

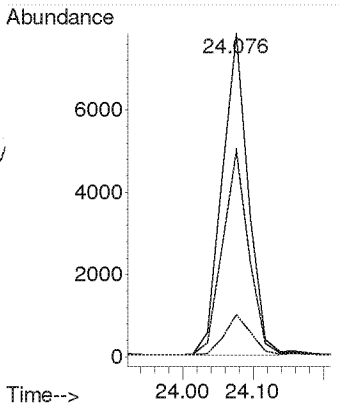




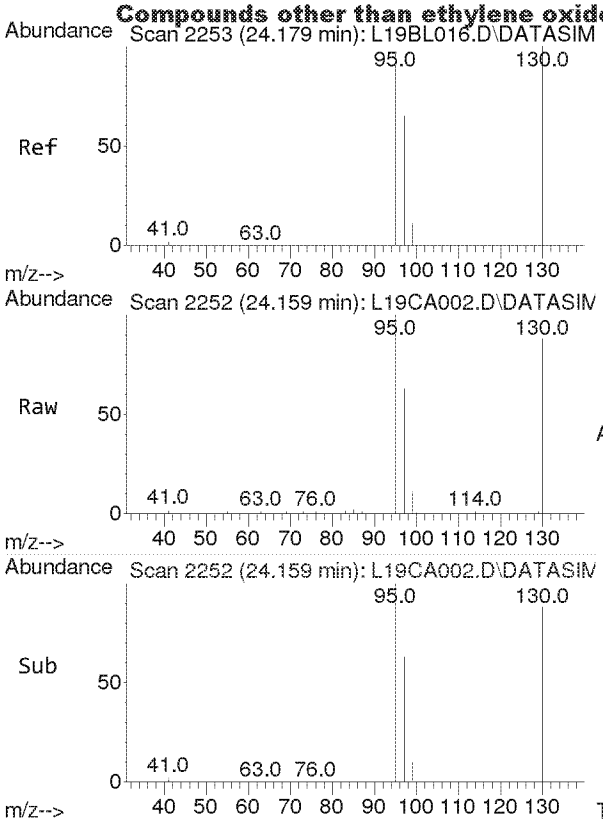
#36
Bromodichloromethane
Concen: 2.447 ppbv
RT: 24.076 min Scan# 2248
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 83 Resp: 20215

Ion	Ratio	Lower	Upper
83	100		
85	63.4	51.0	76.4
129	12.6	9.9	14.9



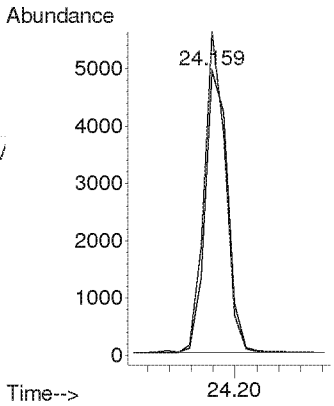
Compounds other than ethylene oxide were not quantitated.

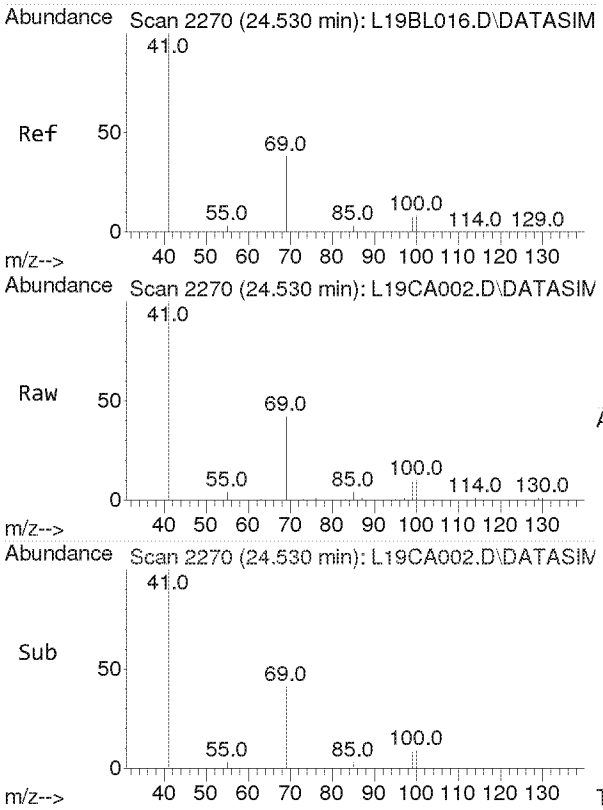


#37
Trichloroethylene
Concen: 2.407 ppbv
RT: 24.159 min Scan# 2252
Delta R.T. -0.021 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:130 Resp: 14081

Ion	Ratio	Lower	Upper
130	100		
95	106.8	84.9	127.3

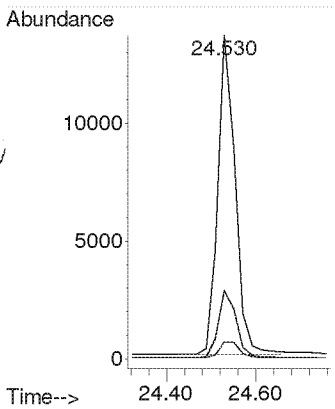




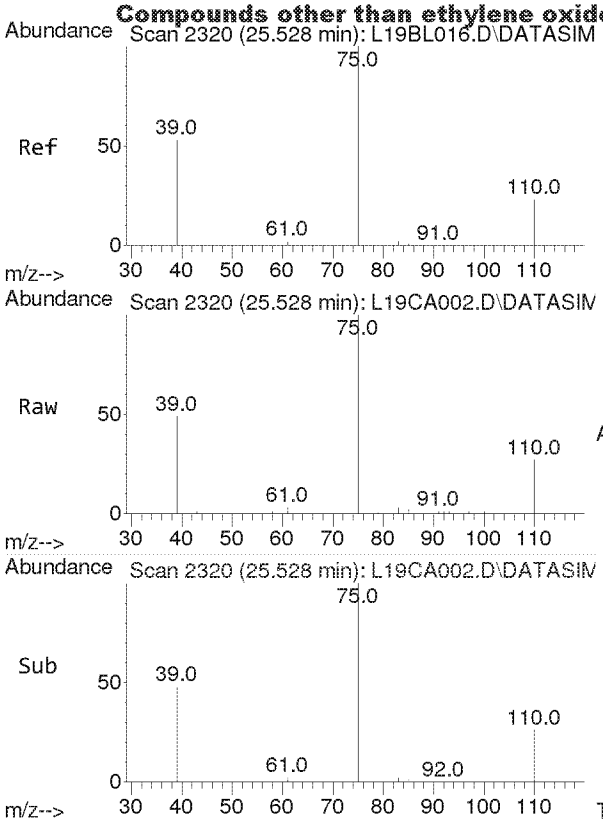
#38
Methyl Methacrylate
Concen: 3.055 ppbv
RT: 24.530 min Scan# 2270
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 41 Resp: 36358

Ion	Ratio	Lower	Upper
41	100		
69	21.6	16.8	25.2
100	5.7	4.5	6.7



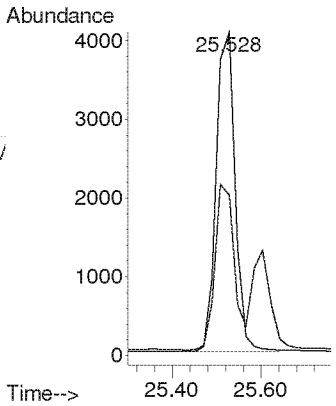
Compounds other than ethylene oxide were not quantitated.

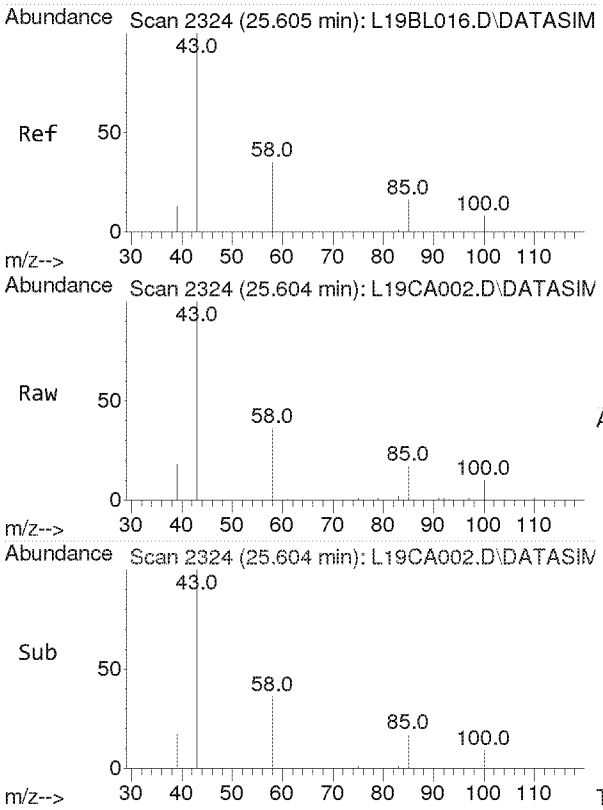


#39
cis-1,3-Dichloropropene
Concen: 2.941 ppbv
RT: 25.528 min Scan# 2320
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 75 Resp: 11923

Ion	Ratio	Lower	Upper
75	100		
39	53.7	43.4	65.0

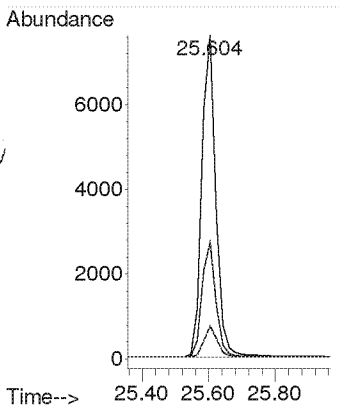




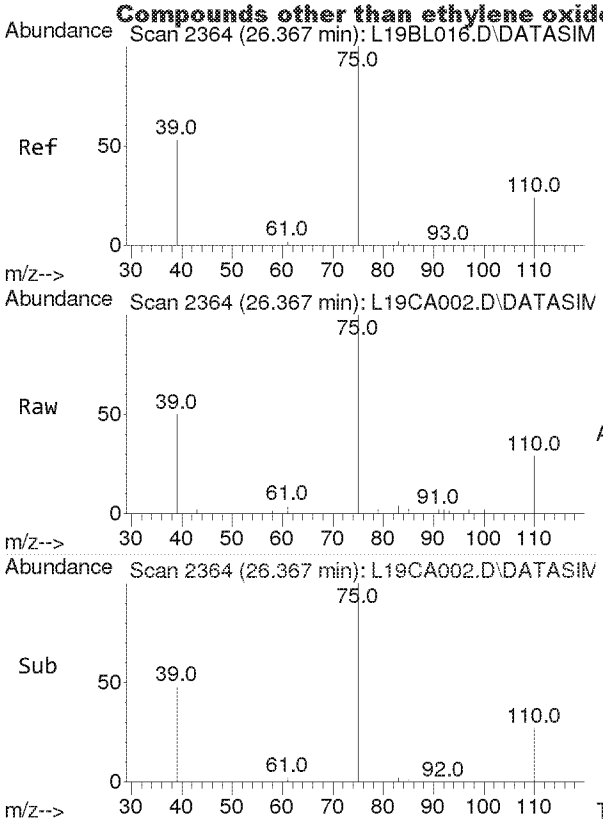
#40
Methyl Isobutyl Ketone
Concen: 2.499 ppbv
RT: 25.604 min Scan# 2324
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 43 Resp: 21864

Ion	Ratio	Lower	Upper
43	100		
58	35.5	28.0	42.0
100	9.0	7.0	10.4



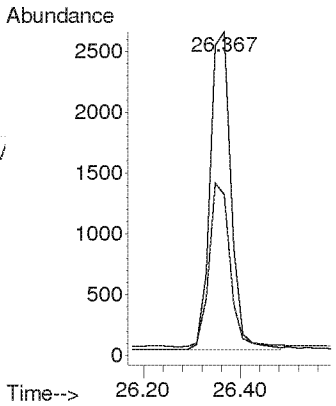
Compounds other than ethylene oxide were not quantitated.

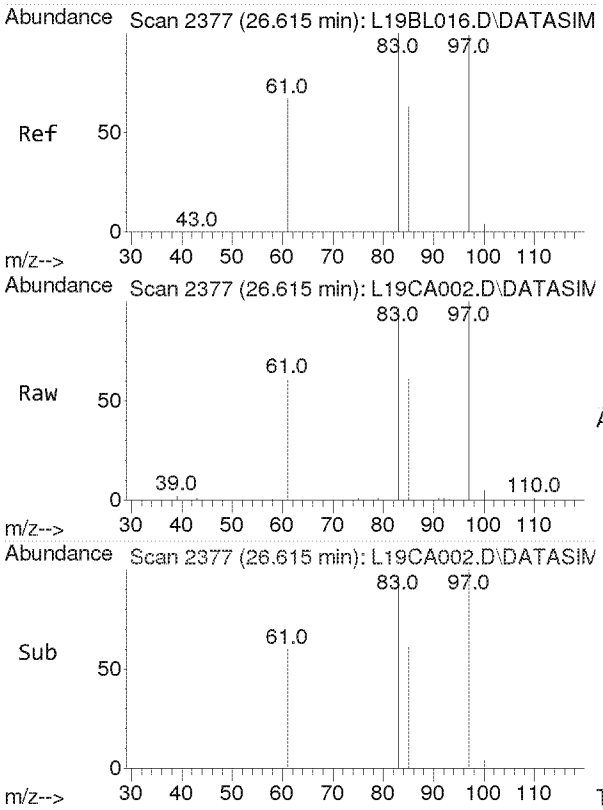


#41
trans-1,3-Dichloropropene
Concen: 2.903 ppbv
RT: 26.367 min Scan# 2364
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 75 Resp: 7883

Ion	Ratio	Lower	Upper
75	100		
39	50.9	42.9	64.3

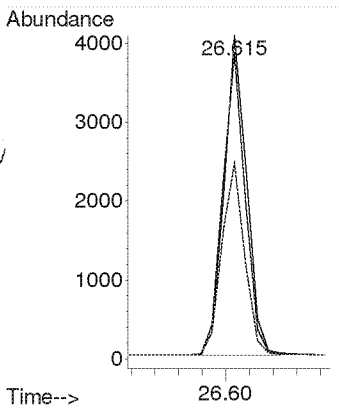




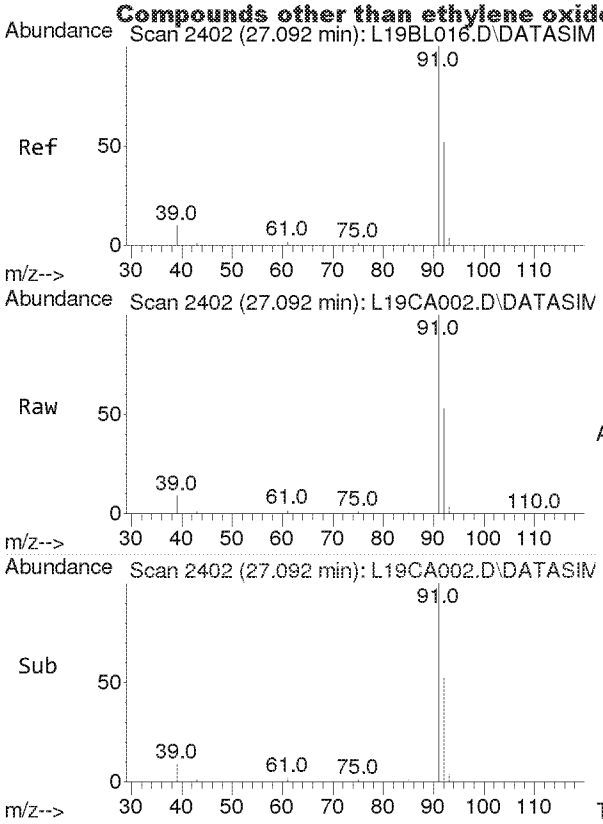
#42
1,1,2-Trichloroethane
Concen: 2.492 ppbv
RT: 26.615 min Scan# 2377
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 97 Resp: 10644

Ion	Ratio	Lower	Upper
97	100		
83	94.2	75.4	113.0
61	61.3	49.8	74.6



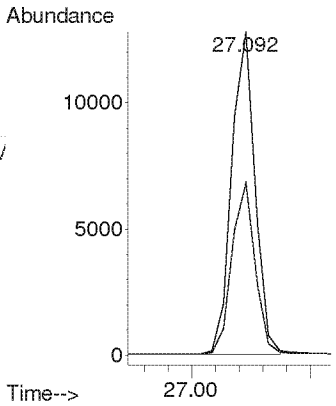
Compounds other than ethylene oxide were not quantitated.

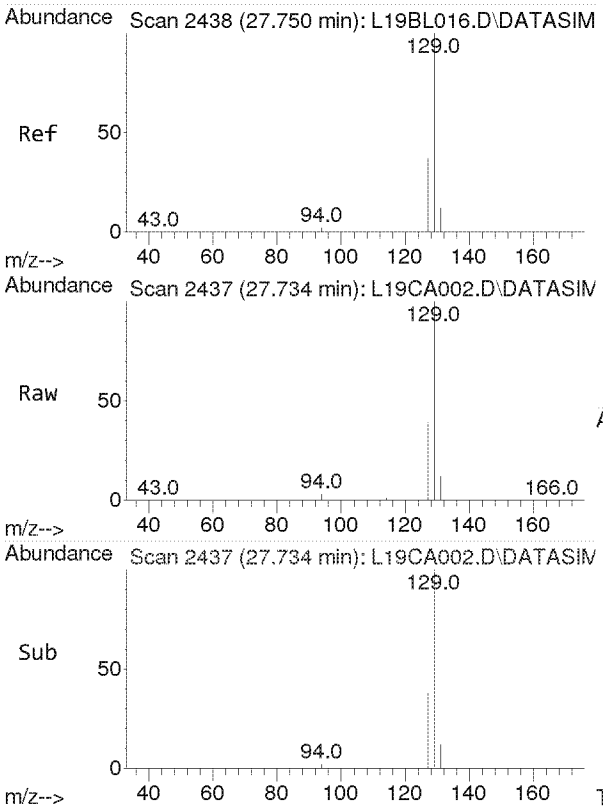


#44
Toluene
Concen: 2.484 ppbv
RT: 27.092 min Scan# 2402
Delta R.T. -0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 91 Resp: 34647

Ion	Ratio	Lower	Upper
91	100		
92	52.8	42.0	63.0

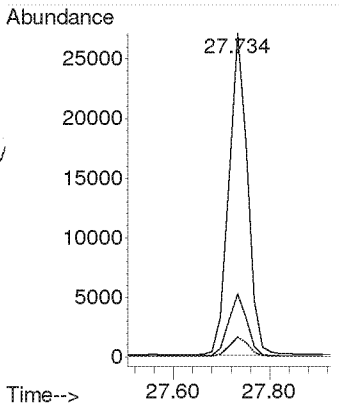




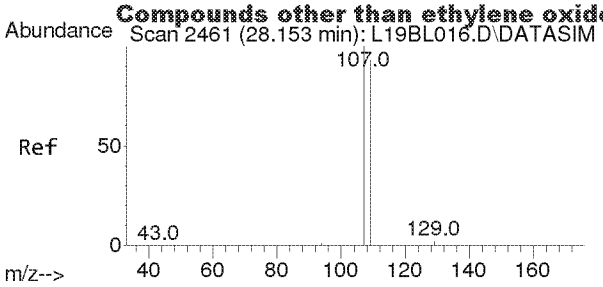
#45
Dibromochloromethane
Concen: 2.635 ppbv
RT: 27.734 min Scan# 2437
Delta R.T. -0.016 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:129 Resp: 72168

Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.2
131	6.0	4.8	7.2



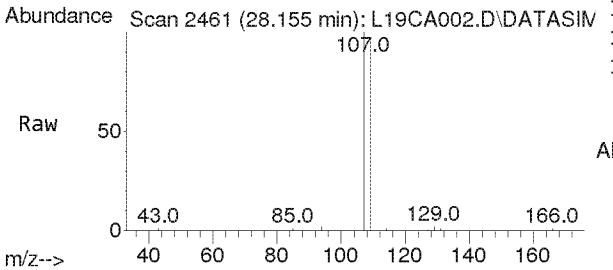
Compounds other than ethylene oxide were not quantitated.

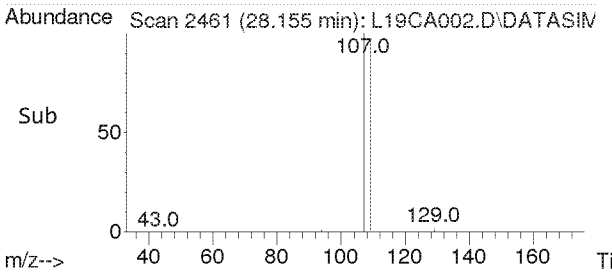


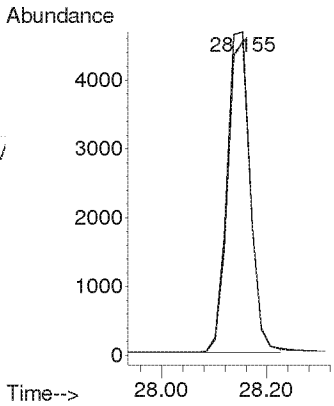
#46
1,2-Dibromoethane
Concen: 2.708 ppbv
RT: 28.155 min Scan# 2461
Delta R.T. 0.001 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

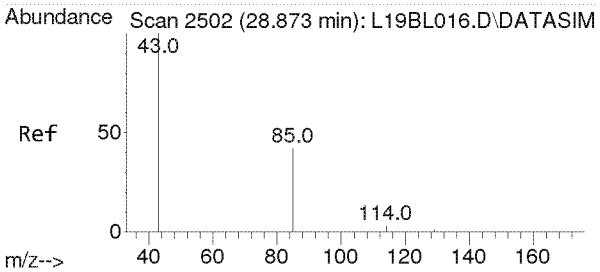
Tgt Ion:107 Resp: 14166

Ion	Ratio	Lower	Upper
107	100		
109	94.9	75.4	113.0





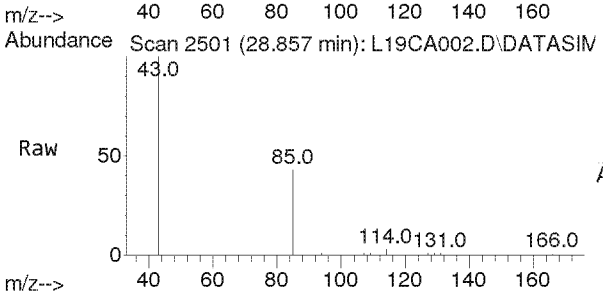


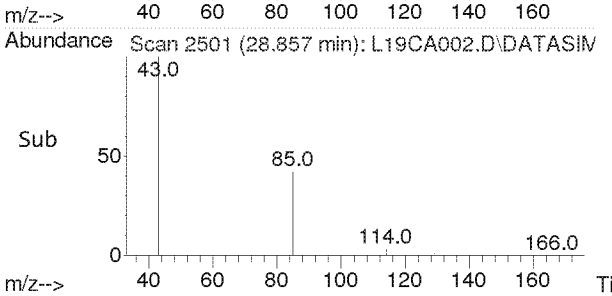


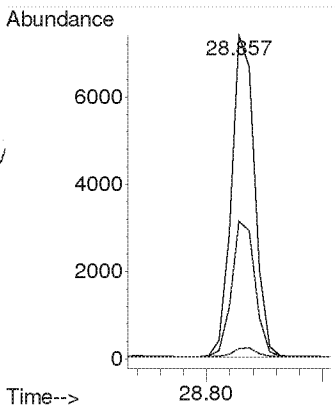
#47
n-Octane
Concen: 2.437 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. -0.016 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 43 Resp: 20475

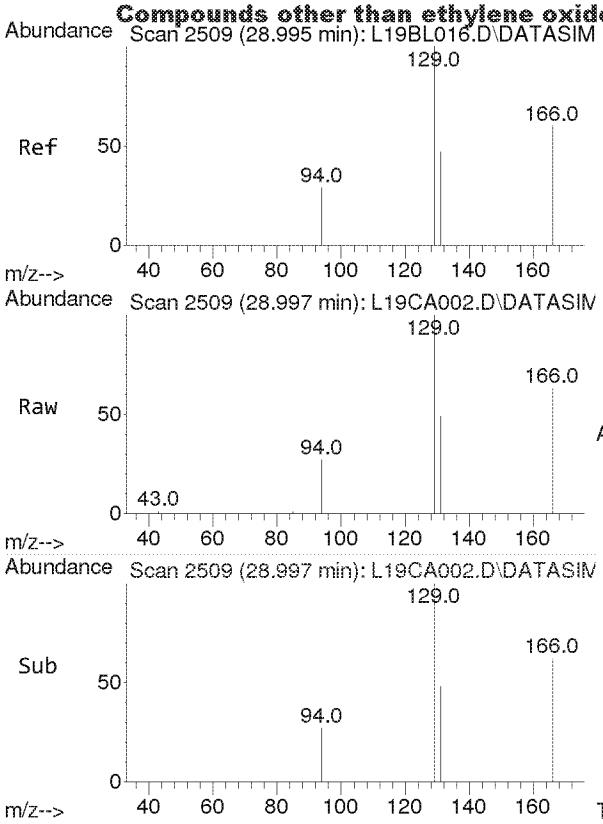
Ion	Ratio	Lower	Upper
43	100		
85	42.7	33.0	49.6
114	2.8	2.2	3.4







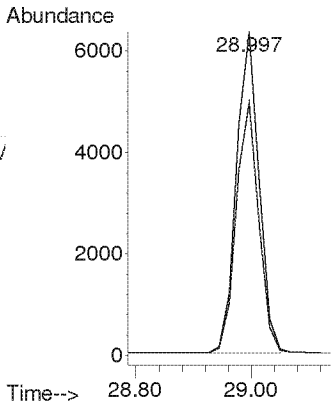
Compounds other than ethylene oxide were not quantitated.

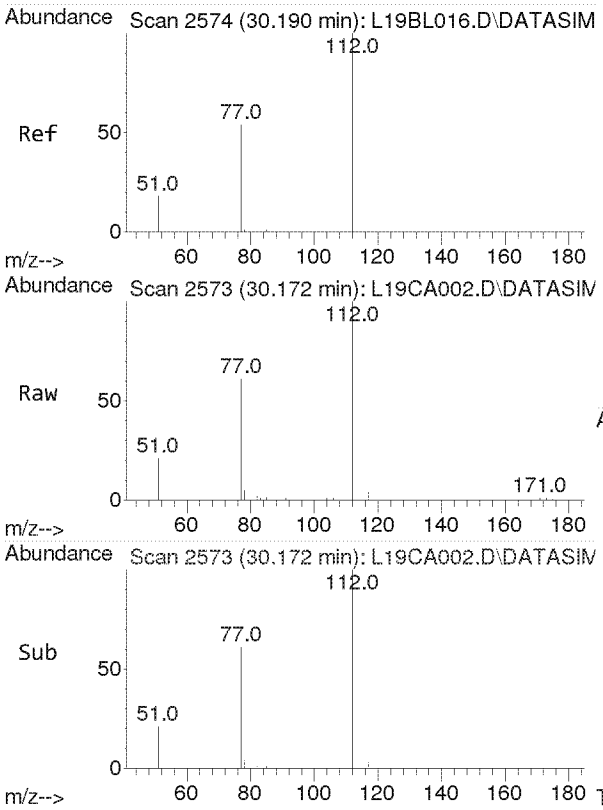


#48
Tetrachloroethylene
Concen: 2.542 ppbv
RT: 28.997 min Scan# 2509
Delta R.T. 0.001 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:166 Resp: 17067

Ion	Ratio	Lower	Upper
166	100		
131	78.3	61.5	92.3

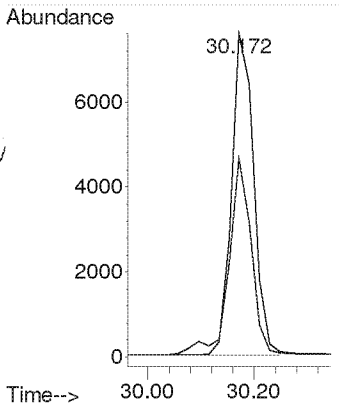




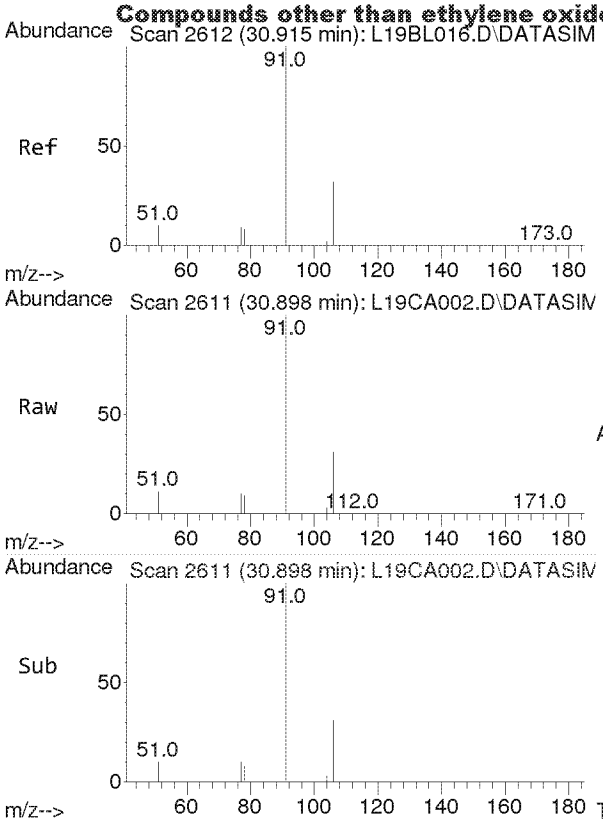
#49
Chlorobenzene
Concen: 2.459 ppbv
RT: 30.172 min Scan# 2573
Delta R.T. -0.018 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:112 Resp: 21892

Ion	Ratio	Lower	Upper
112	100		
77	60.0	47.8	71.6



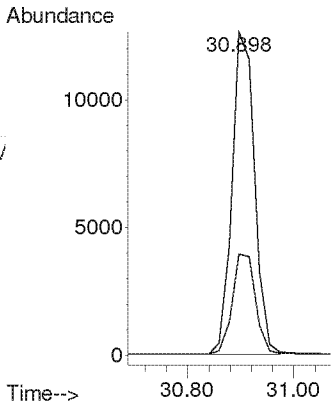
Compounds other than ethylene oxide were not quantitated.

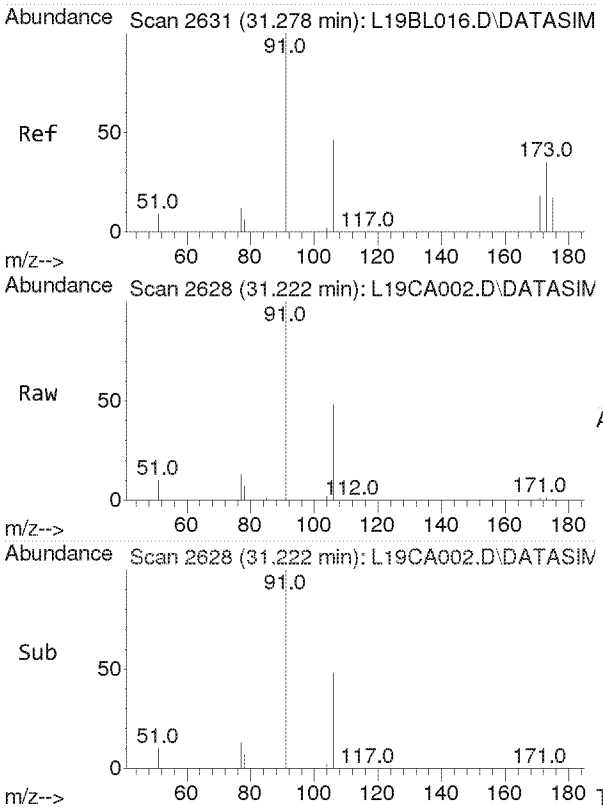


#50
Ethylbenzene
Concen: 2.539 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.018 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 91 Resp: 37234

Ion	Ratio	Lower	Upper
91	100		
106	32.0	26.0	39.0

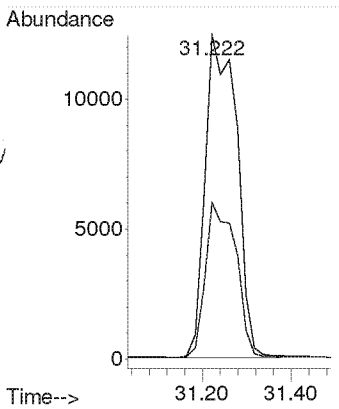




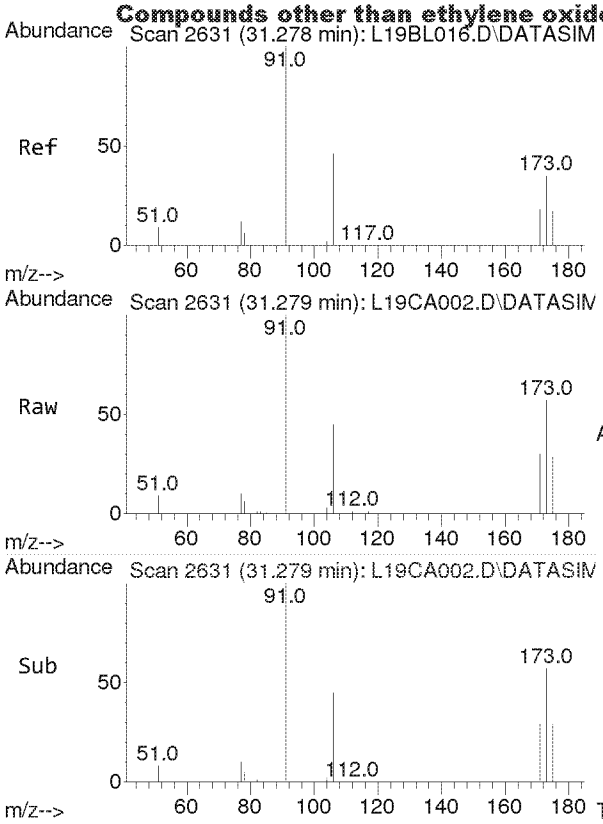
#51
m,p-Xylene
Concen: 4.947 ppbv
RT: 31.222 min Scan# 2628
Delta R.T. -0.056 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 91 Resp: 61203

Ion	Ratio	Lower	Upper
91	100		
106	46.1	37.3	55.9



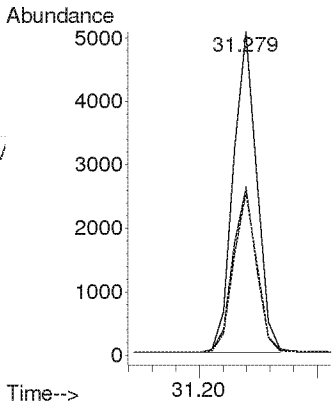
Compounds other than ethylene oxide were not quantitated.

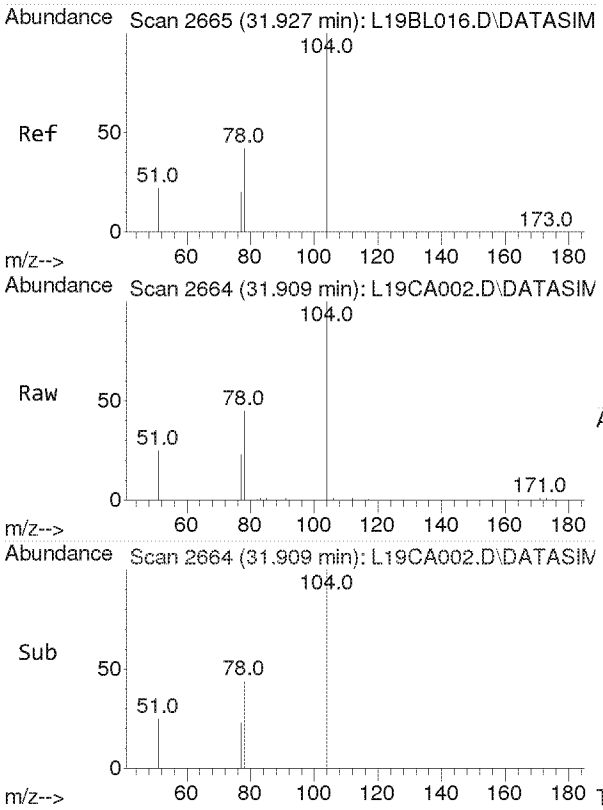


#52
Bromoform
Concen: 2.605 ppbv
RT: 31.279 min Scan# 2631
Delta R.T. 0.001 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:173 Resp: 13794

Ion	Ratio	Lower	Upper
173	100		
171	51.5	41.0	61.6
175	49.8	39.1	58.7

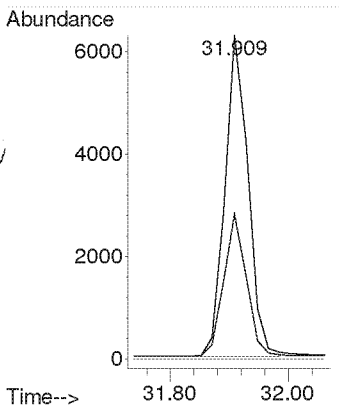




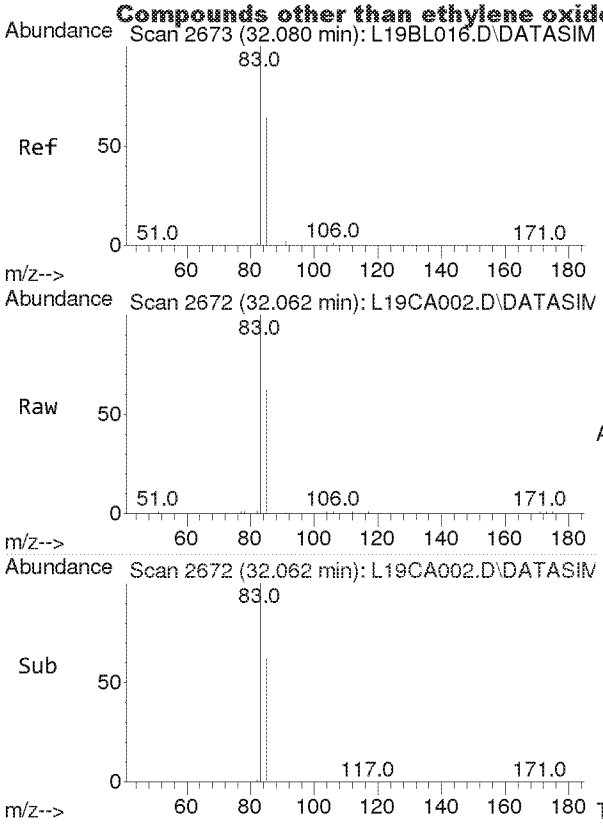
#53
Styrene
Concen: 2.425 ppbv
RT: 31.909 min Scan# 2664
Delta R.T. -0.018 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:104 Resp: 17009

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



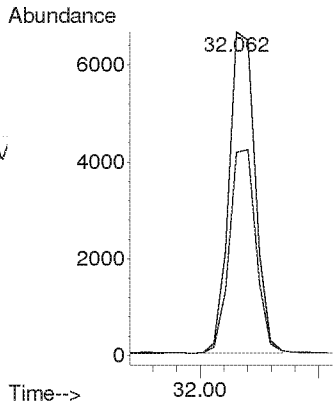
Compounds other than ethylene oxide were not quantitated.

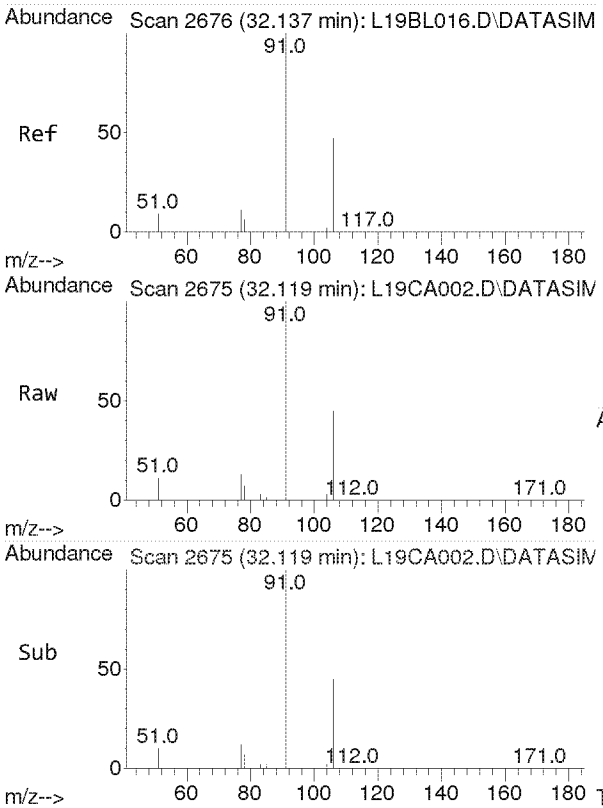


#54
1,1,2,2-Tetrachloroethane
Concen: 2.550 ppbv
RT: 32.062 min Scan# 2672
Delta R.T. -0.018 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 83 Resp: 20359

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.6	77.4

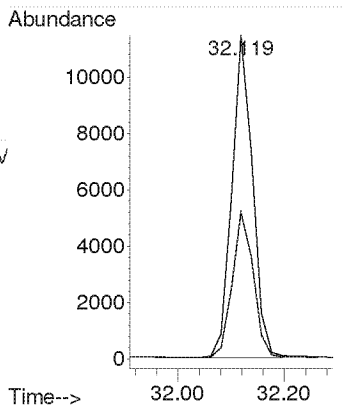




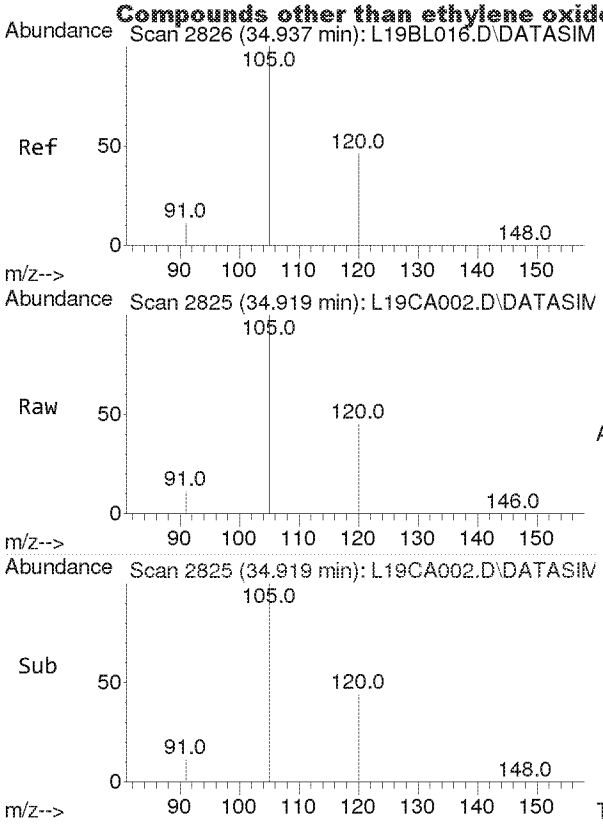
#55
o-Xylene
Concen: 2.536 ppbv
RT: 32.119 min Scan# 2675
Delta R.T. -0.018 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion: 91 Resp: 30960

Ion	Ratio	Lower	Upper
91	100		
106	45.9	36.6	55.0



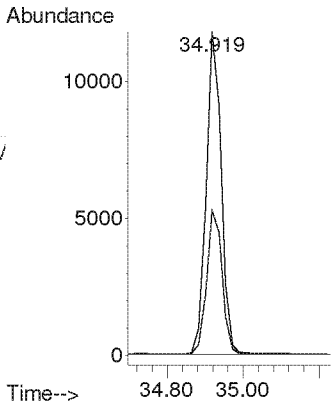
Compounds other than ethylene oxide were not quantitated.

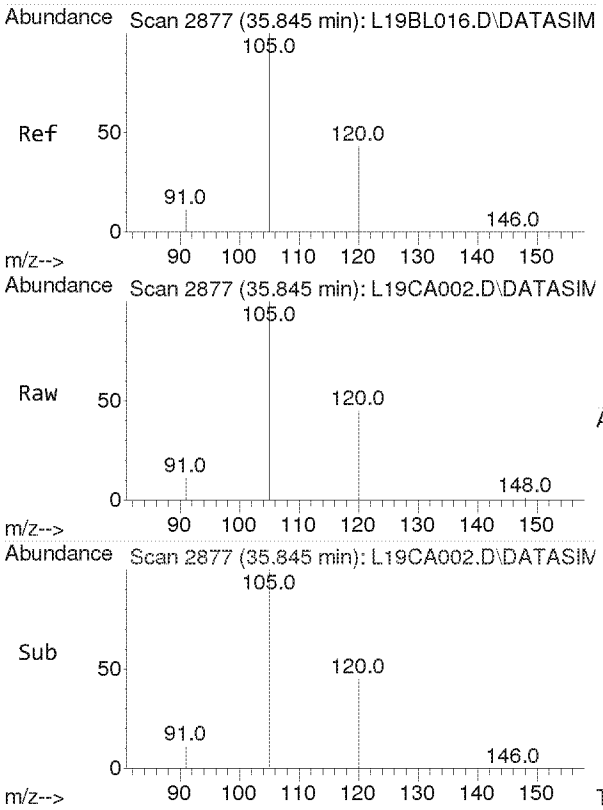


#56
1,3,5-Trimethylbenzene
Concen: 2.468 ppbv
RT: 34.919 min Scan# 2825
Delta R.T. -0.018 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:105 Resp: 32375

Ion	Ratio	Lower	Upper
105	100		
120	45.7	36.8	55.2

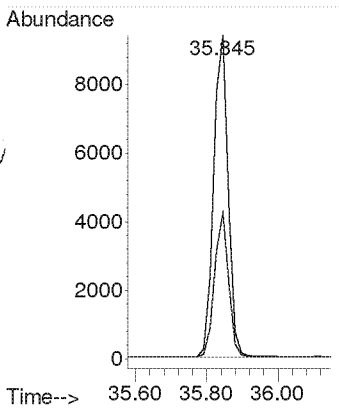




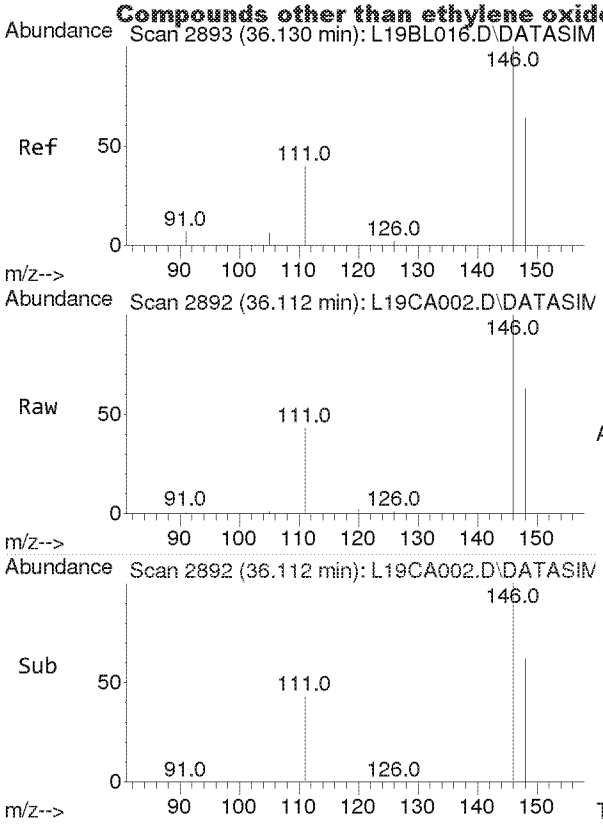
#57
1,2,4-Trimethylbenzene
Concen: 2.341 ppbv
RT: 35.845 min Scan# 2877
Delta R.T. 0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:105 Resp: 26554

Ion	Ratio	Lower	Upper
105	100		
120	43.5	35.2	52.8



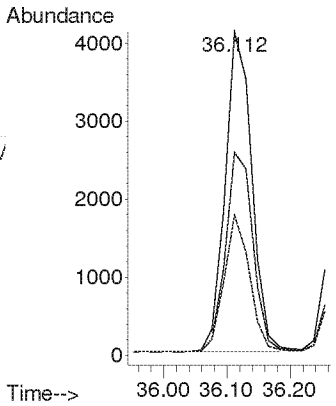
Compounds other than ethylene oxide were not quantitated.

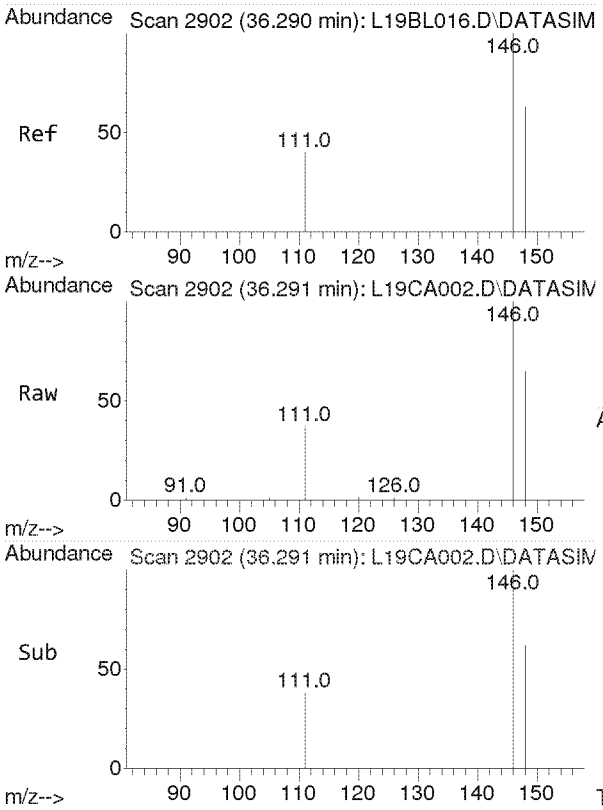


#58
m-Dichlorobenzene
Concen: 1.995 ppbv
RT: 36.112 min Scan# 2892
Delta R.T. -0.018 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:146 Resp: 11897

Ion	Ratio	Lower	Upper
146	100		
148	64.2	51.3	76.9
111	41.0	32.1	48.1

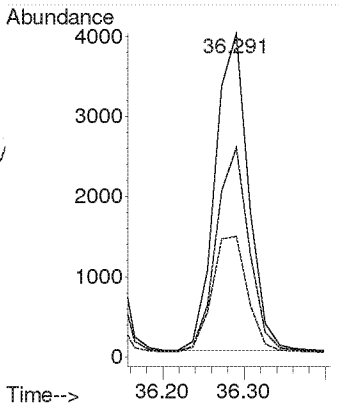




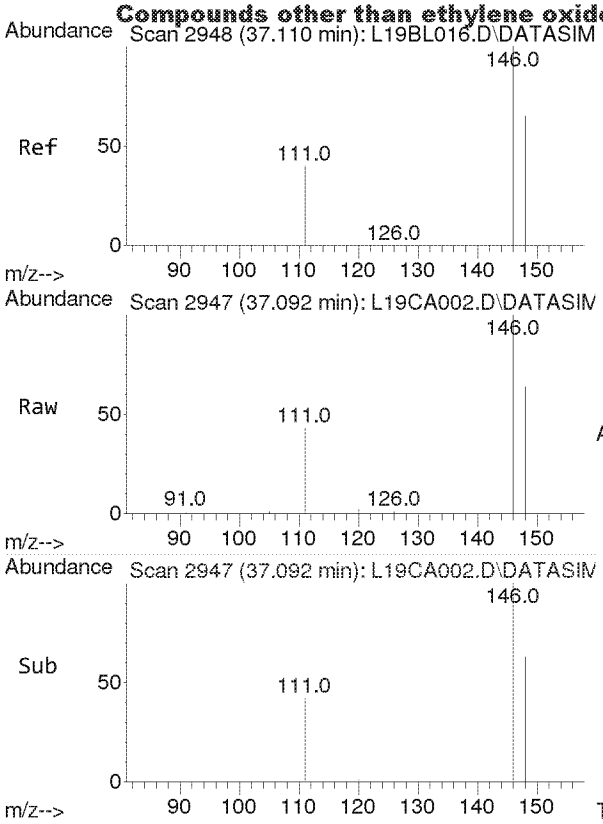
#59
p-Dichlorobenzene
Concen: 2.307 ppbv
RT: 36.291 min Scan# 2902
Delta R.T. 0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:146 Resp: 11207

Ion	Ratio	Lower	Upper
146	100		
148	63.5	51.4	77.2
111	39.1	31.0	46.4



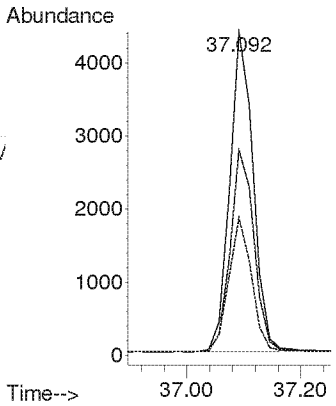
Compounds other than ethylene oxide were not quantitated.

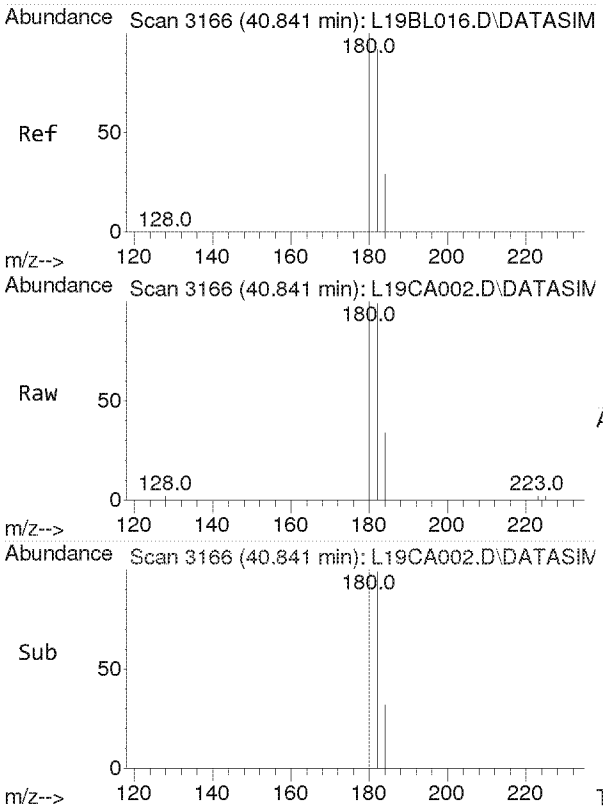


#60
o-Dichlorobenzene
Concen: 2.291 ppbv
RT: 37.092 min Scan# 2947
Delta R.T. -0.018 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:146 Resp: 12497

Ion	Ratio	Lower	Upper
146	100		
148	64.1	51.2	76.8
111	41.1	32.6	49.0

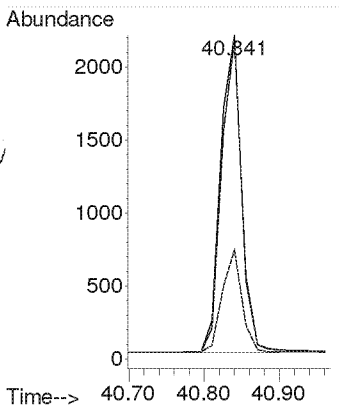




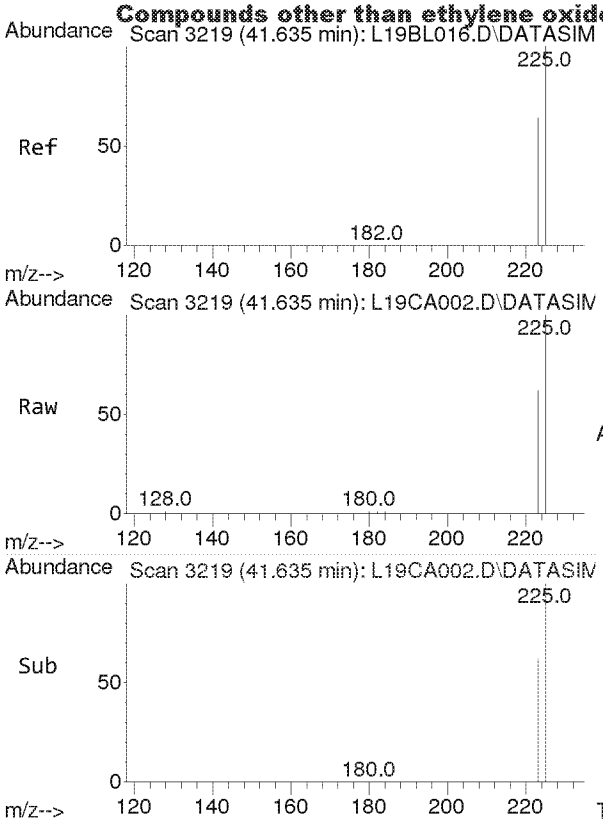
#61
1,2,4-Trichlorobenzene
Concen: 2.259 ppbv
RT: 40.841 min Scan# 3166
Delta R.T. 0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:180 Resp: 4180

Ion	Ratio	Lower	Upper
180	100		
182	95.8	75.7	113.5
184	30.3	24.2	36.2



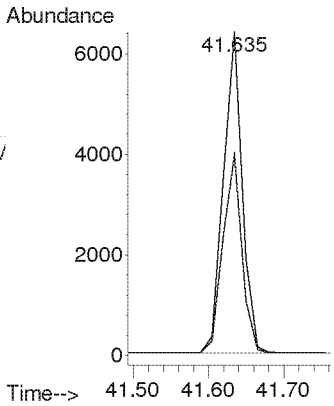
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.337 ppbv
RT: 41.635 min Scan# 3219
Delta R.T. 0.000 min
Lab File: L19CA002.D
Acq: 1 Mar 2019 4:29 pm

Tgt Ion:225 Resp: 11044

Ion	Ratio	Lower	Upper
225	100		
223	62.5	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: [illegible] Date: 3-5-19	Data File Name	L19CA004.D	
	Operator	MAH	
	Acq. Method File	9020003.M	
Reviewer: RMB Date: 3/5/19	Sample Name	B9C0104-BLK1	
	Misc Info	80 ML 8L13001	

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	47819		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	41	0.008	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	0	0.000	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	ETO only	0.035
10)	Chloroethane	0	0.000	Y		0.075
11)	Acetonitrile	241	0.058	NO	MAX	0.049
12)	Acrolein	0	0.000	Y		0.200
13)	Trichlorofluoromethane	0	0.000	Y		0.035
14)	Acrylonitrile	0	0.000	Y		0.032
15)	1,1-Dichloroethene	0	0.000	Y		0.036
16)	Methylene Chloride	0	0.000	Y		0.043
17)	Carbon Disulfide	61	0.004	Y		0.200
18)	Trichlorotrifluoroethane	42	0.003	Y		0.029
19)	trans-1,2-Dichloroethylene	0	0.000	Y		0.040
20)	1,1-Dichloroethane	0	0.000	Y		0.043
21)	Methyl tert-Butyl Ether	0	0.000	Y		0.031
22)	Chloroprene	0	0.000	Y		0.039
23)	cis-1,2-Dichloroethylene	0	0.000	Y		0.056
24)	Bromochloromethane	0	0.000	Y		0.040
25)	Chloroform	0	0.000	Y		0.039
26)	Ethyl tert-Butyl Ether	0	0.000	Y		0.033
27)	1,2-Dichloroethane	0	0.000	Y		0.042
28)	IS-1,4-Difluorobenzene	118023		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	43	0.003	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	416	0.034	Y		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	83441		NA		NA
43)	Toluene	0	0.000	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	77	0.005	Y		0.077
50)	m,p-Xylene	40	0.003	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	0	0.000	Y		0.109
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y		0.063
54)	o-Xylene	112	0.009	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	45	0.004	Y		0.080
57)	m-Dichlorobenzene	0	0.000	Y		0.055
58)	p-Dichlorobenzene	0	0.000	Y		0.060
59)	o-Dichlorobenzene	0	0.000	Y		0.062
60)	1,2,4-Trichlorobenzene	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\L19CA\
Data File : L19CA004.D
Acq On : 1 Mar 2019 6:27 pm (#1); 01-Mar-19, 18:22:36 (#2)
Operator : MAH
Sample : B9C0104-BLK1 (Sig #1); -BLK1 (Sig #2)
Misc : 80 ML 8L13001 (Sig #1); 80 ML 8L13001 (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 05 09:01:17 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	19.990	66	47819	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	118023	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.094	117	83441	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.823	41	41	0.0084 ppbv #	13
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	0.000	50	0	N.D.	
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	14.495	41	241	0.0581 ppbv #	62
13) Acrolein	0.000	56	0	N.D.	
14) Trichlorofluoromethane	0.000	101	0	N.D.	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.930	76	61	0.0035 ppbv #	75
19) Trichlorotrifluoroethane	17.232	101	42	0.0032 ppbv #	9
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	22.533	78	43	0.0034 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.	62
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	416	0.0343 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	0.000	91	0	N.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.	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.896	91	77	0.0053 ppbv #	42

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA004.D
Acq On : 1 Mar 2019 6:27 pm (#1); 01-Mar-19, 18:22:36 (#2)
Operator : MAH
Sample : B9C0104-BLK1 (Sig #1); -BLK1 (Sig #2)
Misc : 80 ML 8L13001 (Sig #1); 80 ML 8L13001 (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 05 09:01:17 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

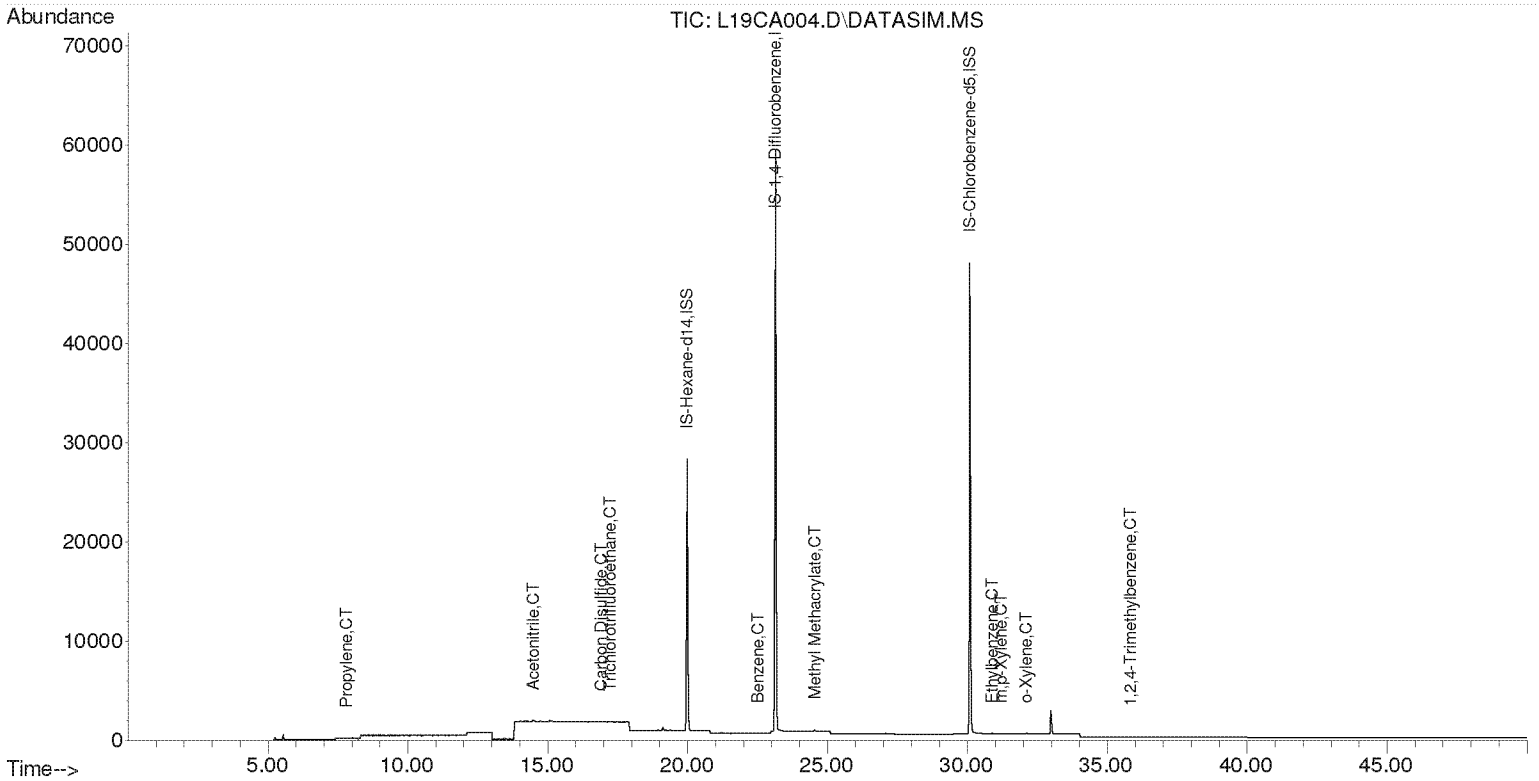
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.221	91	40	0.0033 ppbv #	30
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.118	91	112	0.0093 ppbv	98
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.845	105	45	0.0040 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.	

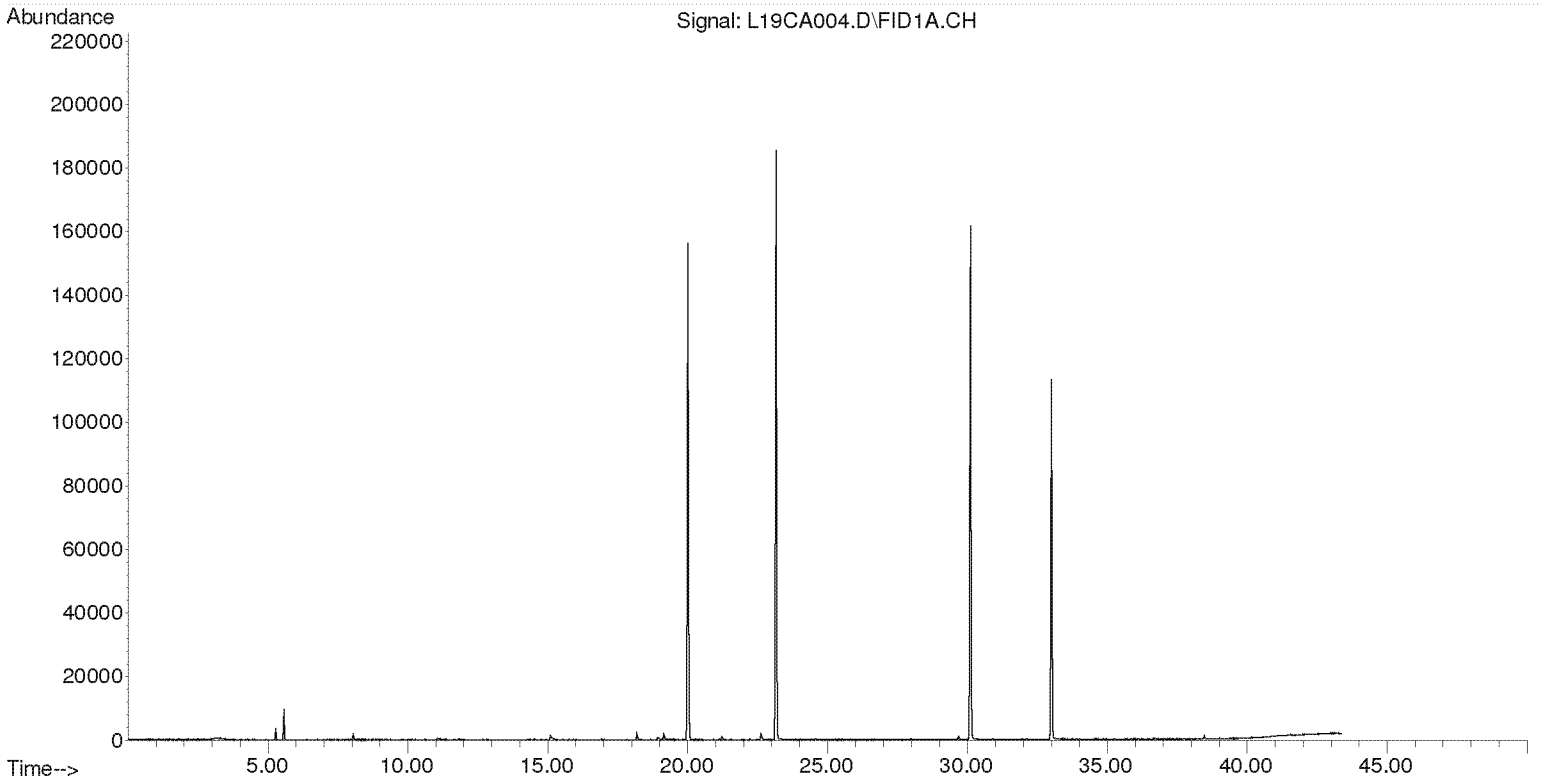
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

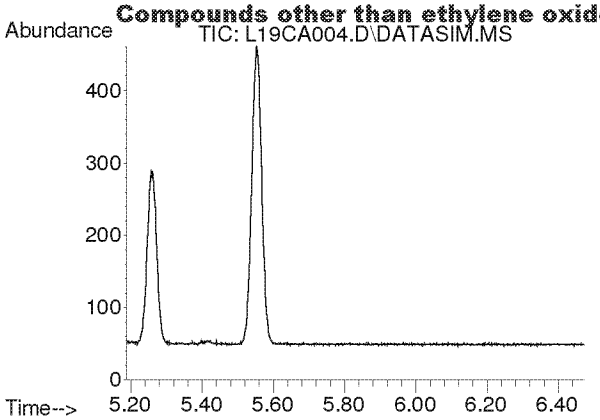
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA004.D
Acq On : 1 Mar 2019 6:27 pm (#1); 01 Mar 2019 6:22 pm (#2)
Operator : MAH
Sample : B9C0104-BLK1 (Sig #1); -BLK1 (Sig #2)
Misc : 80 ML 8L13001 (Sig #1); 80 ML 8L13001 (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 05 08:53:19 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





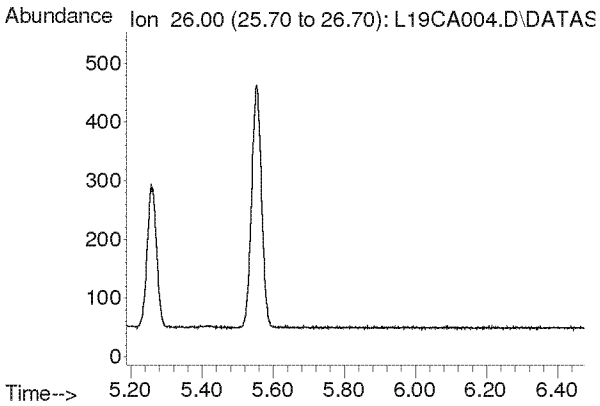
Compounds other than ethylene oxide were not quantitated.

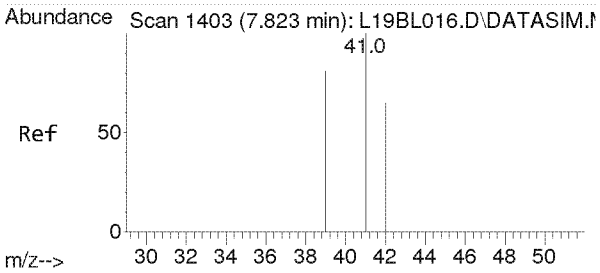


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 26

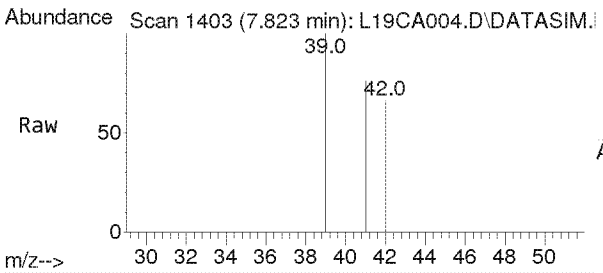


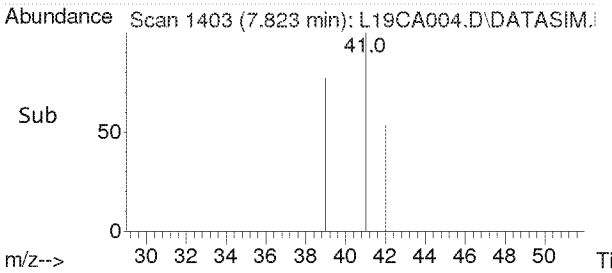


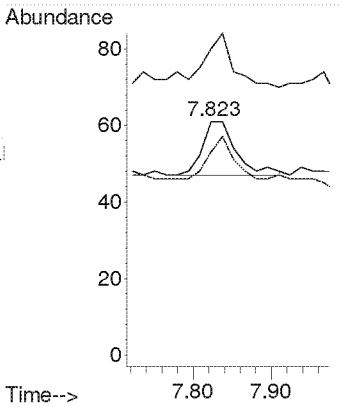
#3
Propylene
Concen: 0.008 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.000 min
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 41 Resp: 41

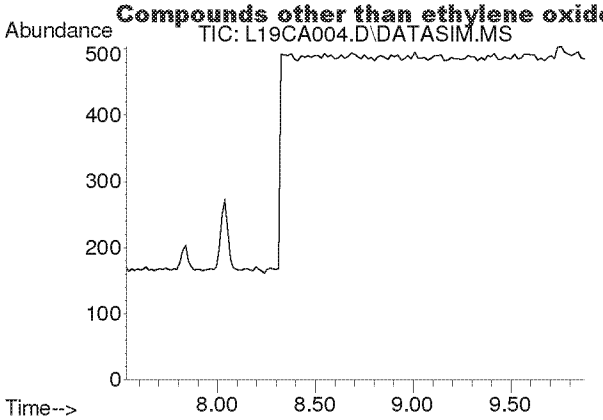
Ion	Ratio	Lower	Upper
41	100		
39	0.0	64.2	96.2#
42	0.0	52.6	79.0#







Compounds other than ethylene oxide were not quantitated.

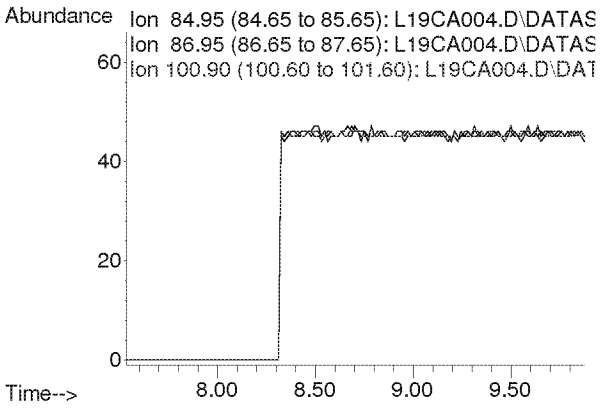


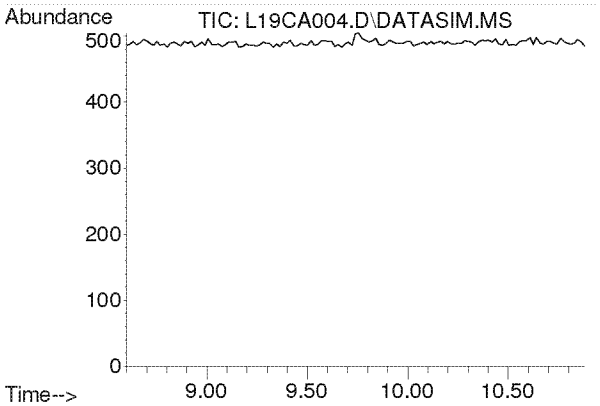
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



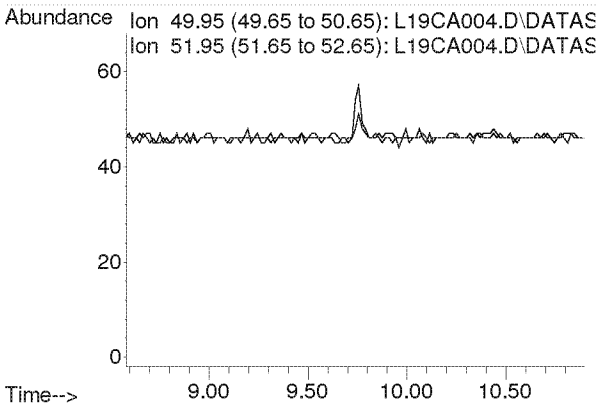


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

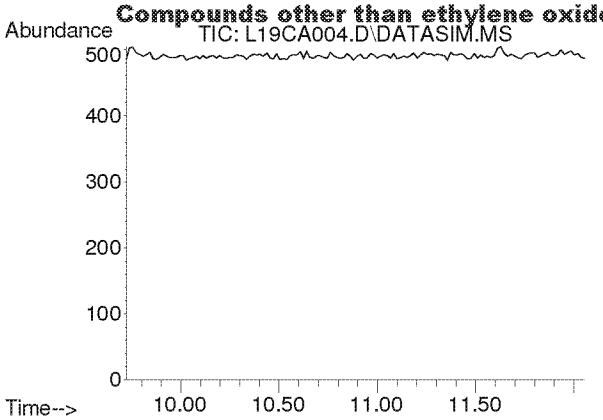
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

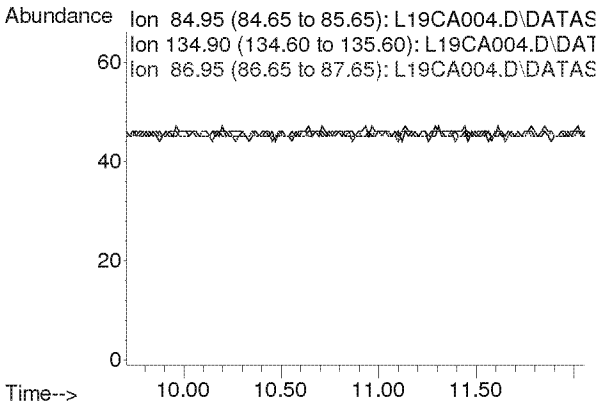


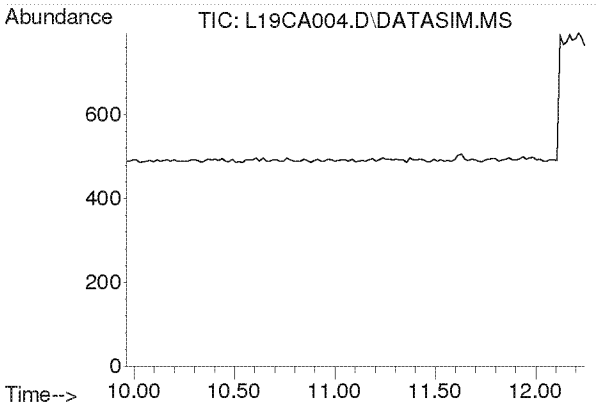
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



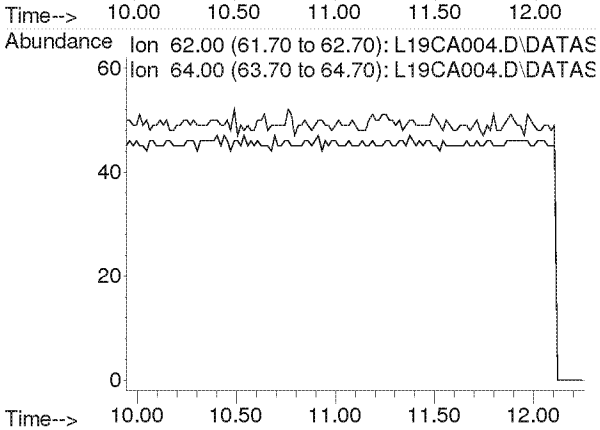


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

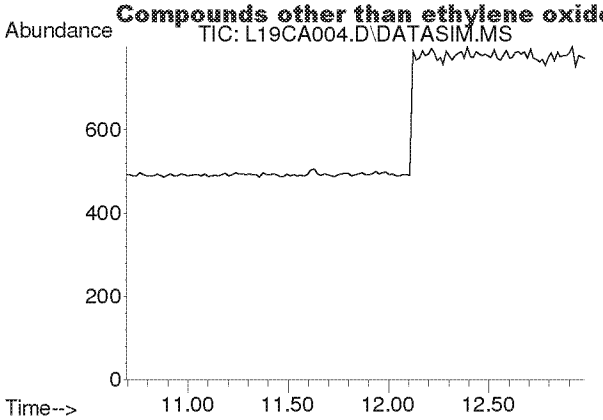
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

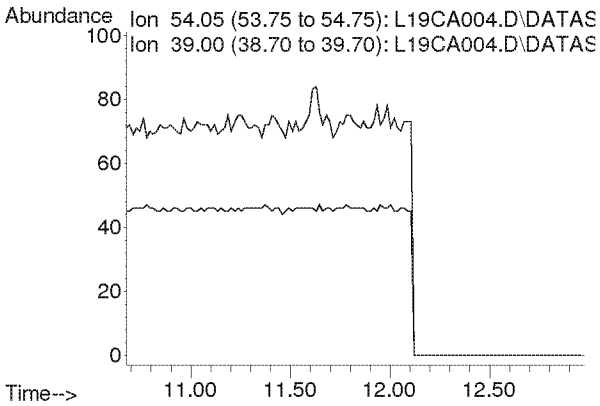


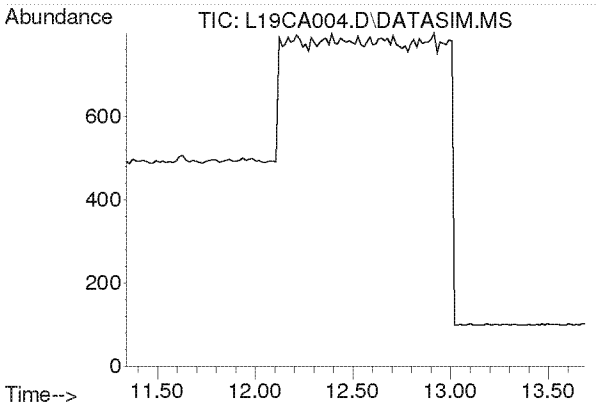
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



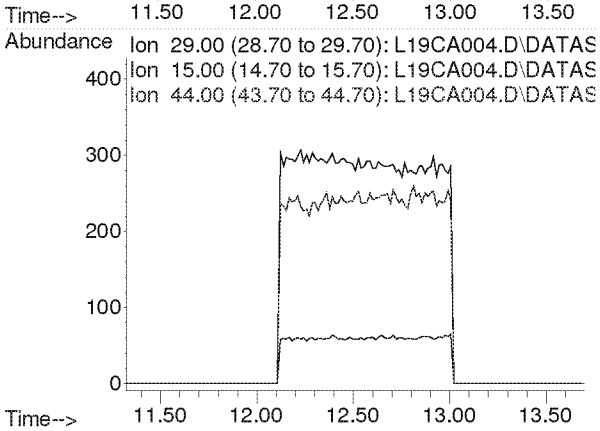


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

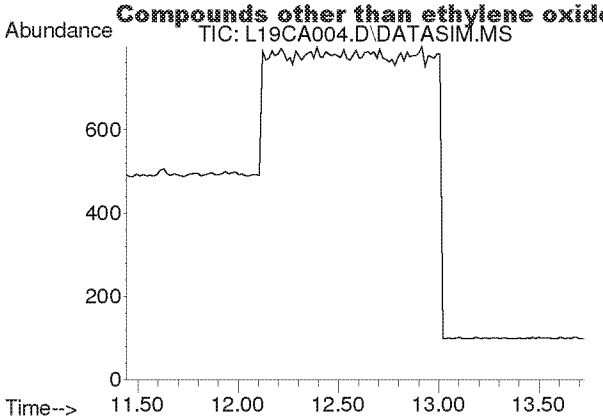
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

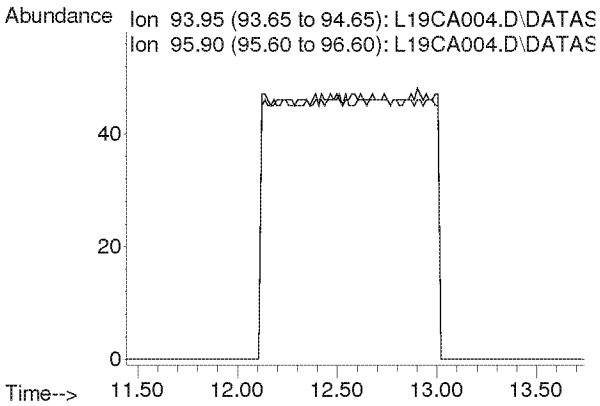


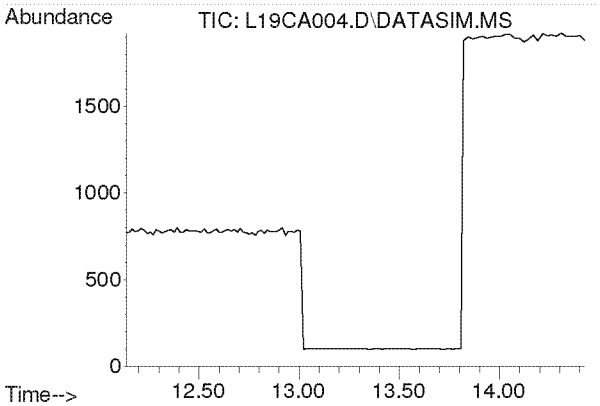
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



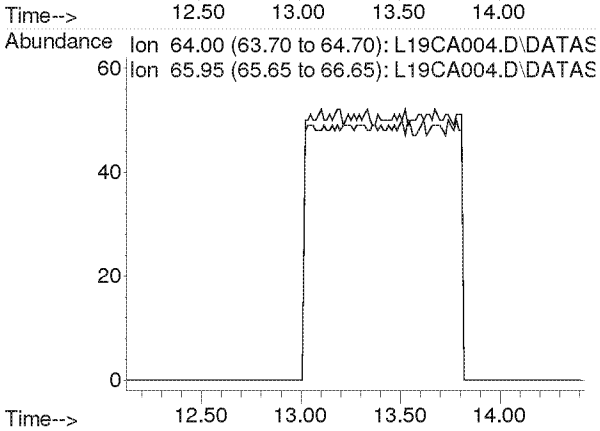


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

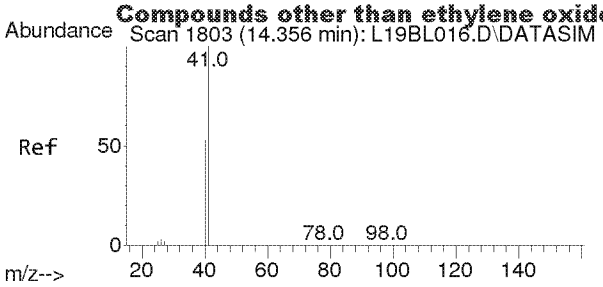
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



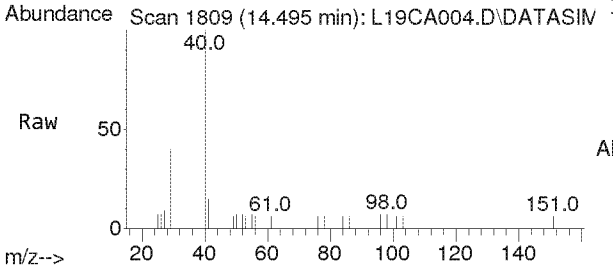
Compounds other than ethylene oxide were not quantitated.

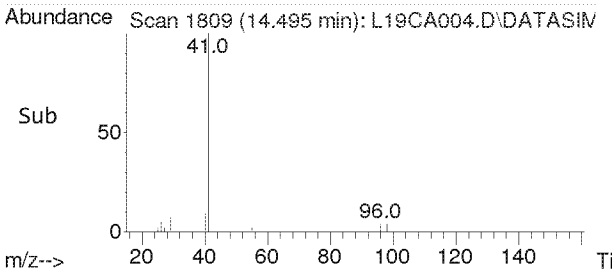


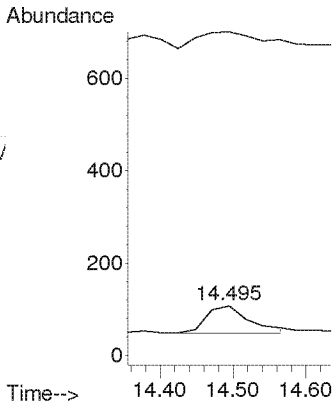
#12
Acetonitrile
Concen: 0.058 ppbv
RT: 14.495 min Scan# 1809
Delta R.T. 0.139 min
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

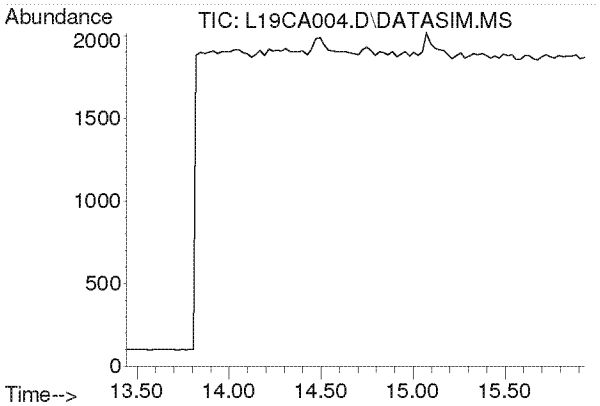
Tgt Ion: 41 Resp: 241

Ion	Ratio	Lower	Upper
41	100		
40	79.7	42.2	63.4#







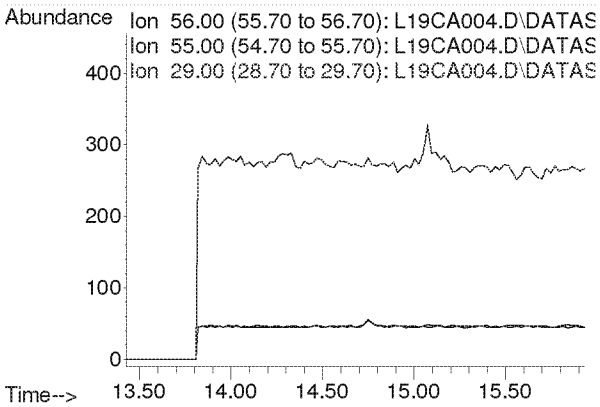


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

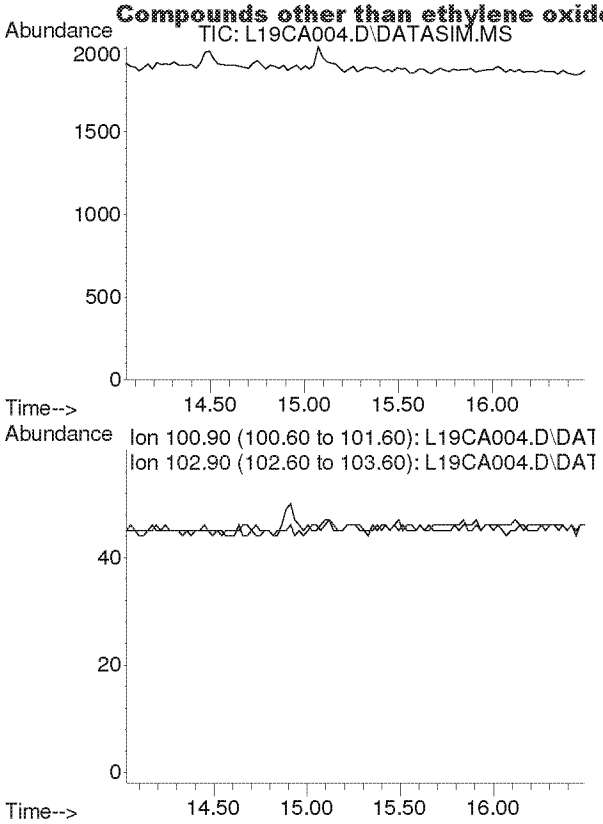
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

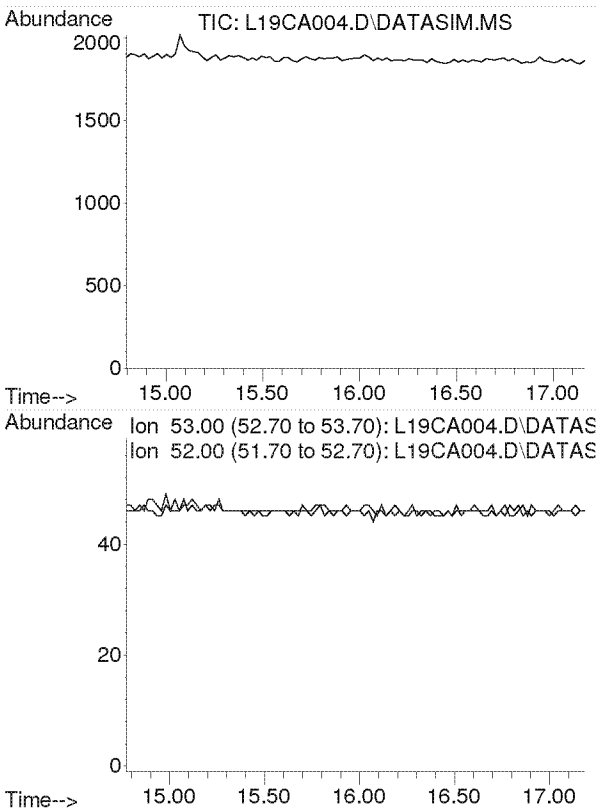


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



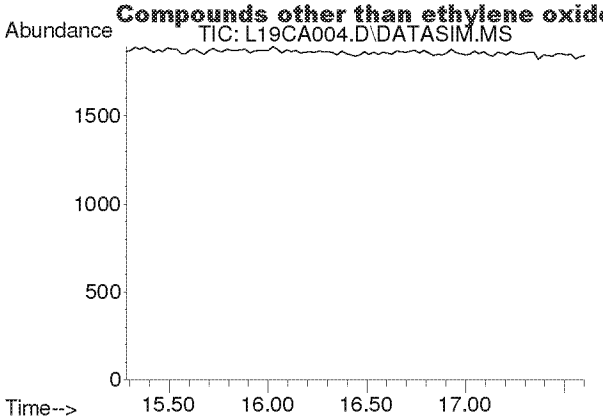
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9

Compounds other than ethylene oxide were not quantitated.

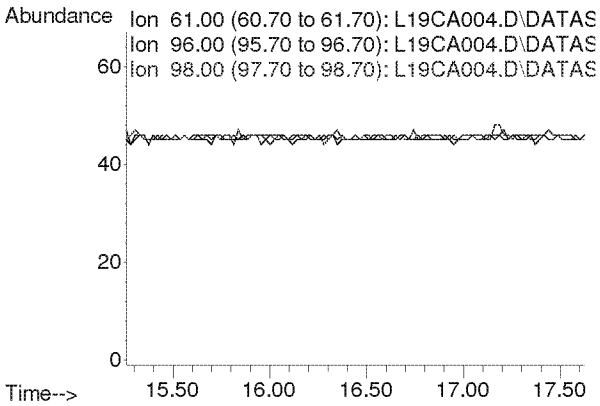


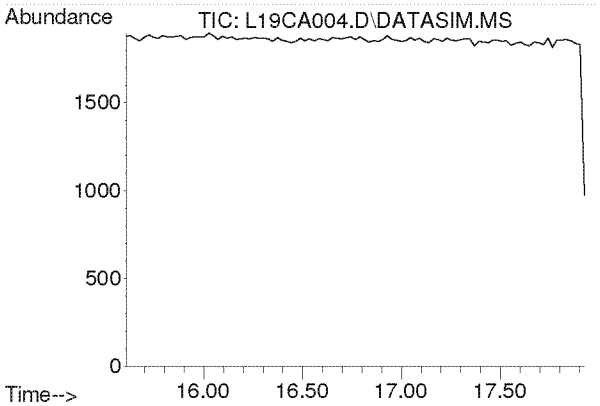
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



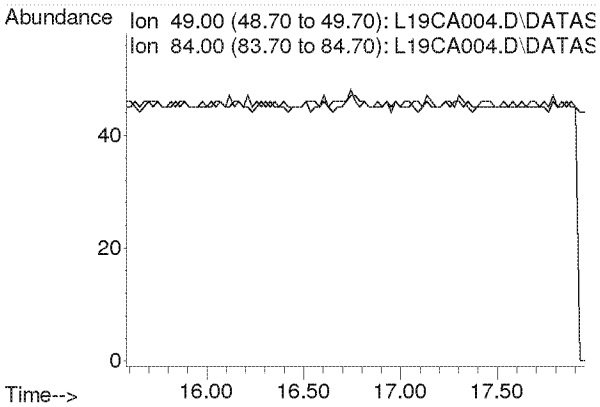


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

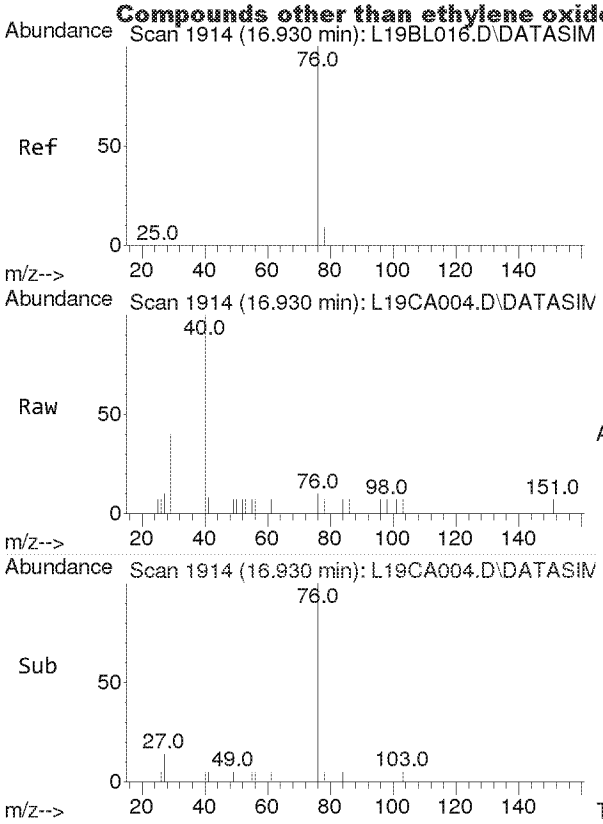
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



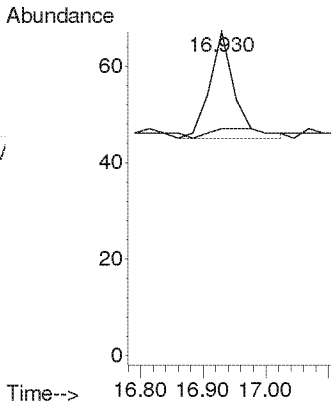
Compounds other than ethylene oxide were not quantitated.

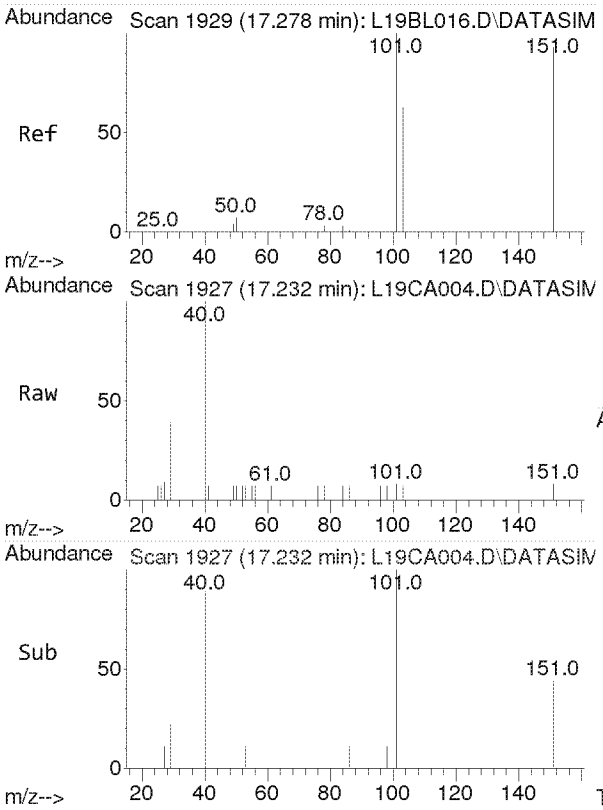


#18
Carbon Disulfide
Concen: 0.004 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. -0.000 min
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 76 Resp: 61

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.4	11.0#

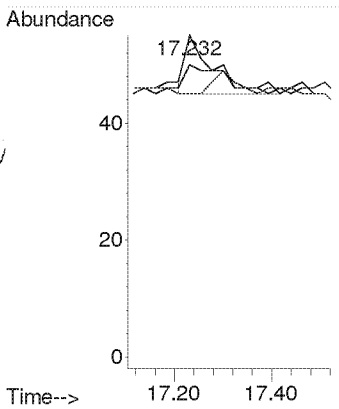




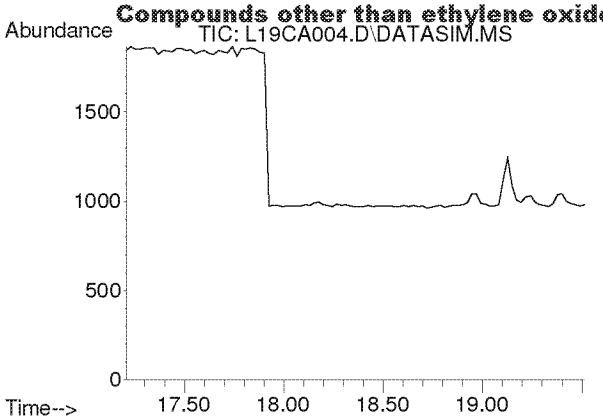
#19
Trichlorotrifluoroethane
Concen: 0.003 ppbv
RT: 17.232 min Scan# 1927
Delta R.T. -0.046 min
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion:101 Resp: 42

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



Compounds other than ethylene oxide were not quantitated.

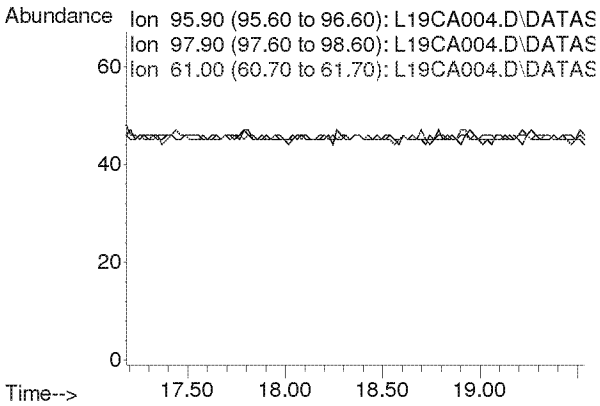


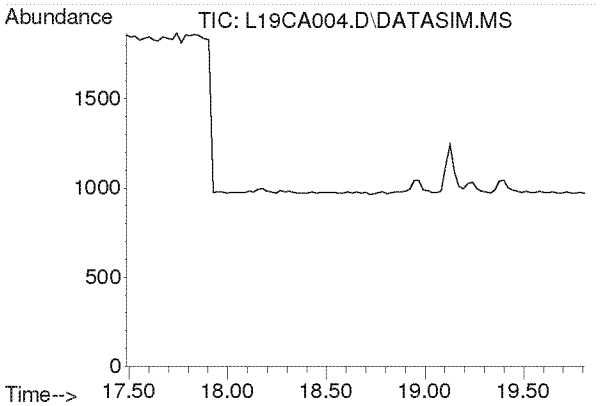
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



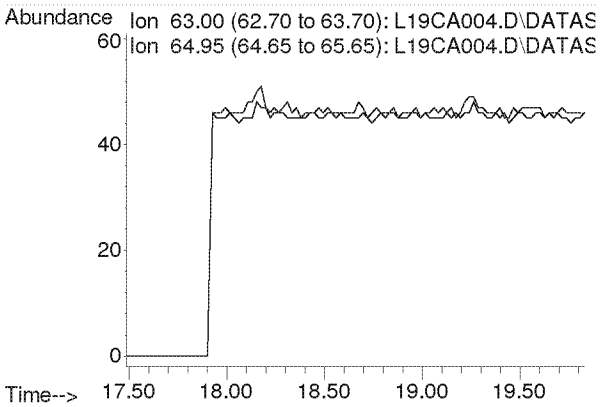


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

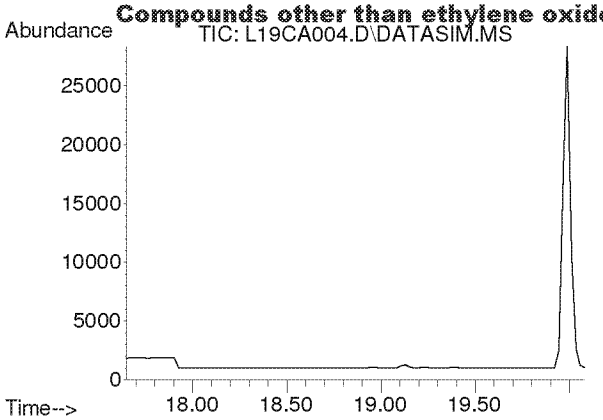
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

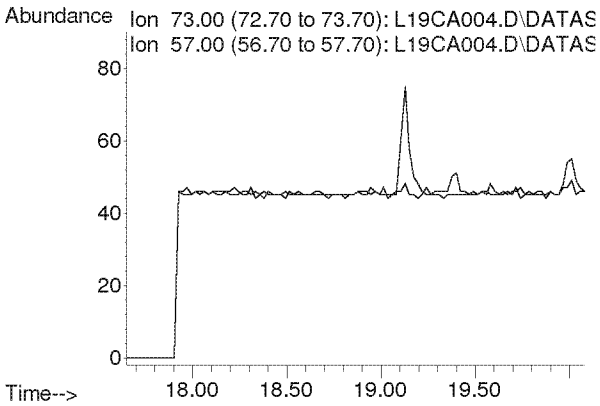


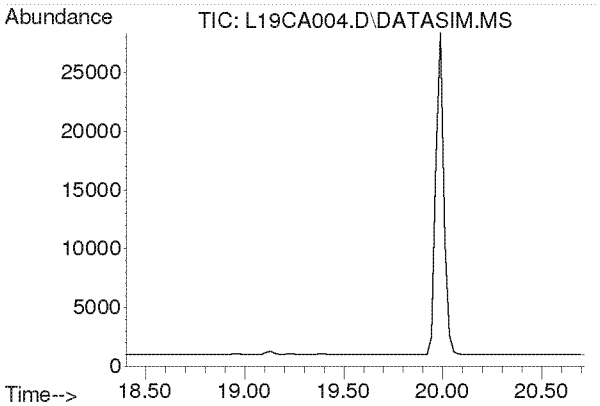
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



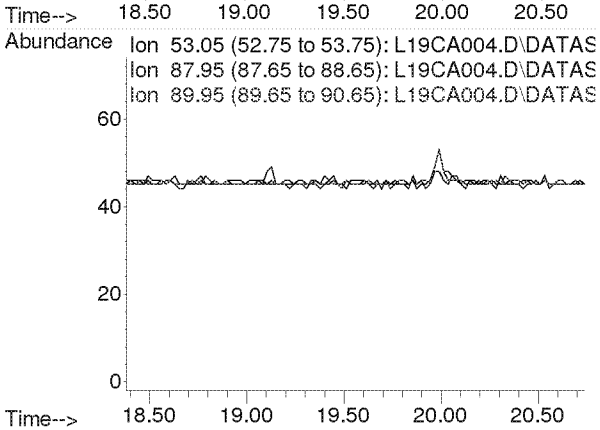


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

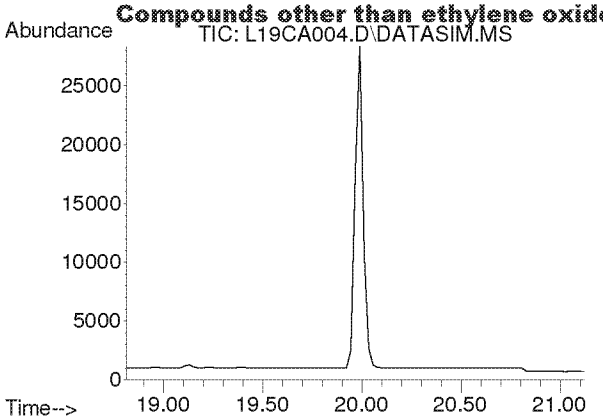
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

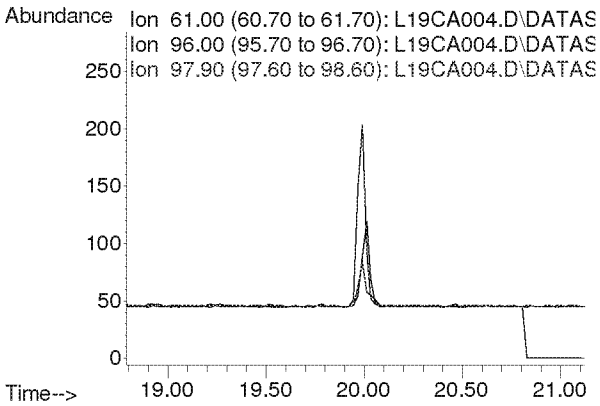


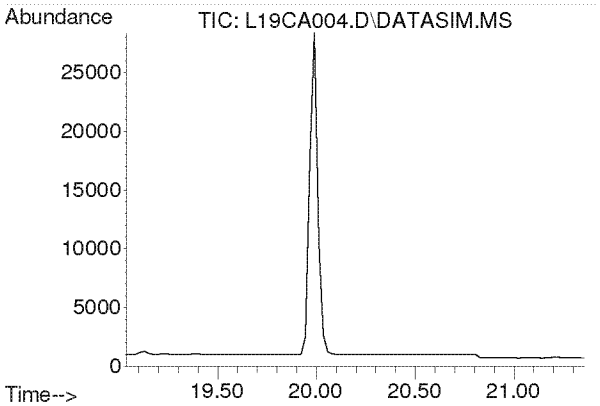
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



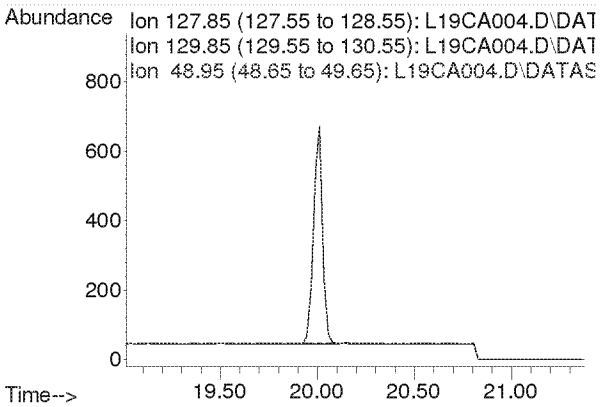


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

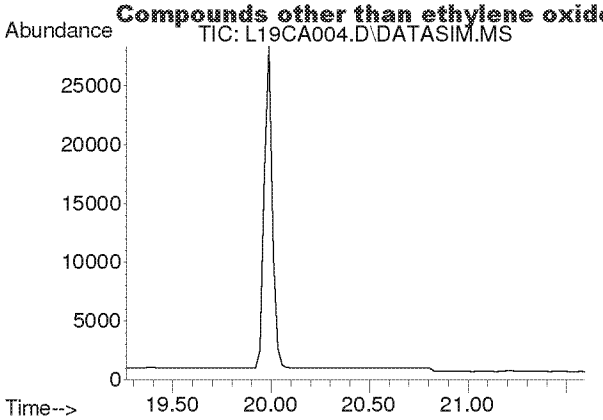
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

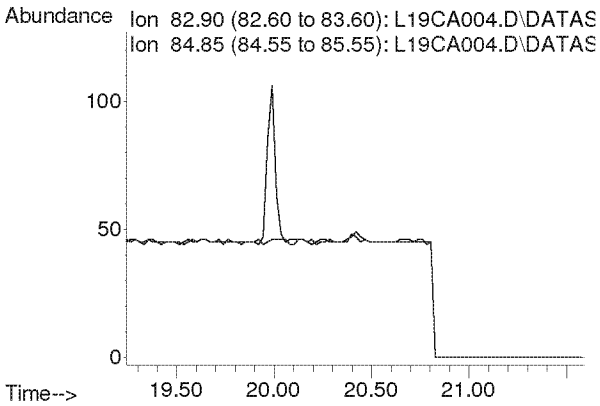


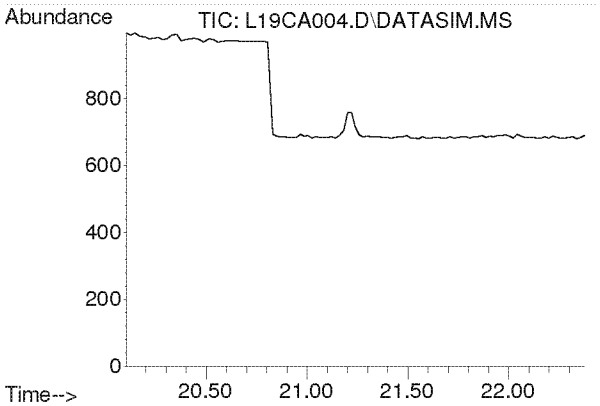
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



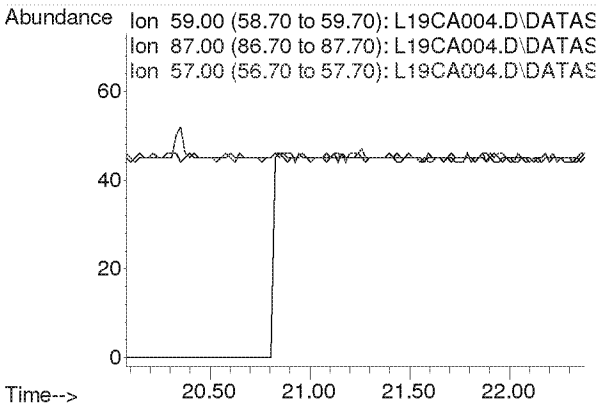


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

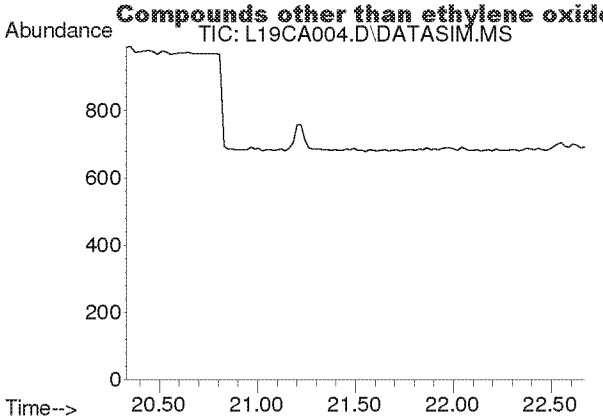
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

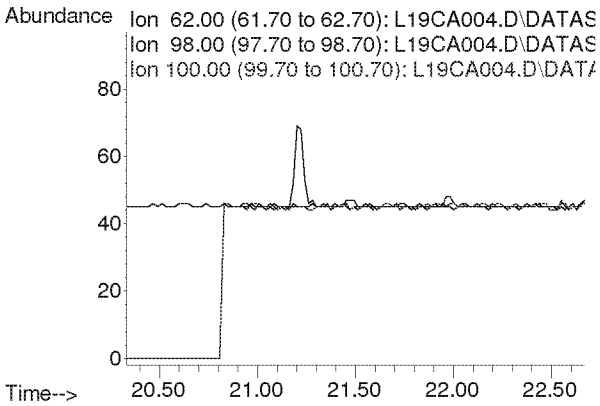


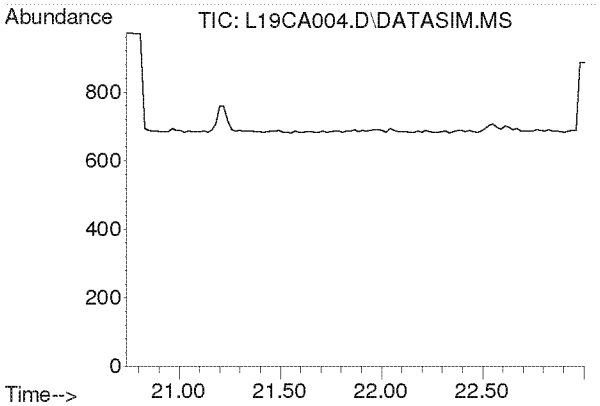
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



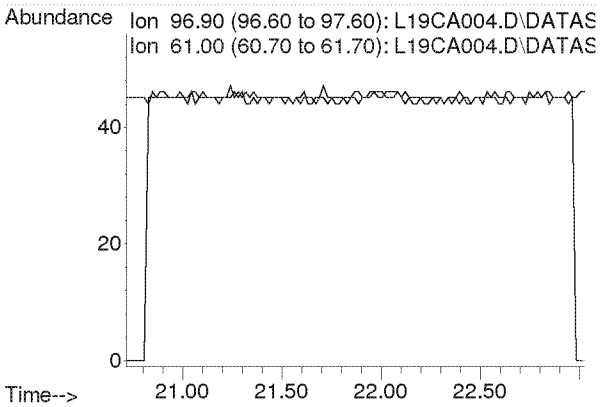


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

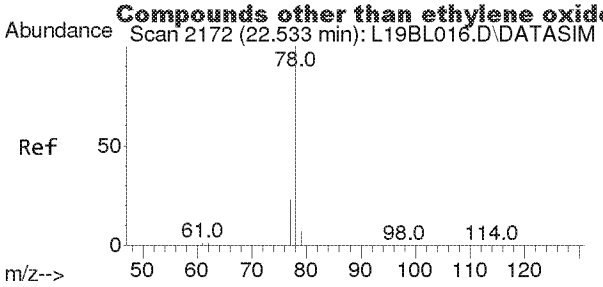
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



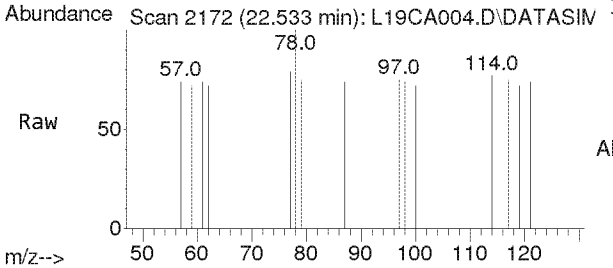
Compounds other than ethylene oxide were not quantitated.

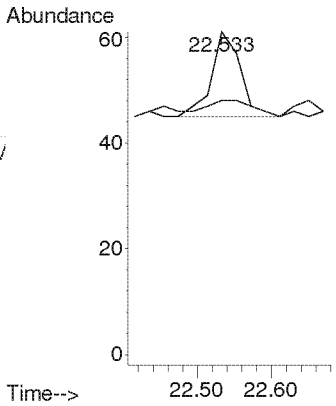


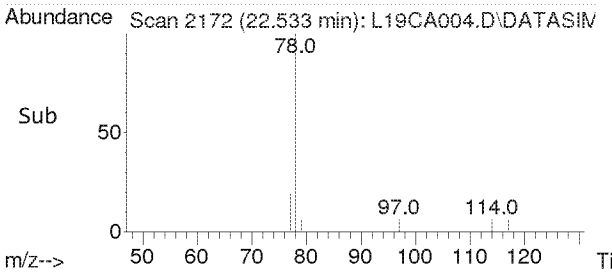
#31
Benzene
Concen: 0.003 ppbv
RT: 22.533 min Scan# 2172
Delta R.T. -0.000 min
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

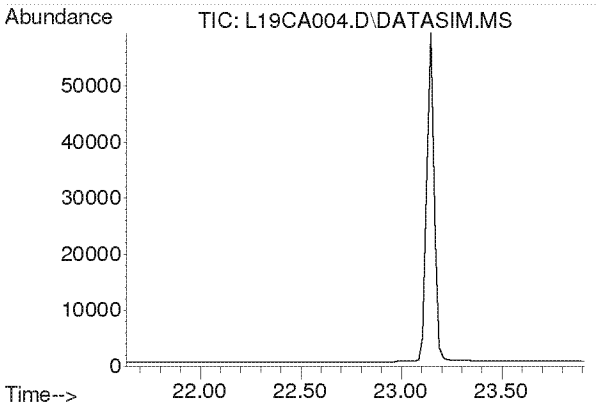
Tgt Ion: 78 Resp: 43

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.4#







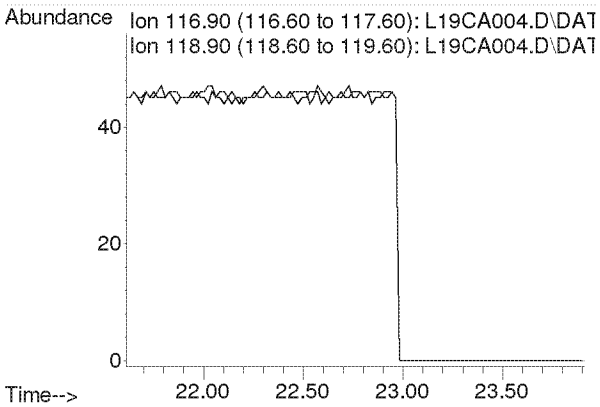


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

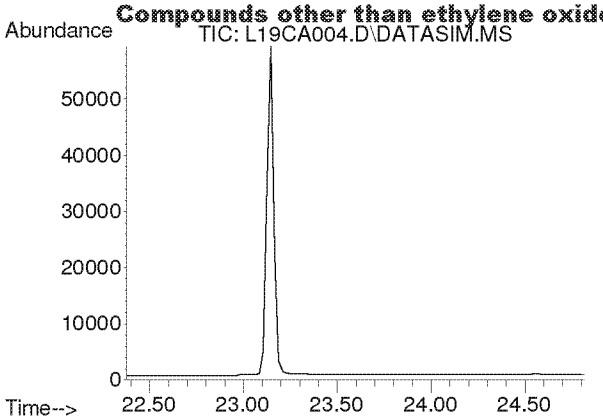
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

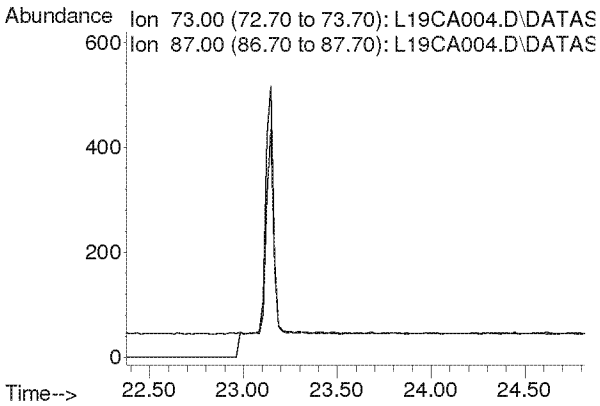


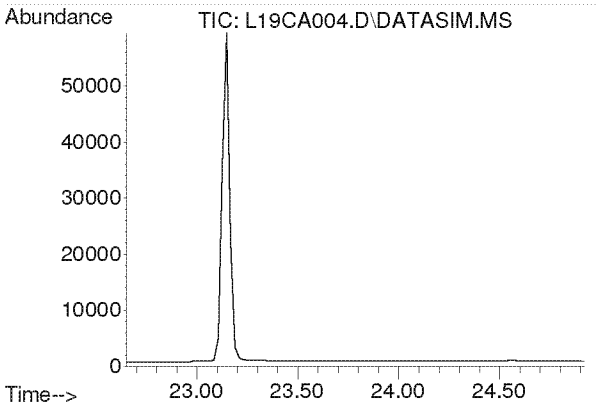
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



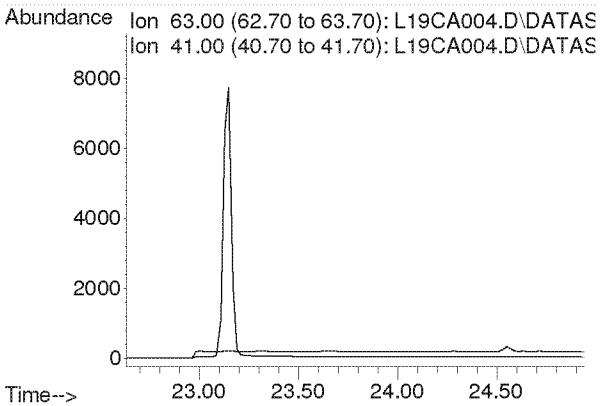


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

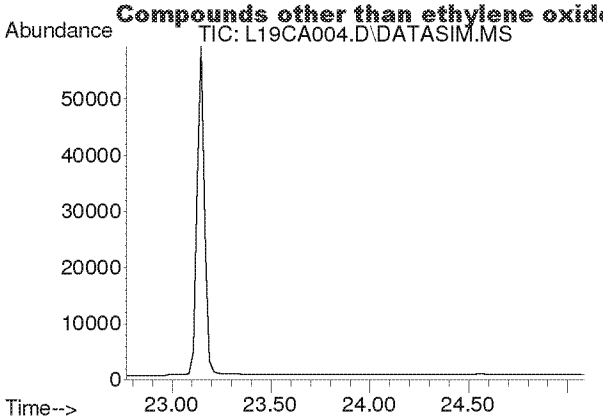
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

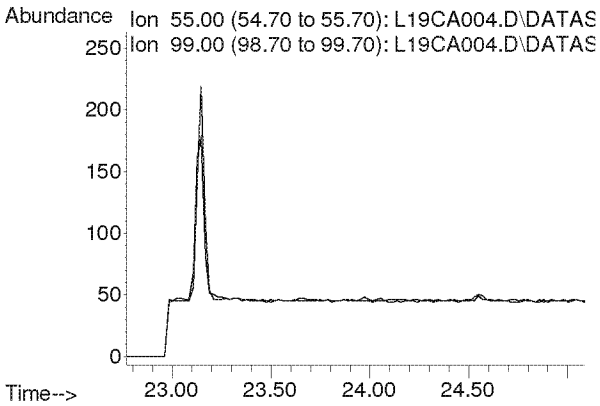


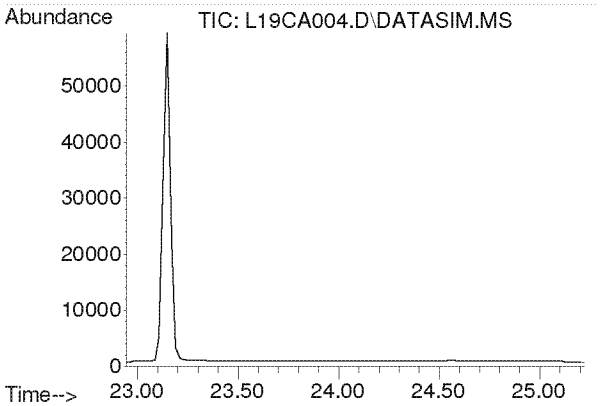
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



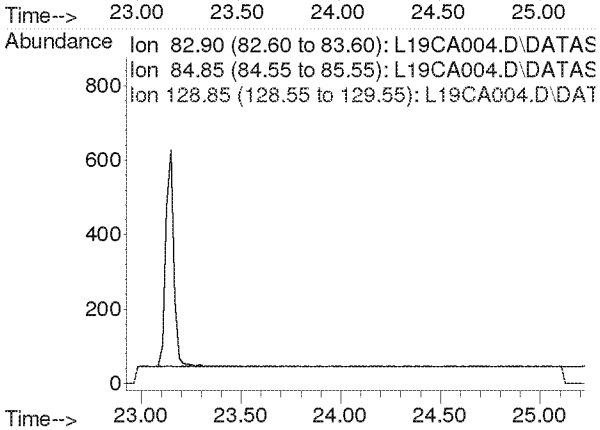


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

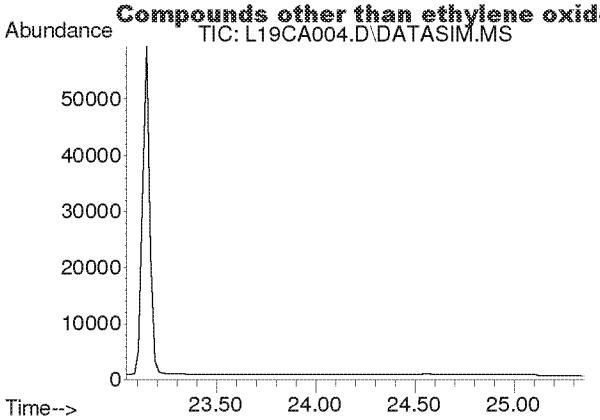
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

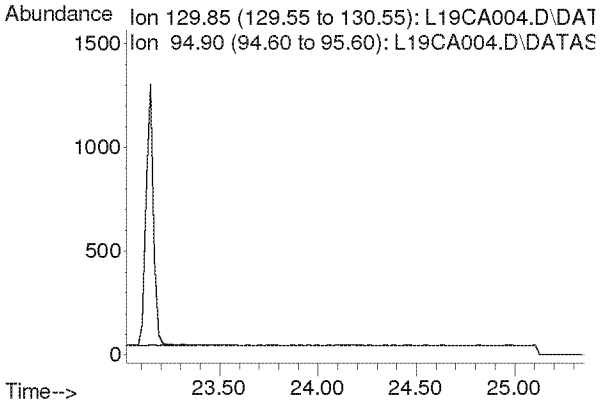


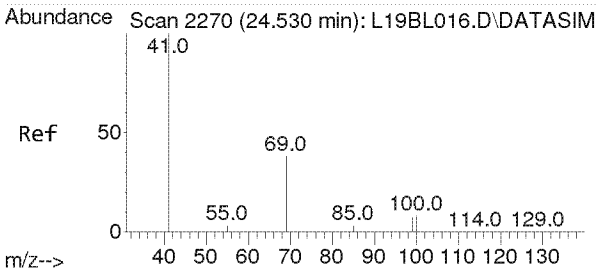
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1

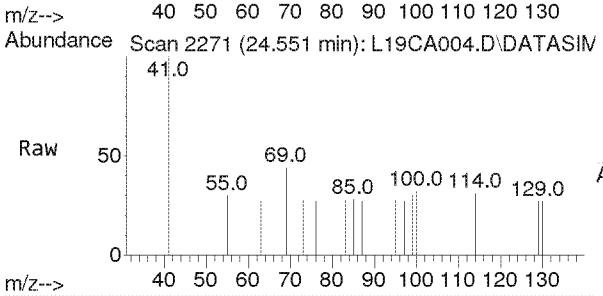


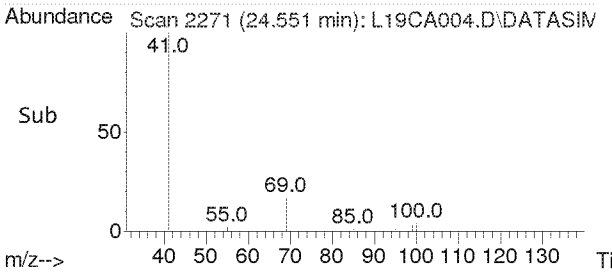


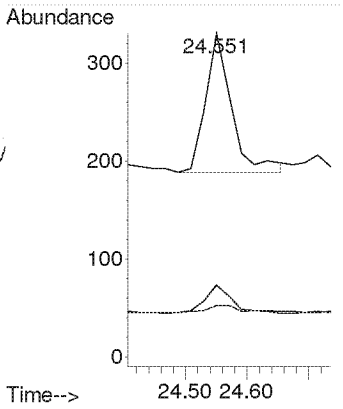
#38
Methyl Methacrylate
Concen: 0.034 ppbv
RT: 24.551 min Scan# 2271
Delta R.T. 0.021 min
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 41 Resp: 416

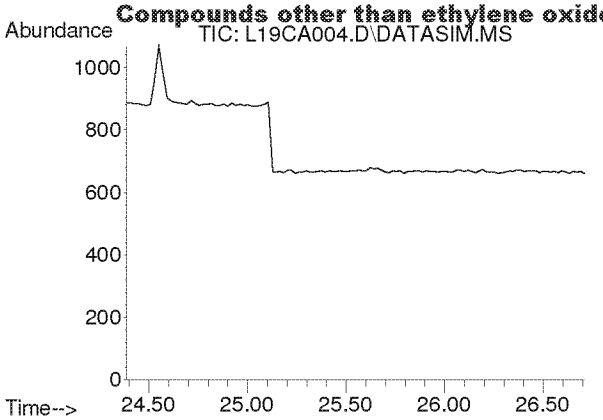
Ion	Ratio	Lower	Upper
41	100		
69	19.7	16.8	25.2
100	0.0	4.5	6.7#







Compounds other than ethylene oxide were not quantitated.

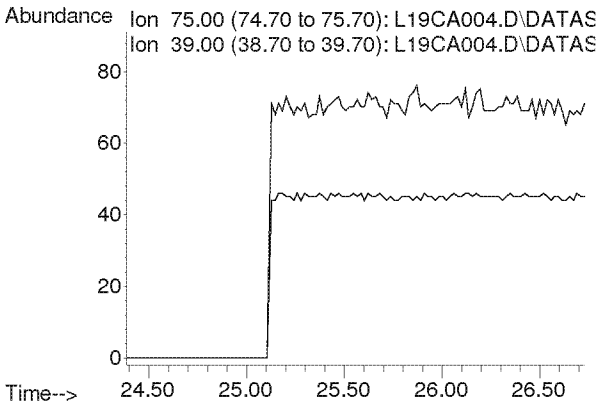


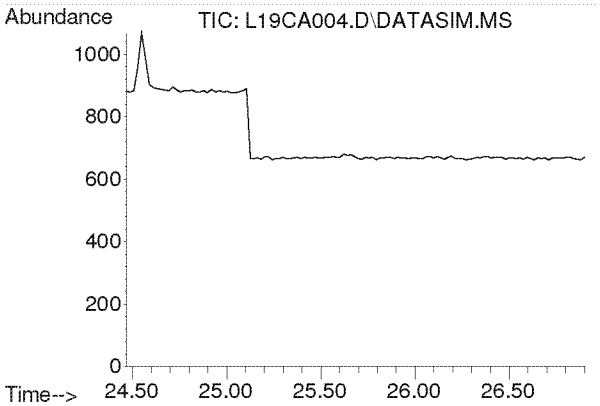
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



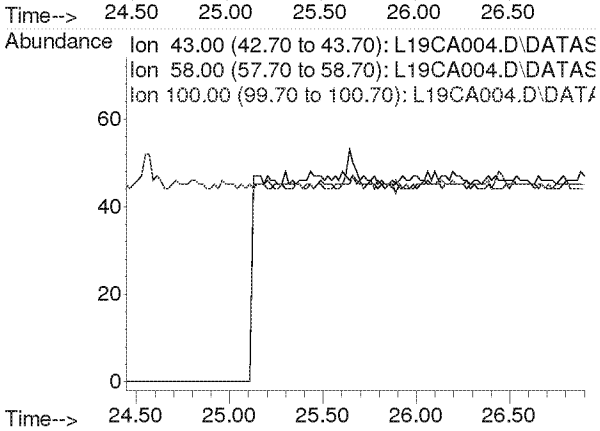


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

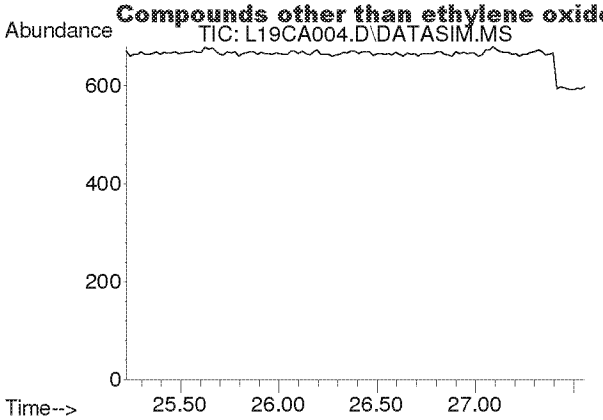
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

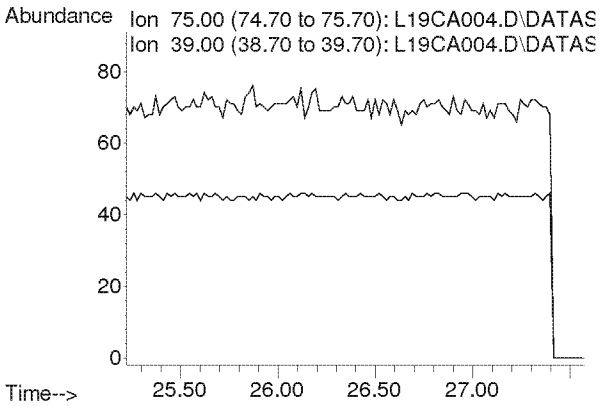


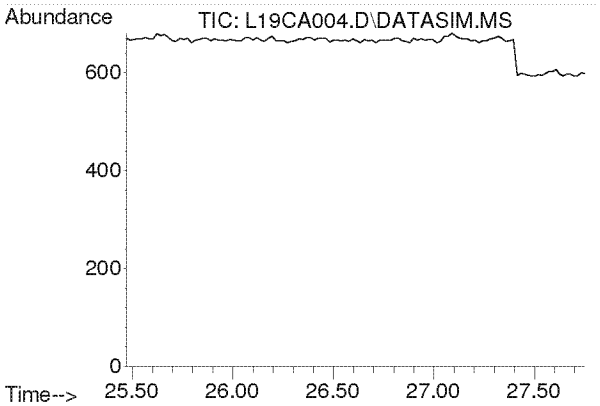
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



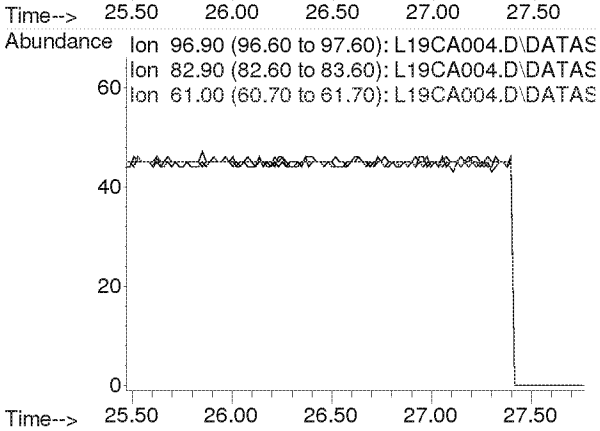


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

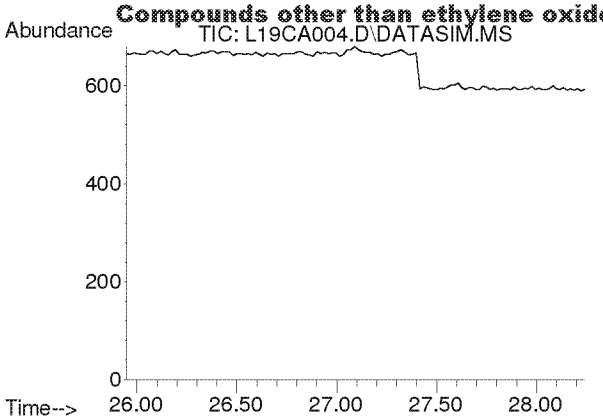
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

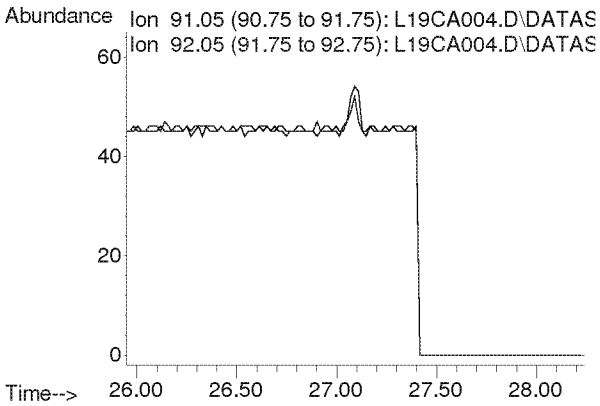


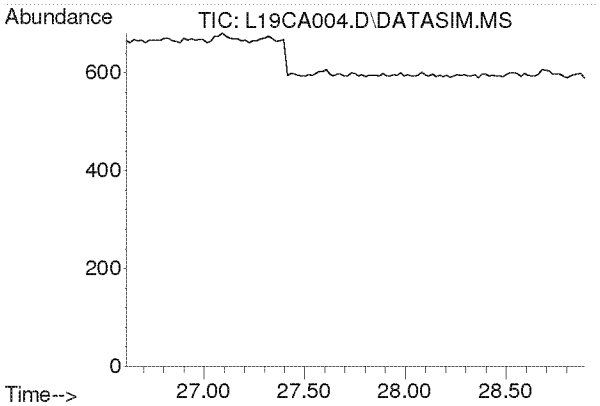
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



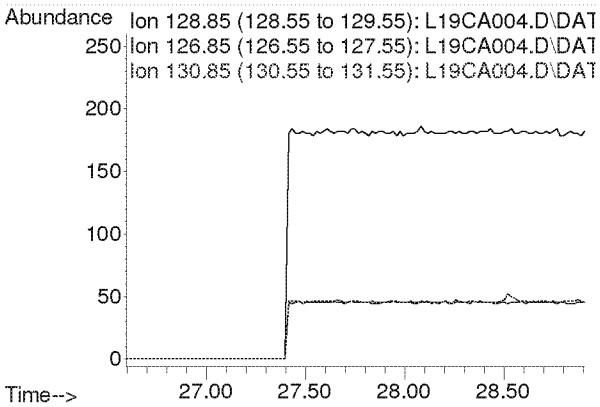


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

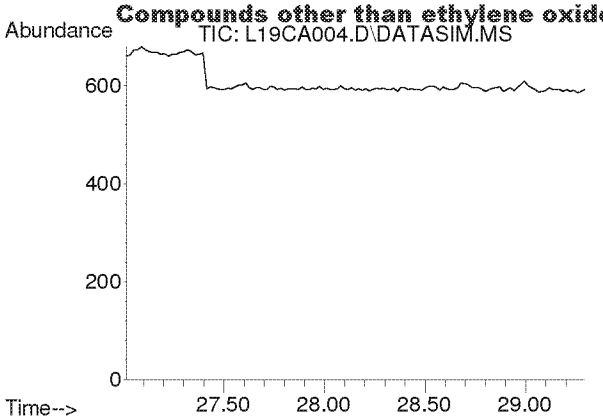
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

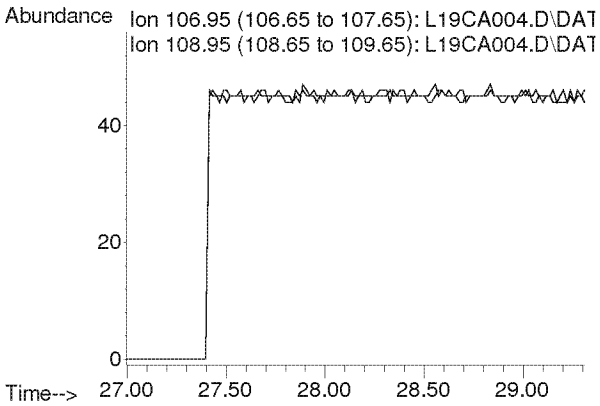


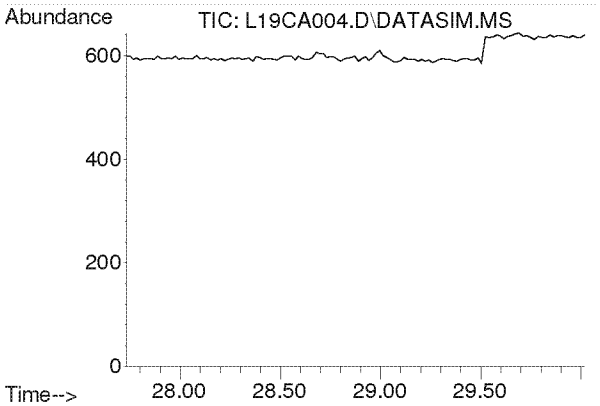
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



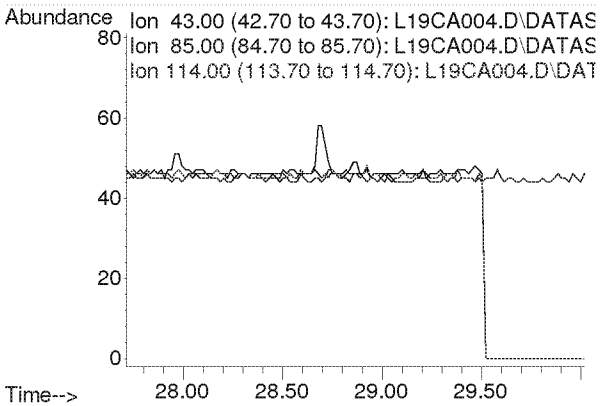


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

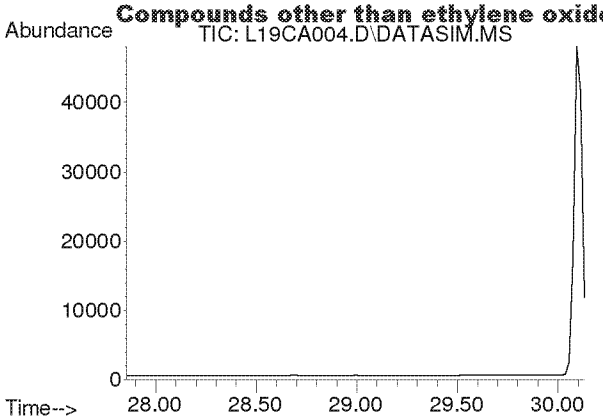
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

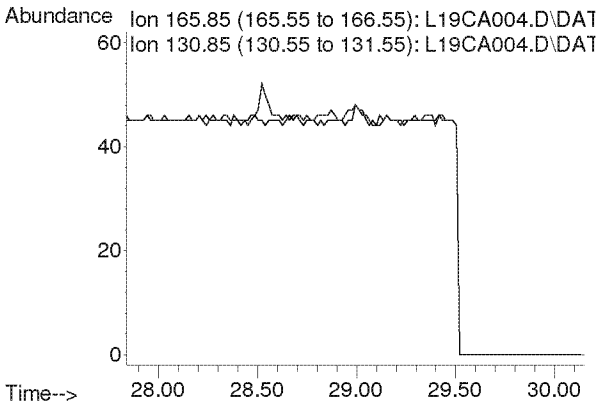


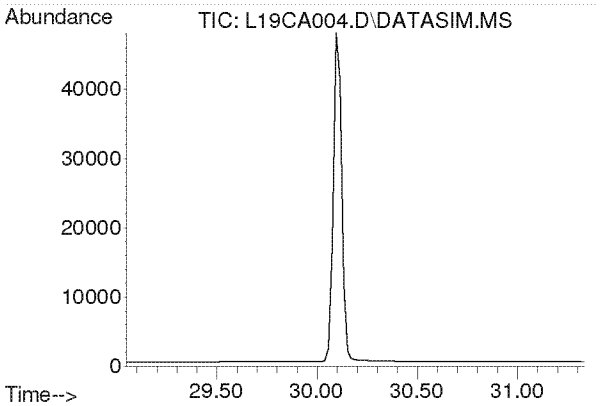
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



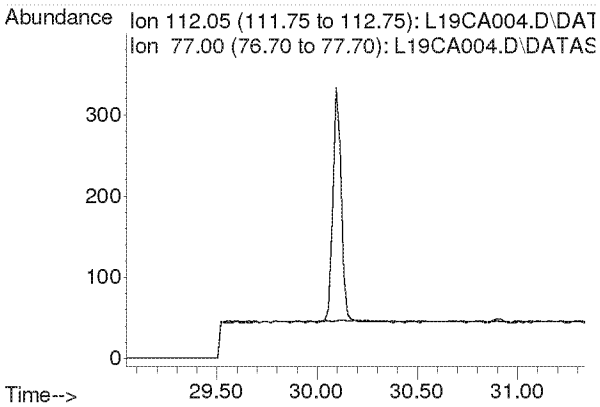


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

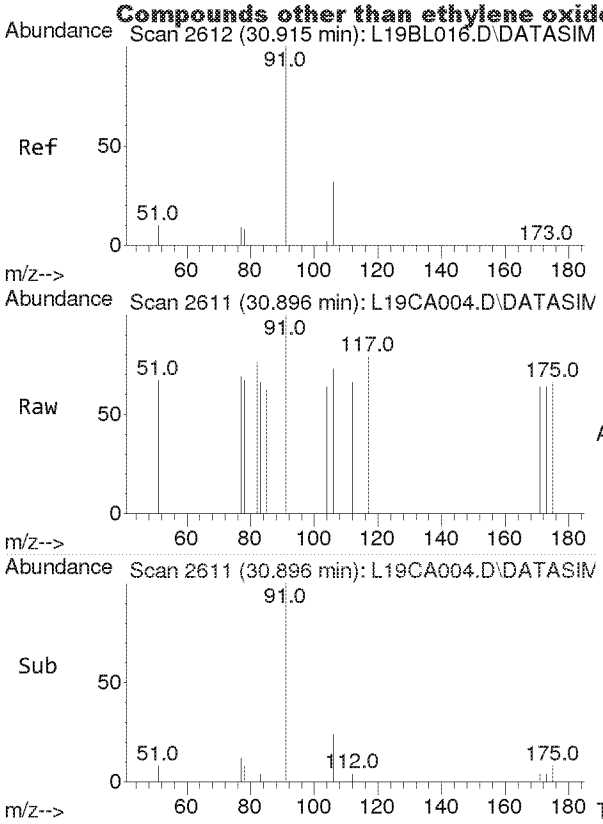
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



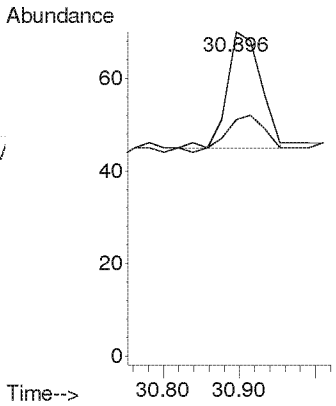
Compounds other than ethylene oxide were not quantitated.

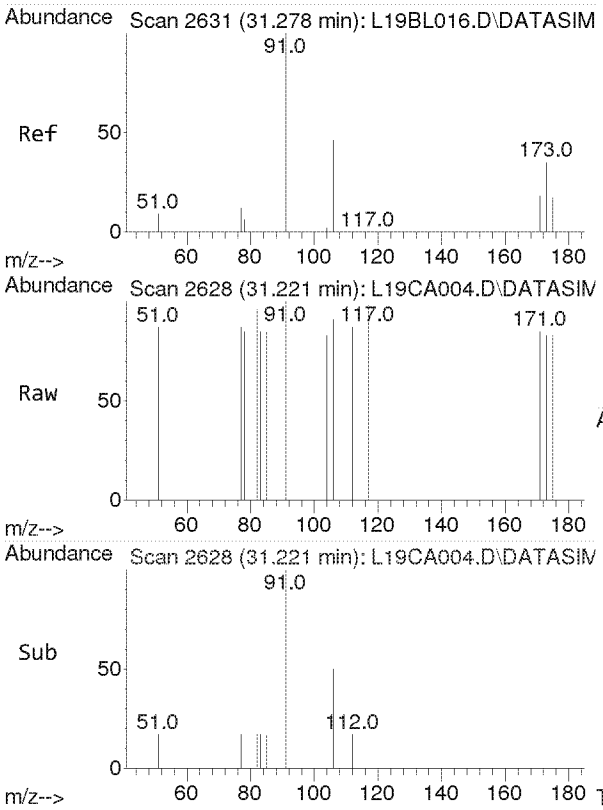


#50
Ethylbenzene
Concen: 0.005 ppbv
RT: 30.896 min Scan# 2611
Delta R.T. -0.019 min
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 91 Resp: 77

Ion	Ratio	Lower	Upper
91	100		
106	0.0	26.0	39.0#

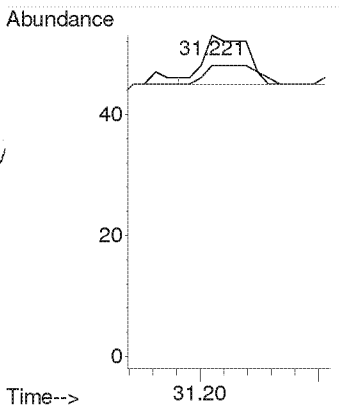




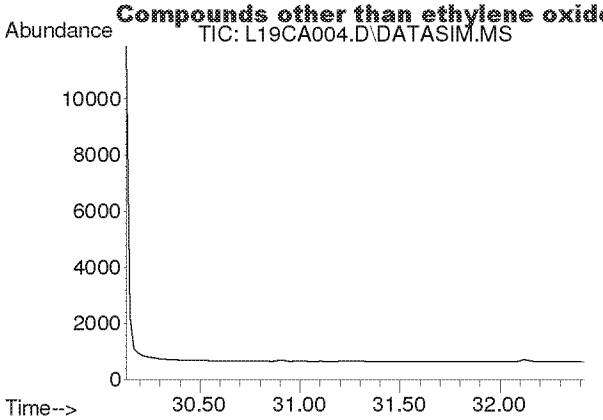
#51
m,p-Xylene
Concen: 0.003 ppbv
RT: 31.221 min Scan# 2628
Delta R.T. -0.057 min
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 91 Resp: 40

Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.3	55.9#



Compounds other than ethylene oxide were not quantitated.

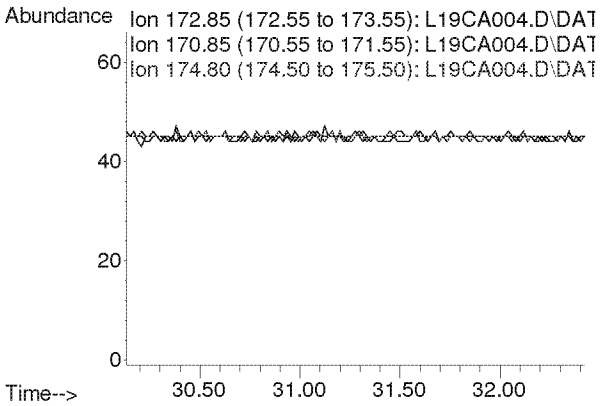


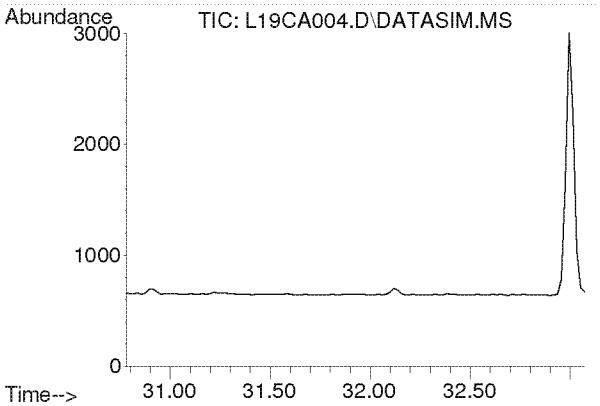
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



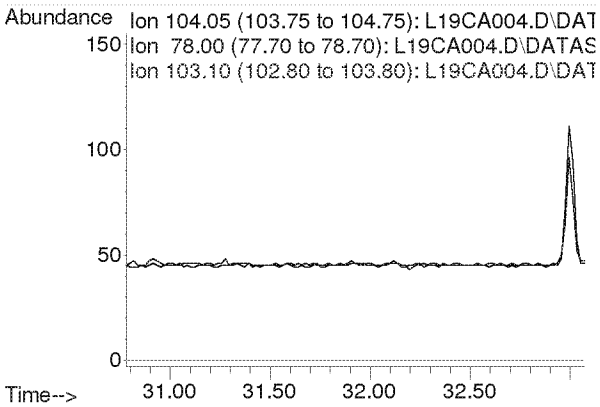


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

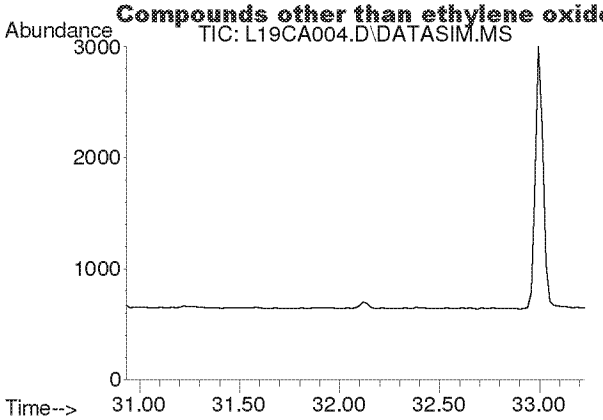
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

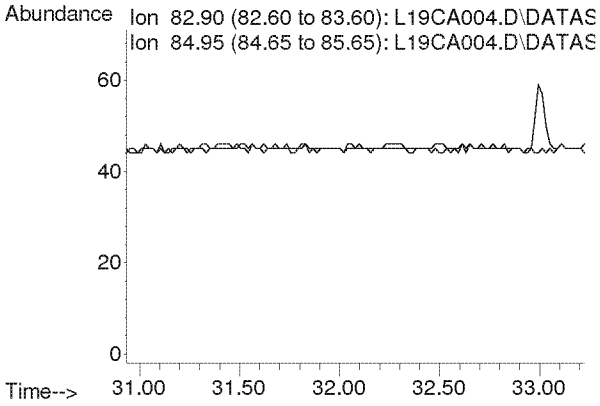


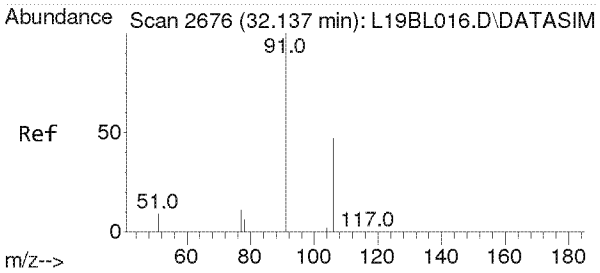
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

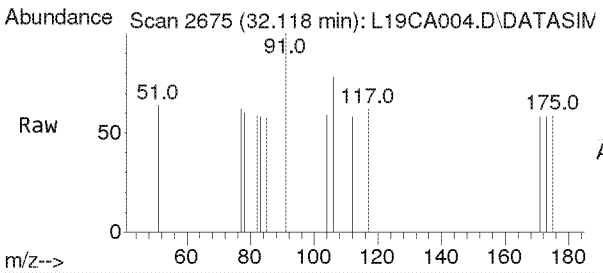


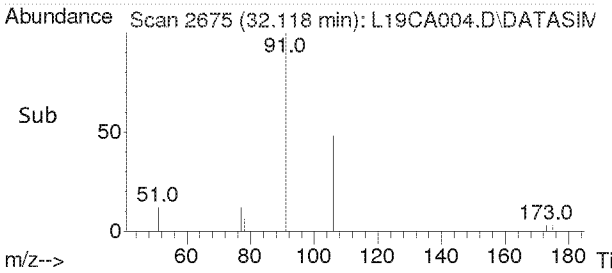


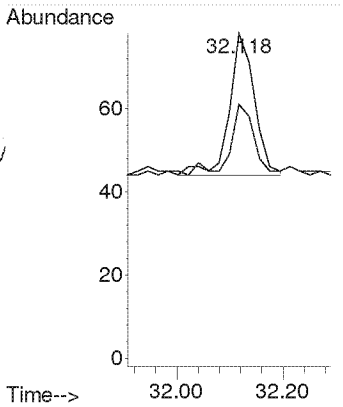
#55
o-Xylene
Concen: 0.009 ppbv
RT: 32.118 min Scan# 2675
Delta R.T. -0.019 min
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 91 Resp: 112

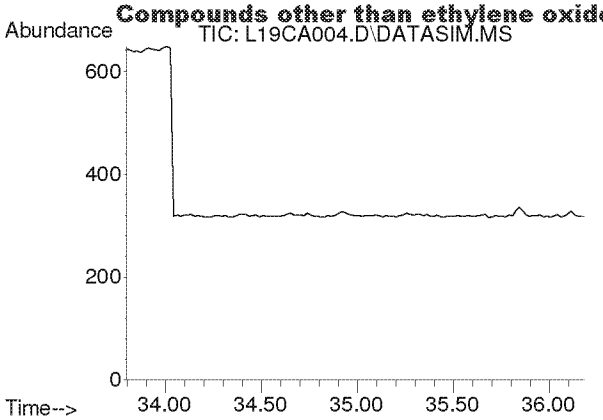
Ion	Ratio	Lower	Upper
91	100		
106	47.3	36.6	55.0







Compounds other than ethylene oxide were not quantitated.

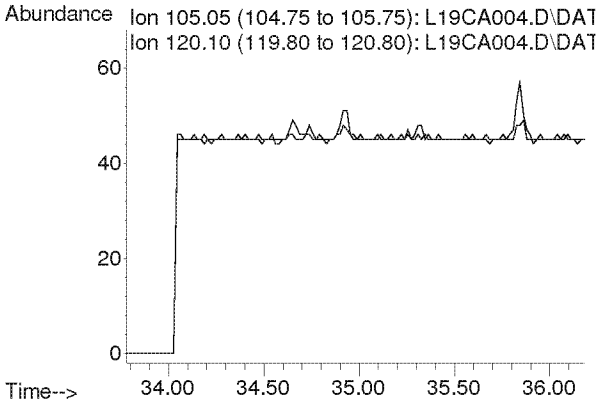


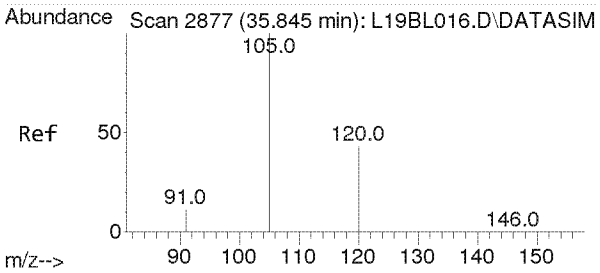
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0

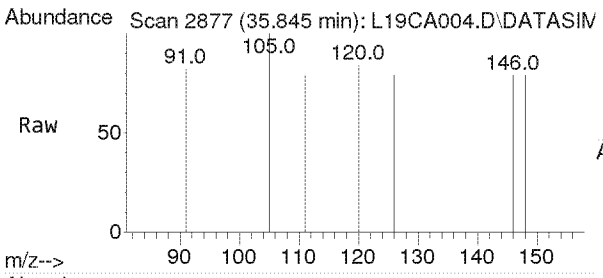


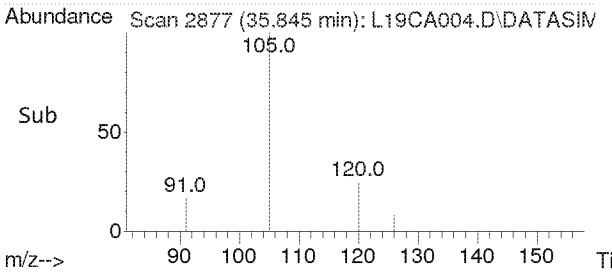


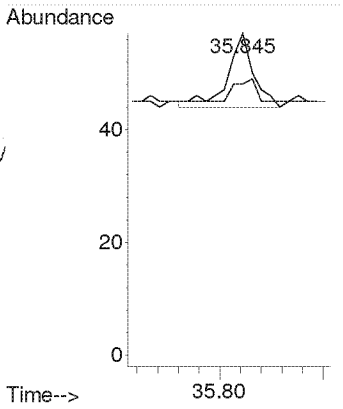
#57
1,2,4-Trimethylbenzene
Concen: 0.004 ppbv
RT: 35.845 min Scan# 2877
Delta R.T. -0.000 min
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion:105 Resp: 45

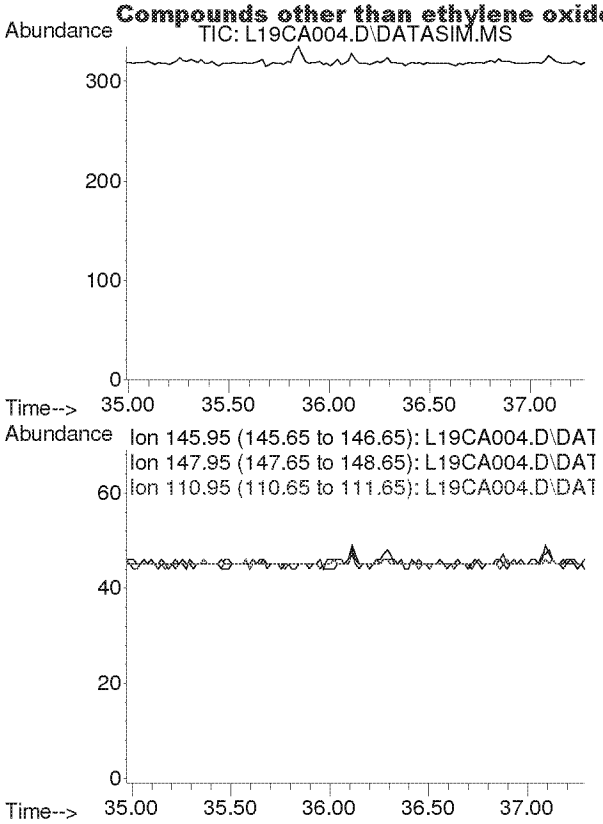
Ion	Ratio	Lower	Upper
105	100		
120	0.0	35.2	52.8#







Compounds other than ethylene oxide were not quantitated.

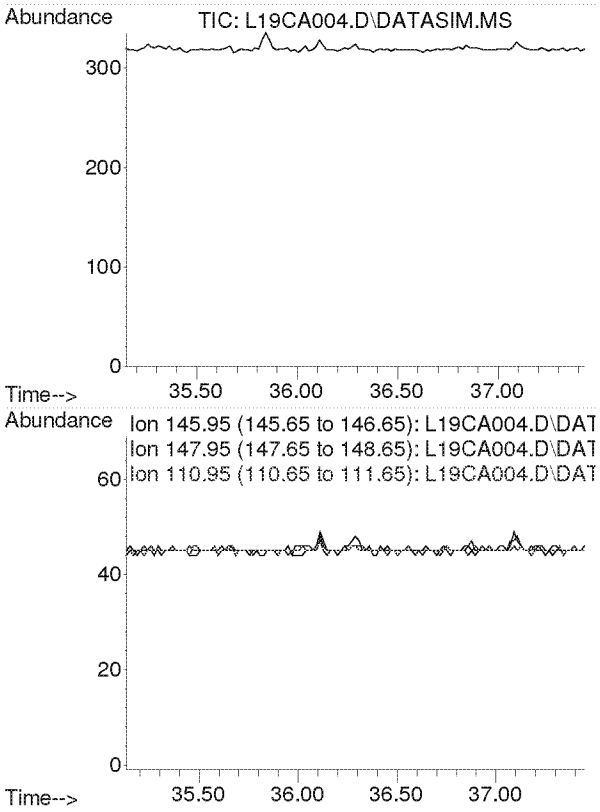


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



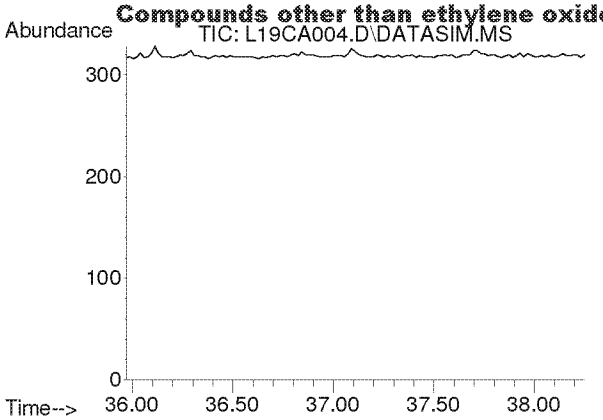
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

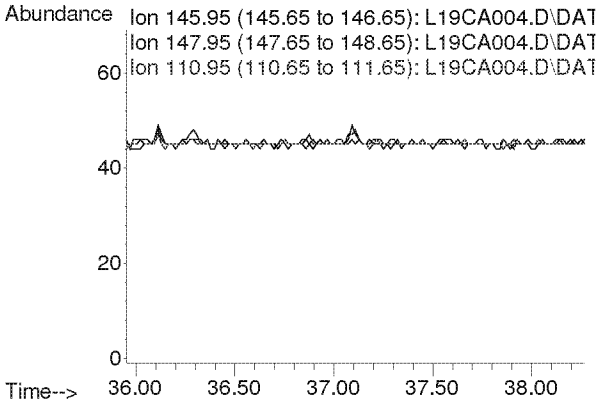


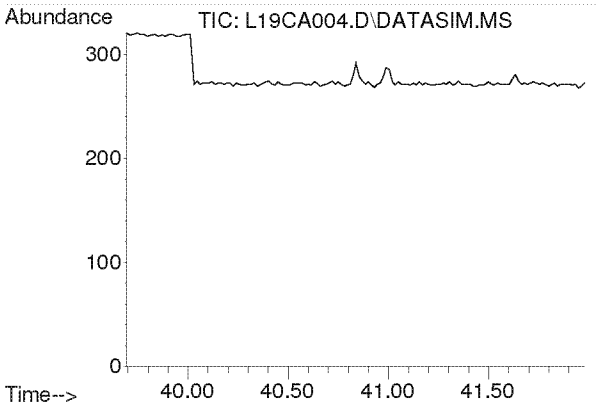
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



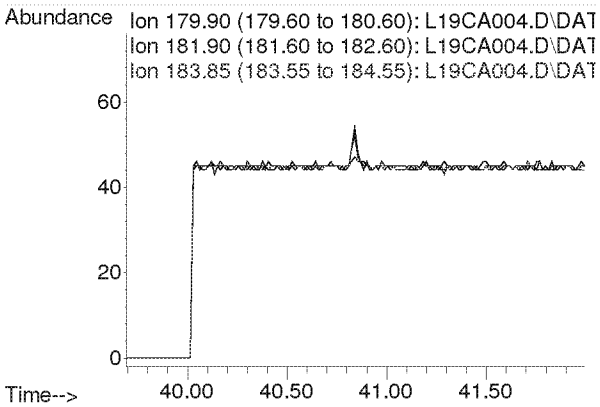


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

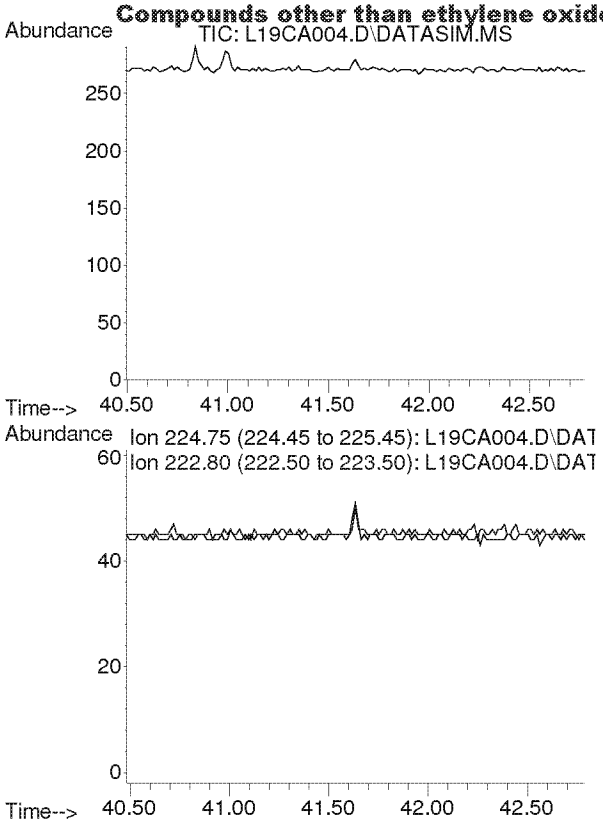
Lab File: L19CA004.D
Acq: 1 Mar 2019 6:27 pm

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: L19CA004.D
Acq: 1 Mar 2019 6:27 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: [illegible] Date: [illegible]

Reviewer: RMB Date: 3/6/19

Data File Name	L19CA005.D
Operator	MAH
Acq. Method File	9020003.M
Sample Name	9022202-10
Misc Info	WB TRIP BLANK 2/20/19

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	45881		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	438	0.093	Y	MAX	0.192
4)	Dichlorodifluoromethane	136	0.006	Y		0.082
5)	Chloromethane	82	0.014	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	49	0.012	Y		0.049
12)	Acrolein	171	0.085	Y		0.200
13)	Trichlorofluoromethane	60	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	195	0.036	Y		0.043
17)	Carbon Disulfide	65	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	113330		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	122	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	173	0.015	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	105	0.012	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	80388		NA		NA
43)	Toluene	108	0.008	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	66	0.008	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	108	0.008	Y		0.077
50)	m,p-Xylene	82	0.007	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	120	0.010	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	55	0.005	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\L19CA\
Data File : L19CA005.D
Acq On : 1 Mar 2019 7:28 pm (#1); 01-Mar-19, 19:22:52 (#2)
Operator : MAH
Sample : 9022202-10
Misc : WB TRIP BLANK 2/20/19
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 09:02:16 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

3-5-19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	45881	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	113330	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	80388	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.823	41	438	0.0935 ppbv	98
4) Dichlorodifluoromethane	8.702	85	136	0.0061 ppbv #	78
5) Chloromethane	9.740	50	82	0.0144 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 5	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	14.474	41	49	0.0123 ppbv #	1
13) Acrolein	14.682	56	171	0.0852 ppbv #	71
14) Trichlorofluoromethane	15.193	101	60	0.0032 ppbv	93
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	16.723	49	195	0.0364 ppbv	95
18) Carbon Disulfide	16.932	76	65	0.0039 ppbv #	75
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d 5	
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 50	
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	122	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.	1
35) Ethyl Acrylate	0.000	55	0	N.D.	71
36) Bromodichloromethane	0.000	83	0	N.D.	93
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	24.553	41	173	0.0149 ppbv #	90
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	5
40) Methyl Isobutyl Ketone	25.626	43	105	0.0123 ppbv #	47
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	27.075	91	108	0.0082 ppbv	92
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	28.857	43	66	0.0083 ppbv #	38
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.898	91	108	0.0078 ppbv	90

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA005.D
Acq On : 1 Mar 2019 7:28 pm (#1); 01-Mar-19, 19:22:52 (#2)
Operator : MAH
Sample : 9022202-10
Misc : WB TRIP BLANK 2/20/19
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 09:02:16 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

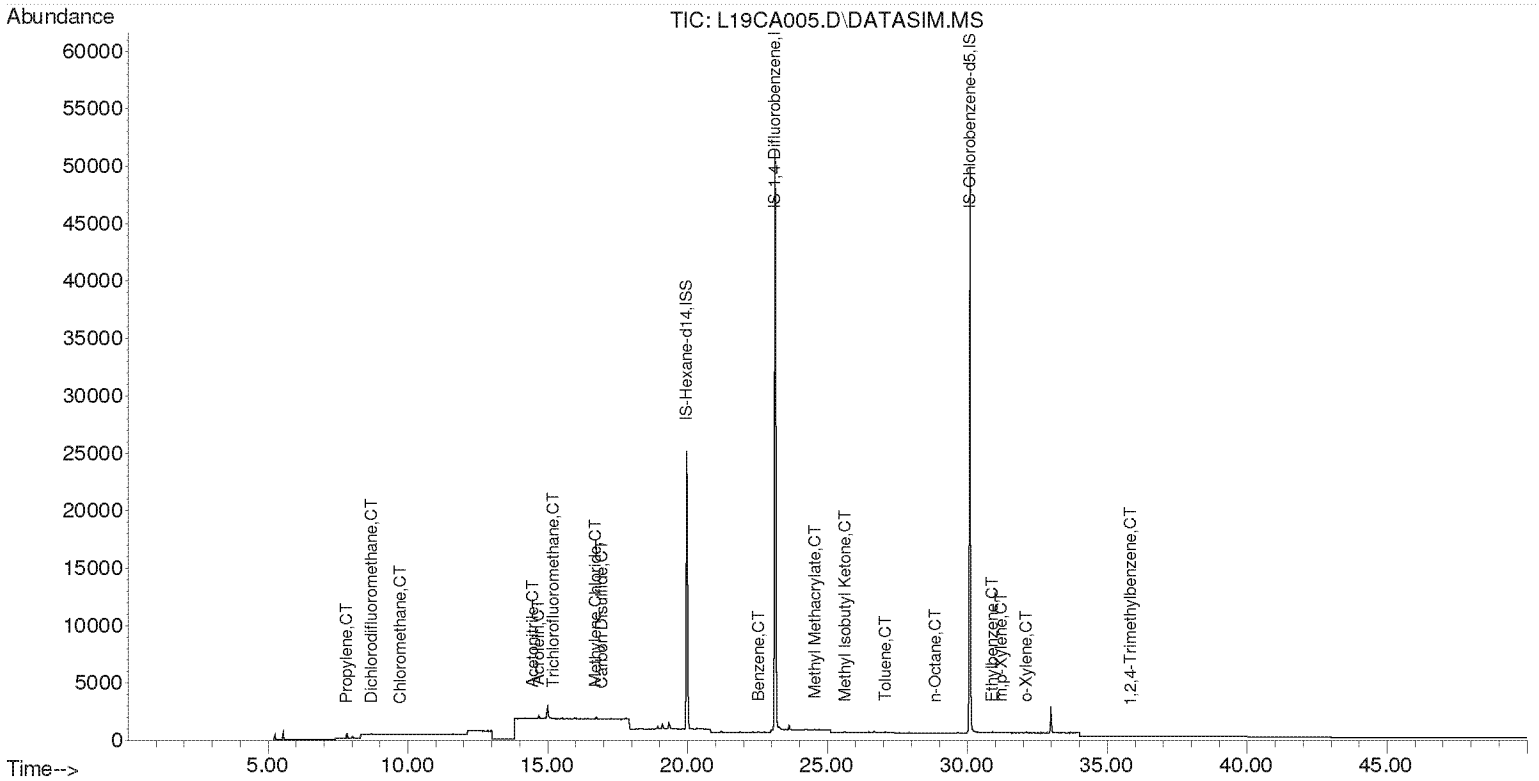
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.223	91	82	0.0070 ppbv #	30
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.120	91	120	0.0104 ppbv	92
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.828	105	55	0.0051 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.	

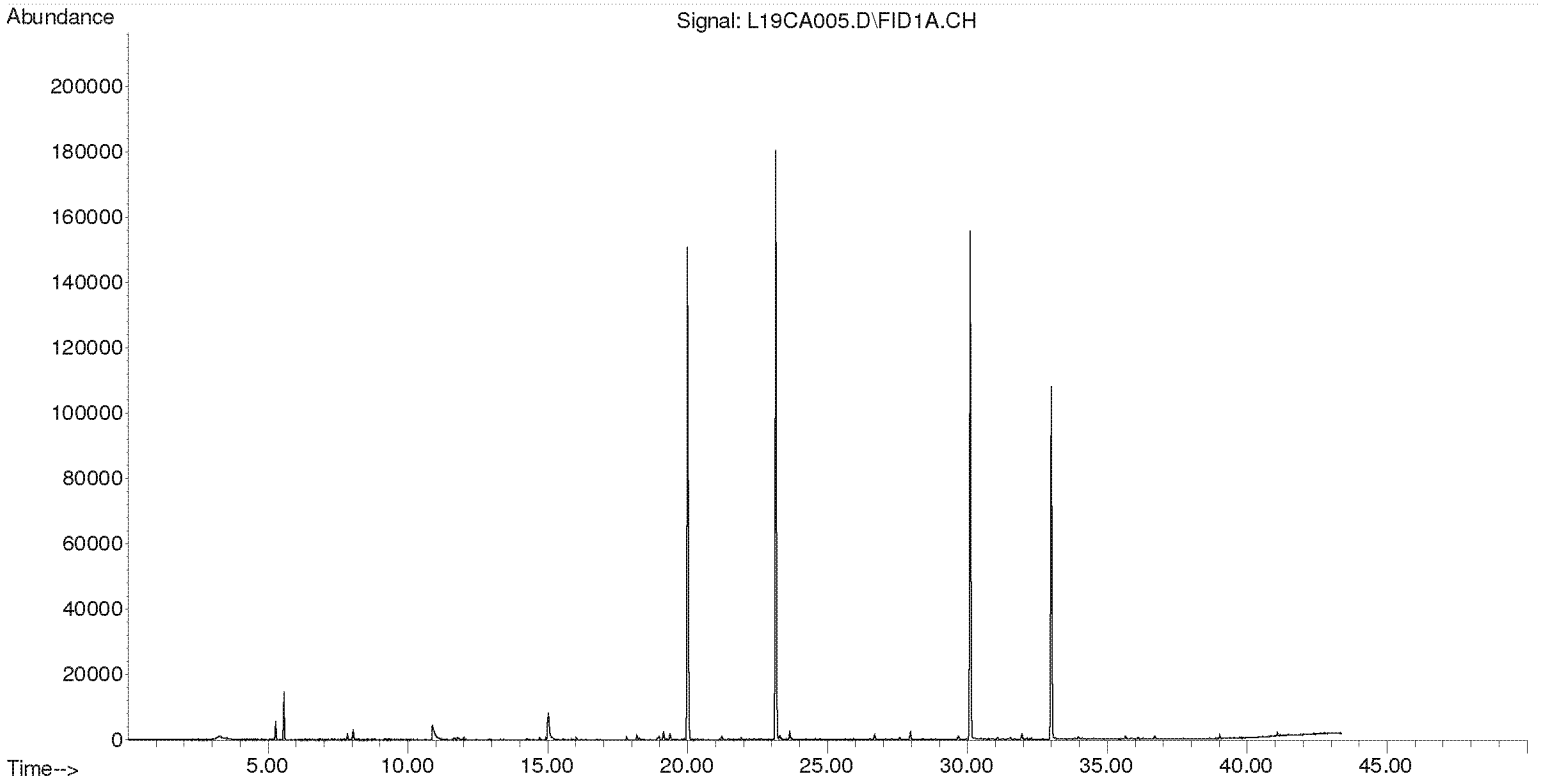
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

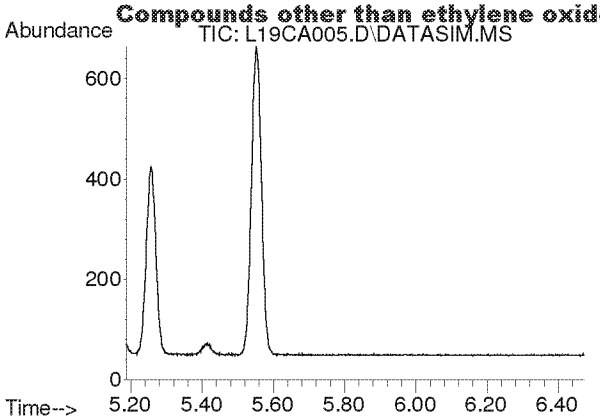
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA005.D
Acq On : 1 Mar 2019 7:28 pm (#1); 01 Mar 2019 7:22 pm (#2)
Operator : MAH
Sample : 9022202-10
Misc : WB TRIP BLANK 2/20/19
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 08:53:31 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





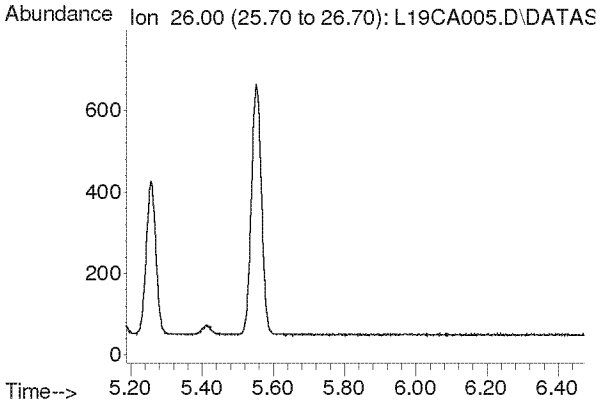
Compounds other than ethylene oxide were not quantitated.

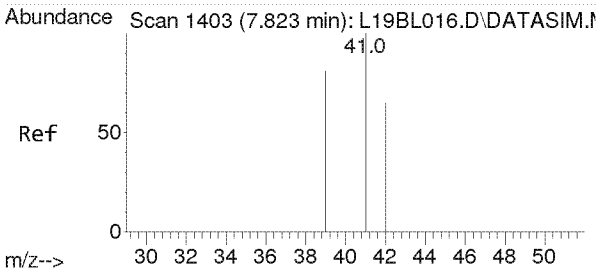


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 26

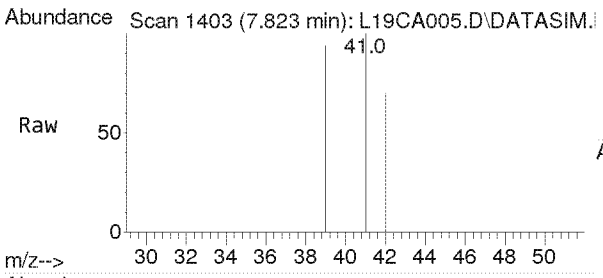


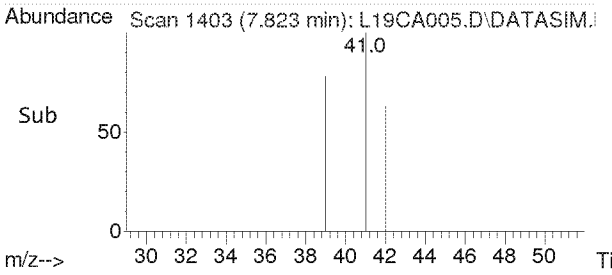


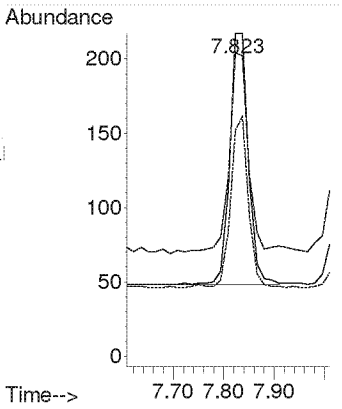
#3
Propylene
Concen: 0.093 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. 0.000 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 41 Resp: 438

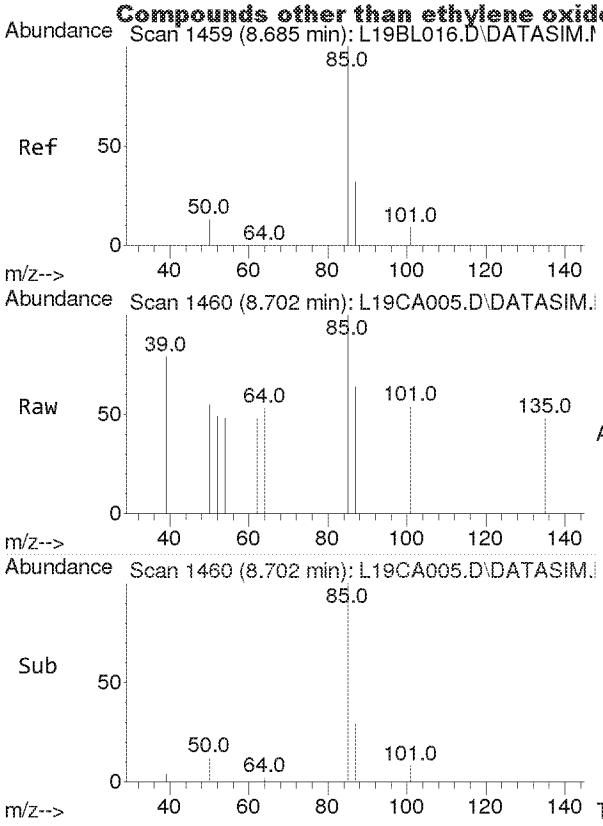
Ion	Ratio	Lower	Upper
41	100		
39	82.2	64.2	96.2
42	64.8	52.6	79.0







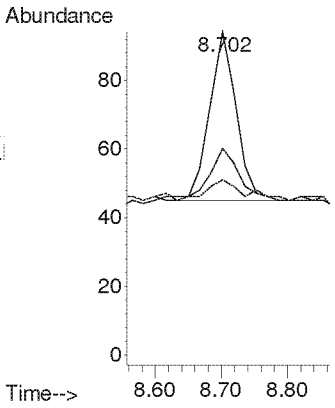
Compounds other than ethylene oxide were not quantitated.

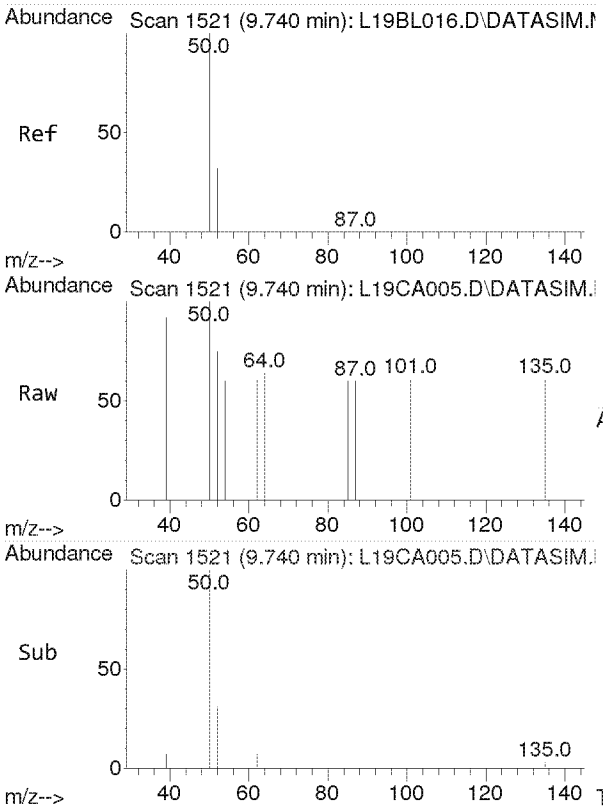


#4
Dichlorodifluoromethane
Concen: 0.006 ppbv
RT: 8.702 min Scan# 1460
Delta R.T. 0.017 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 85 Resp: 136

Ion	Ratio	Lower	Upper
85	100		
87	44.1	26.0	39.0#
101	0.0	7.3	10.9#

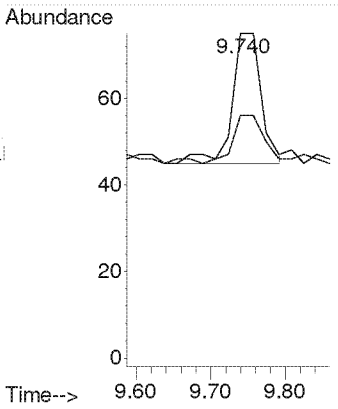




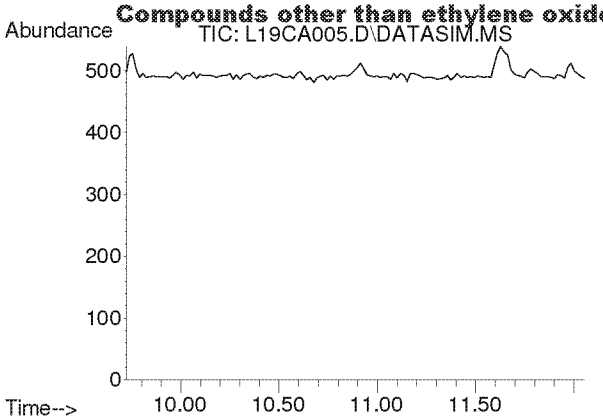
#5
Chloromethane
Concen: 0.014 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. 0.000 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 50 Resp: 82

Ion	Ratio	Lower	Upper
50	100		
52	0.0	26.1	39.1#



Compounds other than ethylene oxide were not quantitated.

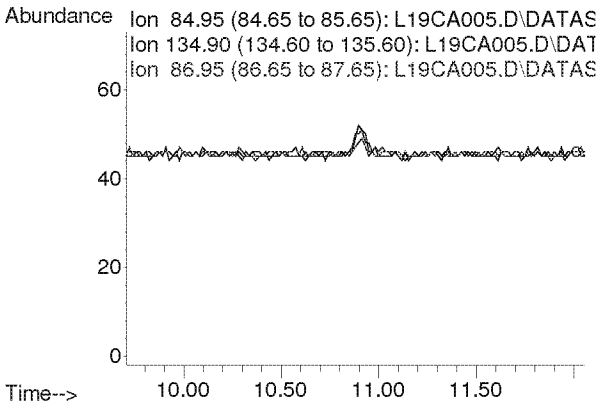


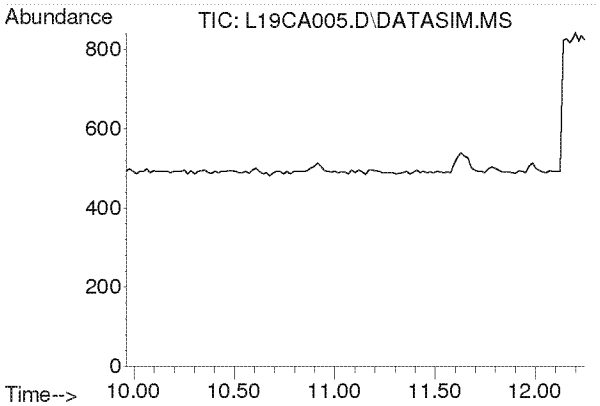
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



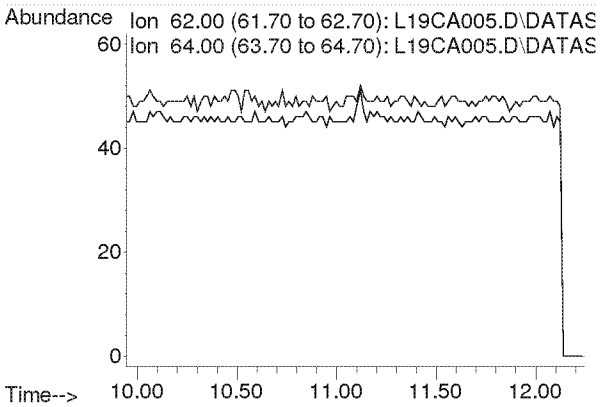


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

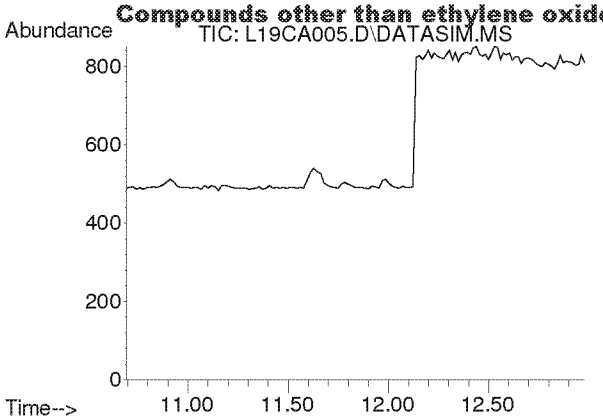
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

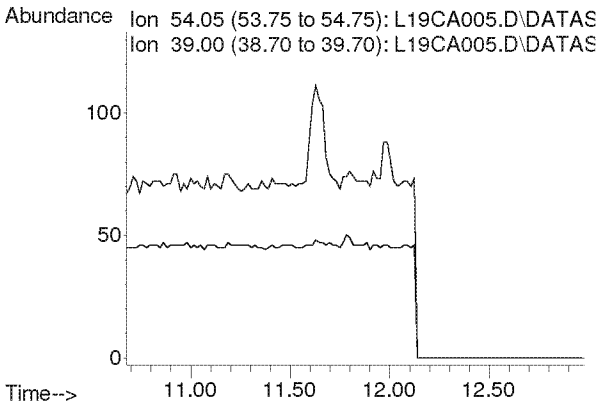


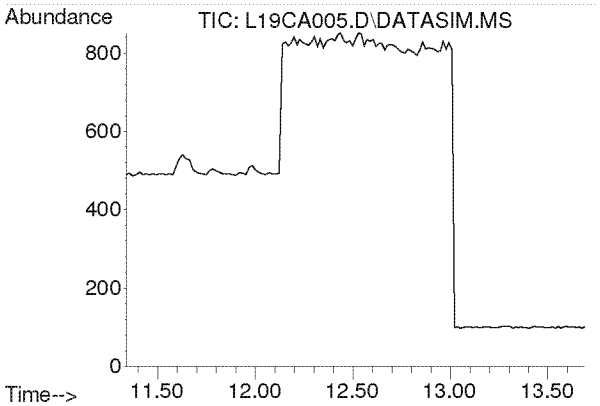
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



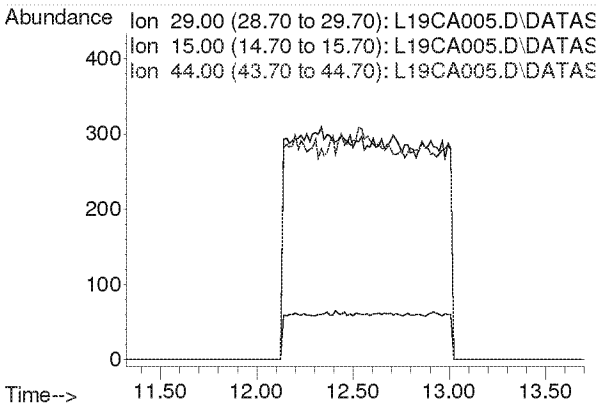


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

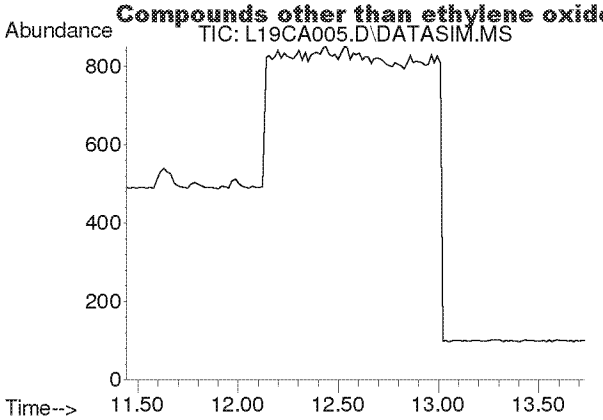
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

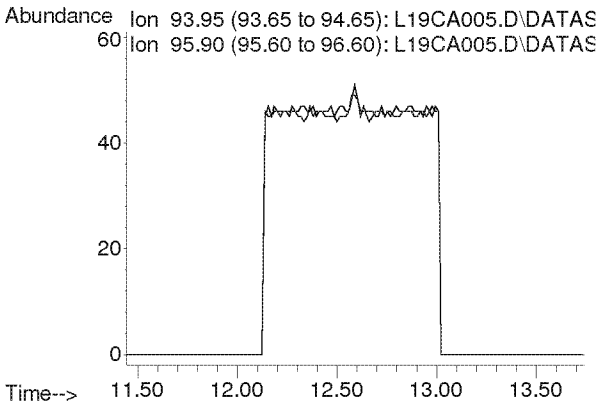


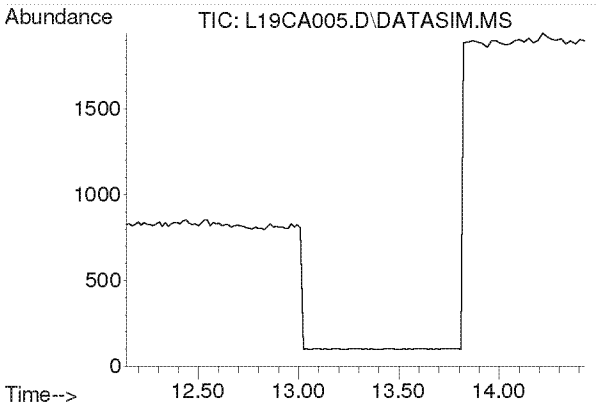
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



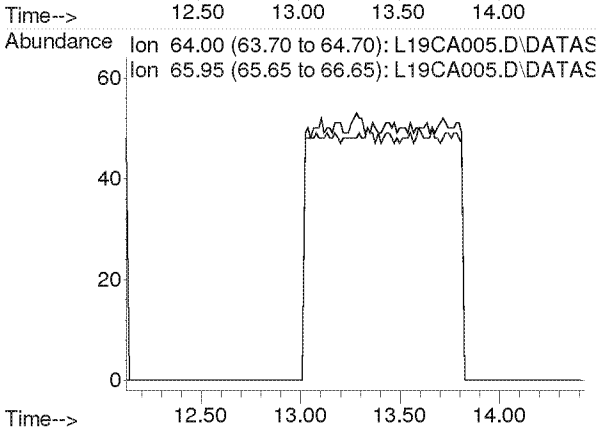


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

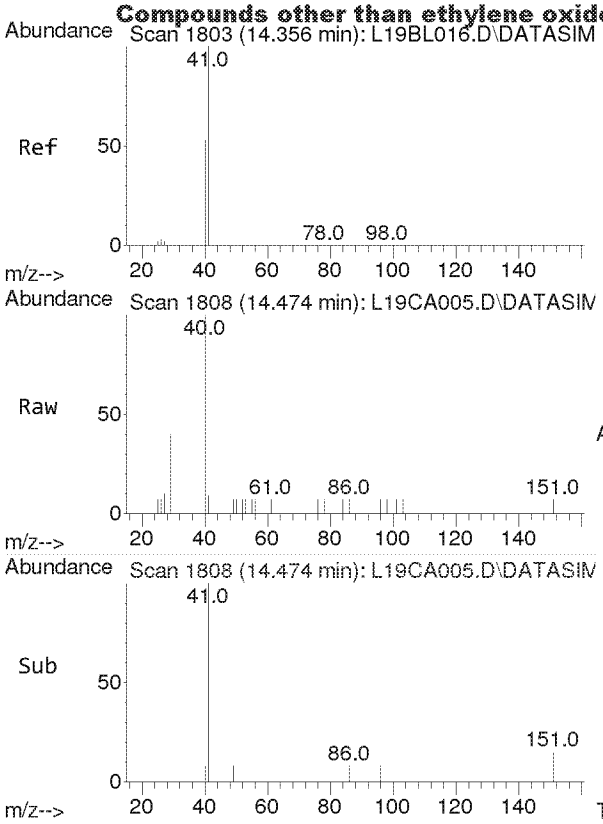
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



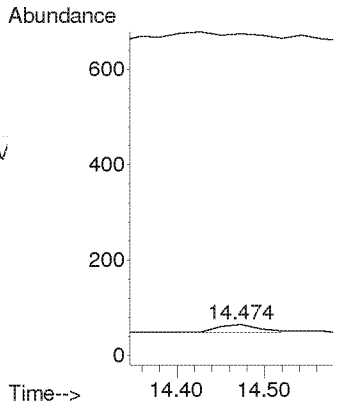
Compounds other than ethylene oxide were not quantitated.

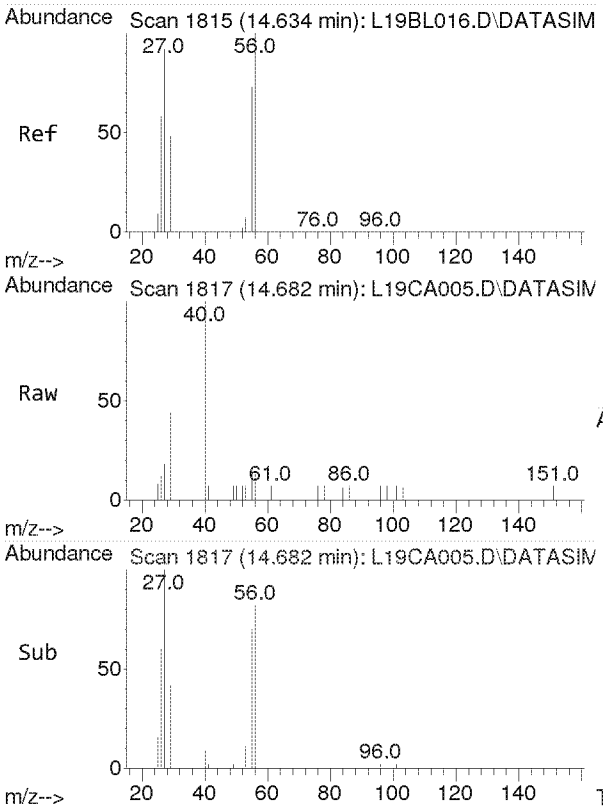


#12
Acetonitrile
Concen: 0.012 ppbv
RT: 14.474 min Scan# 1808
Delta R.T. 0.118 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 41 Resp: 49

Ion	Ratio	Lower	Upper
41	100		
40	232.7	42.2	63.4#

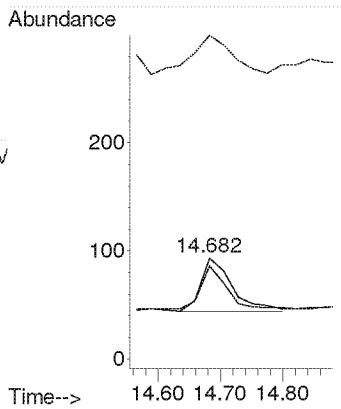




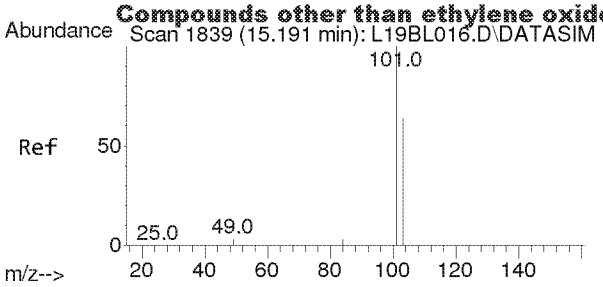
#13
Acrolein
Concen: 0.085 ppbv
RT: 14.682 min Scan# 1817
Delta R.T. 0.049 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 56 Resp: 171

Ion	Ratio	Lower	Upper
56	100		
55	84.8	60.8	91.2
29	94.2	43.8	65.6#



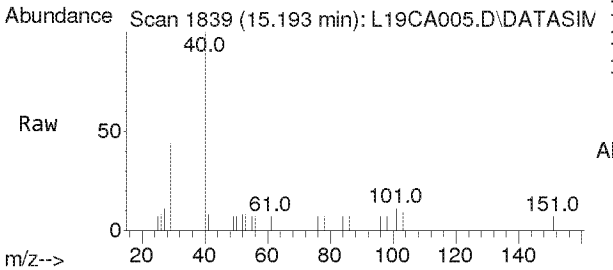
Compounds other than ethylene oxide were not quantitated.

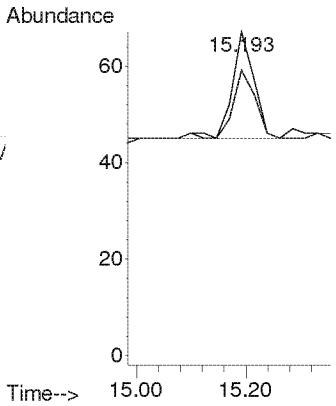


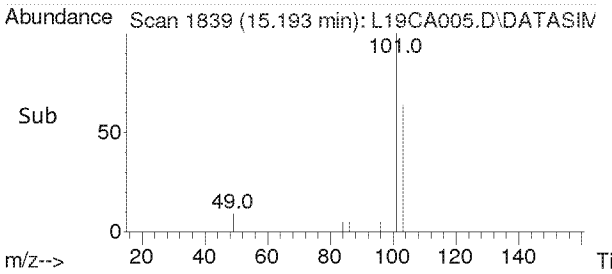
#14
Trichlorofluoromethane
Concen: 0.003 ppbv
RT: 15.193 min Scan# 1839
Delta R.T. 0.002 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

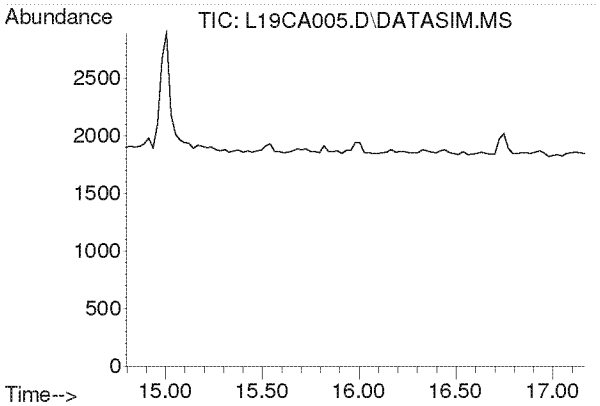
Tgt Ion:101 Resp: 60

Ion	Ratio	Lower	Upper
101	100		
103	70.0	51.7	77.5







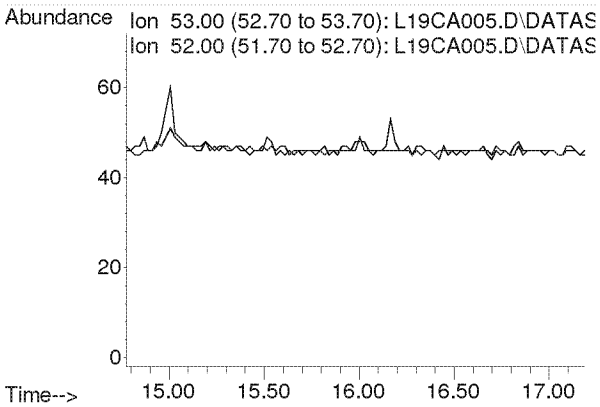


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

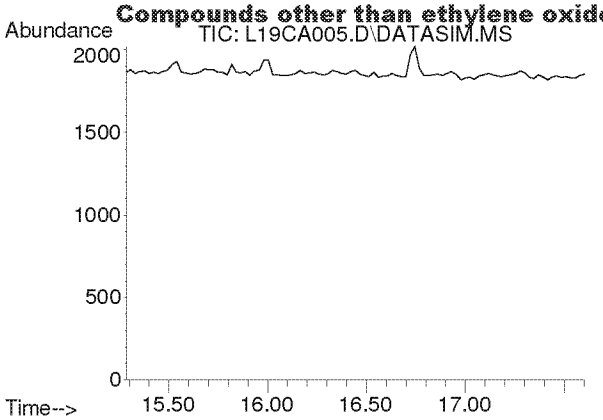
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

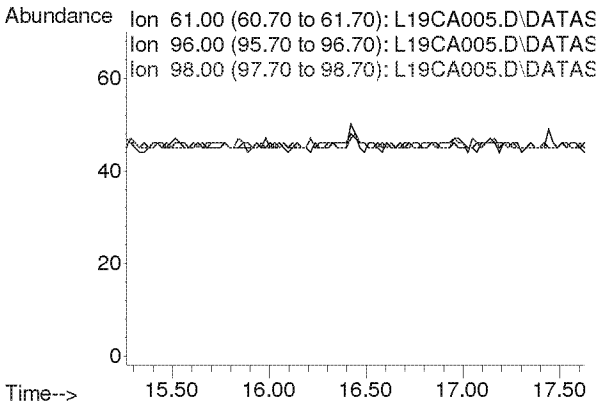


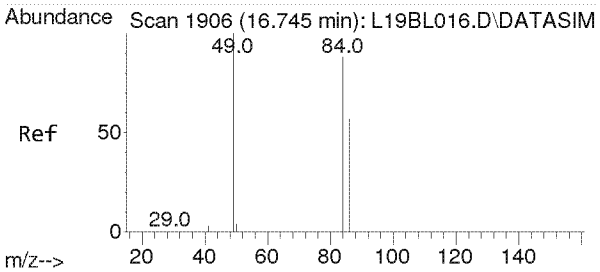
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2

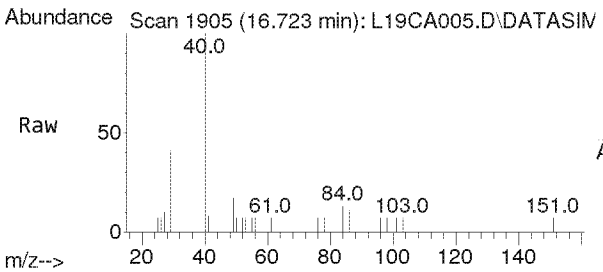


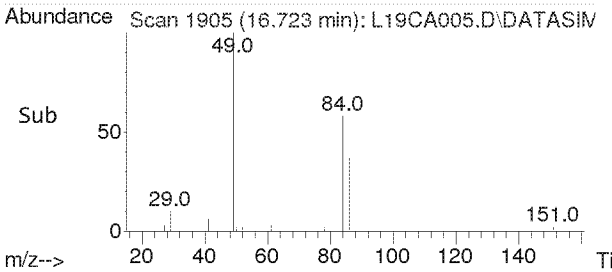


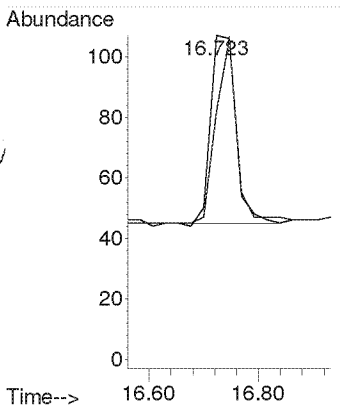
#17
Methylene Chloride
Concen: 0.036 ppbv
RT: 16.723 min Scan# 1905
Delta R.T. -0.021 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 49 Resp: 195

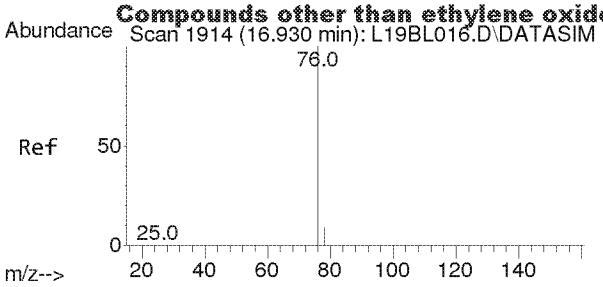
Ion	Ratio	Lower	Upper
49	100		
84	81.5	54.0	100.4







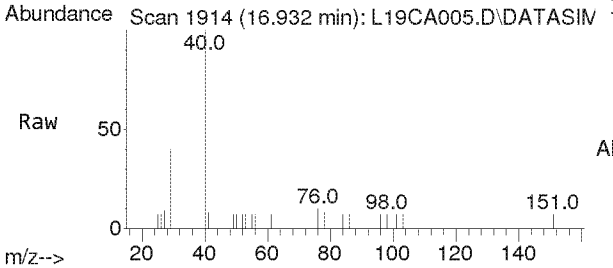
Compounds other than ethylene oxide were not quantitated.

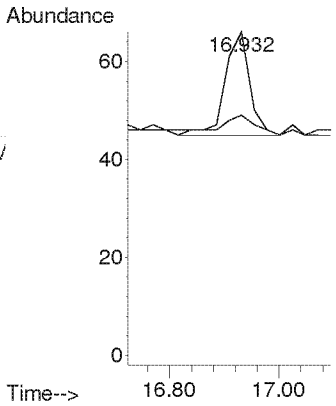


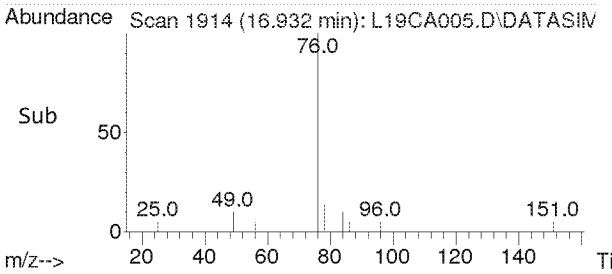
#18
Carbon Disulfide
Concen: 0.004 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

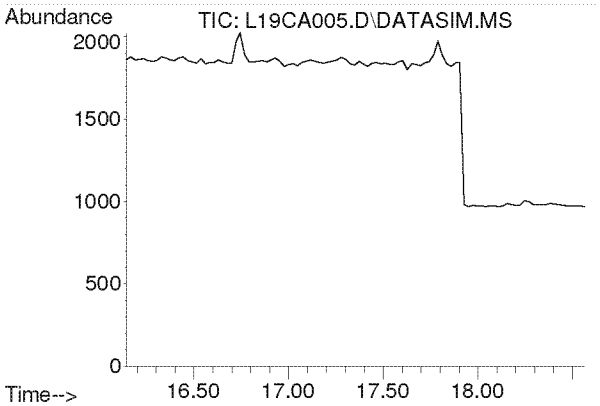
Tgt Ion: 76 Resp: 65

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.4	11.0#







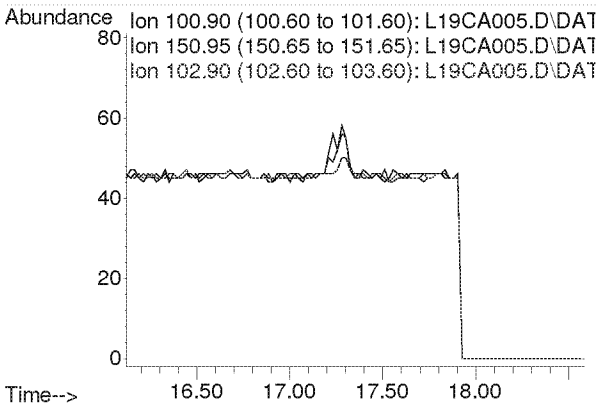


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

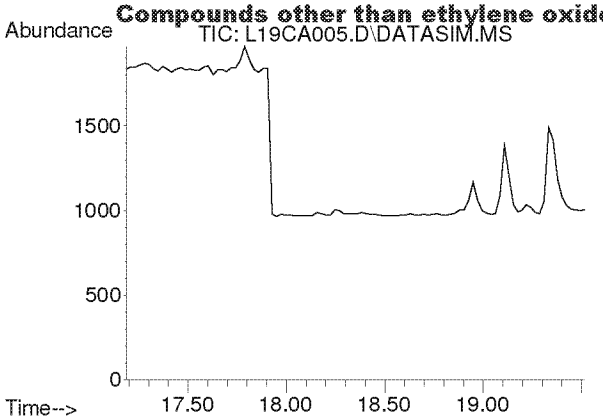
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

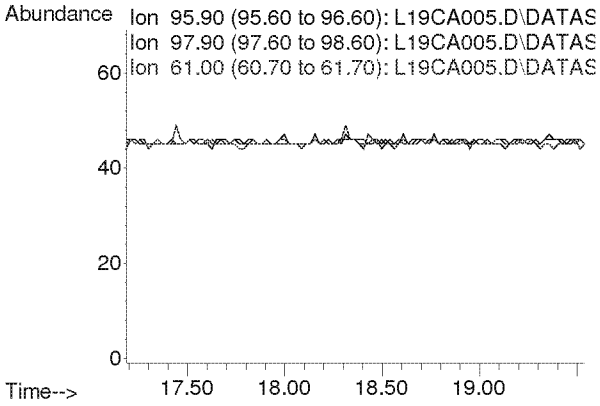


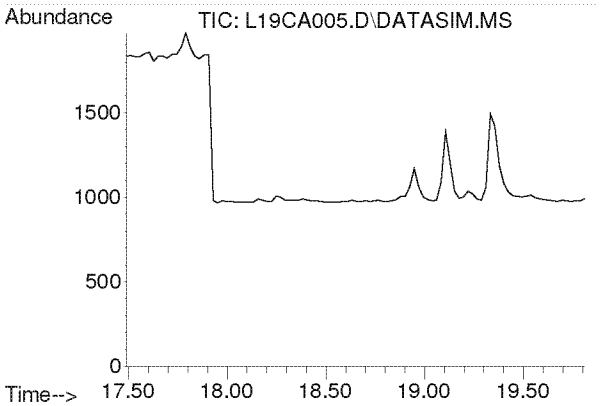
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



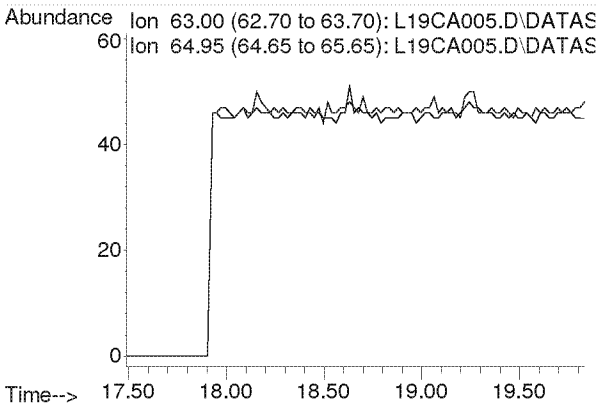


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

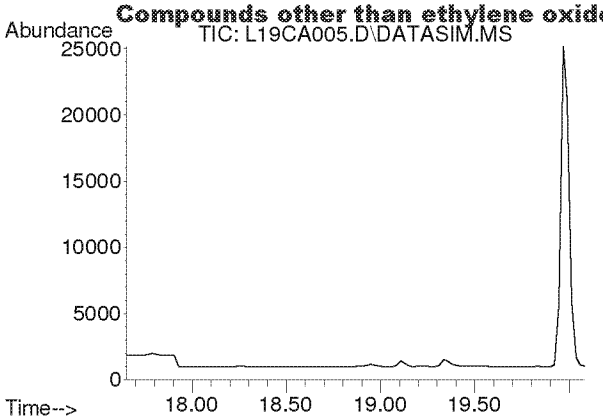
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

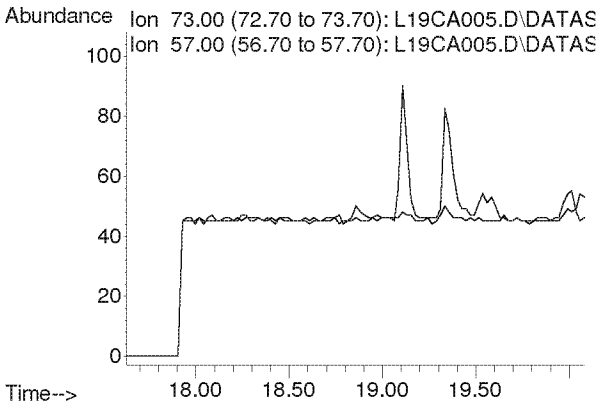


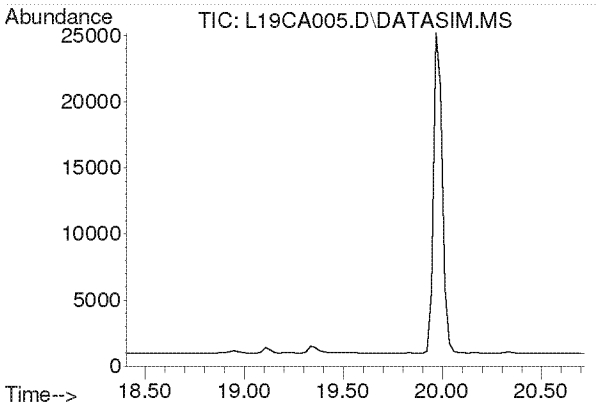
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



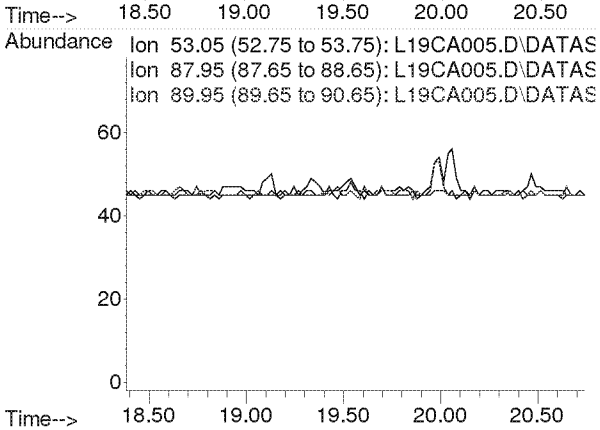


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

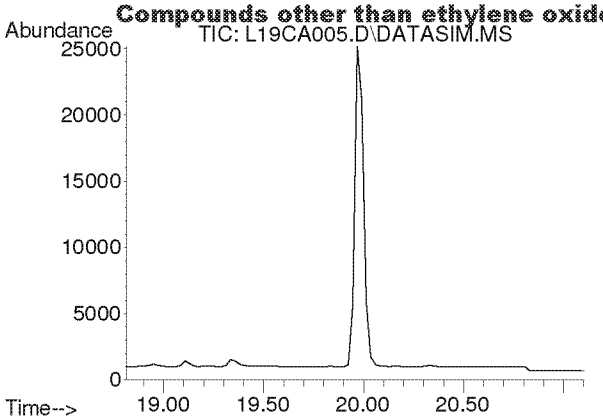
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

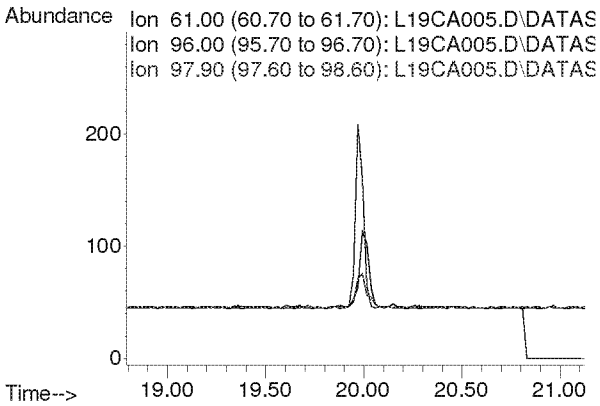


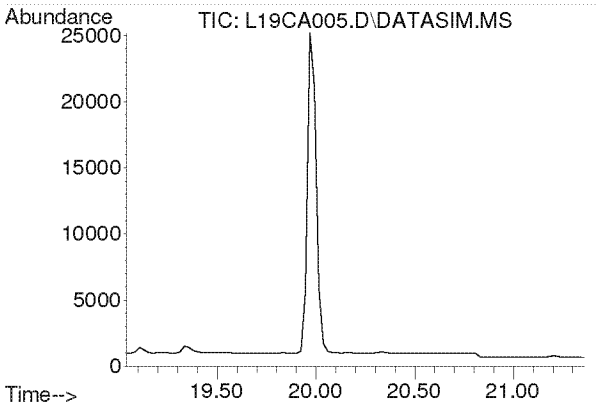
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



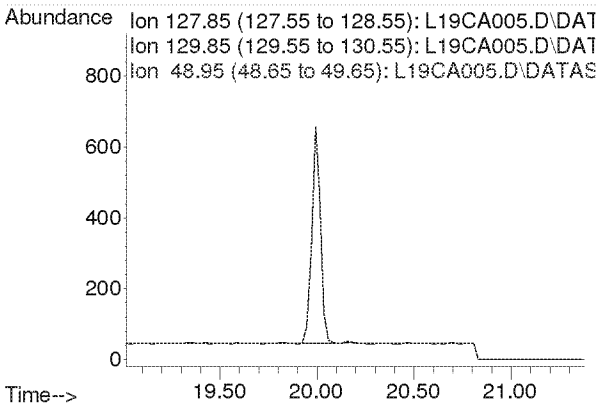


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

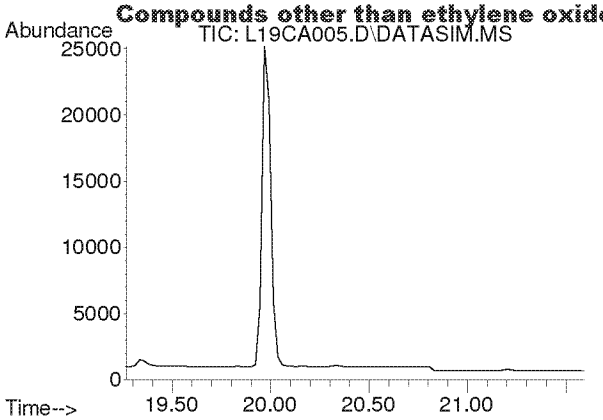
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

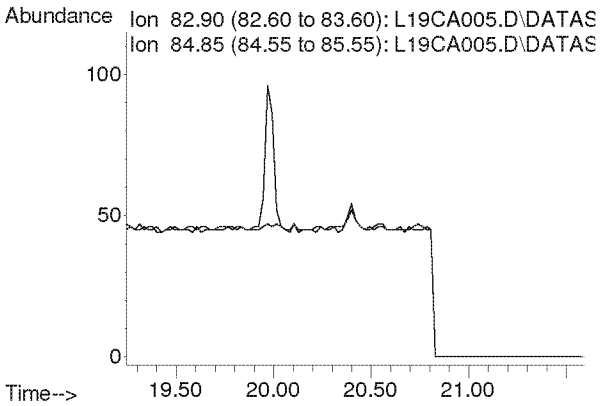


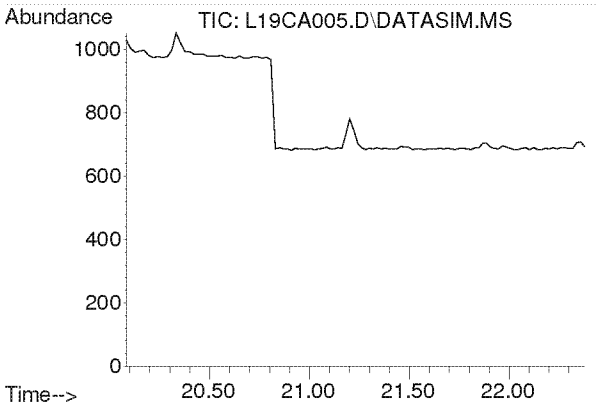
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



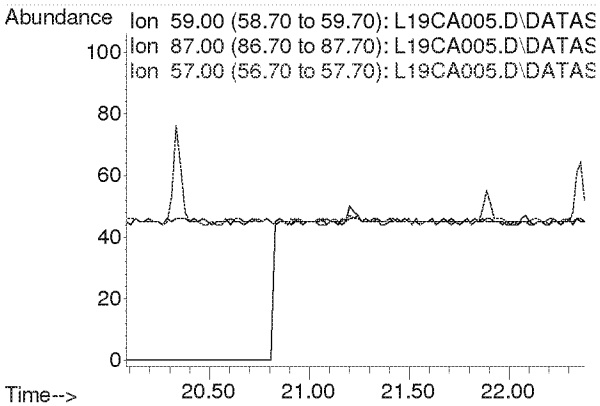


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

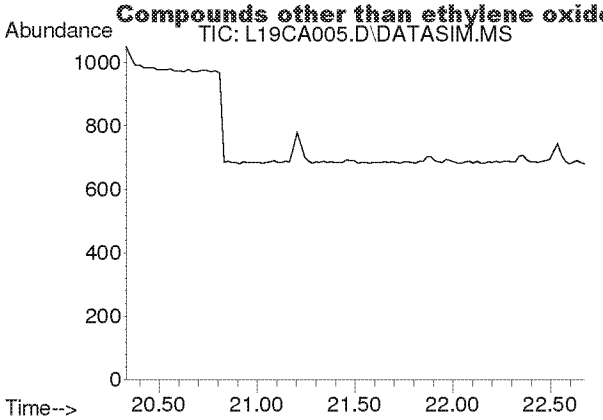
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

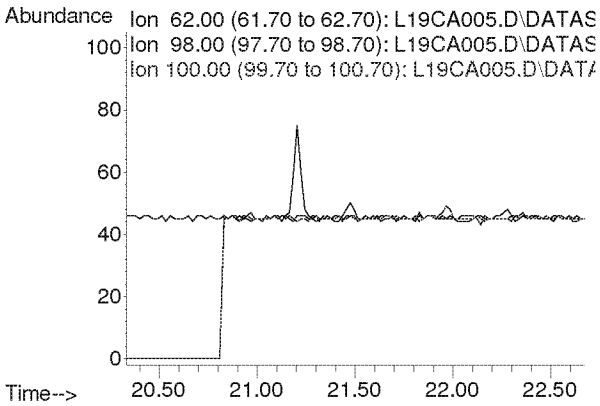


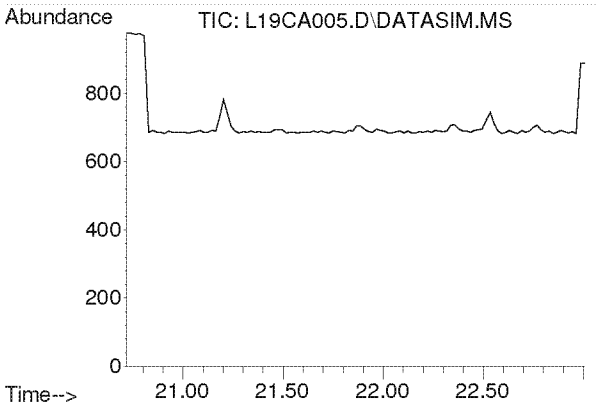
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



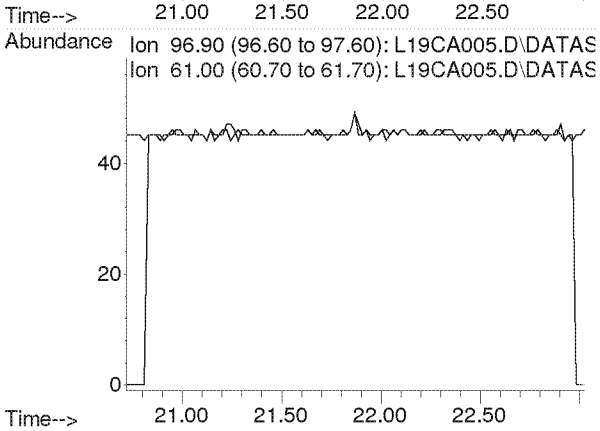


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

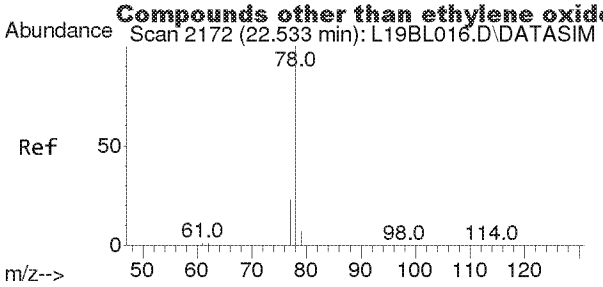
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



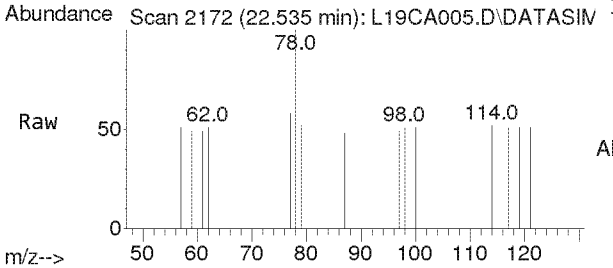
Compounds other than ethylene oxide were not quantitated.

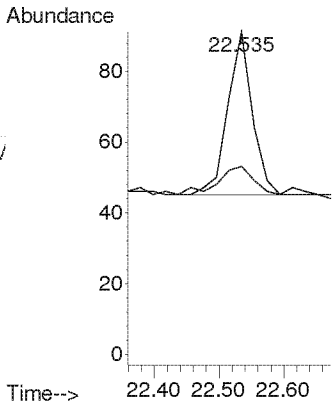


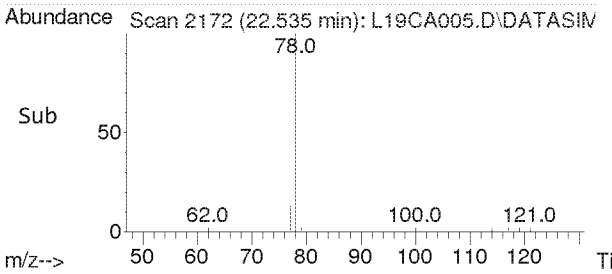
#31
Benzene
Concen: 0.010 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.002 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

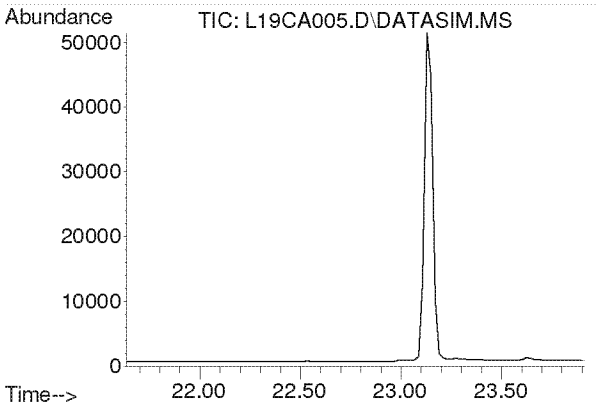
Tgt Ion: 78 Resp: 122

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.4#







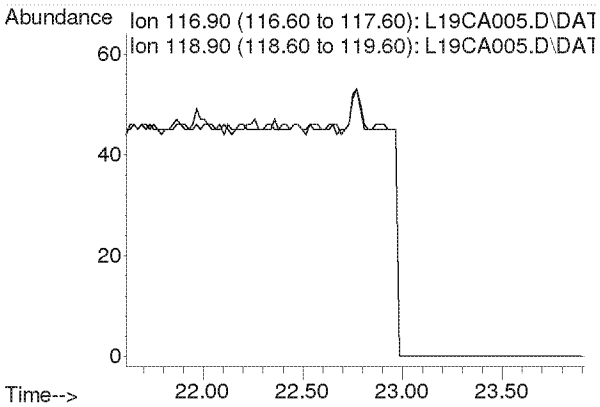


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

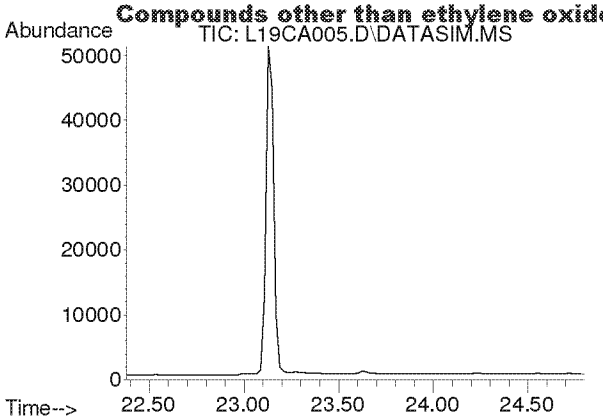
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

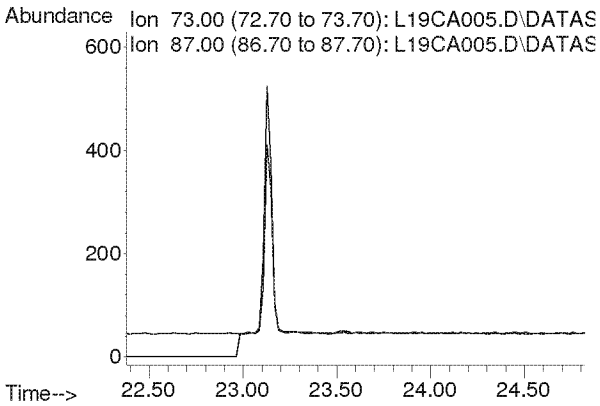


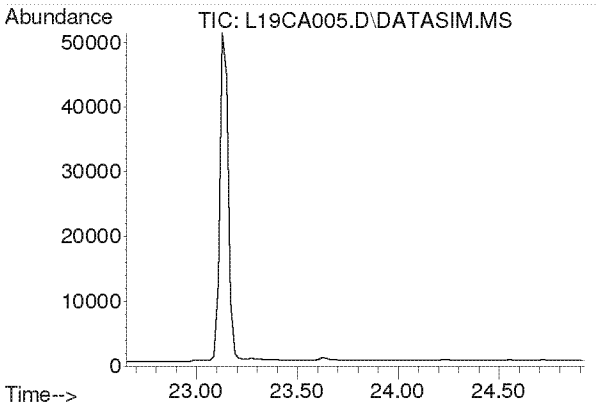
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



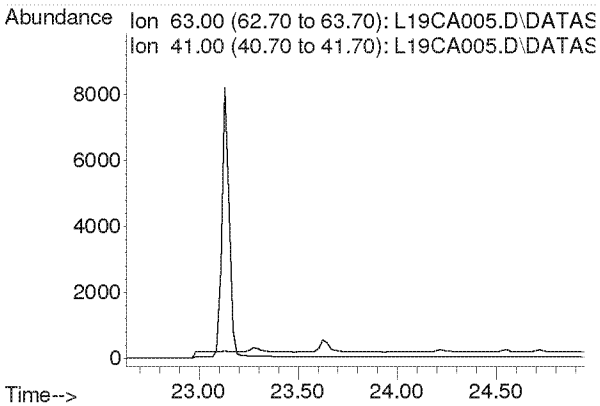


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

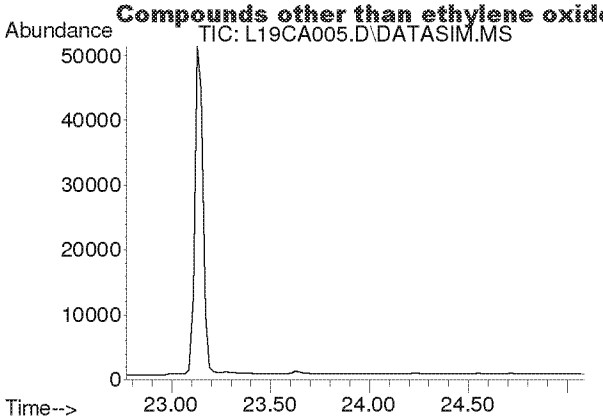
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

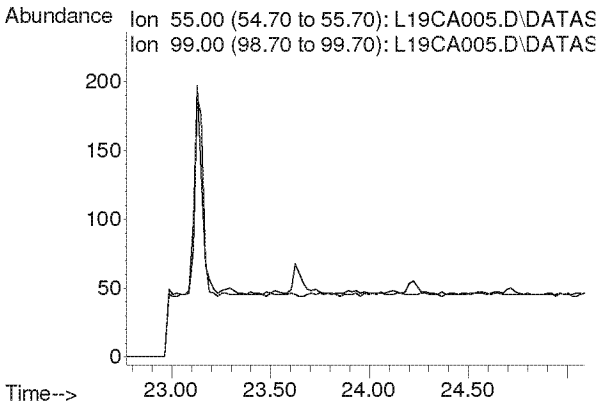


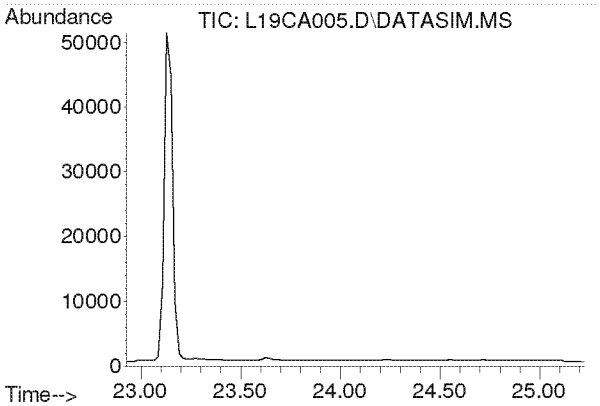
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



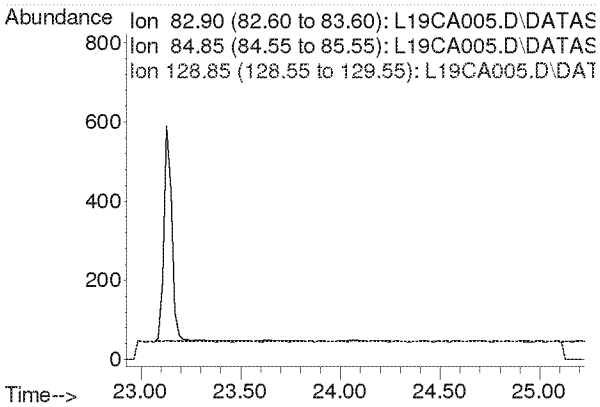


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

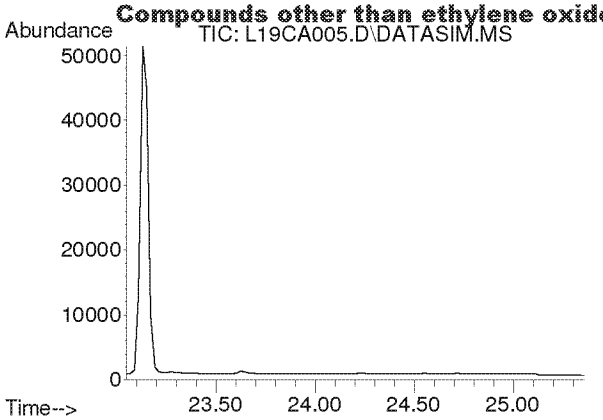
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

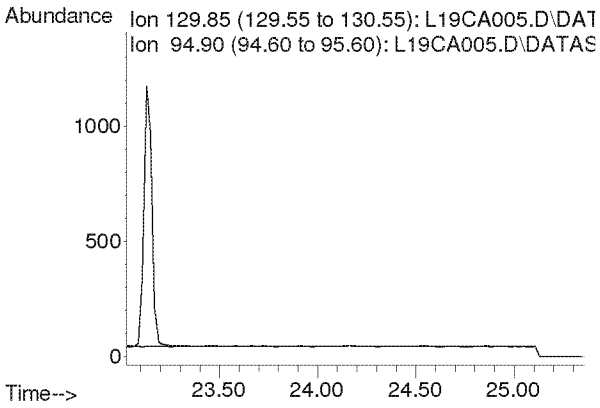


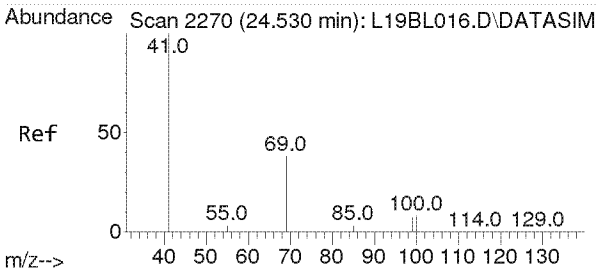
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1

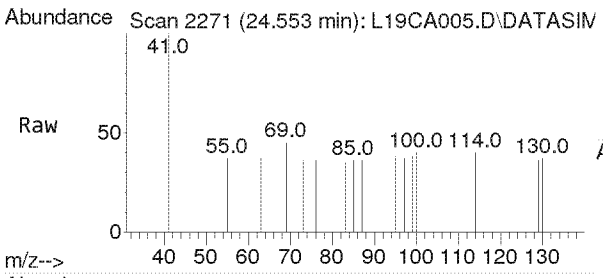


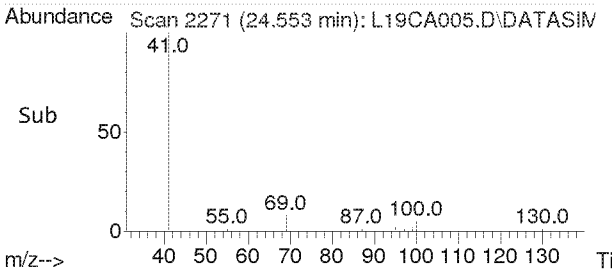


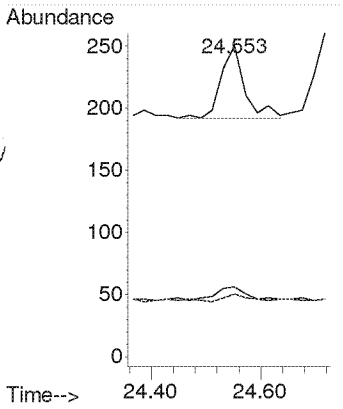
#38
Methyl Methacrylate
Concen: 0.015 ppbv
RT: 24.553 min Scan# 2271
Delta R.T. 0.023 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 41 Resp: 173

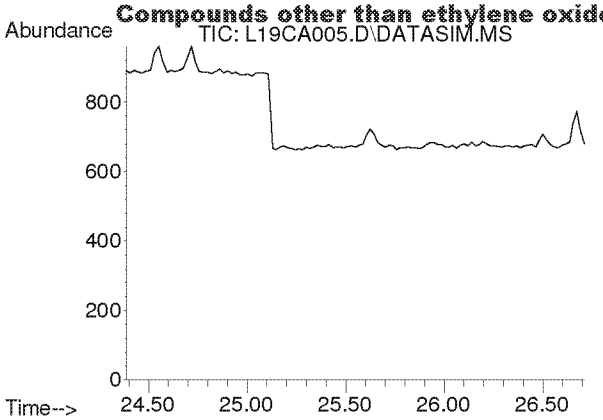
Ion	Ratio	Lower	Upper
41	100		
69	24.9	16.8	25.2
100	0.0	4.5	6.7#







Compounds other than ethylene oxide were not quantitated.

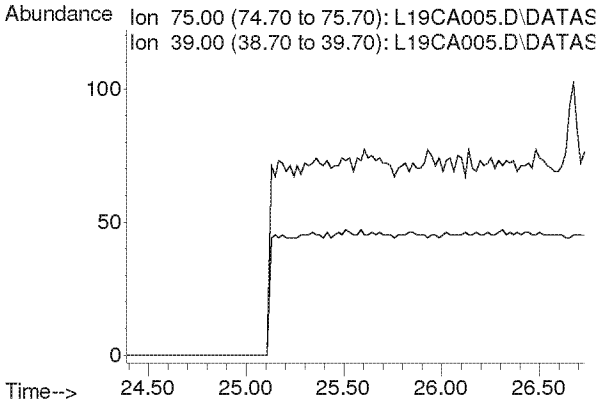


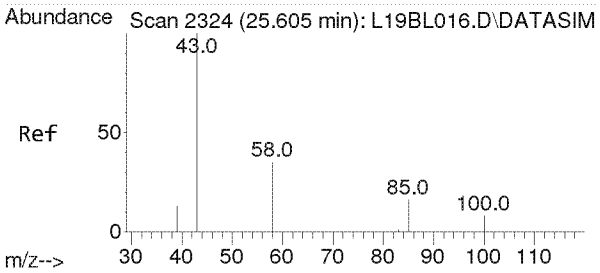
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2

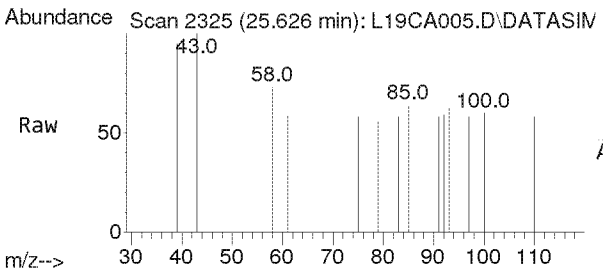


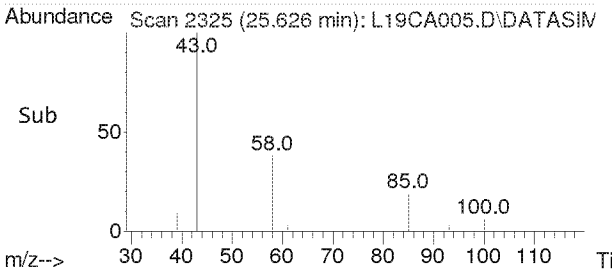


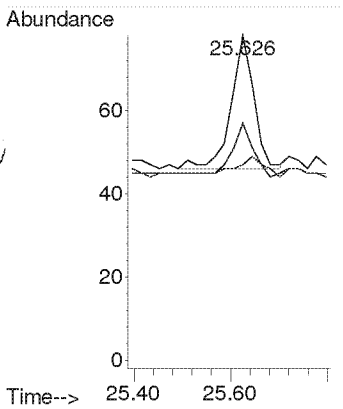
#40
Methyl Isobutyl Ketone
Concen: 0.012 ppbv
RT: 25.626 min Scan# 2325
Delta R.T. 0.021 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 43 Resp: 105

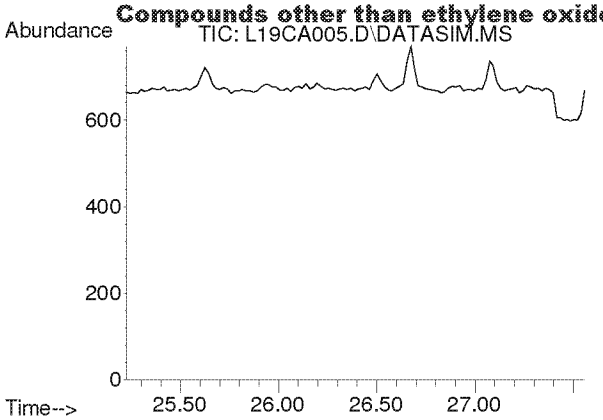
Ion	Ratio	Lower	Upper
43	100		
58	0.0	28.0	42.0#
100	0.0	7.0	10.4#







Compounds other than ethylene oxide were not quantitated.

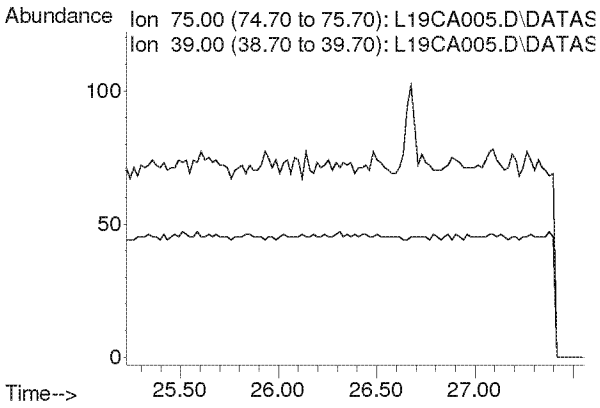


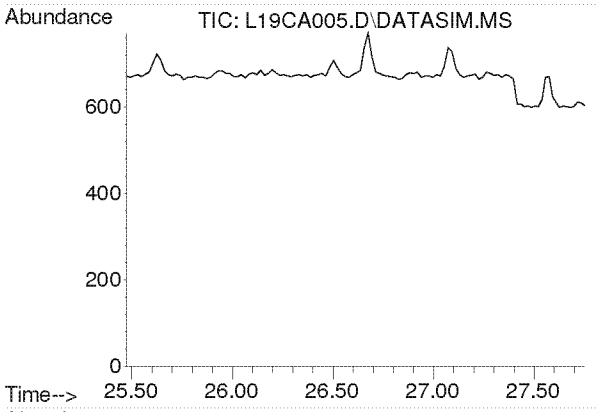
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



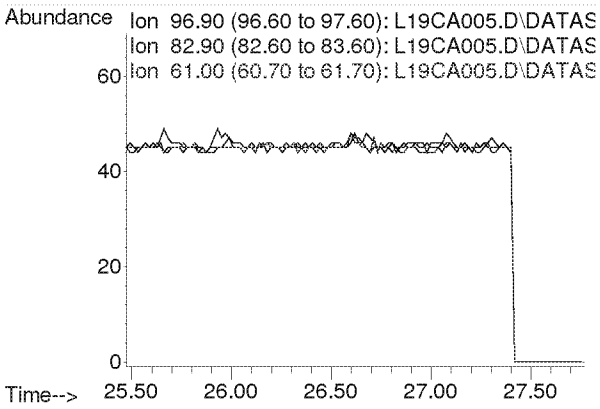


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

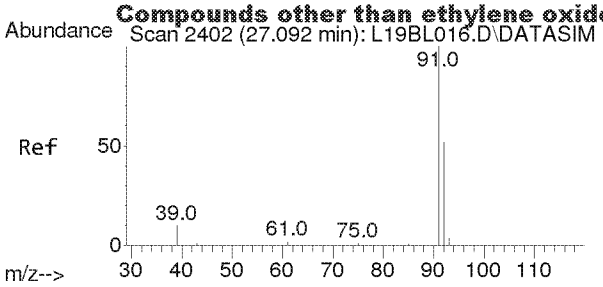
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



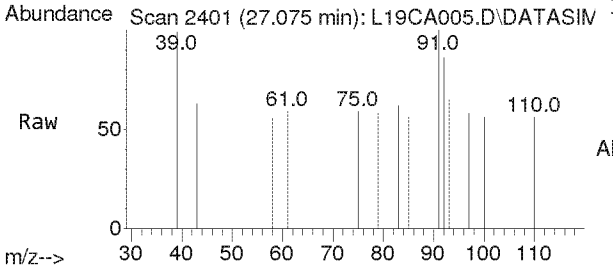
Compounds other than ethylene oxide were not quantitated.

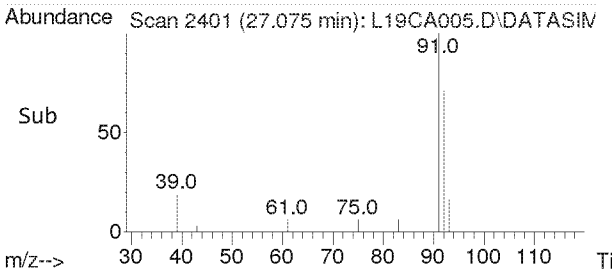


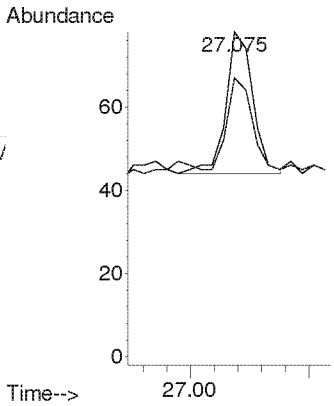
#44
Toluene
Concen: 0.008 ppbv
RT: 27.075 min Scan# 2401
Delta R.T. -0.017 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

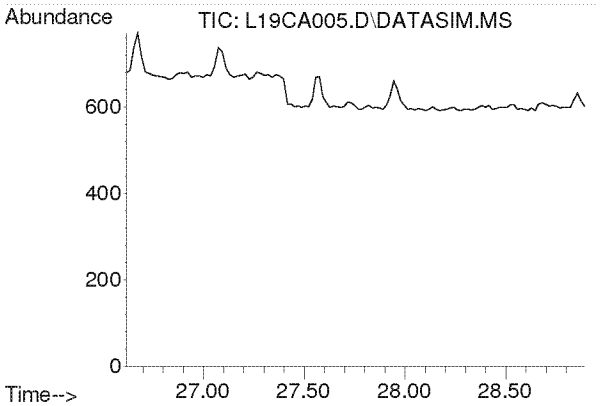
Tgt Ion: 91 Resp: 108

Ion	Ratio	Lower	Upper
91	100		
92	58.3	42.0	63.0







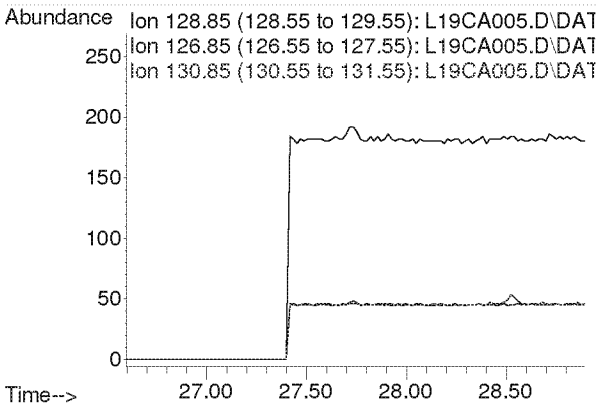


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

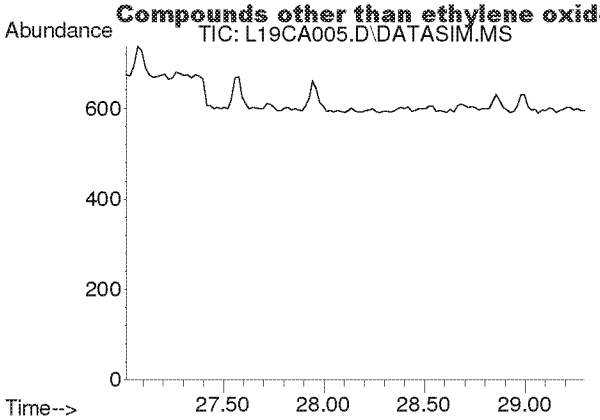
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

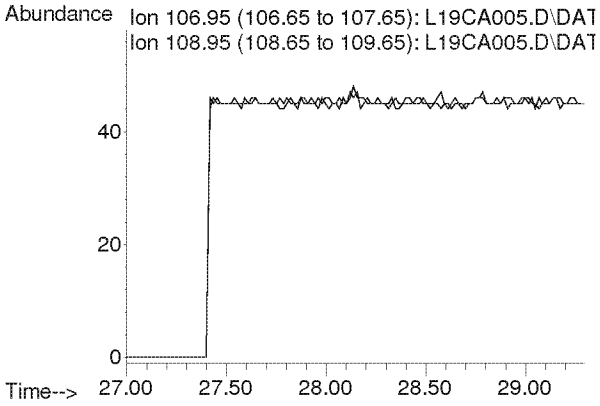


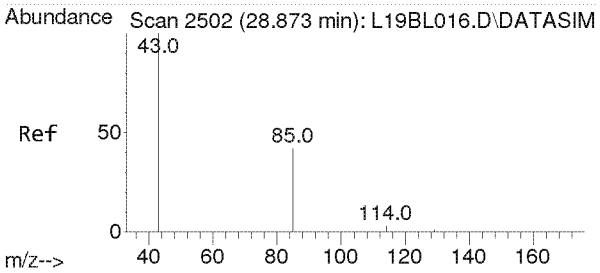
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2

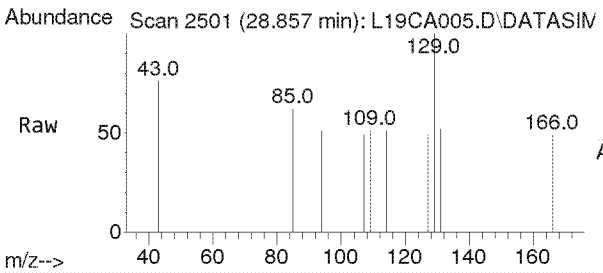


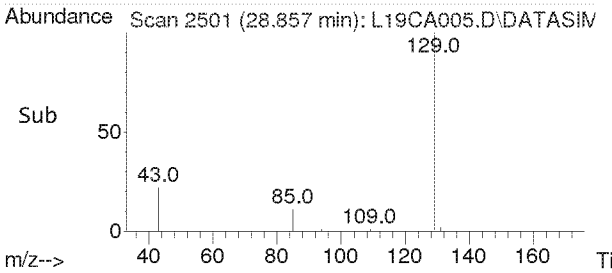


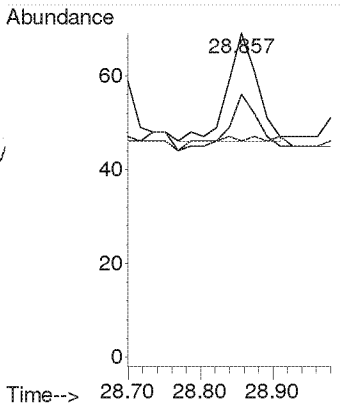
#47
n-Octane
Concen: 0.008 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. -0.015 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 43 Resp: 66

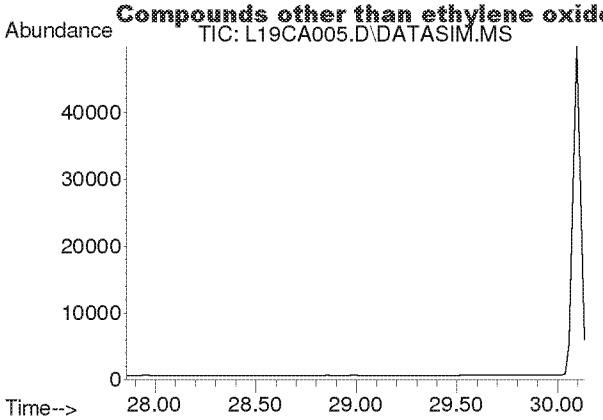
Ion	Ratio	Lower	Upper
43	100		
85	0.0	33.0	49.6#
114	0.0	2.2	3.4#







Compounds other than ethylene oxide were not quantitated.

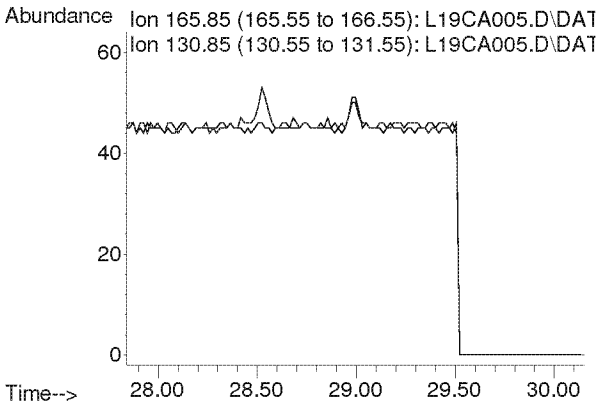


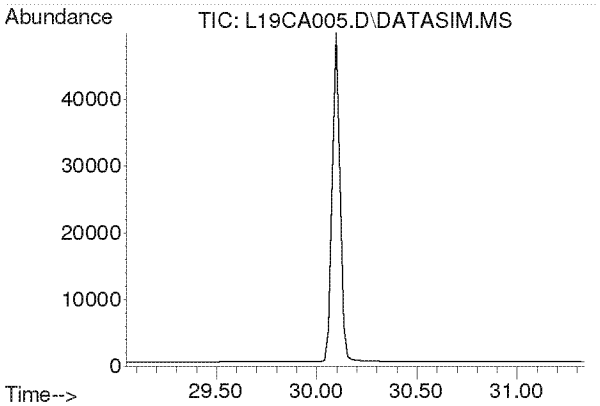
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



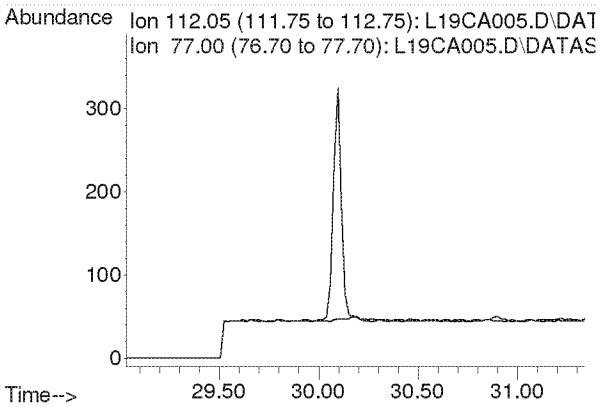


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

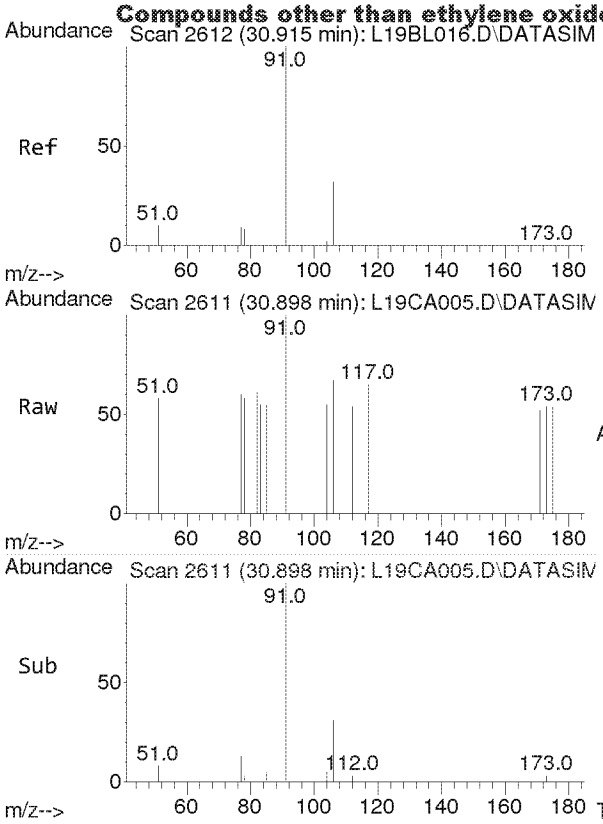
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



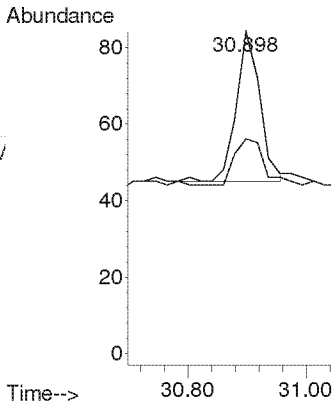
Compounds other than ethylene oxide were not quantitated.

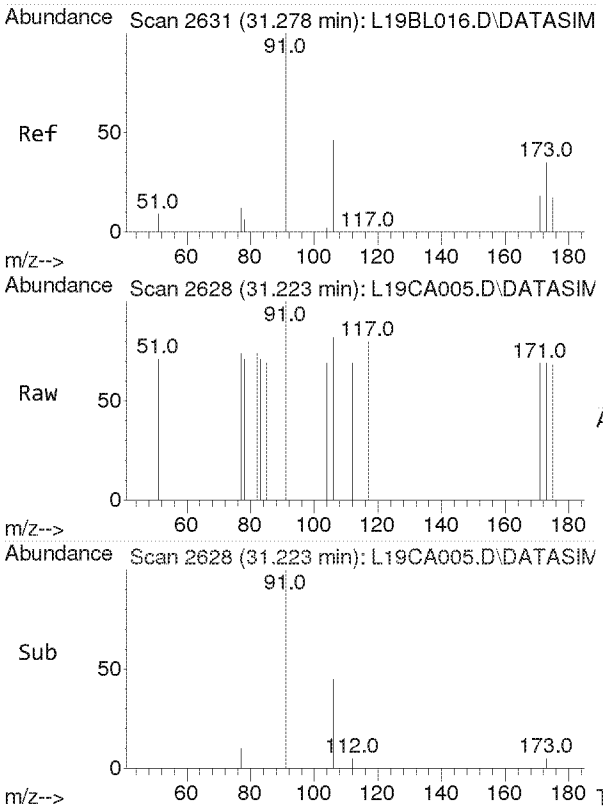


#50
Ethylbenzene
Concen: 0.008 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 91 Resp: 108

Ion	Ratio	Lower	Upper
91	100		
106	38.0	26.0	39.0

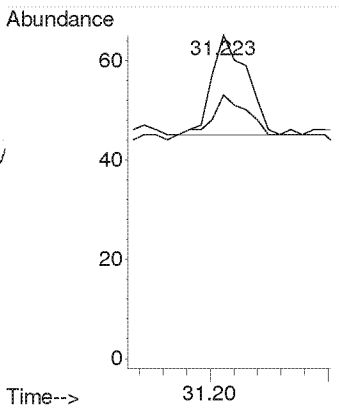




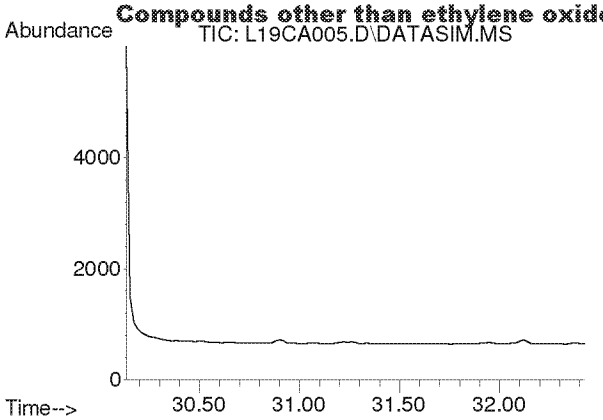
#51
m,p-Xylene
Concen: 0.007 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 91 Resp: 82

Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.3	55.9#



Compounds other than ethylene oxide were not quantitated.

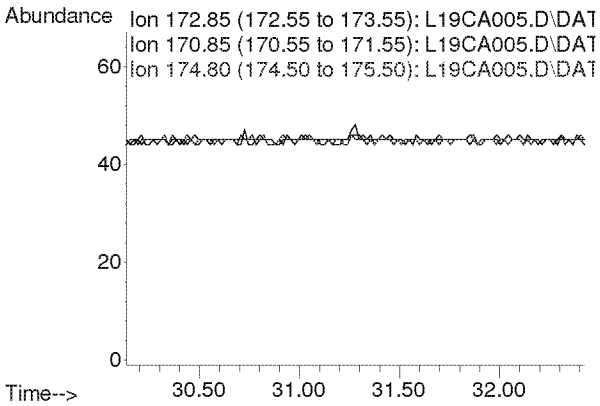


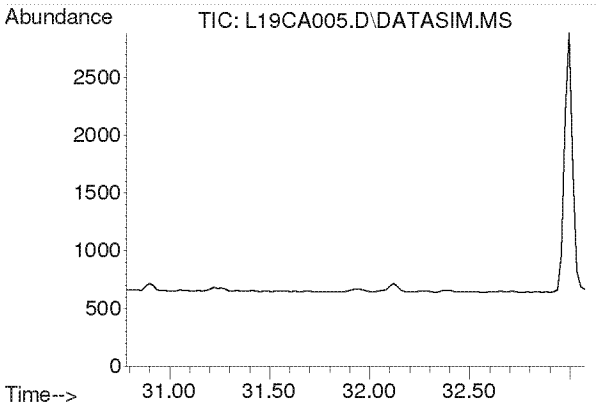
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



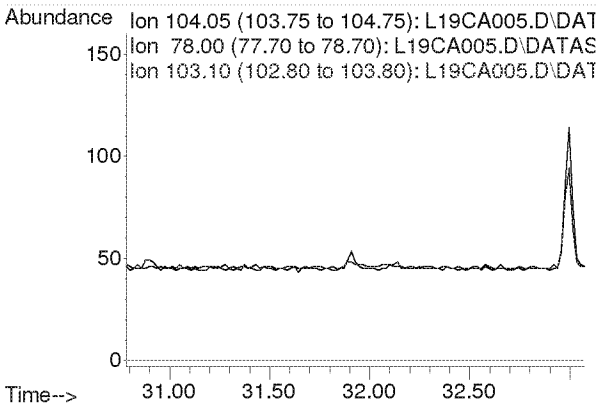


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

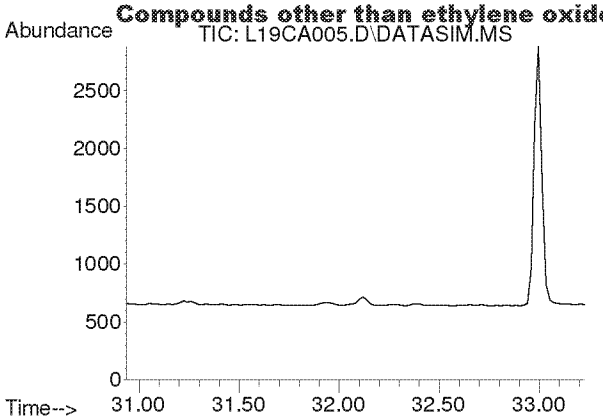
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

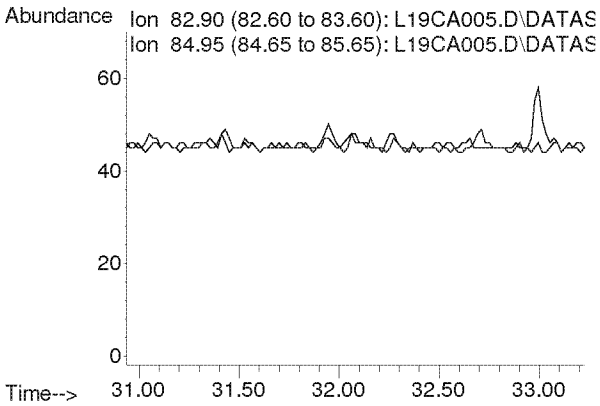


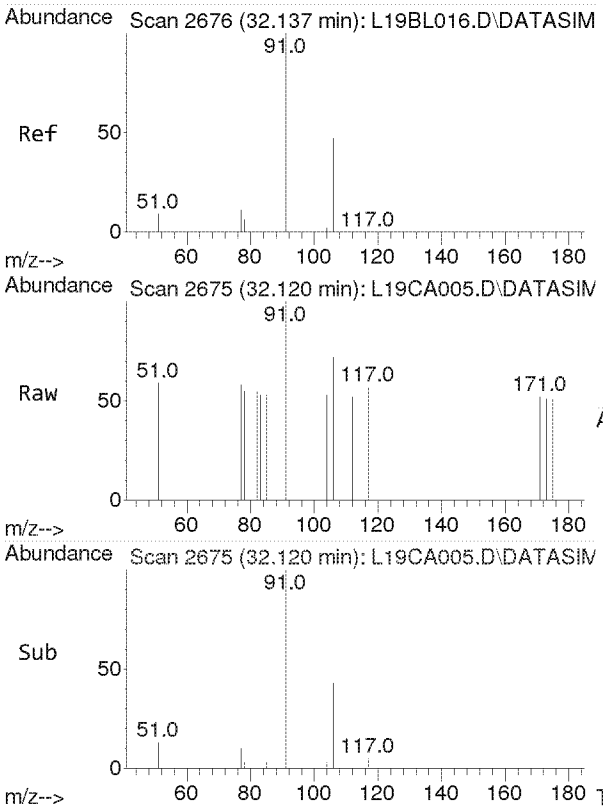
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

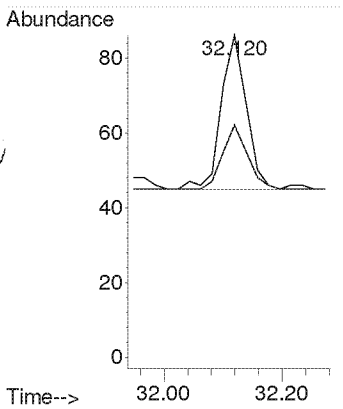




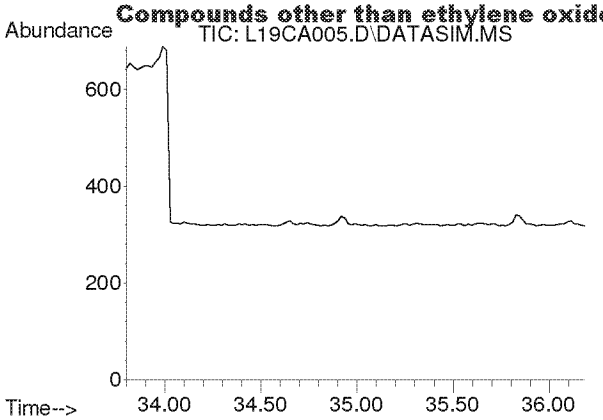
#55
o-Xylene
Concen: 0.010 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 91 Resp: 120

Ion	Ratio	Lower	Upper
91	100		
106	40.8	36.6	55.0



Compounds other than ethylene oxide were not quantitated.

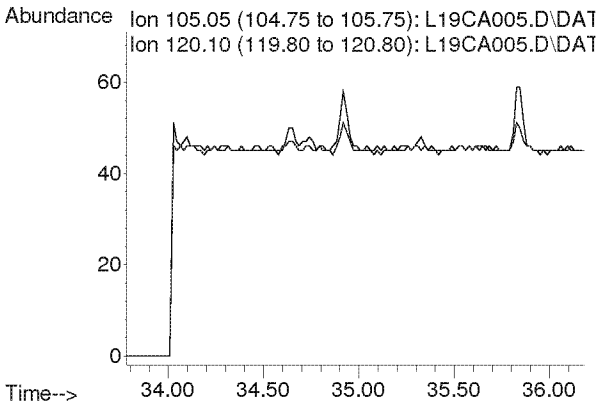


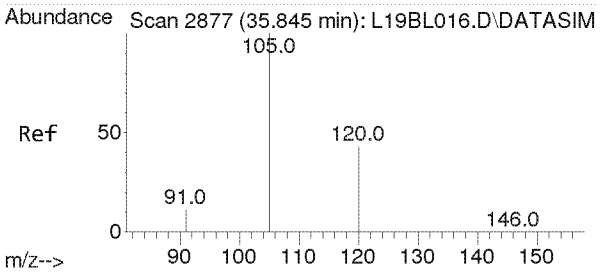
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0

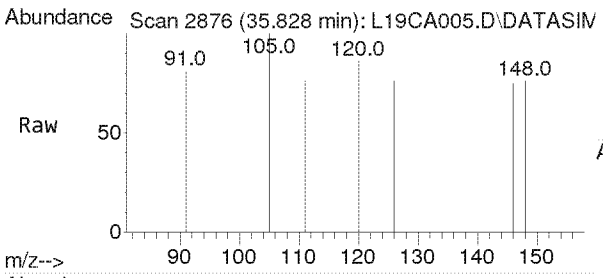


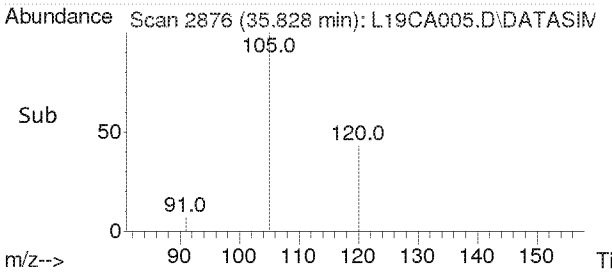


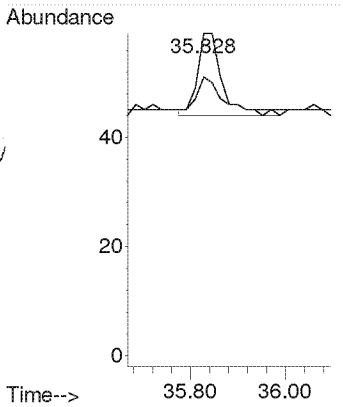
#57
1,2,4-Trimethylbenzene
Concen: 0.005 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.017 min
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion:105 Resp: 55

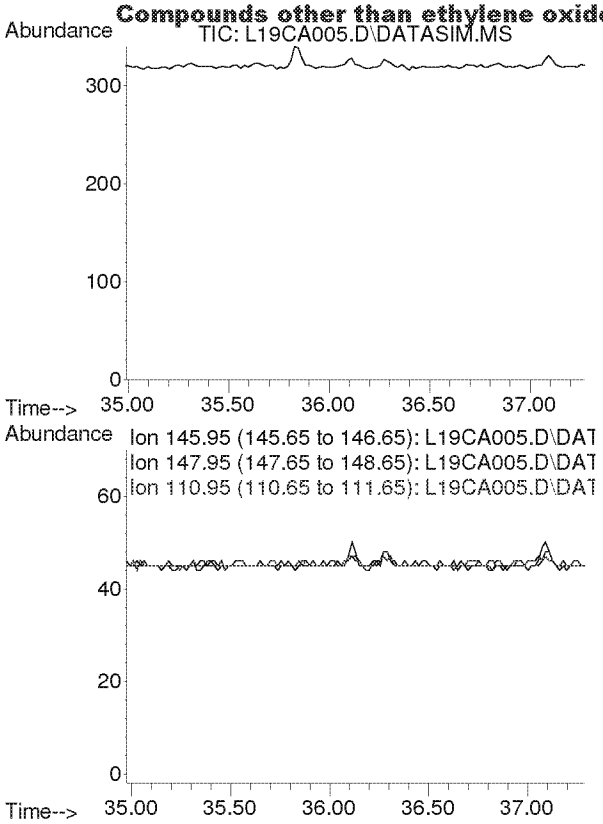
Ion	Ratio	Lower	Upper
105	100		
120	0.0	35.2	52.8#







Compounds other than ethylene oxide were not quantitated.

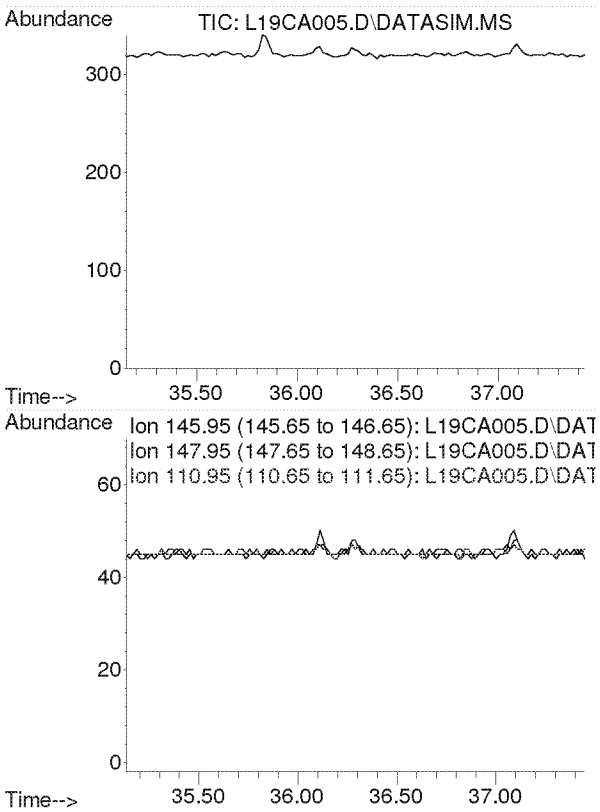


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



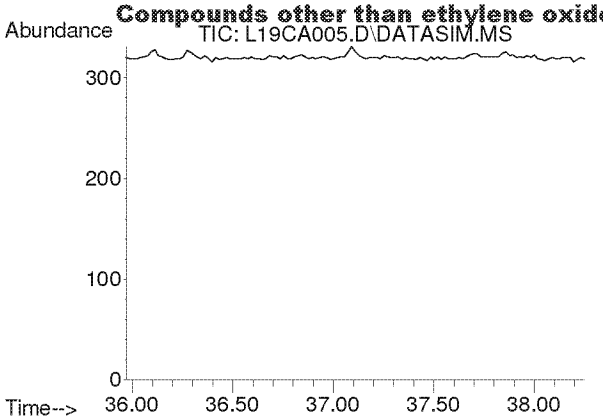
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

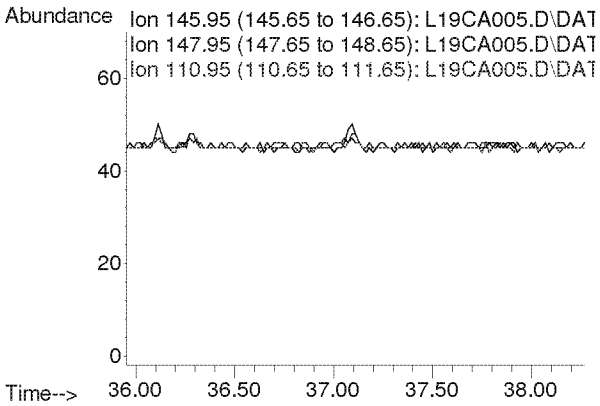


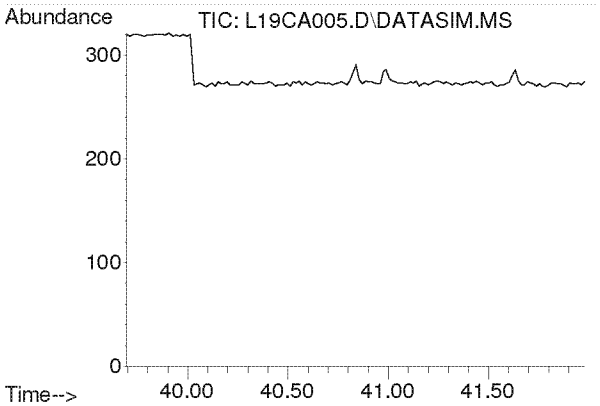
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



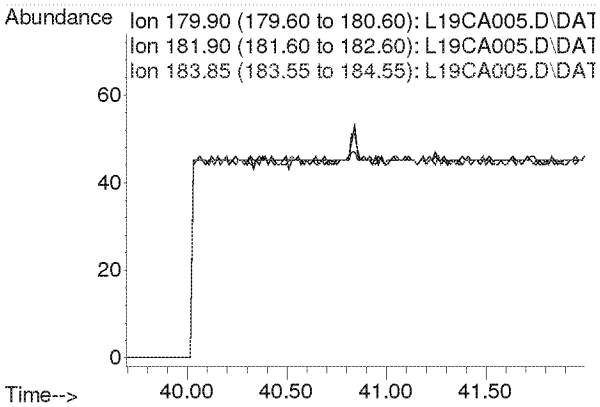


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

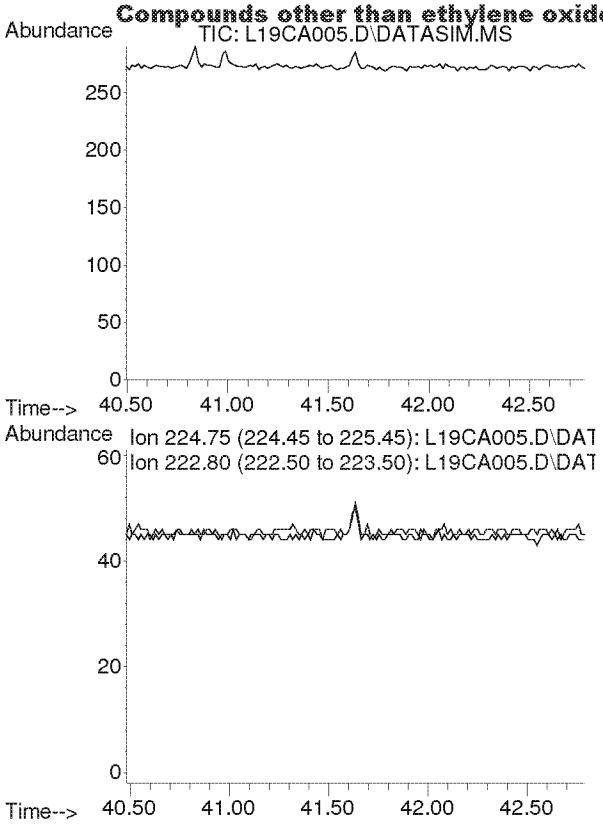
Lab File: L19CA005.D
Acq: 1 Mar 2019 7:28 pm

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: L19CA005.D
Acq: 1 Mar 2019 7:28 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: [illegible] Date: 2-5-19	Data File Name	L19CA006.D	
	Operator	MAH	
	Acq. Method File	9020003.M	
Reviewer: RUB Date: 3/6/19	Sample Name	9022616-15	
	Misc Info	WB TRIP BLANK 2/23/19	

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	44773		NA		NA
2)	Acetylene	41	0.011	Y		0.118
3)	Propylene	111	0.024	Y		0.192
4)	Dichlorodifluoromethane	193	0.009	Y		0.082
5)	Chloromethane	99	0.018	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	47	0.012	Y		0.049
12)	Acrolein	79	0.040	Y	MAX	0.200
13)	Trichlorofluoromethane	86	0.005	Y		0.035
14)	Acrylonitrile	0	0.000	Y		0.032
15)	1,1-Dichloroethene	0	0.000	Y		0.036
16)	Methylene Chloride	153	0.029	Y		0.043
17)	Carbon Disulfide	51	0.003	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	109357		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	109	0.009	Y		0.043
31)	Carbon Tetrachloride	0	0.000	Y		0.040
32)	tert-Amyl Methyl Ether	0	0.000	Y		0.037
33)	1,2-Dichloropropane	0	0.000	Y		0.061
34)	Ethyl Acrylate	0	0.000	Y		0.070
35)	Bromodichloromethane	0	0.000	Y		0.049
36)	Trichloroethylene	0	0.000	Y		0.045
37)	Methyl Methacrylate	176	0.016	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	43	0.005	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	76774		NA		NA
43)	Toluene	116	0.009	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	90	0.007	Y		0.077
50)	m,p-Xylene	63	0.006	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	107	0.010	Y		0.080
55)	1,3,5-Trimethylbenzene	43	0.004	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\L19CA\
Data File : L19CA006.D
Acq On : 1 Mar 2019 8:30 pm (#1); 01-Mar-19, 20:25:32 (#2)
Operator : MAH
Sample : 9022616-15
Misc : WB TRIP BLANK 2/23/19 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 05 09:03:04 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	44773	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	109357	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	76774	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.410	26	41	0.0112 ppbv	100
3) Propylene	7.838	41	111	0.0243 ppbv	95
4) Dichlorodifluoromethane	8.702	85	193	0.0089 ppbv #	93
5) Chloromethane	9.757	50	99	0.0178 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 SV	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	14.497	41	47	0.0121 ppbv #	1
13) Acrolein	14.729	56	79	0.0403 ppbv #	49
14) Trichlorofluoromethane	15.193	101	86	0.0047 ppbv	87
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	16.747	49	153	0.0293 ppbv	88
18) Carbon Disulfide	16.932	76	51	0.0032 ppbv #	79
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d SV	
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 TO	
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	109	0.0094 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	176	0.0157 ppbv #	61
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	25.645	43	43	0.0052 ppbv #	73
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	116	0.0092 ppbv	92
45) Dibromochloromethane	0.000	129	0	N.D. d SV	
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	90	0.0068 ppbv #	42

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA006.D
Acq On : 1 Mar 2019 8:30 pm (#1); 01-Mar-19, 20:25:32 (#2)
Operator : MAH
Sample : 9022616-15
Misc : WB TRIP BLANK 2/23/19 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 05 09:03:04 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

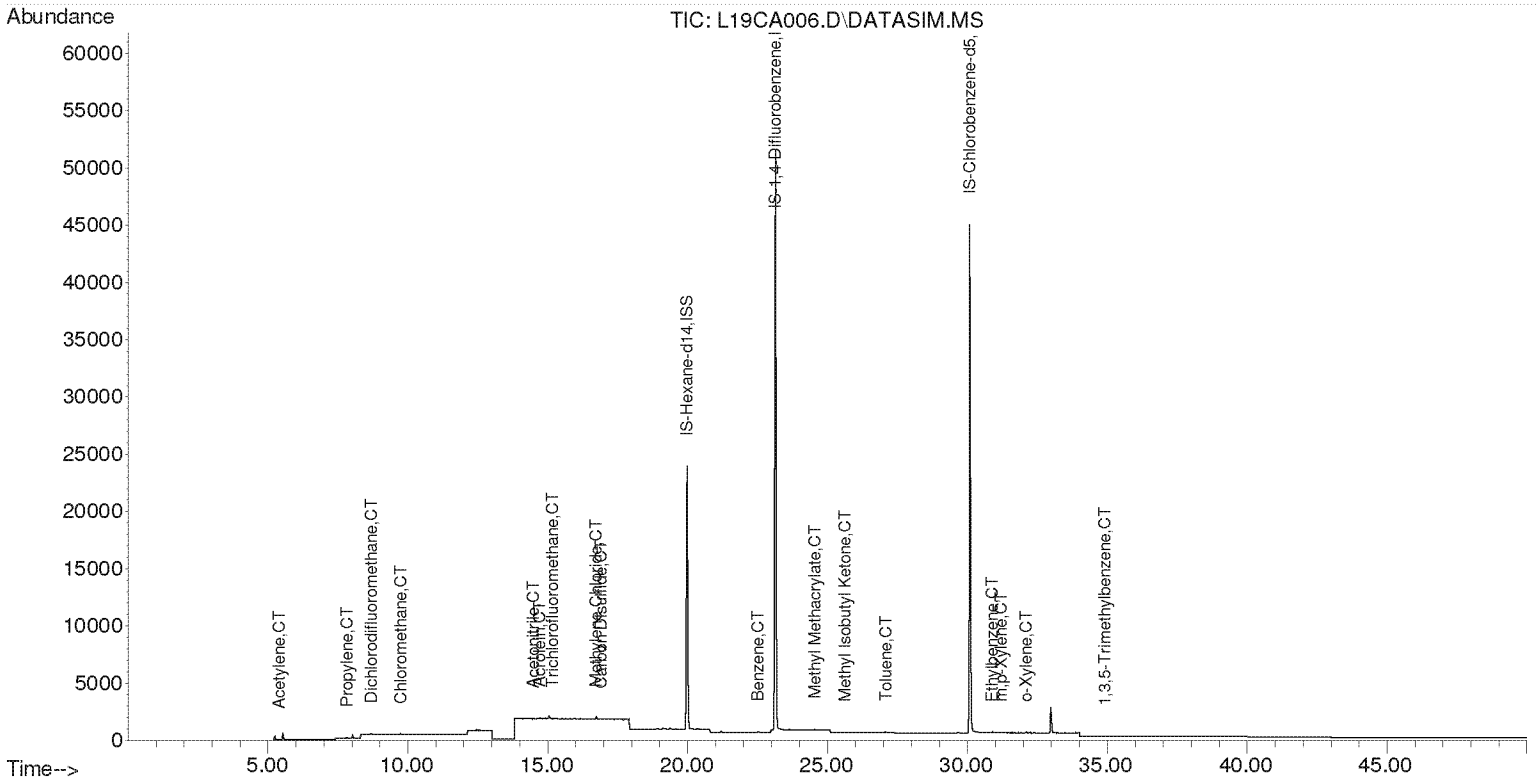
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.223	91	63	0.0056 ppbv #	30
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.120	91	107	0.0097 ppbv	92
56) 1,3,5-Trimethylbenzene	34.919	105	43	0.0036 ppbv #	30
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.	

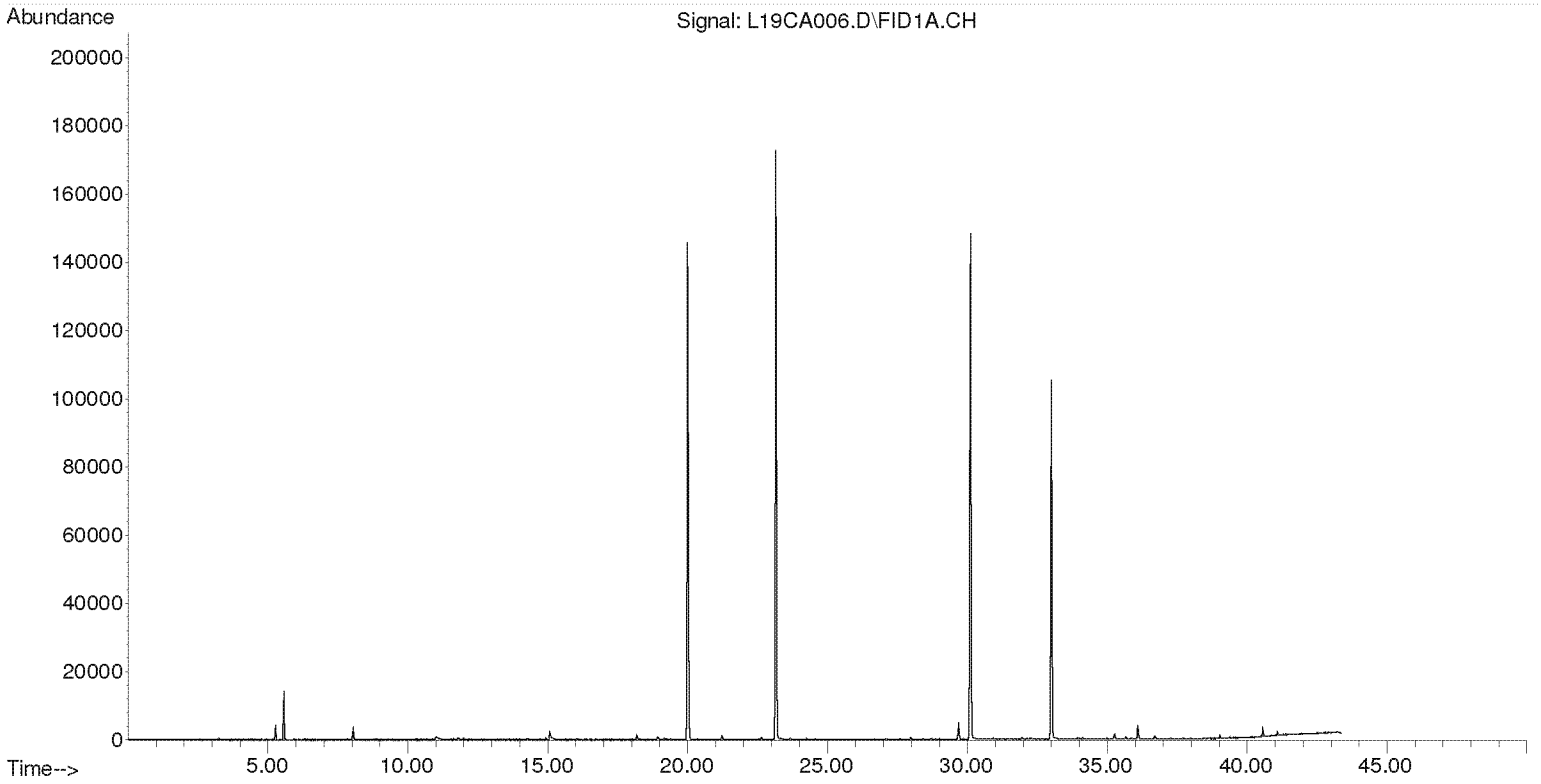
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

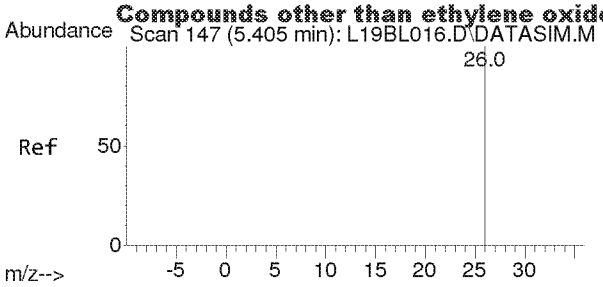
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA006.D
Acq On : 1 Mar 2019 8:30 pm (#1); 01 Mar 2019 8:25 pm (#2)
Operator : MAH
Sample : 9022616-15
Misc : WB TRIP BLANK 2/23/19 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 05 08:53:38 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



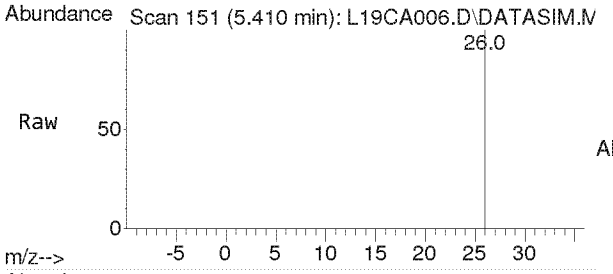


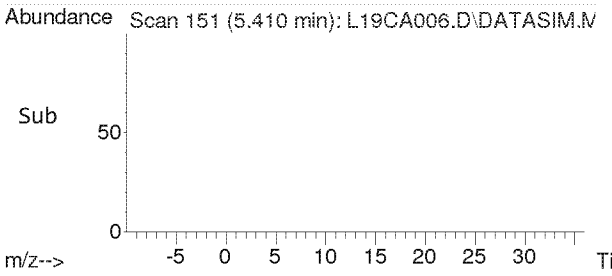
Compounds other than ethylene oxide were not quantitated.

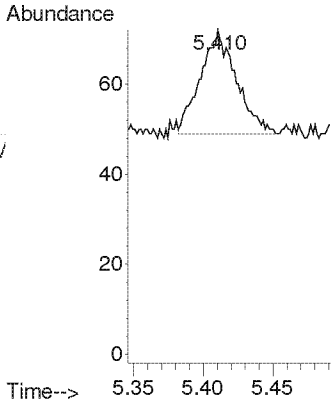


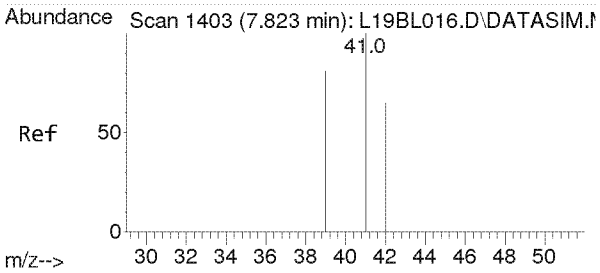
#2
Acetylene
Concen: 0.011 ppbv
RT: 5.410 min Scan# 151
Delta R.T. 0.006 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 26 Resp: 41





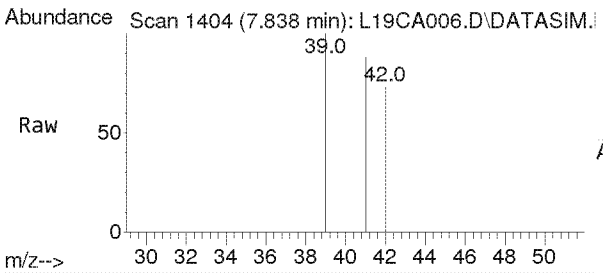


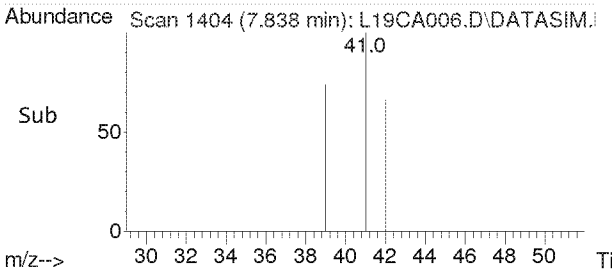


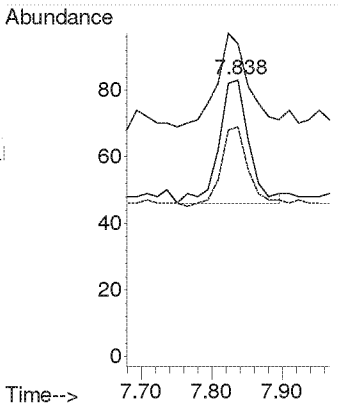
#3
Propylene
Concen: 0.024 ppbv
RT: 7.838 min Scan# 1404
Delta R.T. 0.014 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 41 Resp: 111

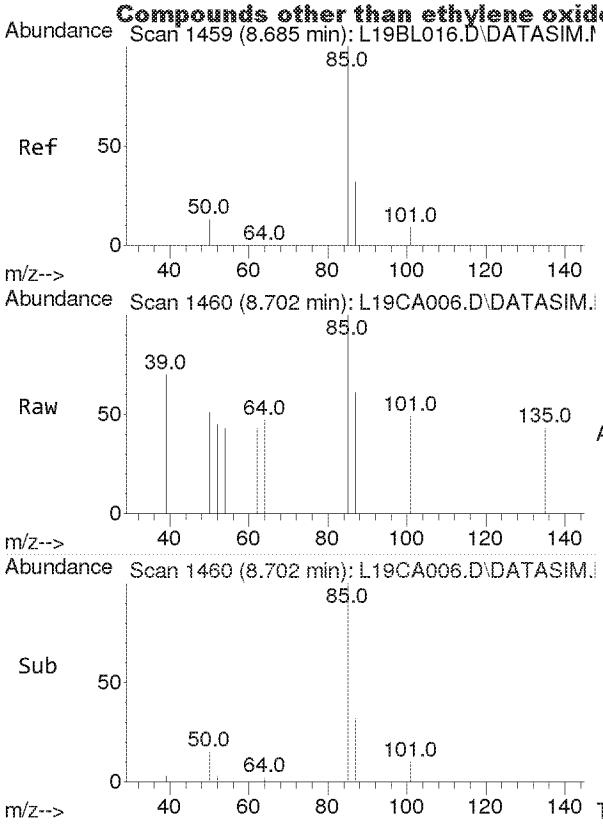
Ion	Ratio	Lower	Upper
41	100		
39	77.5	64.2	96.2
42	60.4	52.6	79.0







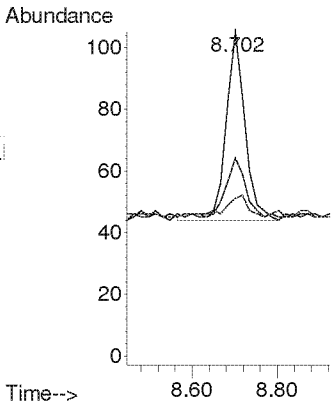
Compounds other than ethylene oxide were not quantitated.

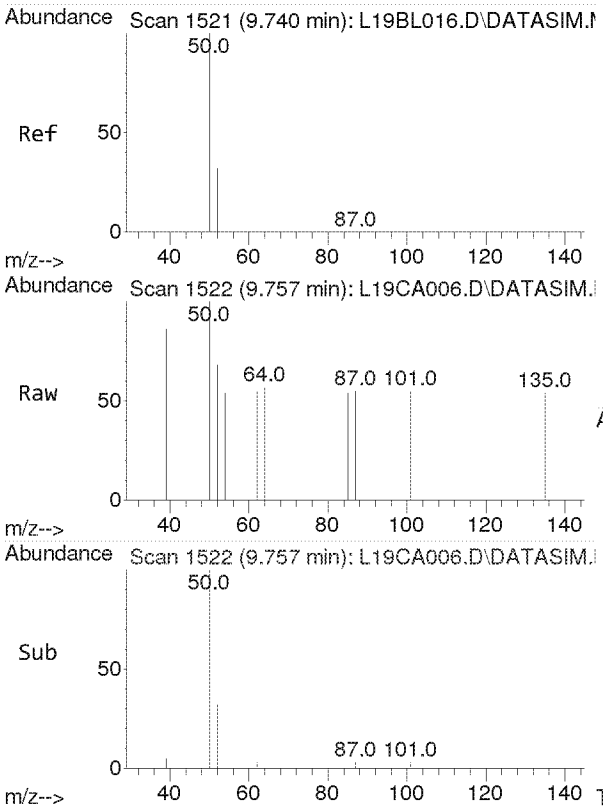


#4
Dichlorodifluoromethane
Concen: 0.009 ppbv
RT: 8.702 min Scan# 1460
Delta R.T. 0.017 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 85 Resp: 193

Ion	Ratio	Lower	Upper
85	100		
87	31.1	26.0	39.0
101	0.0	7.3	10.9#

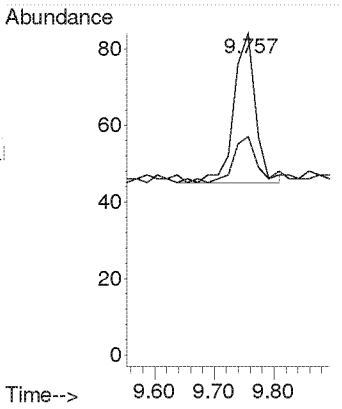




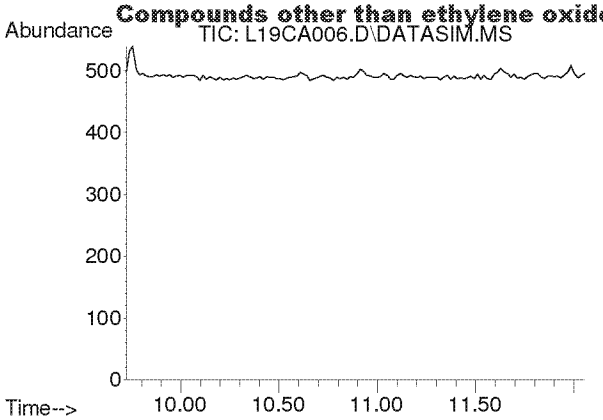
#5
Chloromethane
Concen: 0.018 ppbv
RT: 9.757 min Scan# 1522
Delta R.T. 0.017 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 50 Resp: 99

Ion	Ratio	Lower	Upper
50	100		
52	0.0	26.1	39.1#



Compounds other than ethylene oxide were not quantitated.

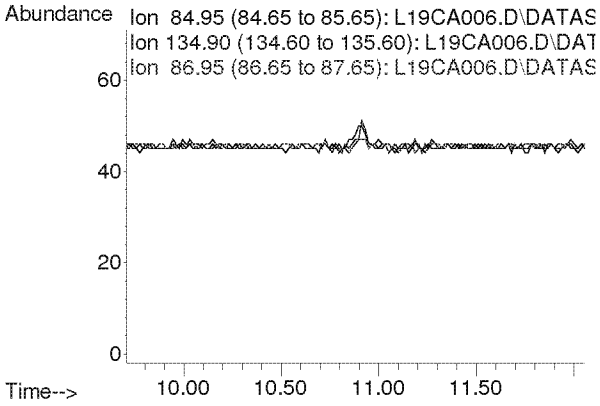


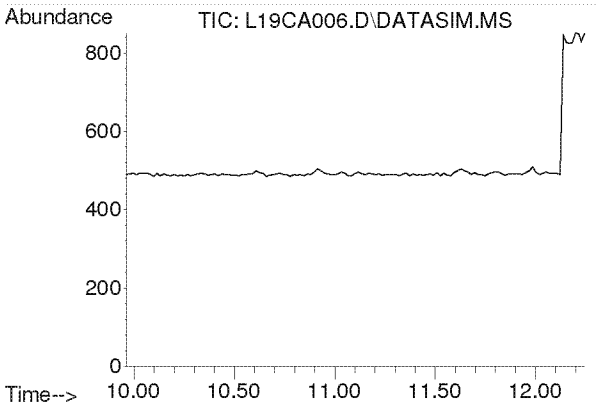
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



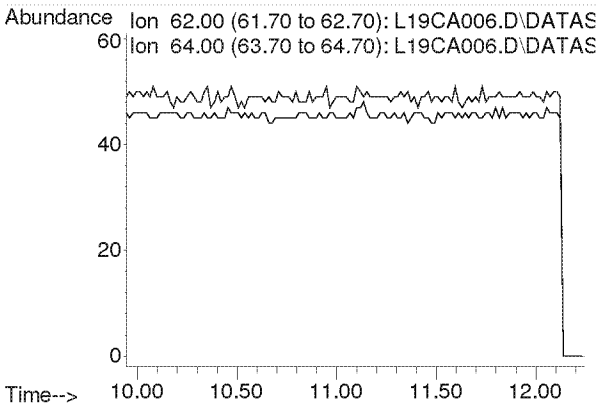


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

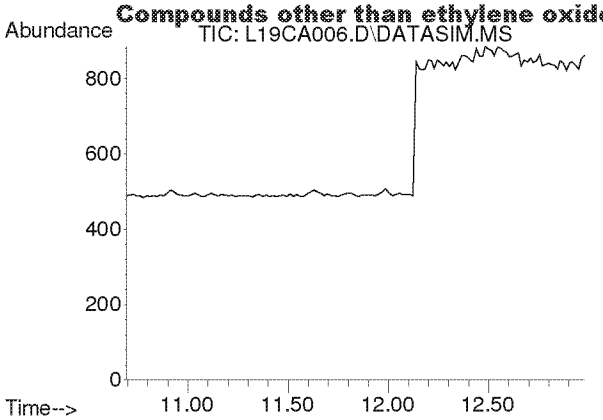
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

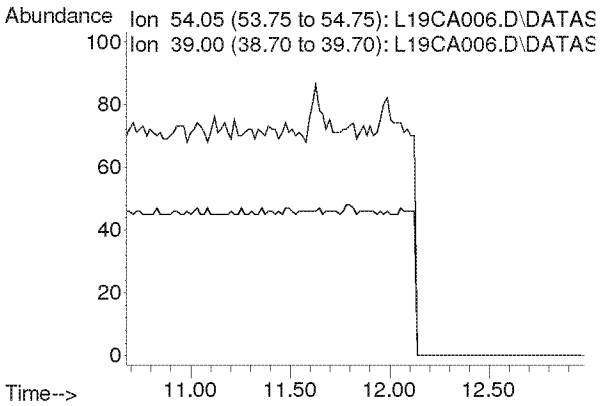


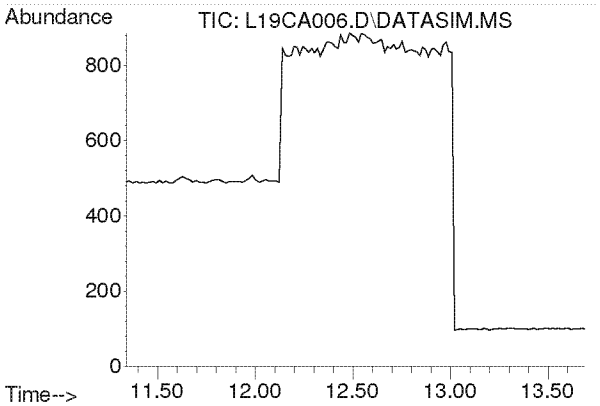
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



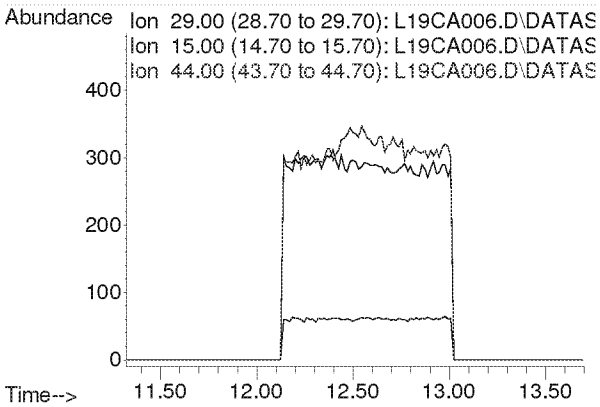


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

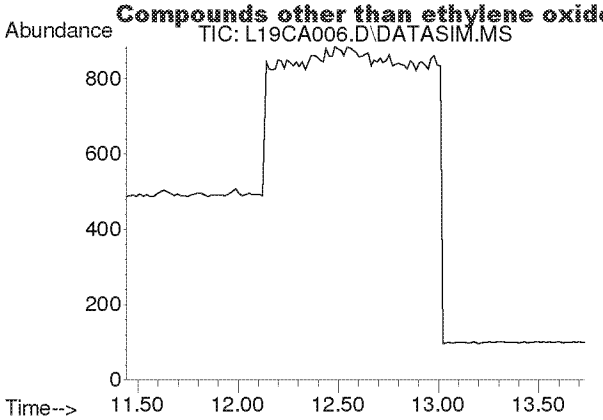
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

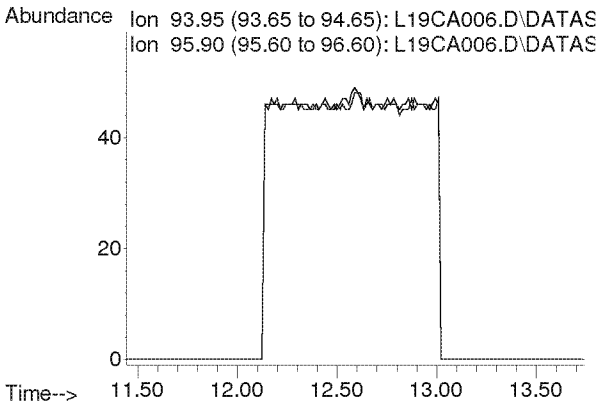


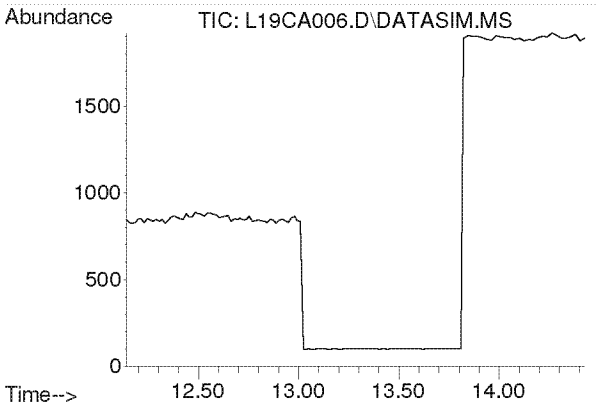
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



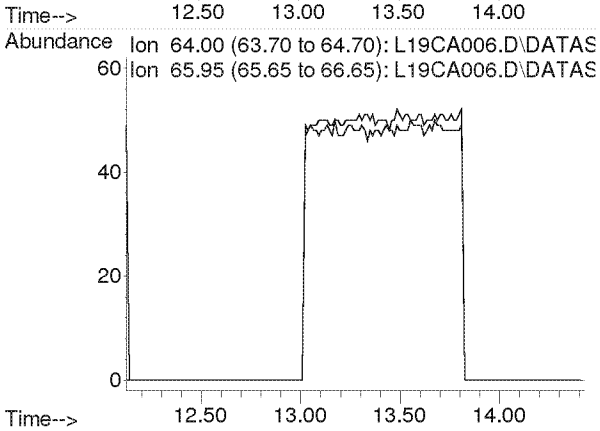


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

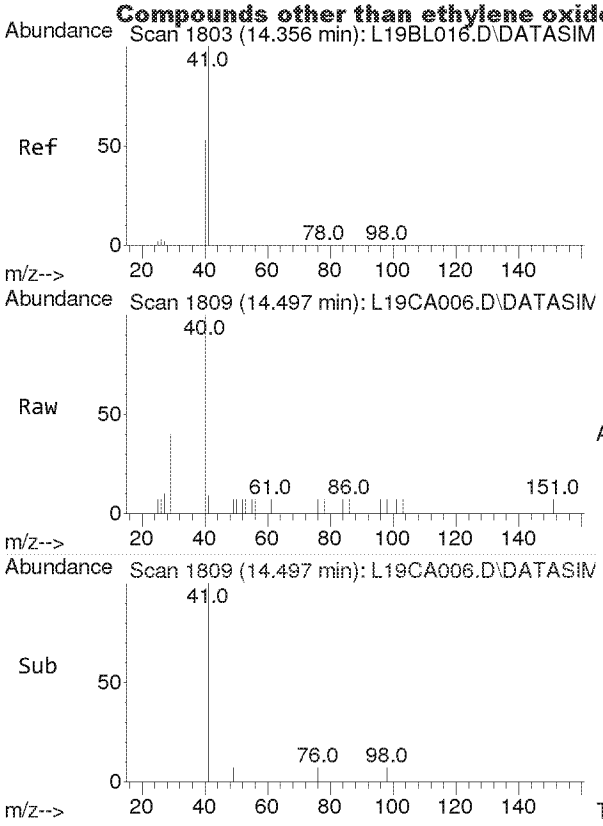
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



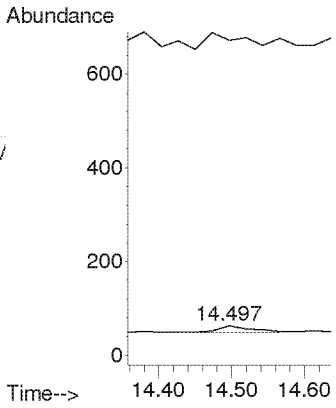
Compounds other than ethylene oxide were not quantitated.

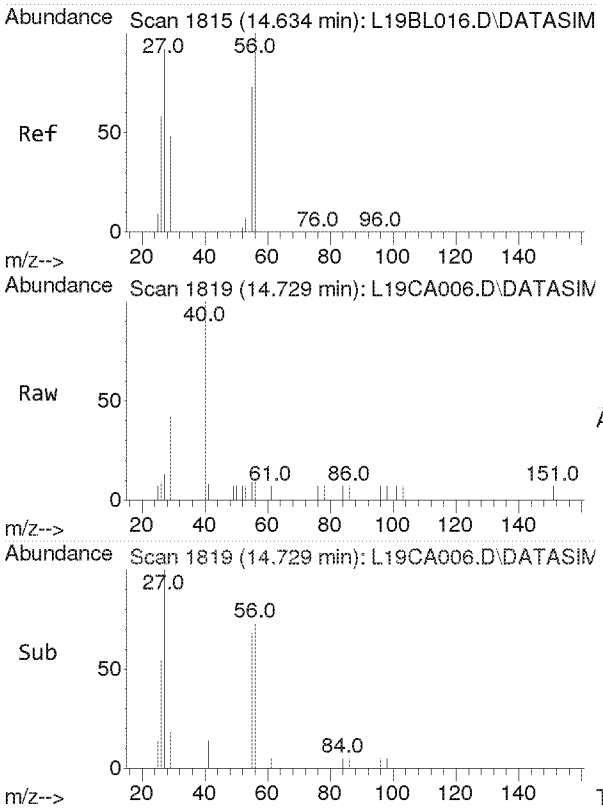


#12
Acetonitrile
Concen: 0.012 ppbv
RT: 14.497 min Scan# 1809
Delta R.T. 0.141 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 41 Resp: 47

Ion	Ratio	Lower	Upper
41	100		
40	259.6	42.2	63.4#

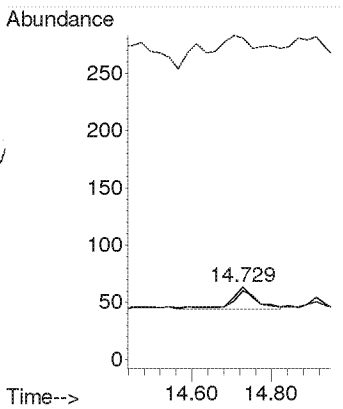




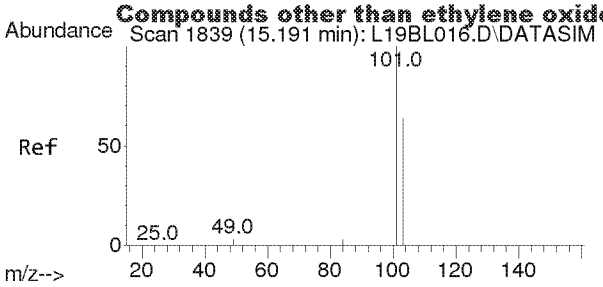
#13
Acrolein
Concen: 0.040 ppbv
RT: 14.729 min Scan# 1819
Delta R.T. 0.095 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 56 Resp: 79

Ion	Ratio	Lower	Upper
56	100		
55	68.4	60.8	91.2
29	135.4	43.8	65.6#



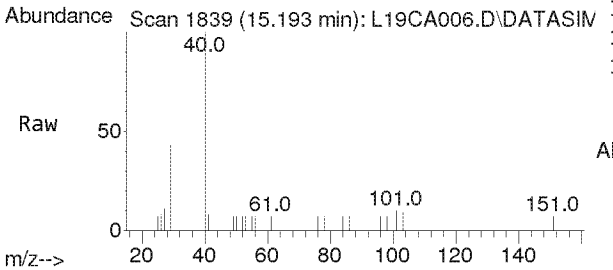
Compounds other than ethylene oxide were not quantitated.

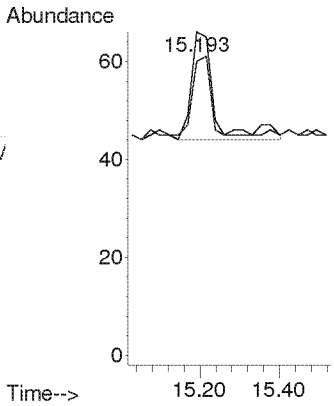


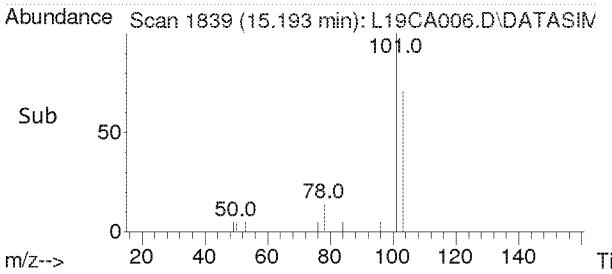
#14
Trichlorofluoromethane
Concen: 0.005 ppbv
RT: 15.193 min Scan# 1839
Delta R.T. 0.002 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

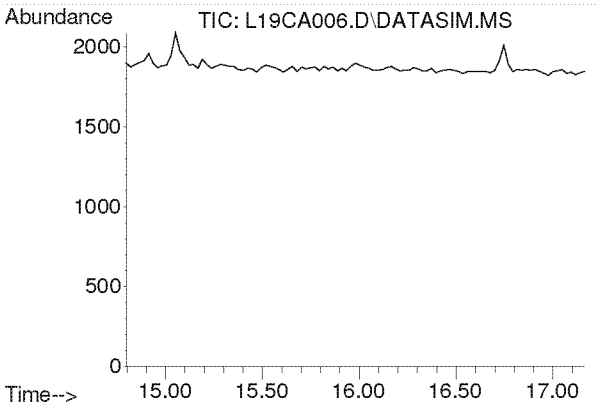
Tgt Ion:101 Resp: 86

Ion	Ratio	Lower	Upper
101	100		
103	54.7	51.7	77.5







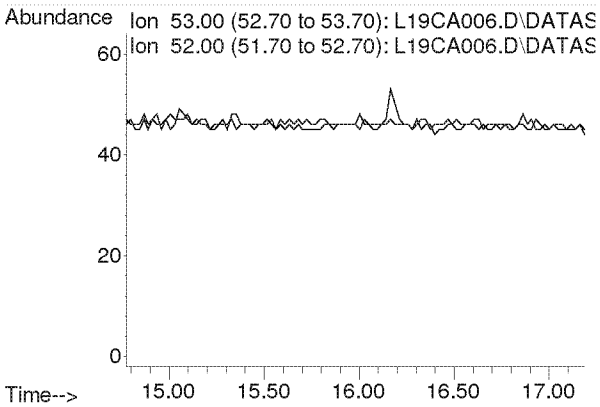


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

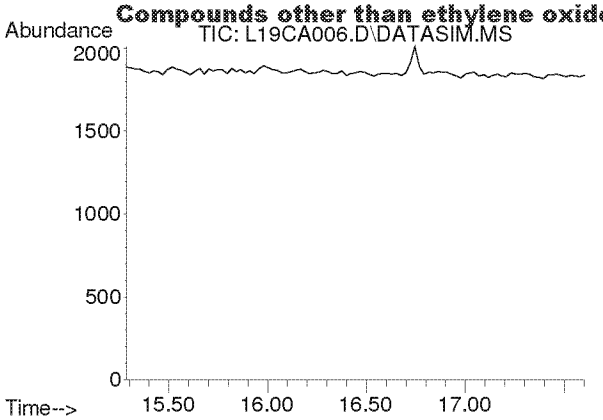
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

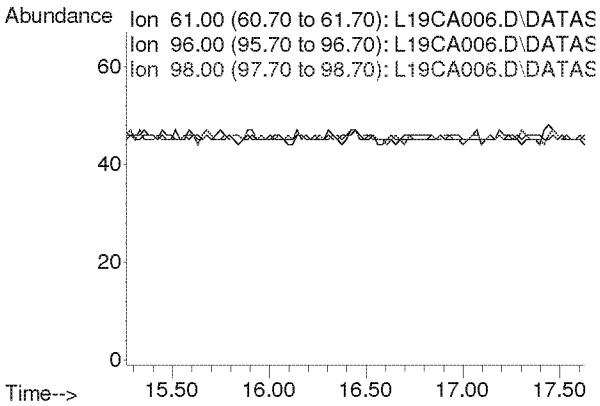


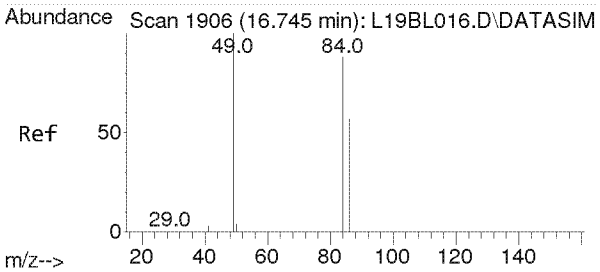
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2

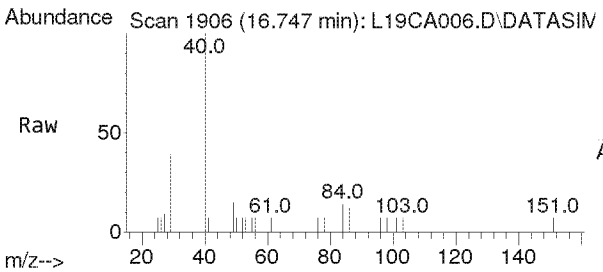


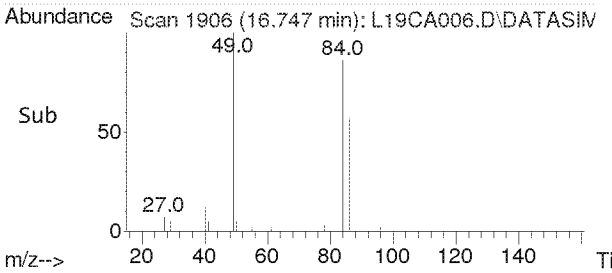


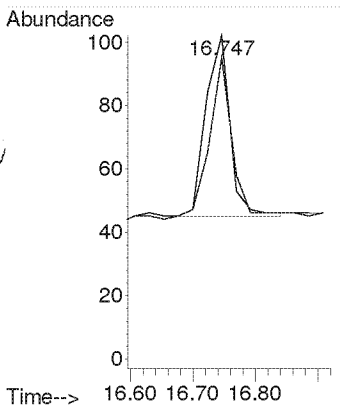
#17
Methylene Chloride
Concen: 0.029 ppbv
RT: 16.747 min Scan# 1906
Delta R.T. 0.002 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 49 Resp: 153

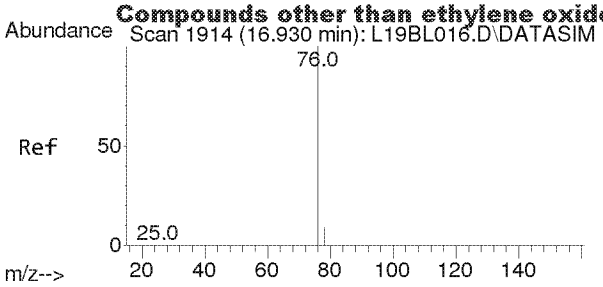
Ion	Ratio	Lower	Upper
49	100		
84	87.6	54.0	100.4







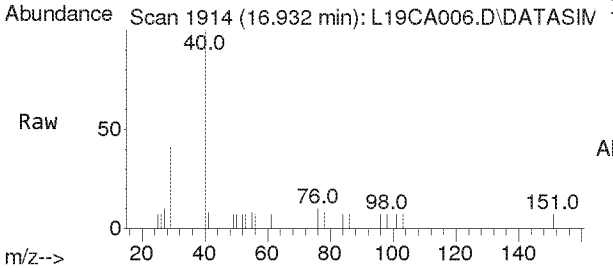
Compounds other than ethylene oxide were not quantitated.

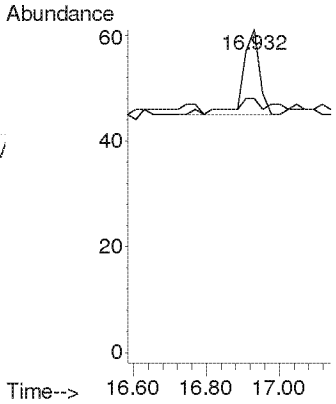


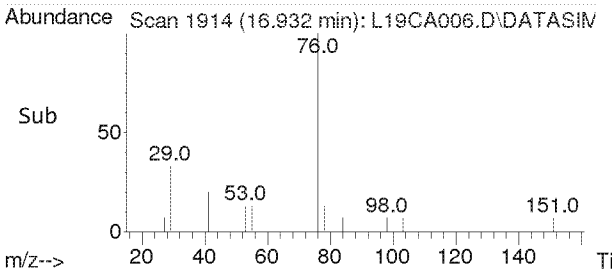
#18
Carbon Disulfide
Concen: 0.003 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

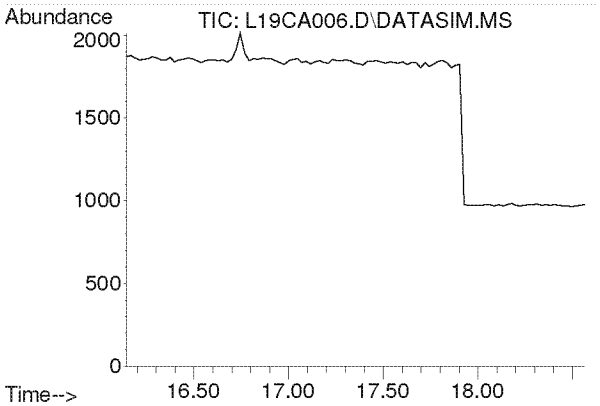
Tgt Ion: 76 Resp: 51

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.4	11.0#







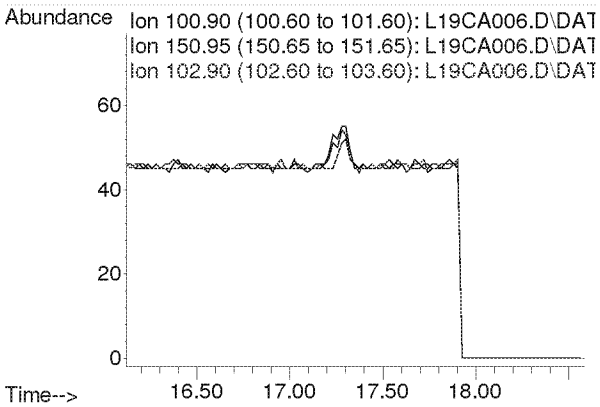


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

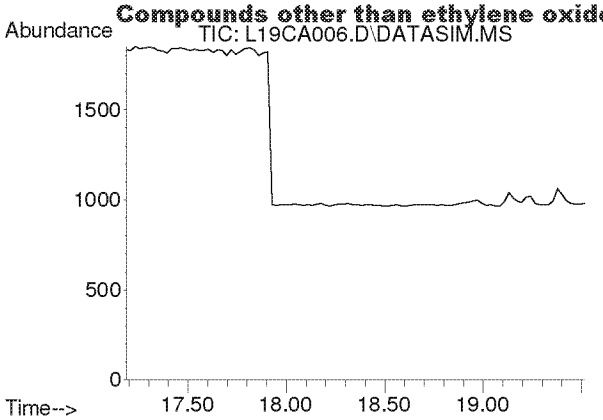
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

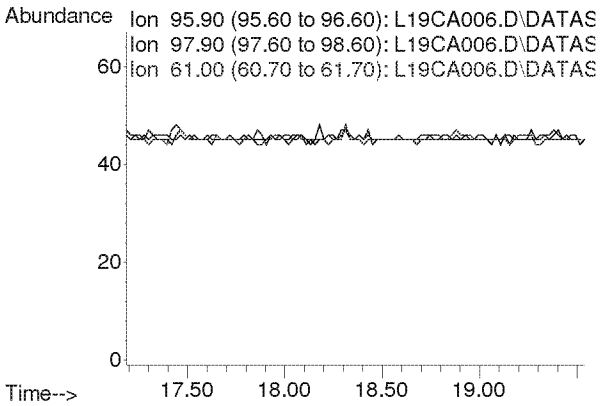


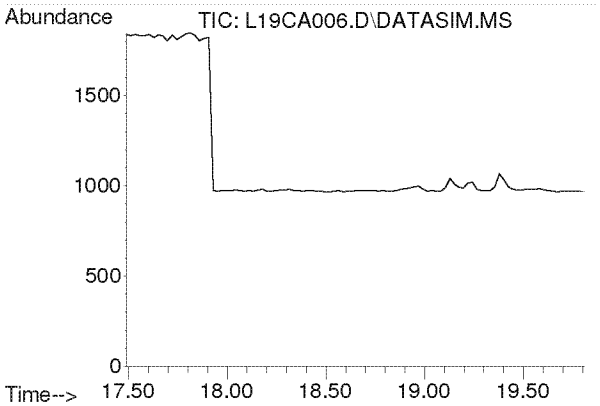
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



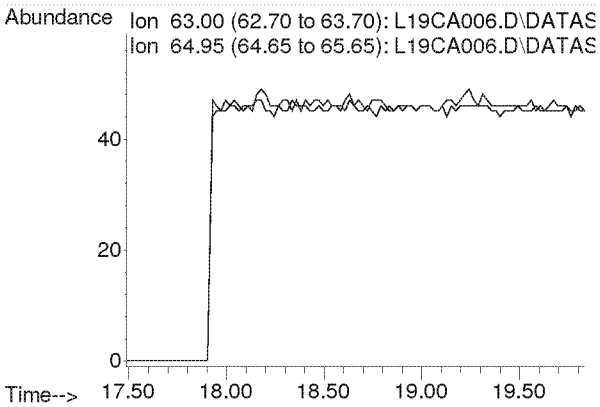


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

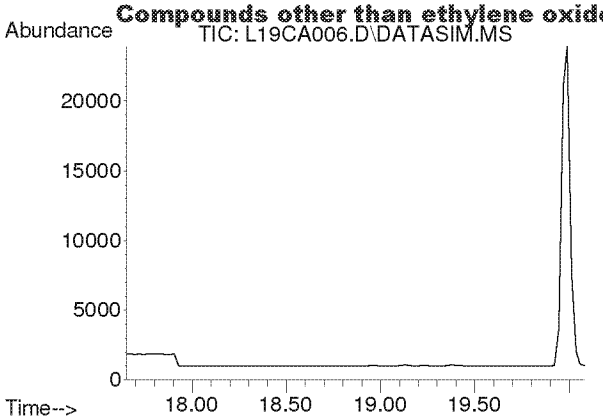
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

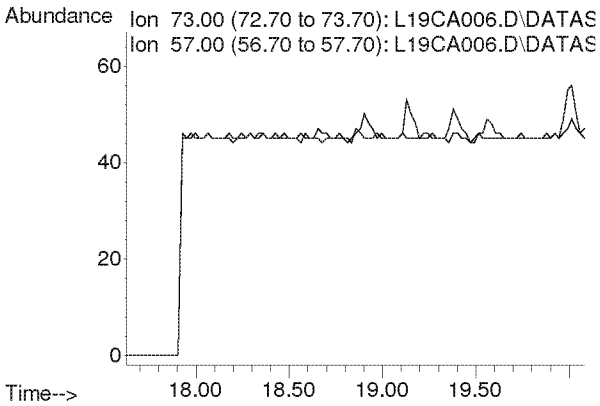


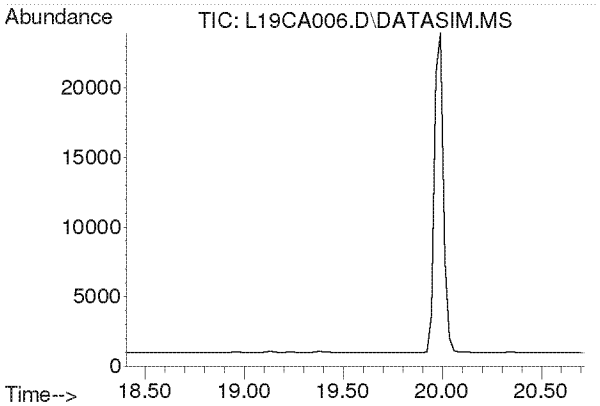
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



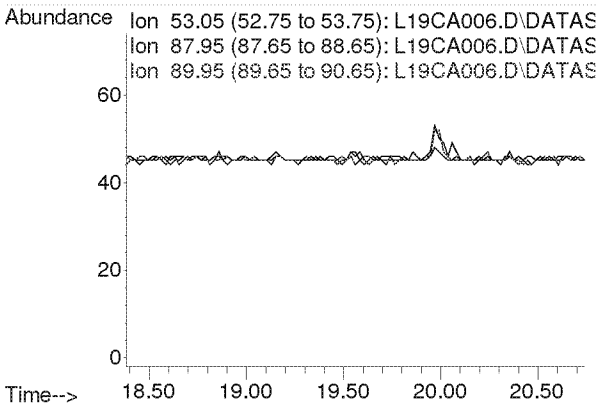


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

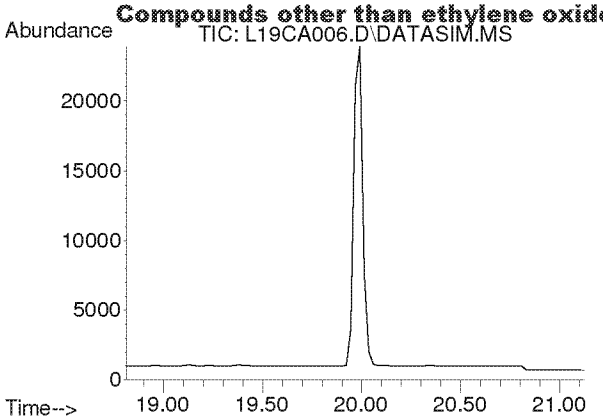
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

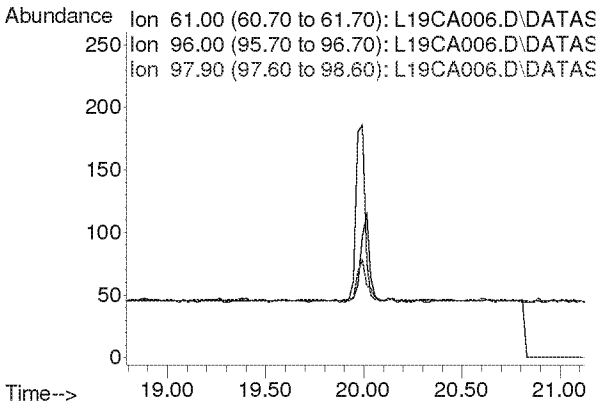


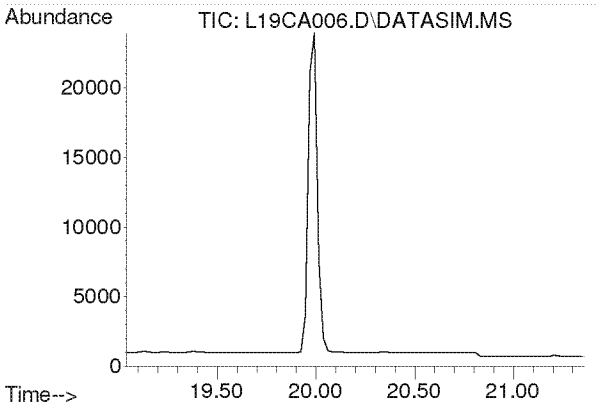
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



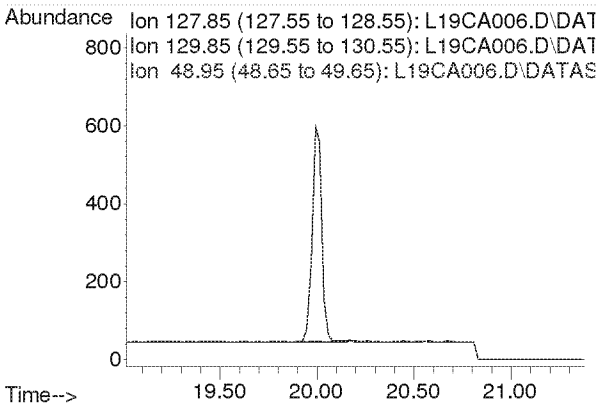


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

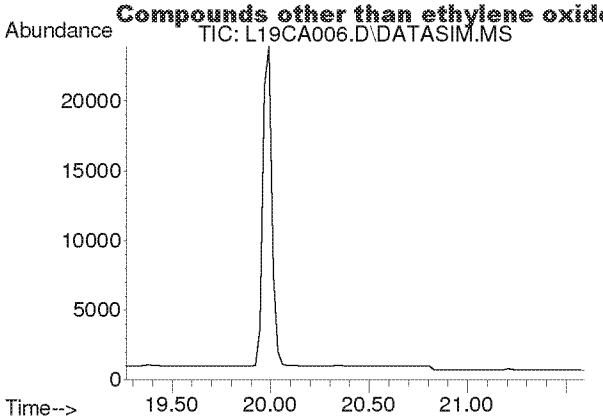
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

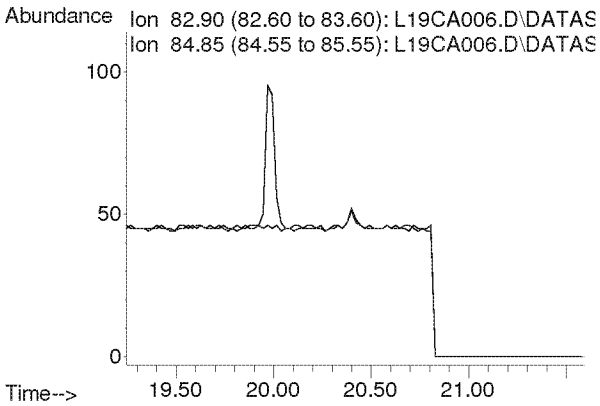


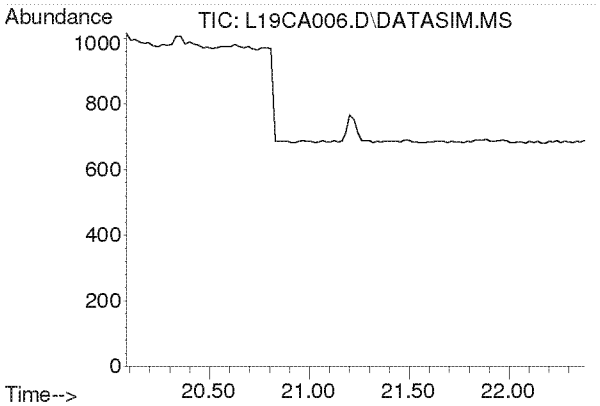
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



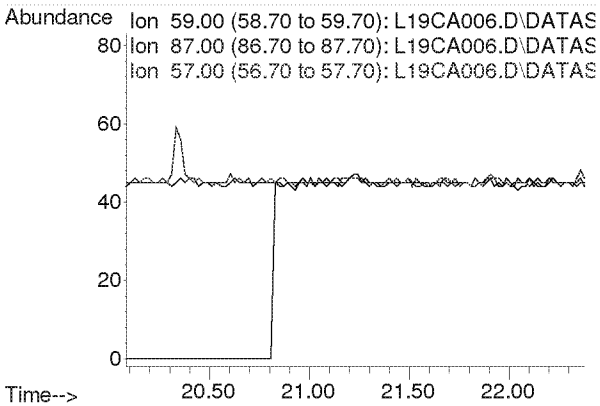


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

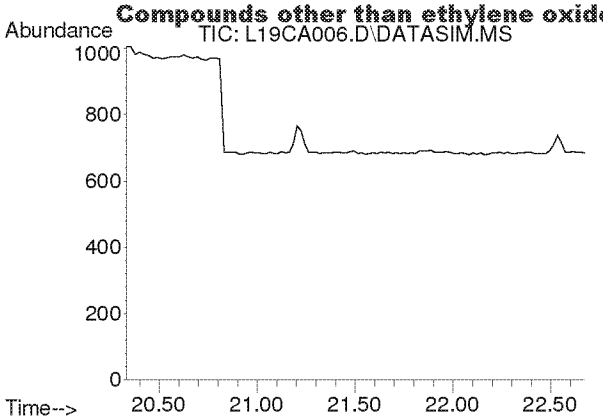
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

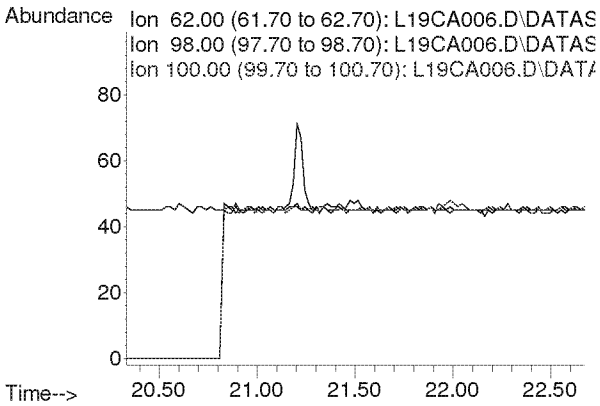


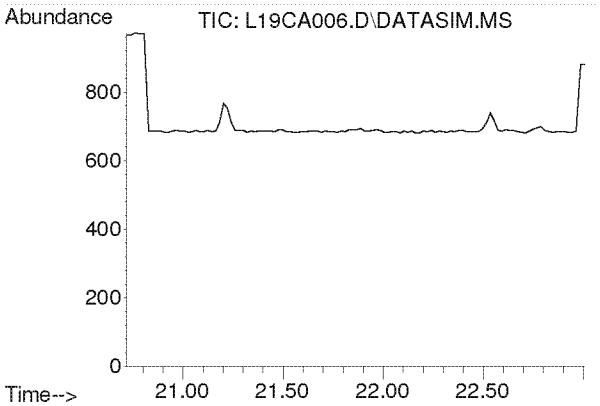
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



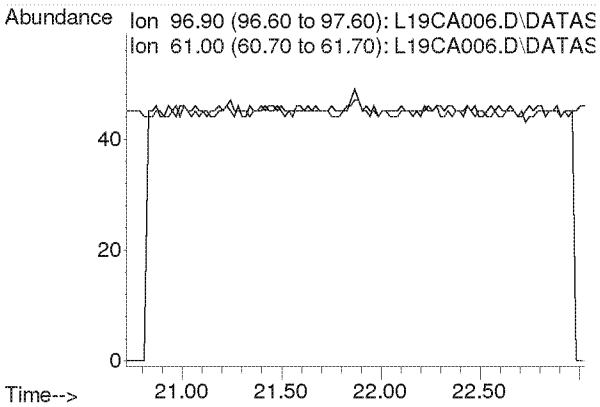


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

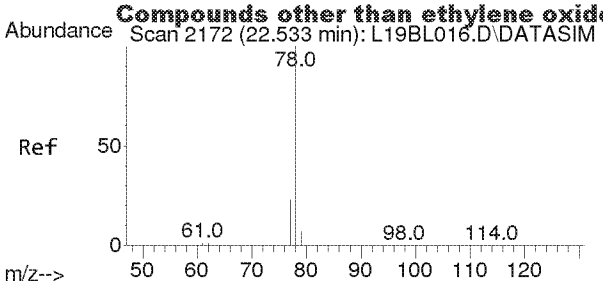
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



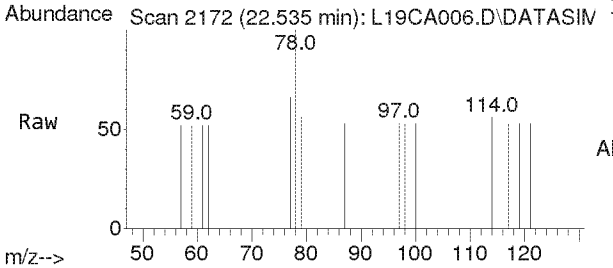
Compounds other than ethylene oxide were not quantitated.

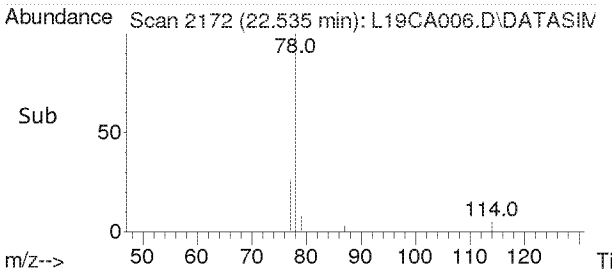


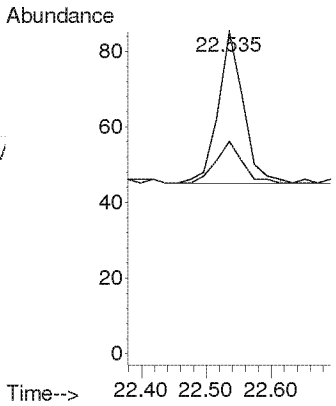
#31
Benzene
Concen: 0.009 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.002 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

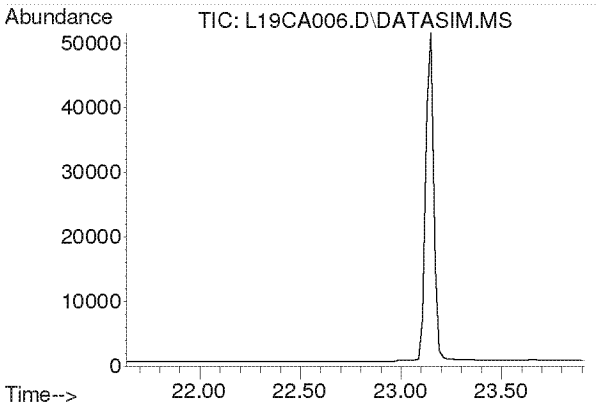
Tgt Ion: 78 Resp: 109

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.4#







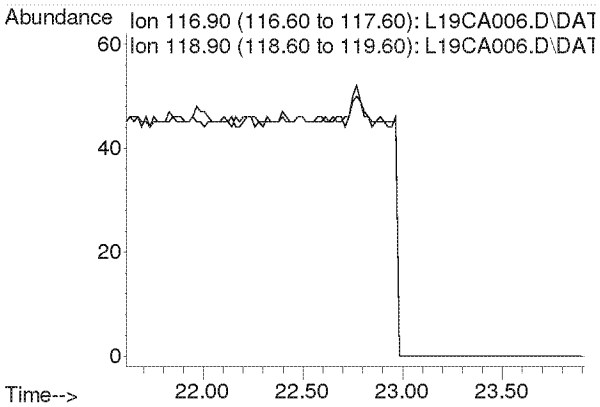


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

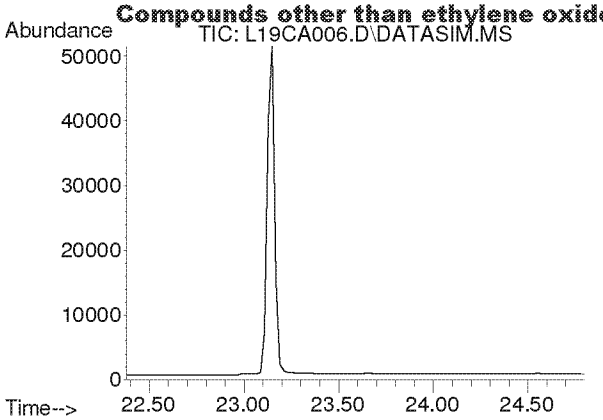
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

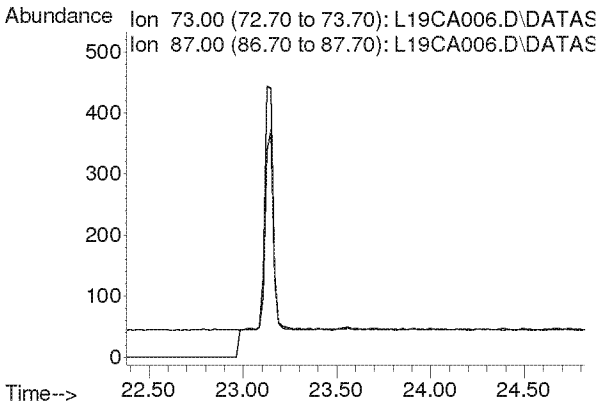


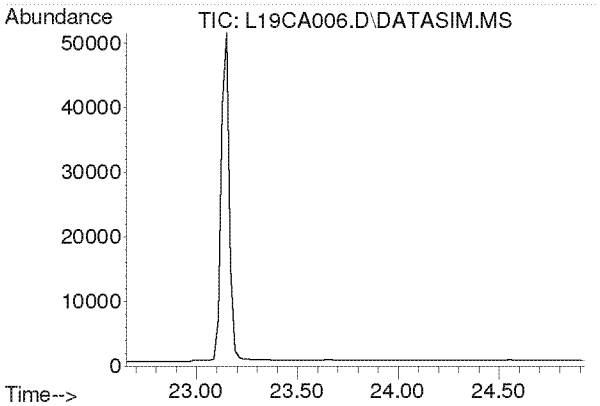
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



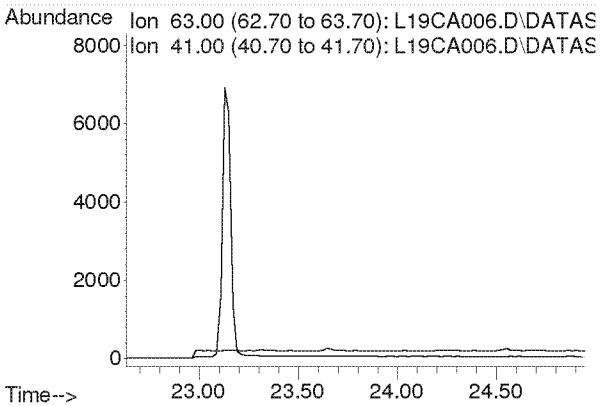


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

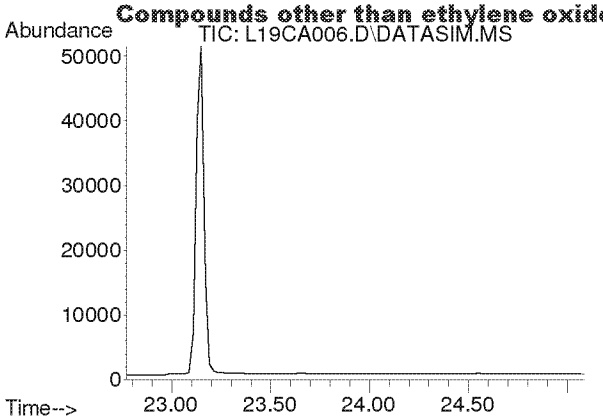
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

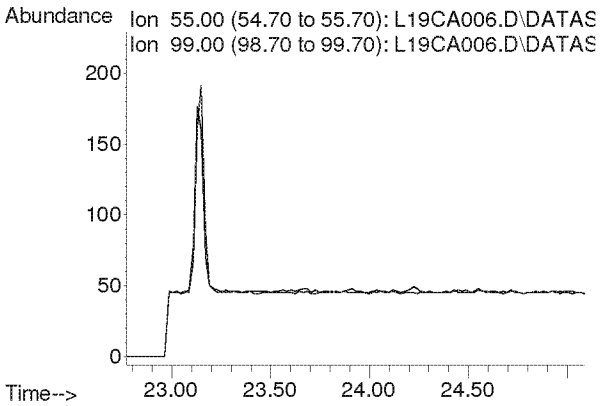


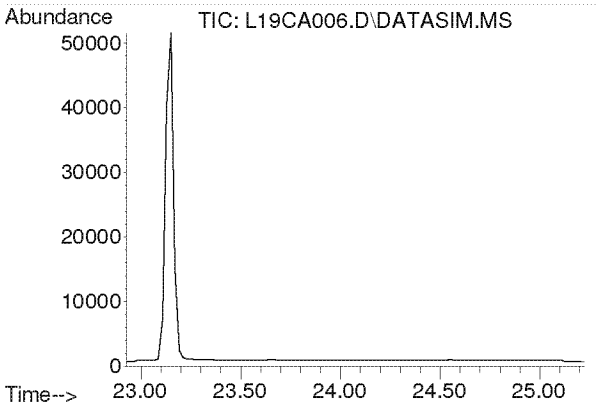
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



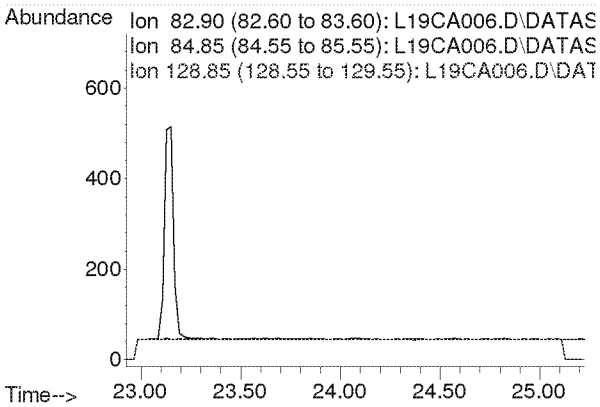


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

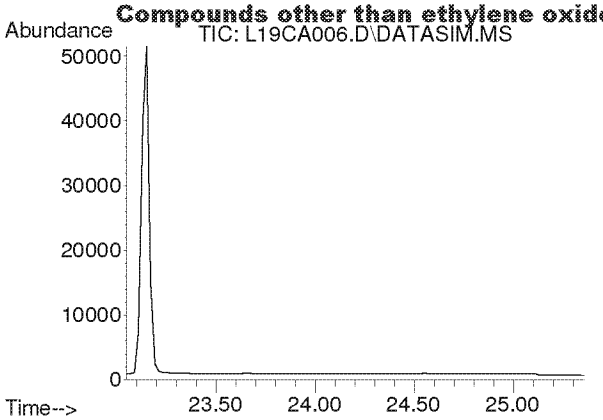
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

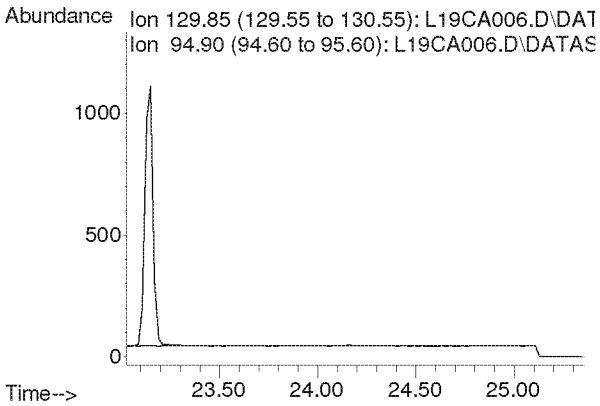


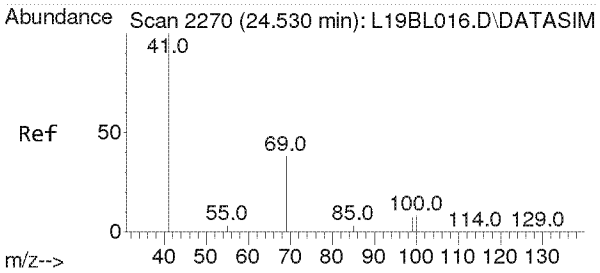
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1

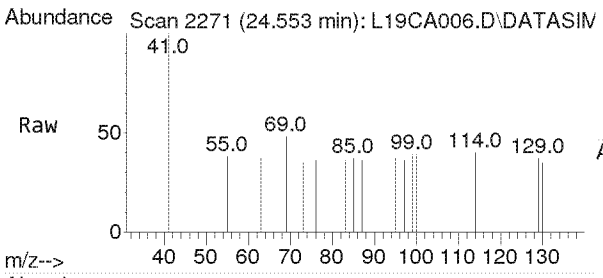


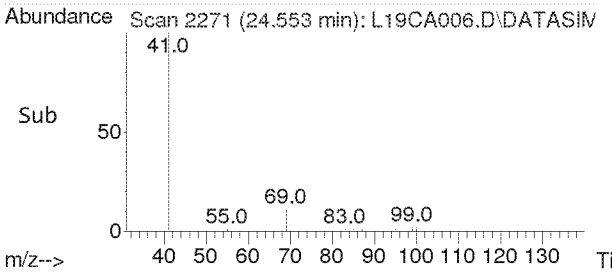


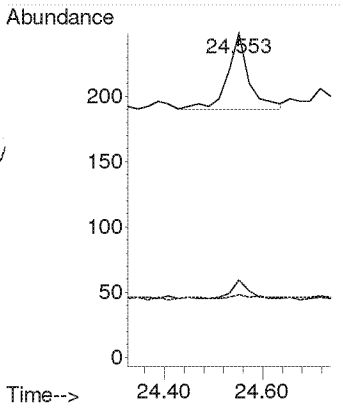
#38
Methyl Methacrylate
Concen: 0.016 ppbv
RT: 24.553 min Scan# 2271
Delta R.T. 0.023 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 41 Resp: 176

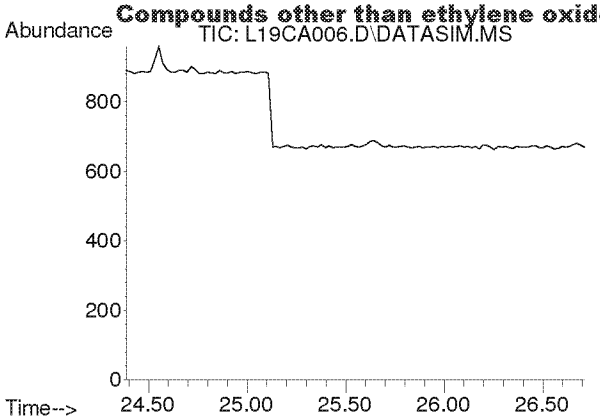
Ion	Ratio	Lower	Upper
41	100		
69	0.0	16.8	25.2#
100	0.0	4.5	6.7#







Compounds other than ethylene oxide were not quantitated.

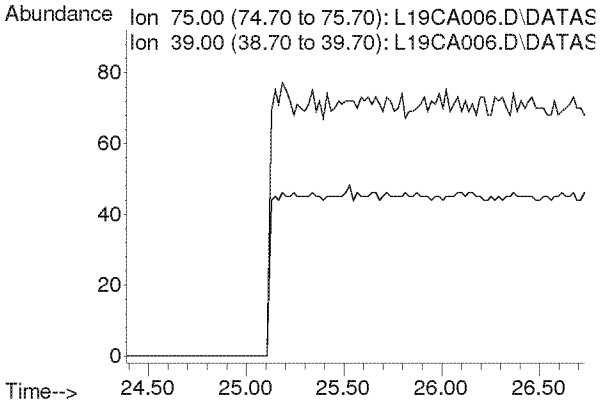


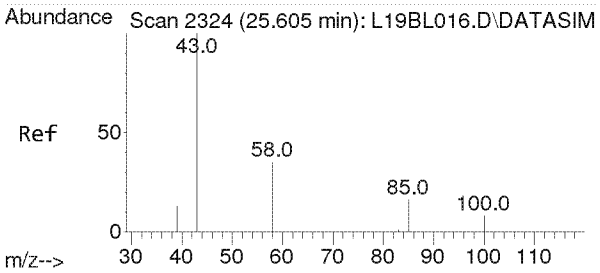
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2

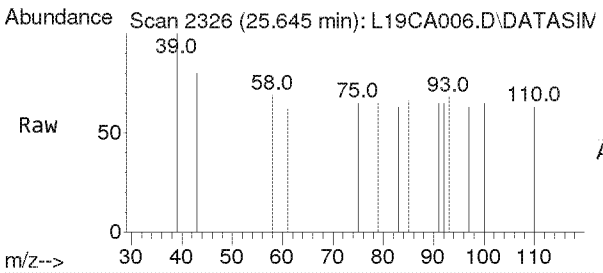


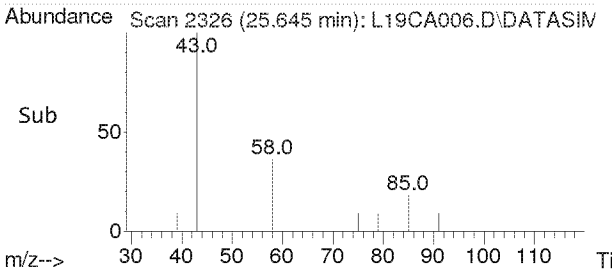


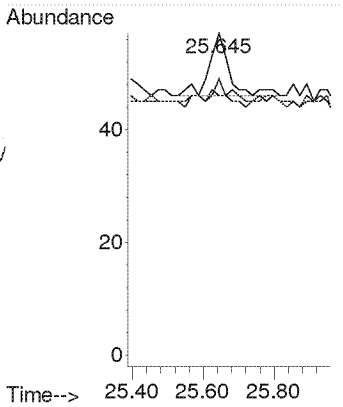
#40
Methyl Isobutyl Ketone
Concen: 0.005 ppbv
RT: 25.645 min Scan# 2326
Delta R.T. 0.040 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 43 Resp: 43

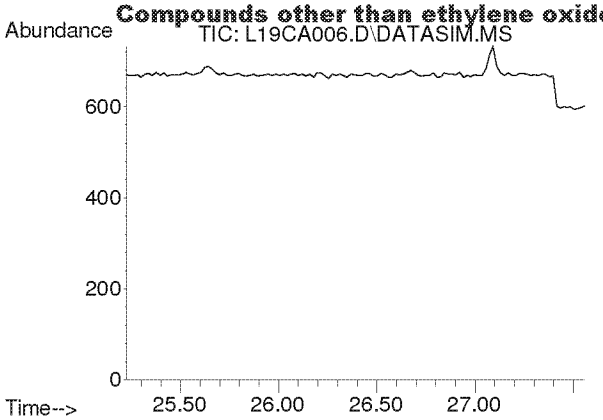
Ion	Ratio	Lower	Upper
43	100		
58	0.0	28.0	42.0#
100	0.0	7.0	10.4#







Compounds other than ethylene oxide were not quantitated.

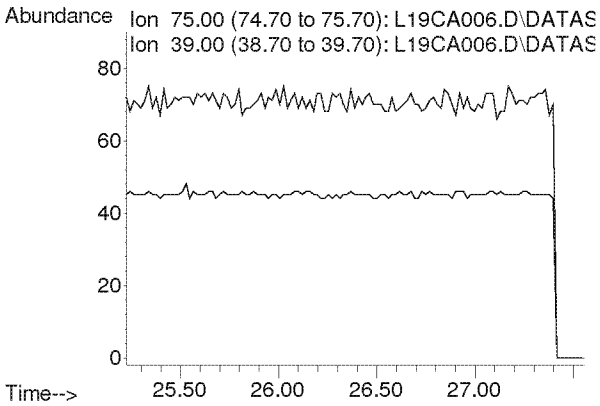


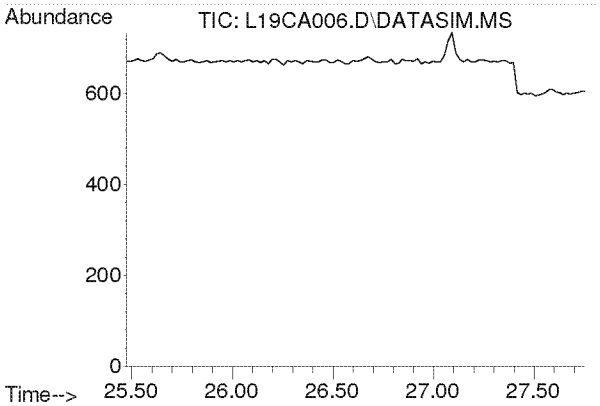
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



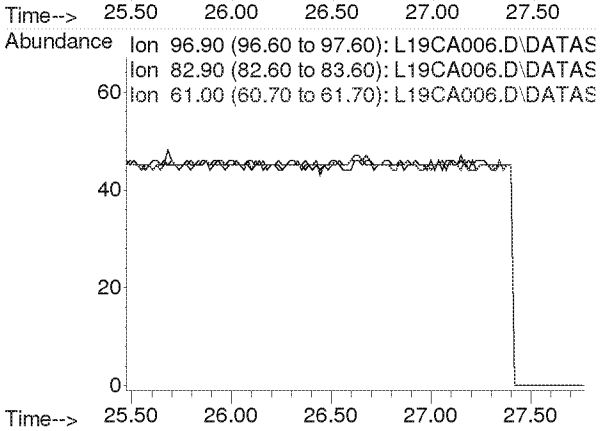


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

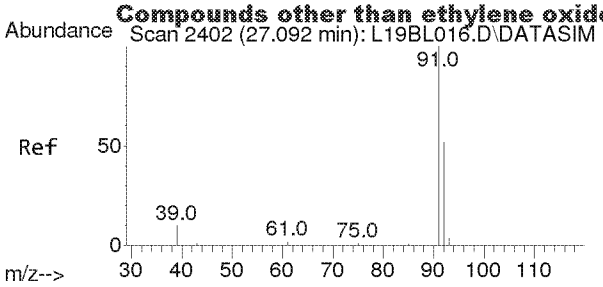
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



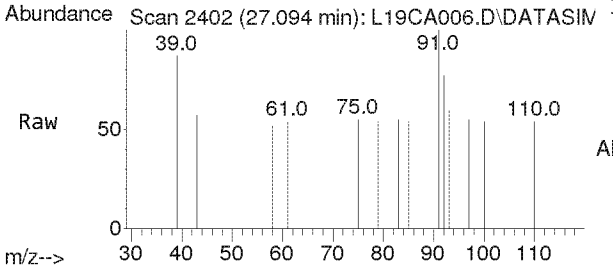
Compounds other than ethylene oxide were not quantitated.

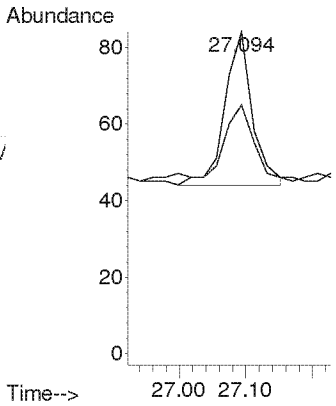


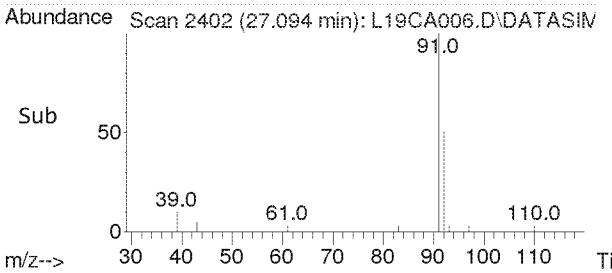
#44
Toluene
Concen: 0.009 ppbv
RT: 27.094 min Scan# 2402
Delta R.T. 0.002 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

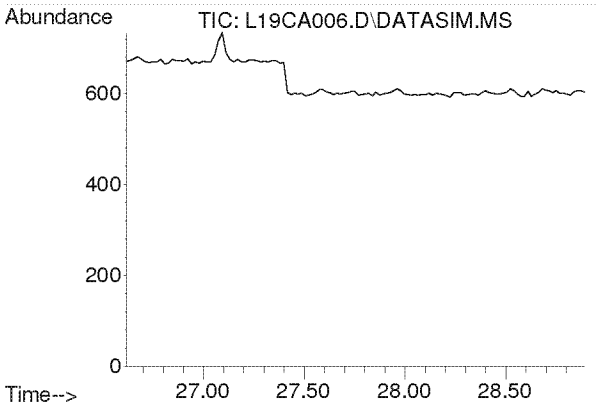
Tgt Ion: 91 Resp: 116

Ion	Ratio	Lower	Upper
91	100		
92	46.6	42.0	63.0







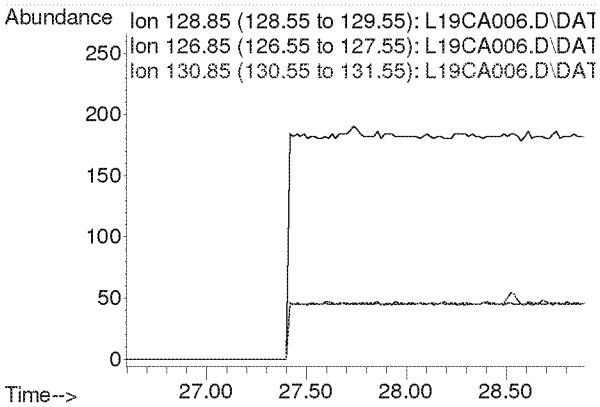


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

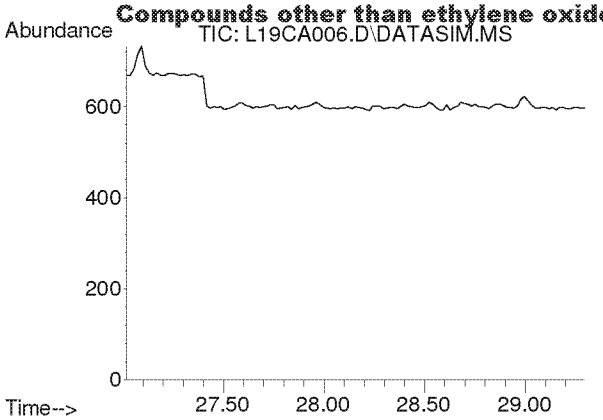
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

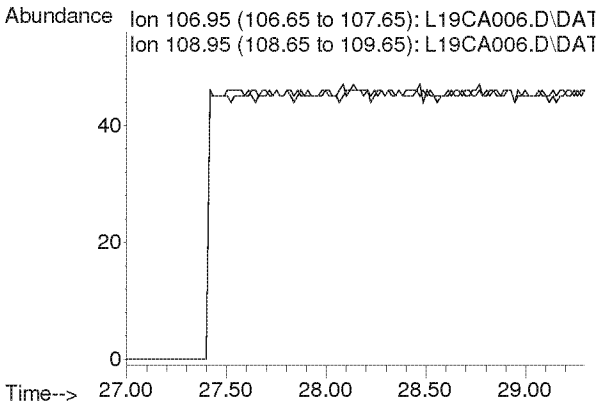


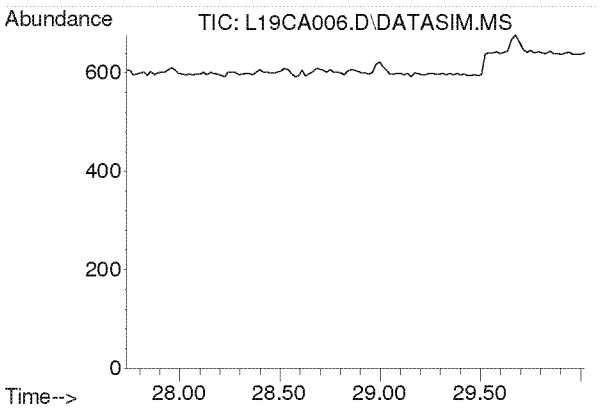
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



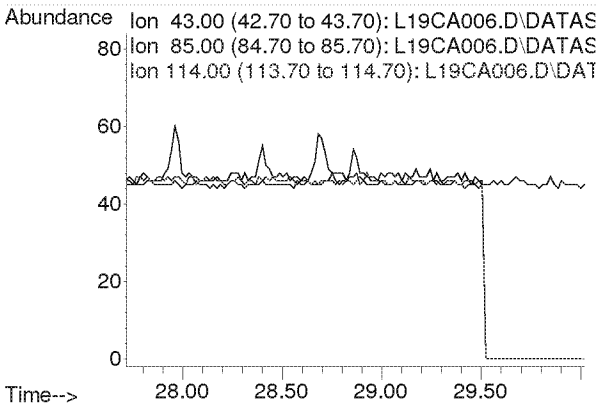


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

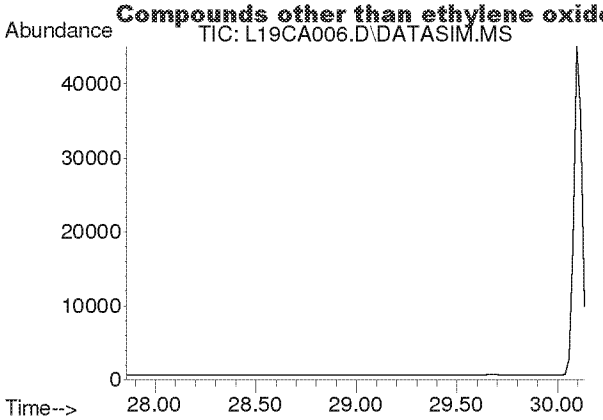
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

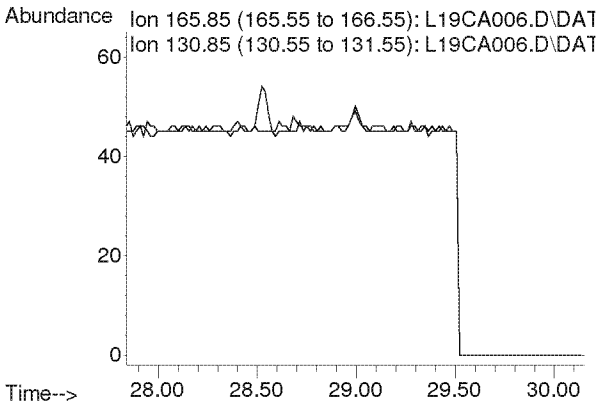


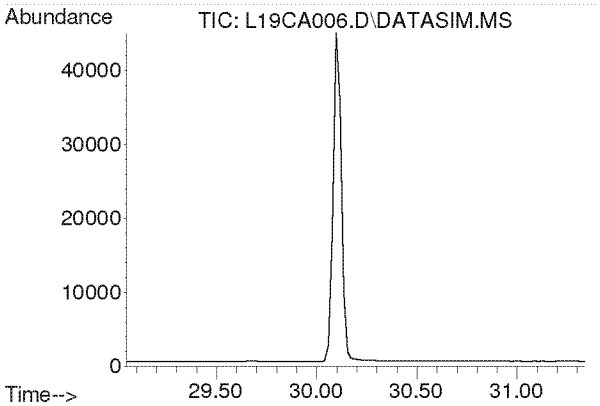
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



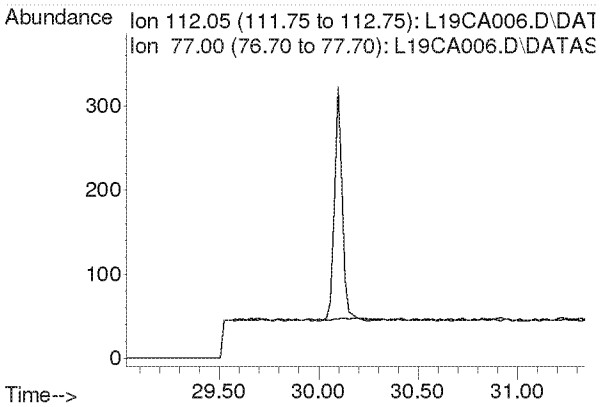


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

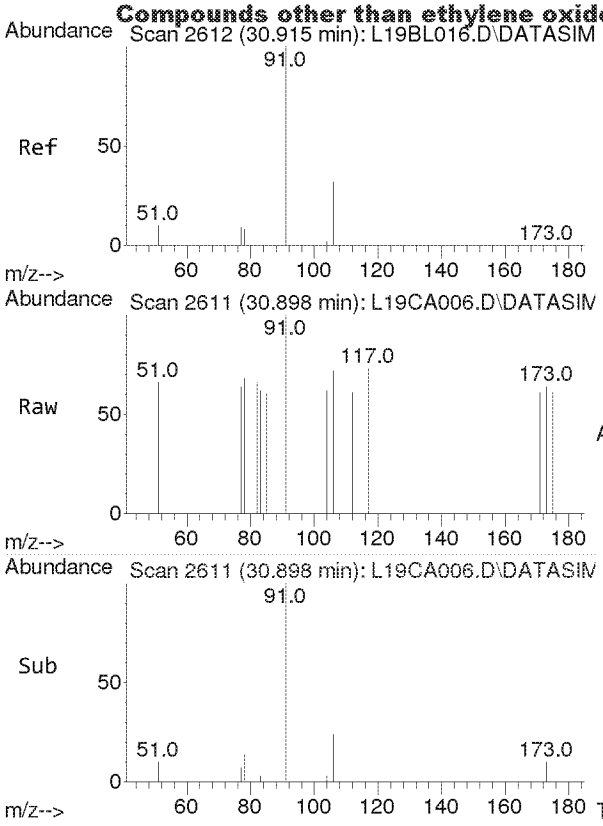
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



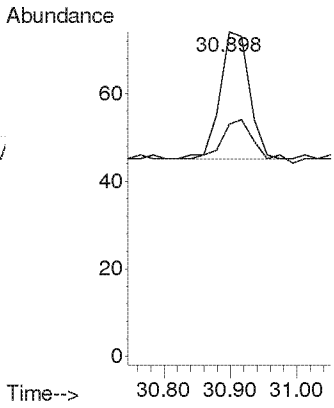
Compounds other than ethylene oxide were not quantitated.

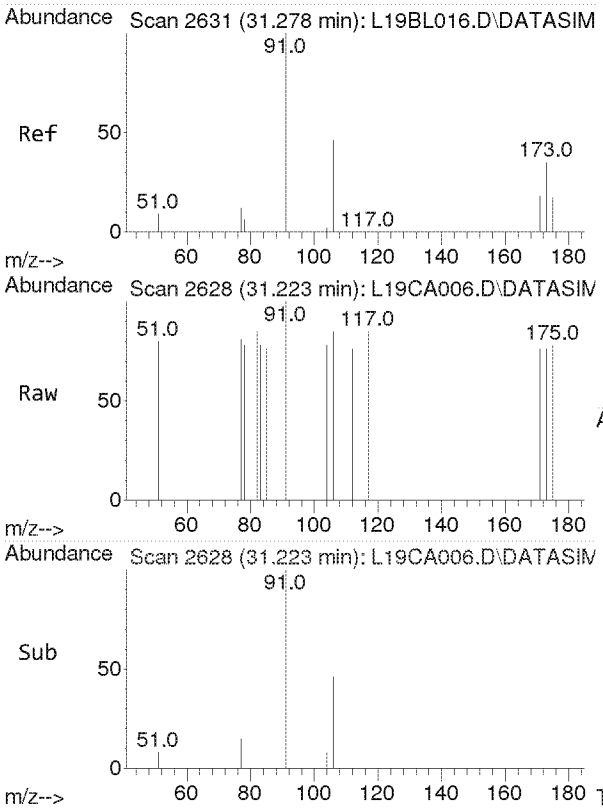


#50
Ethylbenzene
Concen: 0.007 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 91 Resp: 90

Ion	Ratio	Lower	Upper
91	100		
106	0.0	26.0	39.0#

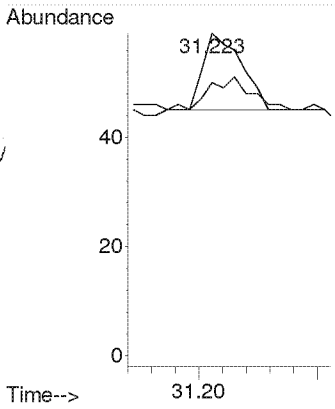




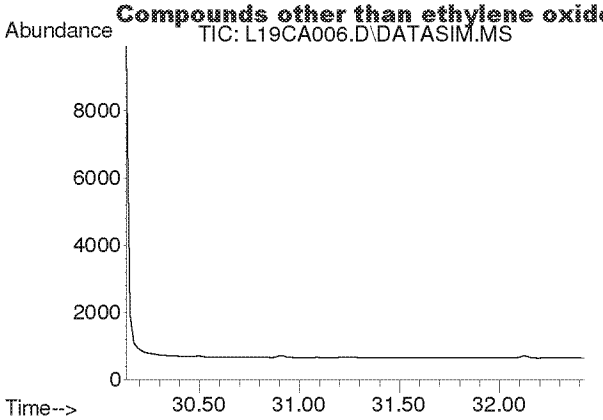
#51
m,p-Xylene
Concen: 0.006 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 91 Resp: 63

Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.3	55.9#



Compounds other than ethylene oxide were not quantitated.

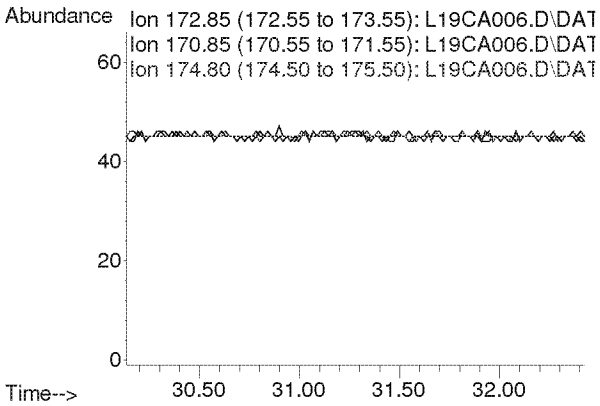


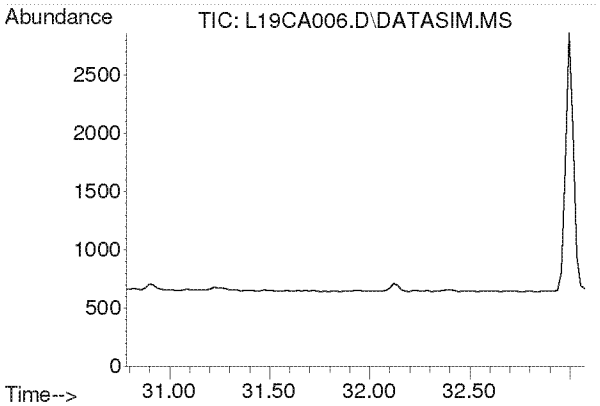
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



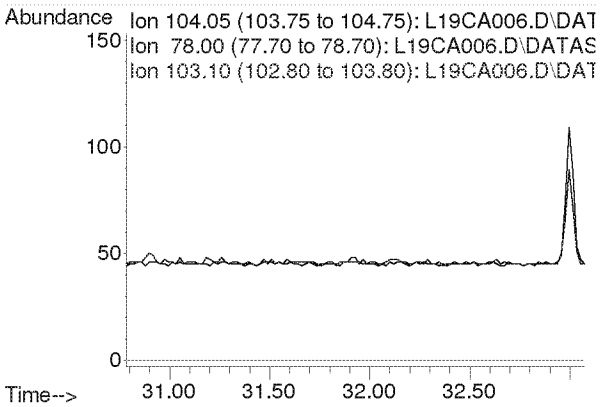


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

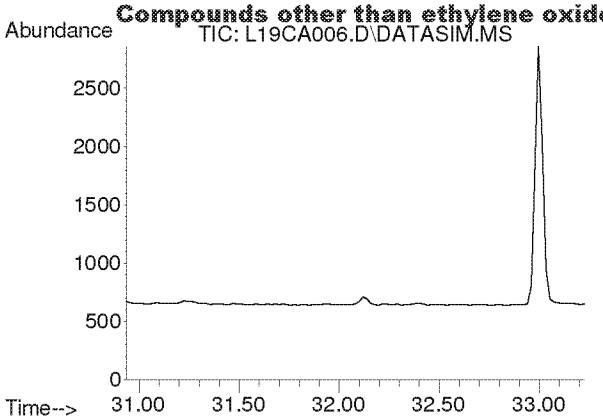
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

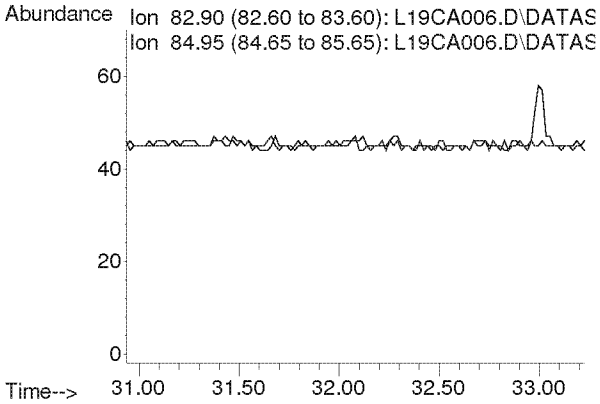


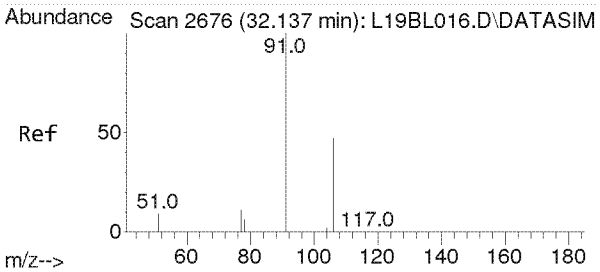
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

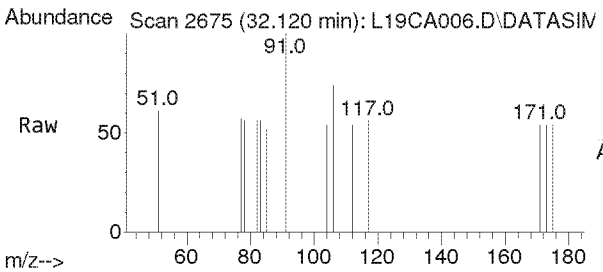


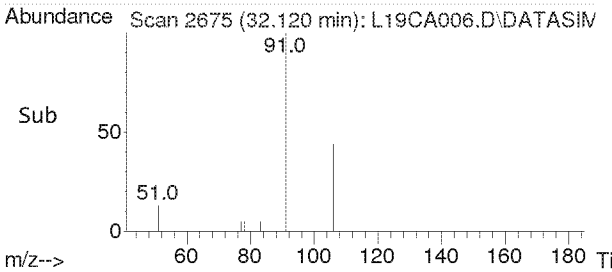


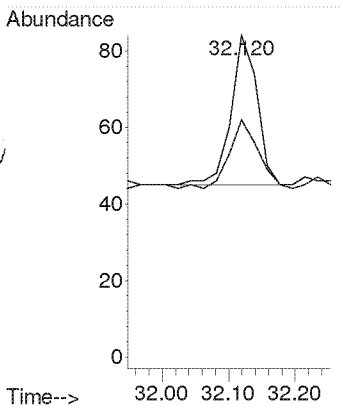
#55
o-Xylene
Concen: 0.010 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 91 Resp: 107

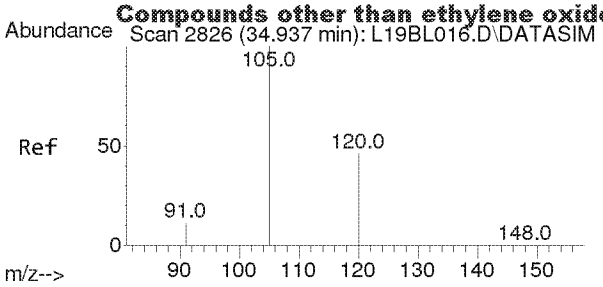
Ion	Ratio	Lower	Upper
91	100		
106	51.4	36.6	55.0







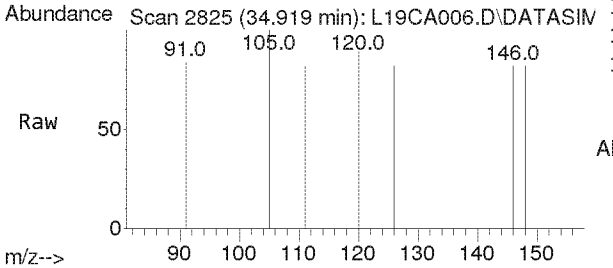
Compounds other than ethylene oxide were not quantitated.

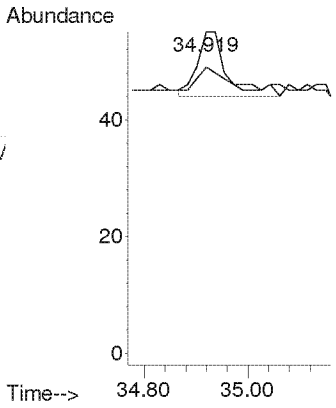


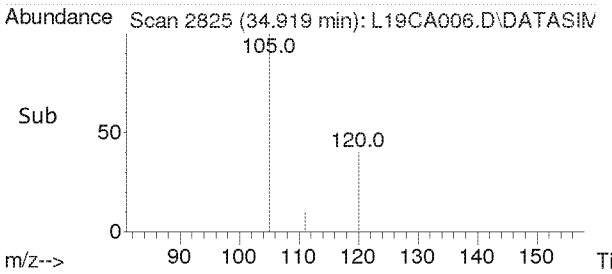
#56
1,3,5-Trimethylbenzene
Concen: 0.004 ppbv
RT: 34.919 min Scan# 2825
Delta R.T. -0.017 min
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

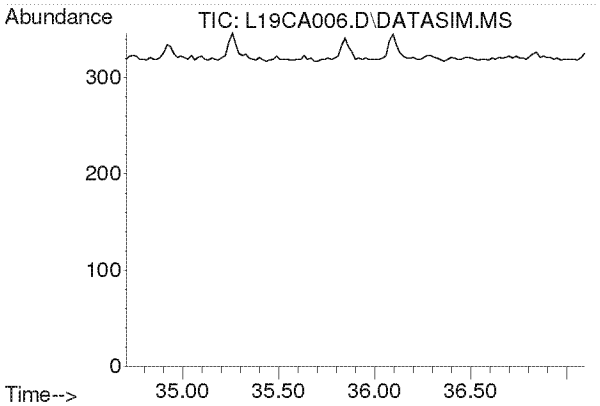
Tgt Ion:105 Resp: 43

Ion	Ratio	Lower	Upper
105	100		
120	0.0	36.8	55.2#







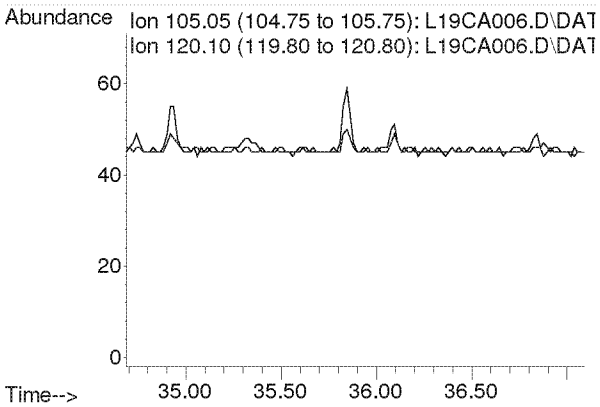


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

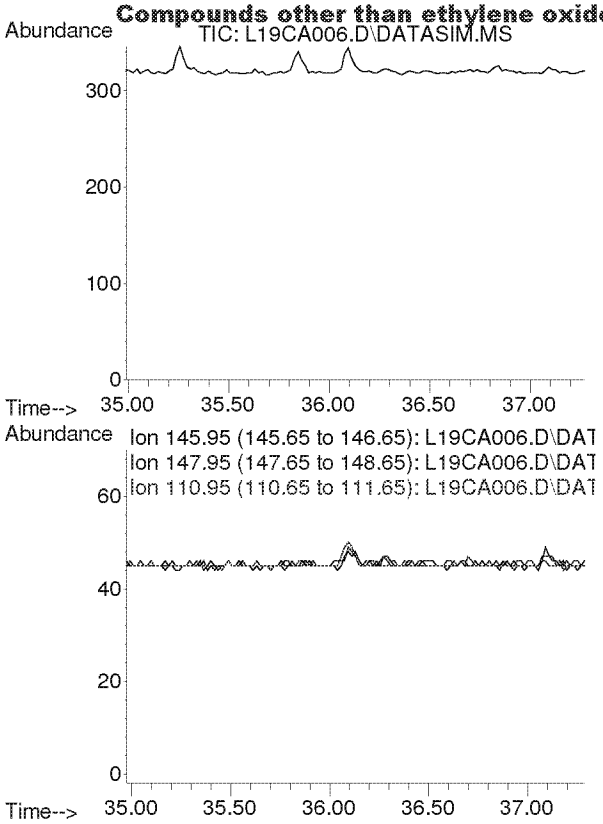
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

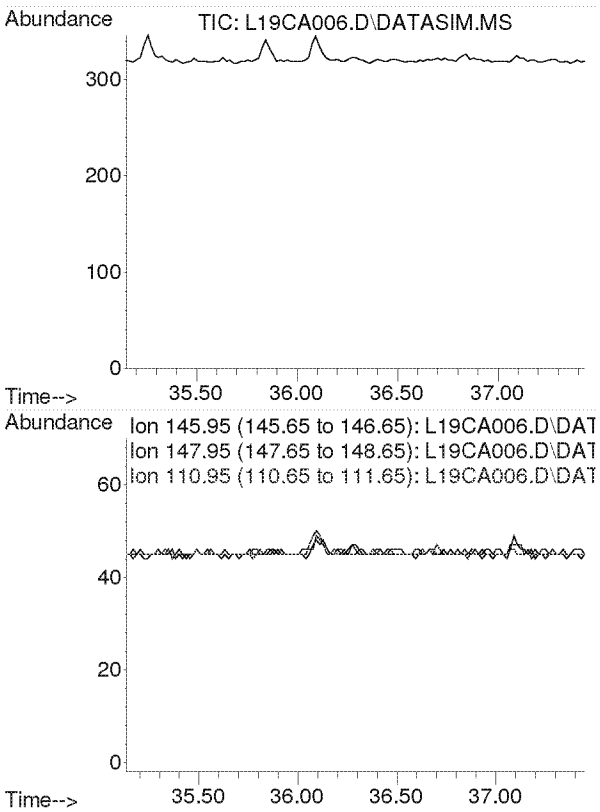


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



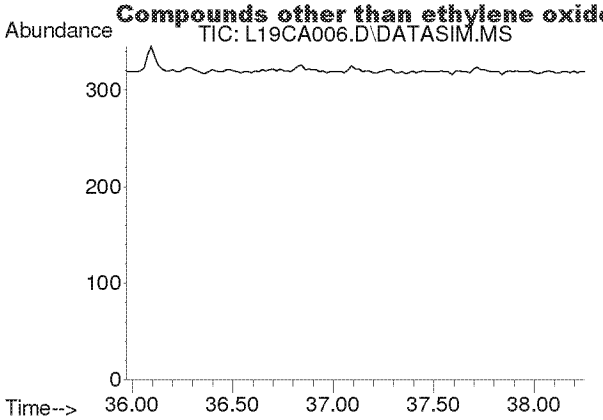
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

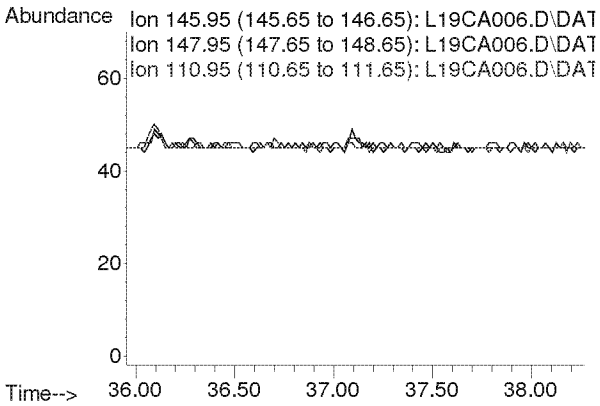


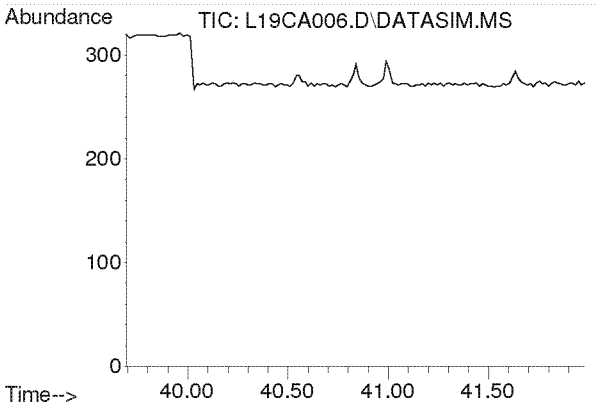
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



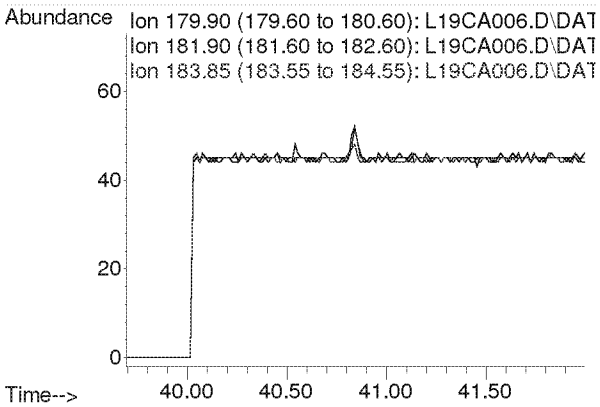


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

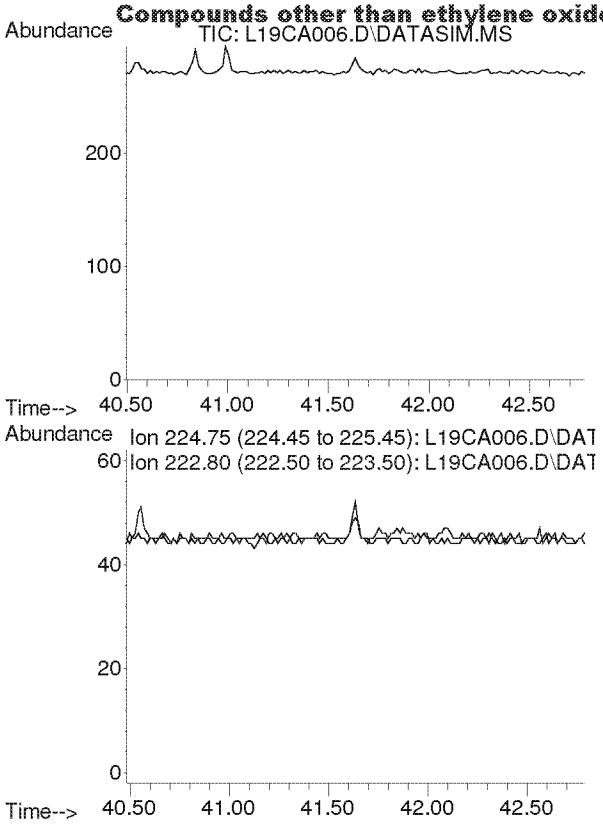
Lab File: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

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: L19CA006.D
Acq: 1 Mar 2019 8:30 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA007.D
Acq On : 1 Mar 2019 9:33 pm (#1); 01-Mar-19, 21:28:03 (#2)
Operator : MAH
Sample : 9030101-01
Misc : WEST NEIGHBORHOOD 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 05 09:04:01 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

dE NR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	40426	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	97579	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	71298	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	12.468	29	146m 3-59	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. 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\L19CA\
Data File : L19CA007.D
Acq On : 1 Mar 2019 9:33 pm (#1); 01-Mar-19, 21:28:03 (#2)
Operator : MAH
Sample : 9030101-01
Misc : WEST NEIGHBORHOOD 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 05 09:04:01 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

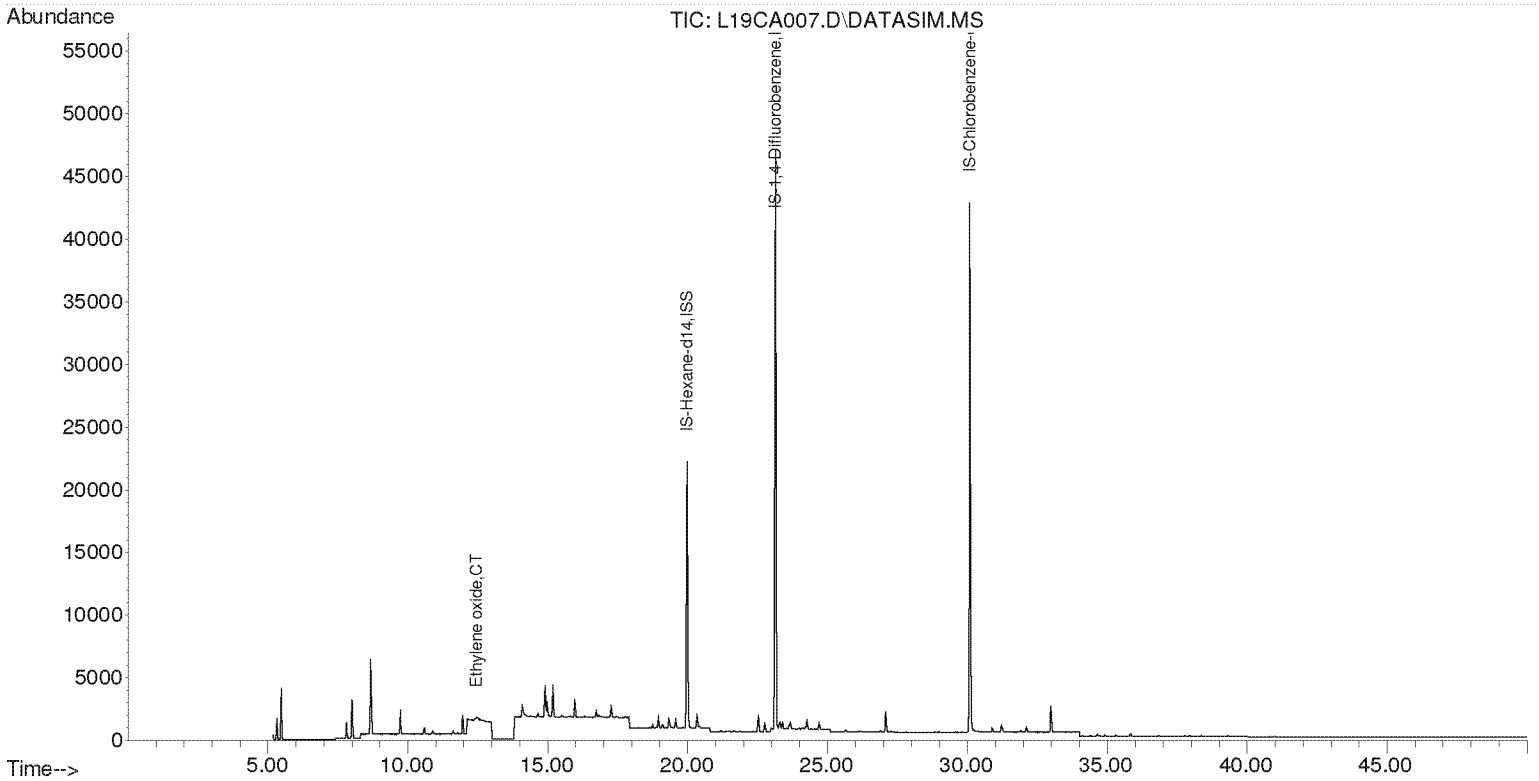
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

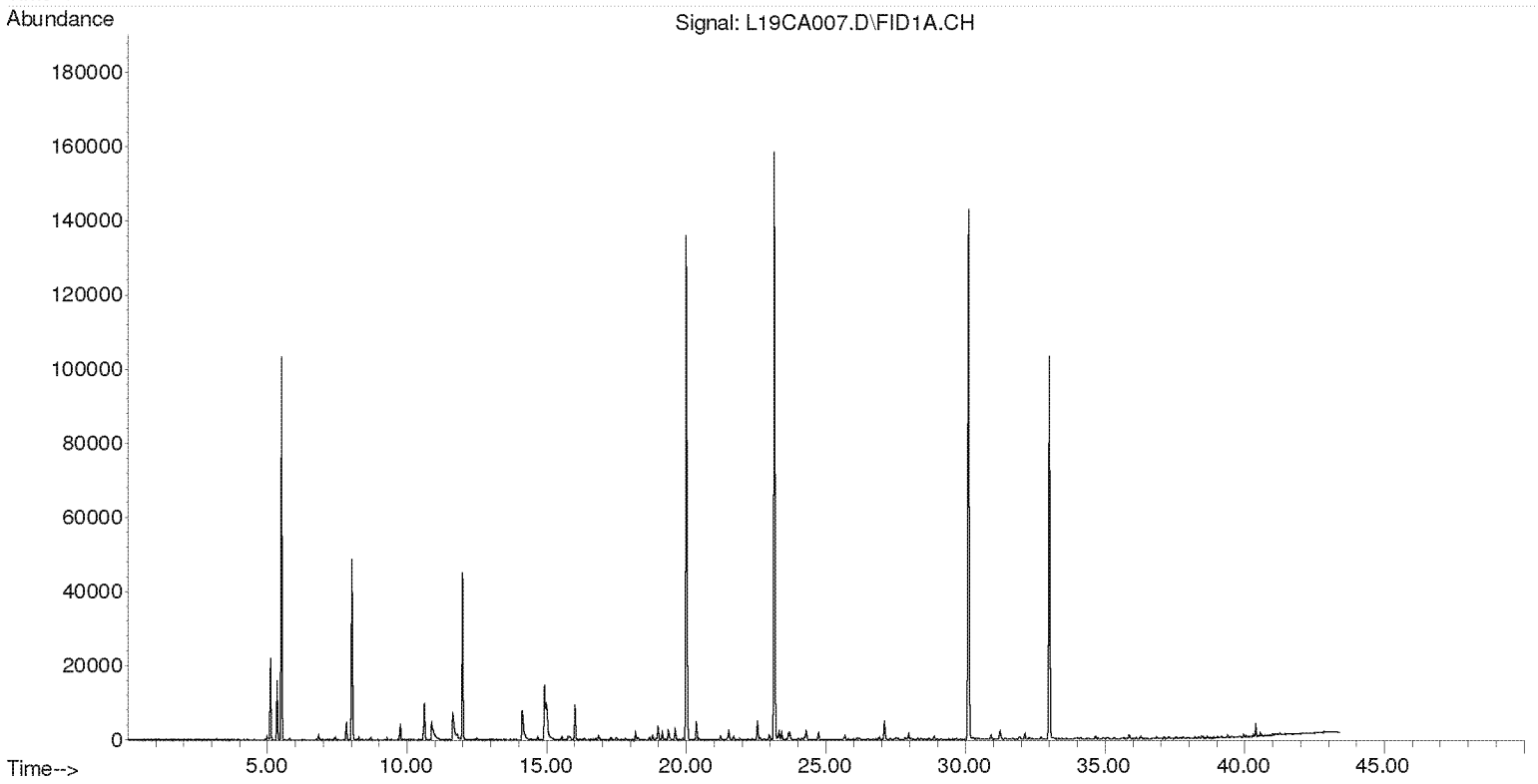
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

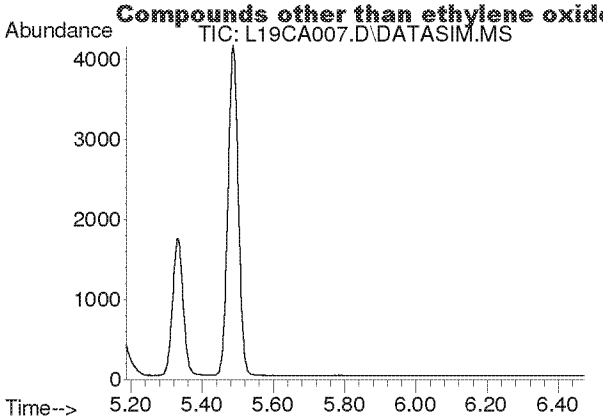
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA007.D
Acq On : 1 Mar 2019 9:33 pm (#1); 01 Mar 2019 9:28 pm (#2)
Operator : MAH
Sample : 9030101-01
Misc : WEST NEIGHBORHOOD 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 05 08:53:44 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





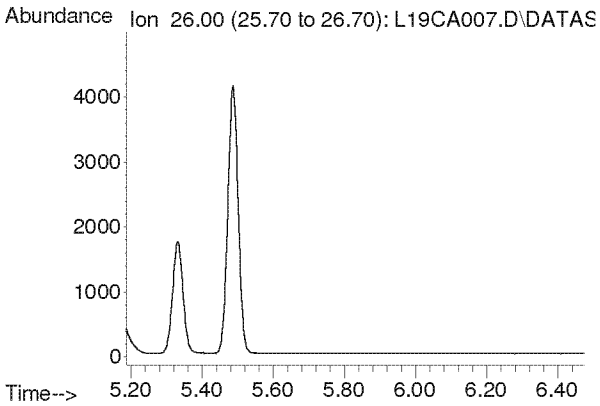
Compounds other than ethylene oxide were not quantitated.

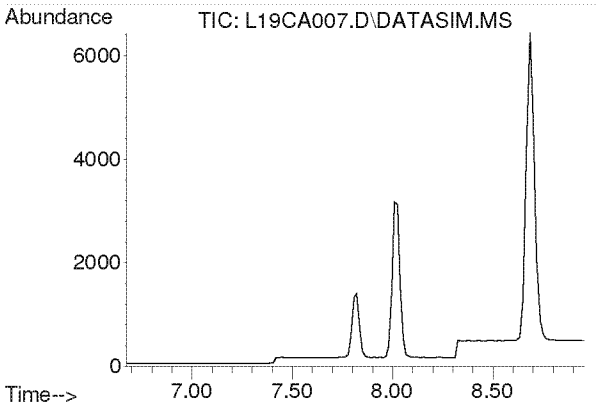


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 26



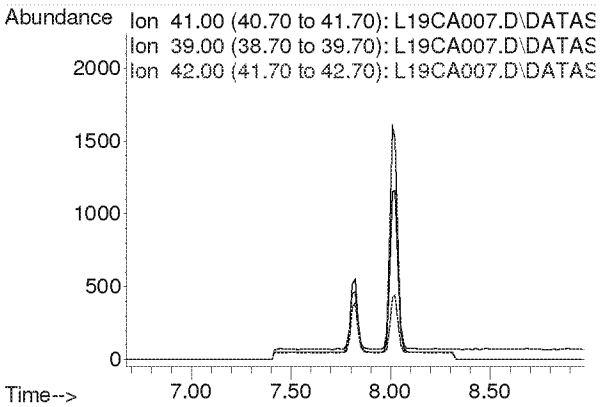


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

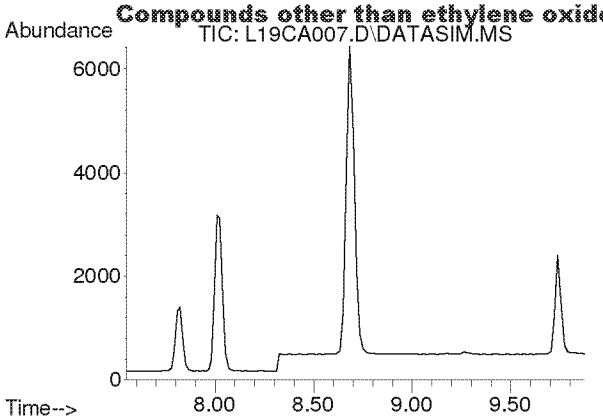
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

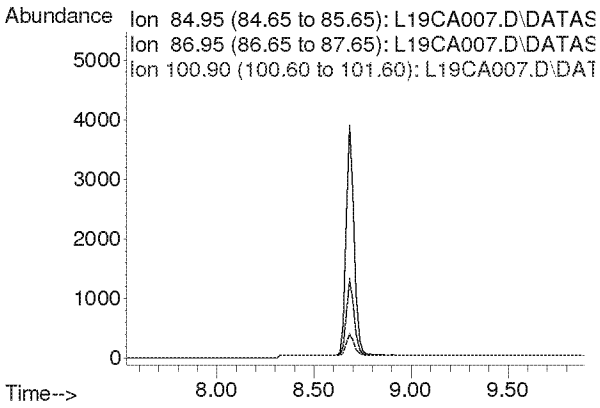


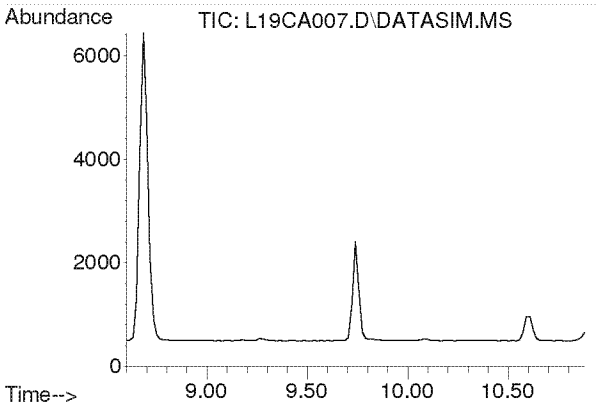
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



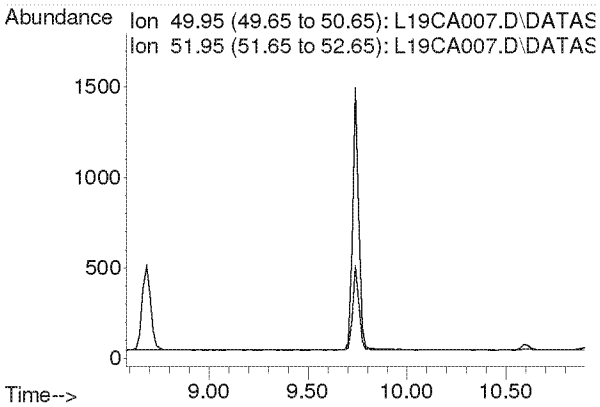


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

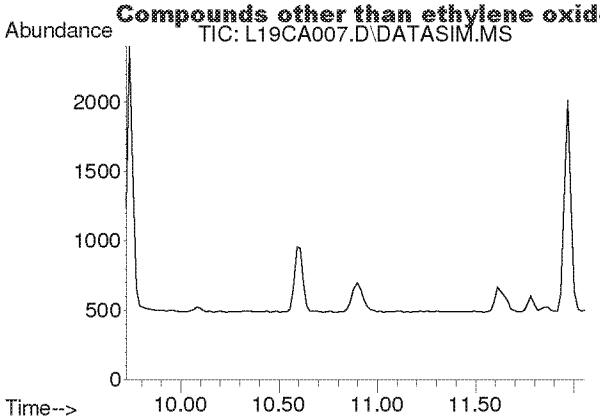
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

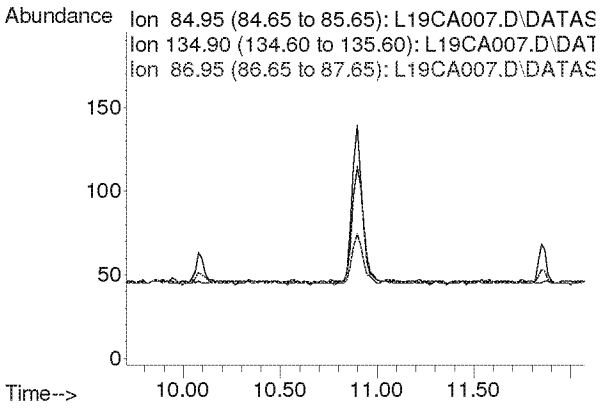


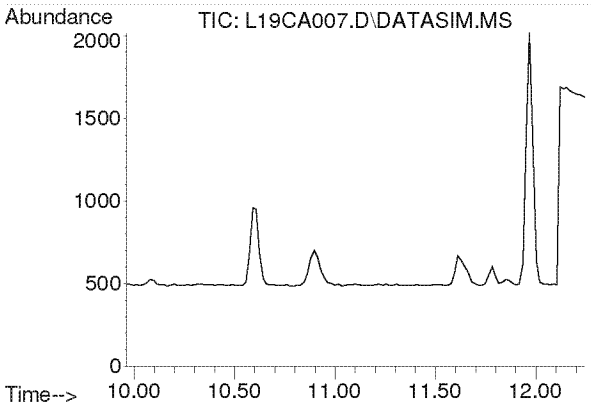
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



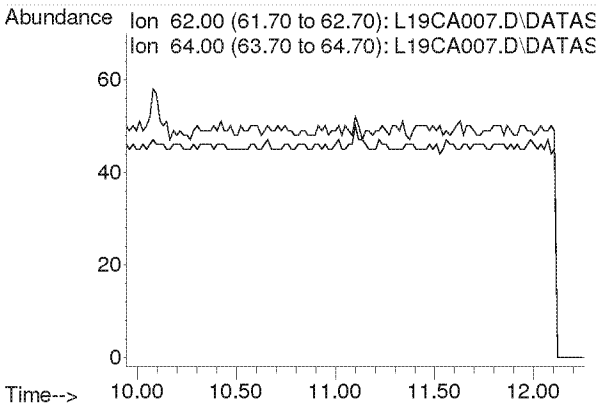


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

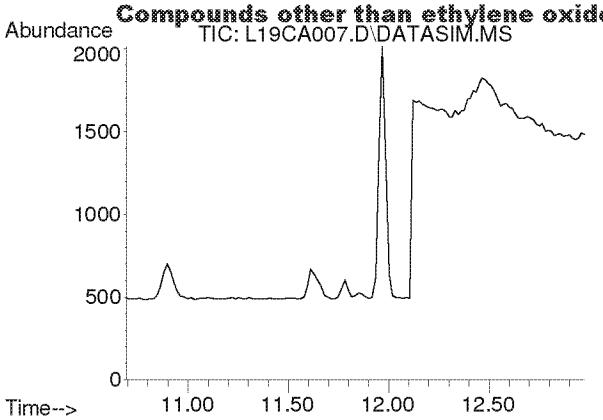
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

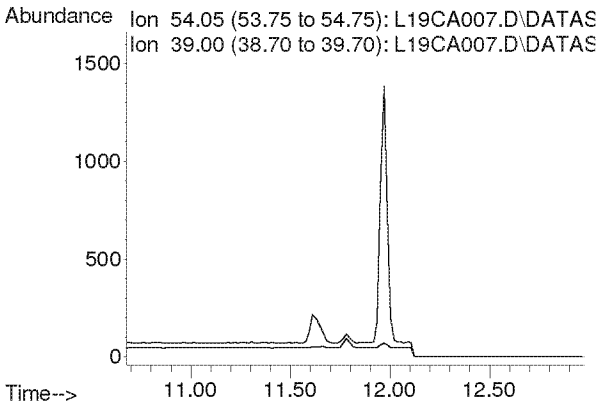


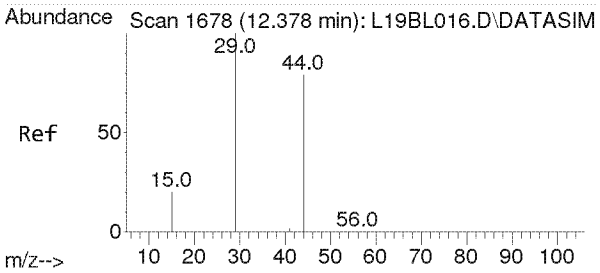
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

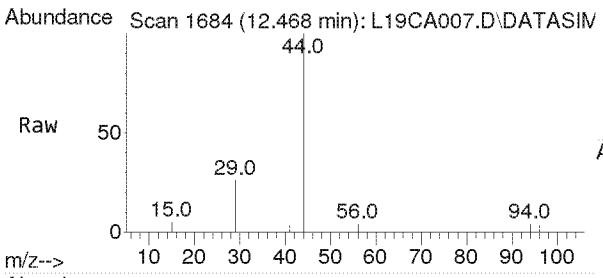


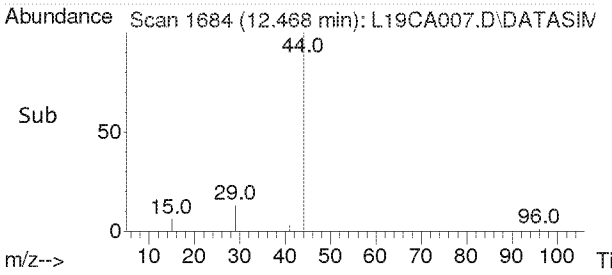


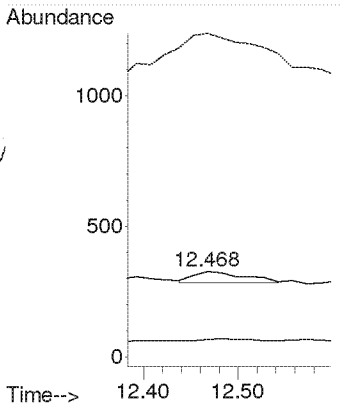
#9
Ethylene oxide
Concen: 0.063 ppbv m
RT: 12.468 min Scan# 1684
Delta R.T. 0.018 min
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 29 Resp: 146

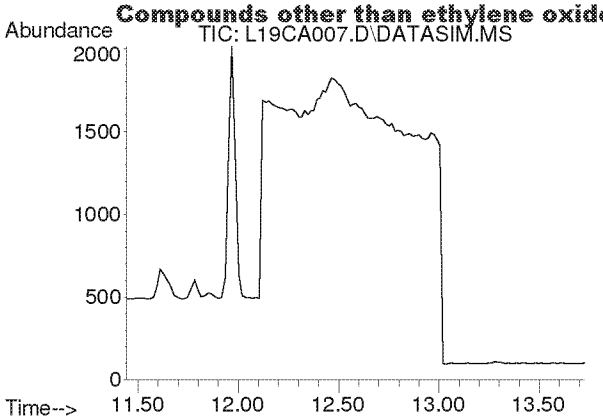
Ion	Ratio	Lower	Upper
29	100		
15	32.9	16.0	24.0#
44	791.8	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

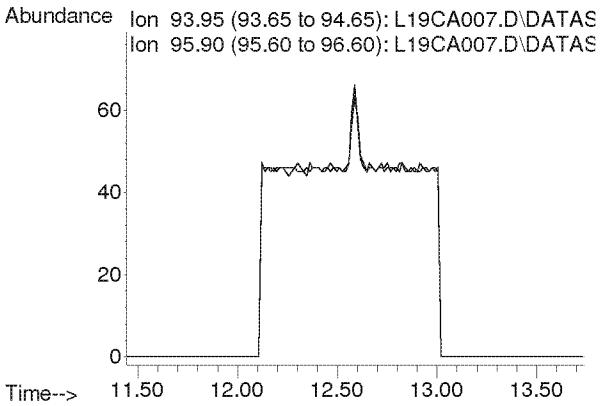


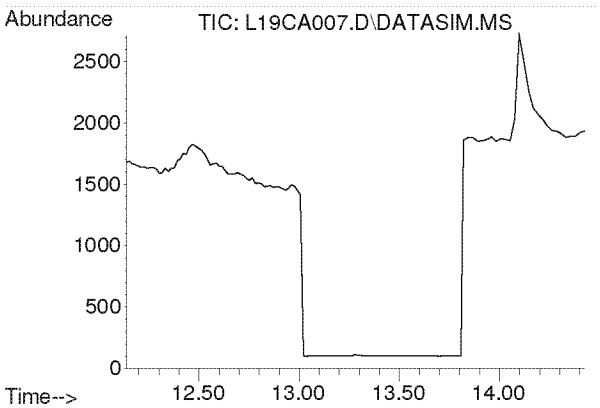
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



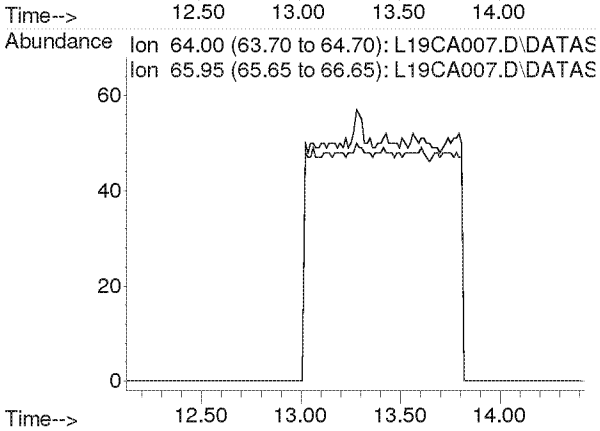


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

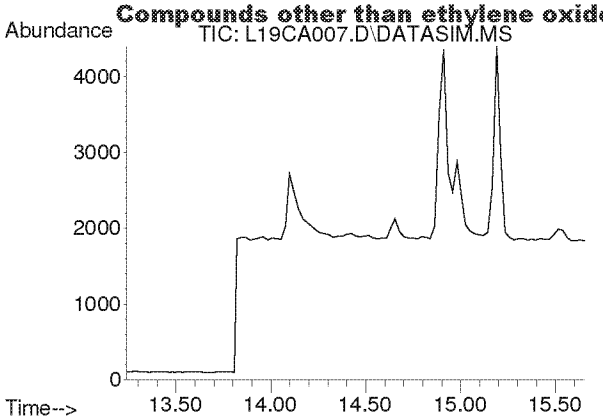
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

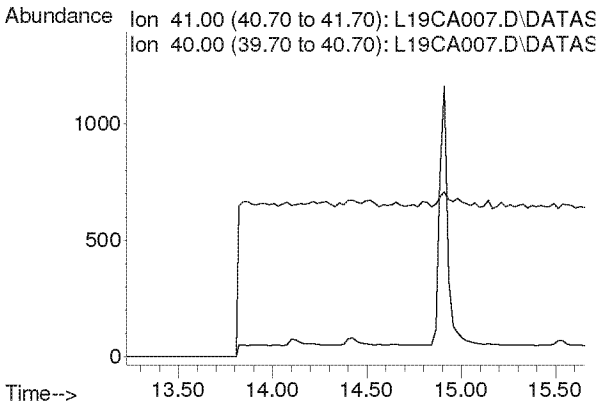


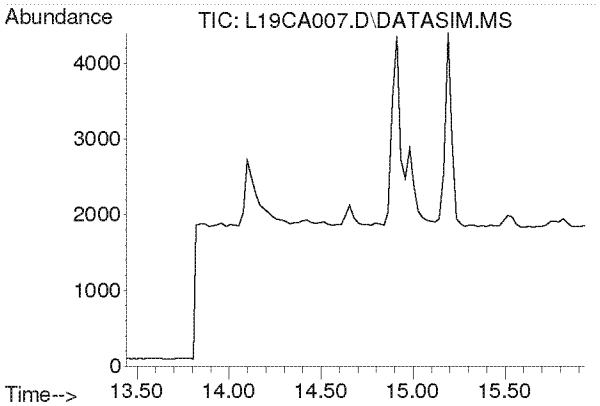
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



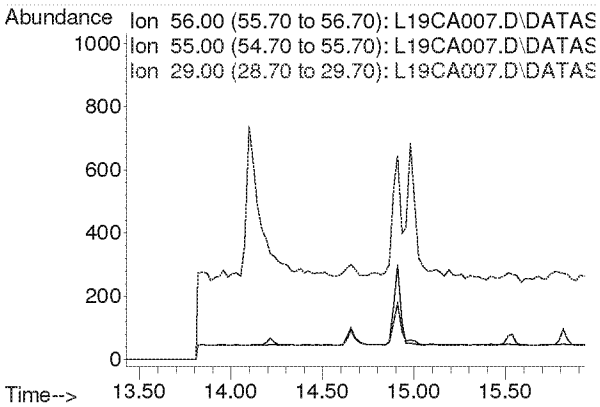


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

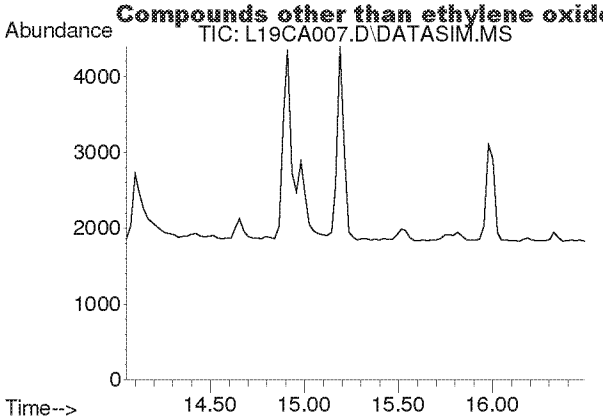
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

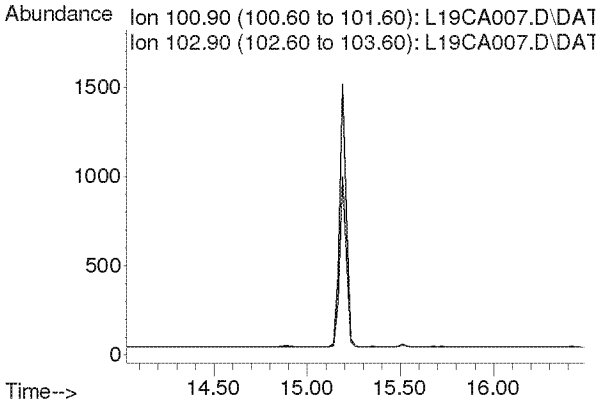


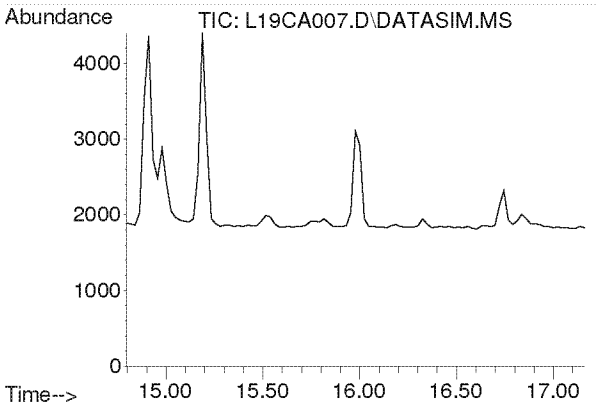
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



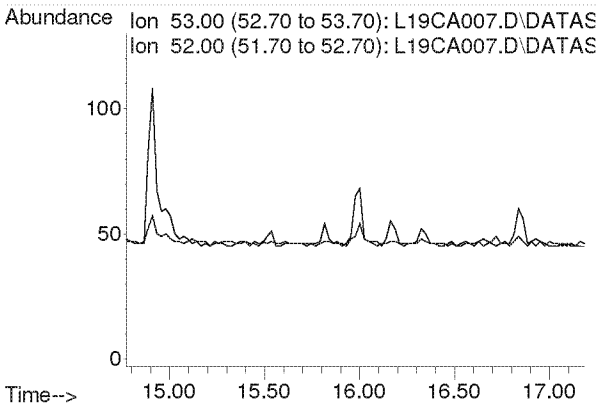


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

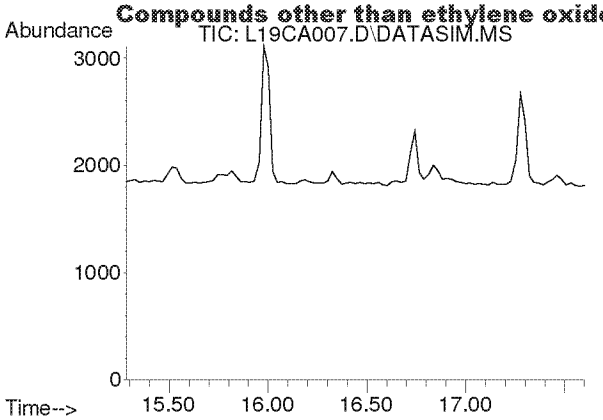
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

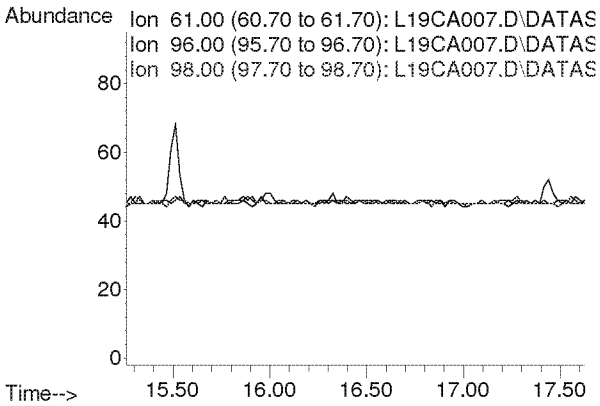


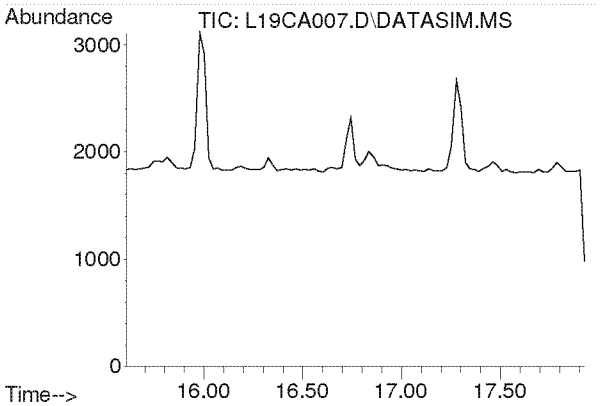
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



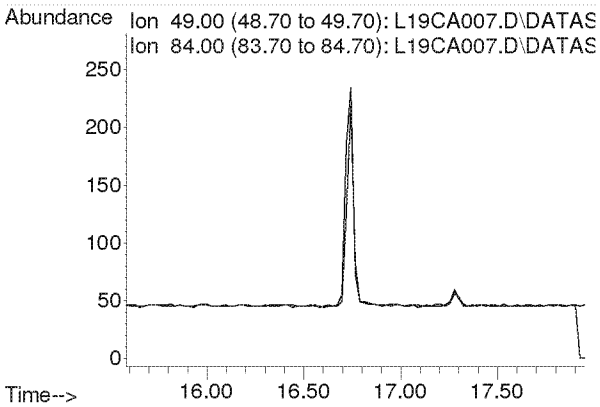


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

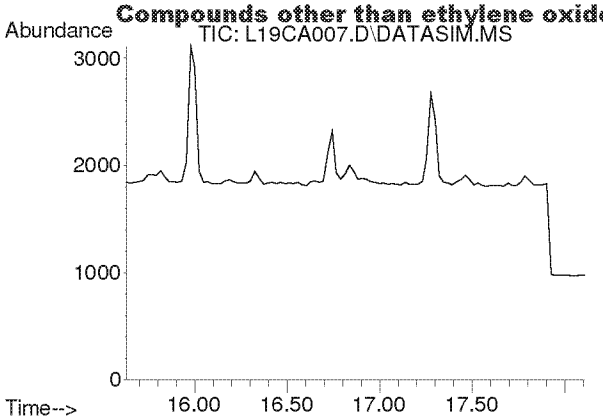
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

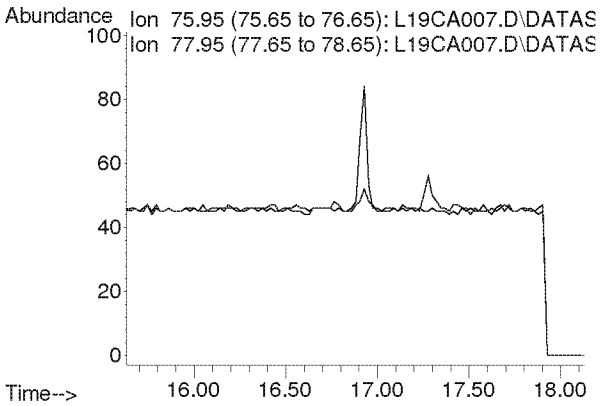


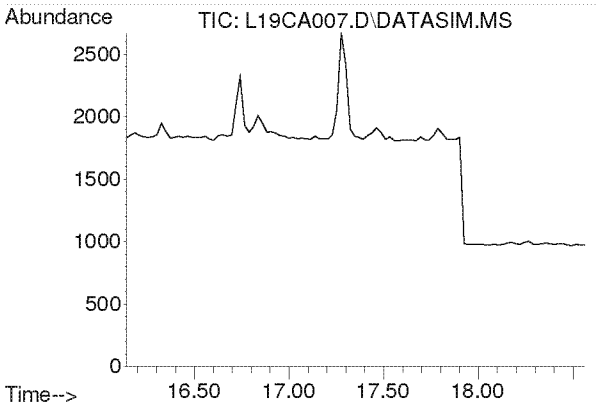
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



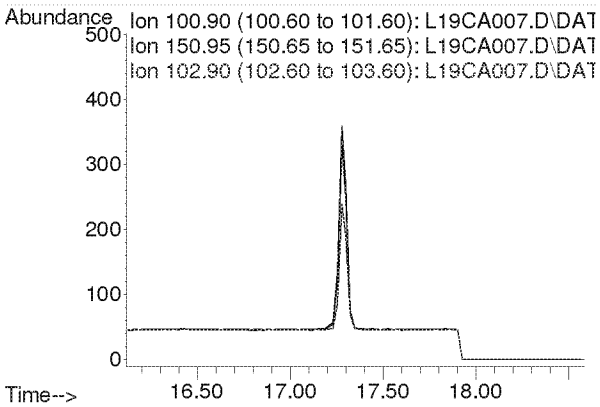


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

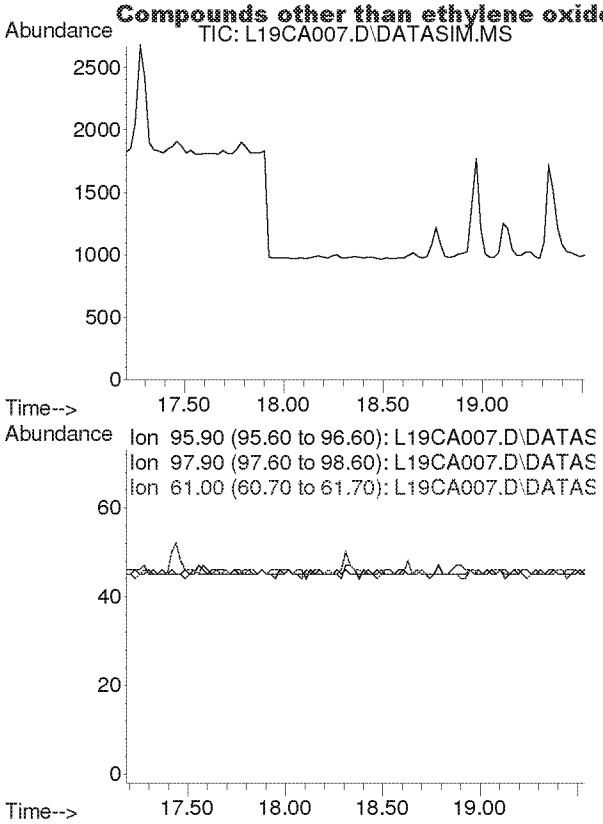
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

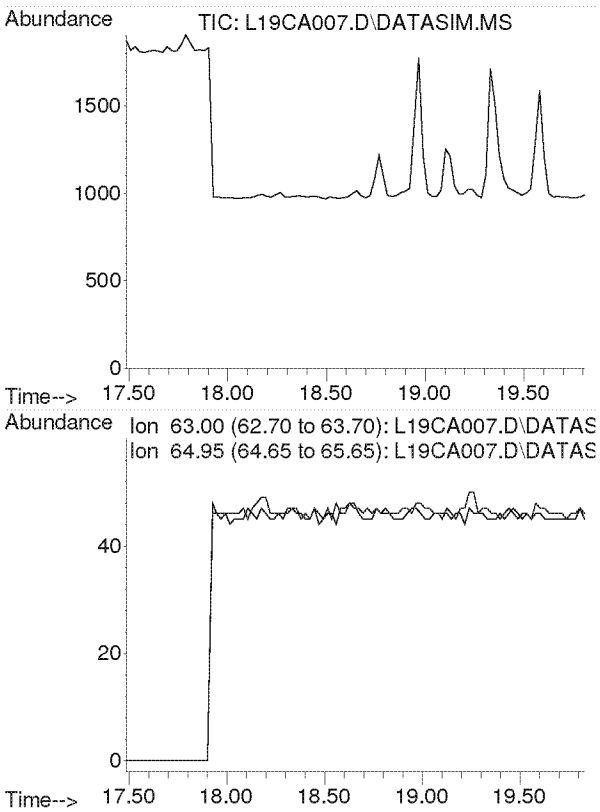


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



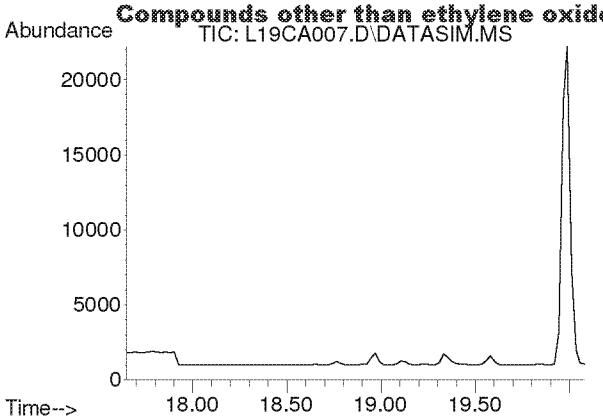
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

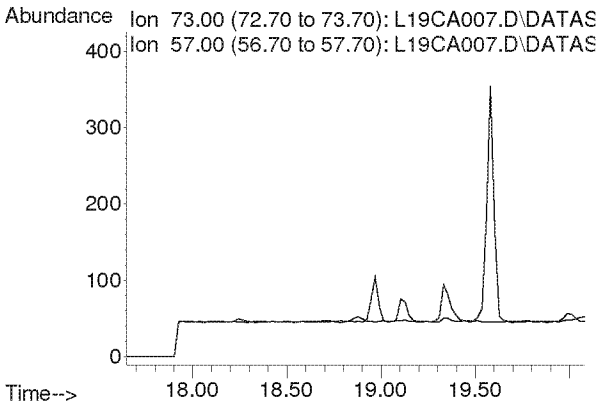


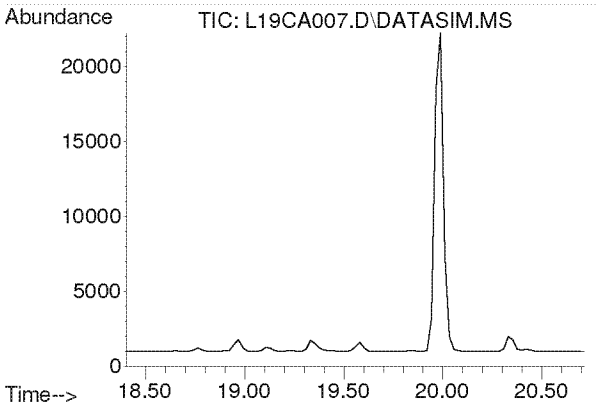
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



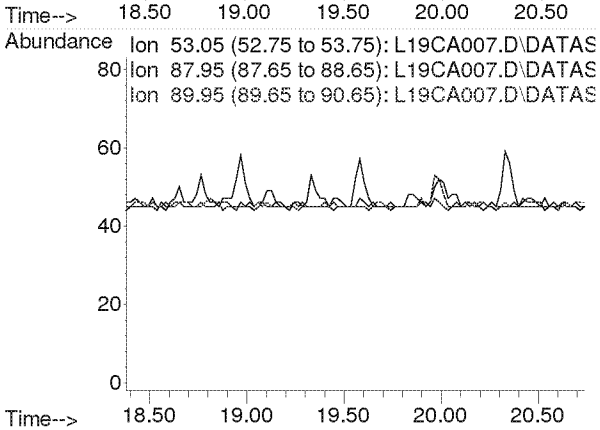


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

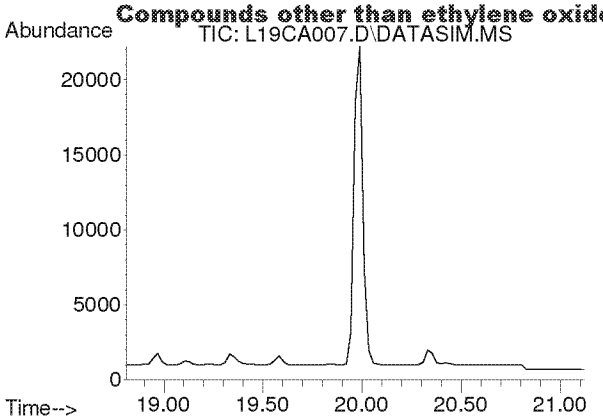
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

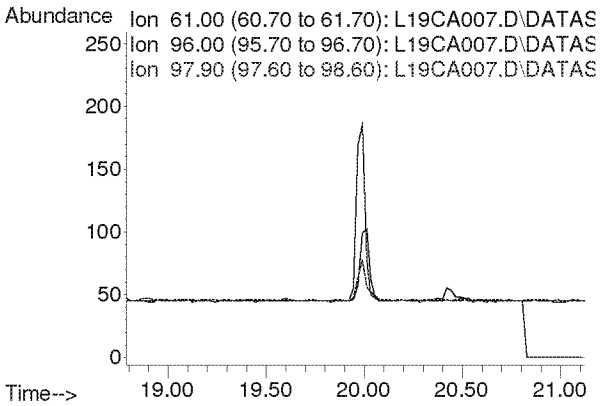


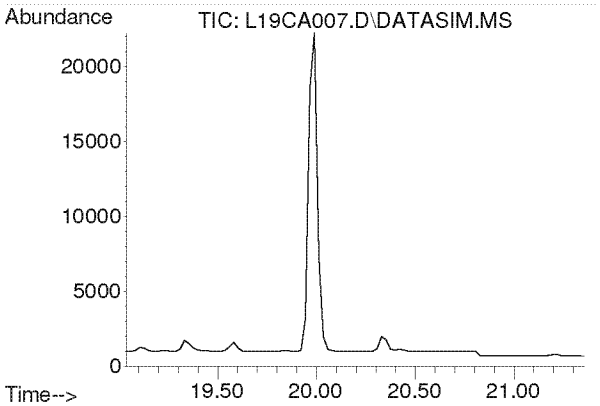
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



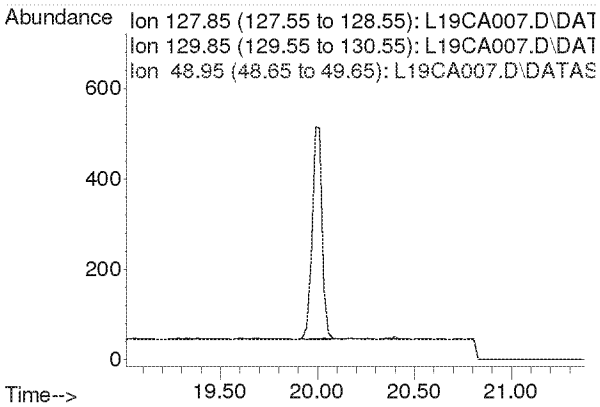


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

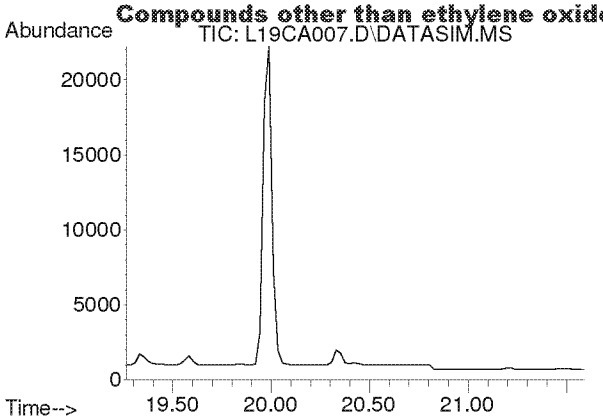
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

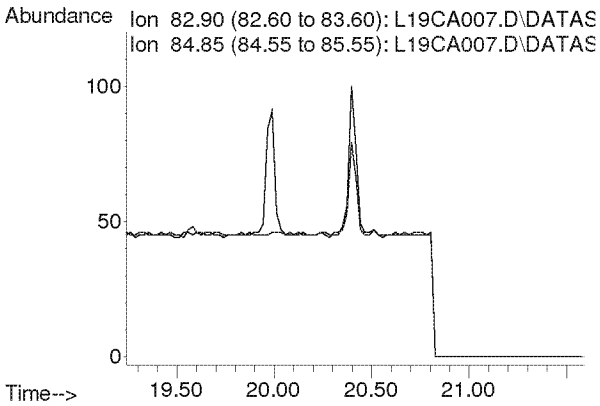


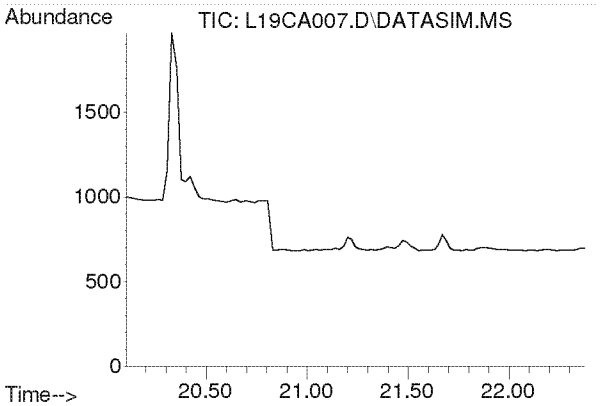
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



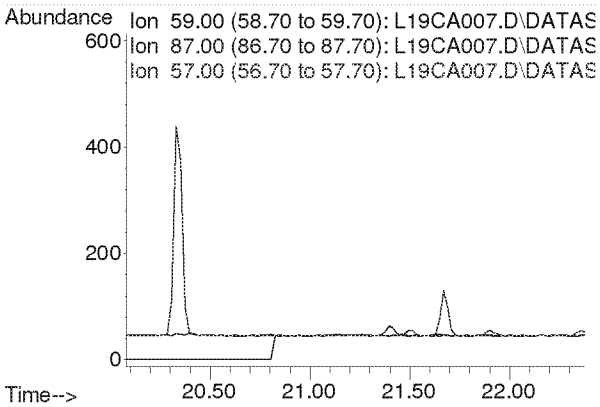


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

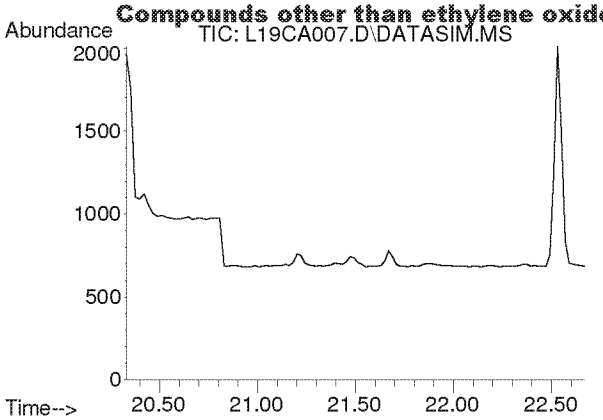
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

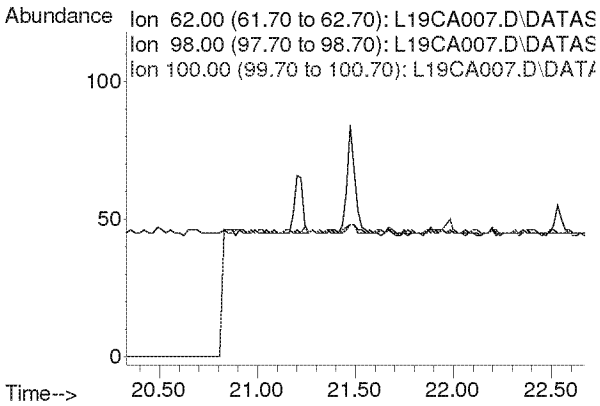


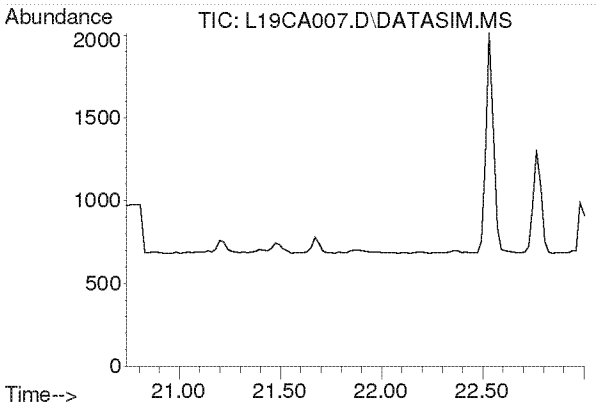
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



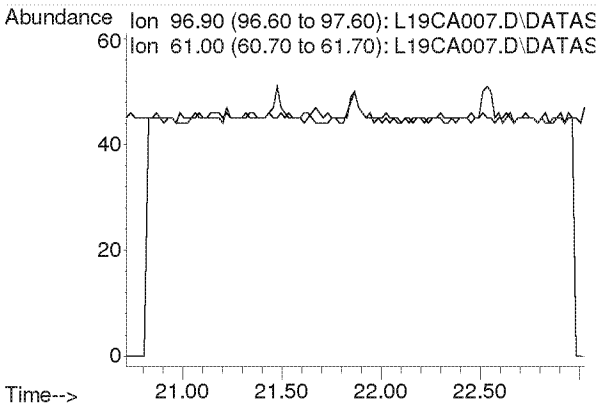


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

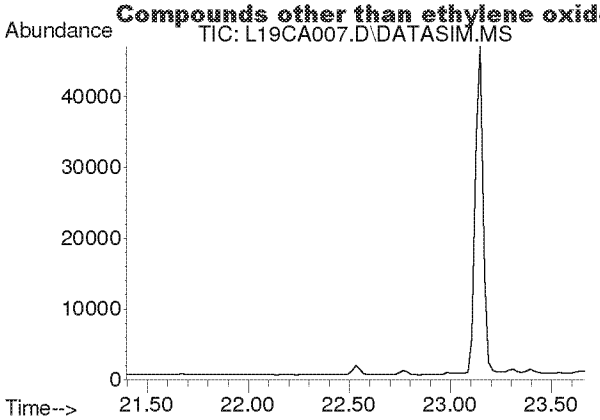
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

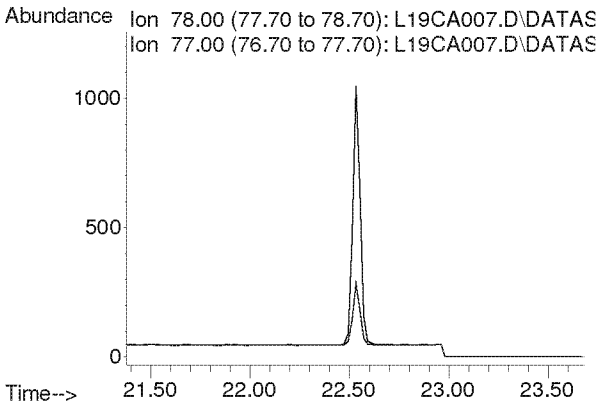


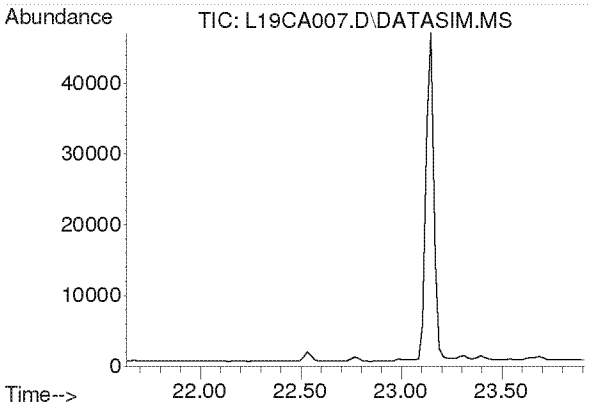
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



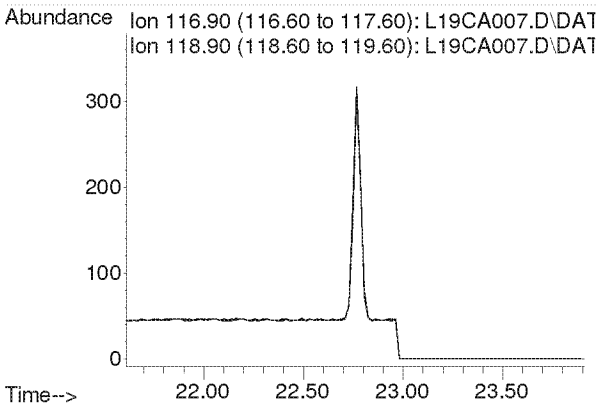


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

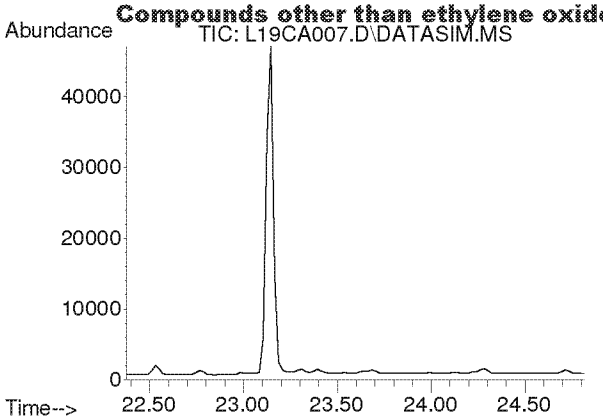
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

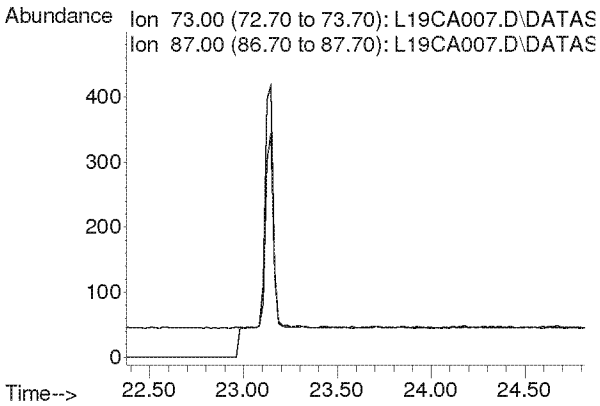


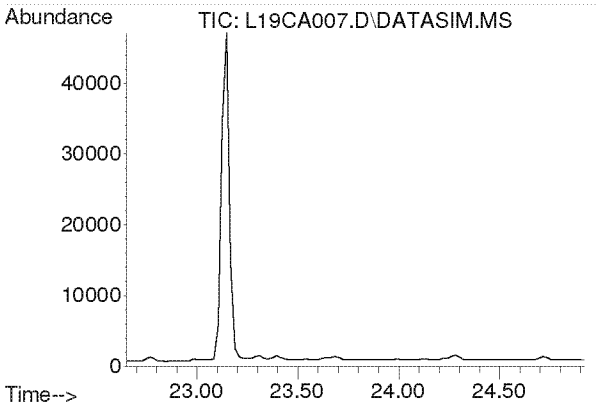
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



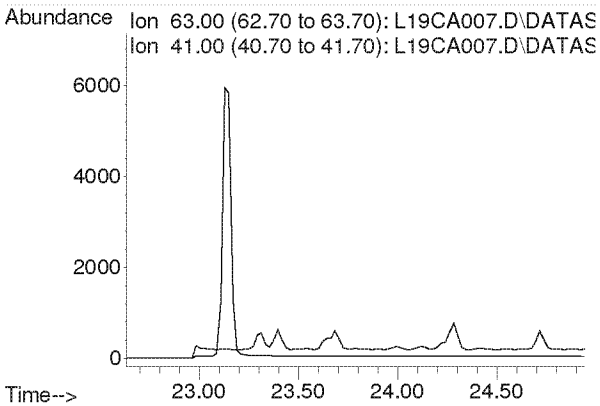


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

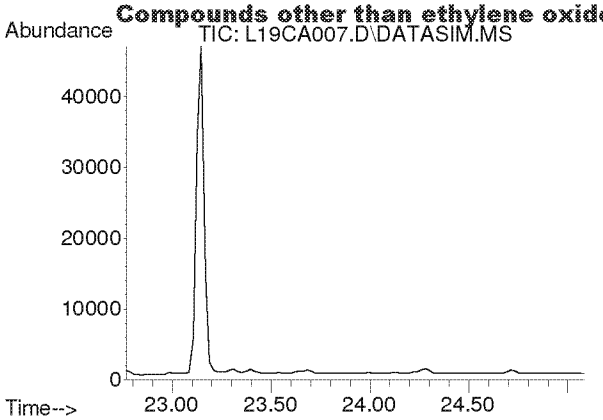
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

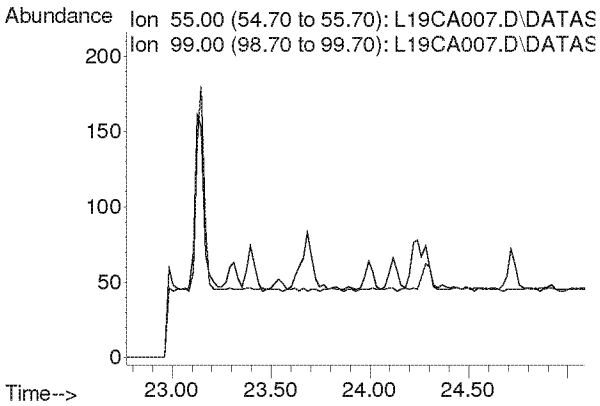


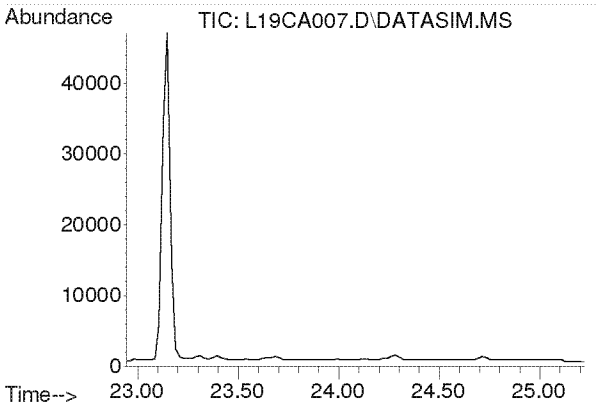
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



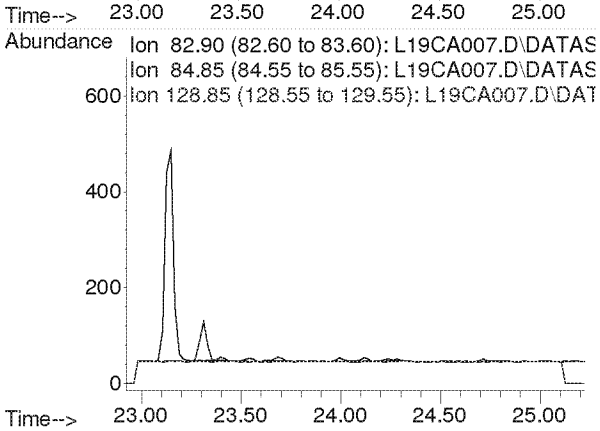


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

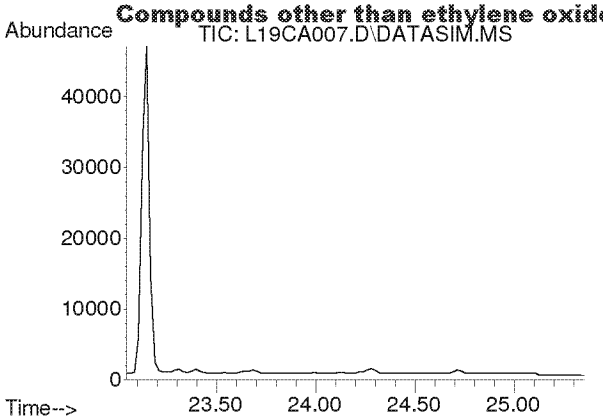
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

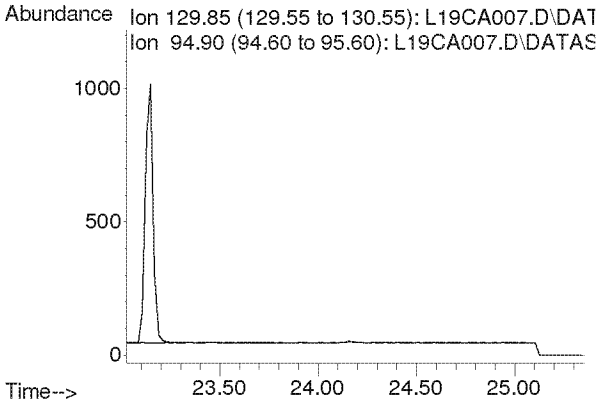


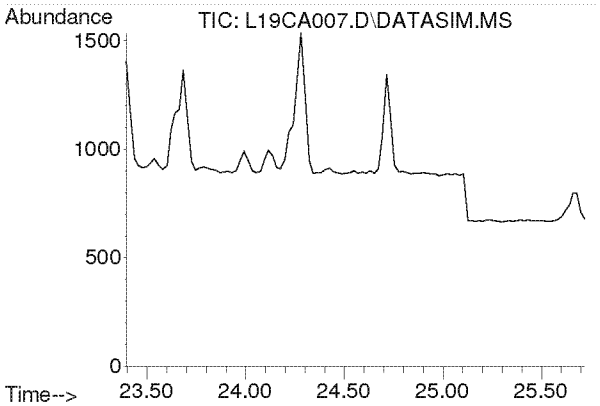
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



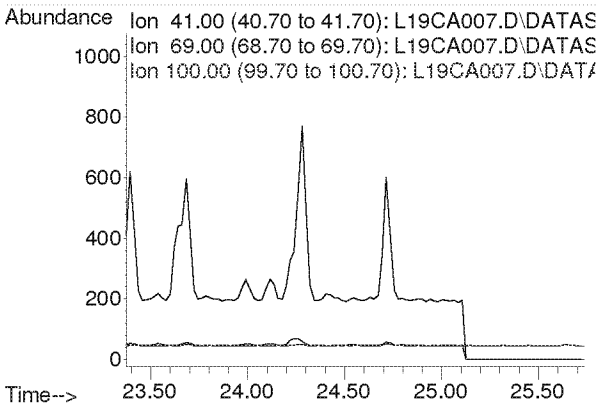


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

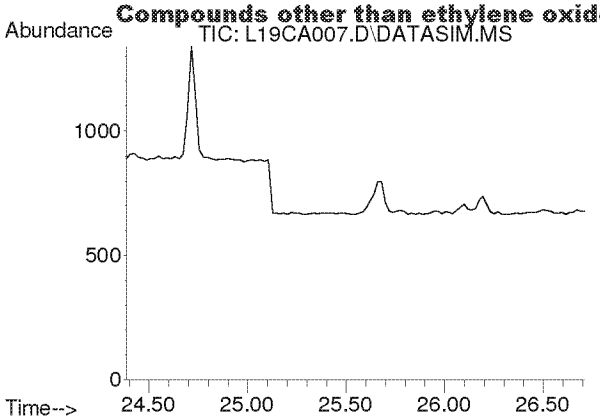
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

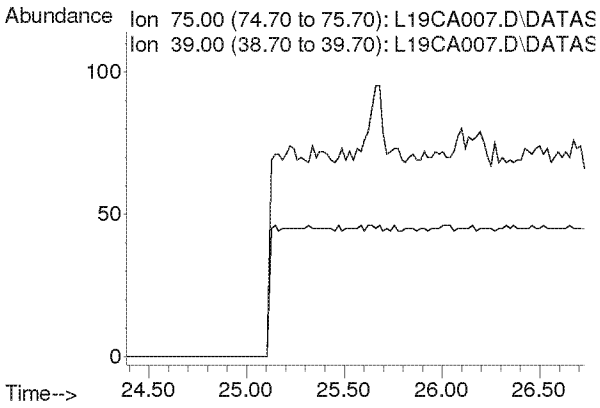


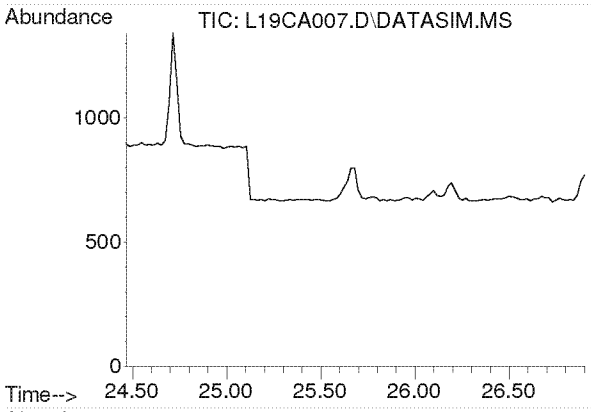
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



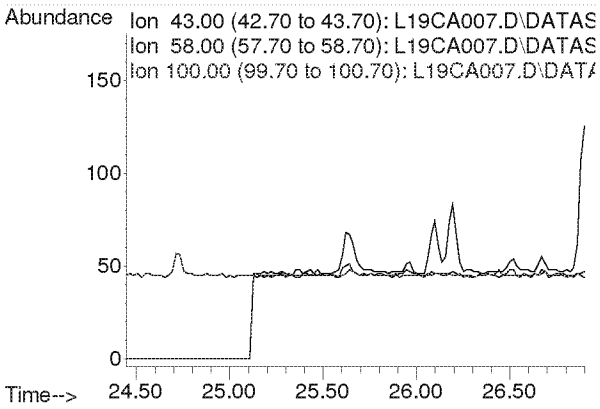


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

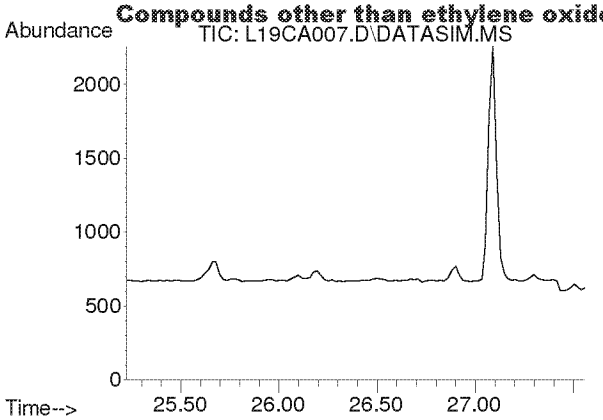
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

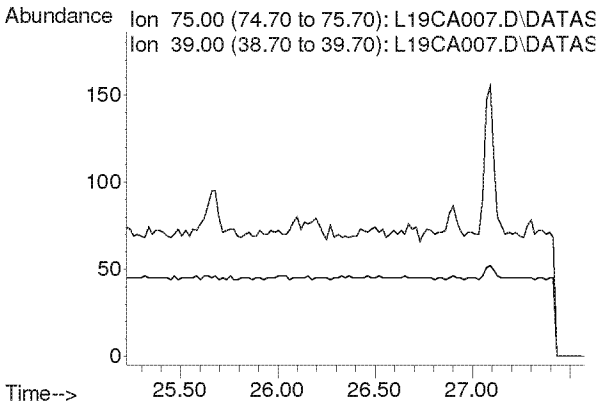


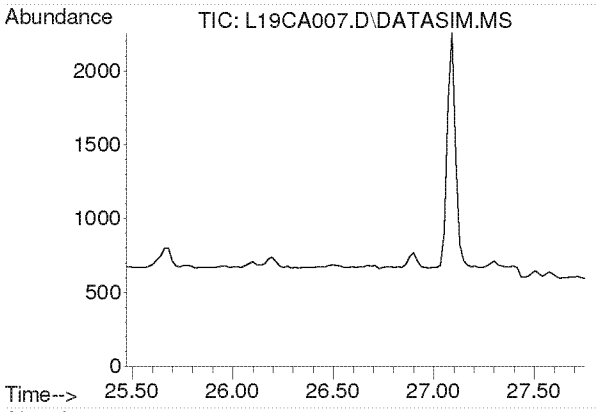
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



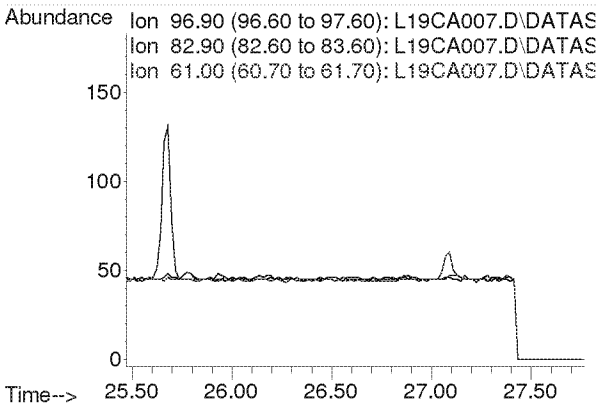


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

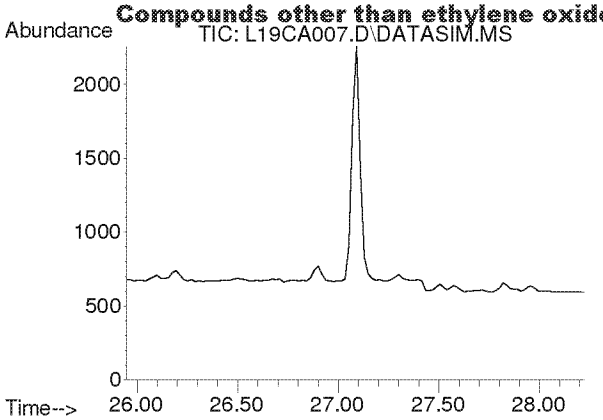
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

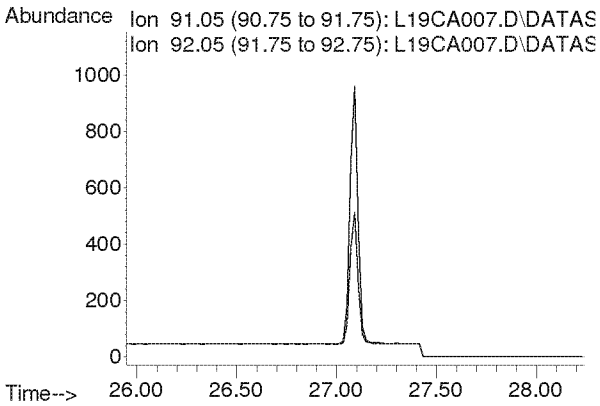


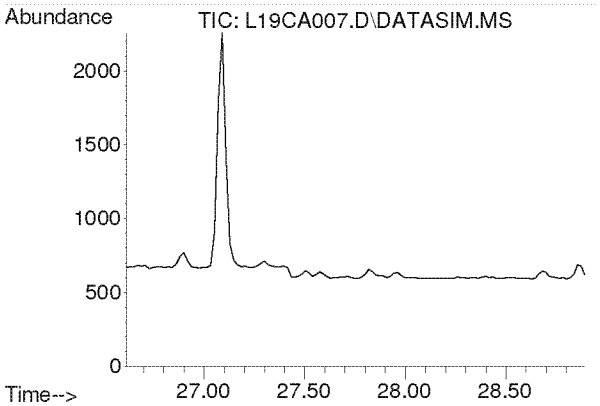
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



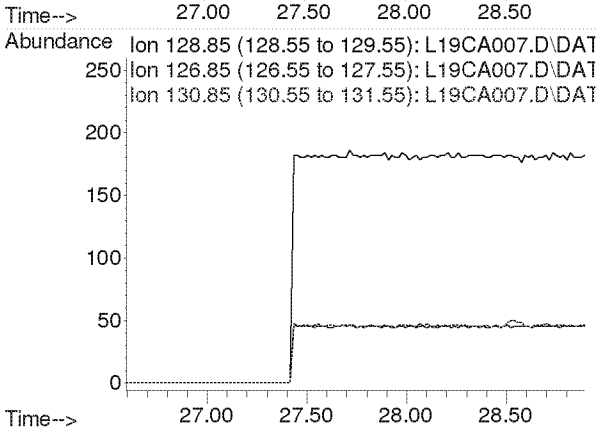


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

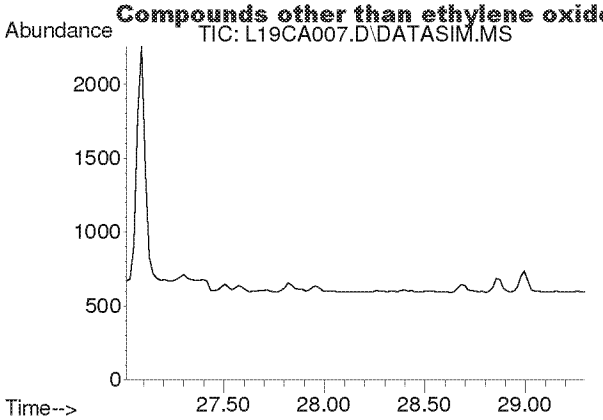
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

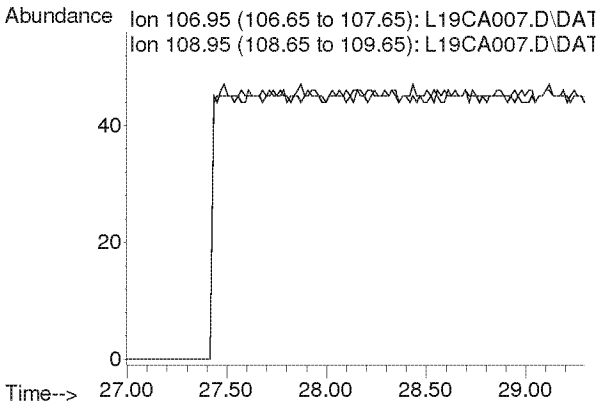


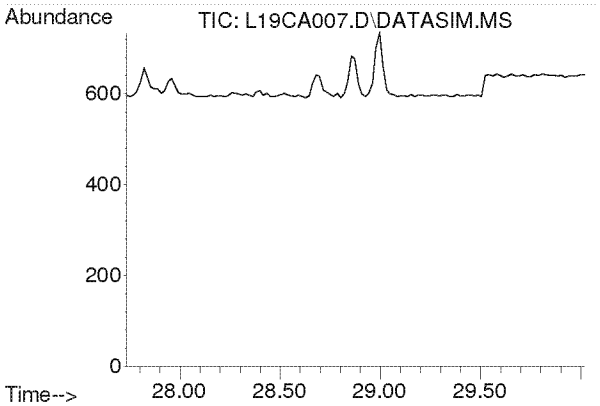
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



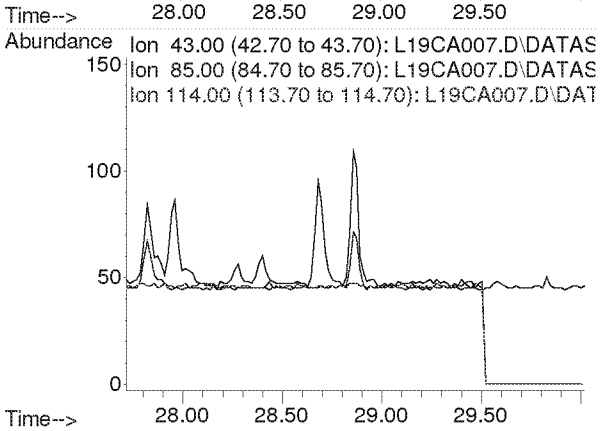


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

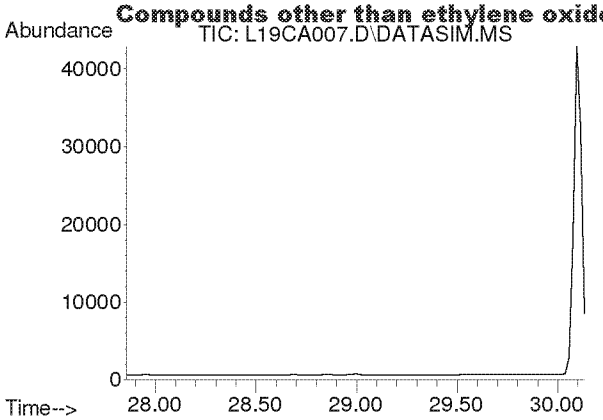
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

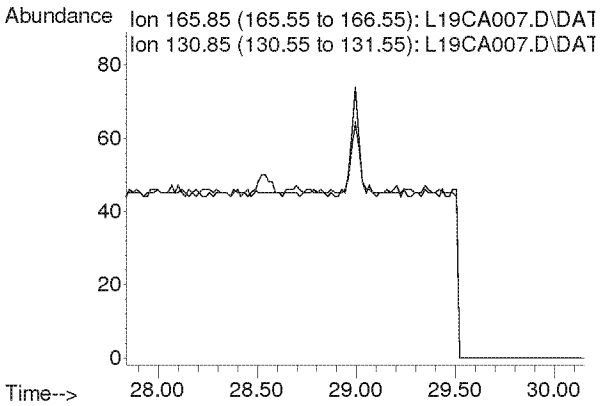


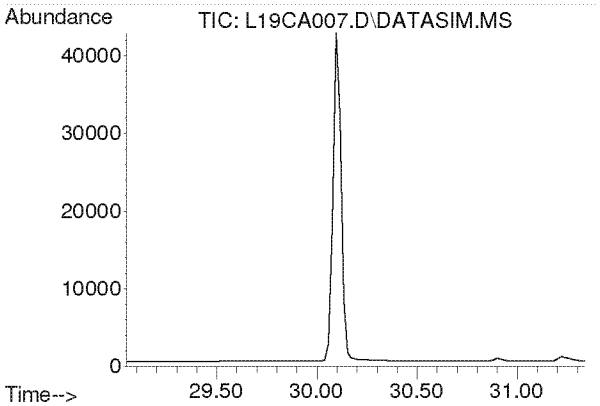
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



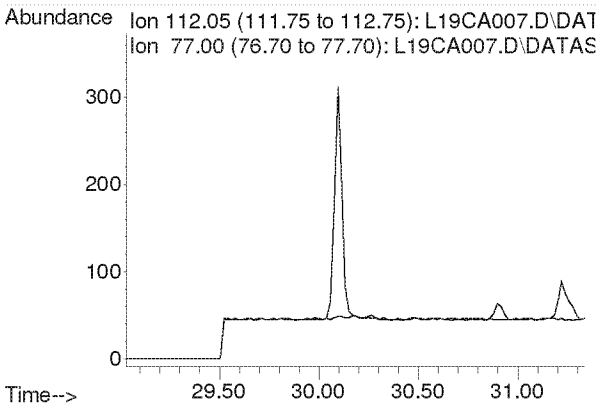


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

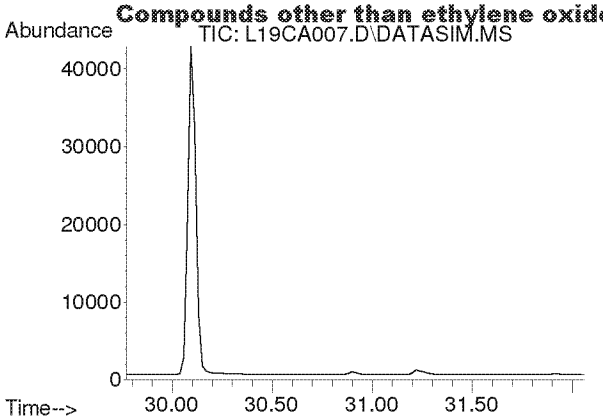
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

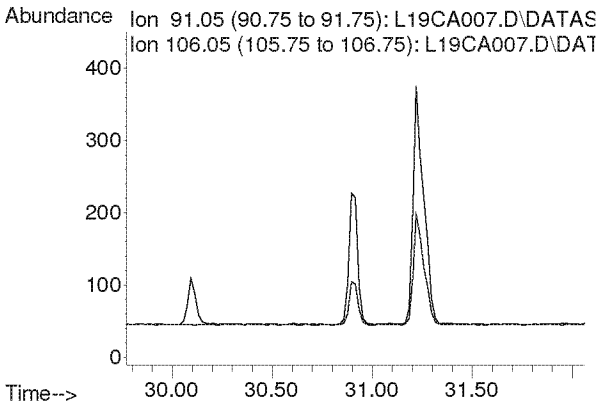


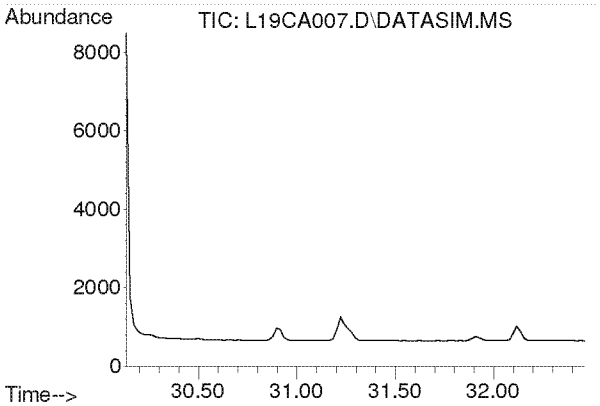
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



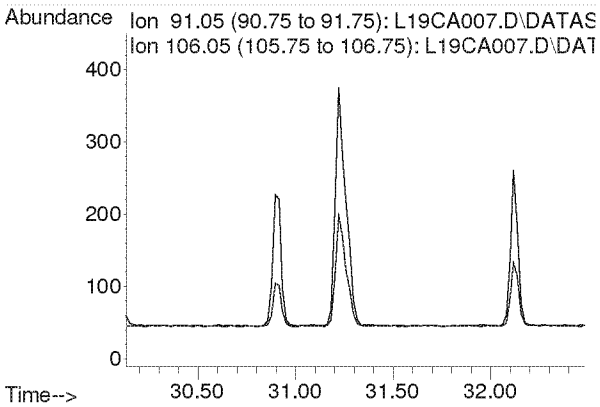


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

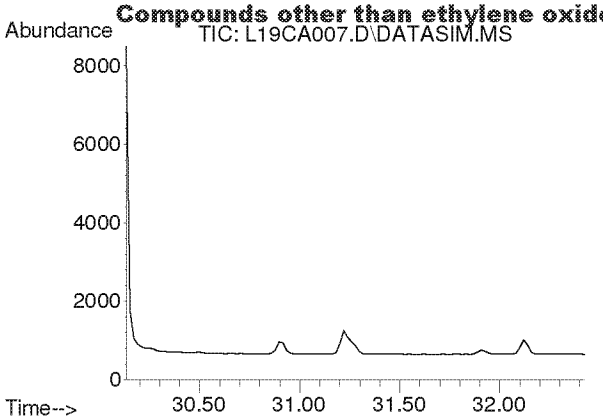
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

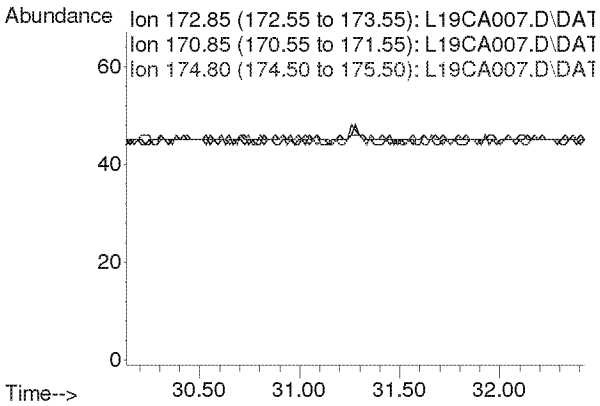


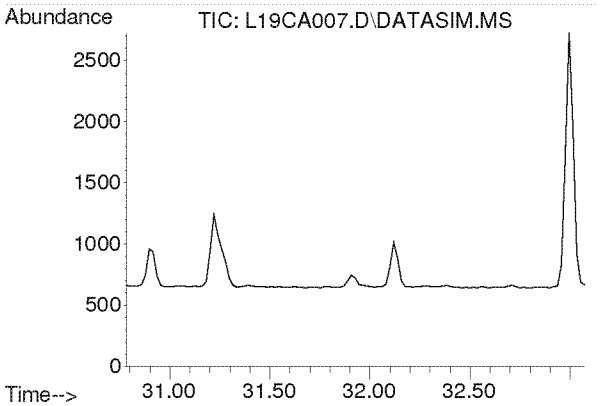
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



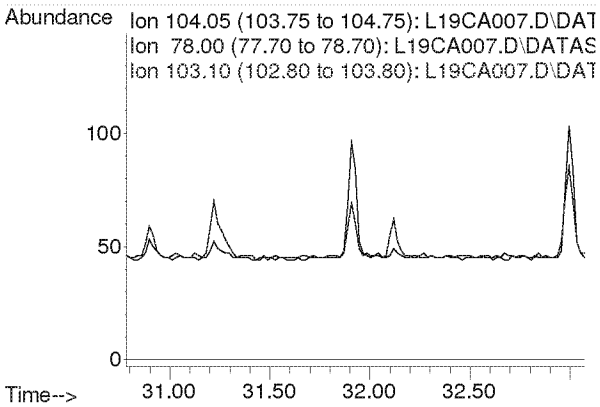


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

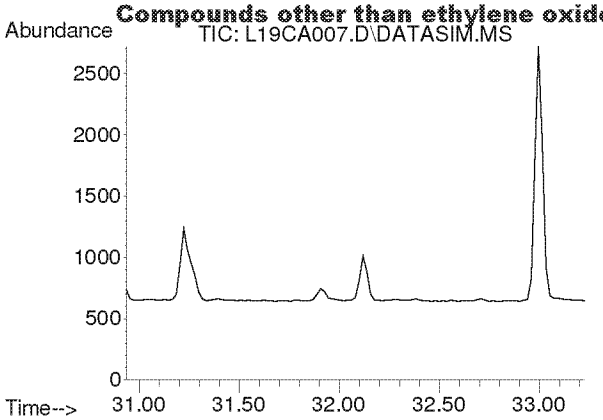
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

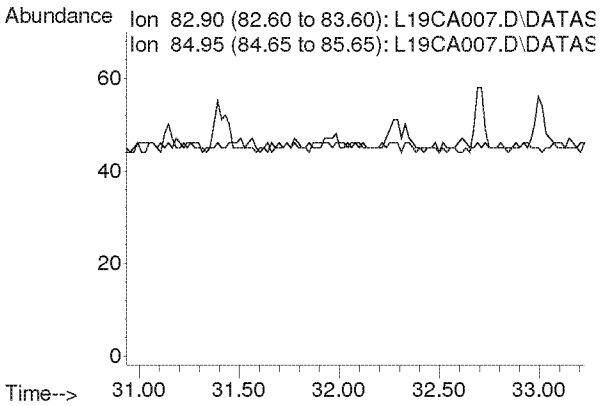


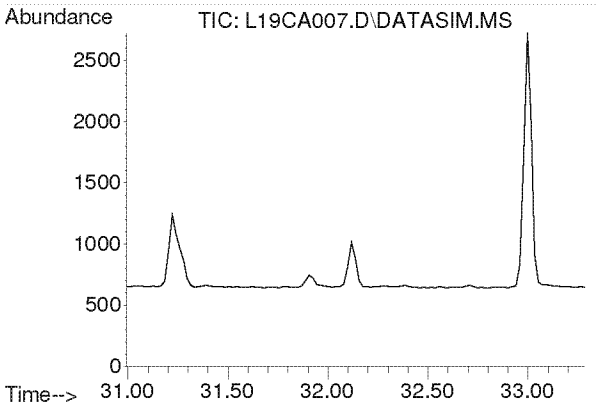
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



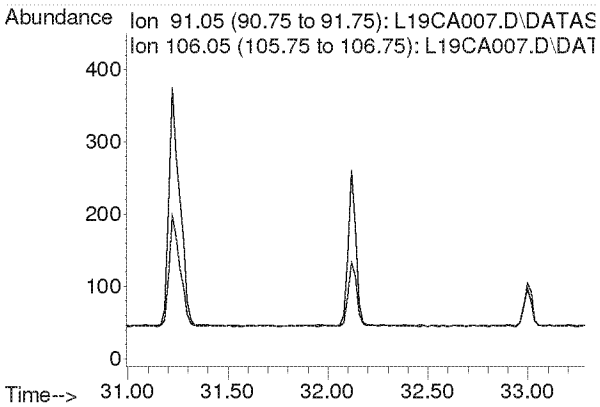


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

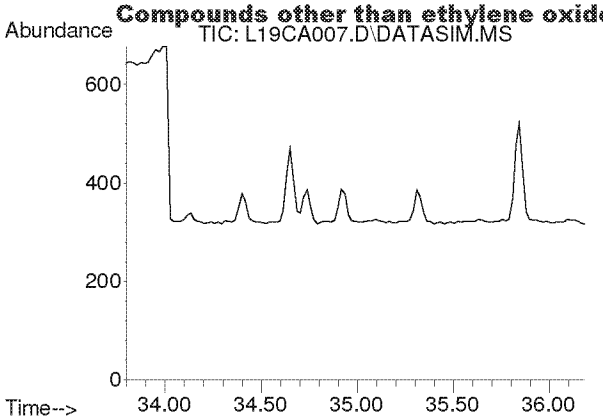
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

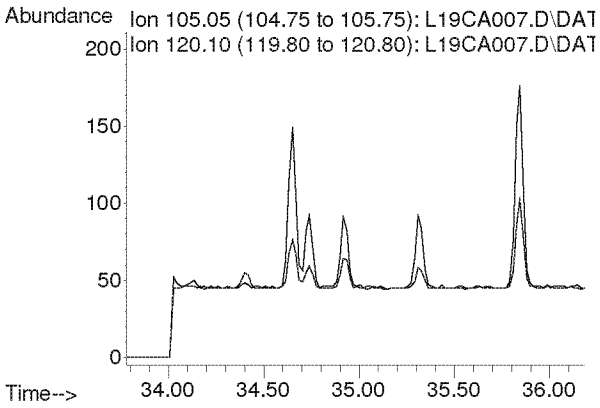


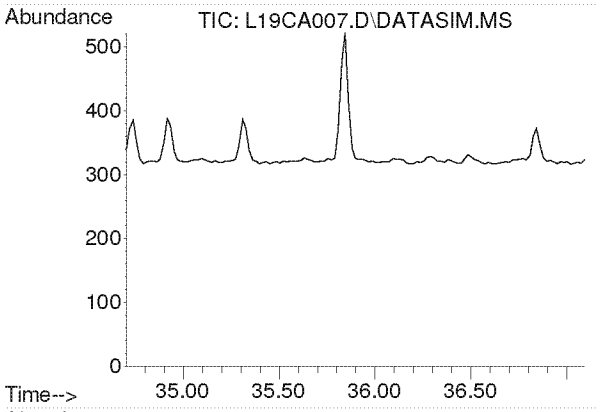
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



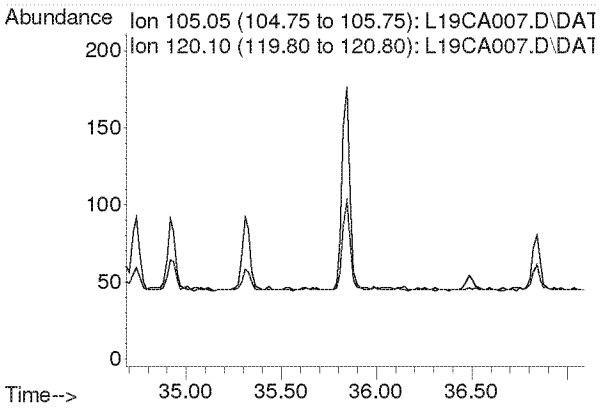


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

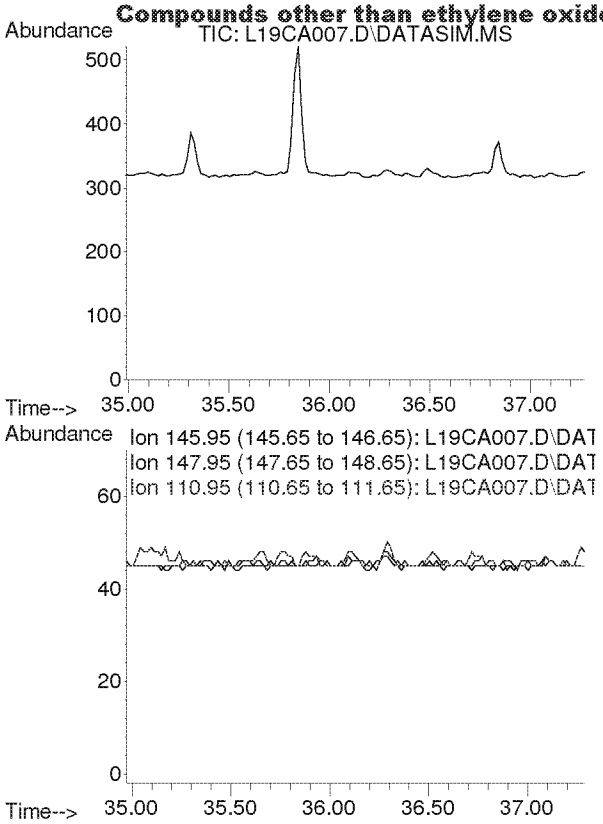
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

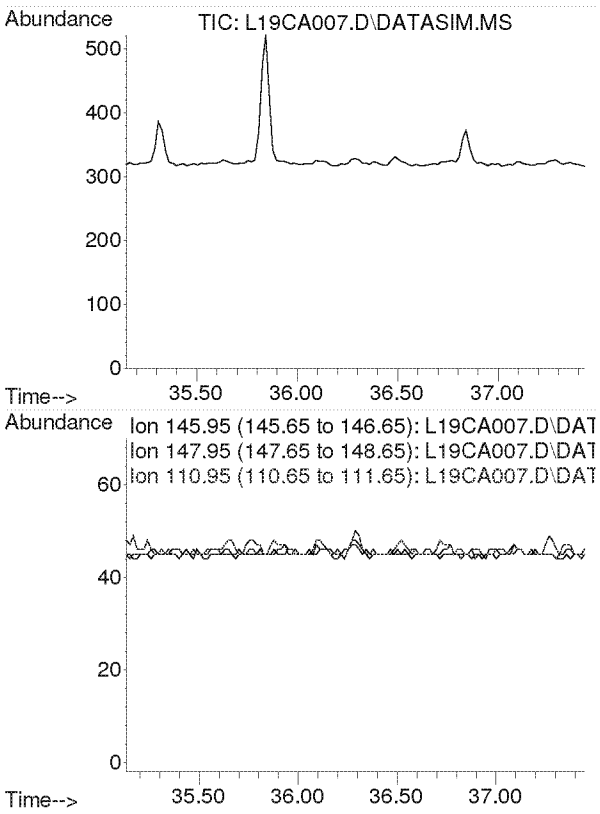


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



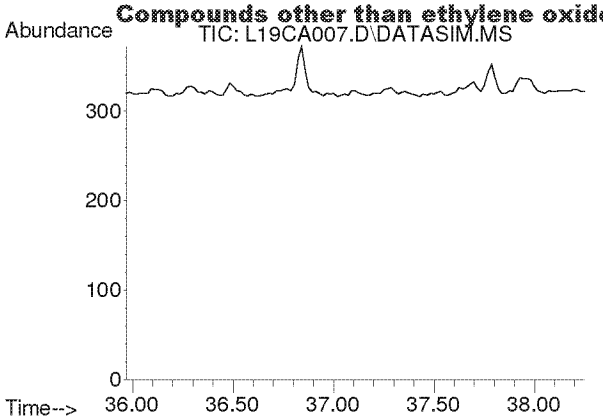
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA007.D
Acq: 1 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.

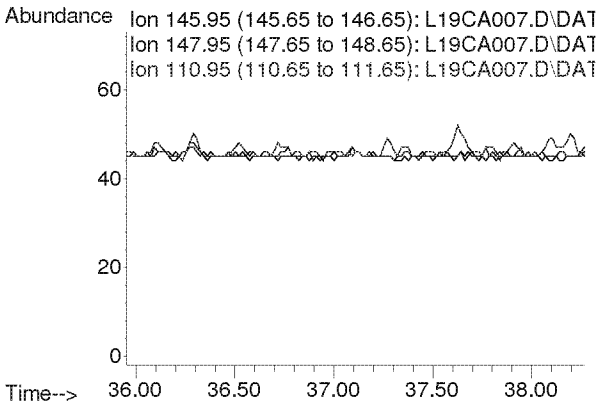


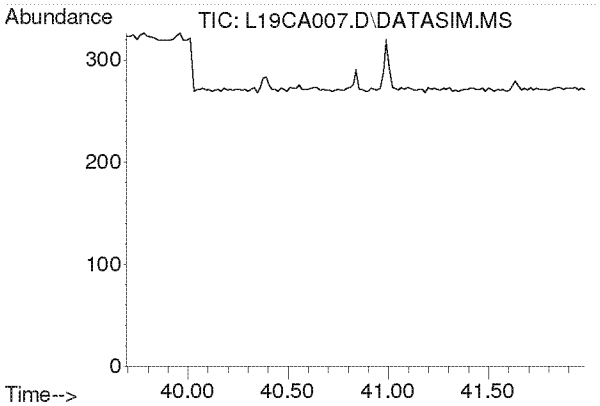
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



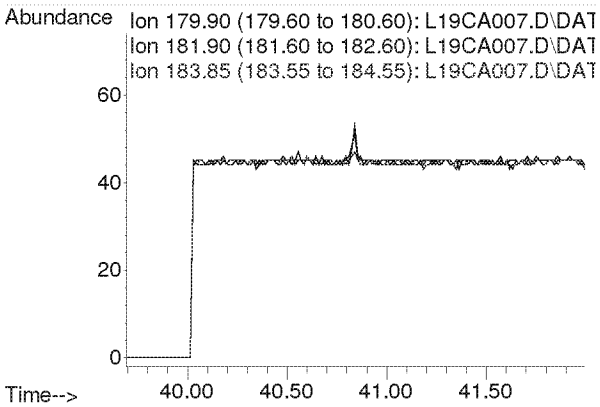


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

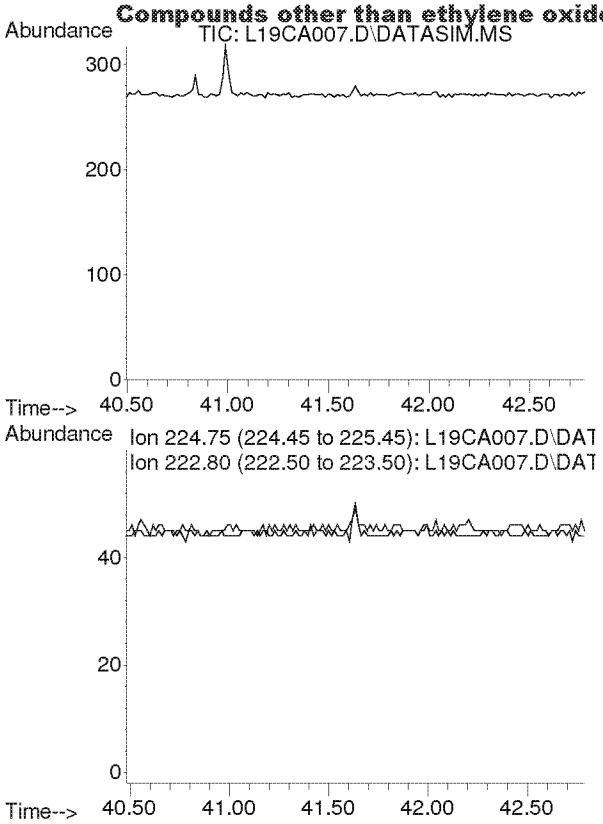
Lab File: L19CA007.D
Acq: 1 Mar 2019 9:33 pm

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: L19CA007.D
Acq: 1 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\L19CA\
Data File : L19CA008.D
Acq On : 1 Mar 2019 10:33 pm (#1); 01-Mar-19, 22:28:22 (#2)
Operator : MAH
Sample : 9030101-02
Misc : WILLOW POND PARK 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 05 09:04:27 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

ETOF only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	44430	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	111097	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	77202	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.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA008.D
Acq On : 1 Mar 2019 10:33 pm (#1); 01-Mar-19, 22:28:22 (#2)
Operator : MAH
Sample : 9030101-02
Misc : WILLOW POND PARK 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 05 09:04:27 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.	

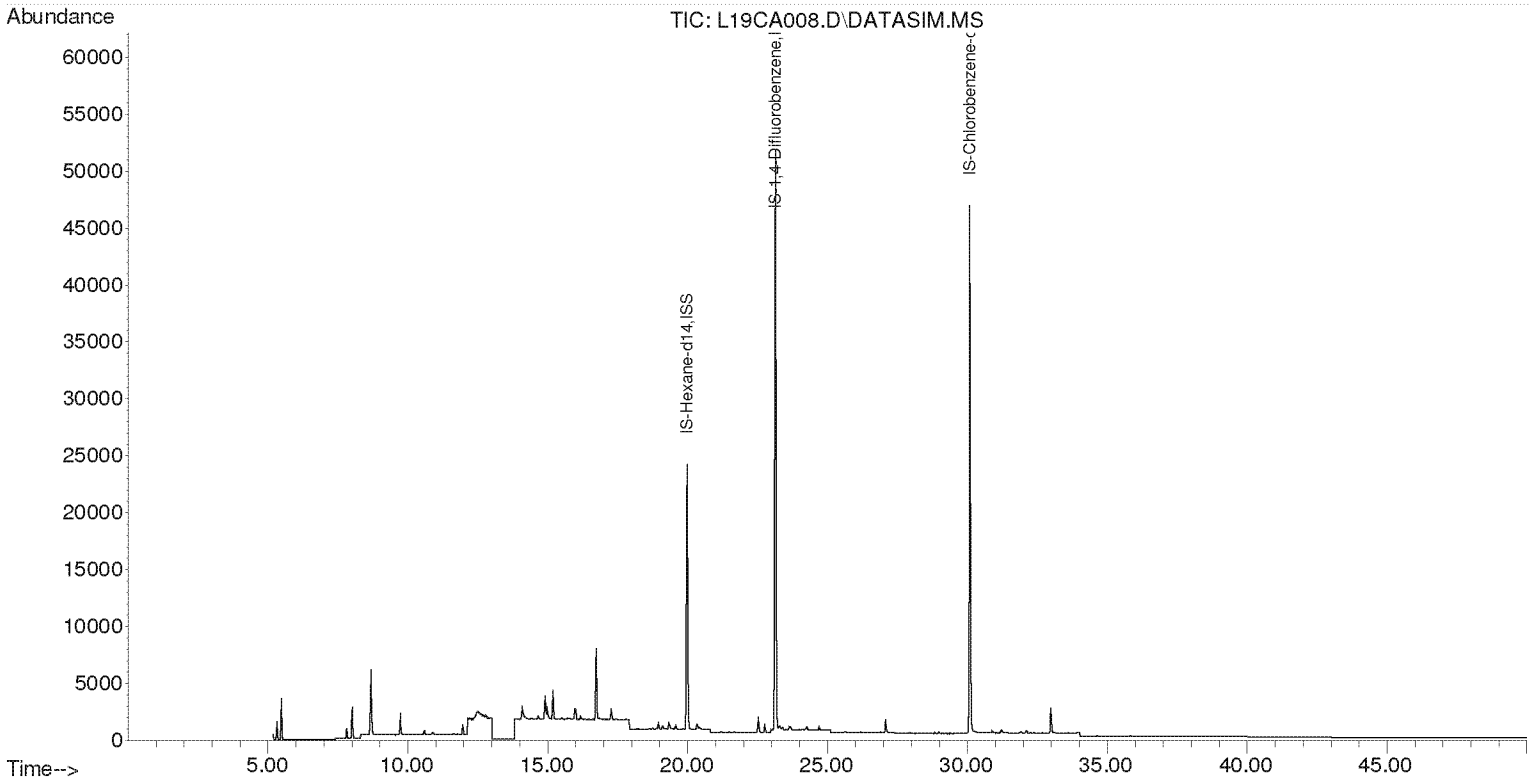
(#) = qualifier out of range (m) = manual integration (+) = signals summed

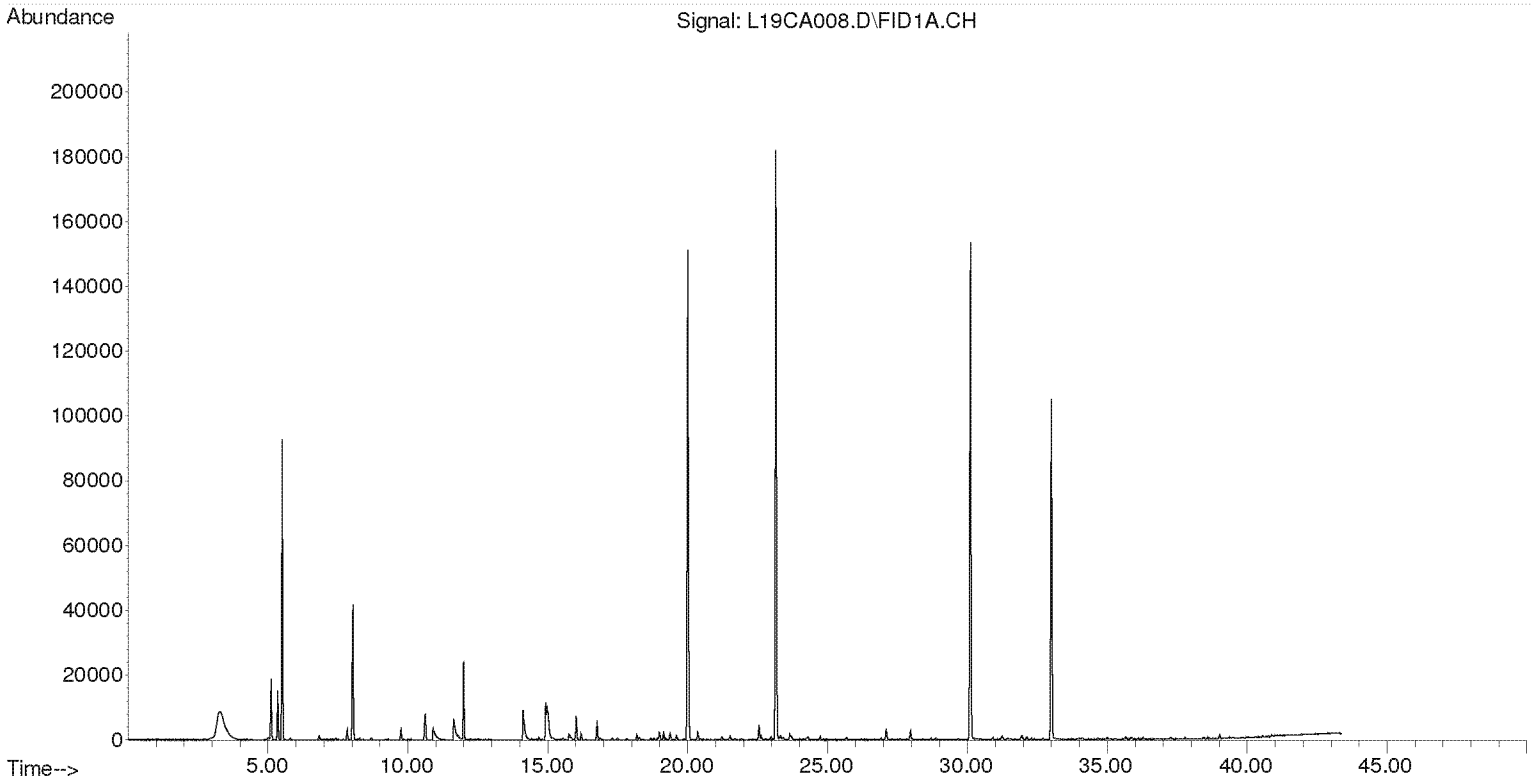
ED_002475_00000345-00184

Compounds other than ethylene oxide were not quantitated.

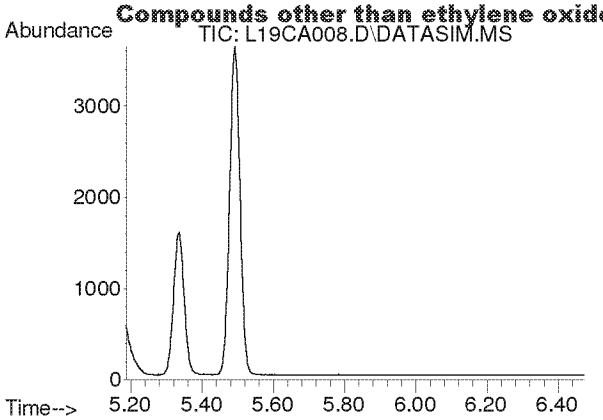
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA008.D
Acq On : 1 Mar 2019 10:33 pm (#1); 01 Mar 2019 10:28 pm (#2)
Operator : MAH
Sample : 9030101-02
Misc : WILLOW POND PARK 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 05 08:53:56 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





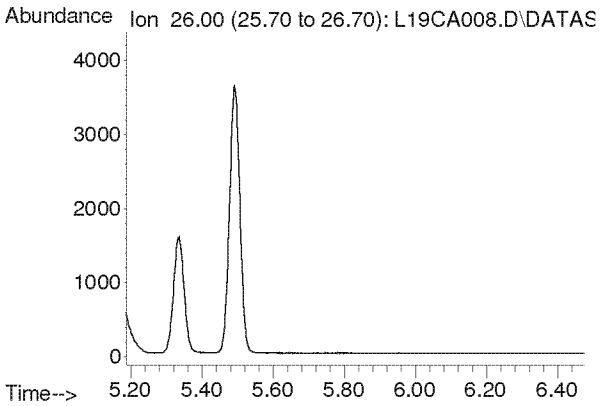
Compounds other than ethylene oxide were not quantitated.

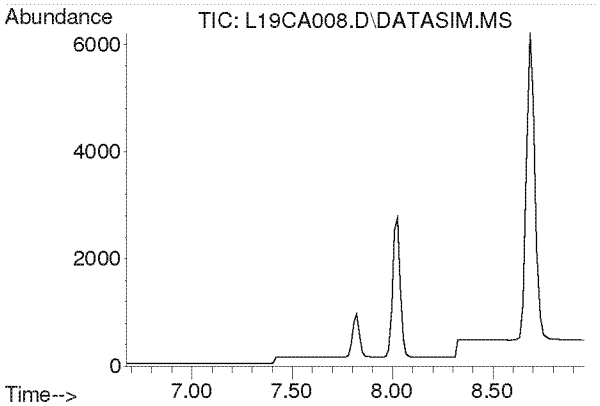


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 26



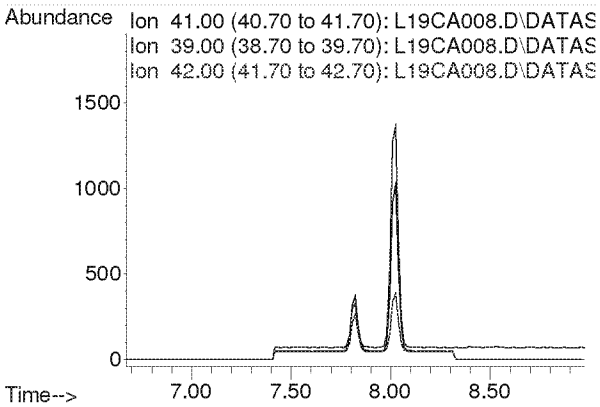


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

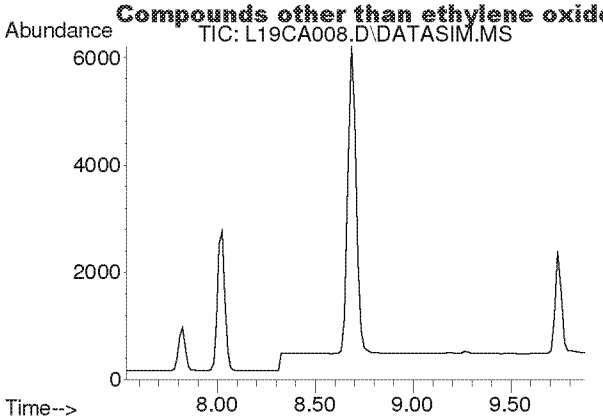
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

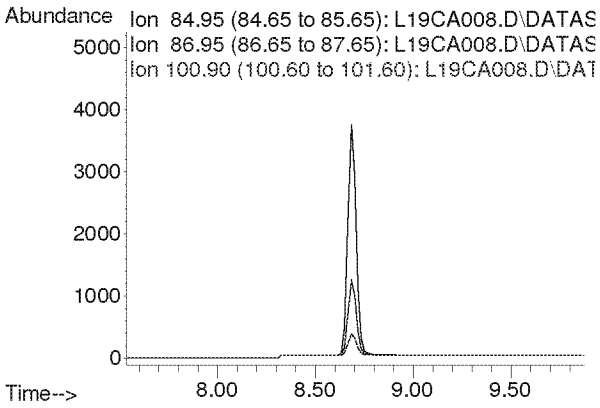


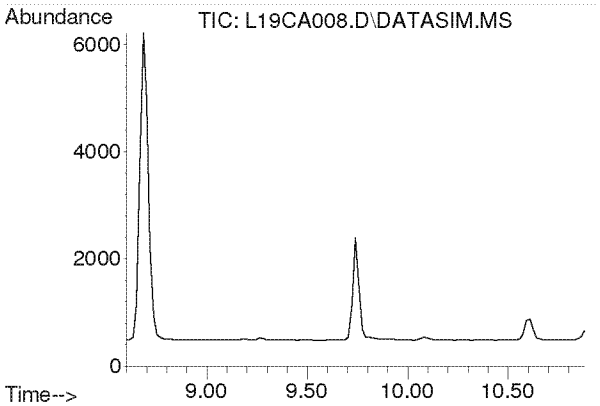
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



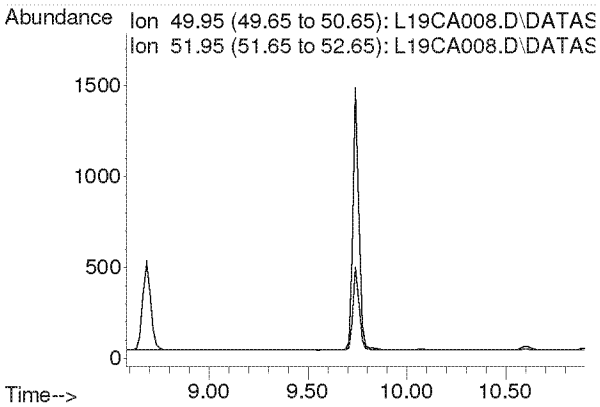


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

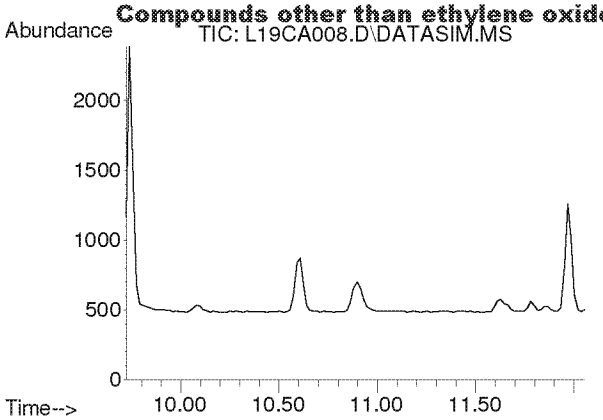
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

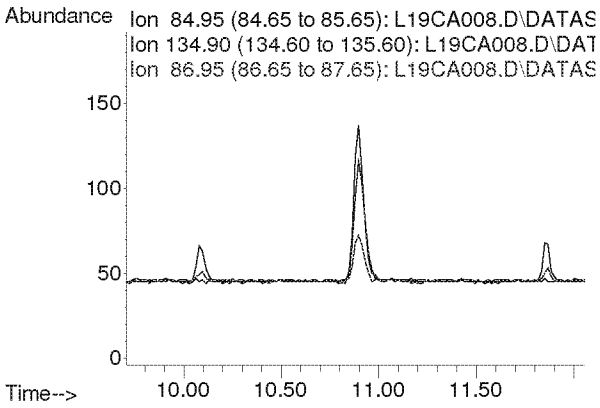


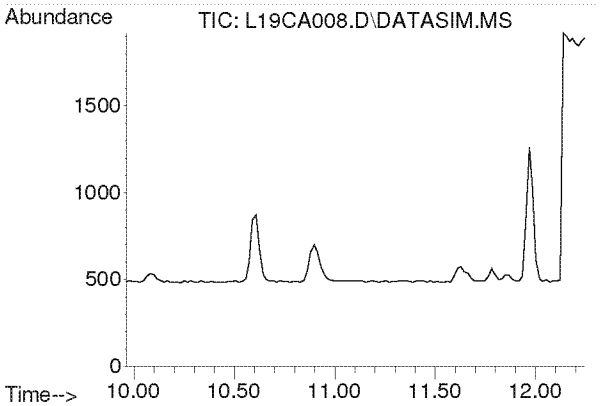
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



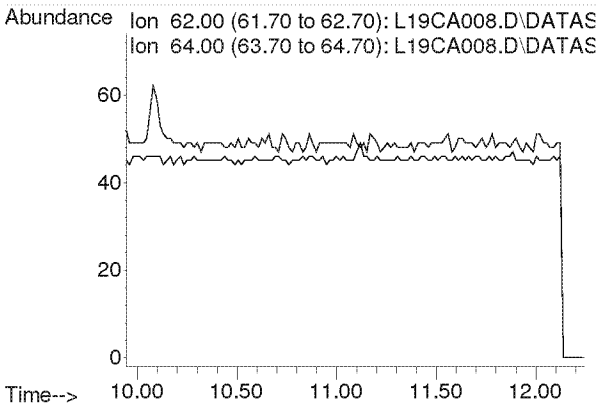


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

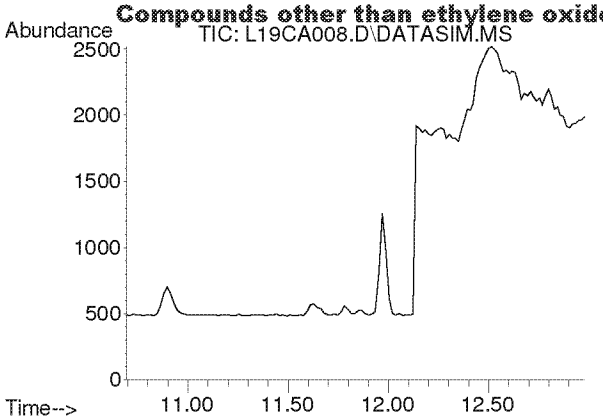
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

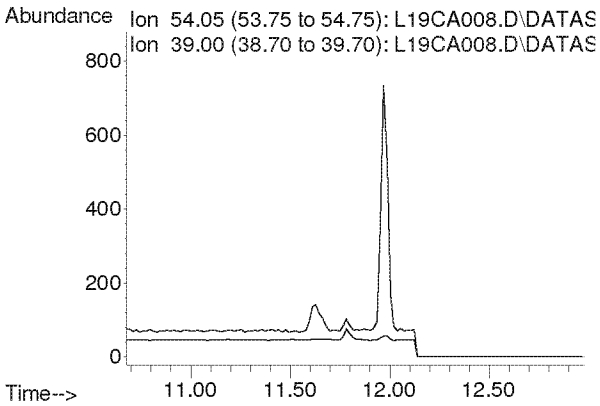


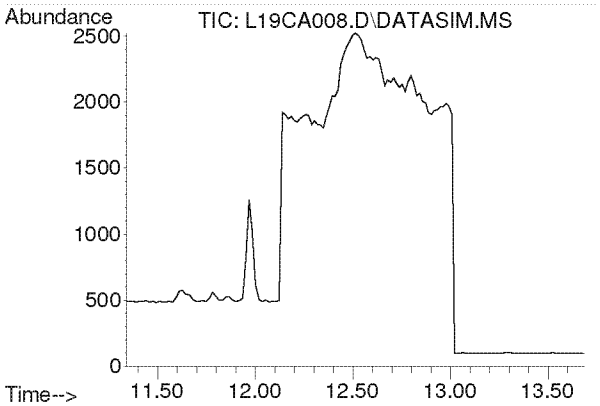
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



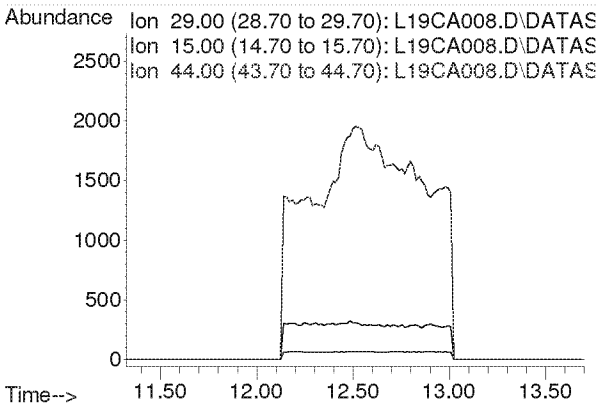


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

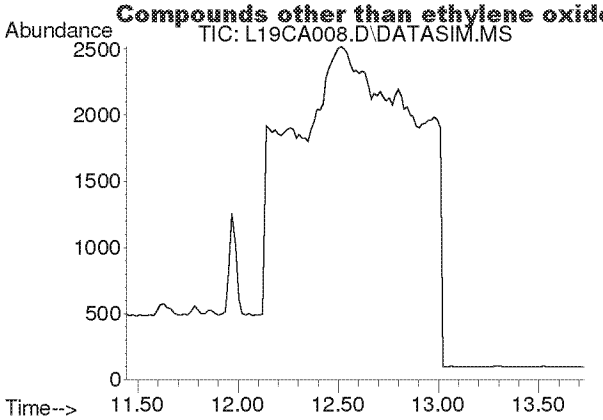
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

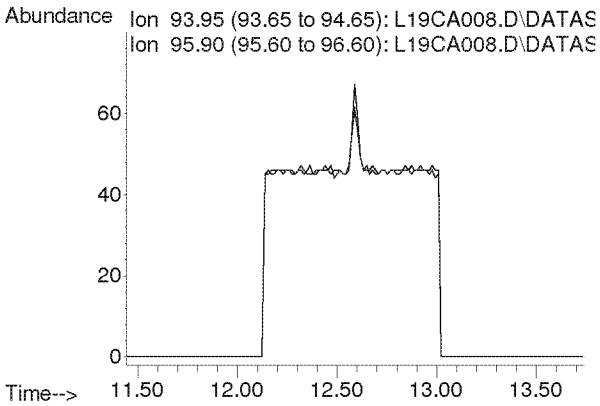


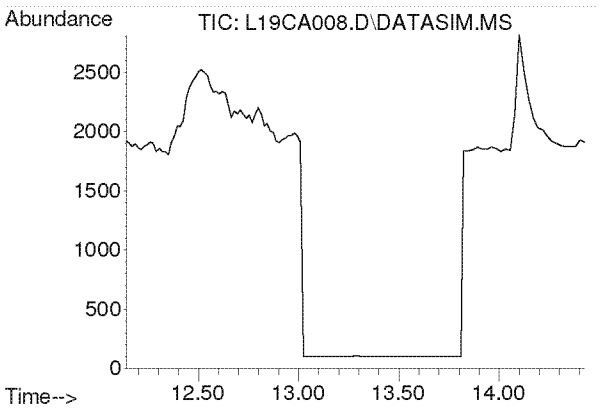
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



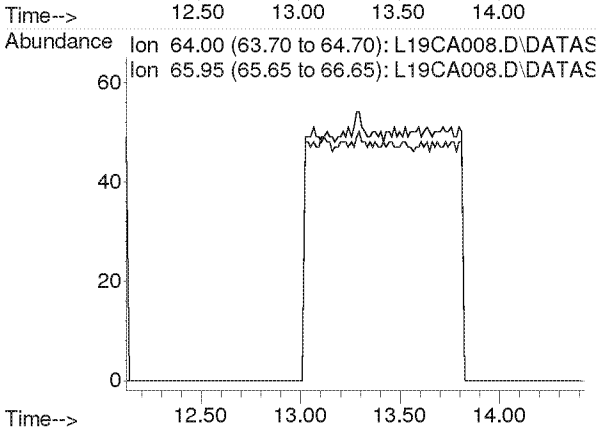


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

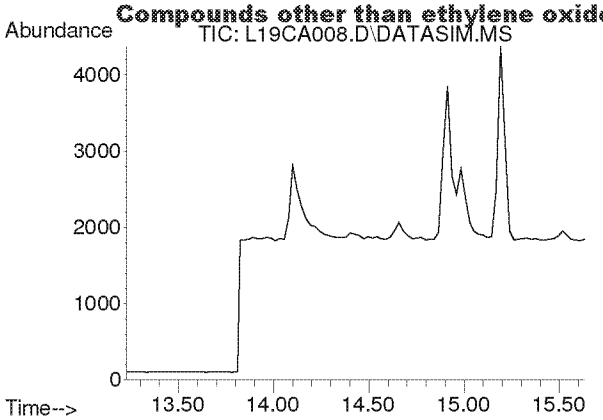
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

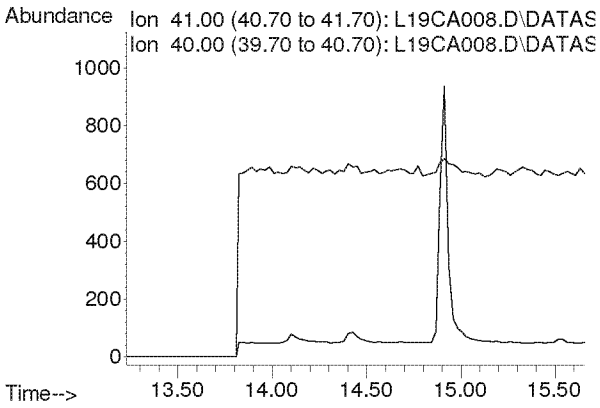


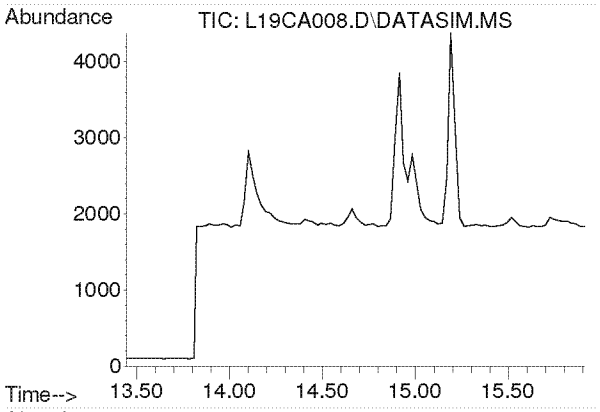
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



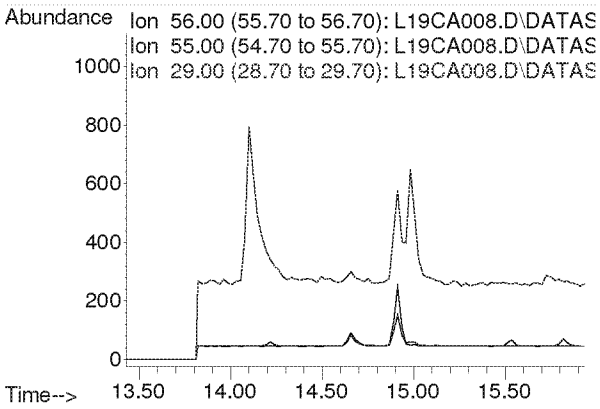


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

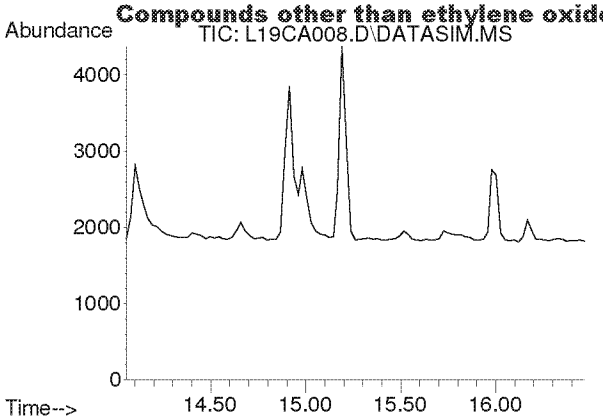
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

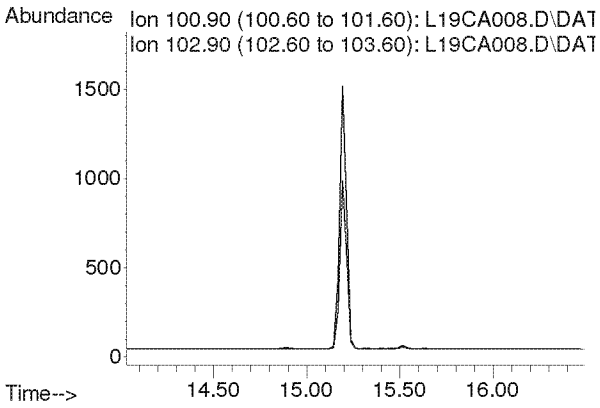


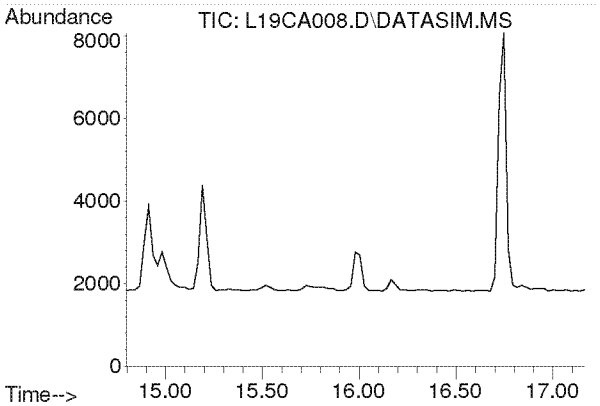
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



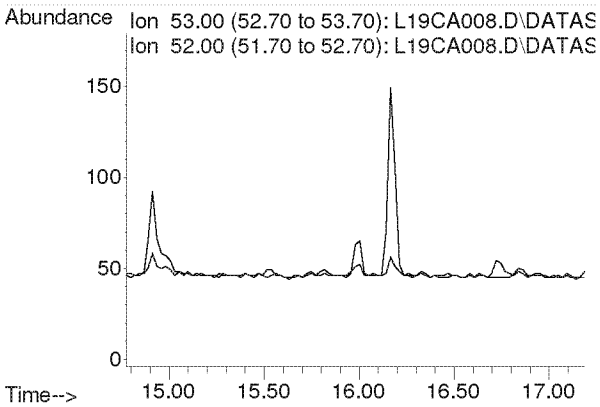


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

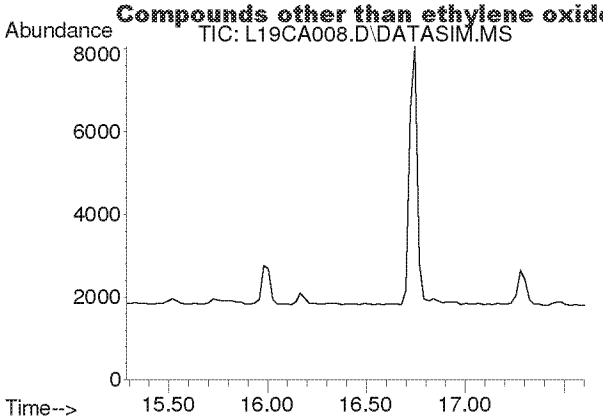
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

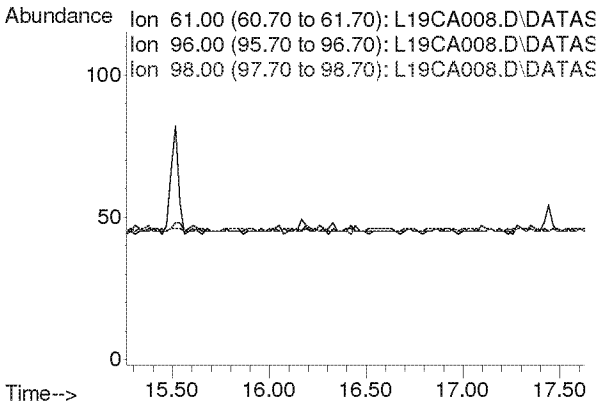


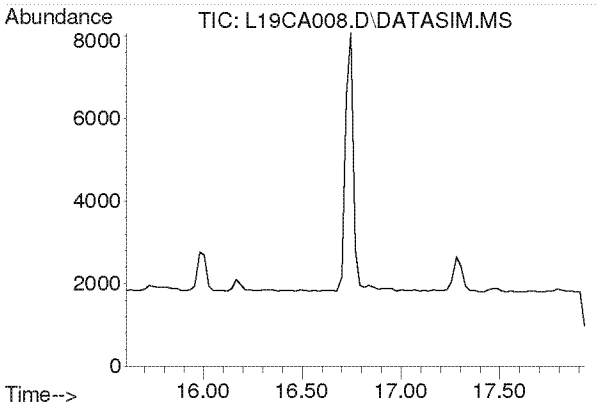
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



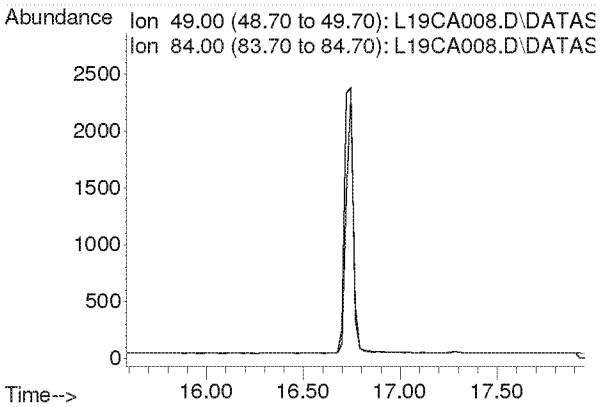


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

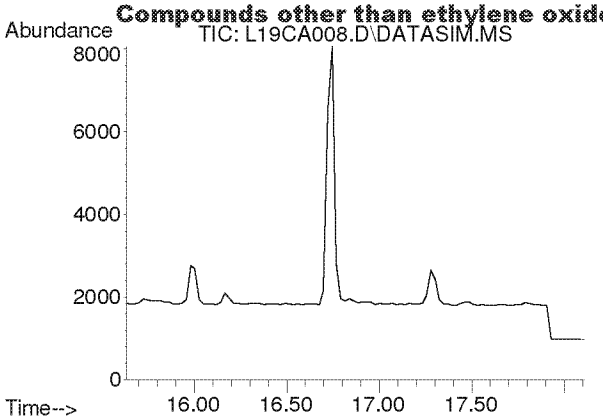
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

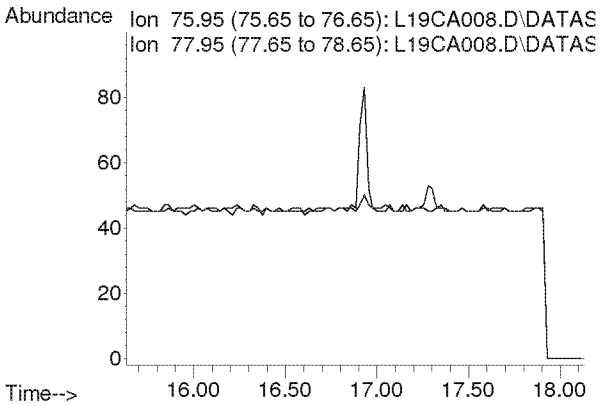


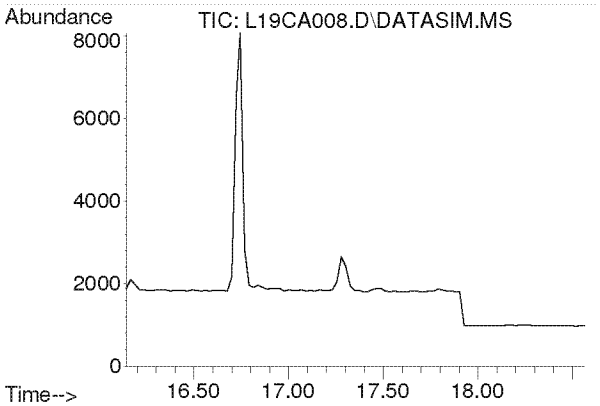
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



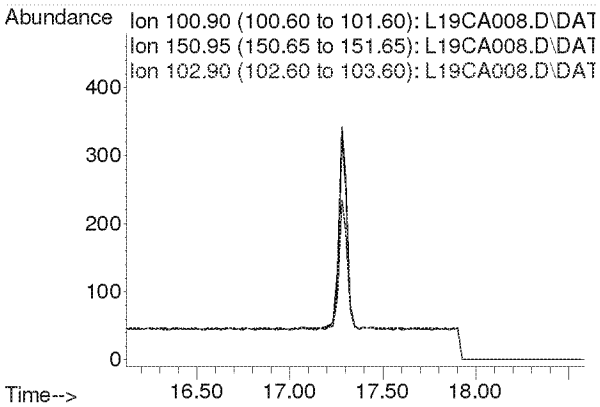


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

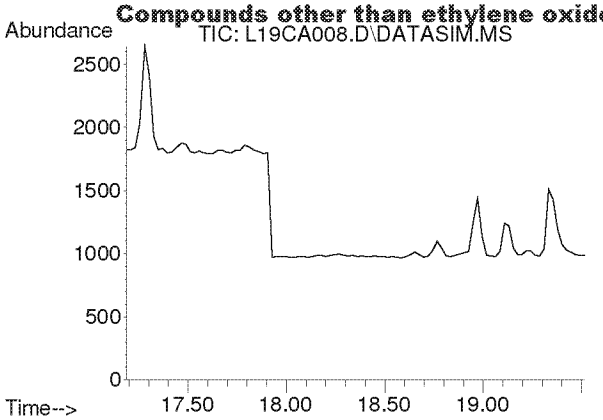
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

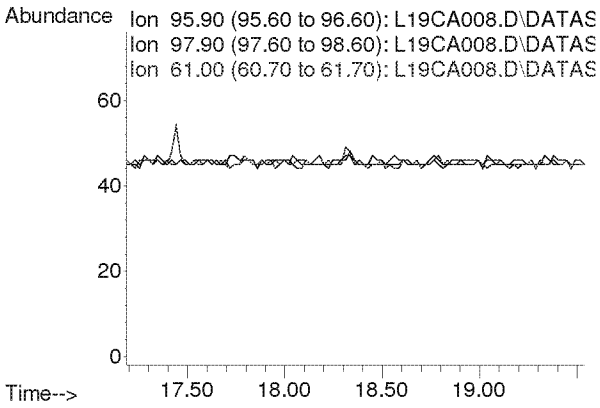


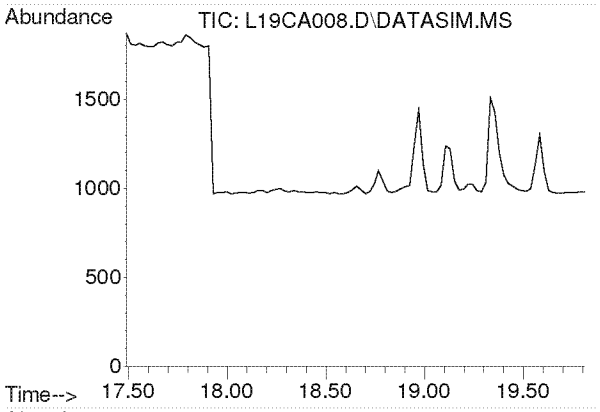
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



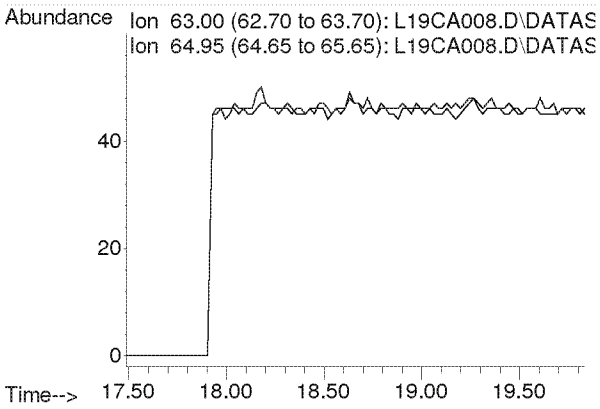


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

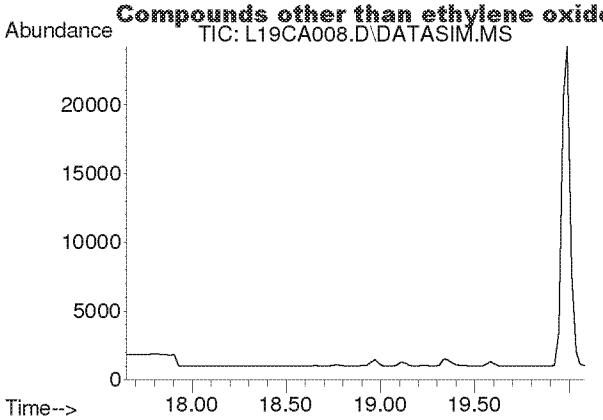
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

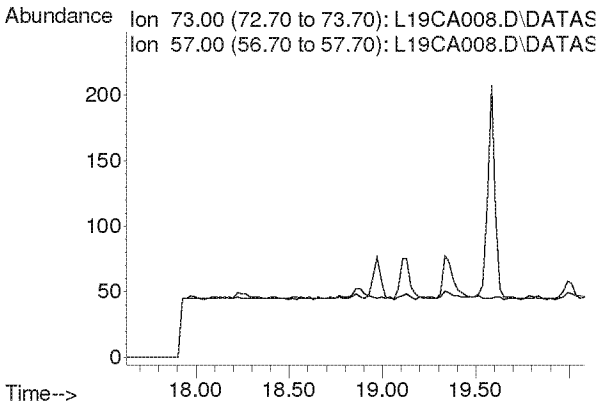


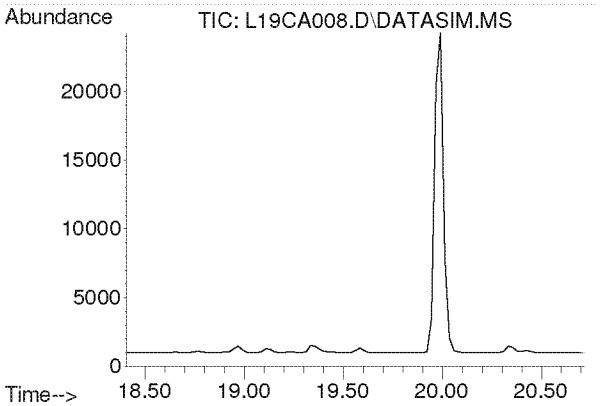
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



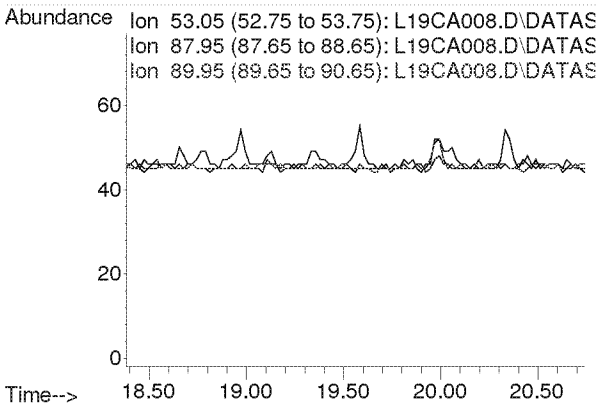


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

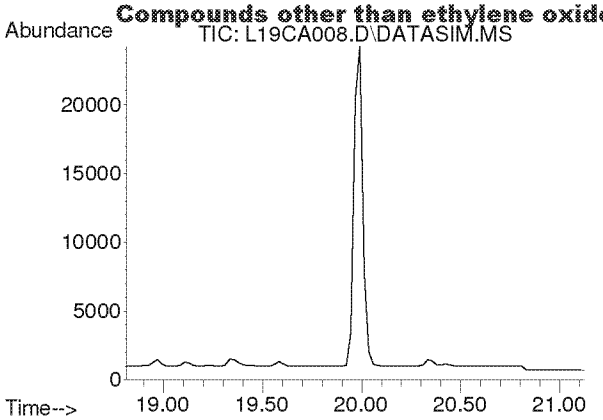
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

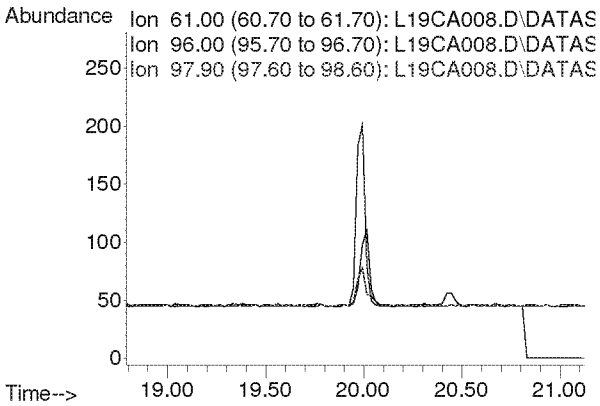


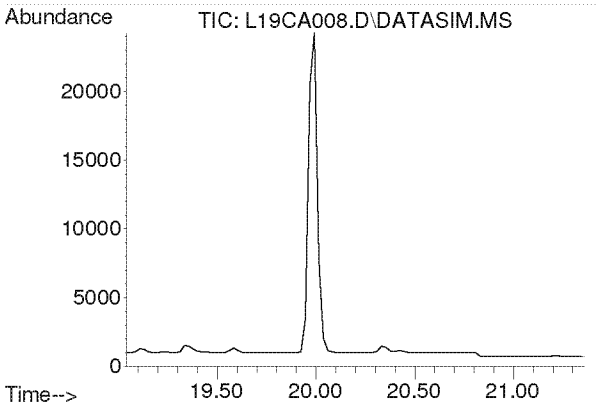
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



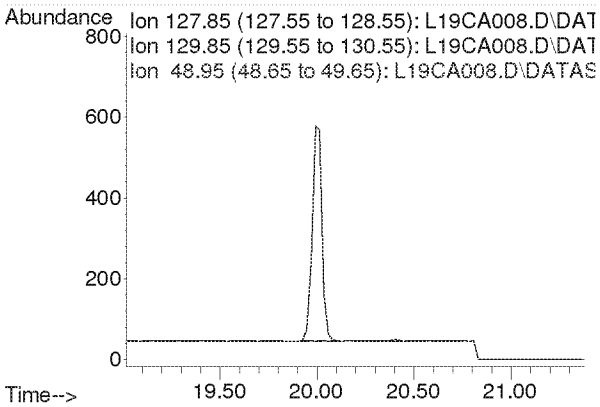


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

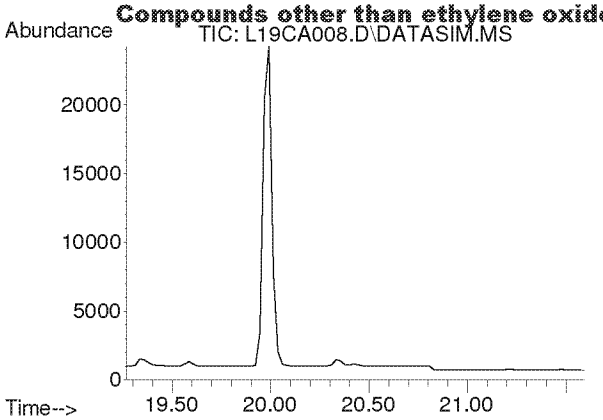
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

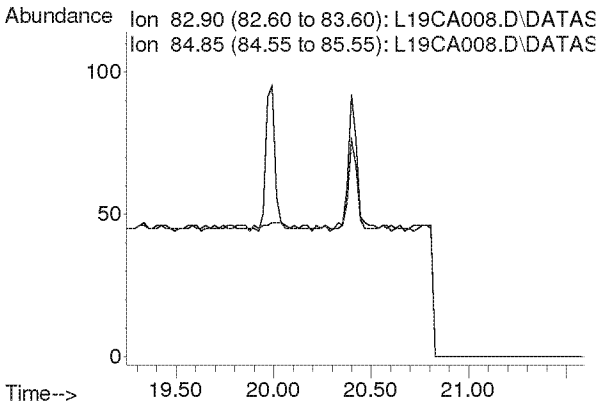


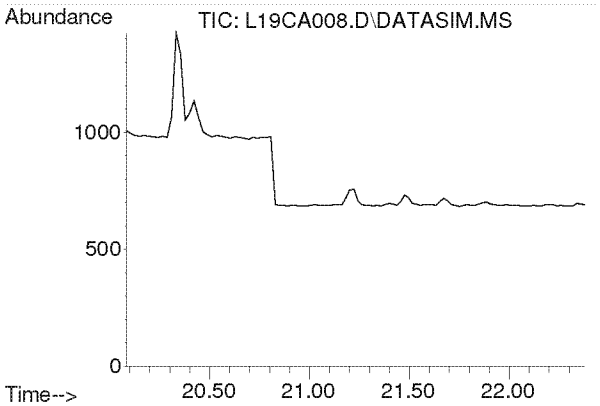
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



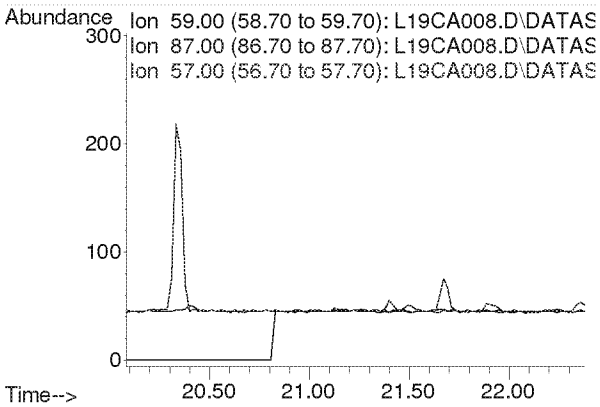


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

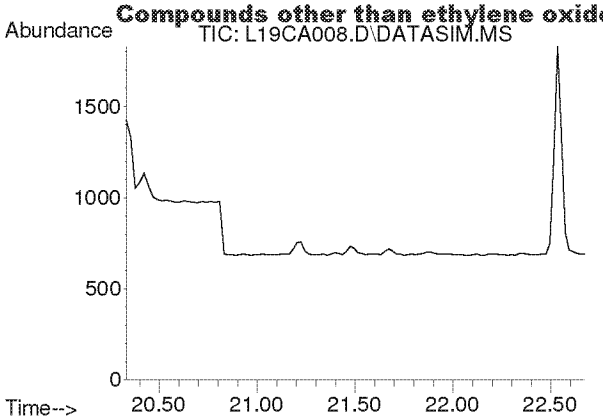
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

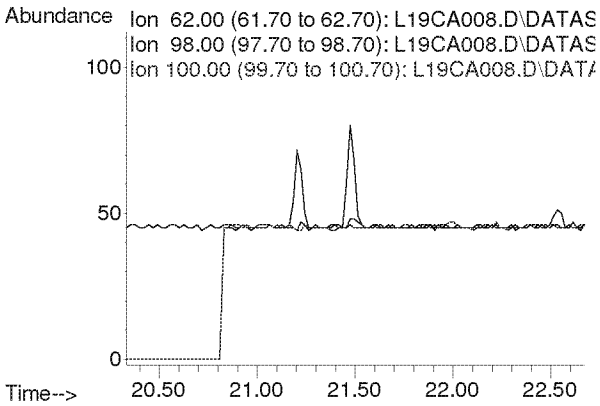


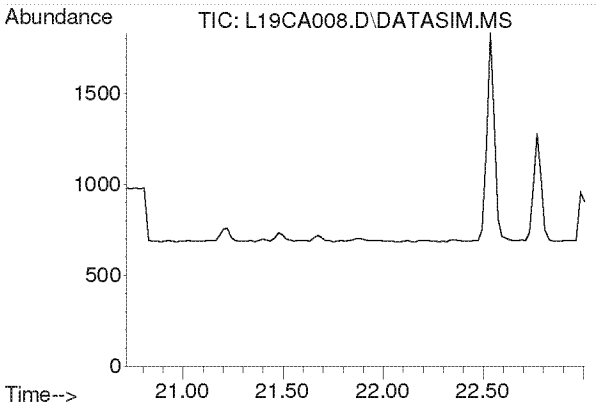
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



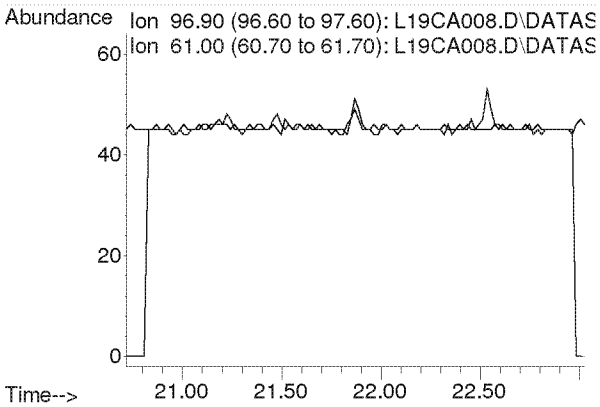


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

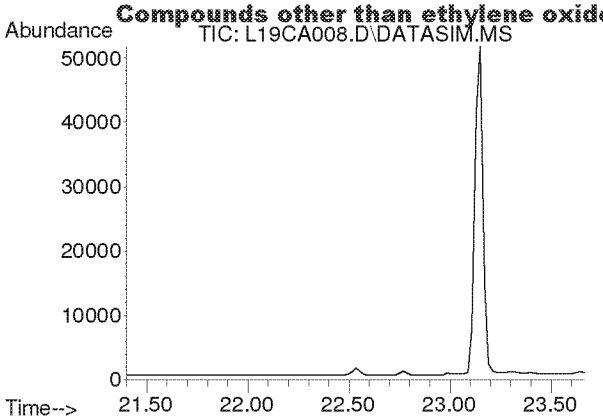
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

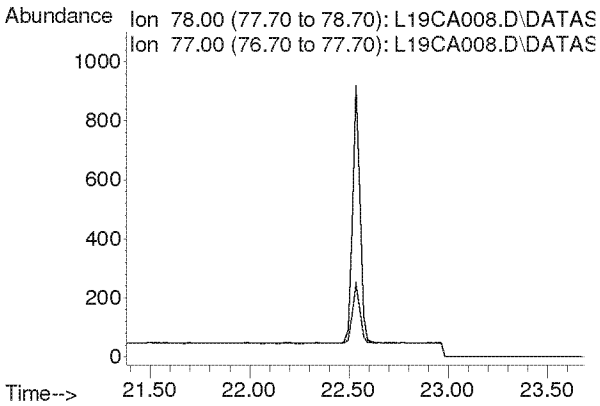


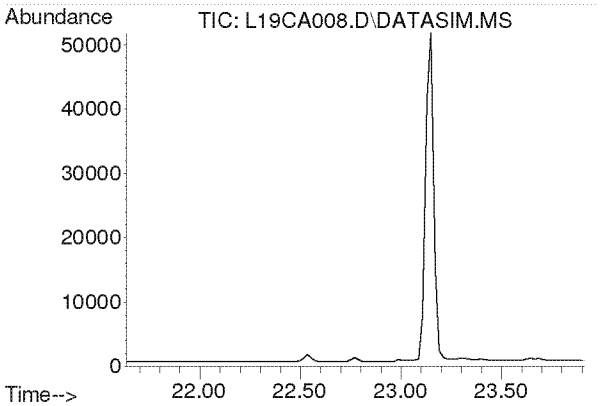
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



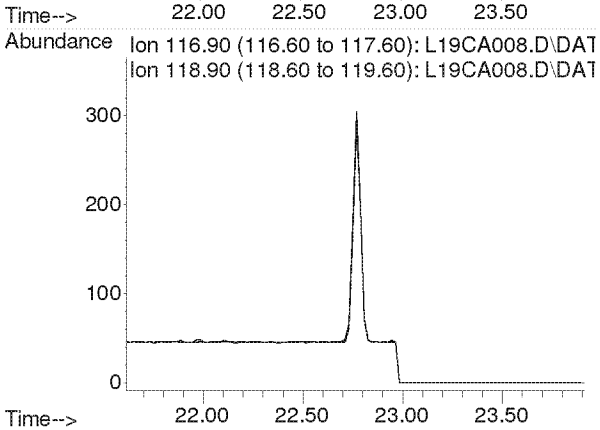


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

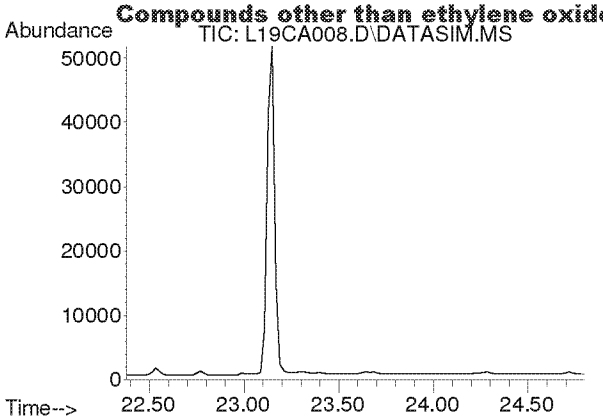
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

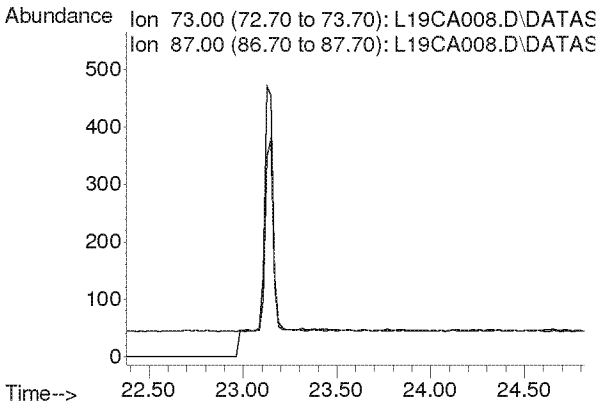


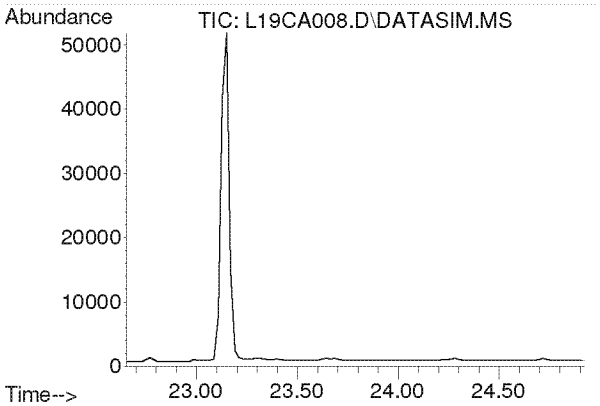
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



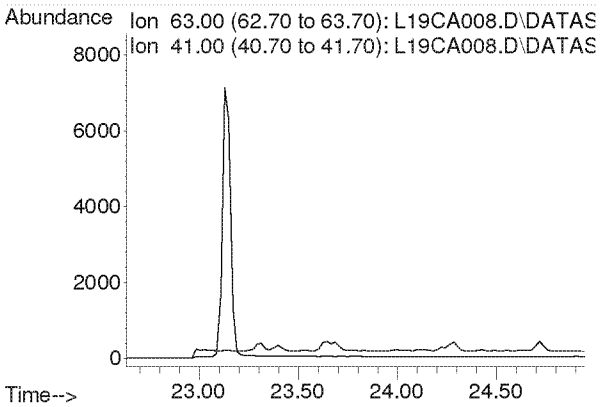


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

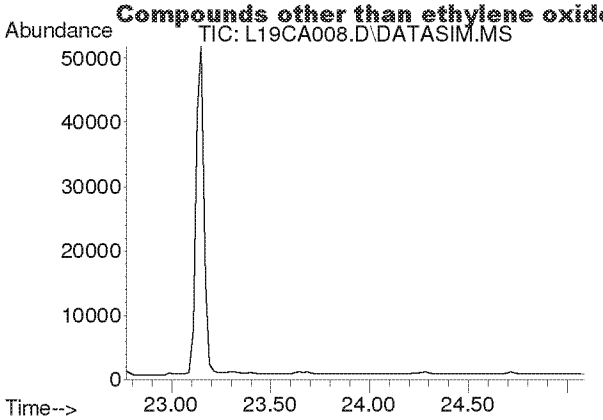
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

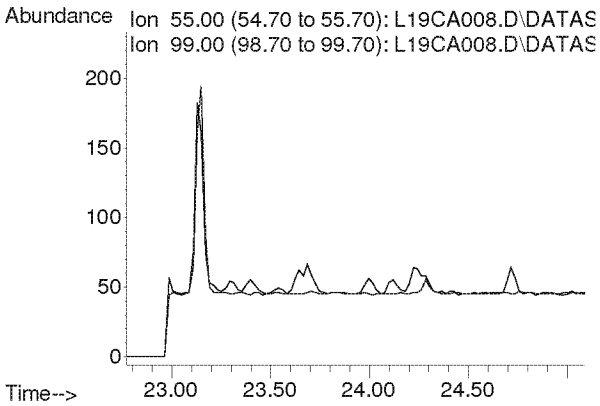


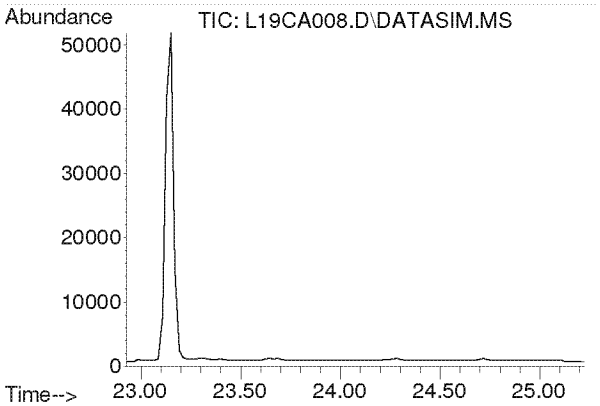
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



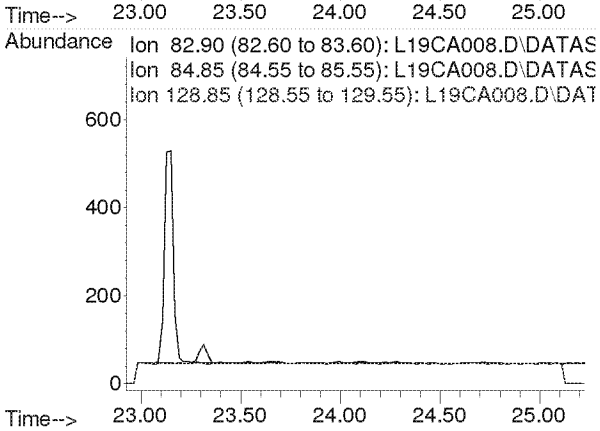


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

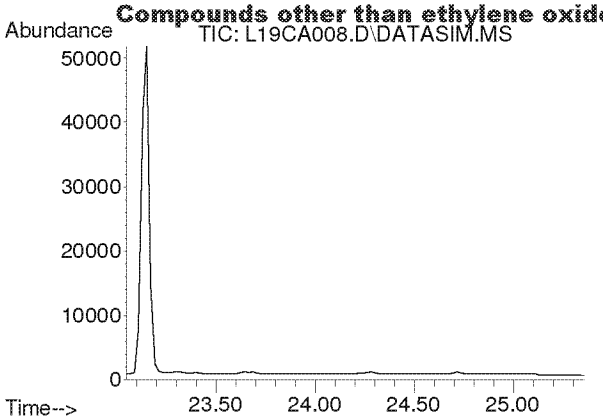
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

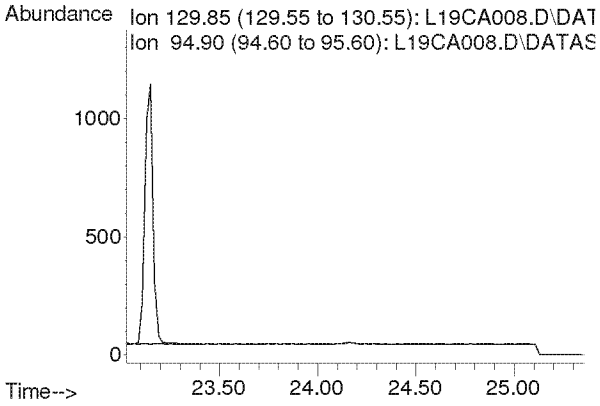


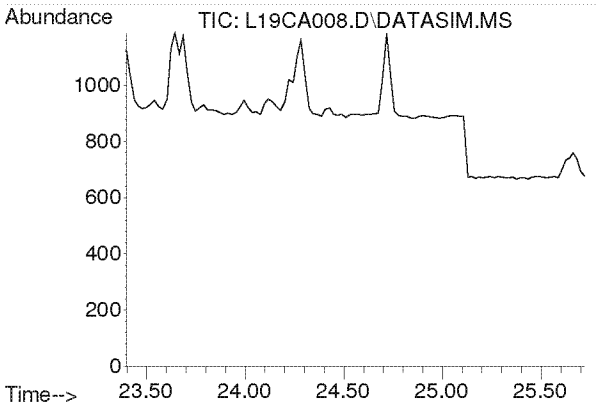
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



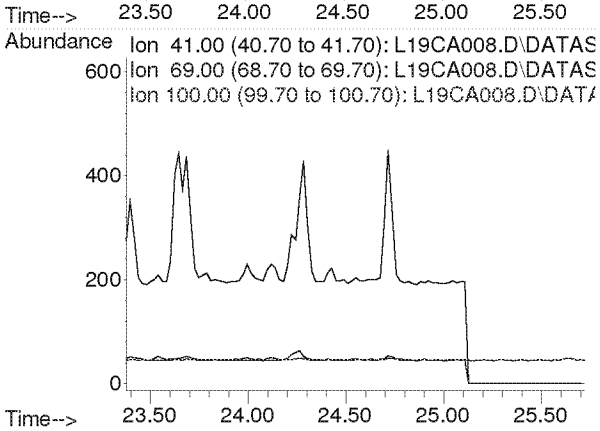


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

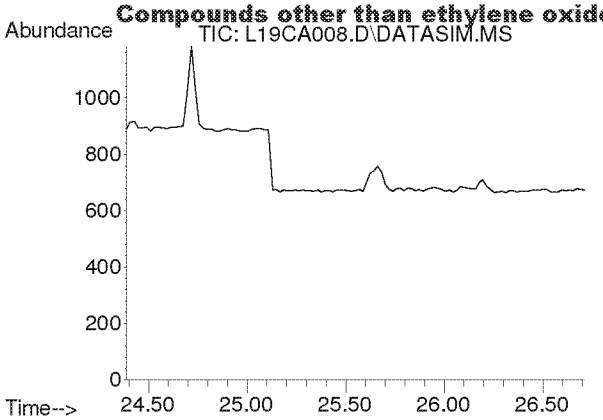
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

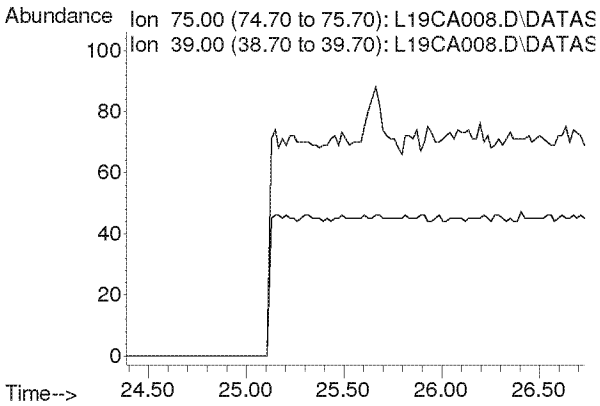


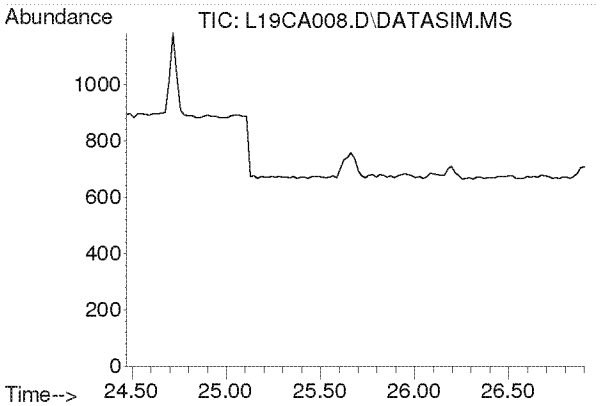
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



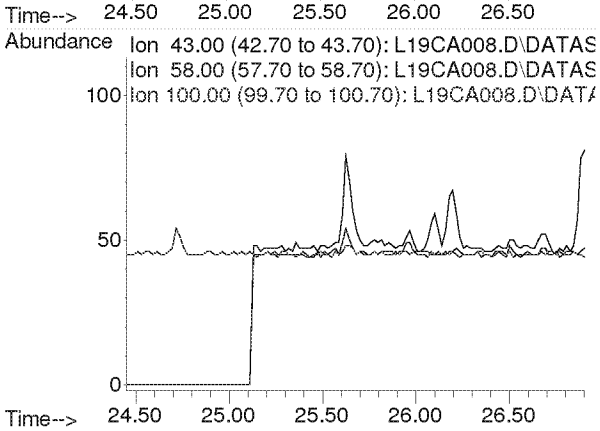


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

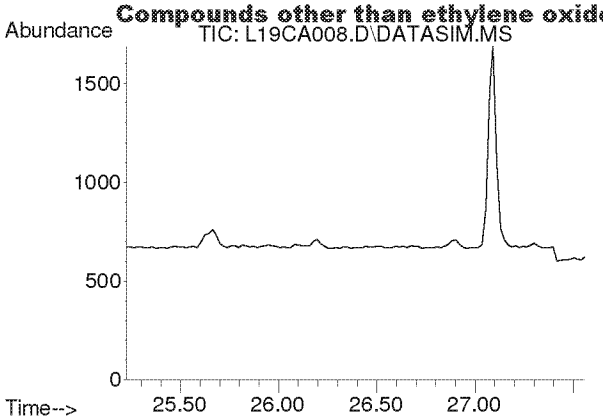
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

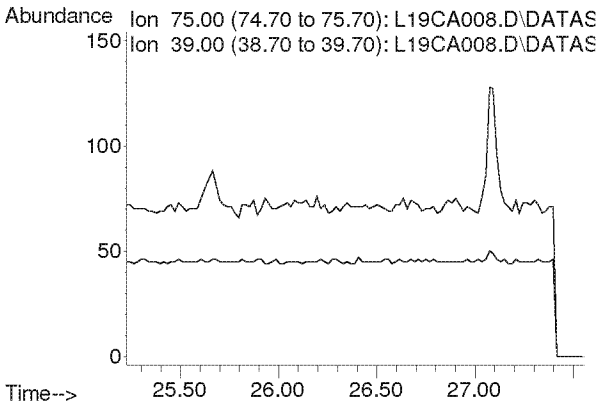


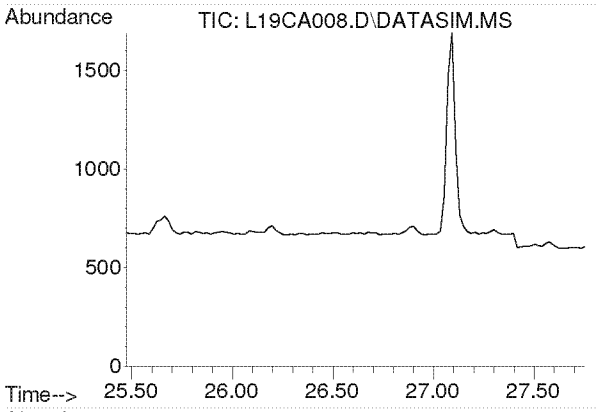
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



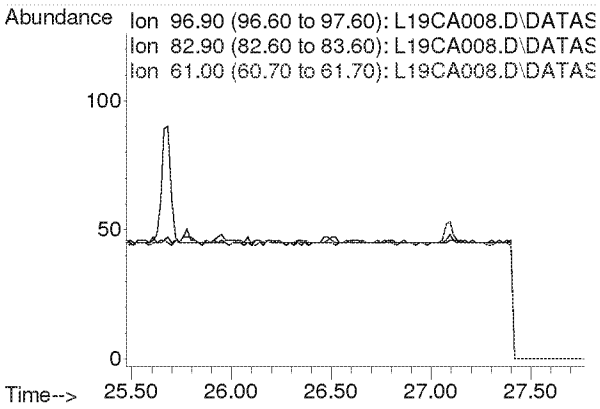


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

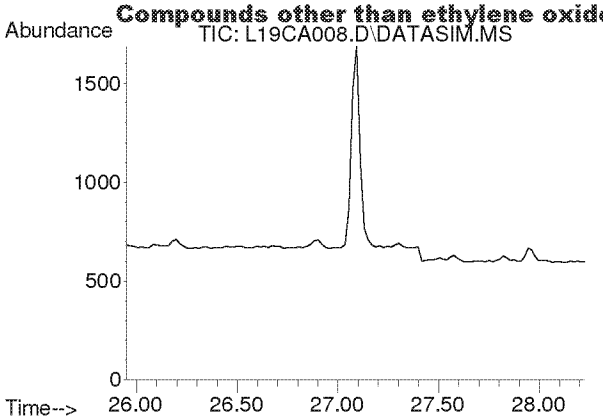
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

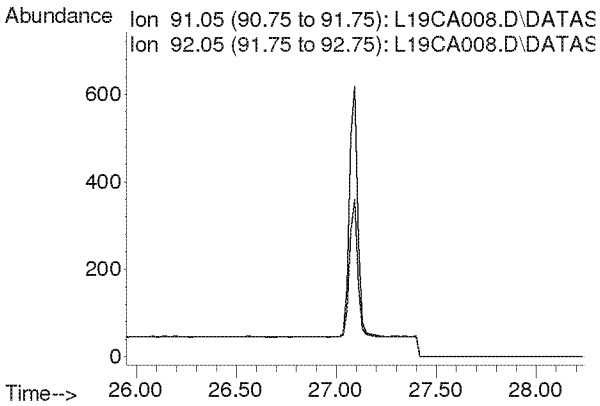


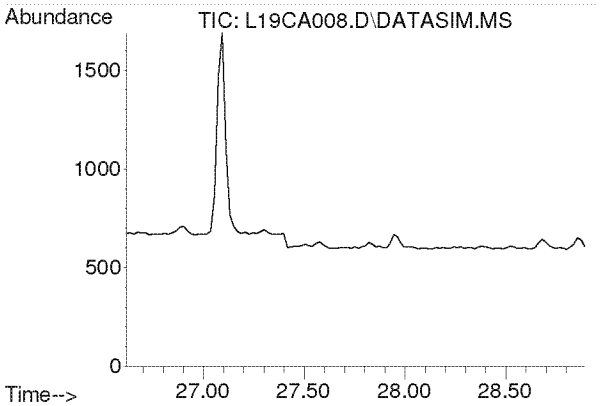
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



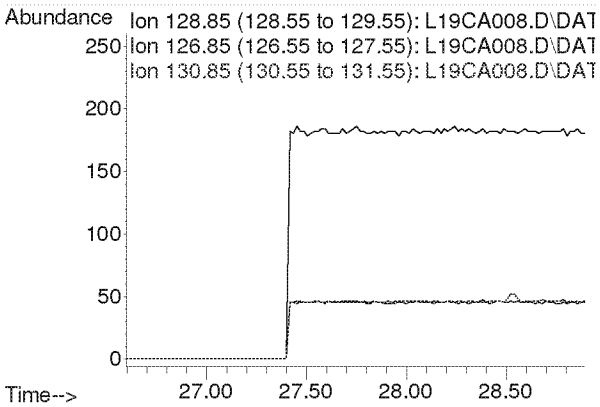


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

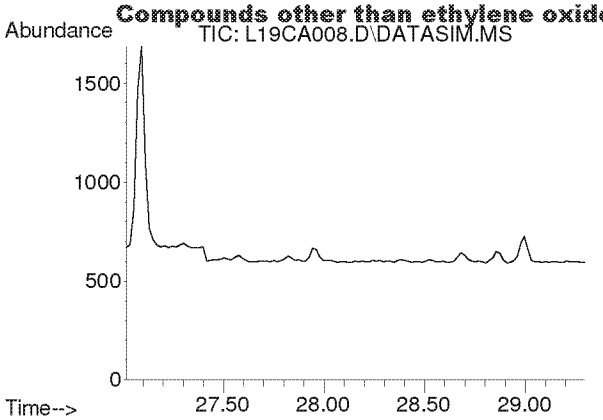
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

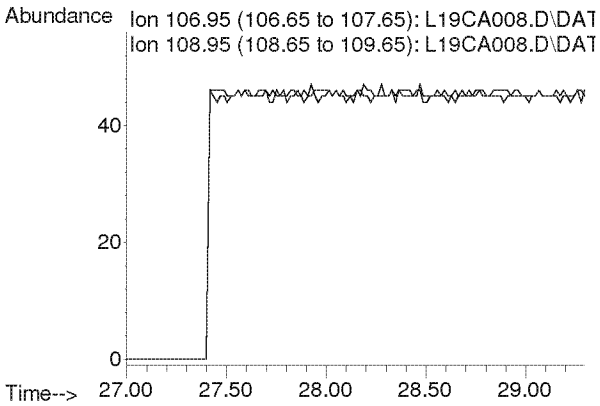


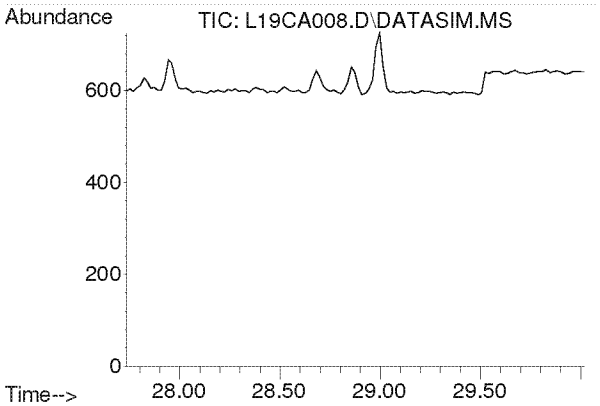
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



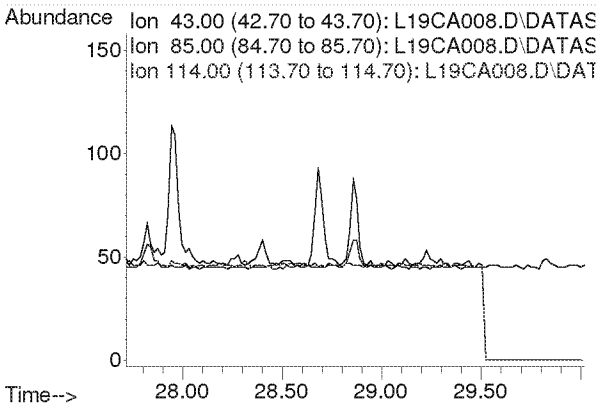


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

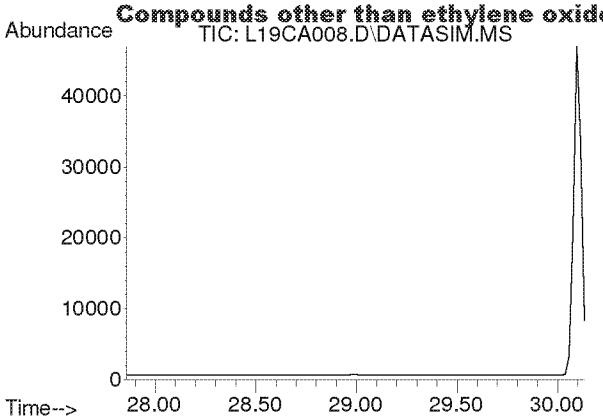
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

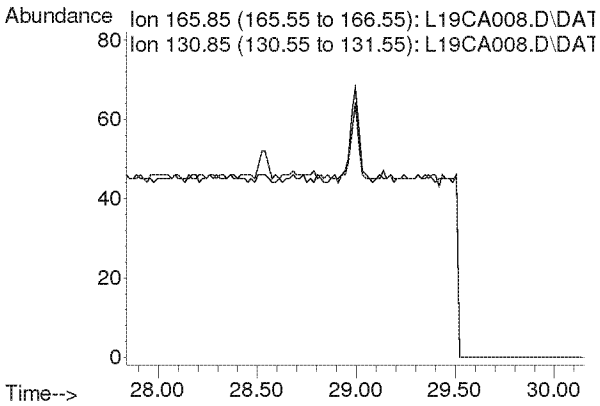


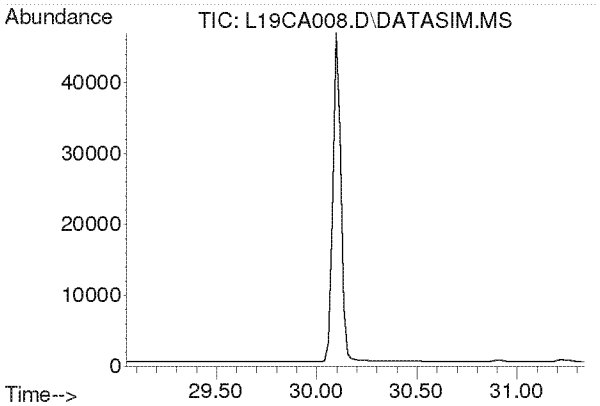
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



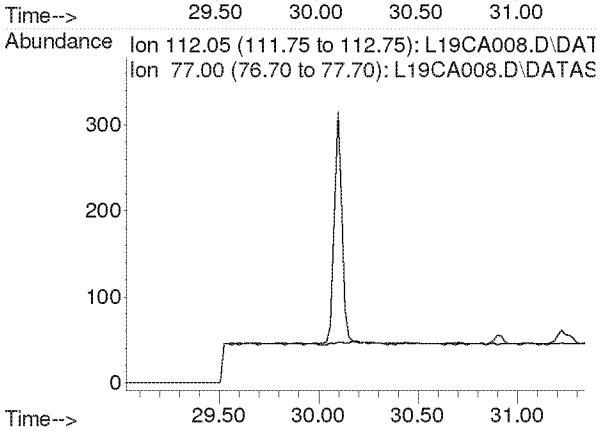


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

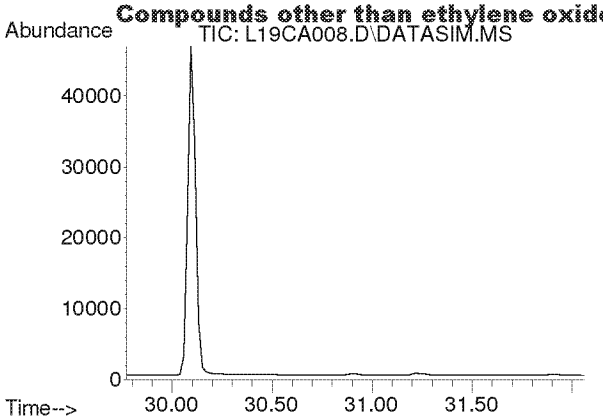
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

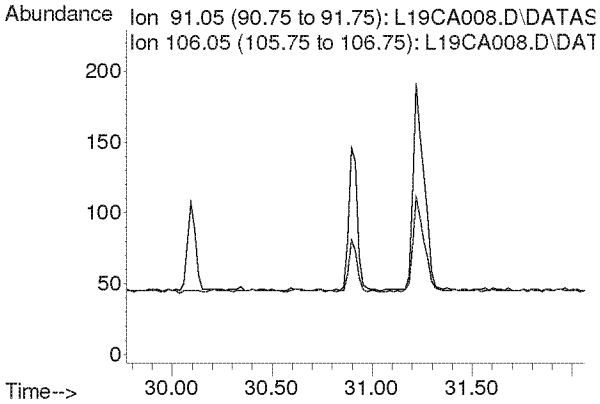


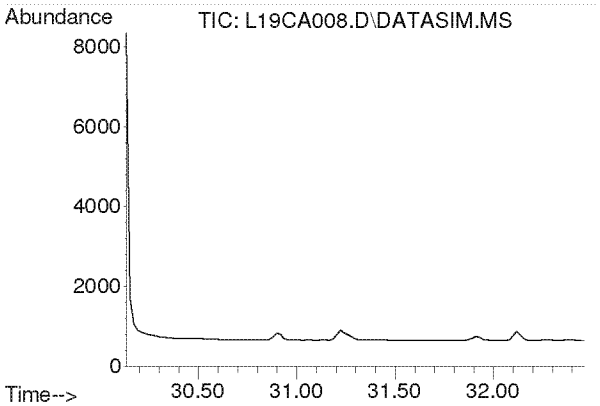
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



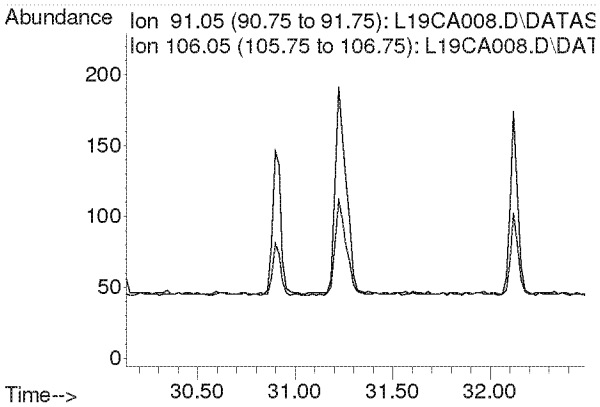


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

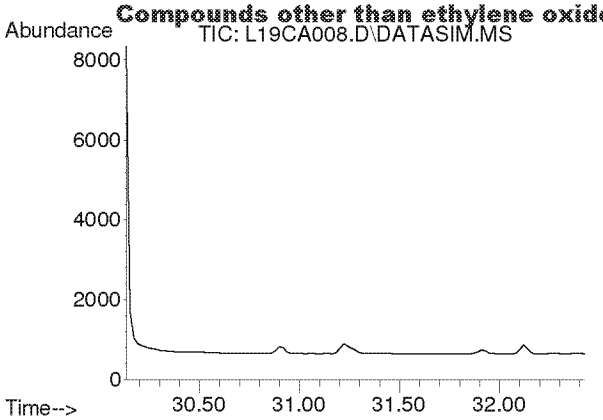
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

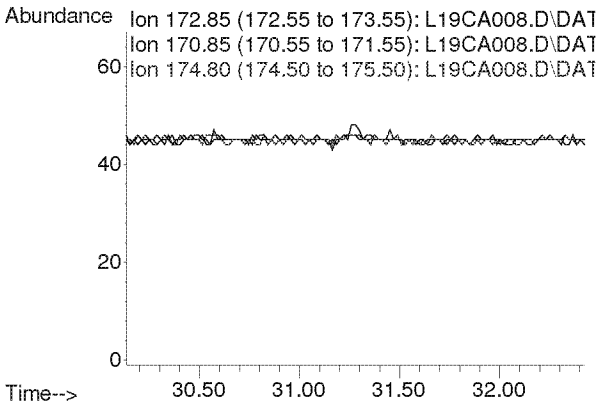


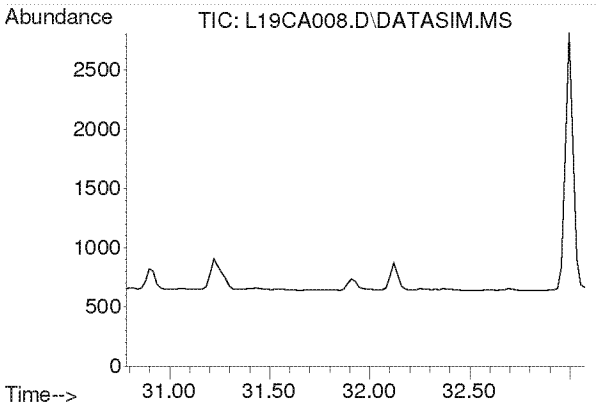
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



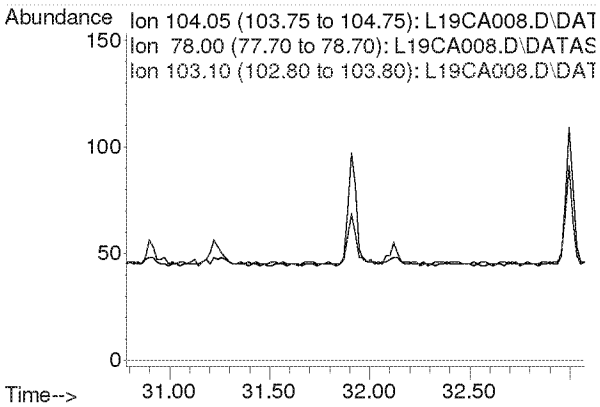


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

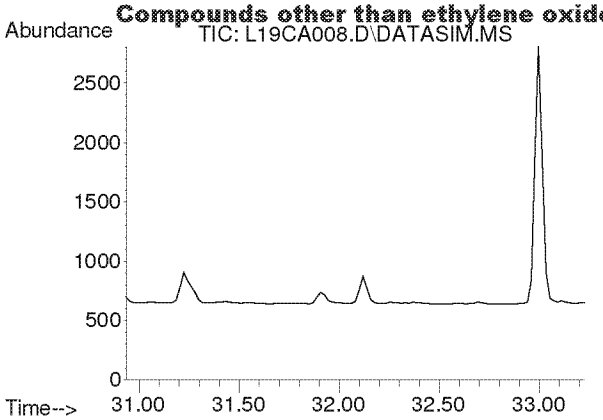
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

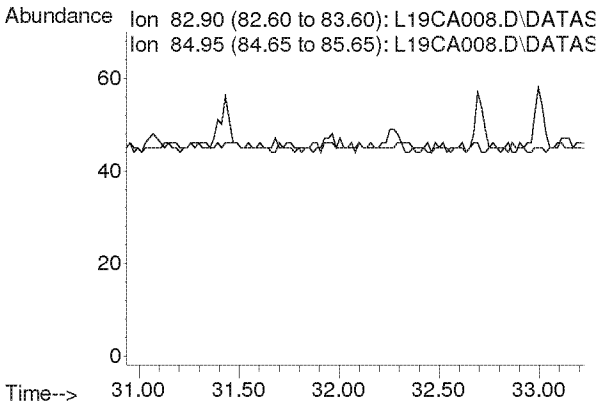


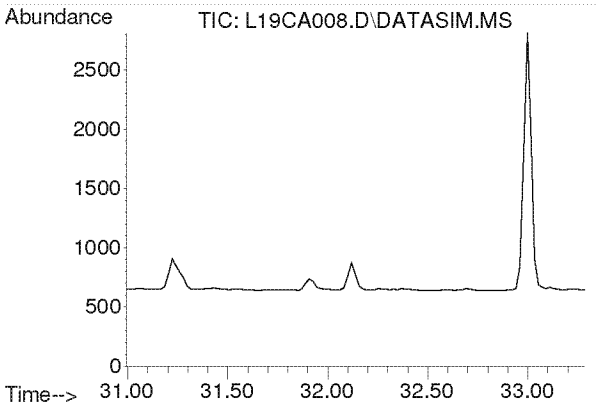
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



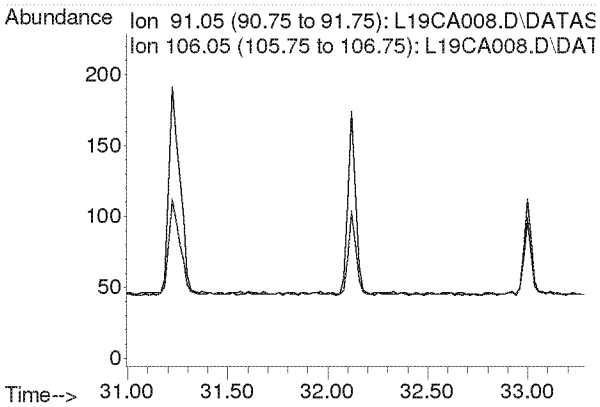


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

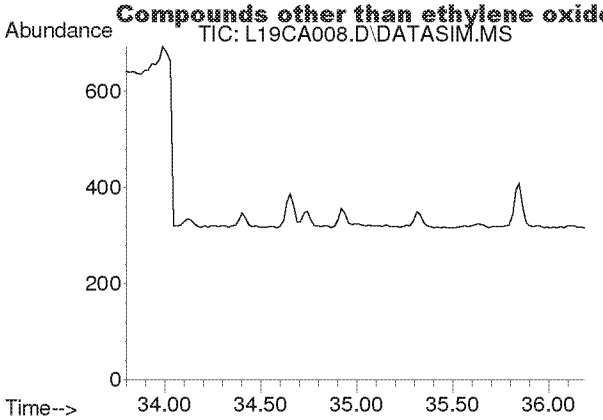
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

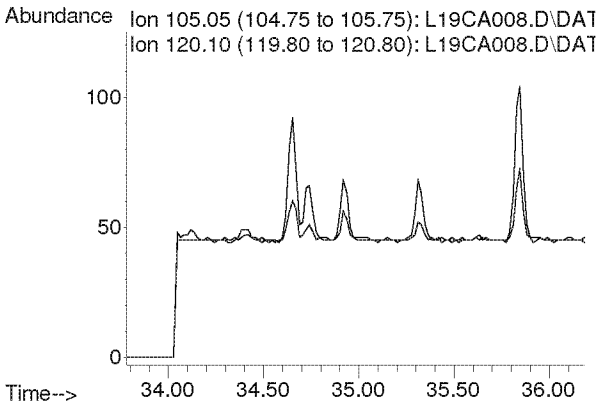


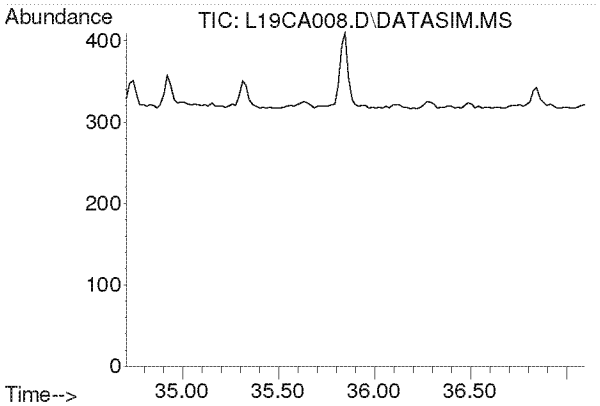
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



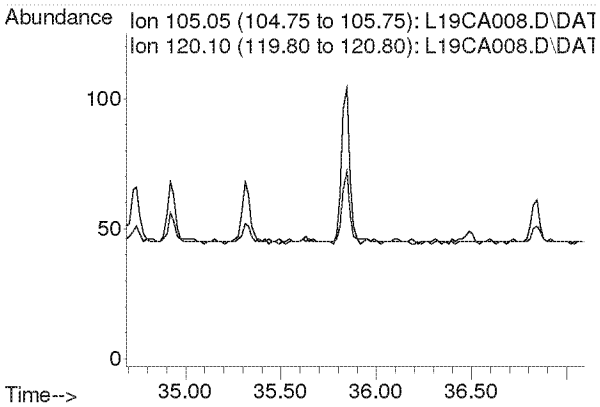


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

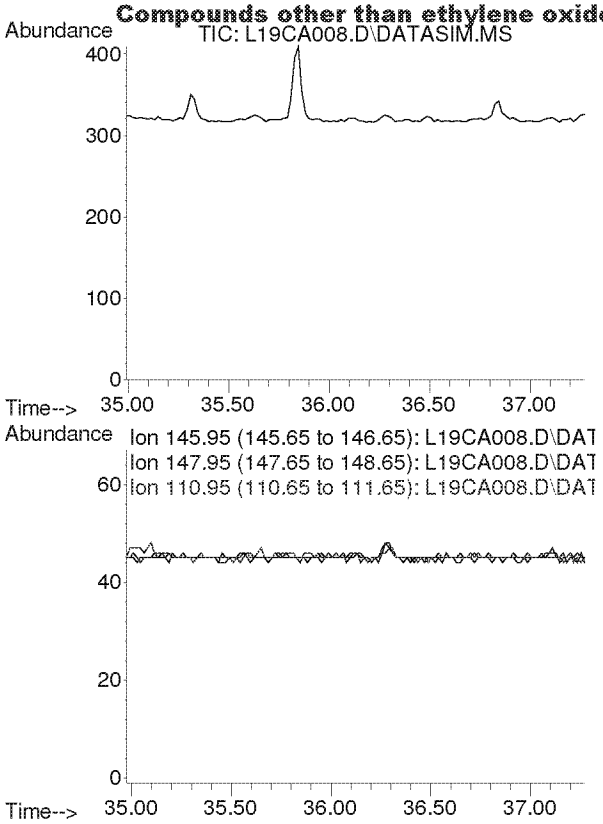
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

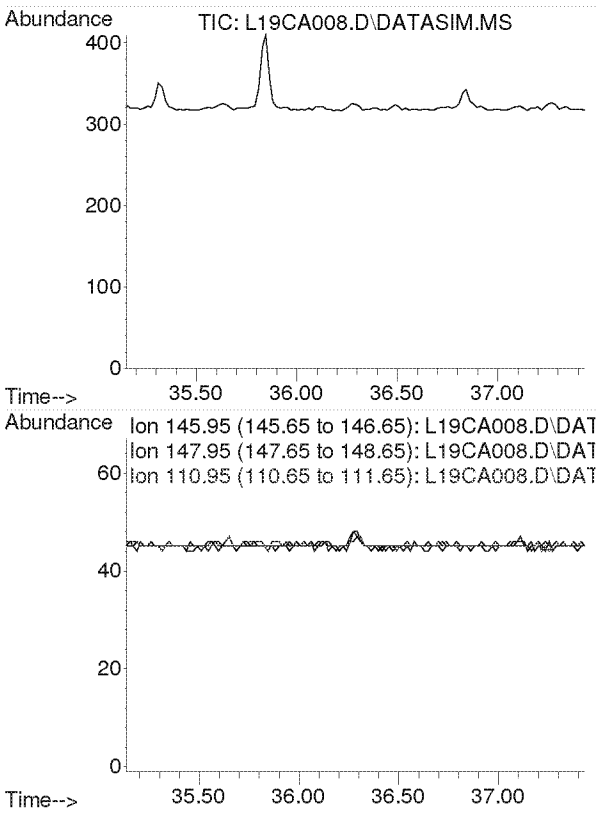


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



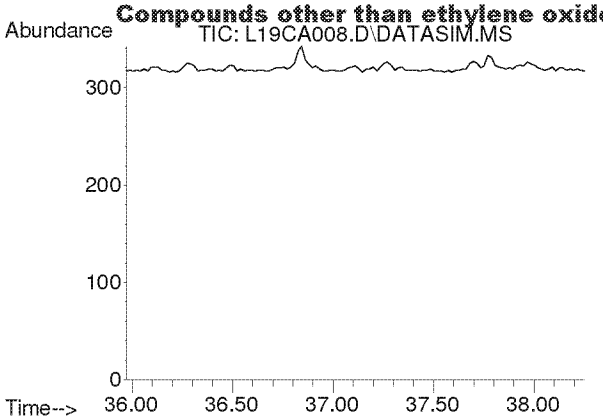
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA008.D
Acq: 1 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.

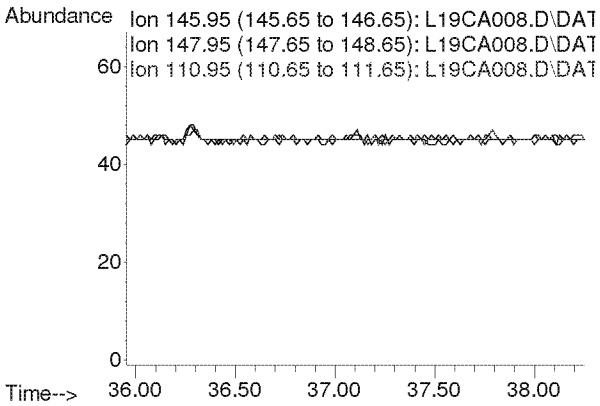


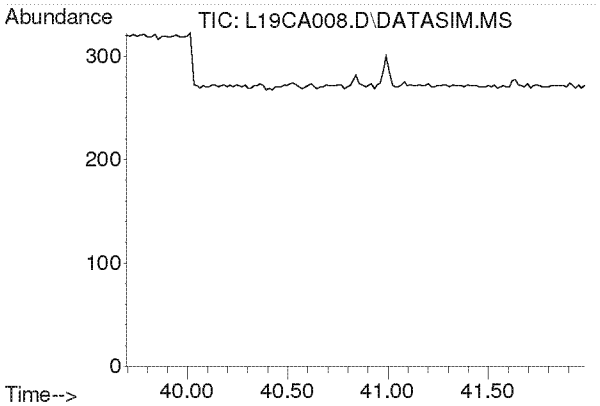
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



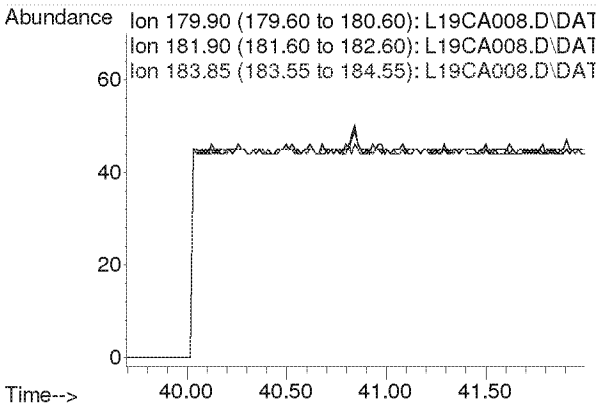


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

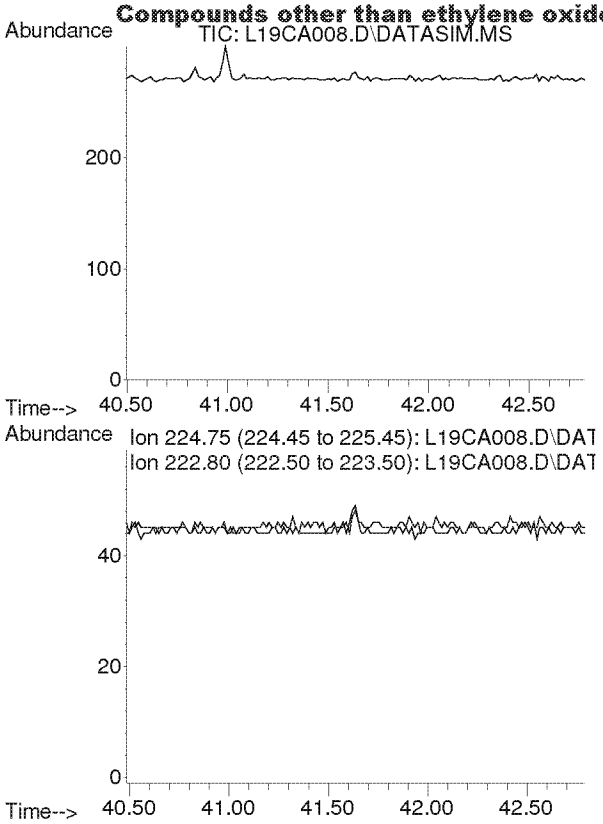
Lab File: L19CA008.D
Acq: 1 Mar 2019 10:33 pm

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: L19CA008.D
Acq: 1 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\L19CA\
Data File : L19CA009.D
Acq On : 1 Mar 2019 11:33 pm (#1); 01-Mar-19, 23:28:42 (#2)
Operator : MAH
Sample : 9030101-03
Misc : EPA WB WAREHOUSE 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 05 09:05:05 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	44750	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	113382	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.094	117	77511	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	12.468	29	168m	0.0656 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. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

ED_002475_00000345-00216

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA009.D
Acq On : 1 Mar 2019 11:33 pm (#1); 01-Mar-19, 23:28:42 (#2)
Operator : MAH
Sample : 9030101-03
Misc : EPA WB WAREHOUSE 2/27/19 (Sig #1); (Sig #2)
ALS bottle/Vial : 9 Sample Multiplier: 1

Quant Time: Mar 05 09:05:05 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

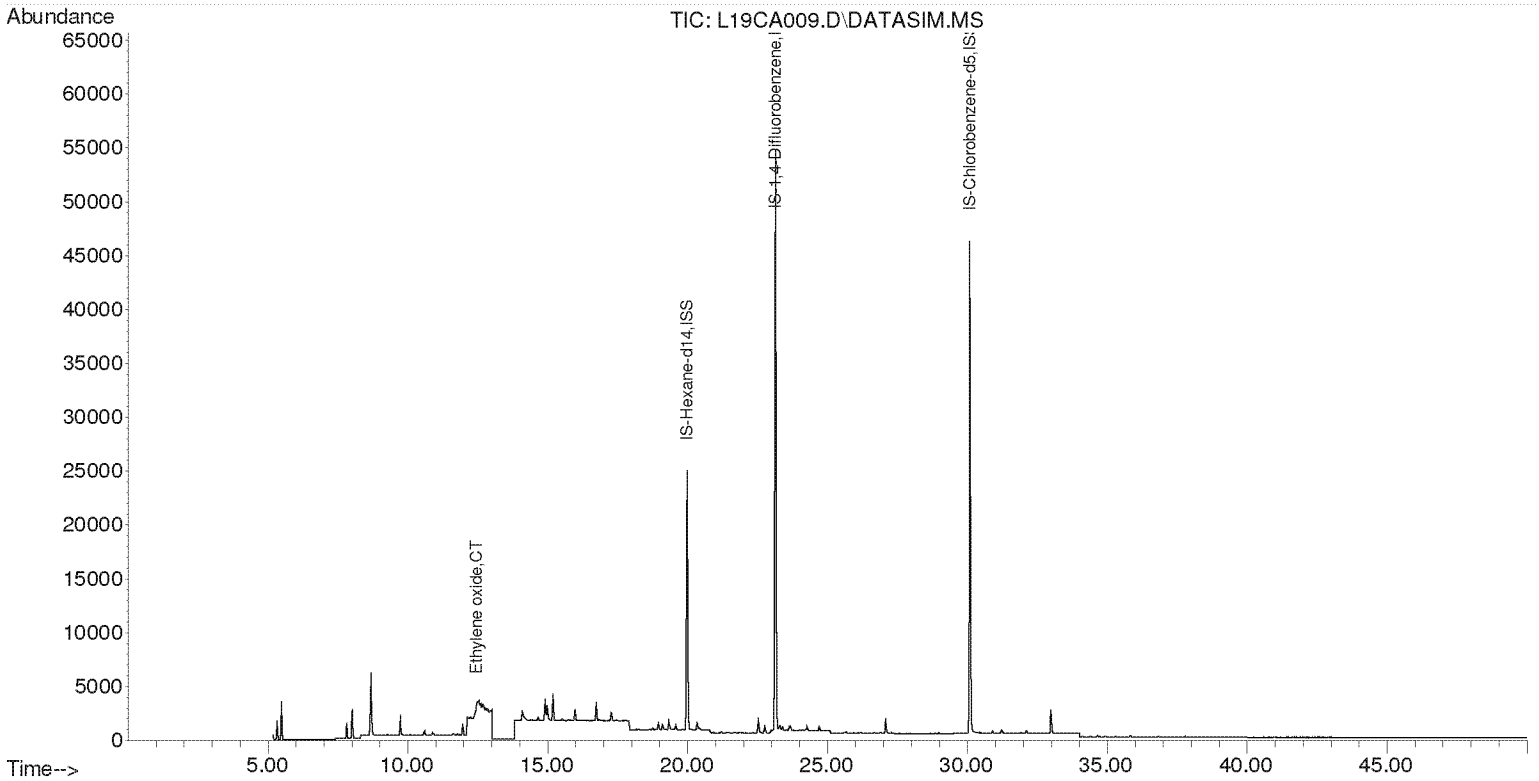
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

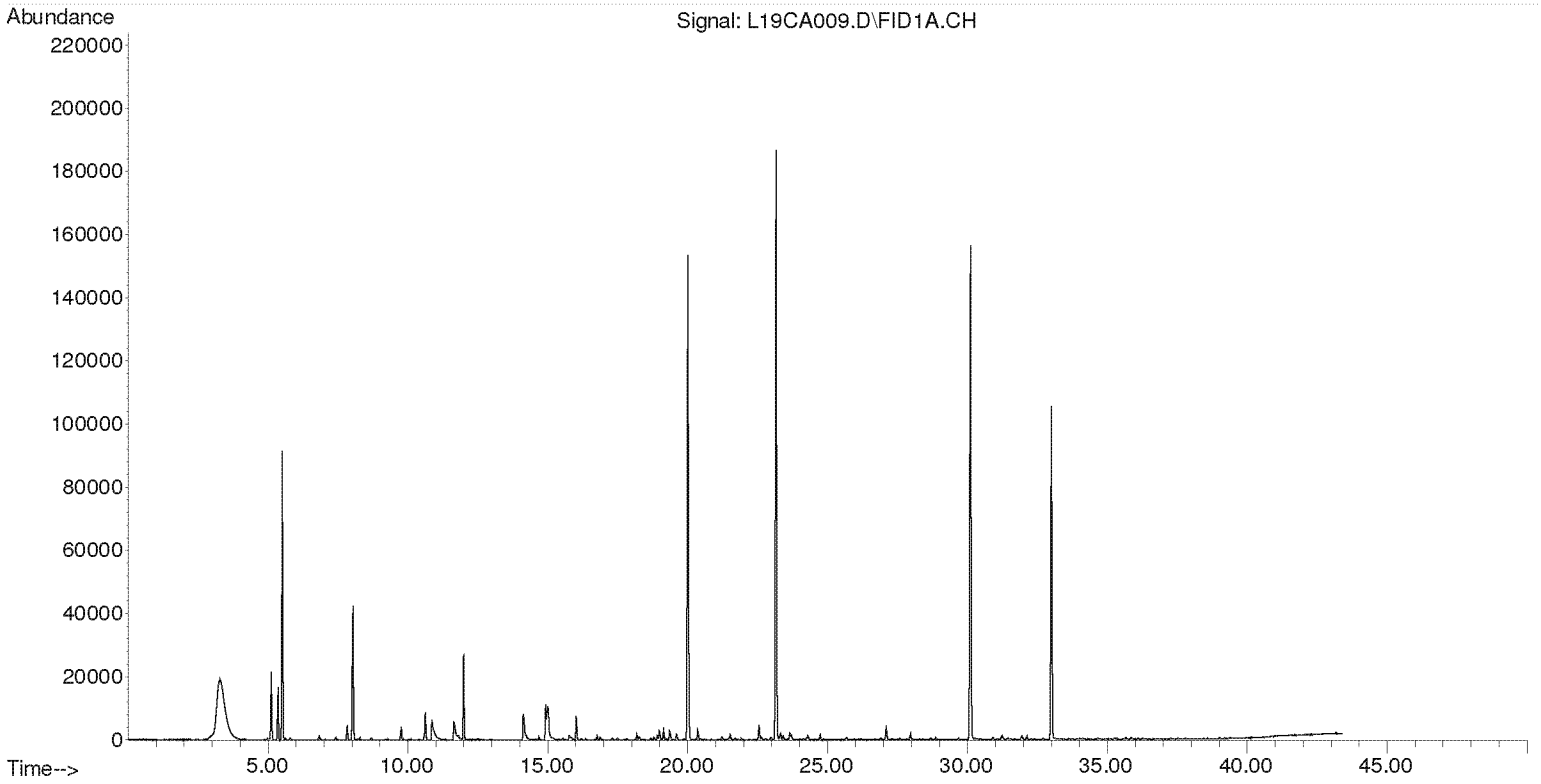
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

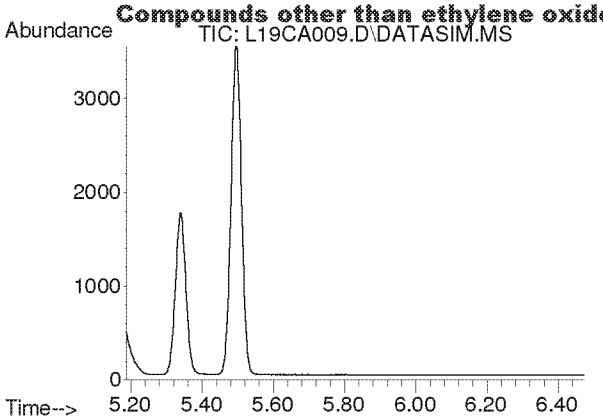
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA009.D
Acq On : 1 Mar 2019 11:33 pm (#1); 01 Mar 2019 11:28 pm (#2)
Operator : MAH
Sample : 9030101-03
Misc : EPA WB WAREHOUSE 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 05 08:54:04 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





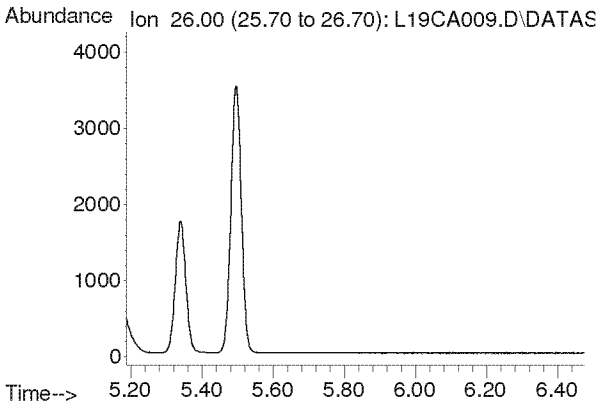
Compounds other than ethylene oxide were not quantitated.

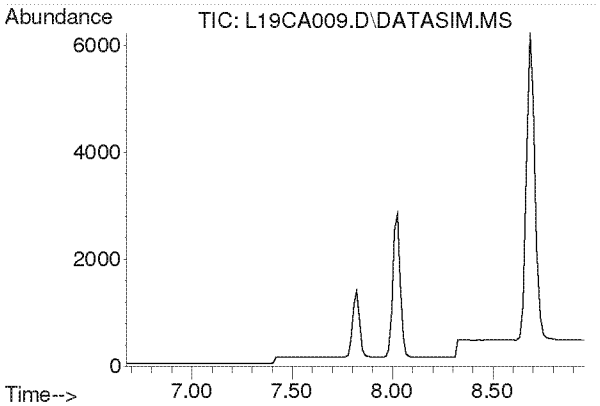


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 26



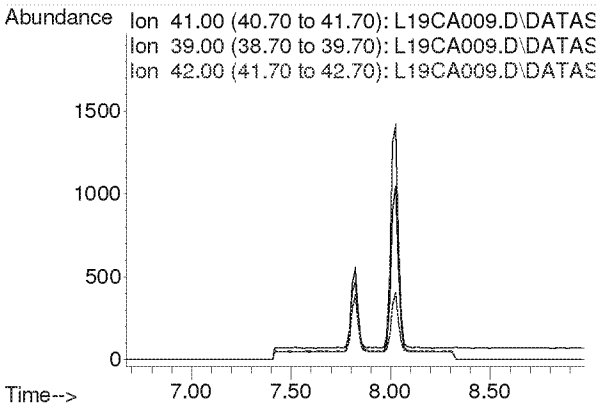


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

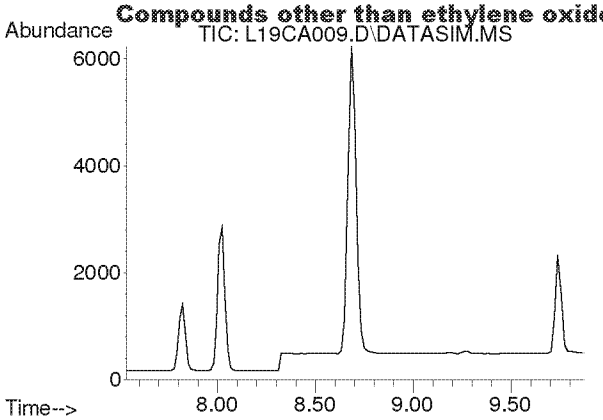
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

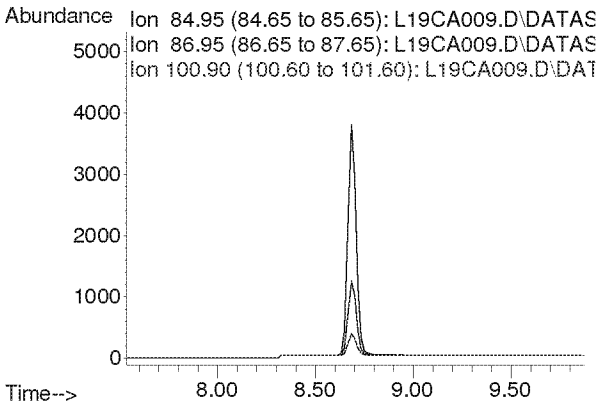


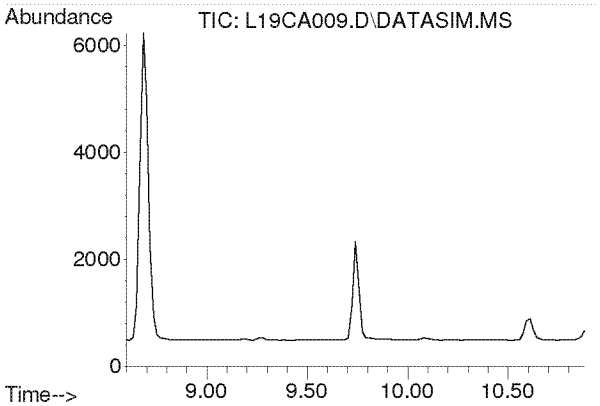
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



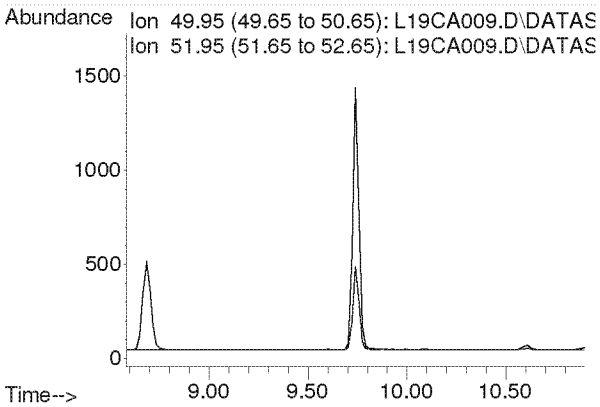


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

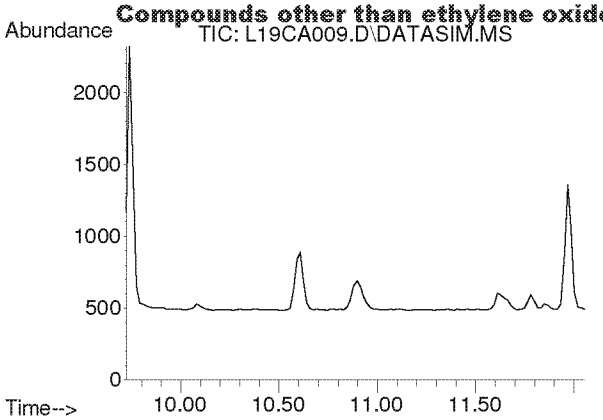
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

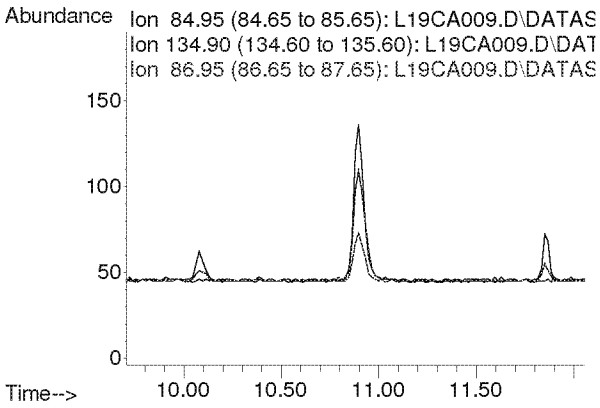


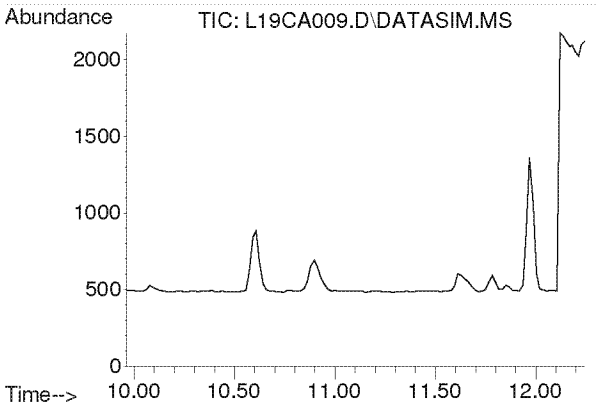
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



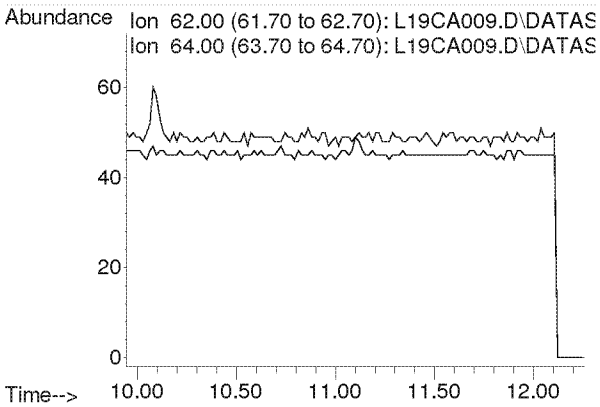


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

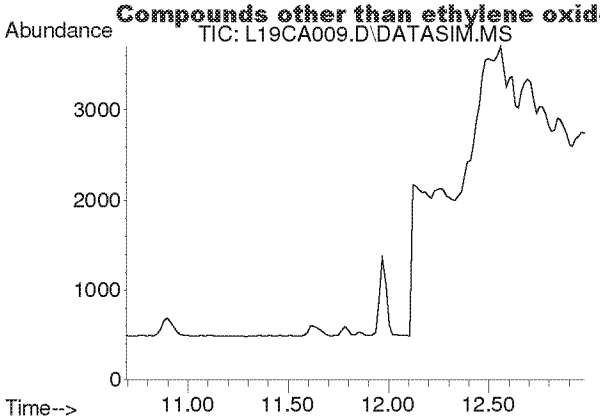
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

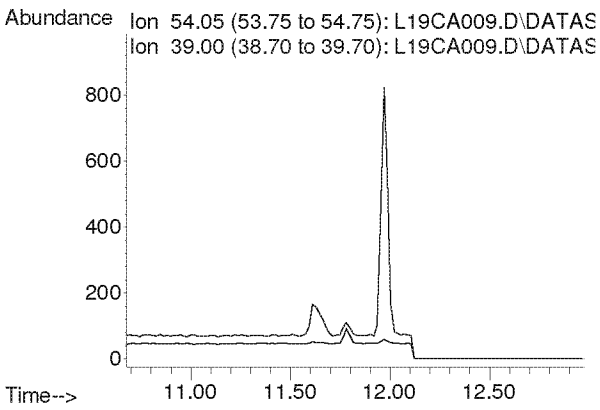


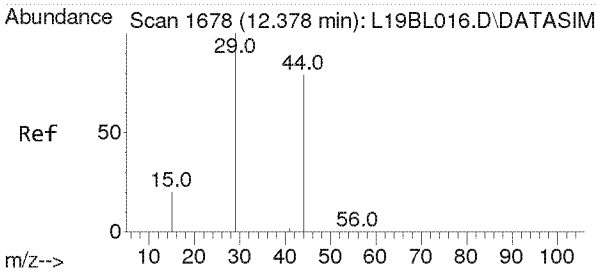
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

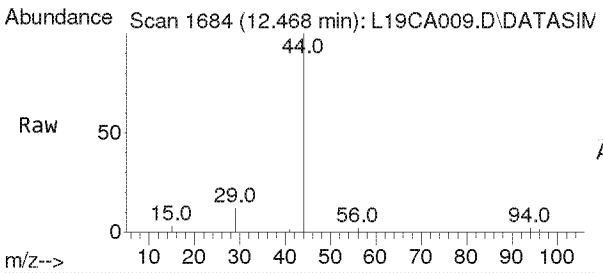


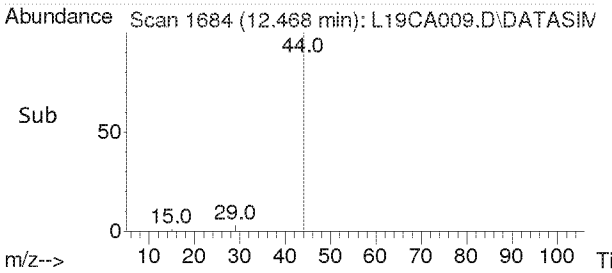


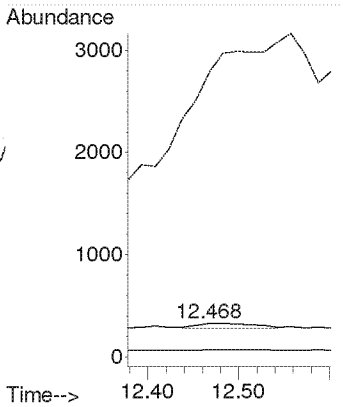
#9
Ethylene oxide
Concen: 0.066 ppbv m
RT: 12.468 min Scan# 1684
Delta R.T. 0.018 min
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 29 Resp: 168

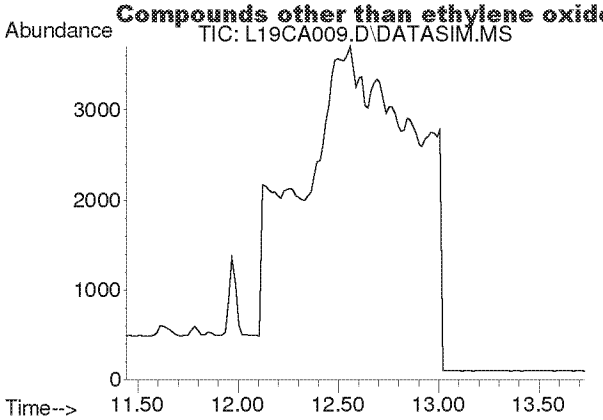
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

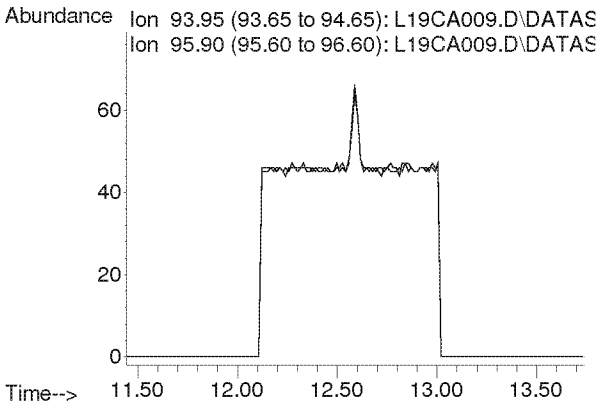


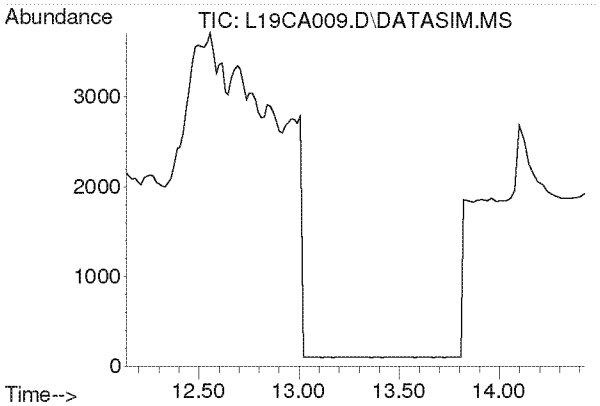
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



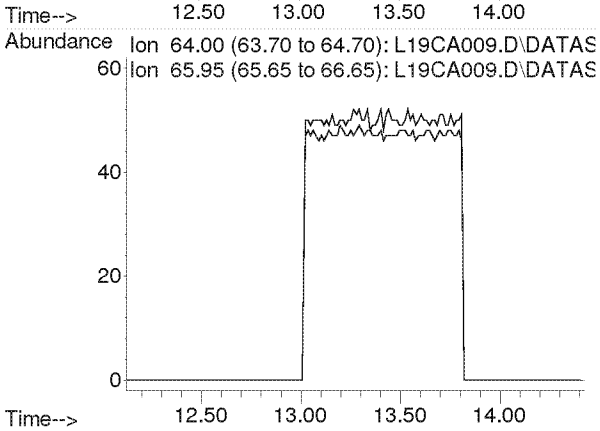


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

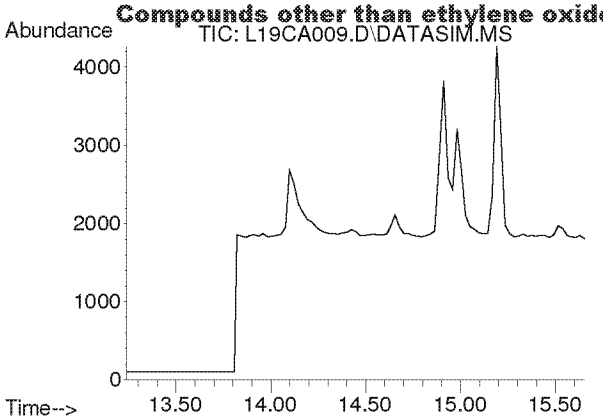
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

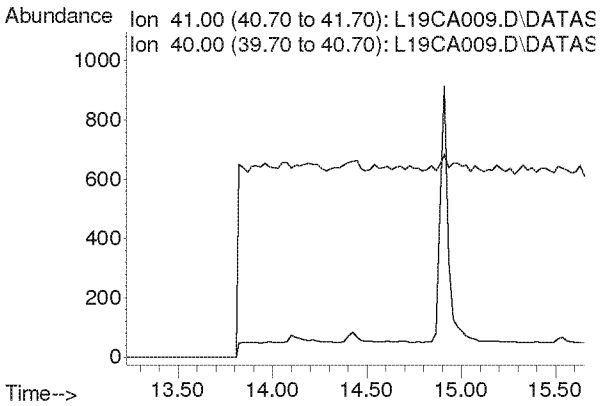


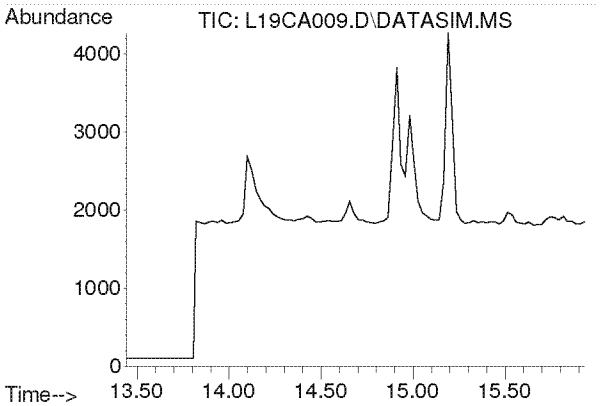
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



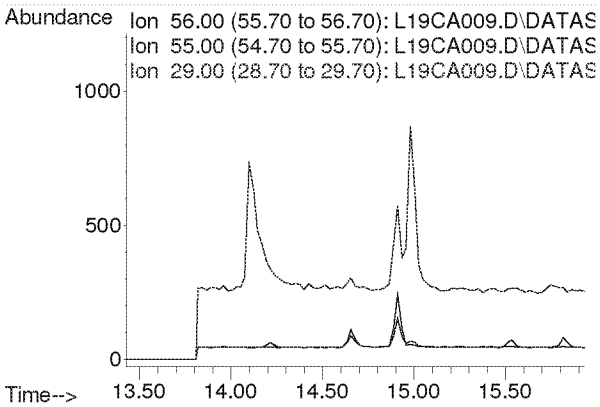


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

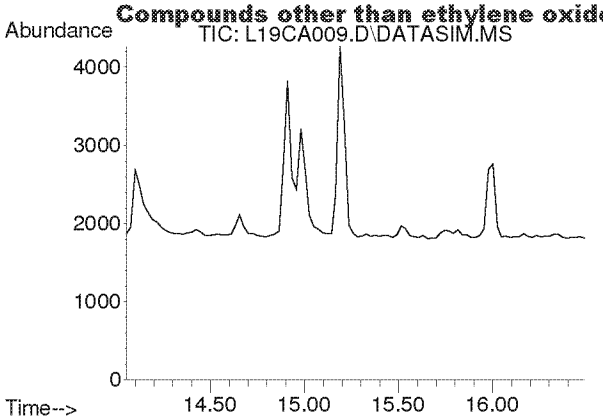
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

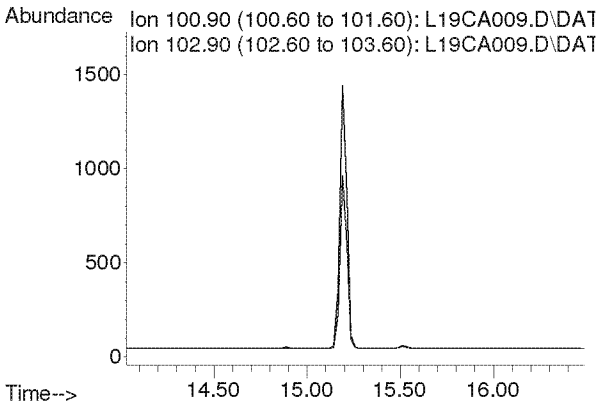


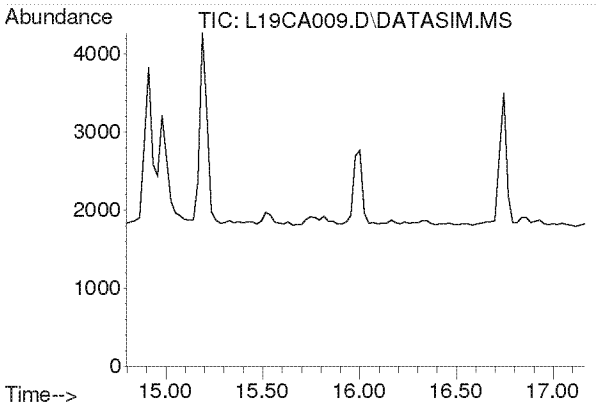
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



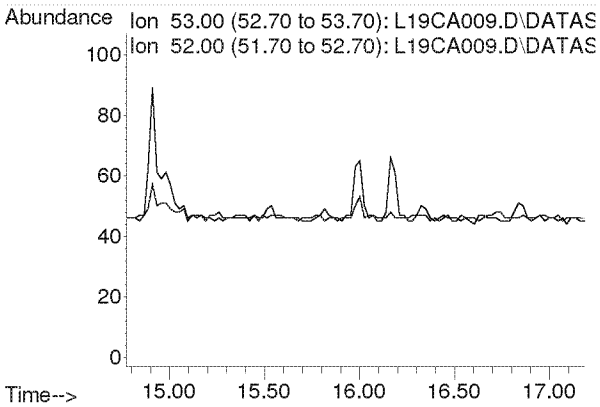


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

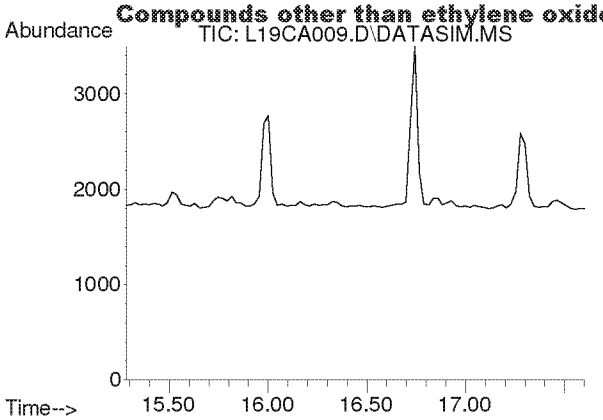
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

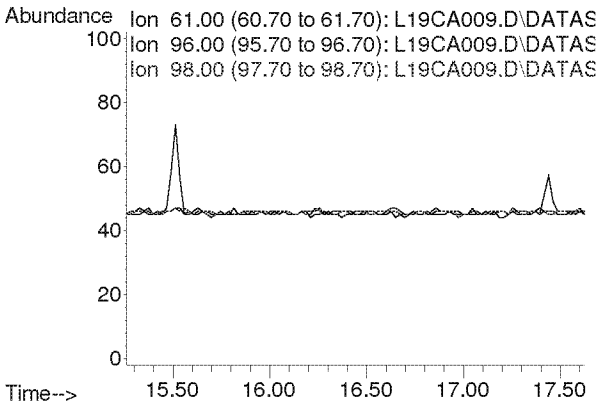


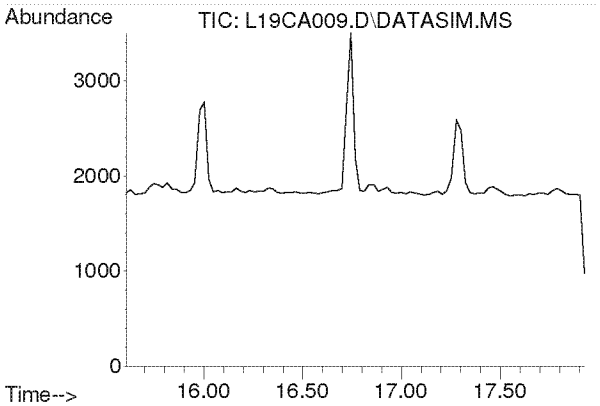
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



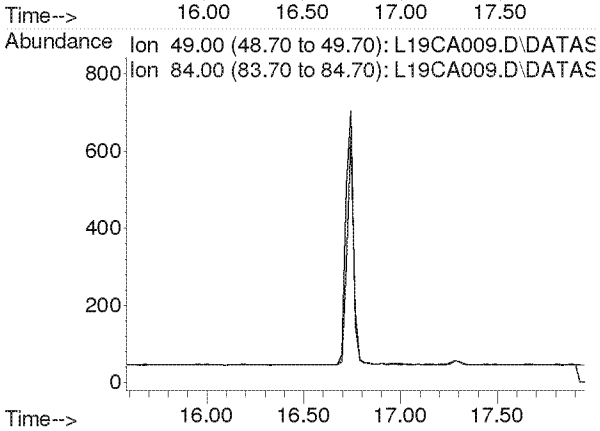


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

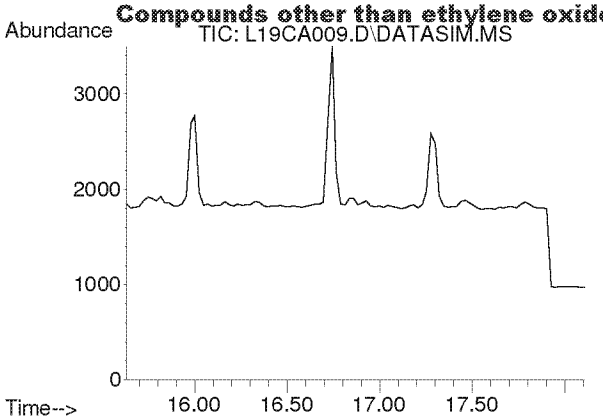
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

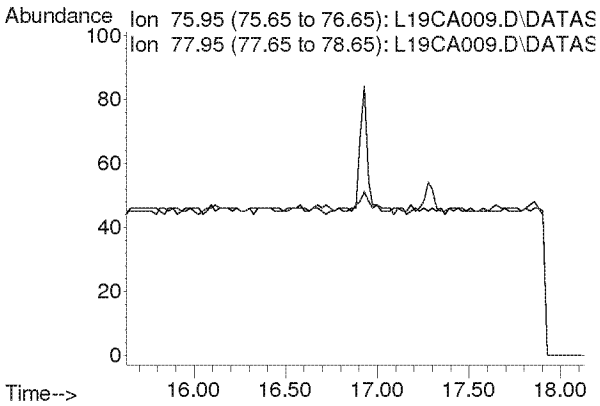


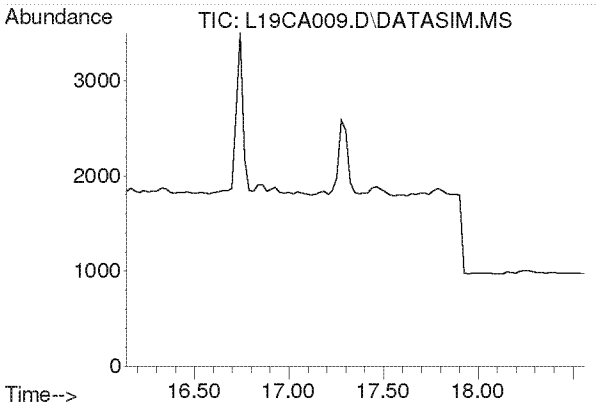
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



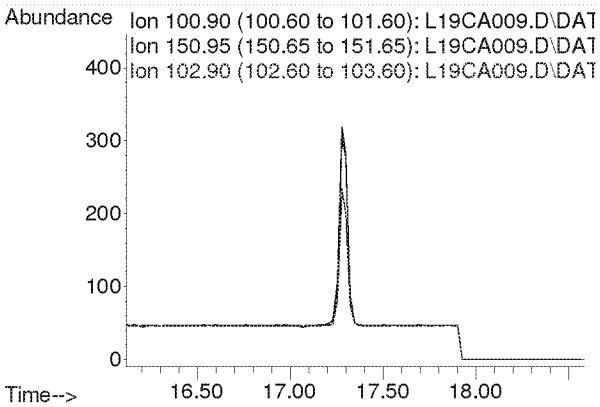


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

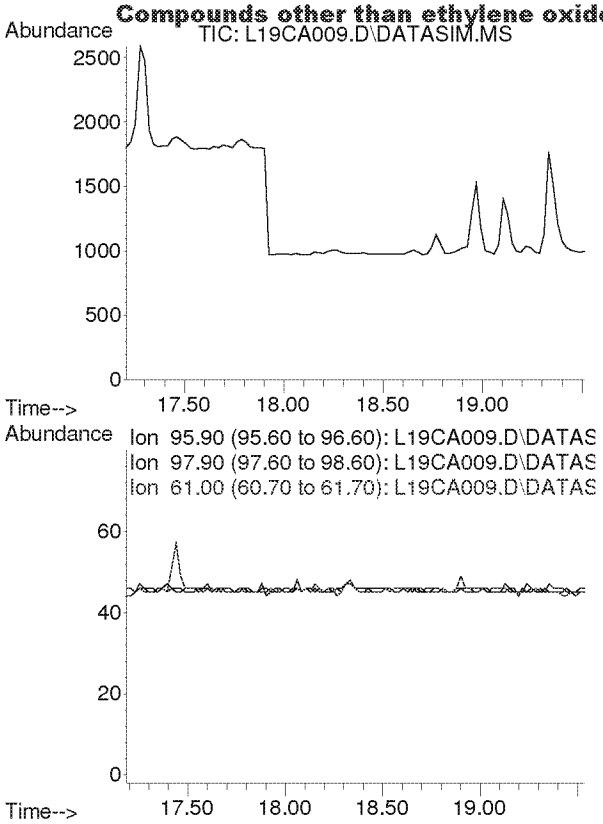
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

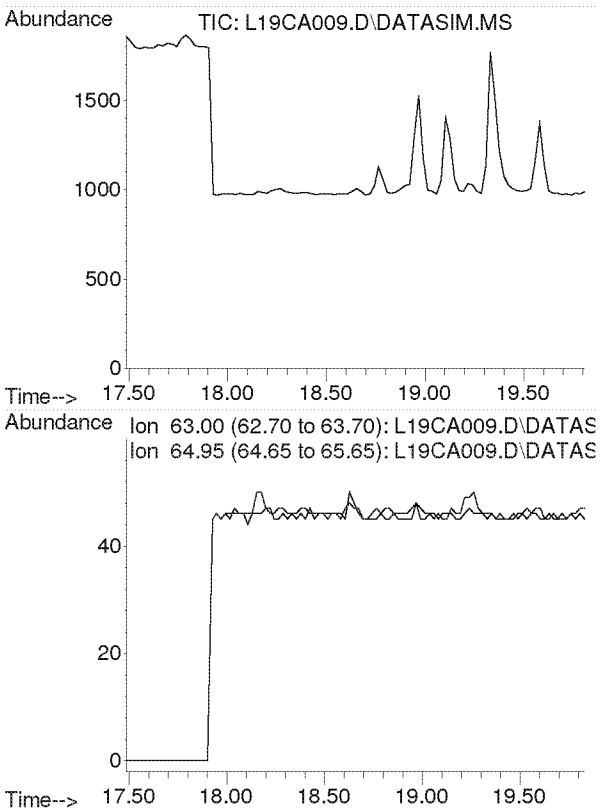


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



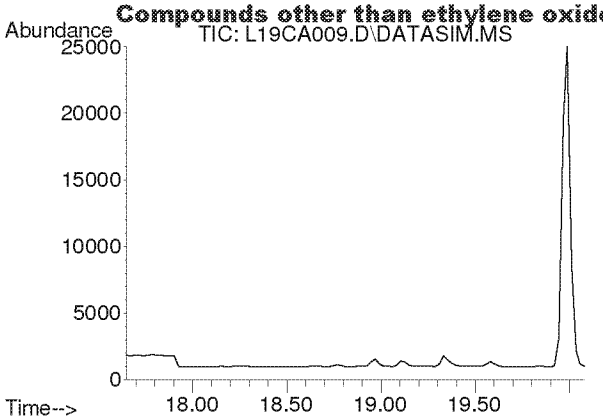
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

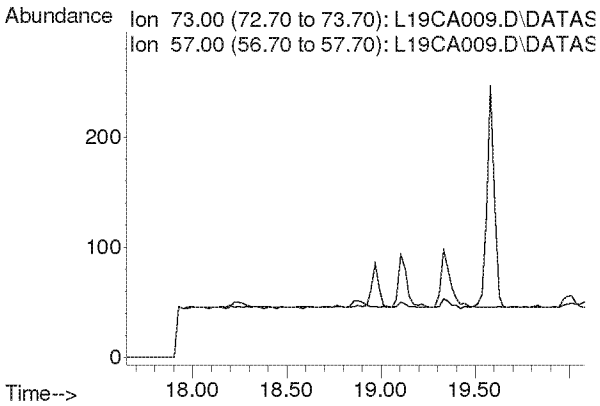


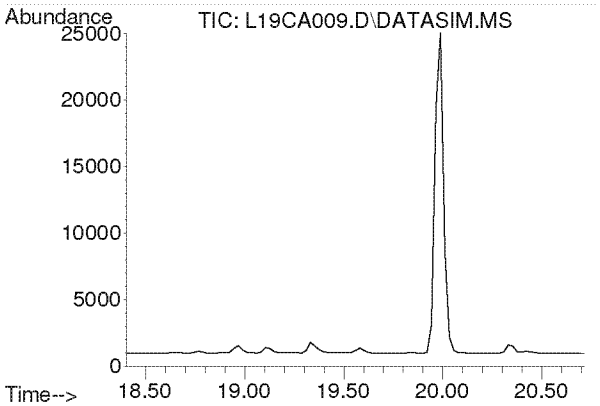
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



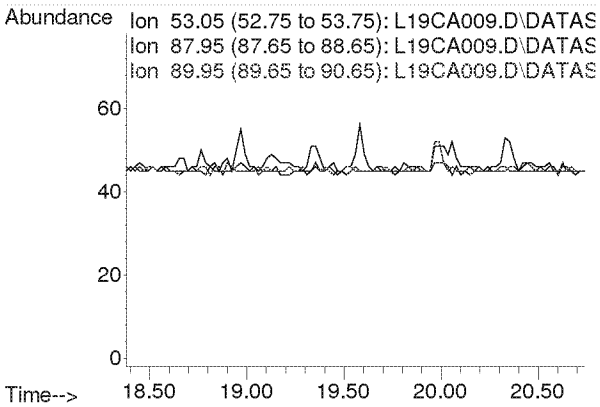


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

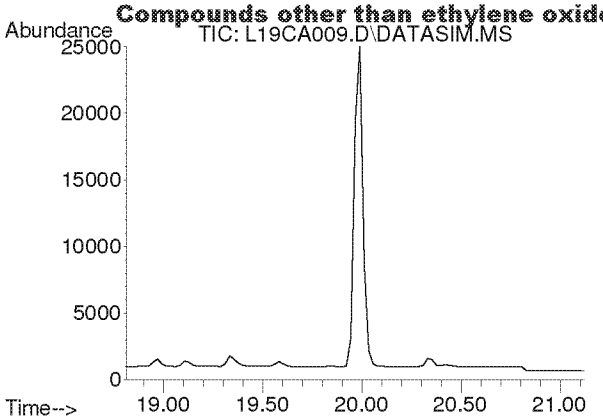
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

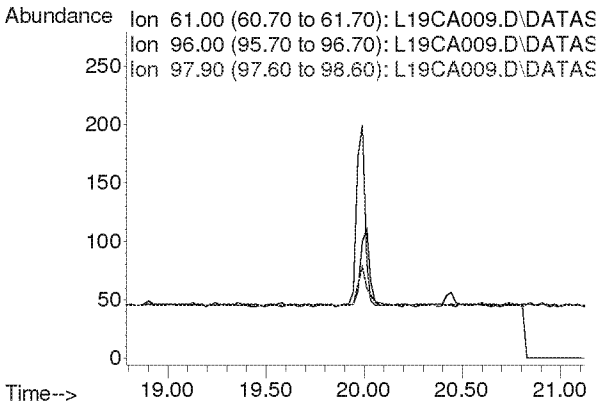


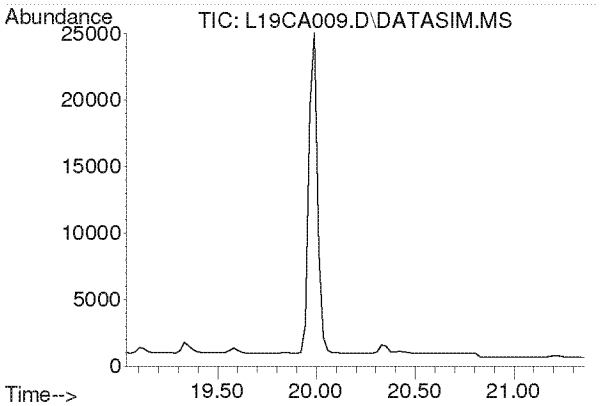
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



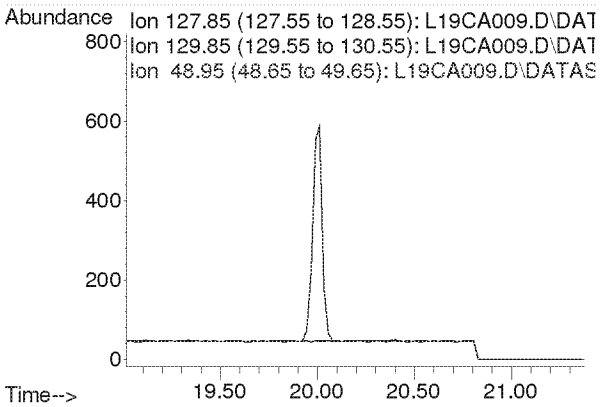


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

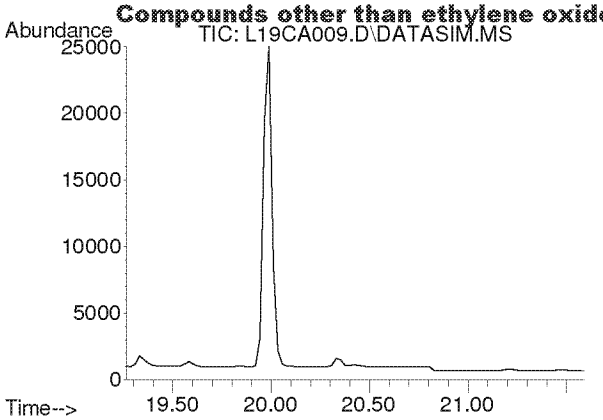
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

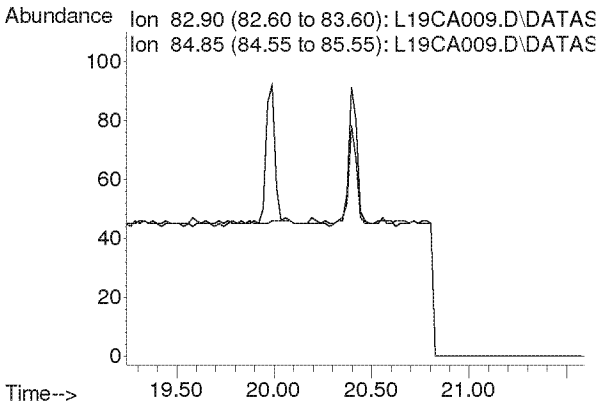


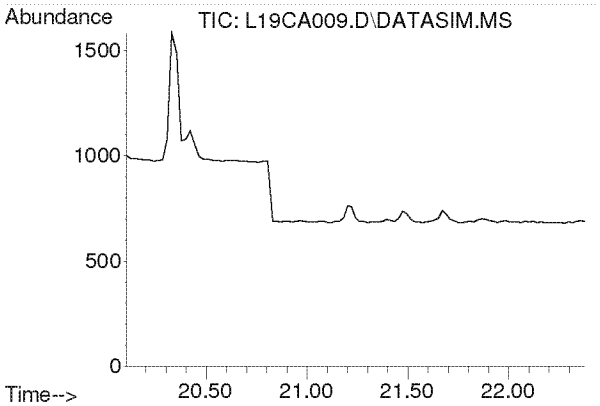
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



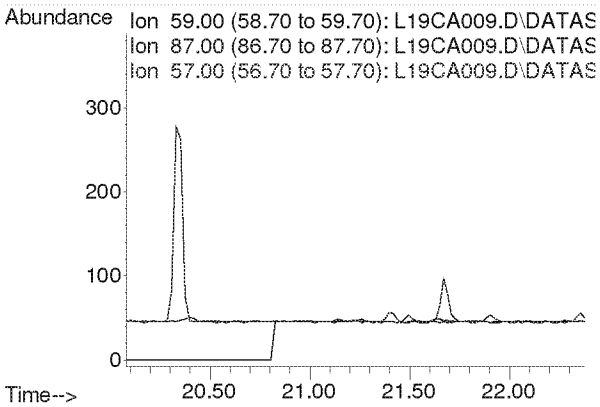


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

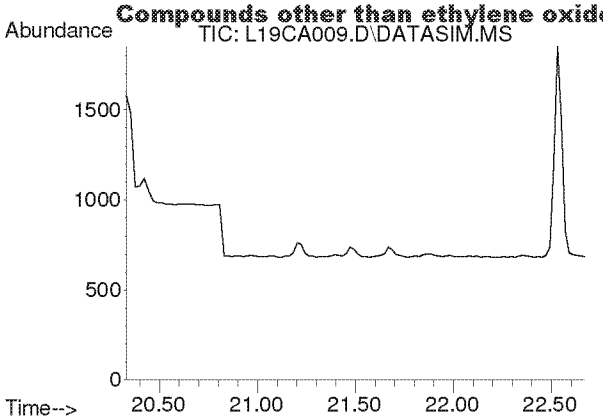
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

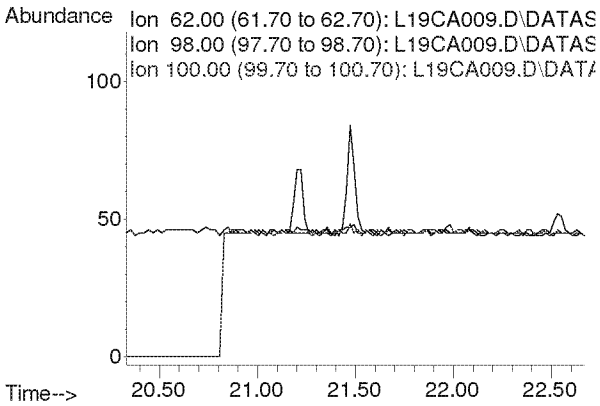


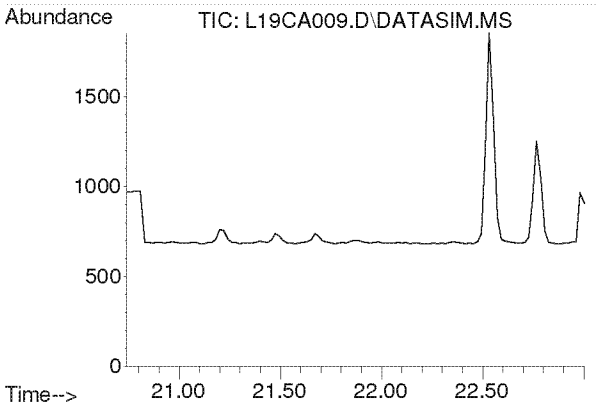
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



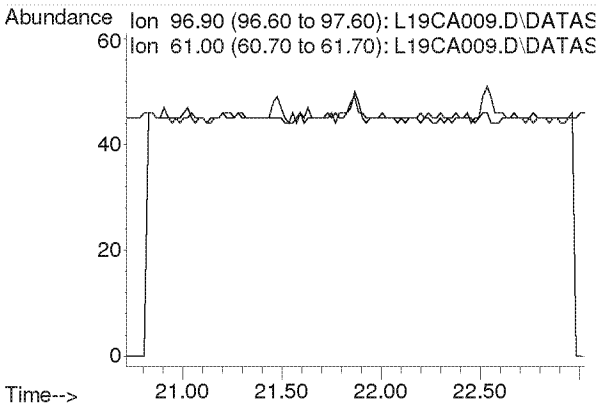


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

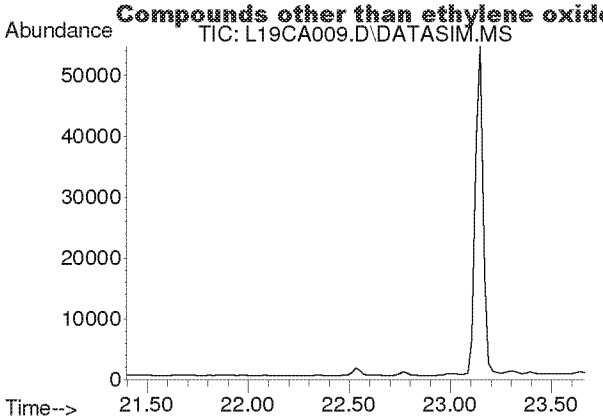
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

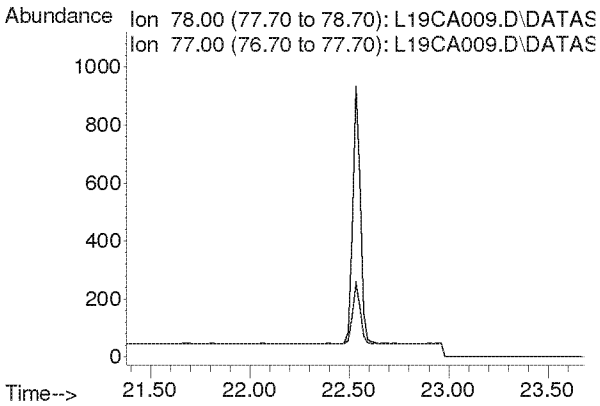


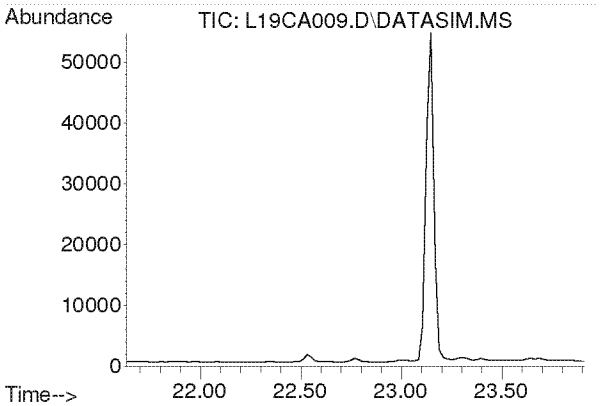
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



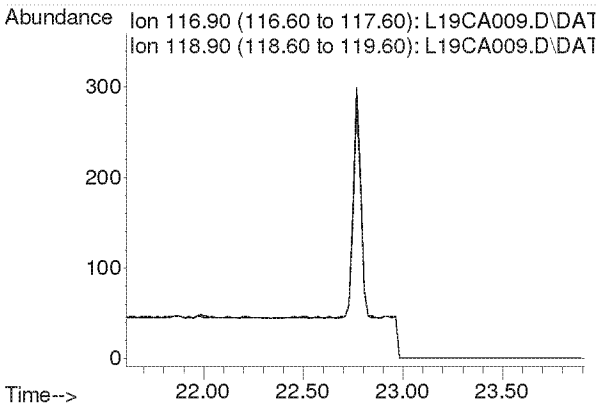


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

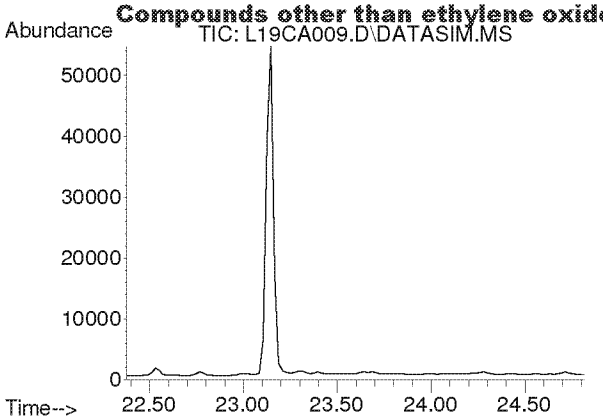
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

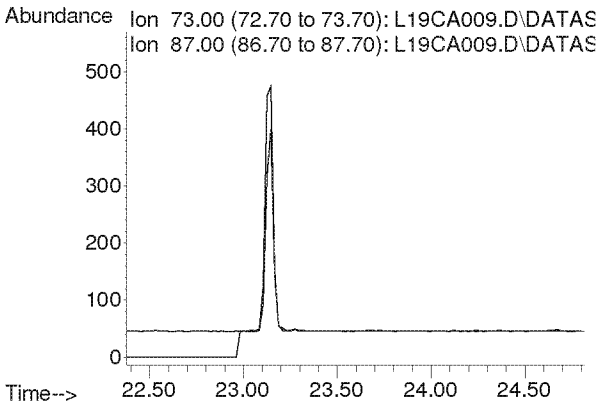


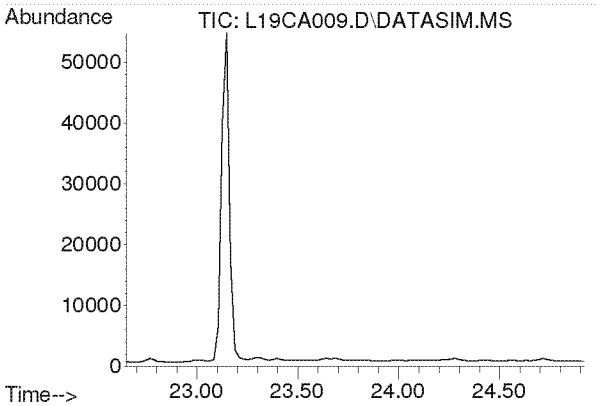
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



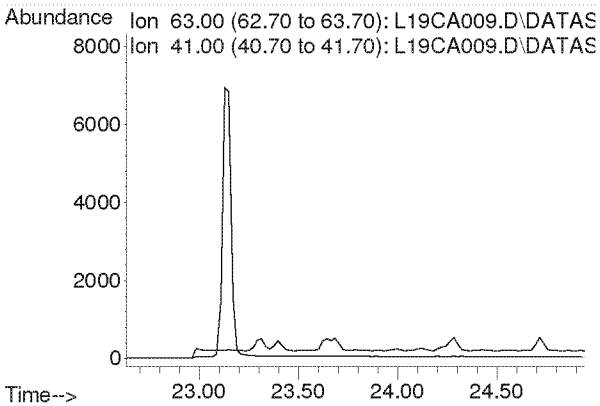


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

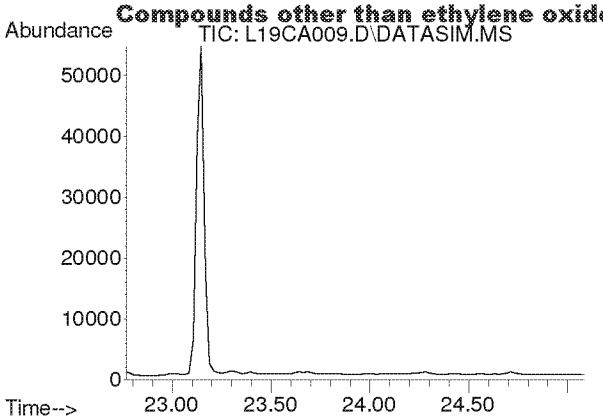
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

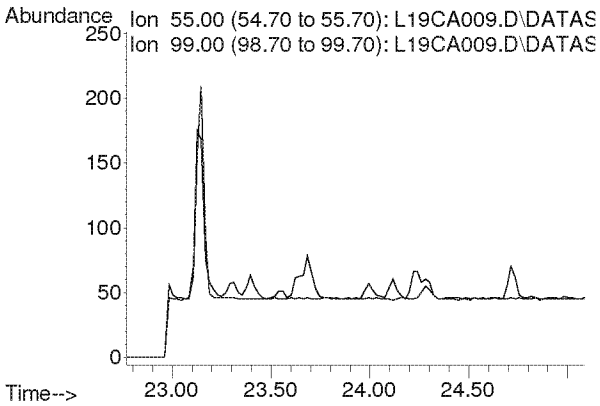


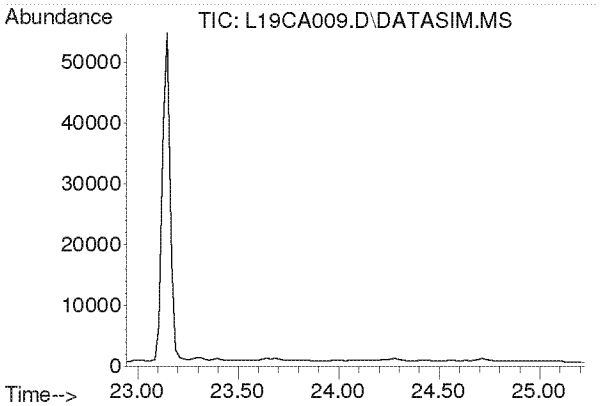
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



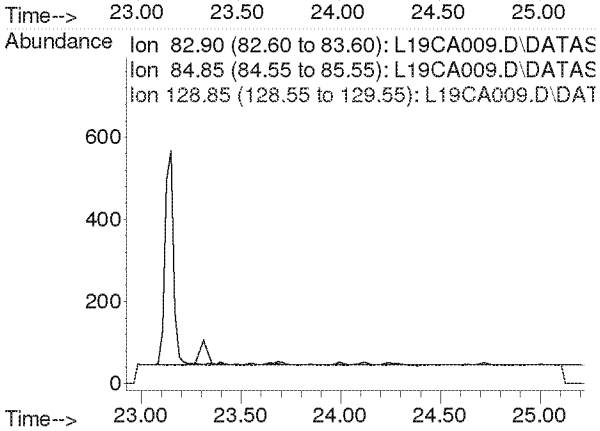


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

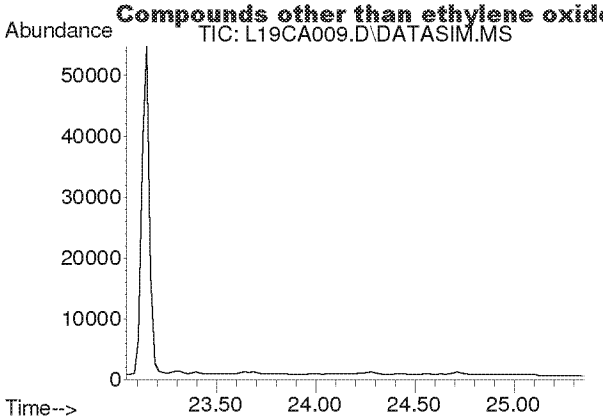
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

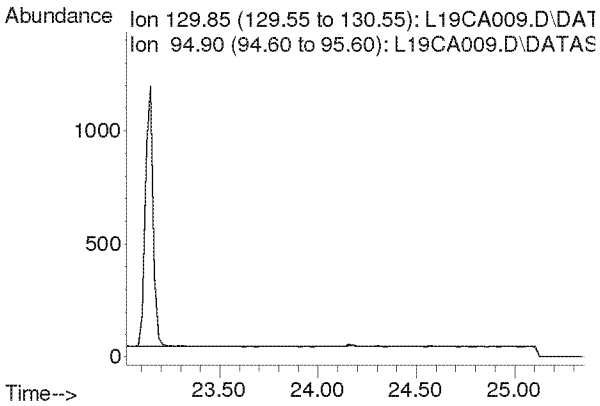


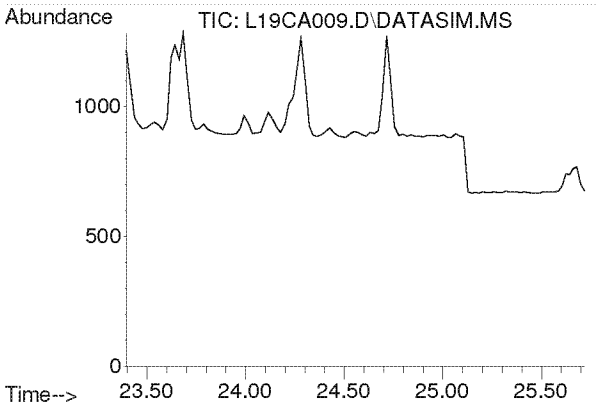
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



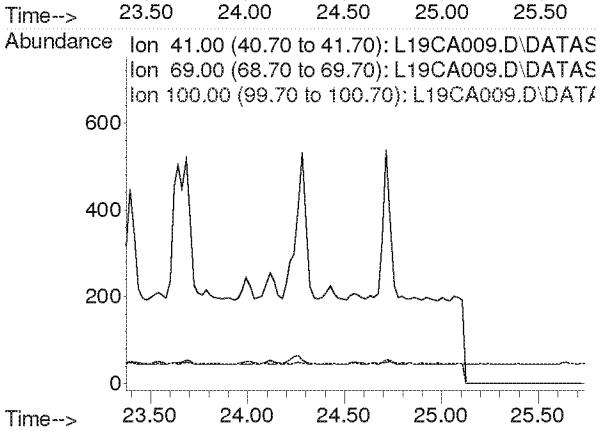


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

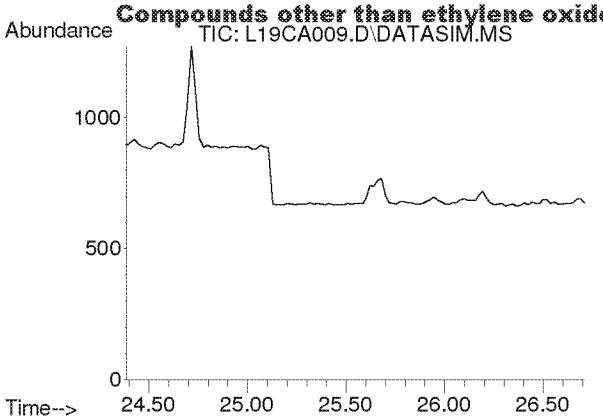
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

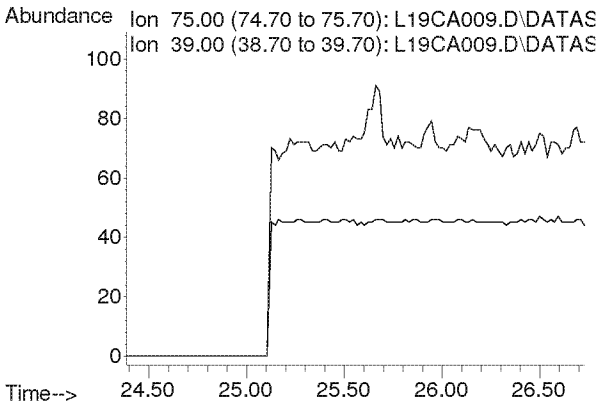


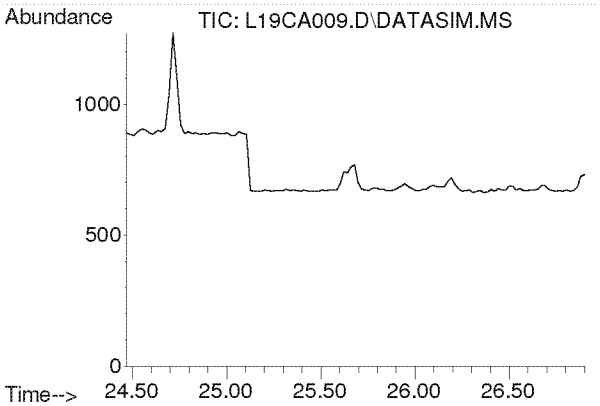
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



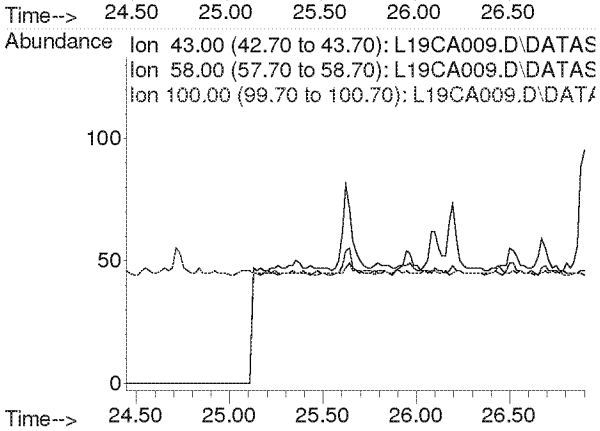


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

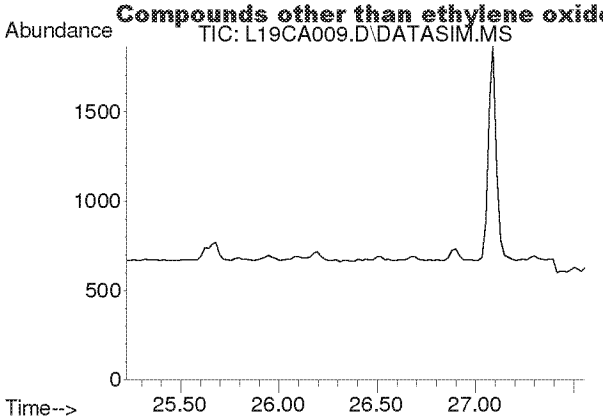
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

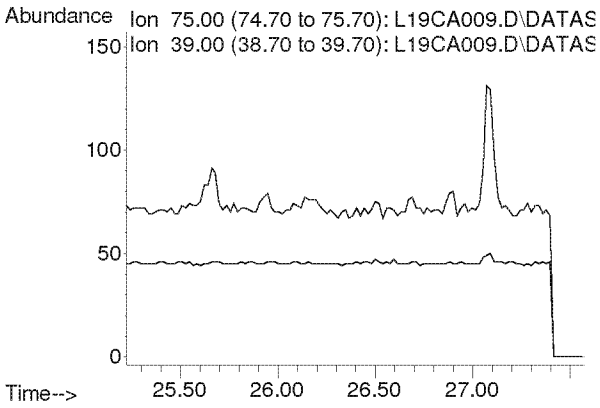


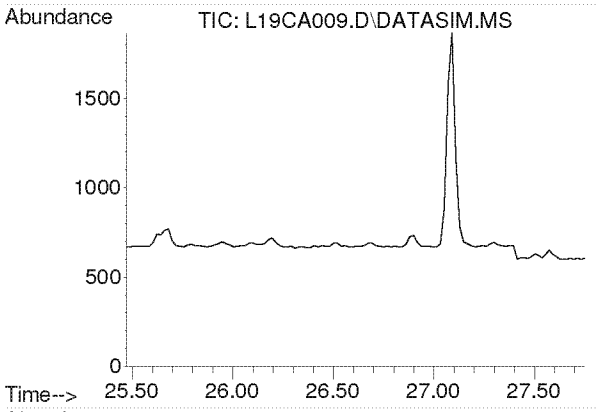
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



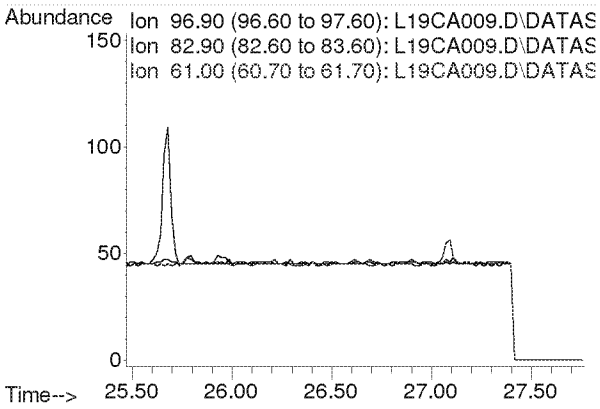


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

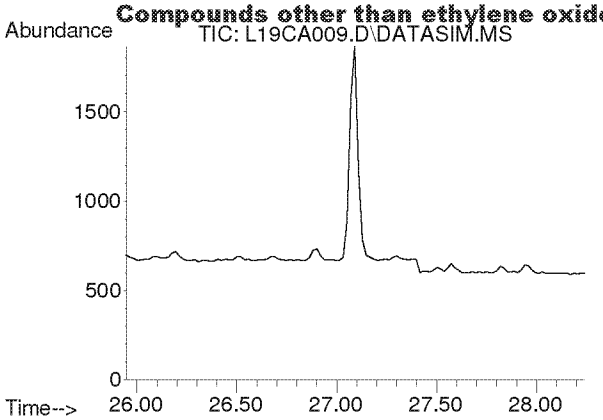
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

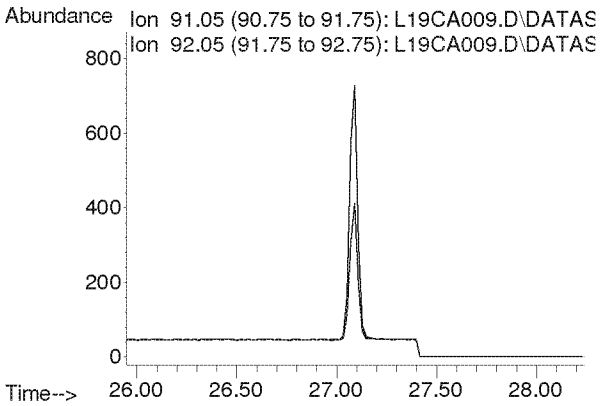


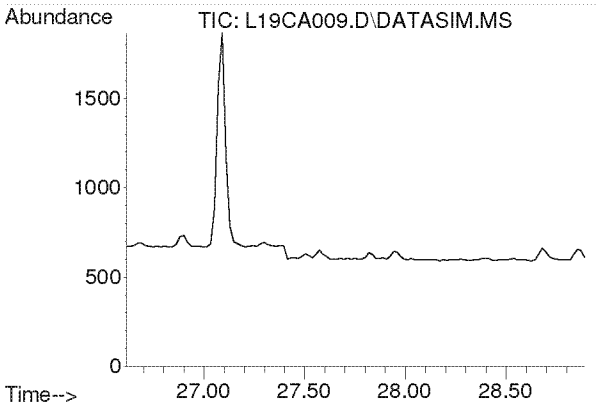
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



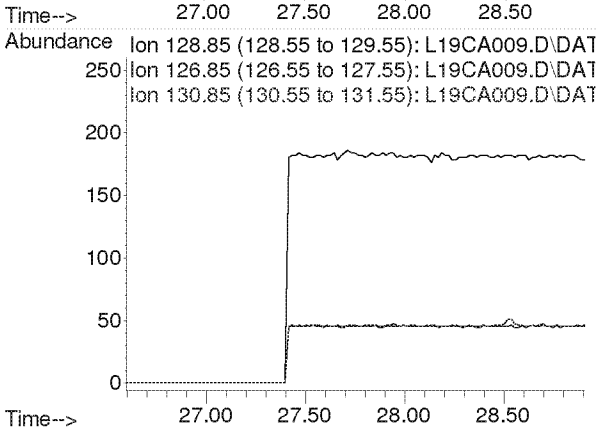


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

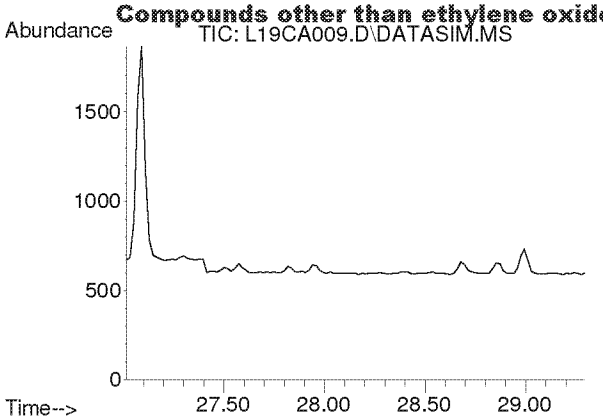
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

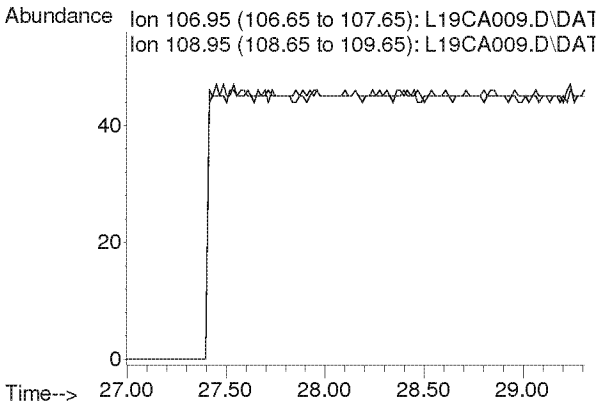


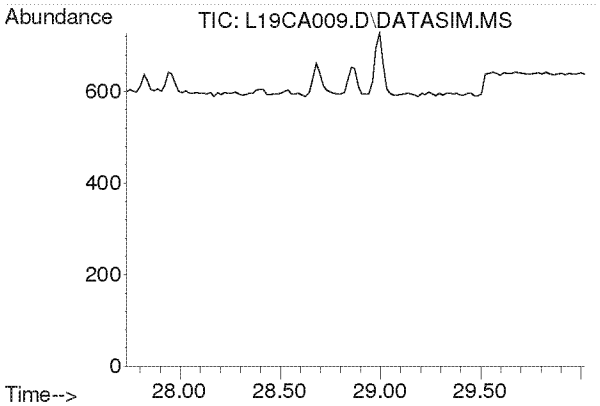
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



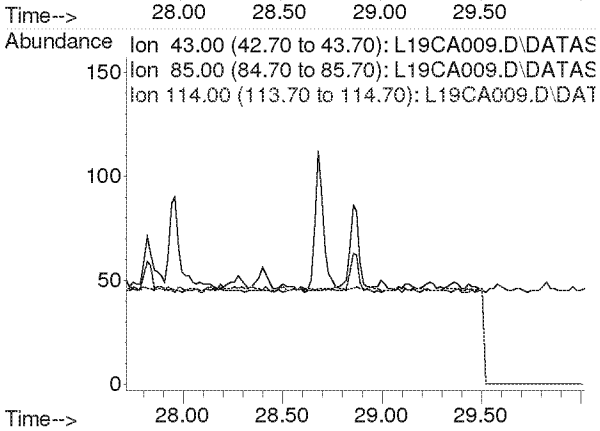


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

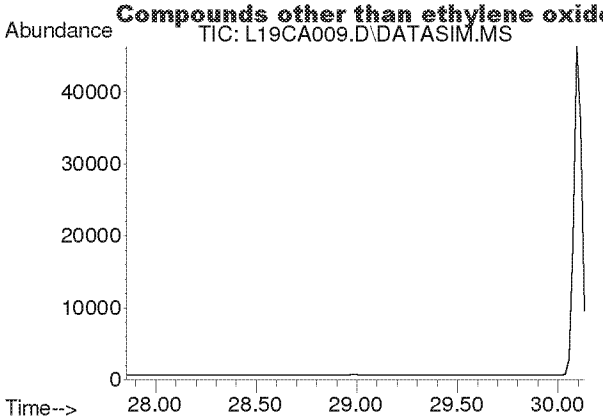
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

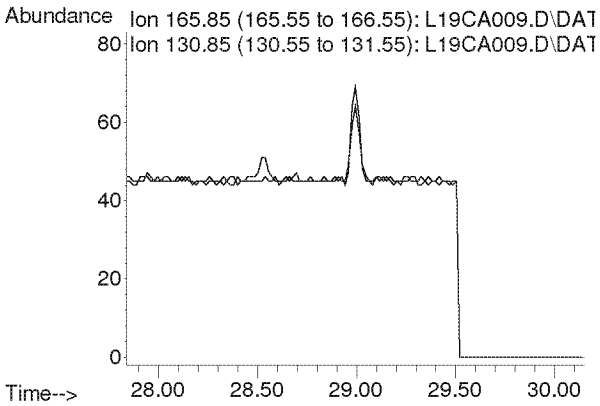


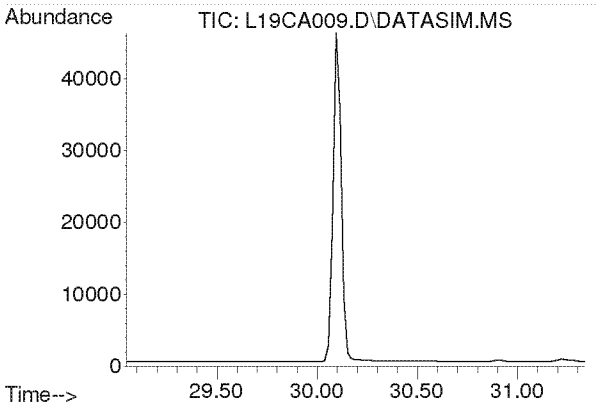
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



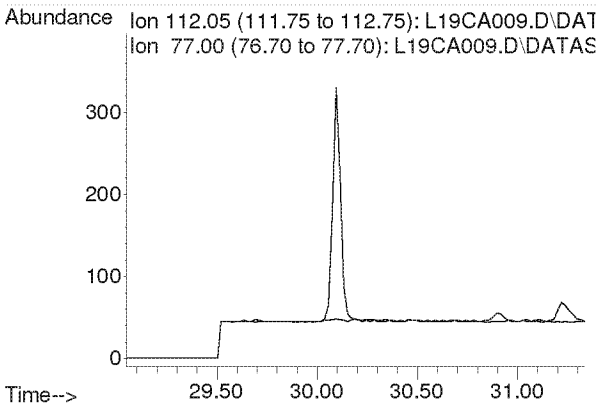


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

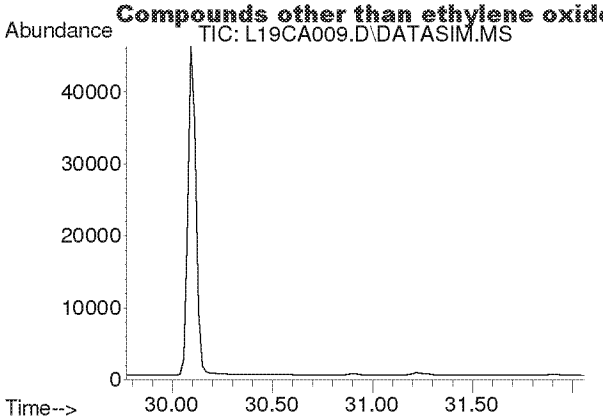
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

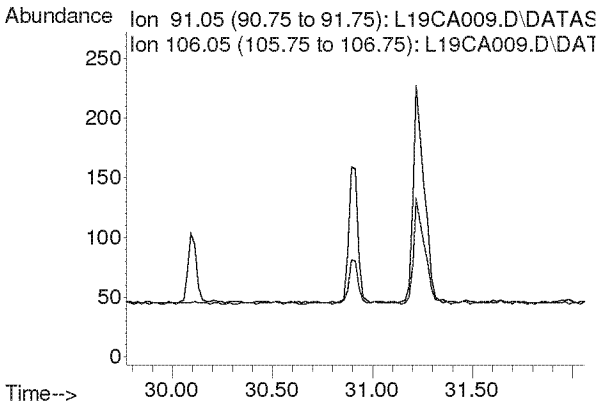


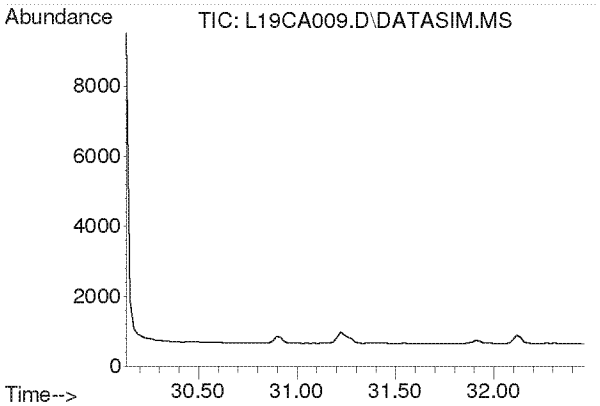
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



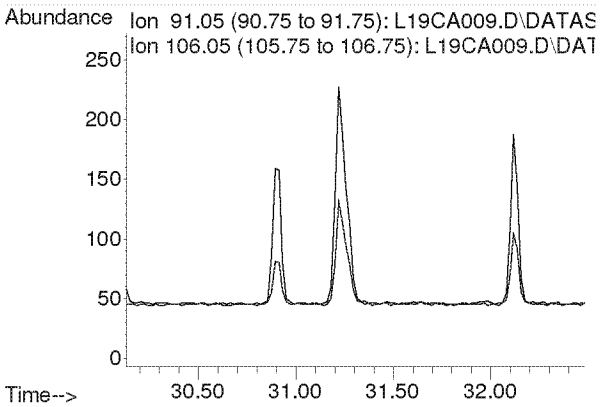


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

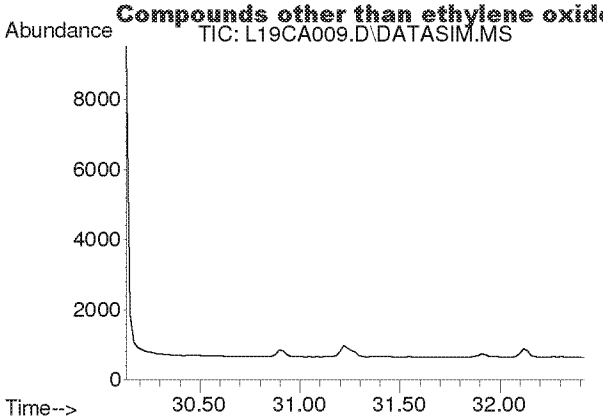
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

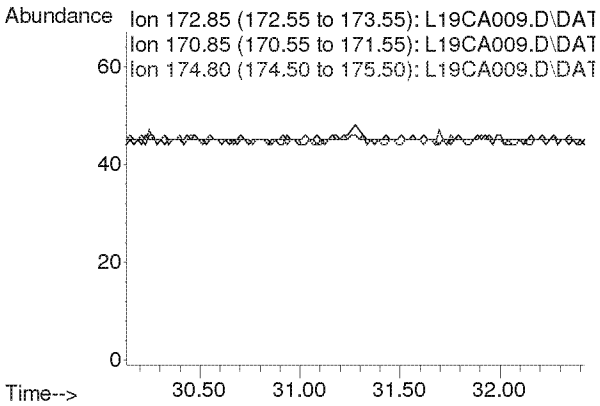


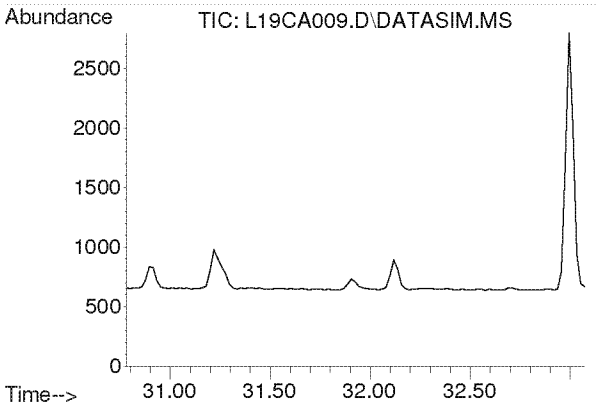
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



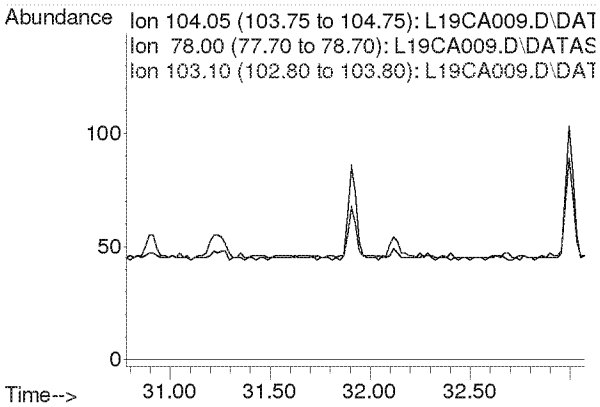


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

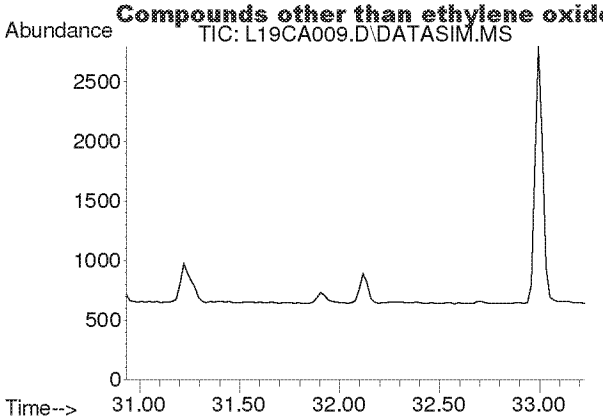
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

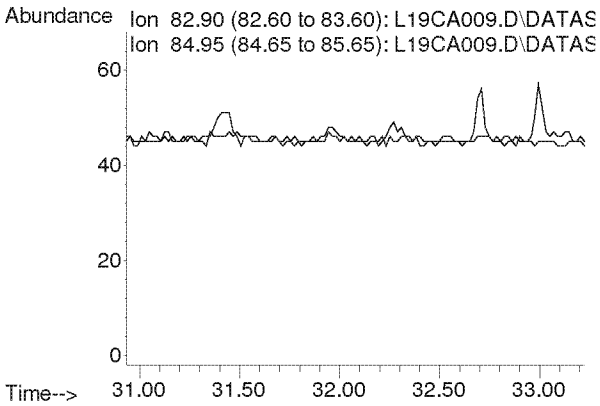


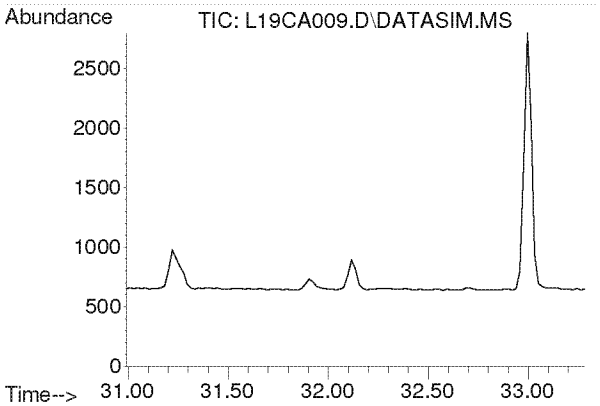
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



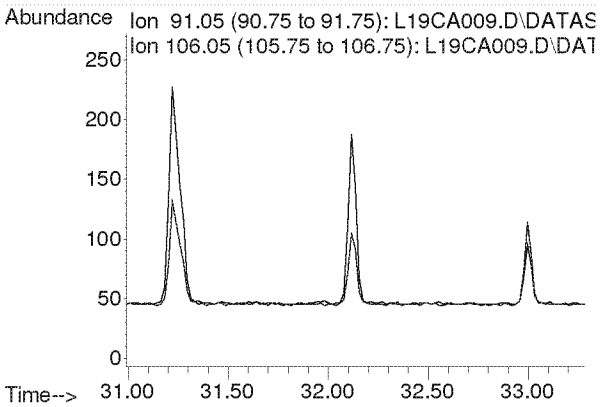


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

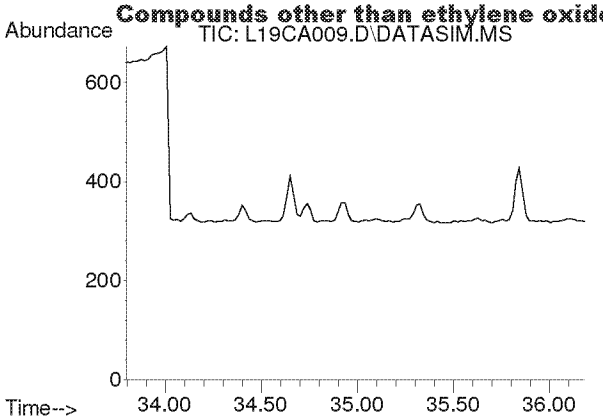
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

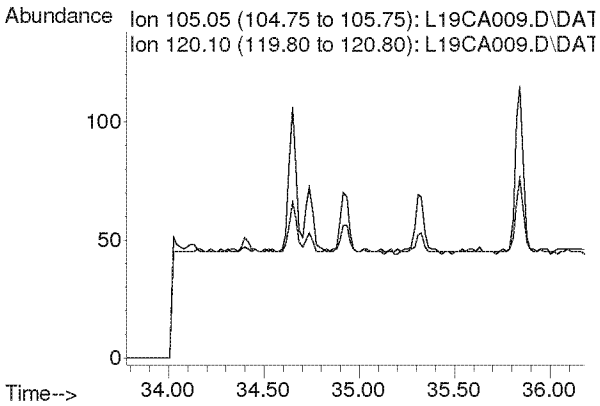


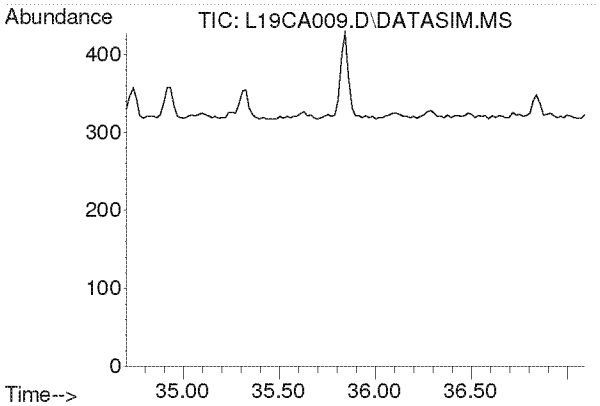
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



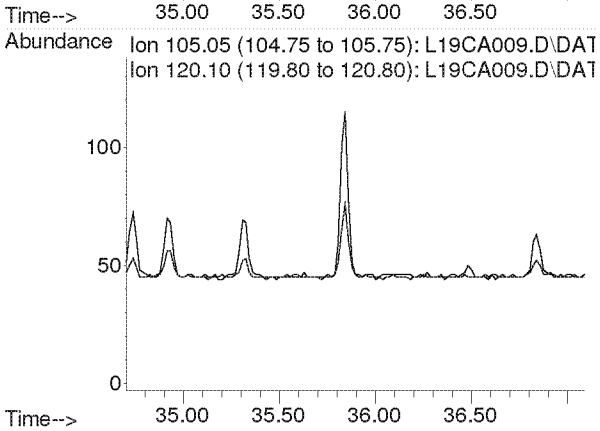


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

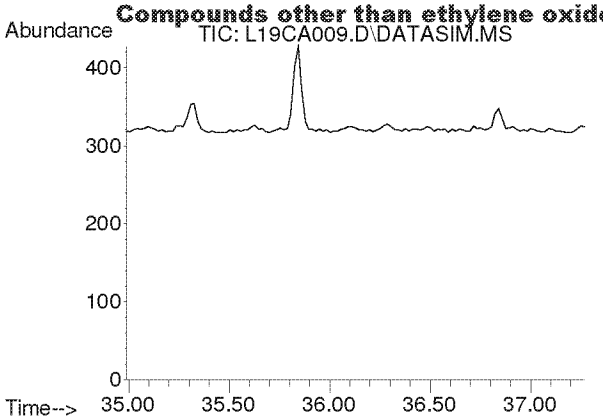
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

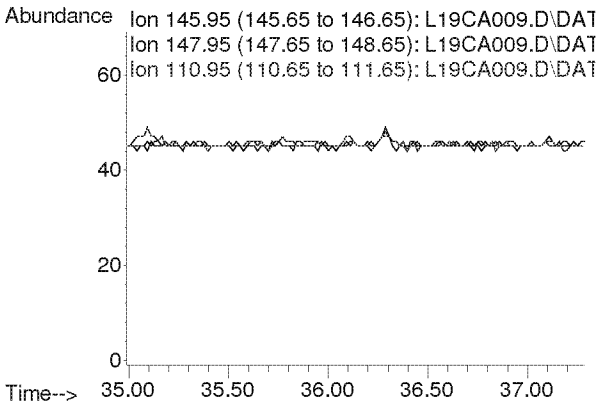


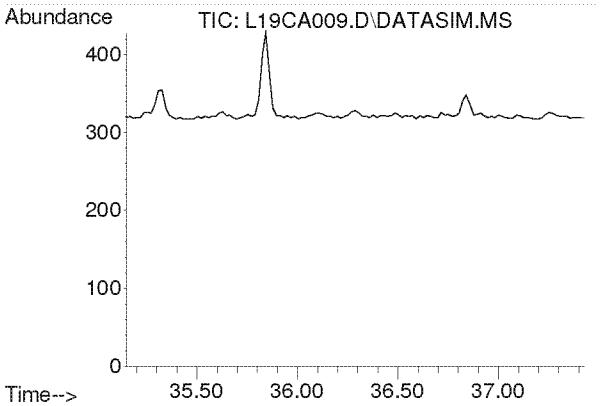
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



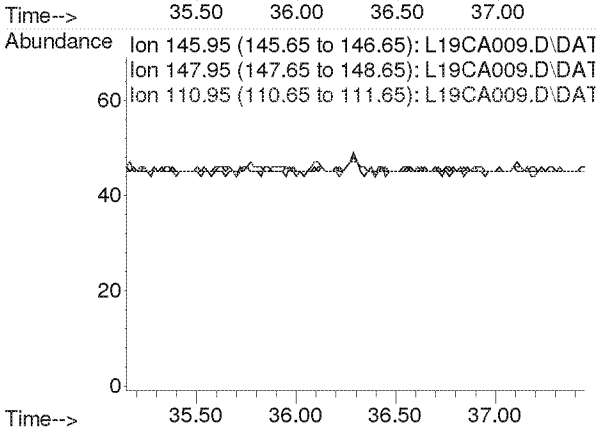


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

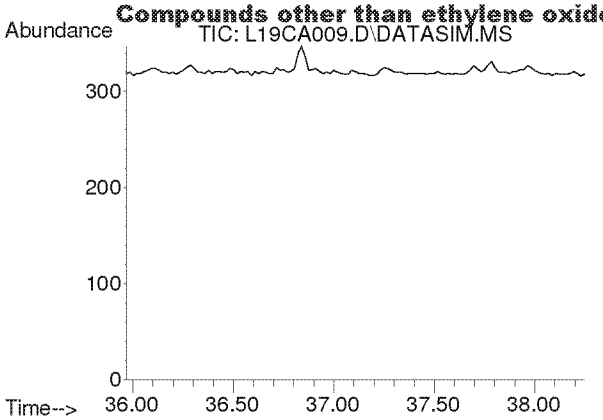
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

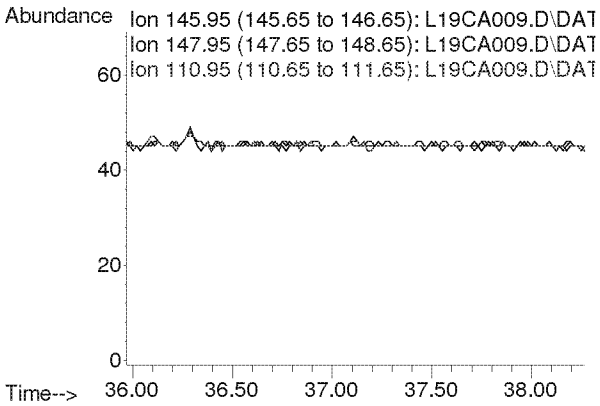


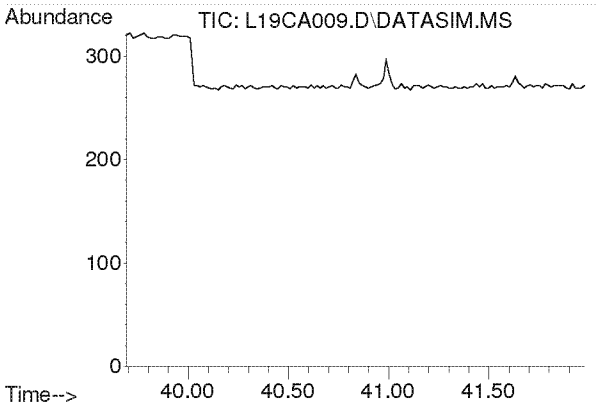
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



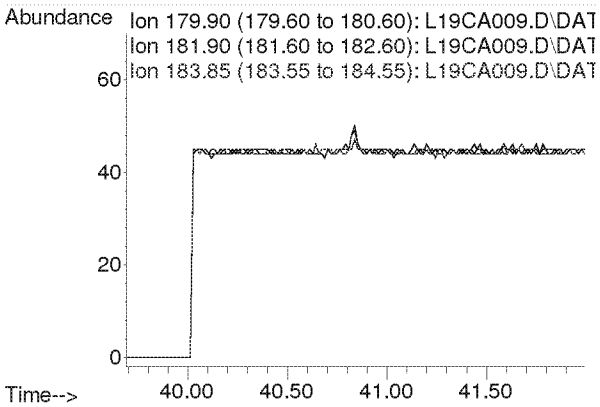


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

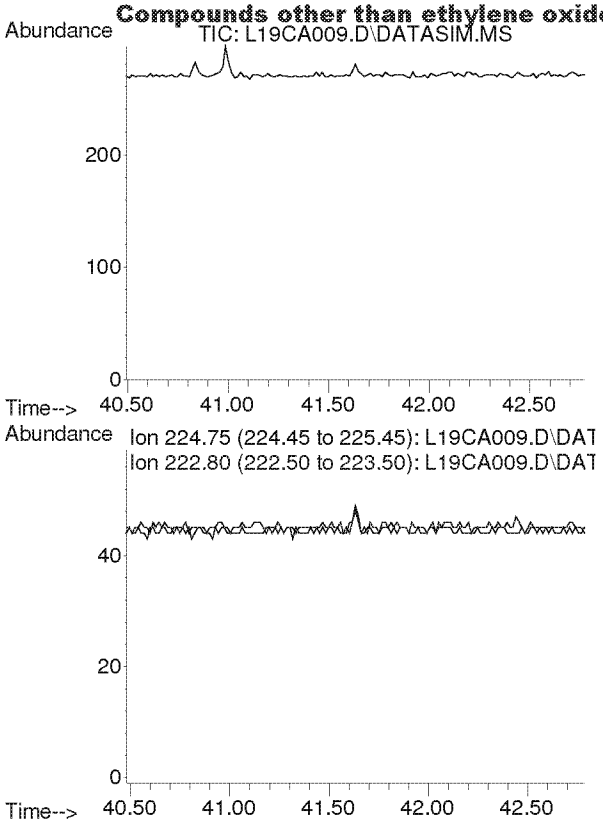
Lab File: L19CA009.D
Acq: 1 Mar 2019 11:33 pm

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: L19CA009.D
Acq: 1 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\L19CA\
Data File : L19CA010.D
Acq On : 2 Mar 2019 12:34 am (#1); 02-Mar-19, 00:29:00 (#2)
Operator : MAH
Sample : 9030101-04
Misc : WATER TOWER 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 05 09:05:53 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

dfm 3-5-19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	43777	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	112077	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	77730	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	117m	0.0467 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\L19CA\
Data File : L19CA010.D
Acq On : 2 Mar 2019 12:34 am (#1); 02-Mar-19, 00:29:00 (#2)
Operator : MAH
Sample : 9030101-04
Misc : WATER TOWER 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 05 09:05:53 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

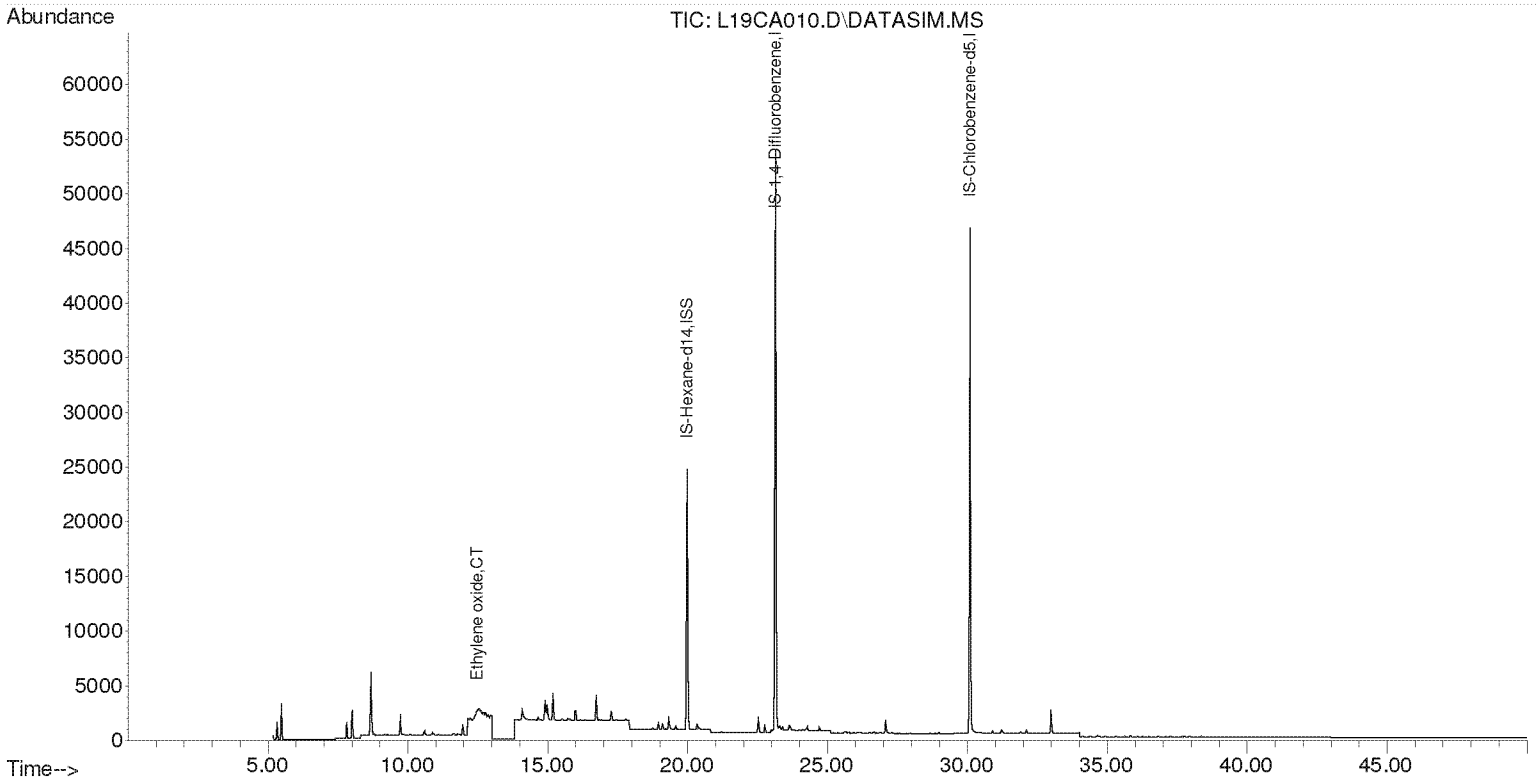
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

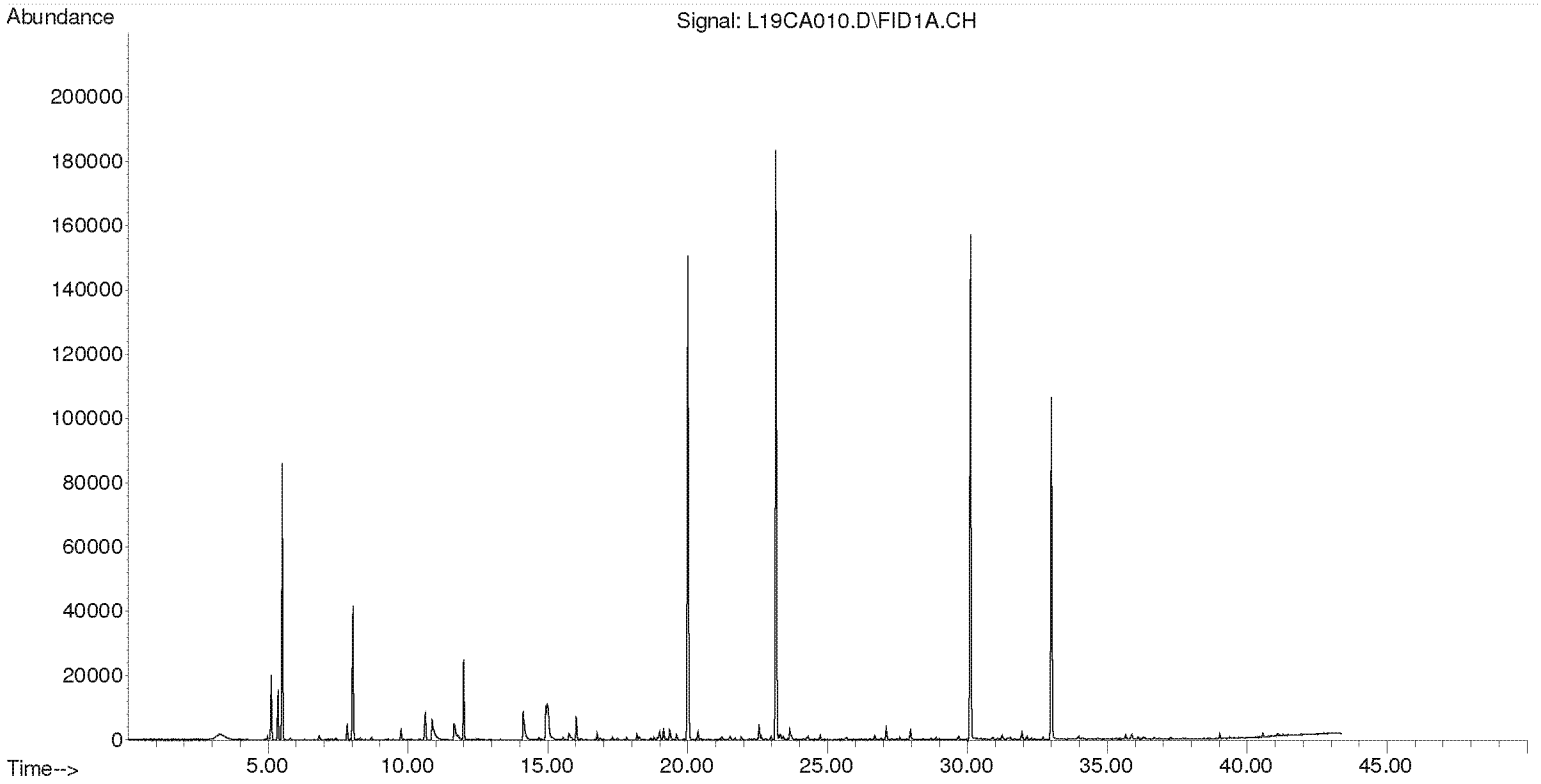
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

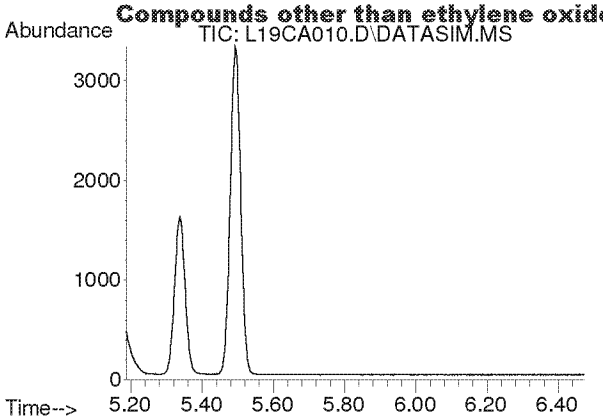
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA010.D
Acq On : 2 Mar 2019 12:34 am (#1); 02 Mar 2019 0:29 am (#2)
Operator : MAH
Sample : 9030101-04
Misc : WATER TOWER 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 05 08:54:10 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





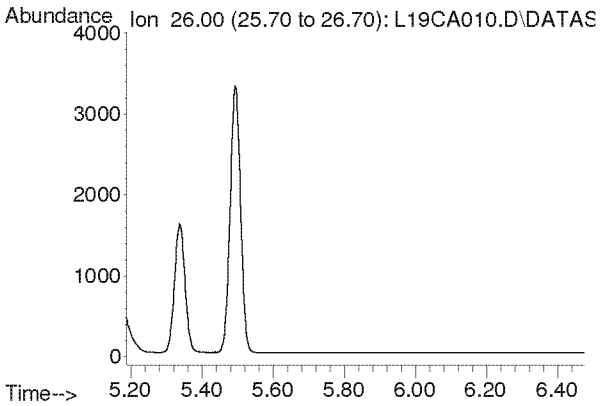
Compounds other than ethylene oxide were not quantitated.

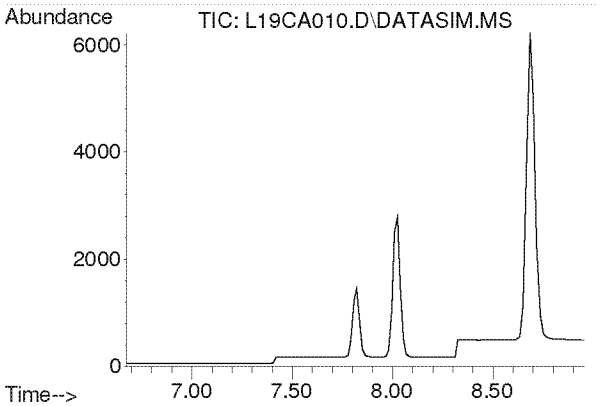


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 26



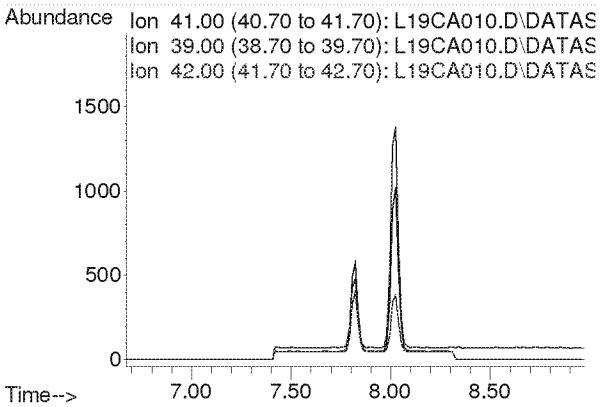


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

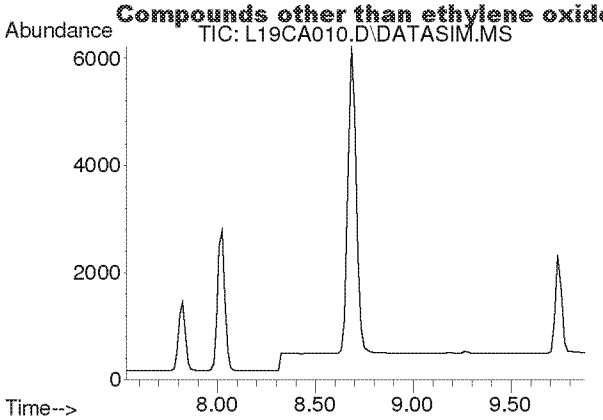
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

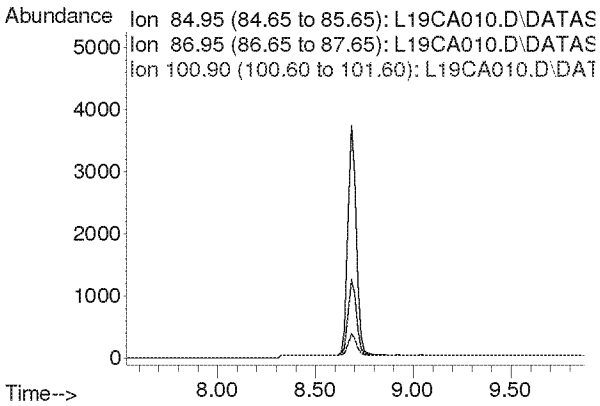


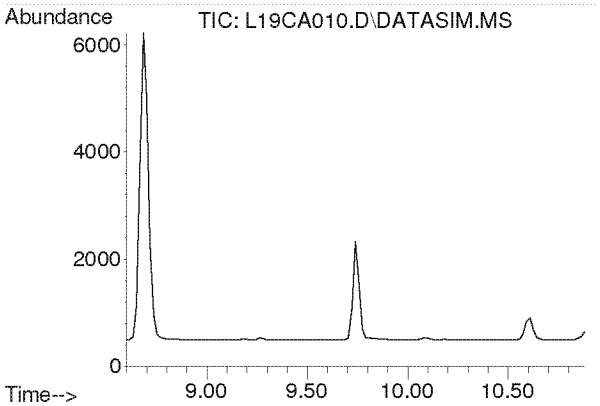
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



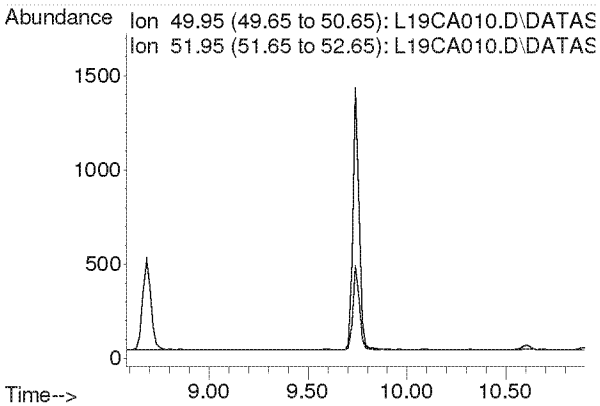


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

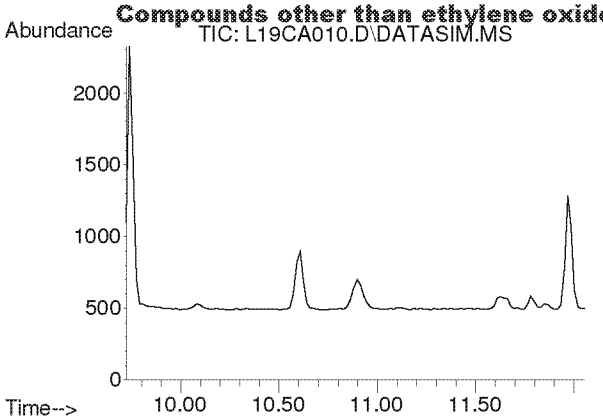
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

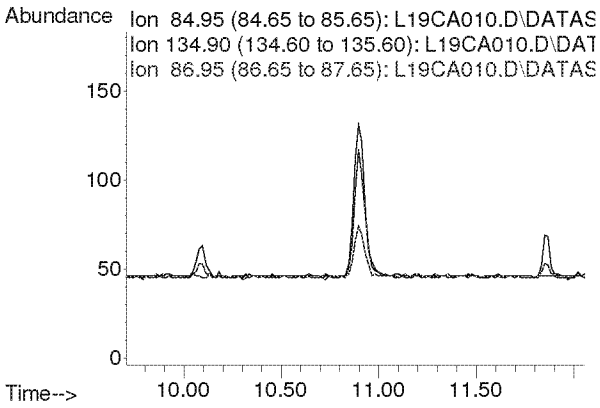


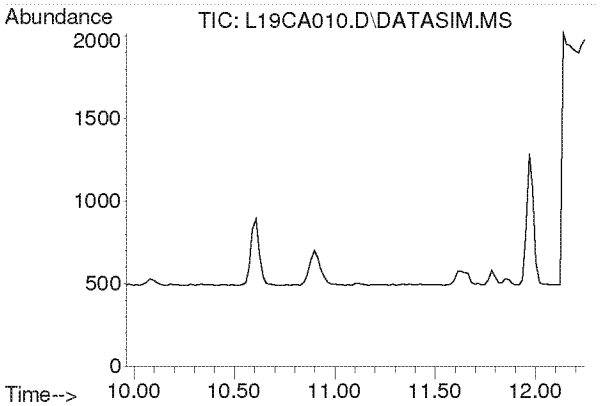
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



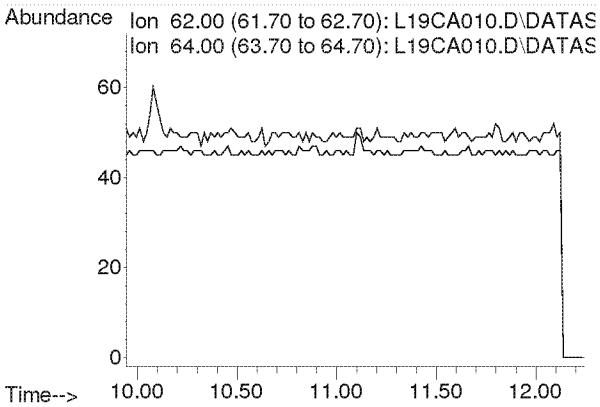


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

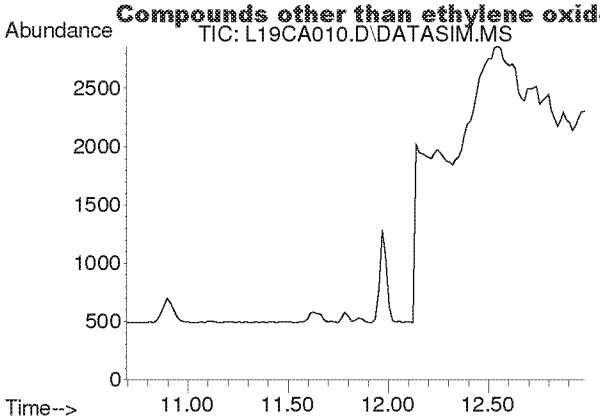
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

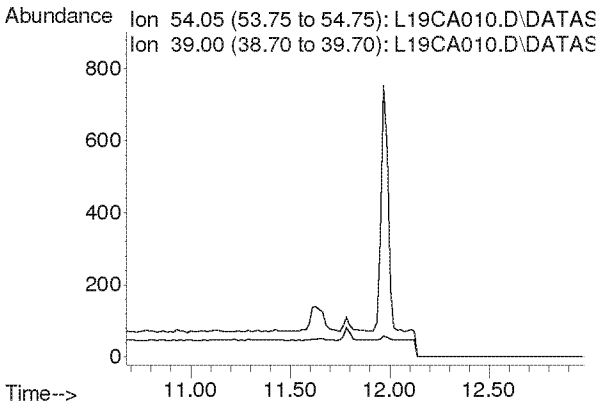


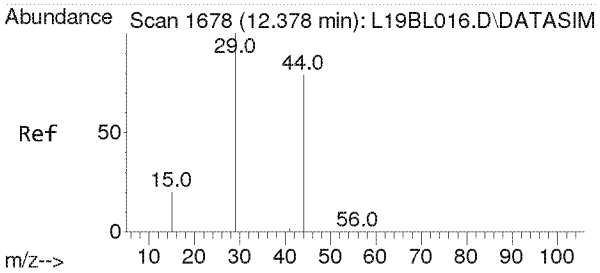
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

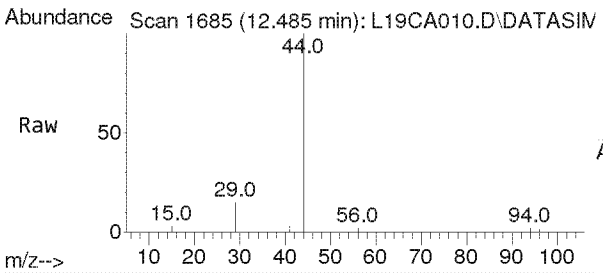


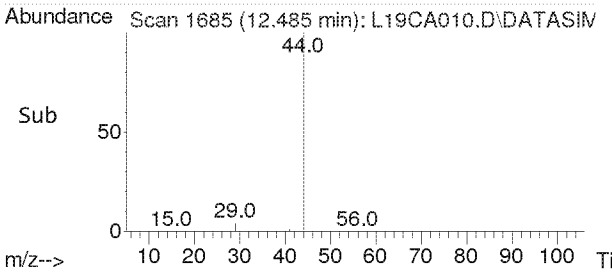


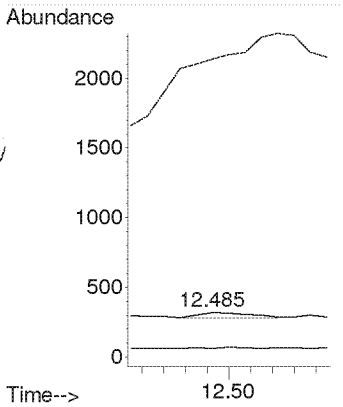
#9
Ethylene oxide
Concen: 0.047 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 29 Resp: 117

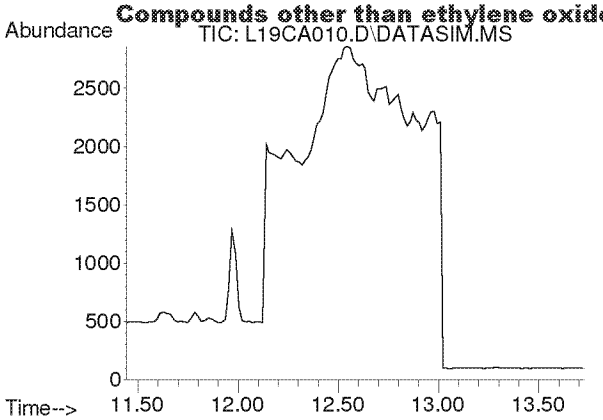
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	8463.2	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

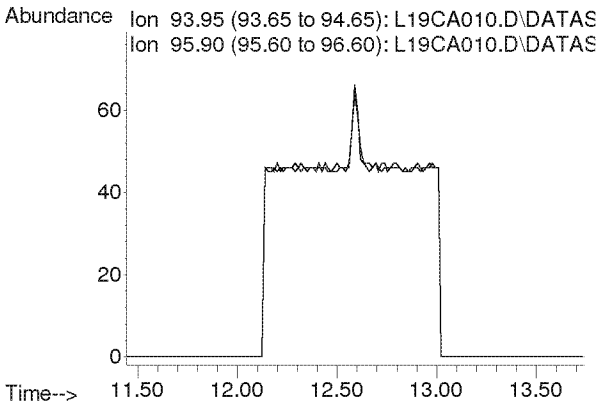


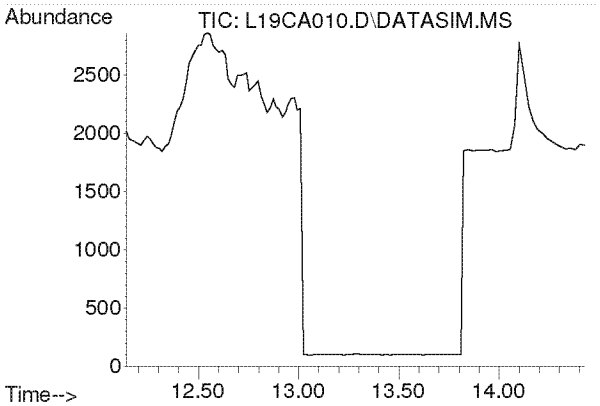
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



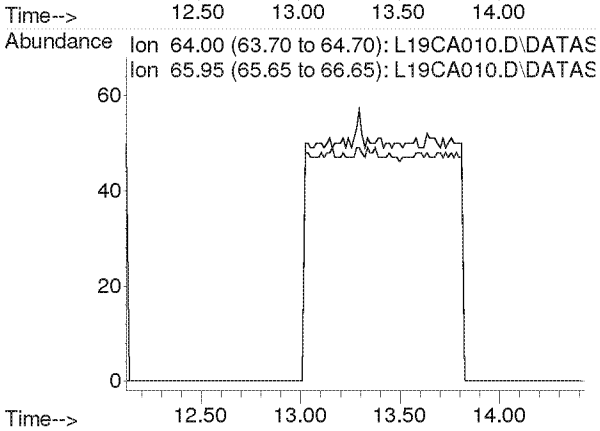


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

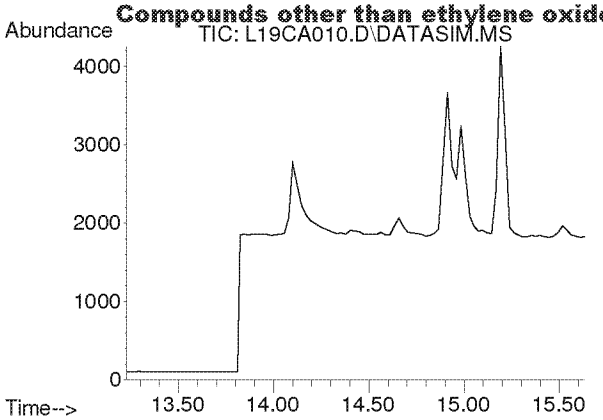
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

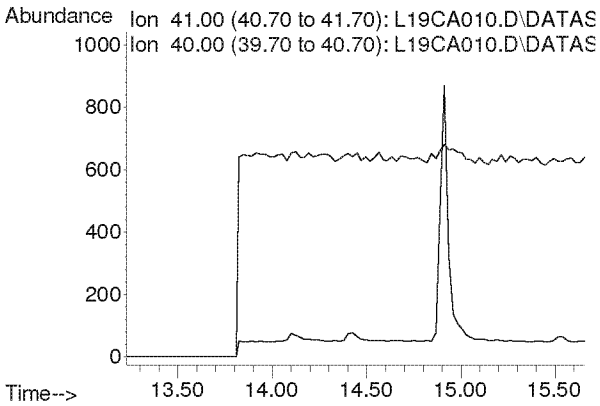


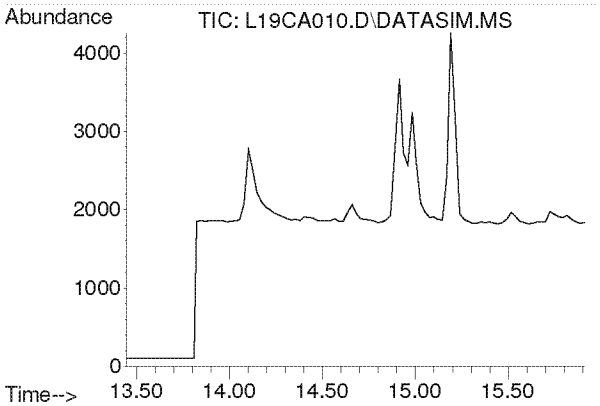
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



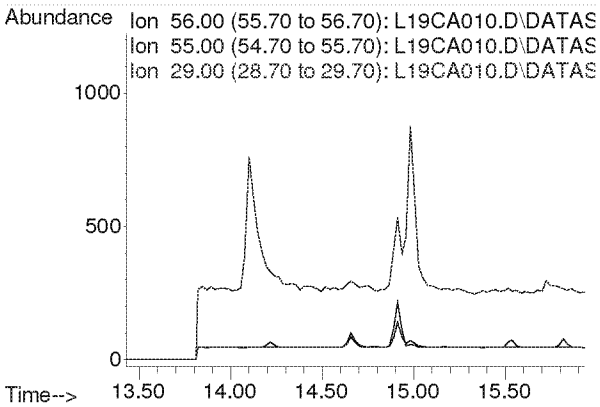


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

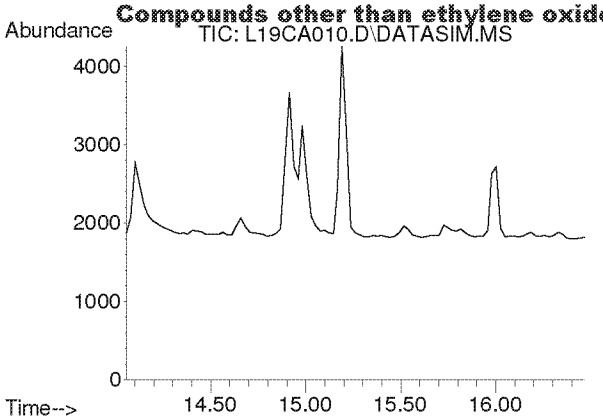
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

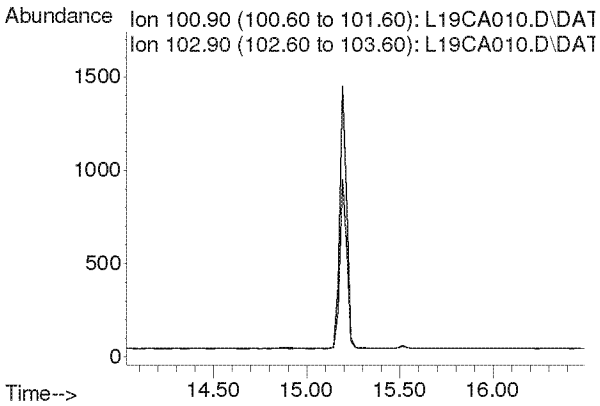


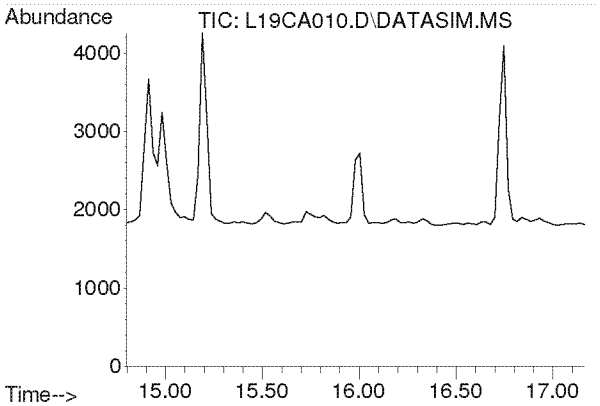
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



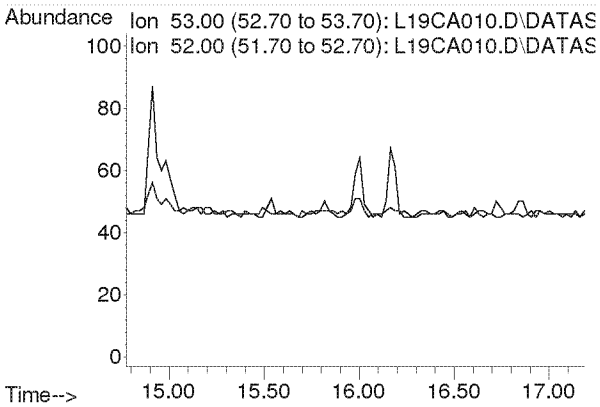


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

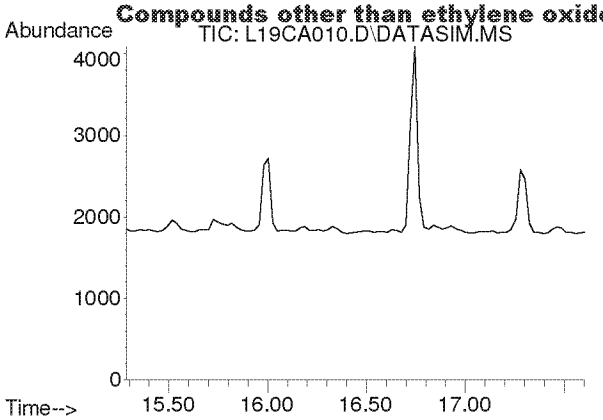
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

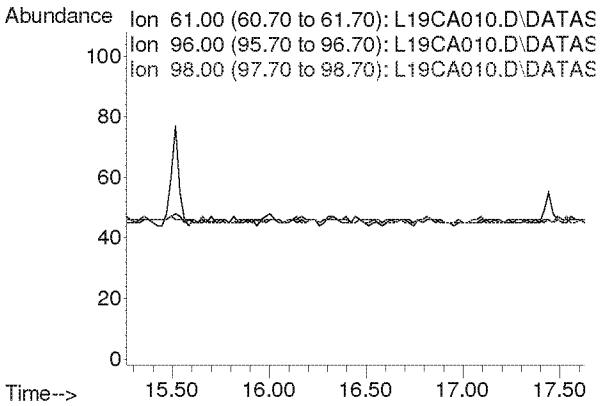


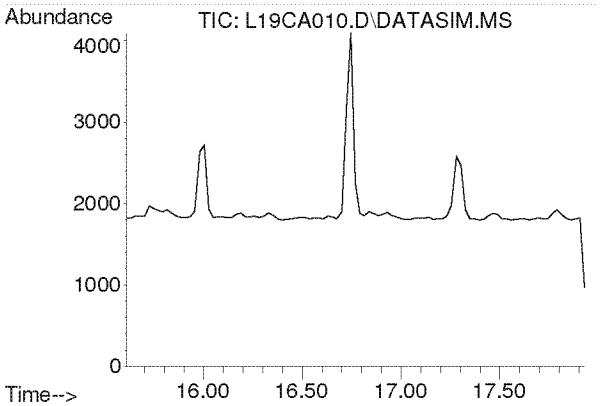
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



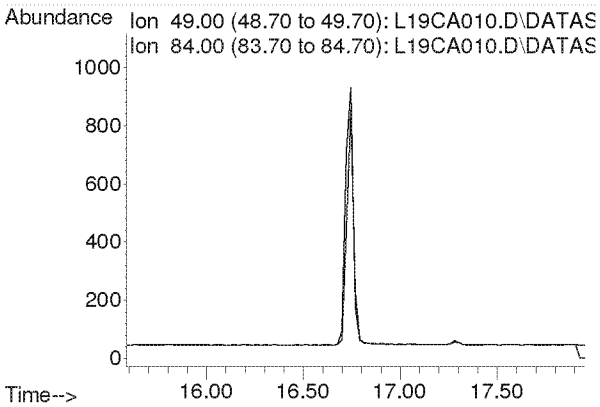


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

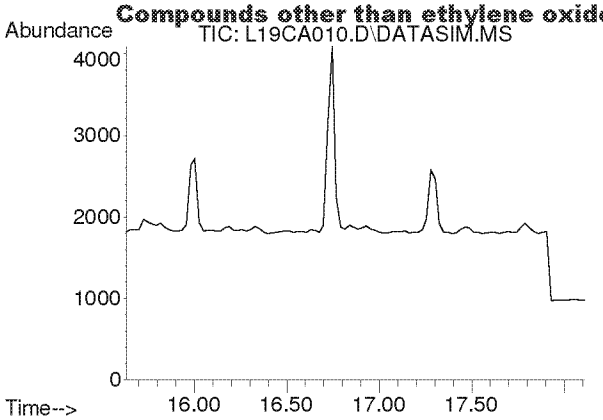
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

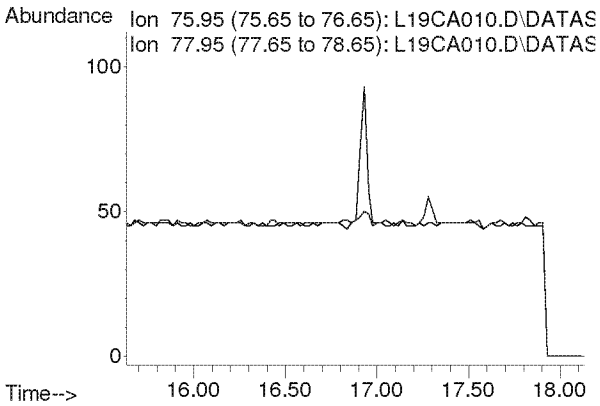


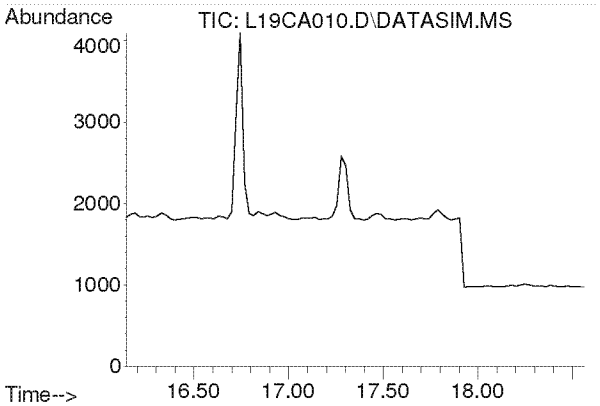
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



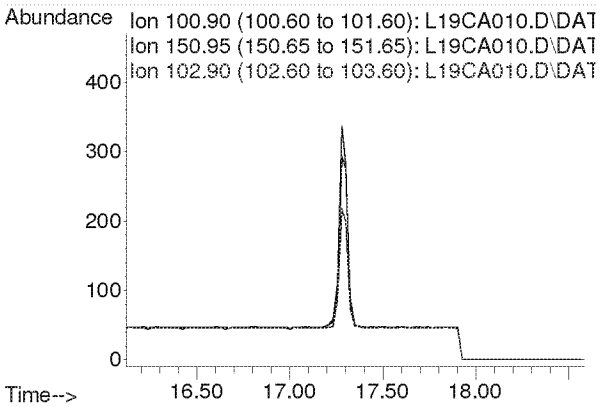


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

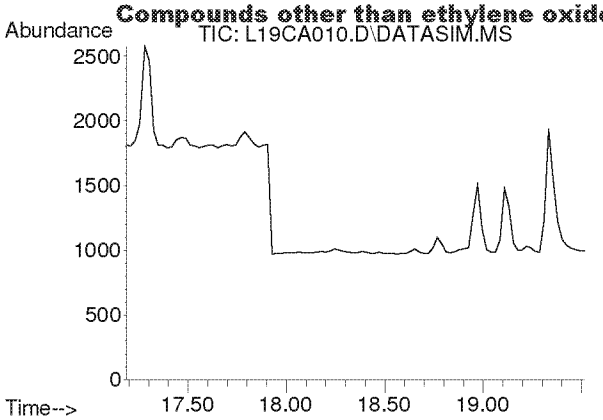
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

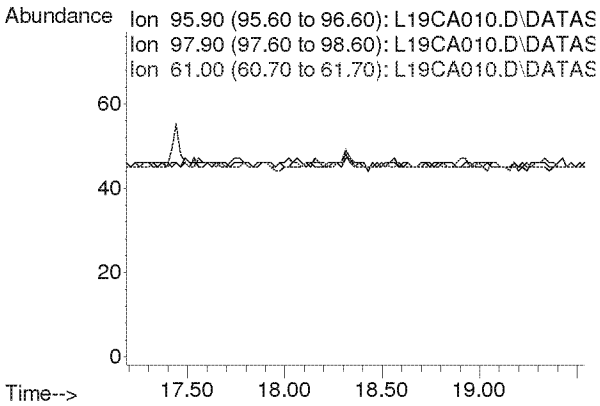


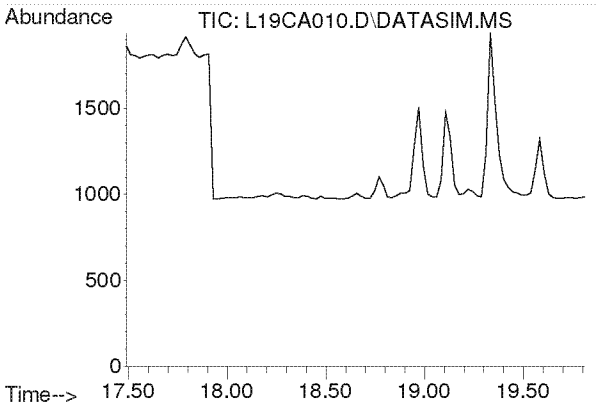
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



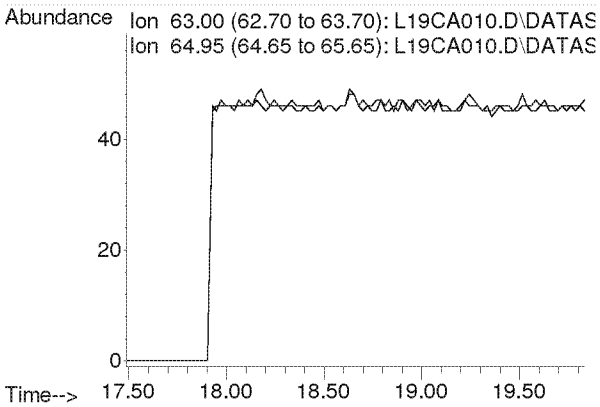


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

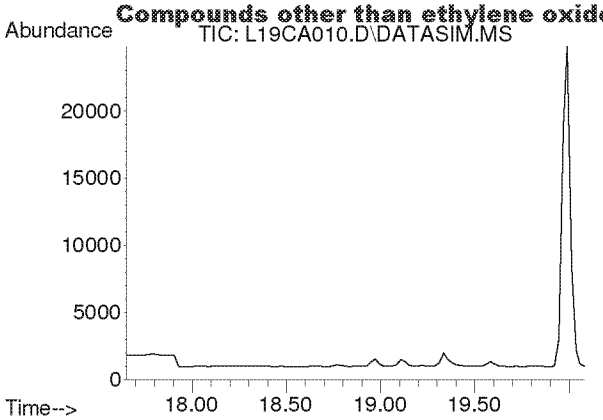
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

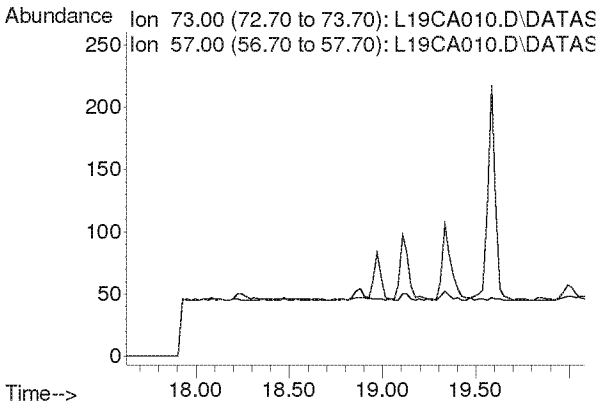


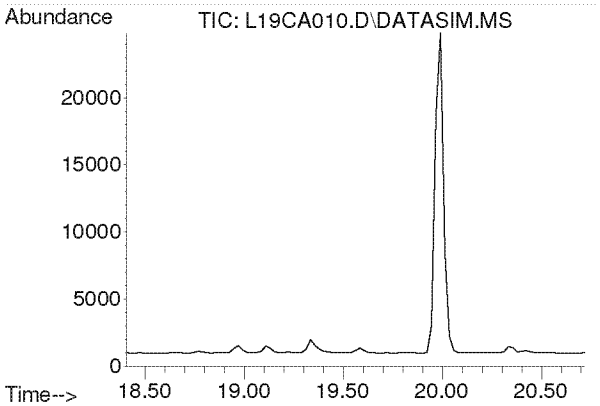
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



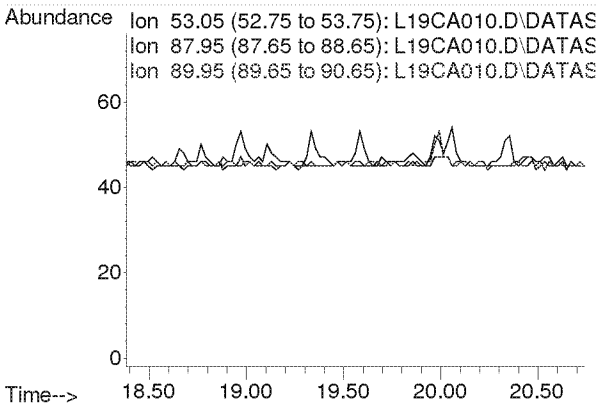


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

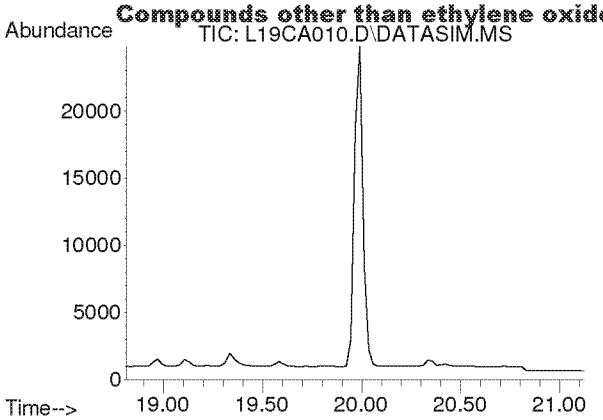
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

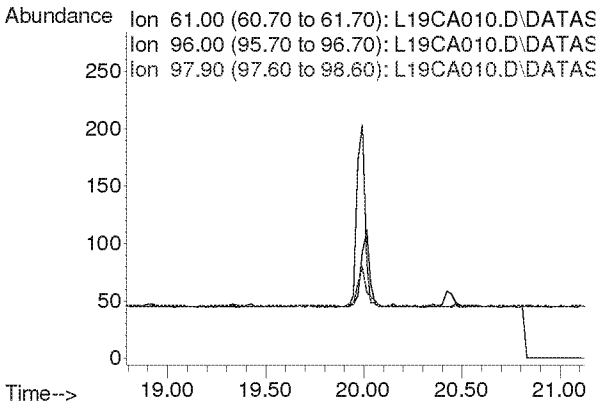


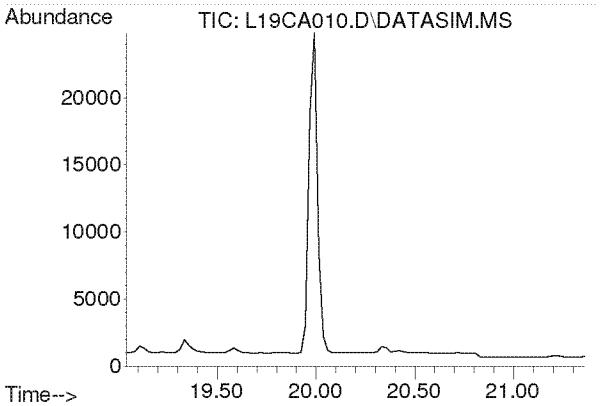
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



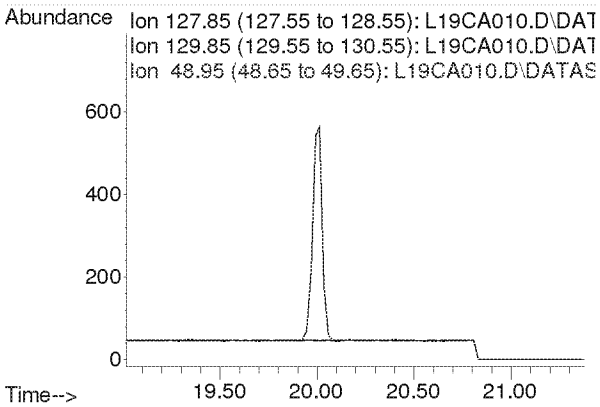


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

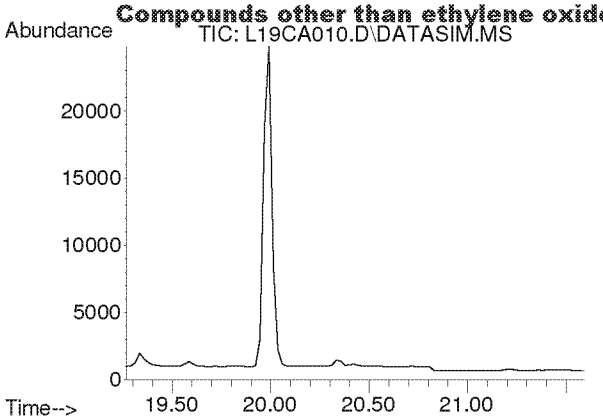
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

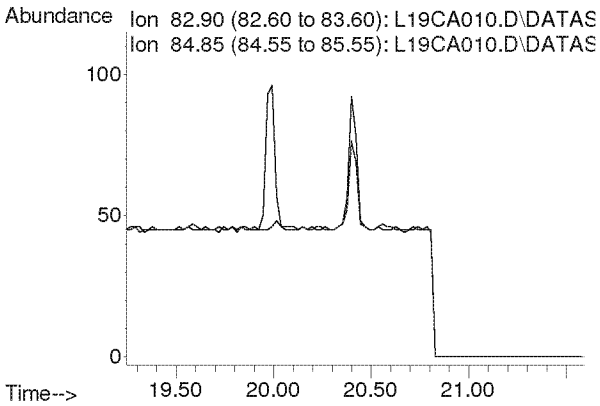


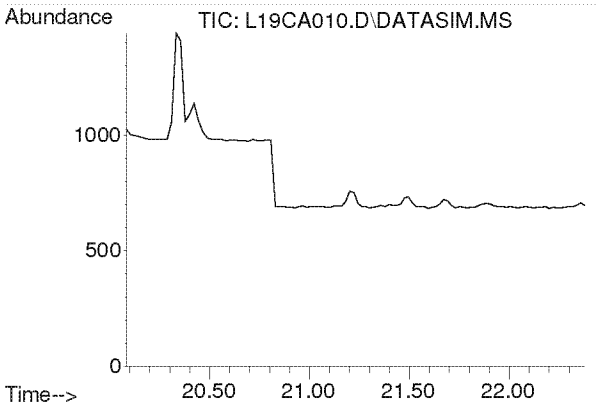
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



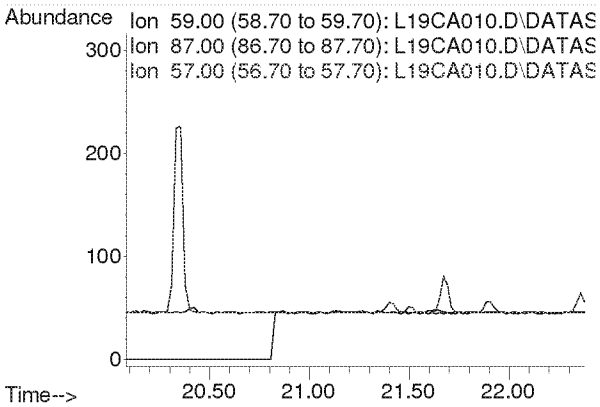


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

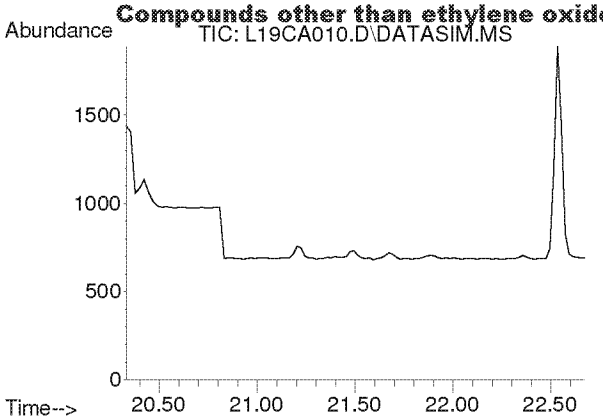
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

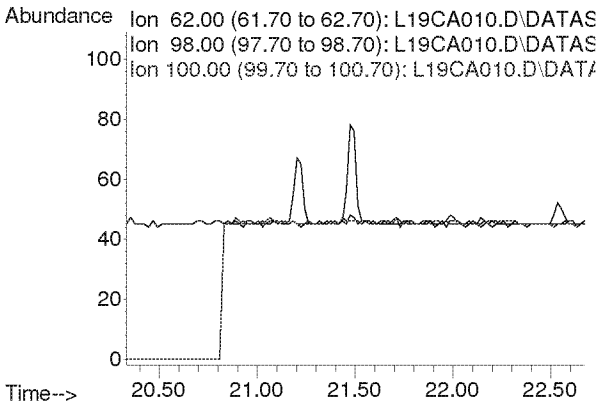


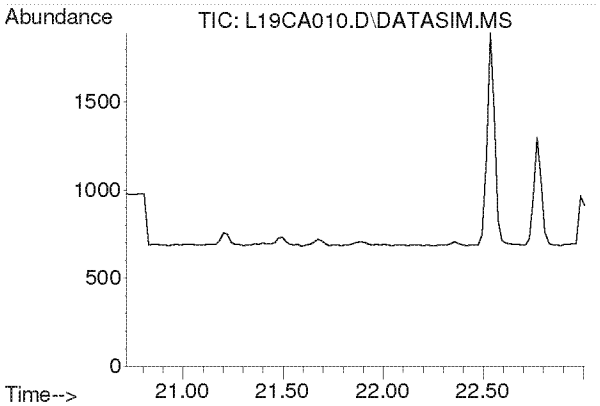
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



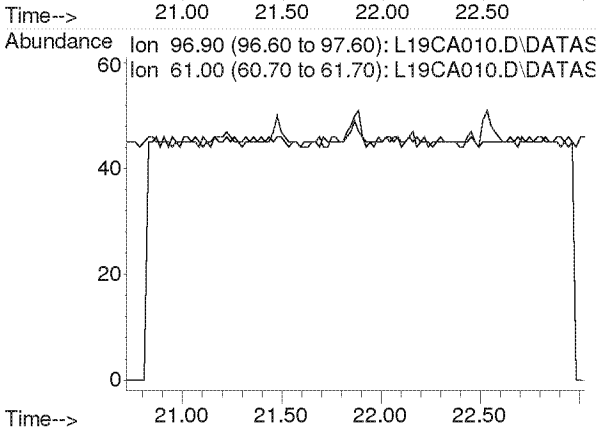


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

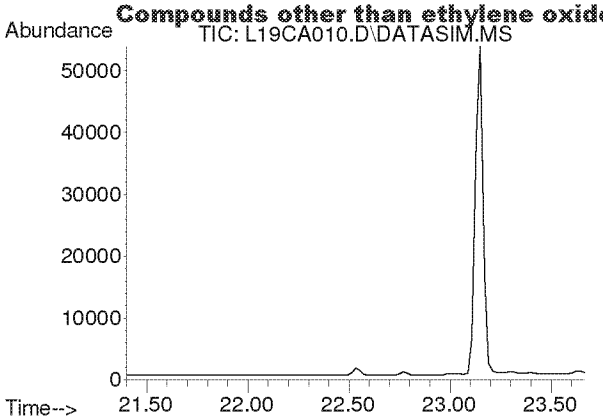
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

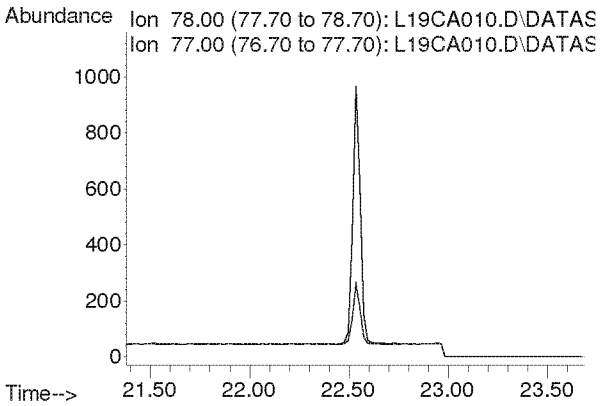


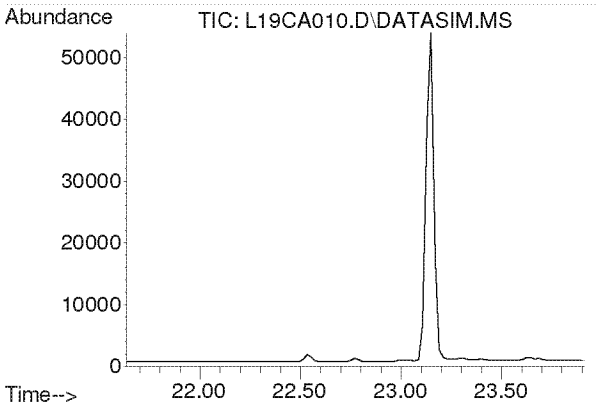
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



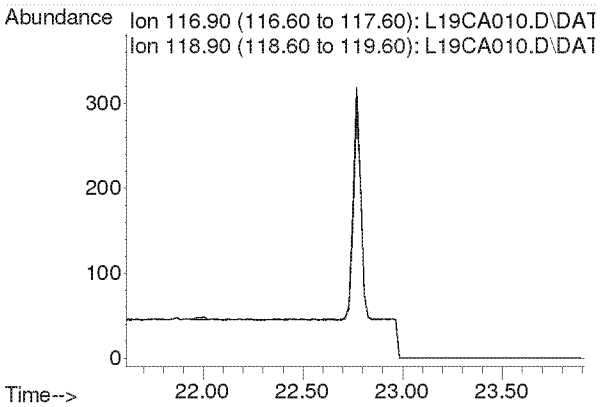


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

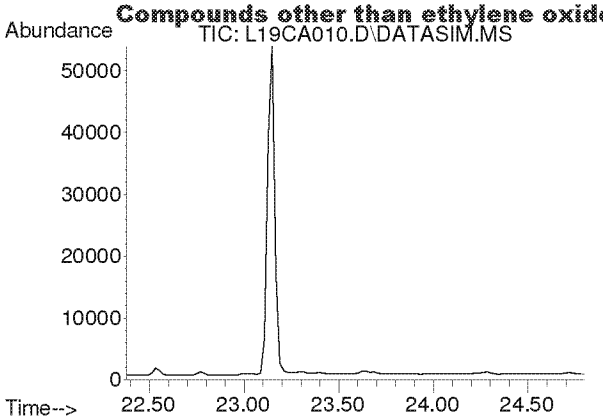
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

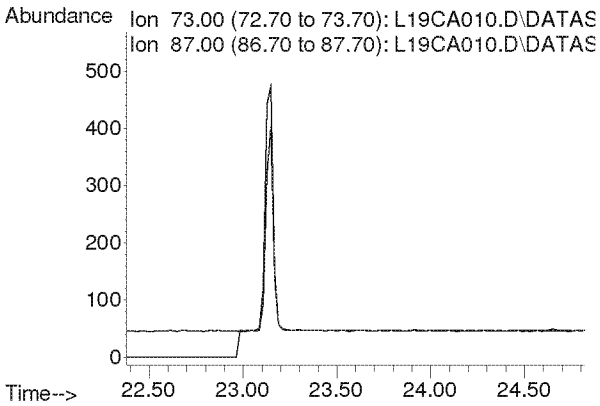


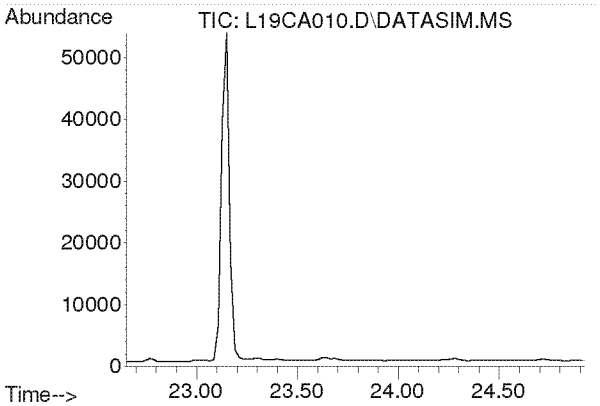
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



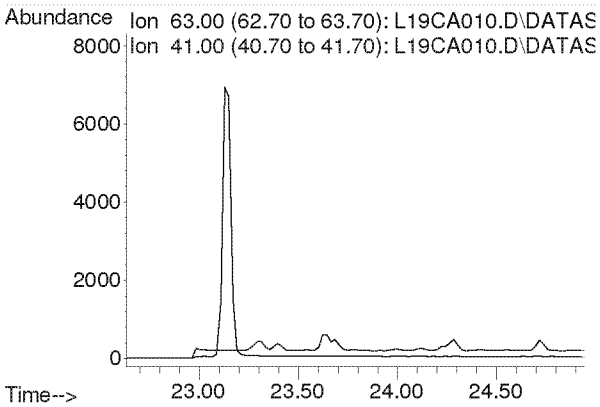


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

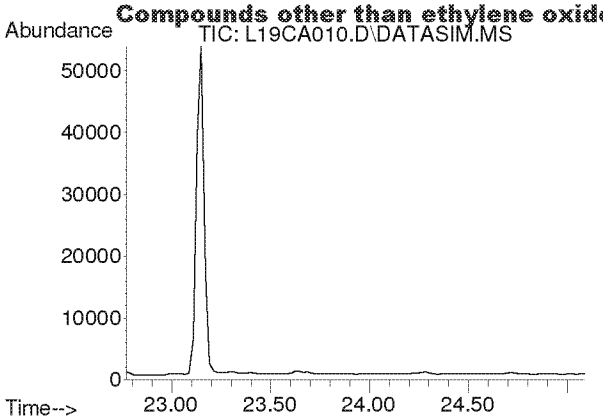
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

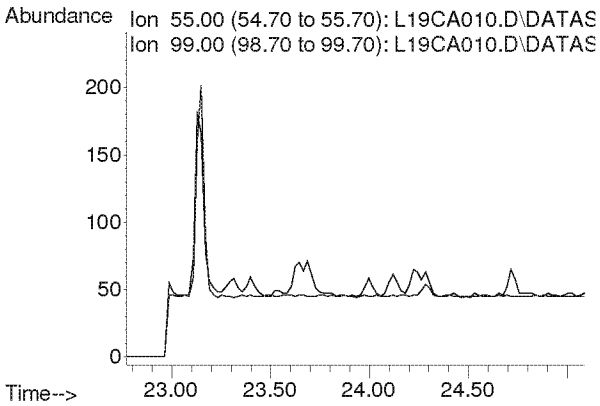


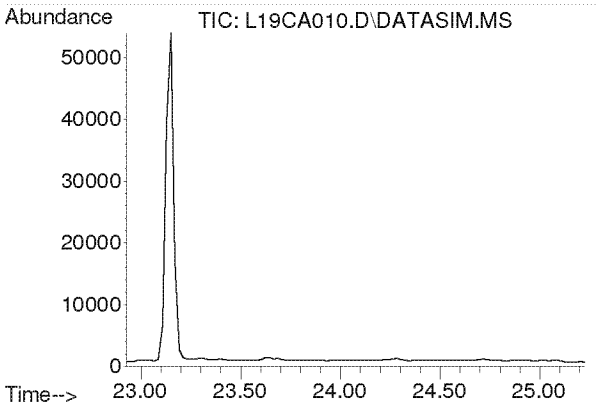
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



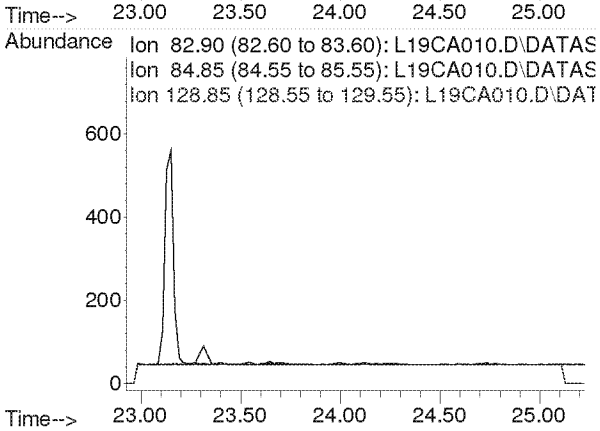


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

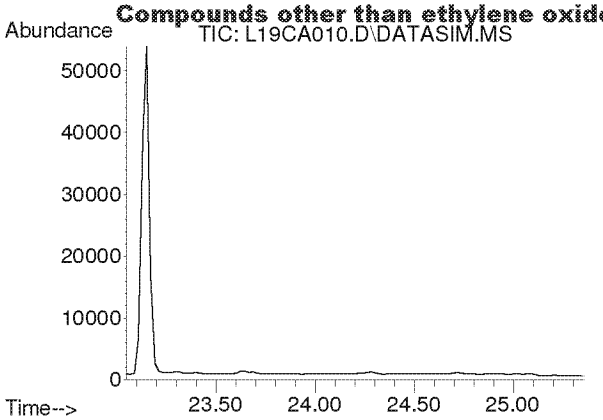
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

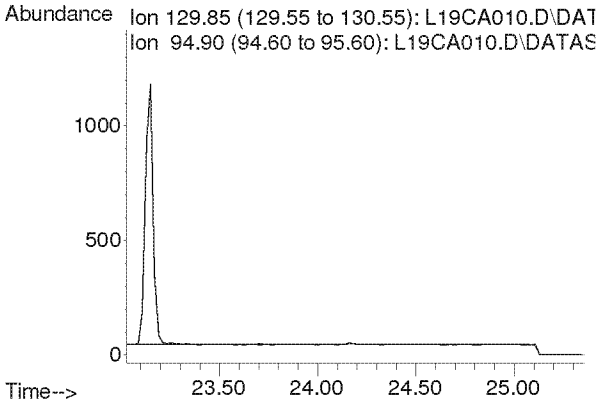


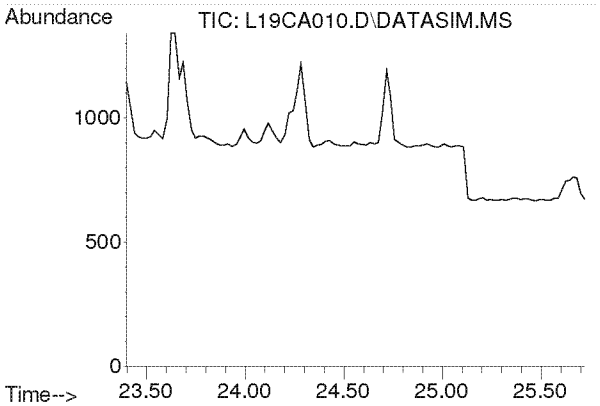
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



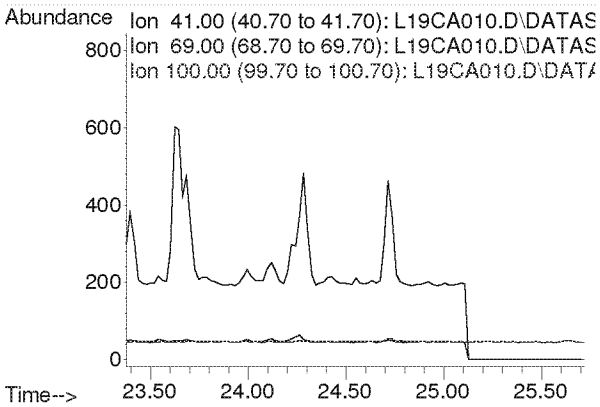


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

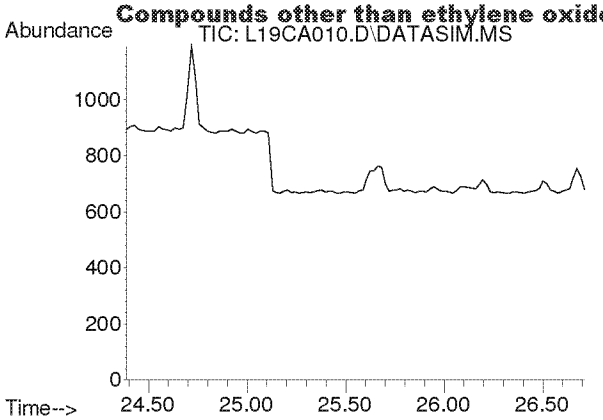
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

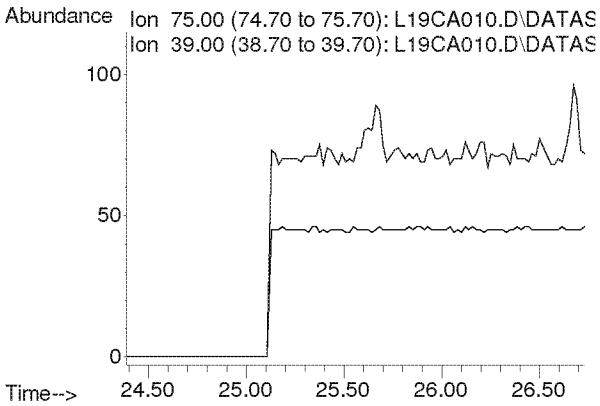


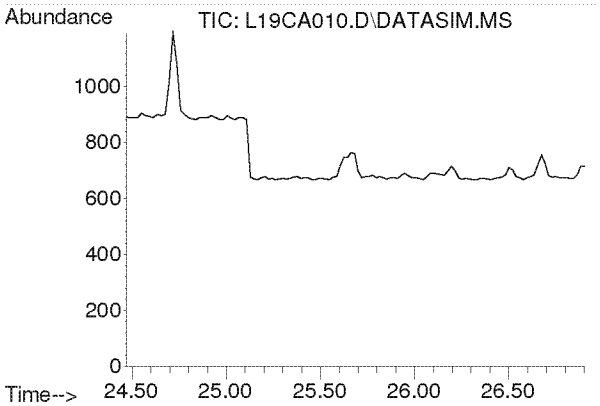
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



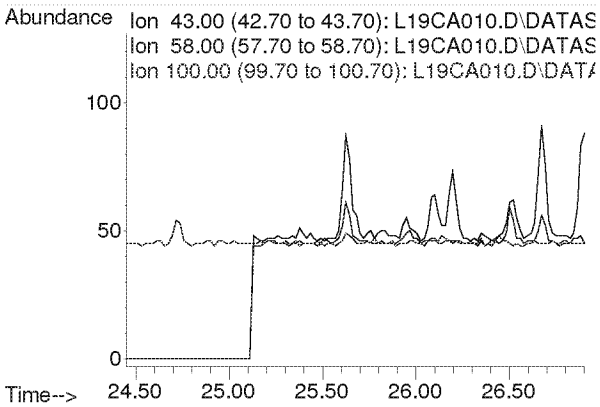


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

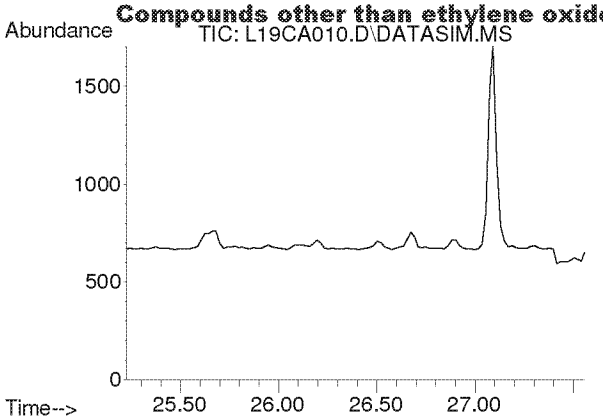
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

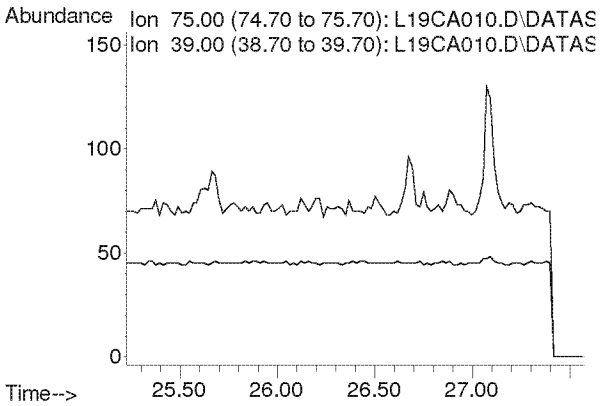


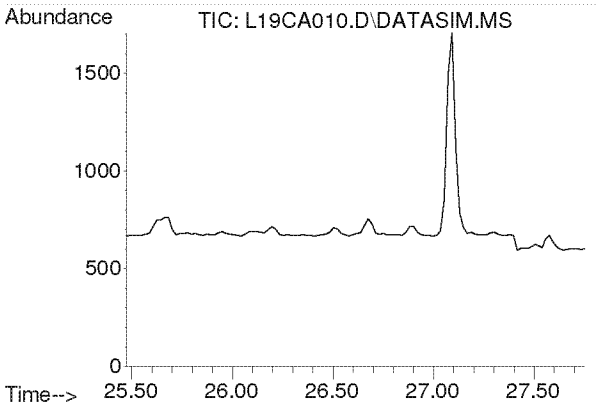
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



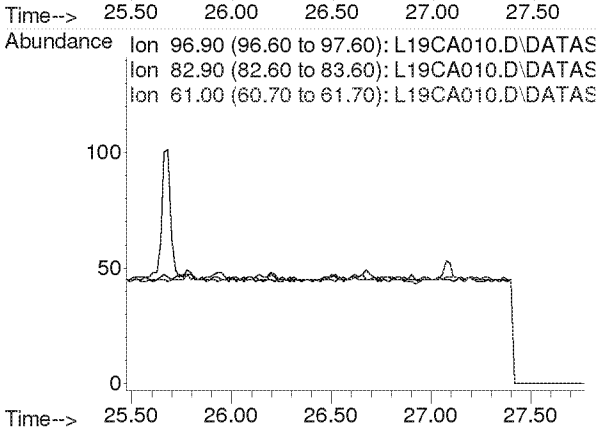


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

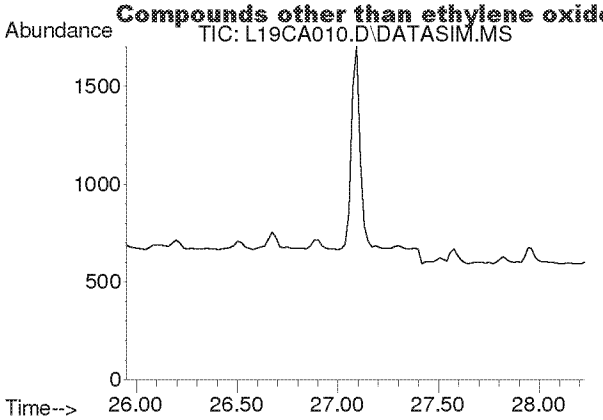
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

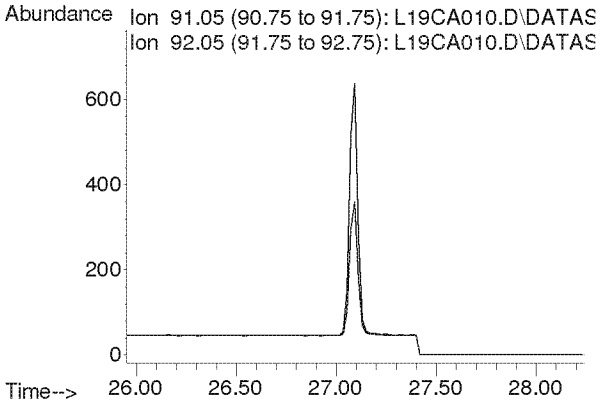


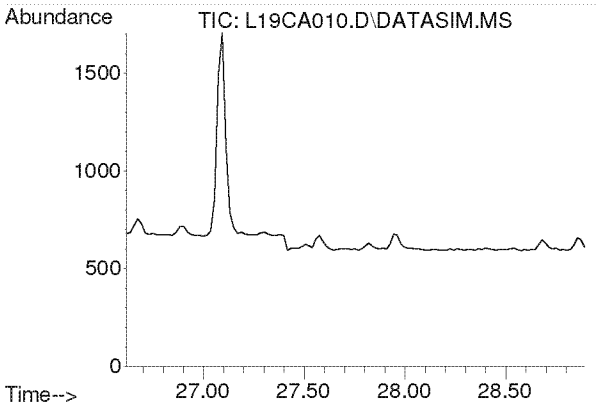
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



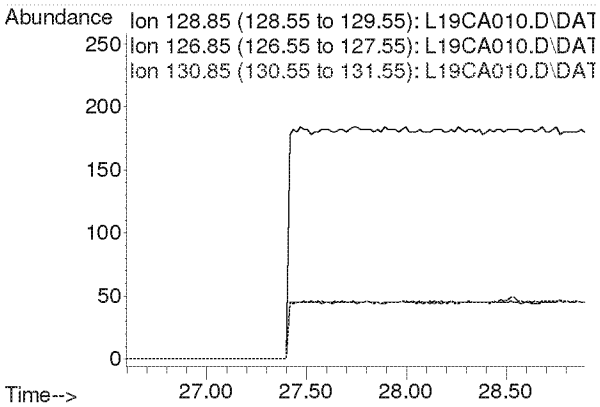


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

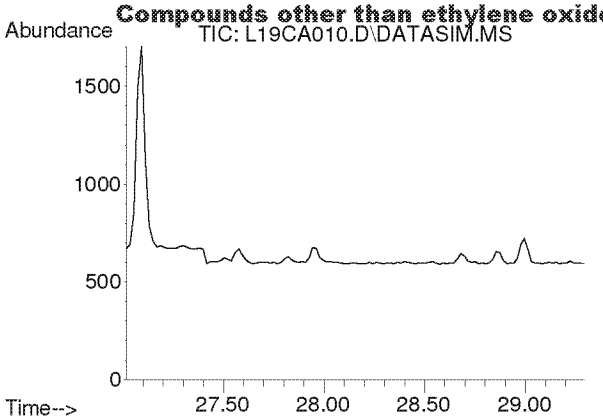
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

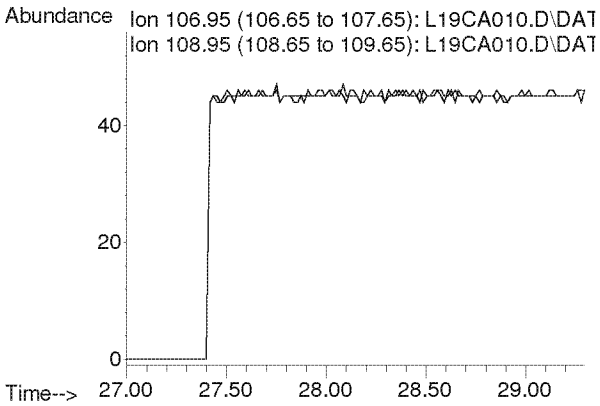


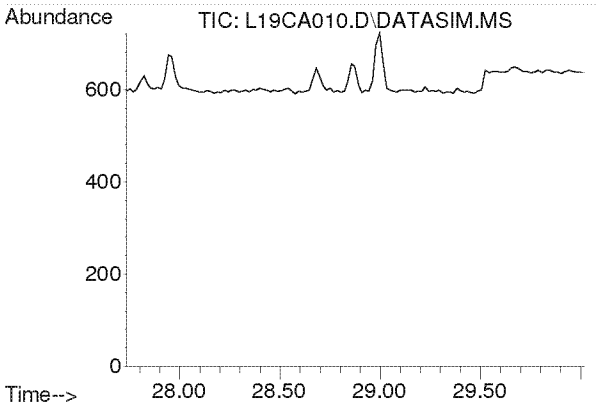
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



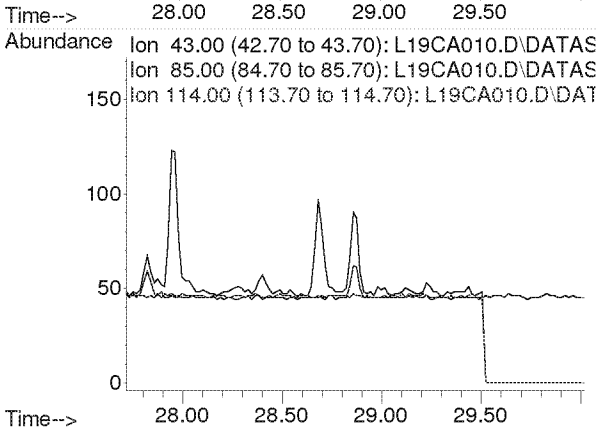


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

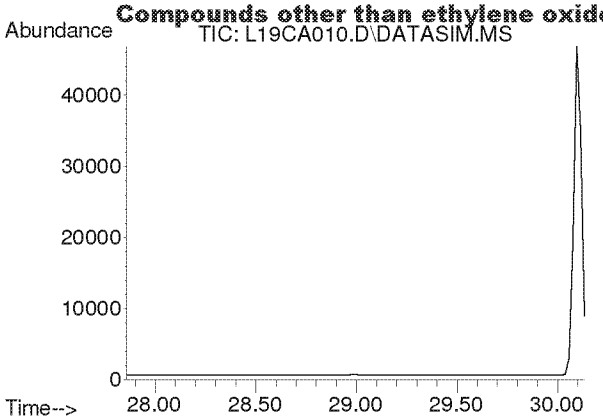
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

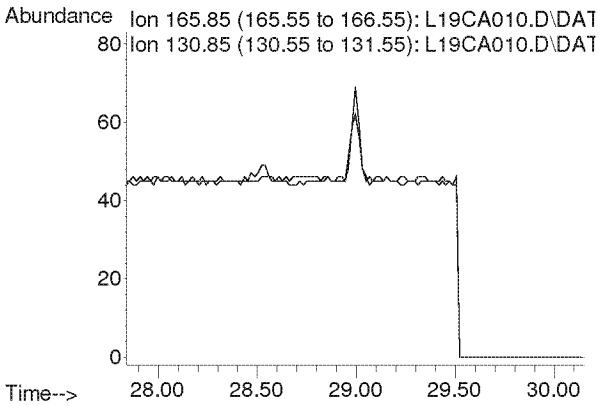


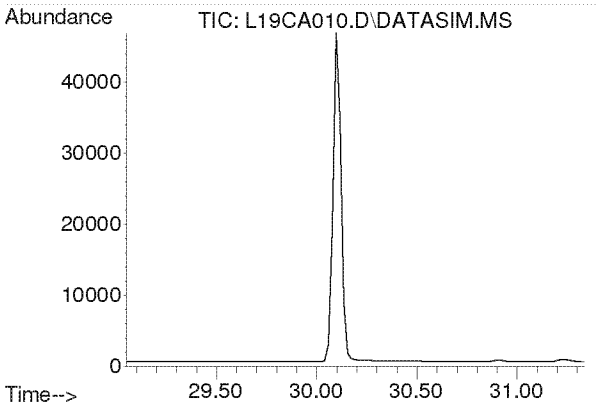
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



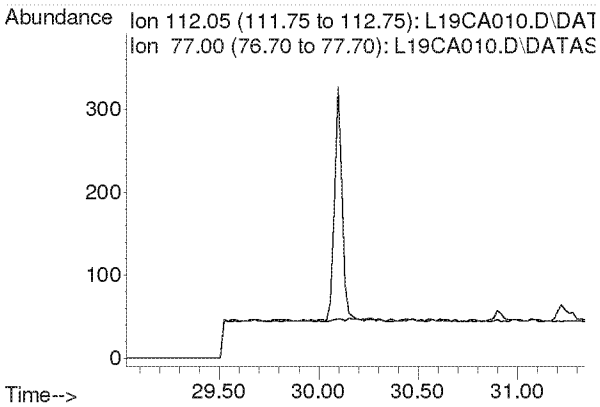


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

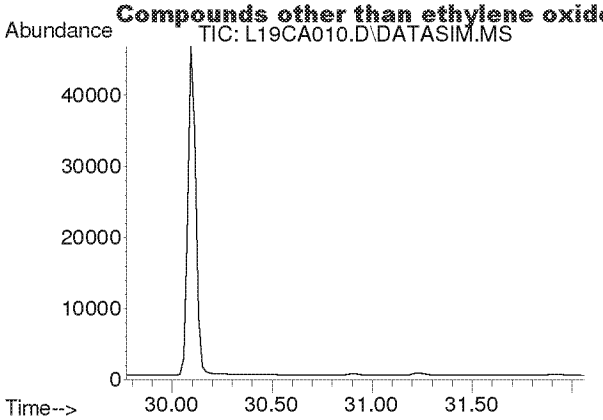
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

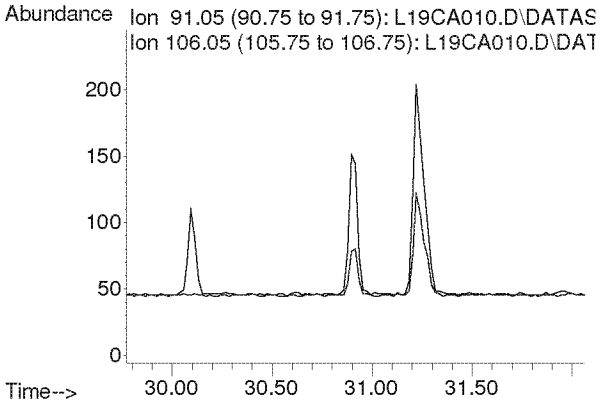


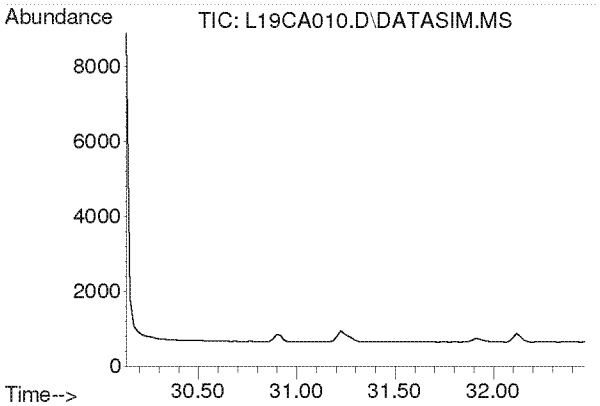
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



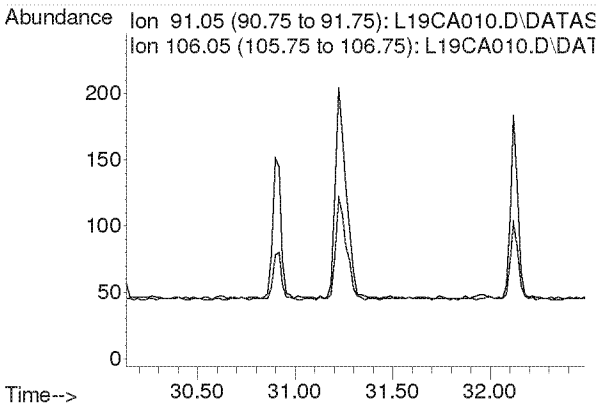


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

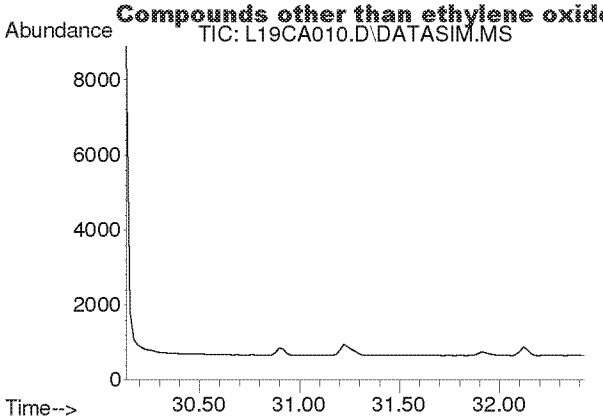
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

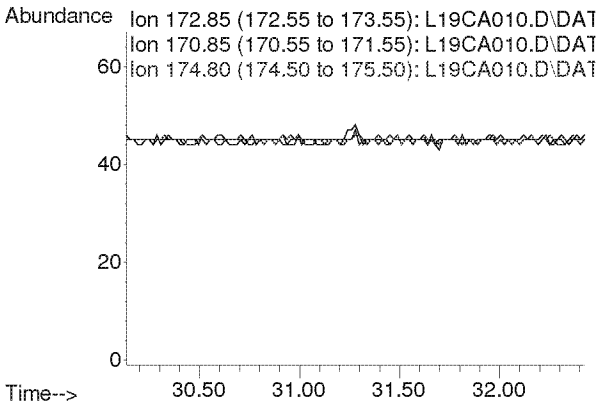


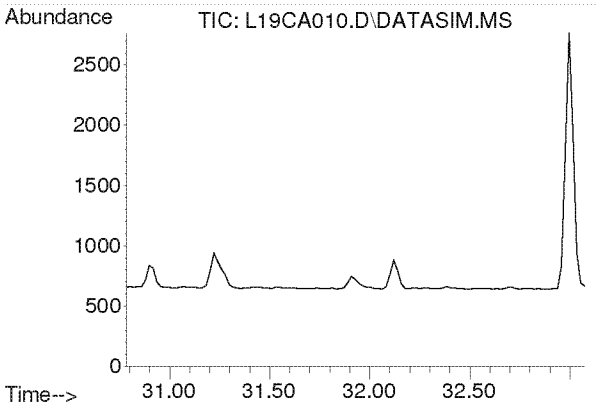
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



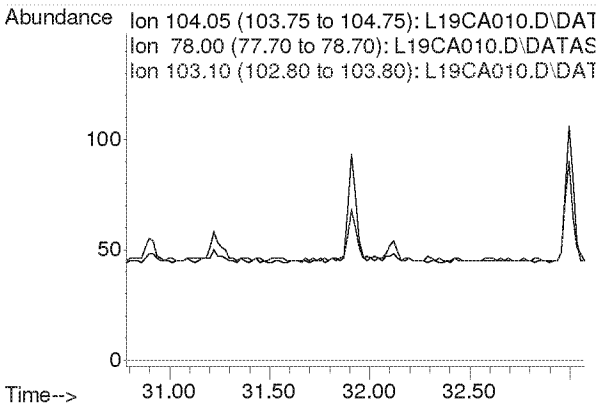


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

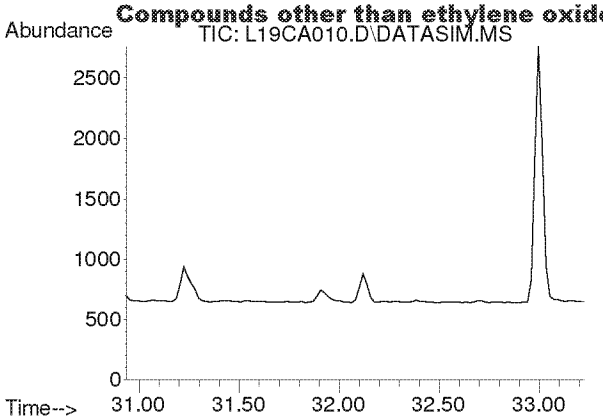
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

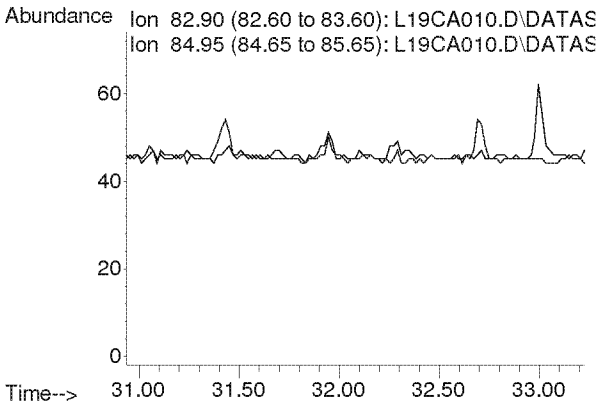


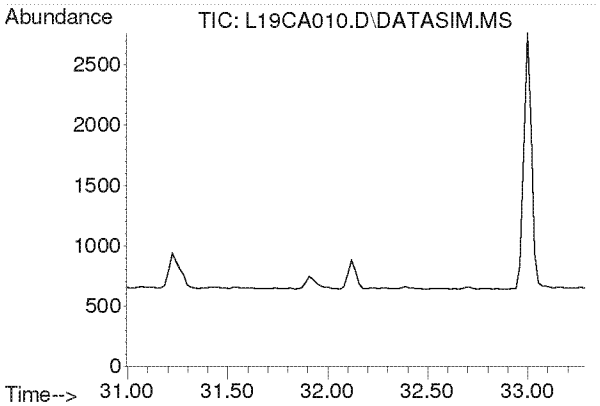
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



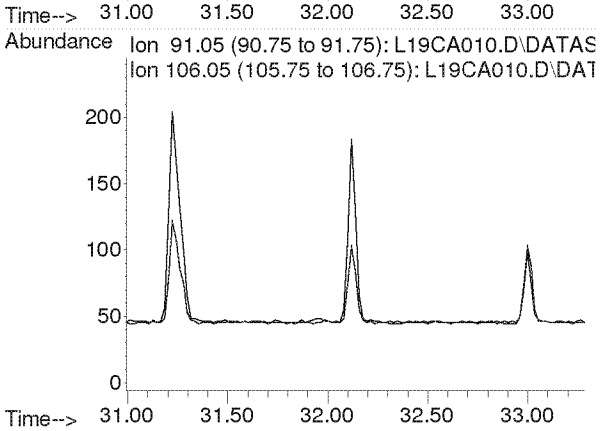


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

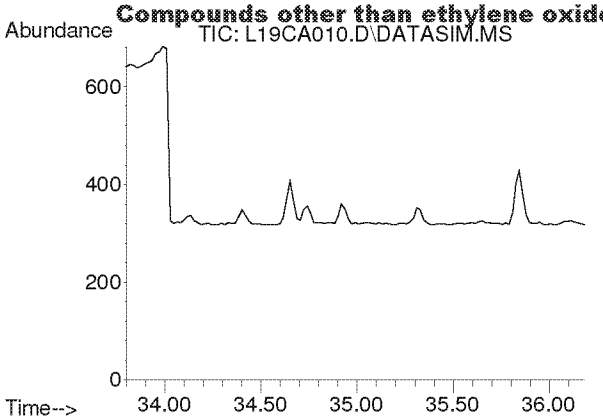
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

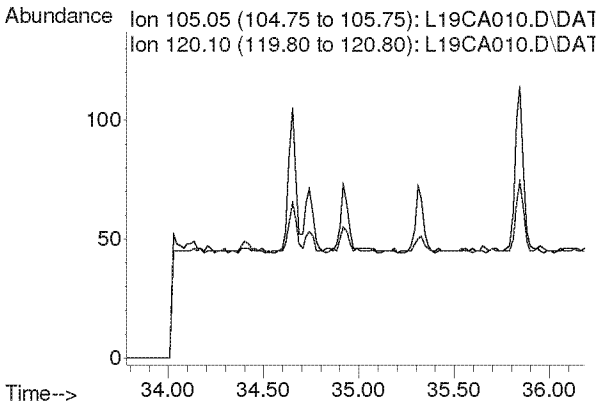


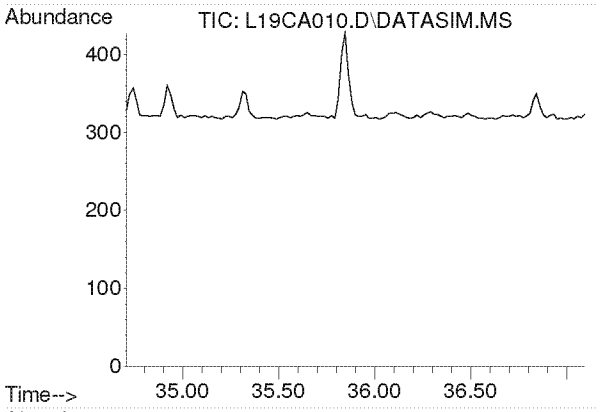
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



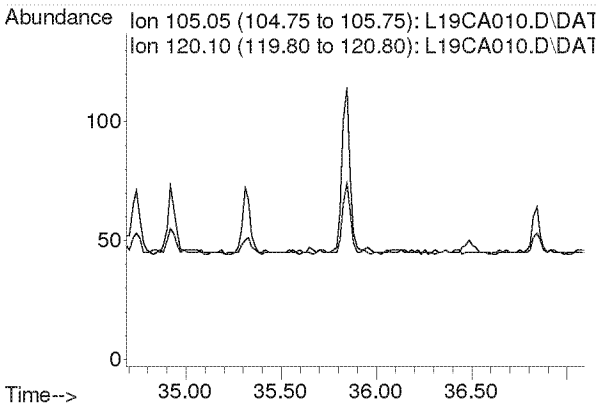


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

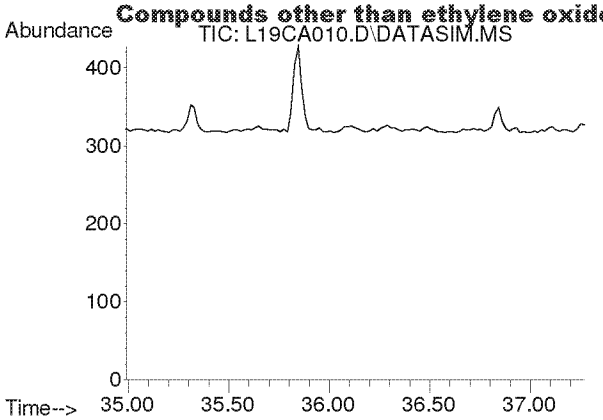
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

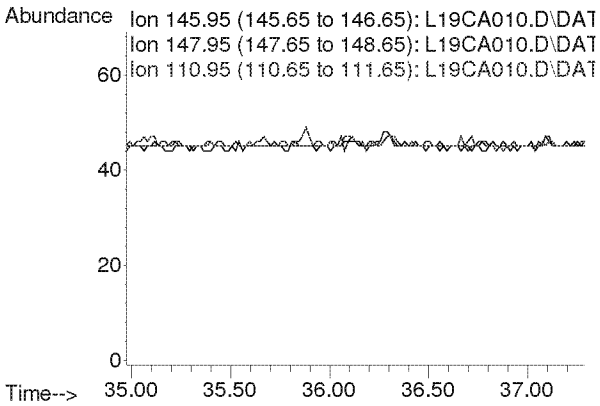


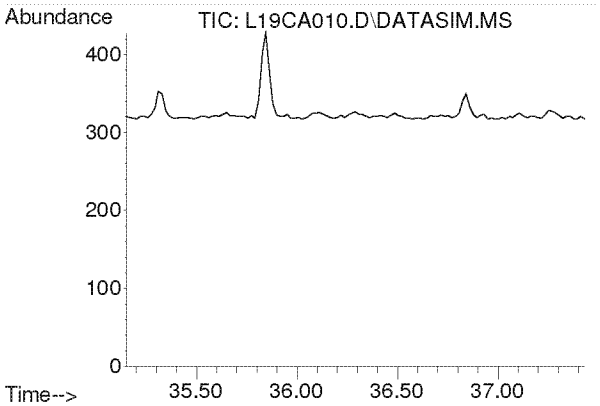
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



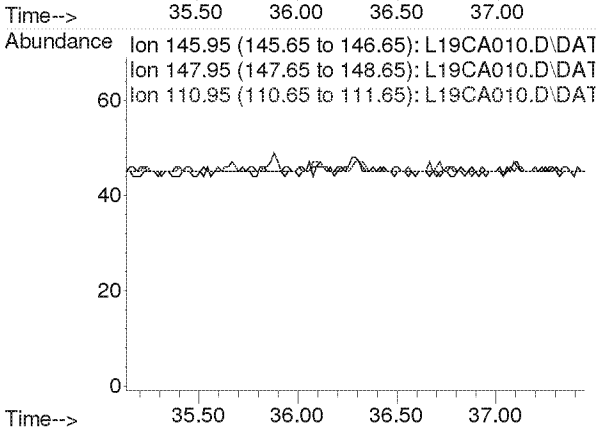


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

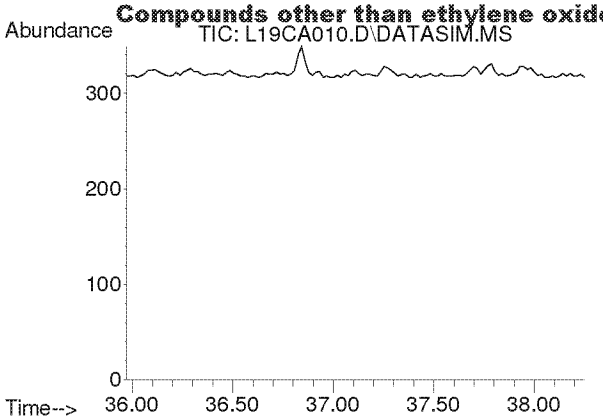
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

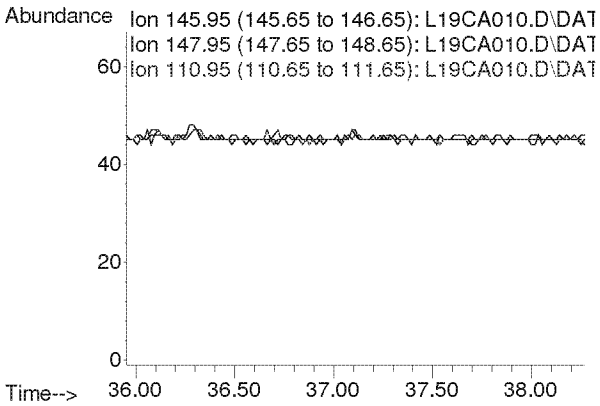


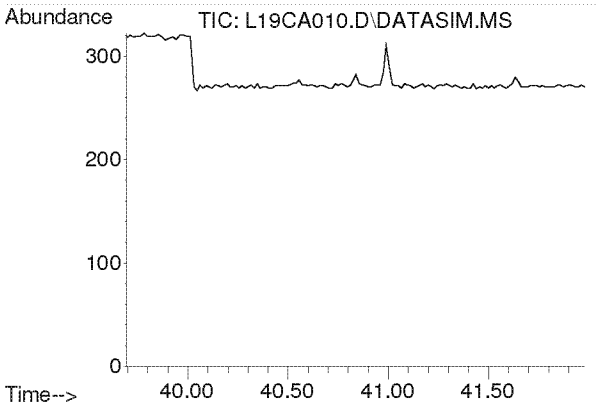
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



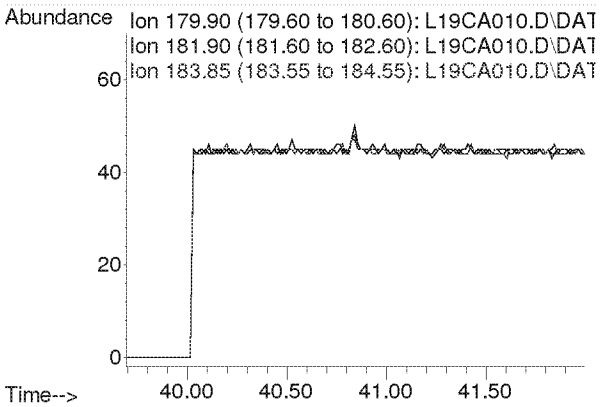


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

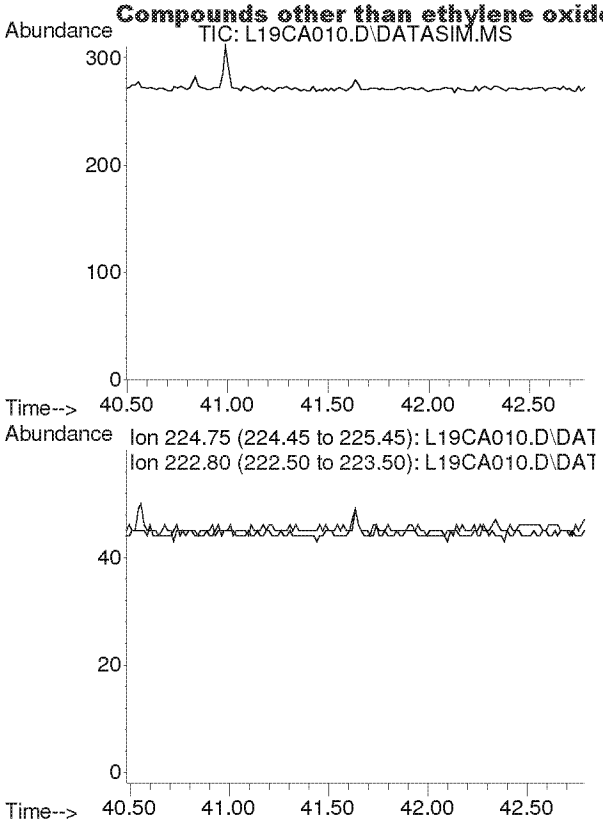
Lab File: L19CA010.D
Acq: 2 Mar 2019 12:34 am

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: L19CA010.D
Acq: 2 Mar 2019 12:34 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\L19CA\
Data File : L19CA011.D
Acq On : 2 Mar 2019 1:34 am (#1); 02-Mar-19, 01:29:15 (#2)
Operator : MAH
Sample : 9030101-05
Misc : GOWER ES 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 05 09:06:19 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

ETOt only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	42097	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	105682	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	72851	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	0.000	29	0	N.D. d SV	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D.	
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.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA011.D
Acq On : 2 Mar 2019 1:34 am (#1); 02-Mar-19, 01:29:15 (#2)
Operator : MAH
Sample : 9030101-05
Misc : GOWER ES 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 05 09:06:19 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

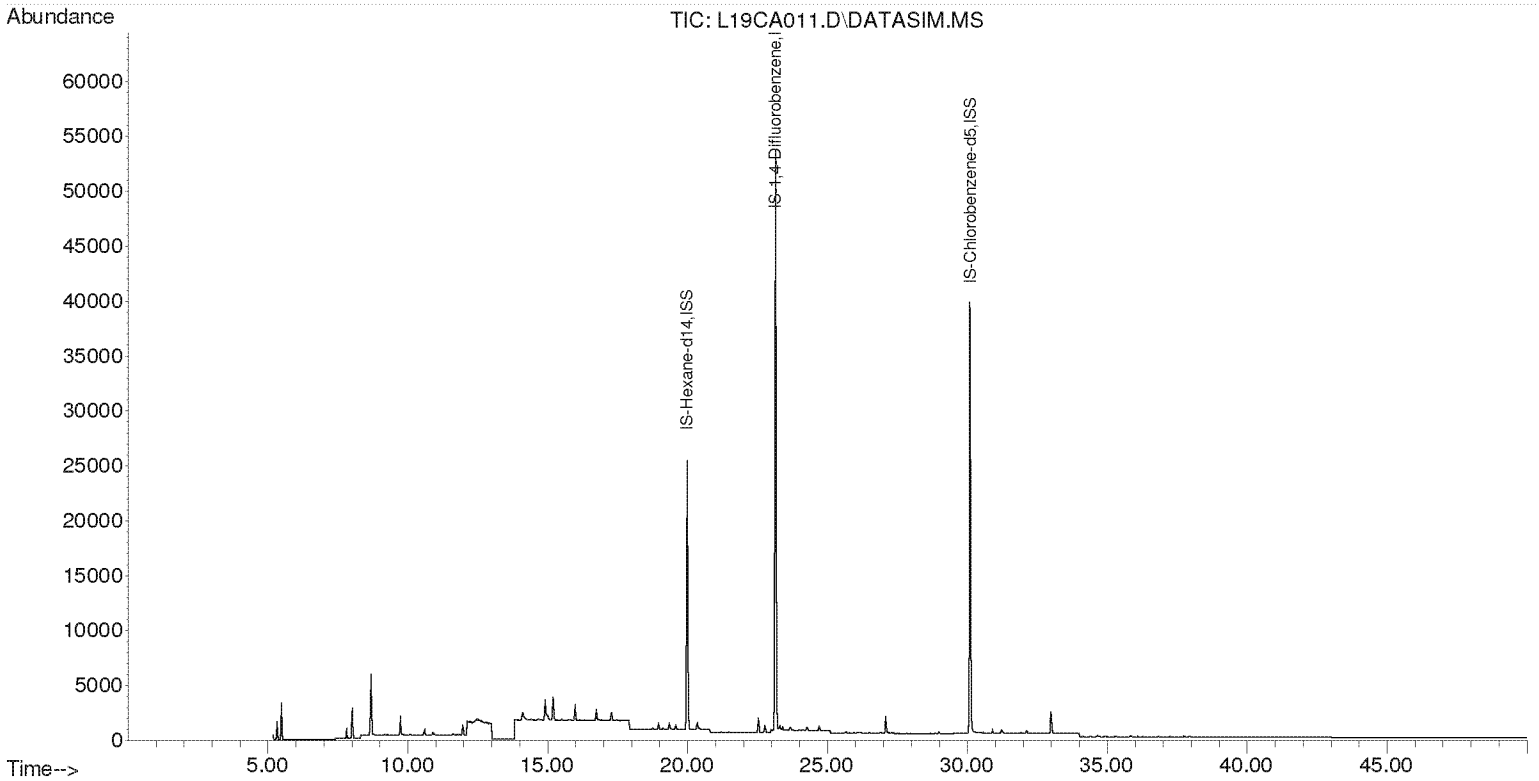
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

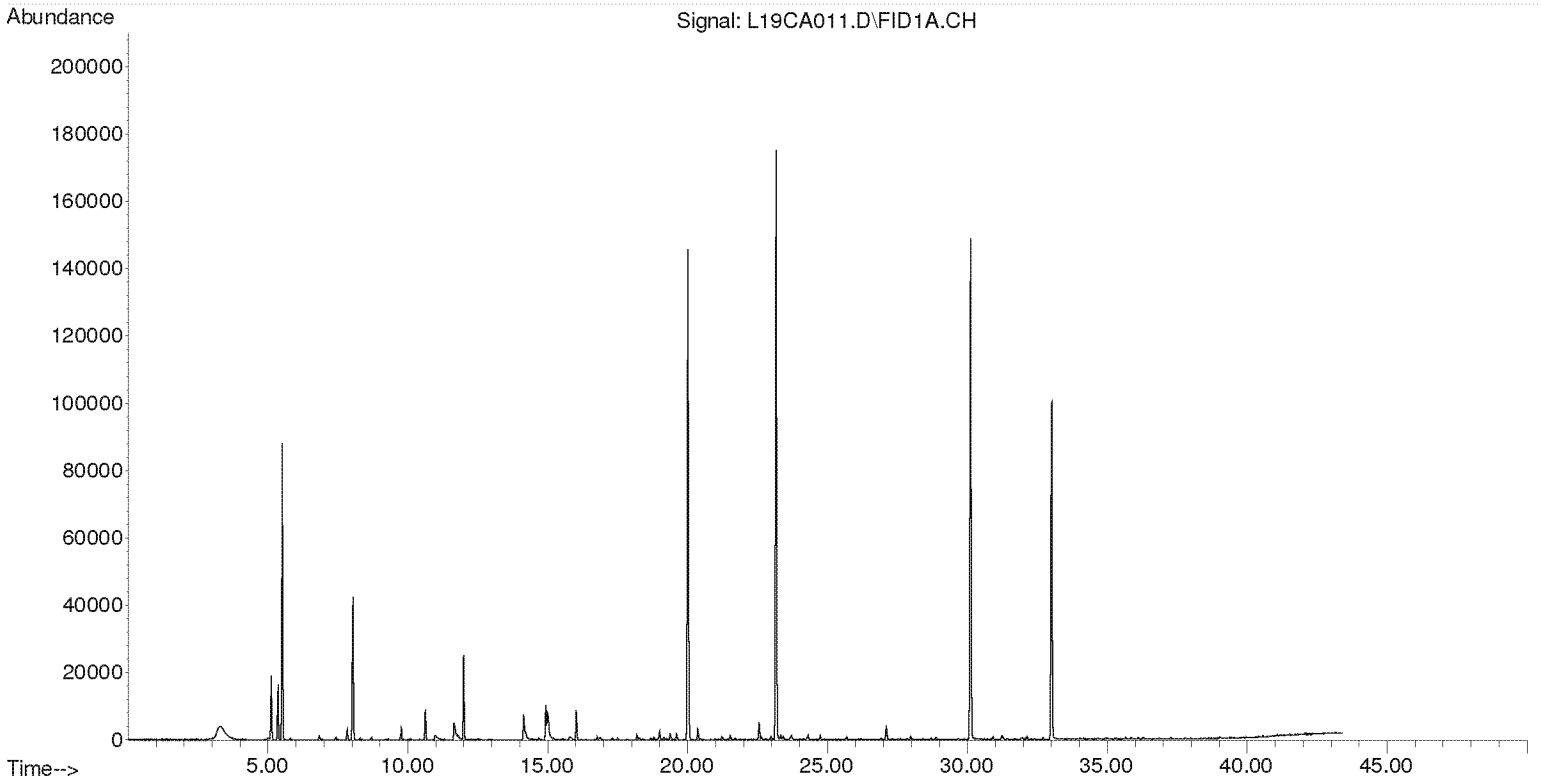
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

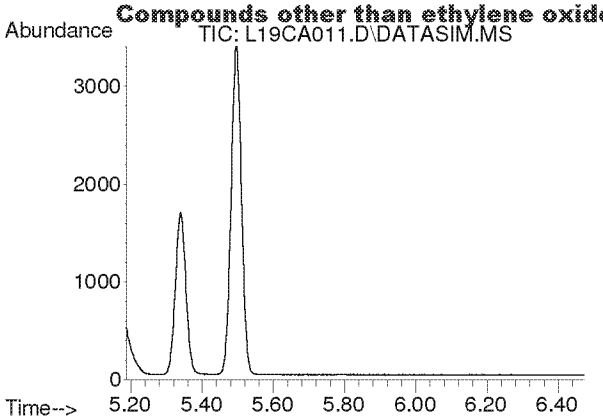
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA011.D
Acq On : 2 Mar 2019 1:34 am (#1); 02 Mar 2019 1:29 am (#2)
Operator : MAH
Sample : 9030101-05
Misc : GOWER ES 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 05 08:54:16 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





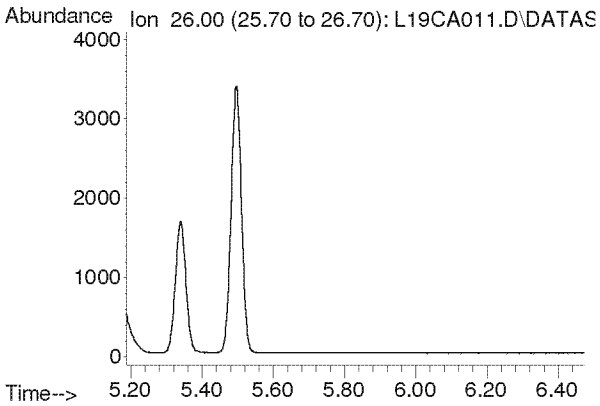
Compounds other than ethylene oxide were not quantitated.

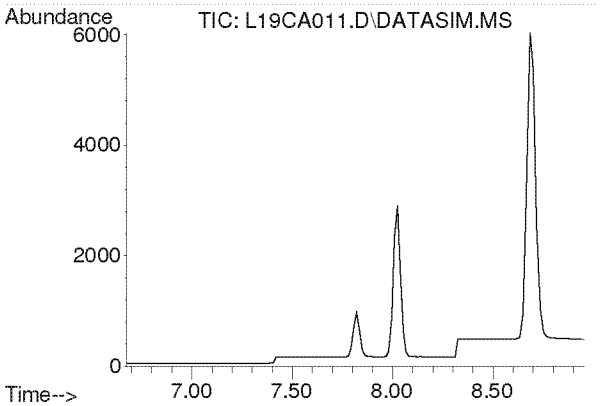


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 26



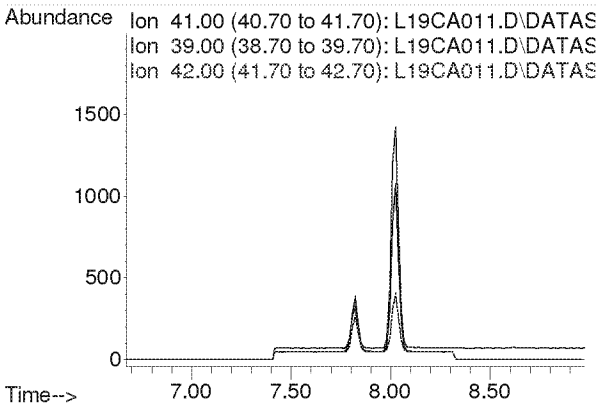


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

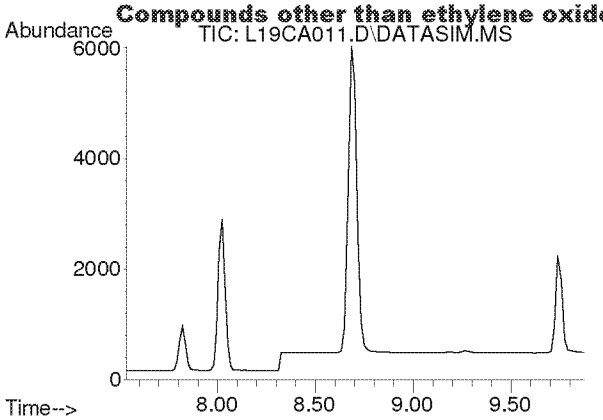
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

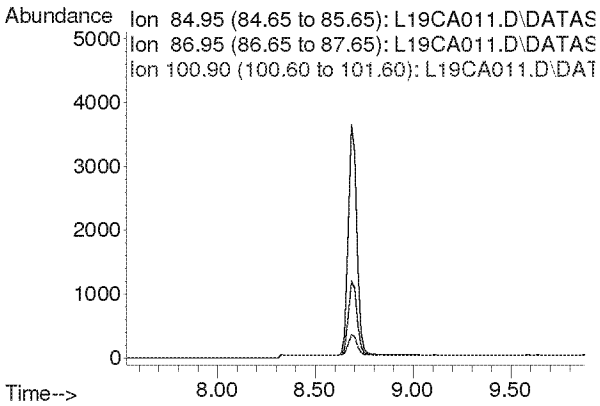


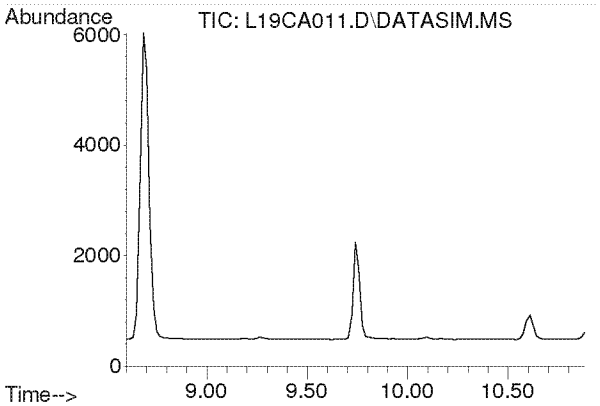
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



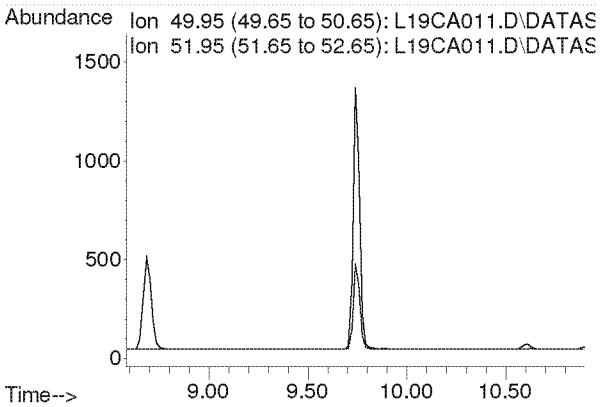


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

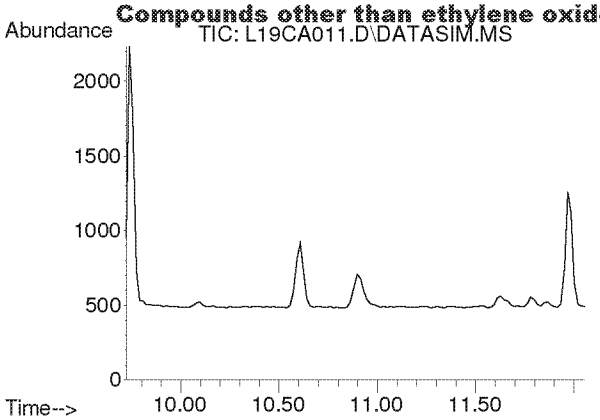
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

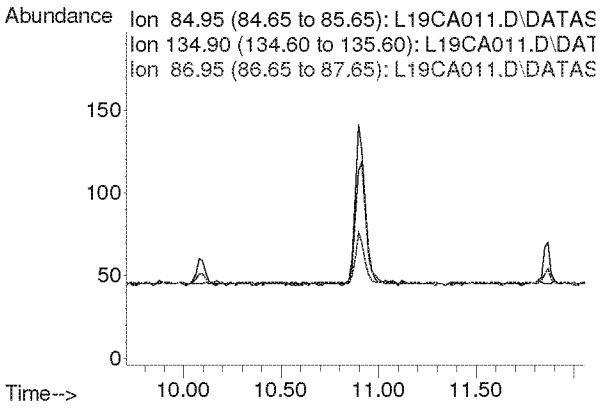


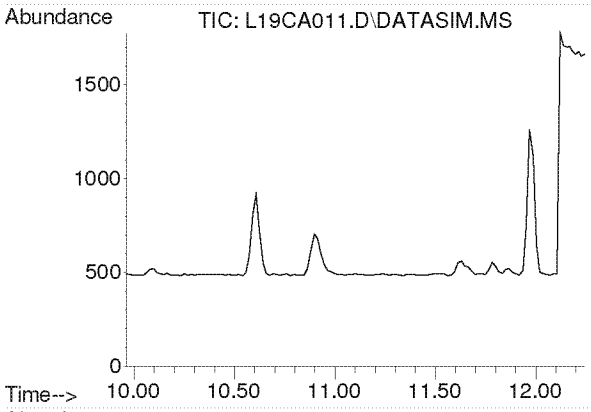
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



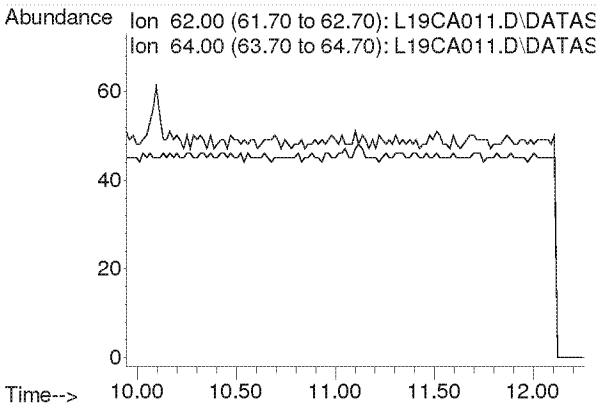


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

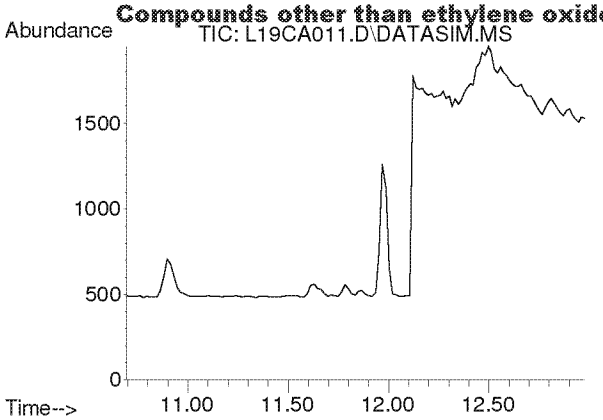
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

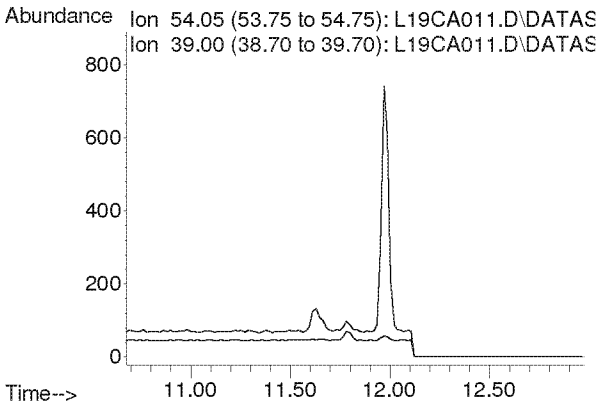


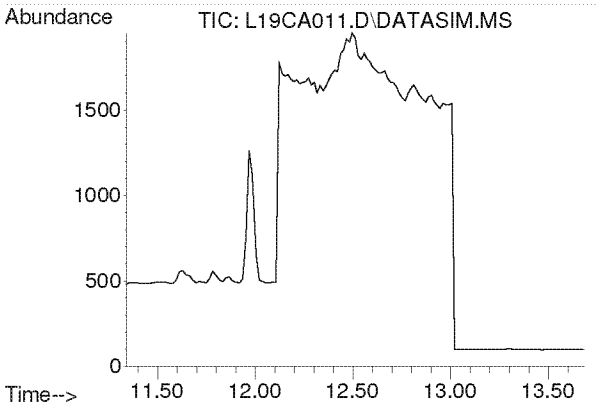
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



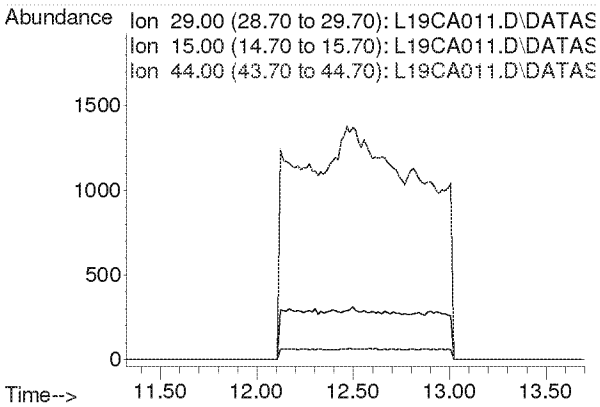


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

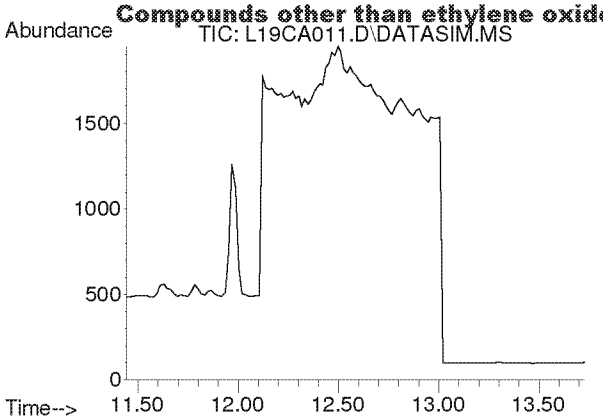
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

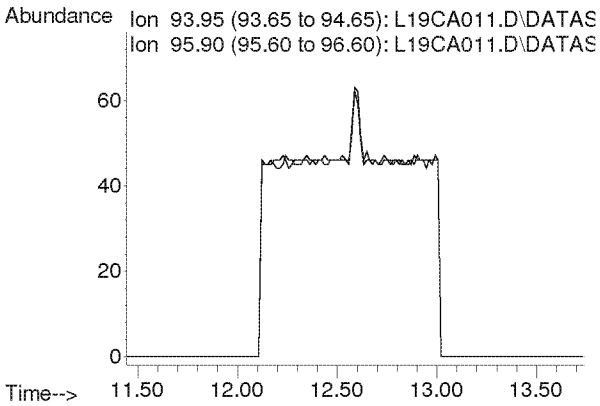


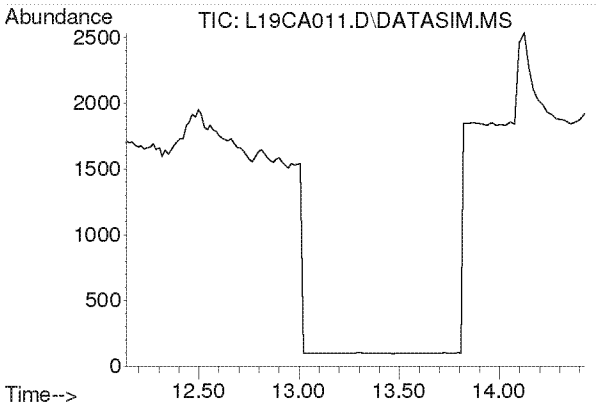
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



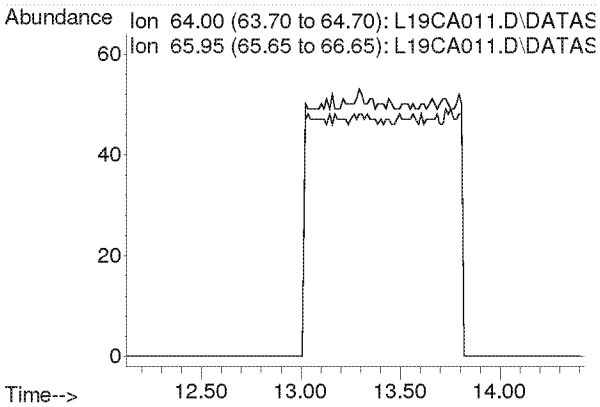


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

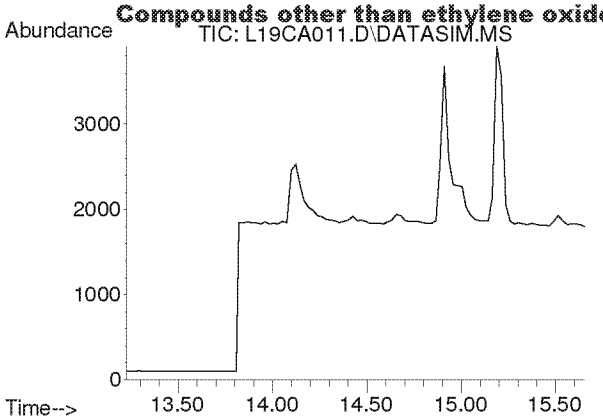
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

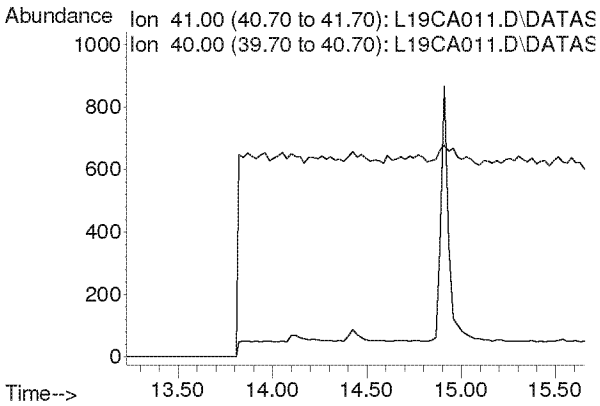


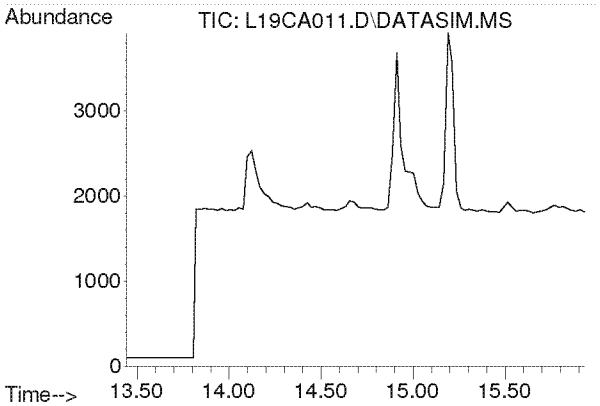
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



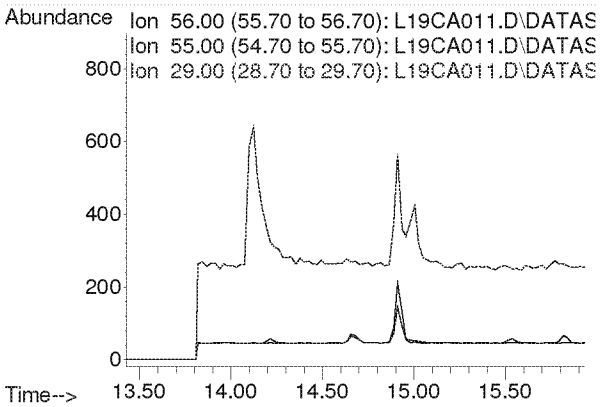


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

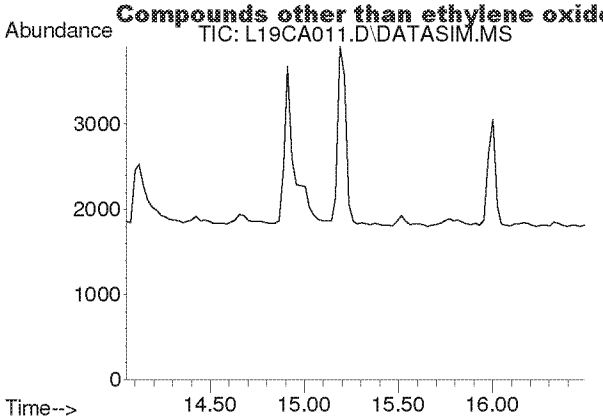
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

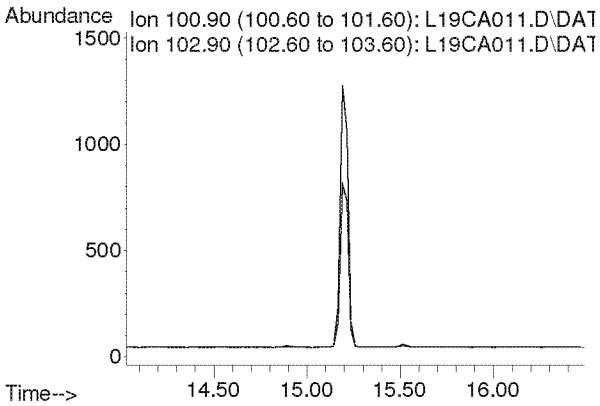


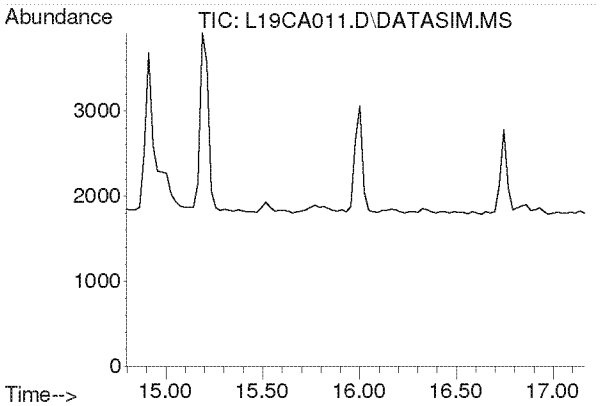
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



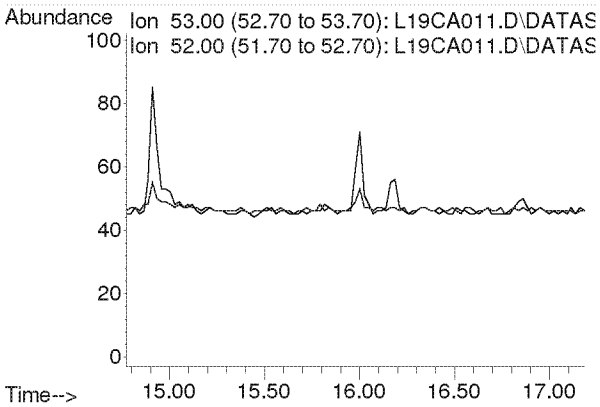


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

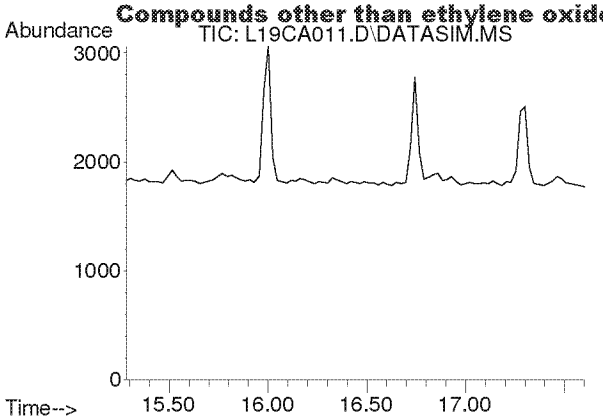
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

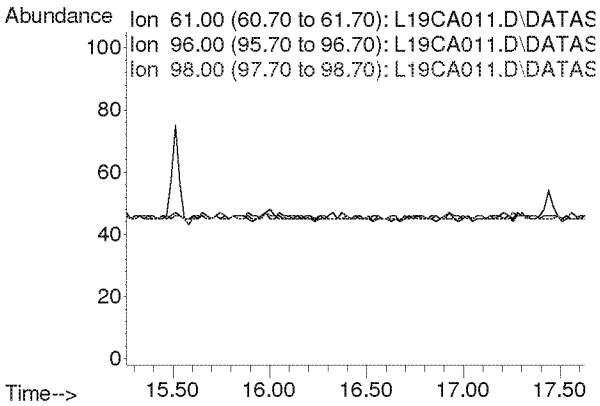


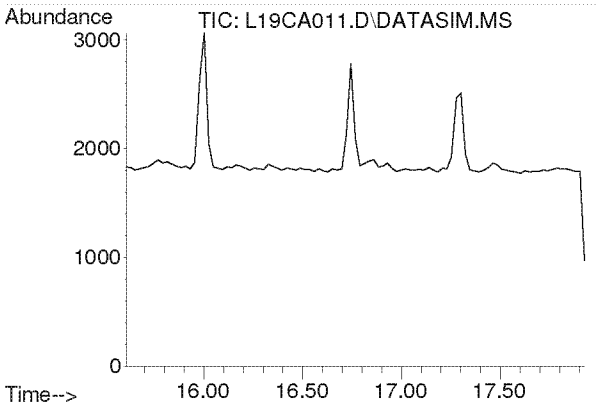
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



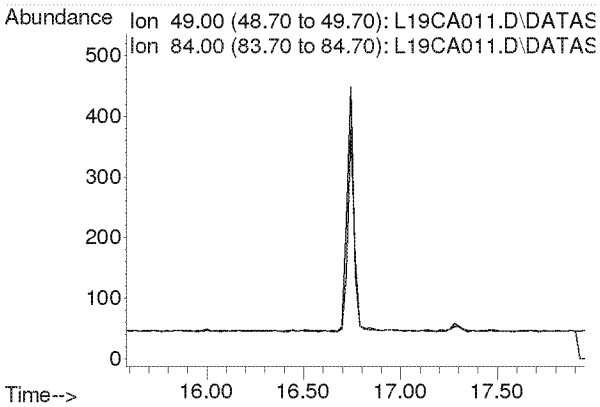


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

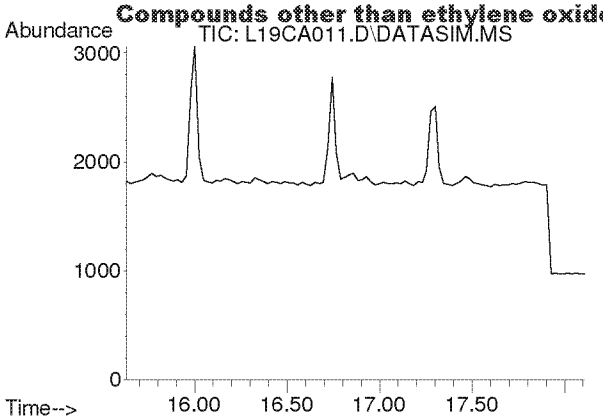
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

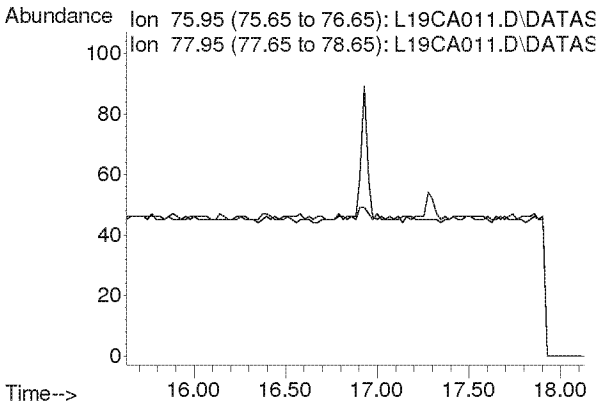


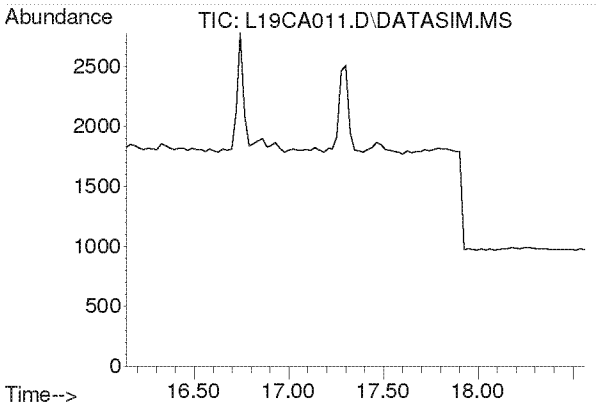
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



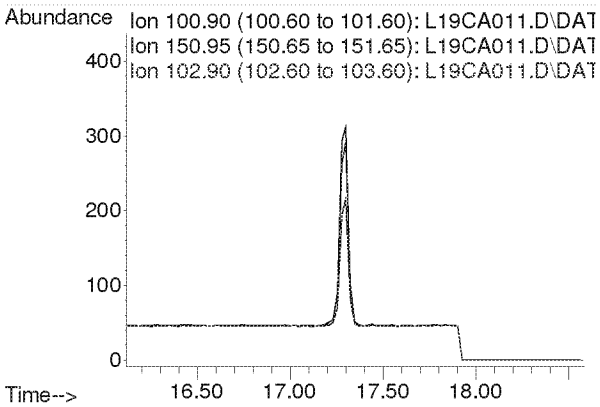


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

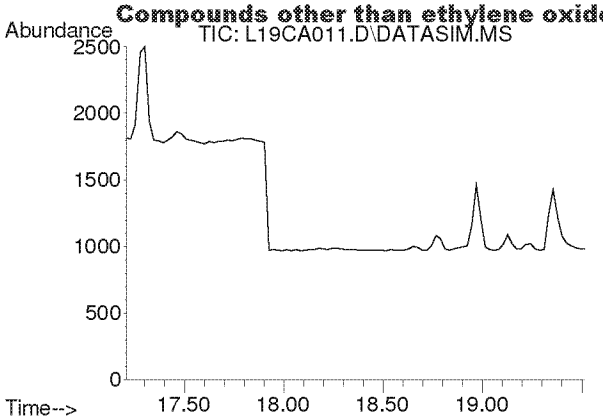
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

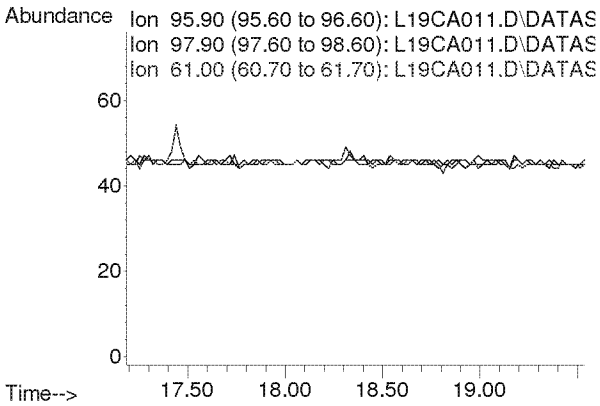


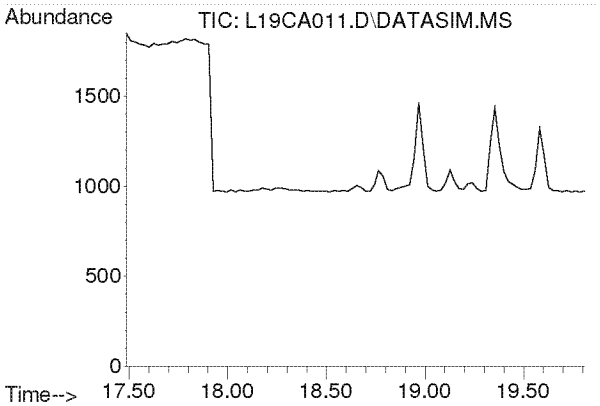
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



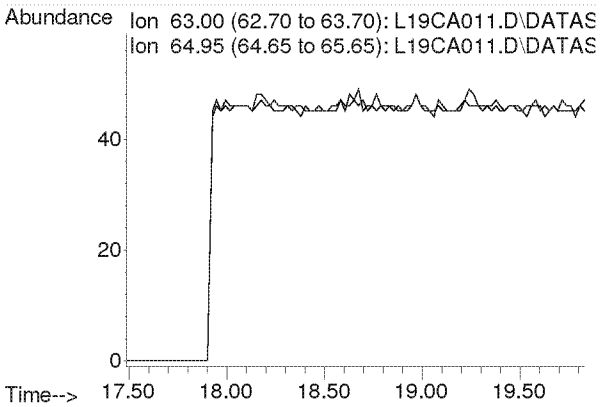


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

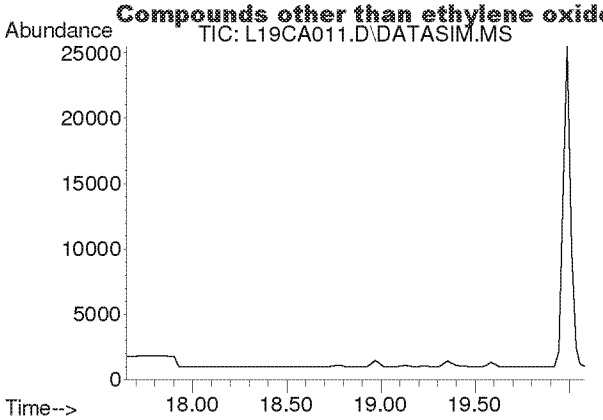
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

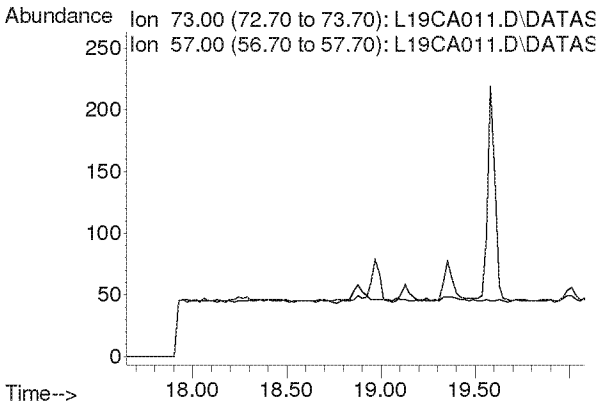


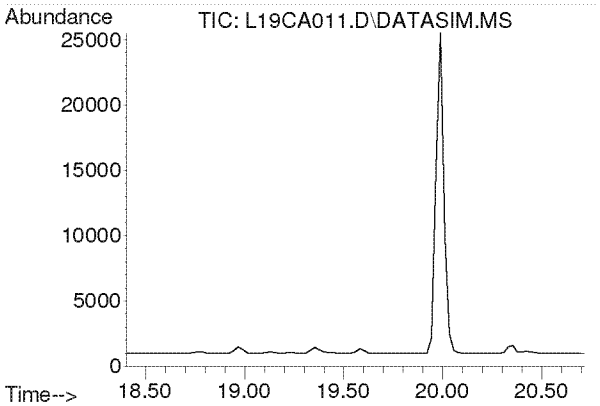
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



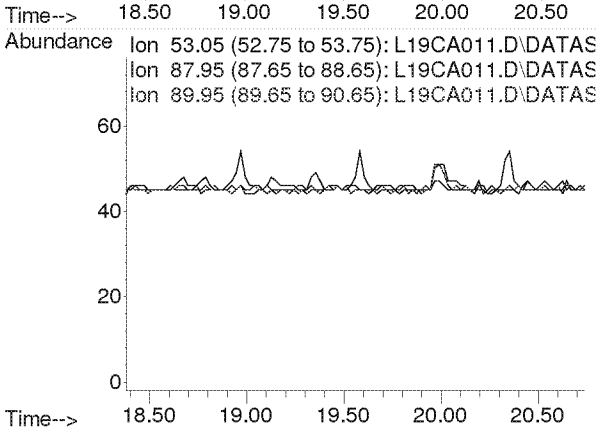


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

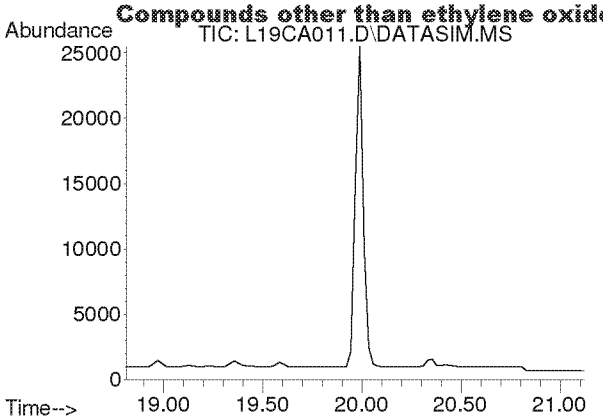
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

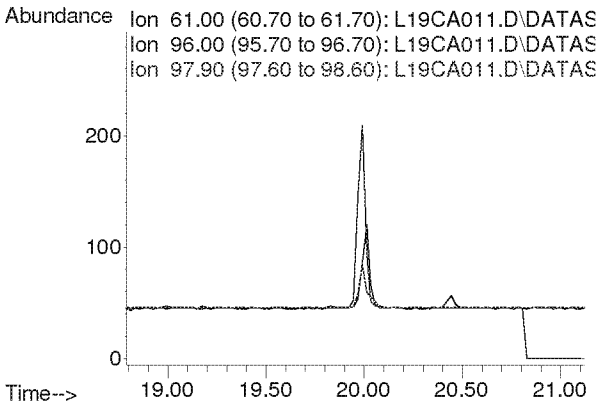


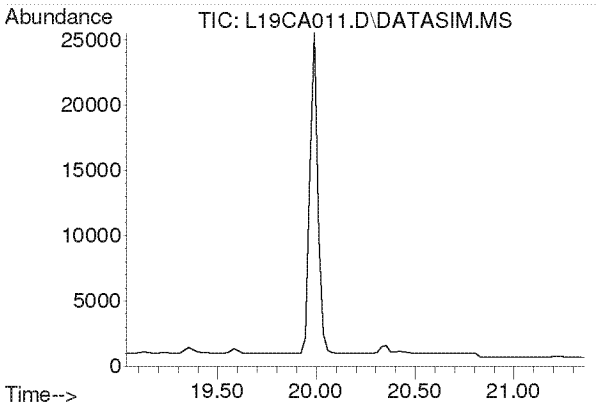
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



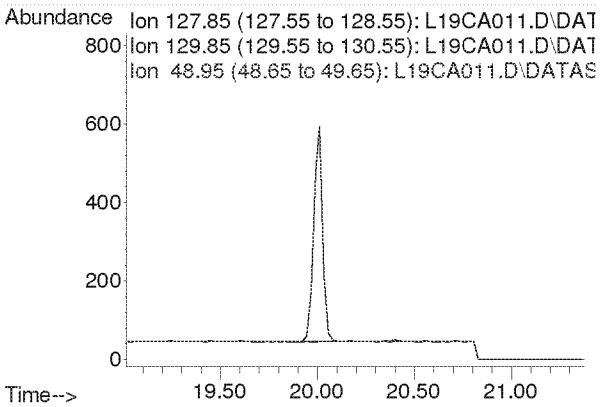


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

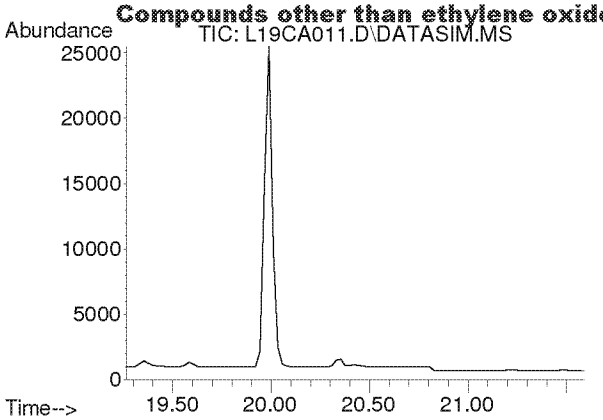
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

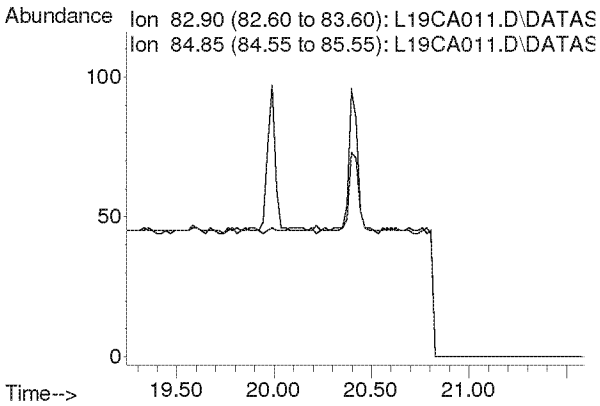


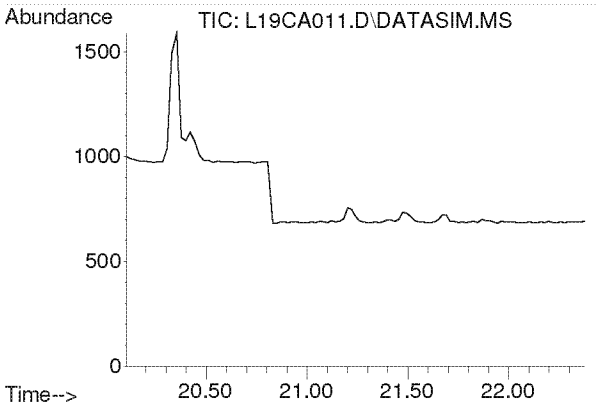
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



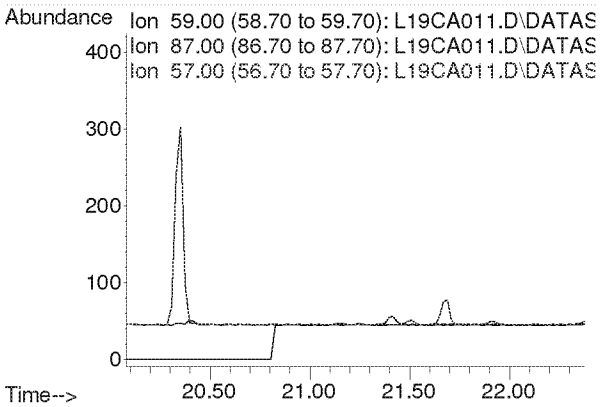


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

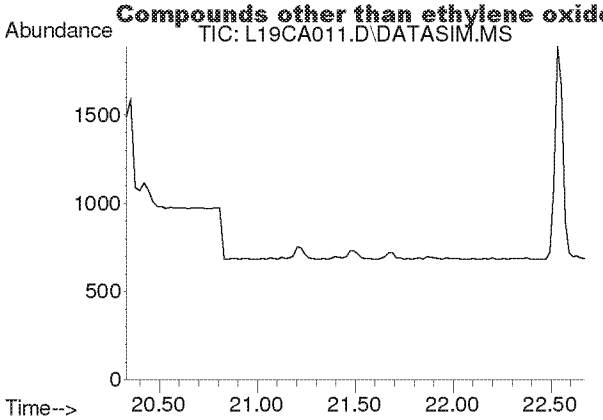
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

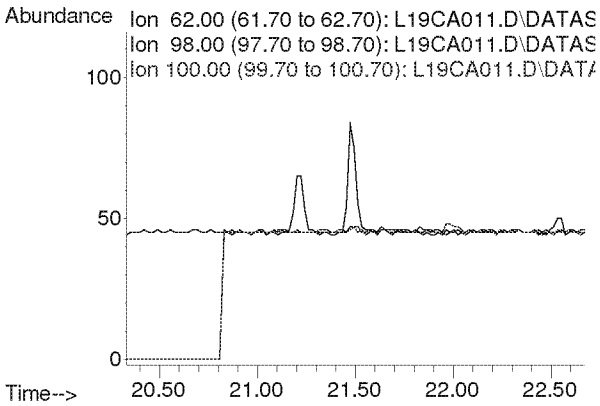


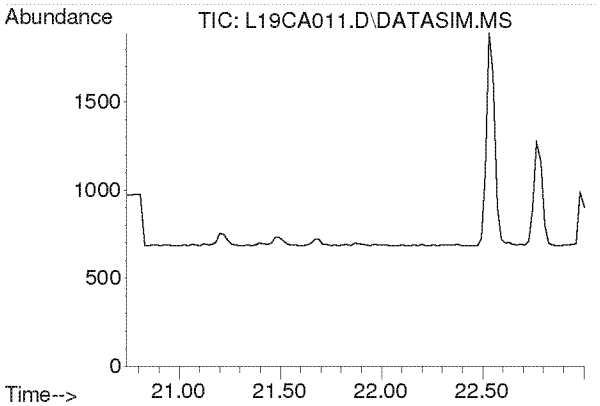
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



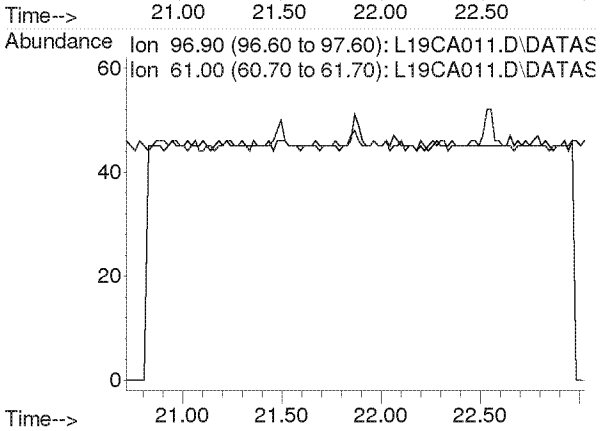


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

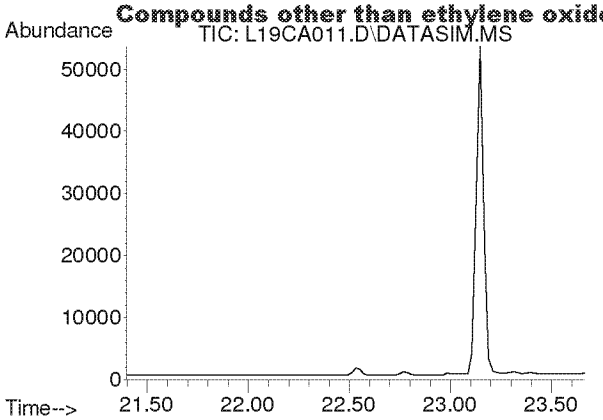
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

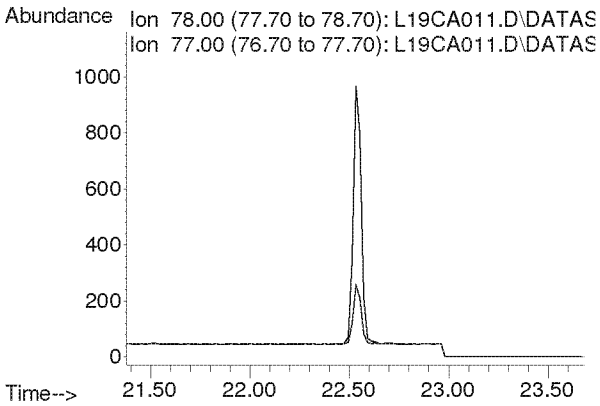


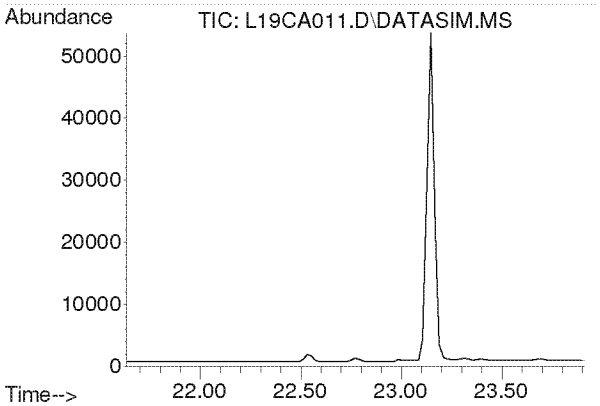
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



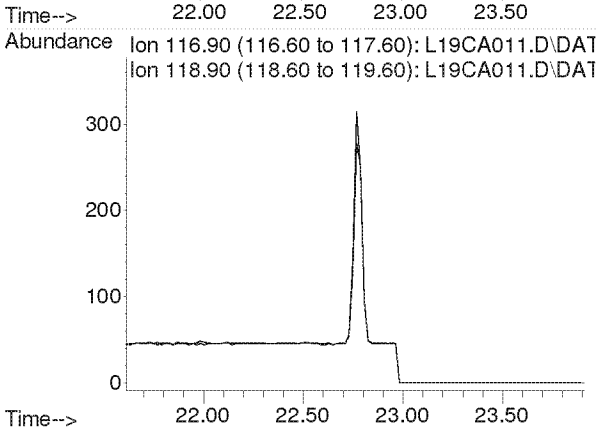


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

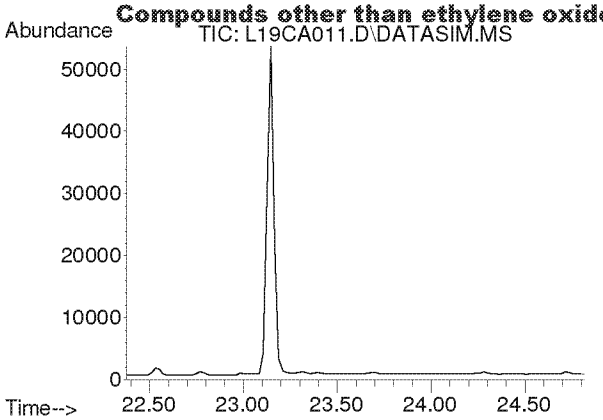
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

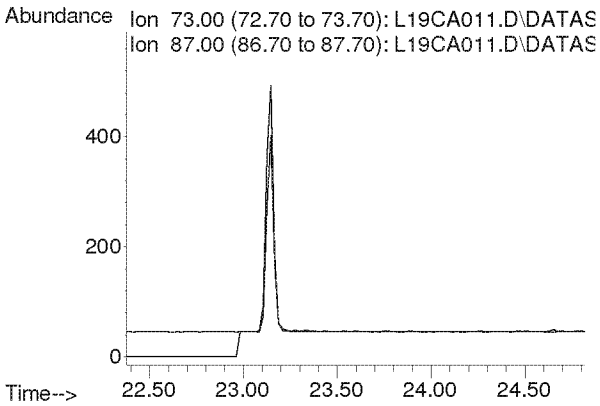


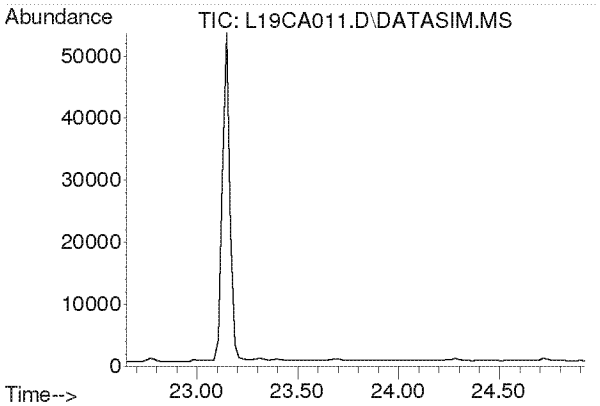
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



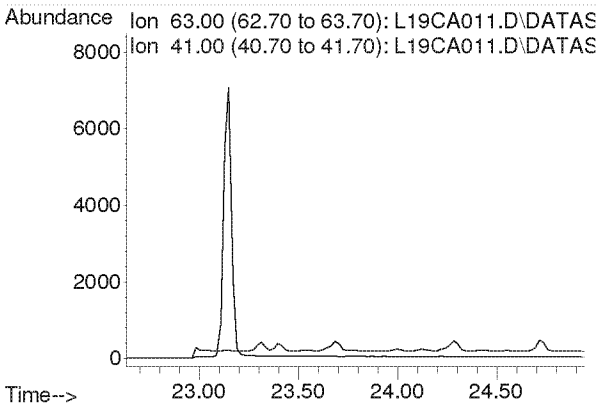


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

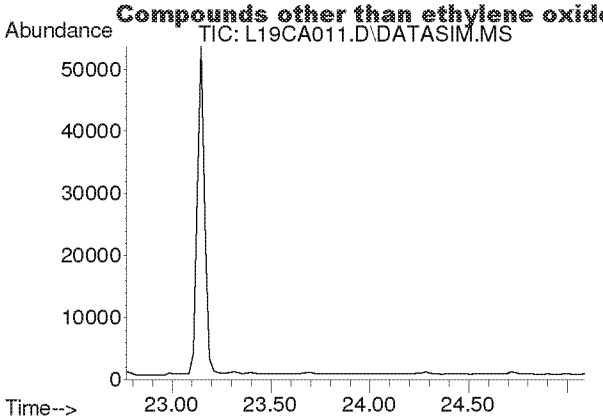
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

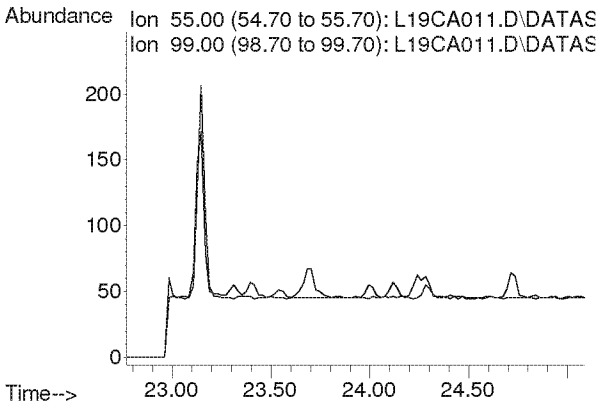


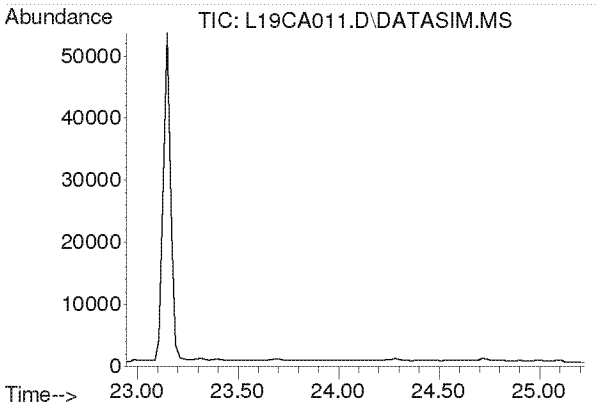
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



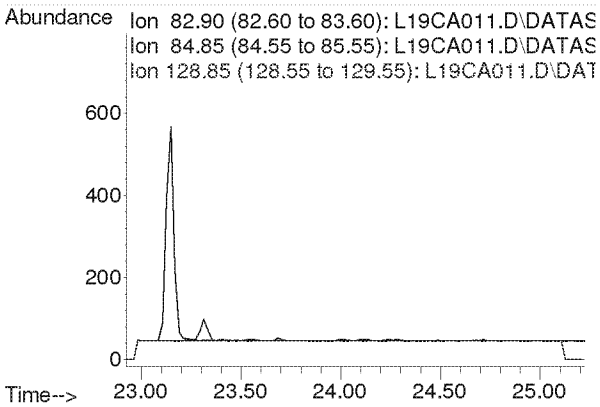


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

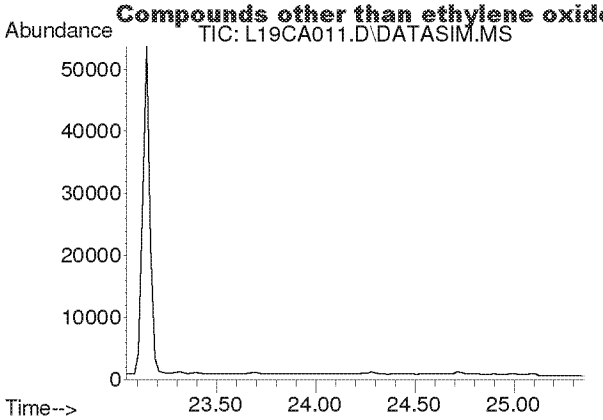
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

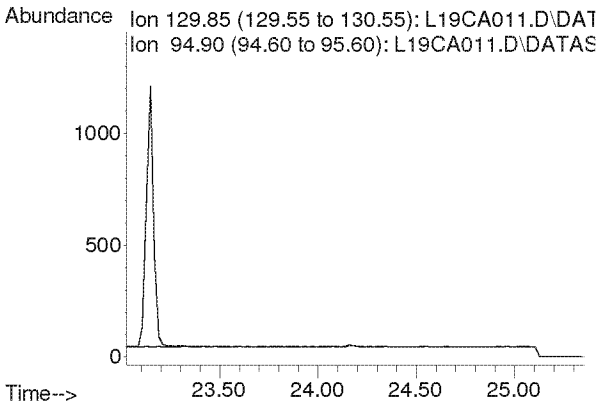


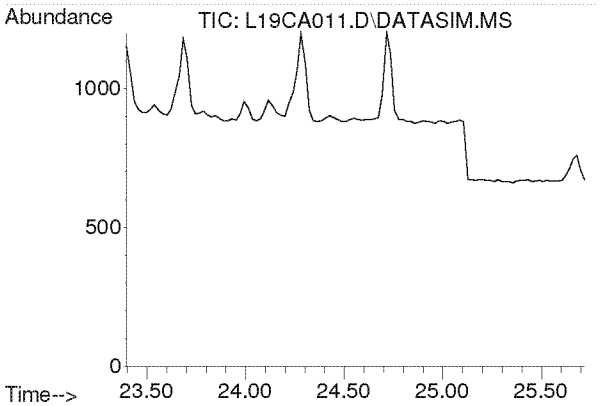
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



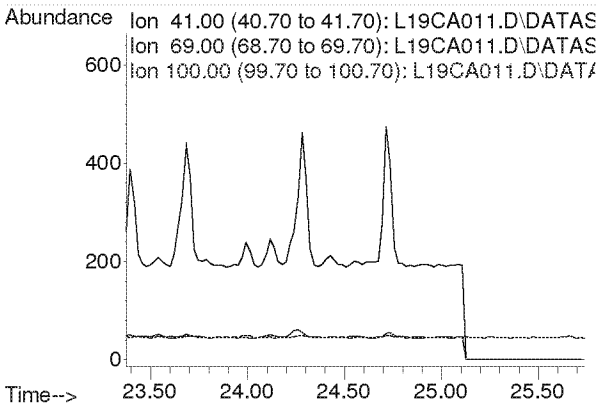


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

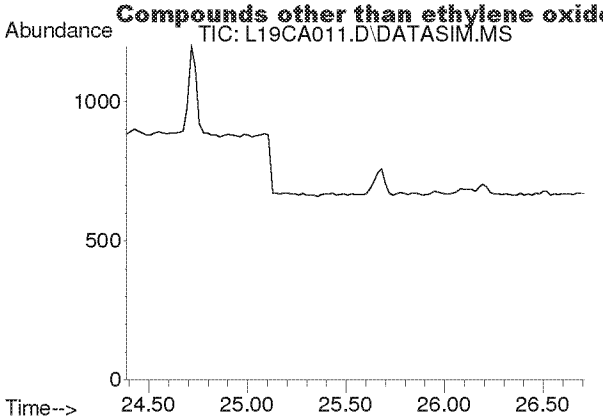
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

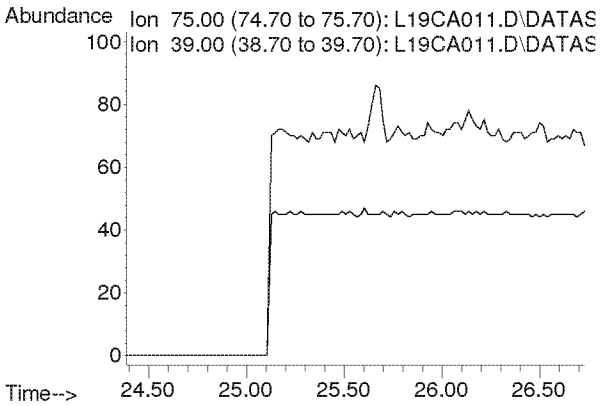


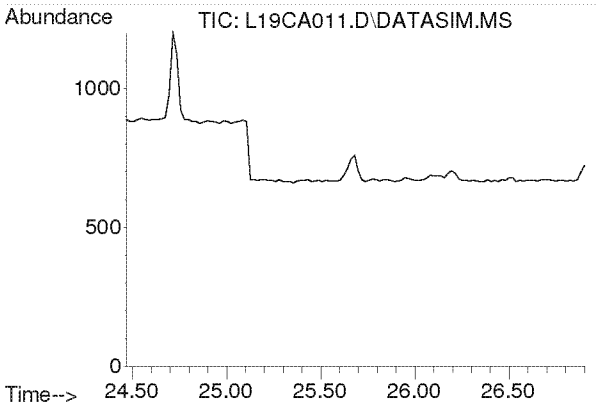
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



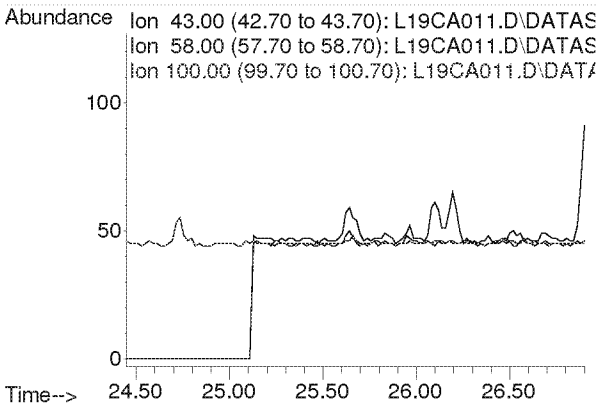


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

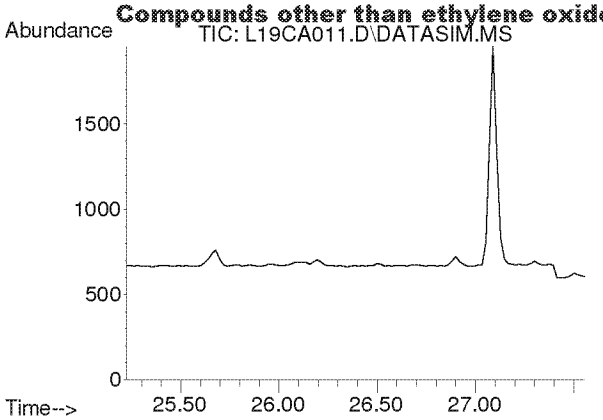
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

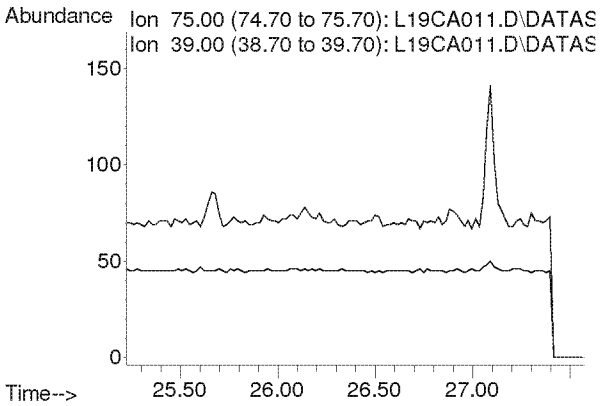


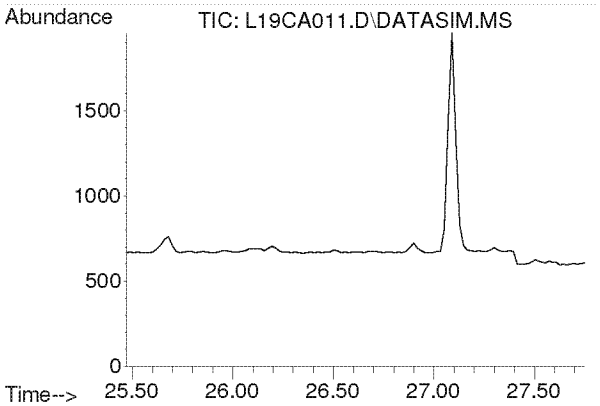
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



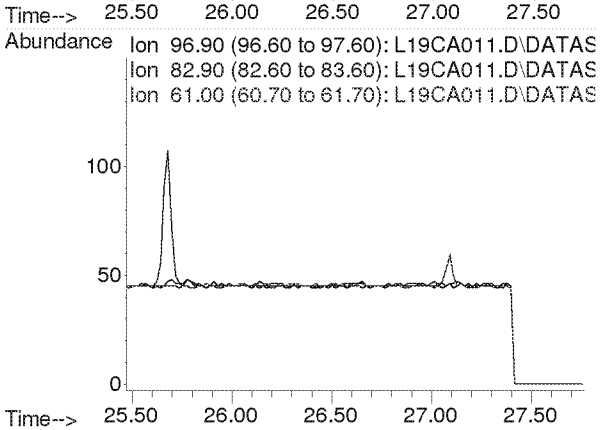


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

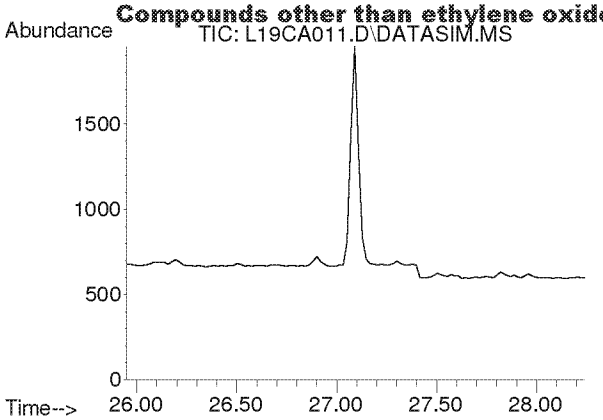
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

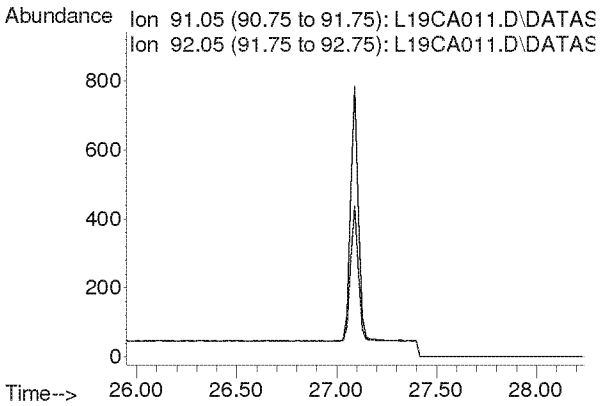


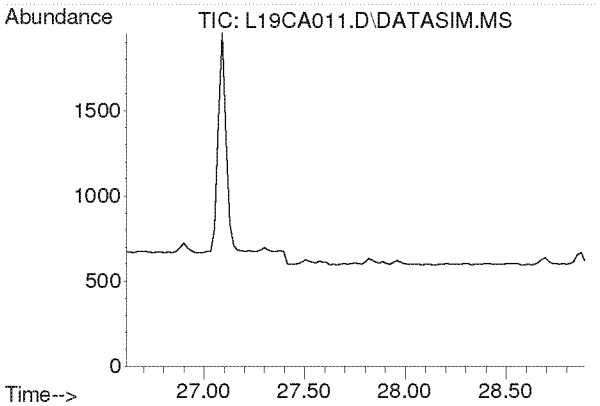
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



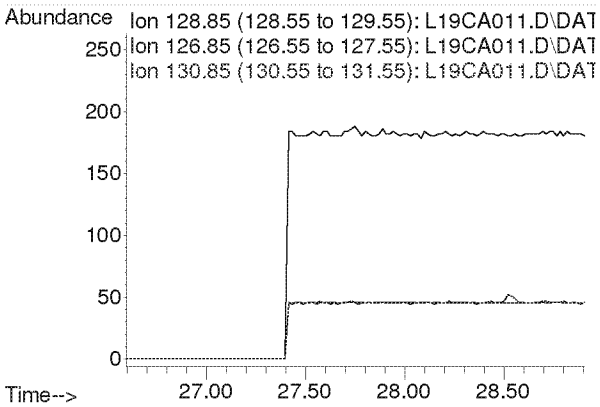


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

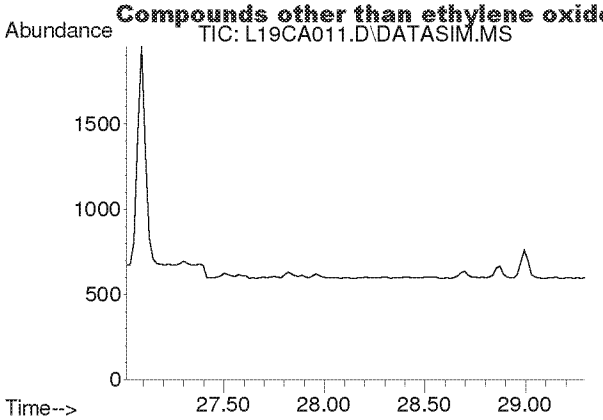
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

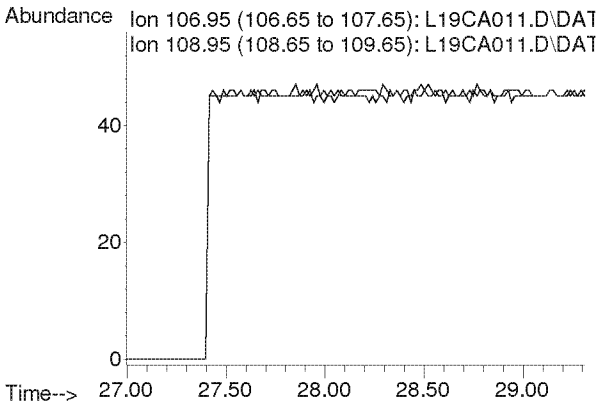


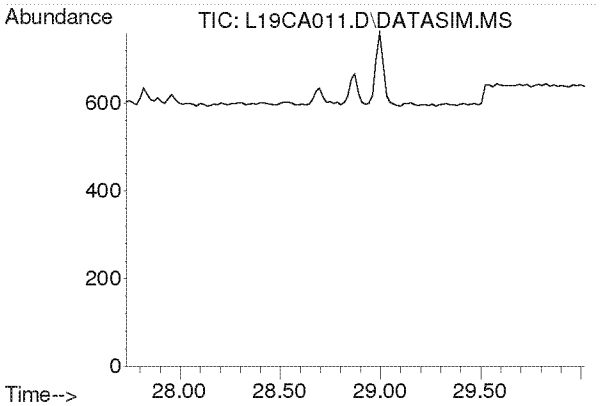
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



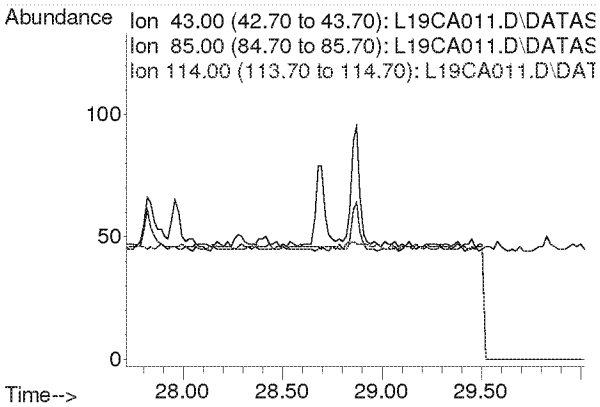


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

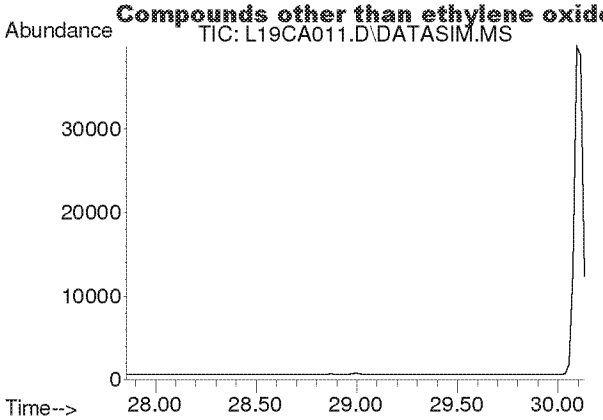
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

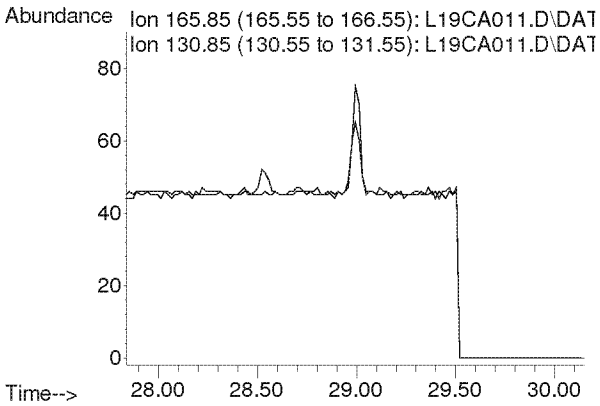


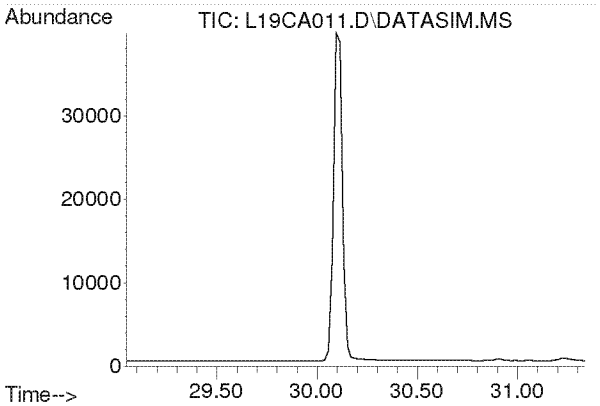
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



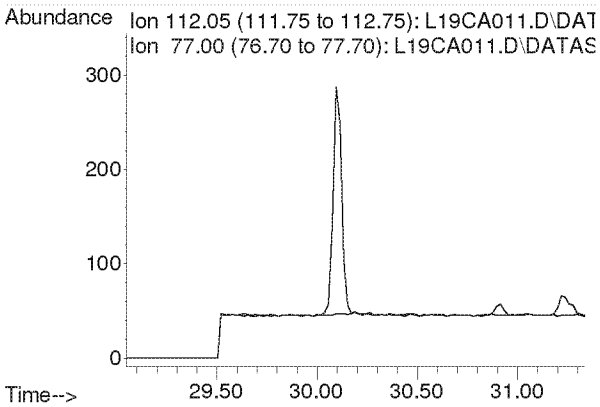


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

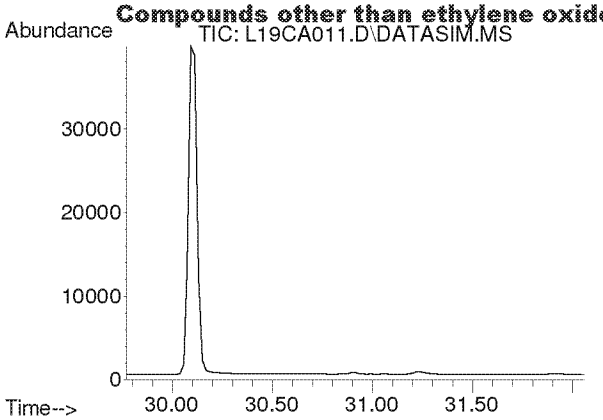
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

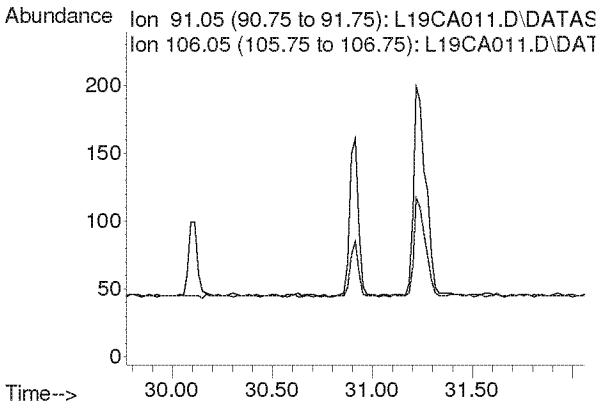


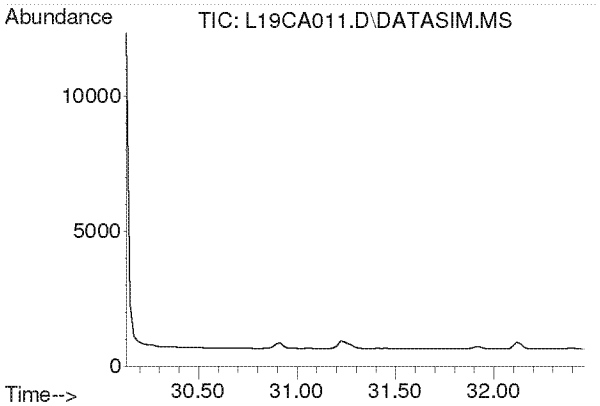
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



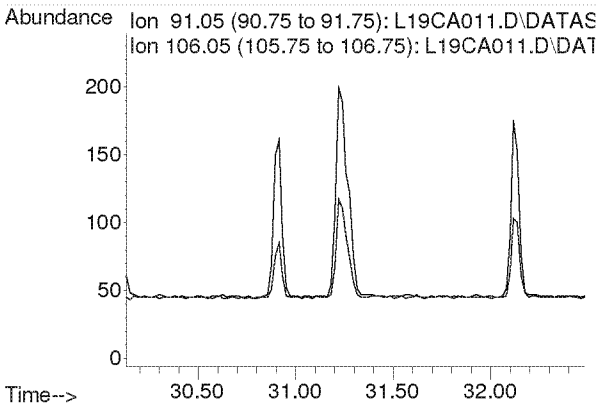


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

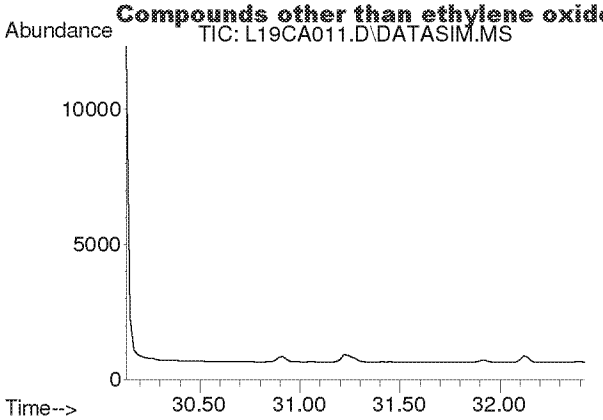
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

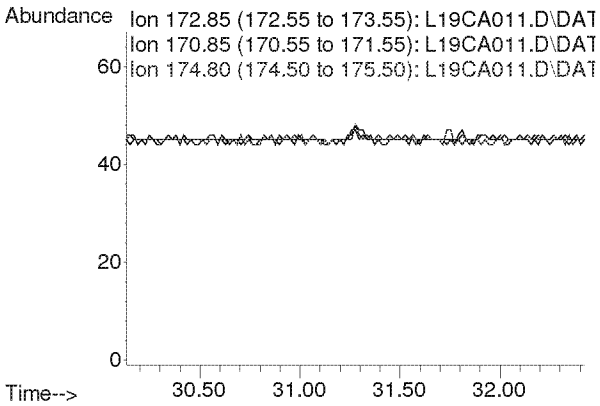


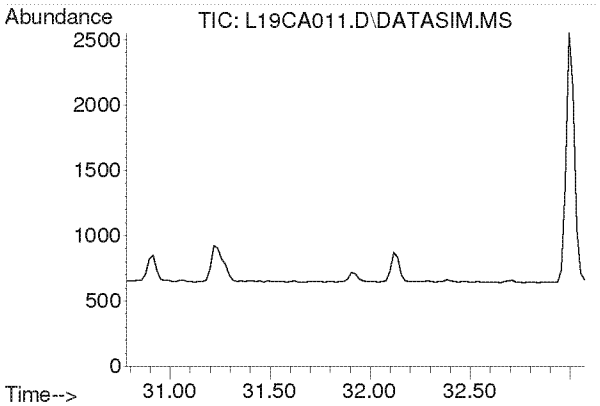
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



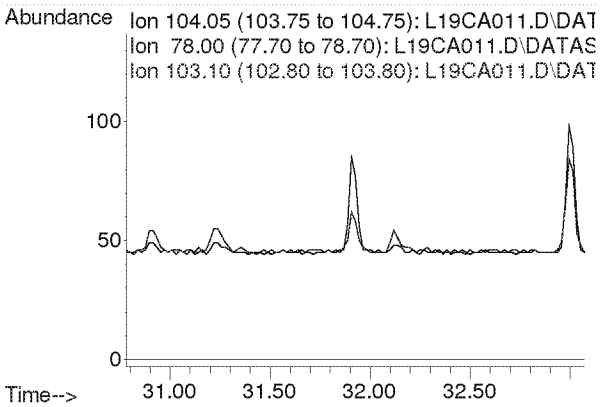


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

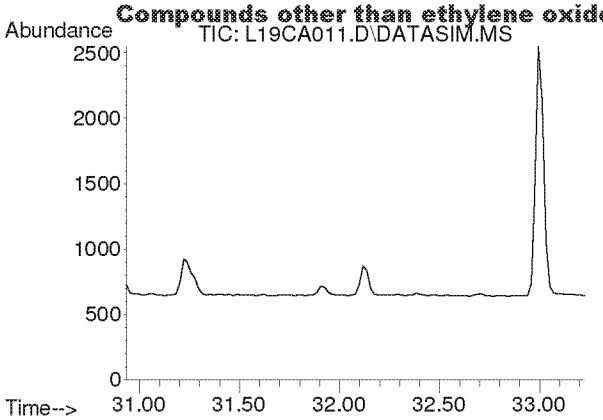
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

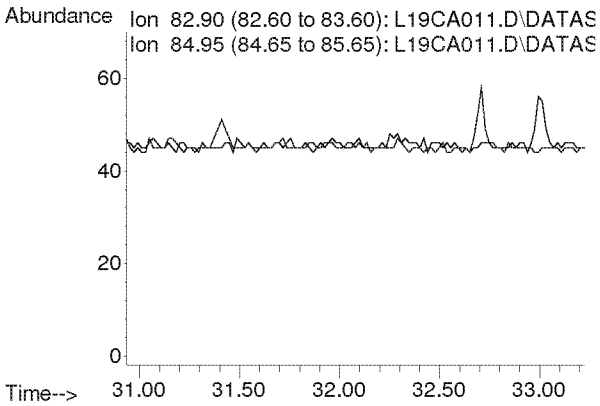


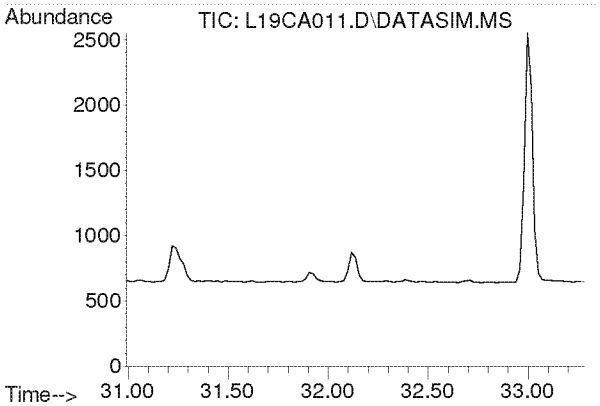
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



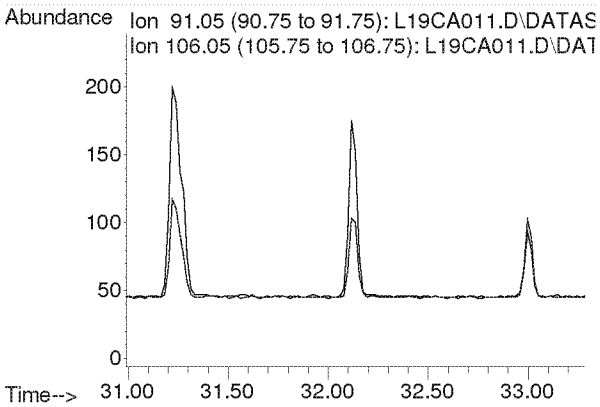


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

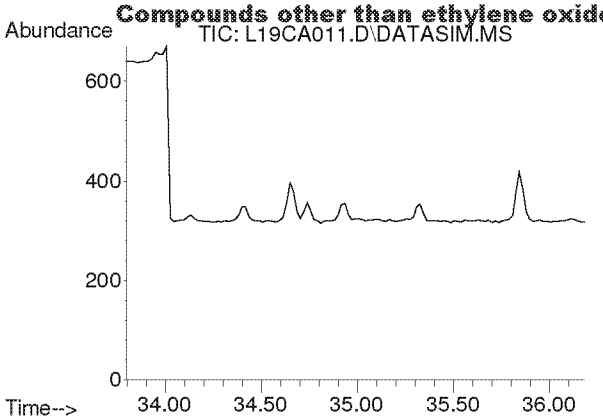
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

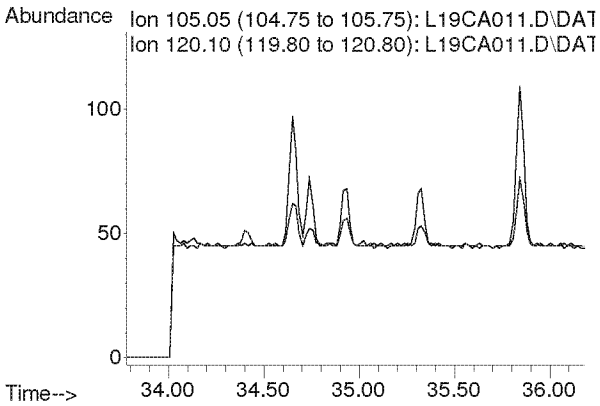


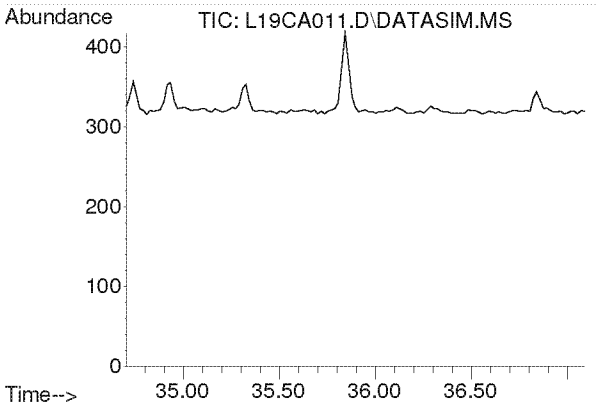
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



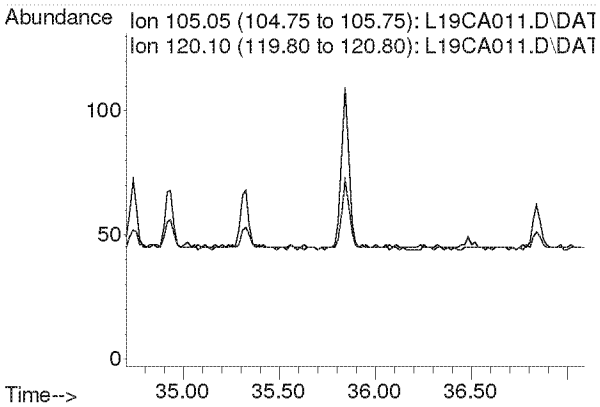


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

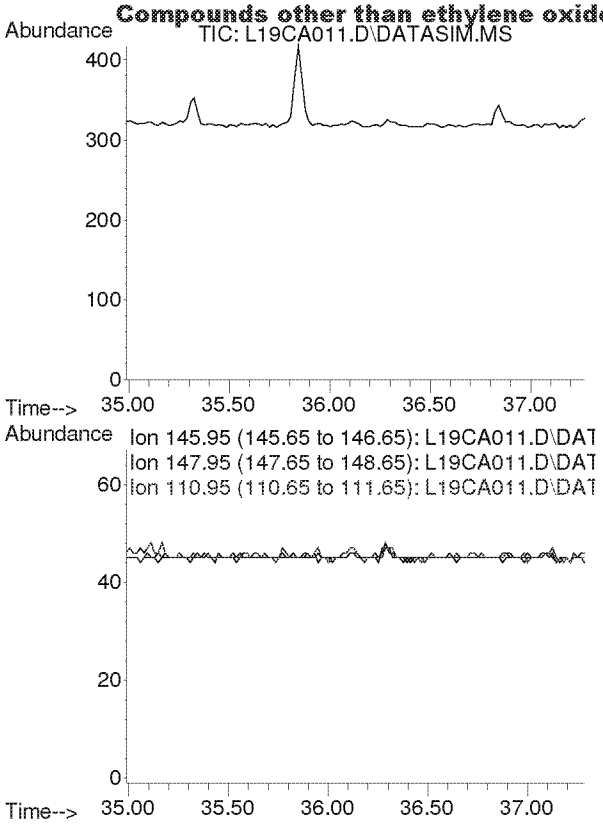
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

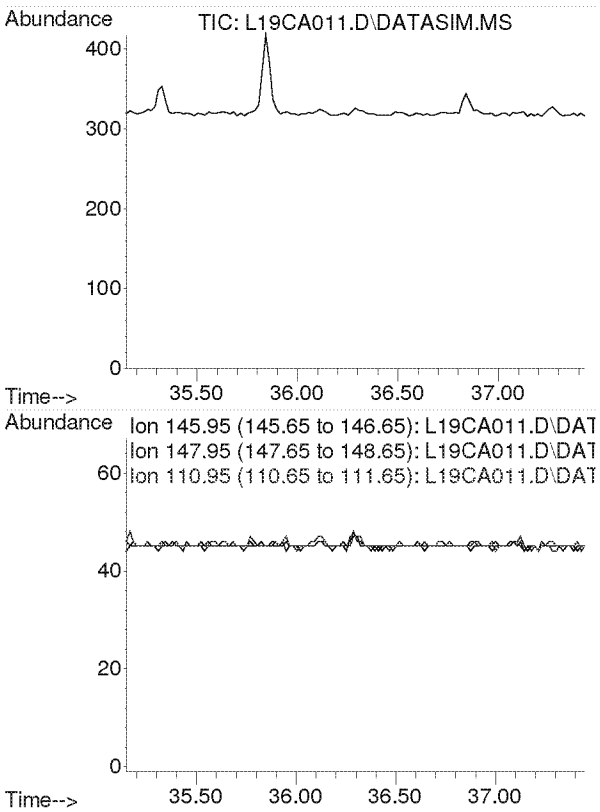


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



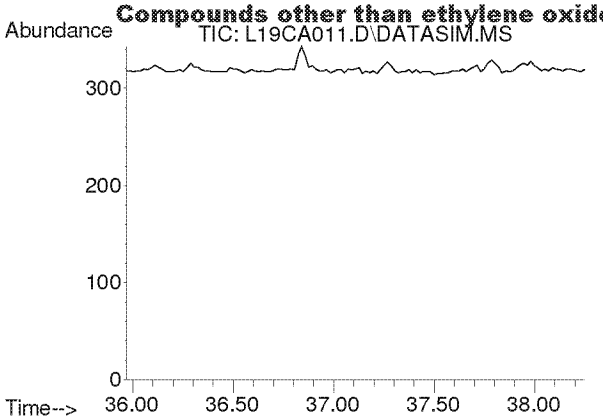
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

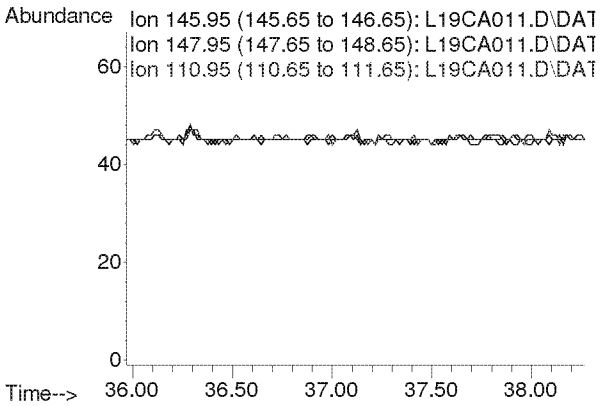


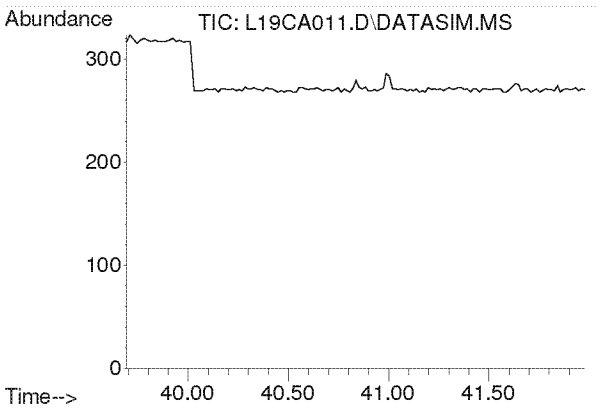
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



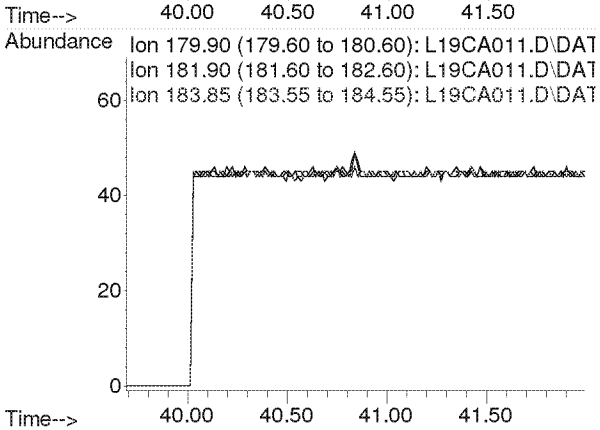


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

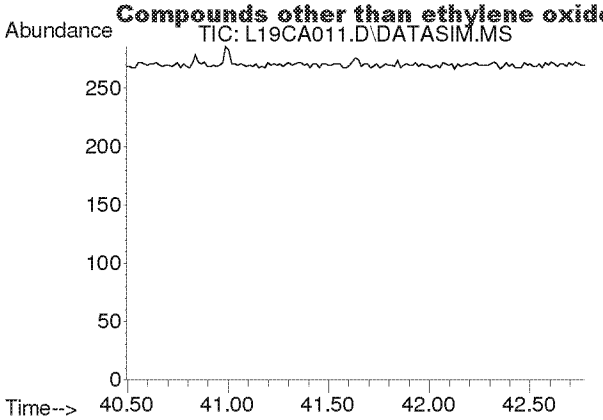
Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

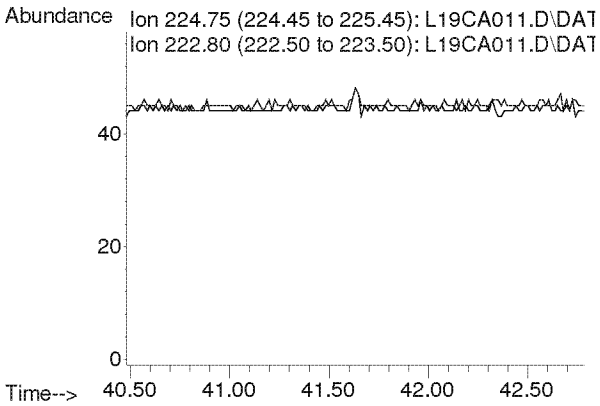


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19CA011.D
Acq: 2 Mar 2019 1:34 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\L19CA\
Data File : L19CA012.D
Acq On : 2 Mar 2019 2:34 am (#1); 02-Mar-19, 02:29:28 (#2)
Operator : MAH
Sample : 9030101-06
Misc : GOWER MS 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 05 09:07:04 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

E TOT only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	44176	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	112348	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	76336	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. 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.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA012.D
Acq On : 2 Mar 2019 2:34 am (#1); 02-Mar-19, 02:29:28 (#2)
Operator : MAH
Sample : 9030101-06
Misc : GOWER MS 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 05 09:07:04 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
Quant 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.	

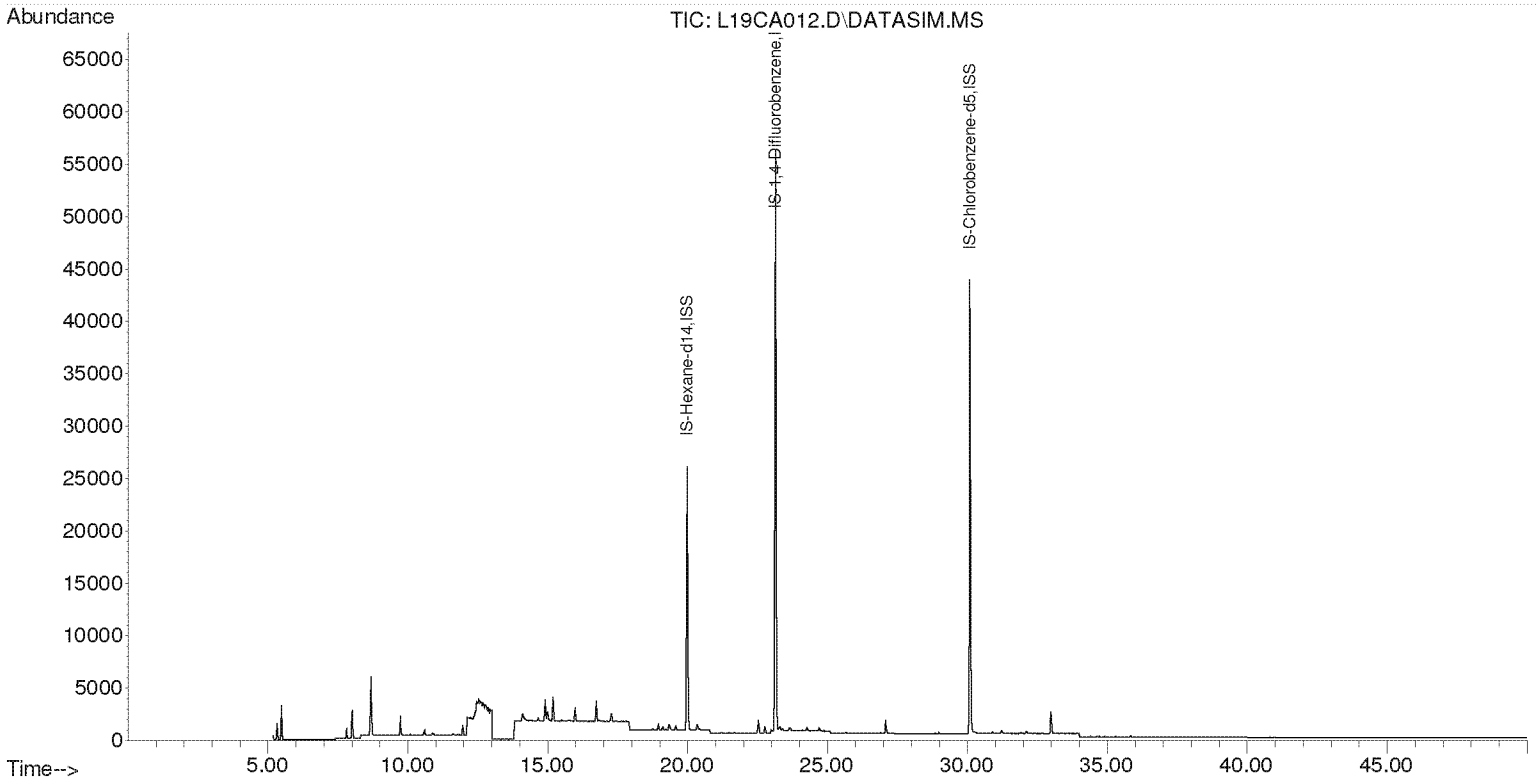
(#) = qualifier out of range (m) = manual integration (+) = signals summed

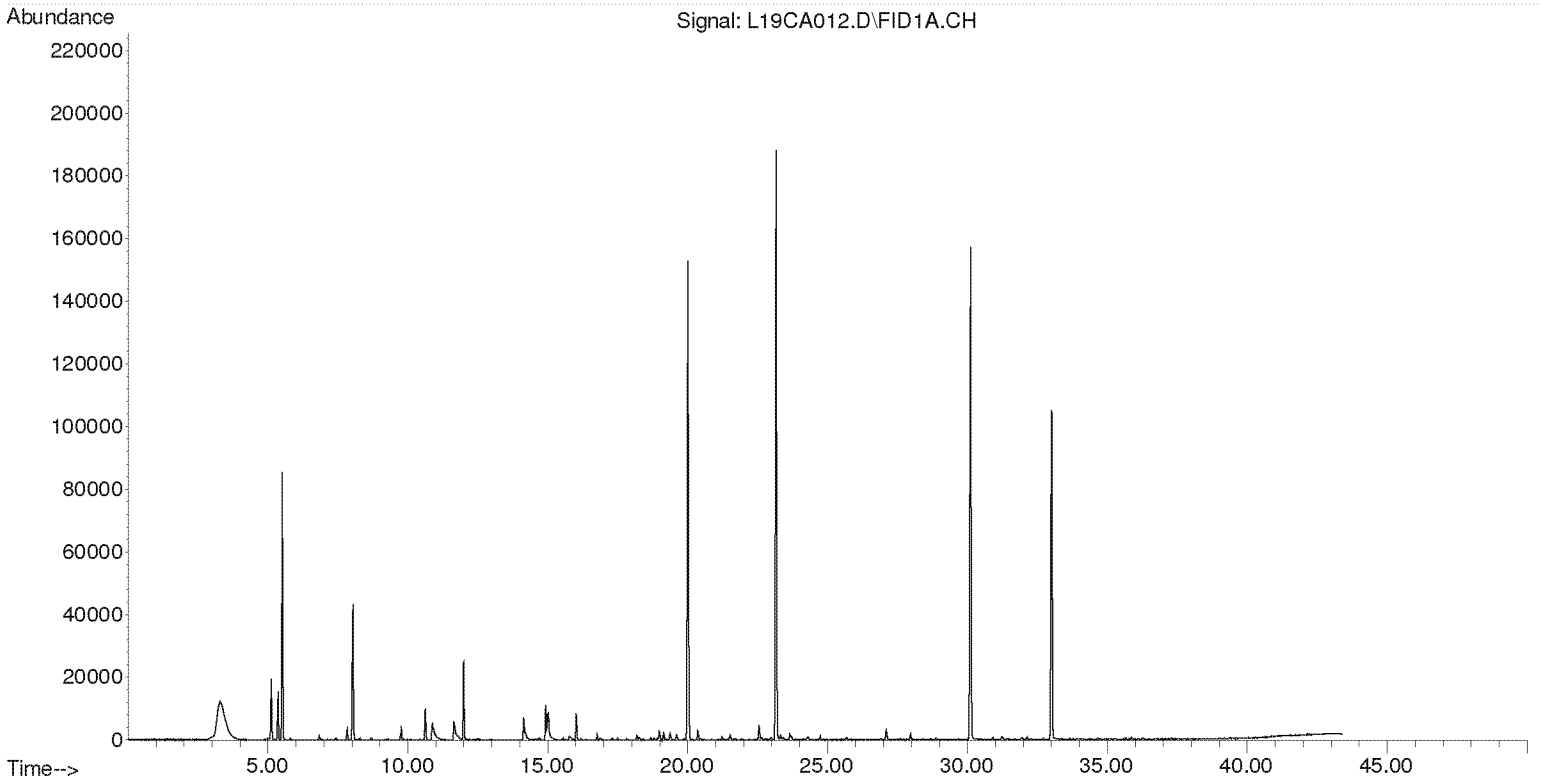
ED_002475_00000345-00316

Compounds other than ethylene oxide were not quantitated.

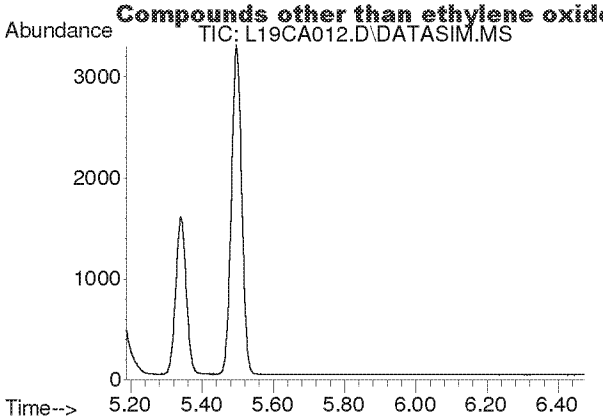
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA012.D
Acq On : 2 Mar 2019 2:34 am (#1); 02 Mar 2019 2:29 am (#2)
Operator : MAH
Sample : 9030101-06
Misc : GOWER MS 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 05 08:54:23 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





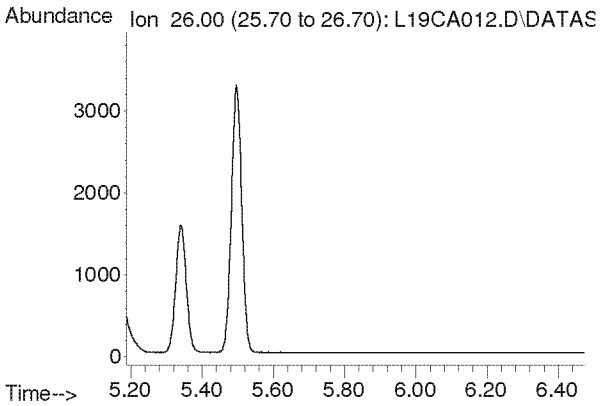
Compounds other than ethylene oxide were not quantitated.

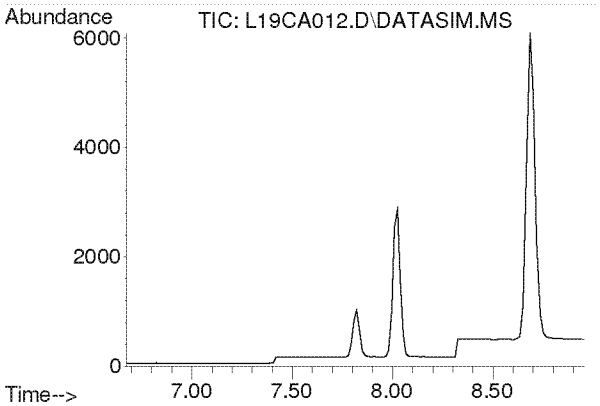


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 26



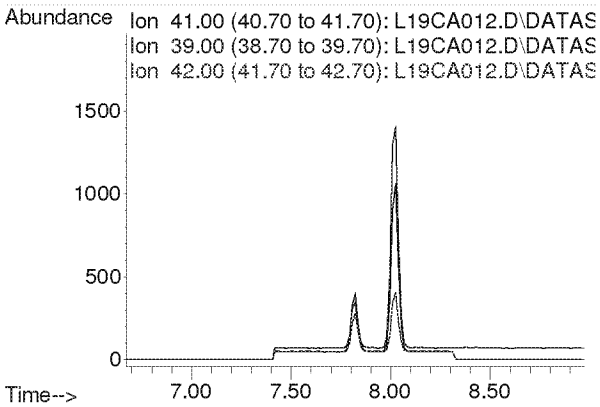


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

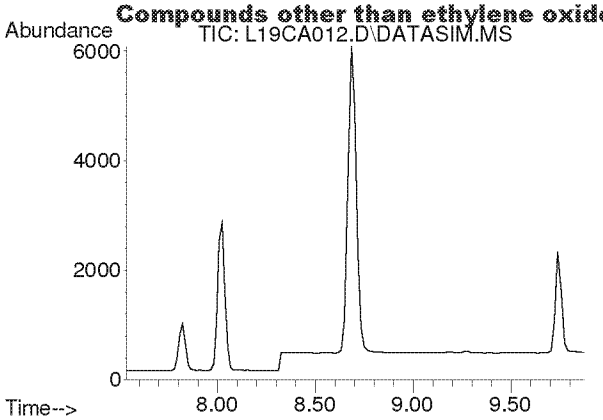
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

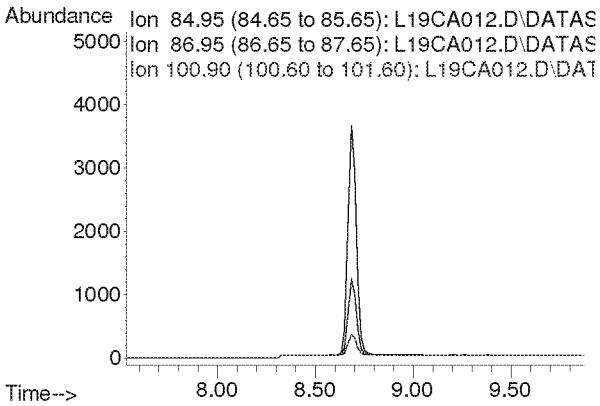


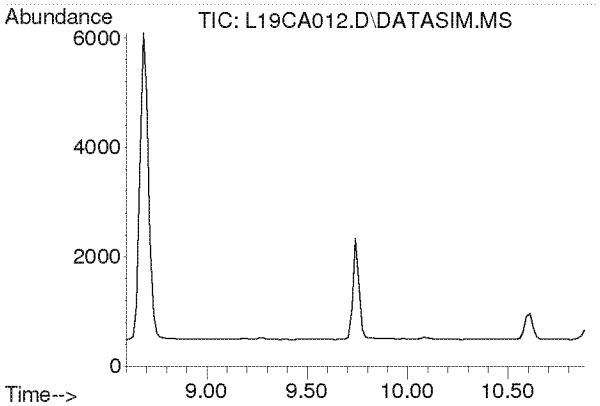
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



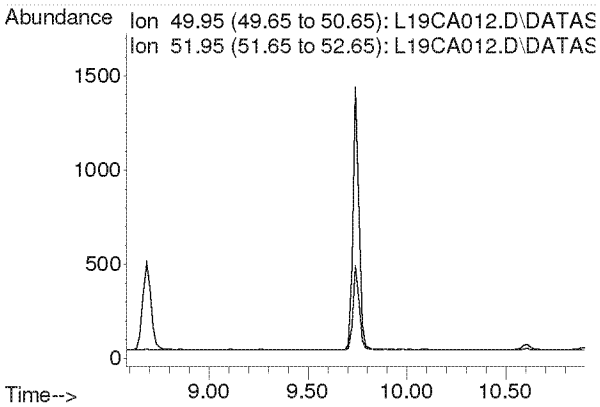


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

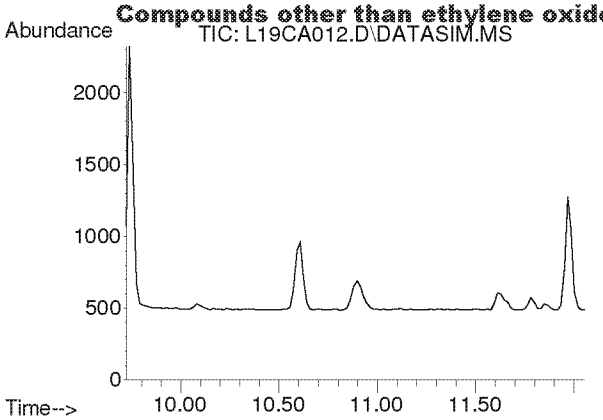
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

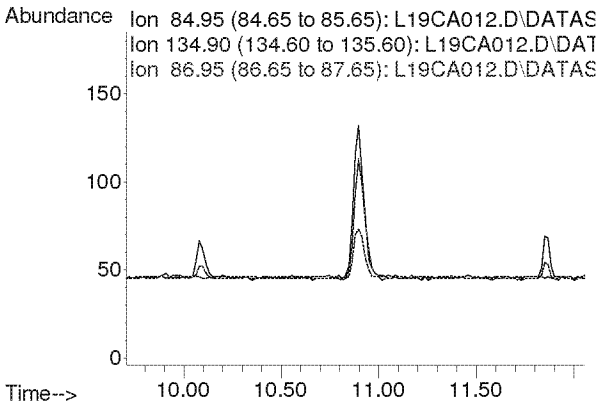


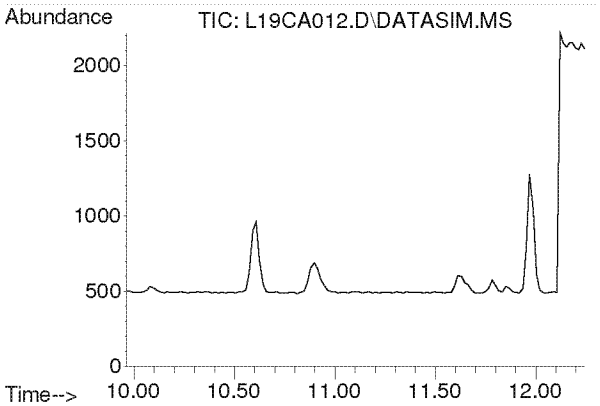
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



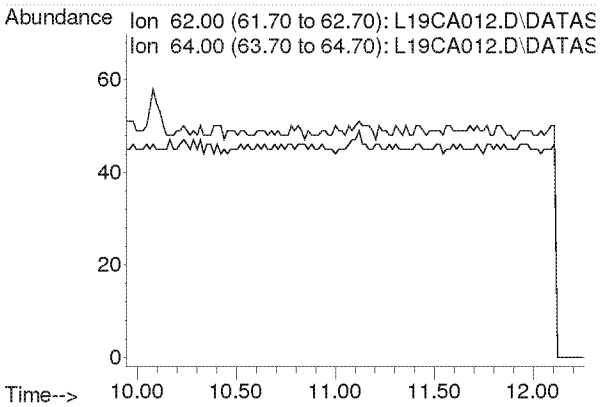


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

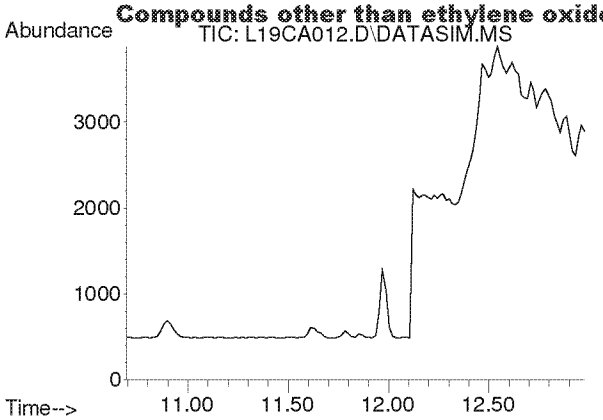
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

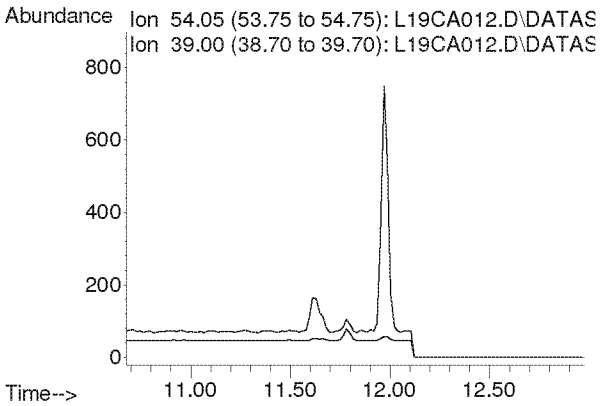


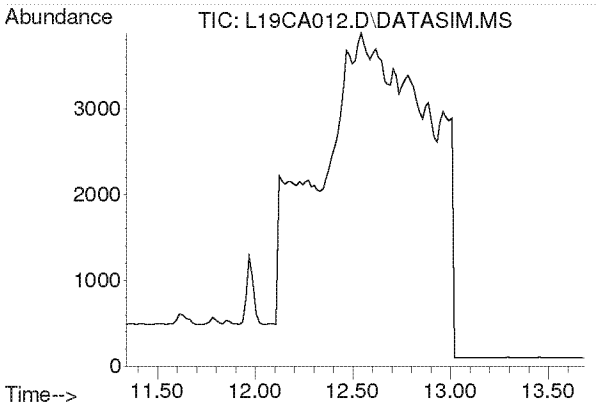
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



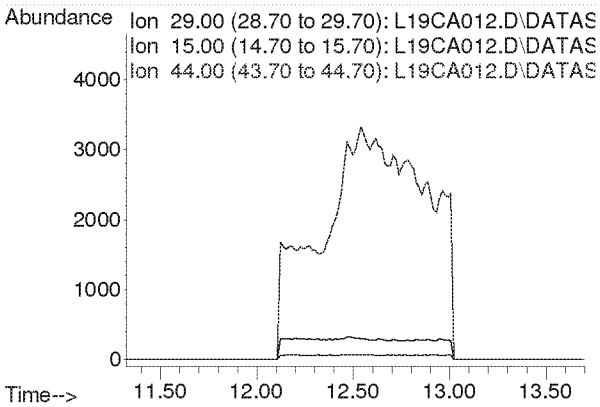


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

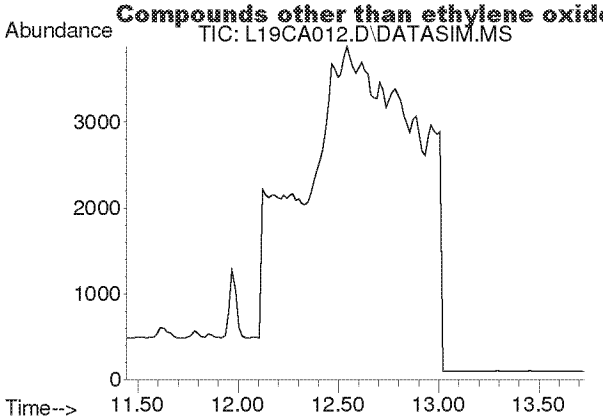
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

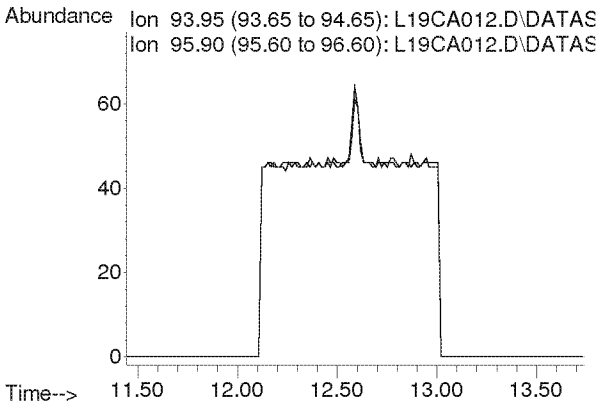


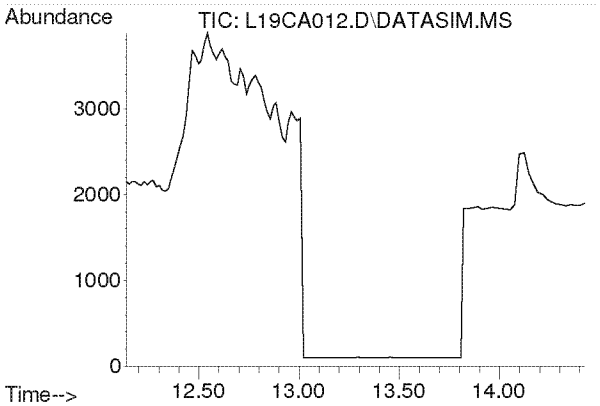
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



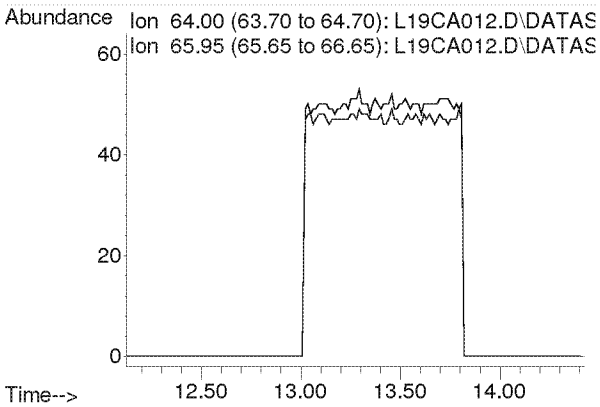


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

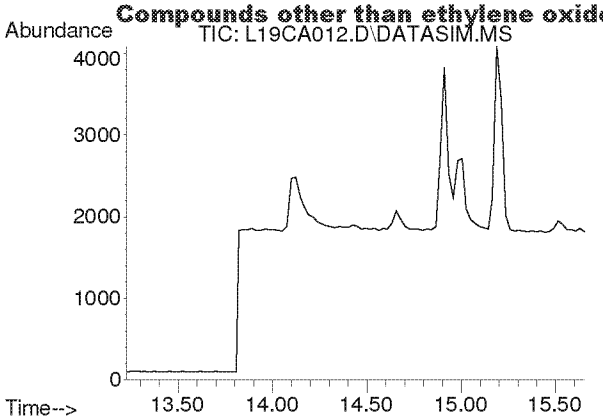
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

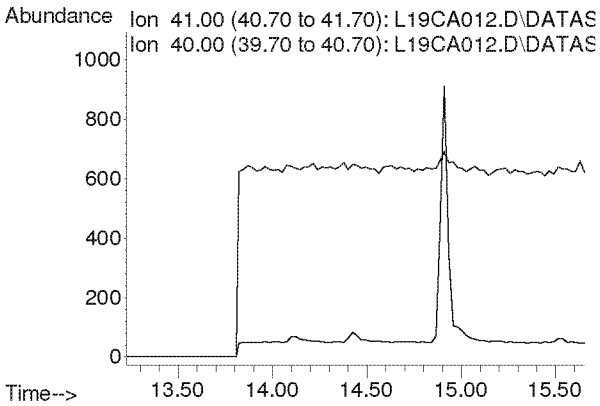


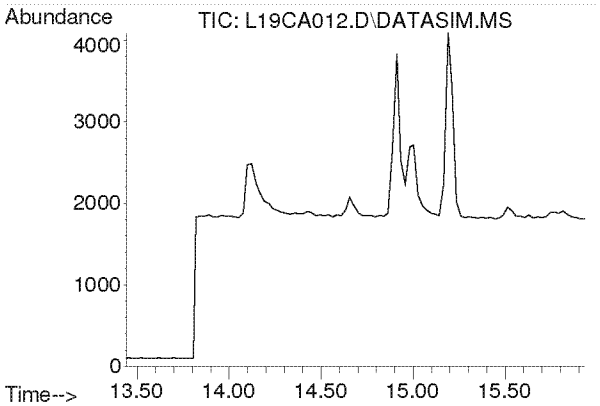
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



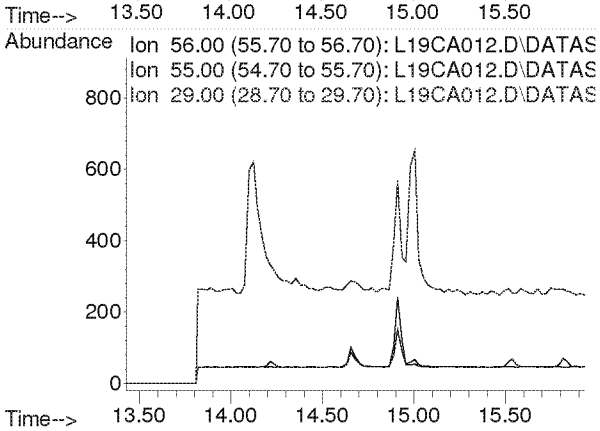


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

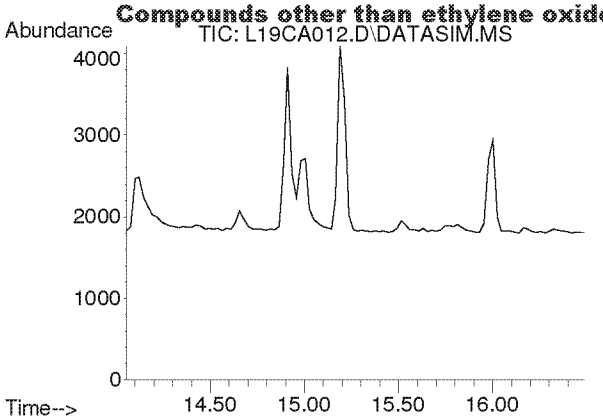
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

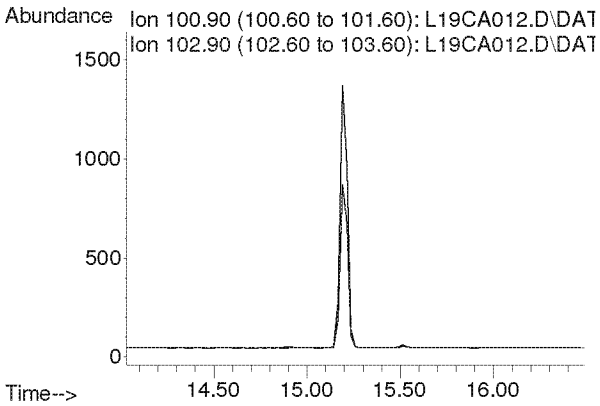


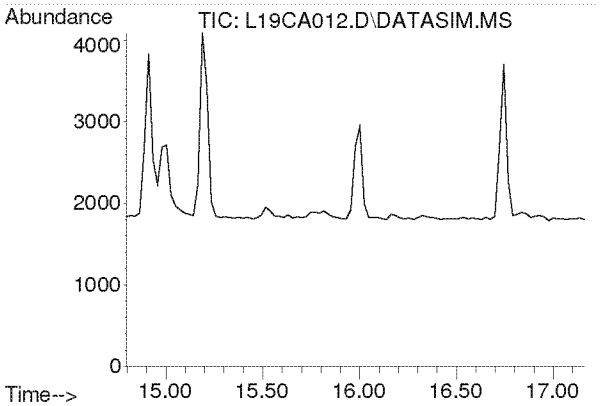
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



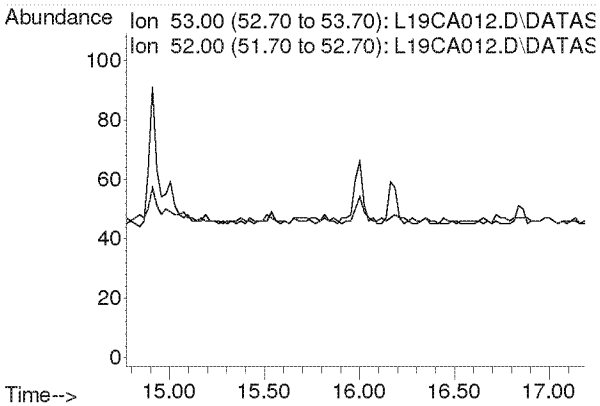


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

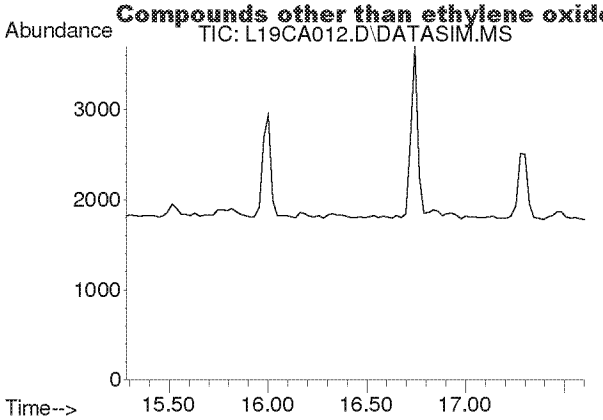
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

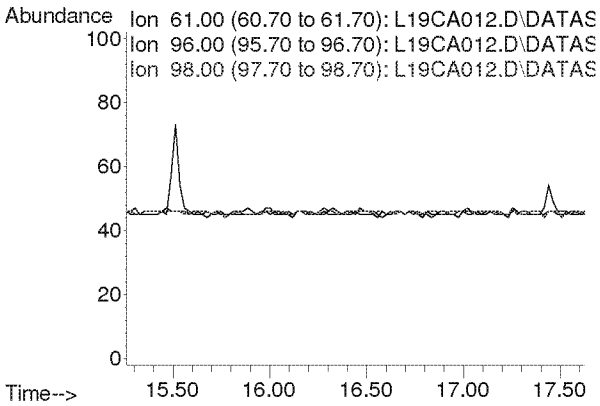


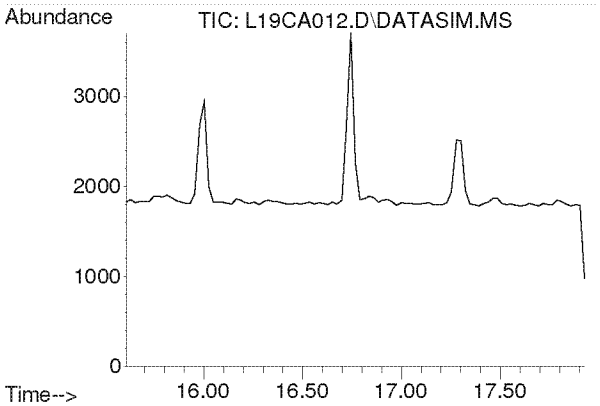
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



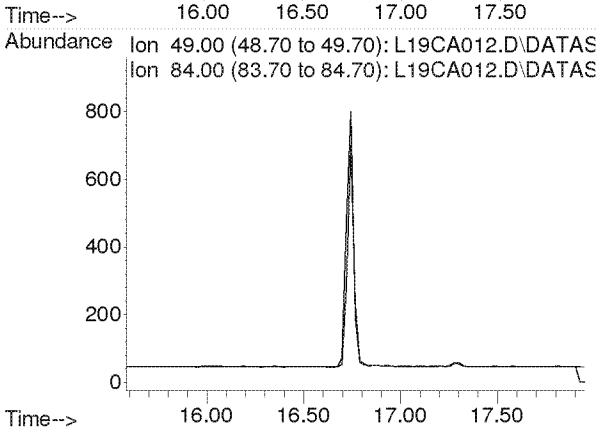


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

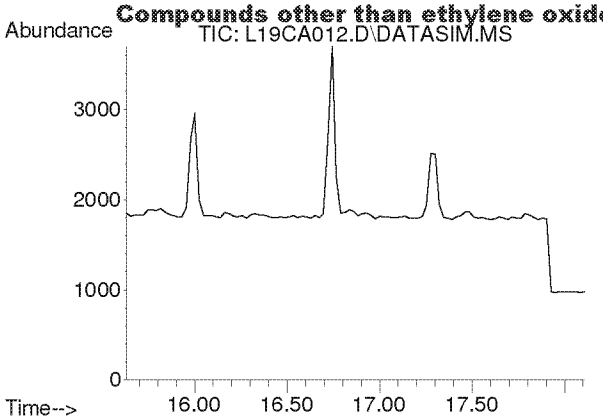
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

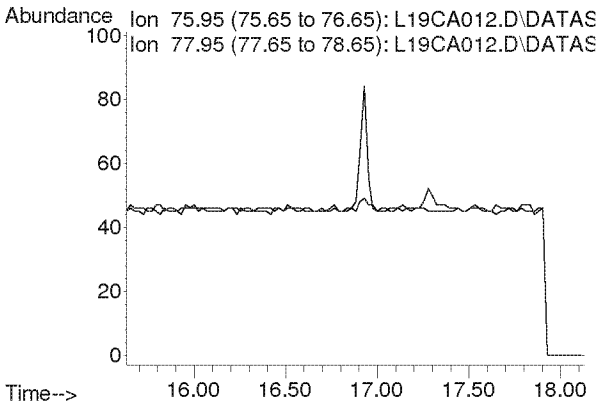


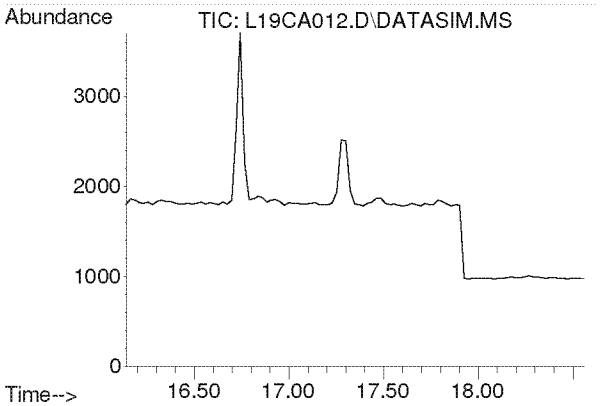
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



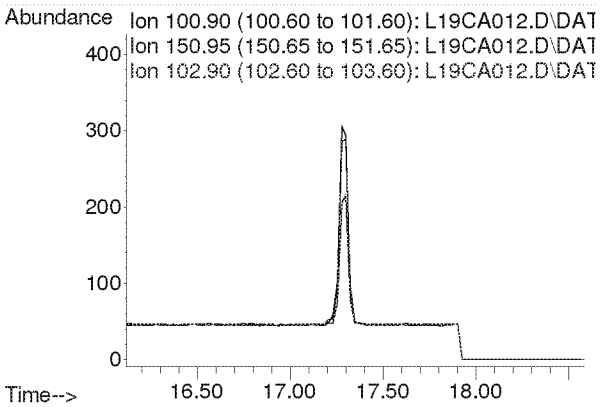


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

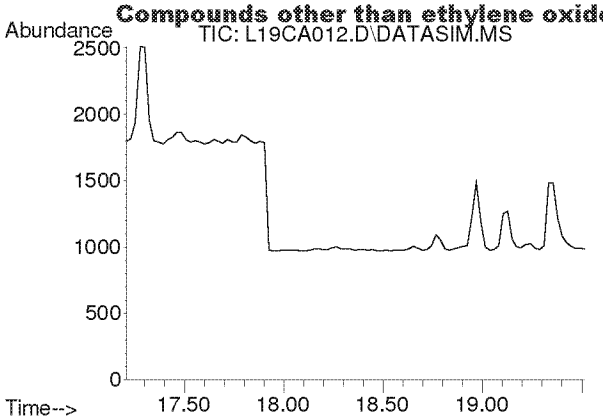
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

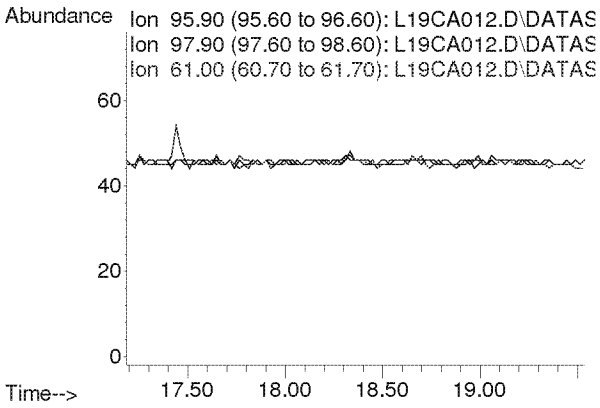


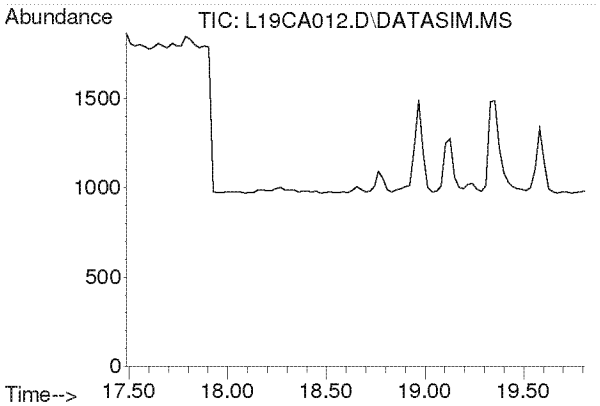
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



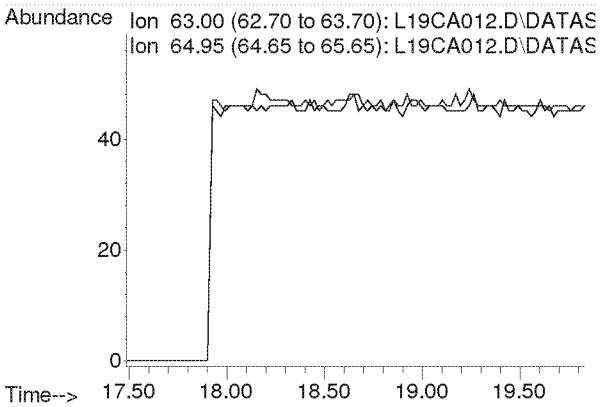


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

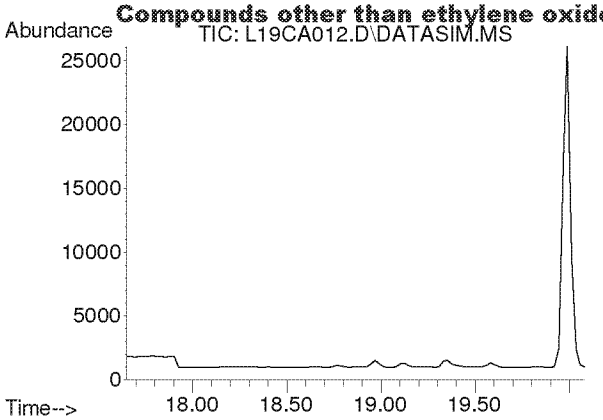
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

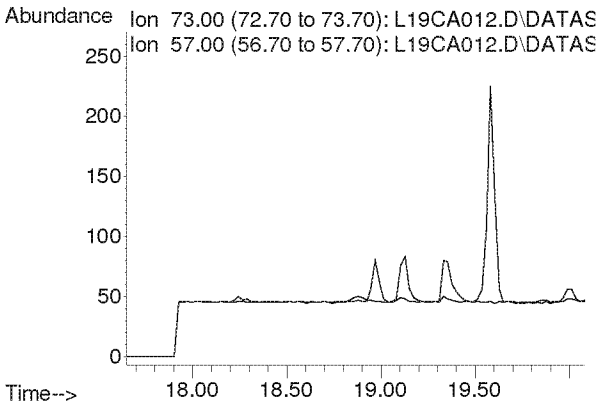


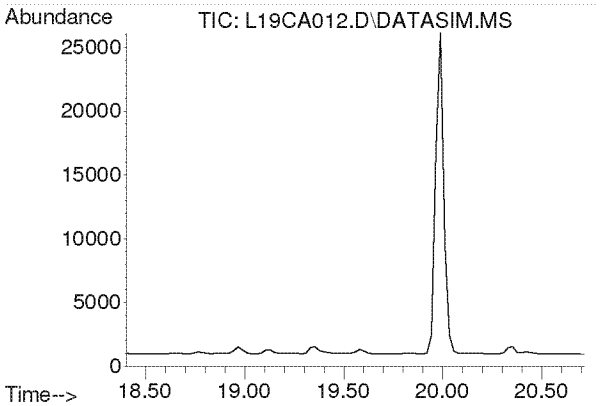
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



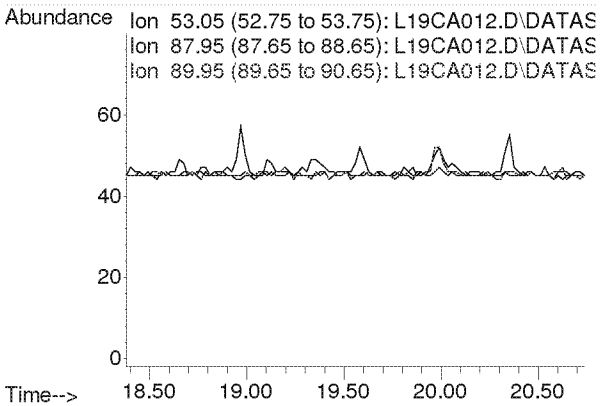


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

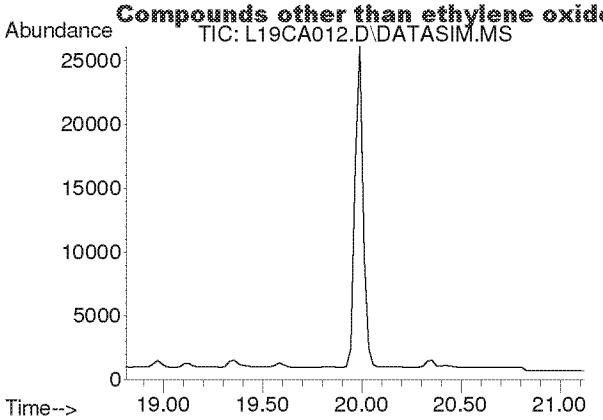
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

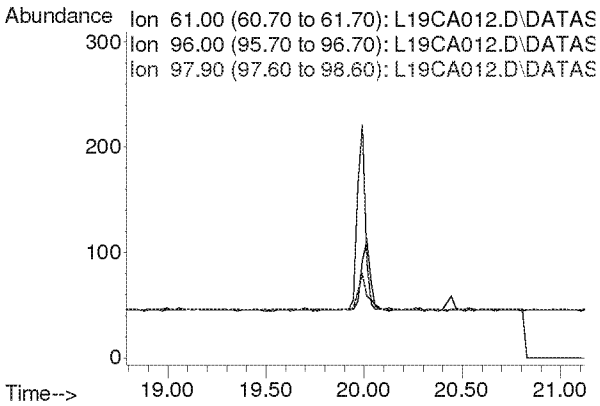


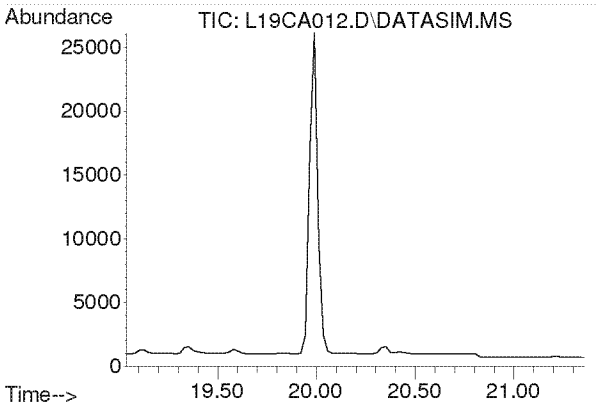
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



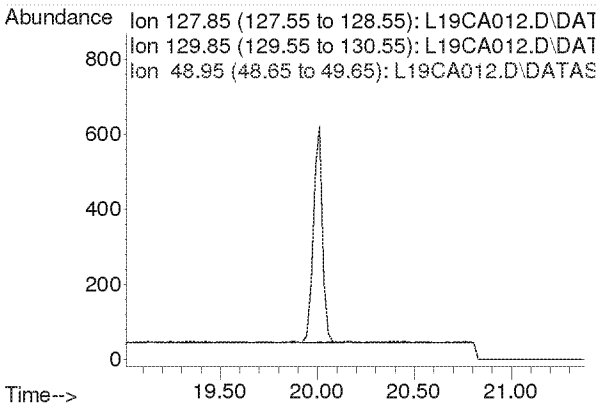


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

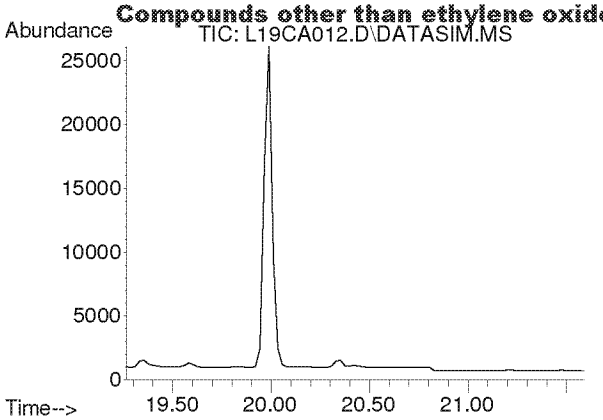
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

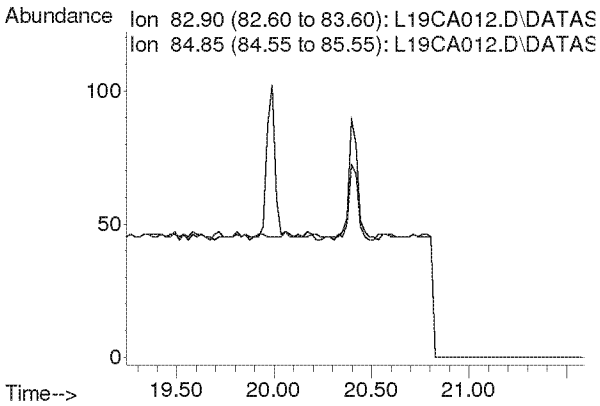


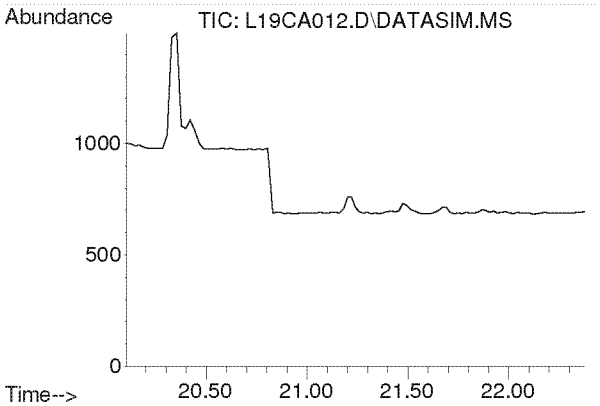
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



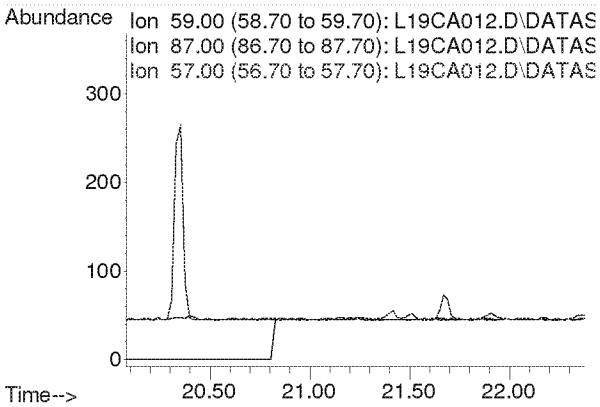


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

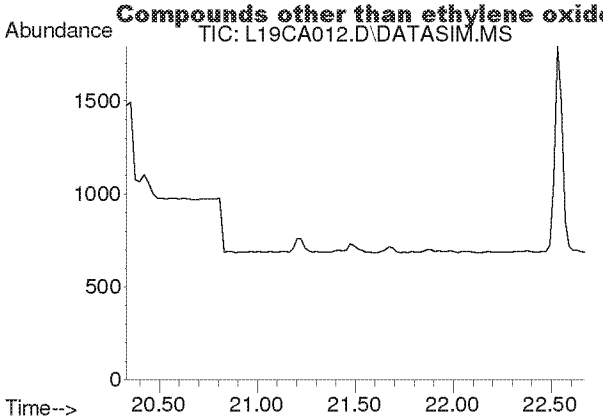
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

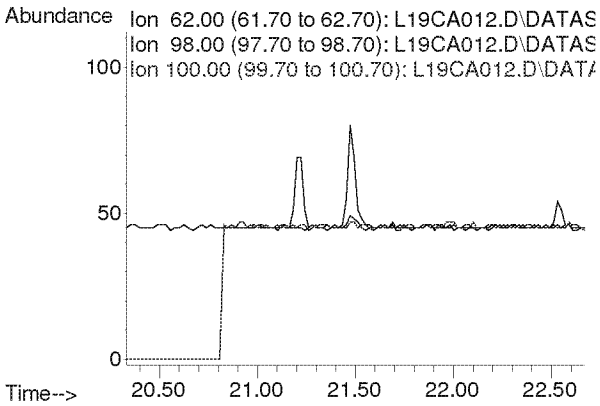


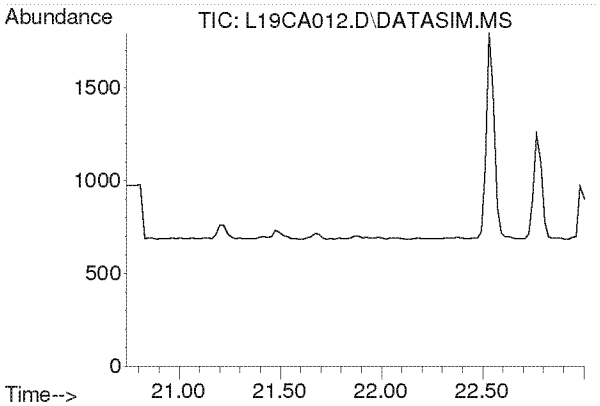
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



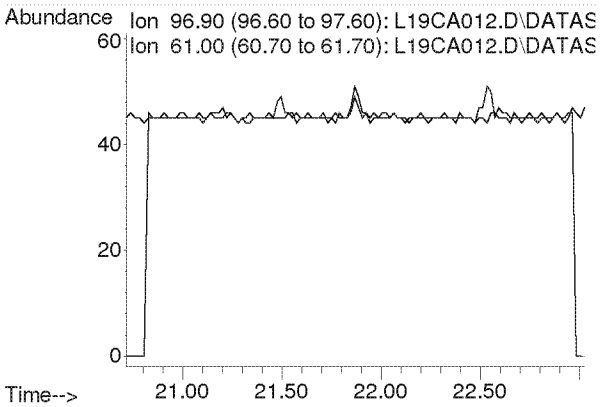


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

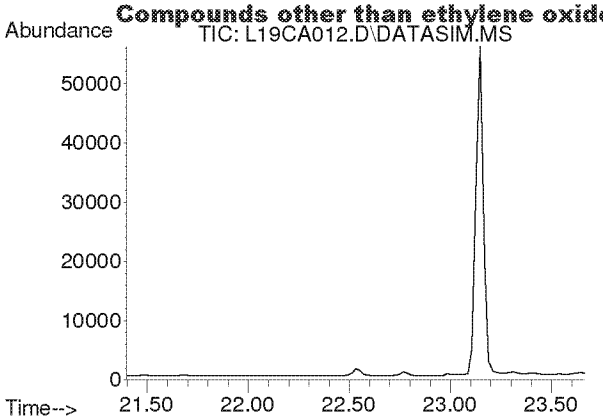
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

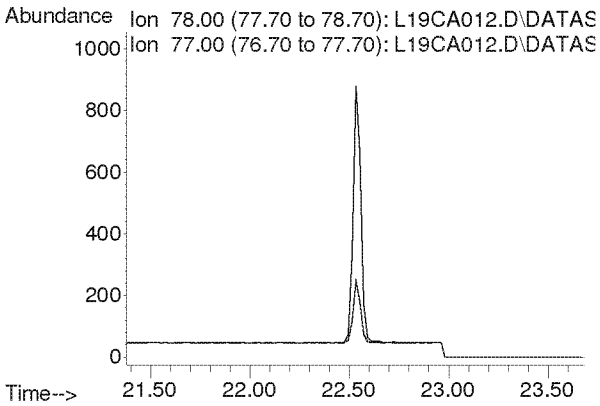


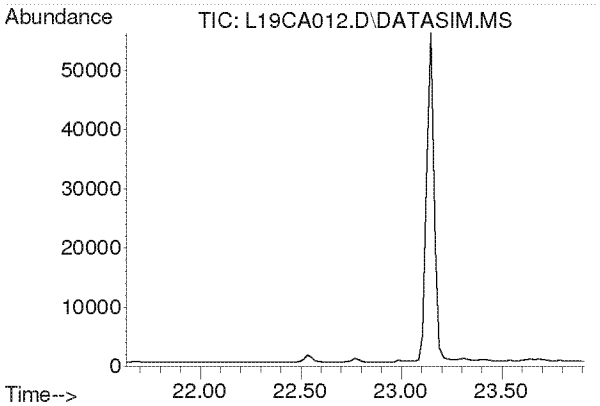
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



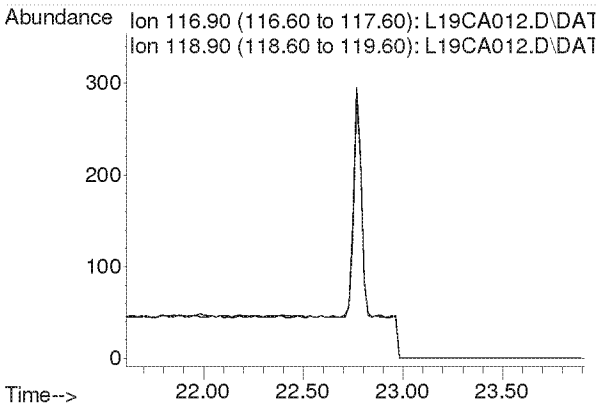


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

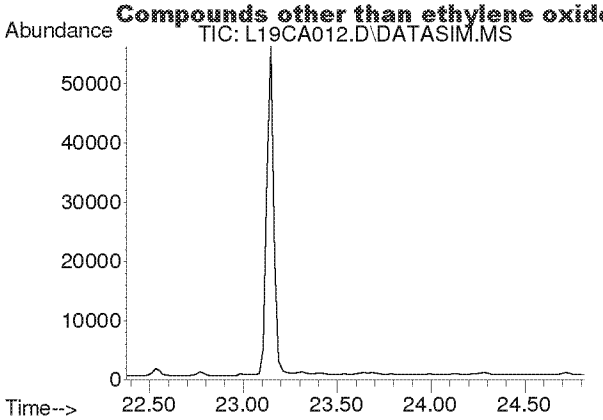
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

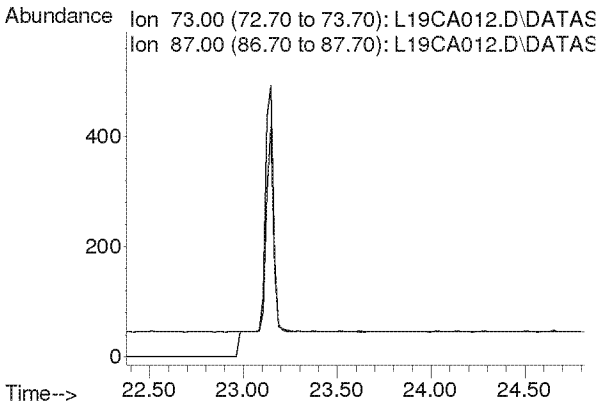


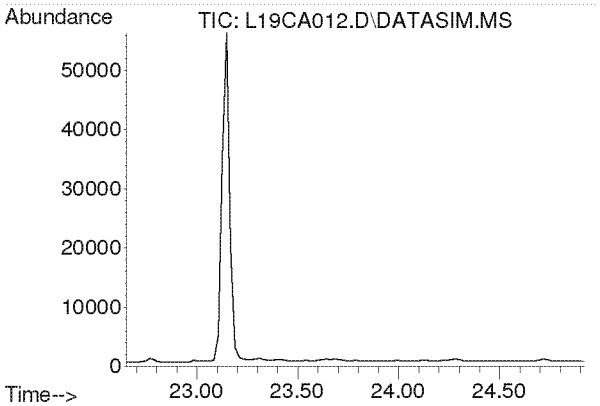
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



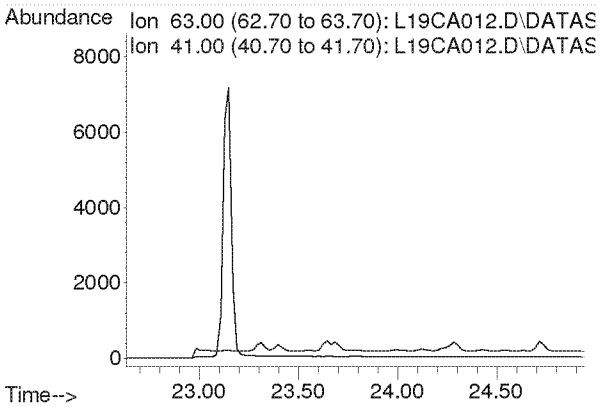


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

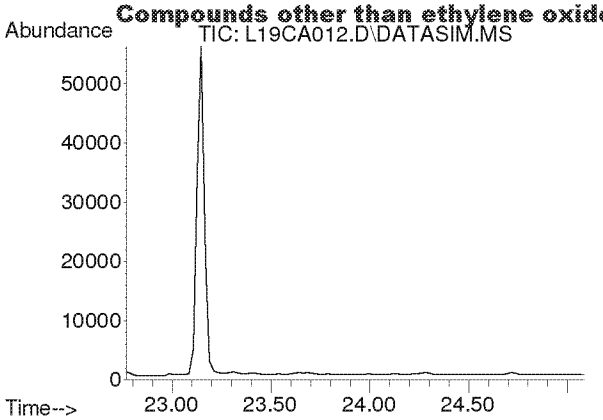
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

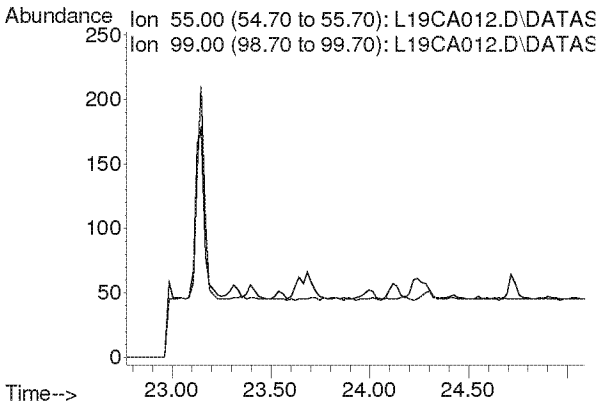


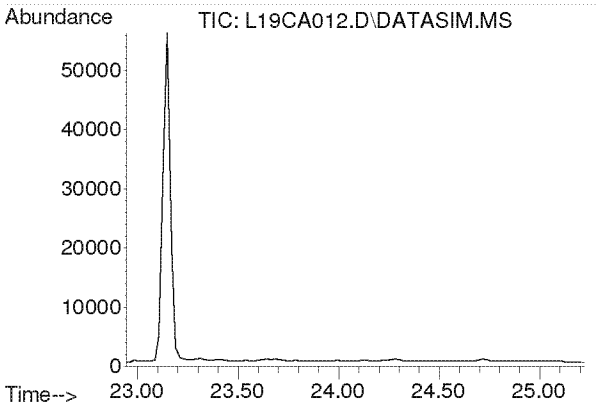
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



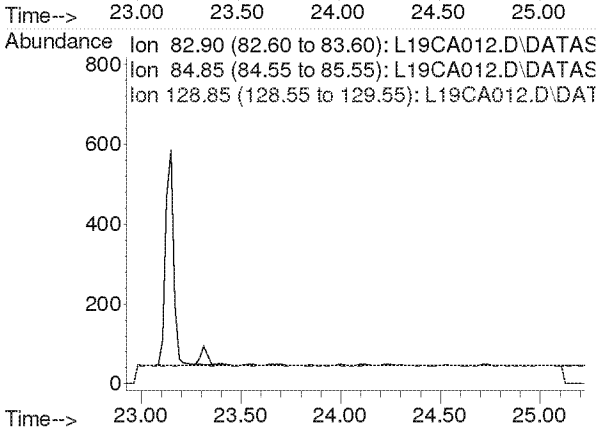


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

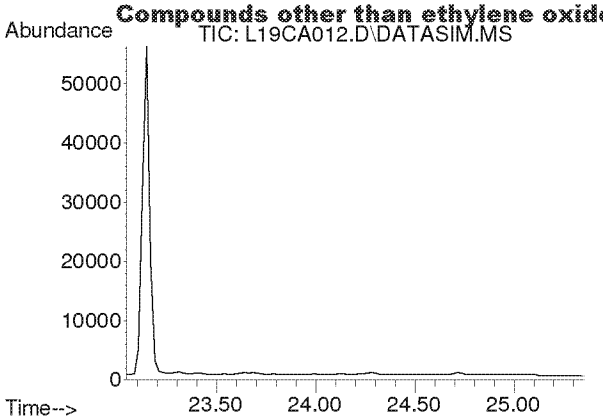
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

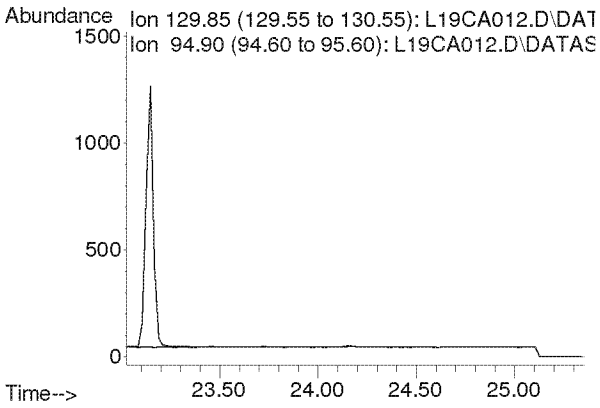


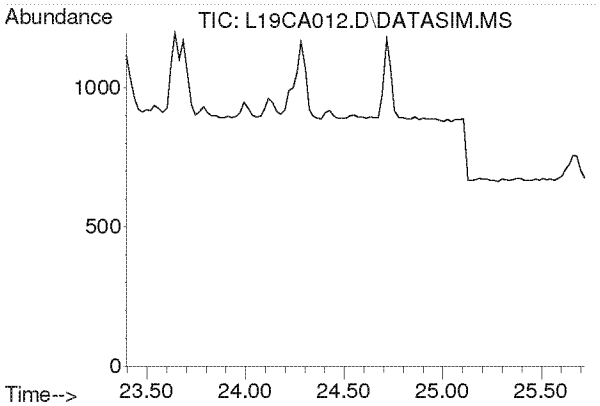
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



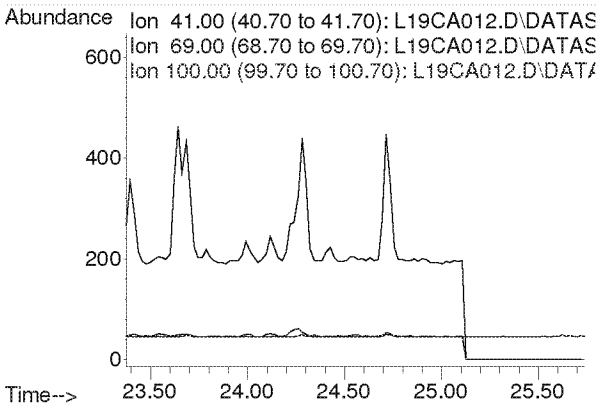


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

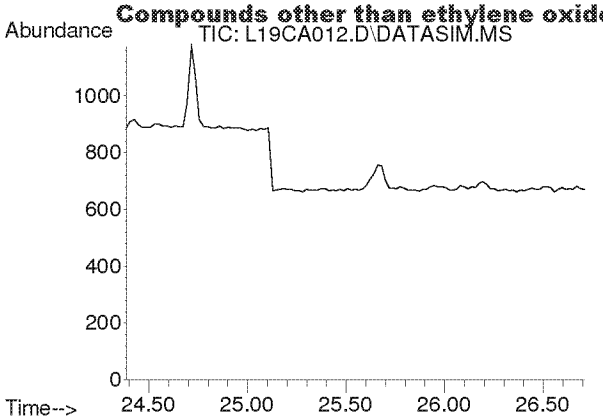
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

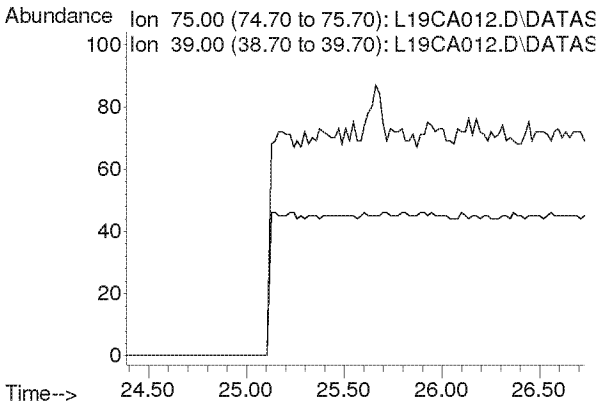


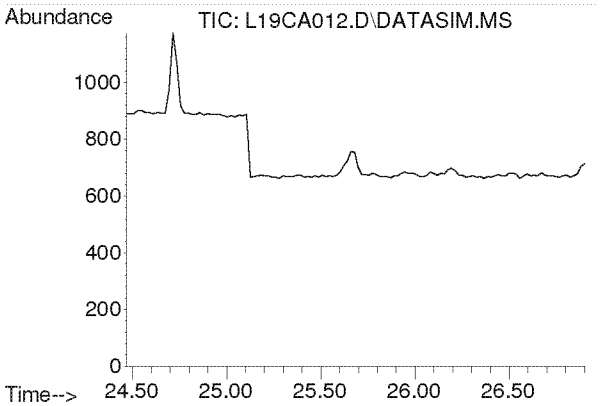
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



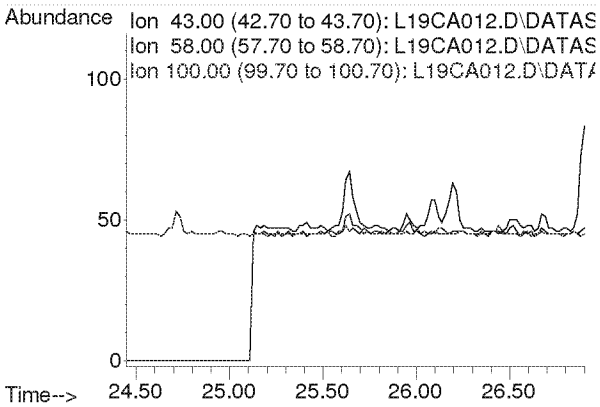


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

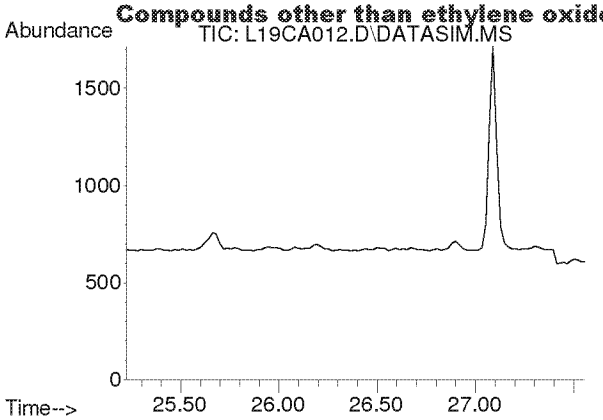
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

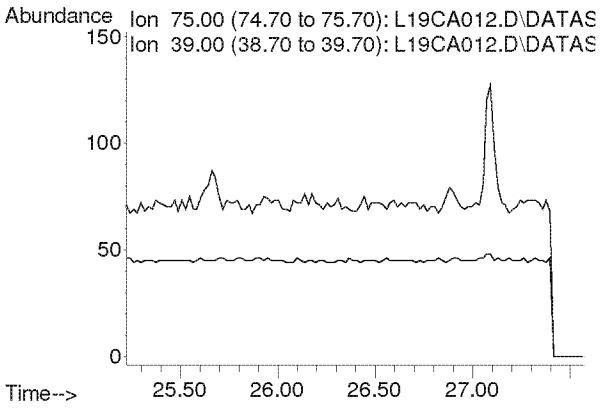


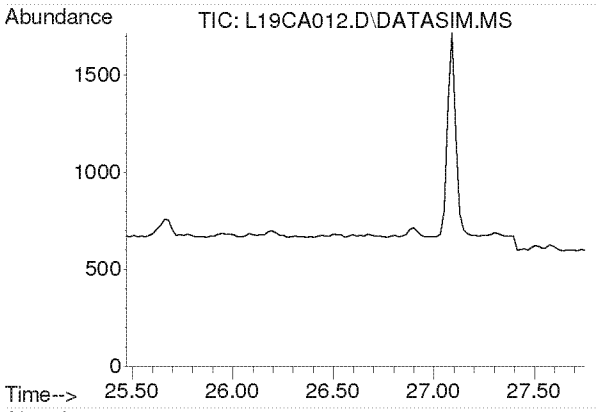
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



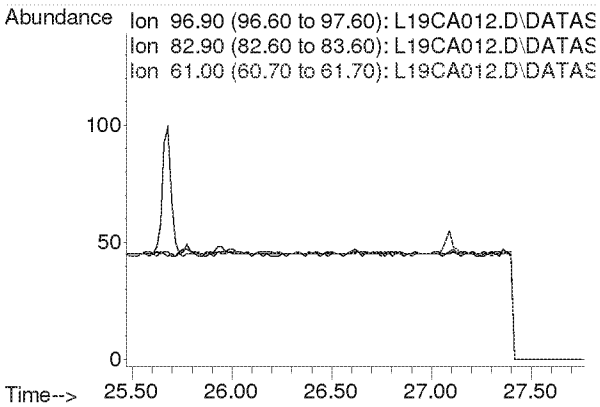


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

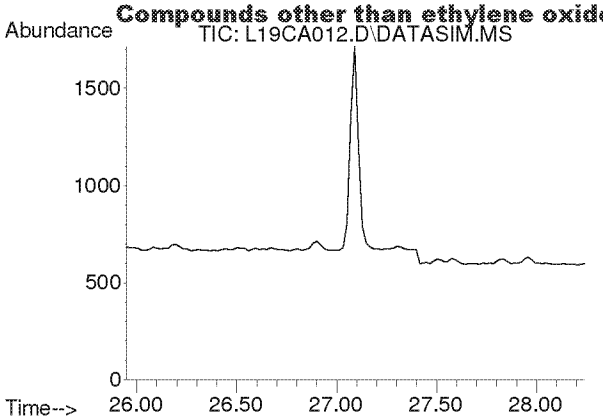
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

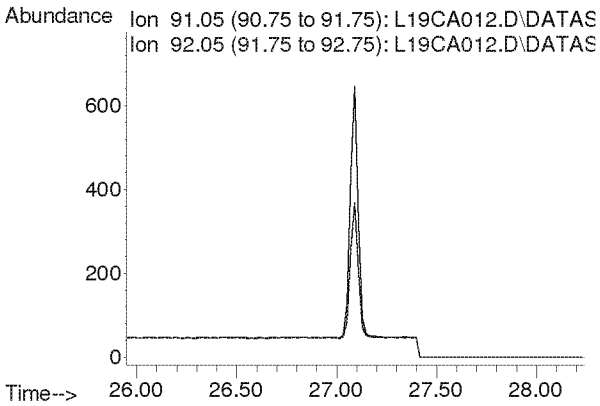


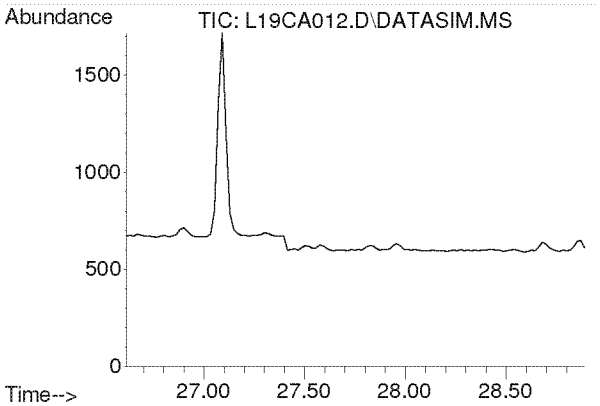
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



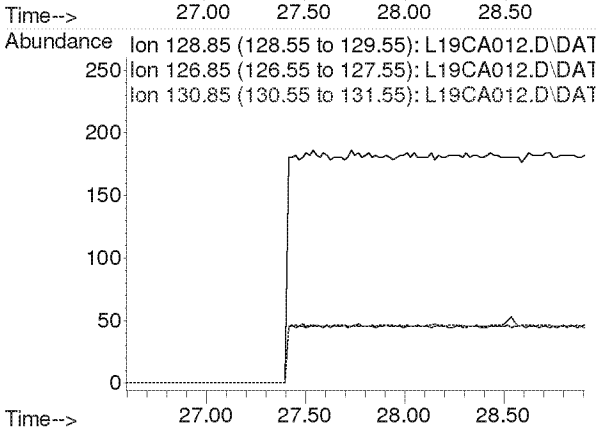


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

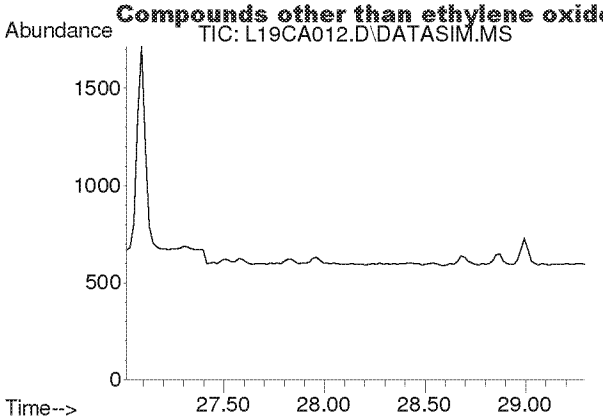
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

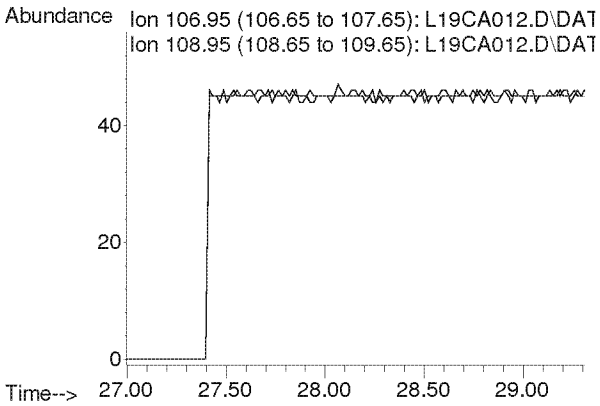


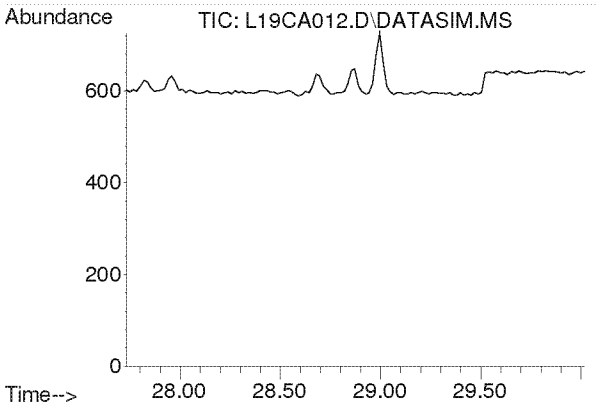
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



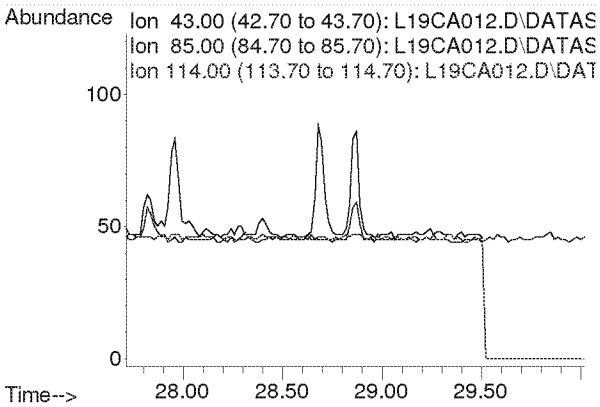


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

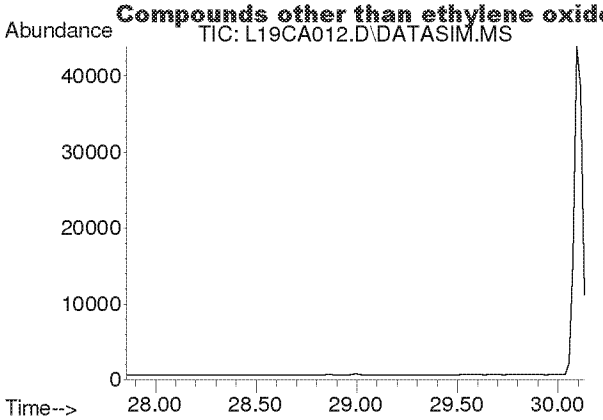
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

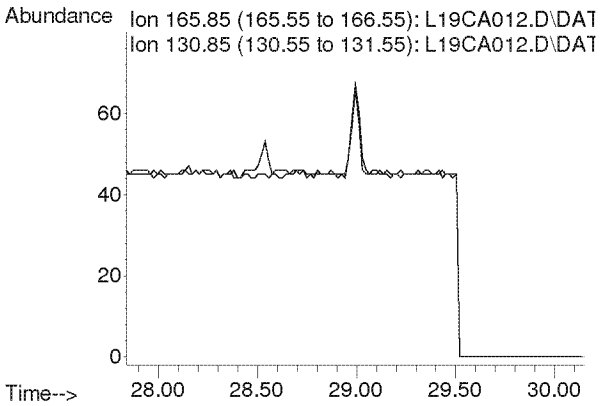


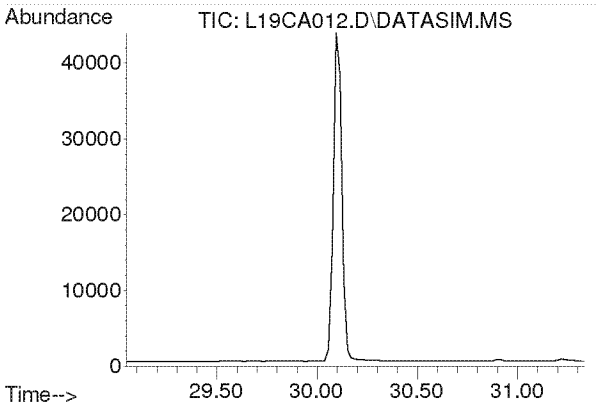
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



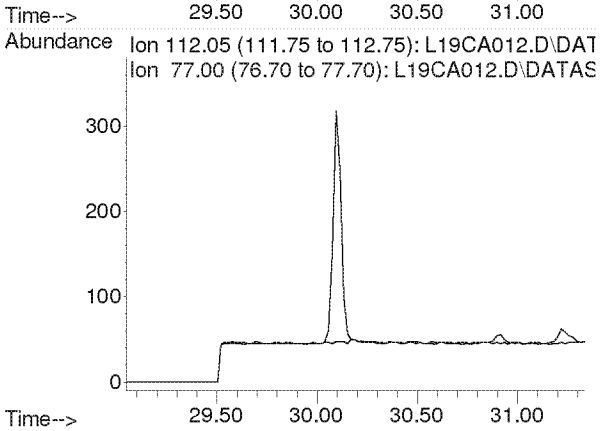


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

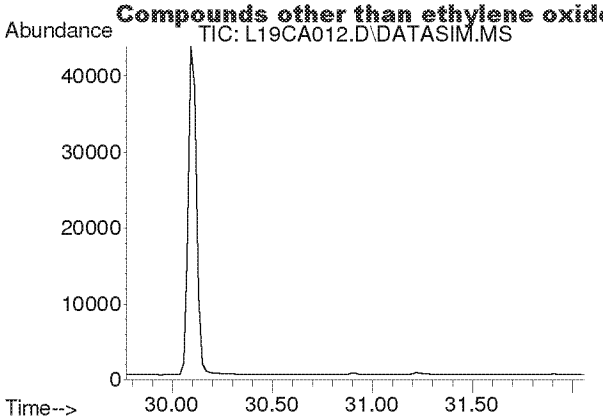
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

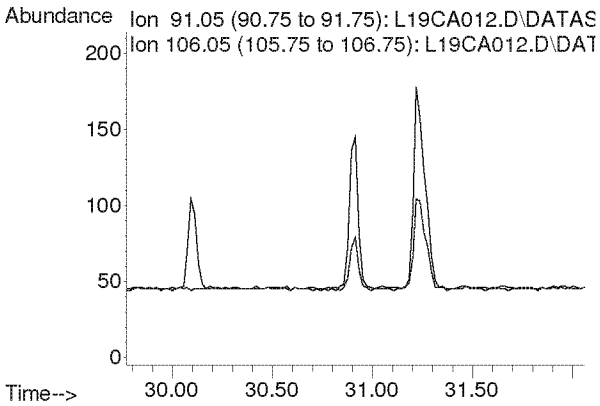


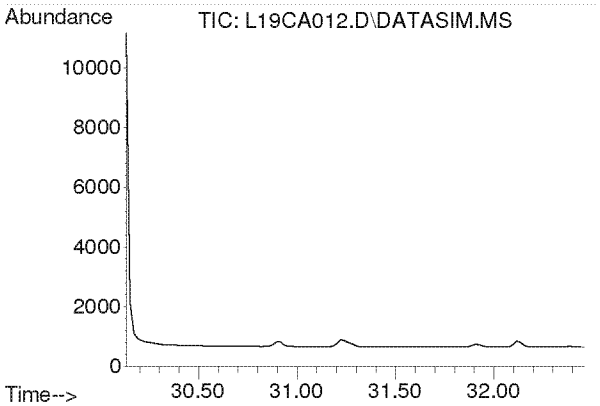
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



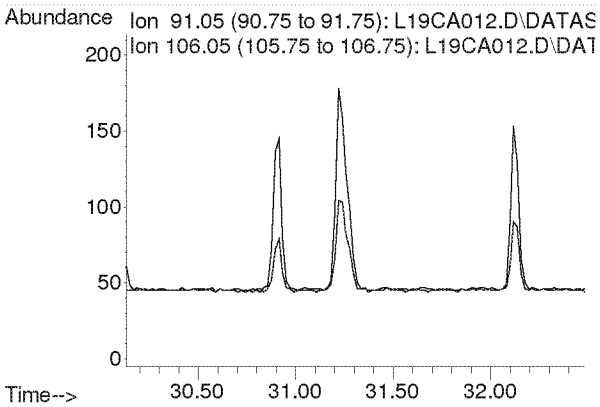


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

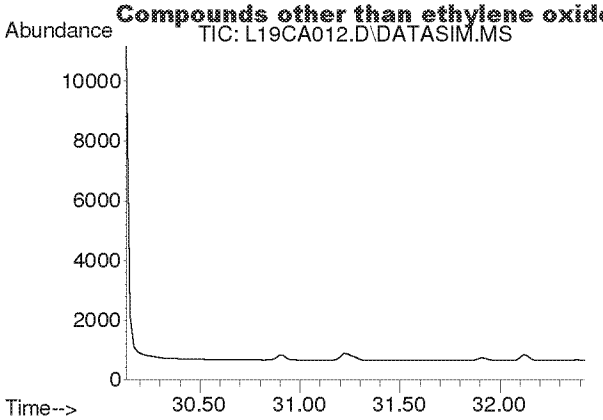
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

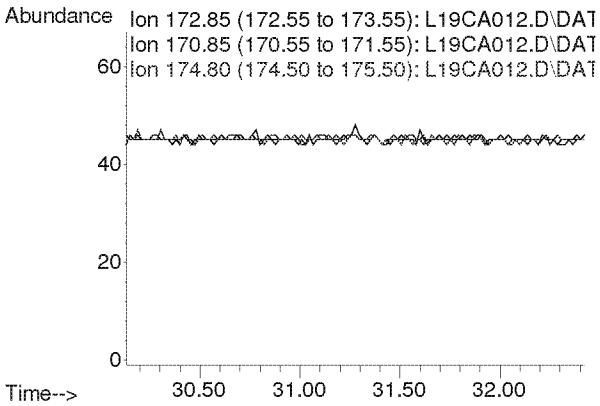


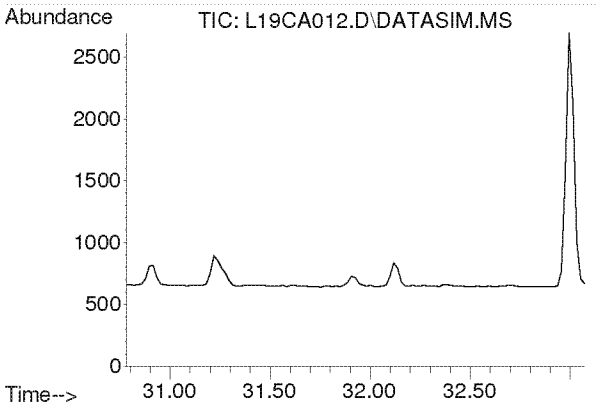
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



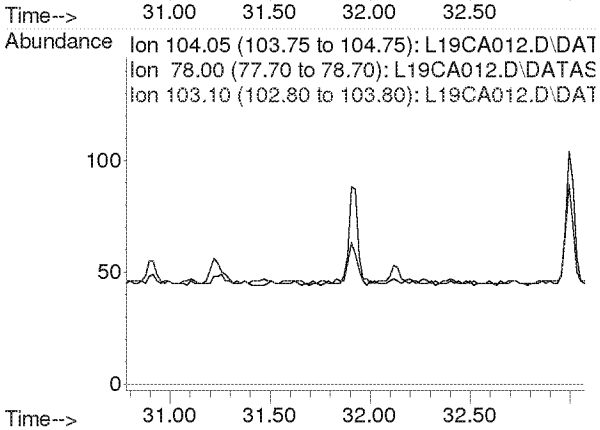


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

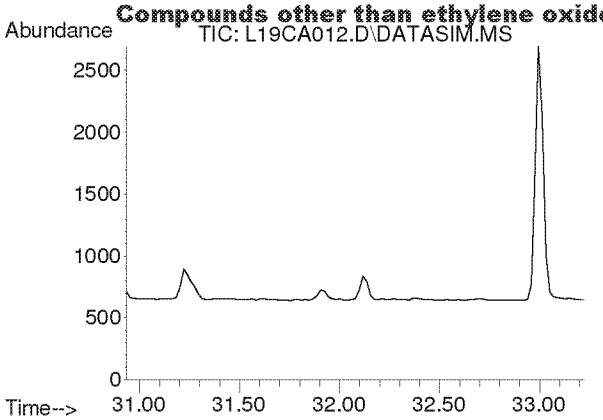
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

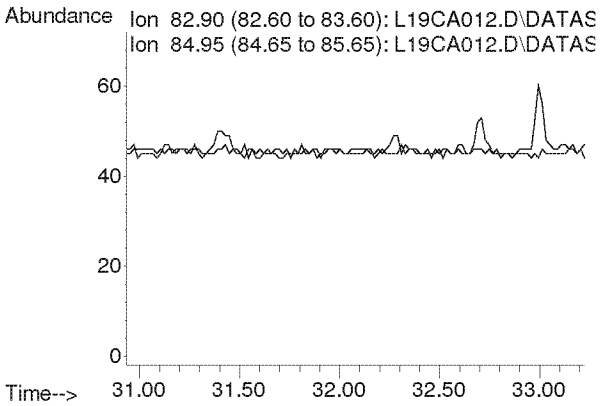


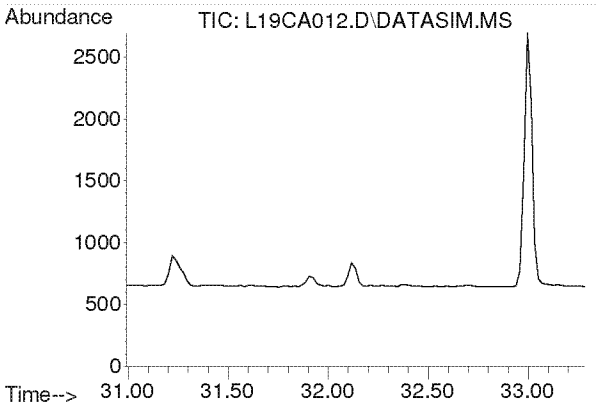
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



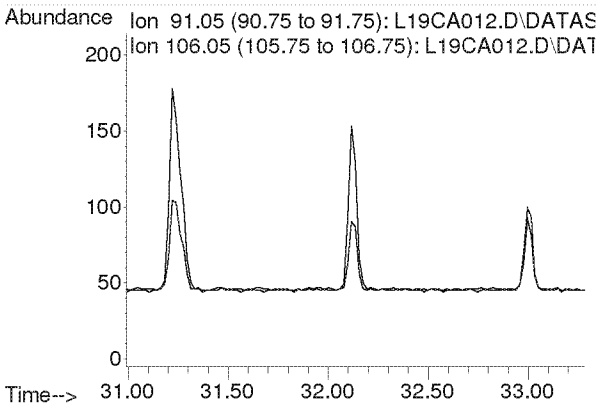


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

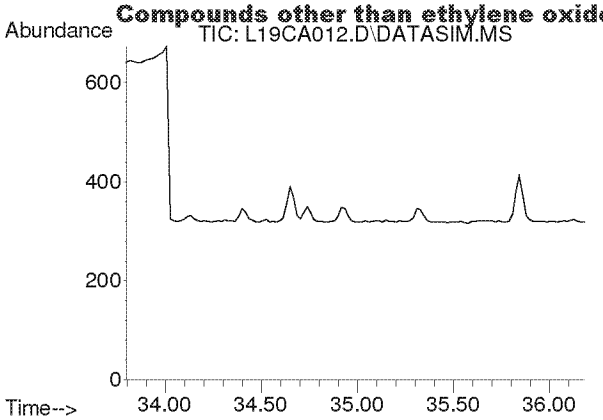
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

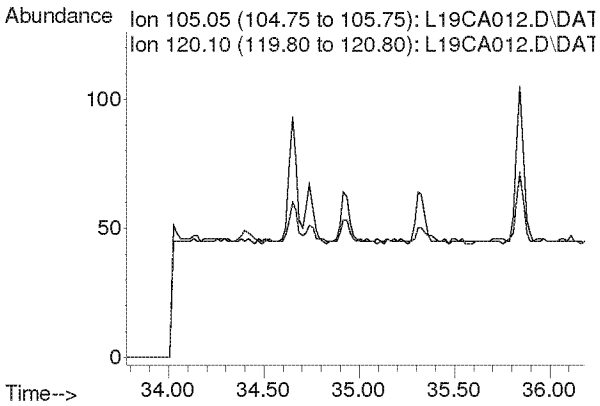


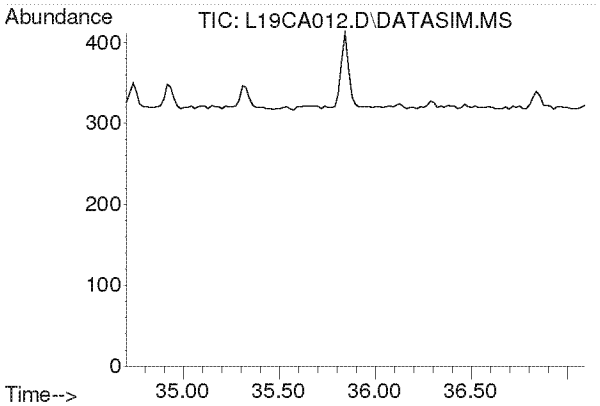
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



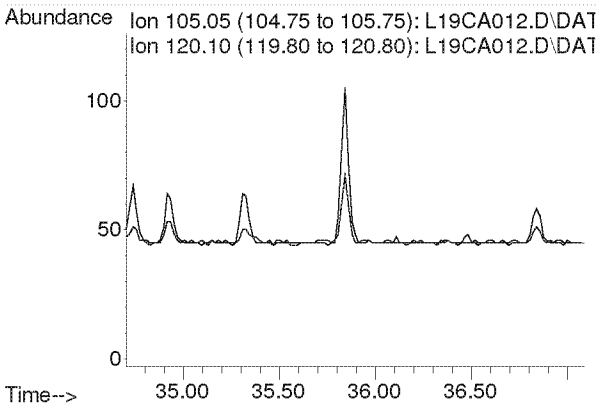


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

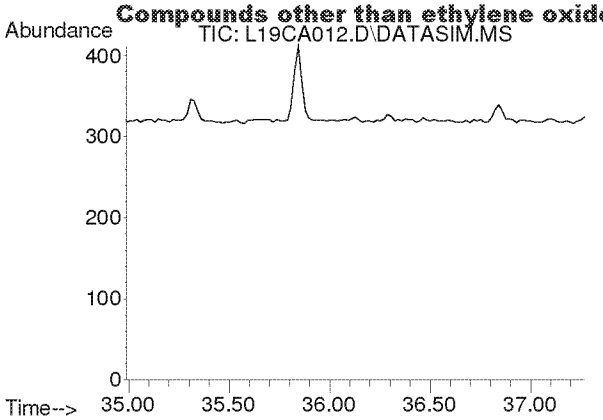
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

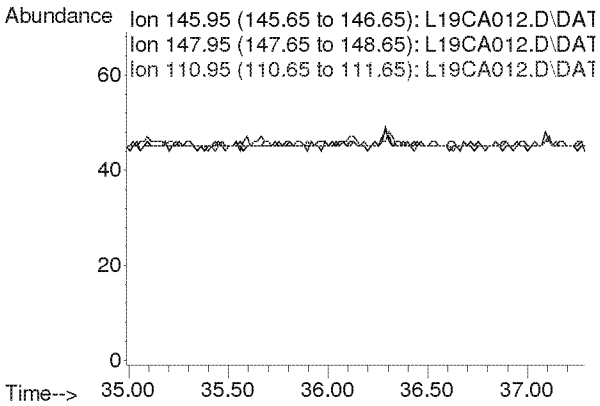


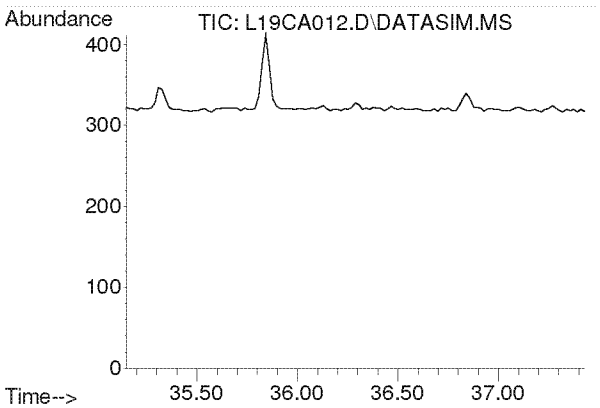
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



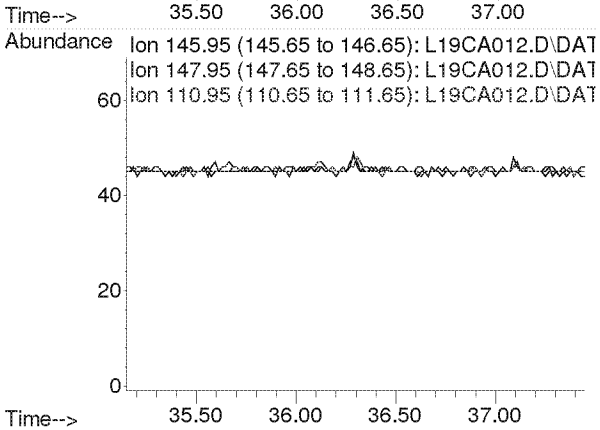


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

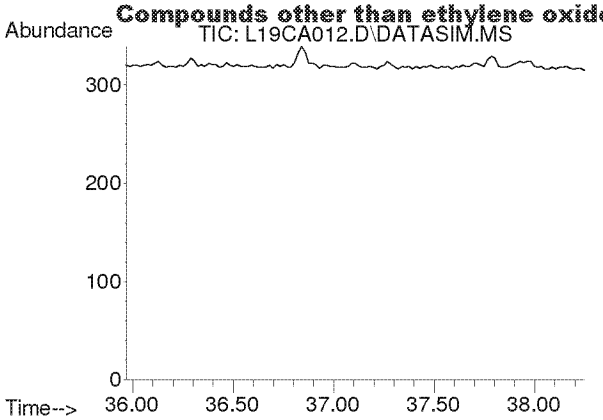
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

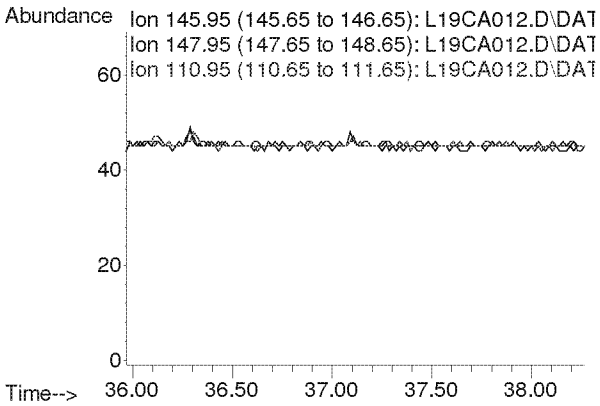


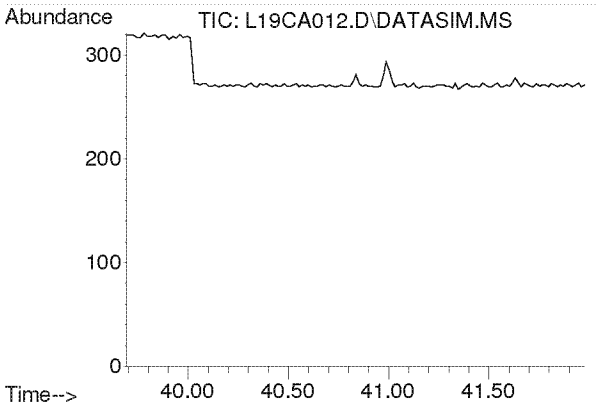
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



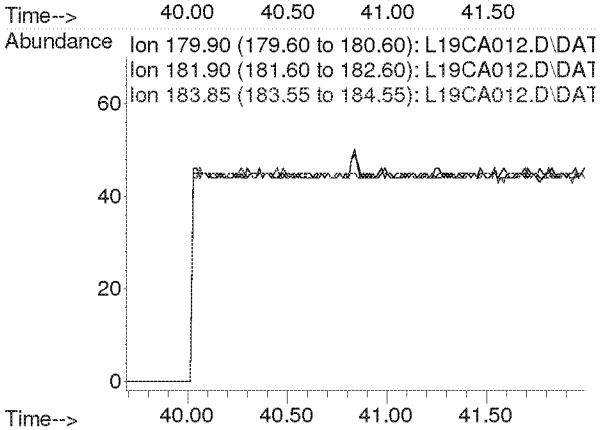


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

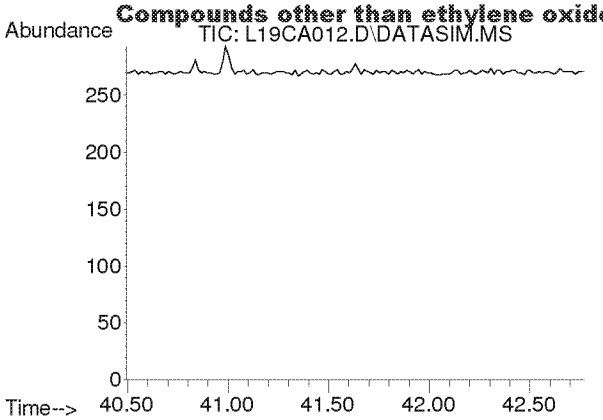
Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

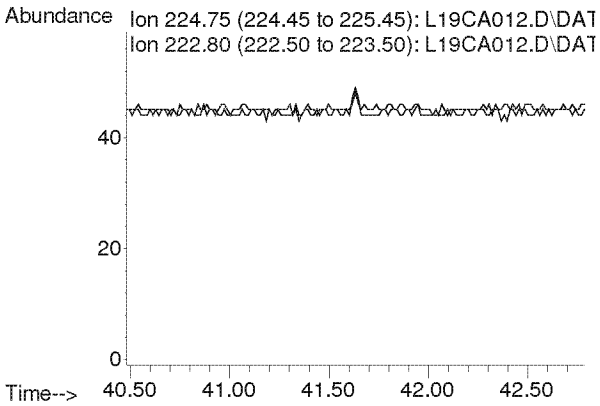


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19CA012.D
Acq: 2 Mar 2019 2:34 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Duplicate Samples					
		D1	D2		
File ID		L19CA013.D	L19CA014.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9030101-07	9030101-08		
Mics Comments		WB VILLAGE HALL	WB VILLAGE HALL C2 2/27/19		
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	0.092	0	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	

3-5-19

NA = Not Applicable. Precision can not be evaluated due to an average value less than 5 times the MDL.

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Replicate Analyses					
		D1	R1		
File ID		L19CA013.D	L19CA015.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9030101-07	B9C0104-DUP1		
Mics Comments		WB VILLAGE H	WB VILLAGE HALL R1 2/27/19		
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	0.092	0.094	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		L19CA014.D	L19CA016.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9030101-08	B9C0104-DUP2		
Mics Comments		WB VILLAGE H	WB VILLAGE HALL R2 2/27/19		
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	0.065	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\L19CA\
Data File : L19CA013.D
Acq On : 2 Mar 2019 3:35 am (#1); 02-Mar-19, 03:29:50 (#2)
Operator : MAH
Sample : 9030101-07
Misc : WB VILLAGE HALL C1 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 05 09:07:46 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

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	42914	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	109231	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	75217	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	225m	0.0917 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA013.D
Acq On : 2 Mar 2019 3:35 am (#1); 02-Mar-19, 03:29:50 (#2)
Operator : MAH
Sample : 9030101-07
Misc : WB VILLAGE HALL C1 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 05 09:07:46 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

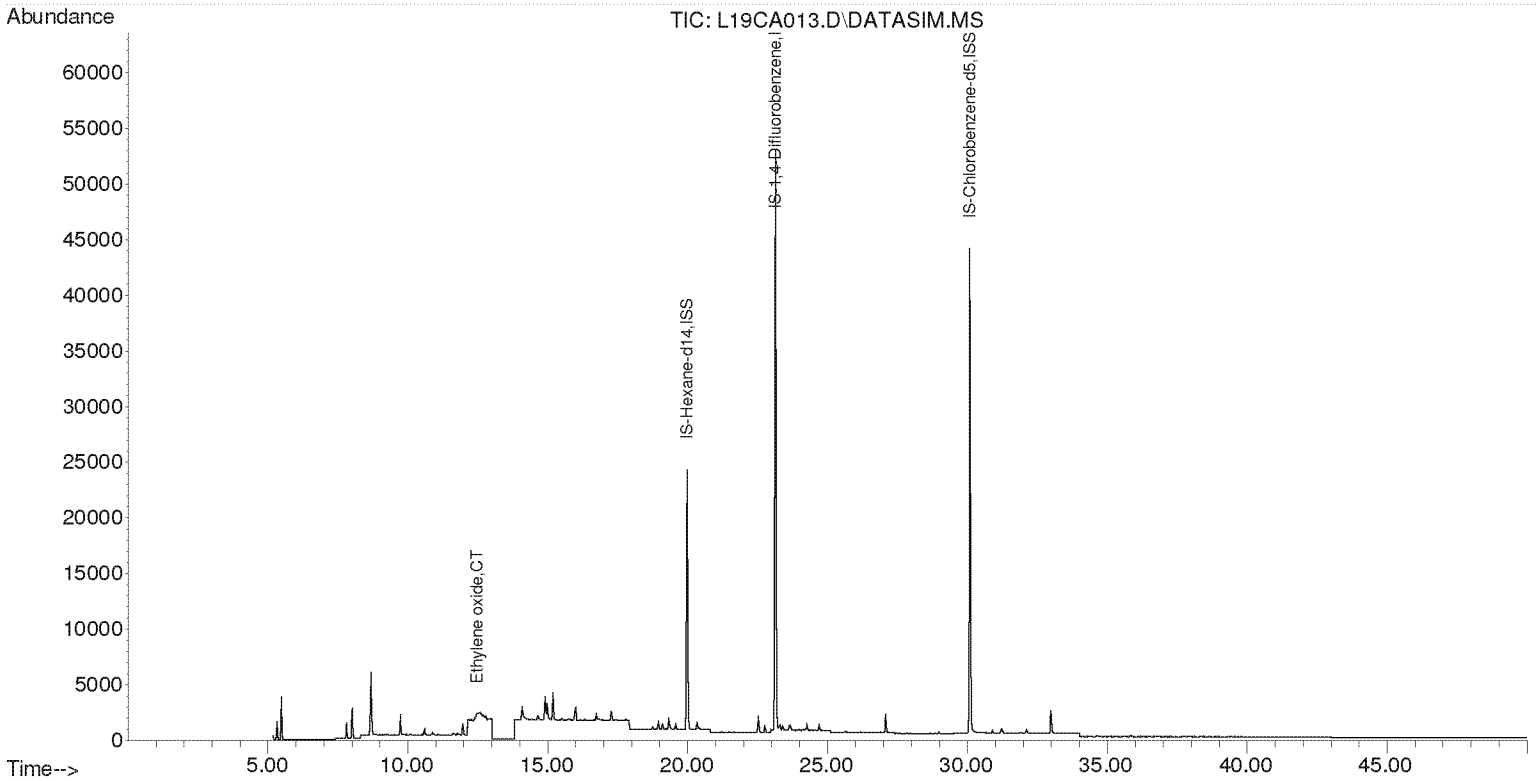
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

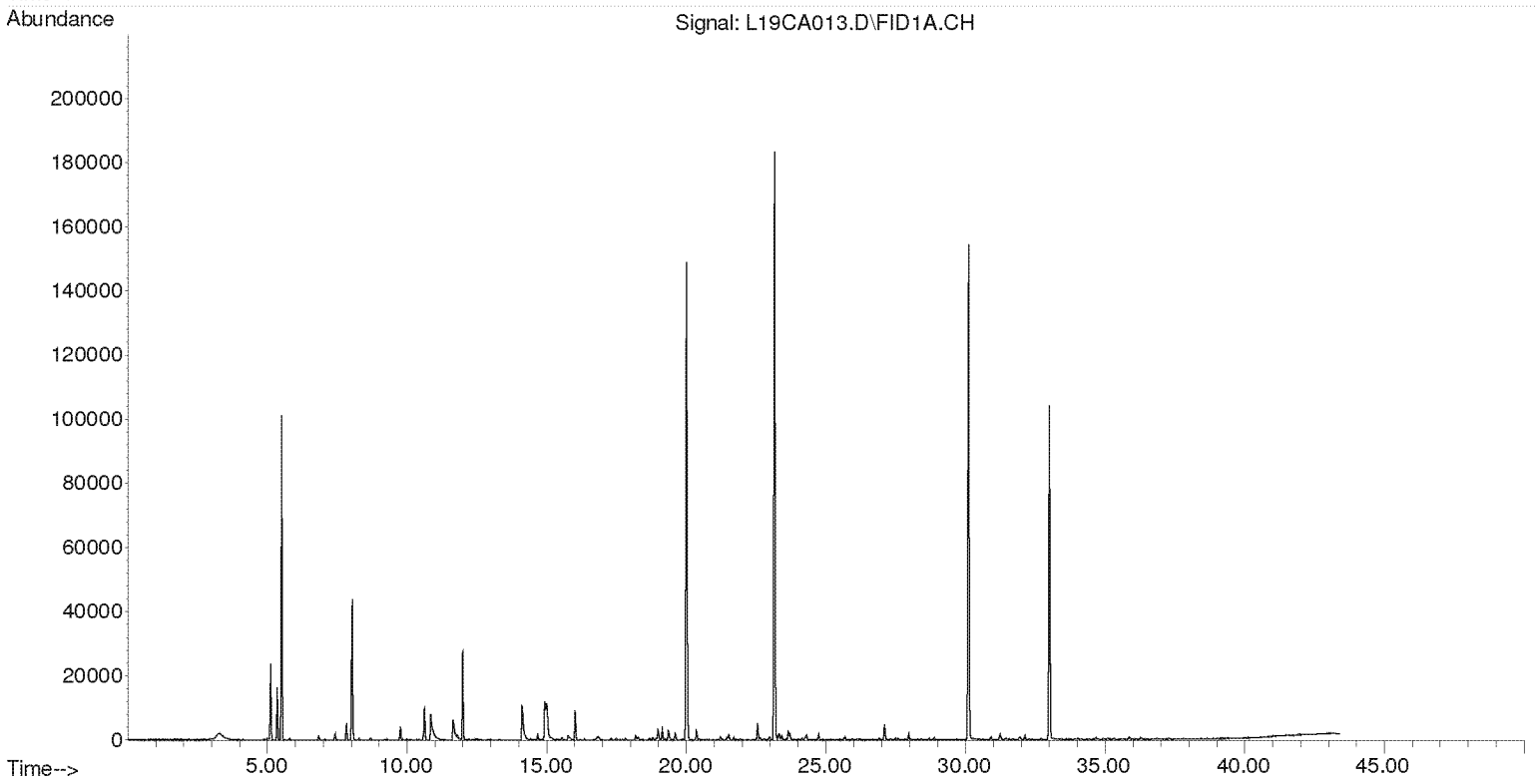
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

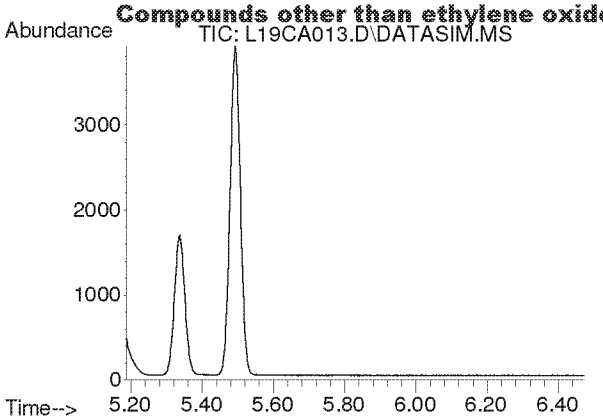
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA013.D
Acq On : 2 Mar 2019 3:35 am (#1); 02 Mar 2019 3:29 am (#2)
Operator : MAH
Sample : 9030101-07
Misc : WB VILLAGE HALL C1 2/27/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 05 08:54:30 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





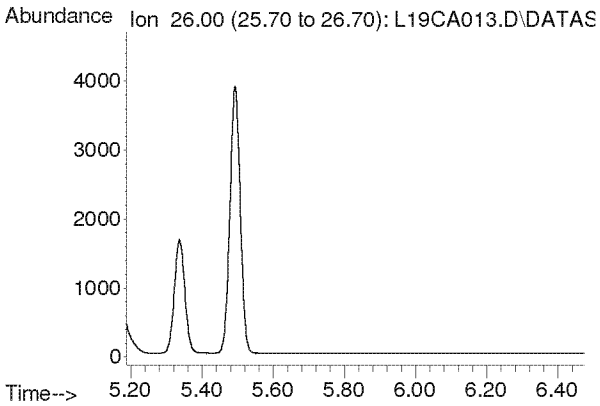
Compounds other than ethylene oxide were not quantitated.

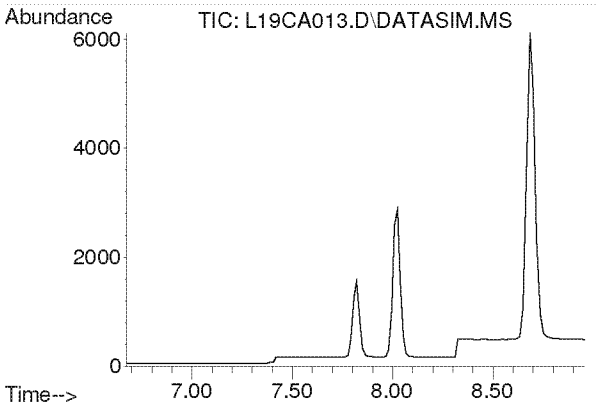


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 26



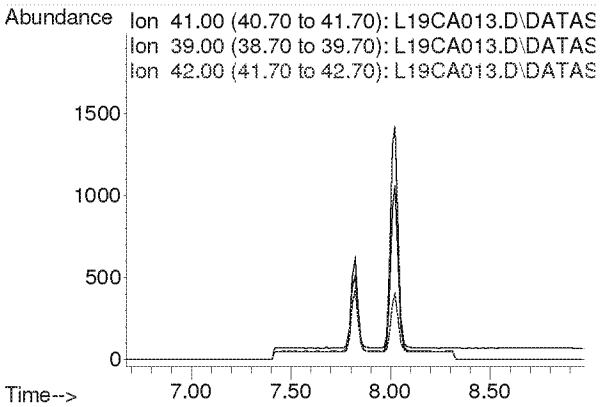


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

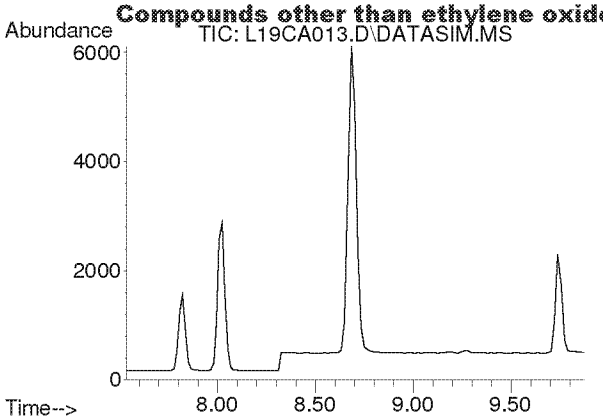
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

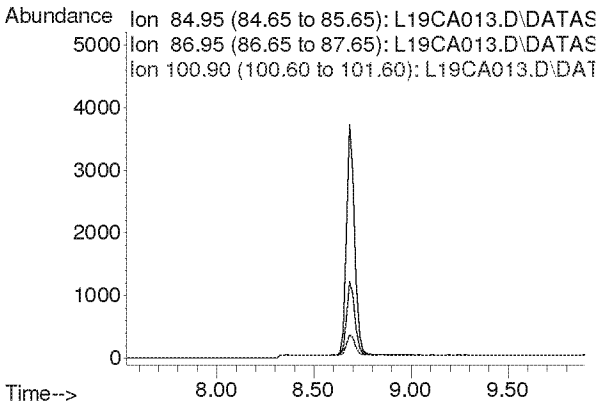


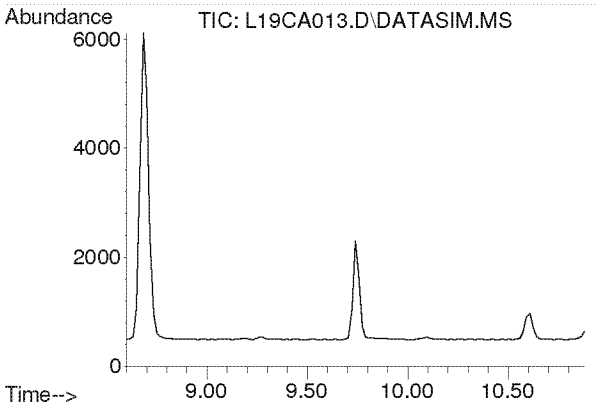
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



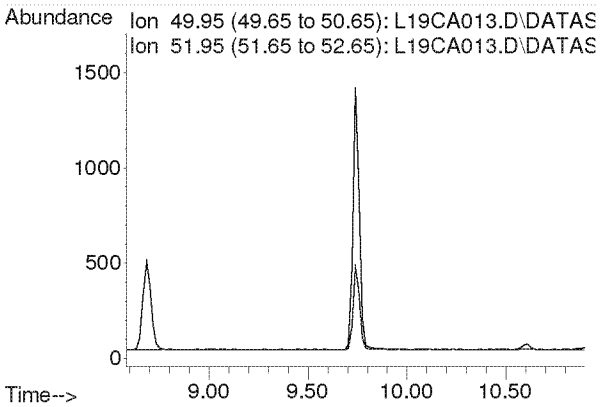


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

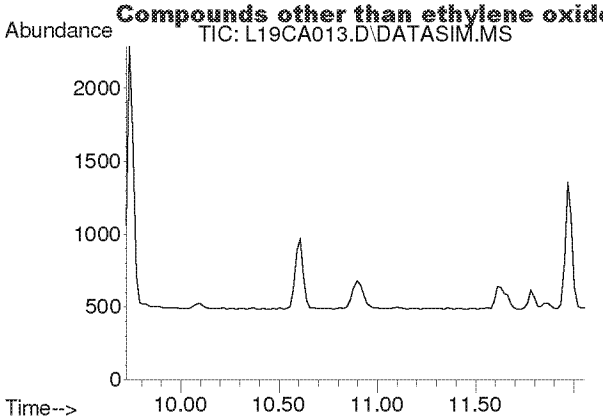
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

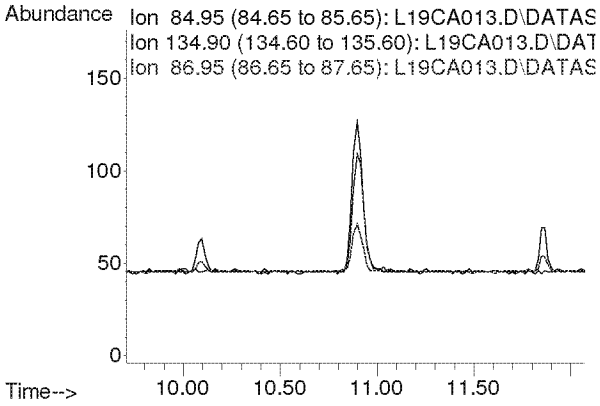


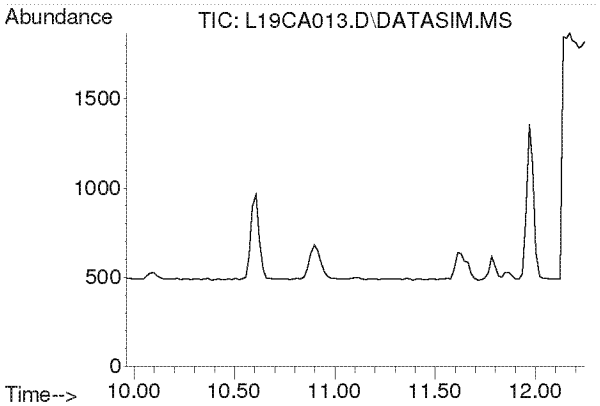
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



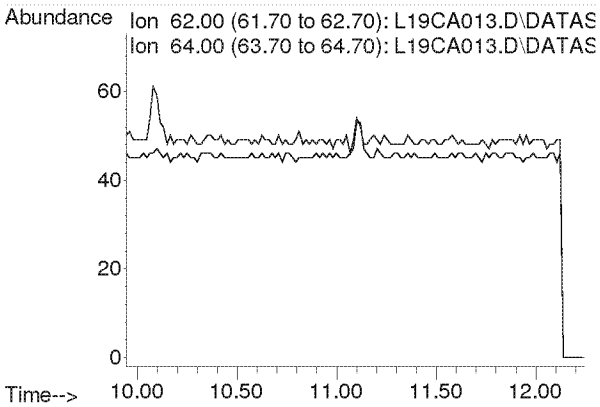


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

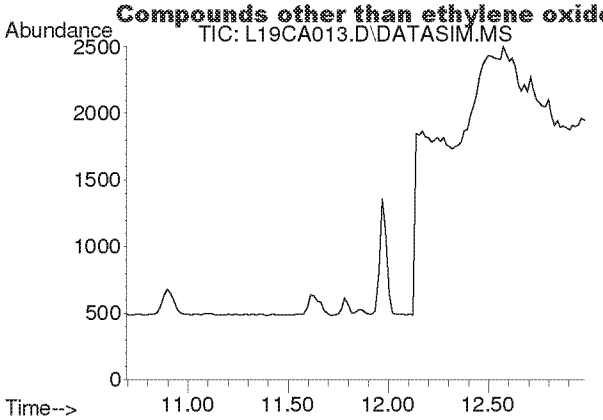
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

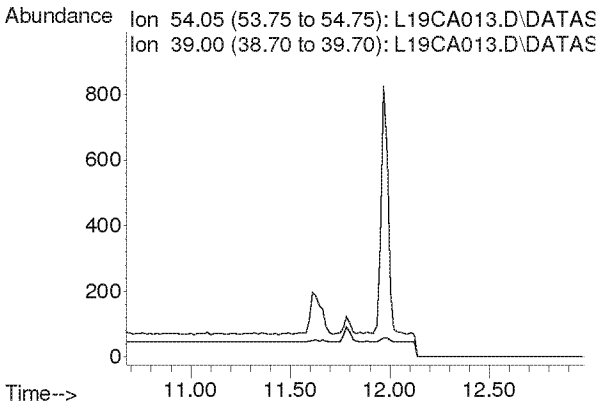


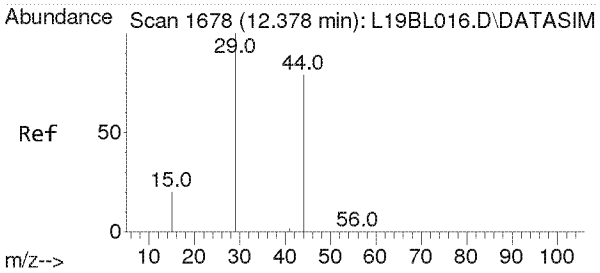
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

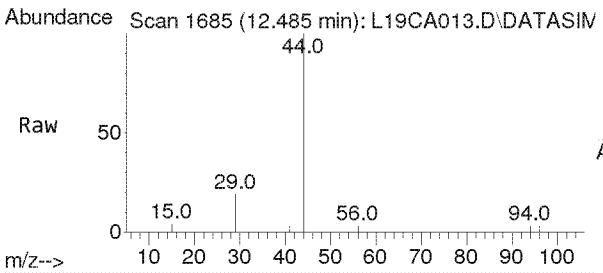


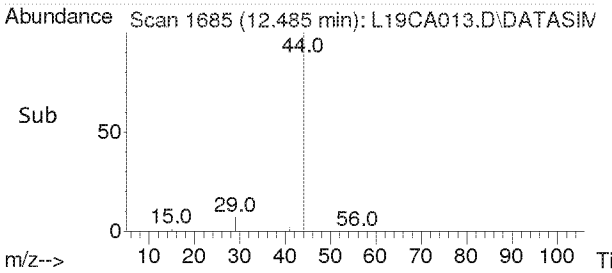


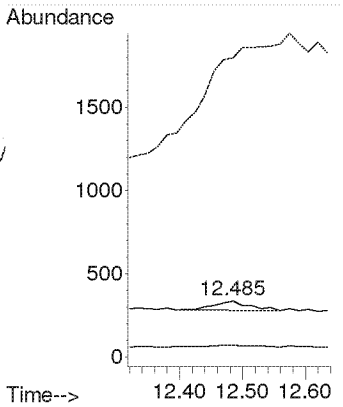
#9
Ethylene oxide
Concen: 0.092 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 29 Resp: 225

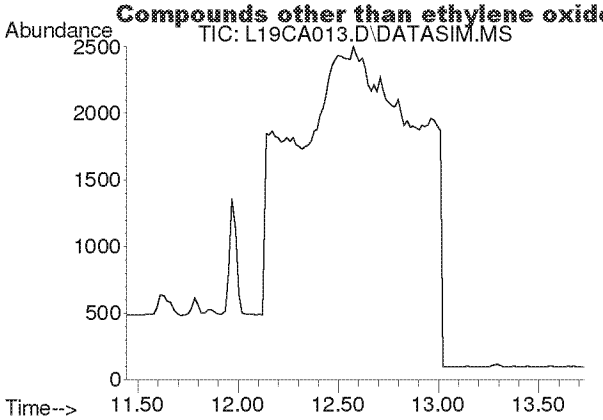
Ion	Ratio	Lower	Upper
29	100		
15	29.8	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

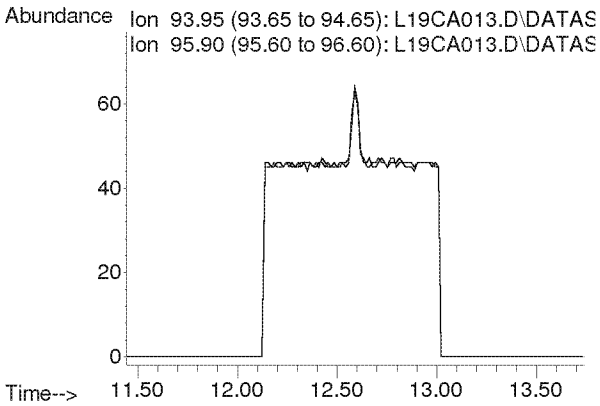


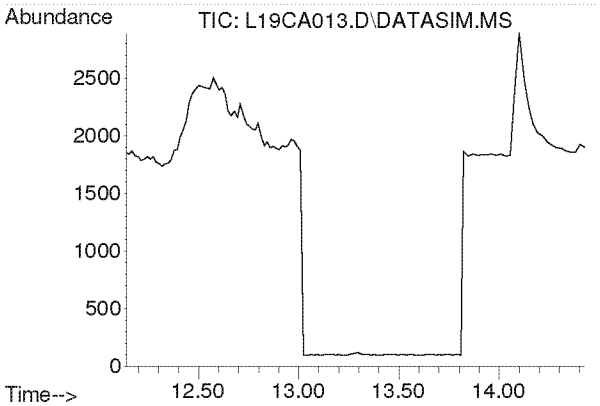
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



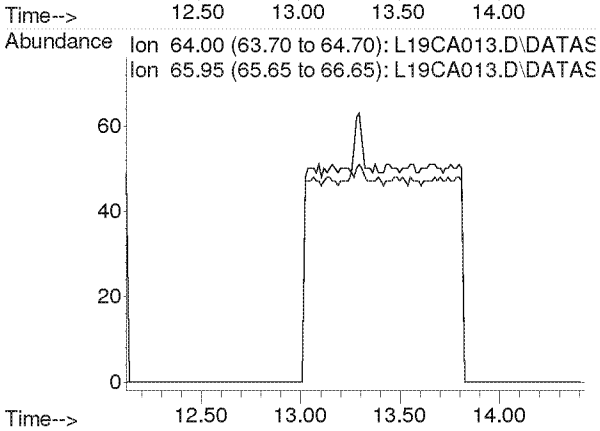


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

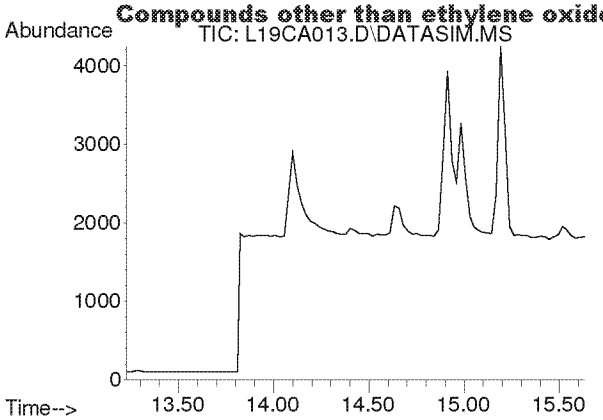
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

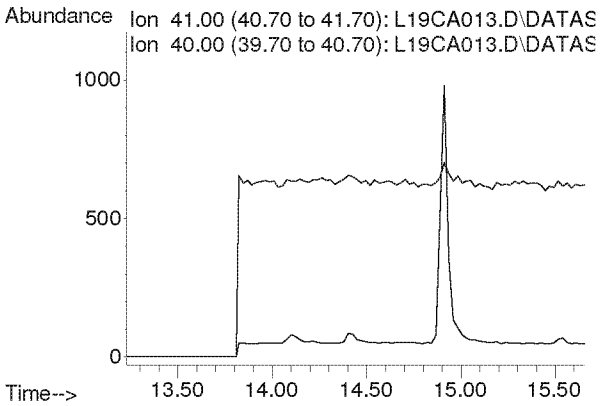


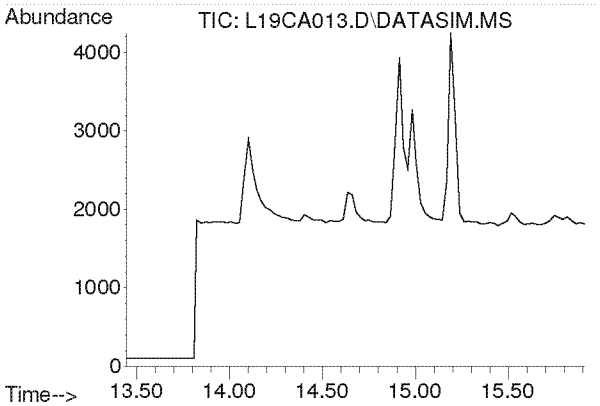
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



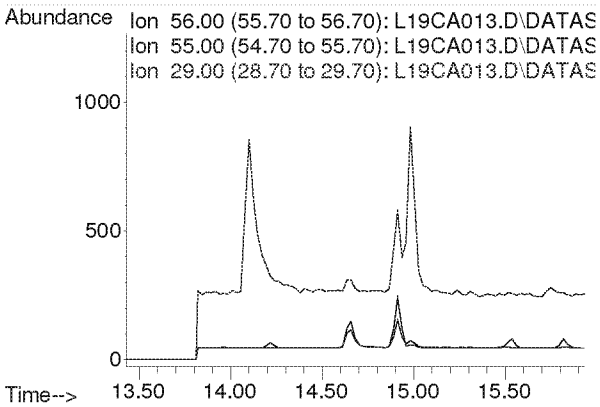


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

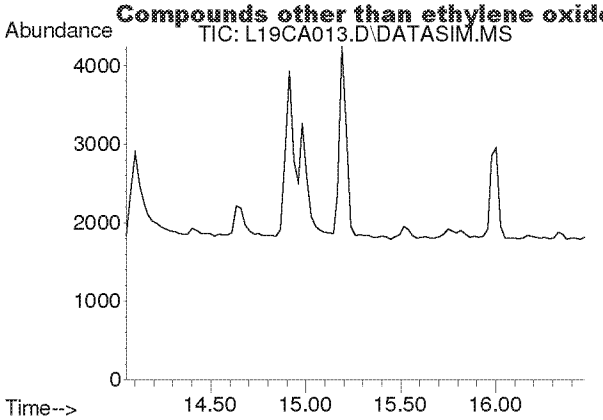
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

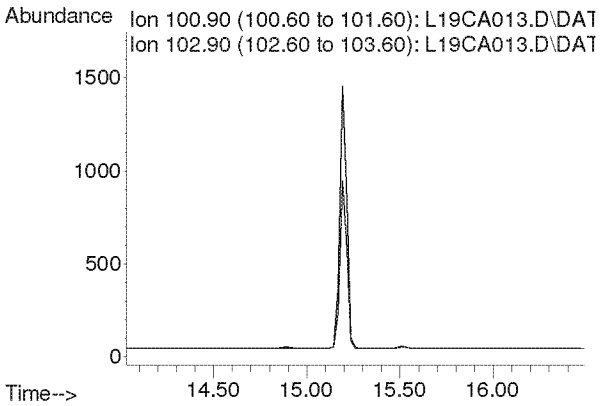


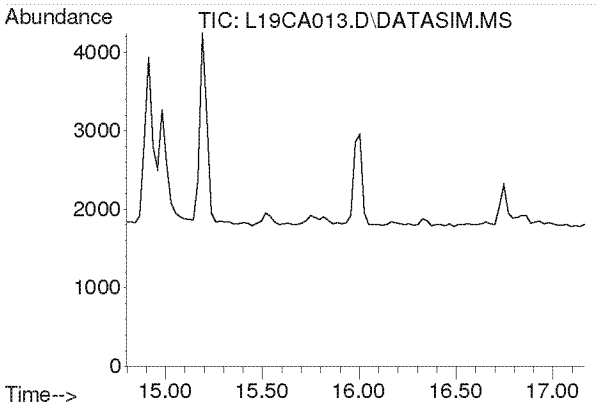
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



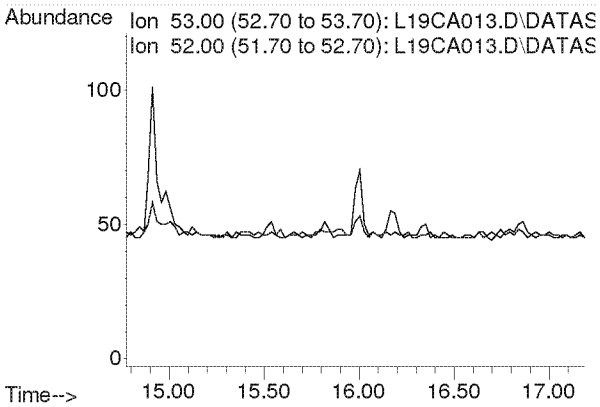


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

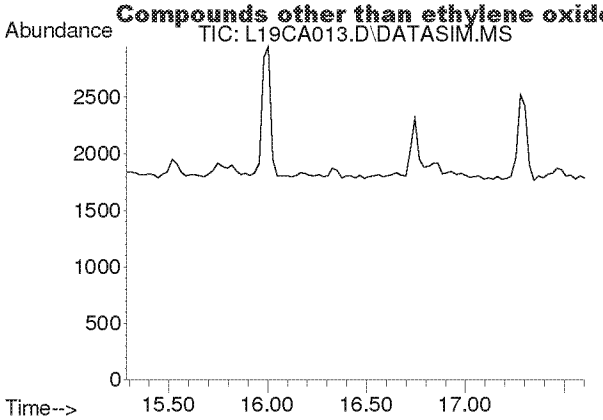
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

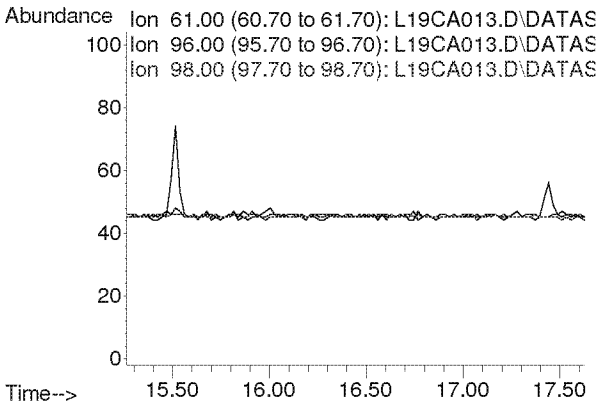


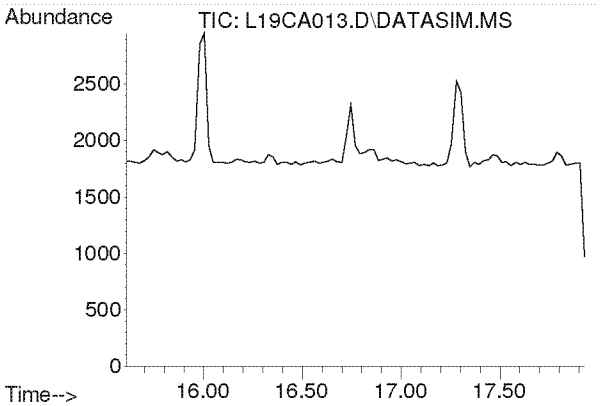
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



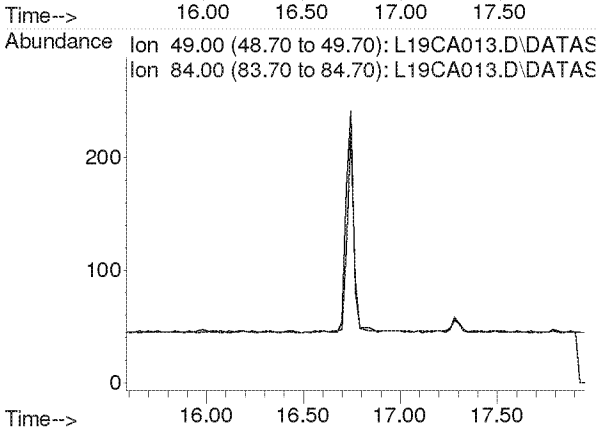


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

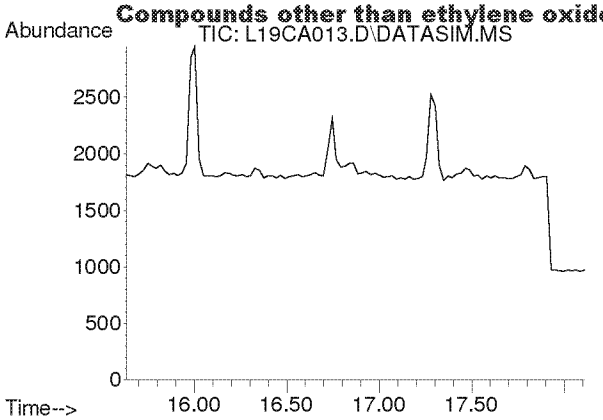
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

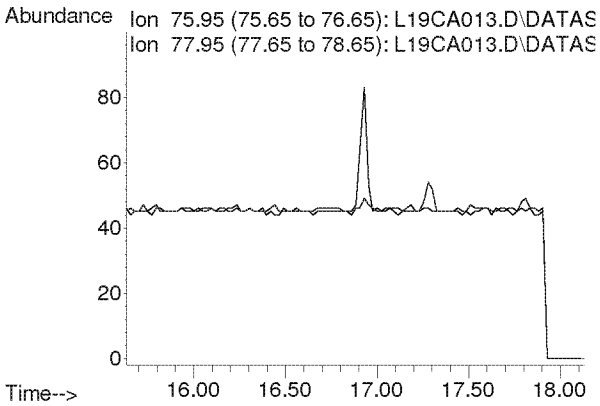


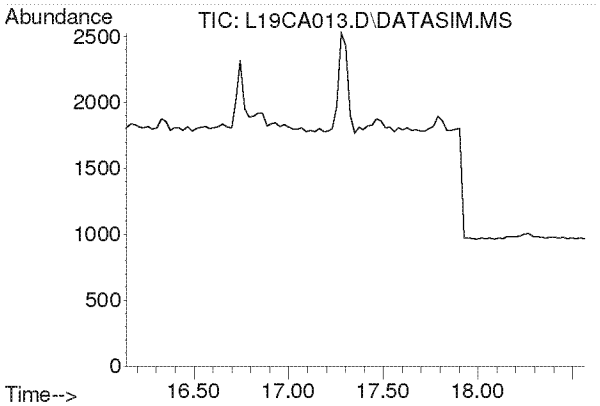
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



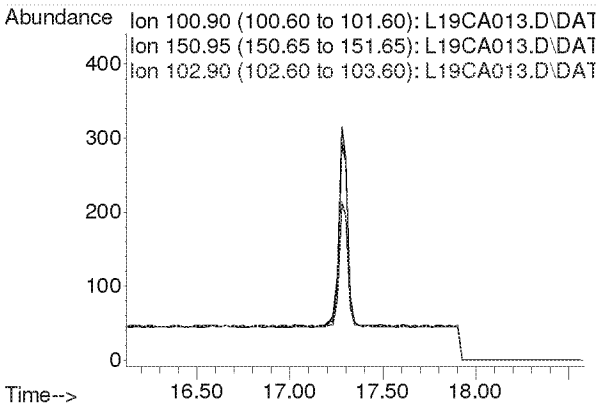


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

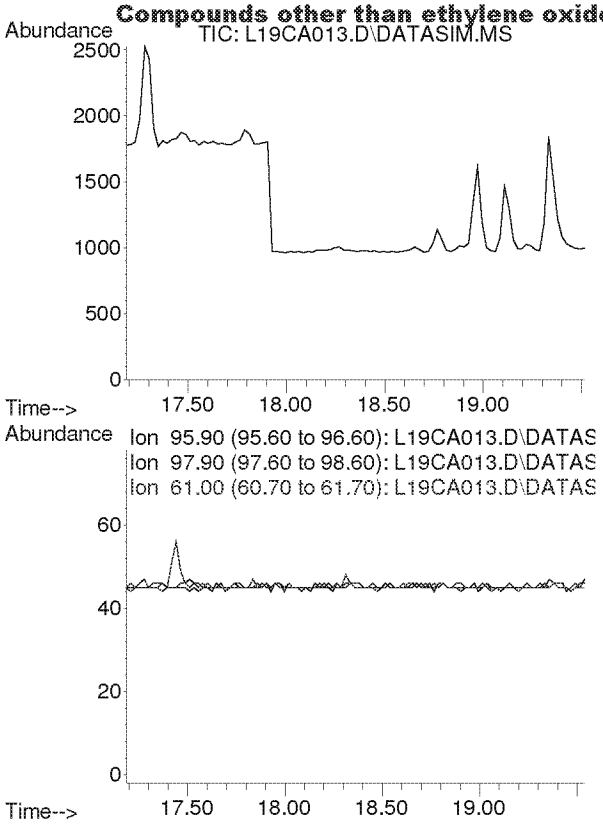
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

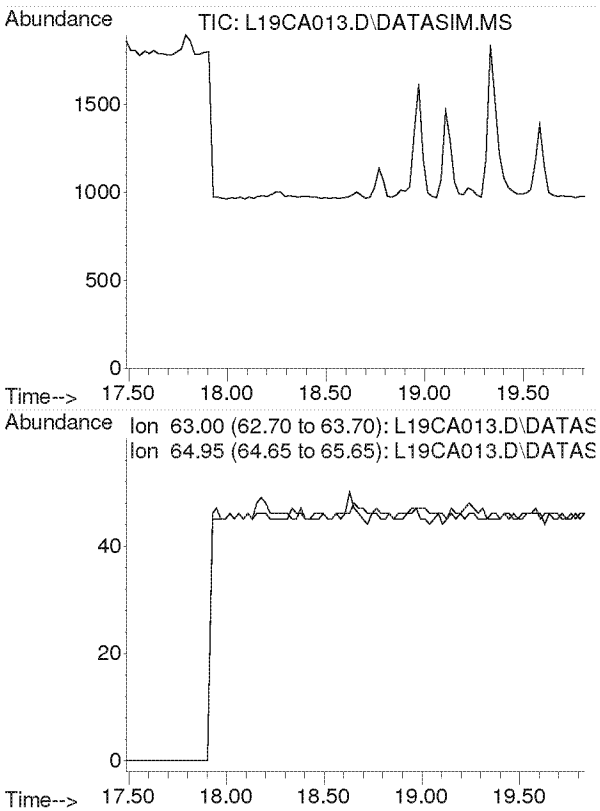


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



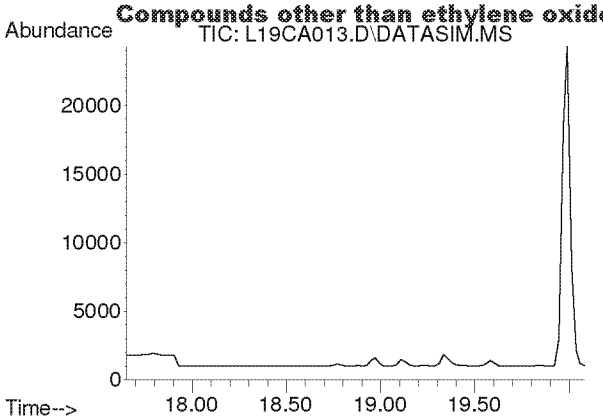
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

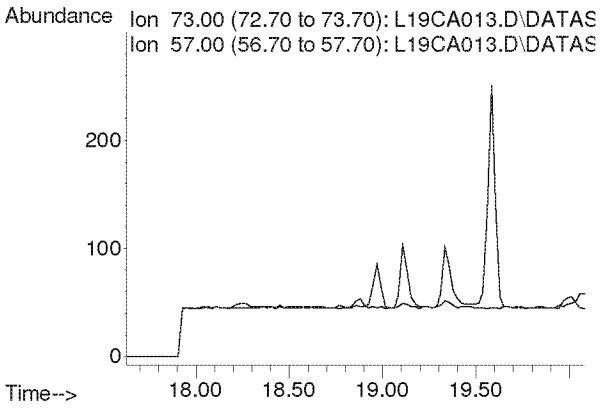


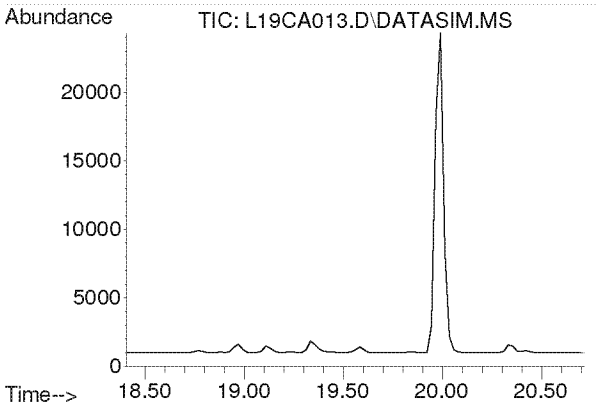
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



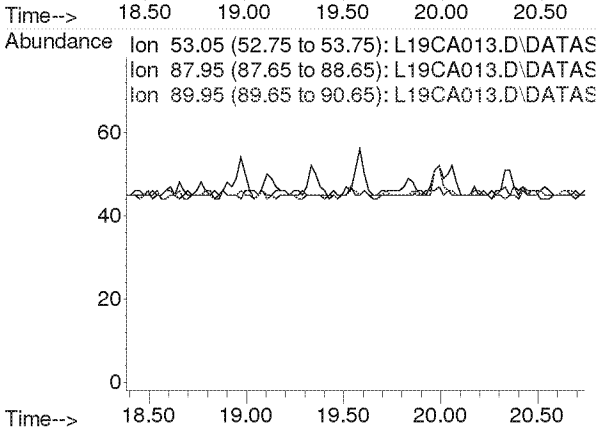


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

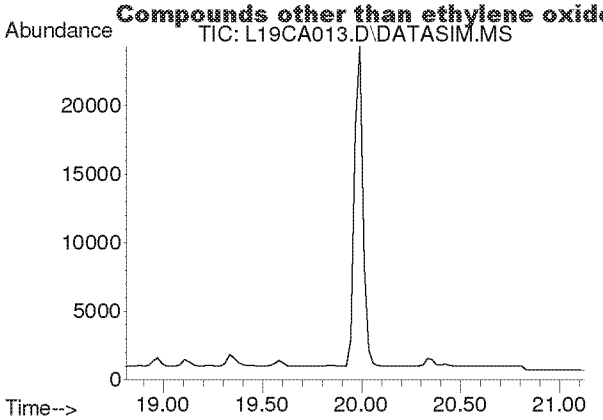
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

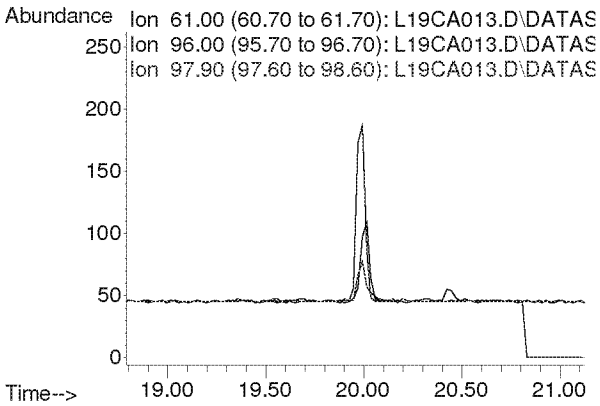


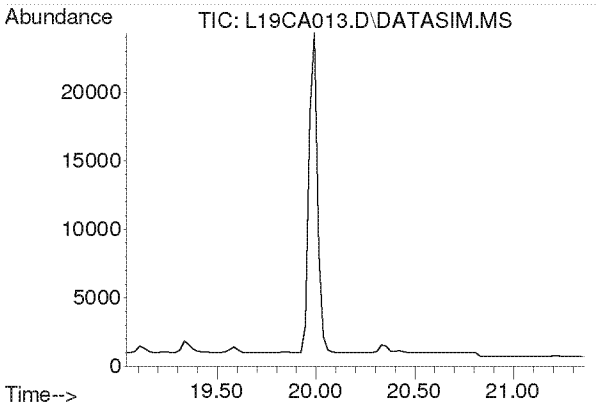
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



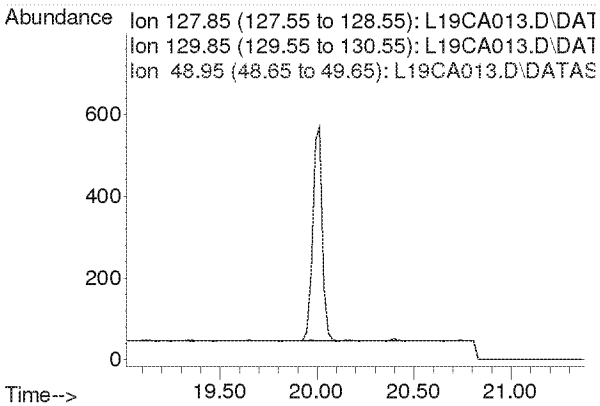


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

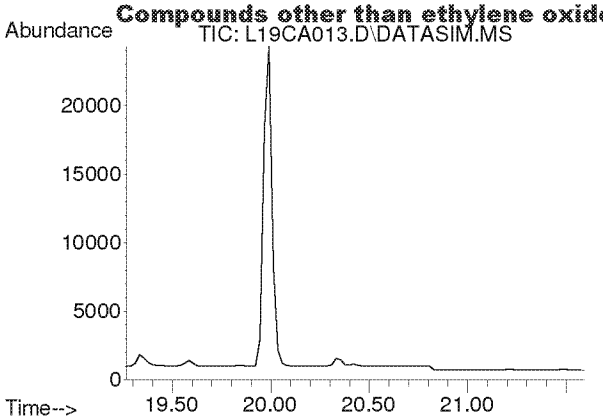
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

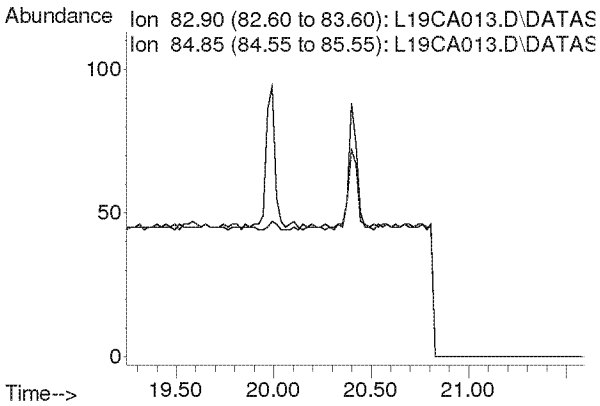


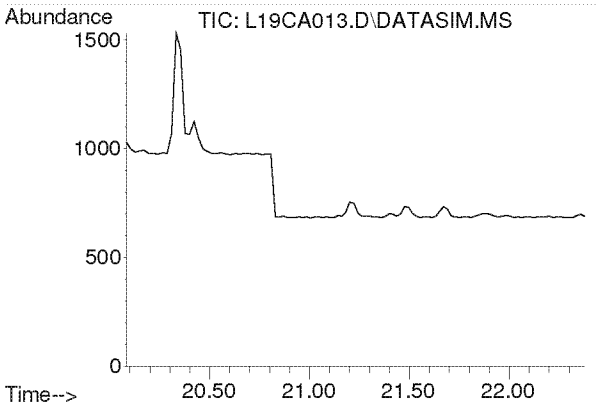
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



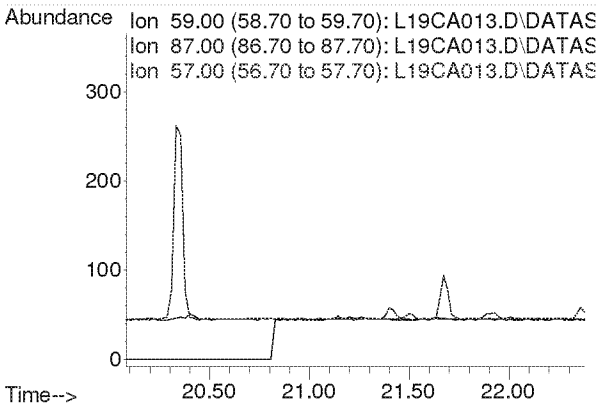


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

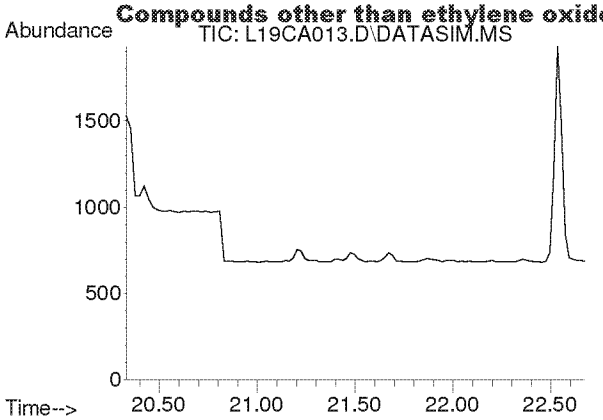
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

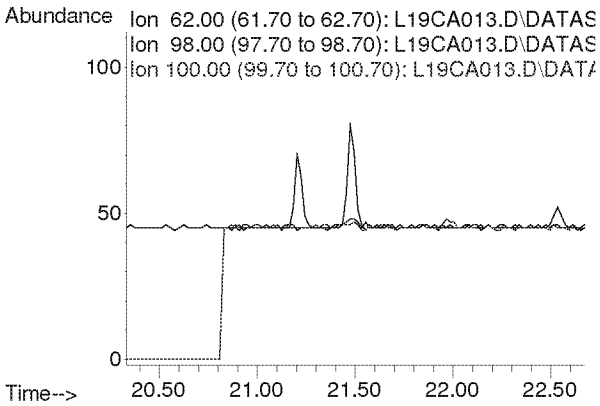


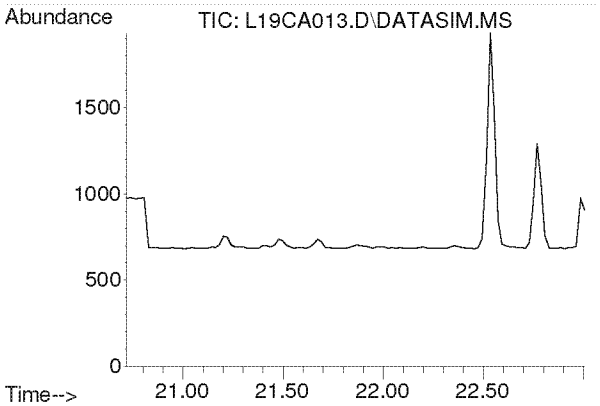
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



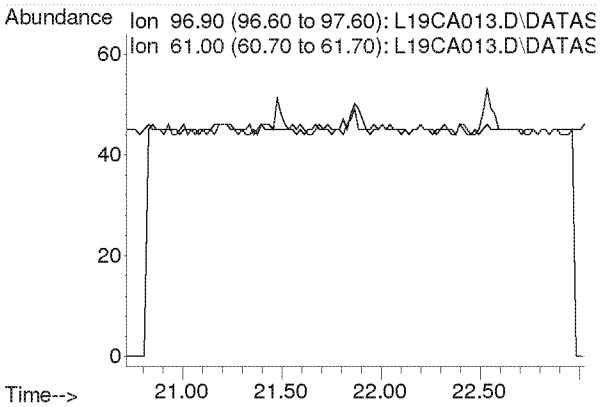


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

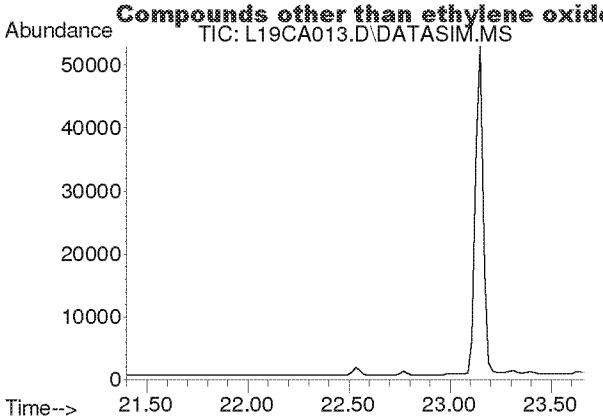
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

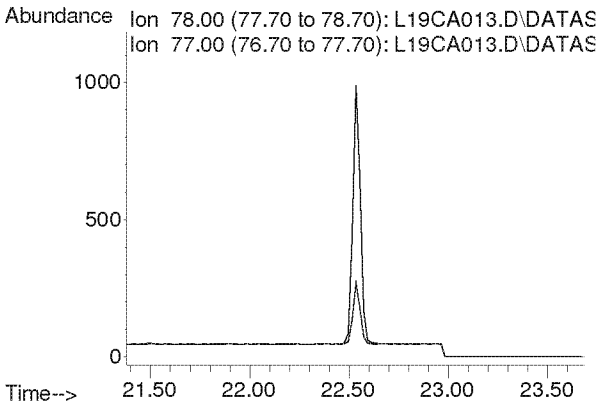


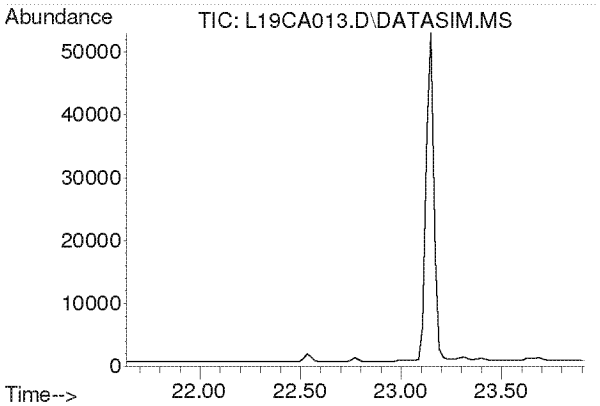
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



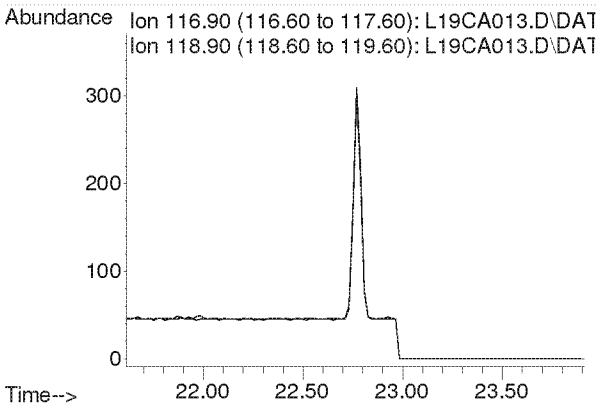


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

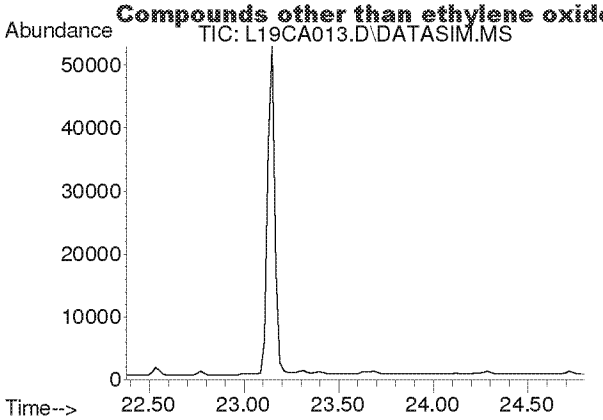
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

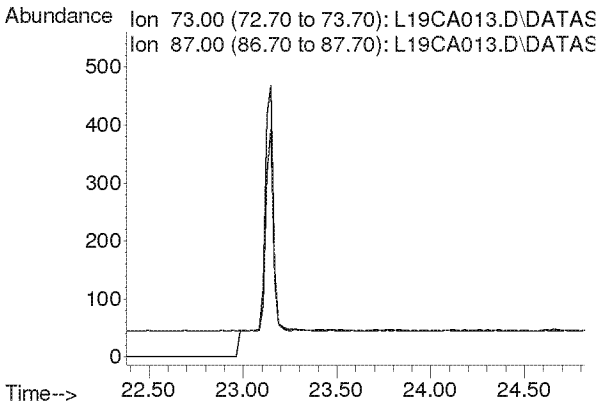


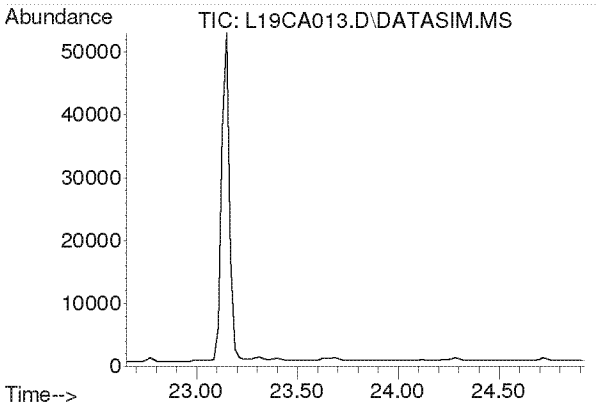
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



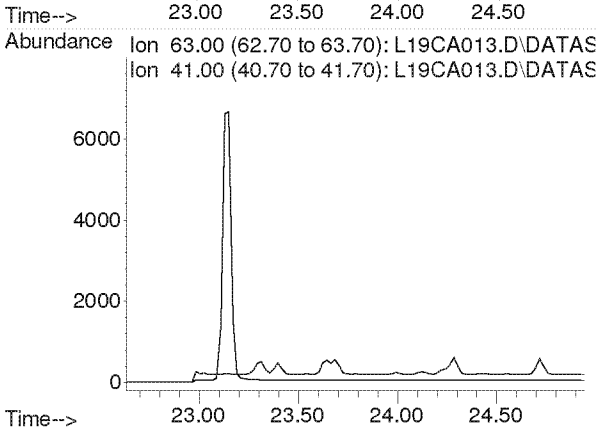


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

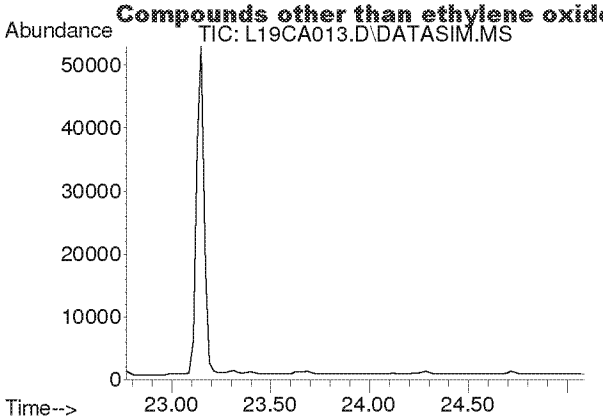
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

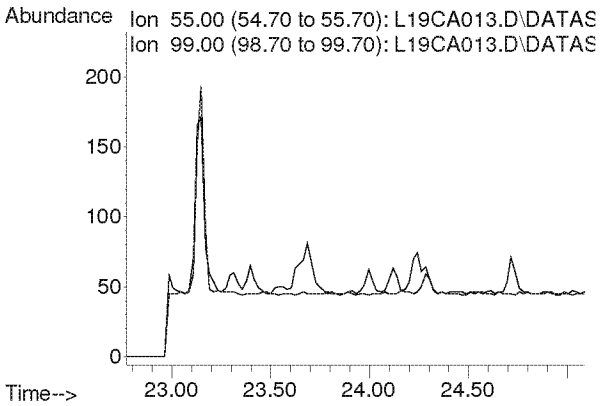


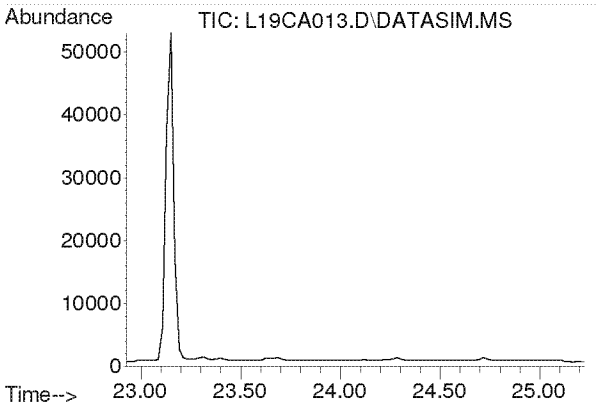
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



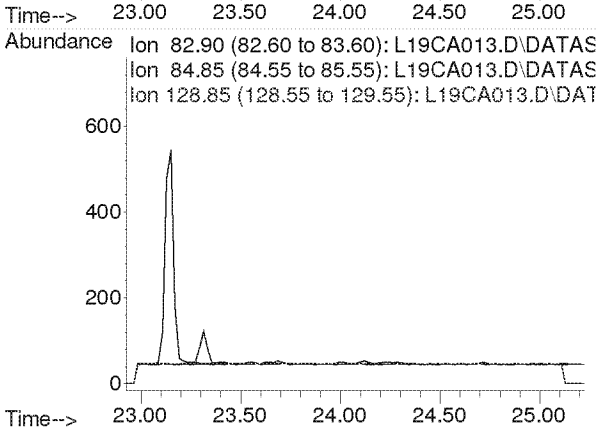


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

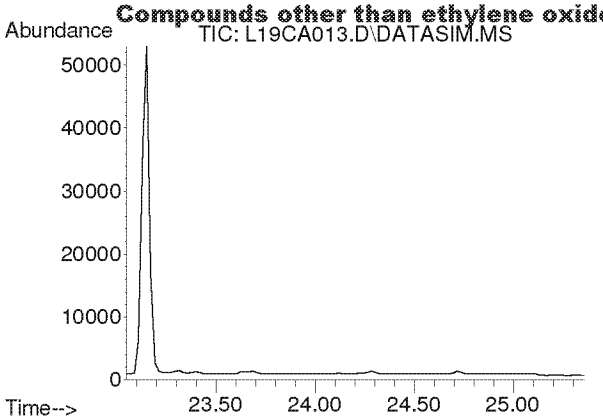
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

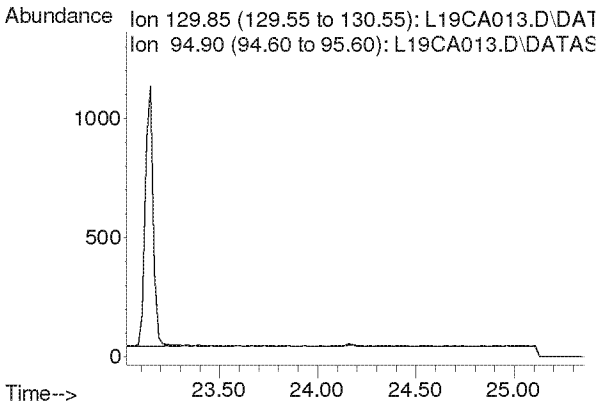


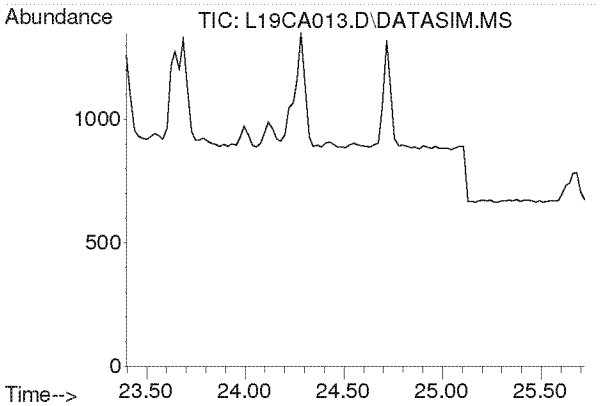
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



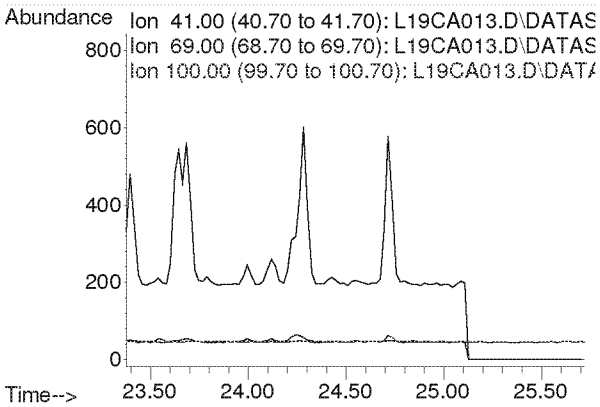


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

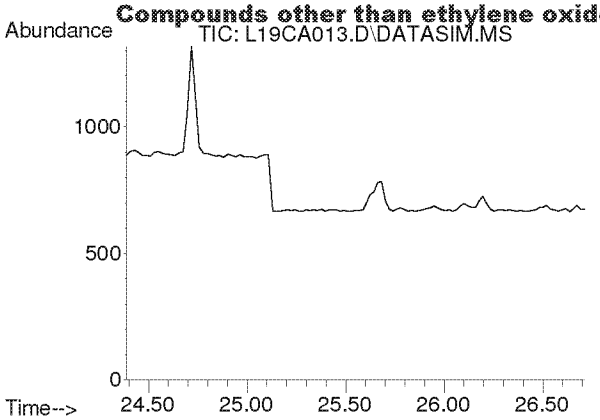
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

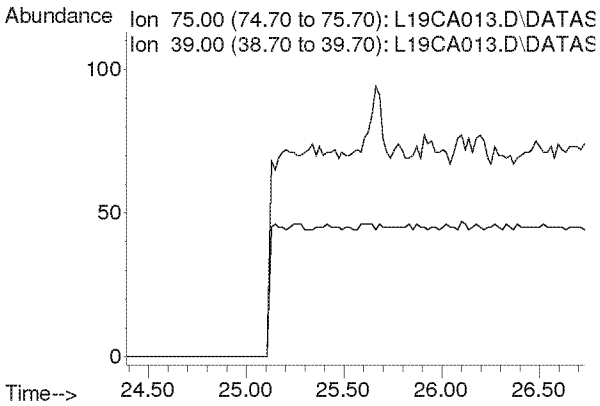


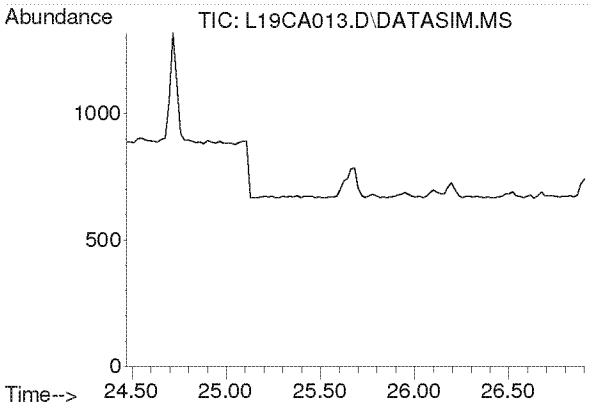
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



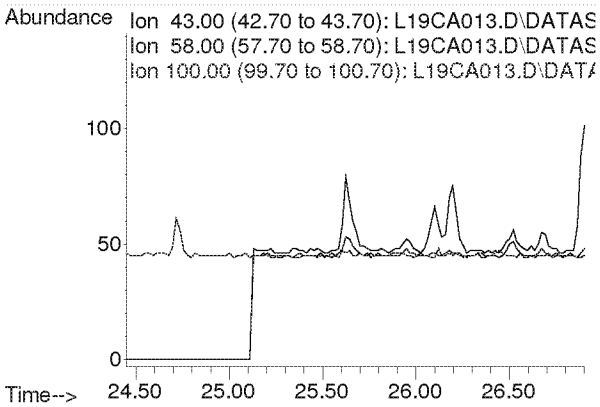


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

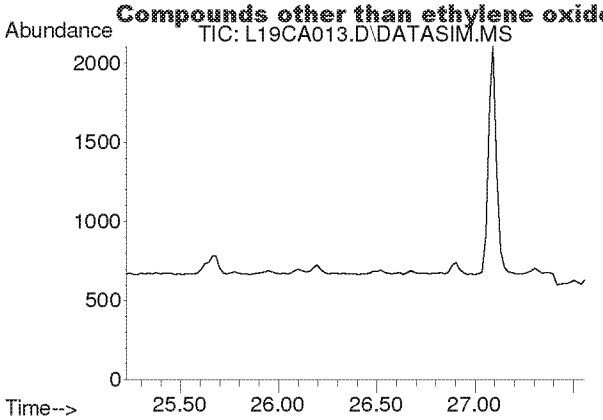
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

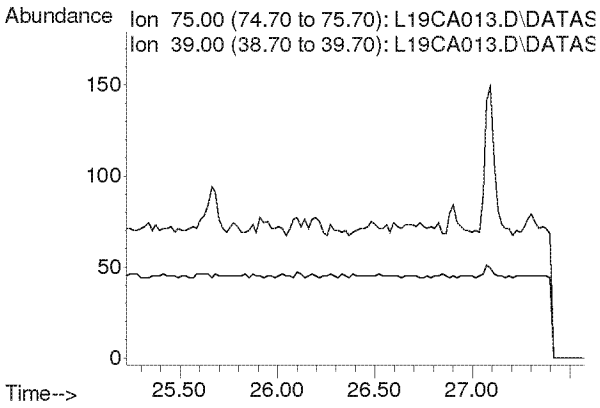


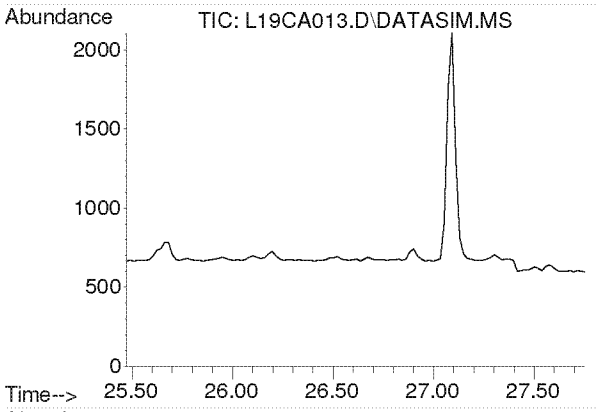
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



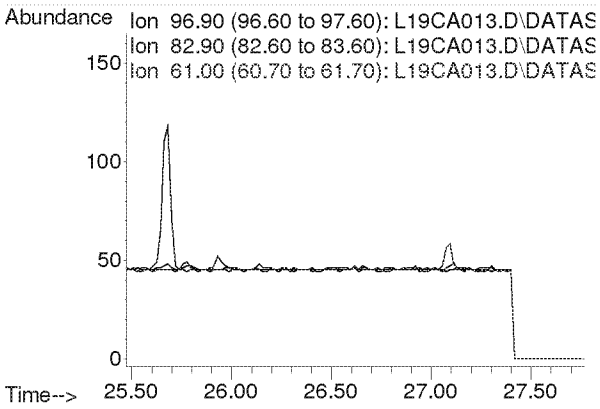


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

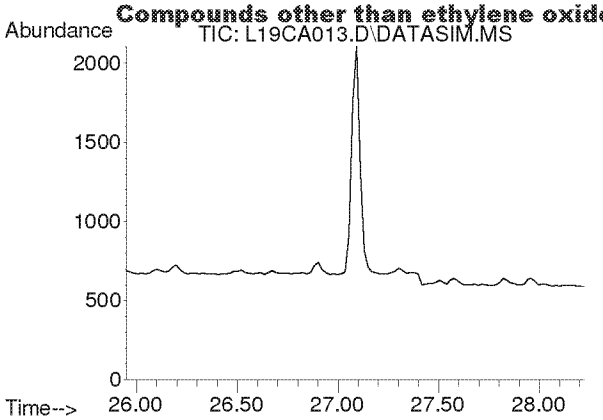
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

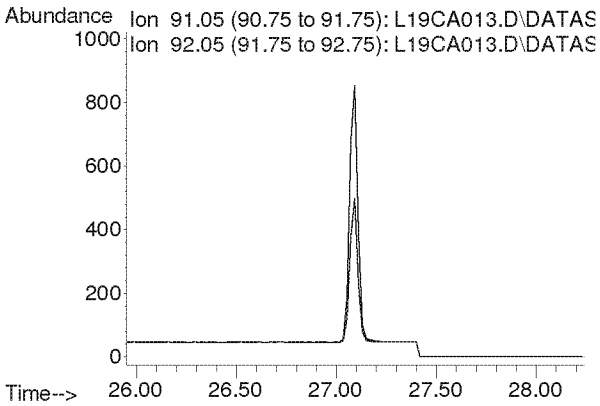


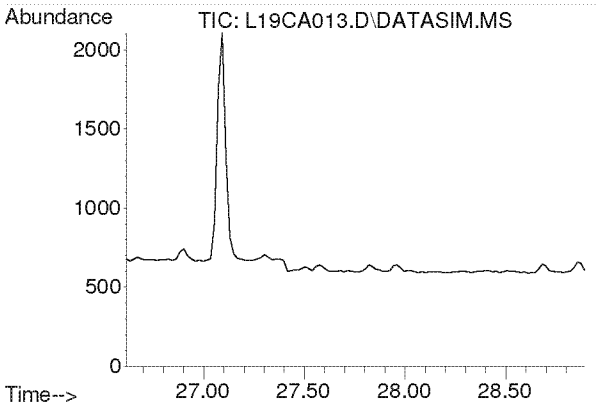
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



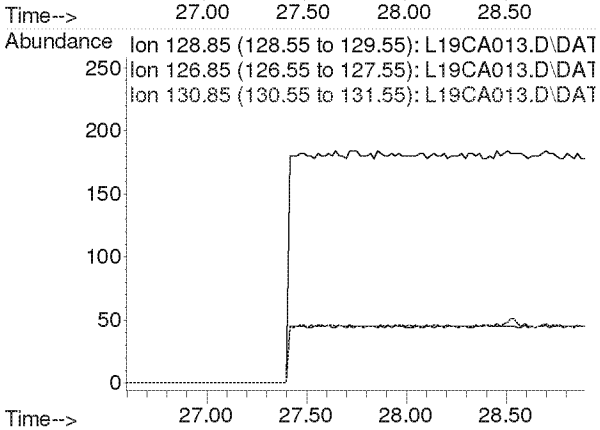


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

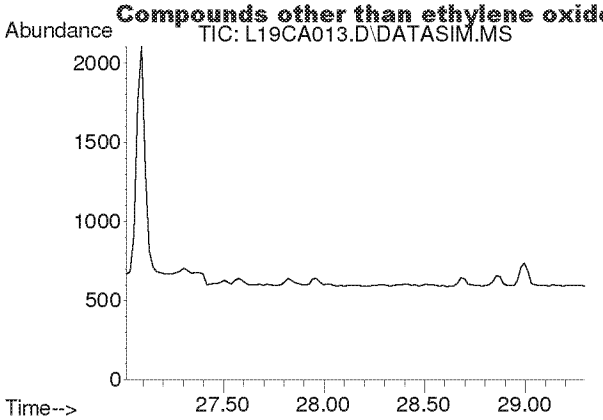
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

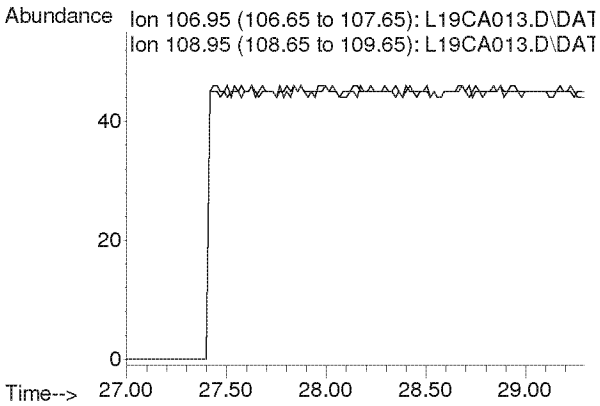


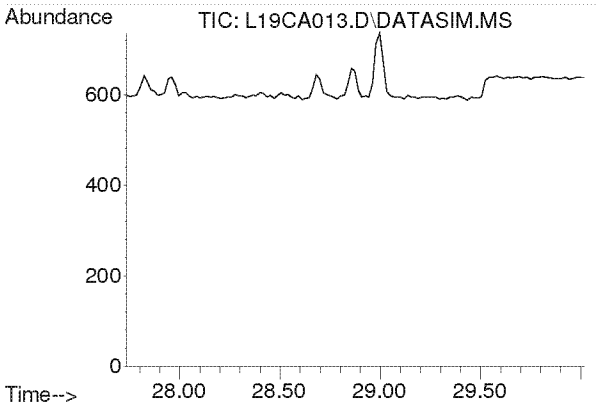
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



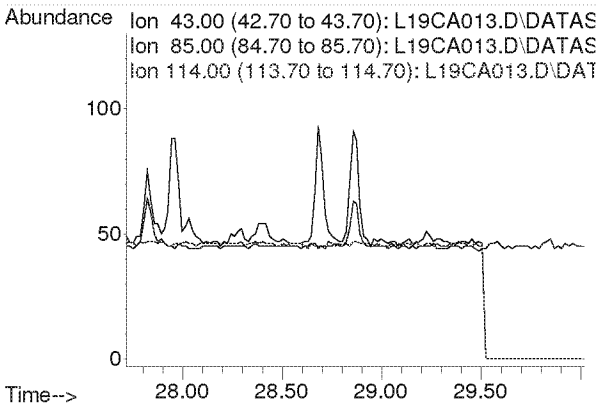


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

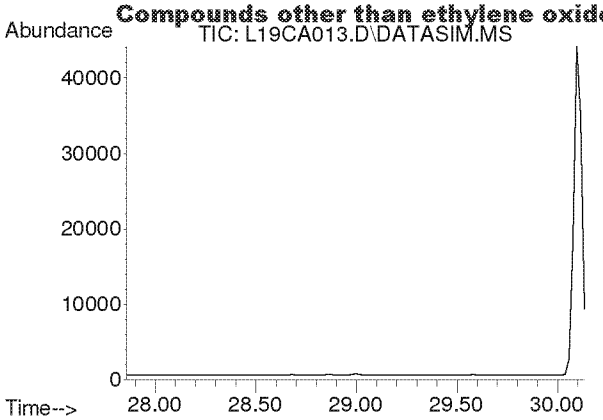
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

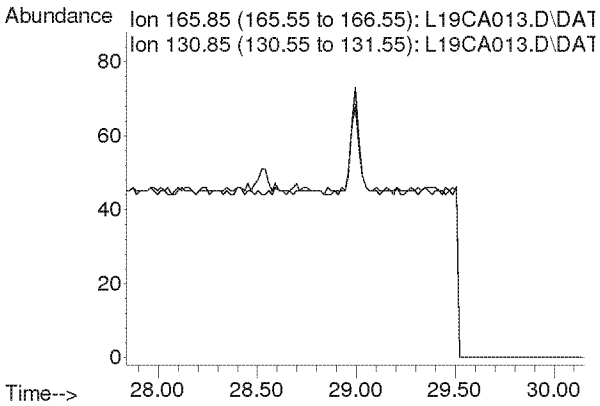


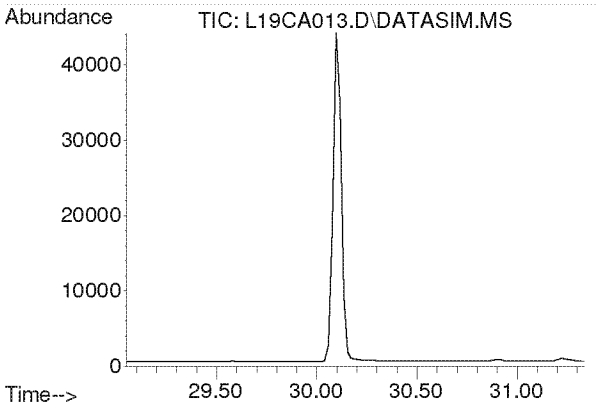
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



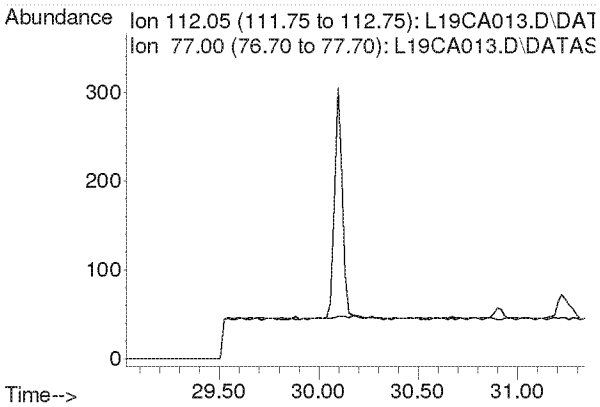


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

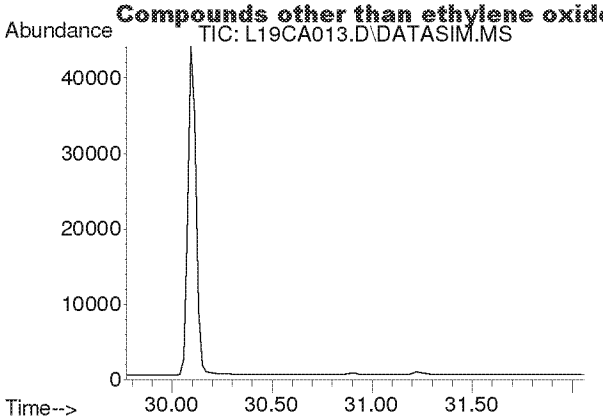
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

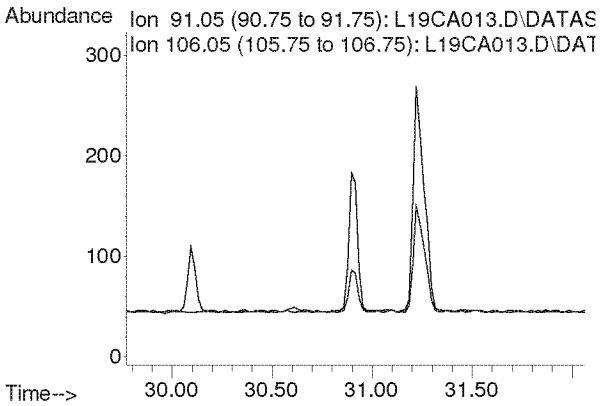


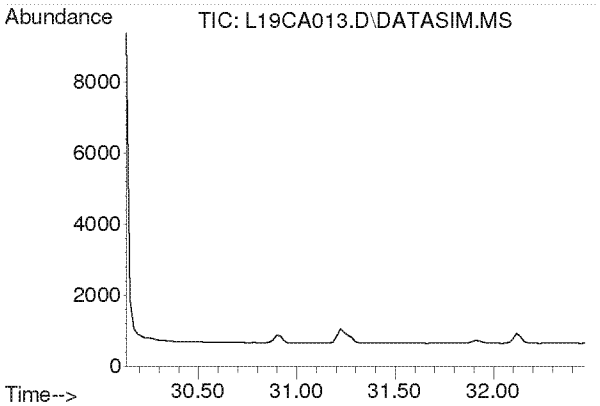
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



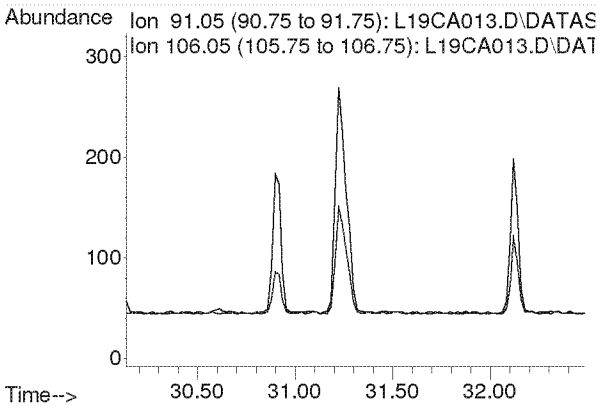


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

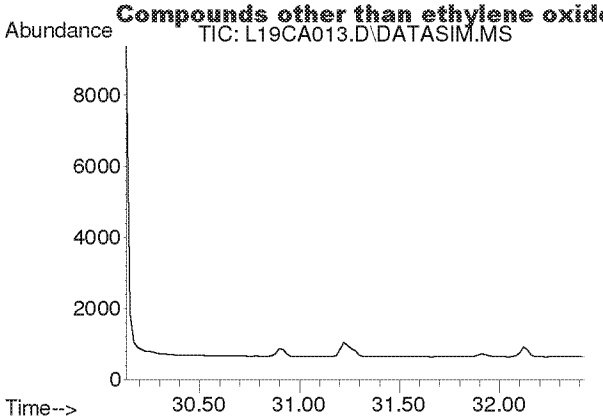
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

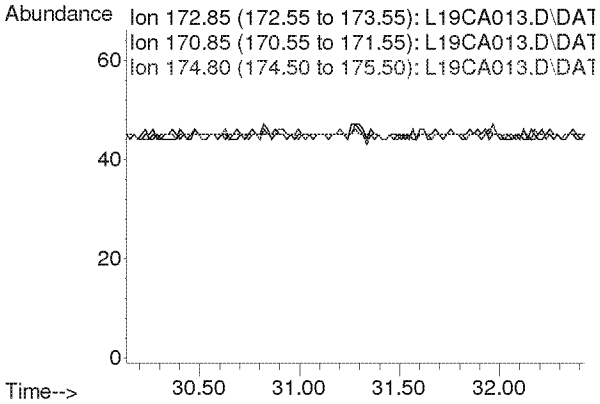


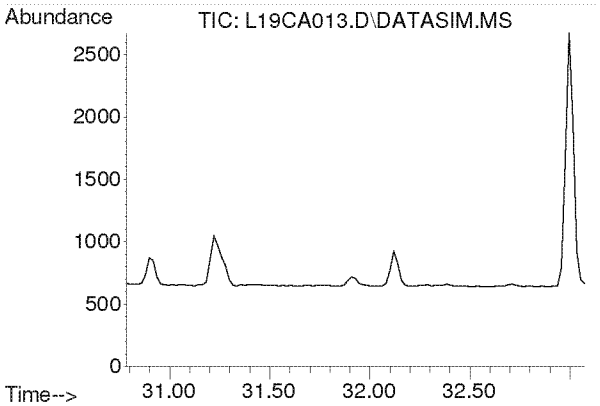
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



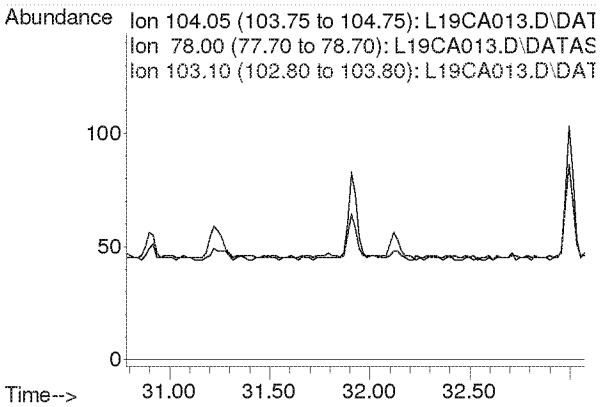


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

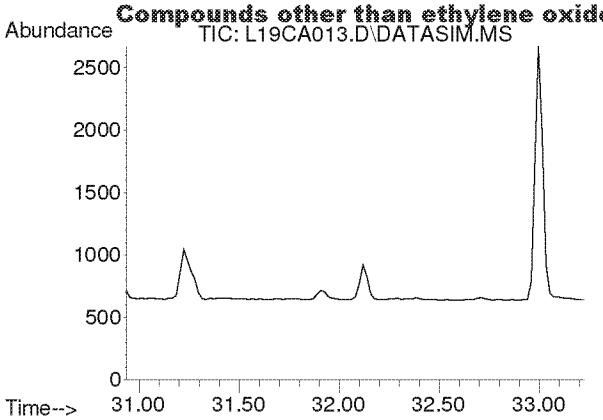
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

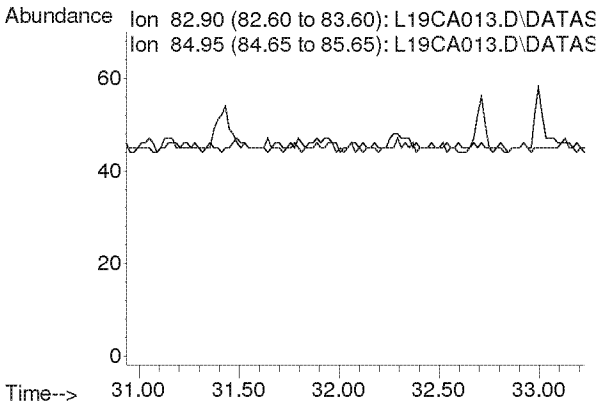


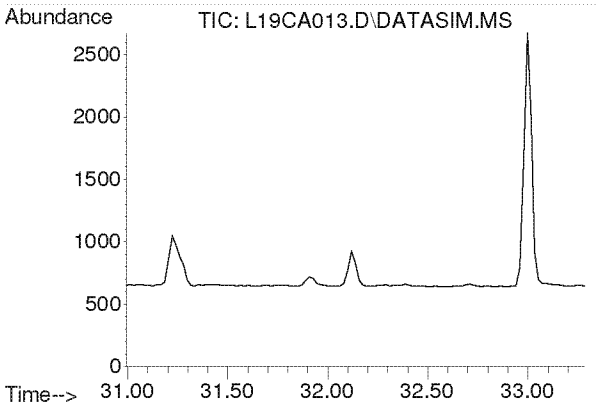
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



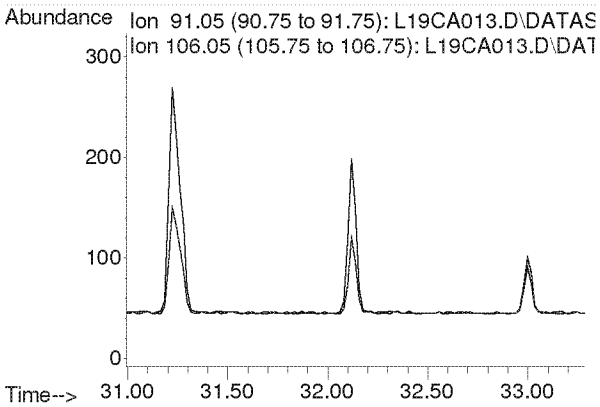


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

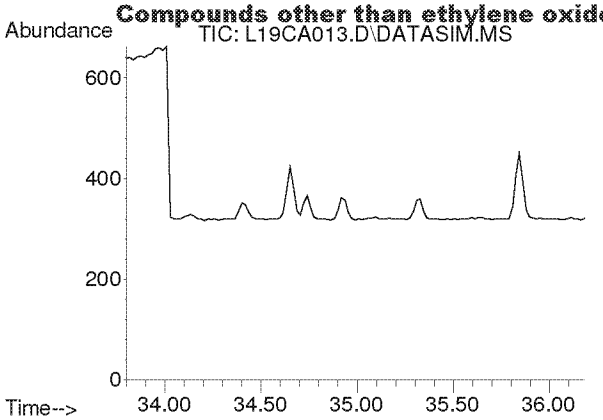
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

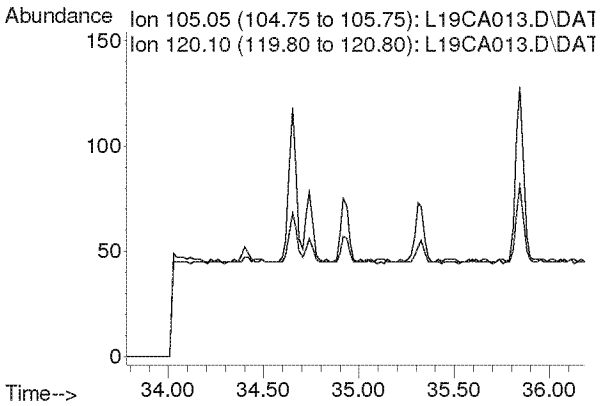


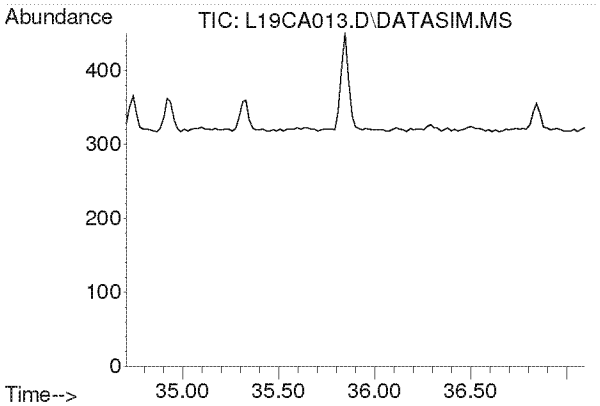
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



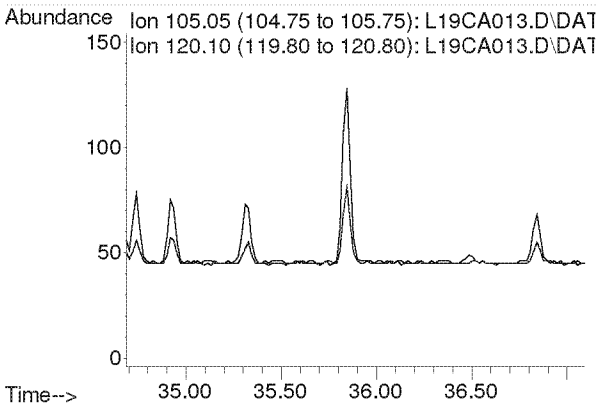


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

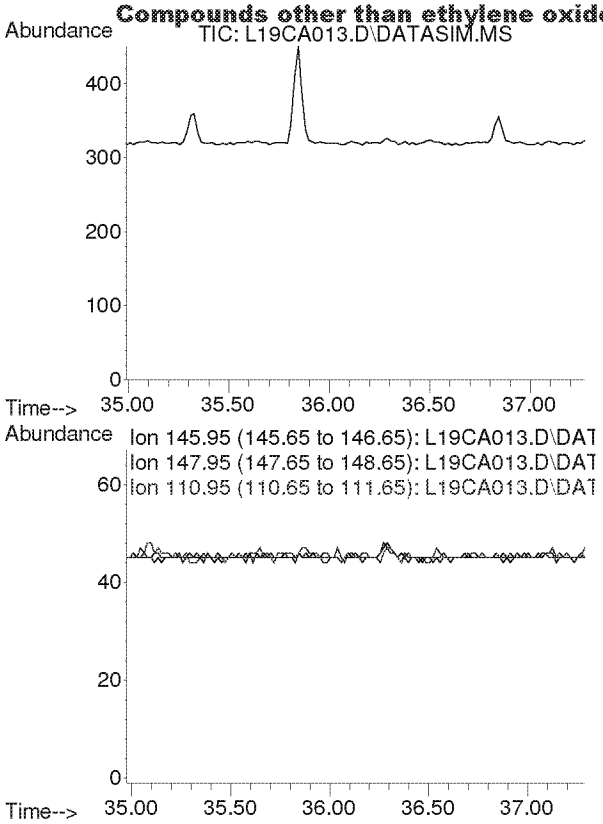
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

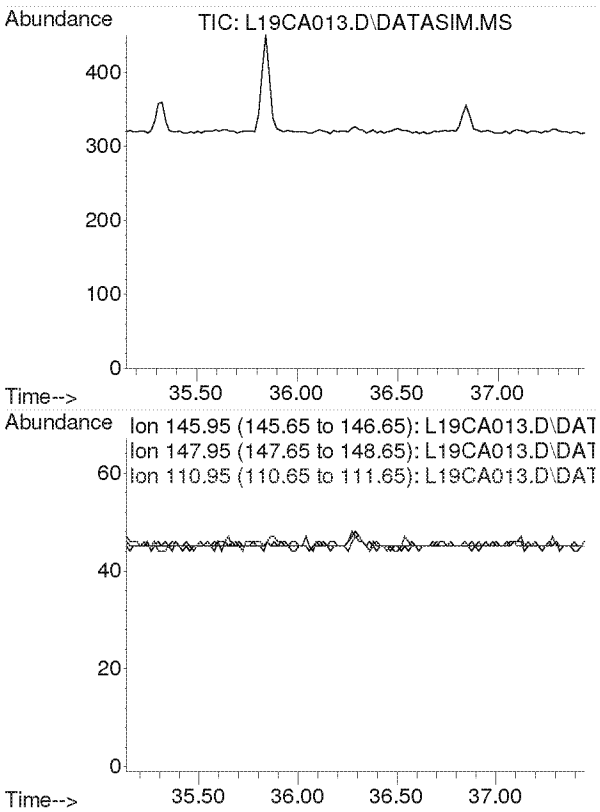


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



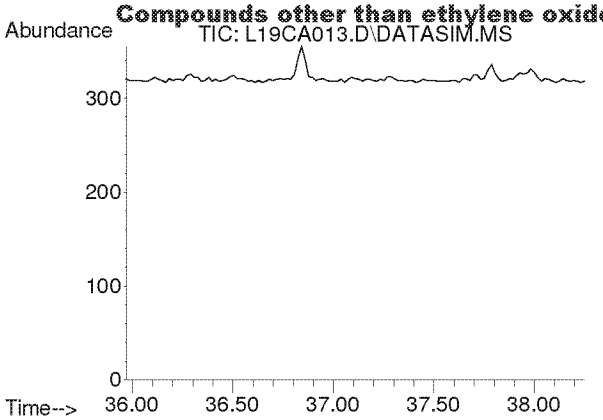
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

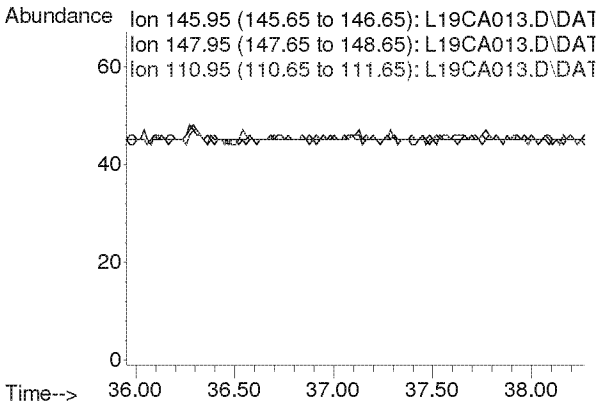


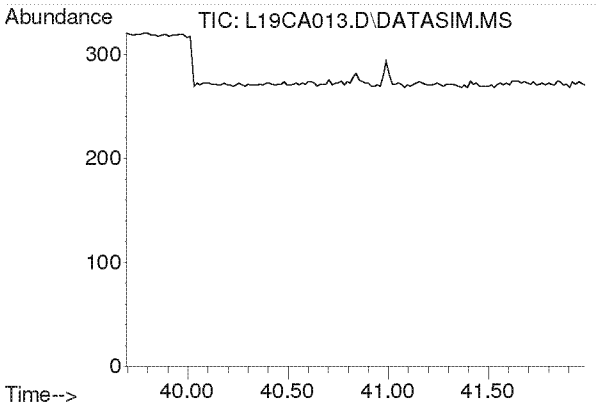
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



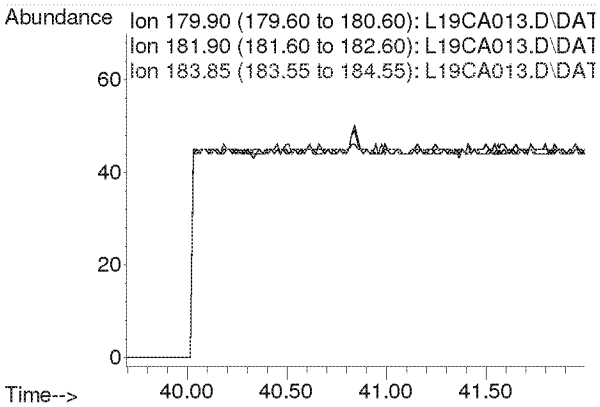


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

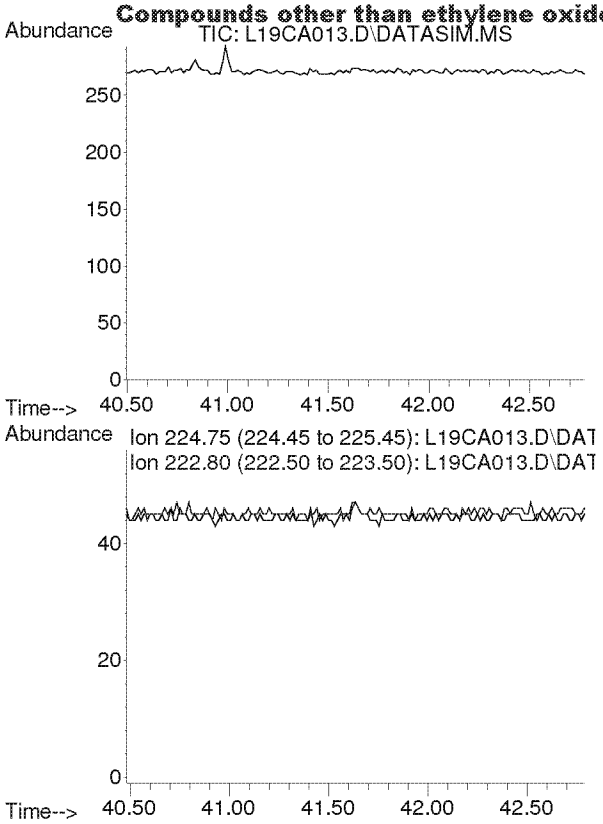
Lab File: L19CA013.D
Acq: 2 Mar 2019 3:35 am

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: L19CA013.D
Acq: 2 Mar 2019 3:35 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\L19CA\
Data File : L19CA014.D
Acq On : 2 Mar 2019 4:35 am (#1); 02-Mar-19, 04:30:14 (#2)
Operator : MAH
Sample : 9030101-08
Misc : WB VILLAGE HALL C2 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 05 09:08:10 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

ETO only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	43902	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	111035	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	76881	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. 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\L19CA\
Data File : L19CA014.D
Acq On : 2 Mar 2019 4:35 am (#1); 02-Mar-19, 04:30:14 (#2)
Operator : MAH
Sample : 9030101-08
Misc : WB VILLAGE HALL C2 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 05 09:08:10 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.	

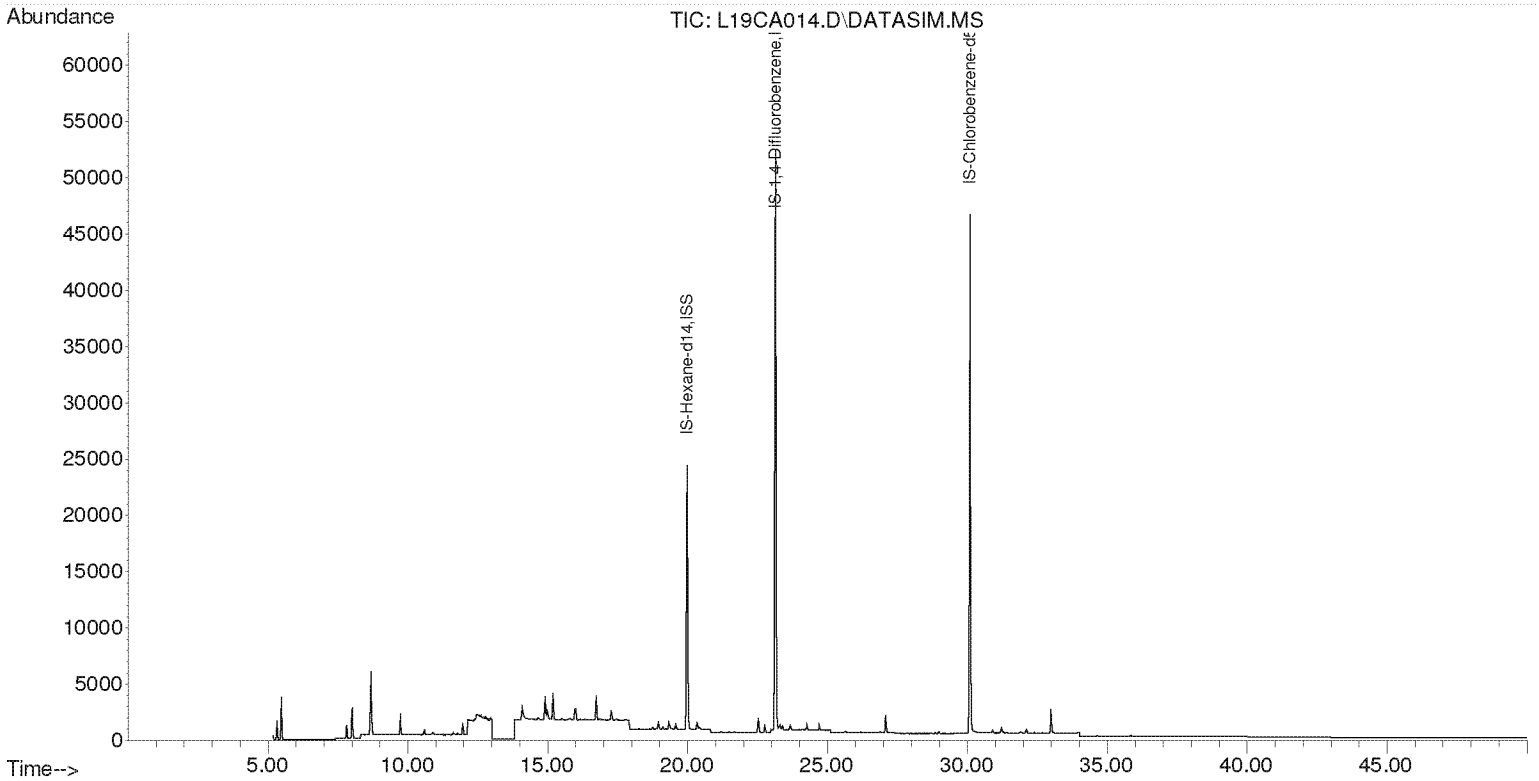
(#) = qualifier out of range (m) = manual integration (+) = signals summed

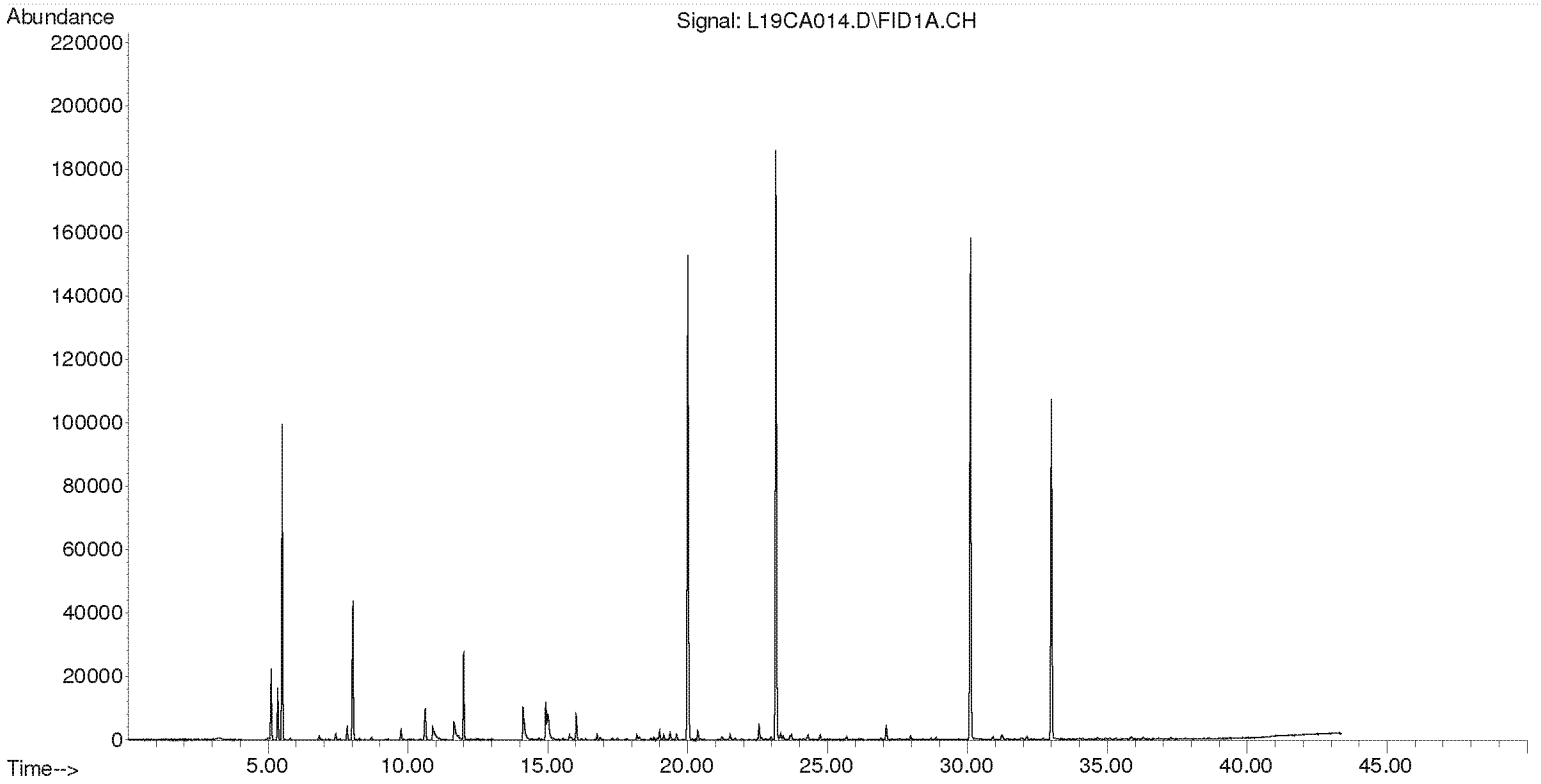
ED_002475_00000345-00384

Compounds other than ethylene oxide were not quantitated.

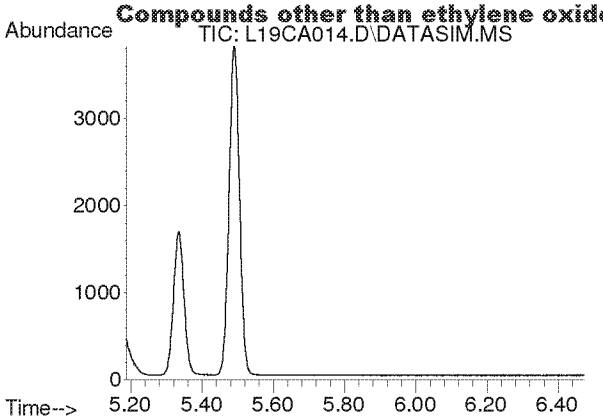
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA014.D
Acq On : 2 Mar 2019 4:35 am (#1); 02 Mar 2019 4:30 am (#2)
Operator : MAH
Sample : 9030101-08
Misc : WB VILLAGE HALL C2 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 05 08:54:38 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





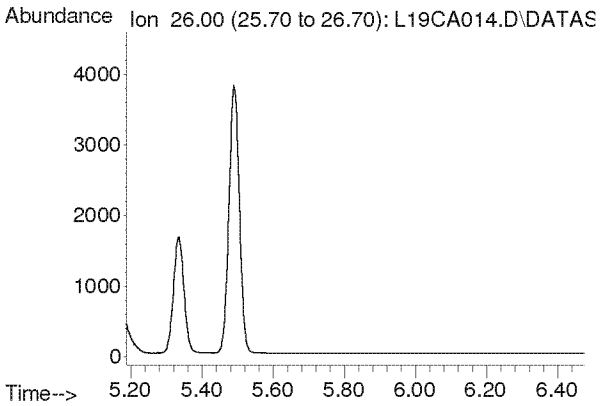
Compounds other than ethylene oxide were not quantitated.

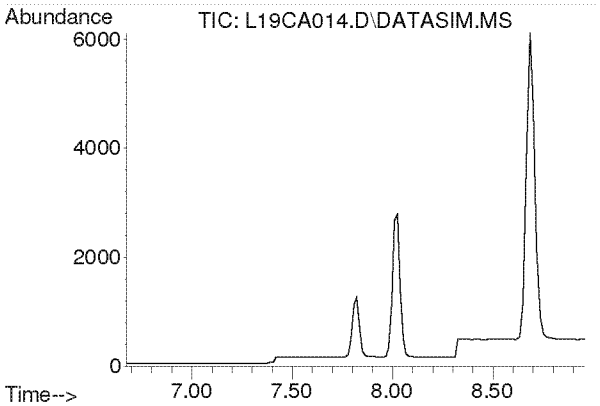


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 26



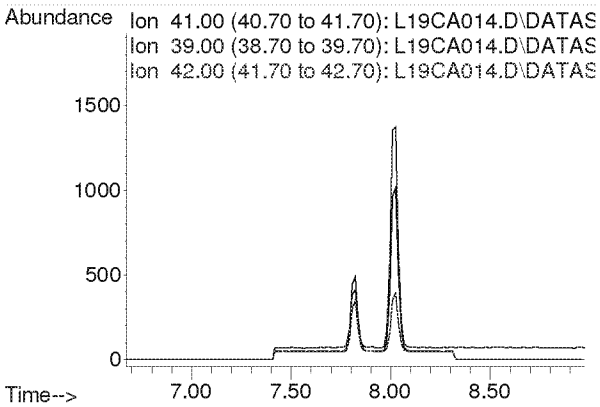


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

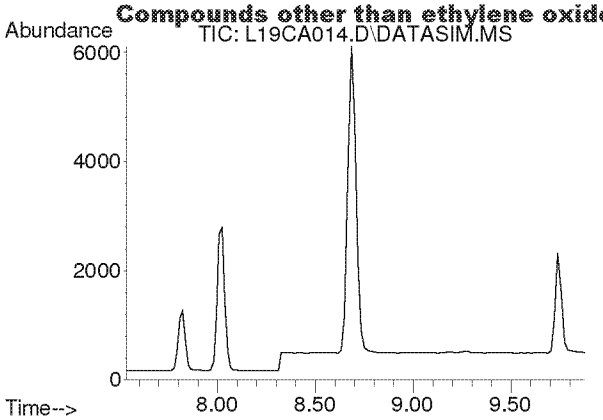
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

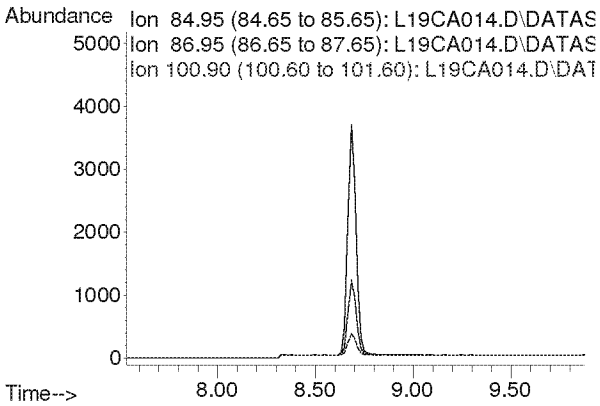


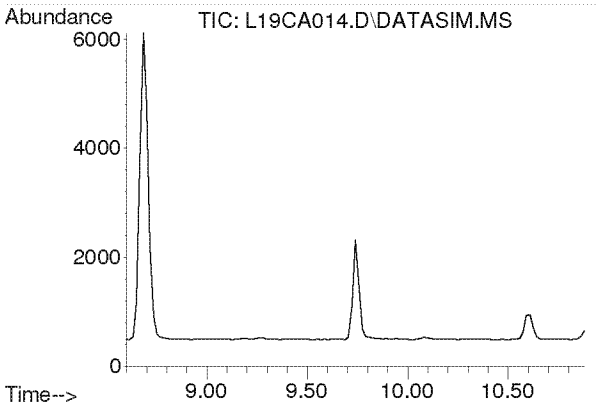
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



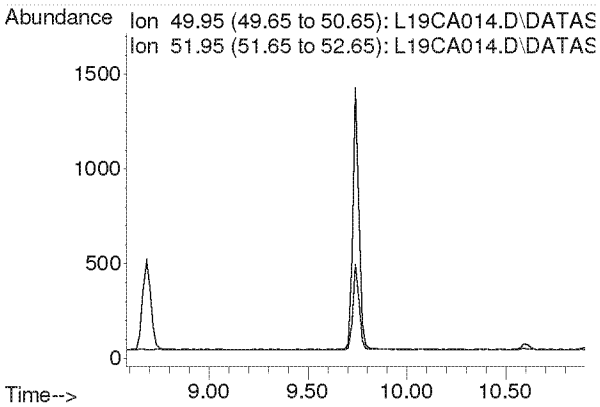


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

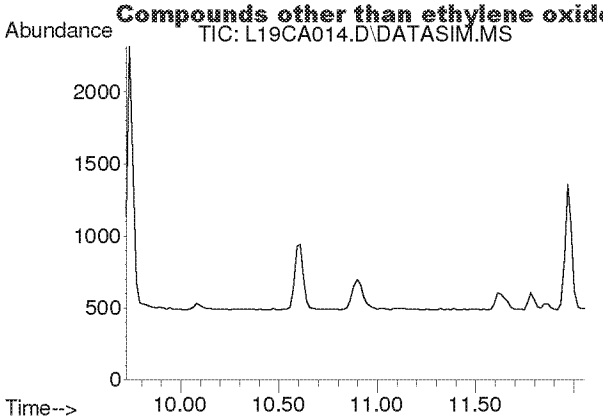
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

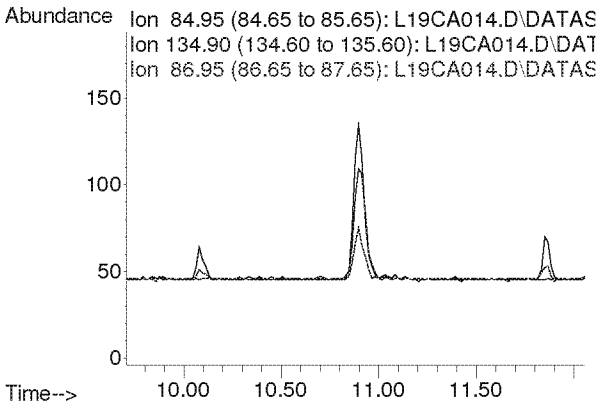


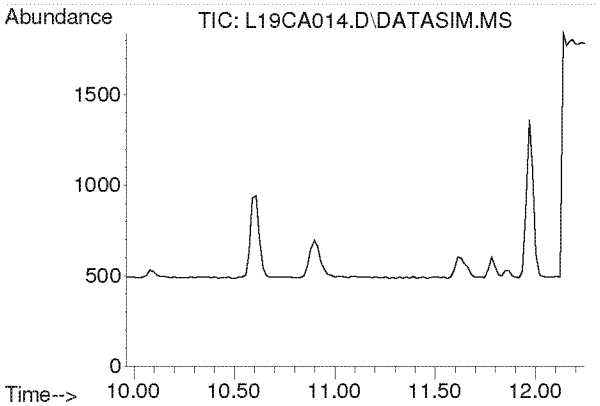
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



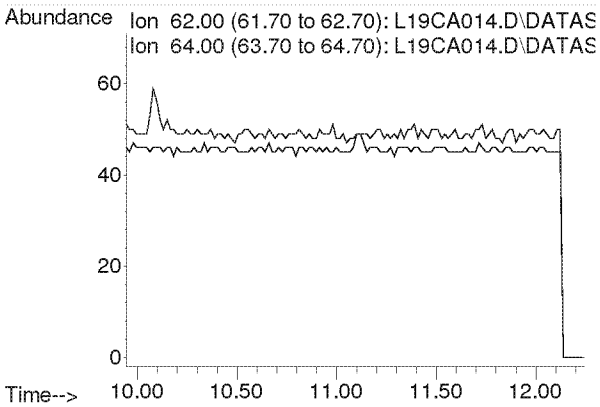


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

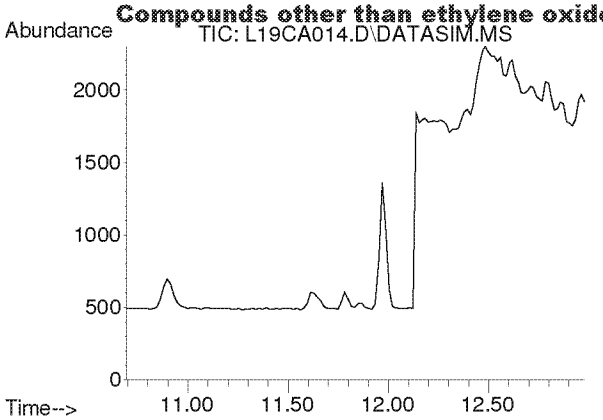
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

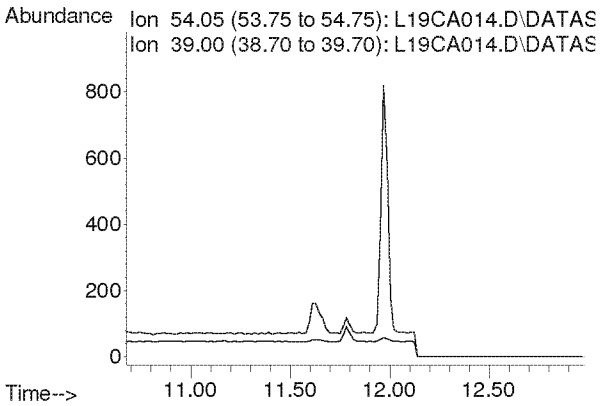


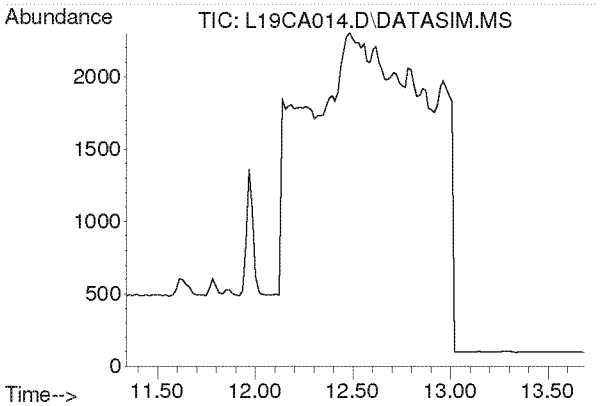
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



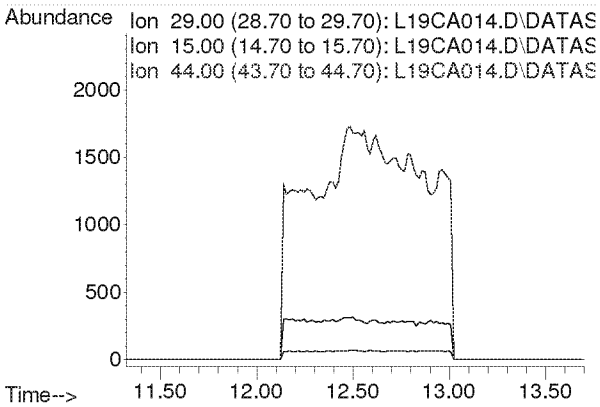


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

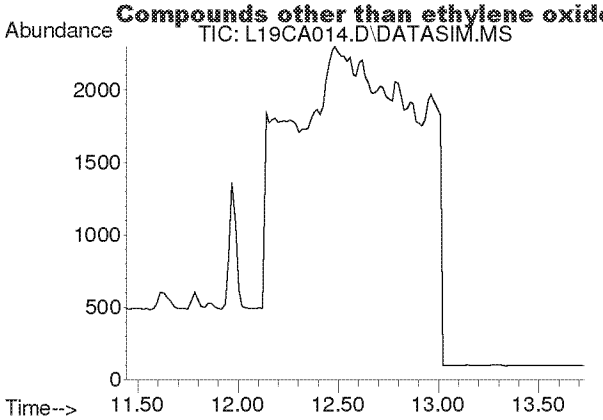
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

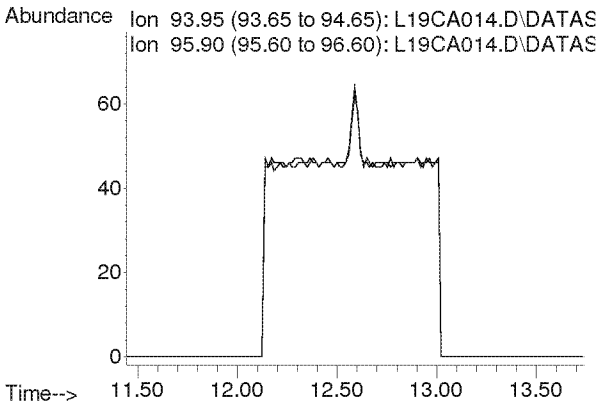


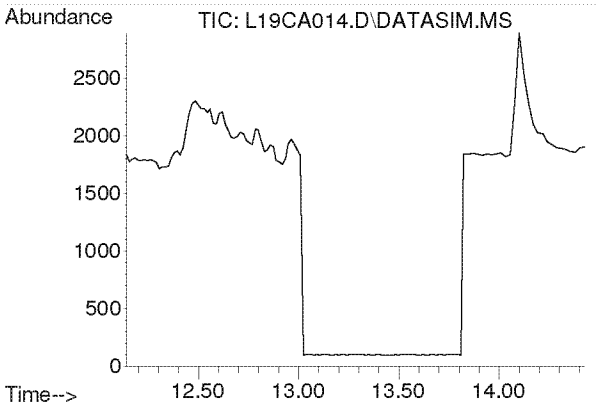
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



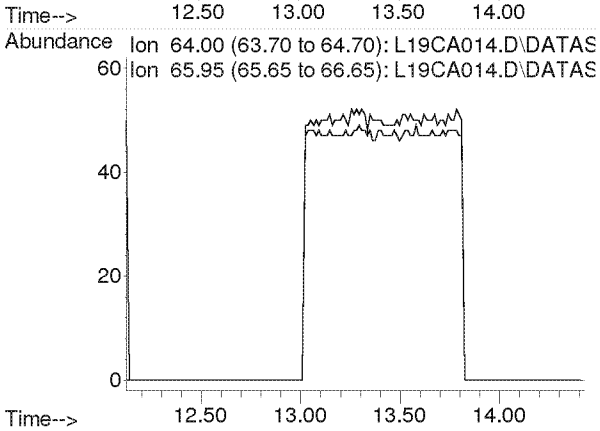


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

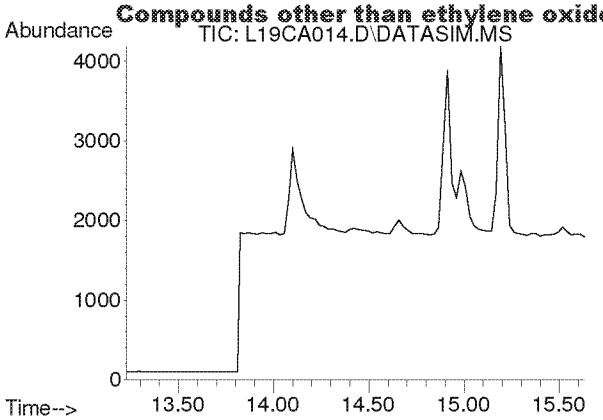
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

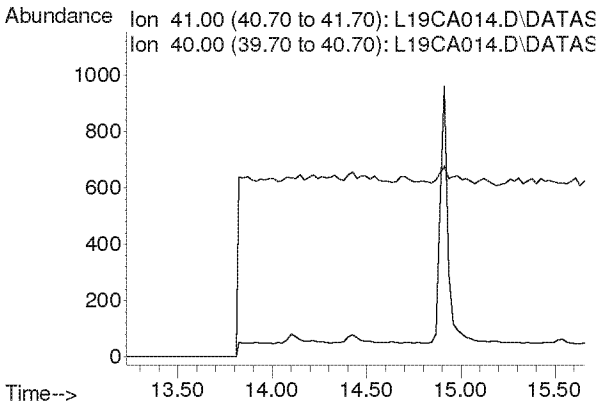


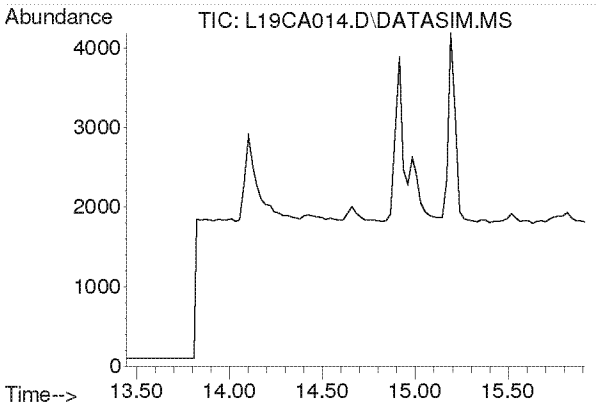
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



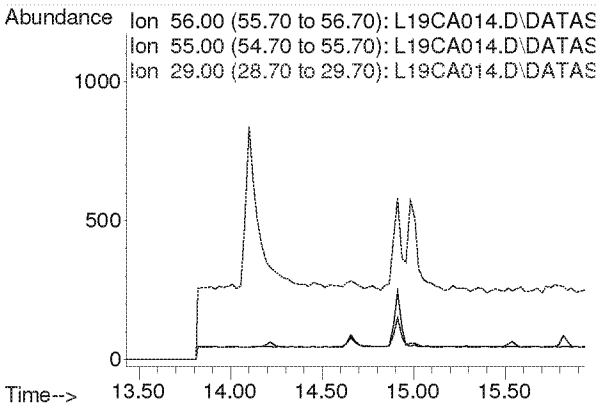


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

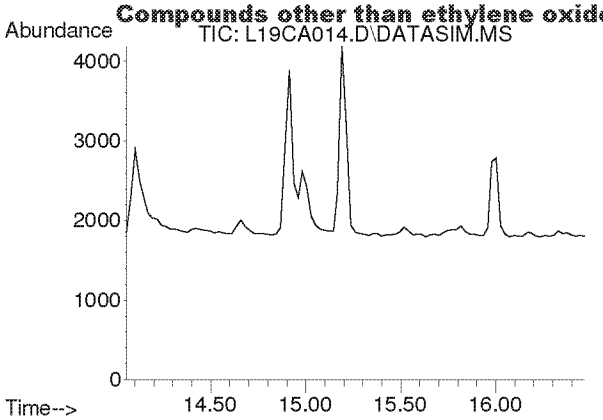
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

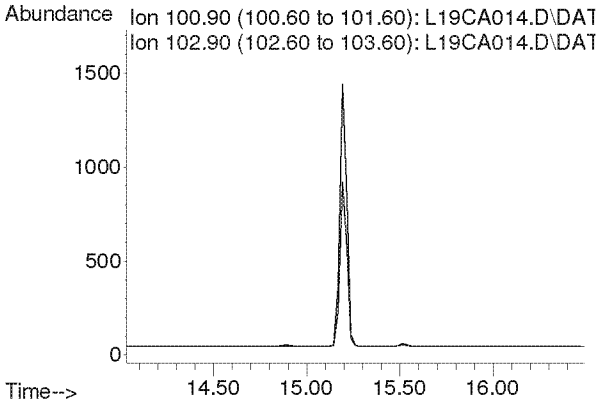


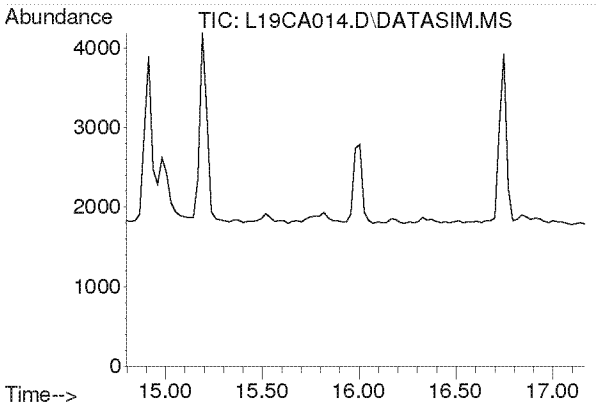
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



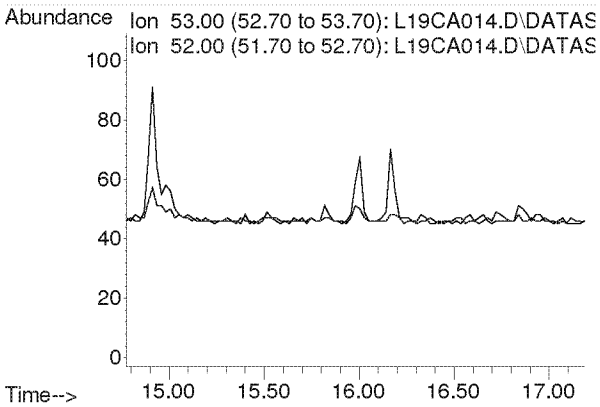


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

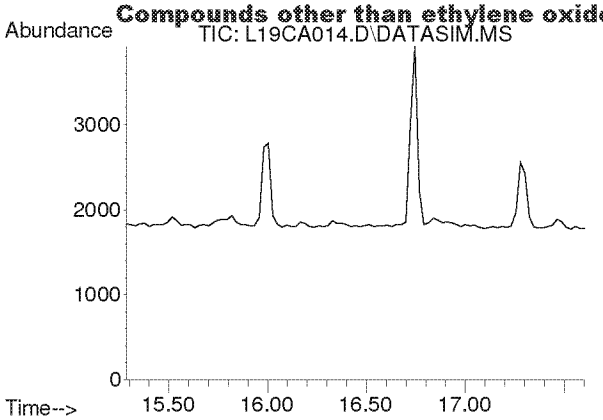
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

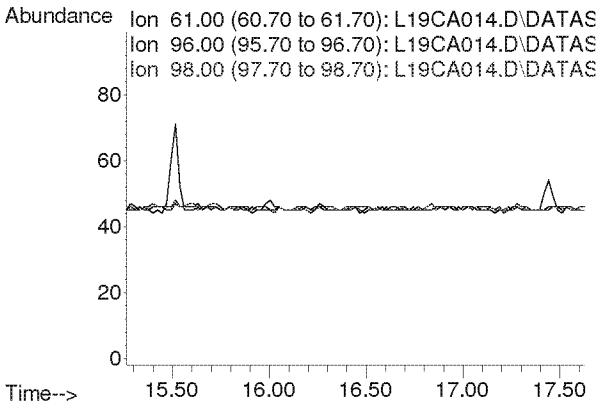


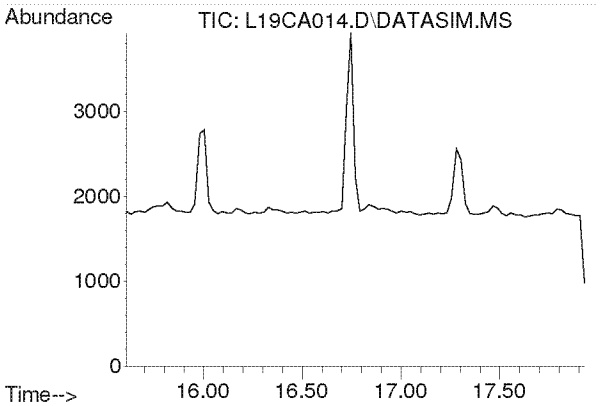
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



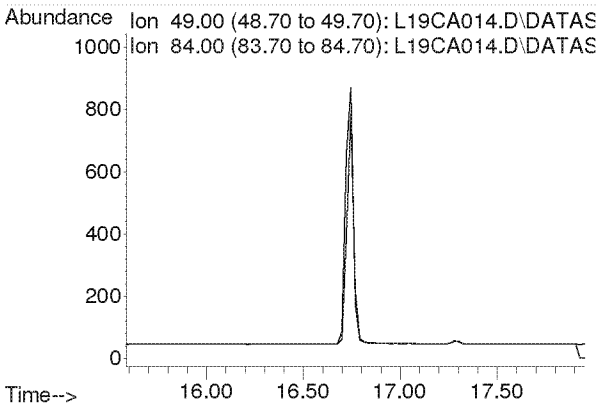


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

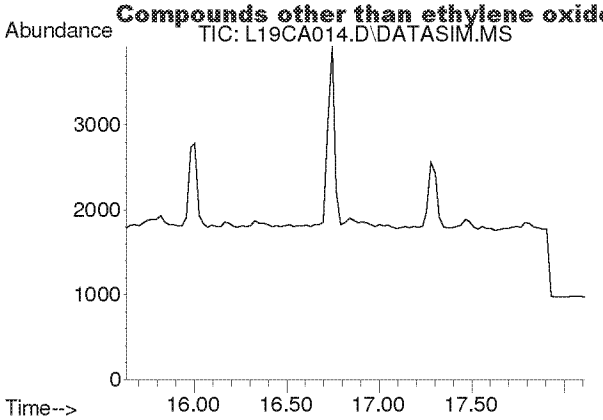
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

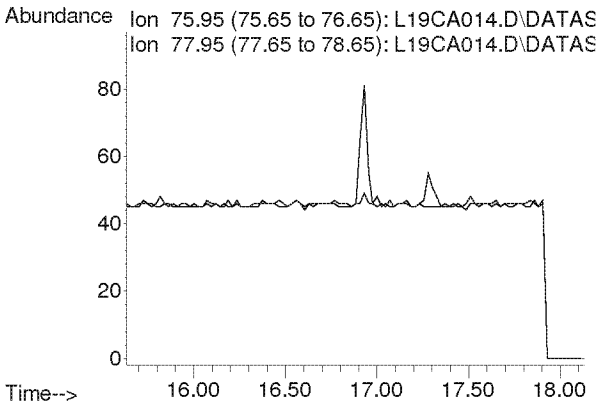


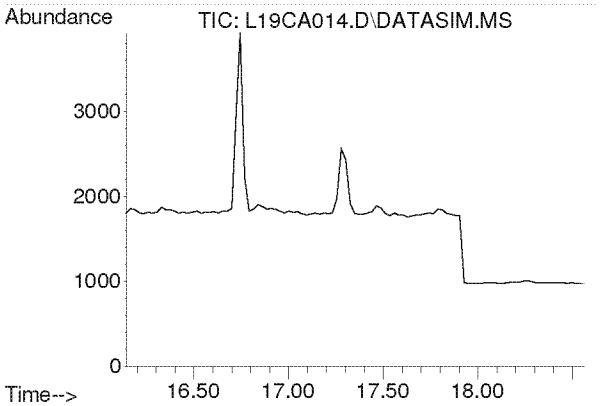
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



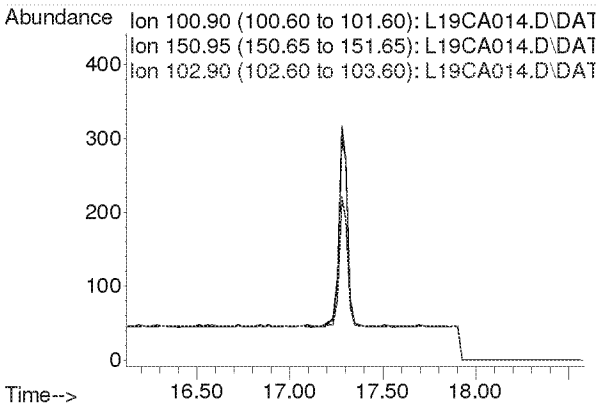


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

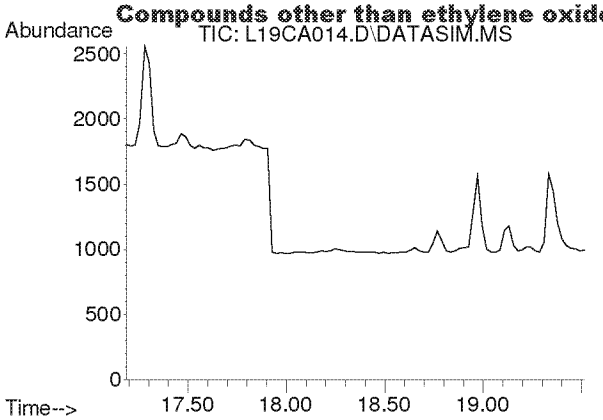
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

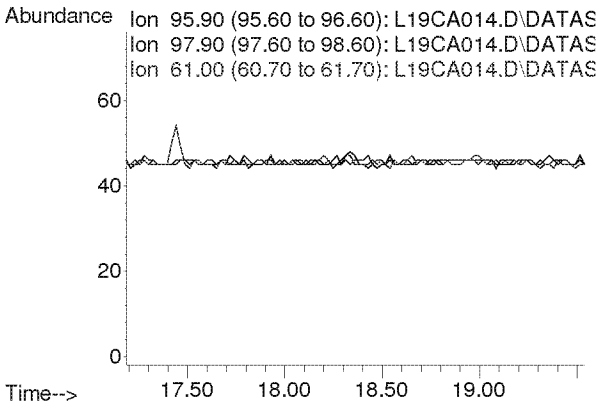


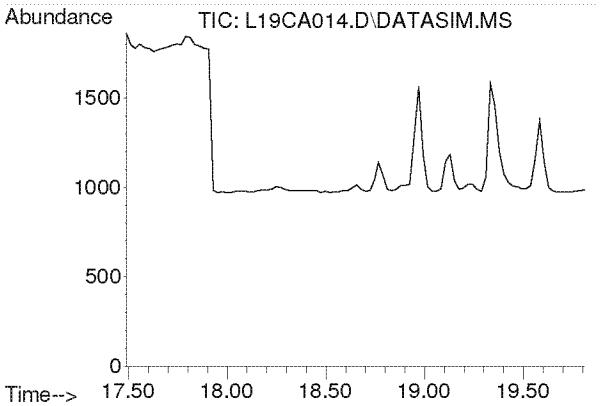
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



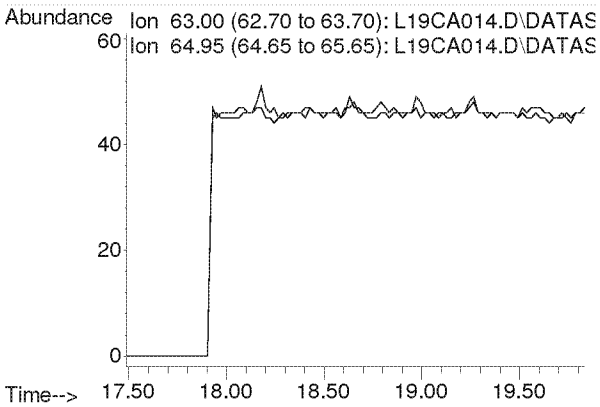


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

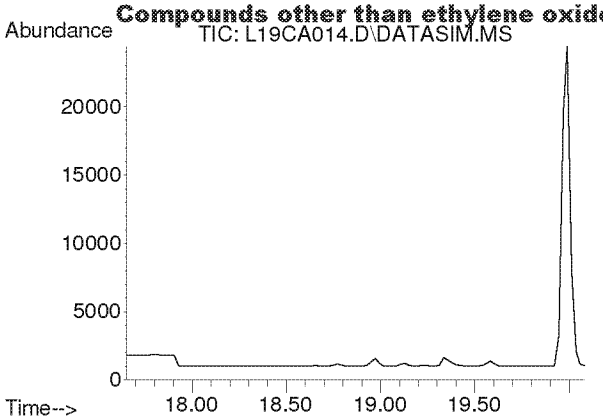
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

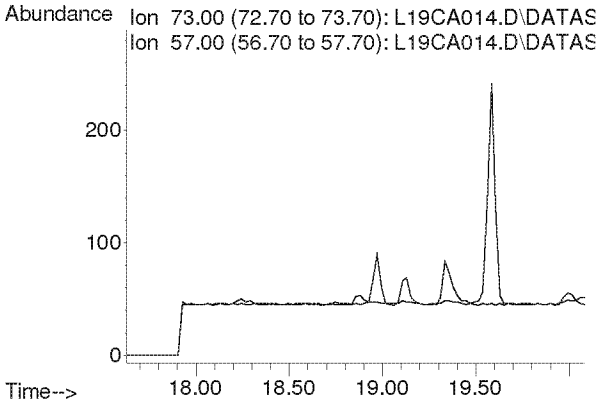


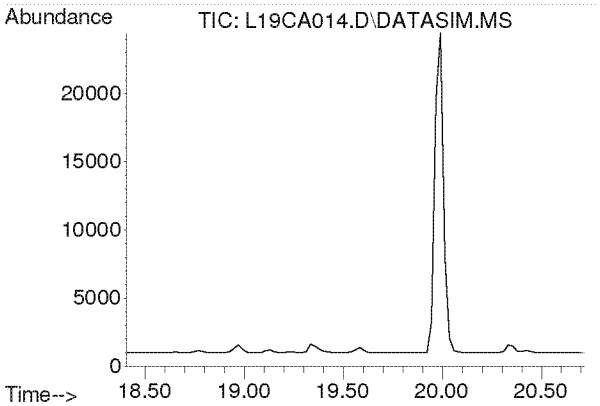
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



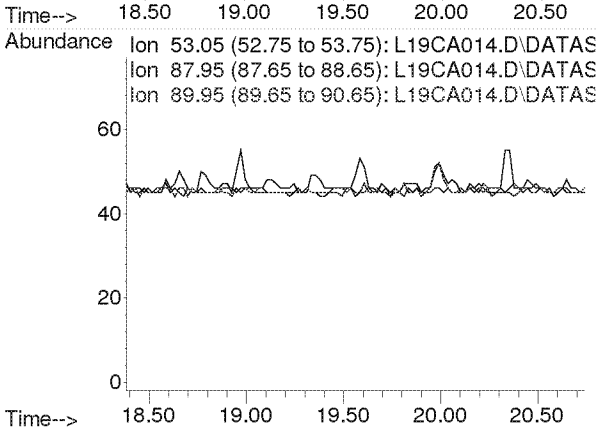


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

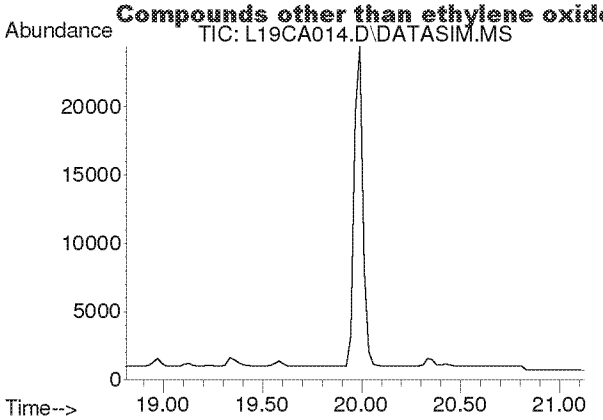
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

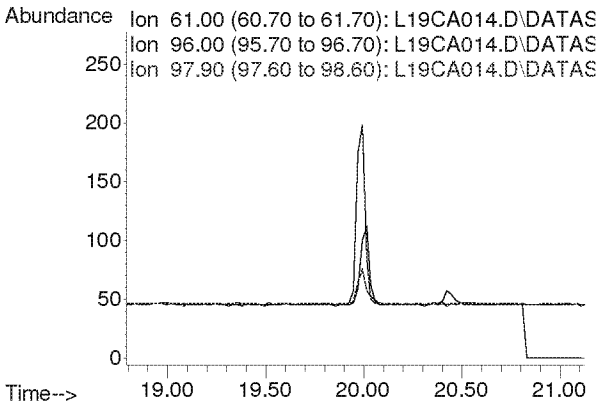


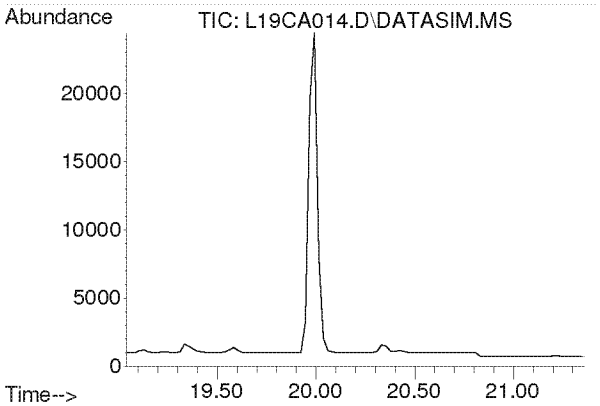
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



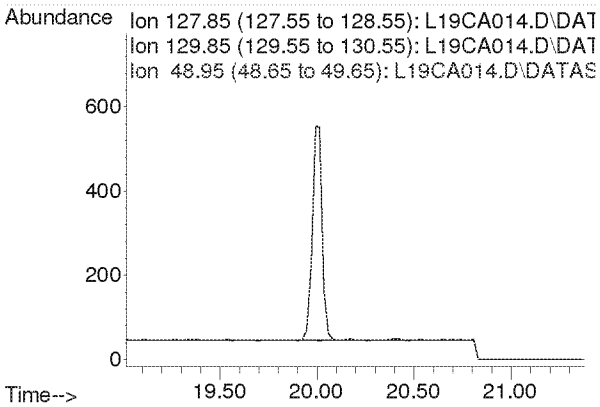


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

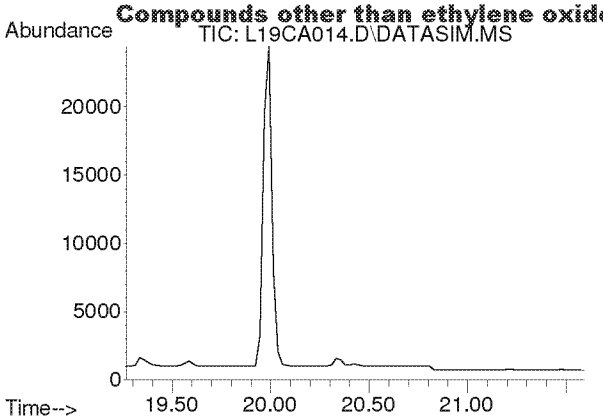
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

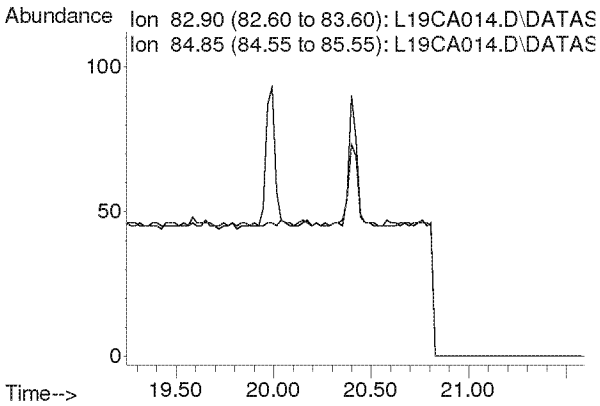


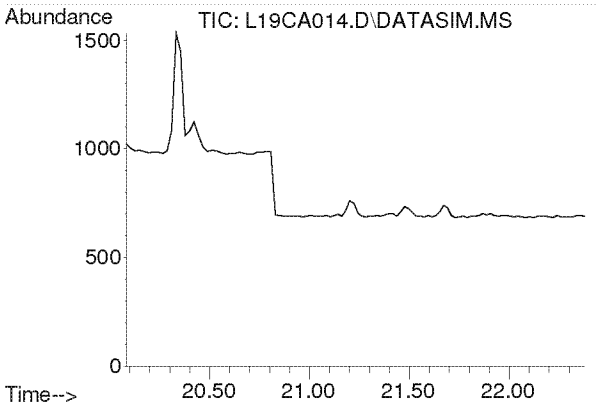
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



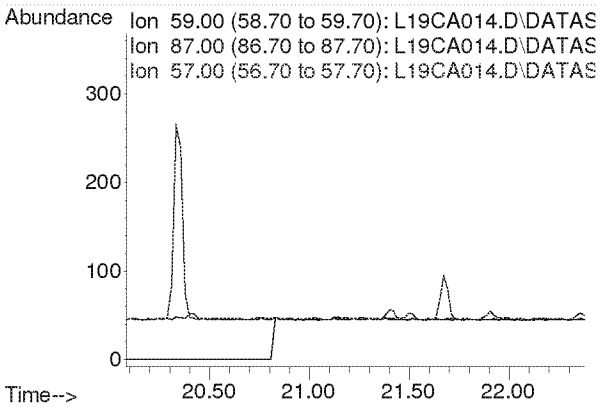


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

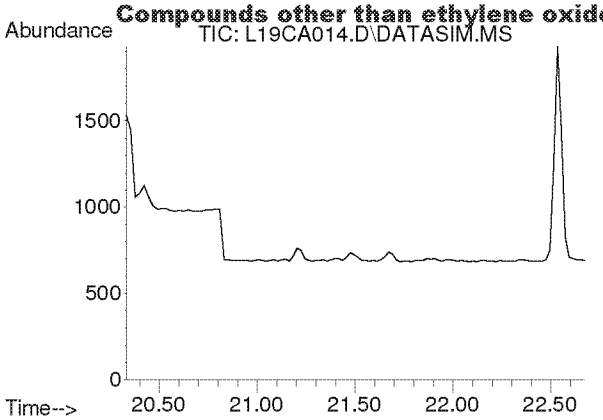
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

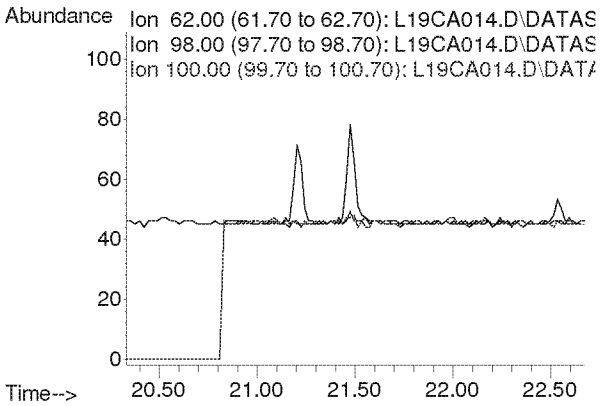


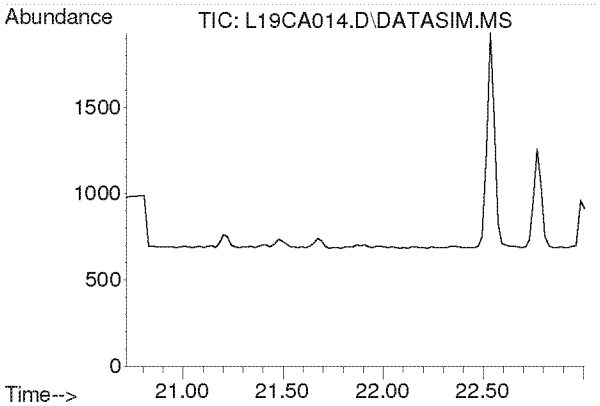
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



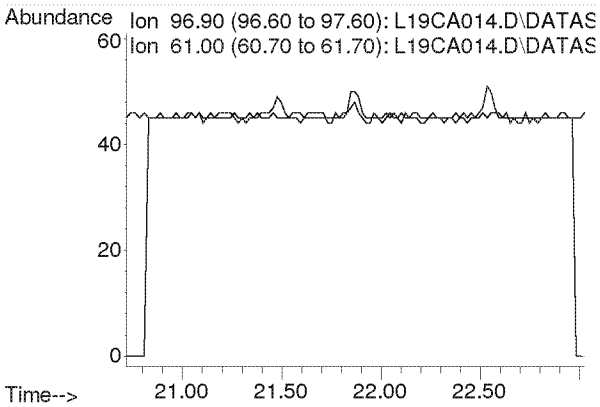


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

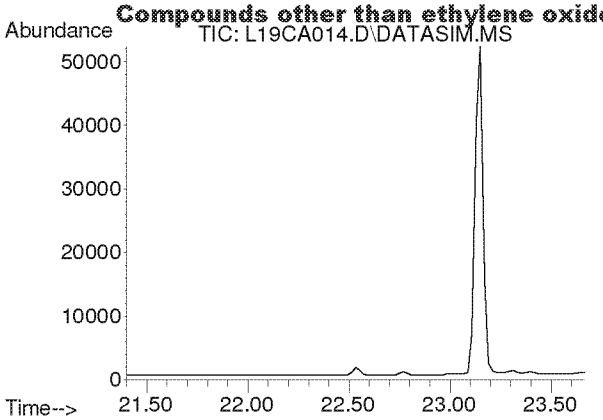
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

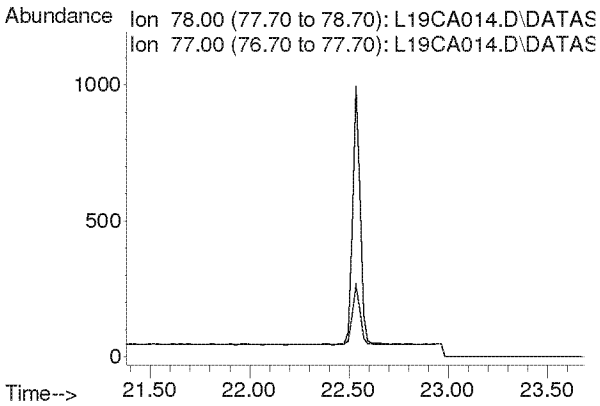


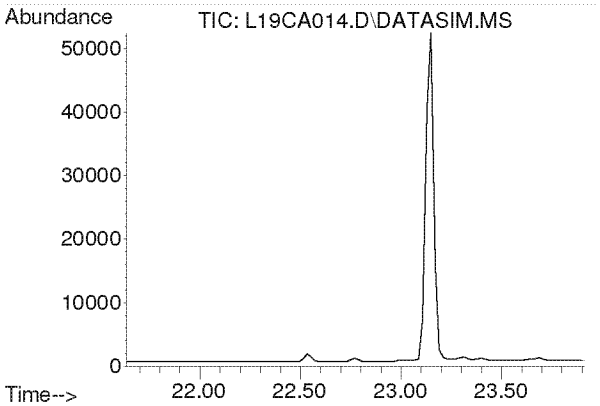
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



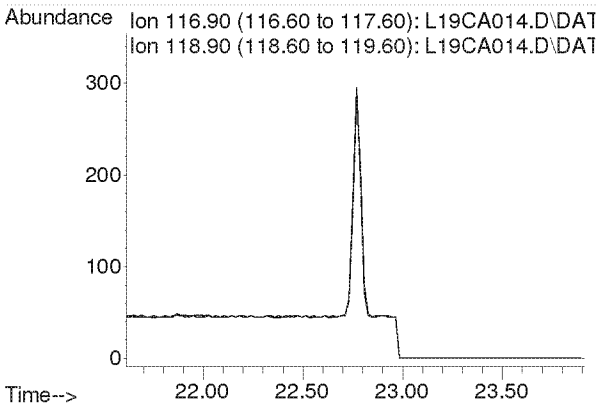


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

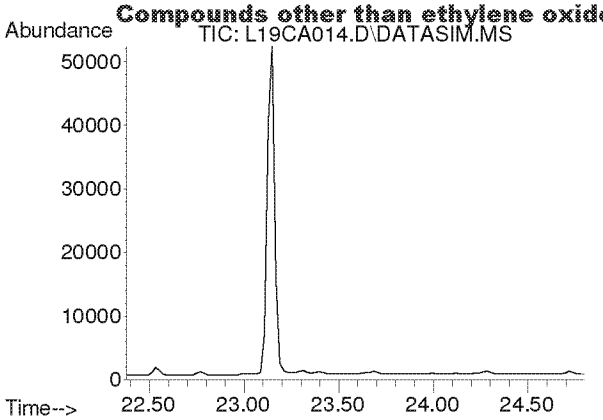
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

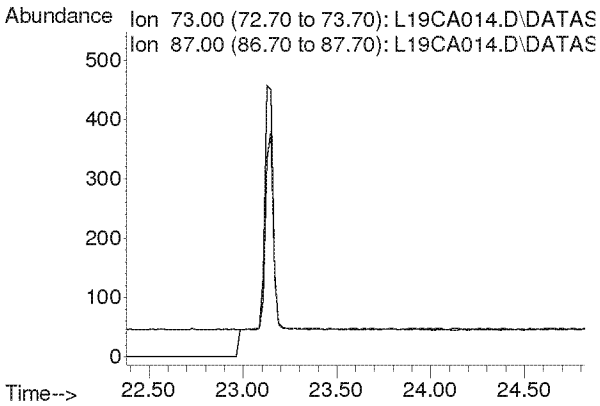


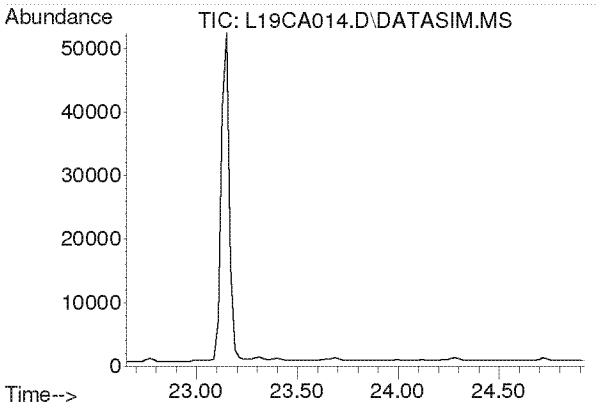
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



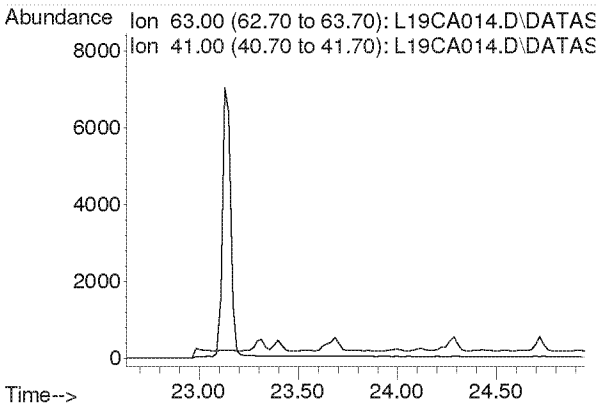


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

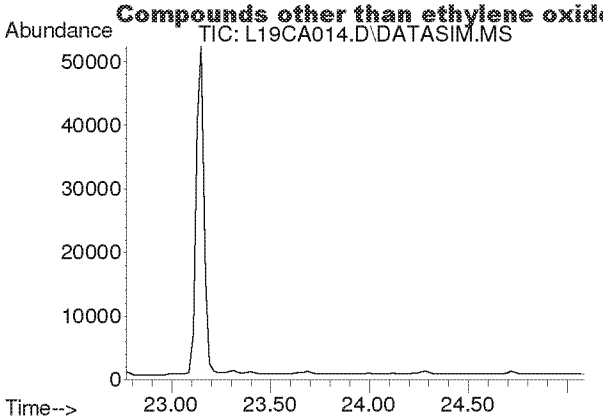
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

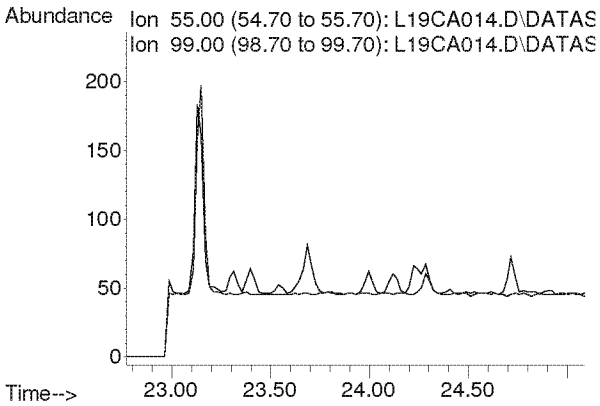


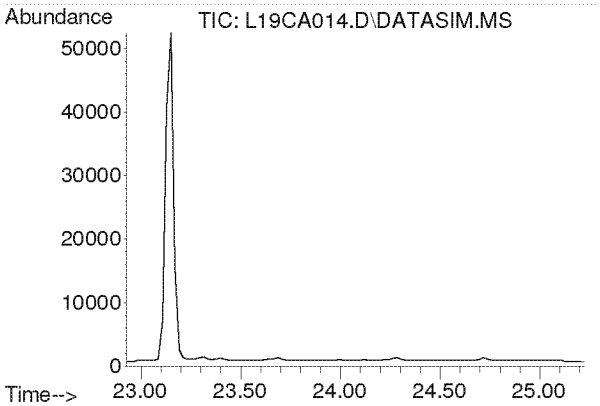
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



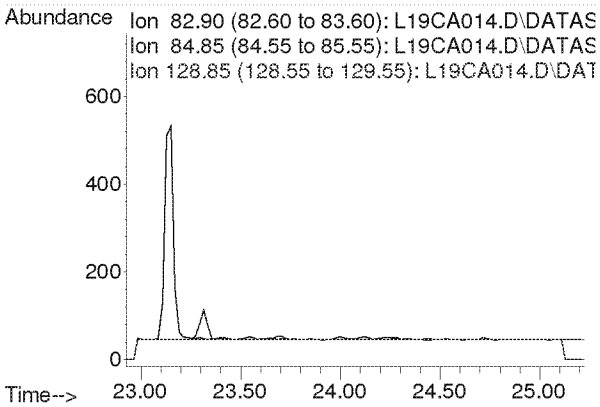


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

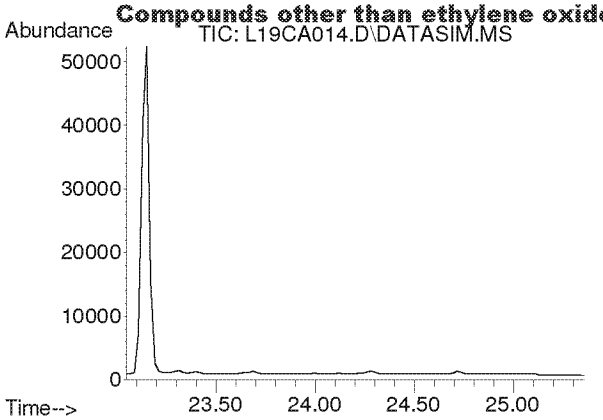
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

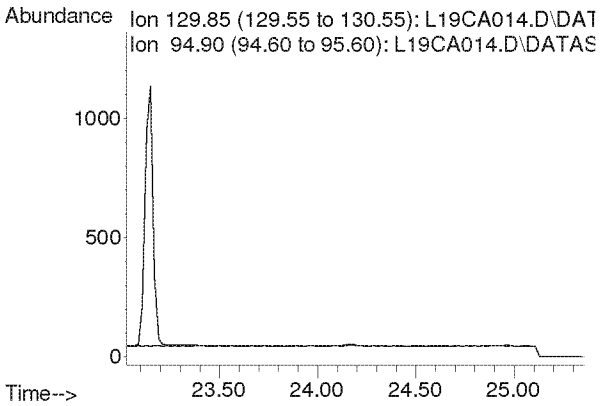


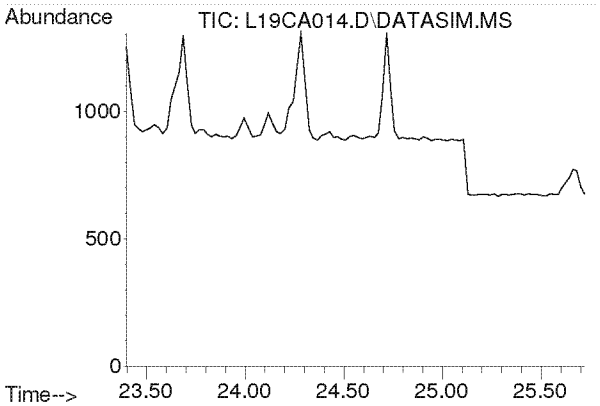
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



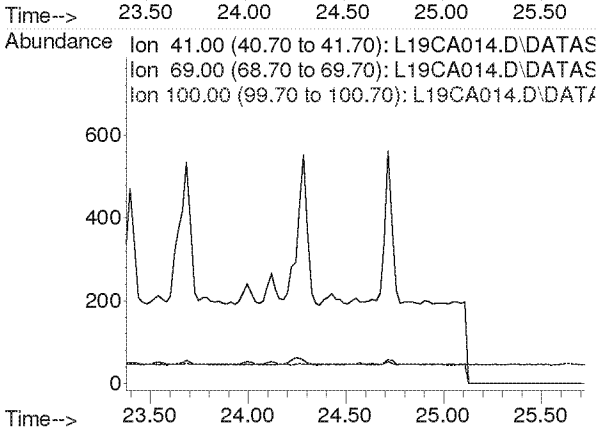


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

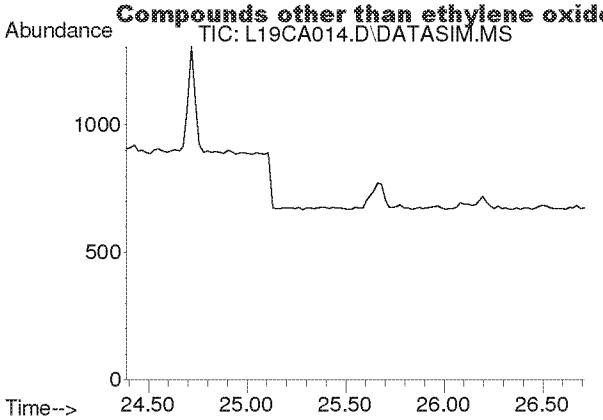
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

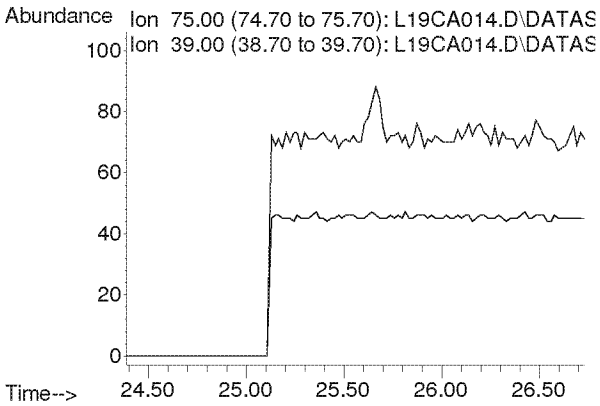


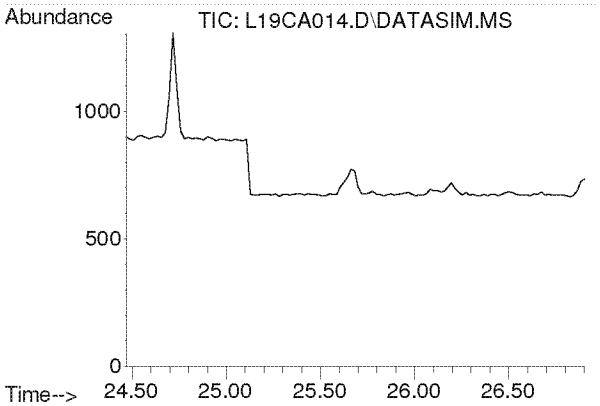
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



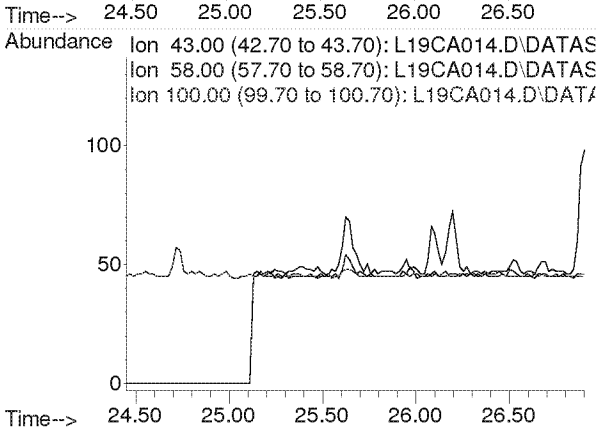


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

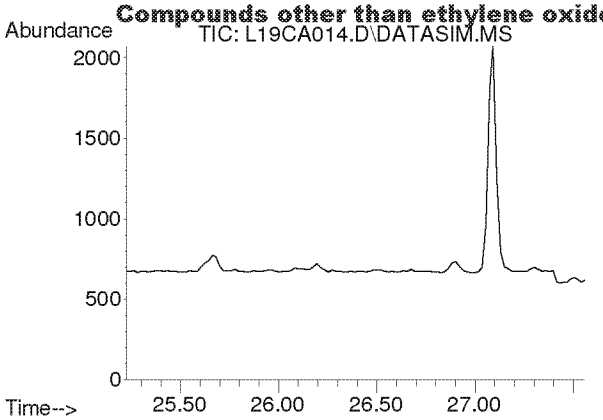
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

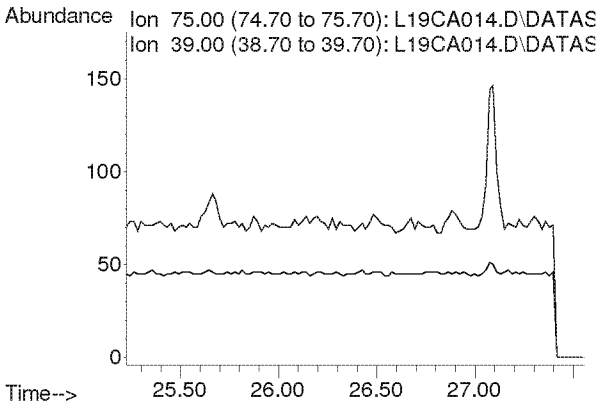


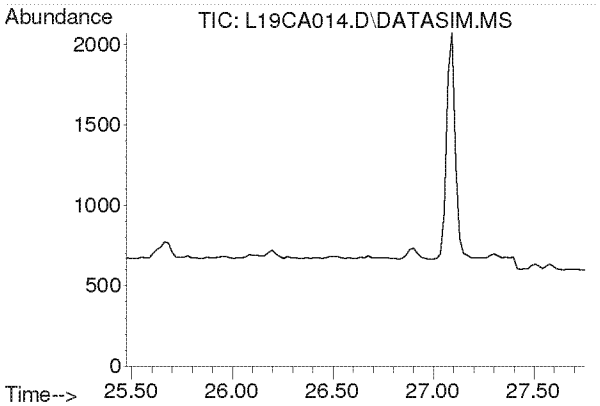
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



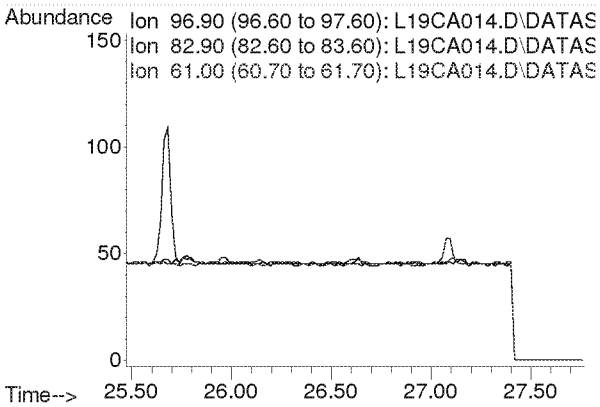


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

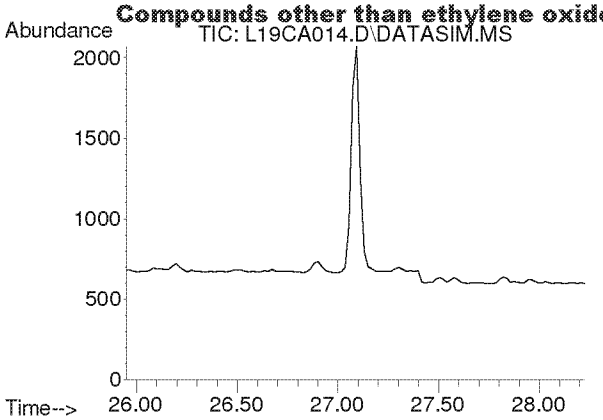
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

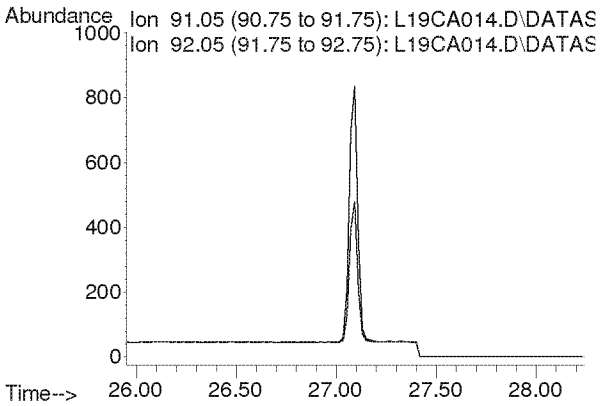


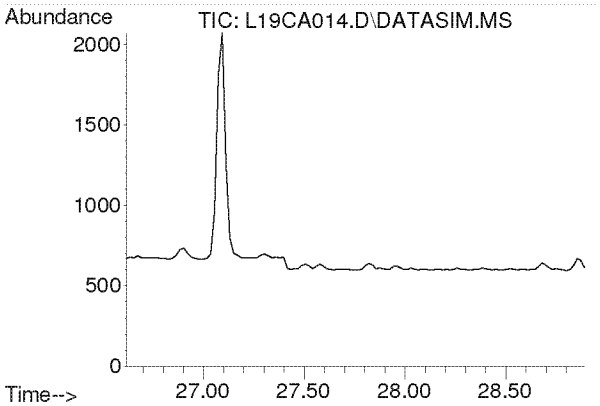
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



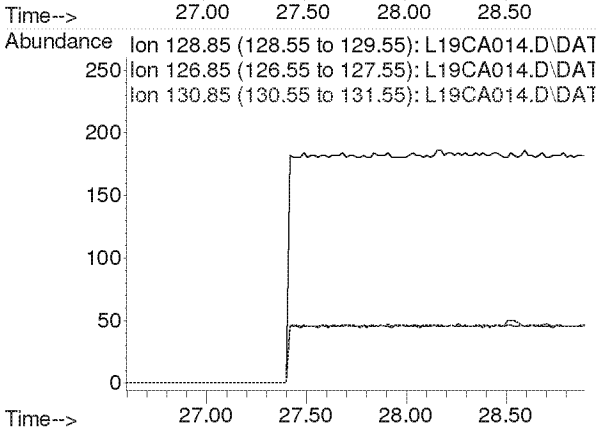


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

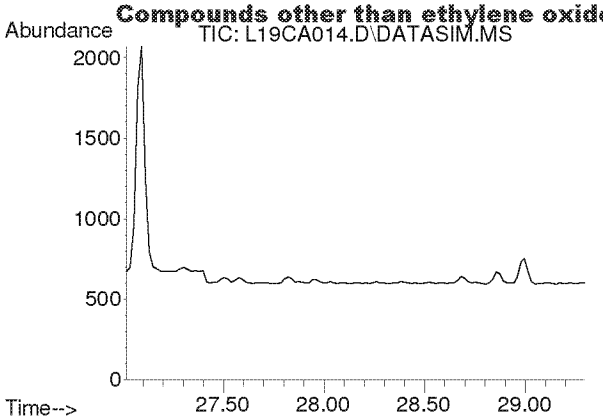
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

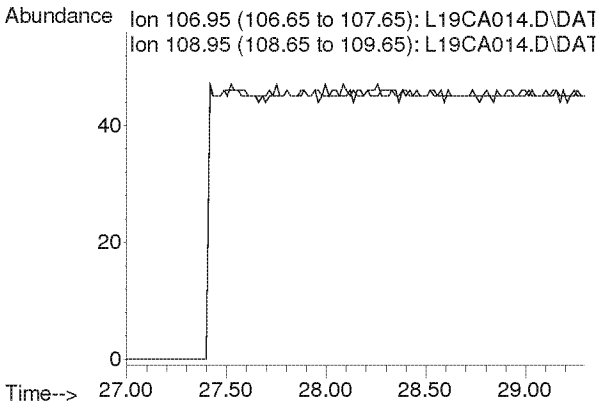


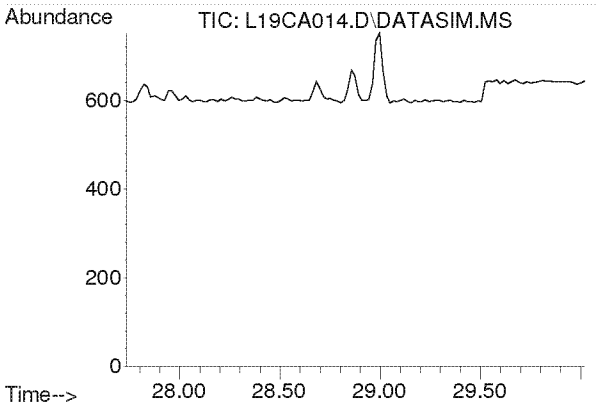
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



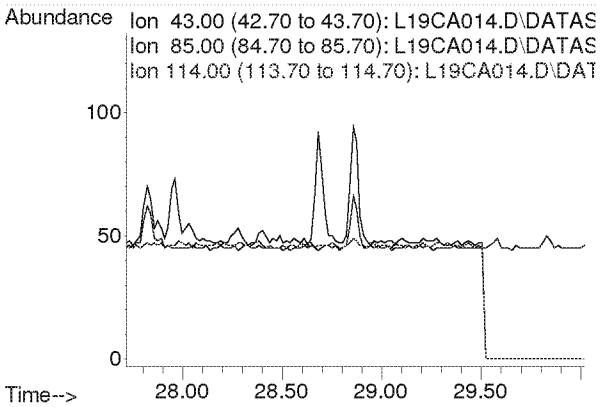


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

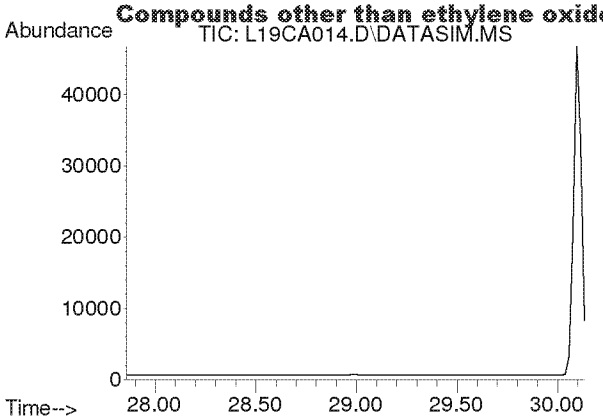
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

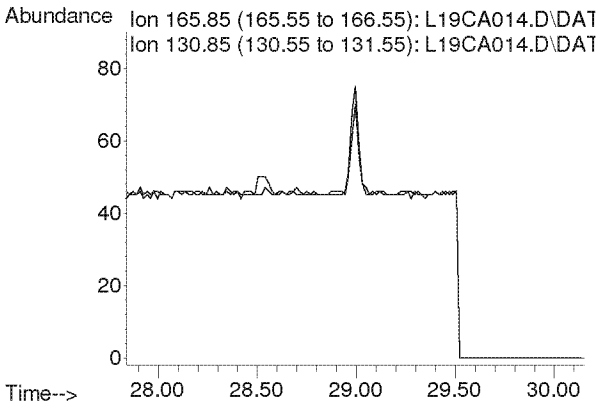


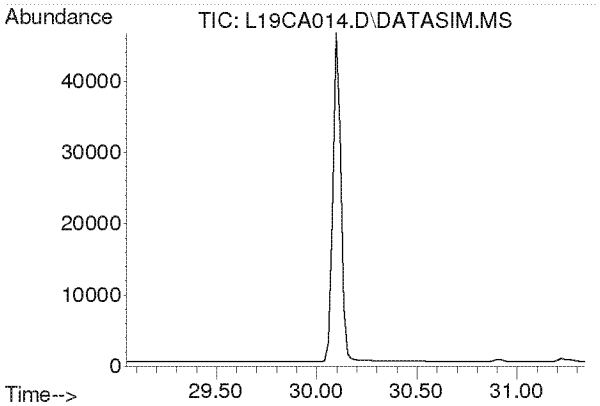
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



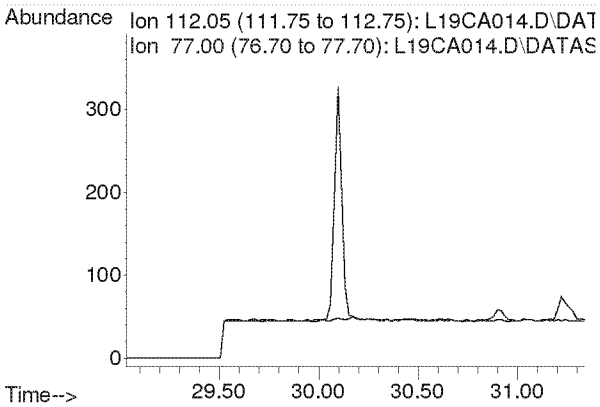


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

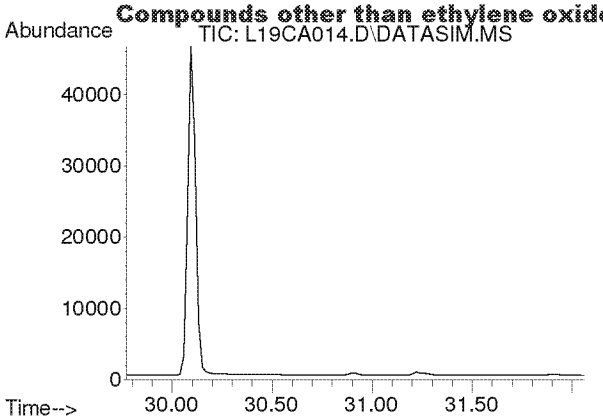
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

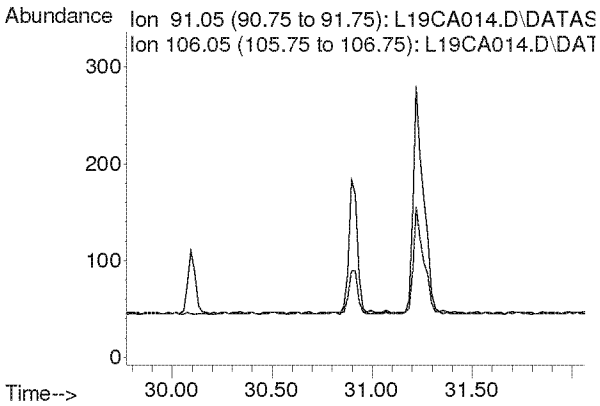


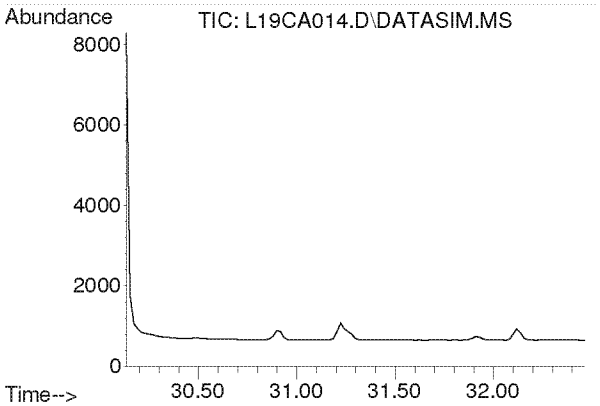
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



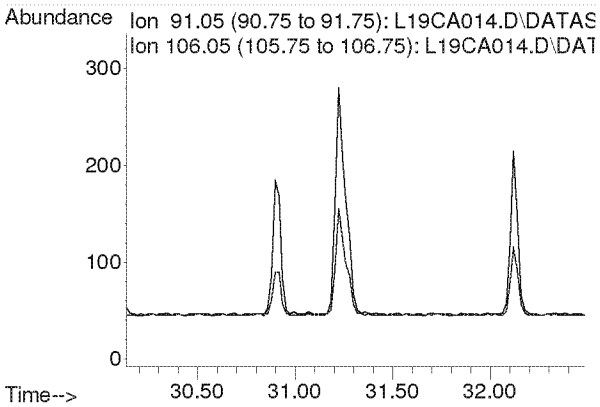


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

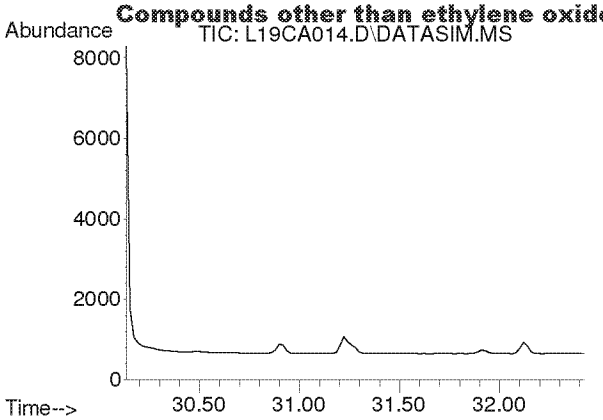
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

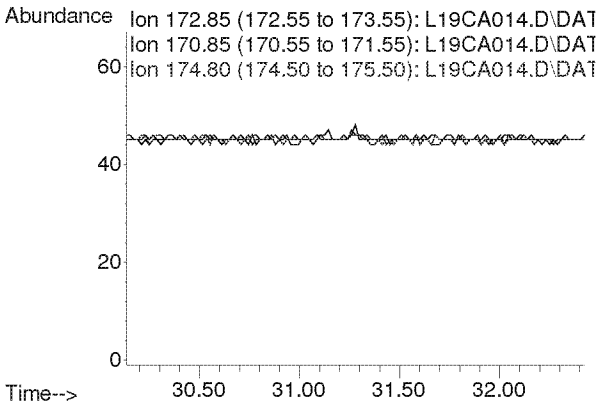


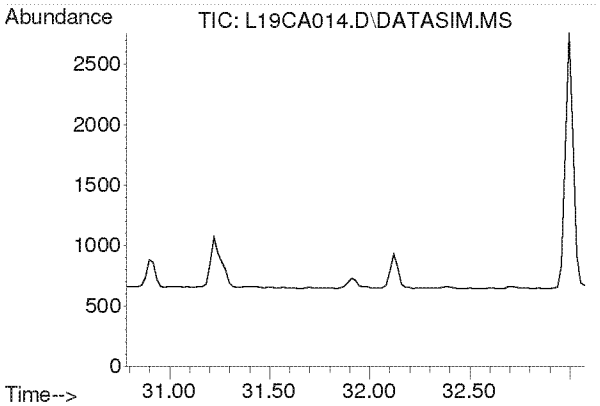
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



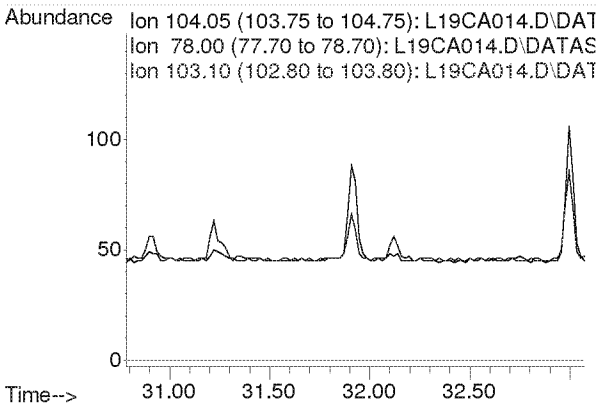


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

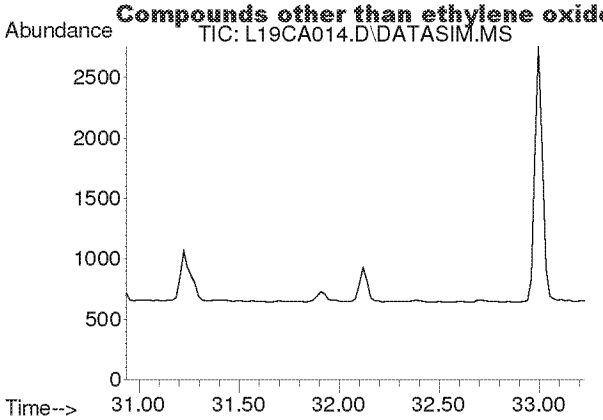
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

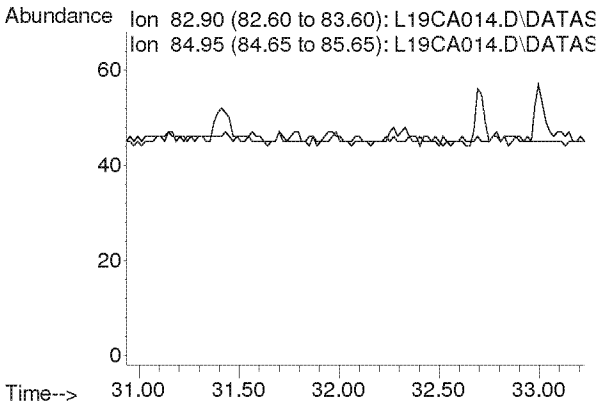


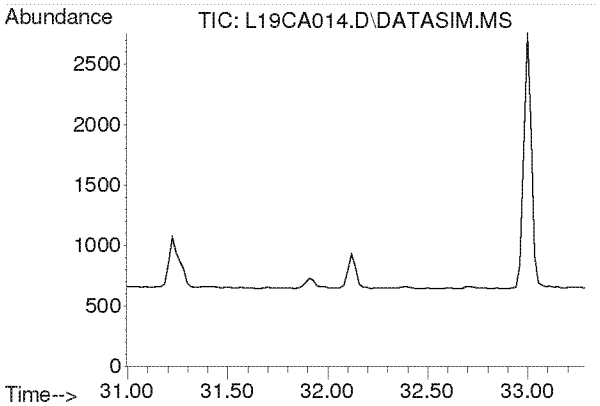
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



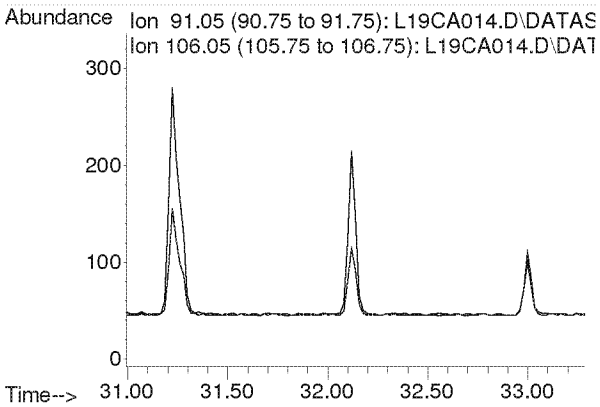


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

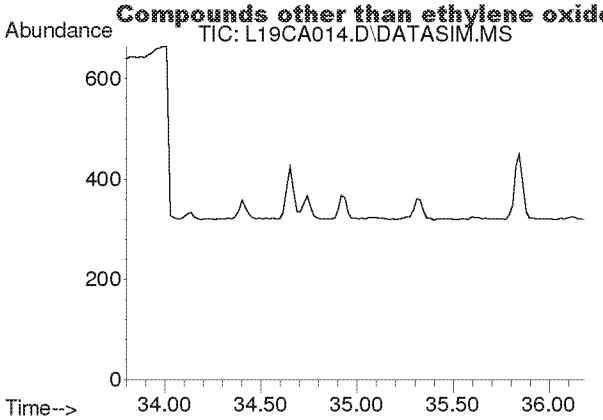
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

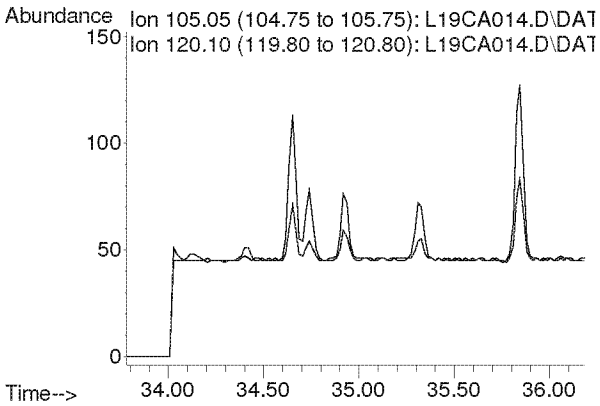


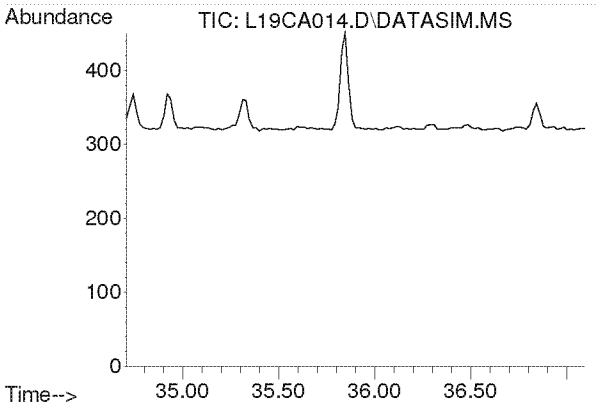
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



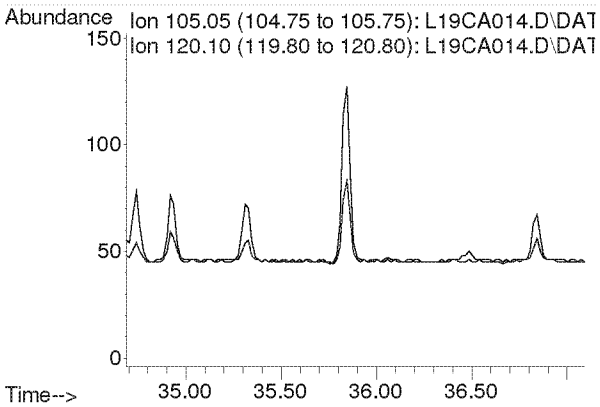


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

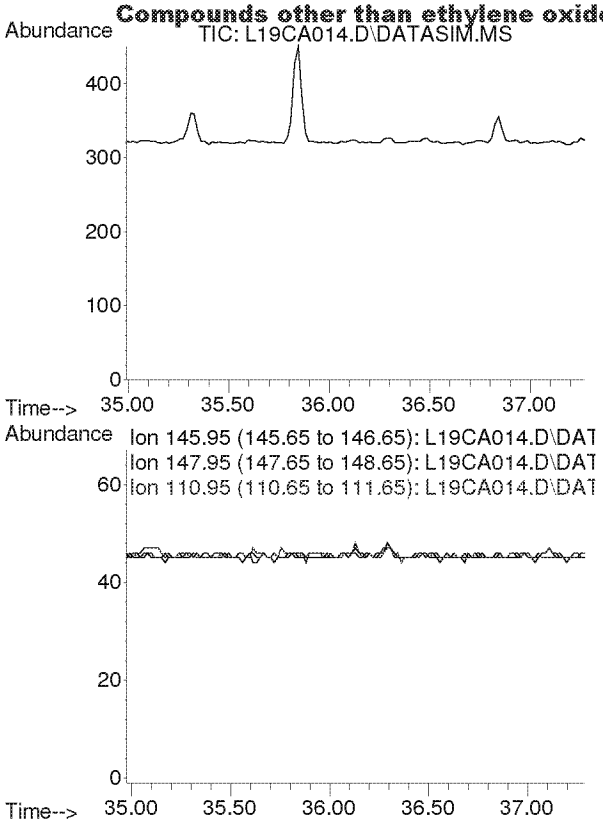
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

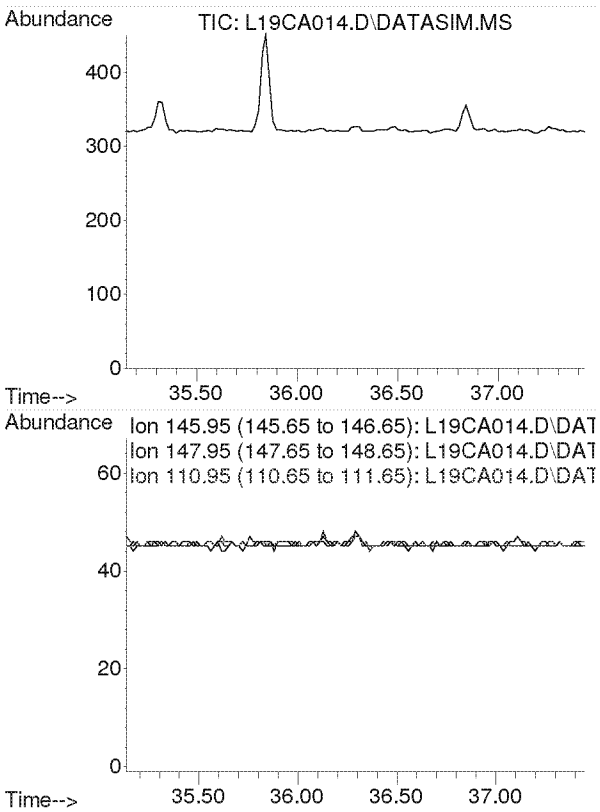


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



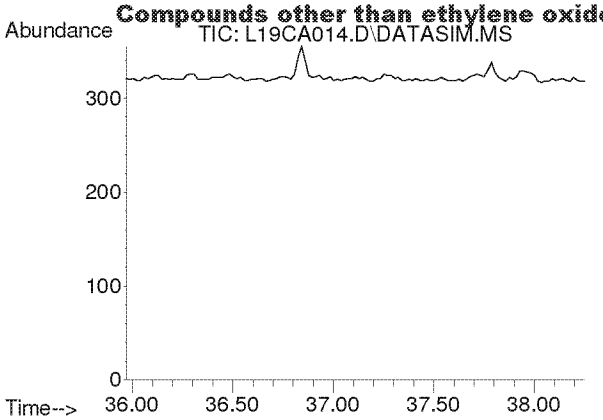
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

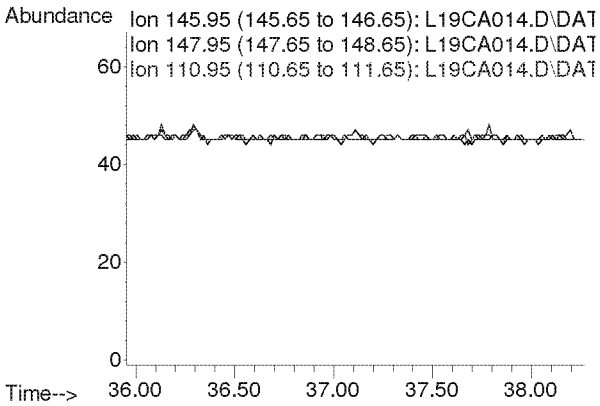


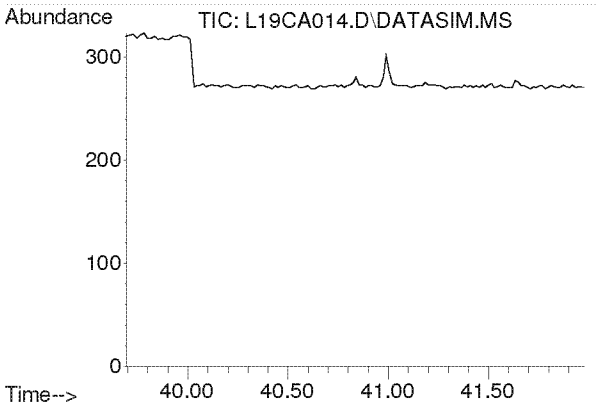
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



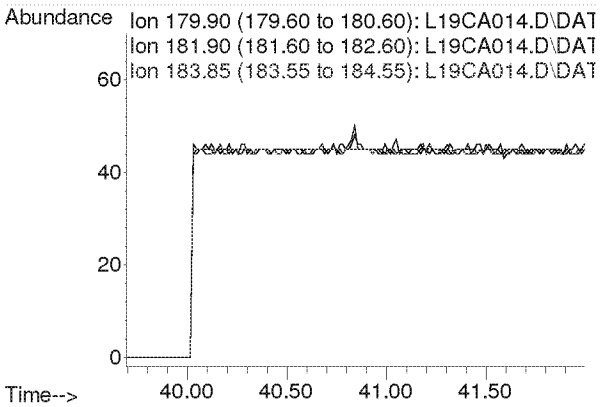


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

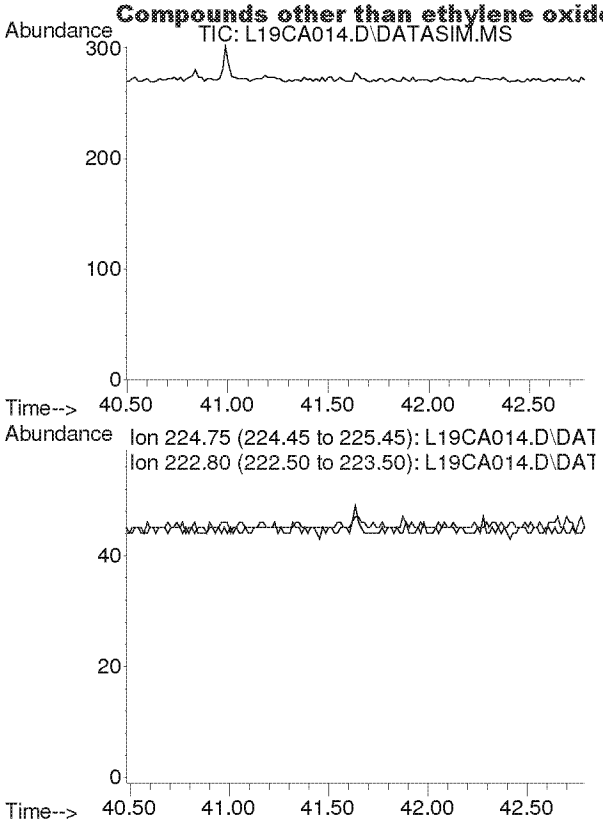
Lab File: L19CA014.D
Acq: 2 Mar 2019 4:35 am

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: L19CA014.D
Acq: 2 Mar 2019 4:35 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\L19CA\
Data File : L19CA015.D
Acq On : 2 Mar 2019 5:35 am (#1); 02-Mar-19, 05:30:36 (#2)
Operator : MAH
Sample : B9C0104-DUP1
Misc : WB VILLAGE HALL R1 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 05 09:08:55 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

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	42204	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	106846	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	73452	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	228m	0.0945 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.	d
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	d
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	d
48) Tetrachloroethylene	0.000	166	0	N.D.	d
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d

Compounds other than ethylene oxide were not quantitated.

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA015.D
Acq On : 2 Mar 2019 5:35 am (#1); 02-Mar-19, 05:30:36 (#2)
Operator : MAH
Sample : B9C0104-DUP1
Misc : WB VILLAGE HALL R1 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 05 09:08:55 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

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

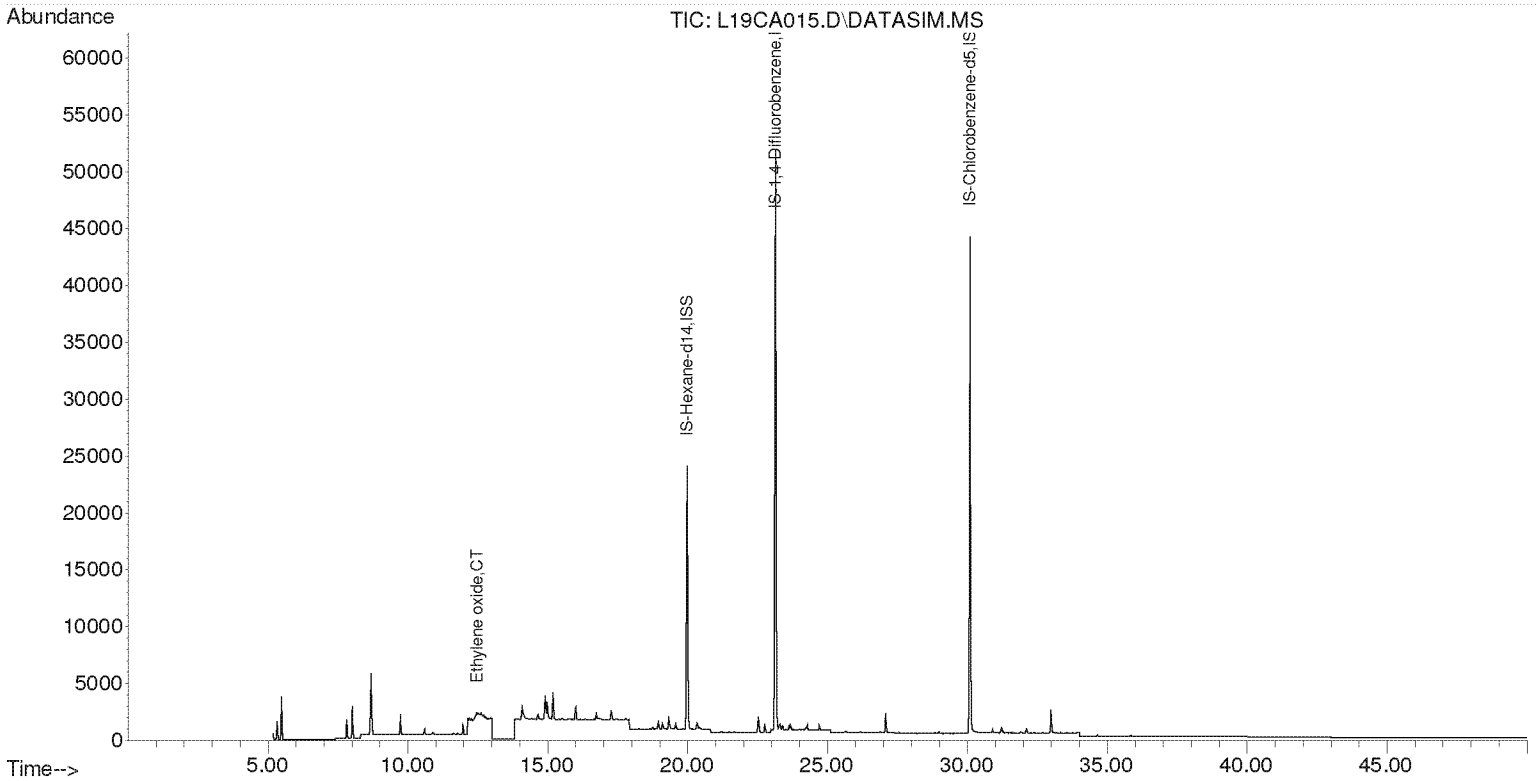
(#) = qualifier out of range (m) = manual integration (+) = signals summed

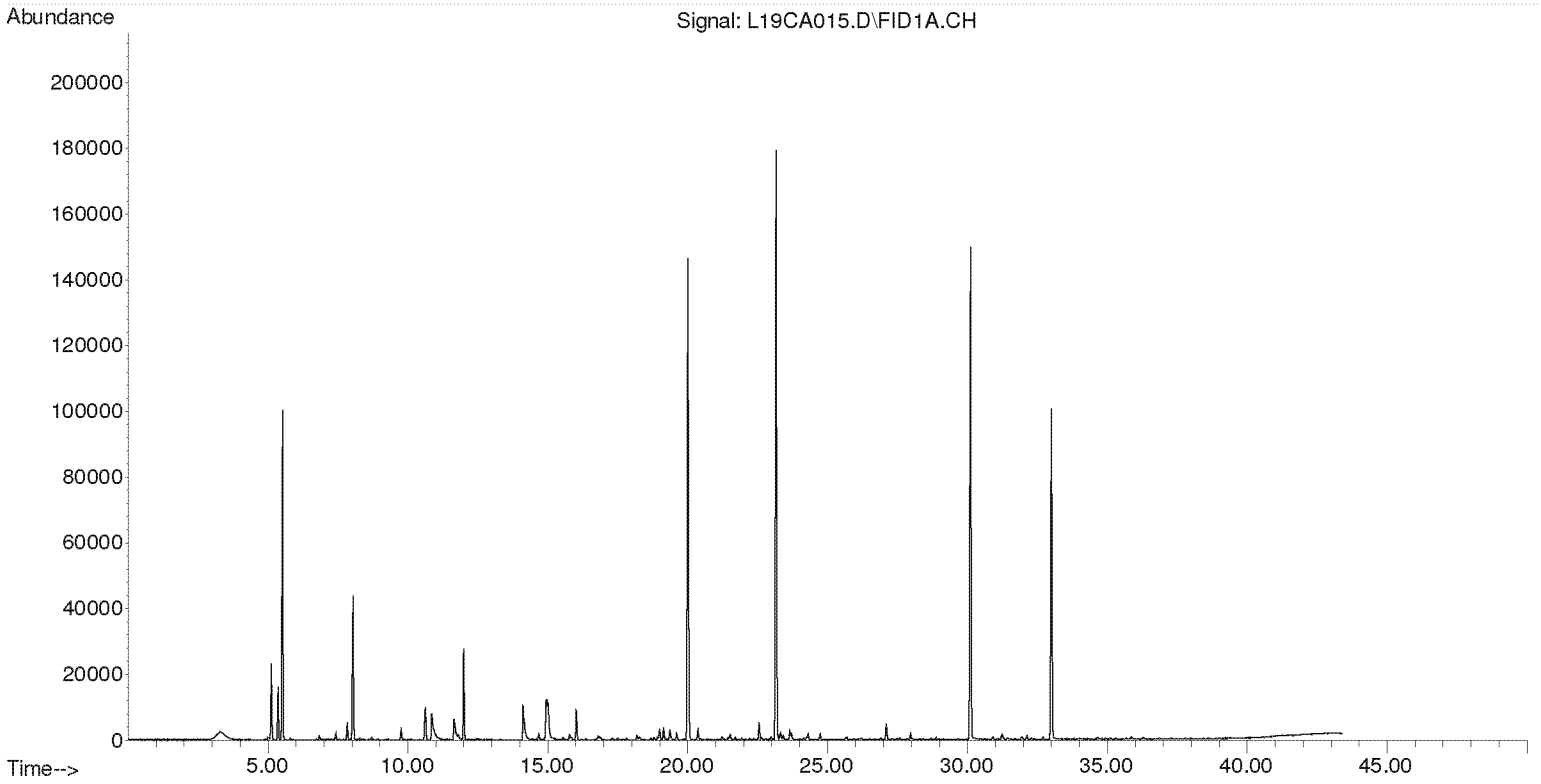
ED_002475_00000345-00417

Compounds other than ethylene oxide were not quantitated.

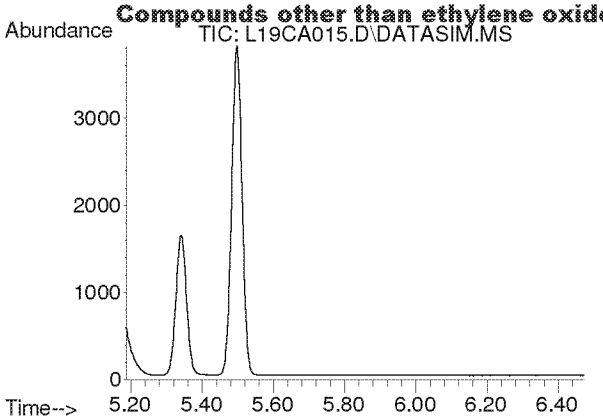
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA015.D
Acq On : 2 Mar 2019 5:35 am (#1); 02 Mar 2019 5:30 am (#2)
Operator : MAH
Sample : B9C0104-DUP1
Misc : WB VILLAGE HALL R1 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 05 08:54:47 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





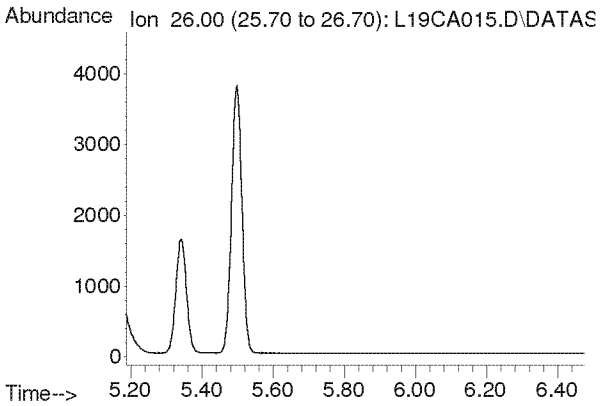
Compounds other than ethylene oxide were not quantitated.

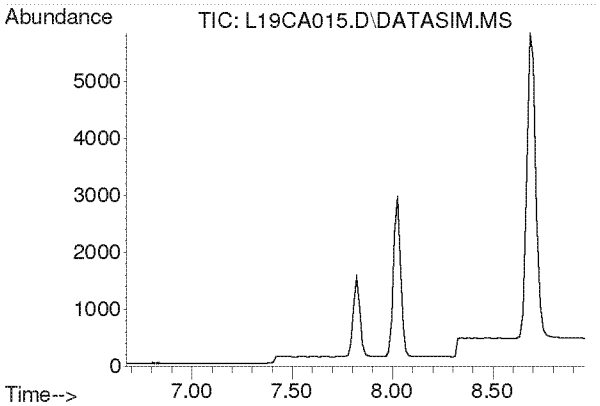


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 26



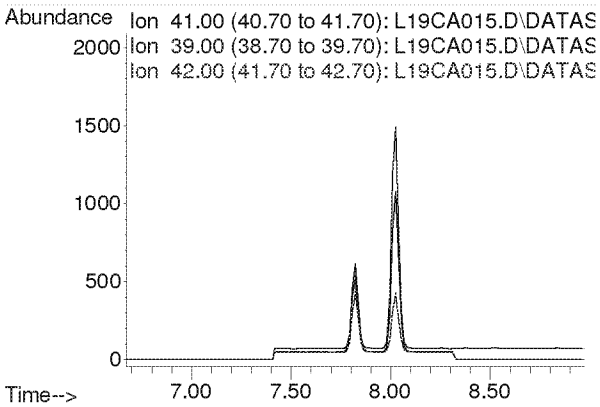


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

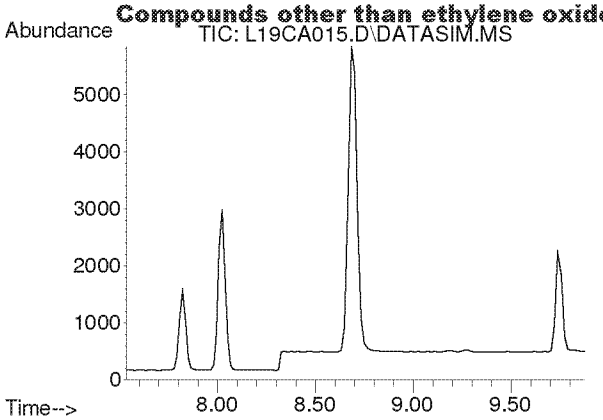
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

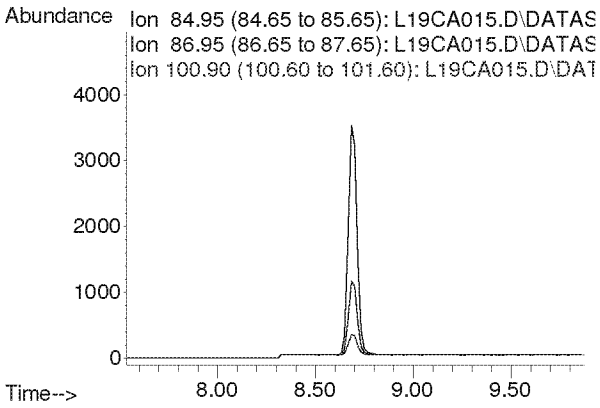


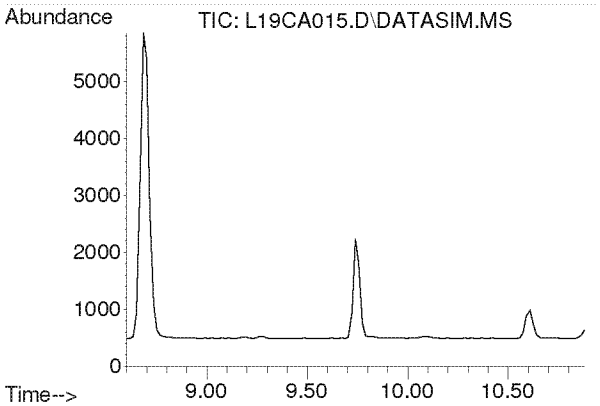
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



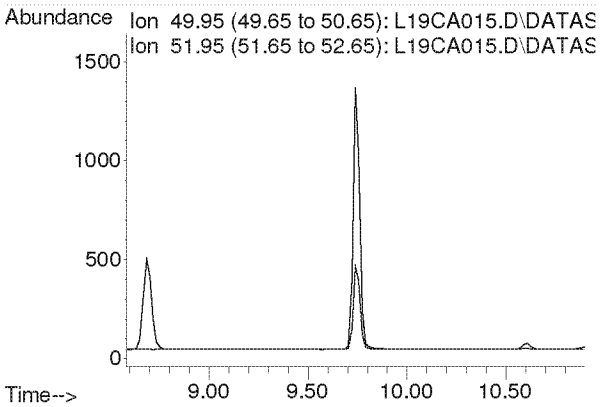


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

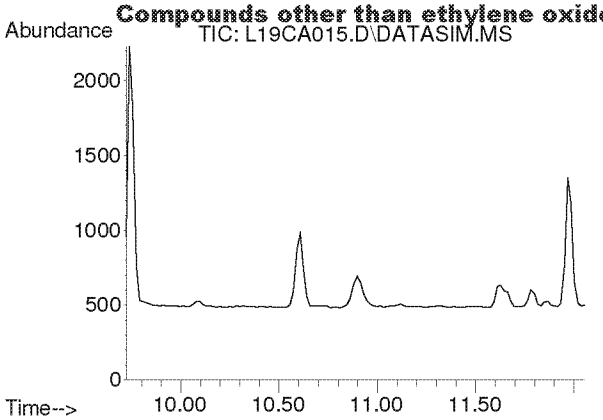
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

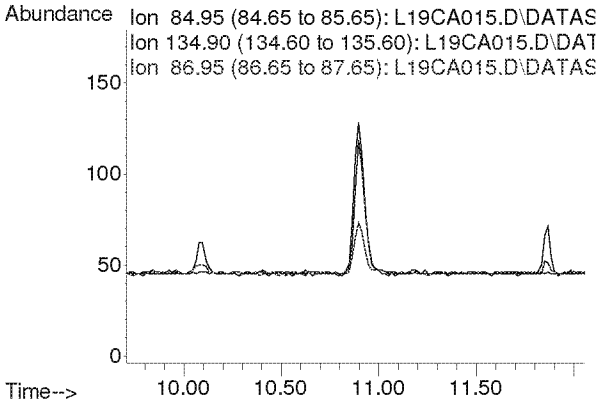


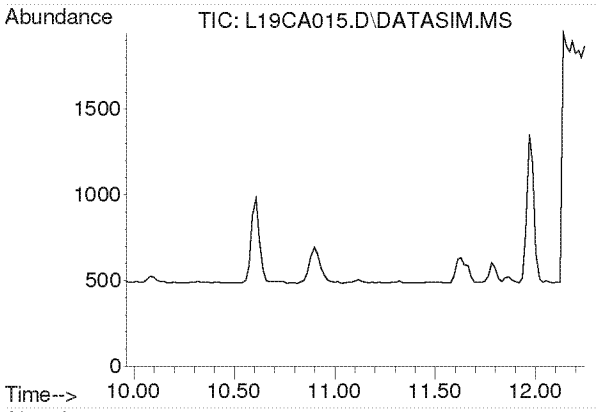
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



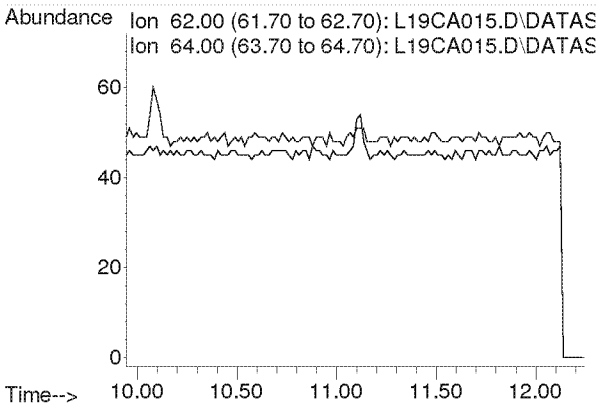


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

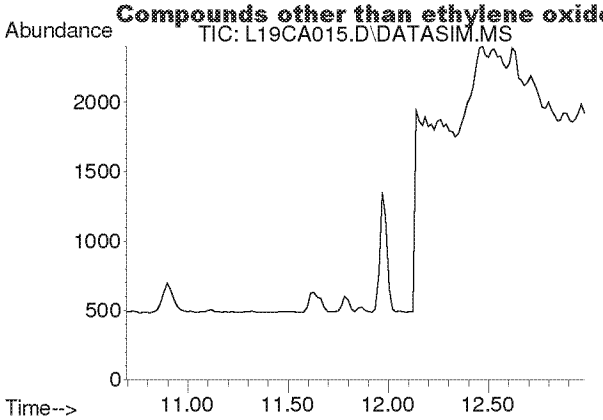
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

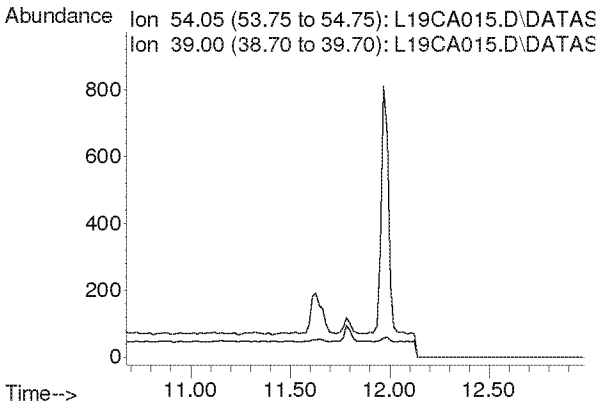


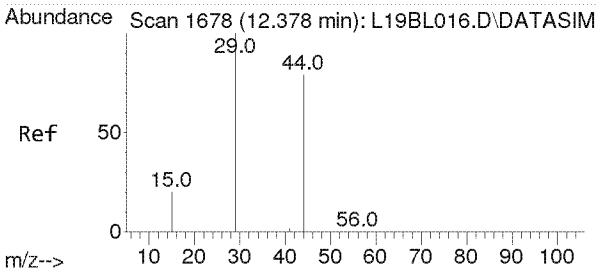
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

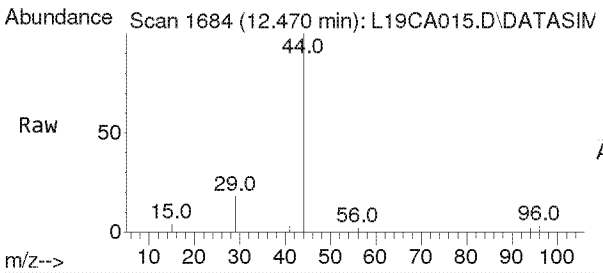


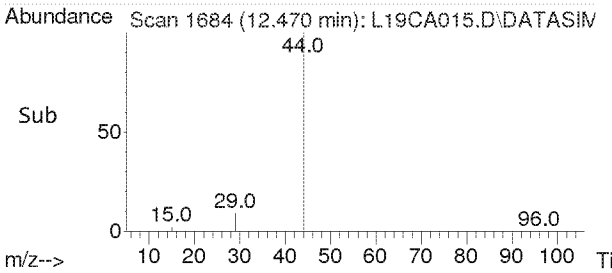


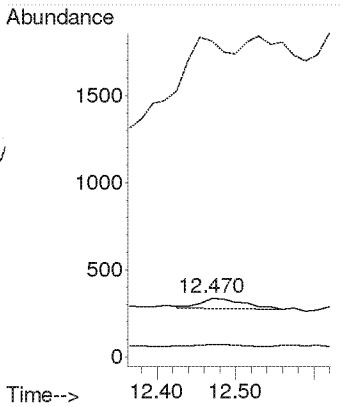
#9
Ethylene oxide
Concen: 0.094 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.020 min
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 29 Resp: 228

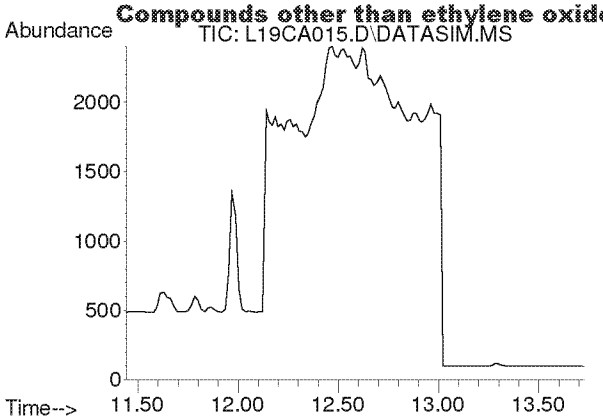
Ion	Ratio	Lower	Upper
29	100		
15	18.9	16.0	24.0
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

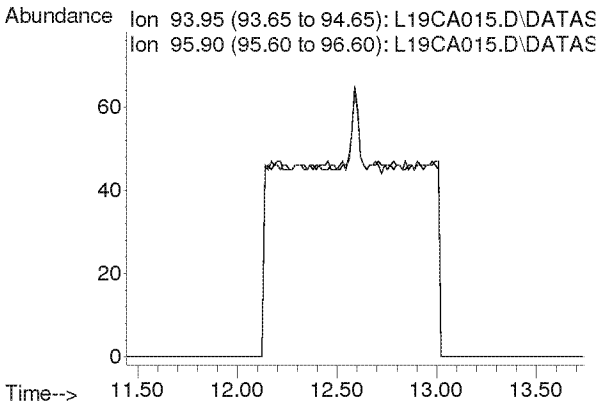


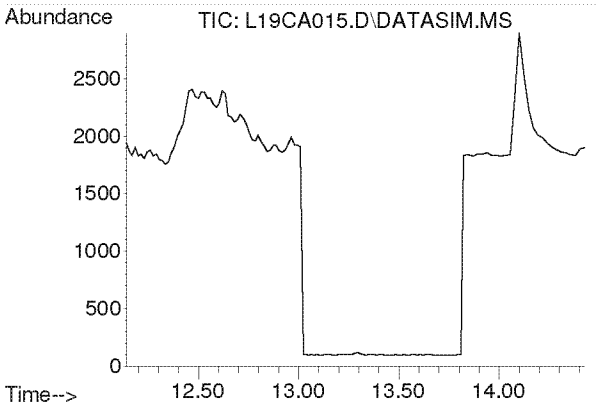
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



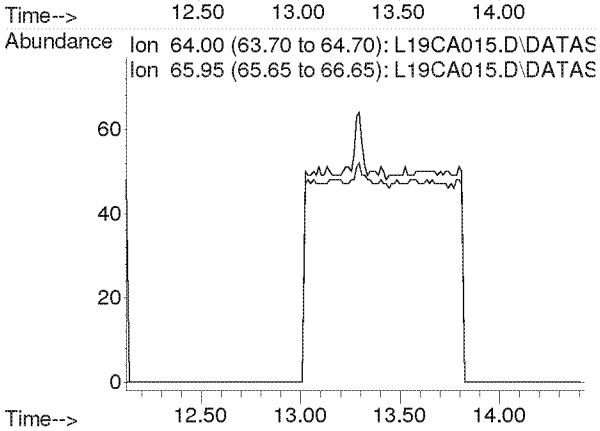


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

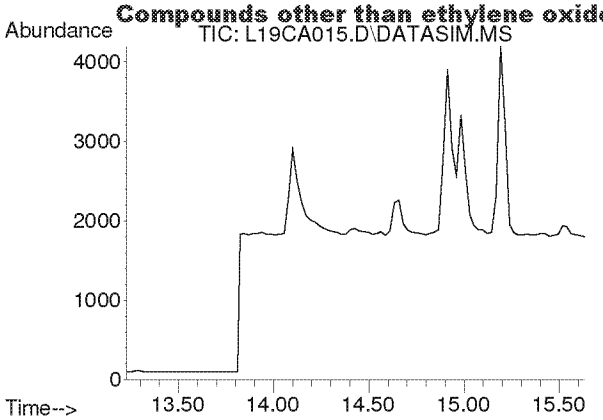
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

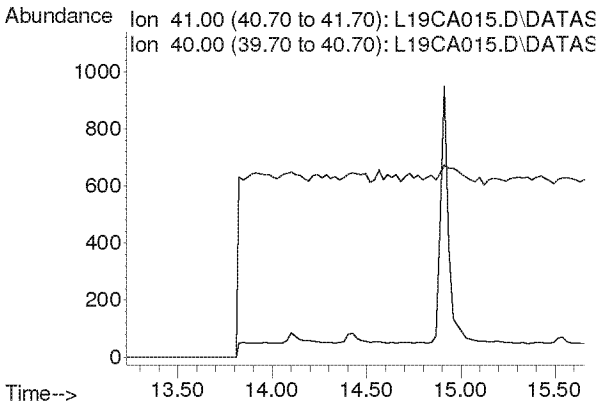


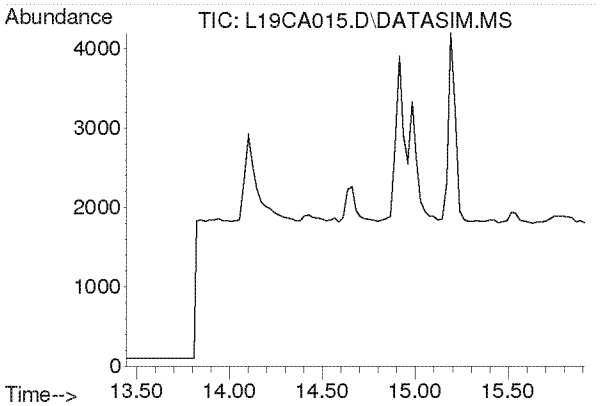
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



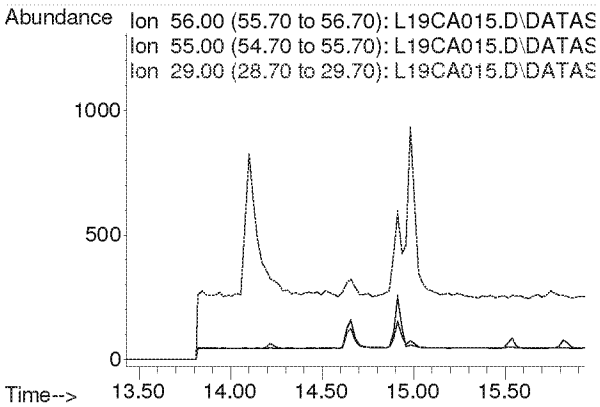


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

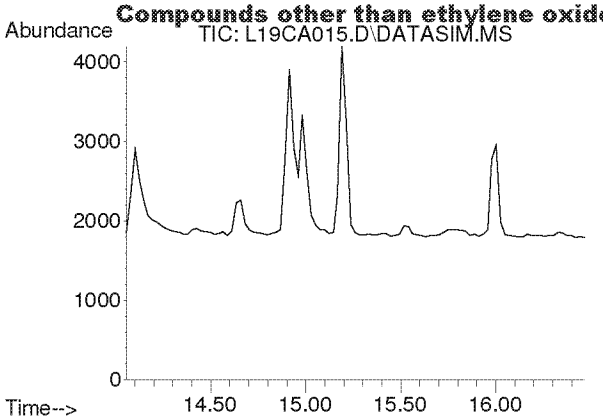
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

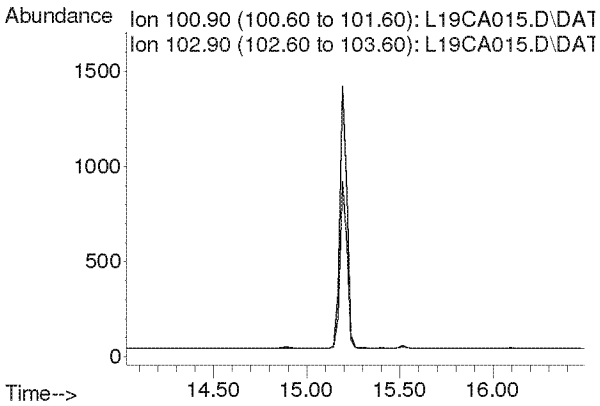


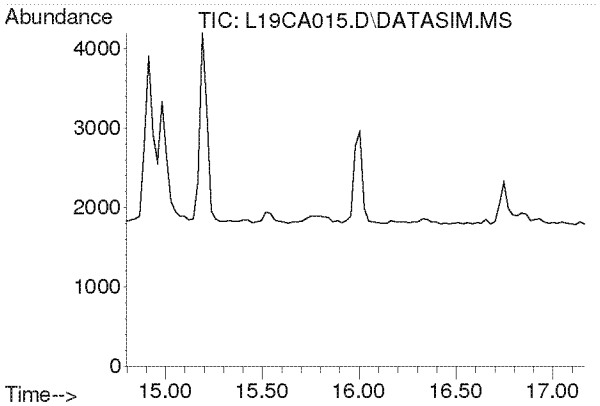
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



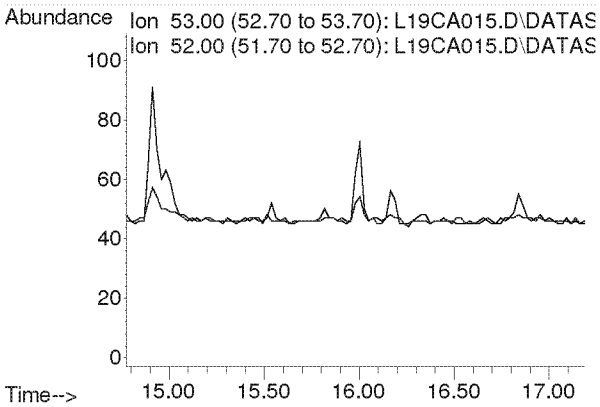


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

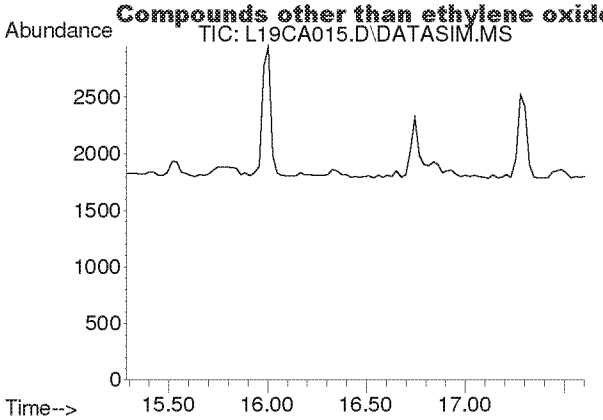
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

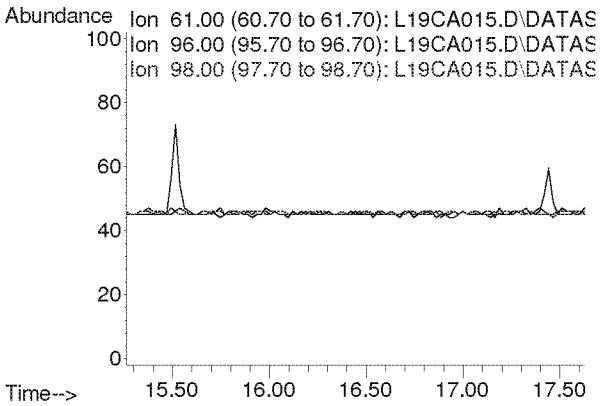


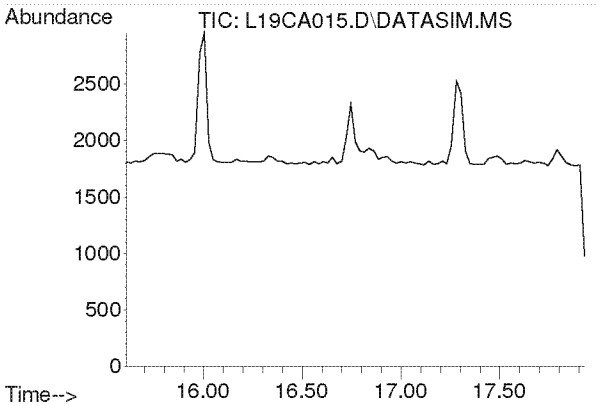
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



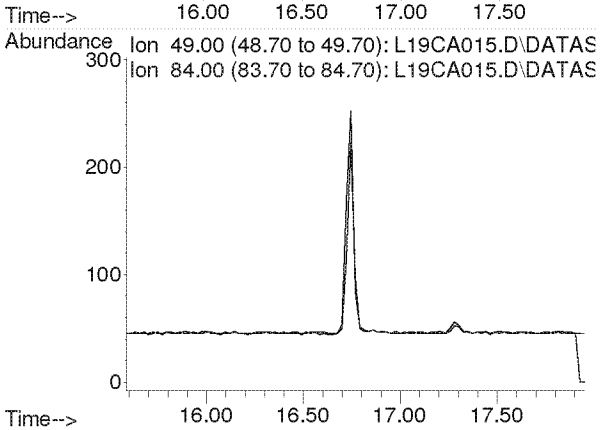


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

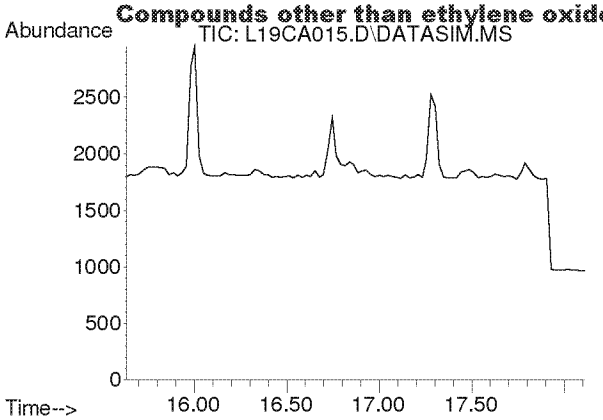
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

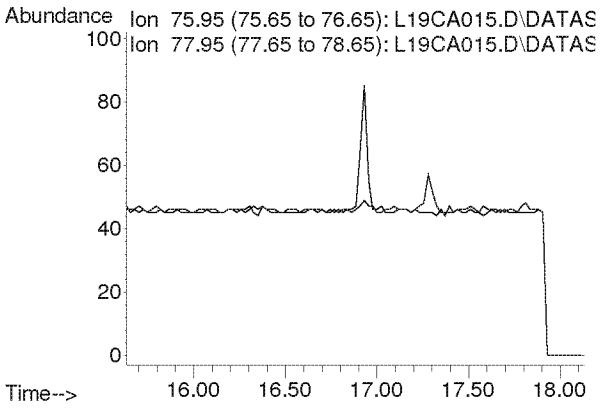


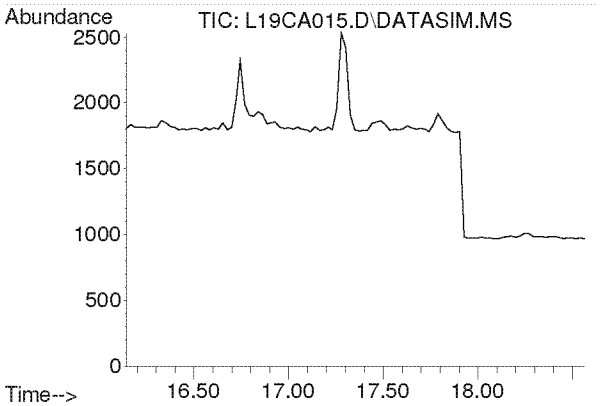
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



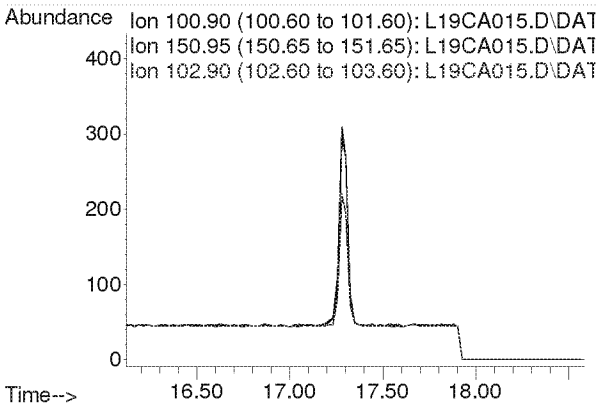


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

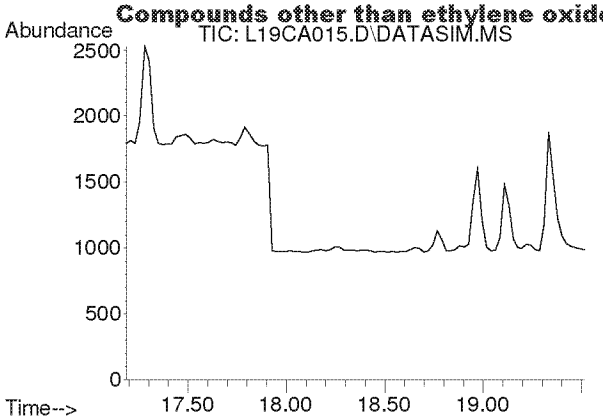
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

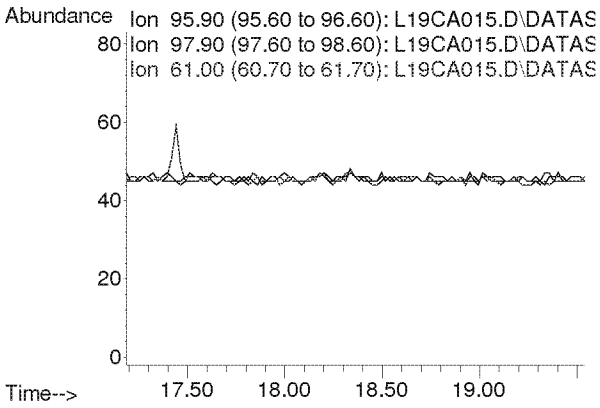


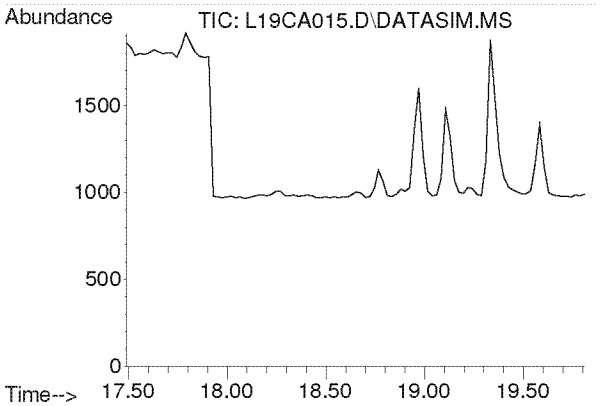
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



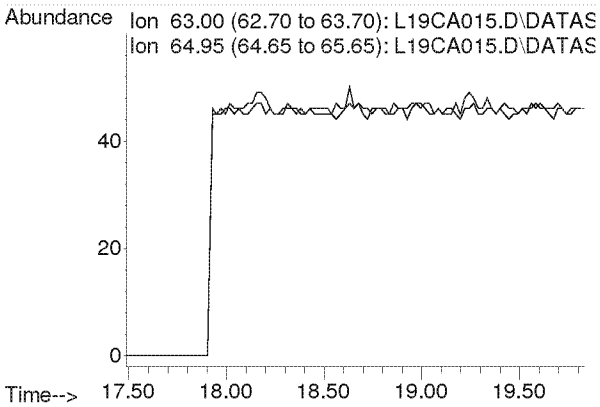


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

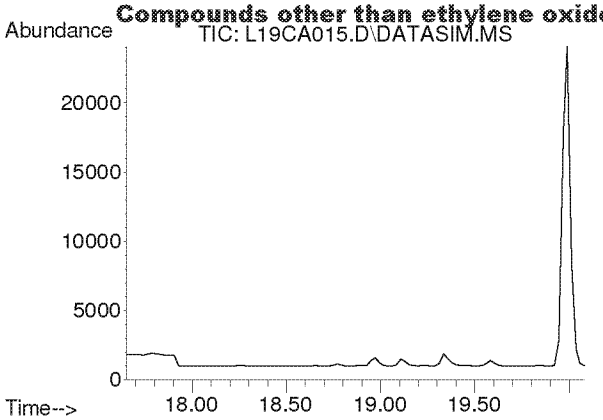
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

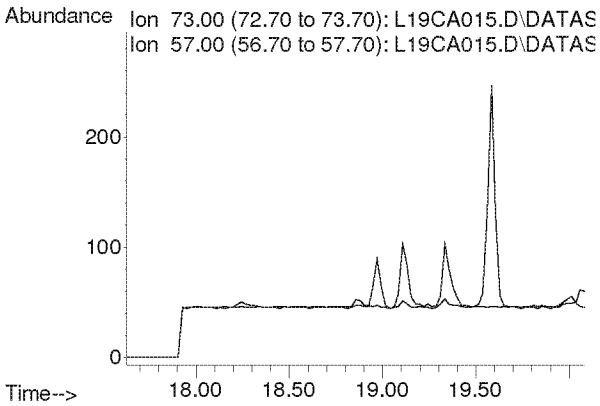


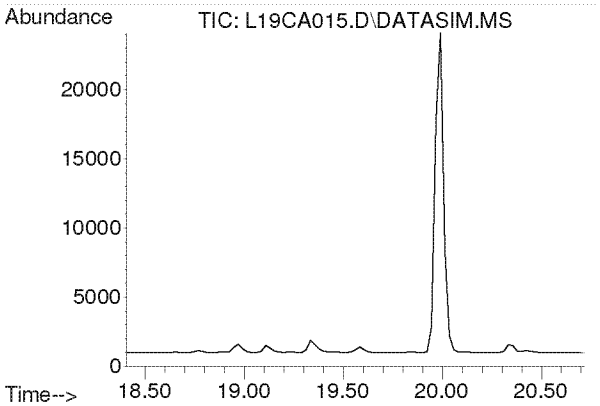
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



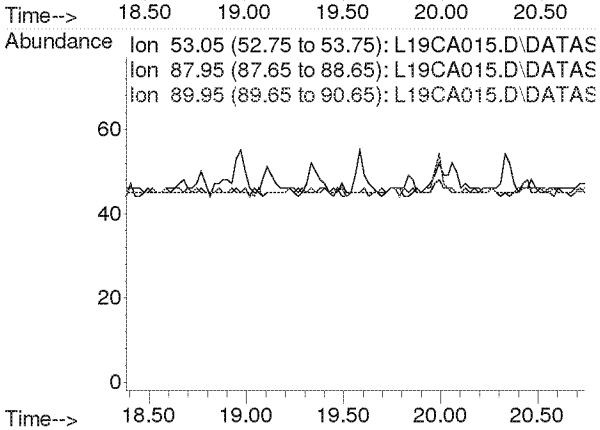


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

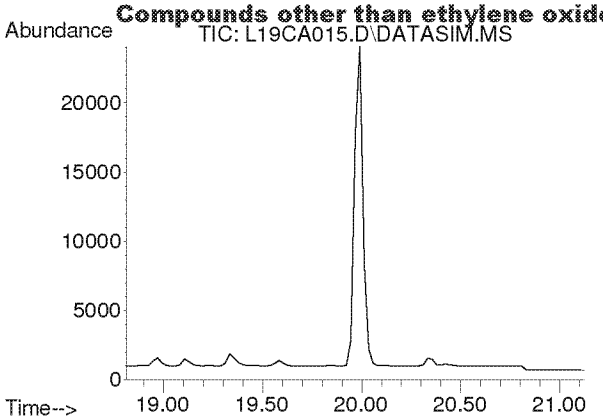
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

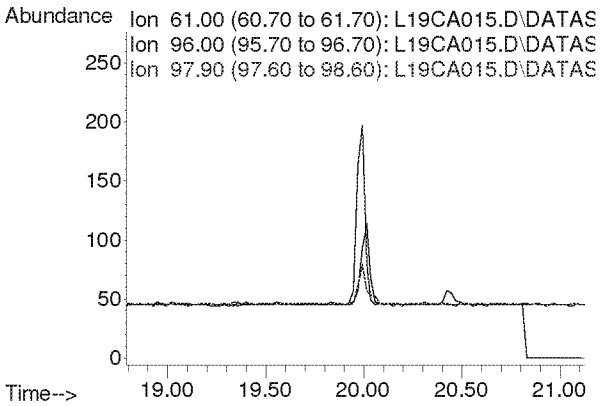


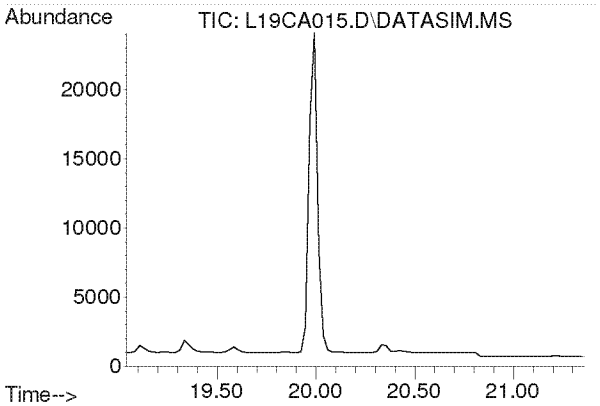
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



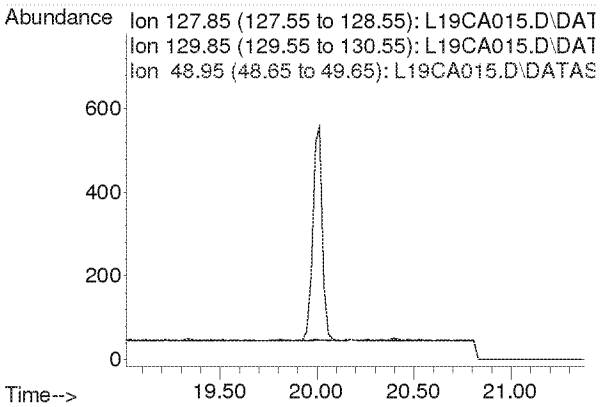


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

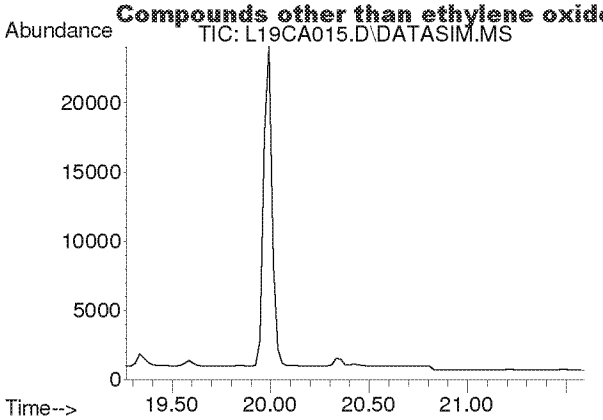
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

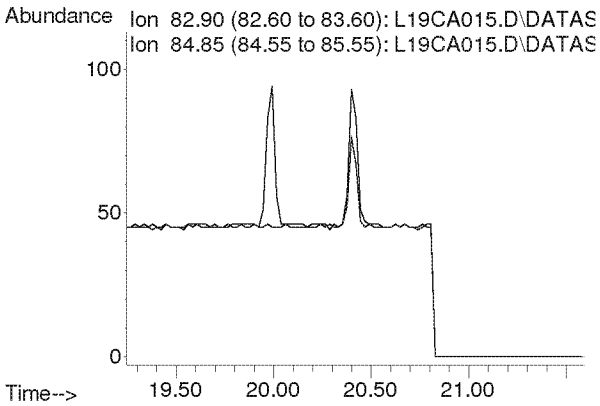


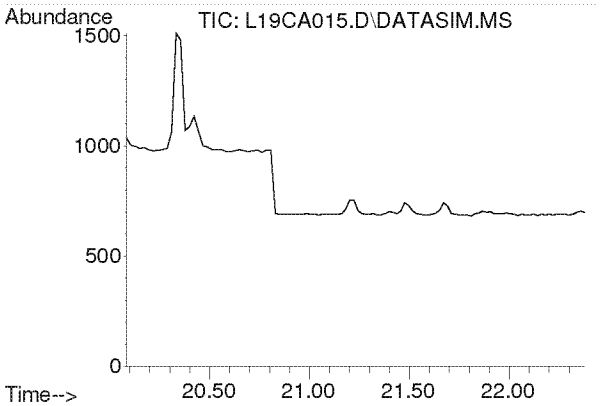
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



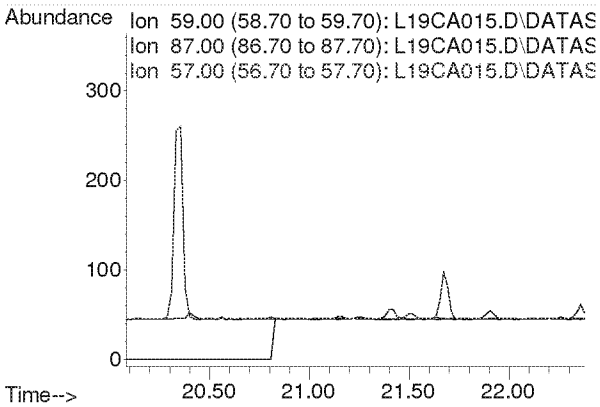


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

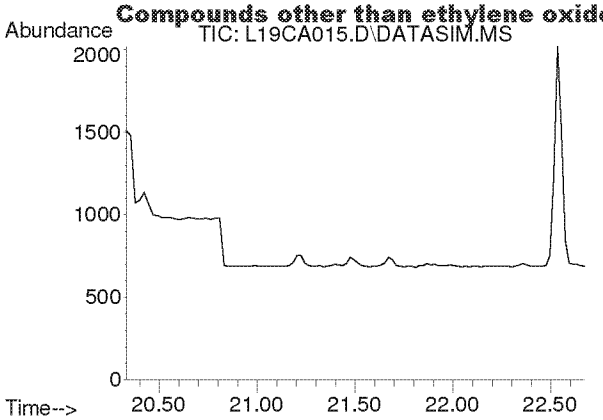
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

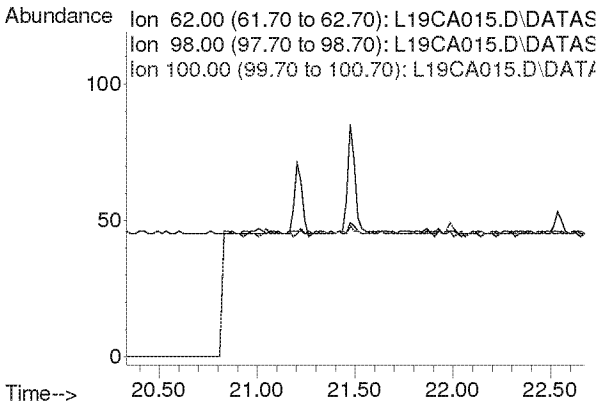


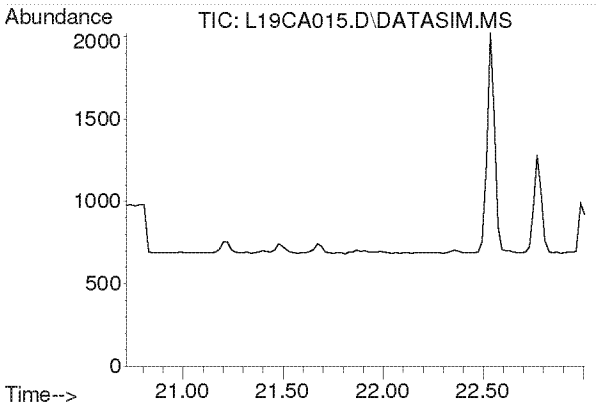
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



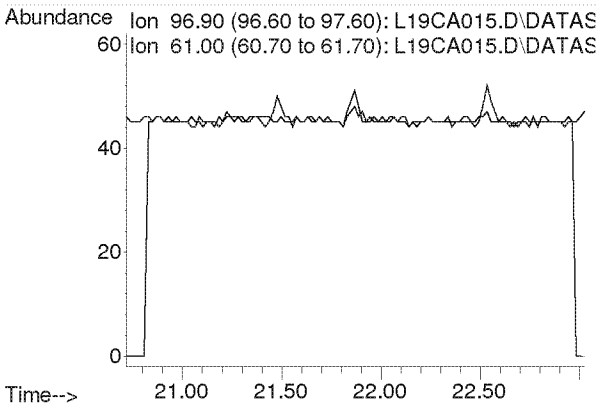


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

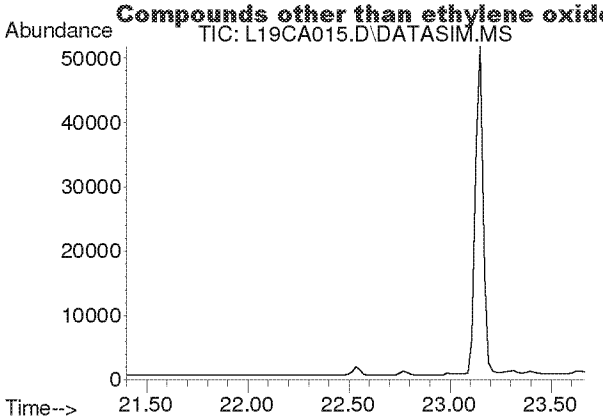
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

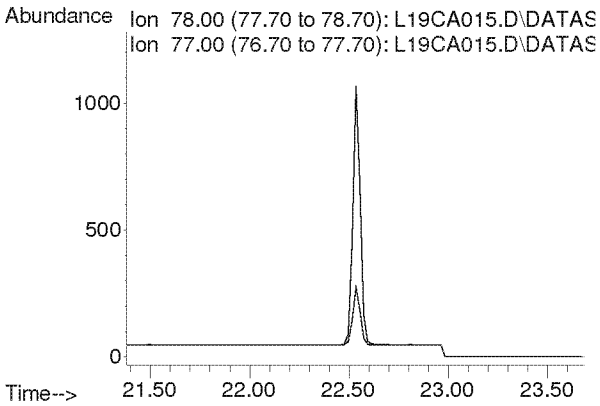


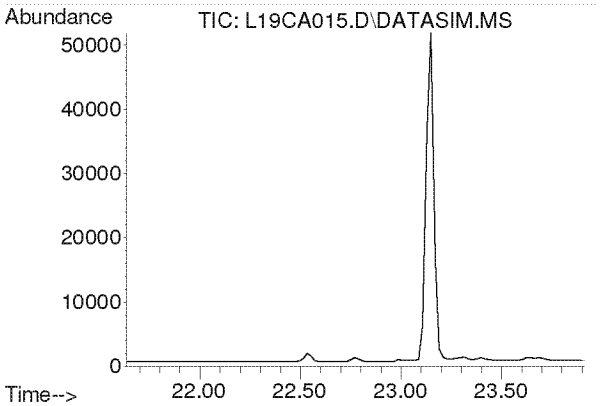
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



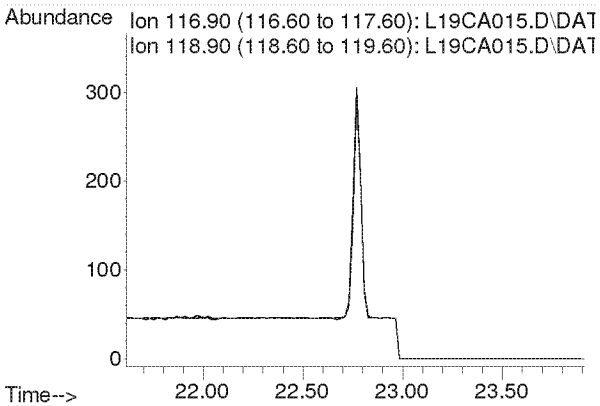


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

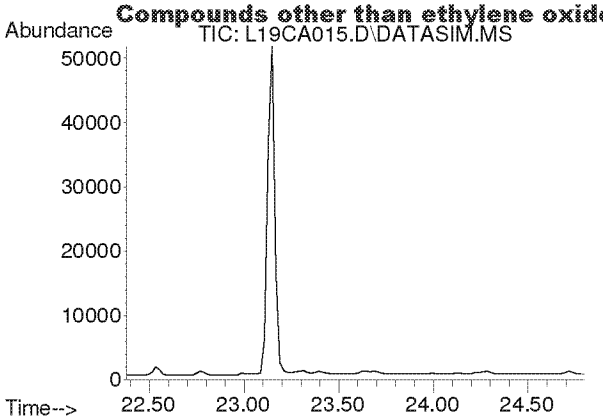
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

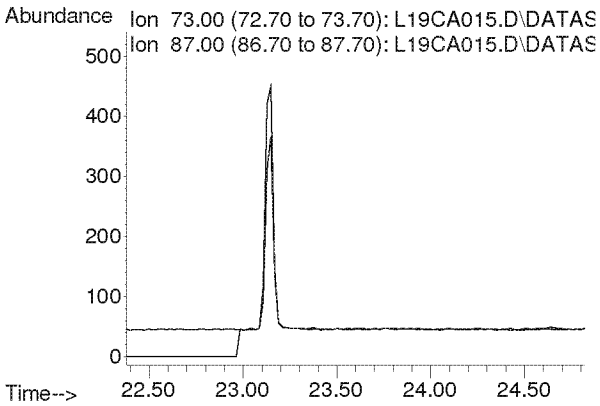


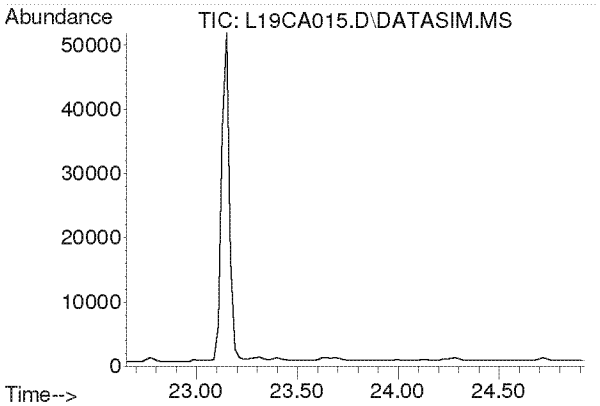
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



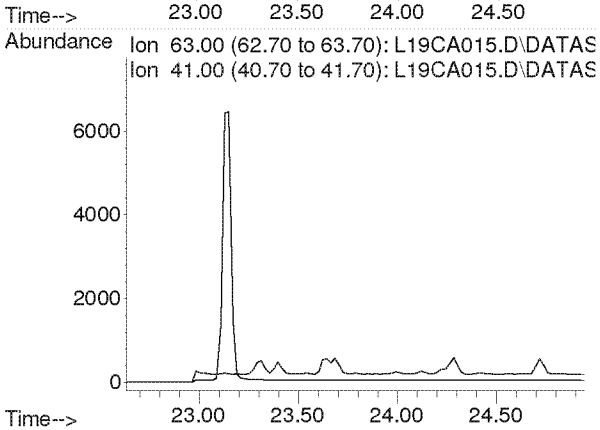


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

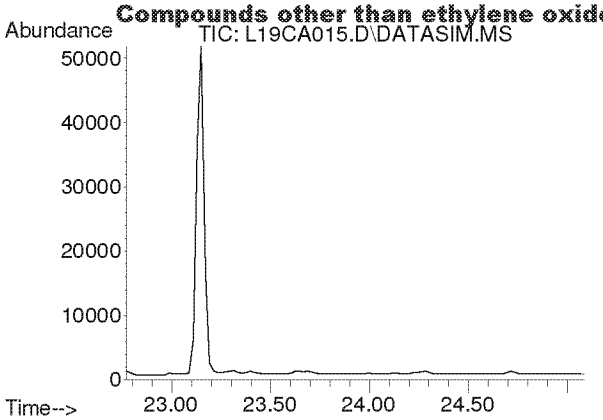
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

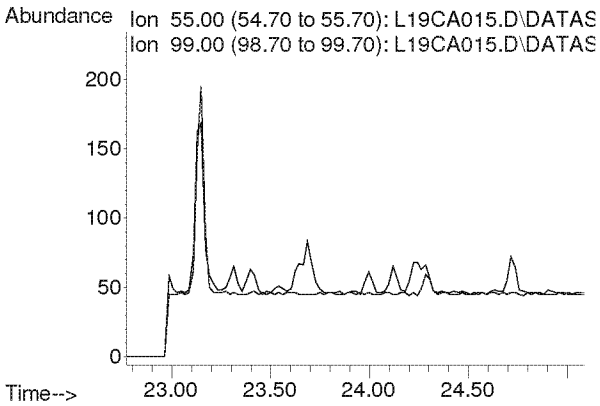


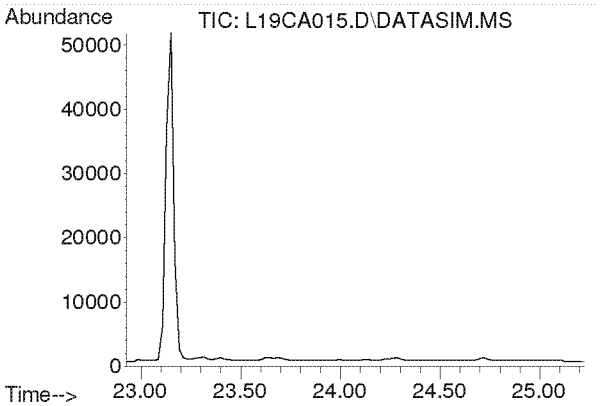
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



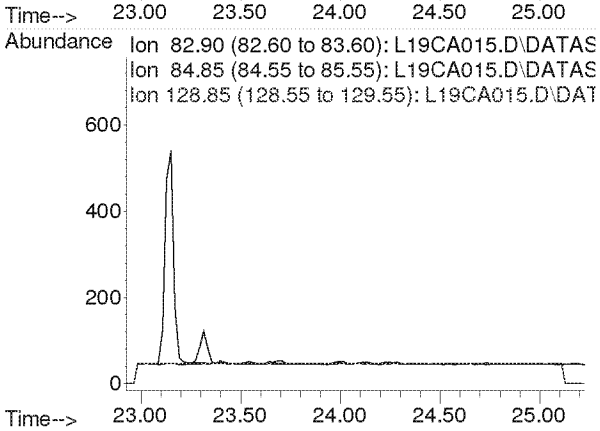


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

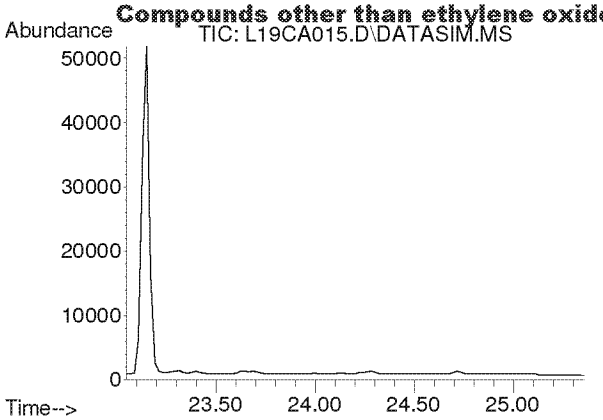
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

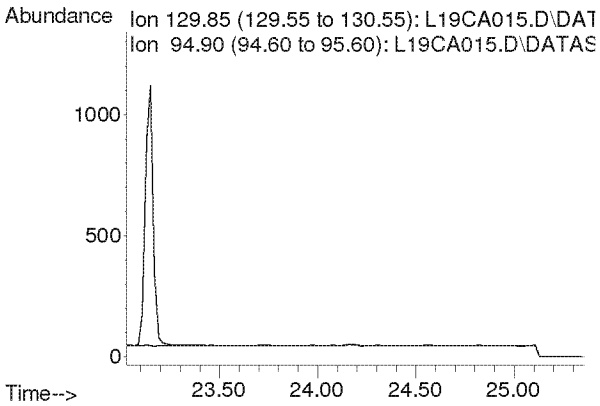


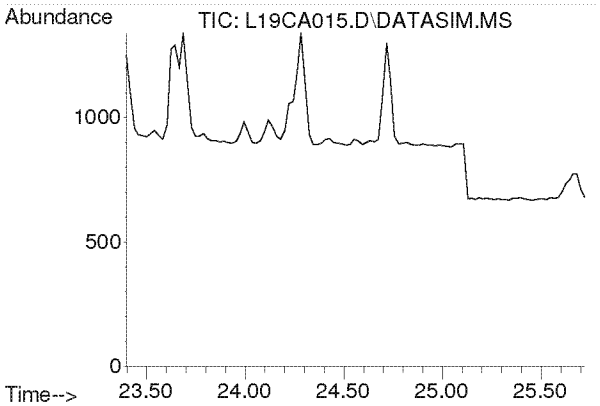
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



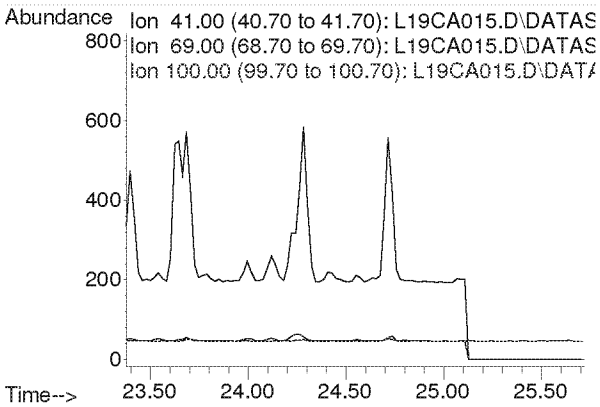


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

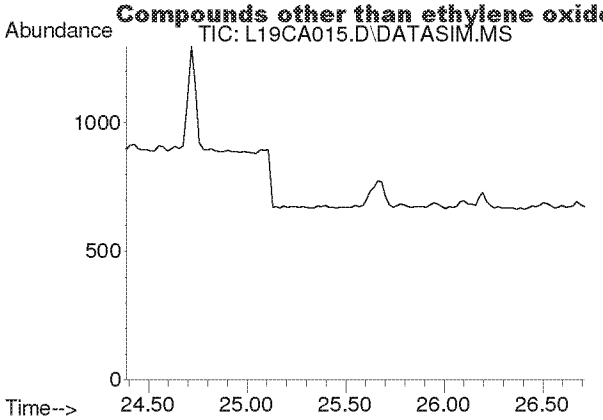
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

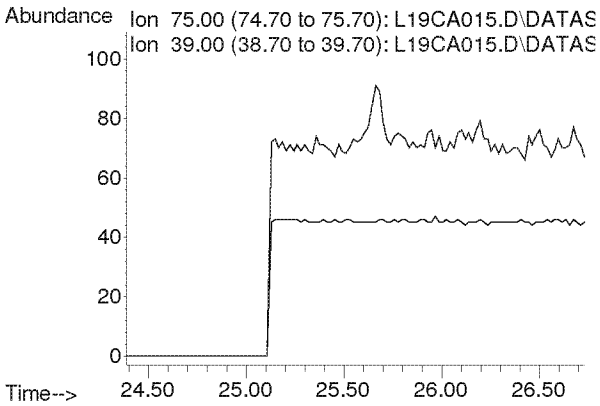


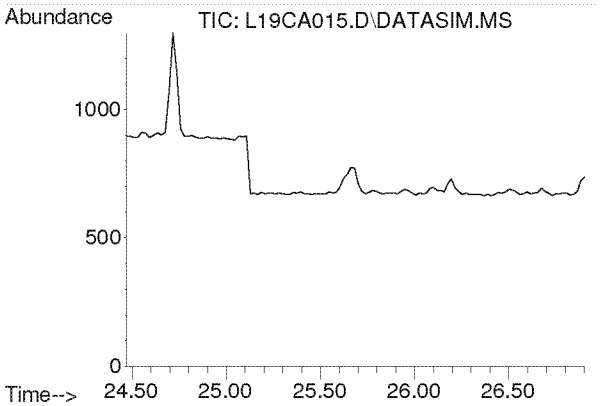
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



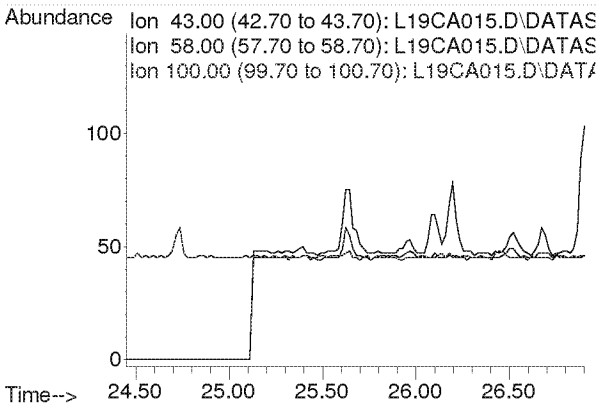


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

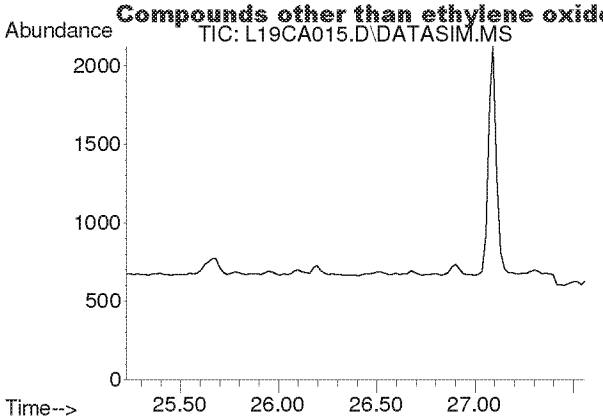
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

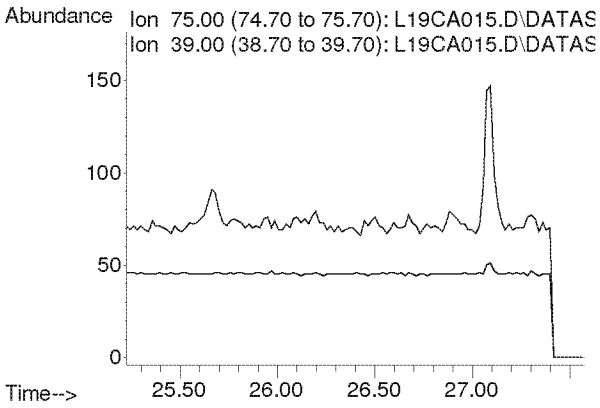


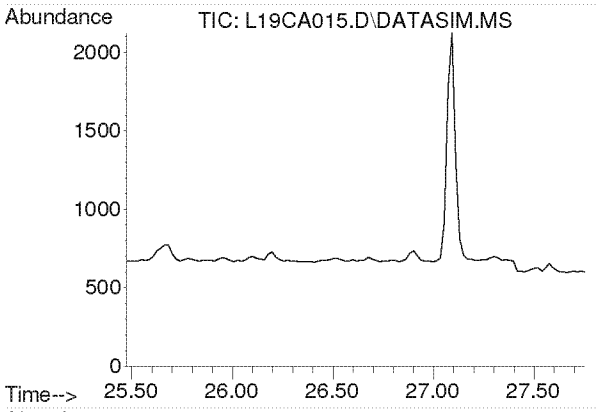
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



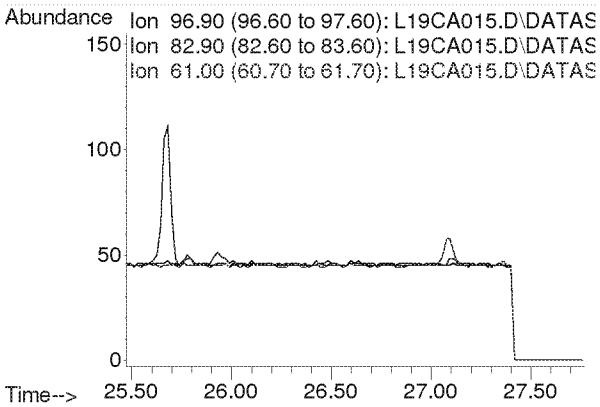


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

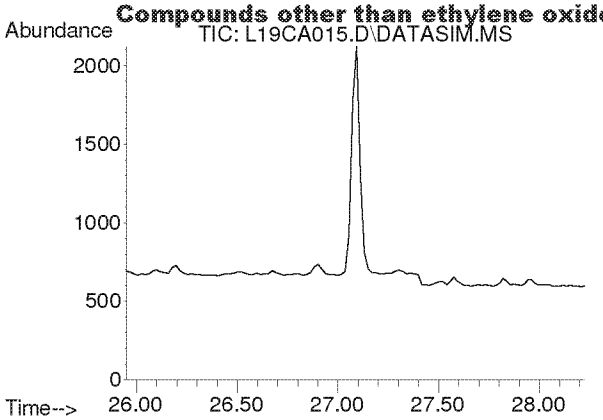
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

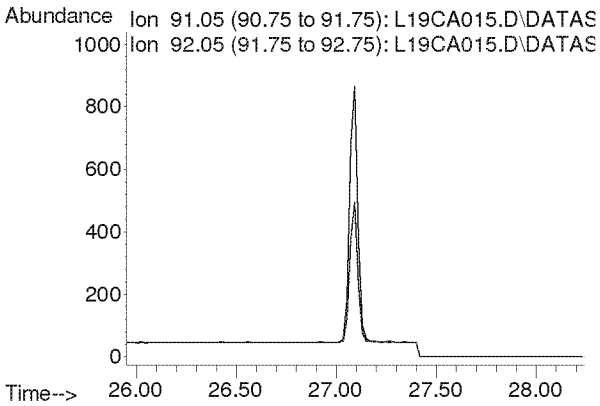


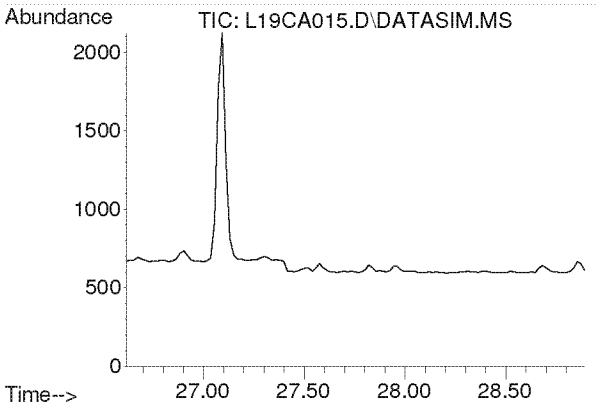
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



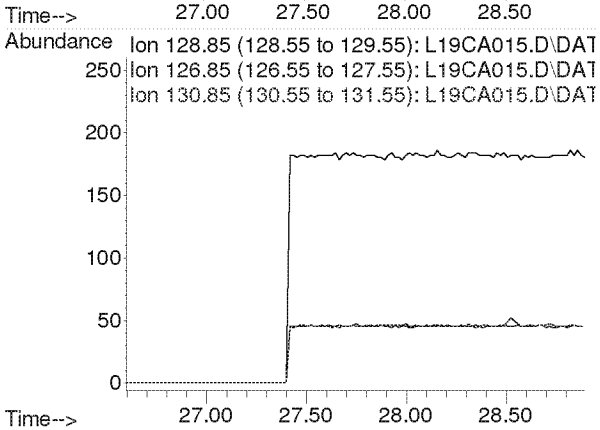


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

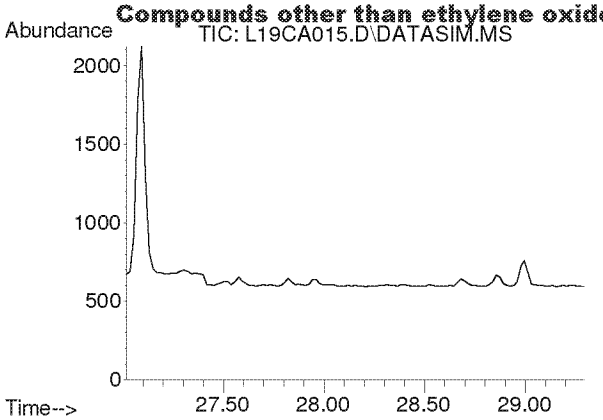
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

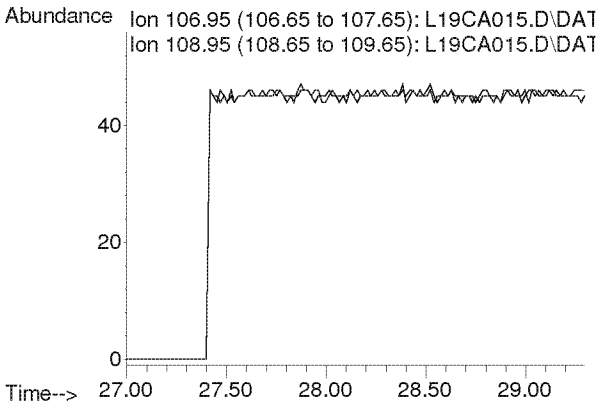


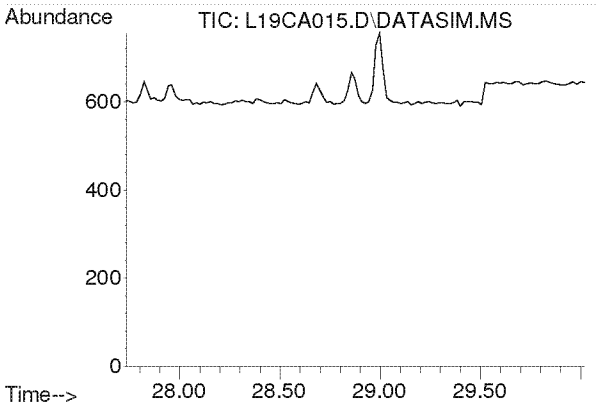
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



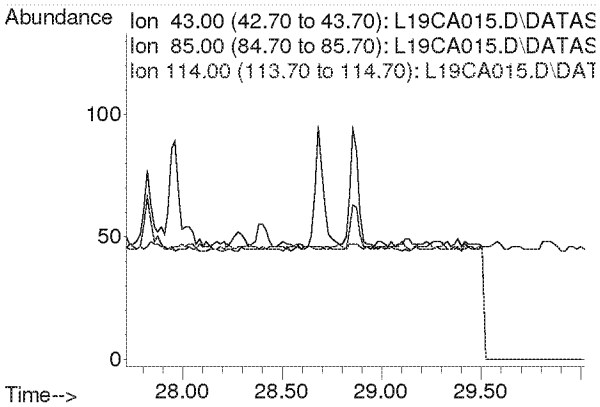


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

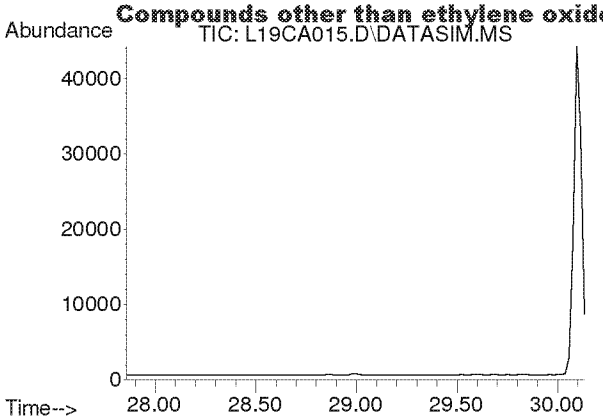
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

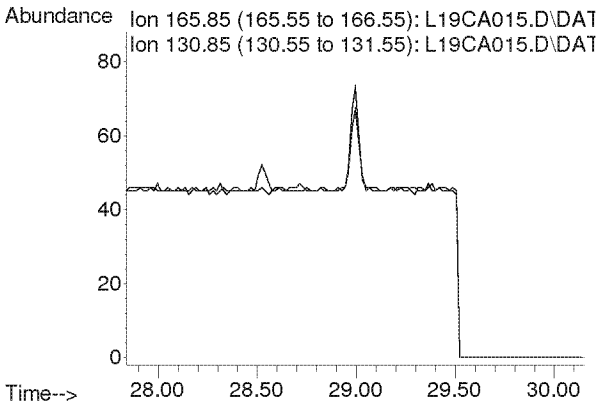


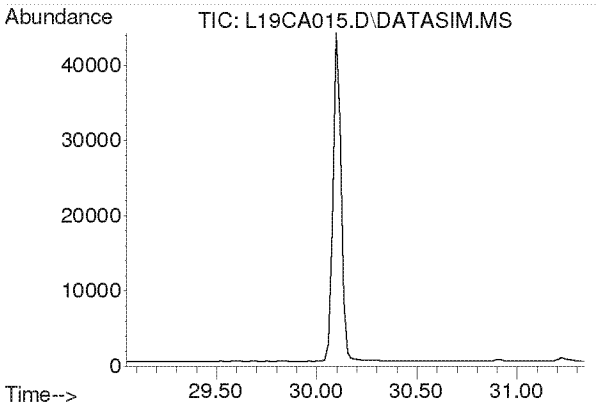
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



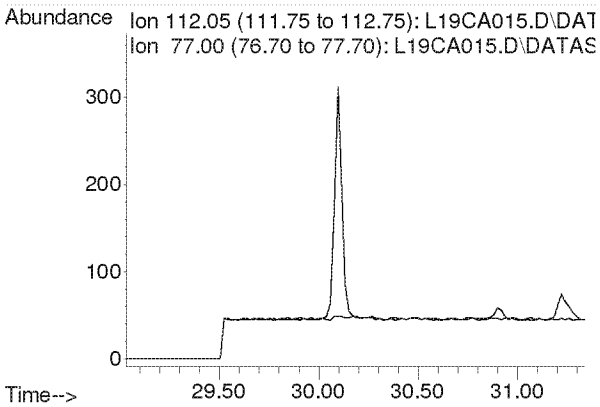


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

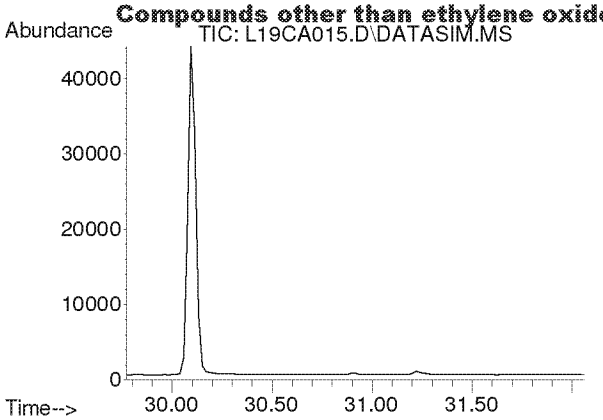
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

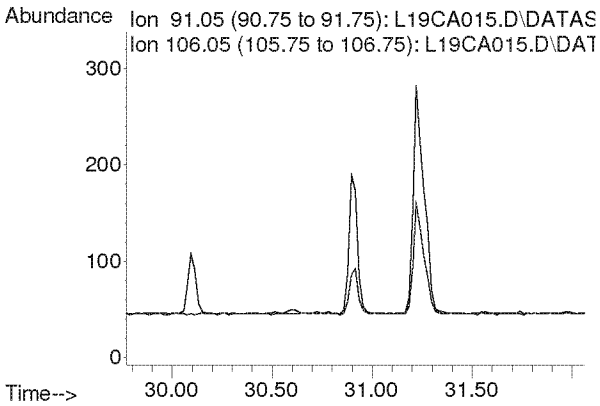


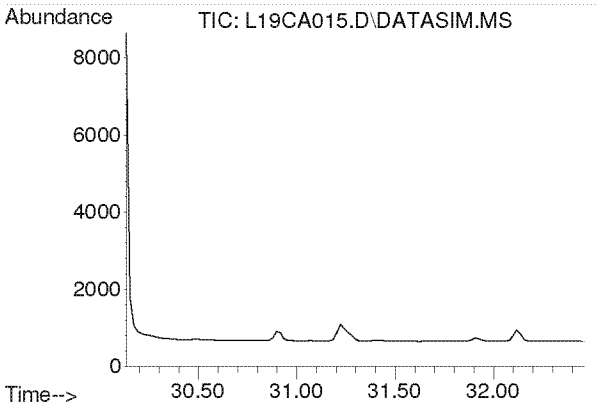
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



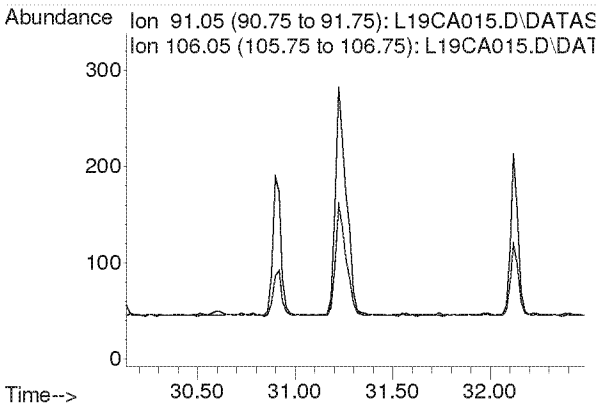


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

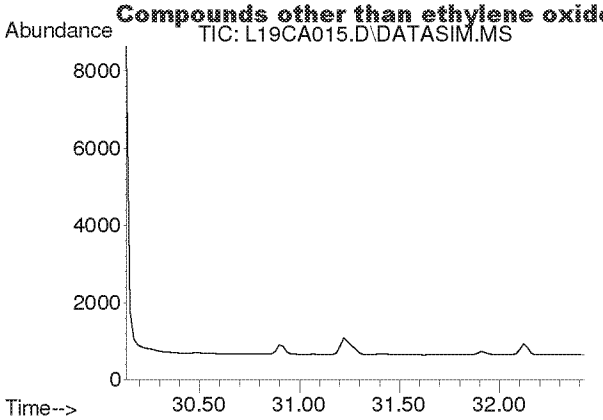
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

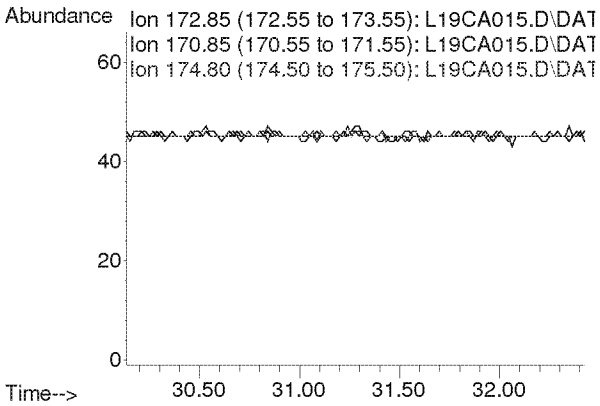


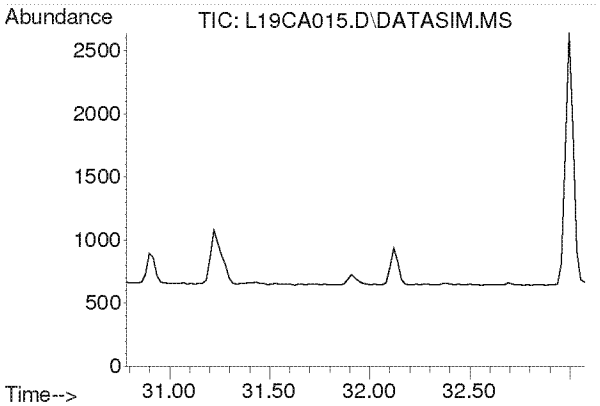
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



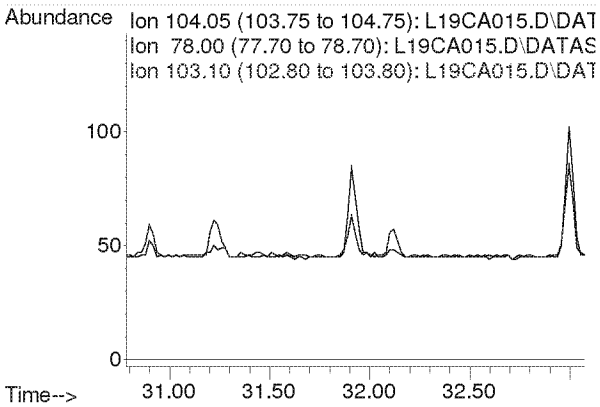


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

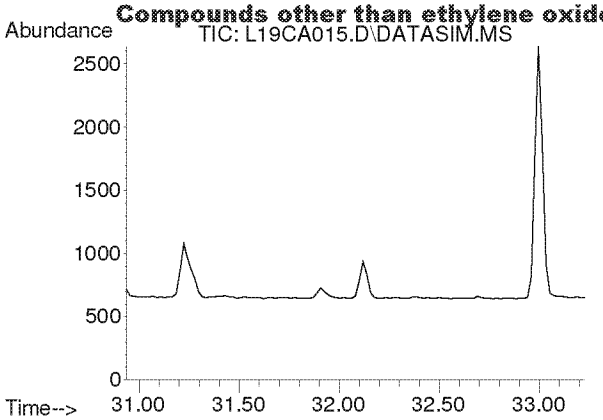
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

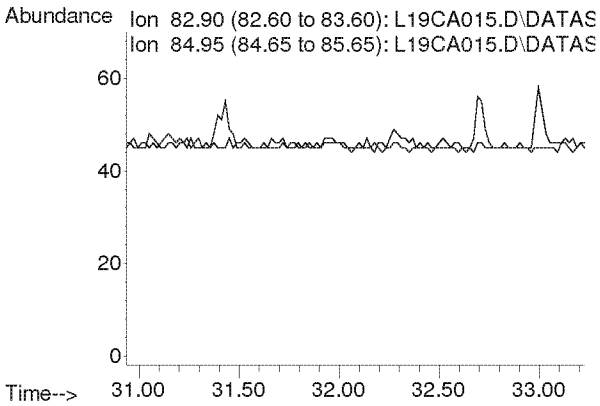


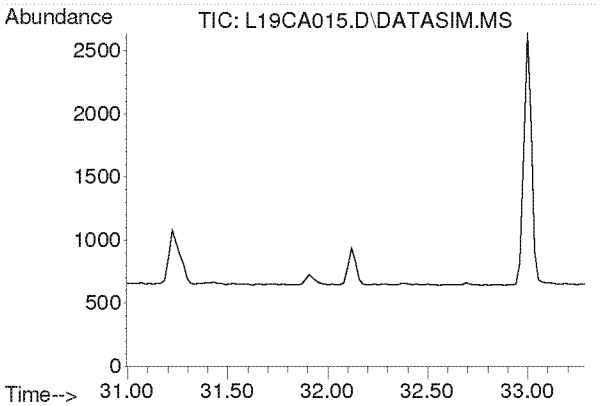
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



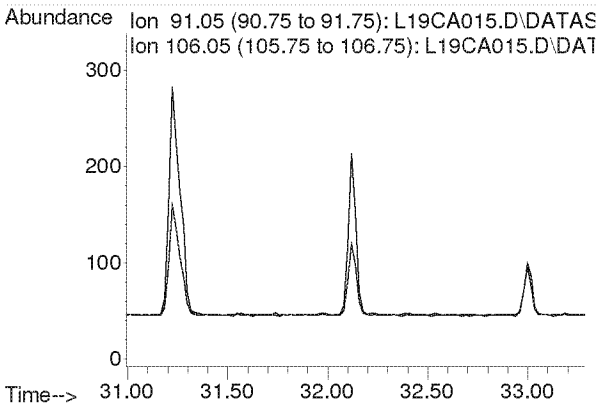


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

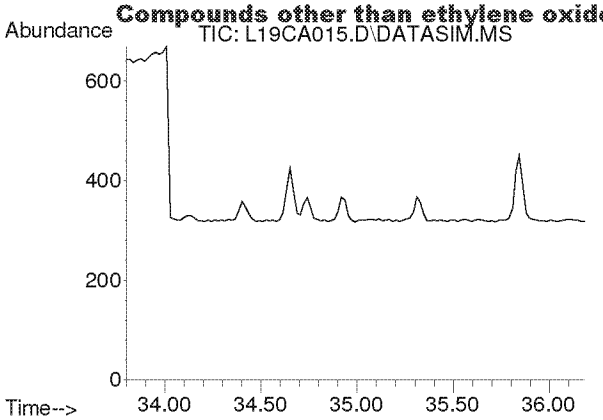
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

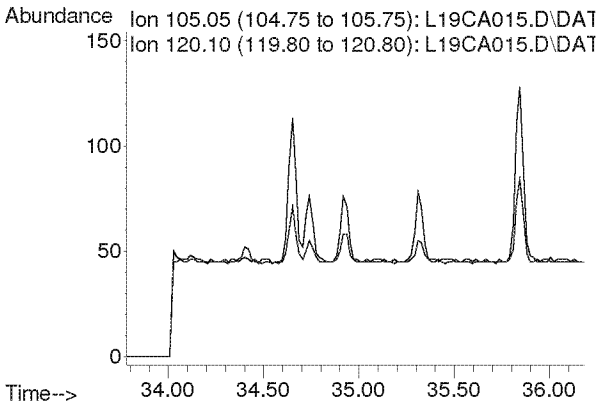


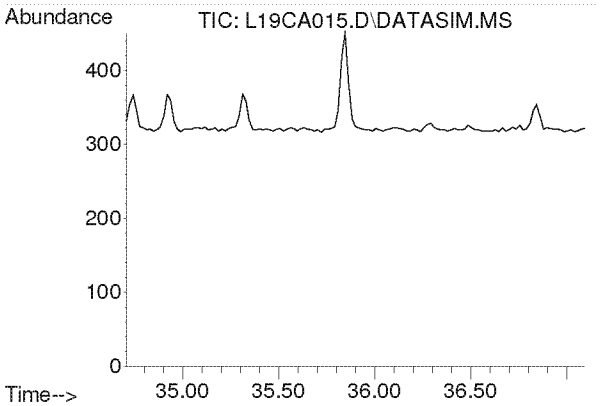
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



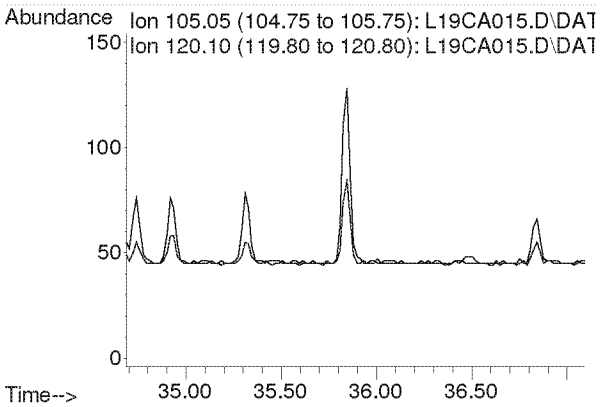


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

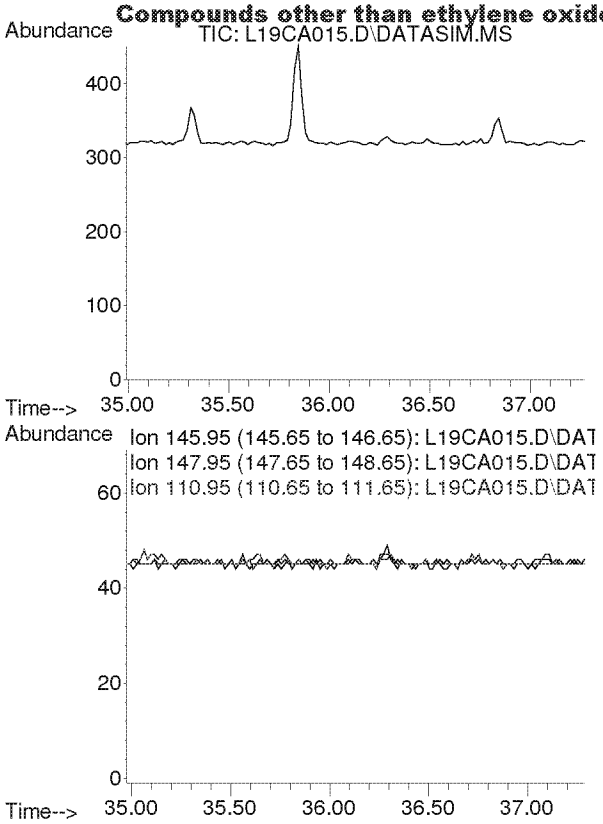
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

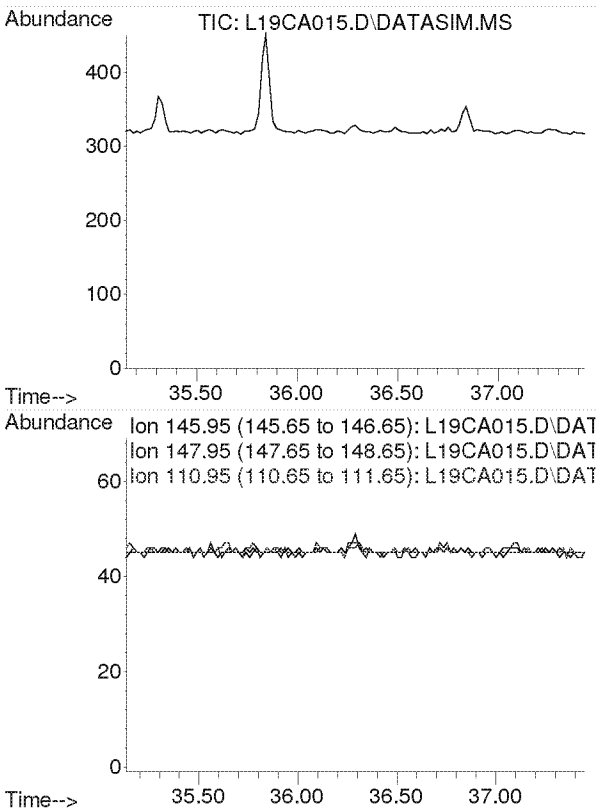


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



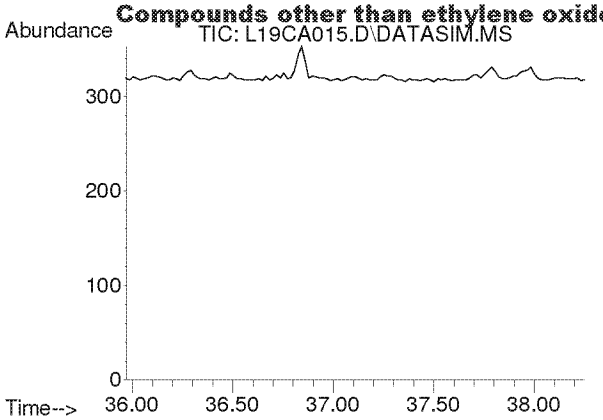
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

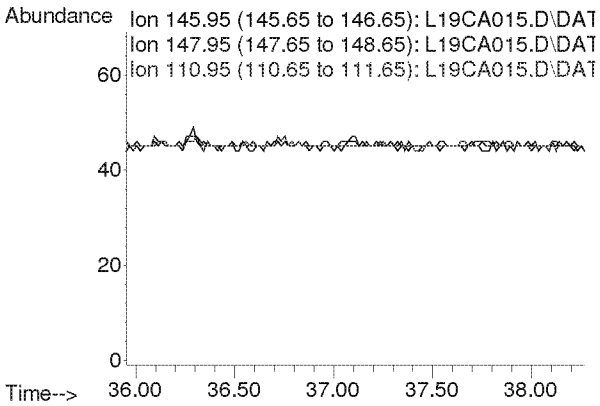


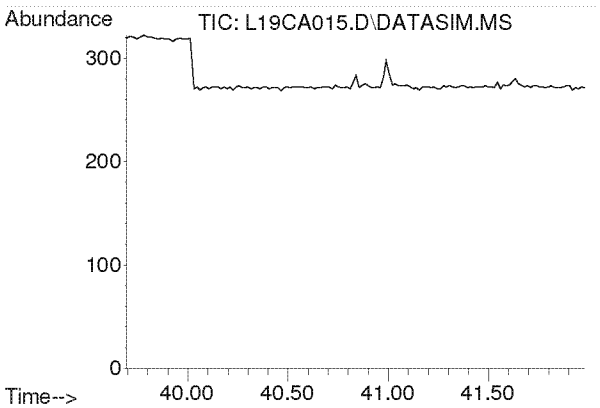
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



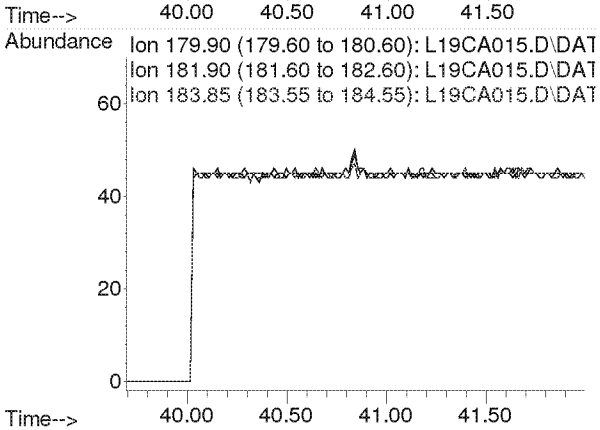


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

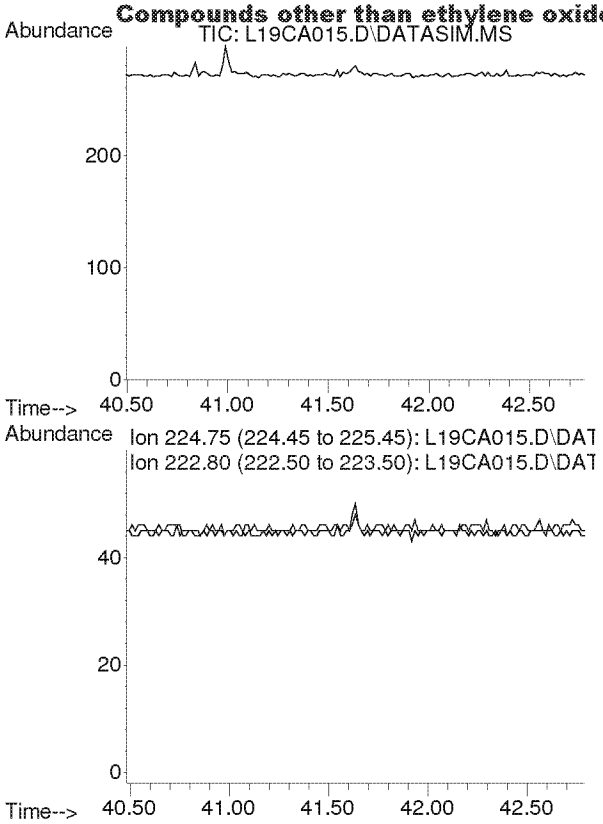
Lab File: L19CA015.D
Acq: 2 Mar 2019 5:35 am

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: L19CA015.D
Acq: 2 Mar 2019 5:35 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\L19CA\
Data File : L19CA016.D
Acq On : 2 Mar 2019 6:36 am (#1); 02-Mar-19, 06:30:58 (#2)
Operator : MAH
Sample : B9C0104-DUP2
Misc : WB VILLAGE HALL R2 2/27/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 05 09:09:44 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: MA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	42821	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	109080	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	74799	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	12.513	29	158m y 5.15	0.0645 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.	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\L19CA\
Data File : L19CA016.D
Acq On : 2 Mar 2019 6:36 am (#1); 02-Mar-19, 06:30:58 (#2)
Operator : MAH
Sample : B9C0104-DUP2
Misc : WB VILLAGE HALL R2 2/27/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 05 09:09:44 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

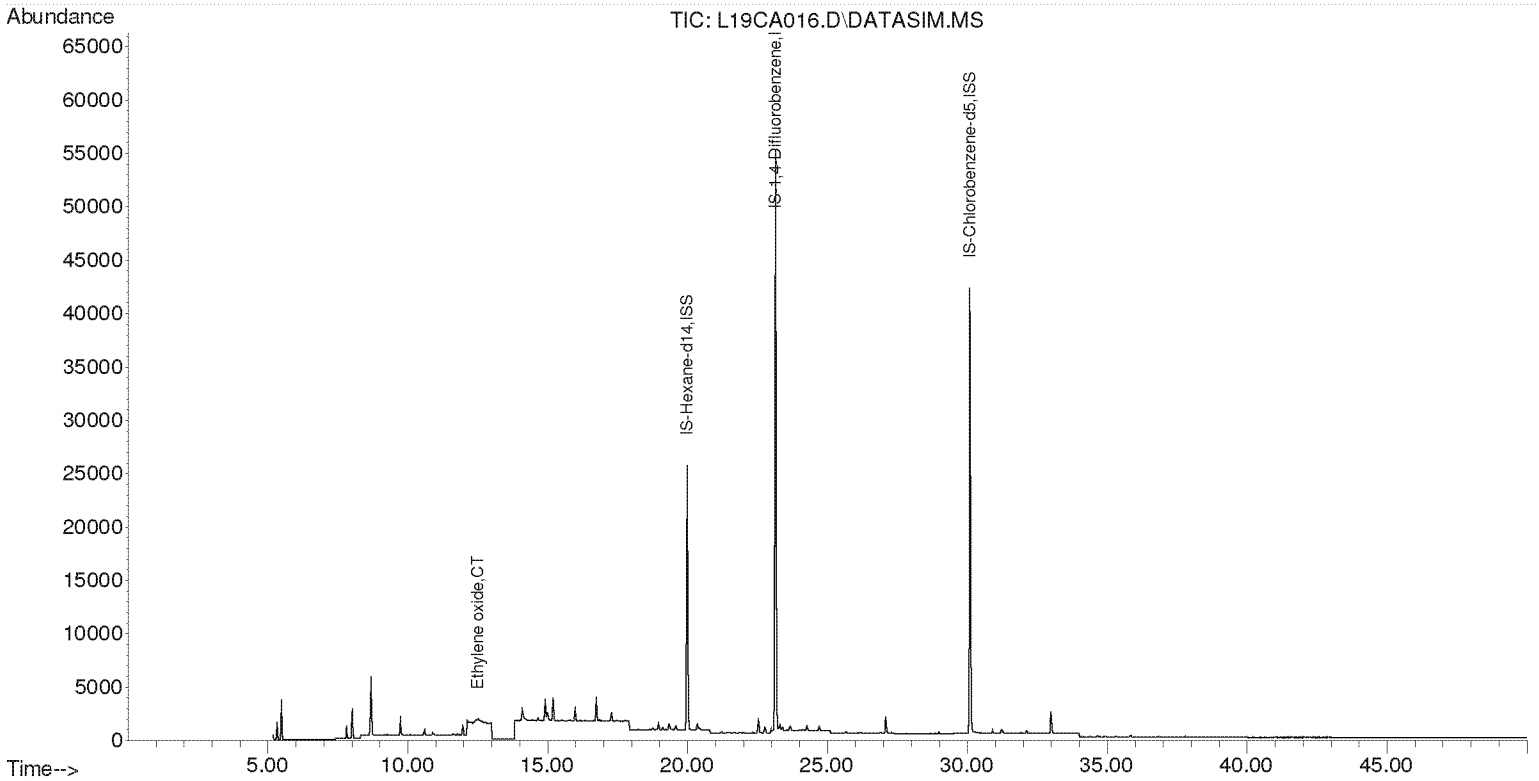
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

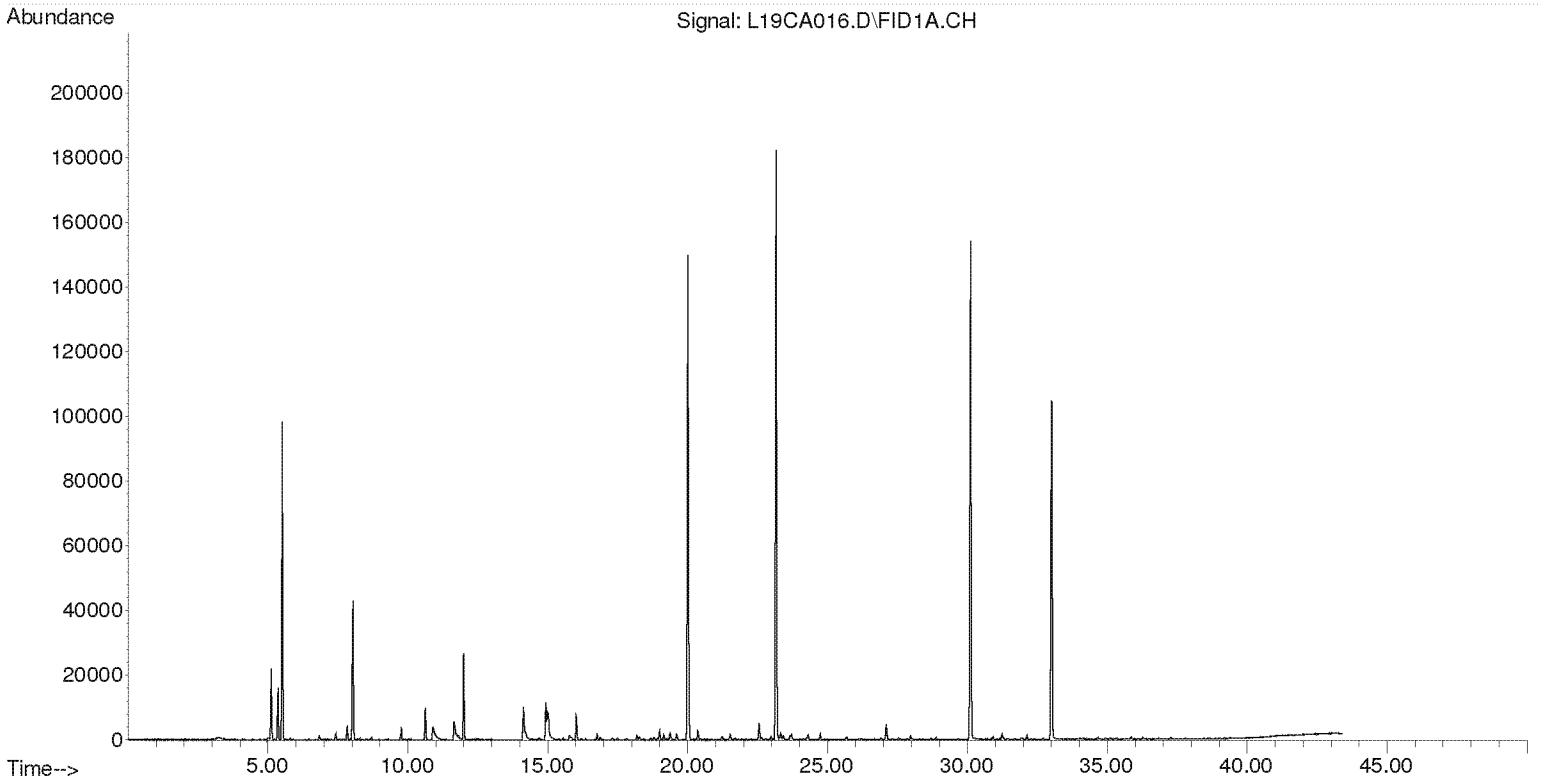
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

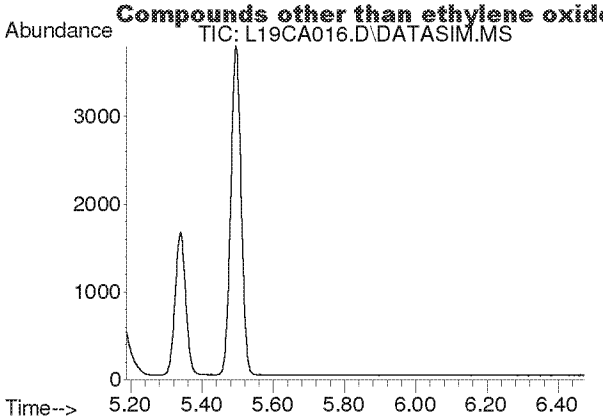
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA016.D
Acq On : 2 Mar 2019 6:36 am (#1); 02 Mar 2019 6:30 am (#2)
Operator : MAH
Sample : B9C0104-DUP2
Misc : WB VILLAGE HALL R2 2/27/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 05 08:54:53 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





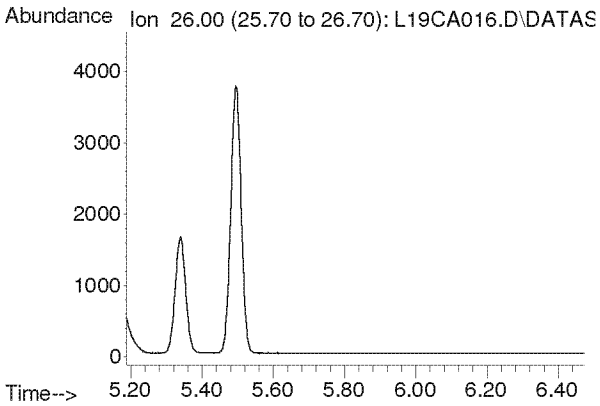
Compounds other than ethylene oxide were not quantitated.

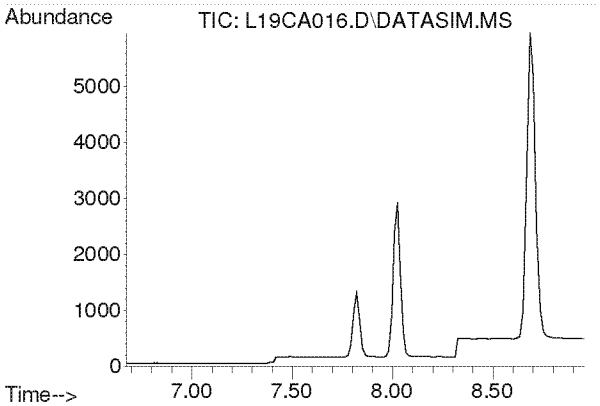


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 26



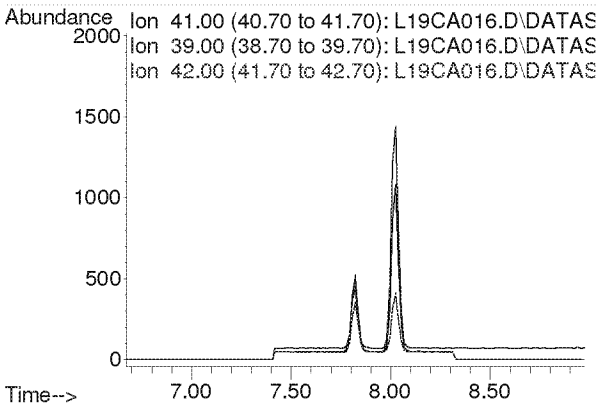


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

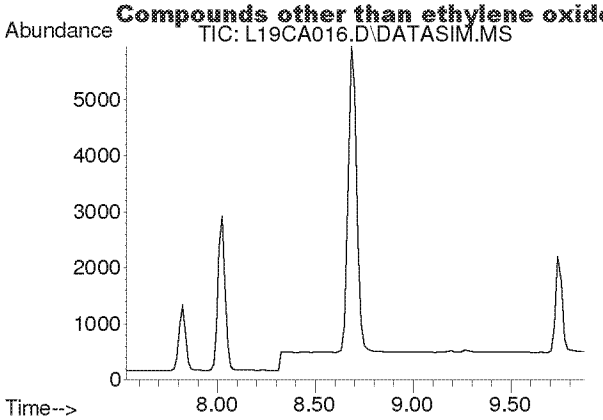
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

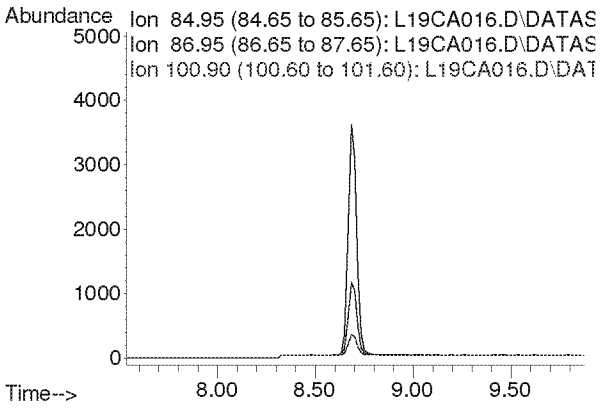


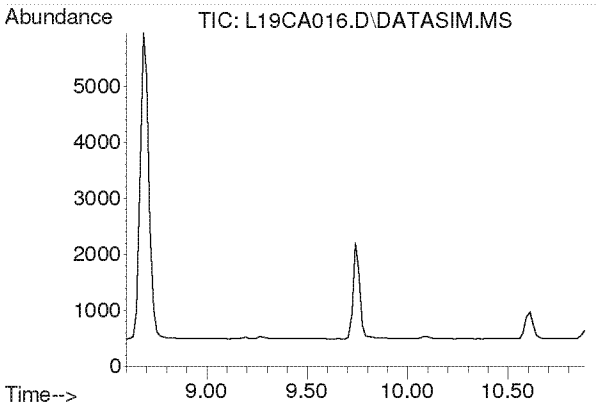
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



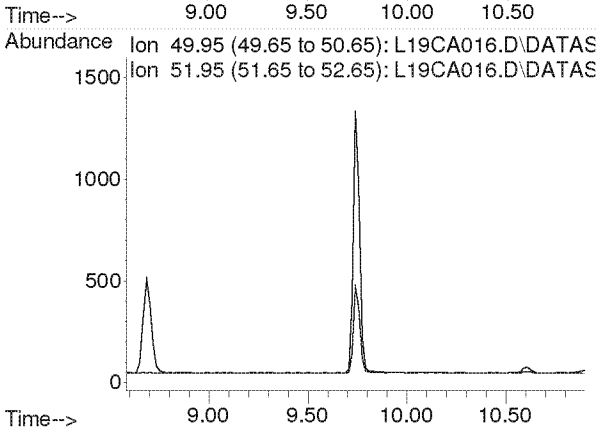


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

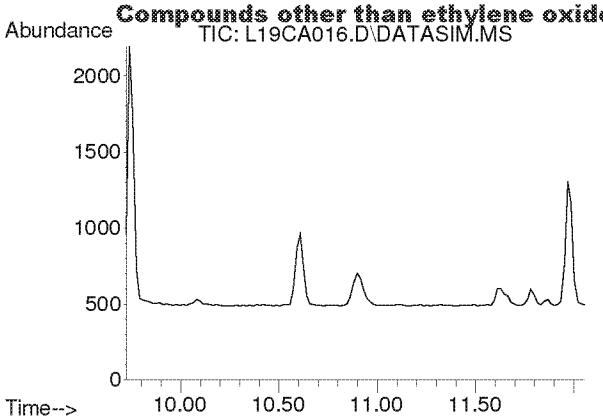
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

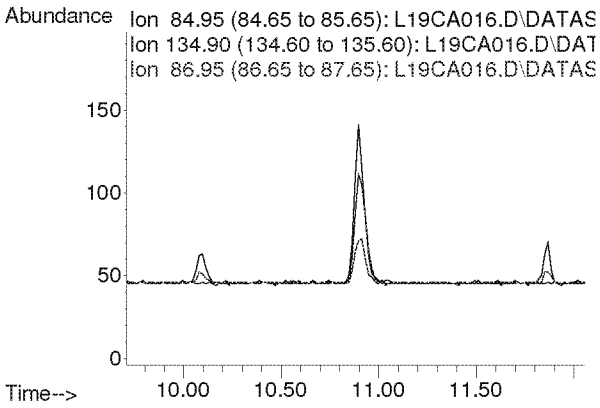


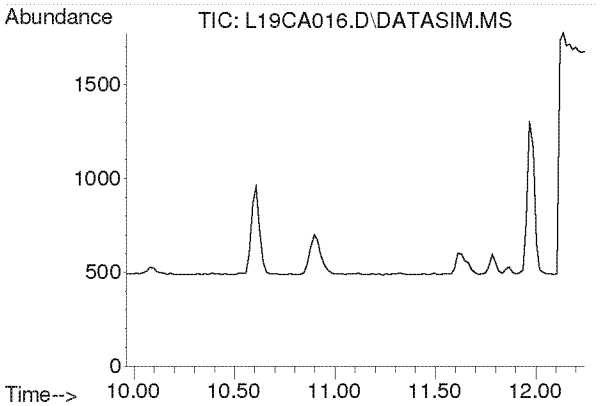
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



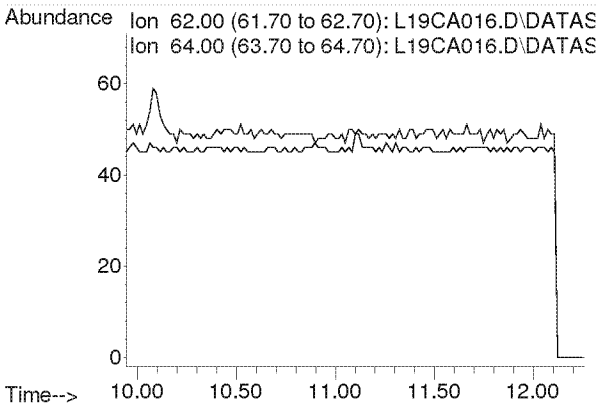


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

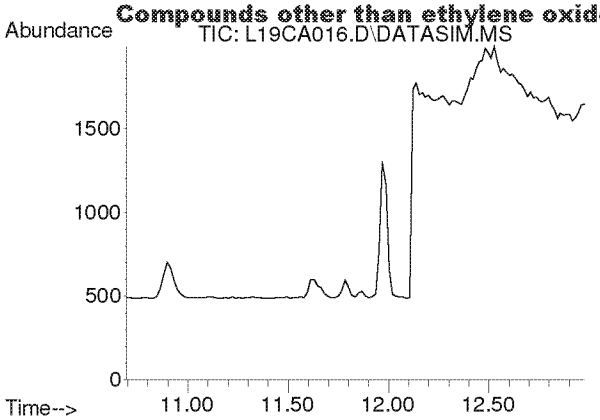
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

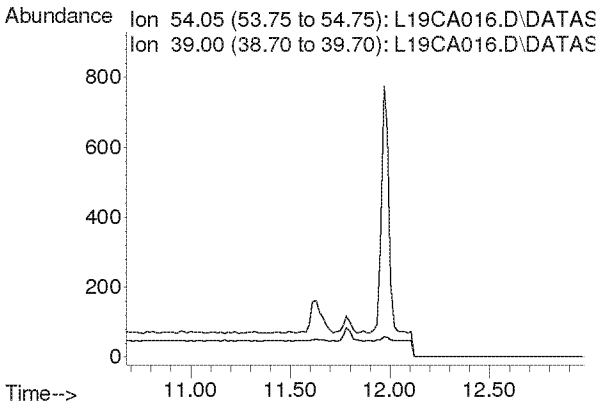


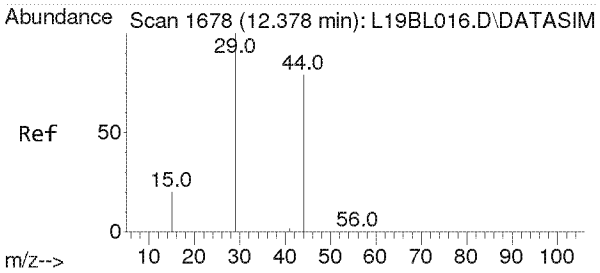
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

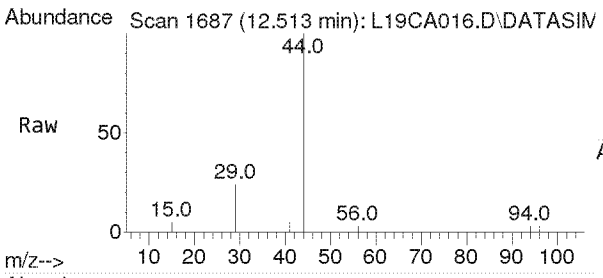


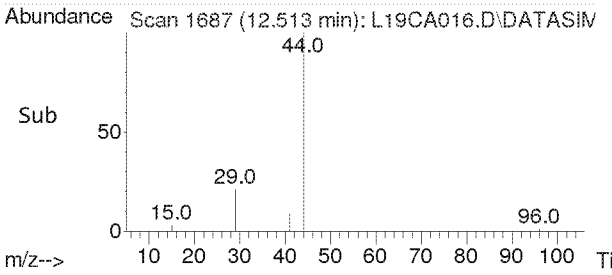


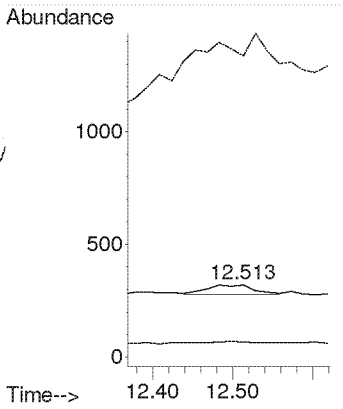
#9
Ethylene oxide
Concen: 0.065 ppbv m
RT: 12.513 min Scan# 1687
Delta R.T. 0.063 min
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 29 Resp: 158

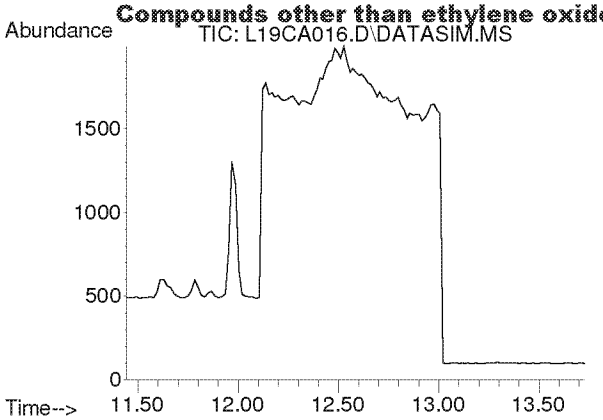
Ion	Ratio	Lower	Upper
29	100		
15	46.8	16.0	24.0#
44	1877.8	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

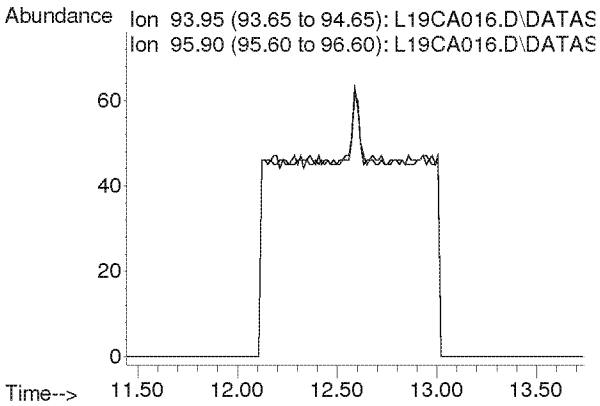


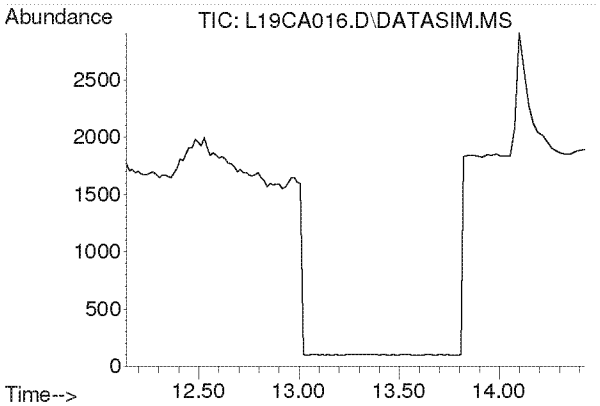
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



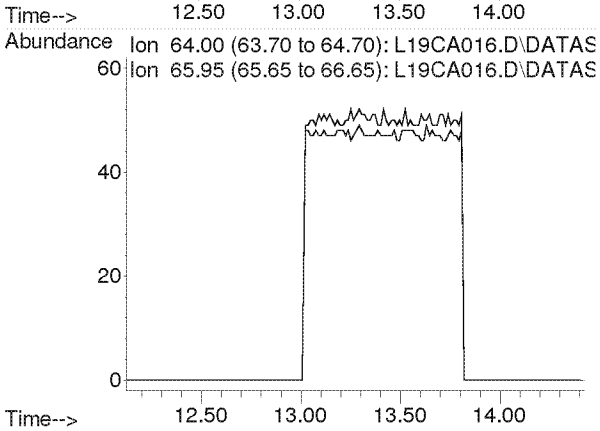


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

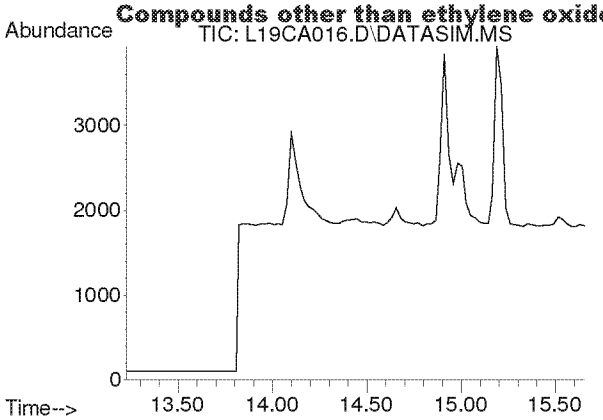
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

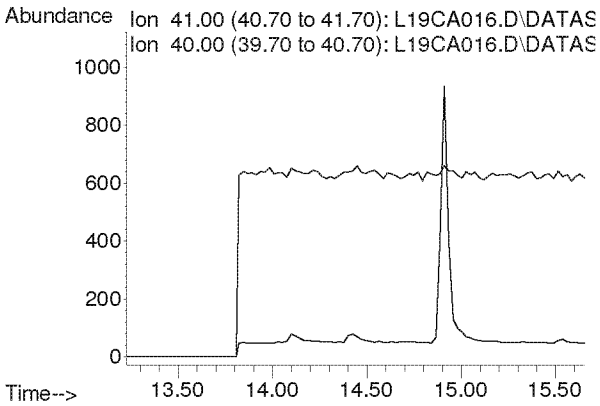


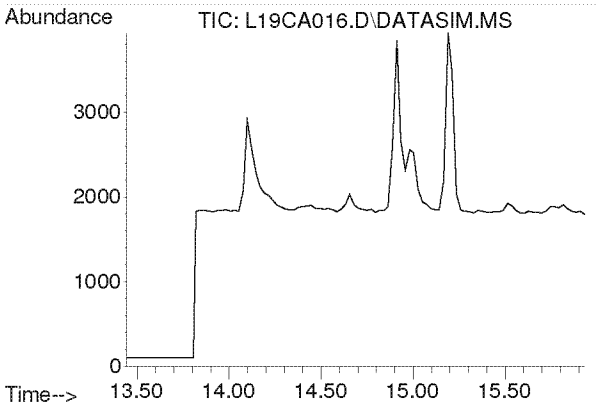
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



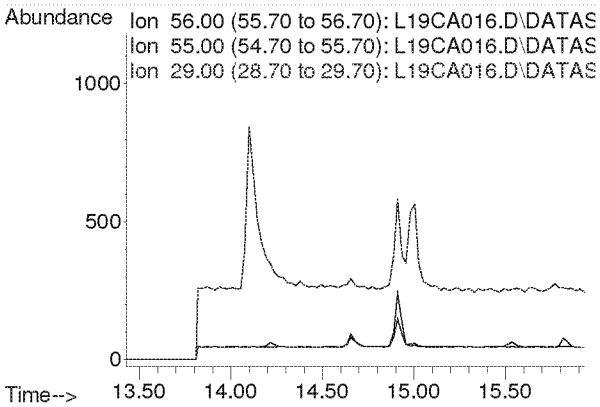


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

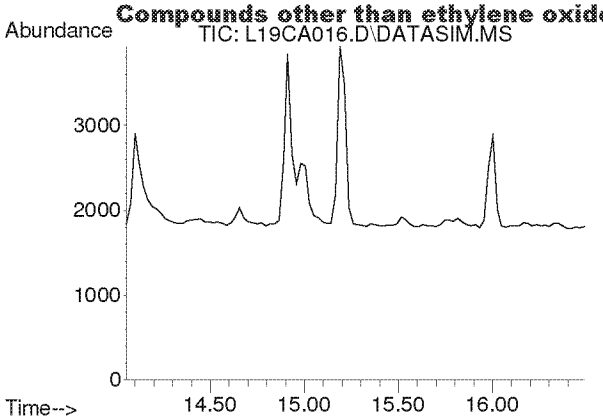
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

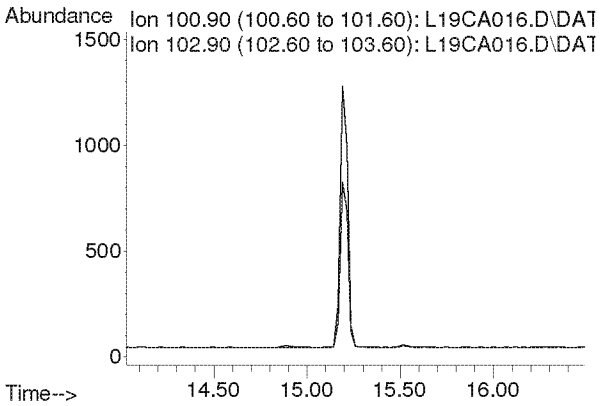


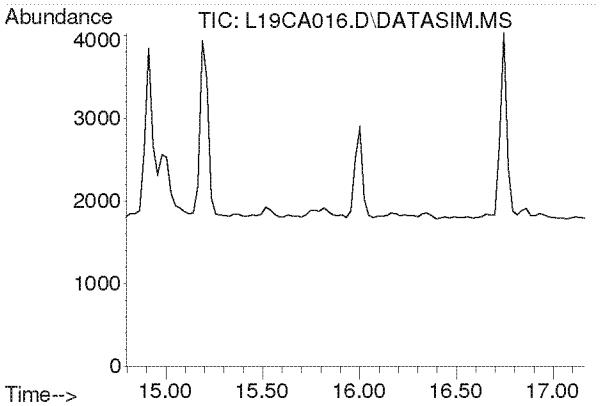
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



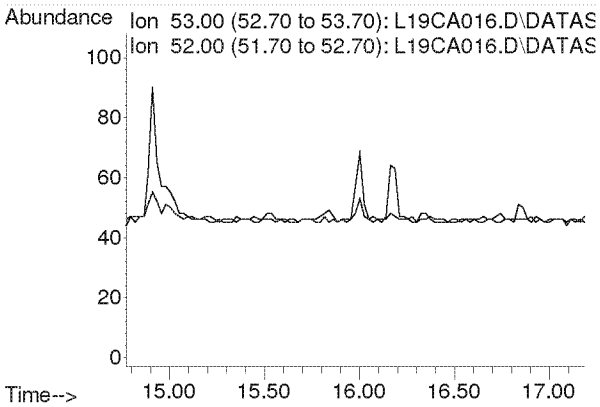


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

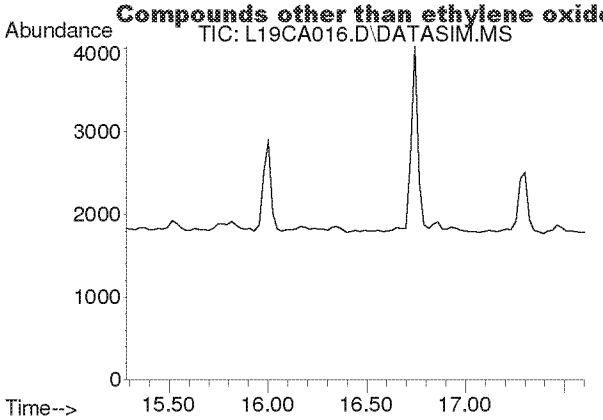
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

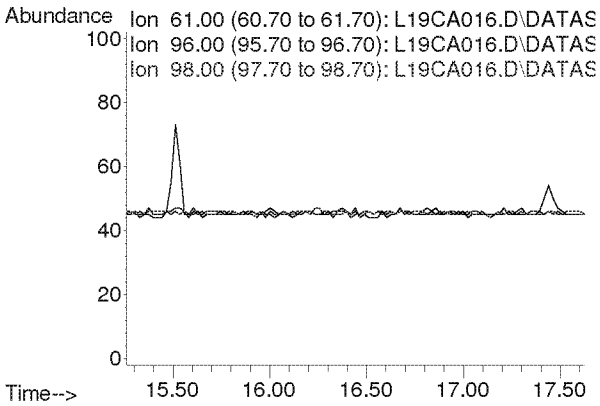


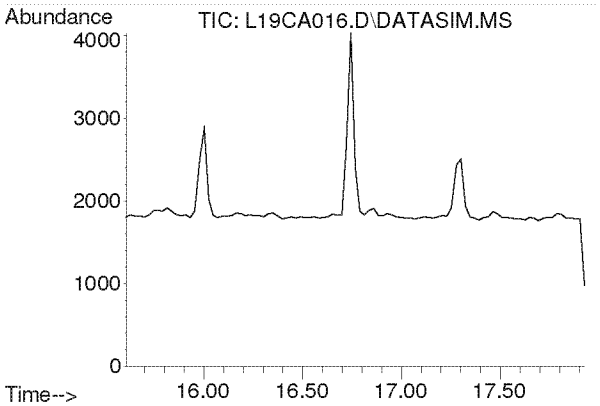
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



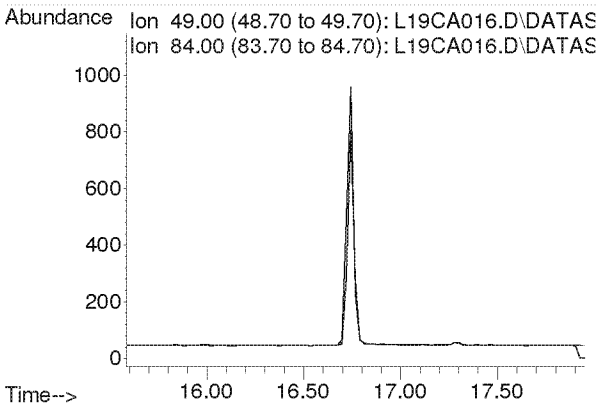


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

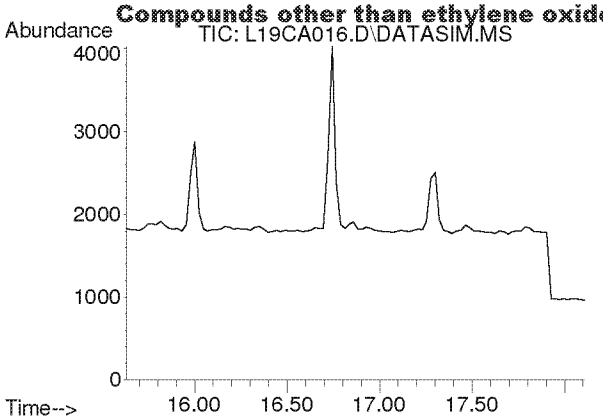
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

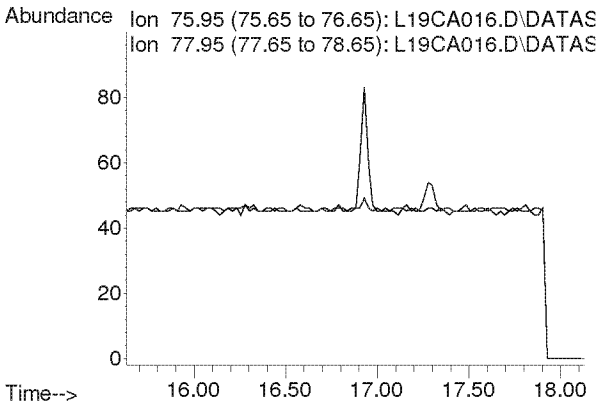


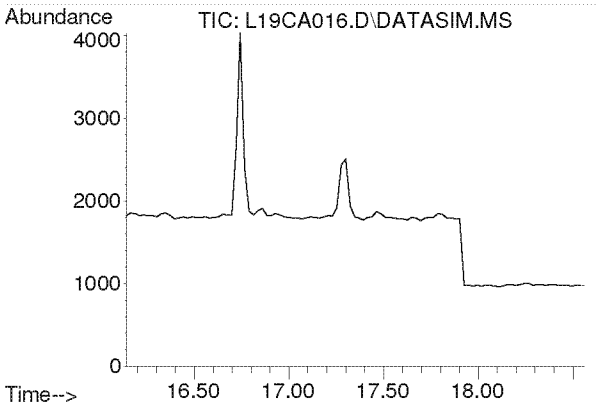
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



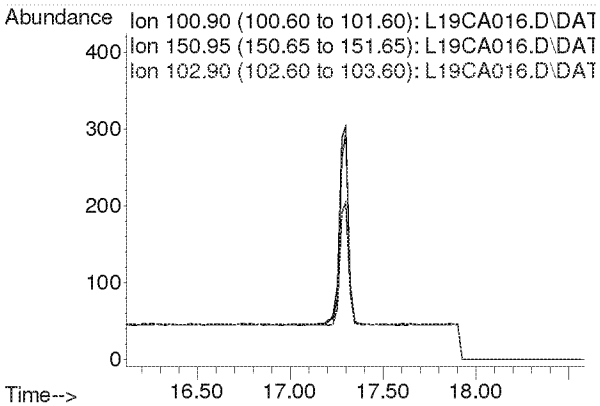


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

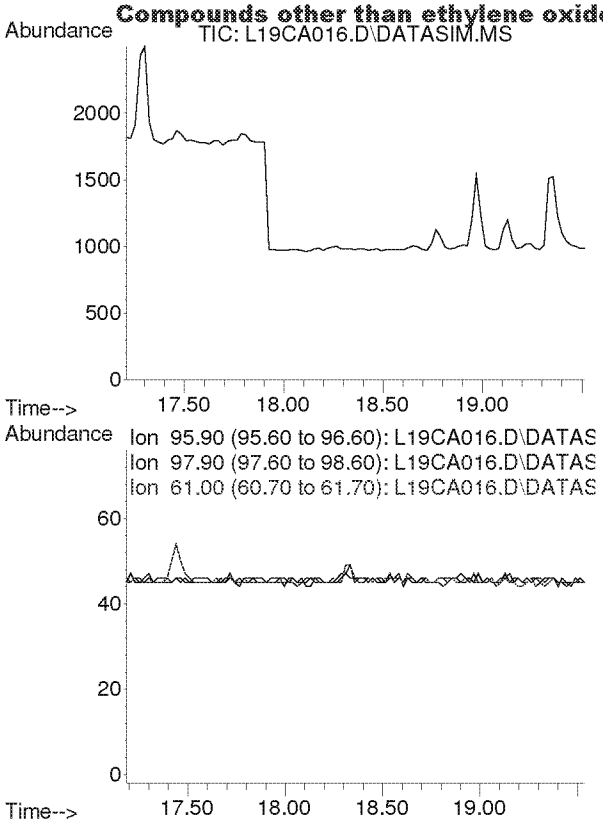
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

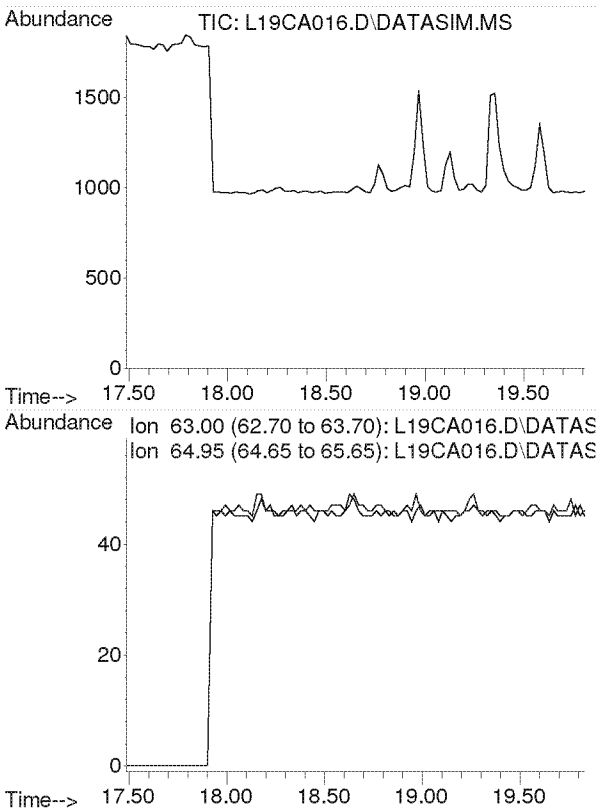


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



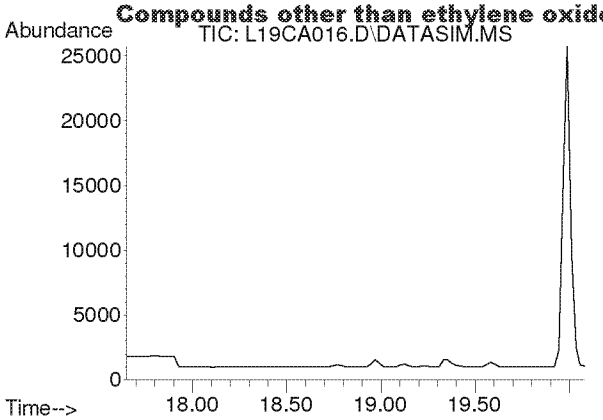
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

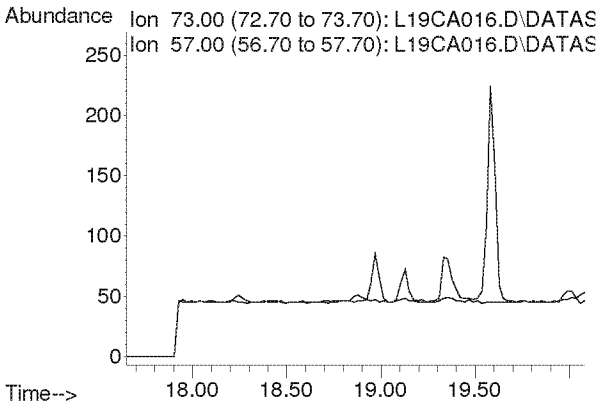


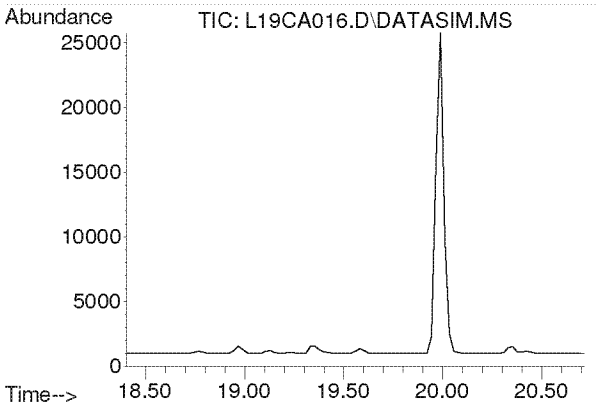
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



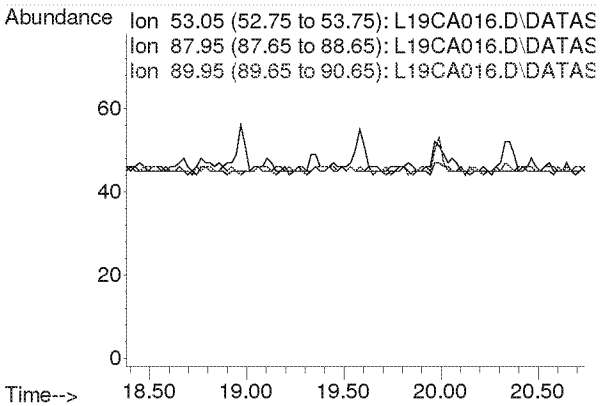


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

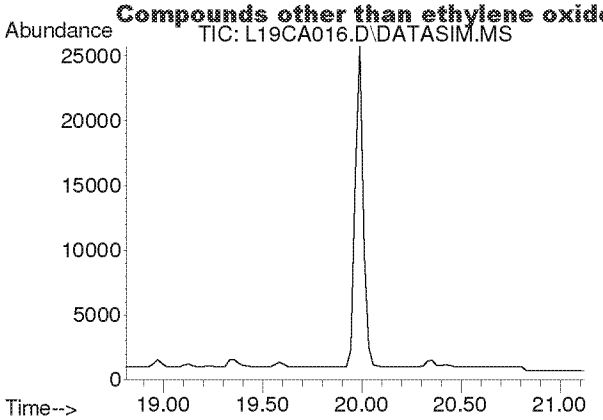
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

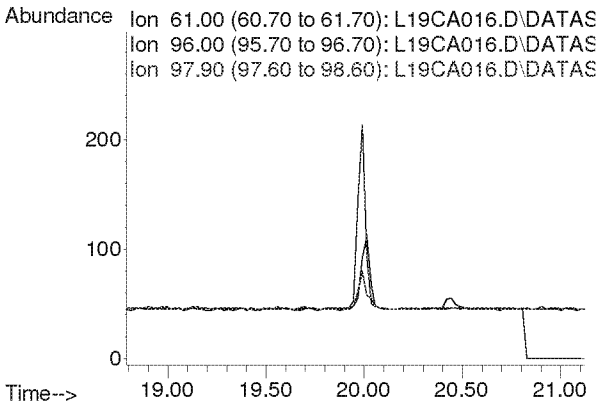


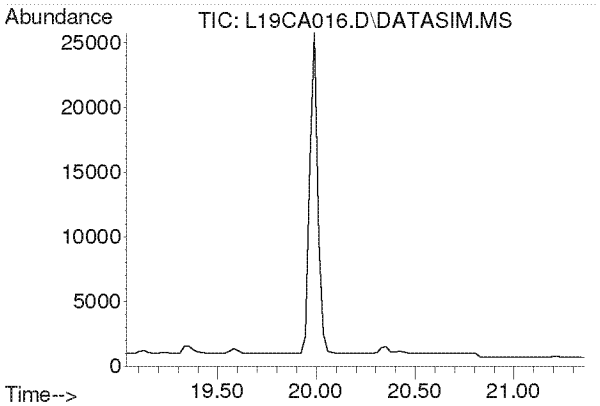
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



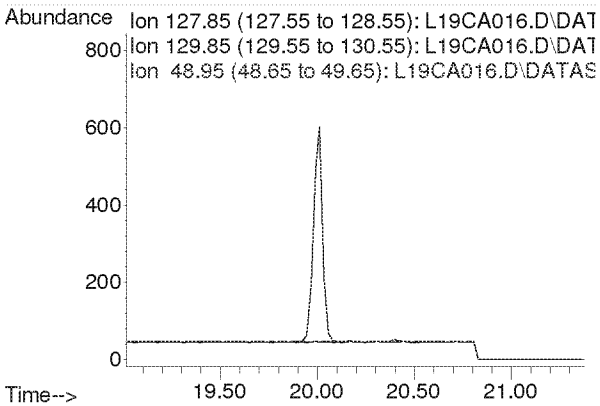


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

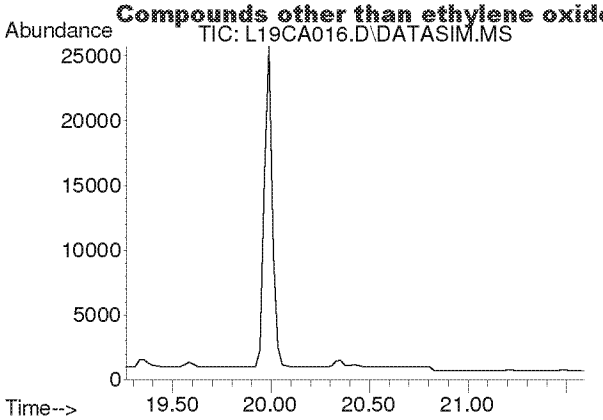
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

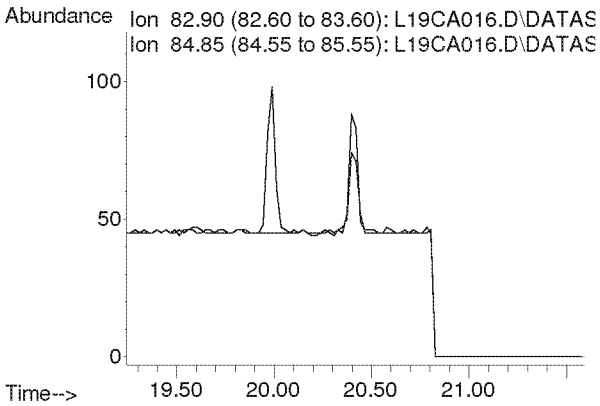


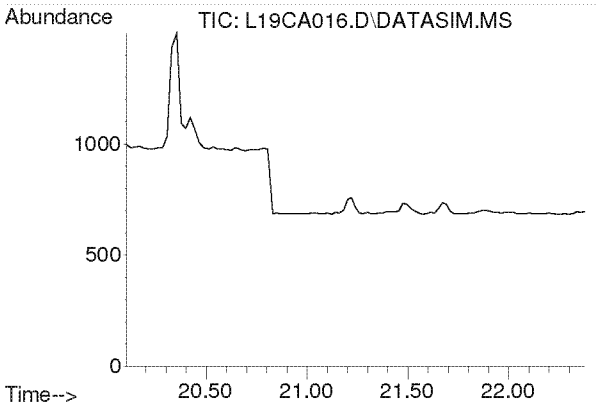
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



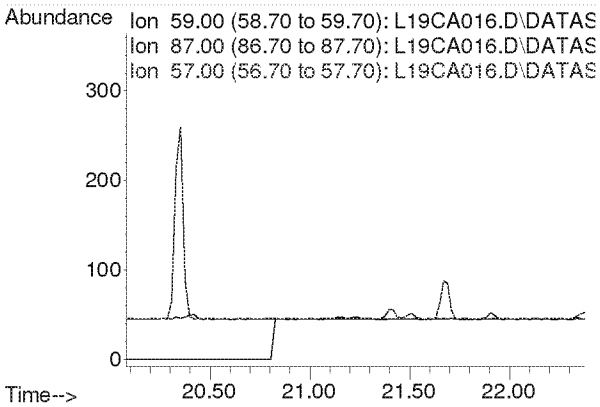


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

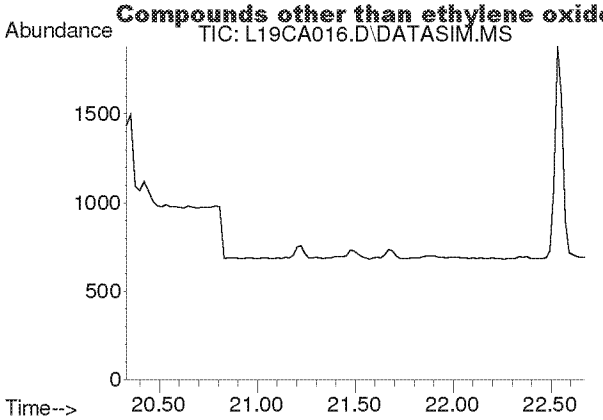
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

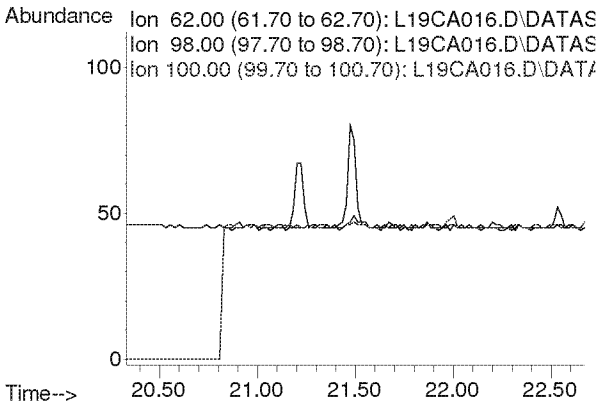


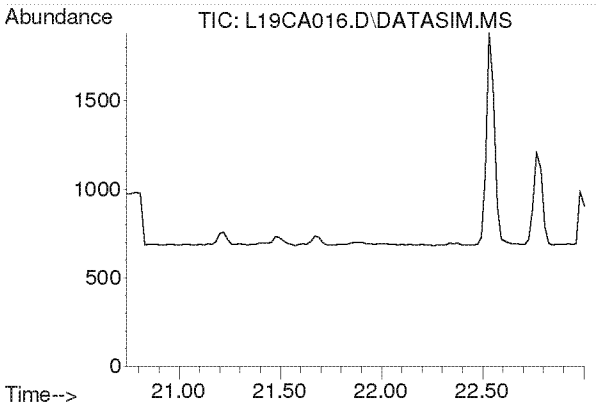
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



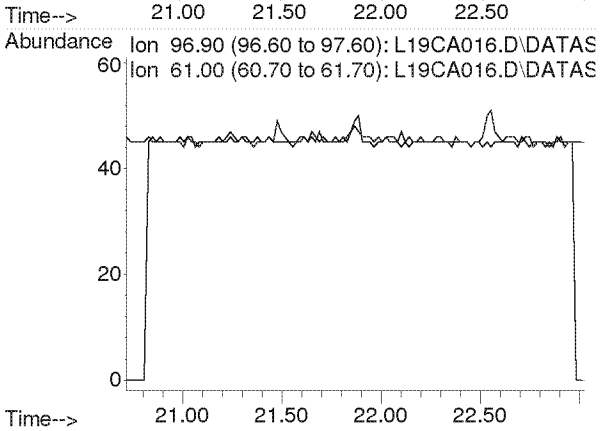


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

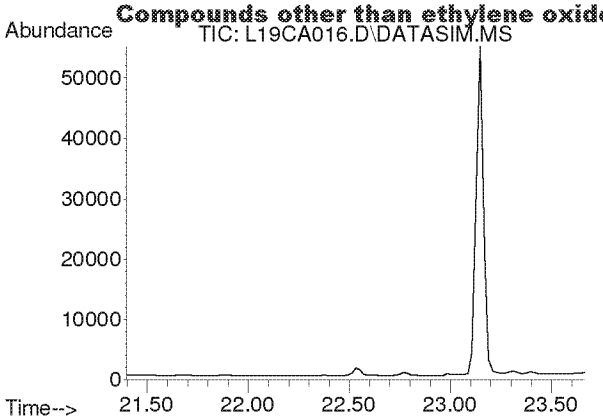
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

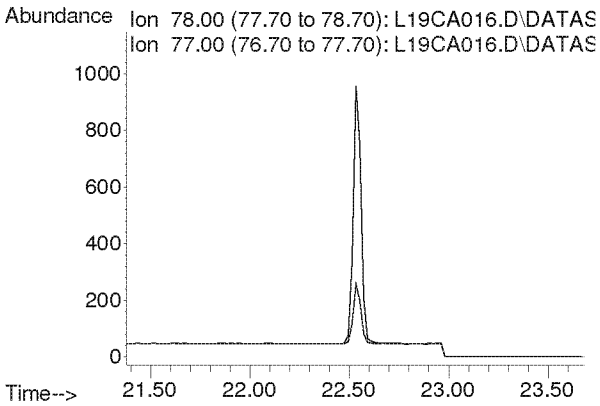


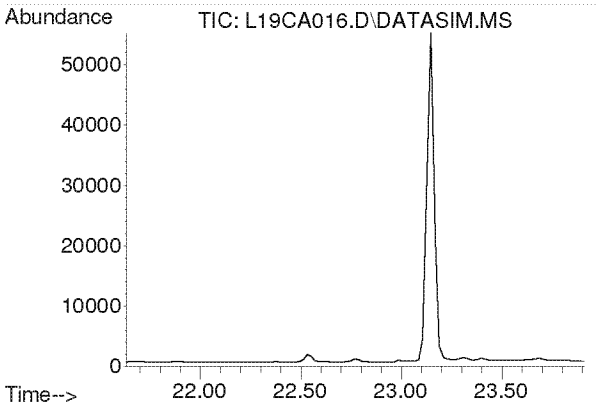
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



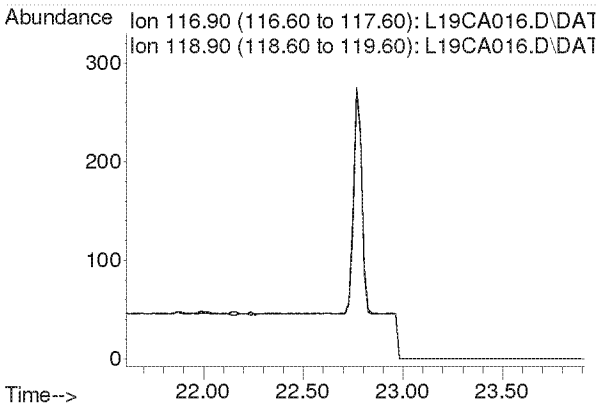


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

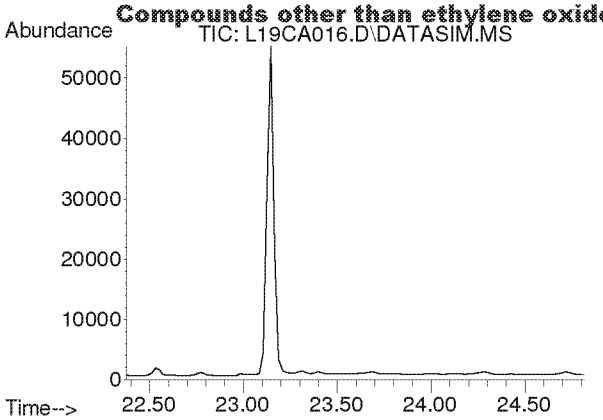
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

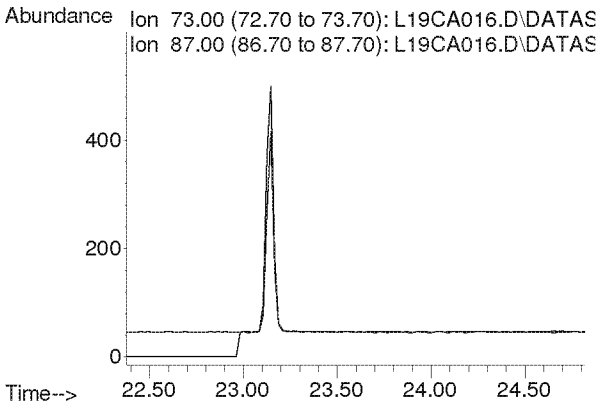


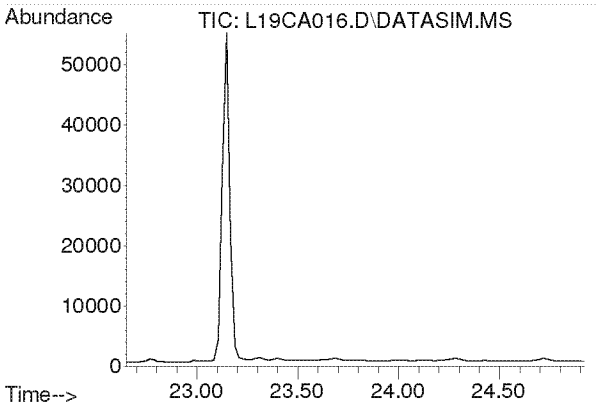
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



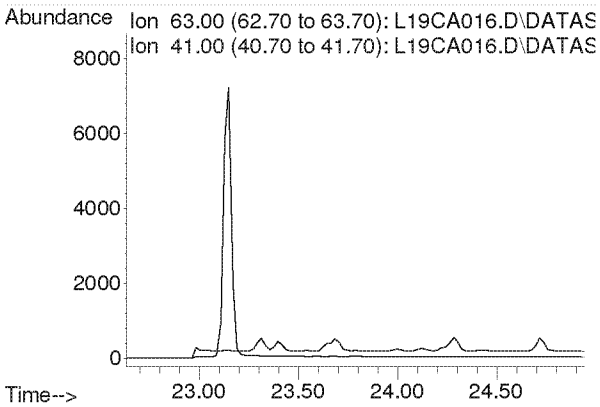


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

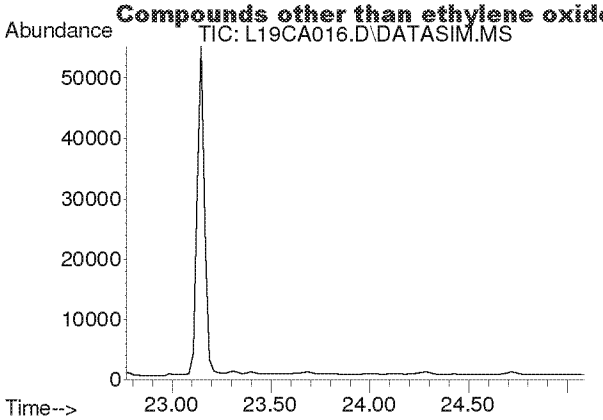
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

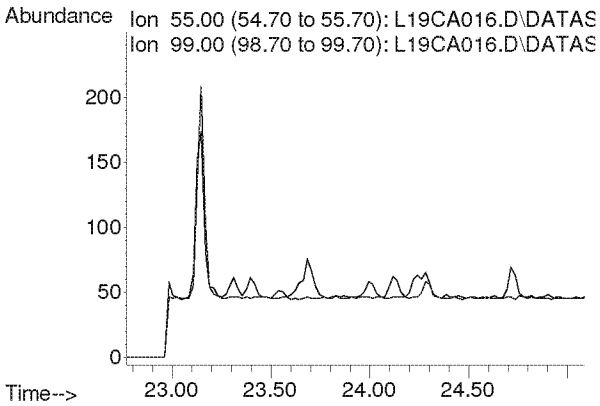


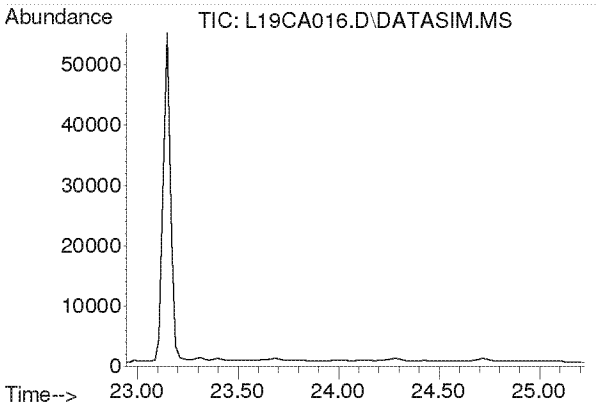
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



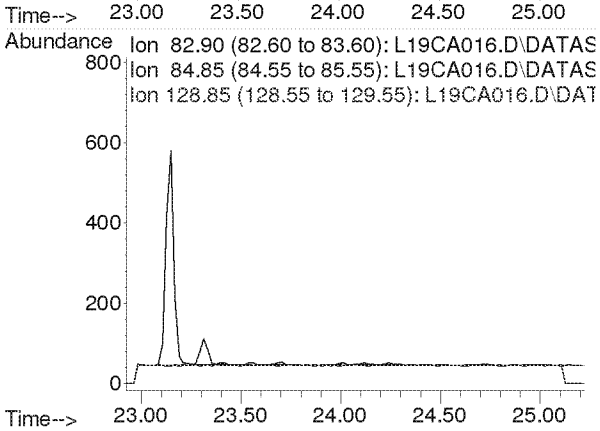


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

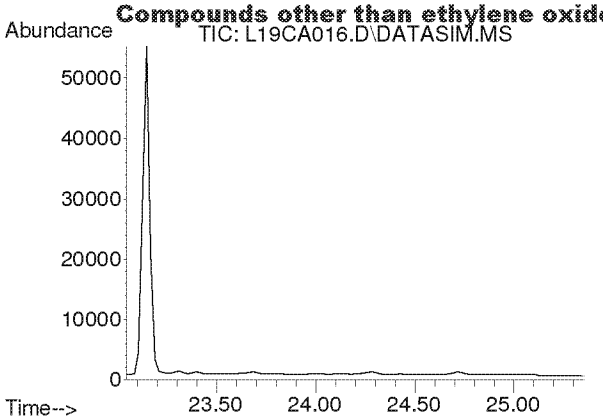
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

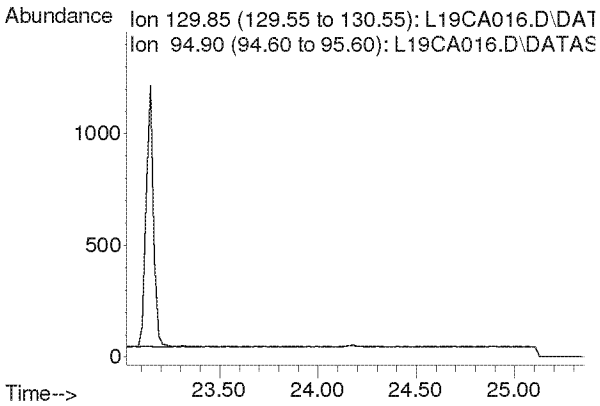


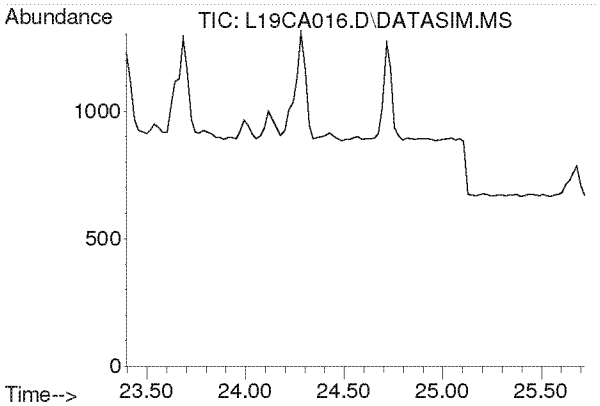
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



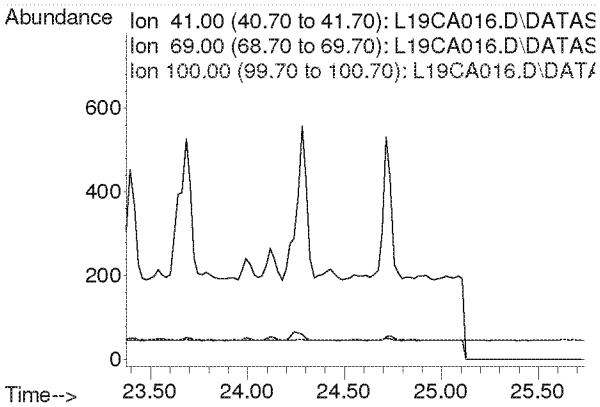


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

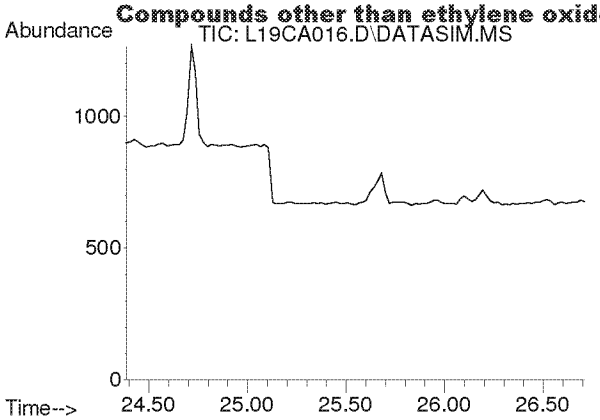
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

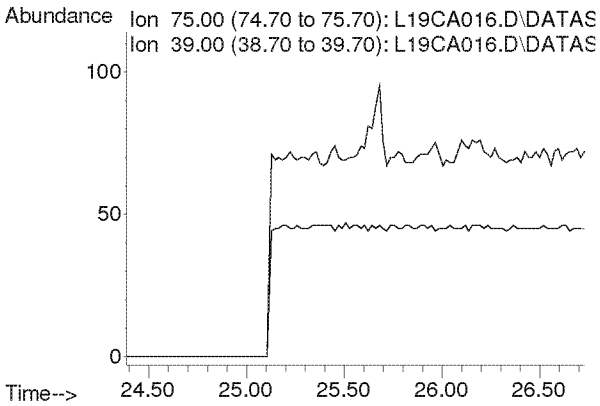


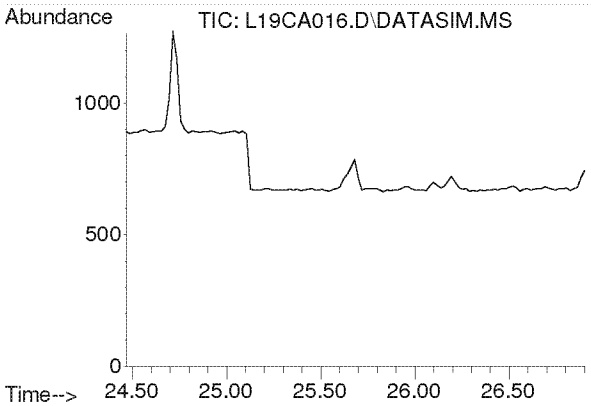
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



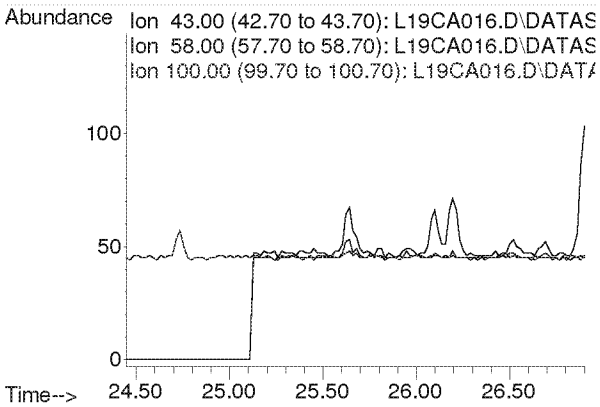


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

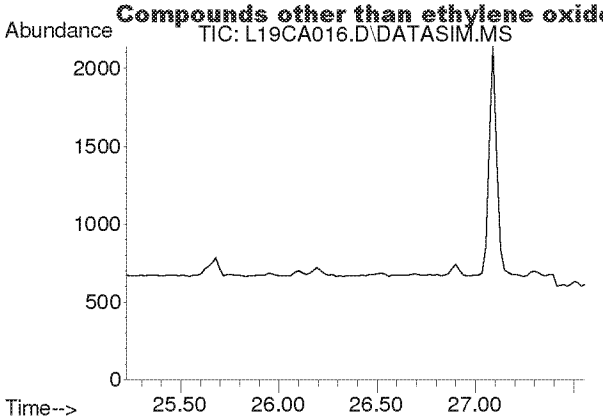
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

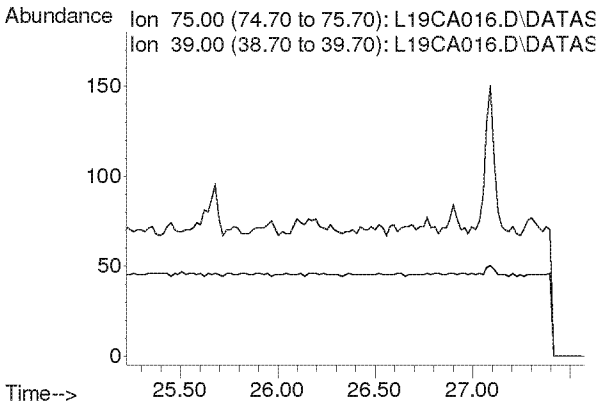


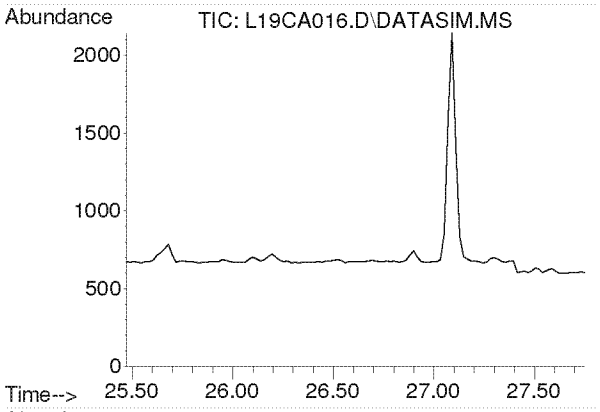
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



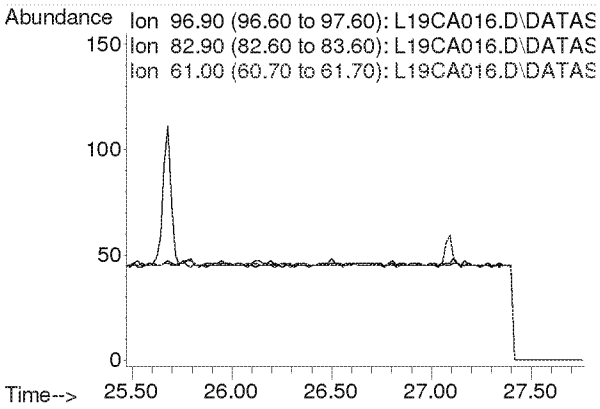


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

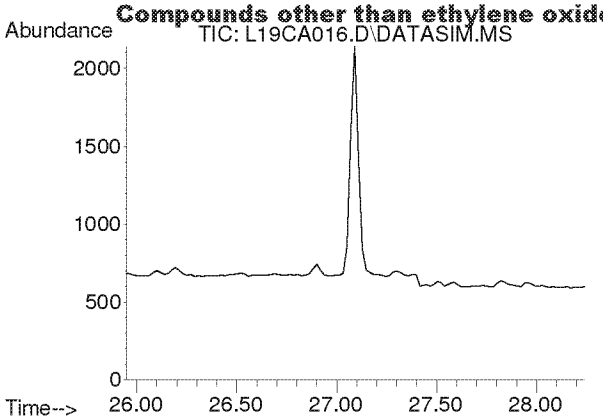
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

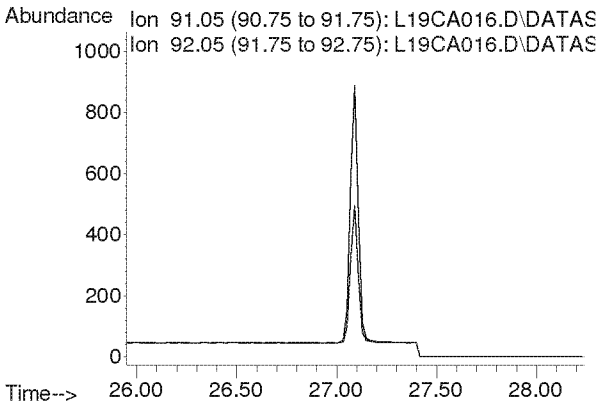


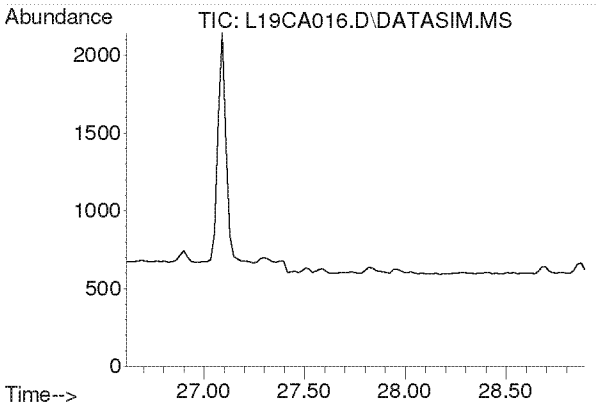
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



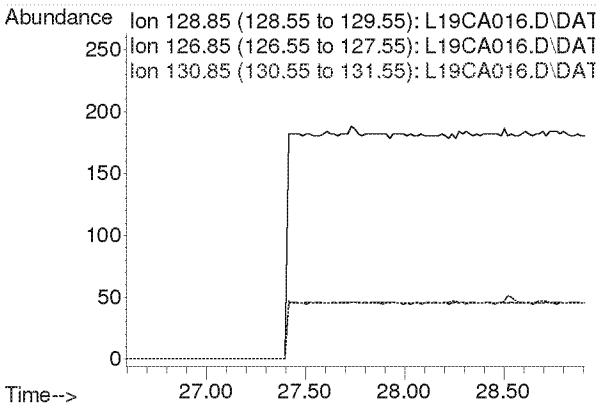


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

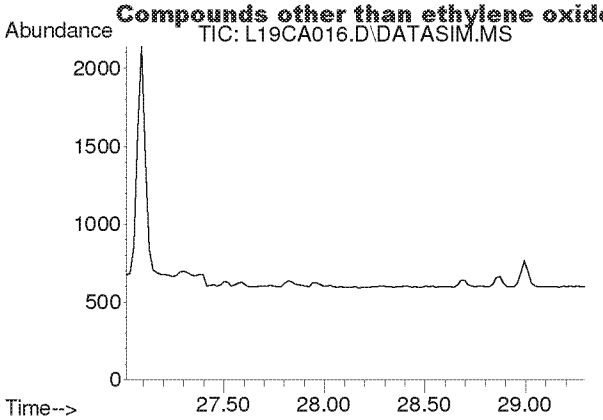
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

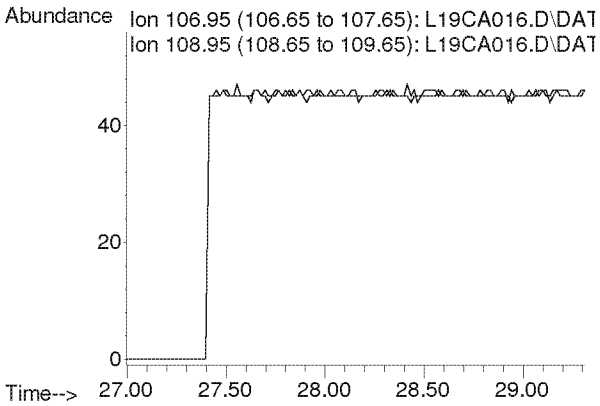


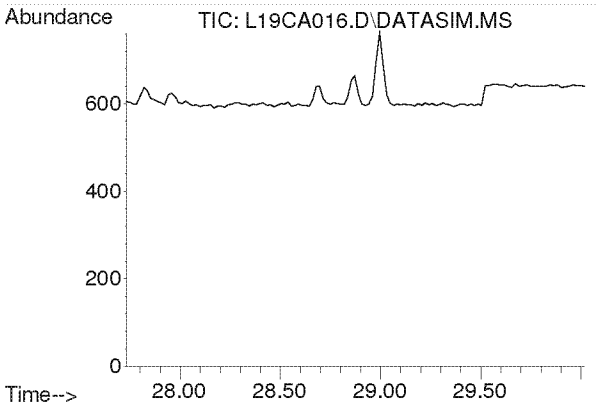
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



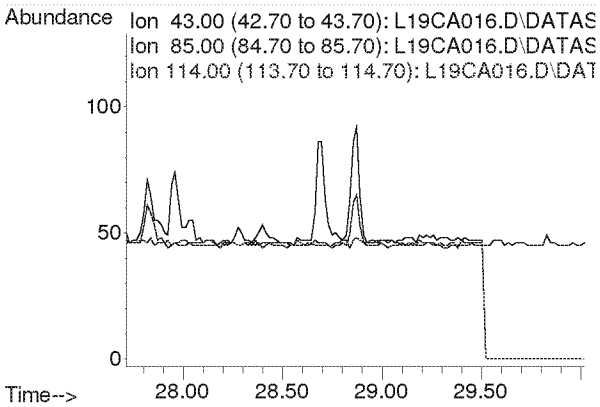


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

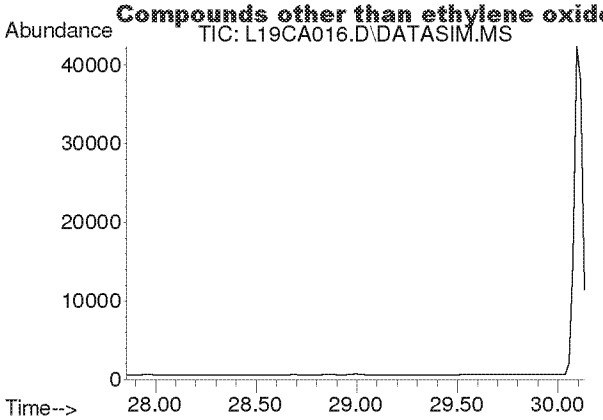
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

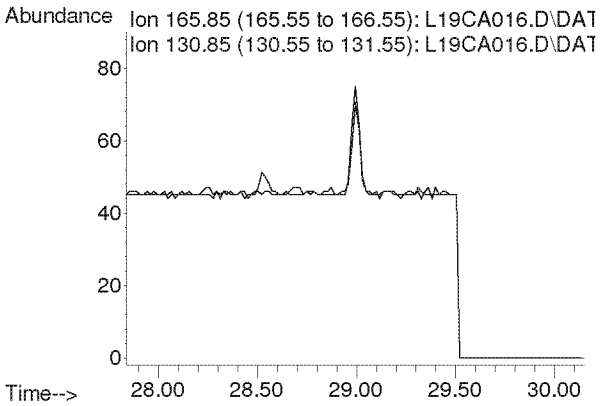


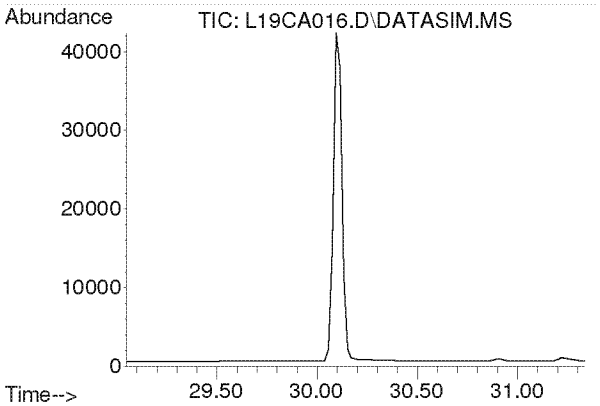
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



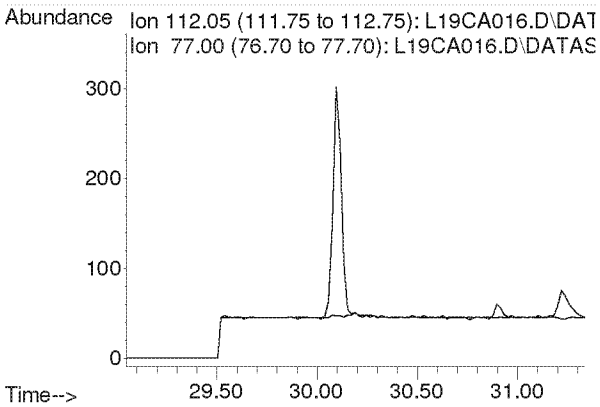


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

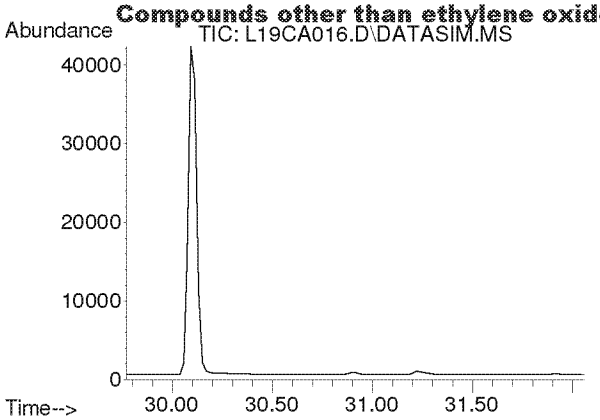
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

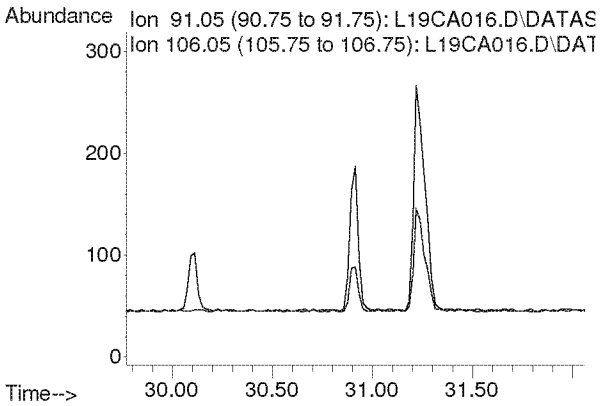


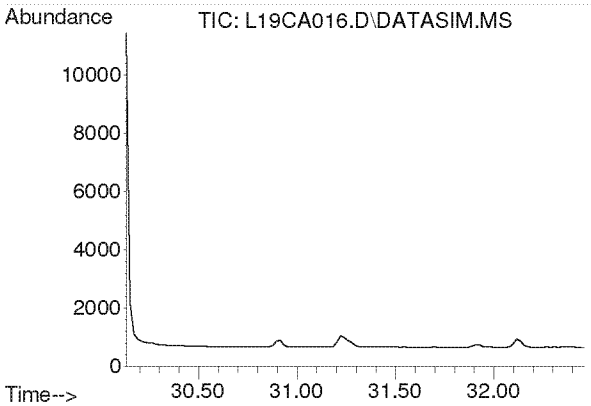
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



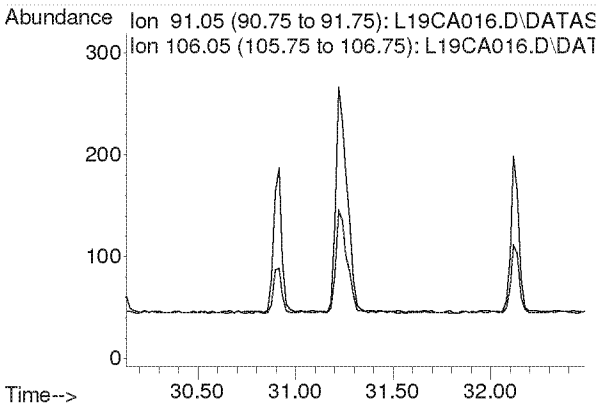


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

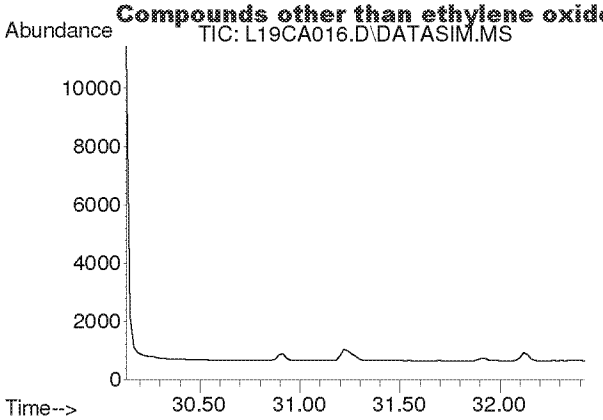
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

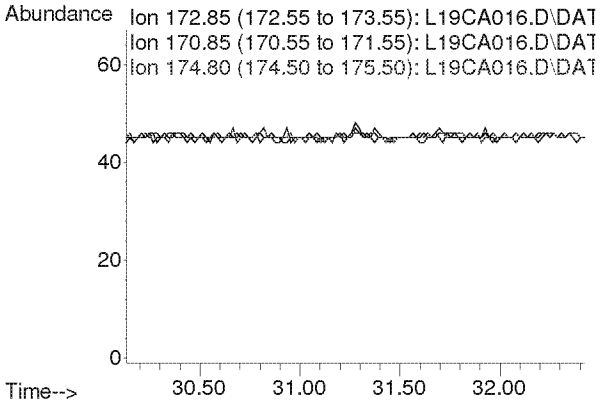


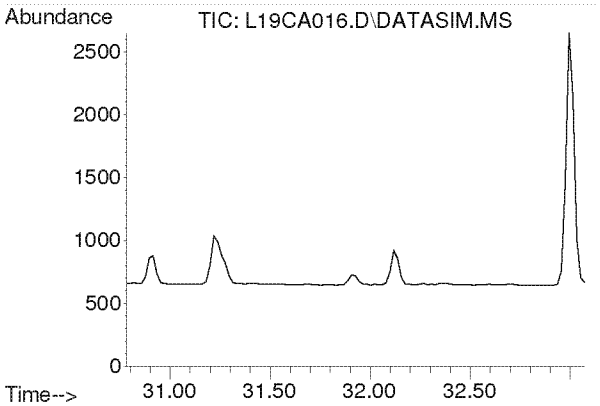
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



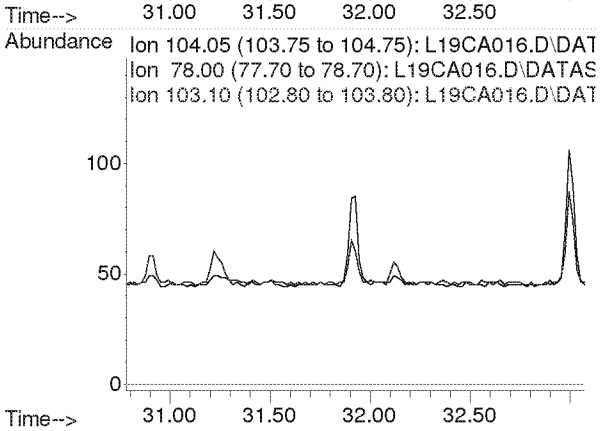


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

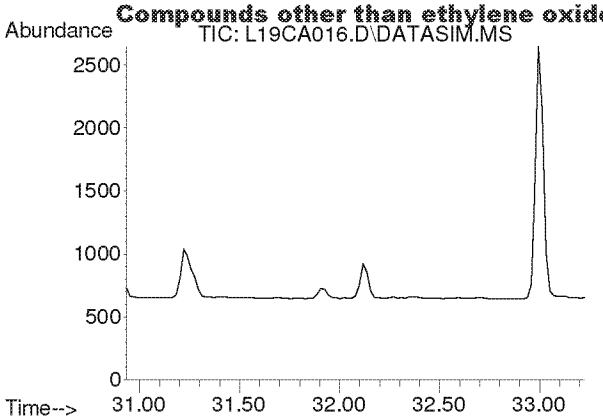
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

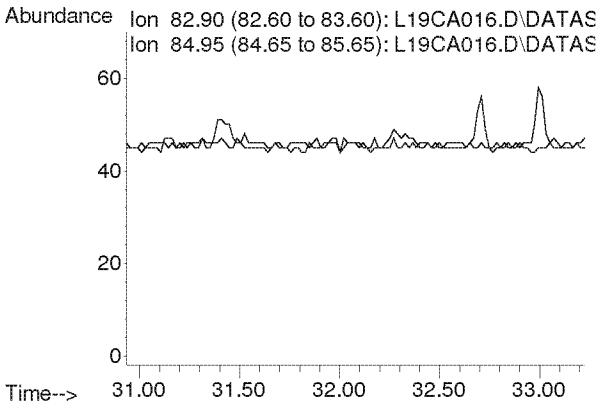


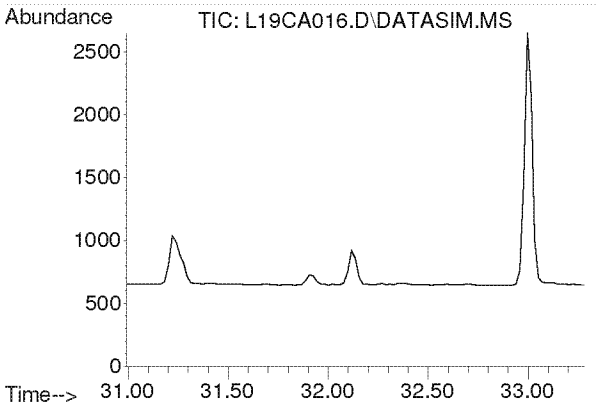
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



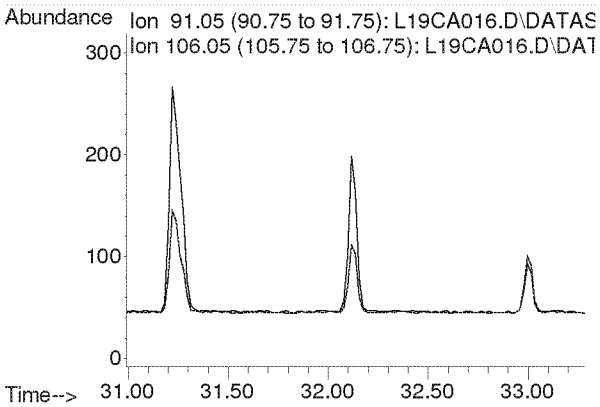


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

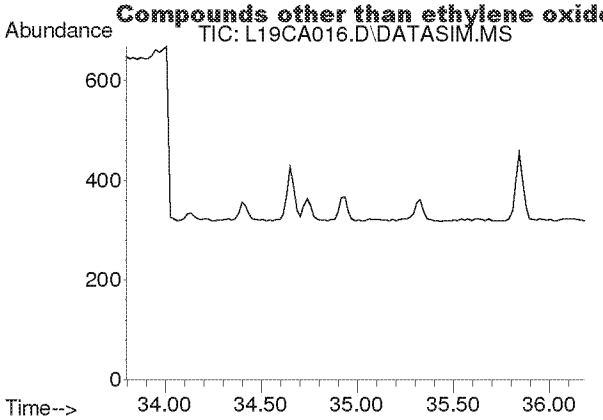
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

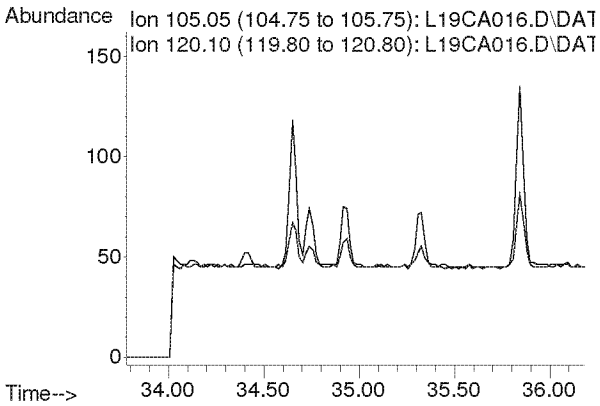


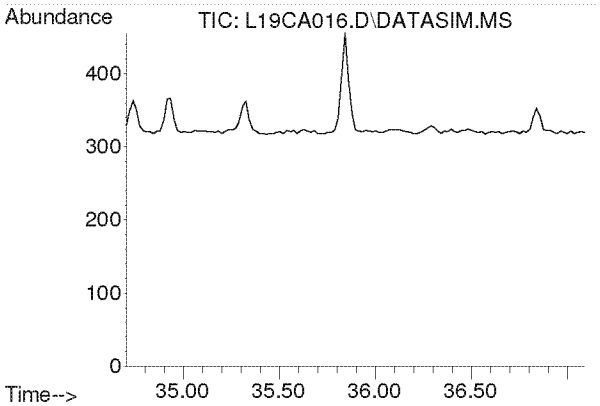
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



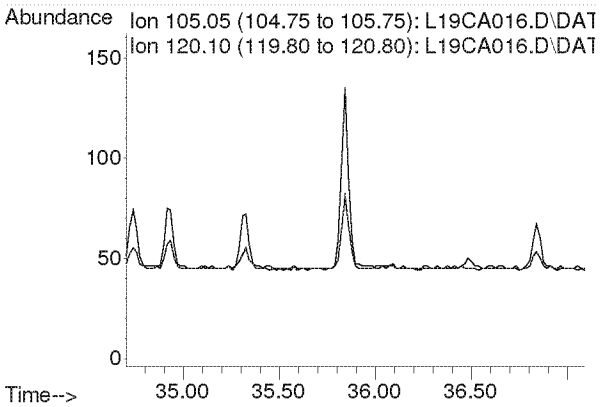


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

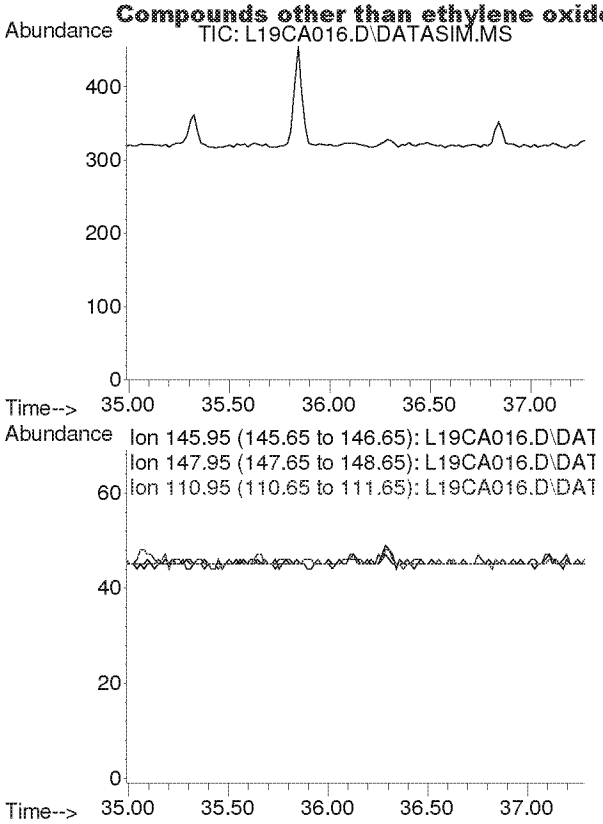
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

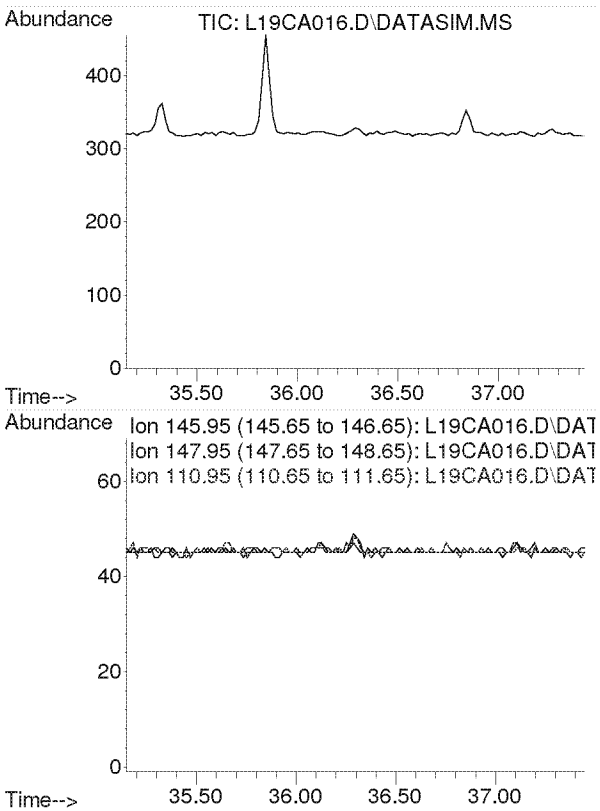


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



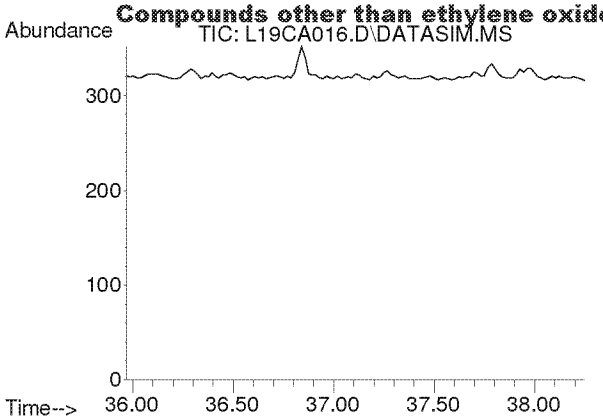
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

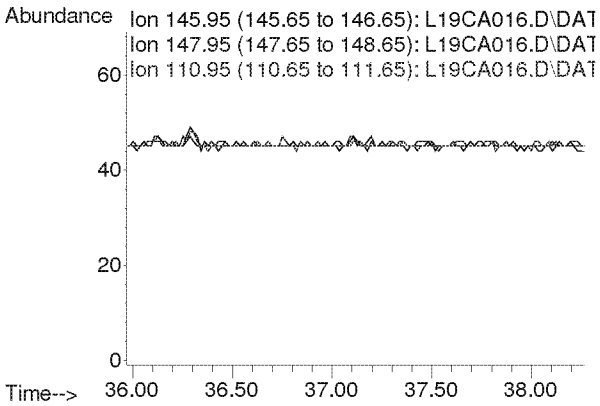


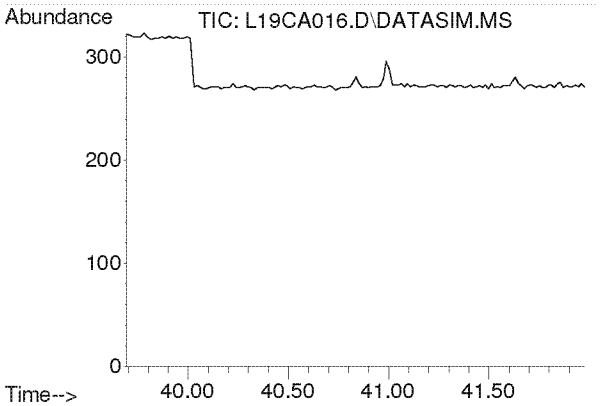
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



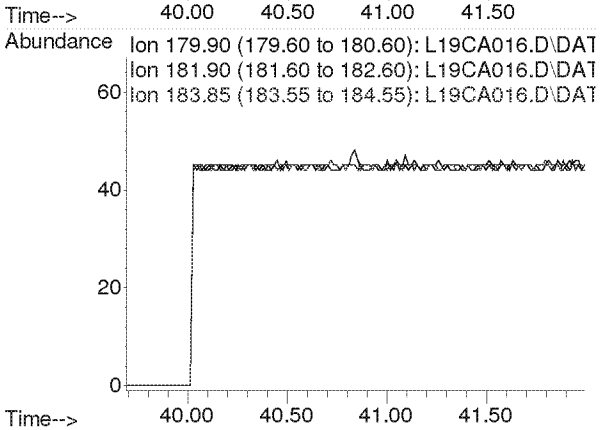


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

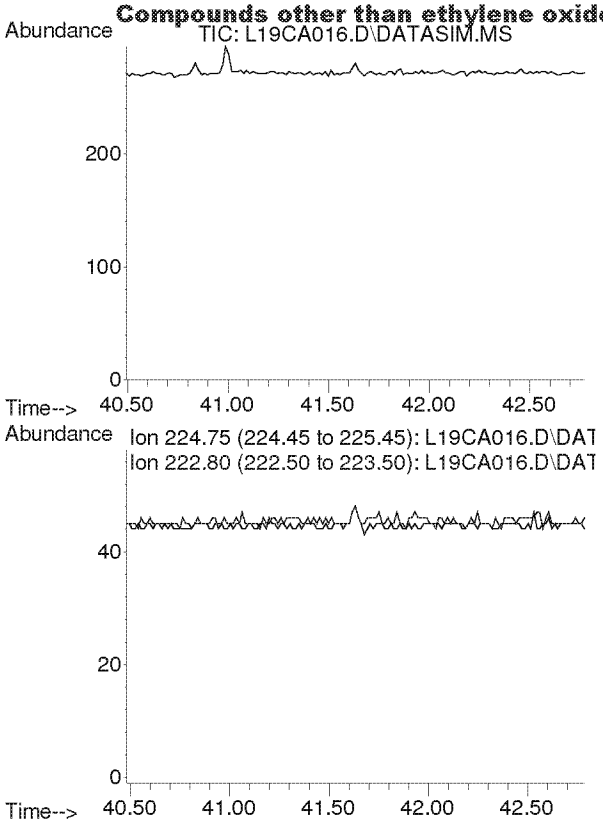
Lab File: L19CA016.D
Acq: 2 Mar 2019 6:36 am

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: L19CA016.D
Acq: 2 Mar 2019 6:36 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\L19CA\
Data File : L19CA017.D
Acq On : 2 Mar 2019 7:38 am (#1); 02-Mar-19, 07:33:15 (#2)
Operator : MAH
Sample : 9030101-09
Misc : HINSDALE S. HS 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 05 09:10:19 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

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	40279	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	99060	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	70489	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.483	29	240m	0.1042 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D.	
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. 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_00000345-00482

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CA\
Data File : L19CA017.D
Acq On : 2 Mar 2019 7:38 am (#1); 02-Mar-19, 07:33:15 (#2)
Operator : MAH
Sample : 9030101-09
Misc : HINSDALE S. HS 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 05 09:10:19 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

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.	

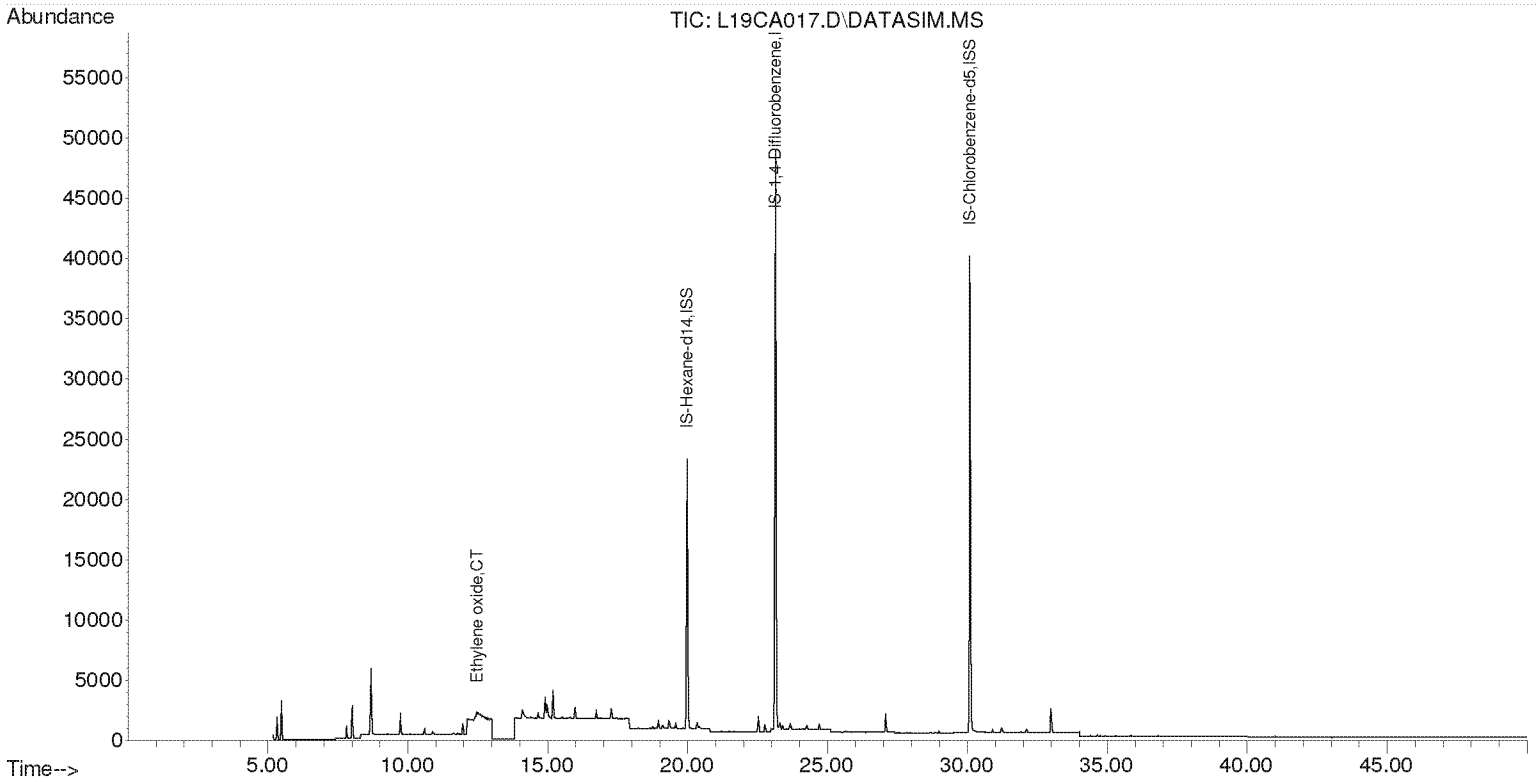
(#) = qualifier out of range (m) = manual integration (+) = signals summed

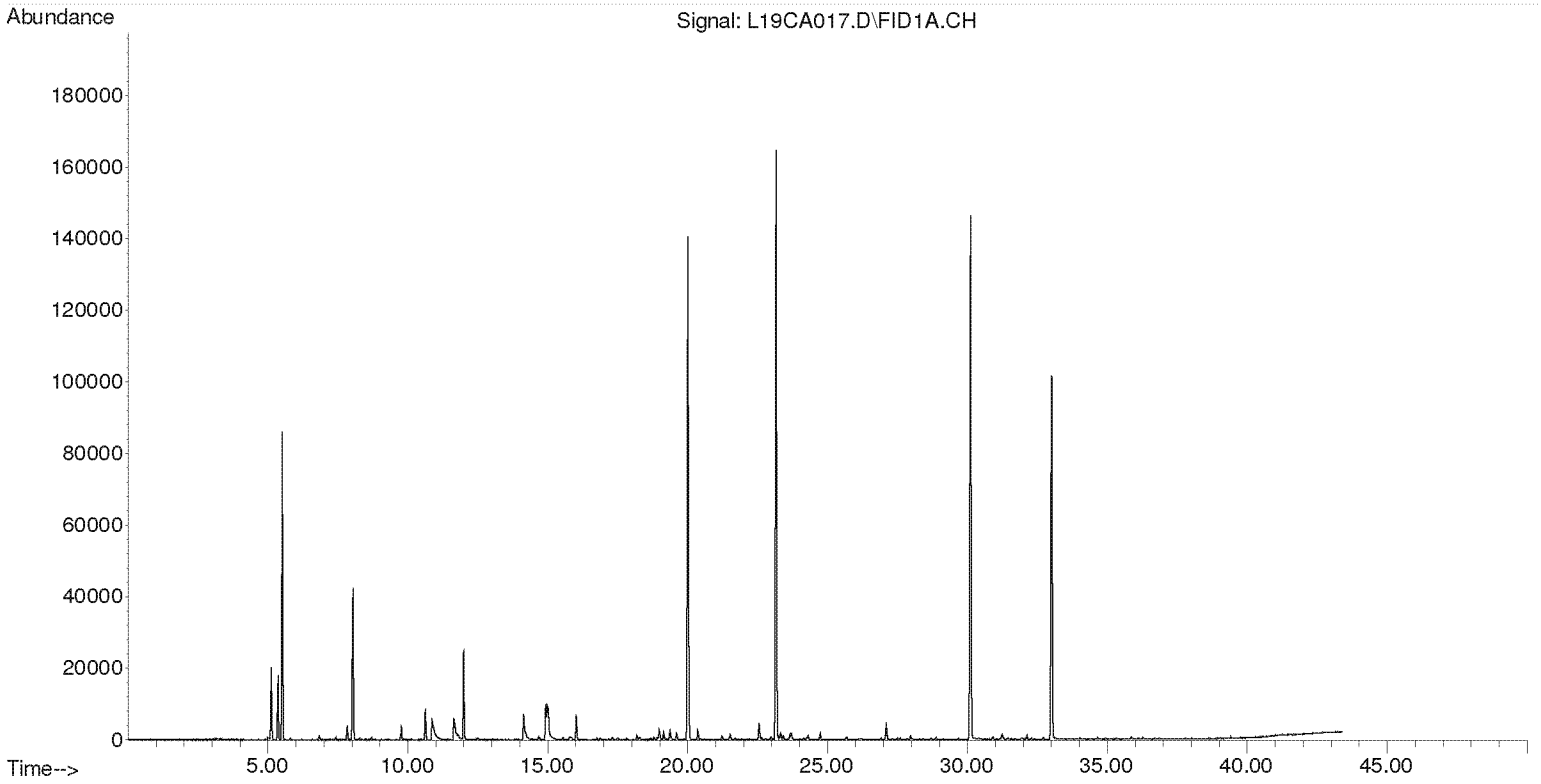
902000

Compounds other than ethylene oxide were not quantitated.

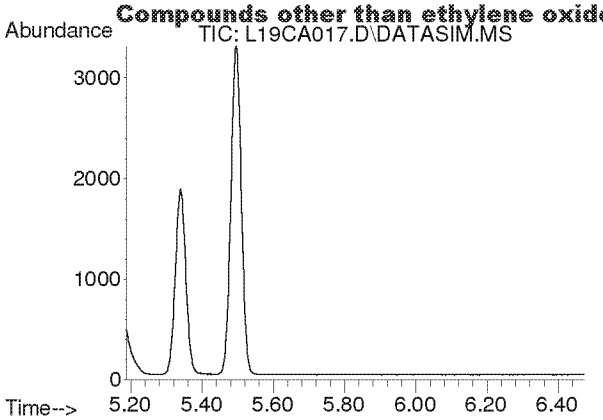
Data Path : Y:\MASS SPEC 1 DATA\L19CA\
Data File : L19CA017.D
Acq On : 2 Mar 2019 7:38 am (#1); 02 Mar 2019 7:33 am (#2)
Operator : MAH
Sample : 9030101-09
Misc : HINSDALE S. HS 2/27/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 05 08:55:02 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





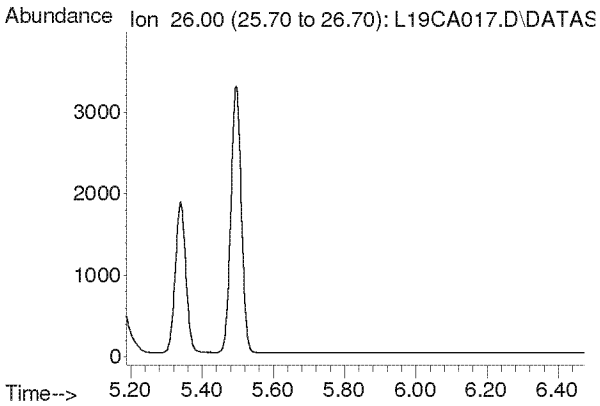
Compounds other than ethylene oxide were not quantitated.

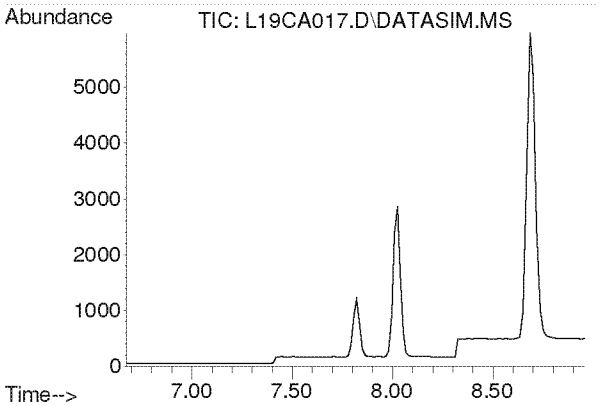


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 26



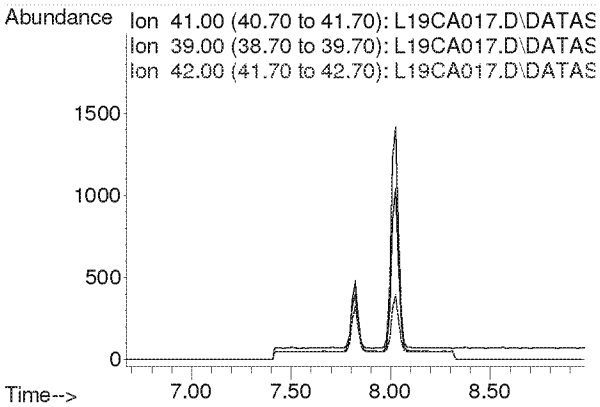


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

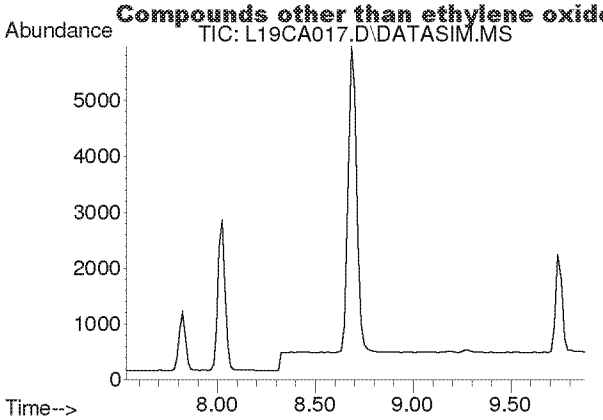
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

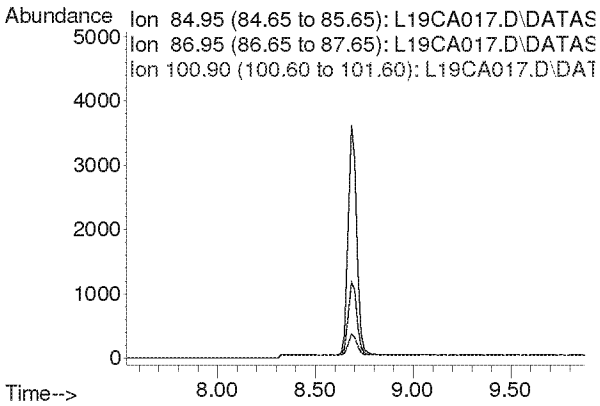


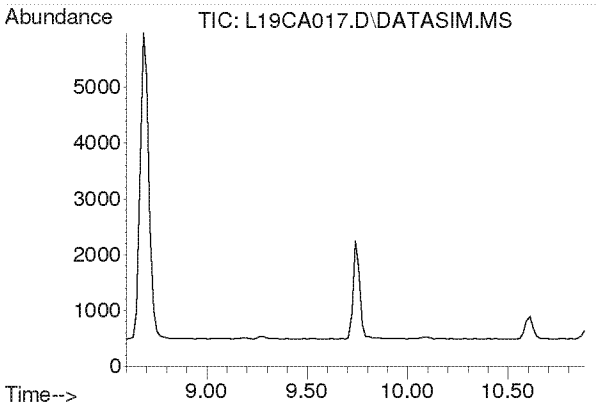
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



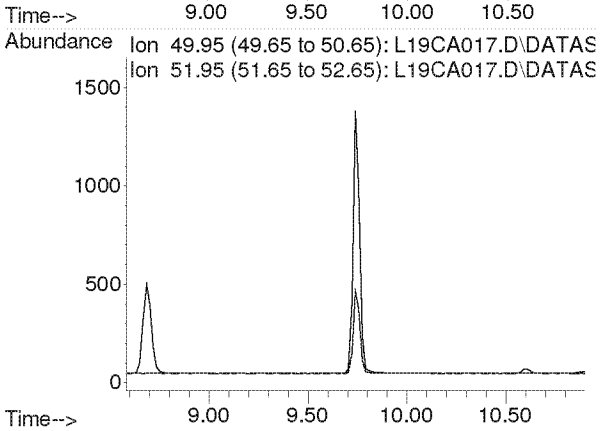


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

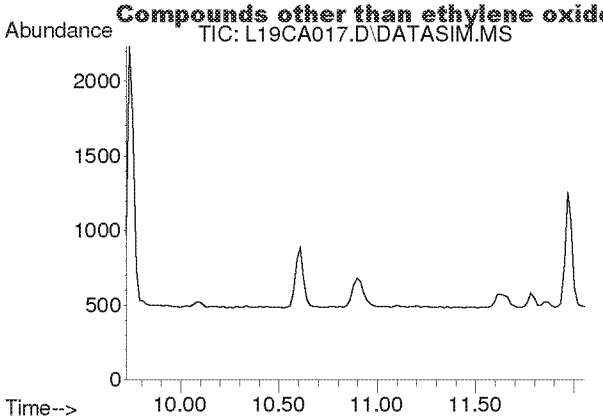
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

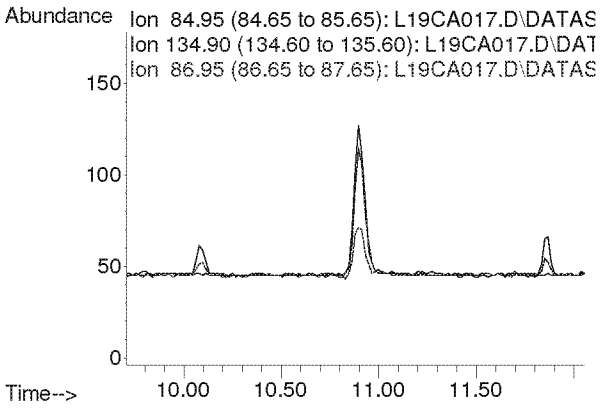


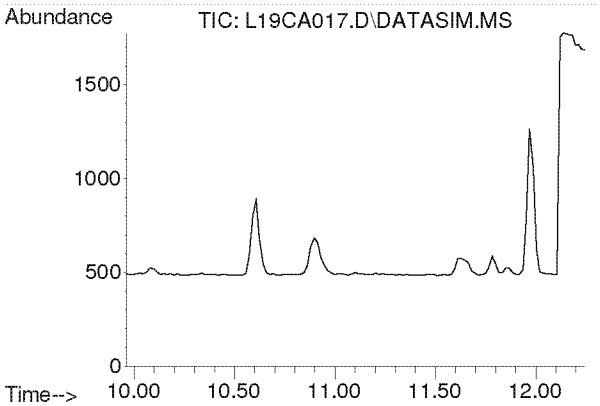
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



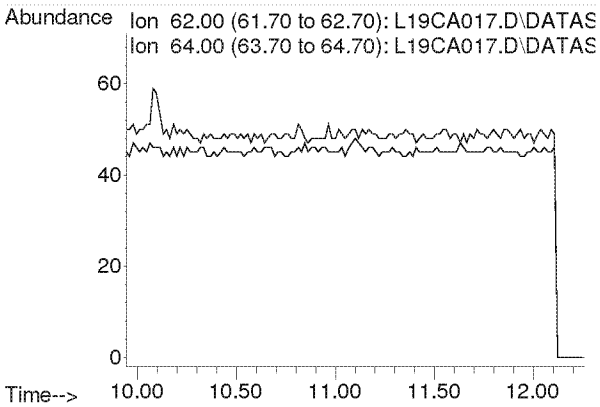


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

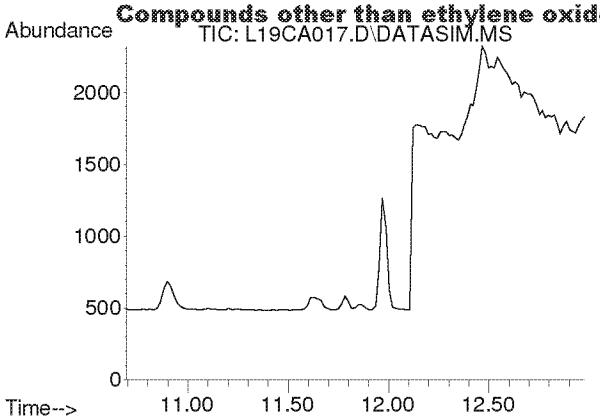
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

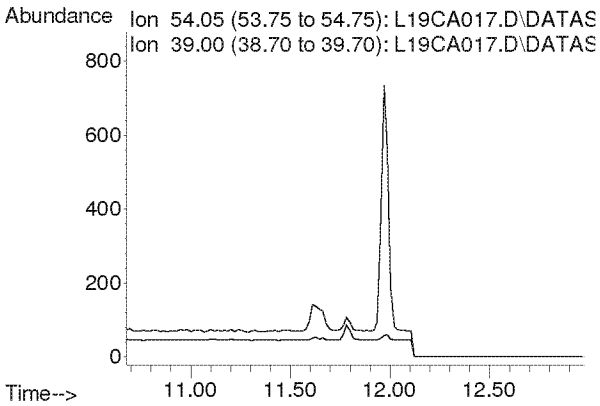


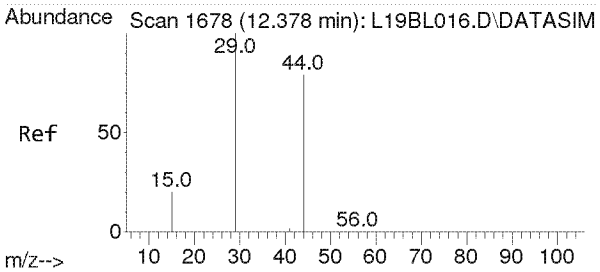
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

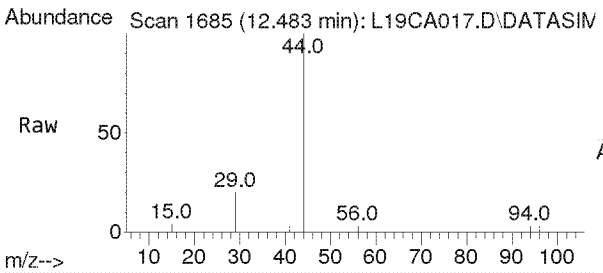


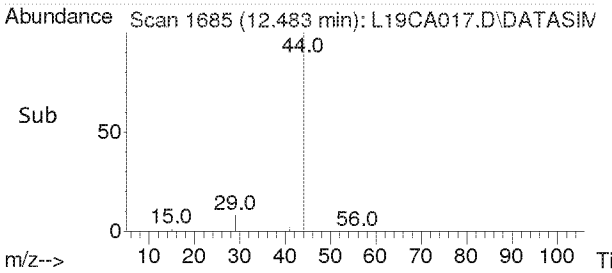


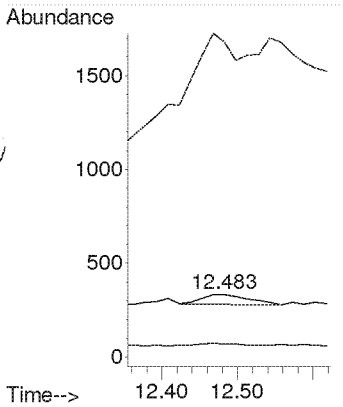
#9
Ethylene oxide
Concen: 0.104 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.033 min
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 29 Resp: 240

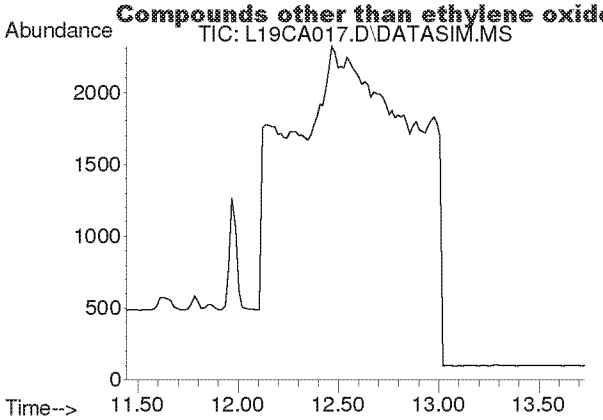
Ion	Ratio	Lower	Upper
29	100		
15	30.8	16.0	24.0#
44	2265.8	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

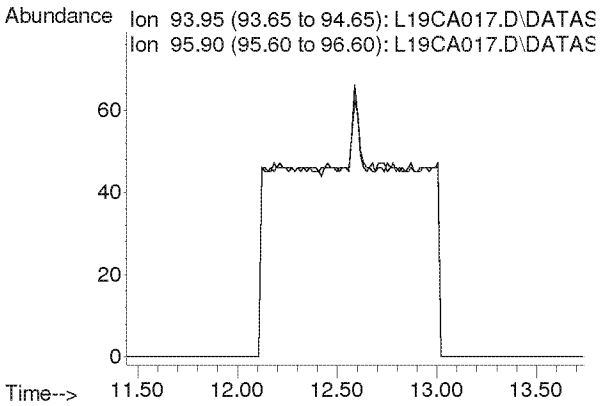


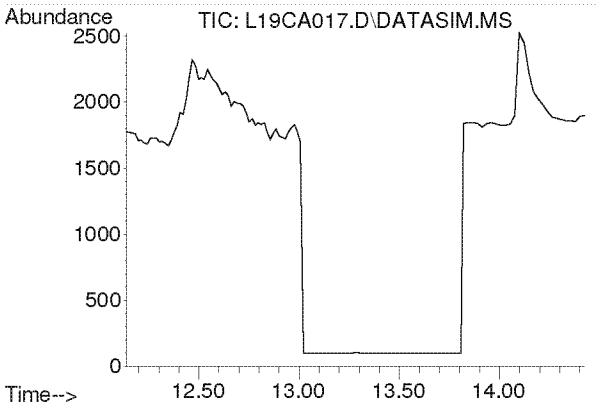
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



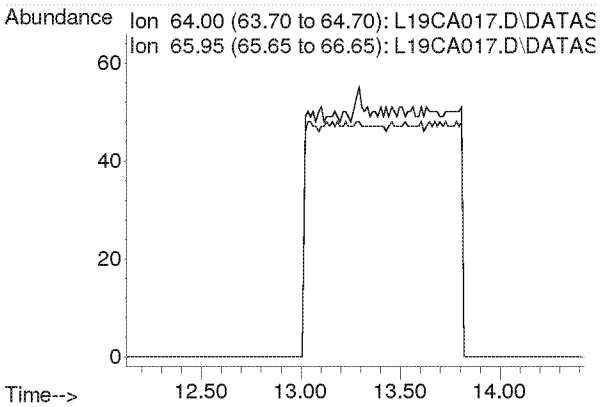


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

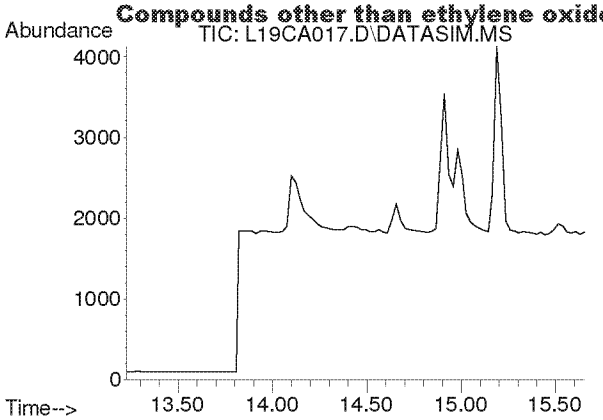
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

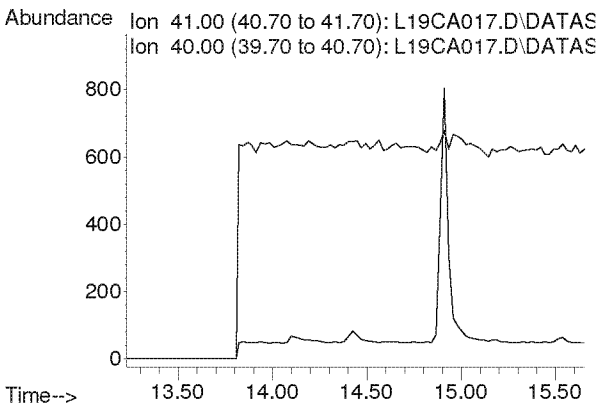


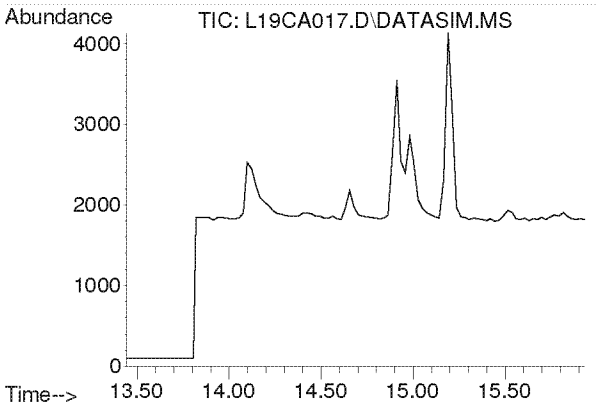
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



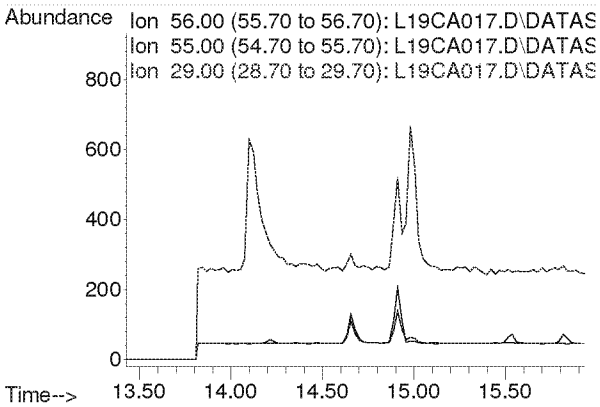


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

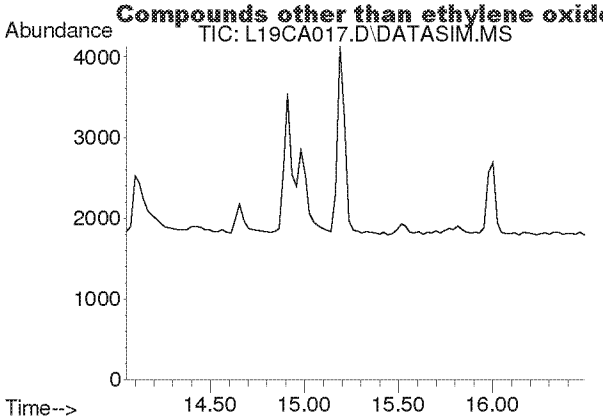
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

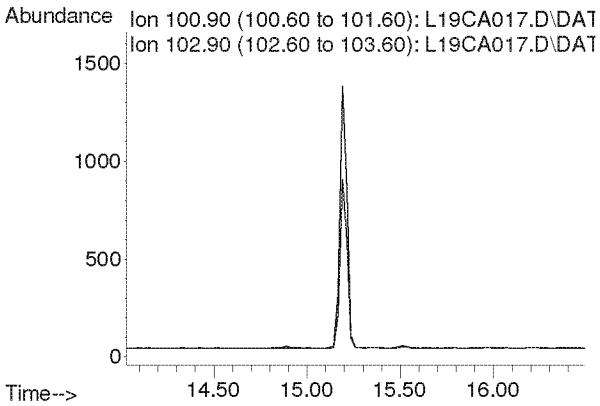


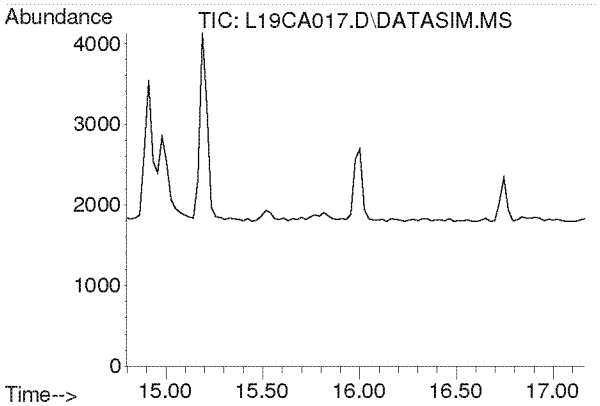
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



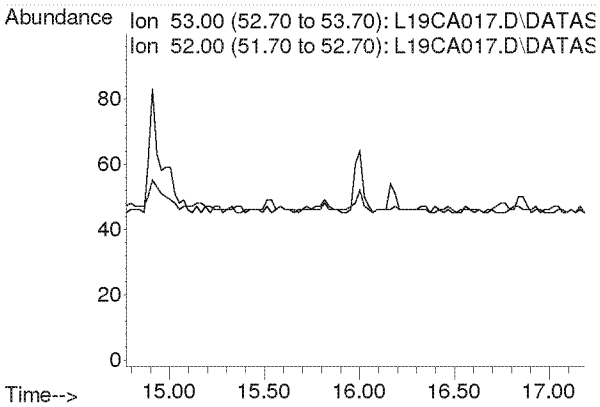


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

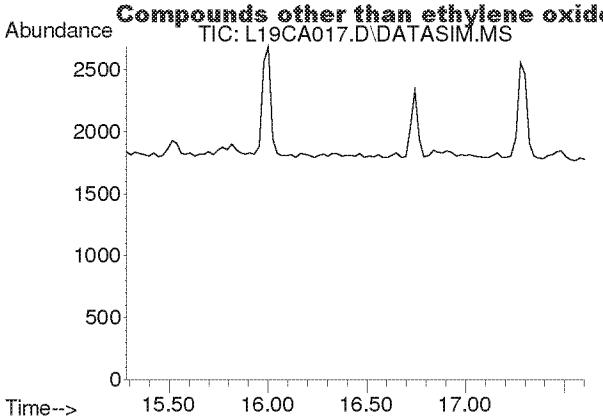
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

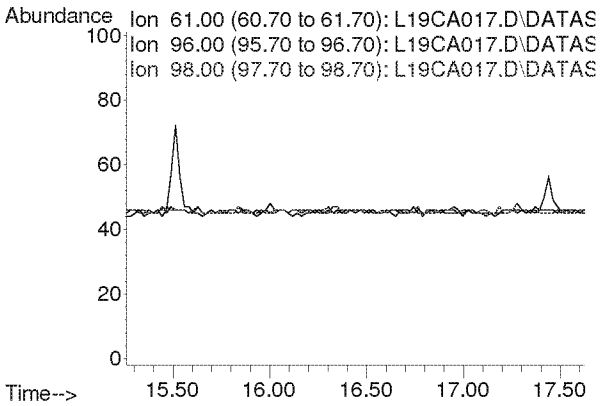


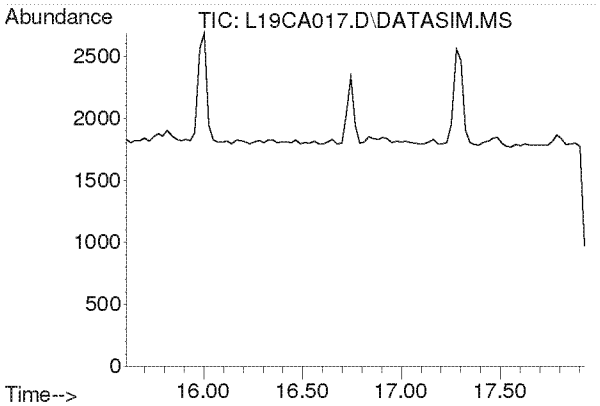
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



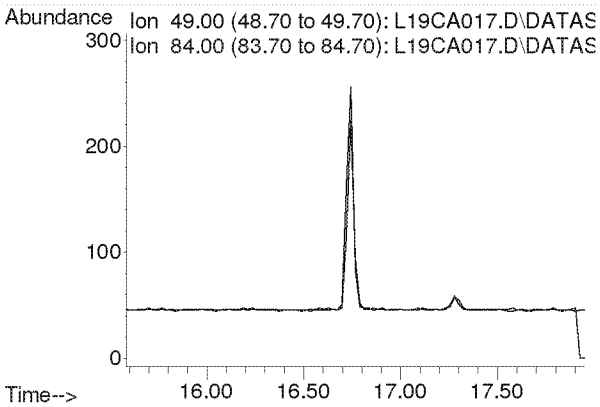


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

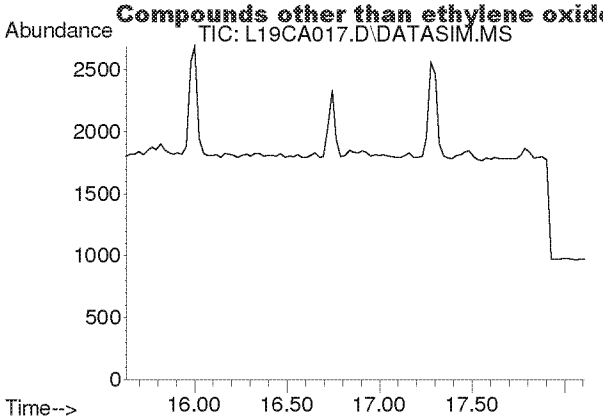
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

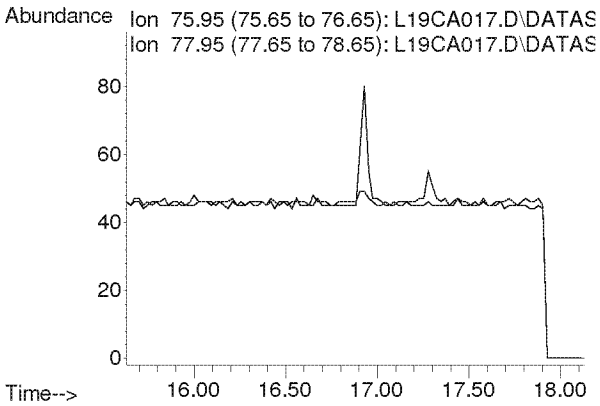


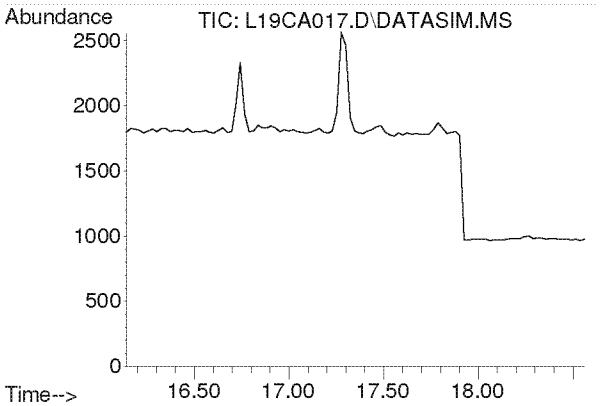
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



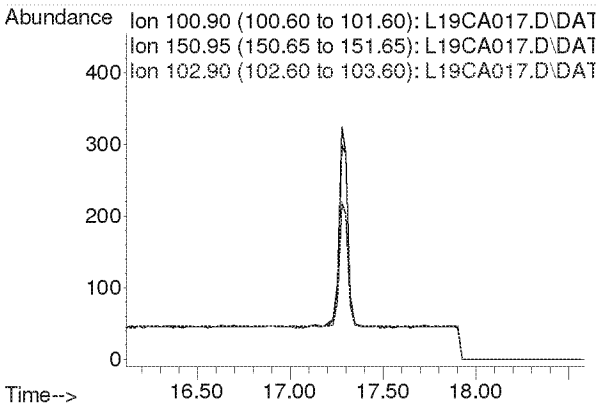


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

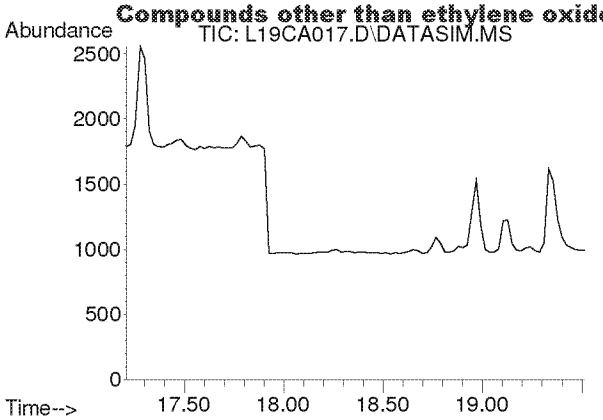
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

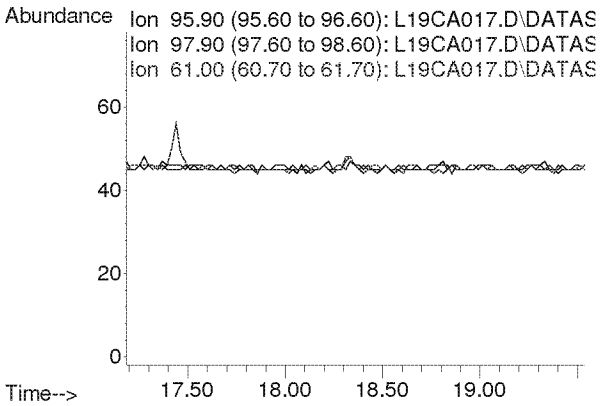


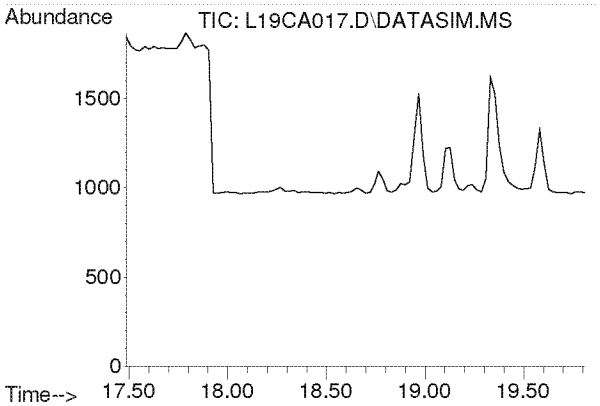
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



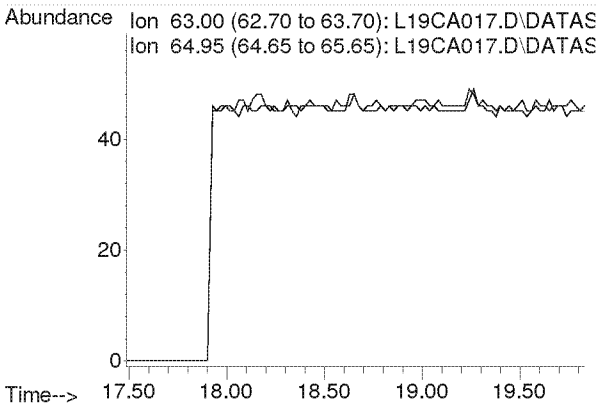


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

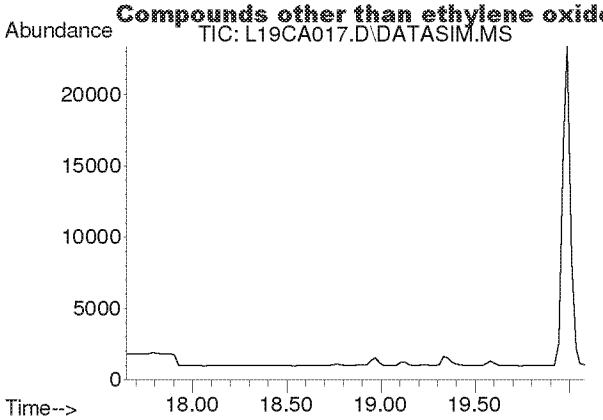
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

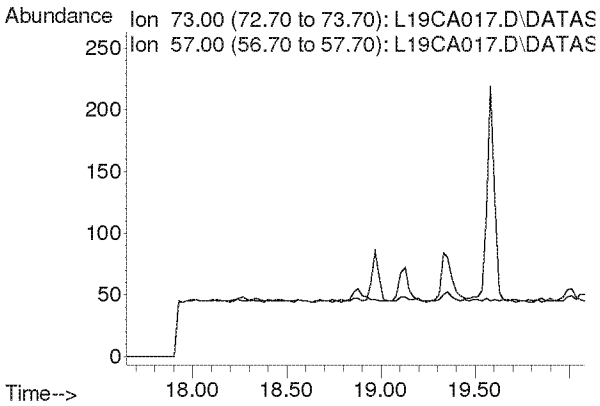


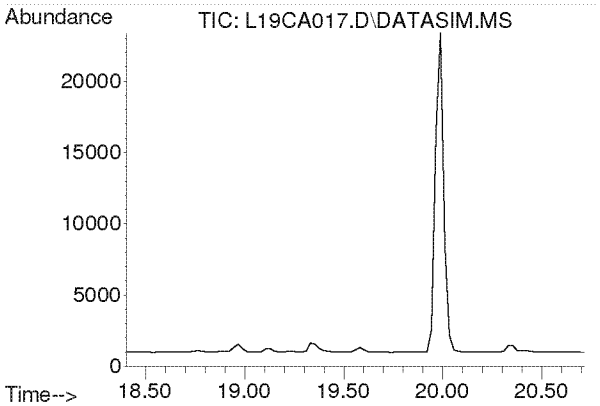
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



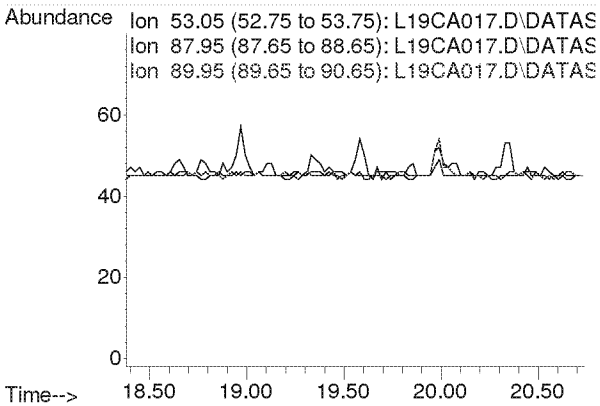


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

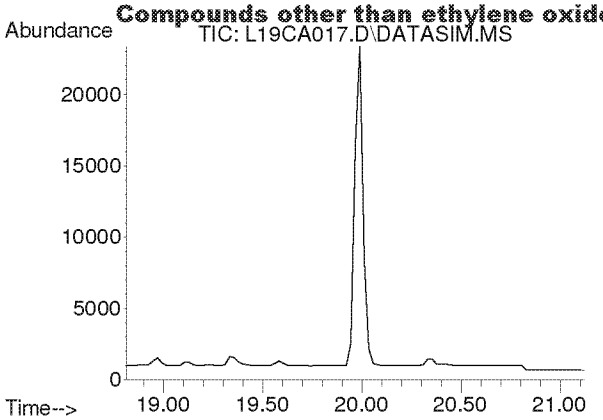
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

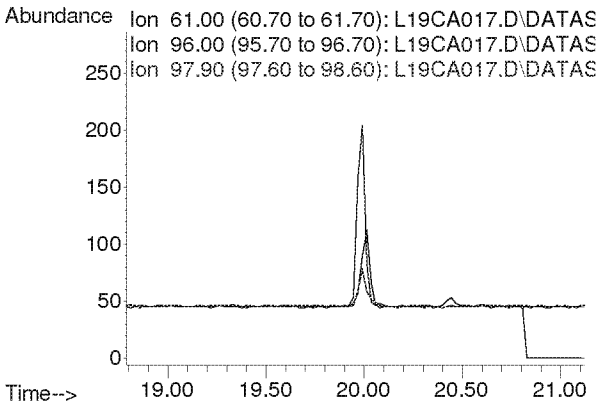


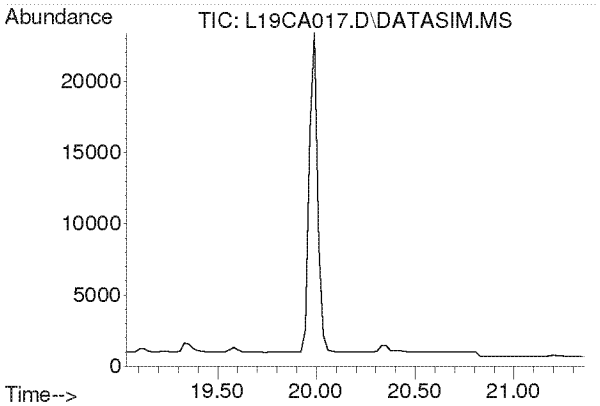
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



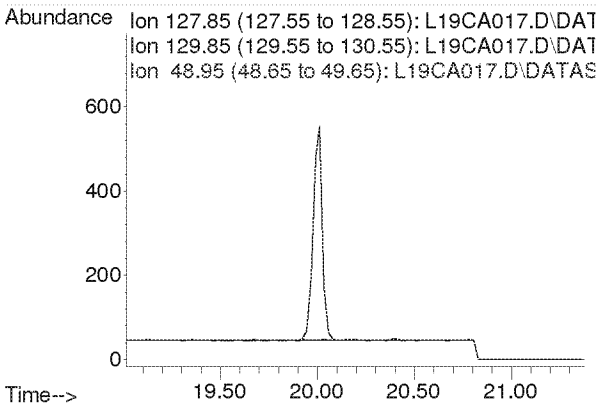


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

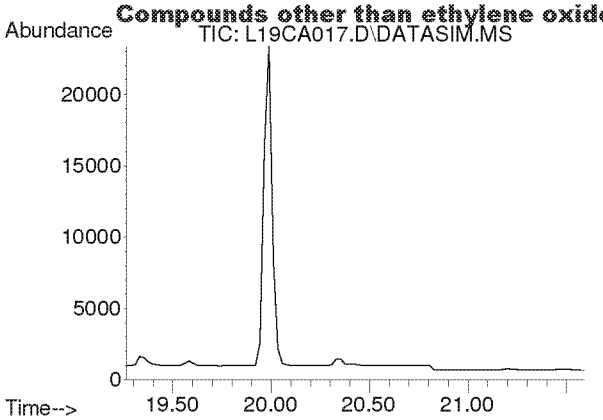
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

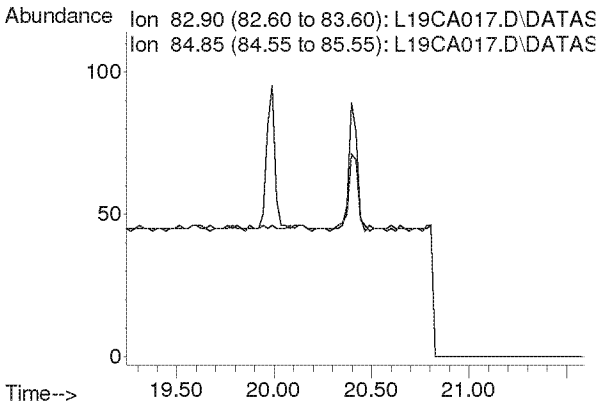


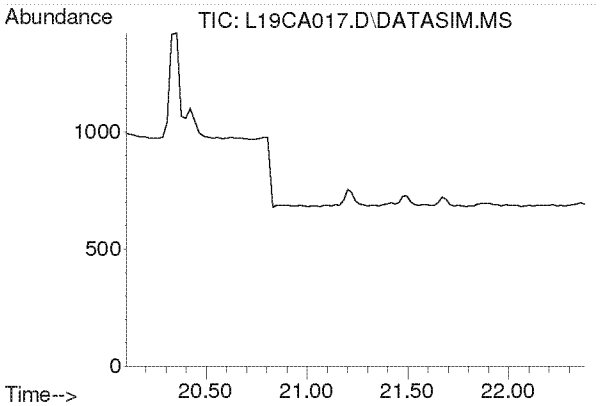
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



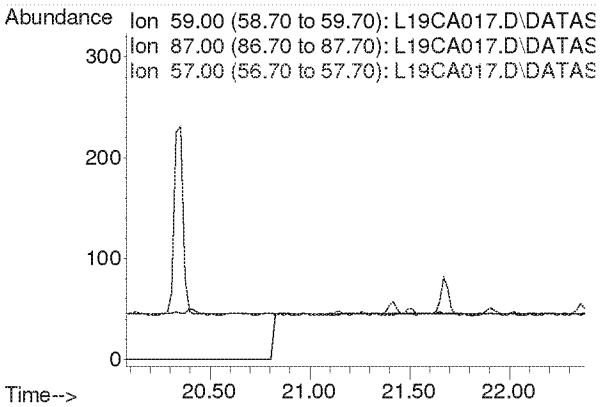


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

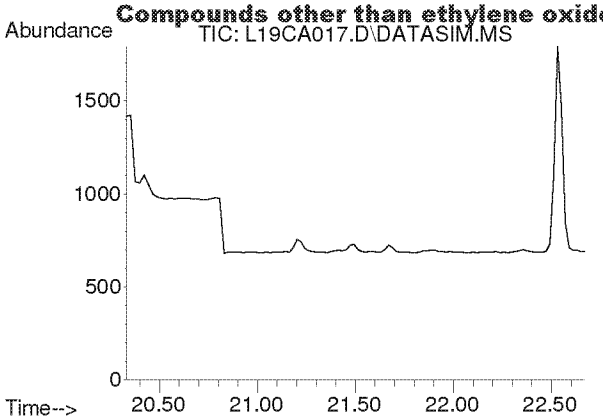
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

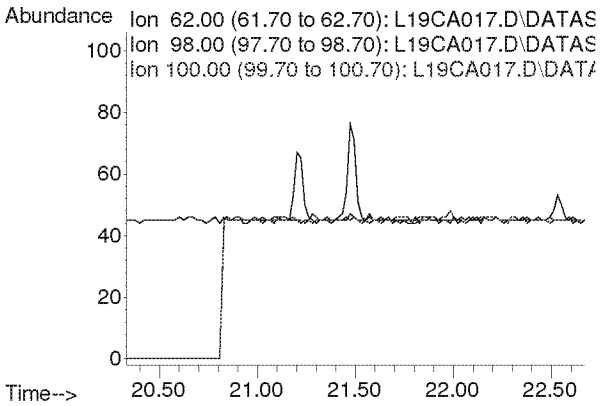


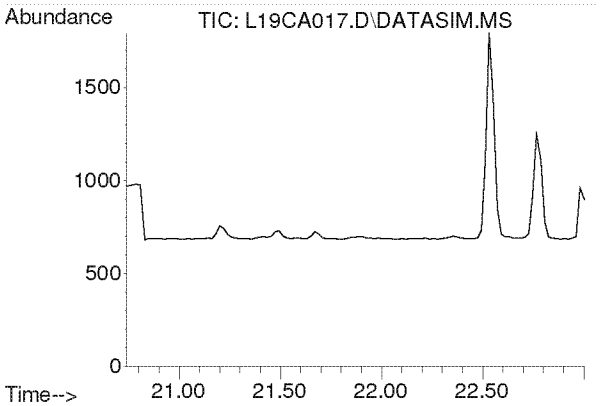
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



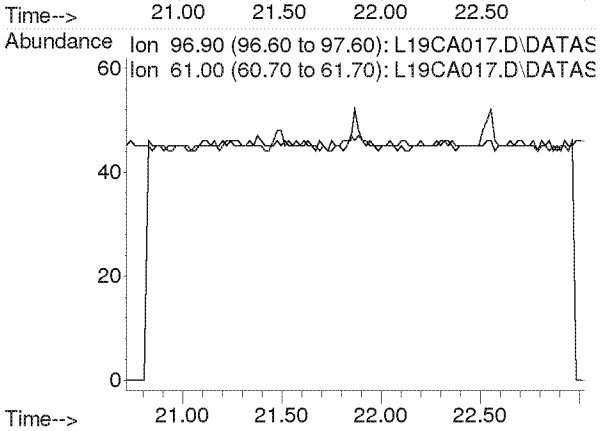


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

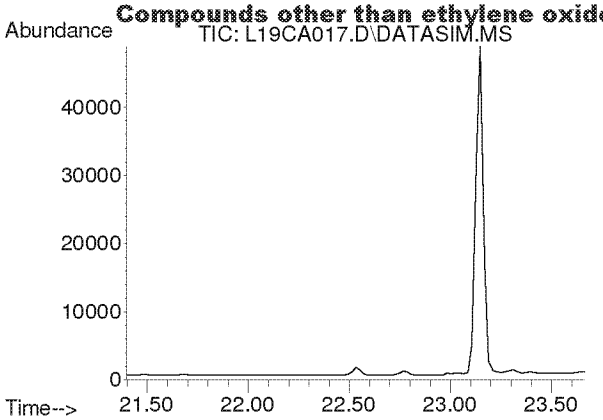
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

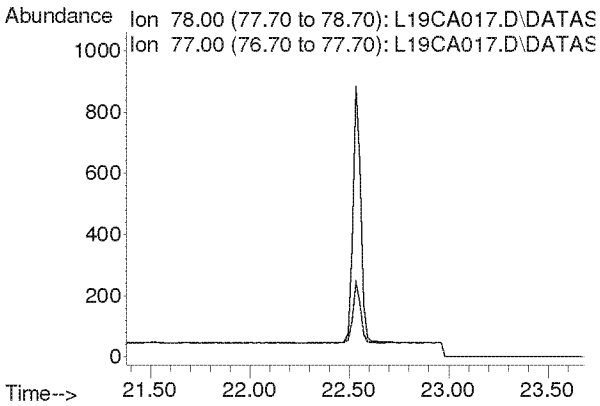


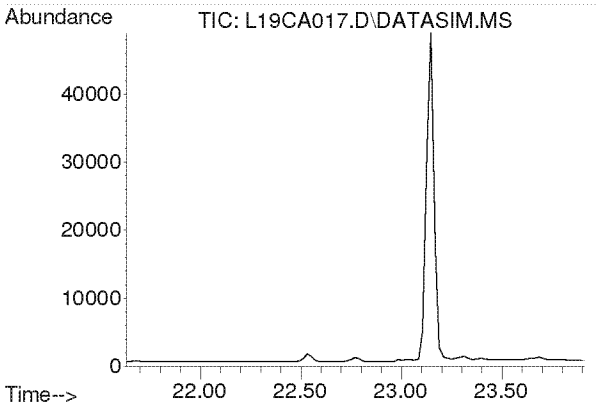
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



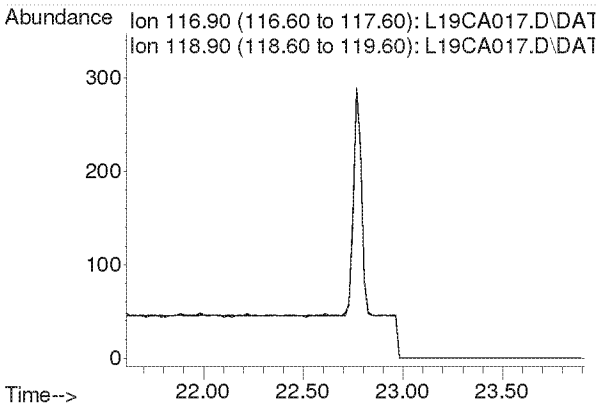


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

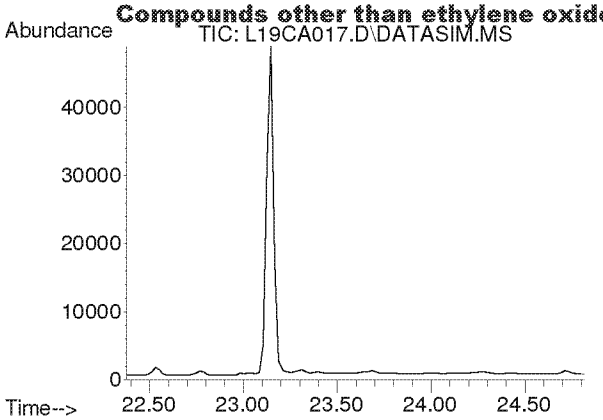
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

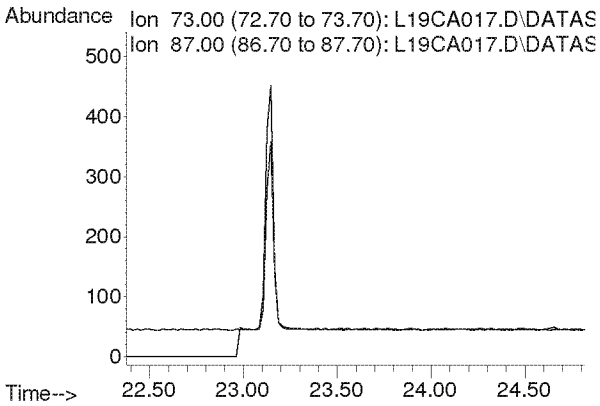


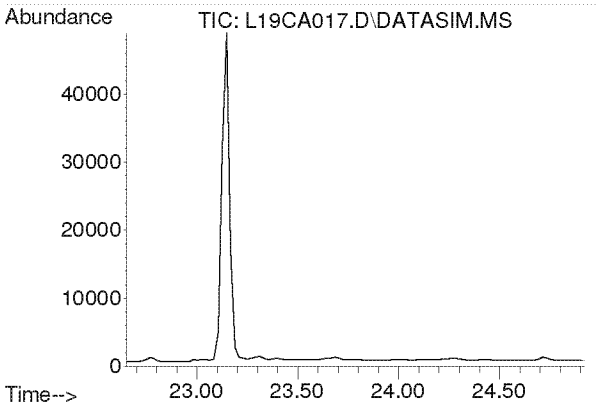
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



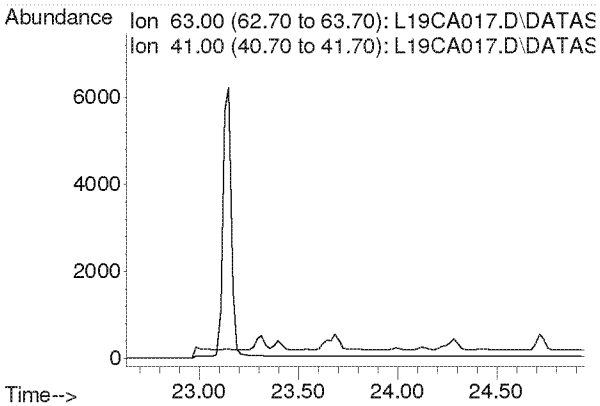


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

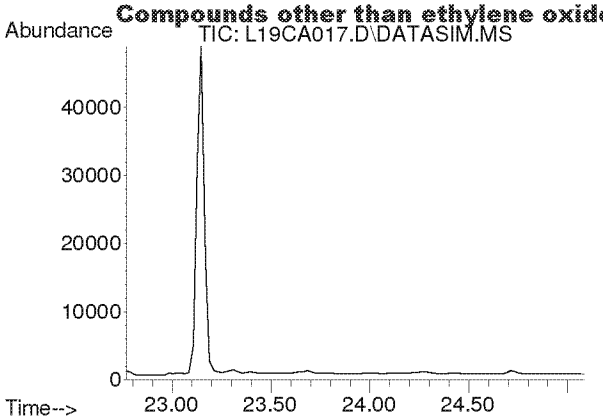
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

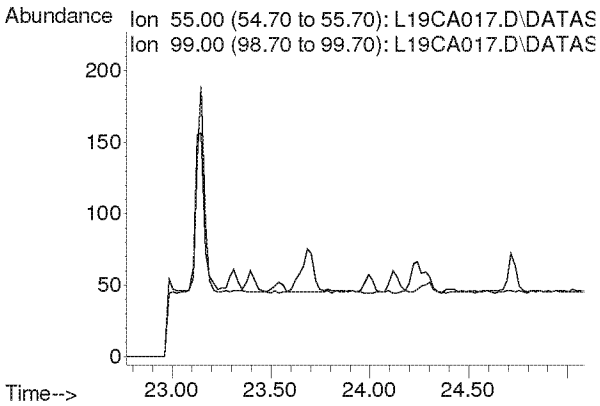


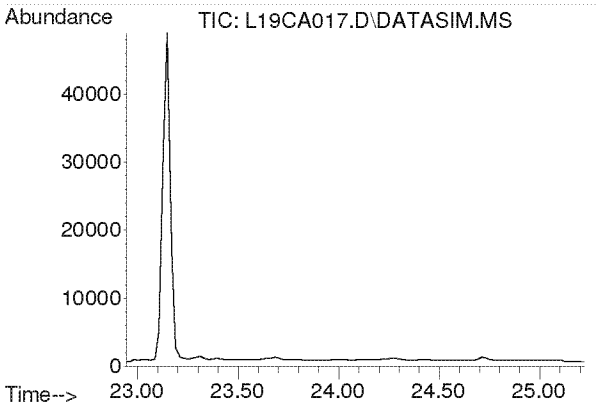
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



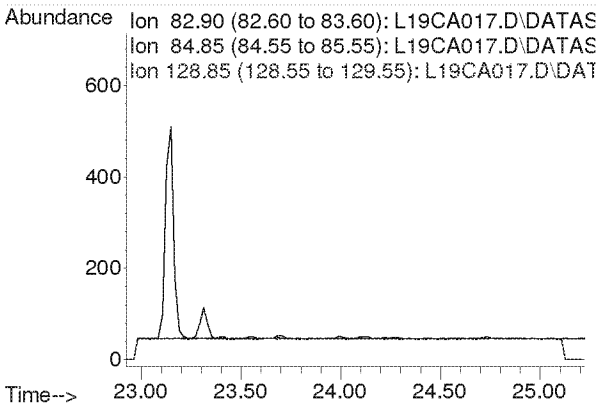


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

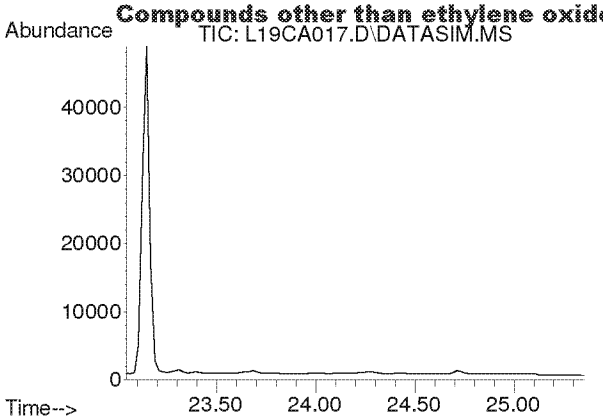
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

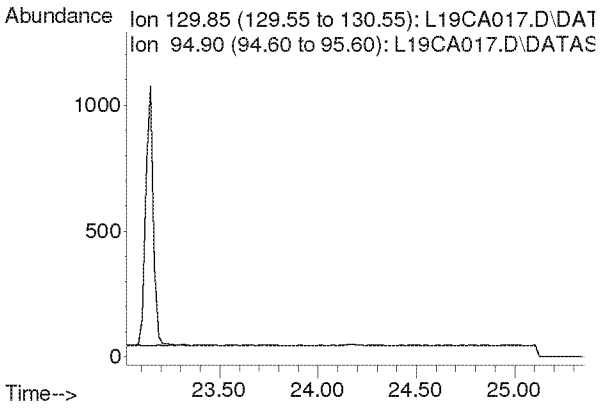


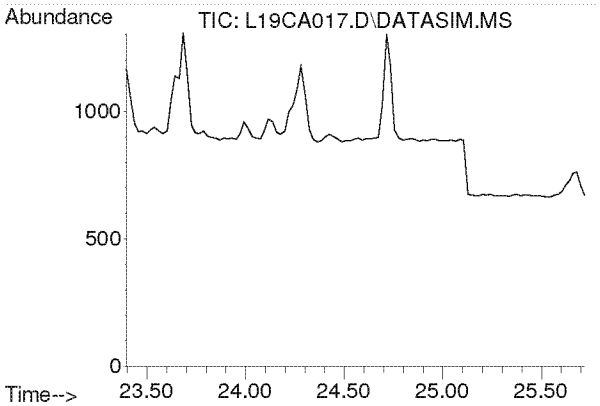
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



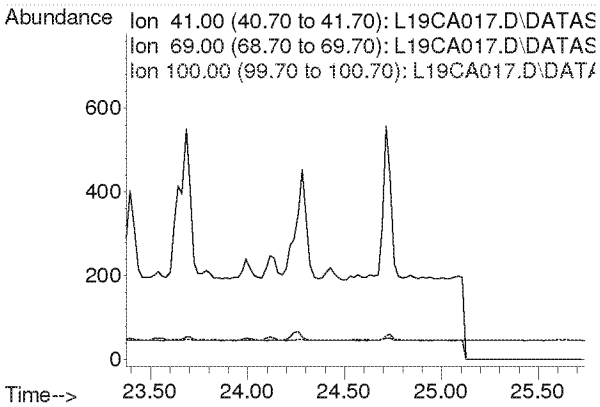


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

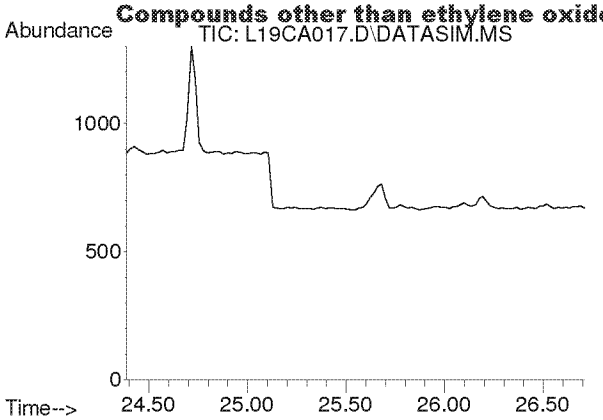
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

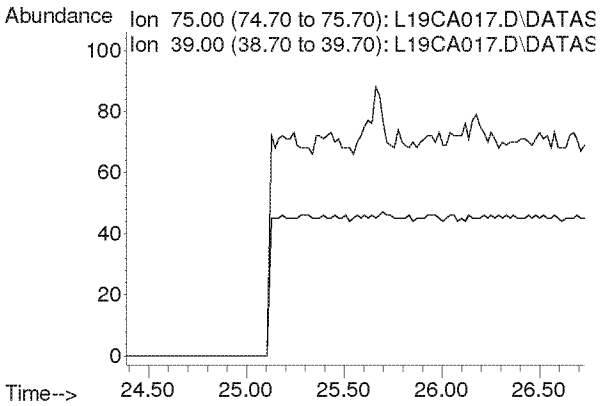


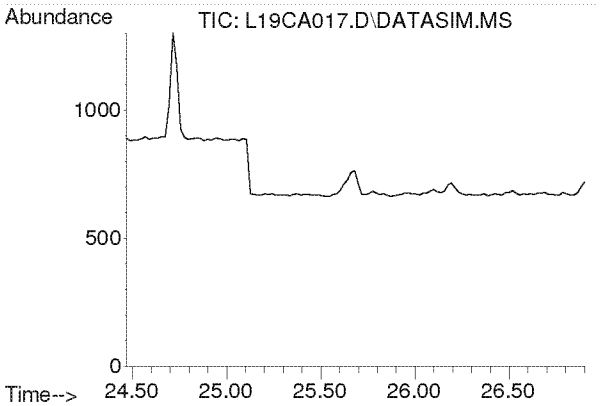
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



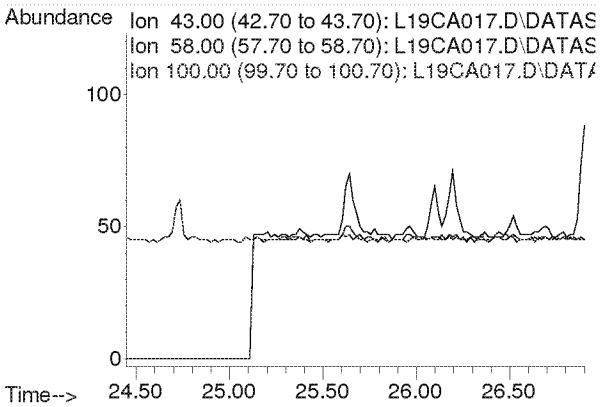


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

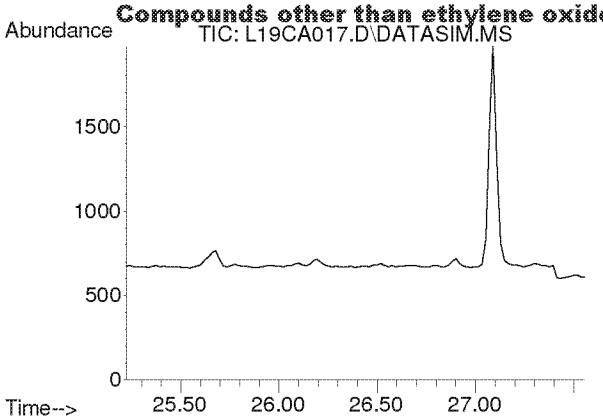
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

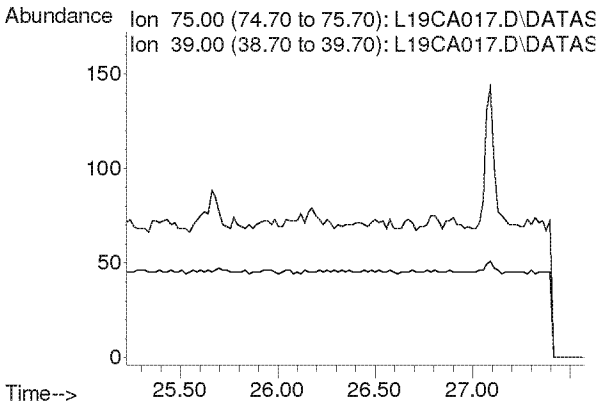


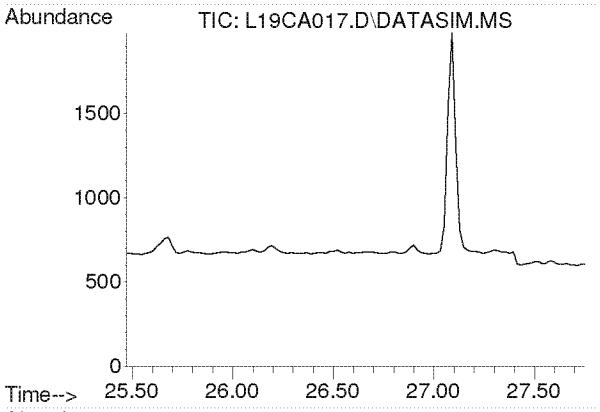
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



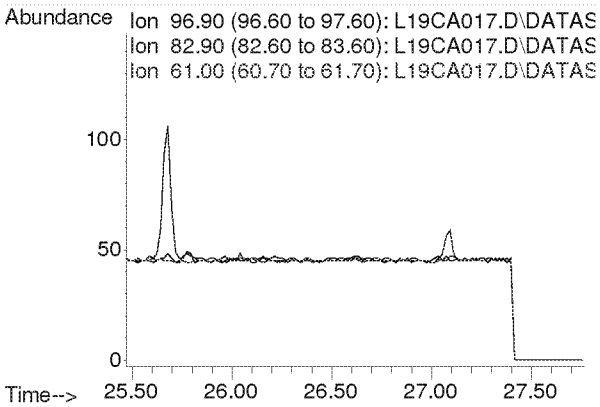


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

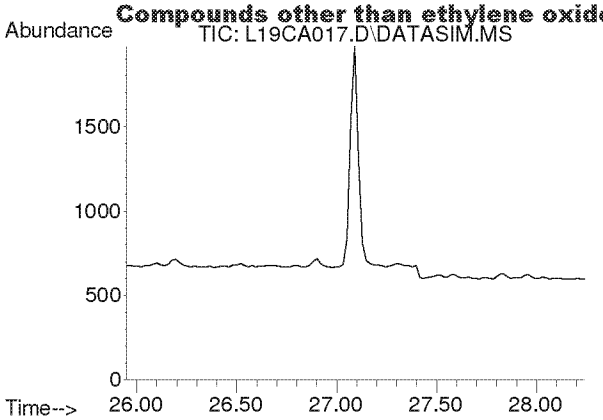
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

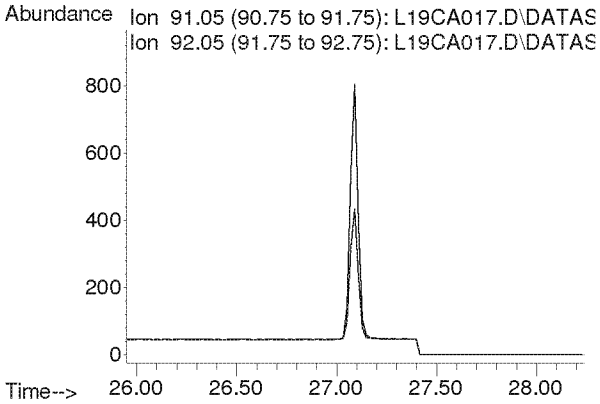


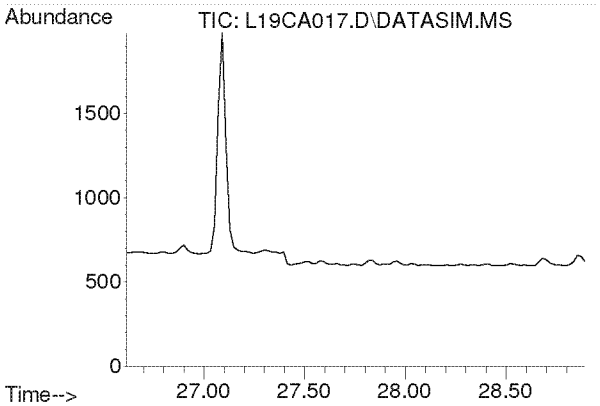
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



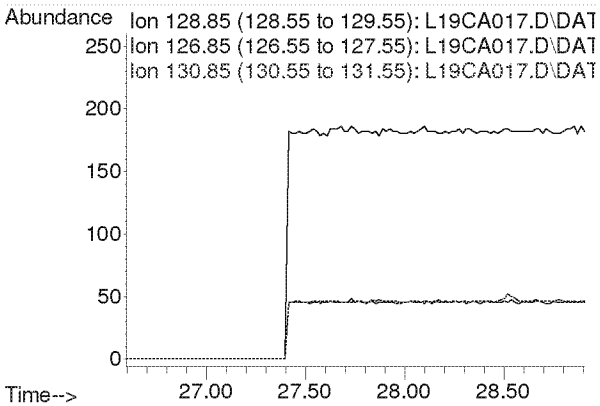


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

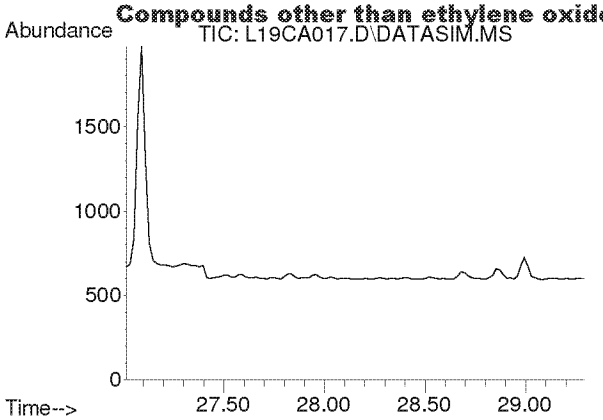
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

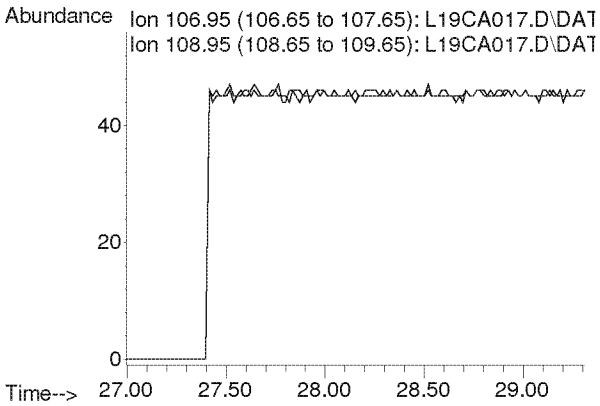


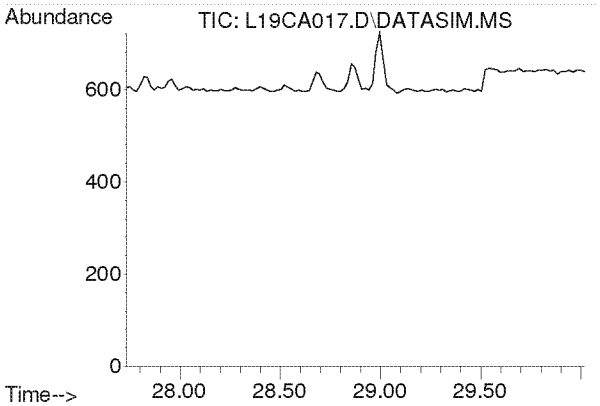
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



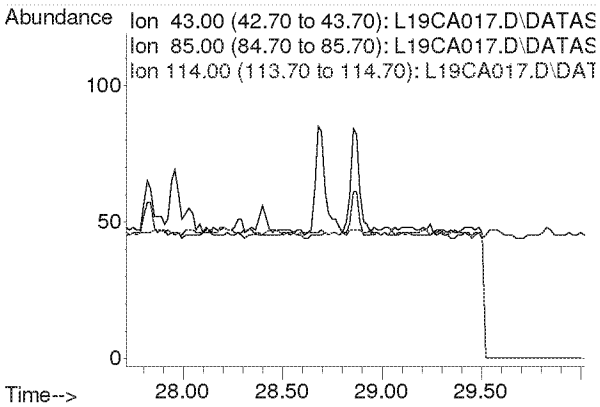


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

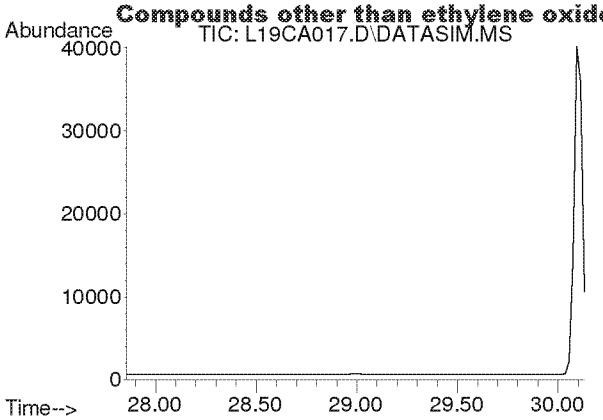
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

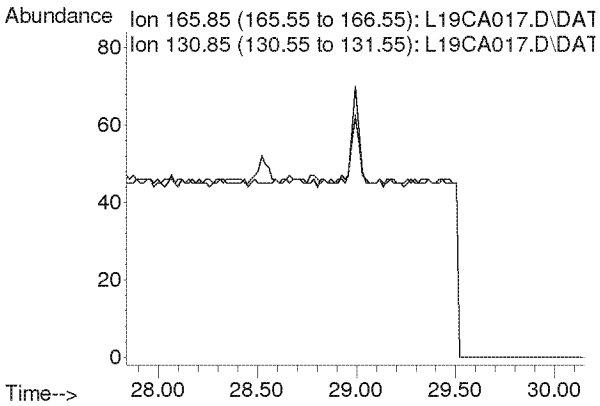


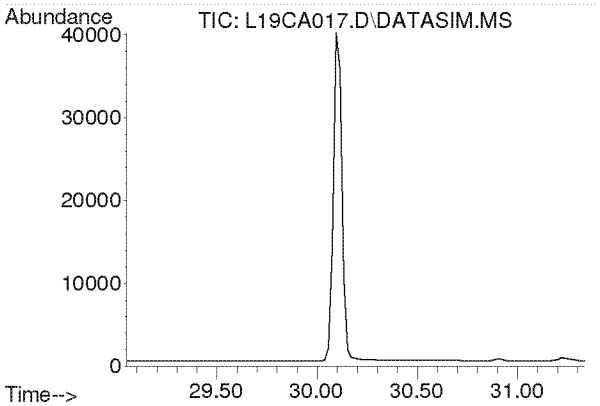
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



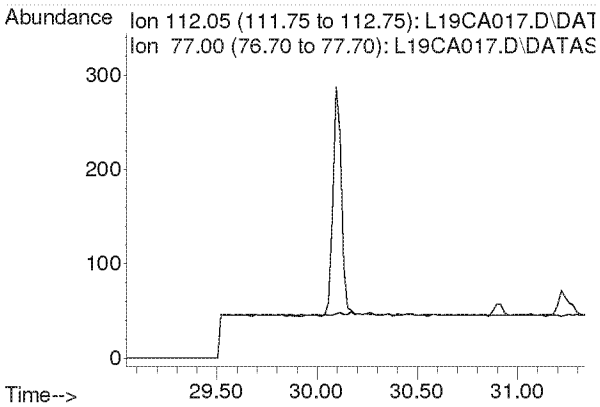


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

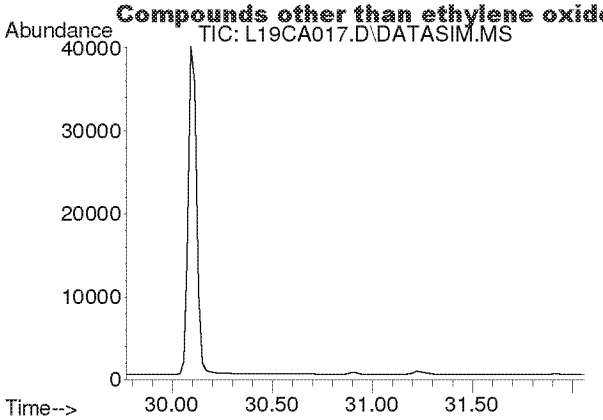
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

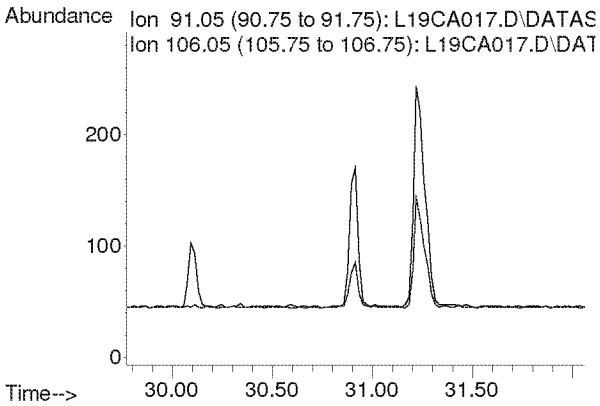


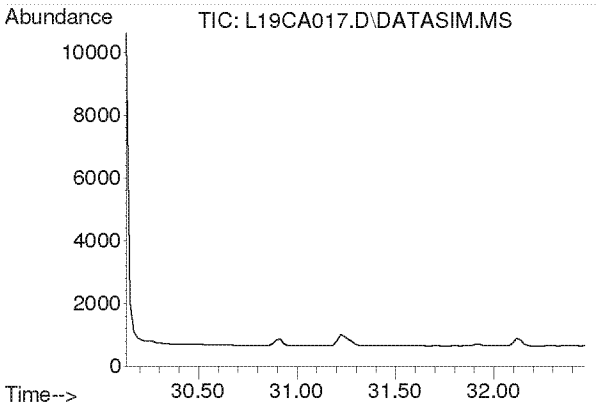
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



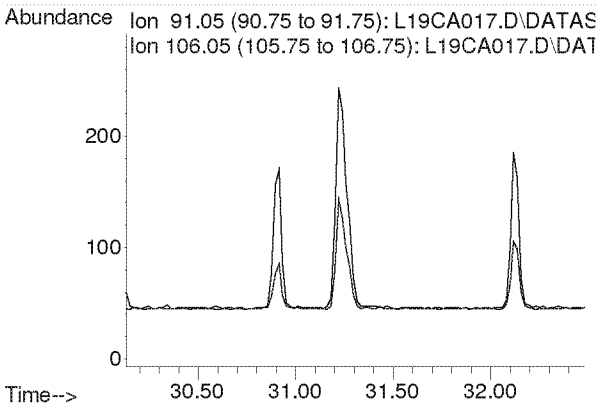


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

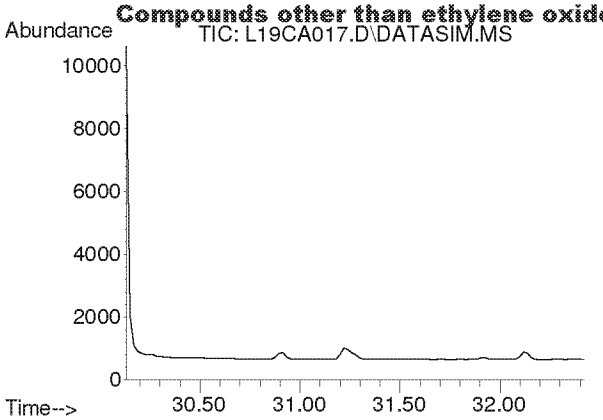
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

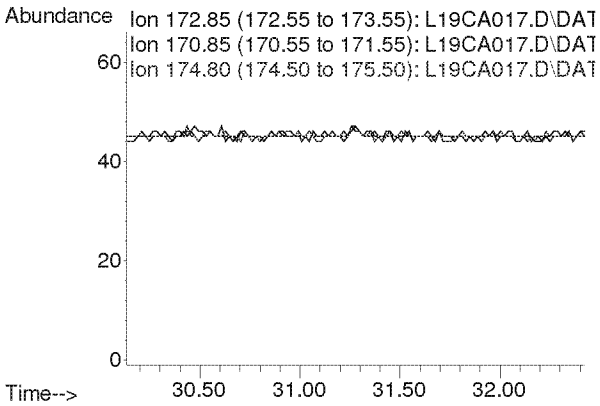


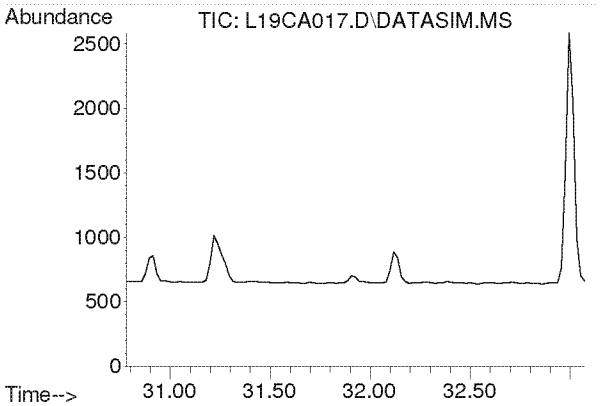
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



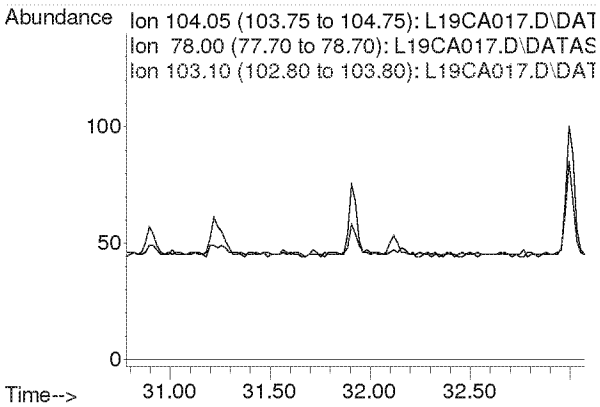


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

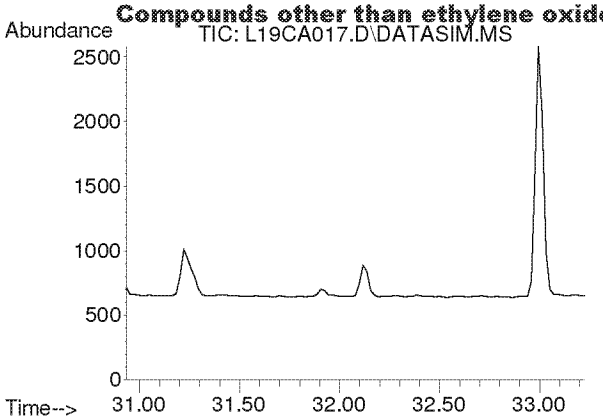
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

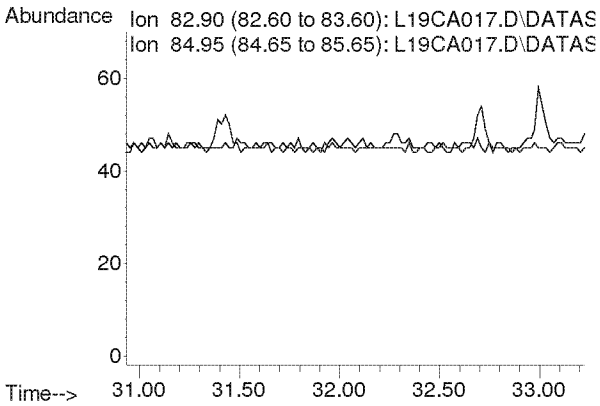


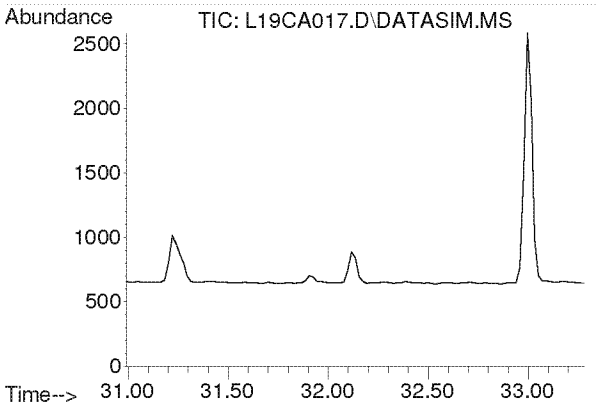
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



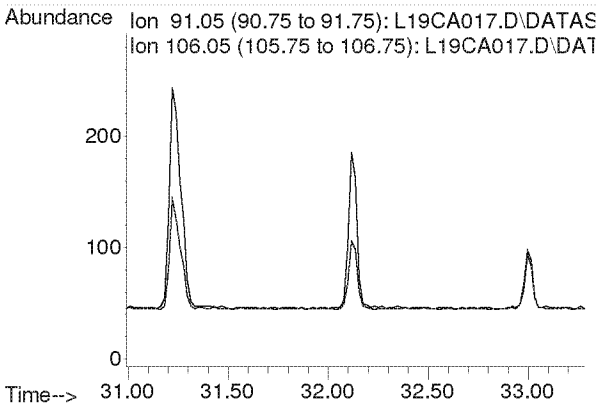


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

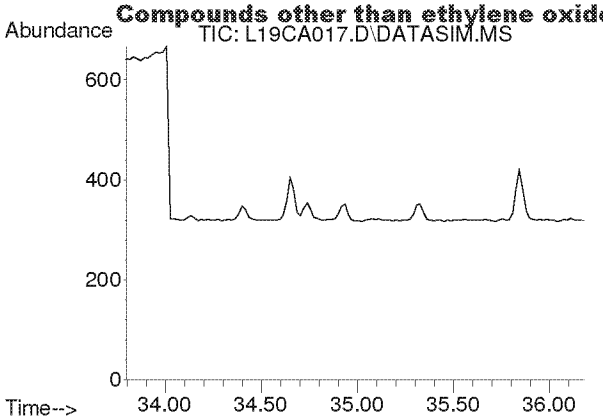
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

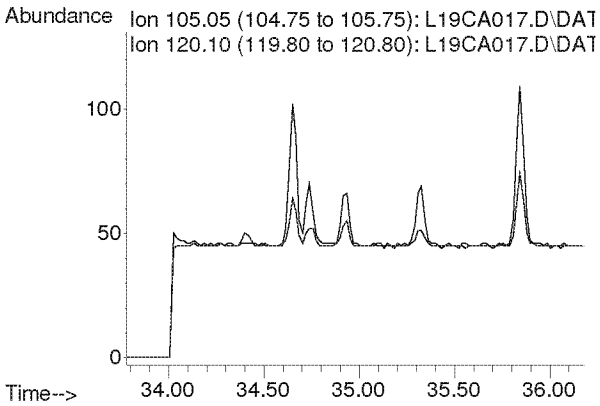


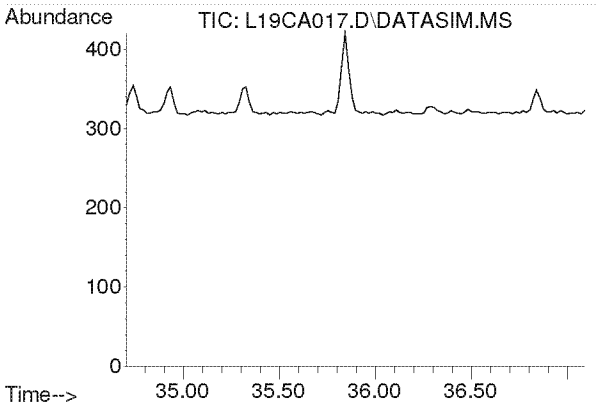
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



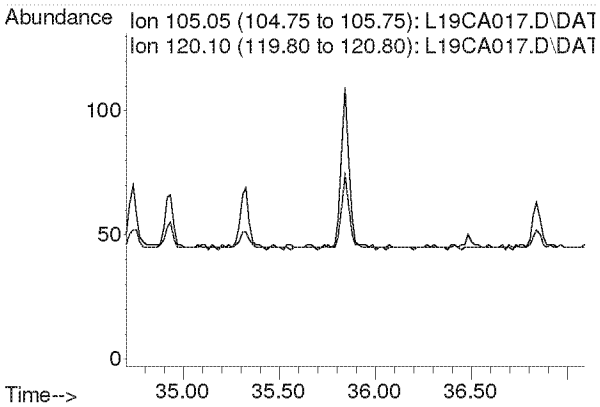


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

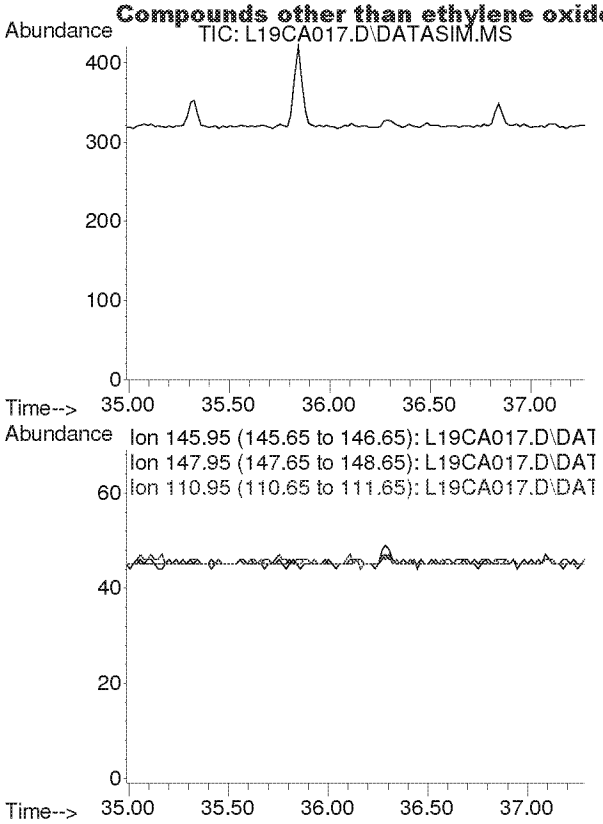
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

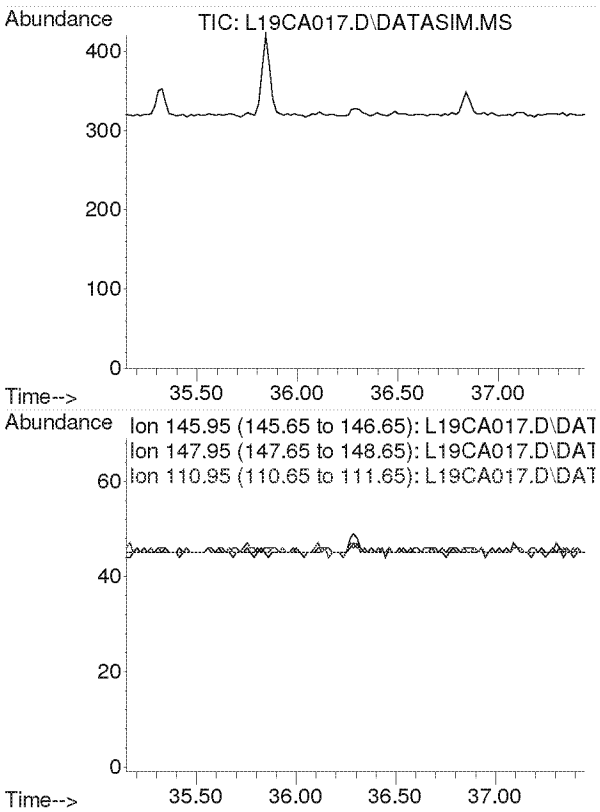


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



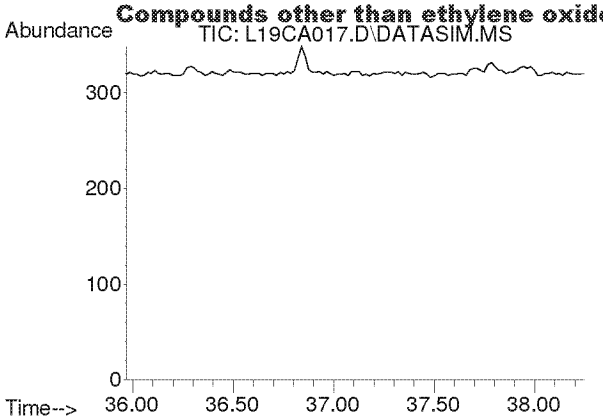
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

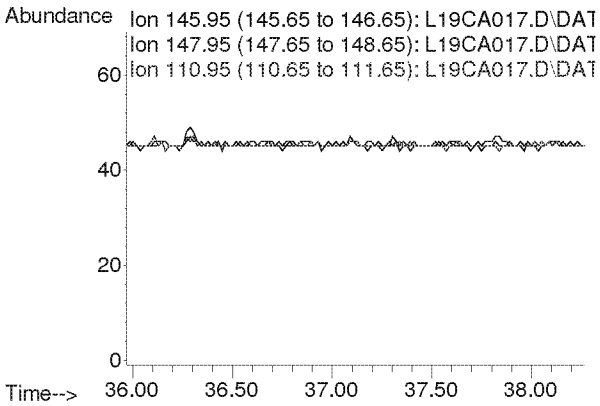


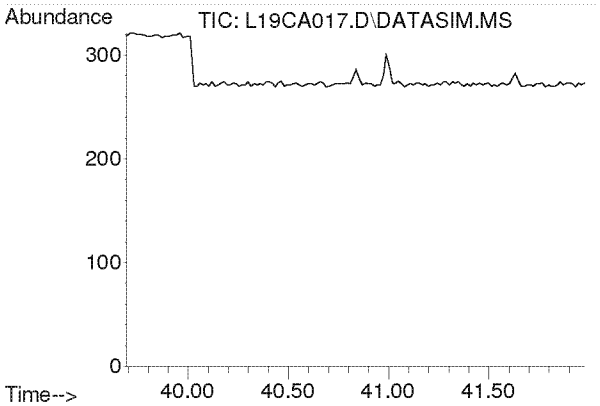
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



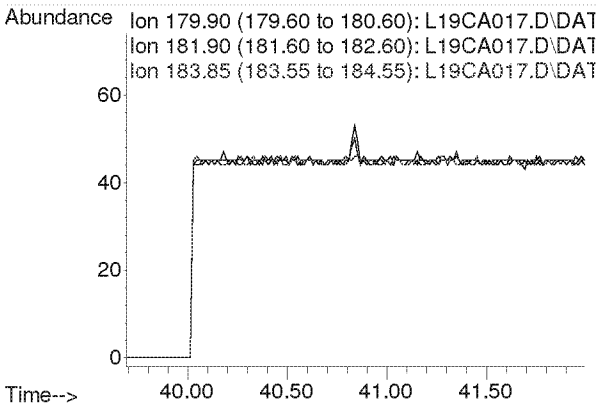


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

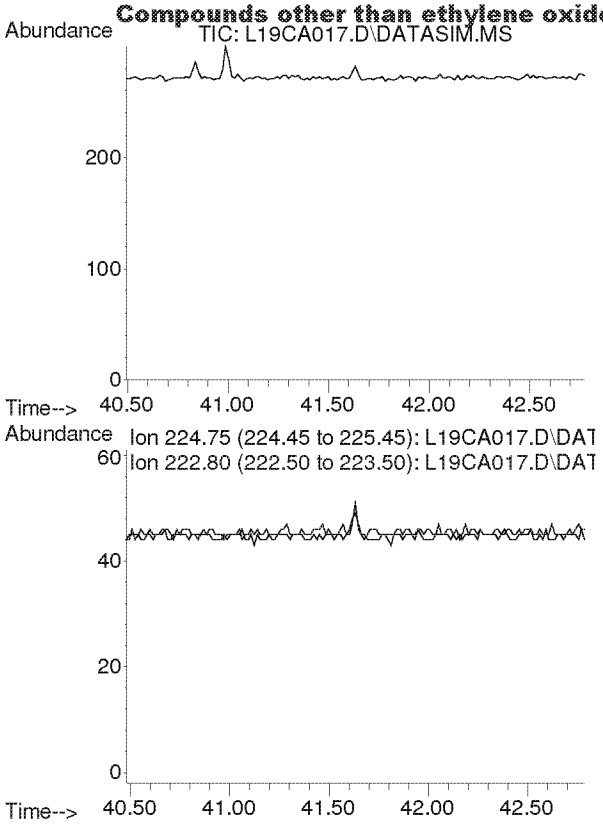
Lab File: L19CA017.D
Acq: 2 Mar 2019 7:38 am

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: L19CA017.D
Acq: 2 Mar 2019 7:38 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9C0104

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **Printed: 3/1/2019 4:07:45PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9022202-10 *TO-15 2019*	02/20/19 00:00	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022616-15 *TO-15 2019*	02/27/19 10:26	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9030101-01 *TO-15 2019*	02/27/19 10:34	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9030101-02 *TO-15 2019*	02/27/19 10:11	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9030101-03 *TO-15 2019*	02/27/19 09:12	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9030101-04 *TO-15 2019*	02/27/19 10:06	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9030101-05 *TO-15 2019*	02/27/19 10:53	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9030101-06 *TO-15 2019*	02/27/19 10:01	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9030101-07 *TO-15 2019*	02/27/19 09:16	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9030101-08 *TO-15 2019*	02/27/19 09:16	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9030101-09 *TO-15 2019*	02/27/19 10:26	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
B9C0104-BLK1	02/25/19 08:00	250	250					
B9C0104-DUP1	02/27/19 09:16	250	250		9030101-07			
B9C0104-DUP2	02/27/19 09:16	250	250		9030101-08			

3-5-19

Spiking Wind Bottle Reviewed Date | Preparation Reviewed By Date | Extracts Received By Date

Page 1 of 1 | Page 1 of 1 | Page 1 of 1 | Page 1 of 1

Compounds other than ethylene oxide were not quantitated.

TB

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9022202-10

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: _____ Canister Number: SAT163

City/State: Willowbrook, IL Lab Initial Can. Press. ("Hg): 29.9

AQS Code: _____ Cleaning Batch # : H1-553

Collection Date: 2/19/19 Date Can. Cleaned: 1/31/19

Options:

SNMOC (Y/N): _____ Duplicate Event (Y/N): N

TOXICS (Y/N): Y Duplicate Can # : _____

METHANE (Y/N): _____

Relinquished by: RMB Date: 2/11/19

Field Setup

Received by: C. Cummings & S. Hamilton Date: 2/19/19

Operator: C. Cummings & S. Hamilton MFC Setting: _____

System #: - Elapsed Timer Reset (Y/N): _____

Setup Date: 2/19/19 Canister Valve Opened (Y/N): -

Field Initial Can. Press.: _____ psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/20/19 Sample Duration (3 or 24 hr): _____

Operator: C. Cummings, S. Smith Elapsed Time: _____

Field Final Can. Press.: _____ psig psia "Hg (Circle one)

Status: **VALID** **VOID** (Circle one) Canister Valve Closed (Y/N): _____

Relinquished by: C. Cummings Date: 2/20/19

Lab Recovery

Received by: KB Date: 2/22/19

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

Filled to 4" Hg on ERG cold Cleaning System 1

RMB 2/28/19

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

TB

L

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9022616-15

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: TRIP BLANK
Canister Number: 18874
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code: —
Cleaning Batch # : H1-558
Collection Date: 2/23-24/19
Date Can. Cleaned: 2/7/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: RMB
Date: 2/13/19

Field Setup

Received by: NWH
Date: 2/23/19
Operator: NWH/COLLINGS
MFC Setting: —
System #: —
Elapsed Timer Reset (Y/N): —
Setup Date: 2/23/19
Canister Valve Opened (Y/N): N
Field Initial Can. Press.: N/A psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/24/19
Sample Duration (3 or 24 hr): —
Operator: NWH
Elapsed Time: —
Field Final Can. Press.: — psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): —
Relinquished by: NWH
Date: 2/24/19

Lab Recovery

Received by: M
Date: 2/26/19
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
Ambient temp on 2/23/19 deployment = 37°F + RAIN
" " " 2/24/19 = 27°F FLOUND GUSTS UP TO 70 MPH
2/24 Filled to 4" Hg on ERG cold Cleaning System 1 RMB 2/28/19

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

5

ERG Eastern Research Group, Inc.

ERG Lab ID # 9030101-01

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: West Neighborhood

Canister Number: 5058

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 30

AQS Code: N/A

Cleaning Batch # : H2-562

Collection Date: 2/26/19

Date Can. Cleaned: 2/14/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: KR

Date: 2/20/19

Field Setup

Received by: S. Hamilton

Date: 2/26/19

Operator: S Hamilton

MFC Setting:

System #: 10310

Elapsed Timer Reset (Y/N):

Setup Date: 2/26/19

Canister Valve Opened (Y/N): Y @ 11:32

Field Initial Can. Press.: 29.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/27/19

Sample Duration (3 or 24 hr): 24

Operator: S Hamilton

Elapsed Time: –

Field Final Can. Press.: -6.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 10:34

Relinquished by: S Hamilton

Date: 2/27/19

Lab Recovery

Received by: KB

Date: 3/1/19

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: 29.0 "Hg @ 11:27 / 29.0 "Hg @ 11:32

Deploy Temp: 22 F

Recovery Temp: 26 F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

b

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 90.30101-02

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: ~~Hinsdale South H.S.~~ 2/26/19 JGC
City/State: ~~Darien, IL~~ Willowbrook Pond Park 2/26/19 JGC
AQS Code: N/A Willowbrook, IL
Collection Date: 2/26/19

Canister Number: A21042
Lab Initial Can. Press. ("Hg): 29.6
Cleaning Batch # : H2-562
Date Can. Cleaned: 2/14/19

Options:

SNMOC (Y/N):
TOXICS (Y/N): Y
METHANE (Y/N):

Duplicate Event (Y/N): N
Duplicate Can # :

Relinquished by: RMB Date: 2/21/19

Field Setup

Received by: S. Hamilton Date: 2/26/19
Operator: S. Hamilton
System #: 10076
Setup Date: 2/26/19
Field Initial Can. Press.: -25.5 psig psia "Hg (Circle one)

MFC Setting:
Elapsed Timer Reset (Y/N):
Canister Valve Opened (Y/N): Y @ 10:52

Field Recovery

Recovery Date: 2/27/19
Operator: J. Coughlin
Field Final Can. Press.: -7 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Relinquished by: J. Coughlin Date: 2/27/19

Sample Duration (3 or 24 hr): 24 hr
Elapsed Time: –
Canister Valve Closed (Y/N): Y @ 10:11

Lab Recovery

Received by: NL Date: 3/1/19
Lab Final Can. Press.: 5.0 psig "Hg (Circle one)
Status: VALID VOID (Circle one)
If void, why:

Converted to psia:
Gauge: 1 2 (Circle one)

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -28.54 Hg @ 10:47 / -25.5 "Hg @ 10:52
Deploy Temp: 22
Recovery Temp: 26°F
- Swapped Hinsdale HS and Willowbrook Pond Park; this CoC is for Willowbrook Pond Park

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

7

ERG Eastern Research Group, Inc.

ERG Lab ID # 9030101-03

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA Willowbrook Warehouse

Canister Number: SAT046

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.9

AQS Code: N/A

Cleaning Batch #: H1-562

Collection Date: 2/26/19

Date Can. Cleaned: 2/14/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): y

Duplicate Can #:

METHANE (Y/N):

Relinquished by: MB

Date: 2/21/19

Field Setup

Received by: J. Coughlin

Date: 2/26/19

Operator: J. Coughlin

MFC Setting: —

System #: 10314

Elapsed Timer Reset (Y/N): —

Setup Date: 2/26/19

Canister Valve Opened (Y/N): y @ 10:05

Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/27/19

Sample Duration (3 or 24 hr): 24 hr

Operator: J. Coughlin

Elapsed Time:

Field Final Can. Press.: -6 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): y @ 09:12

Relinquished by: J. Coughlin

Date: 2/27/19

Lab Recovery

Received by: NL

Date: 3/1/19

Lab Final Can. Press.: 3.5 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -30 "Hg @ 1:57 / -30 "Hg @ 12:02

Deploy Temp: 22°F

Recovery Temp: 26°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9030101-04

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Water Tower
Canister Number: SAT120
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code: N/A
Cleaning Batch # : H2-562
Collection Date: 2/26/19
Date Can. Cleaned: 2/14/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: KR
Date: 2/20/19

Field Setup

Received by: S Hamilton
Date: 2/26/19
Operator: S Hamilton
MFC Setting:
System #: 10312
Elapsed Timer Reset (Y/N):
Setup Date: 2/26/19
Canister Valve Opened (Y/N): Y @ 10:41
Field Initial Can. Press.: 29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/27/19
Sample Duration (3 or 24 hr): 24
Operator: S Hamilton
Elapsed Time:
Field Final Can. Press.: 5.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:06
Relinquished by: S Hamilton
Date: 2/27/19

Lab Recovery

Received by: NL
Date: 3/1/19
Lab Final Can. Press.: 3.0 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: 29.5 "Hg @ 10:30 / 29.5 "Hg @ 10:41
Deploy Temp: 22
Recovery Temp: 26

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

5

ERG Lab ID # 9030101-05

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Grover Elementary
Canister Number: 19657
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : 112-565
Collection Date: 2/26/19
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: S. Hamilton
Date: 2/26/19
Operator: S. Hamilton
MFC Setting:
System #: 10077
Elapsed Timer Reset (Y/N):
Setup Date: 2/26/19
Canister Valve Opened (Y/N): Y @ 11:53
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/27/19
Sample Duration (3 or 24 hr): 24 hr
Operator: J. Coughlin
Elapsed Time:
Field Final Can. Press.: -7 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:53
Relinquished by: J. Coughlin
Date: 2/27/19

Lab Recovery

Received by: NL
Date: 3/1/19
Lab Final Can. Press.: 6.0 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 @ 11:44 / -29 11:55
Replay Temp 22°F
Recover Temp 26°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 903010l-06

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Clover MD

Canister Number: SAT084

City/State: Burr Ridge, IL

Lab Initial Can. Press. ("Hg): 29.9

AQS Code: N/A

Cleaning Batch # : H2-563

Collection Date: 2/26/19

Date Can. Cleaned: 2/14/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): —

TOXICS (Y/N): y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 2/21/19

Field Setup

Received by: J. Coughlin

Date: 2/26/19

Operator: J. Coughlin

MFC Setting: —

System #: 10311

Elapsed Timer Reset (Y/N): —

Setup Date: 2/26/19

Canister Valve Opened (Y/N): y @ 10:30

Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/27/19

Sample Duration (3 or 24 hr): 24 hr

Operator: J. Coughlin JCL 2/27/19

Elapsed Time: —

Field Final Can. Press.: ~~-8~~ -7 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): y @ 10:01

Relinquished by: J. Coughlin

Date: 2/27/19

Lab Recovery

Received by: NL

Date: 3/1/19

Lab Final Can. Press.: 4.0 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check. -30 "Hg @ 10:25 / -30 "Hg @ 10:30

Deploy Temp. 22°F

Recovery Temp: 26°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 903010107

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Village Hall
Canister Number: 5074
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code: N/A
Cleaning Batch # : H2-562
Collection Date: 2/26/19
Date Can. Cleaned: 2/14/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : 090571
METHANE (Y/N):
Relinquished by: NR
Date: 2/20/19

Field Setup

Received by: S Hamilton
Date: 2/26/19
Operator: S. Hamilton
MFC Setting: —
System #: 10313
Elapsed Timer Reset (Y/N): —
Setup Date: 2/26/19
Canister Valve Opened (Y/N): Y @ [illegible]
Field Initial Can. Press.: 27.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/27/19
Sample Duration (3 or 24 hr): 24
Operator: S Hamilton
Elapsed Time: —
Field Final Can. Press.: -5.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ [illegible]
Relinquished by: S Hamilton
Date: 2/27/19

Lab Recovery

Received by: NL
Date: 3/1/19
Lab Final Can. Press.: 4.0 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 ck: 28.5" Hg @ 10:08 / 27.5" Hg @ 10:13
Display Temp = 22.0 F
Recovery Temp = 26° F
2nd LK ck: 29.5 Hg @ 10:13 / 29.0 Hg @ 10:18

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 # 9030101-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Village Hall
Canister Number: SAT067
City/State: Willowbrook
Lab Initial Can. Press. ("Hg): 29.9
AQS Code: N/A
Cleaning Batch # : H2-563
Collection Date: 2/26/19
Date Can. Cleaned: 2/14/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : SAT067
METHANE (Y/N):
Relinquished by: RMB
Date: 2/26/19

Field Setup

Received by: S. Hamilton
Date: 2/26/19
Operator: S. Hamilton
MFC Setting: —
System #: 1035
Elapsed Timer Reset (Y/N): —
Setup Date: 2/26/19
Canister Valve Opened (Y/N): Y @ 10:12
Field Initial Can. Press.: 29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/27/19
Sample Duration (3 or 24 hr): 24
Operator: S. Hamilton
Elapsed Time: —
Field Final Can. Press.: 8.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:10
Relinquished by: S. Hamilton
Date: 2/27/19

Lab Recovery

Received by: M
Date: 3/1/19
Lab Final Can. Press.: 5.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: 29.0" Hg @ 10:07 / 28.9" Hg @ 10:12
Replay Temp: 22° F
Recovery Temp: 26° F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Lab ID # 9030101-09

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: ~~Willowbrook Pond Park~~ 2/26/19 Hinsdale South HS
City/State: ~~Willowbrook, IL~~ 2/26/19 Hinsdale South HS Darien, IL
AQS Code: N/A
Collection Date: 2/26/19

Canister Number: 5089
Lab Initial Can. Press. ("Hg): 30
Cleaning Batch # : H1-562
Date Can. Cleaned: 2/14/19

Options:

SNMOC (Y/N):
TOXICS (Y/N): Y
METHANE (Y/N):

Duplicate Event (Y/N): —
Duplicate Can # :

Relinquished by: KR Date: 2/20/19

Field Setup

Received by: J. Coughlin Date: 2/26/19
Operator: J. Coughlin
System #: 10294
Setup Date: 2/26/19

MFC Setting: —
Elapsed Timer Reset (Y/N): —
Canister Valve Opened (Y/N): Y @ 11:13

Field Initial Can. Press.: -29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/27/19
Operator: S. Hamilton
Field Final Can. Press.: -7.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Relinquished by: S. Hamilton Date: 2/27/19

Sample Duration (3 or 24 hr): 24
Elapsed Time: —
Canister Valve Closed (Y/N): Y @ 10:26

Lab Recovery

Received by: KR Date: 3/1/19
Lab Final Can. Press.: 5.5 psig "Hg (Circle one) Converted to psia:
Status: VALID VOID (Circle one) Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -29.5 "Hg @ 11:08 / -29.3 "Hg @ 11:13
Deploy Temp: 22°F
Recovery Temp: 28°F
- Swapped Hinsdale South HS and Willowbrook Pond Park; this CoC is for Hinsdale South HS

White: Sample Traveler Canary: Lab Copy Pink: Field Copy