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	✓ 2-14-19	RMB 2/15/19	DST 2/15/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	—	RMB 2/15/19	NA		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	✓ 2-14-19	RMB 2/15/19	DST 2/15/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	✓ 2-14-19	RMB 2/15/19	DST 2/15/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	✓ 2-14-19	RMB 2/15/19	DST 2/15/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	✓ 2-14-19	RMB 2/15/19	DST 2/15/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 2/15/19	DST 2/15/19		9020702-01 7944 (4.77 ppbv) / 46467 (0.2728) = 2.957 ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	✓ 2-14-19	RMB 2/15/19	DST 2/15/19		

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

L19B1002 ethylene oxide

$$\frac{7373 \times 4.77}{51509 \times 0.2728} = 2.50 \text{ ppbv}$$

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

1902036

Instrument: ERGMS#1

Calibnration ID: 9020003

Printed: 2/13/2019 2:36:06PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1902036-CCV1	QC		1		9B12008	8L13002		
B9B1307-BLK1	QC		2			8L13002		
9020508-07	TO-15 2019	A	3			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020508-13	TO-15 2019	A	4			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020508-14	TO-15 2019	A	5			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
B9B1307-DUP1	QC		6			8L13002		
B9B1307-DUP2	QC		7			8L13002		
9020508-15	TO-15 2019	A	8			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020508-16	TO-15 2019	A	9			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020508-17	TO-15 2019	A	10			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020508-18	TO-15 2019	A	11			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020702-01	TO-15 2019	A	12			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020702-02	TO-15 2019	A	13			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020702-03	TO-15 2019	A	14			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020702-04	TO-15 2019	A	15			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
B9B1307-DUP3	QC		16			8L13002		
B9B1307-DUP4	QC		17			8L13002		
9020702-05	TO-15 2019	A	18			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020702-06	TO-15 2019	A	19			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020702-07	TO-15 2019	A	20			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020702-08	TO-15 2019	A	21			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9020702-09	TO-15 2019	A	22			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only

Samples Loaded By ✓ 2-13-19 Date Data Processed By ✓ 2-14-19 Date

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

1902036

ANALYSIS SEQUENCE

Instrument: ERGMS#1

Calibnration ID: 9020003

Printed: 2/13/2019 2:36:06PM

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

Samples Loaded By Date

Data Processed By Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19BM.s
Comment: ANALYZE 2/13/19,9020003 exp 5/13/19, L19BM
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19BM\
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	L19BM001	BFB	BFB
2)	Sample	2	L19BM002	9020003	1902036-CCV1
3)	Sample	3	L19BM003	9020003	SNMOC-CCV1
4)	Sample	4	L19BM004	9020003	B9B1307-BLK1
5)	Sample	5	L19BM005	9020003	9020508-07
6)	Sample	6	L19BM006	9020003	9020508-13
7)	Sample	7	L19BM007	9020003	9020508-14
8)	Sample	8	L19BM008	9020003	B9B1307-DUP1
9)	Sample	9	L19BM009	9020003	B9B1307-DUP2
10)	Sample	10	L19BM010	9020003	9020508-15
11)	Sample	11	L19BM011	9020003	9020508-16
12)	Sample	12	L19BM012	9020003	9020508-17
13)	Sample	13	L19BM013	9020003	9020508-18
14)	Sample	14	L19BM014	9020003	9020702-01
15)	Sample	15	L19BM015	9020003	9020702-02
16)	Sample	16	L19BM016	9020003	9020702-03
17)	Sample	17	L19BM017	9020003	9020702-04
18)	Sample	18	L19BM018	9020003	B9B1307-DUP3
19)	Sample	19	L19BM019	9020003	B9B1307-DUP4
20)	Sample	20	L19BM020	9020003	9020702-05
21)	Sample	21	L19BM021	9020003	9020702-06
22)	Sample	22	L19BM022	9020003	9020702-07
23)	Sample	23	L19BM023	9020003	9020702-08
24)	Sample	24	L19BM024	9020003	9020702-09
25)	Sample	100	OFF	FIDOFF	OFF

2-14-19

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19BM001	80 ML 8L13001	1
Sample	2	1902036-CCV1	9020003	L19BM002	80 ML 8L13001,9B12008	1
Sample	3	SNMOC-CCV1	9020003	L19BM003	80 ML 8L13001,9B13007	1
Sample	4	B9B1307-BLK1	9020003	L19BM004	80 ML 8L13001	1
Sample	5	9020508-07	9020003	L19BM005	TRIP BLANK 2/2/19	1
Sample	6	9020508-13	9020003	L19BM006	EPA WB WAREHOUSE C1 2/3/19	1
Sample	7	9020508-14	9020003	L19BM007	EPA WB WAREHOUSE C2 2/3/19	1
Sample	8	B9B1307-DUP1	9020003	L19BM008	EPA WB WAREHOUSE R1 2/3/19	1
Sample	9	B9B1307-DUP2	9020003	L19BM009	EPA WB WAREHOUSE R21 2/3/19	1
Sample	10	9020508-15	9020003	L19BM010	WILLOW POND PARK 2/3/19	1
Sample	11	9020508-16	9020003	L19BM011	GOWER ES 2/3/19	1
Sample	12	9020508-17	9020003	L19BM012	GOWER MS 2/3/19	1
Sample	13	9020508-18	9020003	L19BM013	HINSDALE S. HS 2/3/19	1
Sample	14	9020702-01	9020003	L19BM014	WATER TOWER 2/6/19	1
Sample	15	9020702-02	9020003	L19BM015	HINSDALE S. HS 2/6/19	1
Sample	16	9020702-03	9020003	L19BM016	WB VILLAGE HALL C1 2/6/19	1
Sample	17	9020702-04	9020003	L19BM017	WB VILLAGE HALL C2 2/6/19	1
Sample	18	B9B1307-DUP3	9020003	L19BM018	WB VILLAGE HALL R1 2/6/19	1
Sample	19	B9B1307-DUP4	9020003	L19BM019	WB VILLAGE HALL R2 2/6/19	1
Sample	20	9020702-05	9020003	L19BM020	EPA WB WAREHOUSE 2/6/19	1
Sample	21	9020702-06	9020003	L19BM021	GOWER MS 2/6/19	1
Sample	22	9020702-07	9020003	L19BM022	WILLOW POND PARK 2/6/19	1
Sample	23	9020702-08	9020003	L19BM023	GROWER ES 2/6/19	1
Sample	24	9020702-09	9020003	L19BM024	WEST NEIGHBORHOOD 2/6/19	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

r 2-14-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19BM.SEQ
Date: 02-14-2019
Time: 08:20:36
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
1902036-CCV1	2	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
SNMOC-CCV1	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B1307-BLK1	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020508-07	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020508-13	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020508-14	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B1307-DUP1	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B1307-DUP2	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020508-15	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020508-16	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020508-17	1	8	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020508-18	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020702-01	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020702-02	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020702-03	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020702-04	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B1307-DUP3	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B1307-DUP4	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020702-05	1	14	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020702-06	1	15	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020702-07	1	16	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020702-08	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020702-09	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00

2-14-19

Compounds other than ethylene oxide were not quantitated.

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

2/14/2019 9:54:27 AM
Leak Check for C:\Smart\L19BM.SEQ
Report File: C:\Smart\L19BM.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	1.2	0.00
1	4	---	---	1.2	1.3	0.10
1	5	---	---	1.2	1.2	0.00
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.1	1.2	0.10
1	8	---	---	1.1	1.2	0.10
1	9	---	---	1.1	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
1	14	---	---	1.2	1.2	0.00
1	15	---	---	1.2	1.3	0.10
1	16	---	---	1.2	1.3	0.10
1	1	---	---	1.2	1.2	0.00
1	2	---	---	1.1	1.2	0.10

r 2-14-19

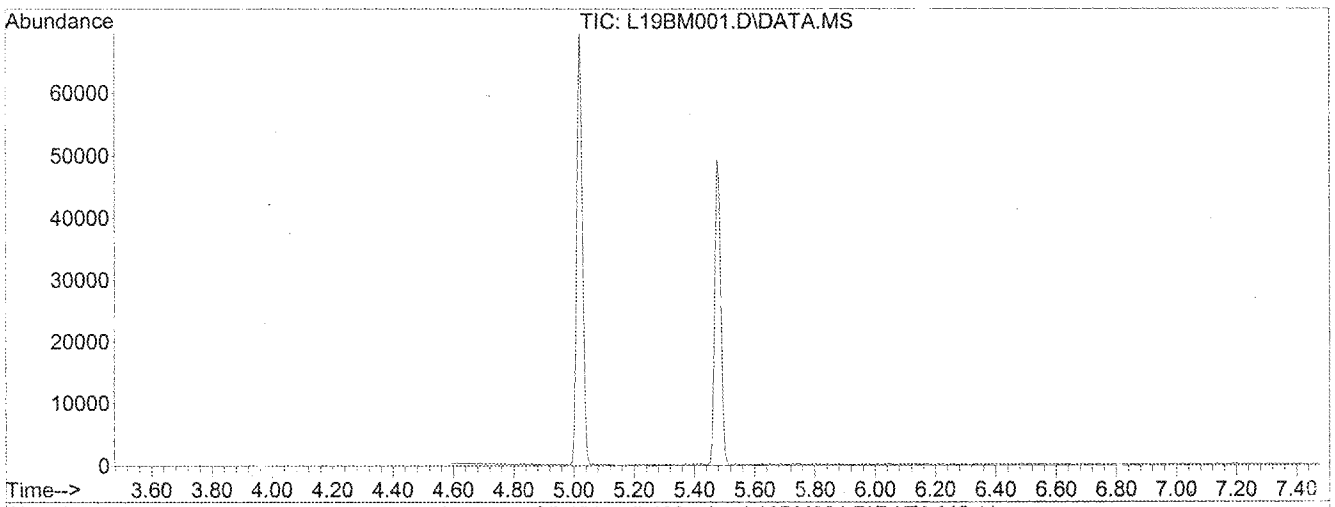
Compounds other than ethylene oxide were not quantitated.

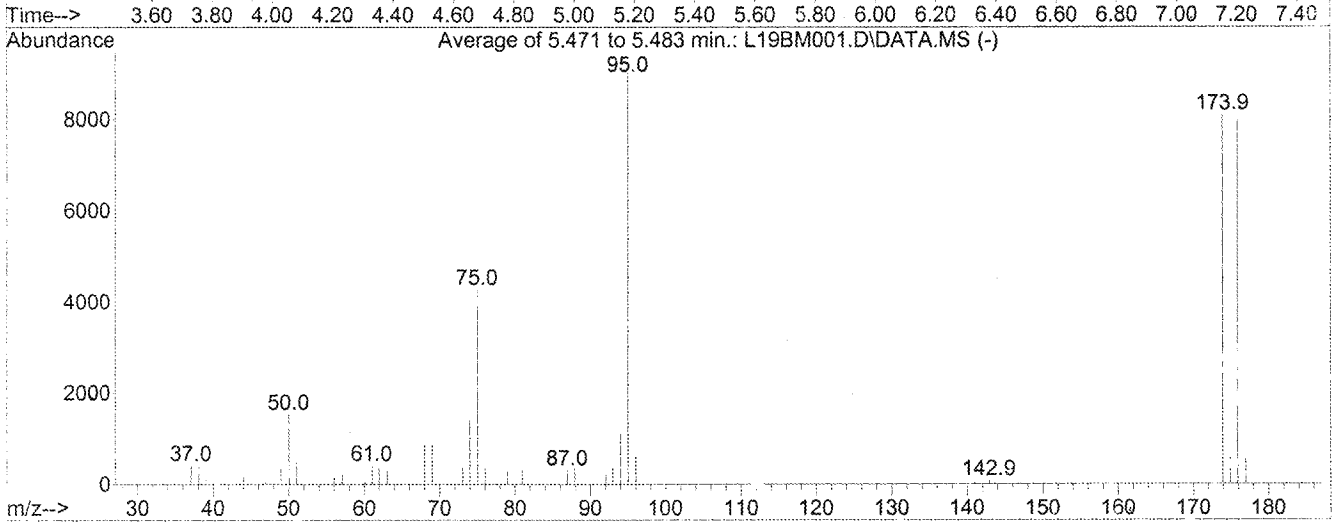
BFB

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM001.D
Acq On : 13 Feb 2019 7:55 am
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

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	16.9	1525	PASS
75	95	30	66	47.3	4264	PASS
95	95	100	100	100.0	9016	PASS
96	95	5	9	6.7	605	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	89.7	8086	PASS
175	174	4	9	7.3	592	PASS
176	174	93	101	98.6	7974	PASS
177	176	5	9	6.9	551	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19BM\L19BM001.D
Tune Time : 13 Feb 2019 7:55 am

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

File	Sample	Internal Standard Responses		
L19BM002.D	1902036-CCV1	51509	125005	90164
L19BM004.D	B9B1307-BLK1	52877	133514	94697
L19BM005.D	9020508-07	46150	113881	81881
L19BM006.D	9020508-13	50977	128269	95902
L19BM007.D	9020508-14	44049	106224	76824
L19BM008.D	B9B1307-DUP1	47121	116701	84500
L19BM009.D	B9B1307-DUP2	46113	112791	81496
L19BM010.D	9020508-15	47038	119396	85559
L19BM011.D	9020508-16	44908	111601	82186
L19BM012.D	9020508-17	46096	113659	83582
L19BM013.D	9020508-18	46110	112911	83398
L19BM014.D	9020702-01	47645	122551	87174
L19BM015.D	9020702-02	47065	118612	85300
L19BM016.D	9020702-03	45497	111971	81759
L19BM017.D	9020702-04	47395	118988	87376
L19BM018.D	B9B1307-DUP3	46762	117791	84311
L19BM019.D	B9B1307-DUP4	44557	109155	78568
L19BM020.D	9020702-05	46654	118276	85230
L19BM021.D	9020702-06	45375	109633	78800
L19BM022.D	9020702-07	44101	107845	78331
L19BM023.D	9020702-08	48417	124309	90428
L19BM024.D	9020702-09	46967	120731	85098

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

2-14-19

Compounds other than ethylene oxide were not quantitated.

C:\MSDCHEM\1\DATA

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
	2/14/2019 7:44	L19BM024.D	46967	19.99	120731	23.15	85098	30.10
Format 1 (Yes/No)								
Format 1 Title								
Format 2 (Yes/No)			YES	YES	YES	YES	YES	YES
Format 2 Title								
Show X Axis Title			YES	YES	YES	YES	YES	YES
Show Y Axis Title								
Lines To Chart								

Start of Data	Format 1 X-axis	Format 2 X-axis	IS-Hexane-d14	% Rec	RT	DEV (min)	IS-Difluorobenzene	% Rec	RT	DEV (min)	IS-Chlorobenzene-d5	% Rec	RT	DEV (min)
		IS AVG / AVG RT	**48611**		**19.99**		**118146**		**23.15**		**86564**		**30.1**	
	2/13/2019 8:45	L19BM002.D	51509	**106**	19.99	**0**	125005	**106**	23.15	**0**	90164	**104**	30.11	**0.01**
	2/13/2019 11:22	L19BM004.D	52877	**109**	19.99	**0**	133514	**113**	23.15	**0**	94697	**109**	30.11	**0.01**
	2/13/2019 12:41	L19BM005.D	46150	**95**	19.99	**0**	113881	**96**	23.15	**0**	81881	**95**	30.10	**0**
	2/13/2019 13:42	L19BM006.D	50977	**105**	19.99	**0**	128269	**109**	23.15	**0**	95902	**111**	30.12	**0.02**
	2/13/2019 14:34	L19BM007.D	44049	**91**	19.99	**0**	106224	**90**	23.15	**0**	76824	**89**	30.12	**0.02**
	2/13/2019 15:36	L19BM008.D	47121	**97**	19.99	**0**	116701	**99**	23.15	**0**	84500	**98**	30.12	**0.02**
	2/13/2019 16:38	L19BM009.D	46113	**95**	19.99	**0**	112791	**95**	23.15	**0**	81496	**94**	30.11	**0.01**
	2/13/2019 17:38	L19BM010.D	47038	**97**	19.99	**0**	119396	**101**	23.15	**0**	85559	**99**	30.11	**0.01**
	2/13/2019 18:38	L19BM011.D	44908	**92**	19.99	**0**	111601	**94**	23.15	**0**	82186	**95**	30.12	**0.02**
	2/13/2019 19:40	L19BM012.D	46096	**95**	19.99	**0**	113659	**96**	23.15	**0**	83582	**97**	30.12	**0.02**
	2/13/2019 20:42	L19BM013.D	46110	**95**	19.99	**0**	112911	**96**	23.15	**0**	83398	**96**	30.11	**0.01**
	2/13/2019 21:42	L19BM014.D	47645	**98**	19.99	**0**	122551	**104**	23.15	**0**	87174	**101**	30.10	**0**
	2/13/2019 22:42	L19BM015.D	47065	**97**	19.99	**0**	118612	**100**	23.15	**0**	85309	**99**	30.10	**0**
	2/13/2019 23:44	L19BM016.D	45497	**94**	19.99	**0**	111971	**95**	23.15	**0**	81759	**94**	30.11	**0.01**
	2/14/2019 12:44	L19BM017.D	47395	**97**	19.99	**0**	118988	**101**	23.15	**0**	87376	**101**	30.10	**0**
	2/14/2019 1:44	L19BM018.D	46762	**96**	19.99	**0**	117791	**100**	23.15	**0**	84311	**97**	30.10	**0**
	2/14/2019 2:46	L19BM019.D	44557	**92**	19.99	**0**	109155	**92**	23.15	**0**	78568	**91**	30.10	**0**
	2/14/2019 3:46	L19BM020.D	46654	**96**	19.99	**0**	118276	**100**	23.15	**0**	85230	**98**	30.09	**-0.01**
	2/14/2019 4:47	L19BM021.D	45375	**93**	19.99	**0**	109633	**93**	23.15	**0**	78800	**91**	30.09	**-0.01**
	2/14/2019 5:49	L19BM022.D	44101	**91**	19.99	**0**	107845	**91**	23.15	**0**	78331	**90**	30.09	**-0.01**
	2/14/2019 6:49	L19BM023.D	48417	**100**	19.99	**0**	124309	**105**	23.15	**0**	90428	**104**	30.10	**0**
	2/14/2019 7:44	L19BM024.D	46967	**97**	19.99	**0**	120731	**102**	23.15	**0**	85098	**98**	30.10	**0**

2-14-19

2/15/19

2/15/2019 8:45 AM

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B12008

Description:	2.50 ppbv ICV/CCV	Expires:	03/14/19
Standard Type:	Calibration Stan	Prepared:	02/12/19
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	02/12/19 08:47 by MH

canister# 3224

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: 2-14-19

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B12008

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 S	11/12/18	** Vendor **	11/12/19	11/20/18 12:14 by MH	15

Reviewed By _____ Date 2-14-19

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM002.D
Acq On : 13 Feb 2019 8:45 am
Operator : MAH
Sample : 1902036-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

V 2-14-19

Quant Time: Feb 14 08:24:23 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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISS	IS-Hexane-d14	1.000	1.000	0.0	100	0.00
2	CT	Acetylene	0.391	0.391	0.0	100	0.00
3	CT	Propylene	0.487	0.526	-8.0	100	0.00
4	CT	Dichlorodifluoromethane	2.300	2.361	-2.7	100	0.00
5	CT	Chloromethane	0.592	0.579	2.2	100	0.00
6	CT	Dichlorotetrafluoroethane	2.013	2.253	-11.9	100	0.00
7	CT	Vinyl Chloride	0.662	0.660	0.3	100	0.00
8	CT	1,3-Butadiene	0.450	0.452	-0.4	100	0.00
9	CT	Ethylene oxide	0.273	0.273	0.0	100	0.00
10	CT	Bromomethane	0.627	0.624	0.5	100	0.00
11	CT	Chloroethane	0.263	0.264	-0.4	100	0.00
12	CT	Acetonitrile	0.414	0.388	6.3	100	0.00
13	CT	Acrolein	0.209	0.191	8.6	100	0.00
14	CT	Trichlorofluoromethane	1.944	1.695	12.8	100	0.00
15	CT	Acrylonitrile	0.330	0.320	3.0	100	0.00
16	CT	1,1-Dichloroethene	0.843	0.900	-6.8	100	0.00
17	CT	Methylene Chloride	0.557	0.586	-5.2	100	0.00
18	CT	Carbon Disulfide	1.716	1.695	1.2	100	0.00
19	CT	Trichlorotrifluoroethane	1.307	1.355	-3.7	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.467	0.471	-0.9	100	0.00
21	CT	1,1-Dichloroethane	0.786	0.799	-1.7	100	0.00
22	CT	Methyl tert-Butyl Ether	1.318	1.327	-0.7	100	0.00
23	CT	Chloroprene	0.639	0.654	-2.3	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.620	0.614	1.0	100	0.00
25	CT	Bromochloromethane	0.335	0.325	3.0	100	0.00
26	CT	Chloroform	0.912	0.944	-3.5	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.260	1.306	-3.7	100	0.00
28	CT	1,2-Dichloroethane	0.560	0.574	-2.5	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	0.368	0.5	100	0.00
31	CT	Benzene	0.529	0.557	-5.3	100	0.00
32	CT	Carbon Tetrachloride	0.396	0.434	-9.6	100	0.00
33	CT	tert-Amyl Methyl Ether	0.449	0.457	-1.8	100	0.00
34	CT	1,2-Dichloropropane	0.201	0.203	-1.0	100	0.00
35	CT	Ethyl Acrylate	0.171	0.186	-8.8	100	0.00
36	CT	Bromodichloromethane	0.356	0.316	11.2	100	0.00
37	CT	Trichloroethylene	0.252	0.235	6.7	100	0.00
38	CT	Methyl Methacrylate	0.513	0.540	-5.3	100	0.00
39	CT	cis-1,3-Dichloropropene	0.175	0.191	-9.1	100	0.00
40	CT	Methyl Isobutyl Ketone	0.377	0.384	-1.9	100	0.00
41	CT	trans-1,3-Dichloropropene	0.117	0.122	-4.3	100	0.00
42	CT	1,1,2-Trichloroethane	0.184	0.186	-1.1	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.779	0.832	-6.8	100	0.00
45	CT	Dibromochloromethane	1.529	1.468	4.0	100	0.00
46	CT	1,2-Dibromoethane	0.292	0.299	-2.4	100	0.00
47	CT	n-Octane	0.469	0.488	-4.1	100	0.00
48	CT	Tetrachloroethylene	0.375	0.387	-3.2	100	0.00

Compounds other than ethylene oxide were not quantitated.

Quantitation Report

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM002.D
Acq On : 13 Feb 2019 8:45 am
Operator : MAH
Sample : 1902036-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 14 08:24:23 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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	CT	Chlorobenzene	0.497	0.506	-1.8	100	0.00
50	CT	Ethylbenzene	0.819	0.875	-6.8	100	0.00
51	CT	m,p-Xylene	0.691	0.712	-3.0	100	0.00
52	CT	Bromoform	0.296	0.288	2.7	100	0.00
53	CT	Styrene	0.392	0.406	-3.6	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.446	0.454	-1.8	100	0.00
55	CT	o-Xylene	0.682	0.743	-8.9	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.732	0.754	-3.0	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.633	0.653	-3.2	100	0.00
58	CT	m-Dichlorobenzene	0.333	0.306	8.1	100	0.00
59	CT	p-Dichlorobenzene	0.271	0.262	3.3	100	0.00
60	CT	o-Dichlorobenzene	0.305	0.299	2.0	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.103	0.128	-24.3	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.264	0.310	-17.4	100	0.00

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM002.D
Acq On : 13 Feb 2019 8:45 am
Operator : MAH
Sample : 1902036-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 14 08:24:23 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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	51509	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	125005	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	90164	4.7400	ppbv	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.405	26	10126	2.4006	ppbv	100
3) Propylene	7.823	41	13925	2.6464	ppbv	100
4) Dichlorodifluoromethane	8.685	85	60683	2.4429	ppbv	100
5) Chloromethane	9.740	50	15517	2.4261	ppbv	99
6) Dichlorotetrafluoroethane	10.864	85	59363	2.7303	ppbv	99
7) Vinyl Chloride	11.102	62	17823	2.4914	ppbv	100
8) 1,3-Butadiene	11.783	54	12047	2.4772	ppbv	100
9) Ethylene oxide	12.378	29	7373	2.5027	ppbv	97
10) Bromomethane	12.588	94	16856	2.4900	ppbv	99
11) Chloroethane	13.280	64	7135	2.5106	ppbv	100
12) Acetonitrile	14.356	41	10609	2.3732	ppbv	99
13) Acrolein	14.634	56	4979	2.2104	ppbv	99
14) Trichlorofluoromethane	15.191	101	45772	2.1807	ppbv	100
15) Acrylonitrile	15.933	53	8645	2.4237	ppbv	99
16) 1,1-Dichloroethene	16.420	61	23720	2.6048	ppbv	99
17) Methylene Chloride	16.745	49	15696	2.6089	ppbv	99
18) Carbon Disulfide	16.930	76	45406	2.4504	ppbv	100
19) Trichlorotrifluoroethane	17.278	101	35691	2.5284	ppbv	100
20) trans-1,2-Dichloroethy...	18.336	96	12502	2.4769	ppbv	99
21) 1,1-Dichloroethane	18.630	63	20967	2.4712	ppbv	99
22) Methyl tert-Butyl Ether	18.789	73	36386	2.5570	ppbv	100
23) Chloroprene	19.537	53	17507	2.5367	ppbv	100
24) cis-1,2-Dichloroethylene	19.945	61	16588	2.4763	ppbv	100
25) Bromochloromethane	20.172	128	8662	2.3922	ppbv	100
26) Chloroform	20.399	83	25493	2.5896	ppbv	99
27) Ethyl tert-Butyl Ether	21.182	59	36238	2.6627	ppbv	100
28) 1,2-Dichloroethane	21.476	62	15428	2.5533	ppbv	100
30) 1,1,1-Trichloroethane	21.867	97	22797	2.4602	ppbv	99
31) Benzene	22.533	78	35014	2.6423	ppbv	100
32) Carbon Tetrachloride	22.768	117	27414	2.7622	ppbv	100
33) tert-Amyl Methyl Ether	23.499	73	29746	2.6433	ppbv	100
34) 1,2-Dichloropropane	23.788	63	12846	2.5499	ppbv	98
35) Ethyl Acrylate	23.870	55	11833	2.7647	ppbv	100
36) Bromodichloromethane	24.076	83	20258	2.2723	ppbv	100
37) Trichloroethylene	24.179	130	14812	2.3465	ppbv	100
38) Methyl Methacrylate	24.530	41	34349	2.6740	ppbv	99
39) cis-1,3-Dichloropropene	25.528	75	12135	2.7739	ppbv	98
40) Methyl Isobutyl Ketone	25.605	43	24318	2.5751	ppbv	100
41) trans-1,3-Dichloropropene	26.367	75	7490	2.5555	ppbv	99
42) 1,1,2-Trichloroethane	26.615	97	11552	2.5062	ppbv	100
44) Toluene	27.092	91	38595	2.6050	ppbv	100
45) Dibromochloromethane	27.732	129	70909	2.4380	ppbv	100
46) 1,2-Dibromoethane	28.153	107	14207	2.5572	ppbv	99
47) n-Octane	28.873	43	23400	2.6221	ppbv	100
48) Tetrachloroethylene	28.995	166	18308	2.5674	ppbv	99
49) Chlorobenzene	30.190	112	23688	2.5050	ppbv	100
50) Ethylbenzene	30.915	91	41588	2.6698	ppbv	100

Compounds other than ethylene oxide were not quantitated

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM002.D
Acq On : 13 Feb 2019 8:45 am
Operator : MAH
Sample : 1902036-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 14 08:24:23 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

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.221	91	67471	5.1355 ppbv	100
52) Bromoform	31.278	173	13892	2.4703 ppbv	100
53) Styrene	31.908	104	19288	2.5894 ppbv #	100
54) 1,1,2,2-Tetrachloroethane	32.080	83	21835	2.5750 ppbv	100
55) o-Xylene	32.118	91	34477	2.6590 ppbv	100
56) 1,3,5-Trimethylbenzene	34.935	105	36130	2.5937 ppbv	99
57) 1,2,4-Trimethylbenzene	35.844	105	29578	2.4551 ppbv	100
58) m-Dichlorobenzene	36.129	146	13956	2.2033 ppbv	100
59) p-Dichlorobenzene	36.289	146	13024	2.5240 ppbv	100
60) o-Dichlorobenzene	37.109	146	14229	2.4561 ppbv	100
61) 1,2,4-Trichlorobenzene	40.839	180	6034	3.0709 ppbv	99
62) Hexachloro-1,3-butadiene	41.634	225	14735	2.9364 ppbv	100

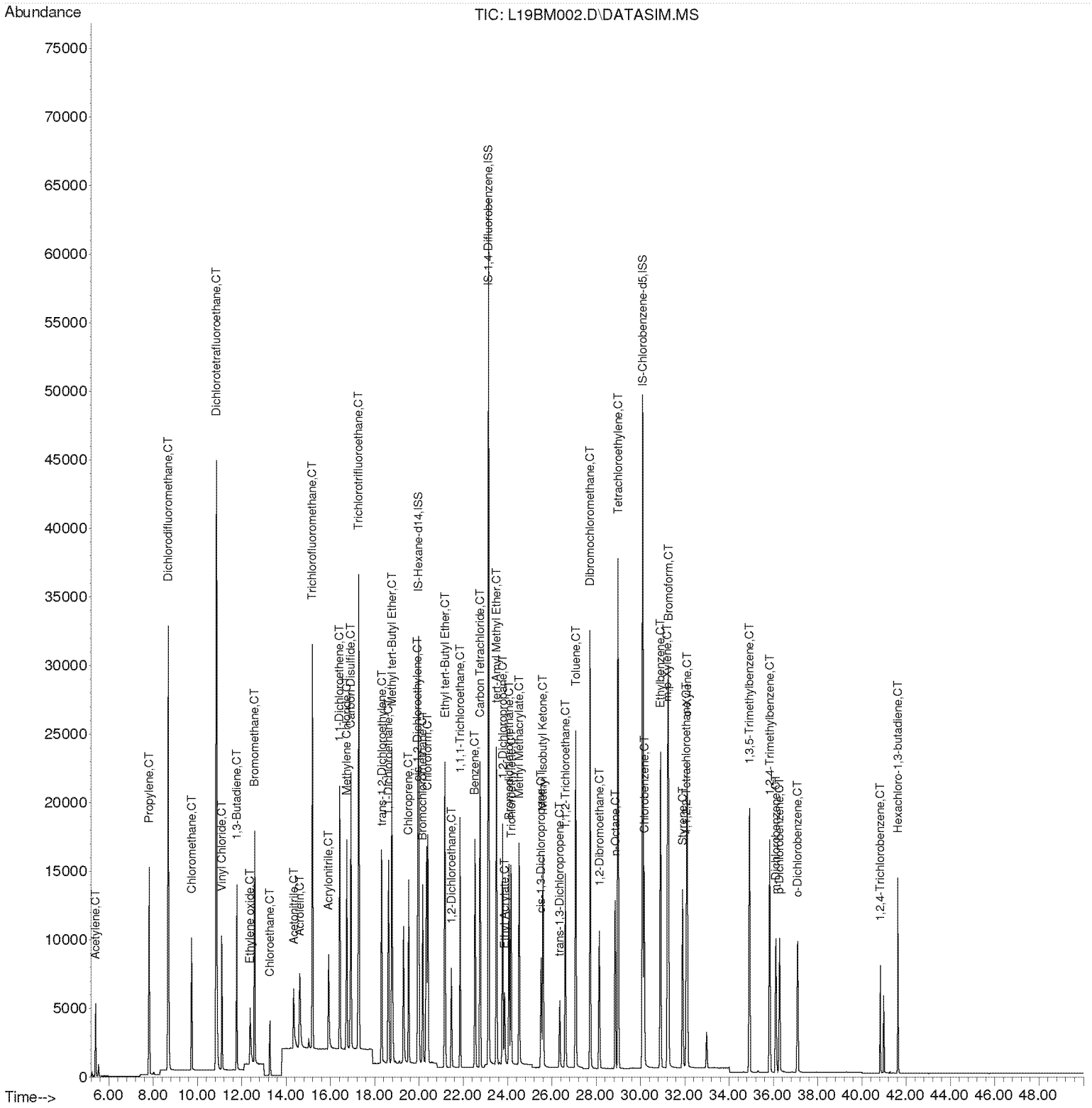
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

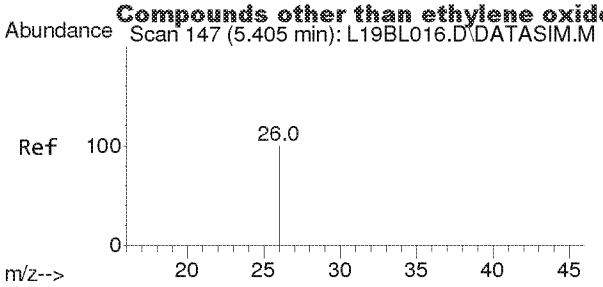
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM002.D
Acq On : 13 Feb 2019 8:45 am
Operator : MAH
Sample : 1902036-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 14 08:24:23 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

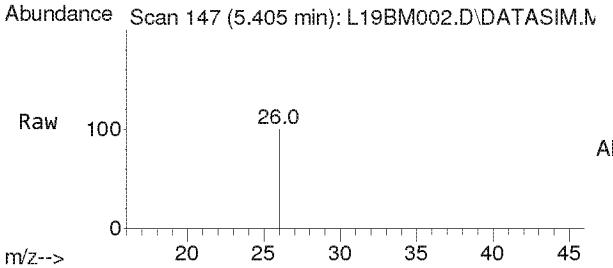


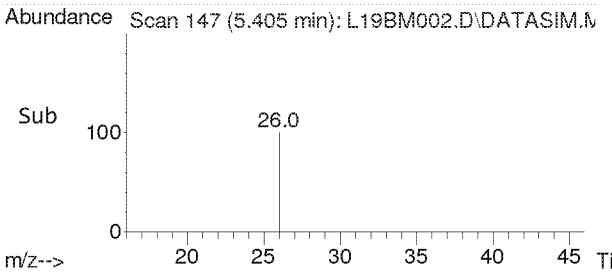
Compounds other than ethylene oxide were not quantitated.

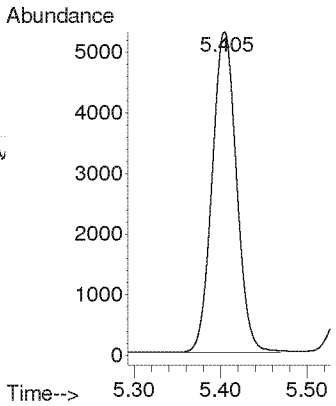


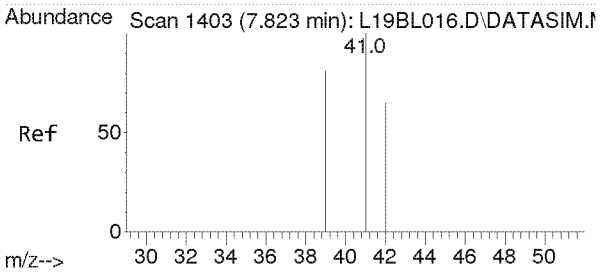
#2
Acetylene
Concen: 2.401 ppbv
RT: 5.405 min Scan# 147
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 26 Resp: 10126





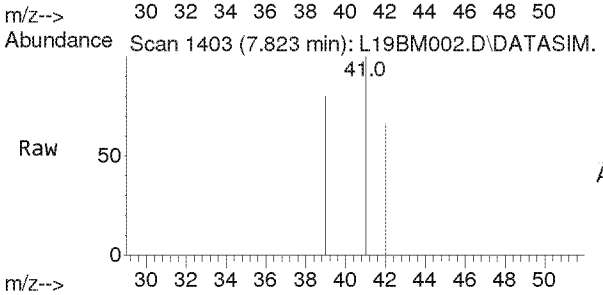


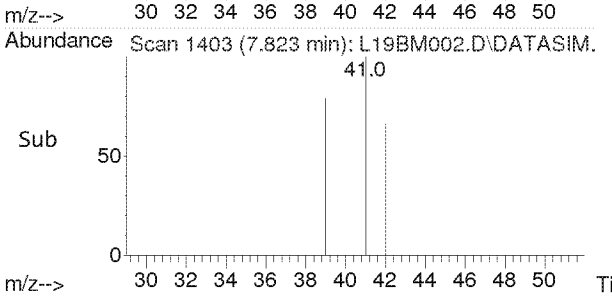


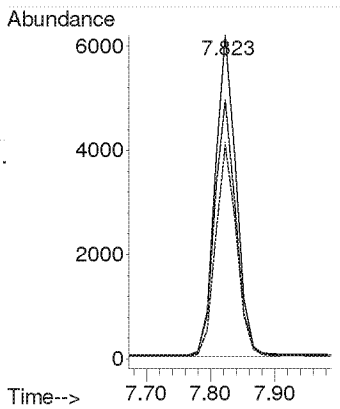
#3
Propylene
Concen: 2.646 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 41 Resp: 13925

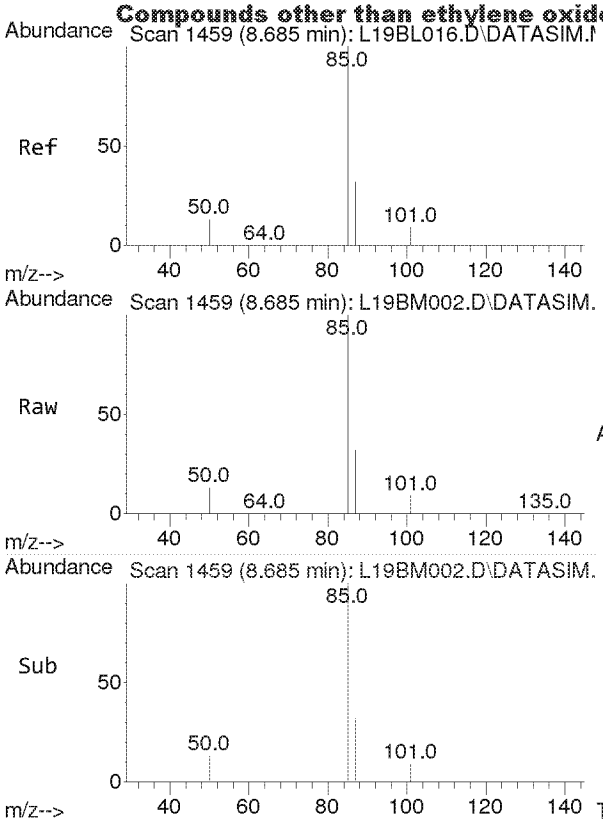
Ion	Ratio	Lower	Upper
41	100		
39	80.1	64.2	96.2
42	66.0	52.6	79.0







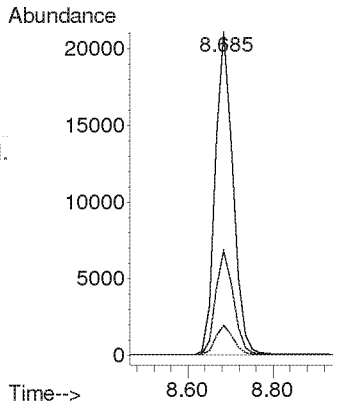
Compounds other than ethylene oxide were not quantitated.

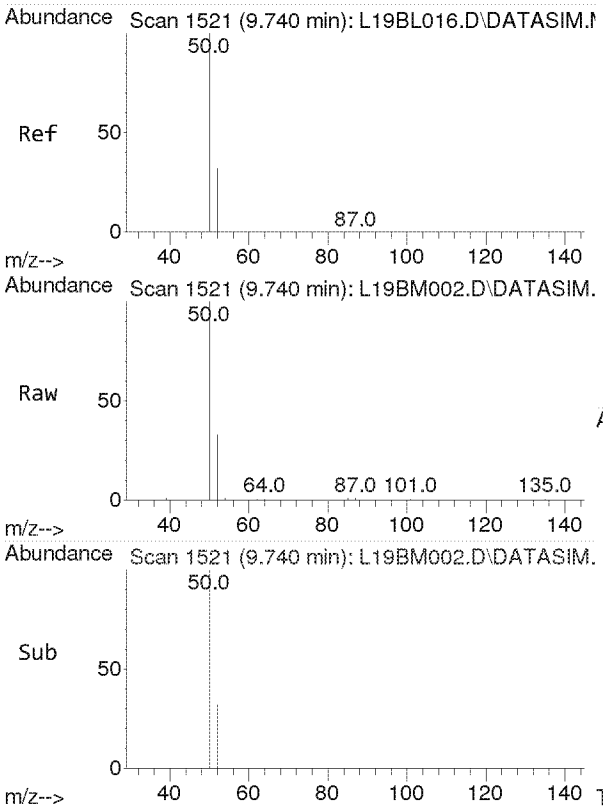


#4
Dichlorodifluoromethane
Concen: 2.443 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 85 Resp: 60683

Ion	Ratio	Lower	Upper
85	100		
87	32.3	26.0	39.0
101	9.0	7.3	10.9

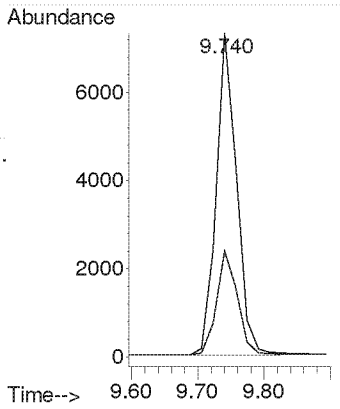




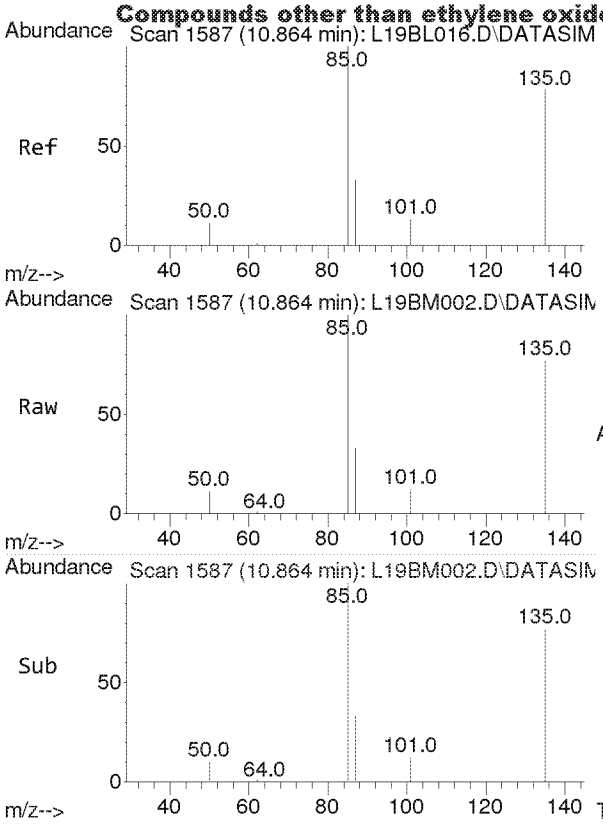
#5
Chloromethane
Concen: 2.426 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 50 Resp: 15517

Ion	Ratio	Lower	Upper
50	100		
52	32.9	26.1	39.1



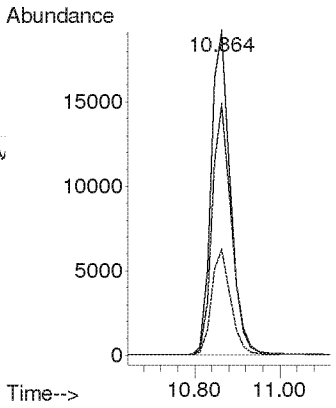
Compounds other than ethylene oxide were not quantitated.

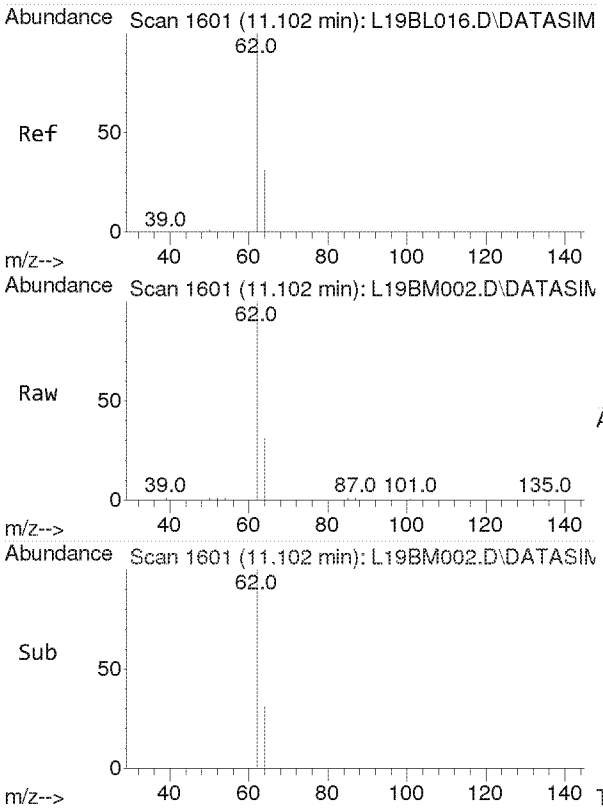


#6
Dichlorotetrafluoroethane
Concen: 2.730 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 85 Resp: 59363

Ion	Ratio	Lower	Upper
85	100		
135	78.4	63.2	94.8
87	32.3	25.9	38.9

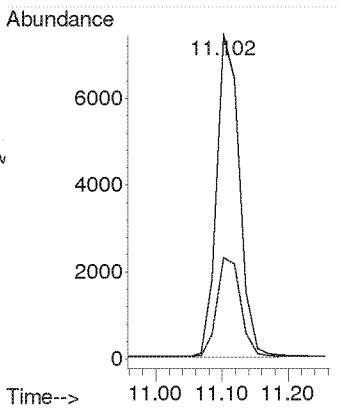




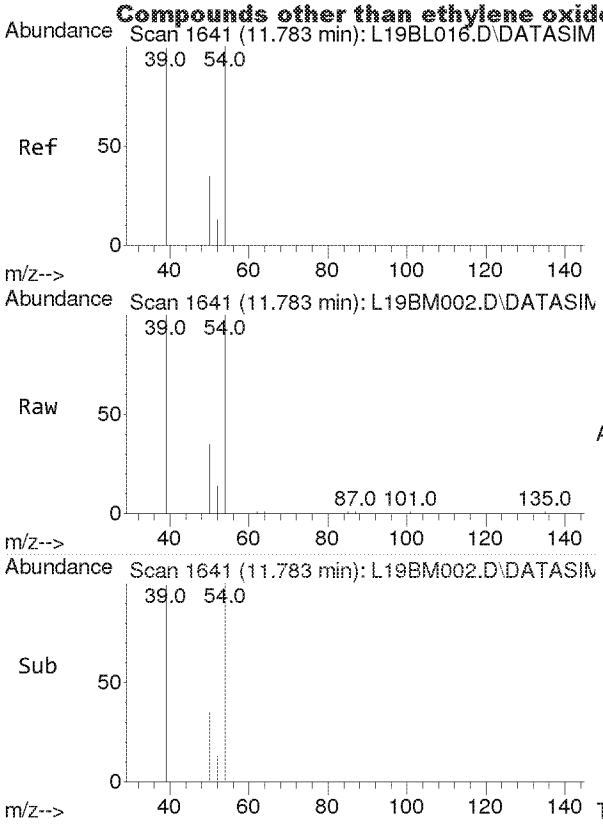
#7
Vinyl Chloride
Concen: 2.491 ppbv
RT: 11.102 min Scan# 1601
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 62 Resp: 17823

Ion	Ratio	Lower	Upper
62	100		
64	31.9	25.4	38.0



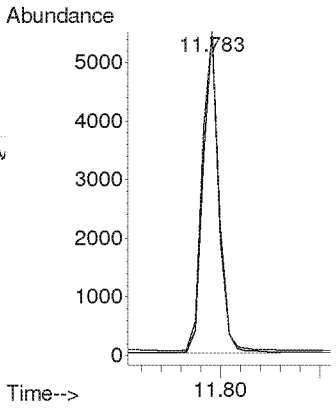
Compounds other than ethylene oxide were not quantitated.

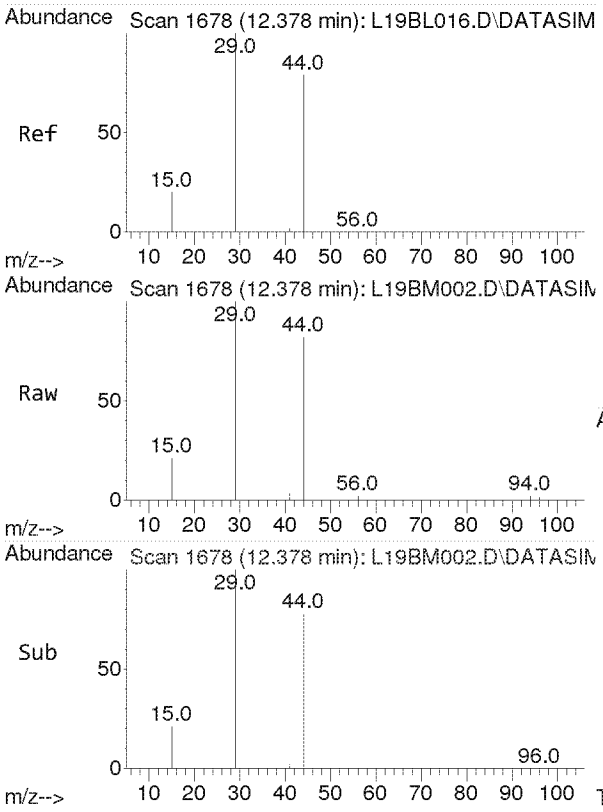


#8
1,3-Butadiene
Concen: 2.477 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 54 Resp: 12047

Ion	Ratio	Lower	Upper
54	100		
39	102.4	81.6	122.4

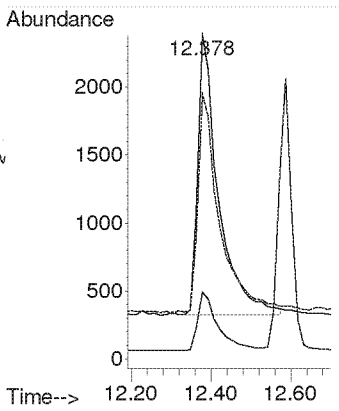




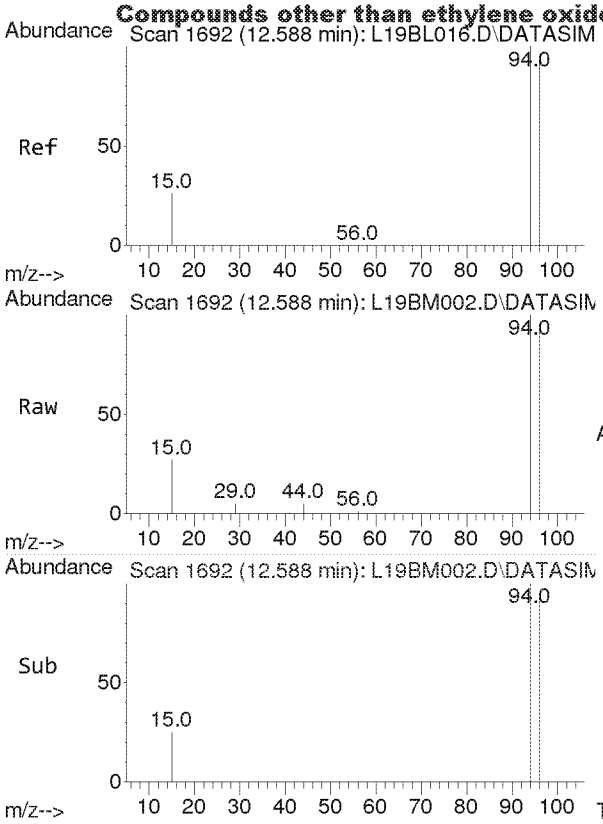
#9
Ethylene oxide
Concen: 2.503 ppbv
RT: 12.378 min Scan# 1678
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 29 Resp: 7373

Ion	Ratio	Lower	Upper
29	100		
15	20.8	16.0	24.0
44	84.3	65.4	98.2



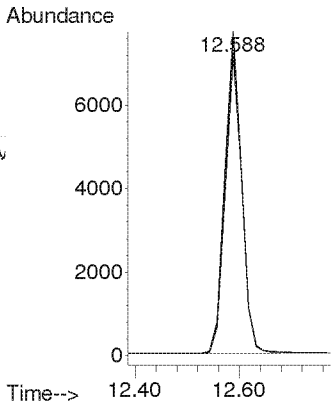
Compounds other than ethylene oxide were not quantitated.

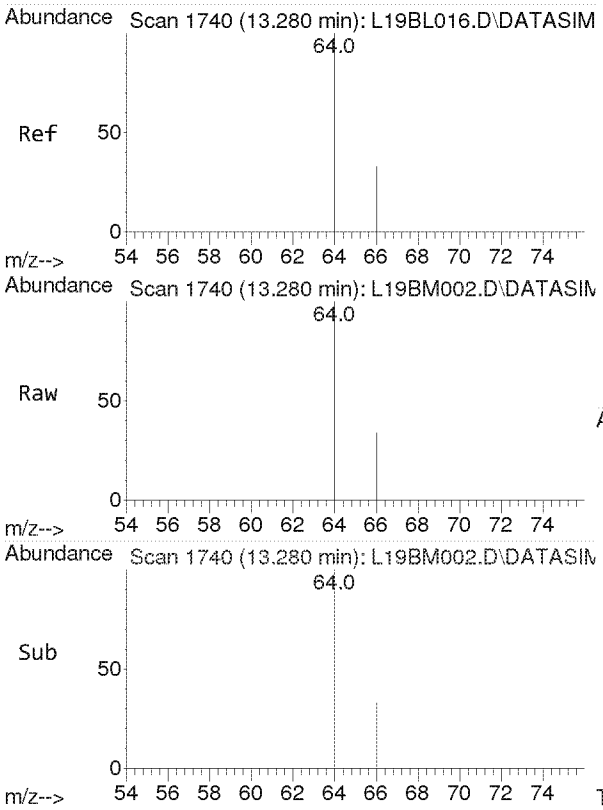


#10
Bromomethane
Concen: 2.490 ppbv
RT: 12.588 min Scan# 1692
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 94 Resp: 16856

Ion	Ratio	Lower	Upper
94	100		
96	93.9	75.5	113.3

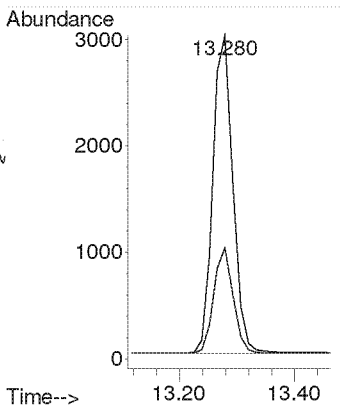




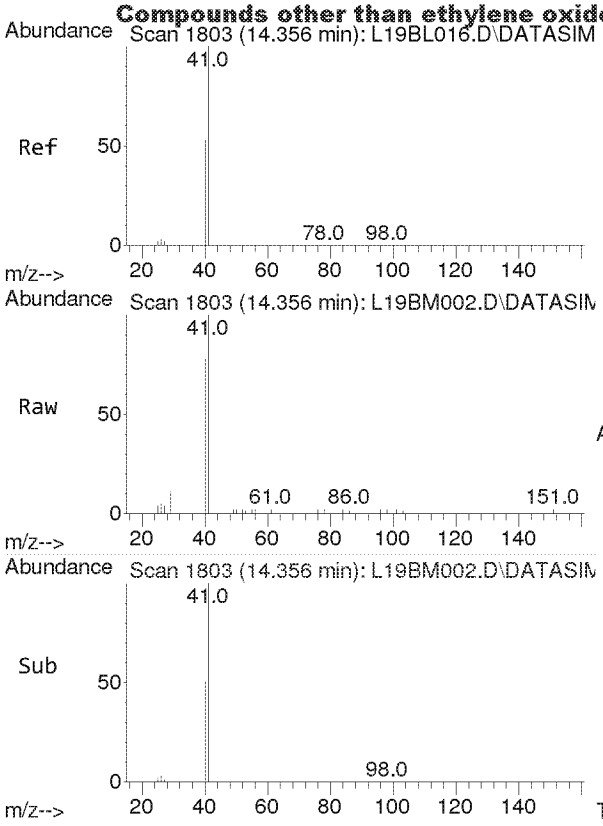
#11
Chloroethane
Concen: 2.511 ppbv
RT: 13.280 min Scan# 1740
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 64 Resp: 7135

Ion	Ratio	Lower	Upper
64	100		
66	32.1	25.8	38.6



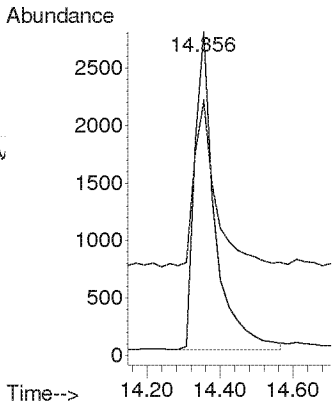
Compounds other than ethylene oxide were not quantitated.

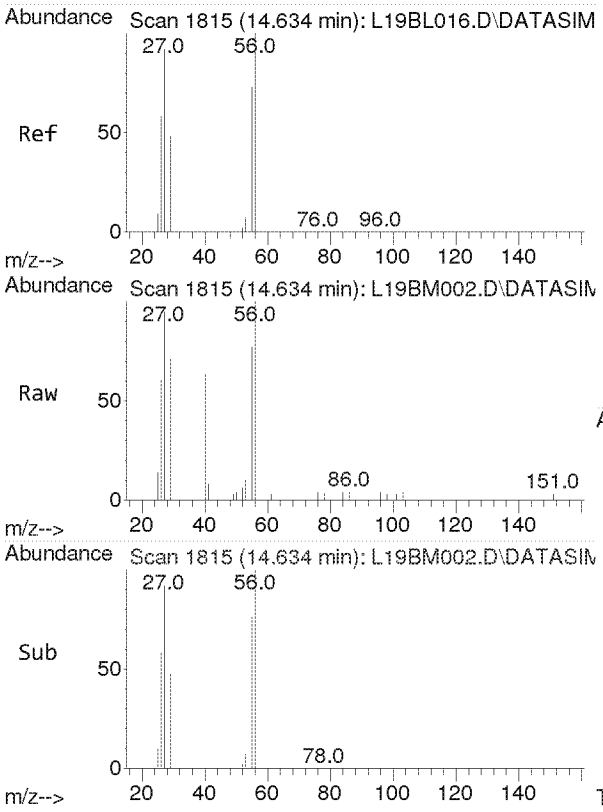


#12
Acetonitrile
Concen: 2.373 ppbv
RT: 14.356 min Scan# 1803
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 41 Resp: 10609

Ion	Ratio	Lower	Upper
41	100		
40	53.2	42.2	63.4

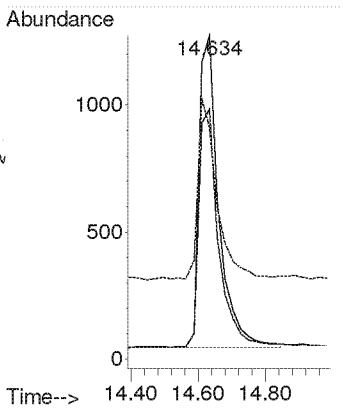




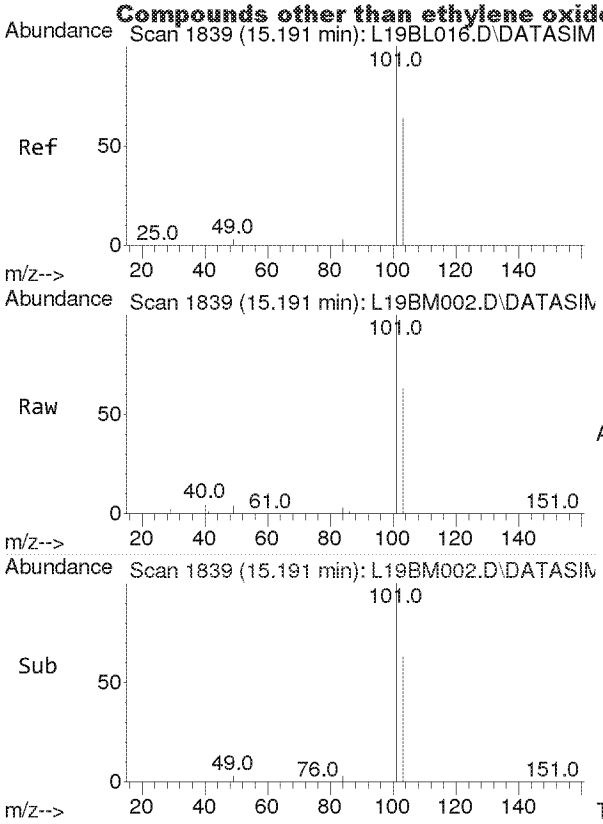
#13
Acrolein
Concen: 2.210 ppbv
RT: 14.634 min Scan# 1815
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 56 Resp: 4979

Ion	Ratio	Lower	Upper
56	100		
55	76.9	60.8	91.2
29	54.6	43.8	65.6



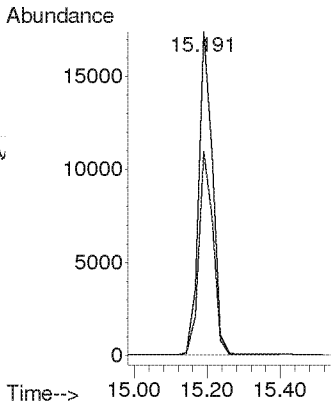
Compounds other than ethylene oxide were not quantitated.

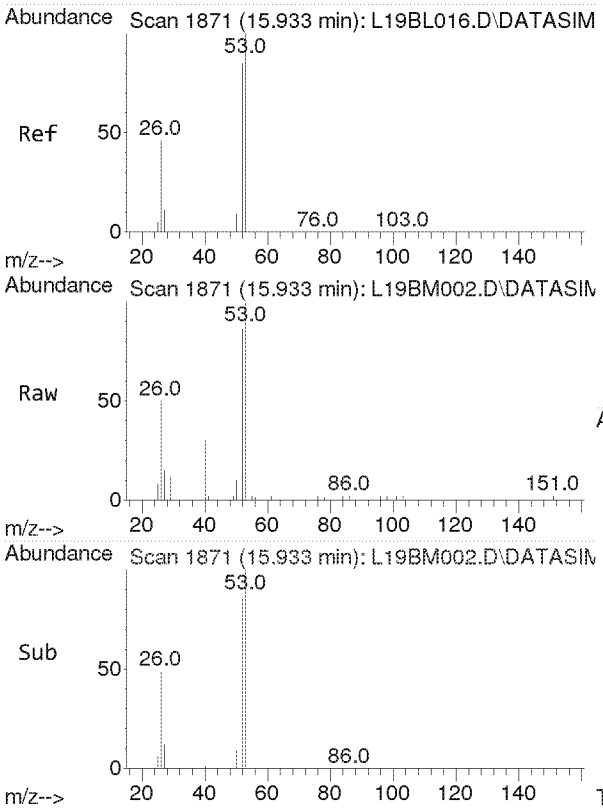


#14
Trichlorofluoromethane
Concen: 2.181 ppbv
RT: 15.191 min Scan# 1839
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:101 Resp: 45772

Ion	Ratio	Lower	Upper
101	100		
103	64.4	51.7	77.5

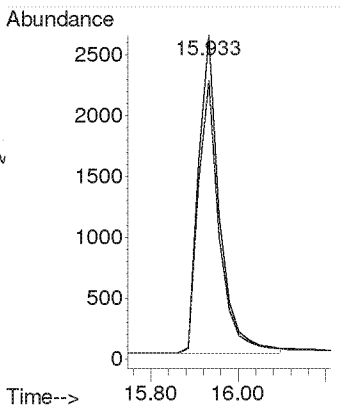




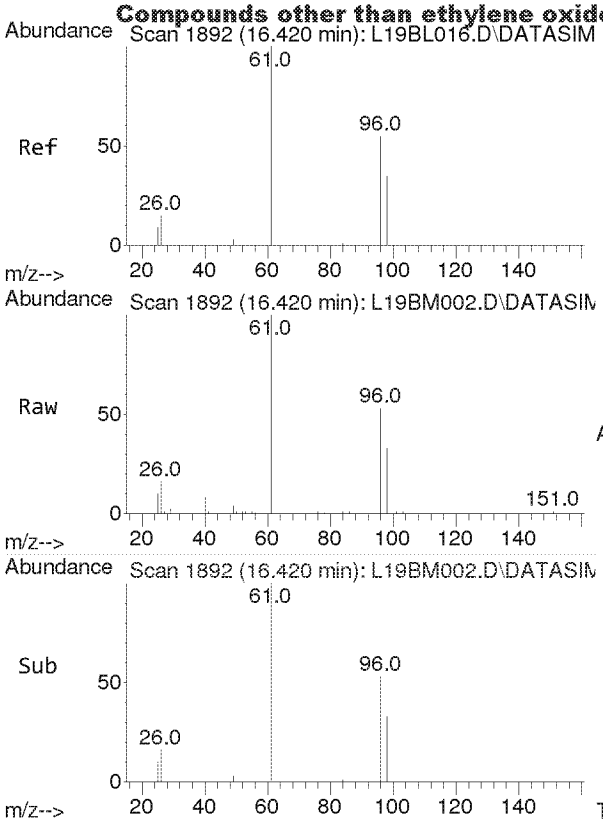
#15
Acrylonitrile
Concen: 2.424 ppbv
RT: 15.933 min Scan# 1871
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 53 Resp: 8645

Ion	Ratio	Lower	Upper
53	100		
52	86.4	69.5	104.3



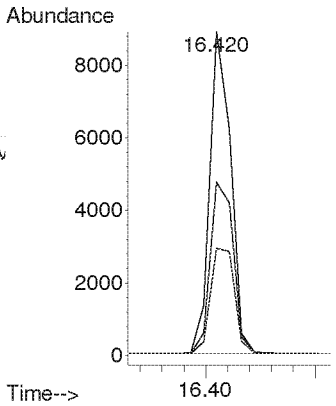
Compounds other than ethylene oxide were not quantitated.

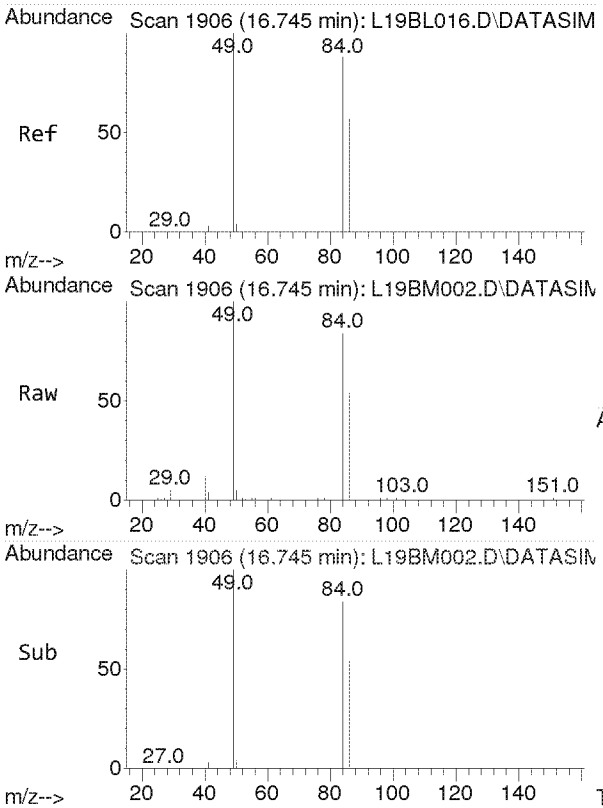


#16
1,1-Dichloroethene
Concen: 2.605 ppbv
RT: 16.420 min Scan# 1892
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 61 Resp: 23720

Ion	Ratio	Lower	Upper
61	100		
96	58.5	47.3	70.9
98	37.7	30.6	45.8

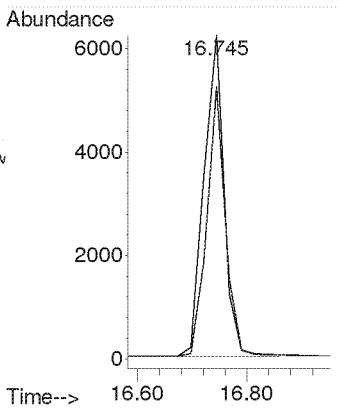




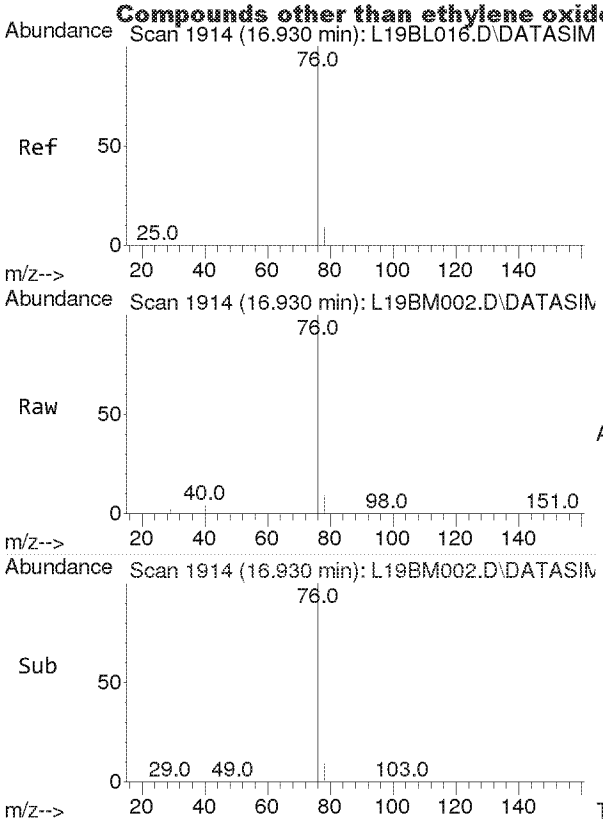
#17
Methylene Chloride
Concen: 2.609 ppbv
RT: 16.745 min Scan# 1906
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 49 Resp: 15696

Ion	Ratio	Lower	Upper
49	100		
84	78.0	54.0	100.4



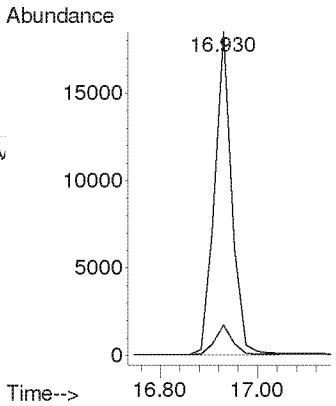
Compounds other than ethylene oxide were not quantitated.

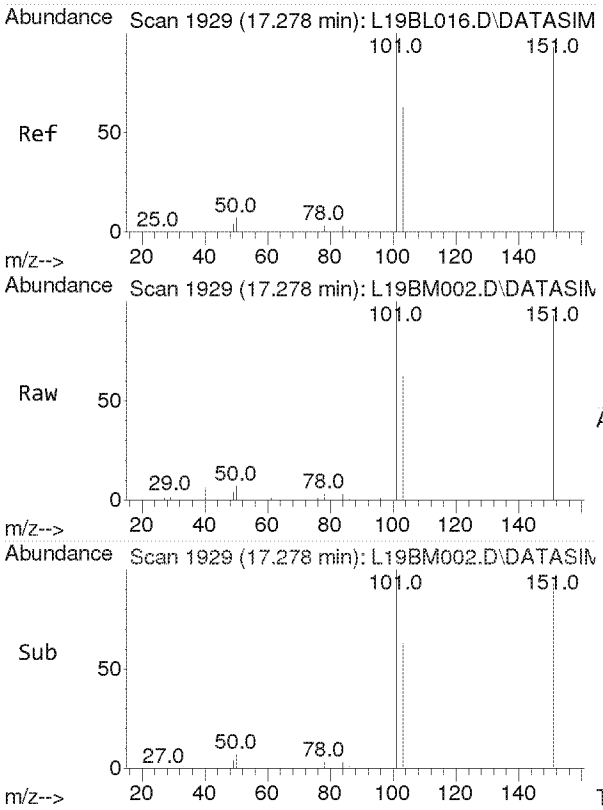


#18
Carbon Disulfide
Concen: 2.450 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 76 Resp: 45406

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.4	11.0

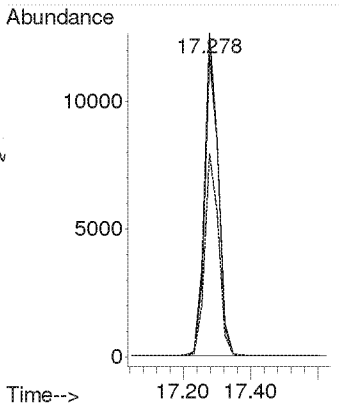




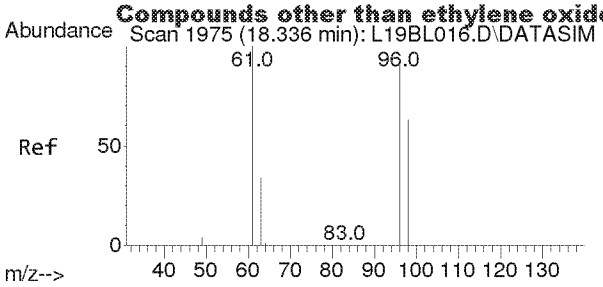
#19
Trichlorotrifluoroethane
Concen: 2.528 ppbv
RT: 17.278 min Scan# 1929
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:101 Resp: 35691

Ion	Ratio	Lower	Upper
101	100		
151	95.3	75.8	113.8
103	64.0	51.1	76.7



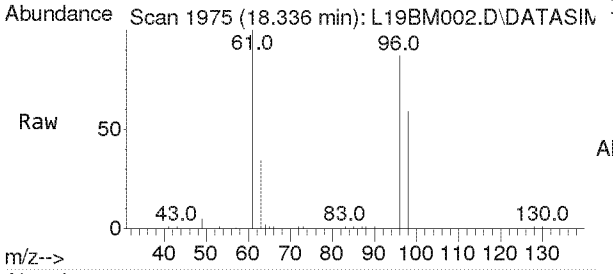
Compounds other than ethylene oxide were not quantitated.

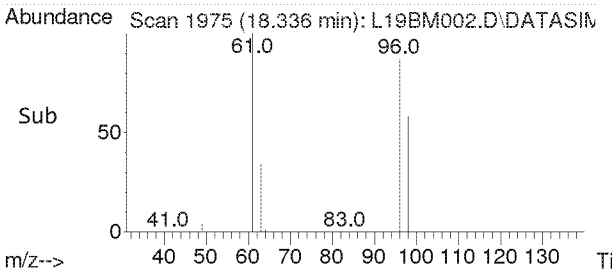


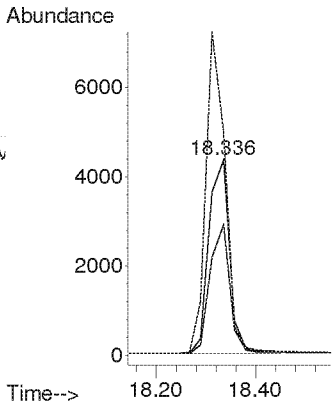
#20
trans-1,2-Dichloroethylene
Concen: 2.477 ppbv
RT: 18.336 min Scan# 1975
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

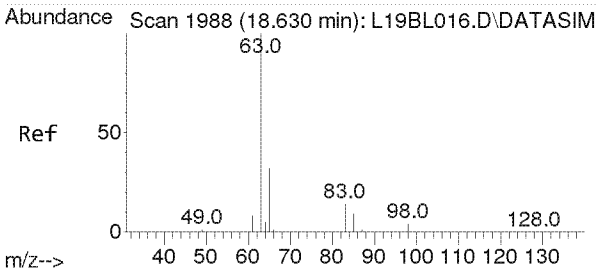
Tgt Ion: 96 Resp: 12502

Ion	Ratio	Lower	Upper
96	100		
98	64.1	51.5	77.3
61	154.5	122.9	184.3





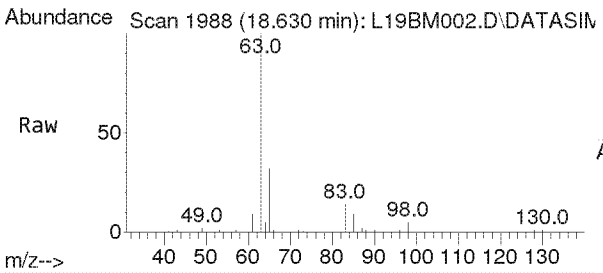


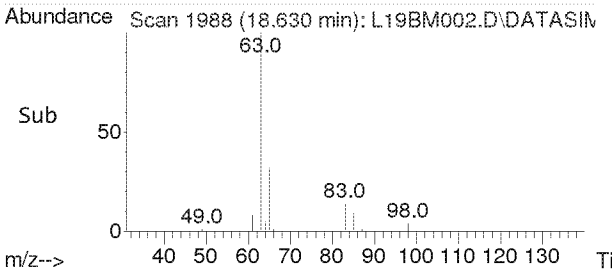


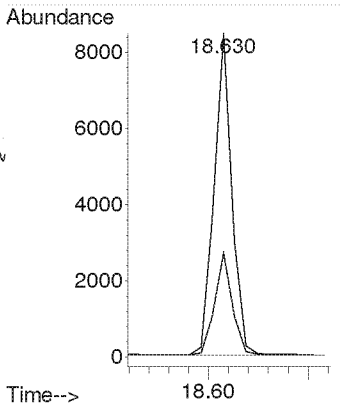
#21
1,1-Dichloroethane
Concen: 2.471 ppbv
RT: 18.630 min Scan# 1988
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 63 Resp: 20967

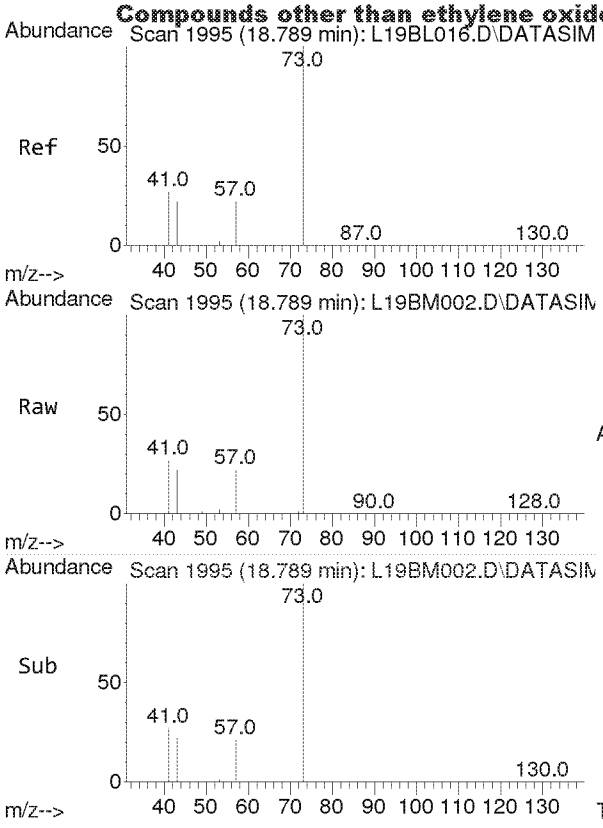
Ion	Ratio	Lower	Upper
63	100		
65	31.3	25.4	38.0







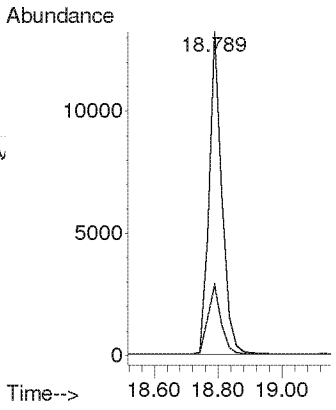
Compounds other than ethylene oxide were not quantitated.

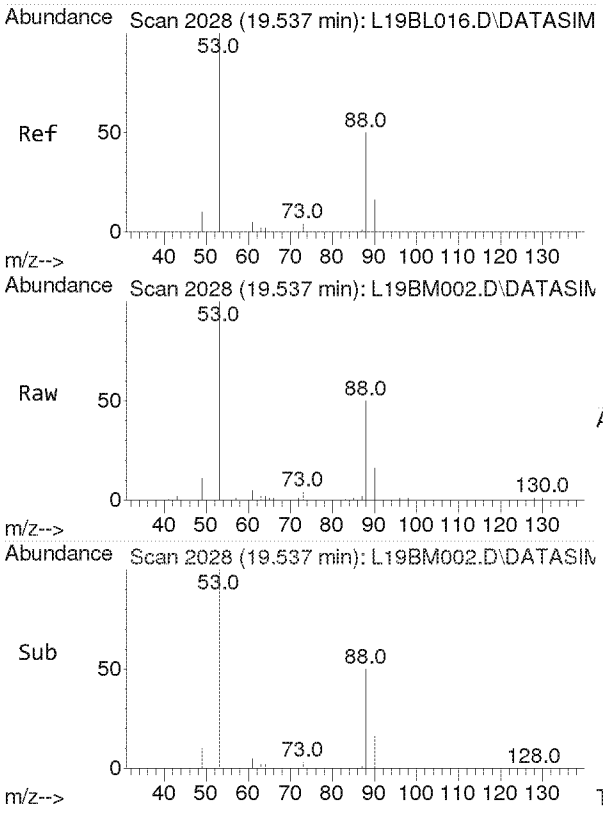


#22
Methyl tert-Butyl Ether
Concen: 2.557 ppbv
RT: 18.789 min Scan# 1995
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 73 Resp: 36386

Ion	Ratio	Lower	Upper
73	100		
57	22.3	18.0	27.0

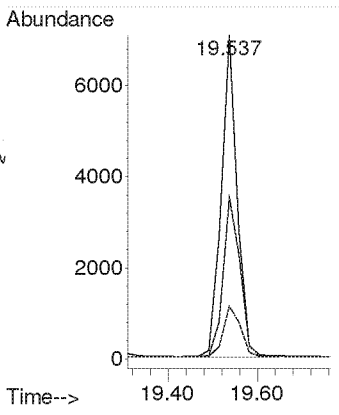




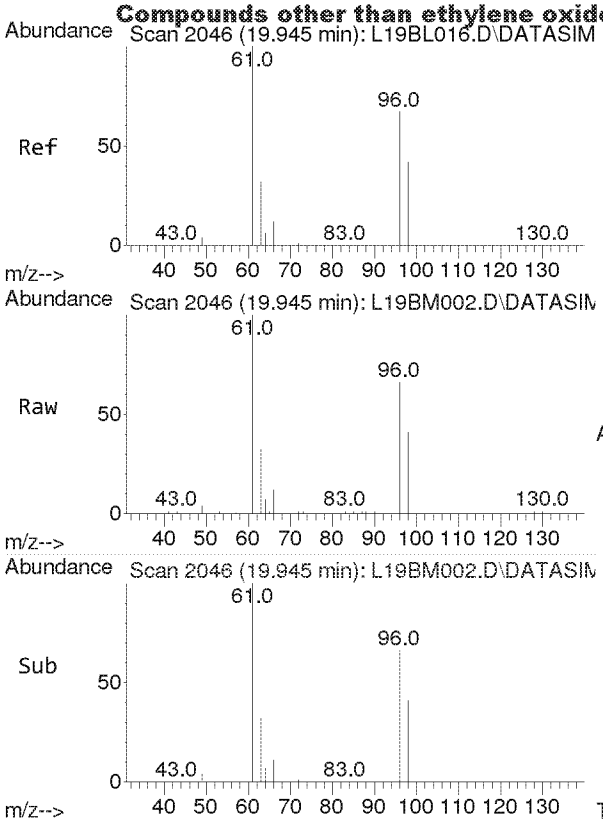
#23
Chloroprene
Concen: 2.537 ppbv
RT: 19.537 min Scan# 2028
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 53 Resp: 17507

Ion	Ratio	Lower	Upper
53	100		
88	53.1	42.6	64.0
90	17.2	13.9	20.9



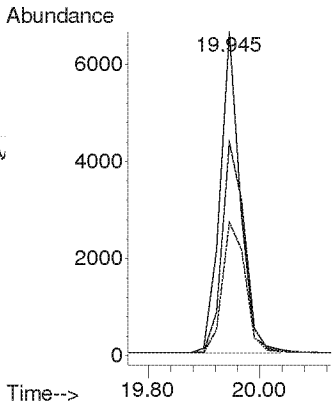
Compounds other than ethylene oxide were not quantitated.

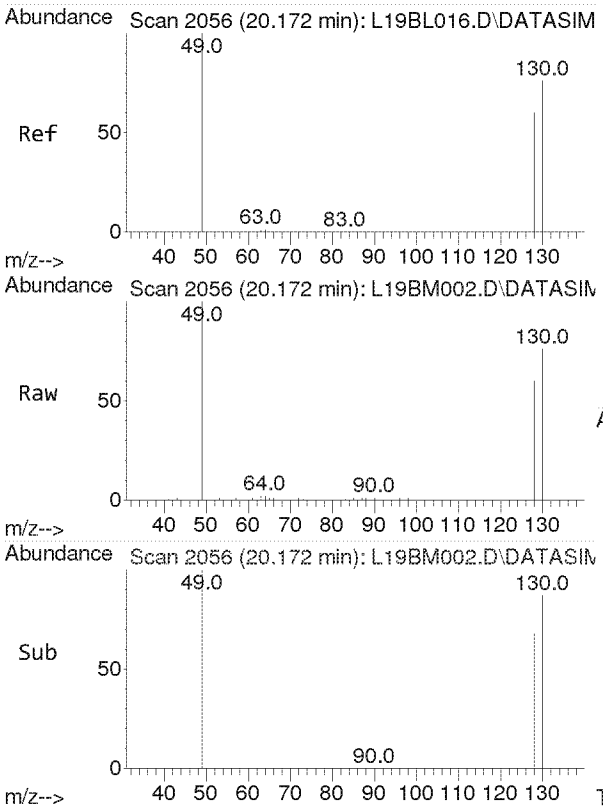


#24
cis-1,2-Dichloroethylene
Concen: 2.476 ppbv
RT: 19.945 min Scan# 2046
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 61 Resp: 16588

Ion	Ratio	Lower	Upper
61	100		
96	73.8	59.0	88.6
98	47.1	37.6	56.4

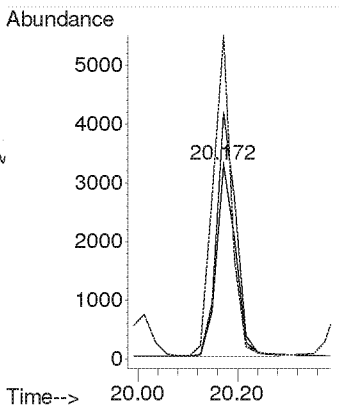




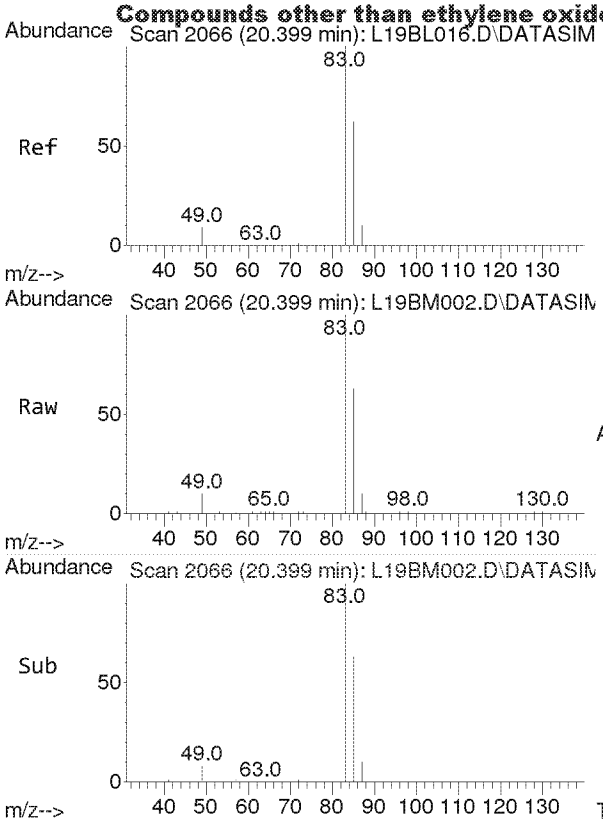
#25
Bromochloromethane
Concen: 2.392 ppbv
RT: 20.172 min Scan# 2056
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:128 Resp: 8662

Ion	Ratio	Lower	Upper
128	100		
130	129.4	103.3	154.9
49	160.9	128.3	192.5



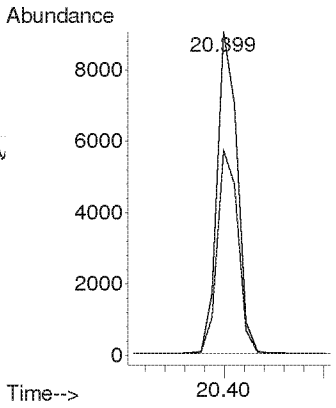
Compounds other than ethylene oxide were not quantitated.

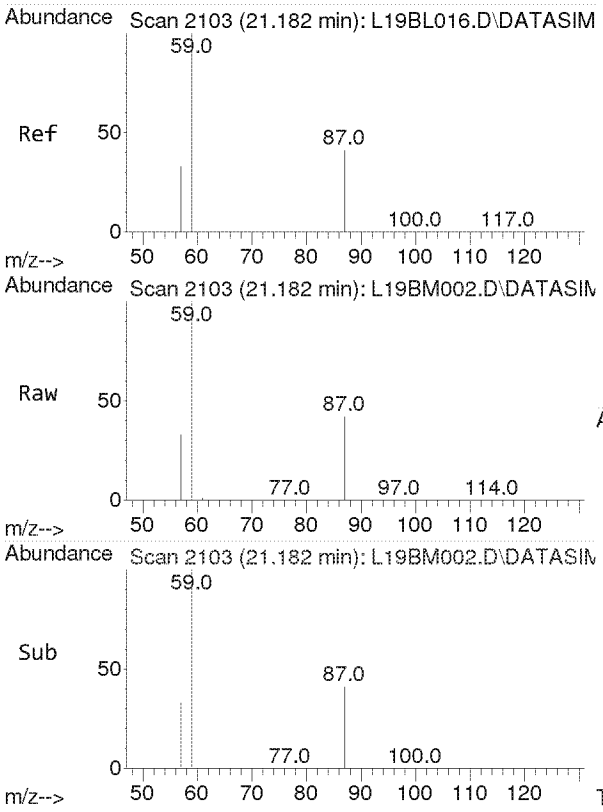


#26
Chloroform
Concen: 2.590 ppbv
RT: 20.399 min Scan# 2066
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 83 Resp: 25493

Ion	Ratio	Lower	Upper
83	100		
85	65.4	51.5	77.3

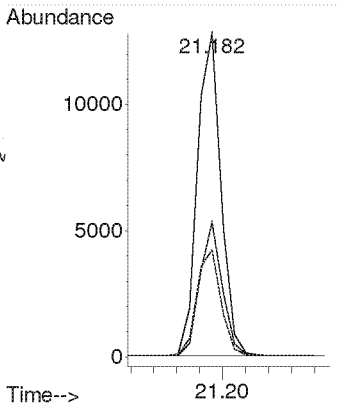




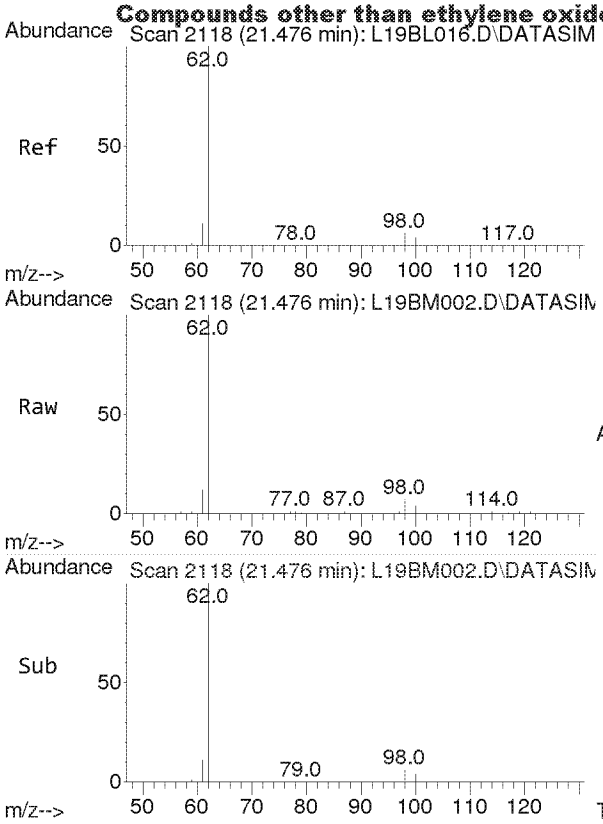
#27
Ethyl tert-Butyl Ether
Concen: 2.663 ppbv
RT: 21.182 min Scan# 2103
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 59 Resp: 36238

Ion	Ratio	Lower	Upper
59	100		
87	39.2	31.5	47.3
57	33.3	26.6	39.8



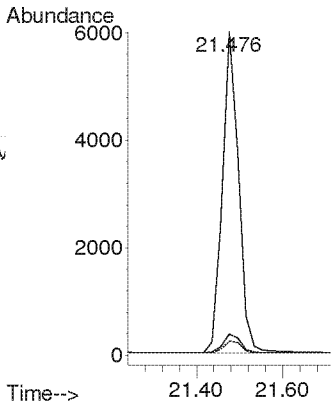
Compounds other than ethylene oxide were not quantitated.

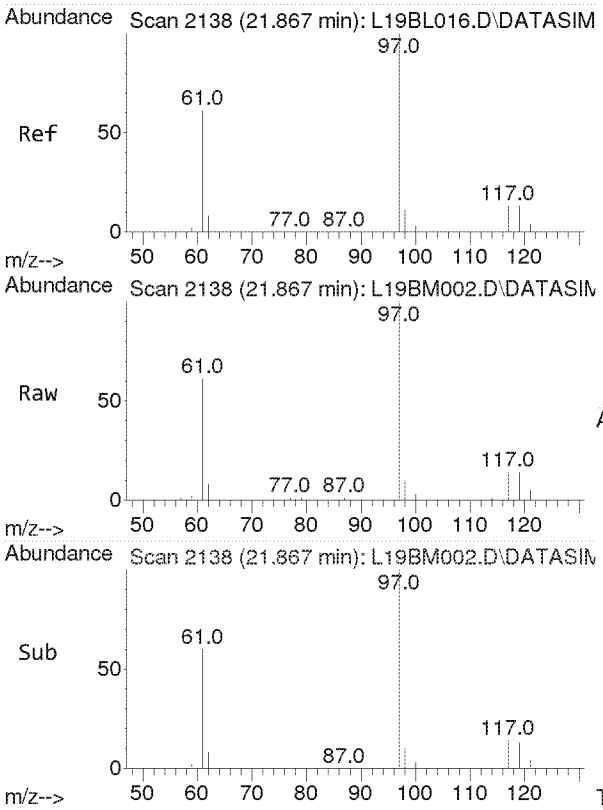


#28
1,2-Dichloroethane
Concen: 2.553 ppbv
RT: 21.476 min Scan# 2118
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 62 Resp: 15428

Ion	Ratio	Lower	Upper
62	100		
98	6.3	5.0	7.6
100	4.0	3.2	4.8

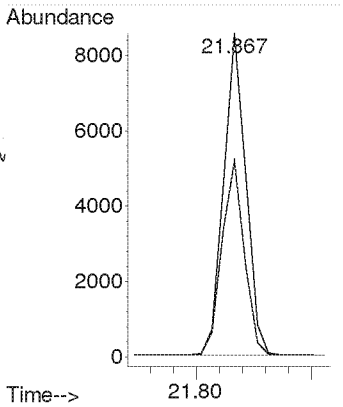




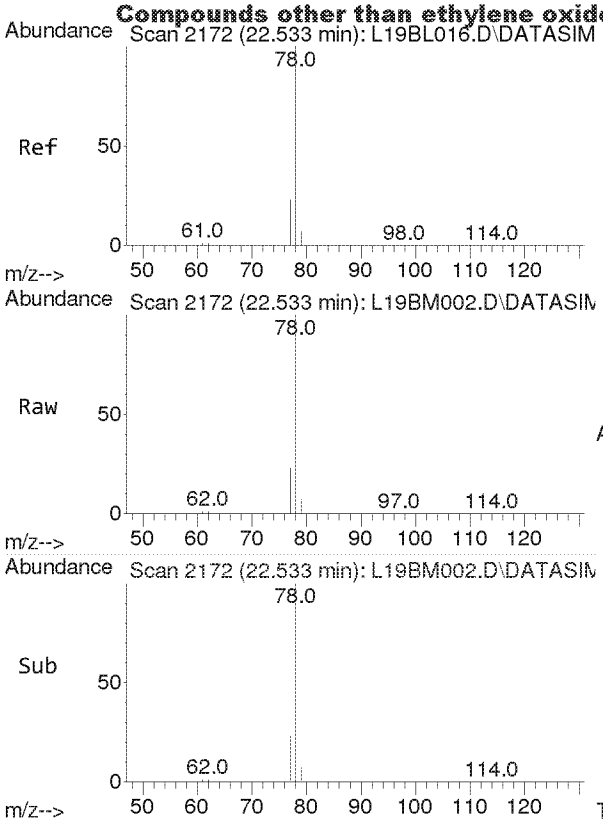
#30
1,1,1-Trichloroethane
Concen: 2.460 ppbv
RT: 21.867 min Scan# 2138
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 97 Resp: 22797

Ion	Ratio	Lower	Upper
97	100		
61	61.0	49.7	74.5



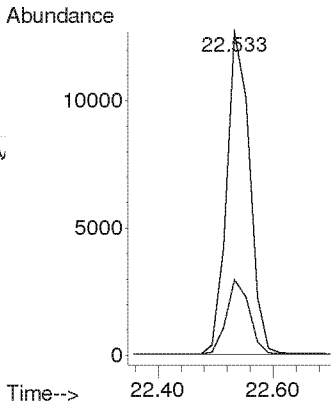
Compounds other than ethylene oxide were not quantitated.

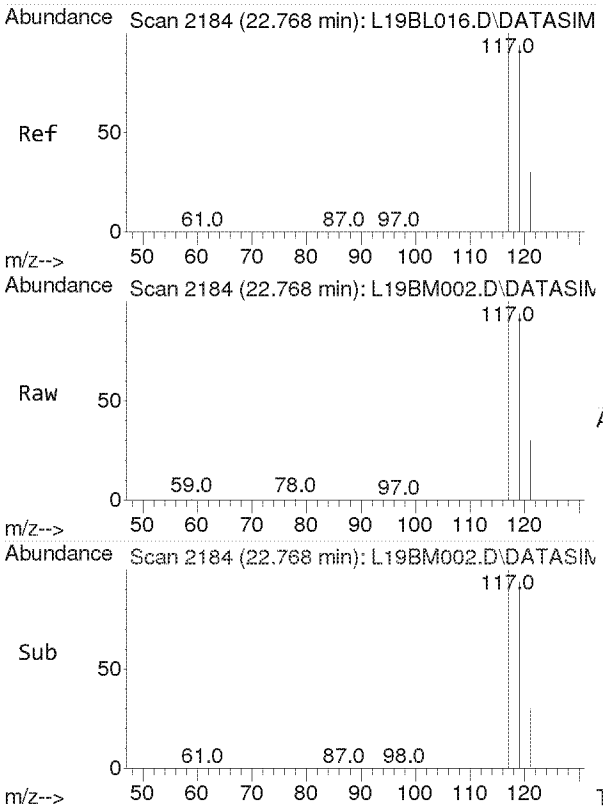


#31
Benzene
Concen: 2.642 ppbv
RT: 22.533 min Scan# 2172
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 78 Resp: 35014

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.2	27.4

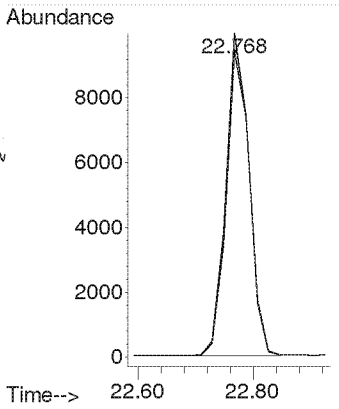




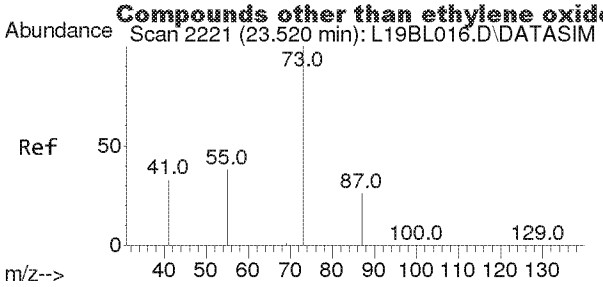
#32
Carbon Tetrachloride
Concen: 2.762 ppbv
RT: 22.768 min Scan# 2184
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:117 Resp: 27414

Ion	Ratio	Lower	Upper
117	100		
119	96.1	77.0	115.6



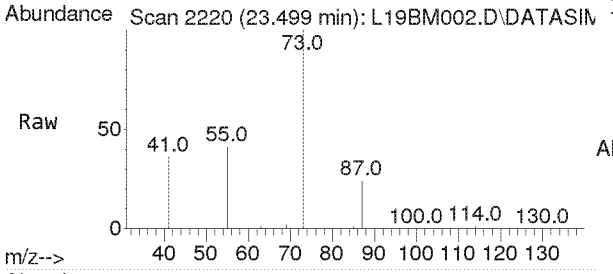
Compounds other than ethylene oxide were not quantitated.

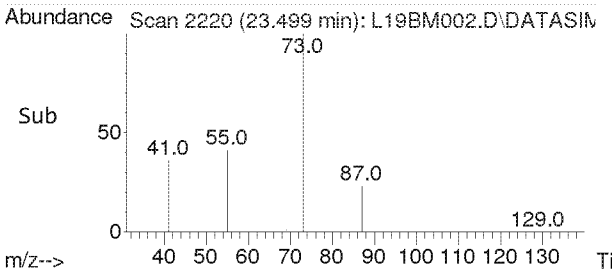


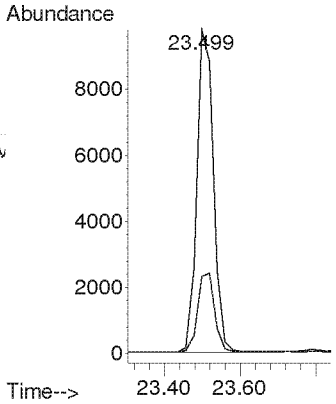
#33
tert-Amyl Methyl Ether
Concen: 2.643 ppbv
RT: 23.499 min Scan# 2220
Delta R.T. -0.021 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

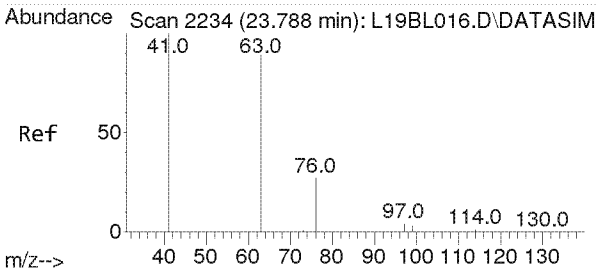
Tgt Ion: 73 Resp: 29746

Ion	Ratio	Lower	Upper
73	100		
87	25.0	20.1	30.1





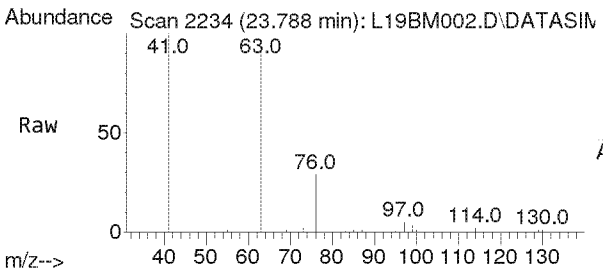


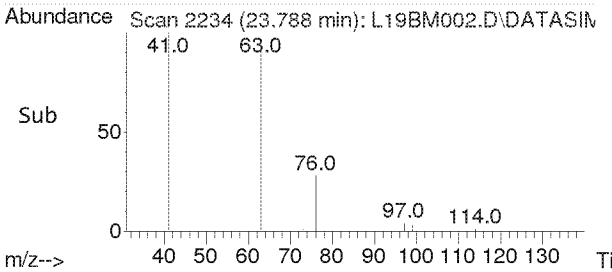


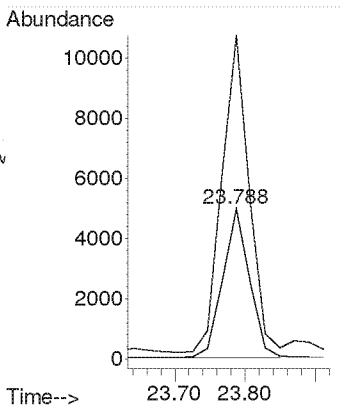
#34
1,2-Dichloropropane
Concen: 2.550 ppbv
RT: 23.788 min Scan# 2234
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 63 Resp: 12846

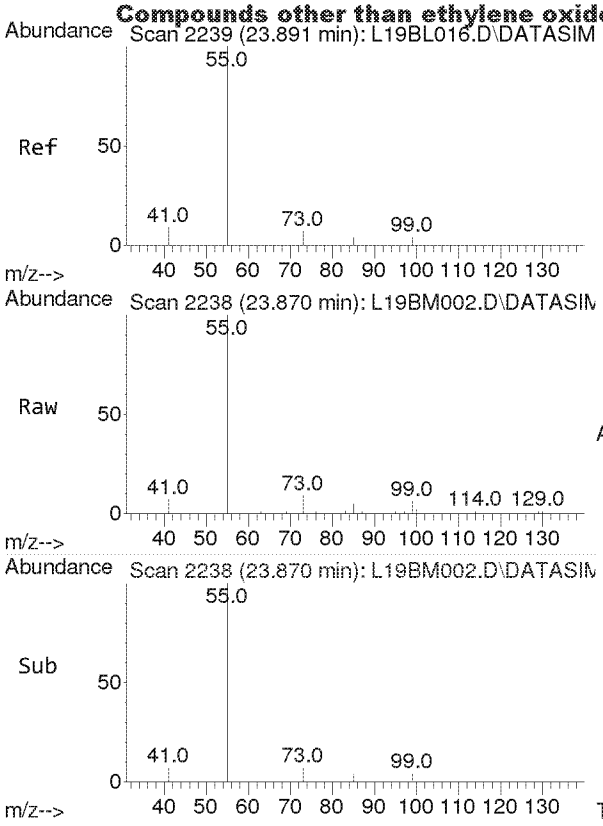
Ion	Ratio	Lower	Upper
63	100		
41	217.3	175.9	263.9







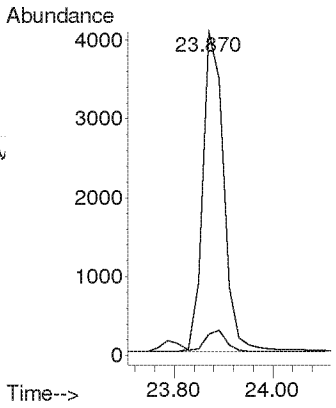
Compounds other than ethylene oxide were not quantitated.

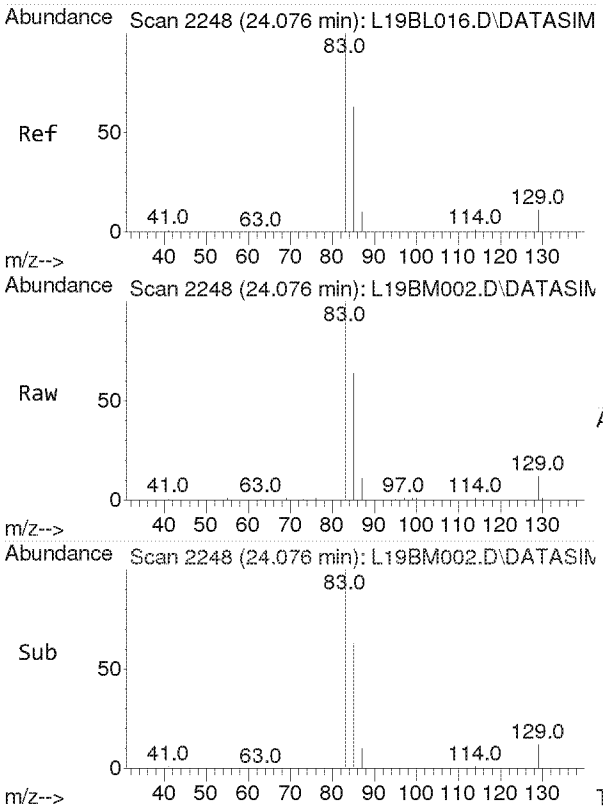


#35
Ethyl Acrylate
Concen: 2.765 ppbv
RT: 23.870 min Scan# 2238
Delta R.T. -0.021 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 55 Resp: 11833

Ion	Ratio	Lower	Upper
55	100		
99	6.4	5.0	7.6

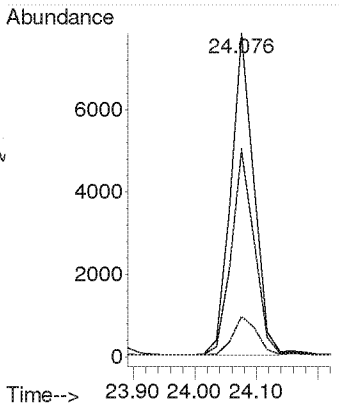




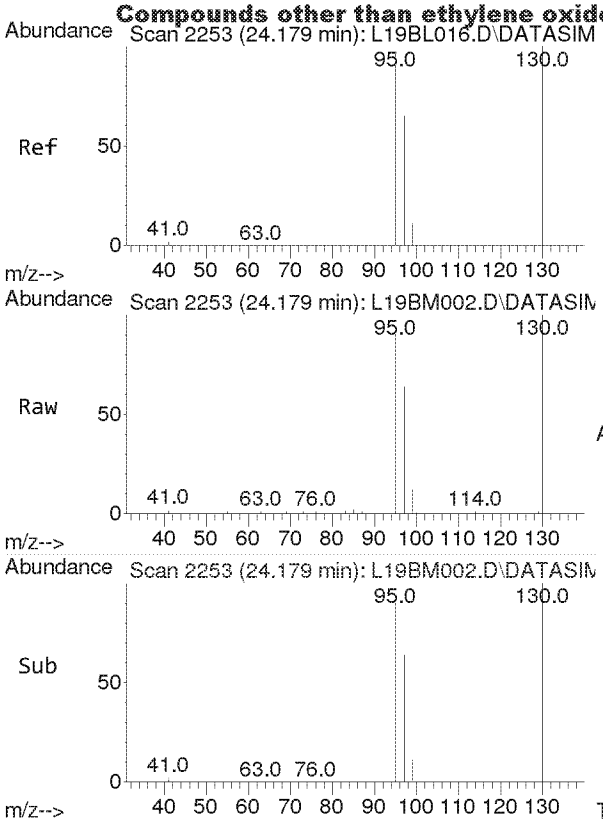
#36
Bromodichloromethane
Concen: 2.272 ppbv
RT: 24.076 min Scan# 2248
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 83 Resp: 20258

Ion	Ratio	Lower	Upper
83	100		
85	63.7	51.0	76.4
129	12.7	9.9	14.9



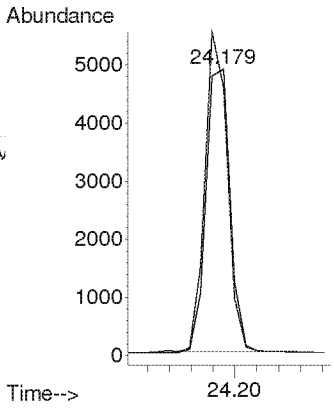
Compounds other than ethylene oxide were not quantitated.

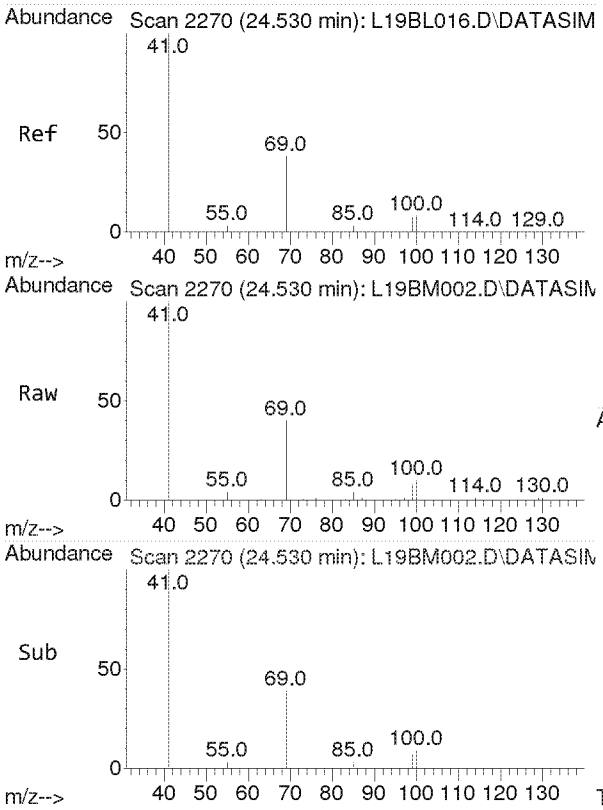


#37
Trichloroethylene
Concen: 2.347 ppbv
RT: 24.179 min Scan# 2253
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:130 Resp: 14812

Ion	Ratio	Lower	Upper
130	100		
95	106.5	84.9	127.3

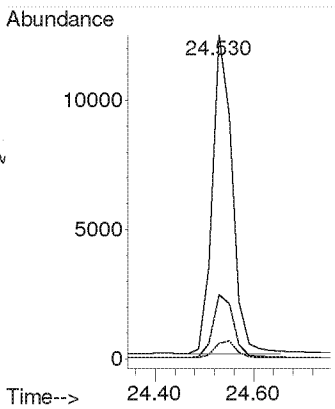




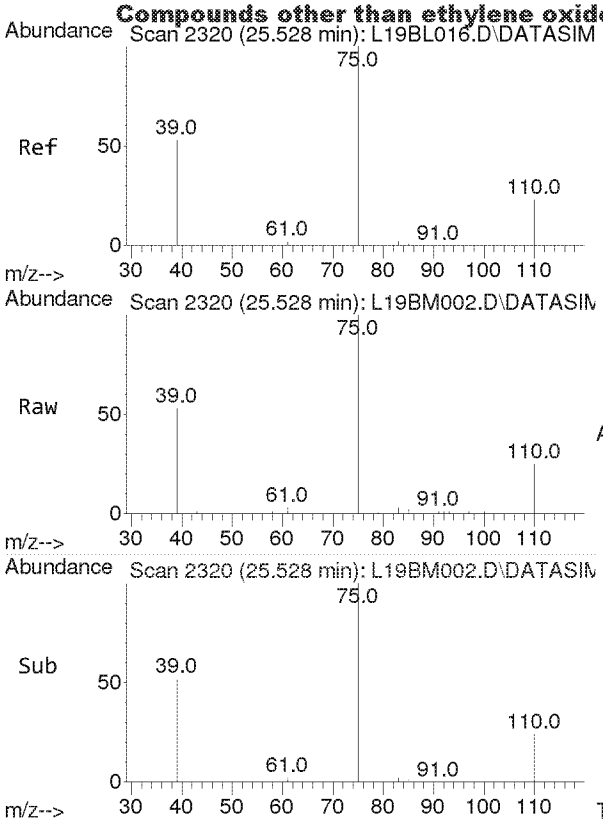
#38
Methyl Methacrylate
Concen: 2.674 ppbv
RT: 24.530 min Scan# 2270
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 41 Resp: 34349

Ion	Ratio	Lower	Upper
41	100		
69	20.7	16.8	25.2
100	5.5	4.5	6.7



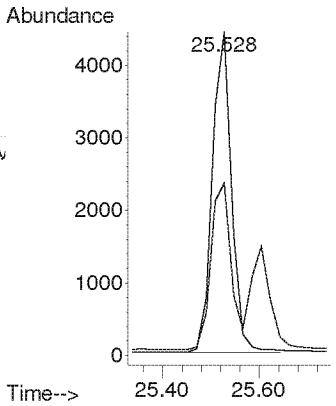
Compounds other than ethylene oxide were not quantitated.

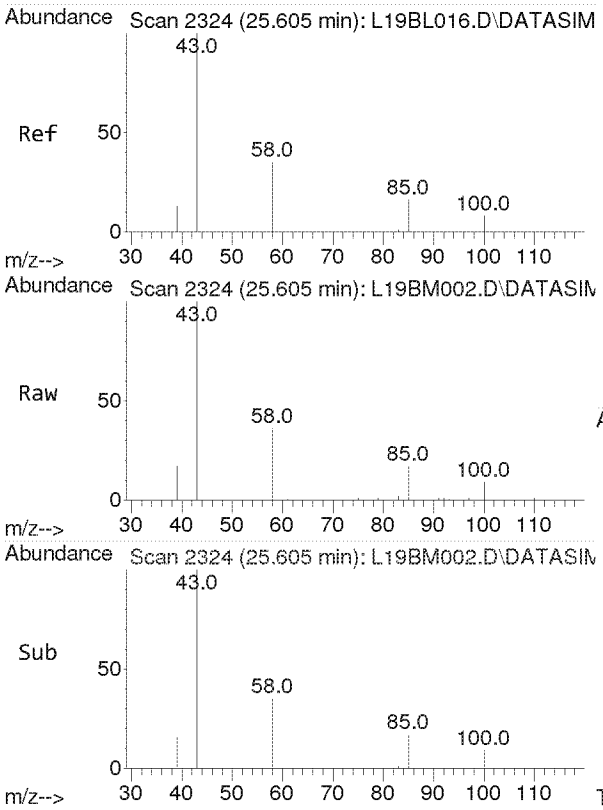


#39
cis-1,3-Dichloropropene
Concen: 2.774 ppbv
RT: 25.528 min Scan# 2320
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 75 Resp: 12135

Ion	Ratio	Lower	Upper
75	100		
39	55.8	43.4	65.0

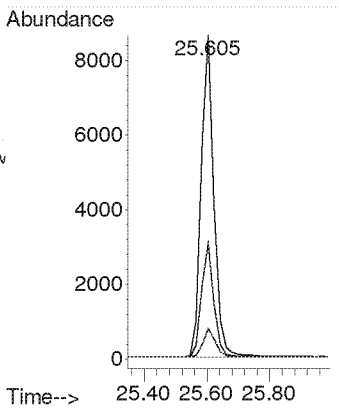




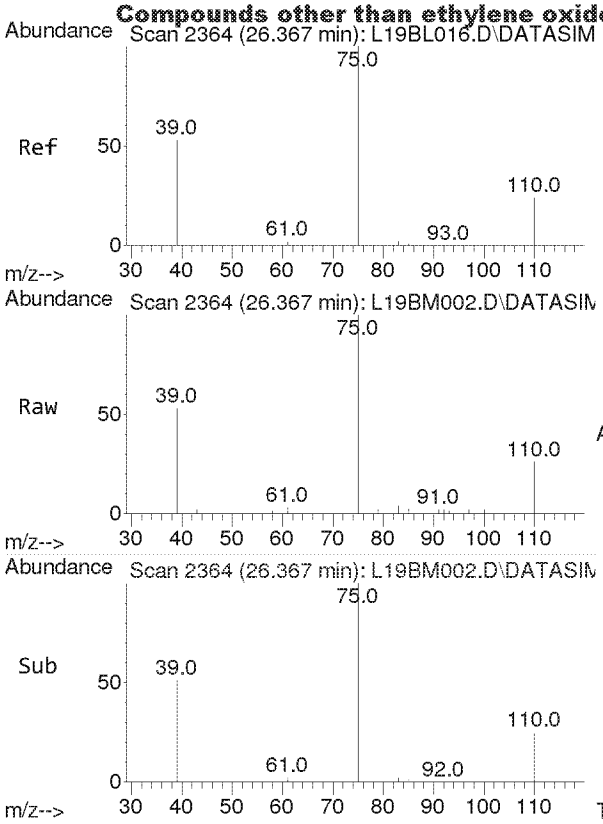
#40
Methyl Isobutyl Ketone
Concen: 2.575 ppbv
RT: 25.605 min Scan# 2324
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 43 Resp: 24318

Ion	Ratio	Lower	Upper
43	100		
58	34.7	28.0	42.0
100	8.7	7.0	10.4



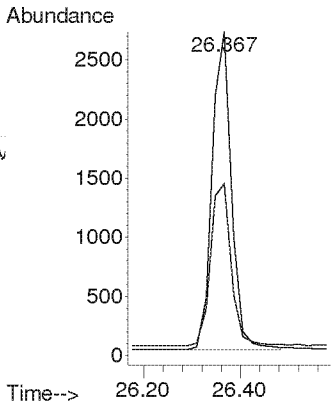
Compounds other than ethylene oxide were not quantitated.

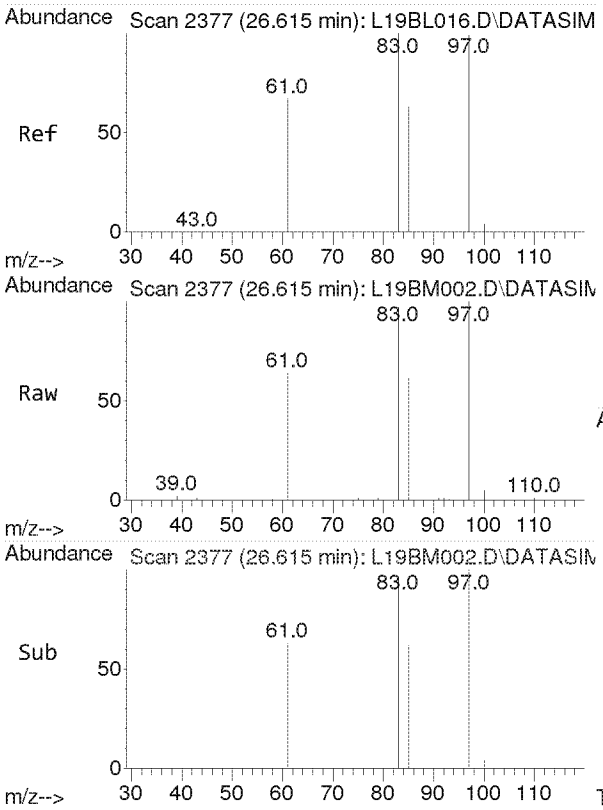


#41
trans-1,3-Dichloropropene
Concen: 2.556 ppbv
RT: 26.367 min Scan# 2364
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 75 Resp: 7490

Ion	Ratio	Lower	Upper
75	100		
39	54.4	42.9	64.3

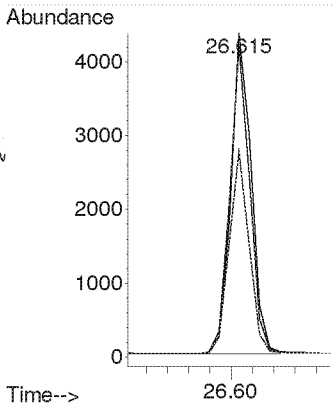




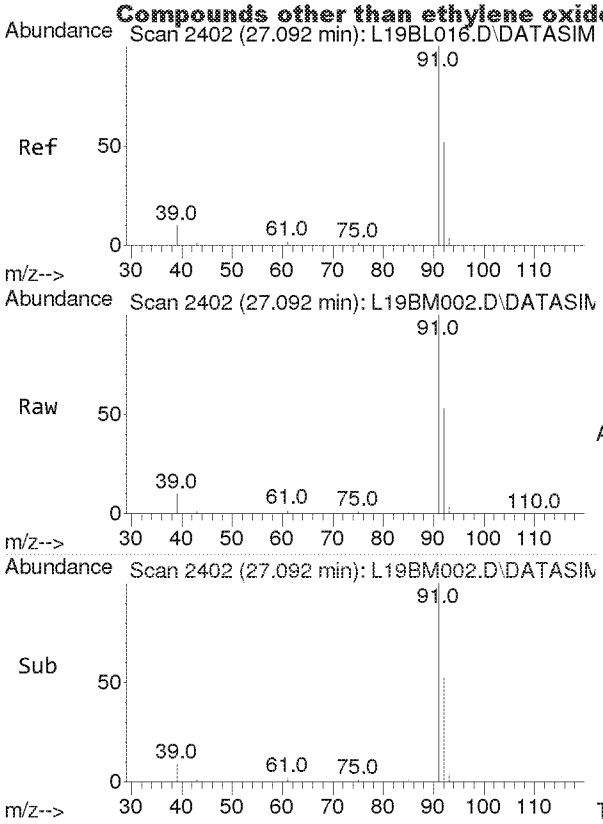
#42
1,1,2-Trichloroethane
Concen: 2.506 ppbv
RT: 26.615 min Scan# 2377
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 97 Resp: 11552

Ion	Ratio	Lower	Upper
97	100		
83	94.1	75.4	113.0
61	62.3	49.8	74.6



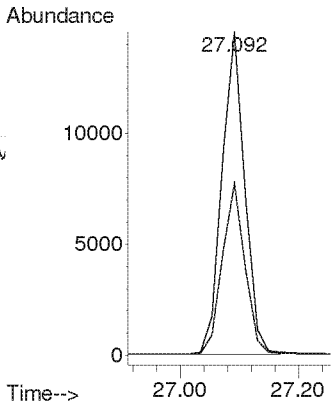
Compounds other than ethylene oxide were not quantitated.

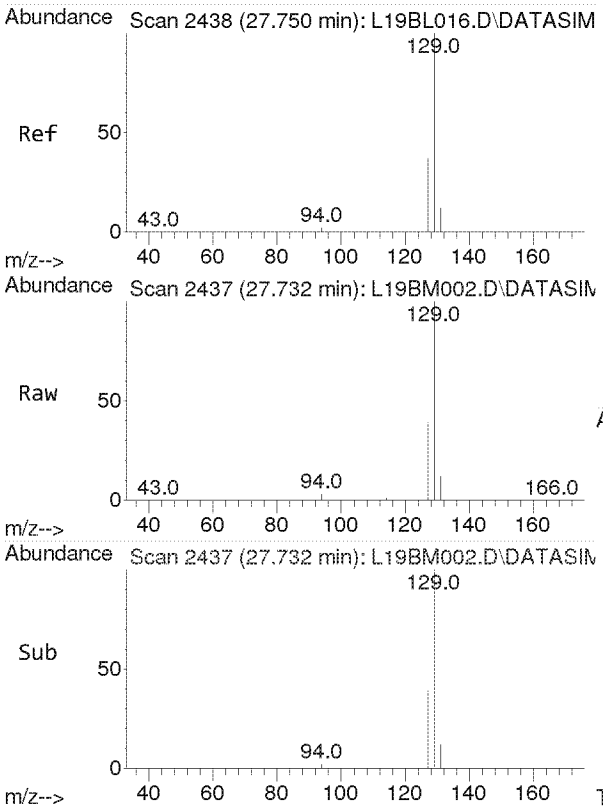


#44
Toluene
Concen: 2.605 ppbv
RT: 27.092 min Scan# 2402
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 91 Resp: 38595

Ion	Ratio	Lower	Upper
91	100		
92	52.7	42.0	63.0

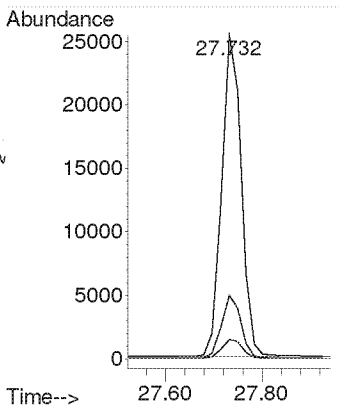




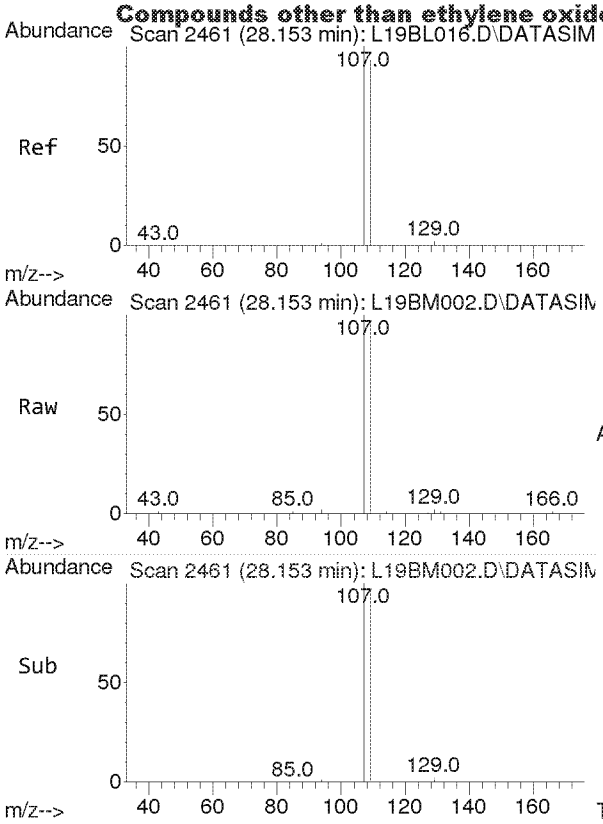
#45
Dibromochloromethane
Concen: 2.438 ppbv
RT: 27.732 min Scan# 2437
Delta R.T. -0.018 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:129 Resp: 70909

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



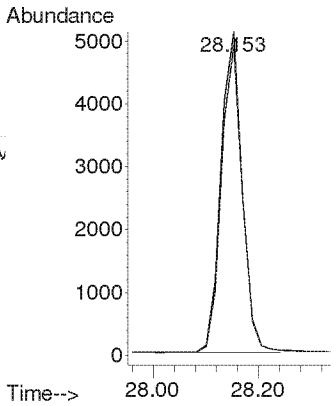
Compounds other than ethylene oxide were not quantitated.

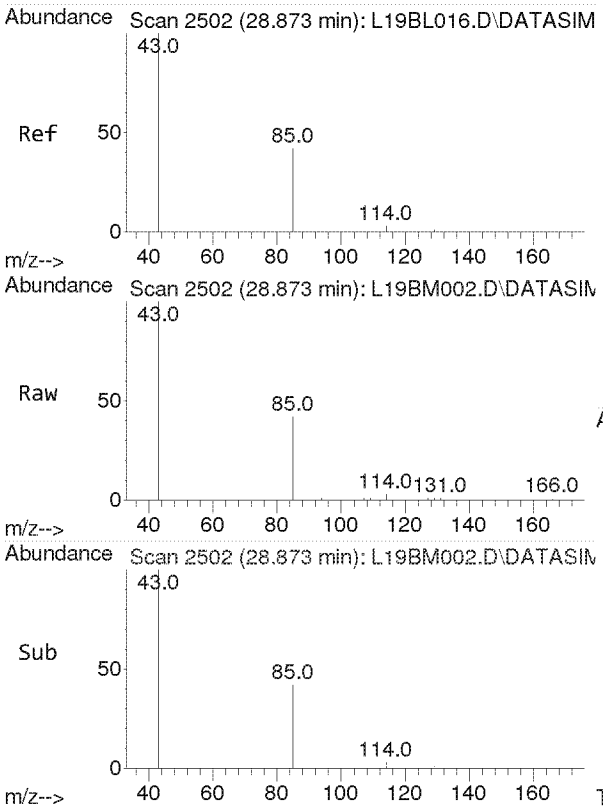


#46
1,2-Dibromoethane
Concen: 2.557 ppbv
RT: 28.153 min Scan# 2461
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:107 Resp: 14207

Ion	Ratio	Lower	Upper
107	100		
109	94.9	75.4	113.0

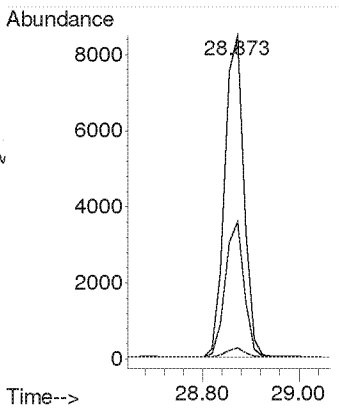




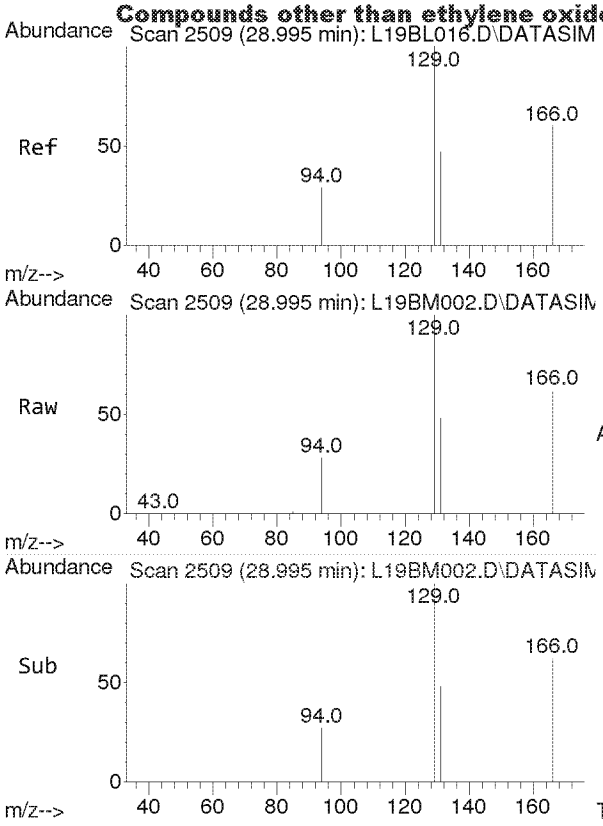
#47
n-Octane
Concen: 2.622 ppbv
RT: 28.873 min Scan# 2502
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 43 Resp: 23400

Ion	Ratio	Lower	Upper
43	100		
85	41.3	33.0	49.6
114	2.7	2.2	3.4



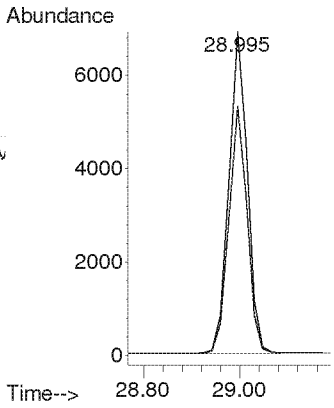
Compounds other than ethylene oxide were not quantitated.

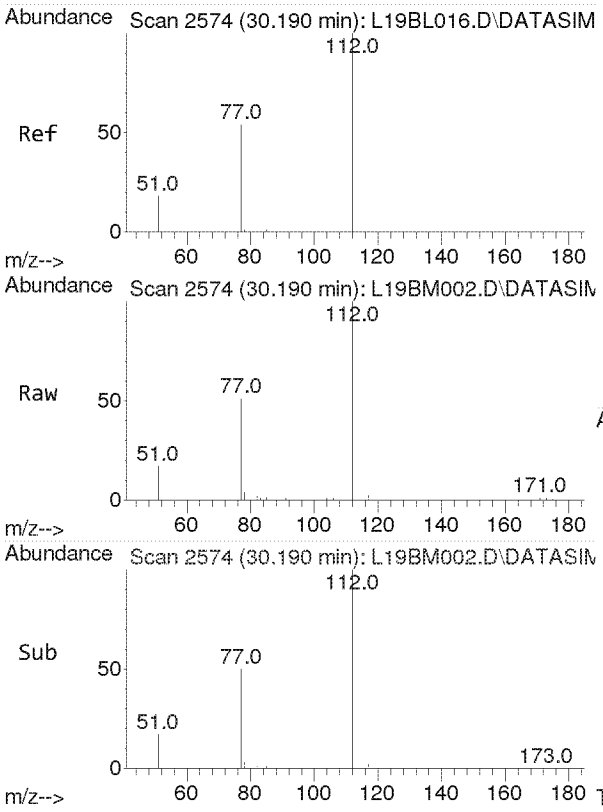


#48
Tetrachloroethylene
Concen: 2.567 ppbv
RT: 28.995 min Scan# 2509
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:166 Resp: 18308

Ion	Ratio	Lower	Upper
166	100		
131	76.4	61.5	92.3

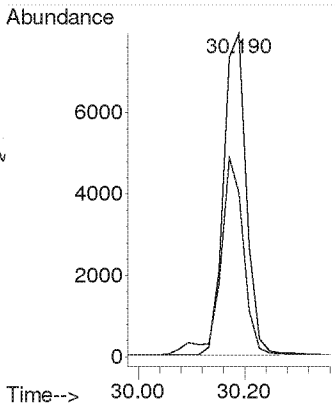




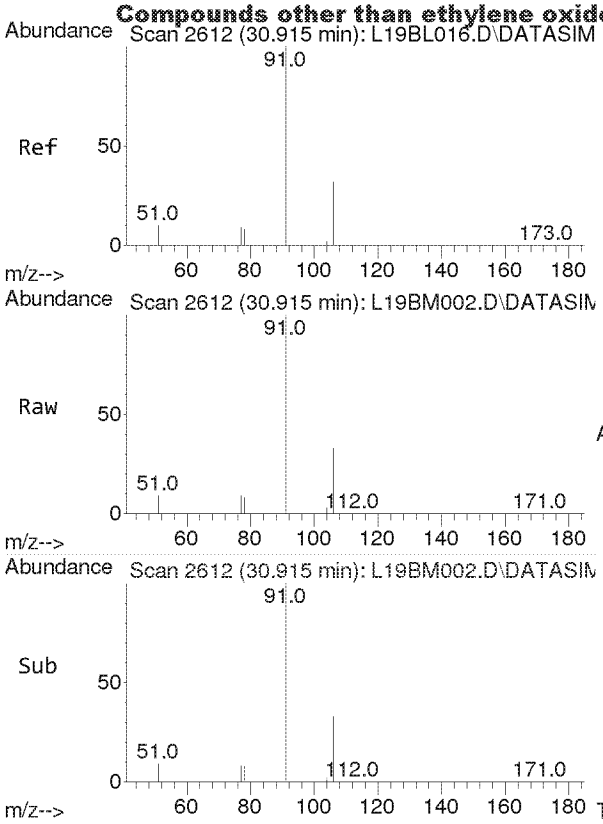
#49
Chlorobenzene
Concen: 2.505 ppbv
RT: 30.190 min Scan# 2574
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:112 Resp: 23688

Ion	Ratio	Lower	Upper
112	100		
77	60.0	47.8	71.6



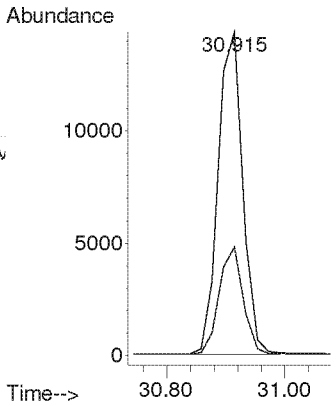
Compounds other than ethylene oxide were not quantitated.

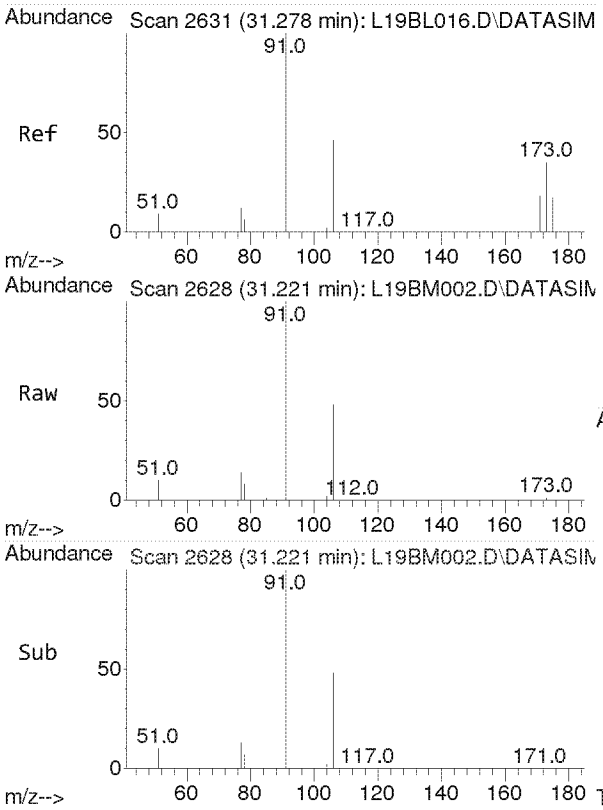


#50
Ethylbenzene
Concen: 2.670 ppbv
RT: 30.915 min Scan# 2612
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 91 Resp: 41588

Ion	Ratio	Lower	Upper
91	100		
106	32.4	26.0	39.0

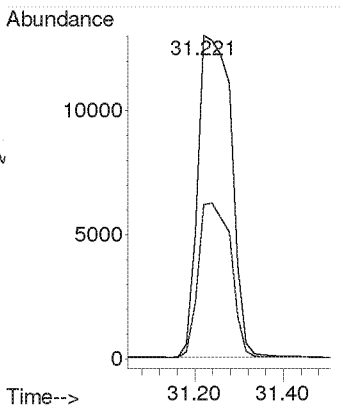




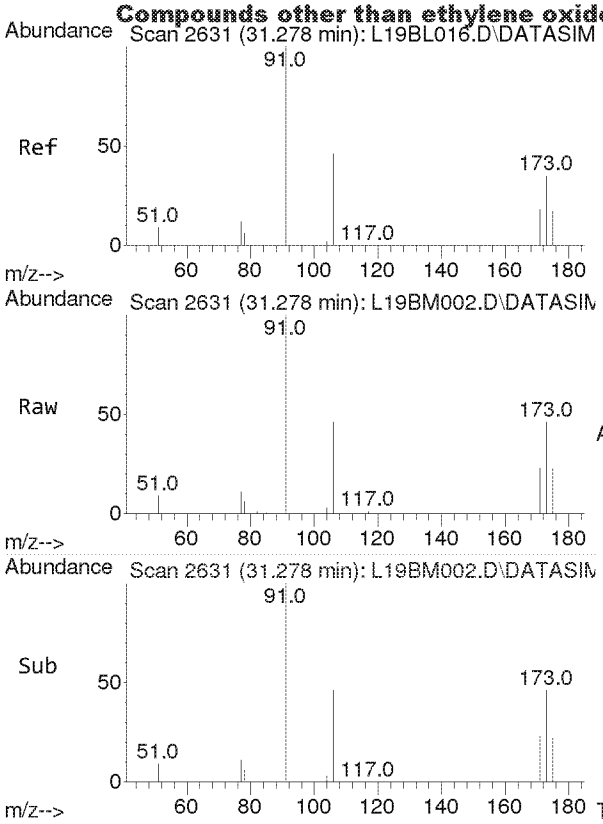
#51
m,p-Xylene
Concen: 5.135 ppbv
RT: 31.221 min Scan# 2628
Delta R.T. -0.057 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 91 Resp: 67471

Ion	Ratio	Lower	Upper
91	100		
106	46.7	37.3	55.9



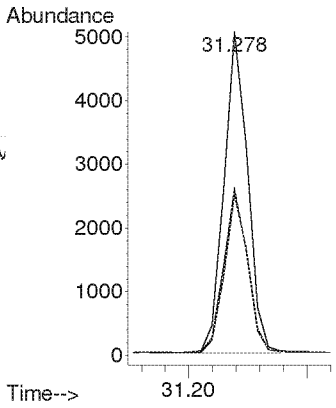
Compounds other than ethylene oxide were not quantitated.

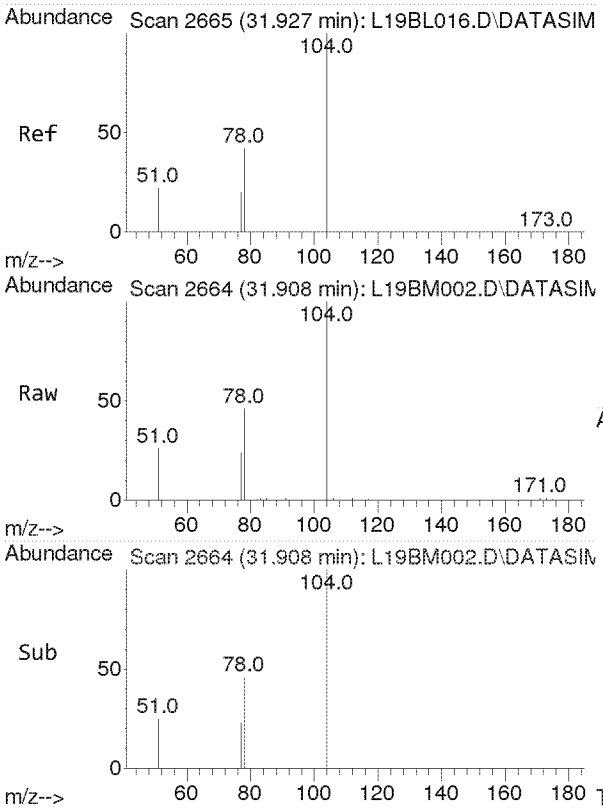


#52
Bromoform
Concen: 2.470 ppbv
RT: 31.278 min Scan# 2631
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:173 Resp: 13892

Ion	Ratio	Lower	Upper
173	100		
171	51.0	41.0	61.6
175	49.1	39.1	58.7

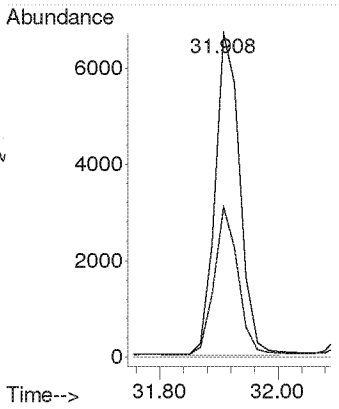




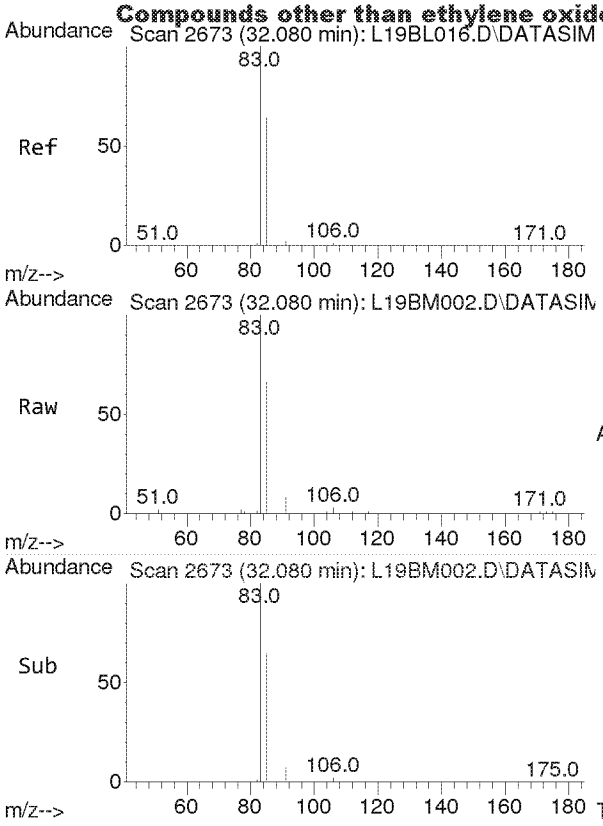
#53
Styrene
Concen: 2.589 ppbv
RT: 31.908 min Scan# 2664
Delta R.T. -0.019 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:104 Resp: 19288

Ion	Ratio	Lower	Upper
104	100		
78	44.0	35.4	53.2
103	0.0	0.0	0.0



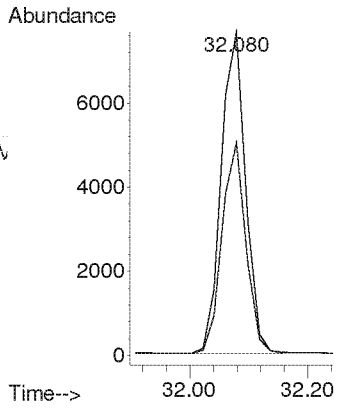
Compounds other than ethylene oxide were not quantitated.

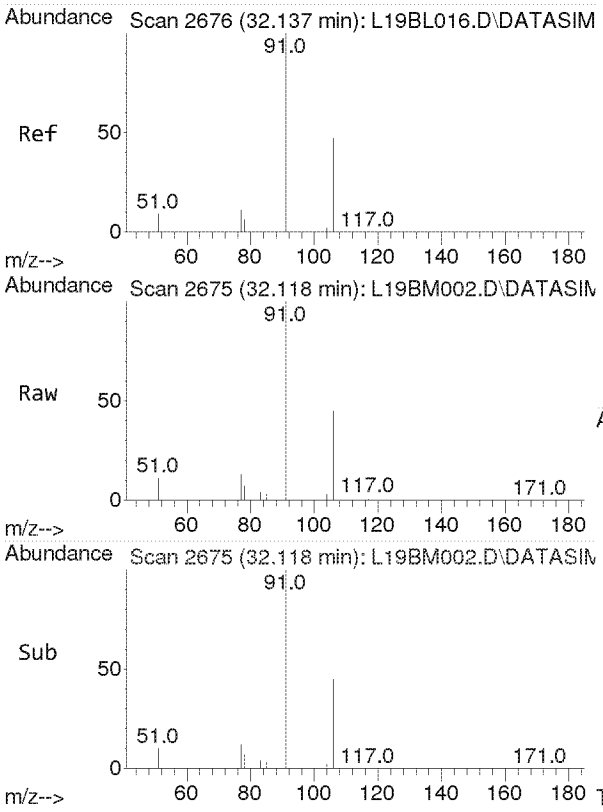


#54
1,1,2,2-Tetrachloroethane
Concen: 2.575 ppbv
RT: 32.080 min Scan# 2673
Delta R.T. 0.000 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 83 Resp: 21835

Ion	Ratio	Lower	Upper
83	100		
85	64.5	51.6	77.4

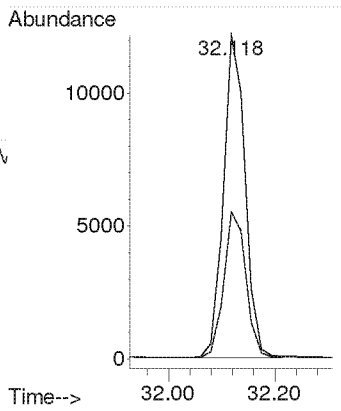




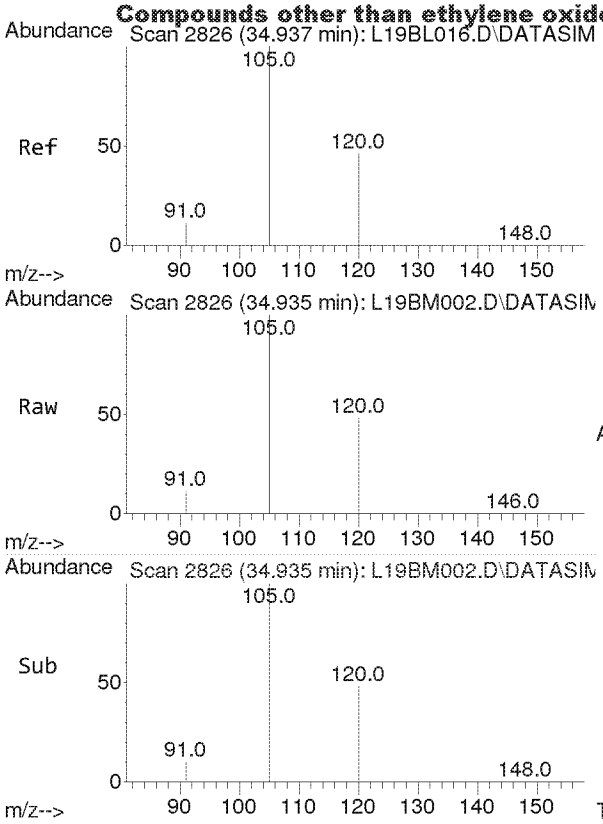
#55
o-Xylene
Concen: 2.659 ppbv
RT: 32.118 min Scan# 2675
Delta R.T. -0.019 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion: 91 Resp: 34477

Ion	Ratio	Lower	Upper
91	100		
106	46.1	36.6	55.0



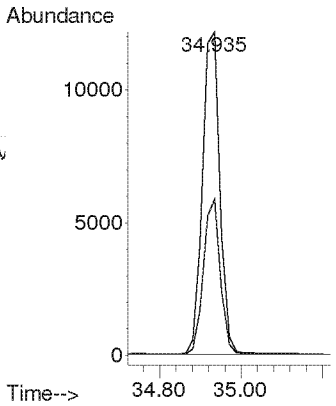
Compounds other than ethylene oxide were not quantitated.

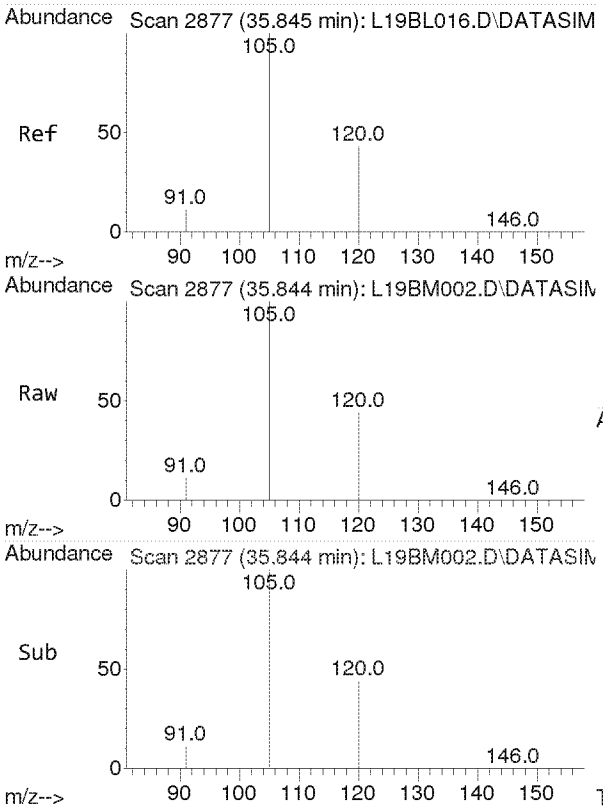


#56
1,3,5-Trimethylbenzene
Concen: 2.594 ppbv
RT: 34.935 min Scan# 2826
Delta R.T. -0.001 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:105 Resp: 36130

Ion	Ratio	Lower	Upper
105	100		
120	46.5	36.8	55.2

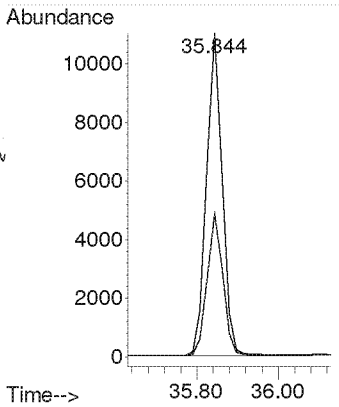




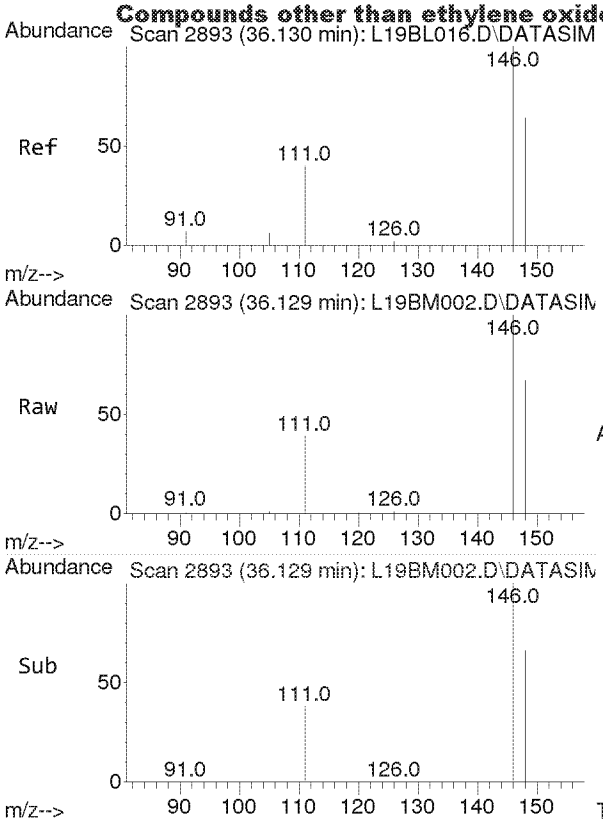
#57
1,2,4-Trimethylbenzene
Concen: 2.455 ppbv
RT: 35.844 min Scan# 2877
Delta R.T. -0.001 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:105 Resp: 29578

Ion	Ratio	Lower	Upper
105	100		
120	44.1	35.2	52.8



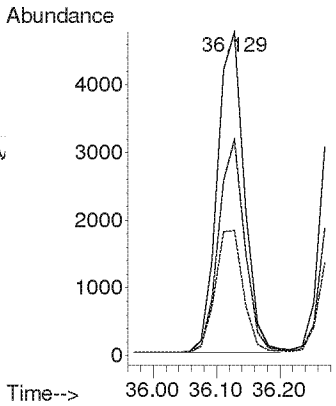
Compounds other than ethylene oxide were not quantitated.

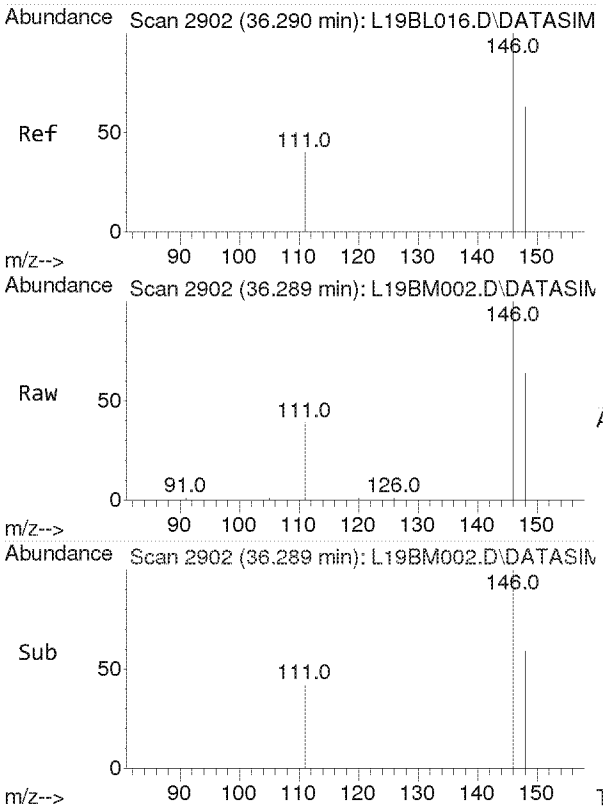


#58
m-Dichlorobenzene
Concen: 2.203 ppbv
RT: 36.129 min Scan# 2893
Delta R.T. -0.001 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:146 Resp: 13956

Ion	Ratio	Lower	Upper
146	100		
148	64.4	51.3	76.9
111	39.9	32.1	48.1

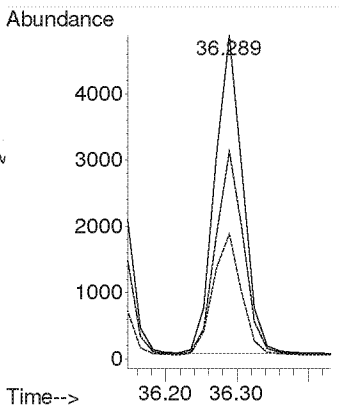




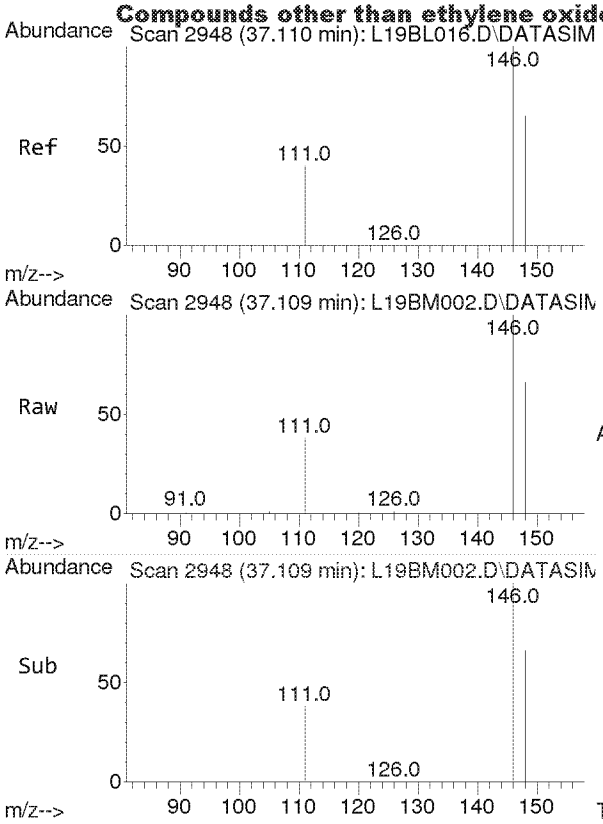
#59
p-Dichlorobenzene
Concen: 2.524 ppbv
RT: 36.289 min Scan# 2902
Delta R.T. -0.001 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:146 Resp: 13024

Ion	Ratio	Lower	Upper
146	100		
148	64.0	51.4	77.2
111	38.8	31.0	46.4



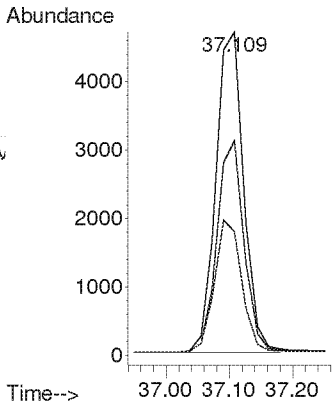
Compounds other than ethylene oxide were not quantitated.

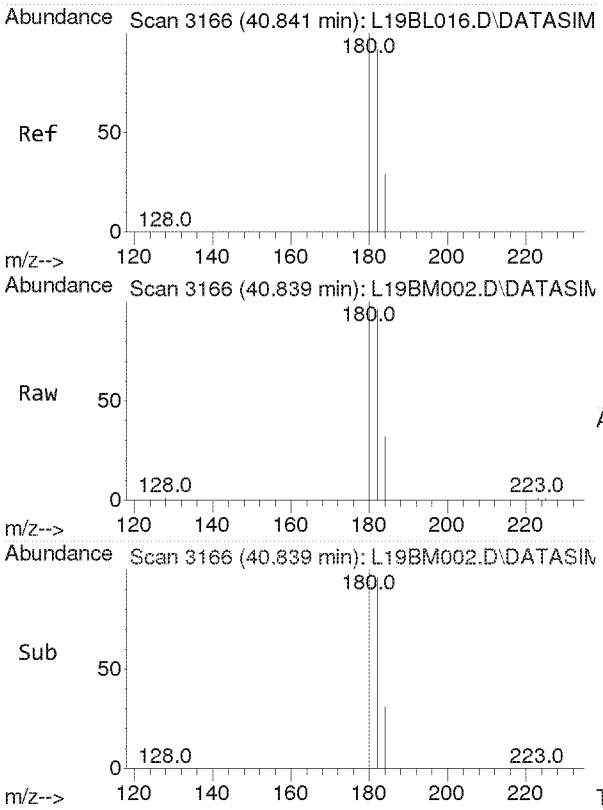


#60
o-Dichlorobenzene
Concen: 2.456 ppbv
RT: 37.109 min Scan# 2948
Delta R.T. -0.001 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:146 Resp: 14229

Ion	Ratio	Lower	Upper
146	100		
148	64.2	51.2	76.8
111	40.6	32.6	49.0

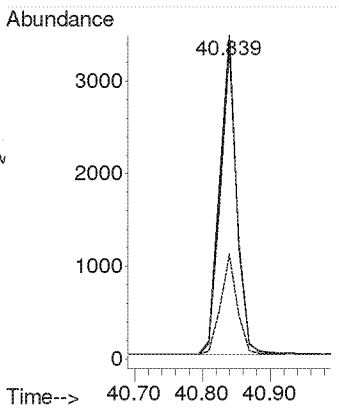




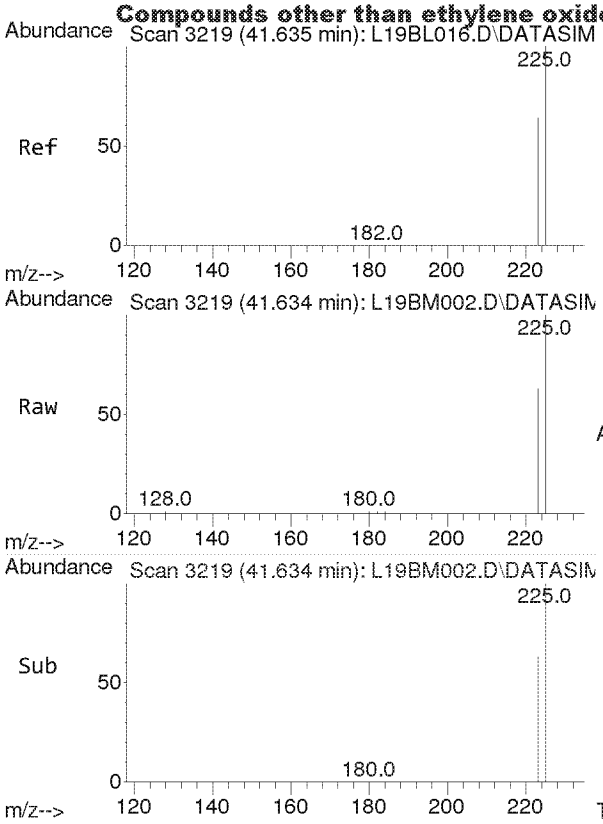
#61
1,2,4-Trichlorobenzene
Concen: 3.071 ppbv
RT: 40.839 min Scan# 3166
Delta R.T. -0.001 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:180 Resp: 6034

Ion	Ratio	Lower	Upper
180	100		
182	95.4	75.7	113.5
184	30.8	24.2	36.2



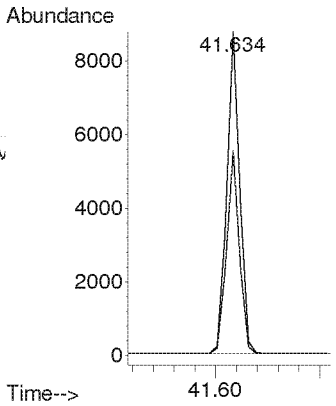
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.936 ppbv
RT: 41.634 min Scan# 3219
Delta R.T. -0.001 min
Lab File: L19BM002.D
Acq: 13 Feb 2019 8:45 am

Tgt Ion:225 Resp: 14735

Ion	Ratio	Lower	Upper
225	100		
223	62.7	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: [illegible] Date: 2/14/19	Data File Name	L19BM004.D	
	Operator	MAH	RMB 2/15/19
	Acq. Method File	9020003.M	
Reviewer: RMB Date: 2/15/19	Sample Name	~~#NAME?~~ B9B1307-BLK1	
	Misc Info	80 ML 8L13001	

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	52877		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	59	0.011	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	56	0.009	Y		0.139
6)	Dichlorotetrafluoroethane	0	0.000	Y		0.040
7)	Vinyl Chloride	0	0.000	Y		0.038
8)	1,3-Butadiene	0	0.000	Y		0.058
	Ethylene oxide	0	0.000	Y		0.136
9)	Bromomethane	0	0.000	Y		0.035
10)	Chloroethane	0	0.000	Y		0.075
11)	Acetonitrile	0	0.000	Y		0.049
12)	Acrolein	40	0.017	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	64	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	133514		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	89	0.006	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	351	0.026	Y	MAX	0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	0	0.000	Y		0.071
40)	trans-1,3-Dichloropropene	0	0.000	Y		0.059
41)	1,1,2-Trichloroethane	0	0.000	Y		0.057
42)	IS-Chlorobenzene-d5	94697		NA		NA
43)	Toluene	64	0.004	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	42	0.004	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	129	0.008	Y		0.077
50)	m,p-Xylene	116	0.008	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	155	0.011	Y		0.080
55)	1,3,5-Trimethylbenzene	84	0.006	Y		0.102
56)	1,2,4-Trimethylbenzene	112	0.009	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 : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM004.D
Acq On : 13 Feb 2019 11:22 am
Operator : MAH
Sample : B9B1307-BLK1
Misc : 80 ML 8L13001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 14 08:24:29 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	52877	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	133514	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	94697	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.823	41	59	0.0109 ppbv #	78
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	9.740	50	56	0.0085 ppbv #	42
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	
13) Acrolein	14.773	56	40	0.0173 ppbv #	17
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	64	0.0034 ppbv #	75
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	22.553	78	89	0.0063 ppbv #	53
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	24.551	41	351	0.0256 ppbv #	96
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	27.092	91	64	0.0041 ppbv #	26
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	28.873	43	42	0.0045 ppbv #	38
48) Tetrachloroethylene	0.000	166	0	N.D.	

RLB 2/15/19

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM004.D
Acq On : 13 Feb 2019 11:22 am
Operator : MAH
Sample : B9B1307-BLK1
Misc : 80 ML 8L13001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 14 08:24:29 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

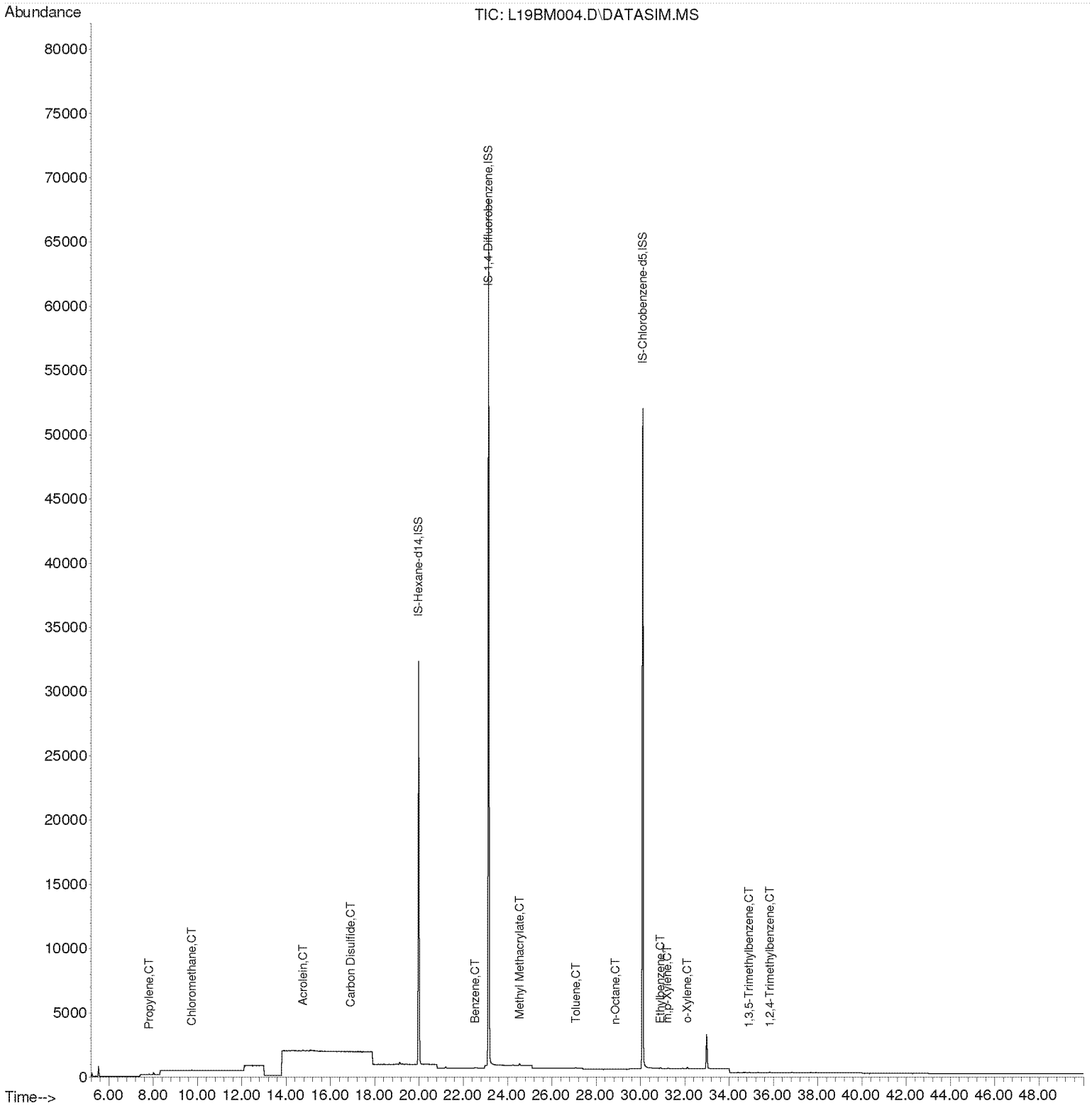
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.915	91	129	0.0079 ppbv #	42
51) m,p-Xylene	31.221	91	116	0.0084 ppbv	97
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.118	91	155	0.0114 ppbv	99
56) 1,3,5-Trimethylbenzene	34.918	105	84	0.0057 ppbv #	83
57) 1,2,4-Trimethylbenzene	35.844	105	112	0.0089 ppbv #	78
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

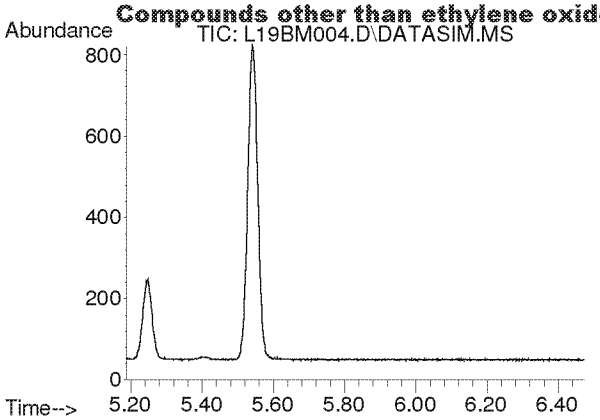
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM004.D
Acq On : 13 Feb 2019 11:22 am
Operator : MAH
Sample : B9B1307-BLK1
Misc : 80 ML 8L13001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 14 08:24:29 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



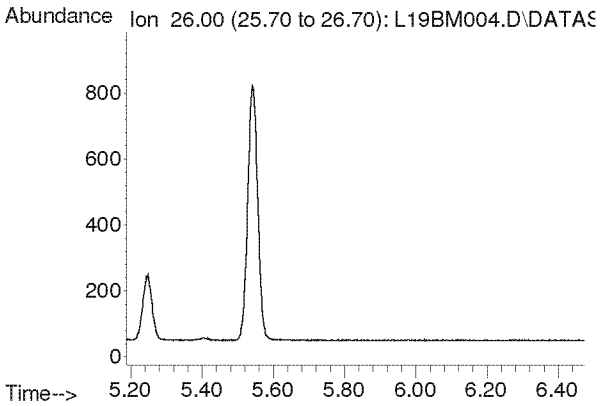
Compounds other than ethylene oxide were not quantitated.

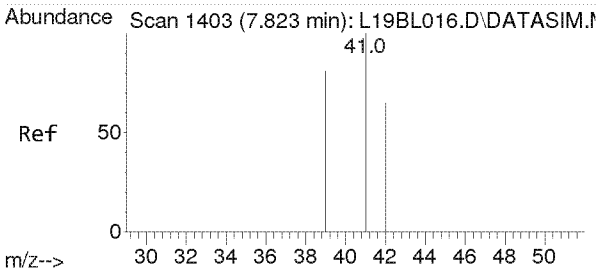


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 26

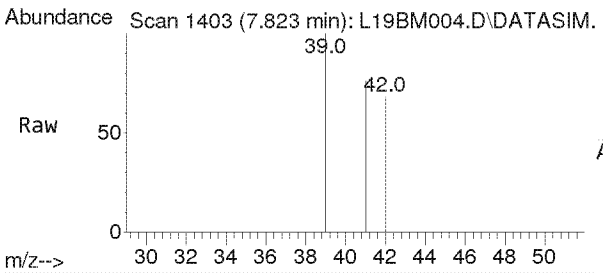


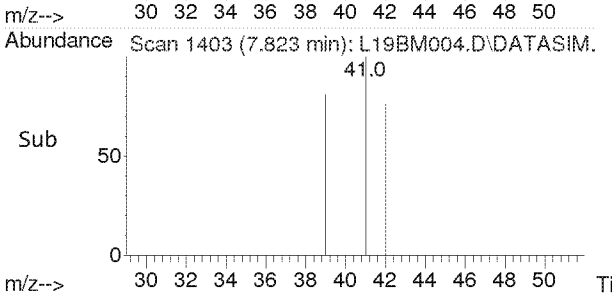


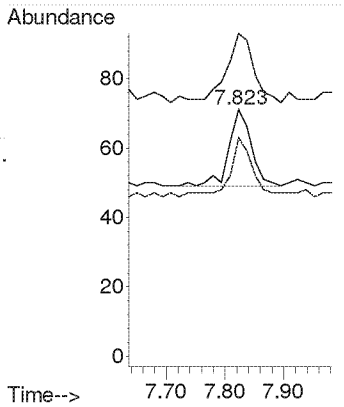
#3
Propylene
Concen: 0.011 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. 0.000 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 41 Resp: 59

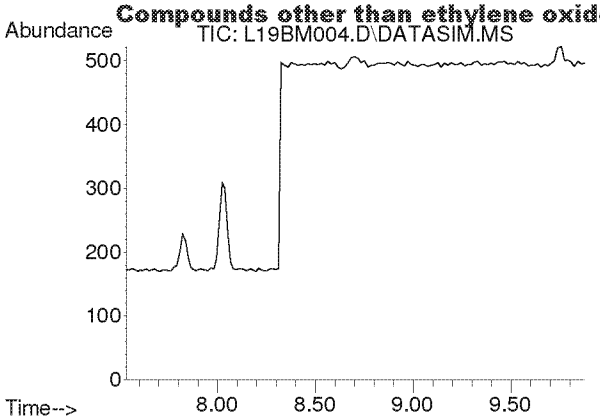
Ion	Ratio	Lower	Upper
41	100		
39	106.8	64.2	96.2#
42	76.3	52.6	79.0







Compounds other than ethylene oxide were not quantitated.

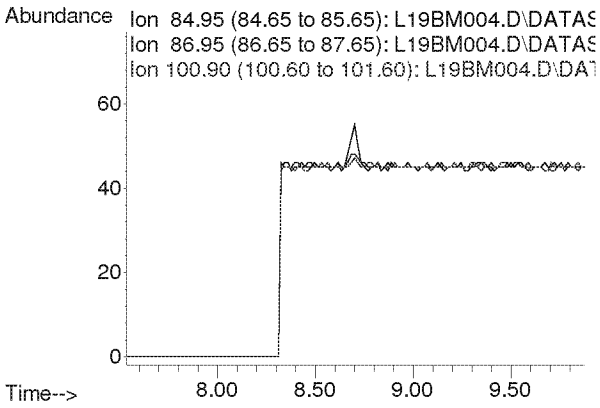


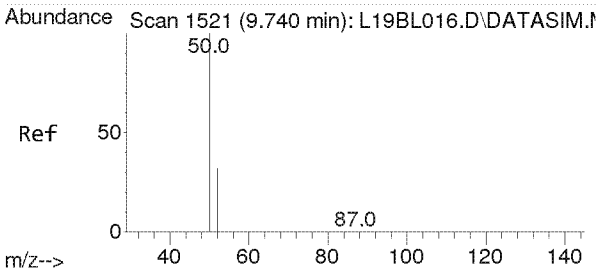
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1

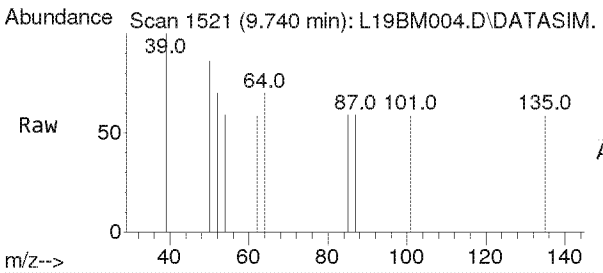


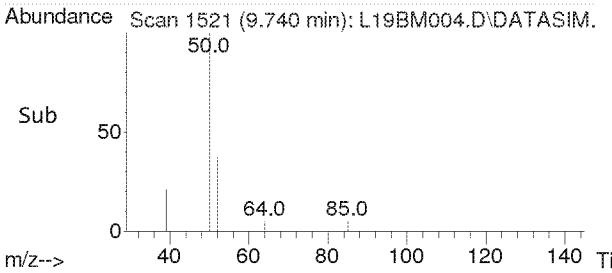


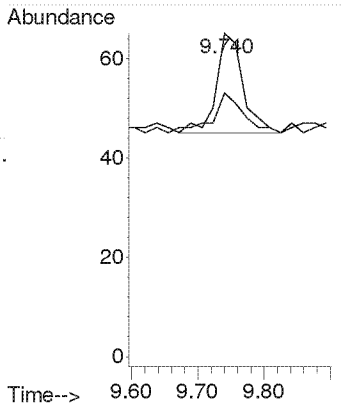
#5
Chloromethane
Concen: 0.009 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. 0.000 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 50 Resp: 56

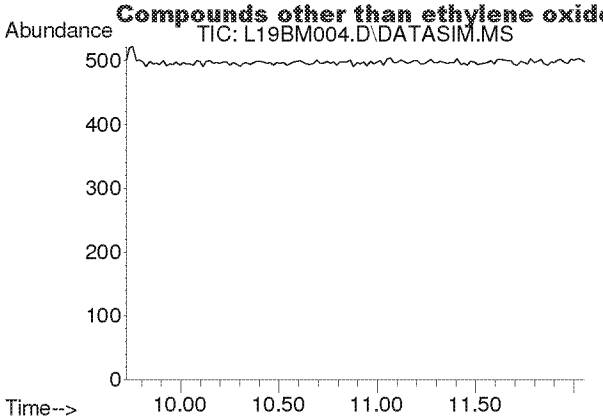
Ion	Ratio	Lower	Upper
50	100		
52	0.0	26.1	39.1#







Compounds other than ethylene oxide were not quantitated.

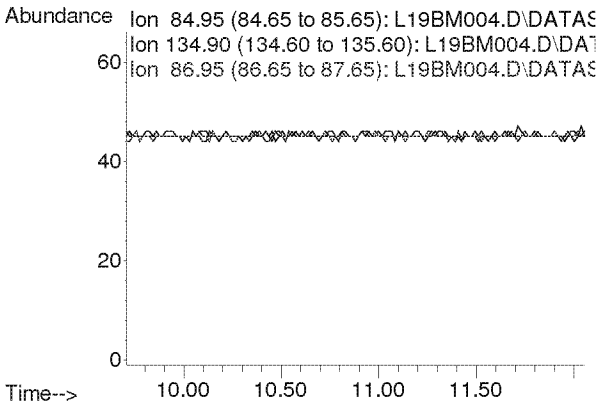


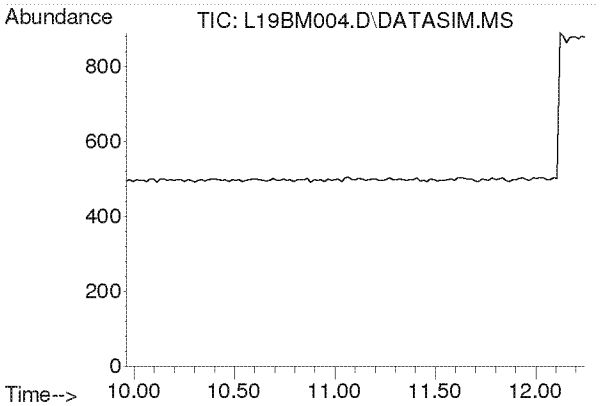
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



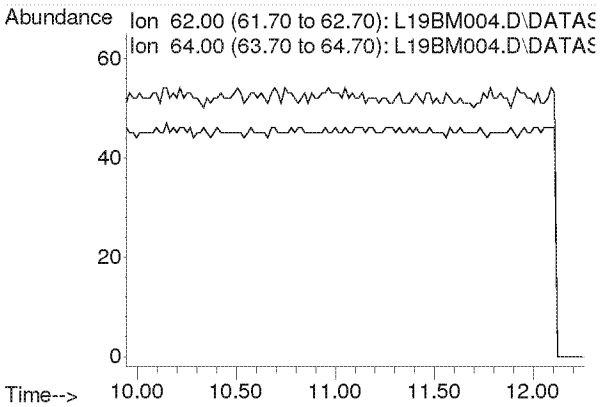


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

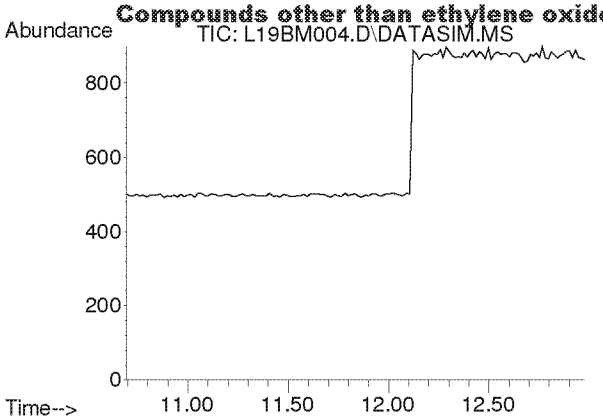
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

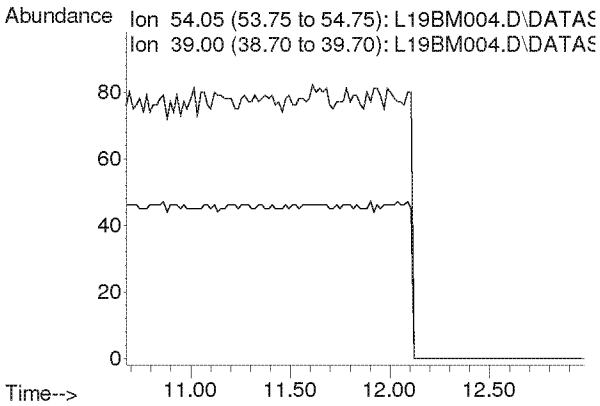


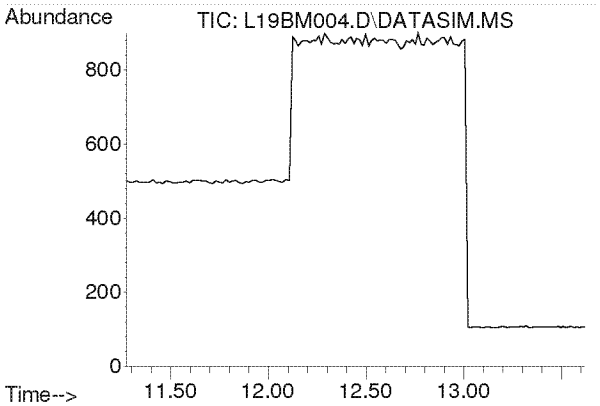
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



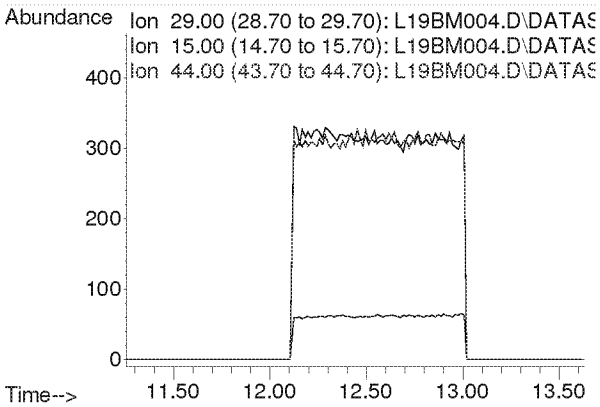


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

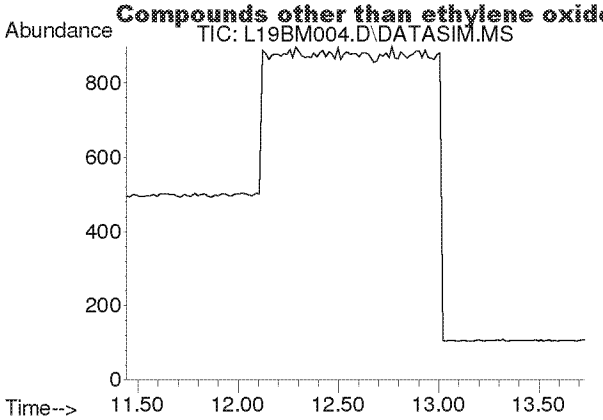
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

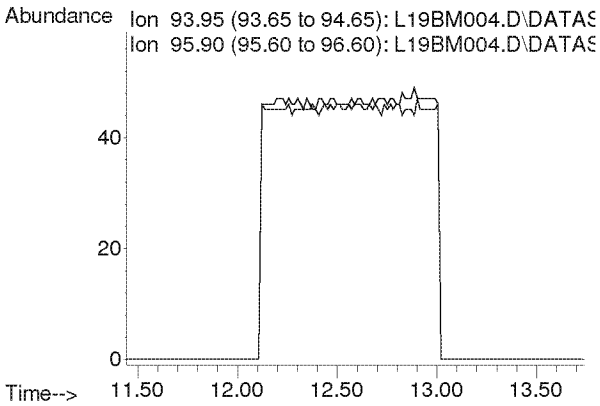


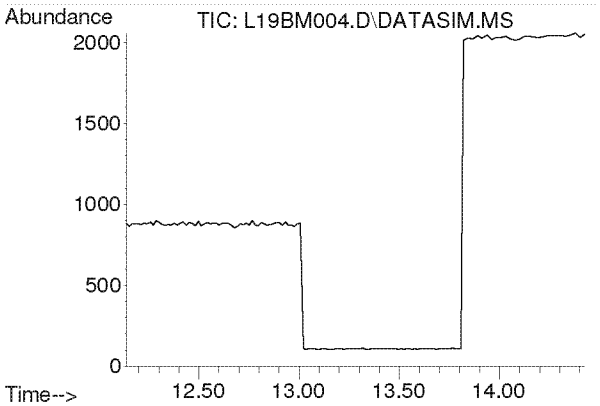
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



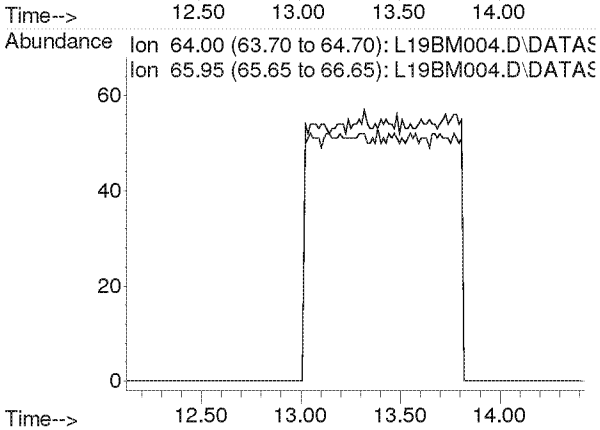


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

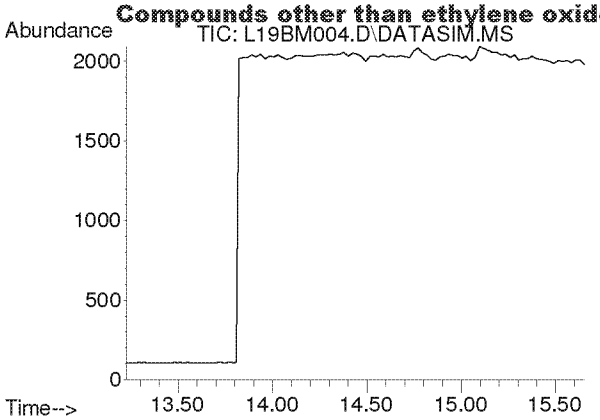
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

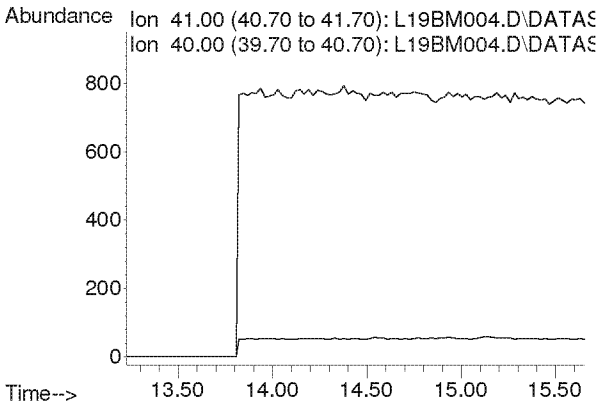


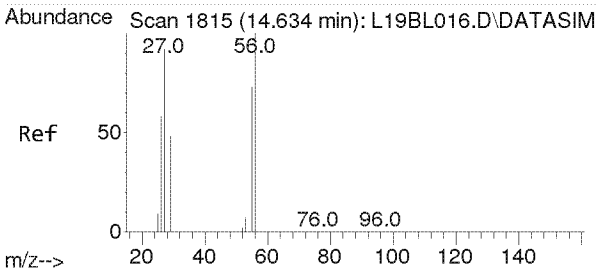
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8

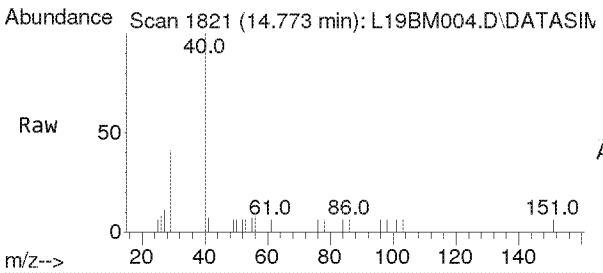


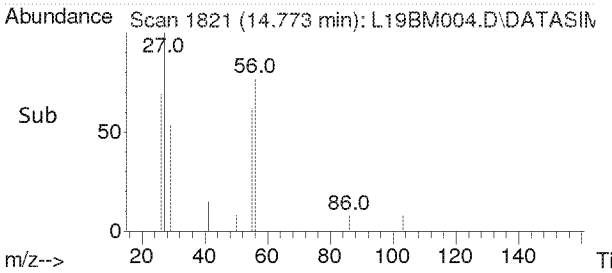


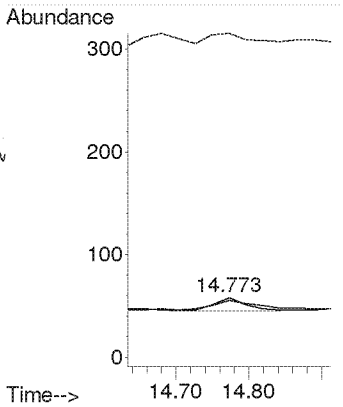
#13
Acrolein
Concen: 0.017 ppbv
RT: 14.773 min Scan# 1821
Delta R.T. 0.139 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 56 Resp: 40

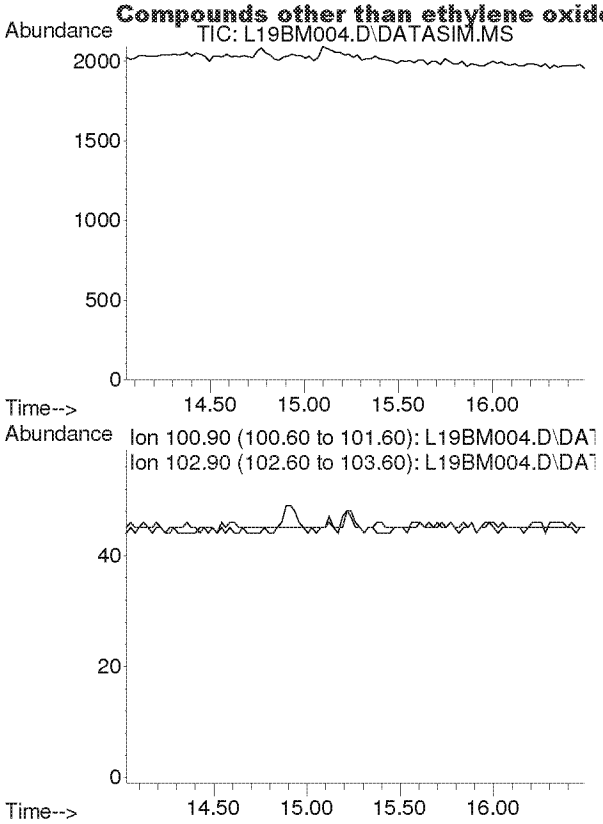
Ion	Ratio	Lower	Upper
56	100		
55	0.0	60.8	91.2#
29	0.0	43.8	65.6#







Compounds other than ethylene oxide were not quantitated.

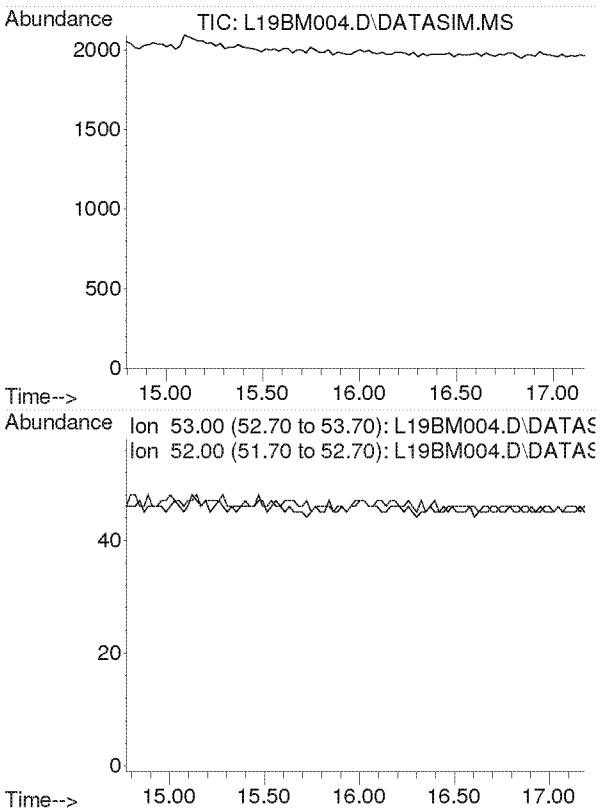


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



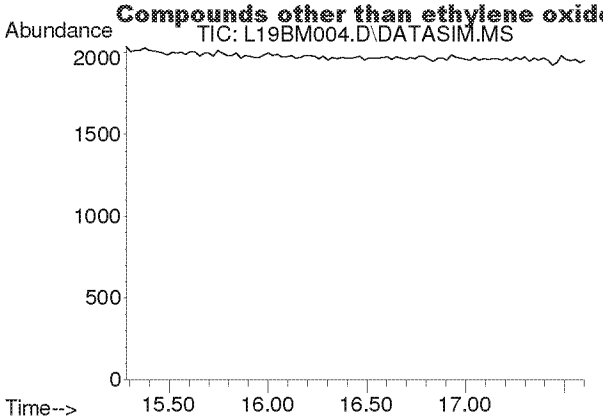
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9

Compounds other than ethylene oxide were not quantitated.

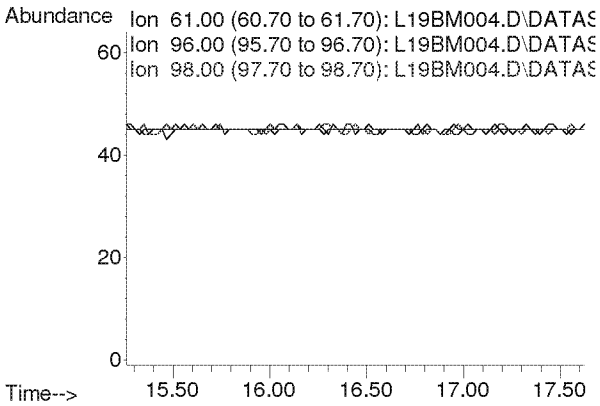


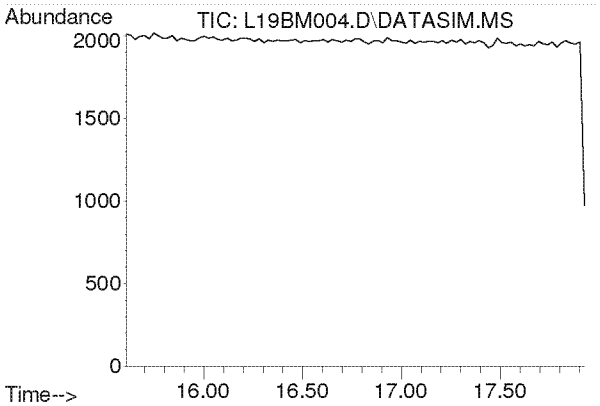
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



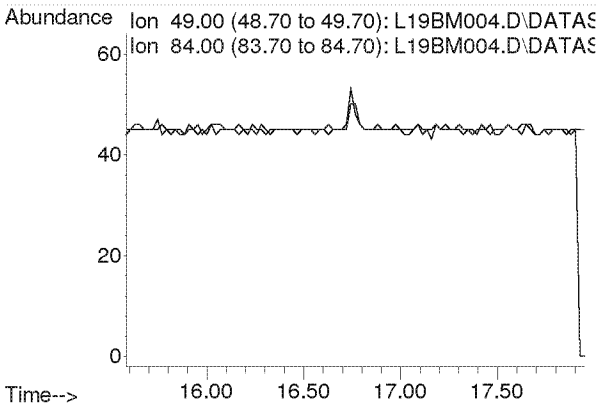


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

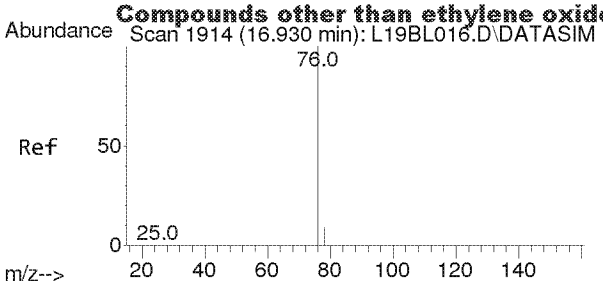
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



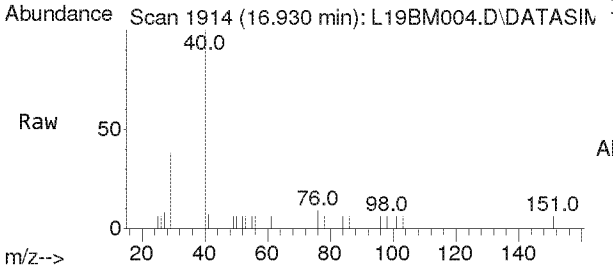
Compounds other than ethylene oxide were not quantitated.

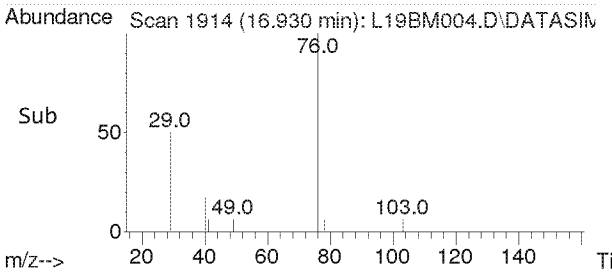


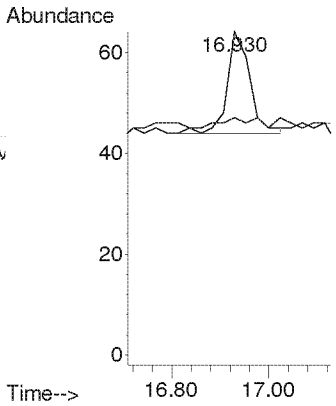
#18
Carbon Disulfide
Concen: 0.003 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. 0.000 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

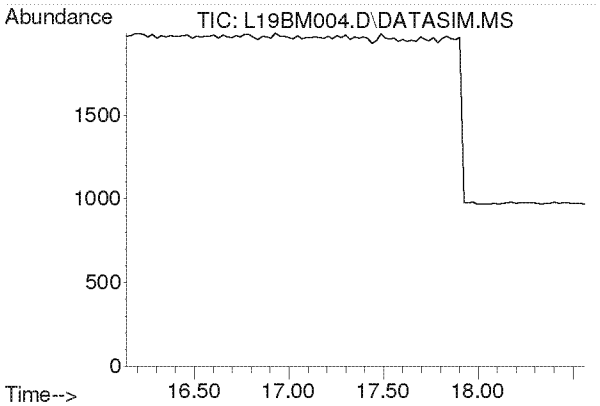
Tgt Ion: 76 Resp: 64

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.4	11.0#







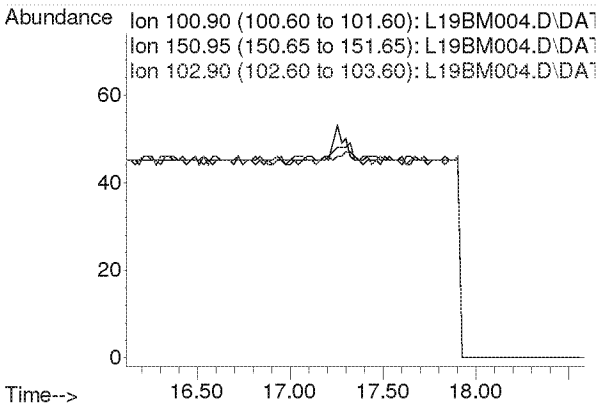


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

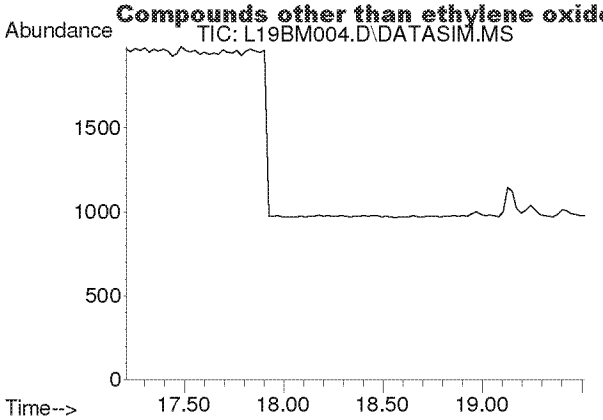
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

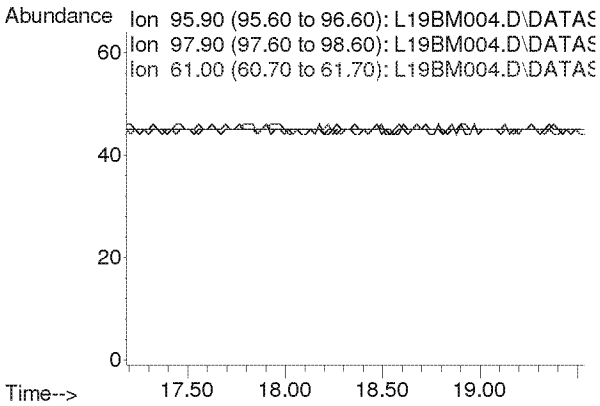


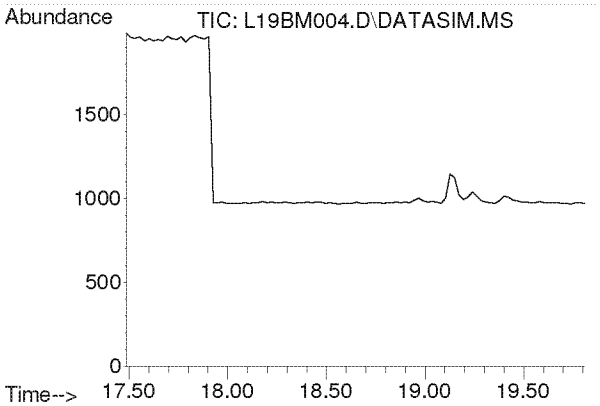
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



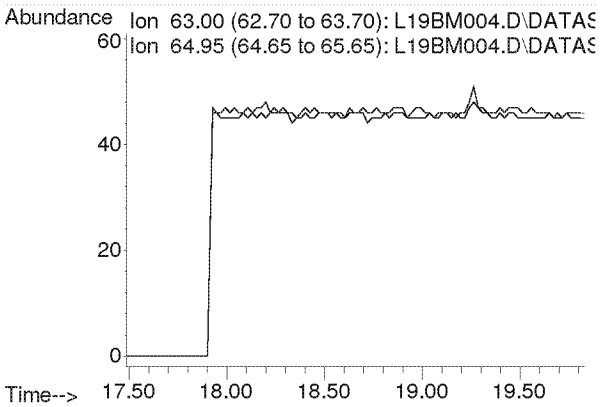


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

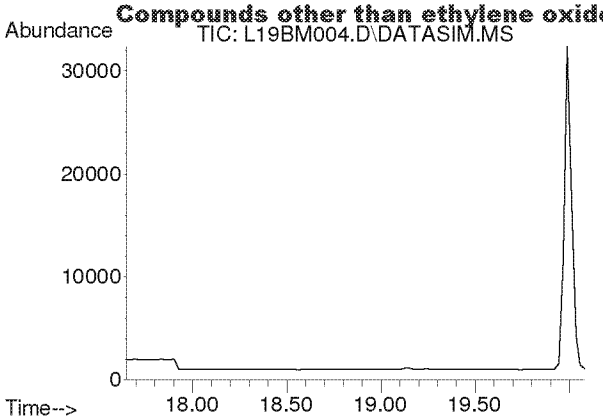
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

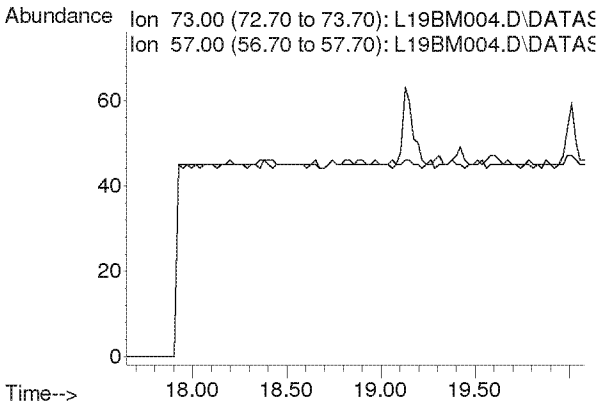


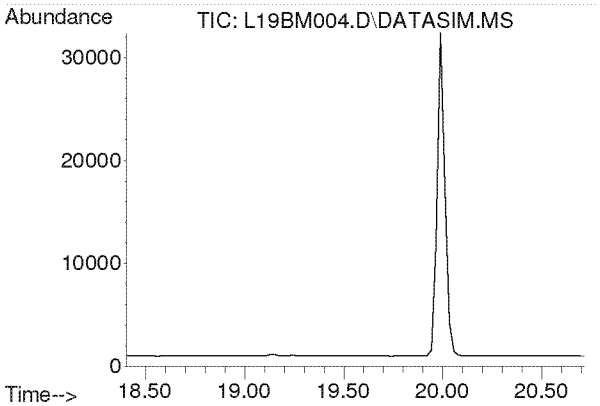
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



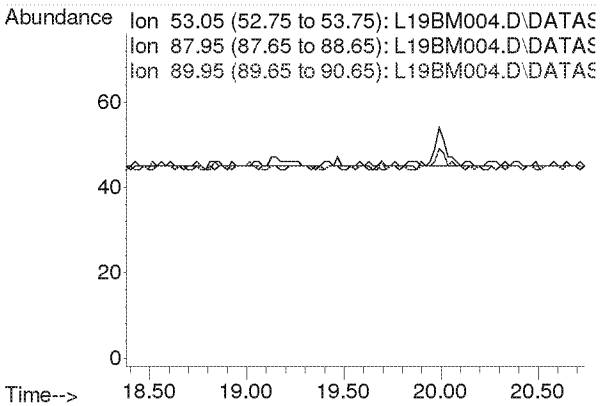


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

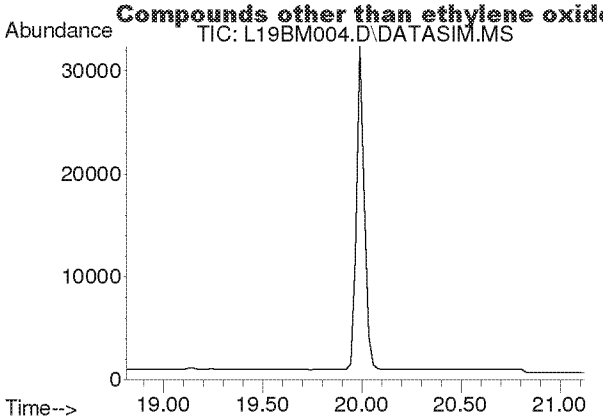
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

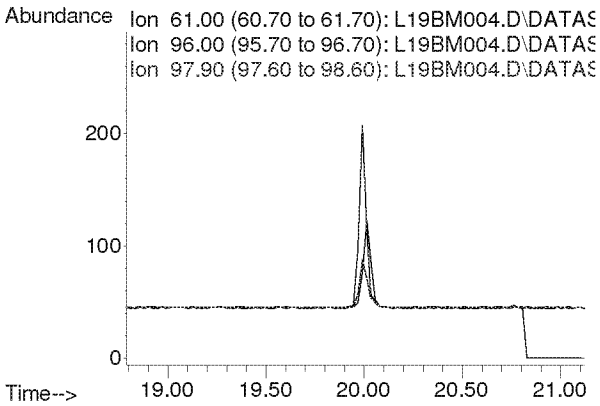


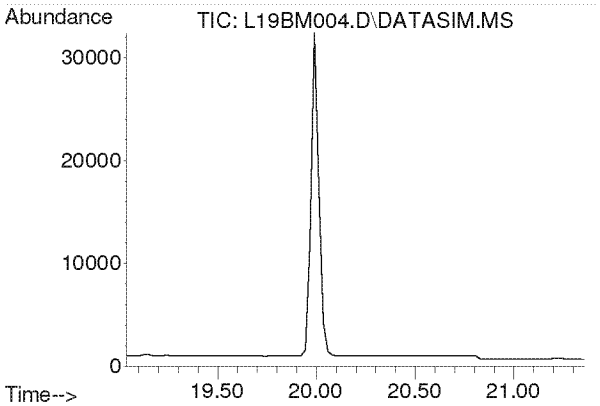
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



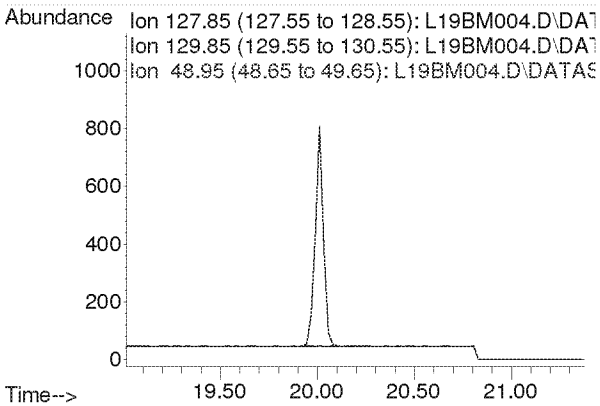


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

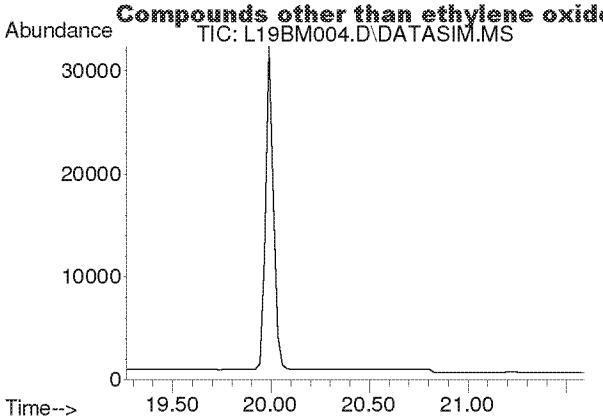
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

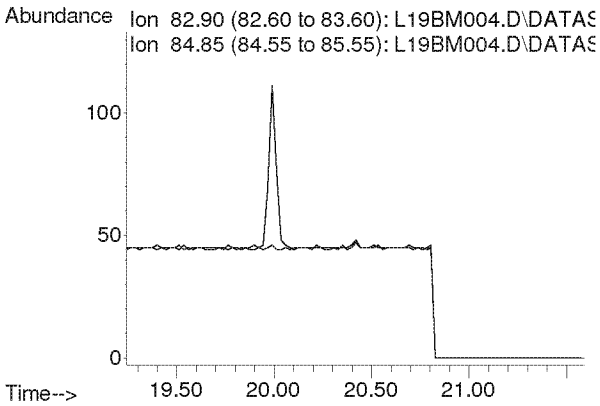


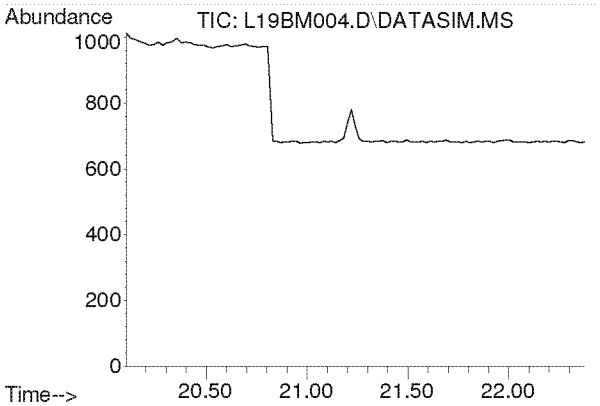
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



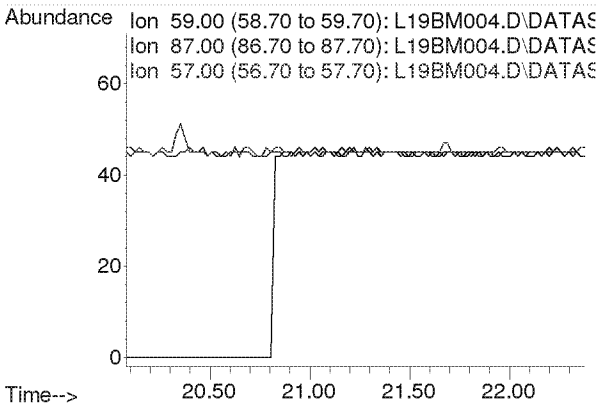


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

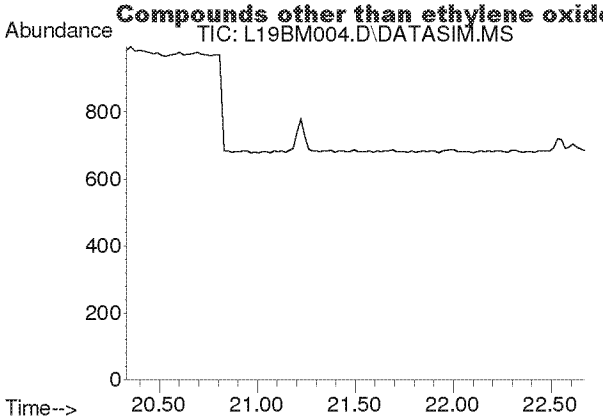
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

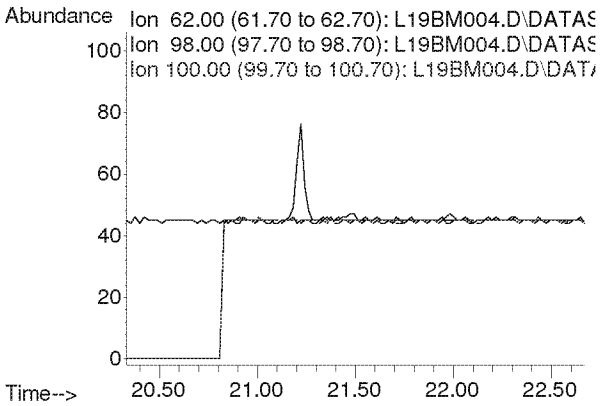


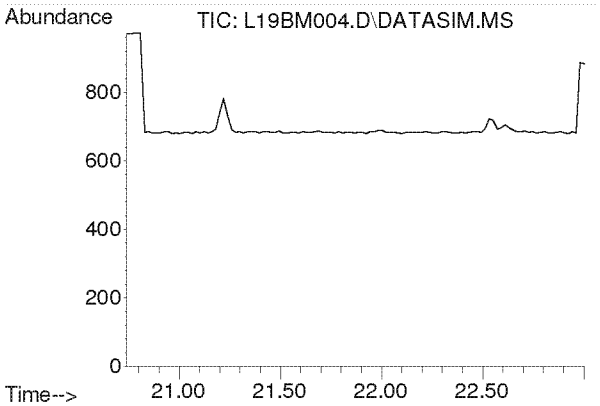
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



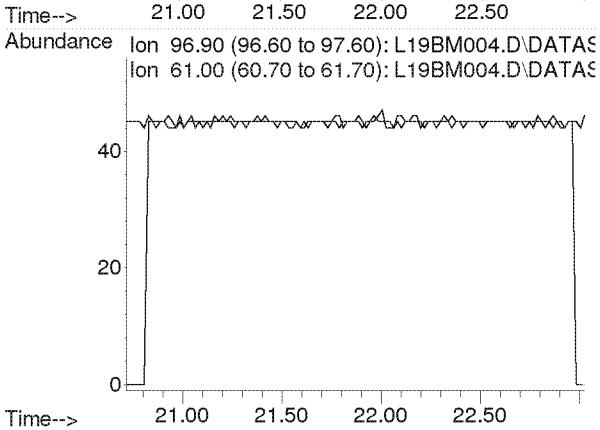


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

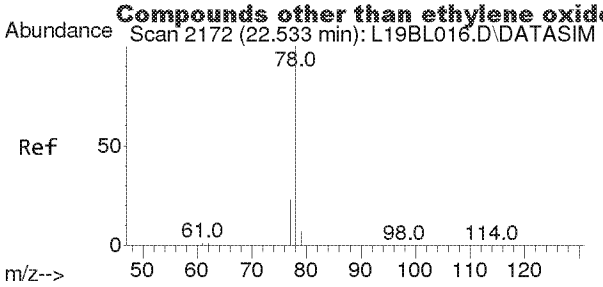
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



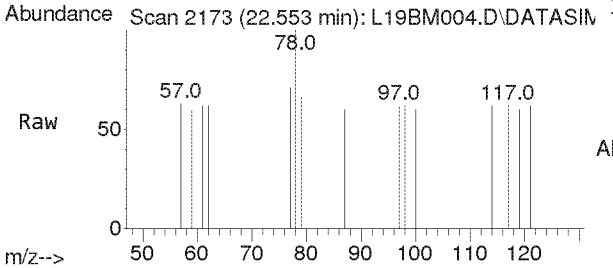
Compounds other than ethylene oxide were not quantitated.

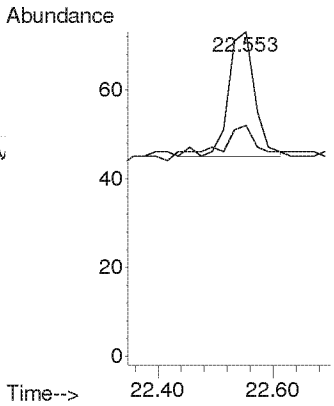


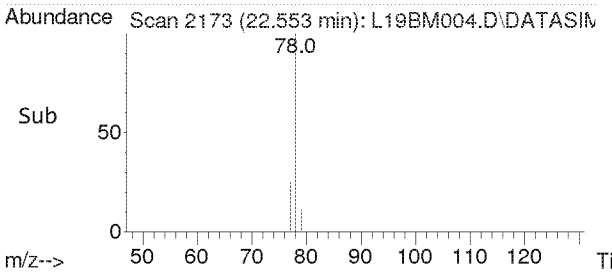
#31
Benzene
Concen: 0.006 ppbv
RT: 22.553 min Scan# 2173
Delta R.T. 0.020 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

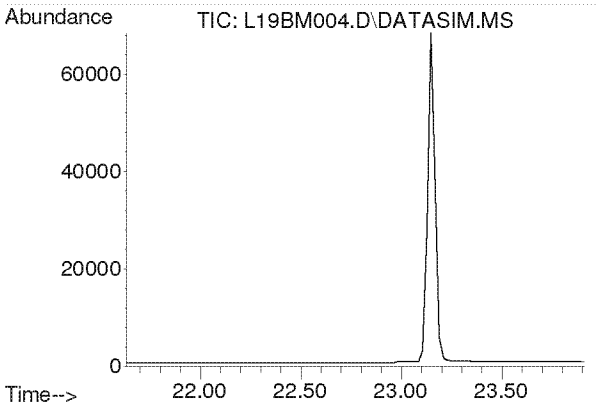
Tgt Ion: 78 Resp: 89

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.4#







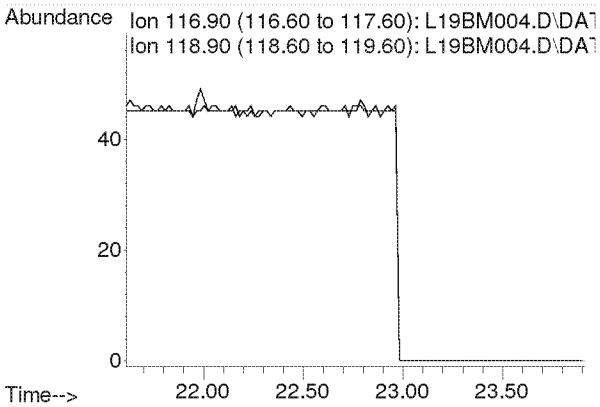


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

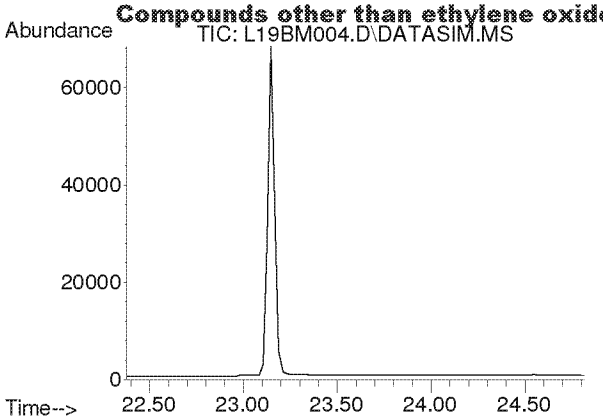
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

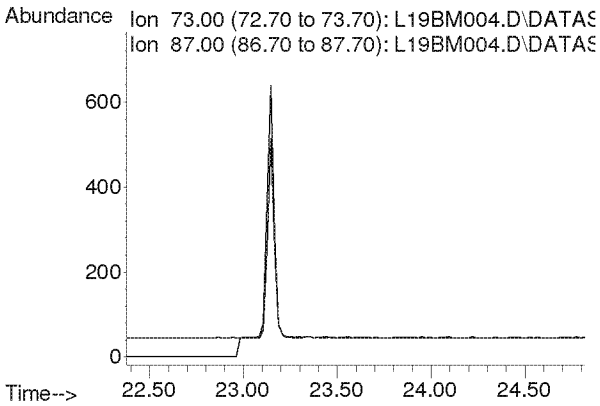


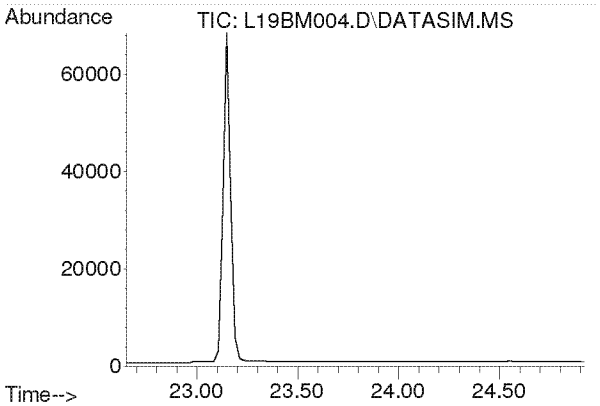
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



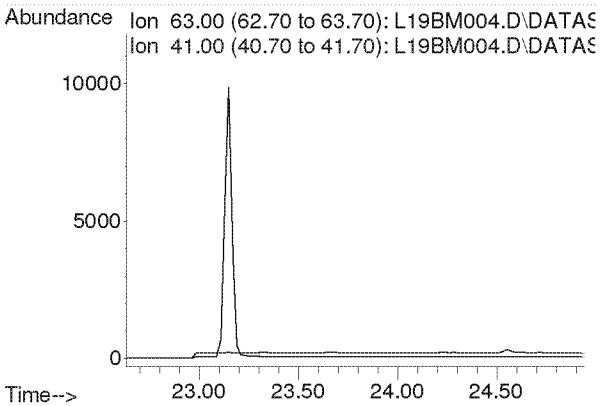


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

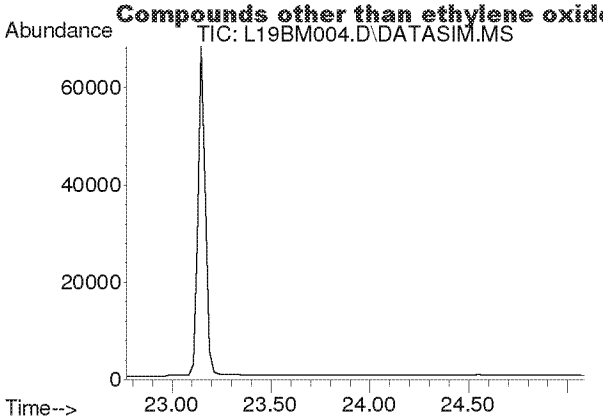
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

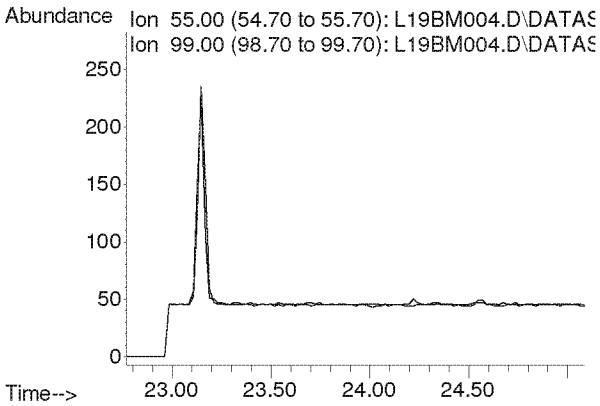


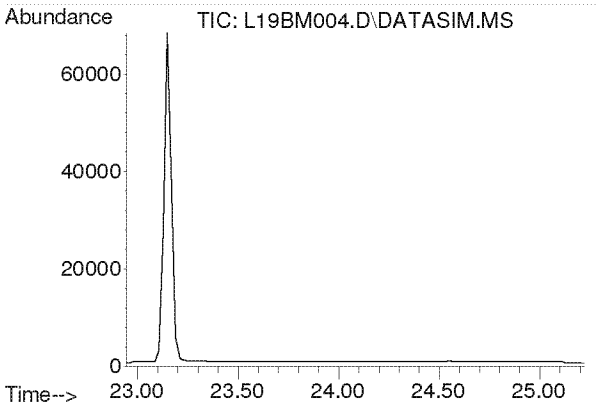
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



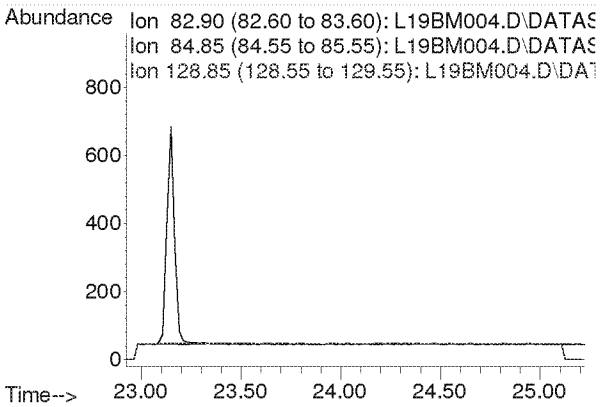


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

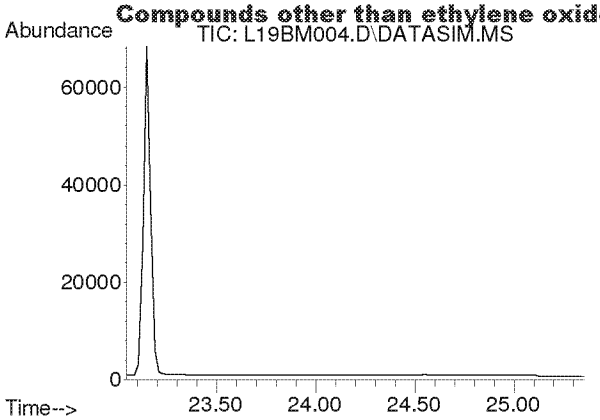
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

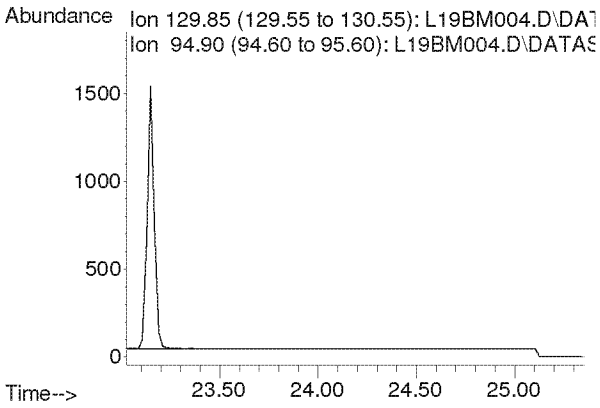


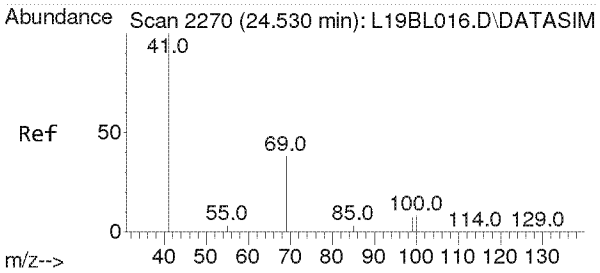
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1

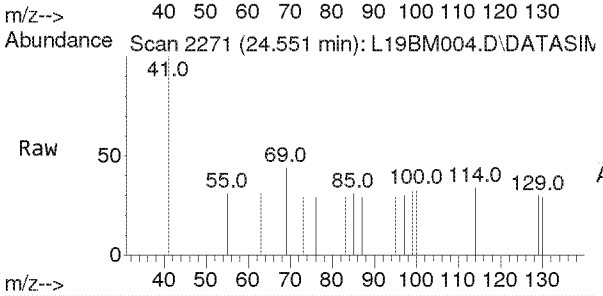


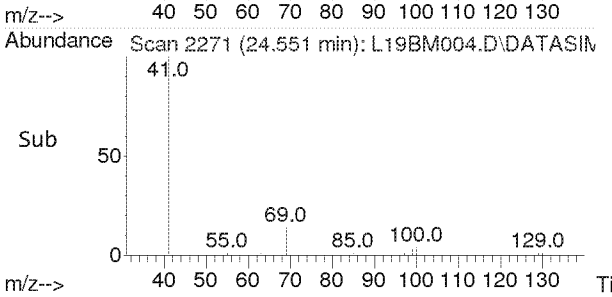


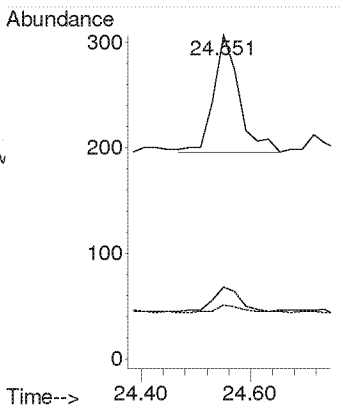
#38
Methyl Methacrylate
Concen: 0.026 ppbv
RT: 24.551 min Scan# 2271
Delta R.T. 0.021 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 41 Resp: 351

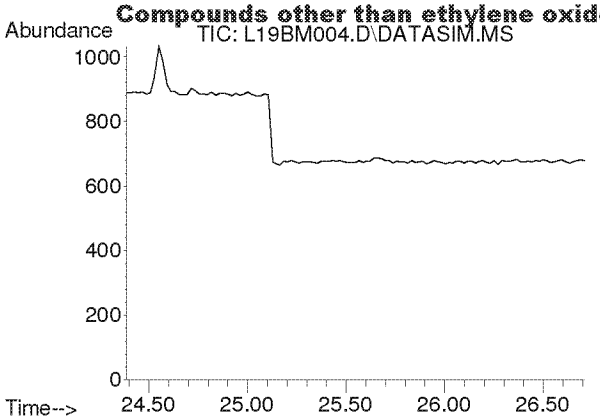
Ion	Ratio	Lower	Upper
41	100		
69	21.4	16.8	25.2
100	0.0	4.5	6.7#







Compounds other than ethylene oxide were not quantitated.

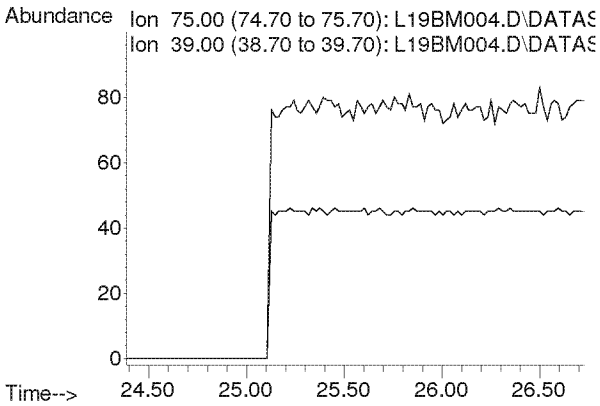


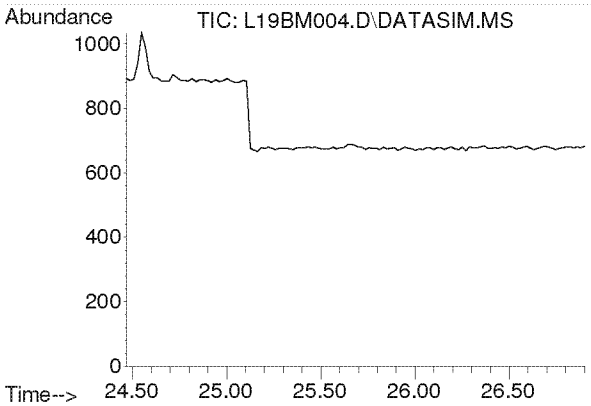
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



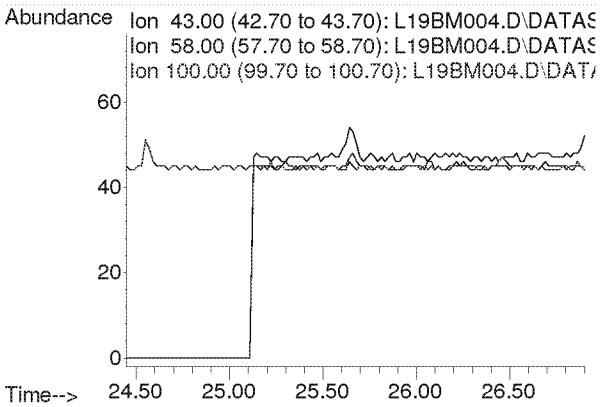


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

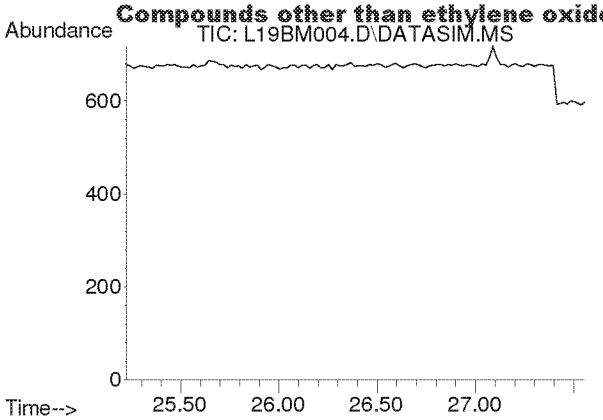
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

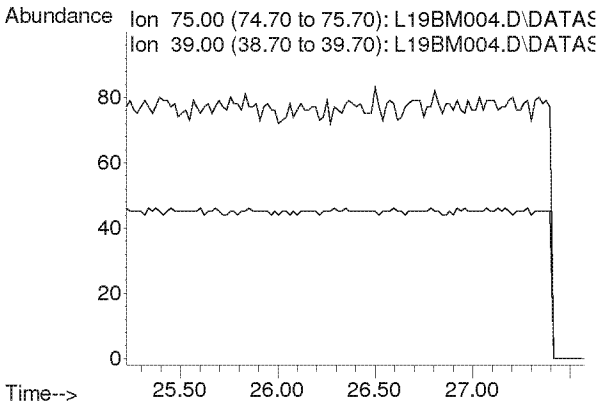


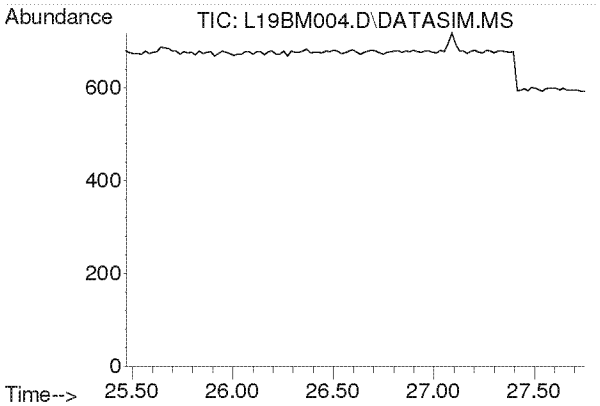
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



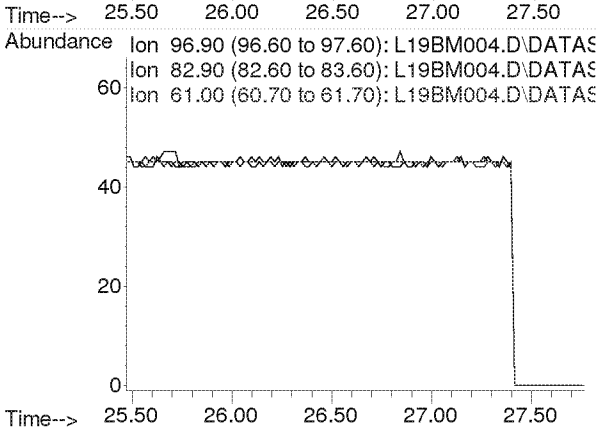


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

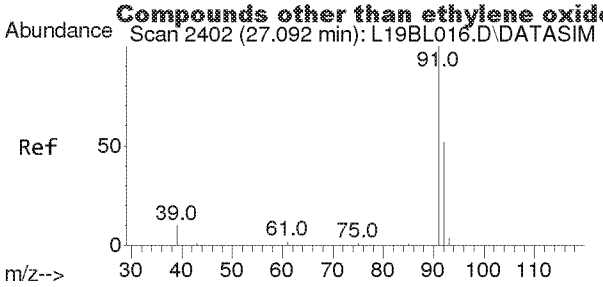
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



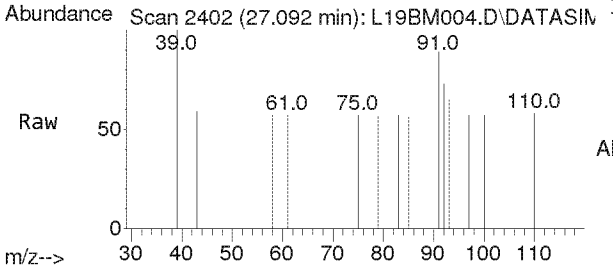
Compounds other than ethylene oxide were not quantitated.

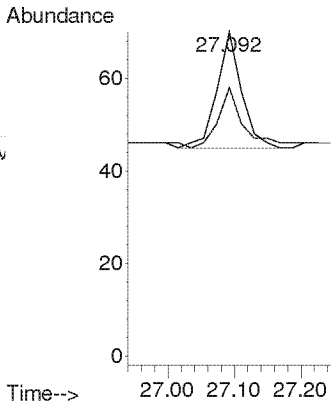


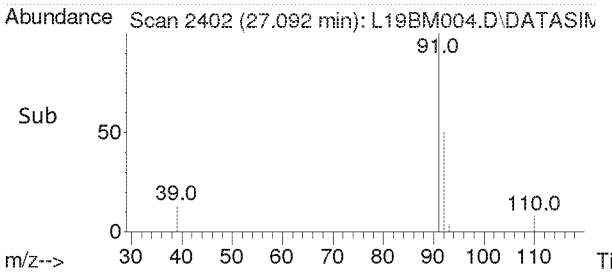
#44
Toluene
Concen: 0.004 ppbv
RT: 27.092 min Scan# 2402
Delta R.T. 0.000 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

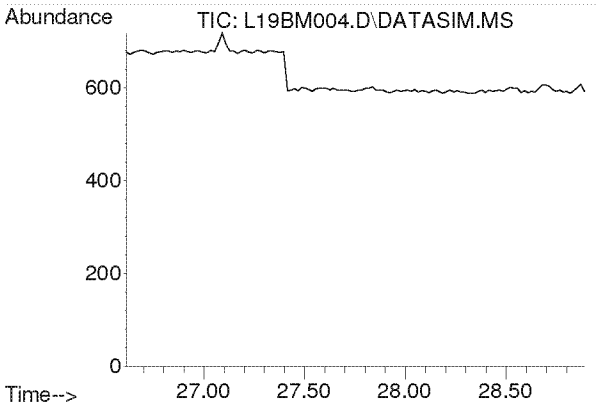
Tgt Ion: 91 Resp: 64

Ion	Ratio	Lower	Upper
91	100		
92	0.0	42.0	63.0#







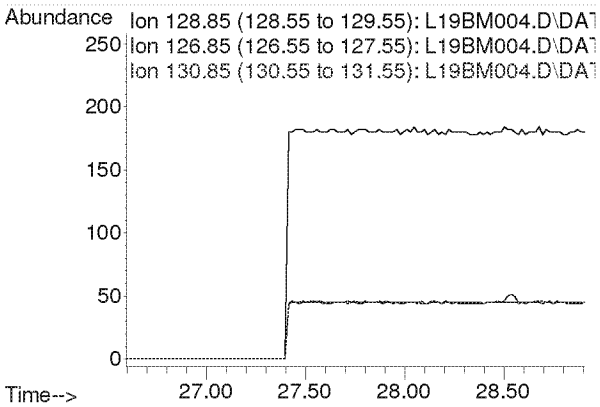


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

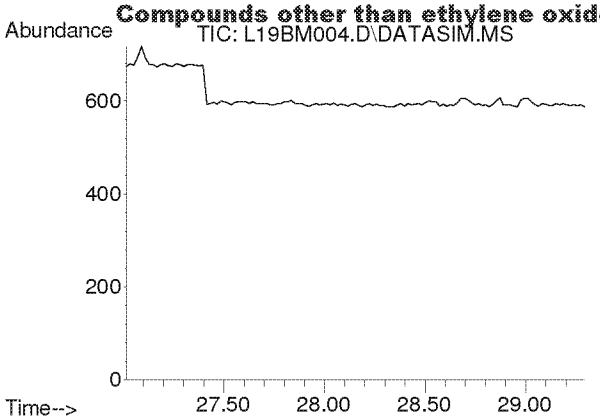
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

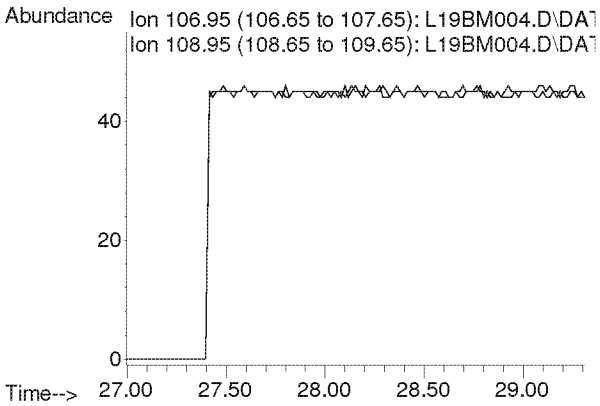


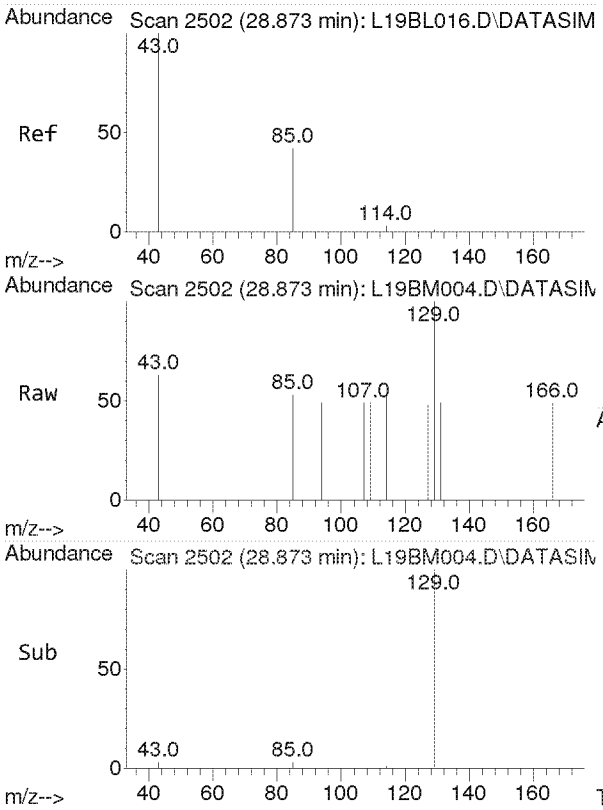
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2

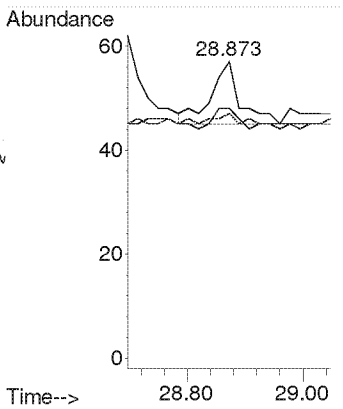




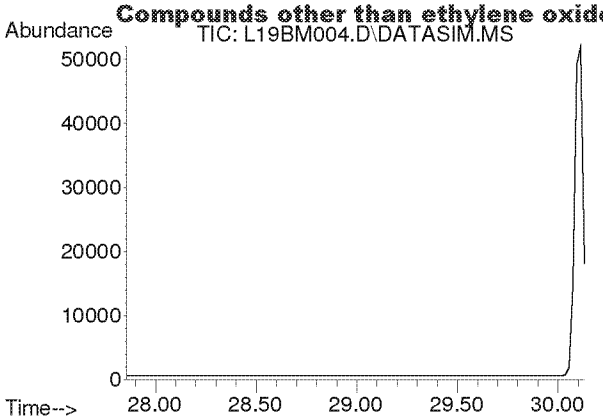
#47
n-Octane
Concen: 0.004 ppbv
RT: 28.873 min Scan# 2502
Delta R.T. 0.000 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 43 Resp: 42

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.

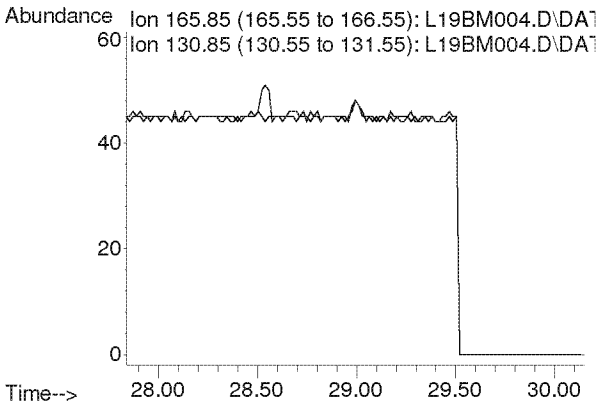


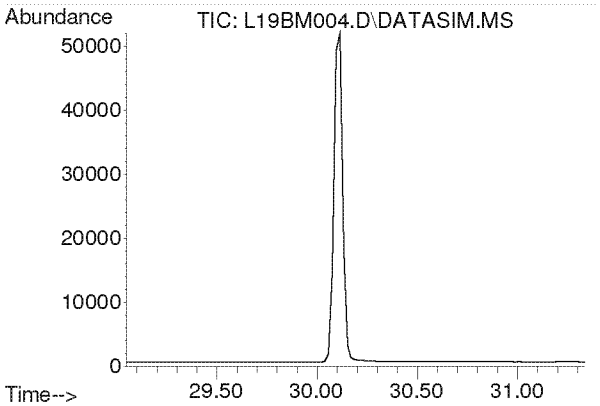
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



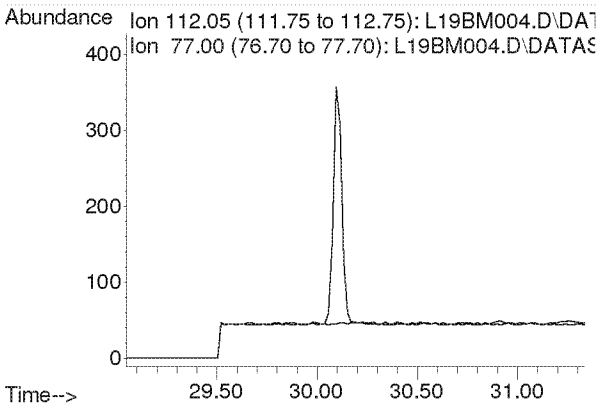


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

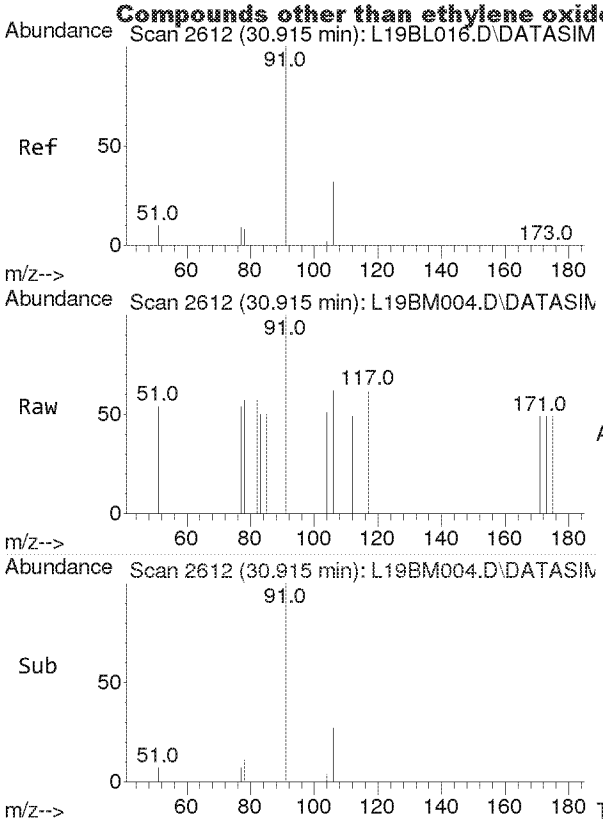
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



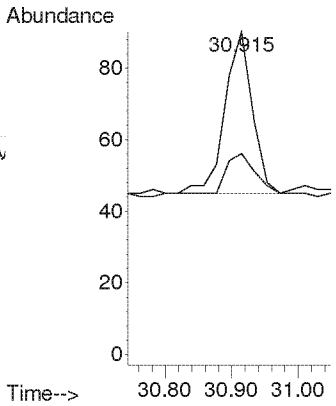
Compounds other than ethylene oxide were not quantitated.

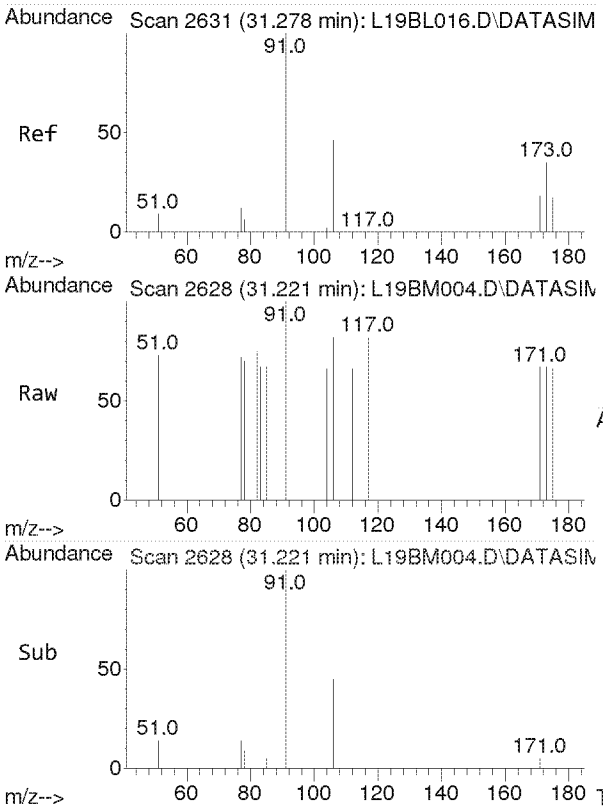


#50
Ethylbenzene
Concen: 0.008 ppbv
RT: 30.915 min Scan# 2612
Delta R.T. 0.000 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 91 Resp: 129

Ion	Ratio	Lower	Upper
91	100		
106	0.0	26.0	39.0#

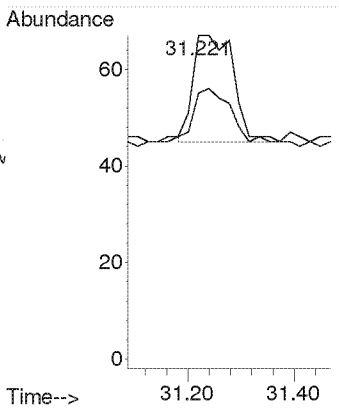




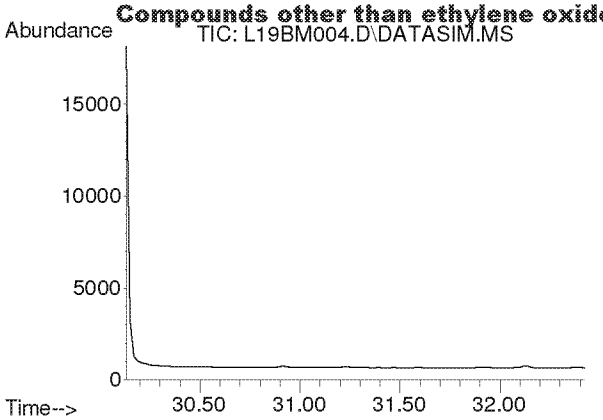
#51
m,p-Xylene
Concen: 0.008 ppbv
RT: 31.221 min Scan# 2628
Delta R.T. -0.057 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 91 Resp: 116

Ion	Ratio	Lower	Upper
91	100		
106	44.8	37.3	55.9



Compounds other than ethylene oxide were not quantitated.

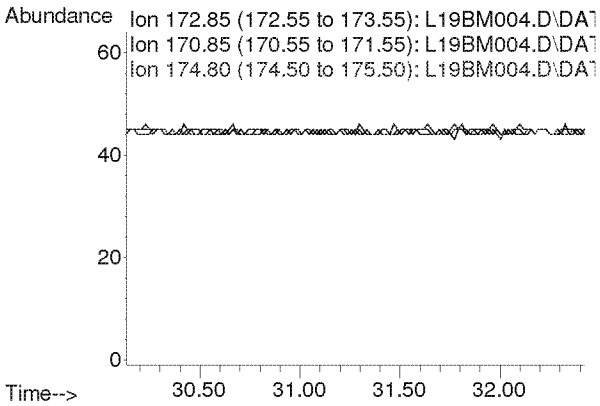


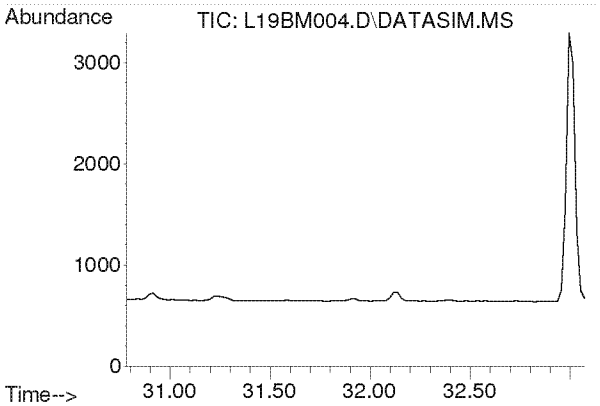
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



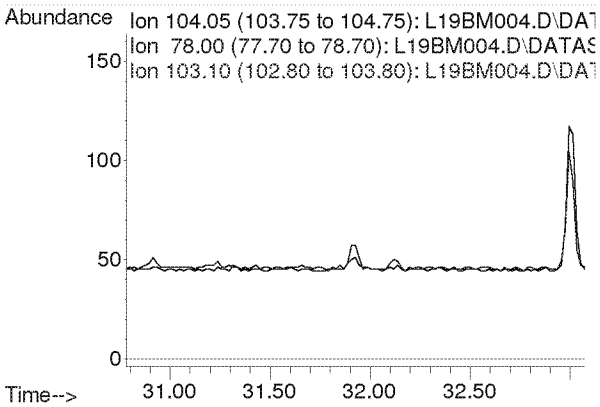


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

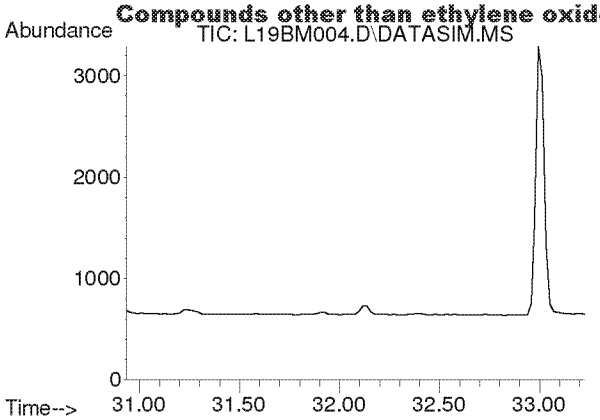
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

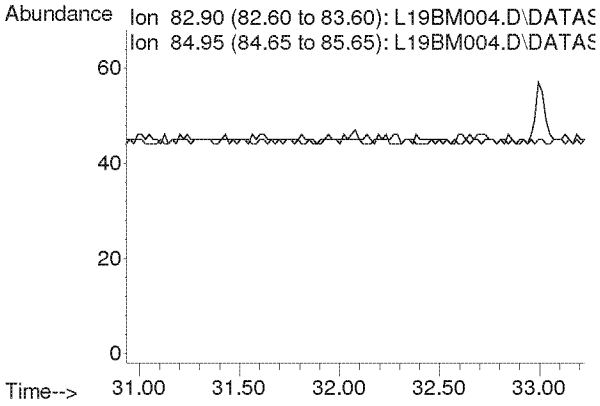


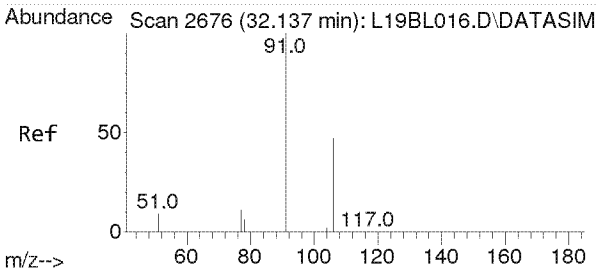
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

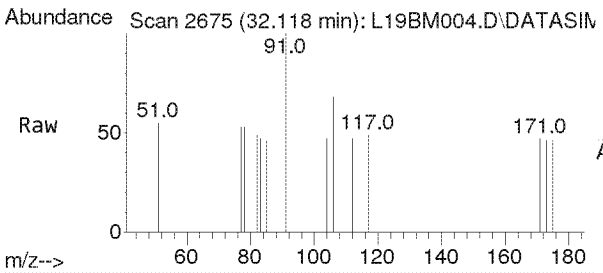


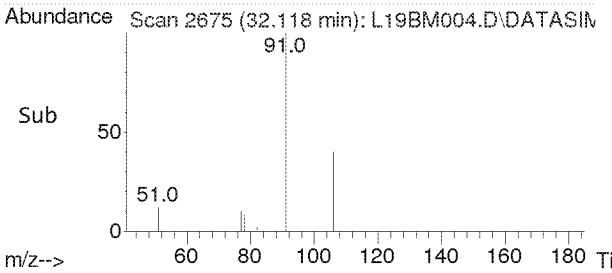


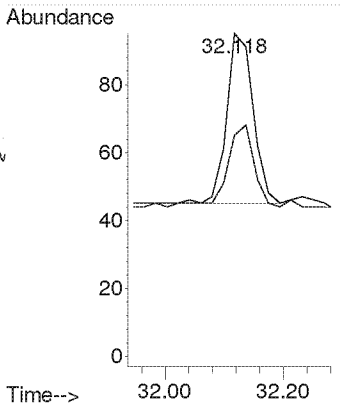
#55
o-Xylene
Concen: 0.011 ppbv
RT: 32.118 min Scan# 2675
Delta R.T. -0.019 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 91 Resp: 155

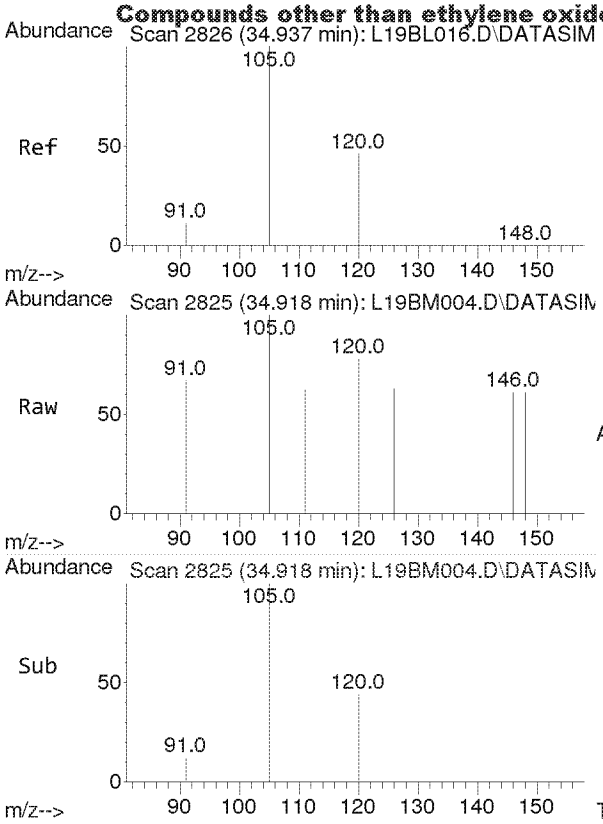
Ion	Ratio	Lower	Upper
91	100		
106	46.5	36.6	55.0







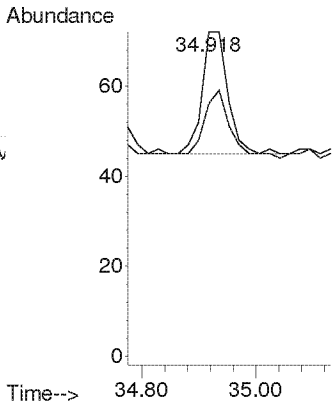
Compounds other than ethylene oxide were not quantitated.

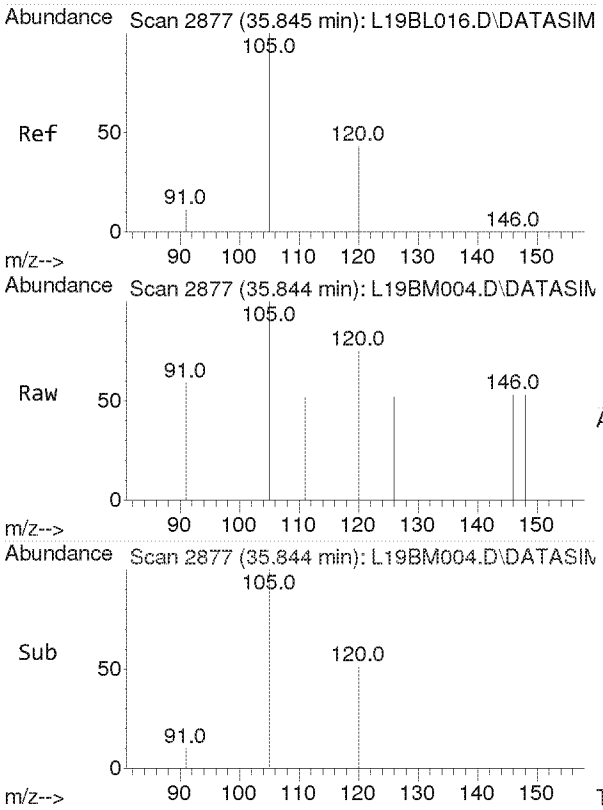


#56
1,3,5-Trimethylbenzene
Concen: 0.006 ppbv
RT: 34.918 min Scan# 2825
Delta R.T. -0.019 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion:105 Resp: 84

Ion	Ratio	Lower	Upper
105	100		
120	57.1	36.8	55.2#

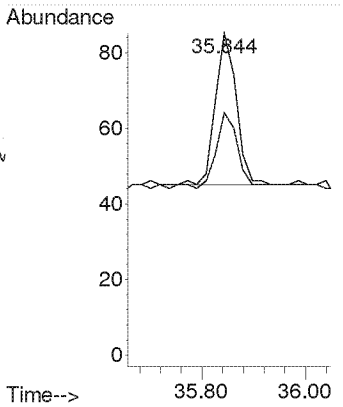




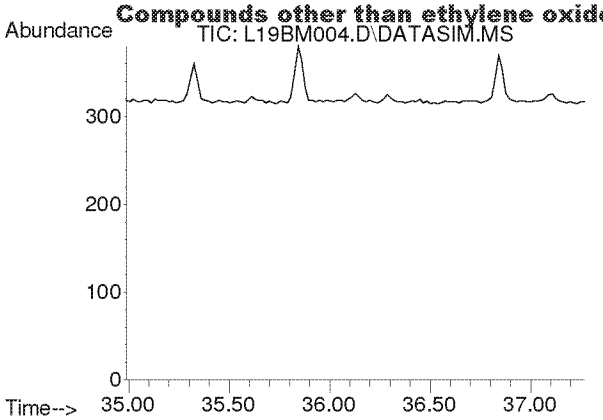
#57
1,2,4-Trimethylbenzene
Concen: 0.009 ppbv
RT: 35.844 min Scan# 2877
Delta R.T. -0.001 min
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion:105 Resp: 112

Ion	Ratio	Lower	Upper
105	100		
120	58.0	35.2	52.8#



Compounds other than ethylene oxide were not quantitated.

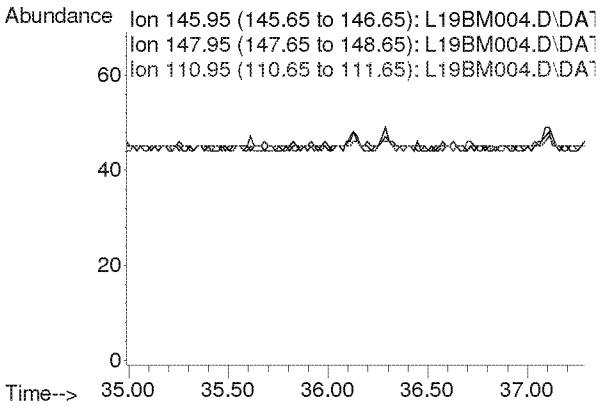


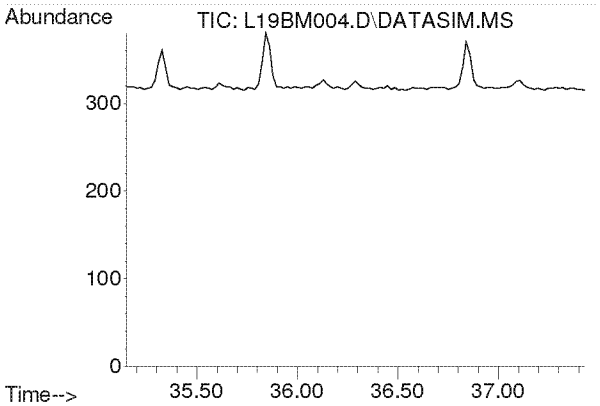
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



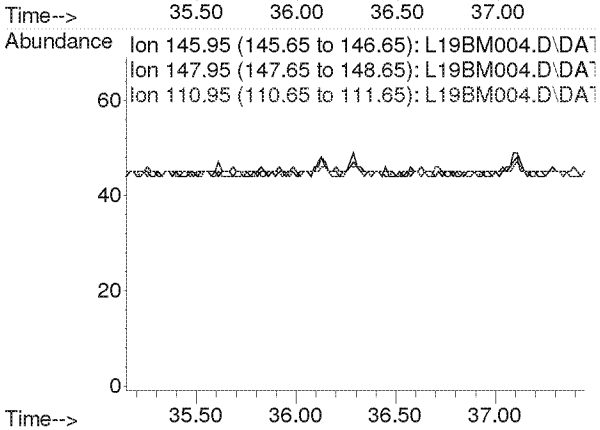


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

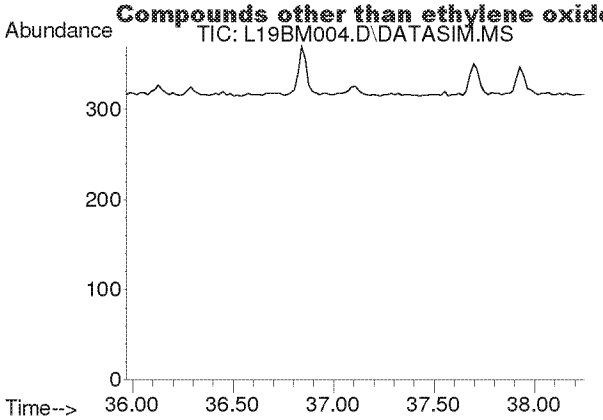
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

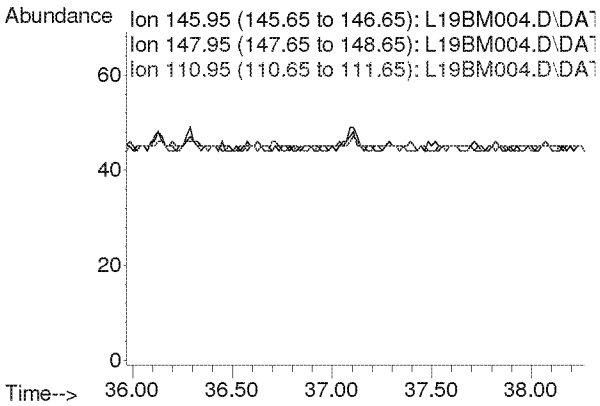


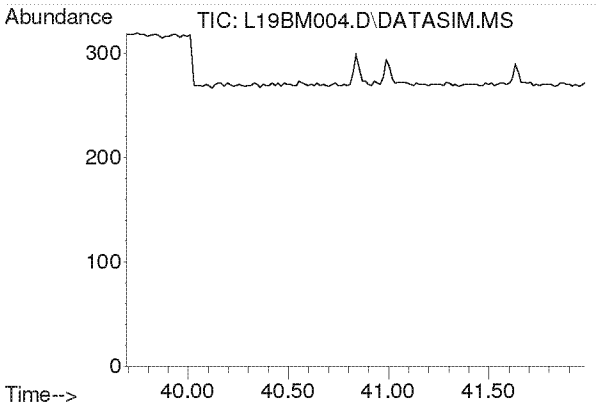
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



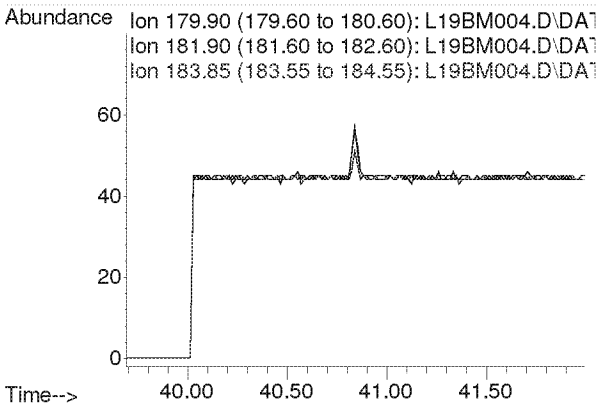


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

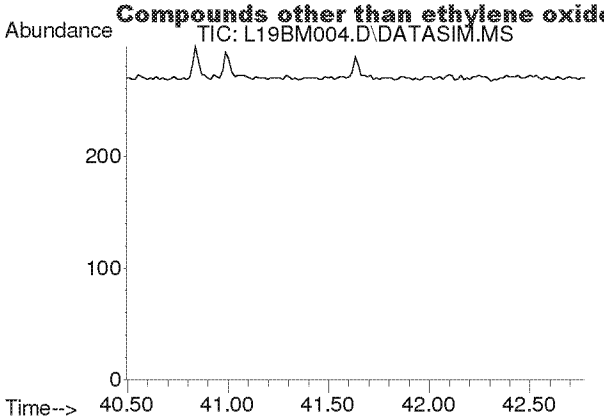
Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

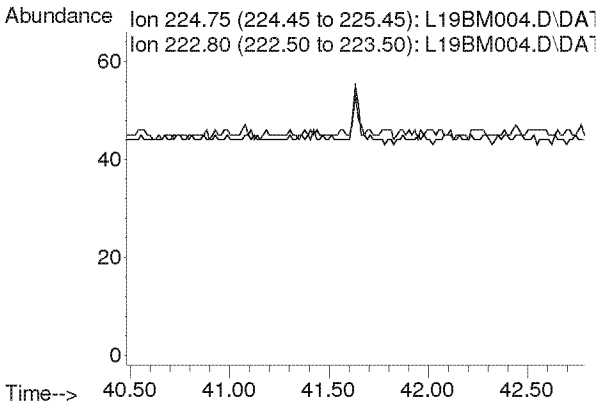


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BM004.D
Acq: 13 Feb 2019 11:22 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\L19BM\
Data File : L19BM005.D
Acq On : 13 Feb 2019 12:41 pm (#1); 13-Feb-19, 12:36:28 (#2)
Operator : MAH
Sample : 9020508-07
Misc : TRIP BLANK 2/2/19
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 14 13:55:35 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

ETOX only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46150	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	113881	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	81881	4.7400 ppbv	-0.02

System Monitoring Compounds

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM005.D
Acq On : 13 Feb 2019 12:41 pm (#1); 13-Feb-19, 12:36:28 (#2)
Operator : MAH
Sample : 9020508-07
Misc : TRIP BLANK 2/2/19
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 14 13:55:35 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

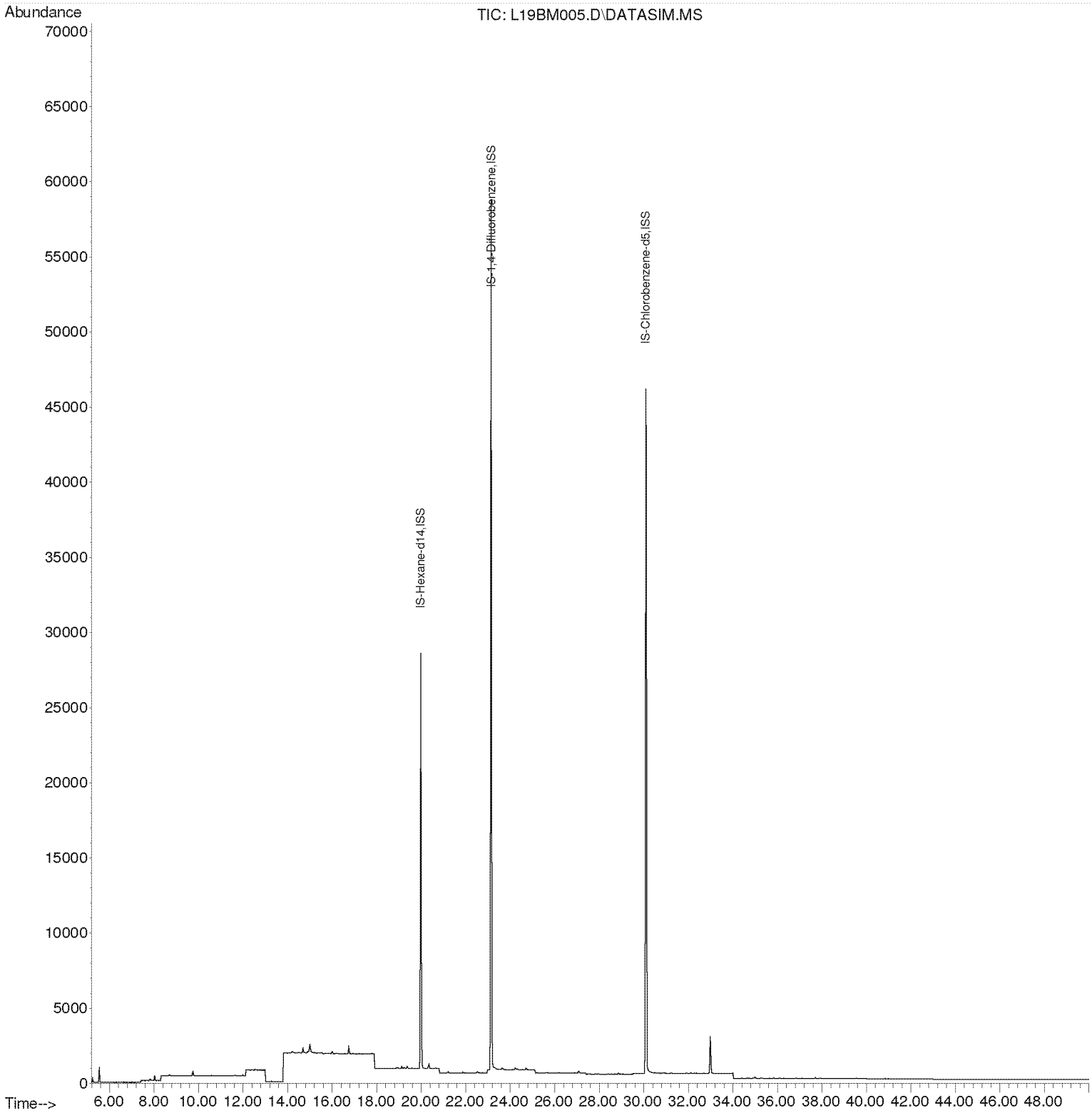
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

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

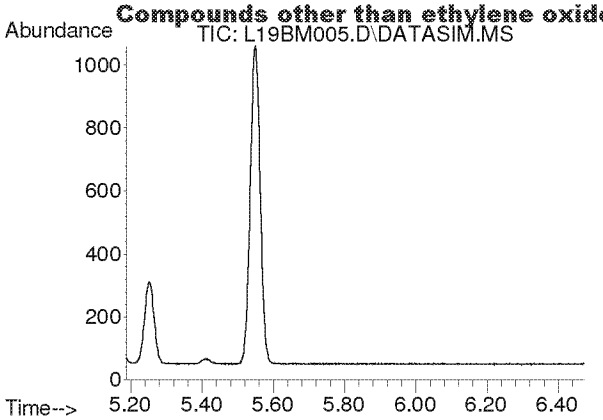
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM005.D
Acq On : 13 Feb 2019 12:41 pm
Operator : MAH
Sample : 9020508-07
Misc : TRIP BLANK 2/2/19
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 14 08:24:40 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



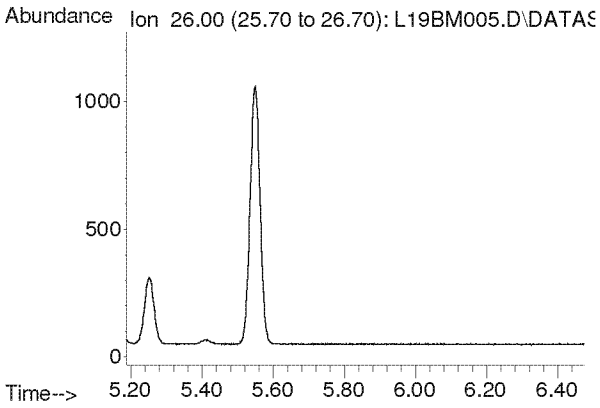
Compounds other than ethylene oxide were not quantitated.

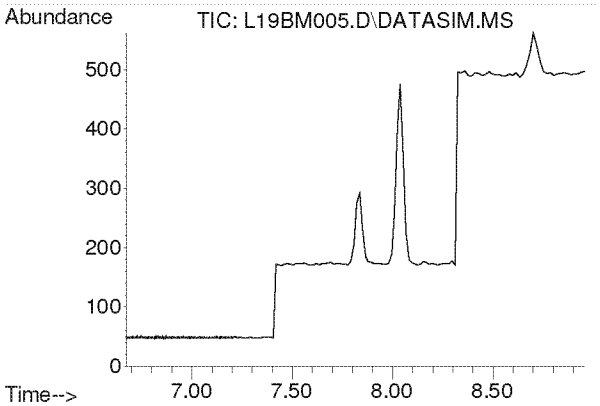


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 26



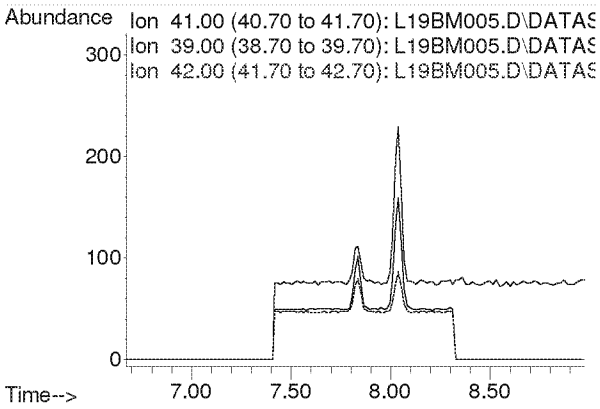


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

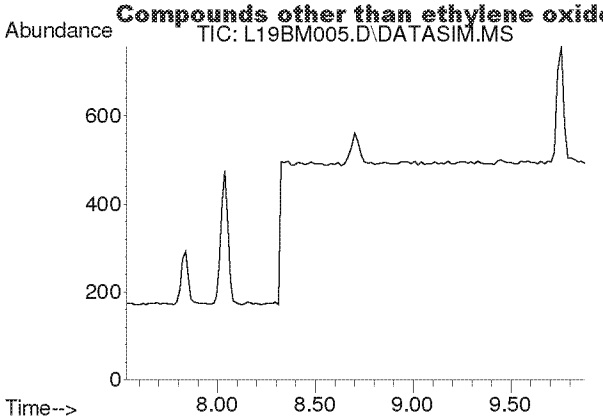
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

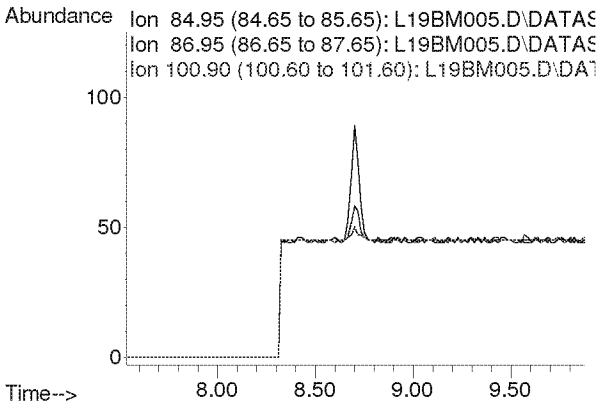


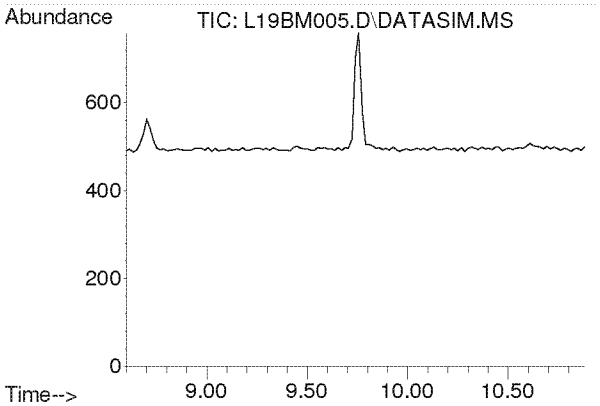
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



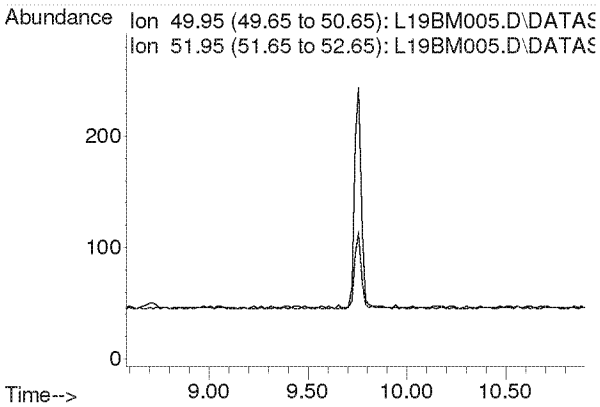


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

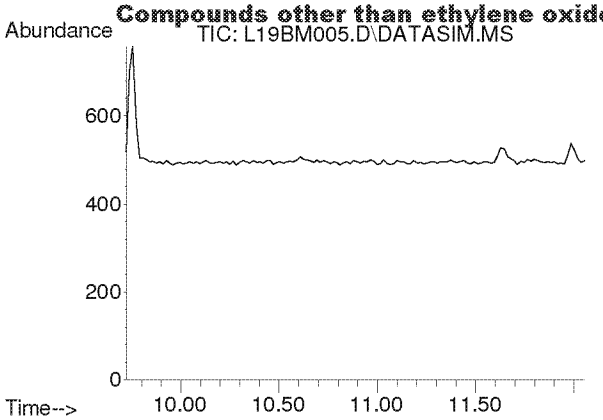
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

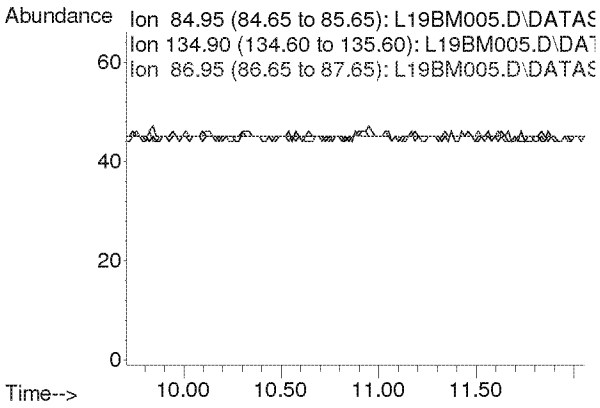


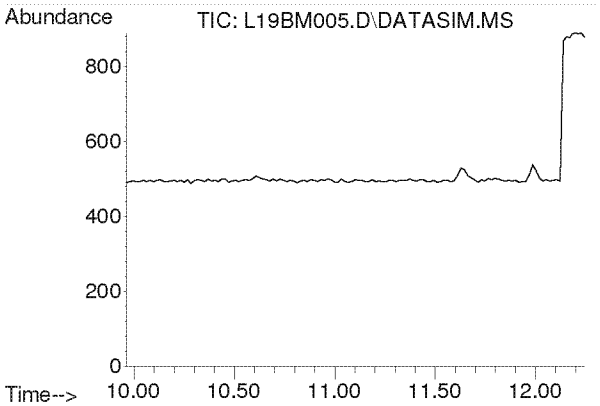
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



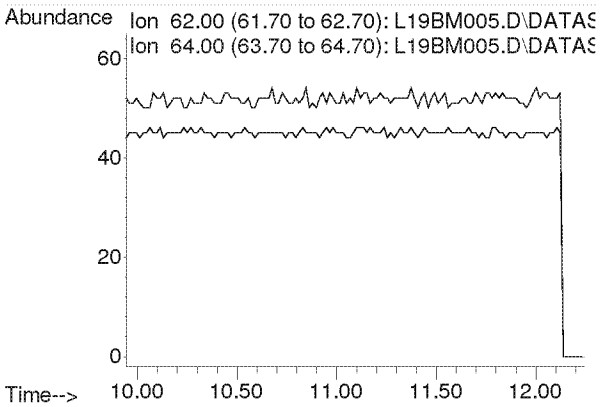


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

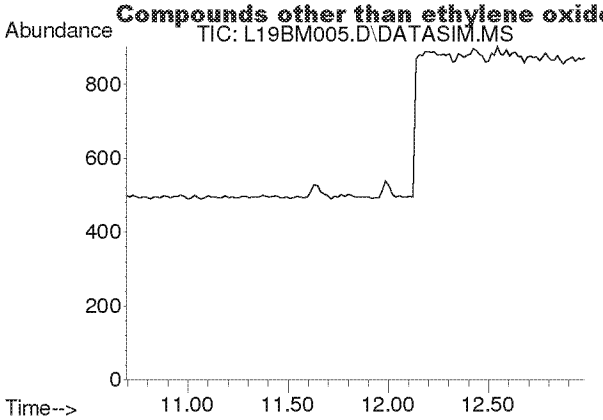
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

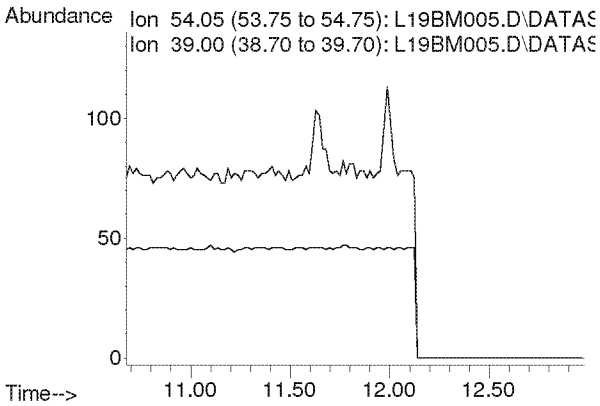


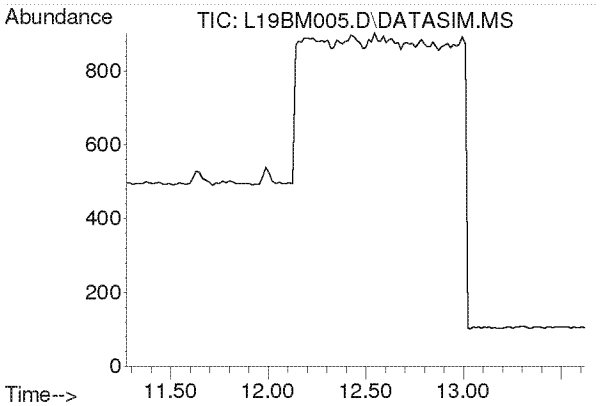
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



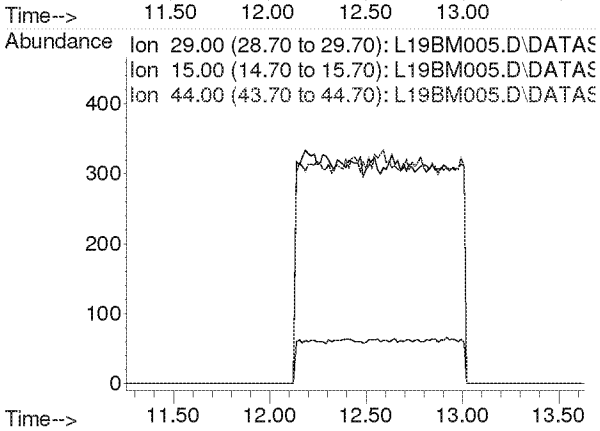


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

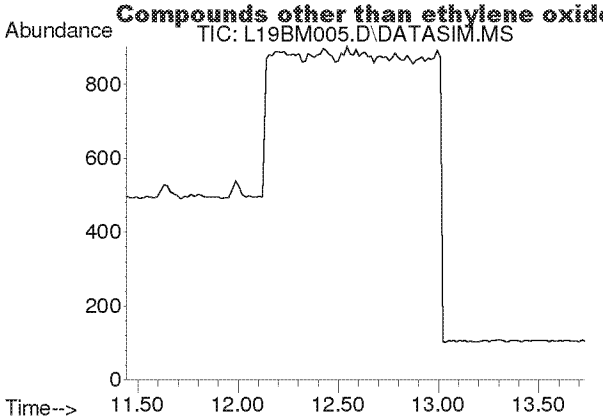
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

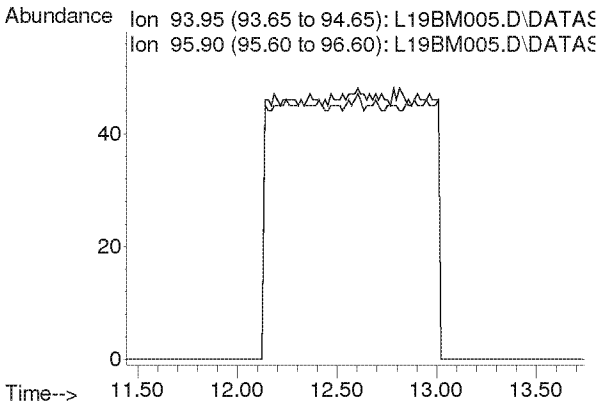


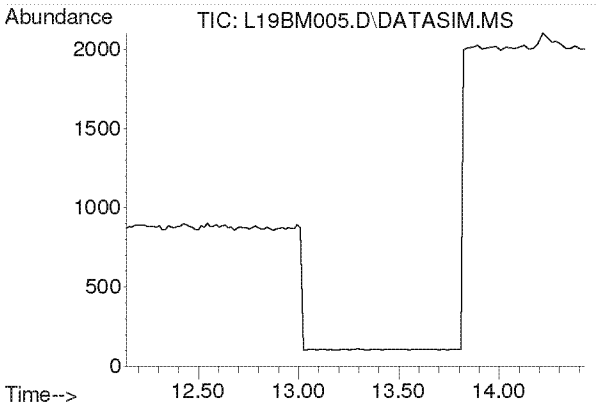
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



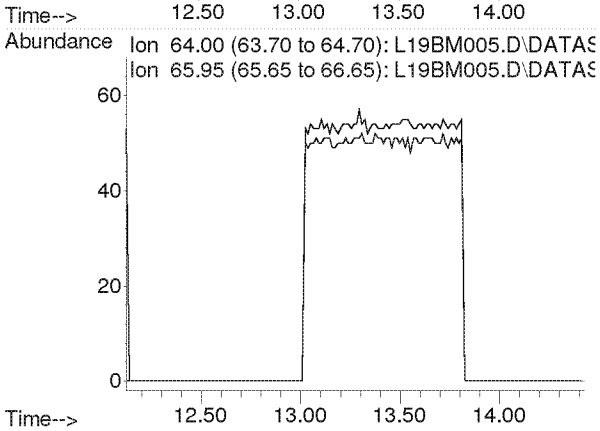


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

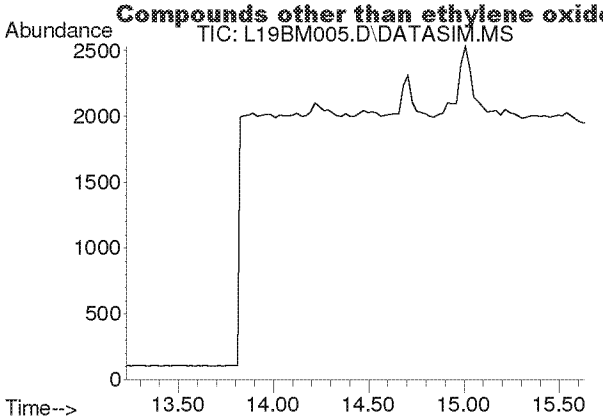
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

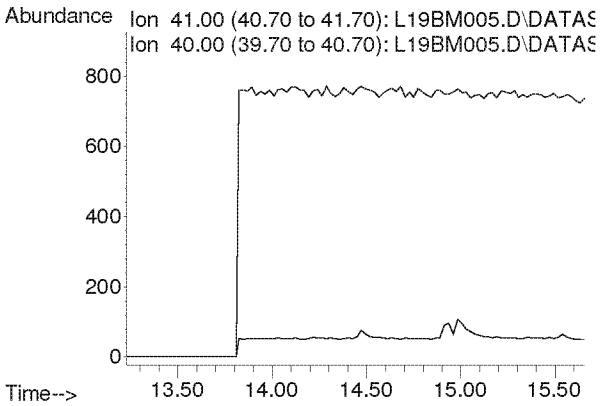


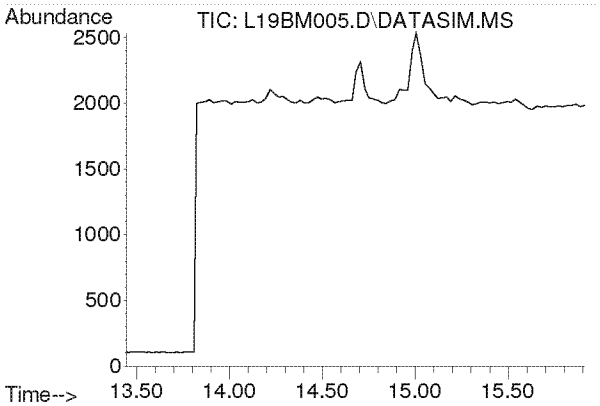
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



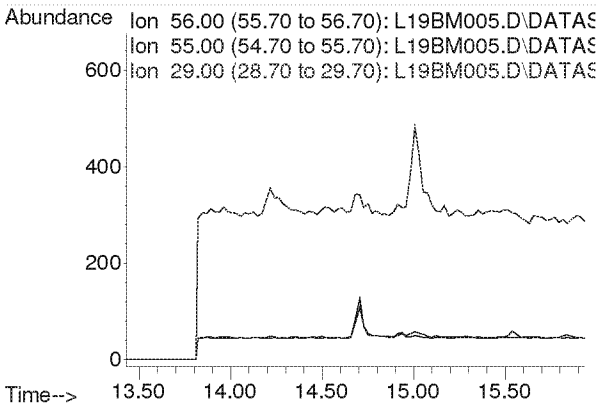


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

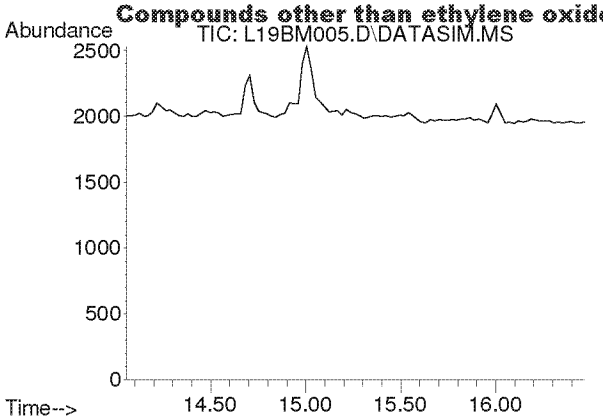
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

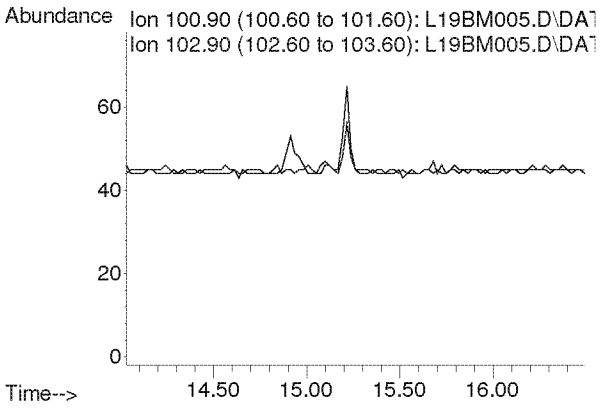


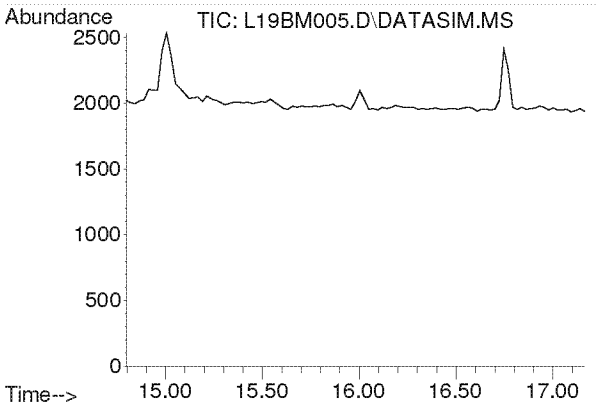
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



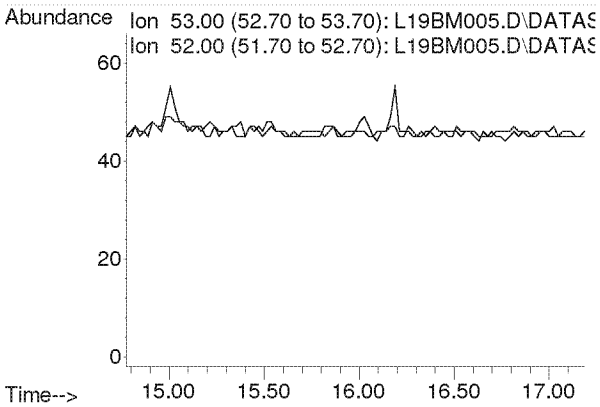


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

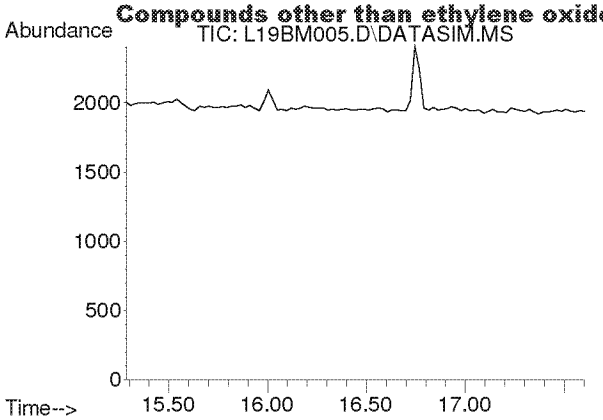
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

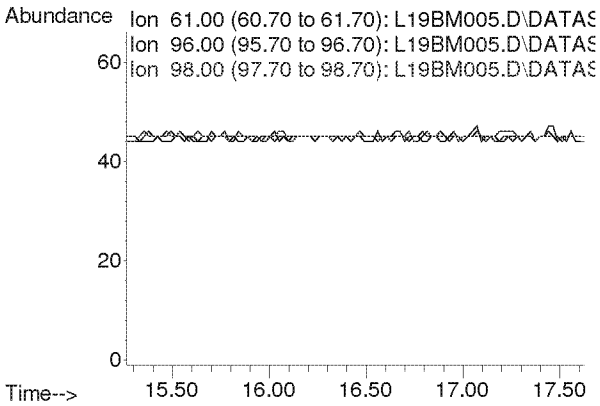


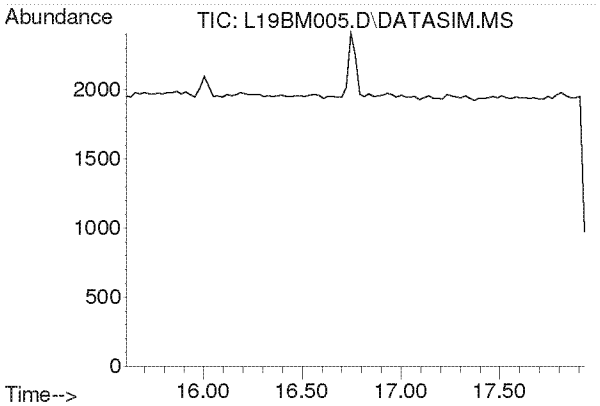
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



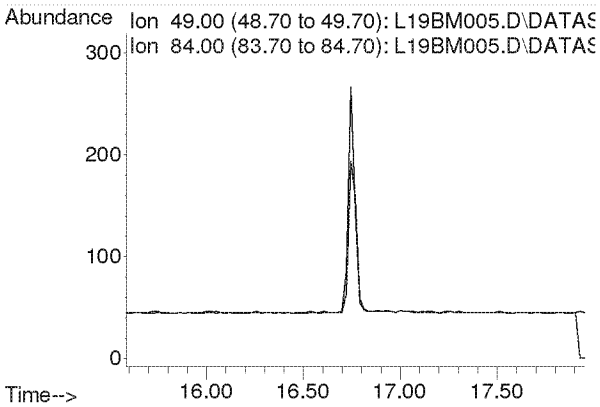


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

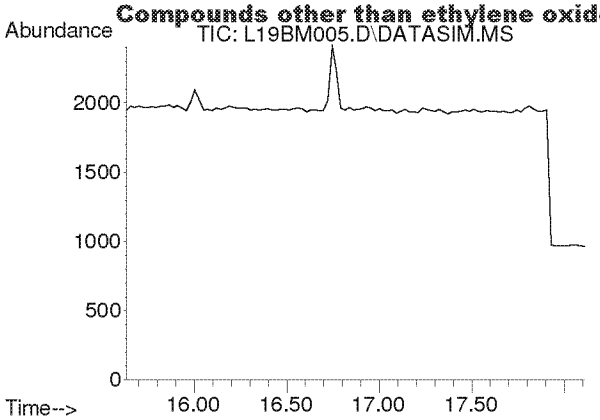
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

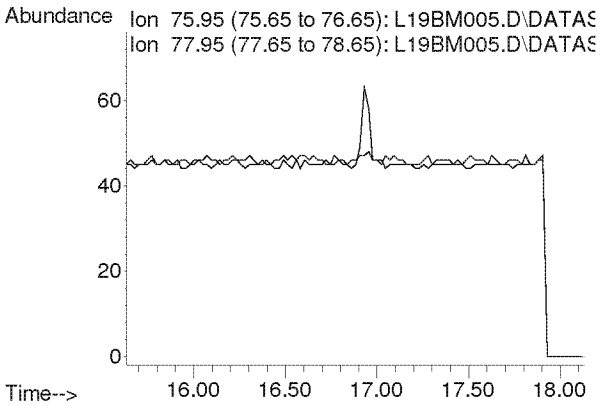


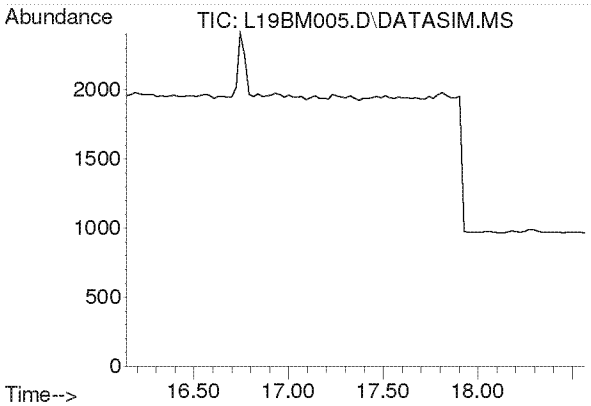
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



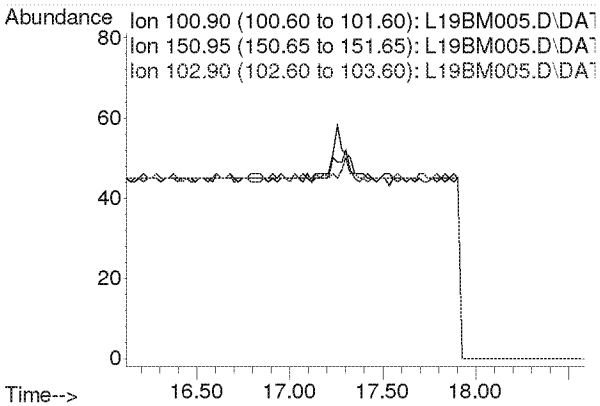


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

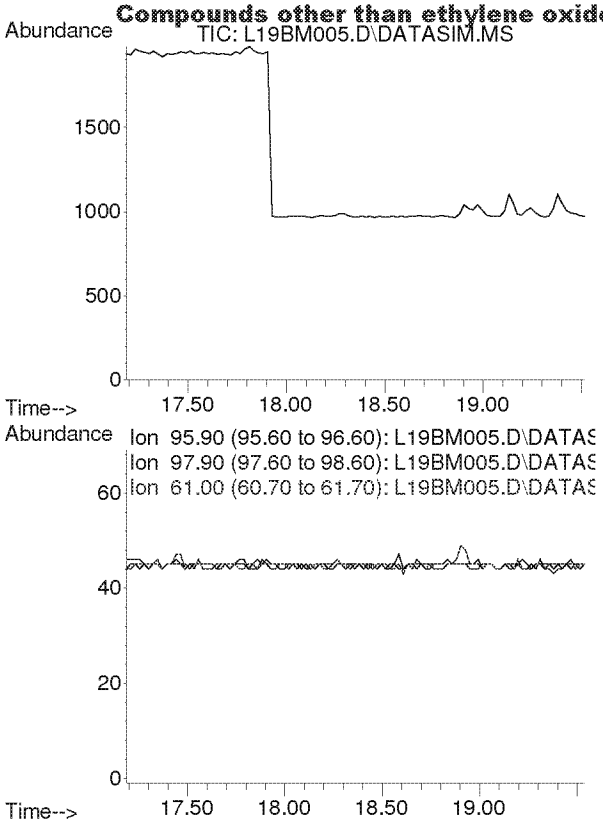
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

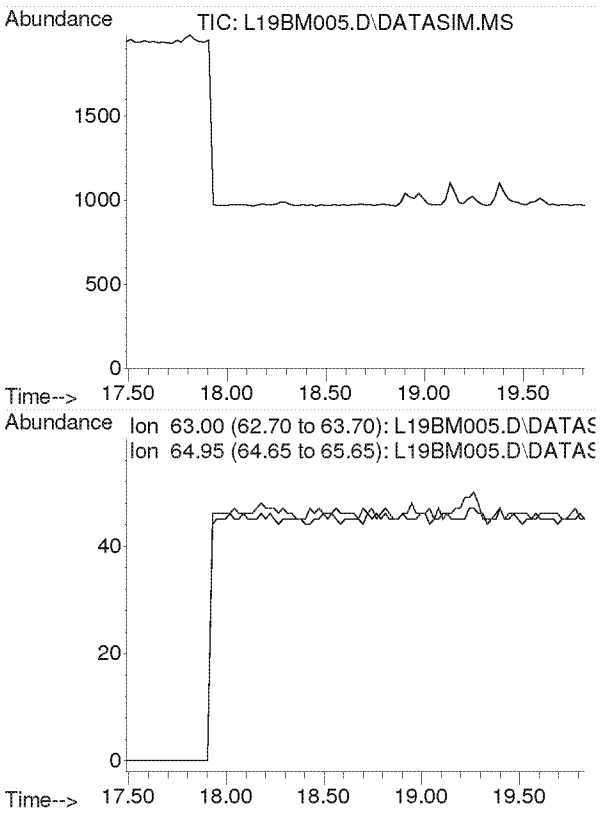


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



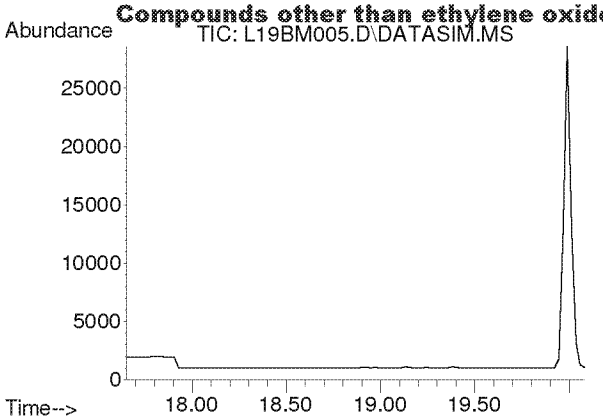
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

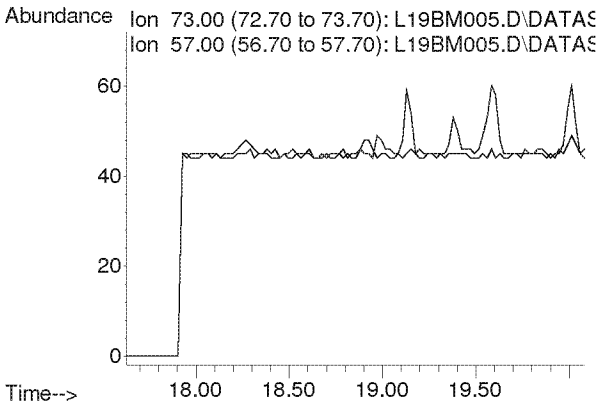


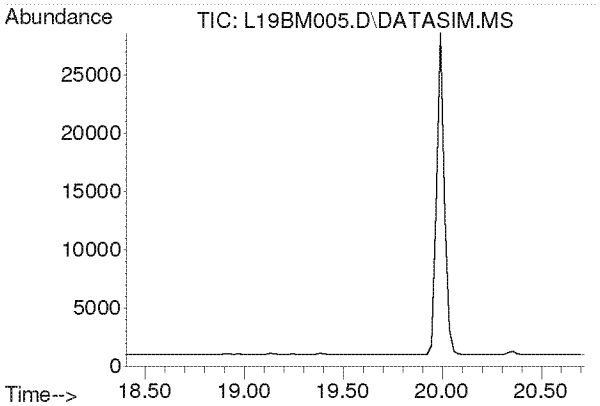
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



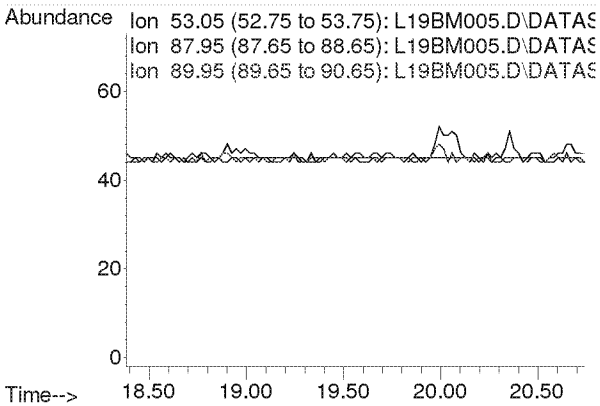


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

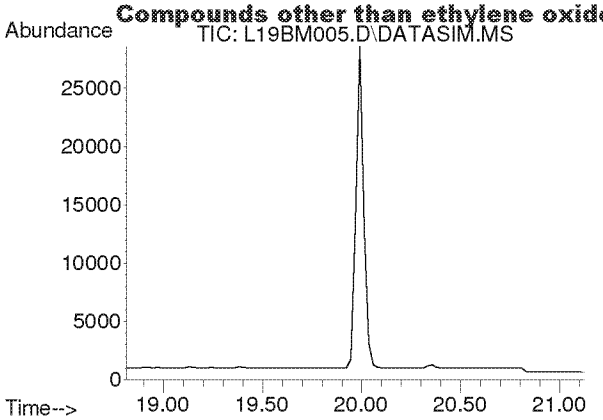
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

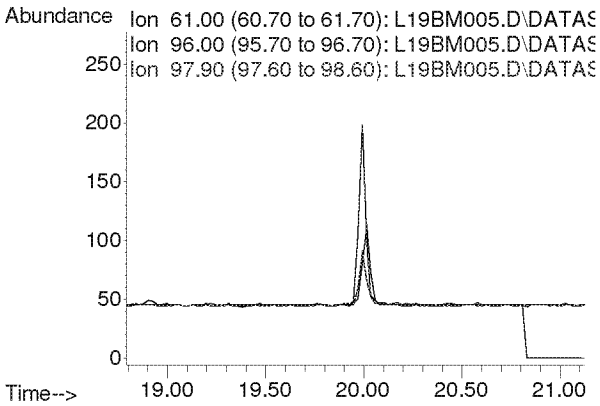


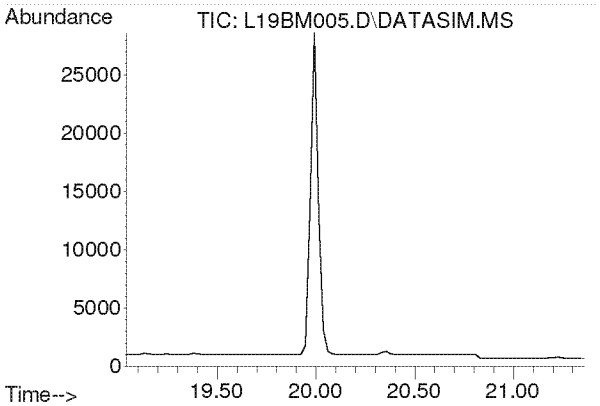
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



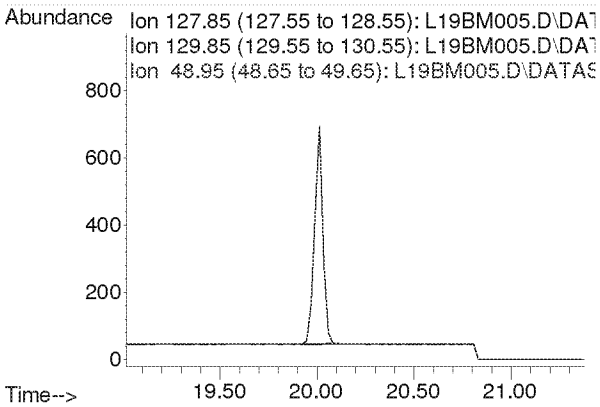


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

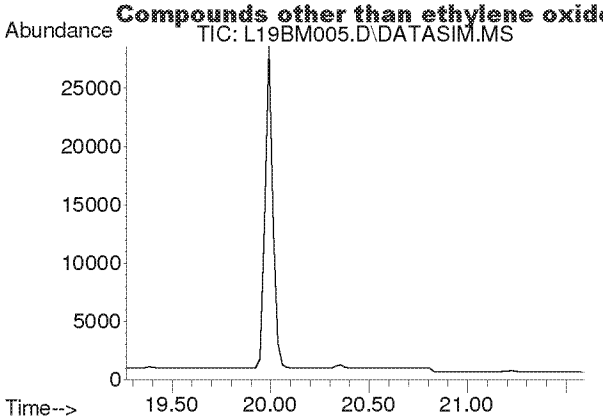
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

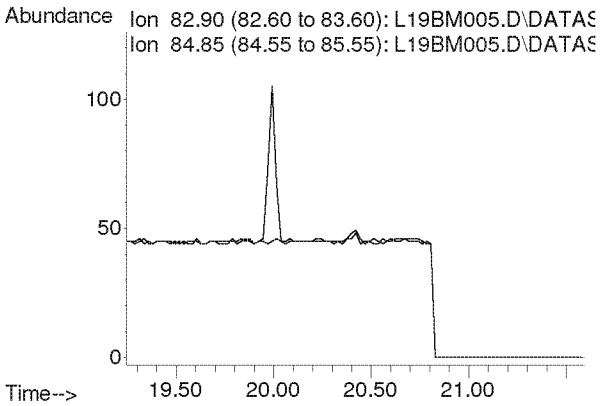


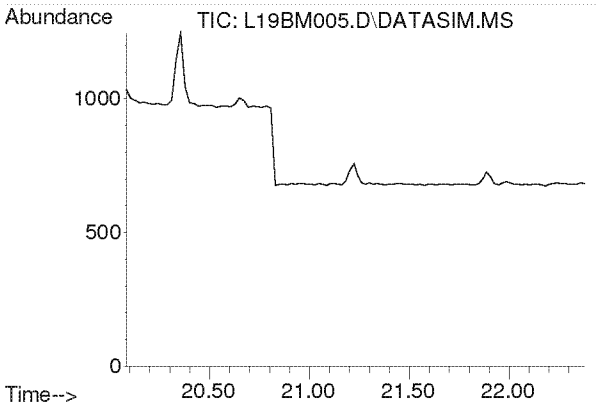
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



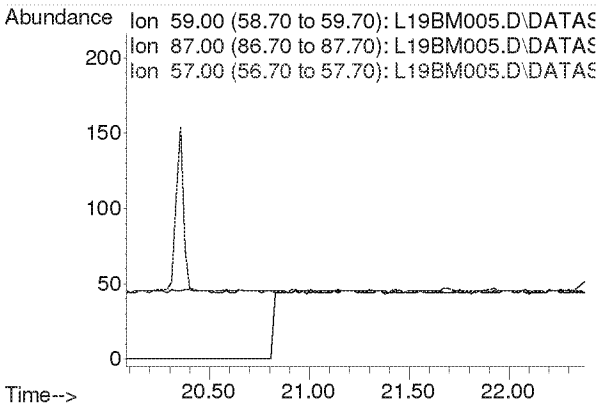


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

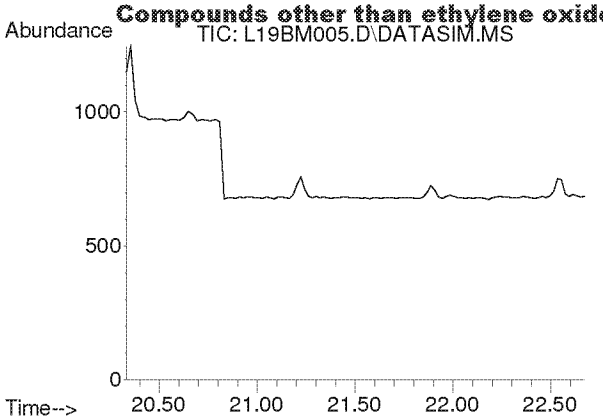
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

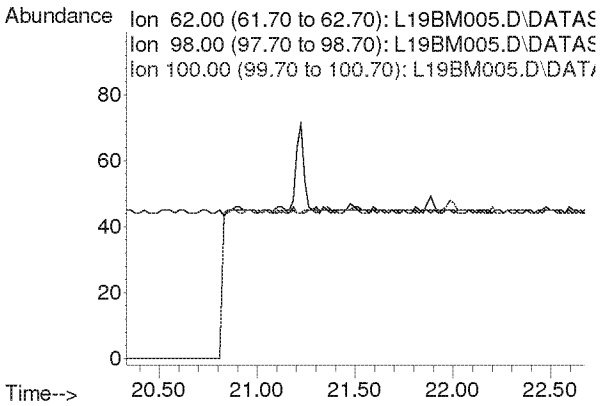


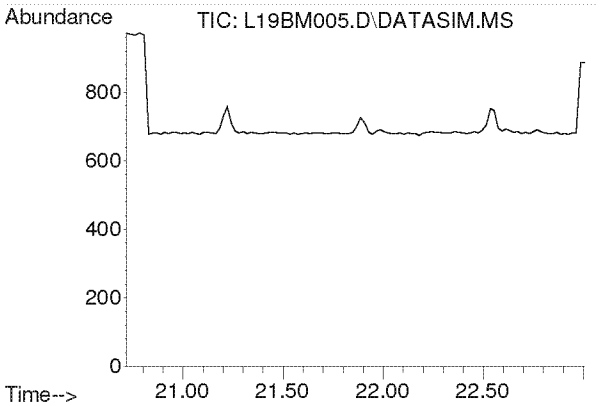
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



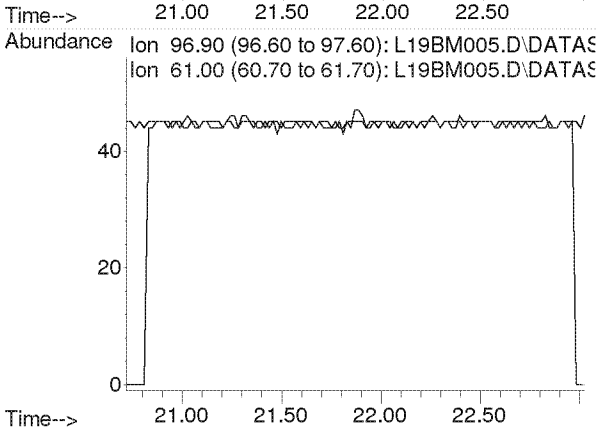


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

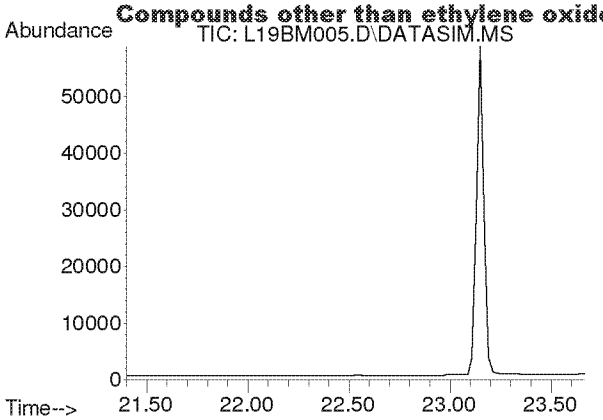
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

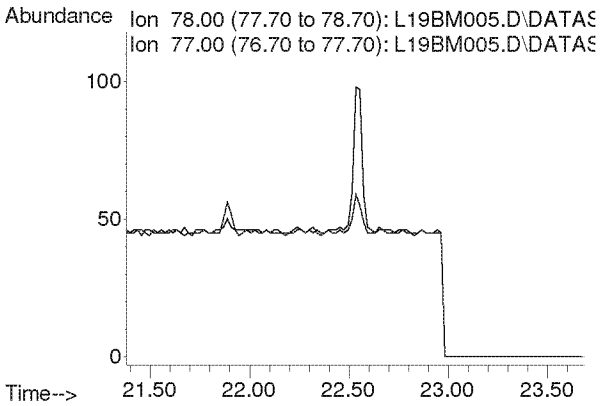


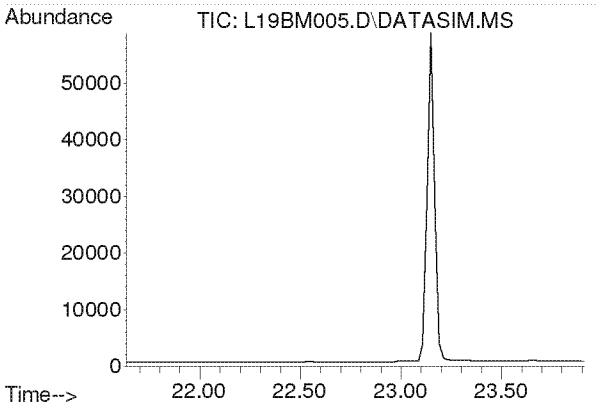
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



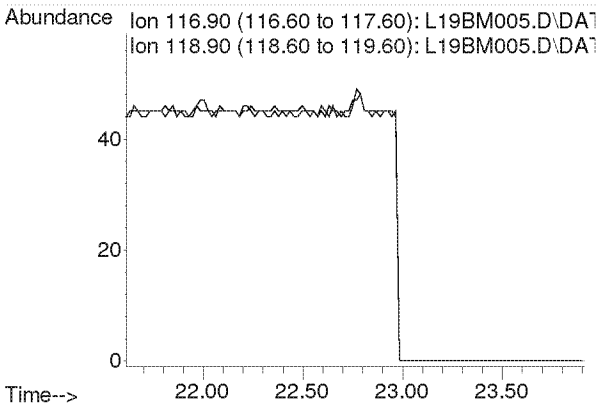


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

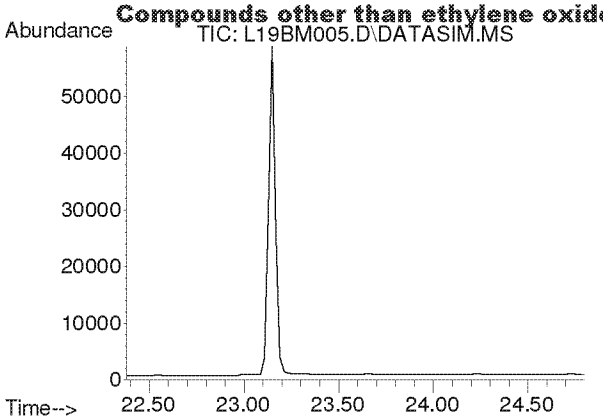
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

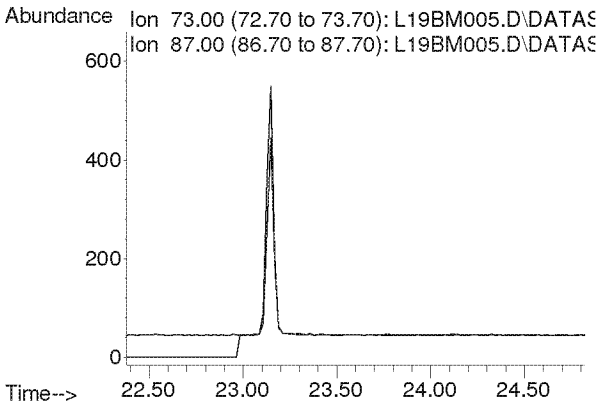


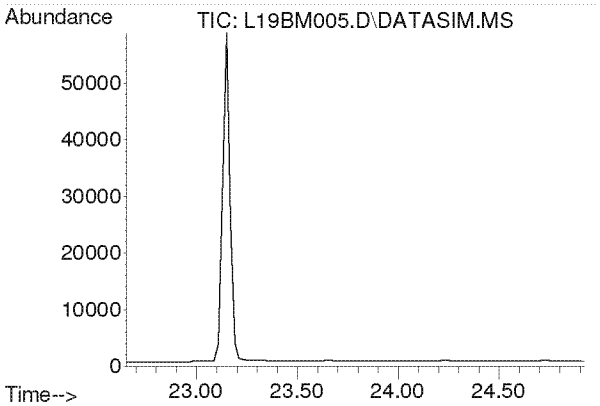
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



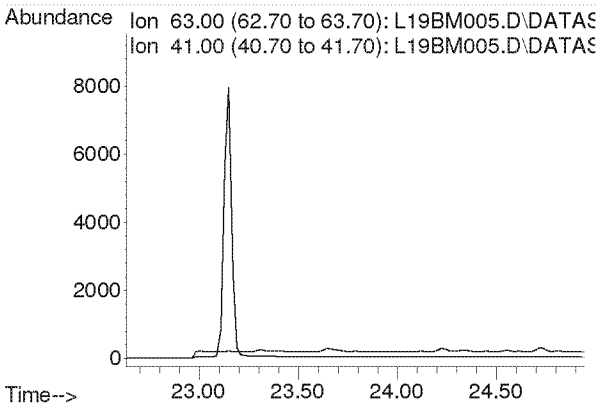


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

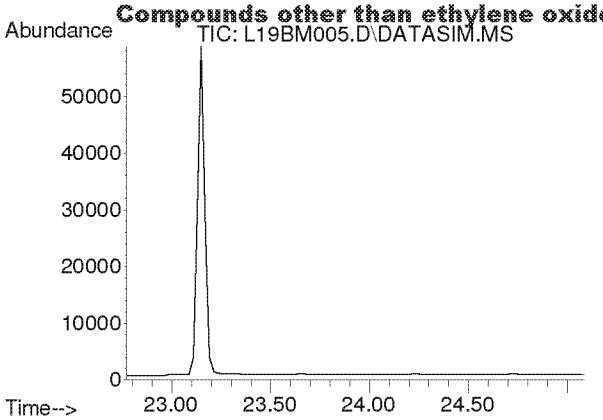
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

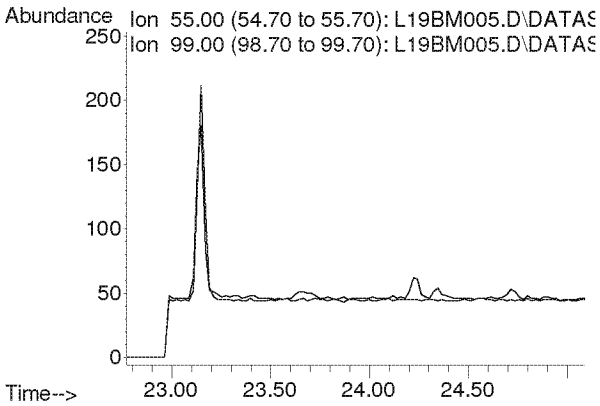


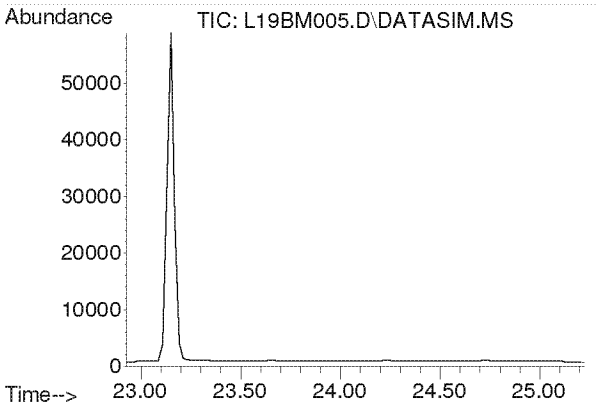
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



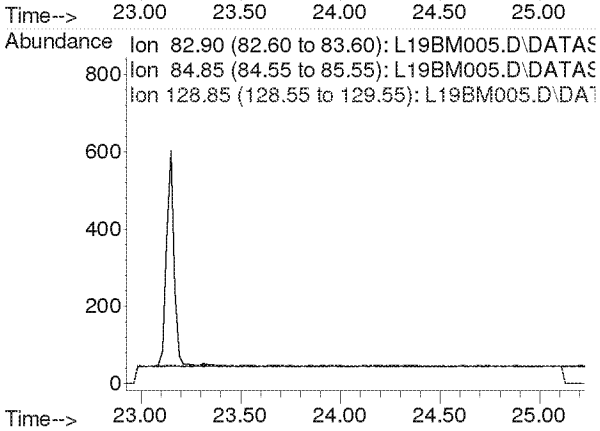


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

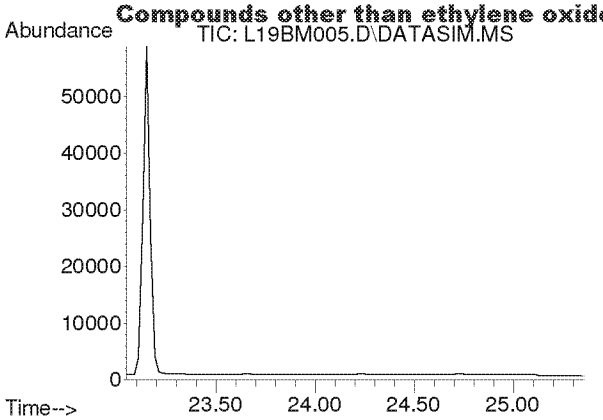
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

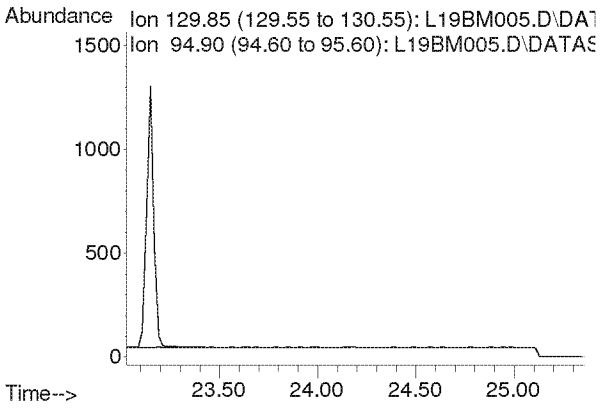


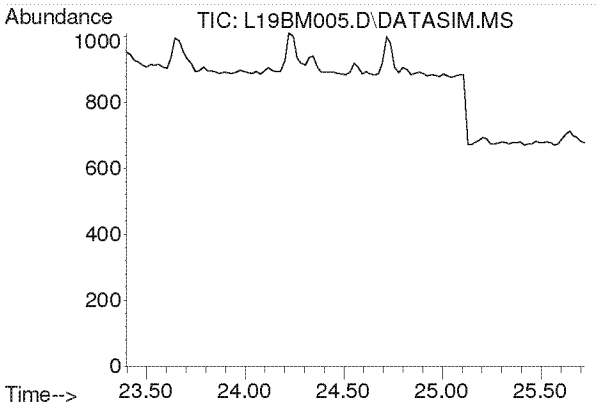
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



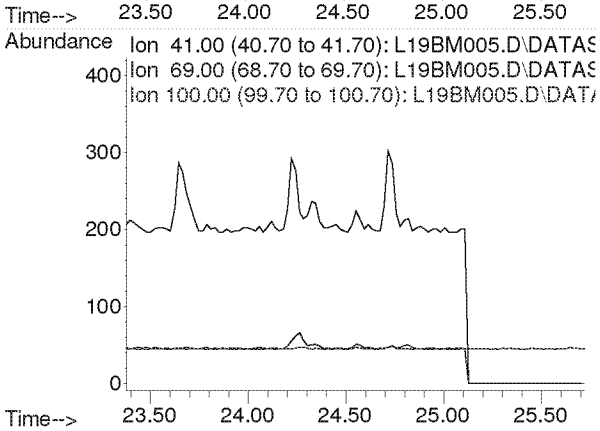


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

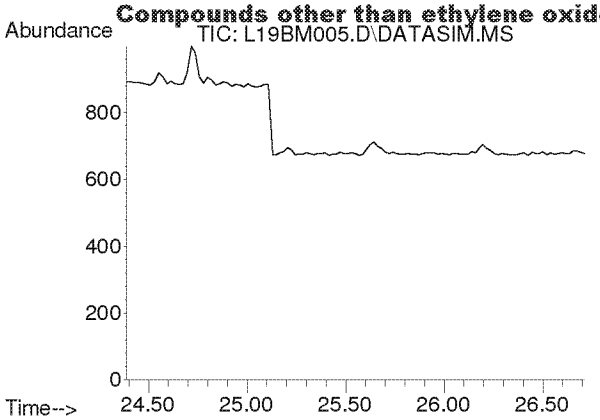
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

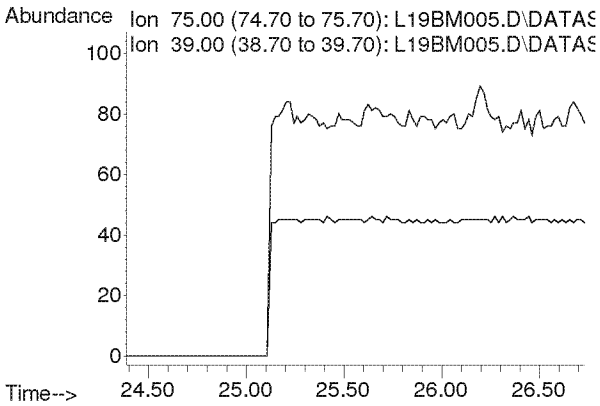


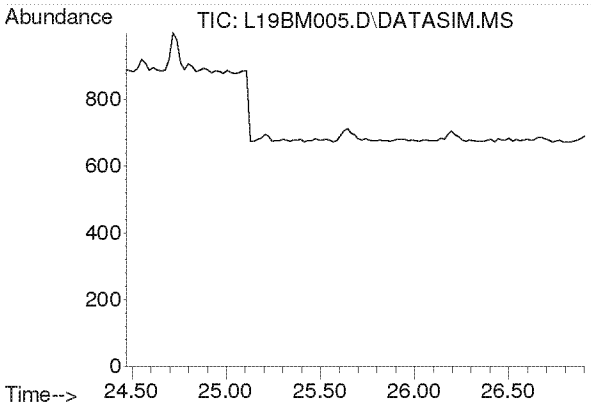
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



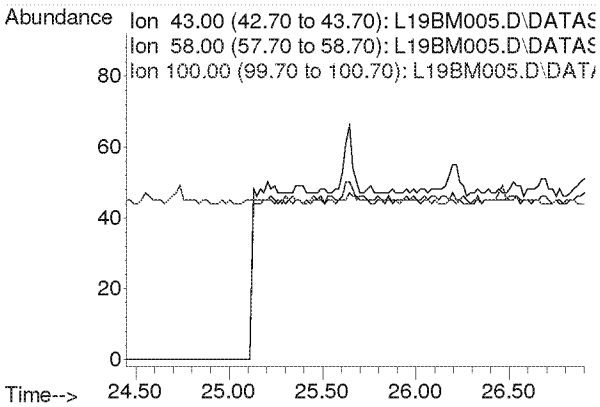


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

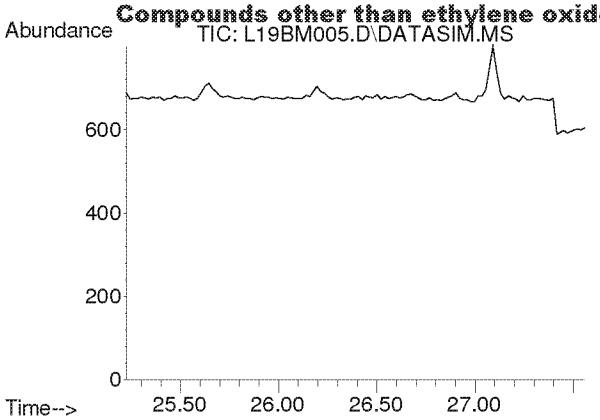
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

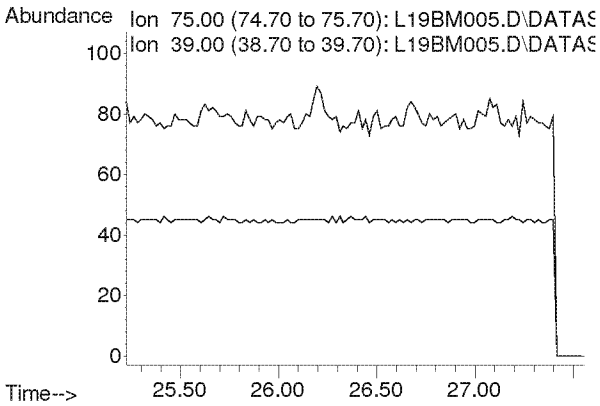


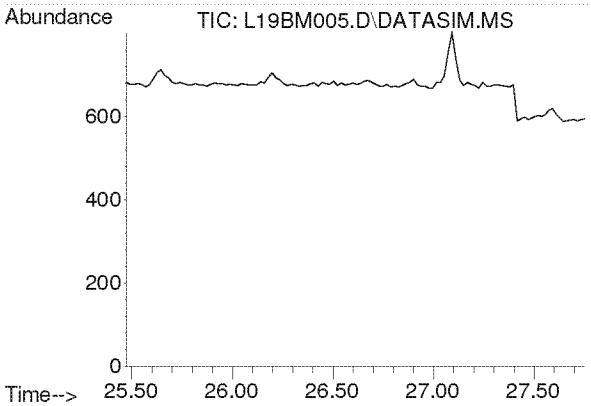
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



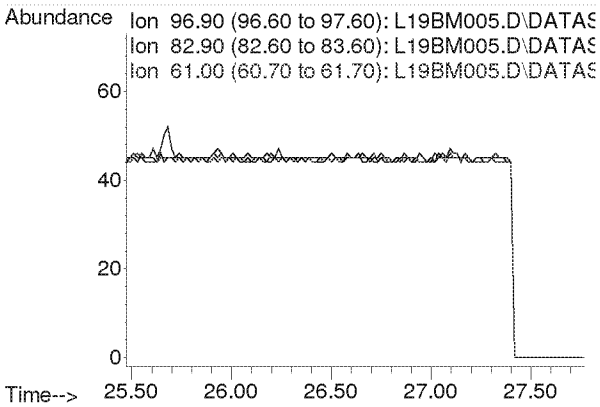


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

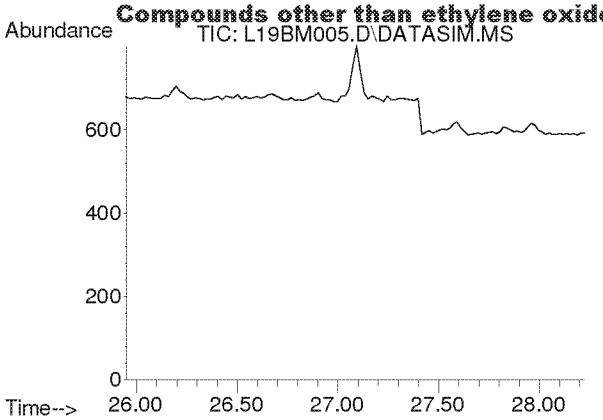
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

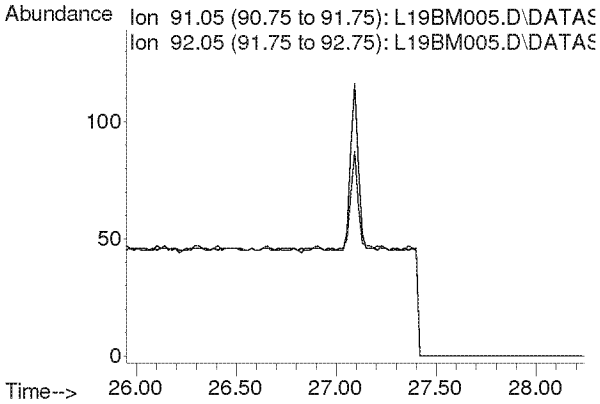


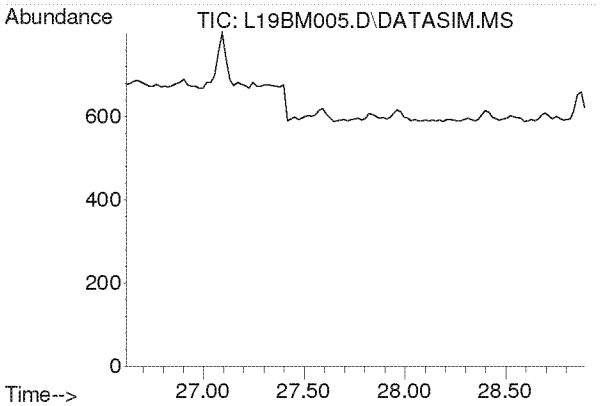
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



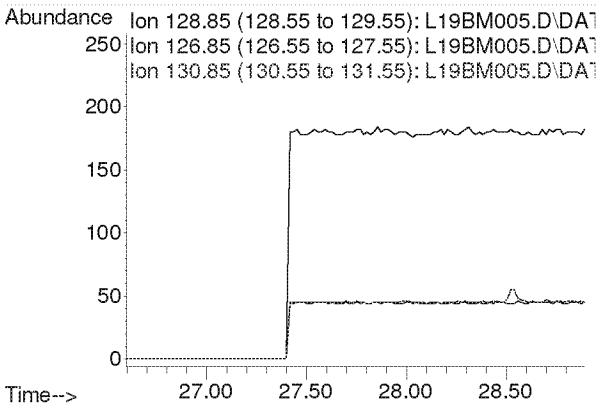


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

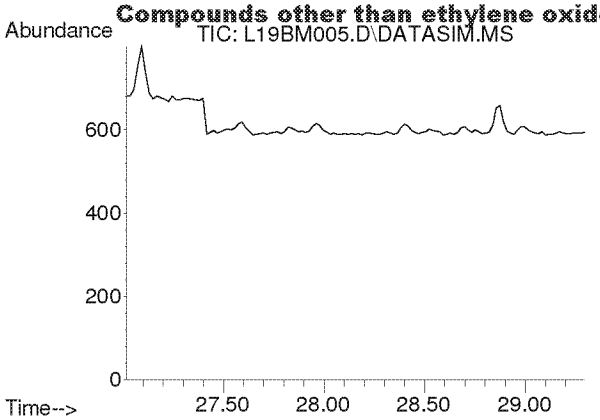
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

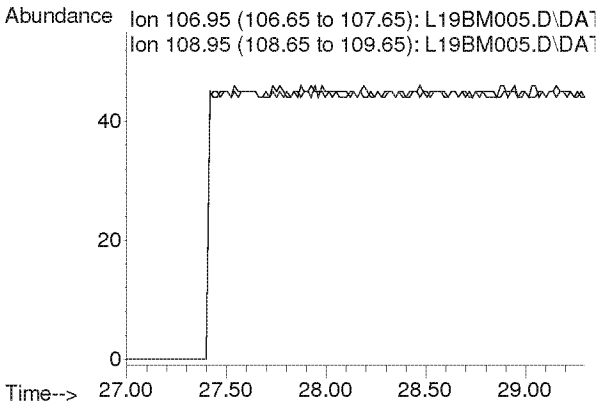


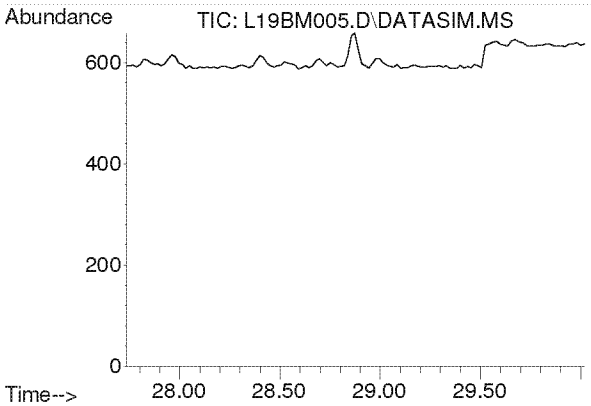
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



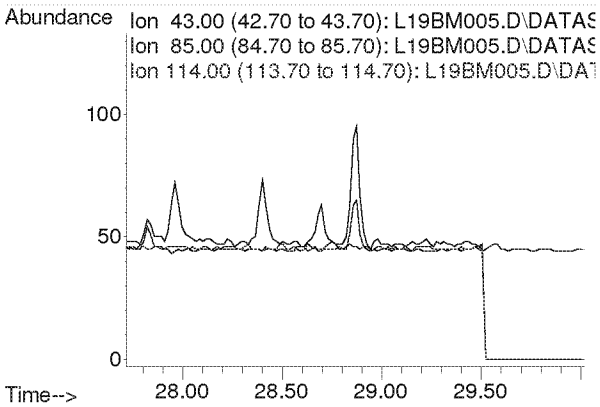


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

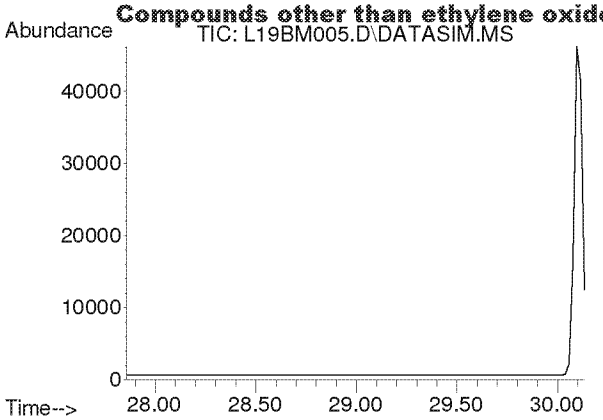
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

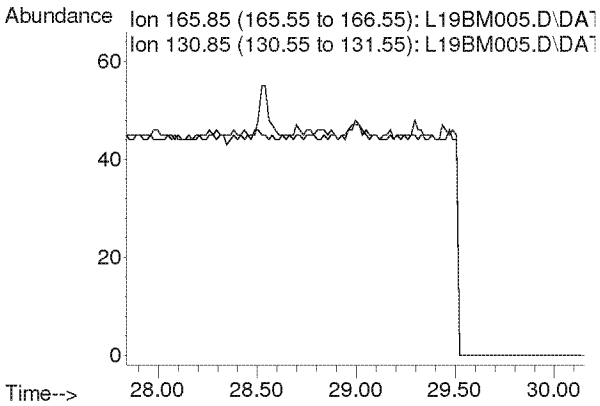


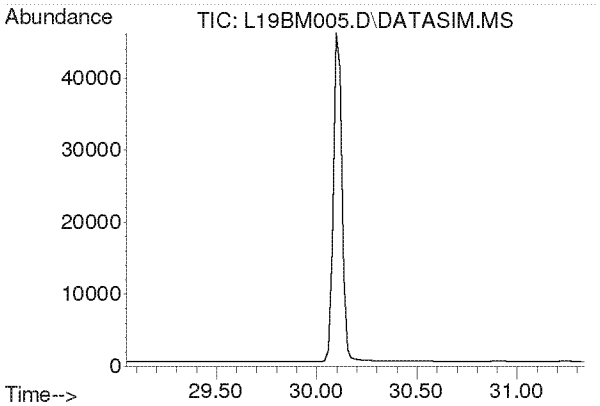
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



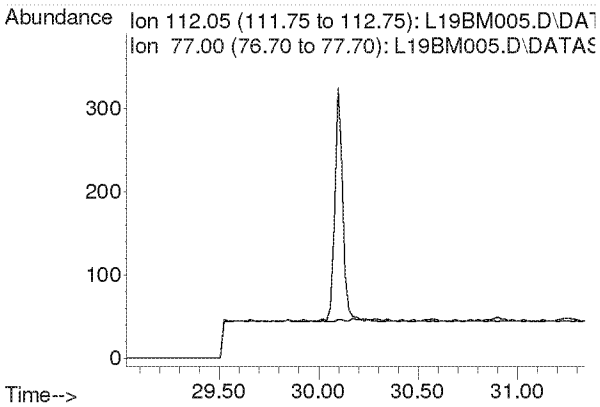


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

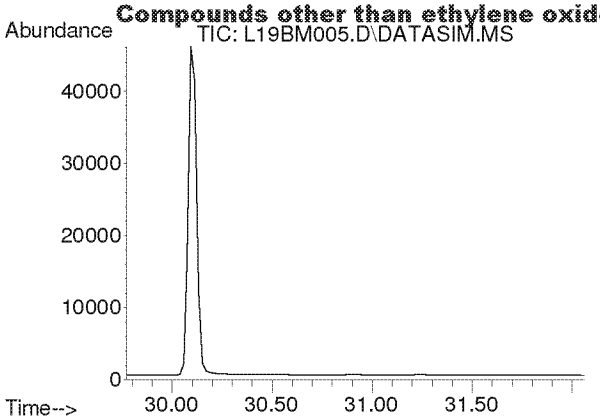
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

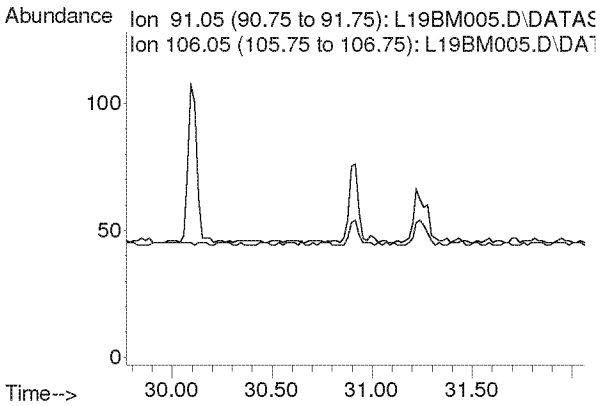


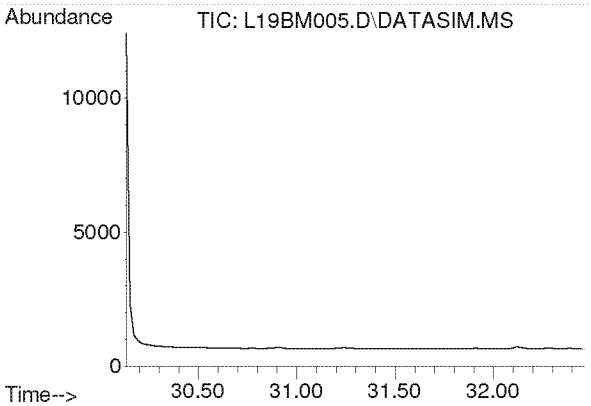
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



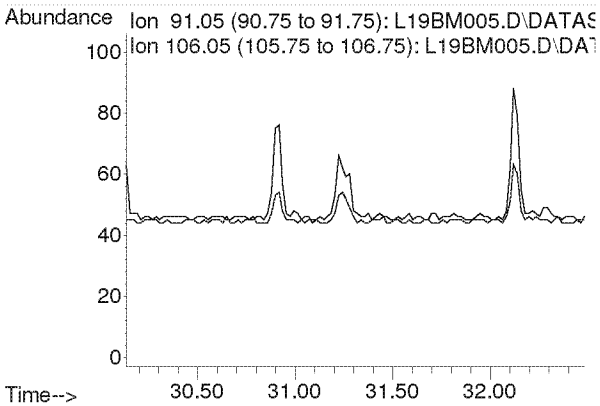


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

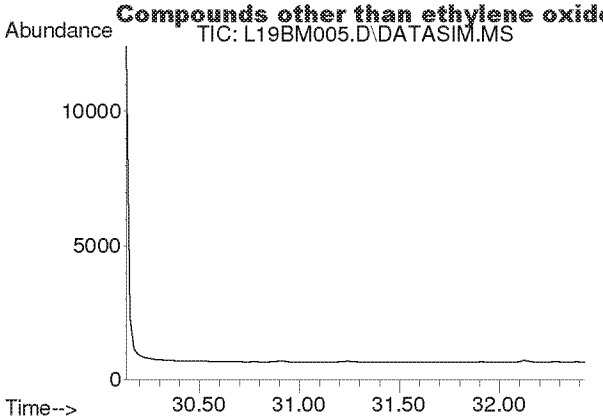
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

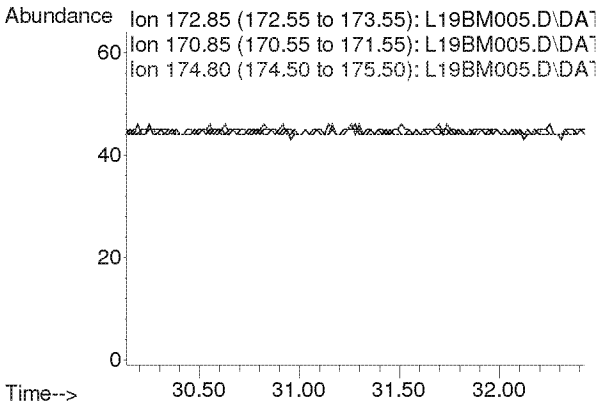


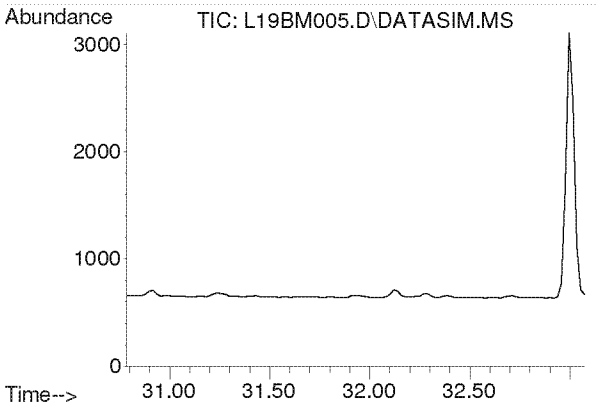
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



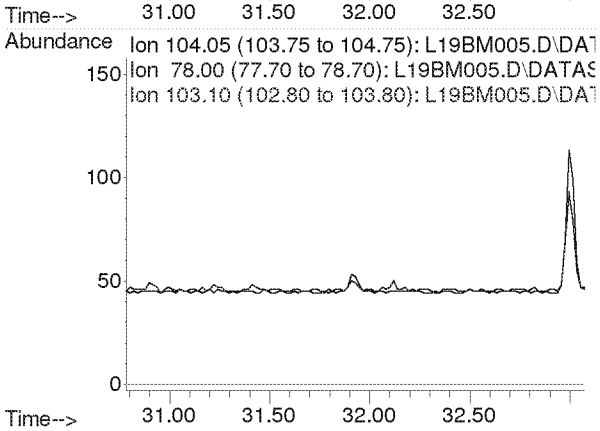


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

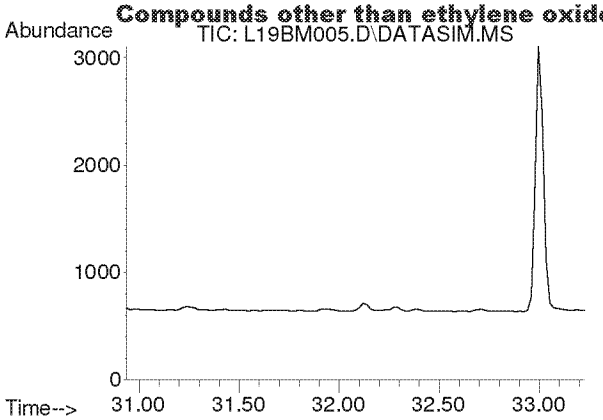
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

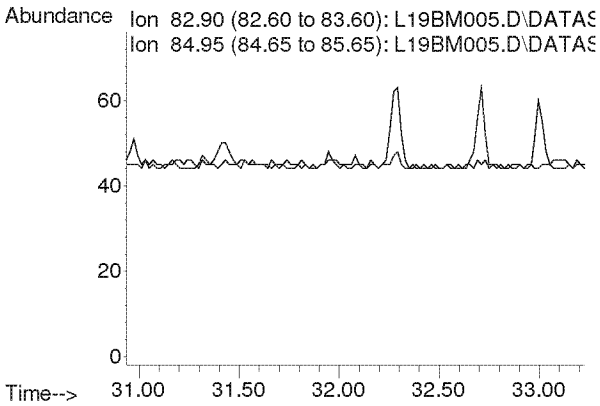


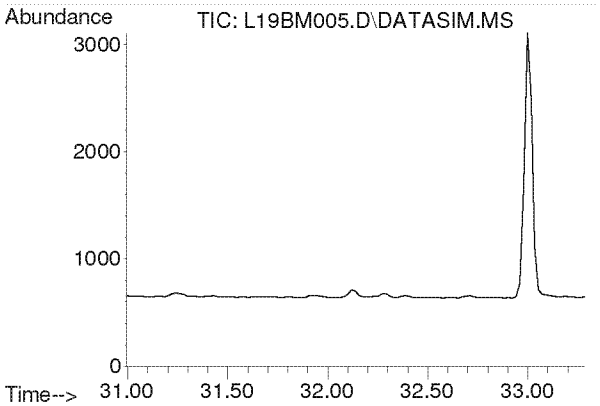
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



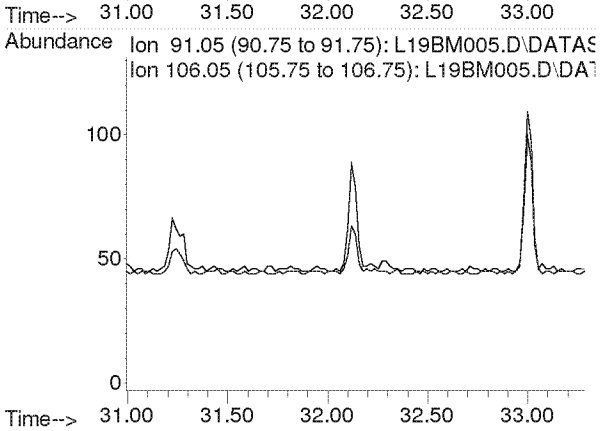


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

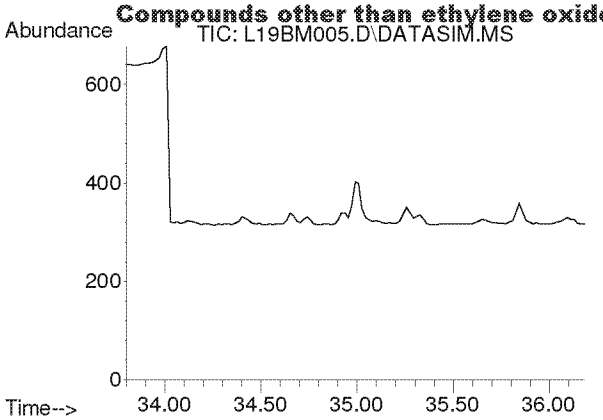
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

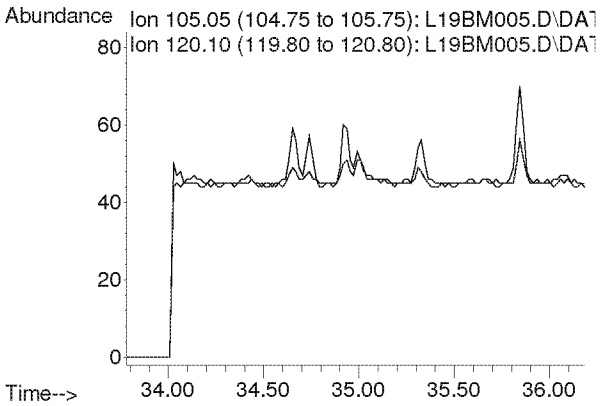


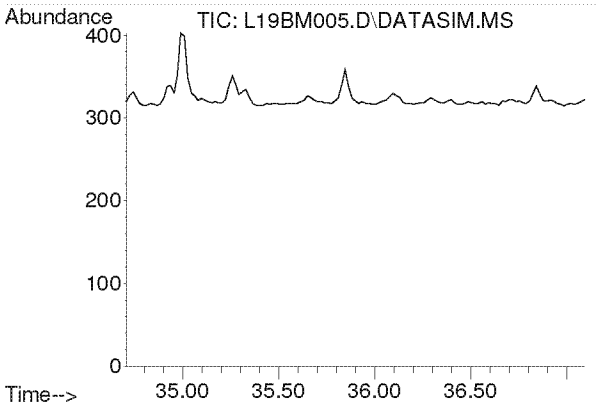
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



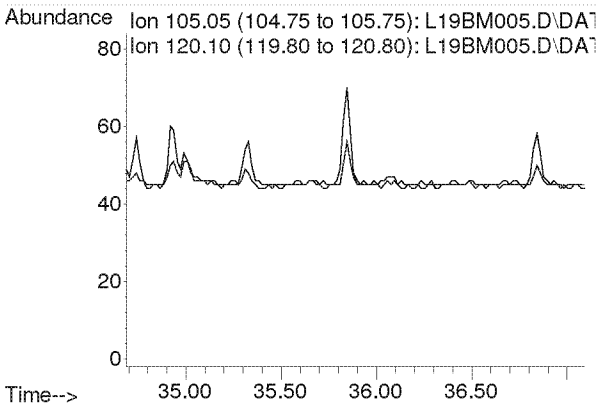


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

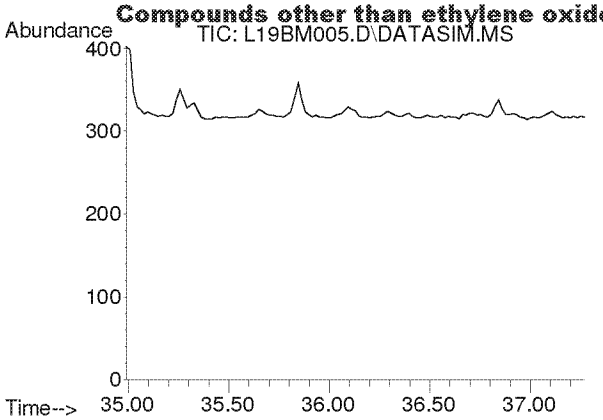
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

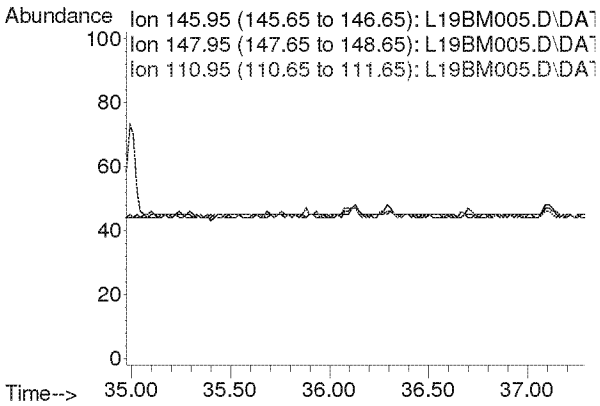


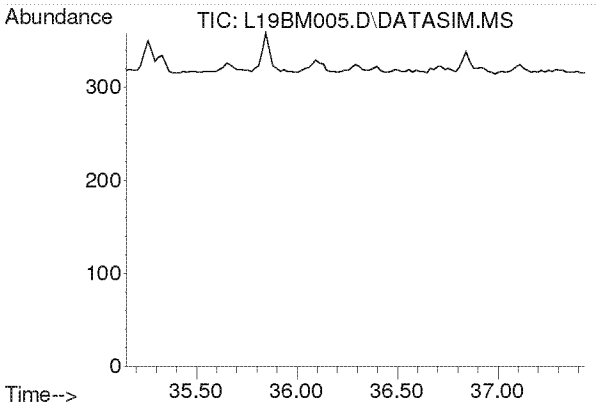
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



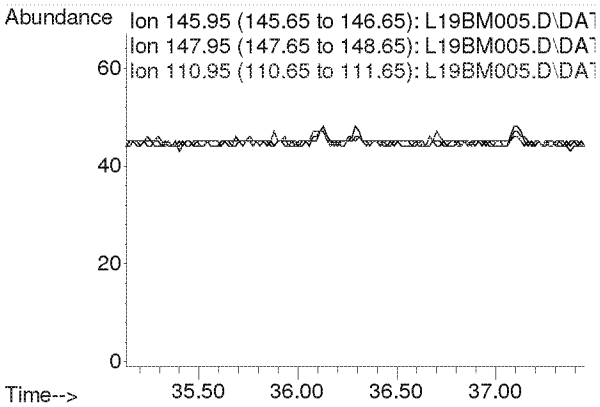


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

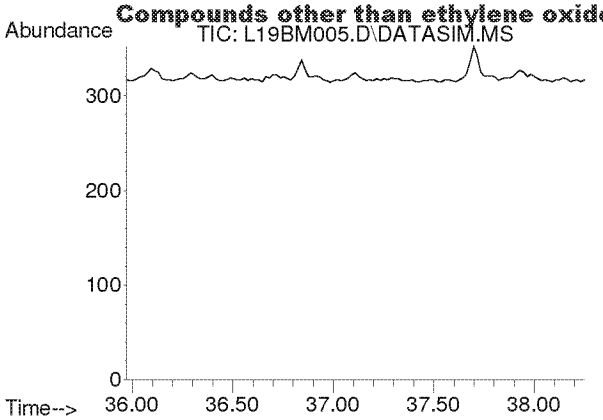
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

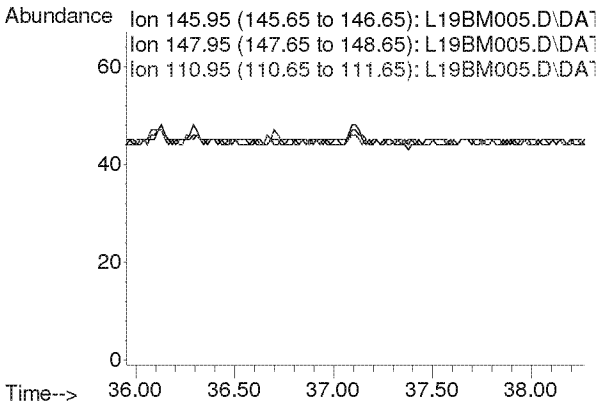


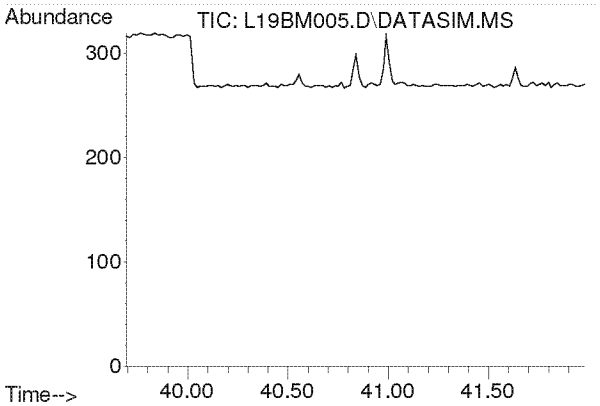
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



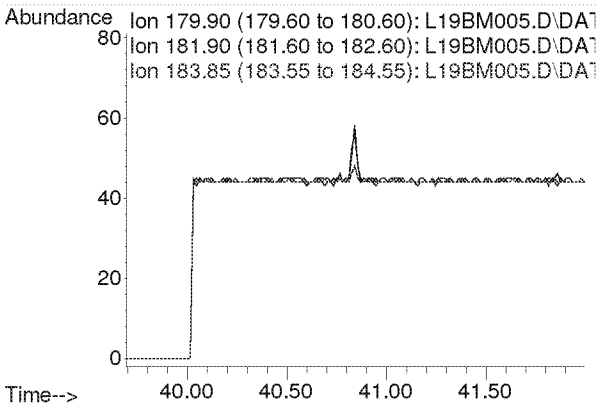


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

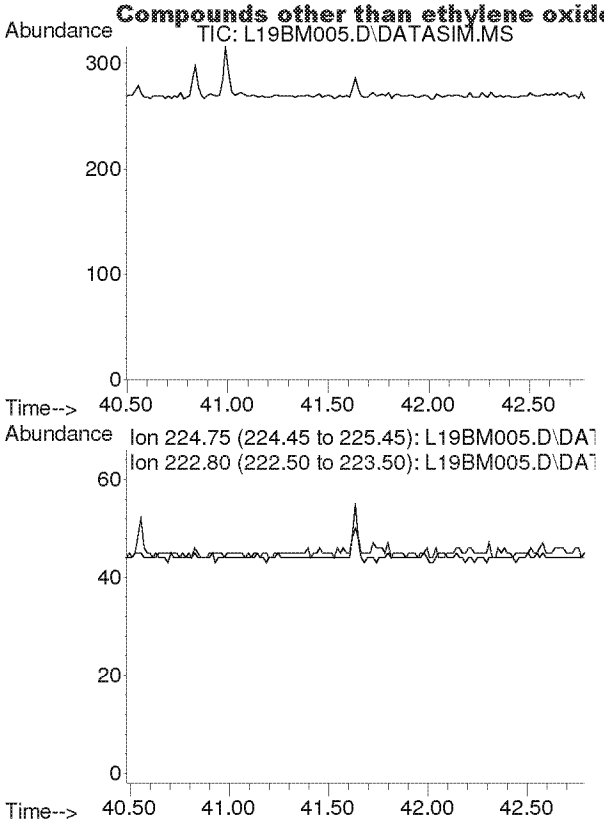
Lab File: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

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: L19BM005.D
Acq: 13 Feb 2019 12:41 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM014.D
Acq On : 13 Feb 2019 9:42 pm (#1); 13-Feb-19, 21:37:23 (#2)
Operator : MAH
Sample : 9020702-01
Misc : WATER TOWER 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 14:00:56 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	47645	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	122551	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	87174	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	313m	0.1149 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.	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\L19BM\
Data File : L19BM014.D
Acq On : 13 Feb 2019 9:42 pm (#1); 13-Feb-19, 21:37:23 (#2)
Operator : MAH
Sample : 9020702-01
Misc : WATER TOWER 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 14:00:56 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	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.	

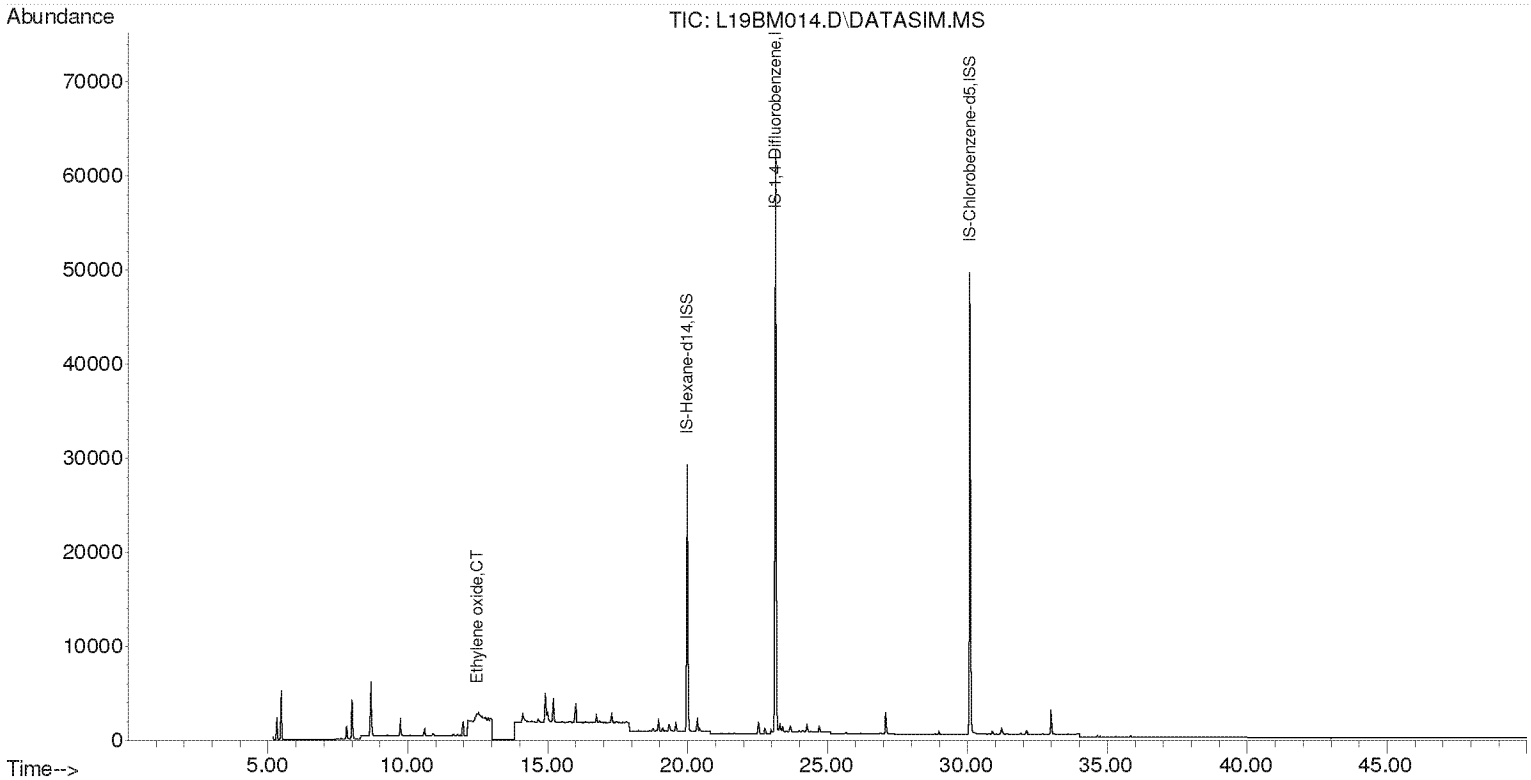
(#) = qualifier out of range (m) = manual integration (+) = signals summed

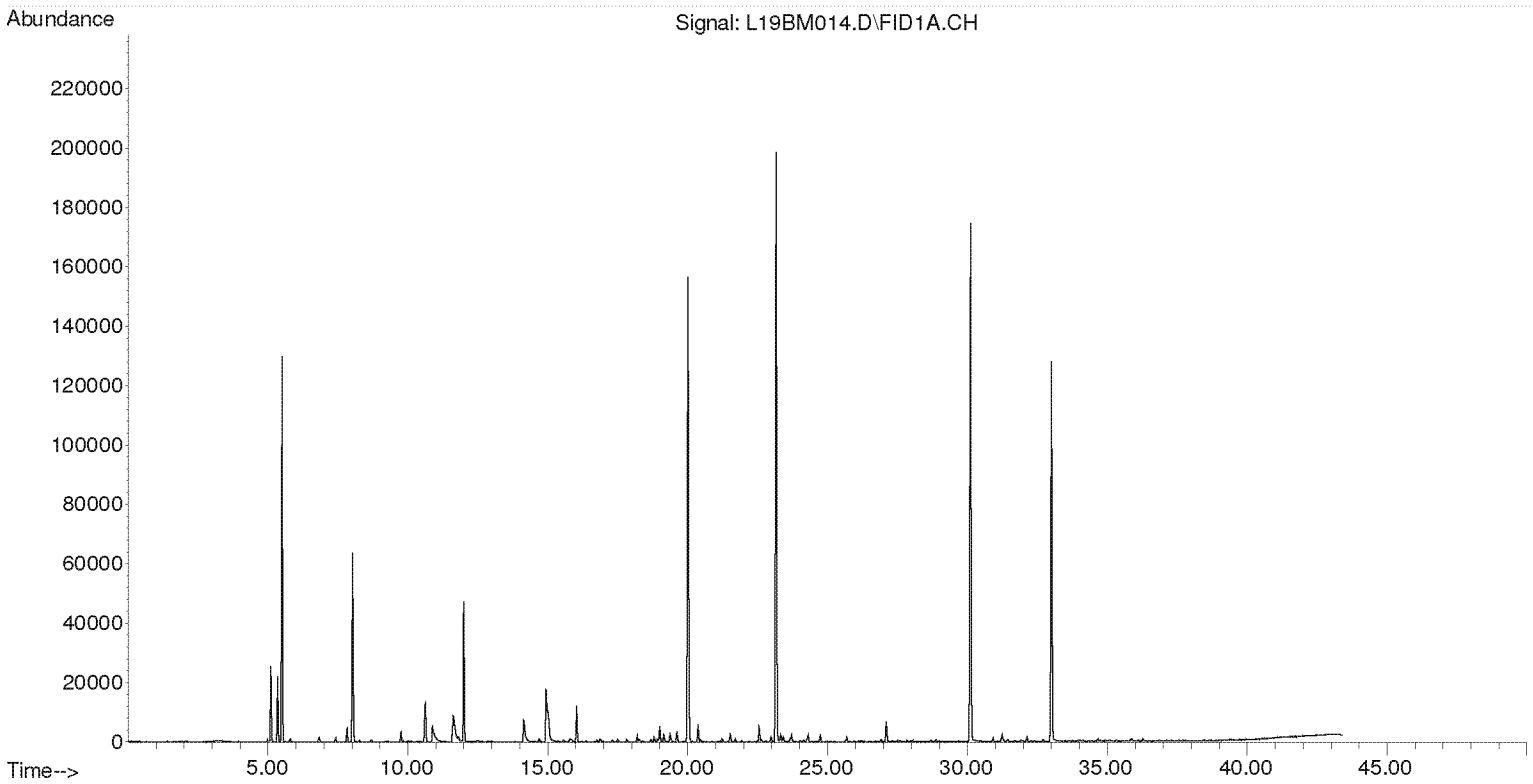
ED_002475_00000213-00116

Compounds other than ethylene oxide were not quantitated.

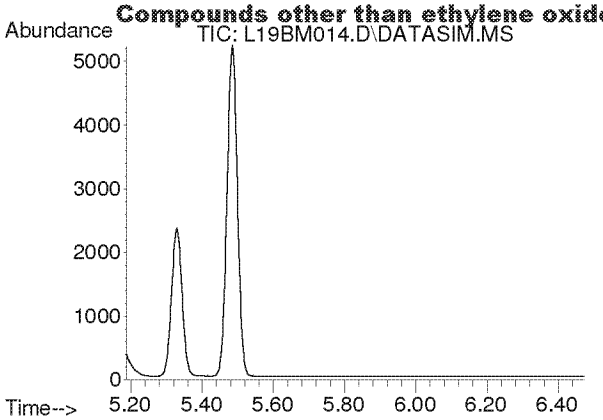
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM014.D
Acq On : 13 Feb 2019 9:42 pm (#1); 13 Feb 2019 9:37 pm (#2)
Operator : MAH
Sample : 9020702-01
Misc : WATER TOWER 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 08:27:07 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





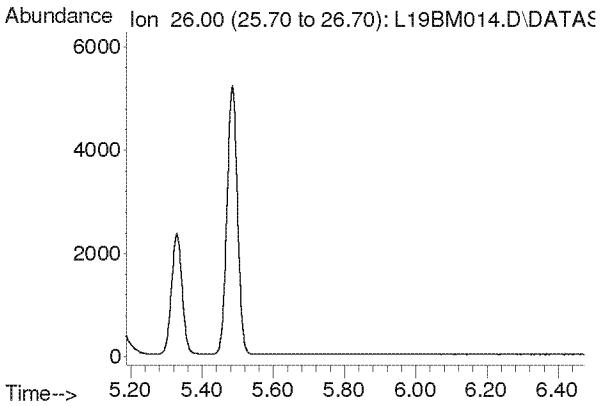
Compounds other than ethylene oxide were not quantitated.

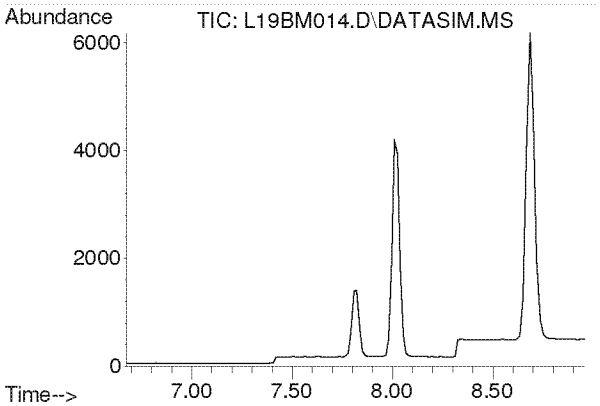


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 26



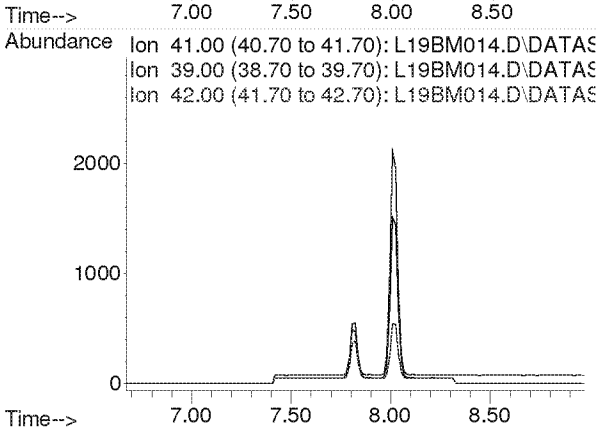


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

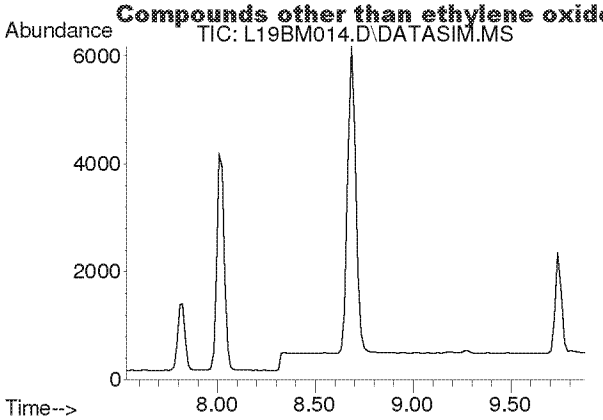
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

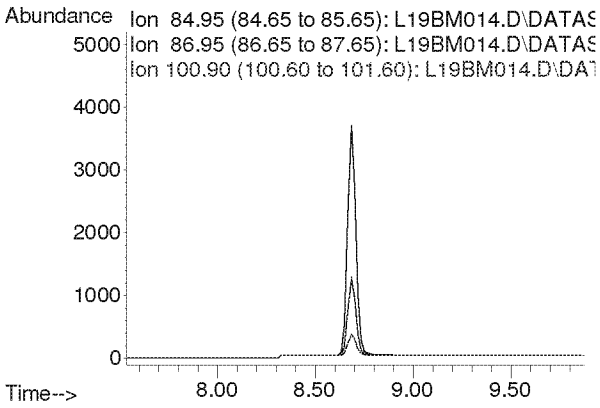


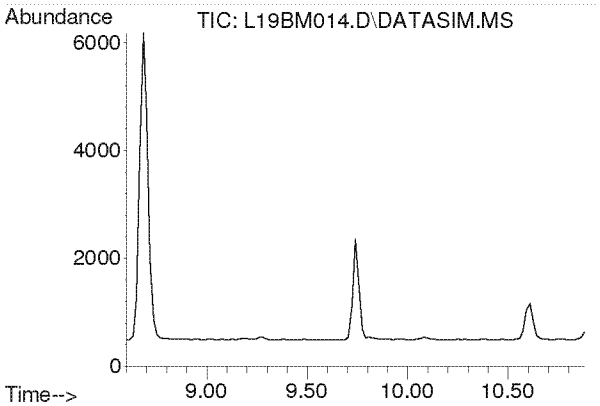
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



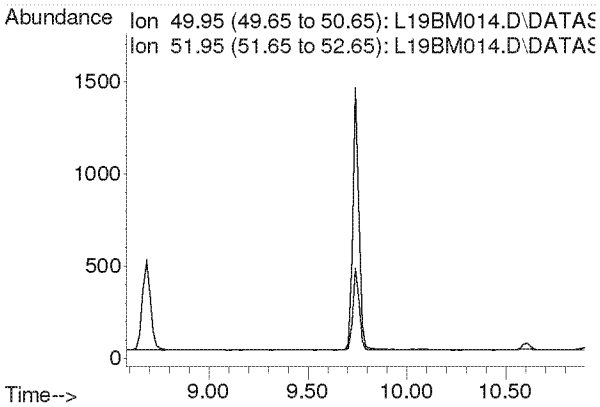


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

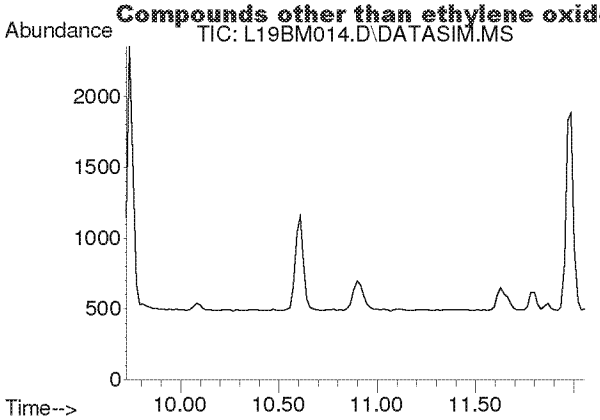
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

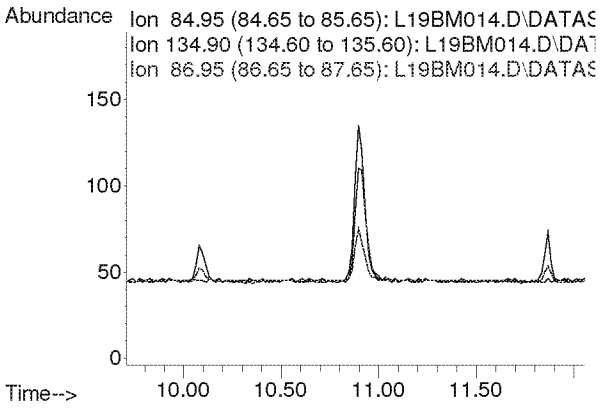


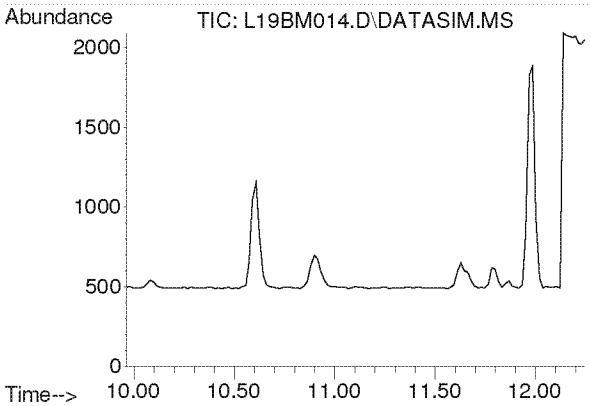
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



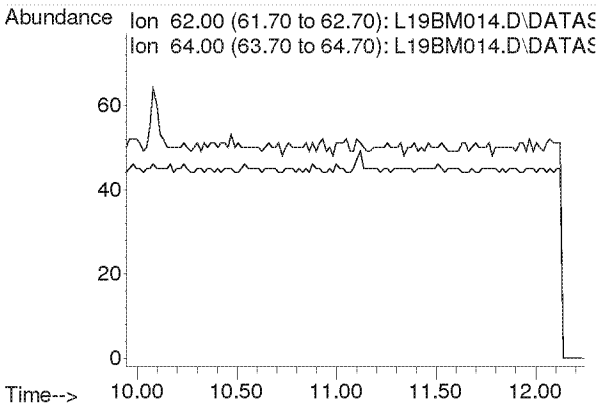


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

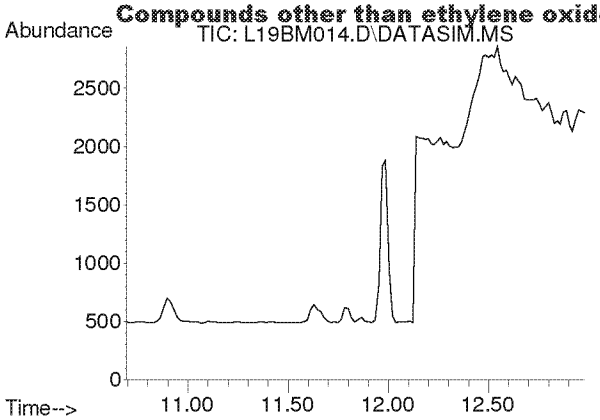
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

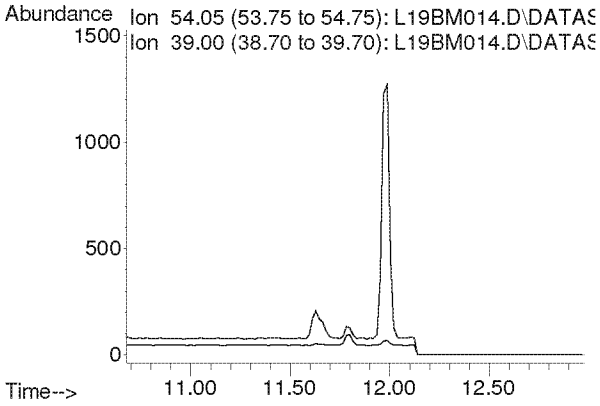


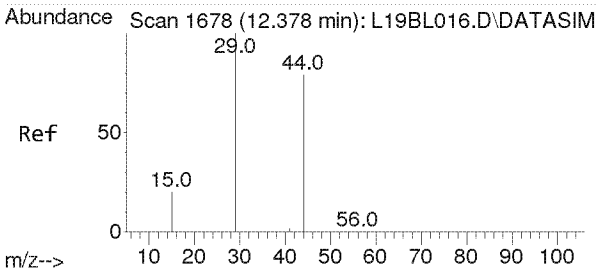
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

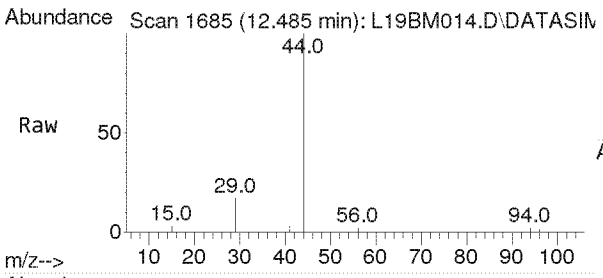


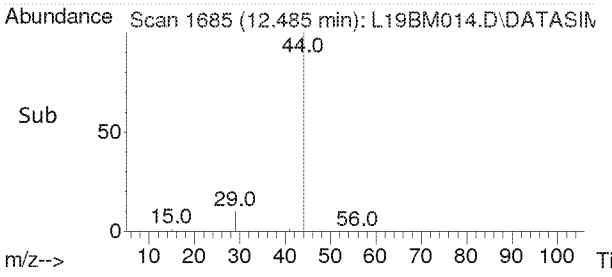


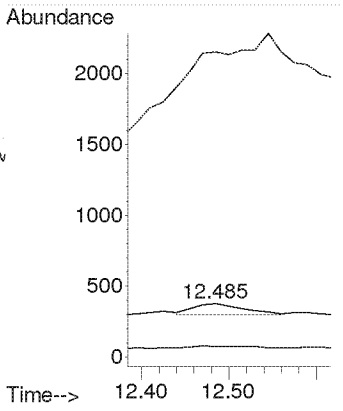
#9
Ethylene oxide
Concen: 0.115 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.015 min
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 29 Resp: 313

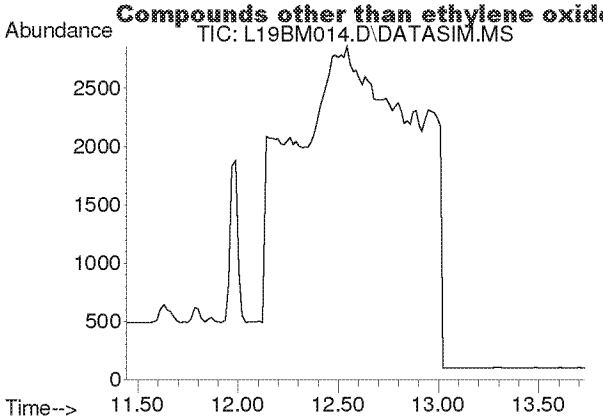
Ion	Ratio	Lower	Upper
29	100		
15	18.5	16.0	24.0
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

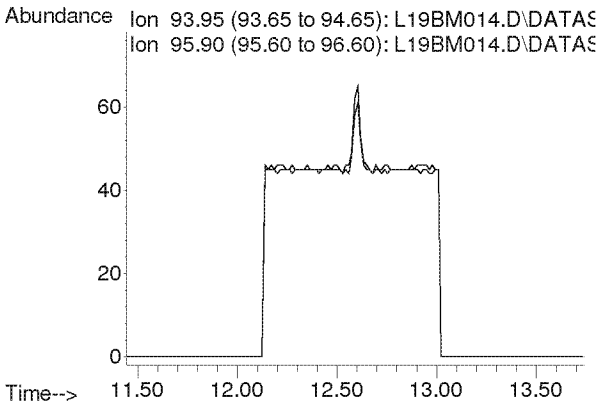


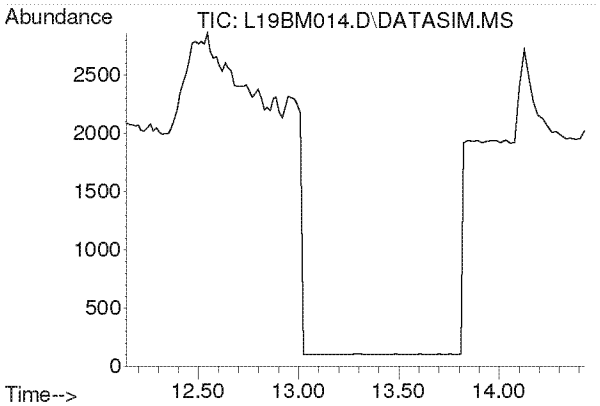
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



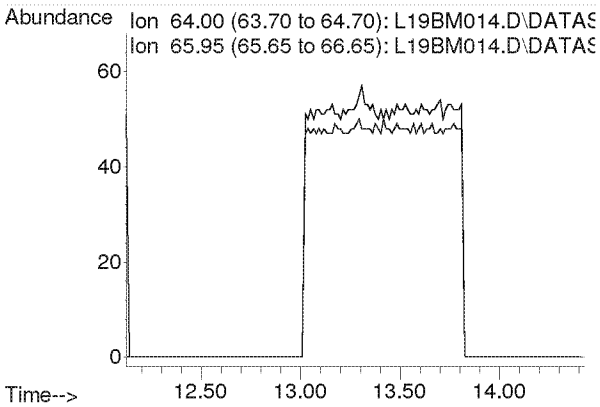


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

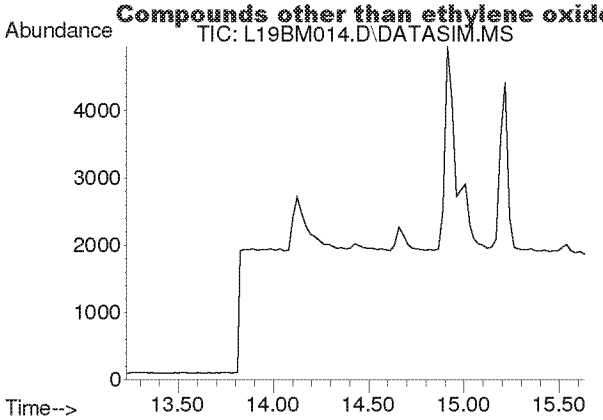
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

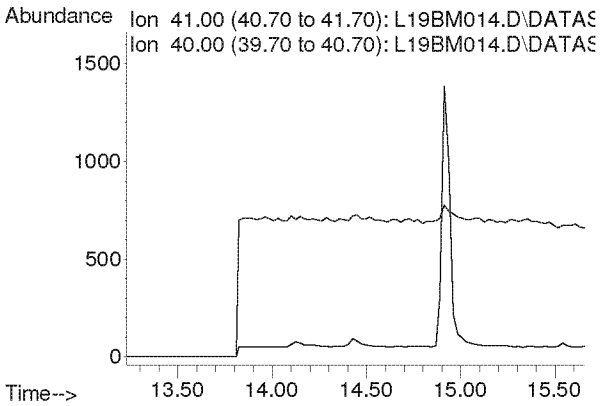


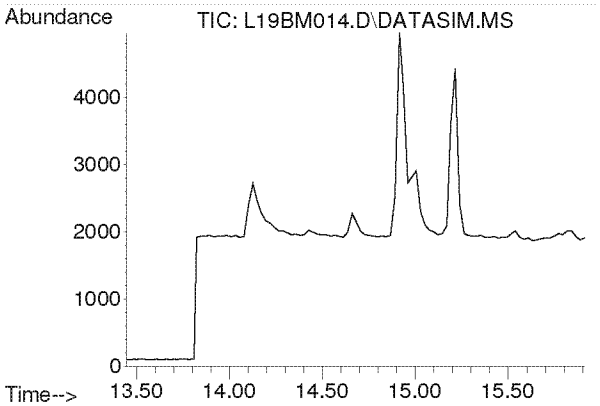
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



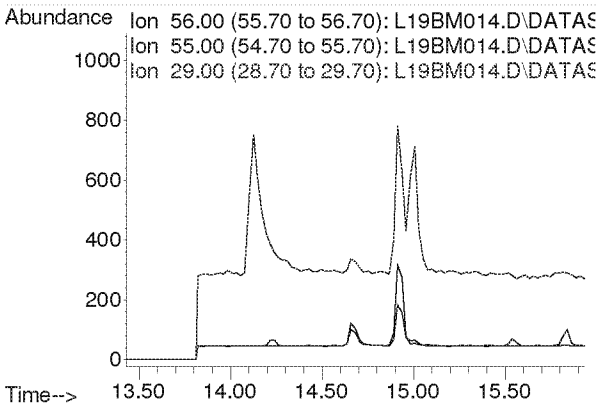


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

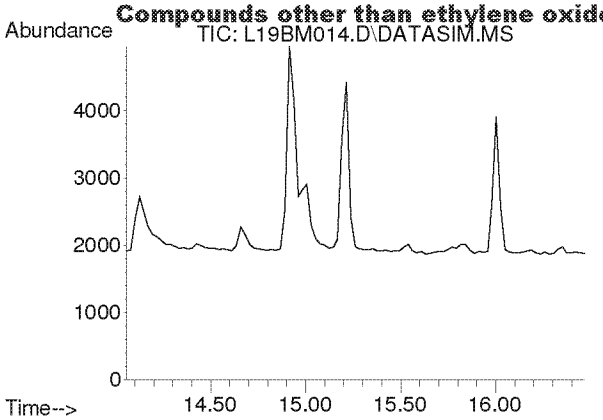
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

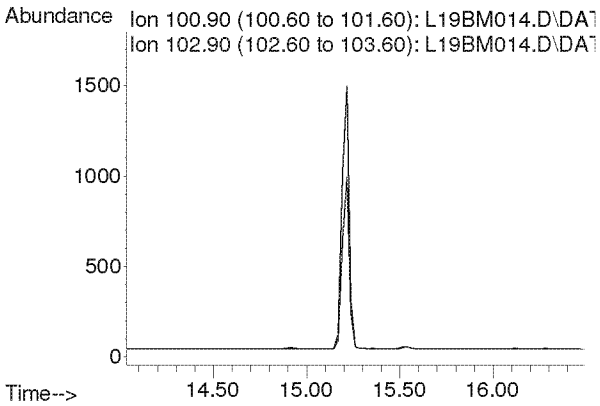


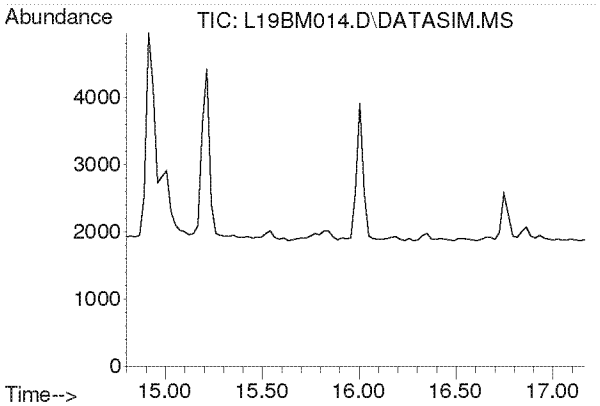
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



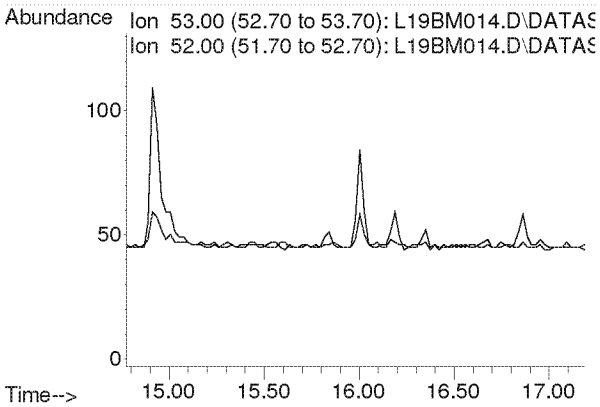


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

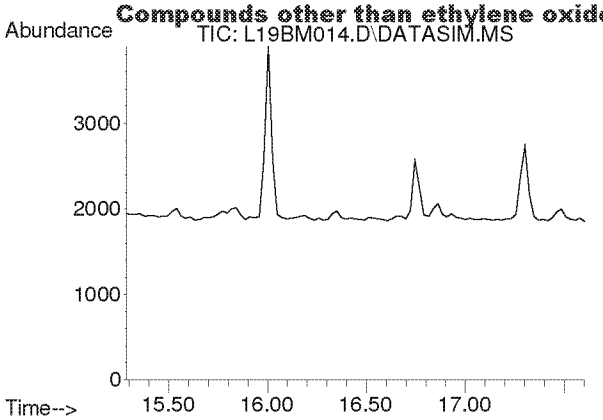
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

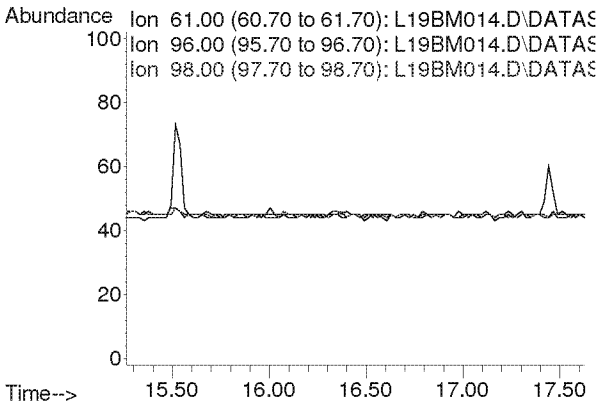


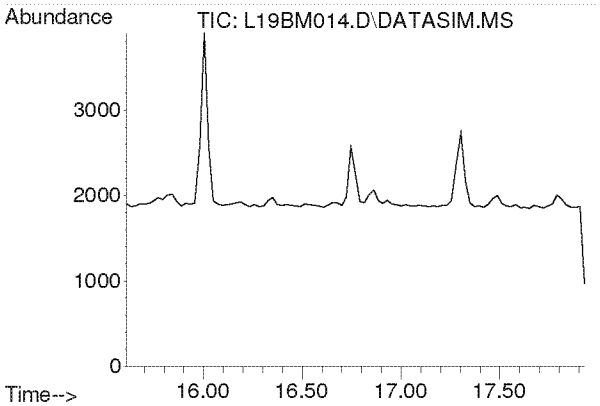
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



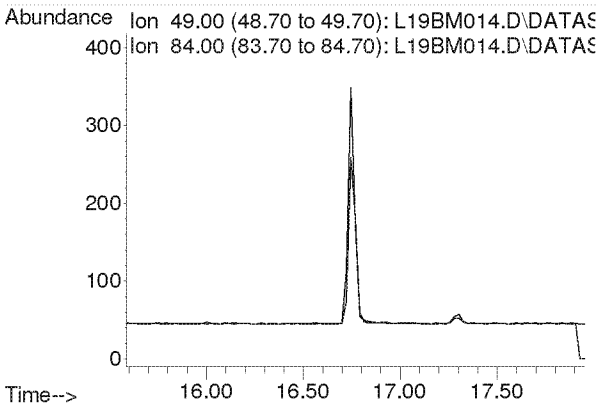


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

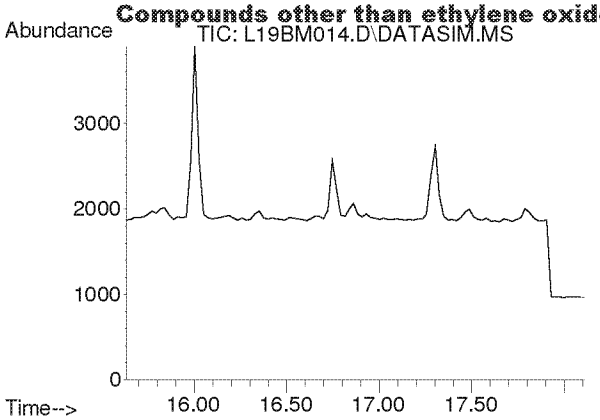
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

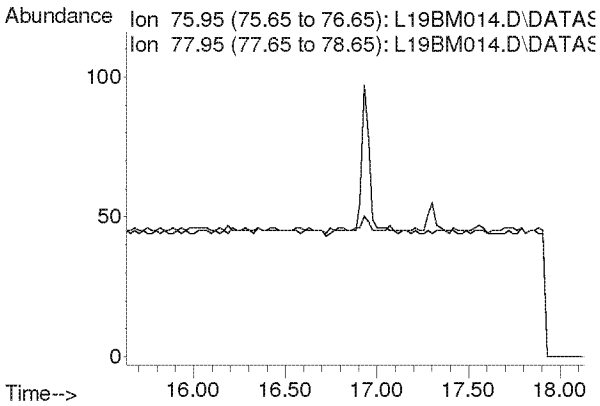


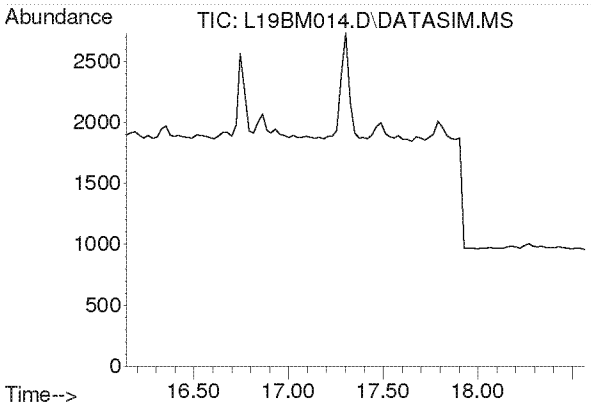
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



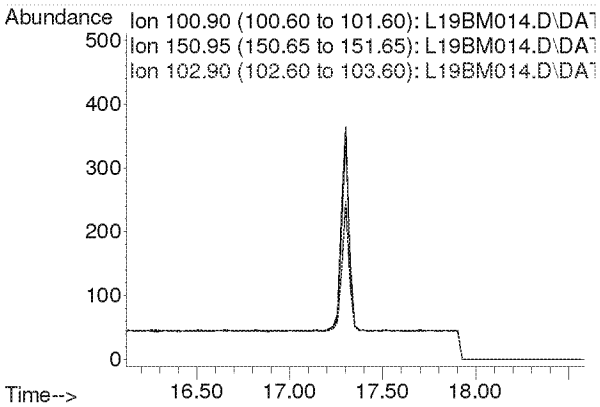


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

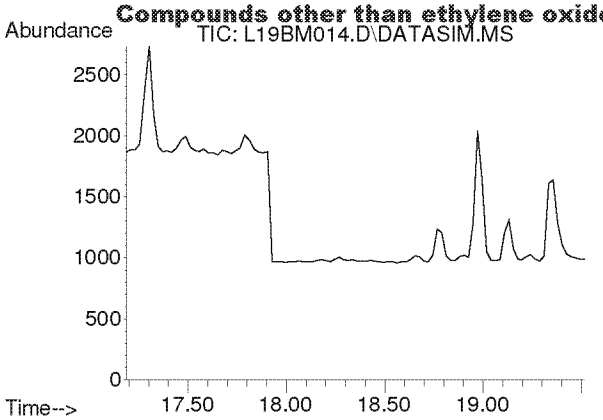
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

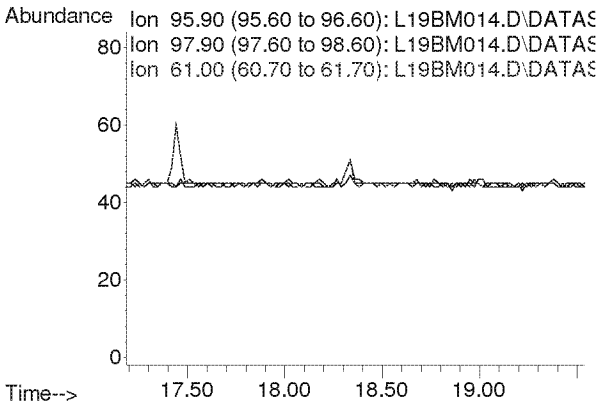


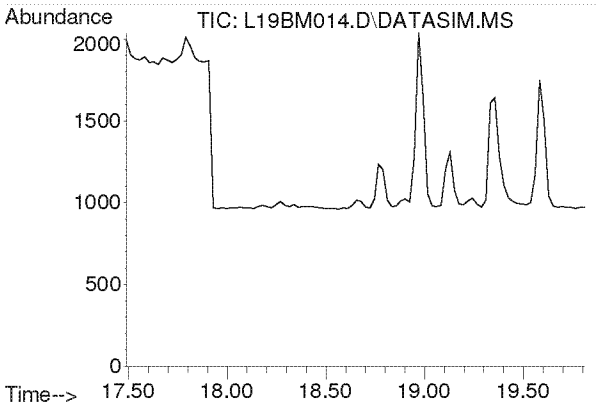
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



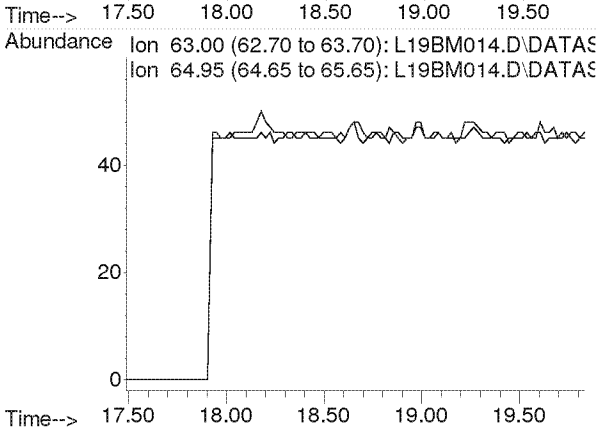


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

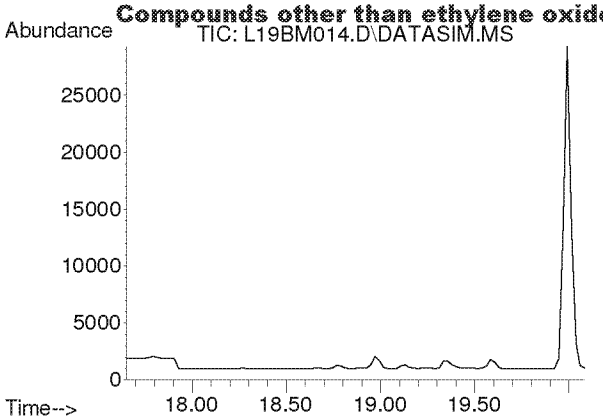
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

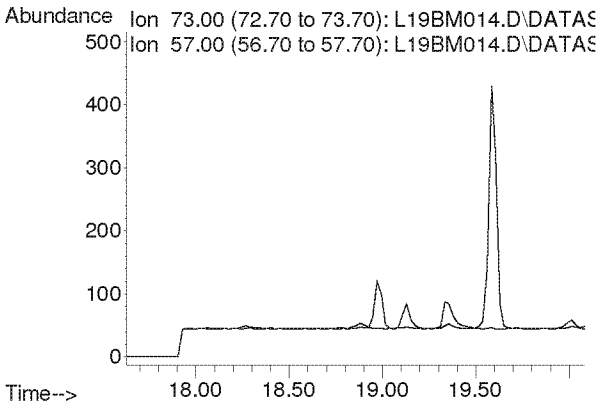


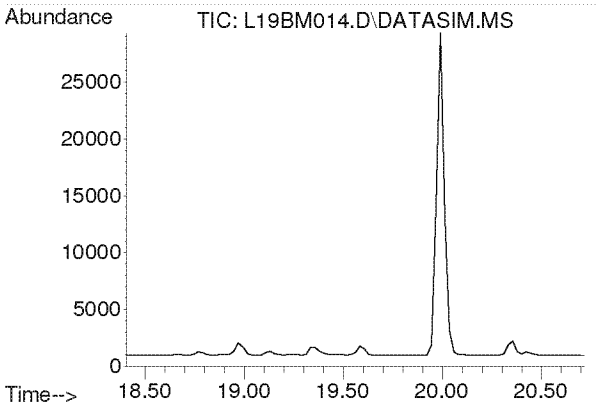
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



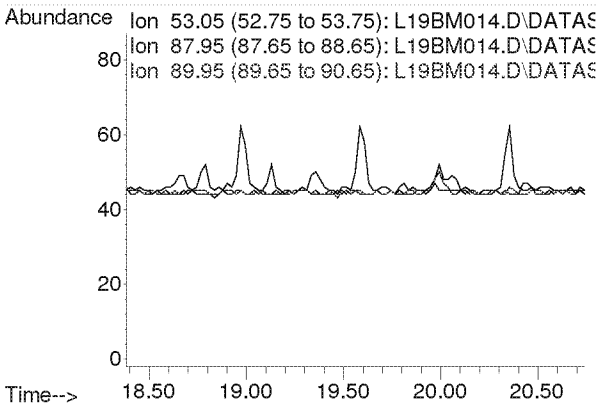


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

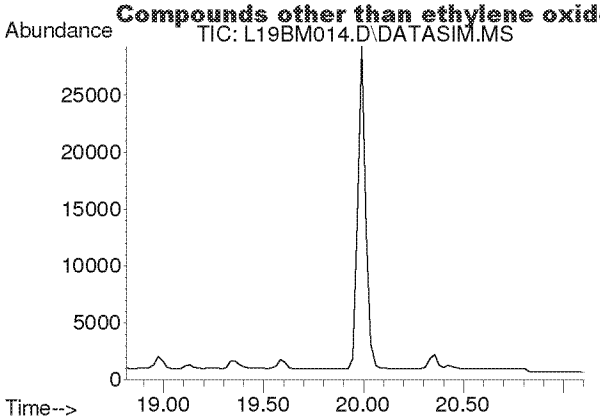
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

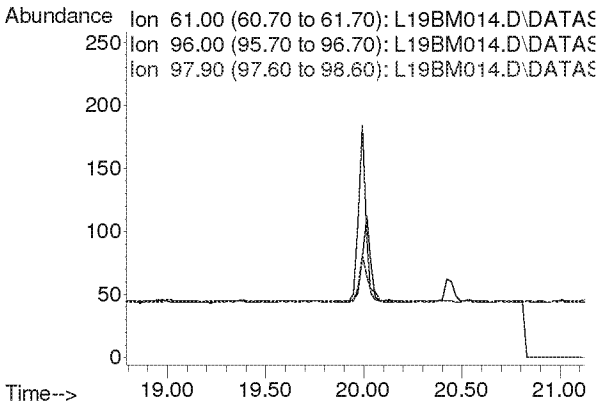


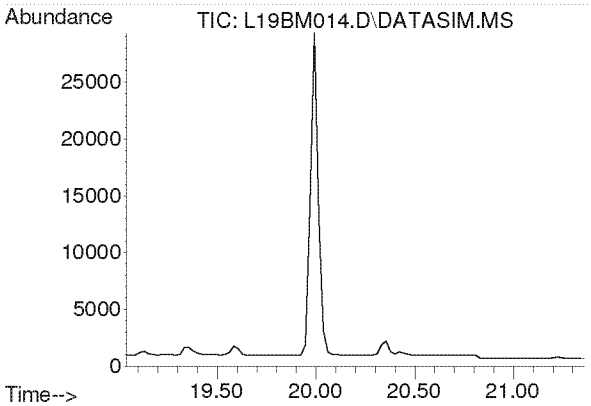
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



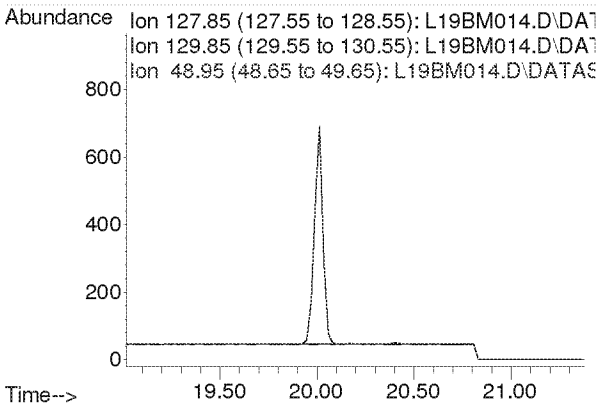


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

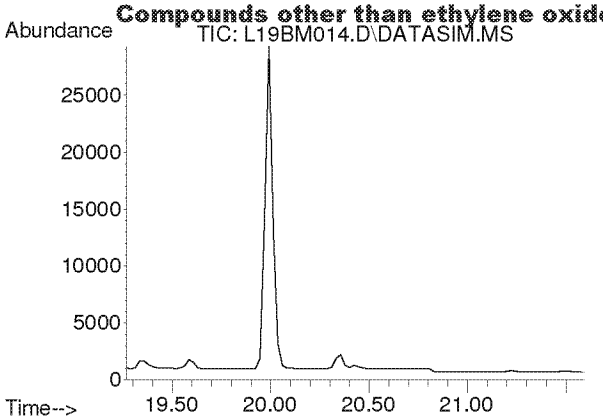
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

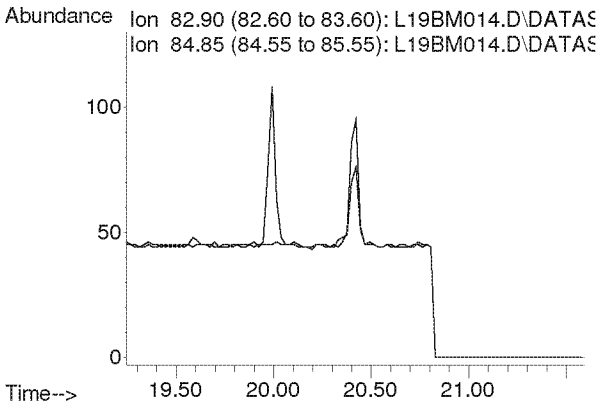


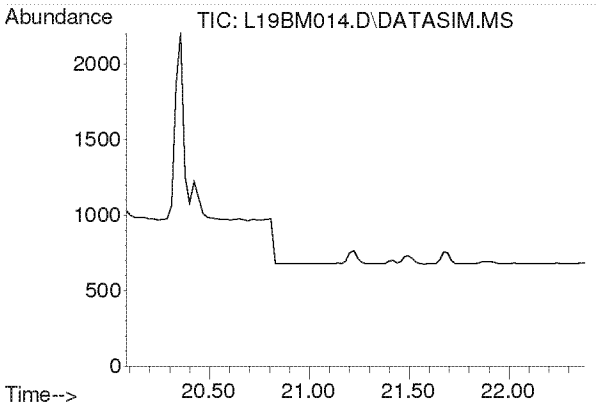
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



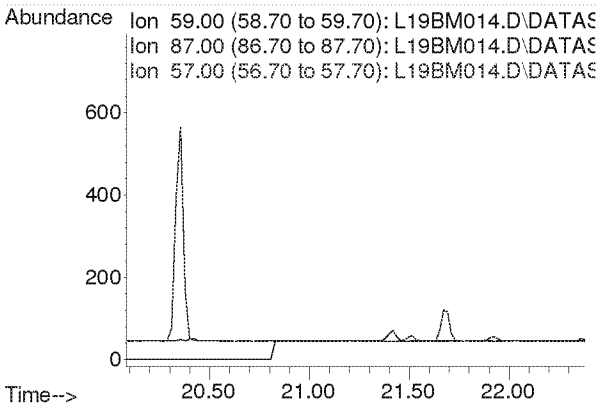


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

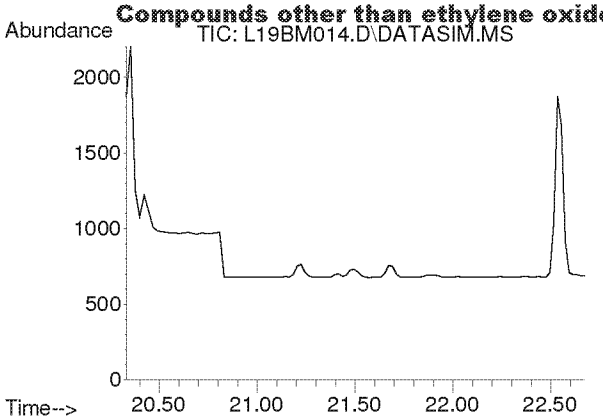
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

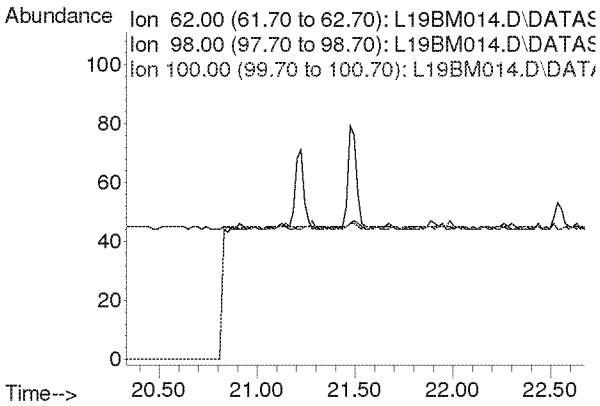


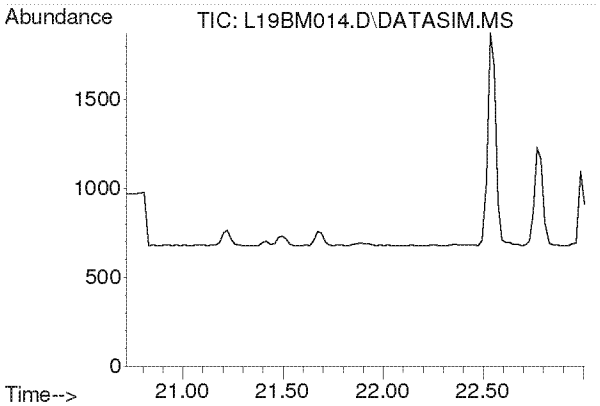
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



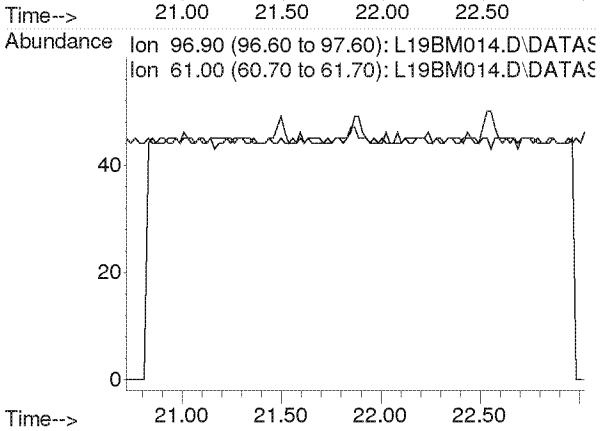


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

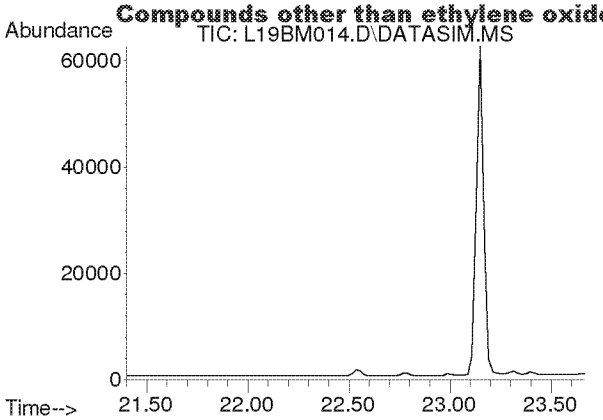
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

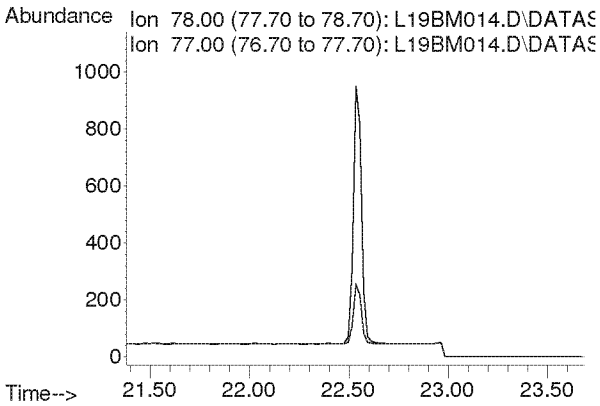


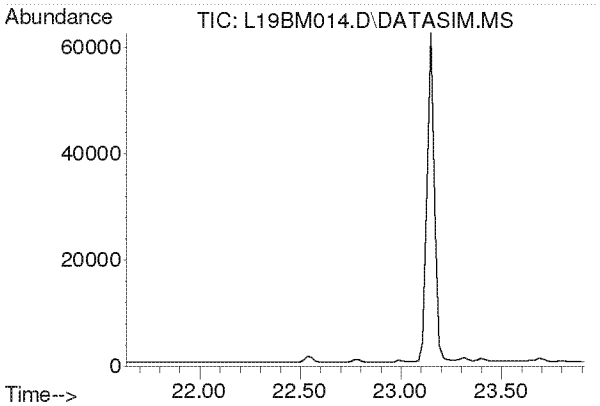
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



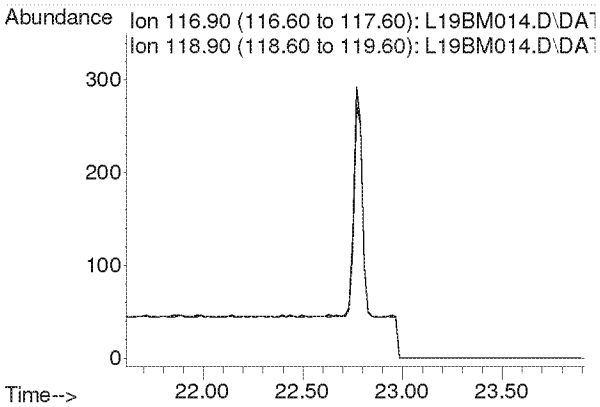


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

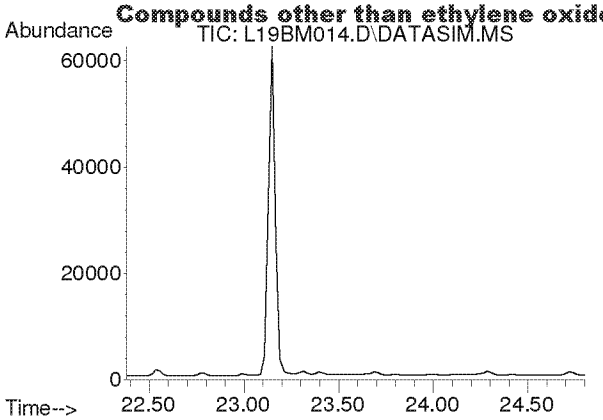
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

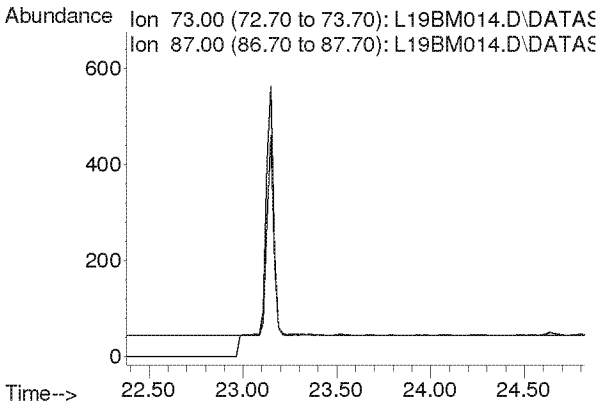


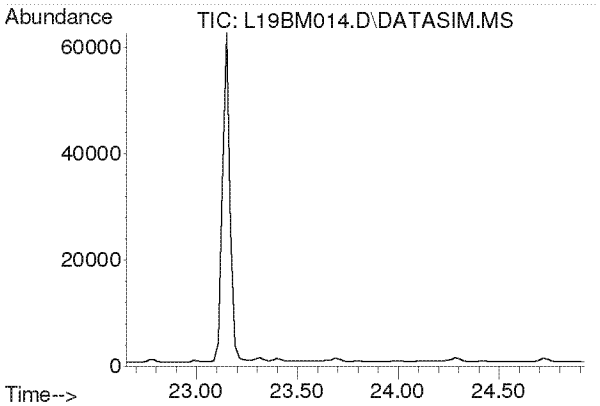
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



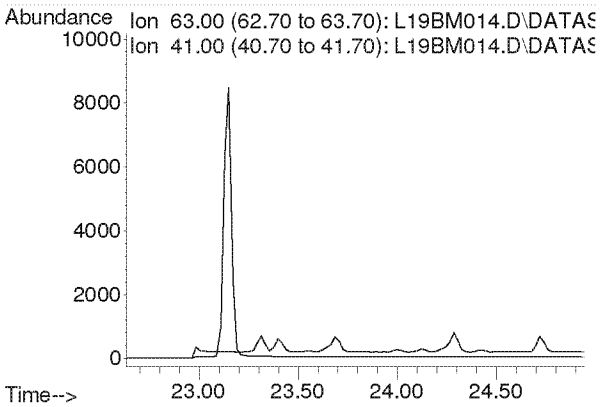


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

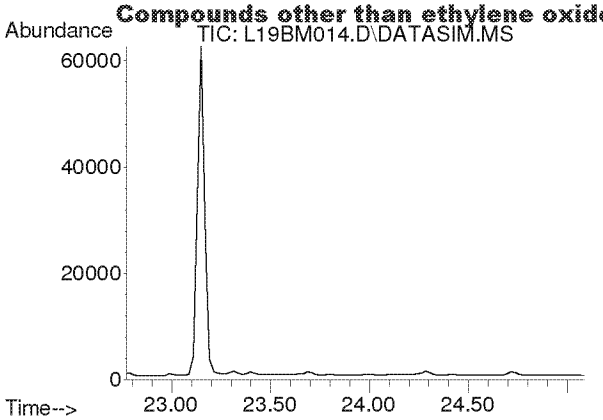
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

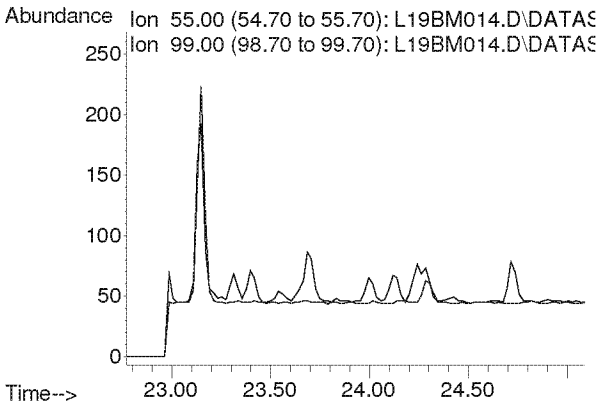


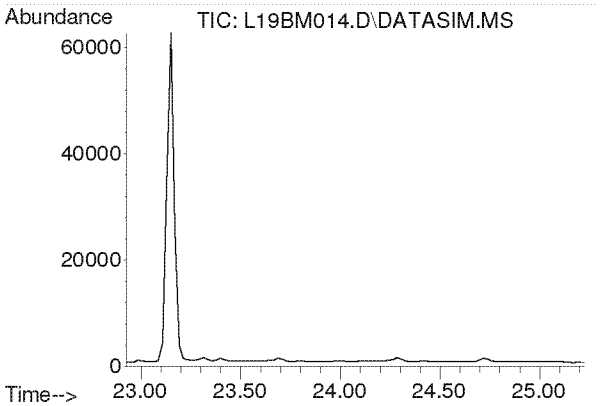
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



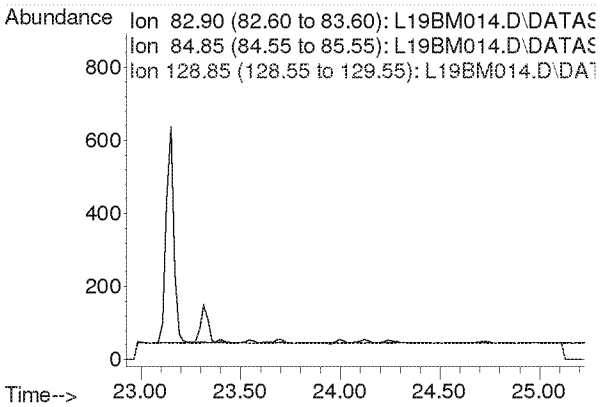


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

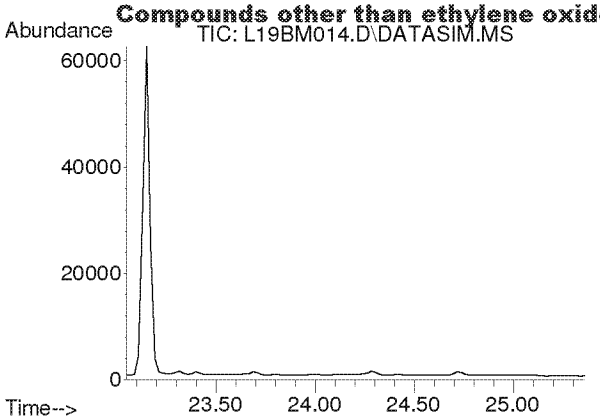
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

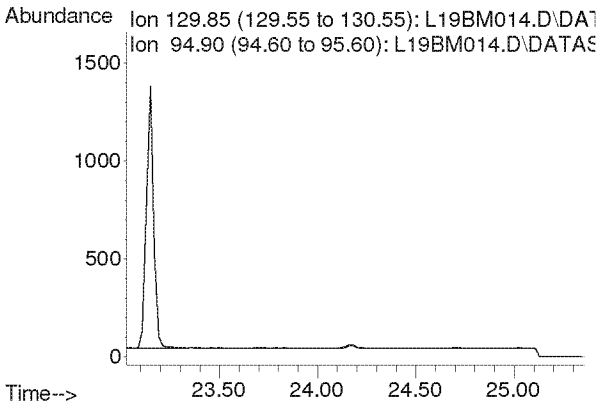


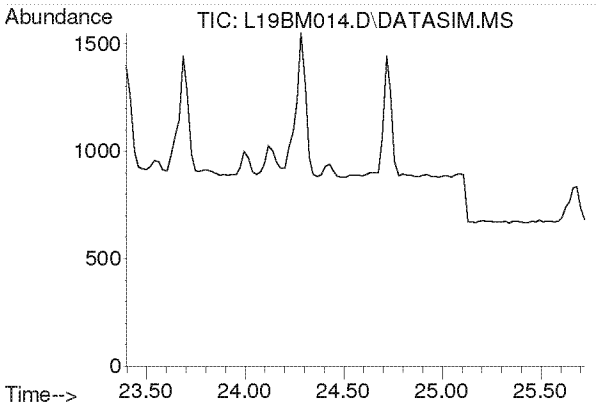
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



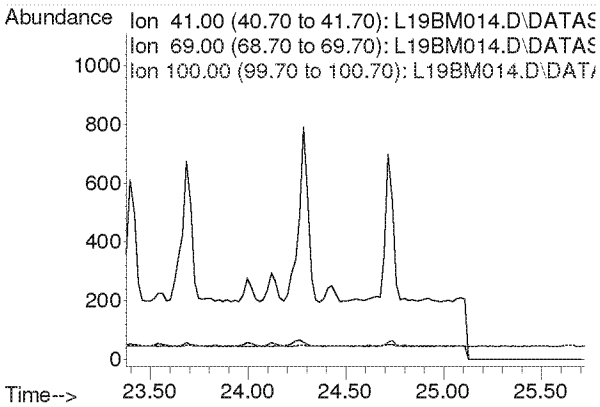


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

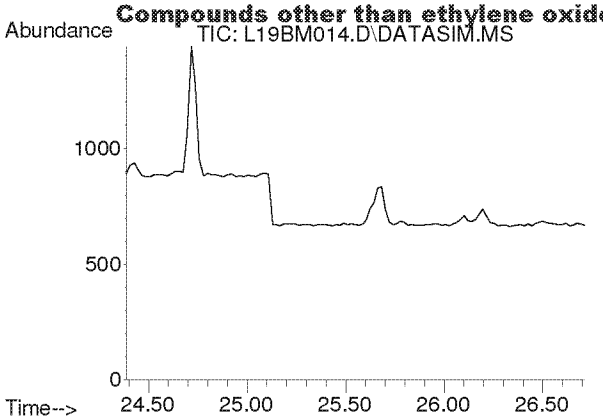
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

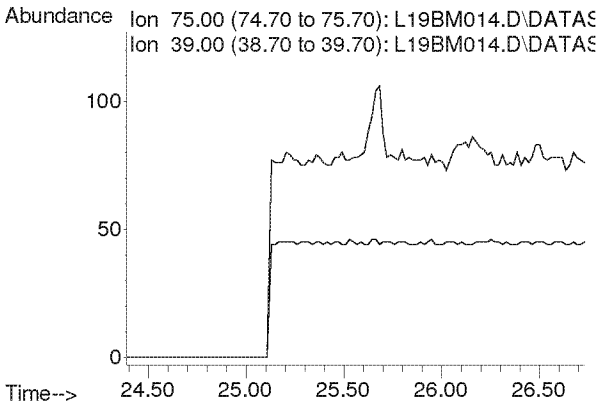


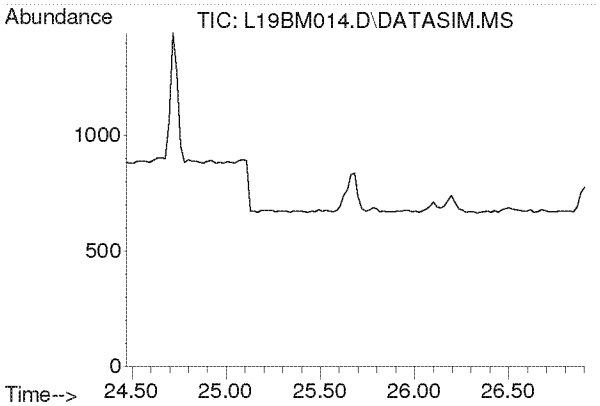
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



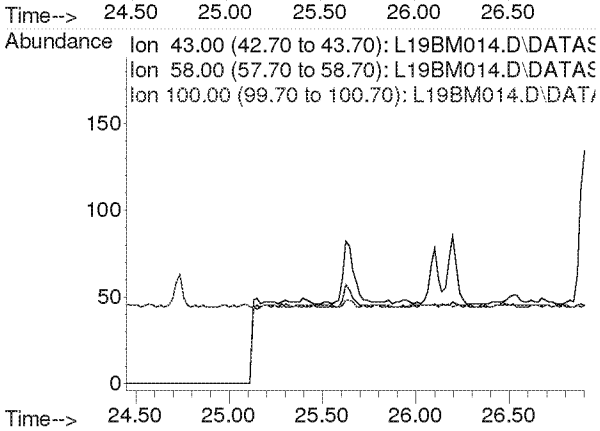


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

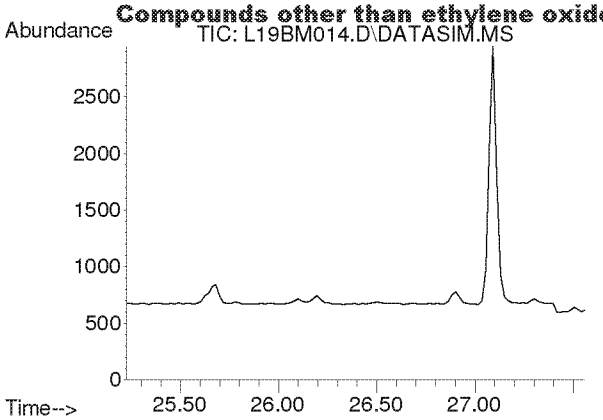
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

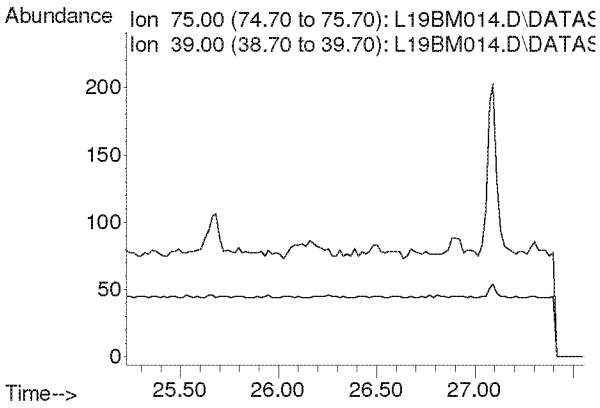


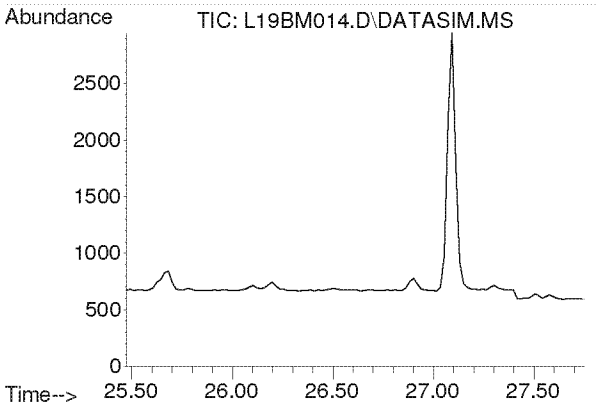
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



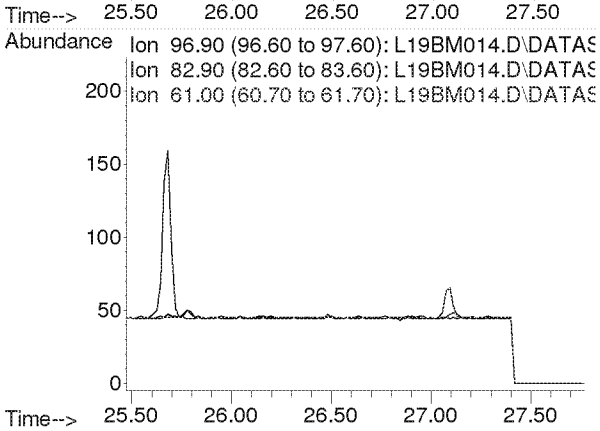


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

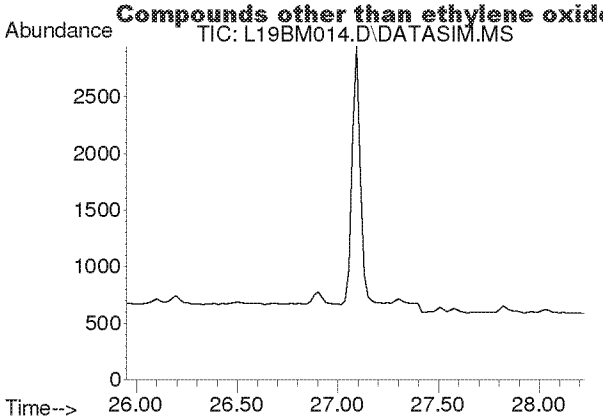
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

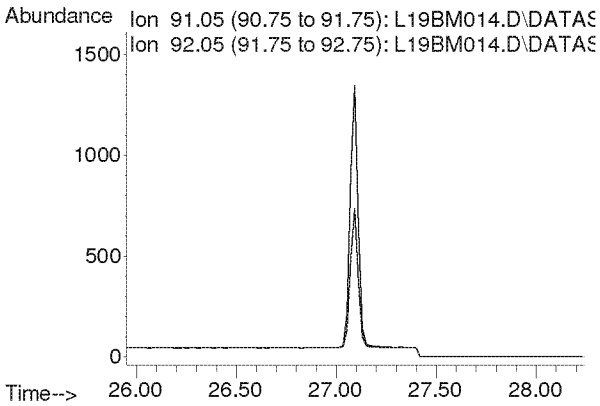


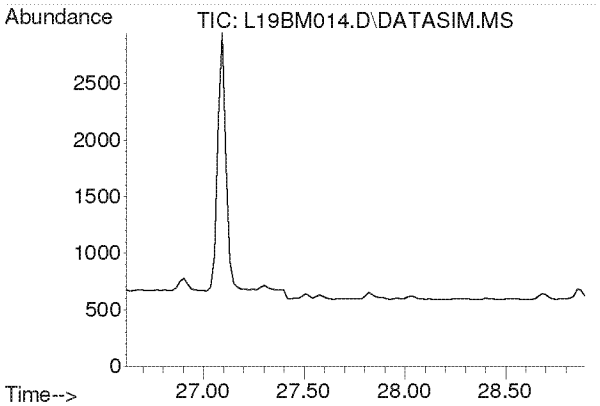
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



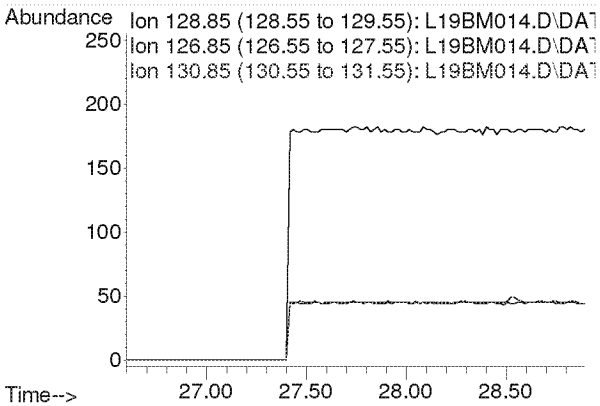


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

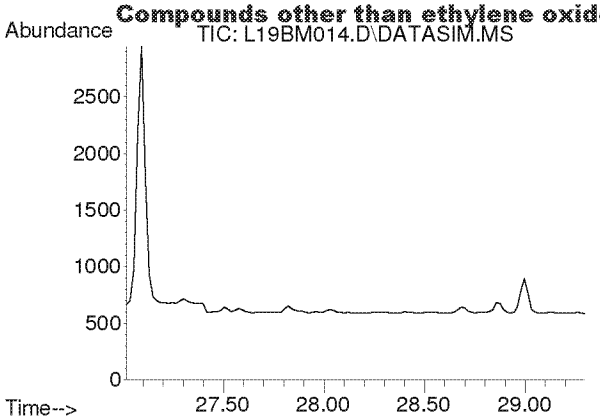
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

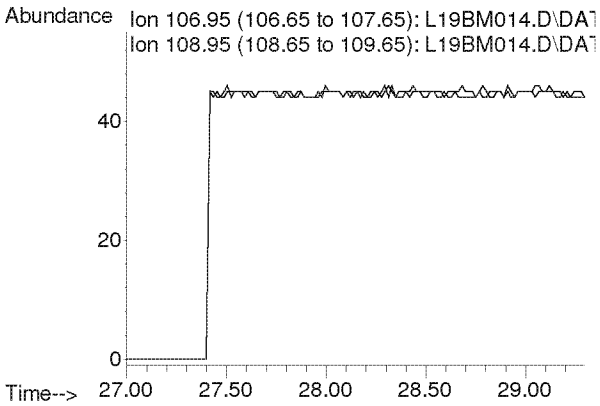


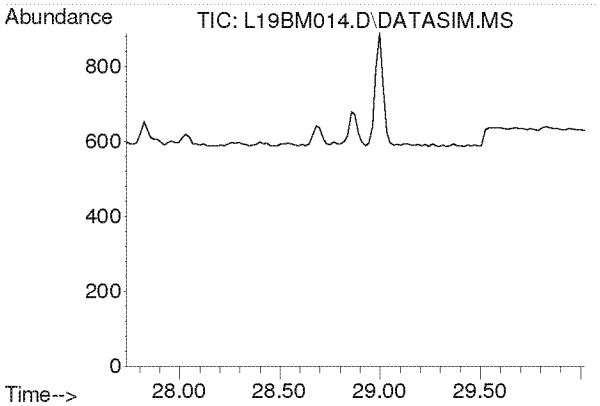
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



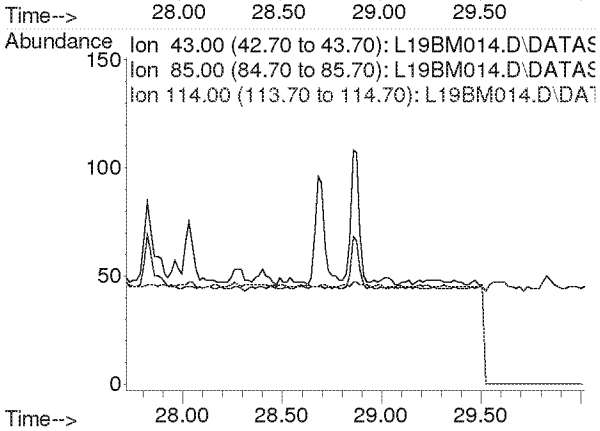


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

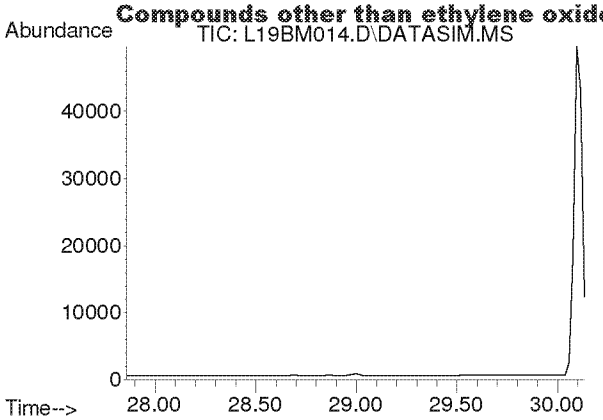
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

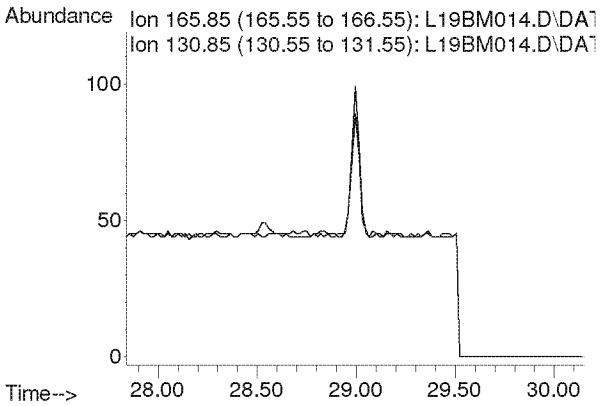


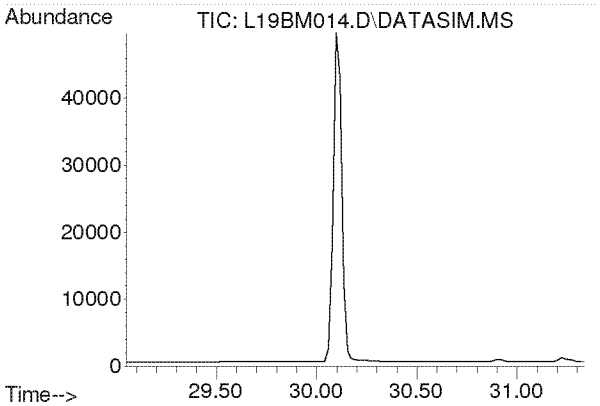
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



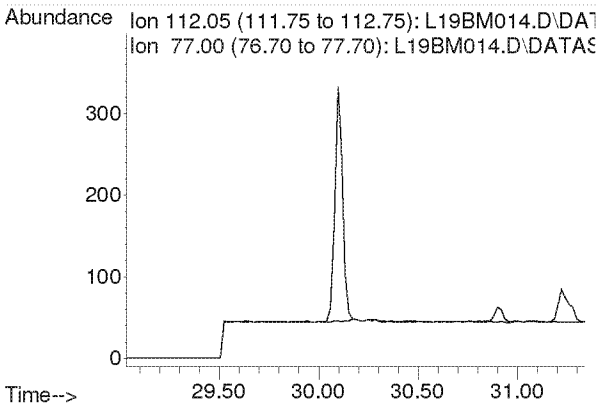


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

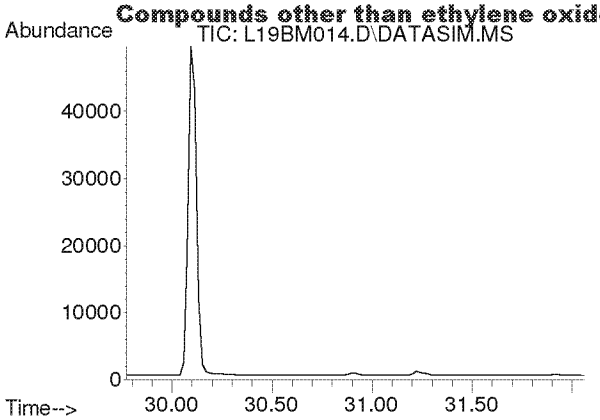
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

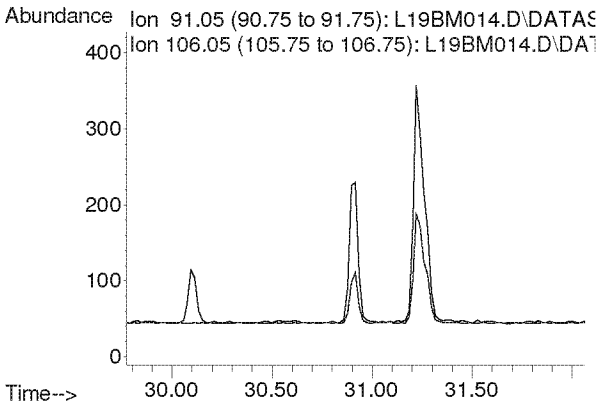


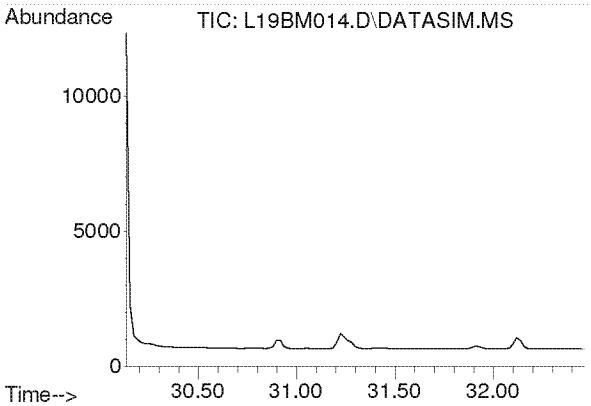
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



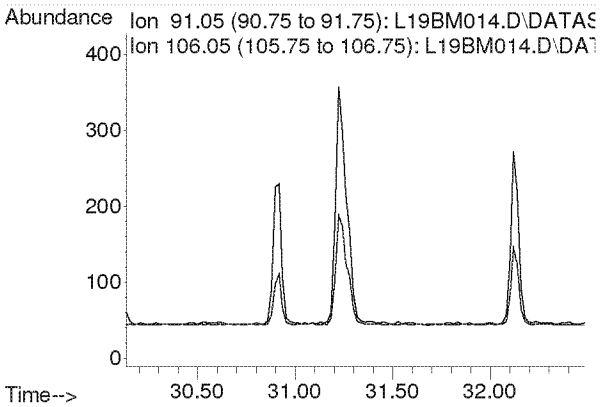


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

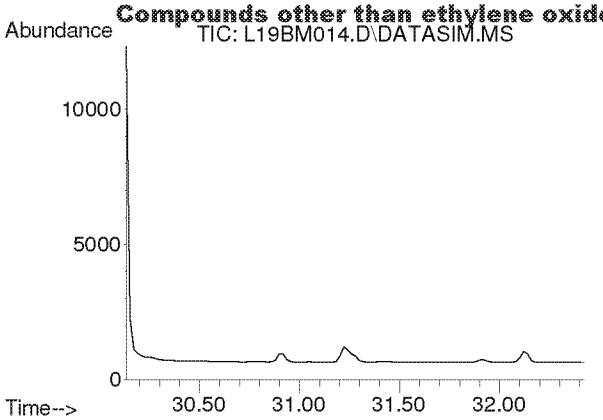
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

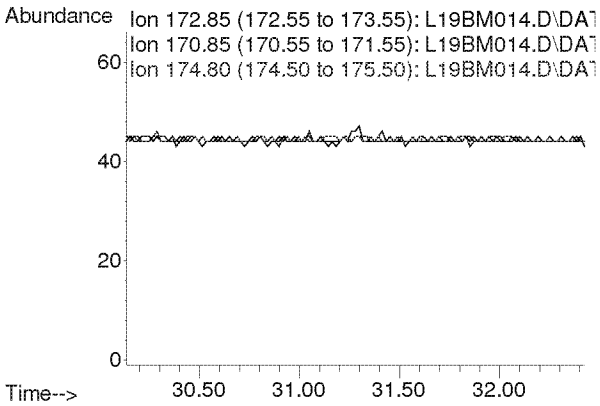


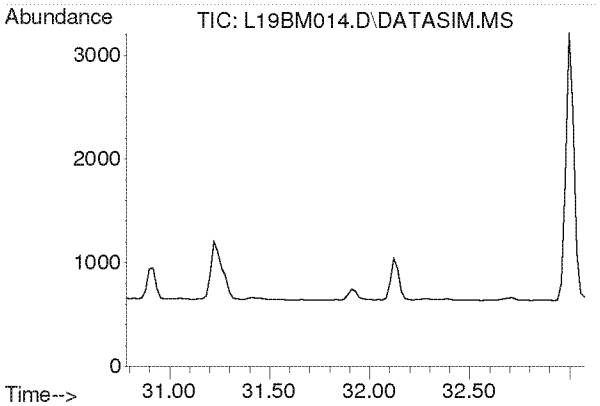
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



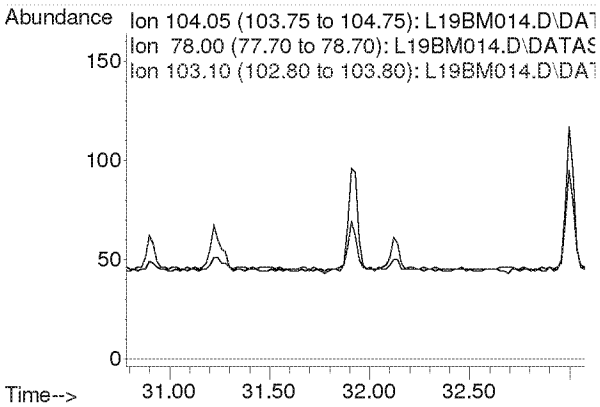


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

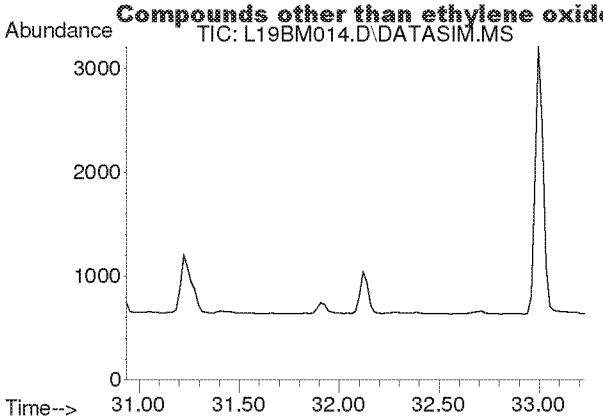
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

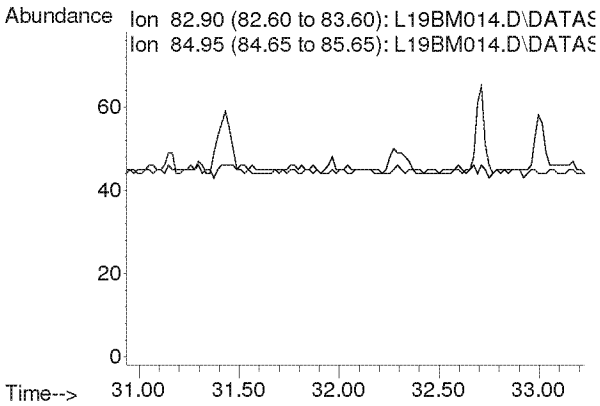


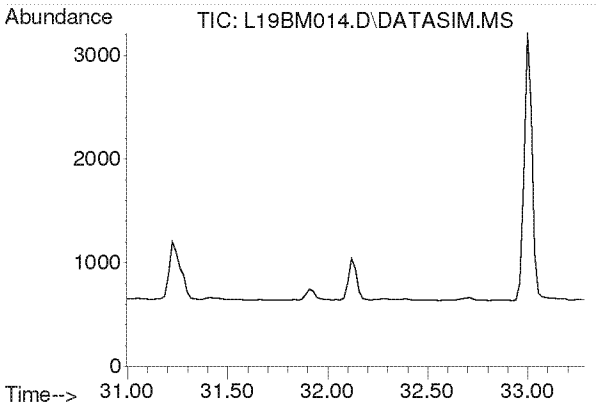
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



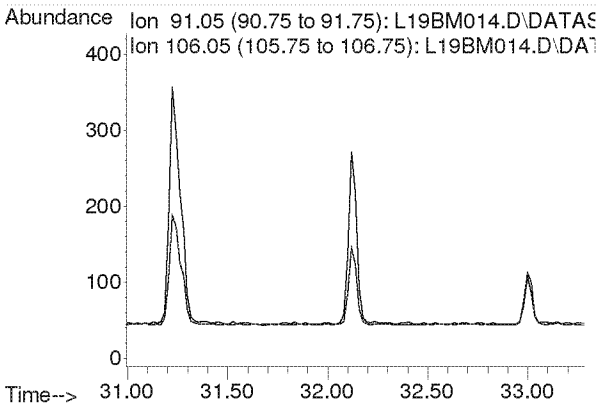


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

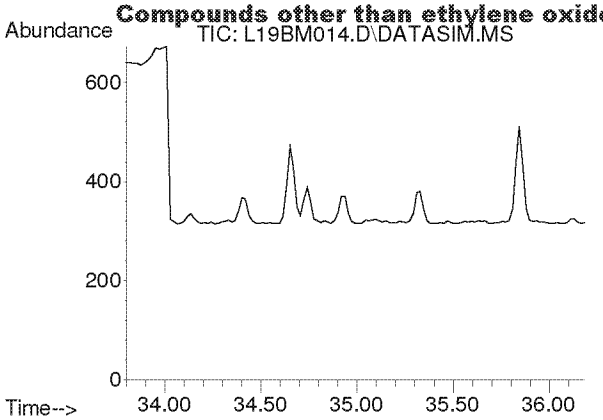
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

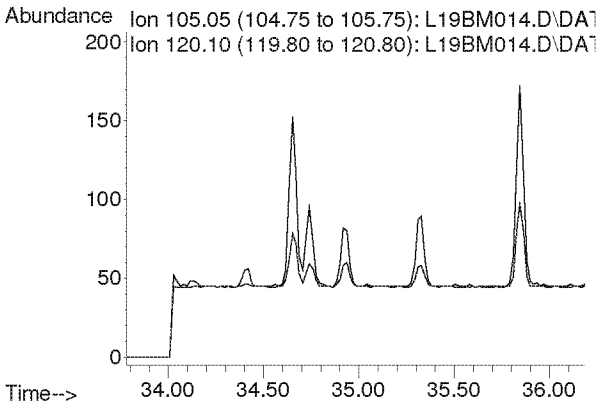


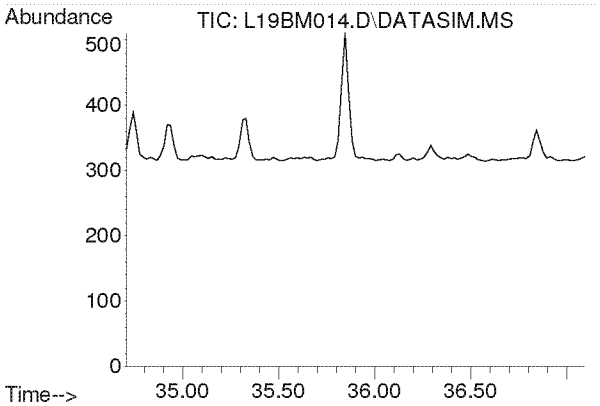
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



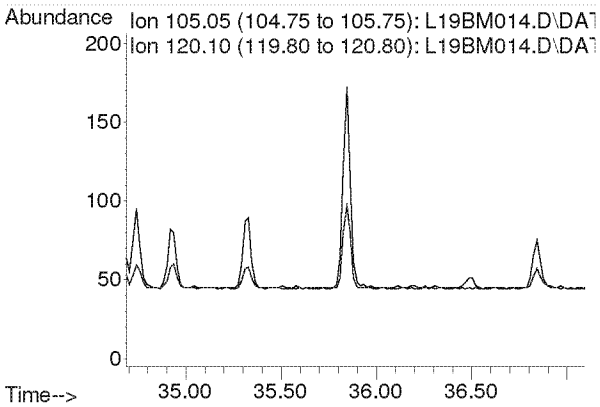


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

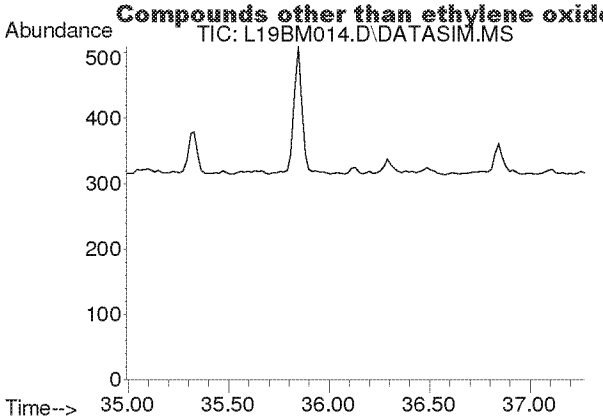
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

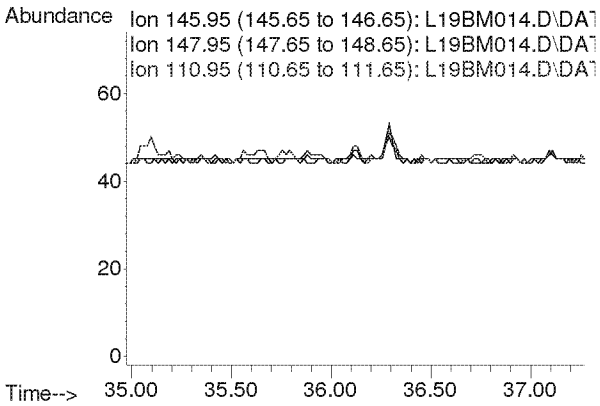


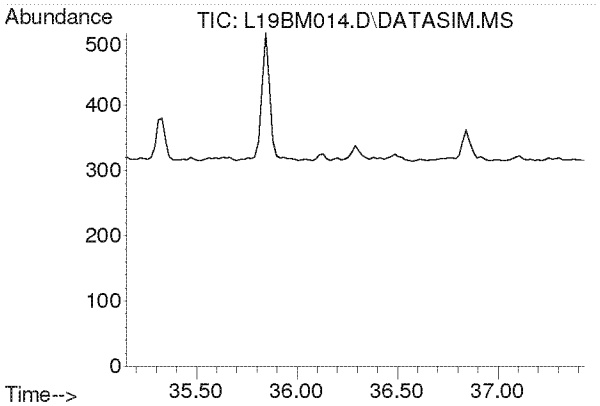
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



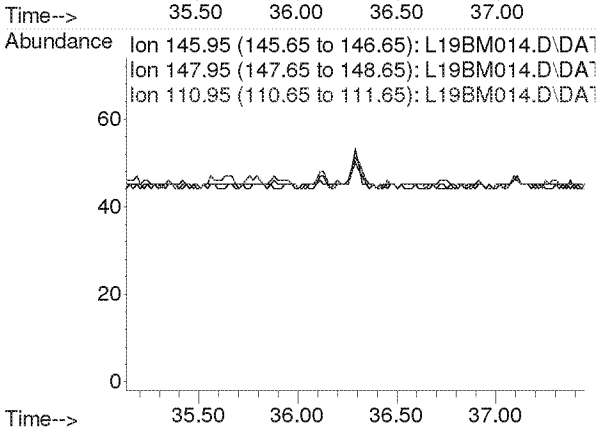


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

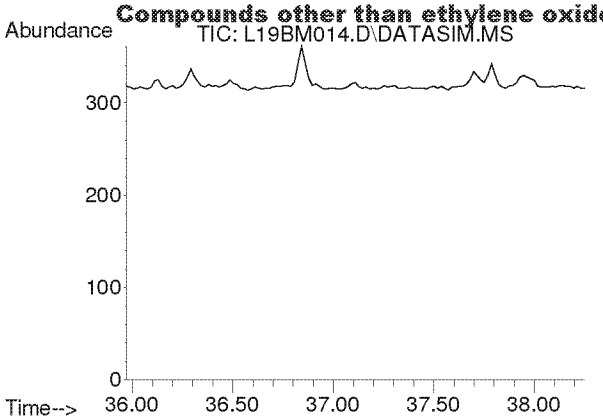
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

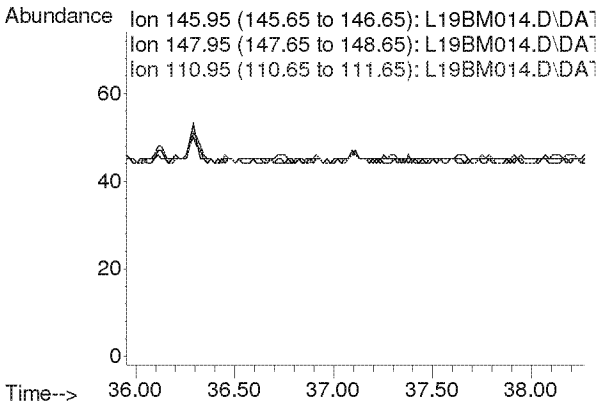


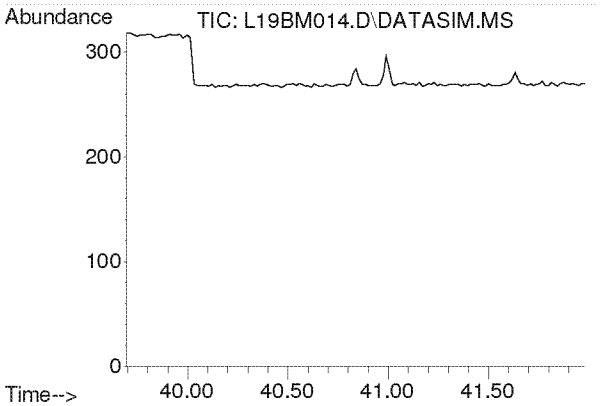
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



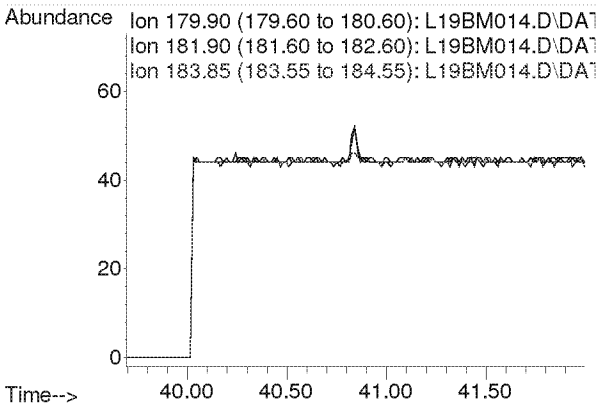


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

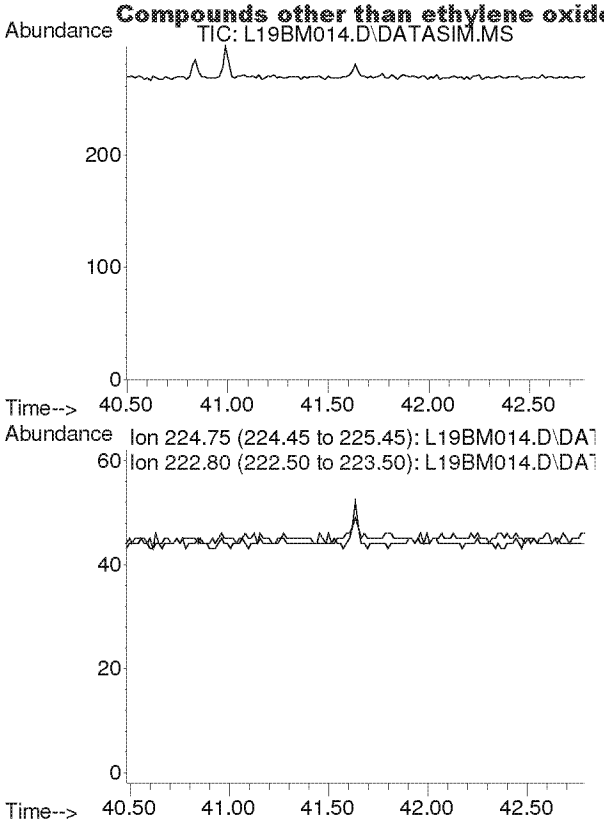
Lab File: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

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: L19BM014.D
Acq: 13 Feb 2019 9:42 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM015.D
Acq On : 13 Feb 2019 10:42 pm (#1); 13-Feb-19, 22:37:19 (#2)
Operator : MAH
Sample : 9020702-02
Misc : HINSDALE S. HS 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 14:01:31 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

dtm

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	47065	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	118612	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	85300	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	352m	0.1308 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.	d
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	d
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	d
48) Tetrachloroethylene	0.000	166	0	N.D.	d
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d

ED_002475_00000213-00148

Compounds other than ethylene oxide were not quantitated (not reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM015.D
Acq On : 13 Feb 2019 10:42 pm (#1); 13-Feb-19, 22:37:19 (#2)
Operator : MAH
Sample : 9020702-02
Misc : HINSDALE S. HS 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 14:01:31 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

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.	

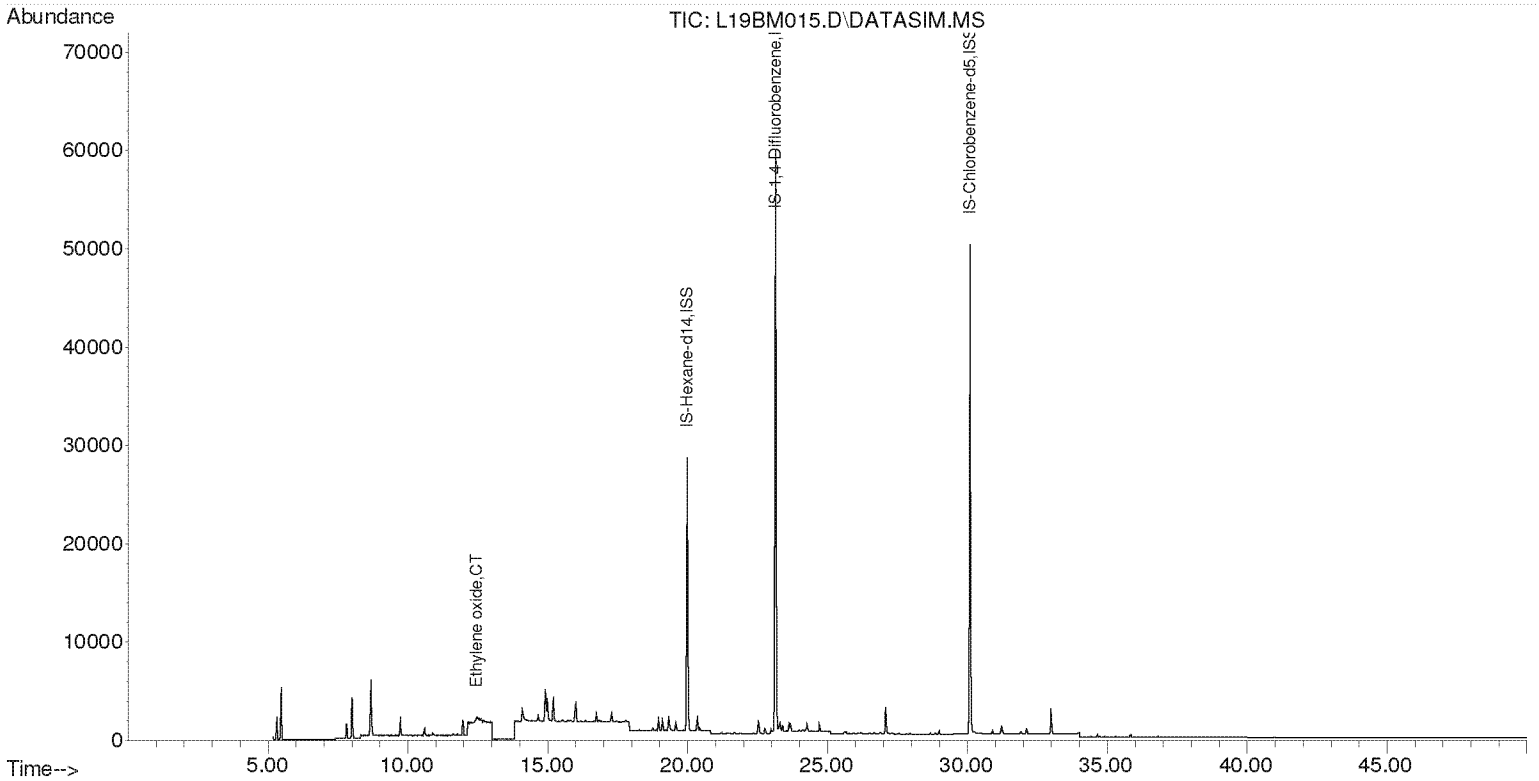
(#) = qualifier out of range (m) = manual integration (+) = signals summed

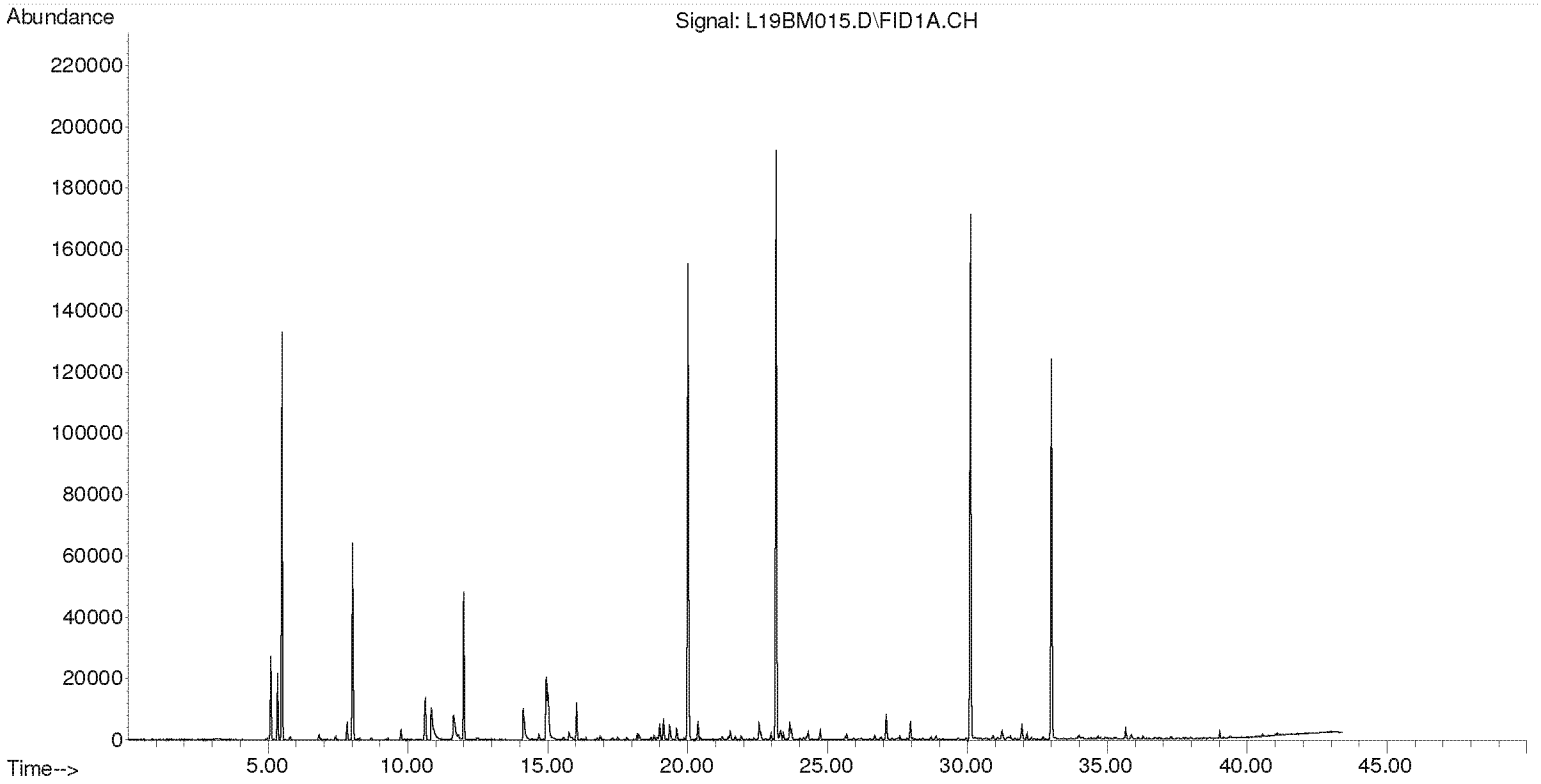
ED_002475_00000213-00149

Compounds other than ethylene oxide were not quantitated.

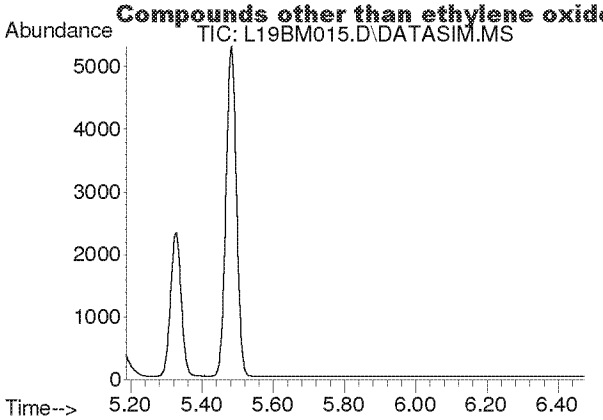
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM015.D
Acq On : 13 Feb 2019 10:42 pm (#1); 13 Feb 2019 10:37 pm (#2)
Operator : MAH
Sample : 9020702-02
Misc : HINSDALE S. HS 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 08:27:20 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





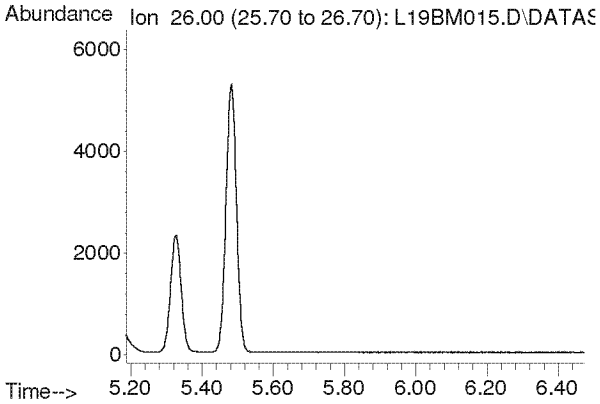
Compounds other than ethylene oxide were not quantitated.

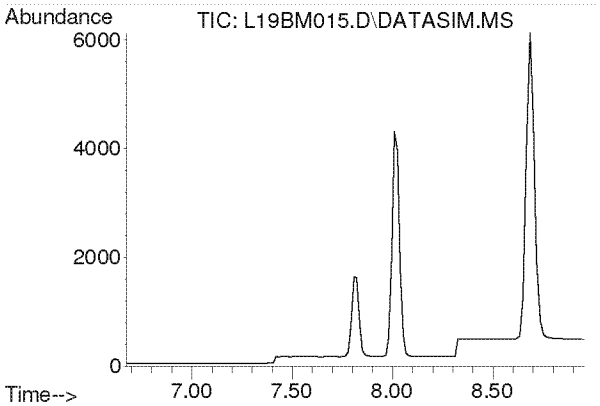


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 26



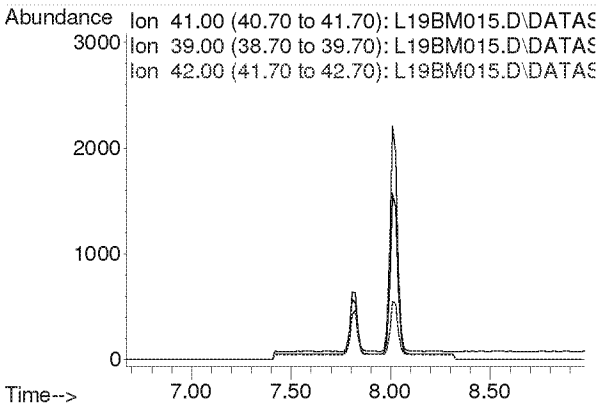


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

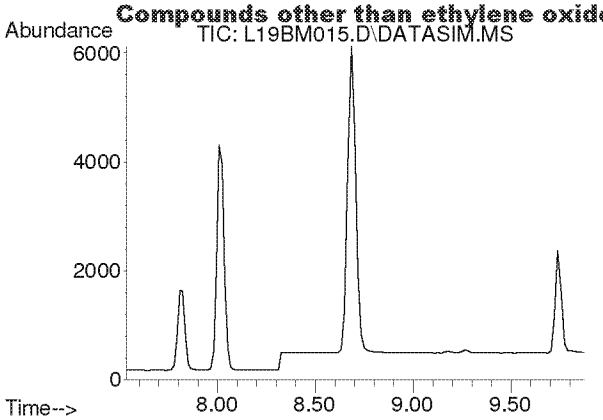
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

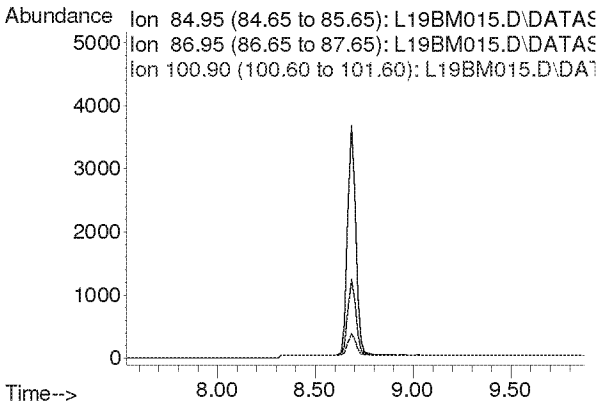


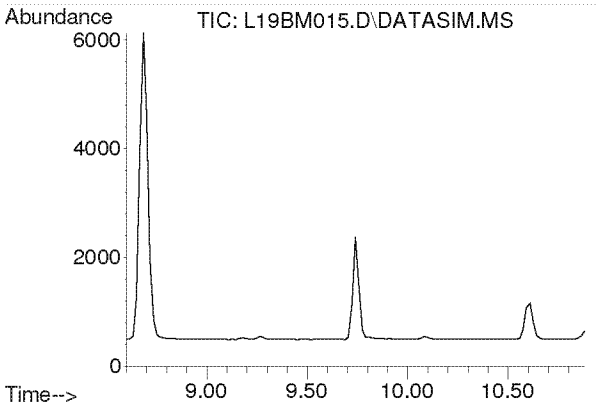
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



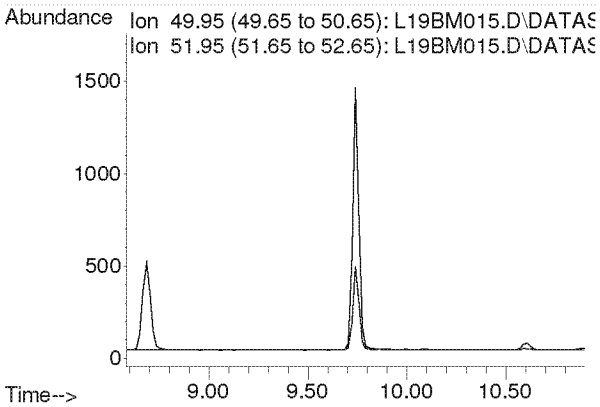


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

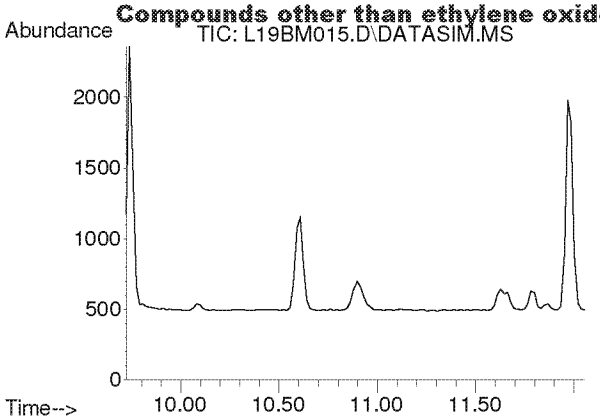
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

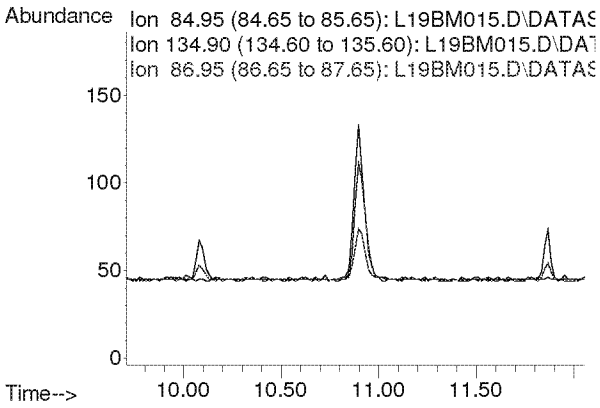


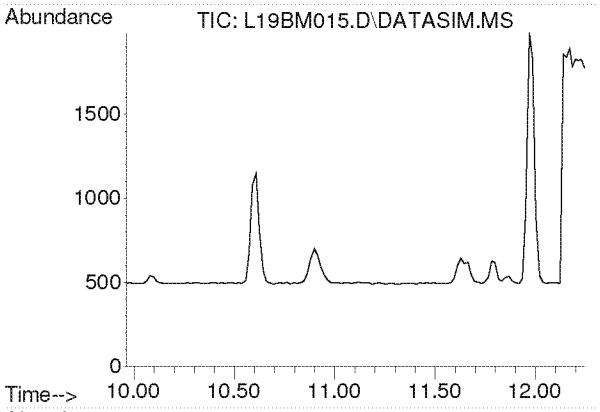
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



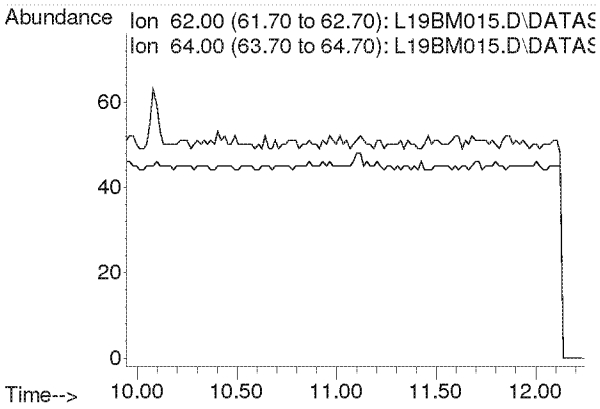


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

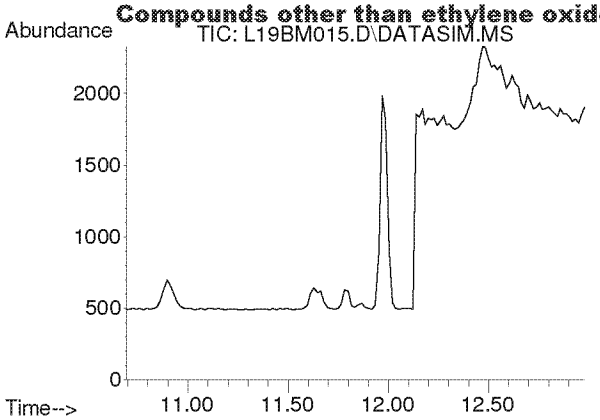
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

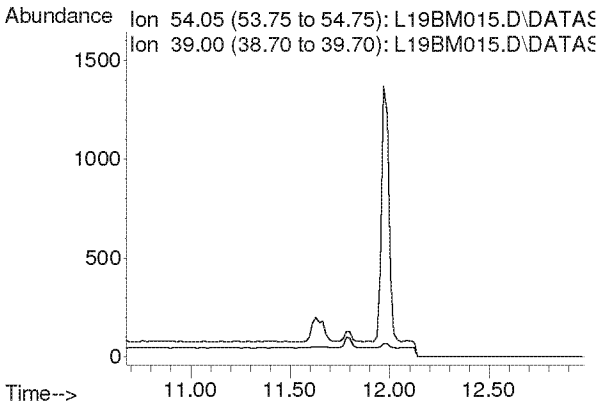


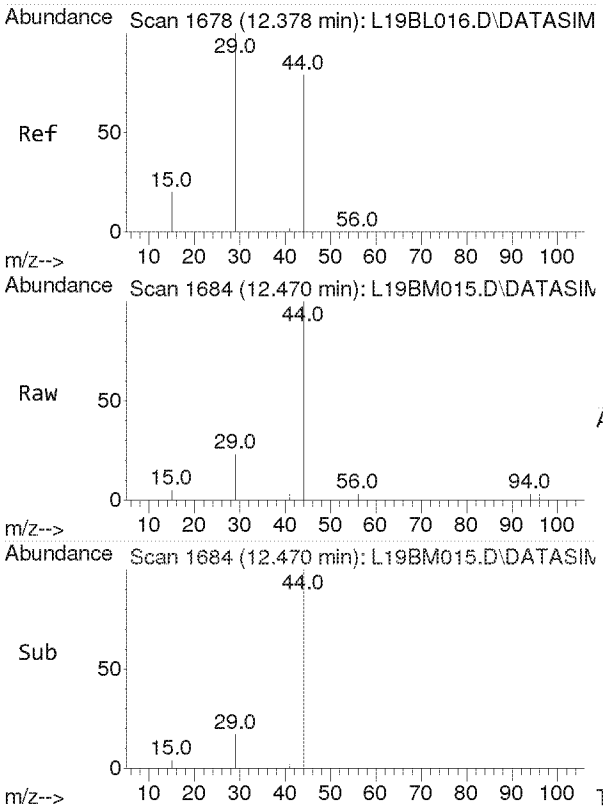
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

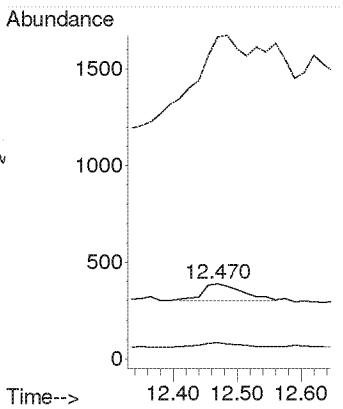




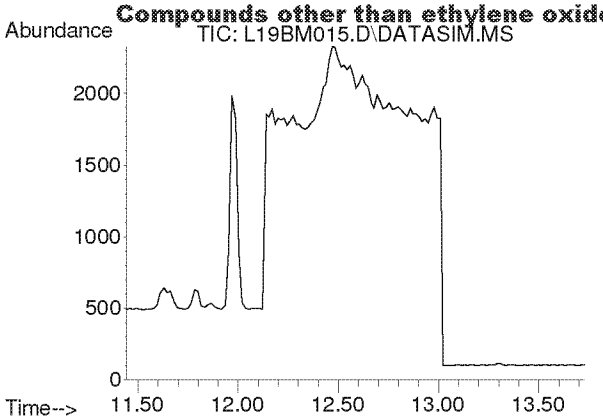
#9
Ethylene oxide
Concen: 0.131 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.000 min
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 29 Resp: 352

Ion	Ratio	Lower	Upper
29	100		
15	38.1	16.0	24.0#
44	1223.3	65.4	98.2#



Compounds other than ethylene oxide were not quantitated.

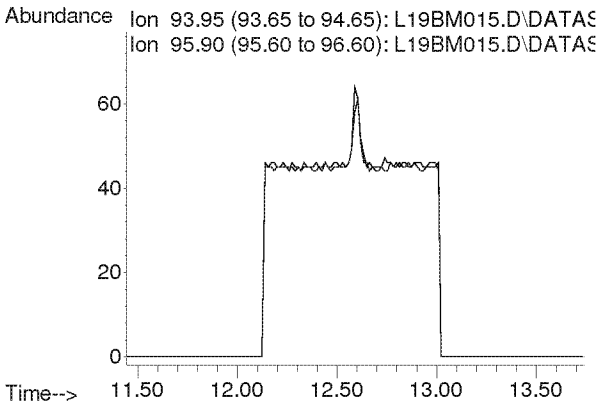


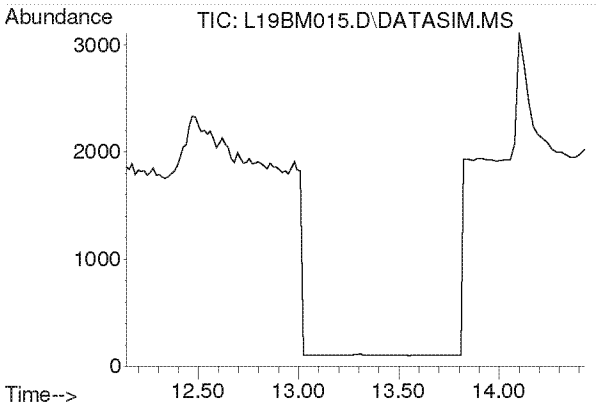
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



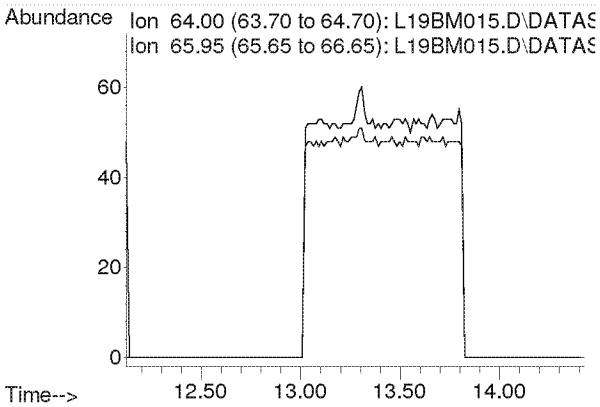


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

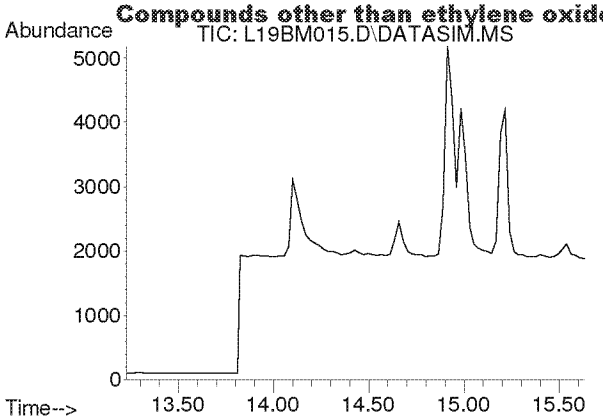
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

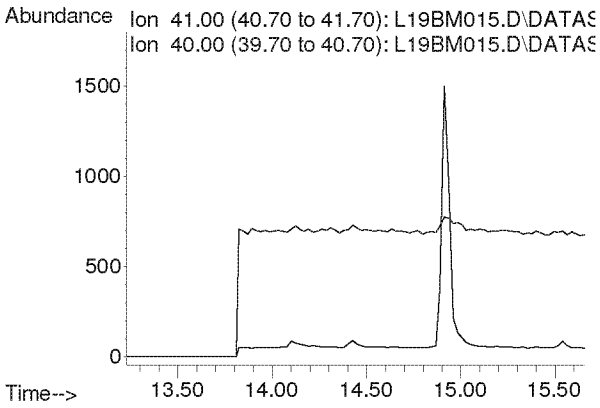


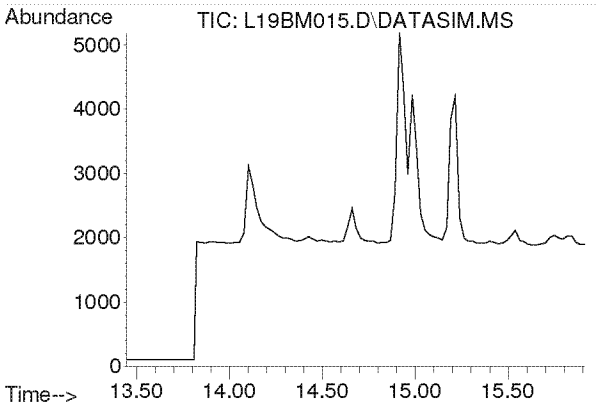
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



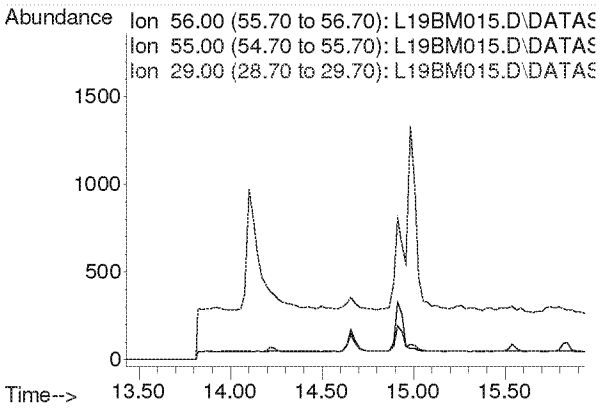


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

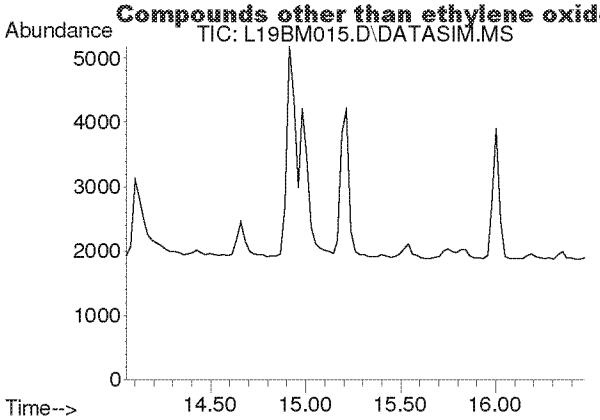
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

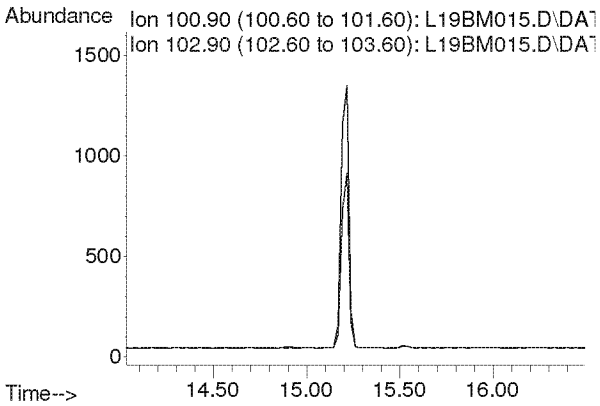


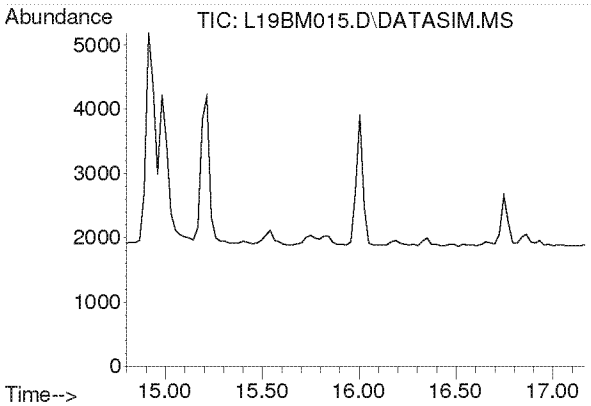
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



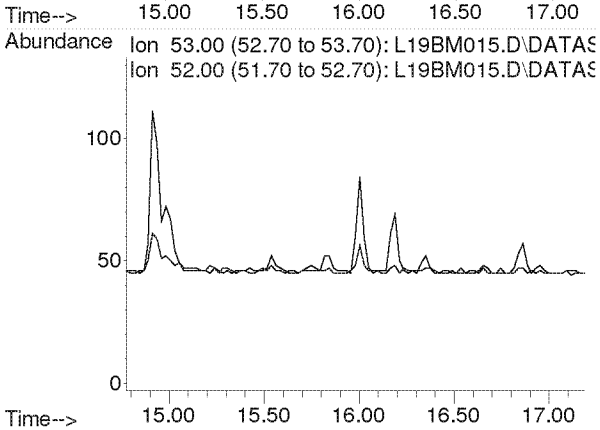


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

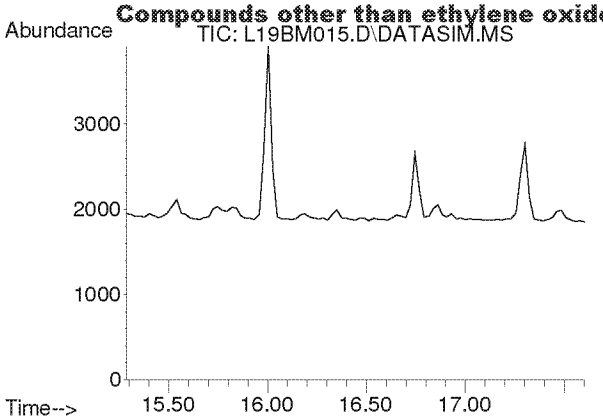
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

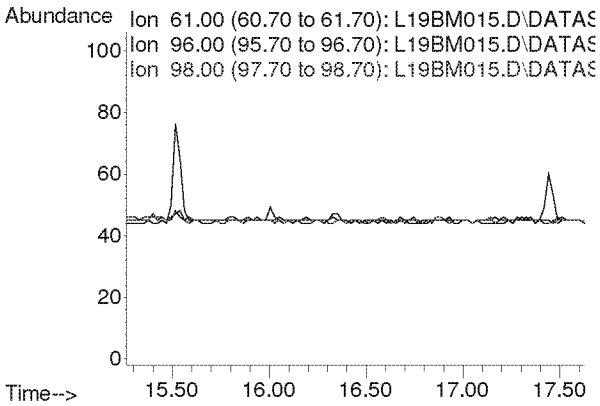


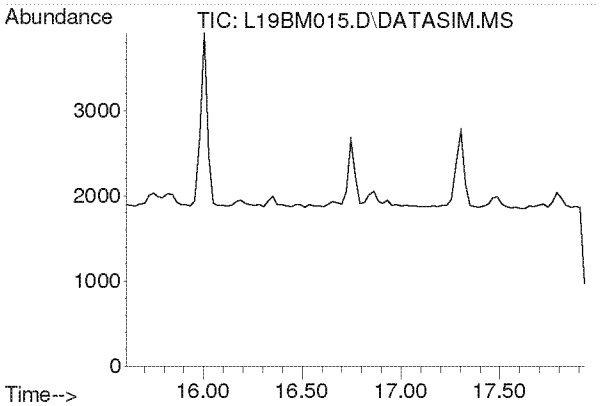
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



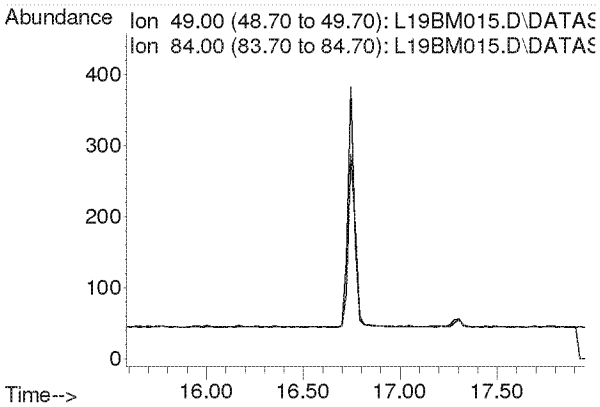


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

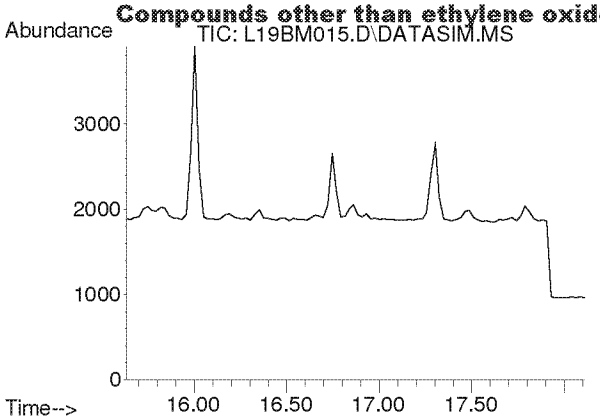
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

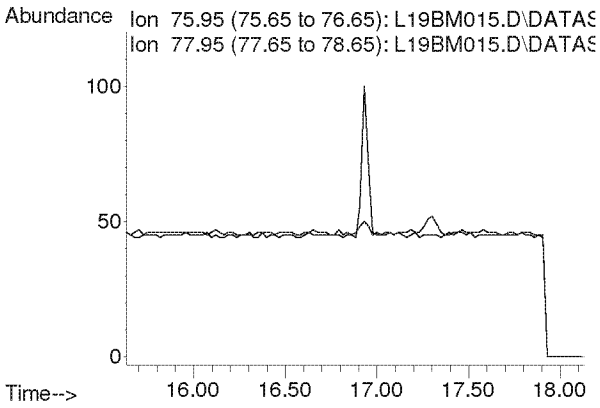


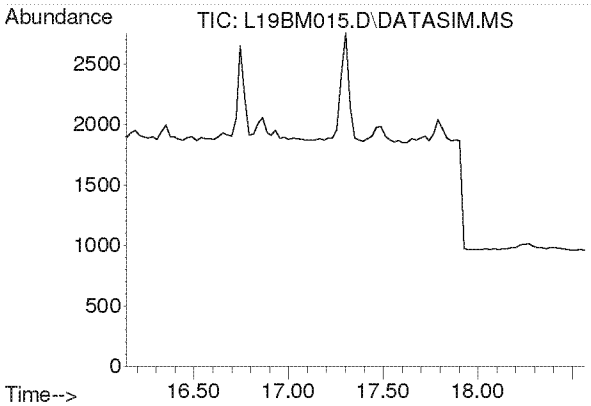
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



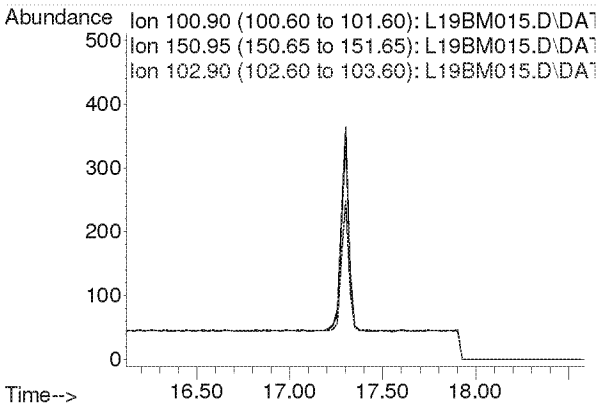


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

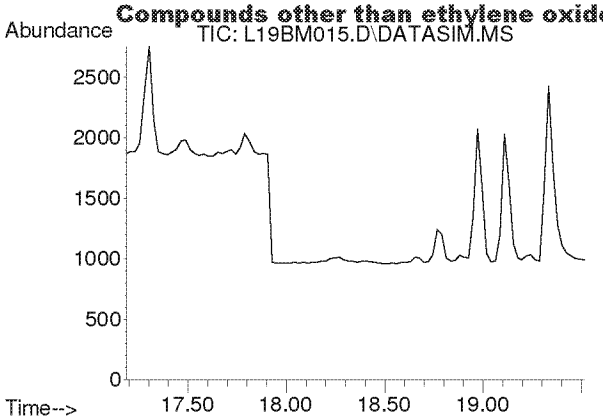
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

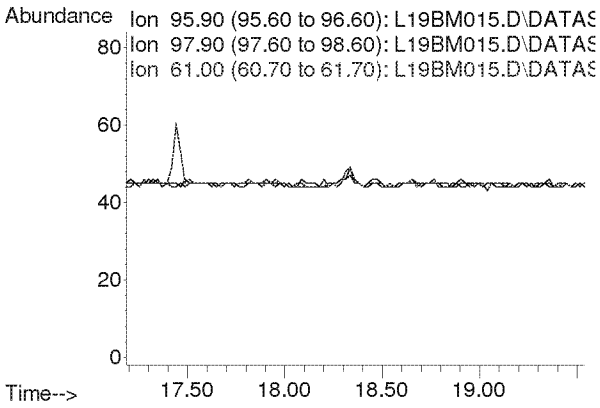


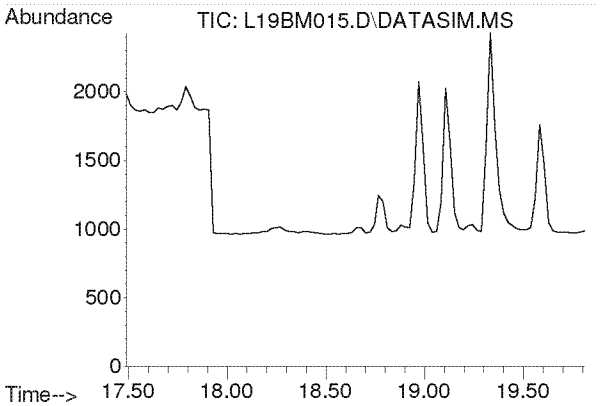
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



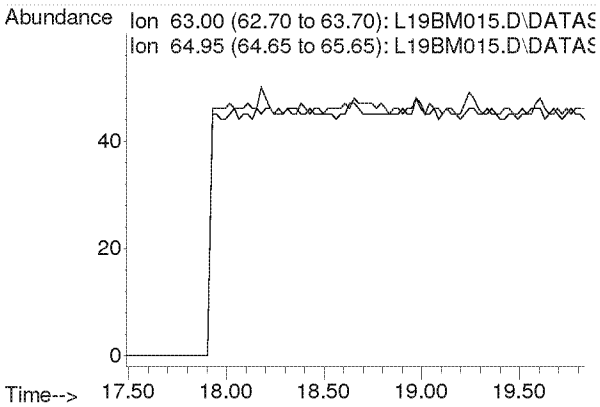


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

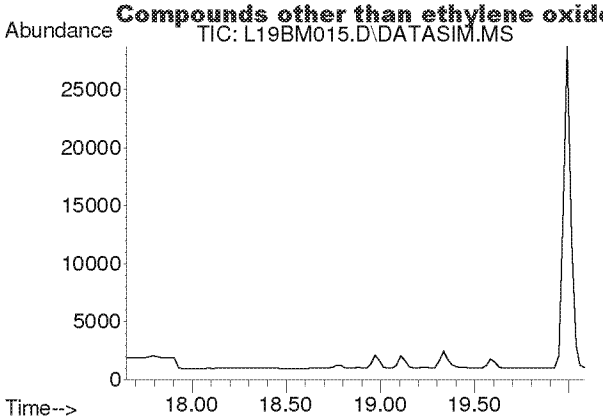
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

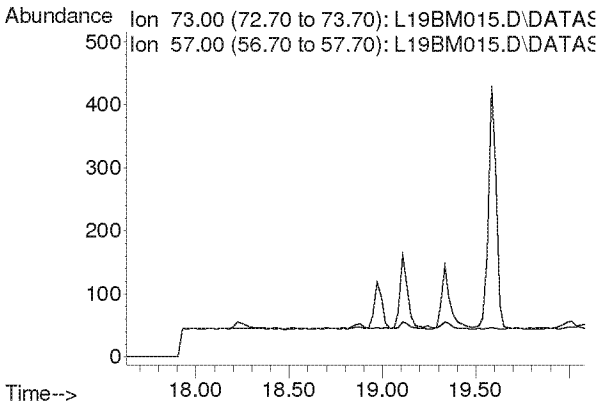


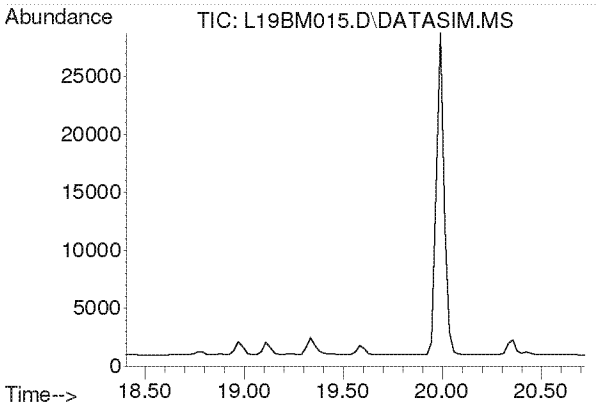
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



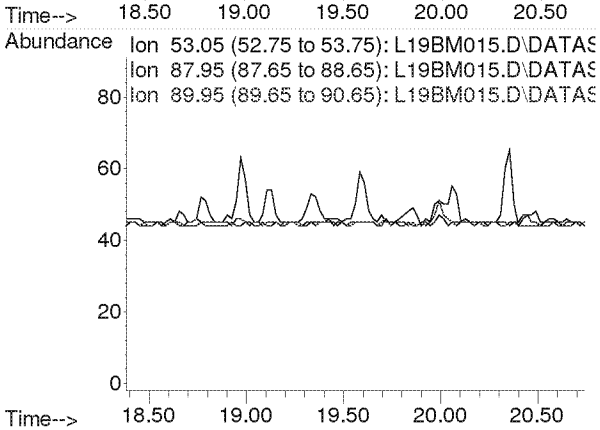


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

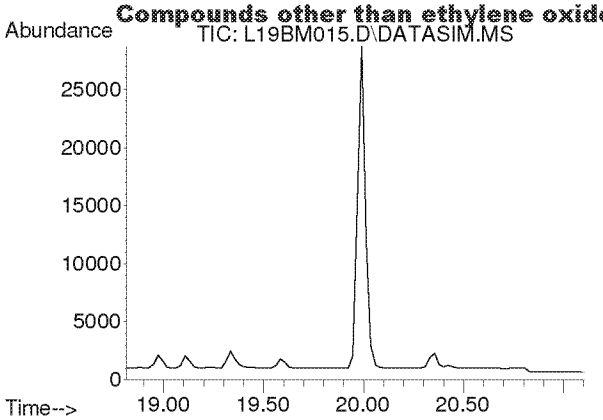
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

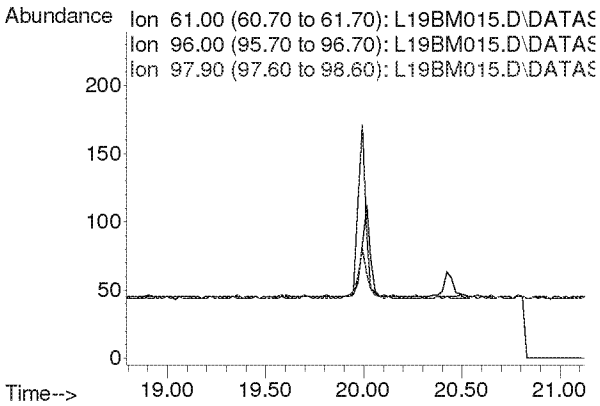


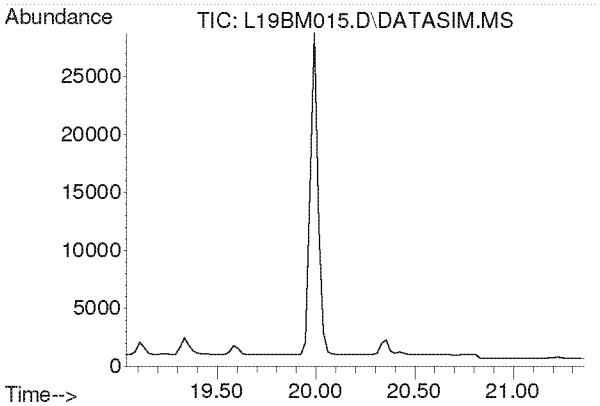
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



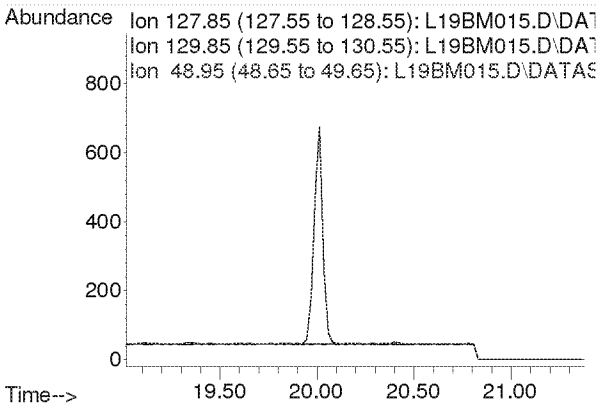


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

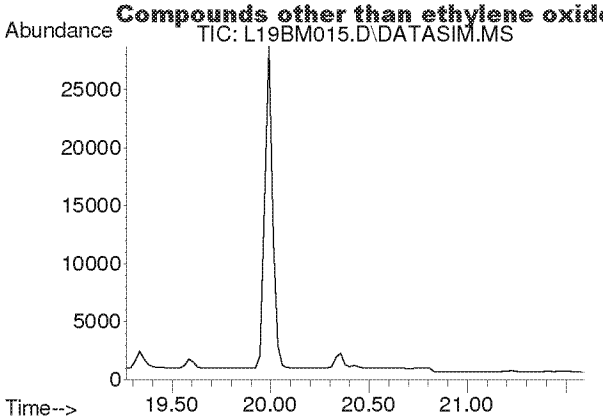
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

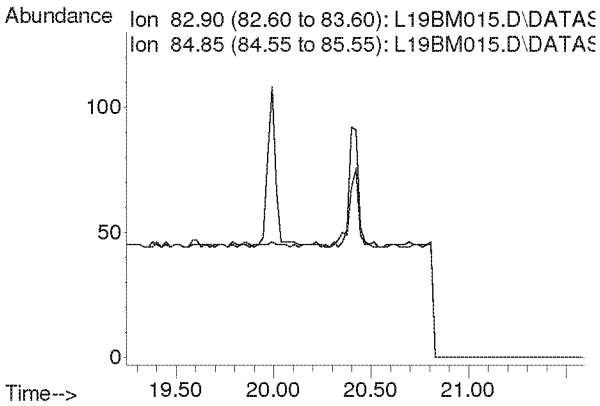


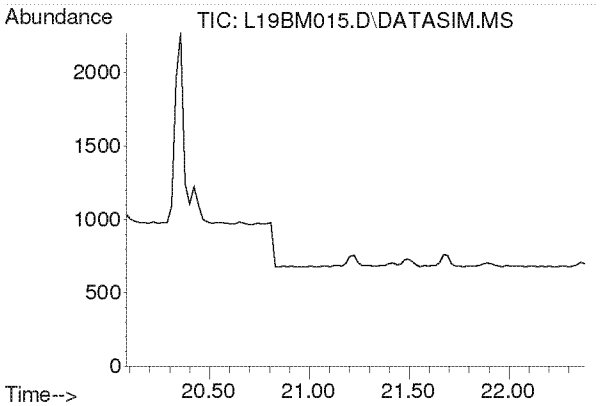
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



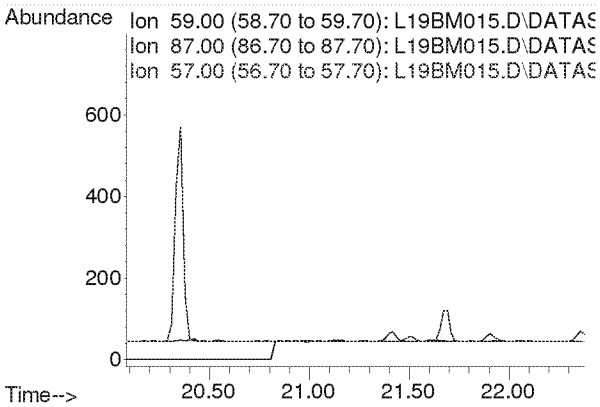


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

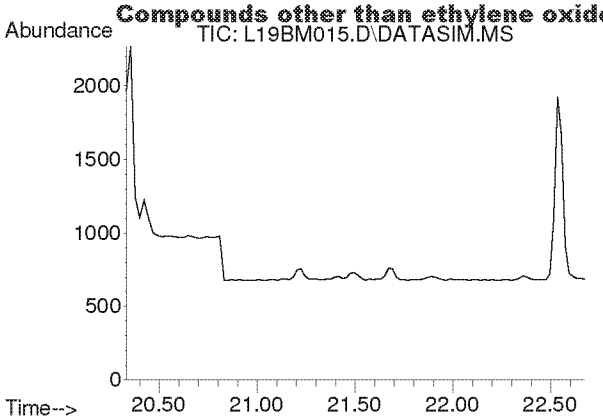
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

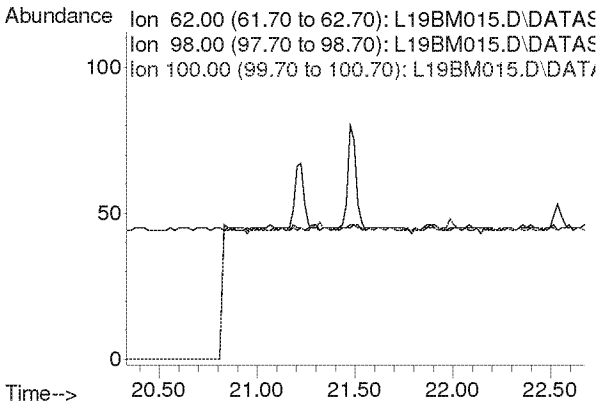


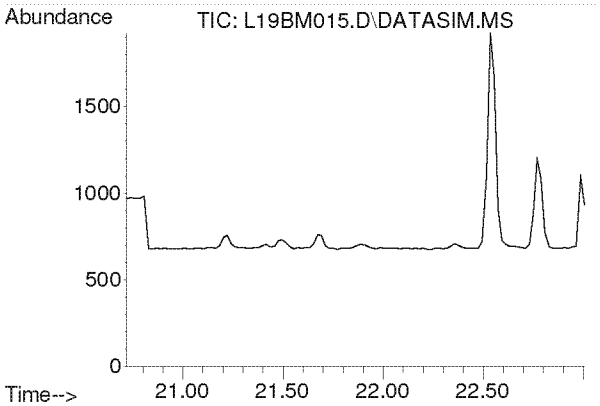
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



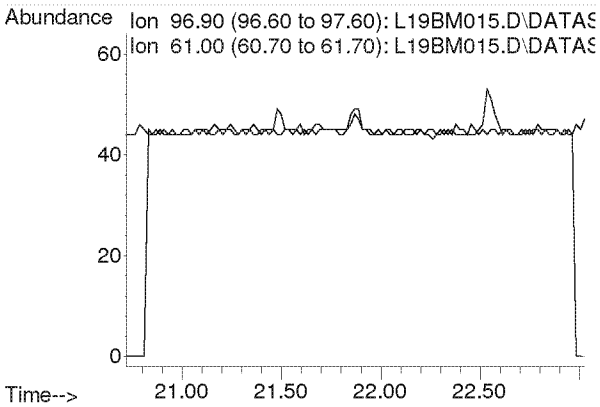


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

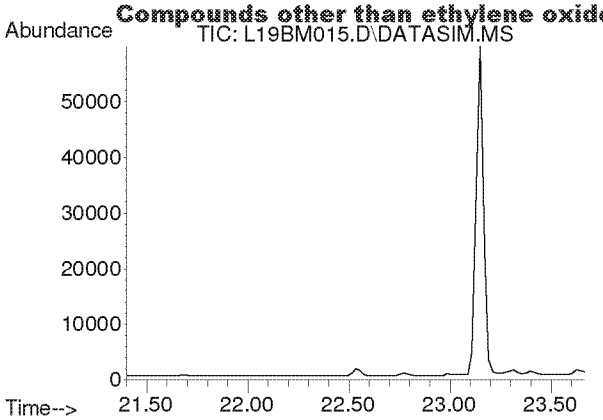
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

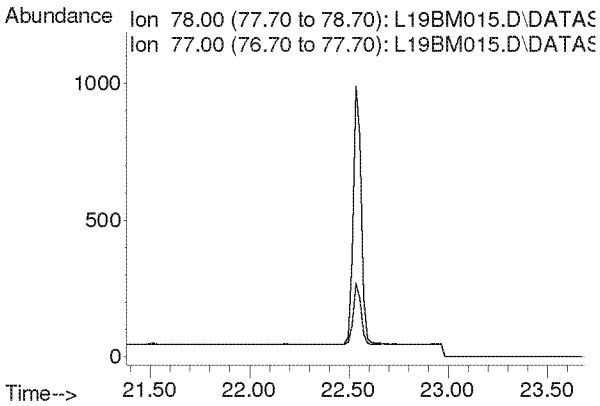


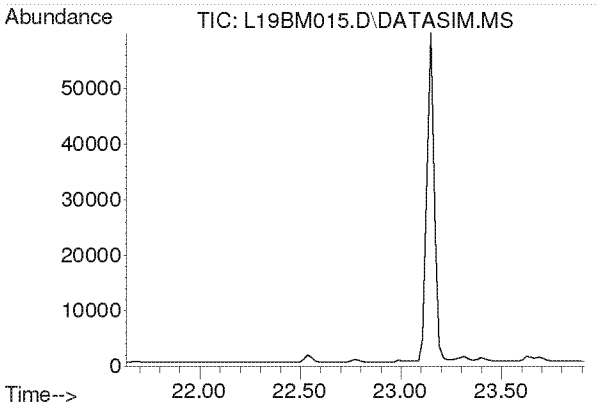
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



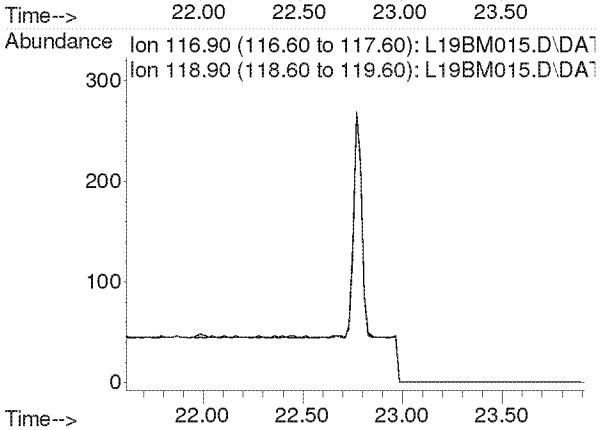


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

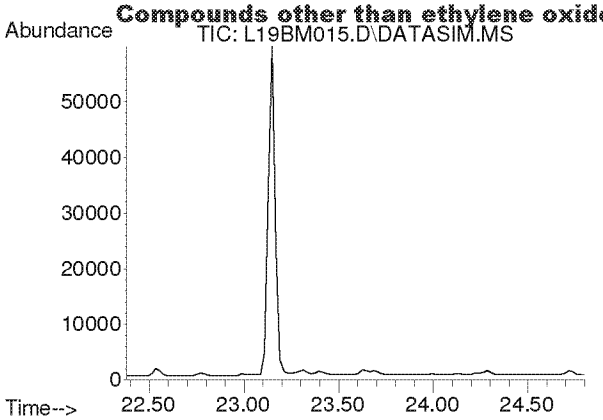
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

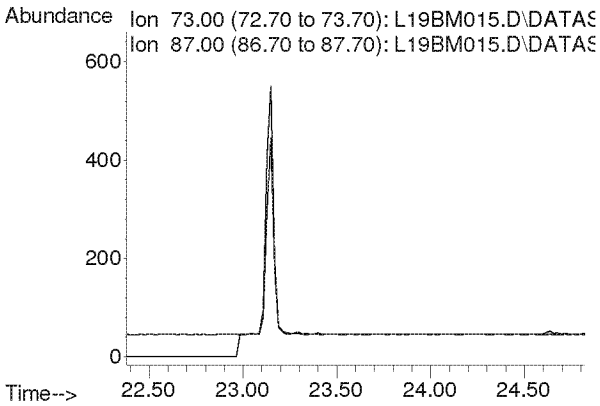


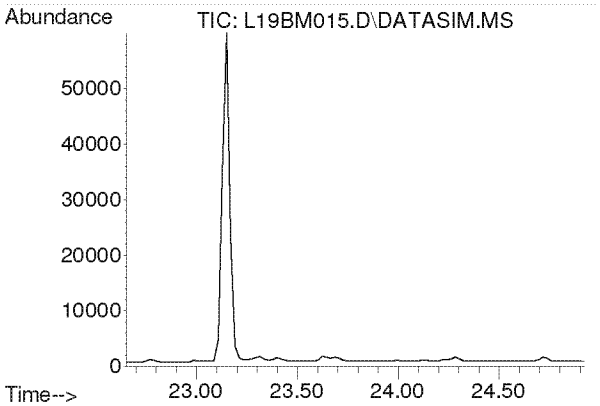
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



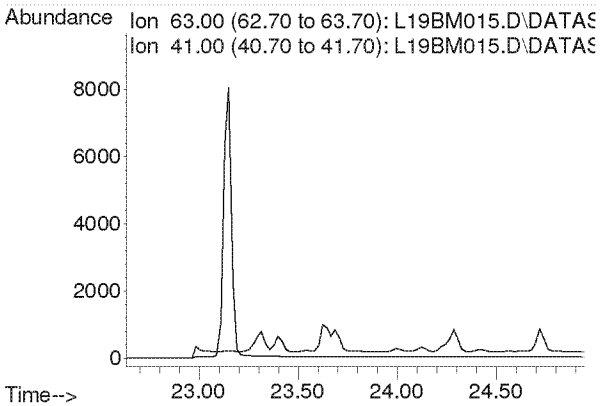


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

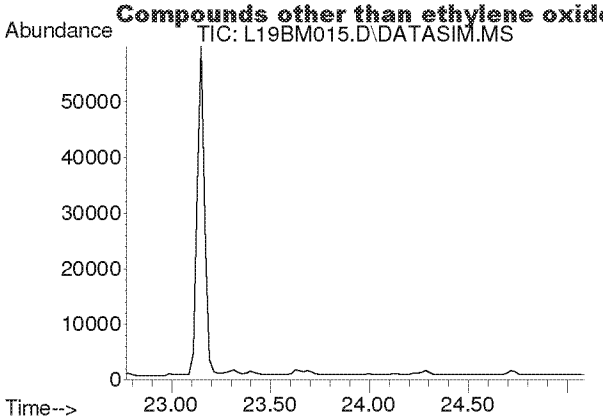
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

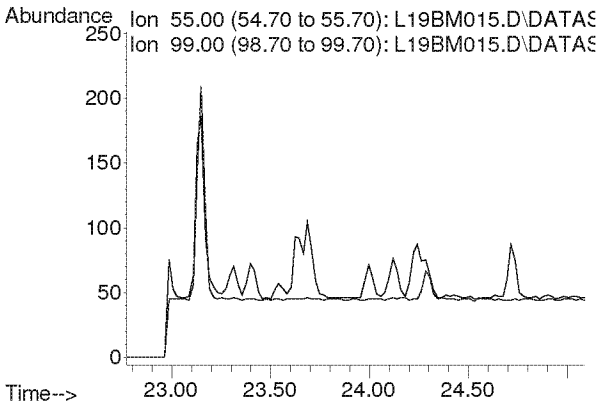


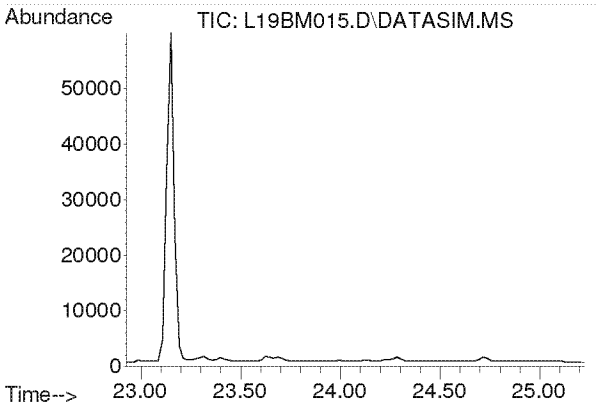
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



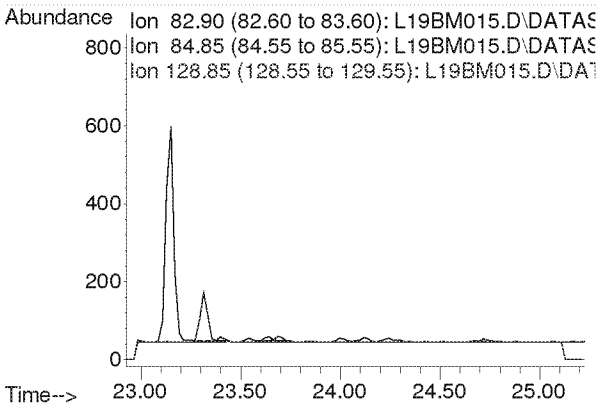


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

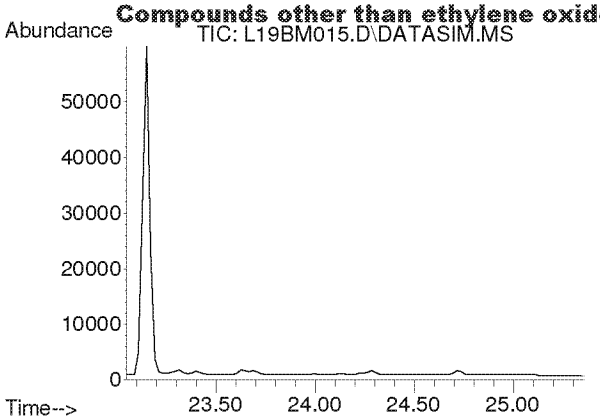
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

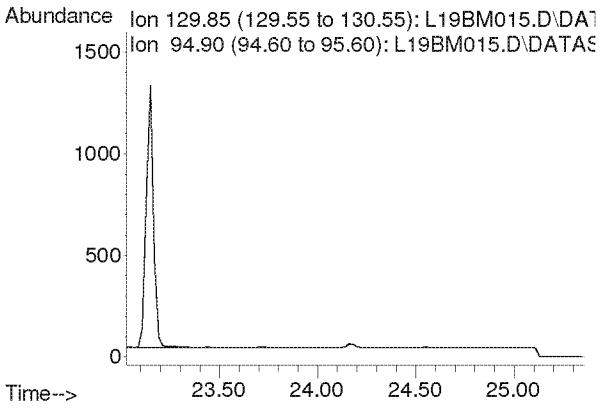


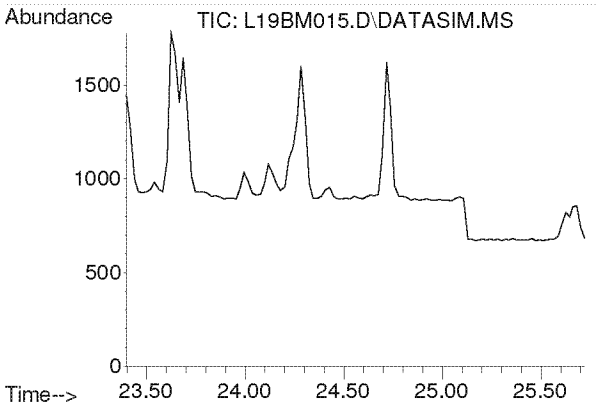
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



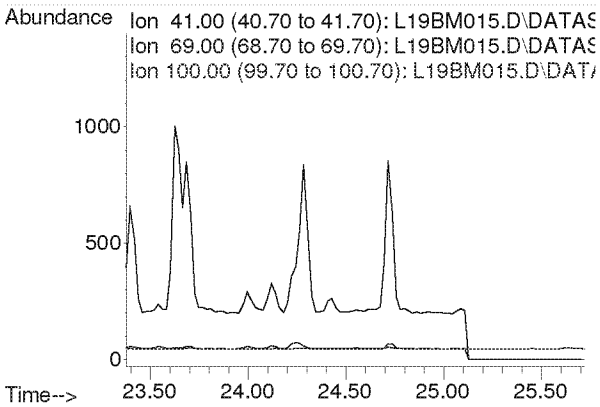


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

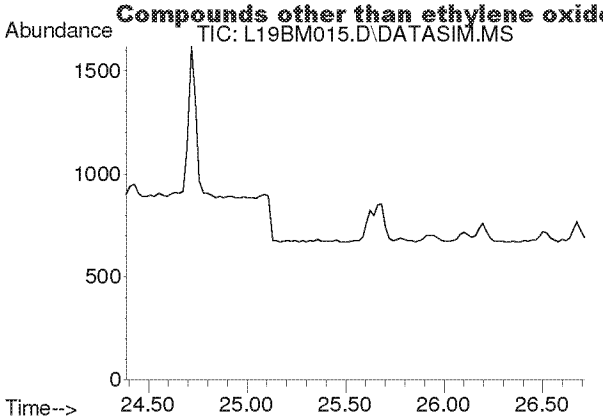
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

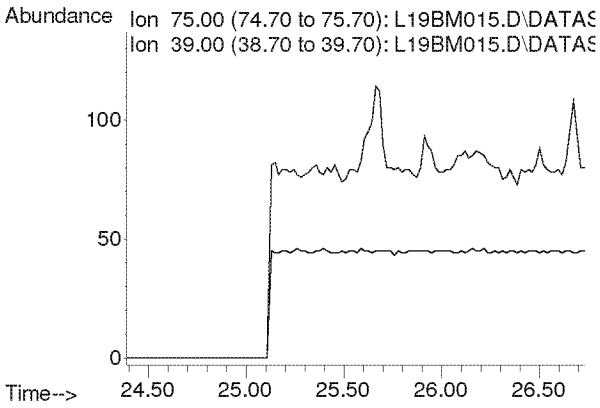


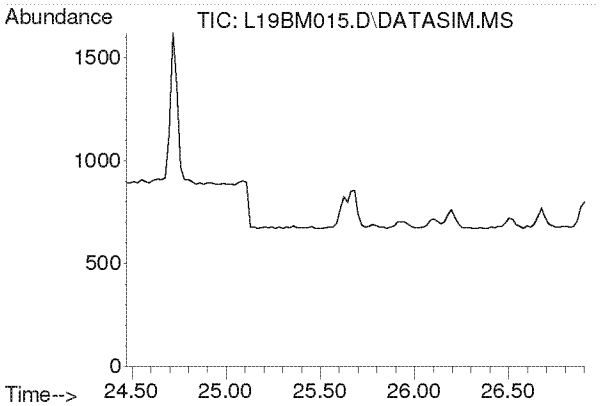
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



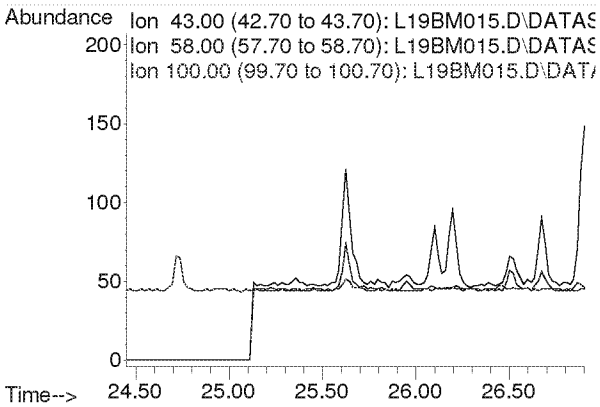


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

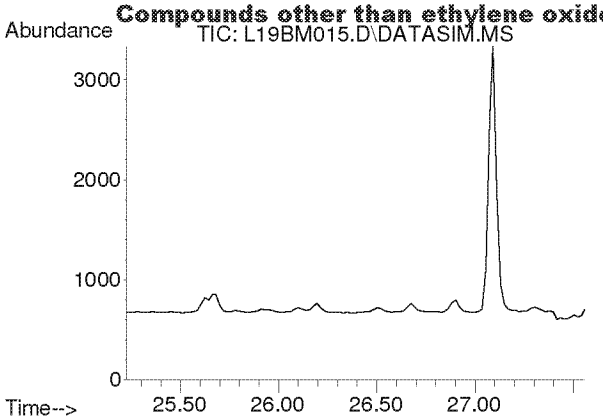
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

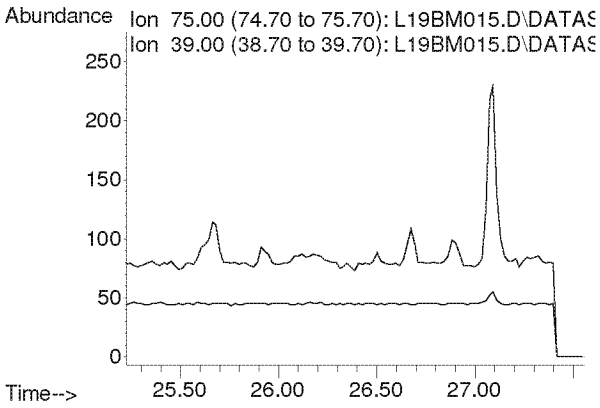


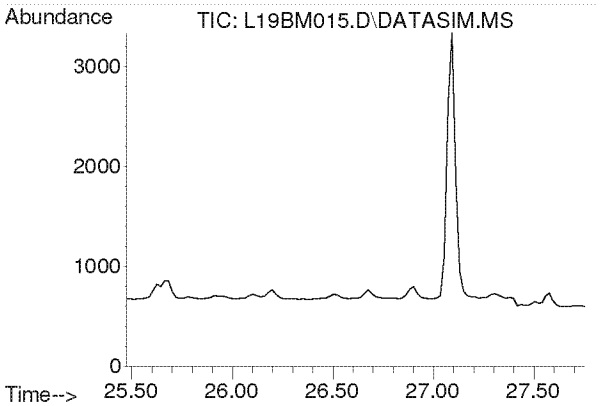
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



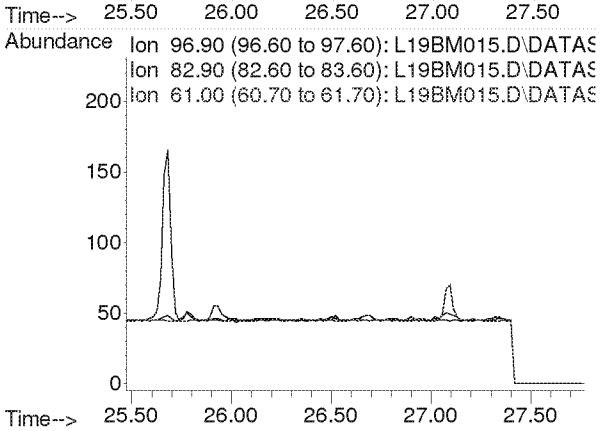


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

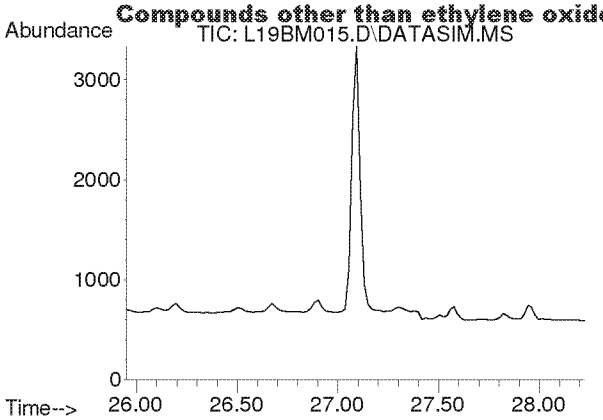
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

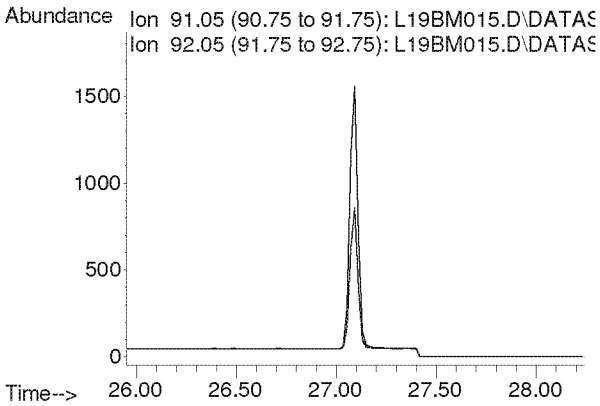


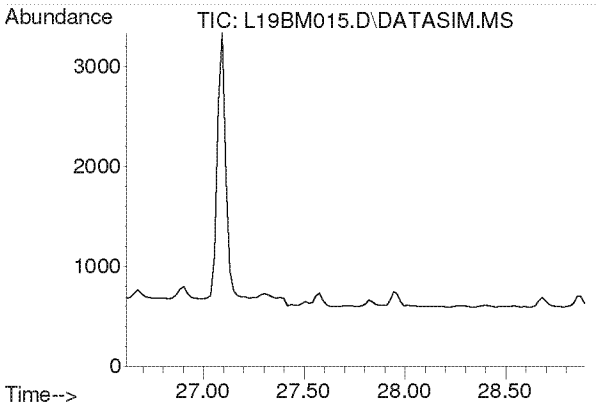
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



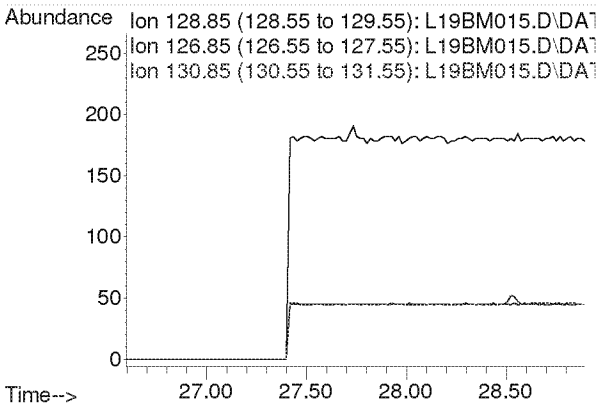


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

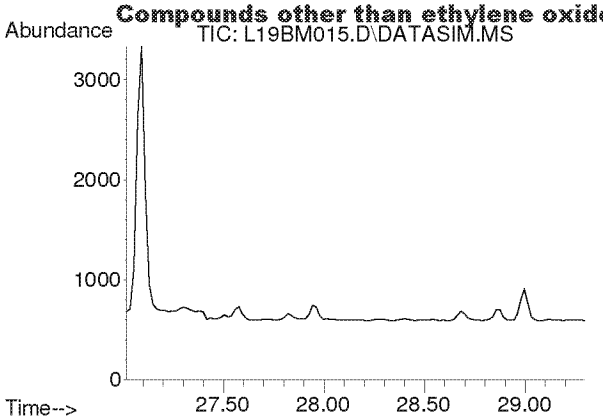
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

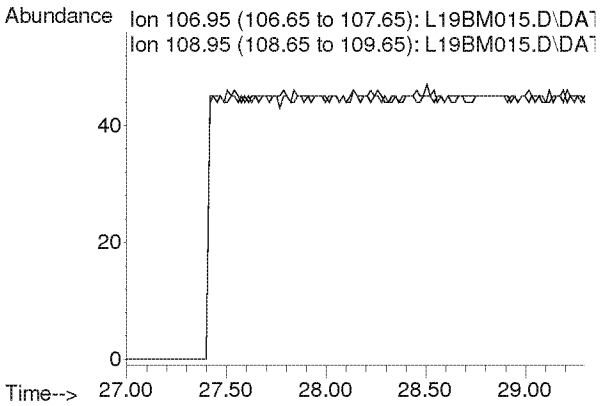


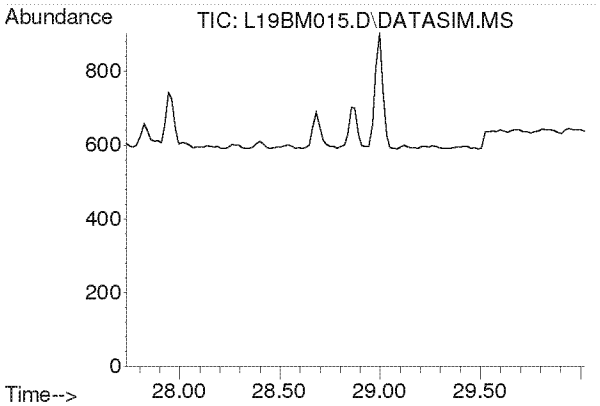
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



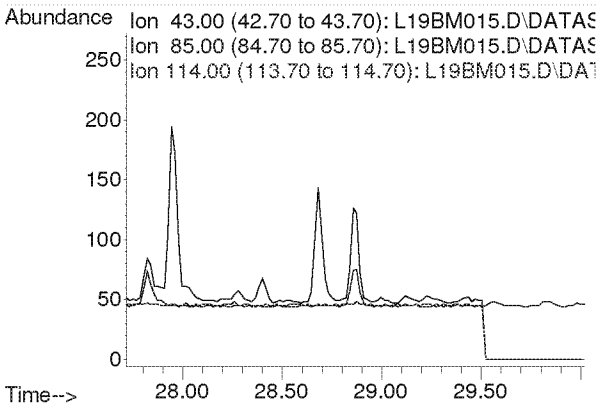


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

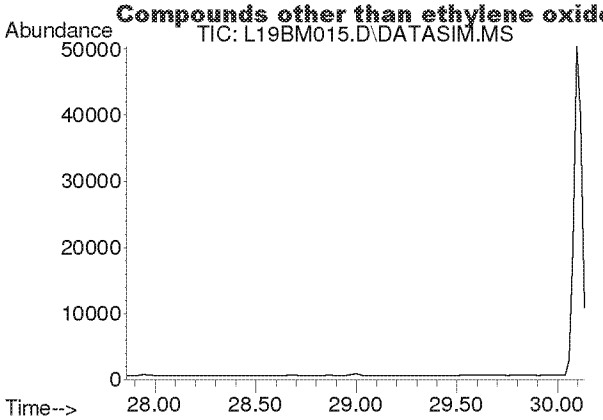
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

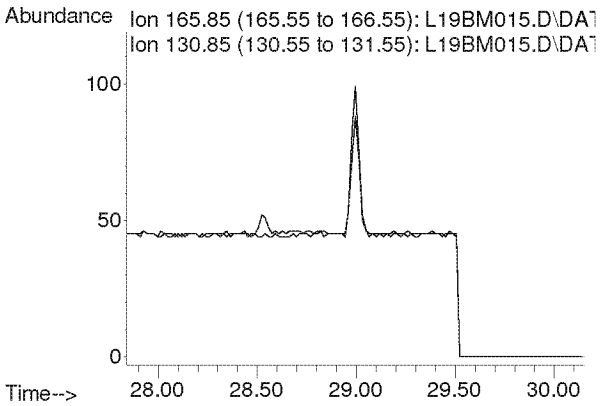


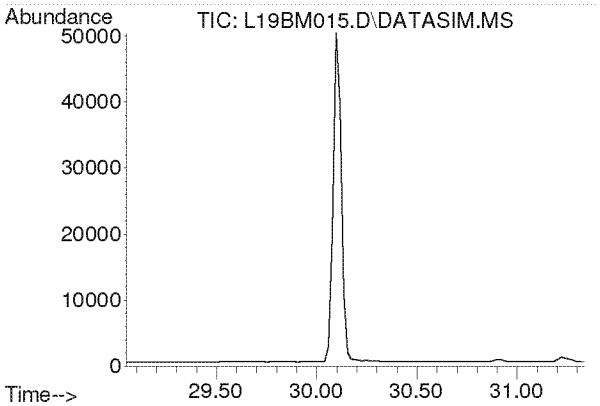
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



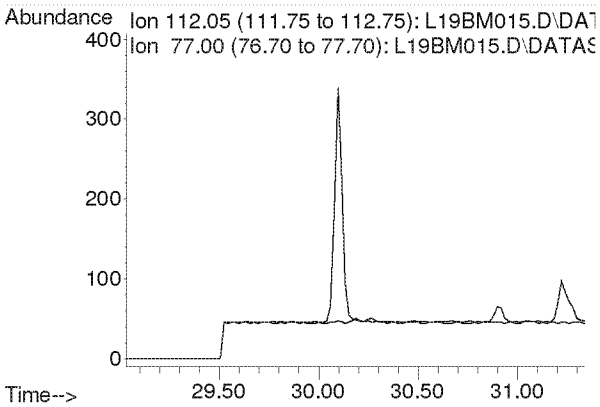


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

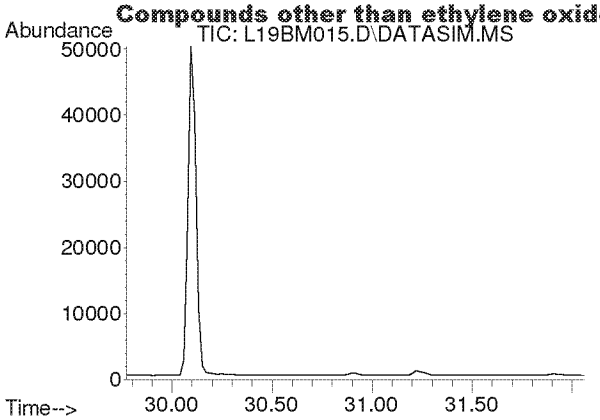
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

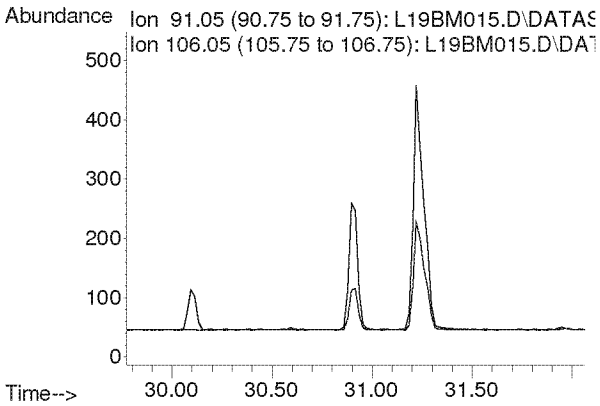


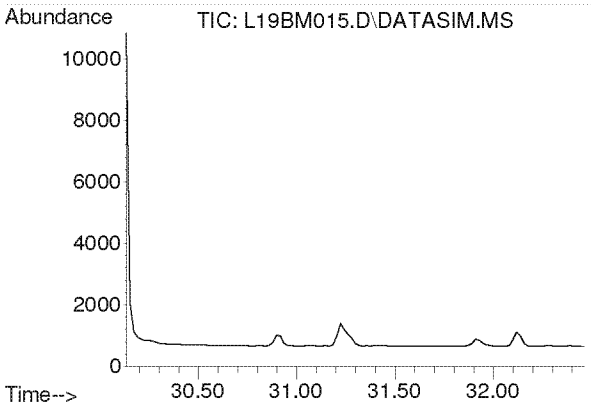
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



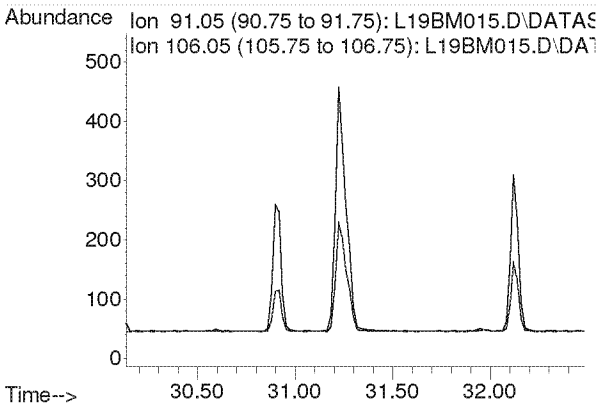


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

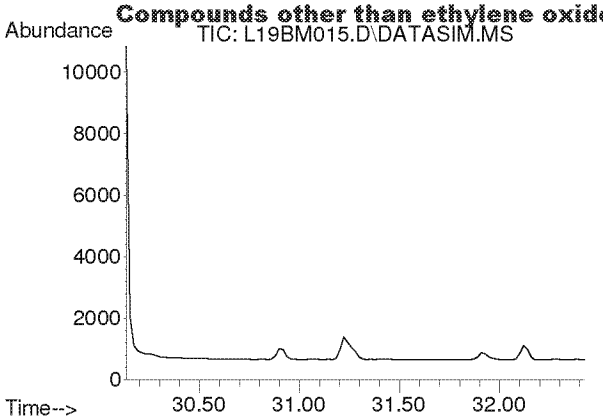
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

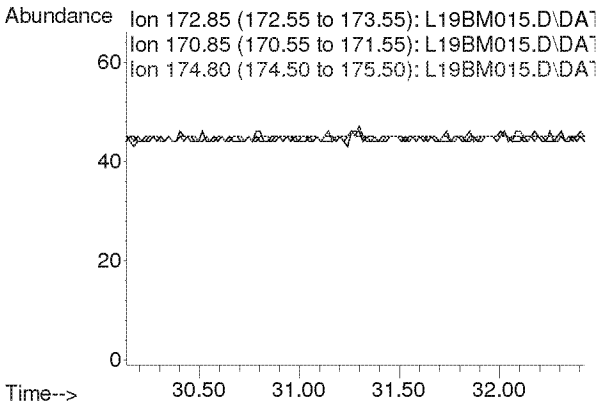


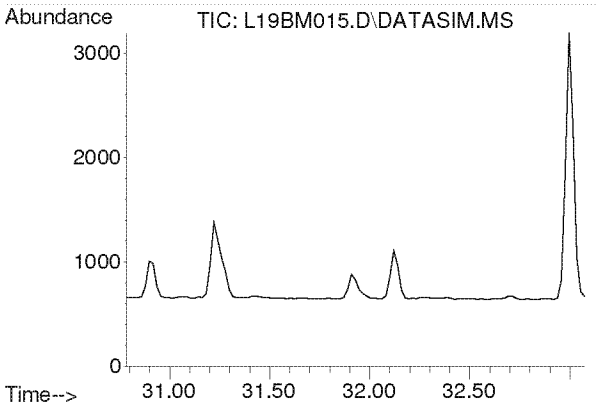
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



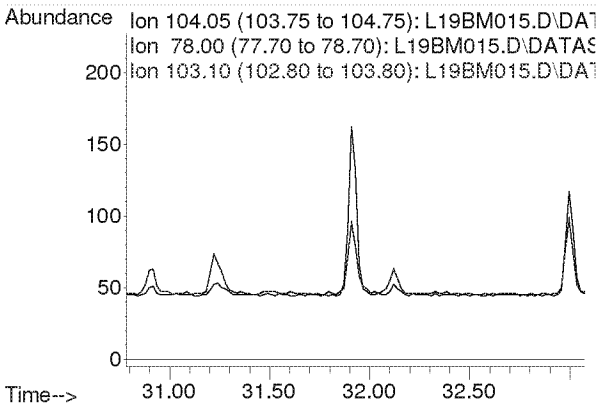


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

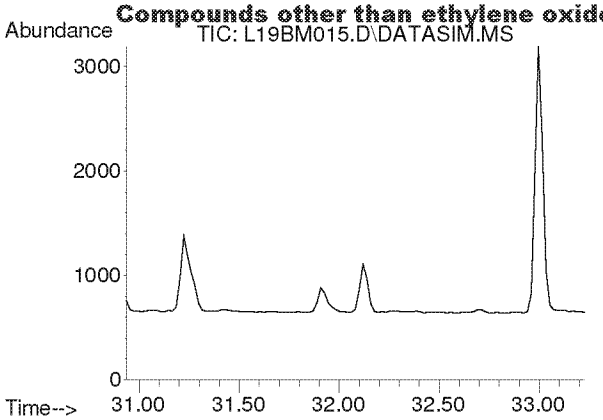
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

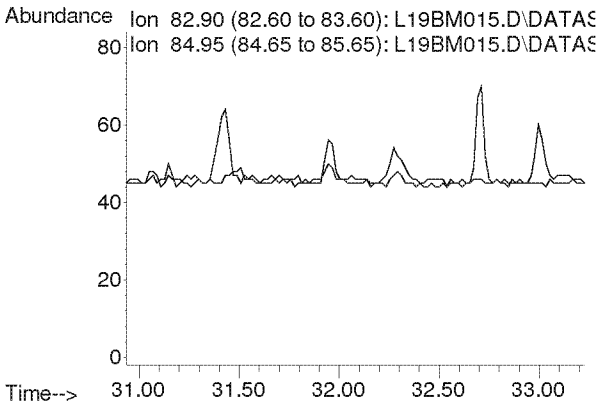


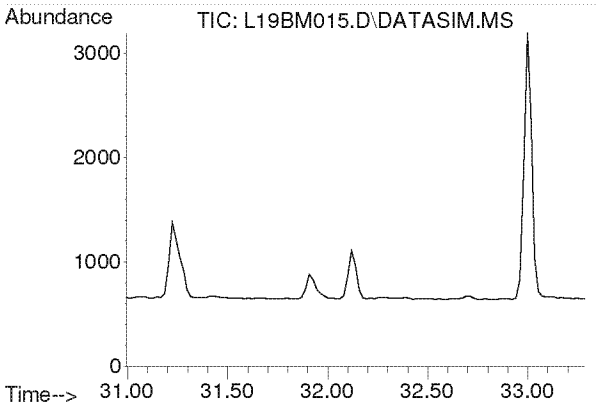
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



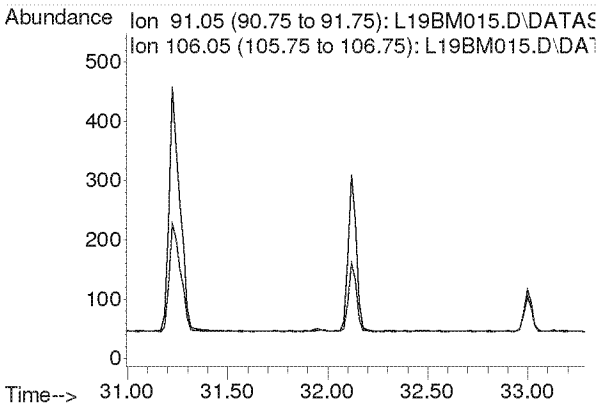


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

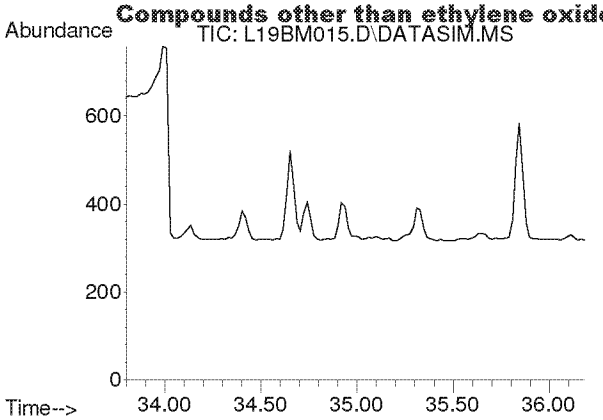
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

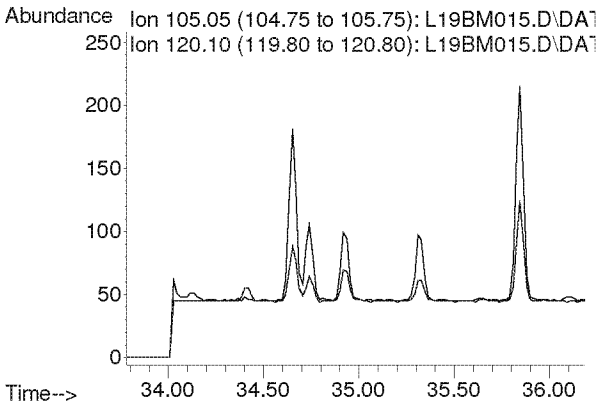


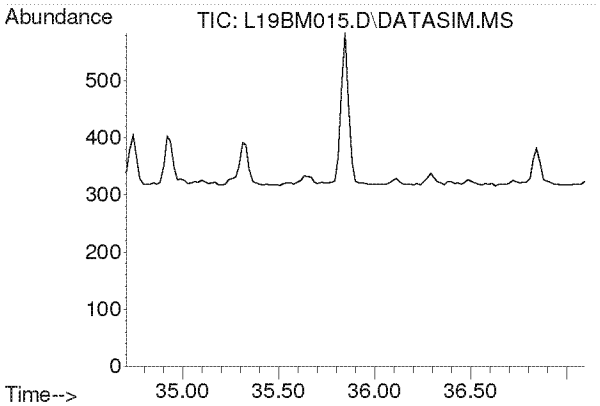
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



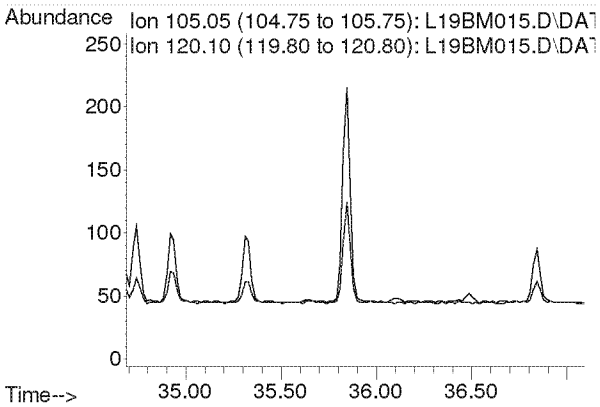


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

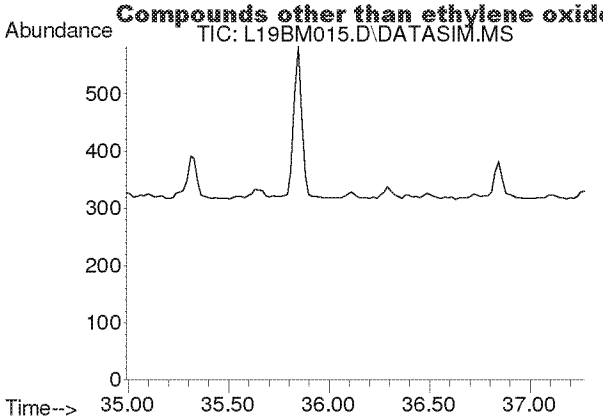
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

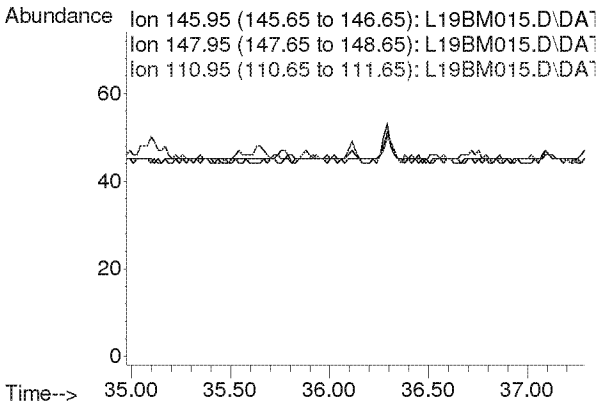


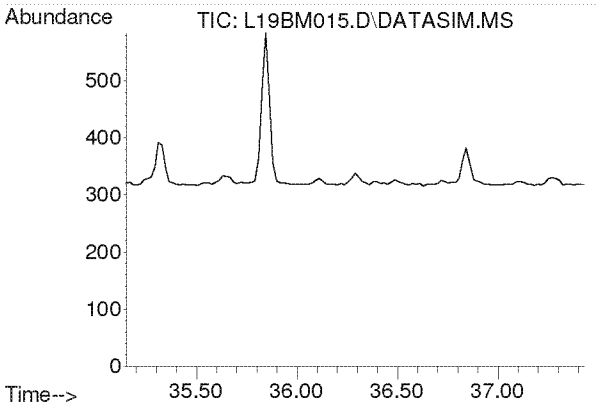
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



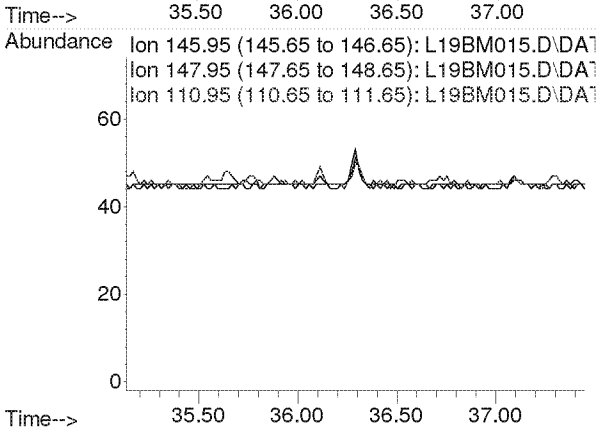


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

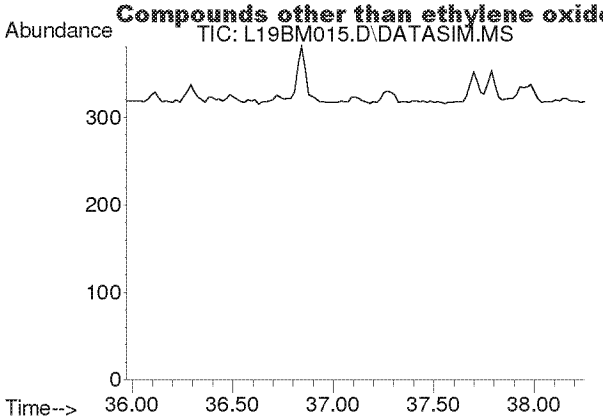
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

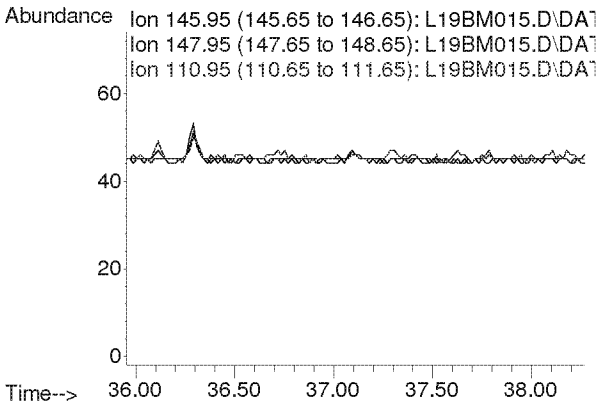


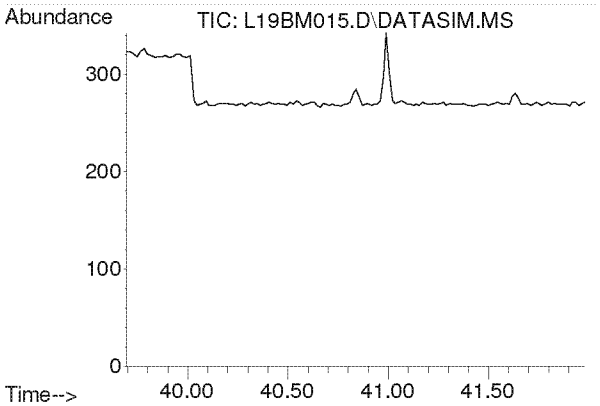
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



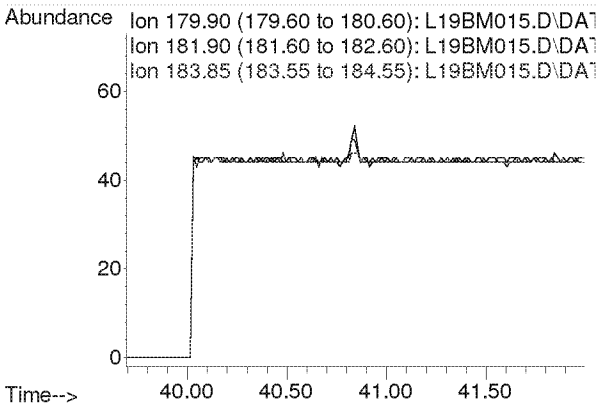


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

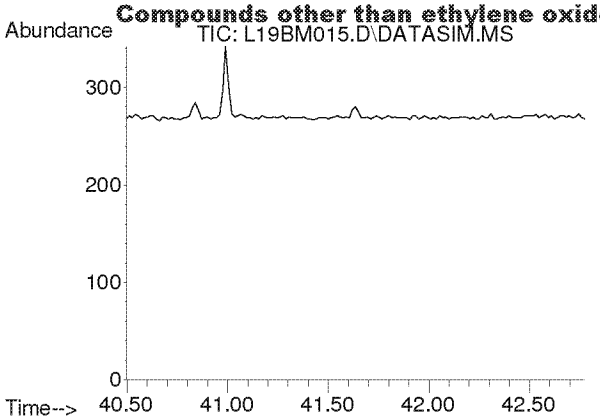
Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

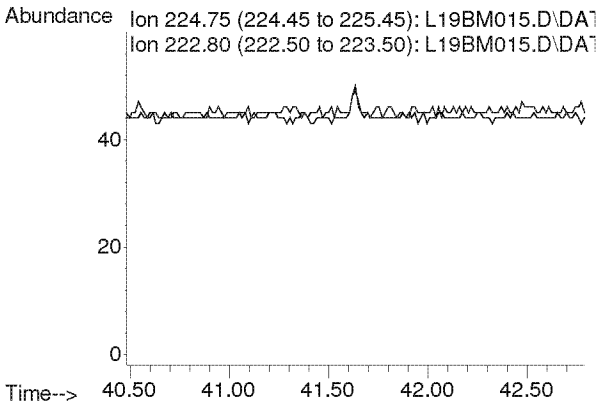


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BM015.D
Acq: 13 Feb 2019 10:42 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Duplicate Samples					
		D1	D2		
File ID		L19BM016.D	L19BM017.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9020702-03	9020702-04		
Mics Comments		WB VILLAGE HALL	WB VILLAGE HALL C2 2/6/19		
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	9.56	8.611	10.45	Y
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

1/C-14-19

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		L19BM016.D	L19BM018.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9020702-03	B9B1307-DUP3		
Mics Comments		WB VILLAGE H	WB VILLAGE HALL R1 2/6/19		
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	9.56	8.659	9.89	Y
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

Comparison of Replicate Analyses					
		D2	R2		
File ID		L19BM017.D	L19BM019.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9020702-04	B9B1307-DUP4		
Mics Comments		WB VILLAGE H	WB VILLAGE HALL R2 2/6/19		
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	8.611	9.311	7.81	Y
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

NA = Not Applicable. Precision can not be evaluated due to an average value less than 5 times the MDL.

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM016.D
Acq On : 13 Feb 2019 11:44 pm (#1); 13-Feb-19, 23:39:02 (#2)
Operator : MAH
Sample : 9020702-03
Misc : WB VILLAGE HALL C1 2/6/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 14:01:57 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

dl=nk

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	45497	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	111971	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	81759	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.363	29	24877	9.5599 ppbv	100
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

dL=9.84

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM016.D
Acq On : 13 Feb 2019 11:44 pm (#1); 13-Feb-19, 23:39:02 (#2)
Operator : MAH
Sample : 9020702-03
Misc : WB VILLAGE HALL C1 2/6/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 14:01:57 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.	

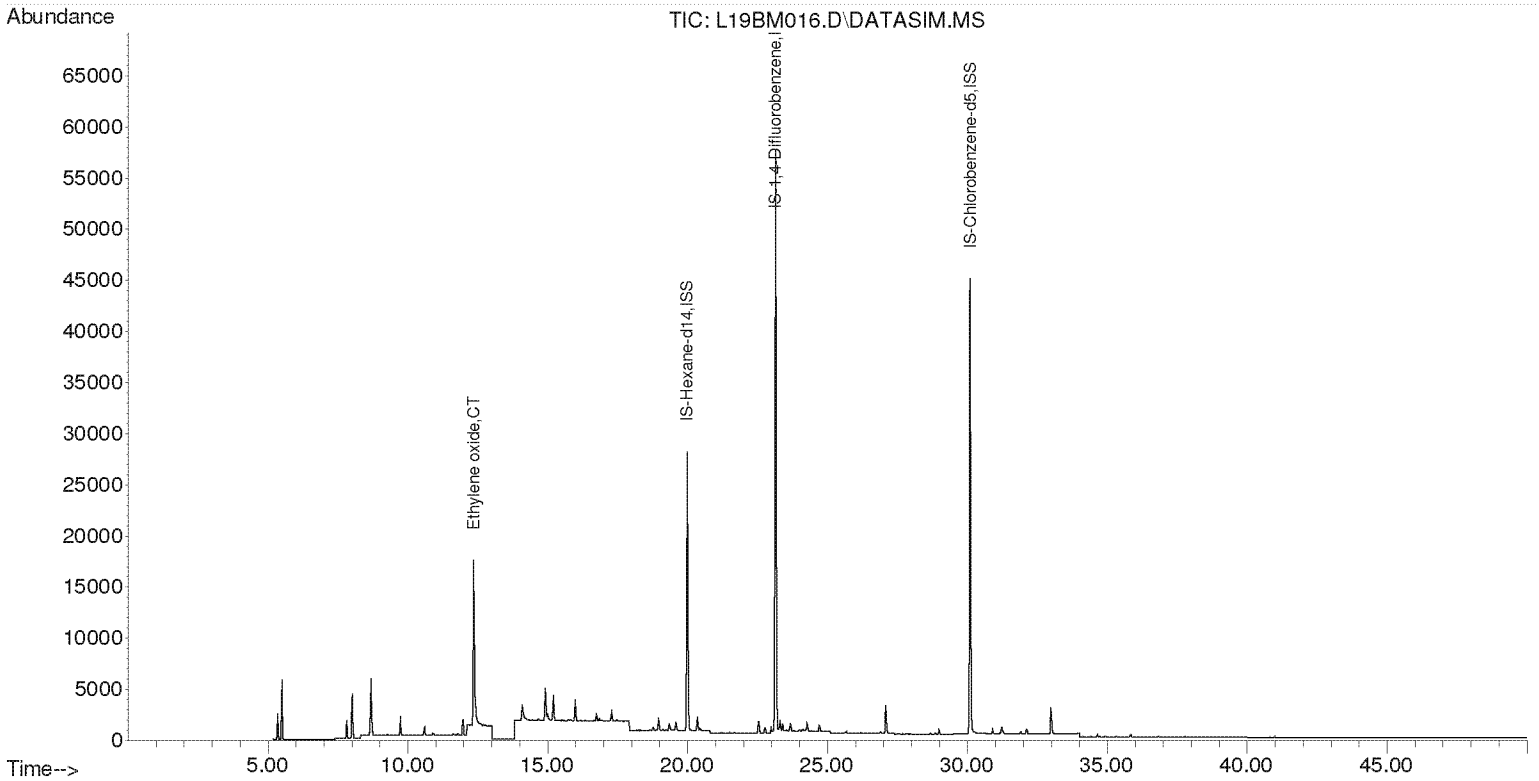
(#) = qualifier out of range (m) = manual integration (+) = signals summed

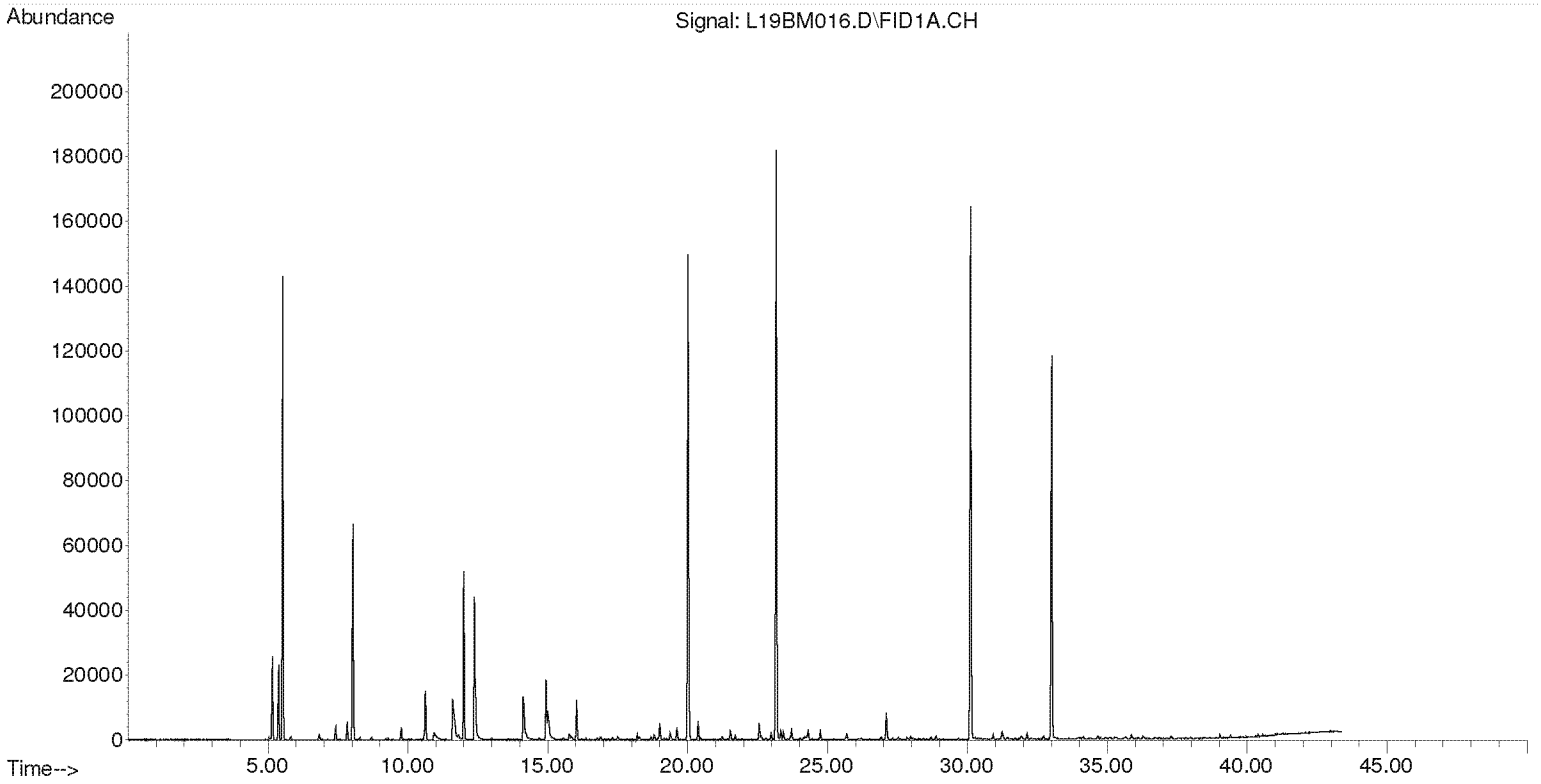
ED_002475_00000213-00184

Compounds other than ethylene oxide were not quantitated.

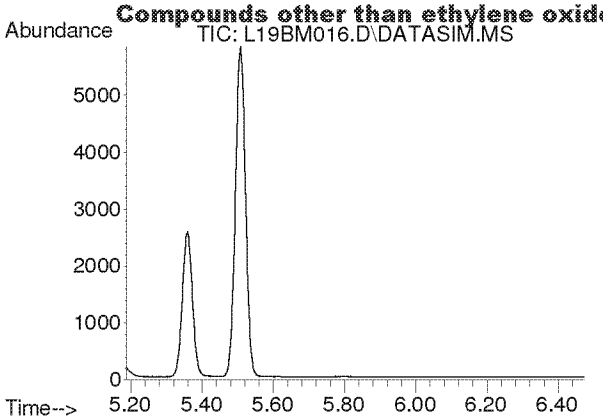
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM016.D
Acq On : 13 Feb 2019 11:44 pm (#1); 13 Feb 2019 11:39 pm (#2)
Operator : MAH
Sample : 9020702-03
Misc : WB VILLAGE HALL C1 2/6/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 08:29:02 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





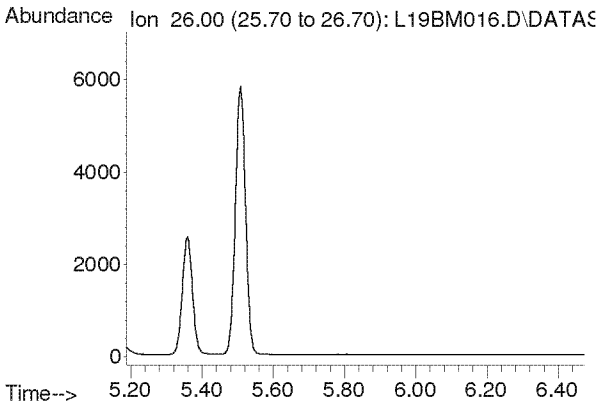
Compounds other than ethylene oxide were not quantitated.

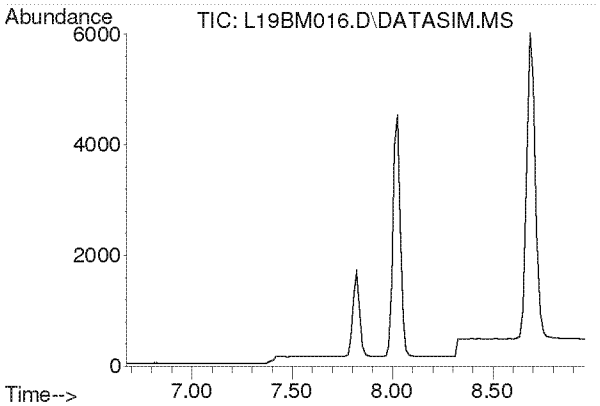


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 26



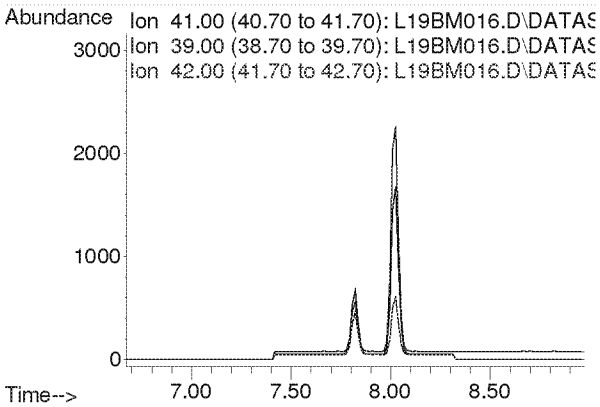


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

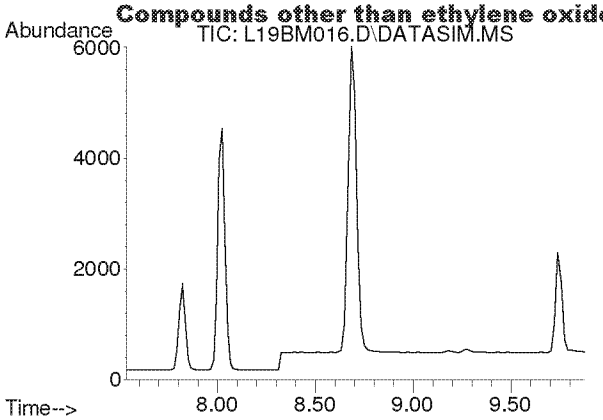
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

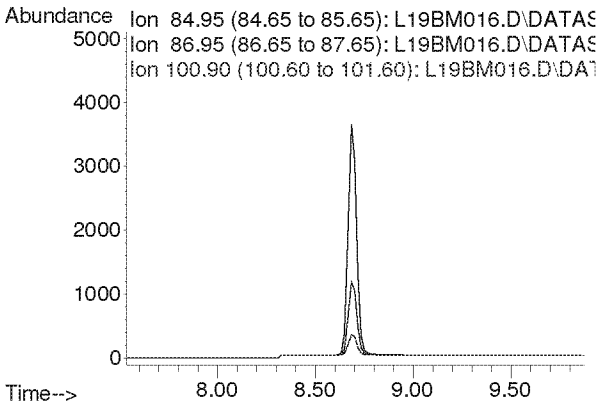


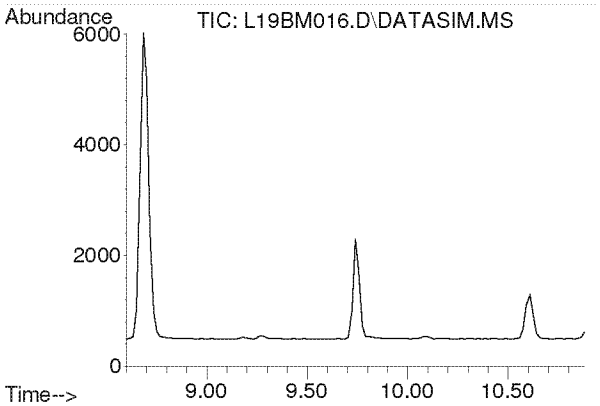
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



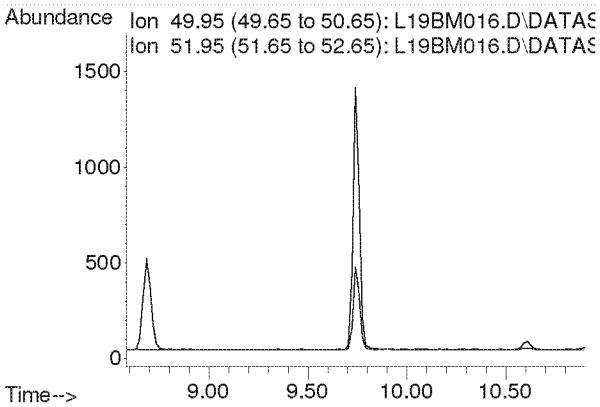


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

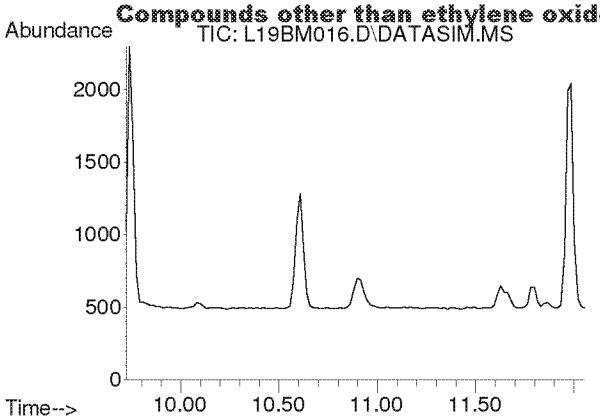
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

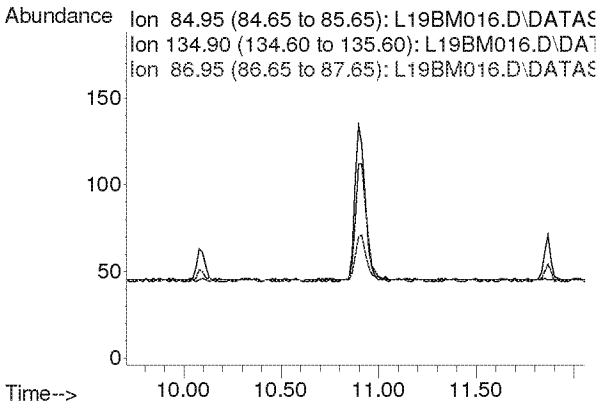


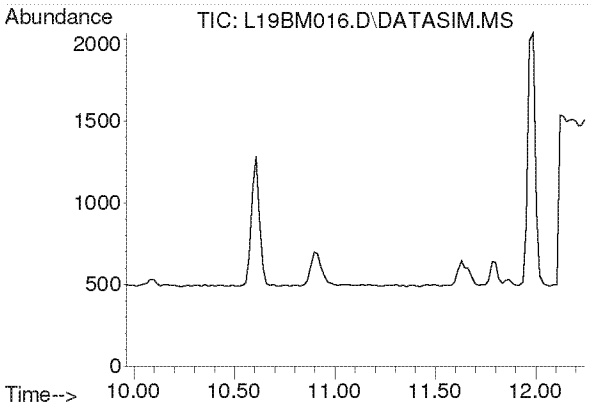
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



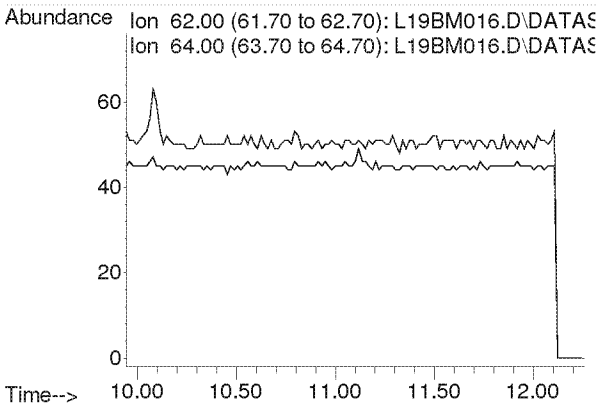


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

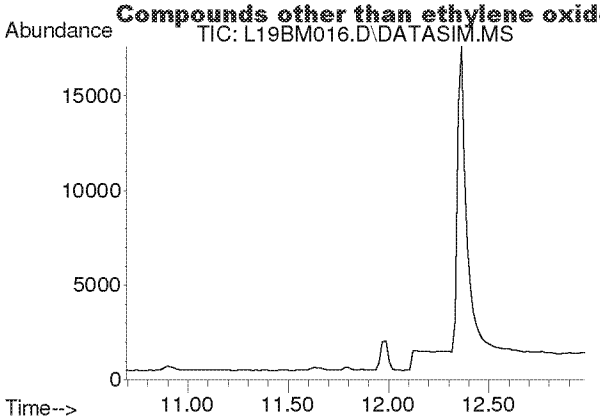
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

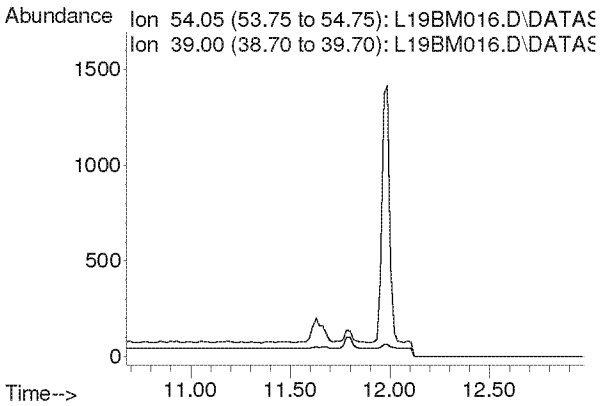


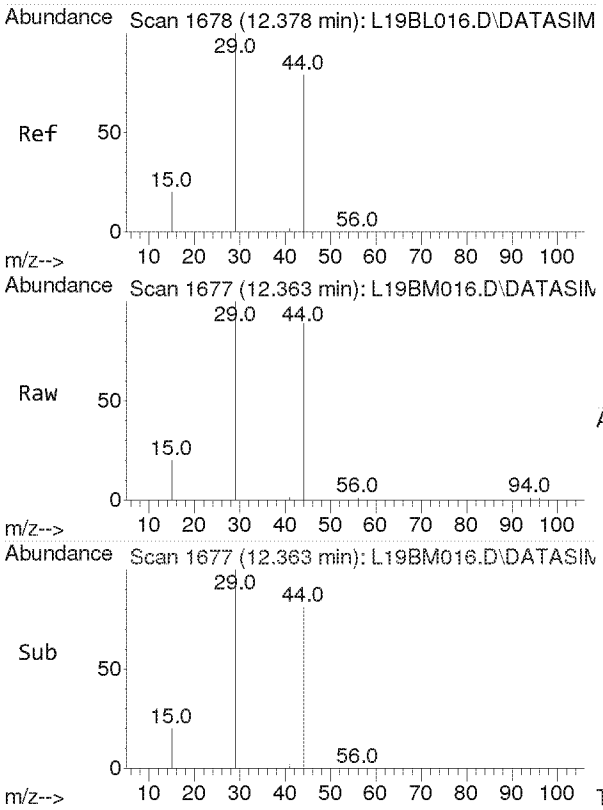
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

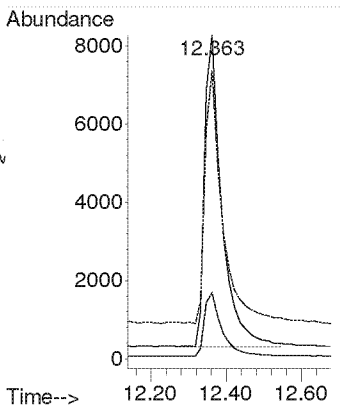




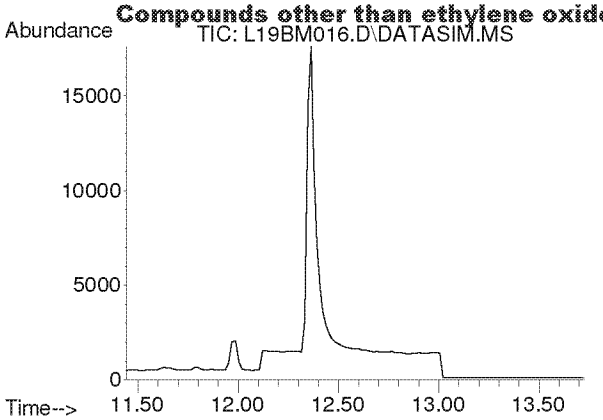
#9
Ethylene oxide
Concen: 9.560 ppbv
RT: 12.363 min Scan# 1677
Delta R.T. 0.003 min
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 29 Resp: 24877

Ion	Ratio	Lower	Upper
29	100		
15	20.6	16.0	24.0
44	81.7	65.4	98.2



Compounds other than ethylene oxide were not quantitated.

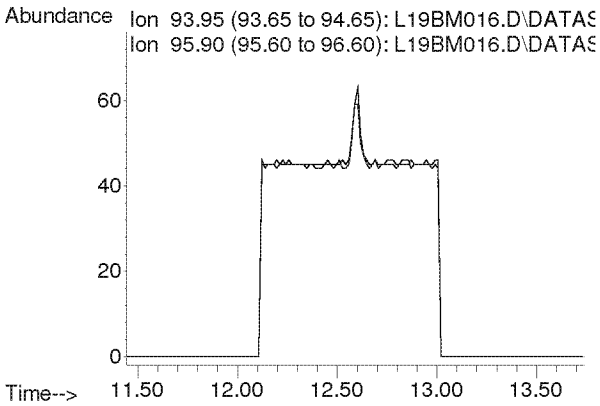


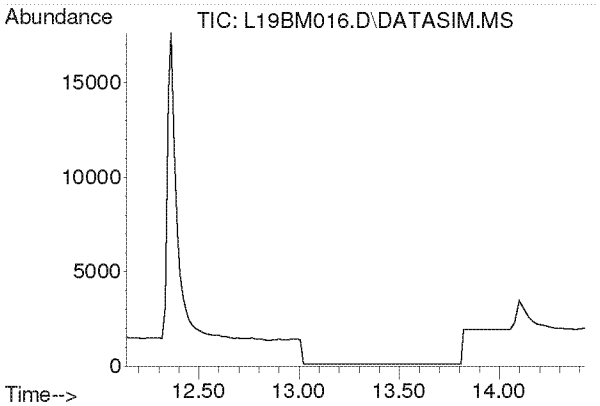
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



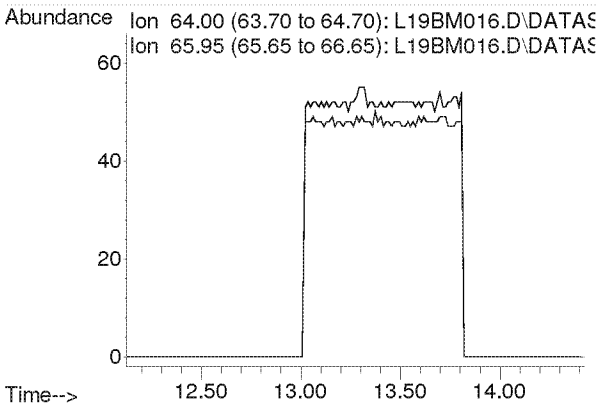


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

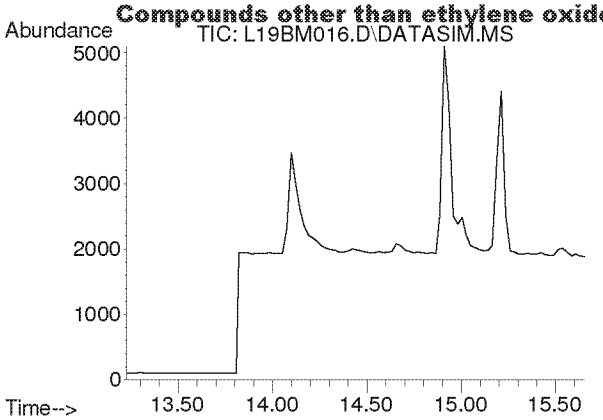
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

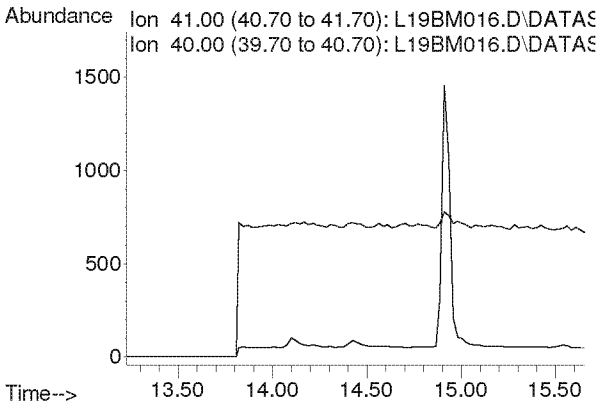


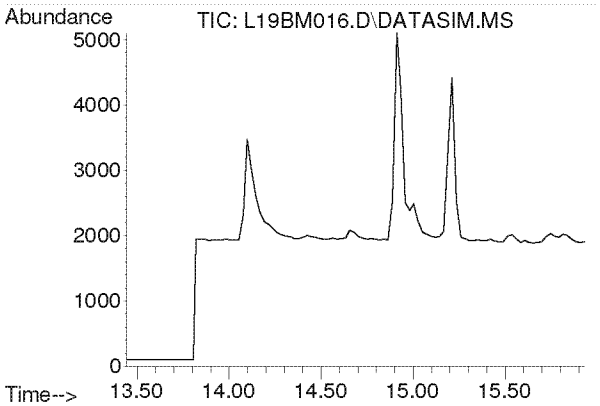
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



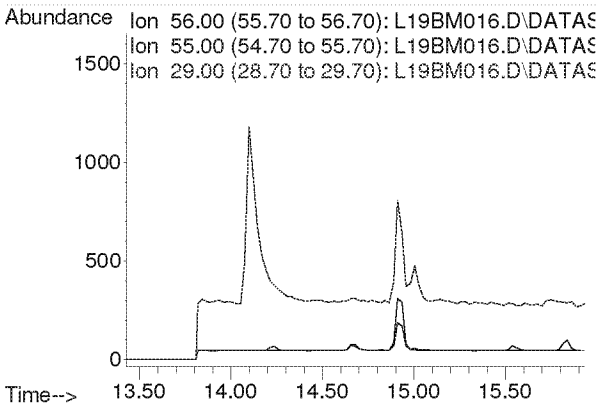


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

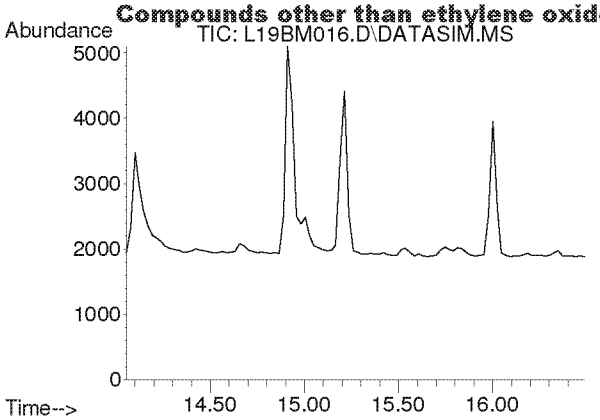
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

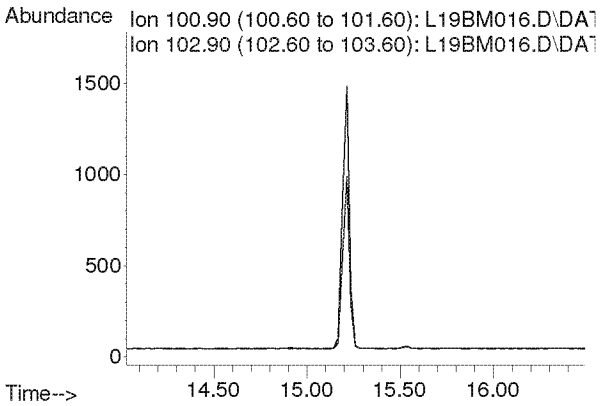


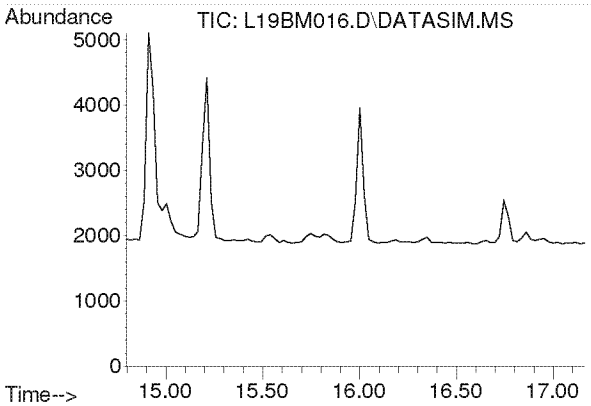
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



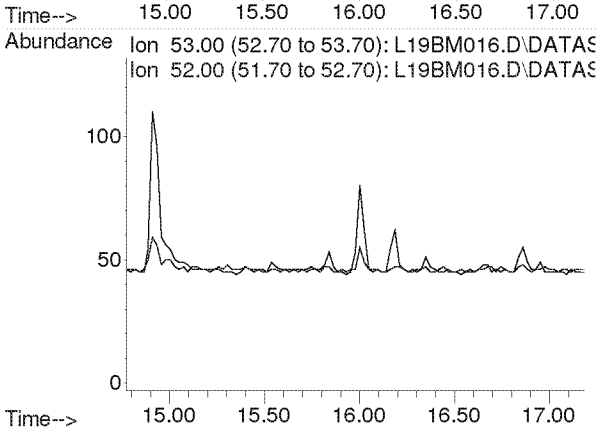


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

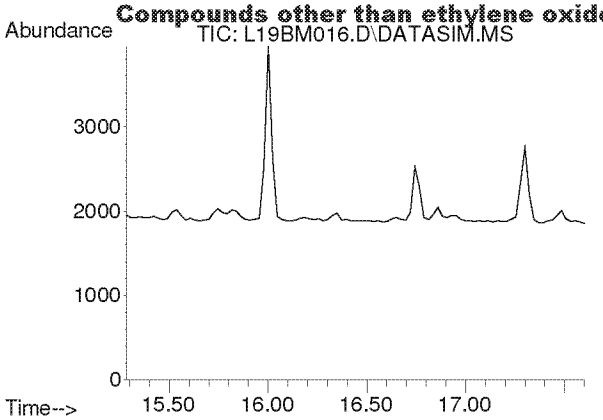
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

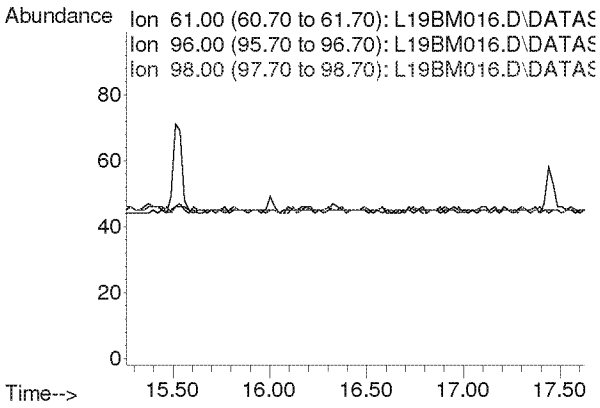


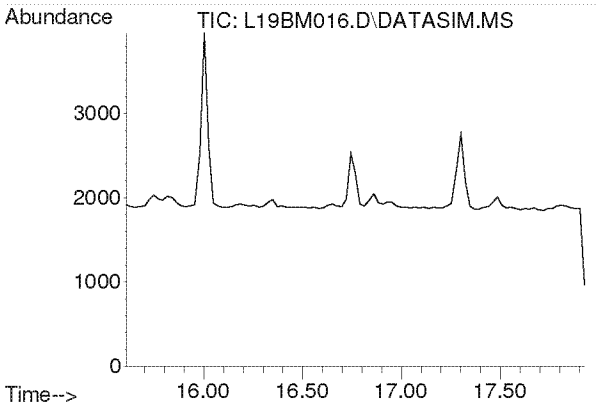
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



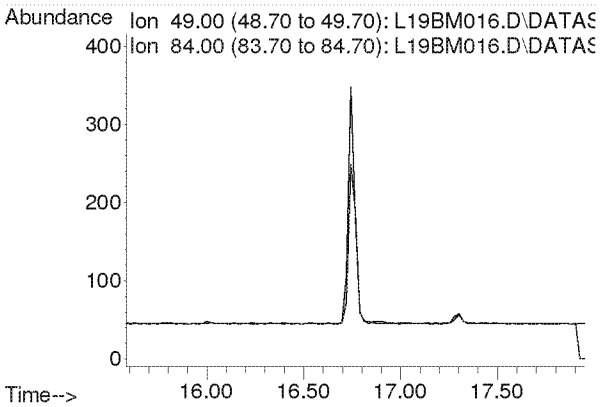


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

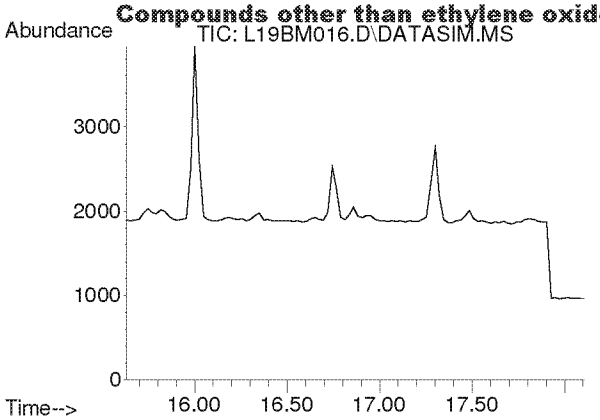
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

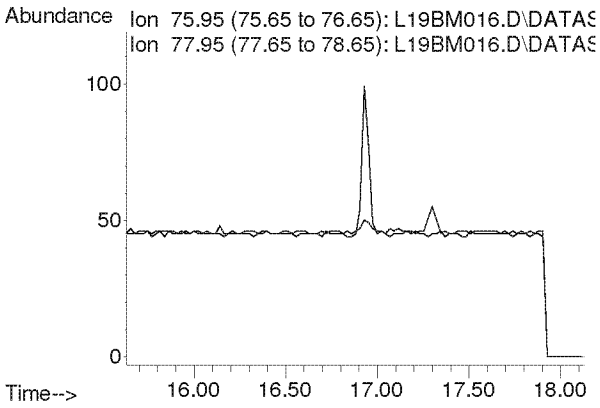


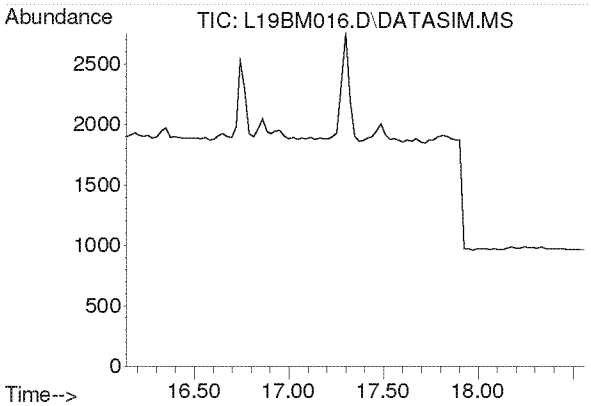
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



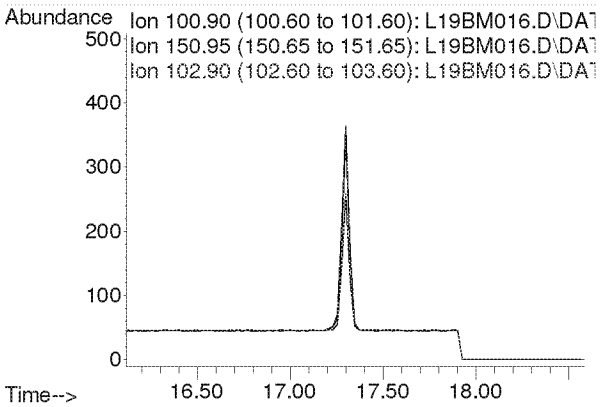


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

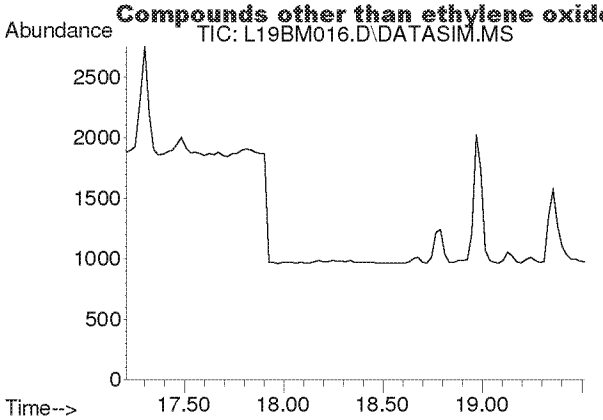
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

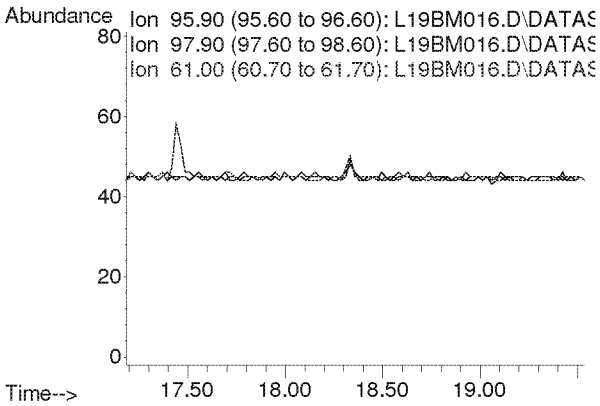


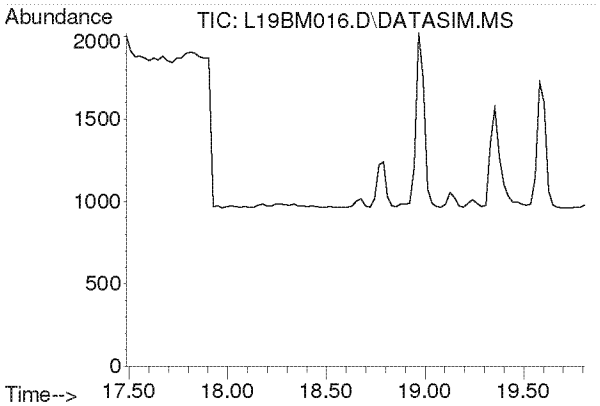
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



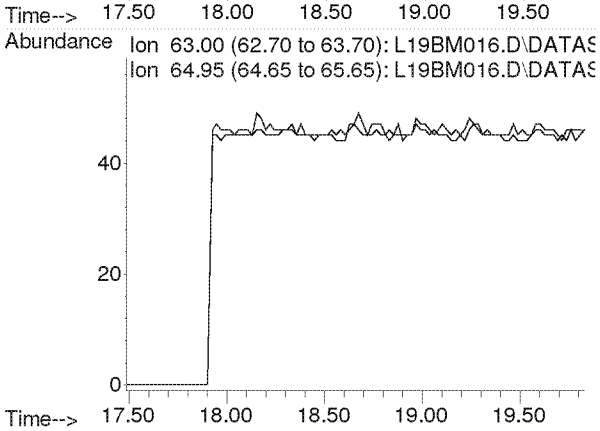


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

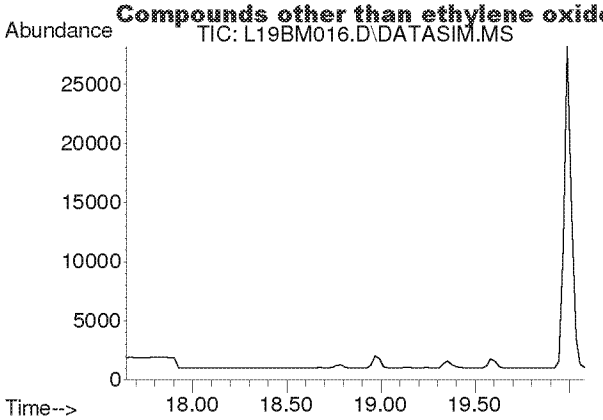
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

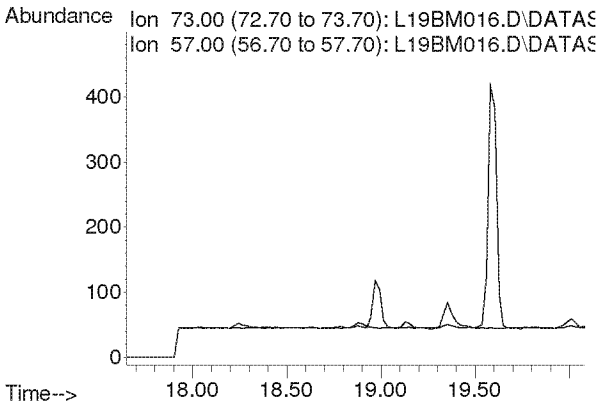


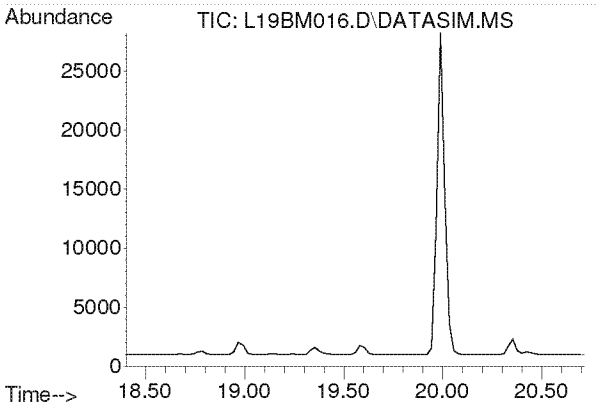
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



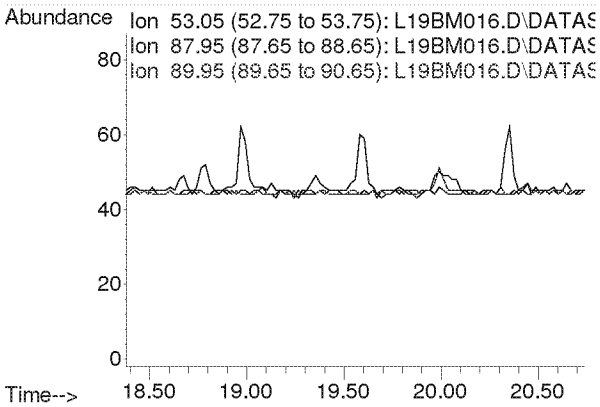


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

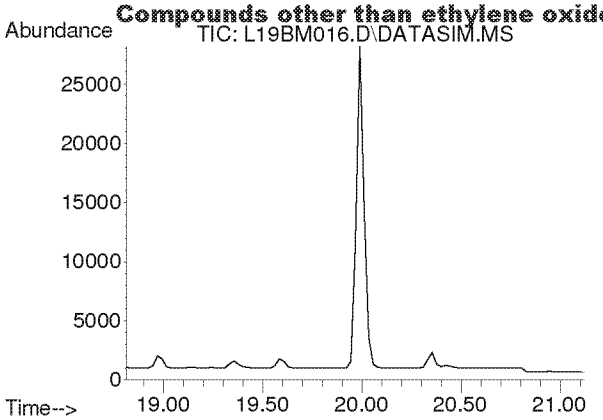
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

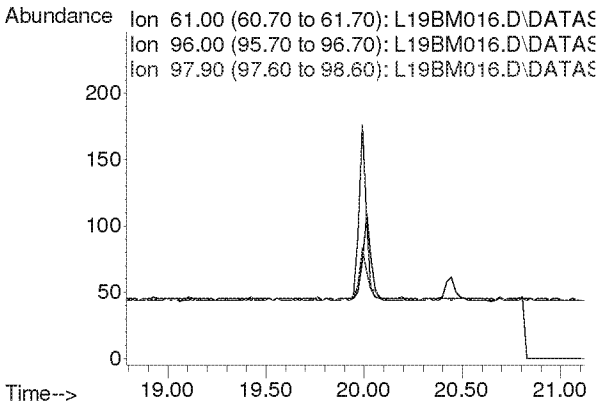


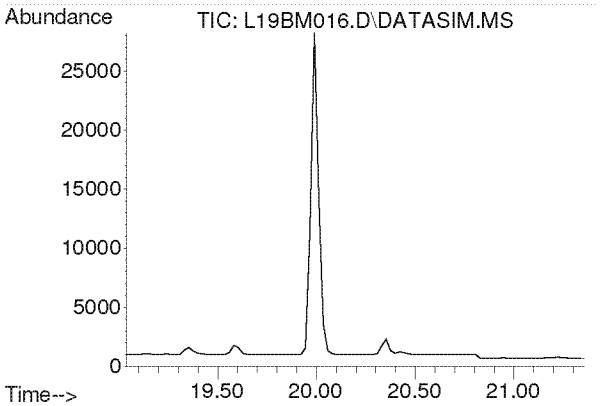
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



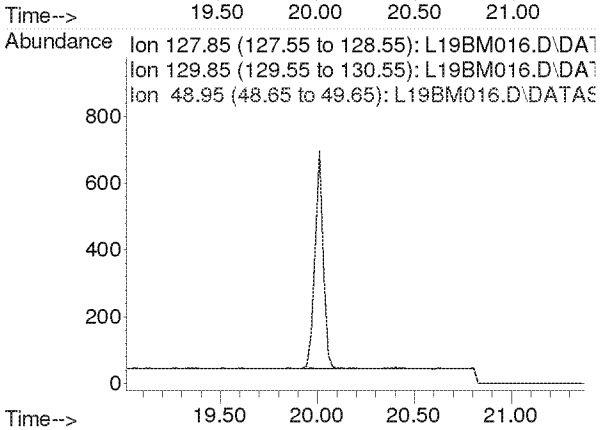


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

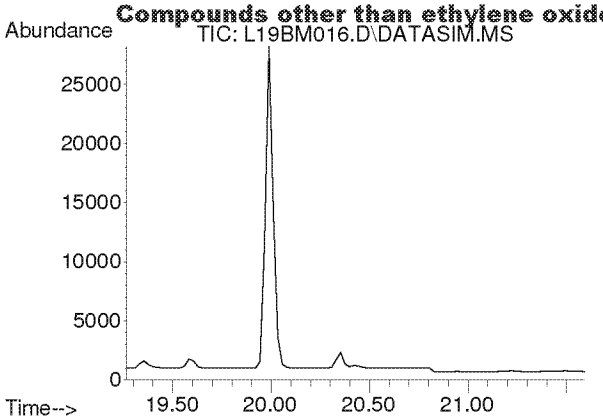
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

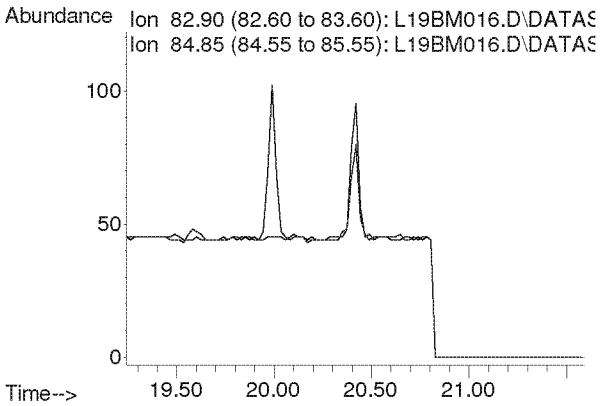


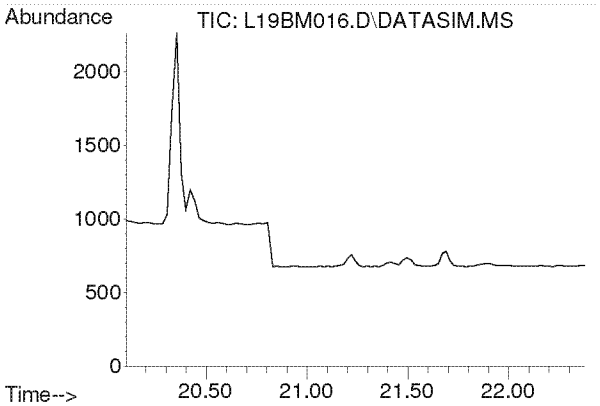
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



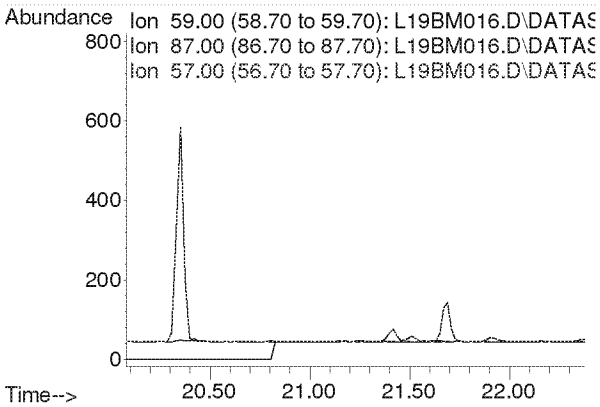


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

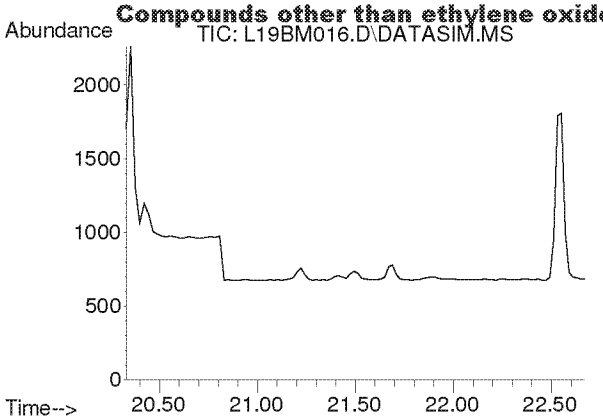
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

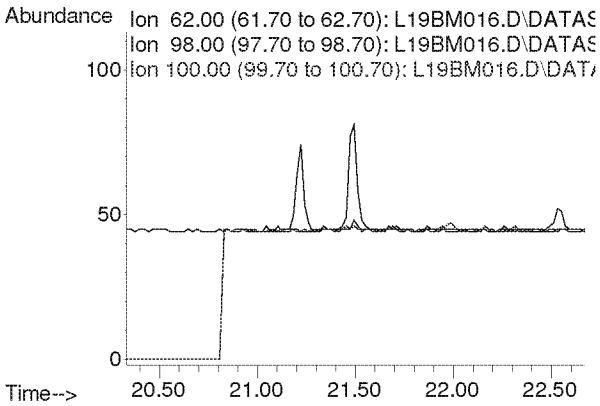


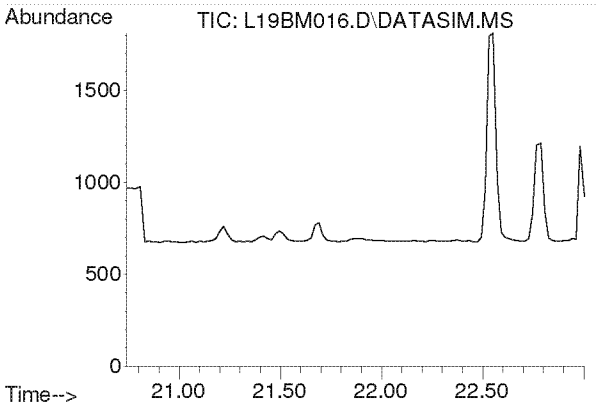
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



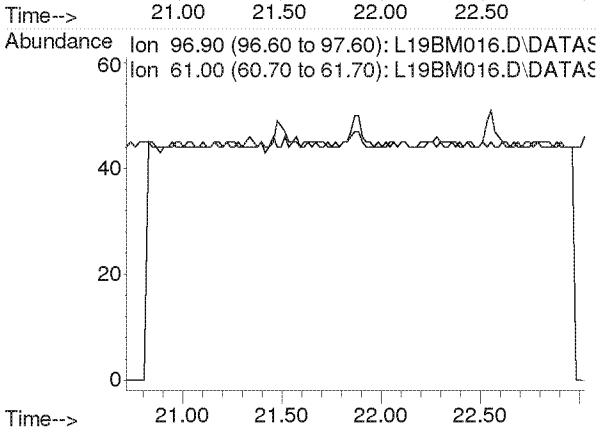


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

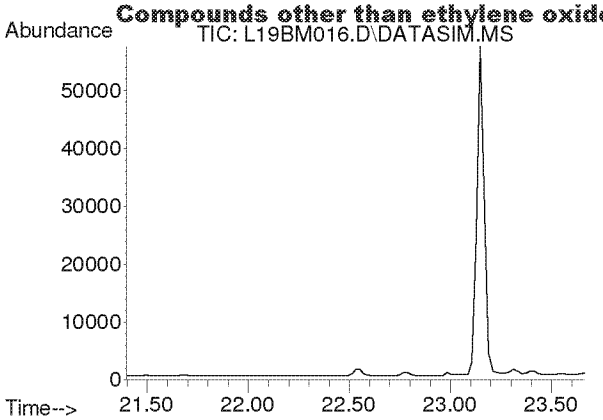
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

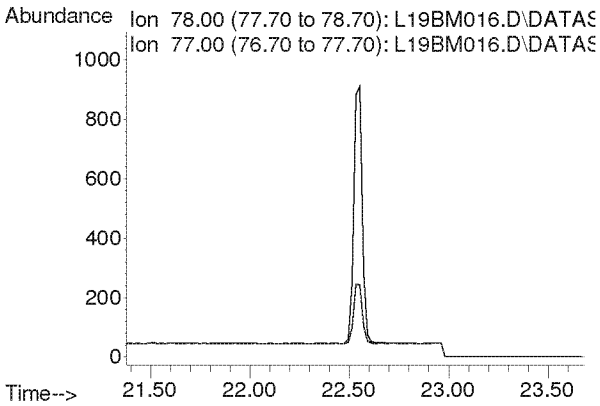


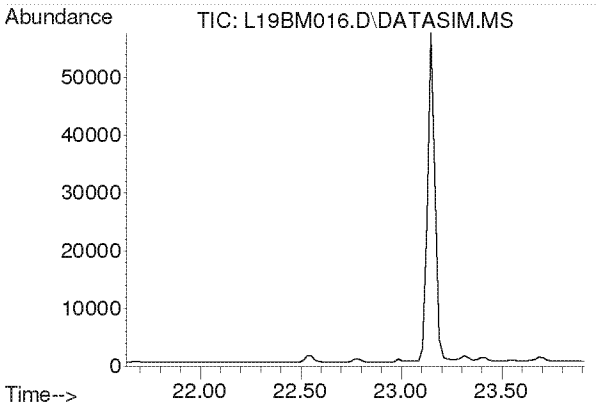
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



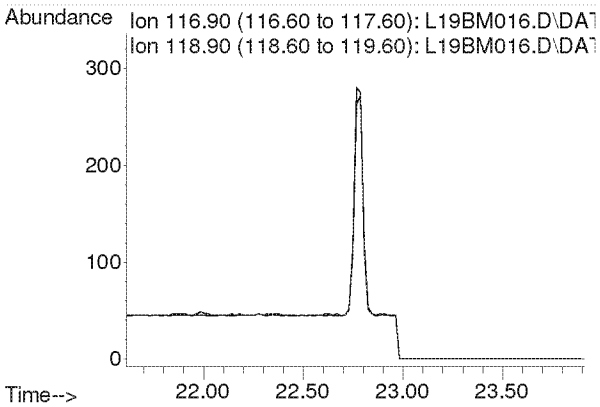


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

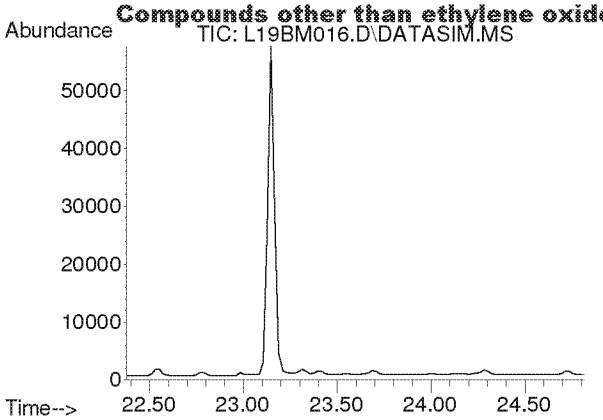
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

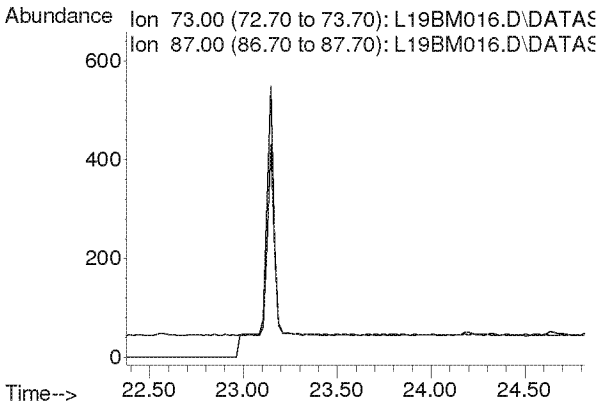


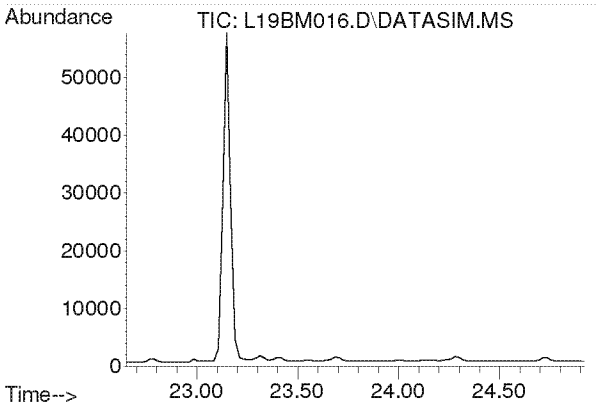
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



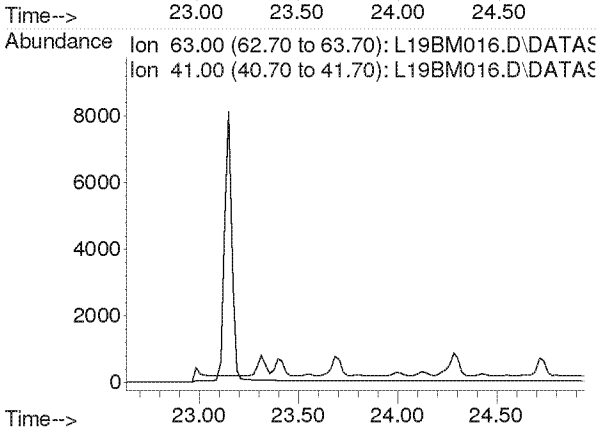


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

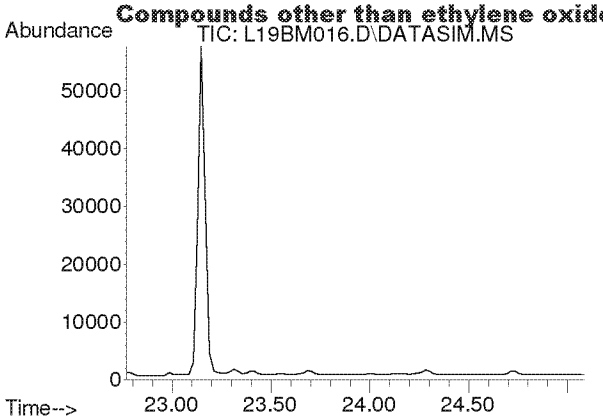
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

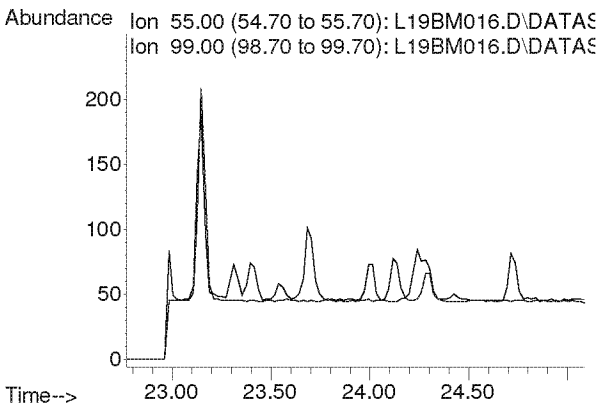


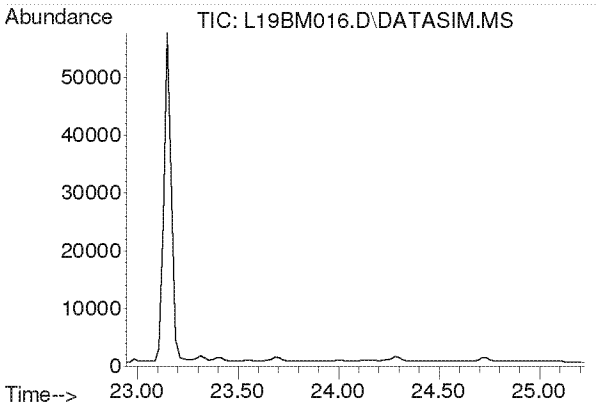
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



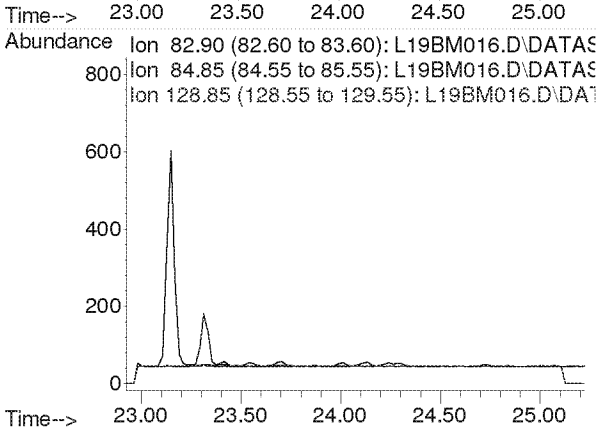


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

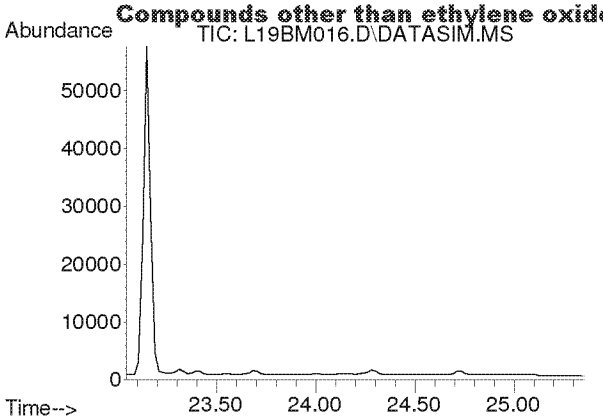
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

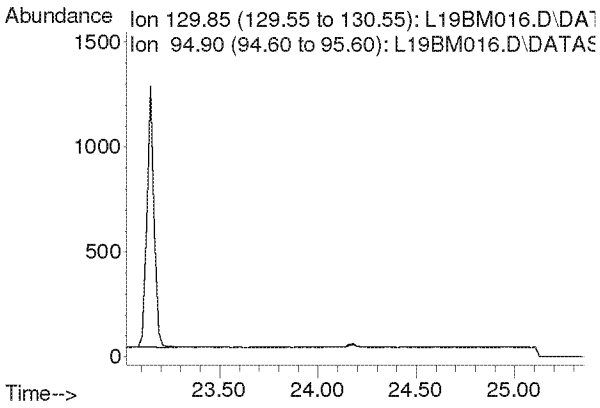


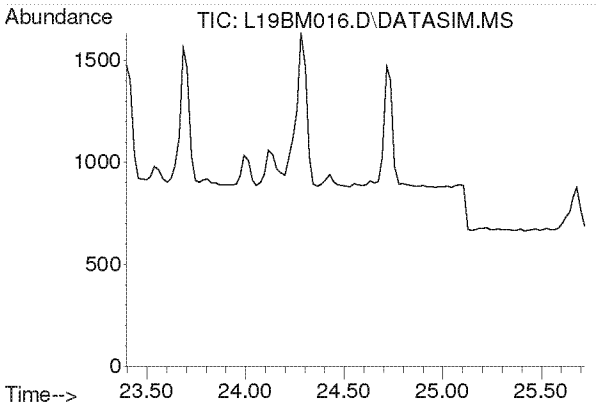
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



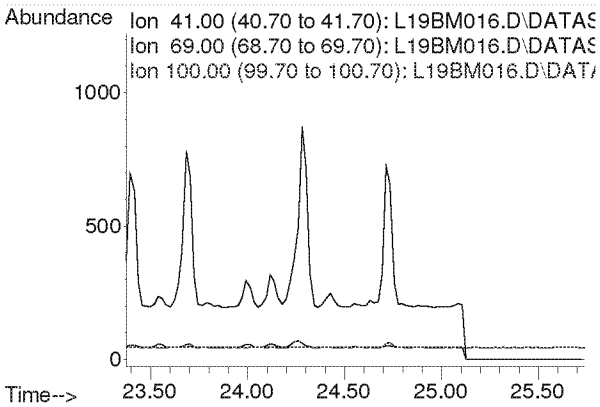


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

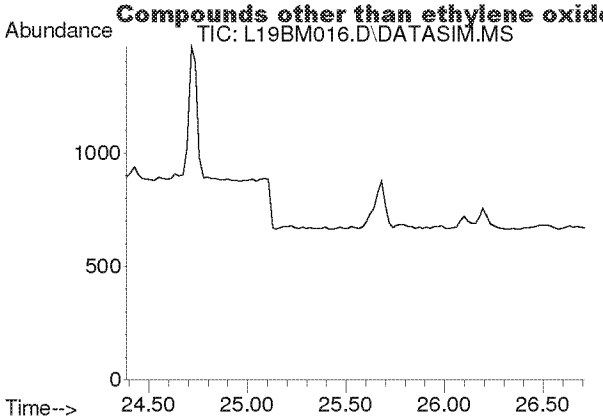
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

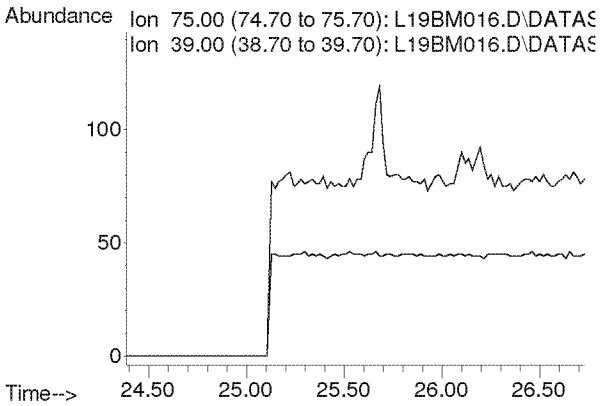


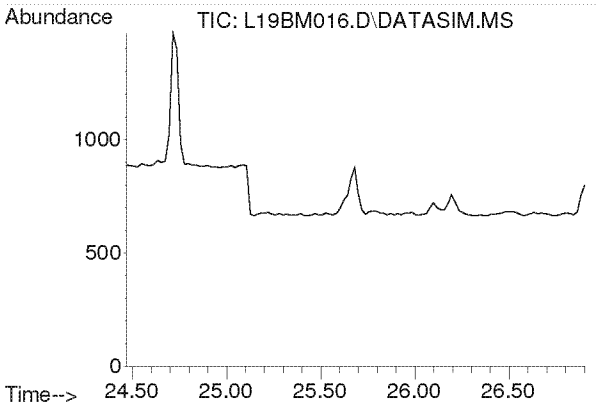
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



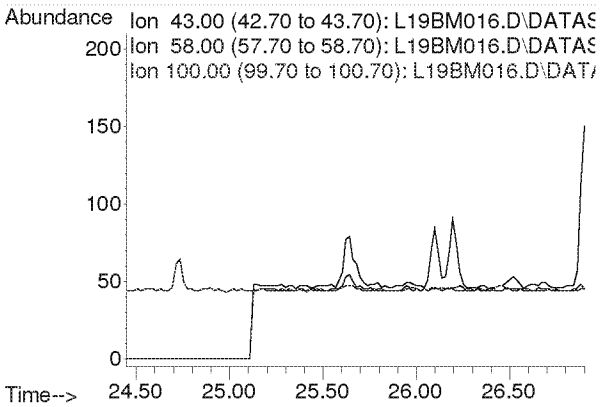


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

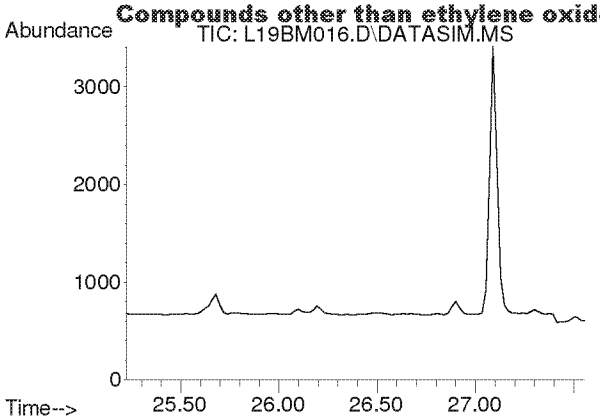
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

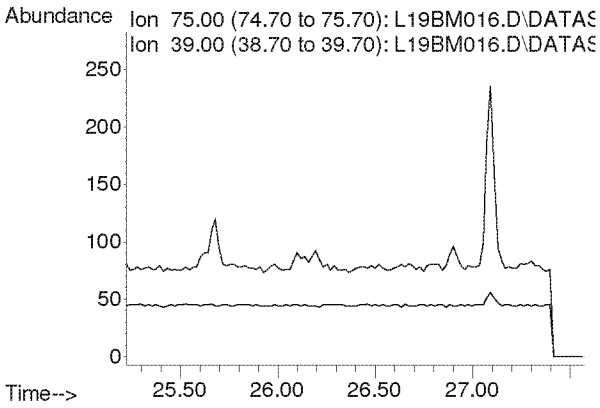


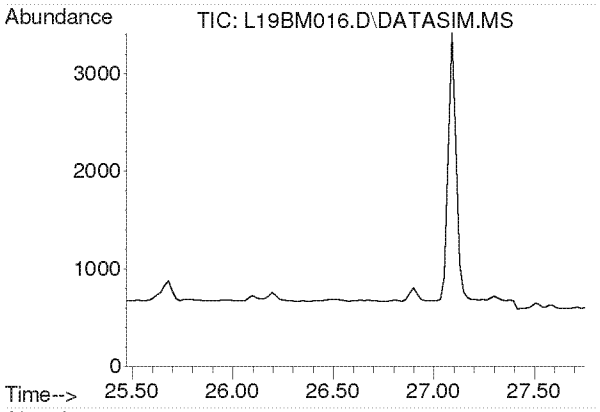
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



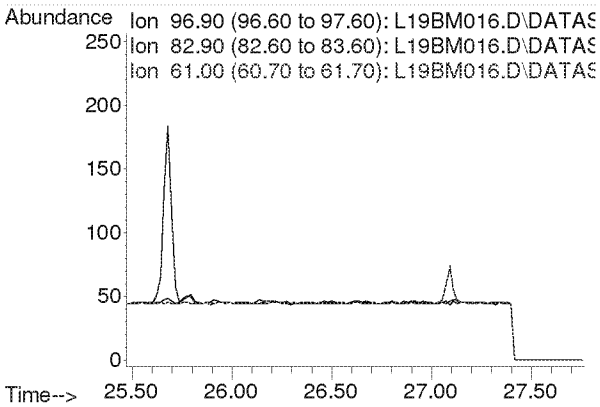


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

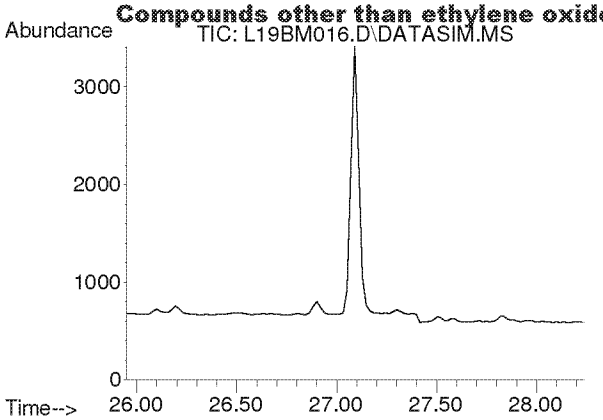
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

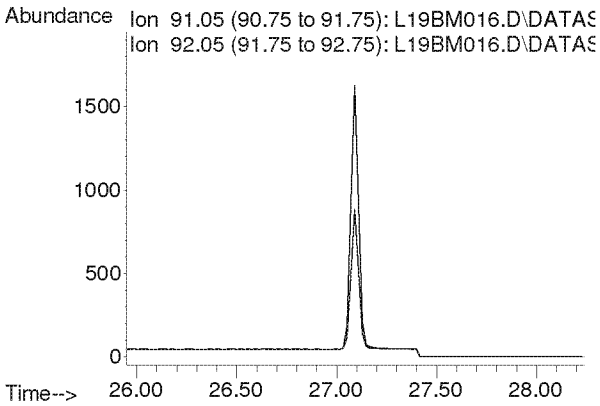


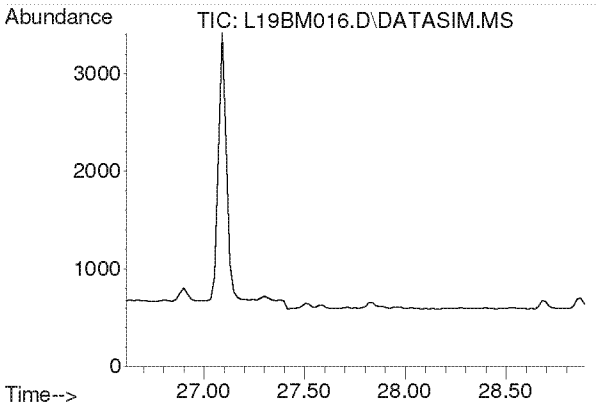
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



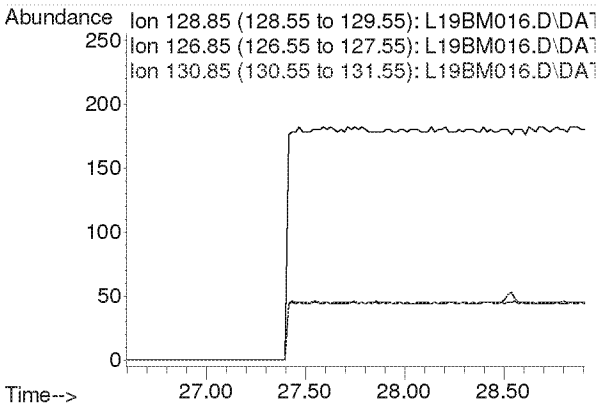


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

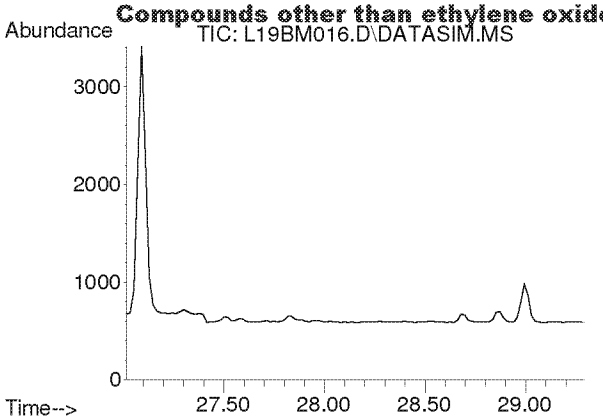
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

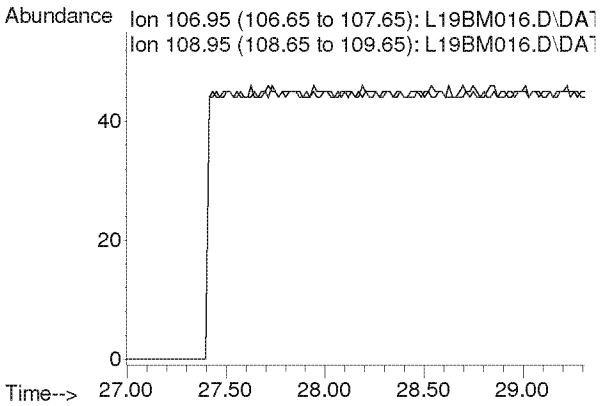


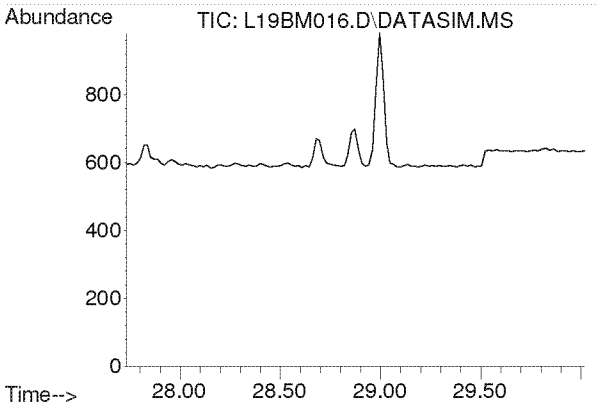
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



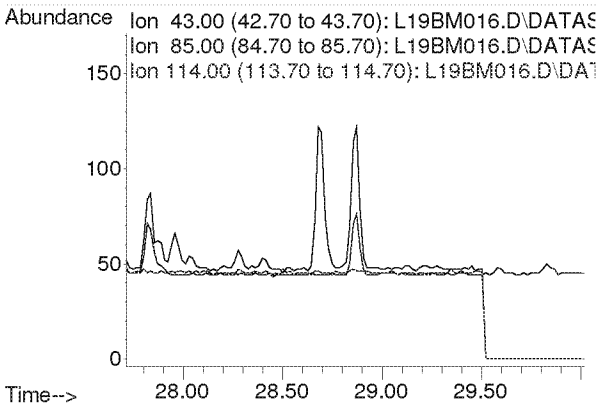


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

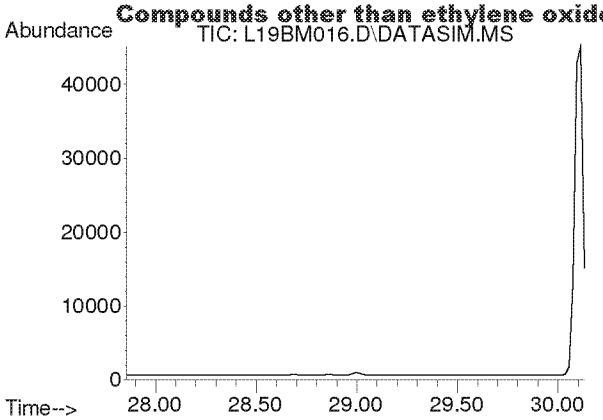
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

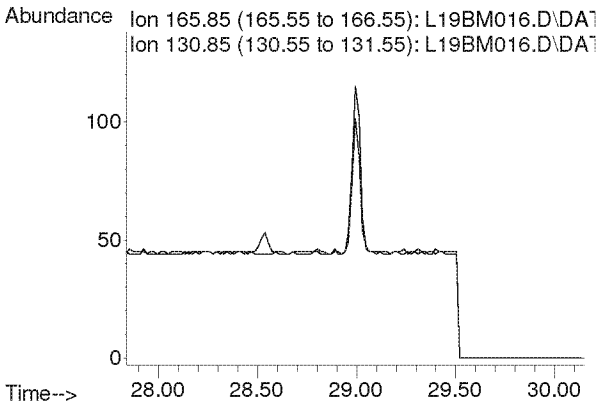


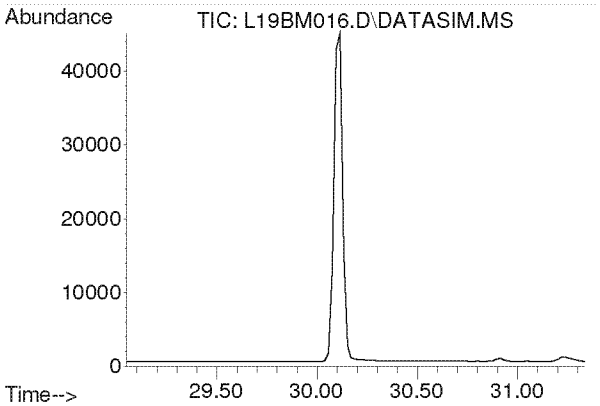
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



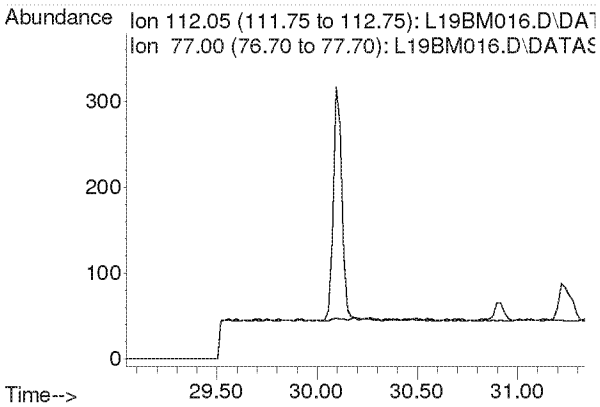


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

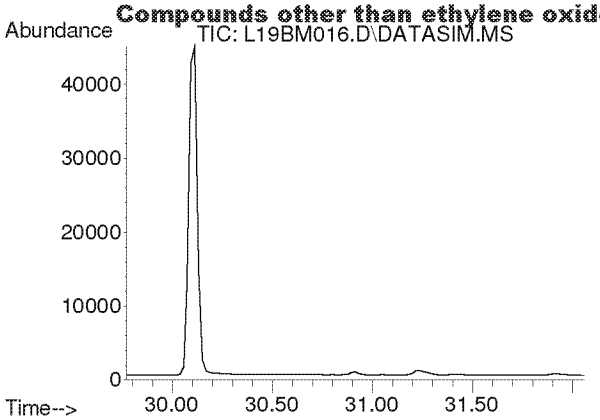
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

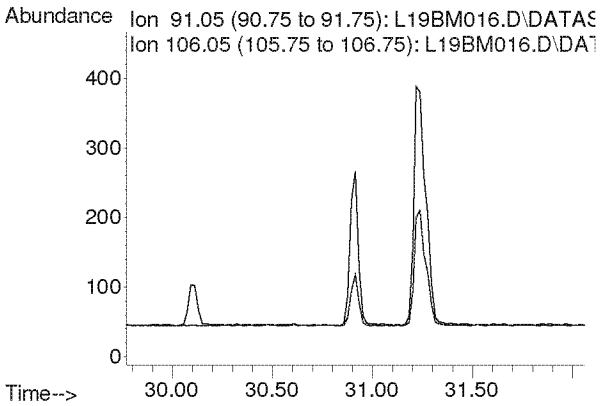


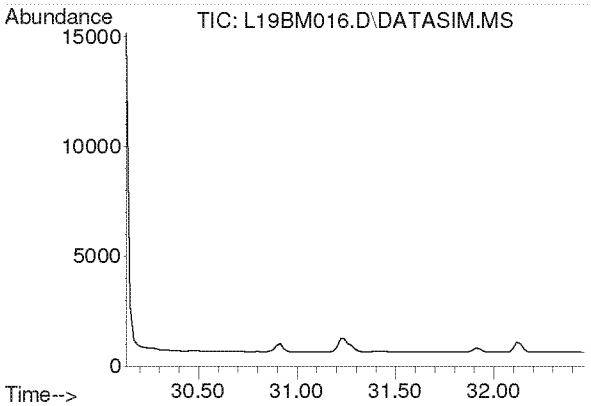
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



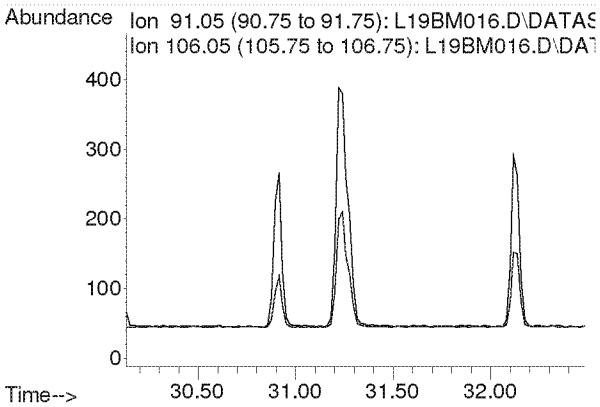


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

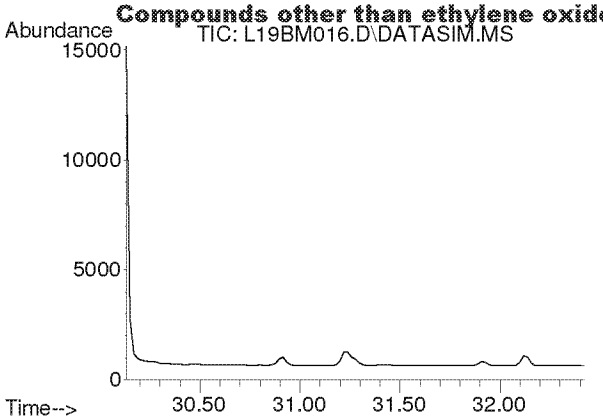
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

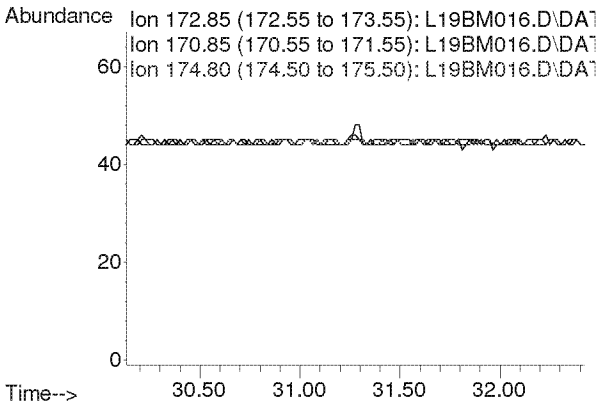


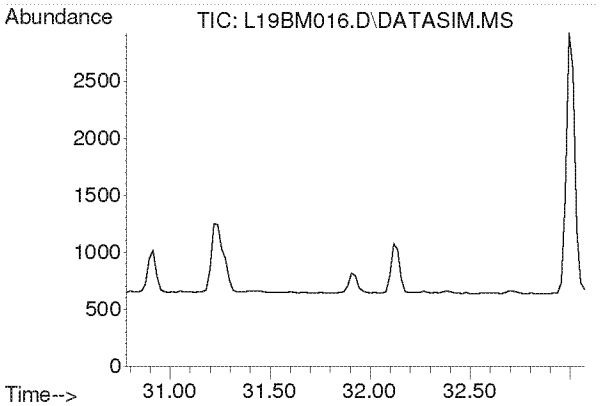
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



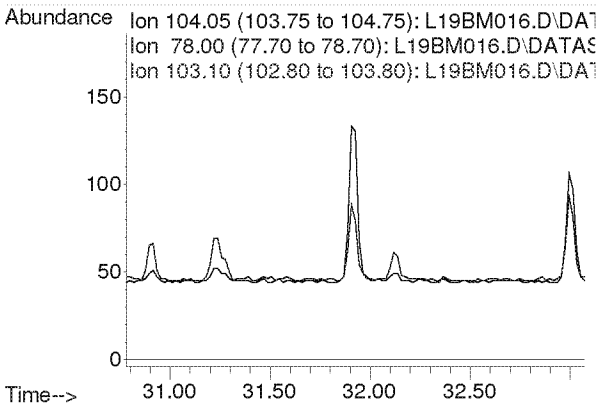


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

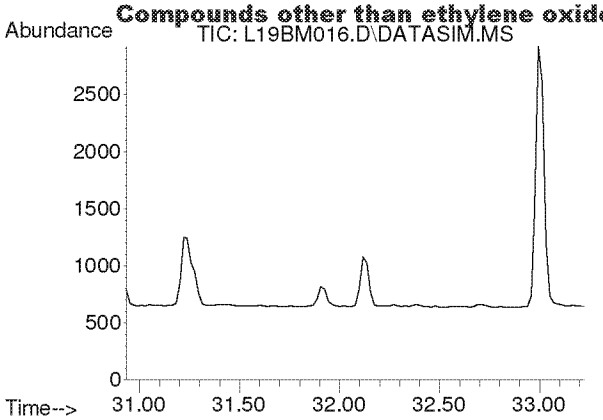
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

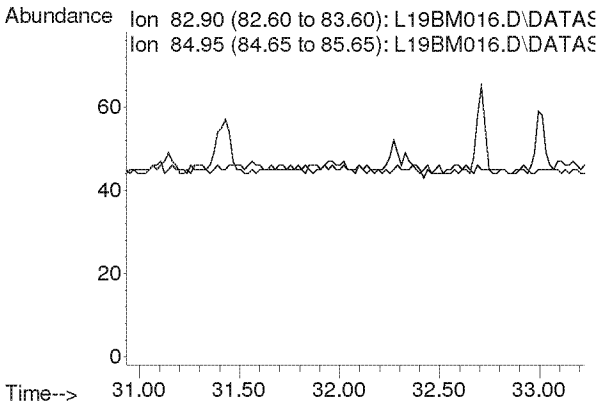


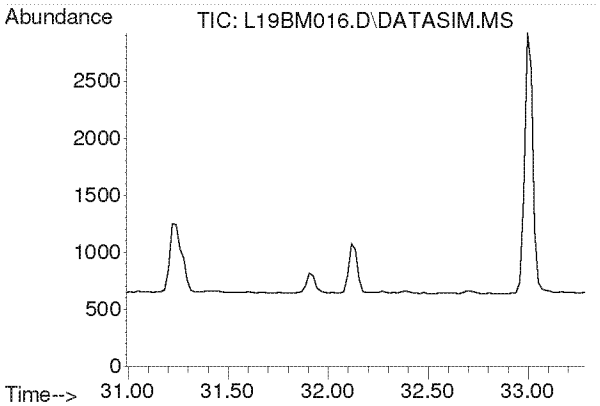
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



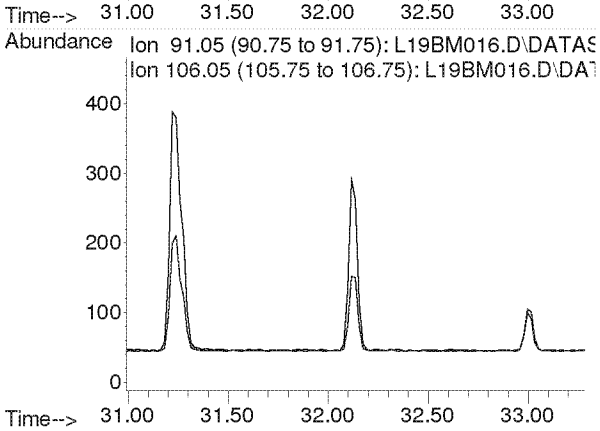


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

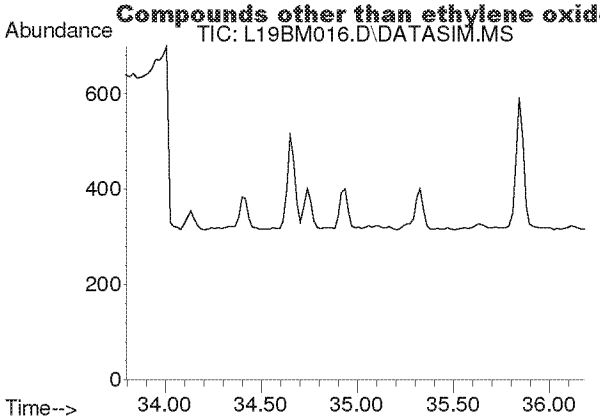
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

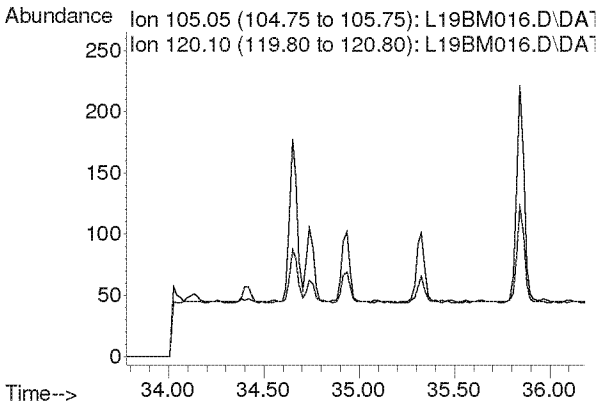


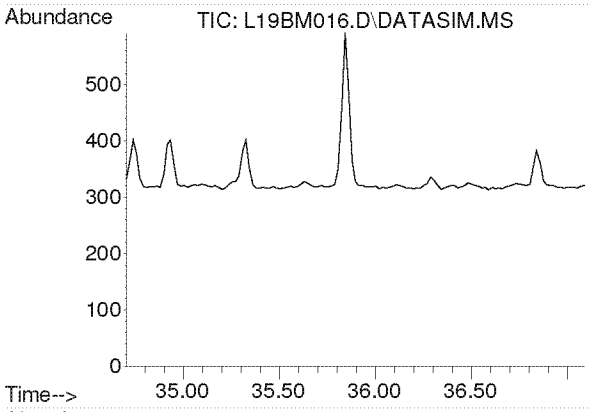
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



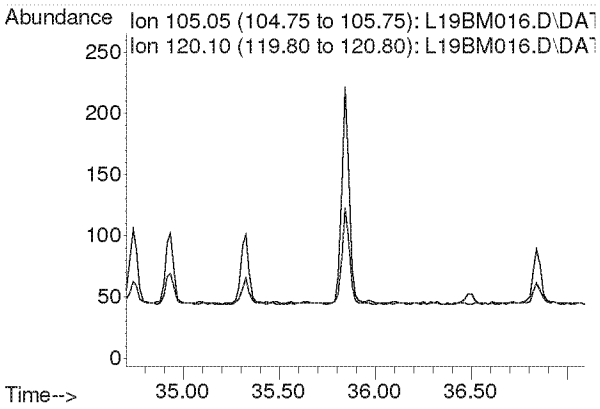


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

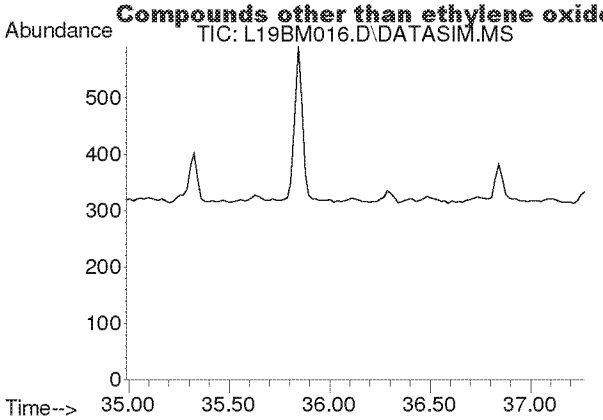
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

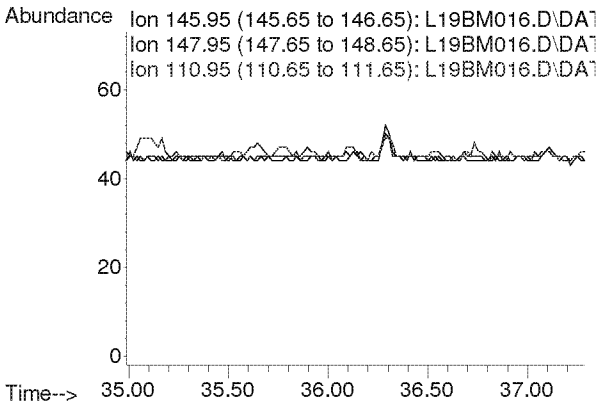


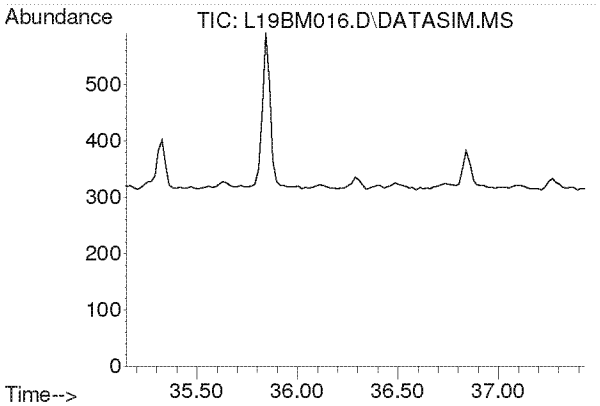
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



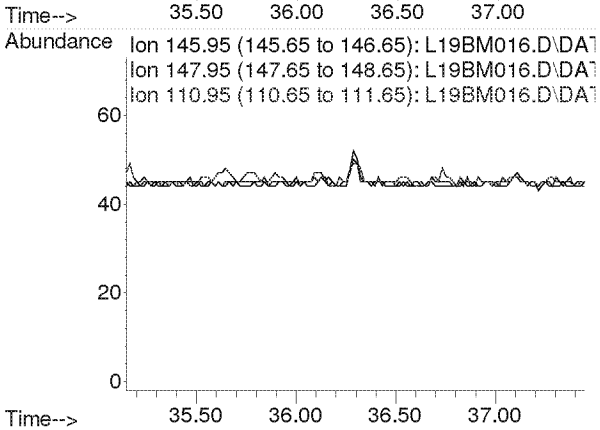


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

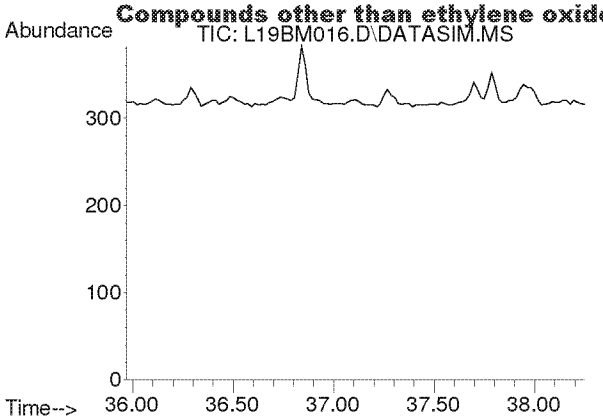
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

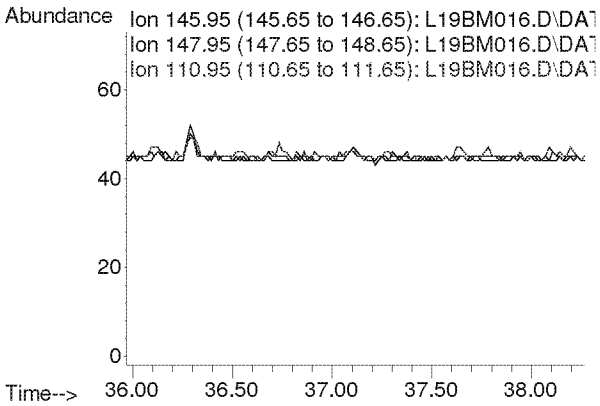


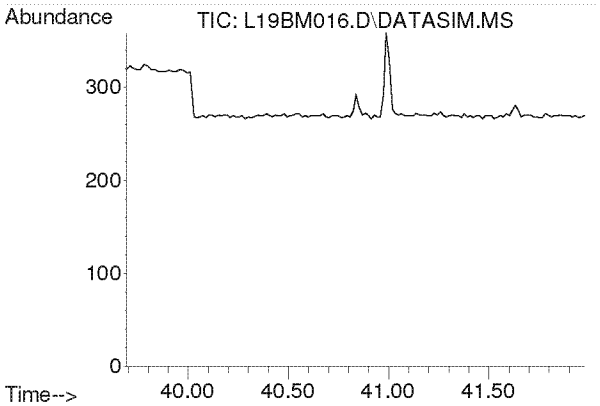
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



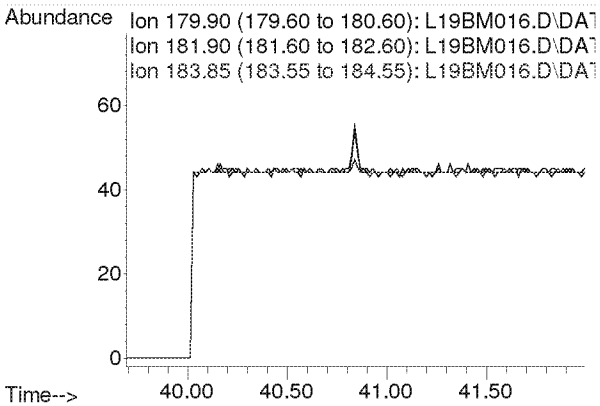


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

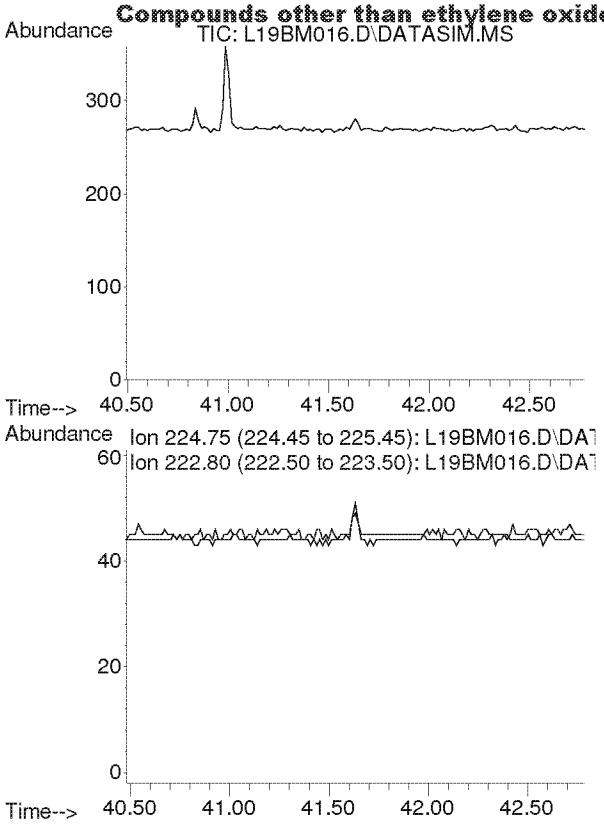
Lab File: L19BM016.D
Acq: 13 Feb 2019 11:44 pm

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: L19BM016.D
Acq: 13 Feb 2019 11:44 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\L19BM\
Data File : L19BM017.D
Acq On : 14 Feb 2019 12:44 am (#1); 14-Feb-19, 00:38:59 (#2)
Operator : MAH
Sample : 9020702-04
Misc : WB VILLAGE HALL C2 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 14:02:19 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

2-14-19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	47395	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	118988	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	87376	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	12.365	29	23343	8.6112 ppbv	98
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. 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\L19BM\
Data File : L19BM017.D
Acq On : 14 Feb 2019 12:44 am (#1); 14-Feb-19, 00:38:59 (#2)
Operator : MAH
Sample : 9020702-04
Misc : WB VILLAGE HALL C2 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 14:02:19 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.	

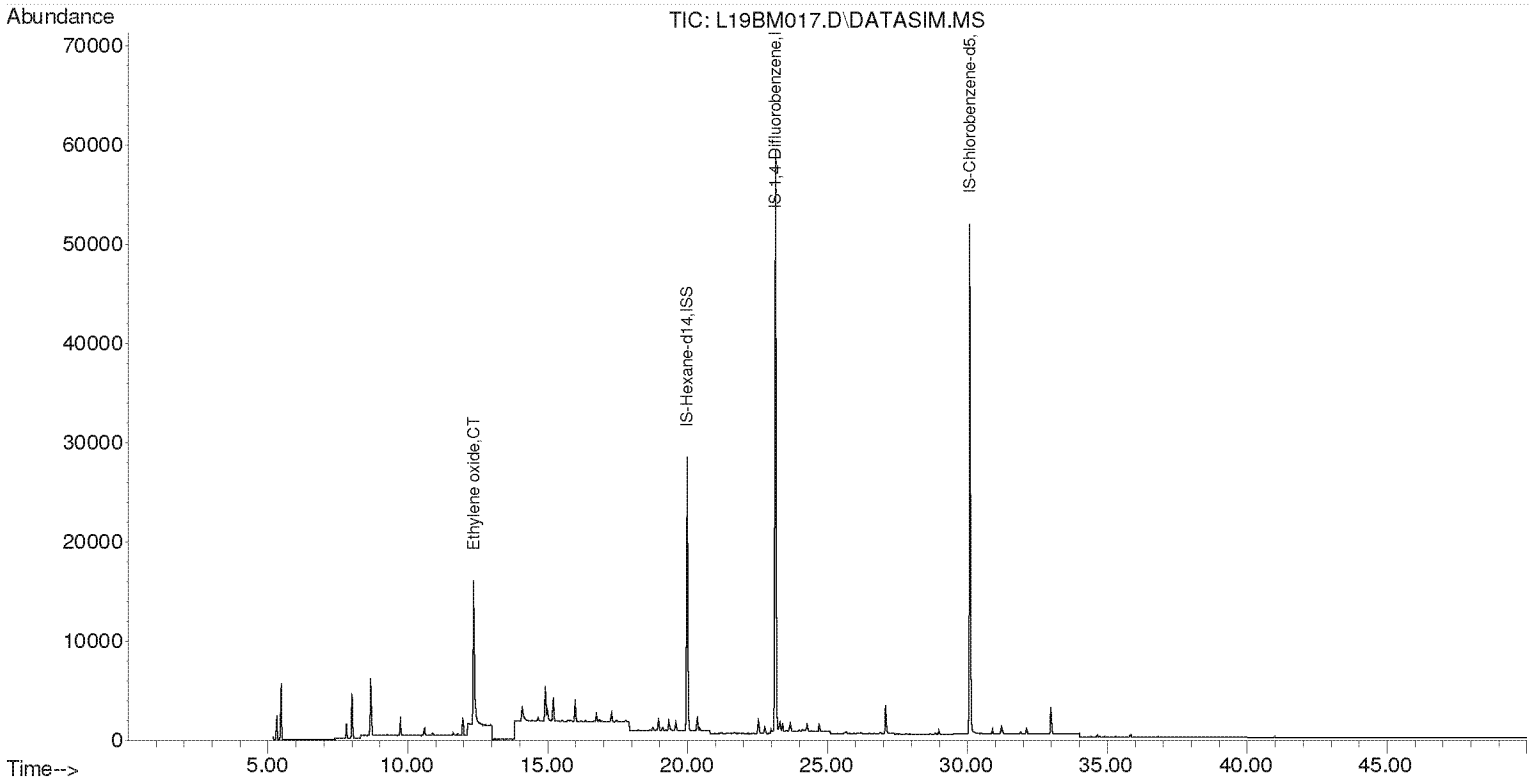
(#) = qualifier out of range (m) = manual integration (+) = signals summed

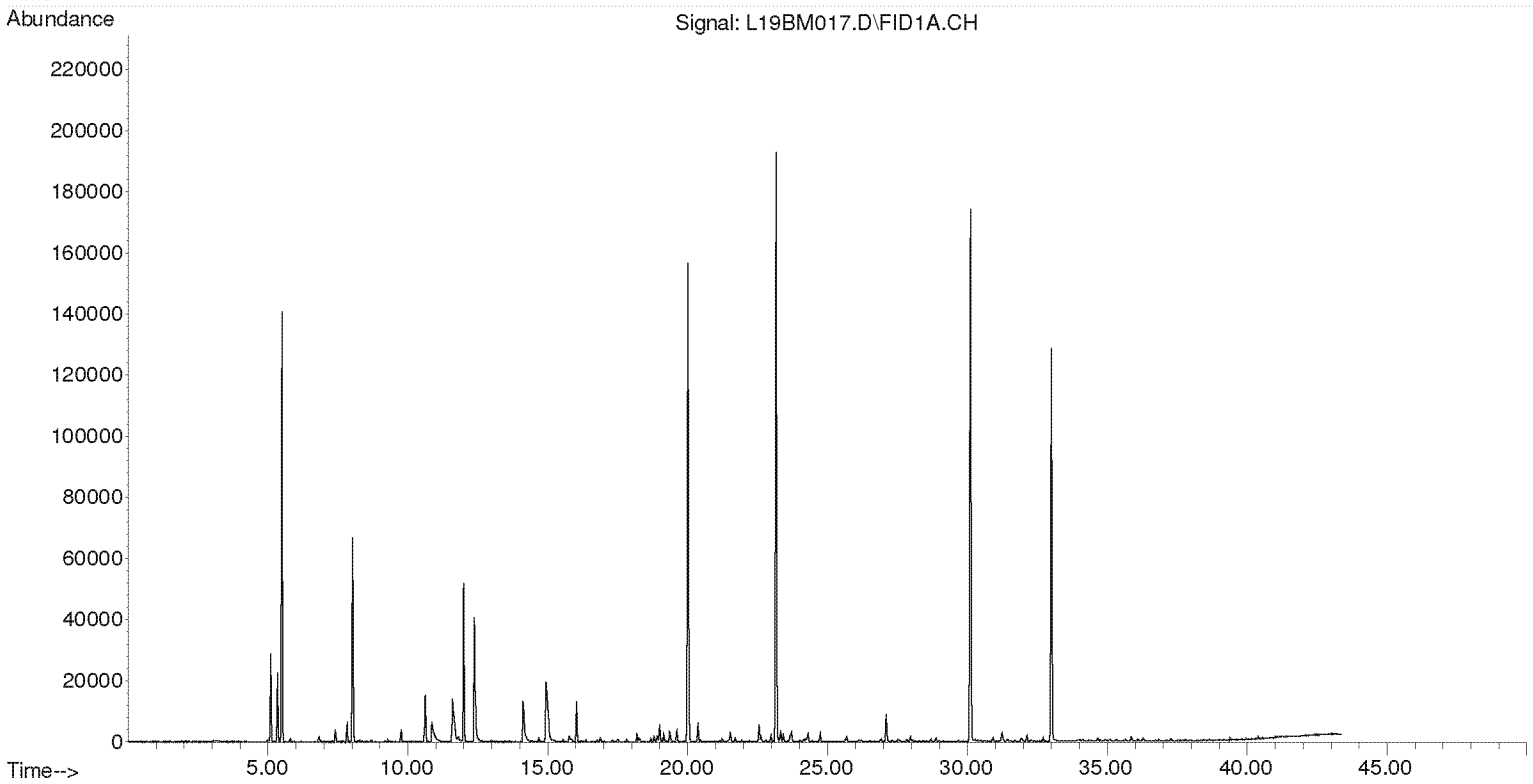
ED_002475_00000213-00217

Compounds other than ethylene oxide were not quantitated.

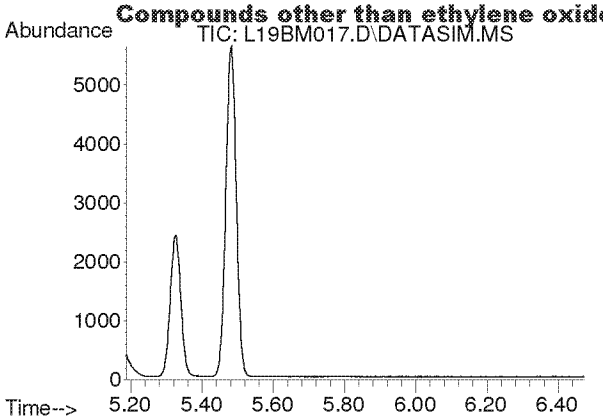
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM017.D
Acq On : 14 Feb 2019 12:44 am (#1); 14 Feb 2019 0:38 am (#2)
Operator : MAH
Sample : 9020702-04
Misc : WB VILLAGE HALL C2 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 08:29:35 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





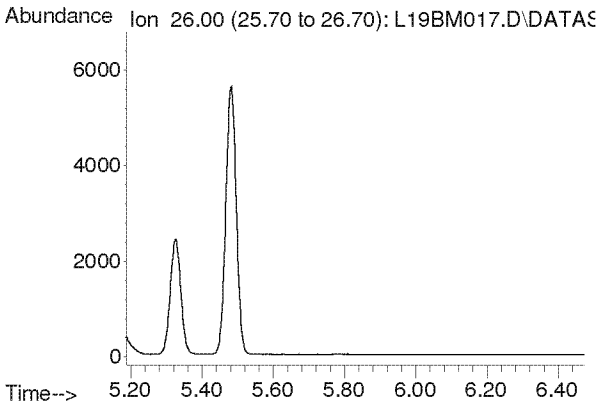
Compounds other than ethylene oxide were not quantitated.

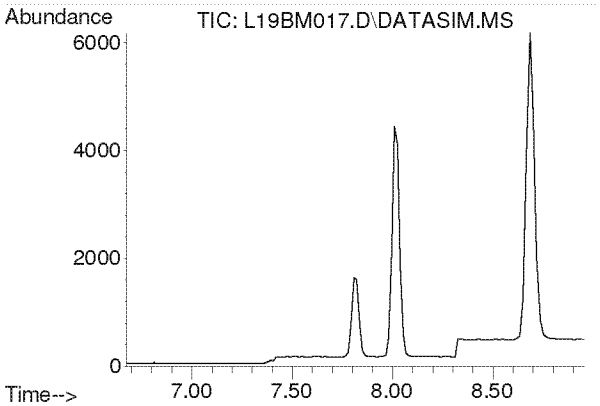


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 26



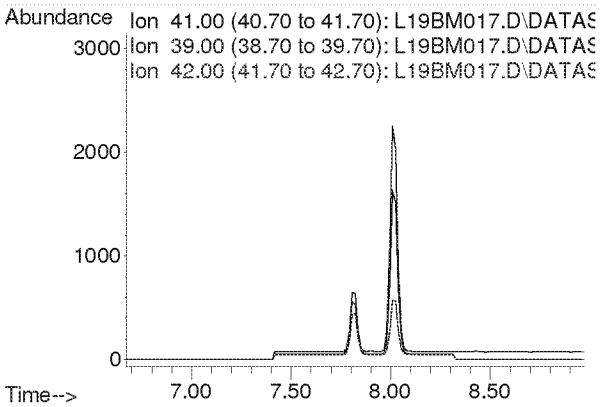


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

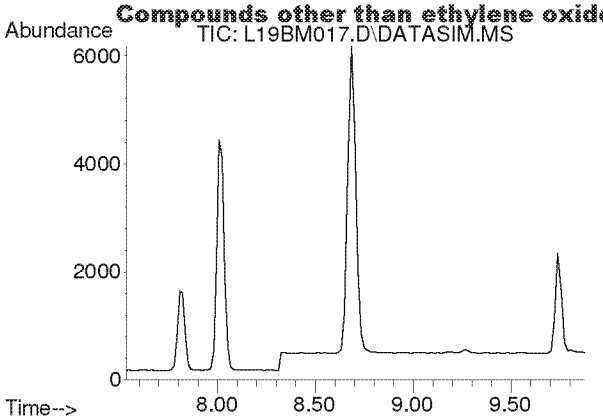
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

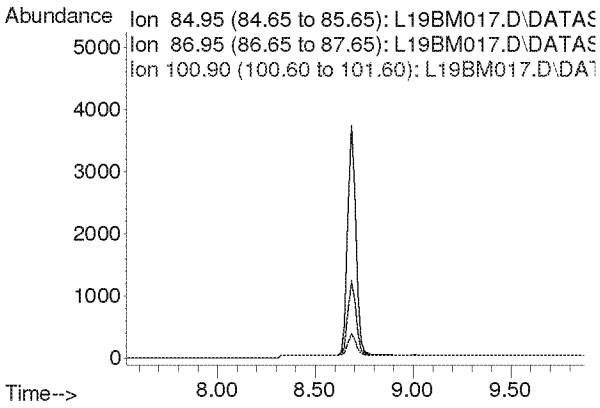


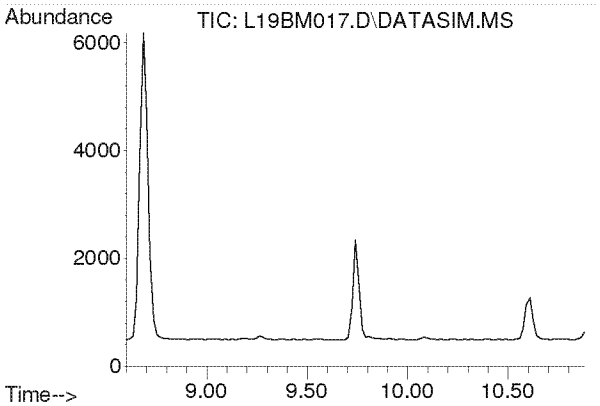
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



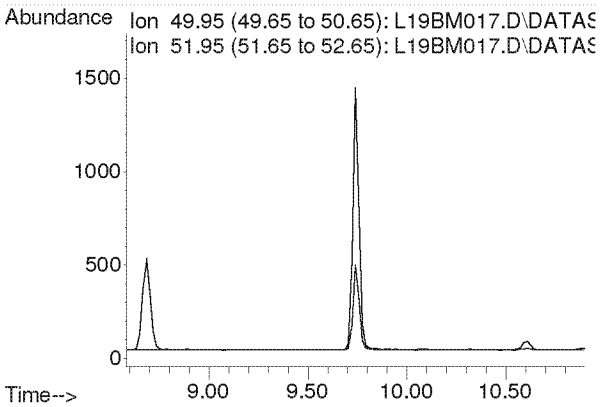


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

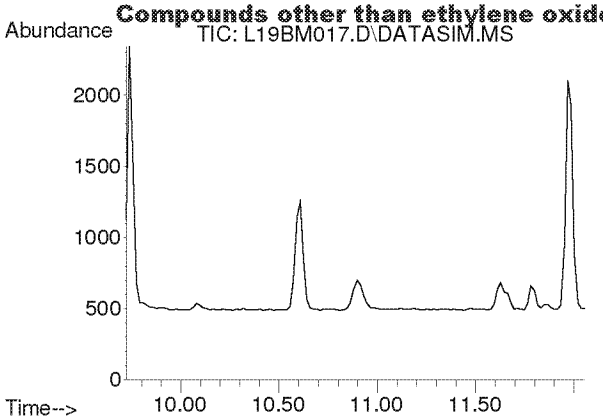
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

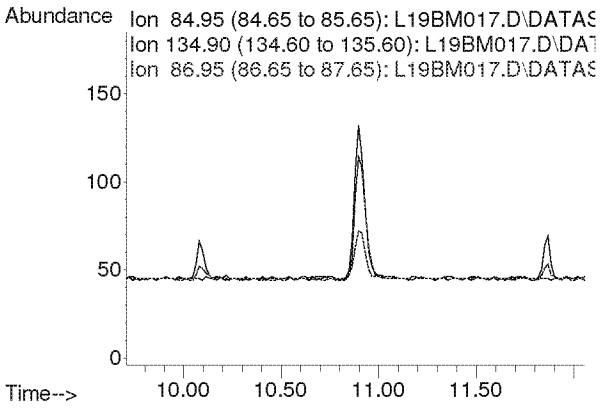


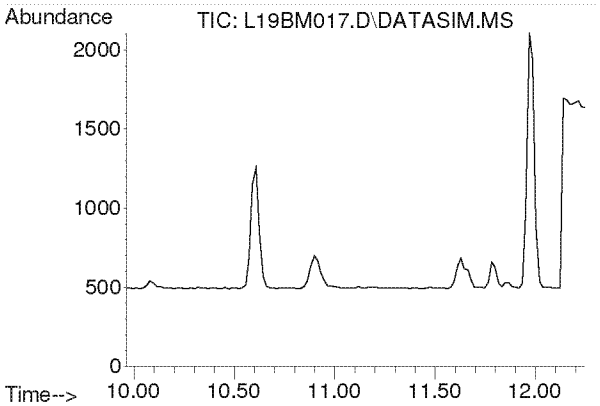
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



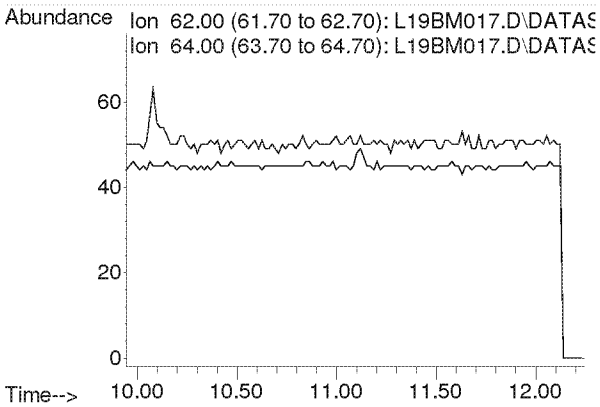


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

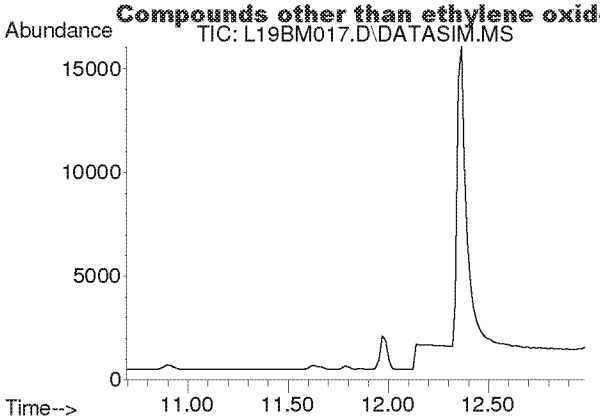
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

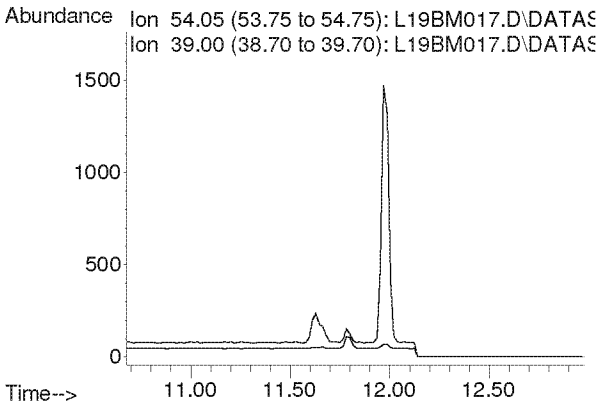


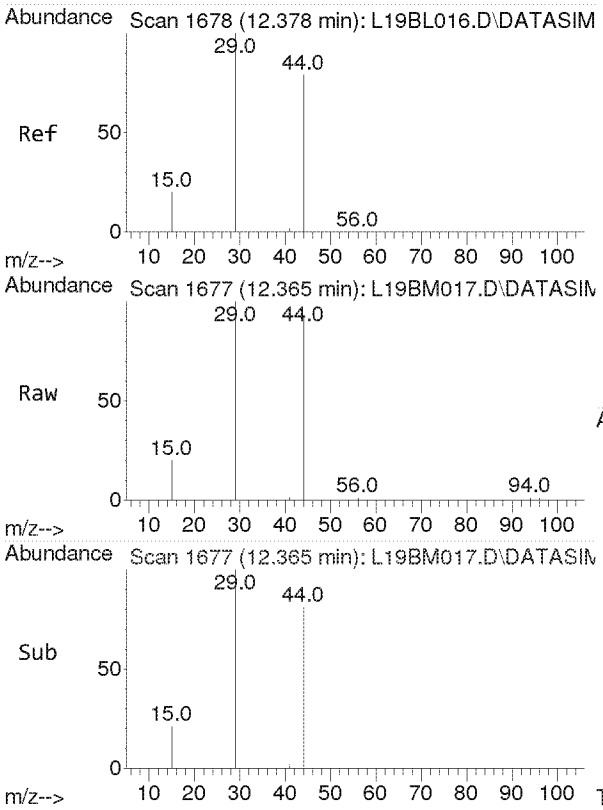
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

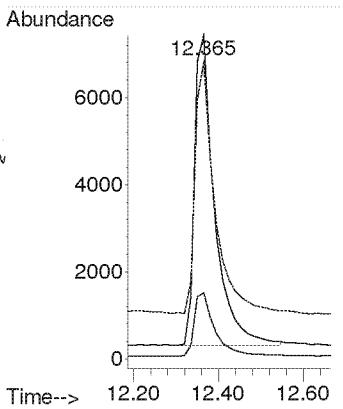




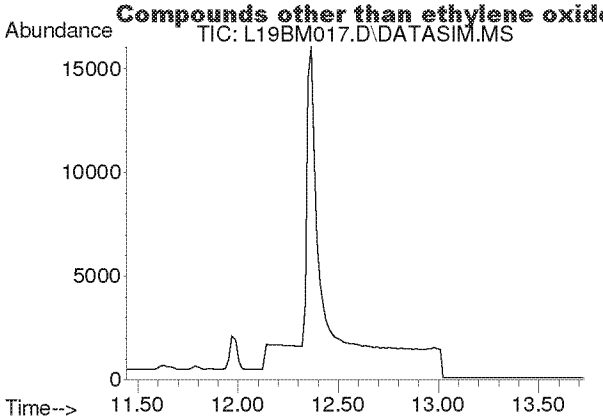
#9
Ethylene oxide
Concen: 8.611 ppbv
RT: 12.365 min Scan# 1677
Delta R.T. 0.005 min
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 29 Resp: 23343

Ion	Ratio	Lower	Upper
29	100		
15	20.4	16.0	24.0
44	79.5	65.4	98.2



Compounds other than ethylene oxide were not quantitated.

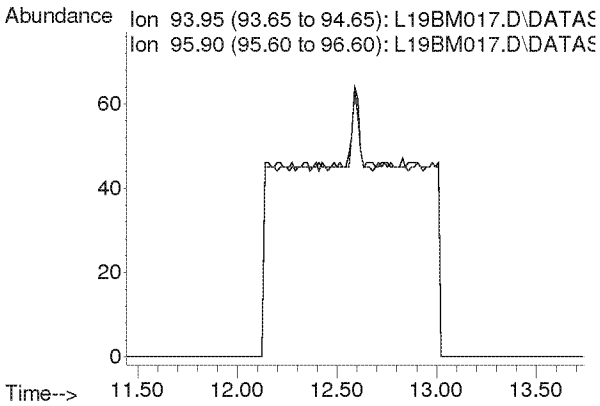


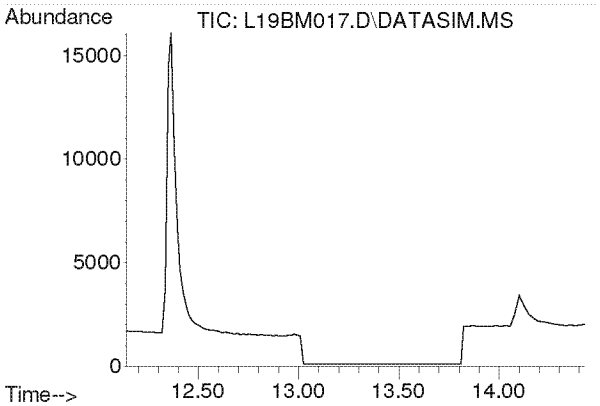
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



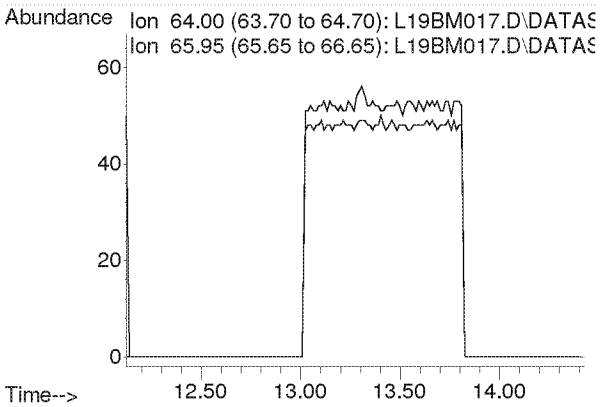


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

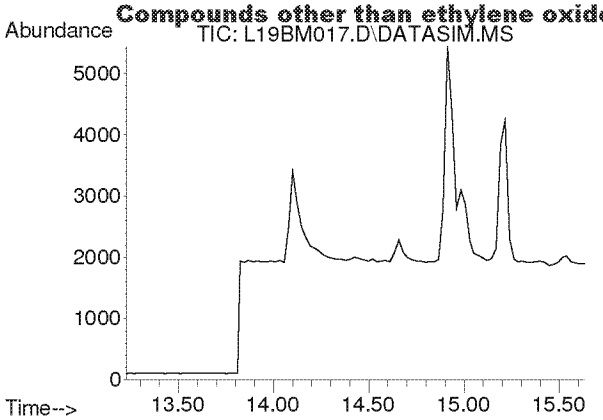
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

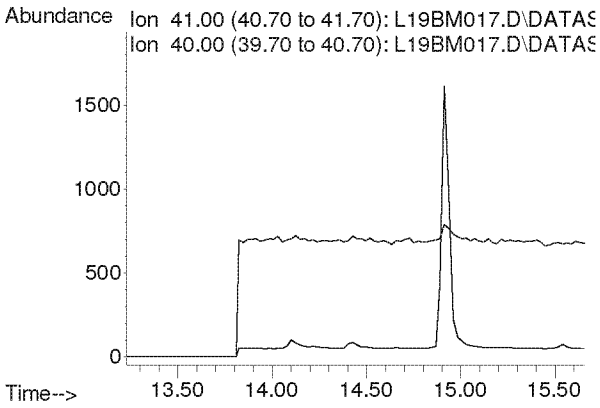


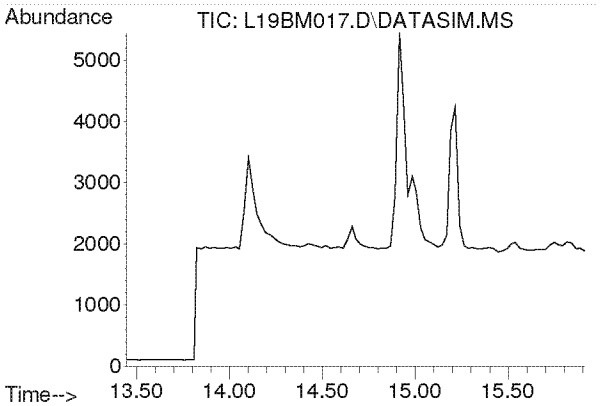
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



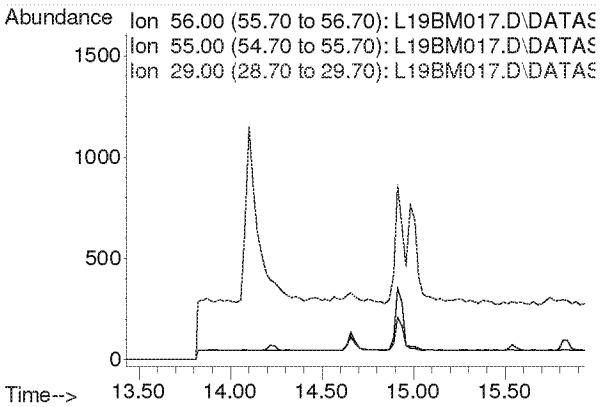


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

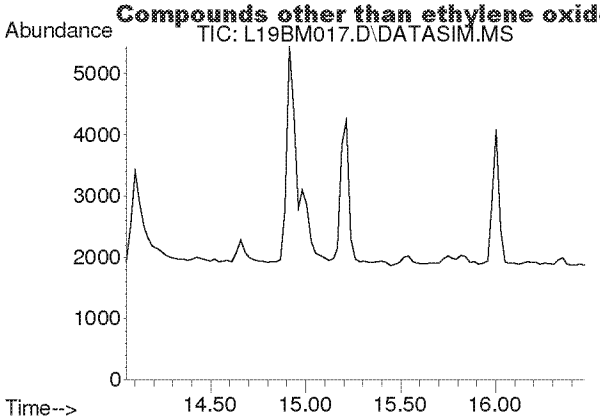
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

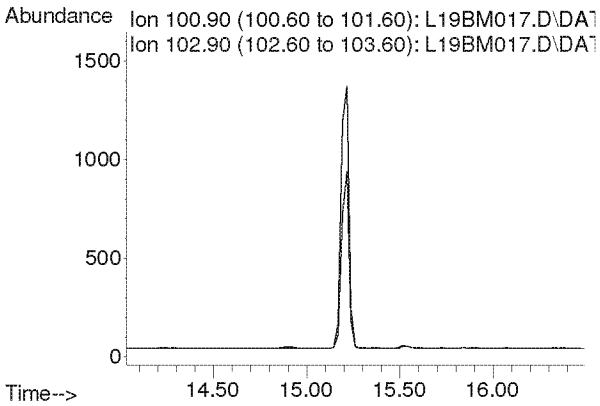


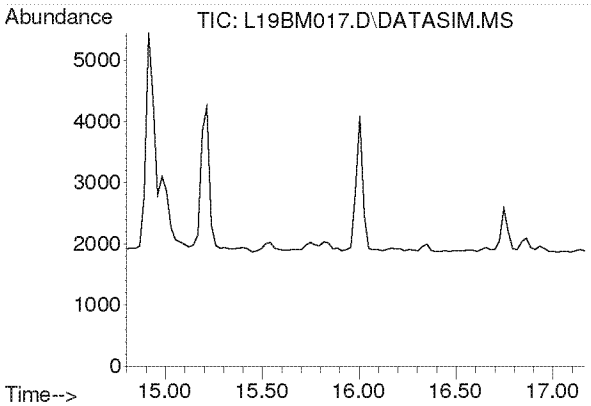
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



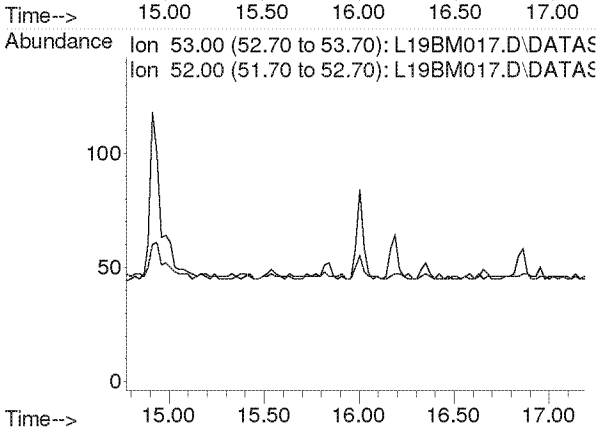


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

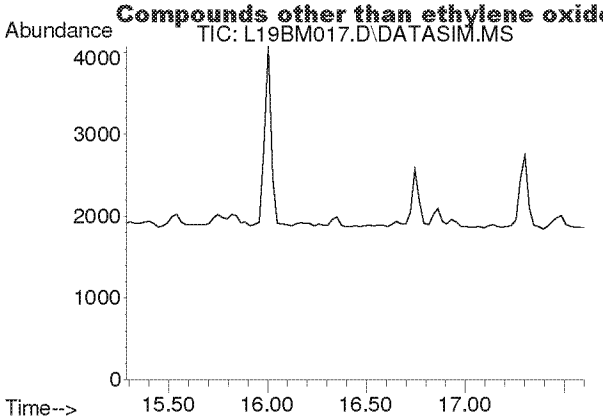
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

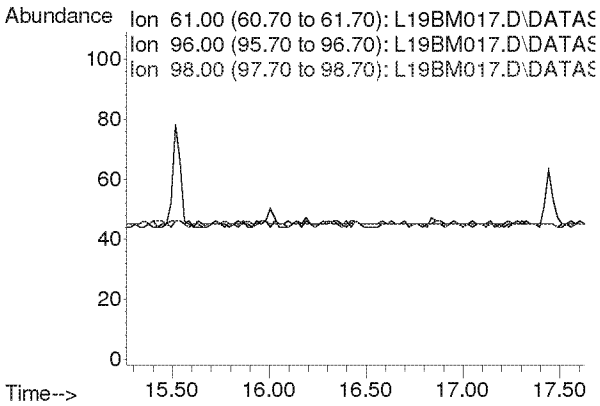


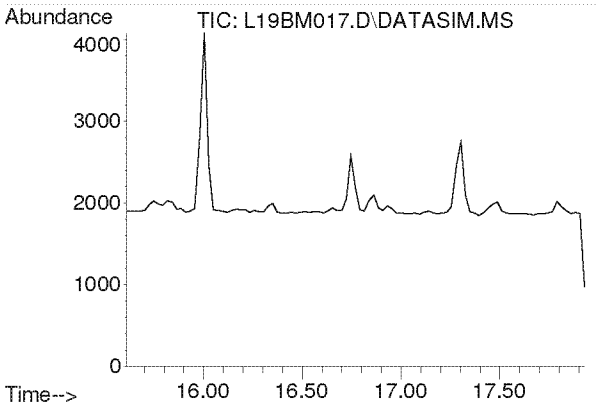
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



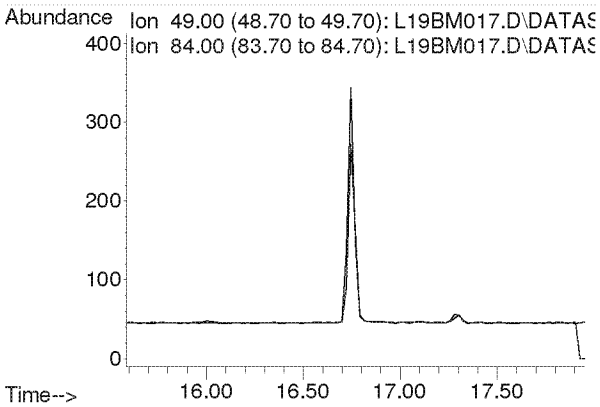


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

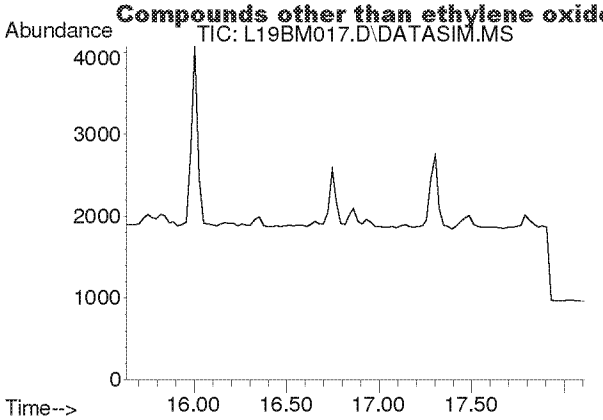
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

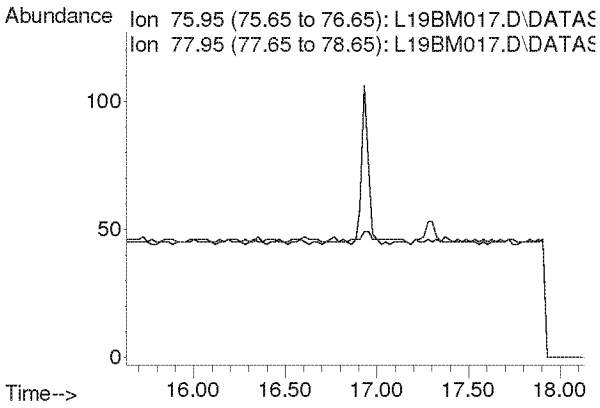


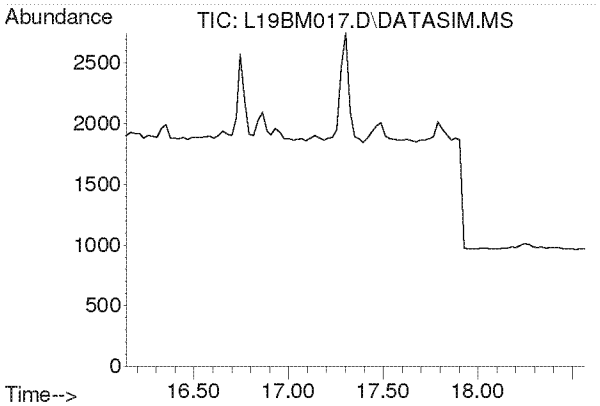
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



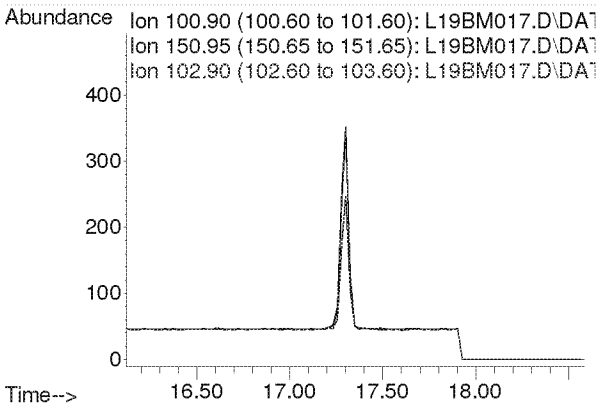


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

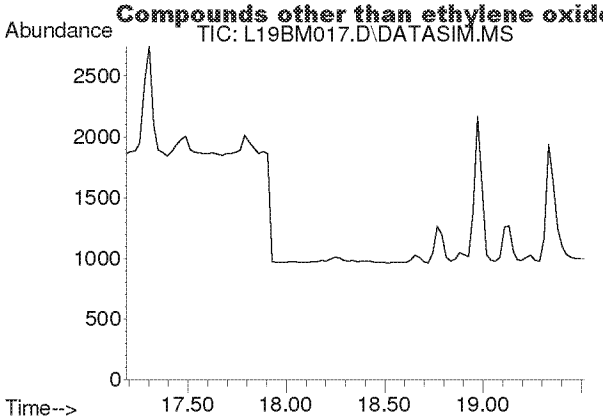
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

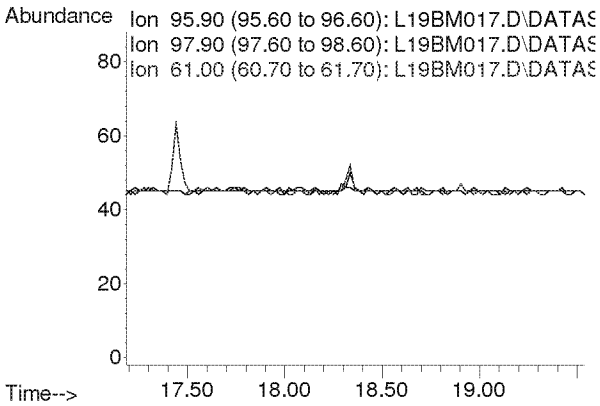


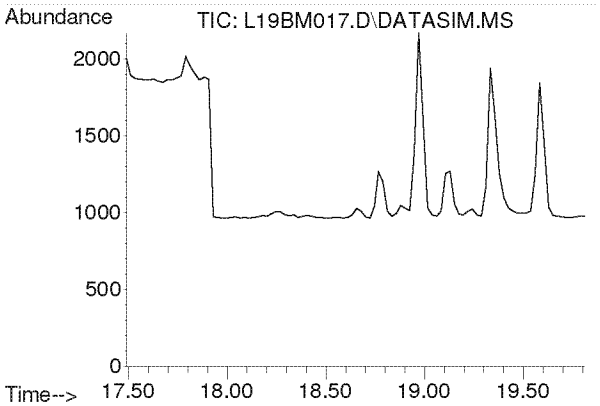
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



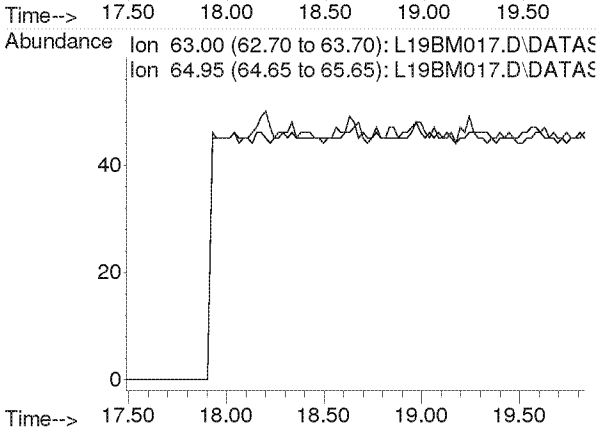


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

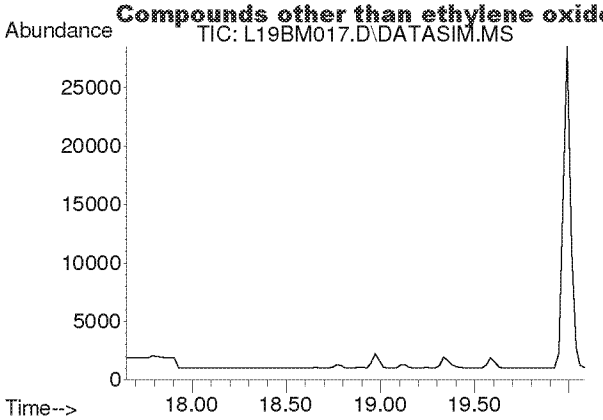
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

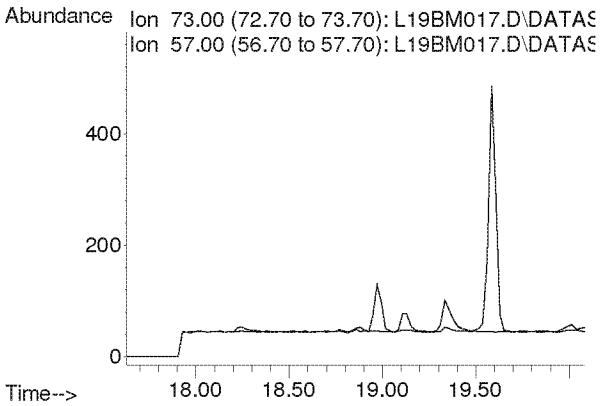


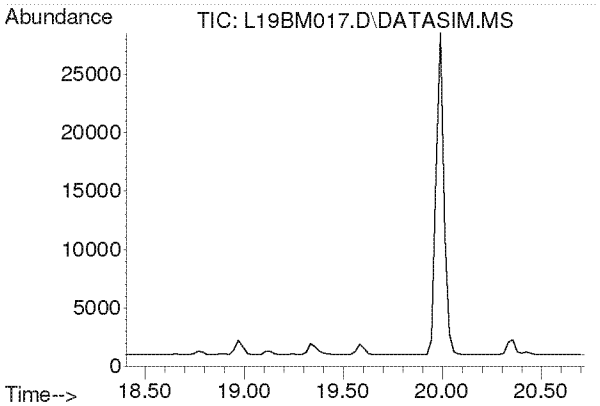
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



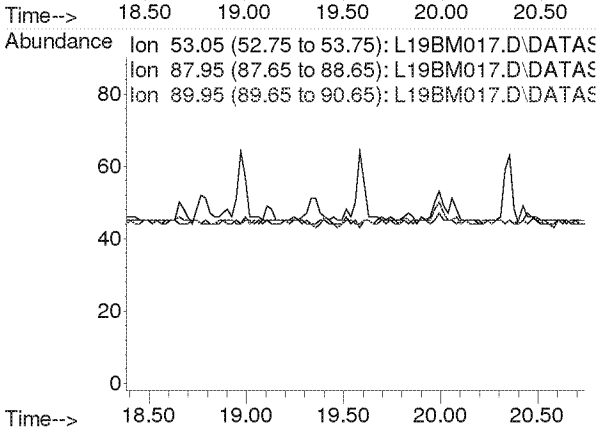


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

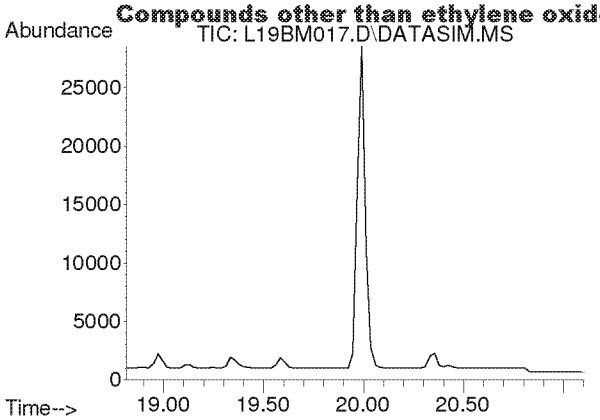
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

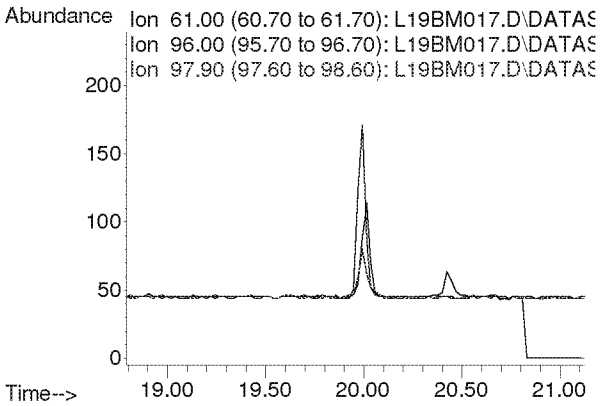


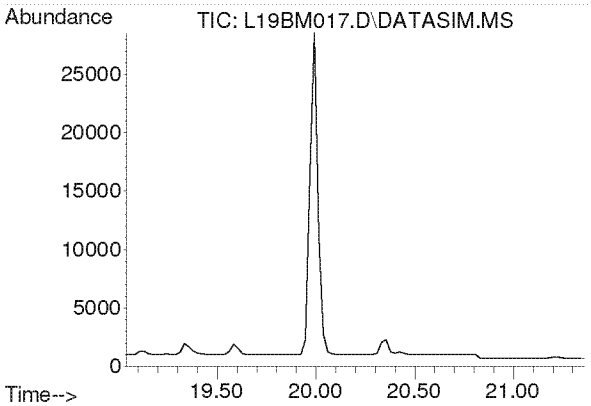
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



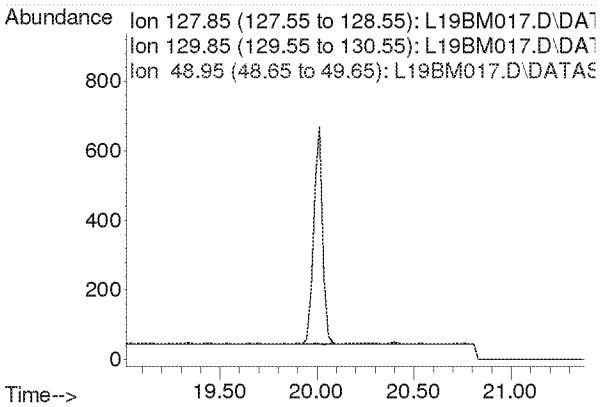


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

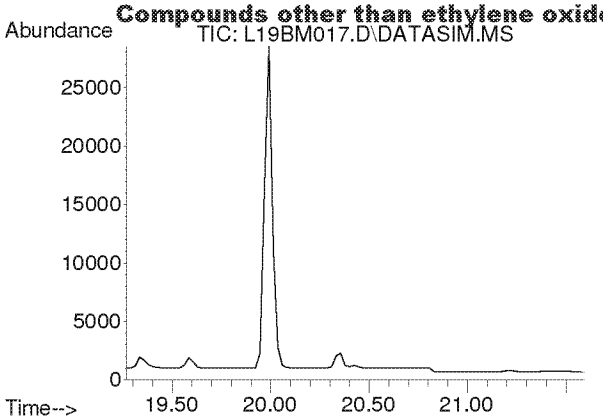
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

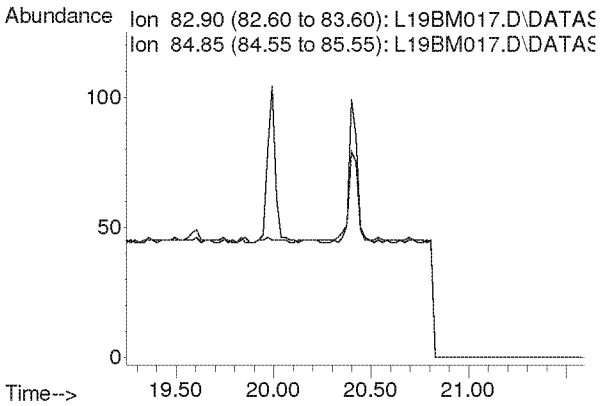


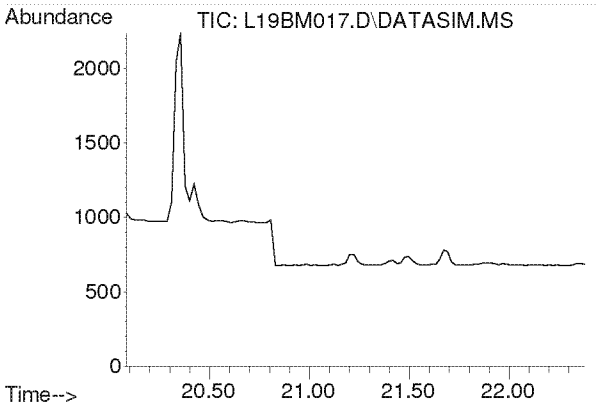
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



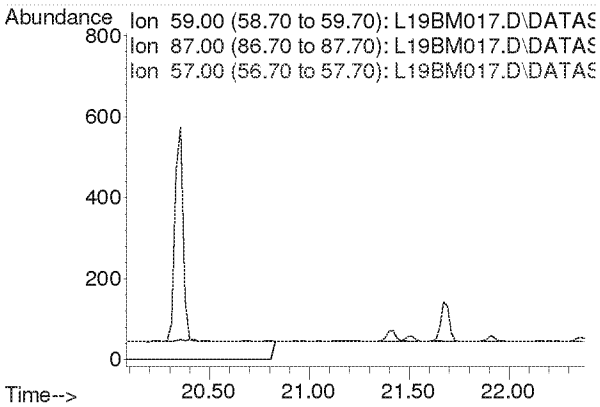


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

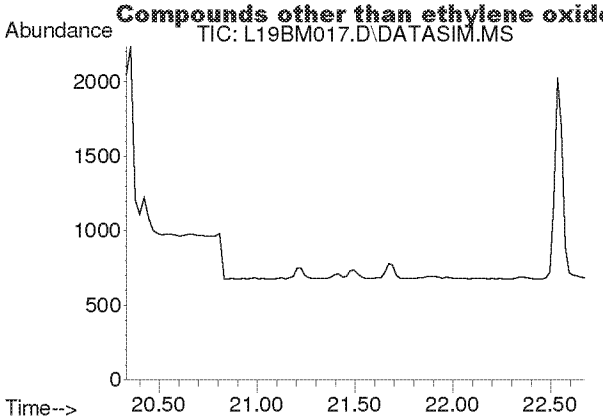
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

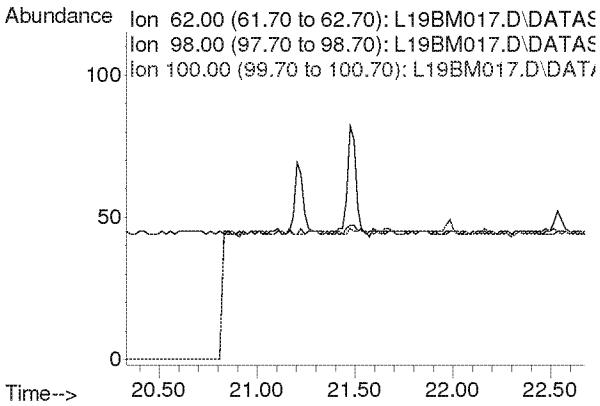


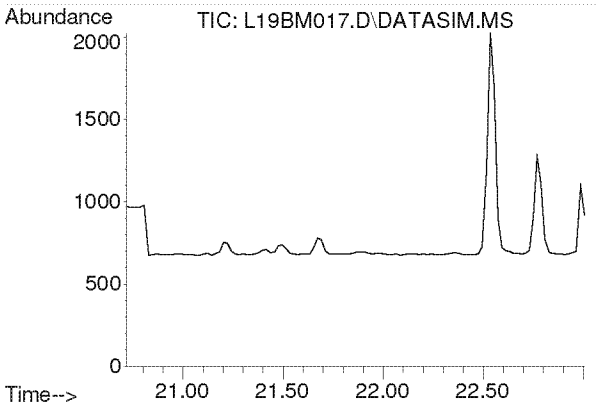
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



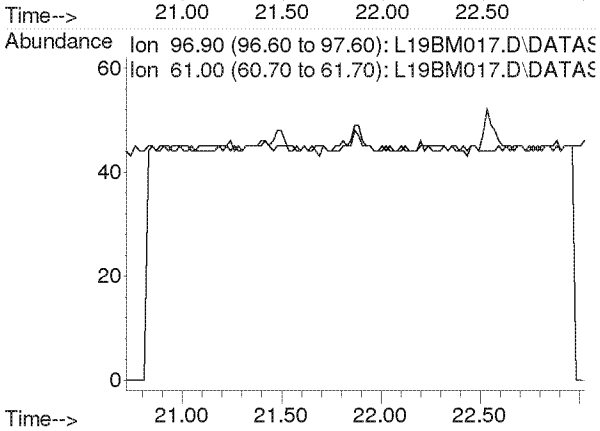


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

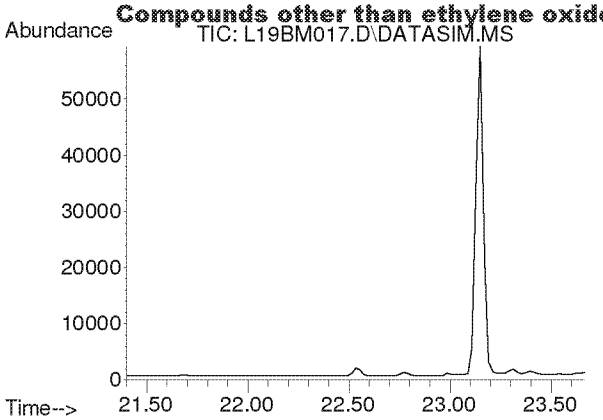
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

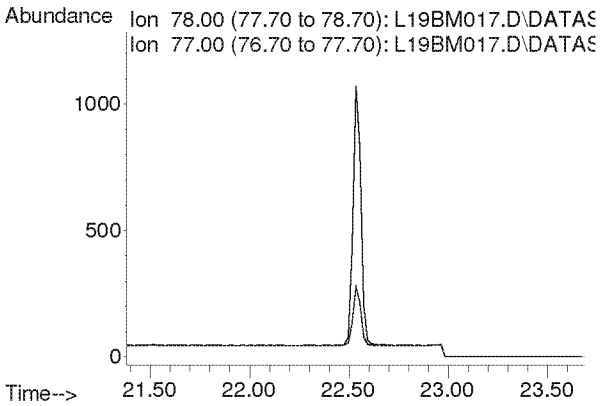


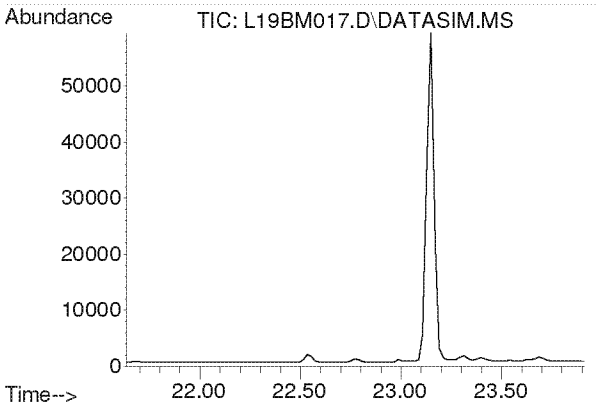
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



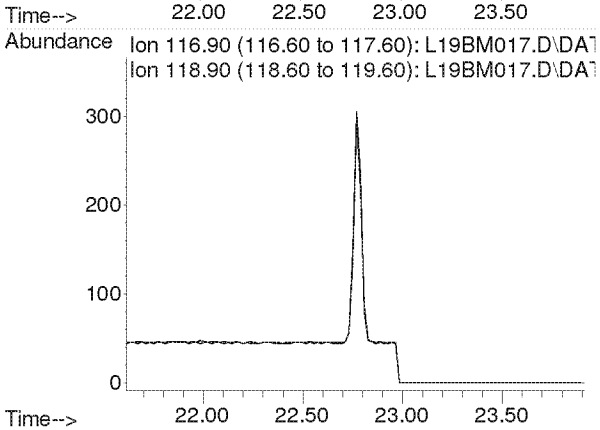


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

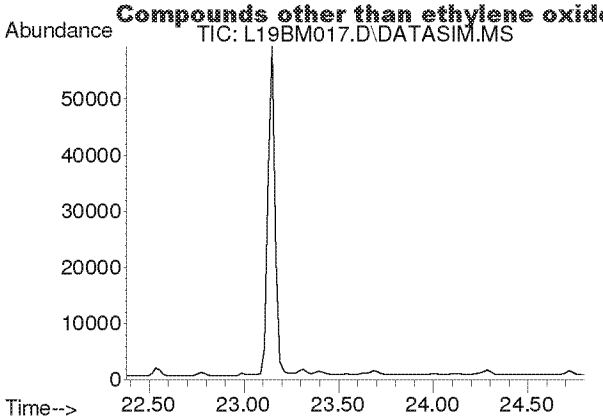
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

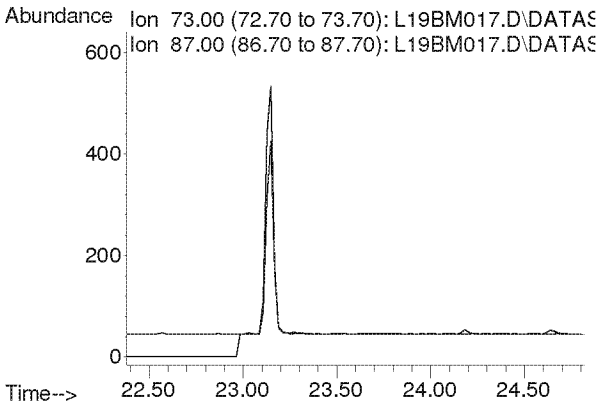


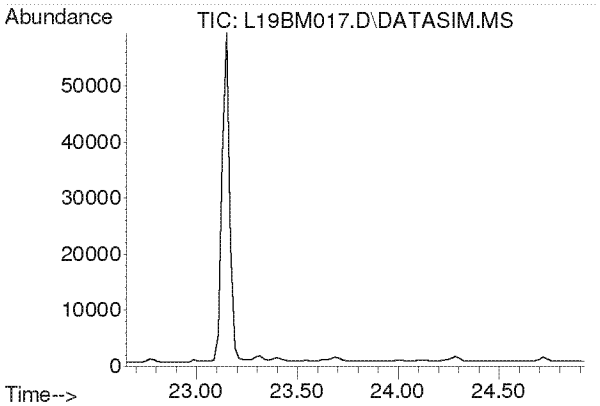
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



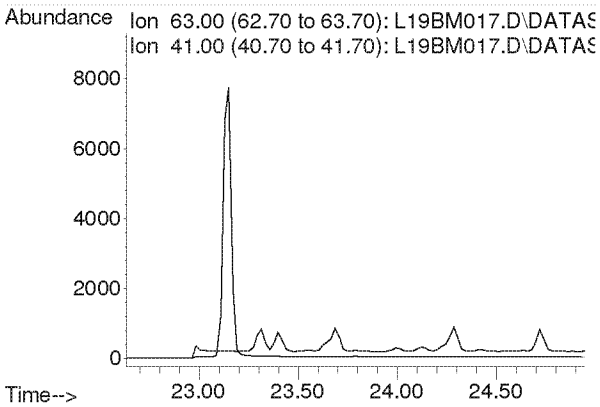


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

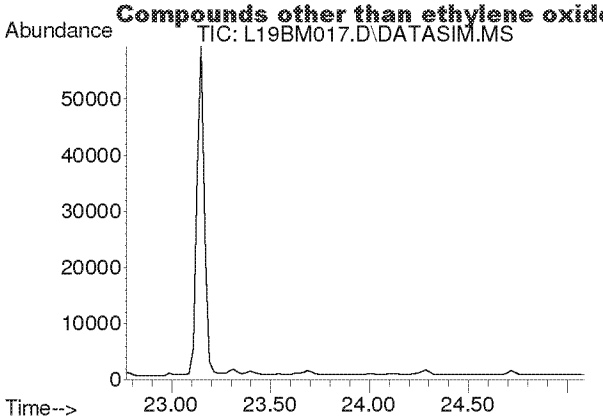
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

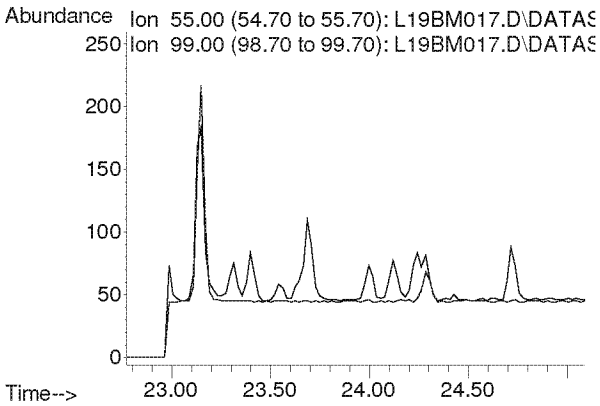


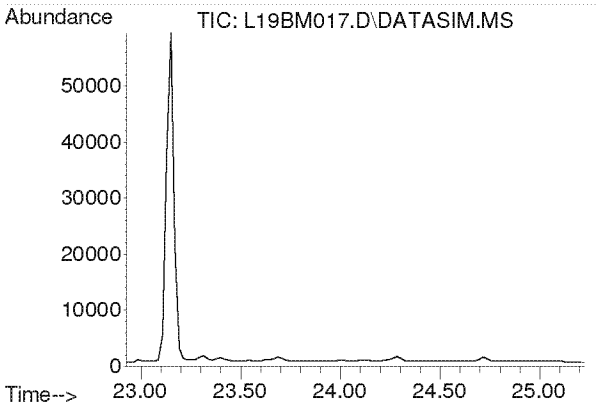
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



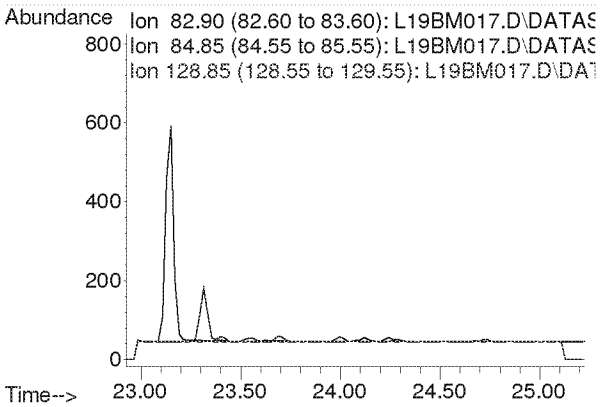


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

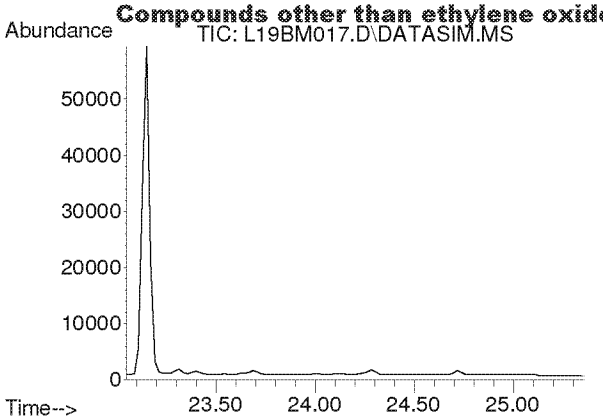
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

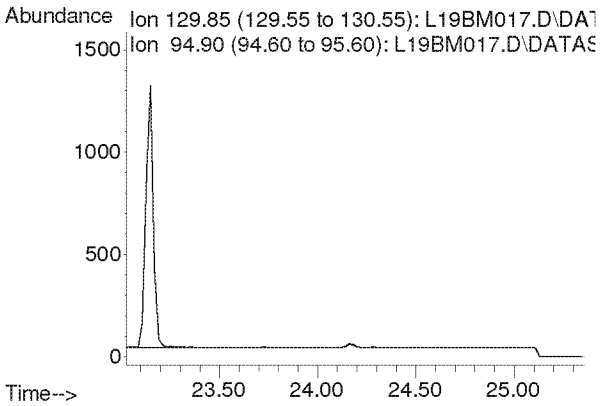


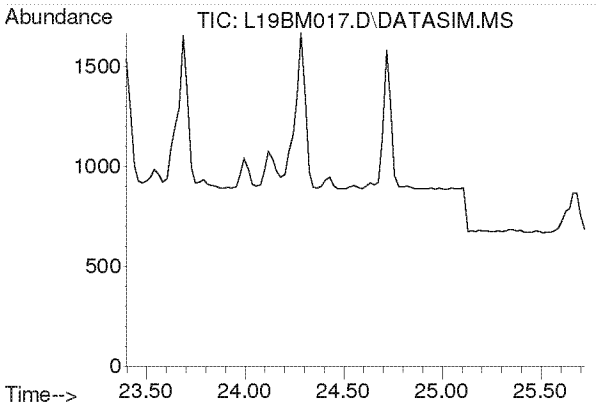
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



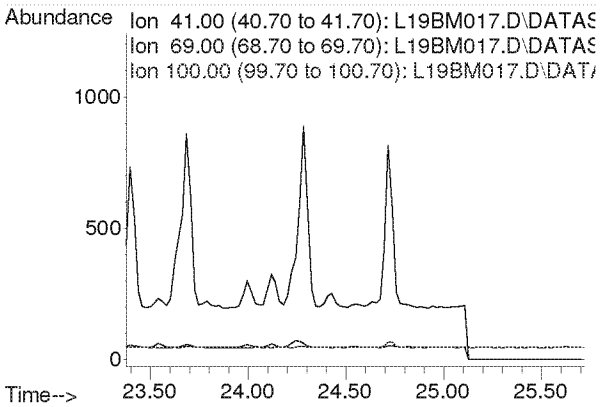


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

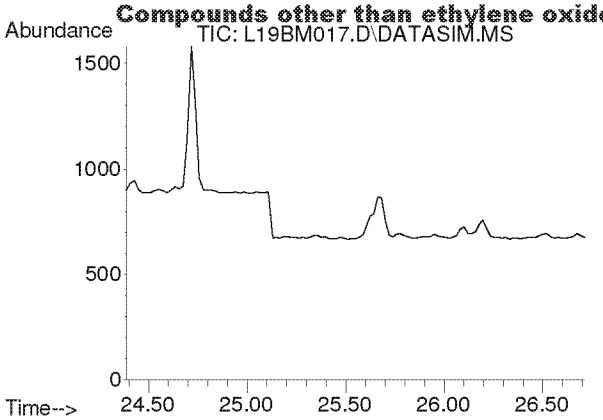
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

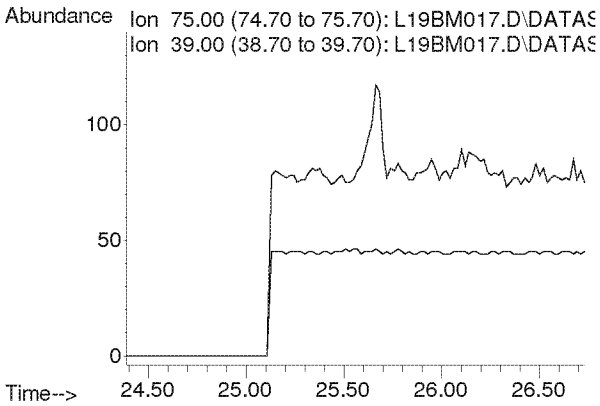


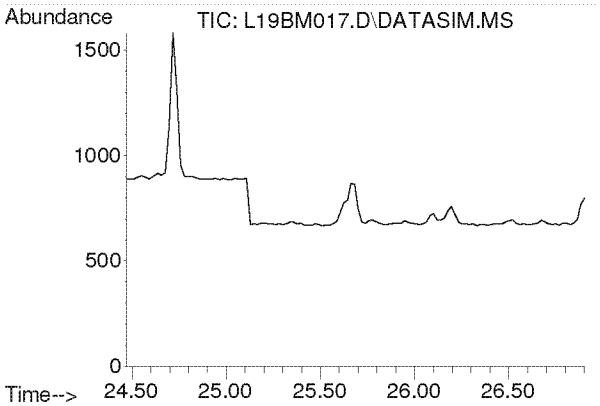
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



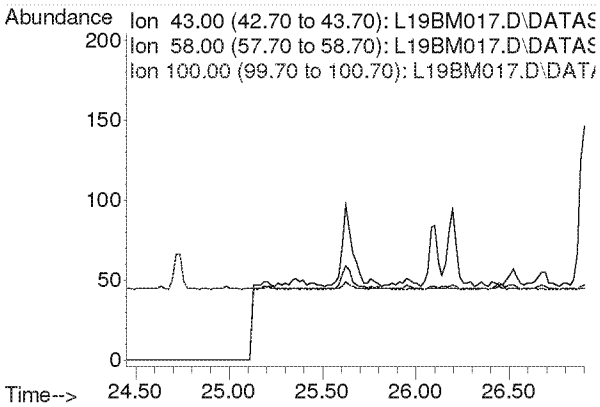


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

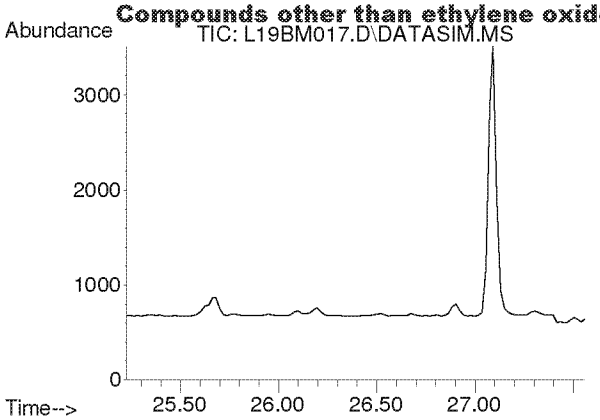
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

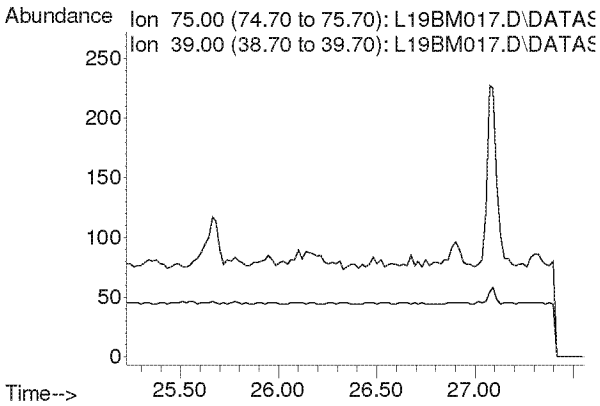


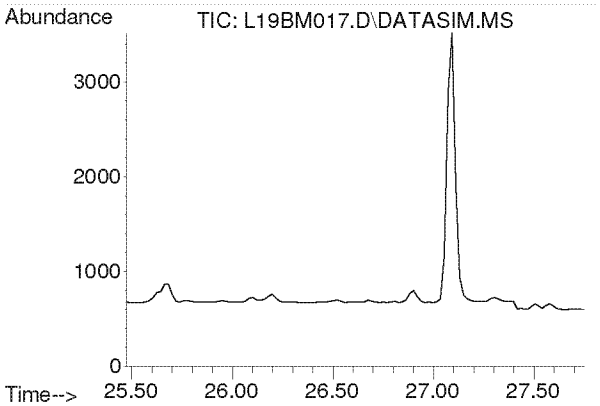
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



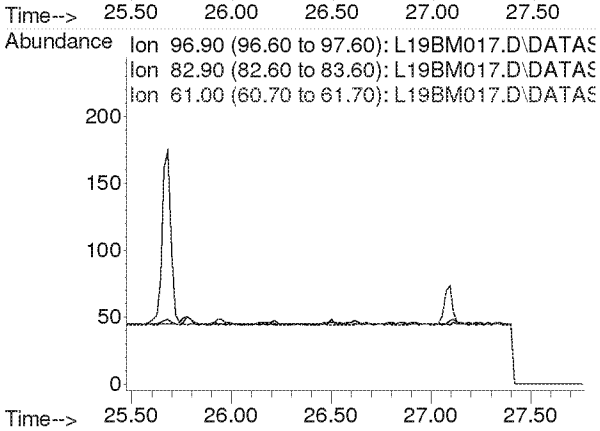


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

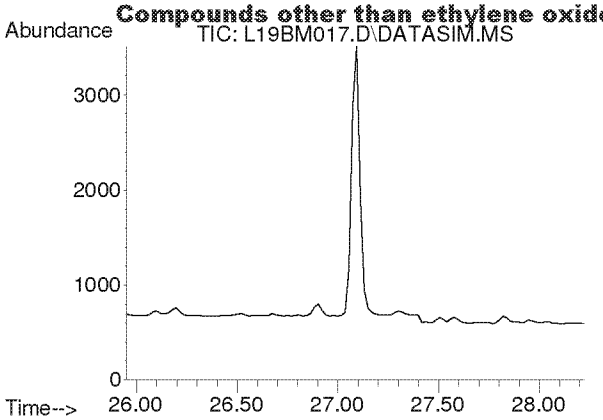
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

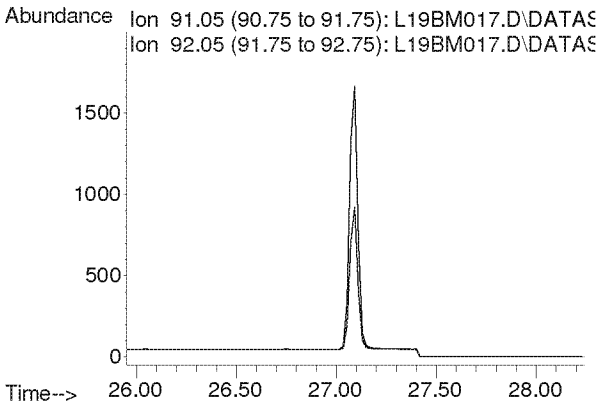


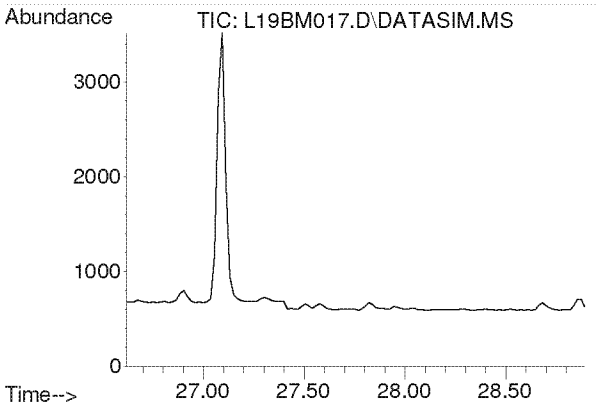
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



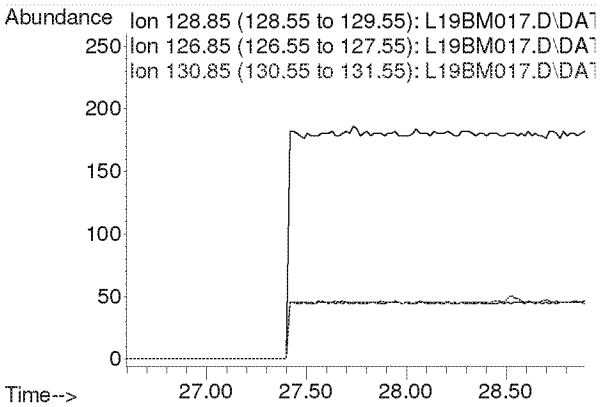


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

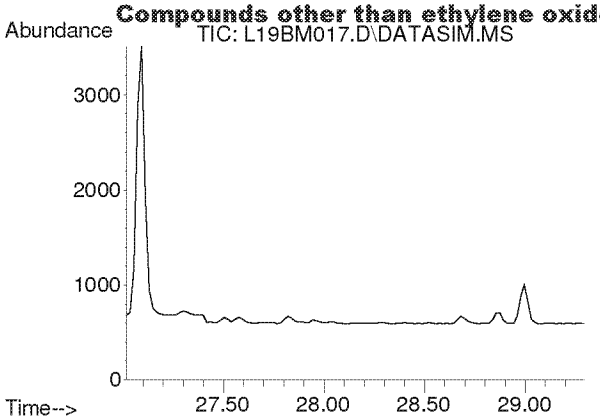
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

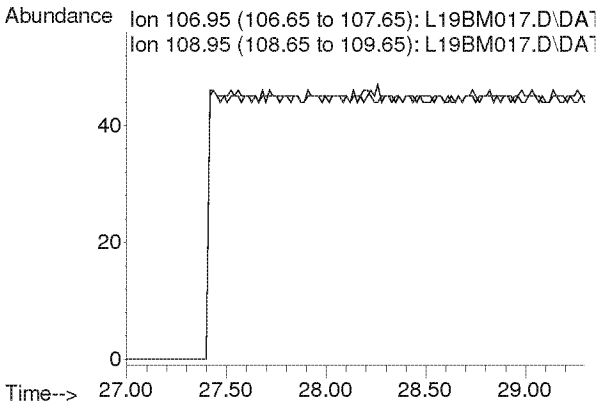


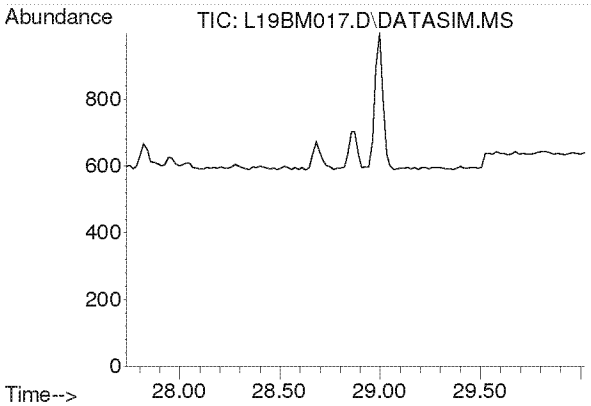
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



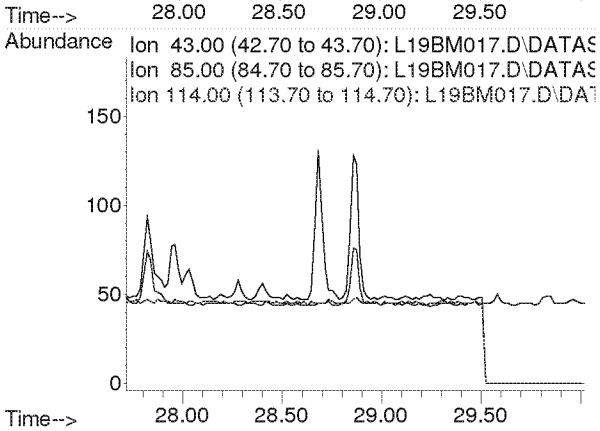


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

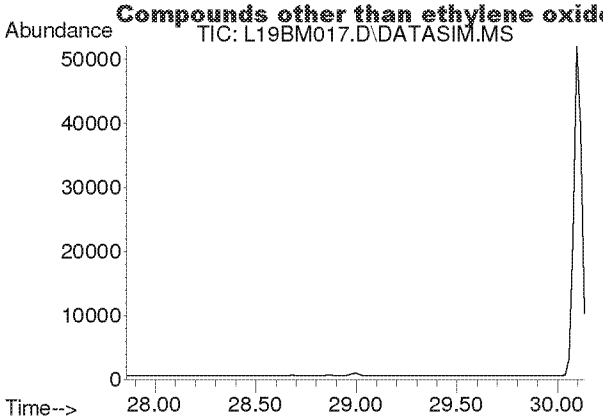
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

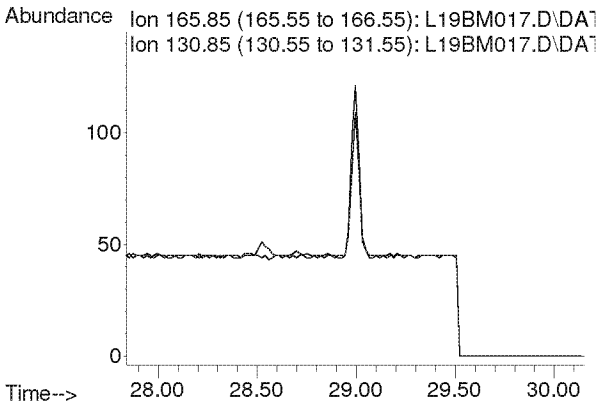


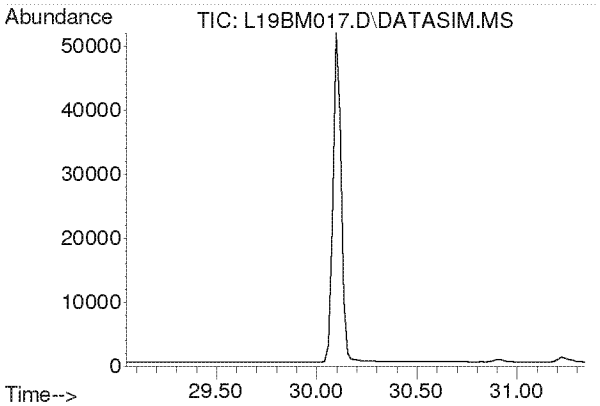
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



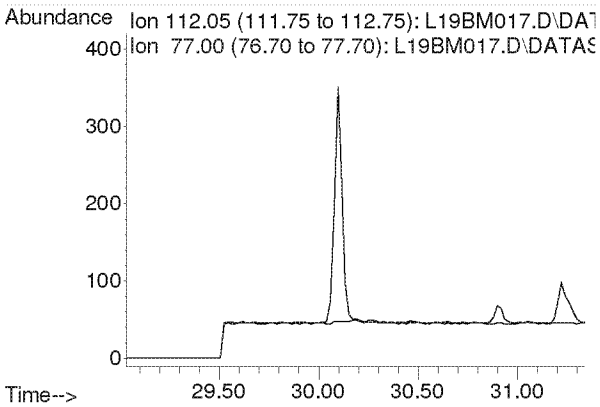


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

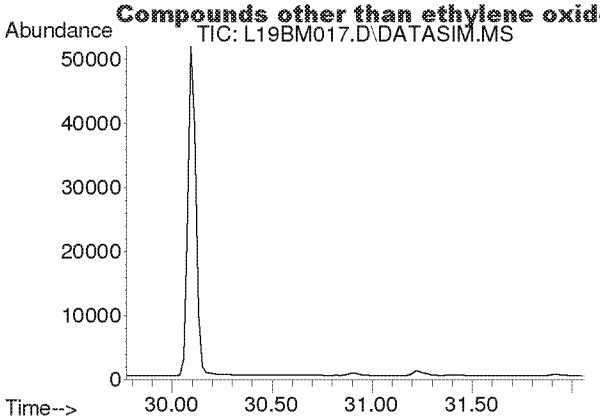
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

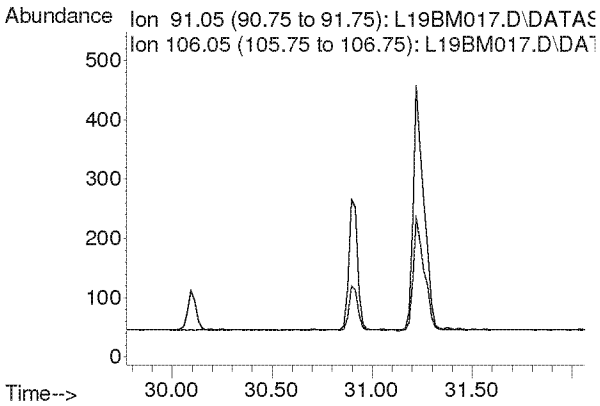


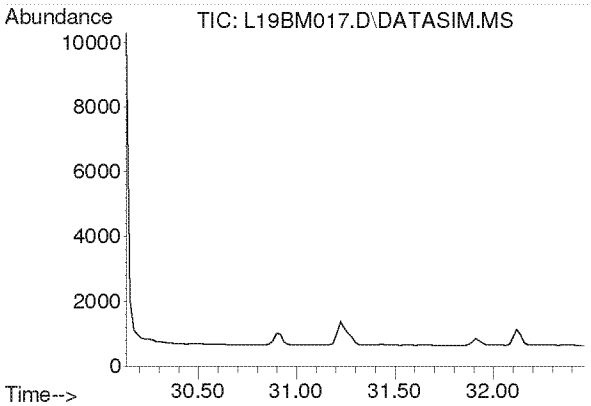
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



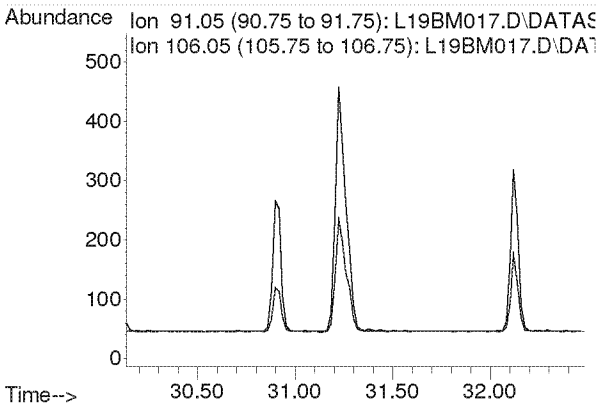


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

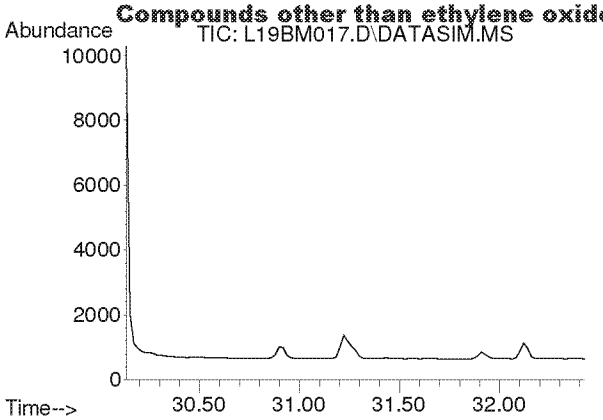
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

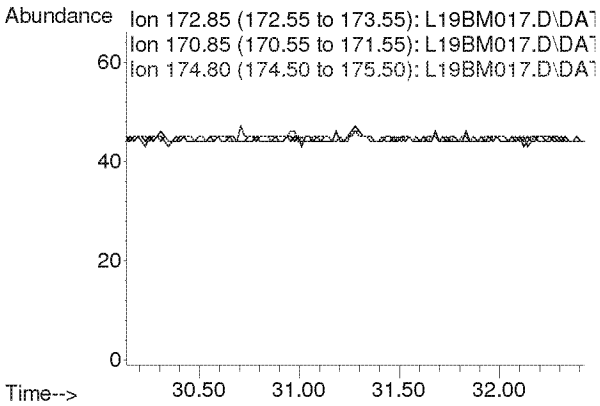


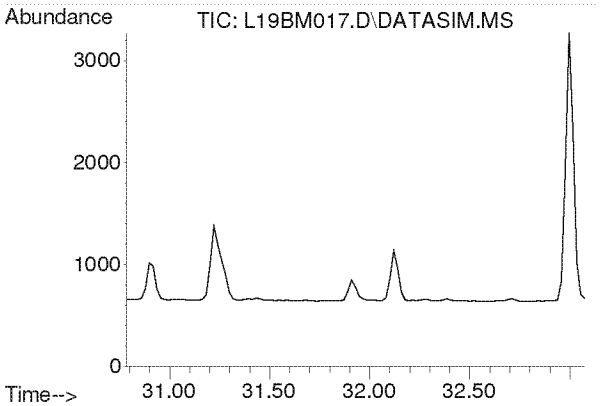
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



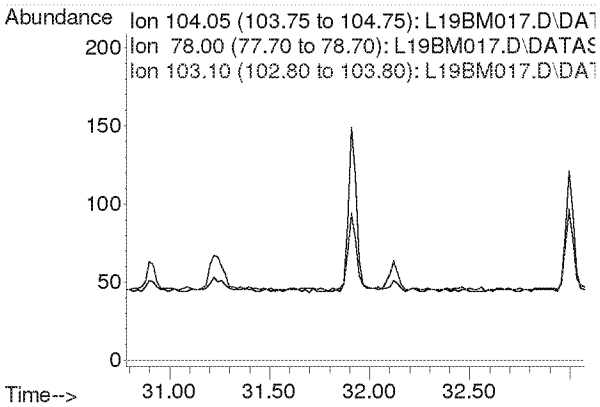


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

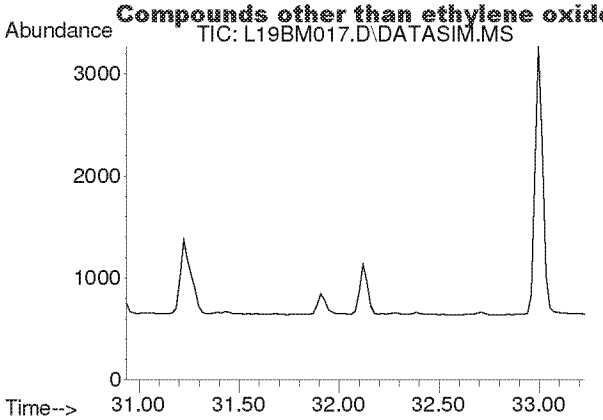
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

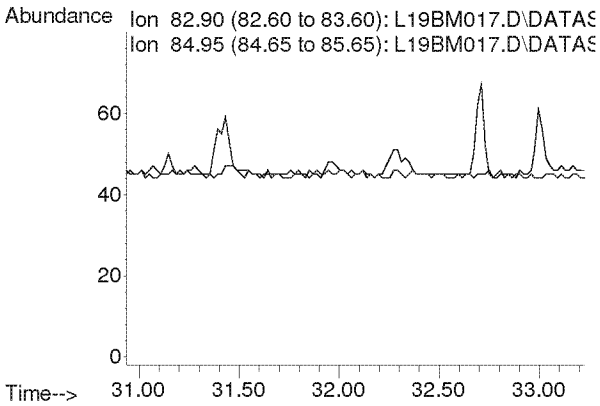


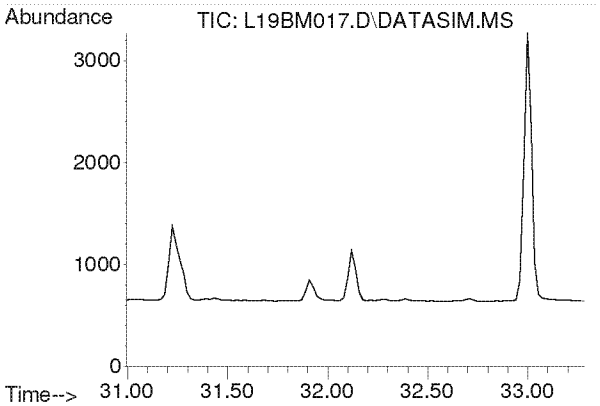
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



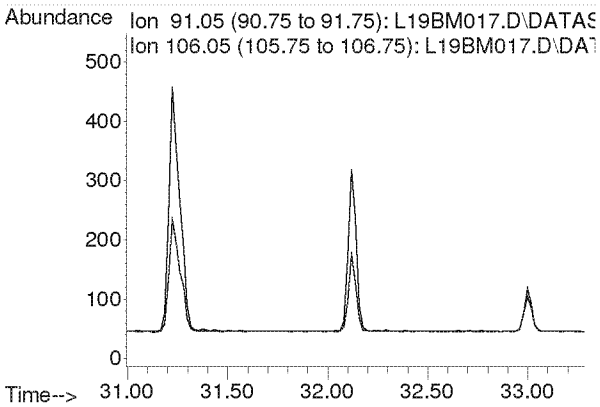


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

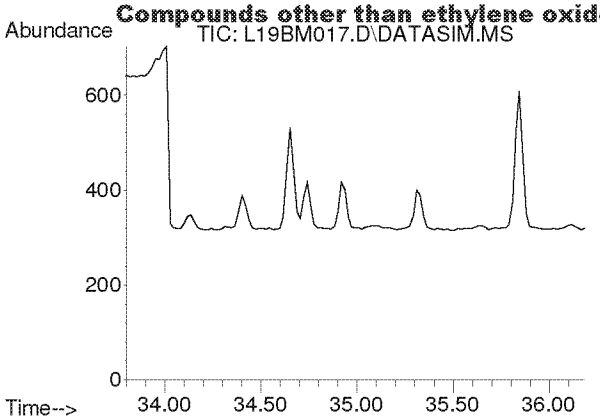
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

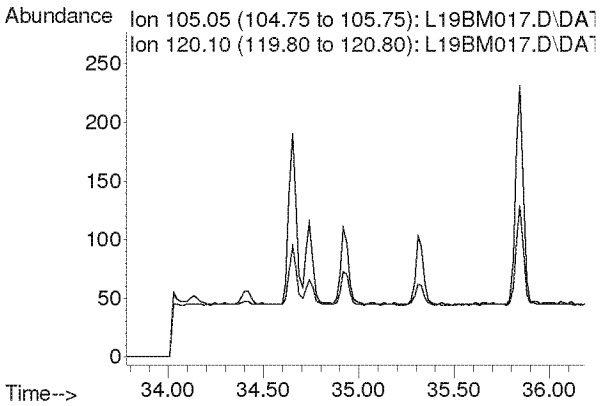


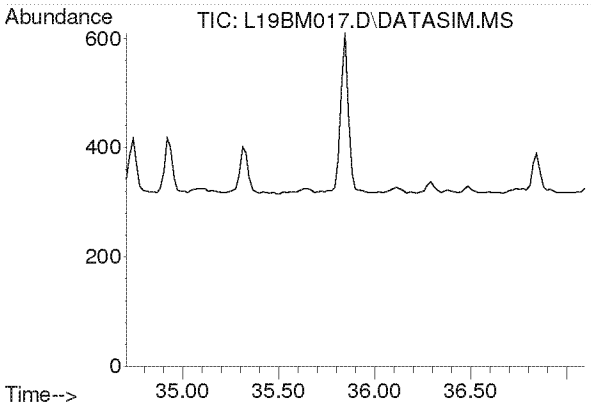
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



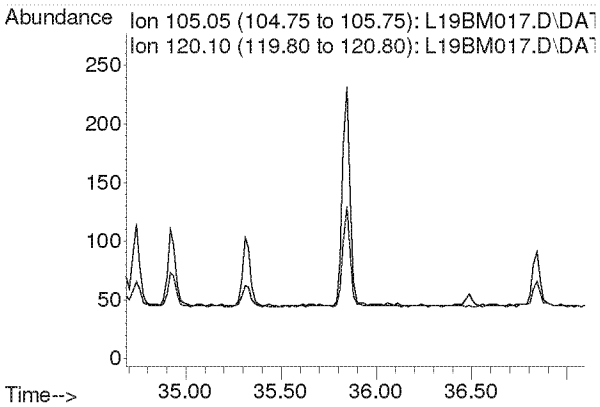


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

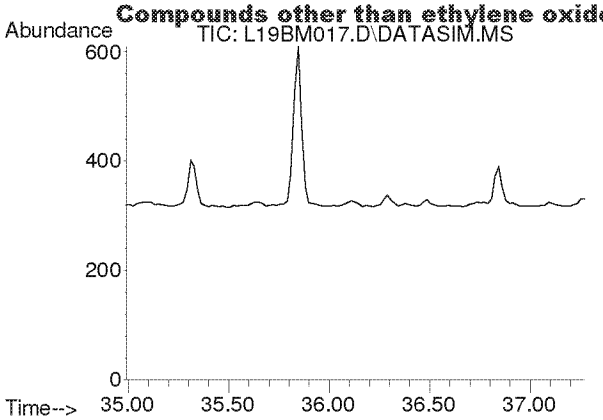
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

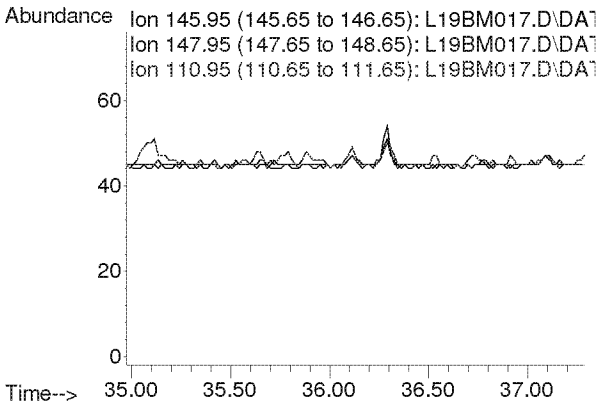


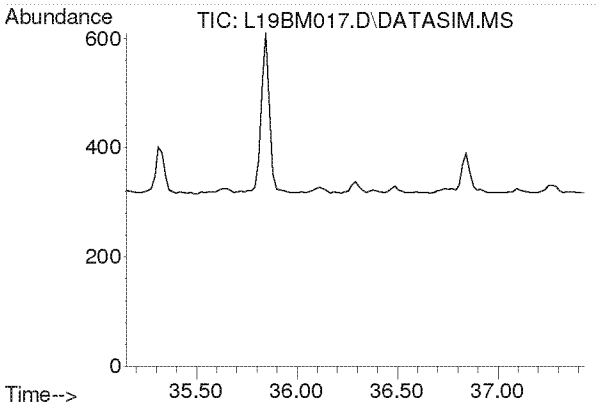
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



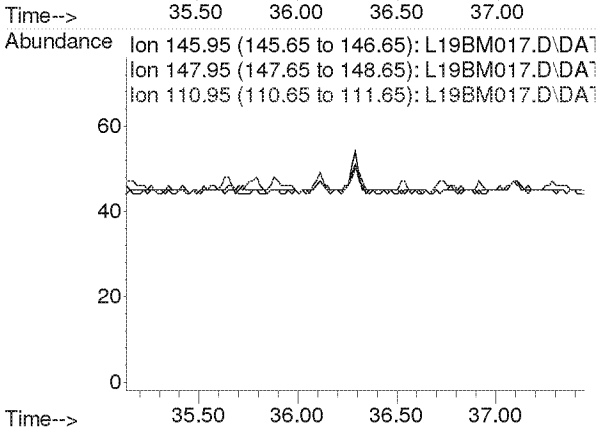


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

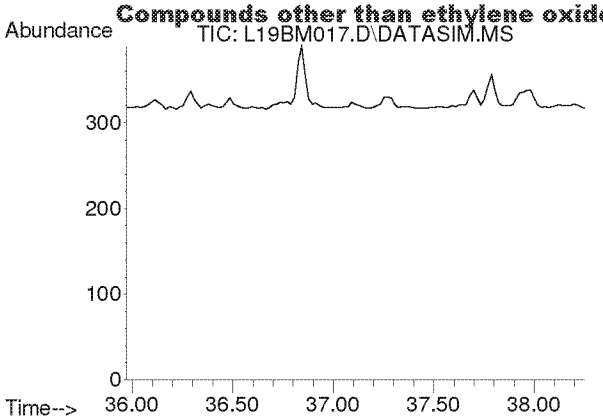
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

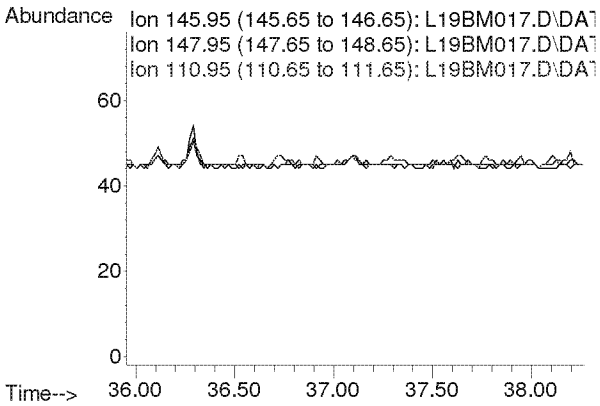


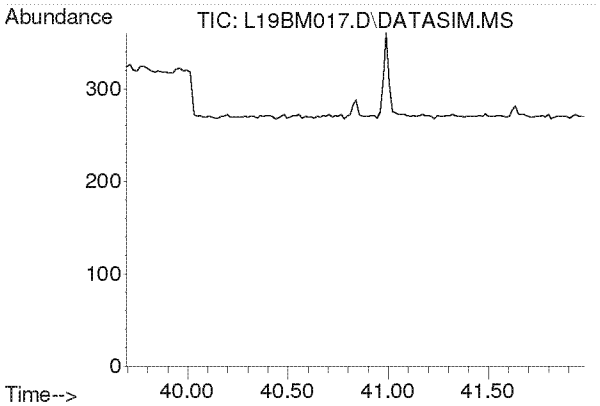
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



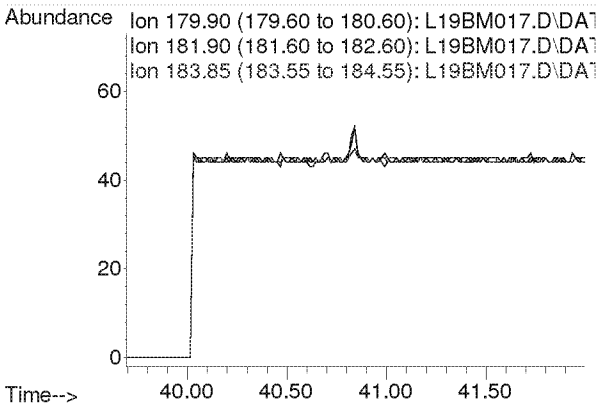


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

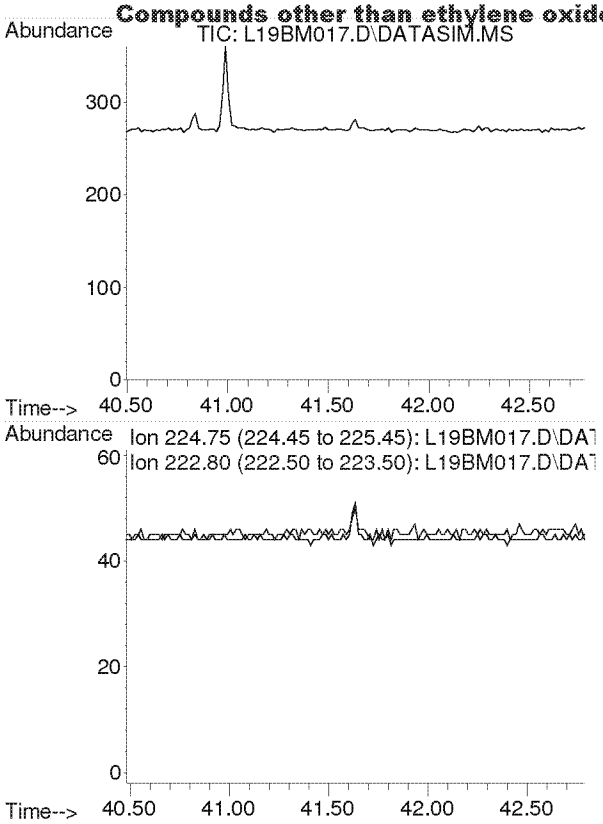
Lab File: L19BM017.D
Acq: 14 Feb 2019 12:44 am

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: L19BM017.D
Acq: 14 Feb 2019 12:44 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM018.D
Acq On : 14 Feb 2019 1:44 am (#1); 14-Feb-19, 01:38:56 (#2)
Operator : MAH
Sample : B9B1307-DUP3
Misc : WB VILLAGE HALL R1 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 14 14:02:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

2-14-19 dfM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46762	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	117791	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	84311	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	12.365	29	23160	8.6593 ppbv #	76
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. 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\L19BM\
Data File : L19BM018.D
Acq On : 14 Feb 2019 1:44 am (#1); 14-Feb-19, 01:38:56 (#2)
Operator : MAH
Sample : B9B1307-DUP3
Misc : WB VILLAGE HALL R1 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 14 14:02:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

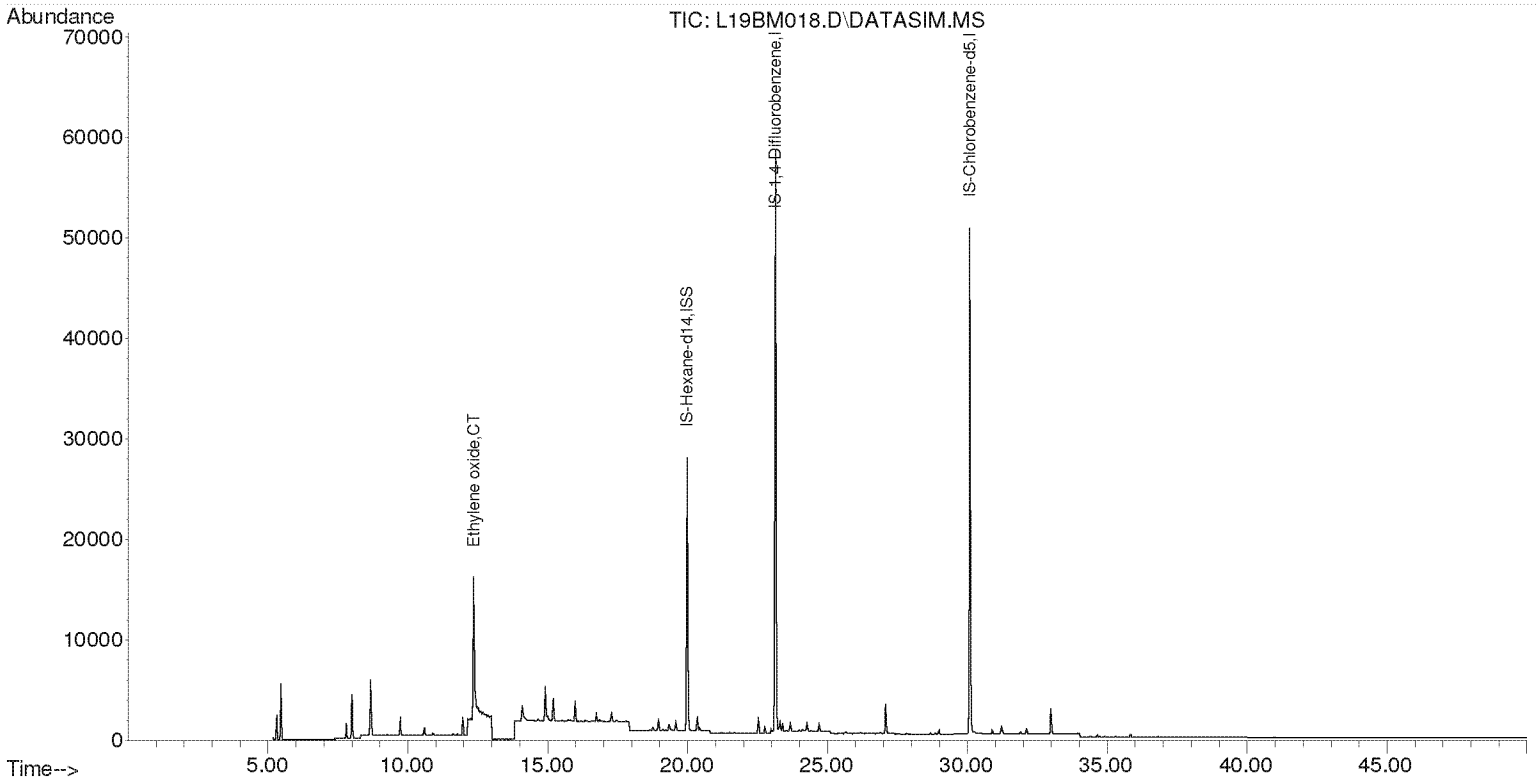
(#) = qualifier out of range (m) = manual integration (+) = signals summed

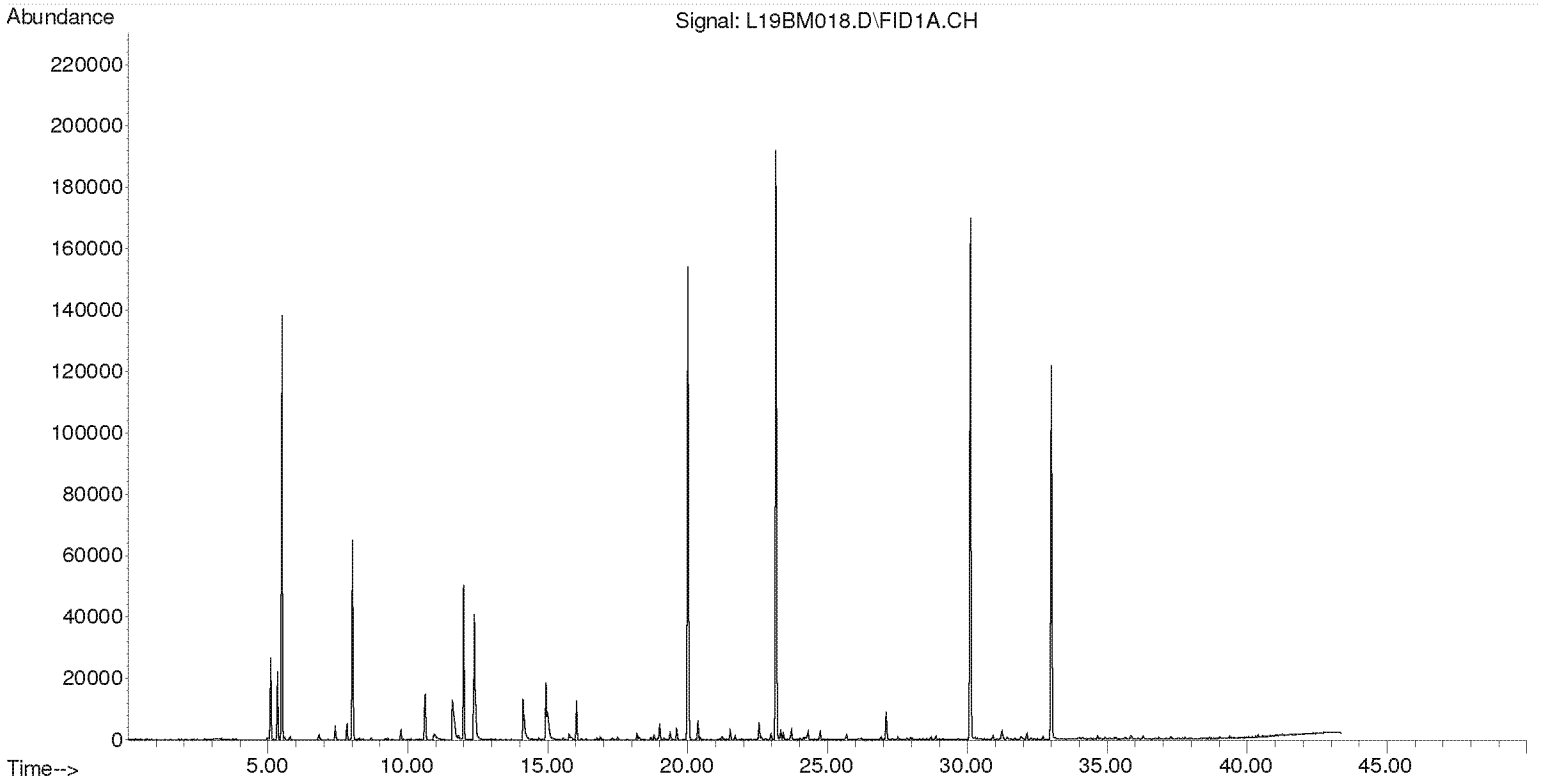
ED_002475_00000213-00250

Compounds other than ethylene oxide were not quantitated.

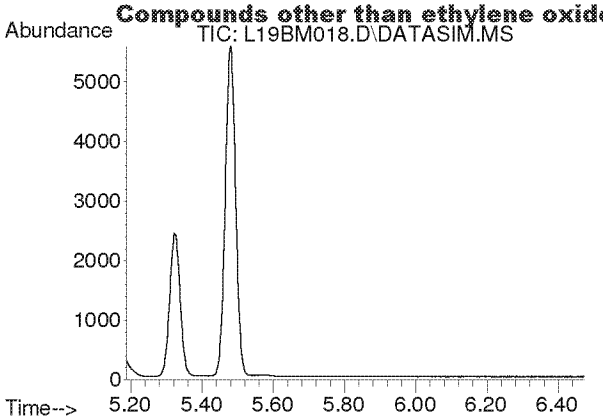
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM018.D
Acq On : 14 Feb 2019 1:44 am (#1); 14 Feb 2019 1:38 am (#2)
Operator : MAH
Sample : B9B1307-DUP3
Misc : WB VILLAGE HALL R1 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 14 08:29:46 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





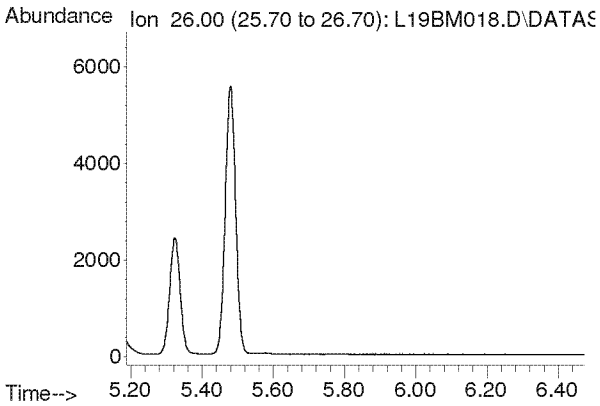
Compounds other than ethylene oxide were not quantitated.

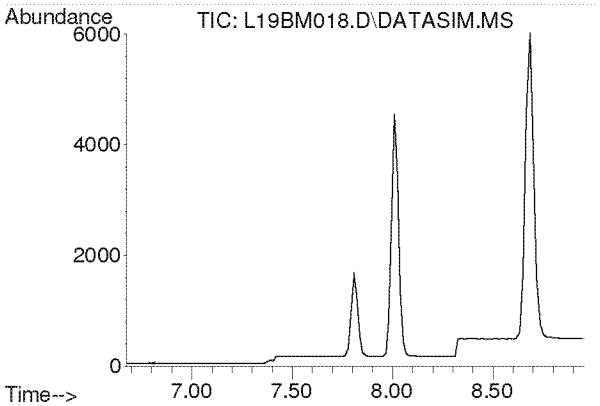


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 26



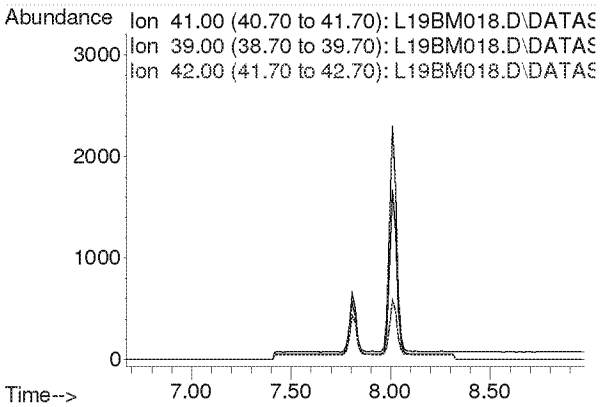


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

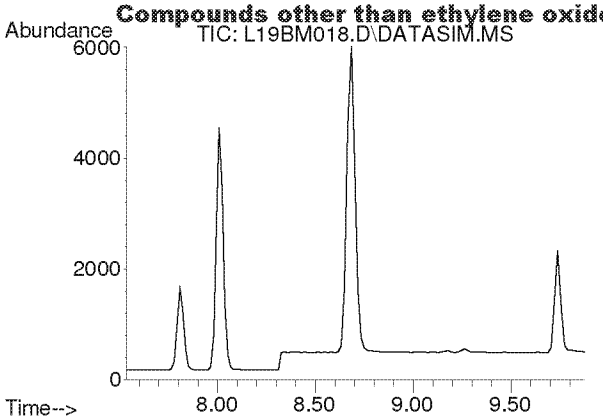
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

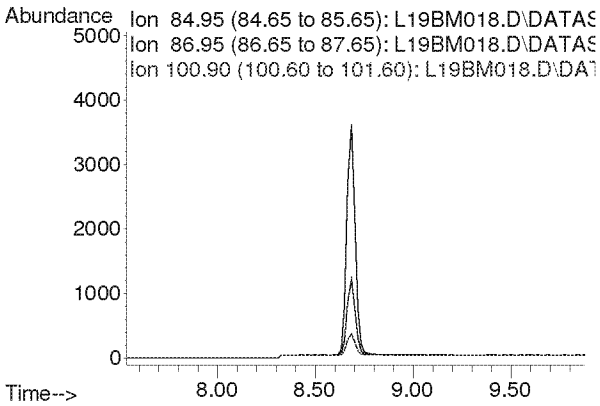


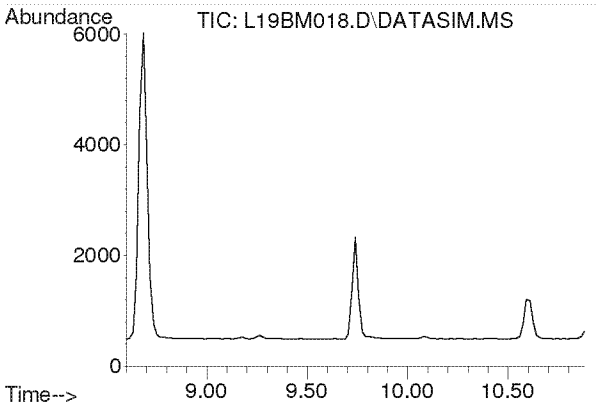
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



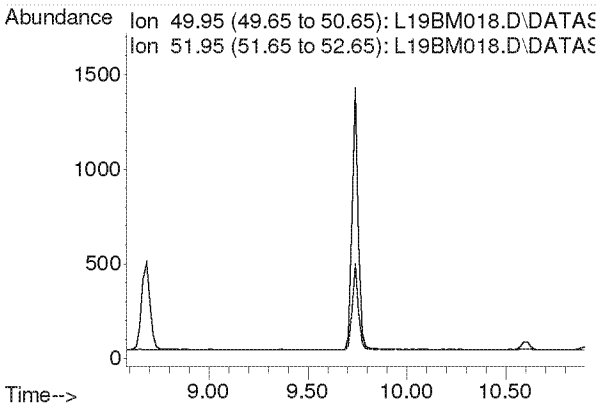


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

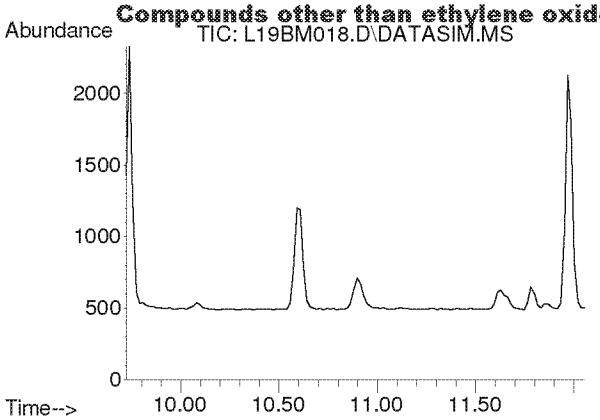
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

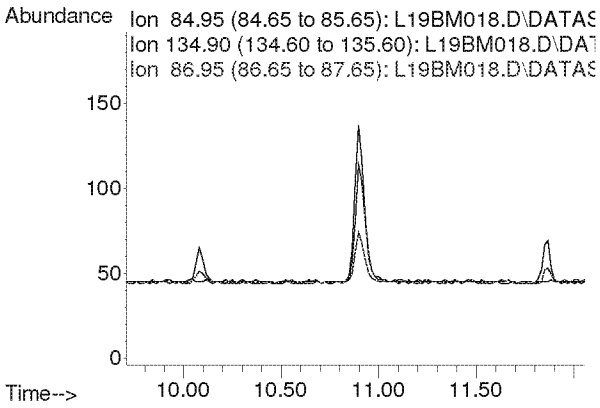


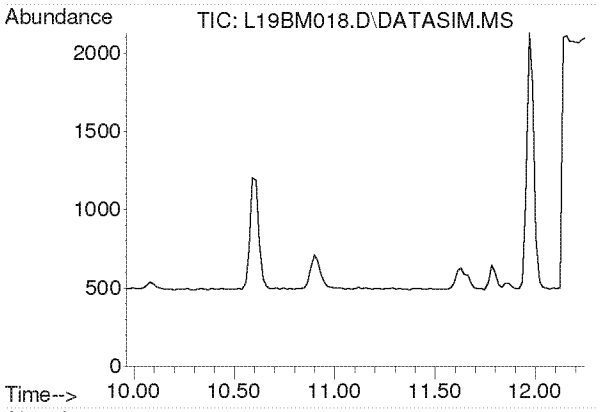
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



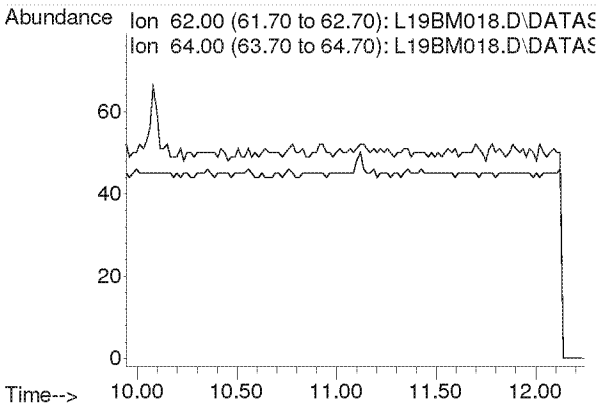


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

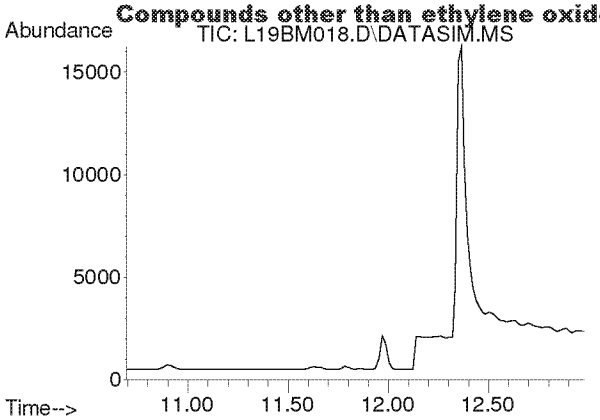
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

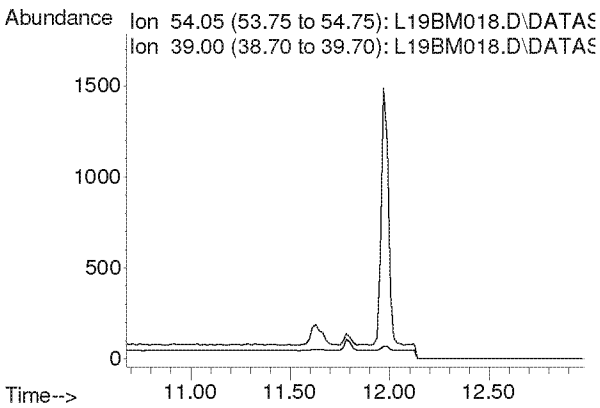


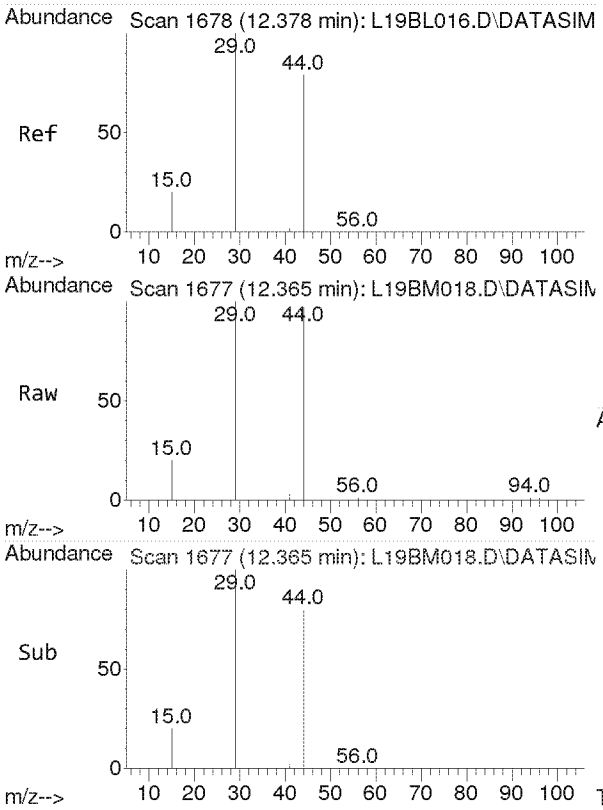
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

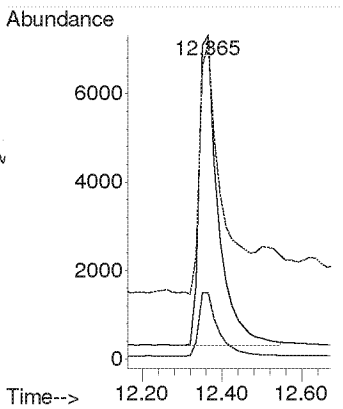




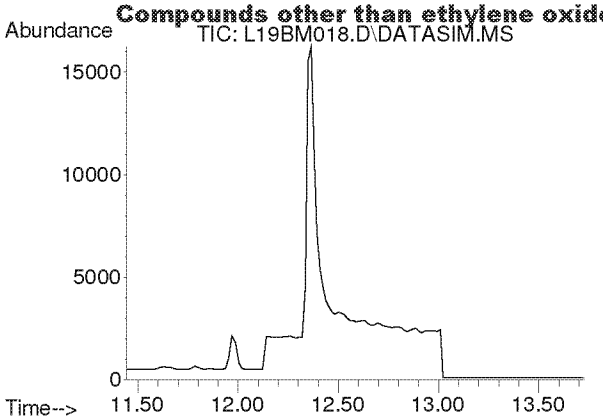
#9
Ethylene oxide
Concen: 8.659 ppbv
RT: 12.365 min Scan# 1677
Delta R.T. 0.005 min
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 29 Resp: 23160

Ion	Ratio	Lower	Upper
29	100		
15	21.1	16.0	24.0
44	107.9	65.4	98.2#



Compounds other than ethylene oxide were not quantitated.

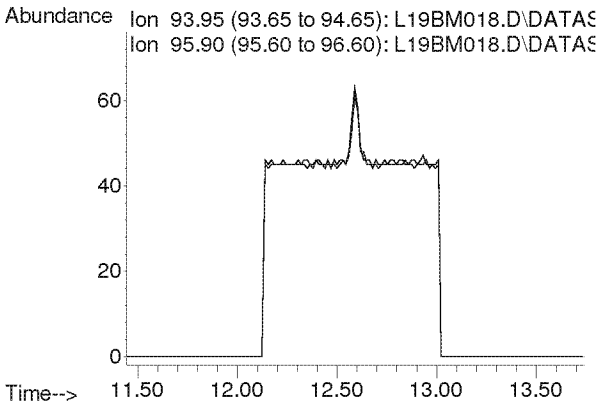


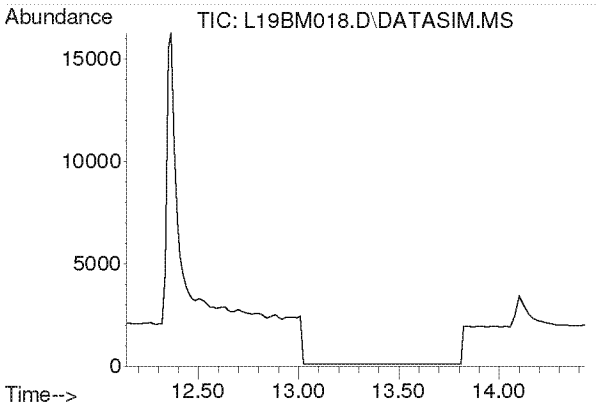
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



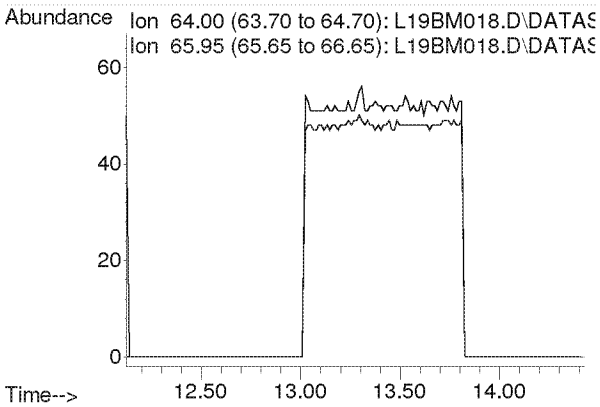


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

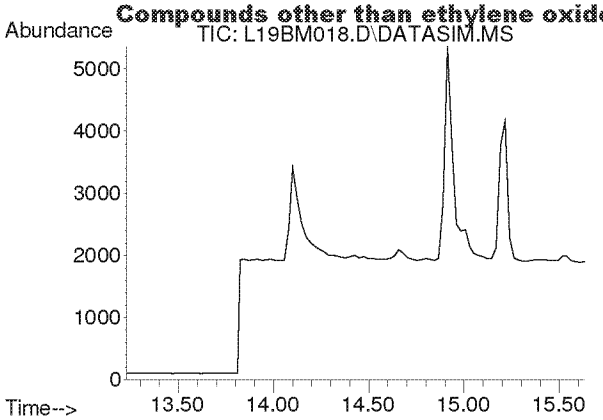
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

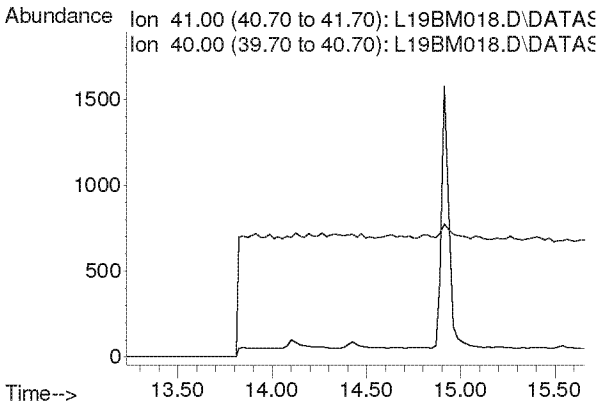


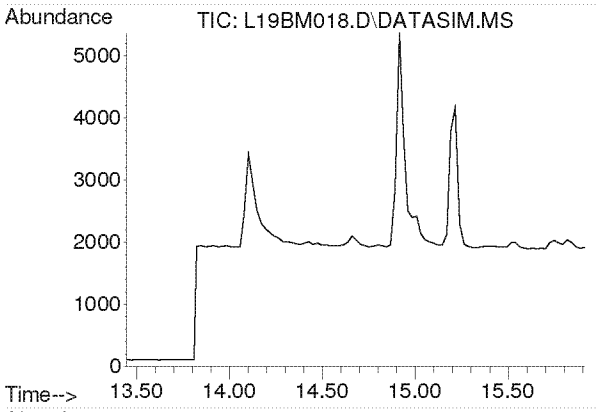
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



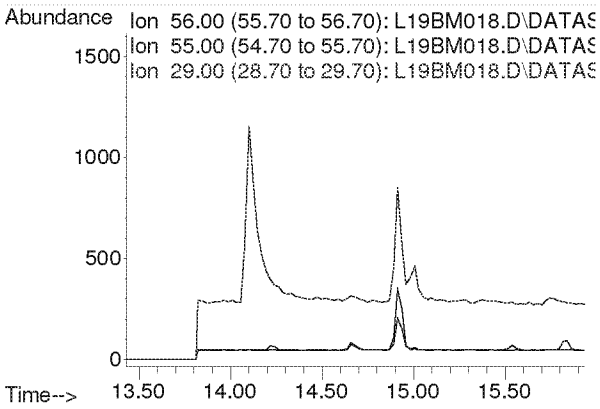


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

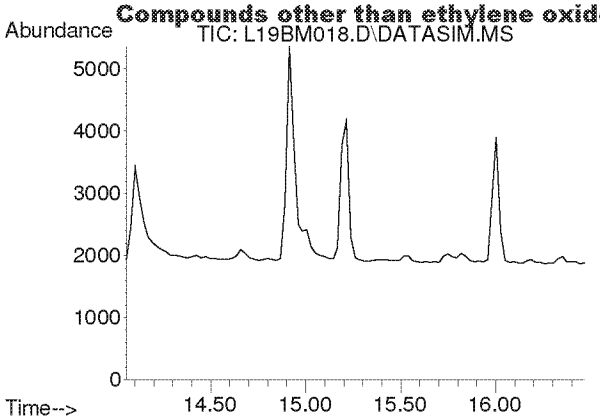
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

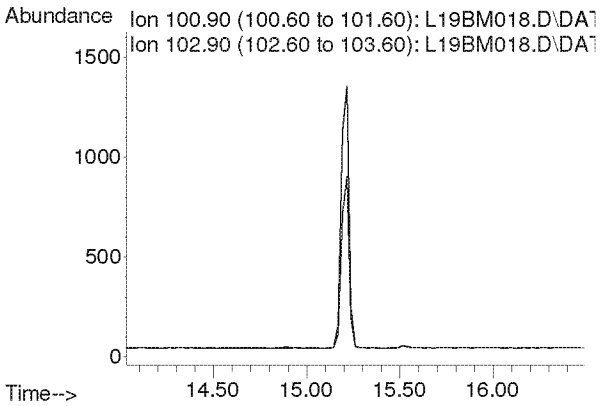


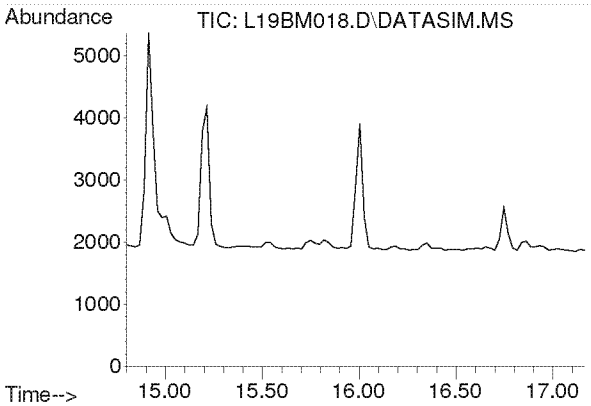
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



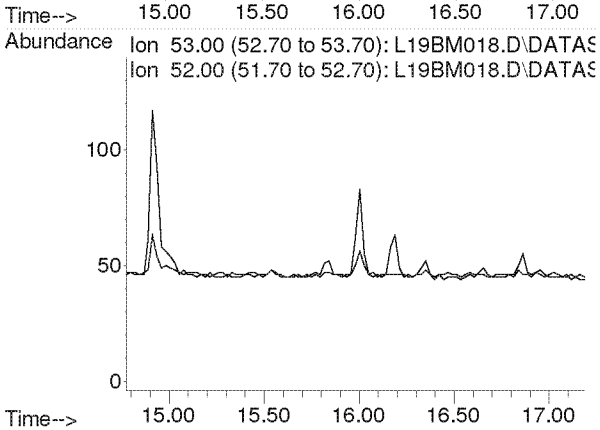


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

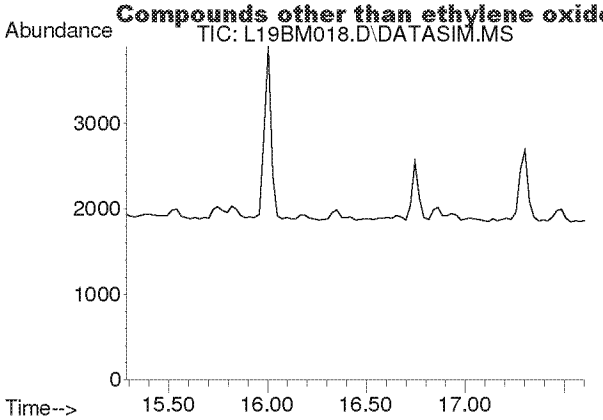
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

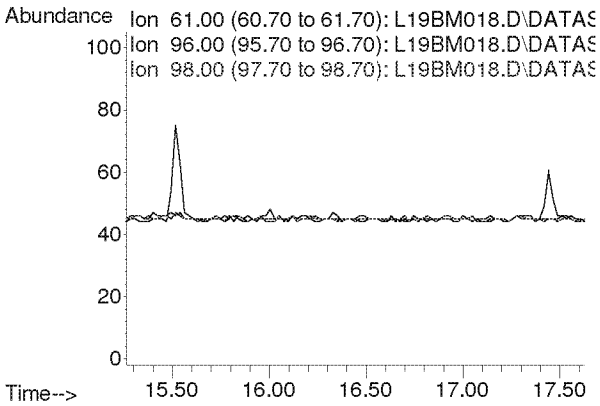


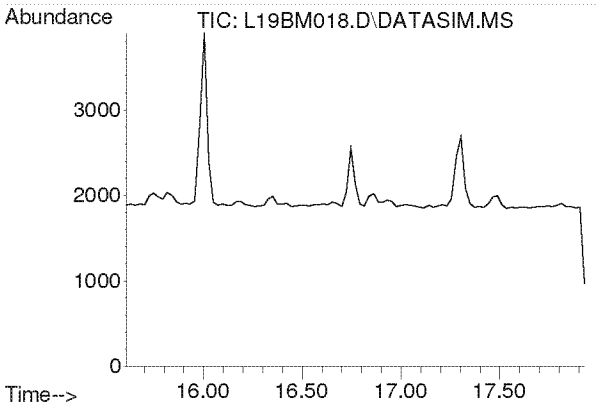
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



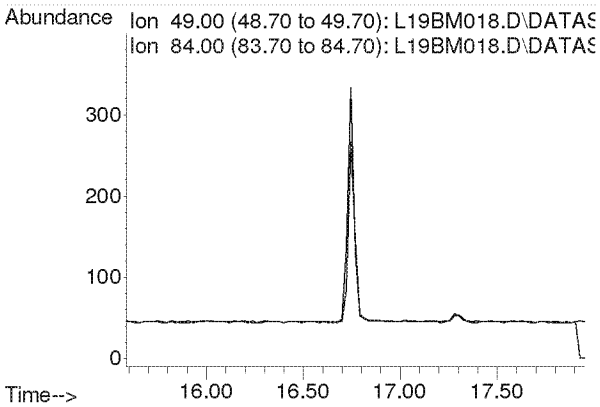


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

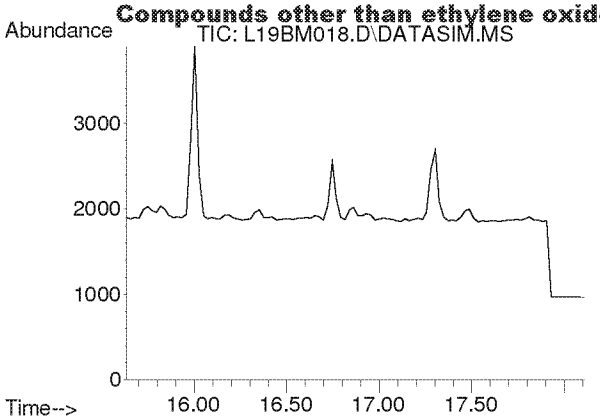
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

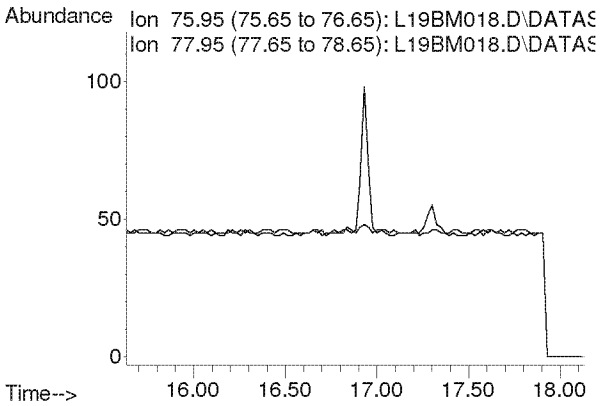


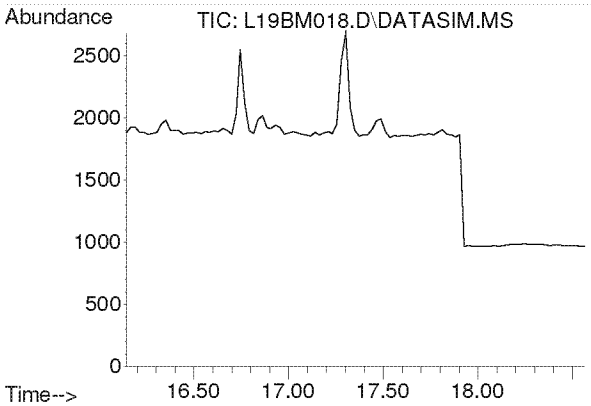
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



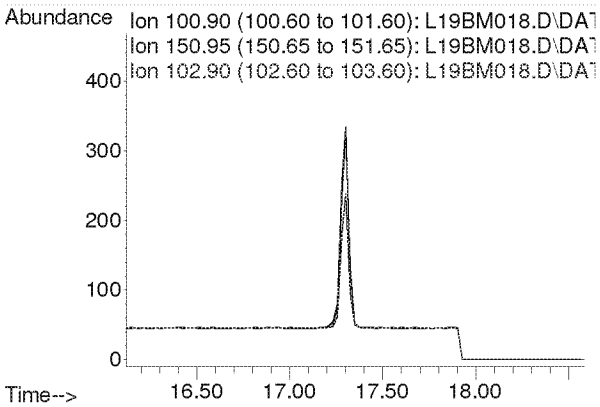


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

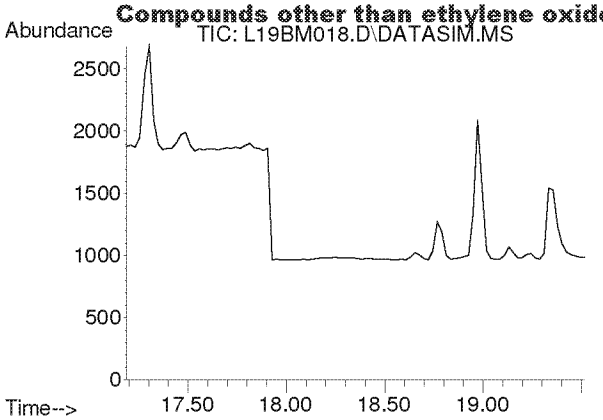
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

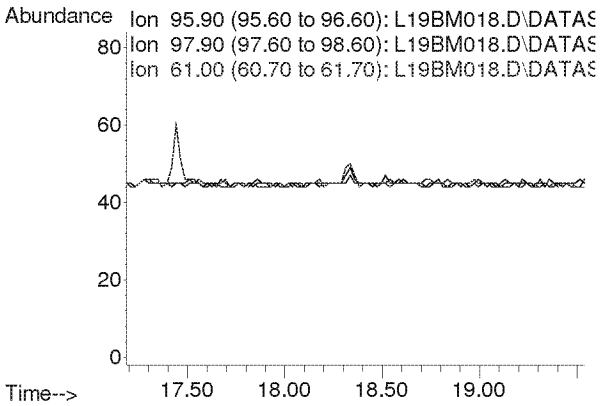


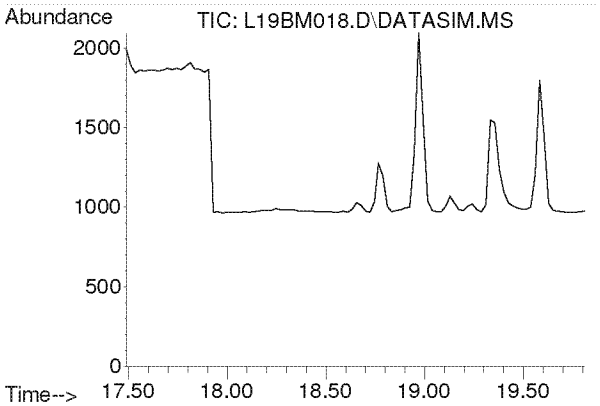
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



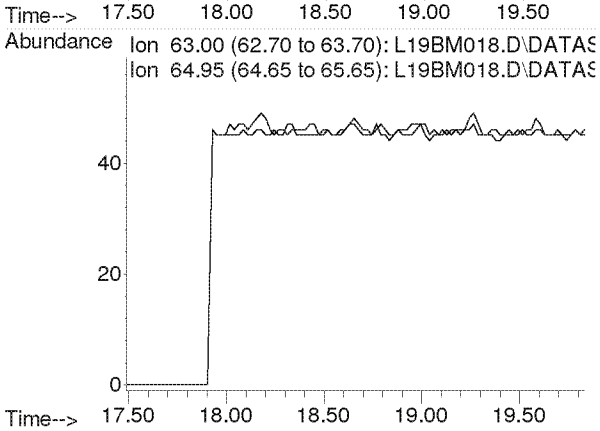


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

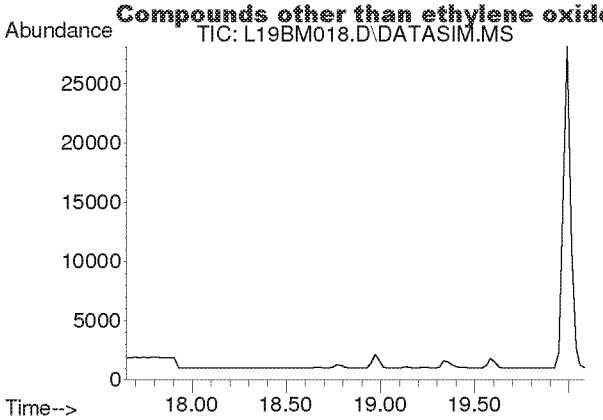
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

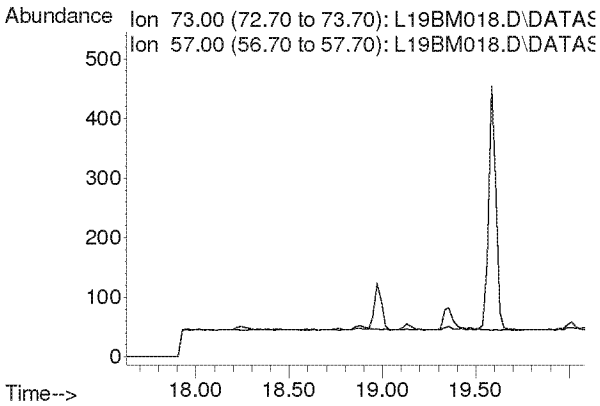


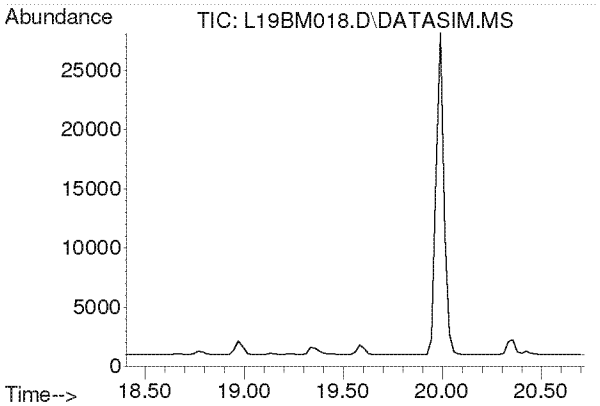
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



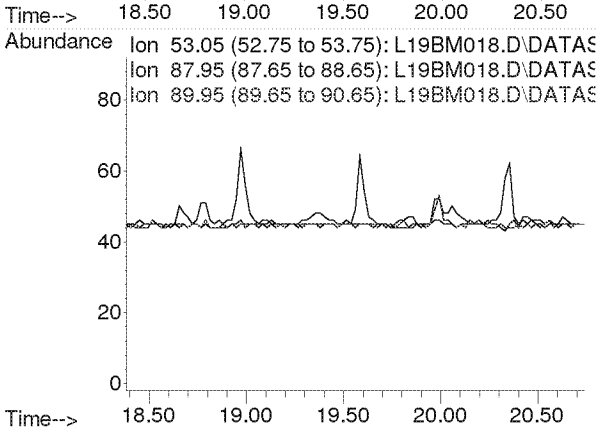


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

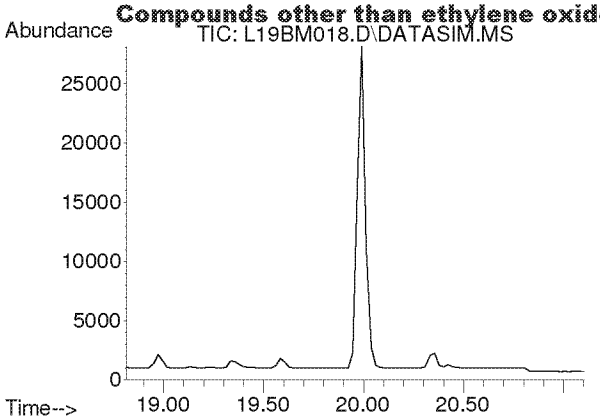
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

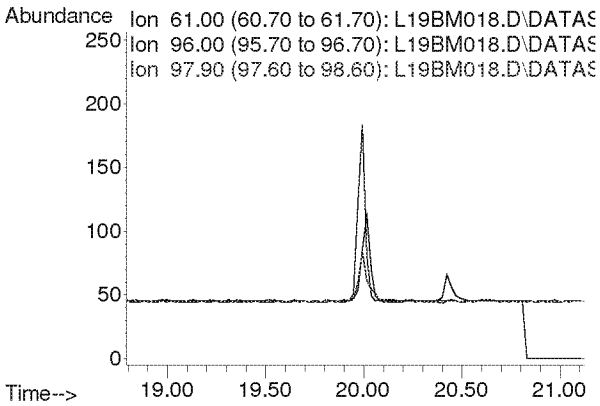


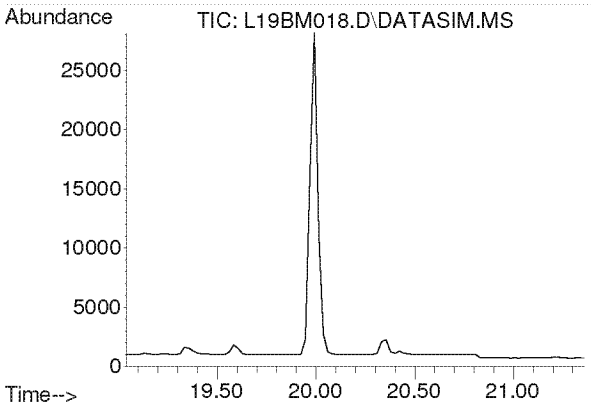
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



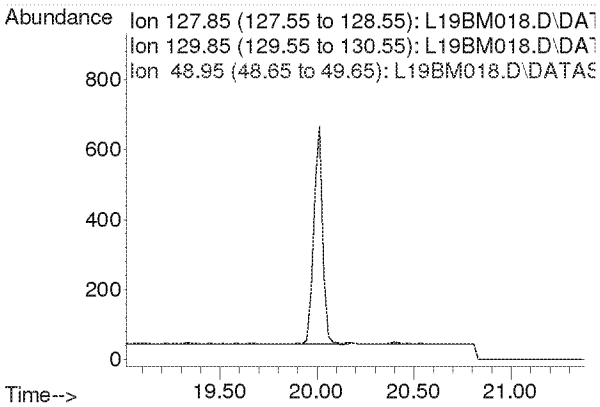


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

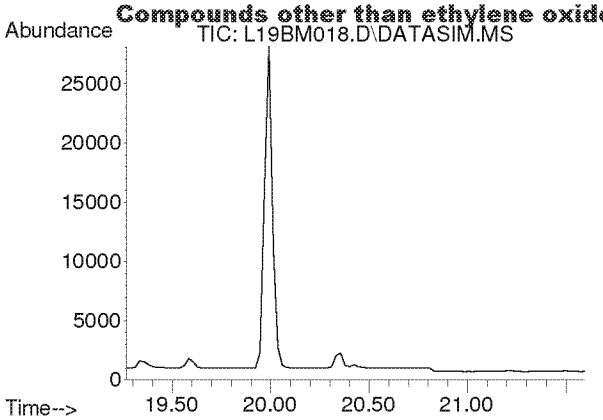
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

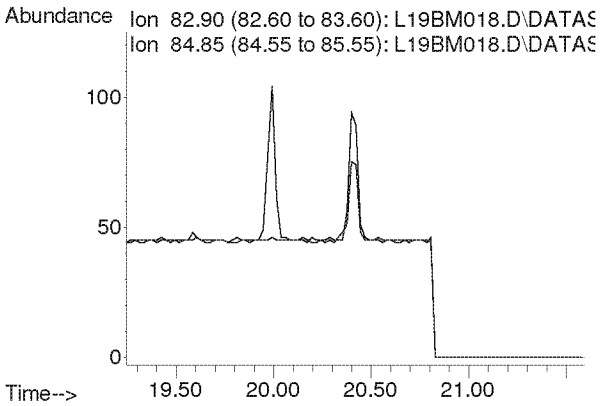


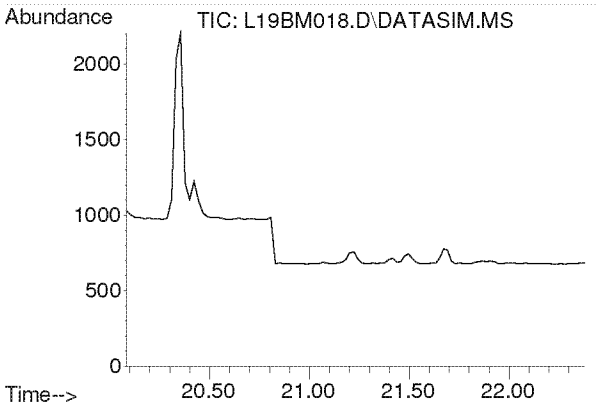
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



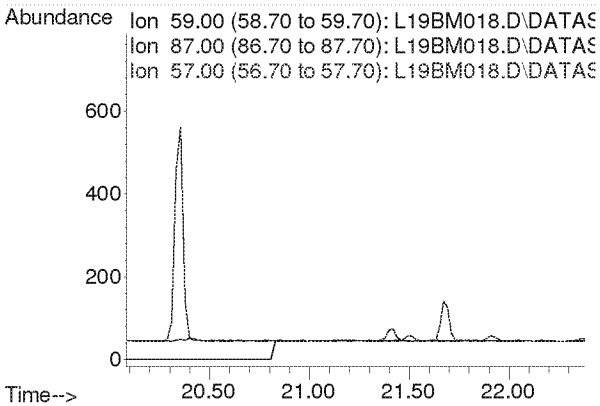


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

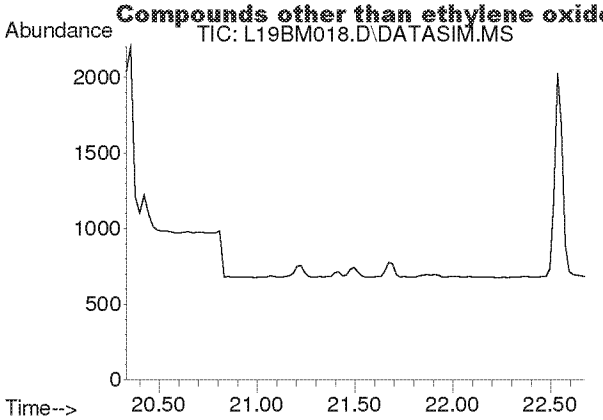
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

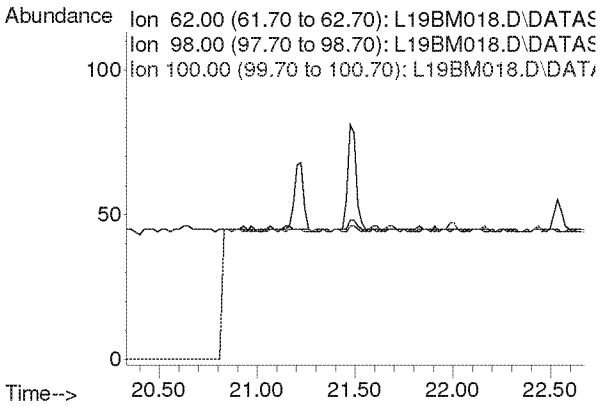


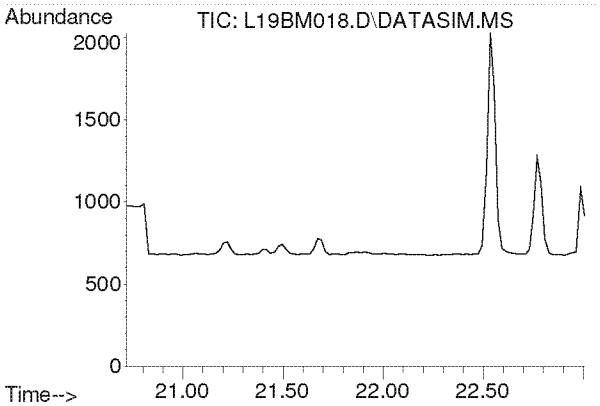
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



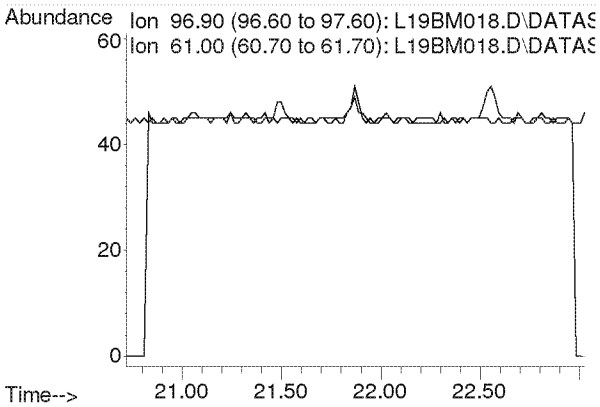


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

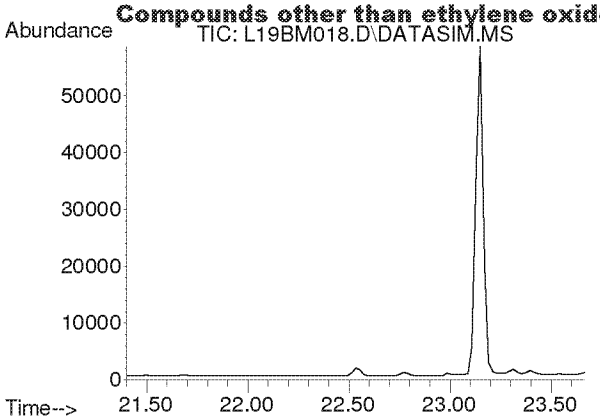
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

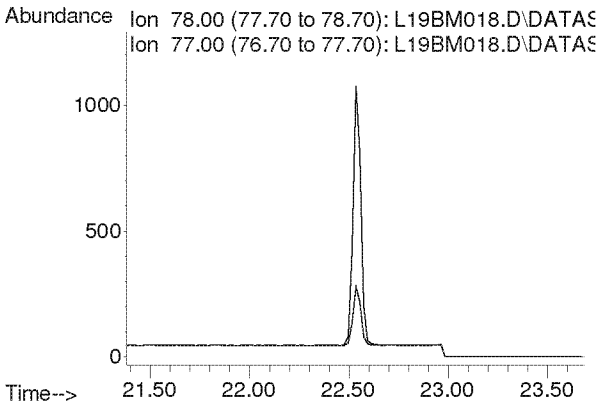


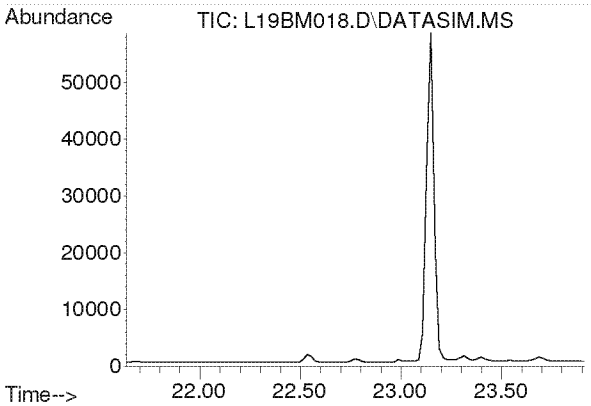
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



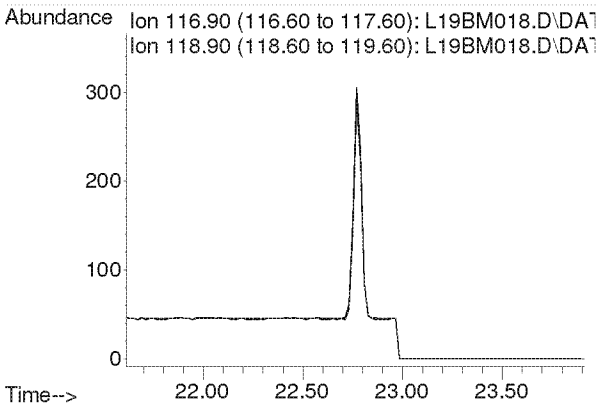


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

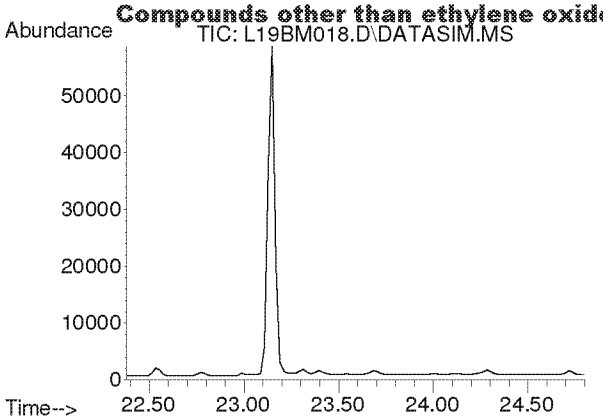
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

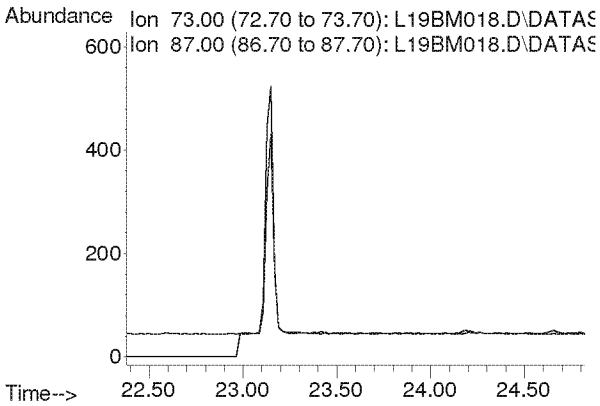


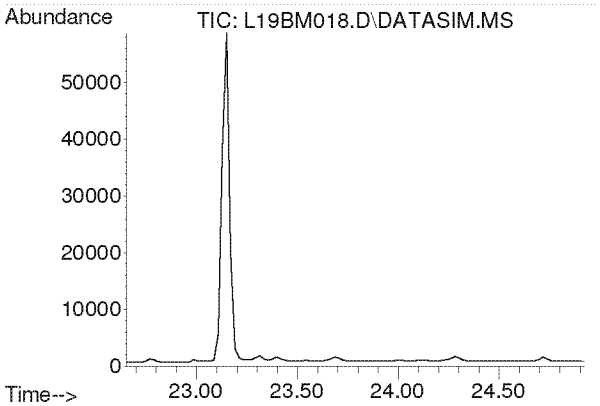
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



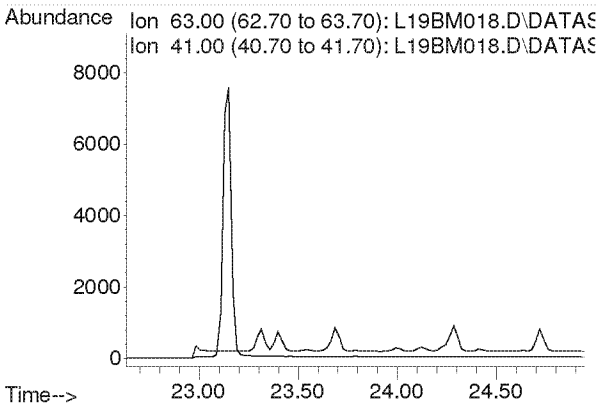


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

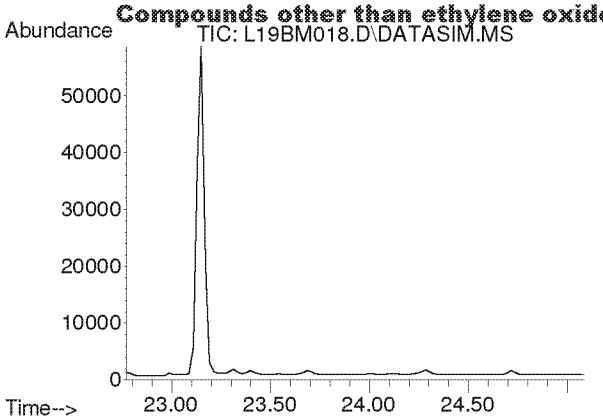
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

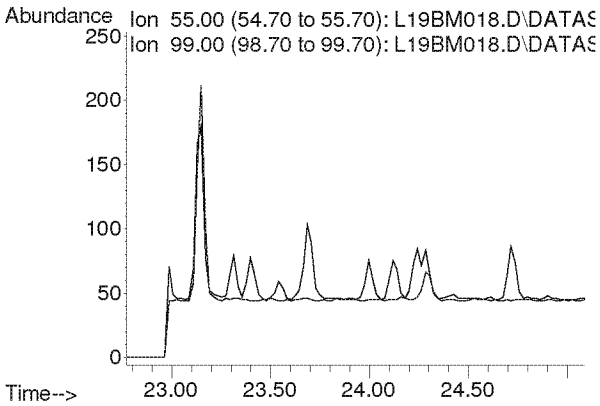


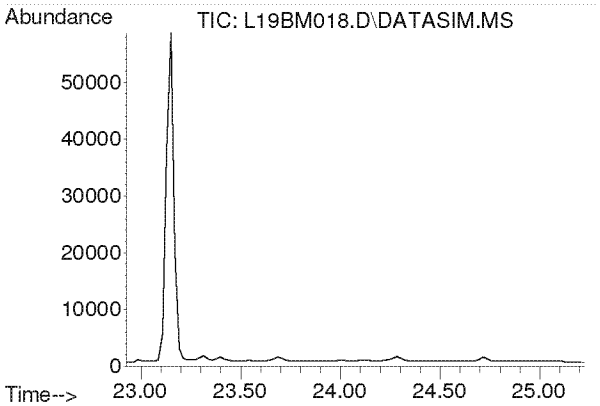
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



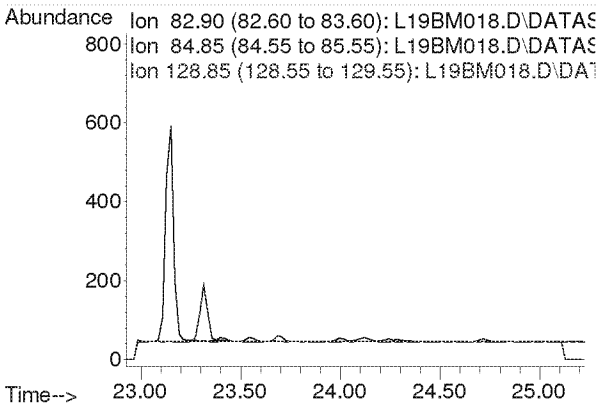


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

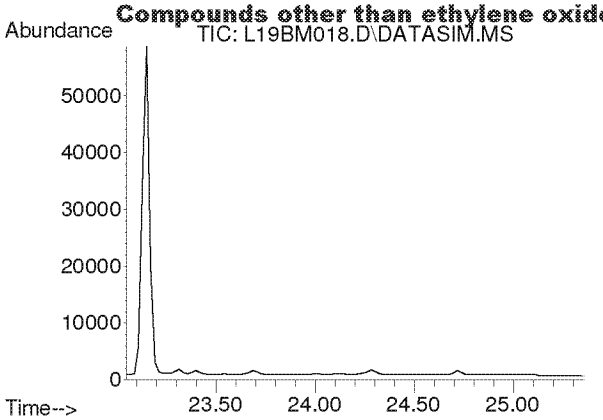
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

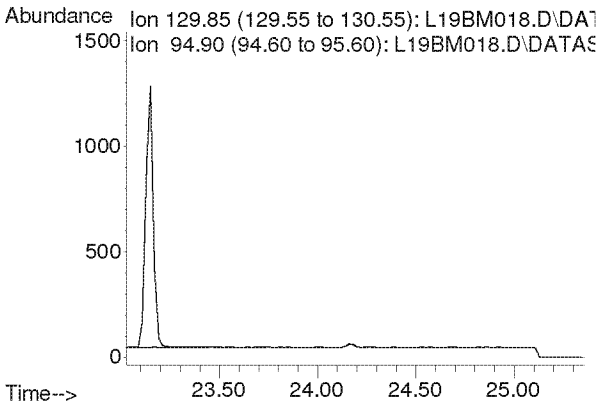


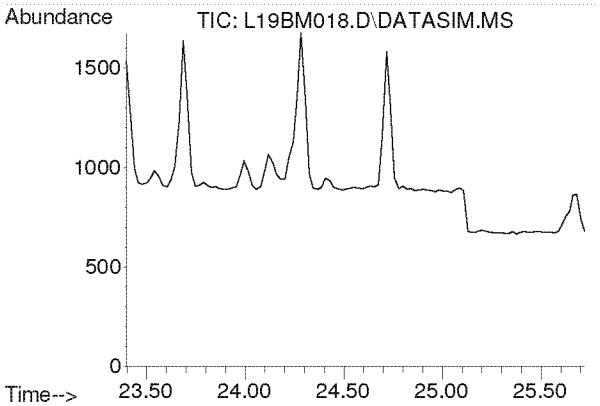
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



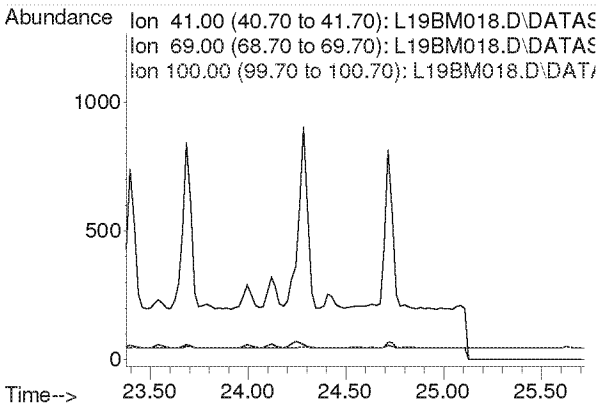


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

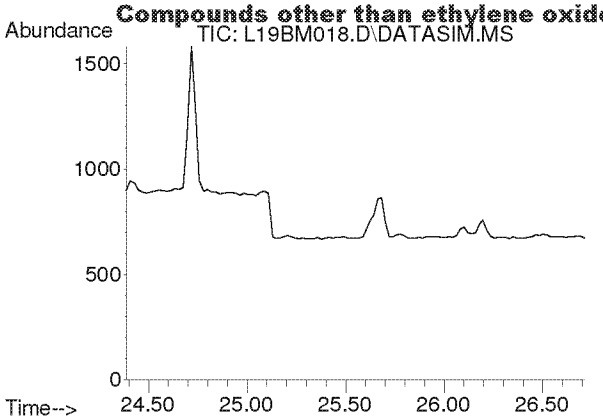
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

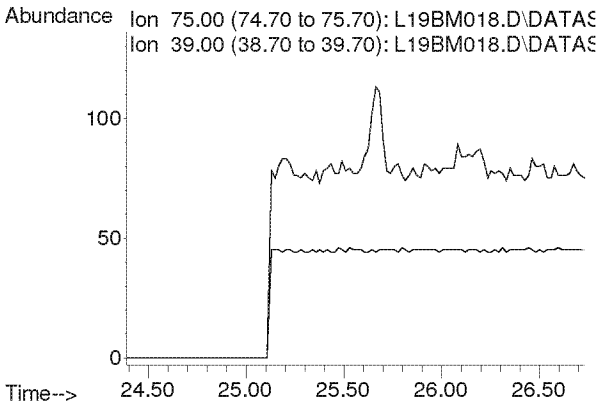


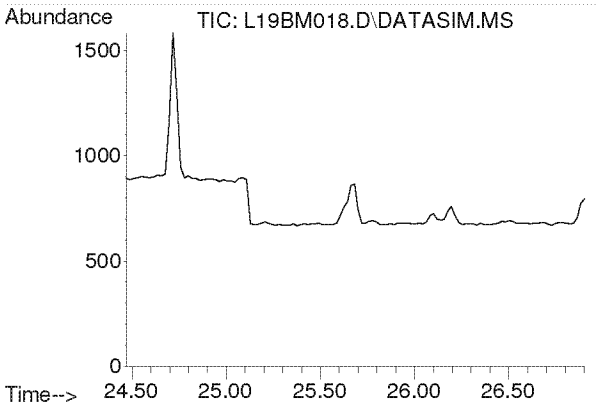
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



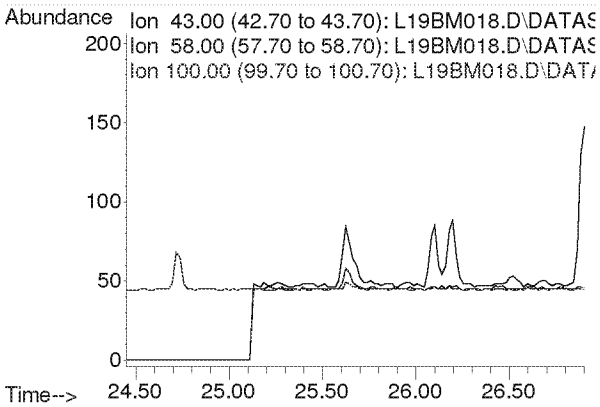


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

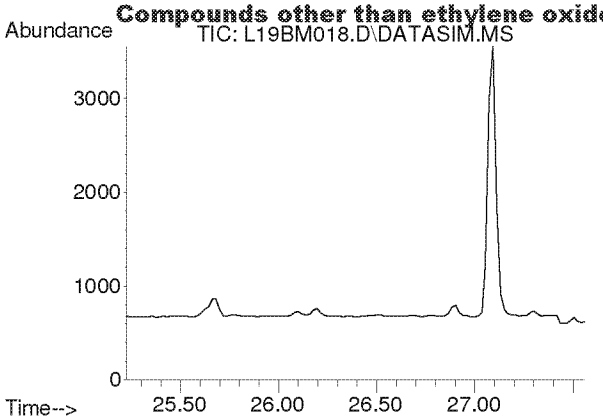
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

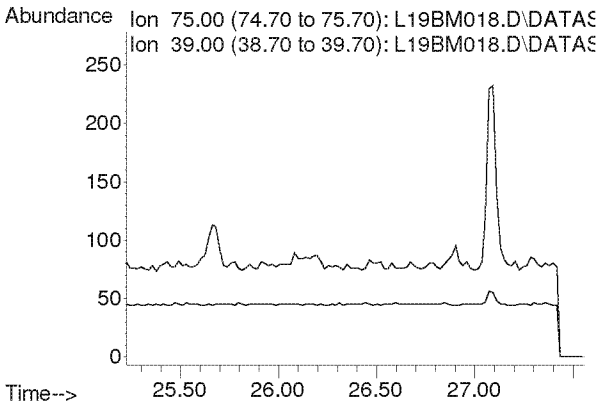


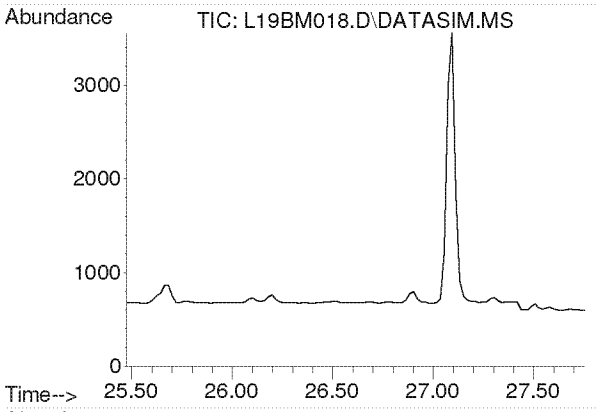
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



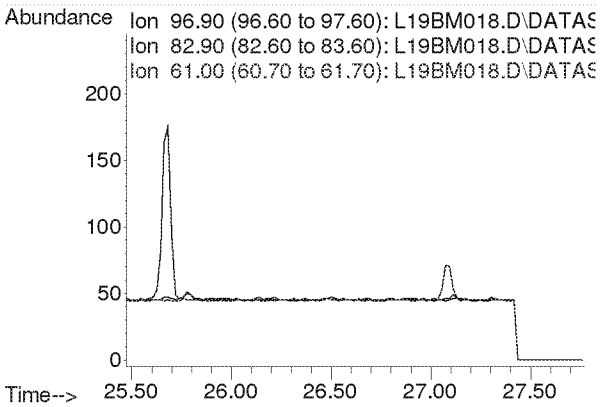


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

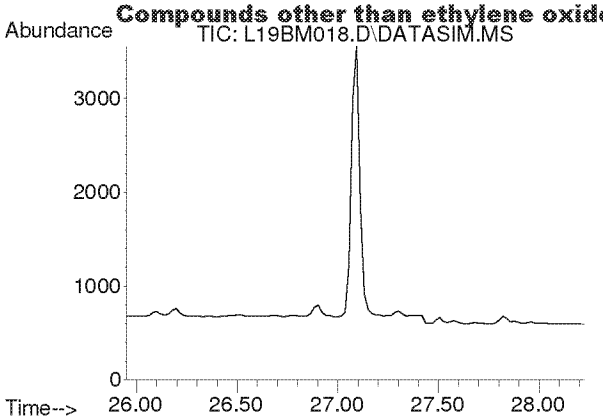
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

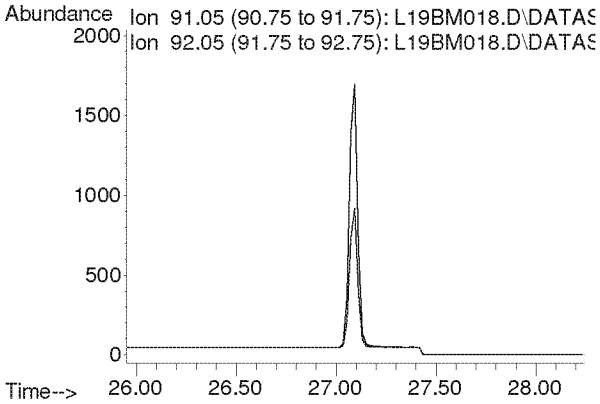


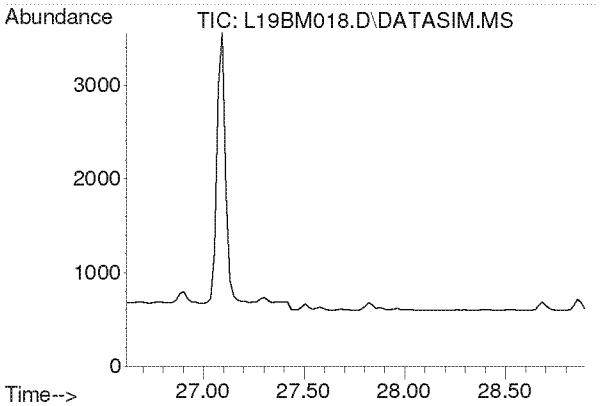
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



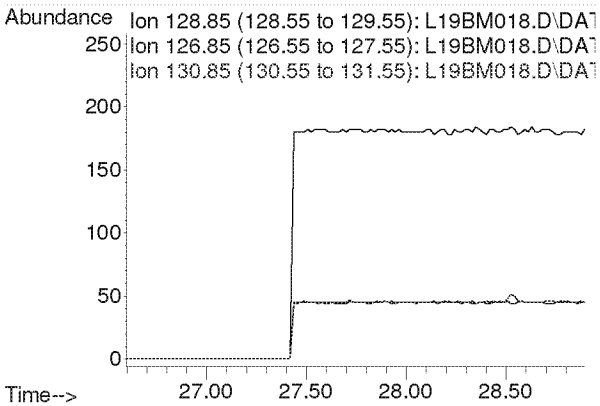


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

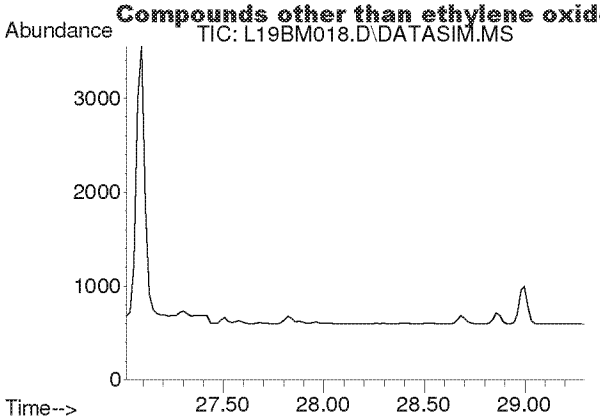
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

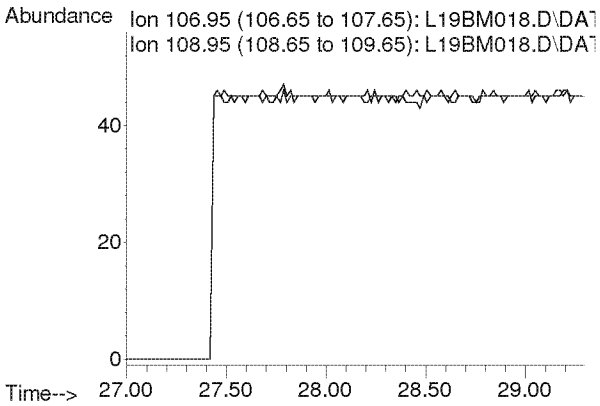


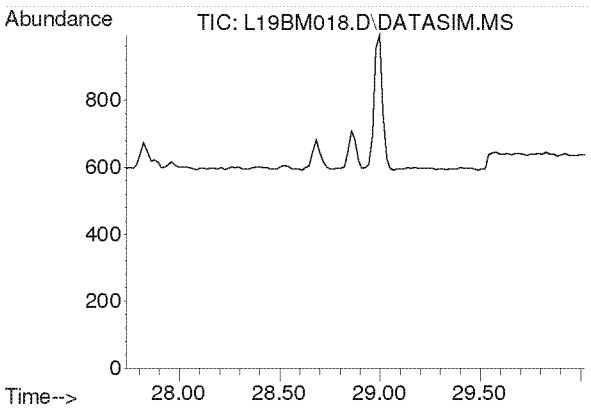
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



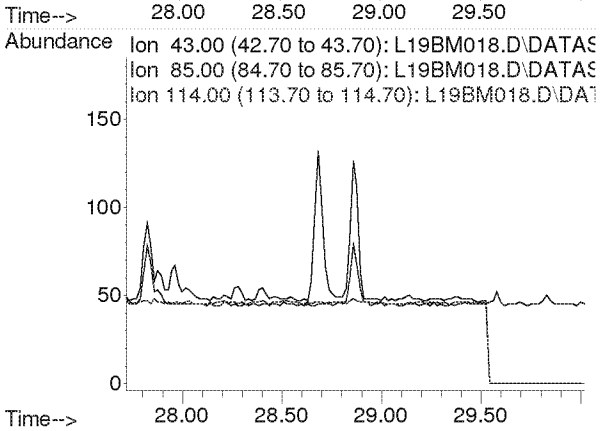


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

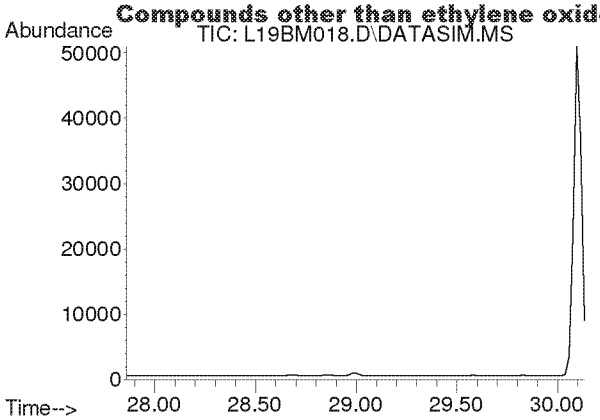
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

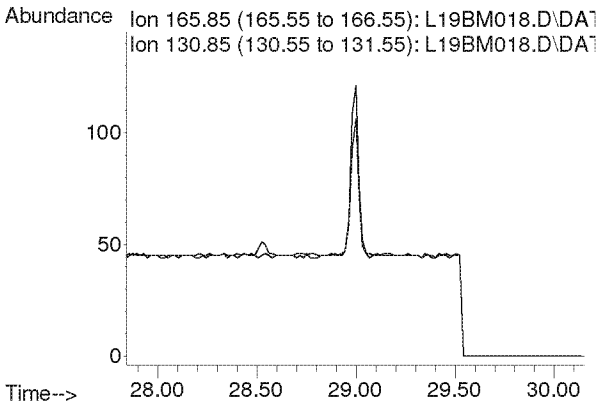


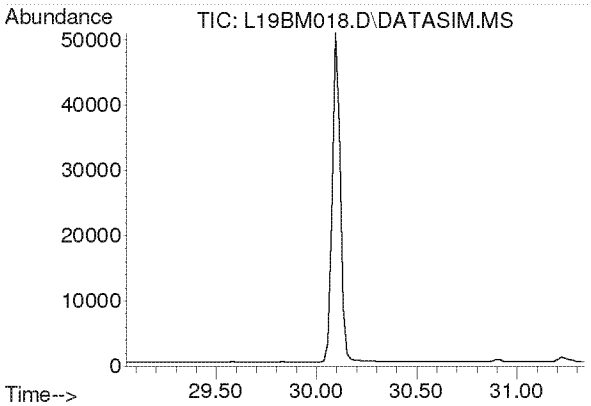
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



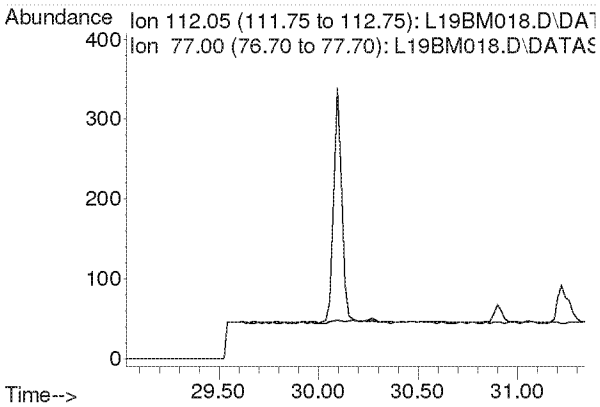


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

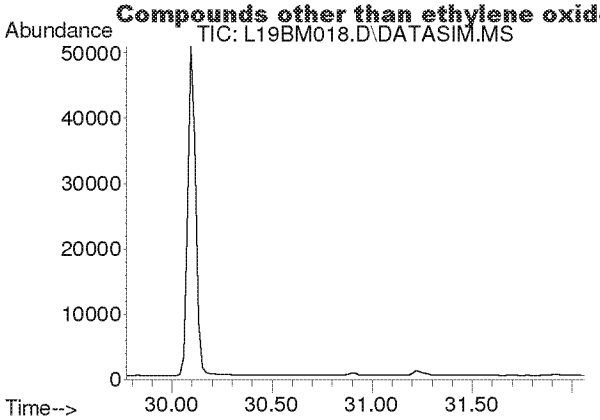
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

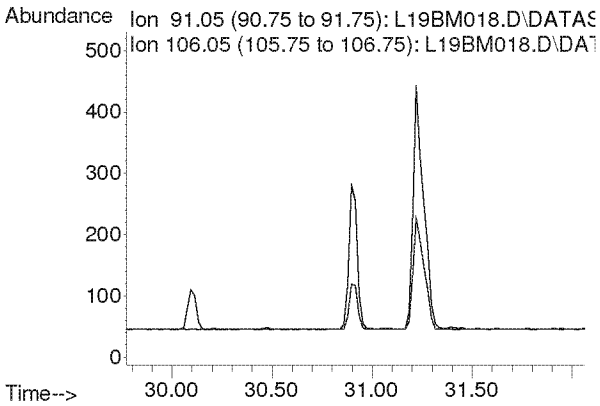


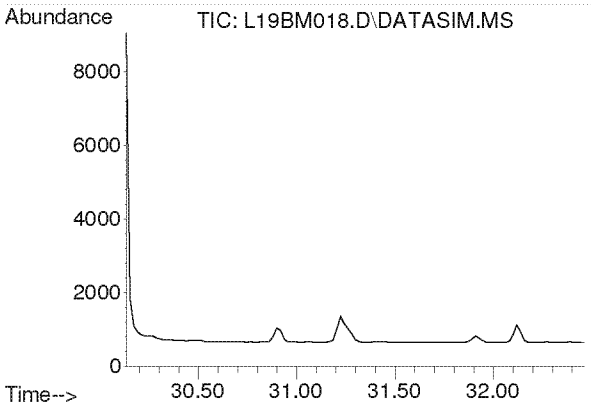
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



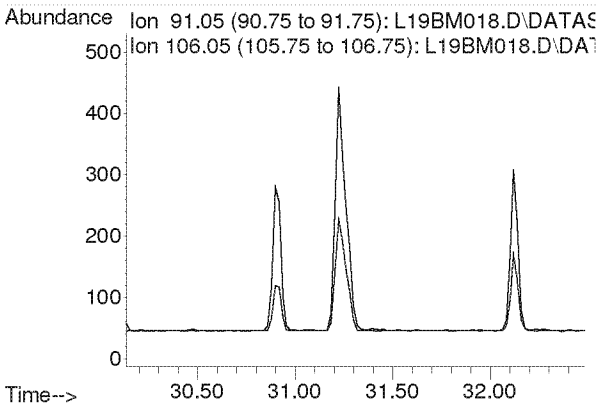


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

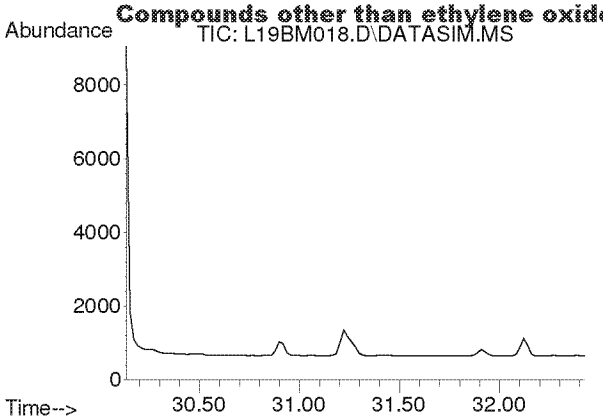
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

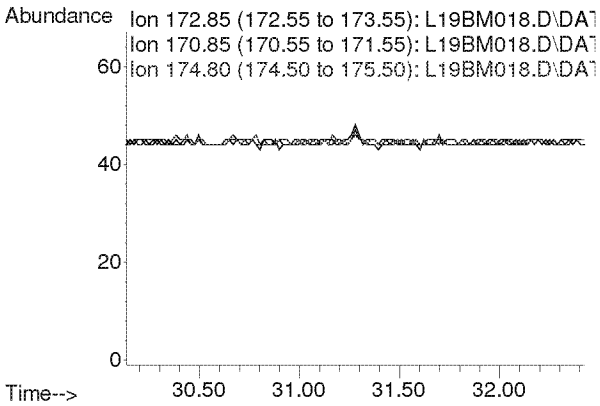


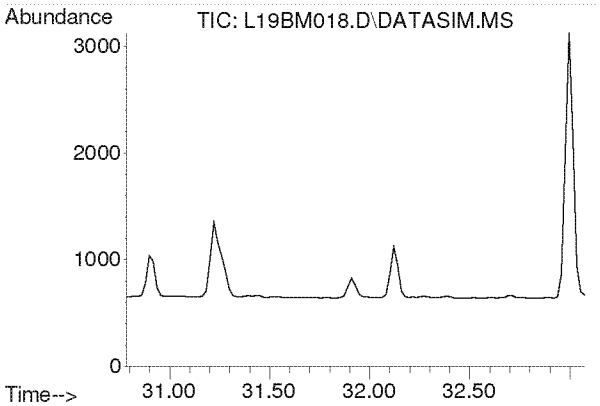
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



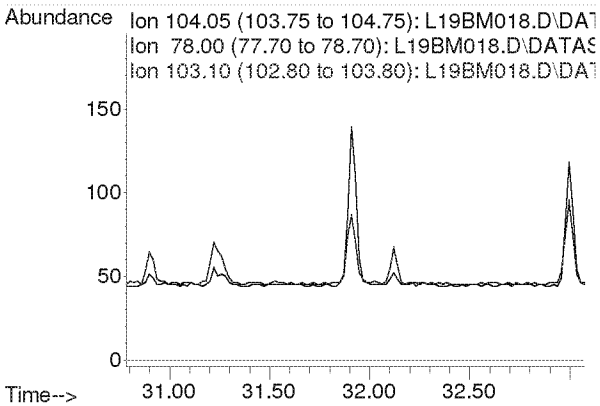


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

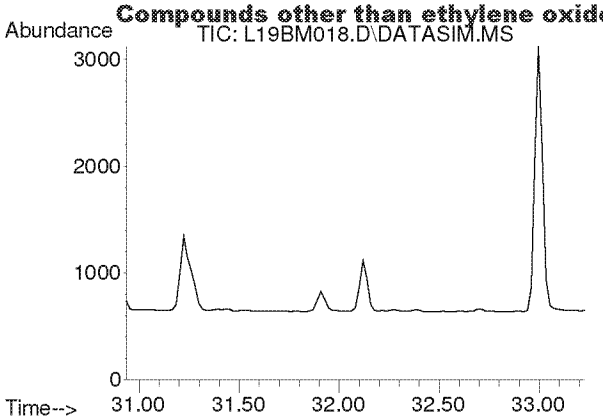
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

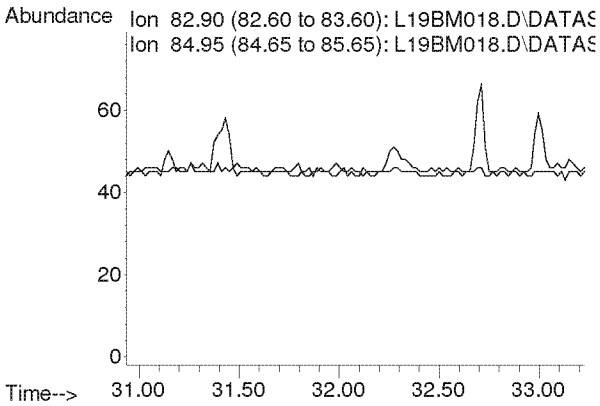


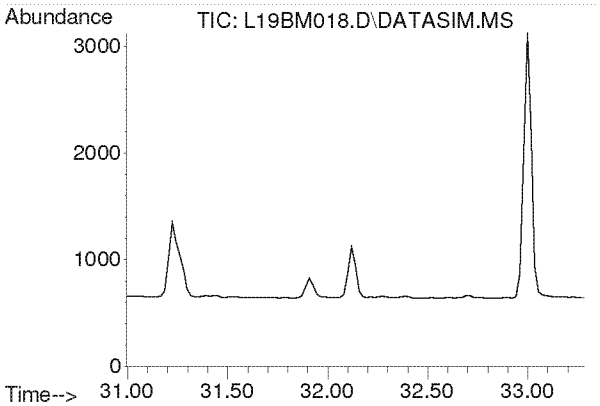
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



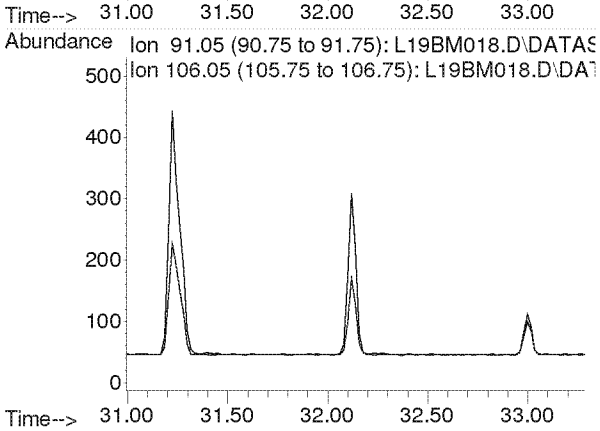


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

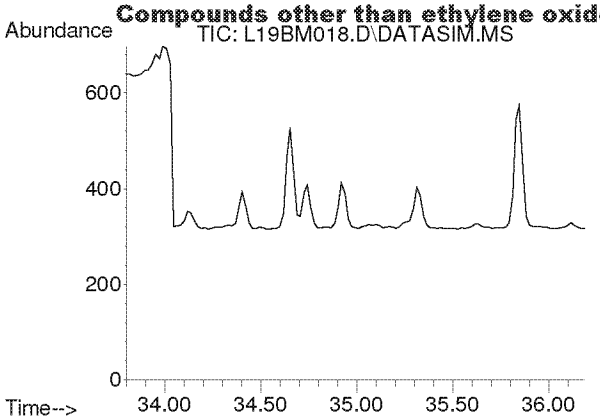
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

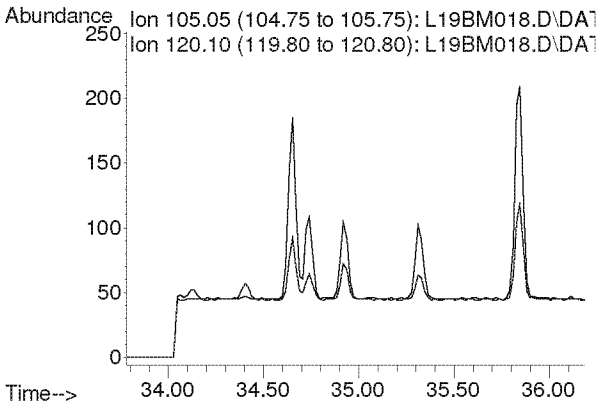


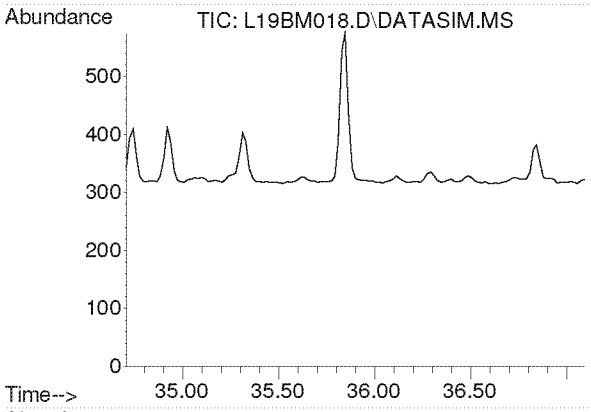
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



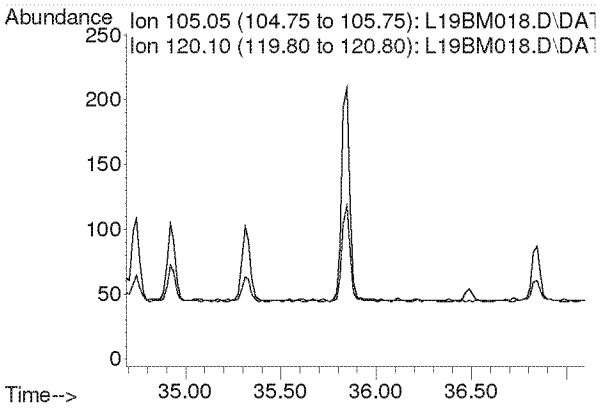


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

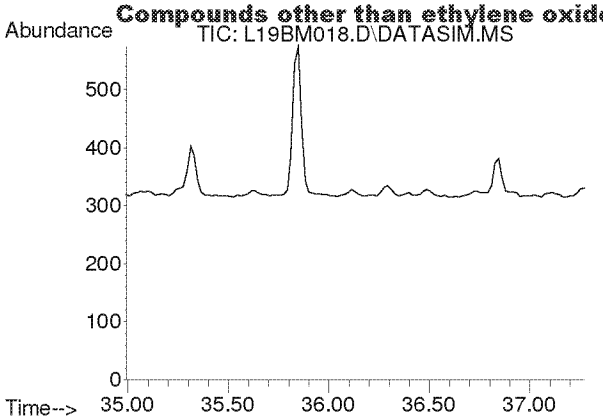
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

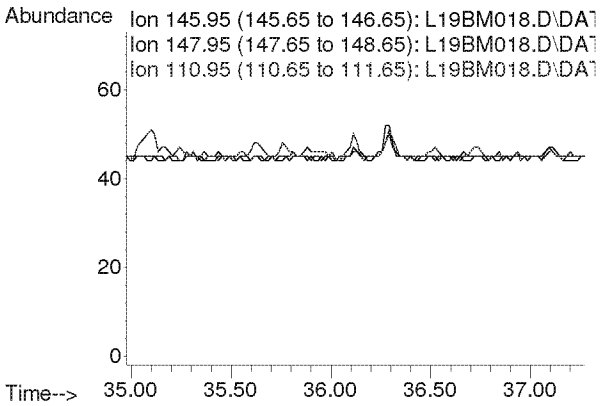


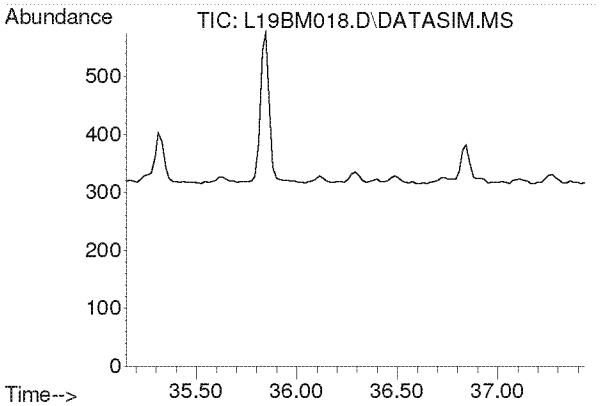
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



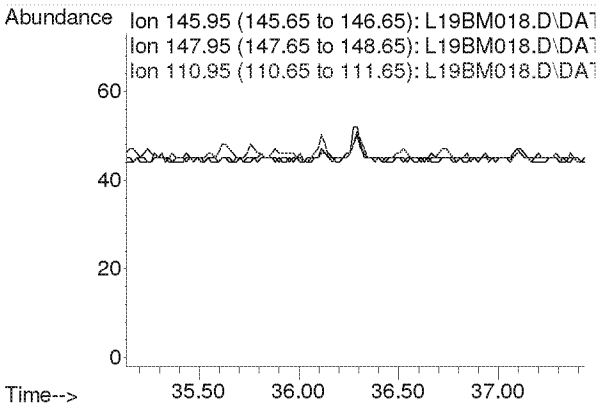


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

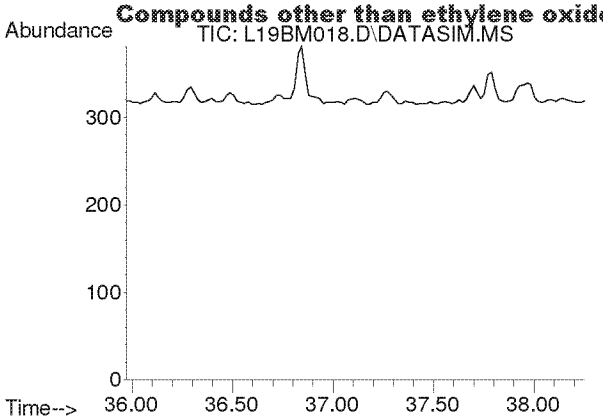
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

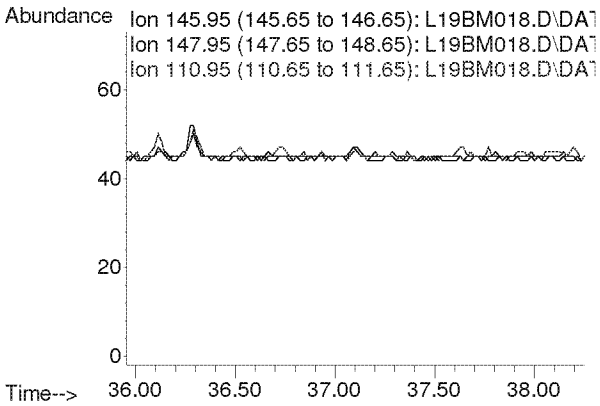


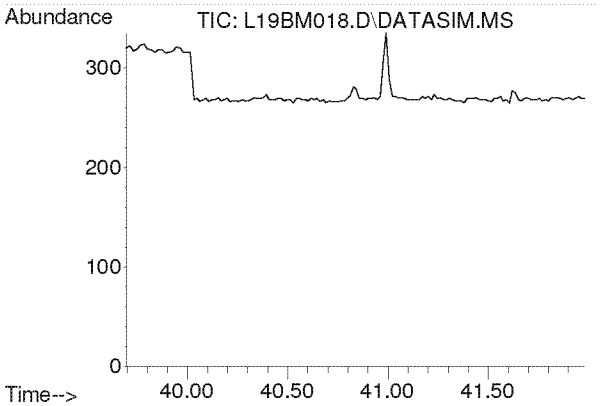
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



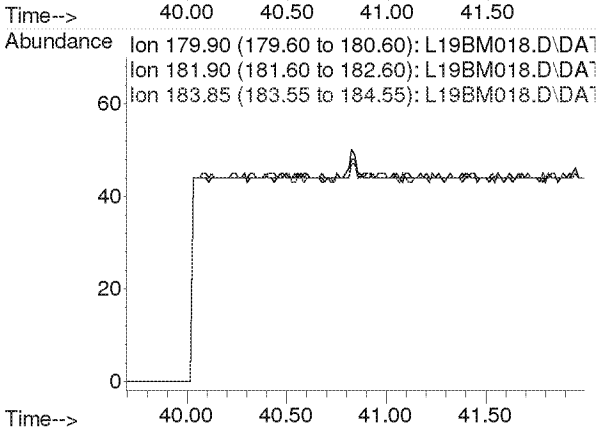


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

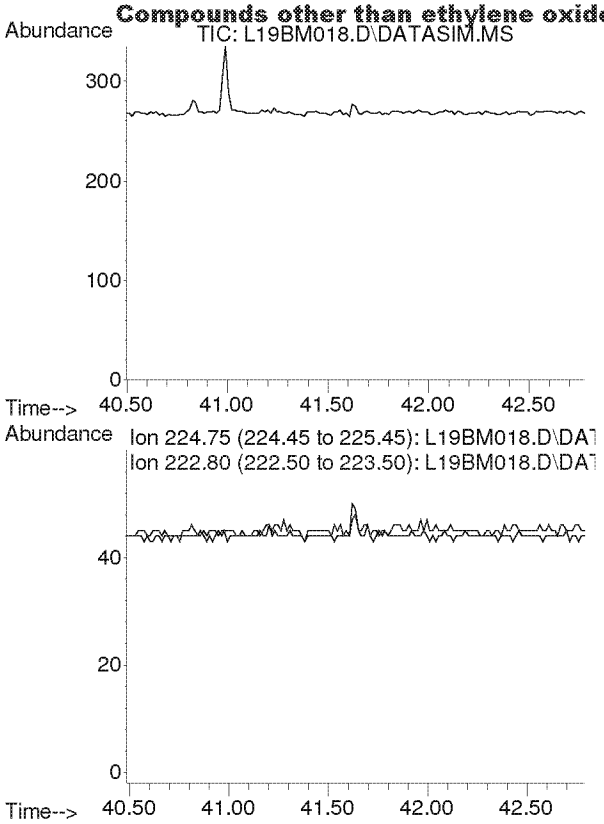
Lab File: L19BM018.D
Acq: 14 Feb 2019 1:44 am

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: L19BM018.D
Acq: 14 Feb 2019 1:44 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM019.D
Acq On : 14 Feb 2019 2:46 am (#1); 14-Feb-19, 02:40:57 (#2)
Operator : MAH
Sample : B9B1307-DUP4
Misc : WB VILLAGE HALL R2 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 14 14:13:18 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

2-14-19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	44557	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	109155	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	78568	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	12.363	29	23728	9.3107 ppbv	87
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	87
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM019.D
Acq On : 14 Feb 2019 2:46 am (#1); 14-Feb-19, 02:40:57 (#2)
Operator : MAH
Sample : B9B1307-DUP4
Misc : WB VILLAGE HALL R2 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 14 14:13:18 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.	

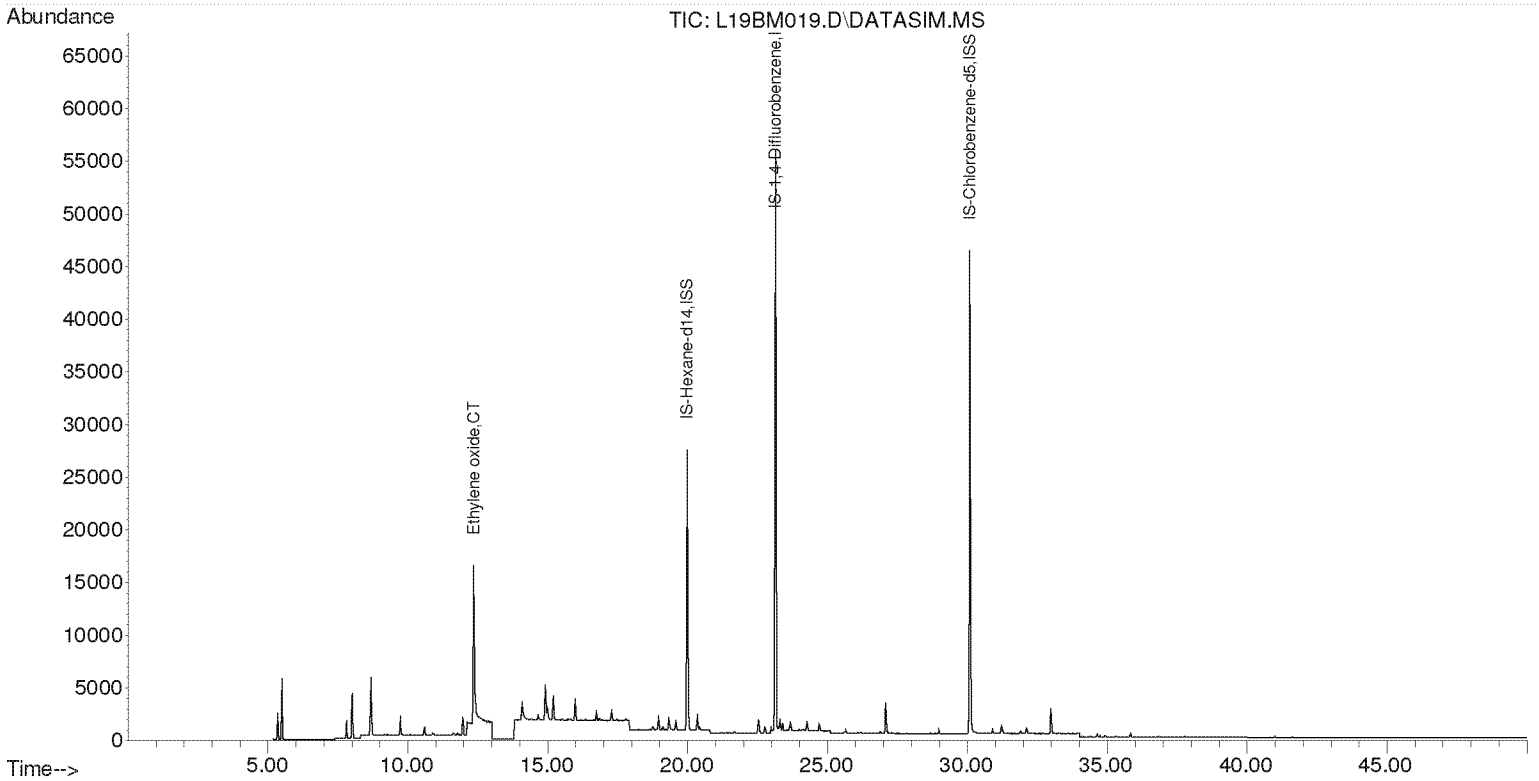
(#) = qualifier out of range (m) = manual integration (+) = signals summed

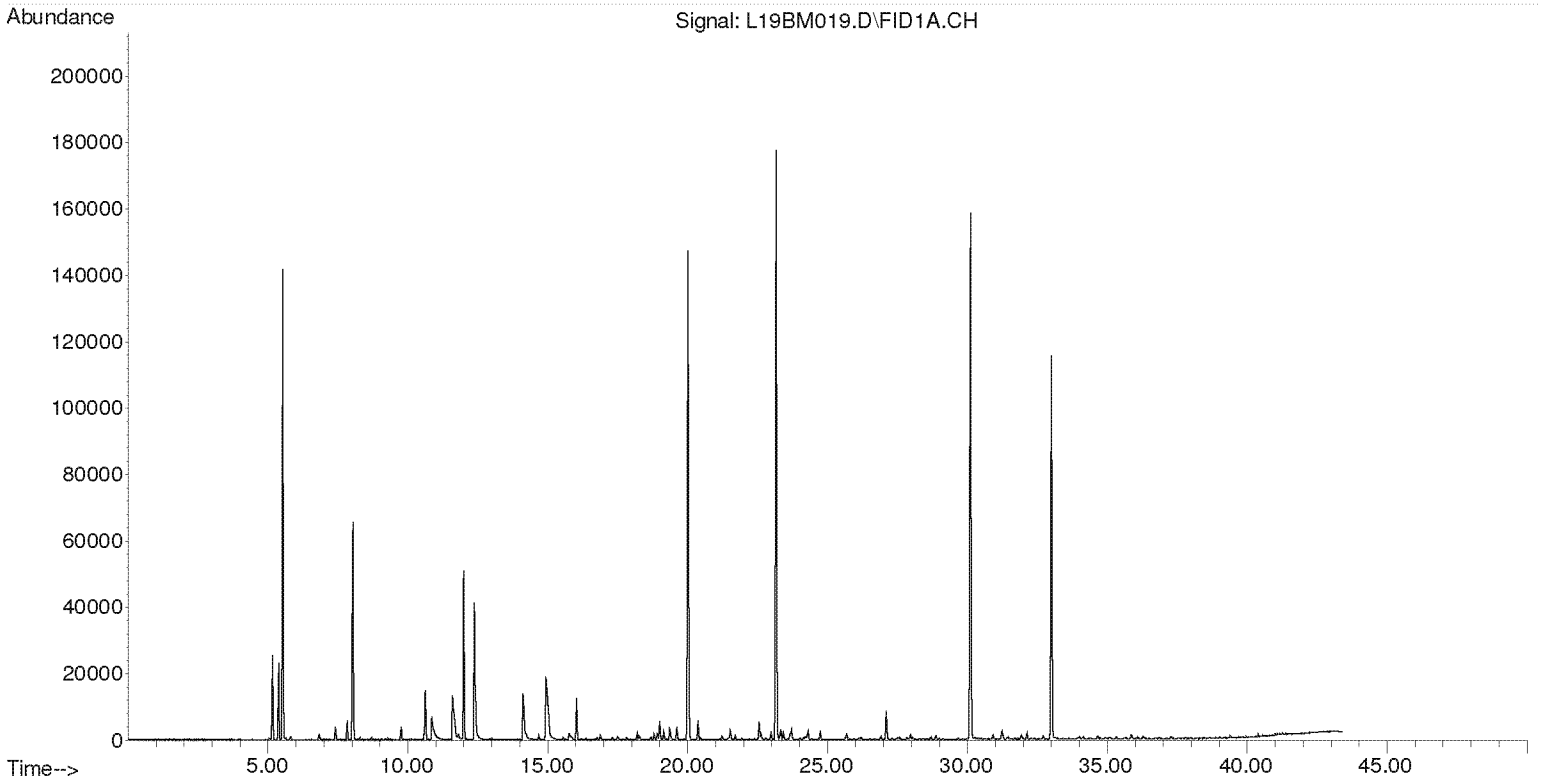
ED_002475_00000213-00283

Compounds other than ethylene oxide were not quantitated.

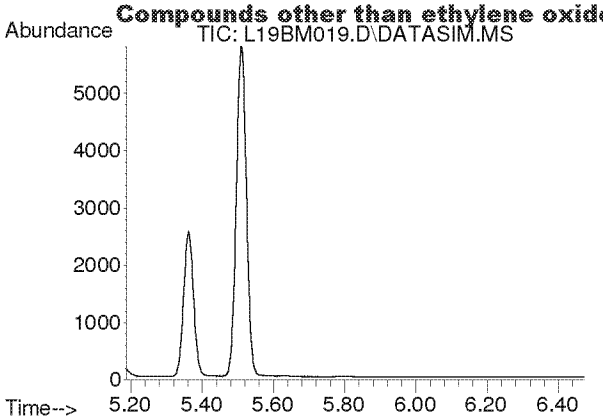
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM019.D
Acq On : 14 Feb 2019 2:46 am (#1); 14 Feb 2019 2:40 am (#2)
Operator : MAH
Sample : B9B1307-DUP4
Misc : WB VILLAGE HALL R2 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 14 14:11:41 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





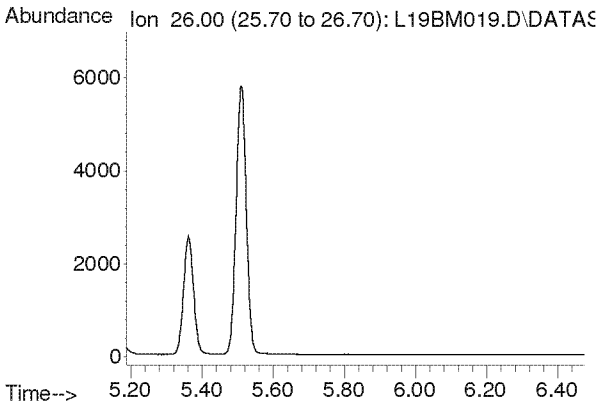
Compounds other than ethylene oxide were not quantitated.

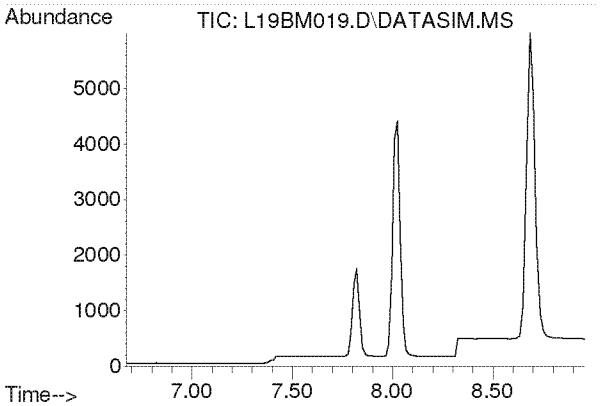


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 26



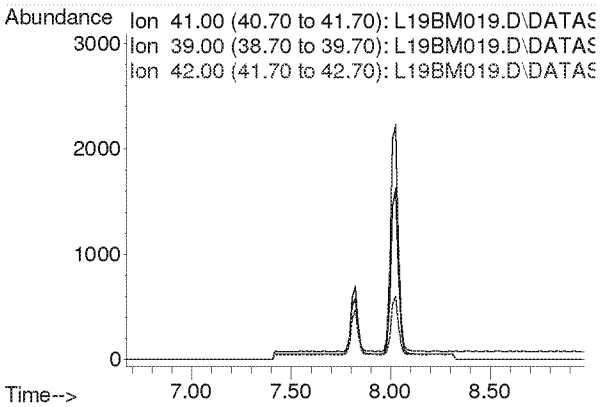


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

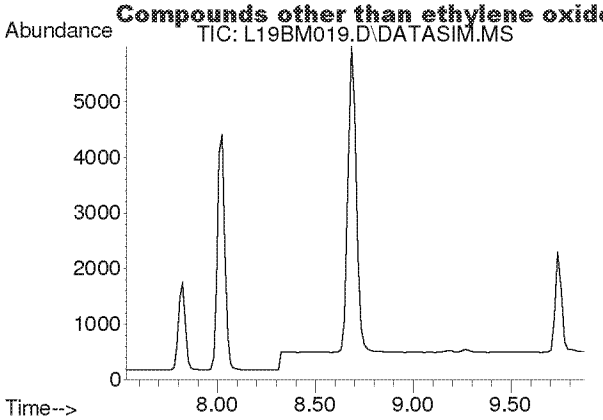
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

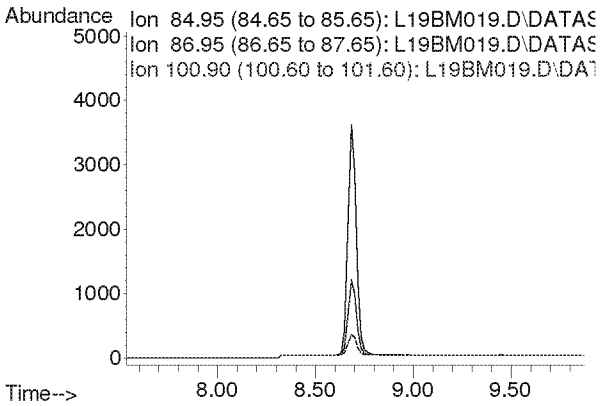


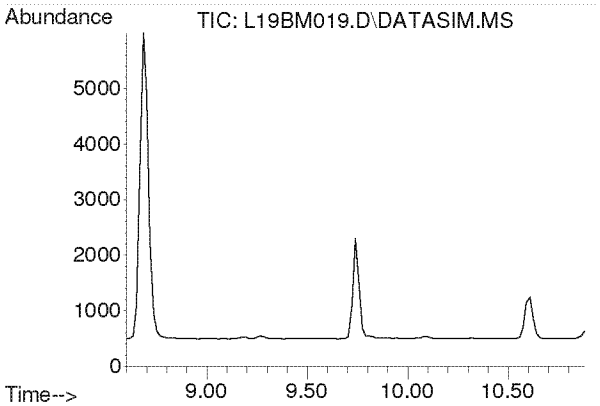
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



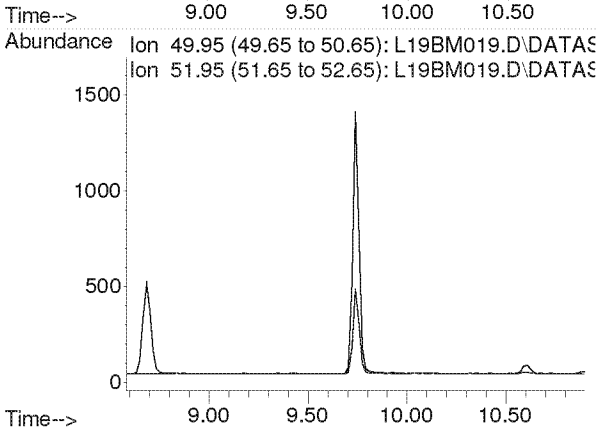


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

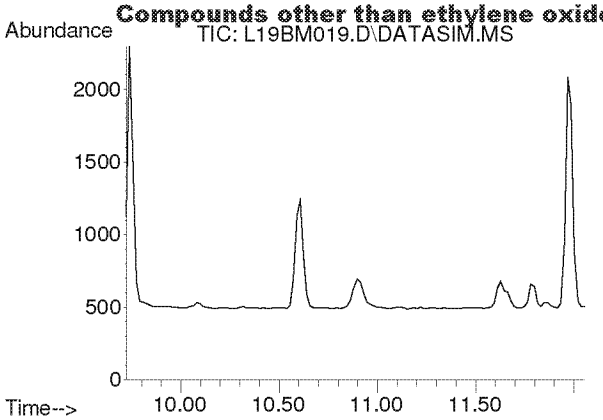
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

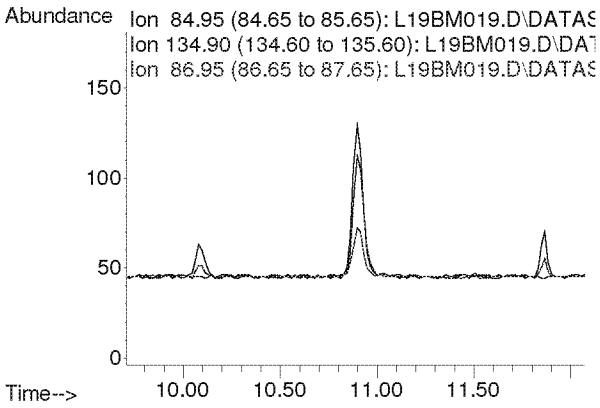


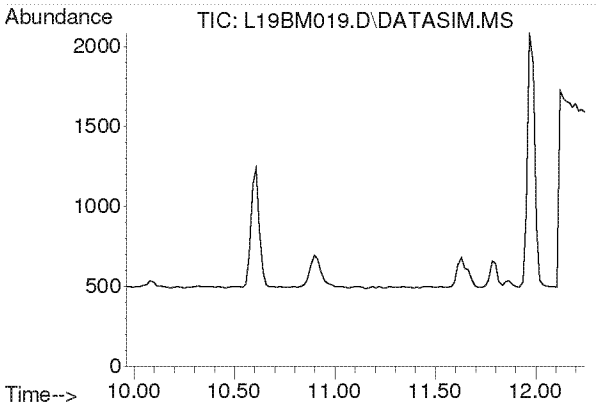
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



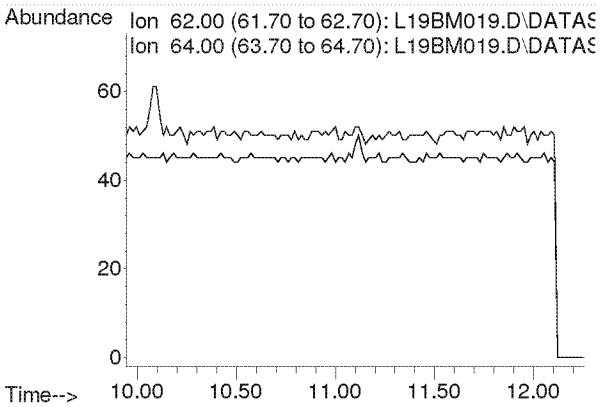


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

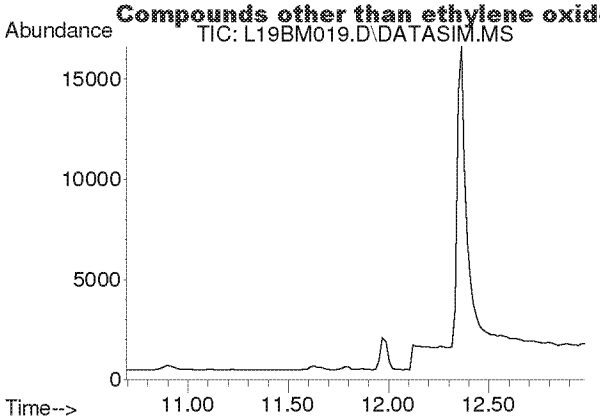
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

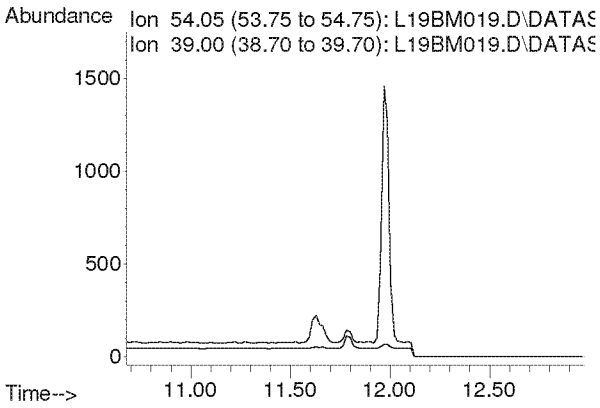


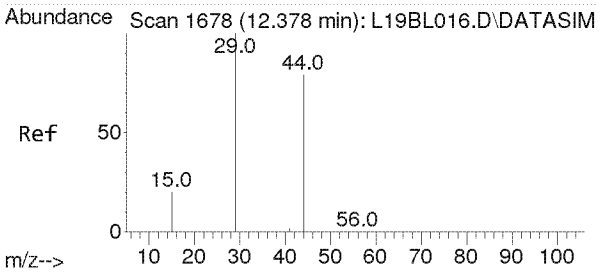
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

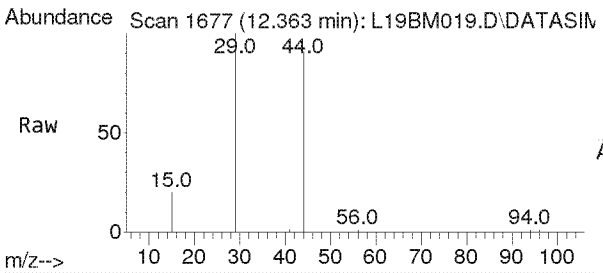


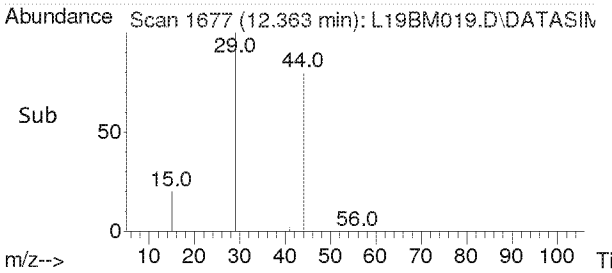


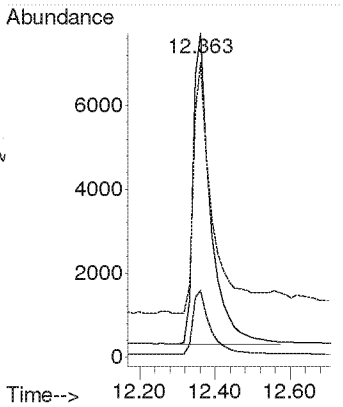
#9
Ethylene oxide
Concen: 9.311 ppbv
RT: 12.363 min Scan# 1677
Delta R.T. -0.015 min
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 29 Resp: 23728

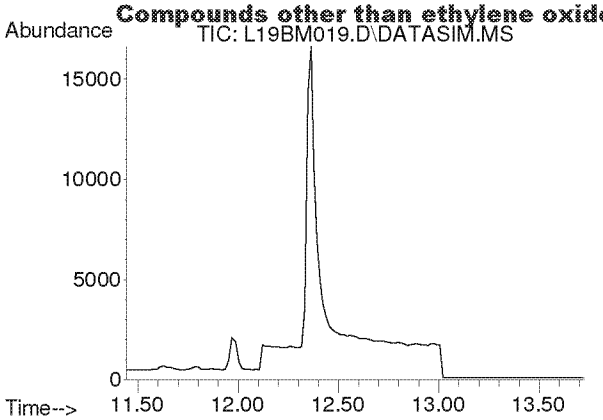
Ion	Ratio	Lower	Upper
29	100		
15	20.5	16.0	24.0
44	96.0	65.4	98.2







Compounds other than ethylene oxide were not quantitated.

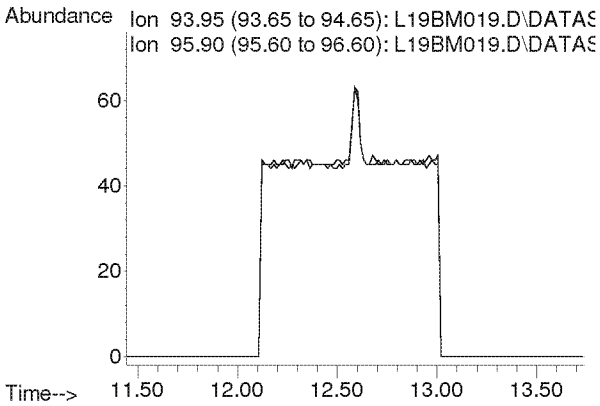


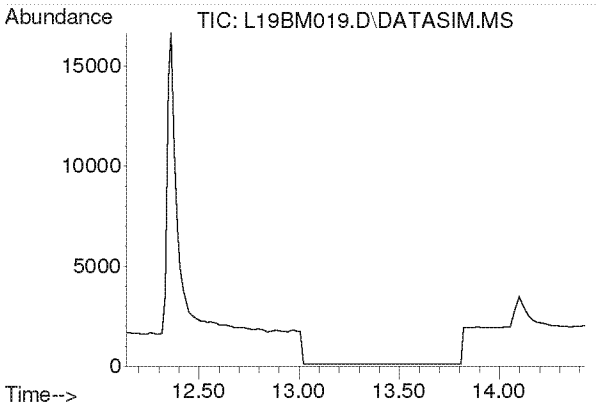
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



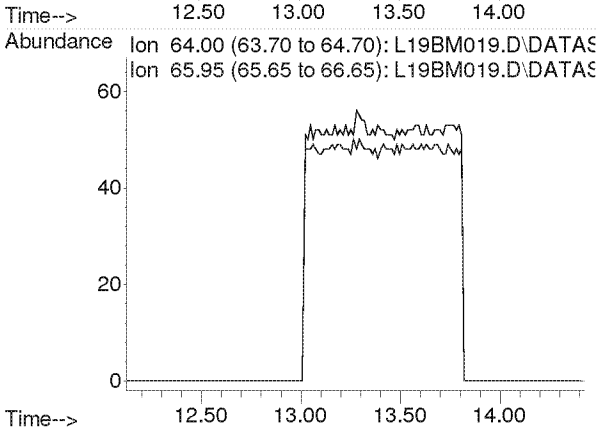


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

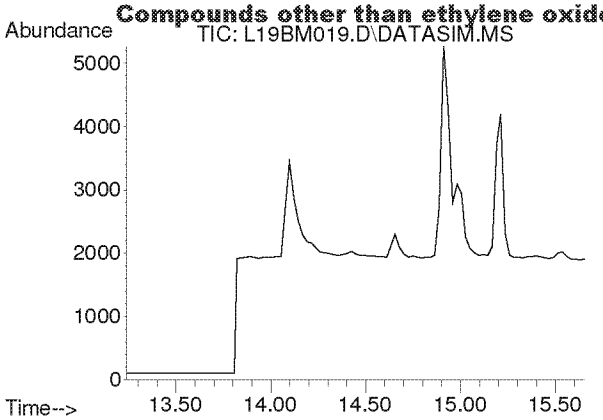
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

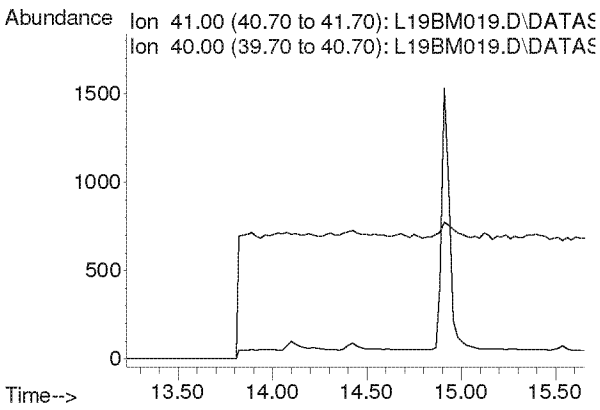


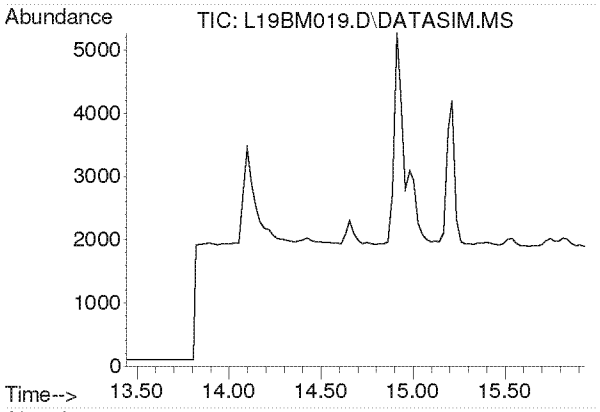
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



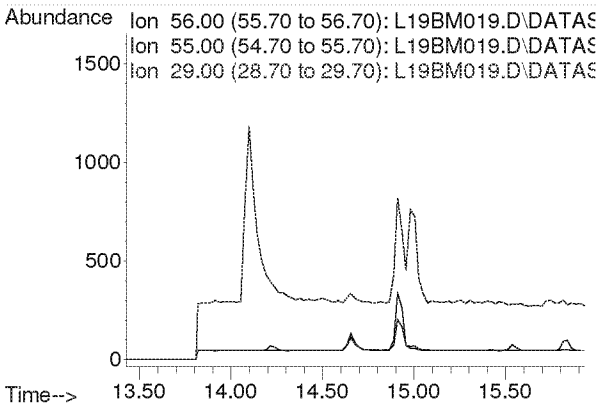


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

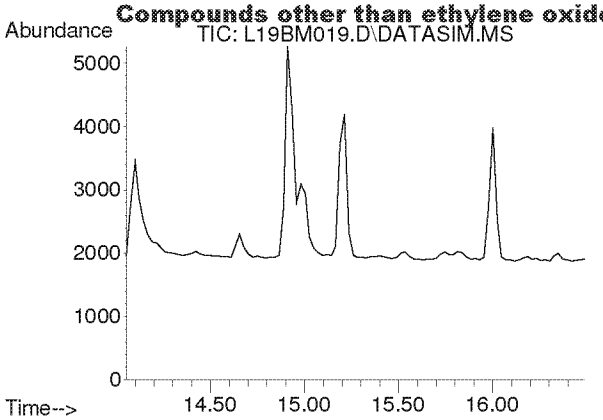
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

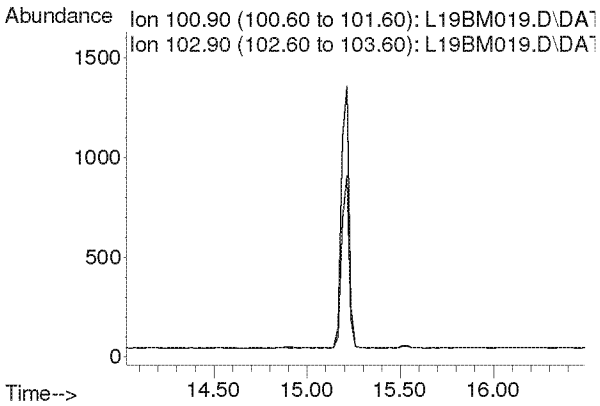


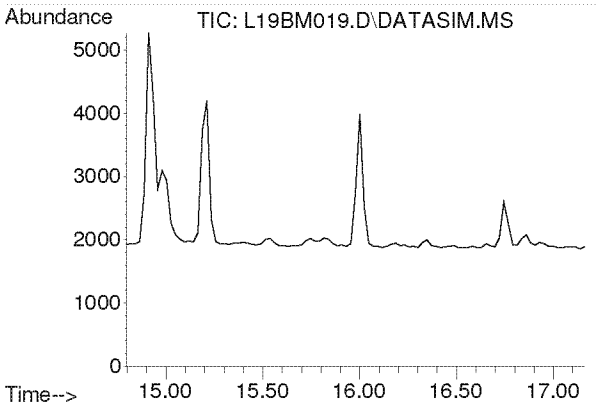
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



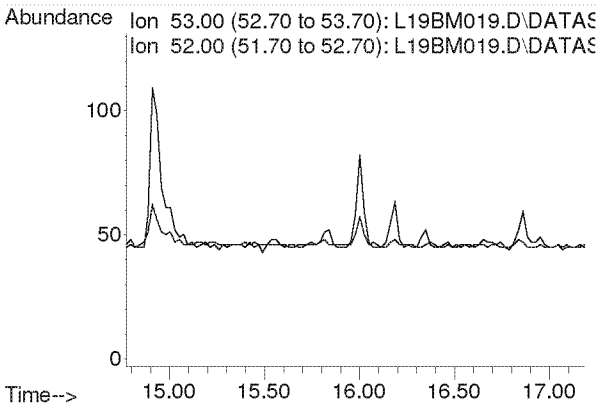


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

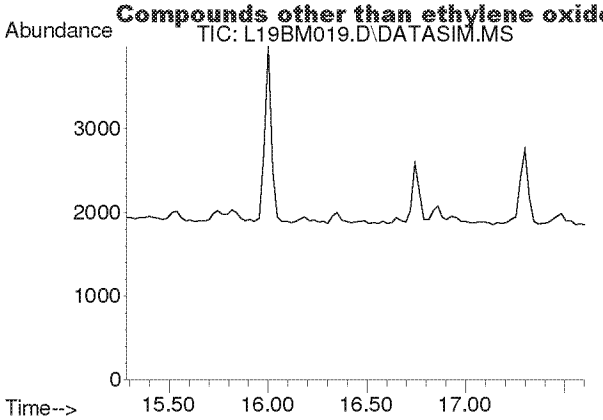
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

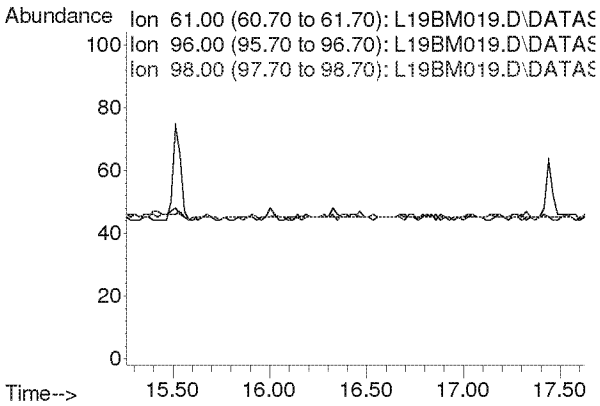


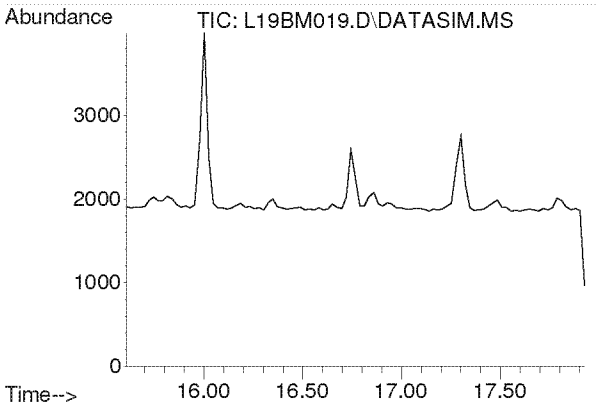
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



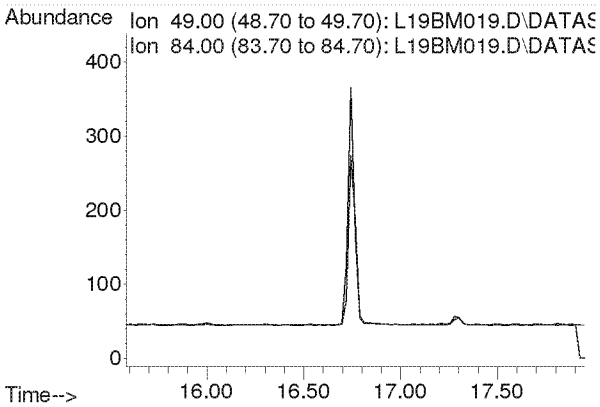


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

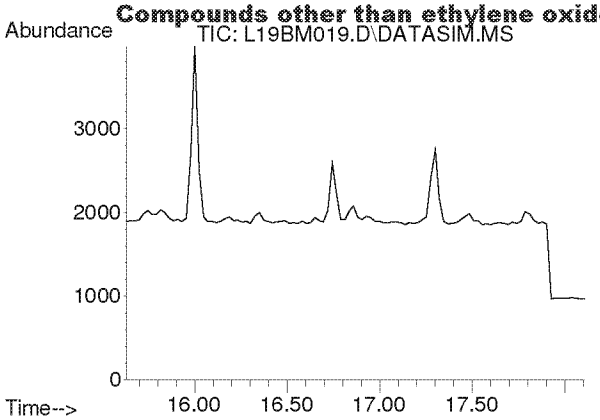
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

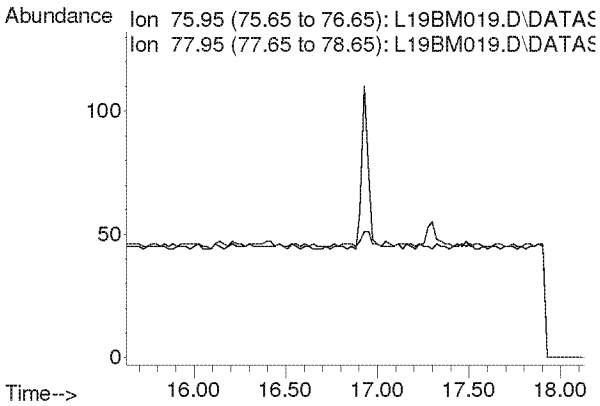


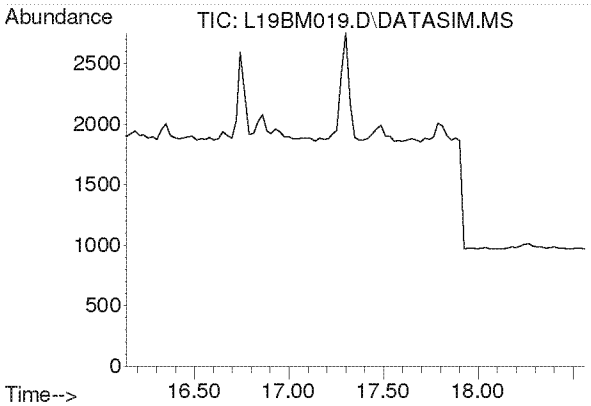
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



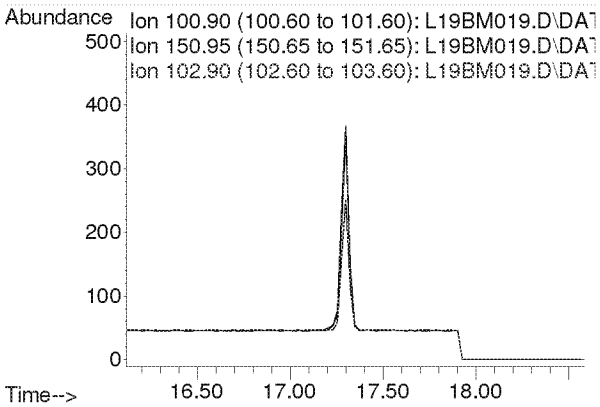


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

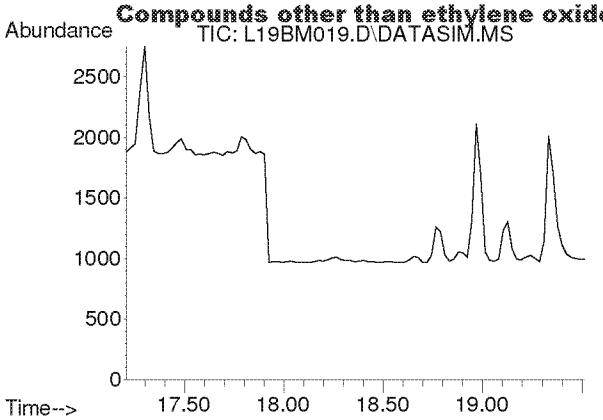
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

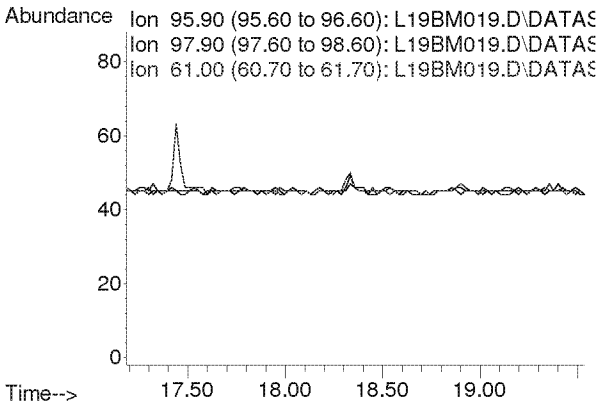


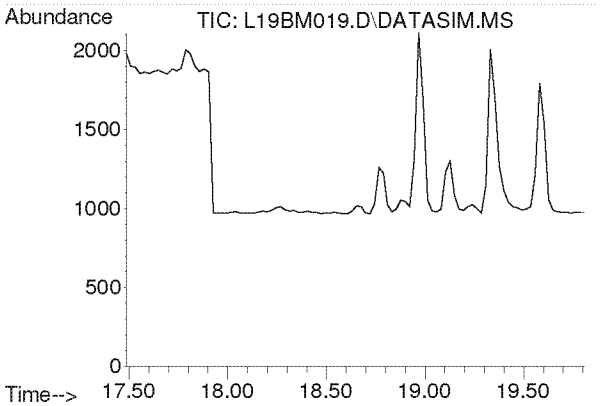
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



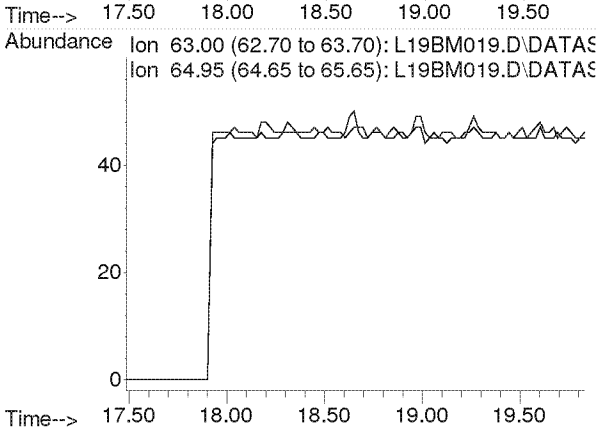


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

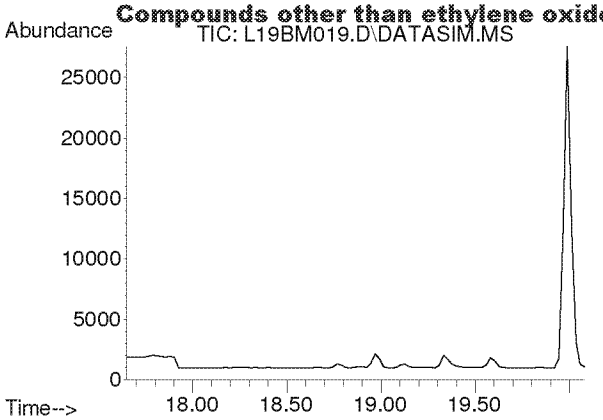
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

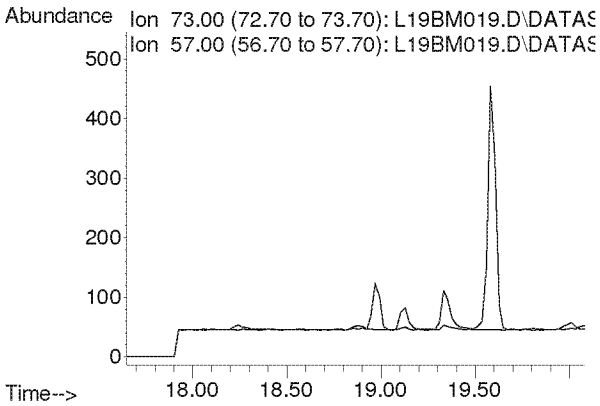


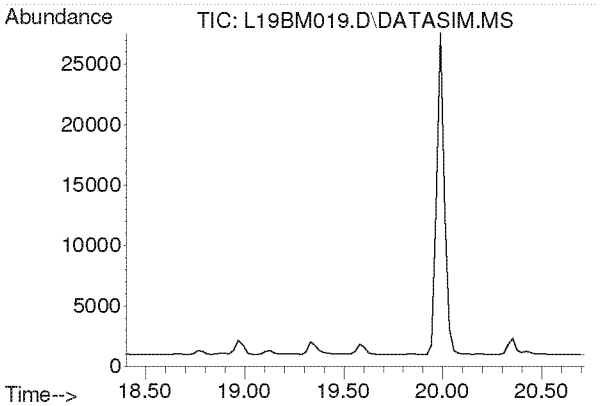
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



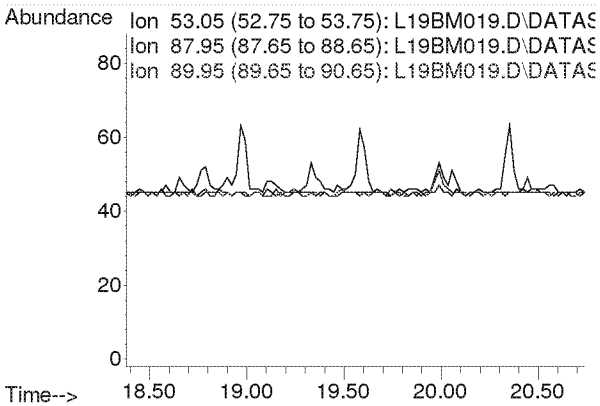


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

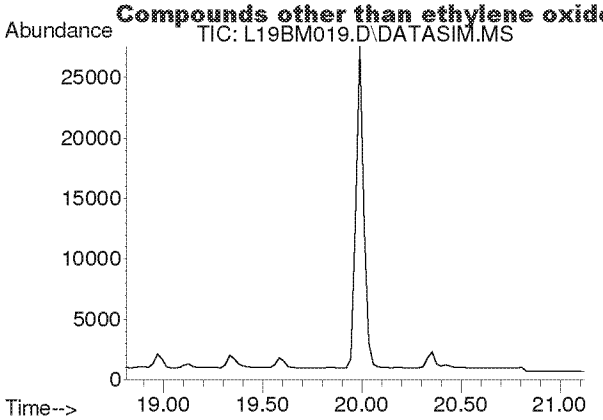
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

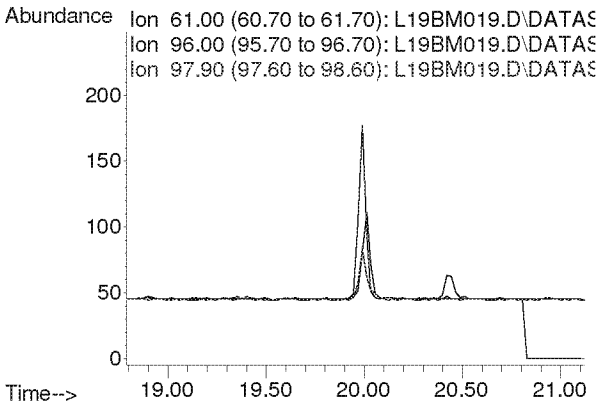


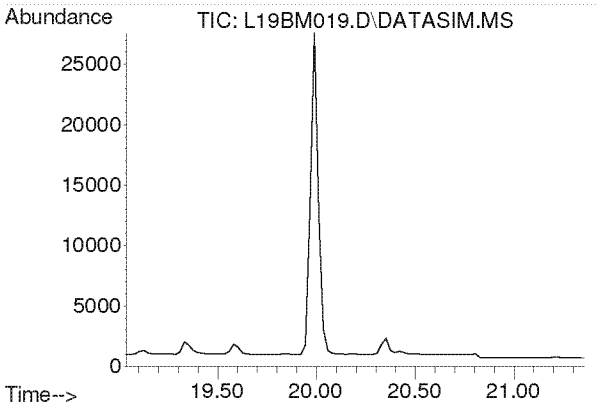
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



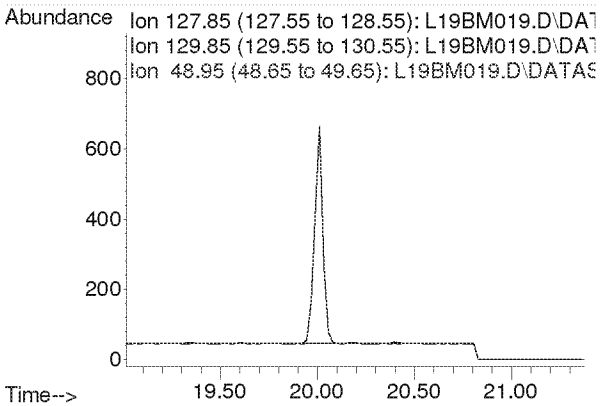


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

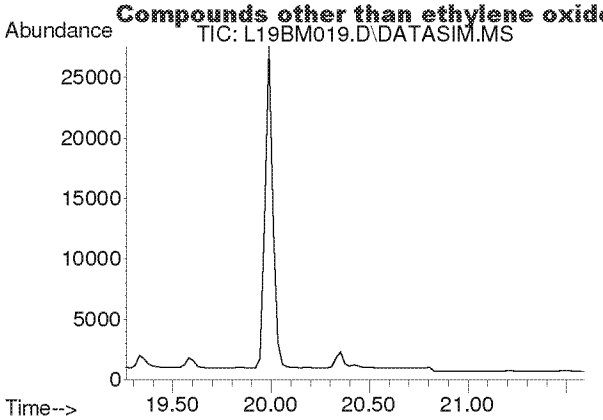
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

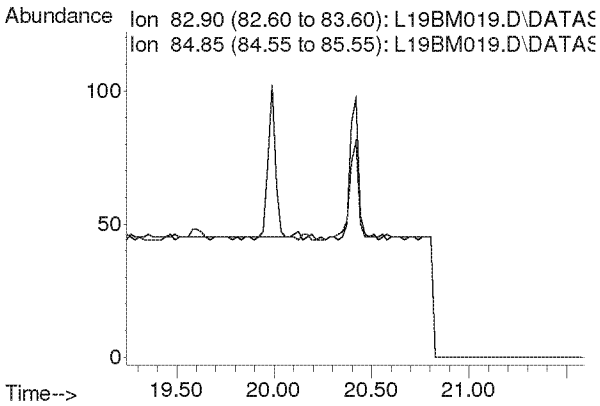


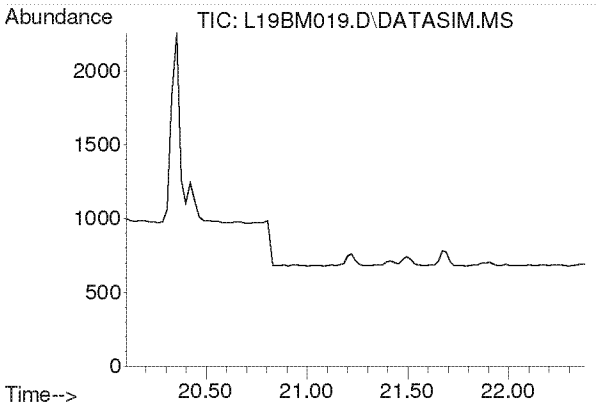
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



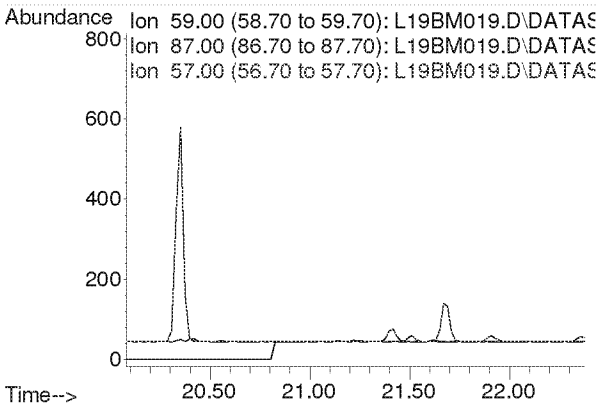


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

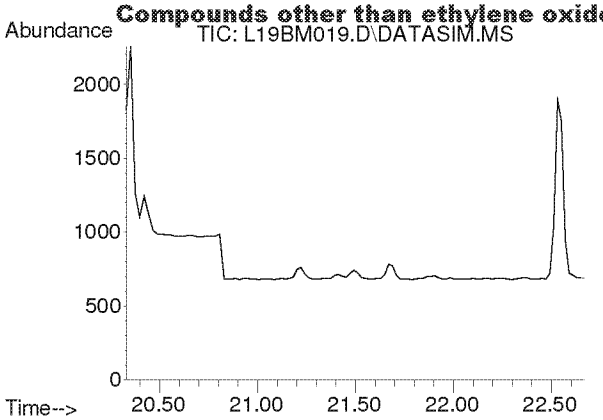
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

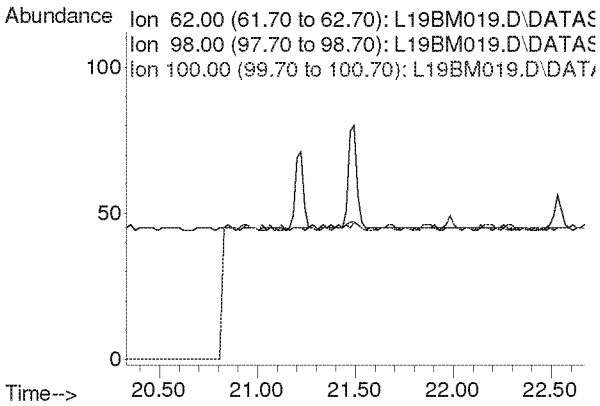


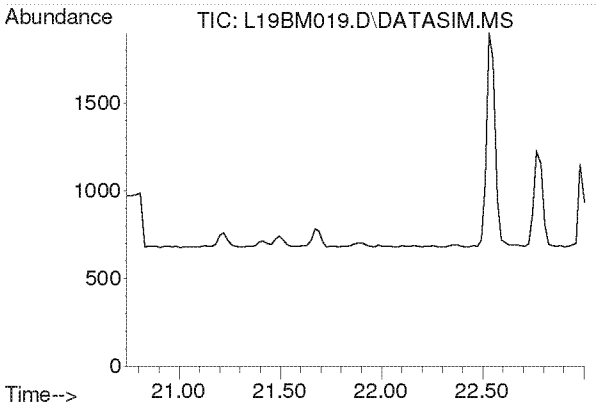
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



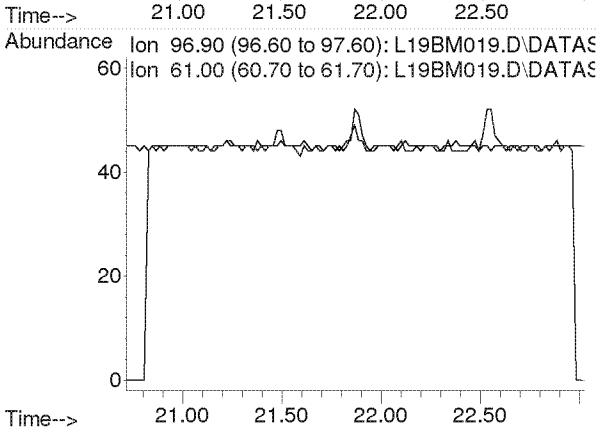


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

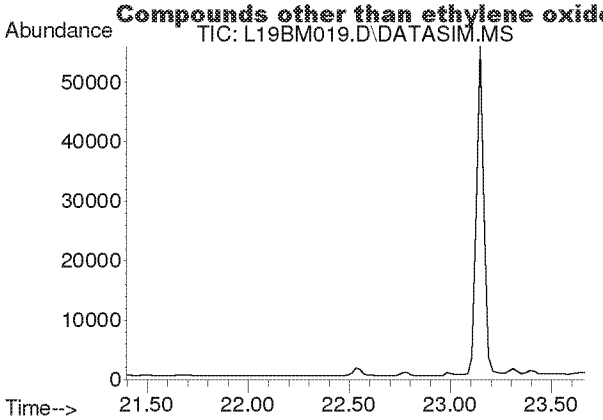
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

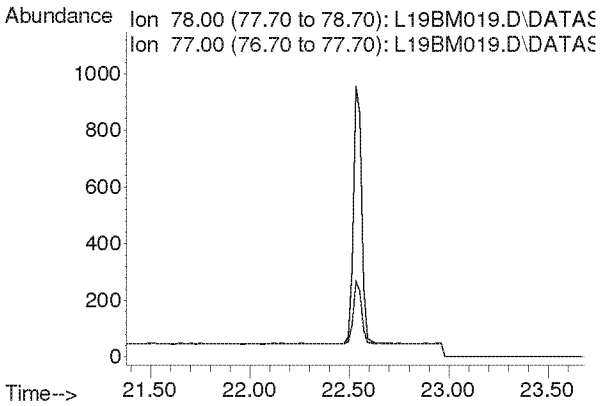


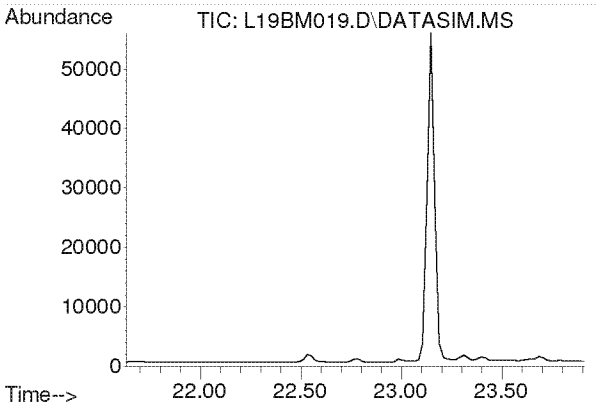
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



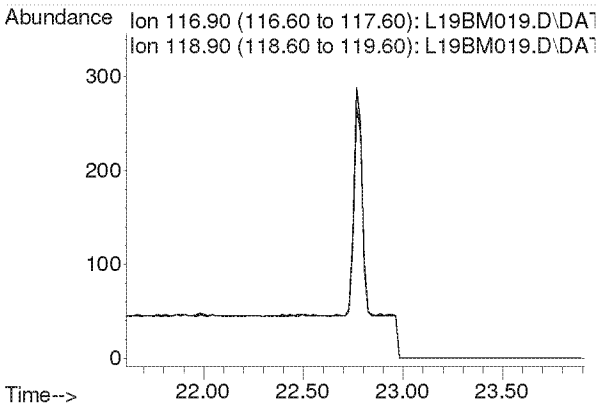


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

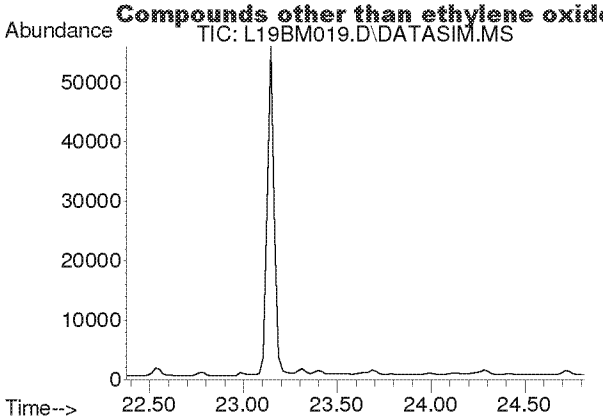
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

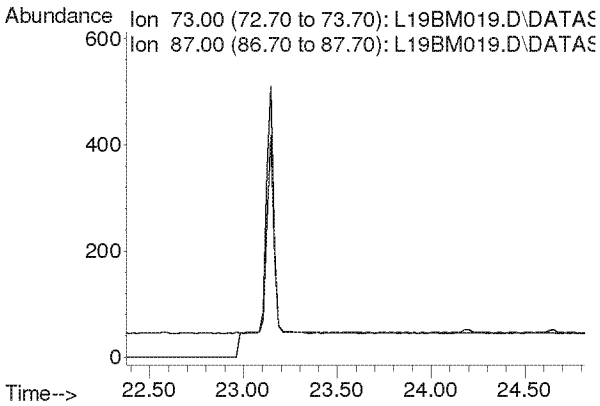


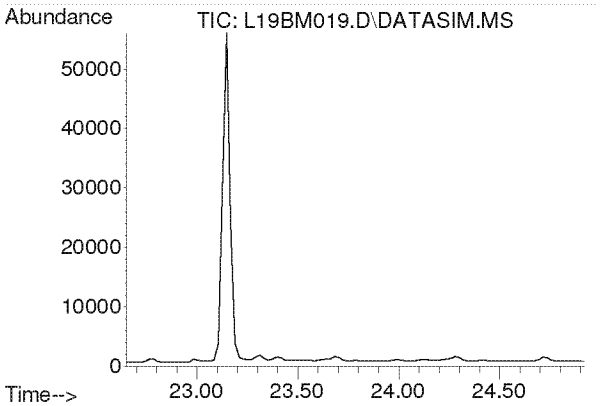
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



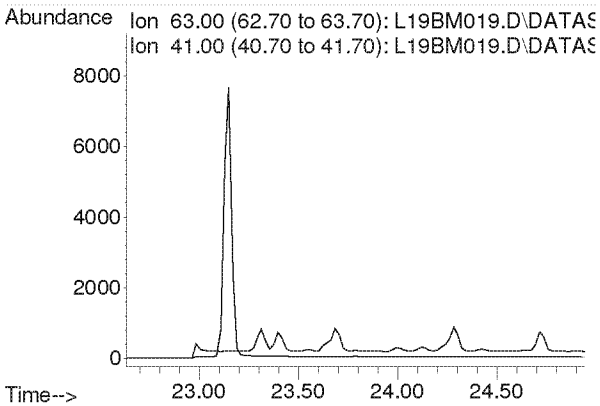


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

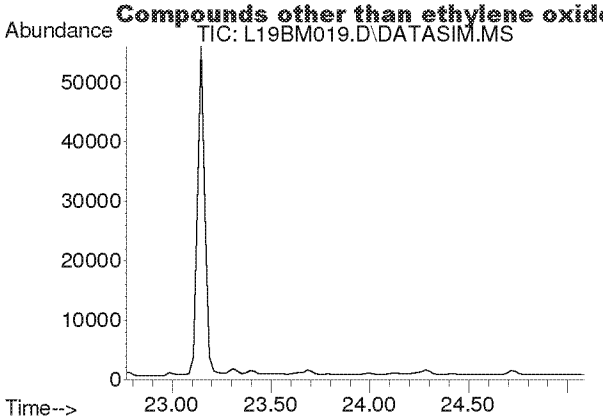
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

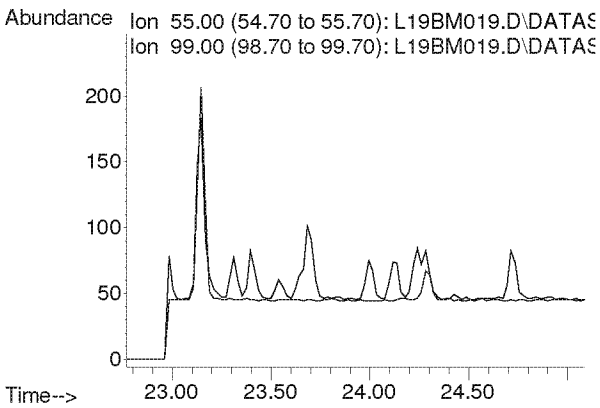


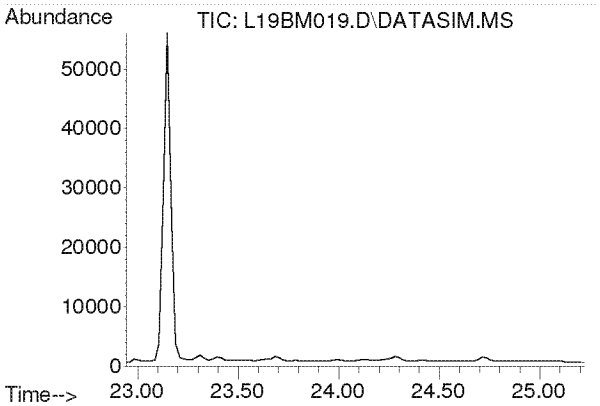
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



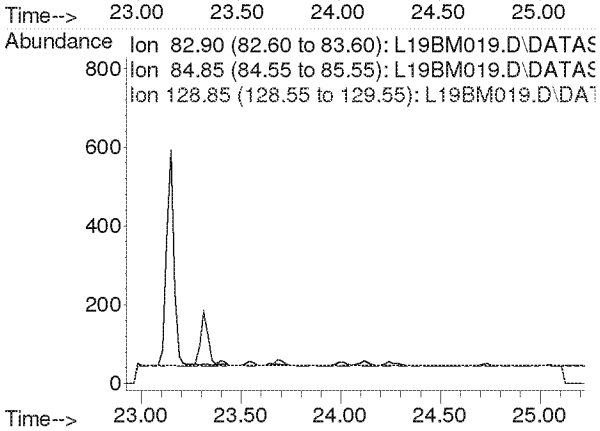


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

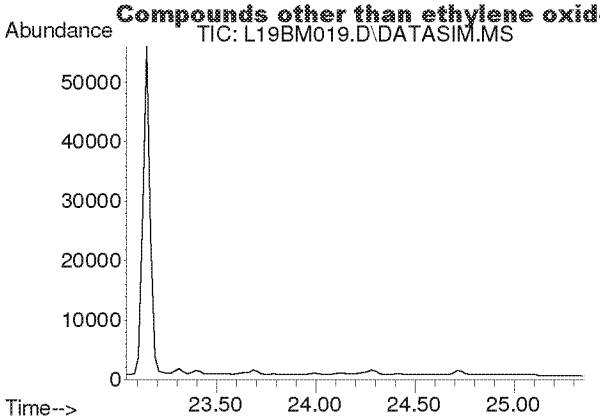
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

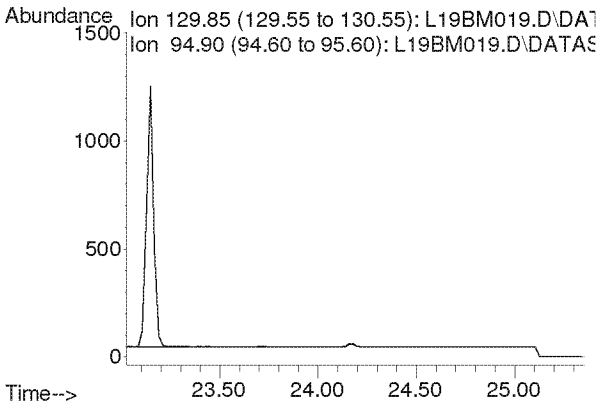


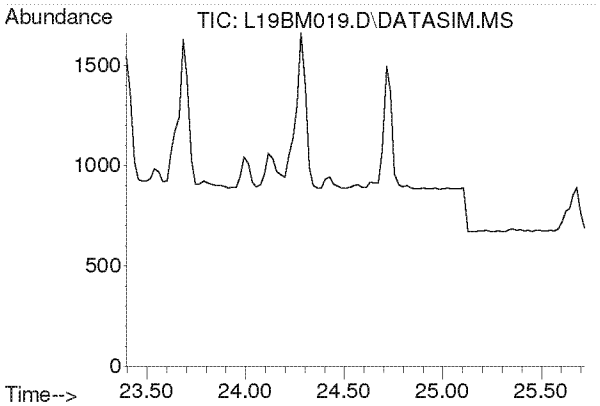
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



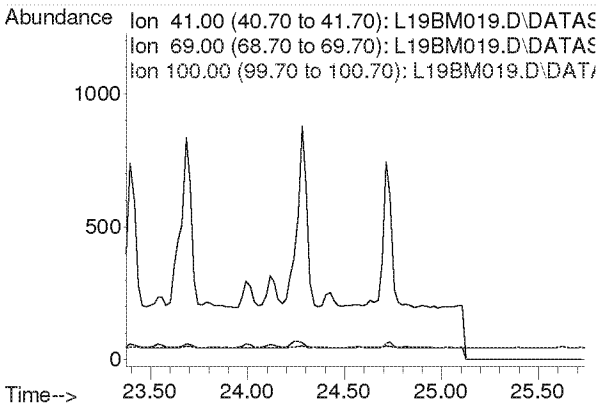


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

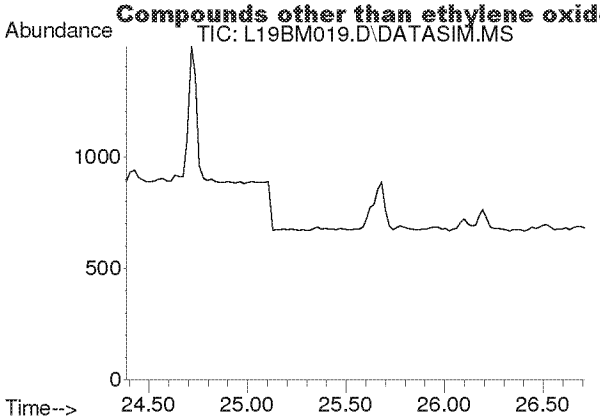
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

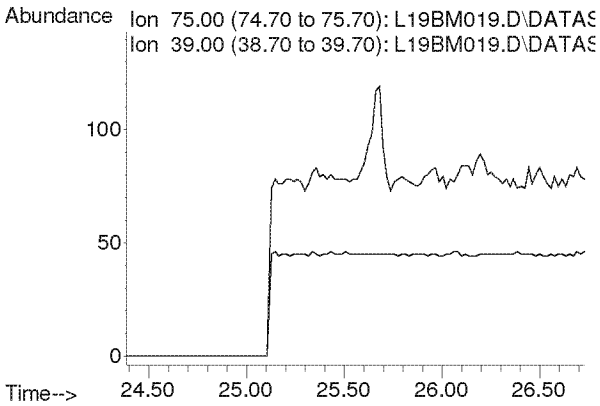


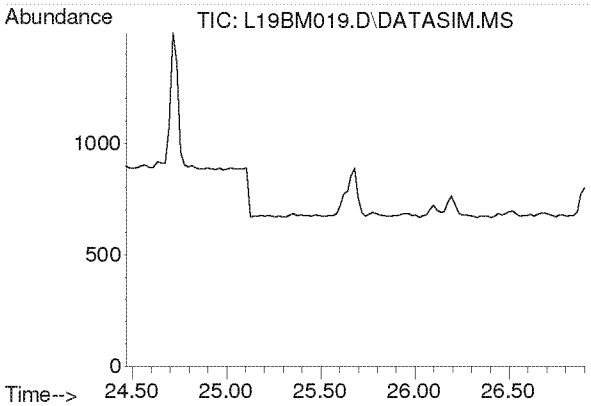
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



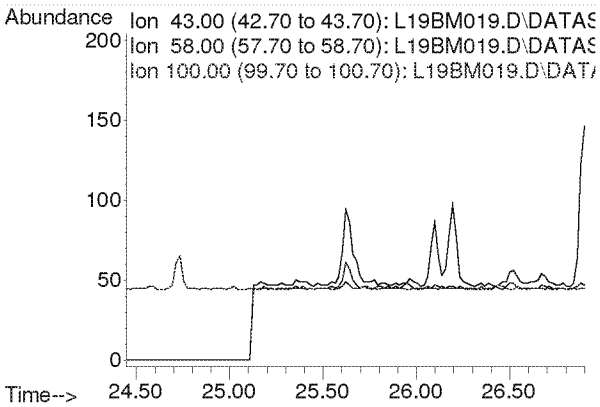


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

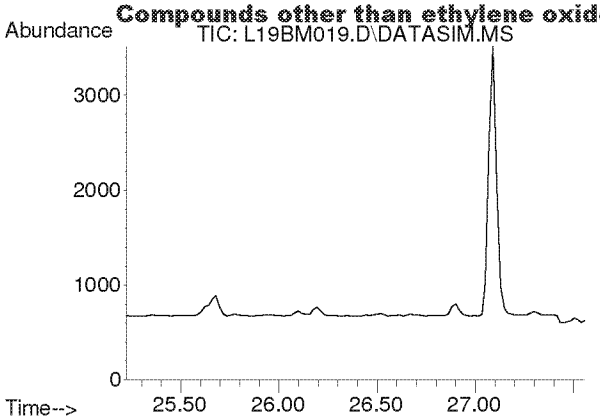
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

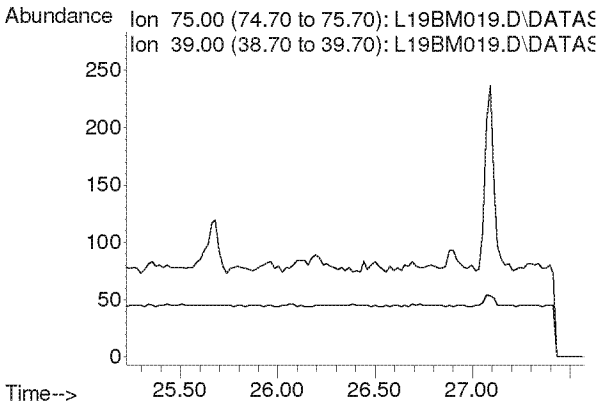


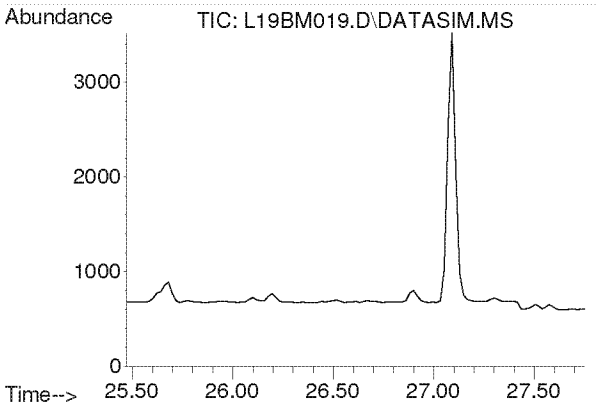
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



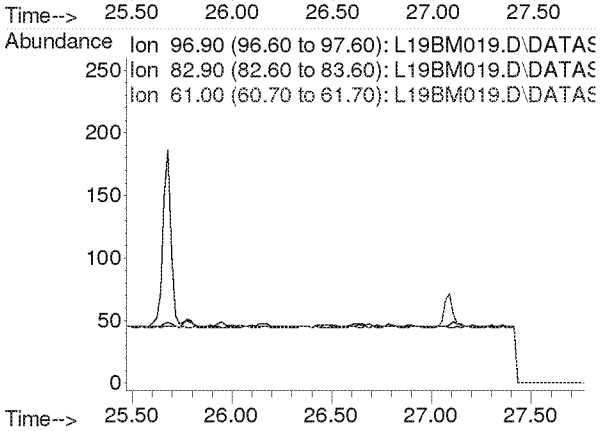


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

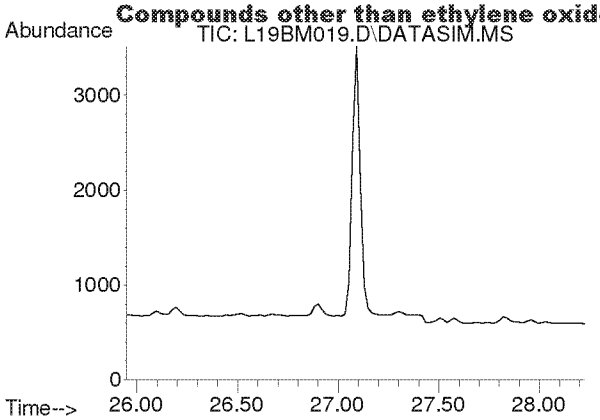
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

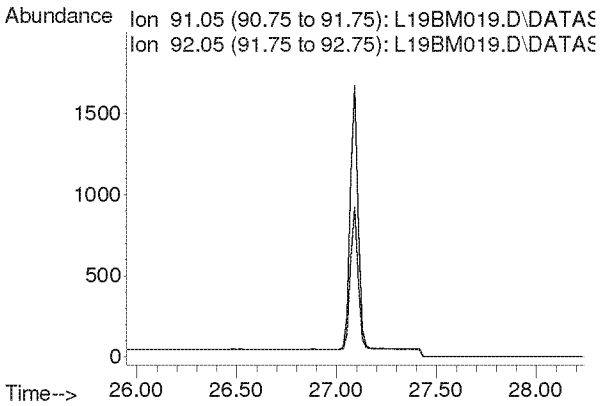


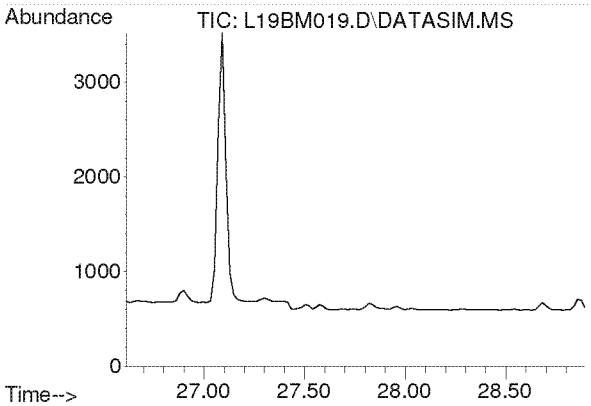
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



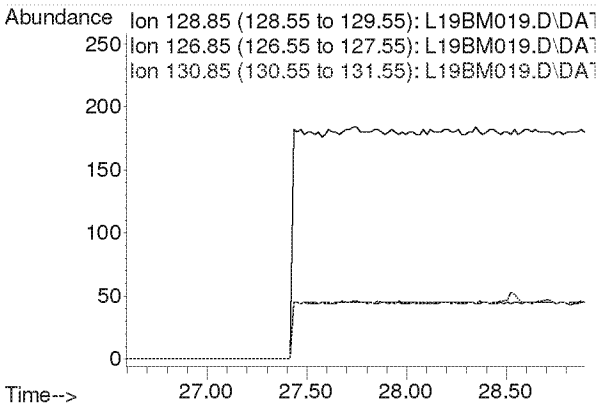


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

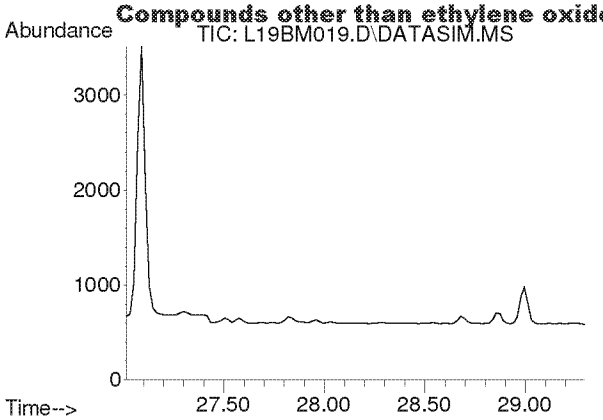
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

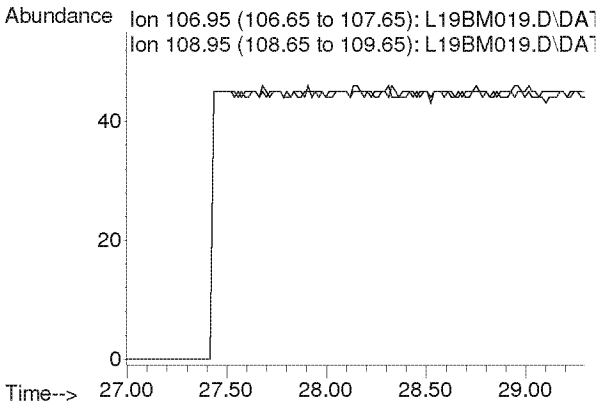


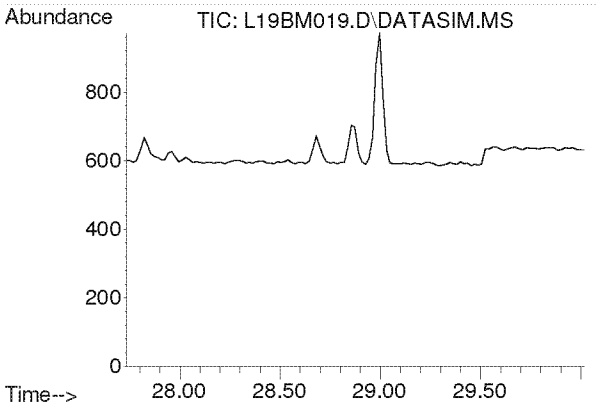
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



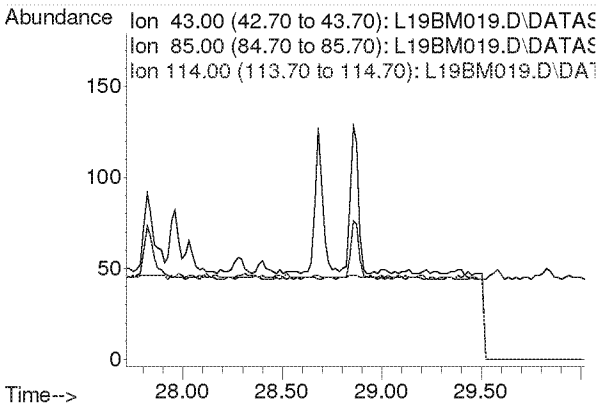


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

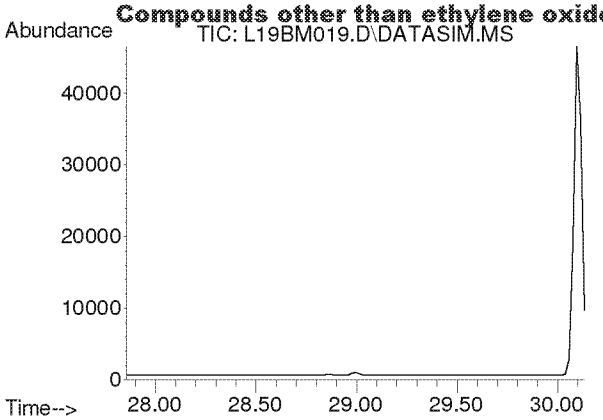
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

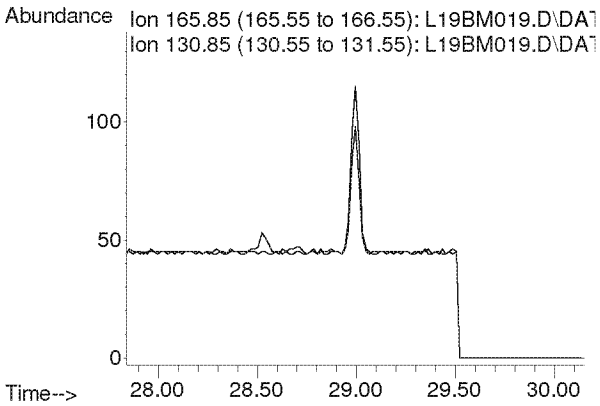


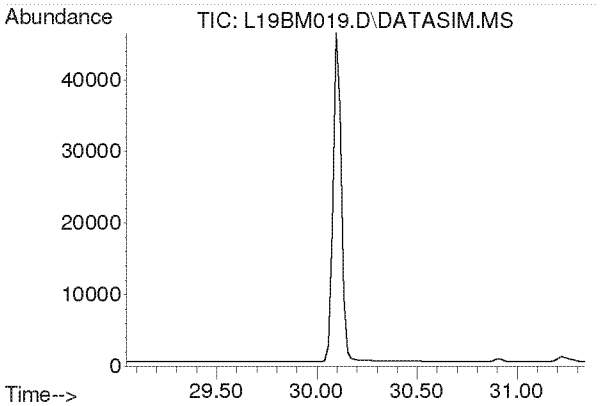
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



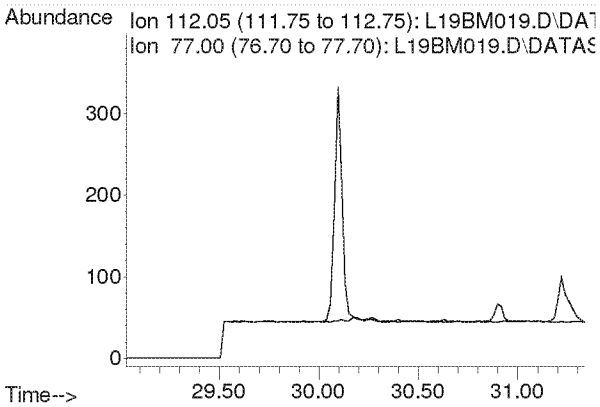


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

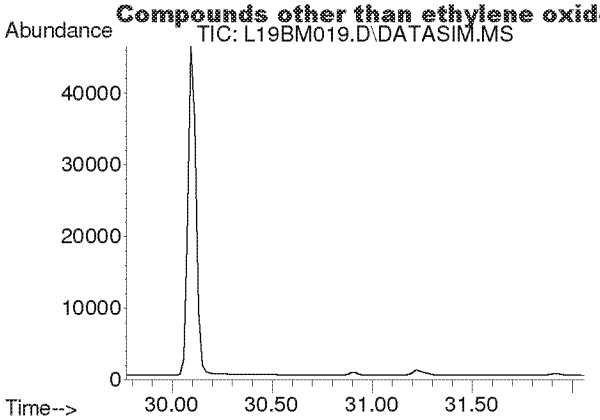
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

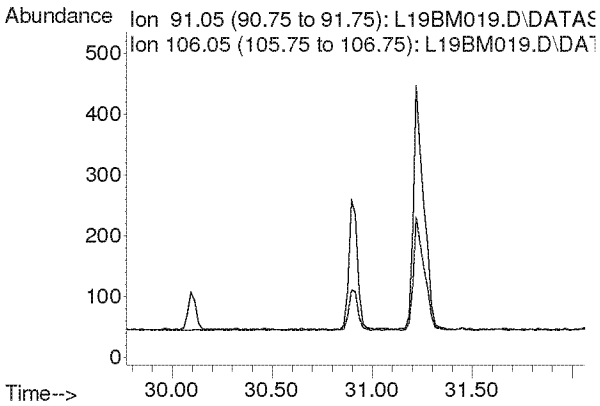


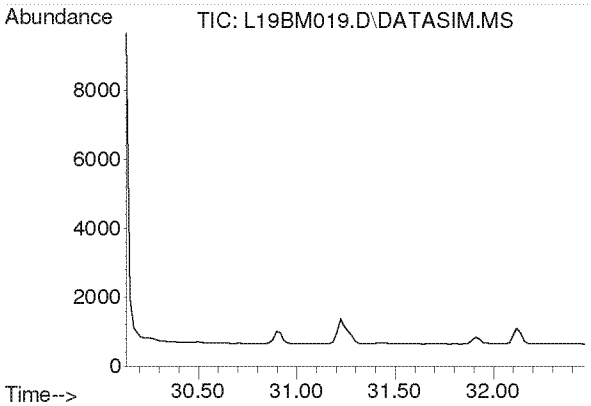
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



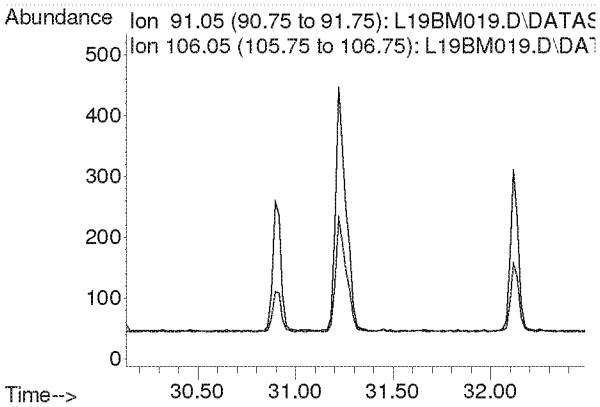


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

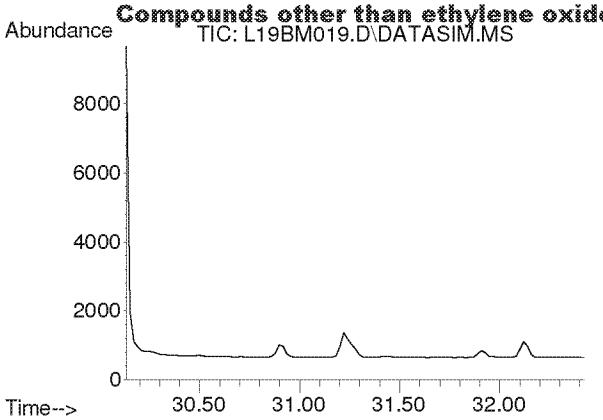
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

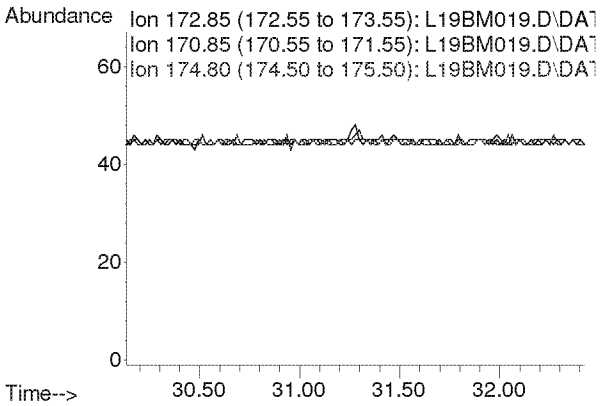


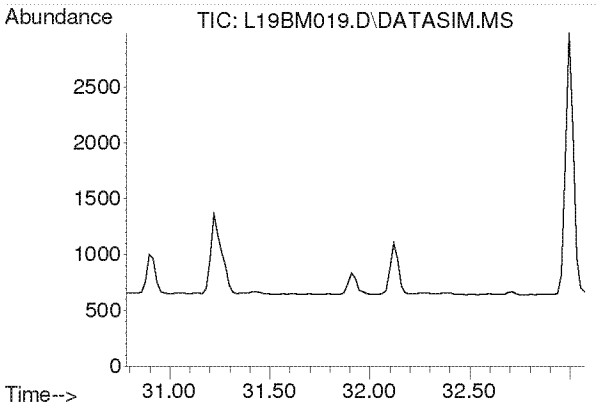
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



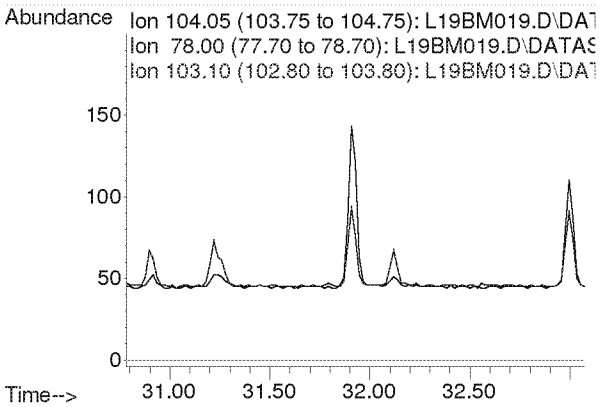


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

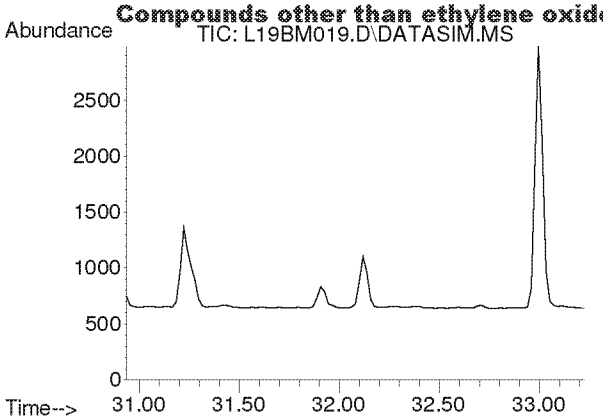
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

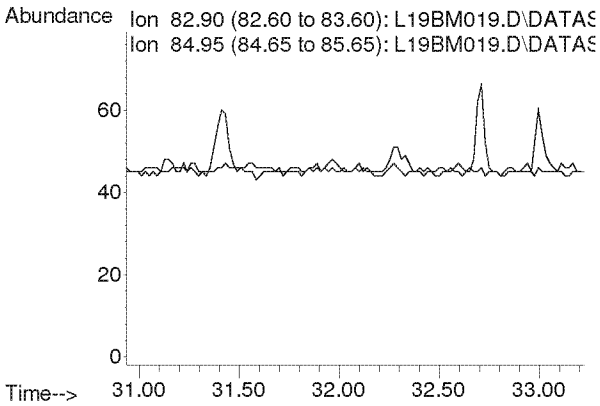


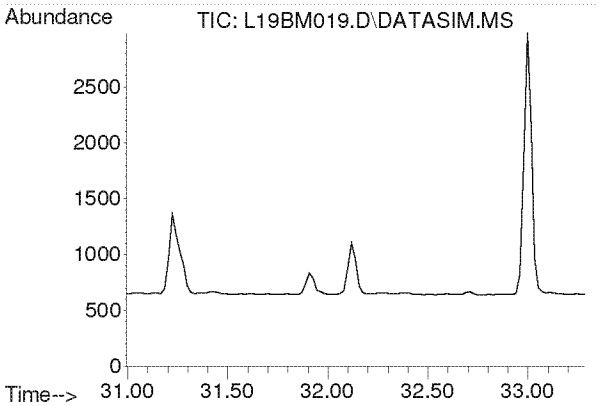
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



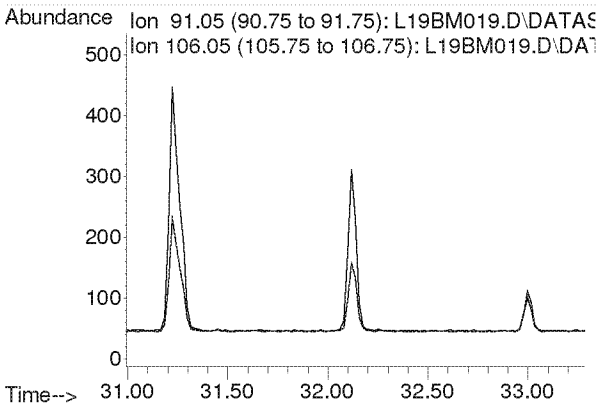


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

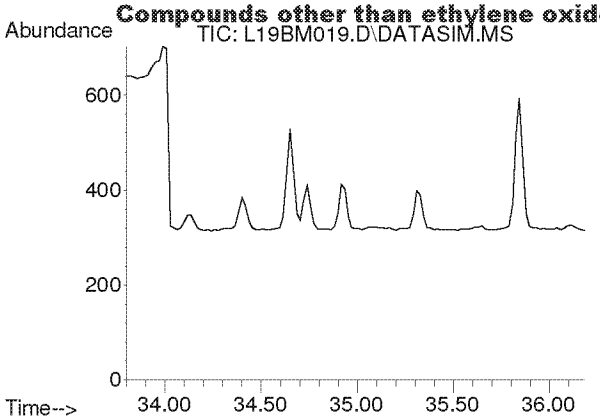
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

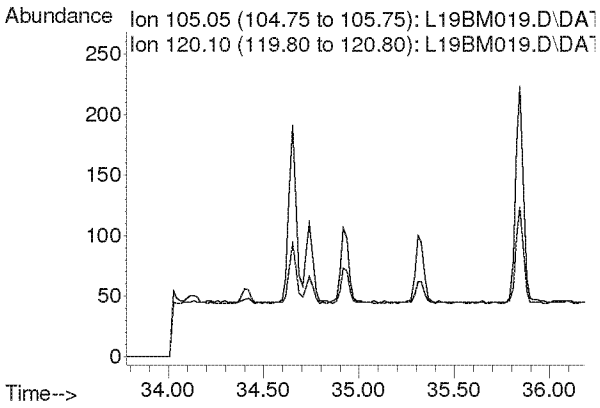


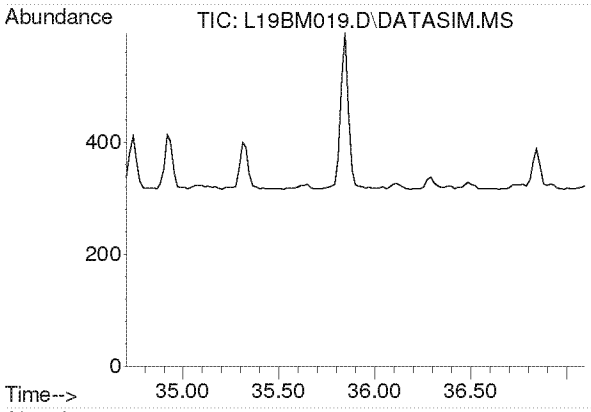
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



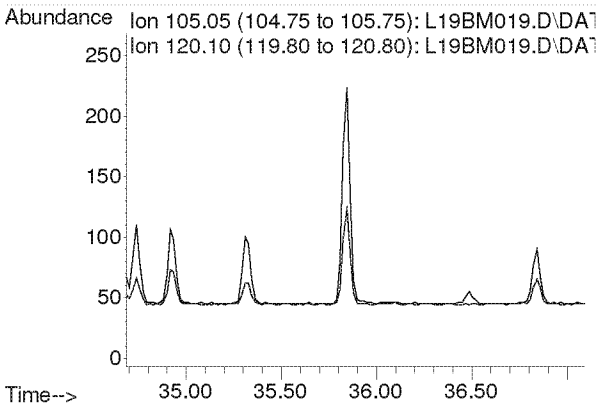


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

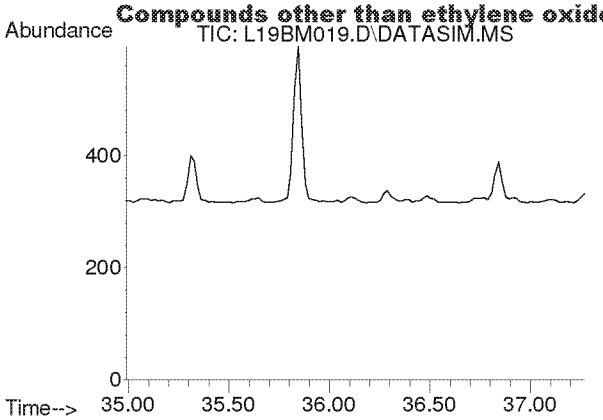
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

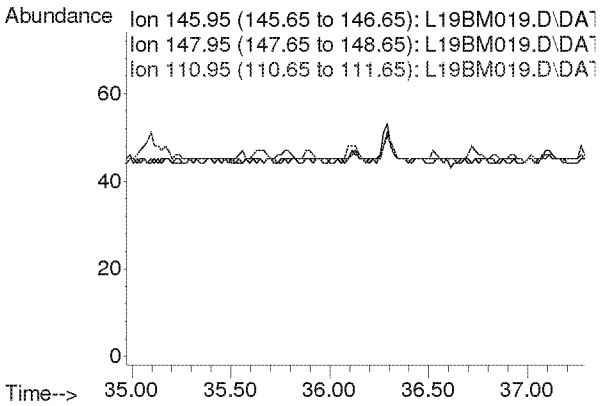


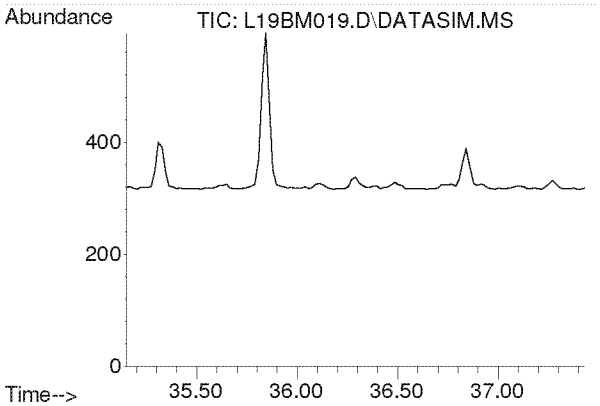
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



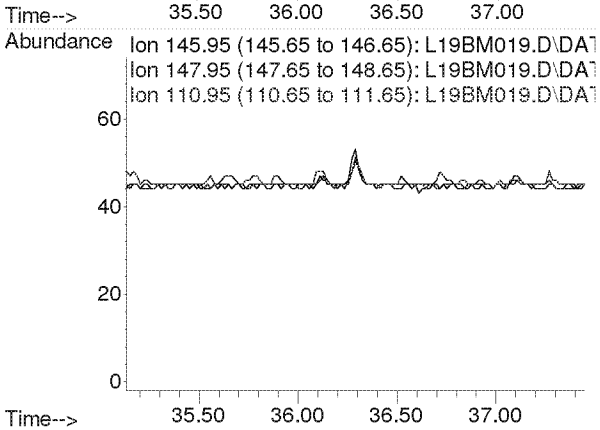


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

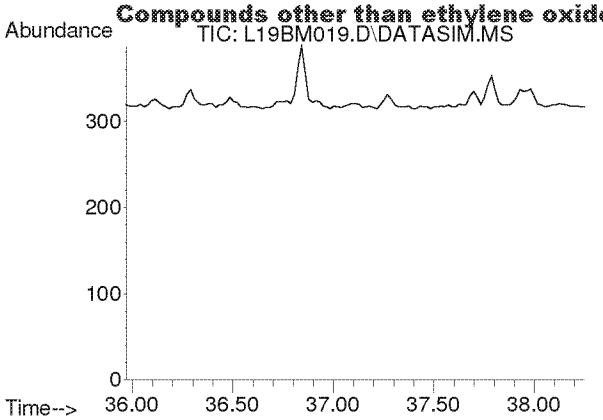
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

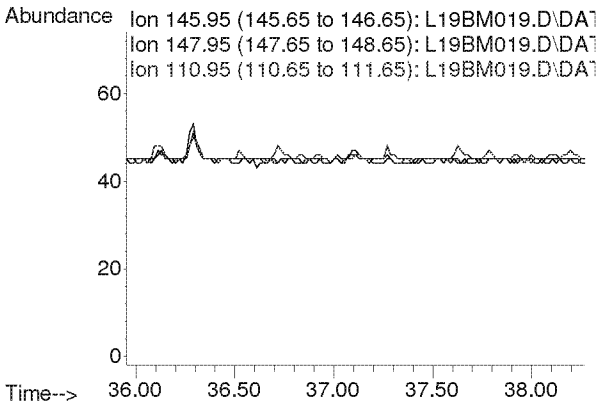


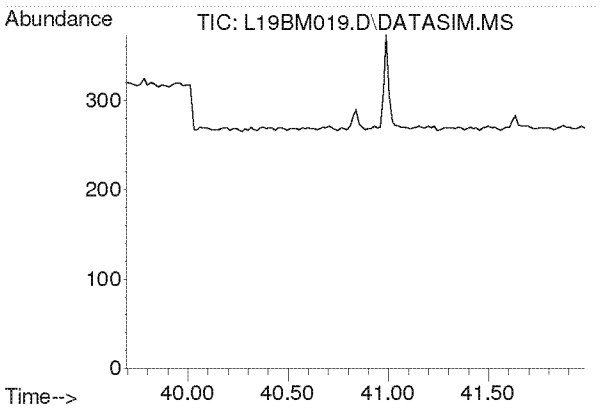
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



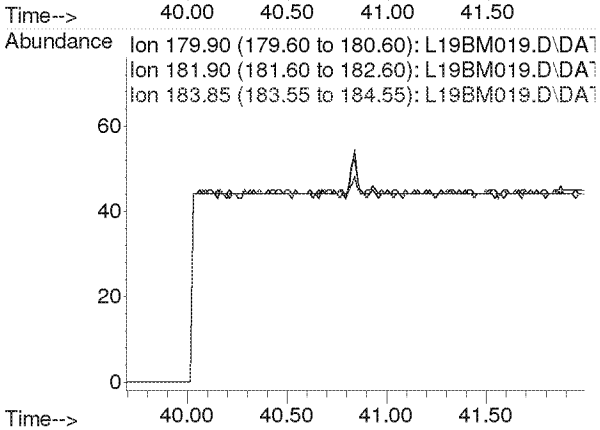


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

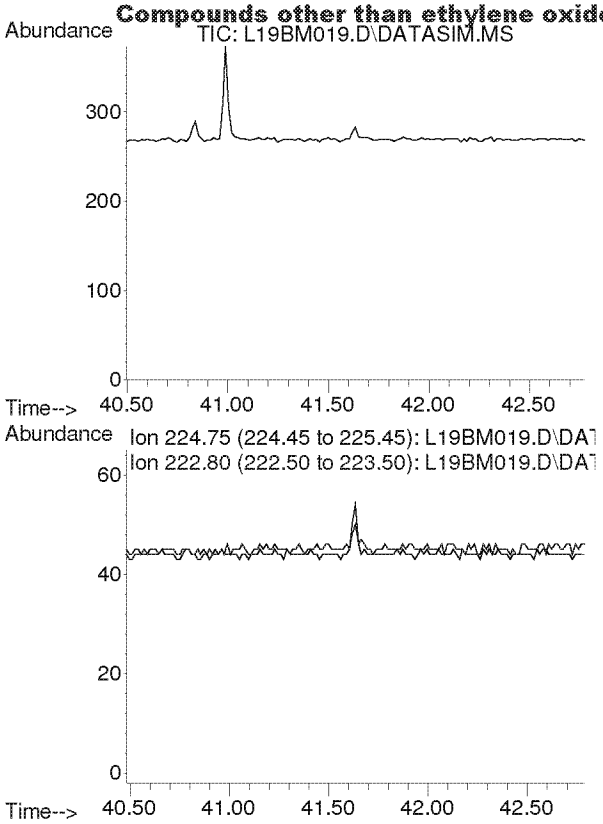
Lab File: L19BM019.D
Acq: 14 Feb 2019 2:46 am

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: L19BM019.D
Acq: 14 Feb 2019 2:46 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM020.D
Acq On : 14 Feb 2019 3:46 am (#1); 14-Feb-19, 03:40:53 (#2)
Operator : MAH
Sample : 9020702-05
Misc : EPA WB WAREHOUSE 2/6/19
ALS Vial : 20 Sample Multiplier: 1 *Dilution run in Sequence L19BN provided at the end of this file*

Quant Time: Feb 14 14:03:39 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	46654	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	118276	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.094	117	85230	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.348	29	43059	16.1367 ppbv	98
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. 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\L19BM\
Data File : L19BM020.D
Acq On : 14 Feb 2019 3:46 am (#1); 14-Feb-19, 03:40:53 (#2)
Operator : MAH
Sample : 9020702-05
Misc : EPA WB WAREHOUSE 2/6/19
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 14 14:03:39 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

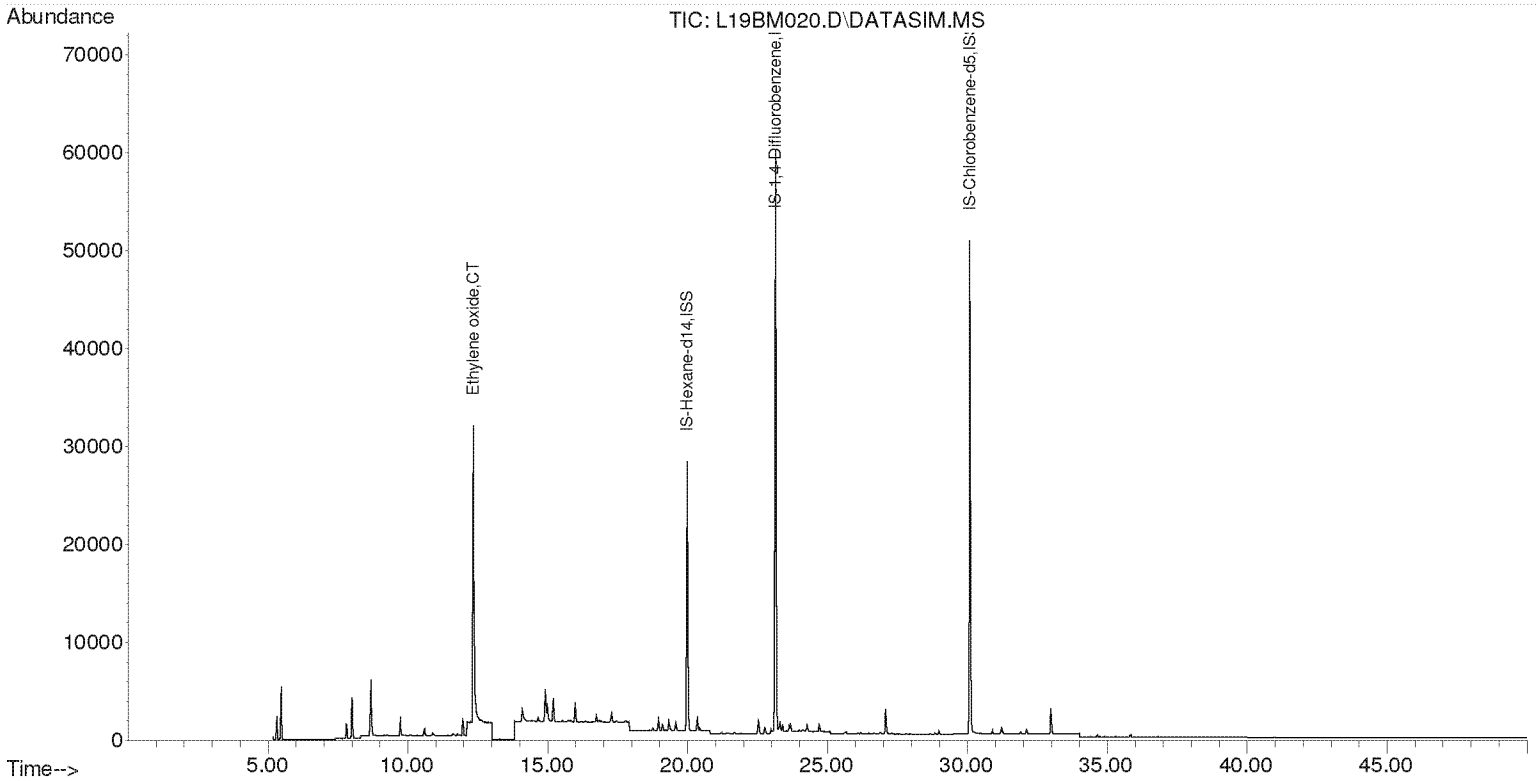
902000

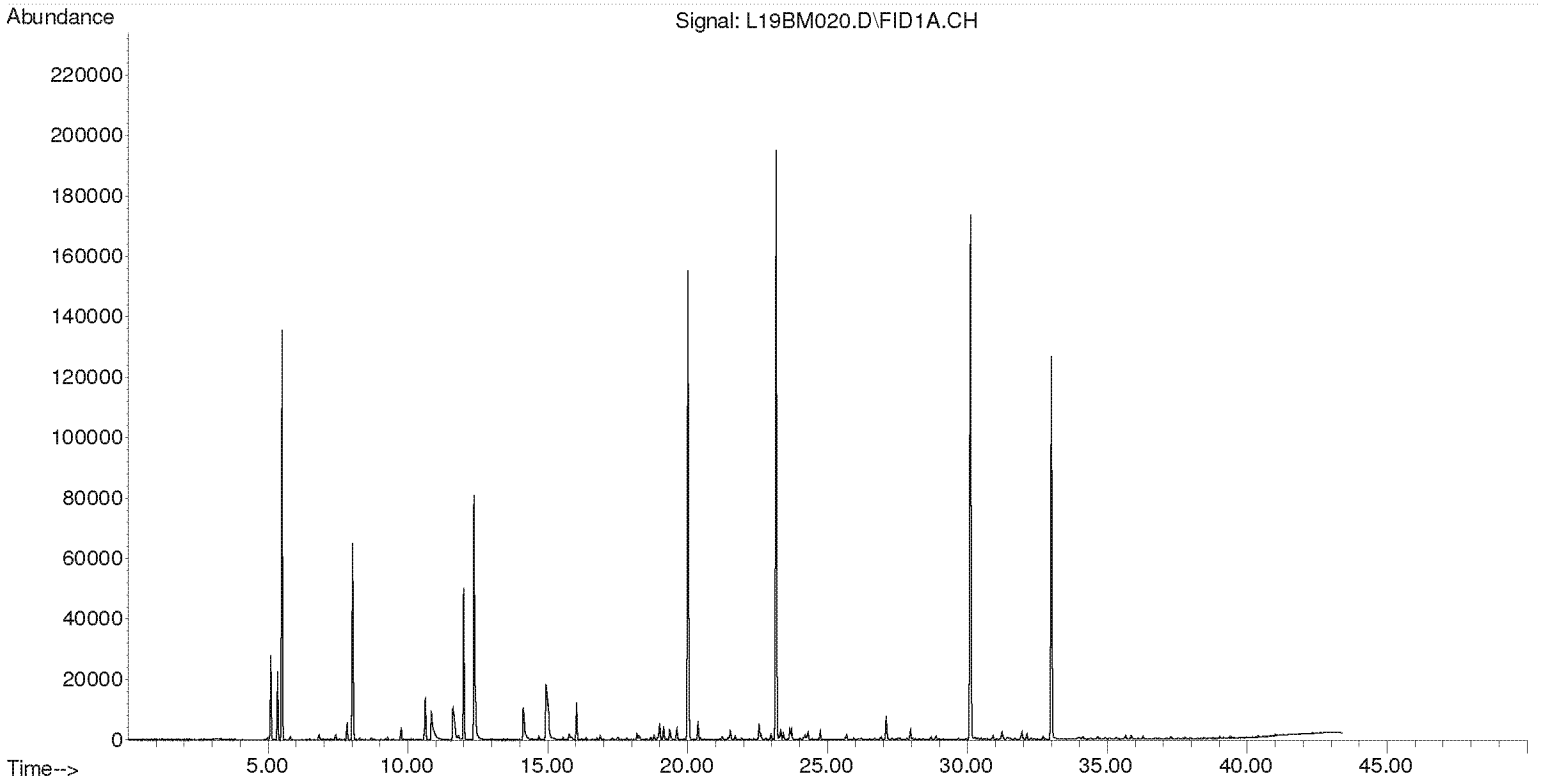
ED_002475_00000213-00316

Compounds other than ethylene oxide were not quantitated.

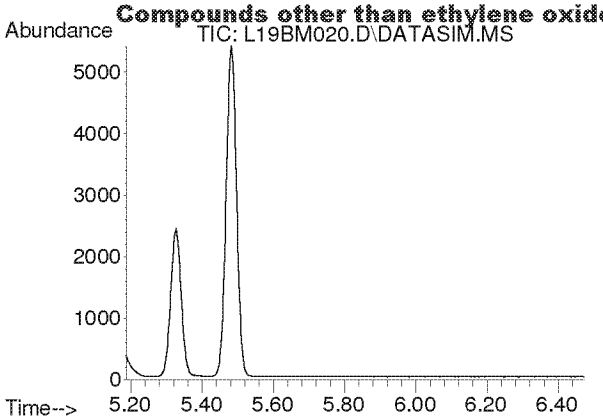
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM020.D
Acq On : 14 Feb 2019 3:46 am (#1); 14 Feb 2019 3:40 am (#2)
Operator : MAH
Sample : 9020702-05
Misc : EPA WB WAREHOUSE 2/6/19
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 14 08:30:13 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





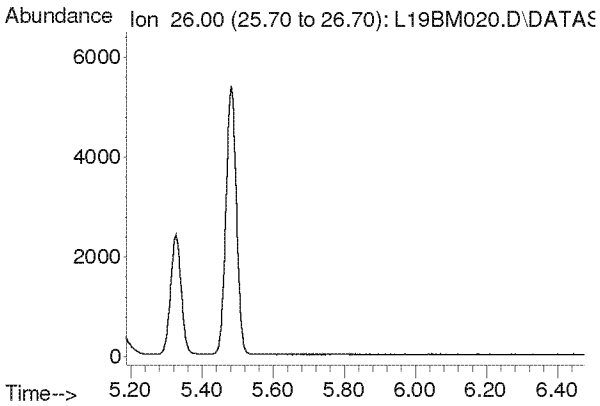
Compounds other than ethylene oxide were not quantitated.

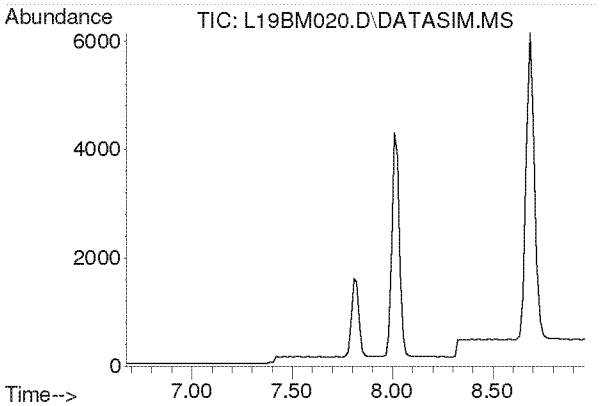


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 26



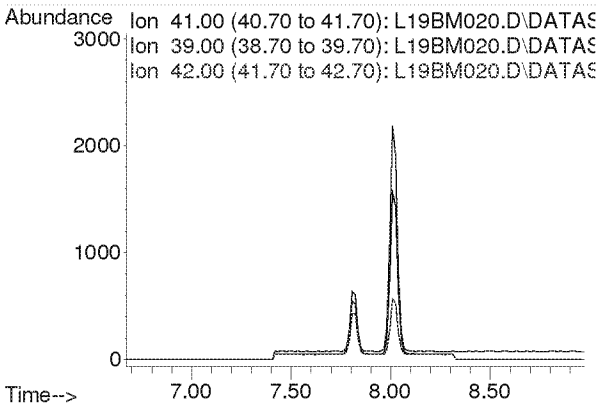


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

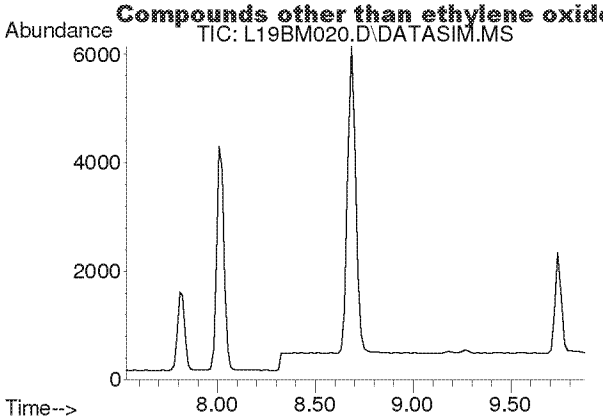
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

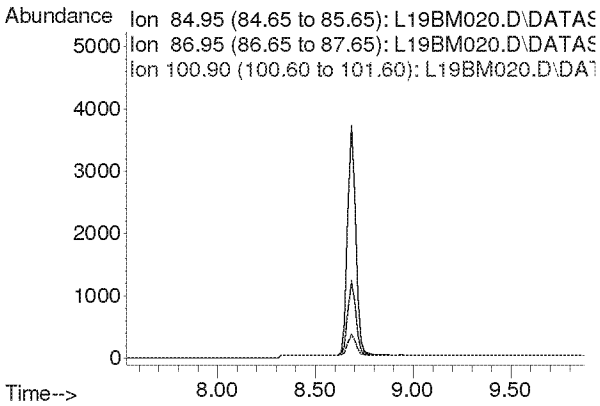


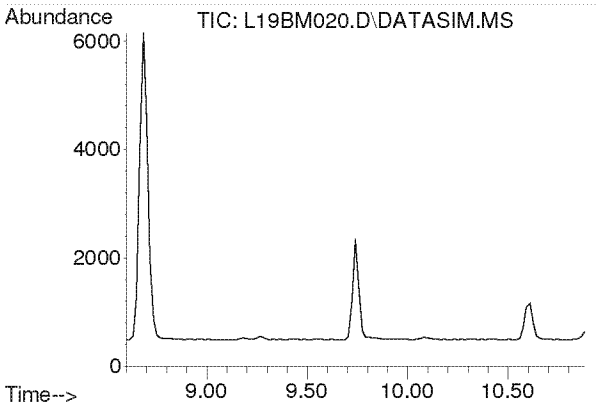
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



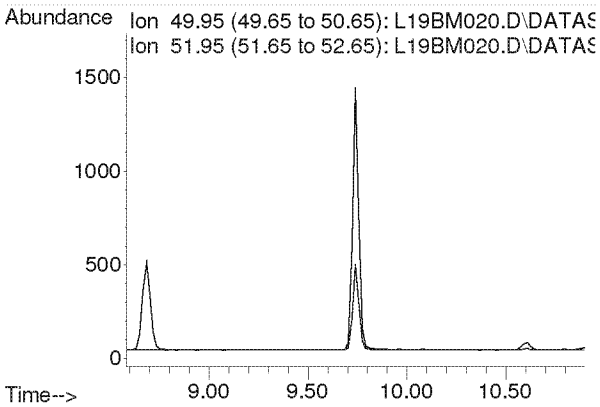


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

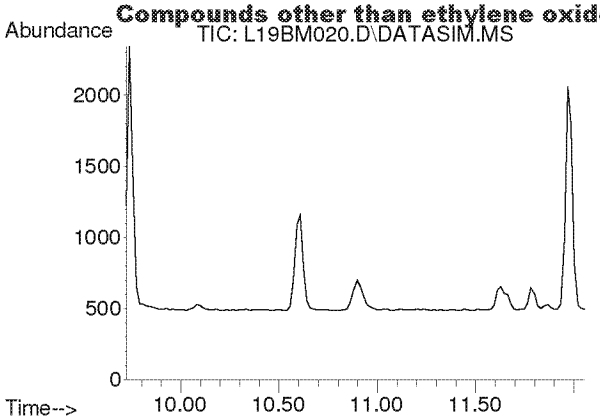
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

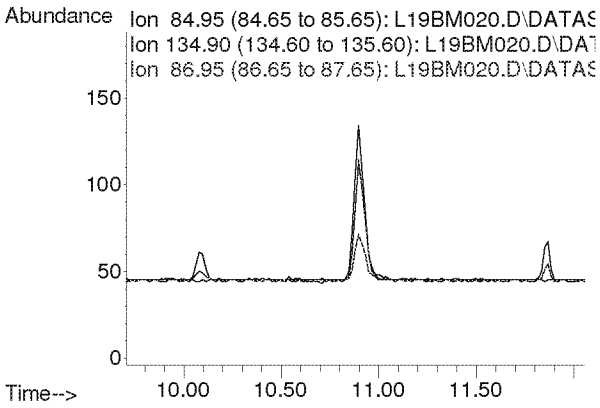


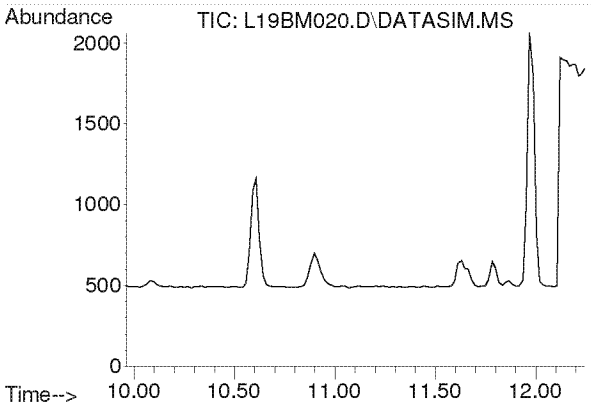
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



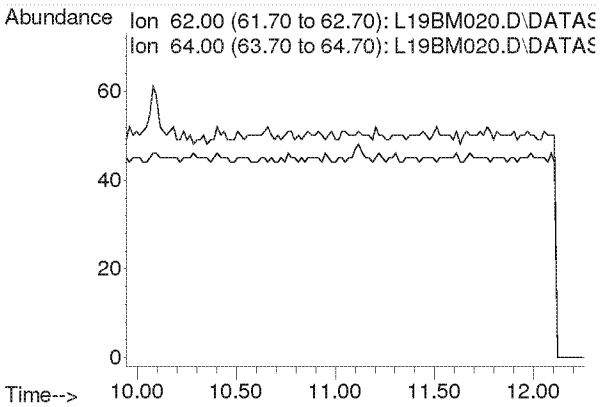


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

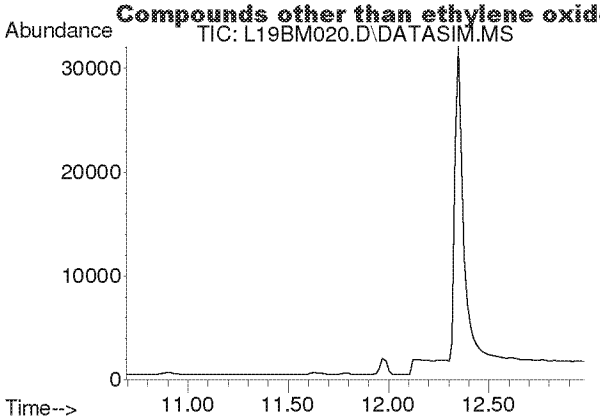
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

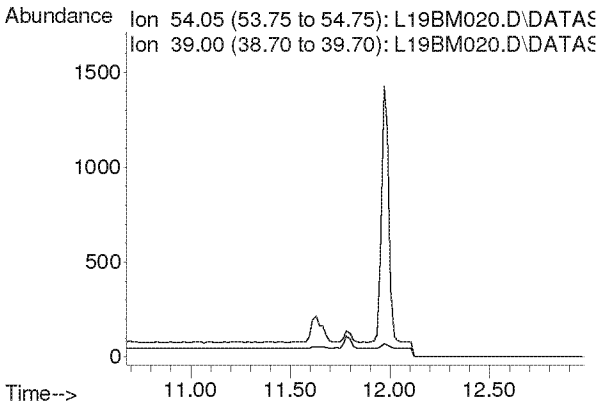


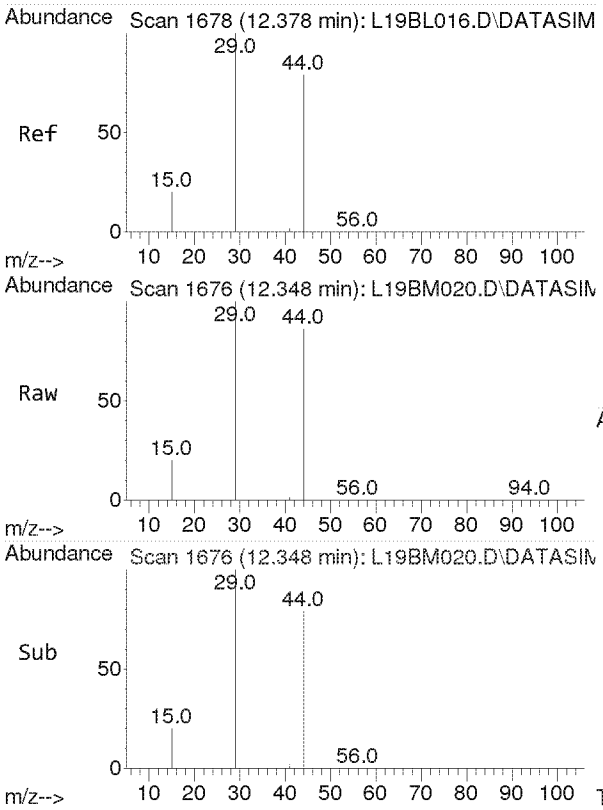
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

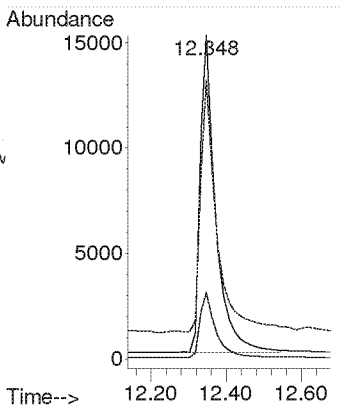




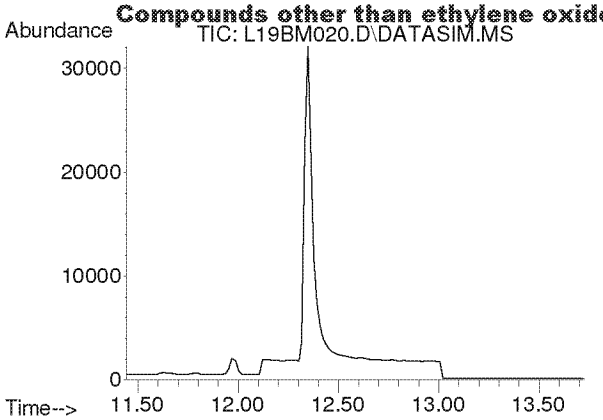
#9
Ethylene oxide
Concen: 16.137 ppbv
RT: 12.348 min Scan# 1676
Delta R.T. -0.012 min
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 29 Resp: 43059

Ion	Ratio	Lower	Upper
29	100		
15	20.7	16.0	24.0
44	83.5	65.4	98.2



Compounds other than ethylene oxide were not quantitated.

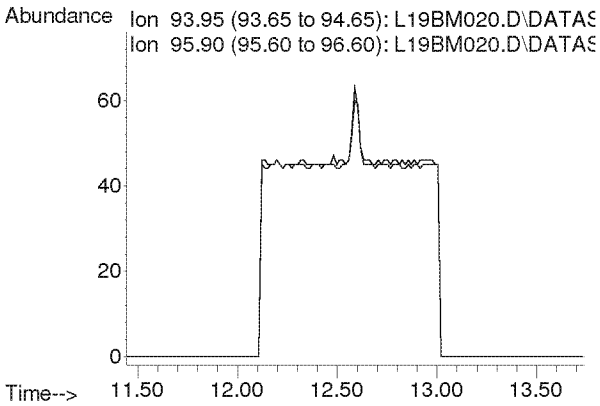


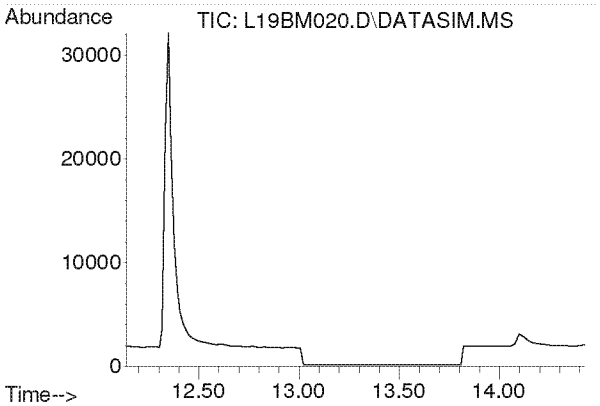
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



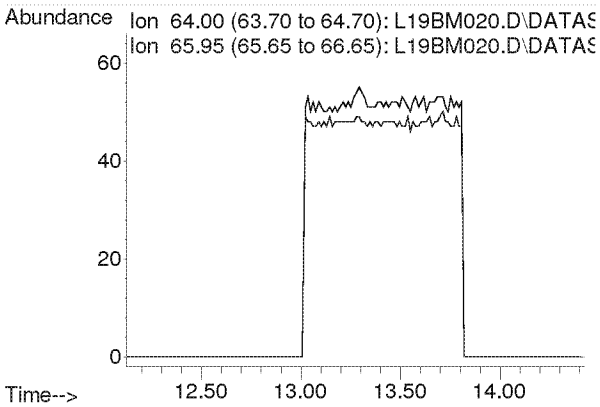


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

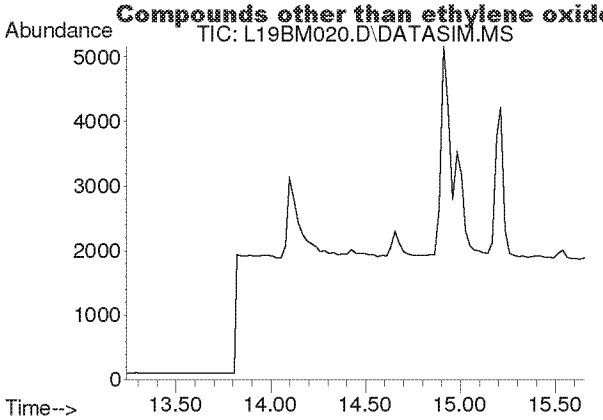
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

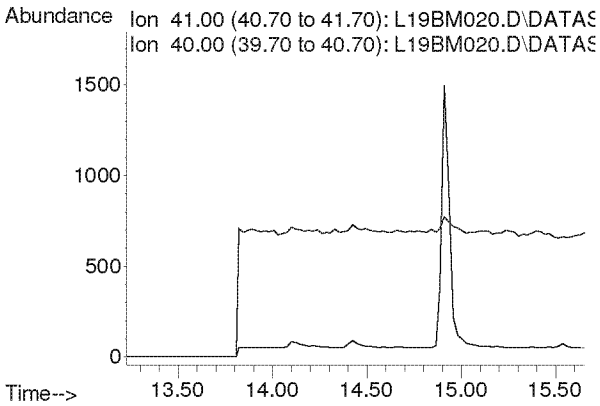


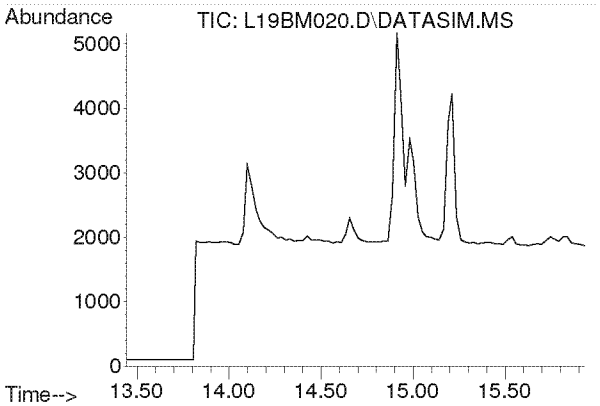
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



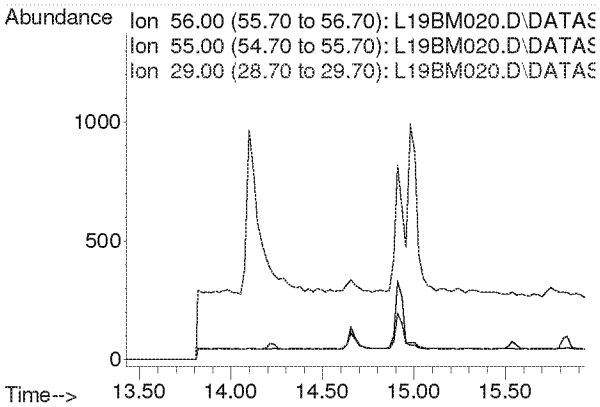


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

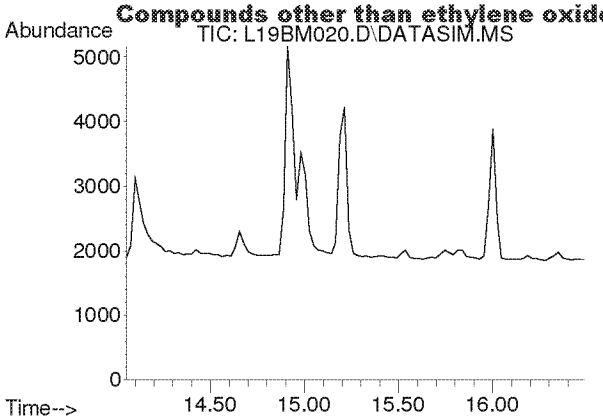
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

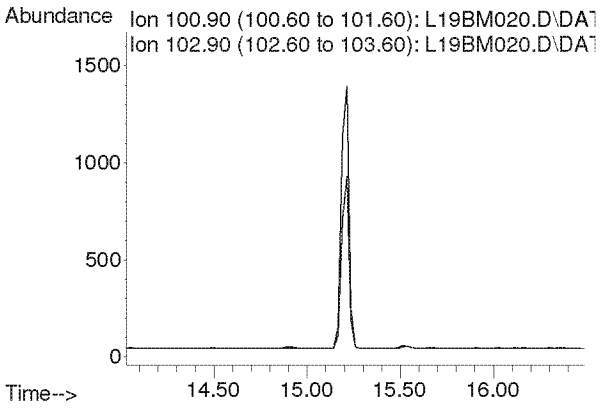


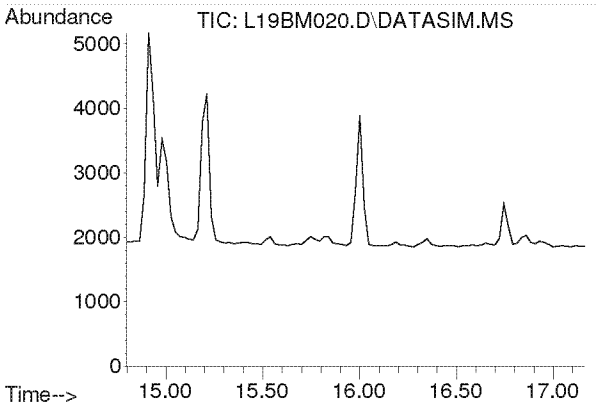
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



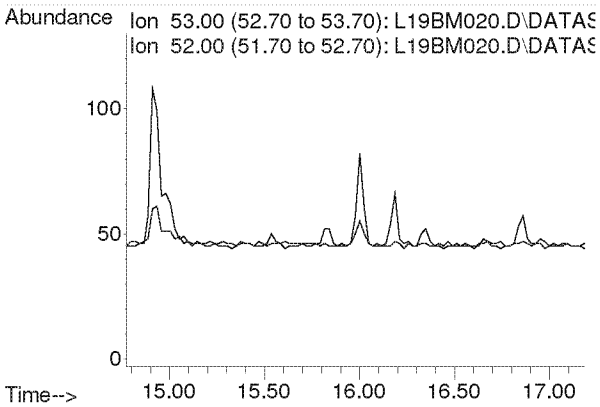


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

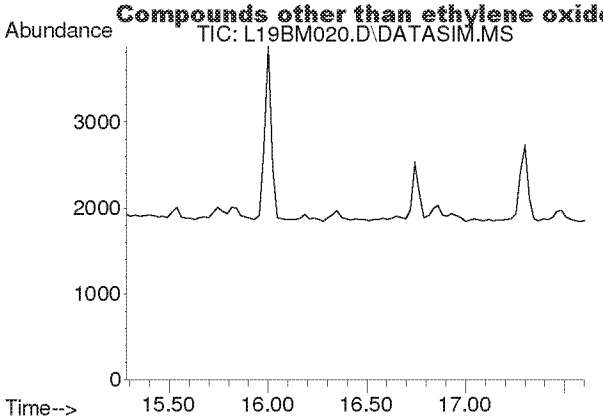
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

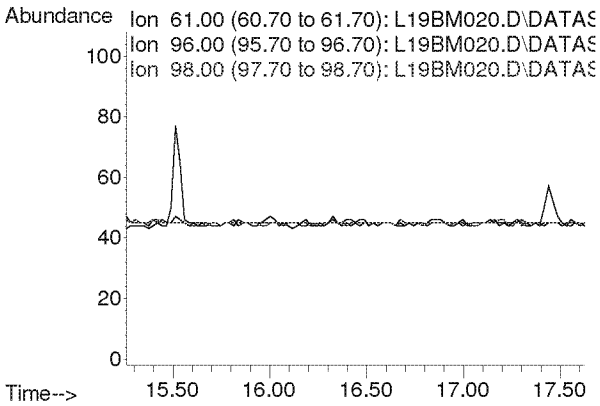


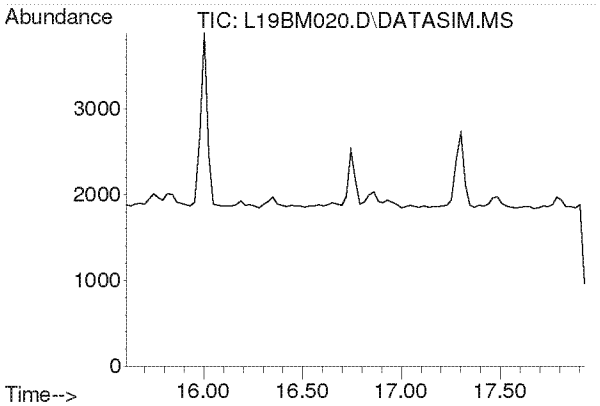
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



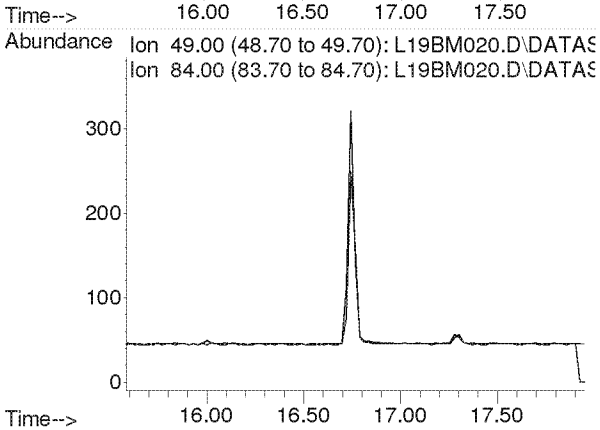


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

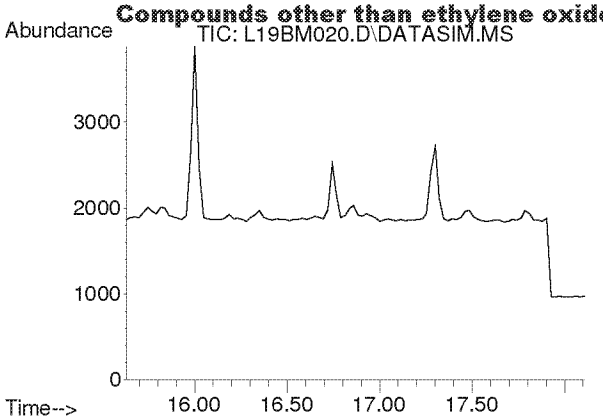
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

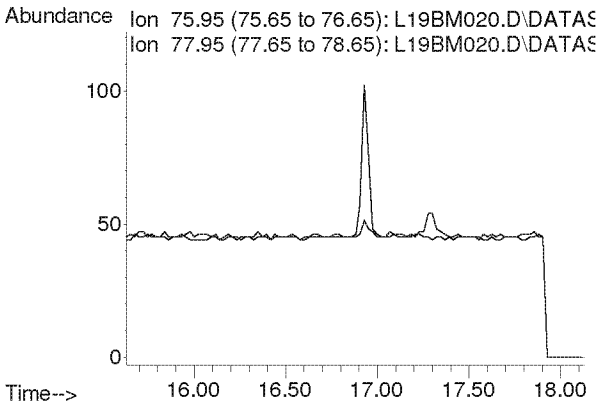


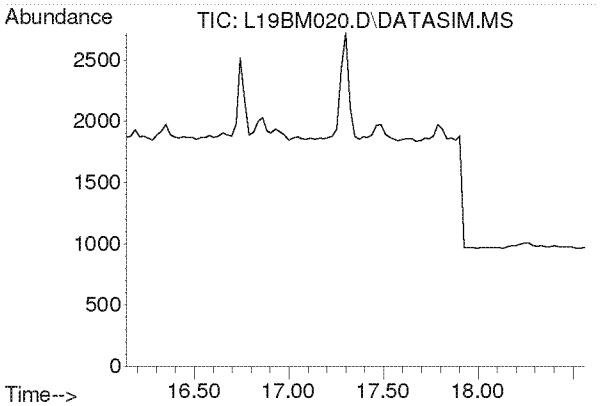
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



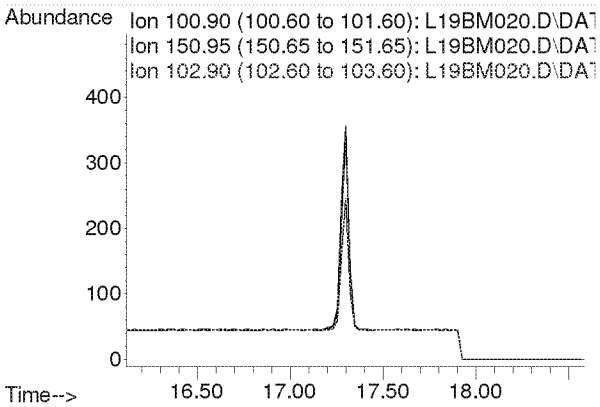


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

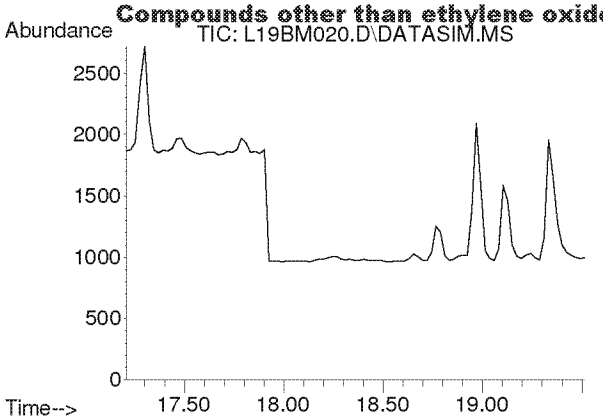
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

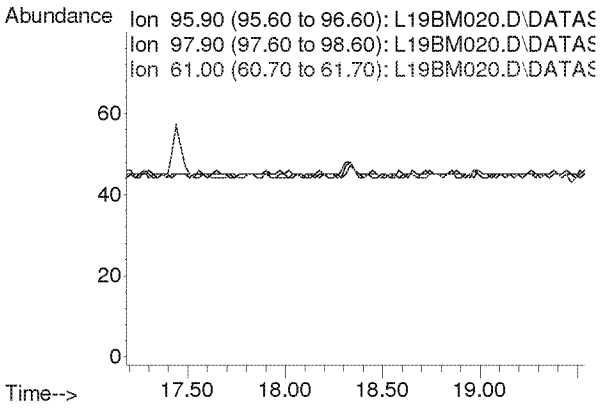


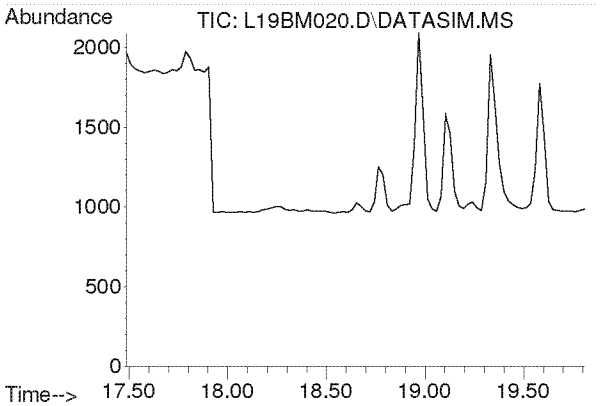
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



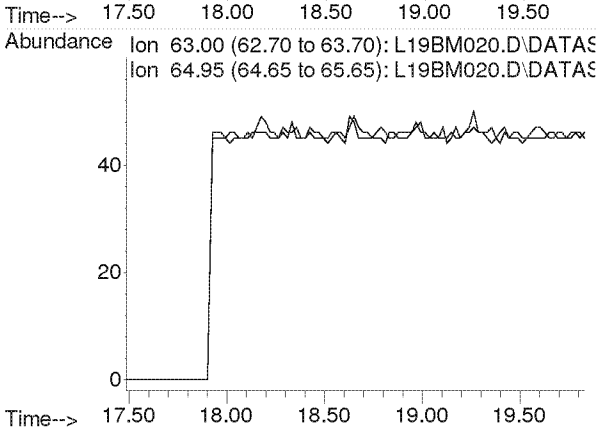


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

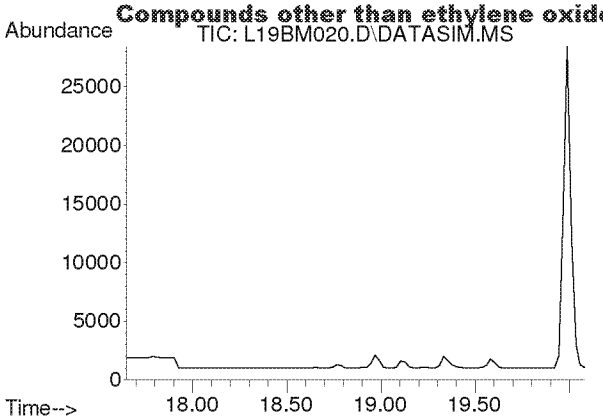
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

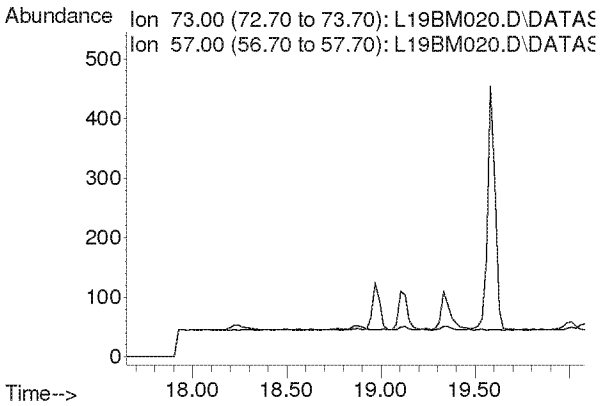


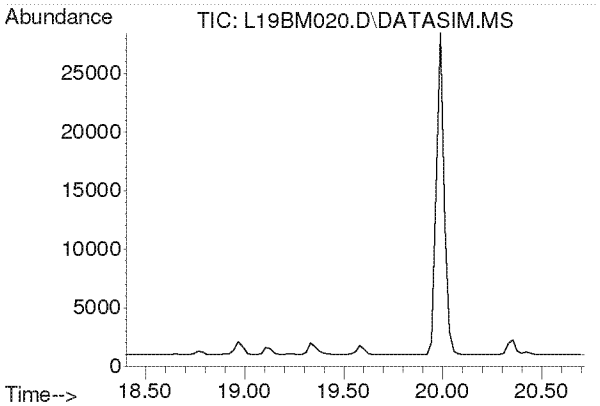
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



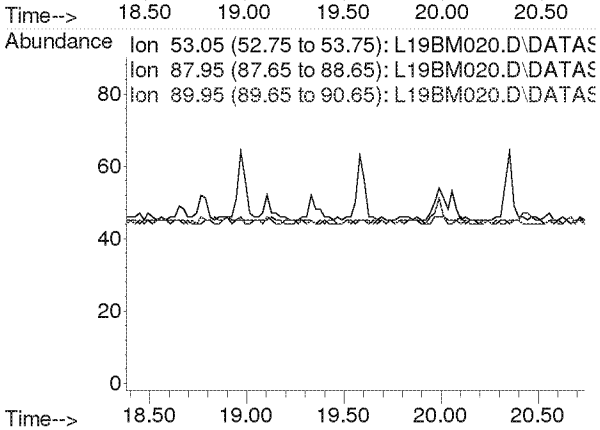


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

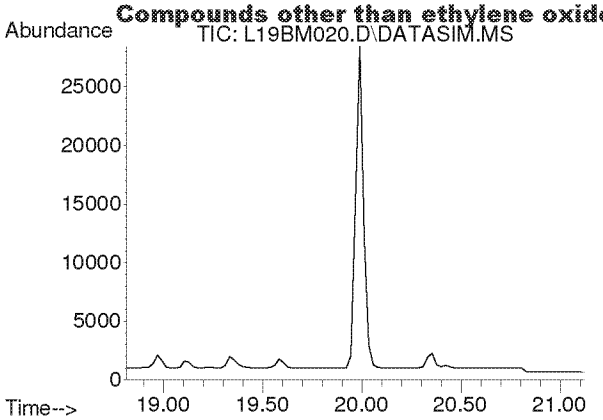
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

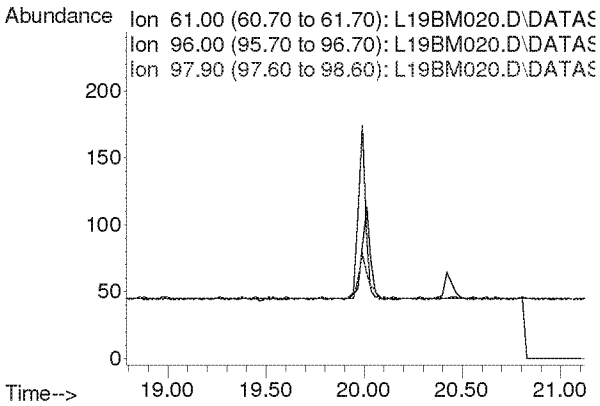


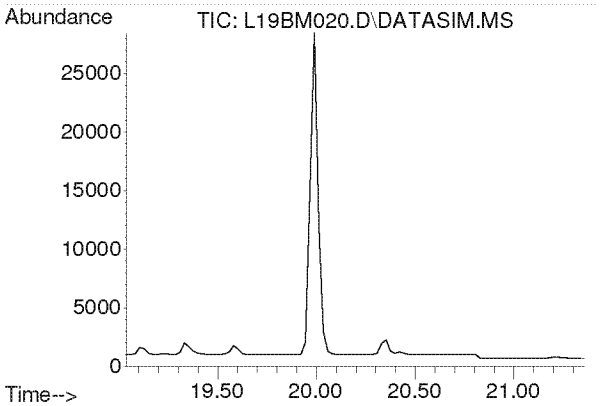
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



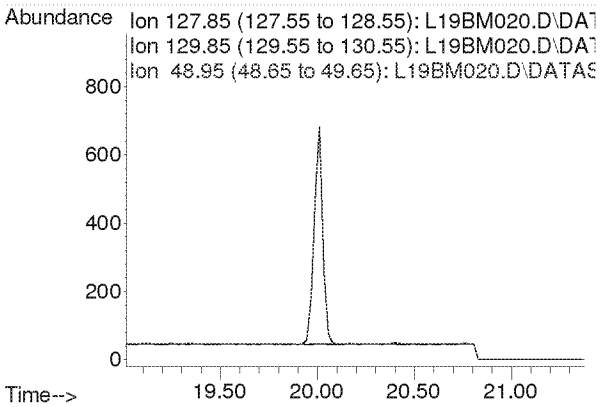


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

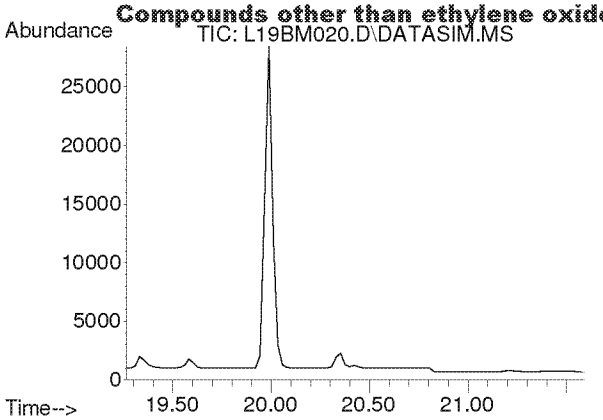
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

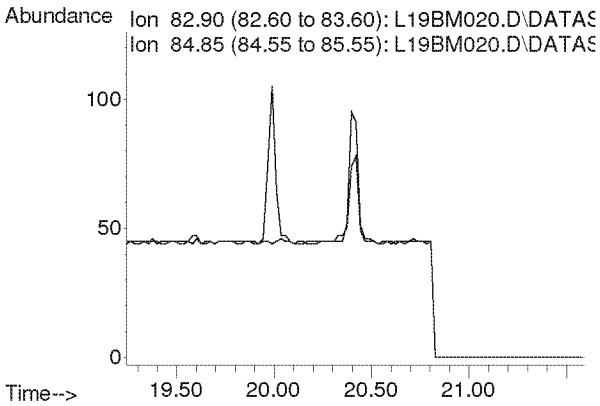


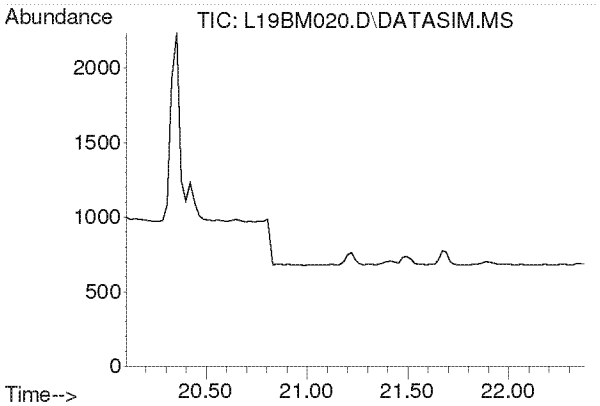
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



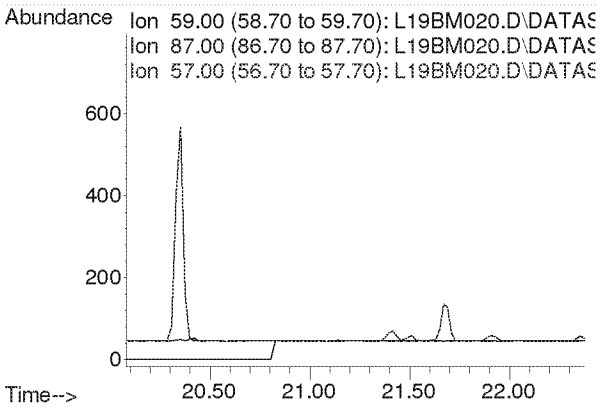


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

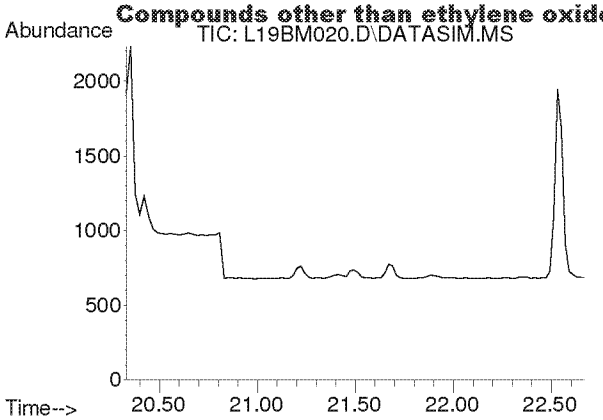
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

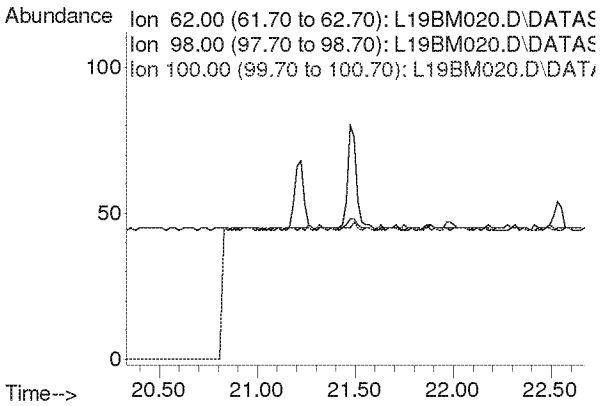


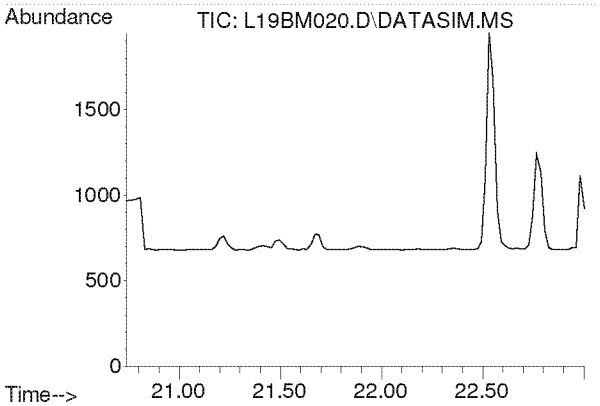
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



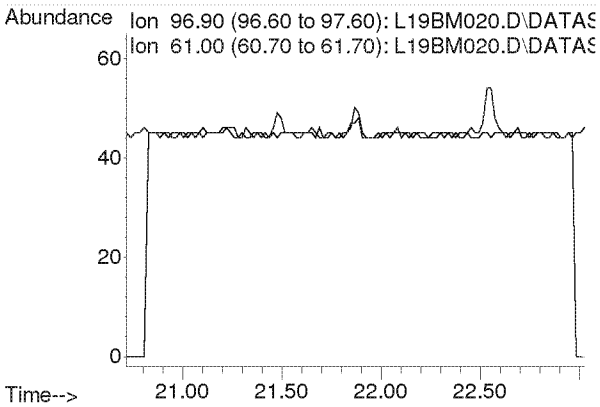


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

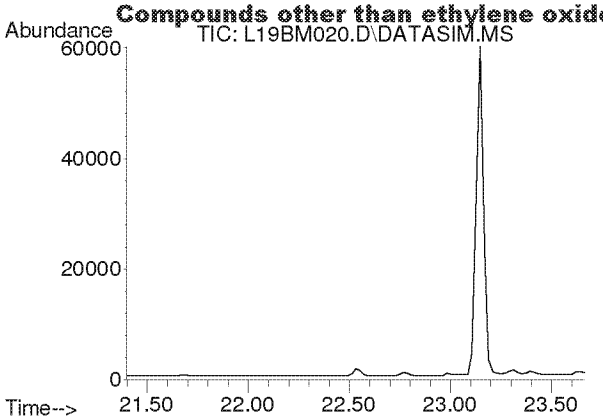
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

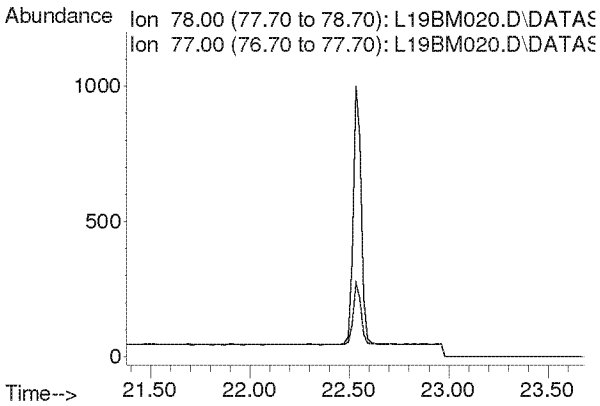


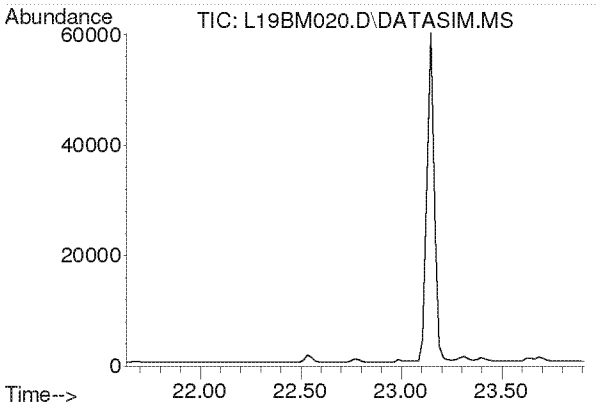
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



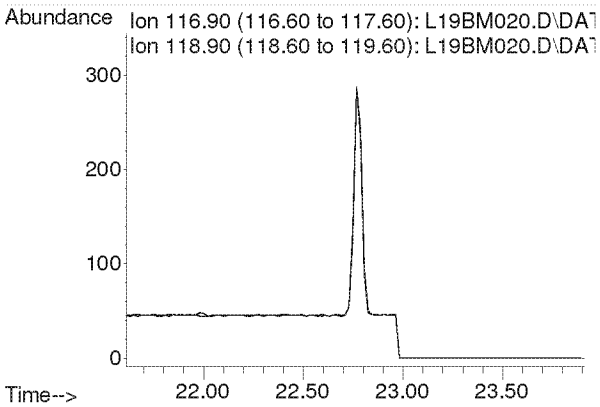


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

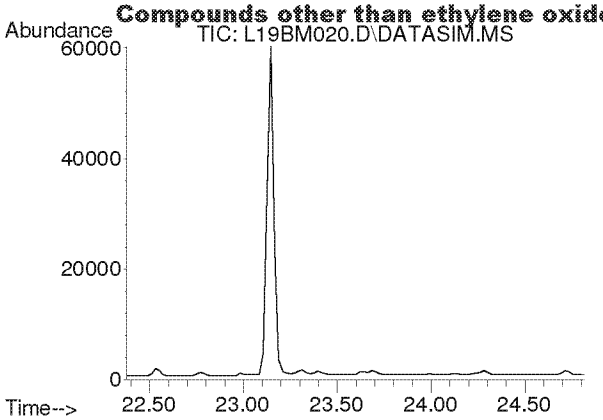
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

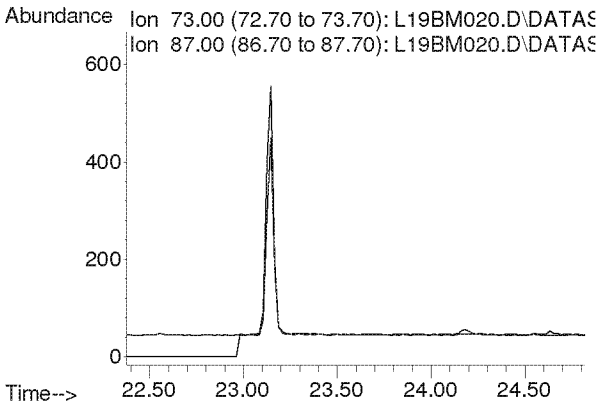


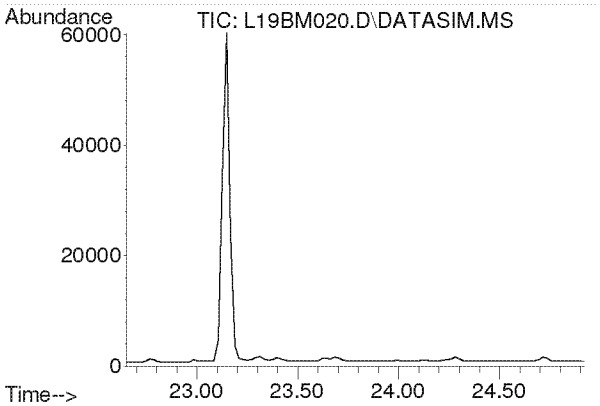
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



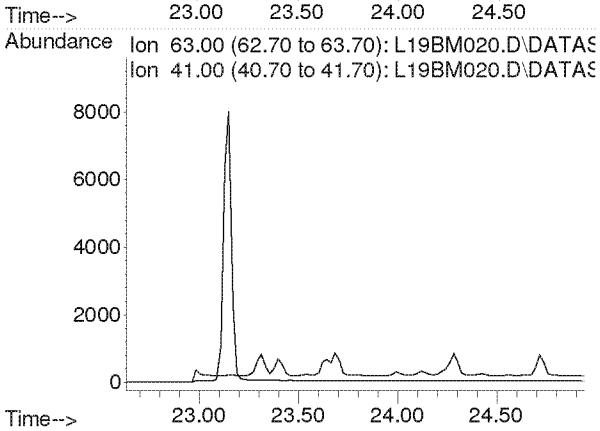


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

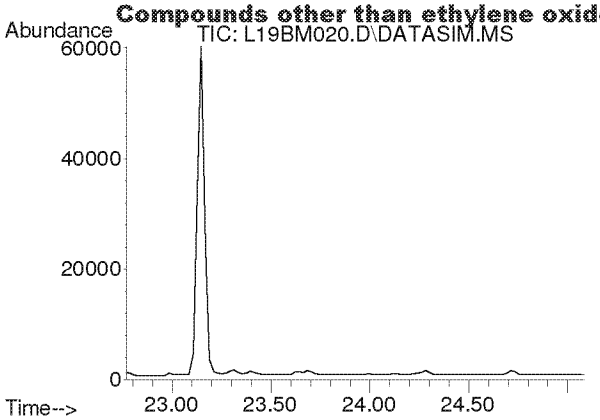
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

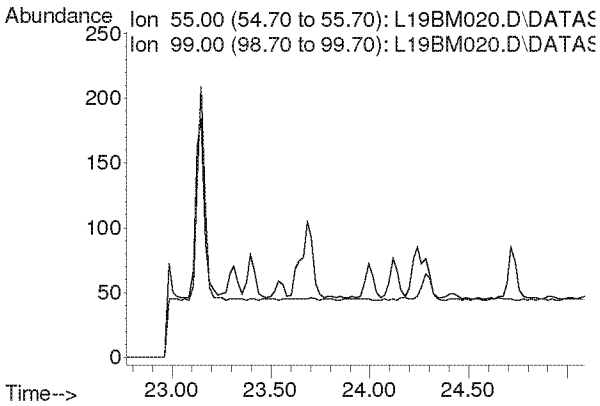


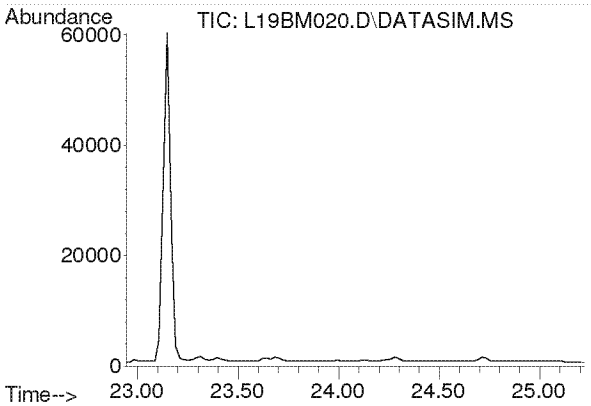
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



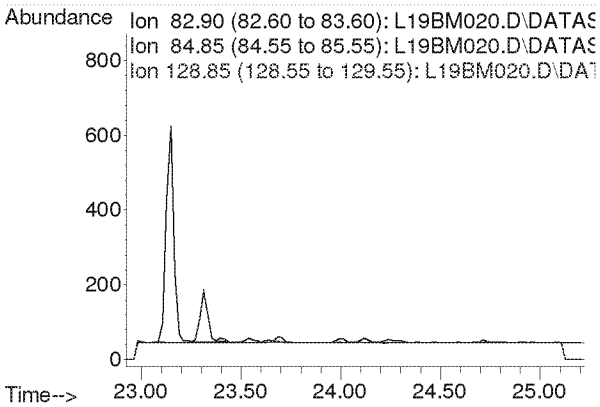


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

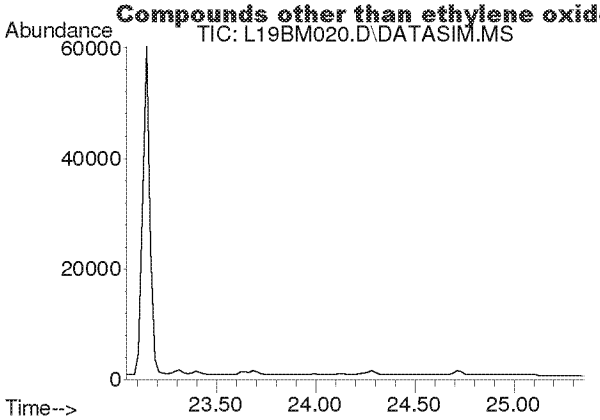
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

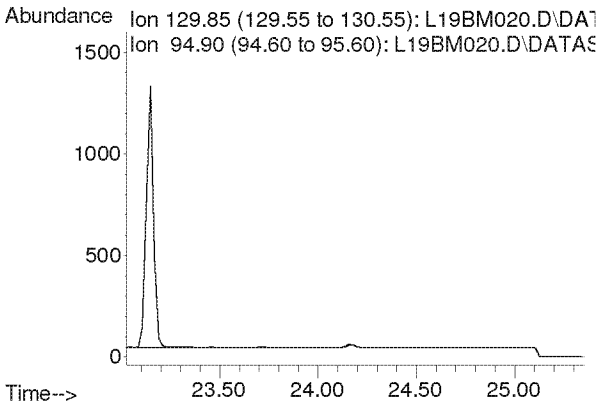


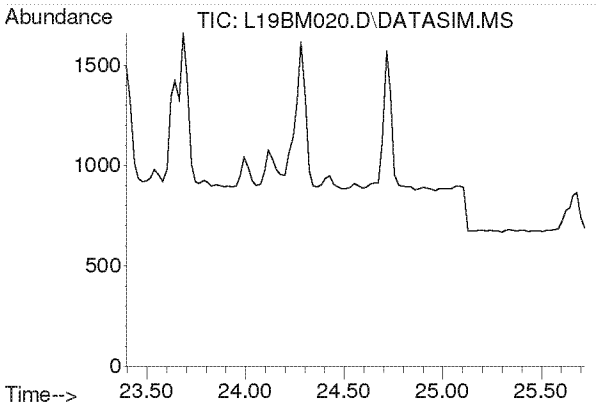
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



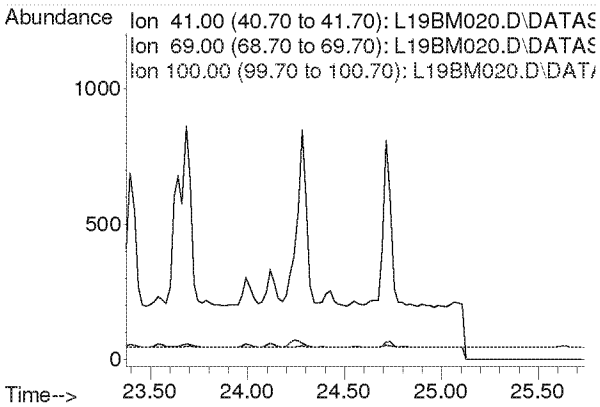


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

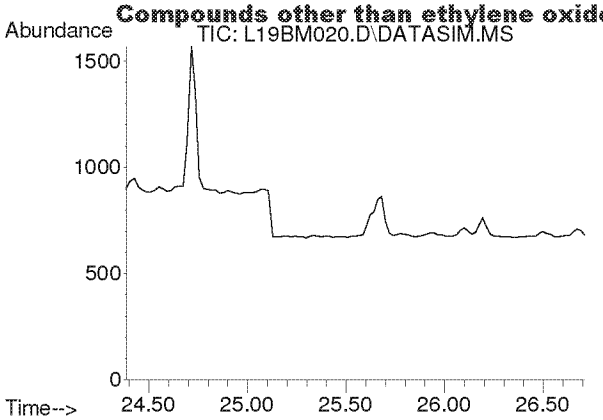
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

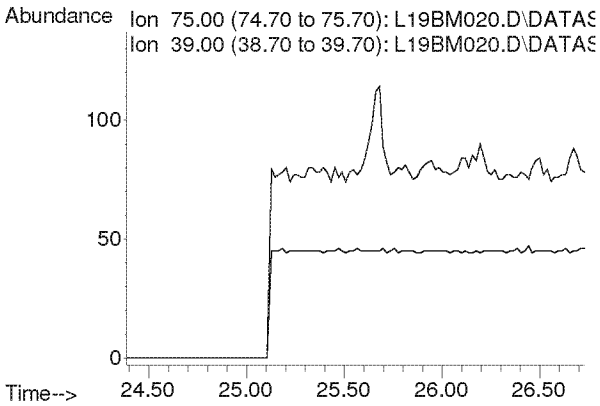


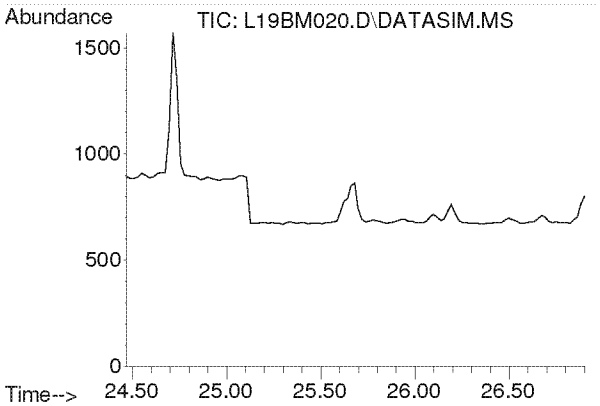
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



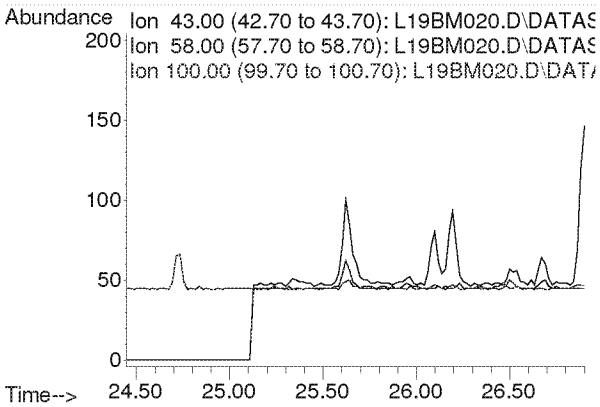


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

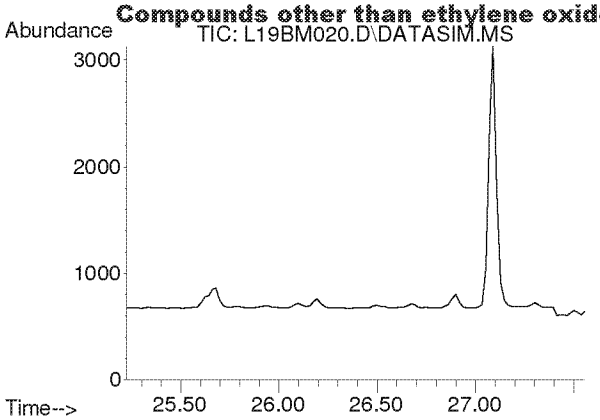
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

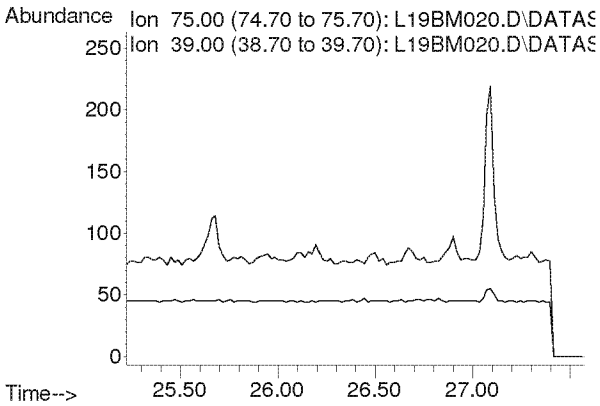


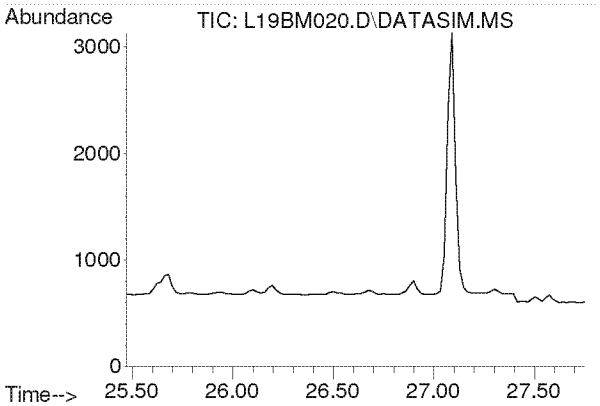
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



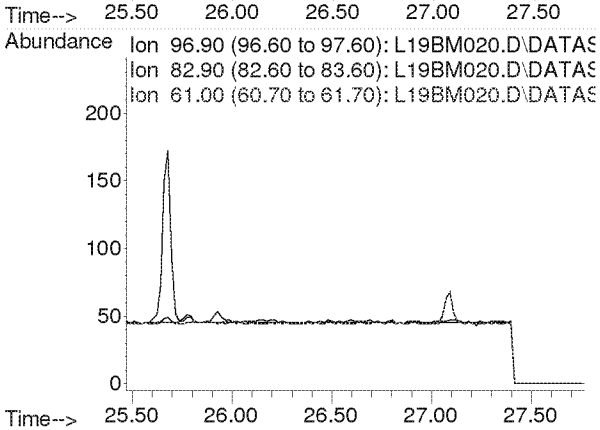


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

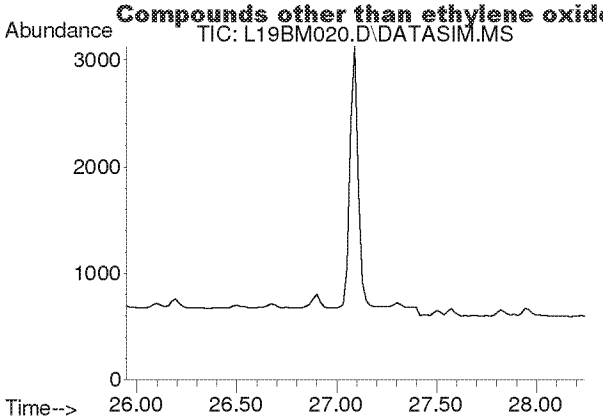
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

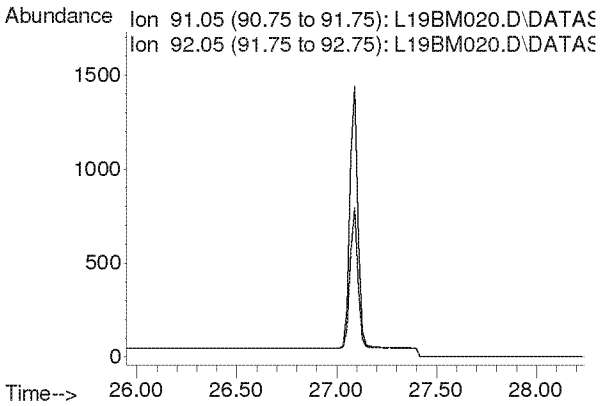


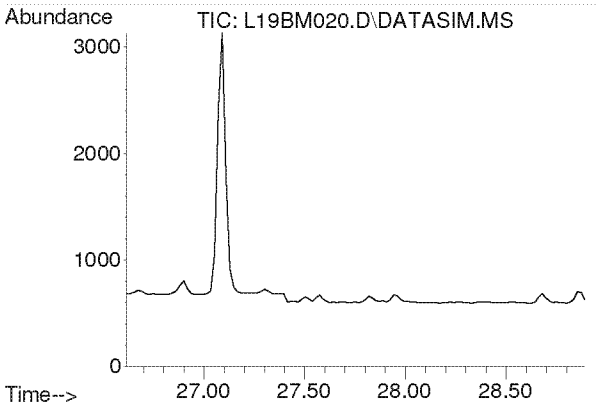
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



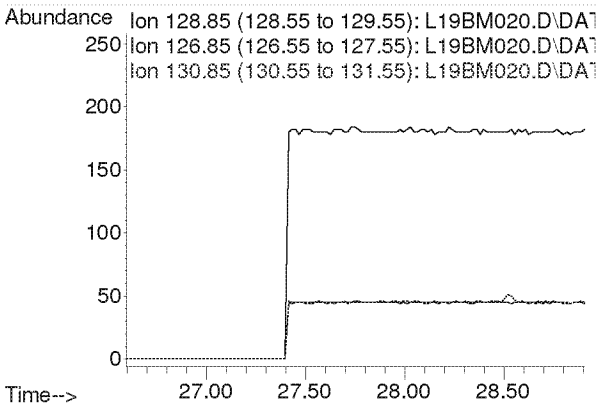


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

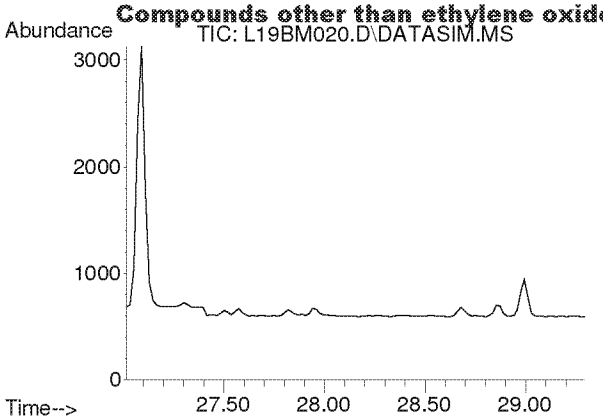
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

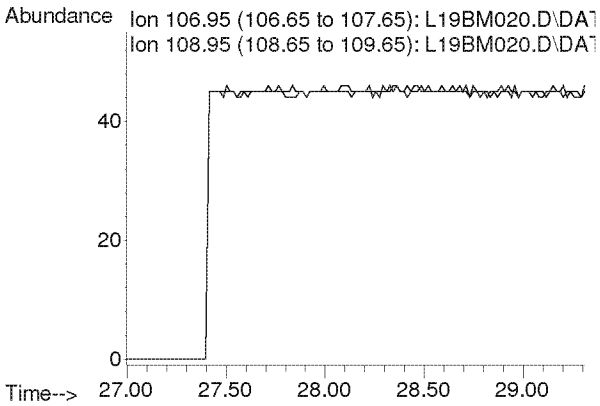


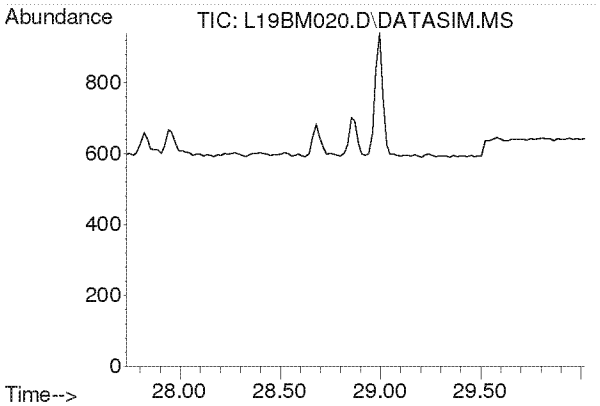
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



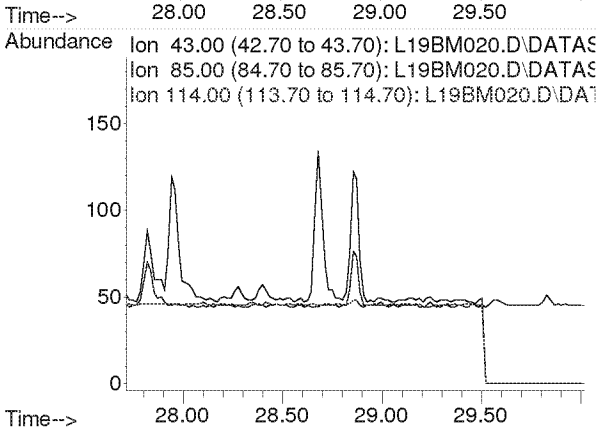


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

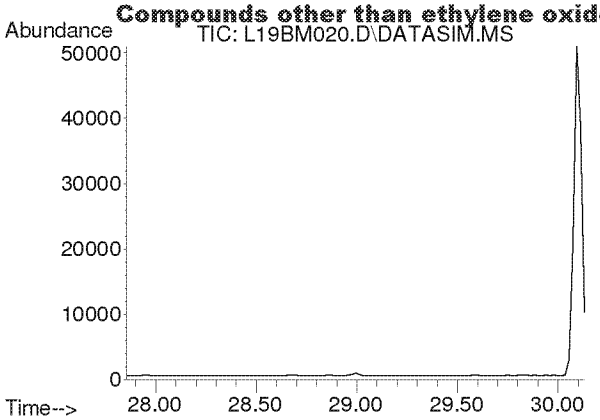
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

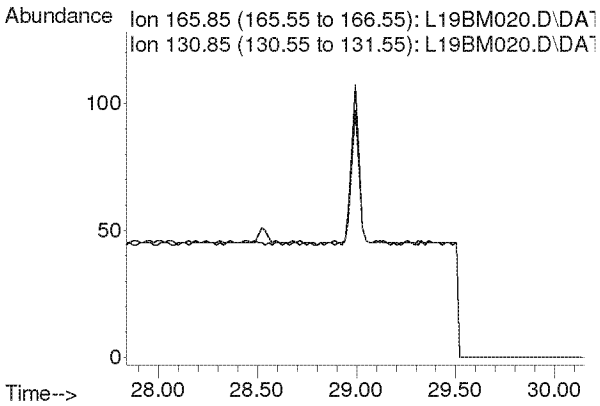


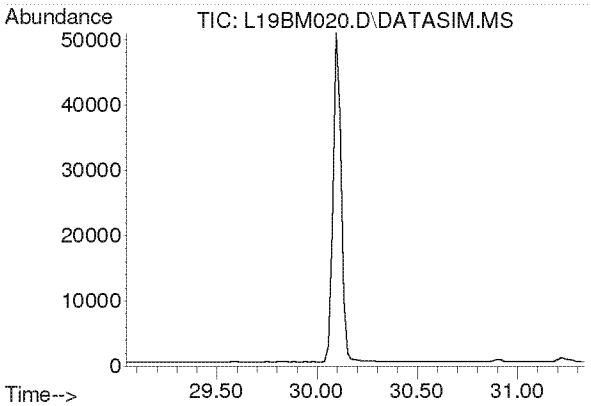
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



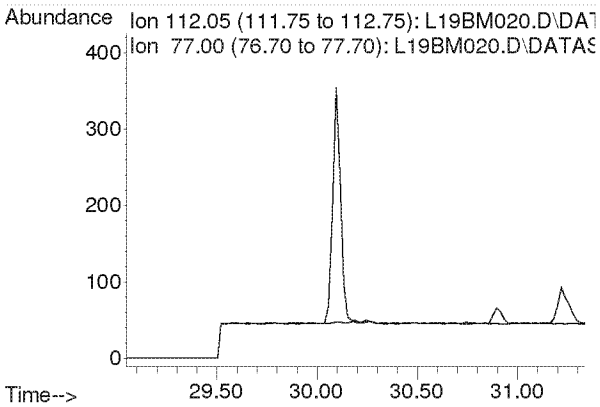


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

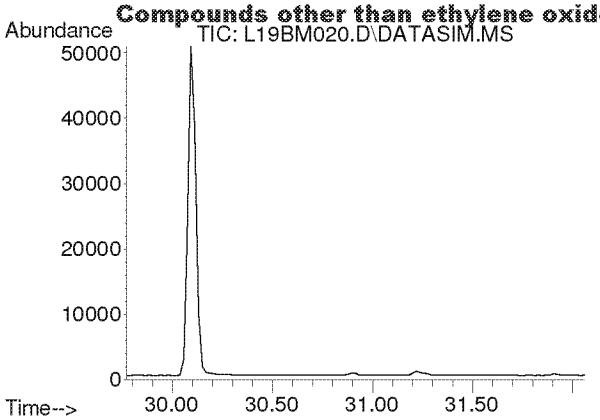
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

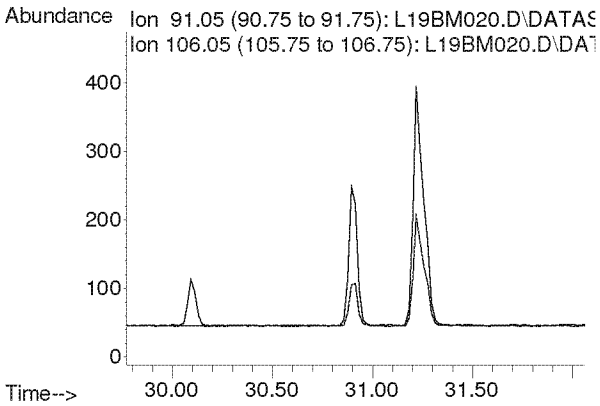


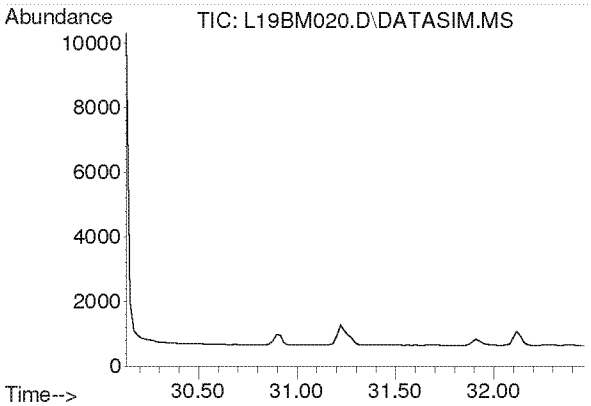
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



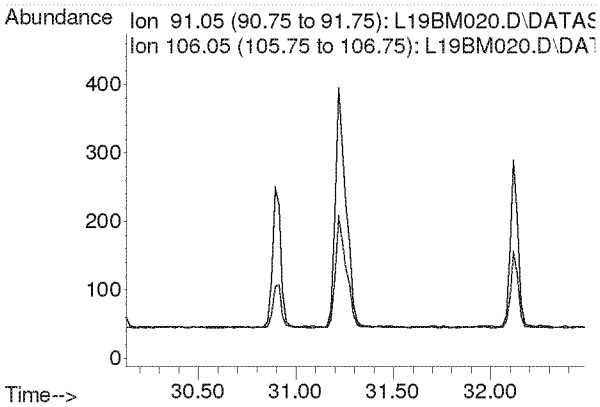


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

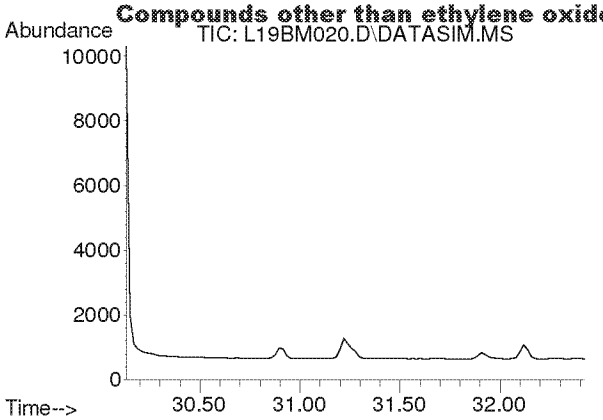
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

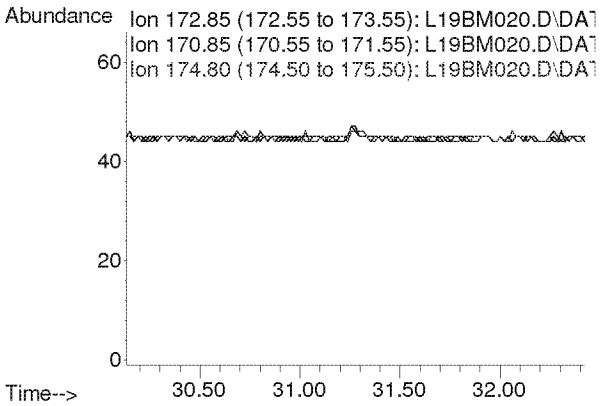


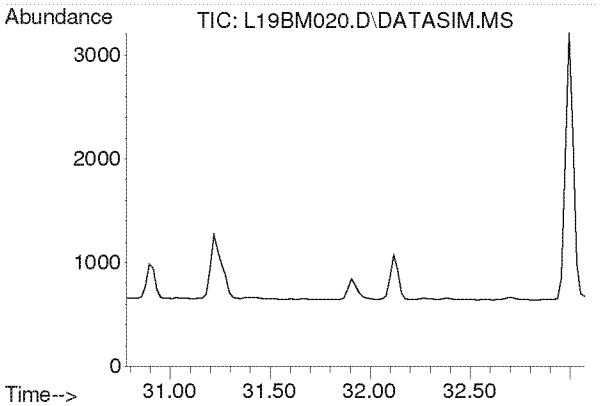
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



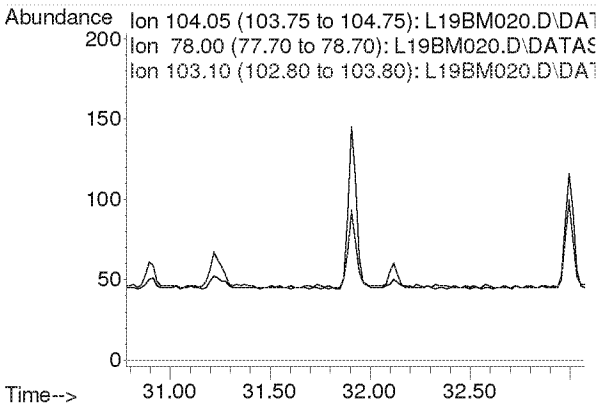


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

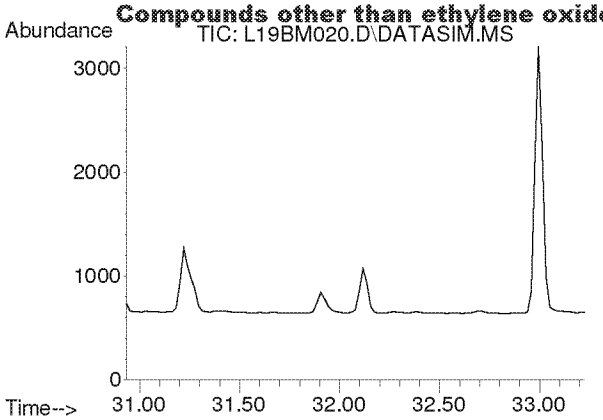
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

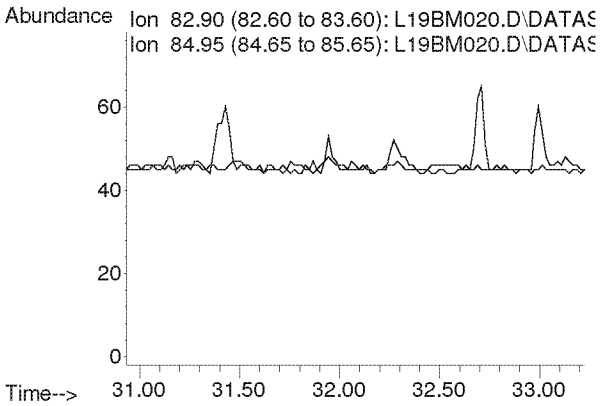


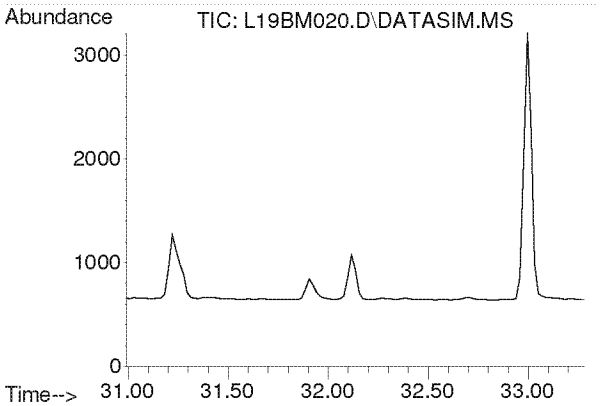
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



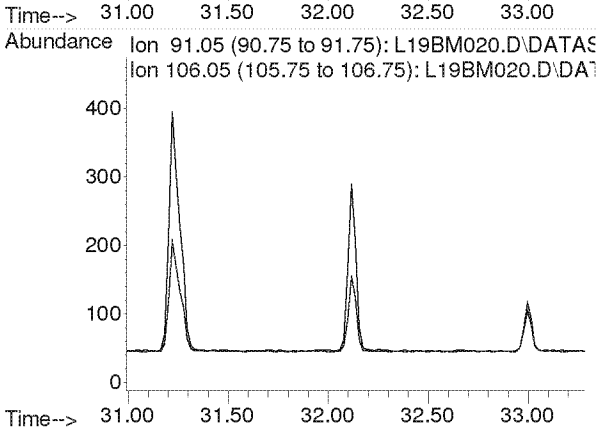


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

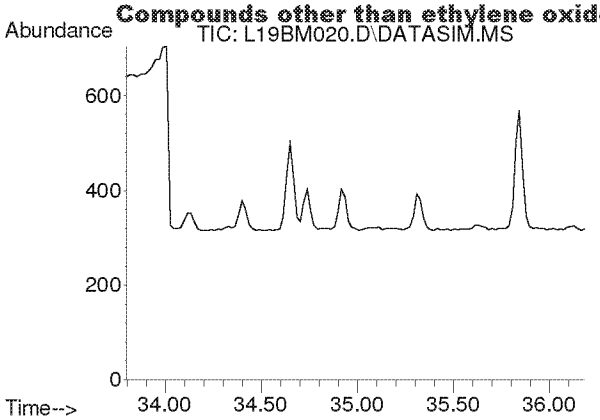
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

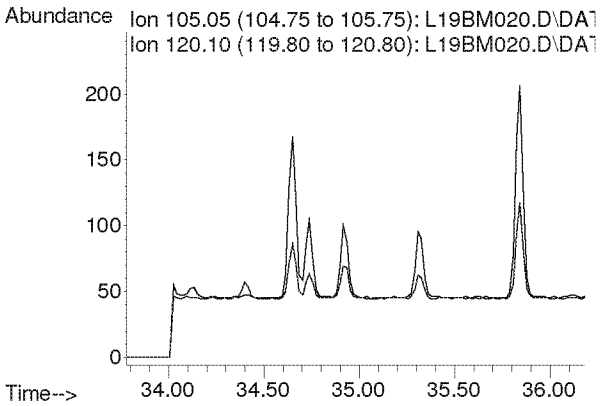


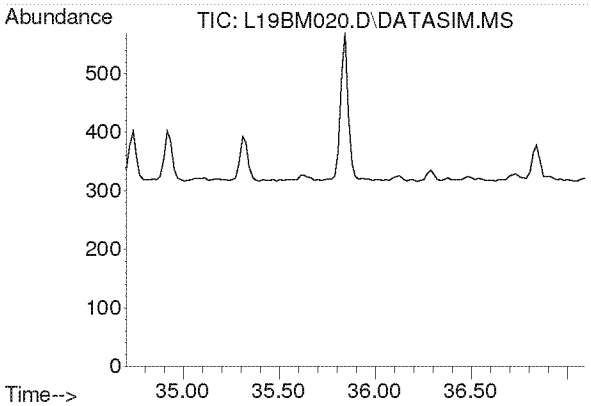
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



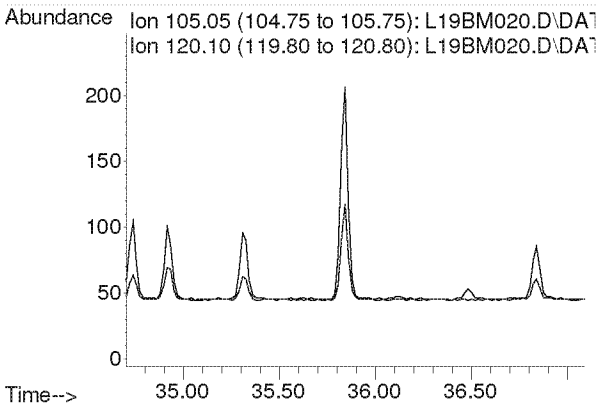


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

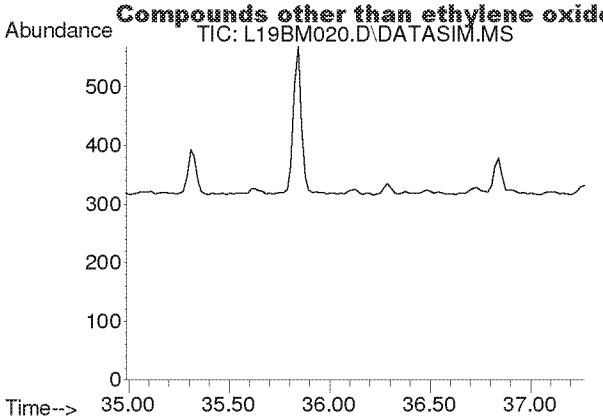
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

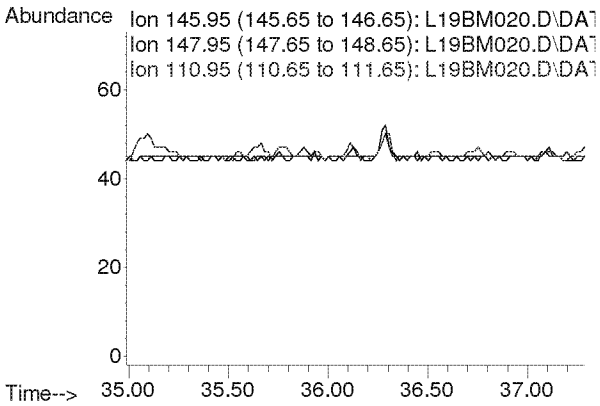


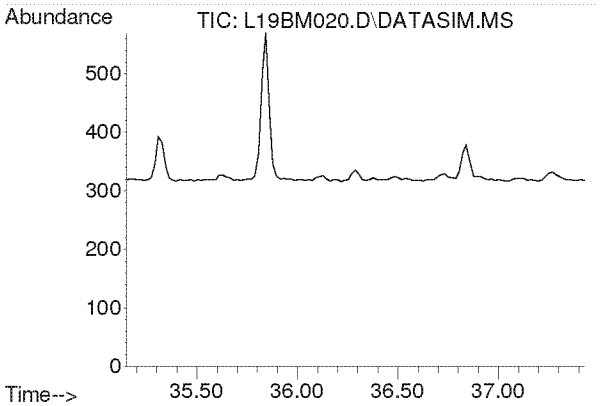
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



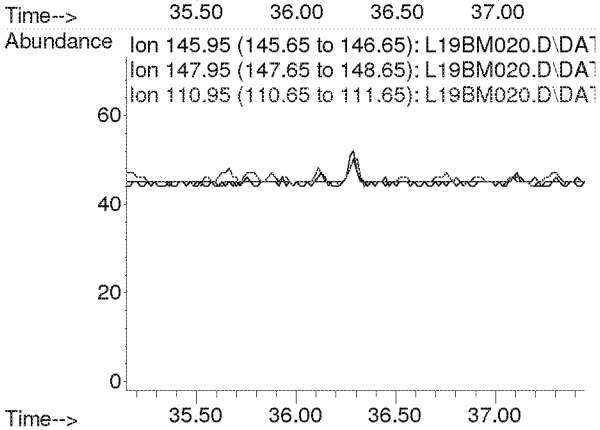


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

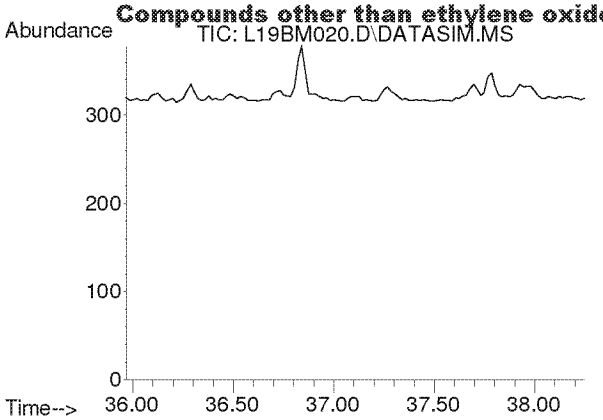
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

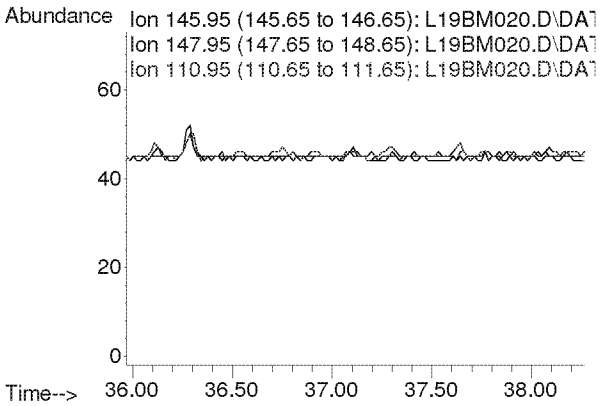


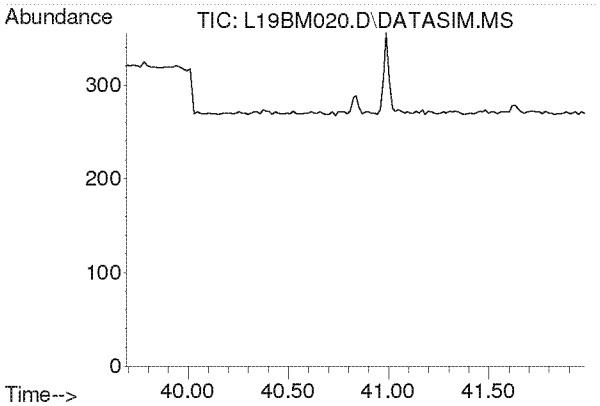
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



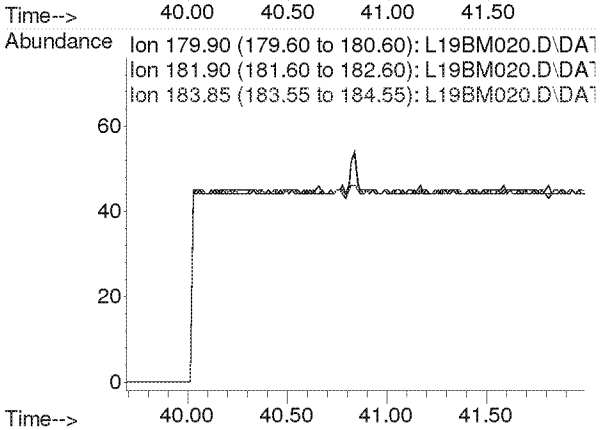


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

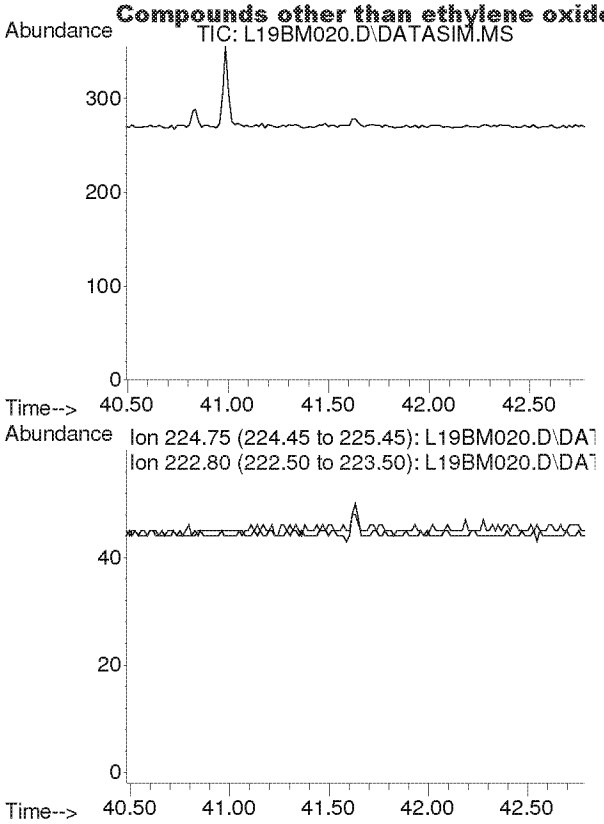
Lab File: L19BM020.D
Acq: 14 Feb 2019 3:46 am

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: L19BM020.D
Acq: 14 Feb 2019 3:46 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BN\
Data File : L19BN007.D
Acq On : 14 Feb 2019 2:36 pm (#1); 14-Feb-19, 14:31:48 (#2)
Operator : MAH
Sample : 9020702-05
Misc : EPA WB WAREHOUSE 2/6/19,150ML INJ (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1.67

Quant Time: Feb 15 06:27:52 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	46830	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	117513	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	84086	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.363	29	23445	14.6178 ppbv #	78
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	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	78
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. 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\L19BN\
Data File : L19BN007.D
Acq On : 14 Feb 2019 2:36 pm (#1); 14-Feb-19, 14:31:48 (#2)
Operator : MAH
Sample : 9020702-05
Misc : EPA WB WAREHOUSE 2/6/19,150ML INJ (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1.67

Quant Time: Feb 15 06:27:52 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_00000213-00349

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM021.D
Acq On : 14 Feb 2019 4:47 am (#1); 14-Feb-19, 04:42:41 (#2)
Operator : MAH
Sample : 9020702-06
Misc : GOWER MS 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 14:04:04 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

d: MK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	45375	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	109633	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.094	117	78800	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	12.393	29	4725	1.8206 ppbv	96
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. 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 (Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM021.D
Acq On : 14 Feb 2019 4:47 am (#1); 14-Feb-19, 04:42:41 (#2)
Operator : MAH
Sample : 9020702-06
Misc : GOWER MS 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 14:04:04 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	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.	

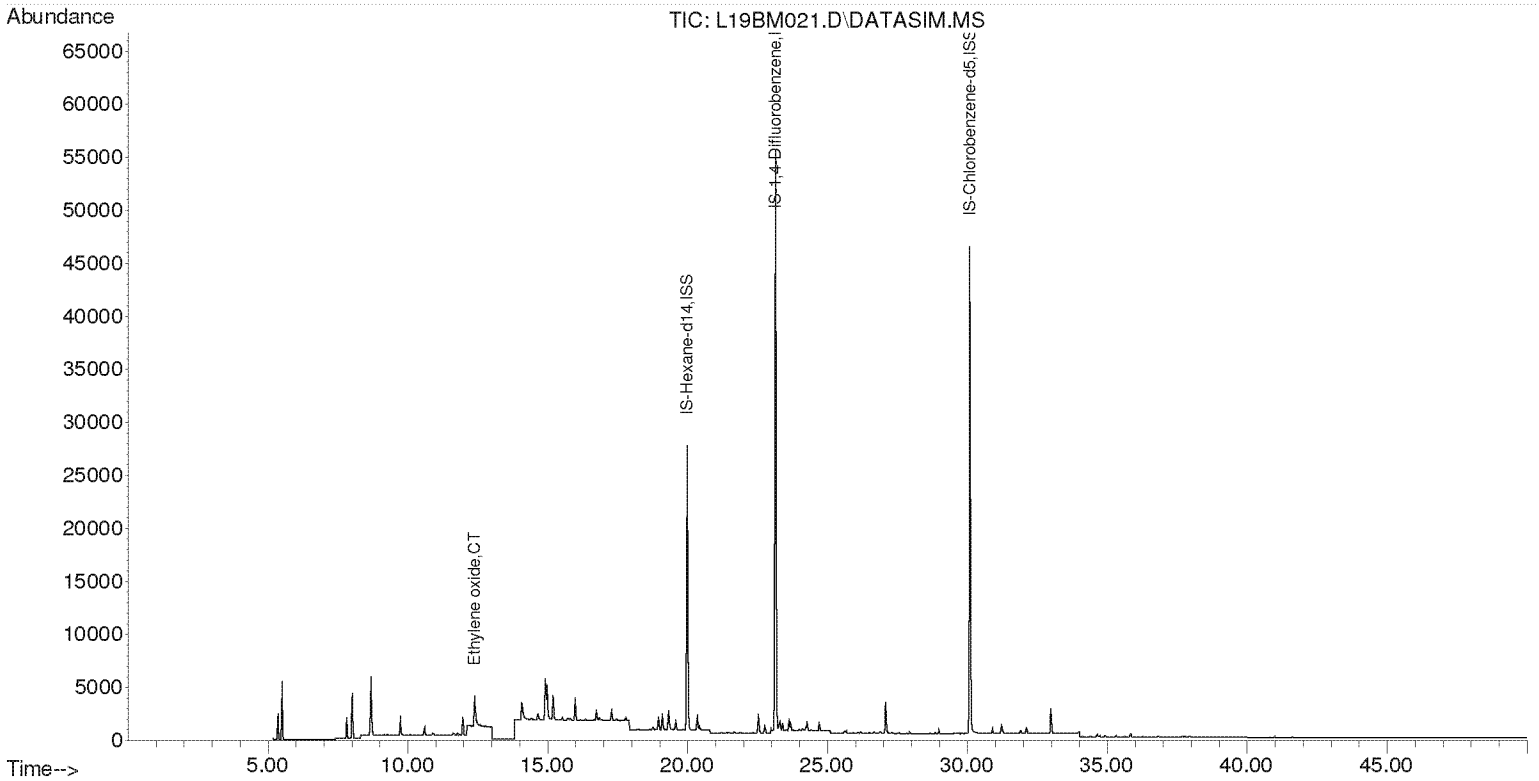
(#) = qualifier out of range (m) = manual integration (+) = signals summed

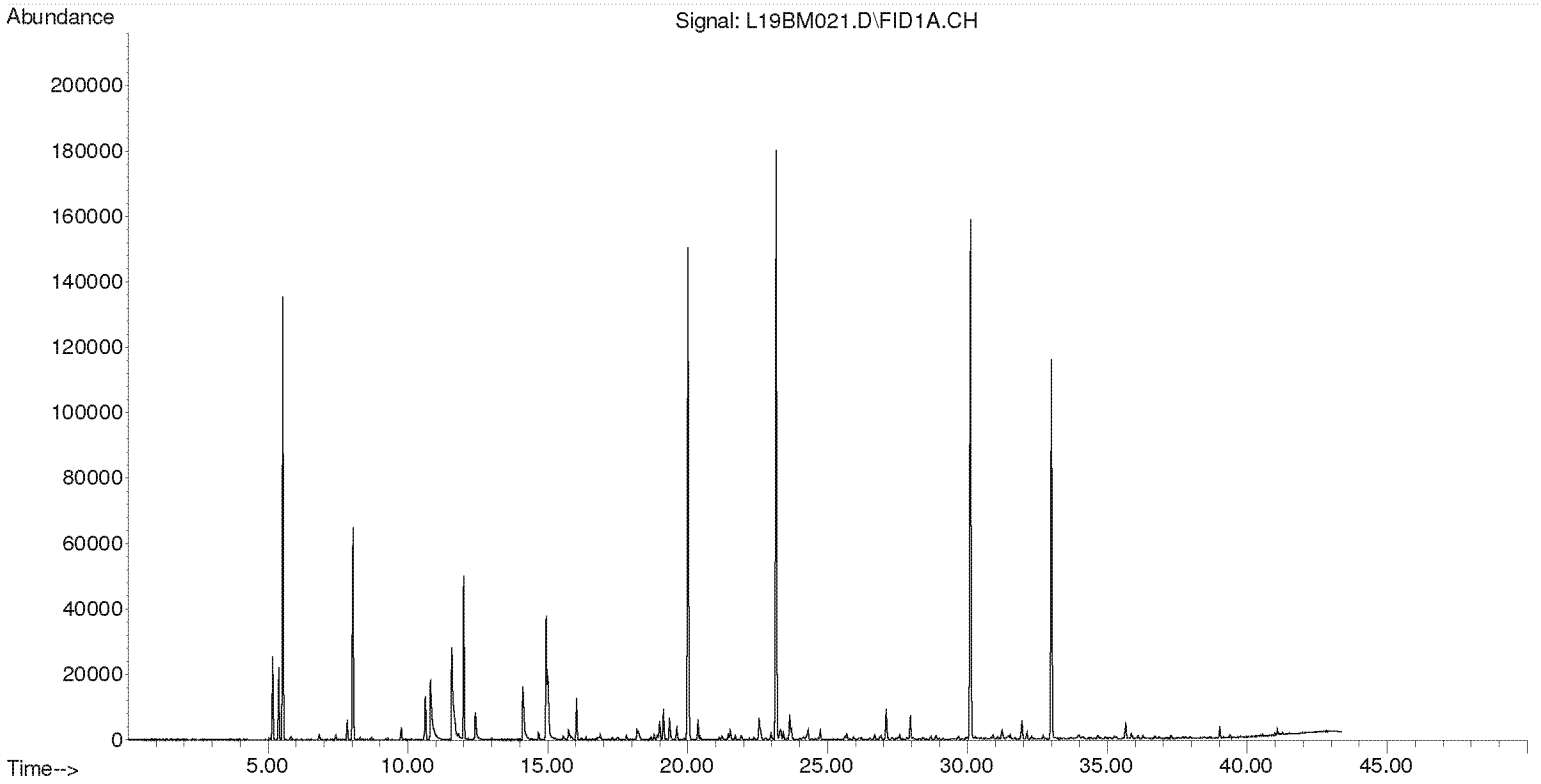
ED_002475_00000213-00351

Compounds other than ethylene oxide were not quantitated.

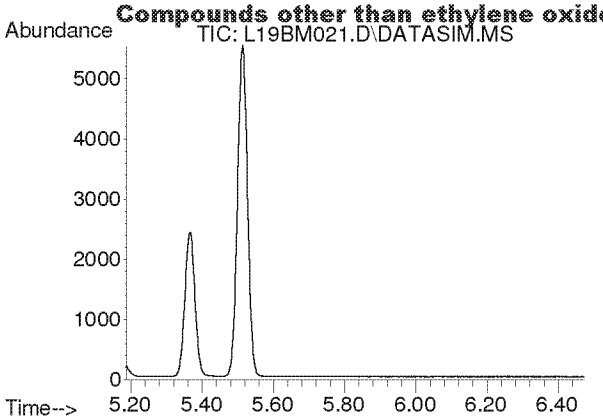
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM021.D
Acq On : 14 Feb 2019 4:47 am (#1); 14 Feb 2019 4:42 am (#2)
Operator : MAH
Sample : 9020702-06
Misc : GOWER MS 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 08:33:06 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





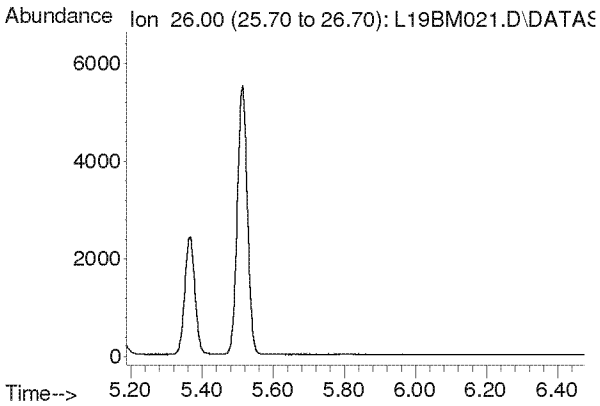
Compounds other than ethylene oxide were not quantitated.

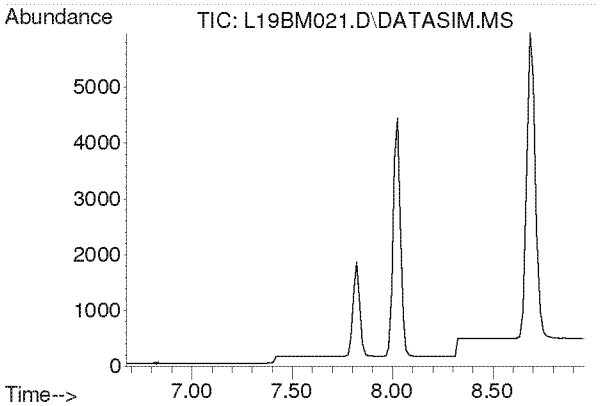


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 26



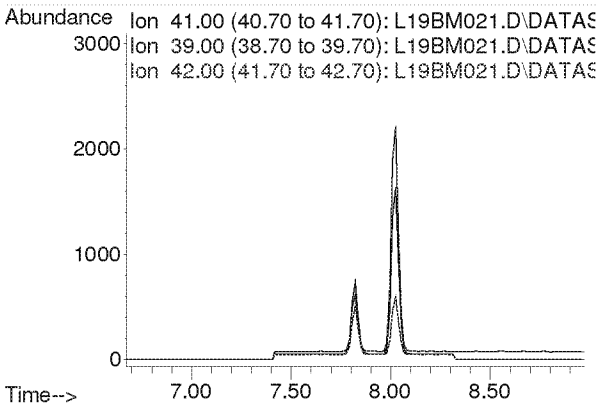


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

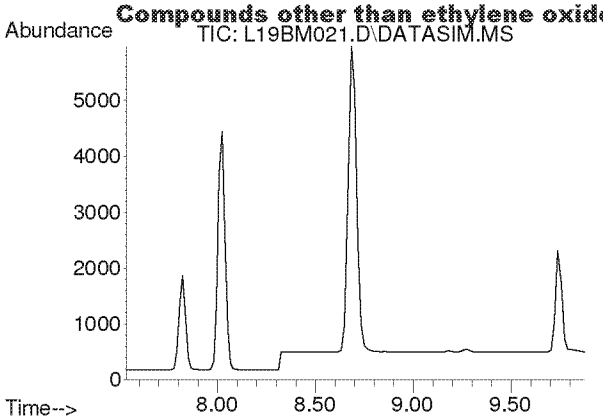
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

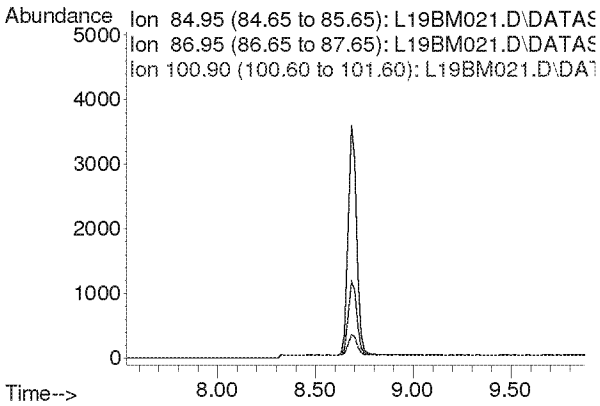


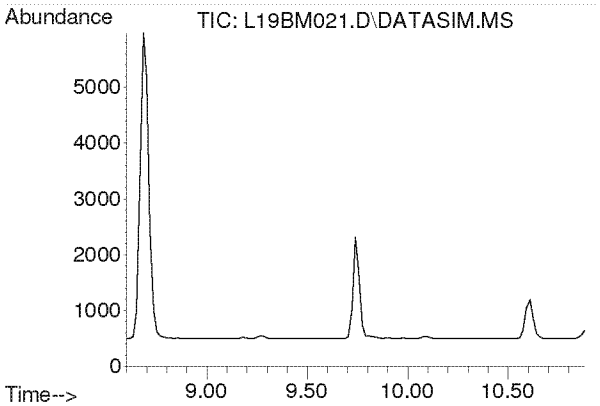
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



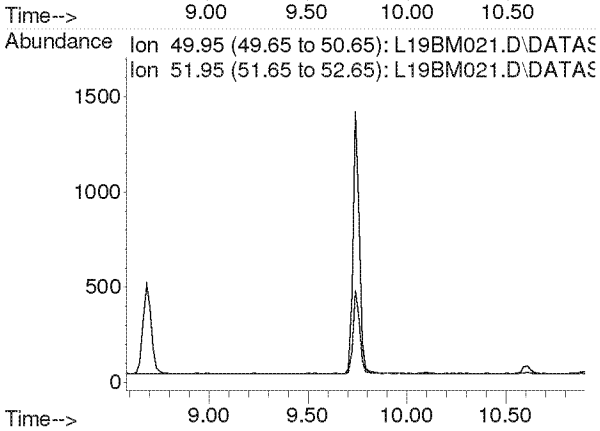


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

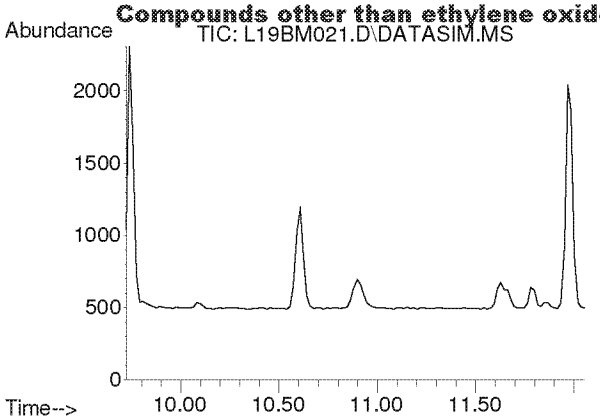
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

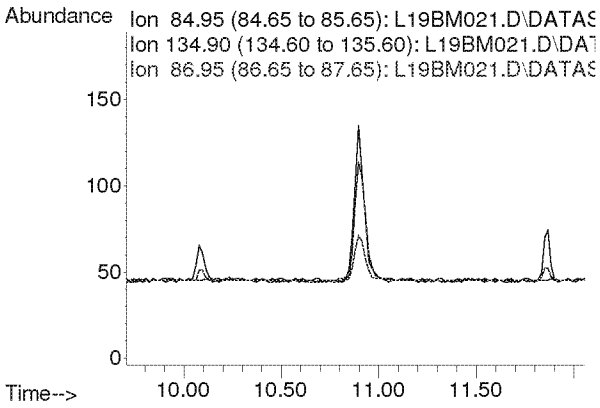


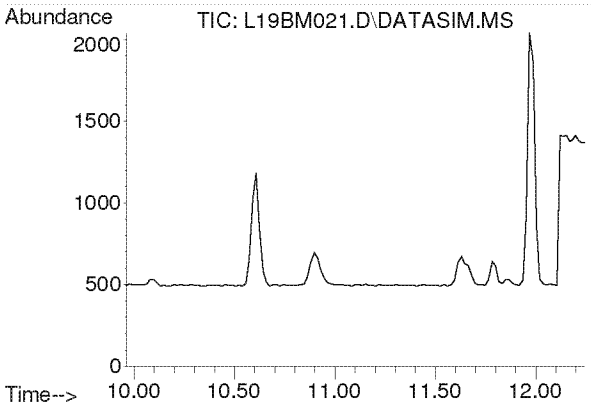
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



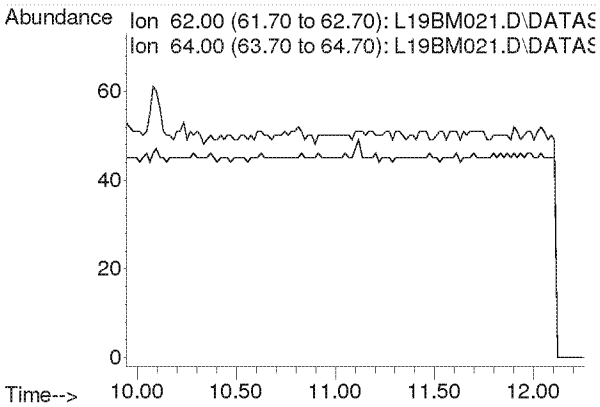


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

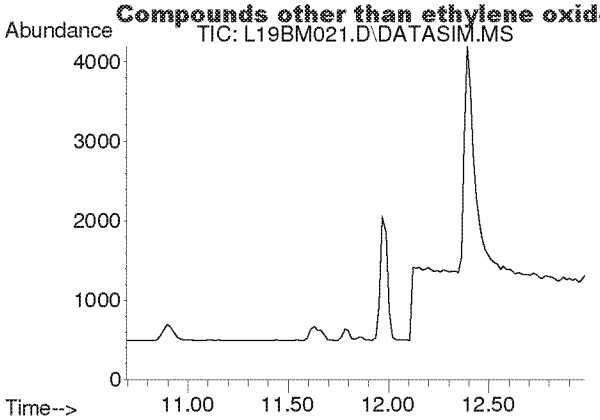
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

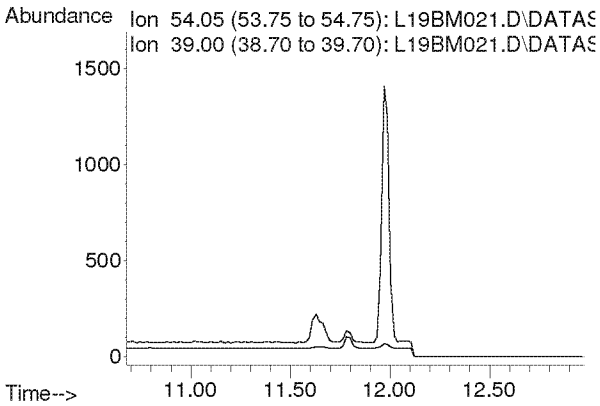


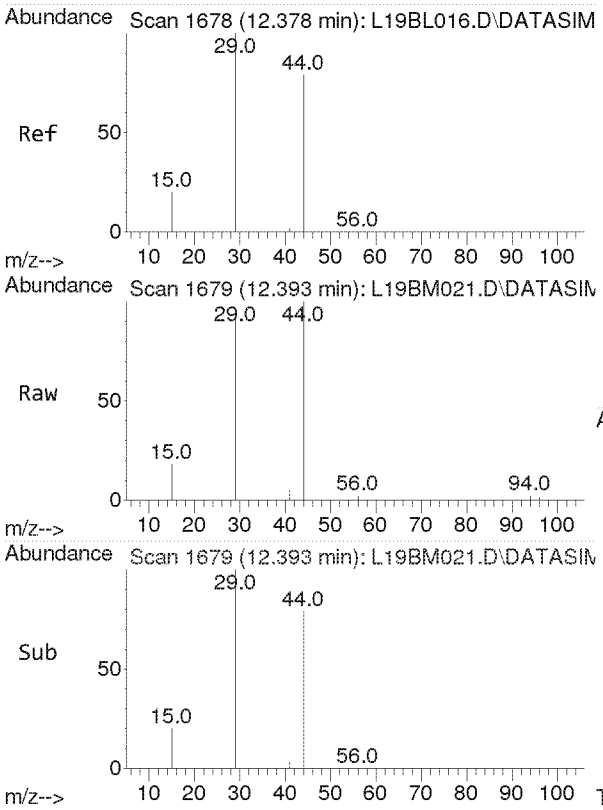
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

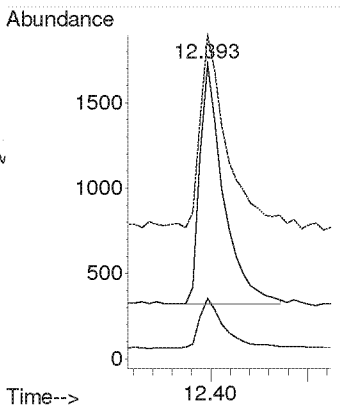




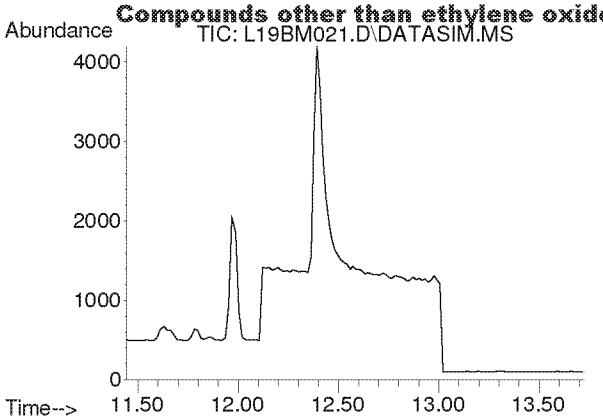
#9
Ethylene oxide
Concen: 1.821 ppbv
RT: 12.393 min Scan# 1679
Delta R.T. 0.033 min
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 29 Resp: 4725

Ion	Ratio	Lower	Upper
29	100		
15	22.0	16.0	24.0
44	85.8	65.4	98.2



Compounds other than ethylene oxide were not quantitated.

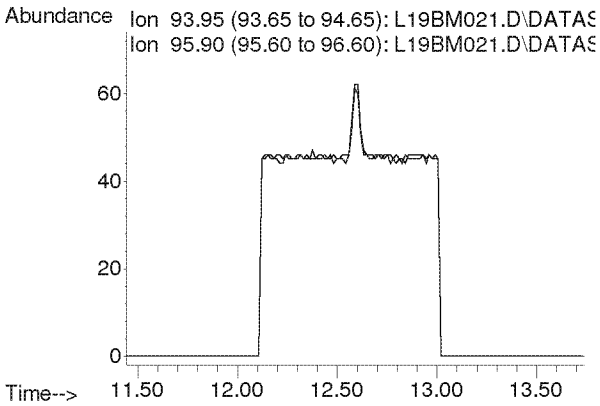


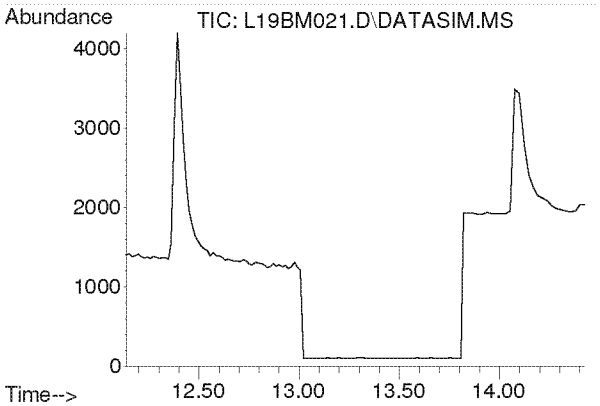
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



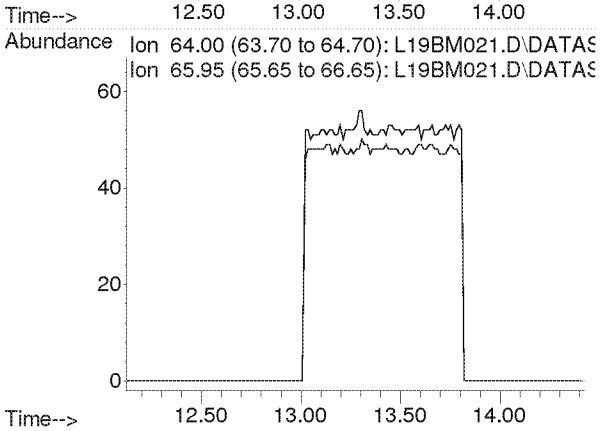


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

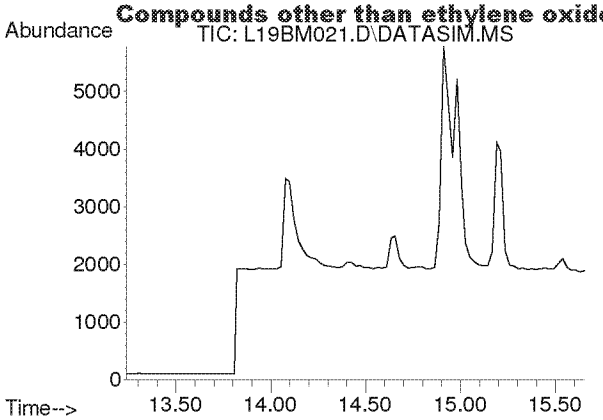
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

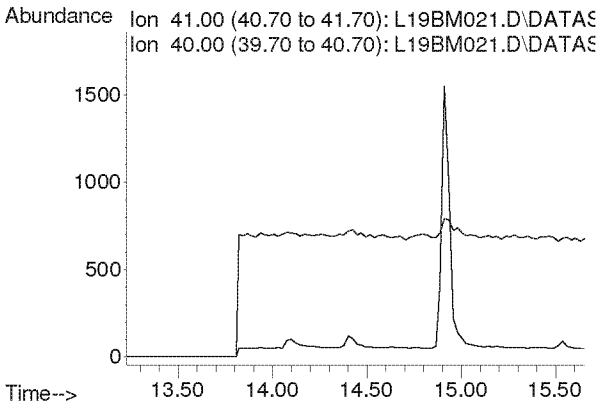


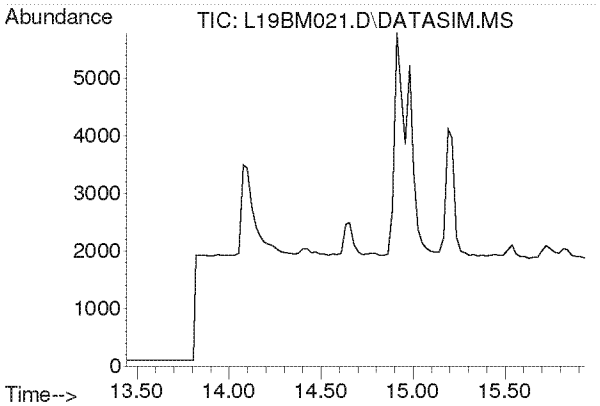
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



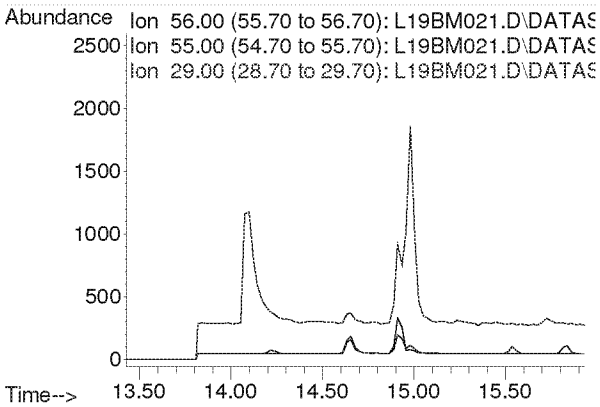


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

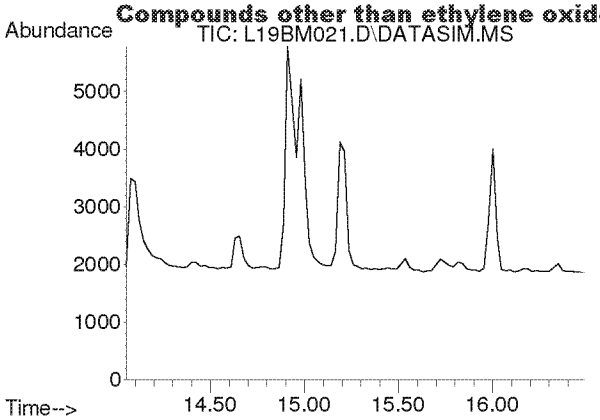
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

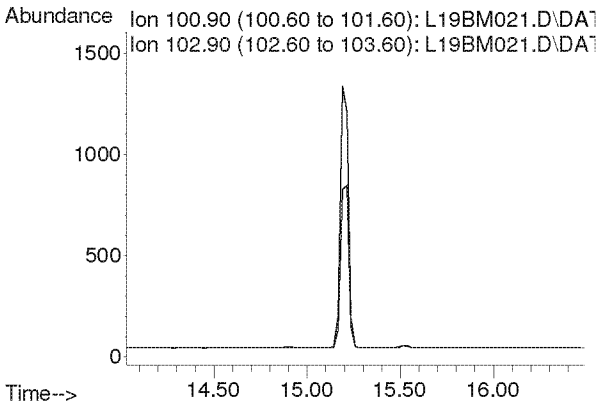


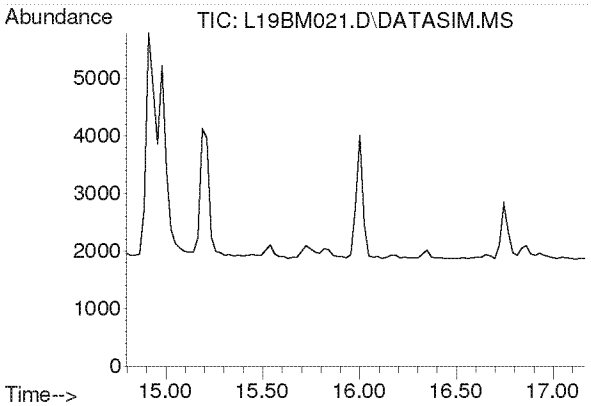
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



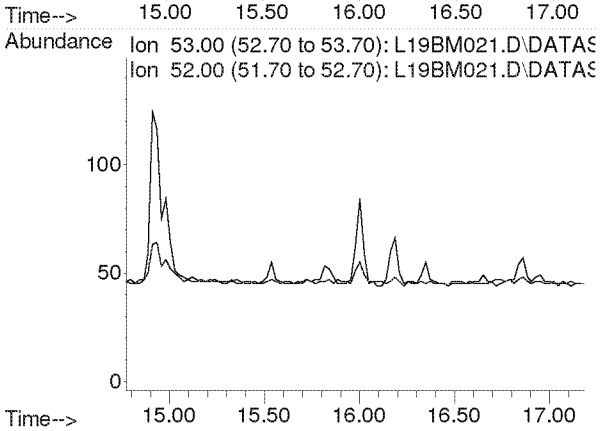


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

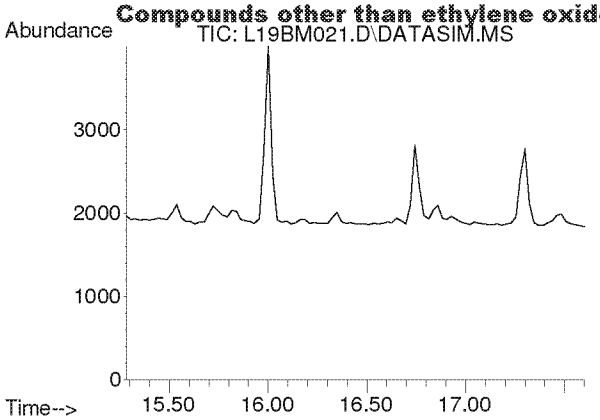
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

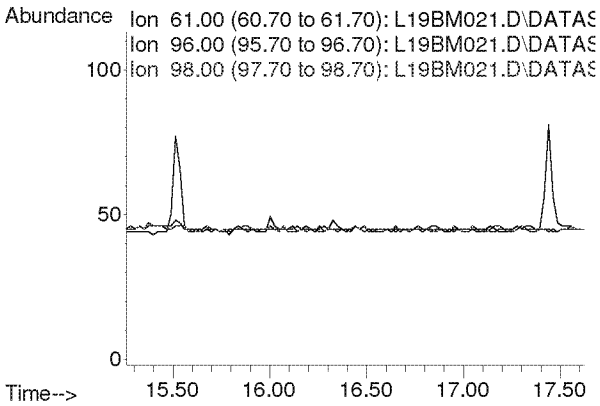


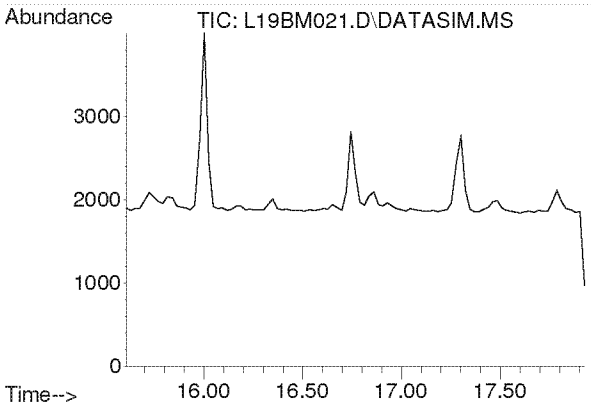
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



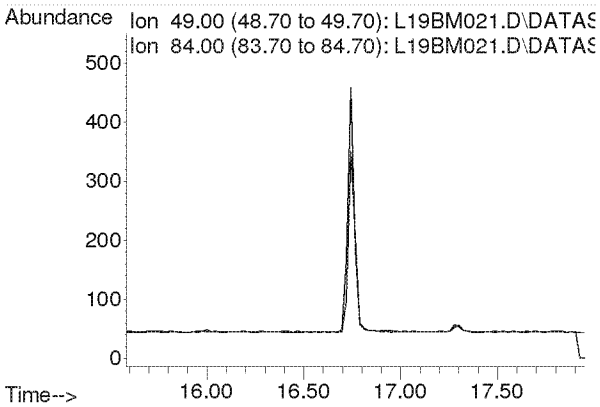


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

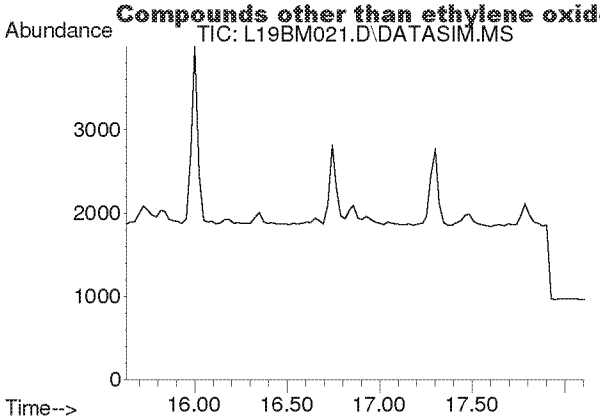
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

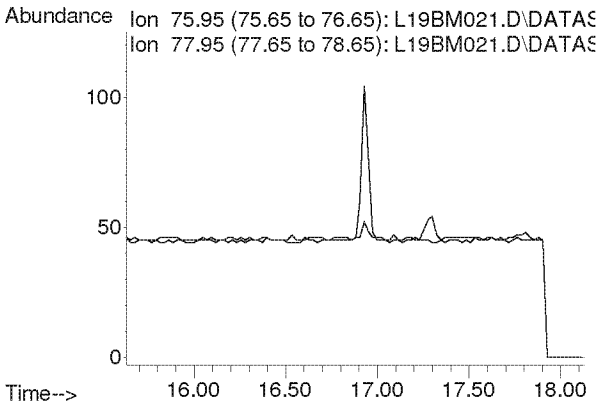


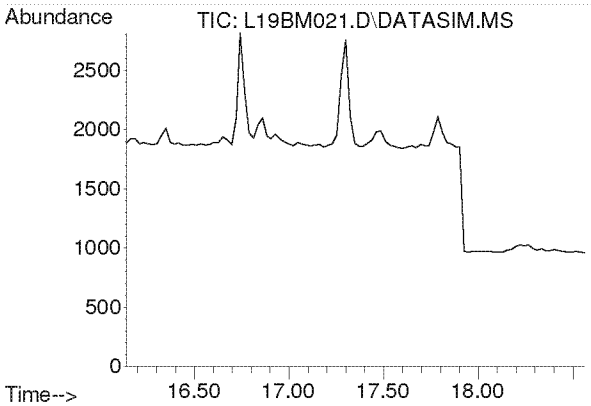
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



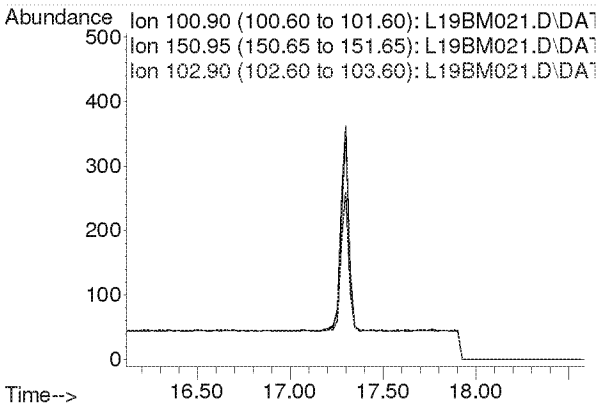


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

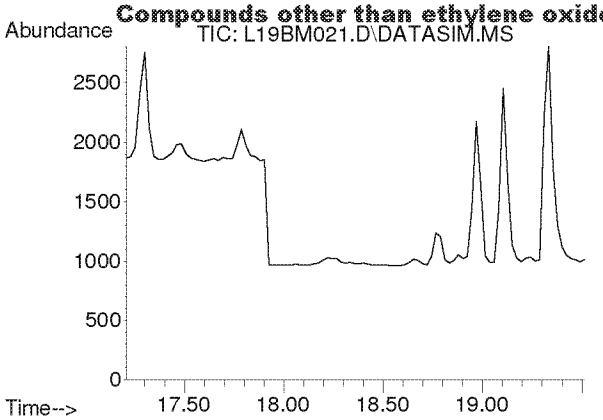
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

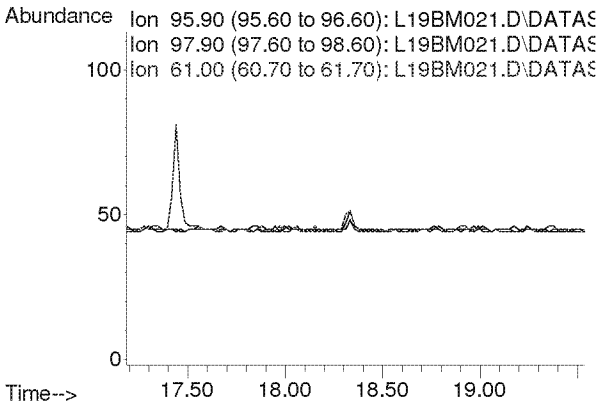


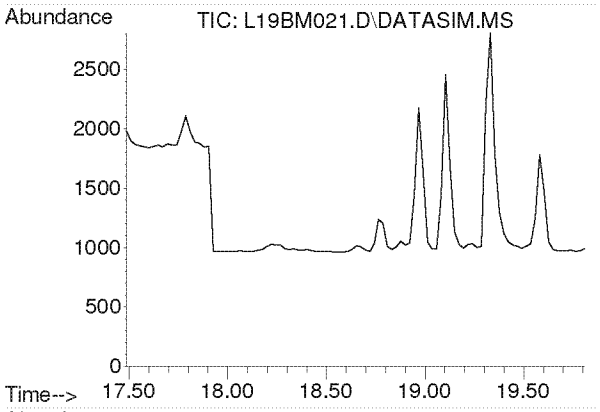
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



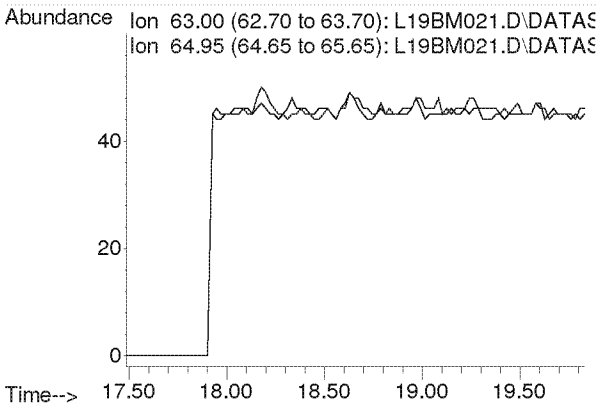


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

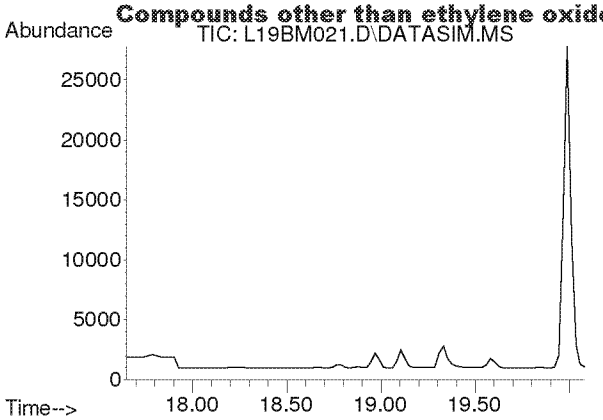
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

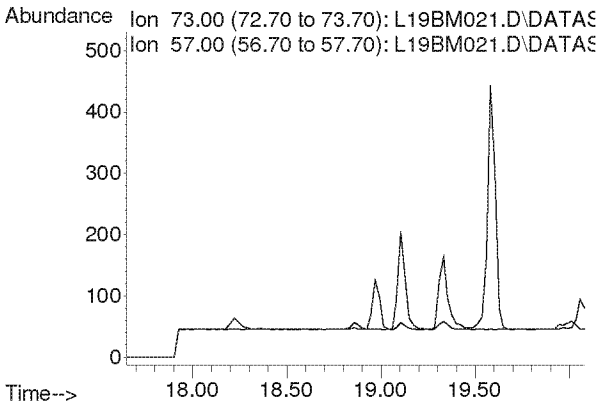


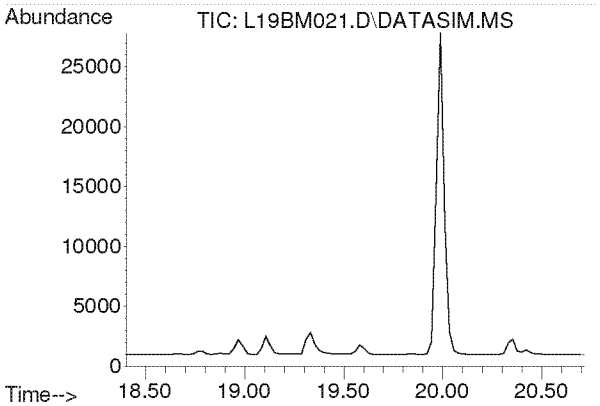
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



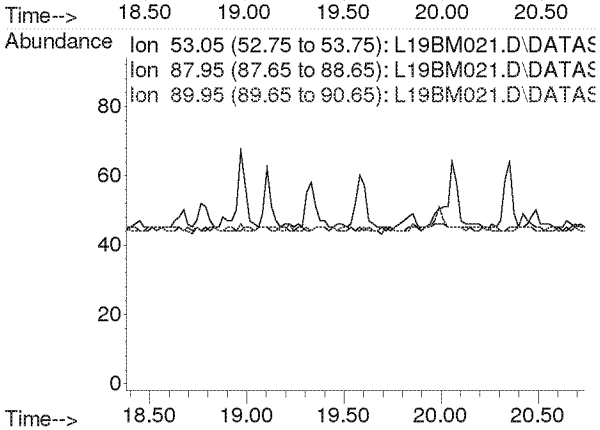


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

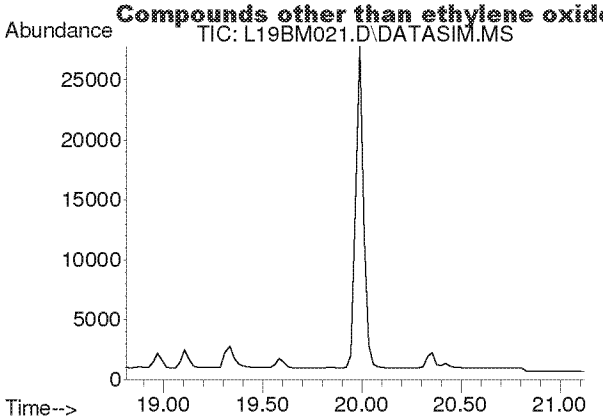
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

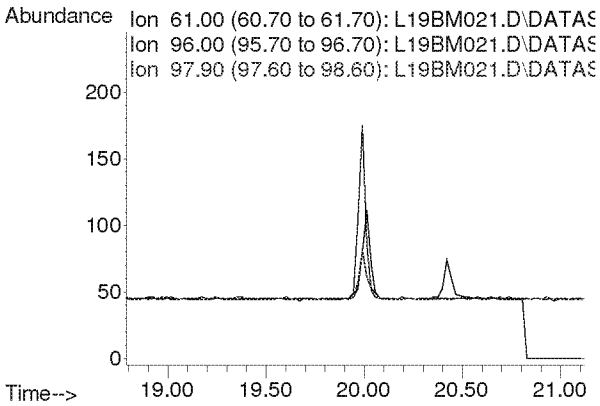


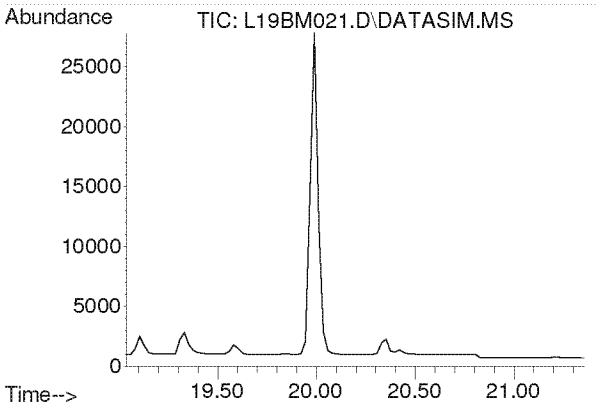
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



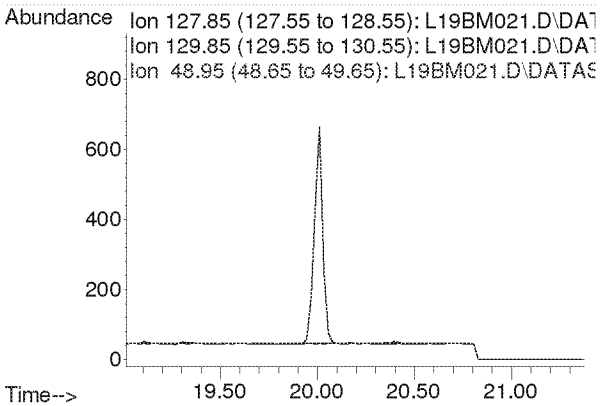


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

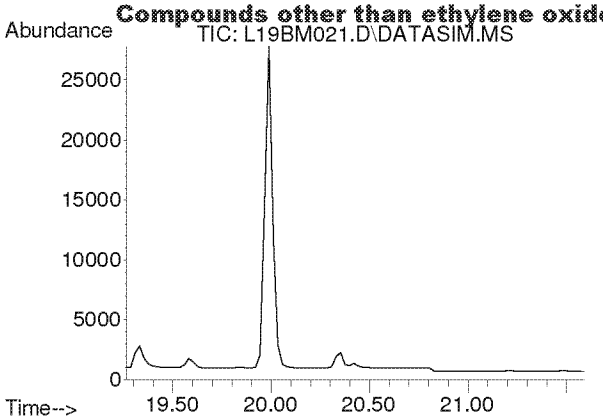
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

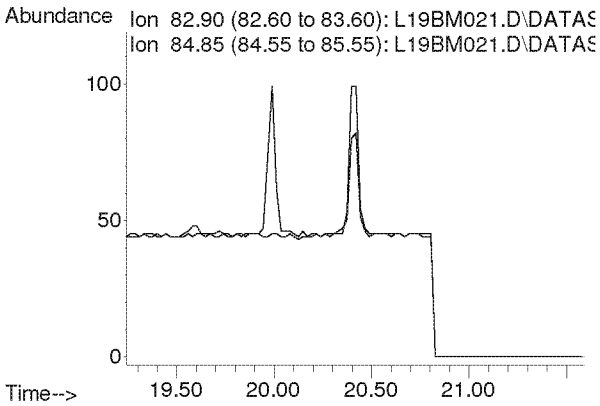


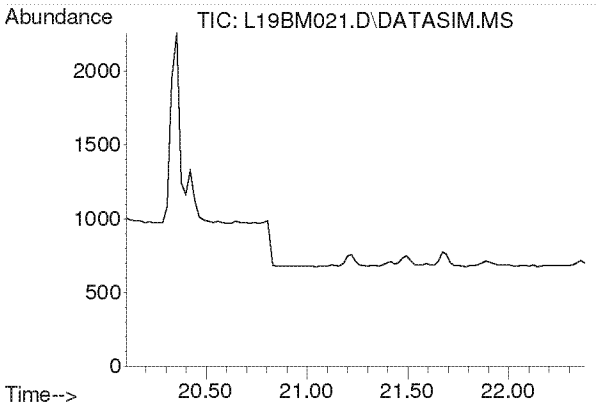
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



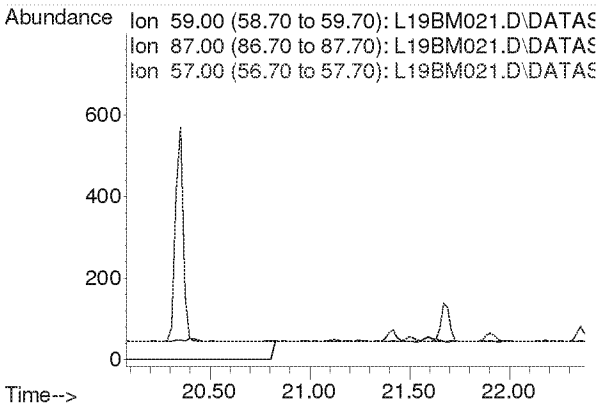


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

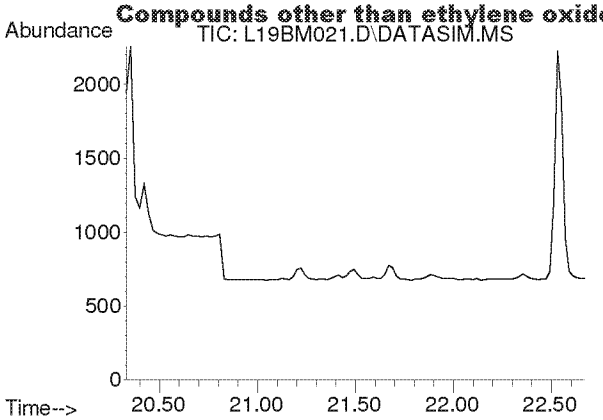
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

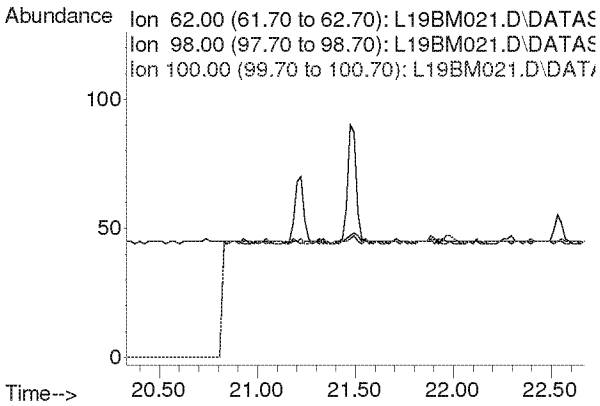


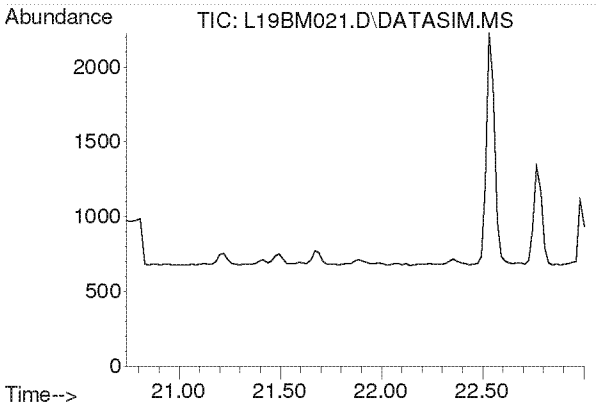
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



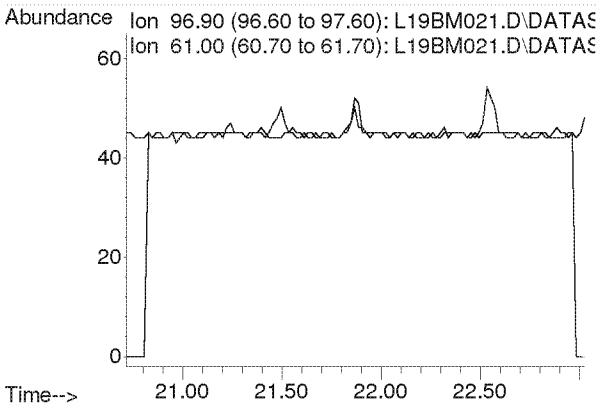


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

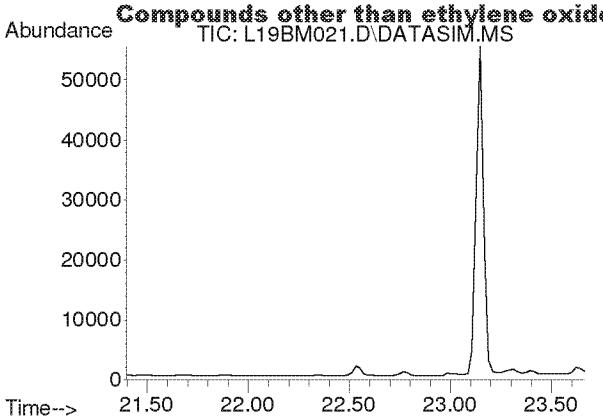
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

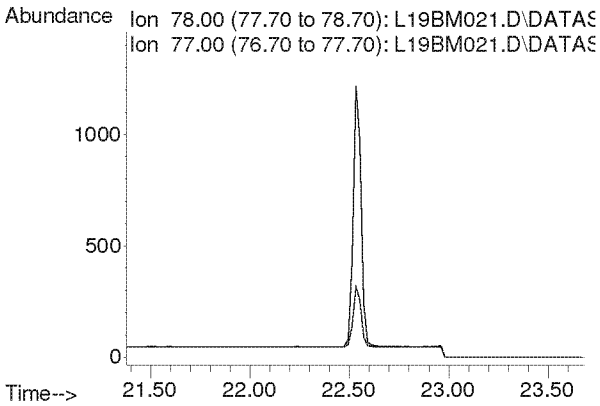


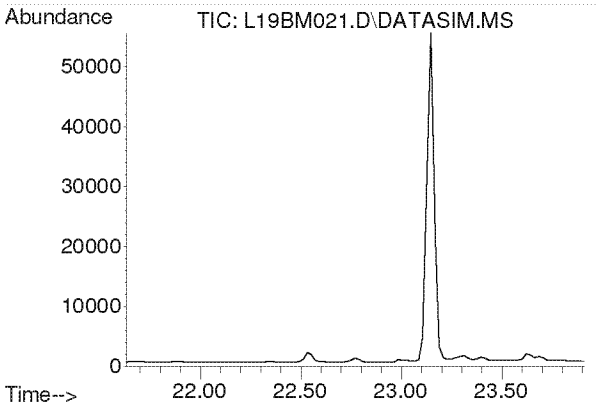
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



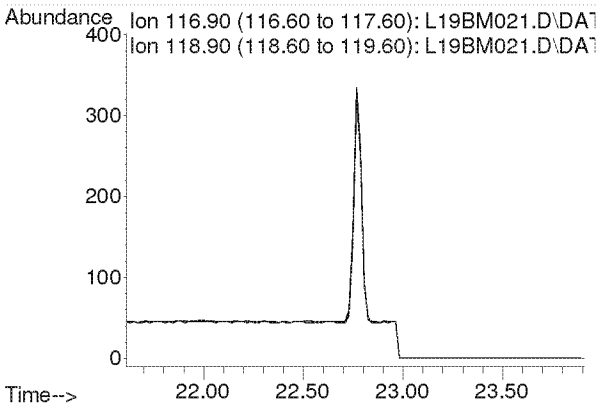


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

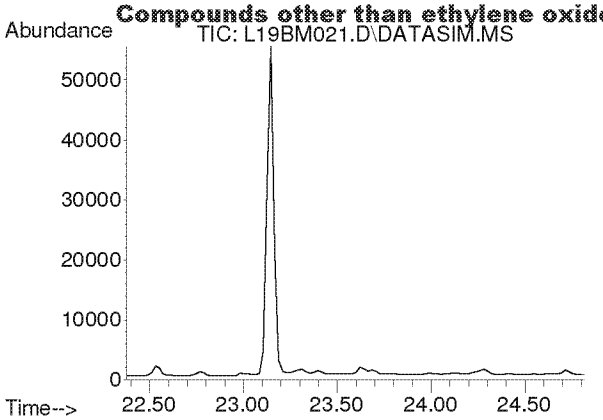
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

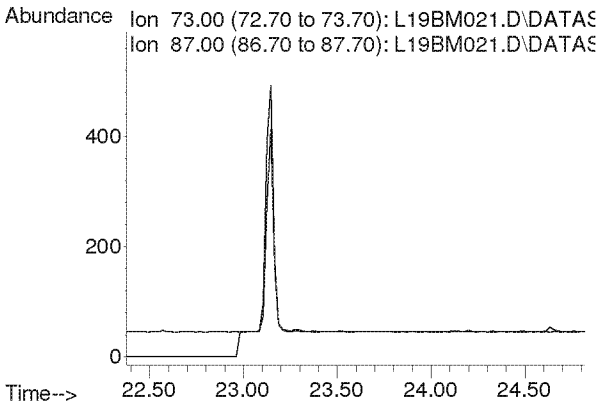


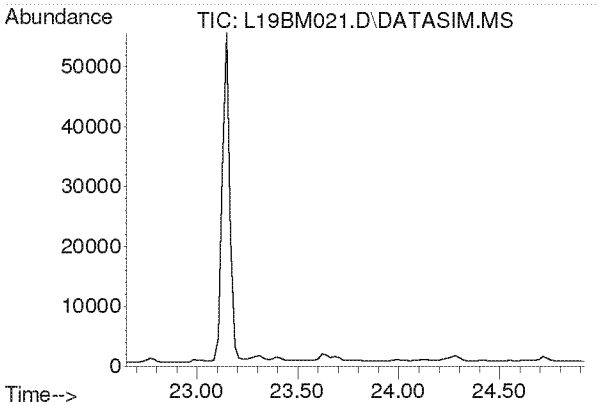
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



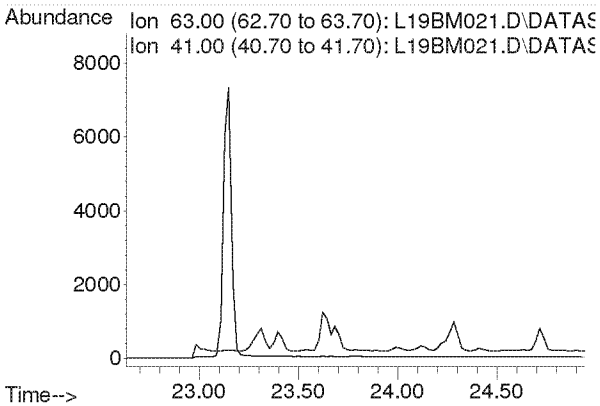


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

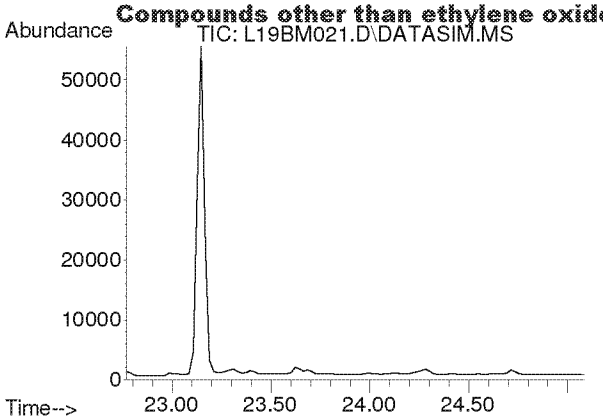
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

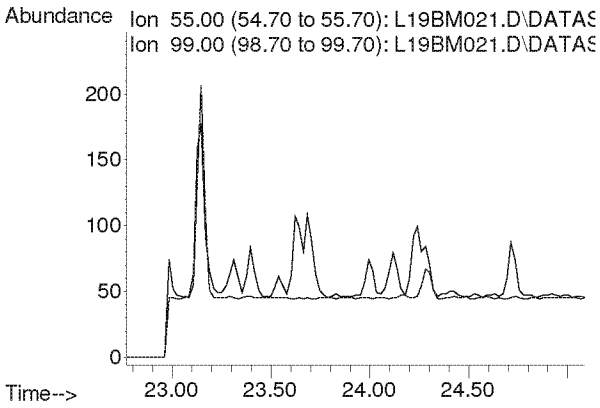


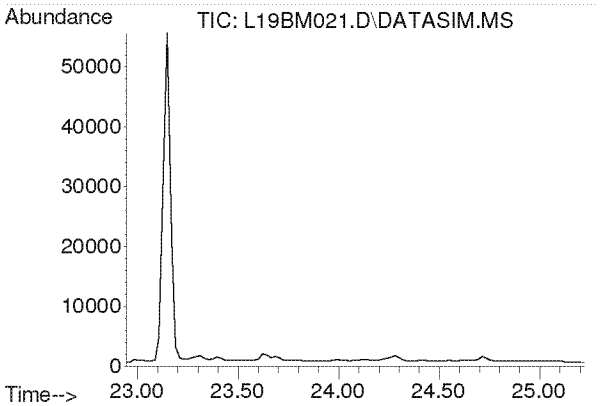
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



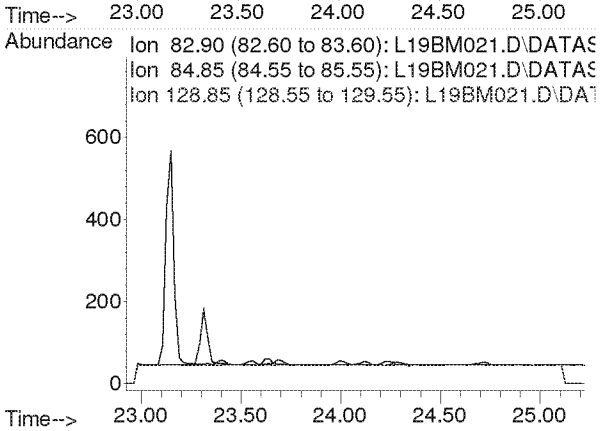


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

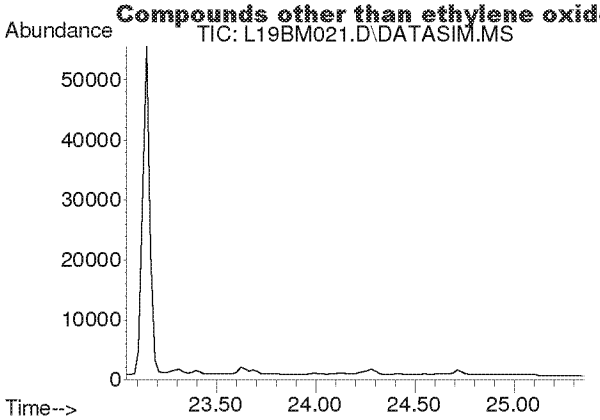
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

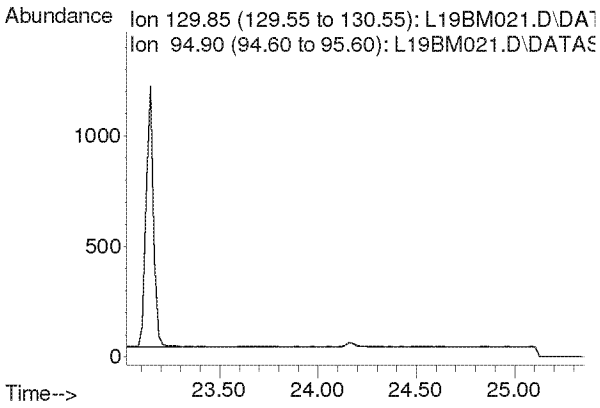


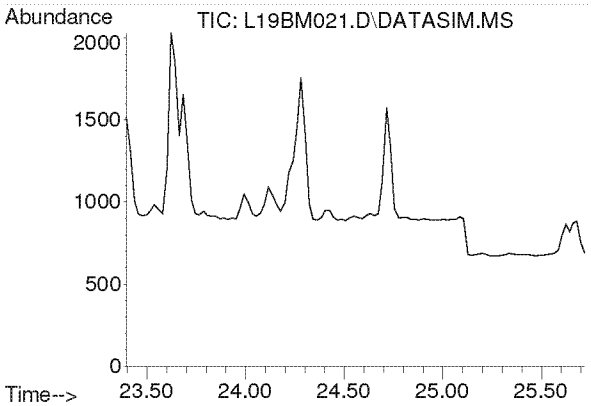
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



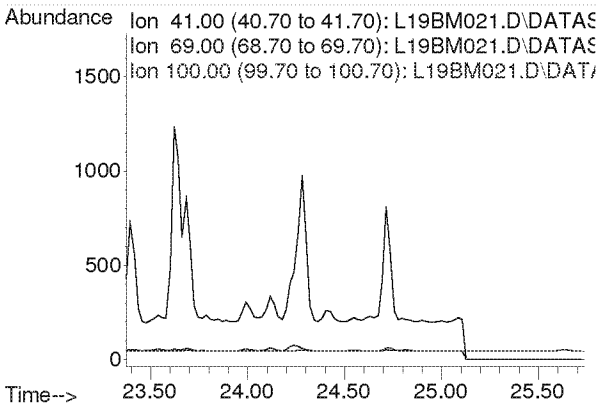


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

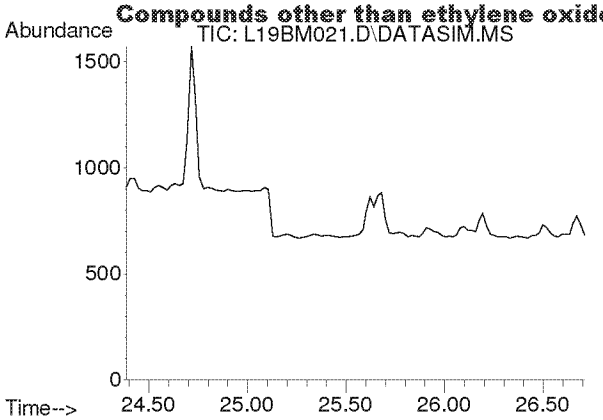
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

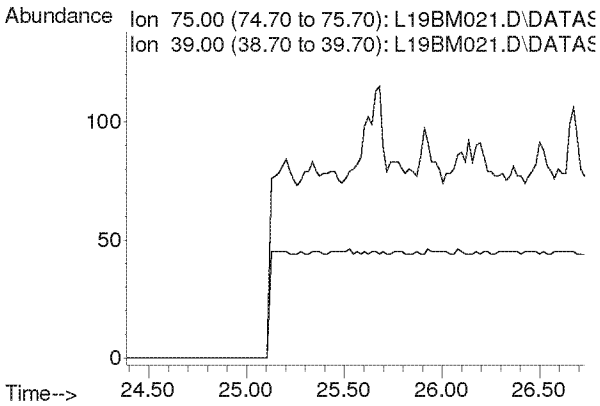


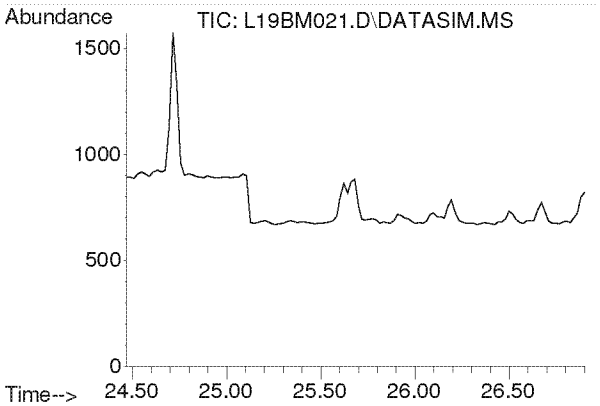
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



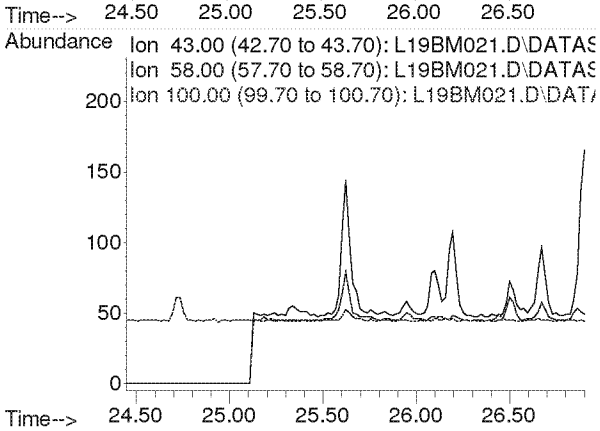


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

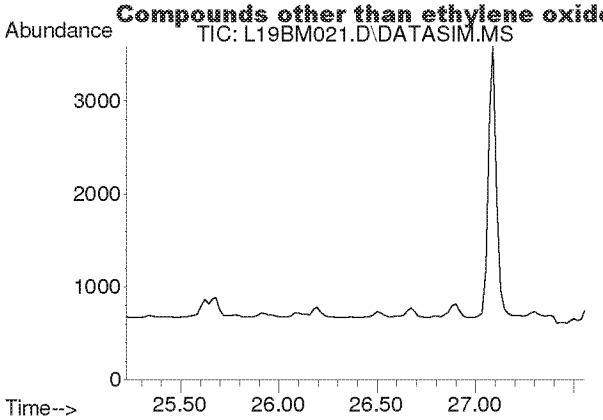
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

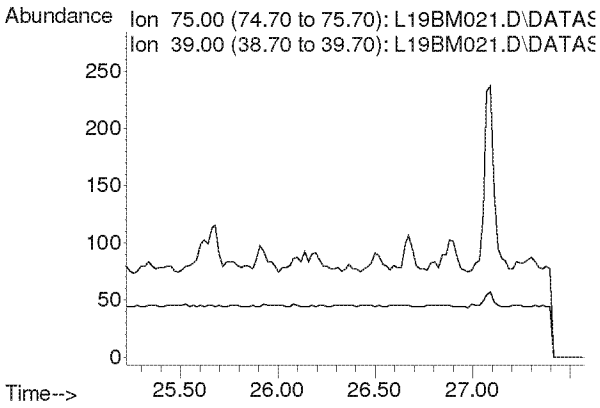


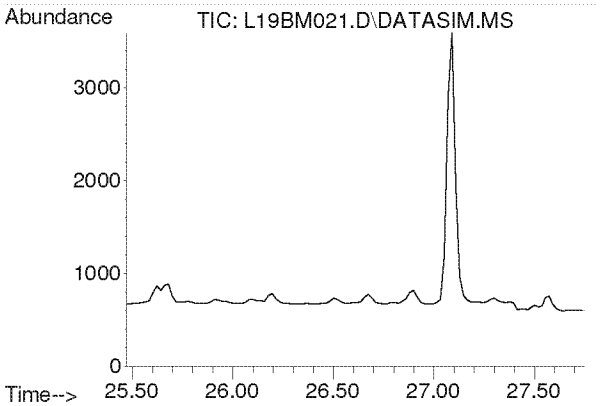
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



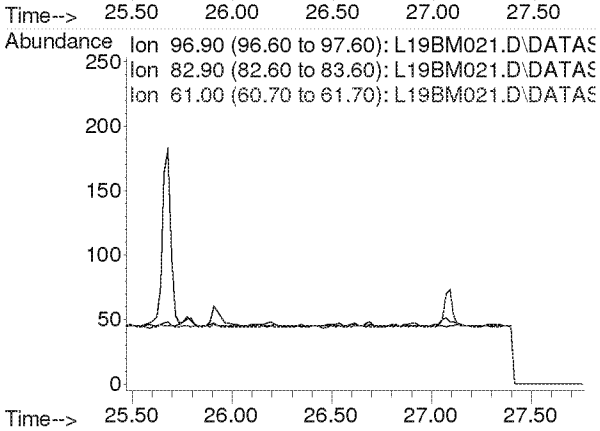


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

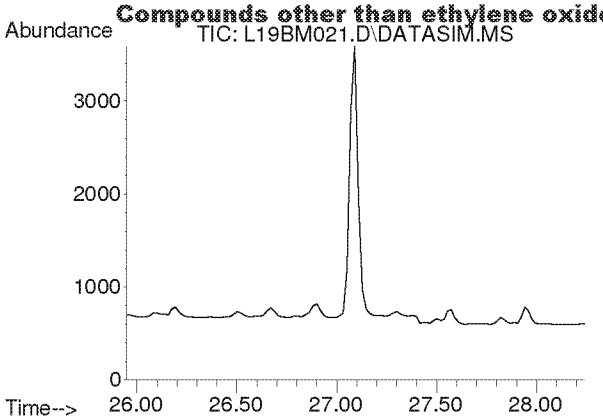
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

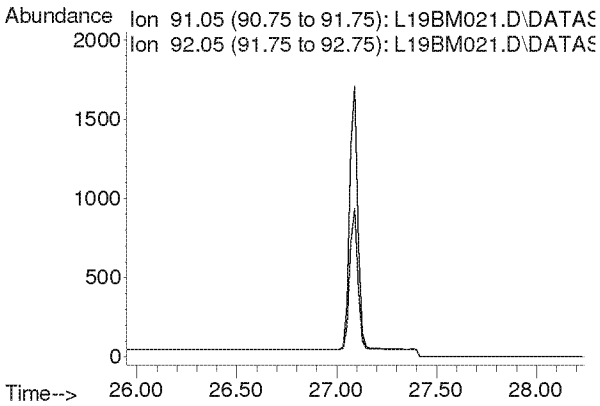


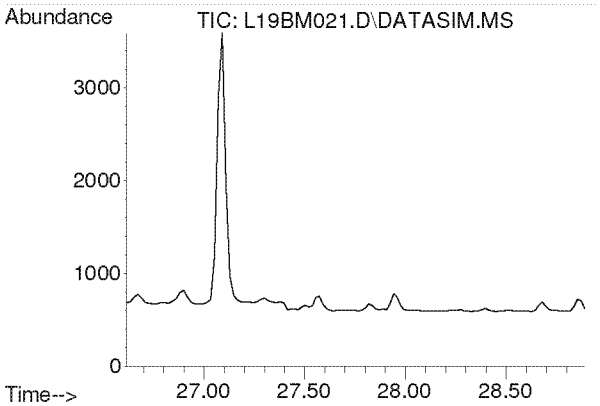
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



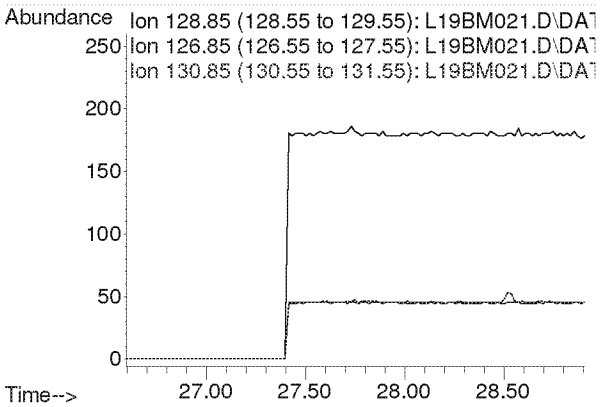


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

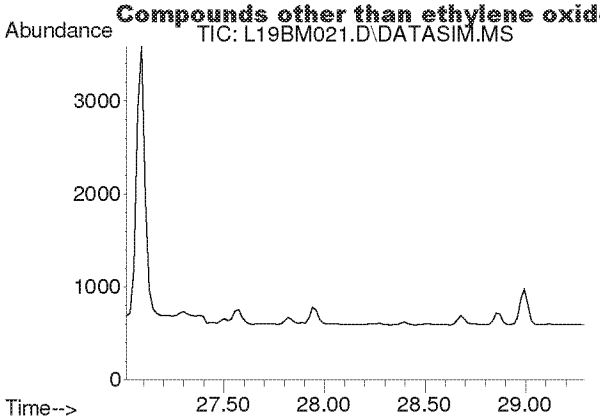
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

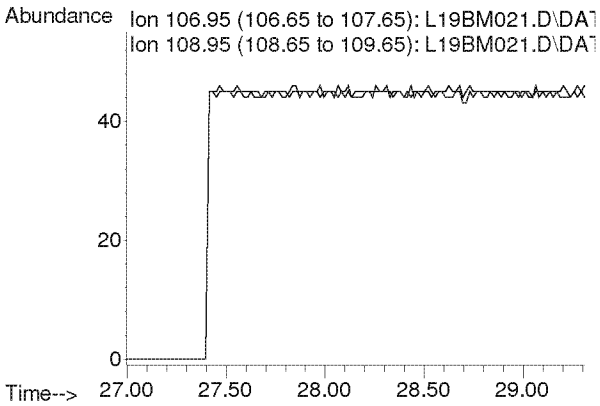


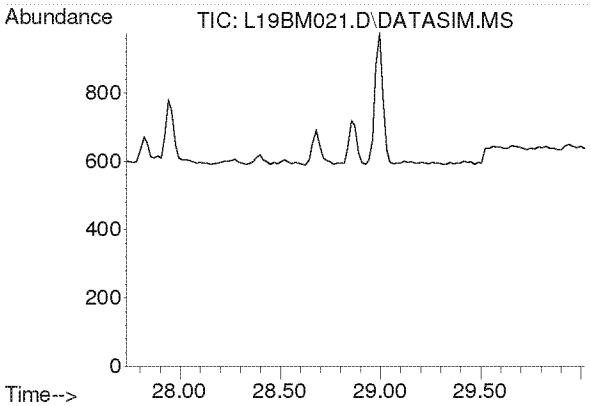
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



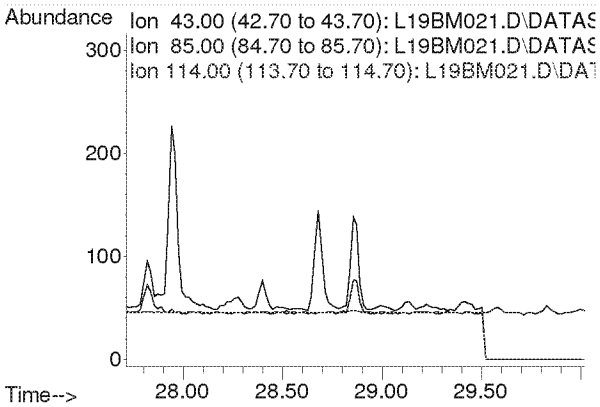


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

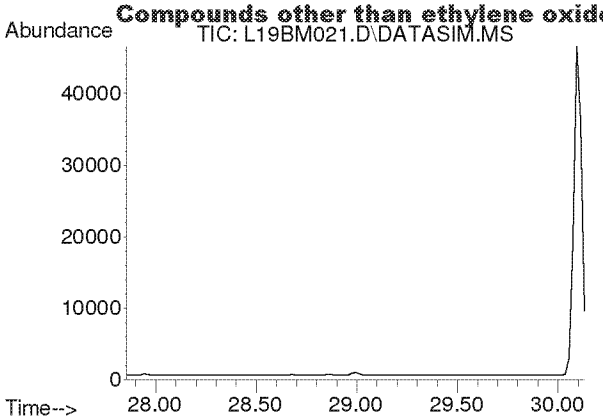
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

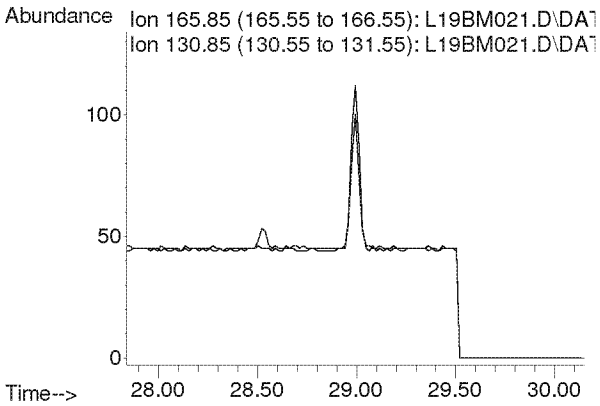


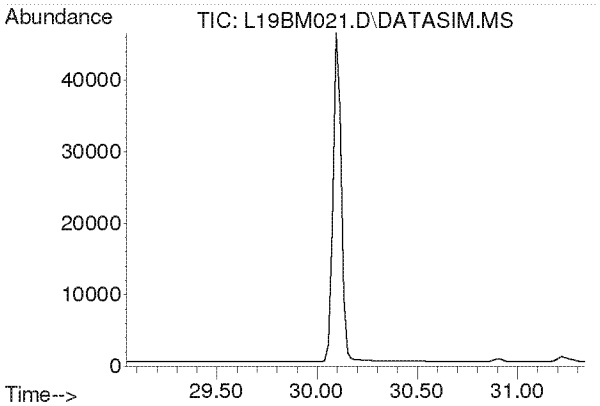
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



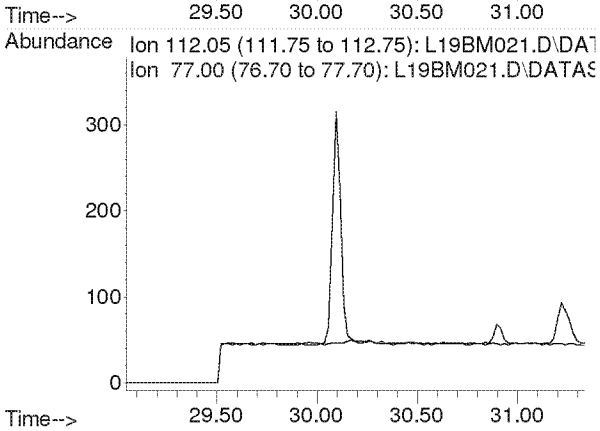


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

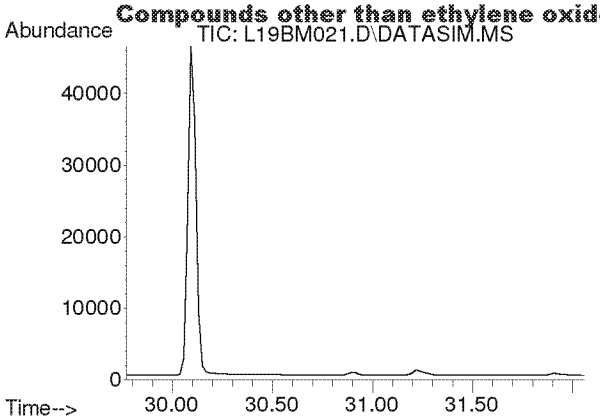
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

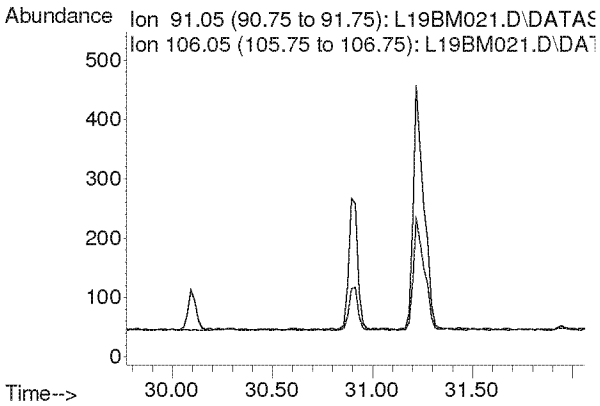


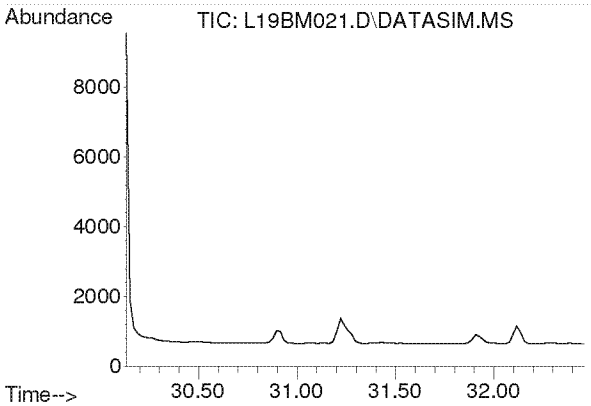
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



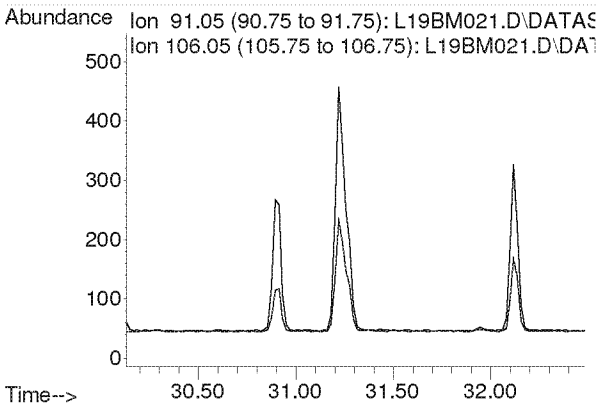


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

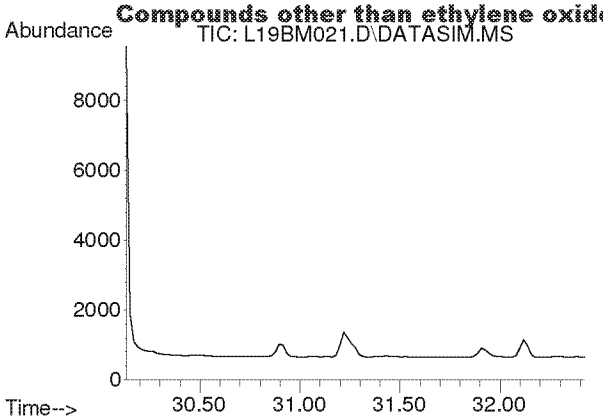
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

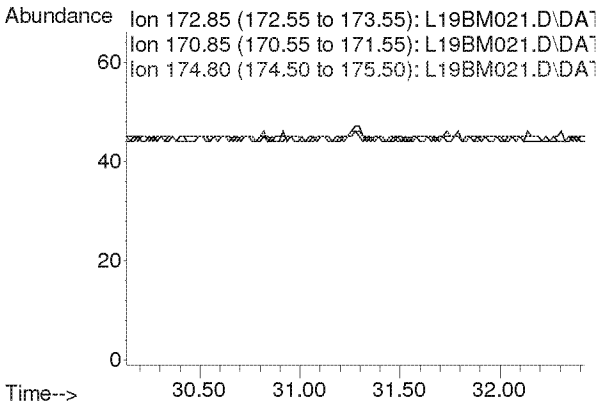


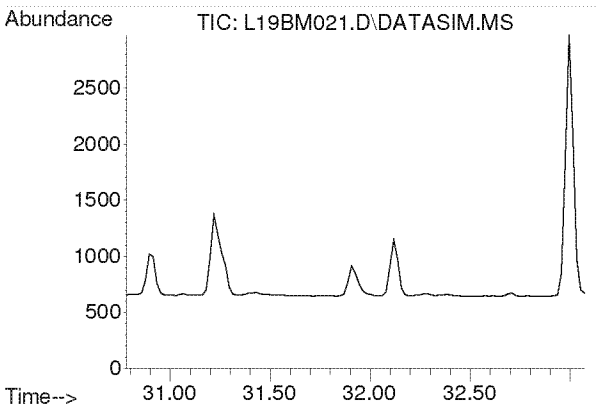
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



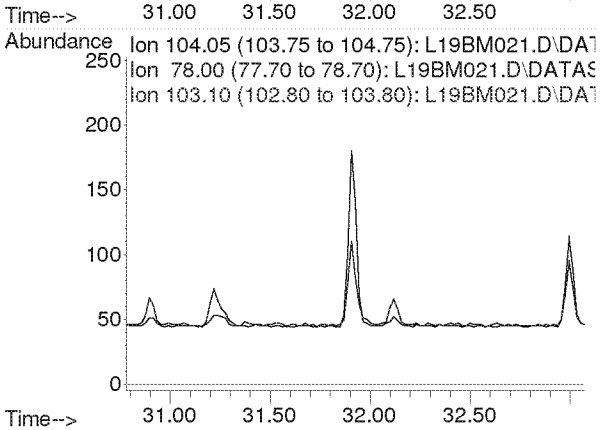


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

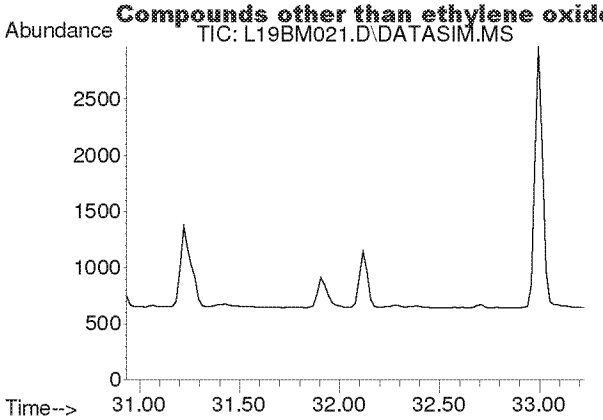
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

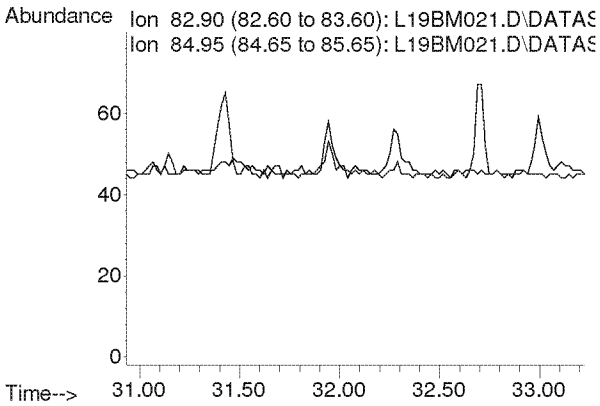


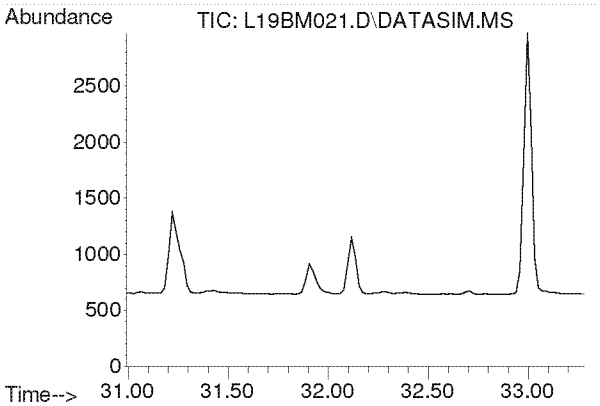
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



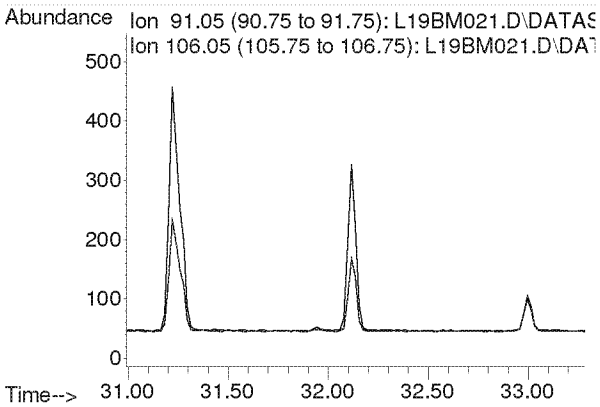


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

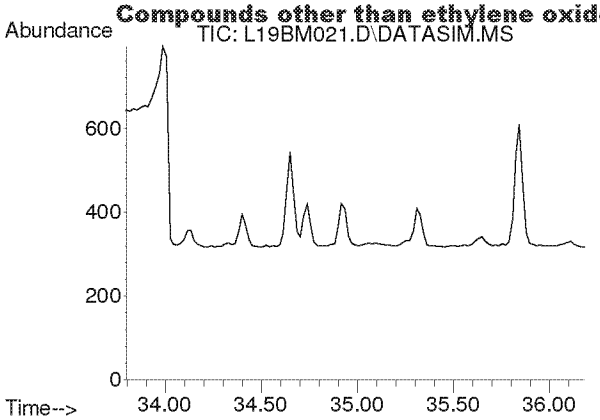
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

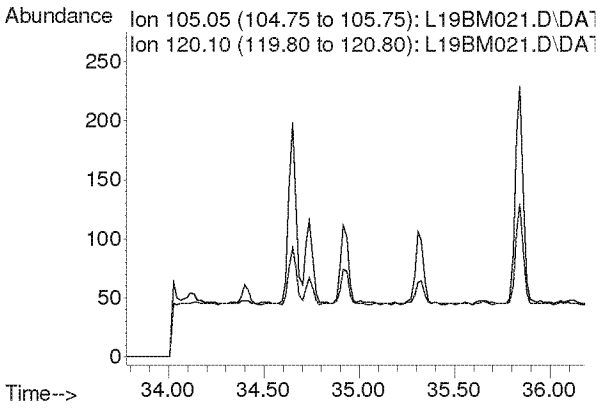


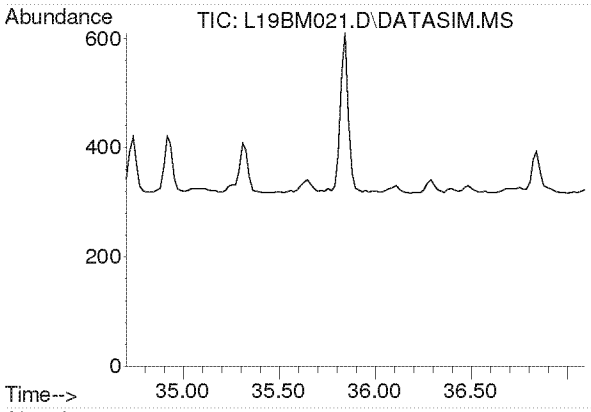
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



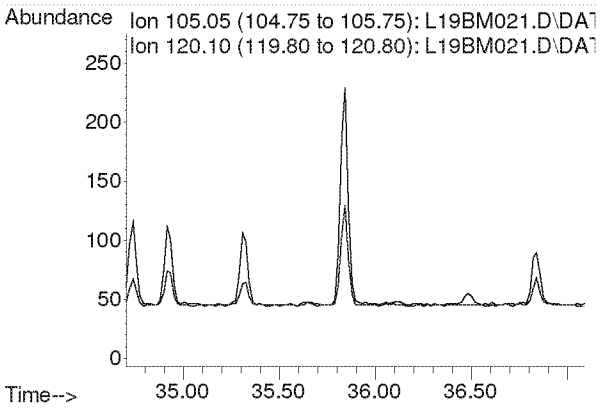


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

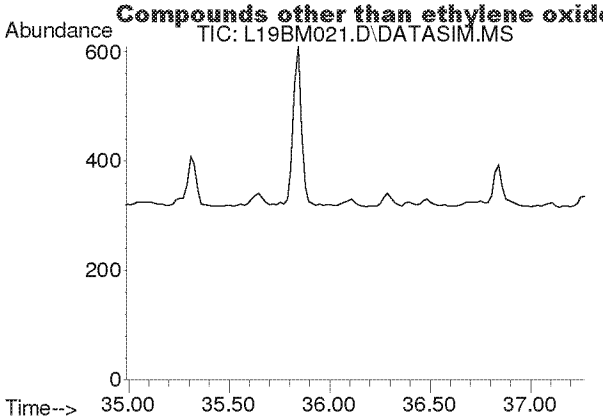
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

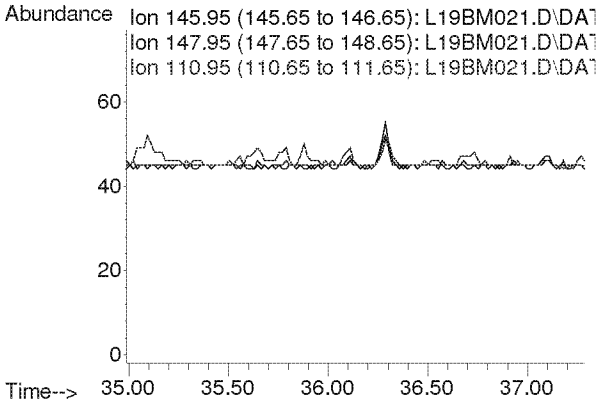


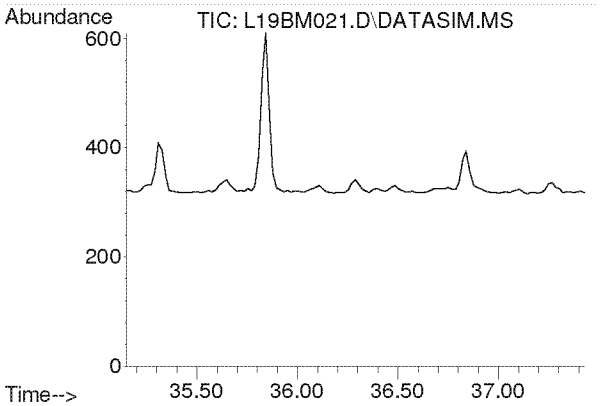
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



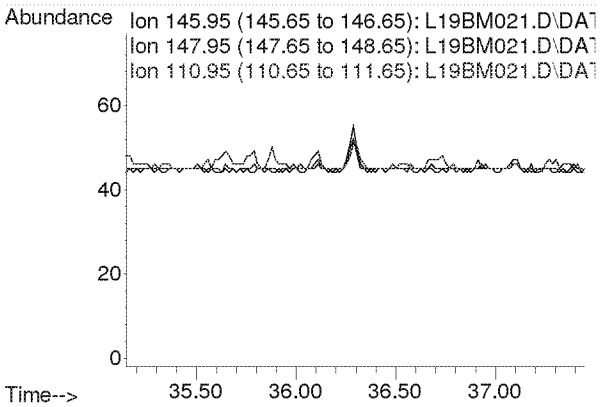


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

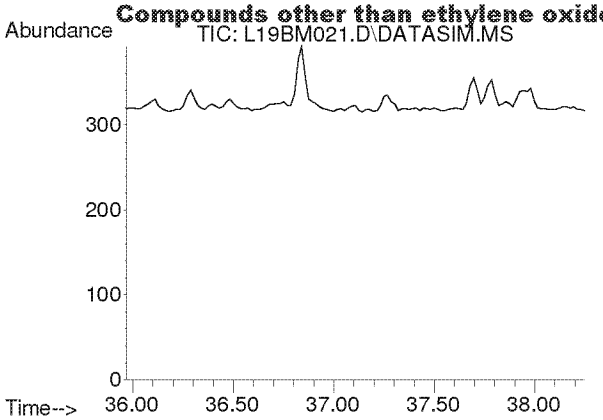
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

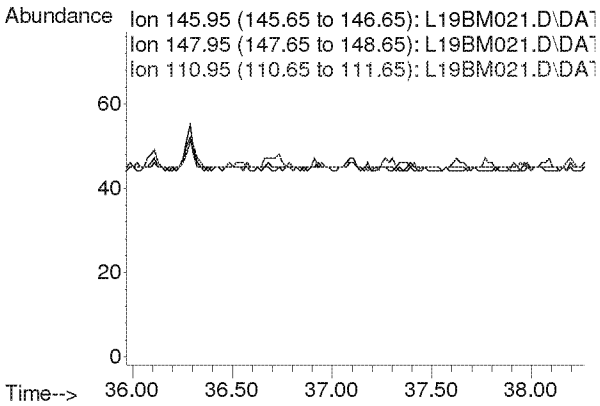


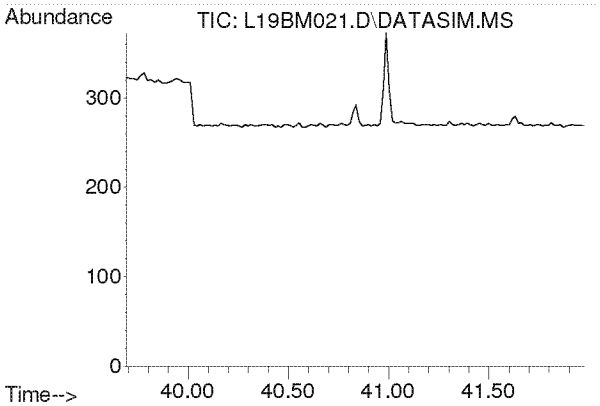
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



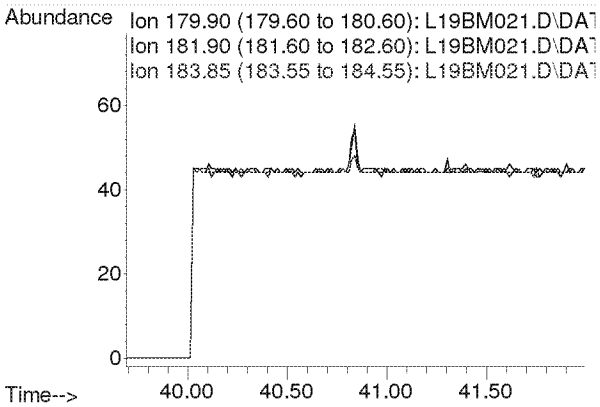


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

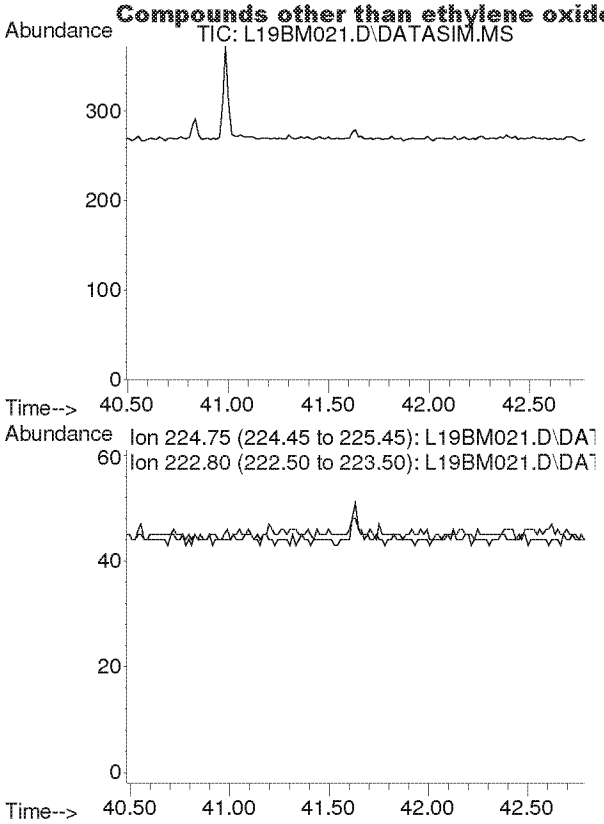
Lab File: L19BM021.D
Acq: 14 Feb 2019 4:47 am

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: L19BM021.D
Acq: 14 Feb 2019 4:47 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM022.D
Acq On : 14 Feb 2019 5:49 am (#1); 14-Feb-19, 05:44:35 (#2)
Operator : MAH
Sample : 9020702-07
Misc : WILLOW POND PARK 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 14 14:04:49 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

dc NK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	44101	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	107845	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	78331	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	243m	0.0963 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.	d
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	d
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	d
48) Tetrachloroethylene	0.000	166	0	N.D.	d
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d

ED_002475_00000213-00383

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM022.D
Acq On : 14 Feb 2019 5:49 am (#1); 14-Feb-19, 05:44:35 (#2)
Operator : MAH
Sample : 9020702-07
Misc : WILLOW POND PARK 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 14 14:04:49 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

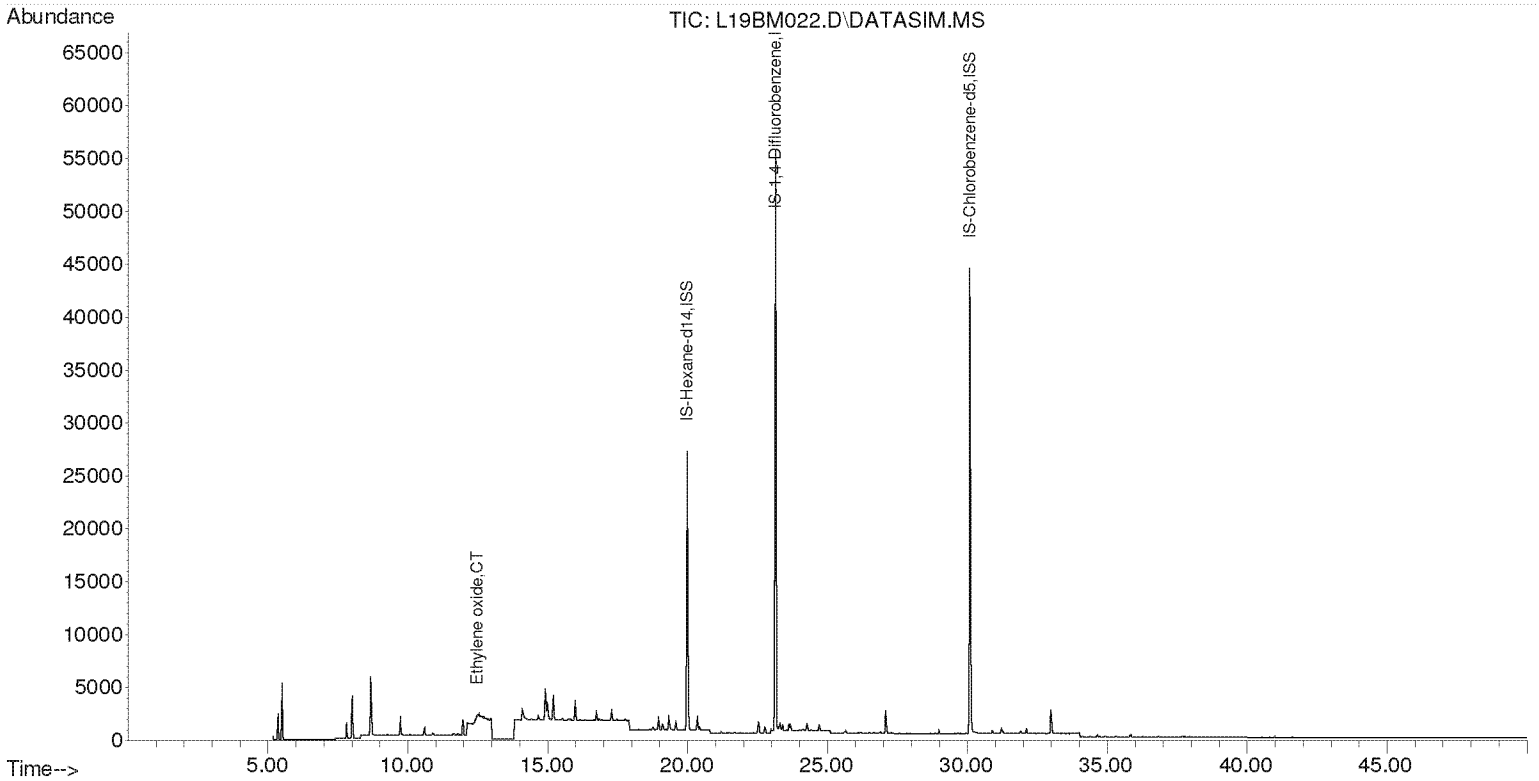
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

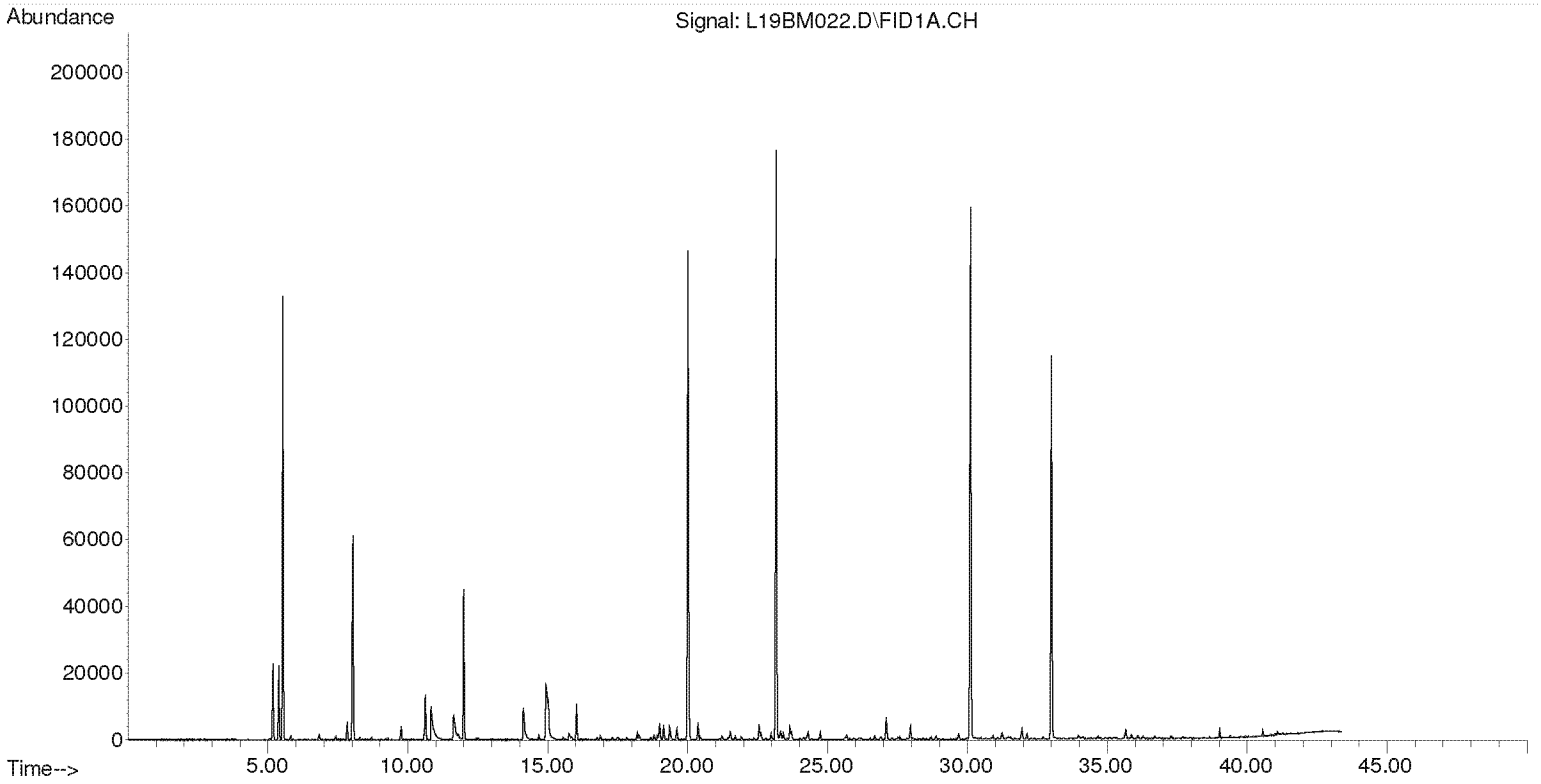
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

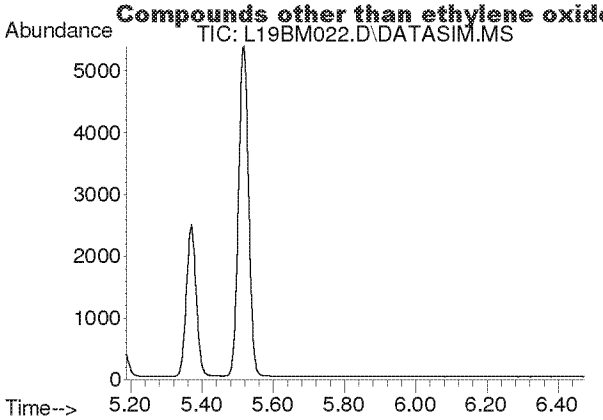
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM022.D
Acq On : 14 Feb 2019 5:49 am (#1); 14 Feb 2019 5:44 am (#2)
Operator : MAH
Sample : 9020702-07
Misc : WILLOW POND PARK 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 14 08:33:45 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





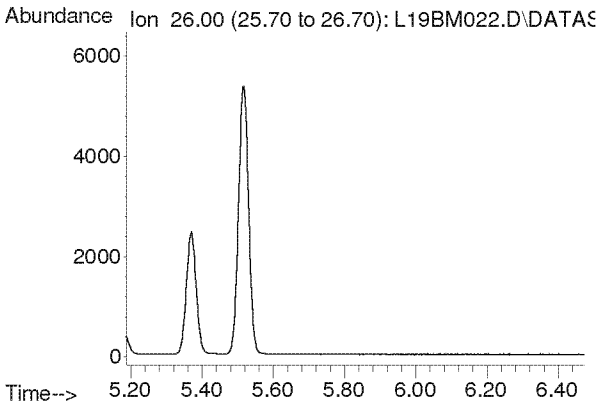
Compounds other than ethylene oxide were not quantitated.

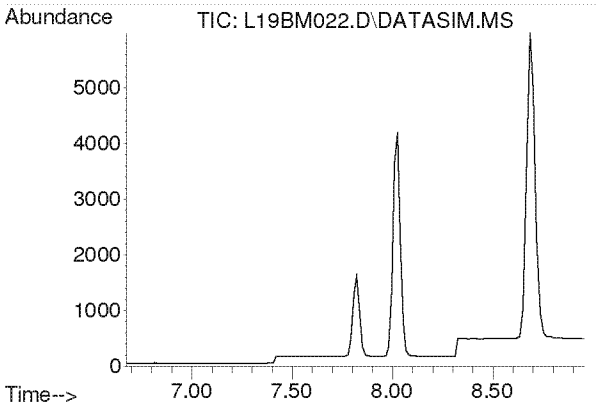


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 26



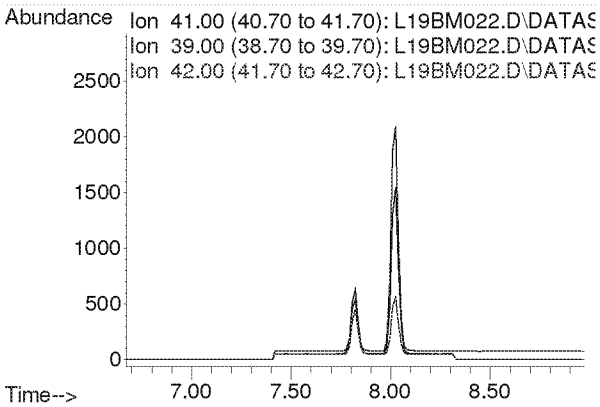


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

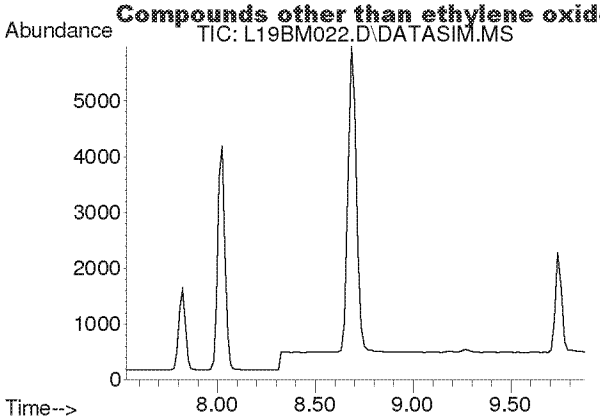
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

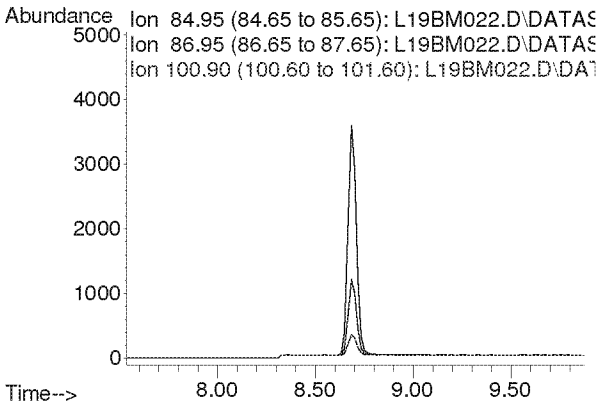


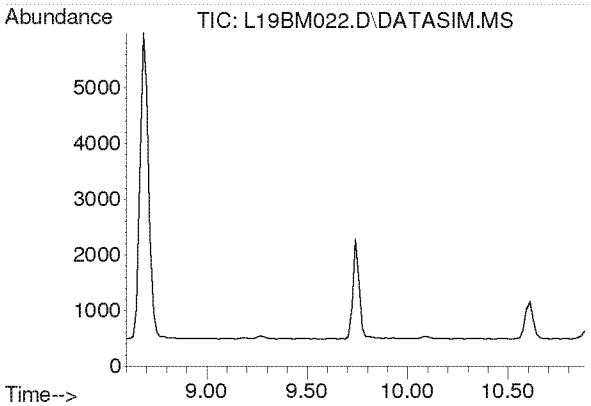
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



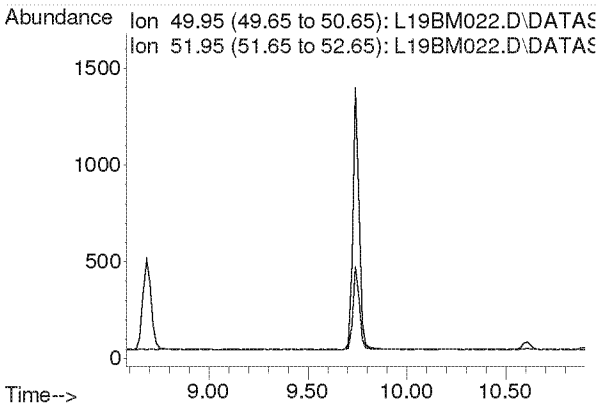


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

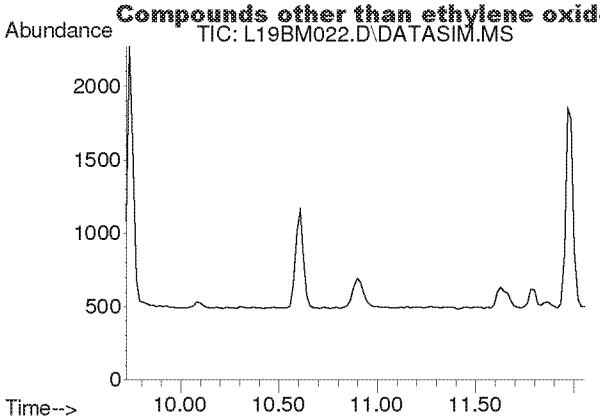
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

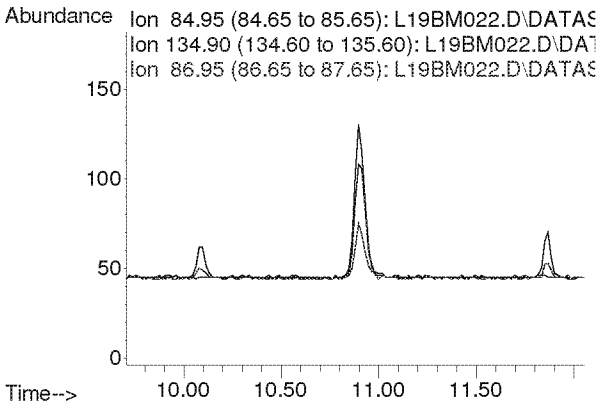


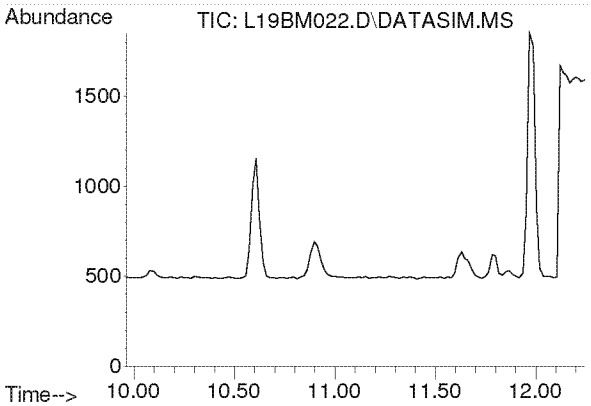
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



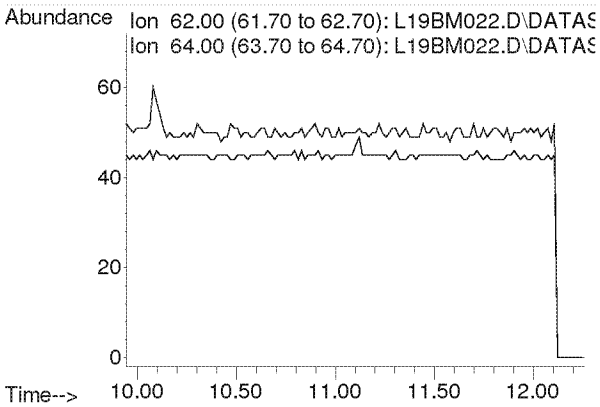


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

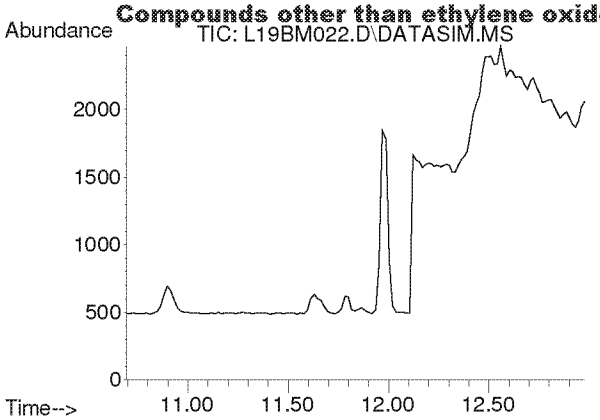
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

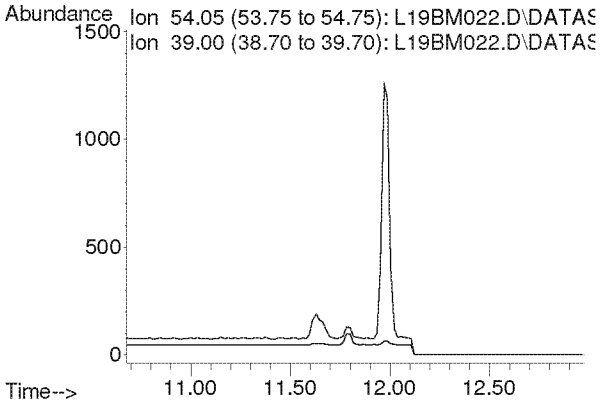


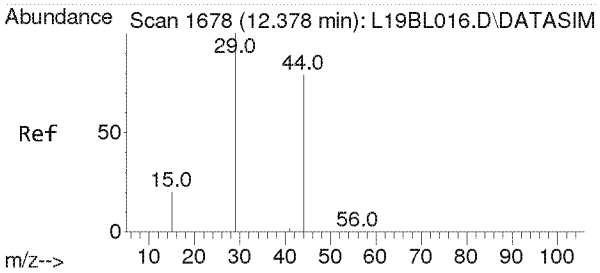
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

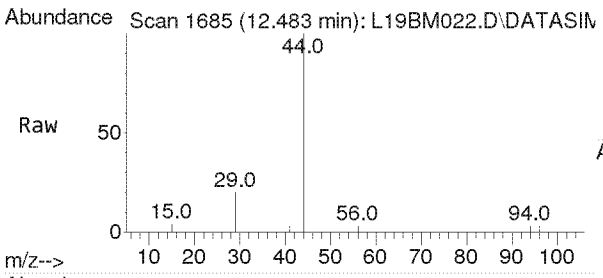


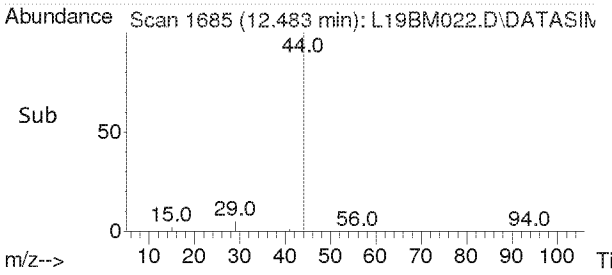


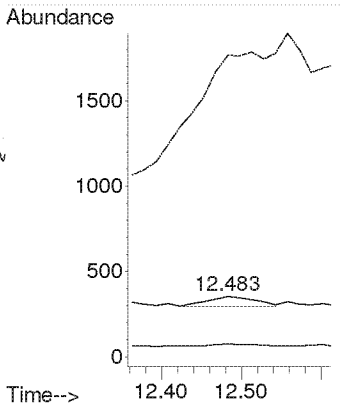
#9
Ethylene oxide
Concen: 0.096 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.003 min
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 29 Resp: 243

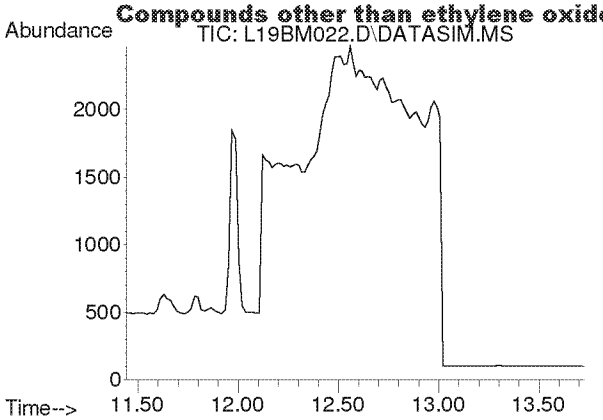
Ion	Ratio	Lower	Upper
29	100		
15	26.7	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

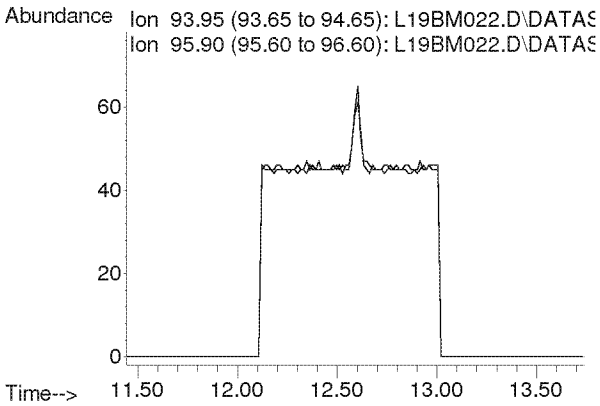


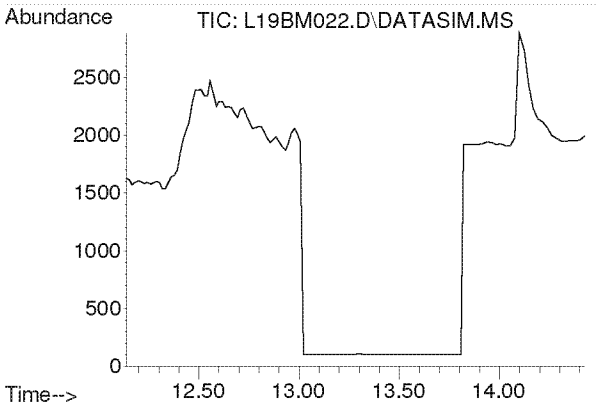
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



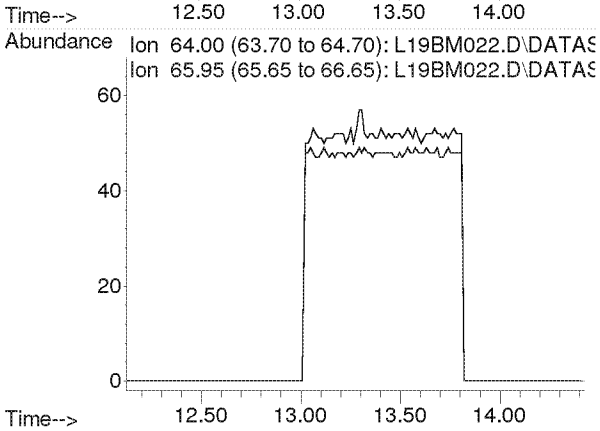


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

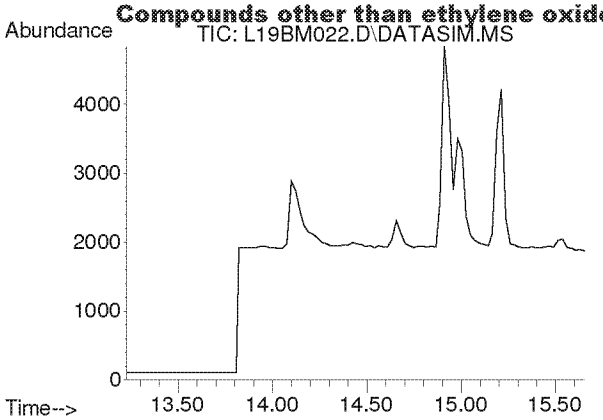
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

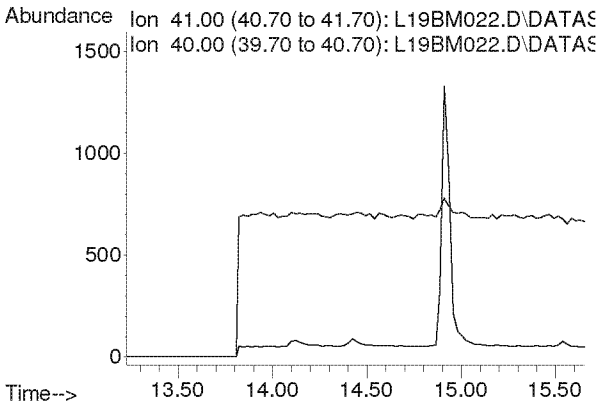


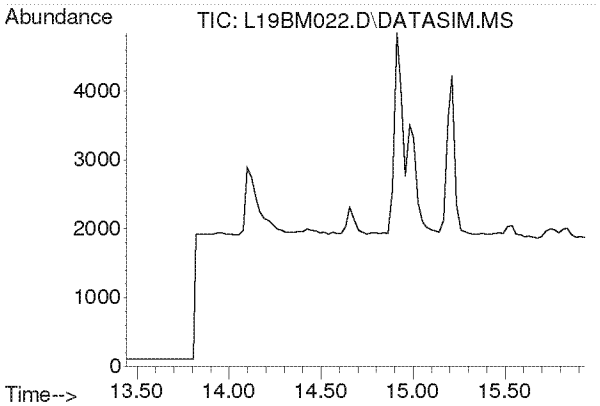
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



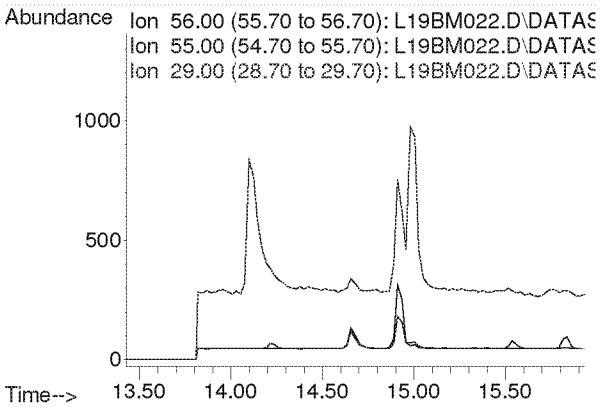


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

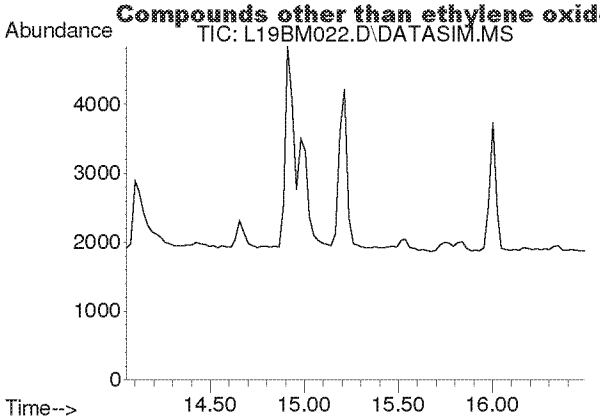
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

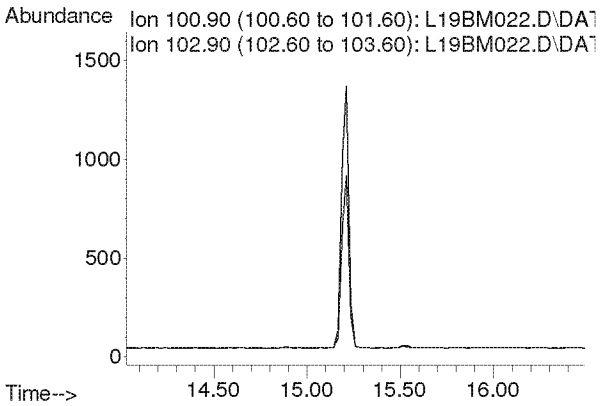


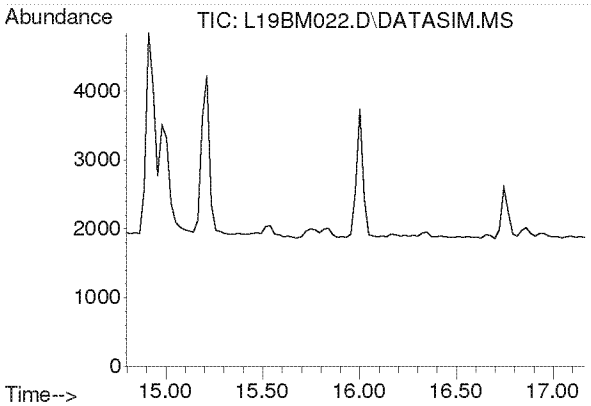
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



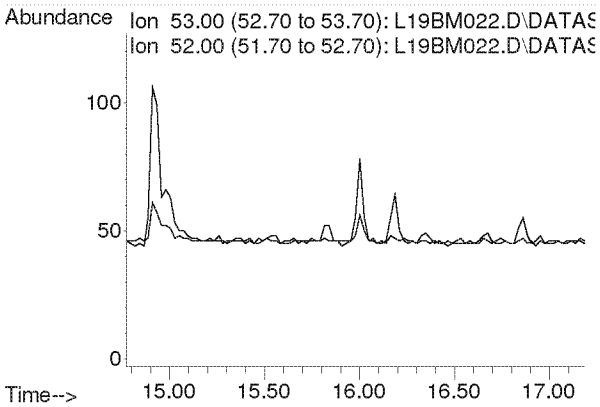


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

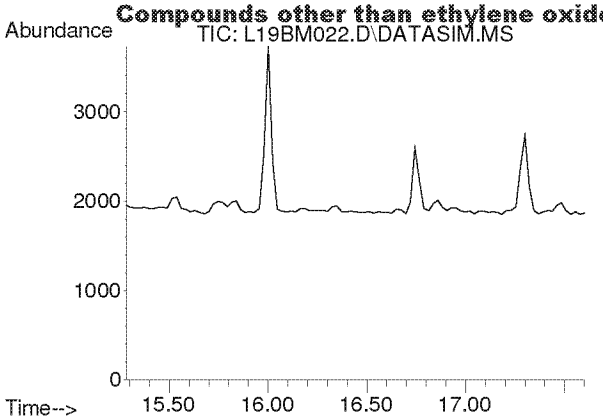
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

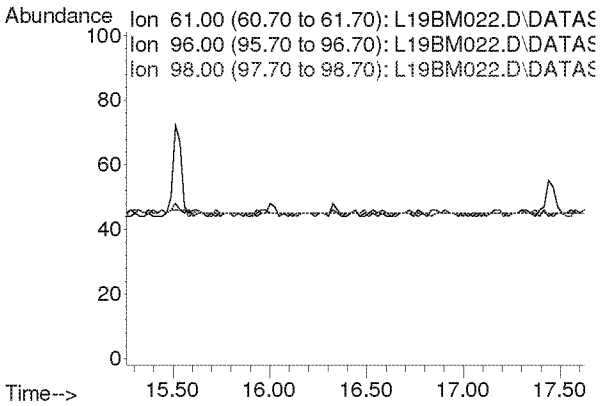


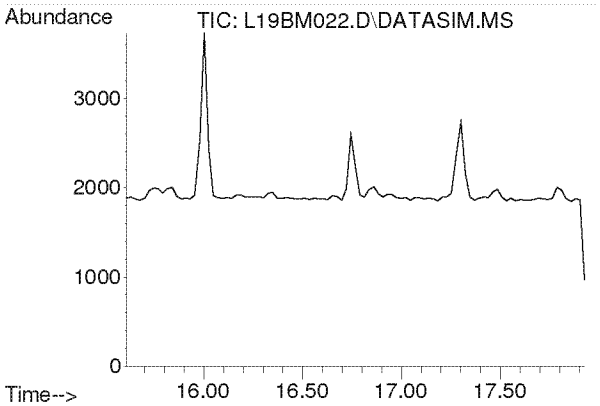
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



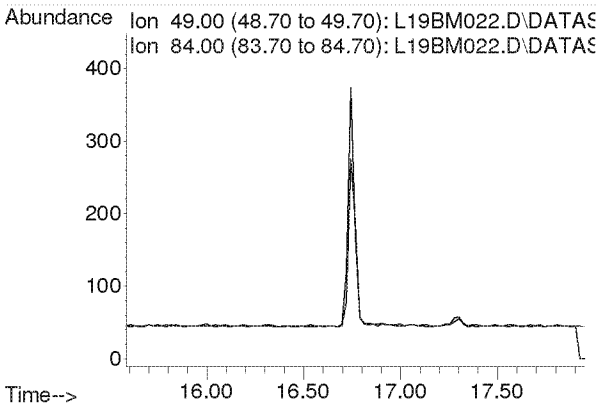


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

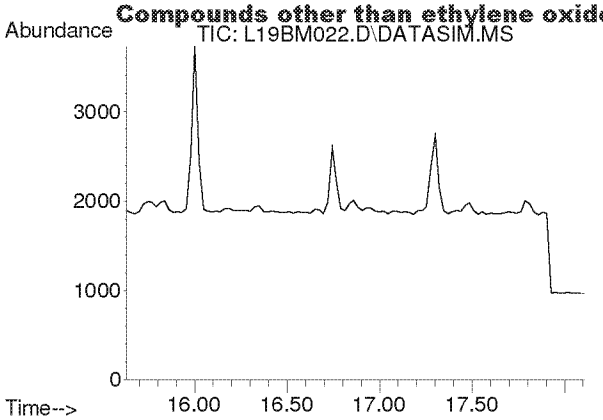
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

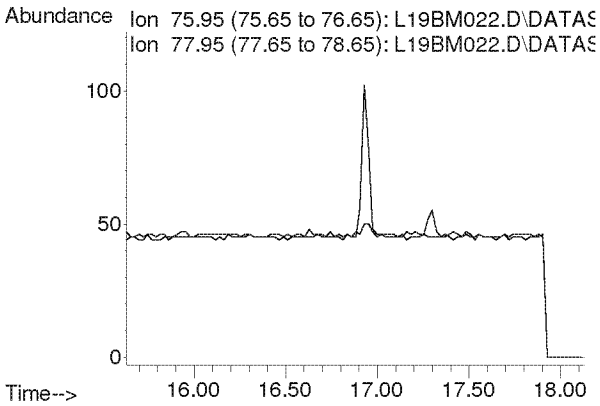


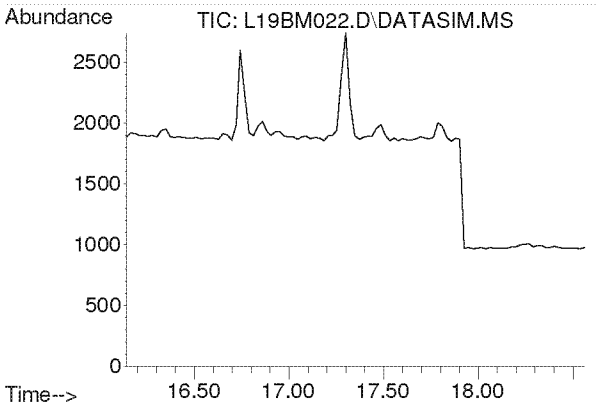
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



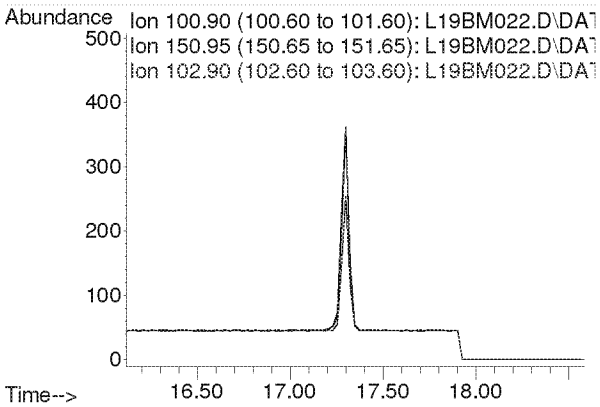


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

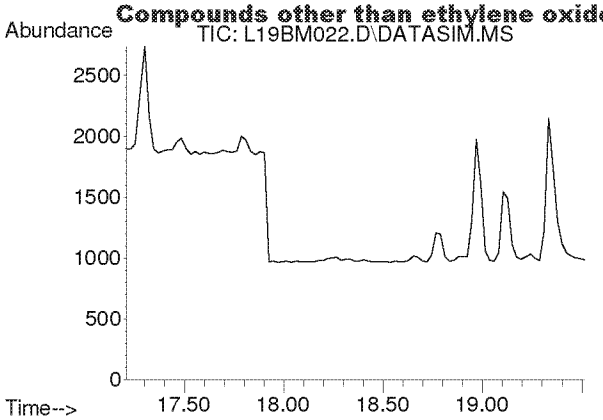
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

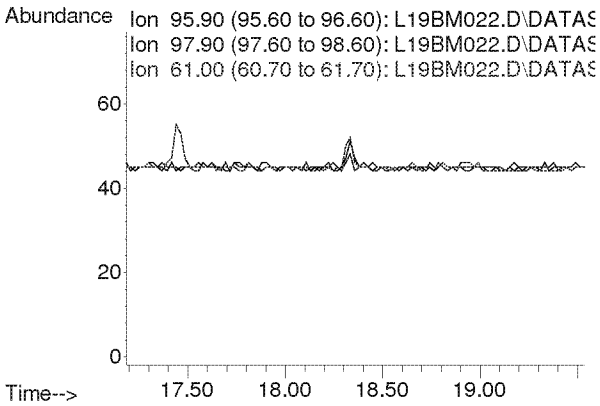


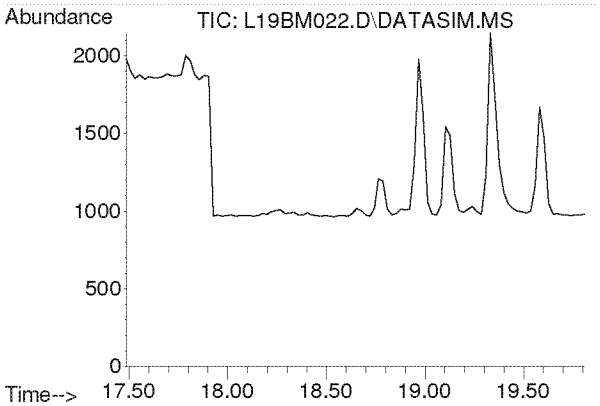
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



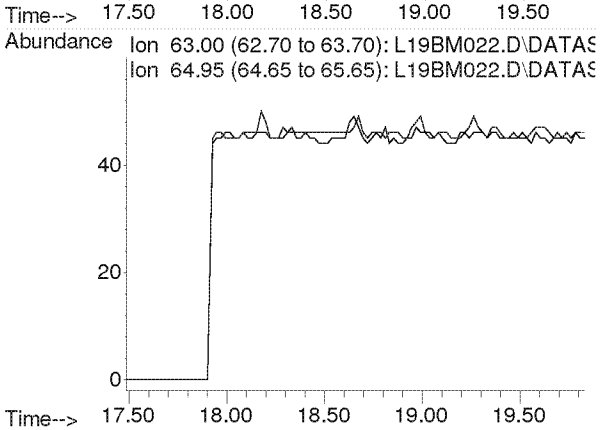


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

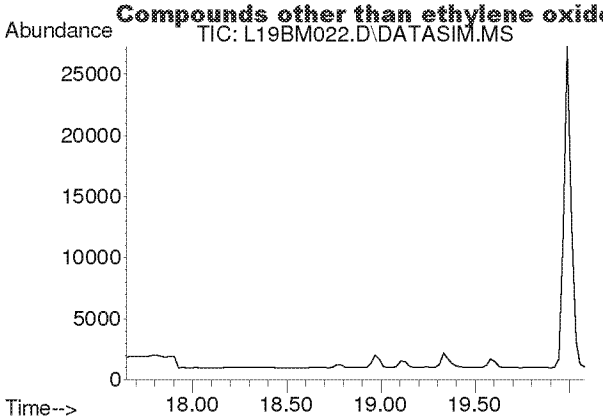
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

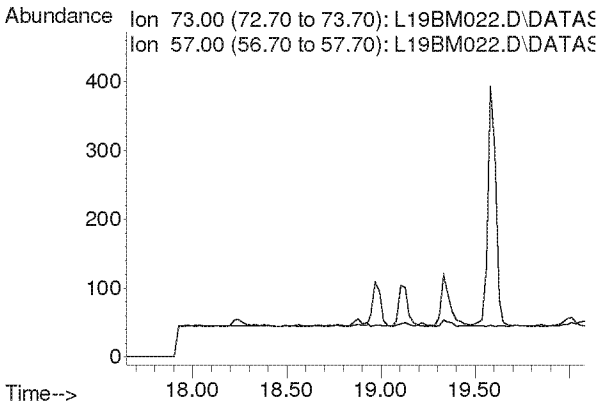


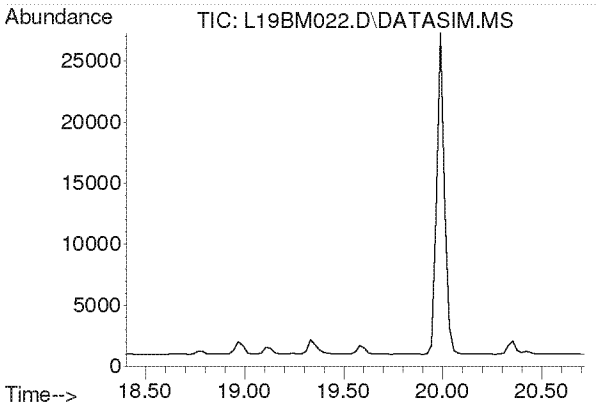
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



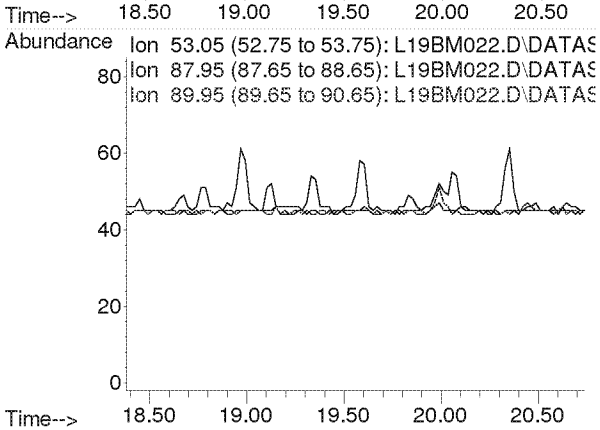


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

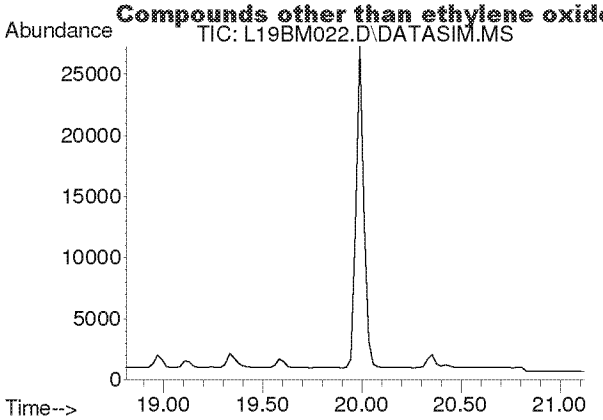
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

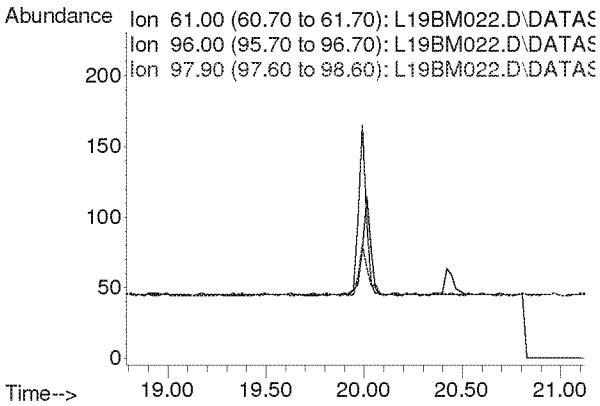


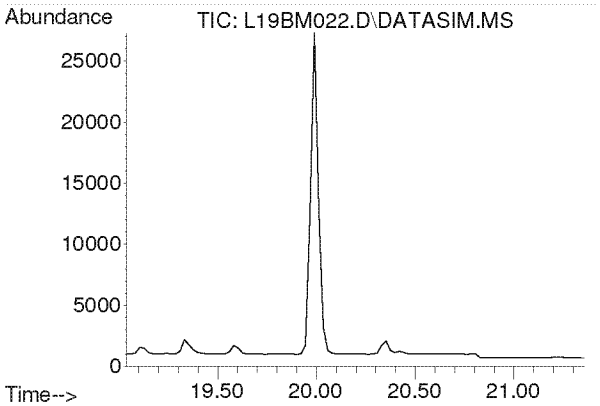
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



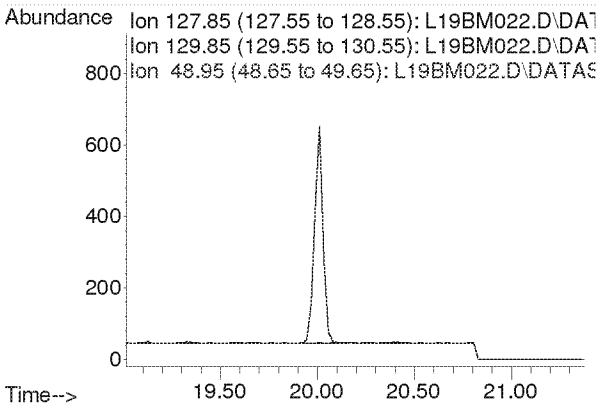


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

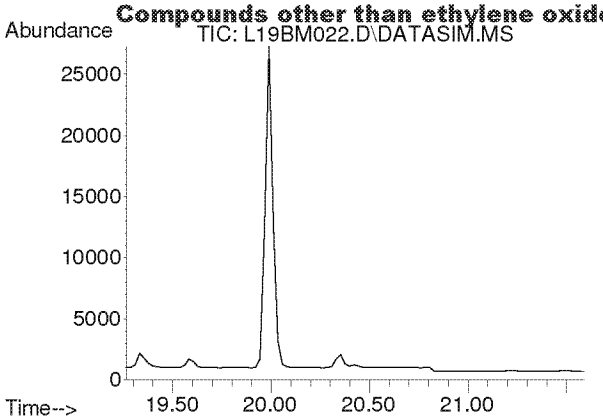
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

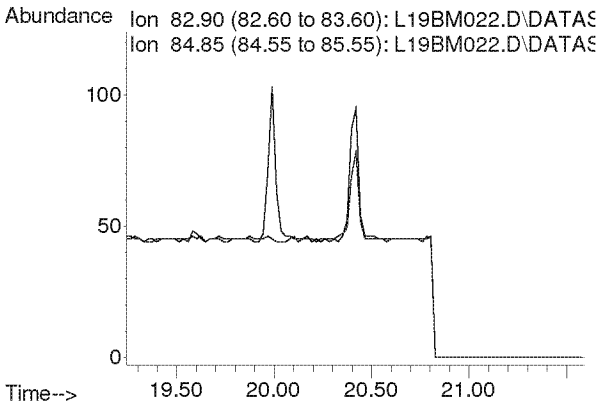


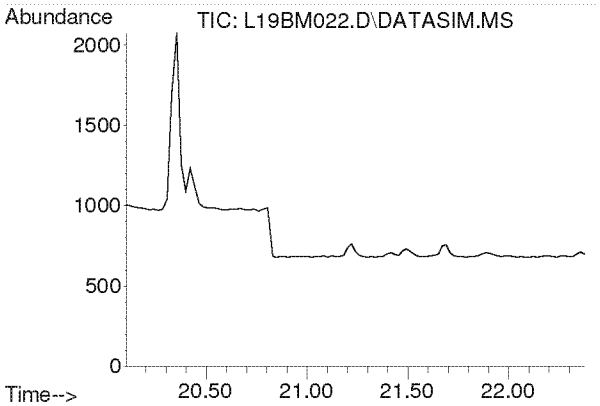
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



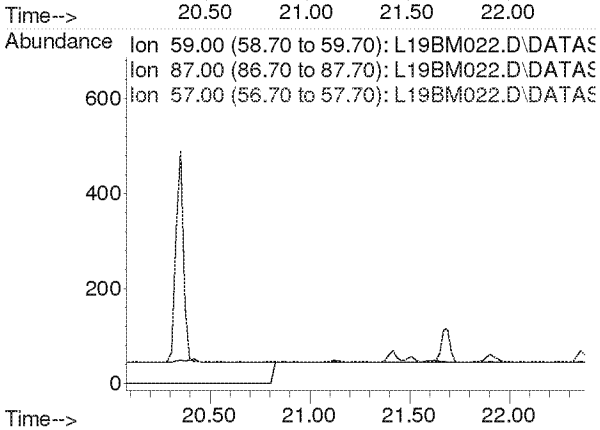


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

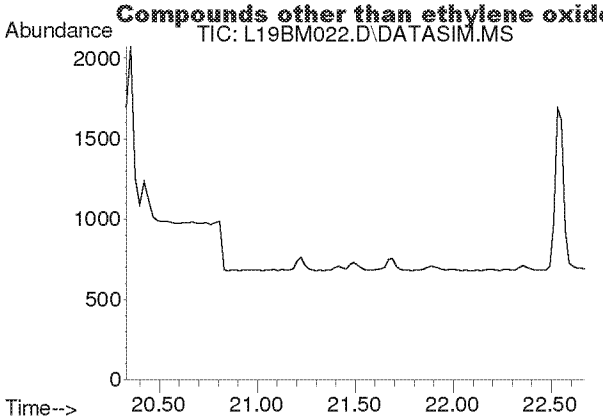
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

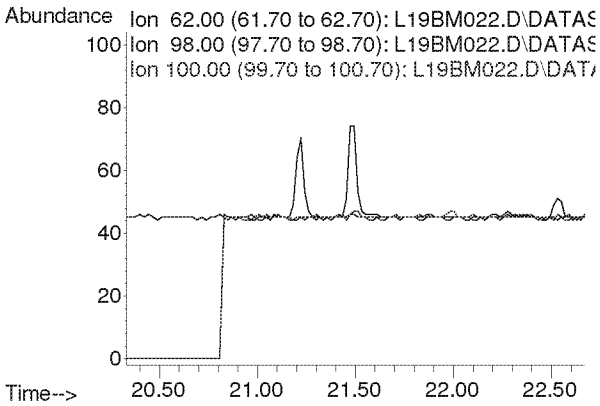


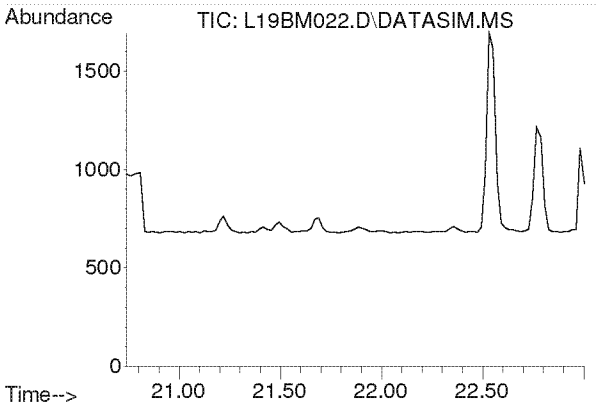
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



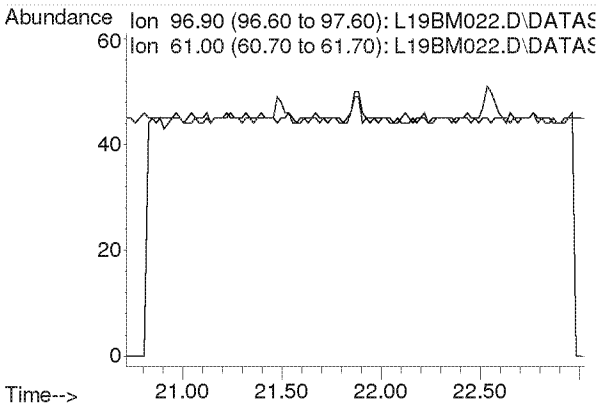


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

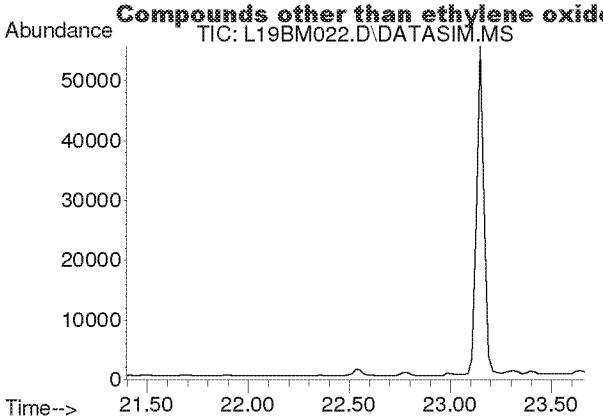
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

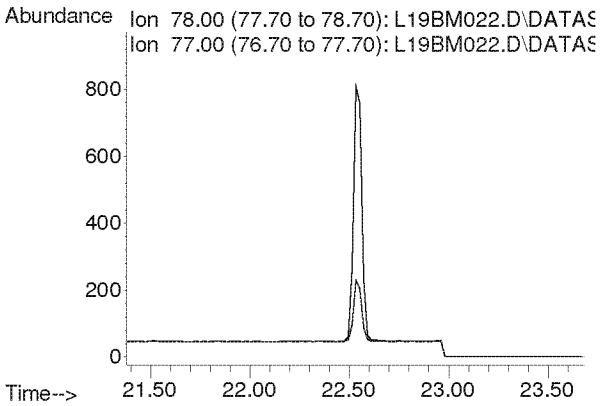


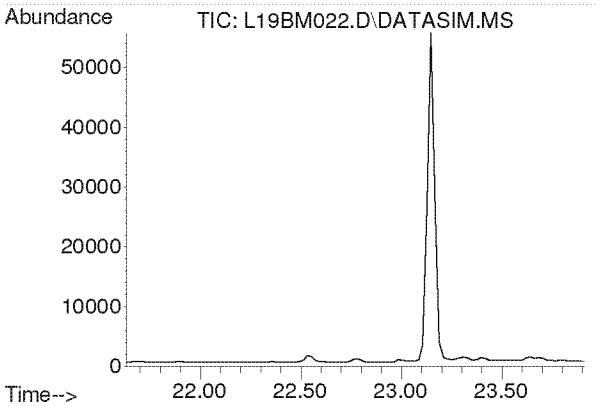
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



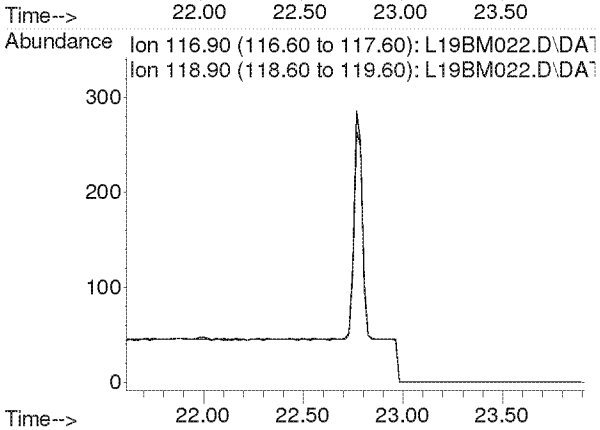


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

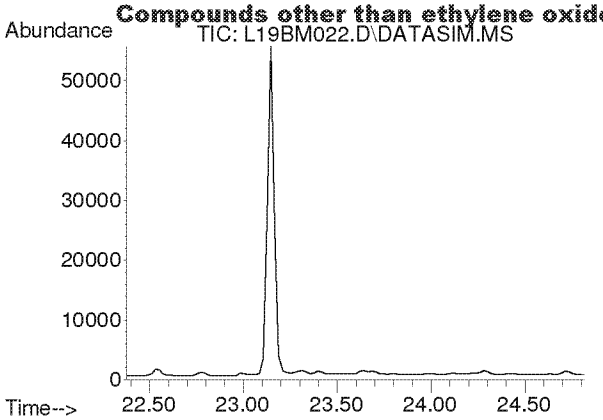
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

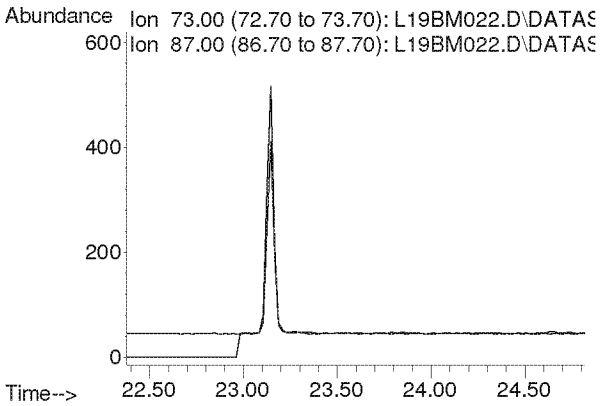


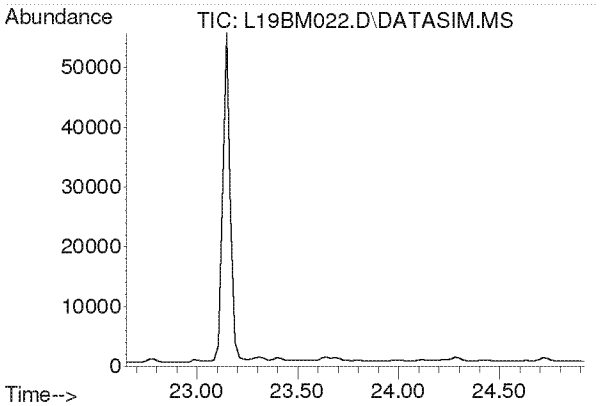
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



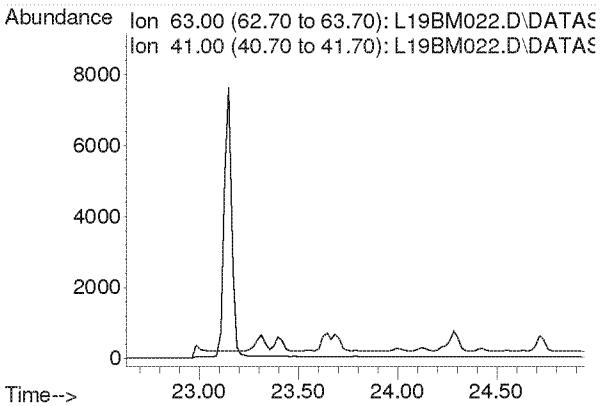


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

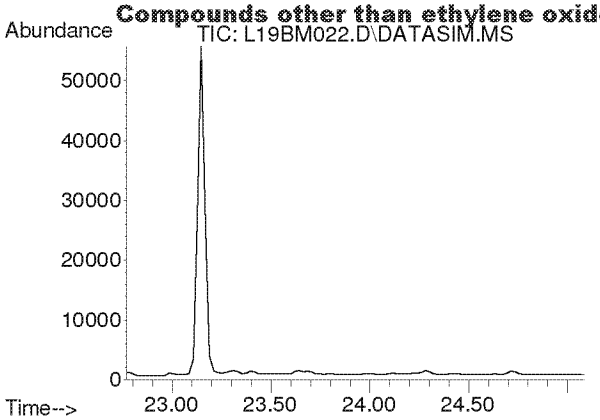
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

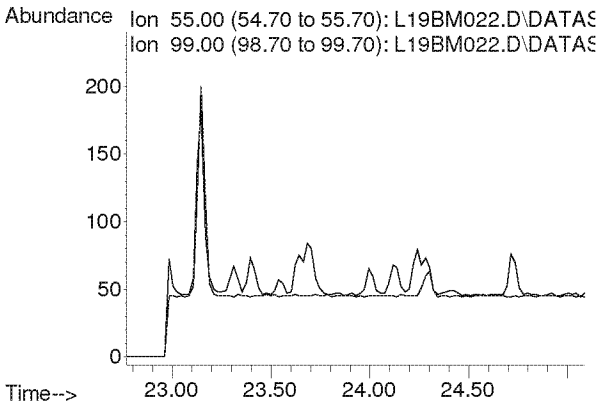


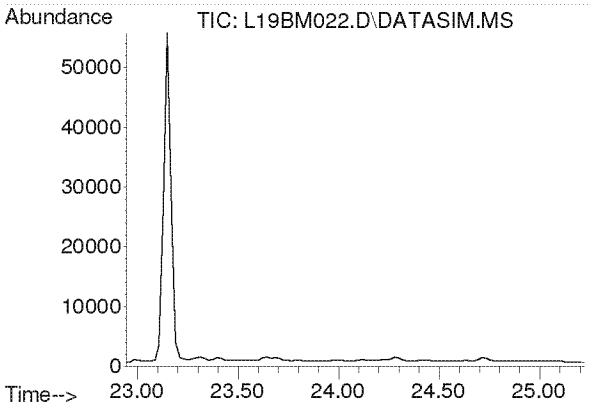
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



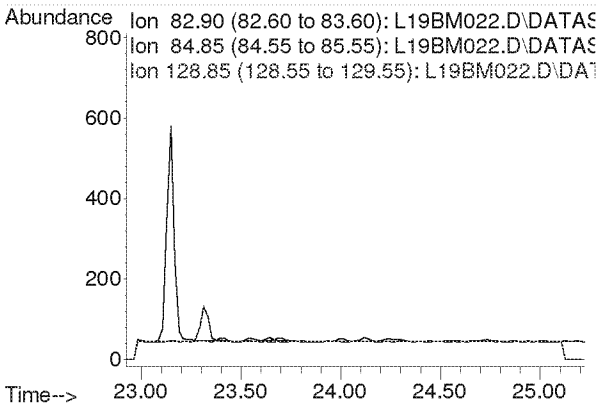


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

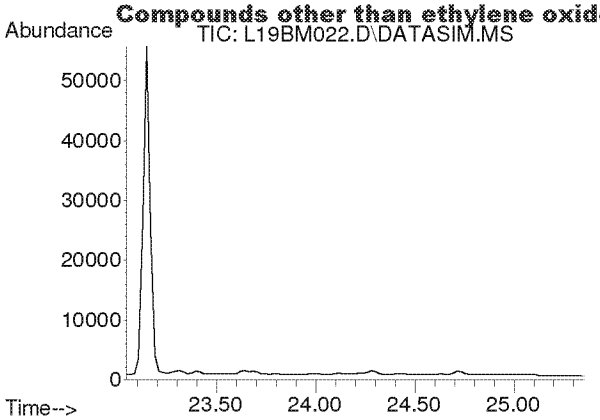
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

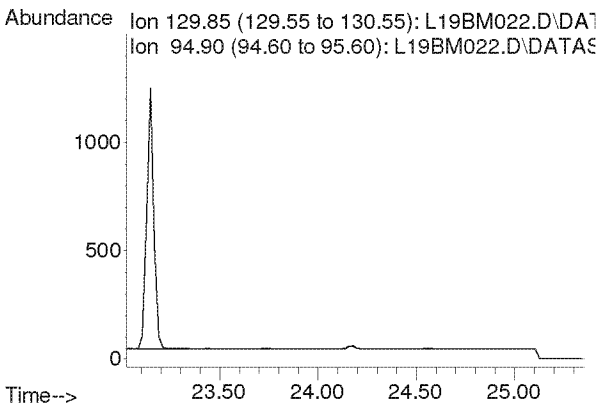


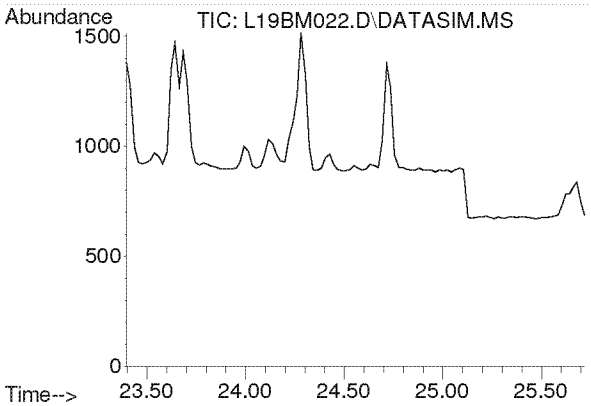
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



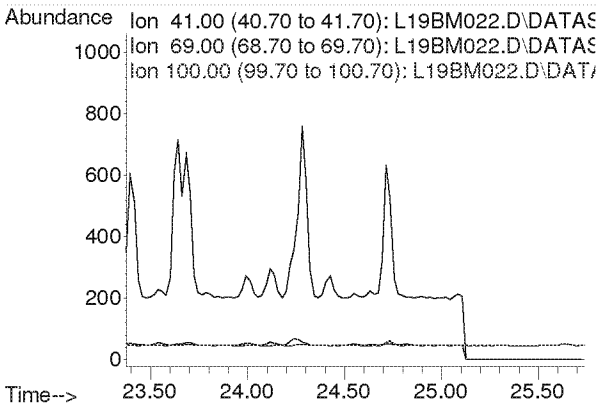


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

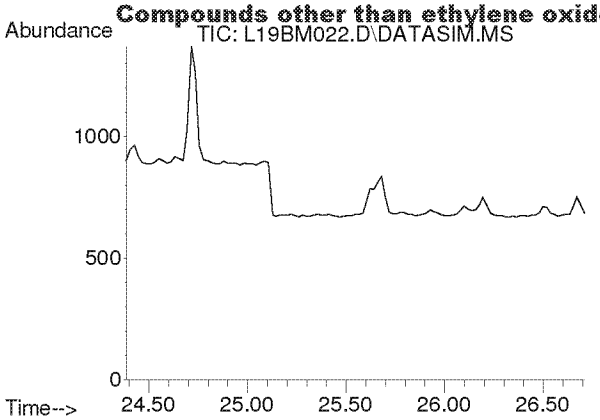
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

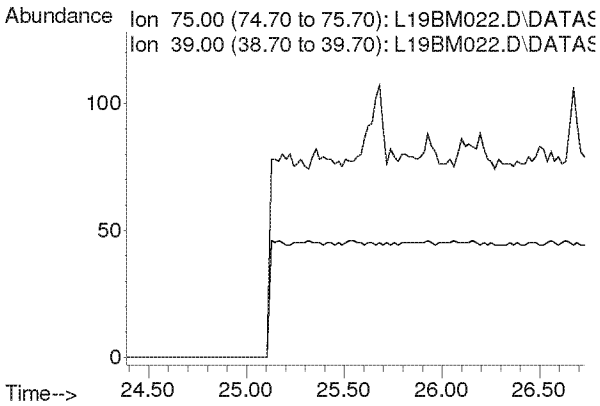


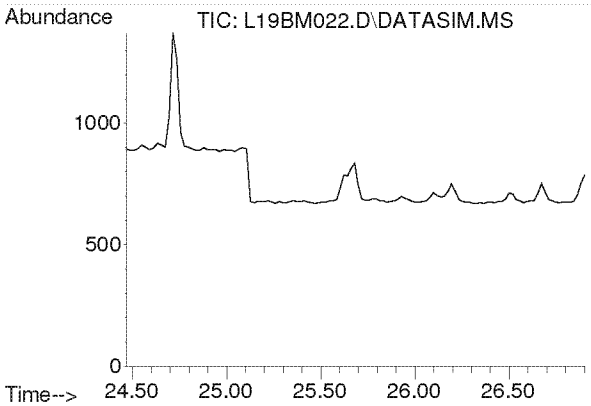
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



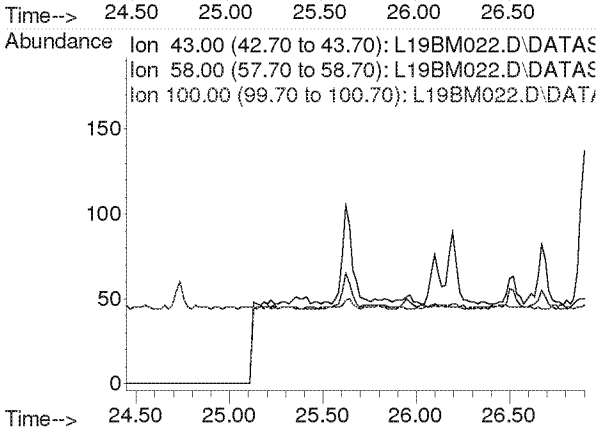


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

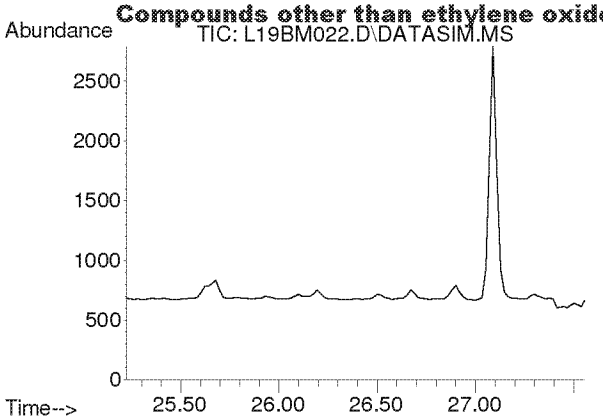
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

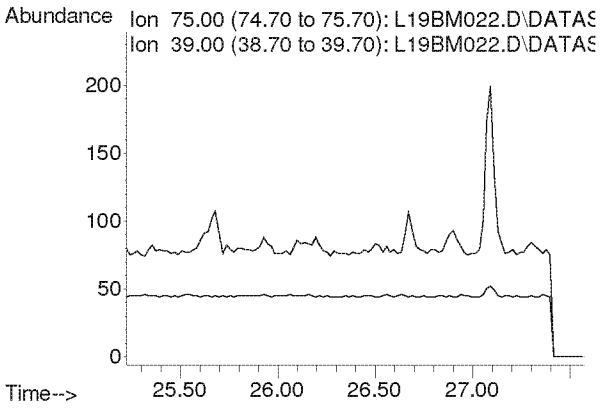


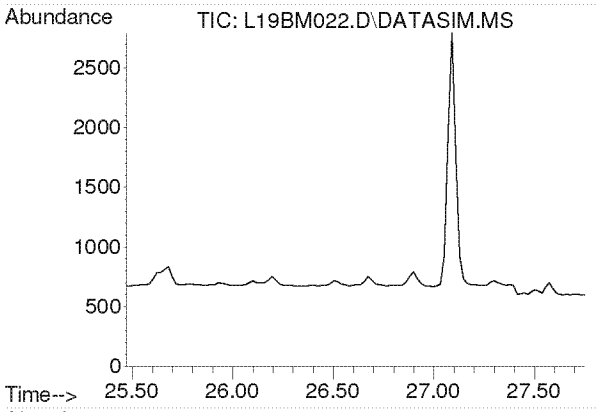
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



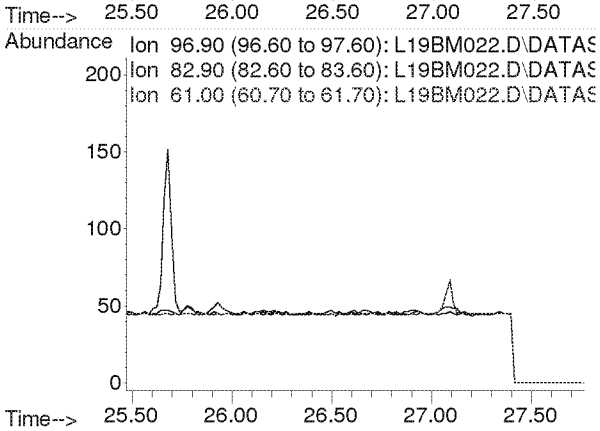


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

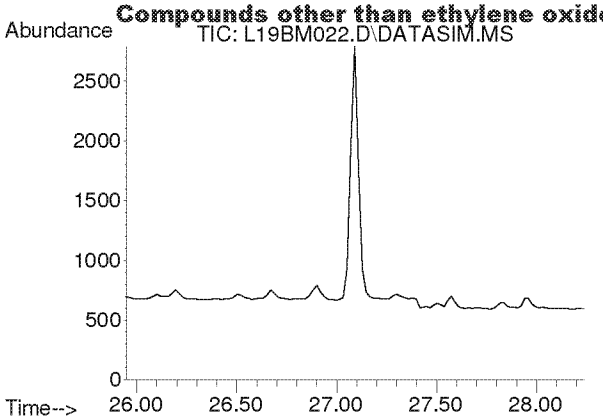
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

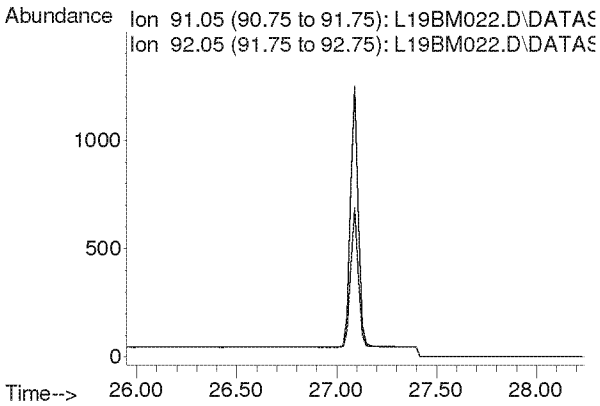


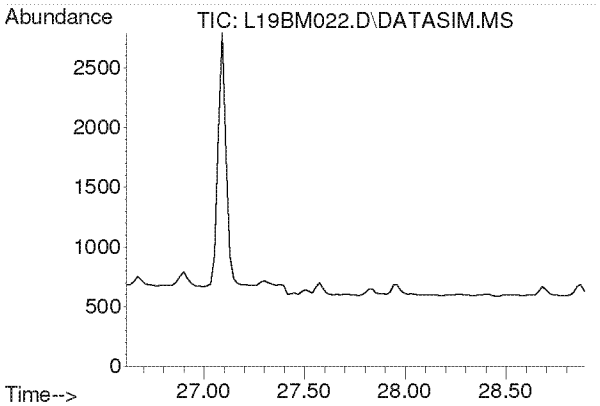
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



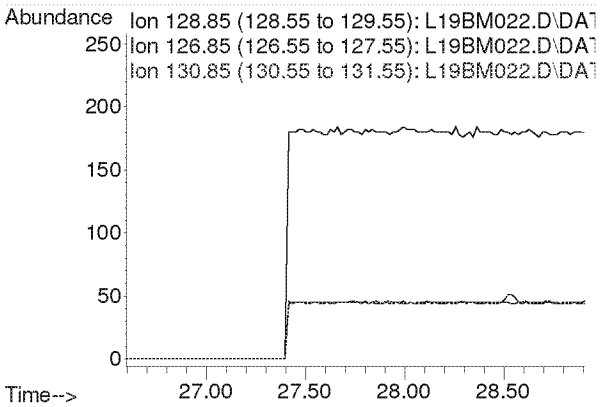


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

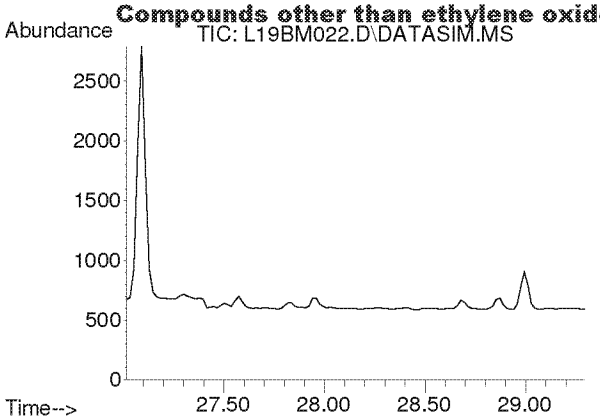
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

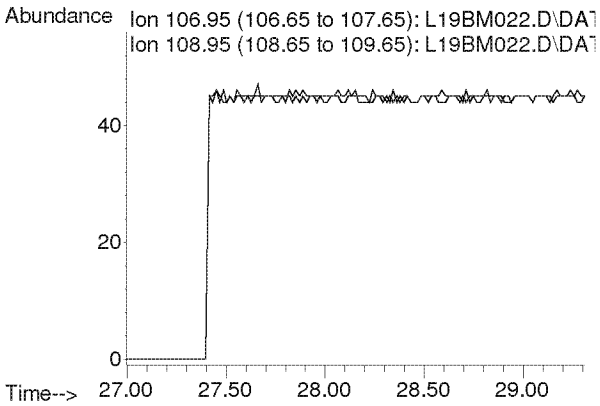


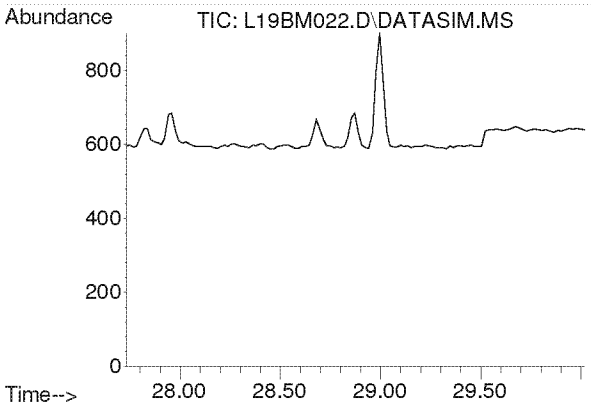
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



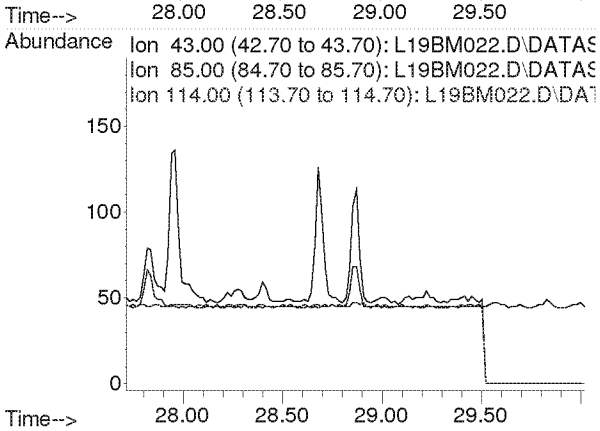


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

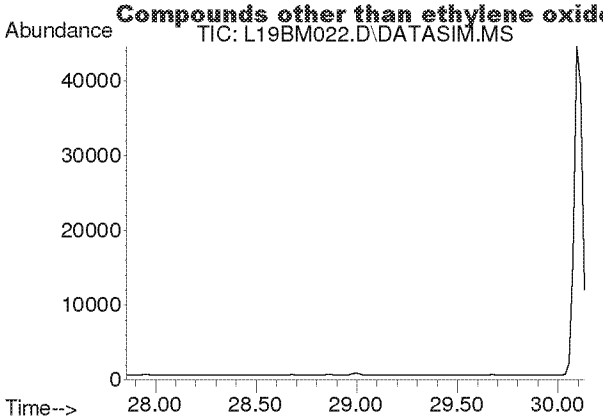
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

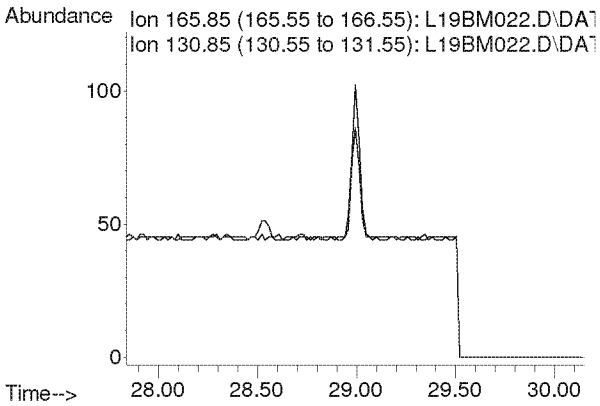


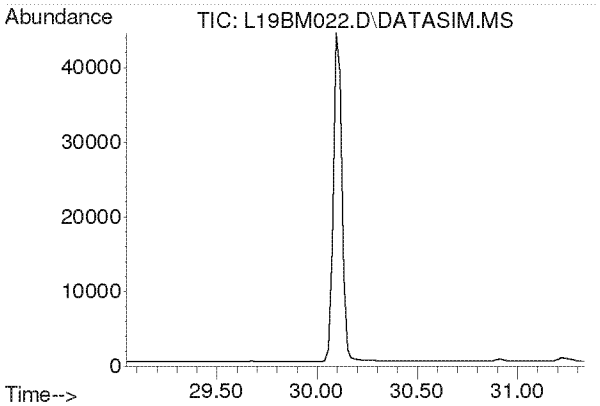
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



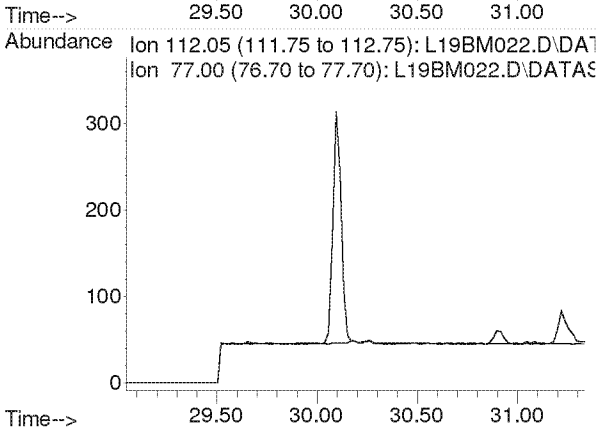


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

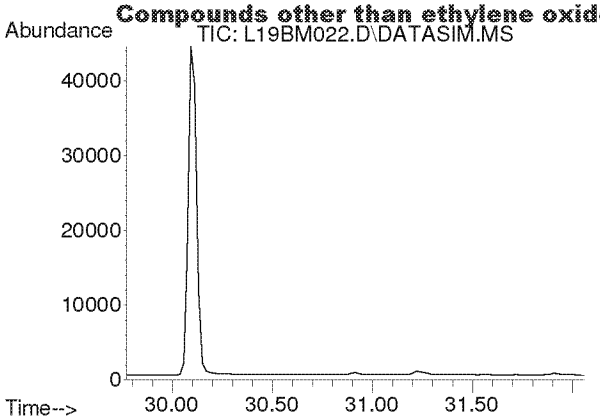
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

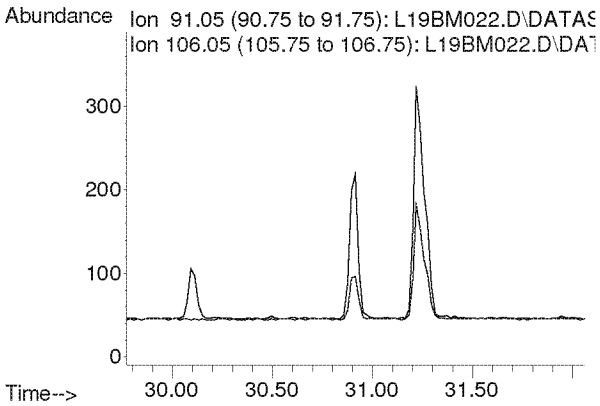


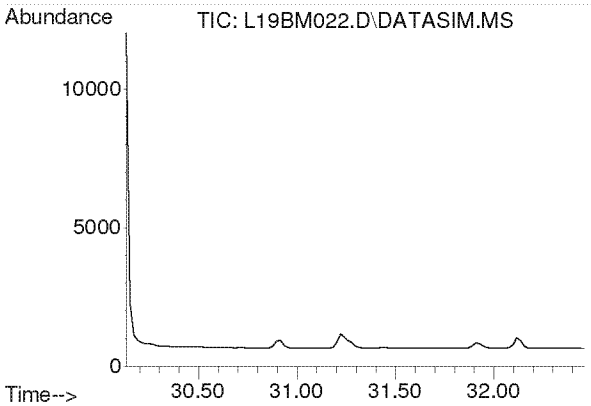
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



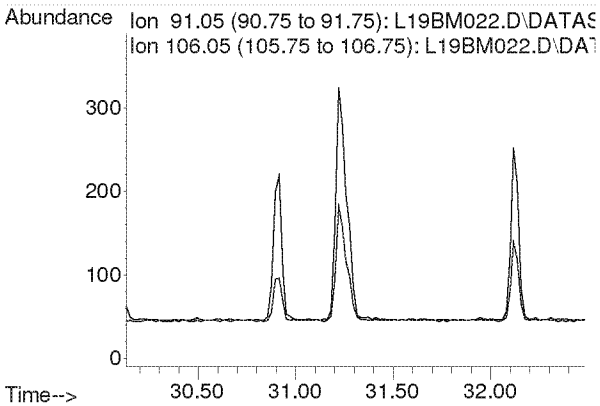


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

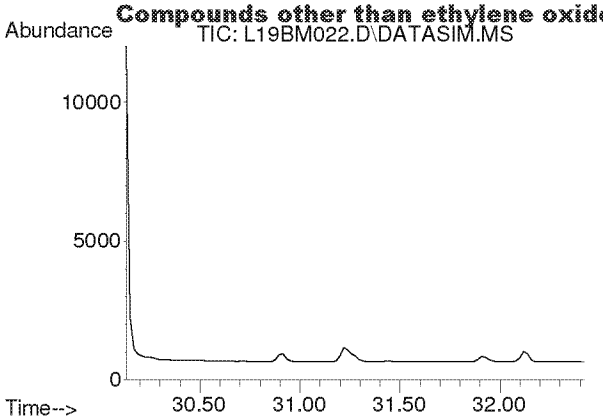
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

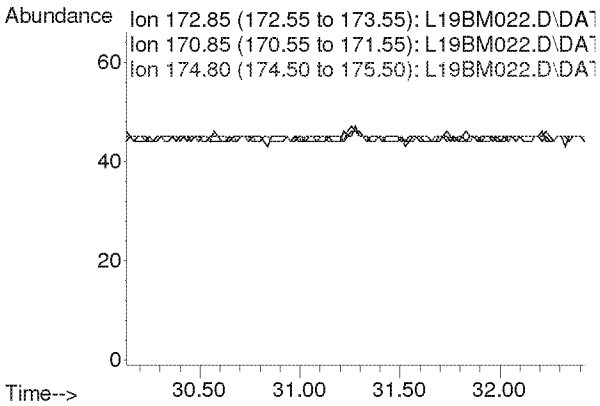


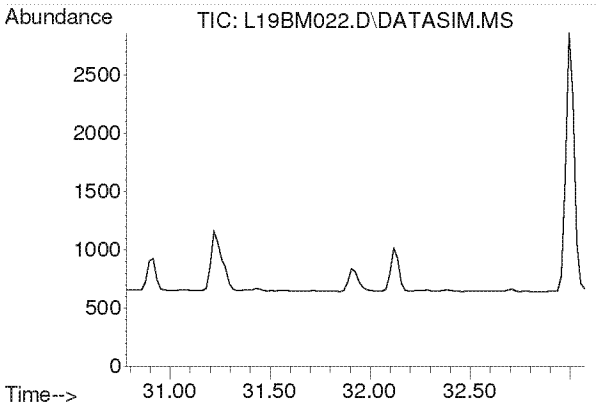
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



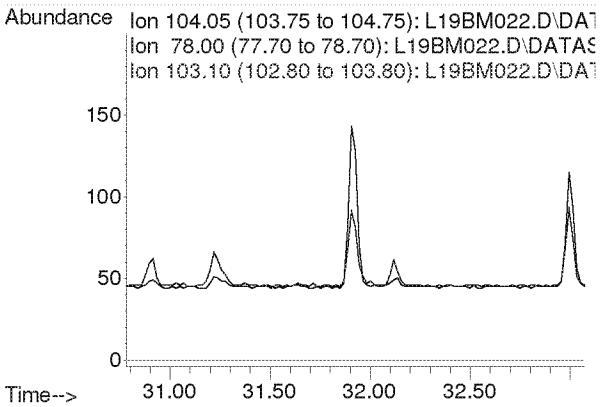


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

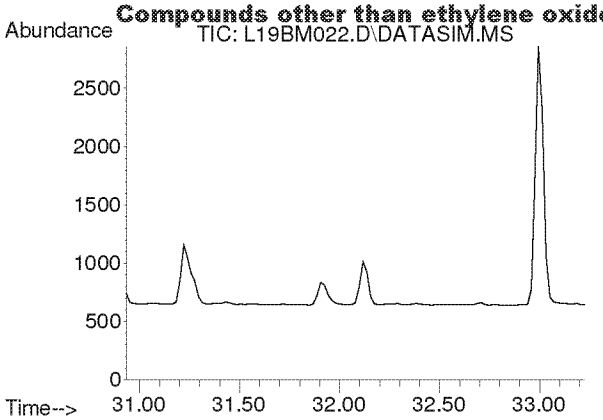
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

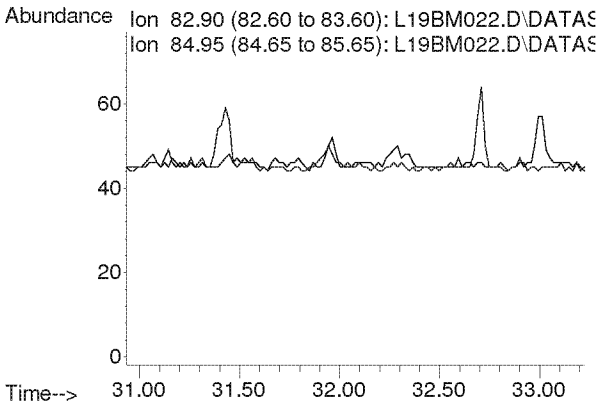


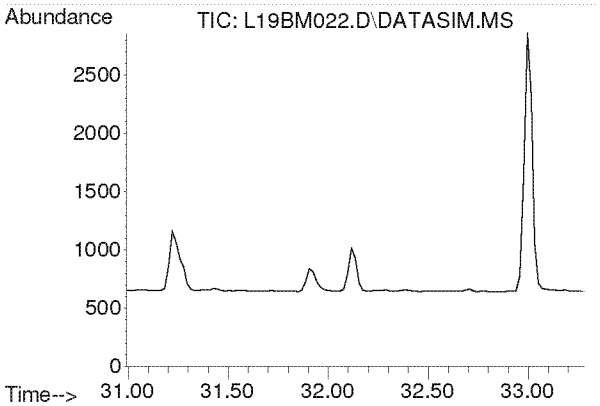
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



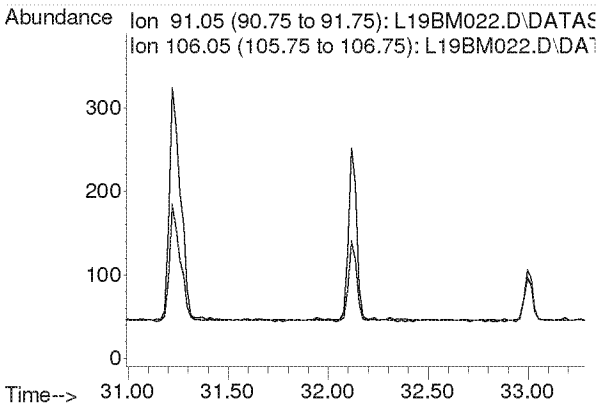


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

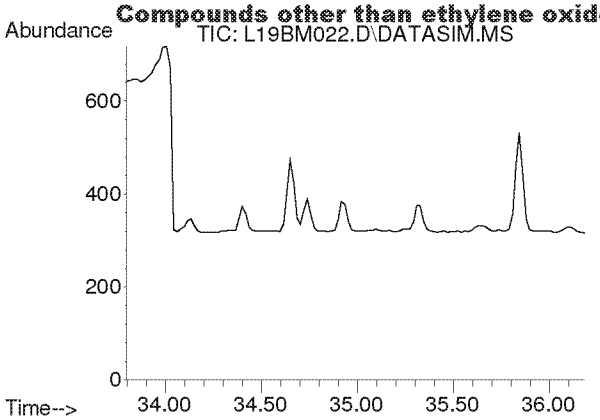
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

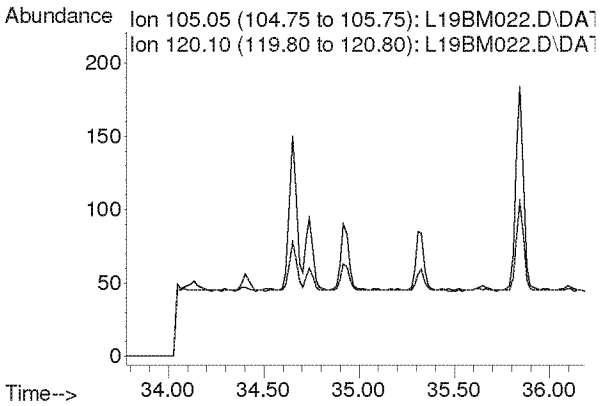


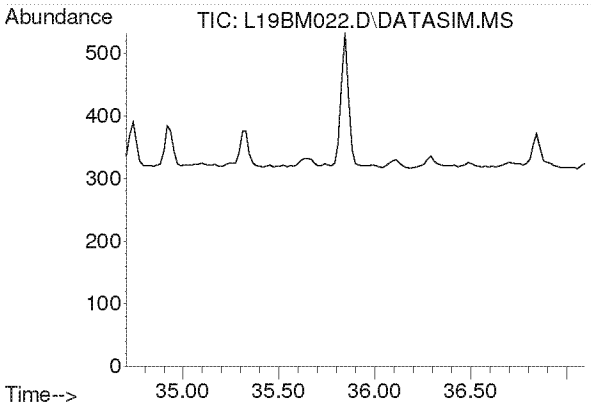
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



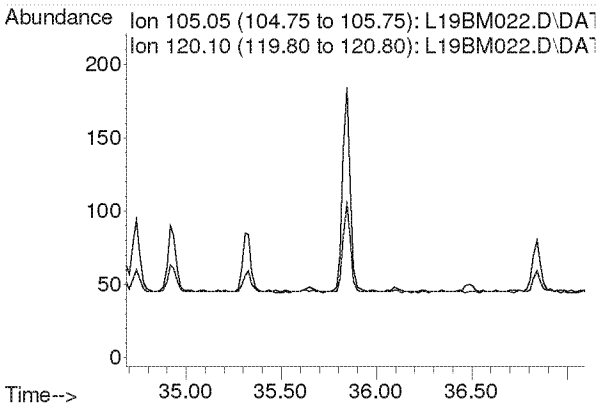


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

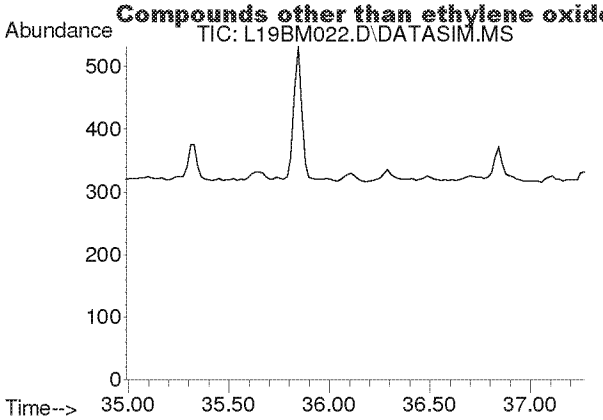
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

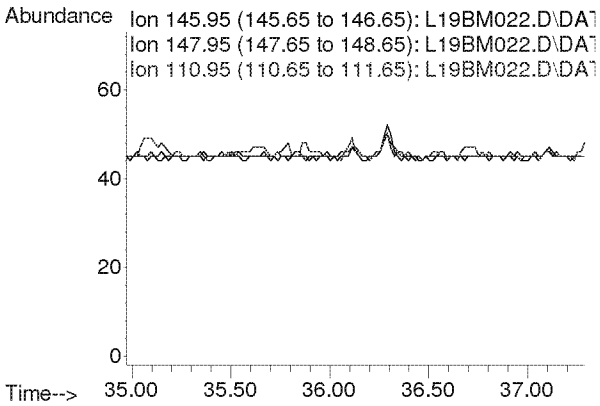


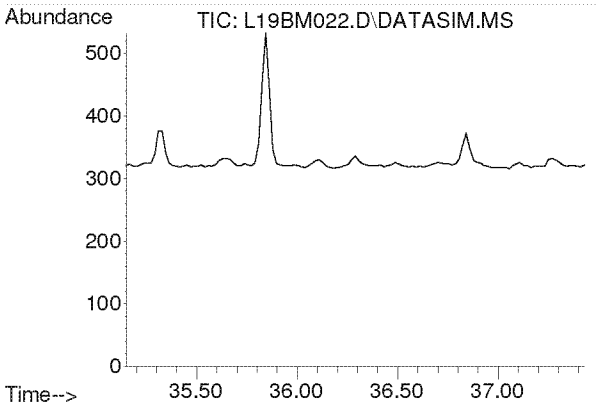
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



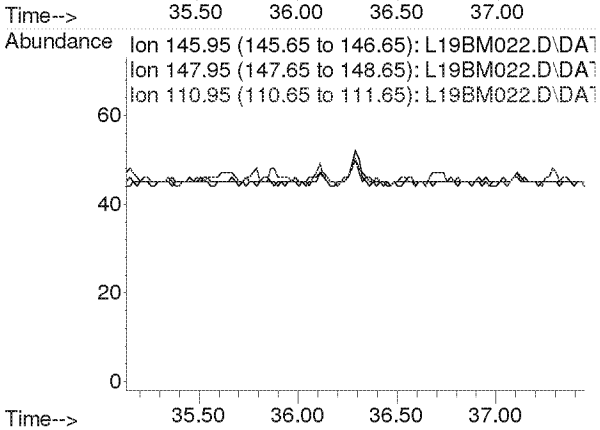


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

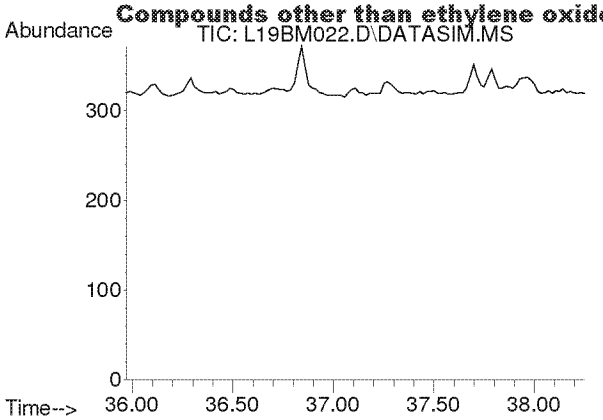
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

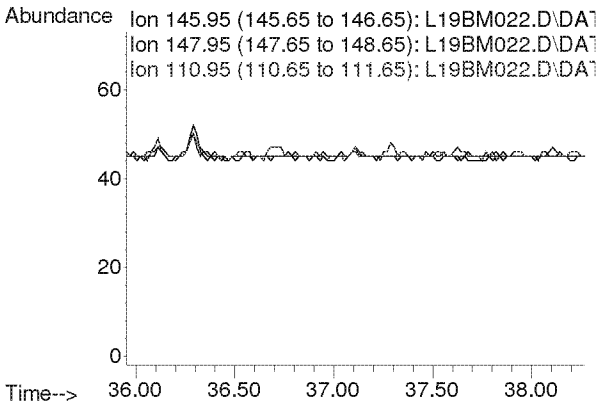


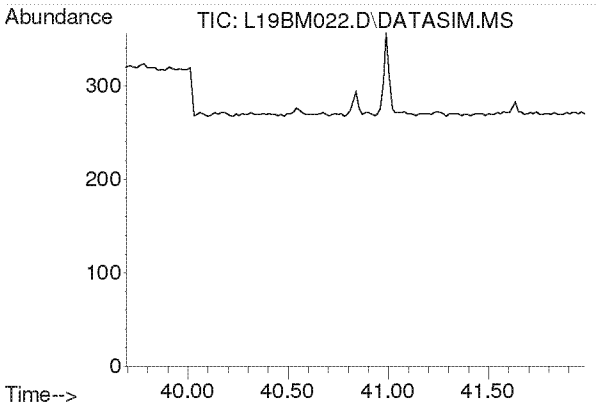
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



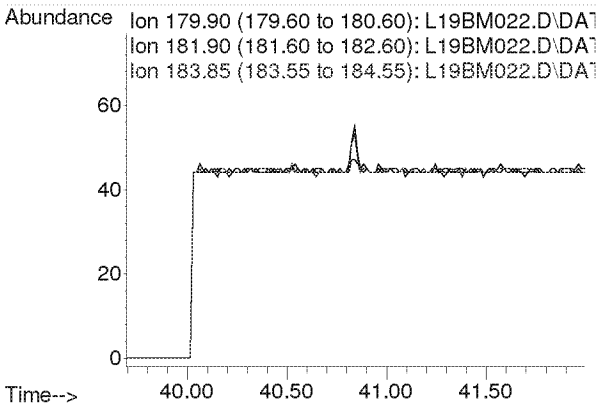


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

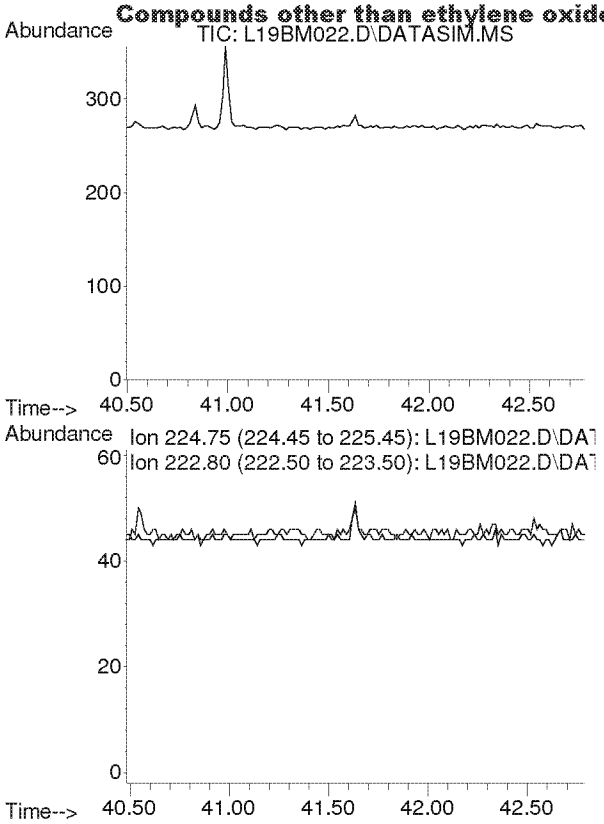
Lab File: L19BM022.D
Acq: 14 Feb 2019 5:49 am

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: L19BM022.D
Acq: 14 Feb 2019 5:49 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM023.D
Acq On : 14 Feb 2019 6:49 am (#1); 14 Feb 2019 6:43 am (#2)
Operator : MAH
Sample : 9020702-08
Misc : GROWER ES 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 14 08:34:20 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	48417	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	124309	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	90428	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.425	29	2117m	0.7645 ppbv	RMB 2/15/19
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM023.D
Acq On : 14 Feb 2019 6:49 am (#1); 14 Feb 2019 6:43 am (#2)
Operator : MAH
Sample : 9020702-08
Misc : GROWER ES 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 14 08:34:20 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

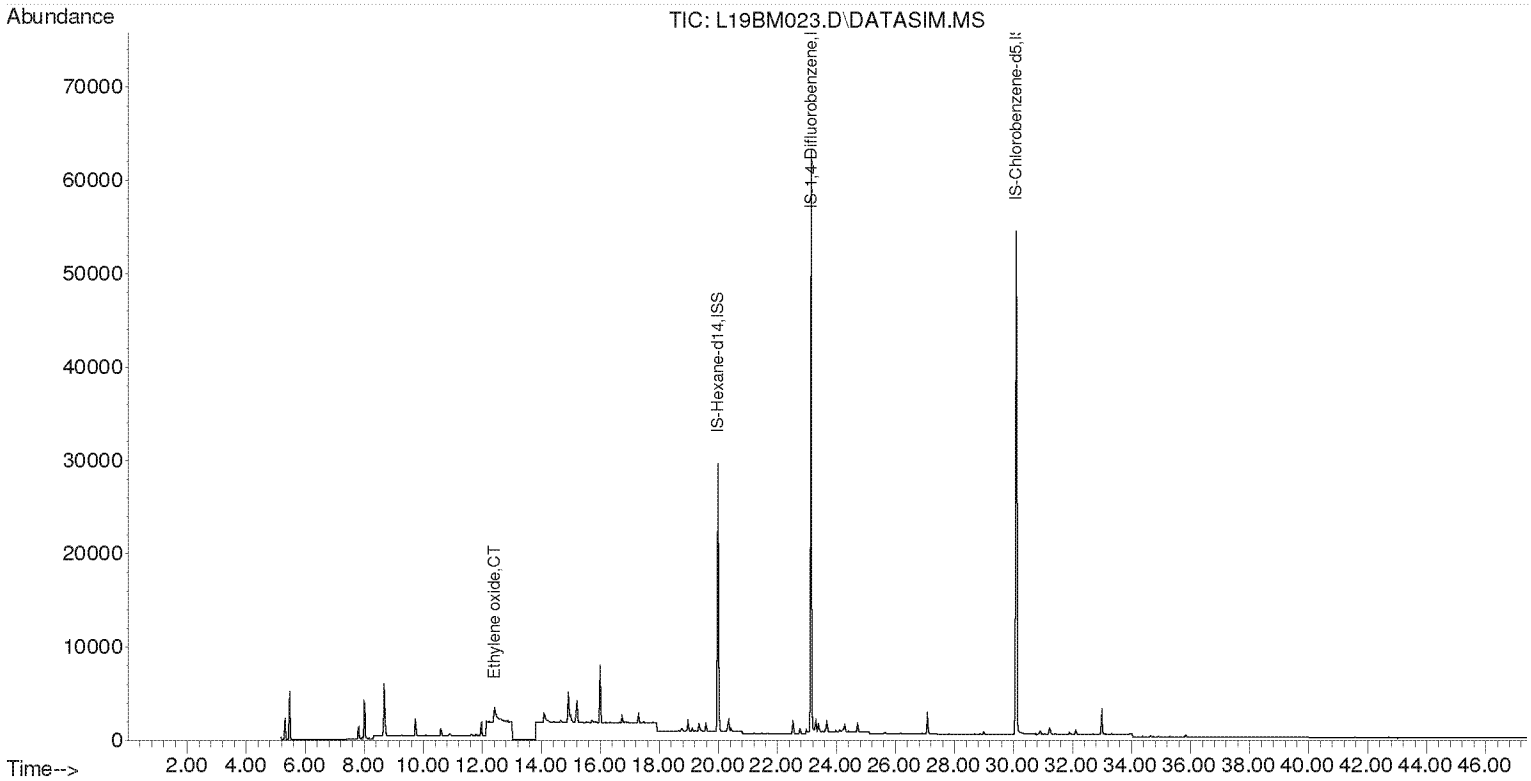
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.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

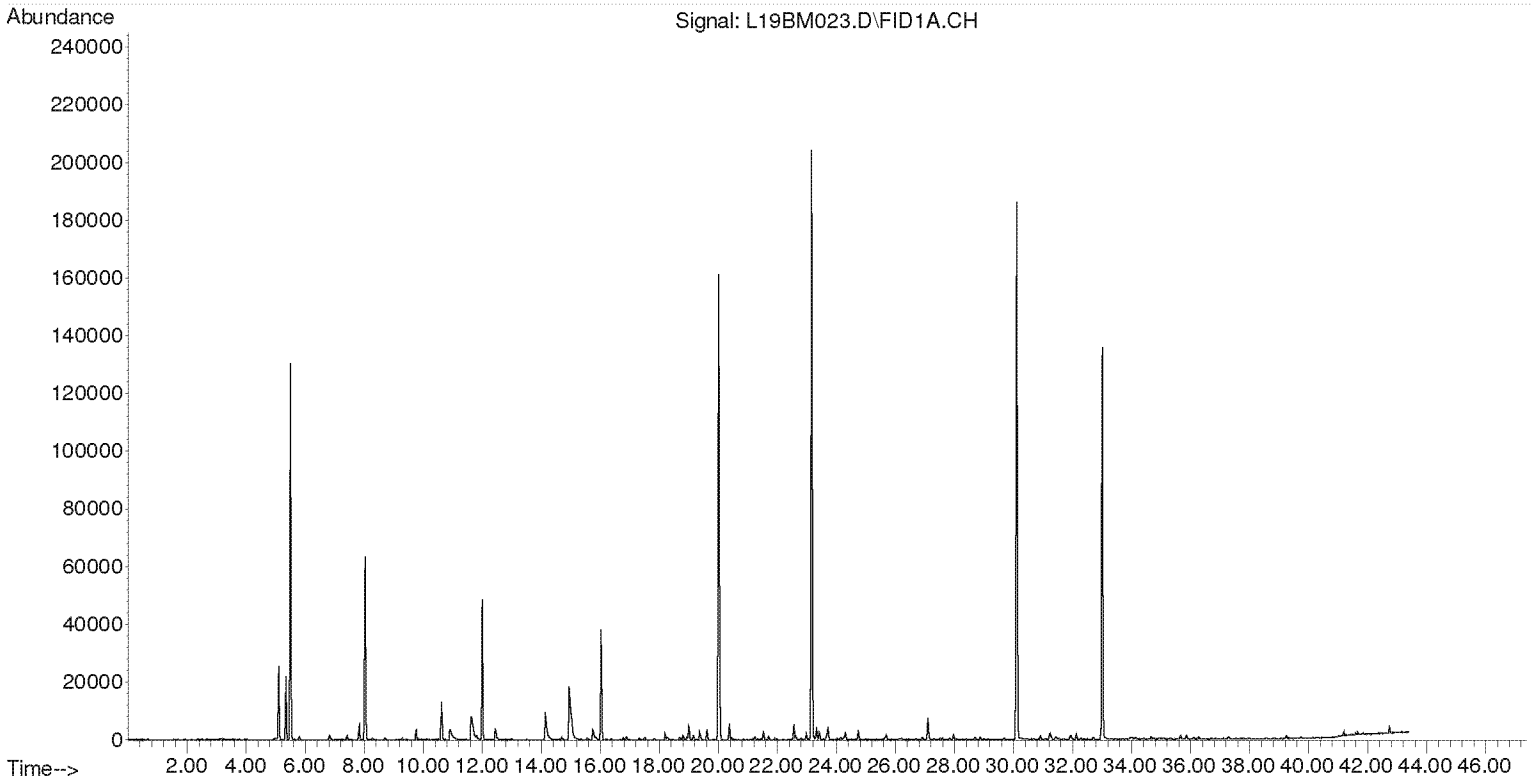
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

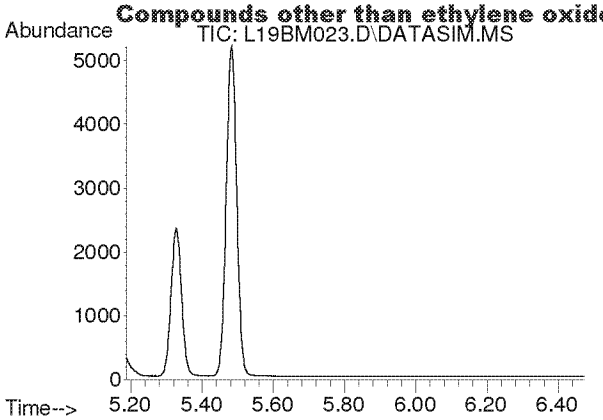
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM023.D
Acq On : 14 Feb 2019 6:49 am (#1); 14 Feb 2019 6:43 am (#2)
Operator : MAH
Sample : 9020702-08
Misc : GROWER ES 2/6/19 (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 14 08:34:20 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





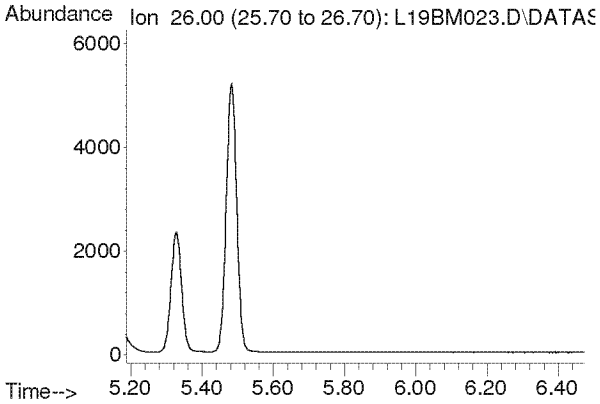
Compounds other than ethylene oxide were not quantitated.

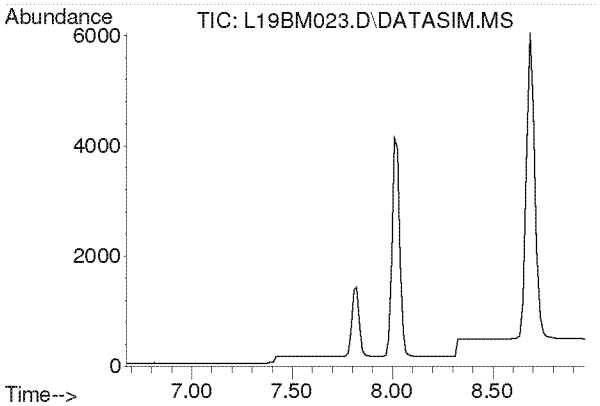


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 26



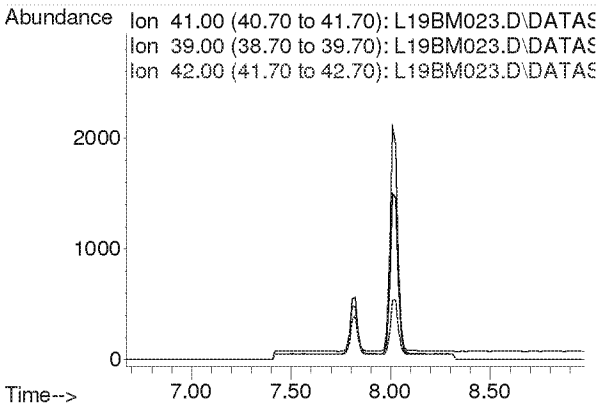


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

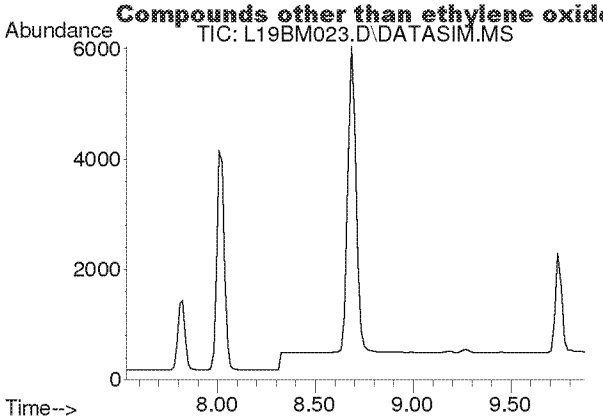
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

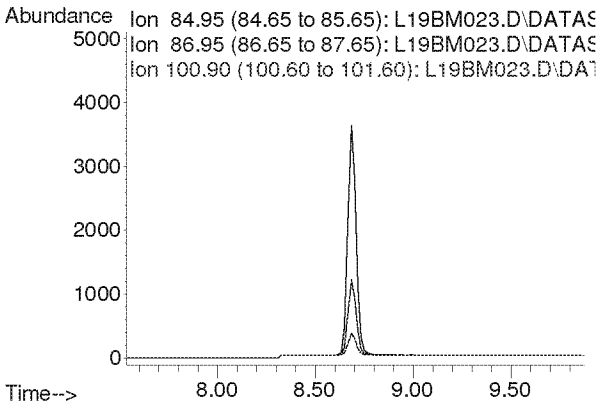


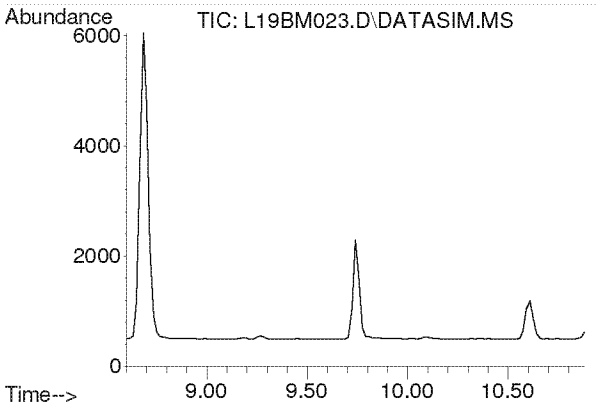
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



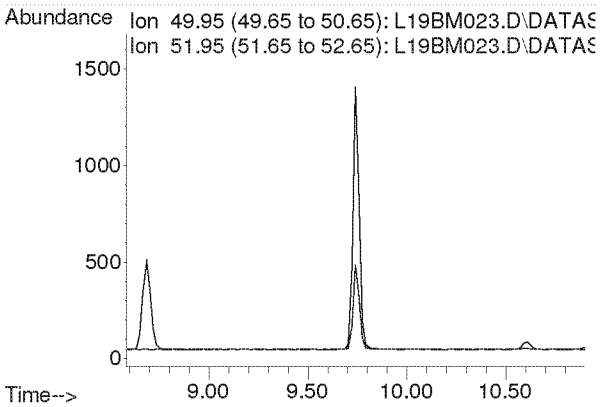


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

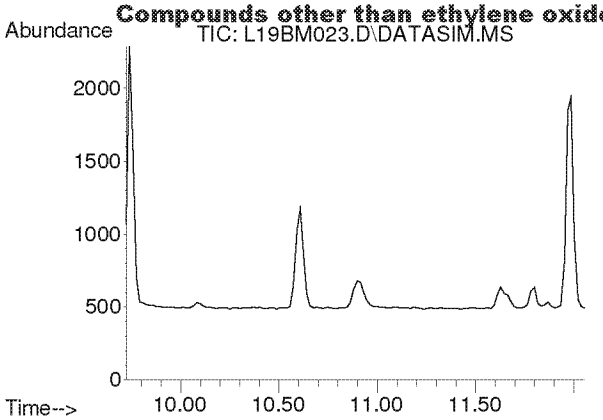
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

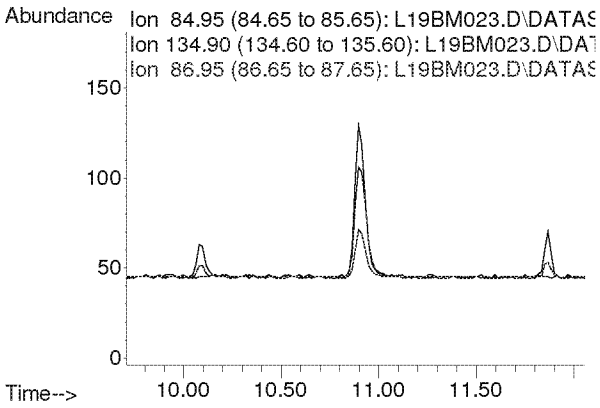


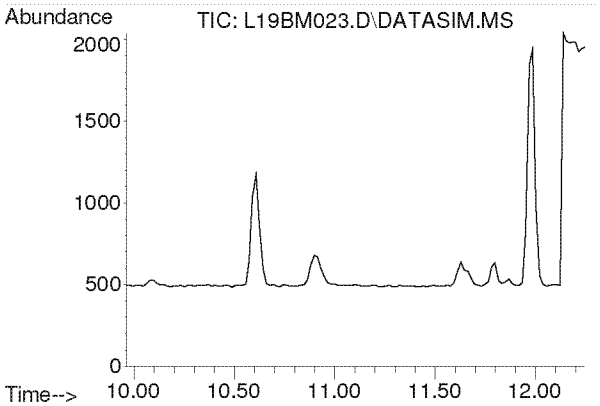
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



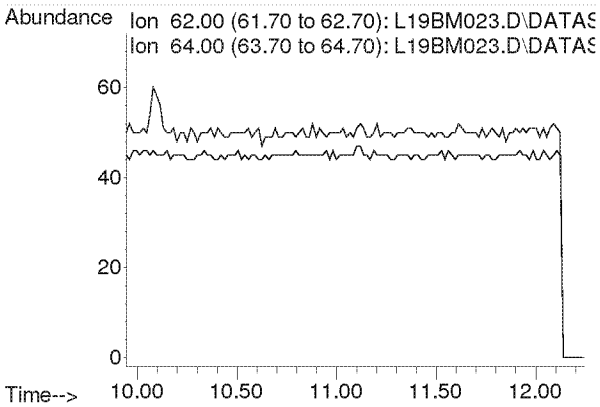


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

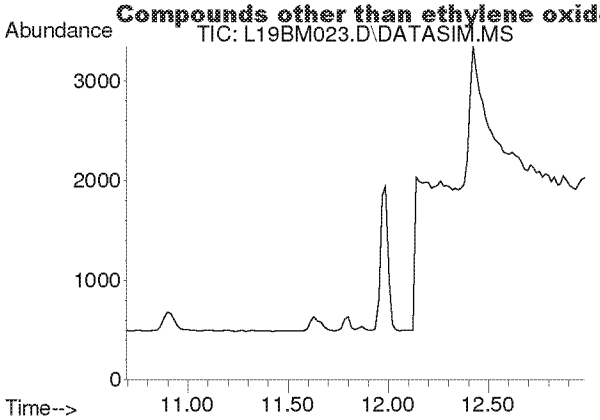
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

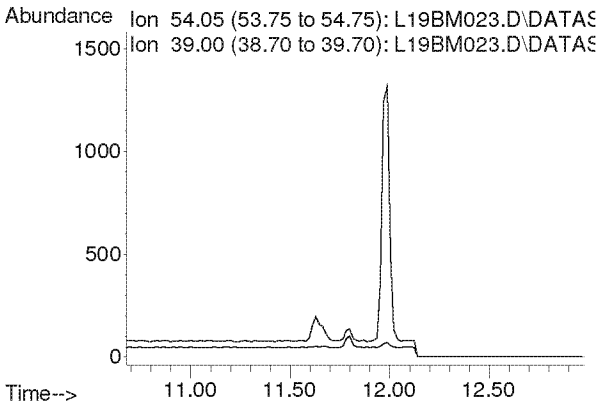


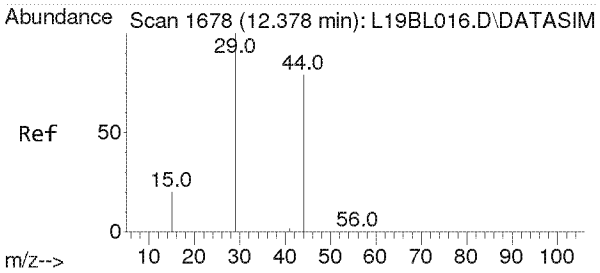
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

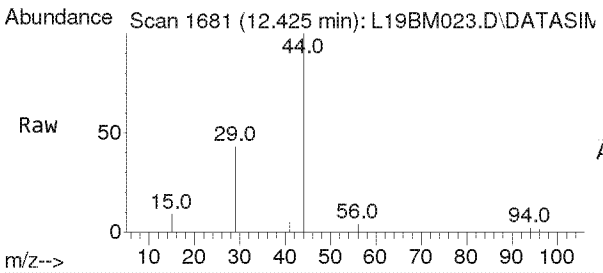


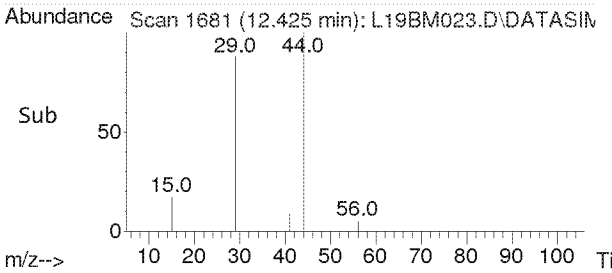


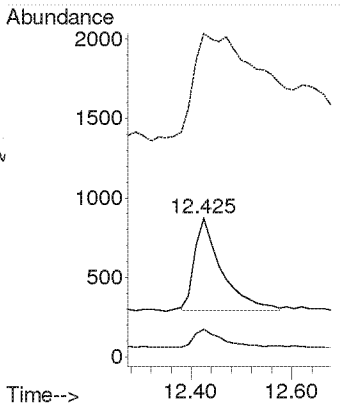
#9
Ethylene oxide
Concen: 0.764 ppbv m
RT: 12.425 min Scan# 1681
Delta R.T. 0.005 min
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 29 Resp: 2117

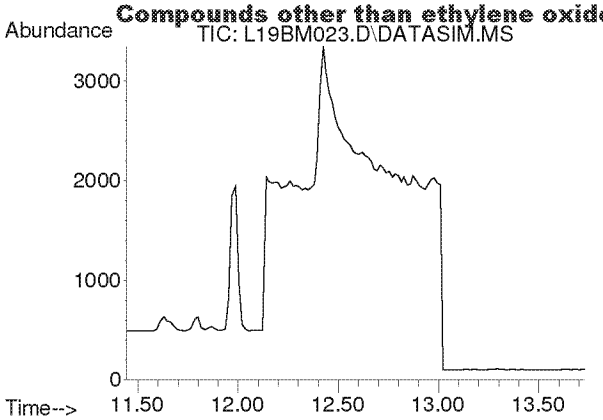
Ion	Ratio	Lower	Upper
29	100		
15	20.8	16.0	24.0
44	296.6	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

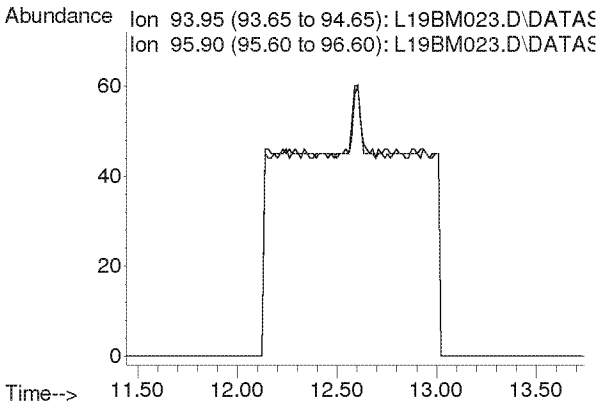


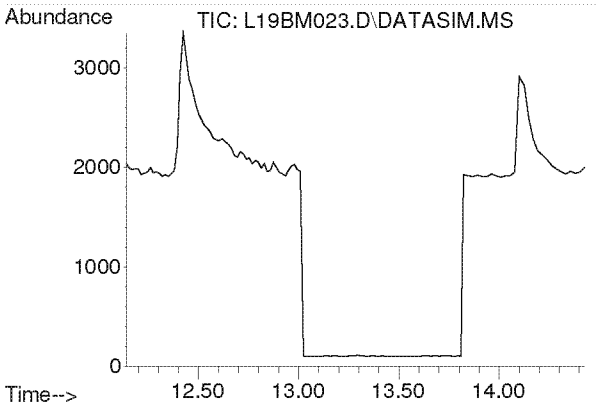
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



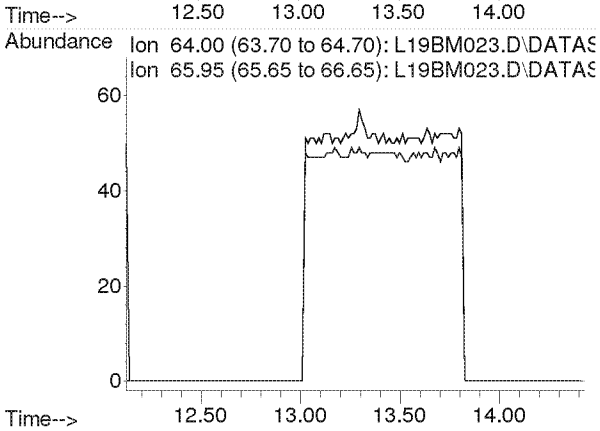


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

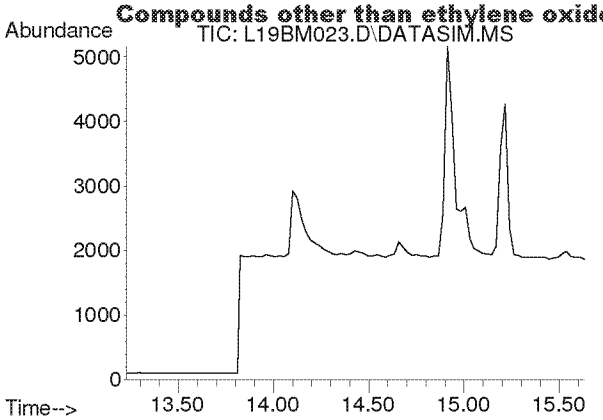
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

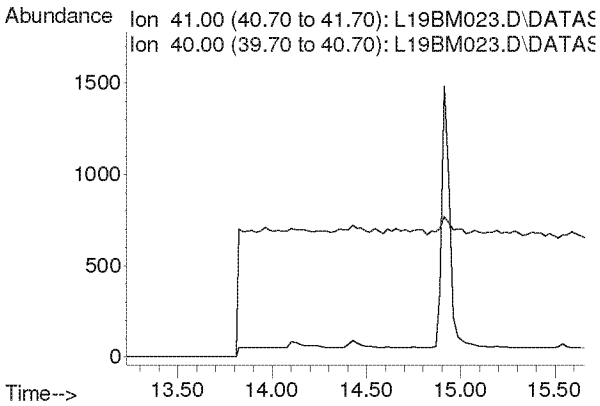


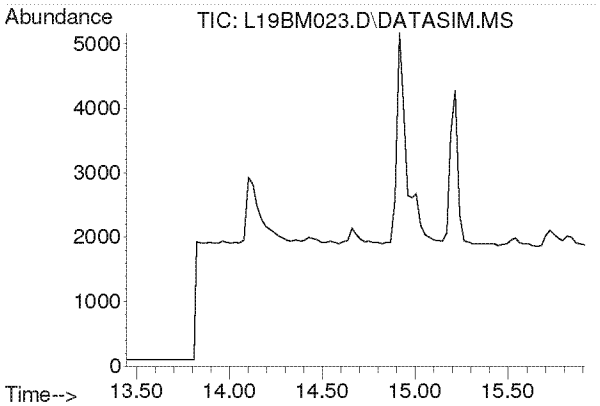
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



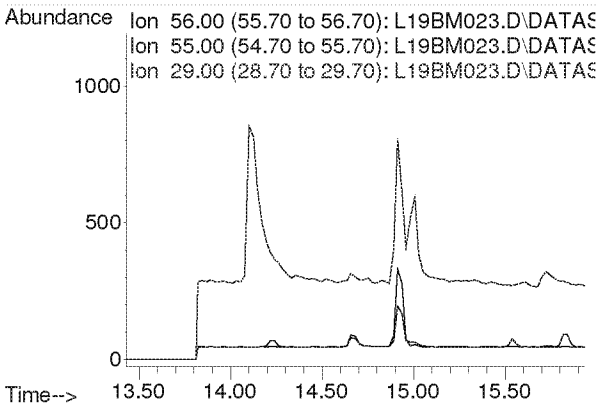


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

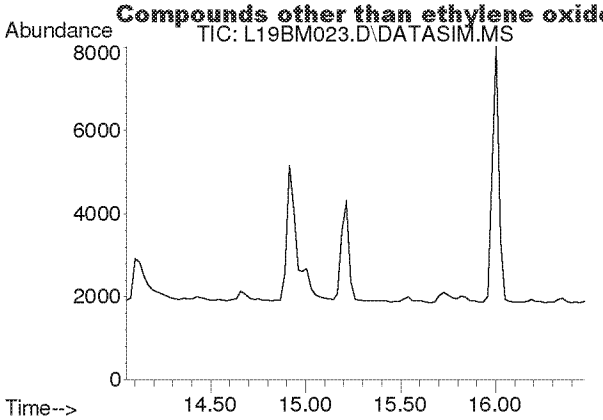
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

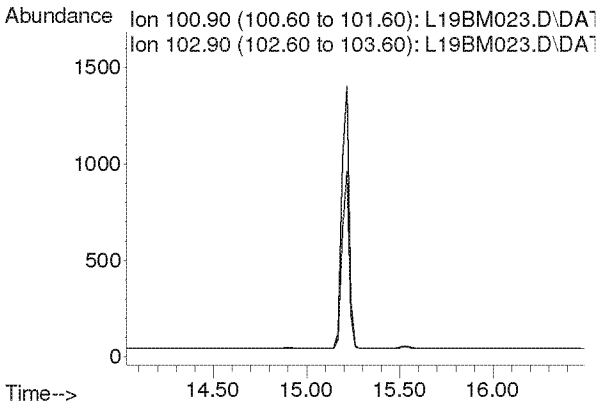


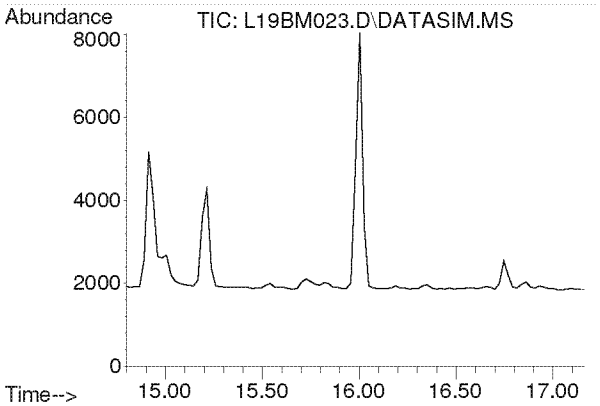
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



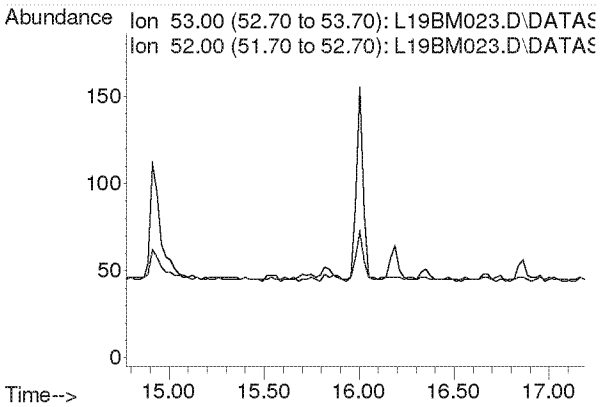


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

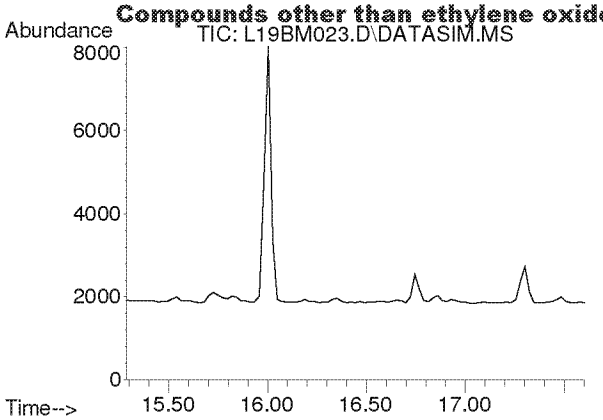
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

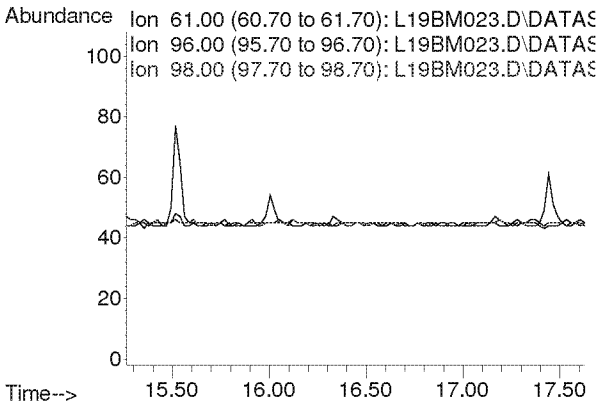


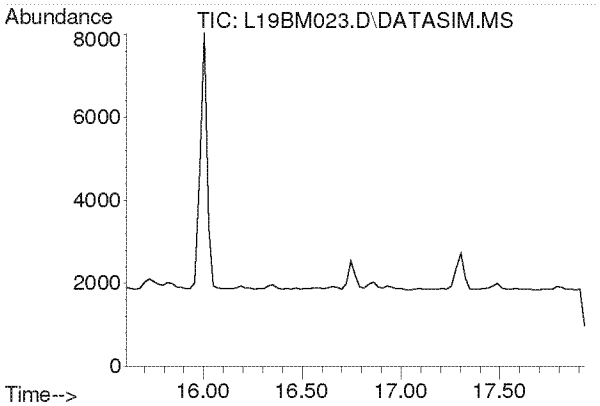
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



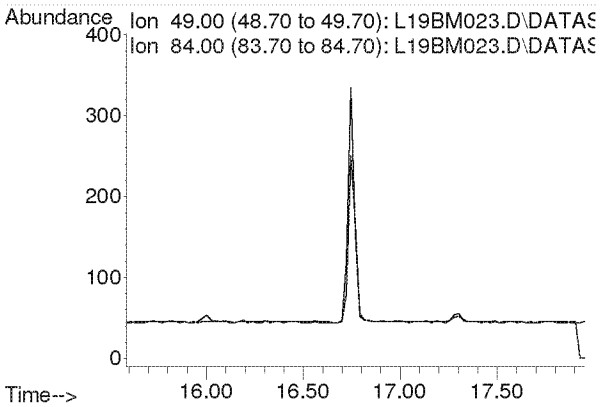


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

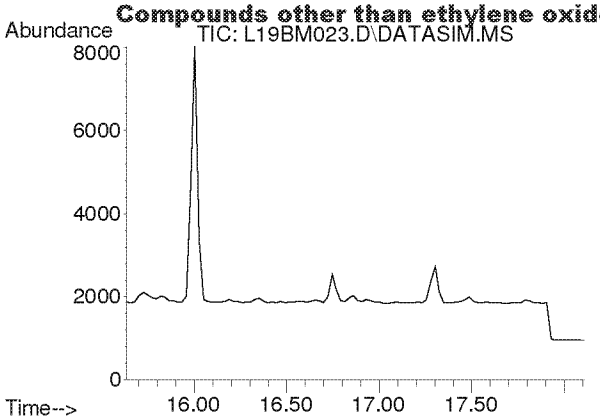
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

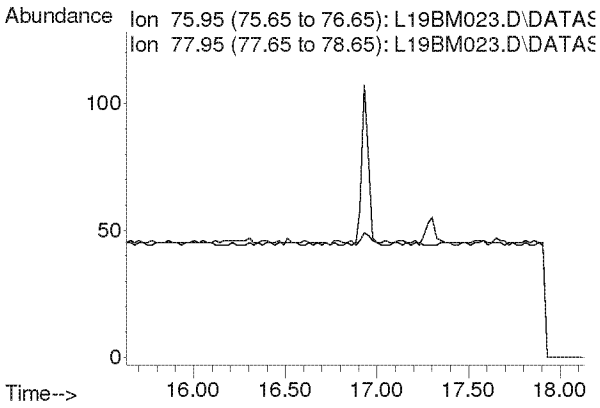


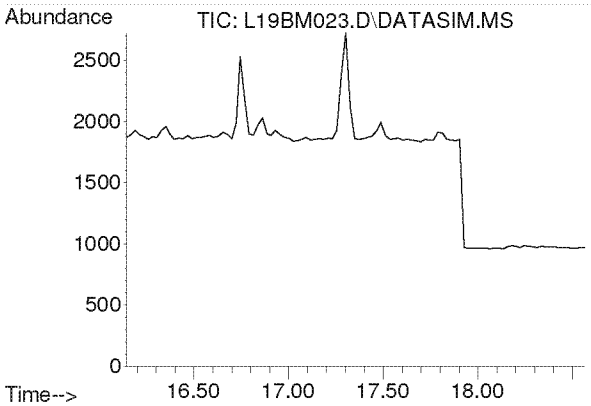
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



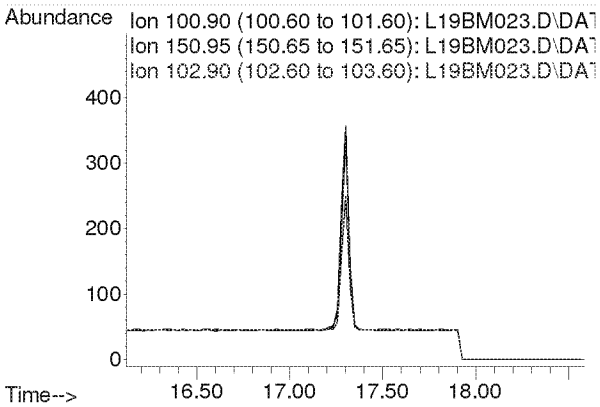


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

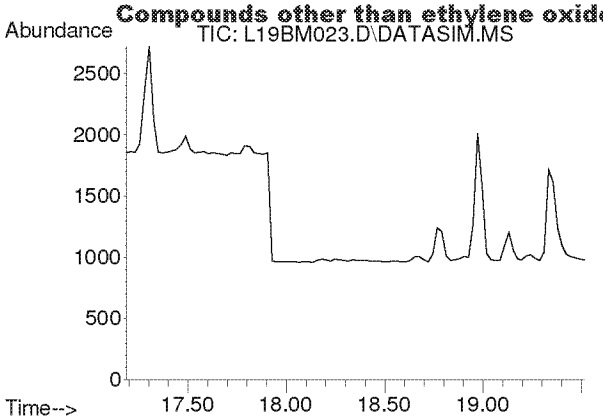
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

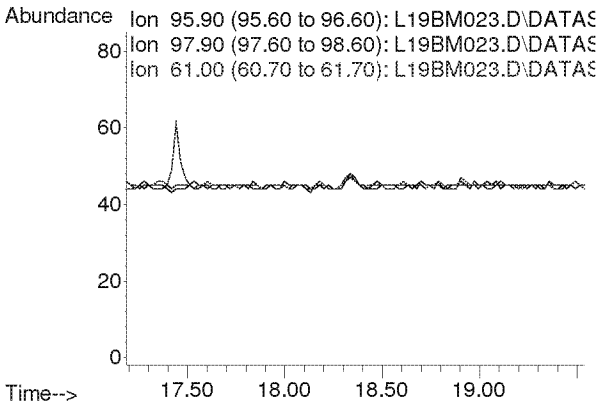


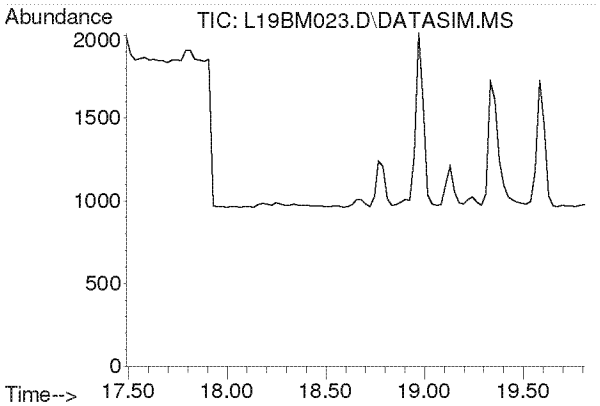
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



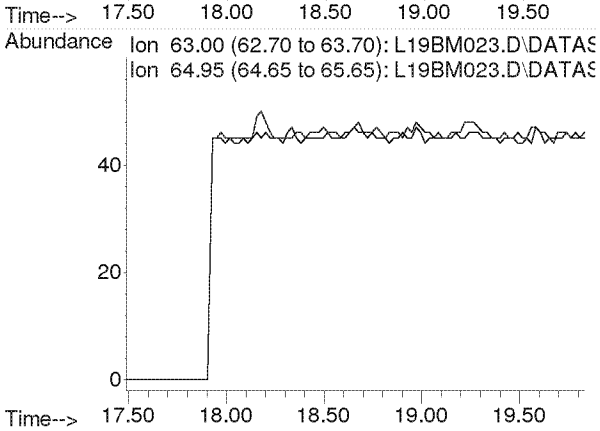


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

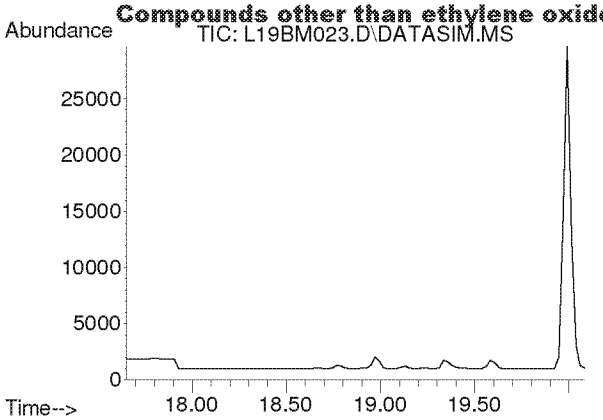
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

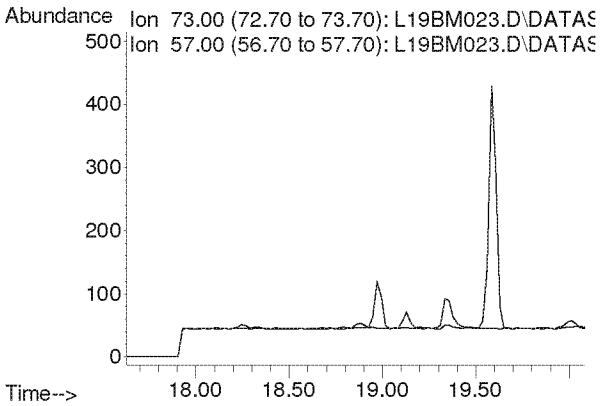


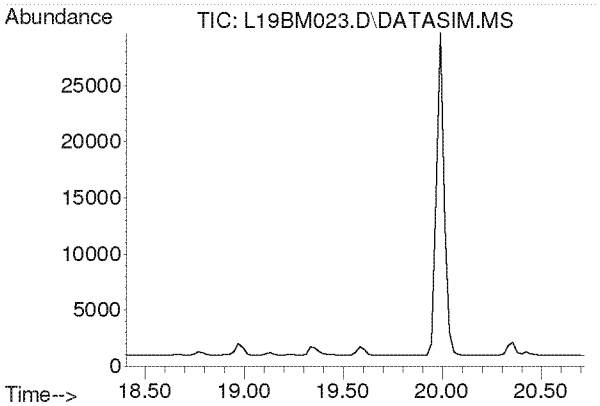
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



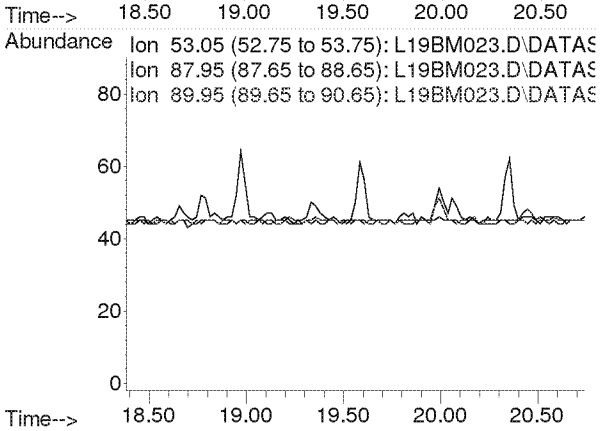


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

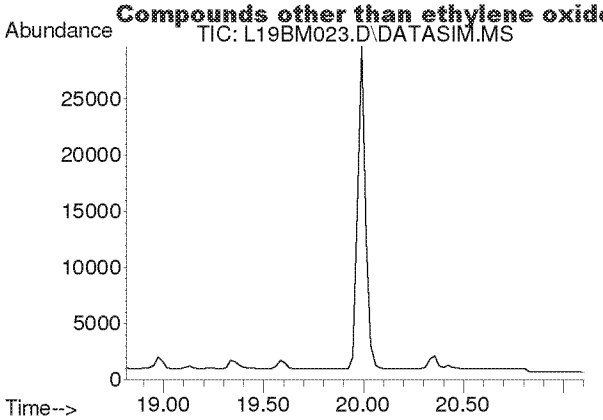
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

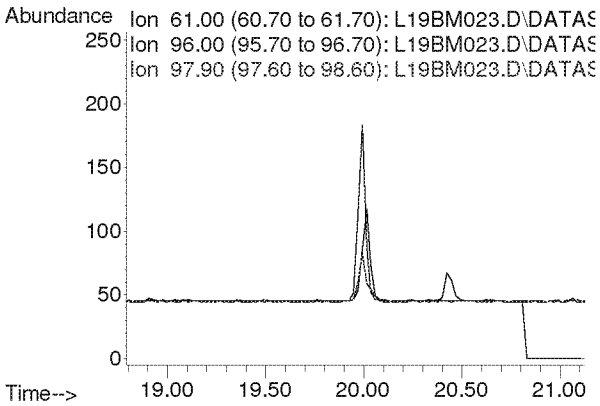


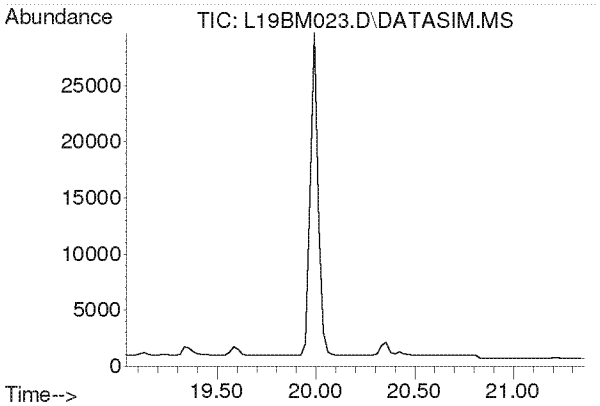
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



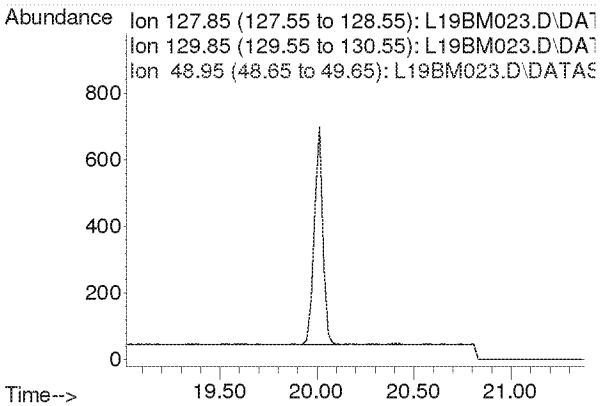


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

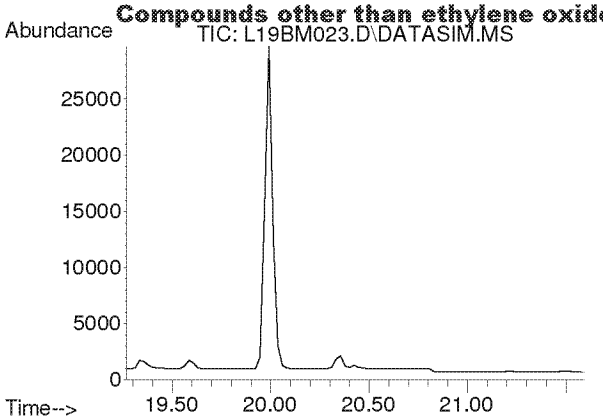
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

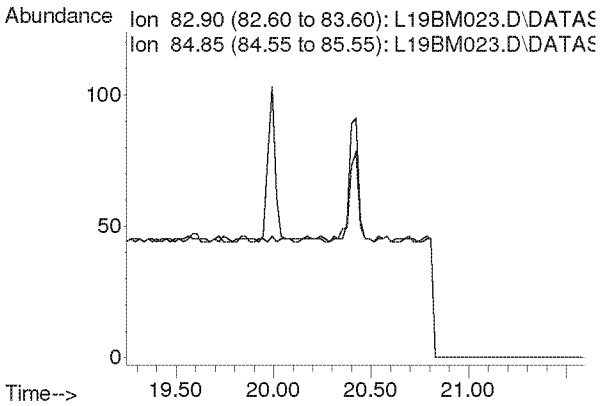


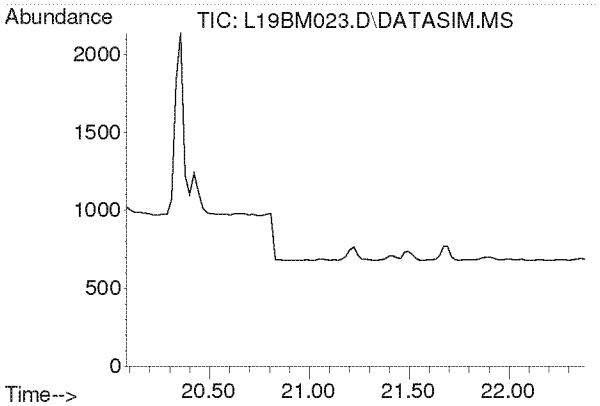
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



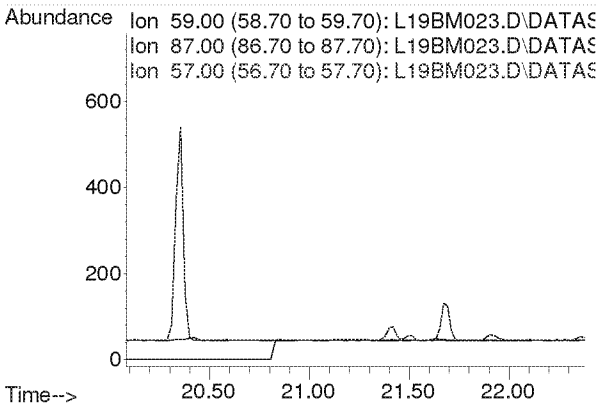


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

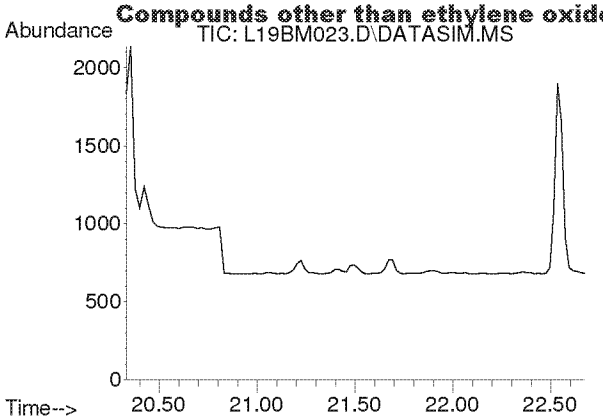
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

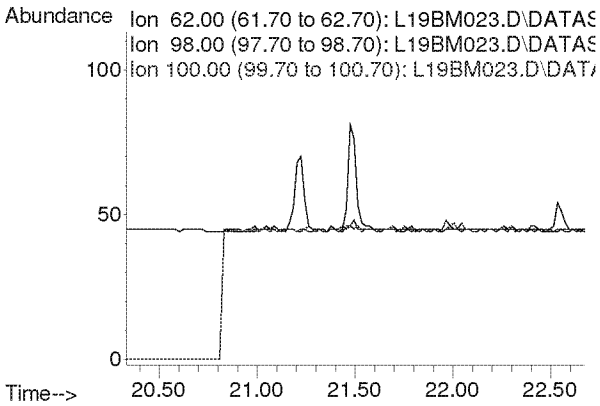


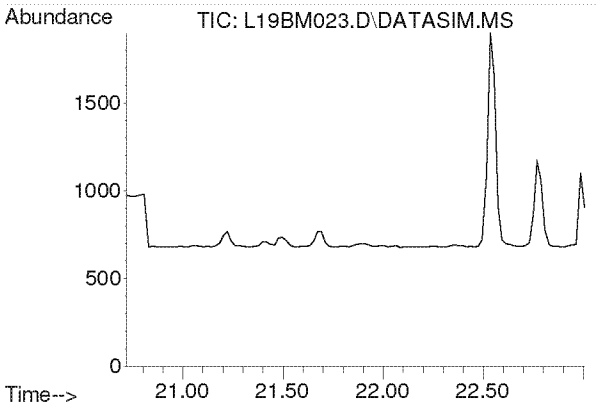
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



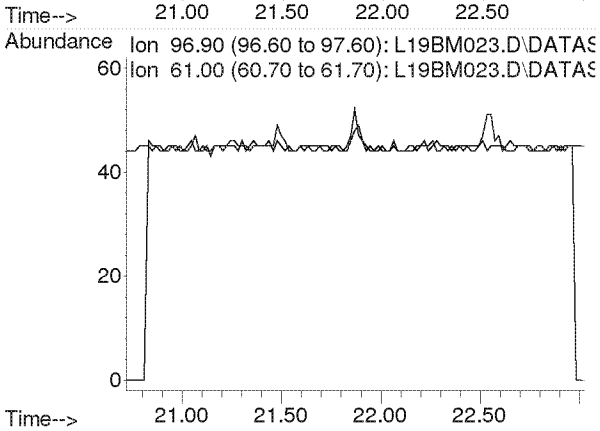


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

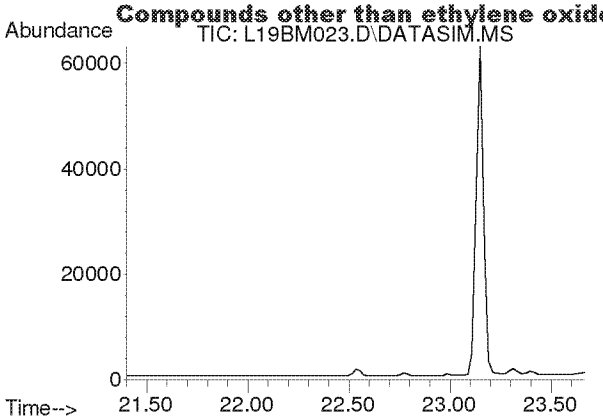
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

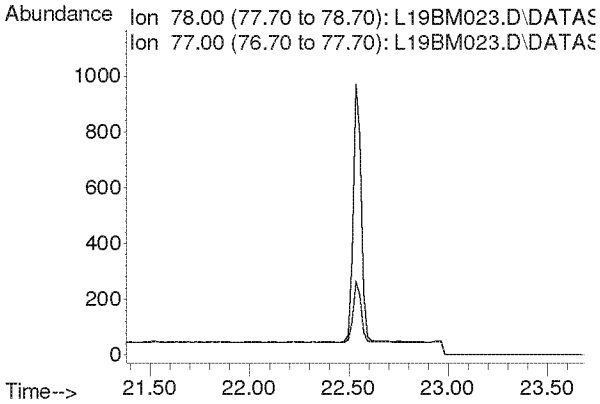


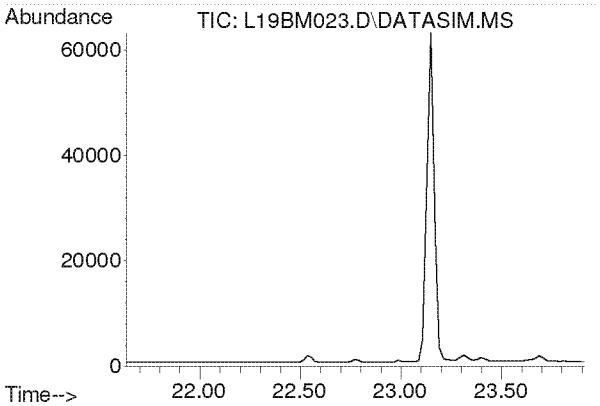
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



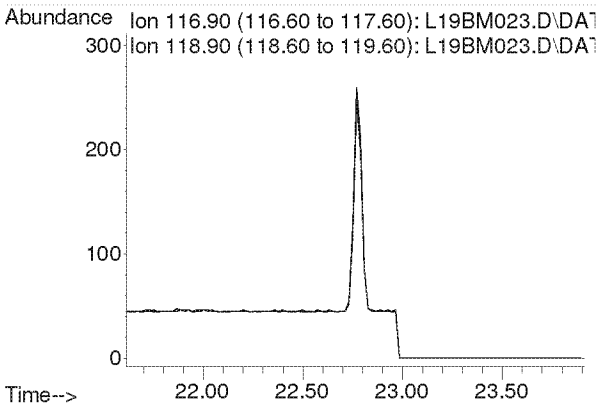


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

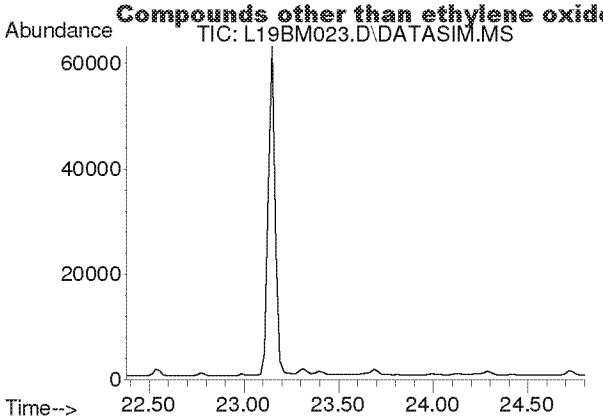
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

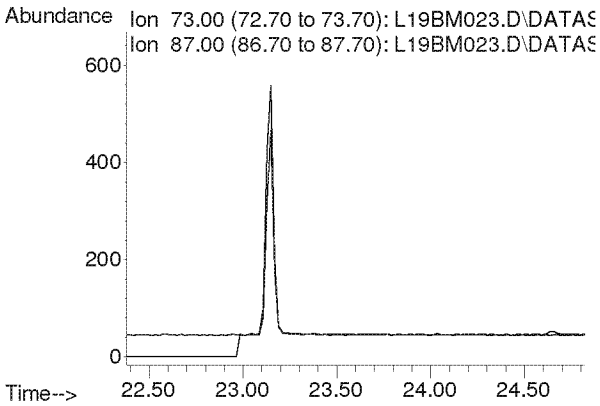


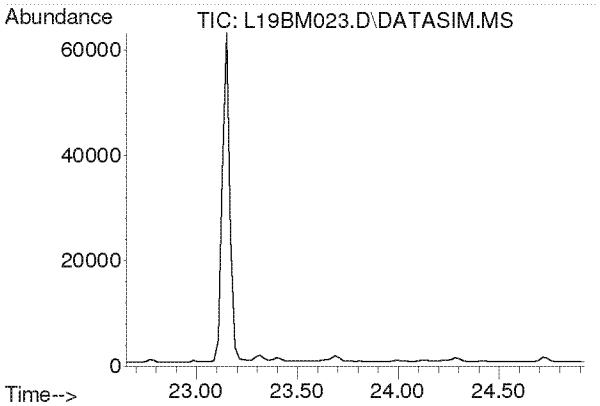
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



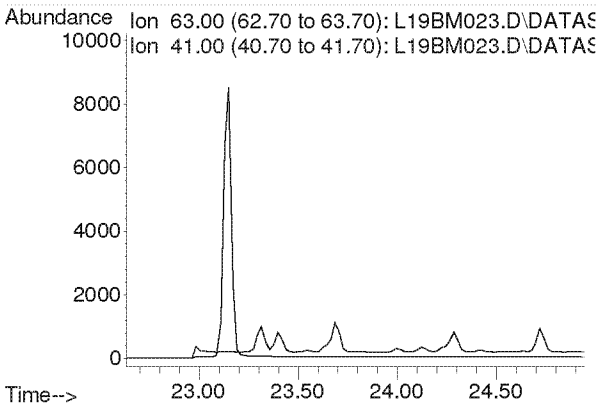


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

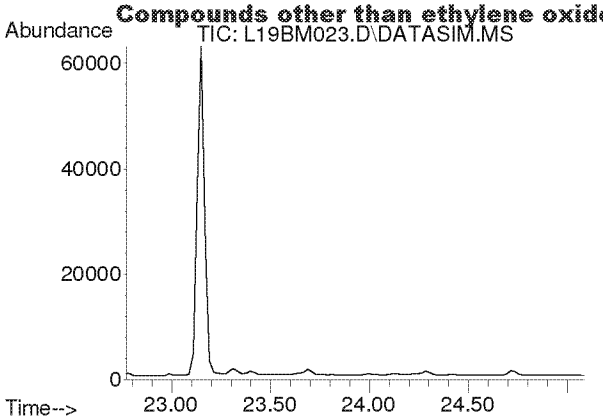
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

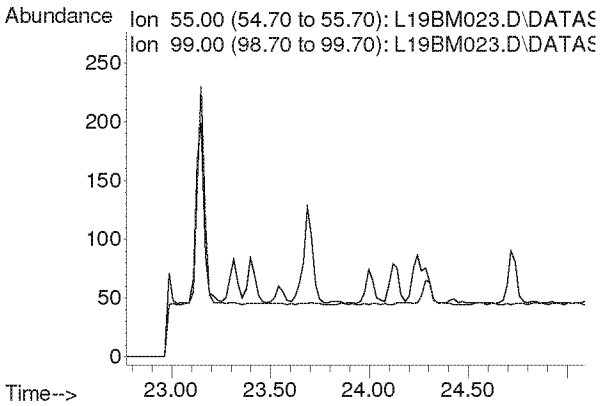


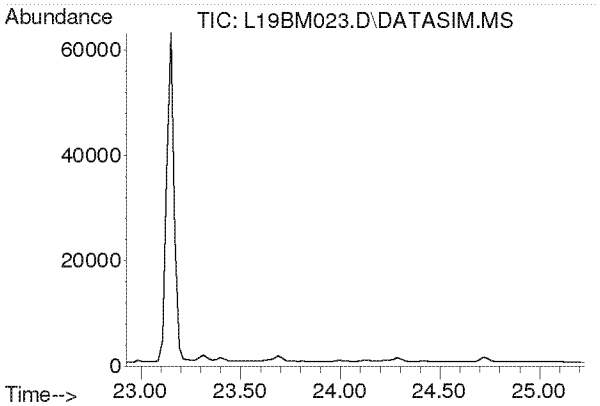
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



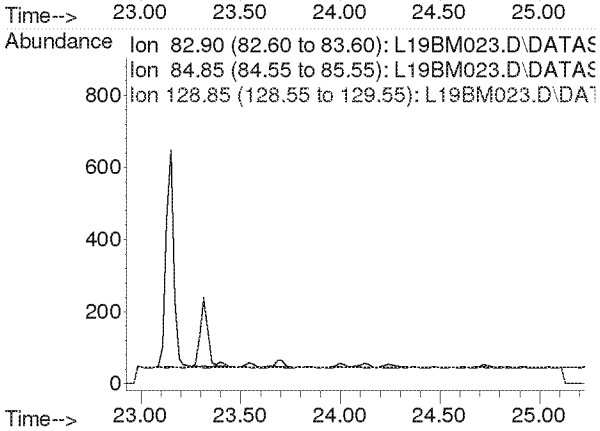


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

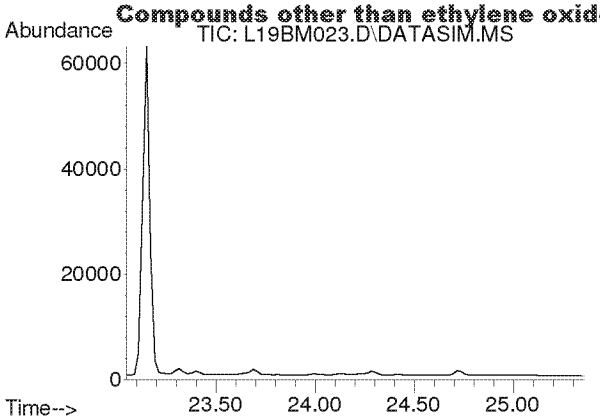
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

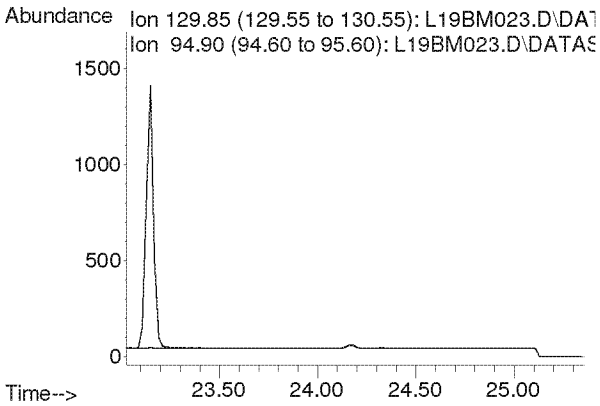


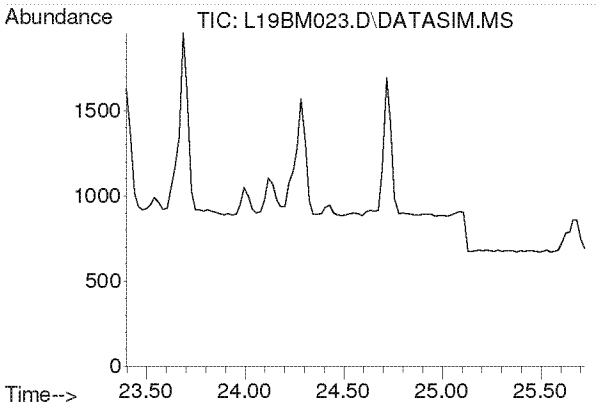
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



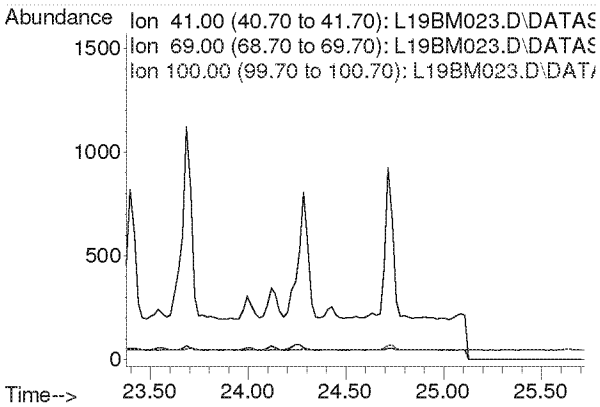


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

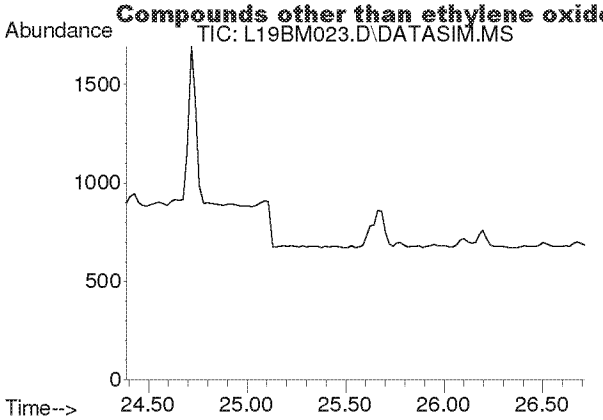
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

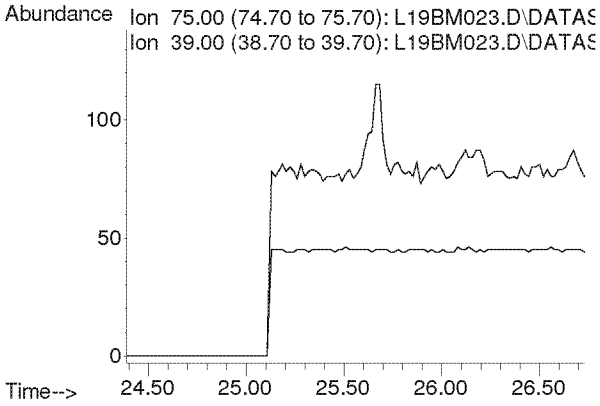


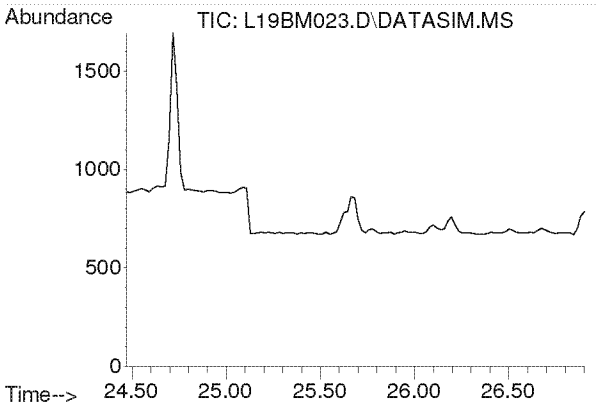
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



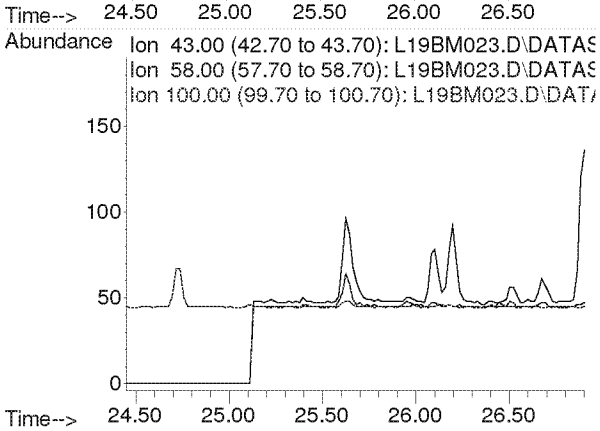


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

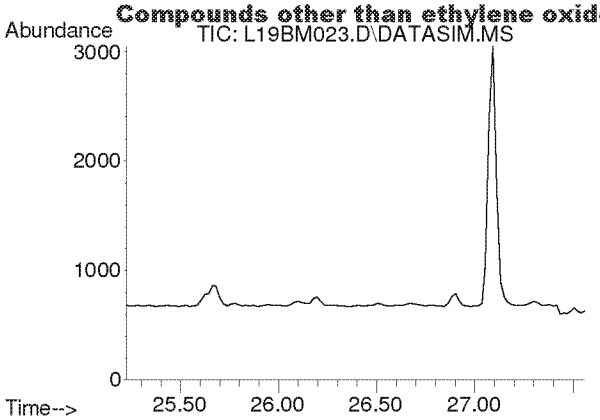
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

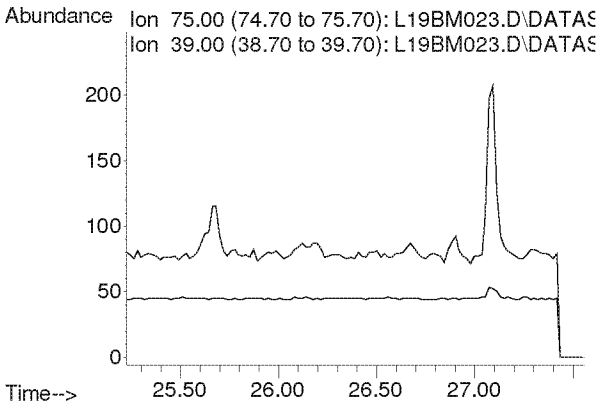


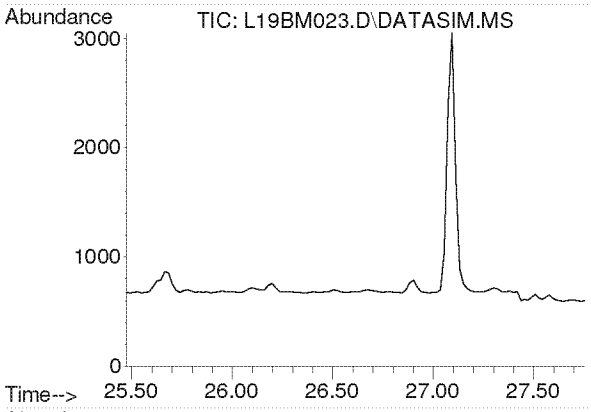
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



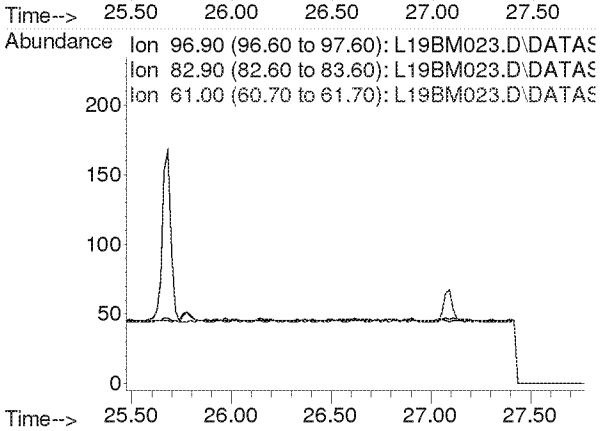


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

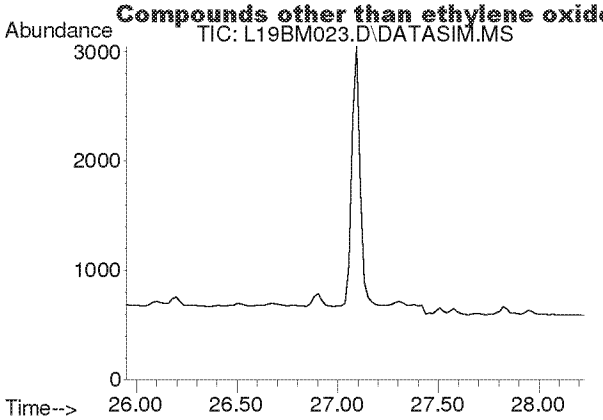
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

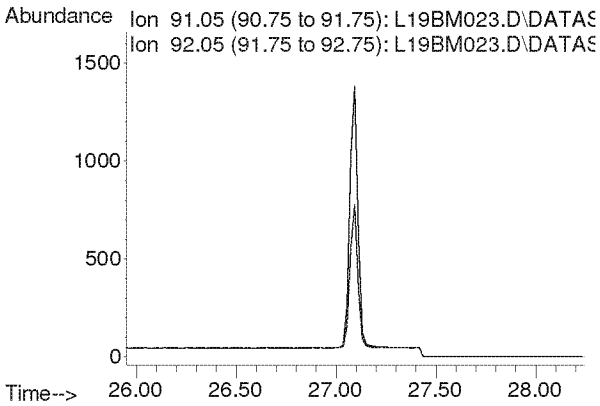


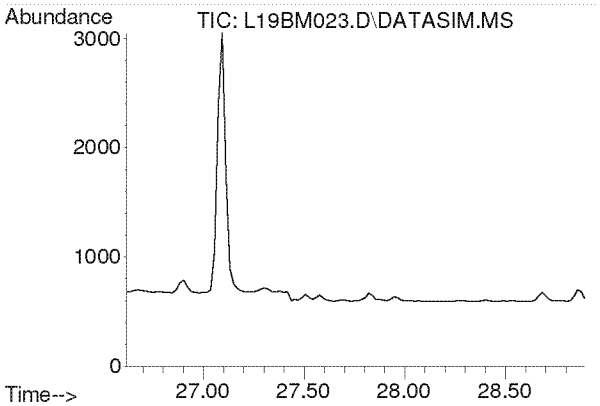
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



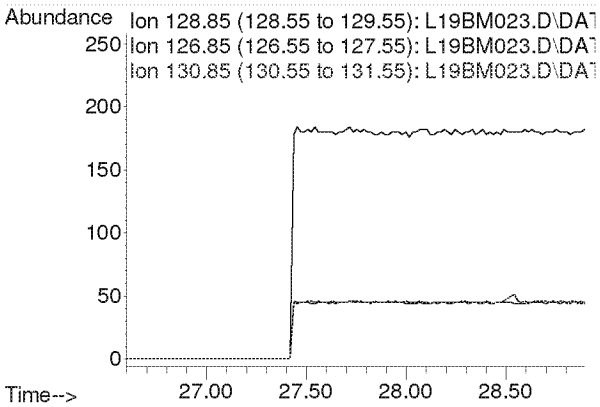


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

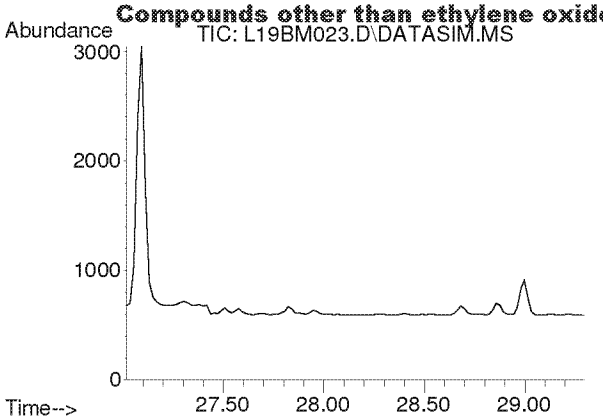
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

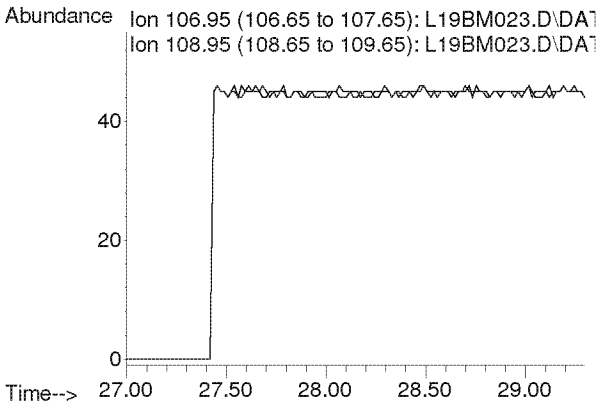


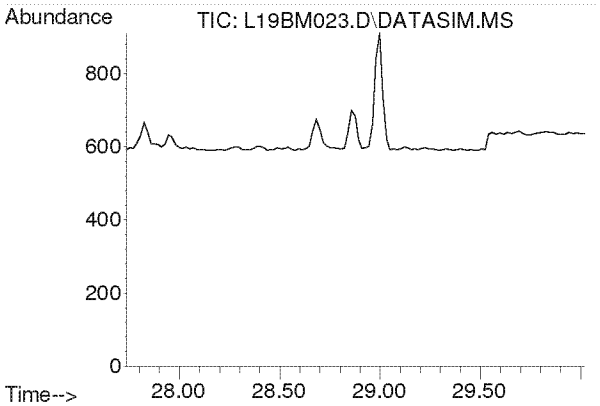
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



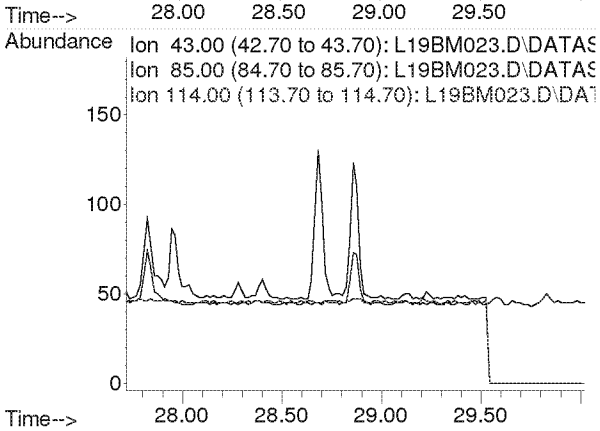


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

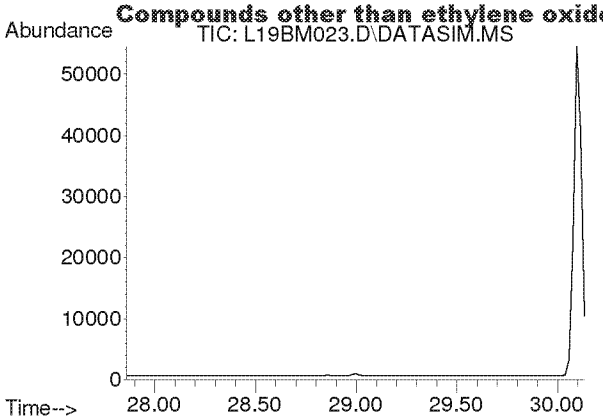
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

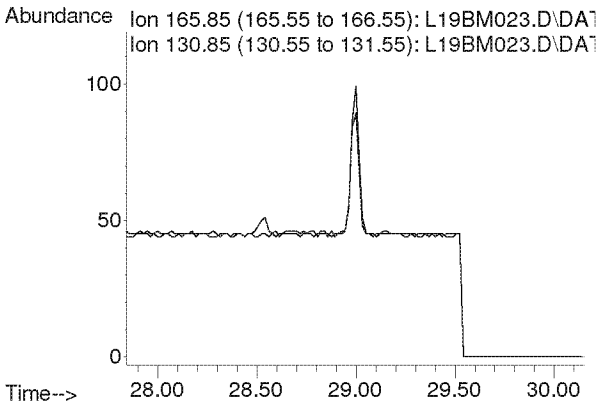


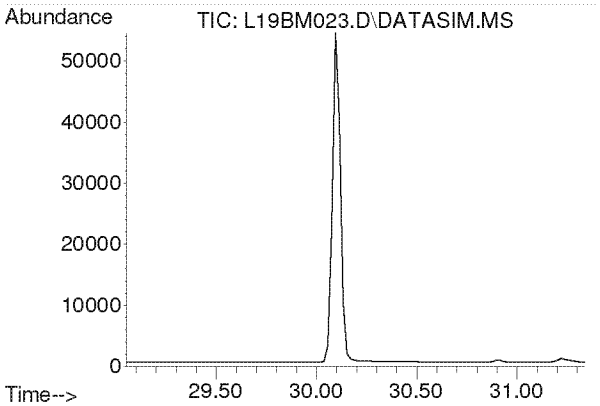
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



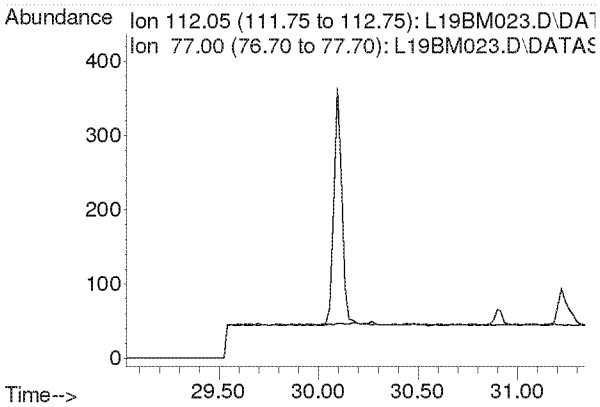


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

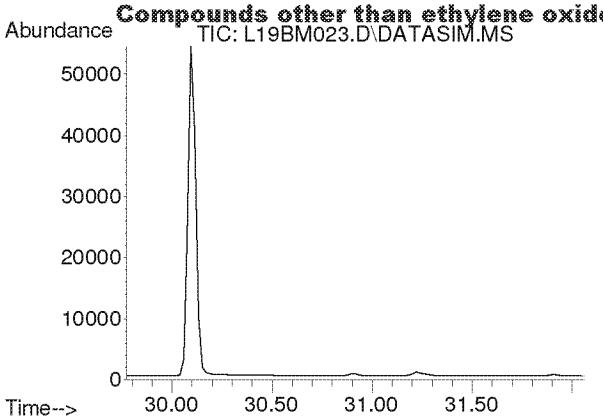
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

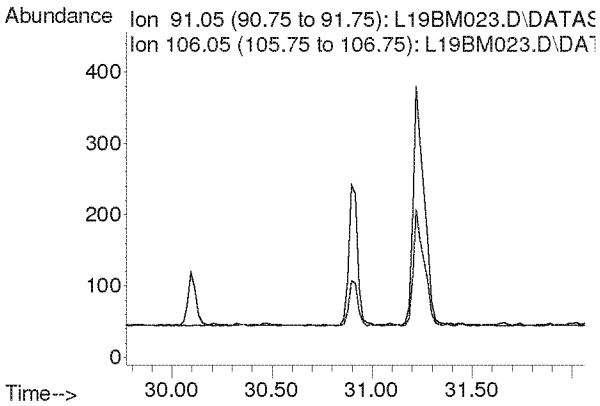


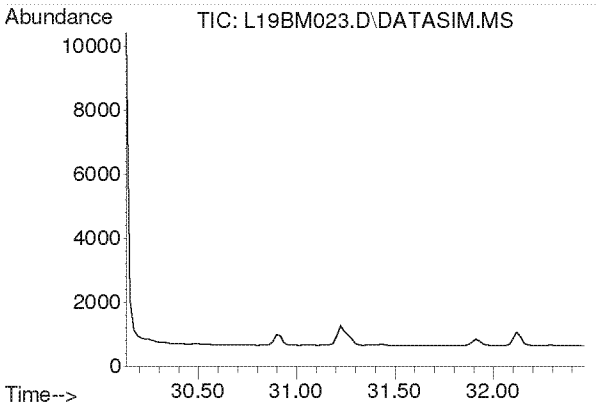
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



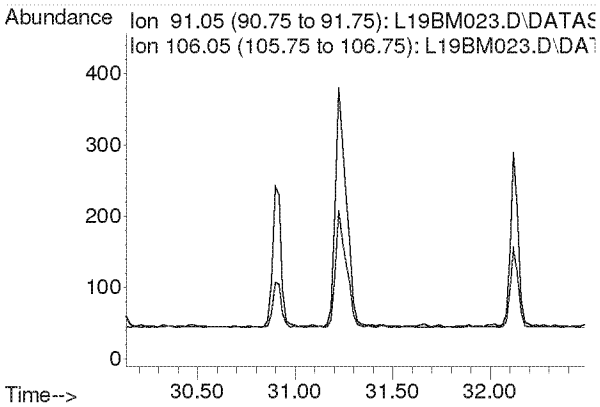


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

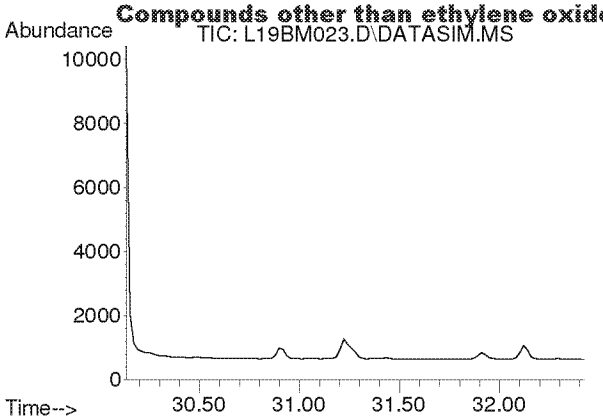
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

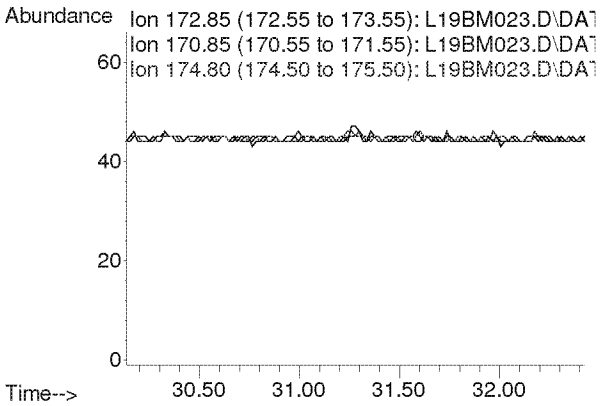


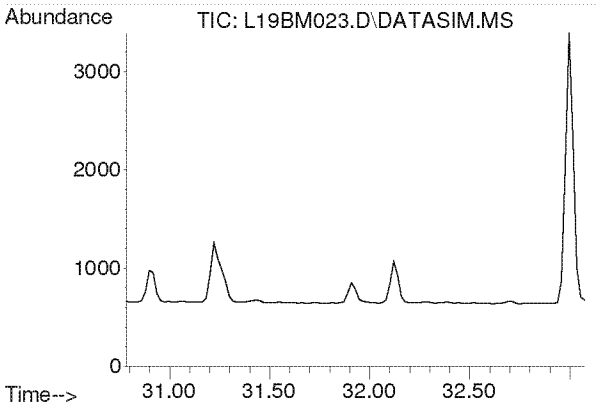
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



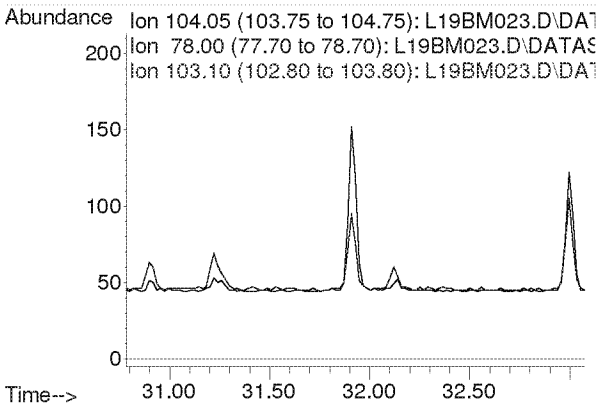


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

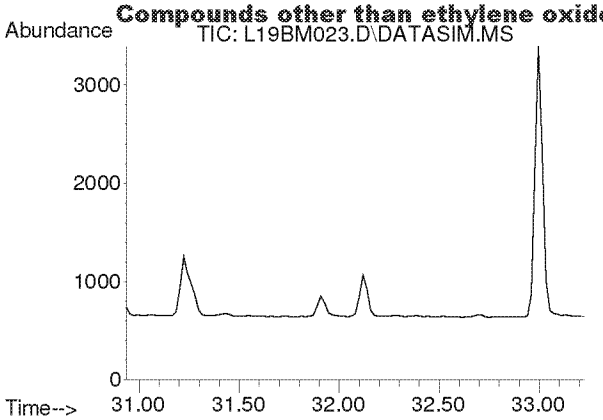
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

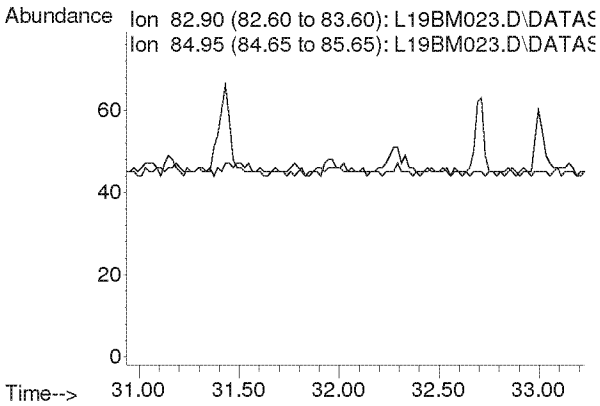


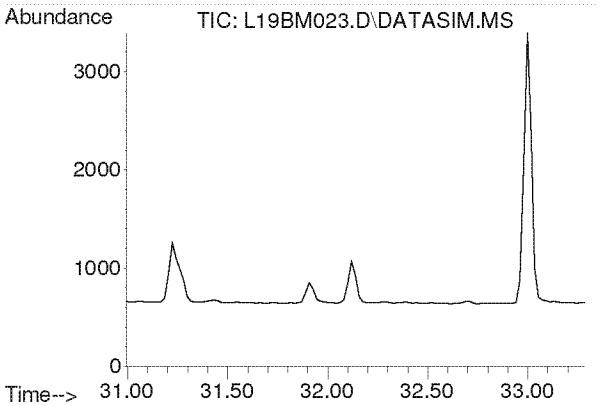
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



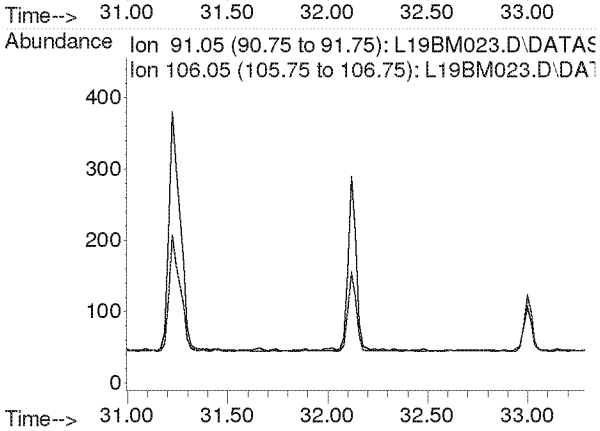


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

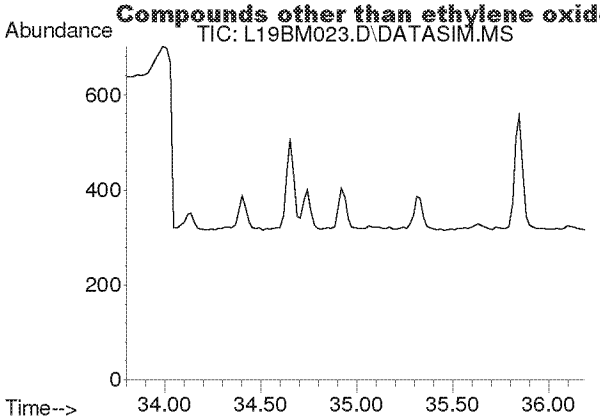
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

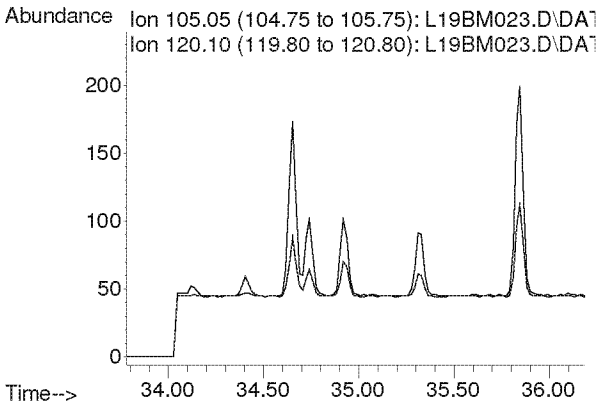


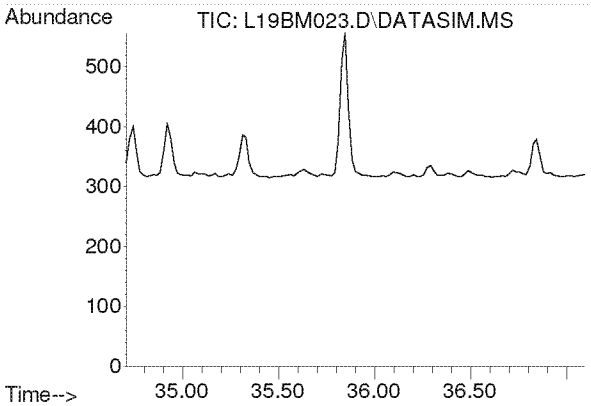
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



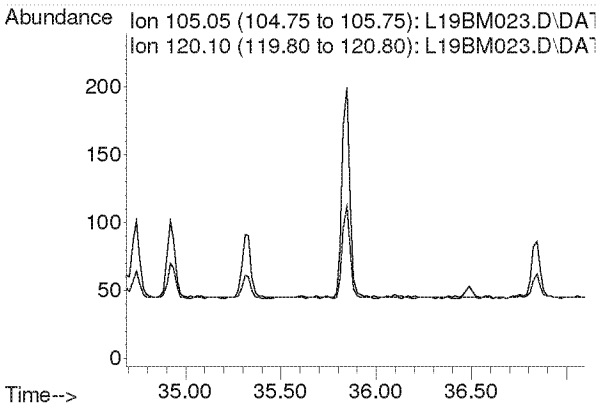


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

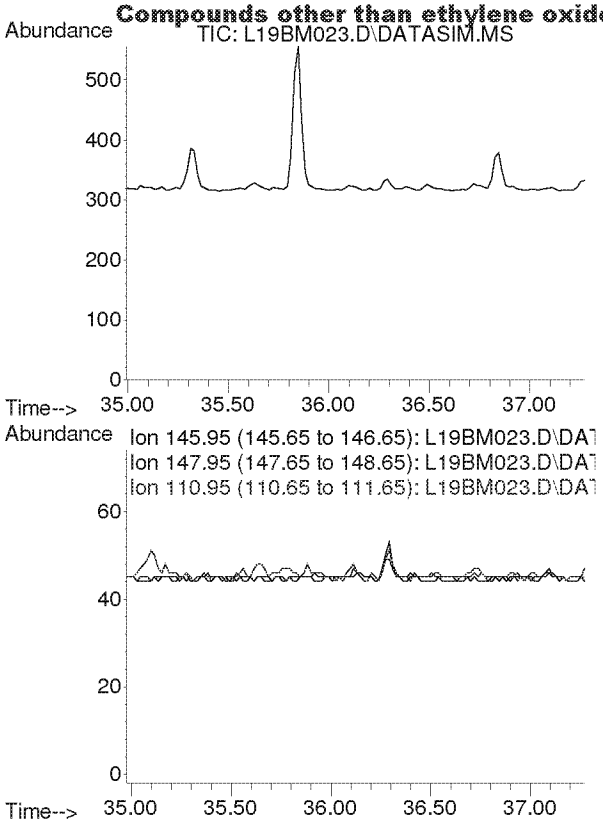
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

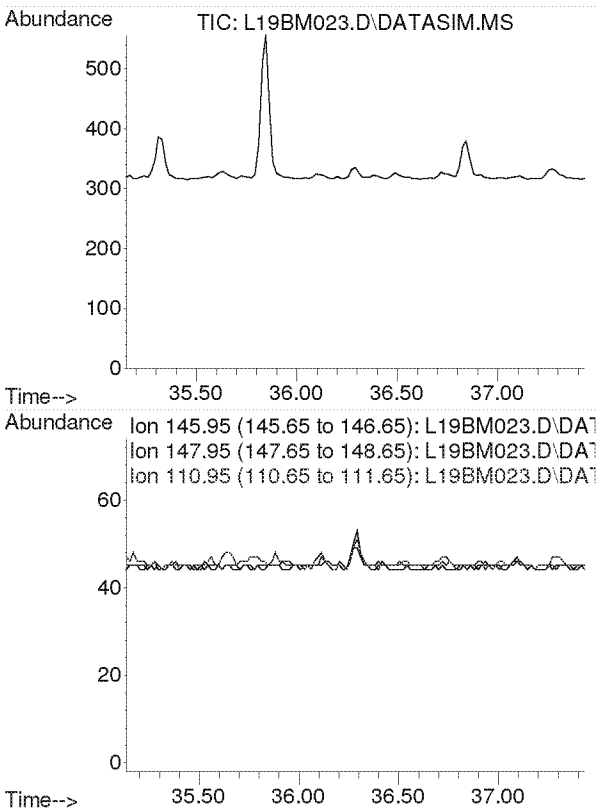


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



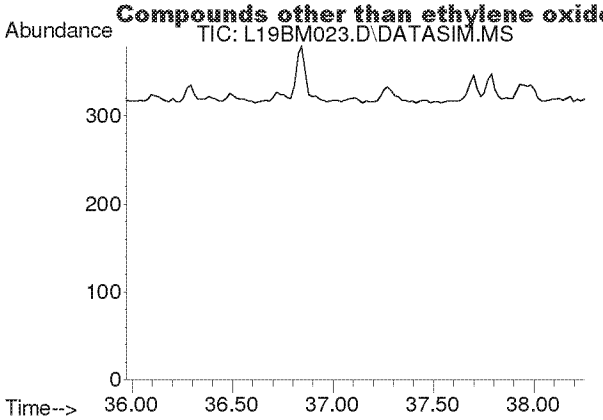
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

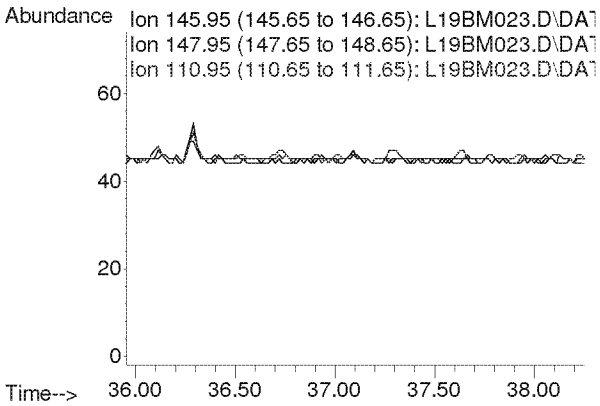


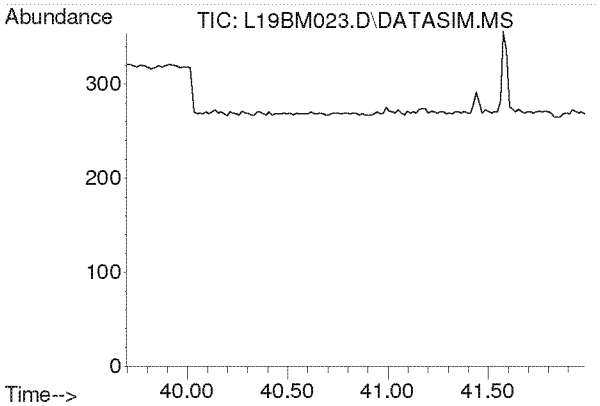
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



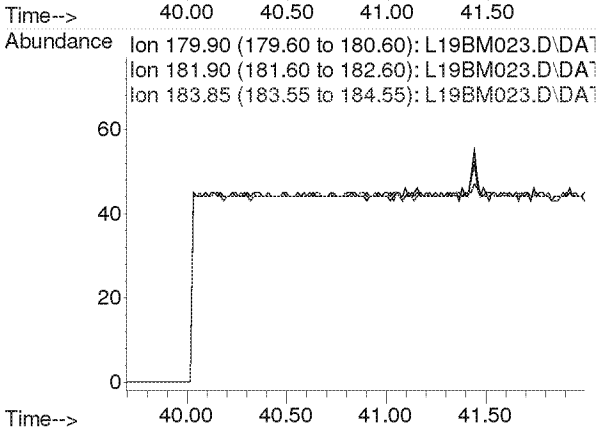


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

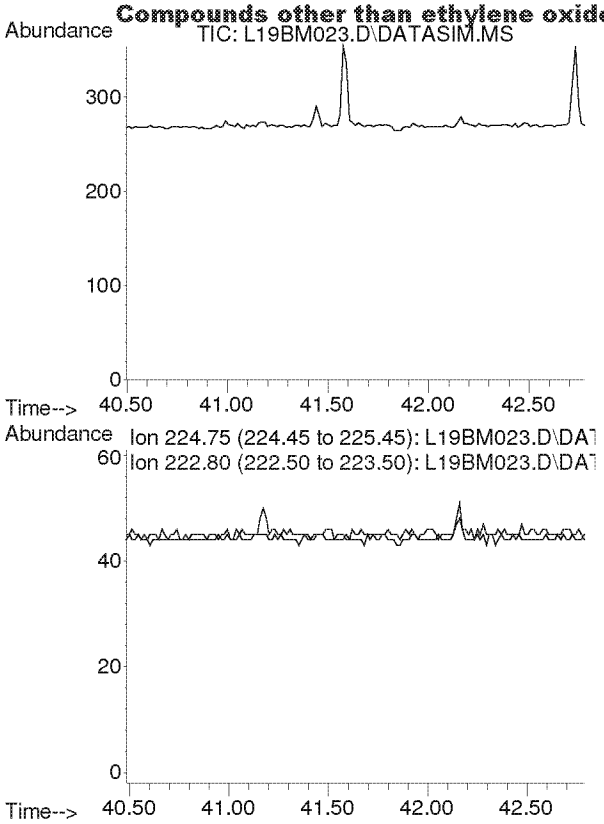
Lab File: L19BM023.D
Acq: 14 Feb 2019 6:49 am

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: L19BM023.D
Acq: 14 Feb 2019 6:49 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\L19BM\
Data File : L19BM024.D
Acq On : 14 Feb 2019 7:44 am (#1); 14-Feb-19, 07:39:44 (#2)
Operator : MAH
Sample : 9020702-09
Misc : WEST NEIGHBORHOOD 2/6/19
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 14 14:05:42 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

JEMK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46967	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	120731	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	85098	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.380	29	7944	2.9572 ppbv #	40
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (not reviewed)

Data Path : C:\msdchem\1\DATA\L19BM\
Data File : L19BM024.D
Acq On : 14 Feb 2019 7:44 am (#1); 14-Feb-19, 07:39:44 (#2)
Operator : MAH
Sample : 9020702-09
Misc : WEST NEIGHBORHOOD 2/6/19
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 14 14:05:42 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

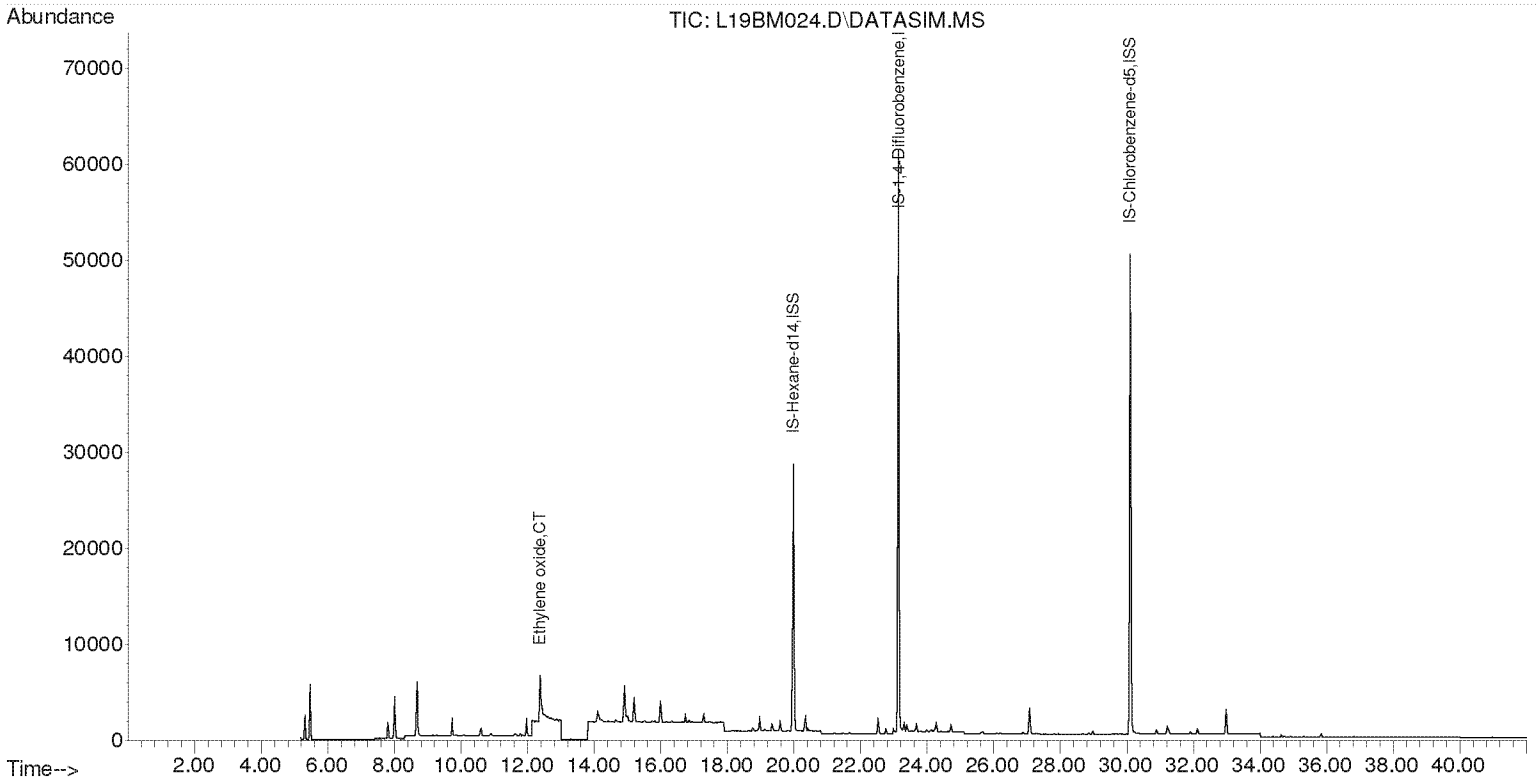
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

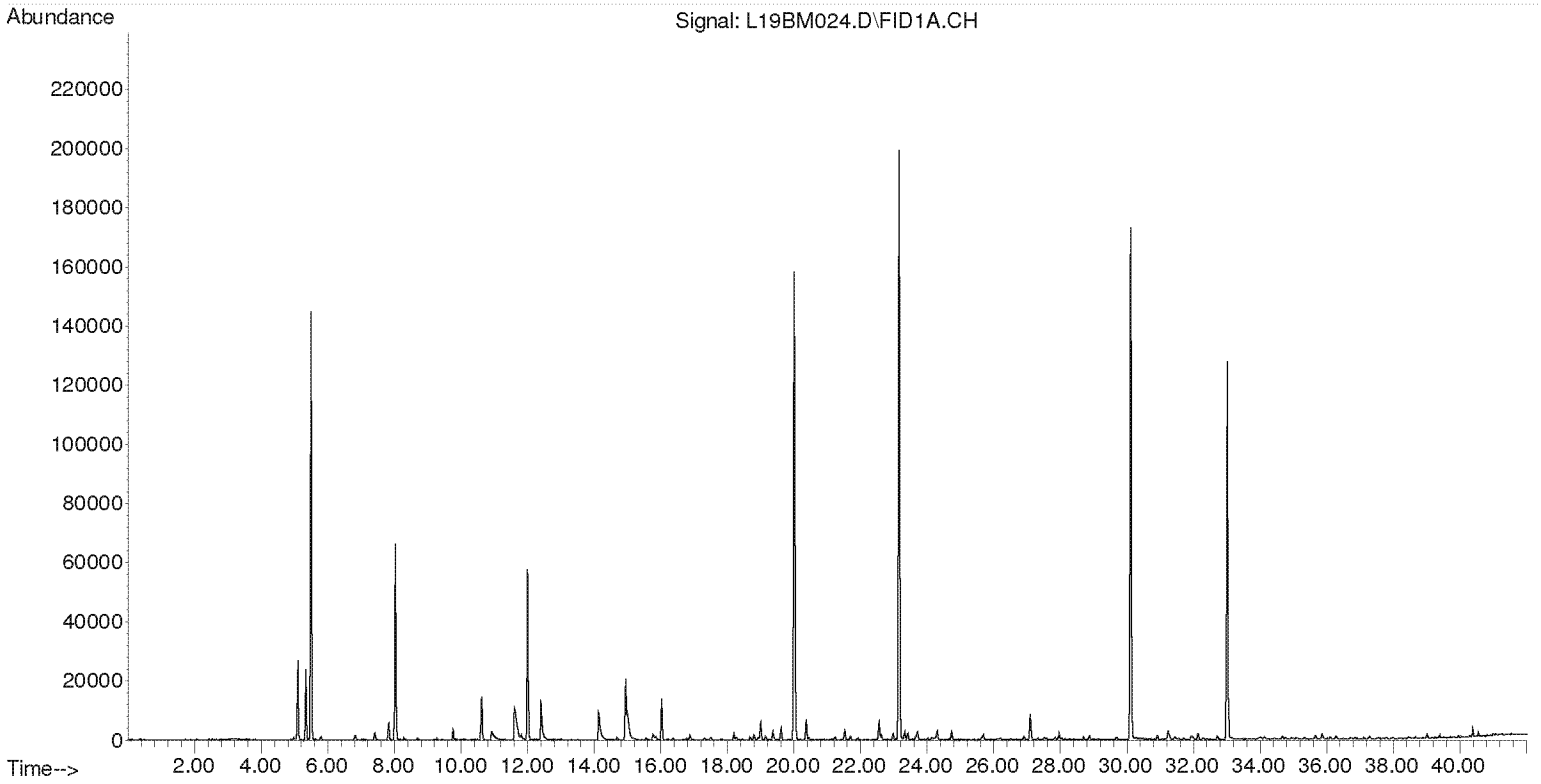
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

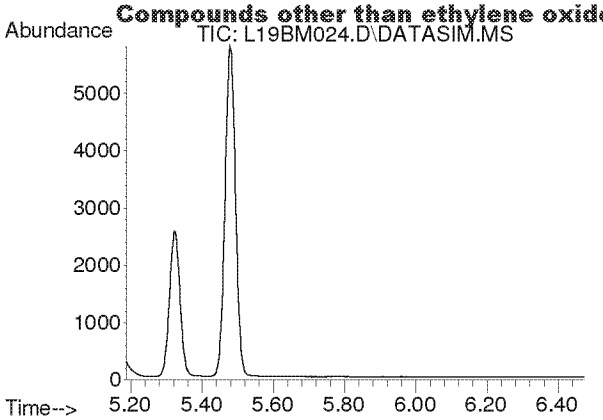
Data Path : Y:\MASS SPEC 1 DATA\L19BM\
Data File : L19BM024.D
Acq On : 14 Feb 2019 7:44 am (#1); 14 Feb 2019 7:39 am (#2)
Operator : MAH
Sample : 9020702-09
Misc : WEST NEIGHBORHOOD 2/6/19
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 14 08:34:32 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





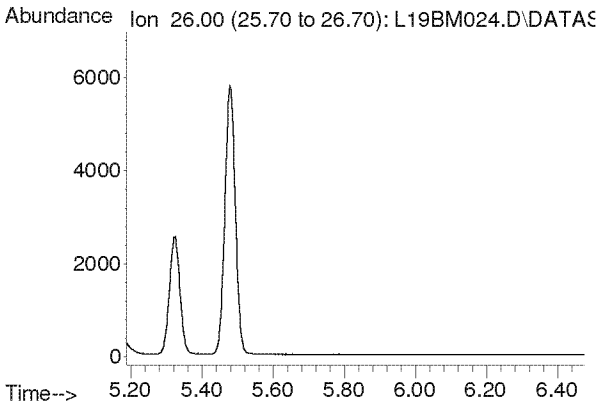
Compounds other than ethylene oxide were not quantitated.

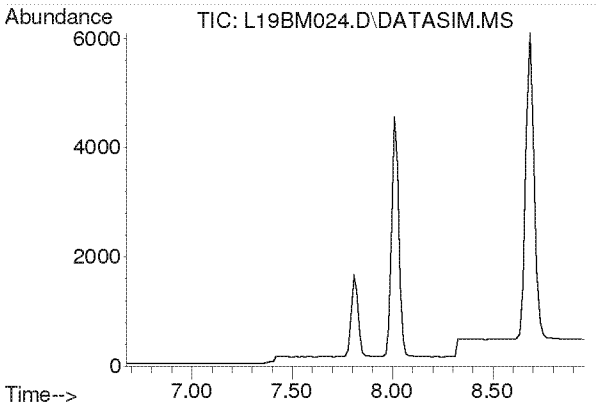


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 26



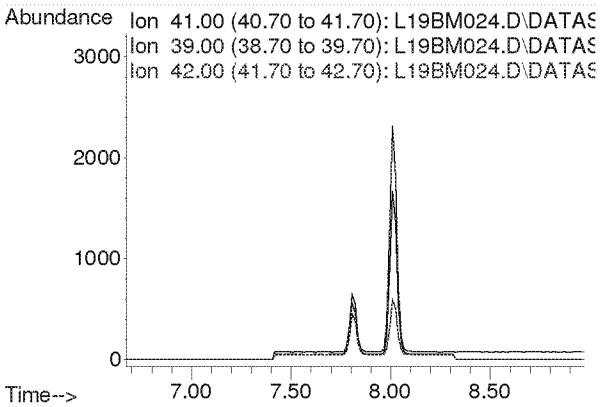


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

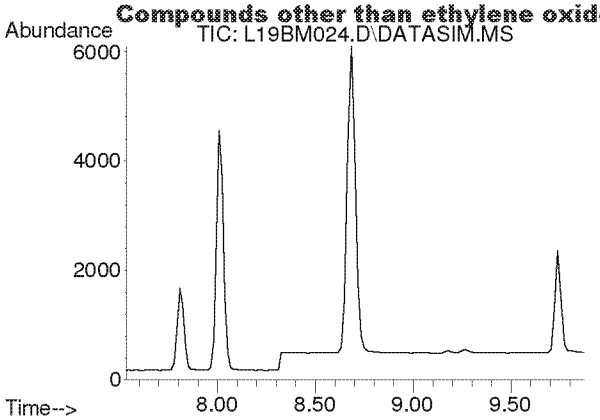
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

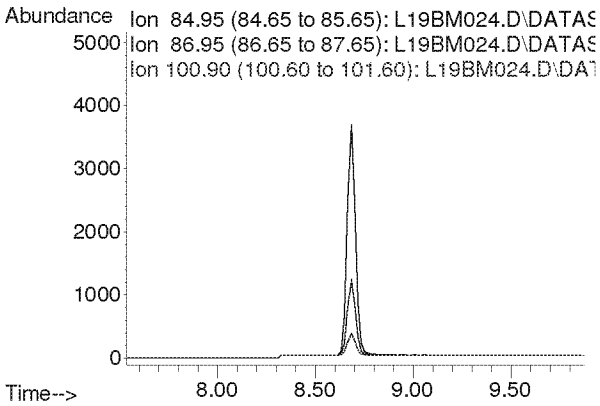


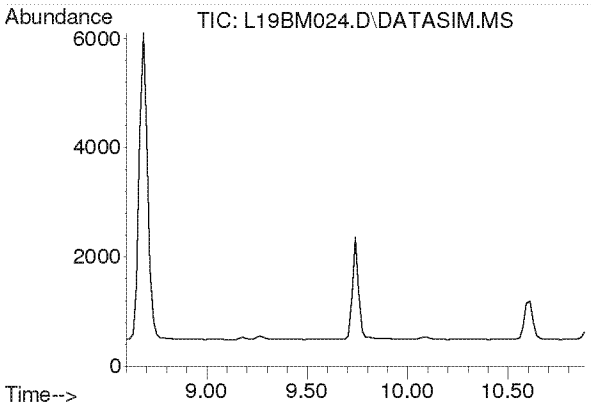
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



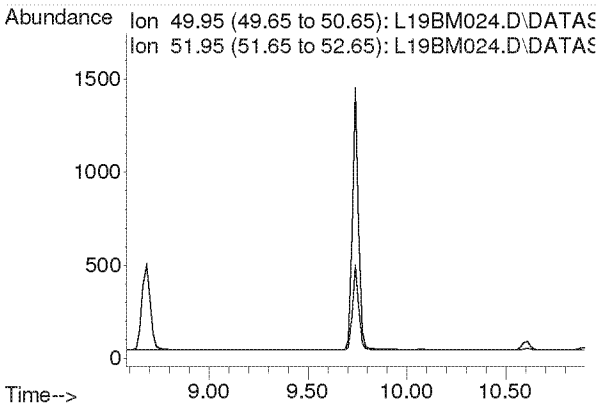


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

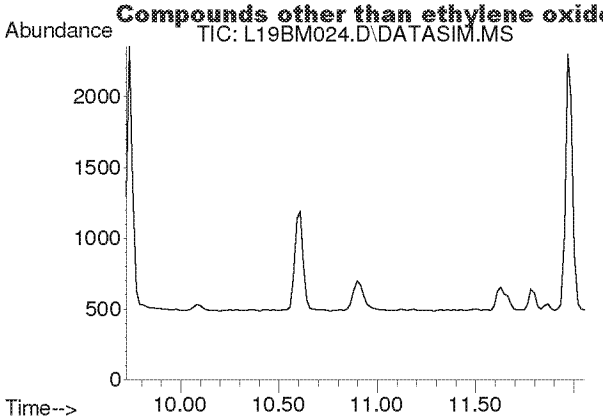
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

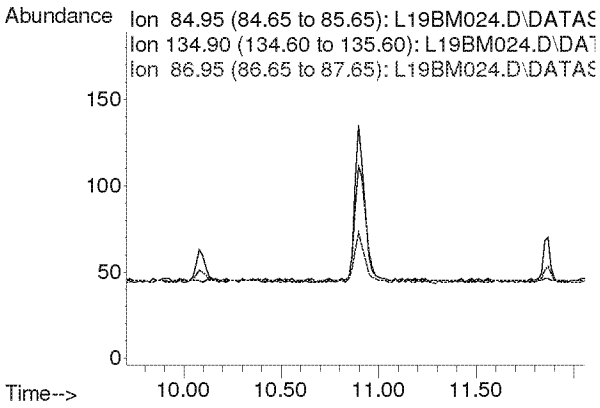


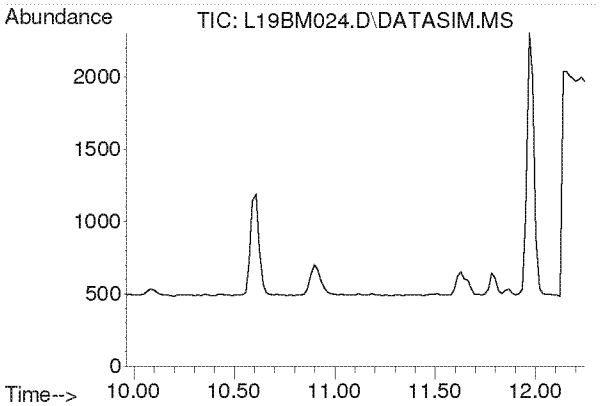
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



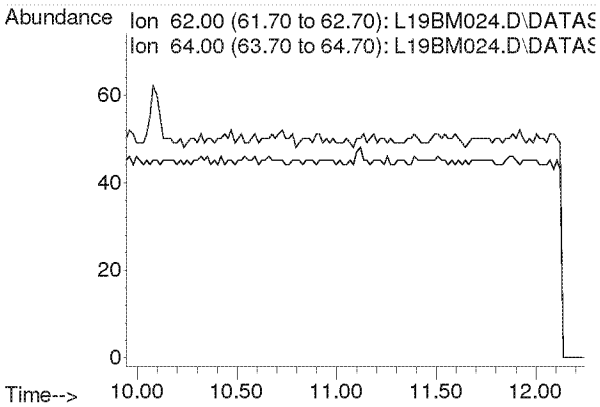


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

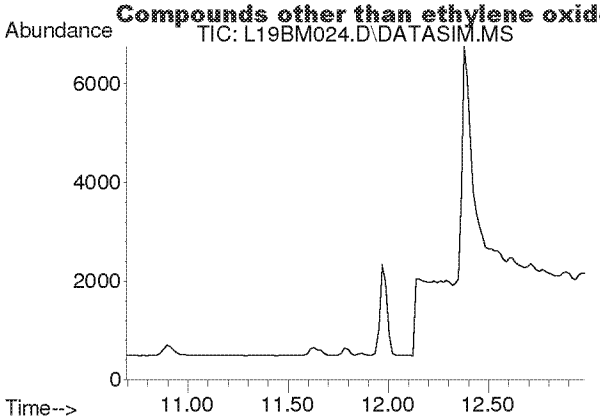
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

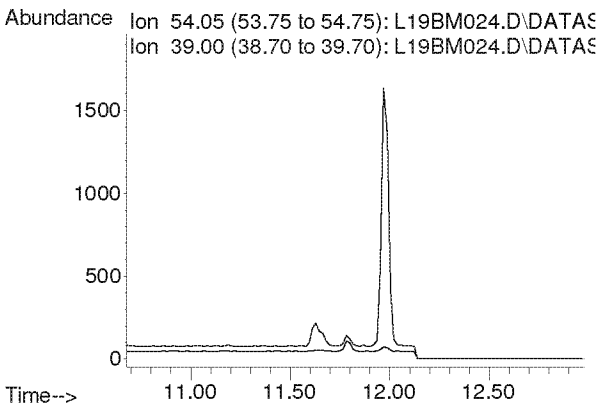


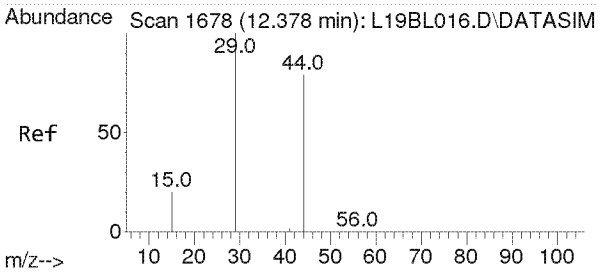
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

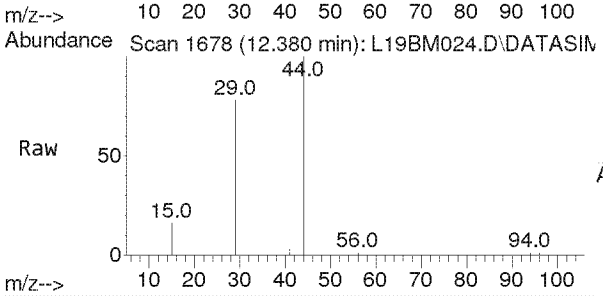


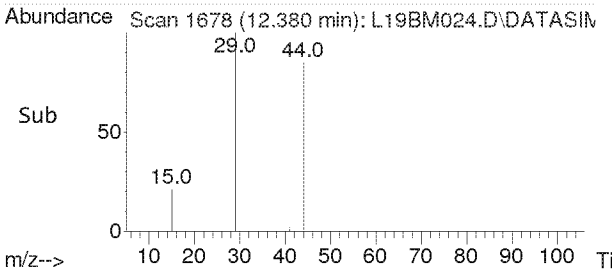


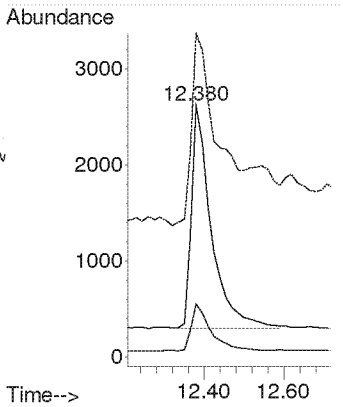
#9
Ethylene oxide
Concen: 2.957 ppbv
RT: 12.380 min Scan# 1678
Delta R.T. -0.040 min
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 29 Resp: 7944

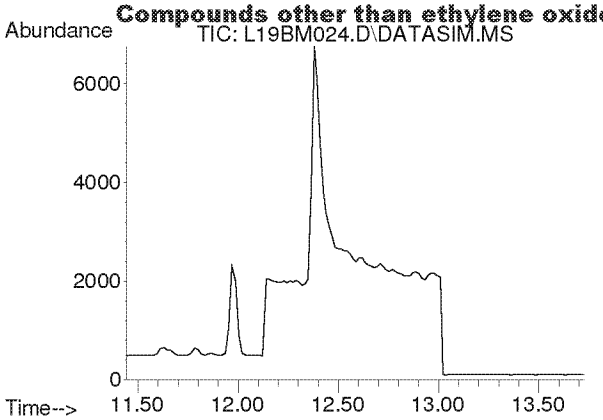
Ion	Ratio	Lower	Upper
29	100		
15	21.0	16.0	24.0
44	147.6	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

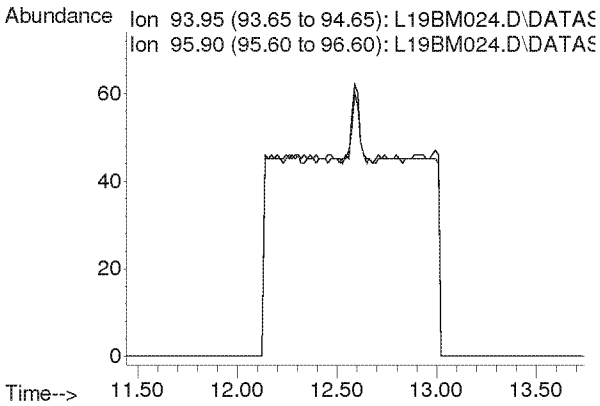


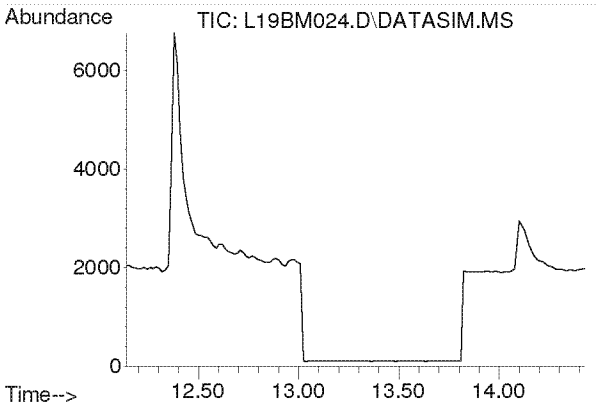
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



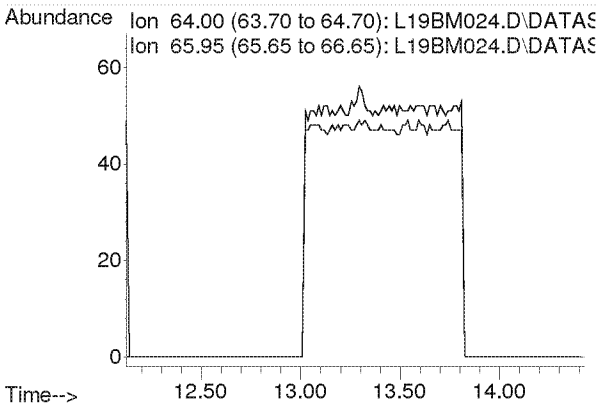


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

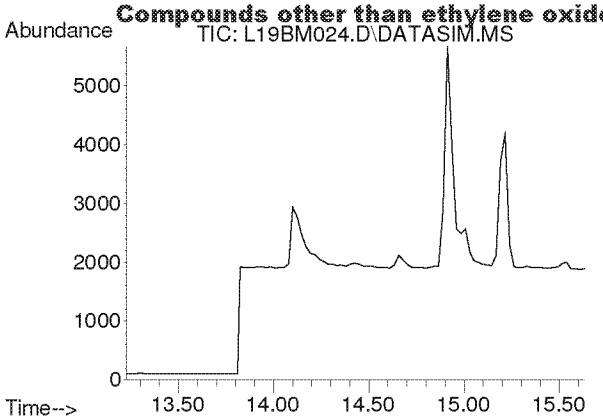
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

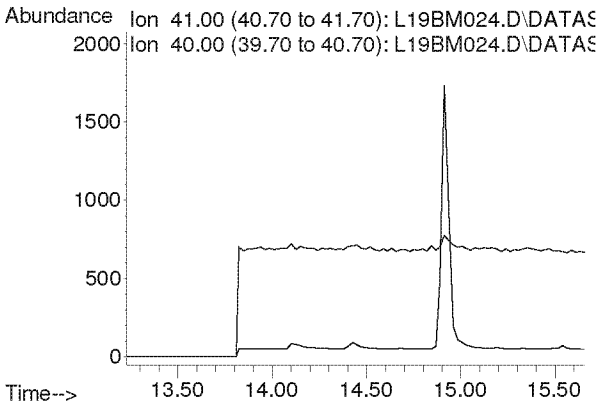


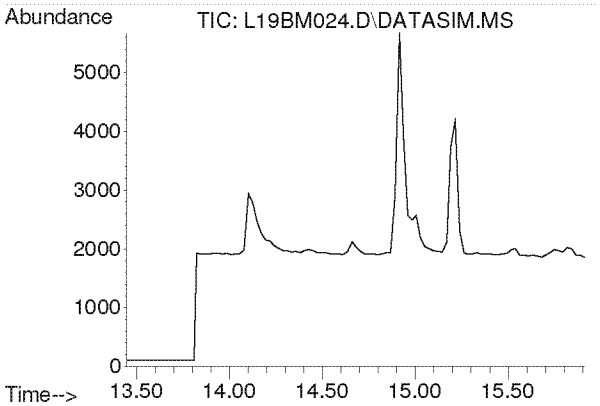
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



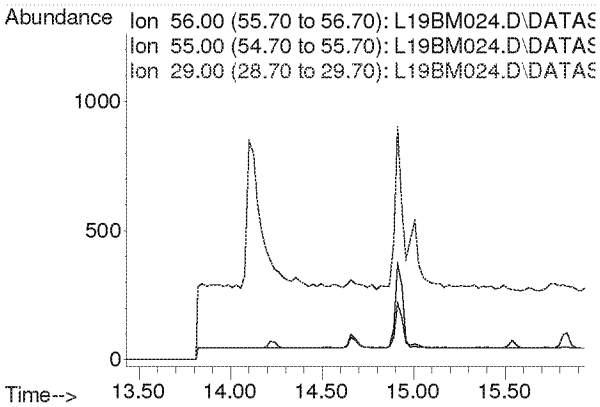


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

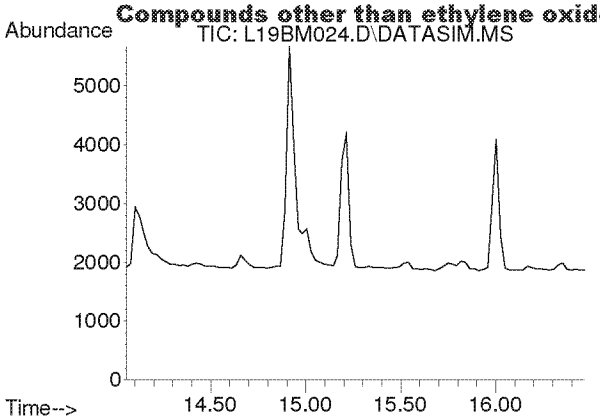
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

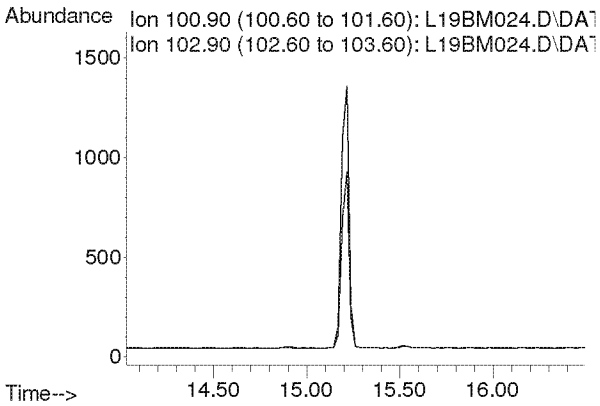


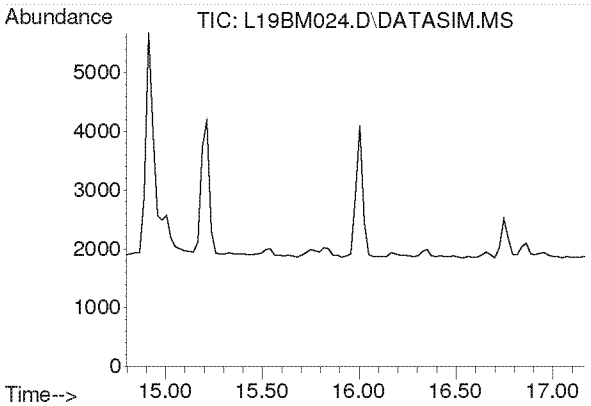
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



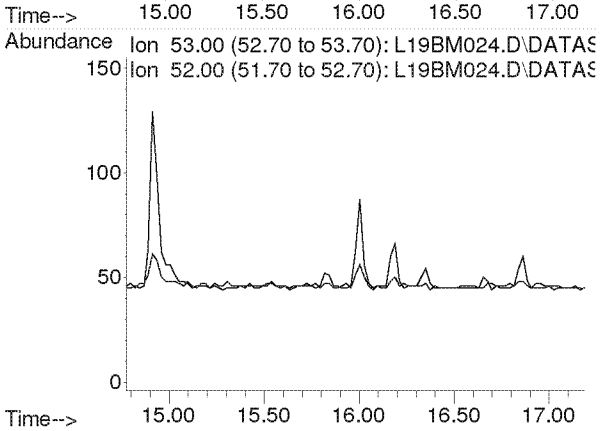


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

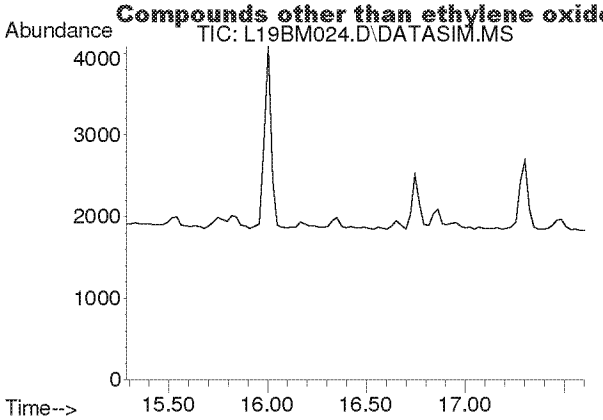
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

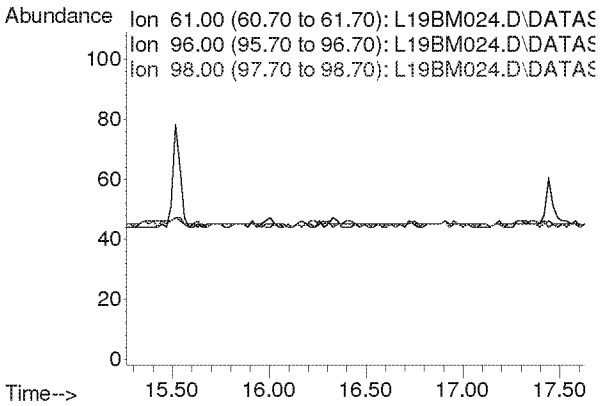


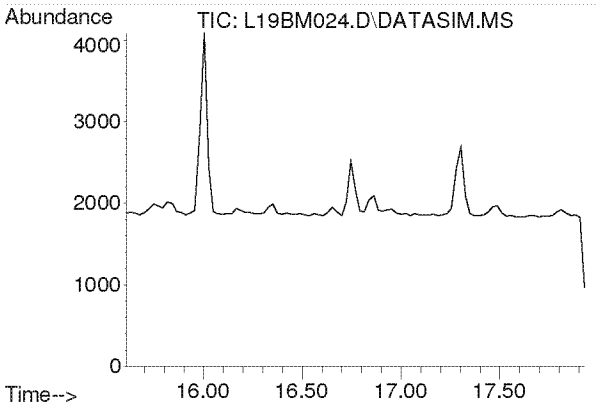
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



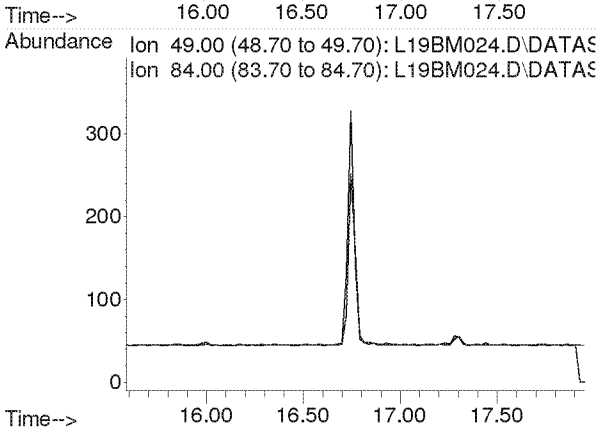


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

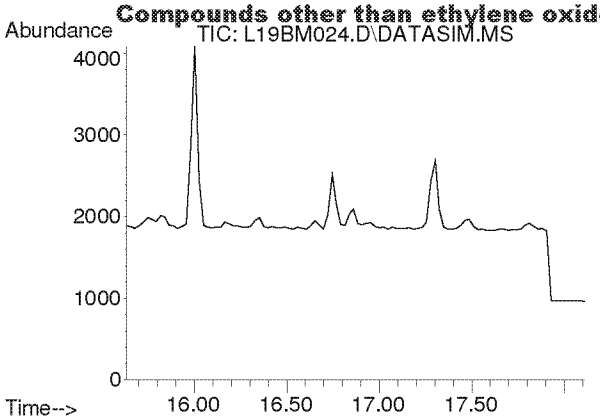
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

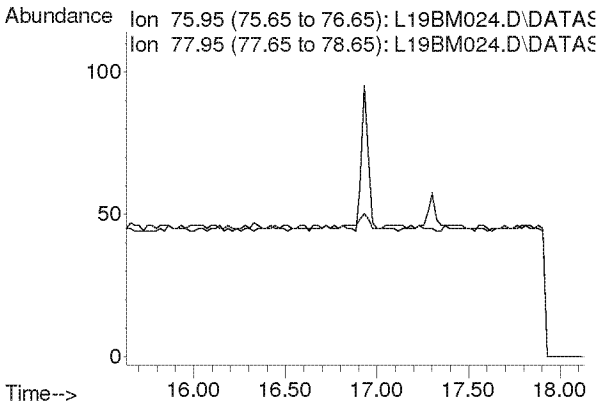


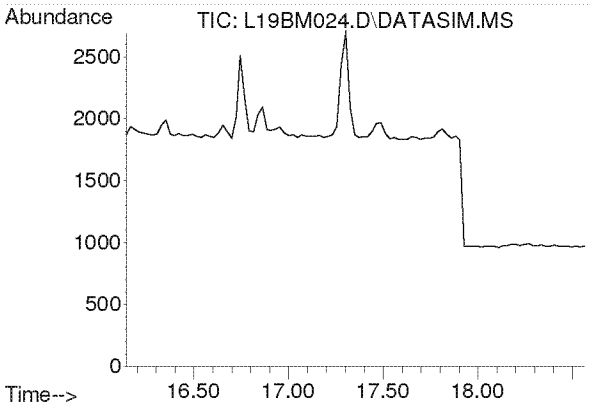
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



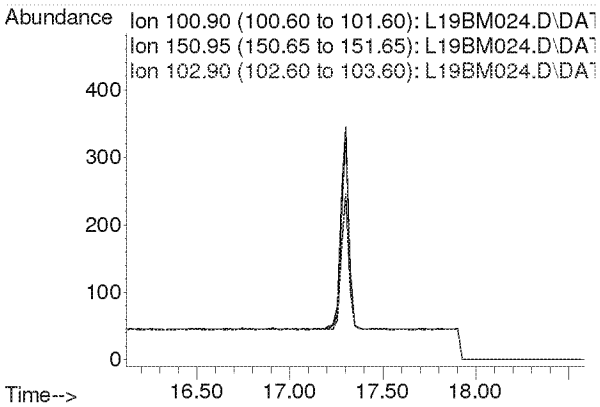


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

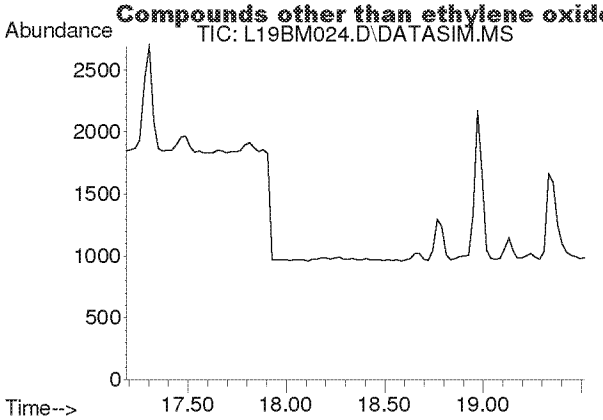
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

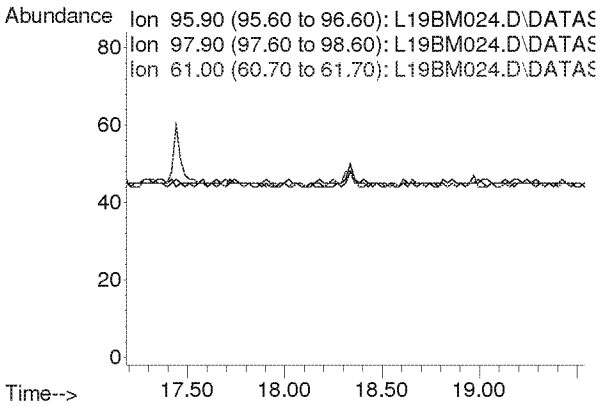


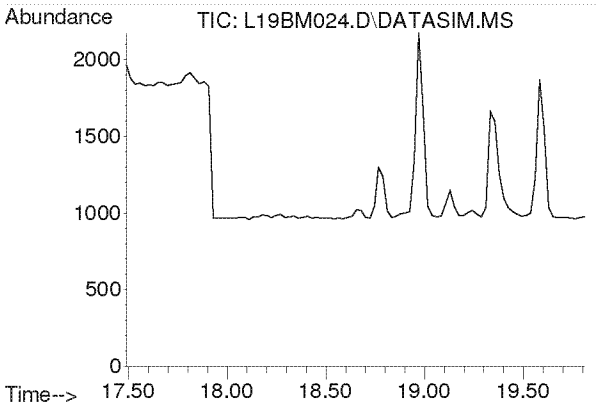
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



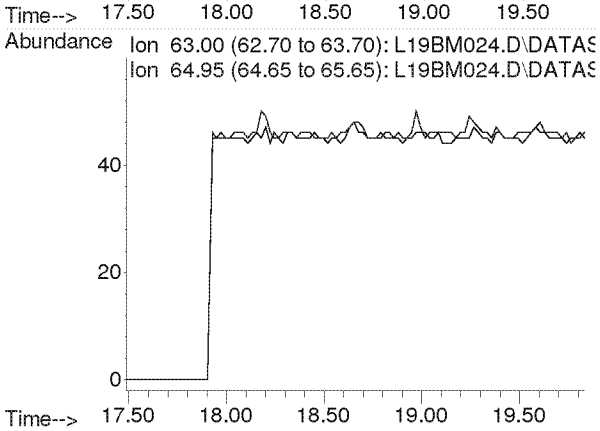


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

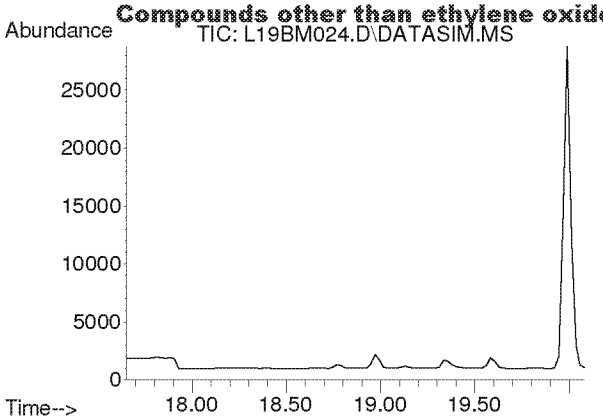
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

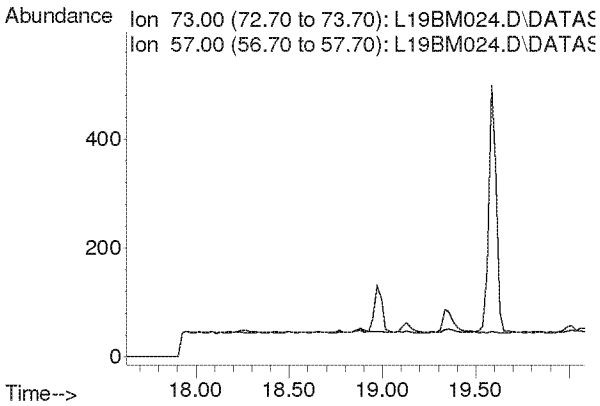


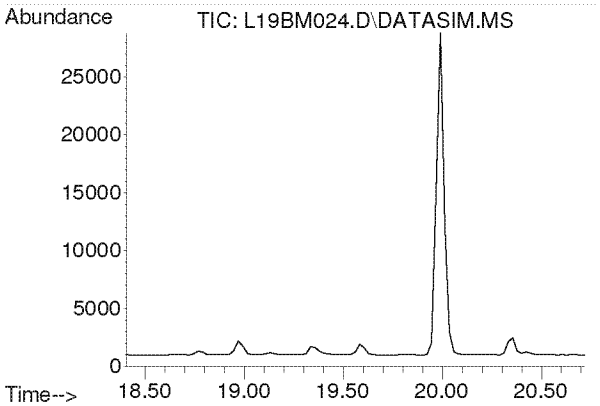
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



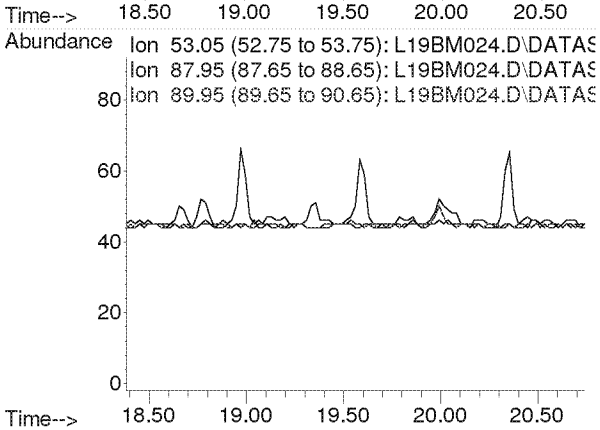


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

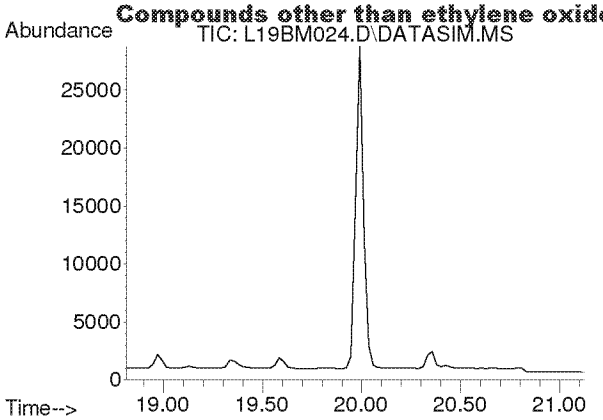
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

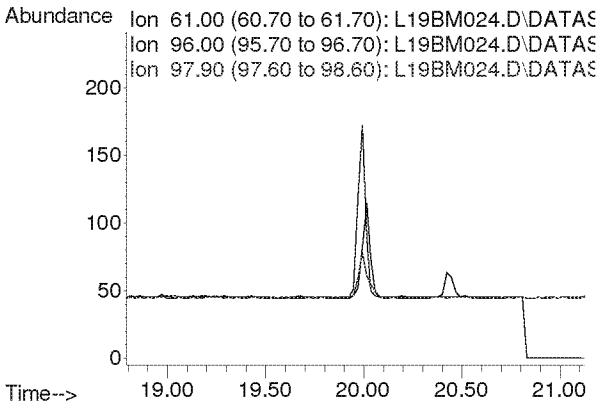


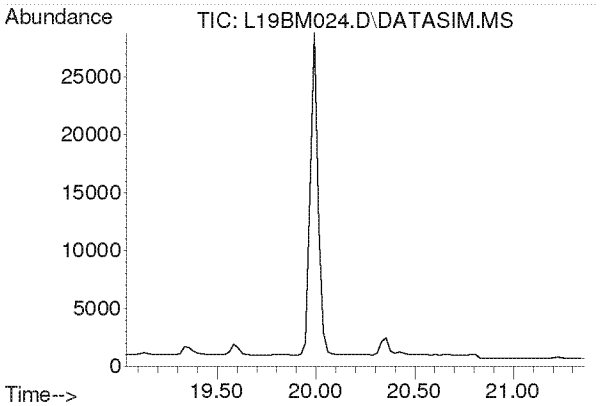
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



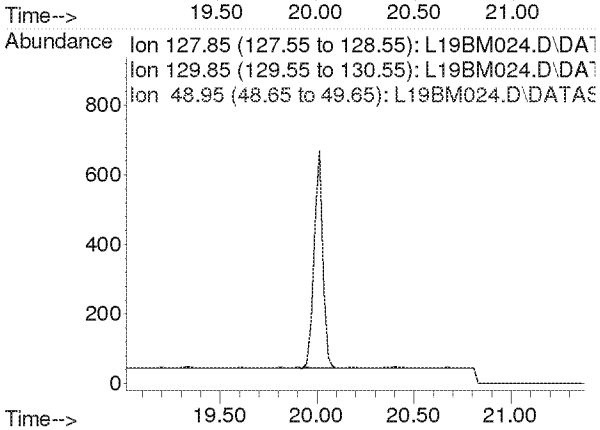


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

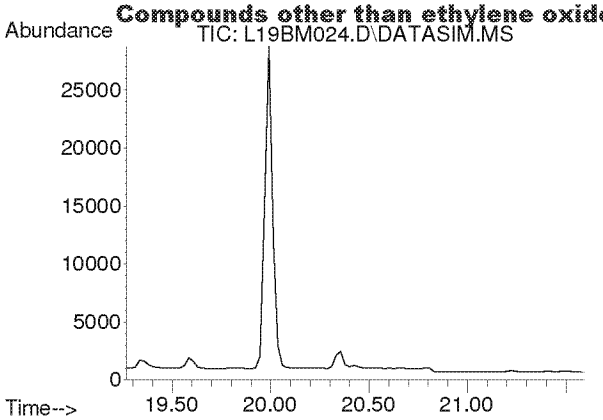
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

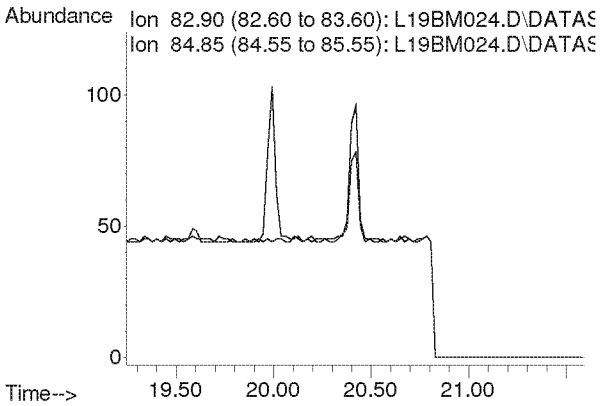


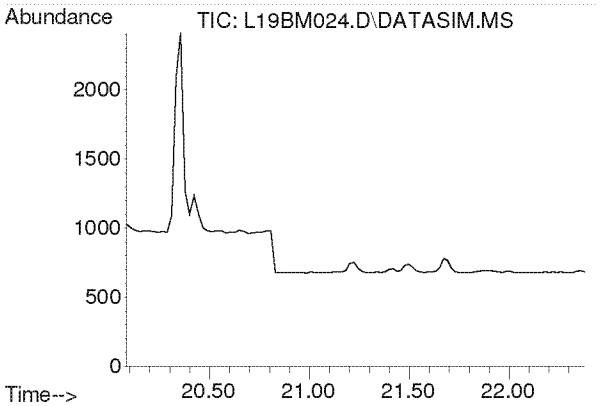
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



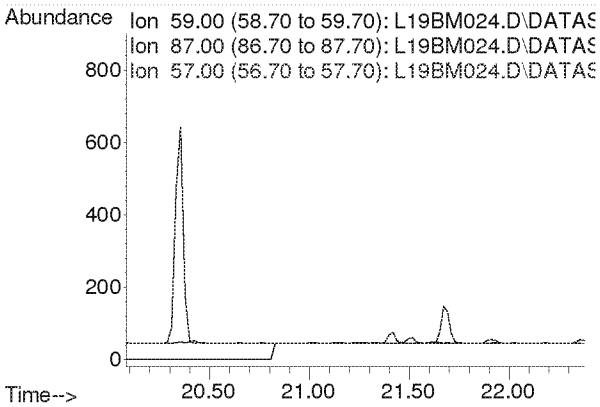


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

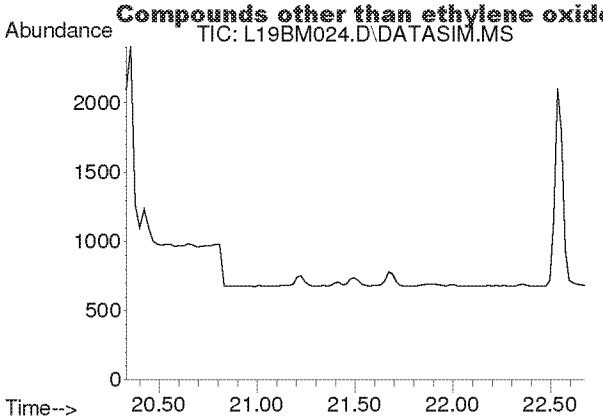
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

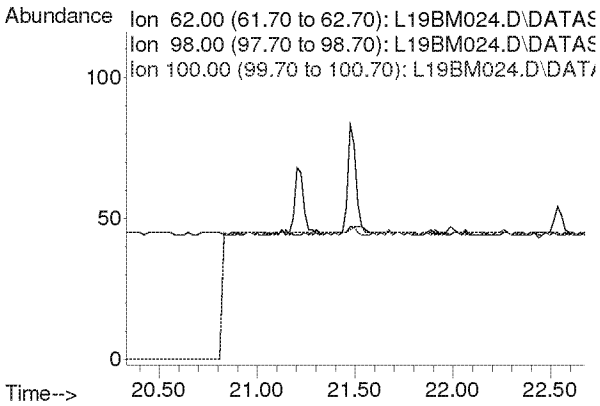


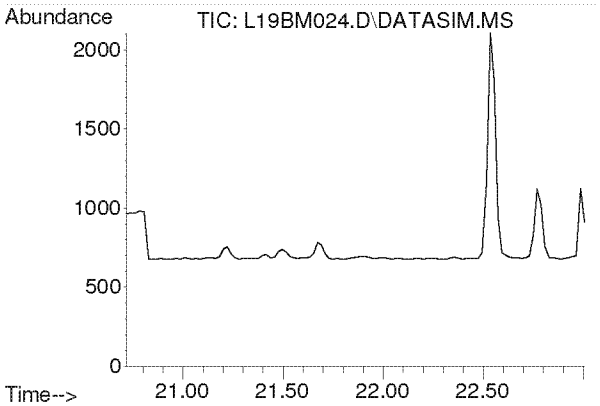
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



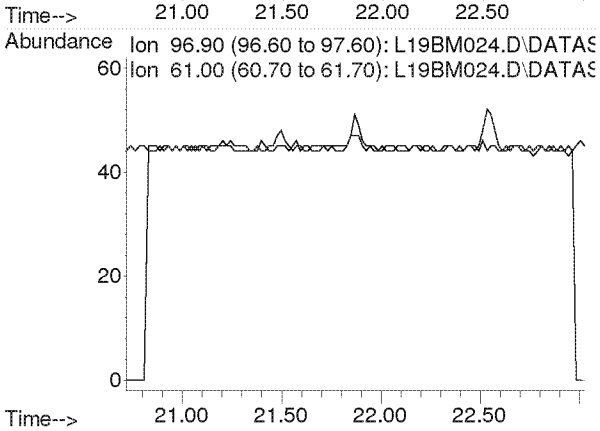


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

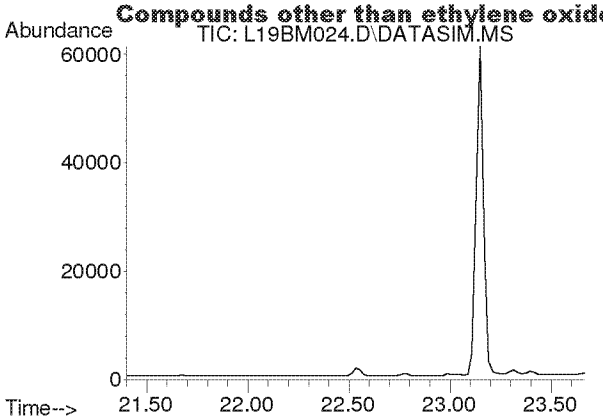
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

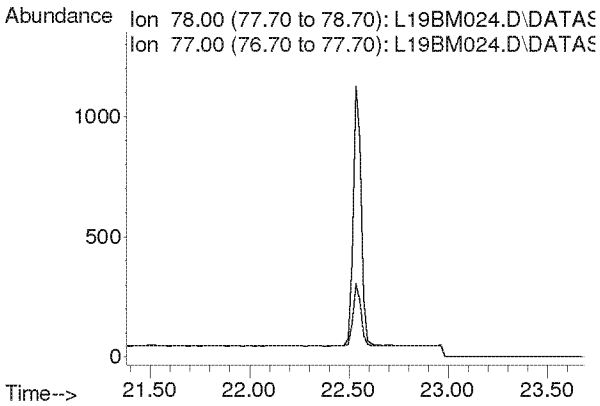


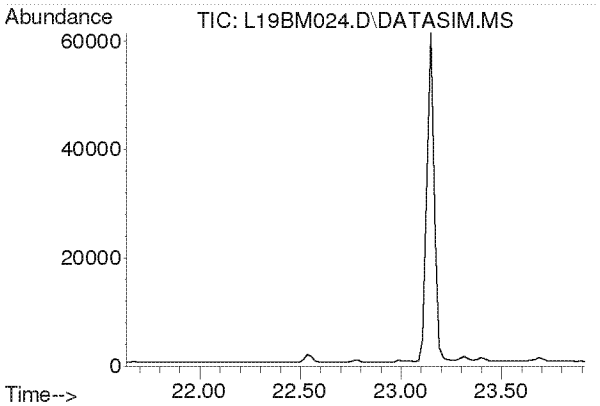
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



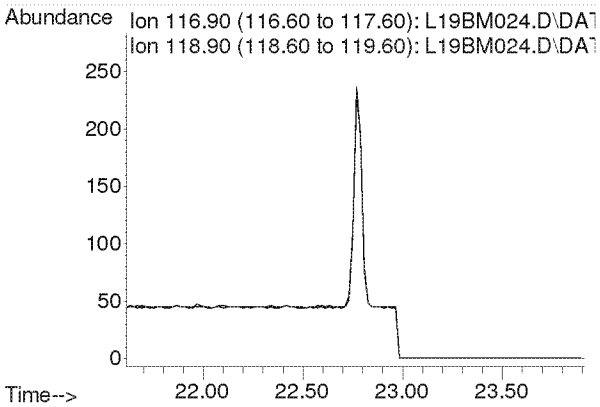


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

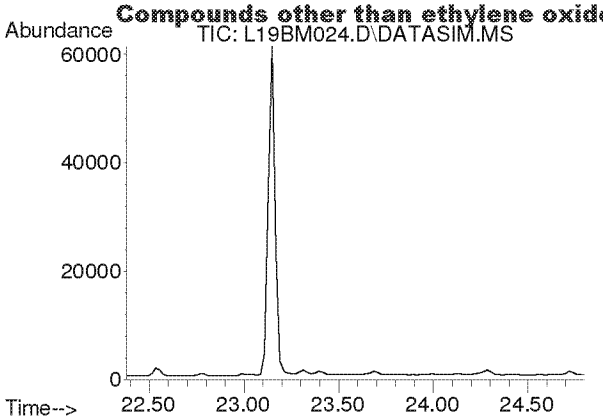
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

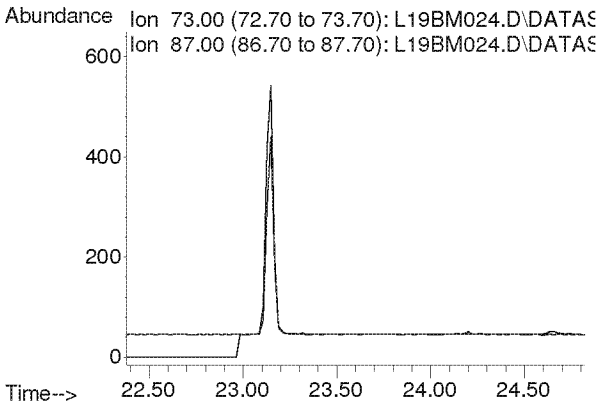


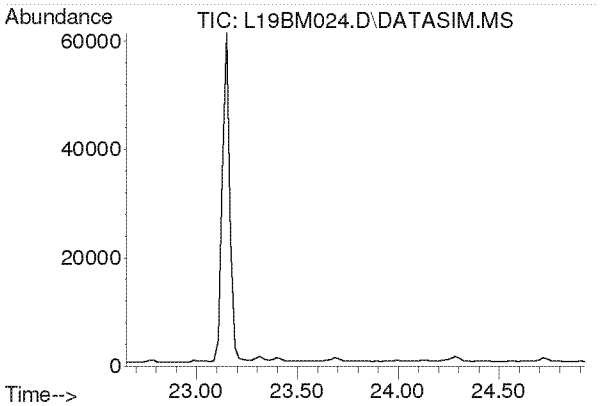
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



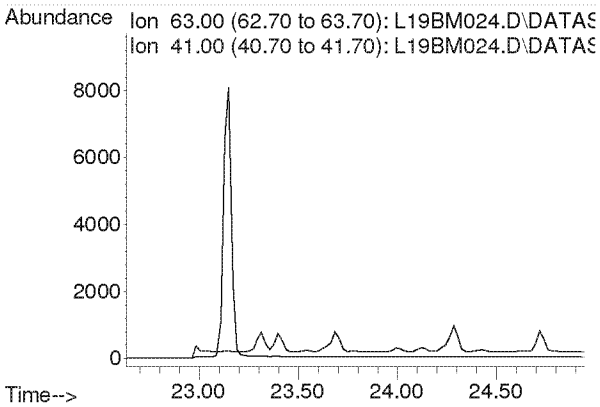


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

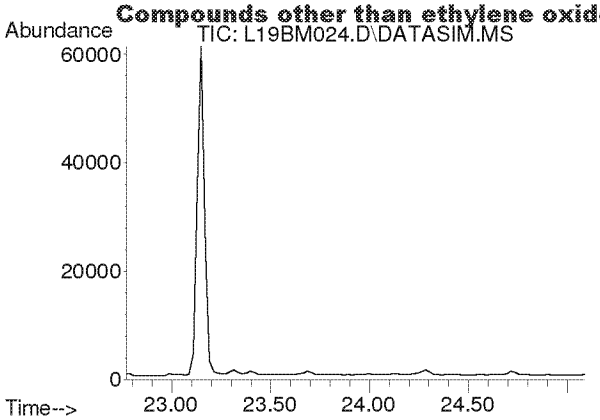
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

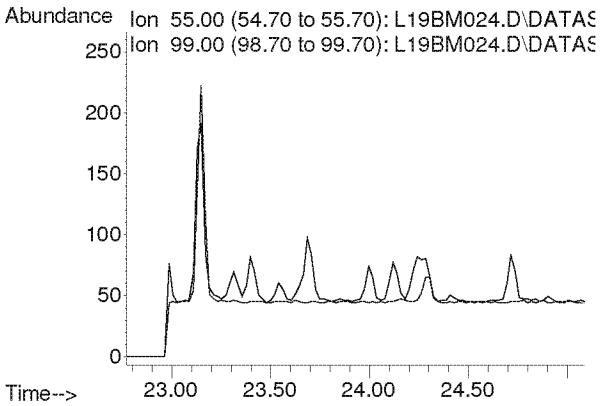


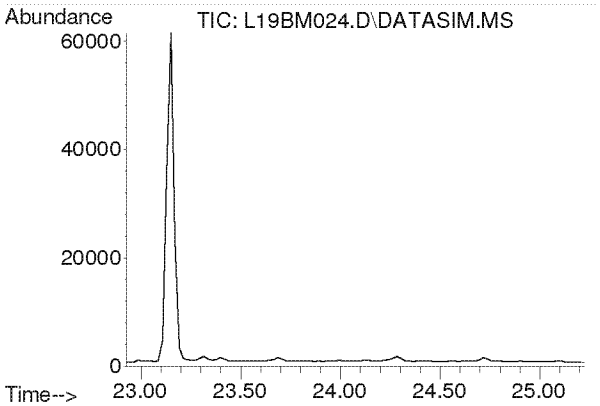
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



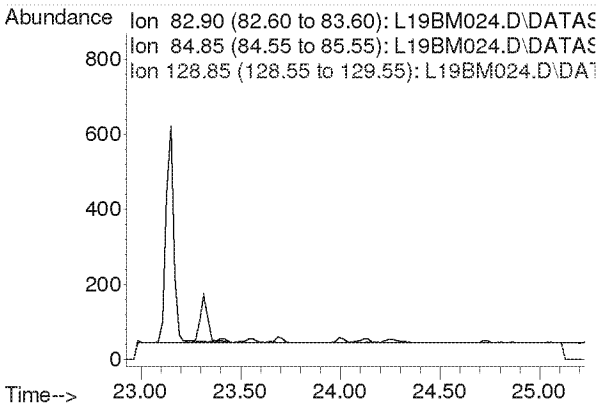


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

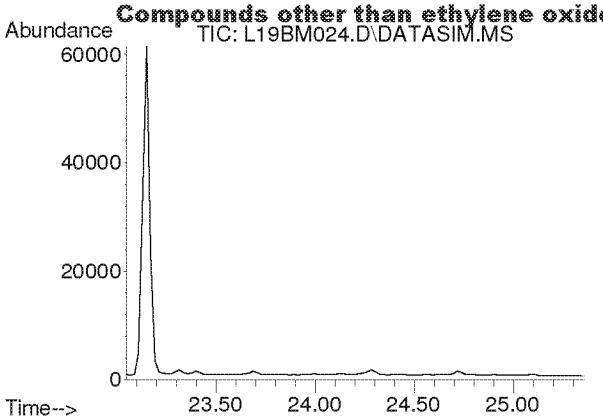
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

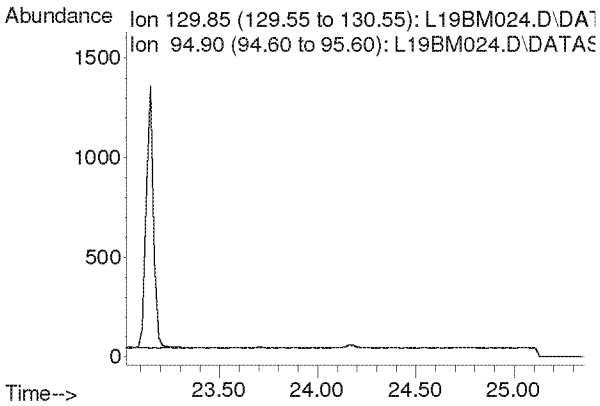


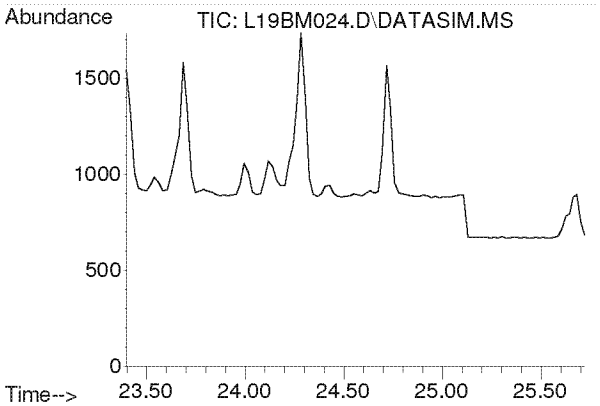
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



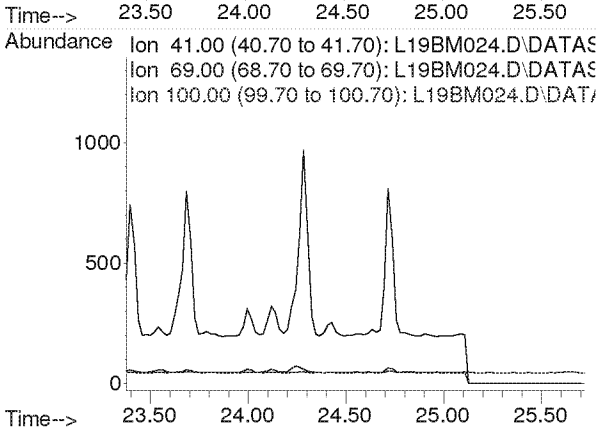


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

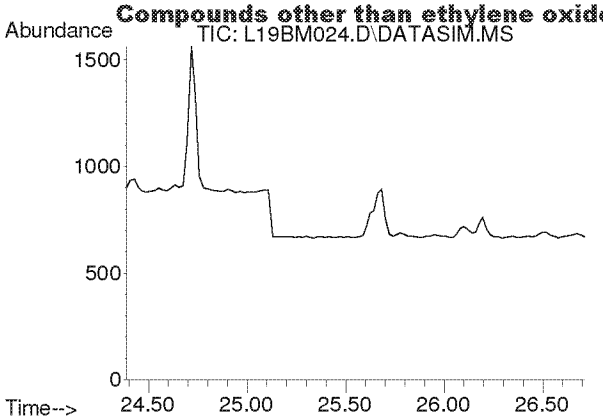
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

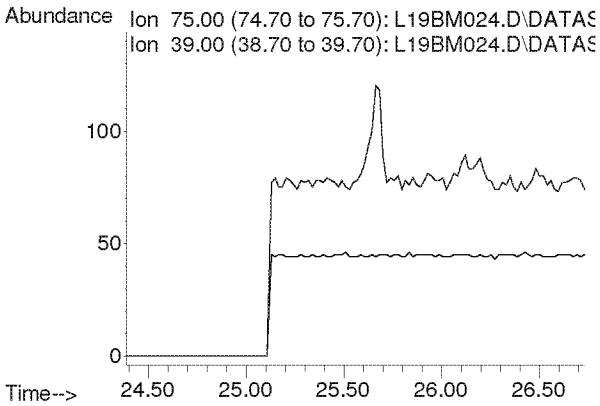


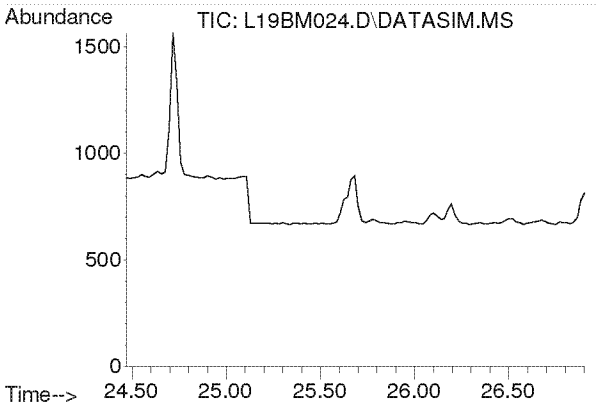
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



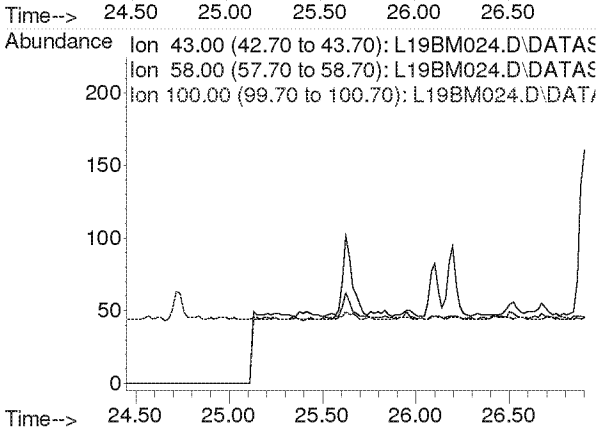


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

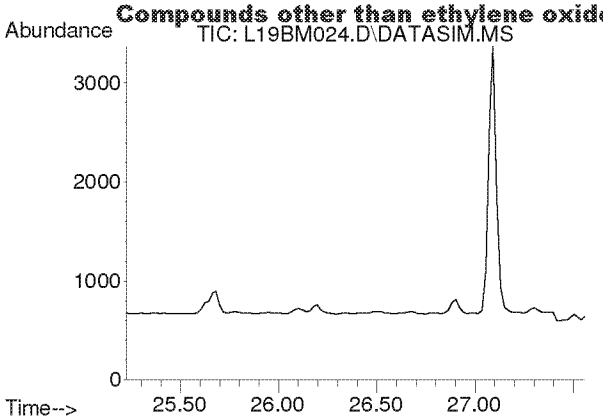
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

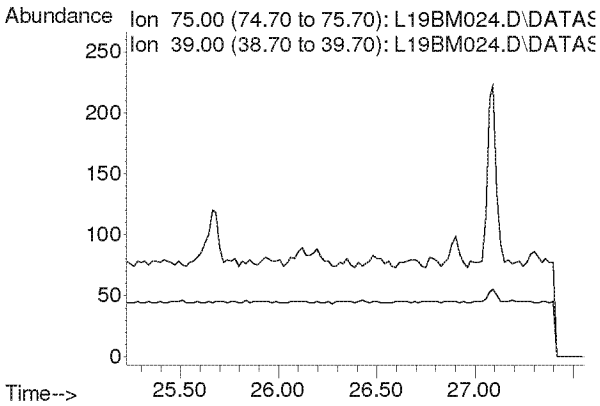


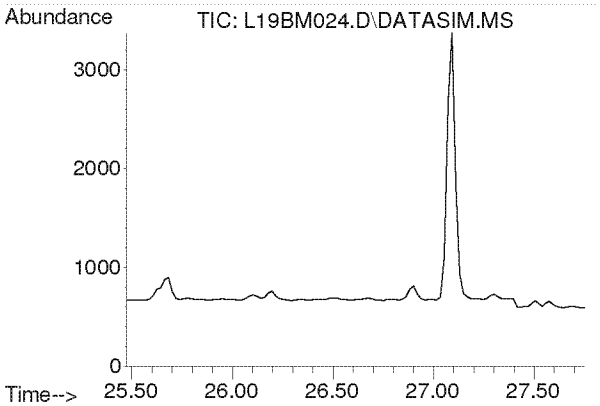
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



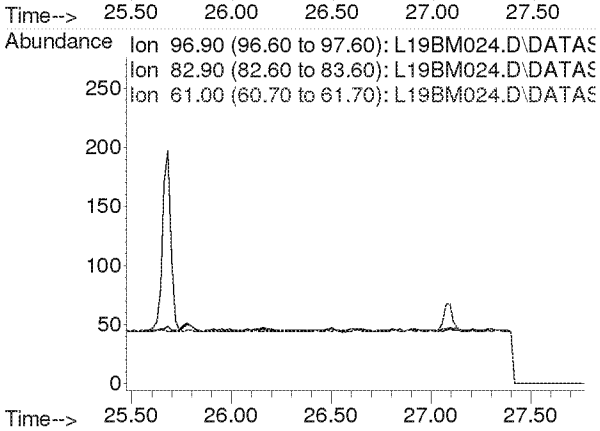


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

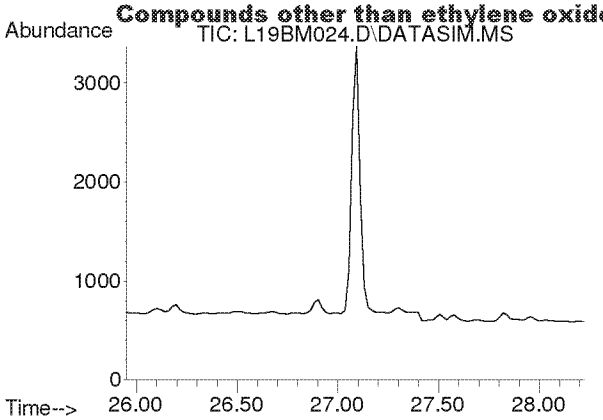
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

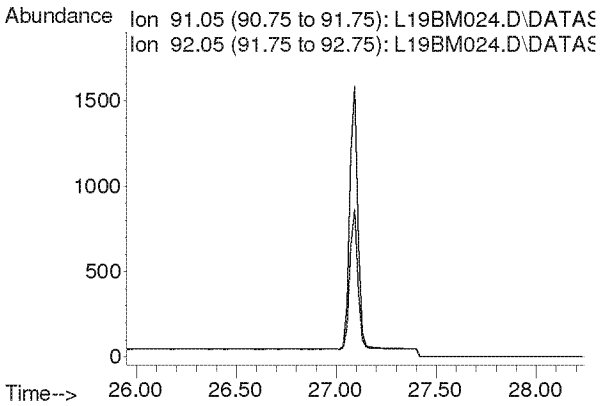


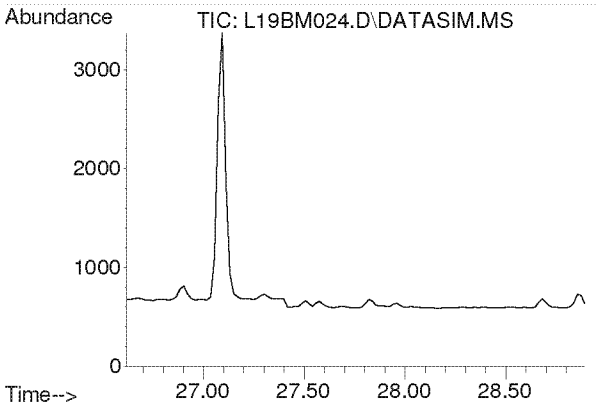
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



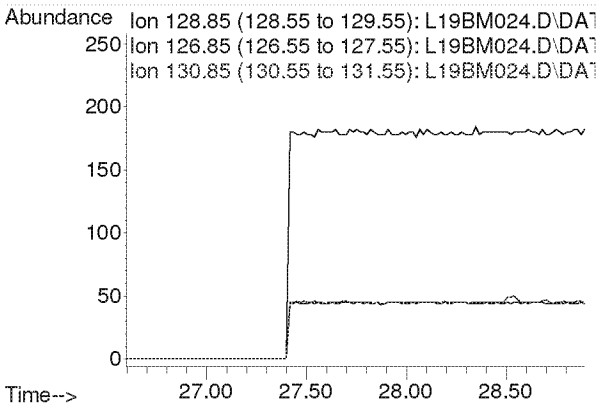


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

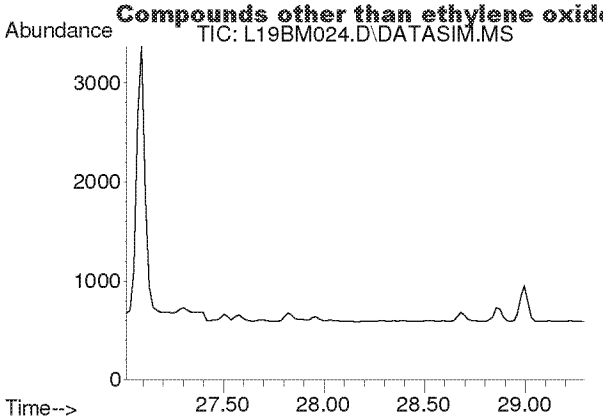
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

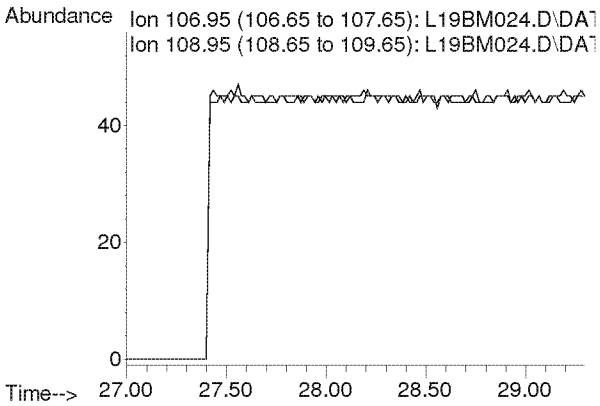


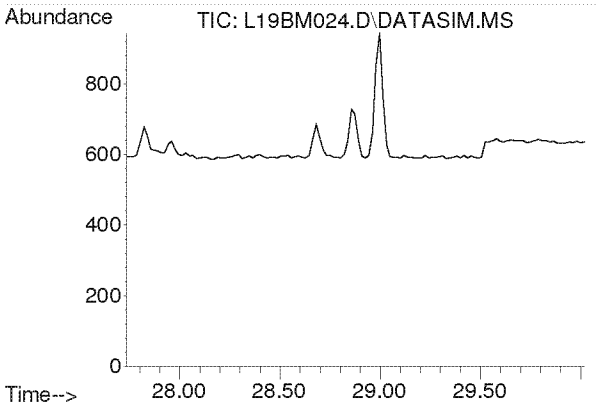
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



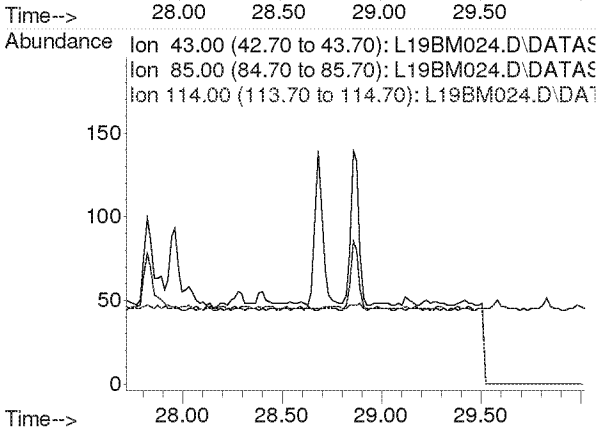


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

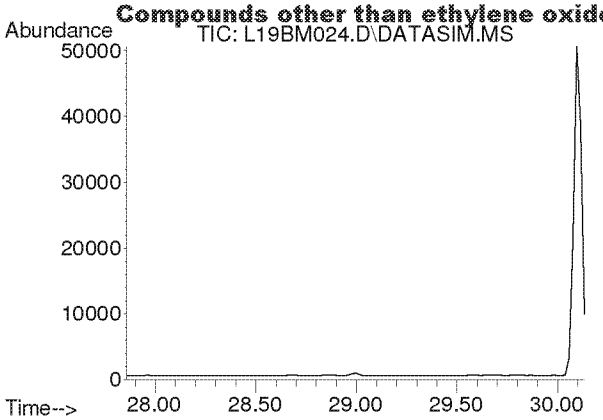
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

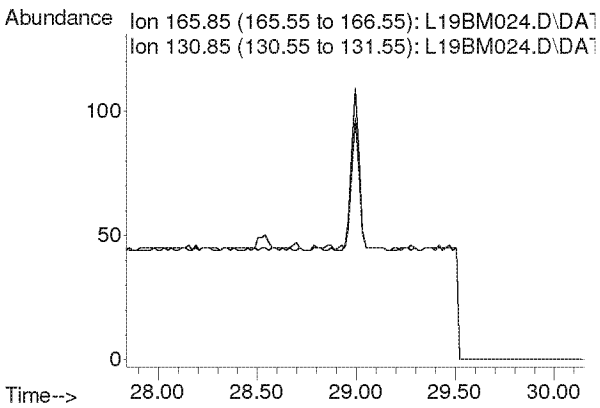


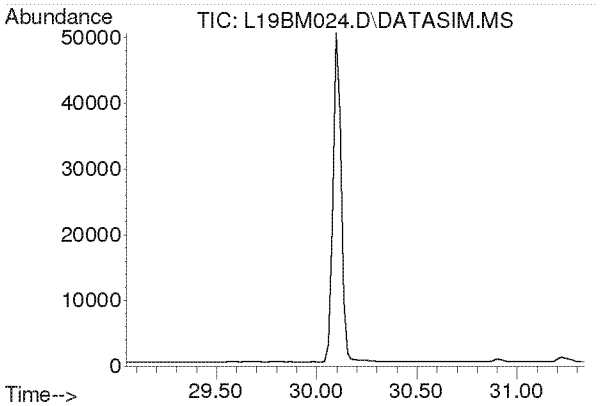
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



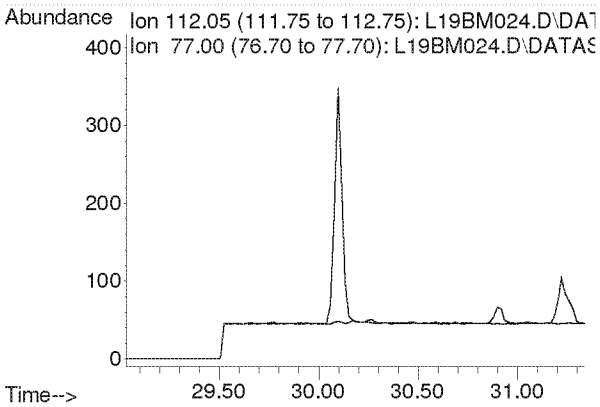


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

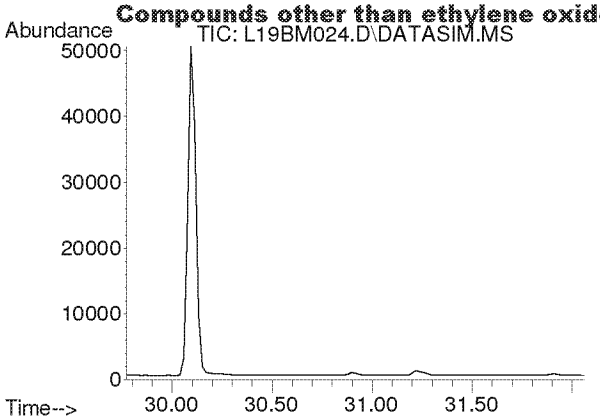
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

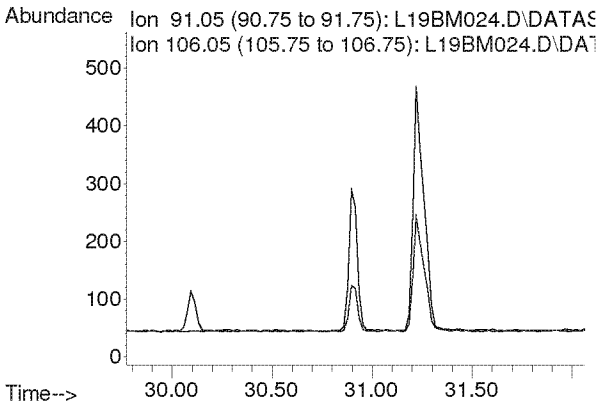


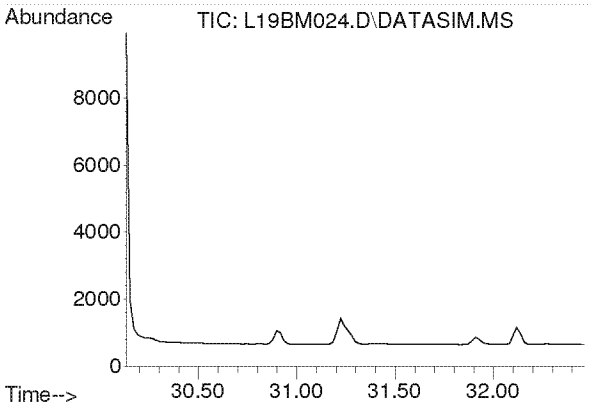
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



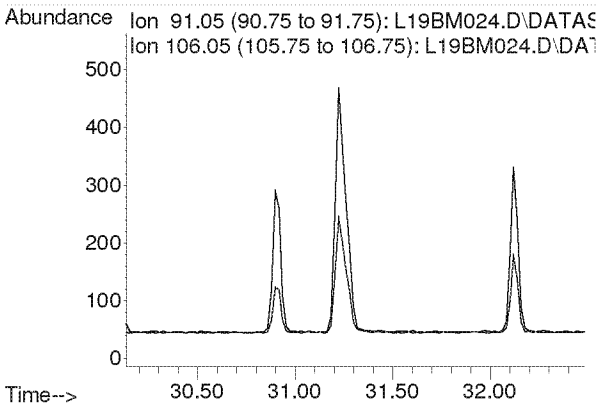


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

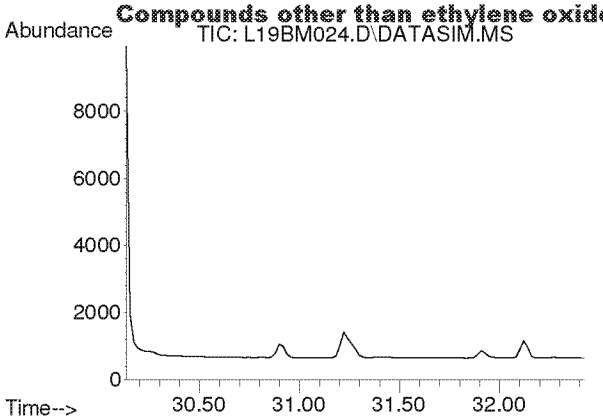
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

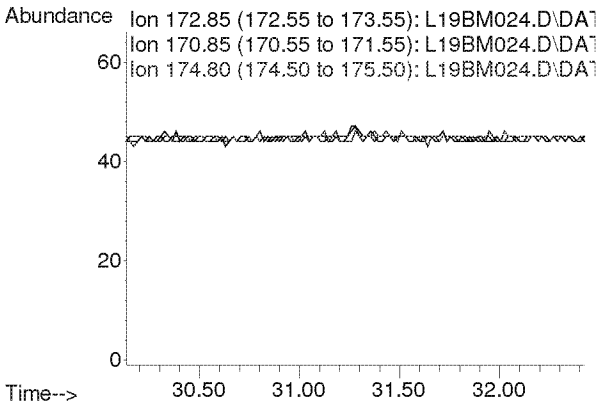


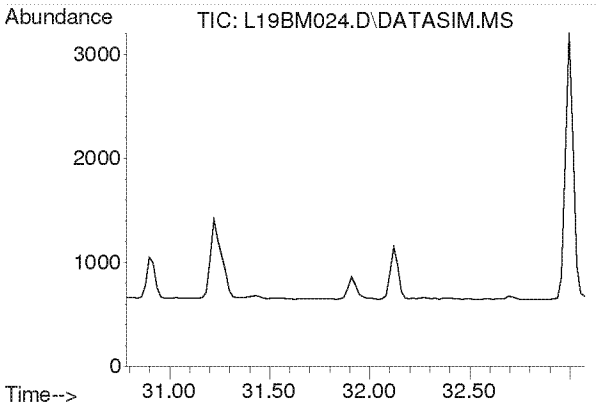
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



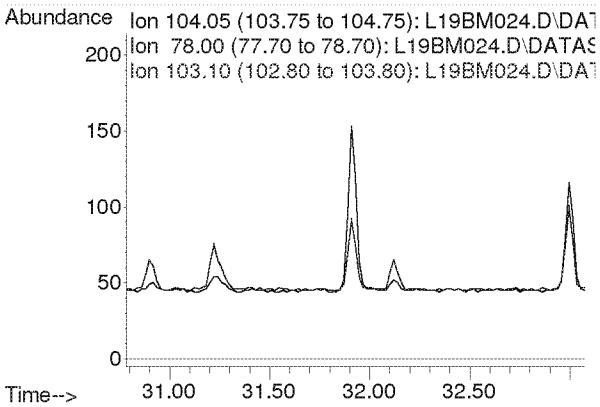


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

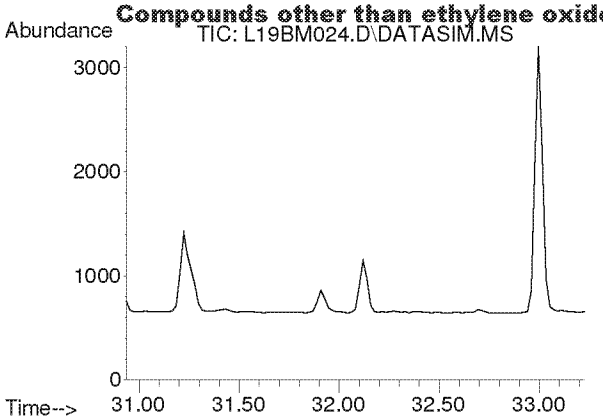
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

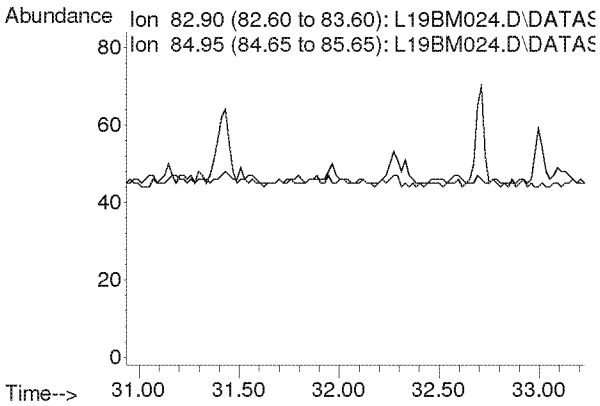


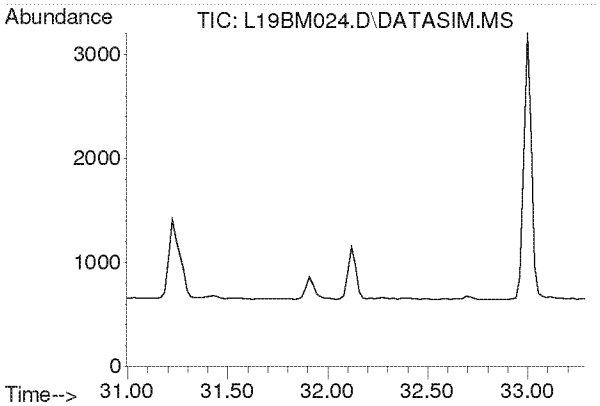
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



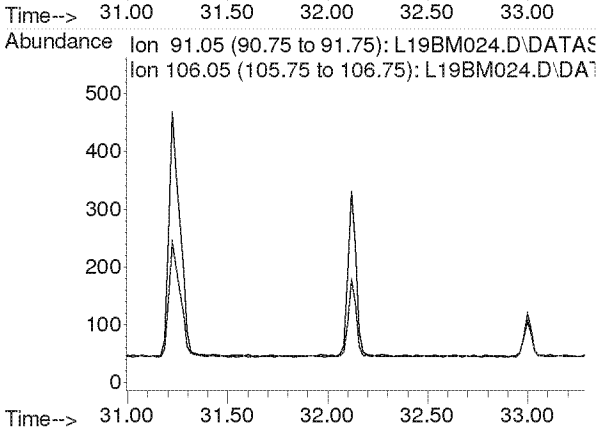


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

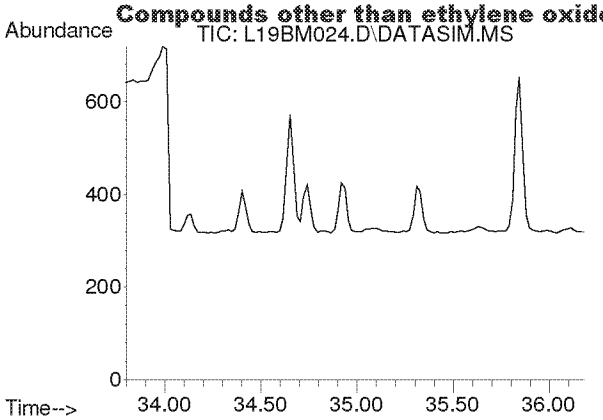
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

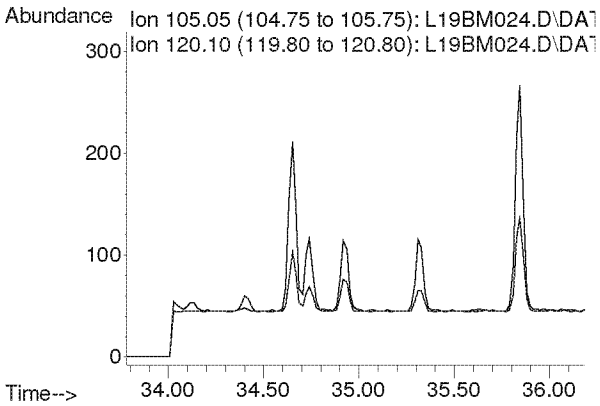


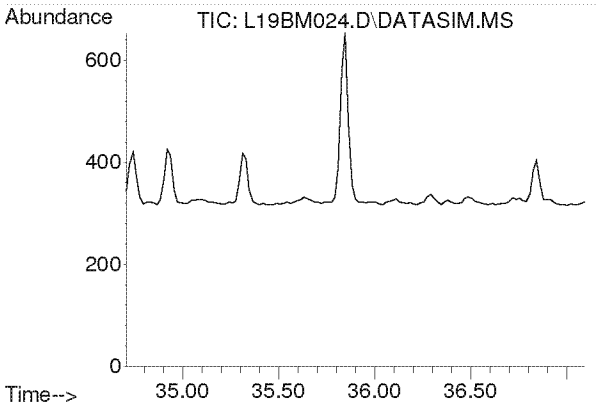
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



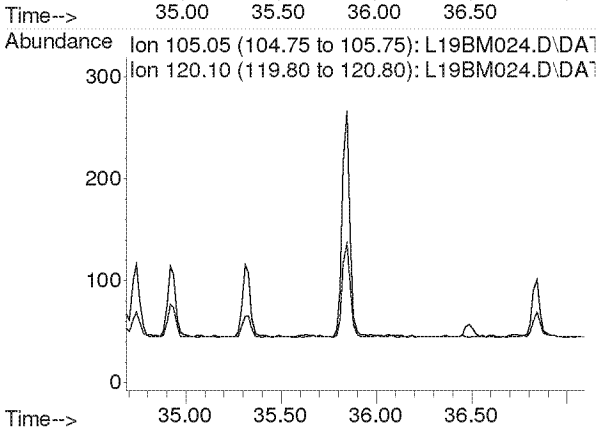


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

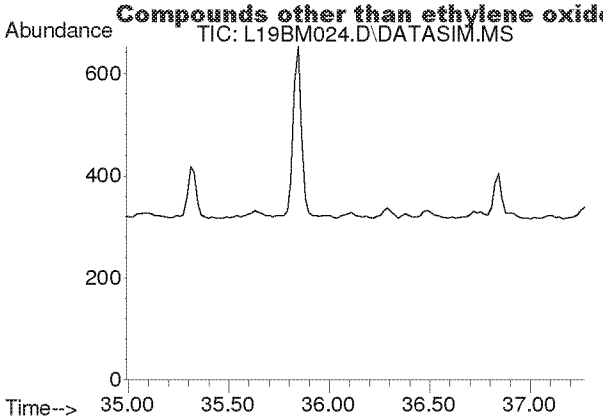
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

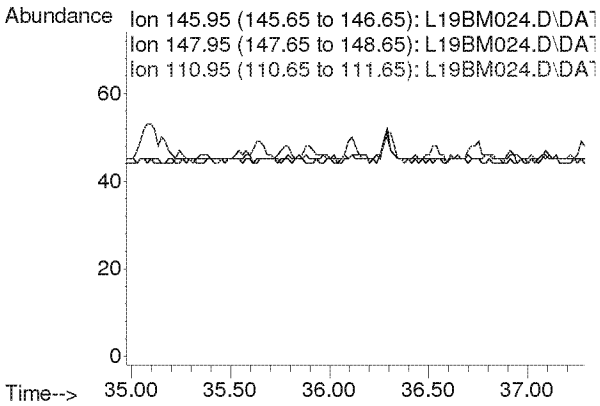


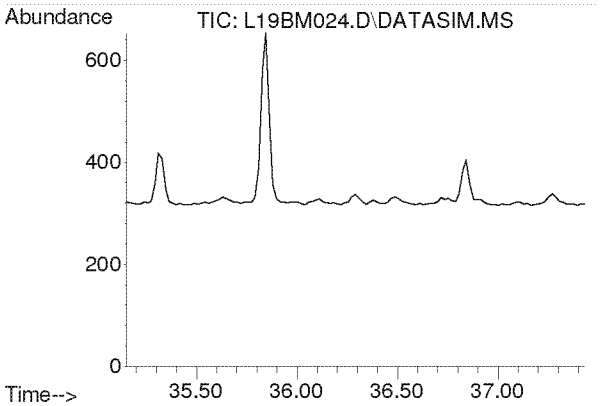
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



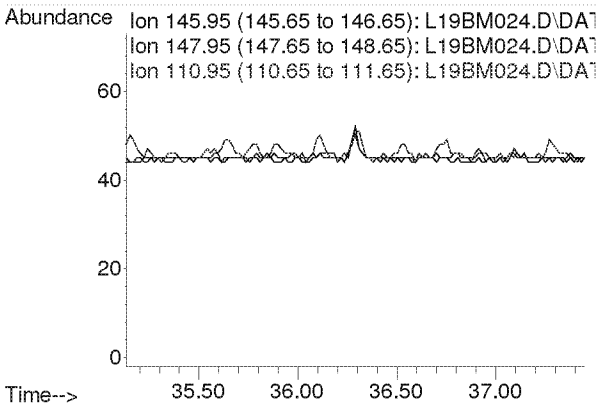


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

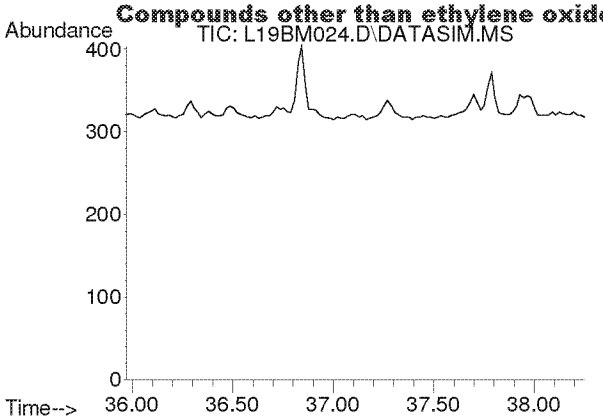
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

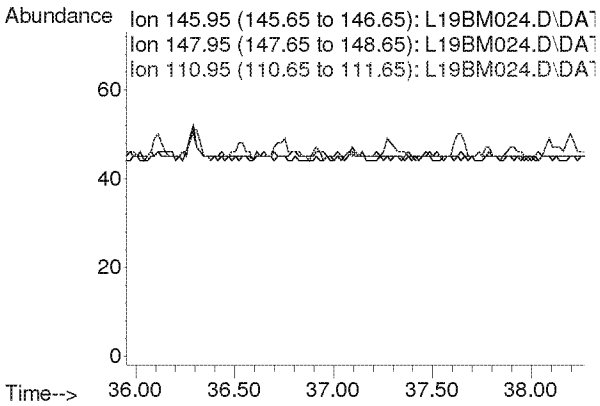


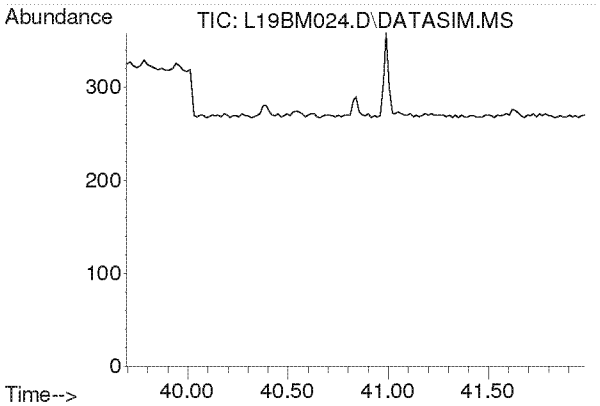
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



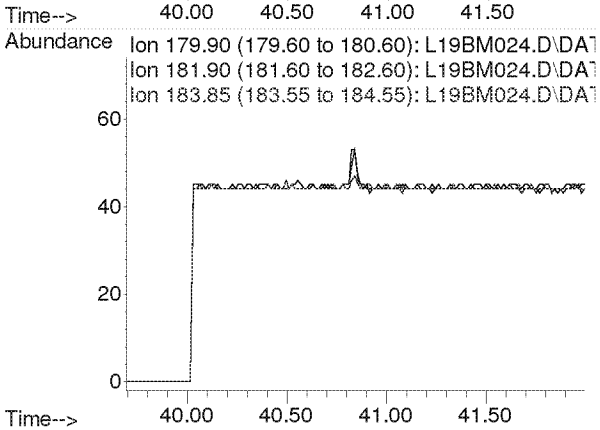


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

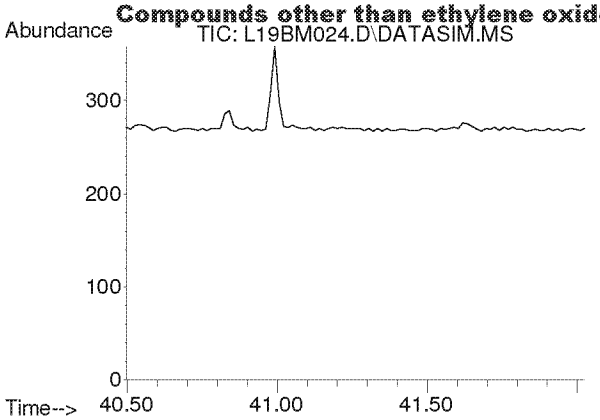
Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

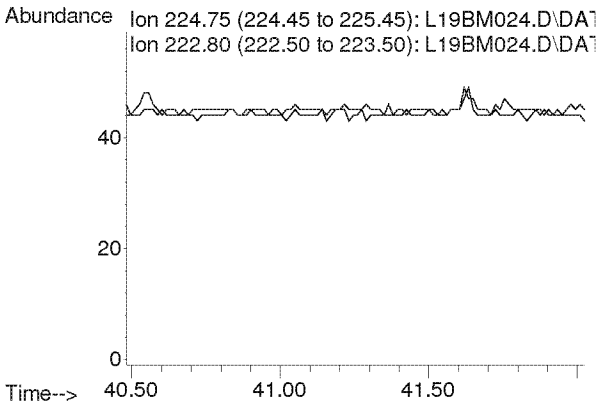


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BM024.D
Acq: 14 Feb 2019 7:44 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9B1307

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **'inted: 2/15/2019 10:28:44AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9020508-07 *TO-15 2019*	02/02/19 00:00	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020508-13 *TO-15 2019*	02/03/19 10:05	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020508-14 *TO-15 2019*	02/03/19 10:05	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020508-15 *TO-15 2019*	02/03/19 10:51	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020508-16 *TO-15 2019*	02/03/19 11:28	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020508-17 *TO-15 2019*	02/03/19 10:21	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020508-18 *TO-15 2019*	02/03/19 11:08	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020702-01 *TO-15 2019*	02/06/19 09:57	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020702-02 *TO-15 2019*	02/06/19 10:14	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020702-03 *TO-15 2019*	02/06/19 09:43	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020702-04 *TO-15 2019*	02/06/19 09:42	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020702-05 *TO-15 2019*	02/06/19 09:37	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
	Dilution run in Sequence L19BN provided at the end of this file							
9020702-06 *TO-15 2019*	02/06/19 09:50	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9020702-07 *TO-15 2019*	02/06/19 10:03	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only

Spiking Witnessed By Date

Randy Bonner 2/15/19

Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9B1307

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **·inted: 2/15/2019 10:28:44AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9020702-08 *TO-15 2019*	02/06/19 10:20	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9020702-09 *TO-15 2019*	02/06/19 10:25	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
B9B1307-BLK1	02/06/19 08:00	250	250					
B9B1307-DUP1	02/03/19 10:05	250	250		9020508-13			
B9B1307-DUP2	02/03/19 10:05	250	250		9020508-14			
B9B1307-DUP3	02/06/19 09:43	250	250		9020702-03			
B9B1307-DUP4	02/06/19 09:42	250	250		9020702-04			

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

2 3

ERG Lab ID # 9020508C7

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: TRIP BLANK
Canister Number: 18831
City/State: N/A
Lab Initial Can. Press. ("Hg): 30
AQS Code: N/A
Cleaning Batch # : H1-534
Collection Date: 2/1/19
Date Can. Cleaned: 1/3/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : N/A
METHANE (Y/N):
Relinquished by: RMB
Date: 1/23/19

Field Setup

Received by: Coughlin
Date: 2/1/19
Operator: Coughlin
MFC Setting: N/A
System #: N/A
Elapsed Timer Reset (Y/N): N/A
Setup Date: 2/1/19
Canister Valve Opened (Y/N): N/A
Field Initial Can. Press.: N/A psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/2/19
Sample Duration (3 or 24 hr):
Operator: NWIA
Elapsed Time:
Field Final Can. Press.: psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N):
Relinquished by: NWIA
Date: 2/2/19

Lab Recovery

Received by: KC
Date: 2/5/19
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 TAKEN ALONG SAMPLING ROUTE ON DEPLOYMENT & COLLECTION DAYS

Filled to 3.5 in Hg w/ humidified N_2 2/8/19 RMB

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

10

ERG Eastern Research Group, Inc.

ERG Lab ID # 9020702-01

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Water tower

Canister Number: 5146

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 30

AQS Code:

Cleaning Batch # : H1-549

Collection Date: 2/5/19

Date Can. Cleaned: 1/29/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 1/31/19

Field Setup

Received by: S. Divita

Date: 2/5/19

Operator: S. Divita

MFC Setting:

System #: 10312

Elapsed Timer Reset (Y/N):

Setup Date: 2/5/19

Canister Valve Opened (Y/N): Y @ 10:21

Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/6/19

Sample Duration (3 or 24 hr): 24

Operator: S Divita

Elapsed Time:

Field Final Can. Press.: -5.9 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 0957 AM

Relinquished by: S Hamilton

Date: 2/6/19

Lab Recovery

Received by: KB

Date: 2/7/19

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" @ 10:16 / -29" @ 10:21

Ambient temp. @ Deployment: 29°F

Ambient temp @ Recovery: 35°F

SJD 2/6/19

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

71

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9020702-02

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Hinsdale South H.S

Canister Number: A21091

City/State: Darien, IL

Lab Initial Can. Press. ("Hg): 30

AQS Code:

Cleaning Batch # : H1-549

Collection Date: 2/5/19

Date Can. Cleaned: 1/29/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 1/31/19

Field Setup

Received by: Scott Hamilton

Date: 2/5/19

Operator: Scott Hamilton

MFC Setting:

System #: 10076

Elapsed Timer Reset (Y/N):

Setup Date: 2/5/19

Canister Valve Opened (Y/N): Y @ 10:47 am

Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/6/19

Sample Duration (3 or 24 hr): 24

Operator: S. Divita

Elapsed Time:

Field Final Can. Press.: -7.0 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 10:14

Relinquished by: S. Hamilton

Date: 2/6/19

Lab Recovery

Received by: KB

Date: 2/7/19

Lab Final Can. Press.: 5.00 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -28.7 @ 10:42 / -28.2 @ 10:47

Ambient temp @ Deployment:

Ambient temp @ Recovery: 36°F

SJD 2/6/19

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

72

ERG Lab ID # 9020702-03

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WG Village Hall
Canister Number: 18882
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : HI-549
Collection Date: 2/5/19
Date Can. Cleaned: 1/29/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : SAT 025
METHANE (Y/N):
Relinquished by: RMB
Date: 1/31/19

Field Setup

Received by: S Divita
Date: 2/5/19
Operator: S Divita
MFC Setting:
System #: 10313
Elapsed Timer Reset (Y/N):
Setup Date: 2/5/19
Canister Valve Opened (Y/N): Y @ 9:54 am
Field Initial Can. Press.: -28 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/6/19
Sample Duration (3 or 24 hr): 24
Operator: S. Hamilton
Elapsed Time:
Field Final Can. Press.: -3.8" psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:43 am
Relinquished by: S Hamilton
Date: 2/6/19

Lab Recovery

Received by: RB
Date: 2/7/19
Lab Final Can. Press.: 2.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -28.5" @ 9:40 am, -28" @ 9:54 am
Ambient temp @ deployment: 28°F
Ambient temp @ recovery: 37°F

SJD 2/6/19

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

73

ERG Lab ID # 9020202-04

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: LWB Village Hall - Duplicate
Canister Number: SAT025
City/State: Willowbrook
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-549
Collection Date: 2/5/19
Date Can. Cleaned: 1/29/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : ~~SAT025~~ 18882 2/5/19
METHANE (Y/N):
Relinquished by: RMB
Date: 1/31/19

Field Setup

Received by: S. Divita
Date: 2/5/19
Operator: S. Divita
MFC Setting:
System #: 10215
Elapsed Timer Reset (Y/N):
Setup Date: 2/5/19
Canister Valve Opened (Y/N): Y @ 9:53 am
Field Initial Can. Press.: -28.9 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/6/19
Sample Duration (3 or 24 hr): 24
Operator: S. Hamilton
Elapsed Time:
Field Final Can. Press.: -6.8 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:42 am
Relinquished by: S. Divita
Date: 2/6/19

Lab Recovery

Received by: KB
Date: 2/7/19
Lab Final Can. Press.: 5.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -29.9" @ 9:42 am / -28.9" @ 9:53 am
Ambient temp @ deployment: 28°F
Ambient temp @ Recovery: 37°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9020702-05

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: EPA WB Warehouse
Canister Number: A751
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-549
Collection Date: 2/5/19
Date Can. Cleaned: 1/29/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 1/31/19

Field Setup

Received by: Scott Hamilton
Date: 2/5/19
Operator: Scott Hamilton
MFC Setting:
System #: 10314
Elapsed Timer Reset (Y/N):
Setup Date: 2/5/19
Canister Valve Opened (Y/N): Y @ 9:42 a.m.
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/6/19
Sample Duration (3 or 24 hr): 24
Operator: Scott Hamilton
Elapsed Time: ~~9:37 AM~~ 2/6/19
Field Final Can. Press.: -5.8 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:37 a.m.
Relinquished by: S. Arik
Date: 2/6/19

Lab Recovery

Received by: KB
Date: 2/7/19
Lab Final Can. Press.: 3.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -30" @ 9:38 am / -30 @ 9:42
Ambient Temp @ Deployment: 28°F
Ambient Temp @ Recovery: 37°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9020702-06

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower MS
Canister Number: SAT050
City/State: Burr Ridge, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-549
Collection Date: 2/5/19
Date Can. Cleaned: 1/29/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 1/31/19

Field Setup

Received by: S. Divita
Date: 2/5/19
Operator: S. Divita
MFC Setting:
System #: 10311
Elapsed Timer Reset (Y/N):
Setup Date: 2/5/19
Canister Valve Opened (Y/N): Y @ 1008
Field Initial Can. Press.: -30" psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/6/19
Sample Duration (3 or 24 hr): 24
Operator: S. Divita
Elapsed Time:
Field Final Can. Press.: -0.8 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 0950
Relinquished by: S. Divita
Date: 2/6/19

Lab Recovery

Received by: KB
Date: 2/7/19
Lab Final Can. Press.: 4.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Lab check: -30 in @ 10:03 / -30 in. @ 10:05
Ambient temp @ deployment: 28°F
Ambient temp @ recovery: 37°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9020702-07

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willow Pond Park
Canister Number: SAT009
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-549
Collection Date: 2/5/19
Date Can. Cleaned: 1/29/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 1/31/19

Field Setup

Received by: Scott Hamilton
Date: 2/5/19
Operator: Scott Hamilton
MFC Setting:
System #: 10294
Elapsed Timer Reset (Y/N):
Setup Date: 2/5/19
Canister Valve Opened (Y/N): Y @ 10:34
Field Initial Can. Press.: -29.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/6/19
Sample Duration (3 or 24 hr): 24
Operator: S. Dirlta
Elapsed Time:
Field Final Can. Press.: -6.1 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:03
Relinquished by: S. Hamilton
Date: 2/6/19

Lab Recovery

Received by: KB
Date: 2/7/19
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: -28.9" @ 10:29 / -28.9" @ 10:34
Ambient Temp @ Deployment: 29°F
Ambient Temp @ Recovery: 36F

SJD 2/6/19

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 # 9020702-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Grower ES

City/State: ~~Burr Ridge, IL~~ SD 2/5/19

AQS Code: Willowbrook, IL

Collection Date: 2/5/19

Canister Number: 161

Lab Initial Can. Press. ("Hg): 30

Cleaning Batch # : H2-546

Date Can. Cleaned: 1/24/19

Options:

SNMOC (Y/N):

TOXICS (Y/N): Y

METHANE (Y/N):

Duplicate Event (Y/N): N

Duplicate Can # :

Relinquished by: RMB Date: 1/30/19

Field Setup

Received by: S. Divita Date: 2/5/19

Operator: S. Divita

System #: 10293

Setup Date:

MFC Setting:

Elapsed Timer Reset (Y/N):

Canister Valve Opened (Y/N): Y @ 10:59AM

Field Initial Can. Press.: -28.1 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/6/19

Operator: S. Divita

Sample Duration (3 or 24 hr): 24

Elapsed Time:

Field Final Can. Press.: -5.0 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 10:27 AM

Relinquished by: S. Divita Date: 2/6/19

Lab Recovery

Received by: KB Date: 2/7/19

Lab Final Can. Press.: 4.00 psig "Hg (Circle one) Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -28.5 @ 10:59AM, -28.1 @ 10:59AM

Ambient temp @ Deployment: 29°F

Ambient temp @ Recovery: 36°F

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

7

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9020702-09

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: West Neighborhood
Canister Number: 101
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H2-547
Collection Date: 2/5/19
Date Can. Cleaned: 1/25/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 1/31/19

Field Setup

Received by: Scott Hamilton
Date: 2/5/19
Operator: Scott Hamilton
MFC Setting:
System #: 10310
Elapsed Timer Reset (Y/N):
Setup Date: 2/5/19
Canister Valve Opened (Y/N): Y @ 11:09 am
Field Initial Can. Press.: -28.8 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/6/19
Sample Duration (3 or 24 hr): 24
Operator: S. Divita
Elapsed Time:
Field Final Can. Press.: -5.9 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:25
Relinquished by: S. Divita
Date: 2/6/19

Lab Recovery

Received by: RB
Date: 2/7/19
Lab Final Can. Press.: 3.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -28.8" @ 11:09 am / -28.5" @ 11:09 am
Ambient T @ deployment 29°F
Ambient T @ recovery 36°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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

Sequence ID: U9AN	**Instrument:** MS1	**Batch:** —
Cal Curve (Method): 9020003	**Analyst:**	**Date Analyzed:** 2/14/19
10% Review Sample IDs: 9020702-05 (Dilin)	**Reviewer:** G Nash	**Date:** 2/21/19
Optional Additional Review Sample IDs:	**Reviewer:**	**Date:** 2 GCN 2/21/19

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	— 2-15-19	RMB 2/15/19	GCN 2/21/19		
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)	— 2-15-19	RMB 2/15/19	GCN 2/21/19 GCN 2/21/19 2 GCN 2/21/19		U9BL
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	— 2-15-19	RMB 2/15/19	GCN 2/21/19		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	— 2-15-19	RMB 2/15/19	GCN 2/21/19 GCN 2/21/19		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	— 2-15-19	RMB 2/15/19	GCN 2/21/19 GCN 2/21/19		

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	2-15-19	NA	N/A		
Canister Cleaning Certification + Annual Certs	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	2-15-19	RMB 2/15/19	qcw 2/21/19		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	2-15-19	RMB 2/15/19	qcw 2/21/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	2-15-19	RMB 2/15/19	qcw 2/21/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	2-15-19	NA	N/A		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	2-15-19	RMB 2/15/19	qcw 2/21/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 2/15/19	qcw 2/21/19		
Qualifiers Check	Check to make sure LIMS data flags are correct	2-15-19	NA	qcw 2/21/19		

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

L19BN002 chloroform

$$\frac{22748 \times 4.77}{49484 \times 0.9116} = 2.41 \text{ ppbv}$$

L19BN007, EtOH

$$\frac{23445(4.77)}{46830(0.273)} = 8.7474 \text{ ppbv} \times 1.67 = 14.6 \text{ ppbv}$$

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19BN.s
Comment: ANALYZE 2/14/19,9020003 exp 5/13/19, L19BN
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19BN\
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	L19BN001	BFB	BFB
2)	Sample	2	L19BN002	9020003	TO-15-CCV1
3)	Sample	3	L19BN003	9020003	SNMOC-CCV1
4)	Sample	4	L19BN004	9020003	FLUSH
5)	Sample	5	L19BN005	9020003	-BLK1
6)	Sample	6	L19BN006	9020003	B-H2-261
7)	Sample	7	L19BN007	9020003	9020702-05
8)	Sample	8	L19BN008	9020003	5132
9)	Sample	9	L19BN009	9020003	5016
10)	Sample	10	L19BN010	9020003	5134
11)	Sample	11	L19BN011	9020003	5149
12)	Sample	12	L19BN012	9020003	SAT099
13)	Sample	13	L19BN013	9020003	SAT112
14)	Sample	14	L19BN014	9020003	SAT060
15)	Sample	15	L19BN015	9020003	SAT126
16)	Sample	16	L19BN016	9020003	SAT071
17)	Sample	17	L19BN017	9020003	18820
18)	Sample	18	L19BN018	9020003	A2121
19)	Sample	19	L19BN019	9020003	A21103
20)	Sample	20	L19BN020	9020003	2267
21)	Sample	21	L19BN021	9020003	ER025
22)	Sample	22	L19BN022	9020003	ER025 REP
23)	Sample	100	OFF	FIDOFF	OFF

2-15-19

ED_002475_00000213-00496

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19BN001	80 ML 8L13001	1
Sample	2	TO-15-CCV1	9020003	L19BN002	80 ML 8L13001,9B12008	1
Sample	3	SNMOC-CCV1	9020003	L19BN003	80 ML 8L13001,9B13007	1
Sample	4	FLUSH	9020003	L19BN004	80 ML 8L13001	1
Sample	5	-BLK1	9020003	L19BN005	80 ML 8L13001B-H1-261,SAT065	1
Sample	6	B-H2-261	9020003	L19BN006	CAN SAT085 BATCH BLANK	1
Sample	7	9020702-05	9020003	L19BN007	EPA WB WAREHOUSE 2/6/19,150ML INJ	1.67
Sample	8	5132	9020003	L19BN008	18 MONTH CAN CERT	1
Sample	9	5016	9020003	L19BN009	18 MONTH CAN CERT	1
Sample	10	5134	9020003	L19BN010	18 MONTH CAN CERT	1
Sample	11	5149	9020003	L19BN011	18 MONTH CAN CERT	1
Sample	12	SAT099	9020003	L19BN012	18 MONTH CAN CERT	1
Sample	13	SAT112	9020003	L19BN013	18 MONTH CAN CERT	1
Sample	14	SAT060	9020003	L19BN014	18 MONTH CAN CERT	1
Sample	15	SAT126	9020003	L19BN015	18 MONTH CAN CERT	1
Sample	16	SAT071	9020003	L19BN016	18 MONTH CAN CERT	1
Sample	17	18820	9020003	L19BN017	18 MONTH CAN CERT	1
Sample	18	A2121	9020003	L19BN018	18 MONTH CAN CERT	1
Sample	19	A21103	9020003	L19BN019	18 MONTH CAN CERT	1
Sample	20	2267	9020003	L19BN020	18 MONTH CAN CERT	1
Sample	21	ER025	9020003	L19BN021	18 MONTH CAN CERT	1
Sample	22	ER025 REP	9020003	L19BN022	18 MONTH CAN CERT	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

2-15-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19BN.SEQ
Date: 02-15-2019
Time: 06:22:58
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
TO-15-CCV1	2	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
SNMOC-CCV1	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
-BLK1 B-H1-261	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B-H2-261	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9020702-05 DL	1	4	150	0	C:\Smart\TO-15A_MS1.MPT	12:00
5132	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
5016	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
5134	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
5149	1	8	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
SAT099	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
SAT112	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
SAT060	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
SAT126	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
SAT071	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
18820	1	14	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
A21021	1	15	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
A21103	1	16	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
2767	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
ER025	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
ER025 REP	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00

2-15-19

Compounds other than ethylene oxide were not quantitated.

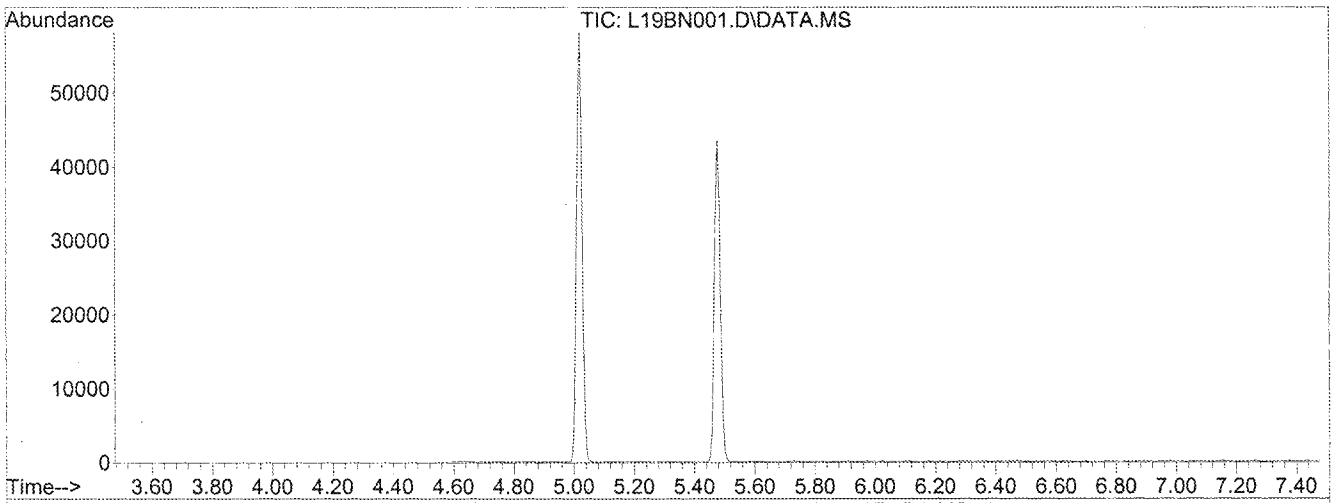
BFB

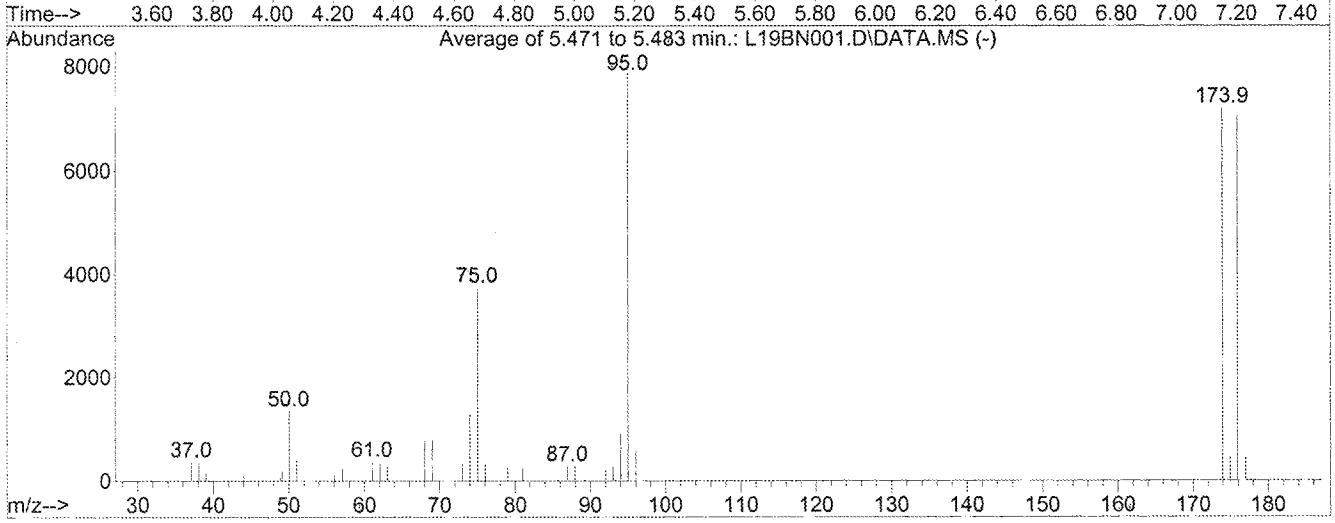
Data Path : C:\msdchem\1\DATA\L19BN\
Data File : L19BN001.D
Acq On : 14 Feb 2019 8:38 am
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

L-15-19

Method : C:\msdchem\1\METHODS\9020003.M
Title : TO-15 by Selective Ion Analysis
Last Update : Wed Feb 13 06:44:42 2019





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

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.2	1358	PASS
75	95	30	66	47.5	3752	PASS
95	95	100	100	100.0	7907	PASS
96	95	5	9	7.3	580	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	91.0	7193	PASS
175	174	4	9	6.7	484	PASS
176	174	93	101	97.9	7043	PASS
177	176	5	9	6.3	443	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19BN\L19BN001.D
Tune Time : 14 Feb 2019 8:38 am

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

File	Sample	Internal Standard Responses		
L19BN002.D	TO-15-CCV1	49484	121764	90042
L19BN005.D	-BLK1 B-H1-261	47552	116585	81907
L19BN006.D	B-H2-261	46696	116205	82547
L19BN007.D	9020702-05 DL	46830	117513	84086
L19BN008.D	5132	45703	111627	79692
L19BN009.D	5016	48591	122769	86274
L19BN010.D	5134	48020	118774	84226
L19BN011.D	5149	48719	122898	84634
L19BN012.D	SAT099	47447	118876	84469
L19BN013.D	SAT112	47450	119987	83952
L19BN014.D	SAT060	46004	114178	80004
L19BN015.D	SAT126	46295	114353	79700
L19BN016.D	SAT071	46144	113282	81210
L19BN017.D	18820	46162	113826	81063
L19BN018.D	A2121	44853	108835	80541
L19BN019.D	A21103	47118	120464	84844
L19BN020.D	2267	47136	118800	84775
L19BN021.D	ER025	46945	116376	81349
L19BN022.D	ER025 REP	46566	115086	81782

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

Created: Fri Feb 15 07:01:28 2019 MS1

Compounds other than ethylene oxide were not quantitated.

Compound Name			IS-Hexane-d14	IS-Hexane-d14	IS-Difluorobenzene	IS-Difluorobenzene	IS-Chlorobenzene-d5	IS-Chlorobenzene-d5
Labels	Date Acquired	Data File Name	(# 1) Target Response	(# 1) Ret Time	(# 28) Target Response	(# 28) Ret Time	(# 42) Target Response	(# 42) Ret Time
	2/15/2019 5:46	L19BN022.D	46566	19.99	115086	23.15	81782	30.11
Format 1 (Yes/No)								
Format 1 Title								
Format 2 (Yes/No)			YES	YES	YES	YES	YES	YES
Format 2 Title								
Show X Axis Title			YES	YES	YES	YES	YES	YES
Show Y Axis Title								
Lines To Chart								

Start of Data	Format 1 X-axis	Format 2 X-axis	IS-Hexane-d14	% Rec	RT	DEV (min)	IS-Difluorobenzene	% Rec	RT	DEV (min)	IS-Chlorobenzene-d5	% Rec	RT	DEV (min)
		IS AVG / AVG RT	48611		19.99		118146		23.15		86564		30.11	
	2/14/2019 9:27	L19BN002.D	49484	102	19.99	0	121764	103	23.15	0	90042	104	30.10	-0.01
	2/14/2019 12:36	L19BN005.D	47552	98	19.99	0	116585	99	23.15	0	81907	95	30.10	-0.01
	2/14/2019 13:37	L19BN006.D	46696	96	19.99	0	116205	98	23.15	0	82547	95	30.10	-0.01
	2/14/2019 14:36	L19BN007.D	46830	96	19.99	0	117513	99	23.15	0	84086	97	30.11	0
	2/14/2019 15:39	L19BN008.D	45703	94	19.99	0	111627	94	23.15	0	79692	92	30.10	-0.01
	2/14/2019 16:38	L19BN009.D	48591	100	19.99	0	122769	104	23.15	0	86274	100	30.10	-0.01
	2/14/2019 17:38	L19BN010.D	48020	99	19.99	0	118774	101	23.15	0	84226	97	30.10	-0.01
	2/14/2019 18:38	L19BN011.D	48719	100	19.99	0	122898	104	23.15	0	84634	98	30.10	-0.01
	2/14/2019 19:38	L19BN012.D	47447	98	19.99	0	118876	101	23.15	0	84469	98	30.12	0.01
	2/14/2019 20:38	L19BN013.D	47450	98	19.99	0	119987	102	23.15	0	83952	97	30.12	0.01
	2/14/2019 21:40	L19BN014.D	46004	95	19.99	0	114178	97	23.15	0	80004	92	30.11	0
	2/14/2019 22:42	L19BN015.D	46295	95	19.99	0	114353	97	23.15	0	79700	92	30.11	0
	2/14/2019 23:44	L19BN016.D	46144	95	19.99	0	113282	96	23.15	0	81210	94	30.10	-0.01
	2/15/2019 12:44	L19BN017.D	46162	95	19.99	0	113826	96	23.15	0	81063	94	30.12	0.01
	2/15/2019 1:46	L19BN018.D	44853	92	19.99	0	108835	92	23.15	0	80541	93	30.11	0
	2/15/2019 2:46	L19BN019.D	47118	97	19.99	0	120464	102	23.15	0	84844	98	30.11	0
	2/15/2019 3:46	L19BN020.D	47136	97	19.99	0	118800	101	23.15	0	84775	98	30.11	0
	2/15/2019 4:46	L19BN021.D	46945	97	19.99	0	116376	99	23.15	0	81349	94	30.12	0.01
	2/15/2019 5:46	L19BN022.D	46566	96	19.99	0	115086	97	23.15	0	81782	94	30.11	0

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19BN\
Data File : L19BN002.D
Acq On : 14 Feb 2019 9:27 am
Operator : MAH
Sample : TO-15-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 14 10:35:27 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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISS	IS-Hexane-d14	1.000	1.000	0.0	100	0.00
2	CT	Acetylene	0.391	0.360	7.9	100	0.00
3	CT	Propylene	0.487	0.493	-1.2	100	0.00
4	CT	Dichlorodifluoromethane	2.300	2.197	4.5	100	0.00
5	CT	Chloromethane	0.592	0.549	7.3	100	0.00
6	CT	Dichlorotetrafluoroethane	2.013	2.102	-4.4	100	0.00
7	CT	Vinyl Chloride	0.662	0.625	5.6	100	0.00
8	CT	1,3-Butadiene	0.450	0.428	4.9	100	0.00
9	CT	Ethylene oxide	0.273	0.263	3.7	100	0.00
10	CT	Bromomethane	0.627	0.588	6.2	100	0.00
11	CT	Chloroethane	0.263	0.250	4.9	100	0.00
12	CT	Acetonitrile	0.414	0.353	14.7	100	0.00
13	CT	Acrolein	0.209	0.174	16.7	100	0.00
14	CT	Trichlorofluoromethane	1.944	1.586	18.4	100	0.00
15	CT	Acrylonitrile	0.330	0.286	13.3	100	0.00
16	CT	1,1-Dichloroethene	0.843	0.838	0.6	100	0.00
17	CT	Methylene Chloride	0.557	0.545	2.2	100	0.00
18	CT	Carbon Disulfide	1.716	1.604	6.5	100	0.00
19	CT	Trichlorotrifluoroethane	1.307	1.270	2.8	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.467	0.438	6.2	100	0.00
21	CT	1,1-Dichloroethane	0.786	0.736	6.4	100	0.00
22	CT	Methyl tert-Butyl Ether	1.318	1.223	7.2	100	0.00
23	CT	Chloroprene	0.639	0.601	5.9	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.620	0.570	8.1	100	0.00
25	CT	Bromochloromethane	0.335	0.305	9.0	100	0.00
26	CT	Chloroform	0.912	0.877	3.8	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.260	1.174	6.8	100	0.00
28	CT	1,2-Dichloroethane	0.560	0.539	3.8	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	0.343	7.3	100	0.00
31	CT	Benzene	0.529	0.510	3.6	100	0.00
32	CT	Carbon Tetrachloride	0.396	0.412	-4.0	100	0.00
33	CT	tert-Amyl Methyl Ether	0.449	0.405	9.8	100	0.00
34	CT	1,2-Dichloropropane	0.201	0.183	9.0	100	0.00
35	CT	Ethyl Acrylate	0.171	0.178	-4.1	100	0.00
36	CT	Bromodichloromethane	0.356	0.296	16.9	100	0.00
37	CT	Trichloroethylene	0.252	0.218	13.5	100	0.00
38	CT	Methyl Methacrylate	0.513	0.503	1.9	100	0.00
39	CT	cis-1,3-Dichloropropene	0.175	0.178	-1.7	100	0.00
40	CT	Methyl Isobutyl Ketone	0.377	0.336	10.9	100	0.00
41	CT	trans-1,3-Dichloropropene	0.117	0.115	1.7	100	0.00
42	CT	1,1,2-Trichloroethane	0.184	0.167	9.2	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.779	0.719	7.7	100	0.00
45	CT	Dibromochloromethane	1.529	1.372	10.3	100	0.00
46	CT	1,2-Dibromoethane	0.292	0.276	5.5	100	0.00
47	CT	n-Octane	0.469	0.429	8.5	100	0.00
48	CT	Tetrachloroethylene	0.375	0.342	8.8	100	0.00

ED_002475_00000213-00502

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19BN\
Data File : L19BN002.D
Acq On : 14 Feb 2019 9:27 am
Operator : MAH
Sample : TO-15-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 14 10:35:27 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

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 CT	Chlorobenzene	0.497	0.459	7.6	100	0.00
50 CT	Ethylbenzene	0.819	0.761	7.1	100	0.00
51 CT	m,p-Xylene	0.691	0.630	8.8	100	0.00
52 CT	Bromoform	0.296	0.274	7.4	100	0.00
53 CT	Styrene	0.392	0.361	7.9	100	0.00
54 CT	1,1,2,2-Tetrachloroethane	0.446	0.401	10.1	100	0.00
55 CT	o-Xylene	0.682	0.652	4.4	100	0.00
56 CT	1,3,5-Trimethylbenzene	0.732	0.651	11.1	100	0.00
57 CT	1,2,4-Trimethylbenzene	0.633	0.565	10.7	100	0.00
58 CT	m-Dichlorobenzene	0.333	0.280	15.9	100	0.00
59 CT	p-Dichlorobenzene	0.271	0.247	8.9	100	0.00
60 CT	o-Dichlorobenzene	0.305	0.268	12.1	100	0.00
61 CT	1,2,4-Trichlorobenzene	0.103	0.118	-14.6	100	0.00
62 CT	Hexachloro-1,3-butadiene	0.264	0.253	4.2	100	0.00

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

ED_002475_00000213-00503

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19BN\
Data File : L19BN002.D
Acq On : 14 Feb 2019 9:27 am
Operator : MAH
Sample : TO-15-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 14 10:35:27 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

L-15-19

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	49484	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	121764	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	90042	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.402	26	8973	2.2143	ppbv	100
3) Propylene	7.823	41	12542	2.4811	ppbv	100
4) Dichlorodifluoromethane	8.685	85	54254	2.2735	ppbv	100
5) Chloromethane	9.740	50	14131	2.2998	ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	53208	2.5474	ppbv	100
7) Vinyl Chloride	11.102	62	16207	2.3582	ppbv	100
8) 1,3-Butadiene	11.783	54	10968	2.3477	ppbv	99
9) Ethylene oxide	12.380	29	6808	2.4054	ppbv	98
10) Bromomethane	12.590	94	15250	2.3449	ppbv	100
11) Chloroethane	13.282	64	6480	2.3734	ppbv	99
12) Acetonitrile	14.358	41	9265	2.1573	ppbv	99
13) Acrolein	14.636	56	4371	2.0199	ppbv	98
14) Trichlorofluoromethane	15.193	101	41136	2.0401	ppbv	100
15) Acrylonitrile	15.935	53	7413	2.1633	ppbv	100
16) 1,1-Dichloroethene	16.422	61	21206	2.4241	ppbv	100
17) Methylene Chloride	16.747	49	14016	2.4250	ppbv	99
18) Carbon Disulfide	16.932	76	41274	2.3186	ppbv	100
19) Trichlorotrifluoroethane	17.280	101	32157	2.3712	ppbv	100
20) trans-1,2-Dichloroethy...	18.315	96	11173	2.3042	ppbv	99
21) 1,1-Dichloroethane	18.632	63	18557	2.2767	ppbv	99
22) Methyl tert-Butyl Ether	18.791	73	32236	2.3581	ppbv	100
23) Chloroprene	19.539	53	15460	2.3318	ppbv	100
24) cis-1,2-Dichloroethylene	19.947	61	14782	2.2970	ppbv	99
25) Bromochloromethane	20.174	128	7819	2.2477	ppbv	99
26) Chloroform	20.401	83	22748	2.4053	ppbv	99
27) Ethyl tert-Butyl Ether	21.164	59	31292	2.3934	ppbv	100
28) 1,2-Dichloroethane	21.478	62	13915	2.3972	ppbv	100
30) 1,1,1-Trichloroethane	21.869	97	20674	2.2905	ppbv	98
31) Benzene	22.535	78	31225	2.4191	ppbv	100
32) Carbon Tetrachloride	22.770	117	25352	2.6224	ppbv	99
33) tert-Amyl Methyl Ether	23.501	73	25710	2.3454	ppbv	100
34) 1,2-Dichloropropane	23.790	63	11326	2.3081	ppbv	99
35) Ethyl Acrylate	23.872	55	11019	2.6431	ppbv	99
36) Bromodichloromethane	24.078	83	18494	2.1296	ppbv	100
37) Trichloroethylene	24.161	130	13382	2.1764	ppbv	99
38) Methyl Methacrylate	24.532	41	31175	2.4915	ppbv	100
39) cis-1,3-Dichloropropene	25.511	75	11015	2.5849	ppbv	97
40) Methyl Isobutyl Ketone	25.588	43	20744	2.2551	ppbv	100
41) trans-1,3-Dichloropropene	26.350	75	6888	2.4127	ppbv	99
42) 1,1,2-Trichloroethane	26.617	97	10121	2.2542	ppbv	100
44) Toluene	27.094	91	33320	2.2520	ppbv	99
45) Dibromochloromethane	27.734	129	66176	2.2784	ppbv	100
46) 1,2-Dibromoethane	28.138	107	13112	2.3633	ppbv	99
47) n-Octane	28.857	43	20548	2.3057	ppbv	100
48) Tetrachloroethylene	28.998	166	16185	2.2727	ppbv	99
49) Chlorobenzene	30.173	112	21431	2.2694	ppbv	100
50) Ethylbenzene	30.898	91	36148	2.3237	ppbv	100

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19BN\
Data File : L19BN002.D
Acq On : 14 Feb 2019 9:27 am
Operator : MAH
Sample : TO-15-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 14 10:35:27 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	31.223	91	59632	4.5450 ppbv	100
52) Bromoform	31.280	173	13199	2.3503 ppbv	99
53) Styrene	31.910	104	17127	2.3024 ppbv #	100
54) 1,1,2,2-Tetrachloroethane	32.063	83	19252	2.2735 ppbv	99
55) o-Xylene	32.120	91	30213	2.3333 ppbv	100
56) 1,3,5-Trimethylbenzene	34.921	105	31181	2.2414 ppbv	100
57) 1,2,4-Trimethylbenzene	35.829	105	25566	2.1249 ppbv	100
58) m-Dichlorobenzene	36.114	146	12784	2.0210 ppbv	100
59) p-Dichlorobenzene	36.275	146	12248	2.3769 ppbv	99
60) o-Dichlorobenzene	37.094	146	12705	2.1960 ppbv	100
61) 1,2,4-Trichlorobenzene	40.828	180	5547	2.8269 ppbv	99
62) Hexachloro-1,3-butadiene	41.637	225	12014	2.3974 ppbv	100

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BN\
Data File : L19BN007.D
Acq On : 14 Feb 2019 2:36 pm (#1); 14-Feb-19, 14:31:48 (#2)
Operator : MAH
Sample : 9020702-05
Misc : EPA WB WAREHOUSE 2/6/19,150ML INJ (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1.67

Quant Time: Feb 15 06:27:52 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	46830	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	117513	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	84086	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.363	29	23445	14.6178 ppbv #	78
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	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. 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\L19BN\
Data File : L19BN007.D
Acq On : 14 Feb 2019 2:36 pm (#1); 14-Feb-19, 14:31:48 (#2)
Operator : MAH
Sample : 9020702-05
Misc : EPA WB WAREHOUSE 2/6/19,150ML INJ (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1.67

Quant Time: Feb 15 06:27:52 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.	

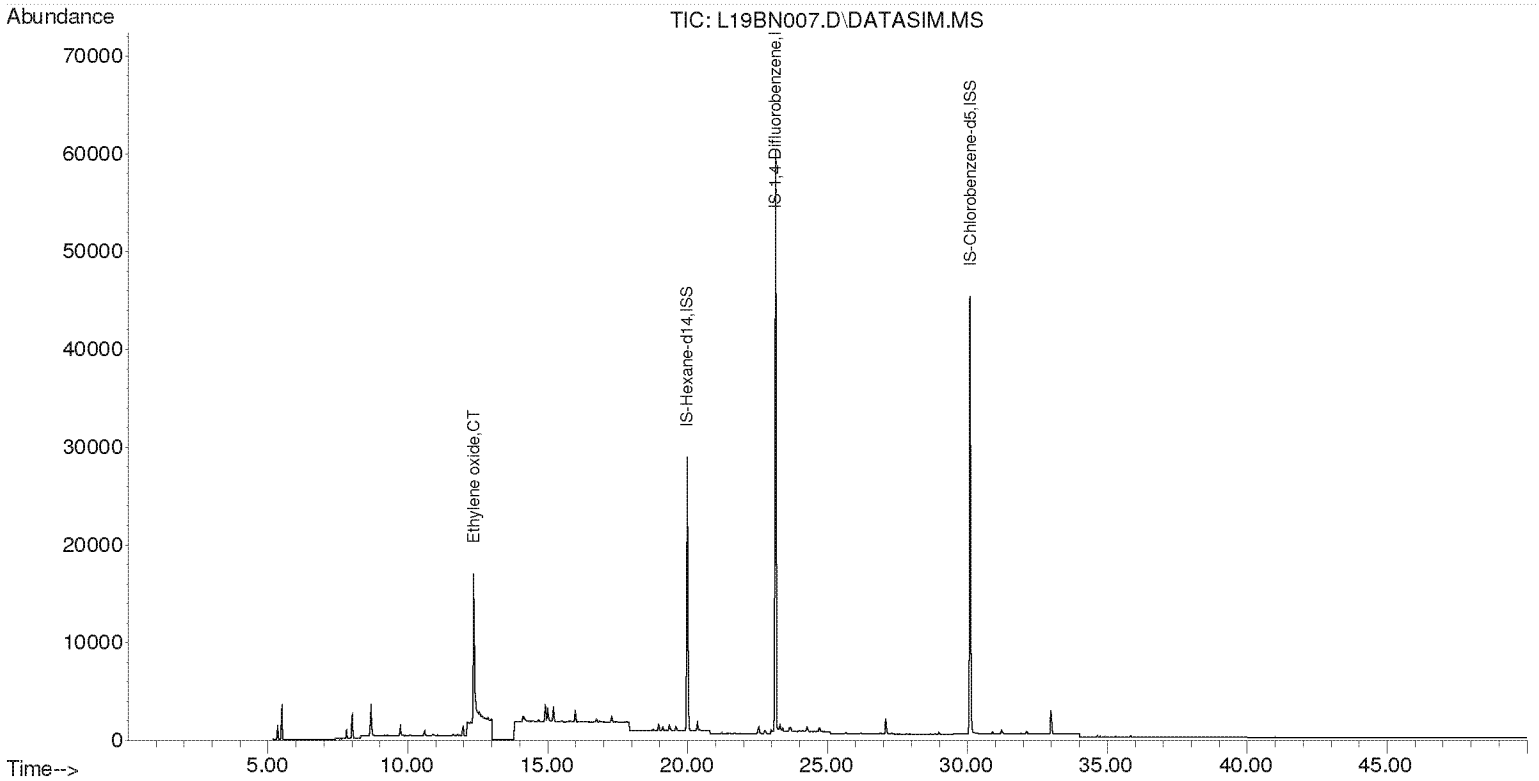
(#) = qualifier out of range (m) = manual integration (+) = signals summed

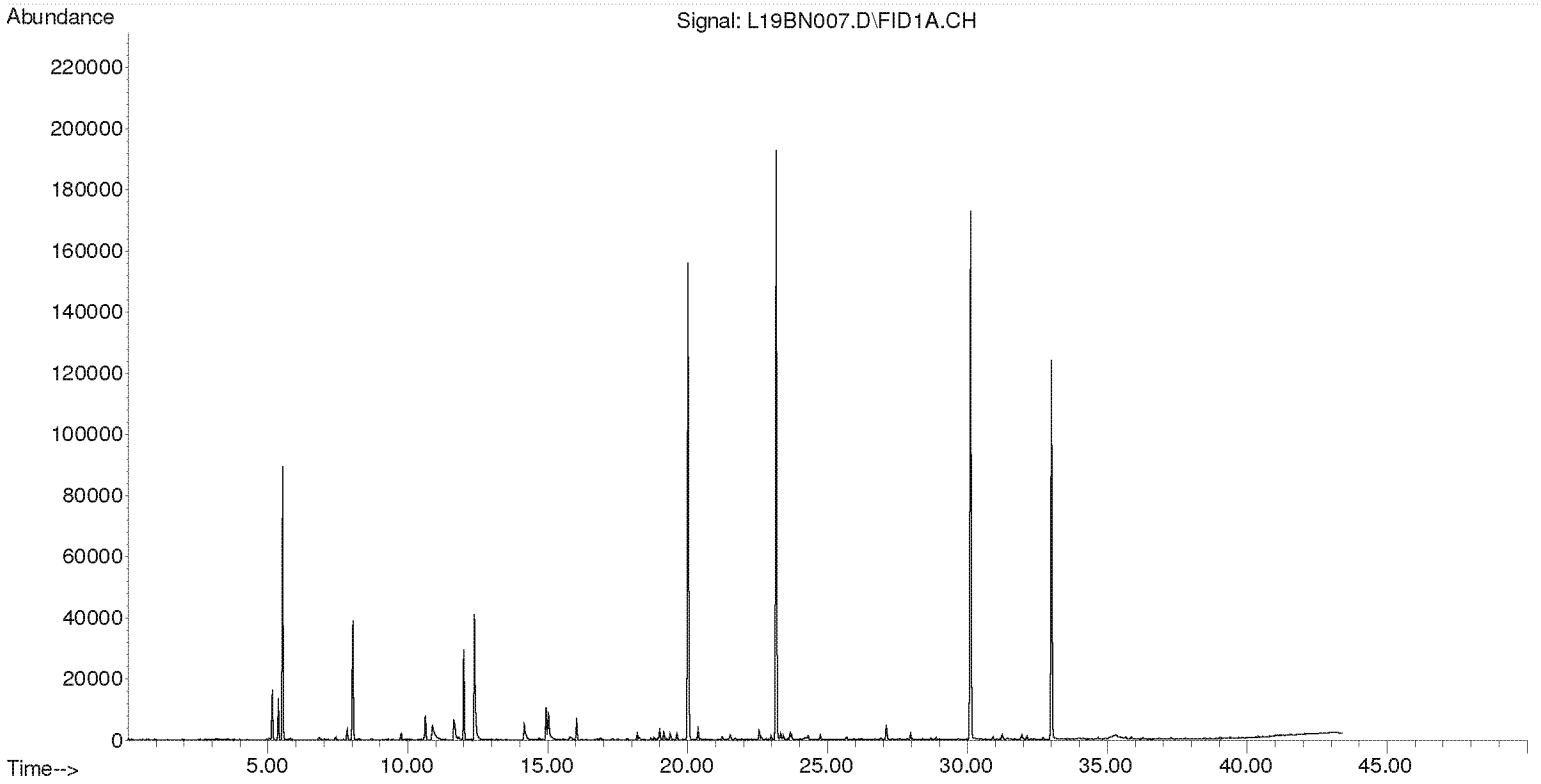
ED_002475_00000213-00507

Compounds other than ethylene oxide were not quantitated.

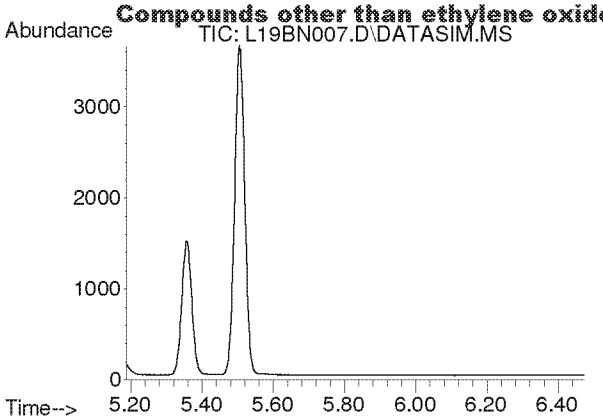
Data Path : Y:\MASS SPEC 1 DATA\L19BN\
Data File : L19BN007.D
Acq On : 14 Feb 2019 2:36 pm (#1); 14 Feb 2019 2:31 pm (#2)
Operator : MAH
Sample : 9020702-05
Misc : EPA WB WAREHOUSE 2/6/19,150ML INJ (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1.67

Quant Time: Feb 15 06:27:32 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





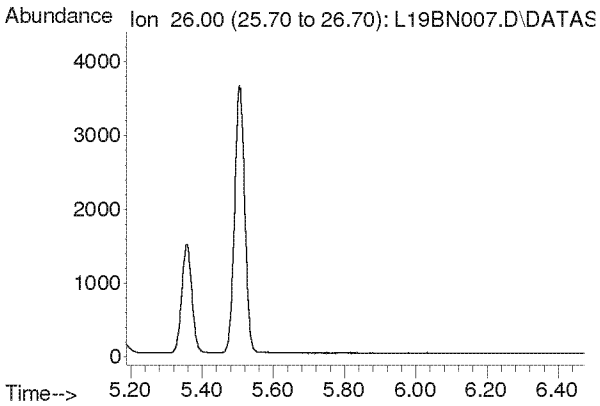
Compounds other than ethylene oxide were not quantitated.

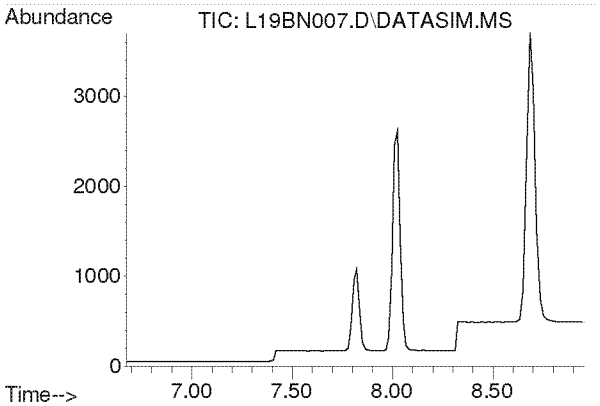


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 26



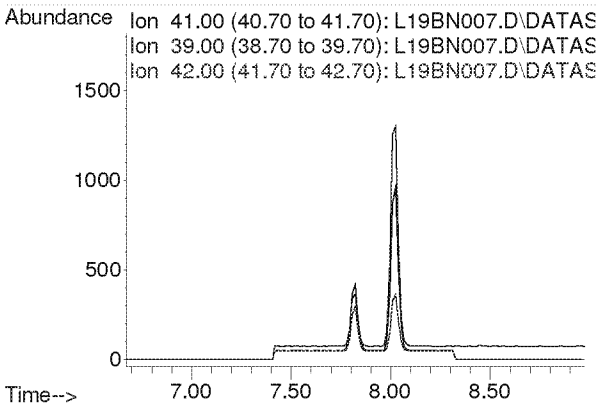


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

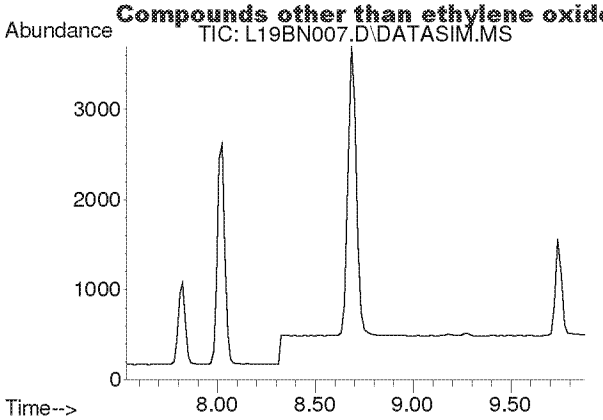
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

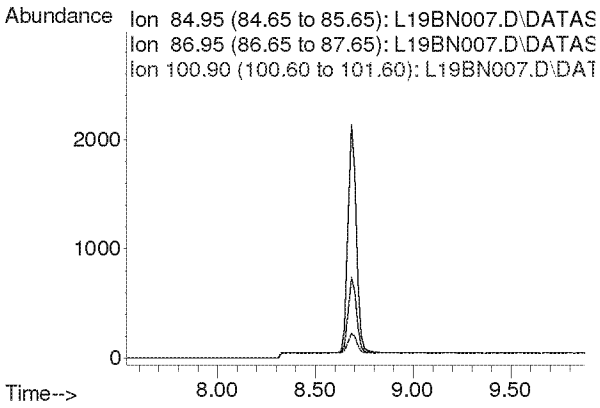


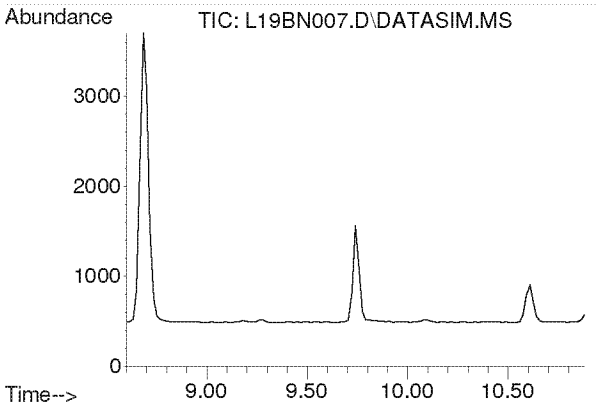
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



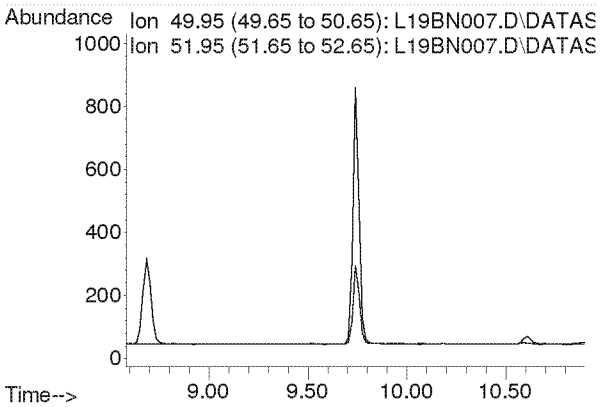


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

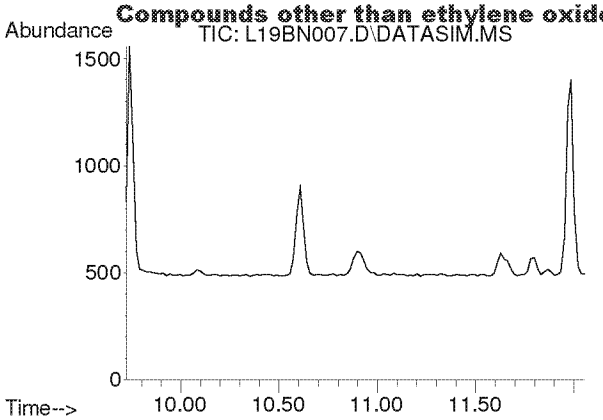
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

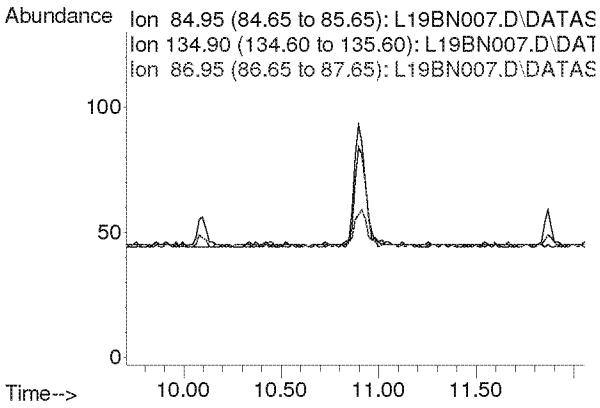


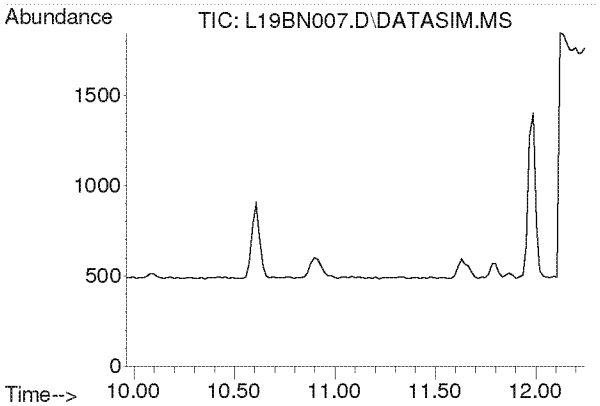
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



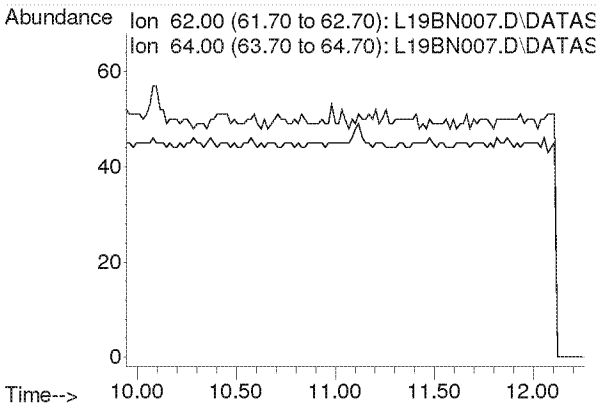


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

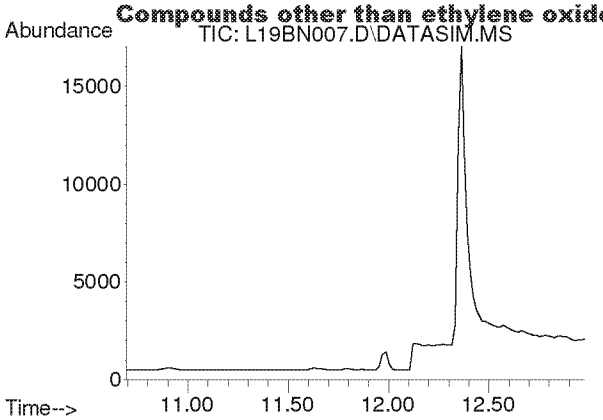
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

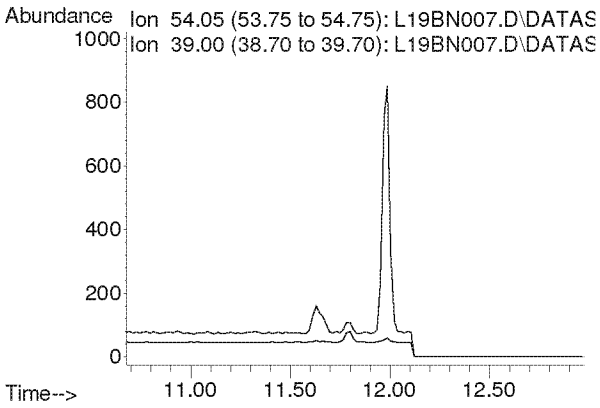


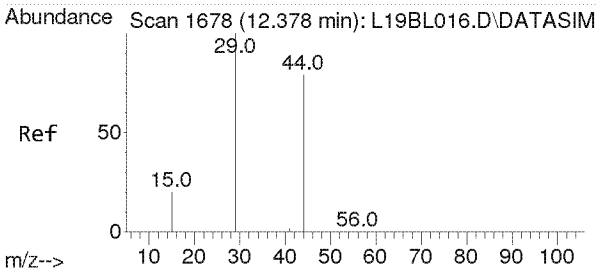
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

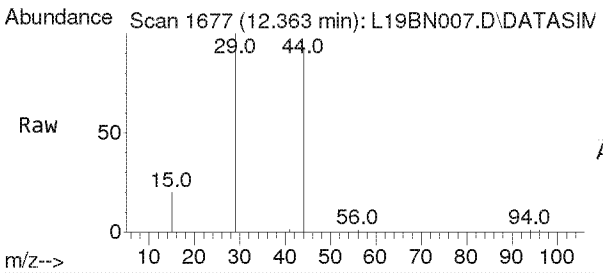


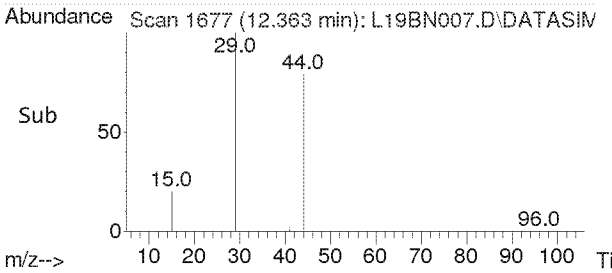


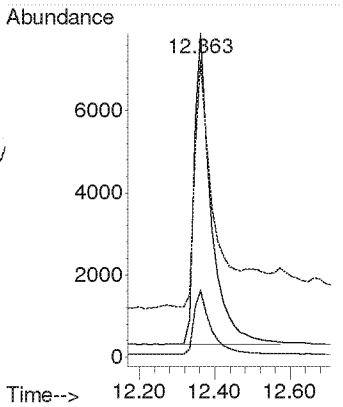
#9
Ethylene oxide
Concen: 14.618 ppbv
RT: 12.363 min Scan# 1677
Delta R.T. -0.015 min
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 29 Resp: 23445

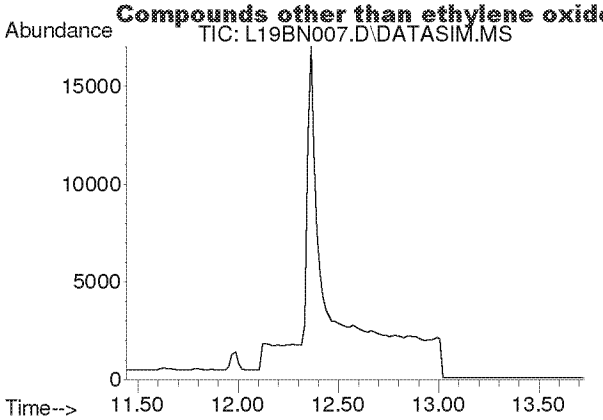
Ion	Ratio	Lower	Upper
29	100		
15	20.7	16.0	24.0
44	105.9	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

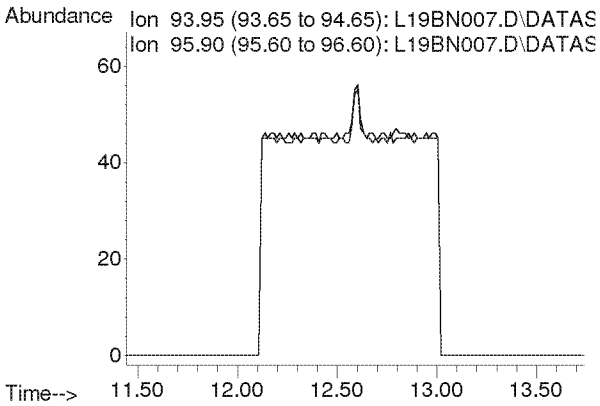


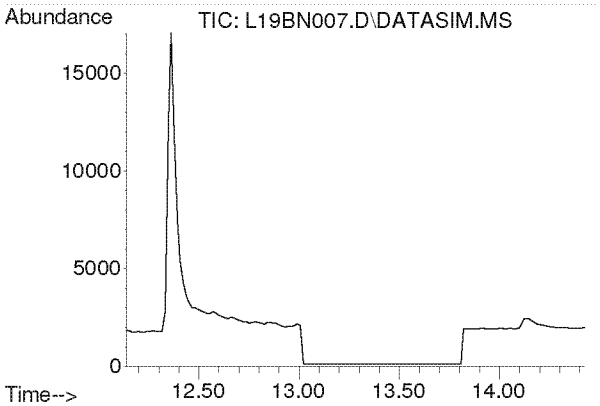
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



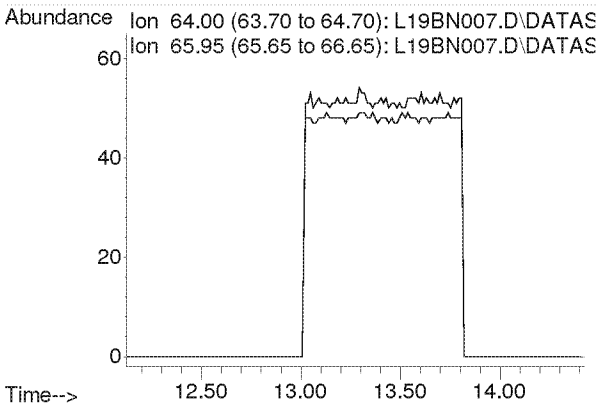


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

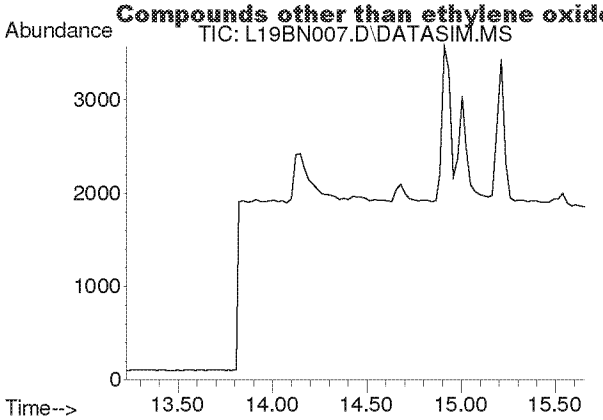
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

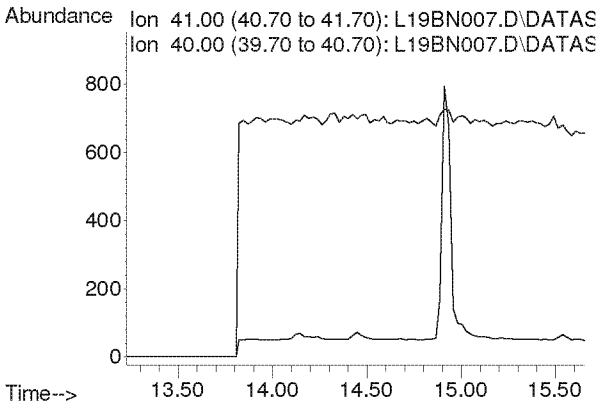


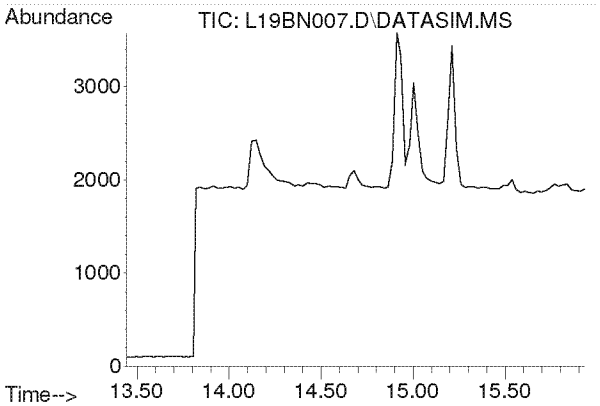
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



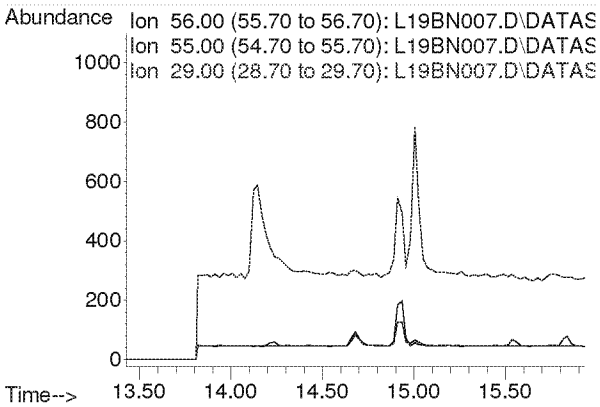


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

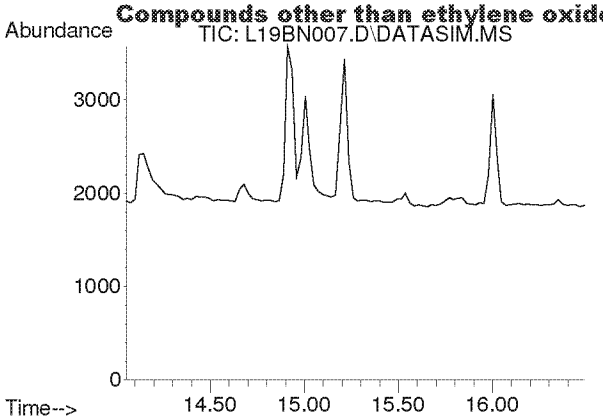
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

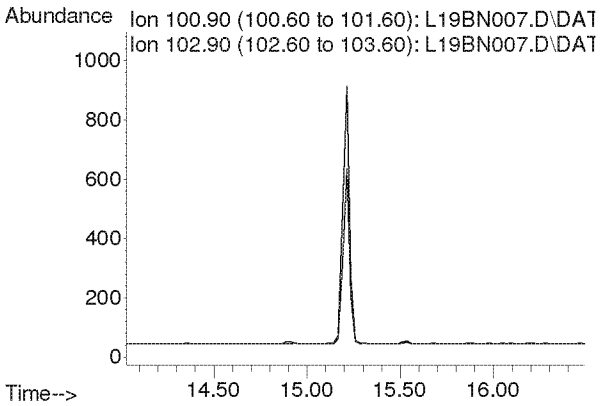


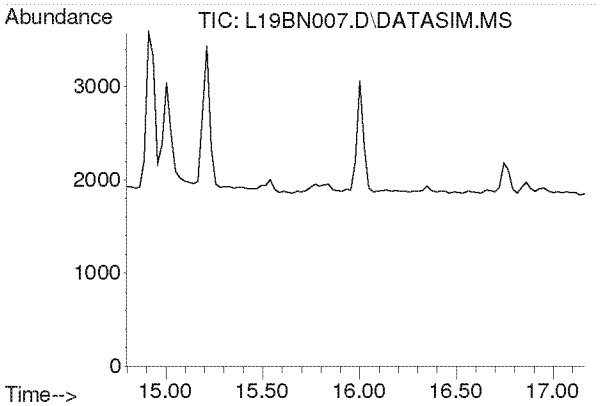
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



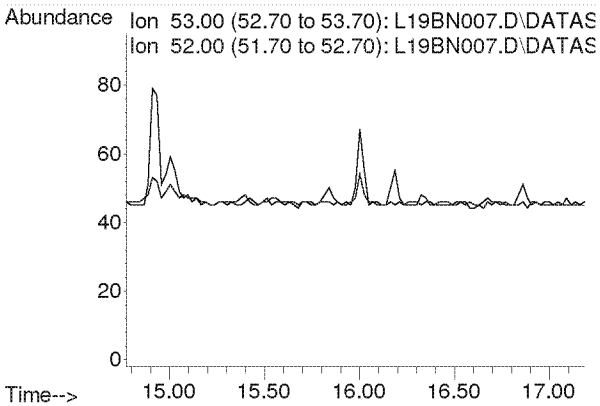


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

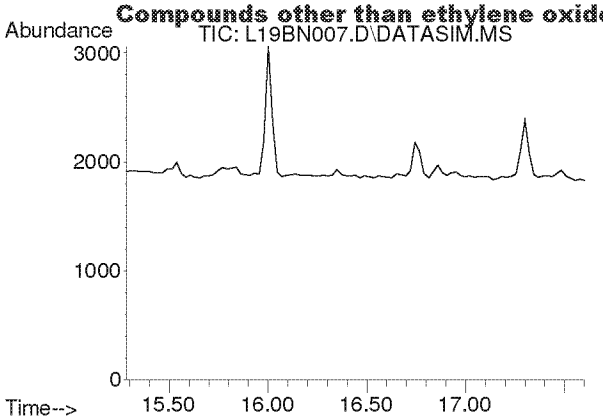
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

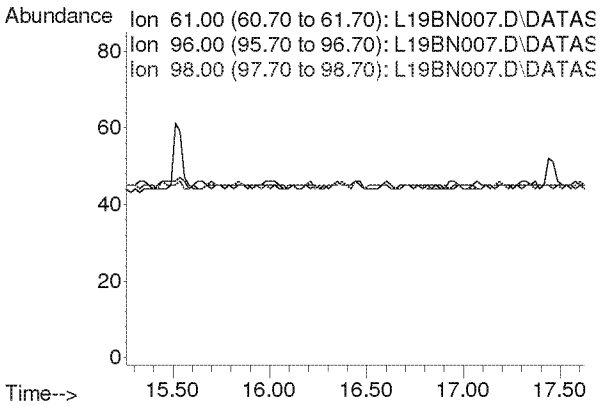


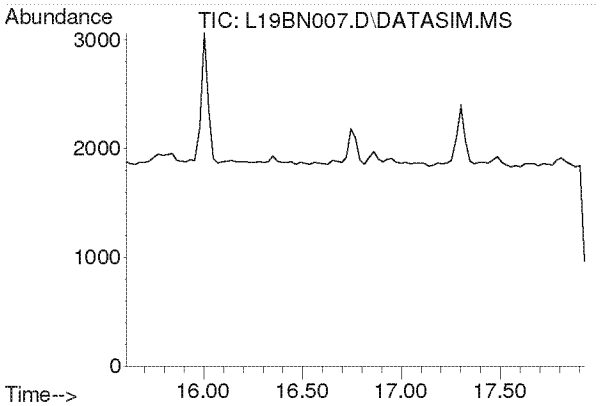
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



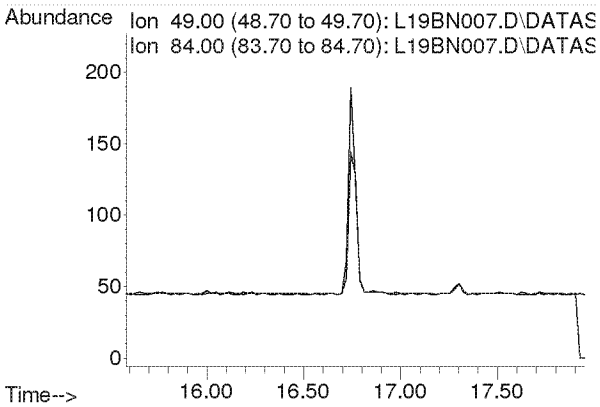


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

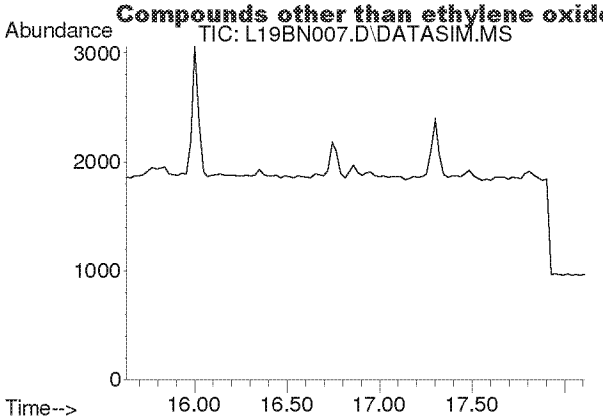
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

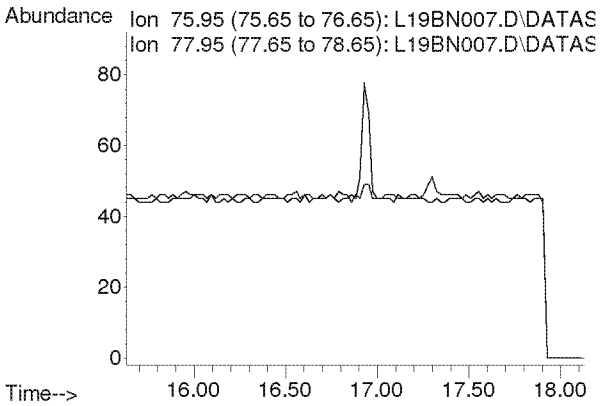


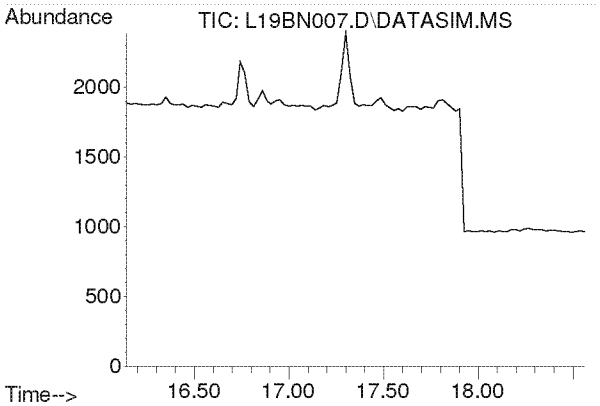
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



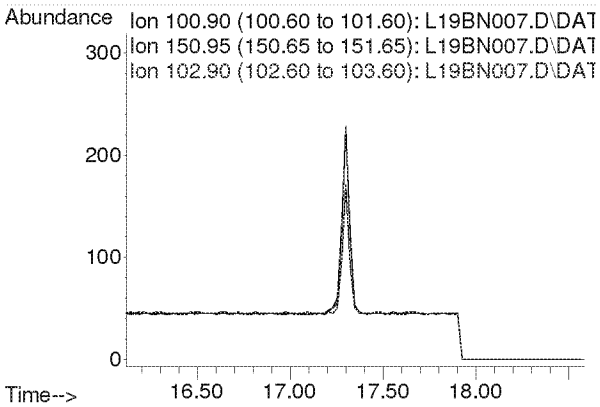


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

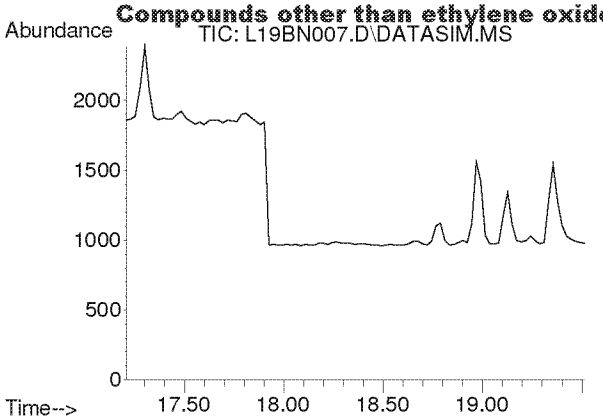
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

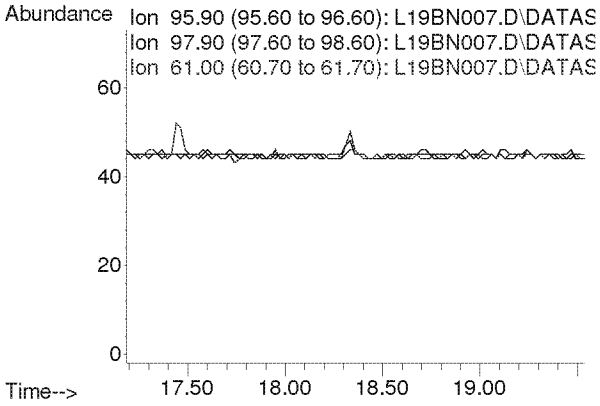


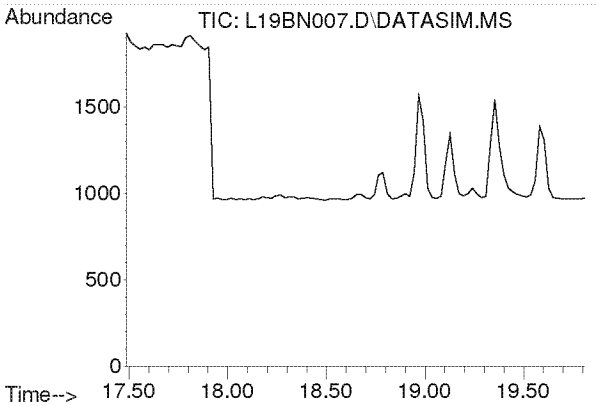
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



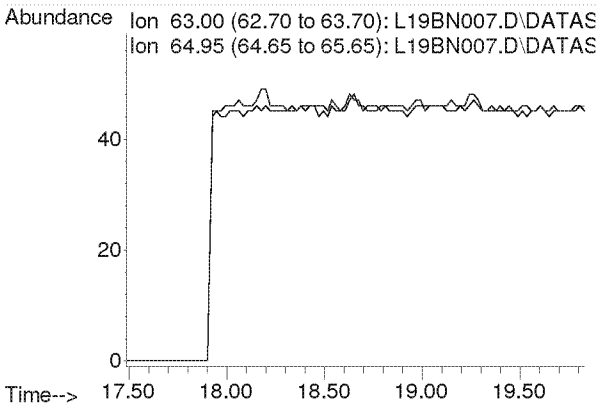


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

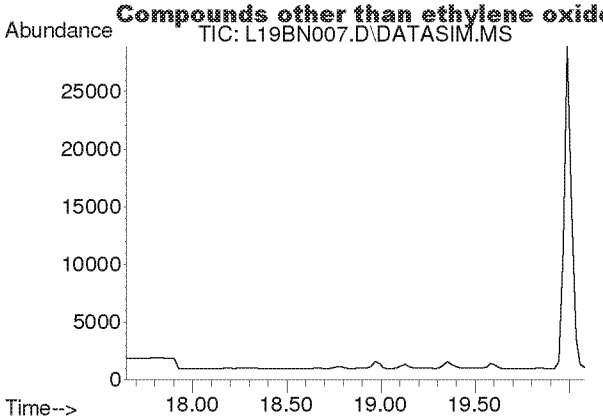
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

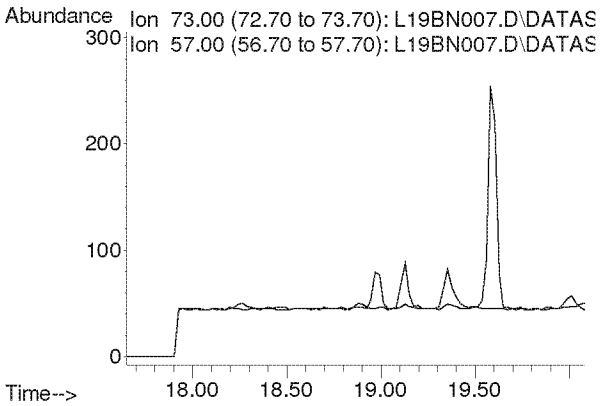


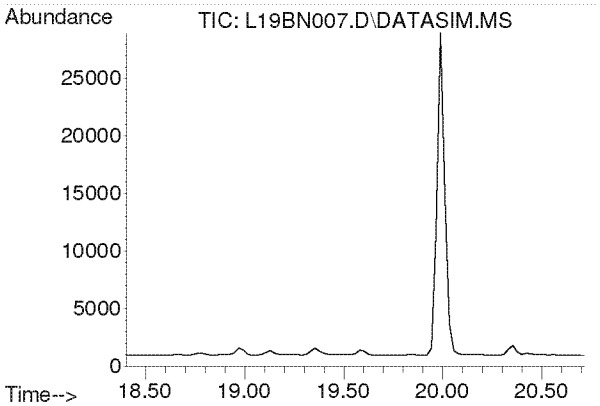
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



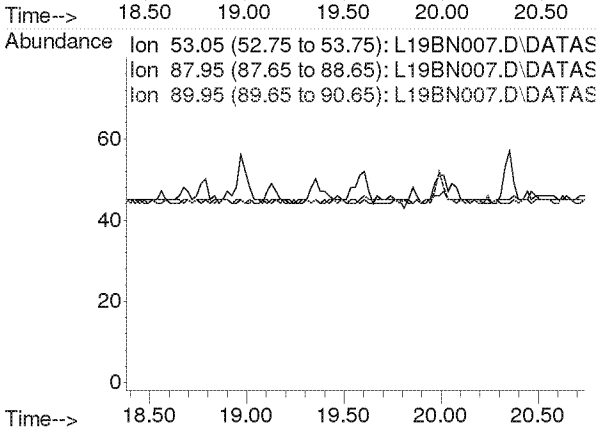


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

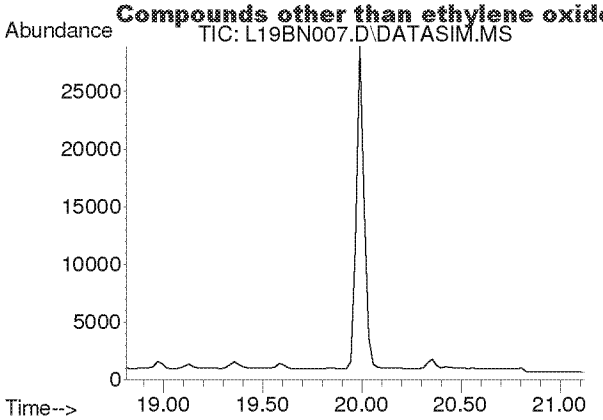
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

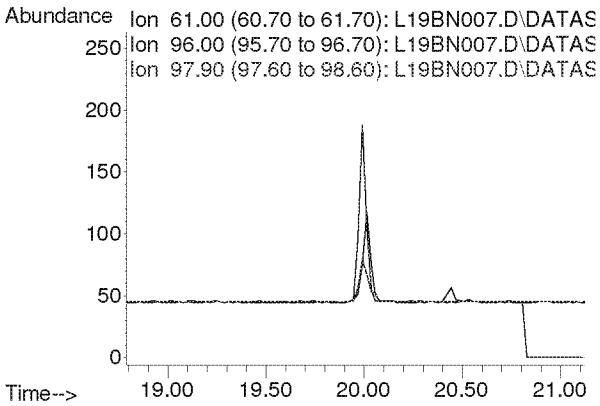


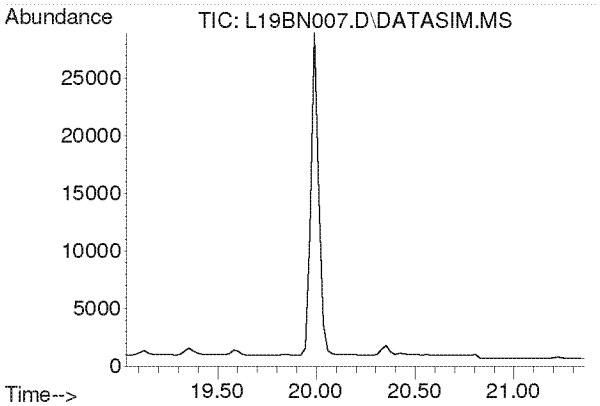
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



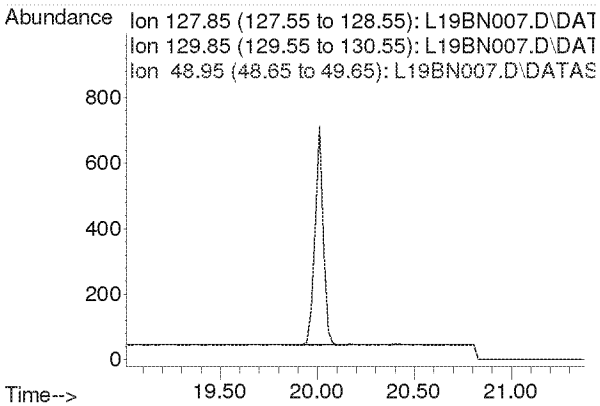


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

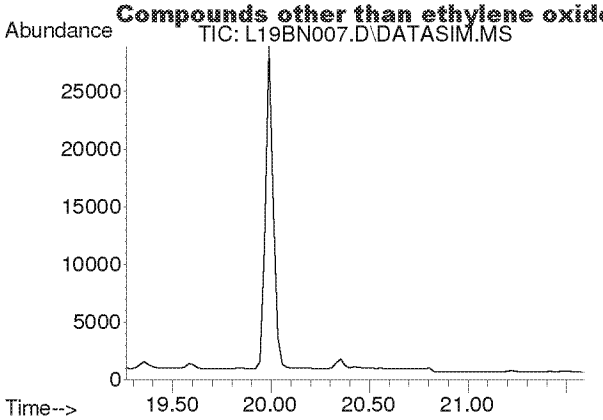
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

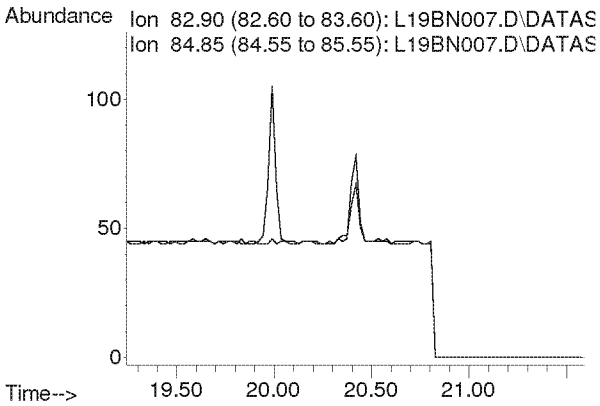


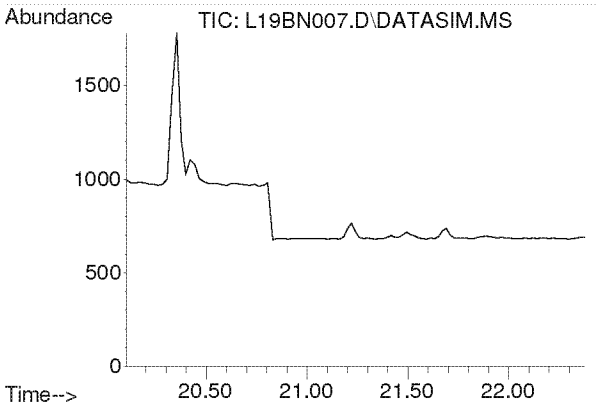
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



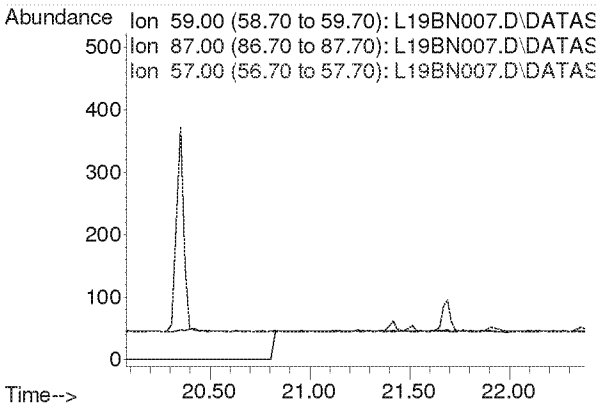


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

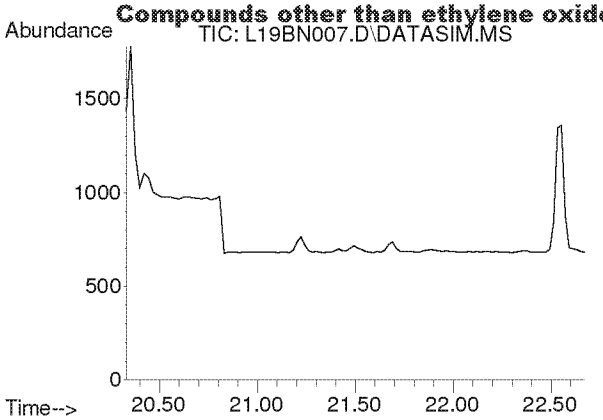
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

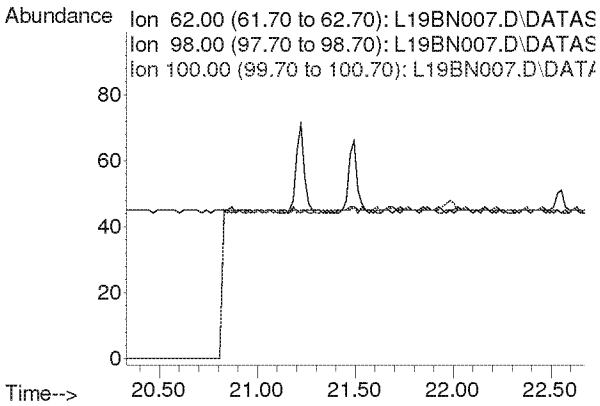


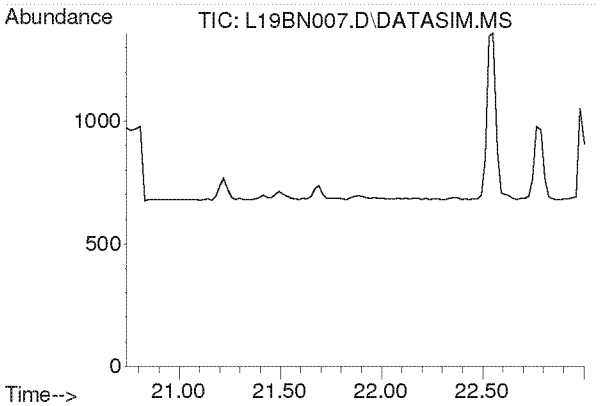
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



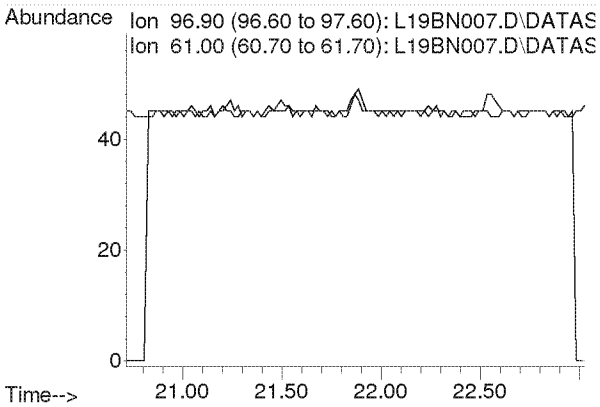


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

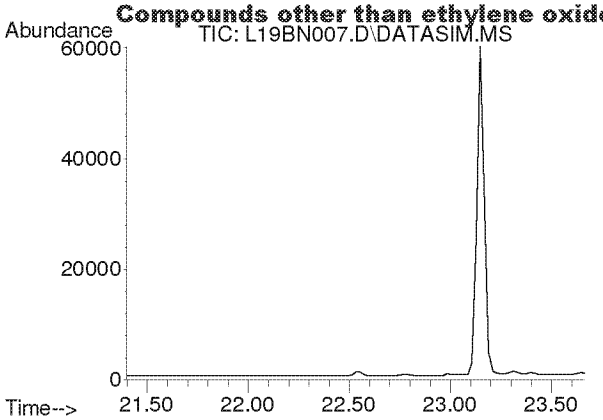
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

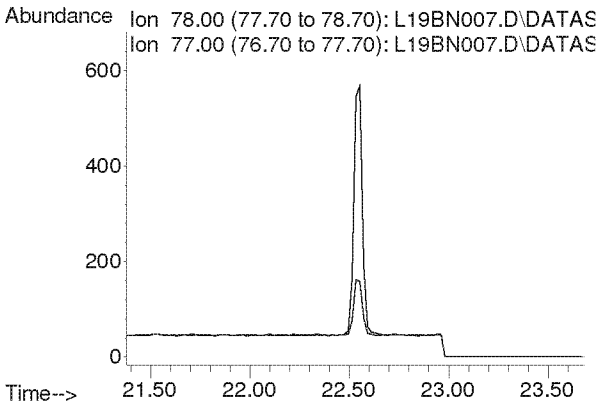


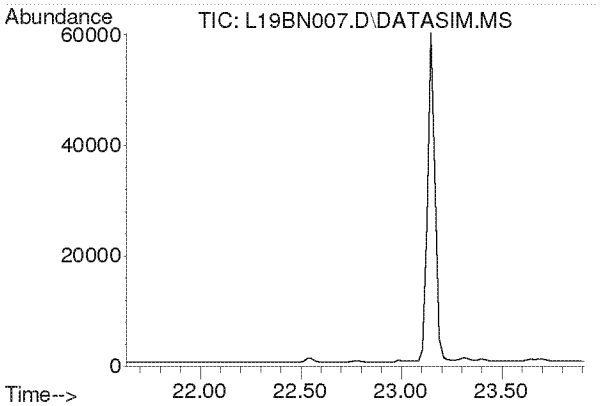
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



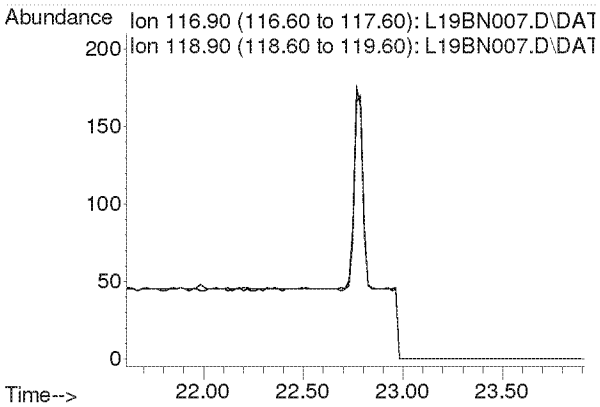


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

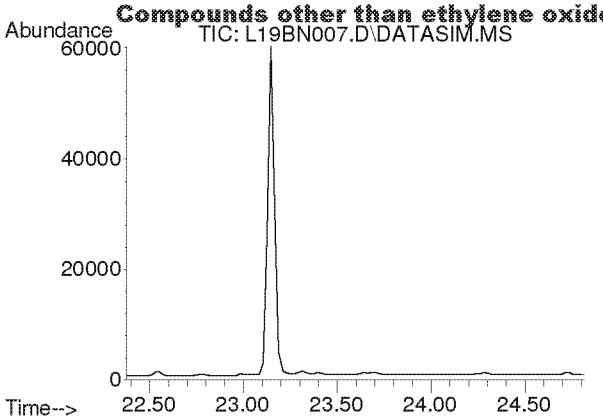
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

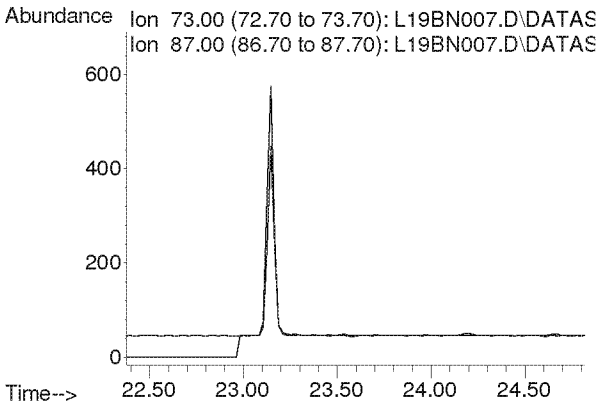


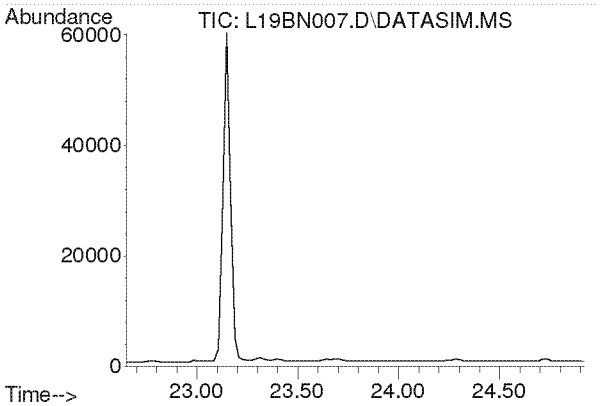
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



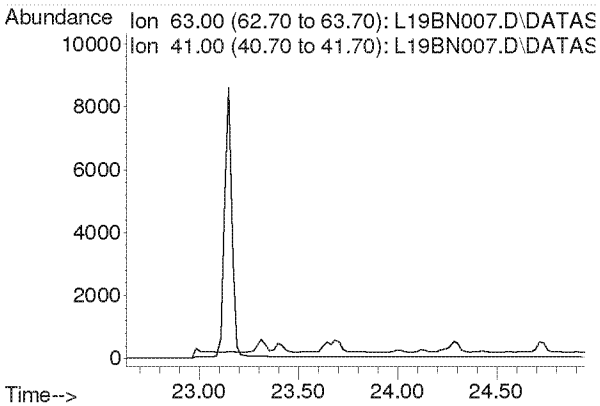


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

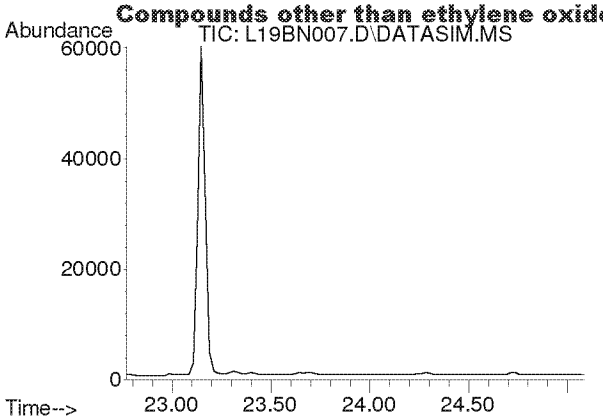
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

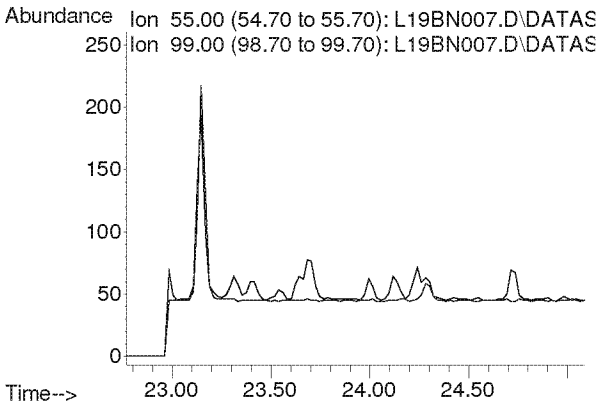


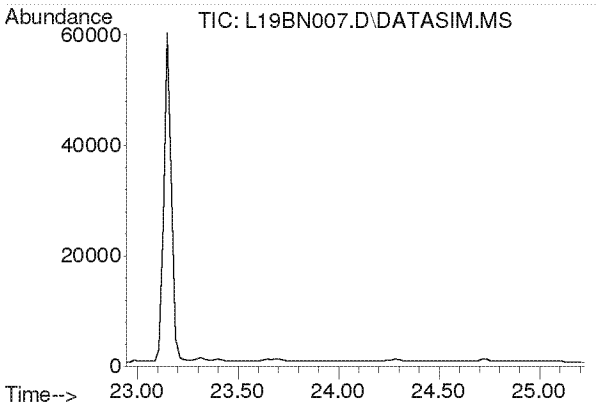
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



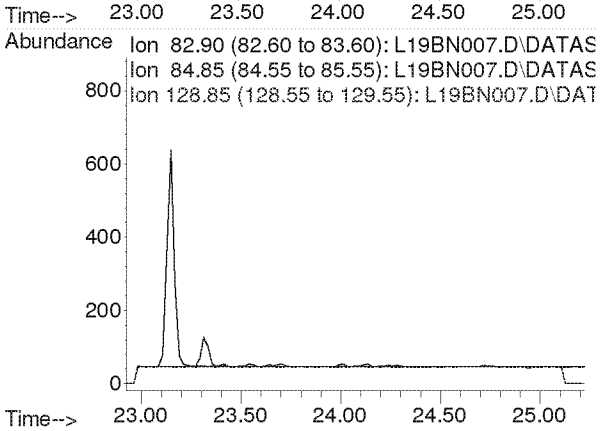


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

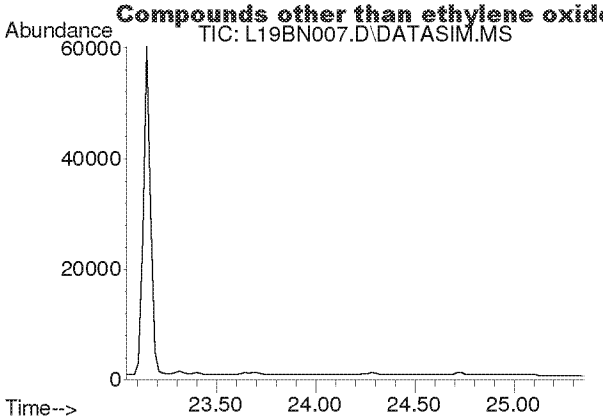
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

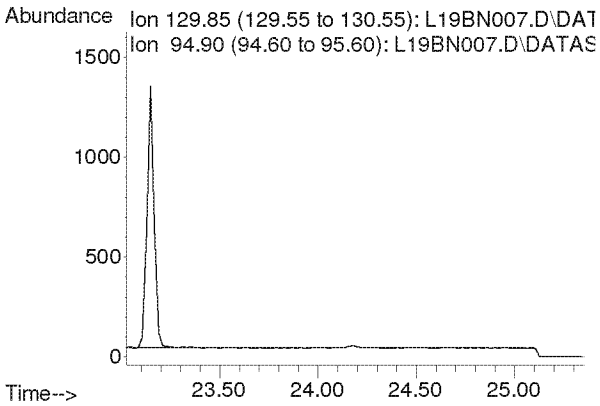


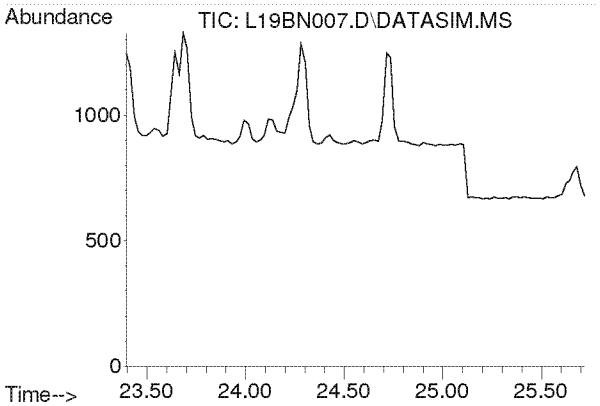
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



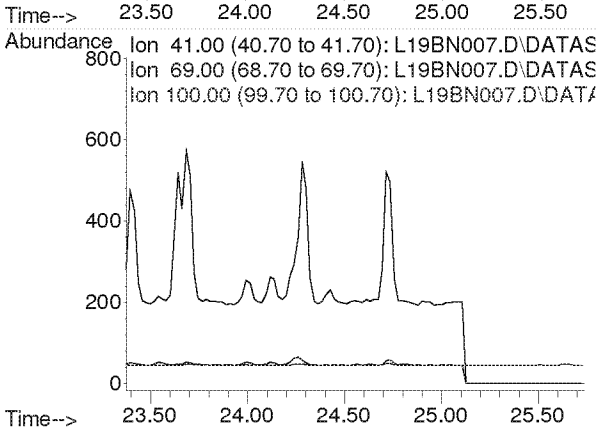


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

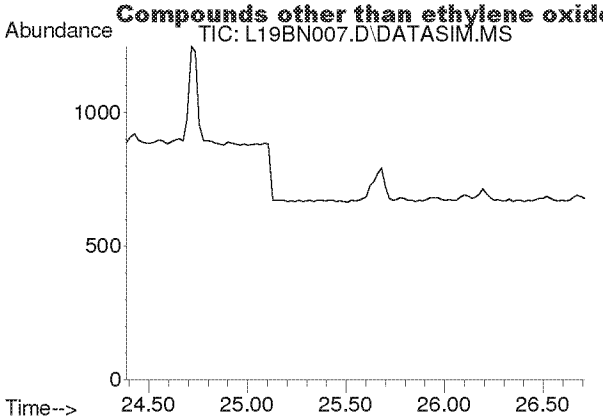
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

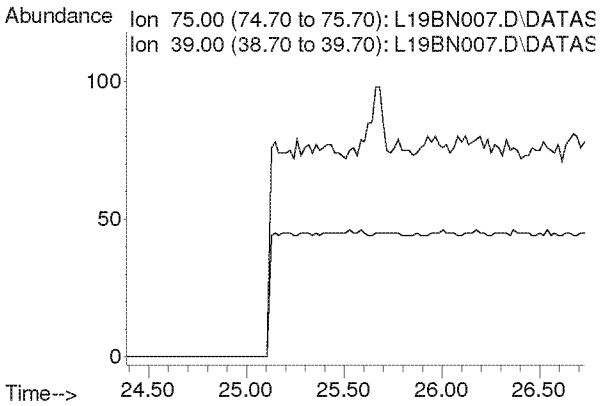


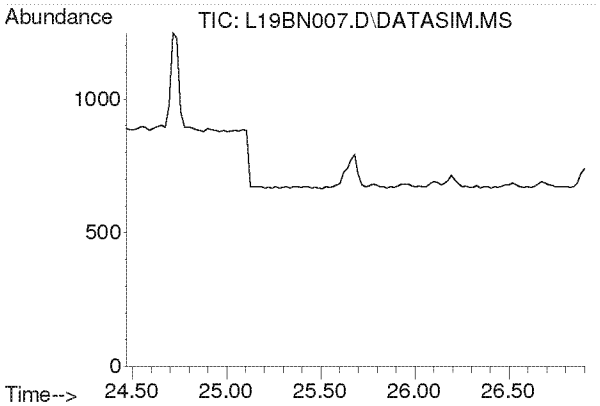
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



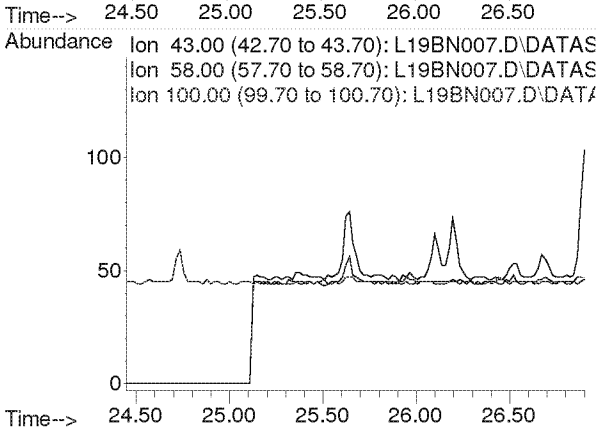


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

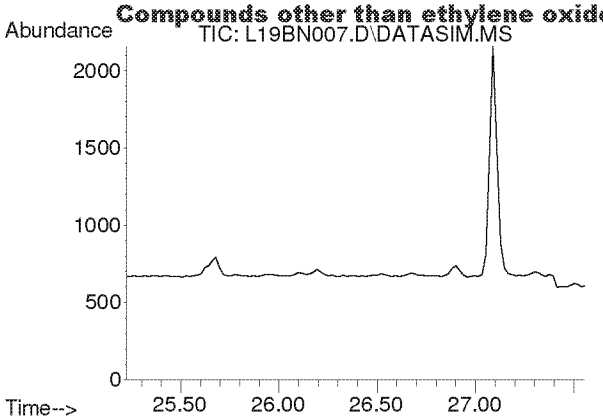
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

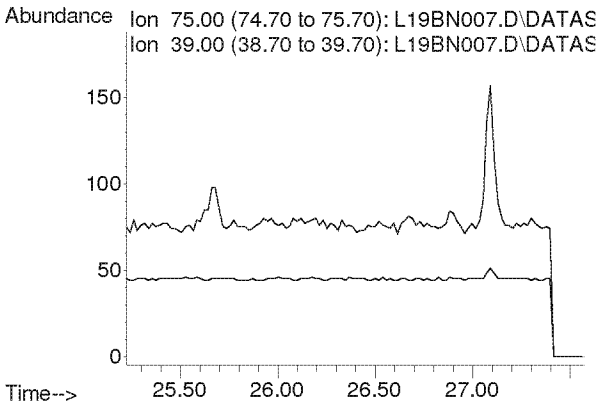


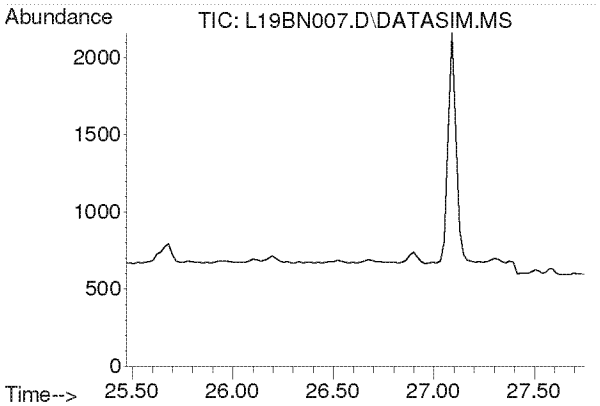
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



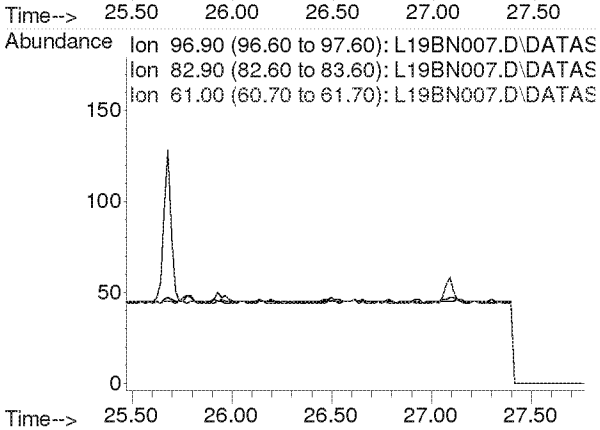


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

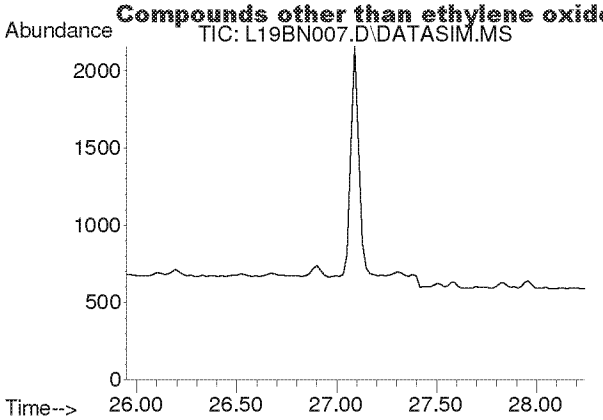
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

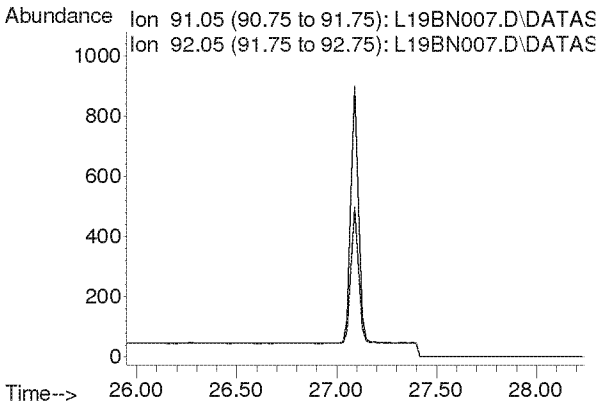


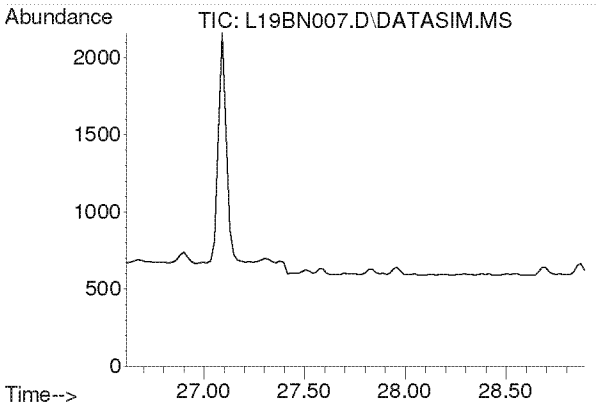
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



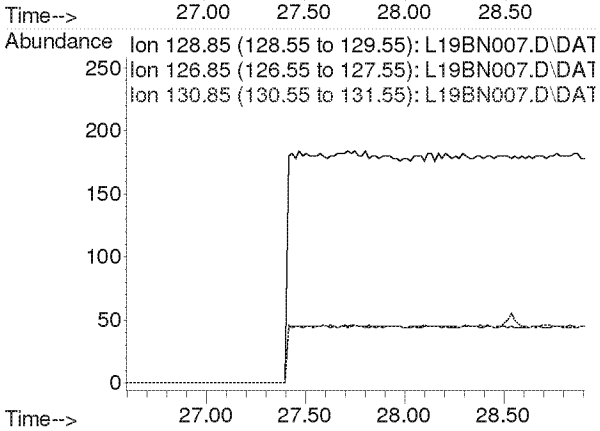


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

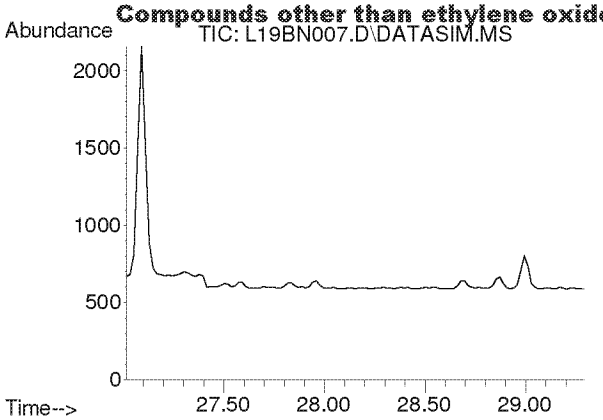
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

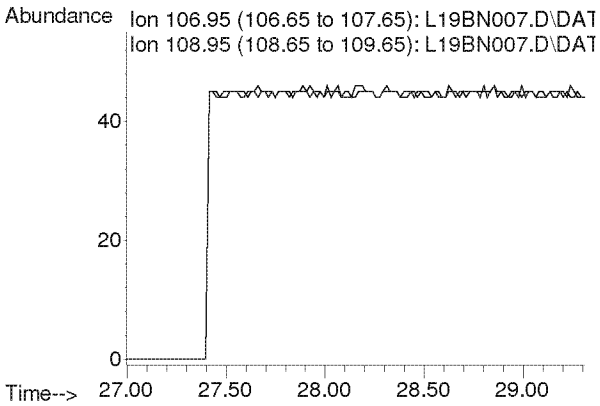


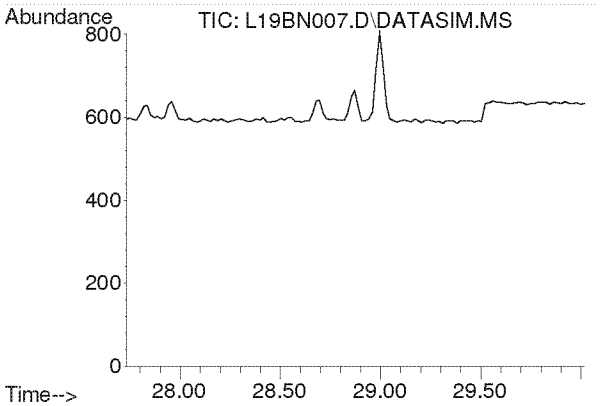
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



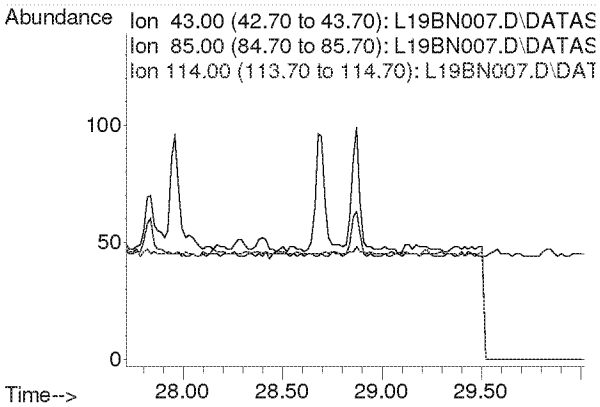


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

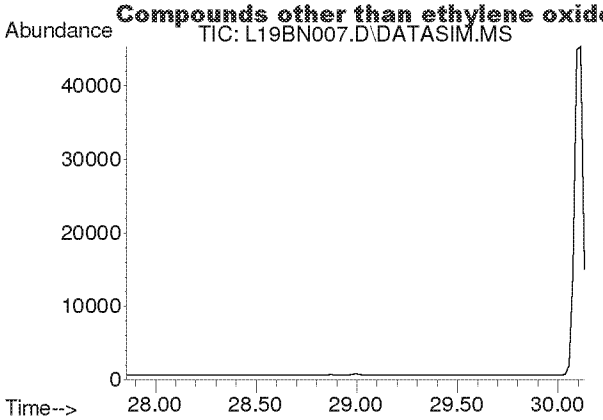
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

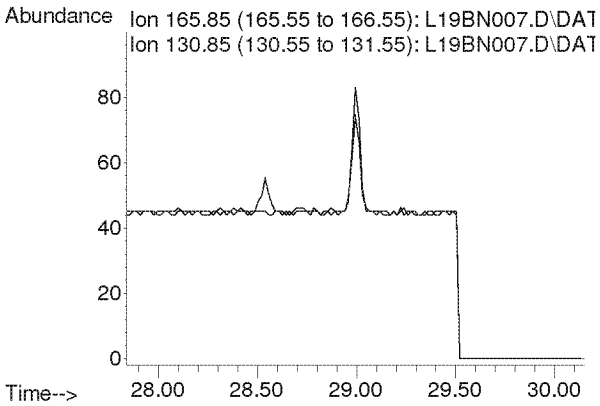


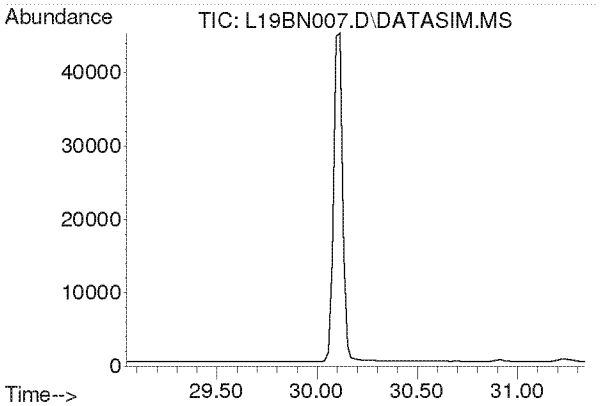
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



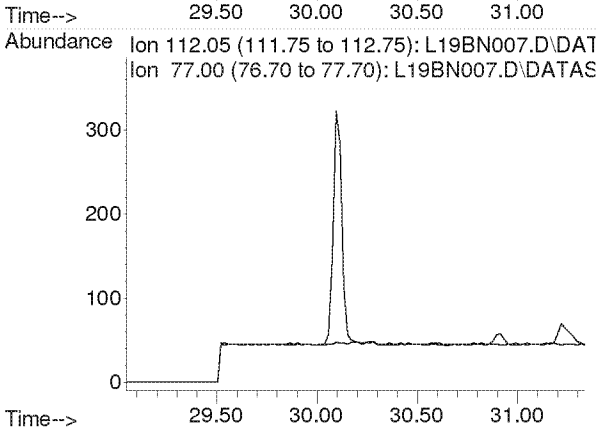


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

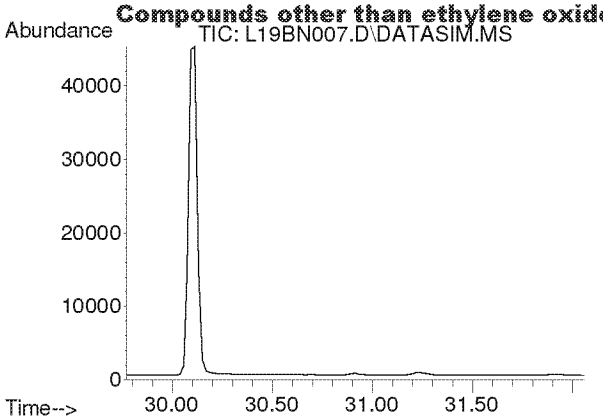
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

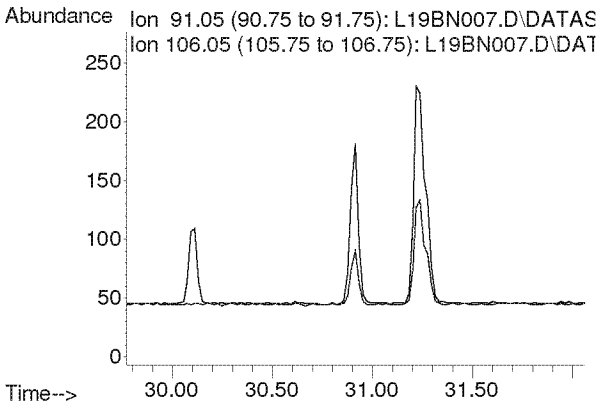


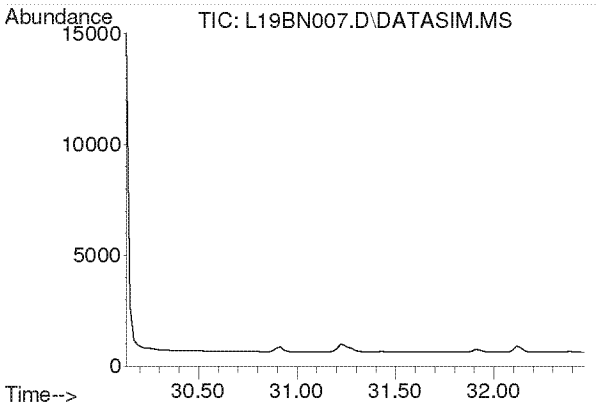
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



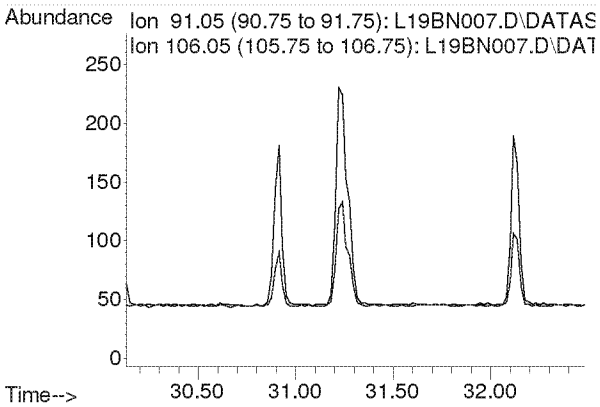


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

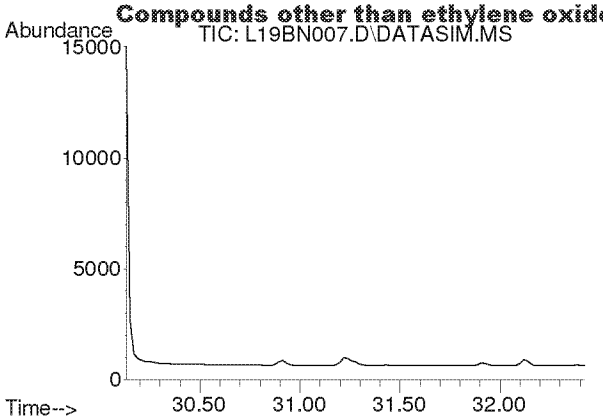
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

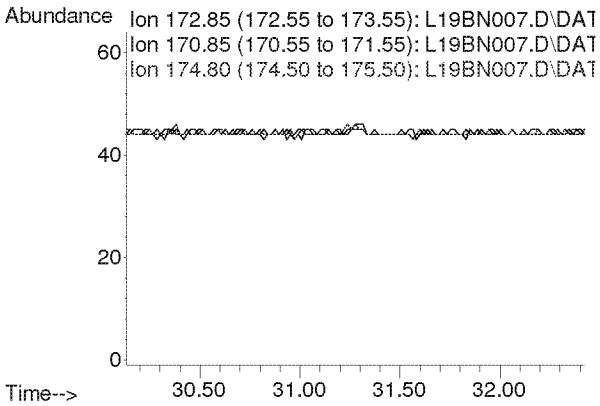


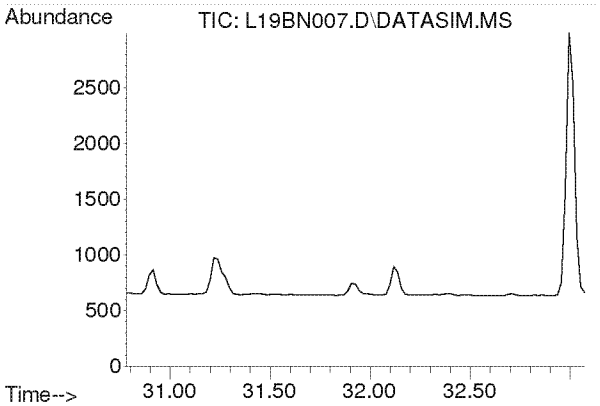
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



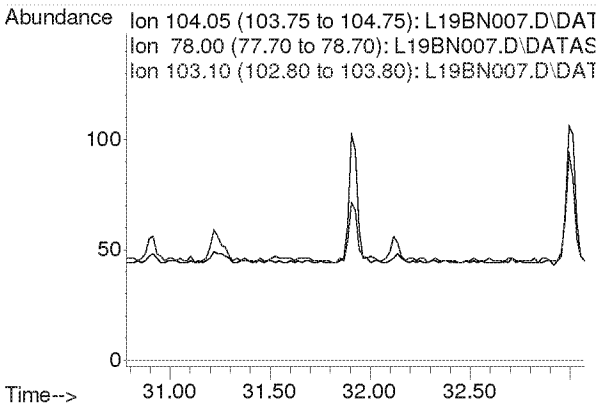


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

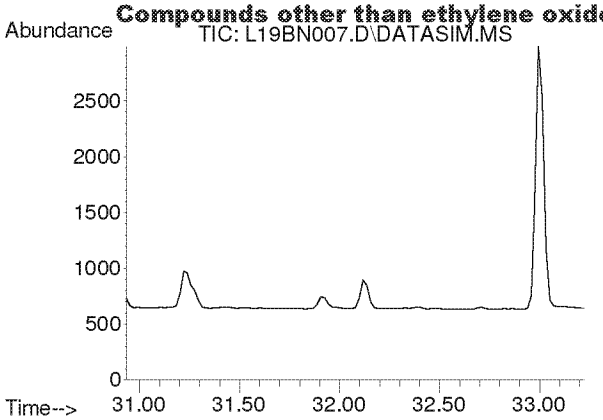
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

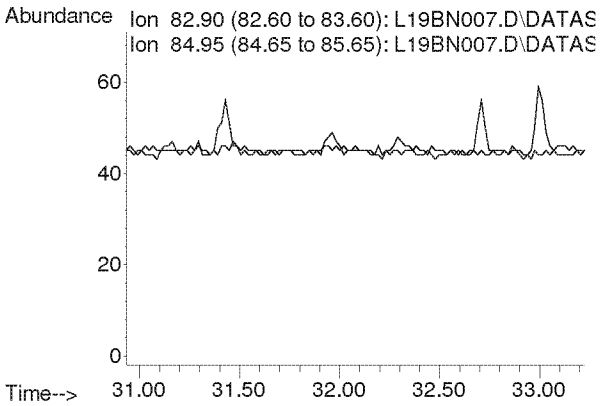


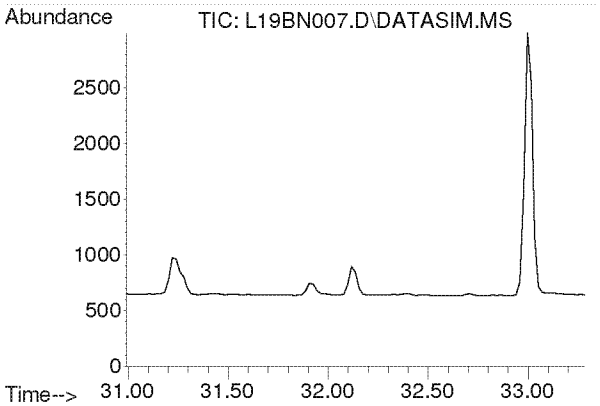
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



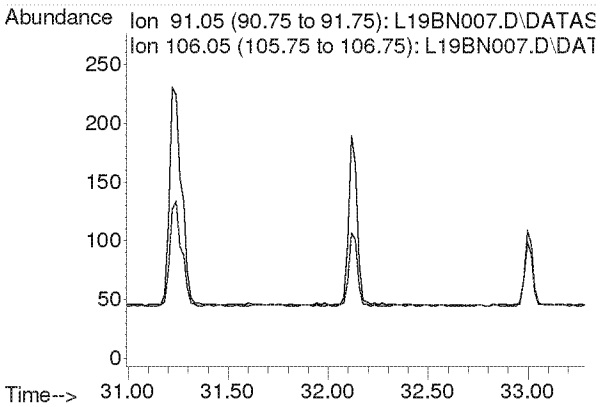


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

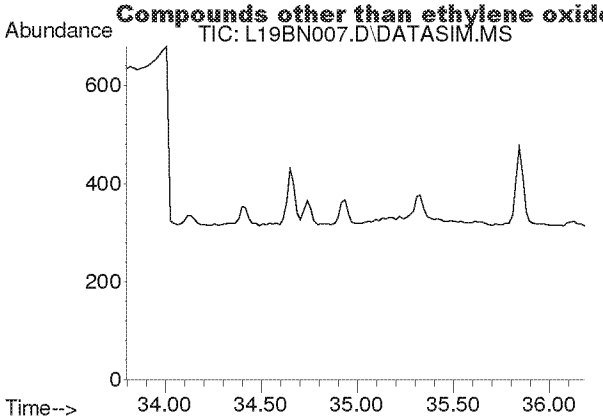
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

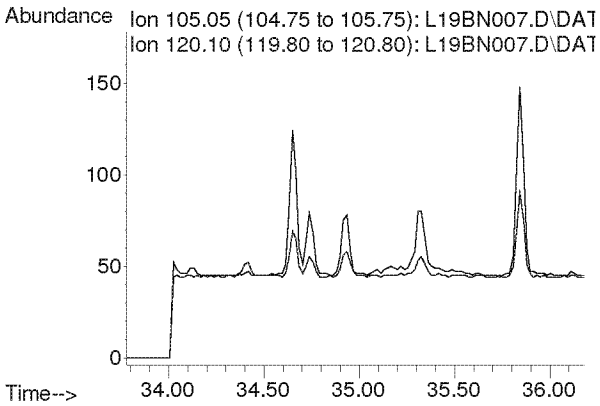


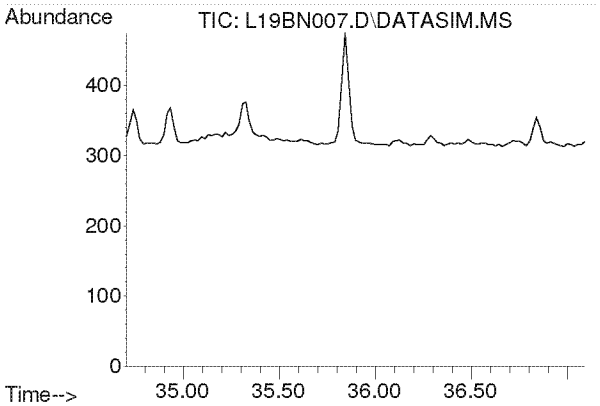
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



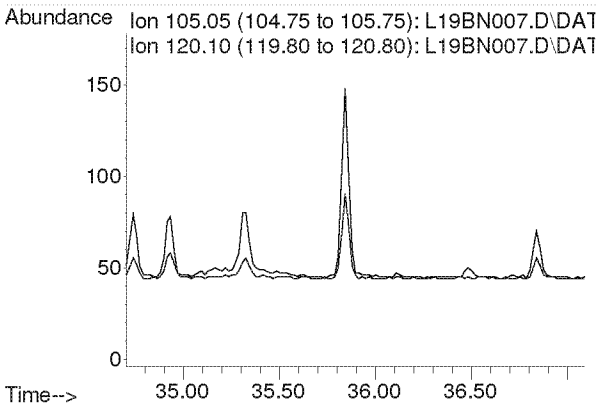


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

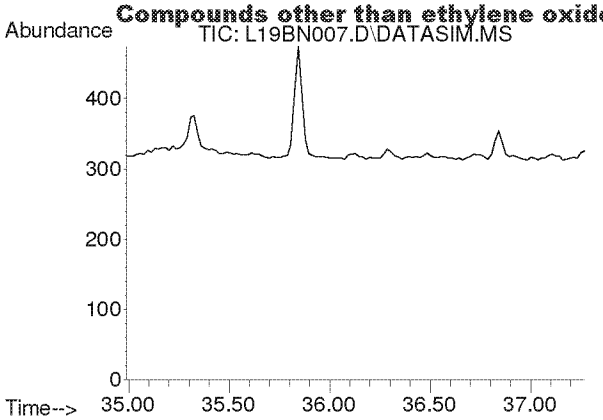
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

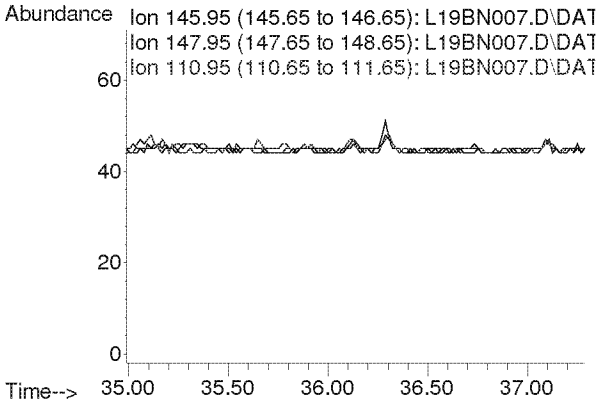


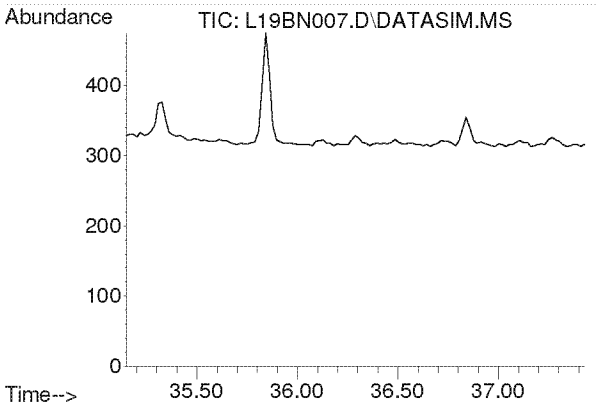
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



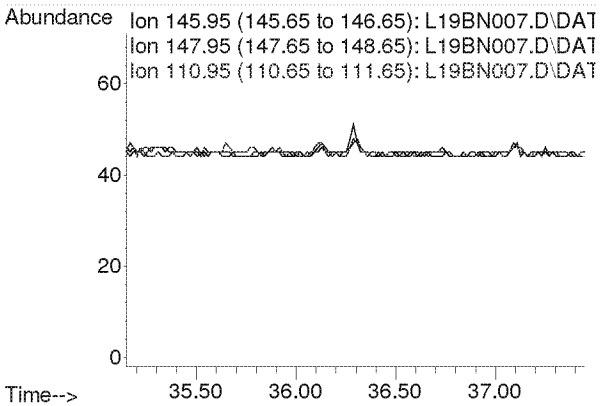


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

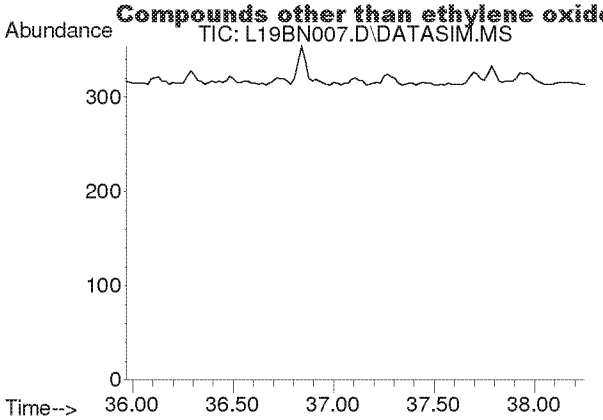
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

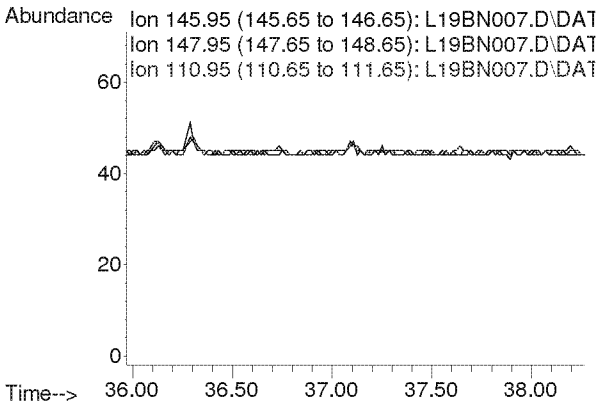


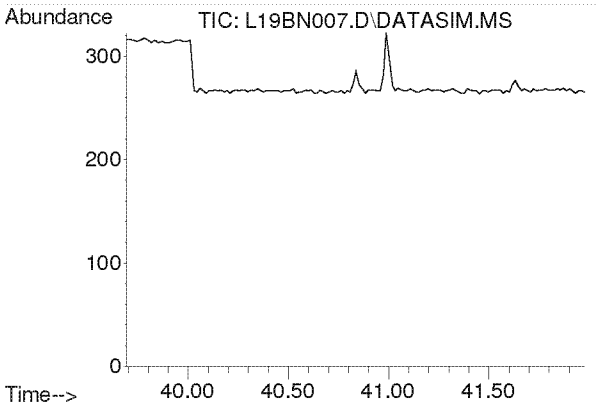
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



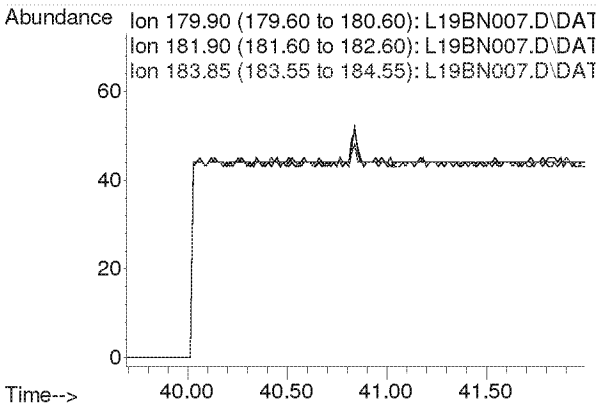


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

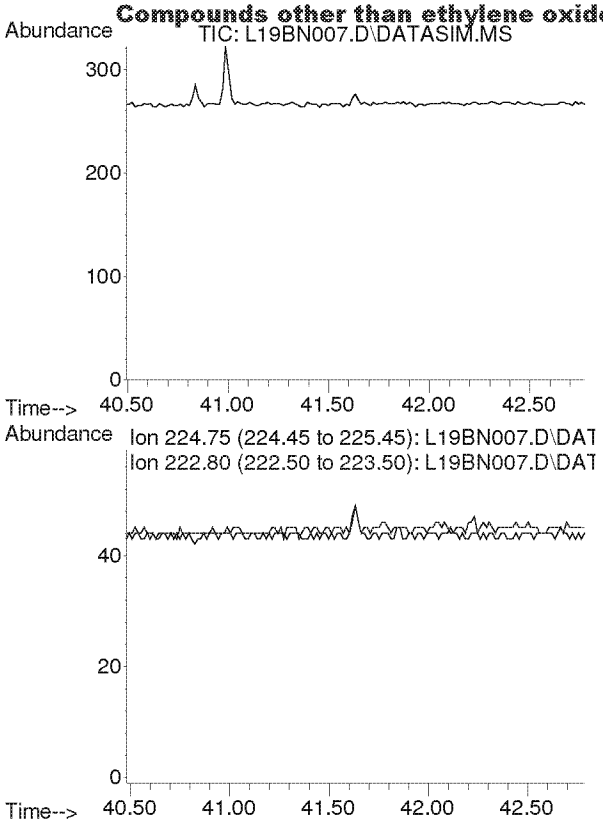
Lab File: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

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: L19BN007.D
Acq: 14 Feb 2019 2:36 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4