Compounds other than ethylene oxide were not quantitated.

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

Sequence ID:	L19B0, 1902044	**Instrument:**	MS1	**Batch:**	B901504
Cal Curve (Method):	9020003	**Analyst:**	MAK	**Date Analyzed:**	2-15-19
10% Review Sample IDs:	9021401-01	**Reviewer:**	Q.Nash	**Date:**	2/21/19
Optional Additional Review Sample IDs:		**Reviewer:**		**Date:**	

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
BFB Instrument Tune Performance Check – one per analysis sequence	Evaluation criteria presented in Section 16.1.1	2-20-19	RMB 2/20/19	QCN 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)	2-20-19	RMB 2/20/19	QCN 2/21/19		L19DL
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	2-20-19	RMB 2/20/19	QCN 2/21/19		L19DL
Continuing calibration verification (CCV), approximately mid-point of the calibration curve – one per analysis sequence	The response factor ≤ ±30% DEV from calibration curve average response factor	2-20-19	RMB 2/20/19	QCN 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	2-20-19	RMB 2/20/19	QCN 2/21/19		

Checked Sample 9021401-01 for t-2-butene. There may be a small amount. Sample was flagged. DRT 2/22/19

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	✓ 2-20-19	RMB 2/20/19	qcw 2/21/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	✓ 2-20-19	RMB 2/20/19	qcw 2/21/19		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	✓ 2-20-19	RMB 2/20/19	qcw 2/21/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	✓ 2-20-19	RMB 2/20/19	qcw 2/21/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	✓ 2-20-19	RMB 2/20/19	qcw 2/21/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	✓ 2-20-19	RMB 2/20/19	qcw 2/21/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 2/20/19	DST 2/22/19		
Qualifiers Check	Check to make sure LIMS data flags are correct	✓ 2-20-19	RMB 2/20/19	qcw 2/21/19		LK

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

L19B0002 ethylene oxide $\frac{6236 \times 4.77}{49228 \times 0.2728} = 2.21$ ppbv

L19B0024, EtOH $\frac{511(4.77)}{40651(0.2728)} = 0.220$ ppbv

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

Instrument: ERGMS#1

Calibration ID: 9020003

1902044

Printed: 2/20/2019 2:14:19PM

Lab Number	Sample Name	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
1902044-CCV1	Calibration Check	QC		1		9B12008	8L13002	
B9B1504-BLK1	Blank	QC		2			8L13002	
9021313-01	Gower MS	TO-15 2019	A	3			8L13002	Ethylene Oxide only
9021313-02	Willow Pond Park	TO-15 2019	A	4			8L13002	Ethylene Oxide only
9021313-03	Water Tower	TO-15 2019	A	5			8L13002	Ethylene Oxide only
9021313-04	West Neighborhood	TO-15 2019	A	6			8L13002	Ethylene Oxide only
9021313-05	Hinsdale South HS	TO-15 2019	A	7			8L13002	Ethylene Oxide only
9021313-06	WB Warehouse C1	TO-15 2019	A	8			8L13002	Ethylene Oxide only
9021313-07	WB Warehouse C2	TO-15 2019	A	9			8L13002	Ethylene Oxide only
B9B1504-DUP1	Duplicate	QC		10			8L13002	
B9B1504-DUP2	Duplicate	QC		11			8L13002	
9021313-08	Gower ES	TO-15 2019	A	12			8L13002	Ethylene Oxide only
9021313-09	WB Village Hall	TO-15 2019	A	13			8L13002	Ethylene Oxide only
9021401-03	WB Village Hall C1	TO-15 2019	A	14			8L13002	Ethylene Oxide only
9021401-04	WB Village Hall C2	TO-15 2019	A	15			8L13002	Ethylene Oxide only
B9B1504-DUP3	Duplicate	QC		16			8L13002	
B9B1504-DUP4	Duplicate	QC		17			8L13002	
9021401-01	Gower ES	TO-15 2019	A	18			8L13002	Ethylene Oxide only
9021401-02	Gower MS	TO-15 2019	A	19			8L13002	Ethylene Oxide only

Samples Loaded By Date

Randy Bowe 2/20/19

Data Processed By Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19BO.s
Comment: ANALYZE 2/15/19,9020003 exp 5/13/19, L19BO
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19BO\
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	L19BO001	BFB	BFB
2)	Sample	2	L19BO002	9020003	1902044-CCV1
3)	Sample	3	L19BO003	9020003	SNMOC-CCV1
4)	Sample	4	L19BO004	9020003	FLUSH
5)	Sample	5	L19BO005	9020003	B9B1504-BLK1
6)	Sample	6	L19BO006	9020003	T-H2-562
7)	Sample	7	L19BO007	9020003	T-H1-563
8)	Sample	8	L19BO008	9020003	T-H2-563
9)	Sample	9	L19BO009	9020003	9021313-01
10)	Sample	10	L19BO010	9020003	9021313-02
11)	Sample	11	L19BO011	9020003	9021313-03
12)	Sample	12	L19BO012	9020003	9021313-04
13)	Sample	13	L19BO013	9020003	9021313-05
14)	Sample	14	L19BO014	9020003	9021313-06
15)	Sample	15	L19BO015	9020003	9021313-07
16)	Sample	16	L19BO016	9020003	B9B1504-DUP1
17)	Sample	17	L19BO017	9020003	B9B1504-DUP2
18)	Sample	18	L19BO018	9020003	9021313-08
19)	Sample	19	L19BO019	9020003	9021313-09
20)	Sample	20	L19BO020	9020003	9021401-03
21)	Sample	21	L19BO021	9020003	9021401-04
22)	Sample	22	L19BO022	9020003	B9B1504-DUP3
23)	Sample	23	L19BO023	9020003	B9B1504-DUP4
24)	Sample	24	L19BO024	9020003	9021401-01
25)	Sample	25	L19BO025	9020003	9021401-02
26)	Sample	100	OFF	FIDOFF	OFF

2-20-19

ED_002475_00000013-00004

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19BO001	80 ML 8L13001	1
Sample	2	1902044-CCV1	9020003	L19BO002	80 ML 8L13001,9B12008	1
Sample	3	SNMOC-CCV1	9020003	L19BO003	80 ML 8L13001,9B13007	1
Sample	4	FLUSH	9020003	L19BO004	80 ML 8L13001	1
Sample	5	B9B1504-BLK1	9020003	L19BO005	80 ML 8L13001,T-H1-562,18870	1
Sample	6	T-H2-562	9020003	L19BO006	CAN SAT030 BATCH BLANK	1
Sample	7	T-H1-563	9020003	L19BO007	CAN A22235 BATCH BLANK	1
Sample	8	T-H2-563	9020003	L19BO008	CAN 5024 BATCH BLANK	1
Sample	9	9021313-01	9020003	L19BO009	GOWER MS 1/9/19	1
Sample	10	9021313-02	9020003	L19BO010	WILOW POND PARK 2/9/19	1
Sample	11	9021313-03	9020003	L19BO011	WATER TOWER 2/9/19	1
Sample	12	9021313-04	9020003	L19BO012	WEST NEIGHBOROHOOD 2/9/19	1
Sample	13	9021313-05	9020003	L19BO013	HINSDALE S. HS 2/9/19	1
Sample	14	9021313-06	9020003	L19BO014	EPA WB WAREHOUSE C1 2/9/19	1
Sample	15	9021313-07	9020003	L19BO015	EPA WB WAREHOUSE C2 2/9/19	1
Sample	16	B9B1504-DUP1	9020003	L19BO016	EPA WB WAREHOUSE R1 2/9/19	1
Sample	17	B9B1504-DUP2	9020003	L19BO017	EPA WB WAREHOUSE R2 2/9/19	1
Sample	18	9021313-08	9020003	L19BO018	GROWER ES 2/9/19	1
Sample	19	9021313-09	9020003	L19BO019	WB VILLAGE HALL 2/9/19	1
Sample	20	9021401-03	9020003	L19BO020	WB VILLAGE C1 2/12/19	1
Sample	21	9021401-04	9020003	L19BO021	WB VILLAGE C2 2/12/19	1
Sample	22	B9B1504-DUP3	9020003	L19BO022	WB VILLAGE R1 2/12/19	1
Sample	23	B9B1504-DUP4	9020003	L19BO023	WB VILLAGE R2 2/12/19	1
Sample	24	9021401-01	9020003	L19BO024	GOWER ES 2/13/19	1
Sample	25	9021401-02	9020003	L19BO025	GROWER 2/11/19	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

2-20-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19BO.SEQ
Date: 02-19-2019
Time: 10:31:41
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
1902044-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	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B1504-BLK1	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
T-H2-562	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
T-H1-563	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
T-H2-563	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021313-01	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021313-02	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021313-03	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021313-04	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021313-05	1	8	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021313-06	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021313-07	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B1504-DUP1	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B1504-DUP2	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021313-08	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021313-09	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021401-03	1	15	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021401-04	1	16	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B1504-DUP3	1	15	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B1504-DUP4	1	16	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021401-01	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9021401-02	1	14	250	0	C:\Smart\TO-15A_MS1.MPT	12:00

T-1079

Compounds other than ethylene oxide were not quantitated.

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

2/19/2019 9:59:26 AM
Leak Check for C:\Smart\L19BO.SEQ
Report File: C:\Smart\L19BO.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	4	---	---	1.2	1.3	0.10
1	5	---	---	1.2	1.3	0.10
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.1	1.2	0.10
1	8	---	---	1.2	1.2	0.00
1	9	---	---	1.1	1.2	0.10
1	10	---	---	1.2	1.2	0.00
1	11	---	---	1.1	1.2	0.10
1	12	---	---	1.2	1.2	0.00
1	15	---	---	1.2	1.2	0.00
1	16	---	---	1.2	1.3	0.10
1	13	---	---	1.2	1.3	0.10
1	14	---	---	1.2	1.2	0.00

7-10.5

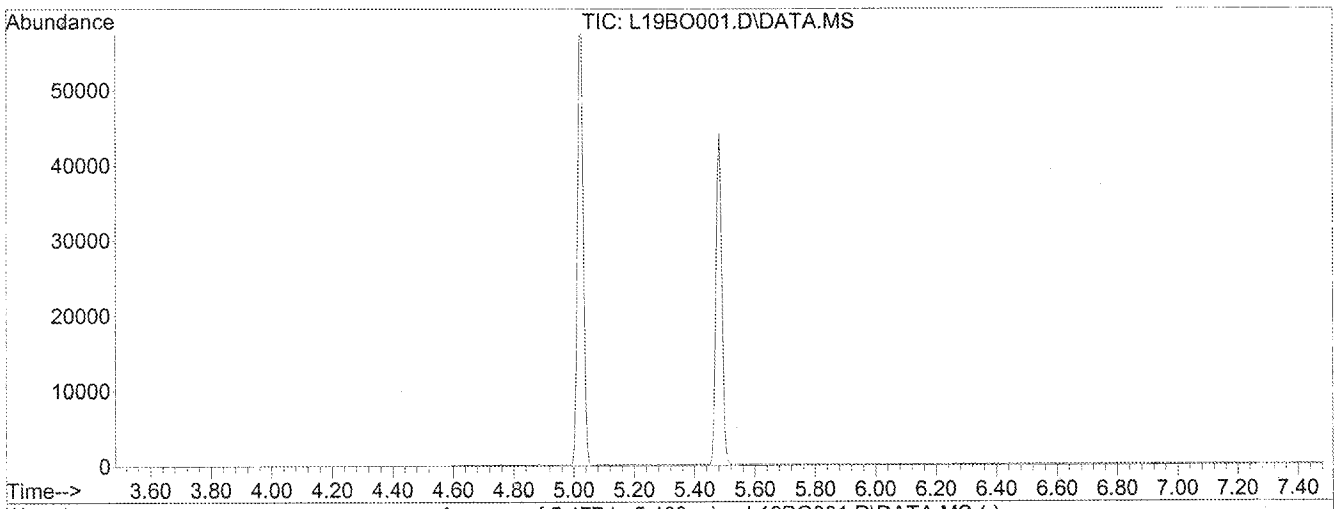
Compounds other than ethylene oxide were not quantitated.

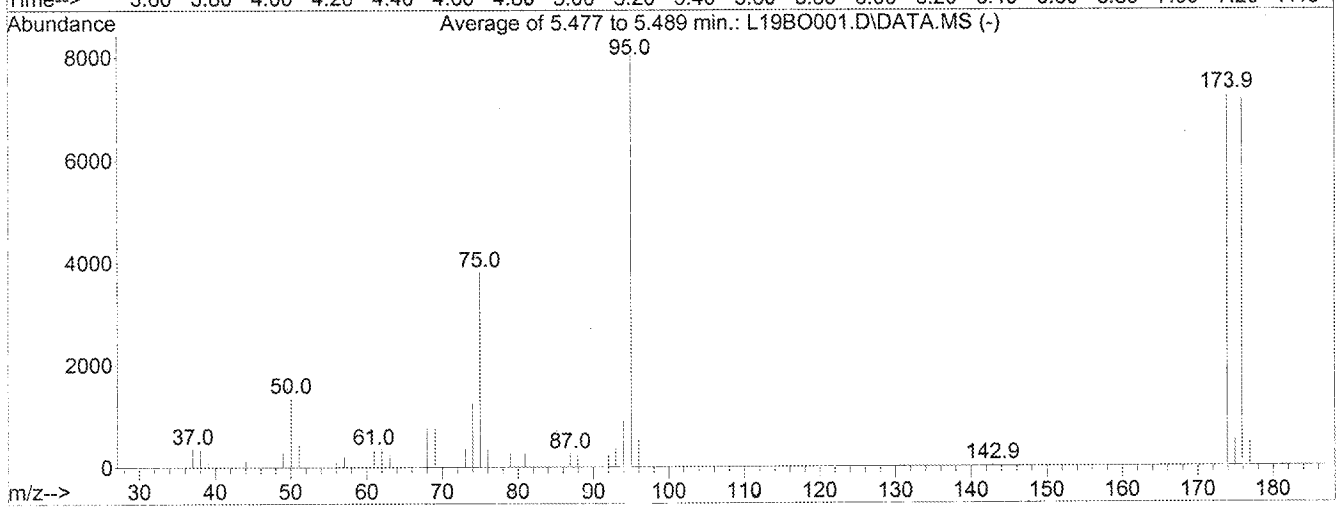
BFB

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO001.D
Acq On : 15 Feb 2019 6:42 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 146, 147, 148; Background Corrected with Scan 140

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.9	1353	PASS
75	95	30	66	47.5	3813	PASS
95	95	100	100	100.0	8025	PASS
96	95	5	9	6.7	540	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.4	7251	PASS
175	174	4	9	6.9	502	PASS
176	174	93	101	98.9	7173	PASS
177	176	5	9	6.9	497	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19BO\L19BO001.D
Tune Time : 15 Feb 2019 6:42 am

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

File	Sample	Internal Standard Responses		
L19BO002.D	1902044-CCV1	49228	125345	90287
L19BO005.D	B9B1504-BLK1	46937	119132	84206
L19BO006.D	T-H2-562	42408	103297	74458
L19BO007.D	T-H1-563	44224	107263	78527
L19BO008.D	T-H2-563	48720	123716	84064
L19BO009.D	9021313-01	40199	98361	69371
L19BO010.D	9021313-02	40342	97625	70252
L19BO011.D	9021313-03	40857	100244	71179
L19BO012.D	9021313-04	39708	97921	68625
L19BO013.D	9021313-05	41122	101341	70195
L19BO014.D	9021313-06	40599	100558	68995
L19BO015.D	9021313-07	40787	101464	68512
L19BO016.D	B9B1504-DUP1	40367	100362	70342
L19BO017.D	B9B1504-DUP2	42763	106308	71533
L19BO018.D	9021313-08	41100	102292	70807
L19BO019.D	9021313-09	39758	99316	68193
L19BO020.D	9021401-03	41942	105546	73858
L19BO021.D	9021401-04	39575	98218	71579
L19BO022.D	B9B1504-DUP3	39318	96521	70355
L19BO023.D	B9B1504-DUP4	39556	96858	68943
L19BO024.D	9021401-01	40651	102389	70890
L19BO025.D	9021401-02	38586	93058	67836

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

2-20-19

Compounds other than ethylene oxide were not quantitated.

Compound Name			IS-Hexane-d14	IS-Hexane-d14	IS-Difluorobenzene	IS-Difluorobenzene	IS-Chlorobenzene-d5	IS-Chlorobenzene-d5
Labels	Date Acquired	Data File Name	(# 1) Target Response	(# 1) Ret Time	(# 28) Target Response	(# 28) Ret Time	(# 42) Target Response	(# 42) Ret Time
	2/16/2019 6:38	L19BO025.D	38586	19.99	93058	23.15	67836	30.12
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	
	2/15/2019 7:25	L19BO002.D	49228	101	19.99	0	125345	106	23.15	0	90287	104	30.12	0.01
	2/15/2019 10:31	L19BO005.D	46937	97	19.99	0	119132	101	23.15	0	84206	97	30.12	0.01
	2/15/2019 11:34	L19BO006.D	42408	87	19.99	0	103297	87	23.15	0	74458	86	30.11	0
	2/15/2019 12:28	L19BO007.D	44224	91	19.99	0	107263	91	23.15	0	78527	91	30.11	0
	2/15/2019 13:28	L19BO008.D	48720	100	19.99	0	123716	105	23.15	0	84064	97	30.12	0.01
	2/15/2019 14:25	L19BO009.D	40199	83	19.99	0	98361	83	23.15	0	69371	80	30.11	0
	2/15/2019 15:27	L19BO010.D	40342	83	19.99	0	97625	83	23.15	0	70252	81	30.12	0.01
	2/15/2019 16:29	L19BO011.D	40857	84	19.99	0	100244	85	23.15	0	71179	82	30.11	0
	2/15/2019 17:31	L19BO012.D	39708	82	19.99	0	97921	83	23.15	0	68625	79	30.11	0
	2/15/2019 18:31	L19BO013.D	41122	85	19.99	0	101341	86	23.15	0	70195	81	30.11	0
	2/15/2019 19:32	L19BO014.D	40599	84	19.99	0	100558	85	23.15	0	68995	80	30.11	0
	2/15/2019 20:32	L19BO015.D	40787	84	19.99	0	101464	86	23.15	0	68512	79	30.11	0
	2/15/2019 21:32	L19BO016.D	40367	83	19.99	0	100362	85	23.15	0	70342	81	30.12	0.01
	2/15/2019 22:32	L19BO017.D	42763	88	19.99	0	106308	90	23.15	0	71533	83	30.12	0.01
	2/15/2019 23:33	L19BO018.D	41100	85	19.99	0	102292	87	23.15	0	70807	82	30.12	0.01
	2/16/2019 12:33	L19BO019.D	39758	82	19.99	0	99316	84	23.15	0	68193	79	30.11	0
	2/16/2019 1:33	L19BO020.D	41942	86	19.99	0	105546	89	23.15	0	73858	85	30.12	0.01
	2/16/2019 2:33	L19BO021.D	39575	81	19.99	0	98218	83	23.15	0	71579	83	30.12	0.01
	2/16/2019 3:34	L19BO022.D	39318	81	19.99	0	96521	82	23.15	0	70355	81	30.12	0.01
	2/16/2019 4:36	L19BO023.D	39556	81	19.99	0	96858	82	23.15	0	68943	80	30.12	0.01
	2/16/2019 5:36	L19BO024.D	40651	84	19.99	0	102389	87	23.15	0	70890	82	30.11	0
	2/16/2019 6:38	L19BO025.D	38586	79	19.99	0	93058	79	23.15	0	67836	78	30.12	0.01

2-2019

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO002.D
Acq On : 15 Feb 2019 7:25 am
Operator : MAH
Sample : 1902044-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 11:44:54 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

2-20-19

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	0.348	11.0	100	0.00
3	CT	Propylene	0.487	0.474	2.7	100	0.00
4	CT	Dichlorodifluoromethane	2.300	2.135	7.2	100	0.00
5	CT	Chloromethane	0.592	0.525	11.3	100	0.00
6	CT	Dichlorotetrafluoroethane	2.013	2.033	-1.0	100	0.00
7	CT	Vinyl Chloride	0.662	0.599	9.5	100	0.00
8	CT	1,3-Butadiene	0.450	0.406	9.8	100	0.00
9	CT	Ethylene oxide	0.273	0.242	11.4	100	0.00
10	CT	Bromomethane	0.627	0.564	10.0	100	0.00
11	CT	Chloroethane	0.263	0.237	9.9	100	0.00
12	CT	Acetonitrile	0.414	0.353	14.7	100	0.00
13	CT	Acrolein	0.209	0.181	13.4	100	0.00
14	CT	Trichlorofluoromethane	1.944	1.580	18.7	100	0.00
15	CT	Acrylonitrile	0.330	0.296	10.3	100	0.00
16	CT	1,1-Dichloroethene	0.843	0.824	2.3	100	0.00
17	CT	Methylene Chloride	0.557	0.528	5.2	100	0.00
18	CT	Carbon Disulfide	1.716	1.534	10.6	100	0.00
19	CT	Trichlorotrifluoroethane	1.307	1.231	5.8	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	0.764	2.8	100	0.00
22	CT	Methyl tert-Butyl Ether	1.318	1.190	9.7	100	0.00
23	CT	Chloroprene	0.639	0.629	1.6	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.620	0.582	6.1	100	0.00
25	CT	Bromochloromethane	0.335	0.308	8.1	100	0.00
26	CT	Chloroform	0.912	0.913	-0.1	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	0.560	0.0	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	0.327	11.6	100	0.00
31	CT	Benzene	0.529	0.524	0.9	100	0.00
32	CT	Carbon Tetrachloride	0.396	0.393	0.8	100	0.00
33	CT	tert-Amyl Methyl Ether	0.449	0.403	10.2	100	0.00
34	CT	1,2-Dichloropropane	0.201	0.191	5.0	100	0.00
35	CT	Ethyl Acrylate	0.171	0.185	-8.2	100	0.00
36	CT	Bromodichloromethane	0.356	0.304	14.6	100	0.00
37	CT	Trichloroethylene	0.252	0.223	11.5	100	0.00
38	CT	Methyl Methacrylate	0.513	0.527	-2.7	100	0.00
39	CT	cis-1,3-Dichloropropene	0.175	0.188	-7.4	100	0.00
40	CT	Methyl Isobutyl Ketone	0.377	0.332	11.9	100	0.00
41	CT	trans-1,3-Dichloropropene	0.117	0.125	-6.8	100	0.00
42	CT	1,1,2-Trichloroethane	0.184	0.175	4.9	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.779	0.774	0.6	100	0.00
45	CT	Dibromochloromethane	1.529	1.449	5.2	100	0.00
46	CT	1,2-Dibromoethane	0.292	0.304	-4.1	100	0.00
47	CT	n-Octane	0.469	0.438	6.6	100	0.00
48	CT	Tetrachloroethylene	0.375	0.357	4.8	100	0.00

ED_002475_00000013-00011

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO002.D
Acq On : 15 Feb 2019 7:25 am
Operator : MAH
Sample : 1902044-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 11:44:54 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	0.493	0.8	100	0.00
50	CT	Ethylbenzene	0.819	0.818	0.1	100	0.00
51	CT	m,p-Xylene	0.691	0.675	2.3	100	0.00
52	CT	Bromoform	0.296	0.286	3.4	100	0.00
53	CT	Styrene	0.392	0.383	2.3	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.446	0.410	8.1	100	0.00
55	CT	o-Xylene	0.682	0.675	1.0	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.732	0.662	9.6	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.633	0.580	8.4	100	0.00
58	CT	m-Dichlorobenzene	0.333	0.286	14.1	100	0.00
59	CT	p-Dichlorobenzene	0.271	0.253	6.6	100	0.00
60	CT	o-Dichlorobenzene	0.305	0.270	11.5	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.103	0.102	1.0	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.264	0.243	8.0	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\L19BO\
Data File : L19BO002.D
Acq On : 15 Feb 2019 7:25 am
Operator : MAH
Sample : 1902044-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 11:44:54 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

T-10A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	49228	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	125345	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.115	117	90287	4.7400	ppbv	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.403	26	8627	2.1400	ppbv	100
3) Propylene	7.823	41	11997	2.3857	ppbv	100
4) Dichlorodifluoromethane	8.685	85	52444	2.2090	ppbv	100
5) Chloromethane	9.740	50	13439	2.1986	ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	51199	2.4639	ppbv	99
7) Vinyl Chloride	11.119	62	15445	2.2591	ppbv	100
8) 1,3-Butadiene	11.783	54	10353	2.2275	ppbv	99
9) Ethylene oxide	12.393	29	6236	2.2148	ppbv	98
10) Bromomethane	12.588	94	14550	2.2489	ppbv	100
11) Chloroethane	13.280	64	6107	2.2484	ppbv	100
12) Acetonitrile	14.355	41	9206	2.1548	ppbv	96
13) Acrolein	14.634	56	4525	2.1019	ppbv	100
14) Trichlorofluoromethane	15.214	101	40776	2.0327	ppbv	100
15) Acrylonitrile	15.933	53	7636	2.2400	ppbv	99
16) 1,1-Dichloroethene	16.443	61	20746	2.3838	ppbv	100
17) Methylene Chloride	16.744	49	13514	2.3503	ppbv	99
18) Carbon Disulfide	16.930	76	39258	2.2168	ppbv	100
19) Trichlorotrifluoroethane	17.301	101	31006	2.2982	ppbv	100
20) trans-1,2-Dichloroethy...	18.335	96	11130	2.3072	ppbv	99
21) 1,1-Dichloroethane	18.630	63	19155	2.3623	ppbv	100
22) Methyl tert-Butyl Ether	18.789	73	31200	2.2942	ppbv	99
23) Chloroprene	19.537	53	16091	2.4396	ppbv	100
24) cis-1,2-Dichloroethylene	19.945	61	15023	2.3466	ppbv	100
25) Bromochloromethane	20.194	128	7861	2.2715	ppbv	100
26) Chloroform	20.421	83	23546	2.5027	ppbv	99
27) Ethyl tert-Butyl Ether	21.182	59	31130	2.3934	ppbv	99
28) 1,2-Dichloroethane	21.495	62	14398	2.4933	ppbv	100
30) 1,1,1-Trichloroethane	21.867	97	20309	2.1858	ppbv	98
31) Benzene	22.553	78	33059	2.4880	ppbv	100
32) Carbon Tetrachloride	22.788	117	24887	2.5008	ppbv	100
33) tert-Amyl Methyl Ether	23.520	73	26296	2.3304	ppbv	100
34) 1,2-Dichloropropane	23.788	63	12128	2.4009	ppbv	97
35) Ethyl Acrylate	23.891	55	11774	2.7435	ppbv	99
36) Bromodichloromethane	24.076	83	19568	2.1889	ppbv	100
37) Trichloroethylene	24.179	130	14089	2.2259	ppbv	99
38) Methyl Methacrylate	24.550	41	33627	2.6106	ppbv	100
39) cis-1,3-Dichloropropene	25.528	75	12005	2.7368	ppbv	94
40) Methyl Isobutyl Ketone	25.604	43	21112	2.2295	ppbv	100
41) trans-1,3-Dichloropropene	26.367	75	7711	2.6238	ppbv	99
42) 1,1,2-Trichloroethane	26.634	97	10872	2.3523	ppbv	99
44) Toluene	27.092	91	35956	2.4235	ppbv	100
45) Dibromochloromethane	27.751	129	70098	2.4069	ppbv	100
46) 1,2-Dibromoethane	28.155	107	14467	2.6005	ppbv	100
47) n-Octane	28.874	43	21044	2.3549	ppbv	99
48) Tetrachloroethylene	28.997	166	16935	2.3716	ppbv	99
49) Chlorobenzene	30.191	112	23106	2.4402	ppbv	100
50) Ethylbenzene	30.917	91	38933	2.4959	ppbv	100

Compounds other than ethylene oxide were not quantitated

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO002.D
Acq On : 15 Feb 2019 7:25 am
Operator : MAH
Sample : 1902044-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 11:44:54 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

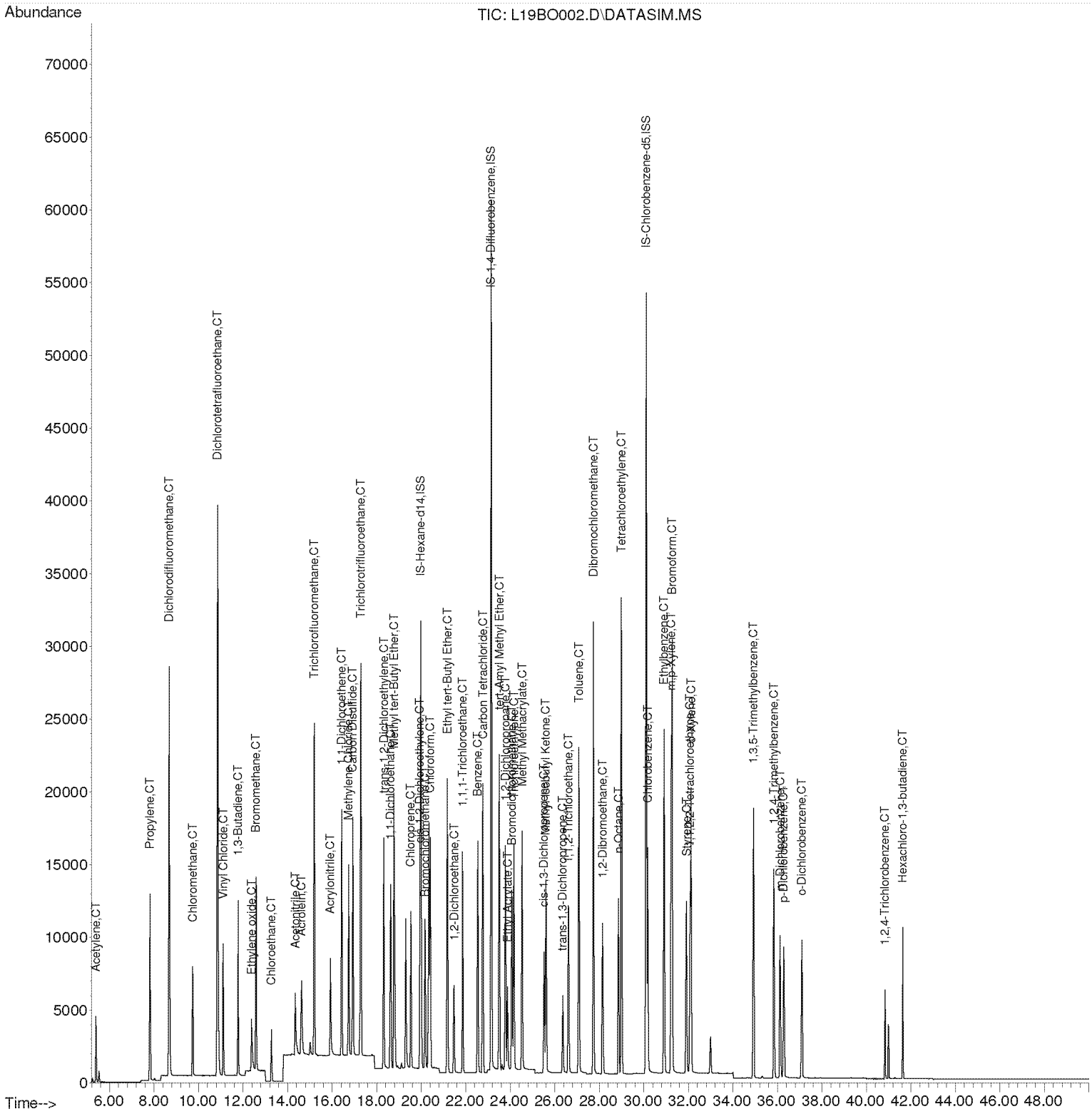
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) m,p-Xylene	31.241	91	64021	4.8662	ppbv		99
52) Bromoform	31.279	173	13816	2.4535	ppbv		100
53) Styrene	31.928	104	18251	2.4469	ppbv	#	99
54) 1,1,2,2-Tetrachloroethane	32.081	83	19747	2.3256	ppbv		100
55) o-Xylene	32.138	91	31380	2.4169	ppbv		99
56) 1,3,5-Trimethylbenzene	34.937	105	31791	2.2791	ppbv		99
57) 1,2,4-Trimethylbenzene	35.845	105	26289	2.1791	ppbv		100
58) m-Dichlorobenzene	36.130	146	13069	2.0604	ppbv		99
59) p-Dichlorobenzene	36.291	146	12562	2.4312	ppbv		99
60) o-Dichlorobenzene	37.110	146	12878	2.2198	ppbv		100
61) 1,2,4-Trichlorobenzene	40.841	180	4801	2.4401	ppbv		98
62) Hexachloro-1,3-butadiene	41.635	225	11562	2.3010	ppbv		100

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

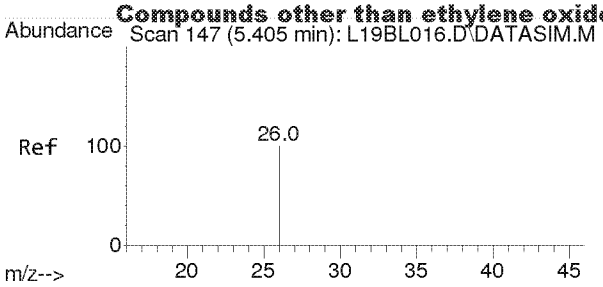
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO002.D
Acq On : 15 Feb 2019 7:25 am
Operator : MAH
Sample : 1902044-CCV1
Misc : 80 ML 8L13001,9B12008
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 11:44:54 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

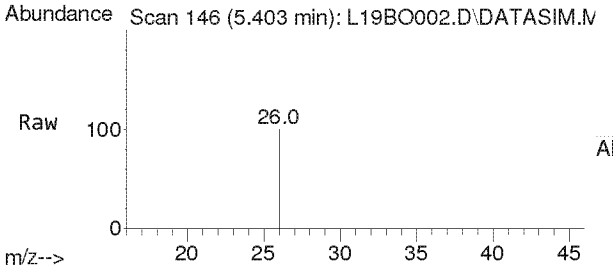


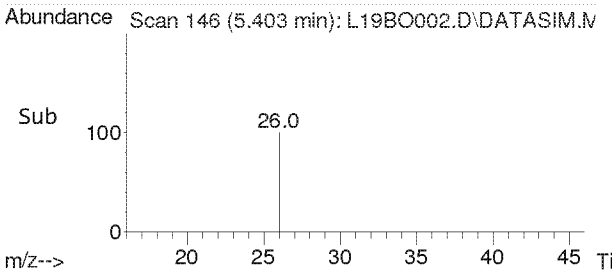
Compounds other than ethylene oxide were not quantitated.

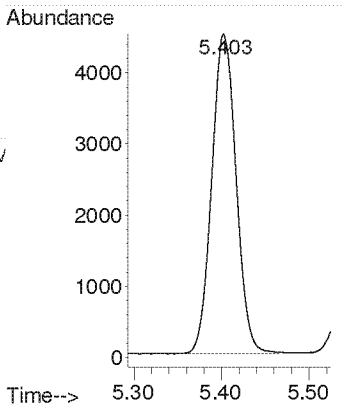


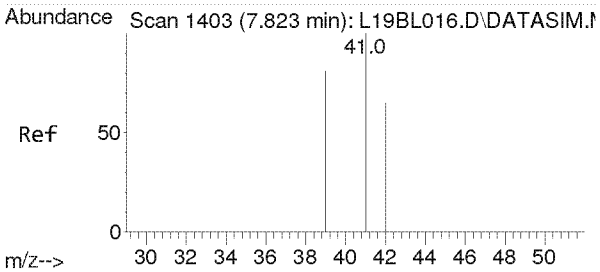
#2
Acetylene
Concen: 2.140 ppbv
RT: 5.403 min Scan# 146
Delta R.T. -0.002 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 26 Resp: 8627





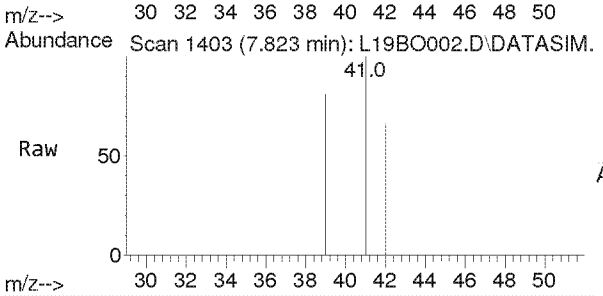


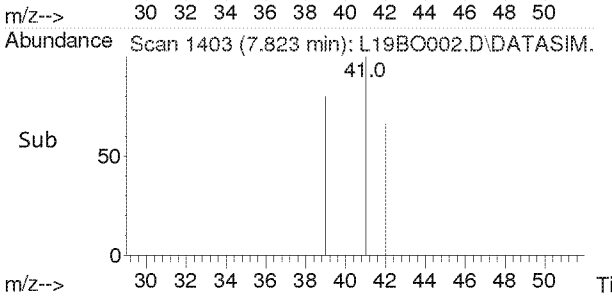


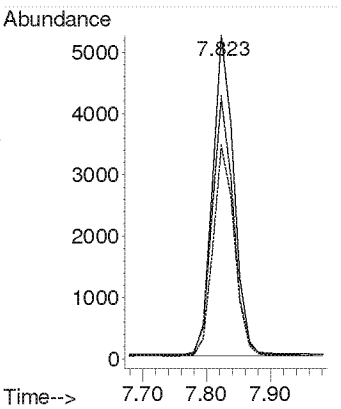
#3
Propylene
Concen: 2.386 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 41 Resp: 11997

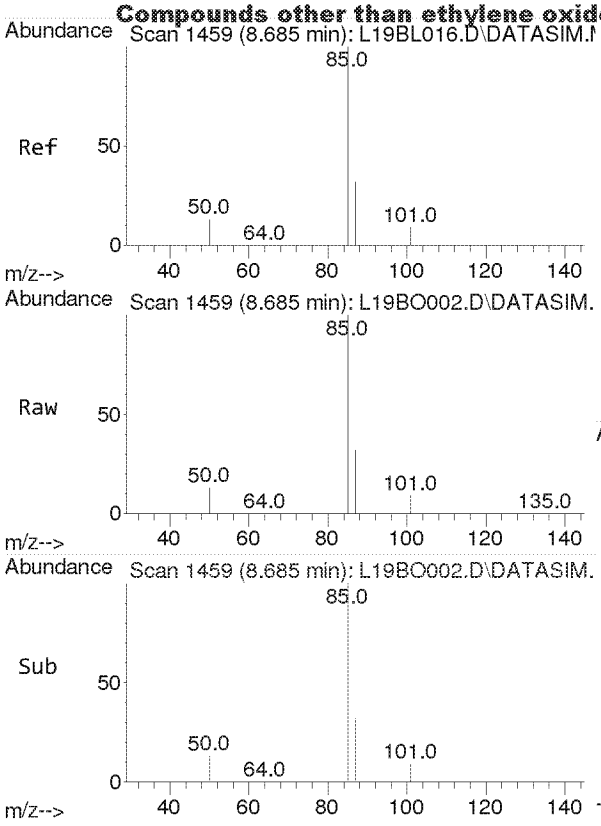
Ion	Ratio	Lower	Upper
41	100		
39	79.6	64.2	96.2
42	66.0	52.6	79.0







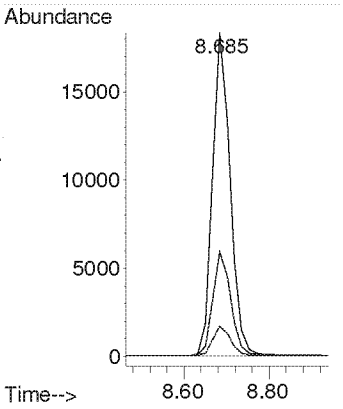
Compounds other than ethylene oxide were not quantitated.

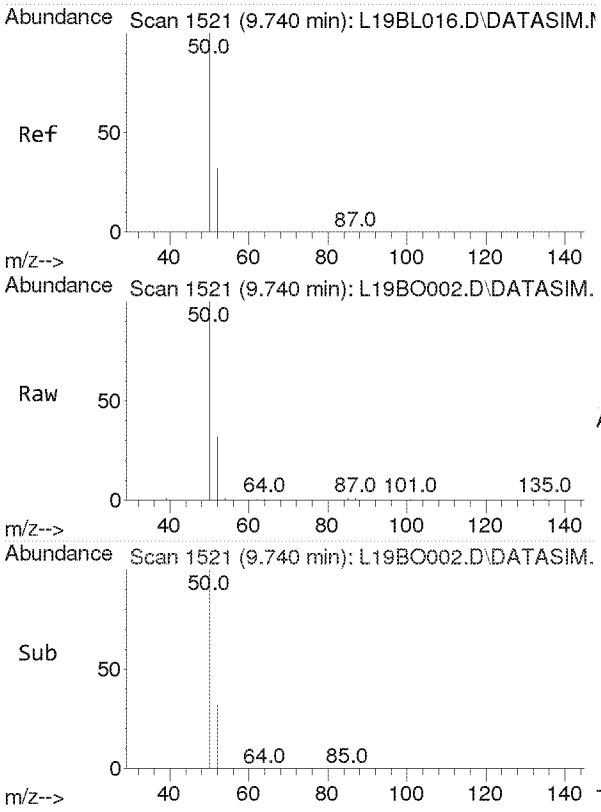


#4
Dichlorodifluoromethane
Concen: 2.209 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 85 Resp: 52444

Ion	Ratio	Lower	Upper
85	100		
87	32.5	26.0	39.0
101	9.0	7.3	10.9

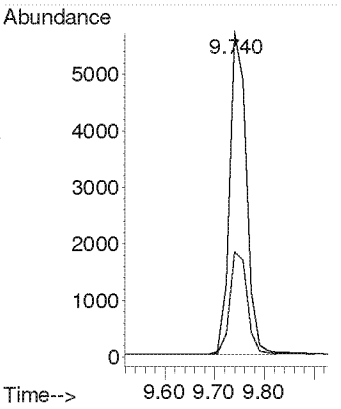




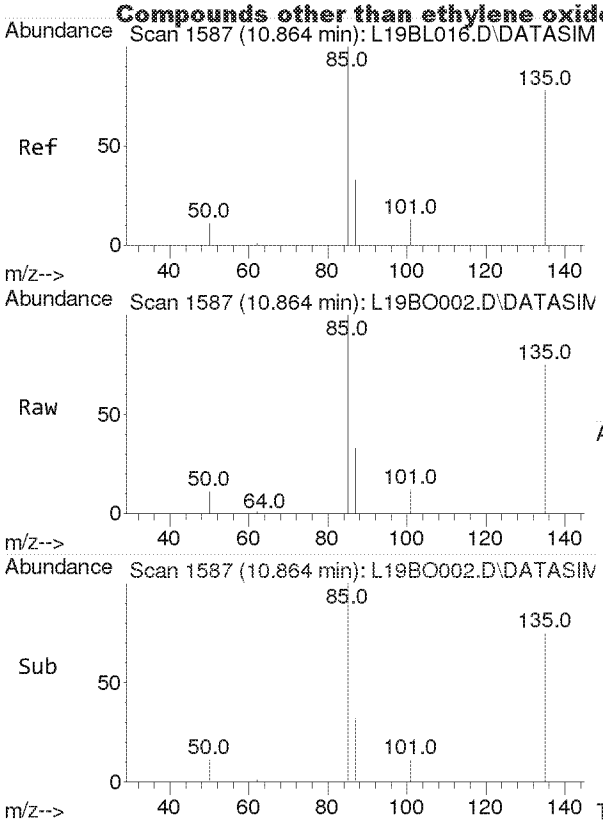
#5
Chloromethane
Concen: 2.199 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 50 Resp: 13439

Ion	Ratio	Lower	Upper
50	100		
52	32.8	26.1	39.1



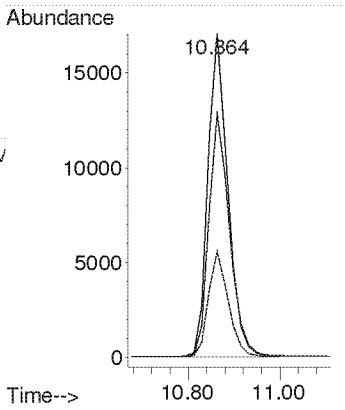
Compounds other than ethylene oxide were not quantitated.

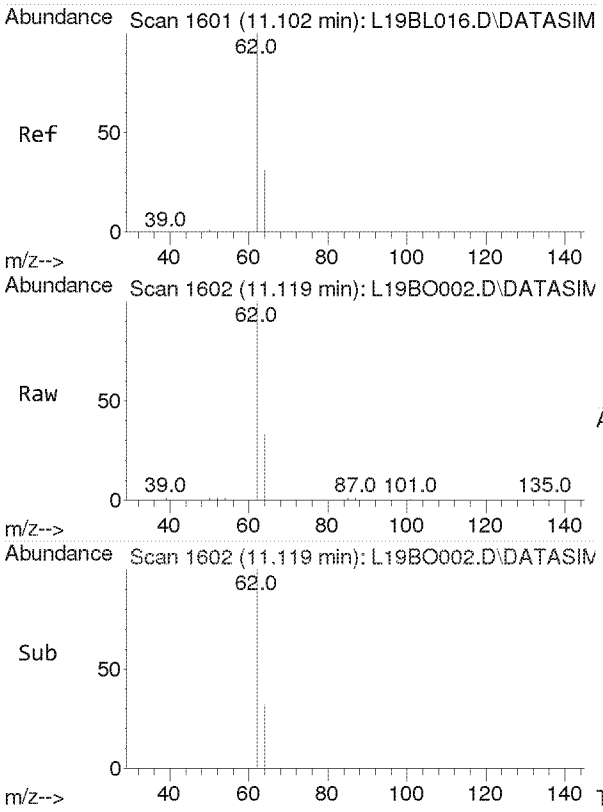


#6
Dichlorotetrafluoroethane
Concen: 2.464 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 85 Resp: 51199

Ion	Ratio	Lower	Upper
85	100		
135	78.3	63.2	94.8
87	32.3	25.9	38.9

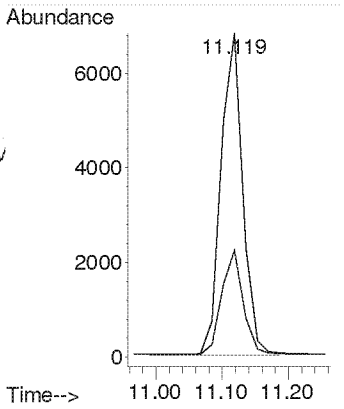




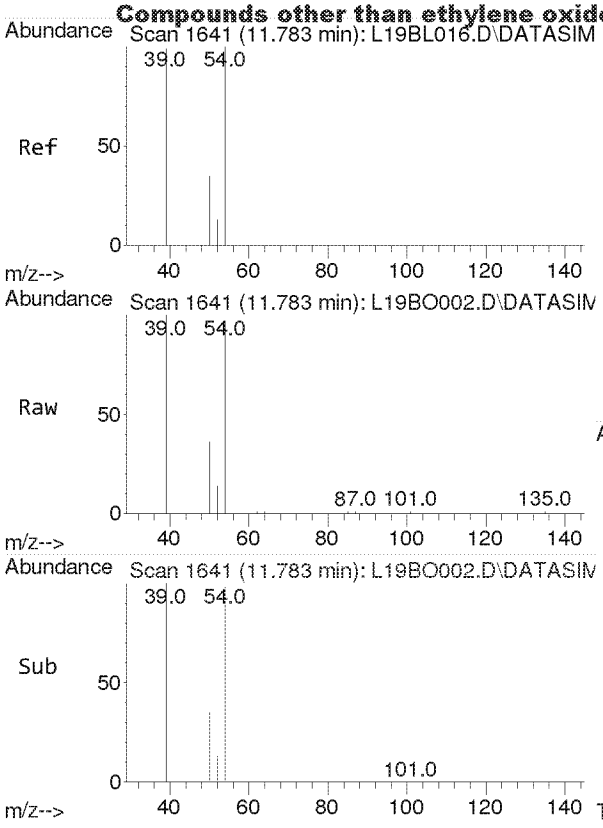
#7
Vinyl Chloride
Concen: 2.259 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. 0.017 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 62 Resp: 15445

Ion	Ratio	Lower	Upper
62	100		
64	31.8	25.4	38.0



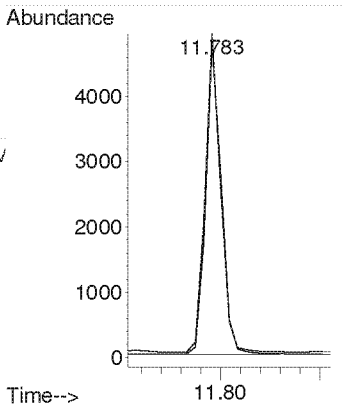
Compounds other than ethylene oxide were not quantitated.

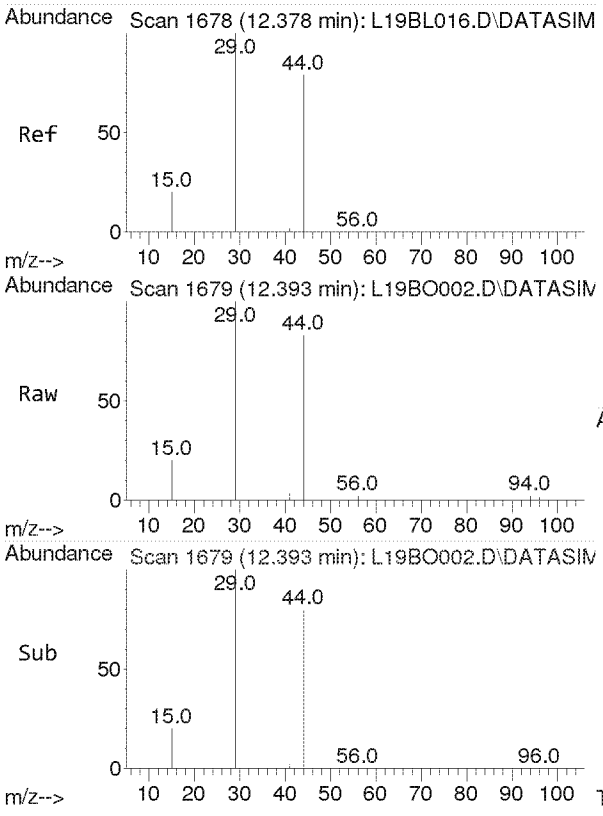


#8
1,3-Butadiene
Concen: 2.228 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 54 Resp: 10353

Ion	Ratio	Lower	Upper
54	100		
39	101.2	81.6	122.4

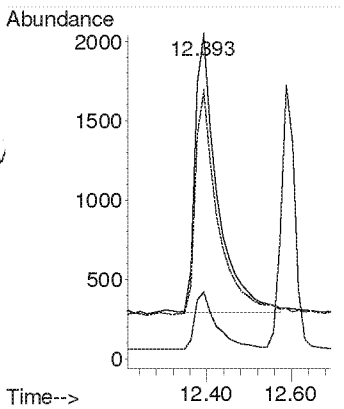




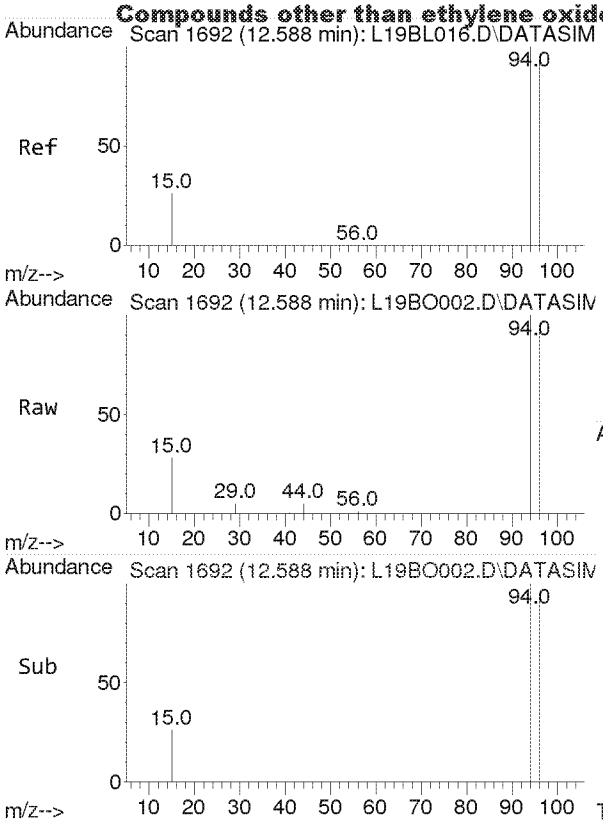
#9
Ethylene oxide
Concen: 2.215 ppbv
RT: 12.393 min Scan# 1679
Delta R.T. 0.015 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 29 Resp: 6236

Ion	Ratio	Lower	Upper
29	100		
15	20.6	16.0	24.0
44	83.5	65.4	98.2



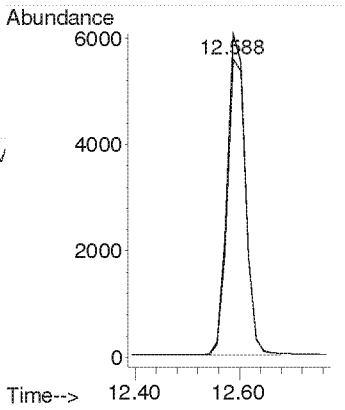
Compounds other than ethylene oxide were not quantitated.

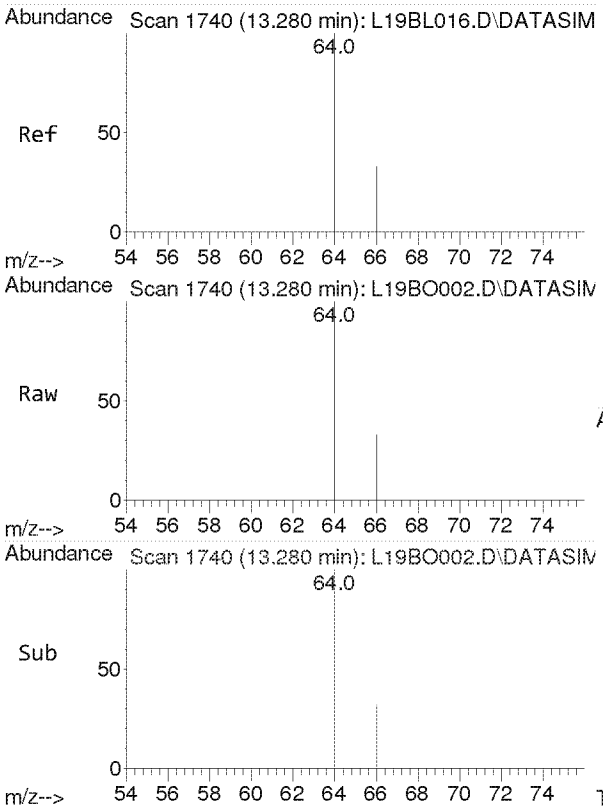


#10
Bromomethane
Concen: 2.249 ppbv
RT: 12.588 min Scan# 1692
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 94 Resp: 14550

Ion	Ratio	Lower	Upper
94	100		
96	94.2	75.5	113.3

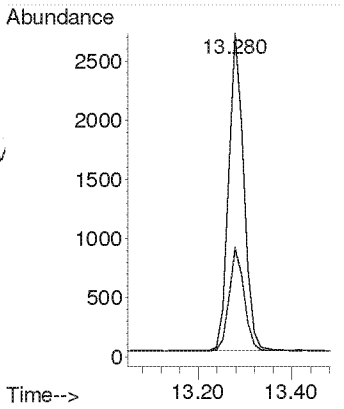




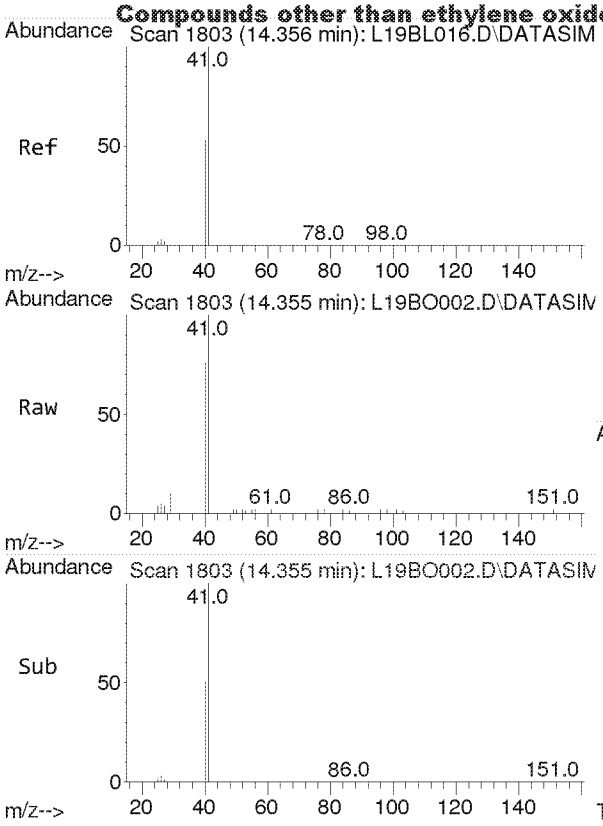
#11
Chloroethane
Concen: 2.248 ppbv
RT: 13.280 min Scan# 1740
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 64 Resp: 6107

Ion	Ratio	Lower	Upper
64	100		
66	32.0	25.8	38.6



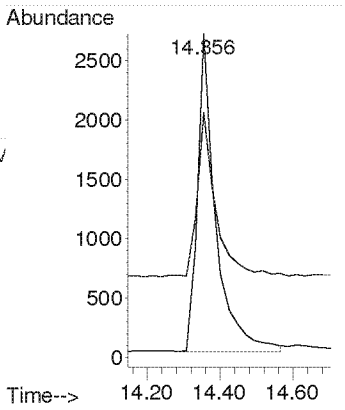
Compounds other than ethylene oxide were not quantitated.

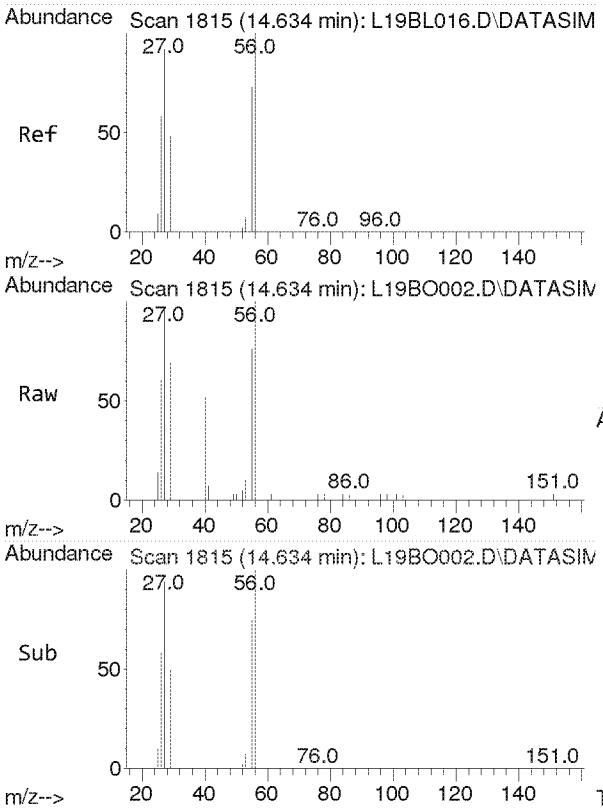


#12
Acetonitrile
Concen: 2.155 ppbv
RT: 14.355 min Scan# 1803
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 41 Resp: 9206

Ion	Ratio	Lower	Upper
41	100		
40	50.3	42.2	63.4

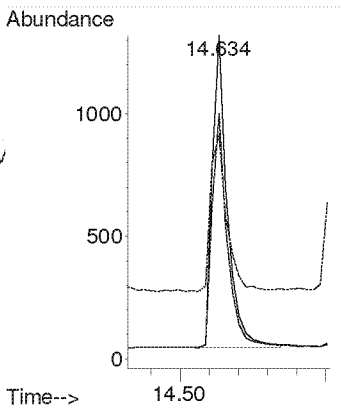




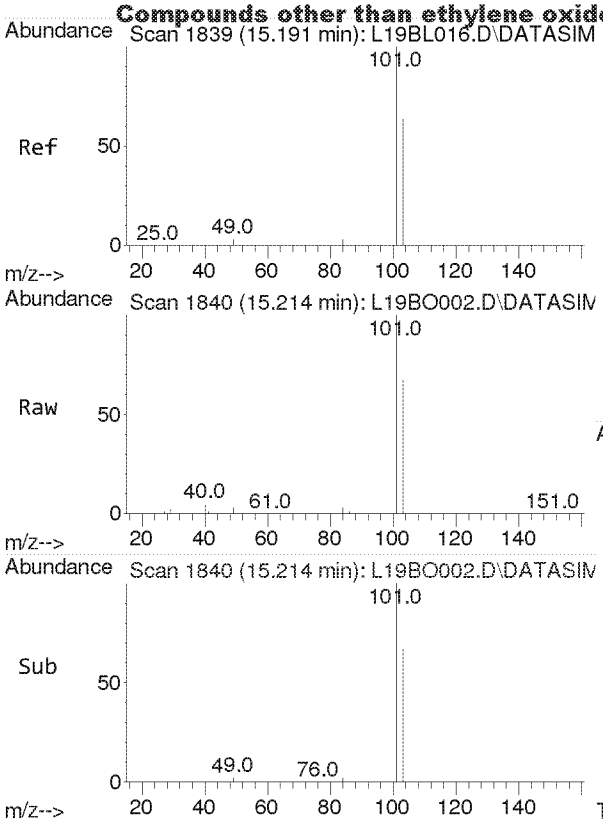
#13
Acrolein
Concen: 2.102 ppbv
RT: 14.634 min Scan# 1815
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 56 Resp: 4525

Ion	Ratio	Lower	Upper
56	100		
55	76.2	60.8	91.2
29	54.5	43.8	65.6



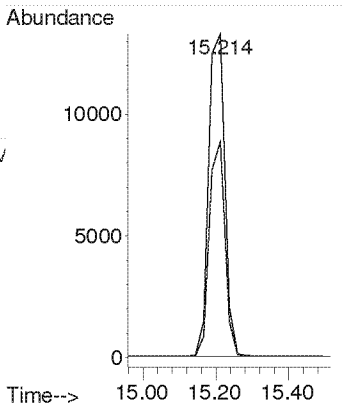
Compounds other than ethylene oxide were not quantitated.

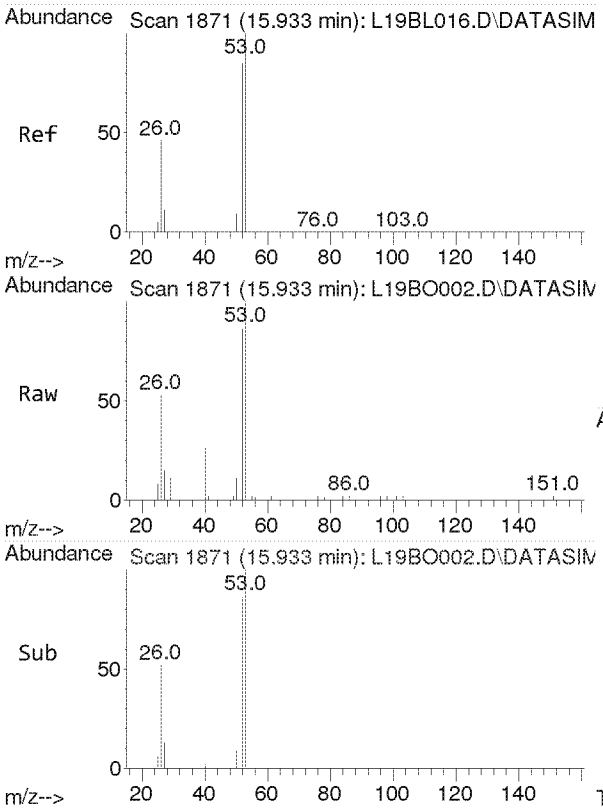


#14
Trichlorofluoromethane
Concen: 2.033 ppbv
RT: 15.214 min Scan# 1840
Delta R.T. 0.023 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:101 Resp: 40776

Ion	Ratio	Lower	Upper
101	100		
103	64.4	51.7	77.5

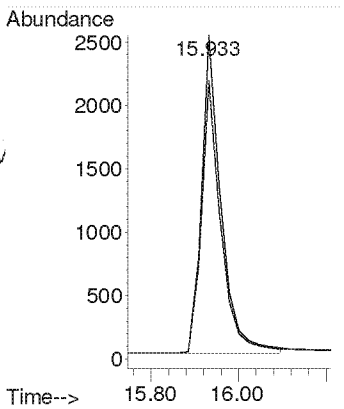




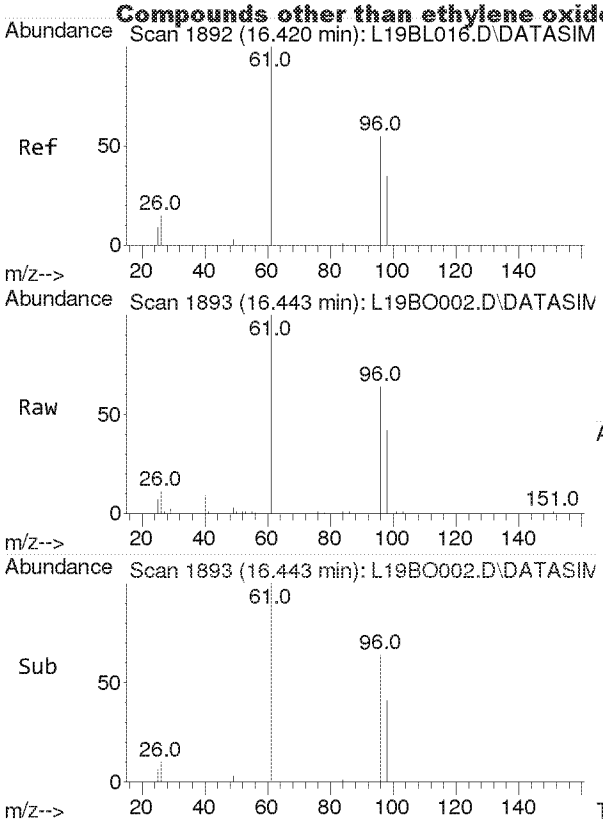
#15
Acrylonitrile
Concen: 2.240 ppbv
RT: 15.933 min Scan# 1871
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 53 Resp: 7636

Ion	Ratio	Lower	Upper
53	100		
52	85.9	69.5	104.3



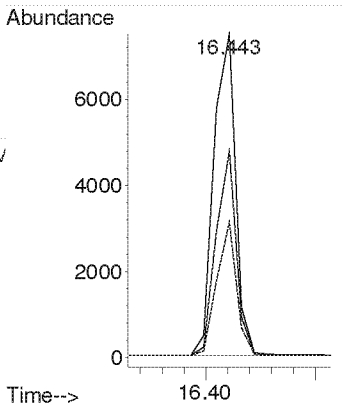
Compounds other than ethylene oxide were not quantitated.

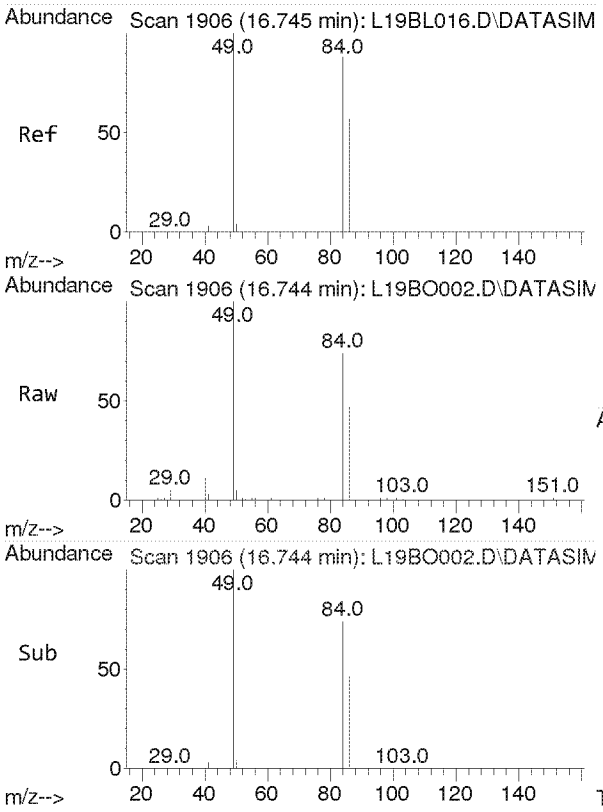


#16
1,1-Dichloroethene
Concen: 2.384 ppbv
RT: 16.443 min Scan# 1893
Delta R.T. 0.023 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 61 Resp: 20746

Ion	Ratio	Lower	Upper
61	100		
96	59.0	47.3	70.9
98	37.7	30.6	45.8

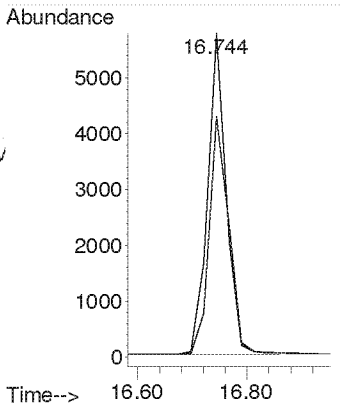




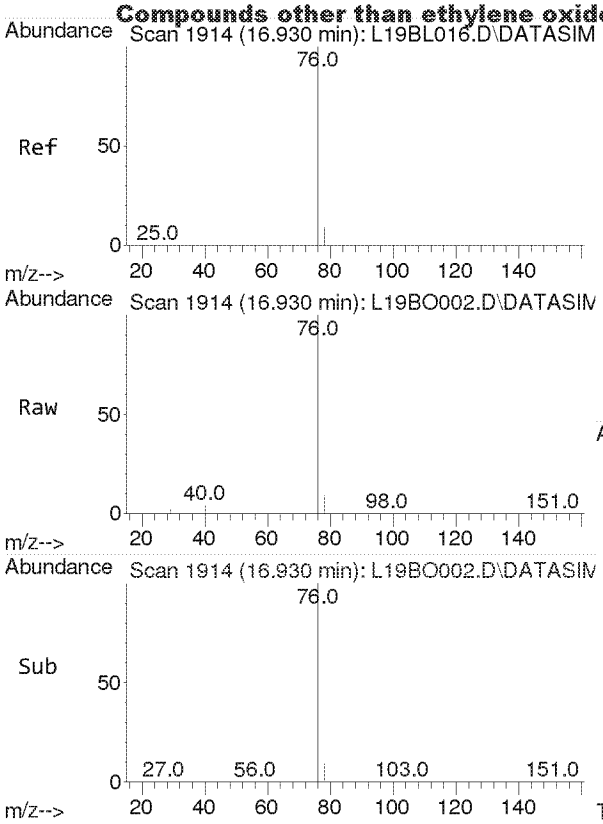
#17
Methylene Chloride
Concen: 2.350 ppbv
RT: 16.744 min Scan# 1906
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 49 Resp: 13514

Ion	Ratio	Lower	Upper
49	100		
84	78.1	54.0	100.4



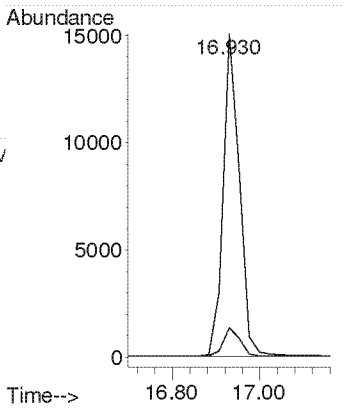
Compounds other than ethylene oxide were not quantitated.

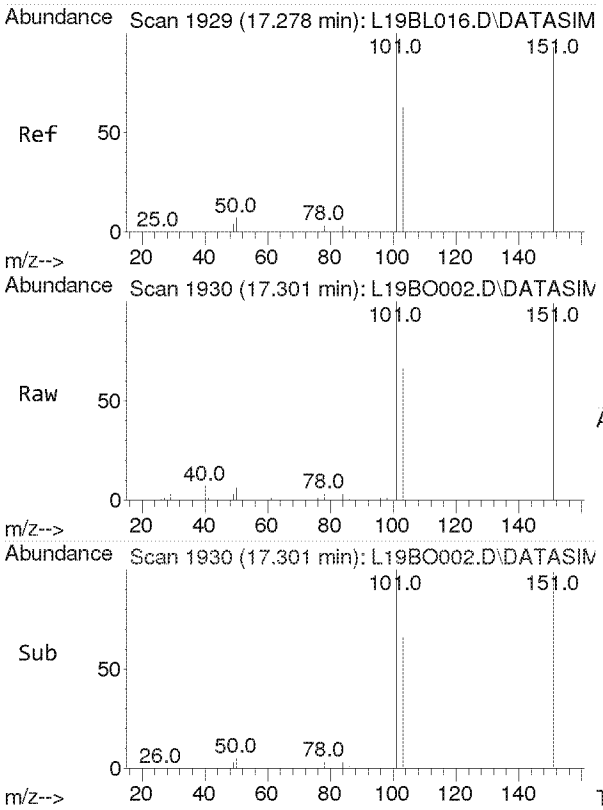


#18
Carbon Disulfide
Concen: 2.217 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 76 Resp: 39258

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.4	11.0

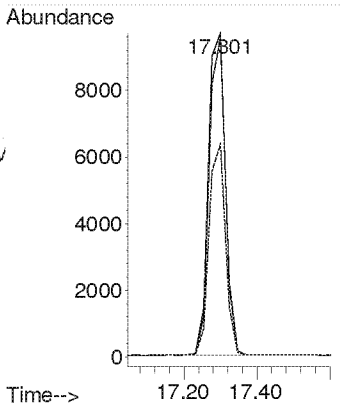




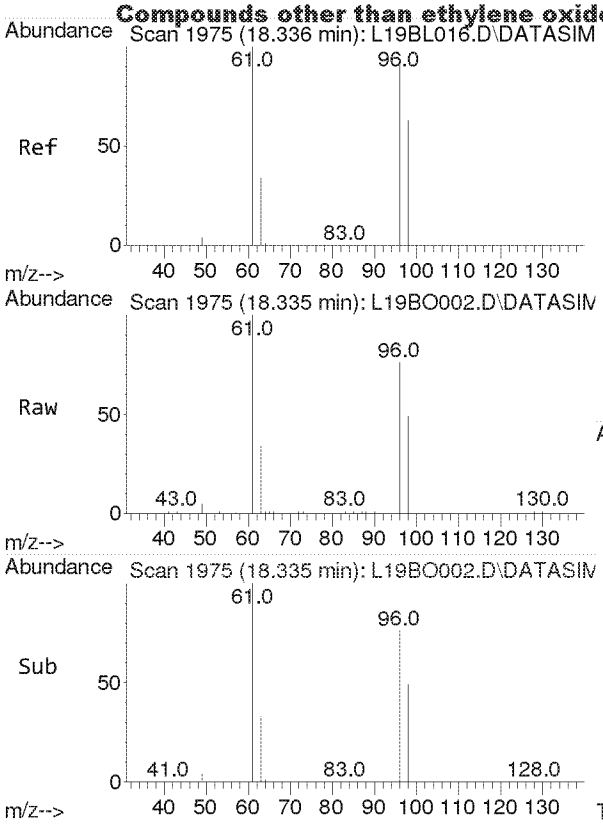
#19
Trichlorotrifluoroethane
Concen: 2.298 ppbv
RT: 17.301 min Scan# 1930
Delta R.T. 0.023 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:101 Resp: 31006

Ion	Ratio	Lower	Upper
101	100		
151	95.1	75.8	113.8
103	63.8	51.1	76.7



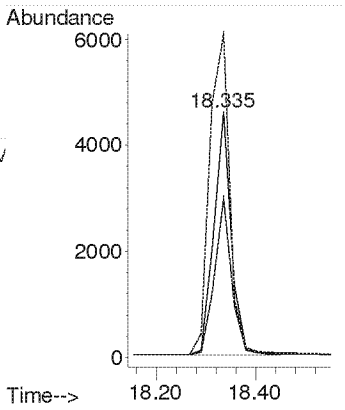
Compounds other than ethylene oxide were not quantitated.

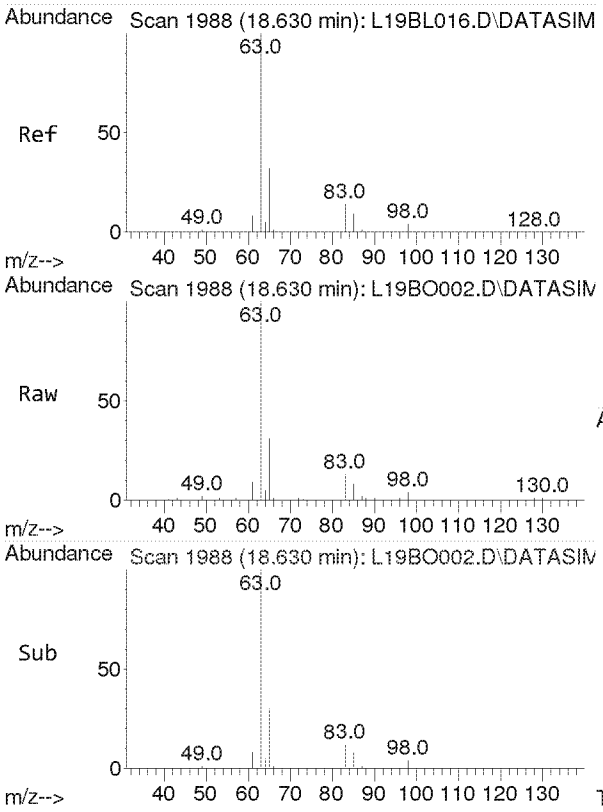


#20
trans-1,2-Dichloroethylene
Concen: 2.307 ppbv
RT: 18.335 min Scan# 1975
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 96 Resp: 11130

Ion	Ratio	Lower	Upper
96	100		
98	63.8	51.5	77.3
61	153.0	122.9	184.3

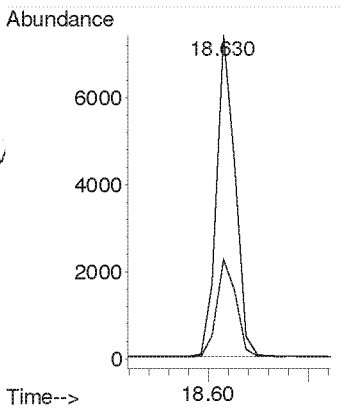




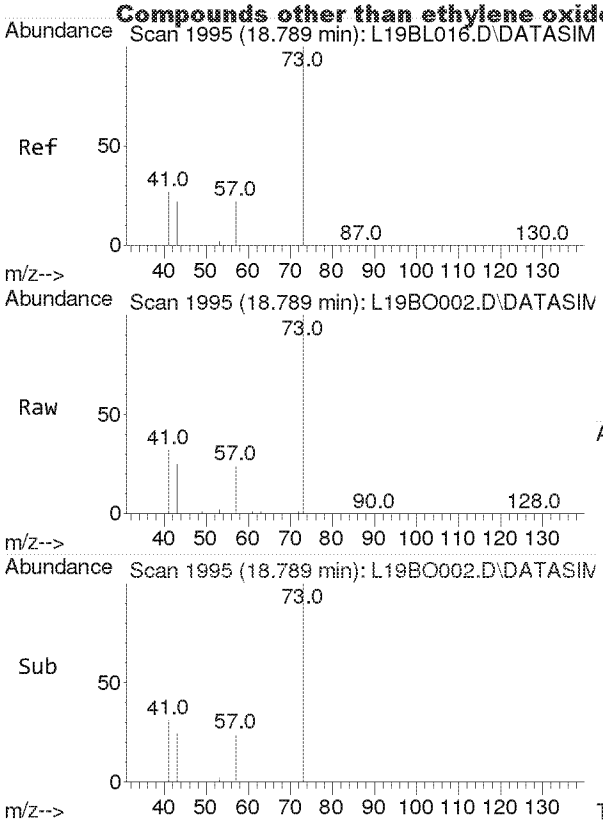
#21
1,1-Dichloroethane
Concen: 2.362 ppbv
RT: 18.630 min Scan# 1988
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 63 Resp: 19155

Ion	Ratio	Lower	Upper
63	100		
65	31.7	25.4	38.0



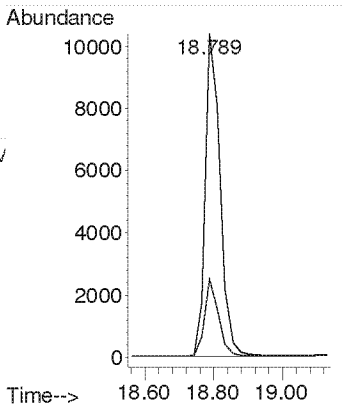
Compounds other than ethylene oxide were not quantitated.

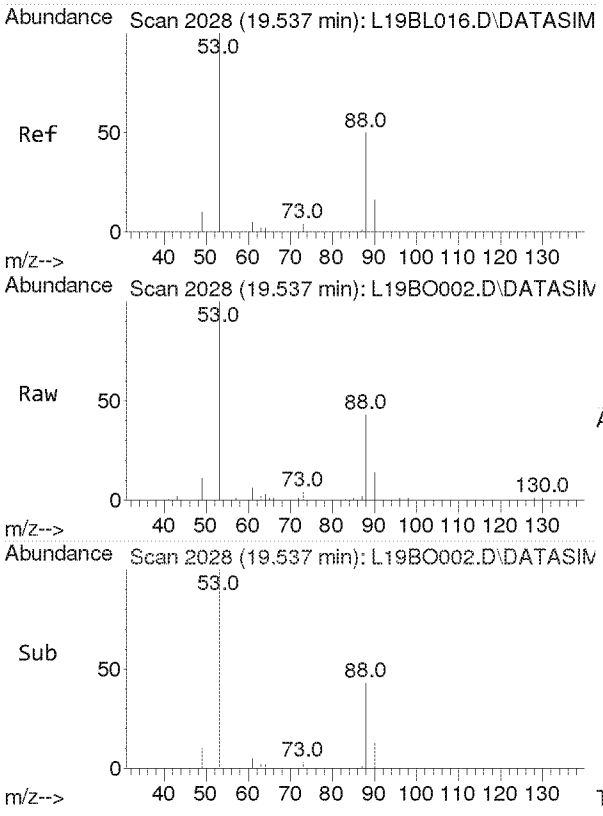


#22
Methyl tert-Butyl Ether
Concen: 2.294 ppbv
RT: 18.789 min Scan# 1995
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 73 Resp: 31200

Ion	Ratio	Lower	Upper
73	100		
57	22.1	18.0	27.0

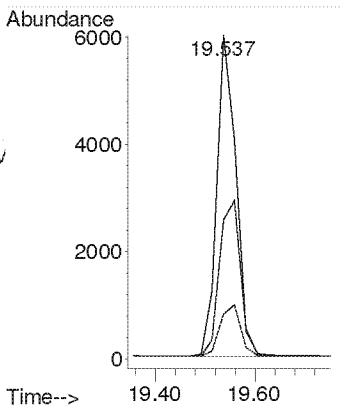




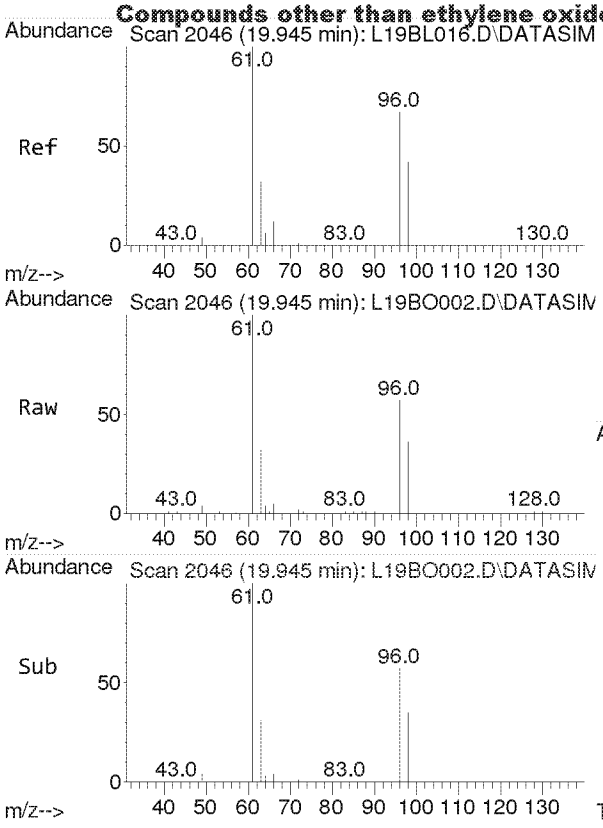
#23
Chloroprene
Concen: 2.440 ppbv
RT: 19.537 min Scan# 2028
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 53 Resp: 16091

Ion	Ratio	Lower	Upper
53	100		
88	53.6	42.6	64.0
90	17.2	13.9	20.9



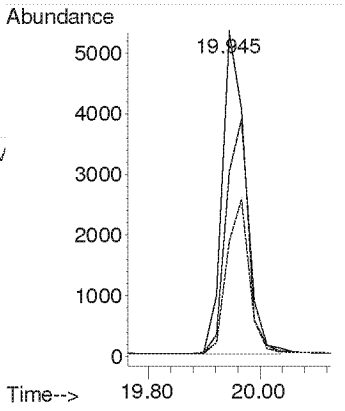
Compounds other than ethylene oxide were not quantitated.

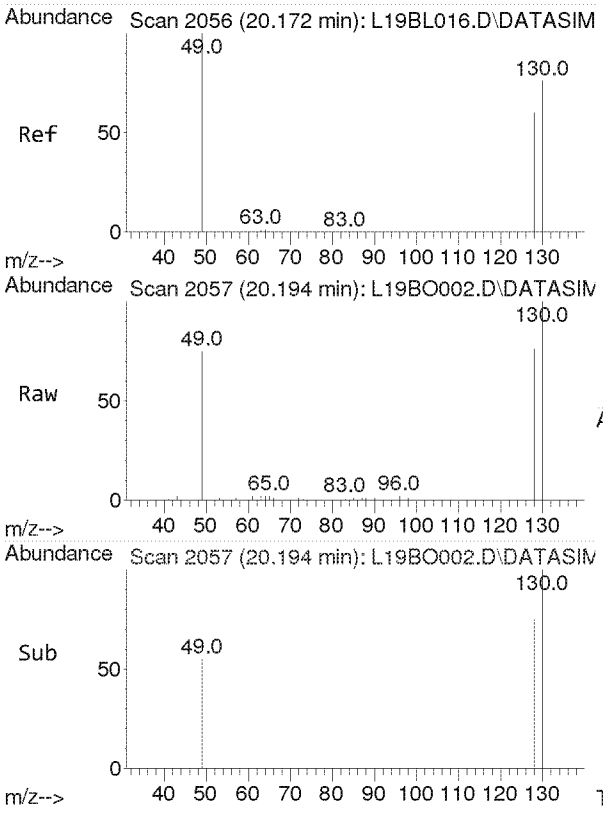


#24
cis-1,2-Dichloroethylene
Concen: 2.347 ppbv
RT: 19.945 min Scan# 2046
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 61 Resp: 15023

Ion	Ratio	Lower	Upper
61	100		
96	74.2	59.0	88.6
98	47.3	37.6	56.4

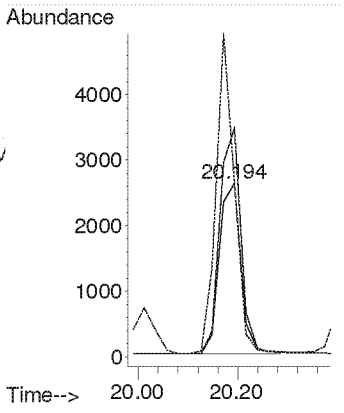




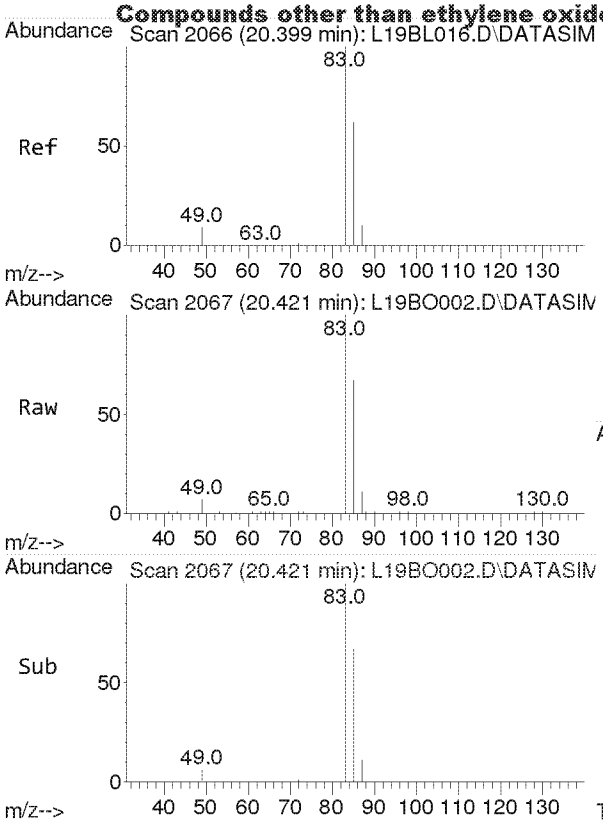
#25
Bromochloromethane
Concen: 2.272 ppbv
RT: 20.194 min Scan# 2057
Delta R.T. 0.023 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:128 Resp: 7861

Ion	Ratio	Lower	Upper
128	100		
130	129.3	103.3	154.9
49	159.6	128.3	192.5



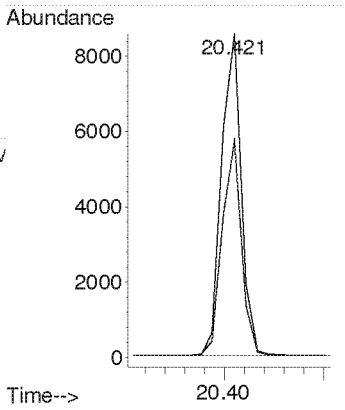
Compounds other than ethylene oxide were not quantitated.

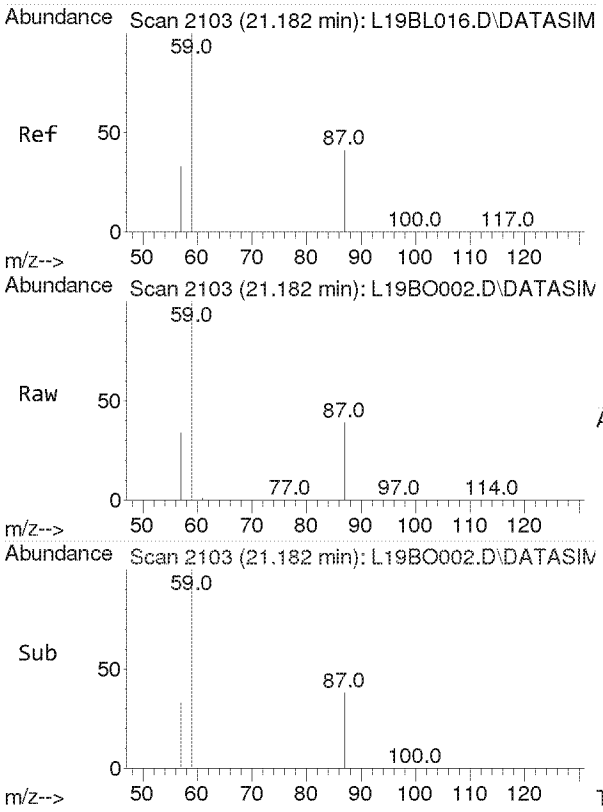


#26
Chloroform
Concen: 2.503 ppbv
RT: 20.421 min Scan# 2067
Delta R.T. 0.023 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 83 Resp: 23546

Ion	Ratio	Lower	Upper
83	100		
85	65.5	51.5	77.3

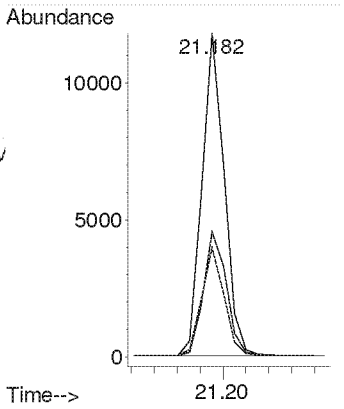




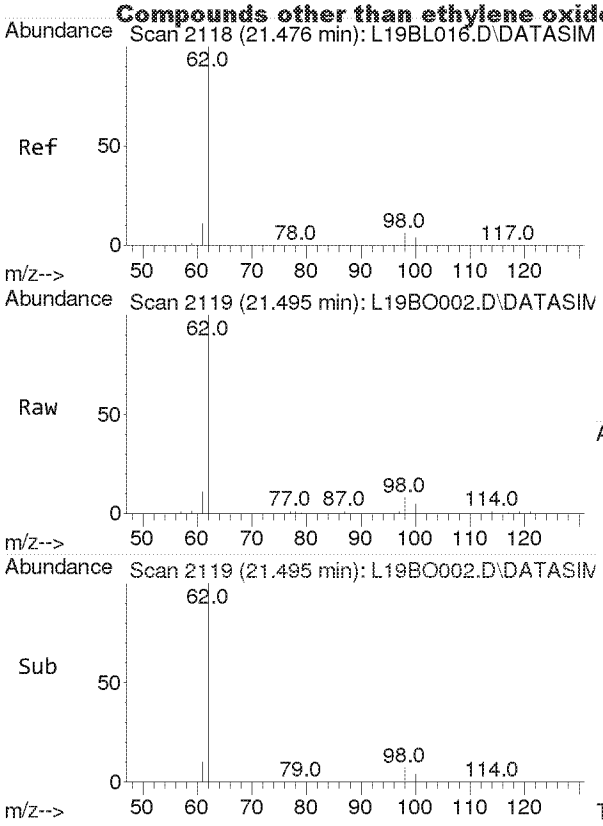
#27
Ethyl tert-Butyl Ether
Concen: 2.393 ppbv
RT: 21.182 min Scan# 2103
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 59 Resp: 31130

Ion	Ratio	Lower	Upper
59	100		
87	39.8	31.5	47.3
57	33.5	26.6	39.8



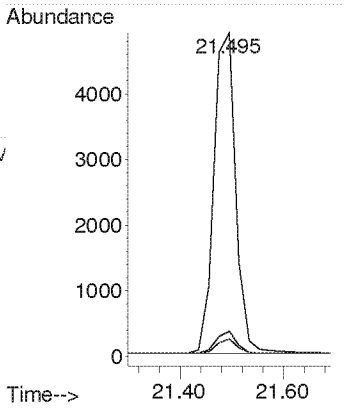
Compounds other than ethylene oxide were not quantitated.

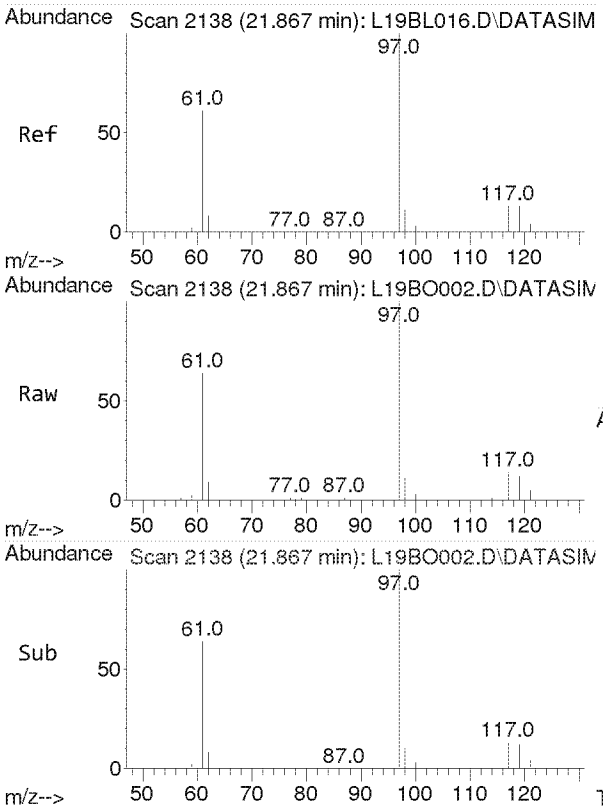


#28
1,2-Dichloroethane
Concen: 2.493 ppbv
RT: 21.495 min Scan# 2119
Delta R.T. 0.019 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 62 Resp: 14398

Ion	Ratio	Lower	Upper
62	100		
98	6.3	5.0	7.6
100	4.1	3.2	4.8

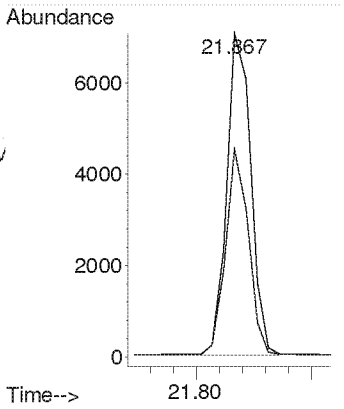




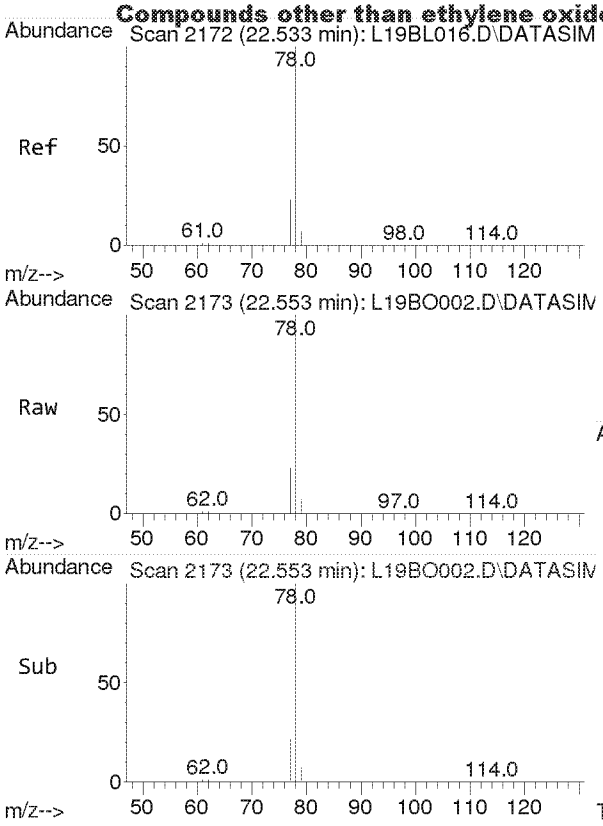
#30
1,1,1-Trichloroethane
Concen: 2.186 ppbv
RT: 21.867 min Scan# 2138
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 97 Resp: 20309

Ion	Ratio	Lower	Upper
97	100		
61	60.6	49.7	74.5



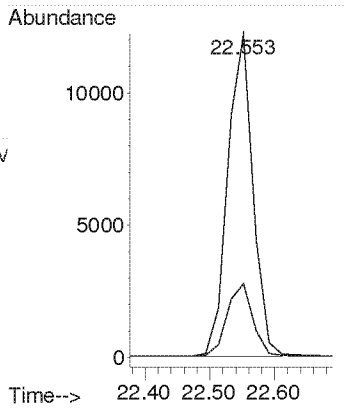
Compounds other than ethylene oxide were not quantitated.

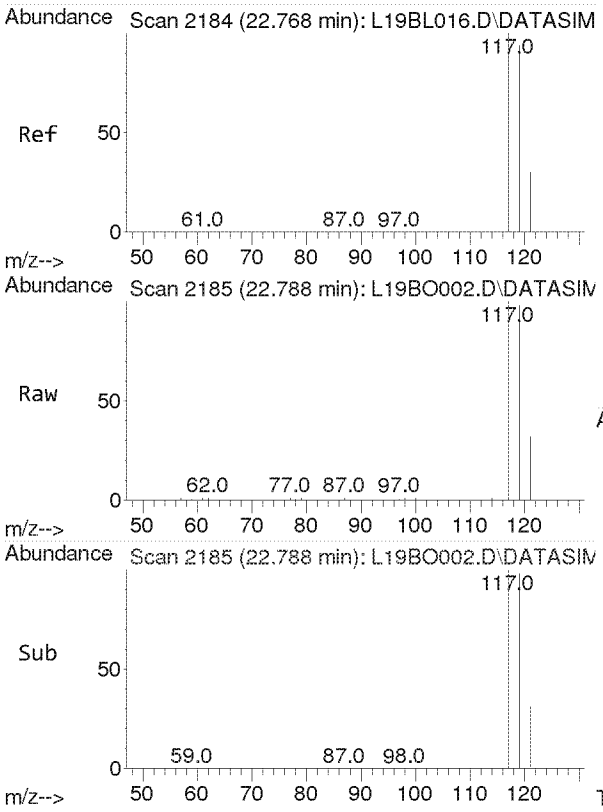


#31
Benzene
Concen: 2.488 ppbv
RT: 22.553 min Scan# 2173
Delta R.T. 0.019 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 78 Resp: 33059

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.2	27.4

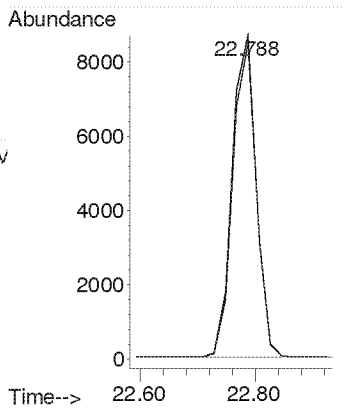




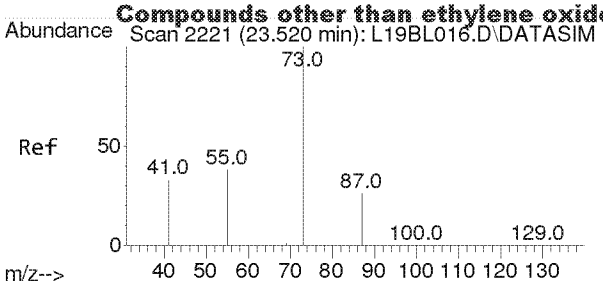
#32
Carbon Tetrachloride
Concen: 2.501 ppbv
RT: 22.788 min Scan# 2185
Delta R.T. 0.019 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:117 Resp: 24887

Ion	Ratio	Lower	Upper
117	100		
119	96.2	77.0	115.6



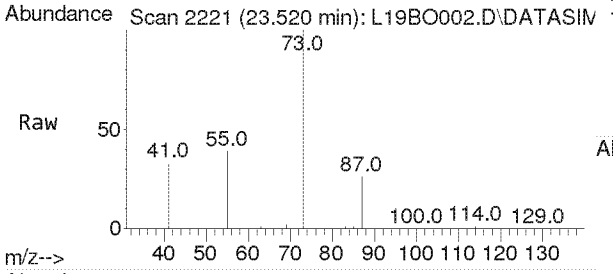
Compounds other than ethylene oxide were not quantitated.

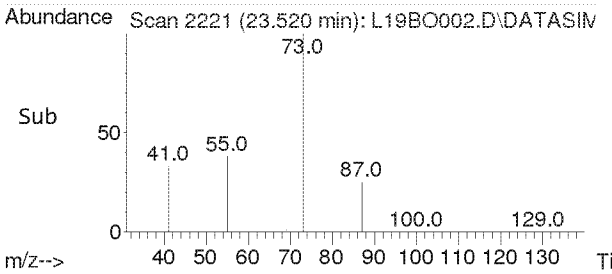


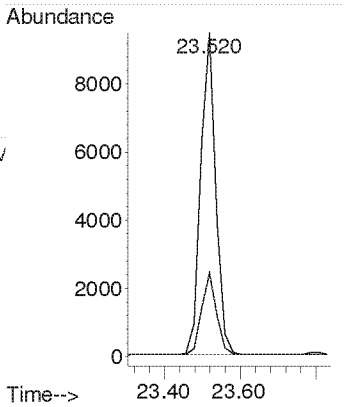
#33
tert-Amyl Methyl Ether
Concen: 2.330 ppbv
RT: 23.520 min Scan# 2221
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

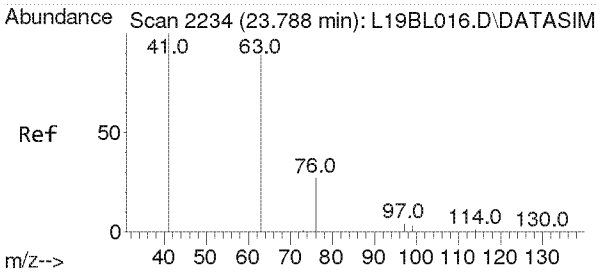
Tgt Ion: 73 Resp: 26296

Ion	Ratio	Lower	Upper
73	100		
87	25.1	20.1	30.1





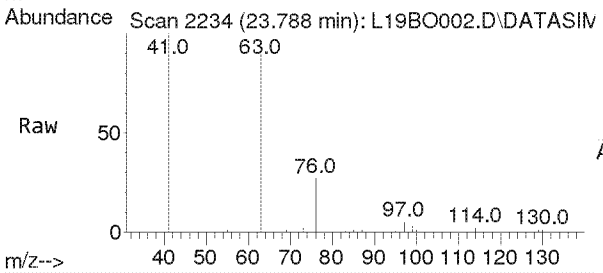


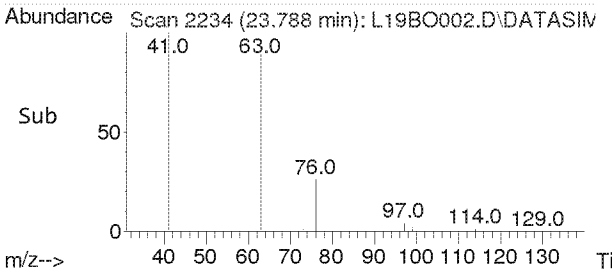


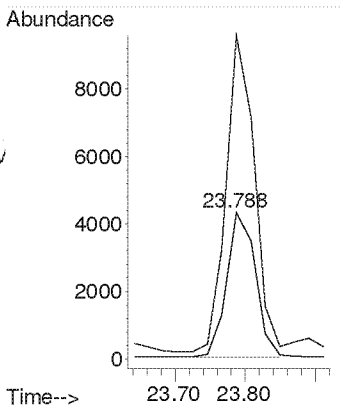
#34
1,2-Dichloropropane
Concen: 2.401 ppbv
RT: 23.788 min Scan# 2234
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 63 Resp: 12128

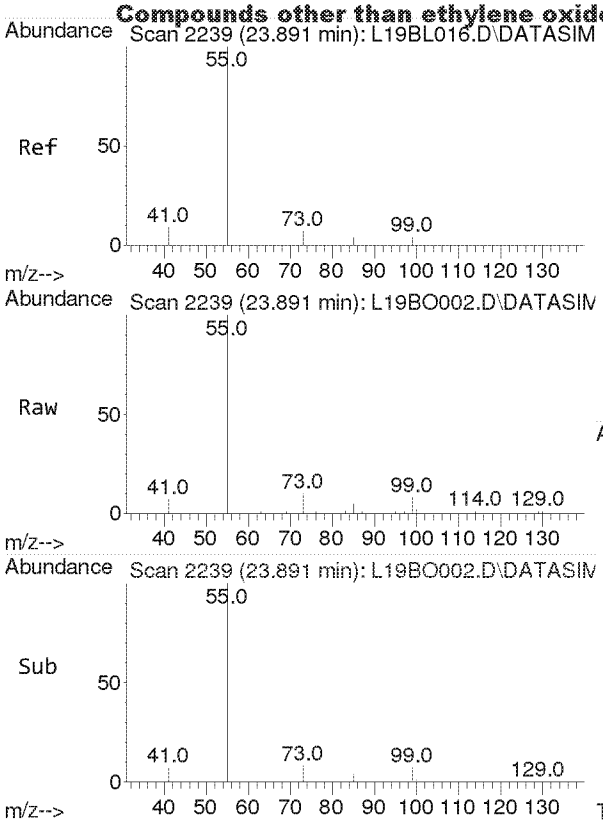
Ion	Ratio	Lower	Upper
63	100		
41	214.5	175.9	263.9







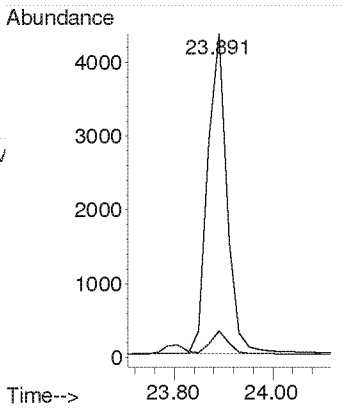
Compounds other than ethylene oxide were not quantitated.

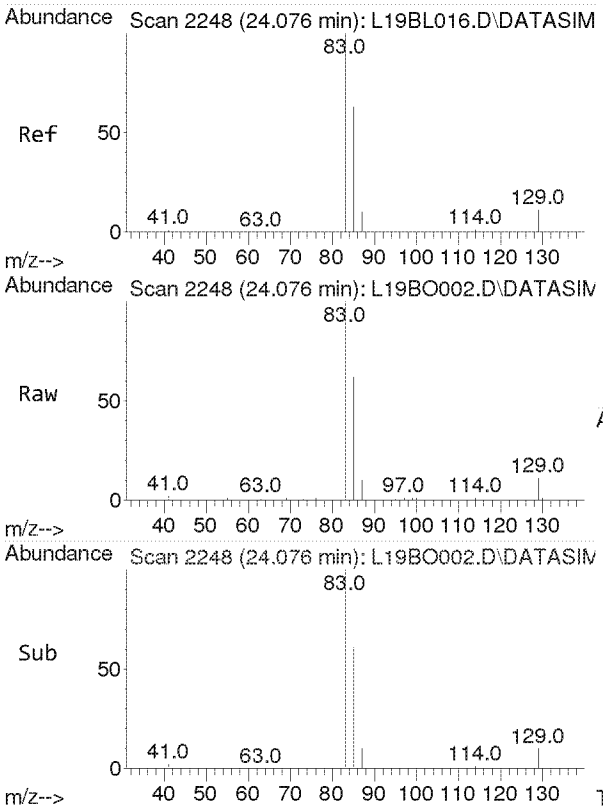


#35
Ethyl Acrylate
Concen: 2.743 ppbv
RT: 23.891 min Scan# 2239
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 55 Resp: 11774

Ion	Ratio	Lower	Upper
55	100		
99	6.5	5.0	7.6

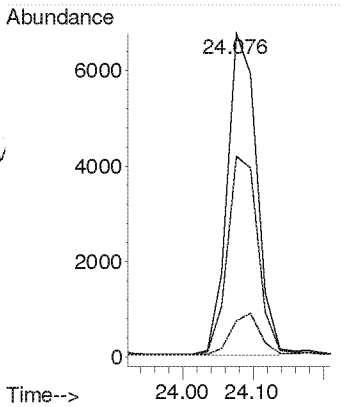




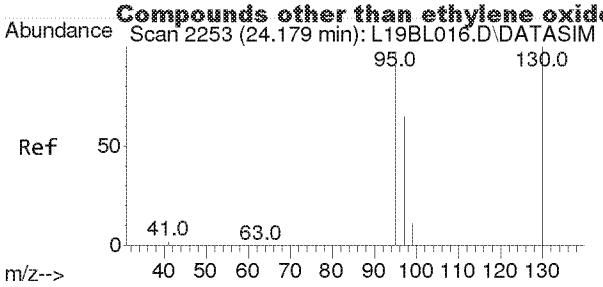
#36
Bromodichloromethane
Concen: 2.189 ppbv
RT: 24.076 min Scan# 2248
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 83 Resp: 19568

Ion	Ratio	Lower	Upper
83	100		
85	63.8	51.0	76.4
129	12.5	9.9	14.9



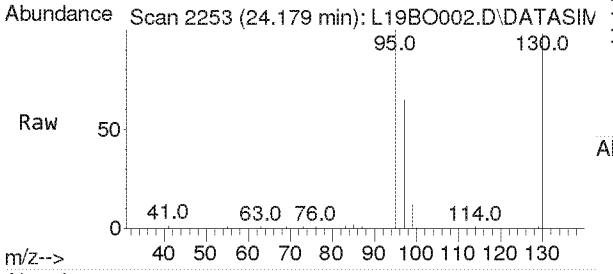
Compounds other than ethylene oxide were not quantitated.

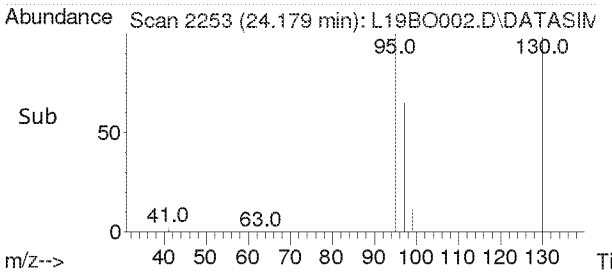


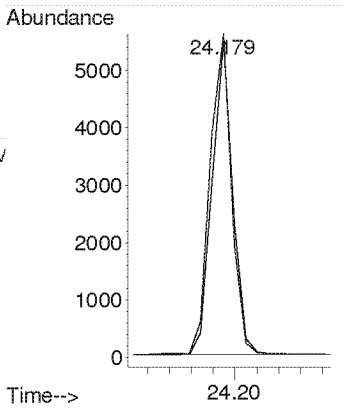
#37
Trichloroethylene
Concen: 2.226 ppbv
RT: 24.179 min Scan# 2253
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

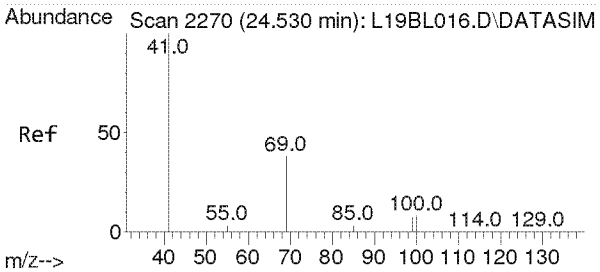
Tgt Ion:130 Resp: 14089

Ion	Ratio	Lower	Upper
130	100		
95	107.3	84.9	127.3





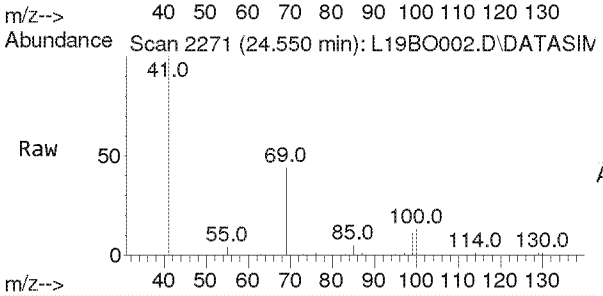


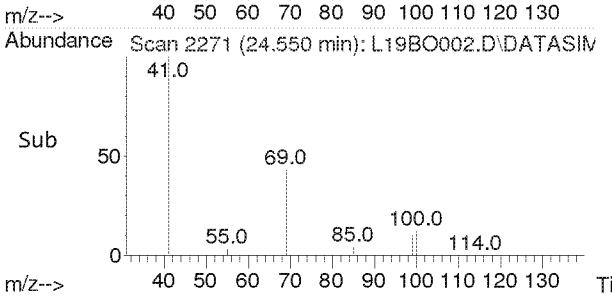


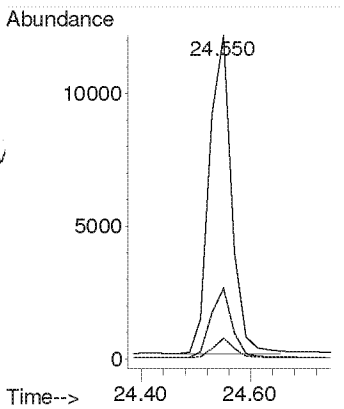
#38
Methyl Methacrylate
Concen: 2.611 ppbv
RT: 24.550 min Scan# 2271
Delta R.T. 0.021 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 41 Resp: 33627

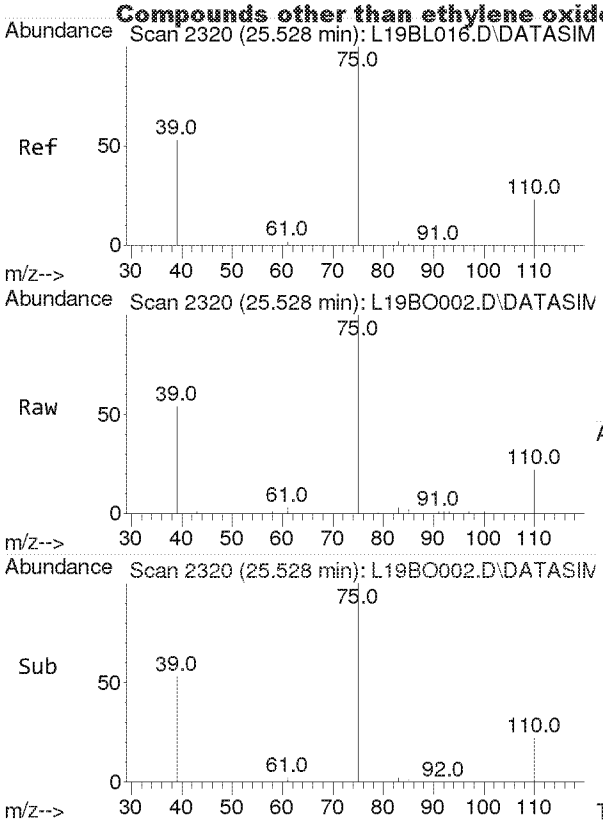
Ion	Ratio	Lower	Upper
41	100		
69	20.8	16.8	25.2
100	5.6	4.5	6.7







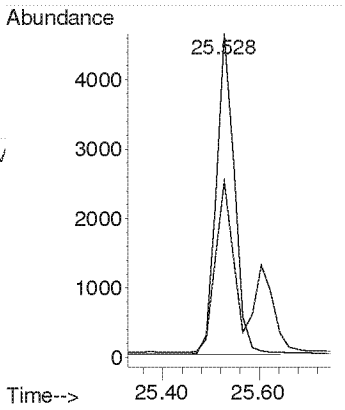
Compounds other than ethylene oxide were not quantitated.

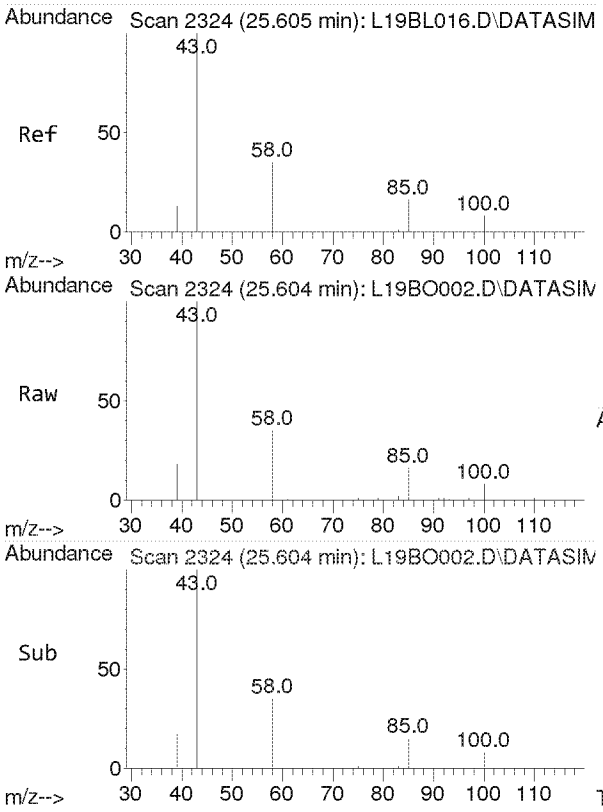


#39
cis-1,3-Dichloropropene
Concen: 2.737 ppbv
RT: 25.528 min Scan# 2320
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 75 Resp: 12005

Ion	Ratio	Lower	Upper
75	100		
39	58.6	43.4	65.0

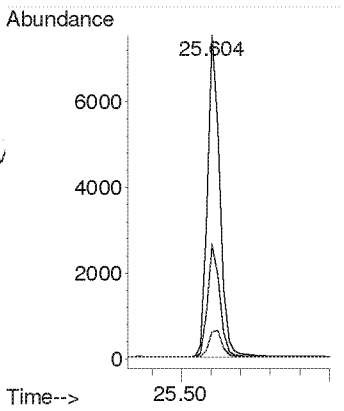




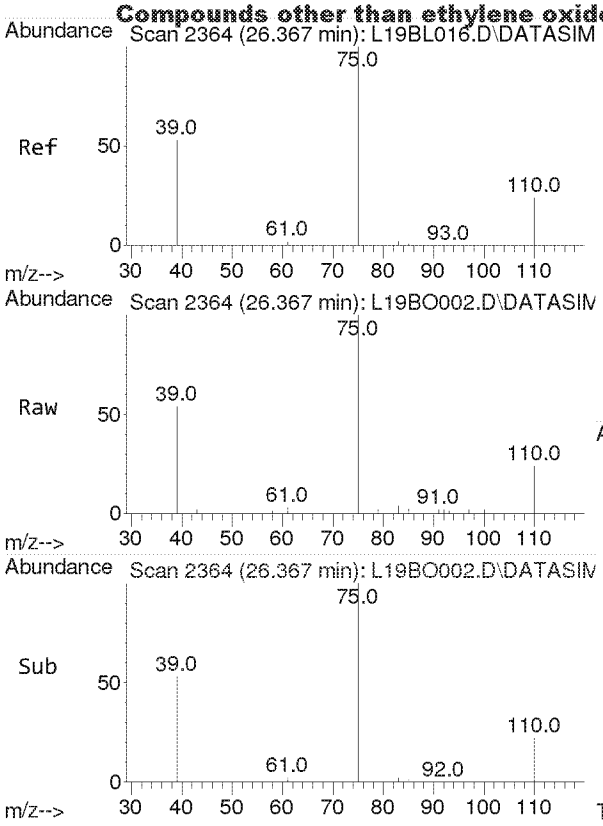
#40
Methyl Isobutyl Ketone
Concen: 2.230 ppbv
RT: 25.604 min Scan# 2324
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 43 Resp: 21112

Ion	Ratio	Lower	Upper
43	100		
58	34.9	28.0	42.0
100	8.9	7.0	10.4



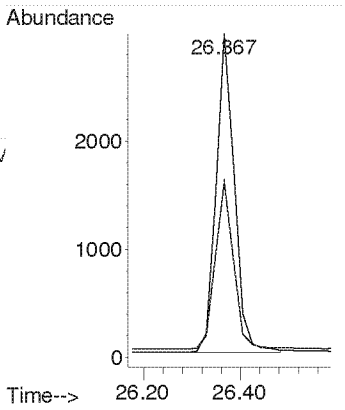
Compounds other than ethylene oxide were not quantitated.

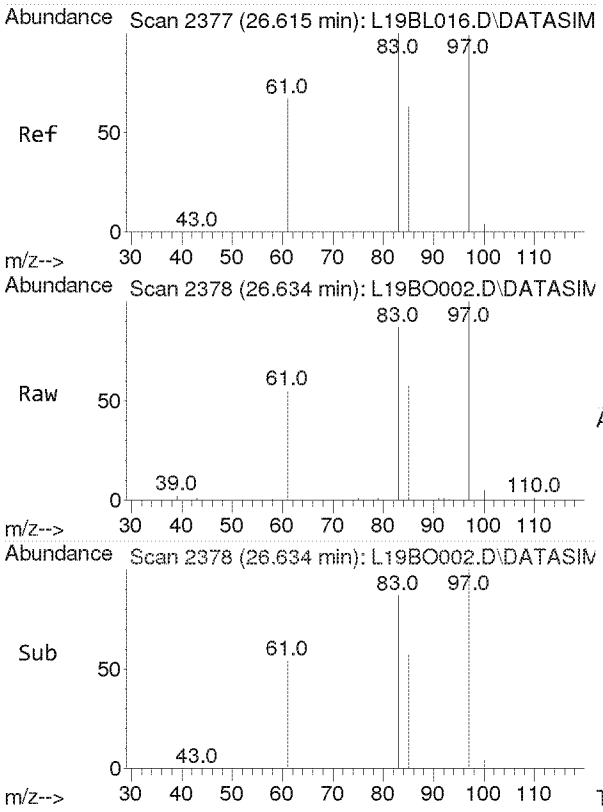


#41
trans-1,3-Dichloropropene
Concen: 2.624 ppbv
RT: 26.367 min Scan# 2364
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 75 Resp: 7711

Ion	Ratio	Lower	Upper
75	100		
39	52.7	42.9	64.3

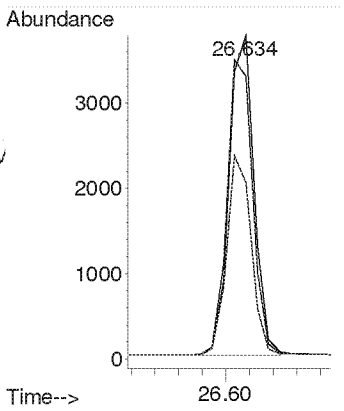




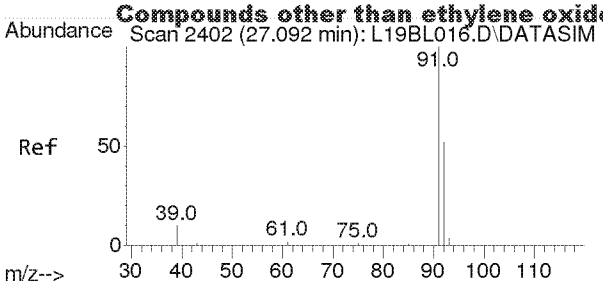
#42
1,1,2-Trichloroethane
Concen: 2.352 ppbv
RT: 26.634 min Scan# 2378
Delta R.T. 0.019 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 97 Resp: 10872

Ion	Ratio	Lower	Upper
97	100		
83	94.7	75.4	113.0
61	61.6	49.8	74.6



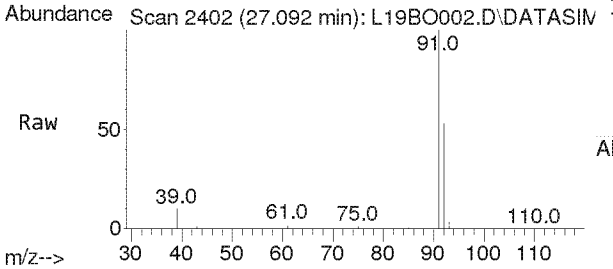
Compounds other than ethylene oxide were not quantitated.

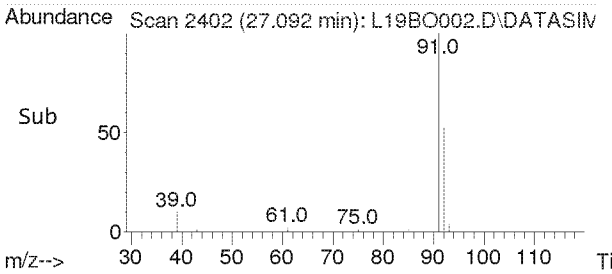


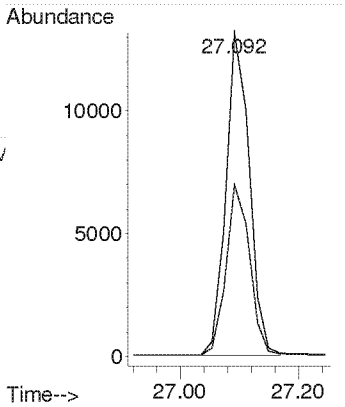
#44
Toluene
Concen: 2.424 ppbv
RT: 27.092 min Scan# 2402
Delta R.T. -0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

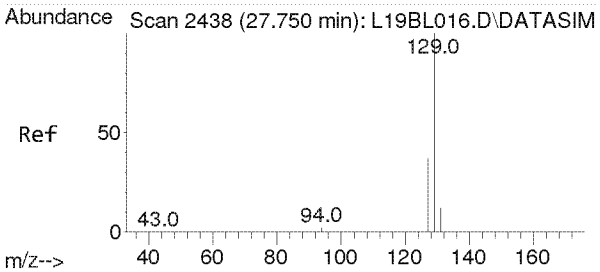
Tgt Ion: 91 Resp: 35956

Ion	Ratio	Lower	Upper
91	100		
92	53.1	42.0	63.0





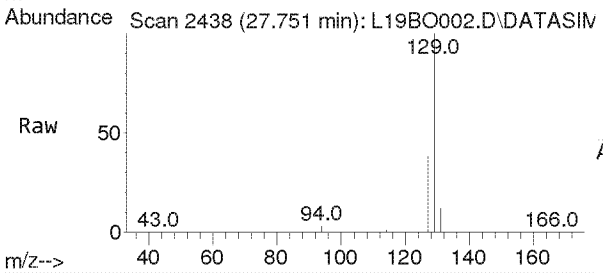


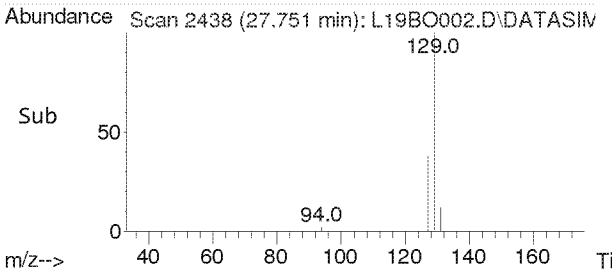


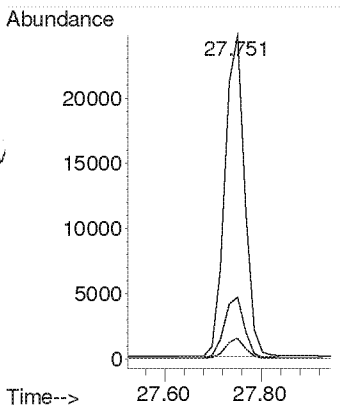
#45
Dibromochloromethane
Concen: 2.407 ppbv
RT: 27.751 min Scan# 2438
Delta R.T. 0.001 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:129 Resp: 70098

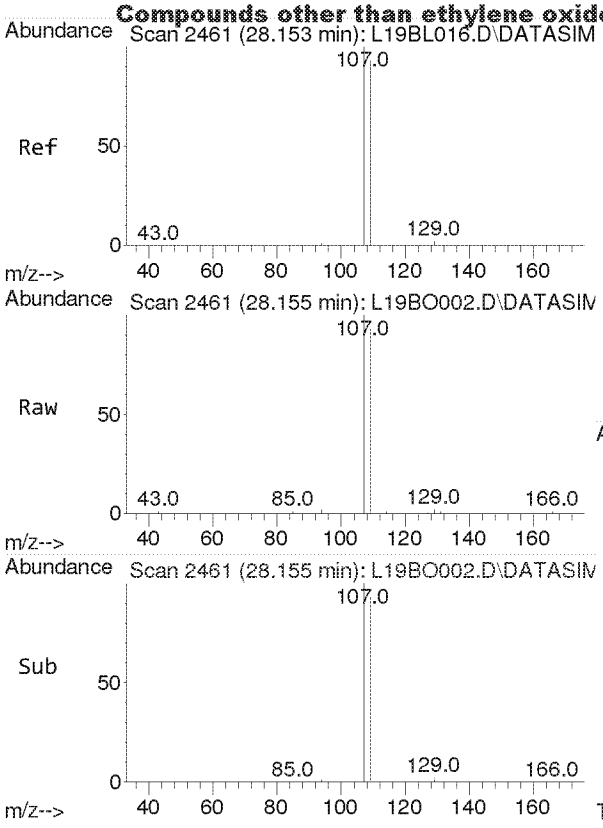
Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.2
131	6.0	4.8	7.2







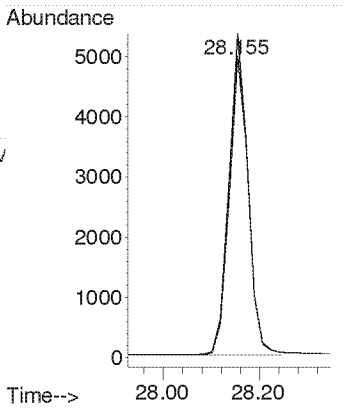
Compounds other than ethylene oxide were not quantitated.

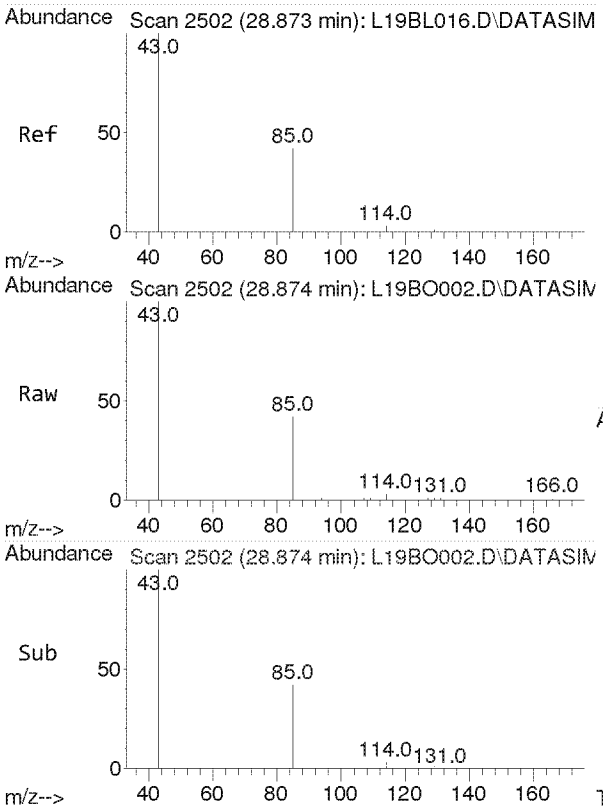


#46
1,2-Dibromoethane
Concen: 2.600 ppbv
RT: 28.155 min Scan# 2461
Delta R.T. 0.001 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:107 Resp: 14467

Ion	Ratio	Lower	Upper
107	100		
109	94.6	75.4	113.0

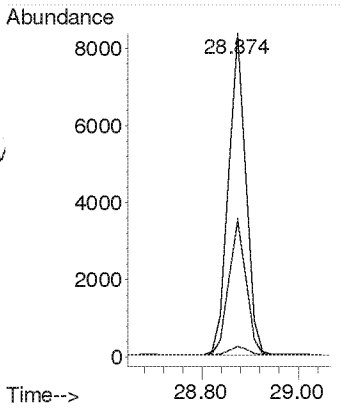




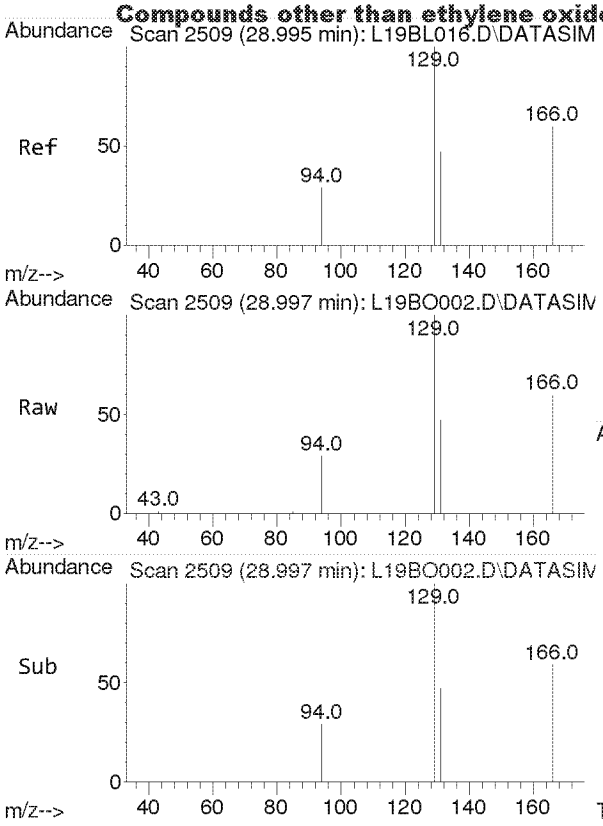
#47
n-Octane
Concen: 2.355 ppbv
RT: 28.874 min Scan# 2502
Delta R.T. 0.001 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 43 Resp: 21044

Ion	Ratio	Lower	Upper
43	100		
85	41.8	33.0	49.6
114	2.7	2.2	3.4



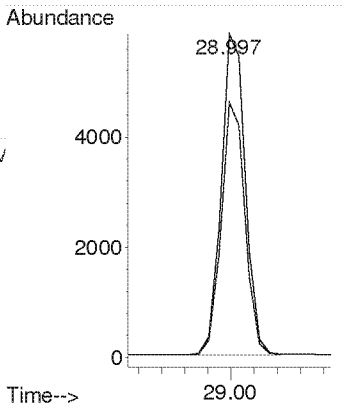
Compounds other than ethylene oxide were not quantitated.

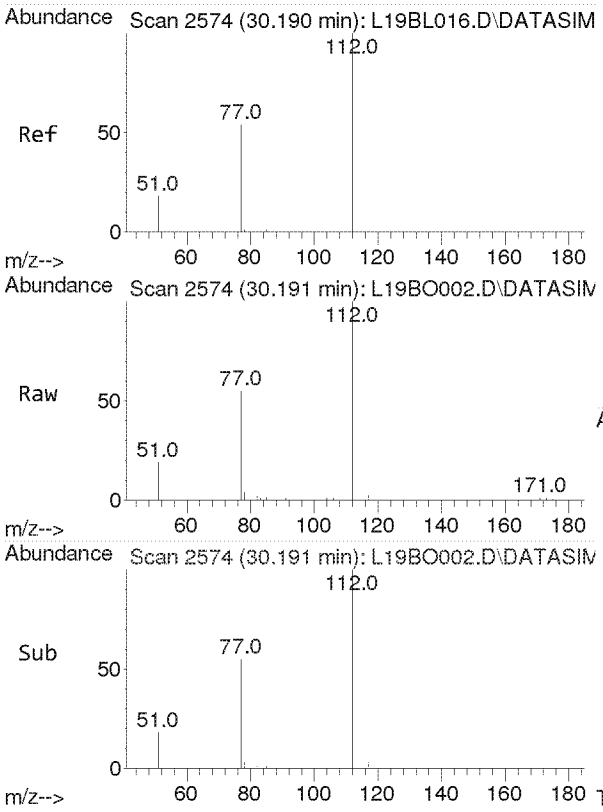


#48
Tetrachloroethylene
Concen: 2.372 ppbv
RT: 28.997 min Scan# 2509
Delta R.T. 0.001 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:166 Resp: 16935

Ion	Ratio	Lower	Upper
166	100		
131	77.7	61.5	92.3

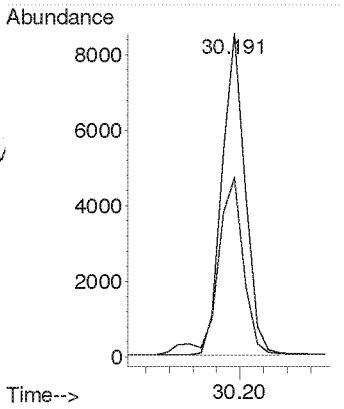




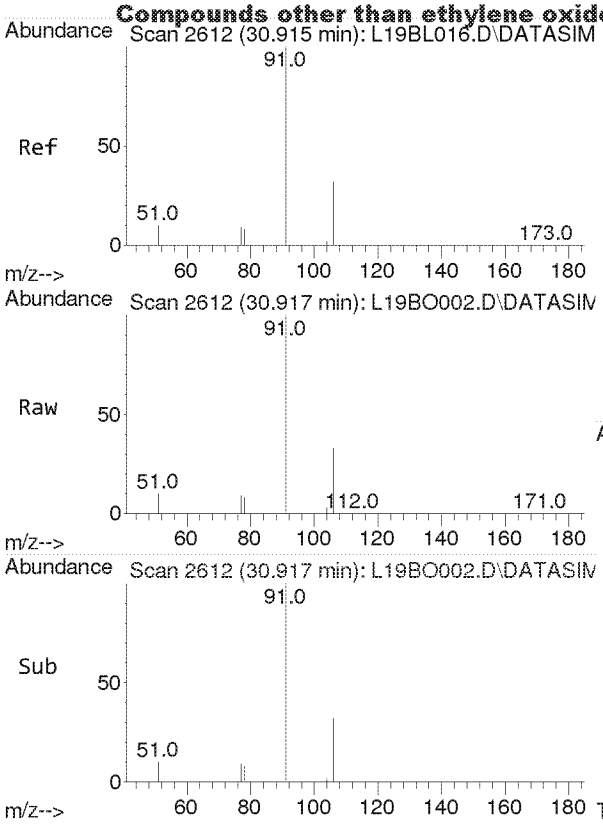
#49
Chlorobenzene
Concen: 2.440 ppbv
RT: 30.191 min Scan# 2574
Delta R.T. 0.001 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:112 Resp: 23106

Ion	Ratio	Lower	Upper
112	100		
77	59.6	47.8	71.6



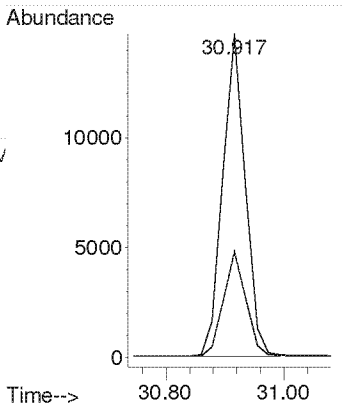
Compounds other than ethylene oxide were not quantitated.

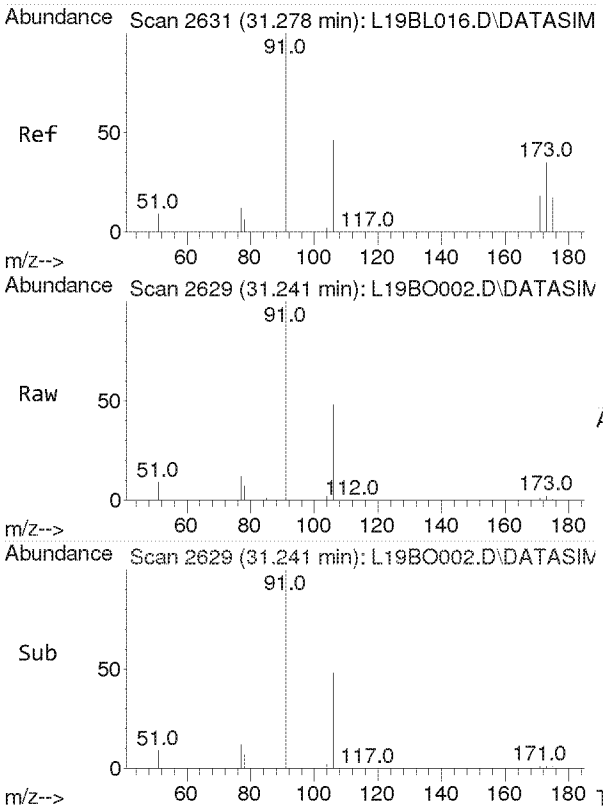


#50
Ethylbenzene
Concen: 2.496 ppbv
RT: 30.917 min Scan# 2612
Delta R.T. 0.001 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 91 Resp: 38933

Ion	Ratio	Lower	Upper
91	100		
106	32.2	26.0	39.0

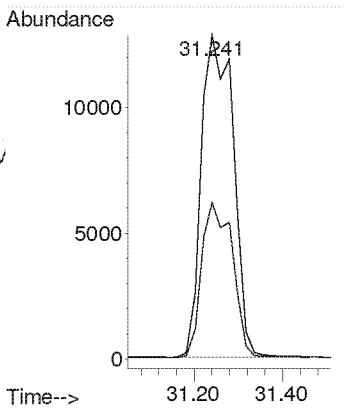




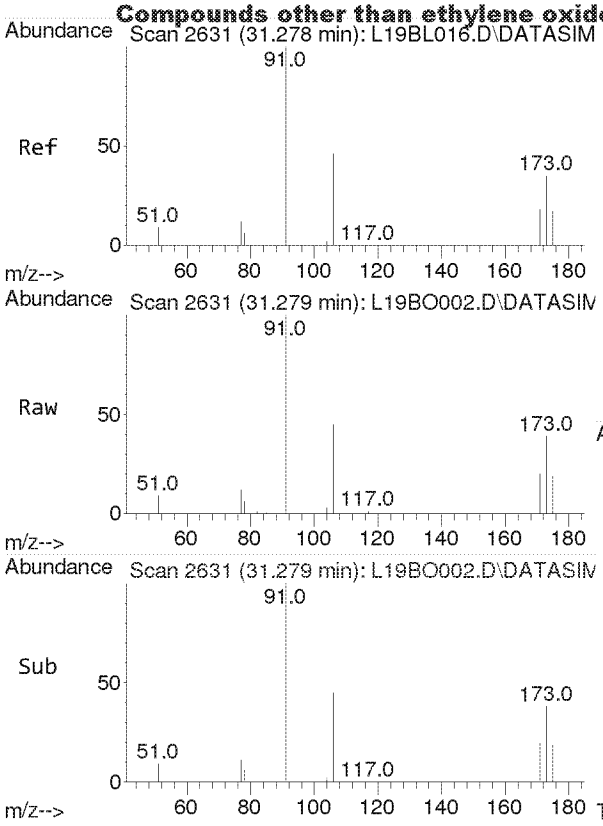
#51
m,p-Xylene
Concen: 4.866 ppbv
RT: 31.241 min Scan# 2629
Delta R.T. -0.037 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 91 Resp: 64021

Ion	Ratio	Lower	Upper
91	100		
106	46.2	37.3	55.9



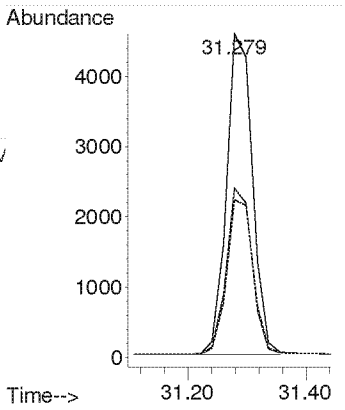
Compounds other than ethylene oxide were not quantitated.

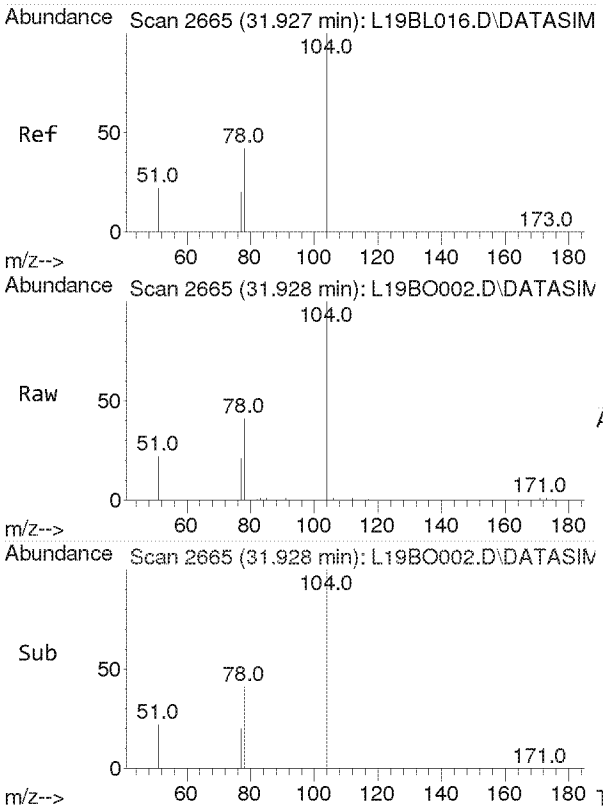


#52
Bromoform
Concen: 2.453 ppbv
RT: 31.279 min Scan# 2631
Delta R.T. 0.001 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:173 Resp: 13816

Ion	Ratio	Lower	Upper
173	100		
171	51.2	41.0	61.6
175	49.1	39.1	58.7

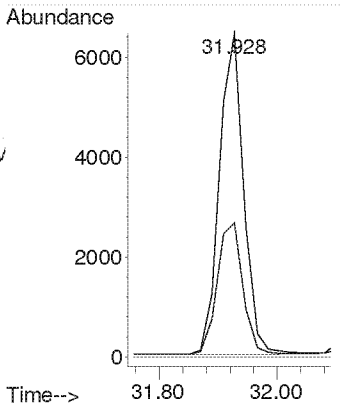




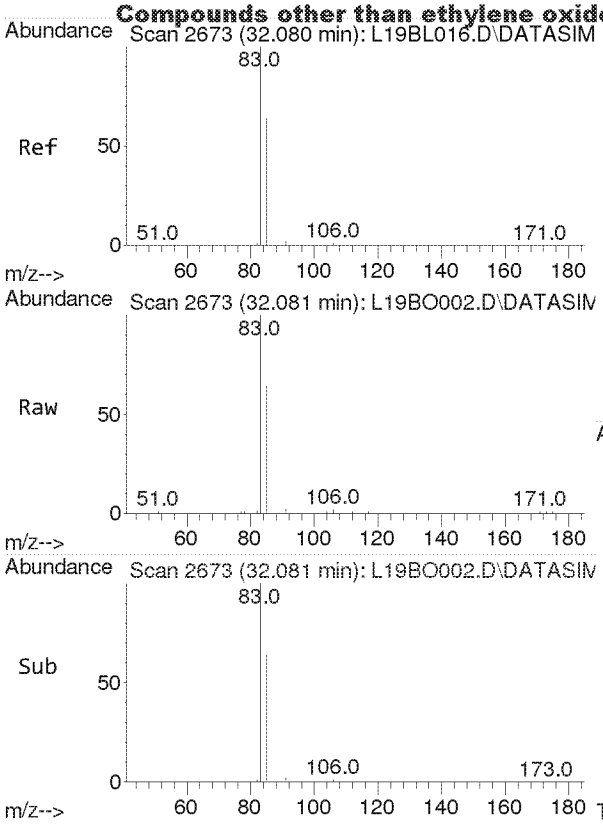
#53
Styrene
Concen: 2.447 ppbv
RT: 31.928 min Scan# 2665
Delta R.T. 0.001 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:104 Resp: 18251

Ion	Ratio	Lower	Upper
104	100		
78	43.4	35.4	53.2
103	0.0	0.0	0.0



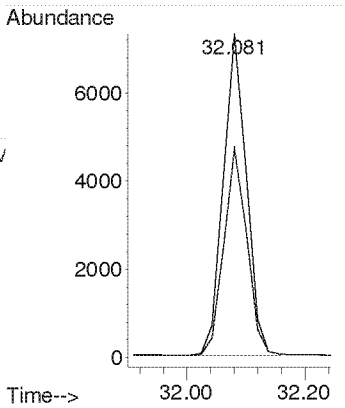
Compounds other than ethylene oxide were not quantitated.

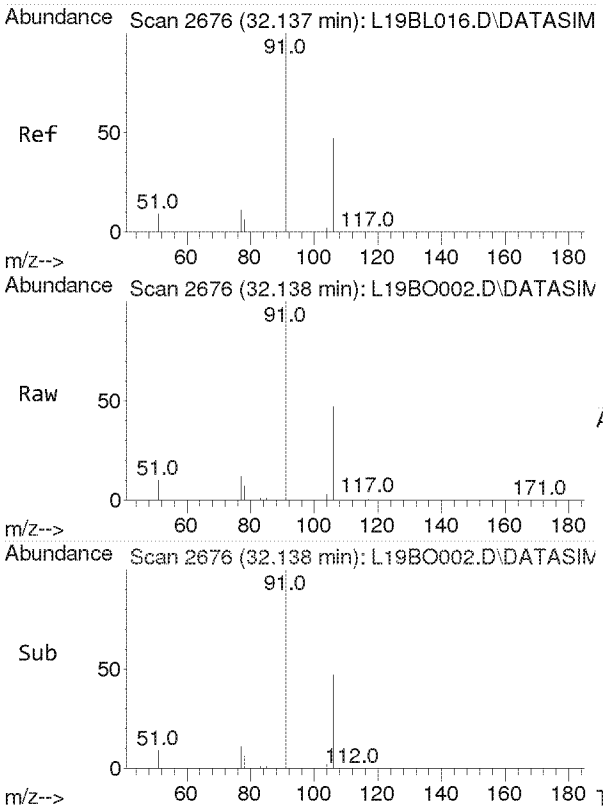


#54
1,1,2,2-Tetrachloroethane
Concen: 2.326 ppbv
RT: 32.081 min Scan# 2673
Delta R.T. 0.001 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 83 Resp: 19747

Ion	Ratio	Lower	Upper
83	100		
85	64.6	51.6	77.4

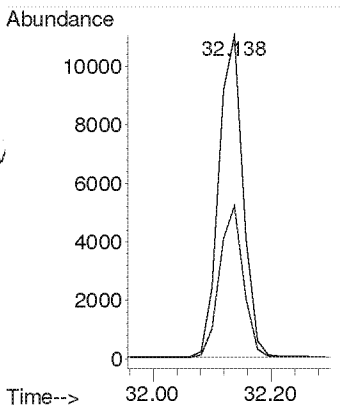




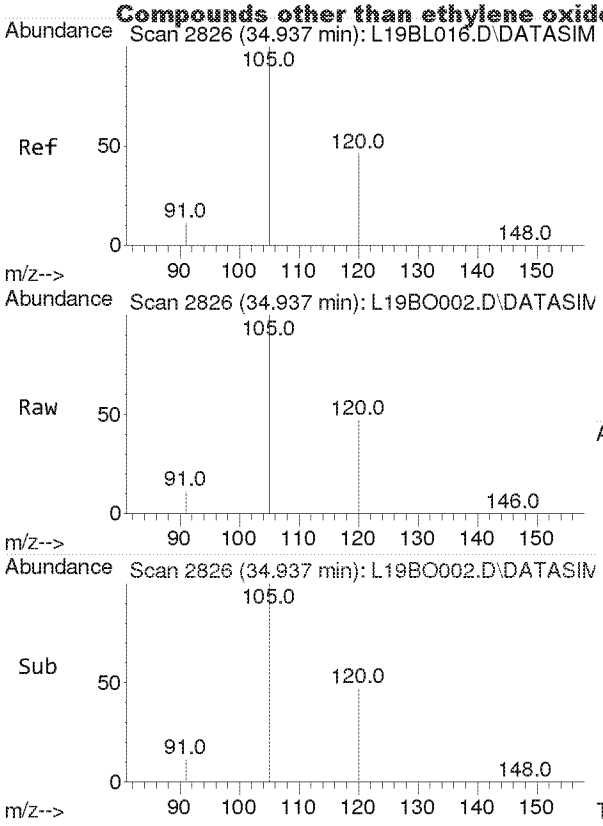
#55
o-Xylene
Concen: 2.417 ppbv
RT: 32.138 min Scan# 2676
Delta R.T. 0.001 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion: 91 Resp: 31380

Ion	Ratio	Lower	Upper
91	100		
106	46.2	36.6	55.0



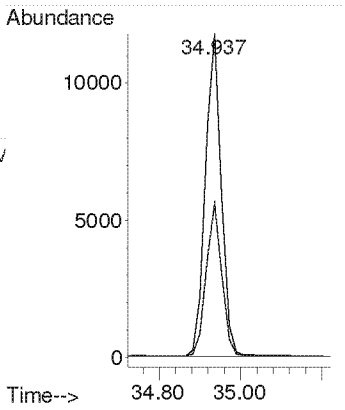
Compounds other than ethylene oxide were not quantitated.

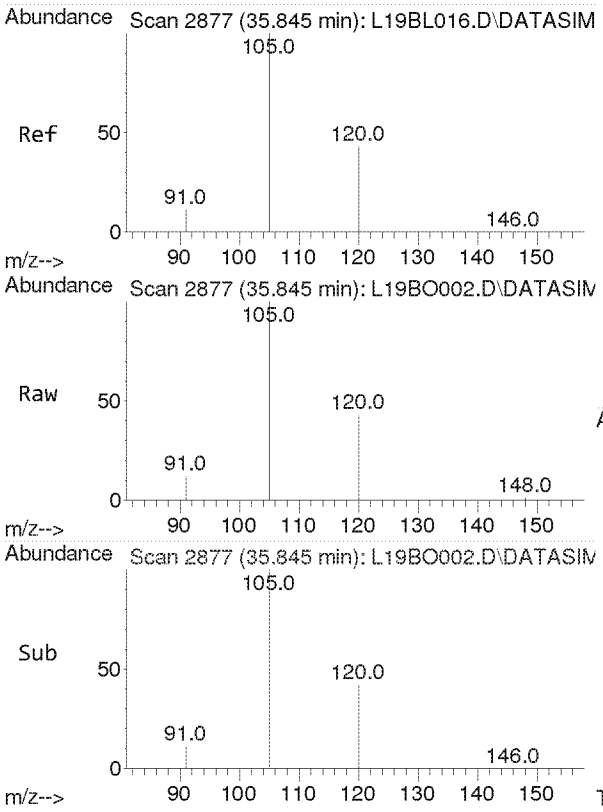


#56
1,3,5-Trimethylbenzene
Concen: 2.279 ppbv
RT: 34.937 min Scan# 2826
Delta R.T. 0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:105 Resp: 31791

Ion	Ratio	Lower	Upper
105	100		
120	46.5	36.8	55.2

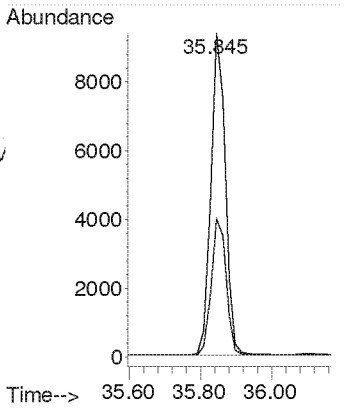




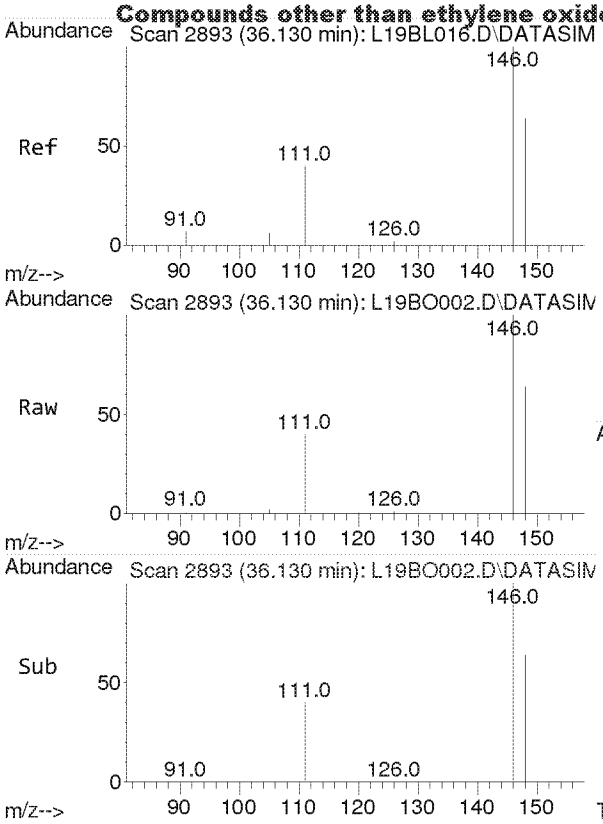
#57
1,2,4-Trimethylbenzene
Concen: 2.179 ppbv
RT: 35.845 min Scan# 2877
Delta R.T. 0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:105 Resp: 26289

Ion	Ratio	Lower	Upper
105	100		
120	43.7	35.2	52.8



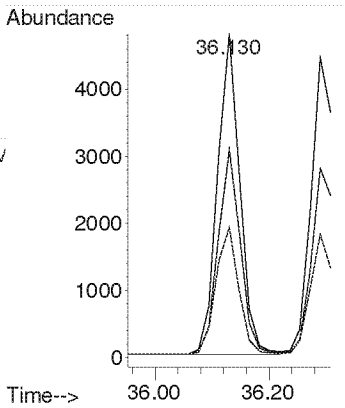
Compounds other than ethylene oxide were not quantitated.

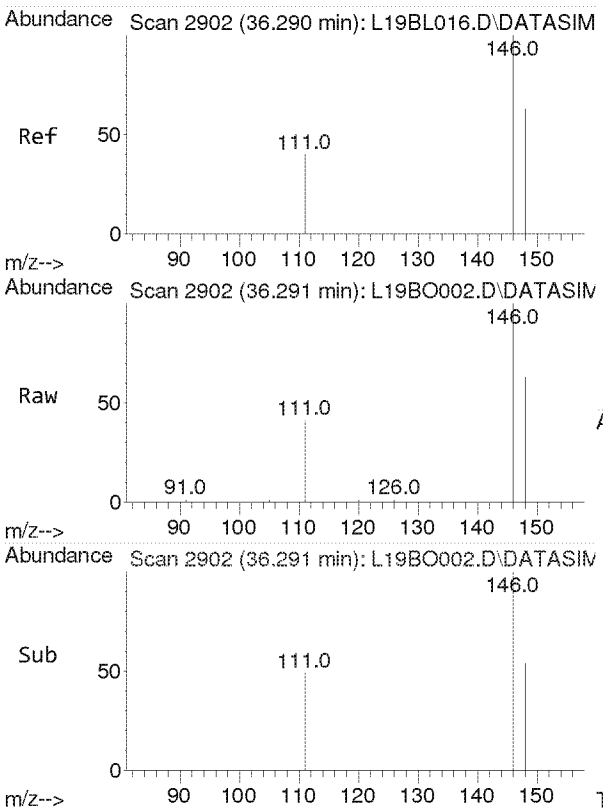


#58
m-Dichlorobenzene
Concen: 2.060 ppbv
RT: 36.130 min Scan# 2893
Delta R.T. 0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:146 Resp: 13069

Ion	Ratio	Lower	Upper
146	100		
148	63.8	51.3	76.9
111	40.8	32.1	48.1

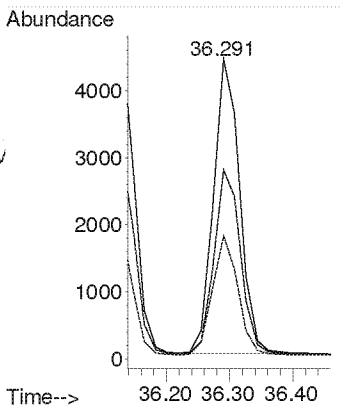




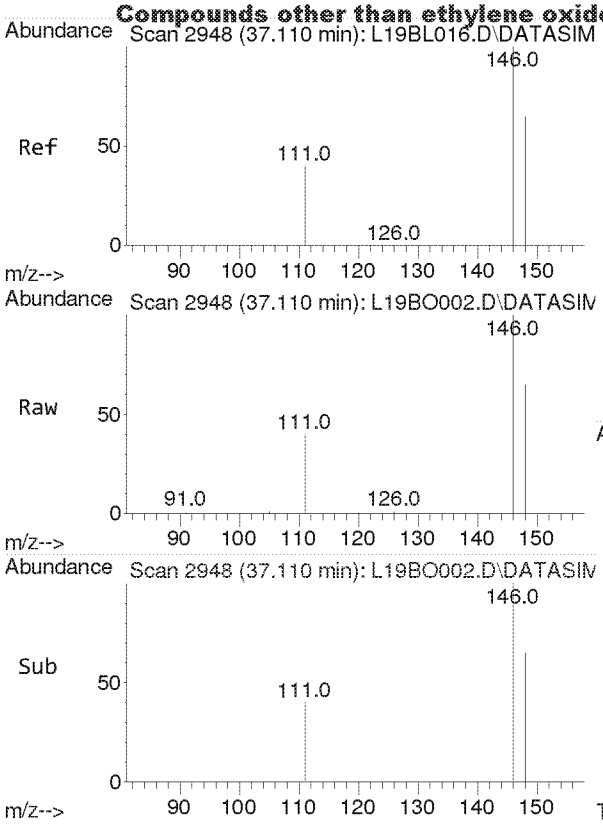
#59
p-Dichlorobenzene
Concen: 2.431 ppbv
RT: 36.291 min Scan# 2902
Delta R.T. 0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:146 Resp: 12562

Ion	Ratio	Lower	Upper
146	100		
148	63.4	51.4	77.2
111	39.5	31.0	46.4



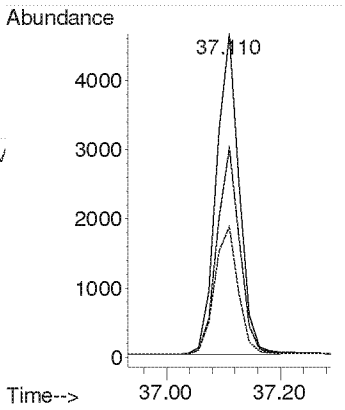
Compounds other than ethylene oxide were not quantitated.

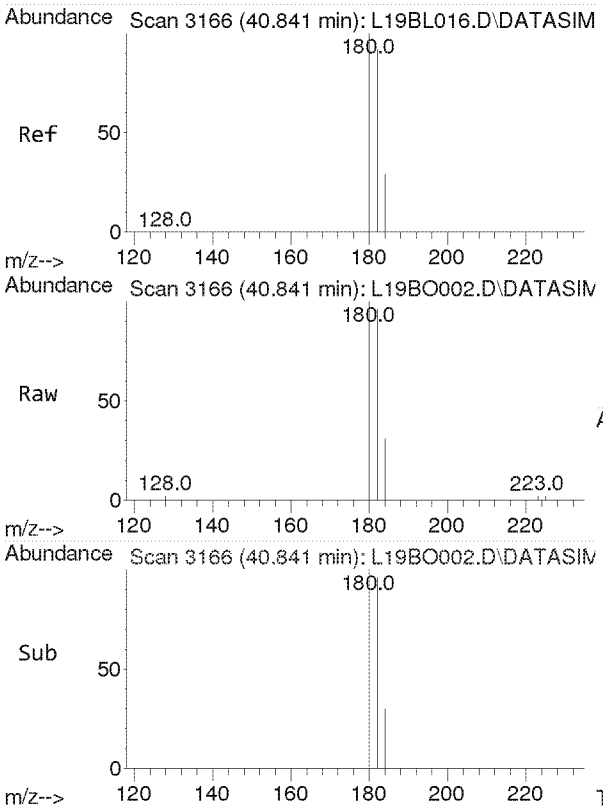


#60
o-Dichlorobenzene
Concen: 2.220 ppbv
RT: 37.110 min Scan# 2948
Delta R.T. 0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:146 Resp: 12878

Ion	Ratio	Lower	Upper
146	100		
148	64.0	51.2	76.8
111	41.0	32.6	49.0

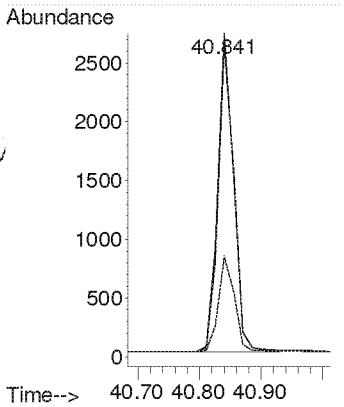




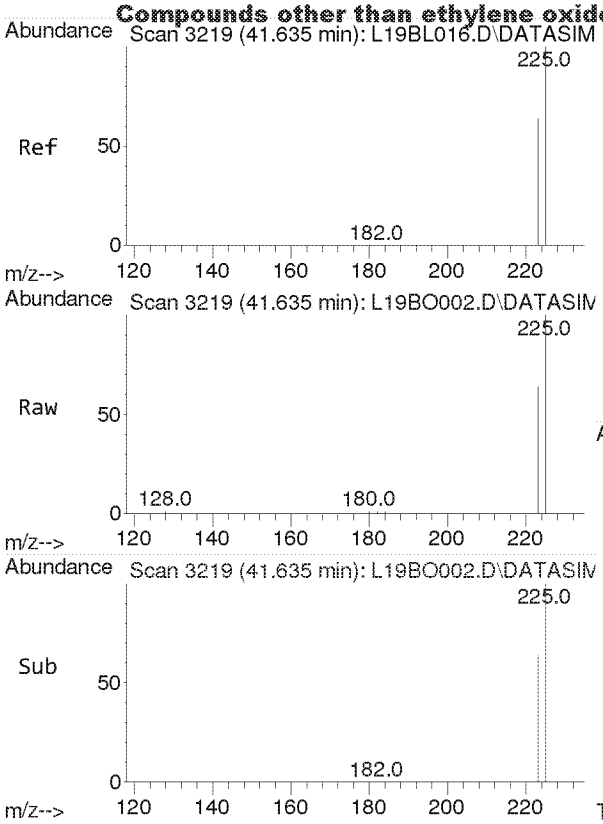
#61
1,2,4-Trichlorobenzene
Concen: 2.440 ppbv
RT: 40.841 min Scan# 3166
Delta R.T. 0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:180 Resp: 4801

Ion	Ratio	Lower	Upper
180	100		
182	96.8	75.7	113.5
184	30.4	24.2	36.2



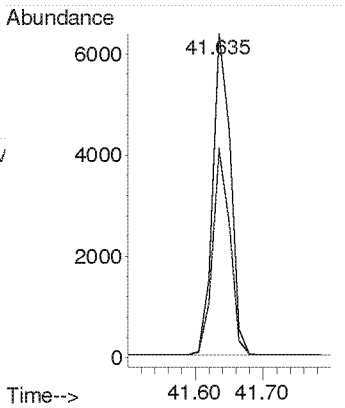
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.301 ppbv
RT: 41.635 min Scan# 3219
Delta R.T. 0.000 min
Lab File: L19BO002.D
Acq: 15 Feb 2019 7:25 am

Tgt Ion:225 Resp: 11562

Ion	Ratio	Lower	Upper
225	100		
223	62.5	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: ✓ Date: 2-12-19	Data File Name	L19BO005.D	
	Operator	MAH	
	Acq. Method File	9020003.M	
Reviewer: RHB Date: 2/20/19	Sample Name	B9B1504-BLK1	
	Misc Info	ML 8L13001,T-H1-562,18870	

#	Name	Target Response	Amount (pphv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	46937		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	41	0.009	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	0	0.000	Y		0.139
6)	Dichlorotetrafluoroethane	0	0.000	Y		0.040
7)	Vinyl Chloride	0	0.000	Y		0.038
8)	1,3-Butadiene	0	0.000	Y		0.058
	Ethylene oxide	0	0.000	Y		0.136
9)	Bromomethane	0	0.000	Y		0.035
10)	Chloroethane	0	0.000	Y		0.075
11)	Acetonitrile	0	0.000	Y		0.049
12)	Acrolein	0	0.000	Y		0.200
13)	Trichlorofluoromethane	0	0.000	Y		0.035
14)	Acrylonitrile	0	0.000	Y		0.032
15)	1,1-Dichloroethene	0	0.000	Y		0.036
16)	Methylene Chloride	0	0.000	Y		0.043
17)	Carbon Disulfide	51	0.003	Y		0.200
18)	Trichlorotrifluoroethane	0	0.000	Y		0.029
19)	trans-1,2-Dichloroethylene	0	0.000	Y		0.040
20)	1,1-Dichloroethane	0	0.000	Y		0.043
21)	Methyl tert-Butyl Ether	0	0.000	Y		0.031
22)	Chloroprene	0	0.000	Y		0.039
23)	cis-1,2-Dichloroethylene	0	0.000	Y		0.056
24)	Bromochloromethane	0	0.000	Y		0.040
25)	Chloroform	0	0.000	Y		0.039
26)	Ethyl tert-Butyl Ether	0	0.000	Y		0.033
27)	1,2-Dichloroethane	0	0.000	Y		0.042
28)	IS-1,4-Difluorobenzene	119132		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	0	0.000	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	282	0.023	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	84206		NA		NA
43)	Toluene	0	0.000	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	0	0.000	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	87	0.006	Y		0.077
50)	m,p-Xylene	42	0.003	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	0	0.000	Y		0.109
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y		0.063
54)	o-Xylene	110	0.009	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	43	0.004	Y		0.080
57)	m-Dichlorobenzene	0	0.000	Y		0.055
58)	p-Dichlorobenzene	0	0.000	Y		0.060
59)	o-Dichlorobenzene	0	0.000	Y		0.062
60)	1,2,4-Trichlorobenzene	0	0.000	Y		0.200
61)	Hexachloro-1,3-butadiene	0	0.000	Y		0.082

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

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19BO\
Data File : L19BO005.D
Acq On : 15 Feb 2019 10:31 am (#1); 15-Feb-19, 10:26:35 (#2)
Operator : MAH
Sample : B9B1504-BLK1 (Sig #1); -BLK1 (Sig #2)
Misc : 80 ML 8L13001,T-H1-562,18870 (Sig #1); (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 14:53:26 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

2-20-19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46937	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	119132	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	84206	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.823	41	41	0.0086 ppbv #	13
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	0.000	50	0	N.D.	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	
13) Acrolein	0.000	56	0	N.D.	
14) Trichlorofluoromethane	0.000	101	0	N.D.	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.932	76	51	0.0030 ppbv #	75
19) Trichlorotrifluoroethane	0.000	101	0	N.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.	
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	24.553	41	282	0.0230 ppbv #	92
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.917	91	87	0.0060 ppbv #	42

Compounds other than ethylene oxide were not quantitated

Quantification Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19BO\
Data File : L19BO005.D
Acq On : 15 Feb 2019 10:31 am (#1); 15-Feb-19, 10:26:35 (#2)
Operator : MAH
Sample : B9B1504-BLK1 (Sig #1); -BLK1 (Sig #2)
Misc : 80 ML 8L13001,T-H1-562,18870 (Sig #1); (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 14:53:26 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

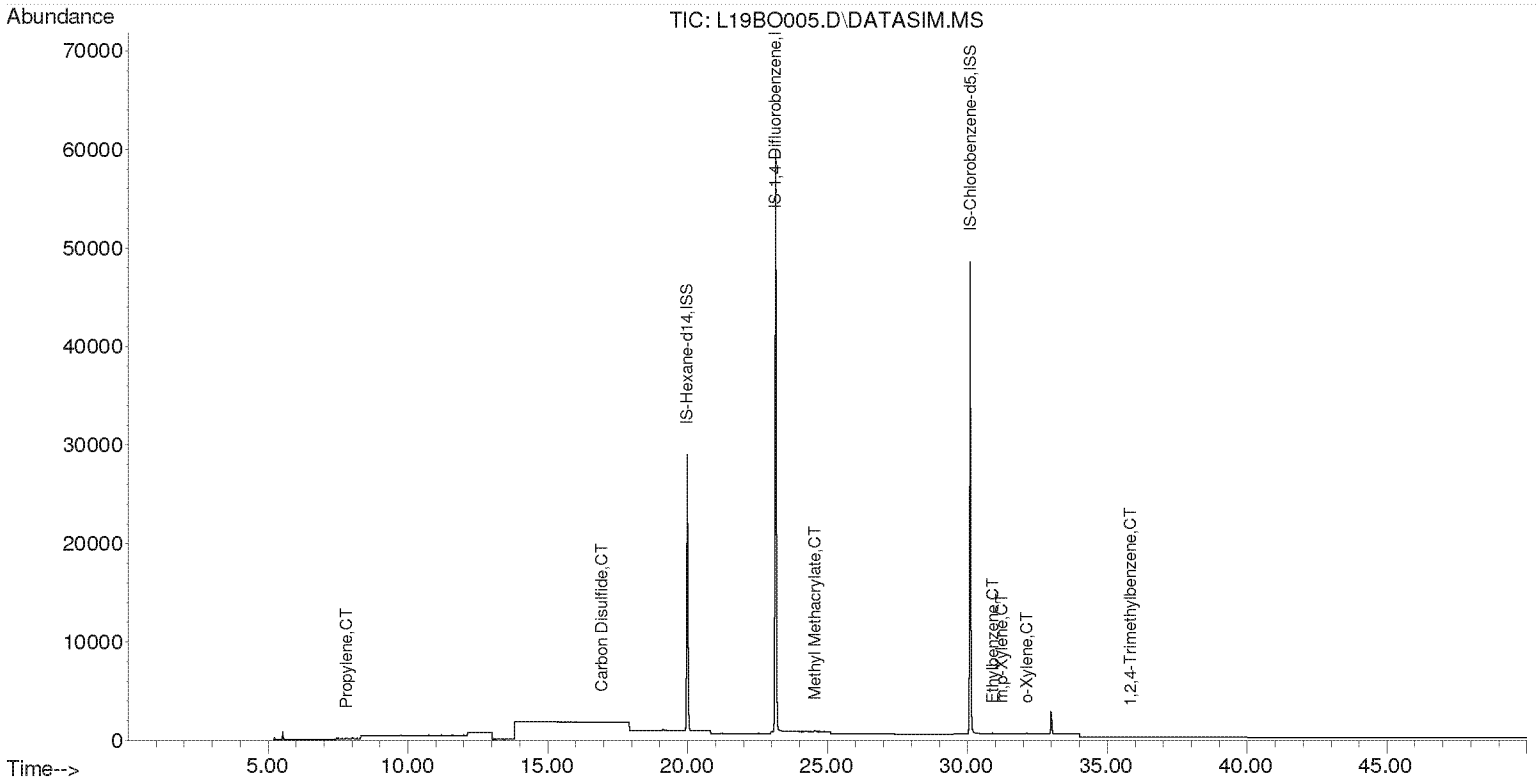
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.242	91	42	0.0034 ppbv #	30
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.139	91	110	0.0091 ppbv #	84
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.846	105	43	0.0038 ppbv #	32
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

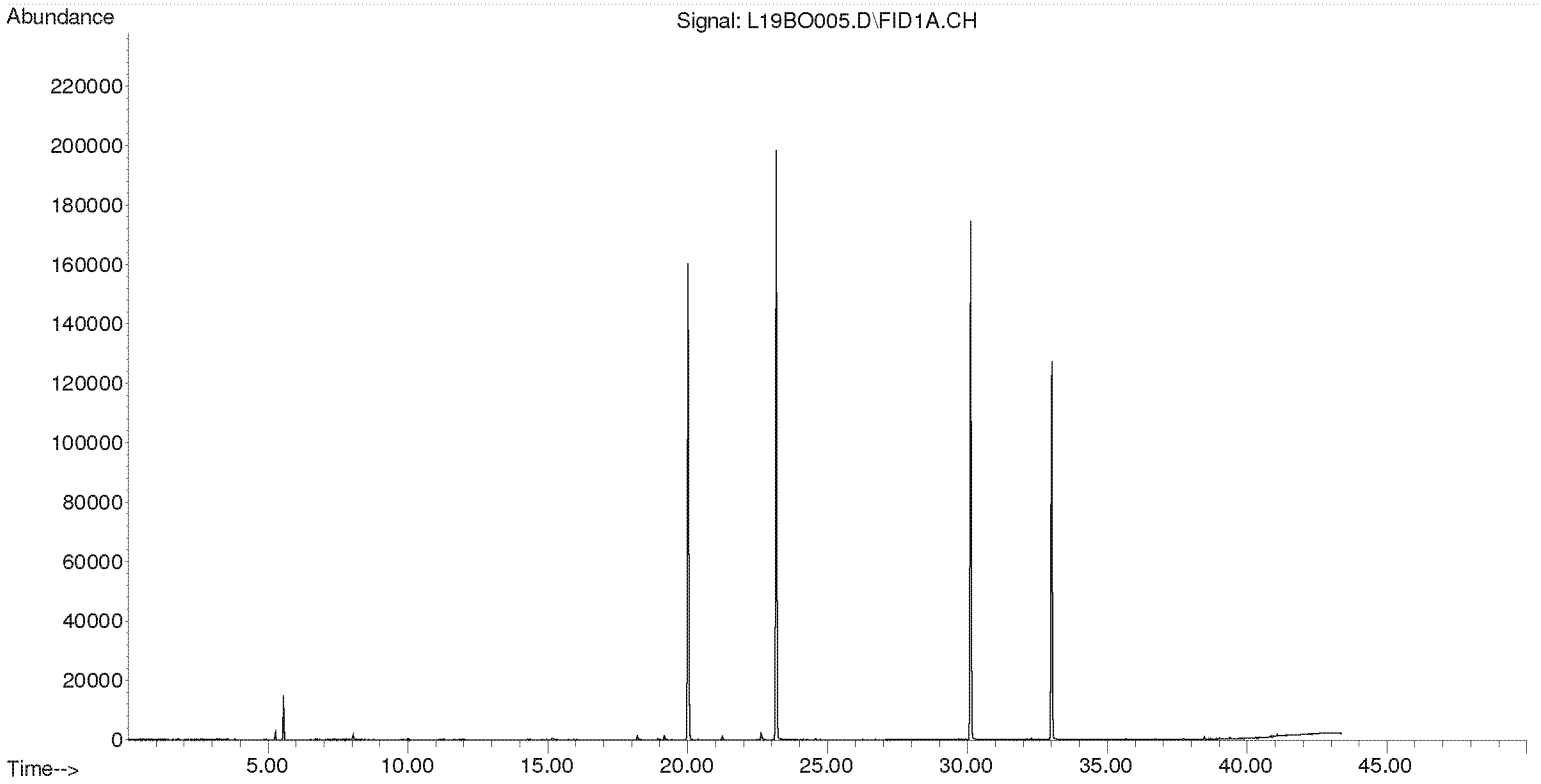
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

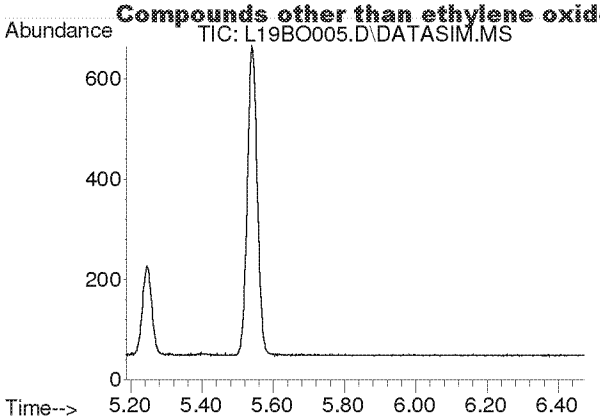
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO005.D
Acq On : 15 Feb 2019 10:31 am (#1); 15 Feb 2019 10:26 am (#2)
Operator : MAH
Sample : B9B1504-BLK1 (Sig #1); -BLK1 (Sig #2)
Misc : 80 ML 8L13001,T-H1-562,18870 (Sig #1); (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 14:45:33 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





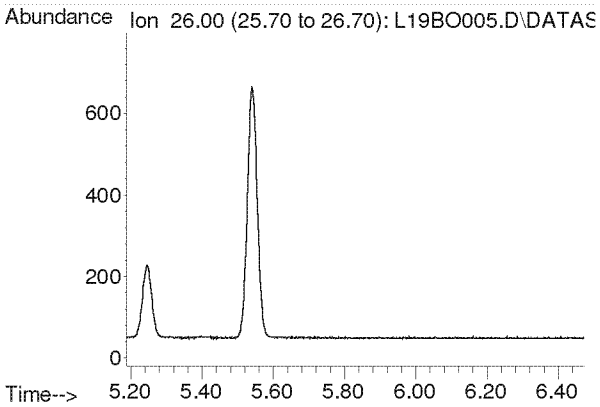
Compounds other than ethylene oxide were not quantitated.

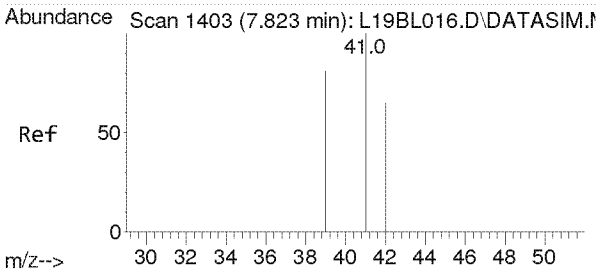


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 26

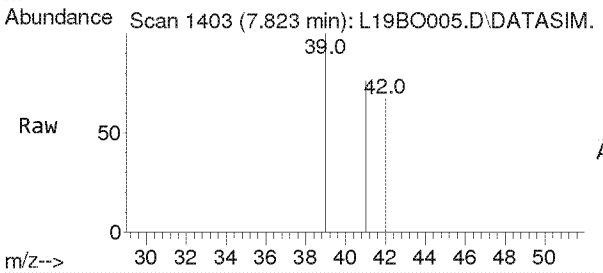


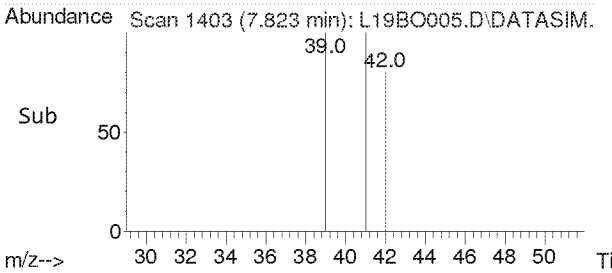


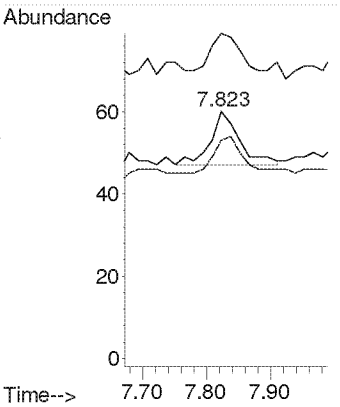
#3
Propylene
Concen: 0.009 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. 0.000 min
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 41 Resp: 41

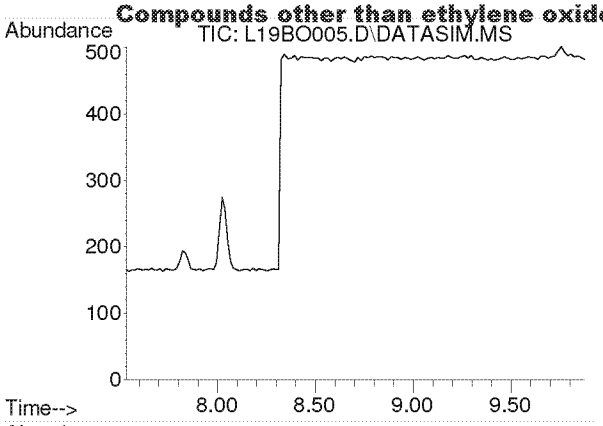
Ion	Ratio	Lower	Upper
41	100		
39	0.0	64.2	96.2#
42	0.0	52.6	79.0#







Compounds other than ethylene oxide were not quantitated.

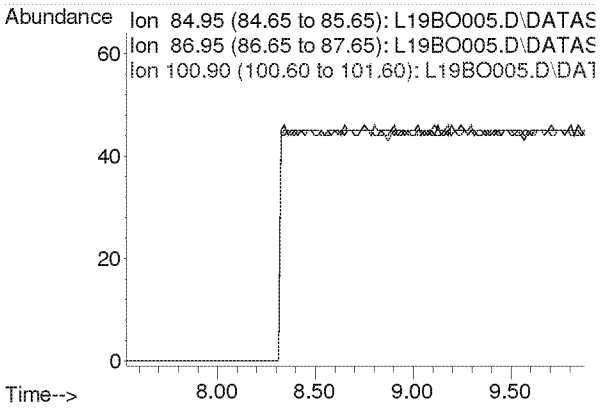


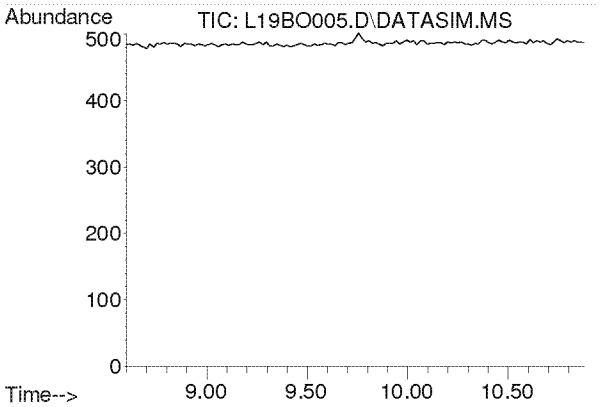
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



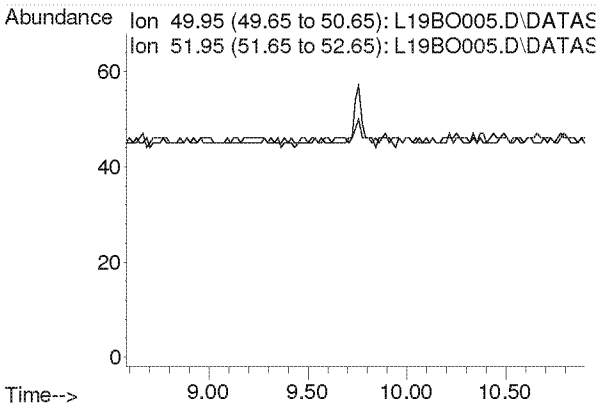


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

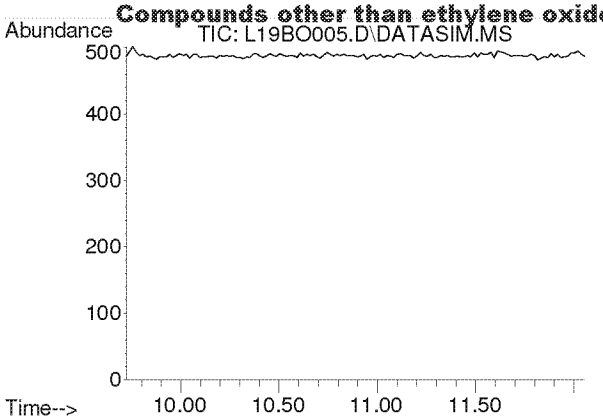
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

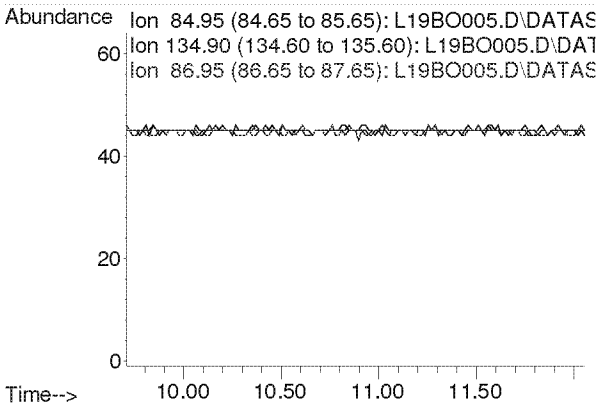


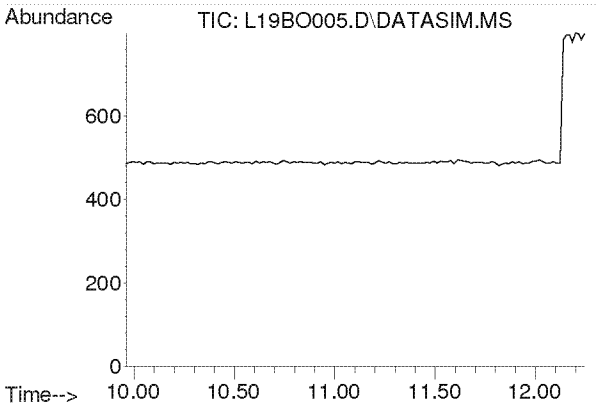
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



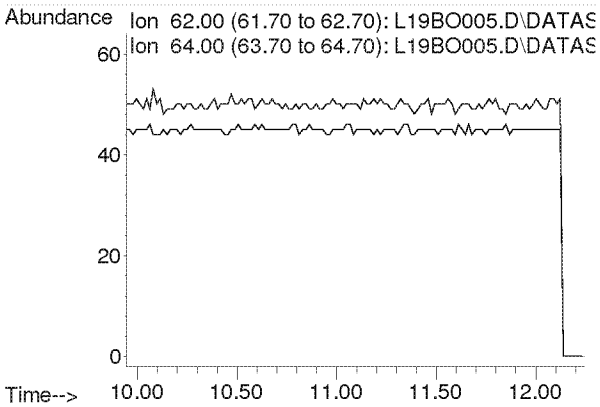


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

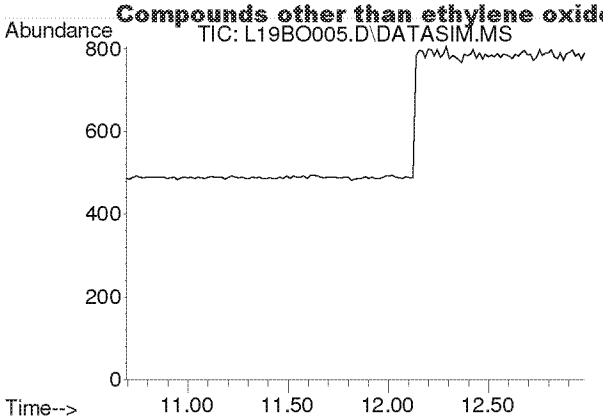
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

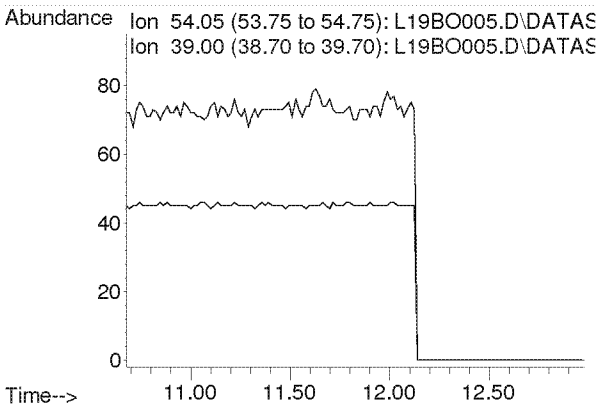


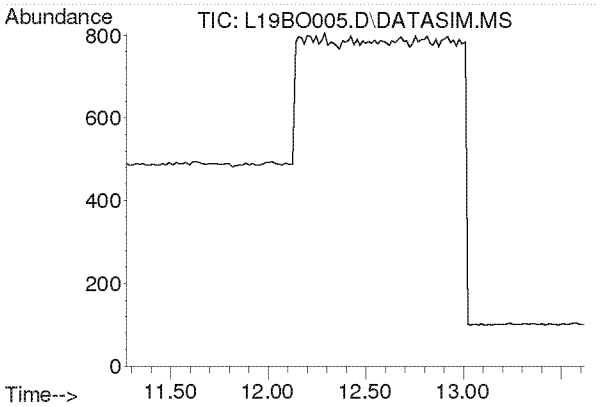
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



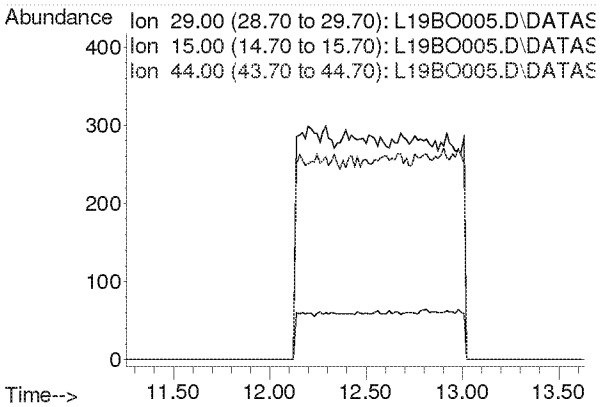


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

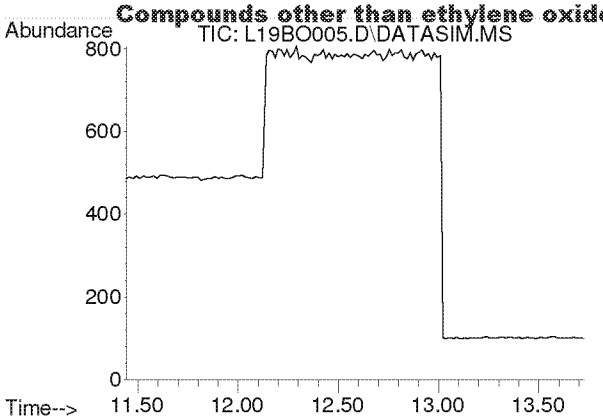
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

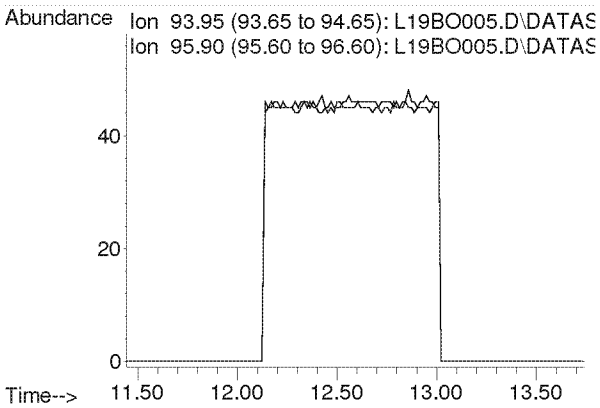


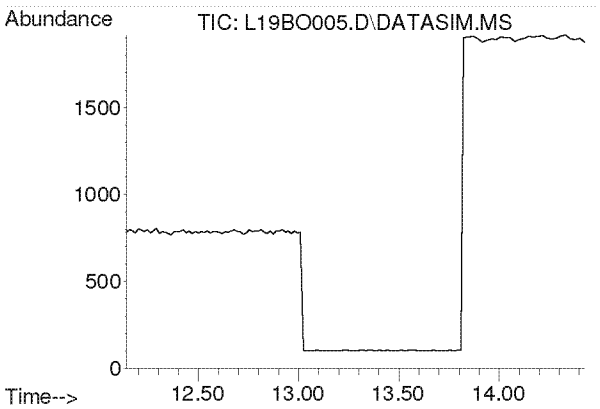
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



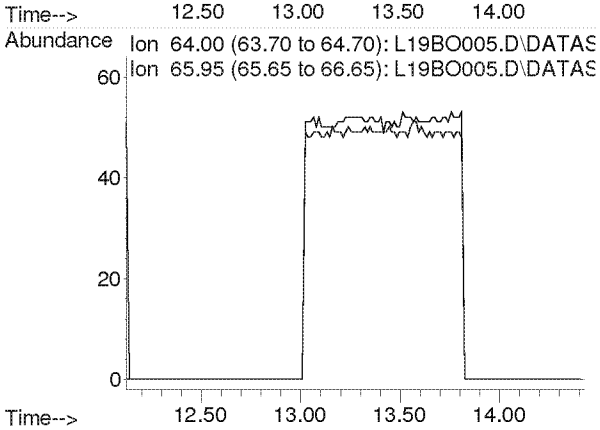


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

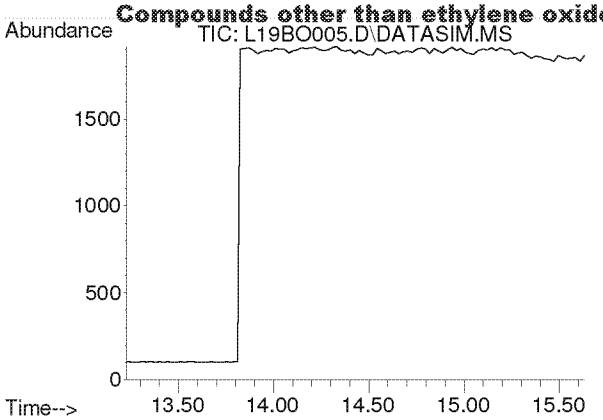
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

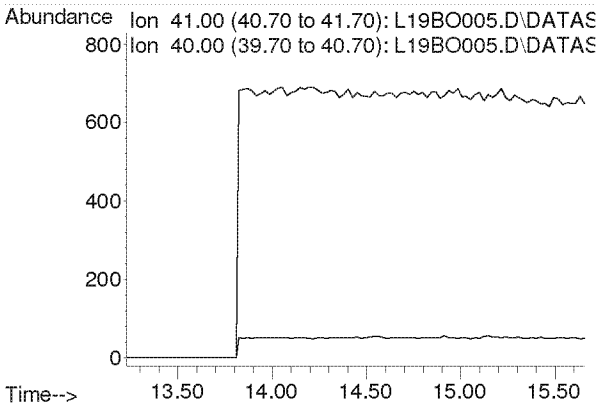


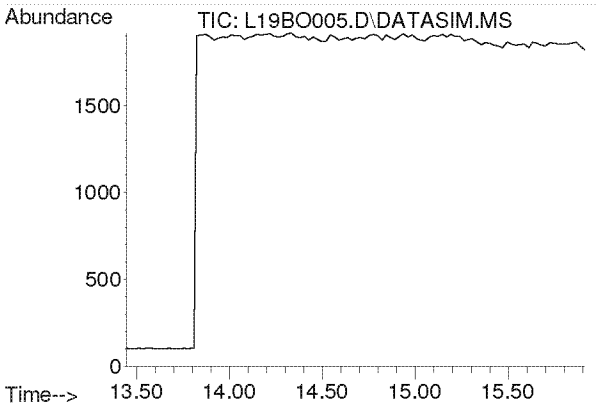
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



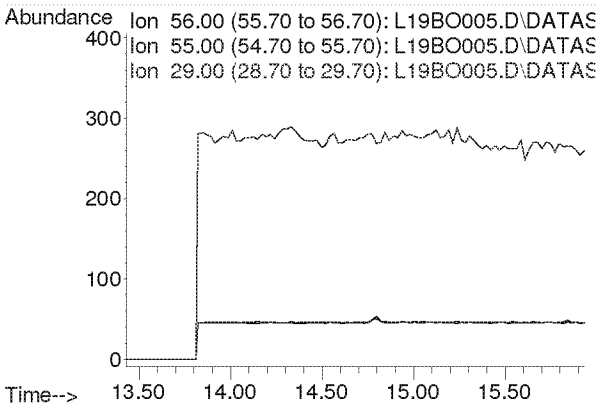


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

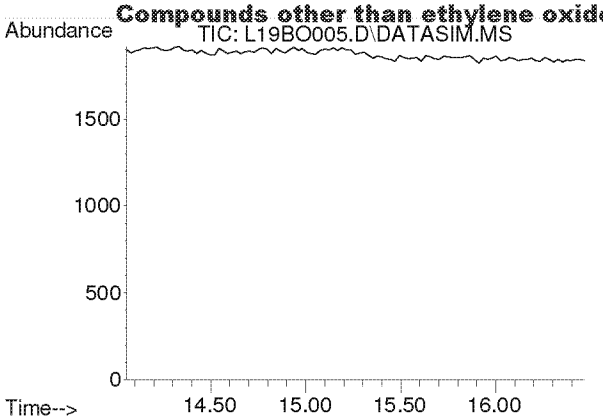
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

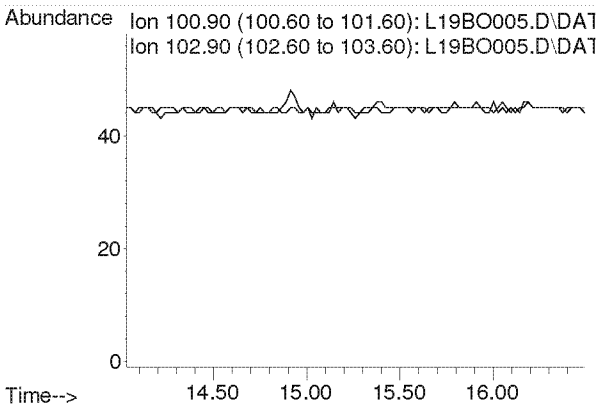


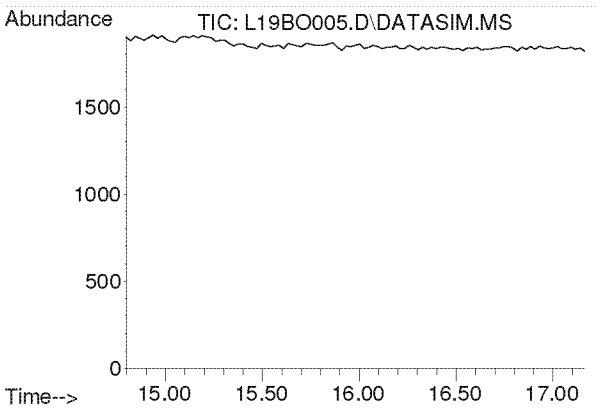
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



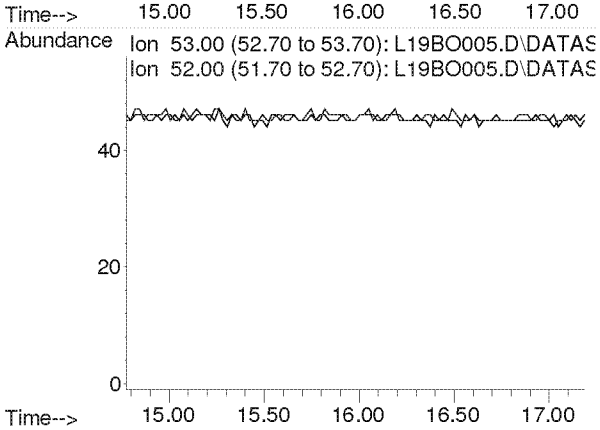


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

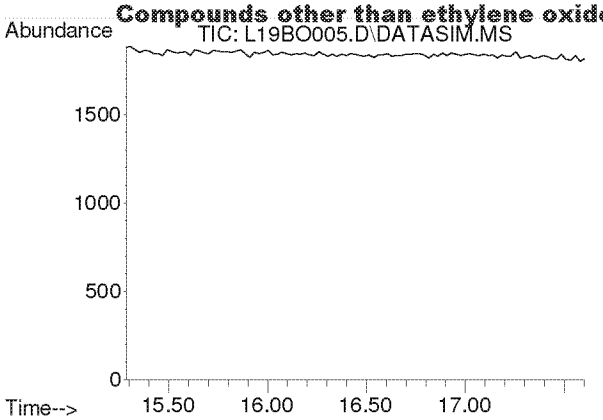
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

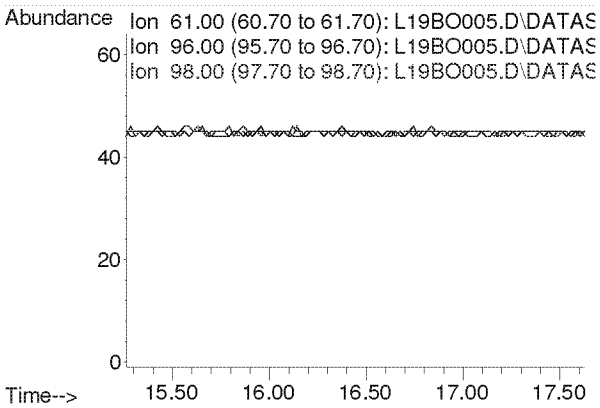


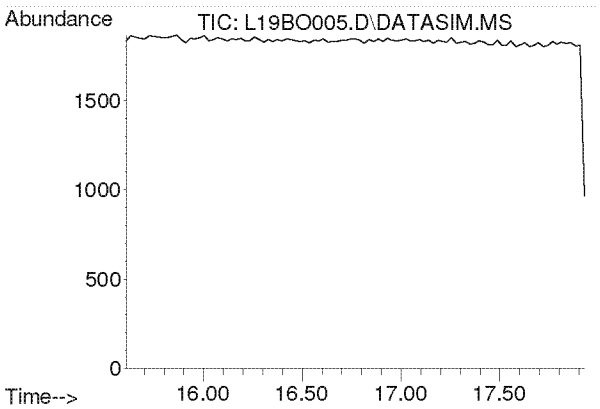
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



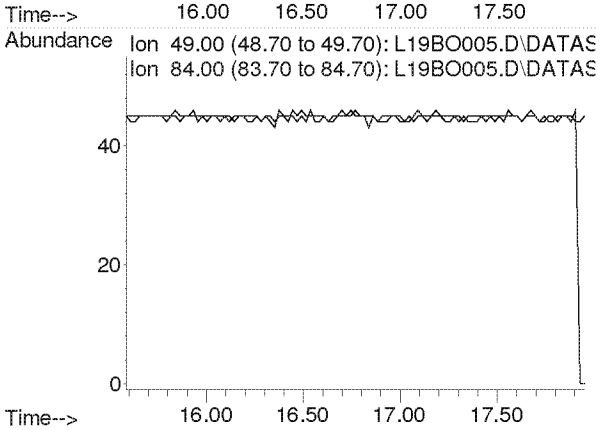


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

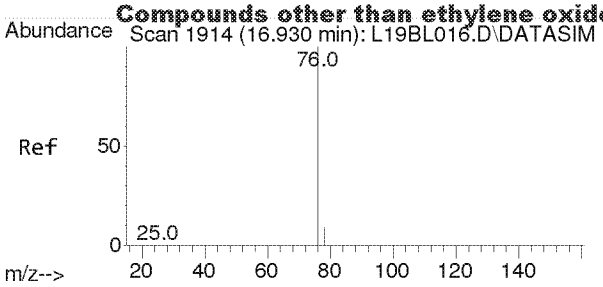
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



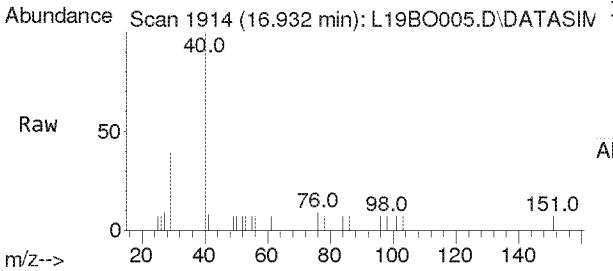
Compounds other than ethylene oxide were not quantitated.

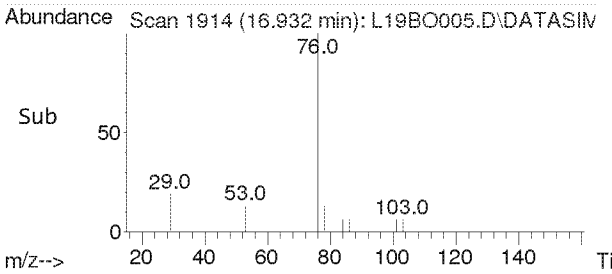


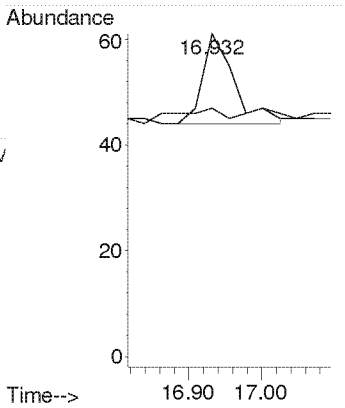
#18
Carbon Disulfide
Concen: 0.003 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

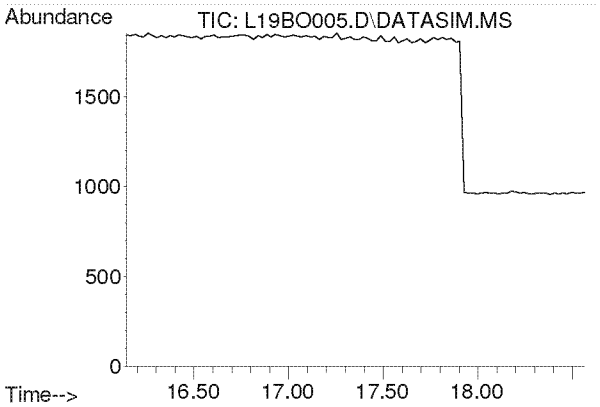
Tgt Ion: 76 Resp: 51

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.4	11.0#







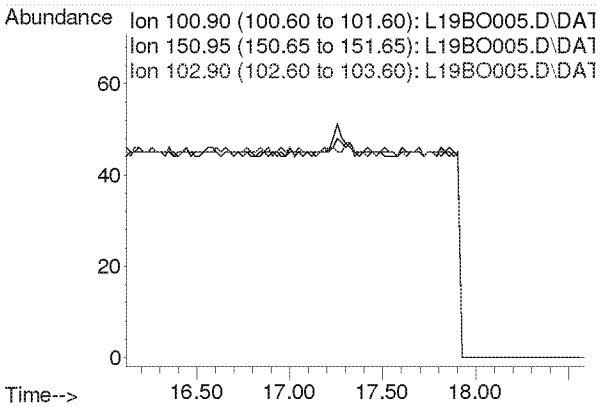


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

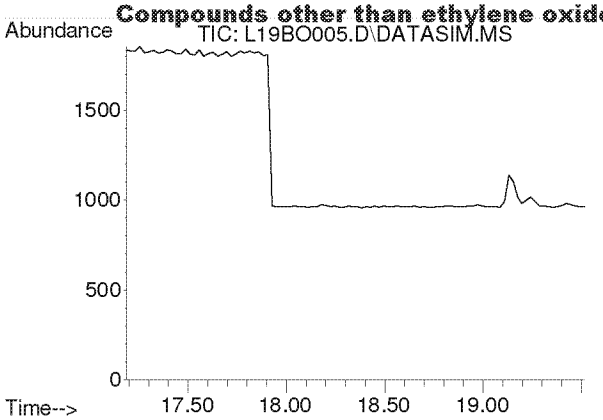
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

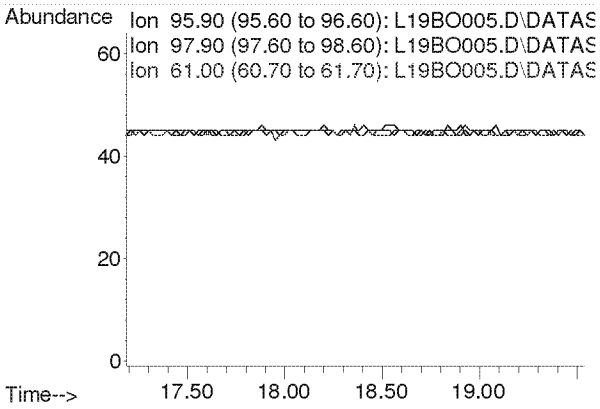


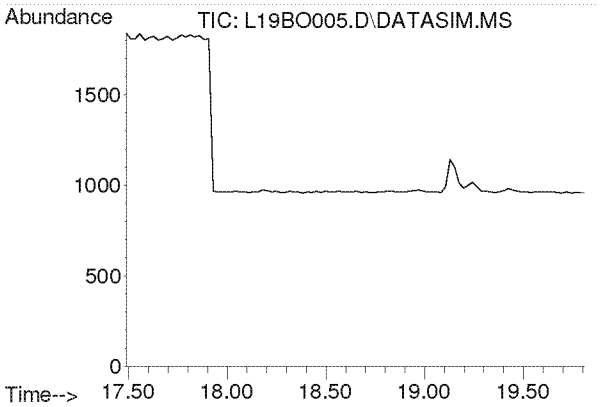
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



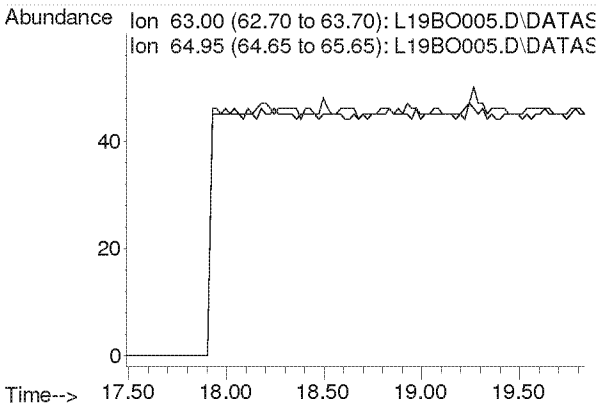


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

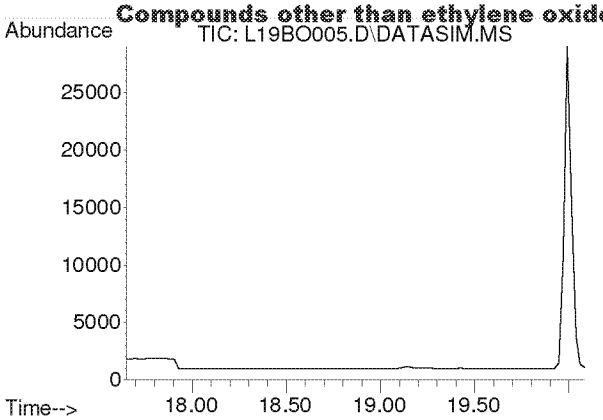
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

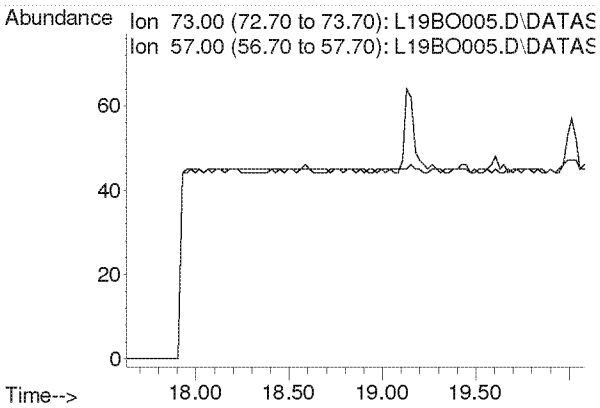


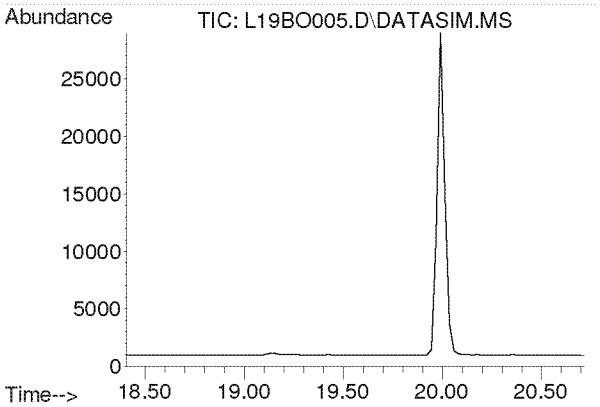
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



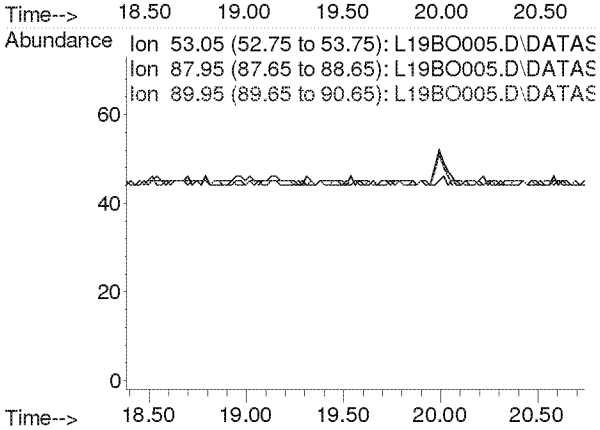


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

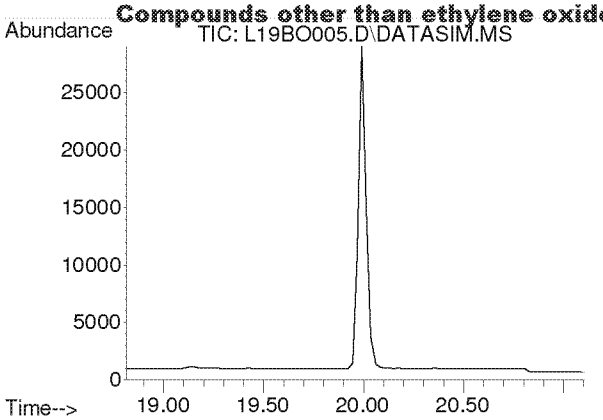
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

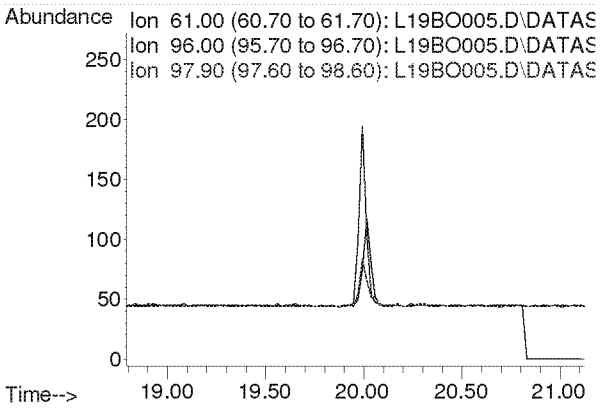


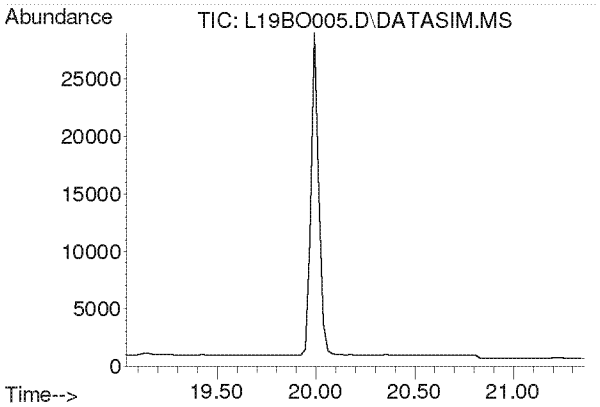
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



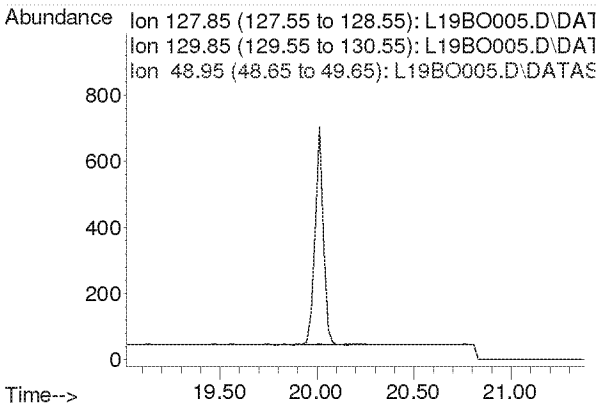


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

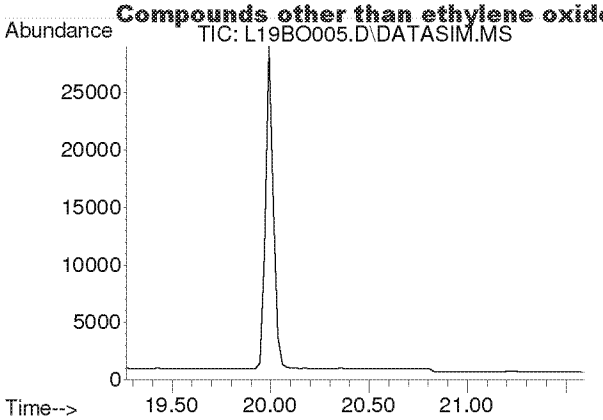
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

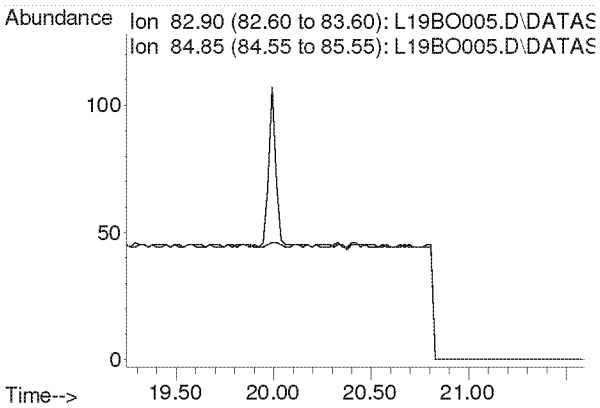


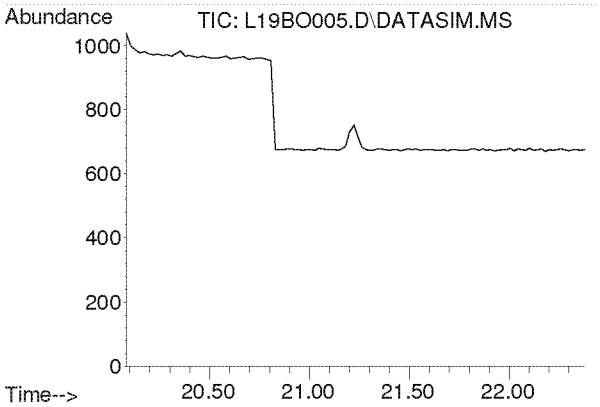
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



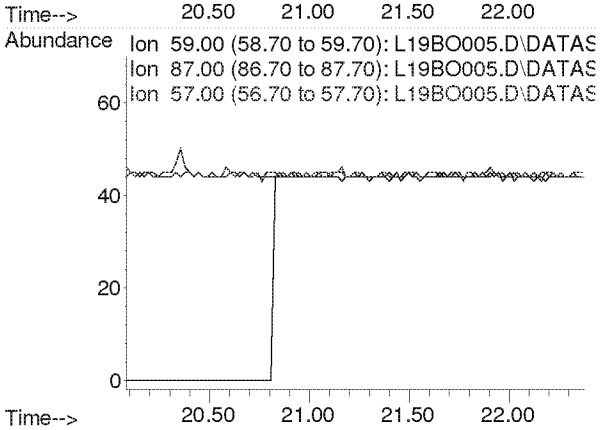


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

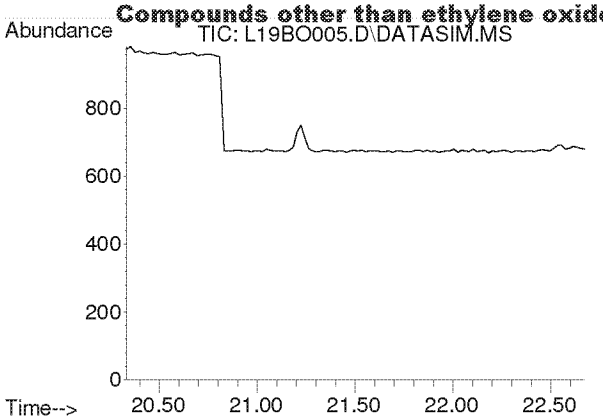
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

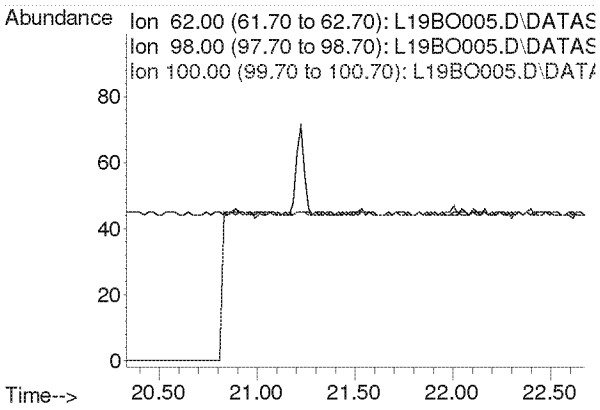


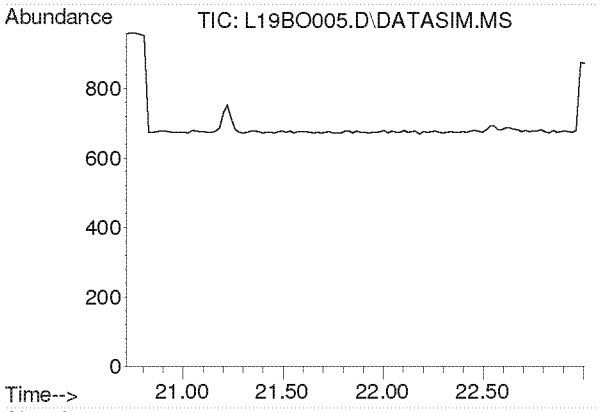
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



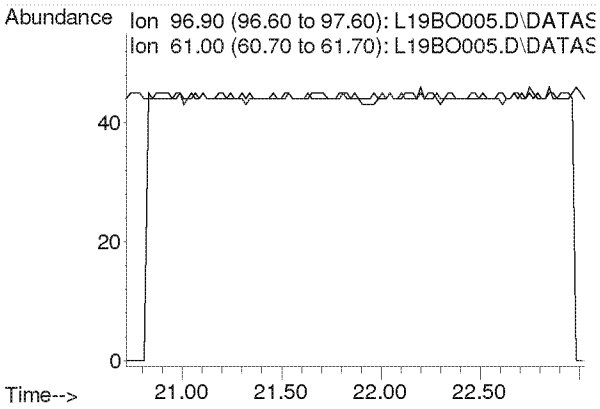


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

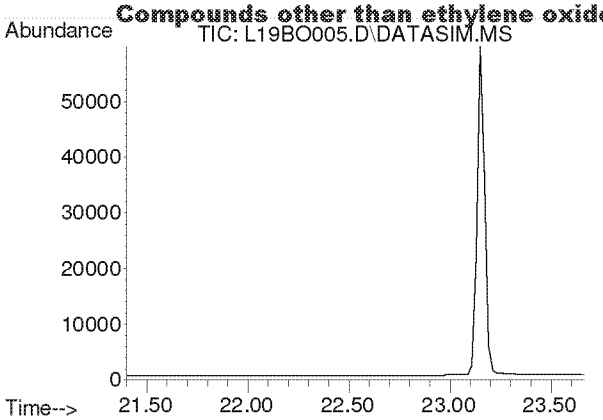
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

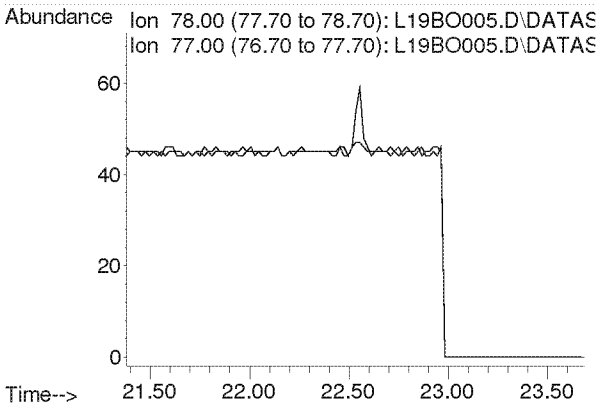


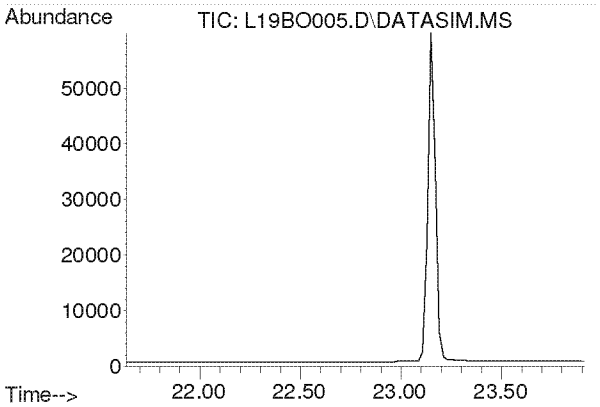
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



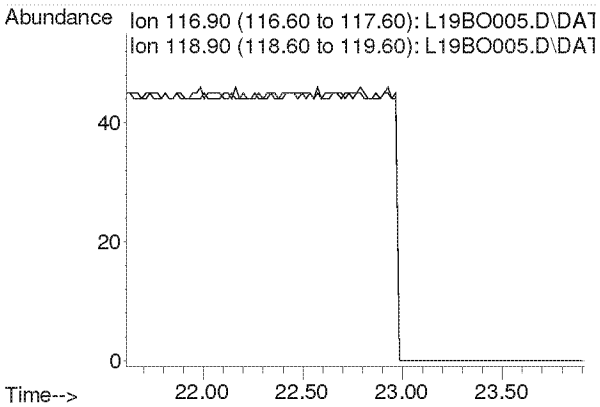


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

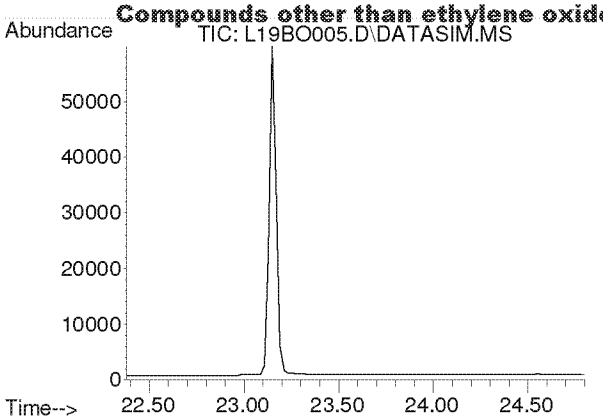
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

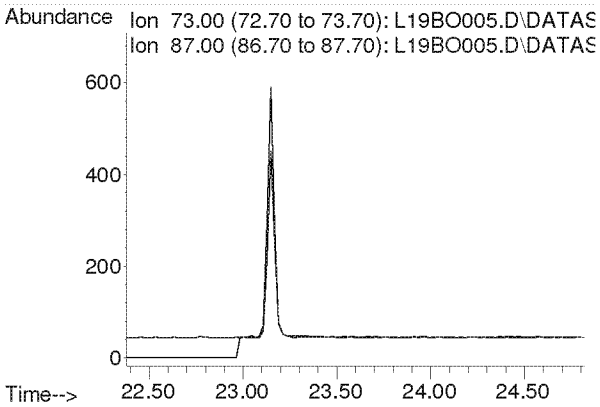


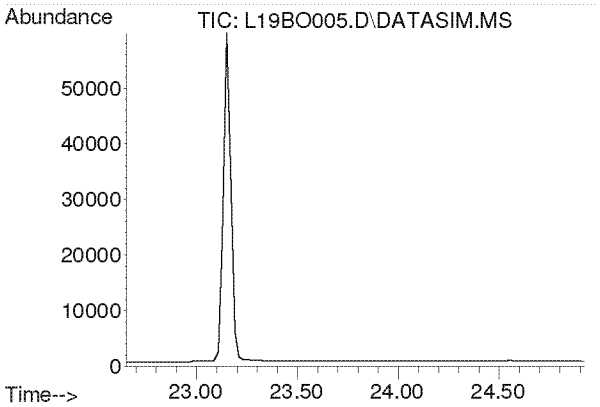
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



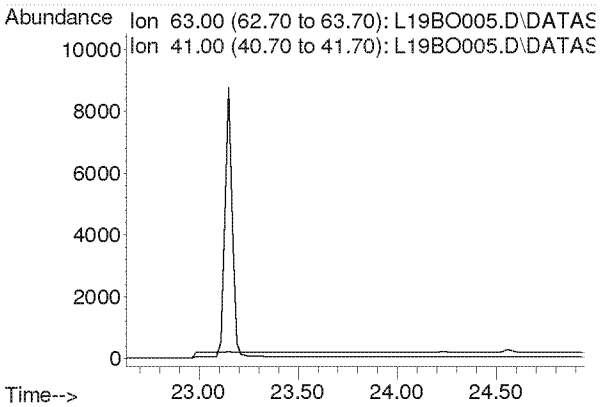


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

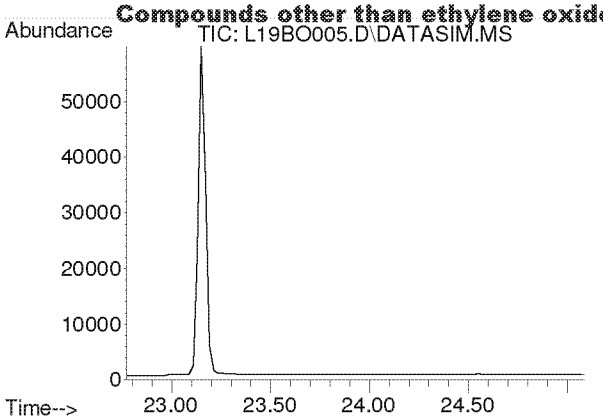
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

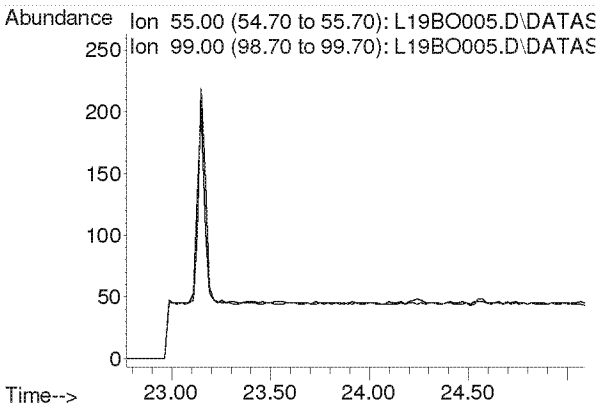


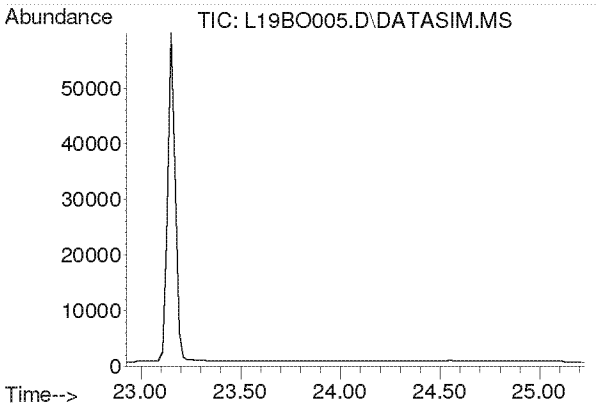
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



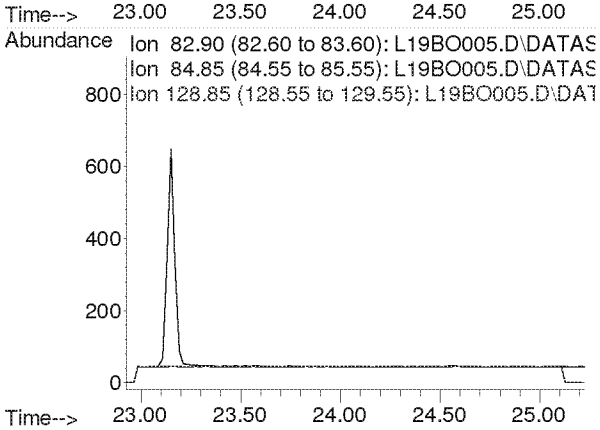


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

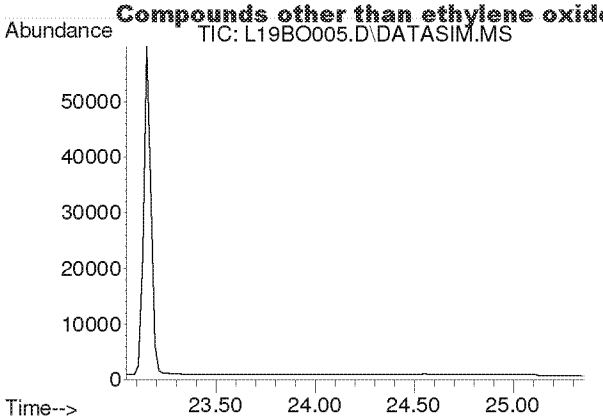
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

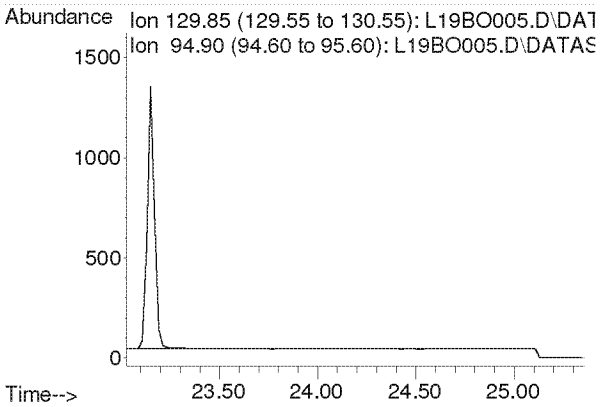


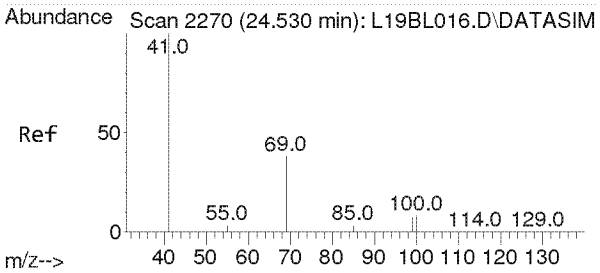
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1

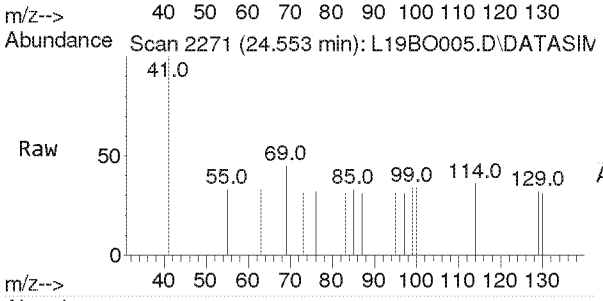


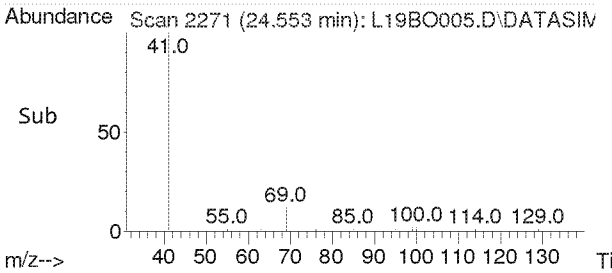


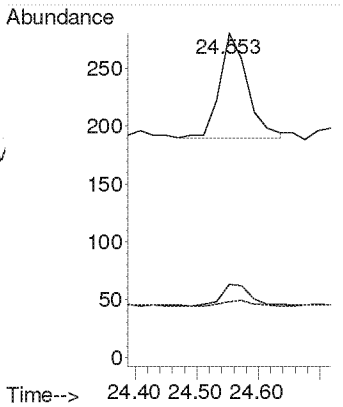
#38
Methyl Methacrylate
Concen: 0.023 ppbv
RT: 24.553 min Scan# 2271
Delta R.T. 0.023 min
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 41 Resp: 282

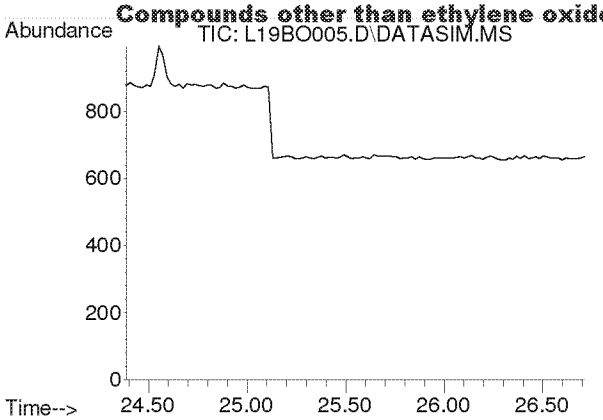
Ion	Ratio	Lower	Upper
41	100		
69	23.8	16.8	25.2
100	0.0	4.5	6.7#







Compounds other than ethylene oxide were not quantitated.

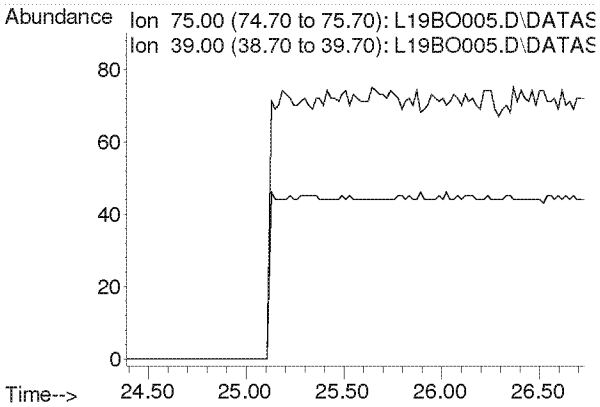


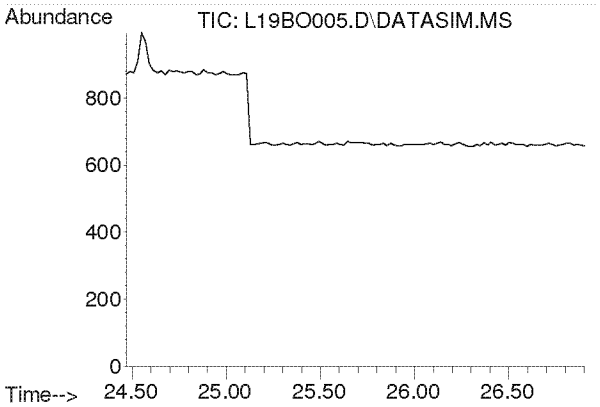
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



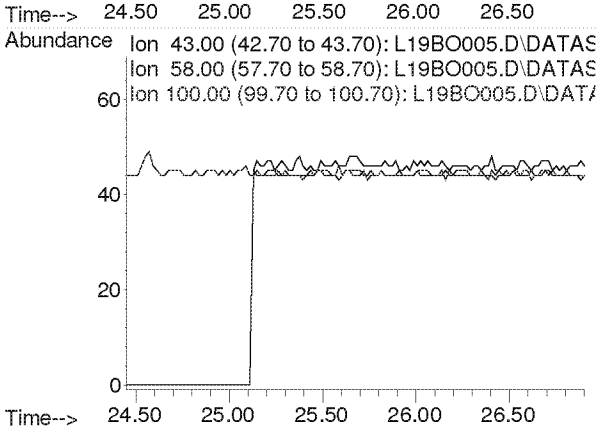


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

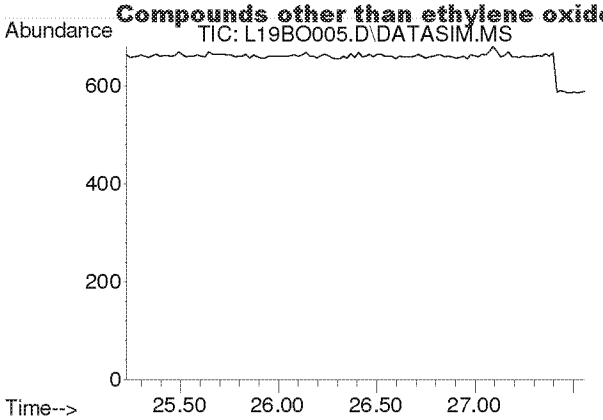
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

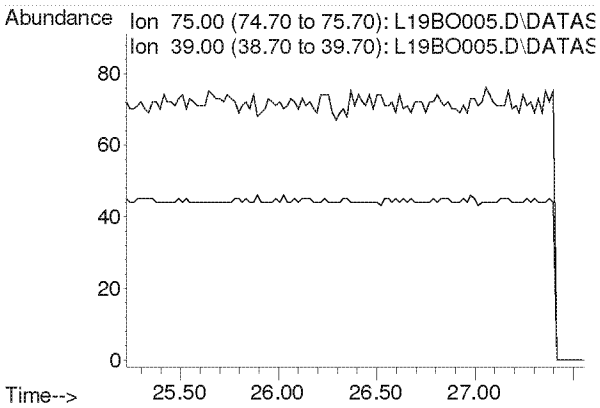


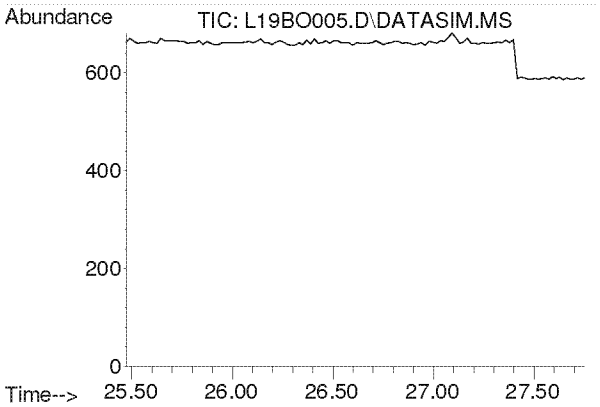
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



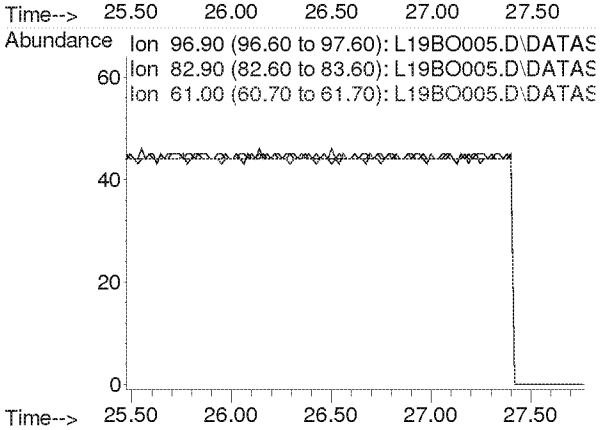


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

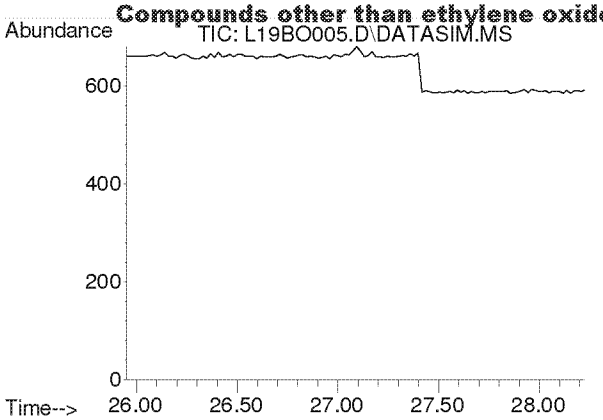
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

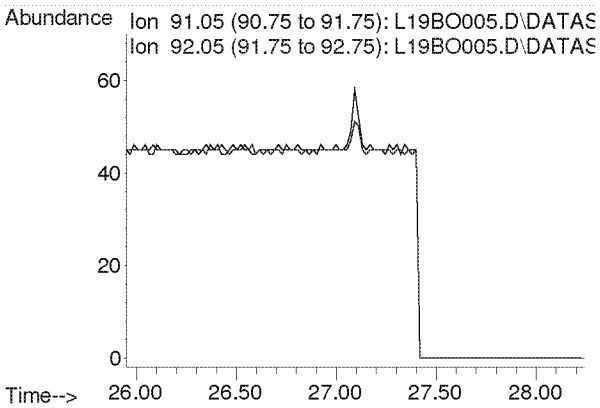


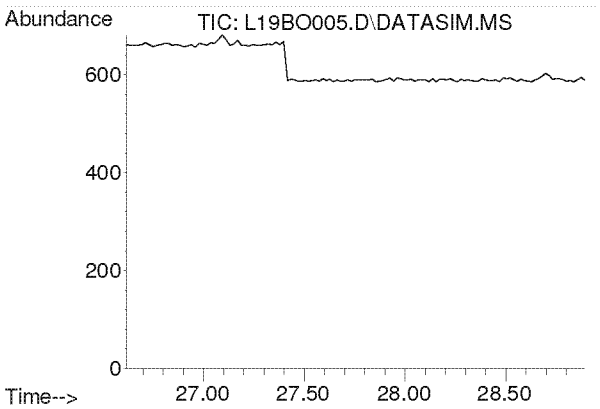
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



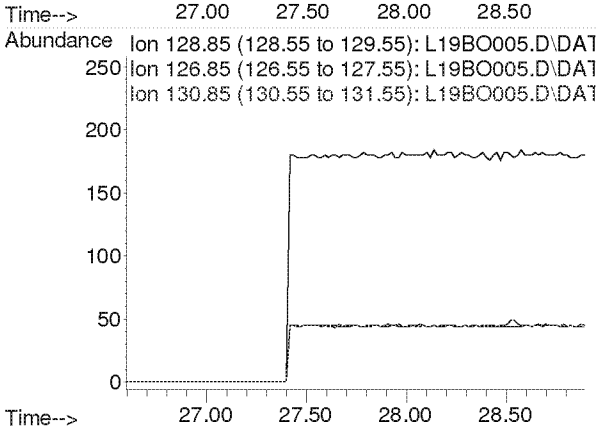


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

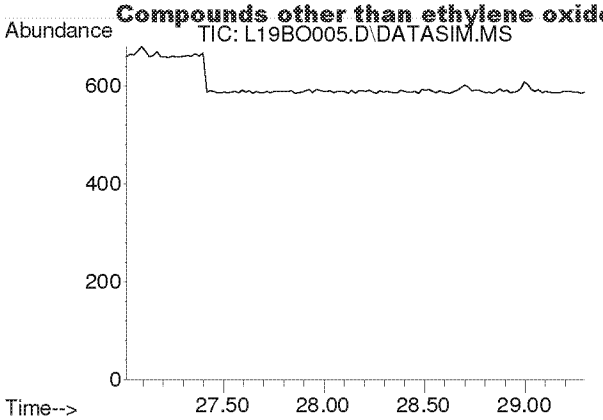
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

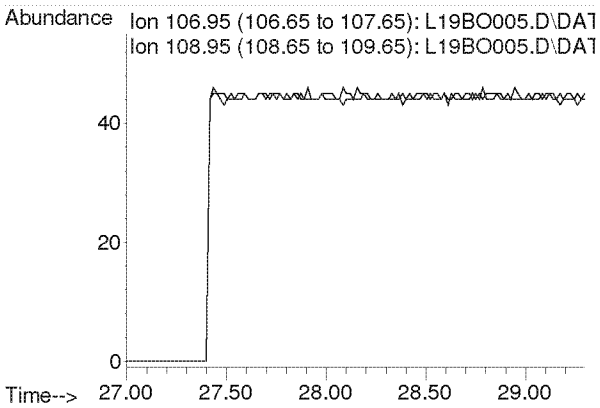


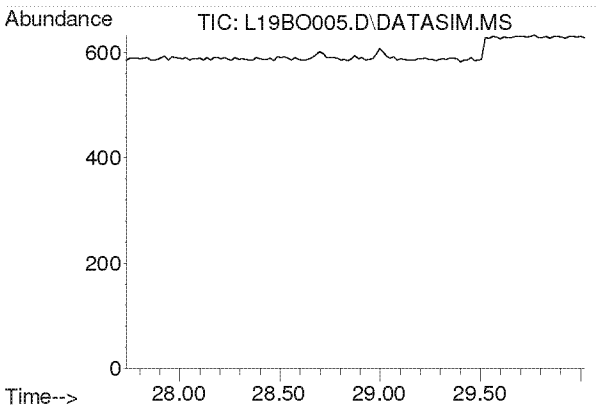
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



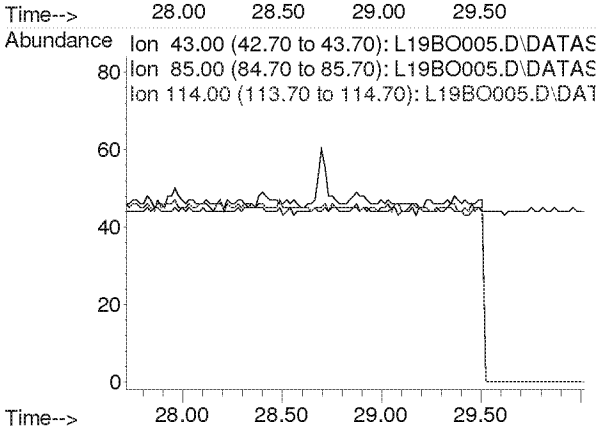


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

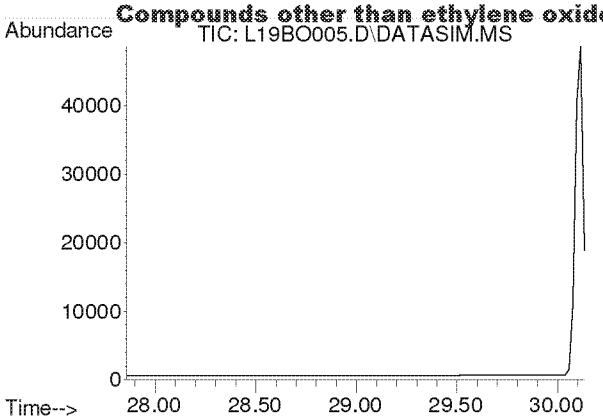
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

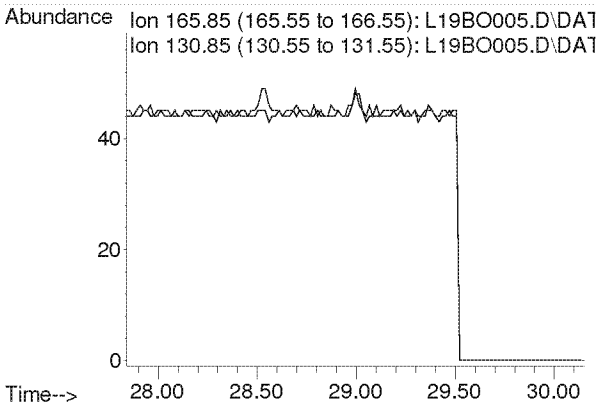


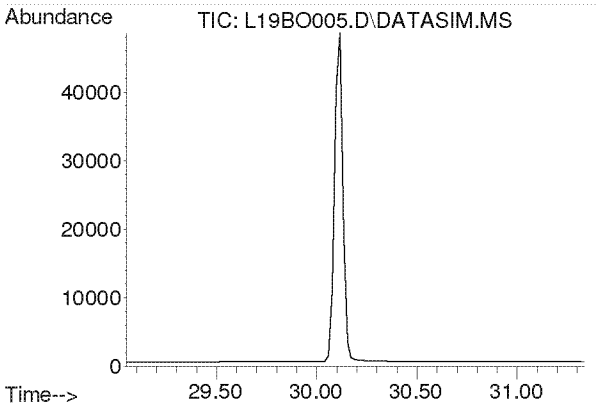
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



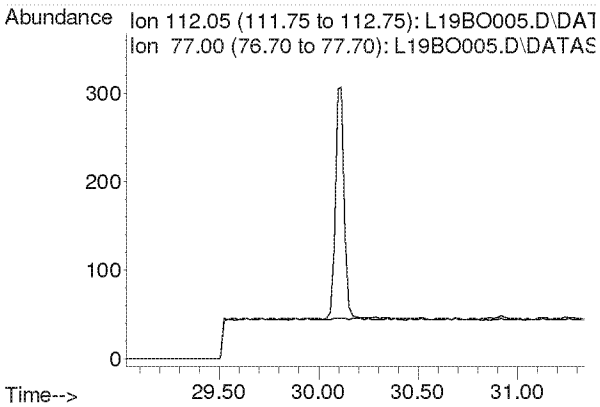


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

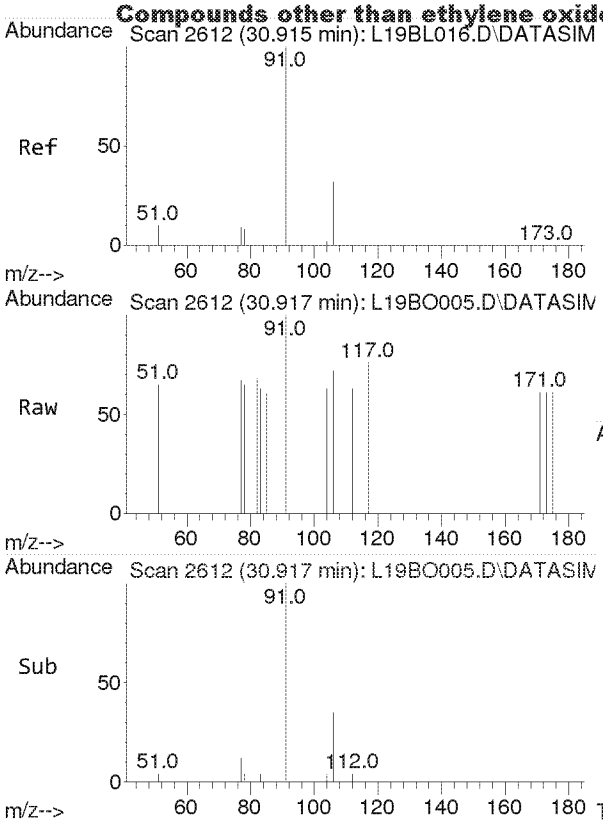
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



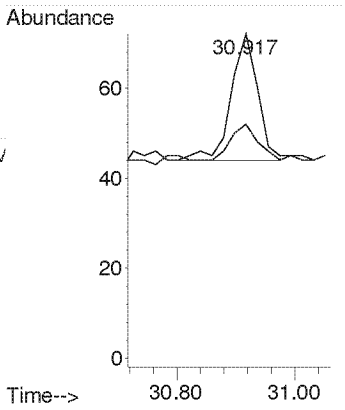
Compounds other than ethylene oxide were not quantitated.

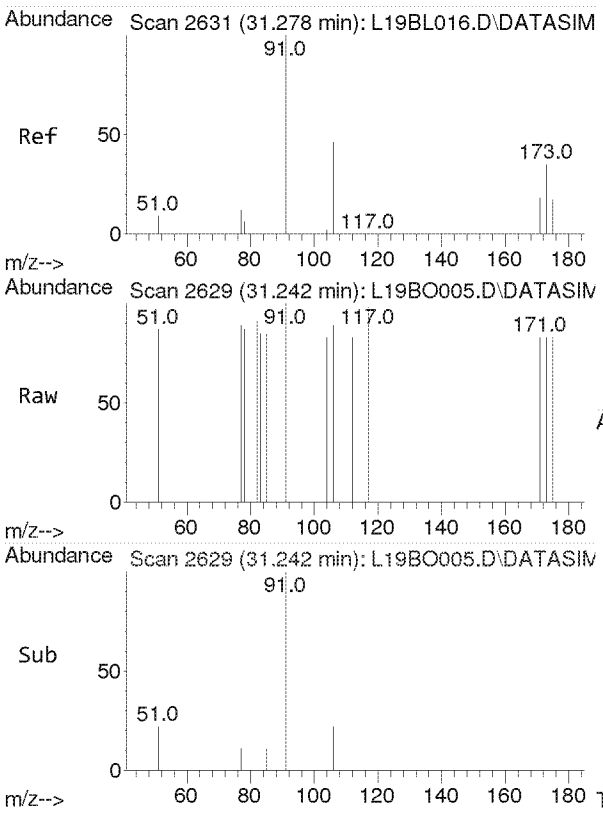


#50
Ethylbenzene
Concen: 0.006 ppbv
RT: 30.917 min Scan# 2612
Delta R.T. 0.002 min
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 91 Resp: 87

Ion	Ratio	Lower	Upper
91	100		
106	0.0	26.0	39.0#

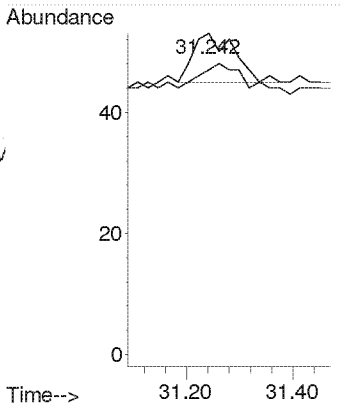




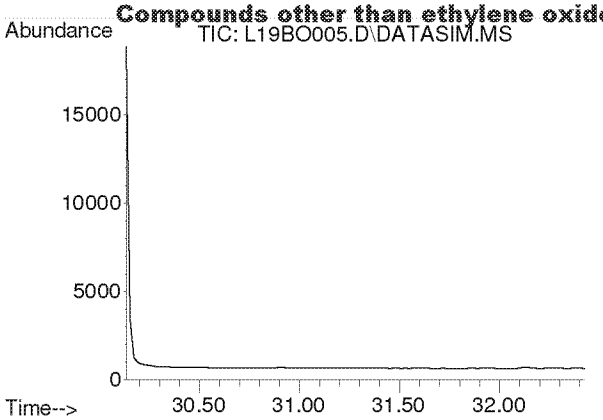
#51
m,p-Xylene
Concen: 0.003 ppbv
RT: 31.242 min Scan# 2629
Delta R.T. -0.036 min
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 91 Resp: 42

Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.3	55.9#



Compounds other than ethylene oxide were not quantitated.

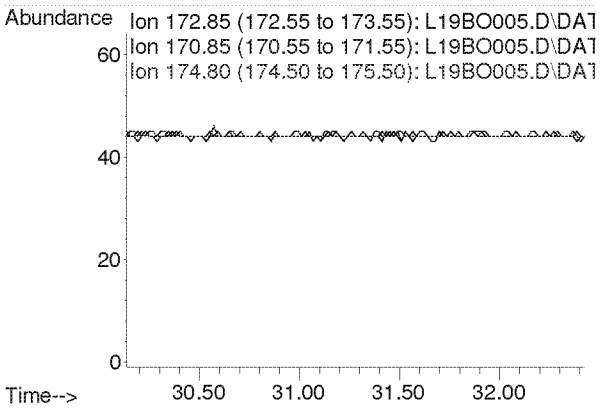


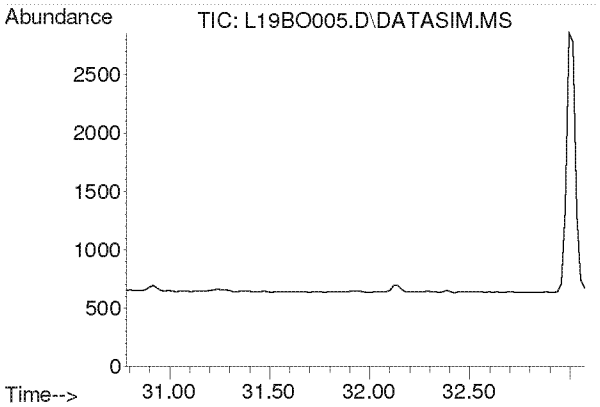
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



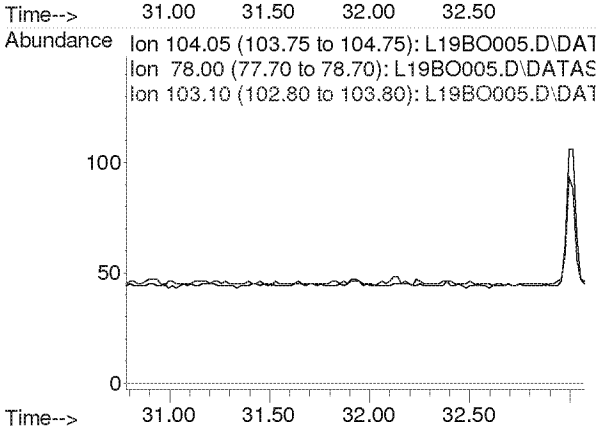


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

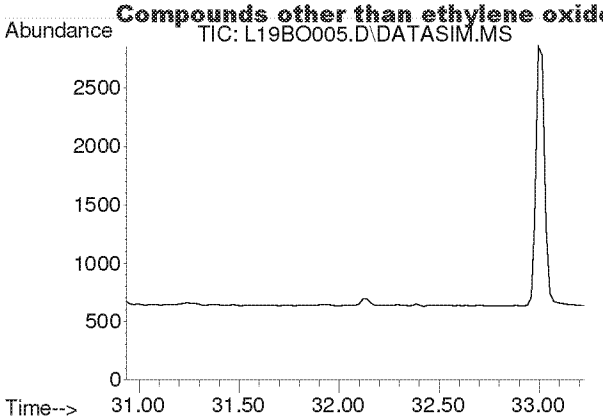
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

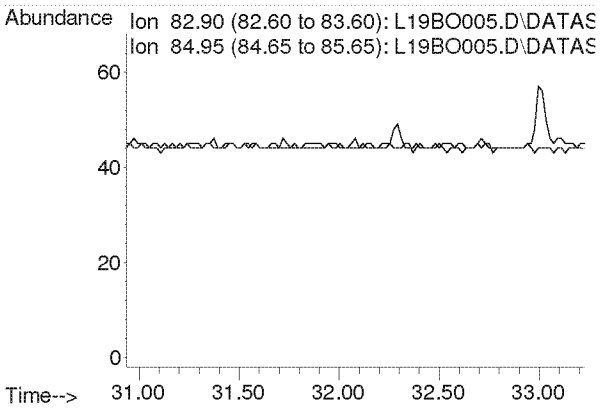


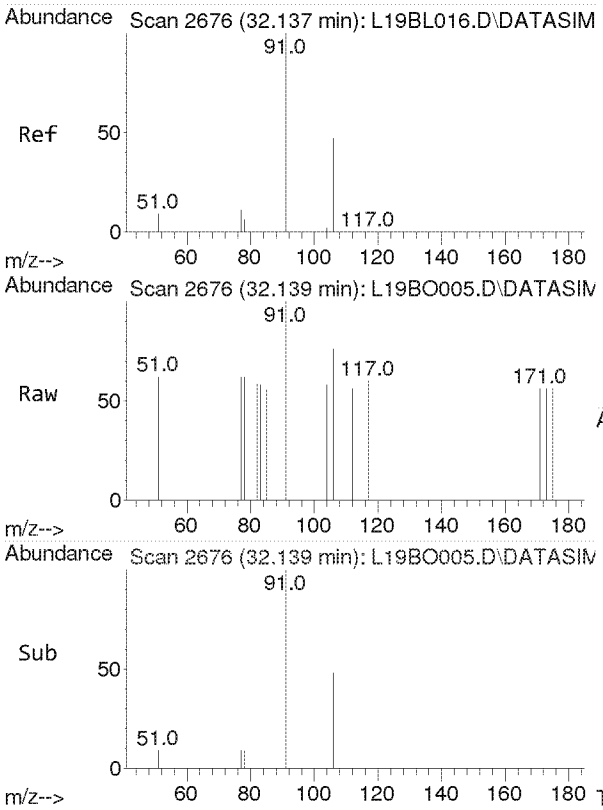
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

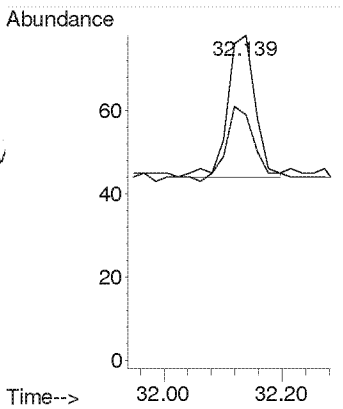




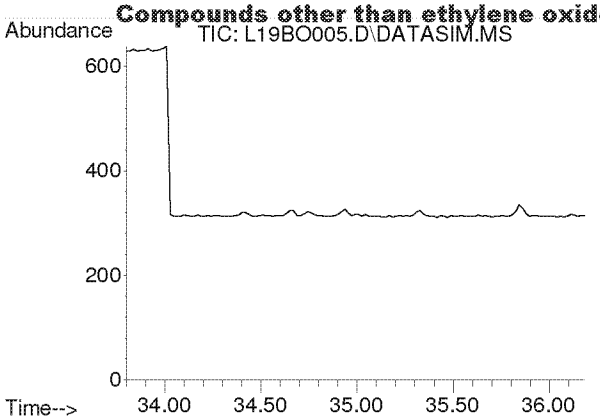
#55
o-Xylene
Concen: 0.009 ppbv
RT: 32.139 min Scan# 2676
Delta R.T. 0.002 min
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 91 Resp: 110

Ion	Ratio	Lower	Upper
91	100		
106	56.4	36.6	55.0#



Compounds other than ethylene oxide were not quantitated.

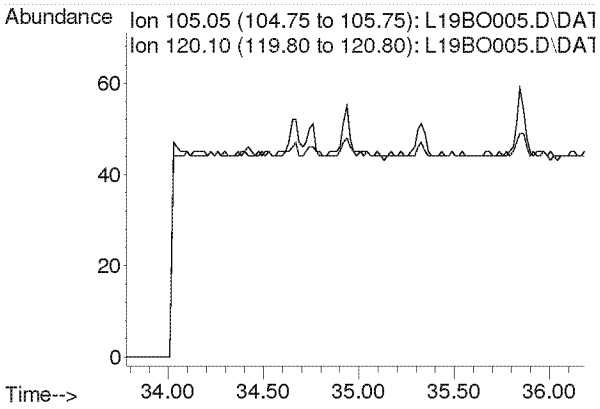


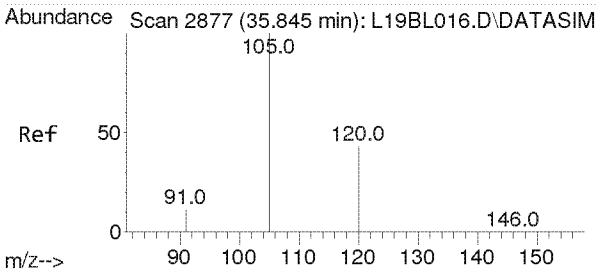
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0

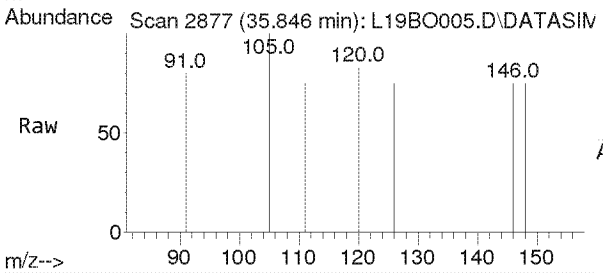


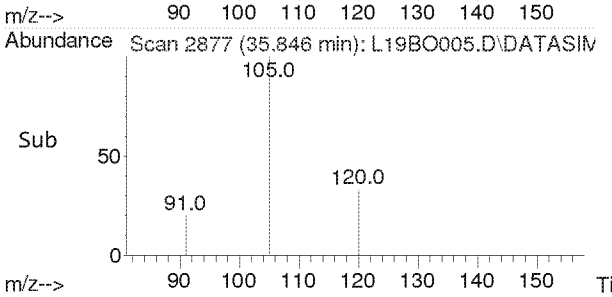


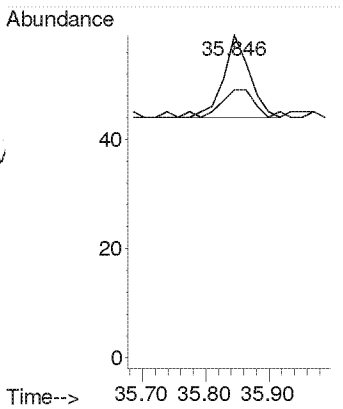
#57
1,2,4-Trimethylbenzene
Concen: 0.004 ppbv
RT: 35.846 min Scan# 2877
Delta R.T. 0.001 min
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion:105 Resp: 43

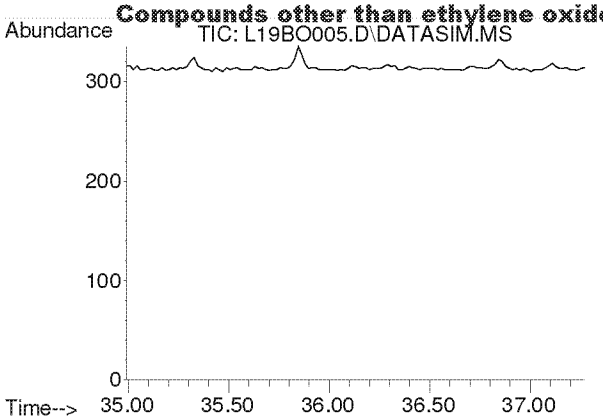
Ion	Ratio	Lower	Upper
105	100		
120	0.0	35.2	52.8#







Compounds other than ethylene oxide were not quantitated.

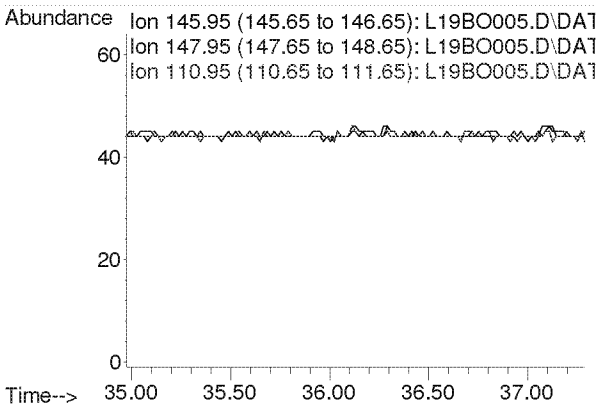


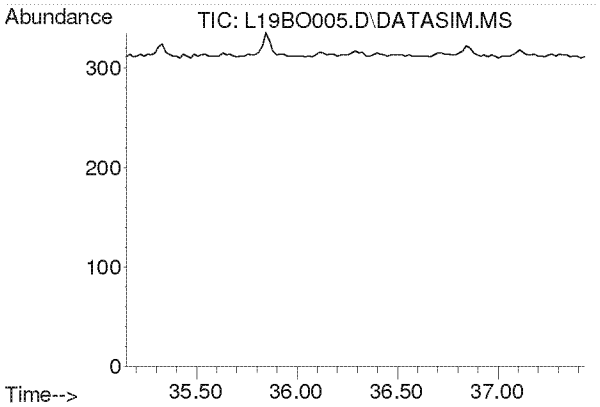
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



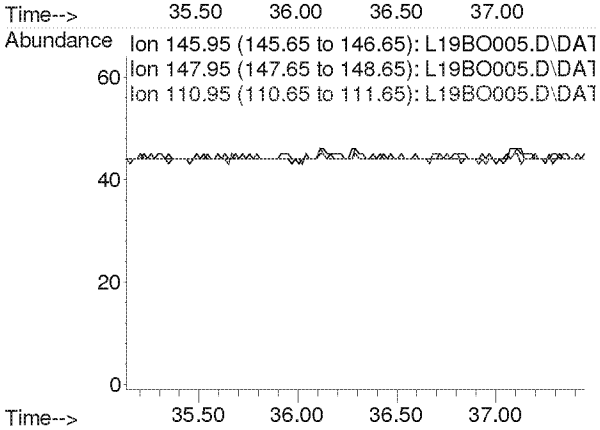


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

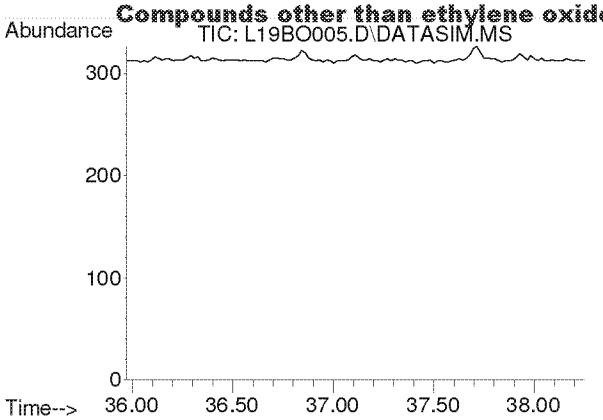
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

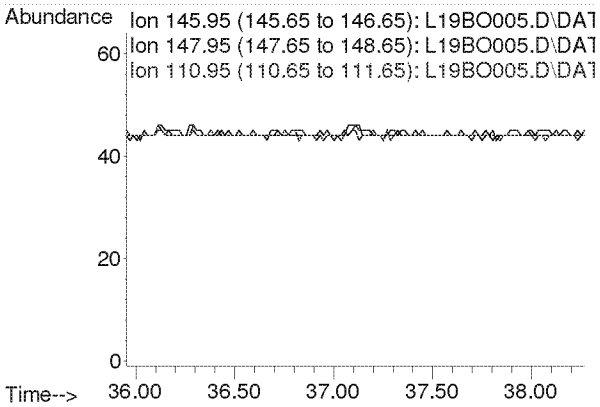


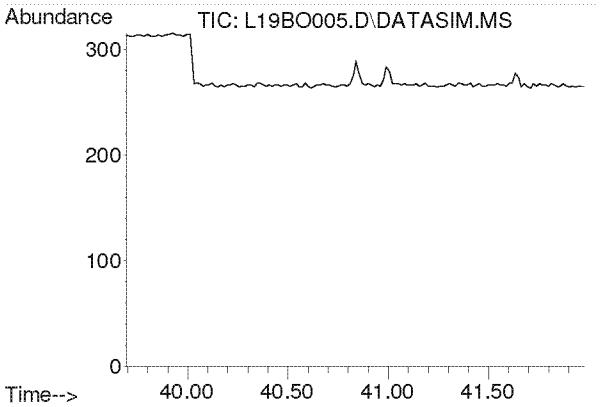
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



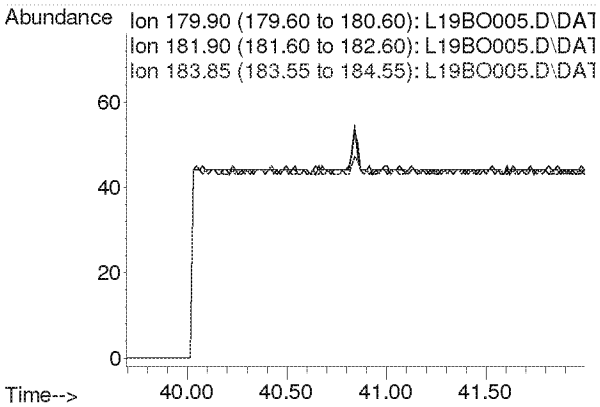


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

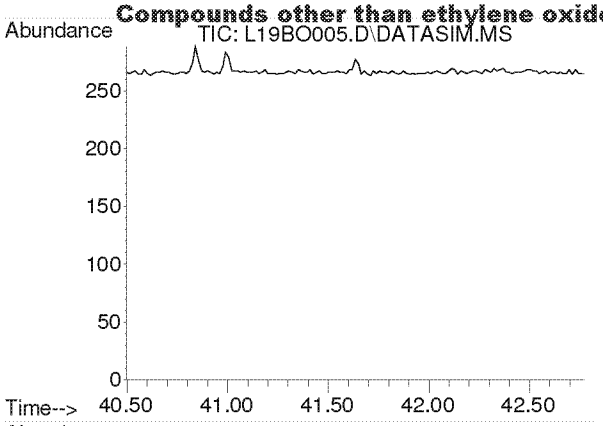
Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

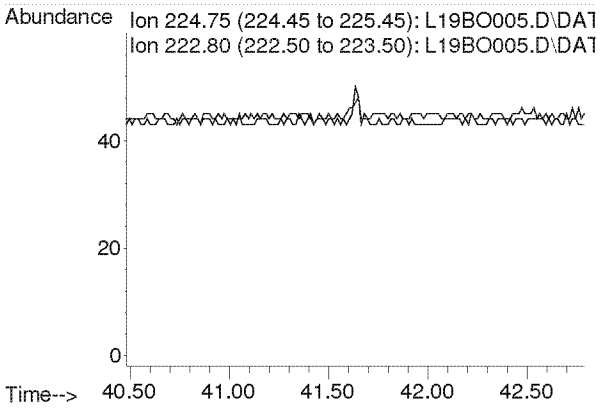


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO005.D
Acq: 15 Feb 2019 10:31 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\L19BO\
Data File : L19BO009.D
Acq On : 15 Feb 2019 2:25 pm (#1); 15-Feb-19, 14:19:53 (#2)
Operator : MAH
Sample : 9021313-01
Misc : GOWER MS 1/9/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 15:04:51 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d=MK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	40199	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	98361	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	69371	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.438	29	558m	0.2427 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO009.D
Acq On : 15 Feb 2019 2:25 pm (#1); 15-Feb-19, 14:19:53 (#2)
Operator : MAH
Sample : 9021313-01
Misc : GOWER MS 1/9/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 15:04:51 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

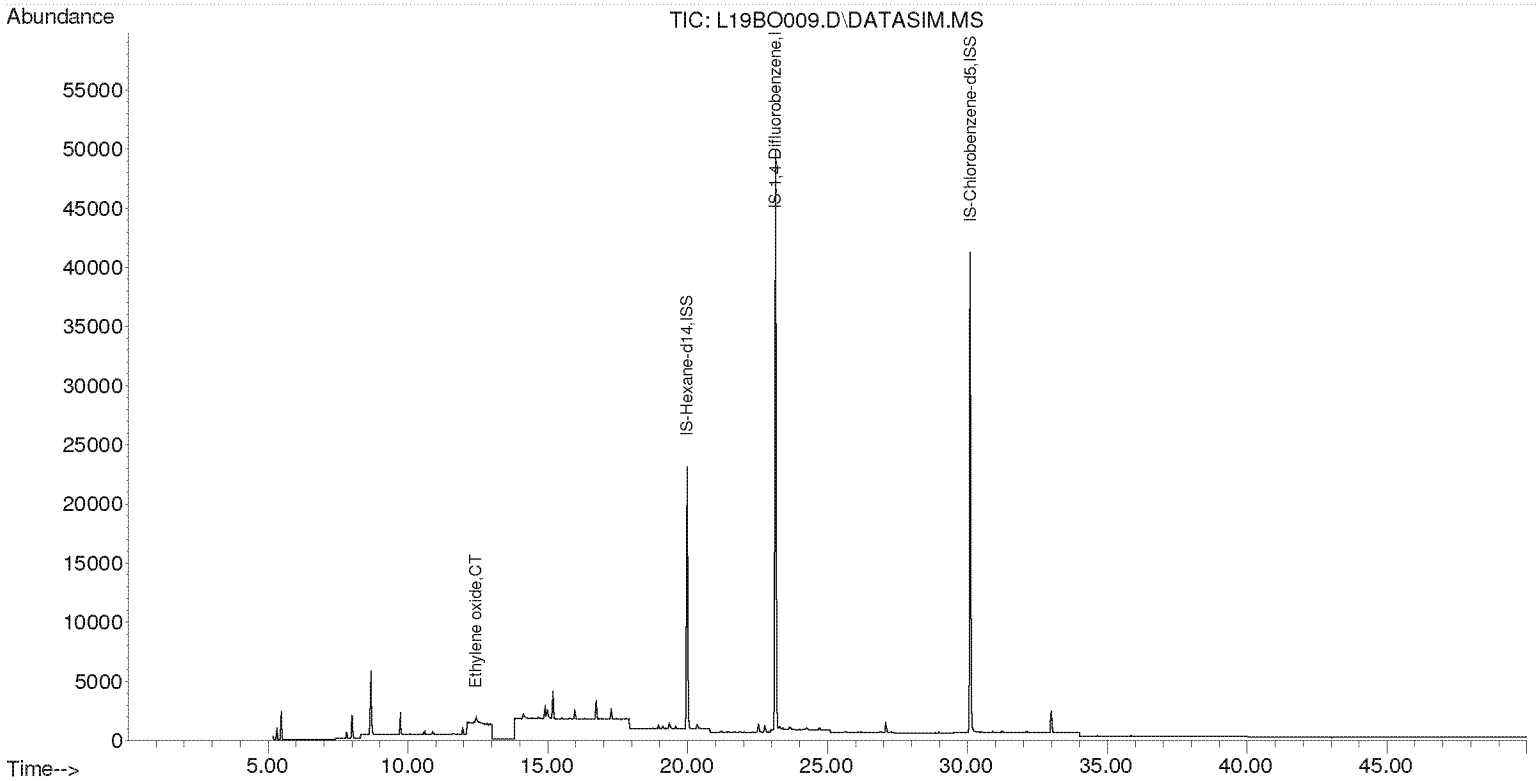
(#) = qualifier out of range (m) = manual integration (+) = signals summed

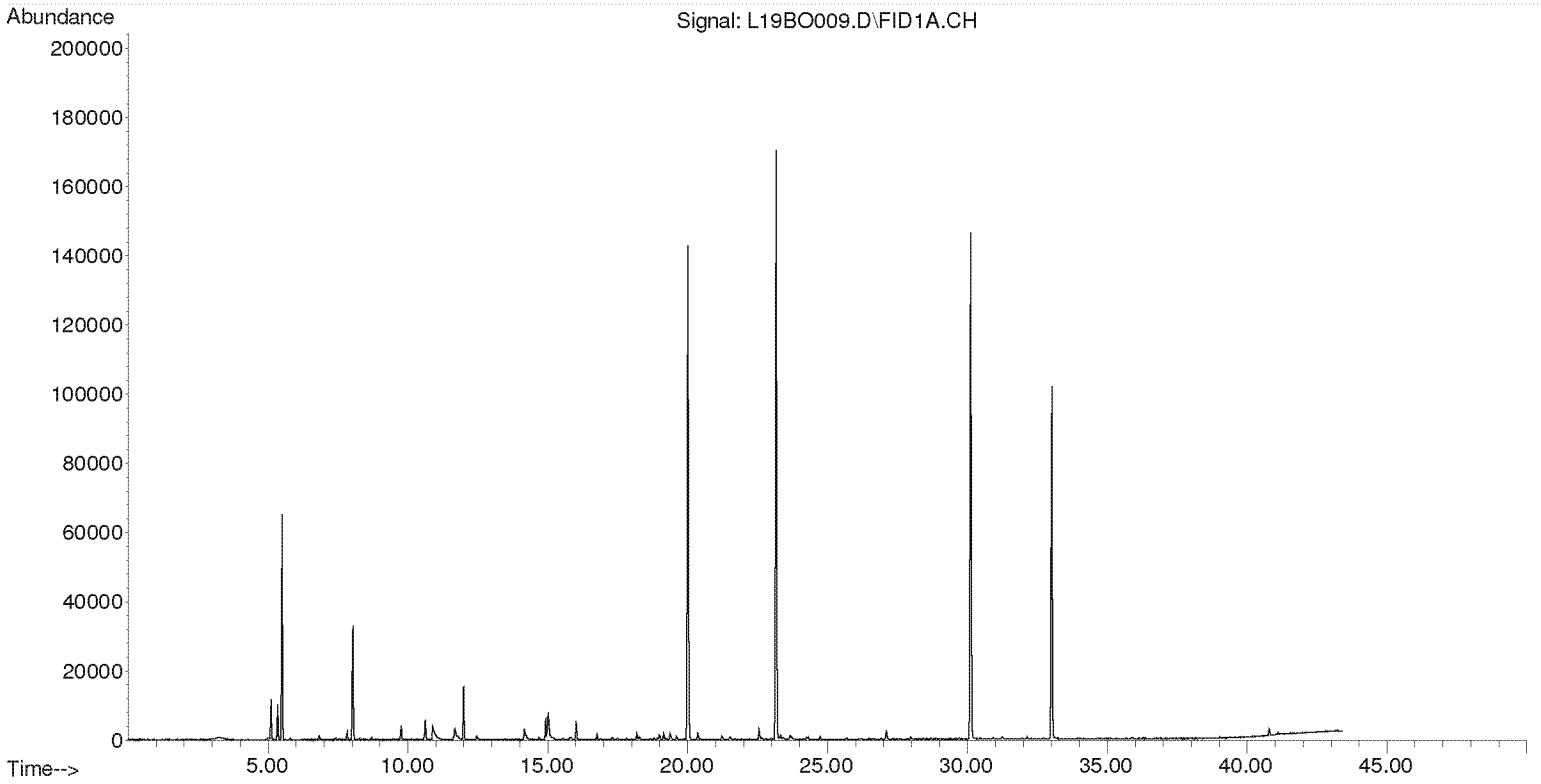
ED_002475_00000013-00081

Compounds other than ethylene oxide were not quantitated.

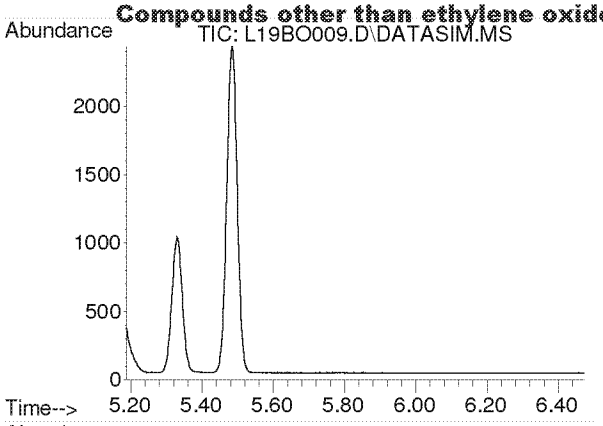
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO009.D
Acq On : 15 Feb 2019 2:25 pm (#1); 15 Feb 2019 2:19 pm (#2)
Operator : MAH
Sample : 9021313-01
Misc : GOWER MS 1/9/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 15:04:26 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





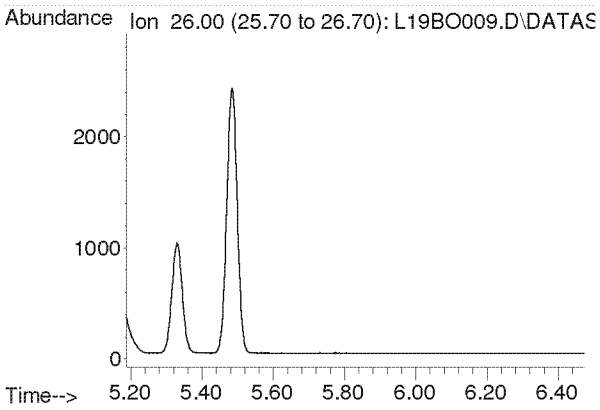
Compounds other than ethylene oxide were not quantitated.

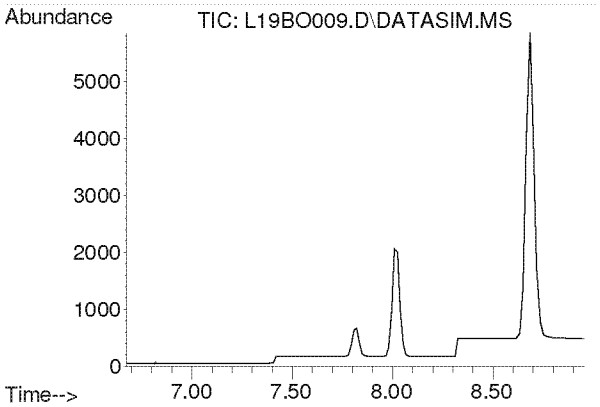


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 26



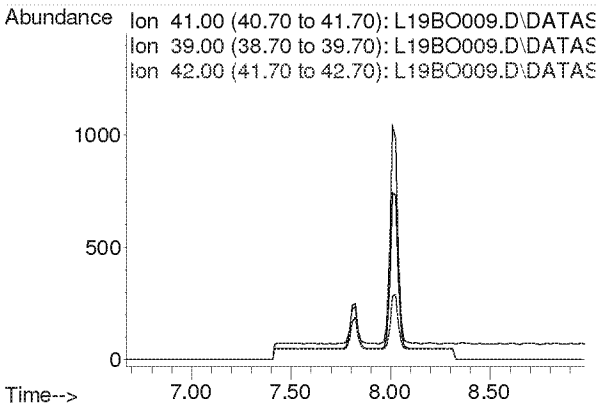


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

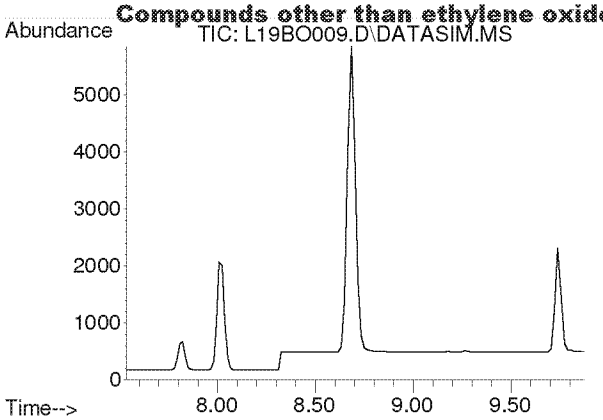
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

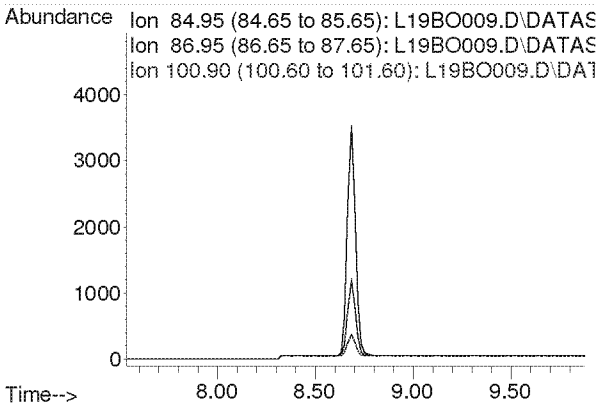


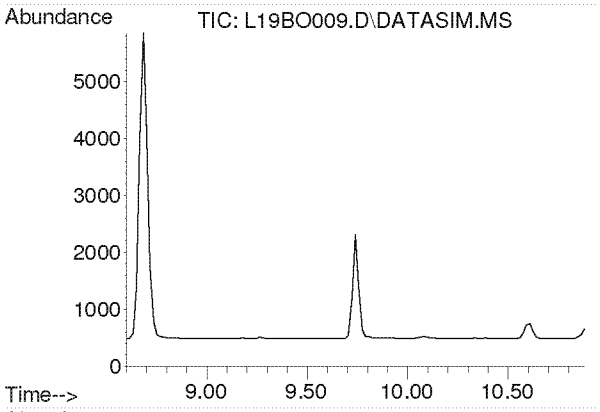
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



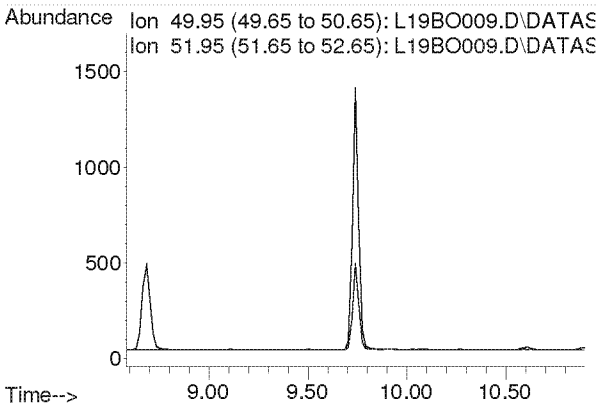


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

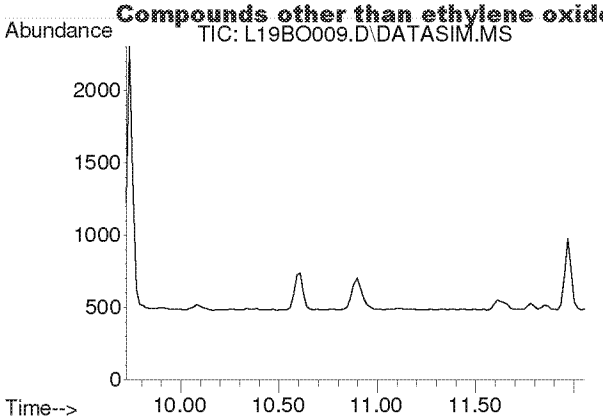
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

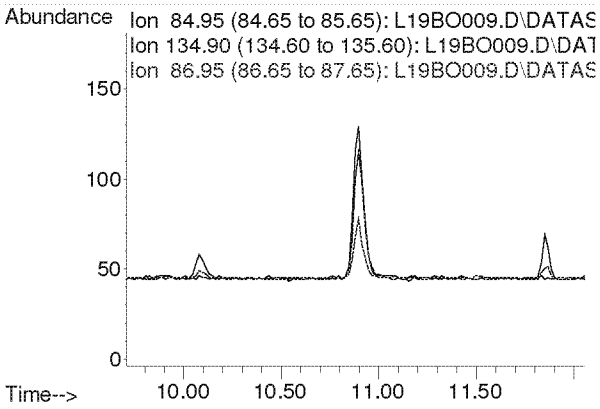


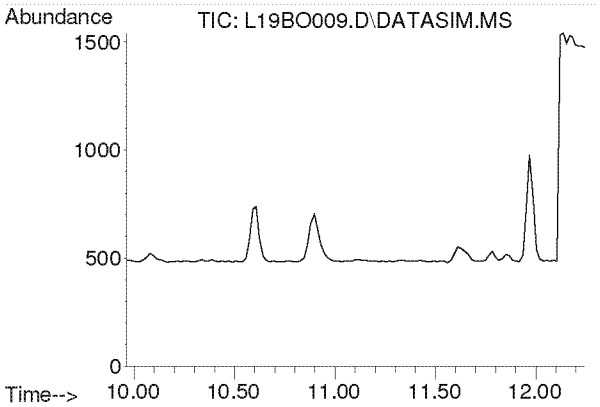
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



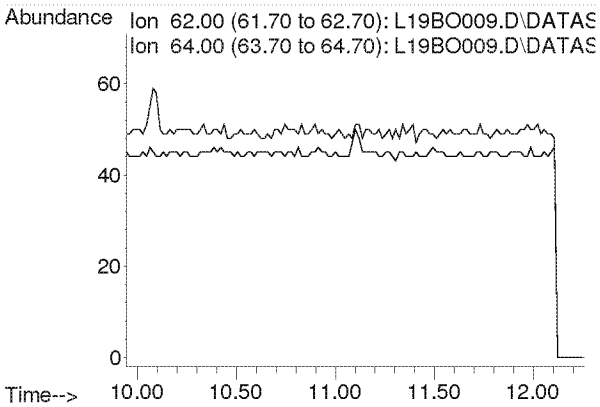


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

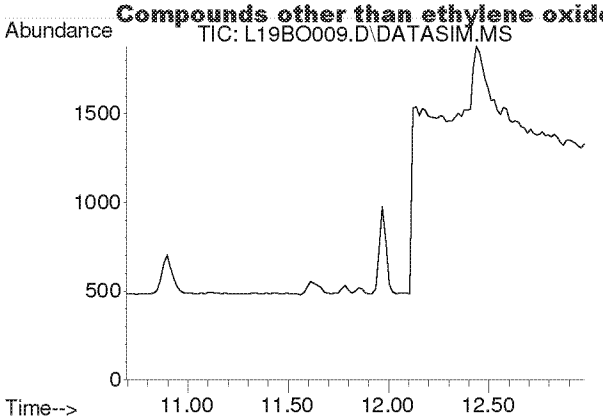
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

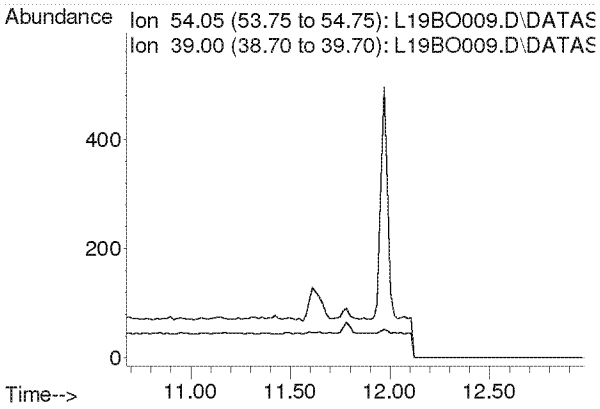


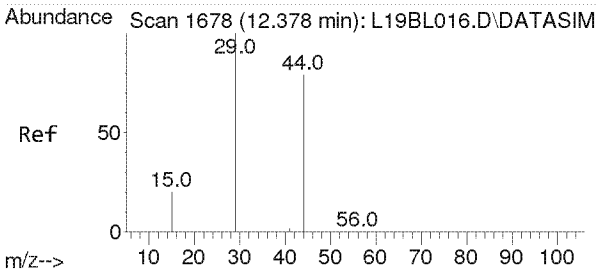
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

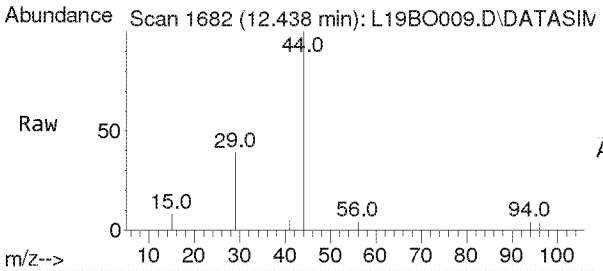


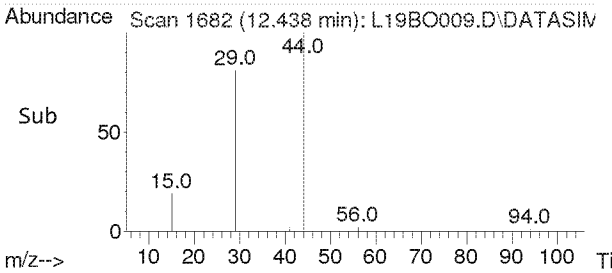


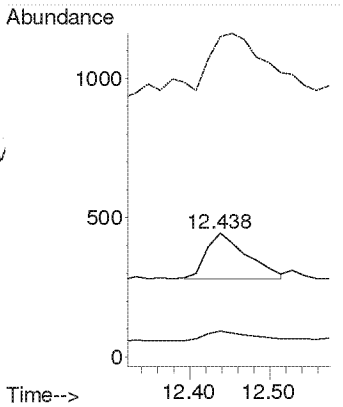
#9
Ethylene oxide
Concen: 0.243 ppbv m
RT: 12.438 min Scan# 1682
Delta R.T. 0.038 min
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 29 Resp: 558

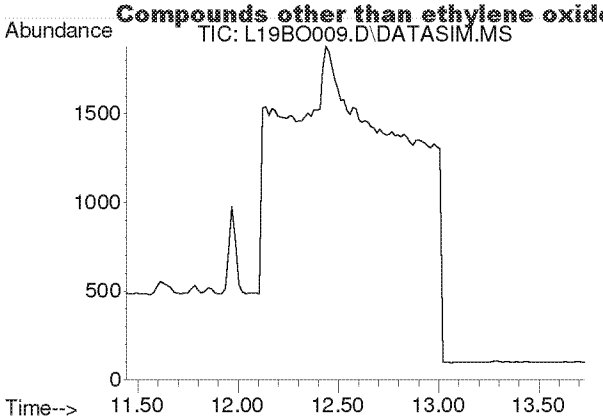
Ion	Ratio	Lower	Upper
29	100		
15	29.0	16.0	24.0#
44	243.4	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

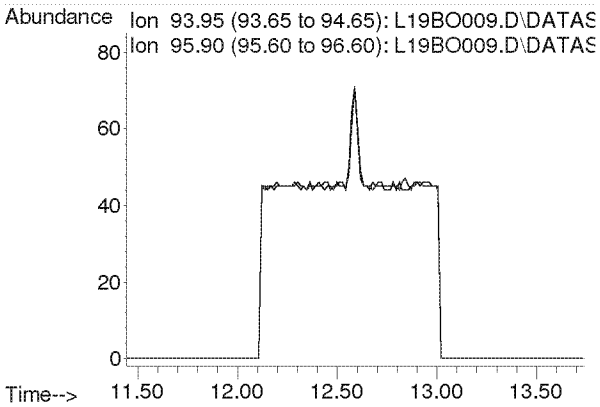


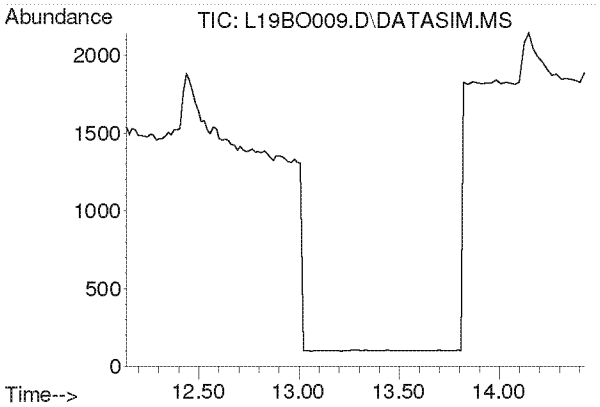
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



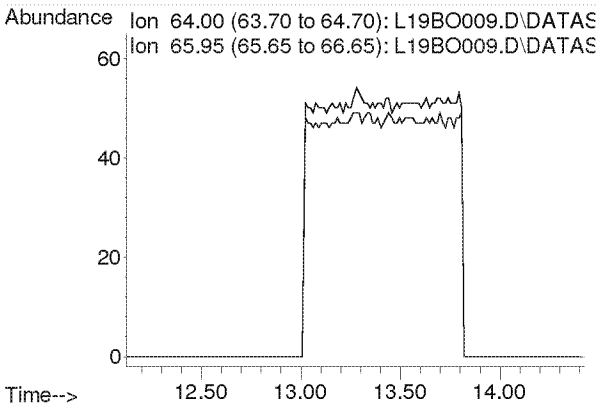


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

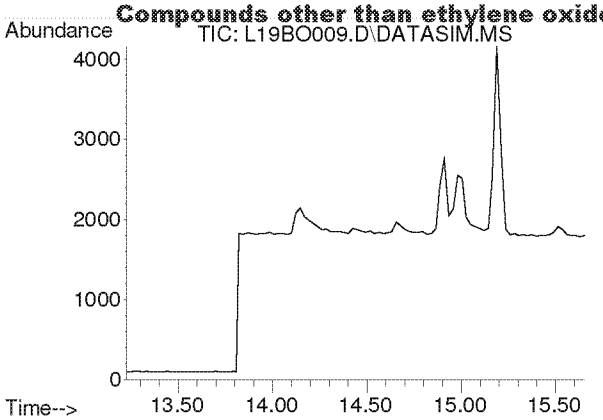
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

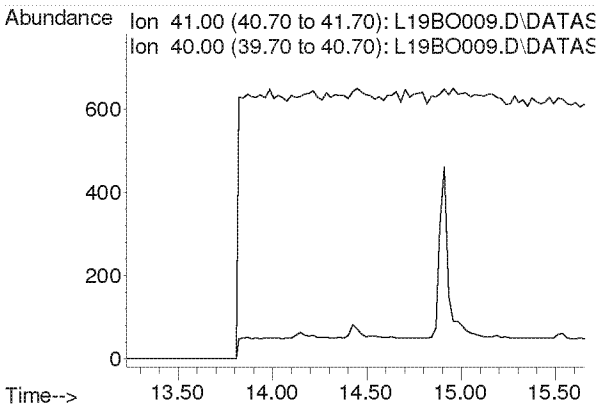


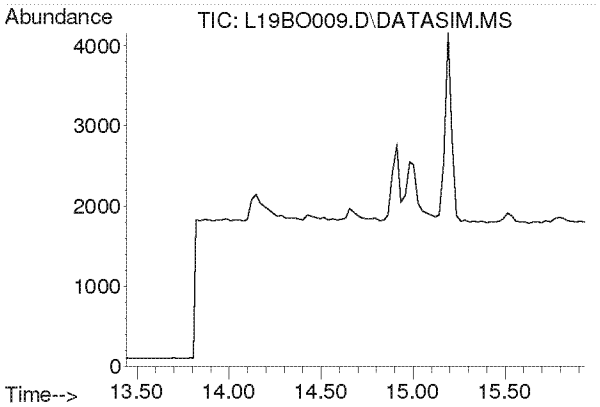
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



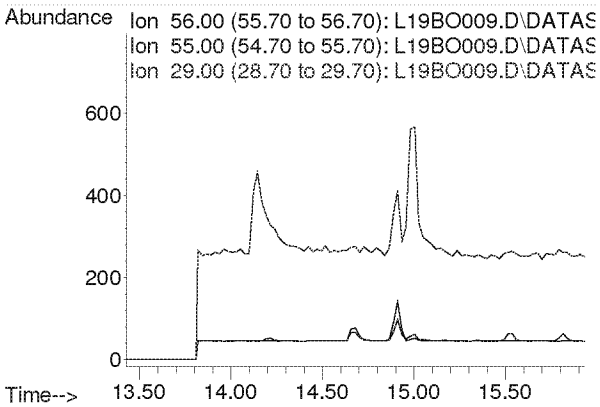


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

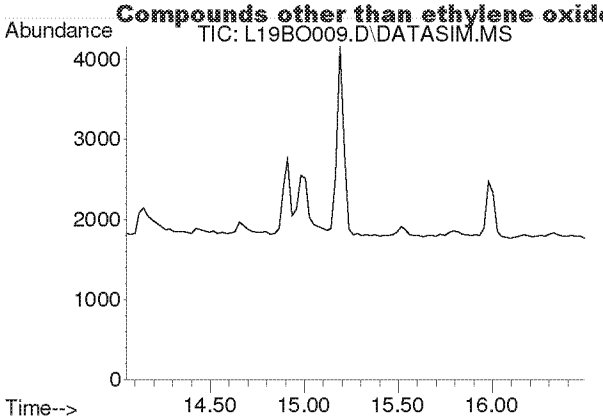
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

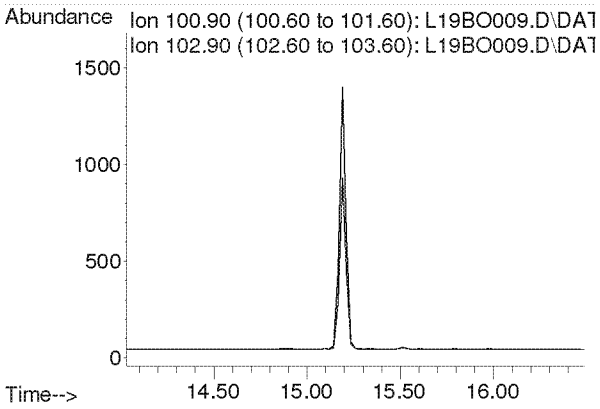


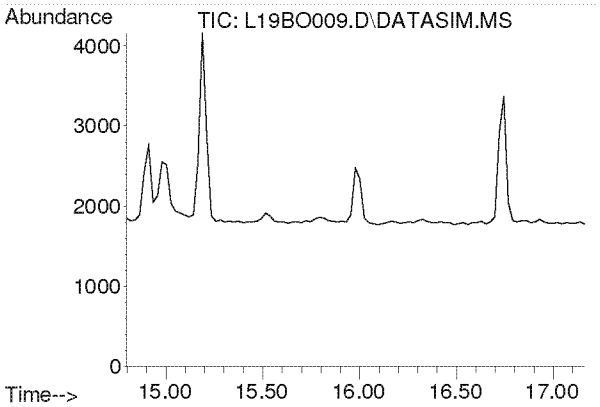
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



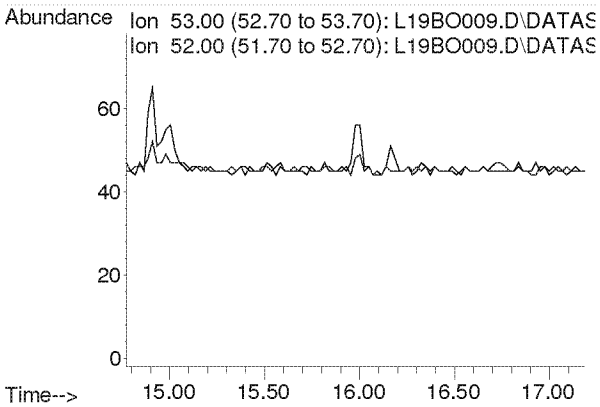


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

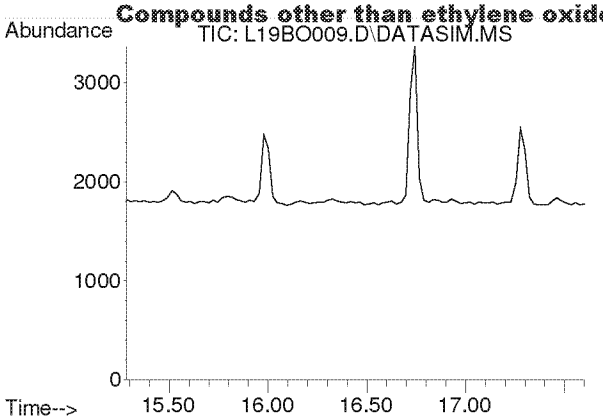
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

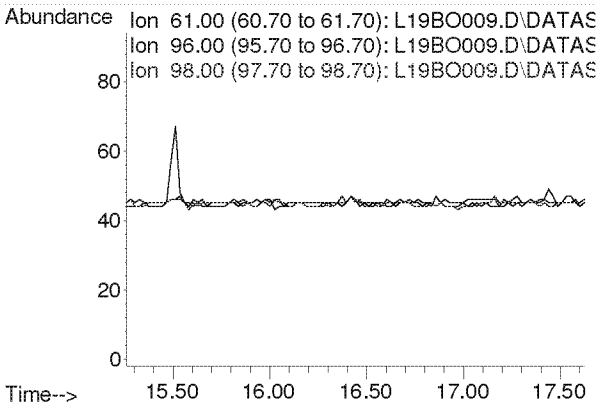


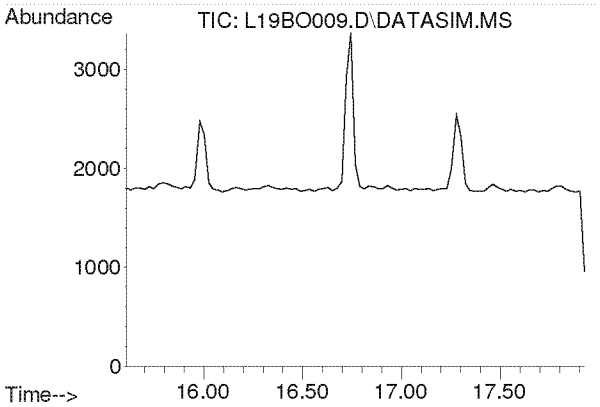
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



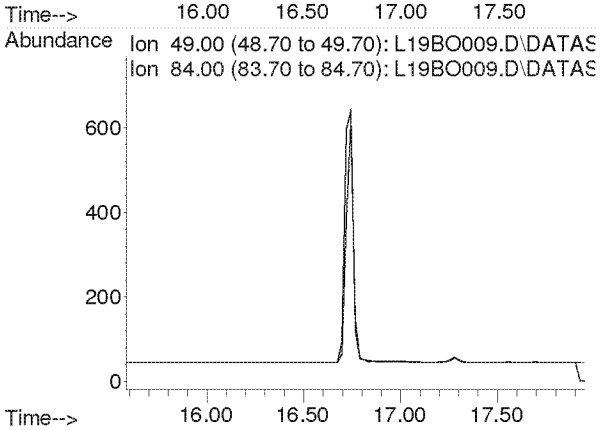


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

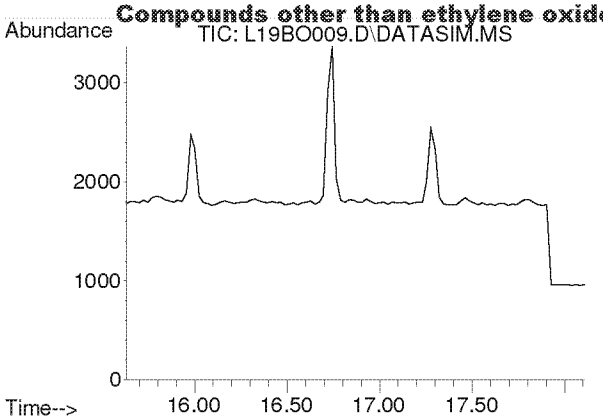
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

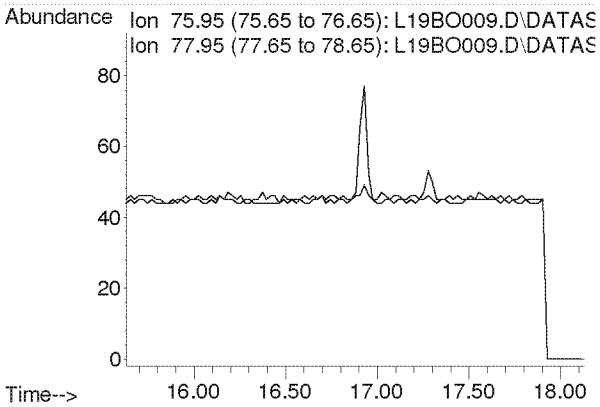


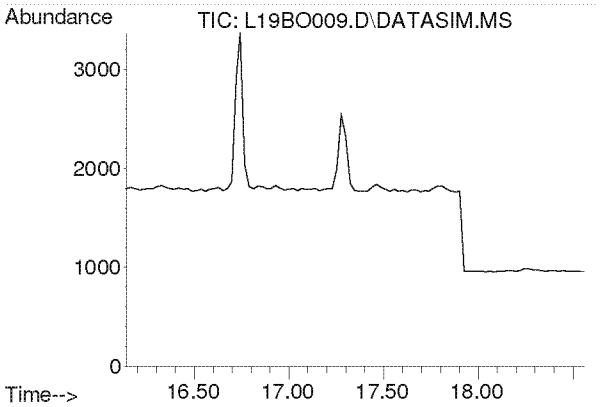
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



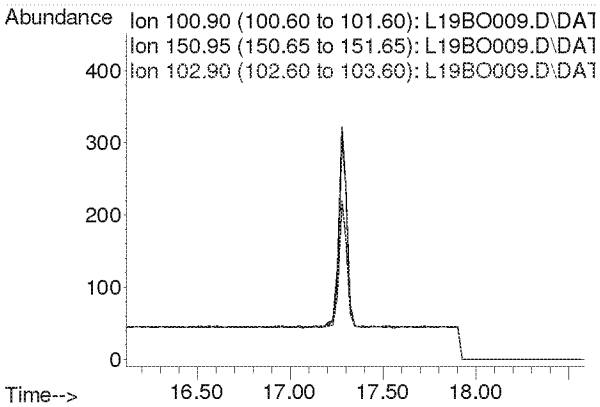


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

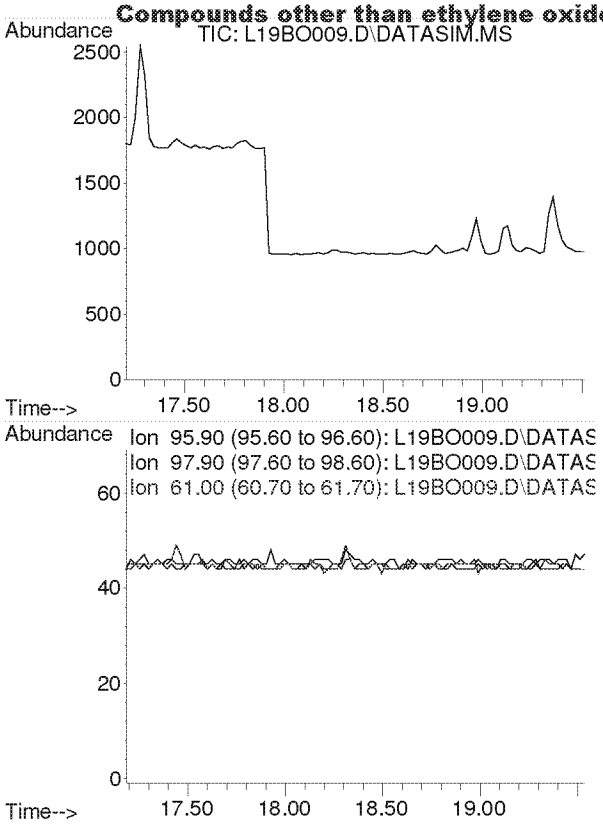
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

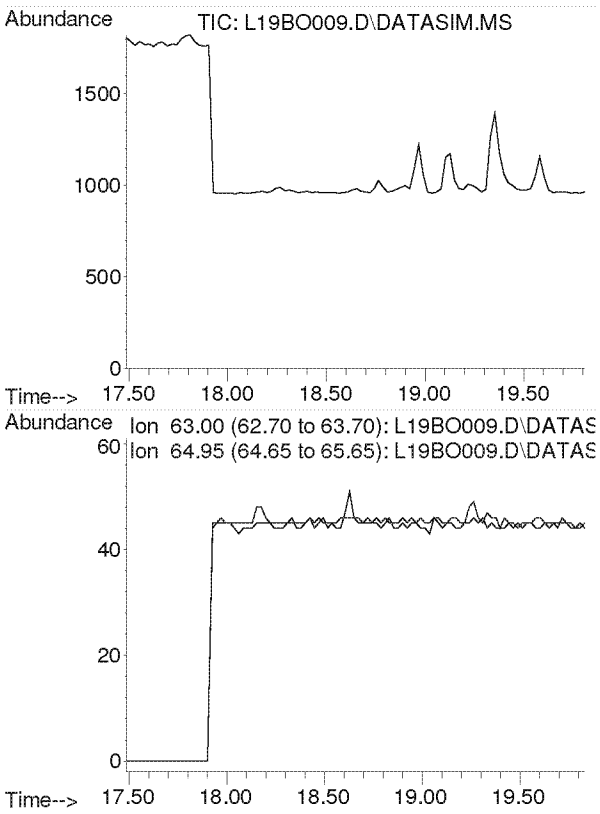


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



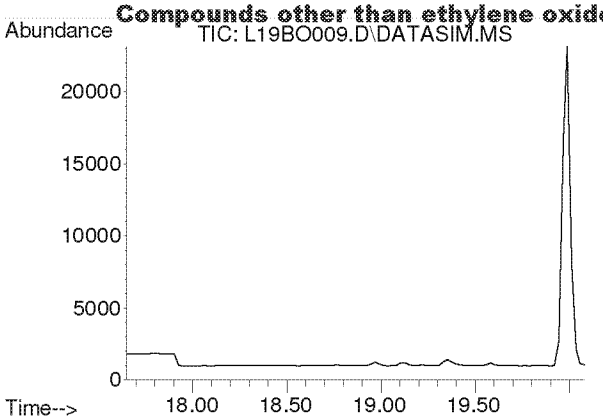
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

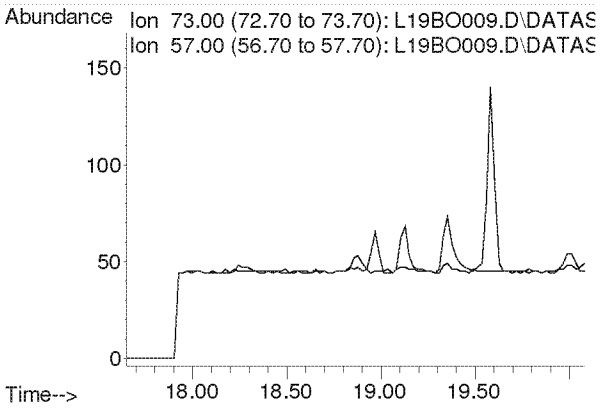


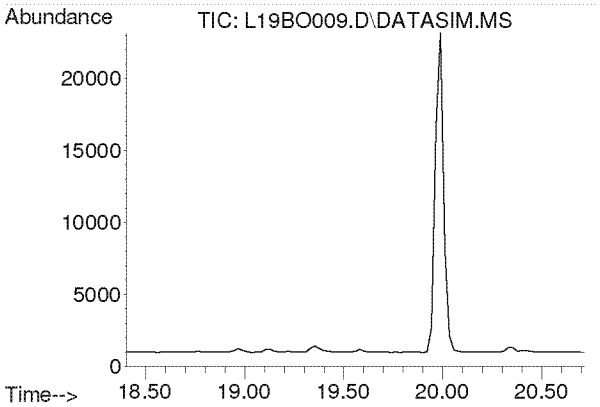
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



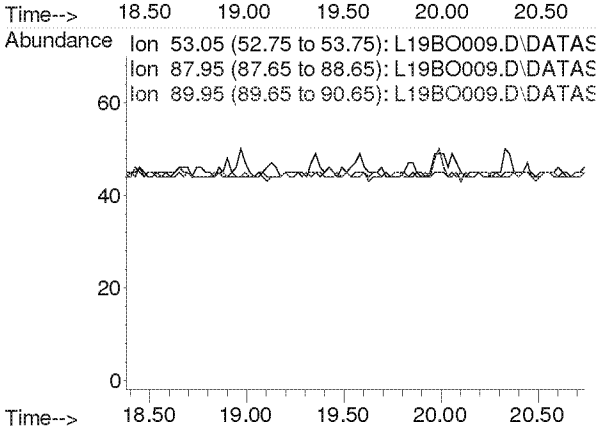


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

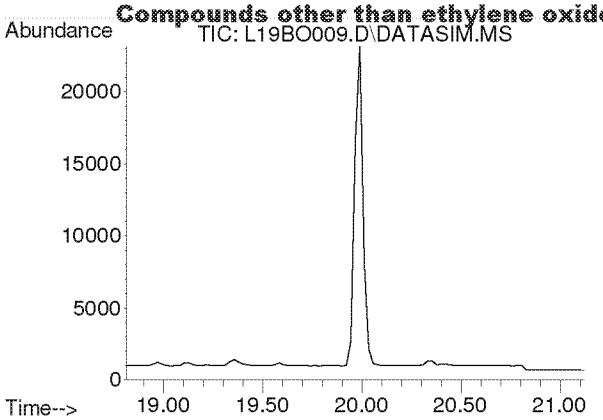
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

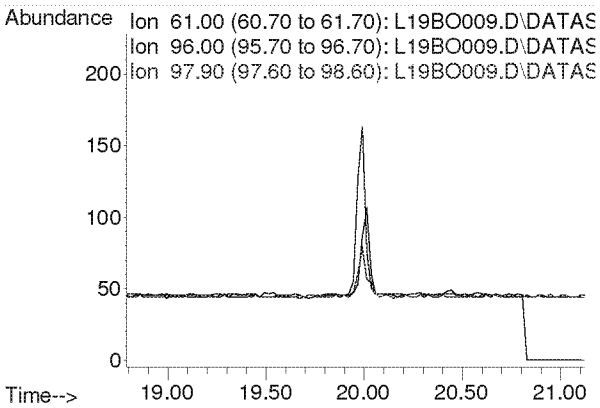


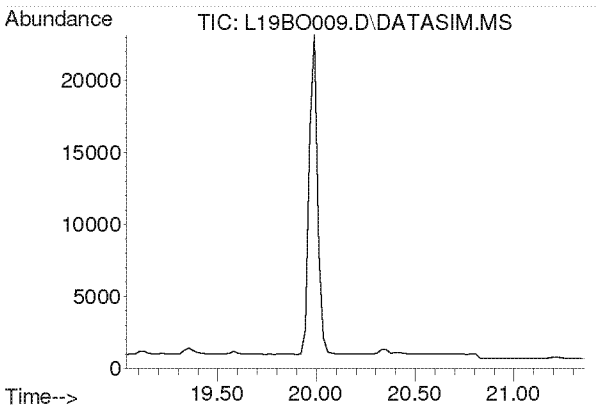
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



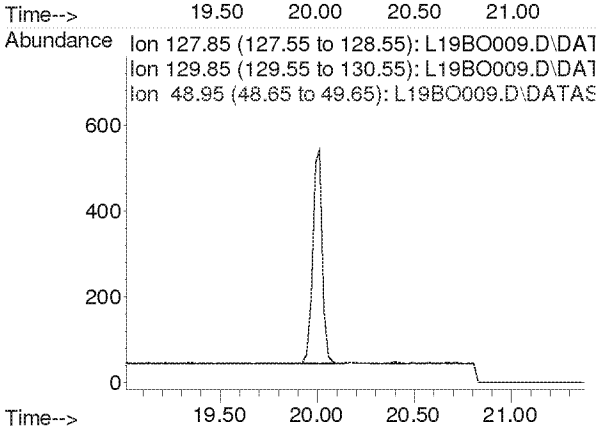


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

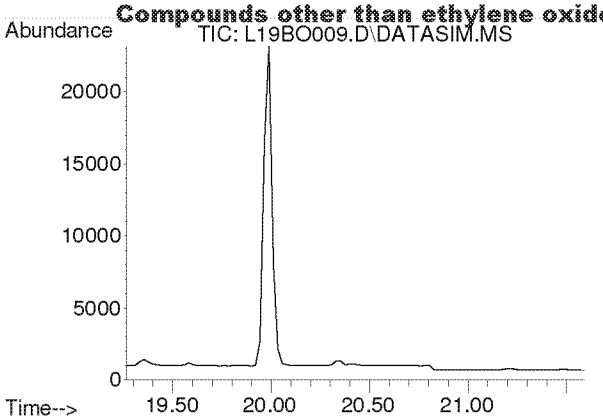
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

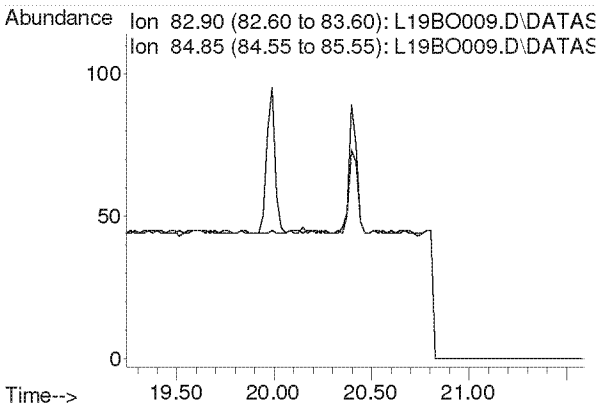


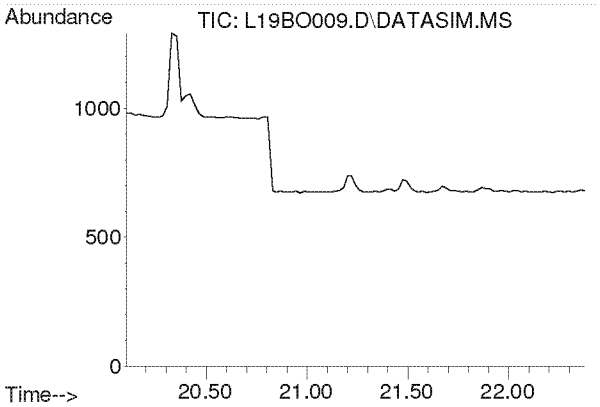
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



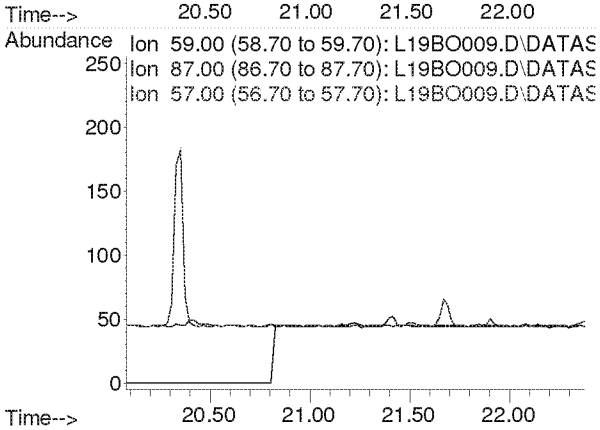


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

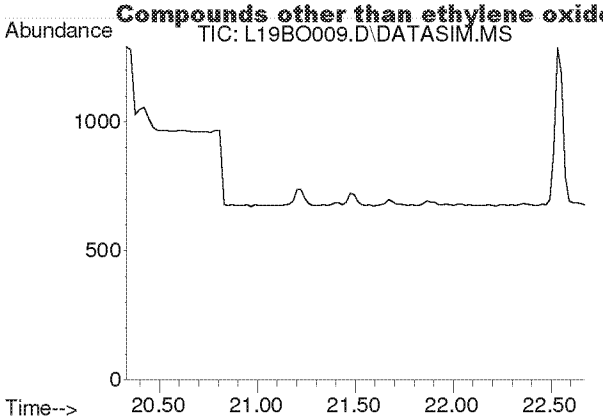
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

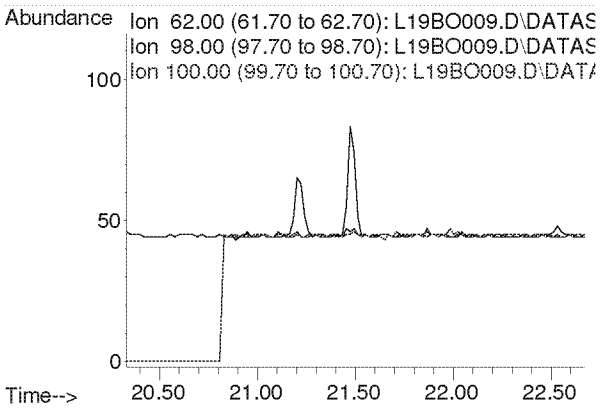


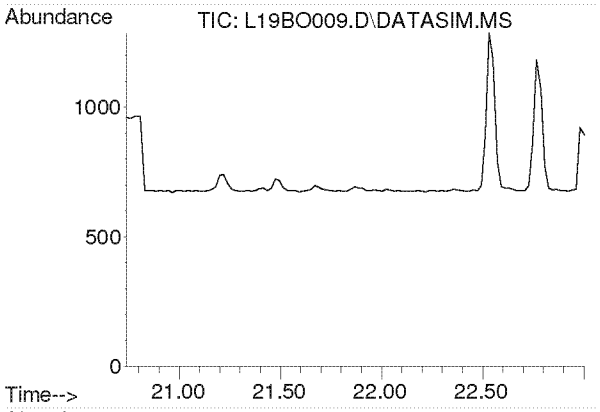
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



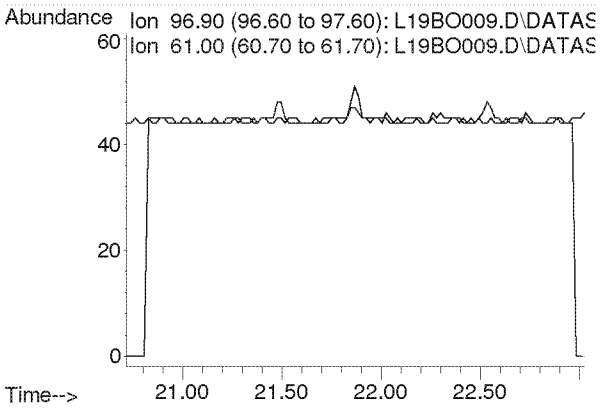


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

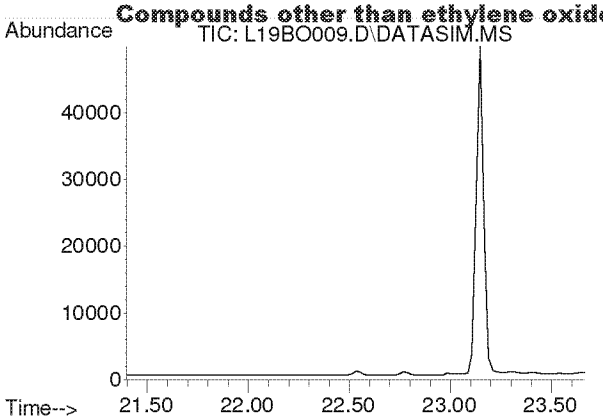
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

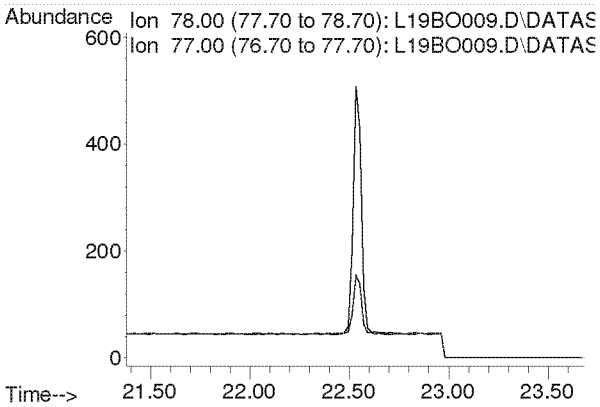


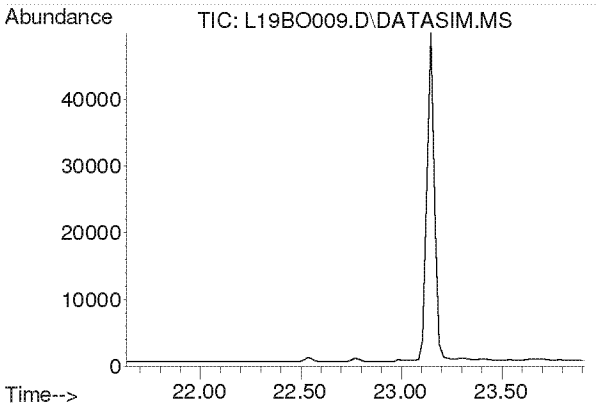
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



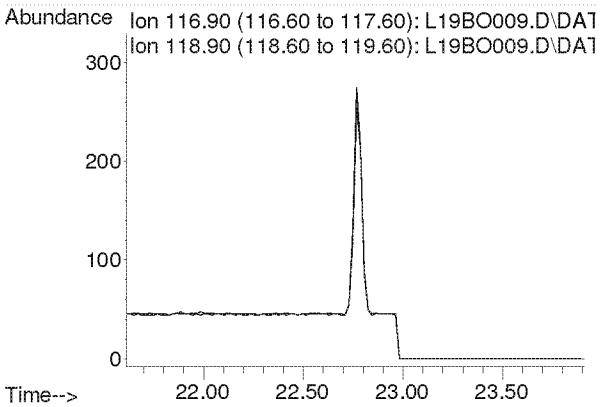


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

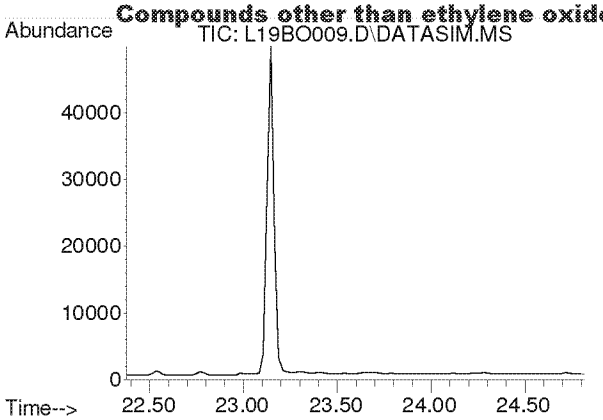
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

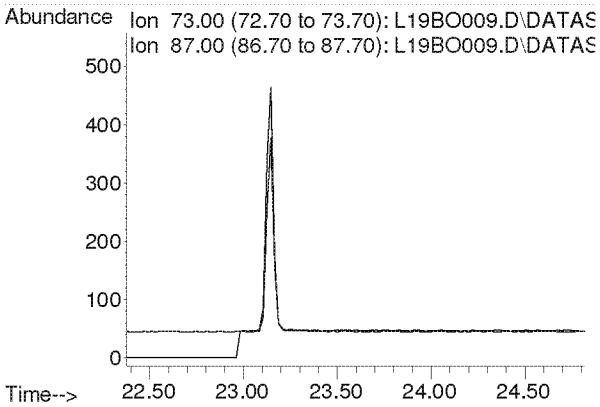


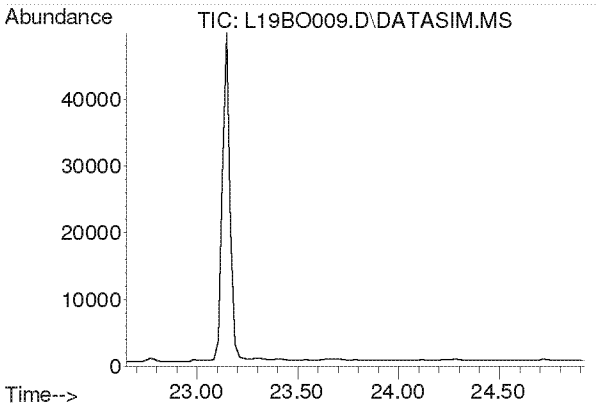
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



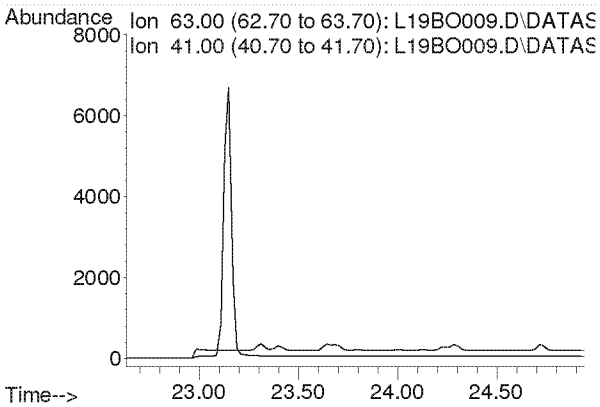


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

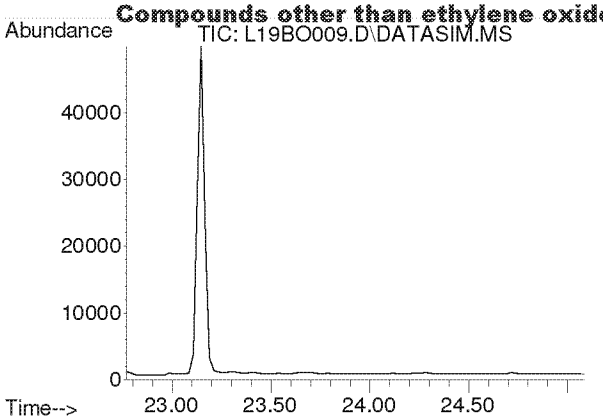
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

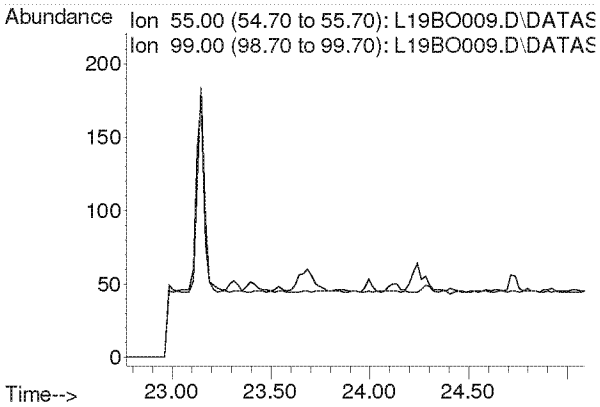


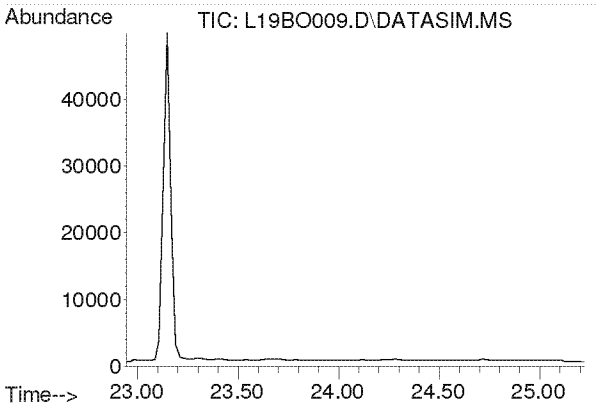
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



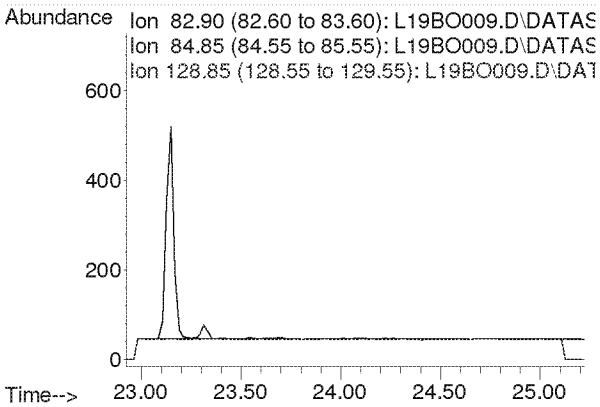


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

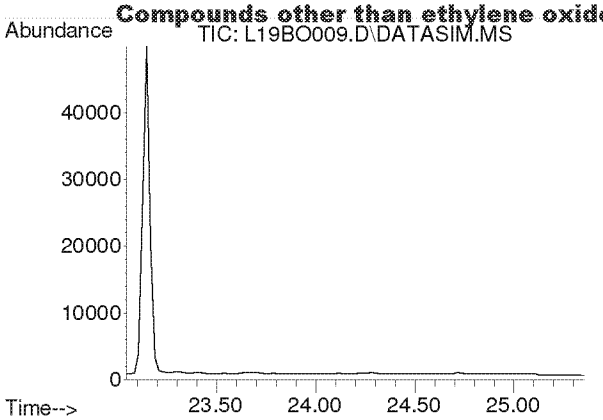
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

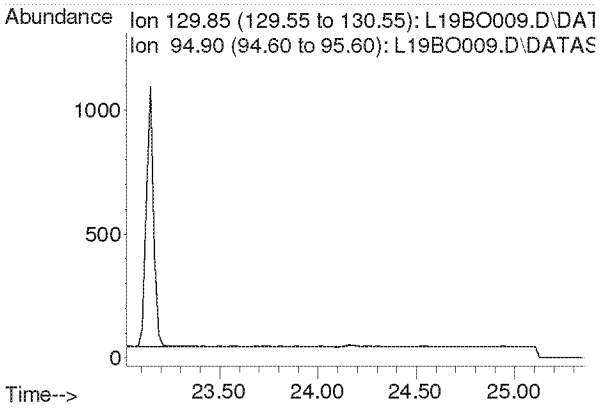


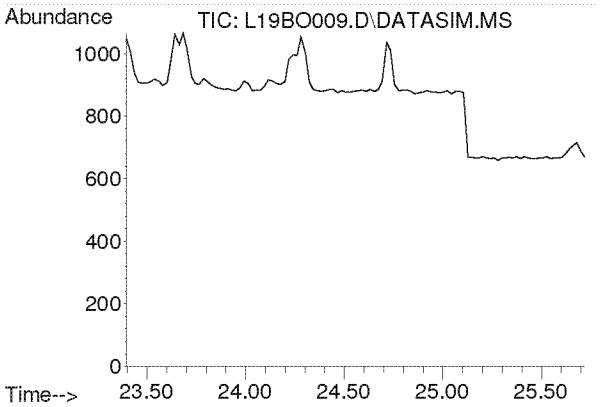
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



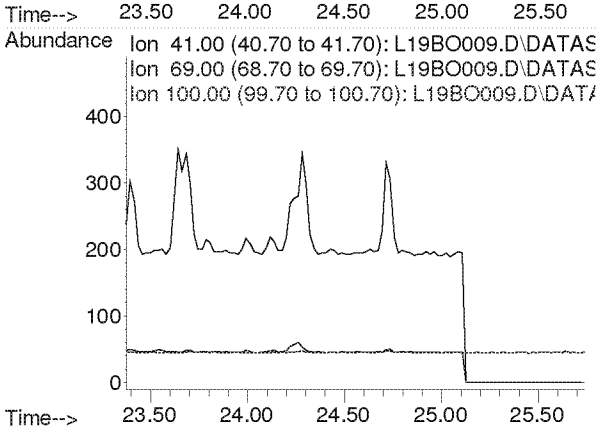


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

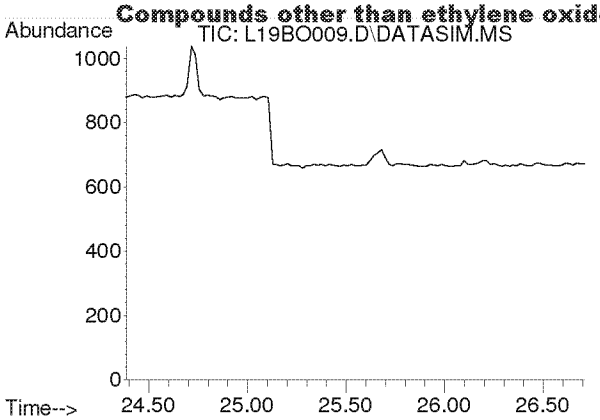
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

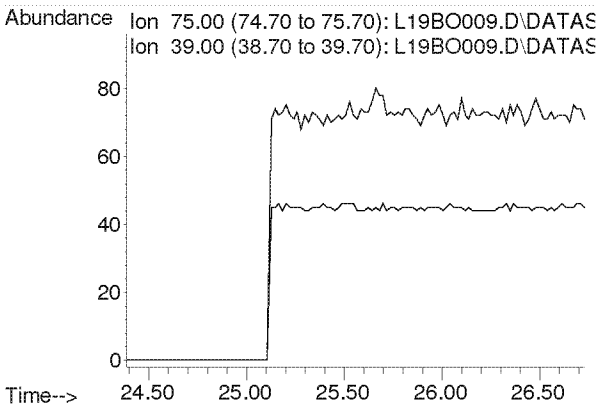


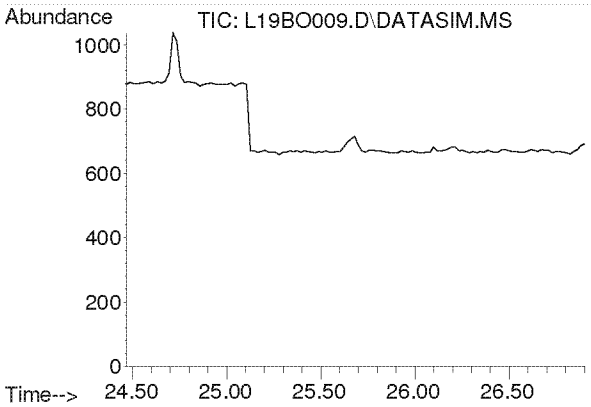
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



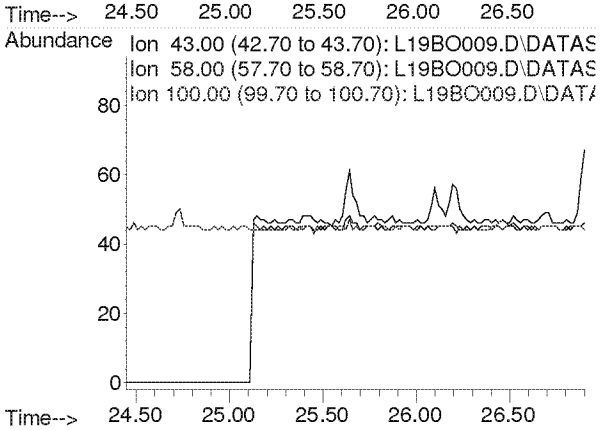


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

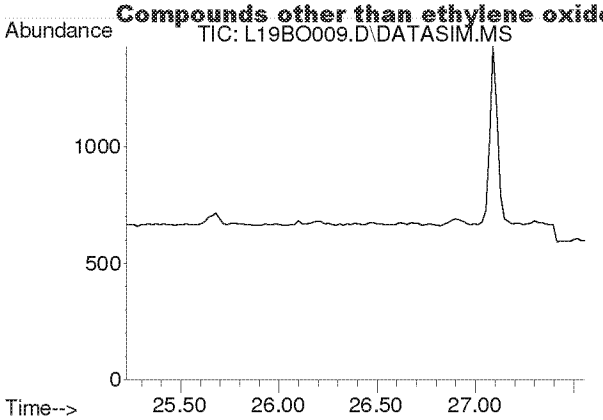
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

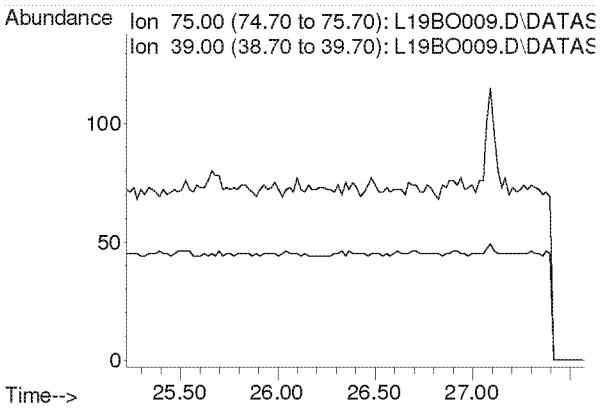


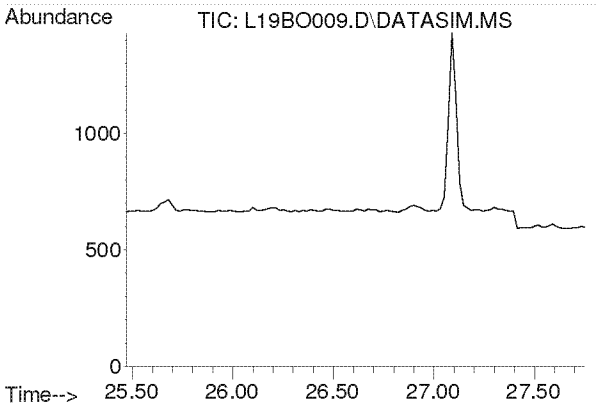
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



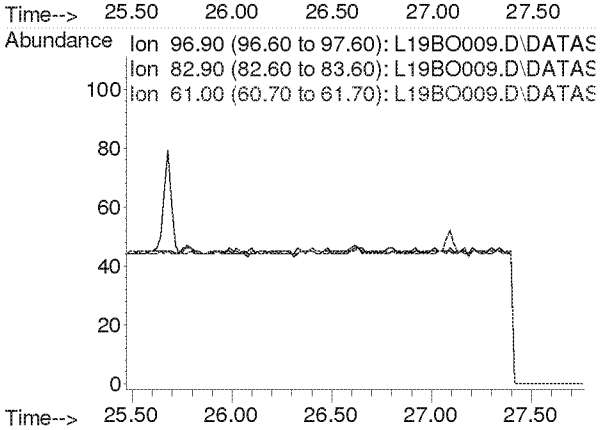


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

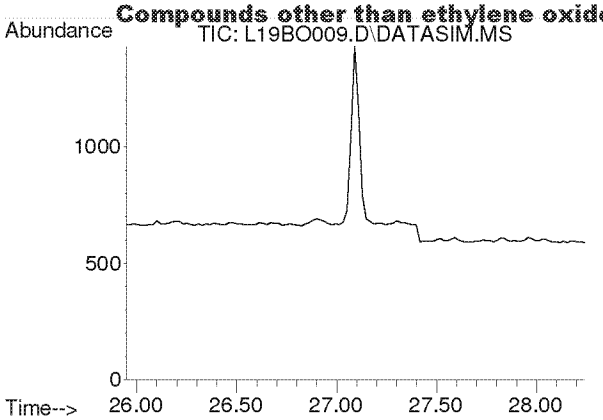
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

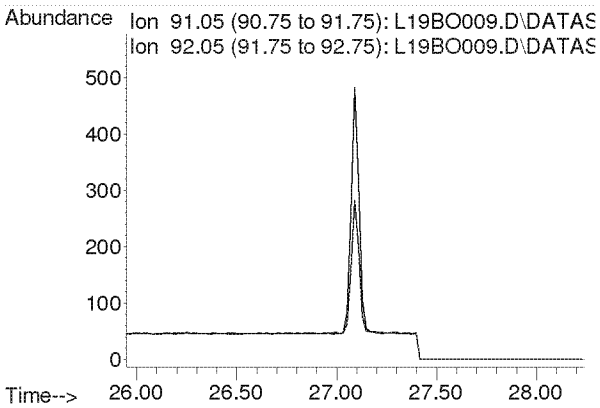


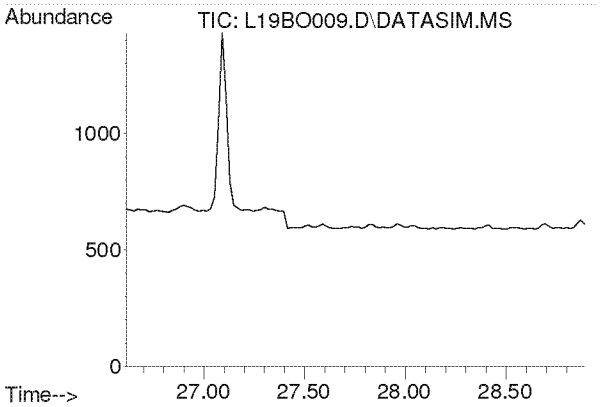
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



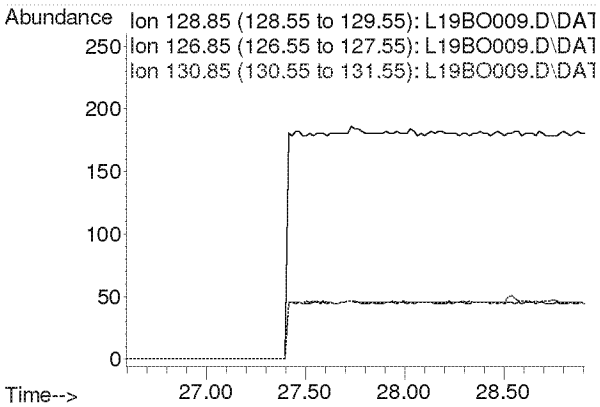


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

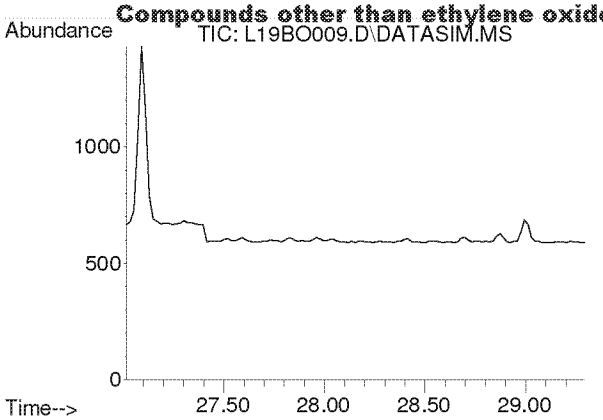
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

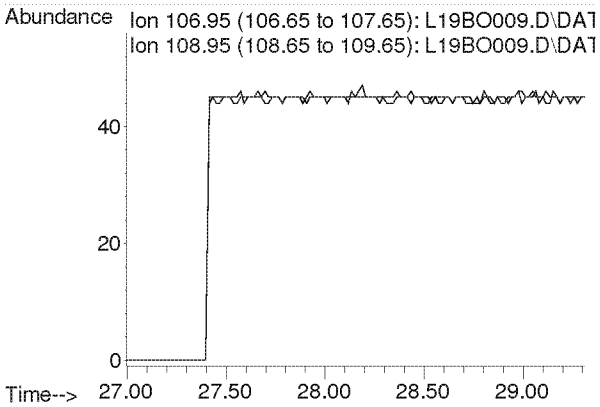


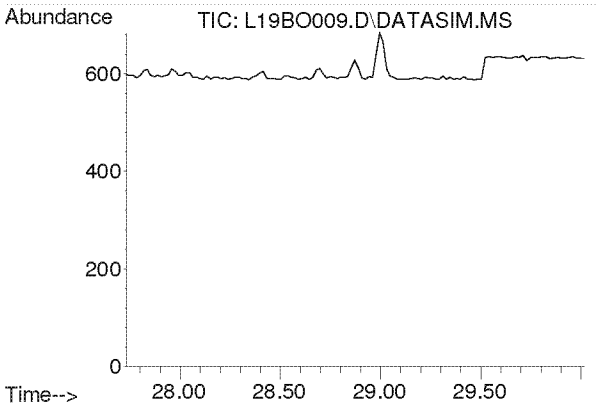
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



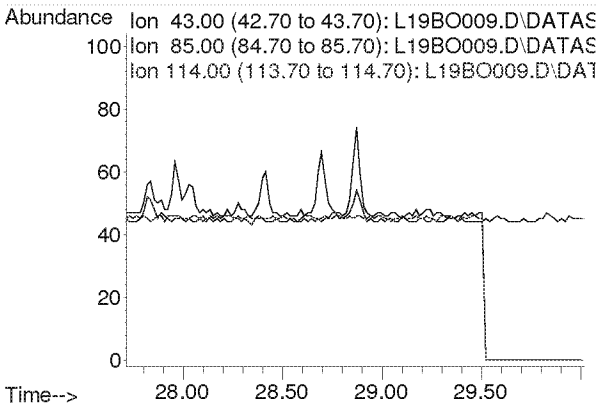


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

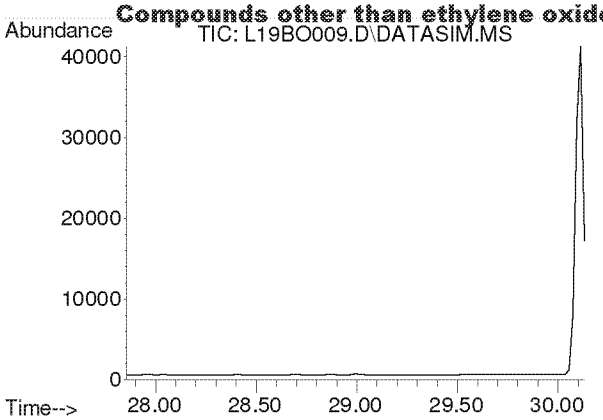
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

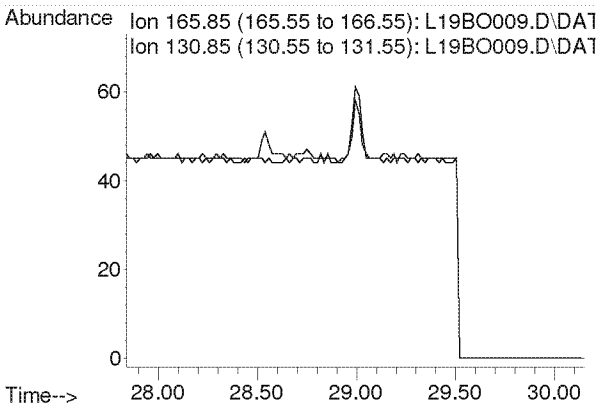


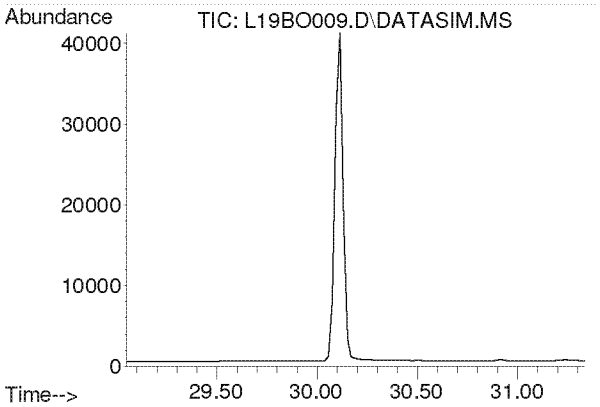
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



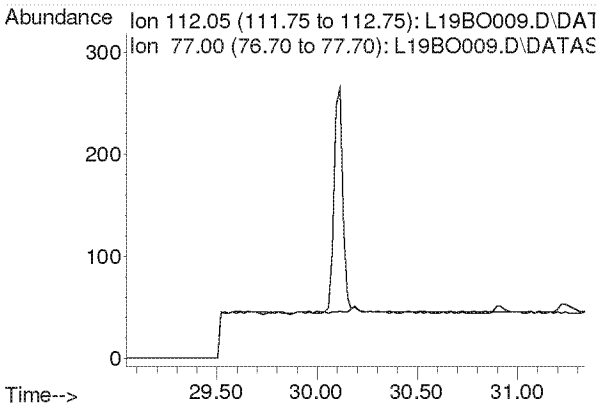


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

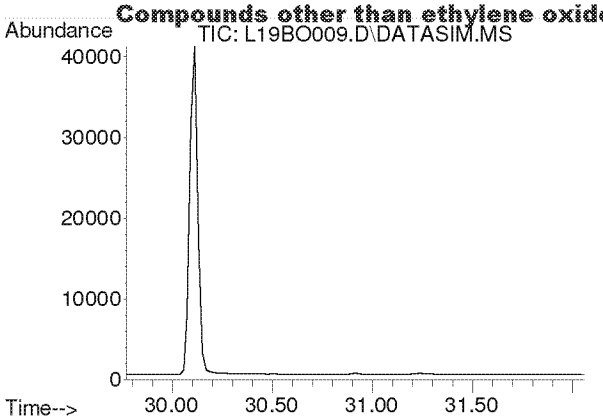
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

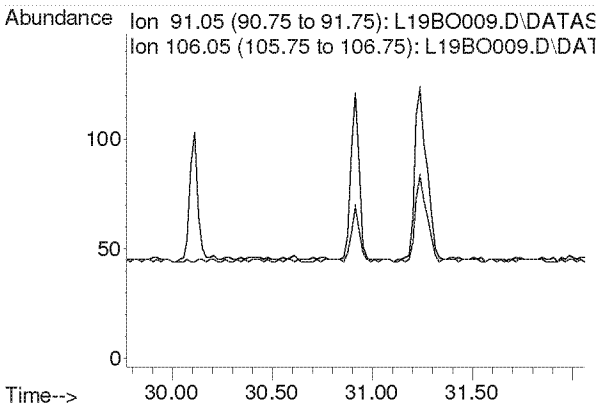


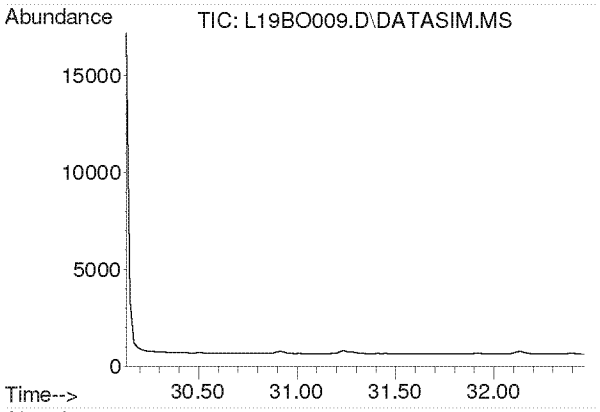
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



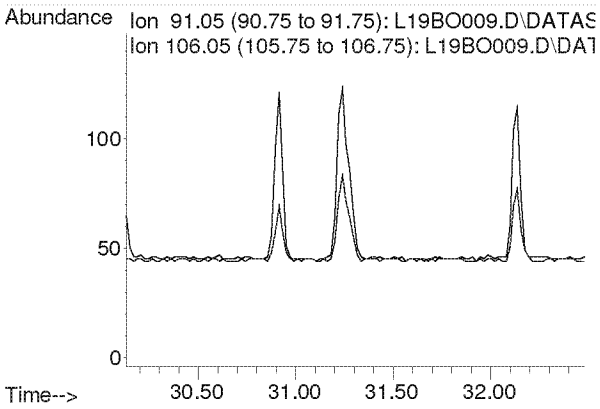


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

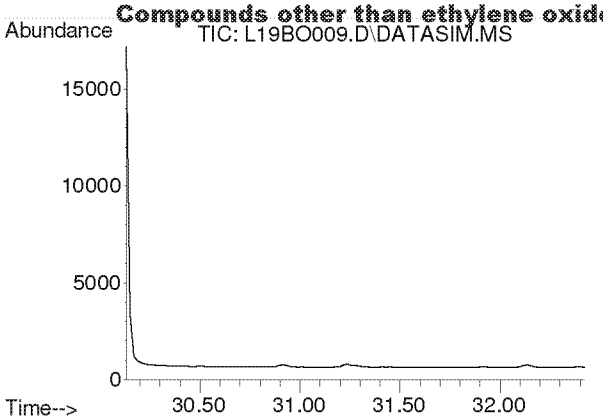
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

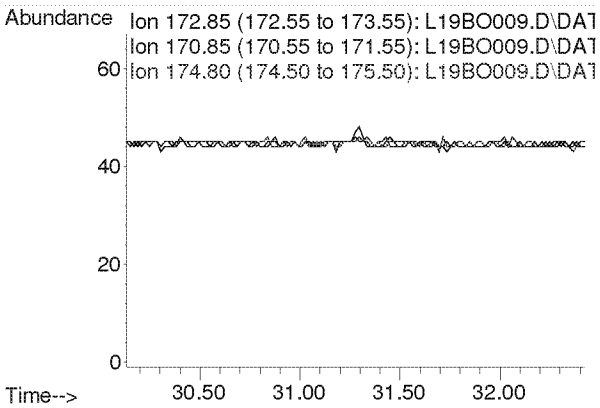


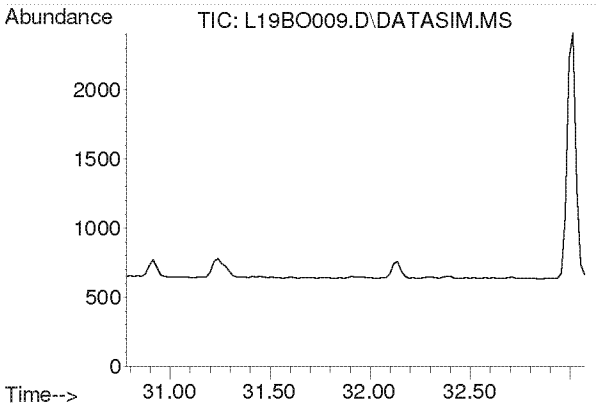
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



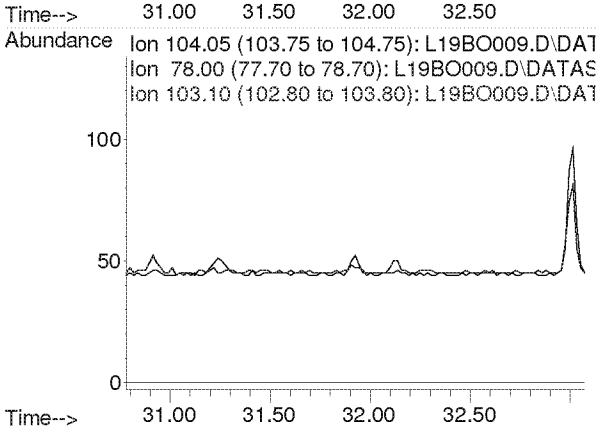


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

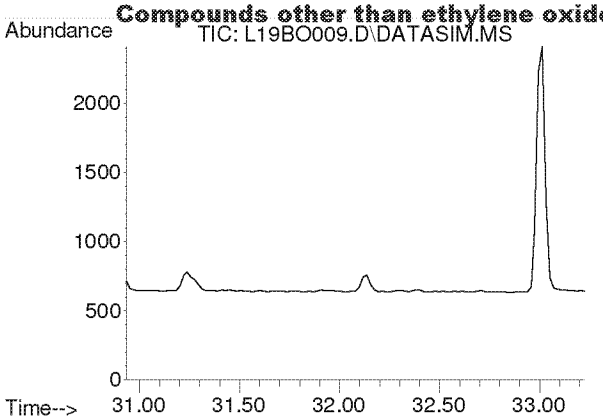
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

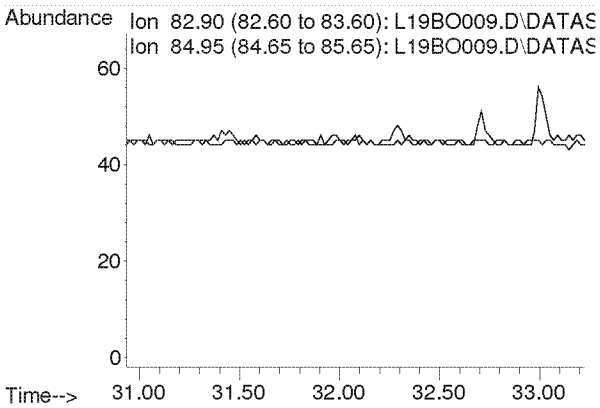


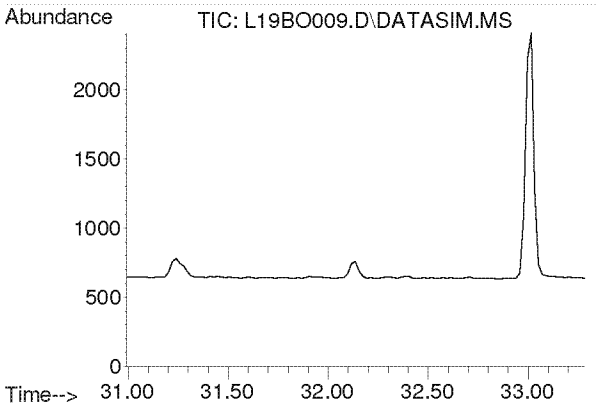
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



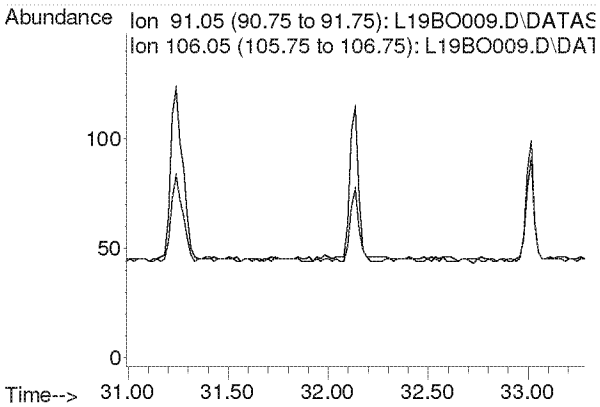


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

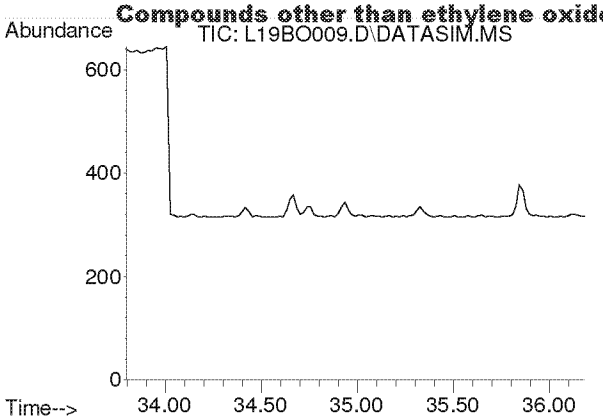
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

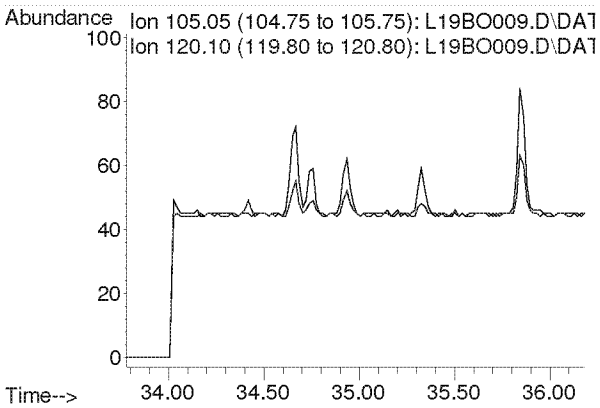


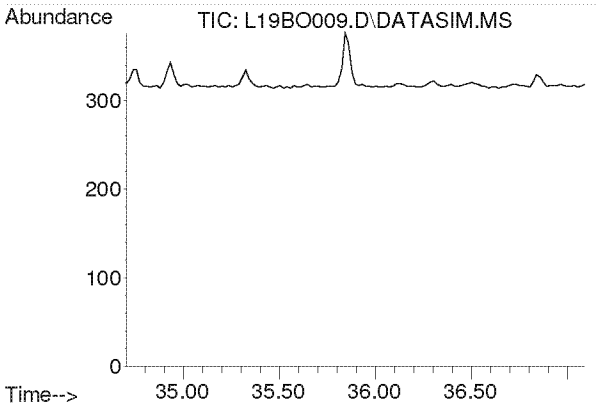
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



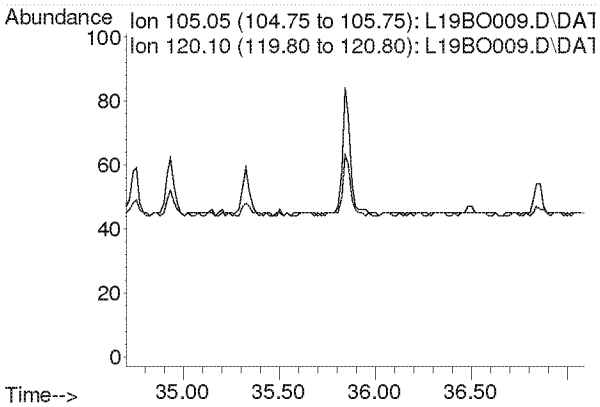


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

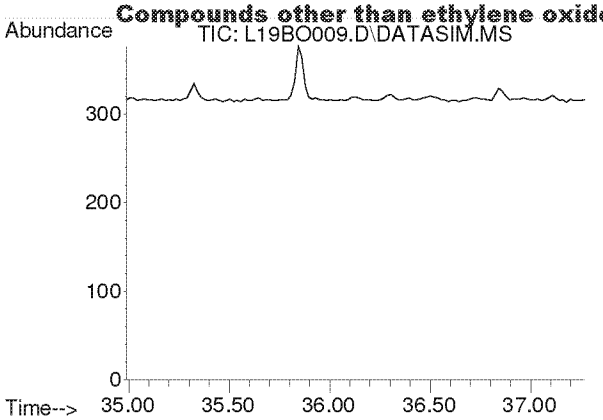
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

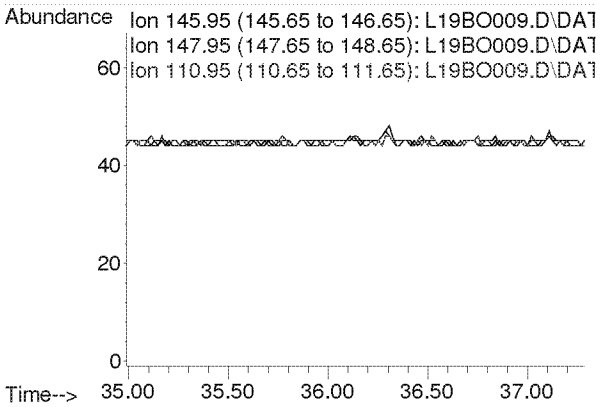


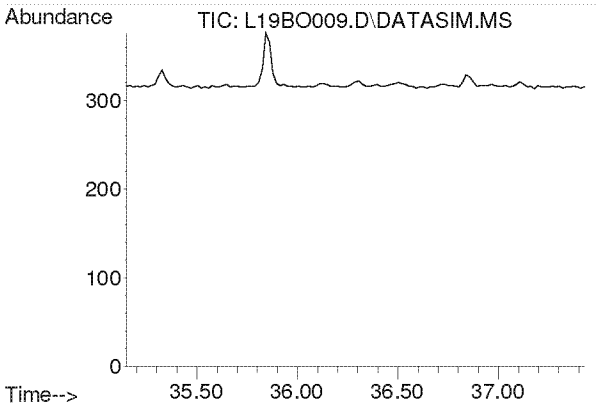
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



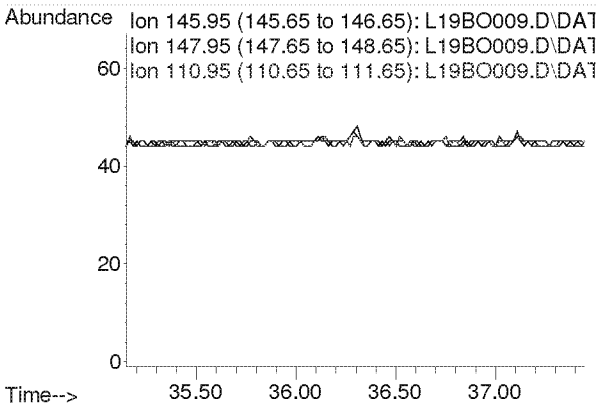


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

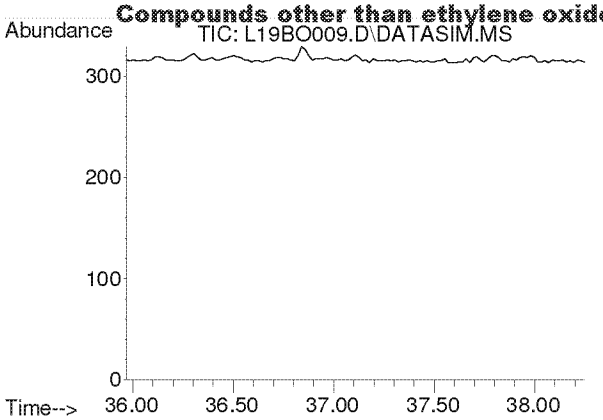
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

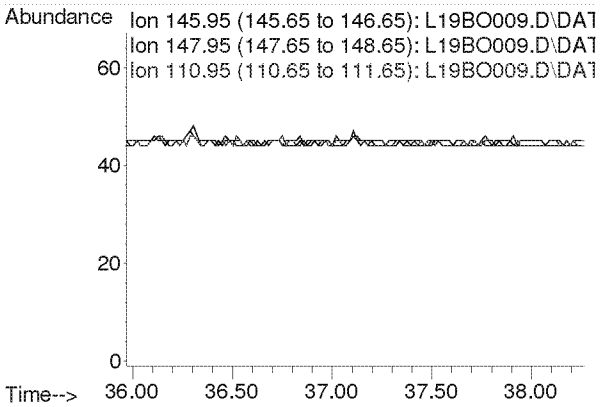


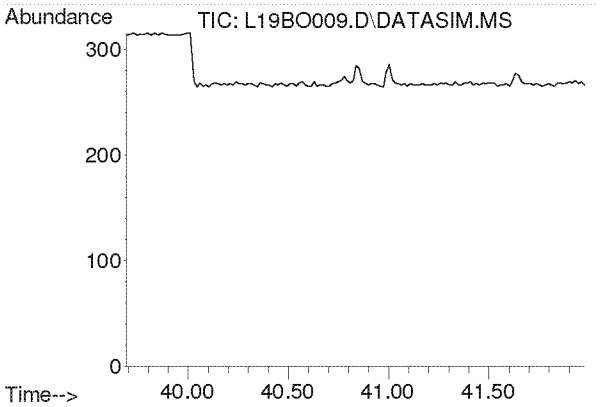
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



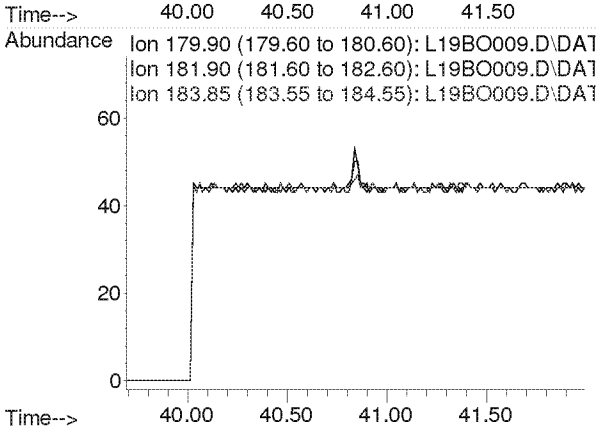


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

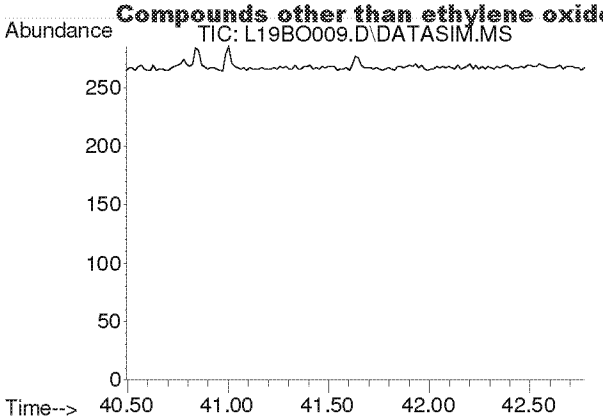
Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

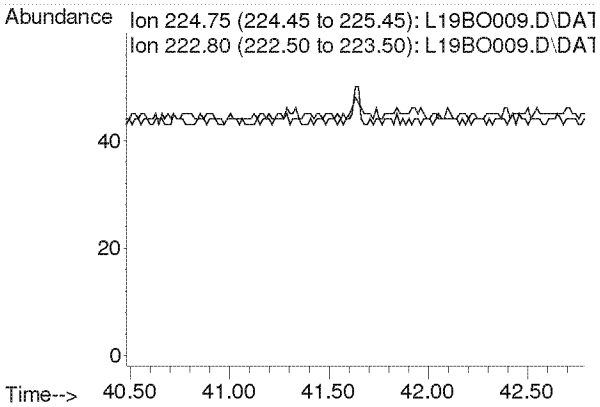


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO009.D
Acq: 15 Feb 2019 2:25 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\L19BO\
Data File : L19BO010.D
Acq On : 15 Feb 2019 3:27 pm (#1); 15-Feb-19, 15:21:56 (#2)
Operator : MAH
Sample : 9021313-02
Misc : WILOW POND PARK 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 15:05:37 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-MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	40342	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	97625	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	70252	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	272m	0.1179 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO010.D
Acq. On : 15 Feb 2019 3:27 pm (#1); 15-Feb-19, 15:21:56 (#2)
Operator : MAH
Sample : 9021313-02
Misc : WILOW POND PARK 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 15:05:37 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

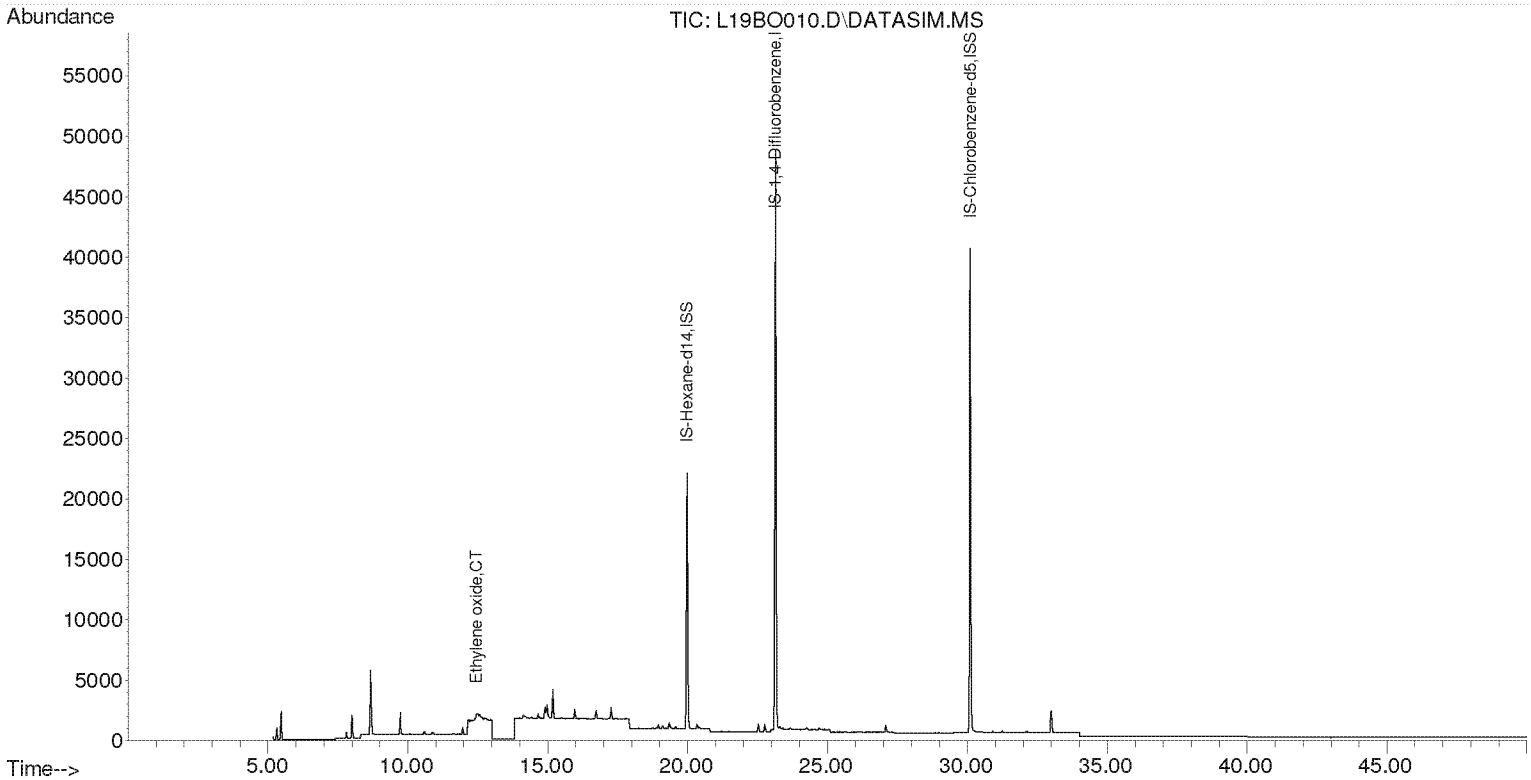
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

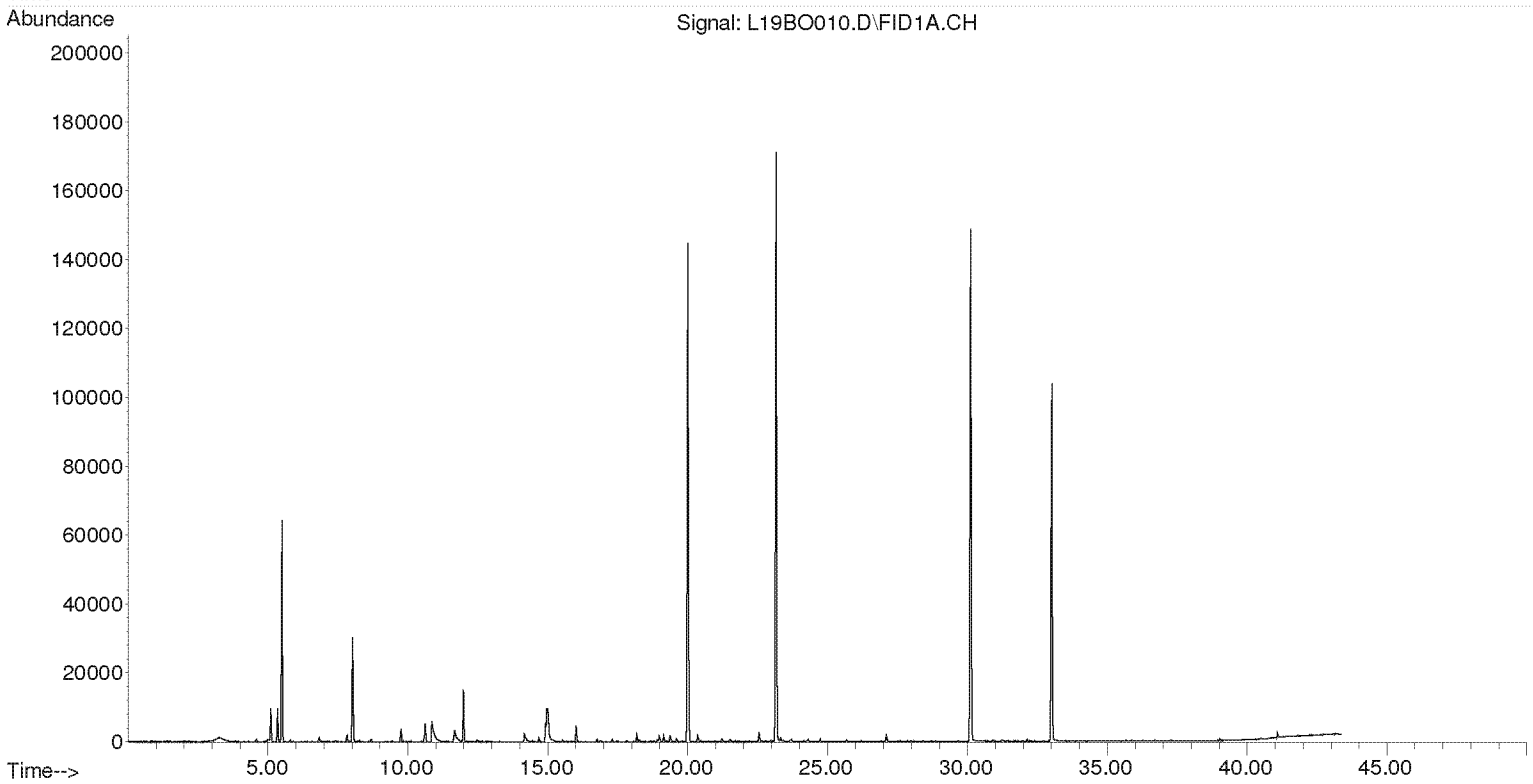
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

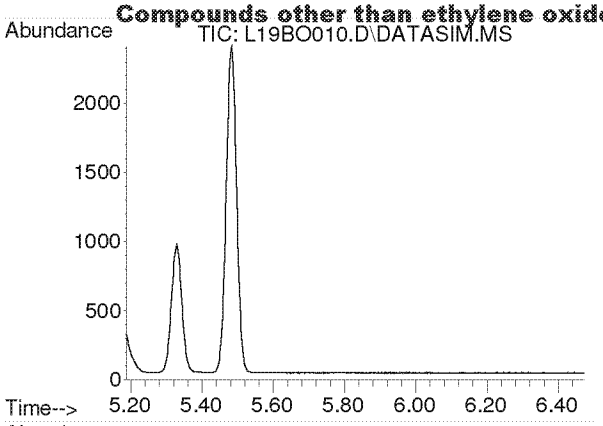
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO010.D
Acq On : 15 Feb 2019 3:27 pm (#1); 15 Feb 2019 3:21 pm (#2)
Operator : MAH
Sample : 9021313-02
Misc : WILOW POND PARK 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 15:05:14 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





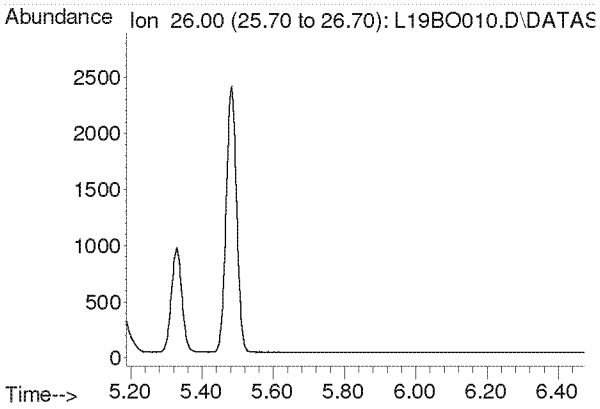
Compounds other than ethylene oxide were not quantitated.

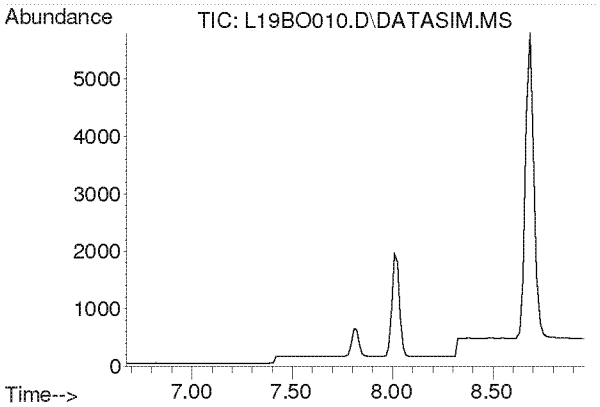


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 26



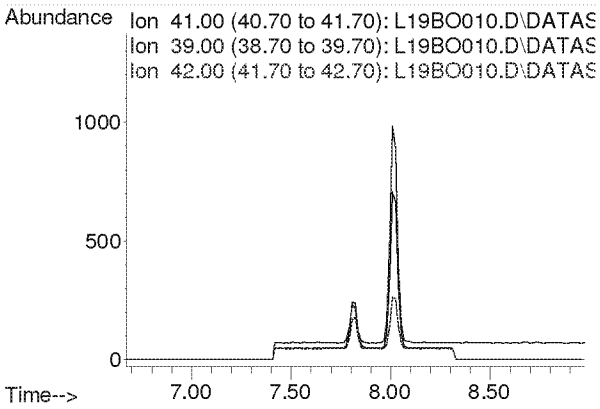


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

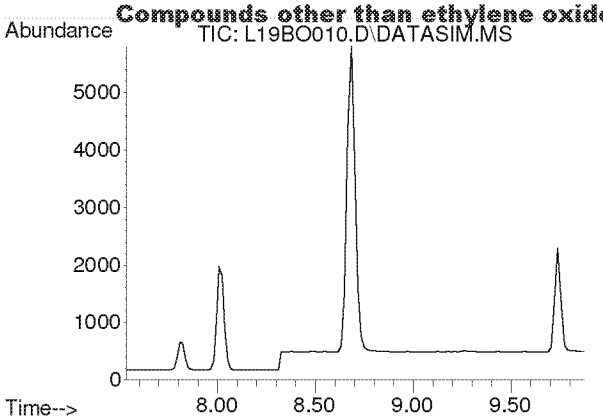
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

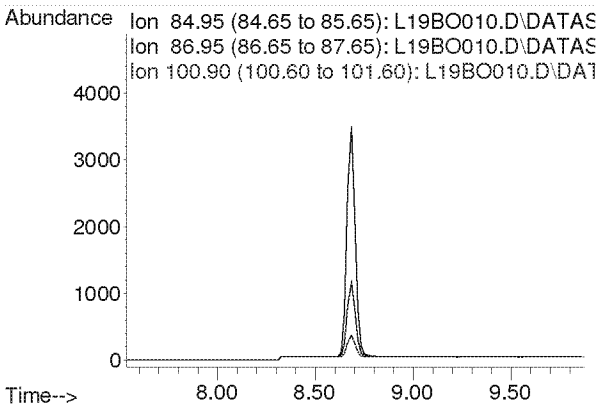


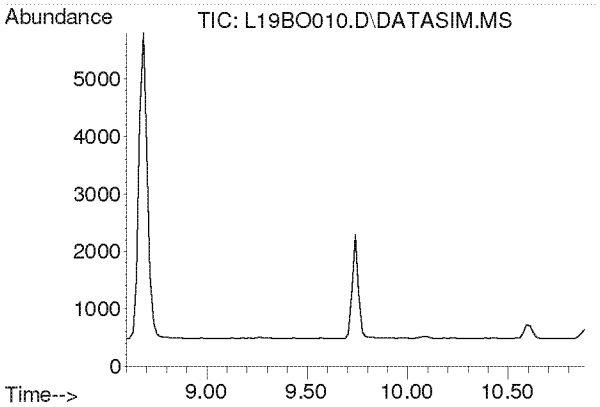
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



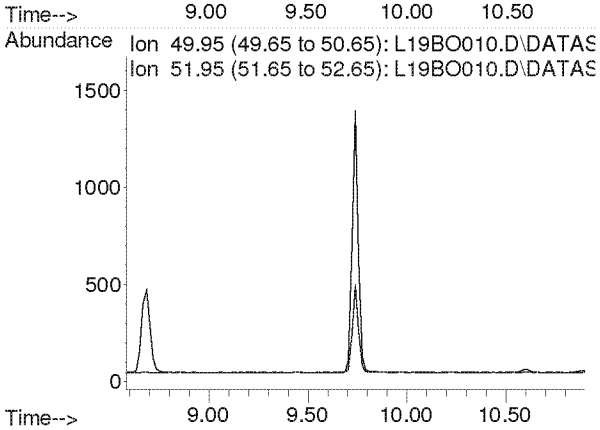


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

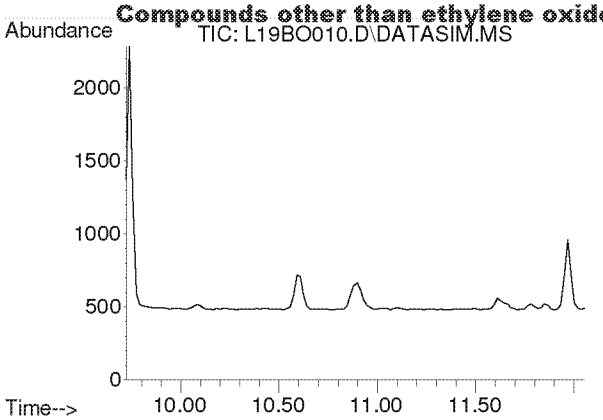
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

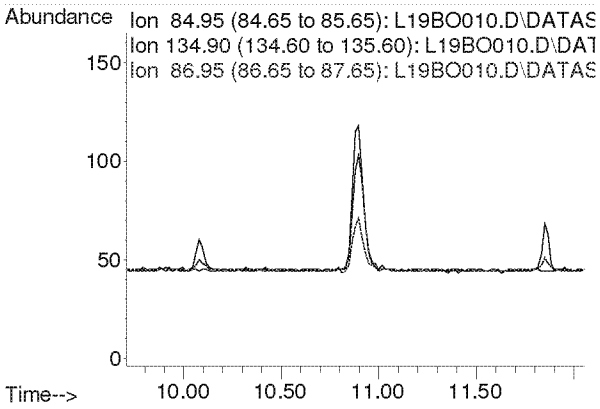


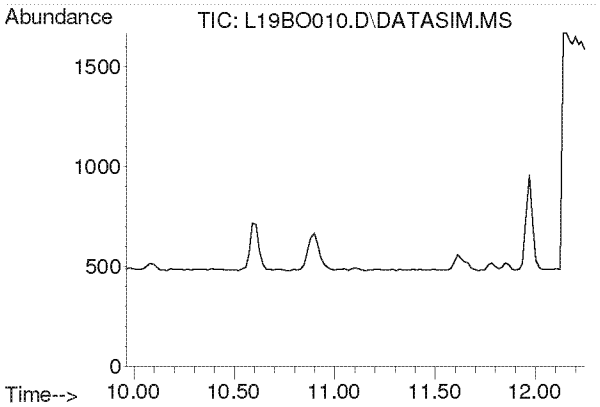
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



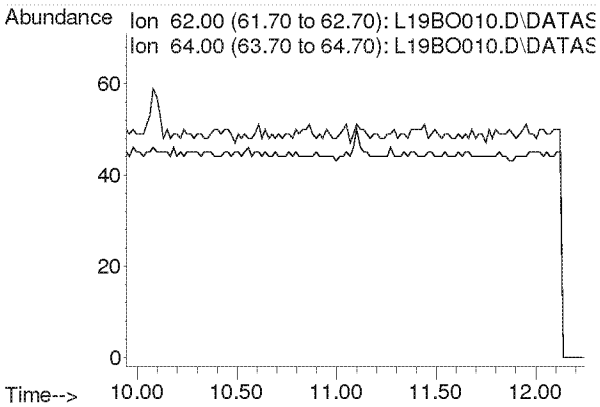


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

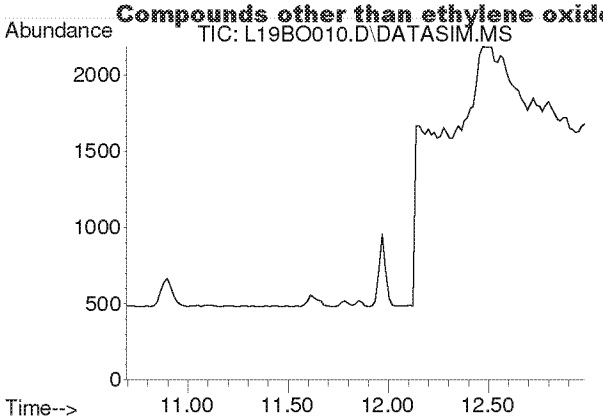
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

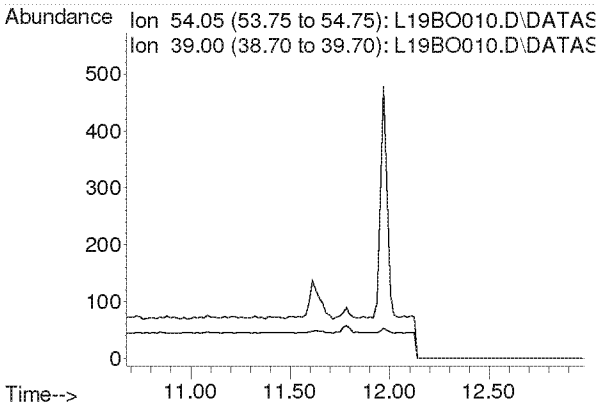


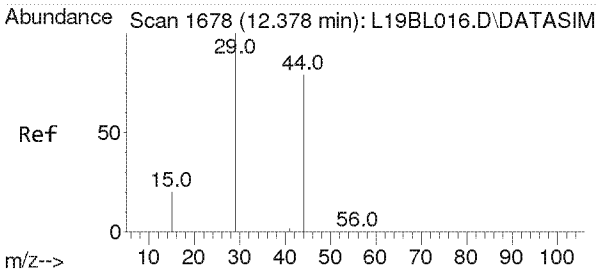
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

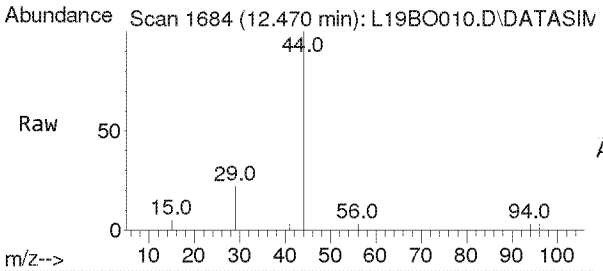


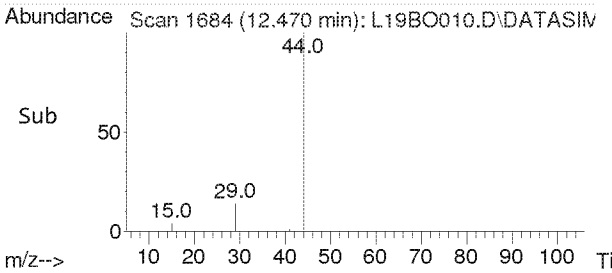


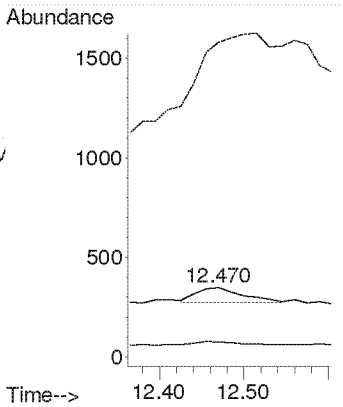
#9
Ethylene oxide
Concen: 0.118 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.070 min
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 29 Resp: 272

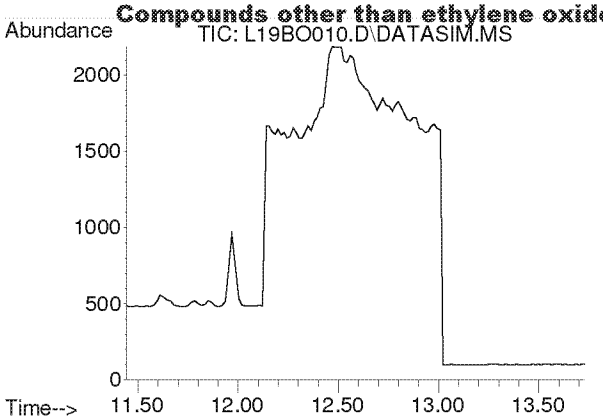
Ion	Ratio	Lower	Upper
29	100		
15	31.3	16.0	24.0#
44	2113.6	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

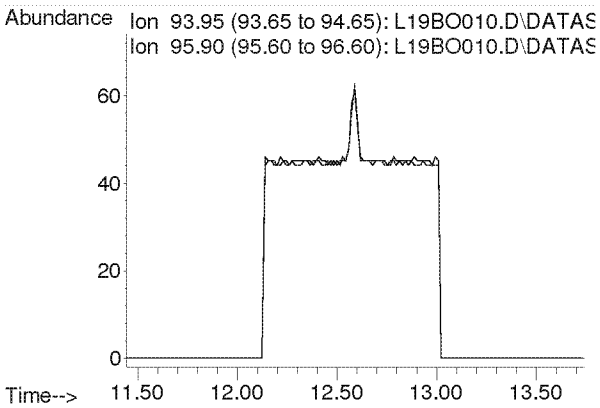


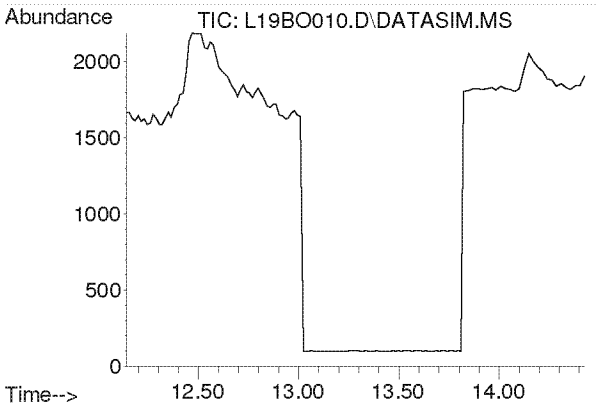
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



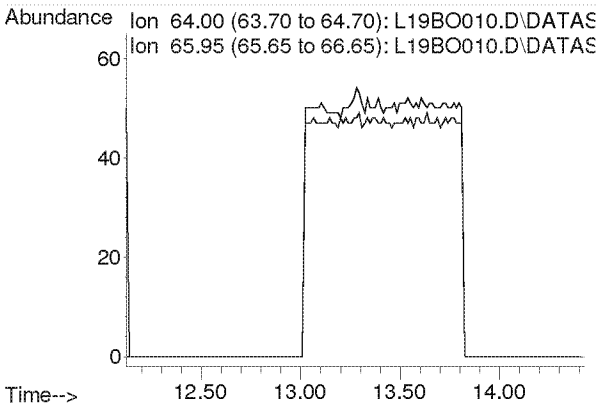


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

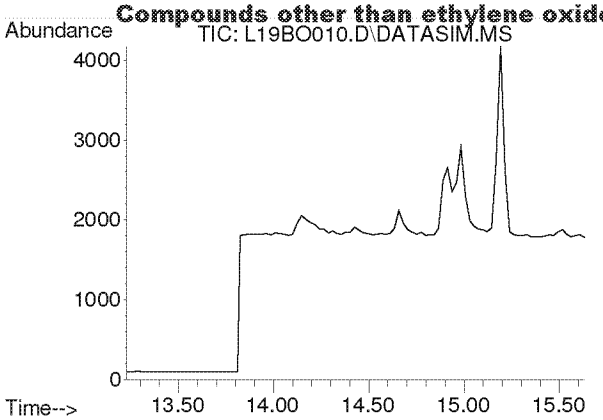
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

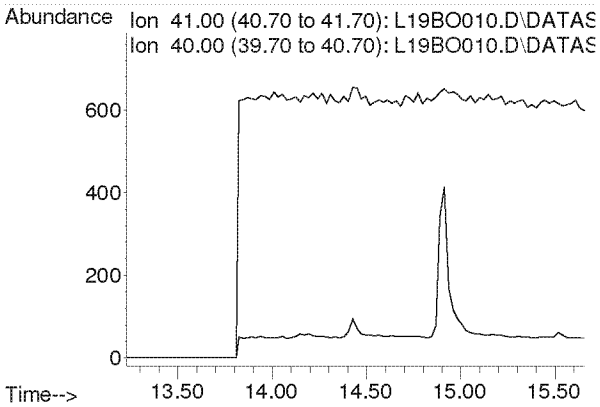


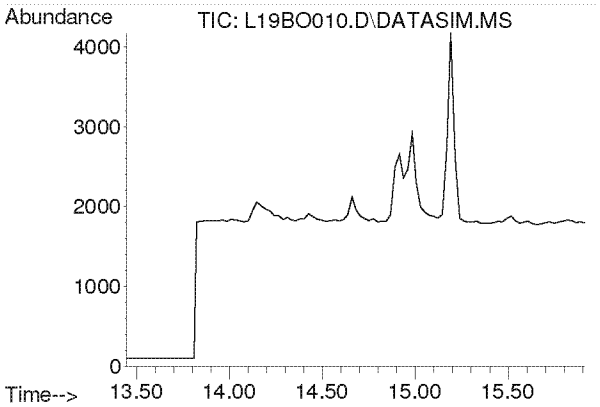
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



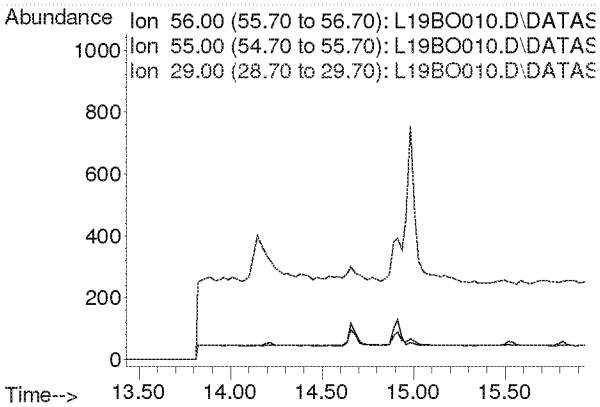


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

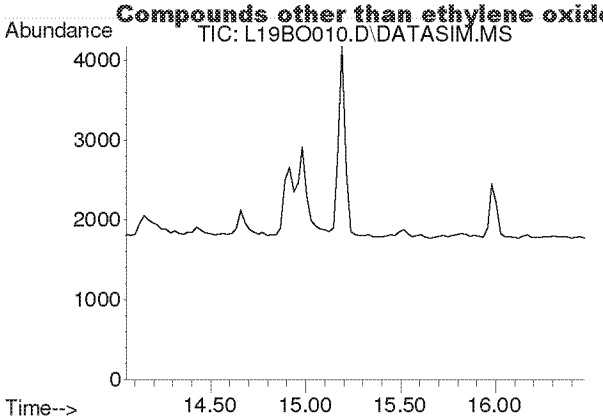
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

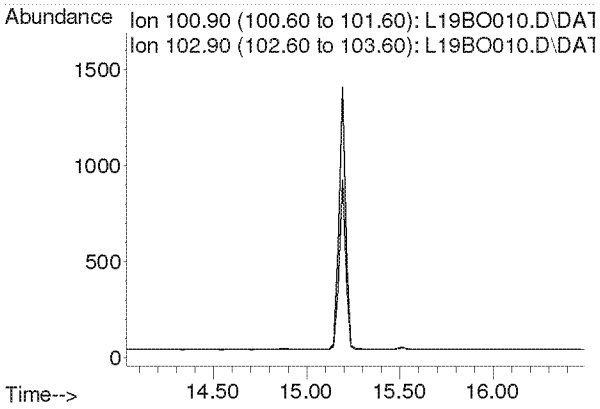


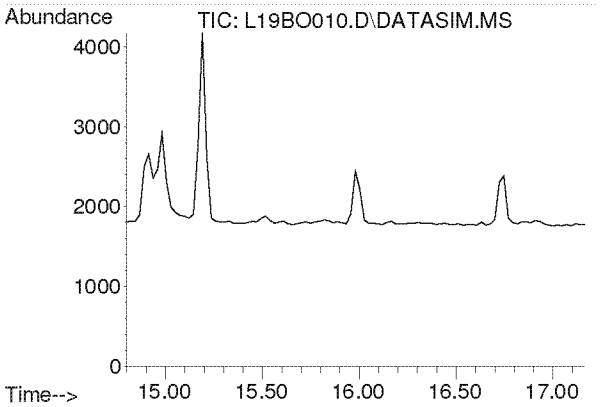
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



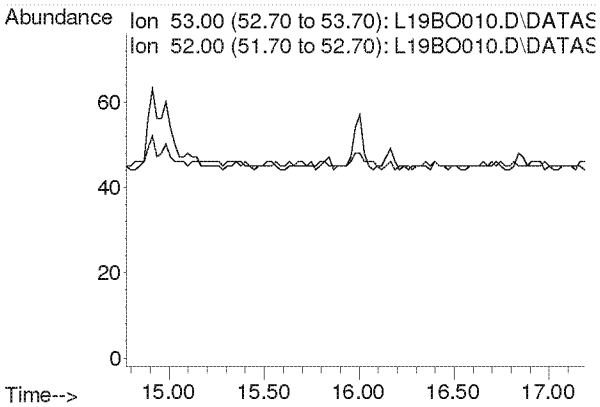


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

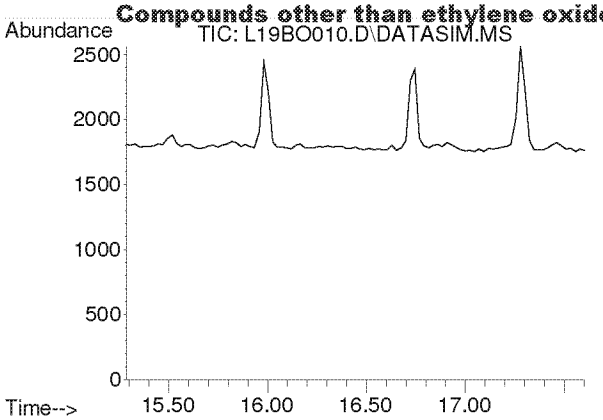
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

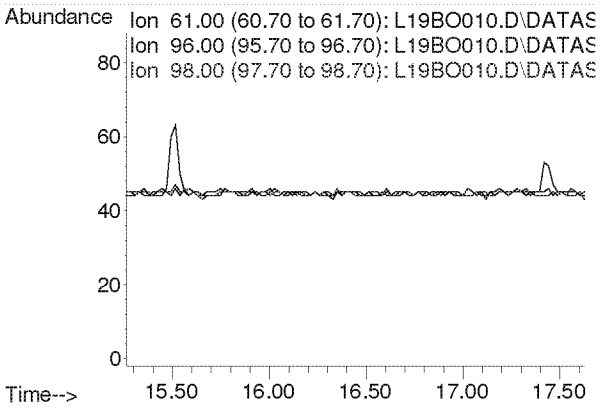


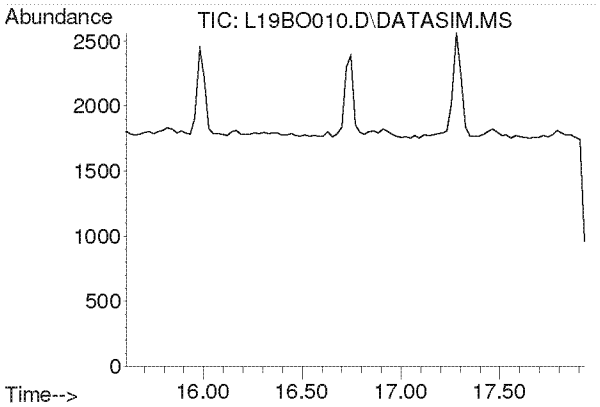
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



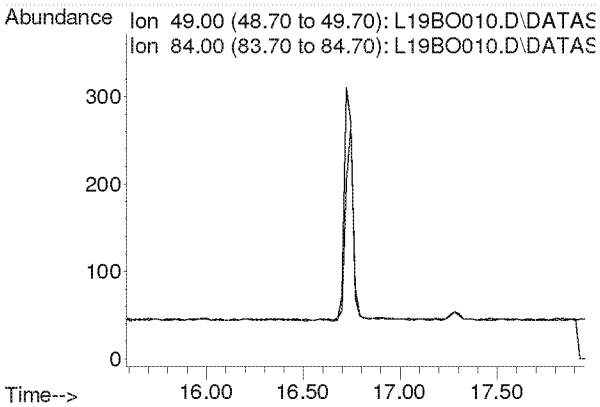


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

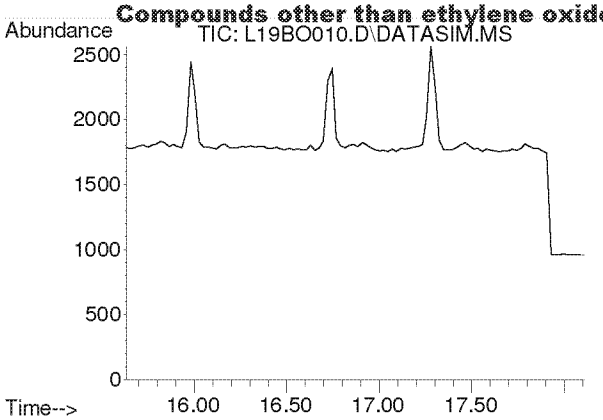
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

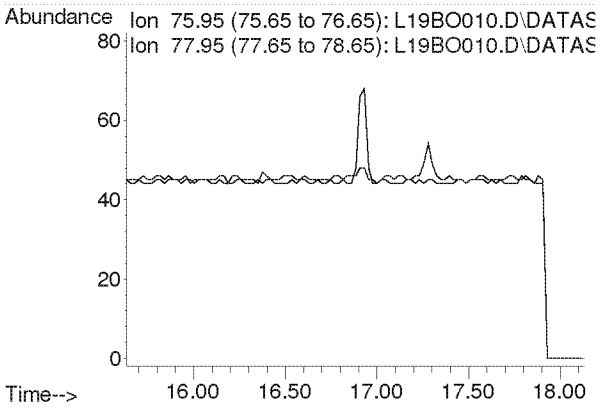


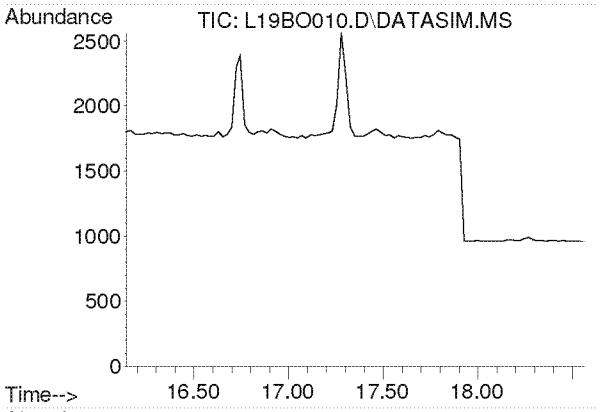
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



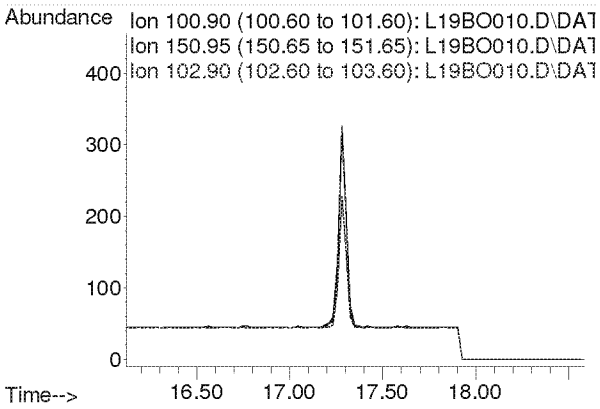


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

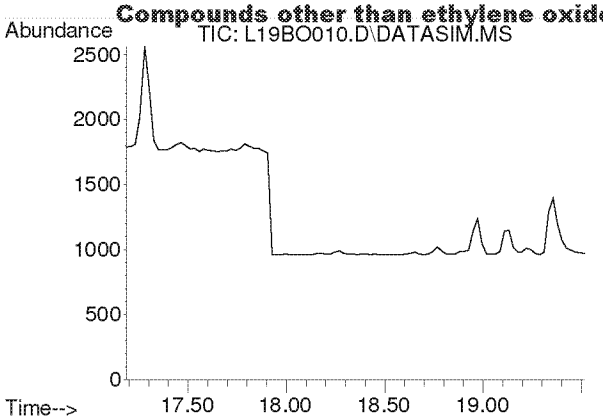
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

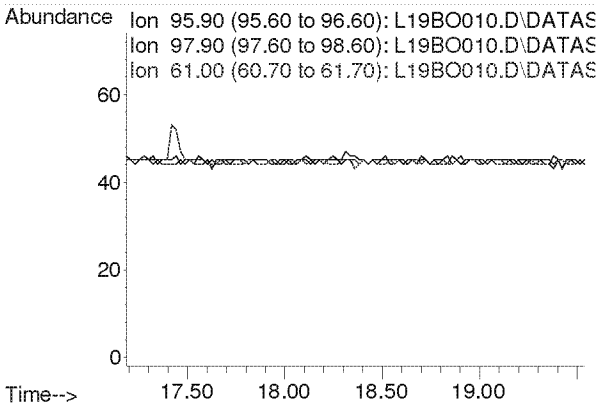


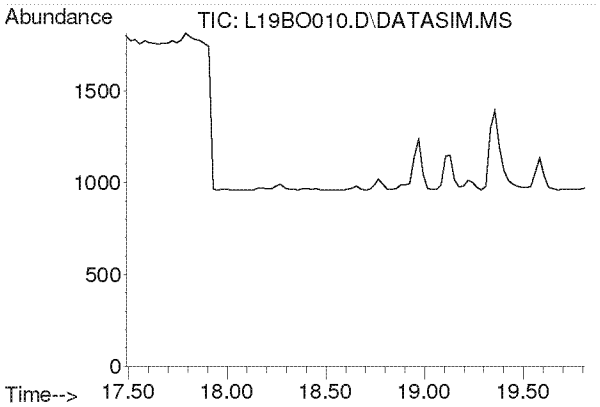
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



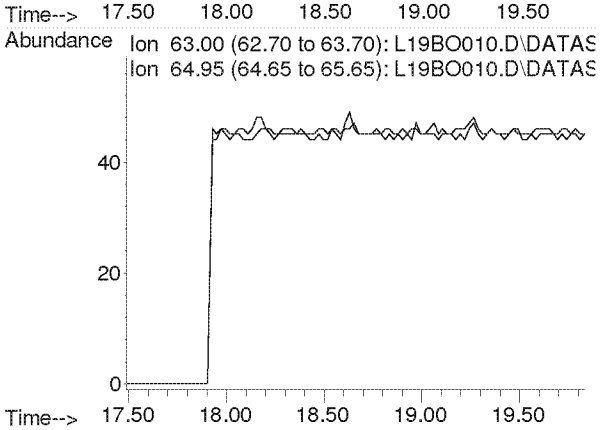


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

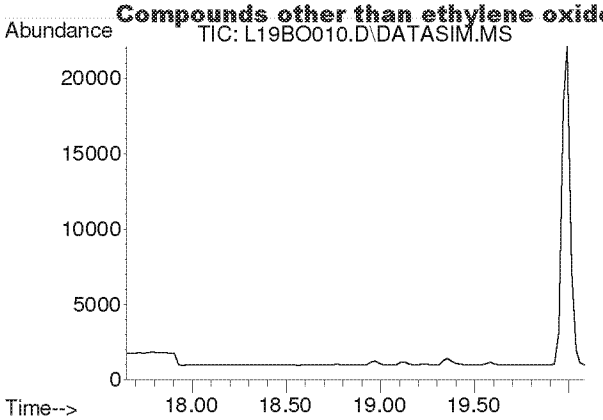
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

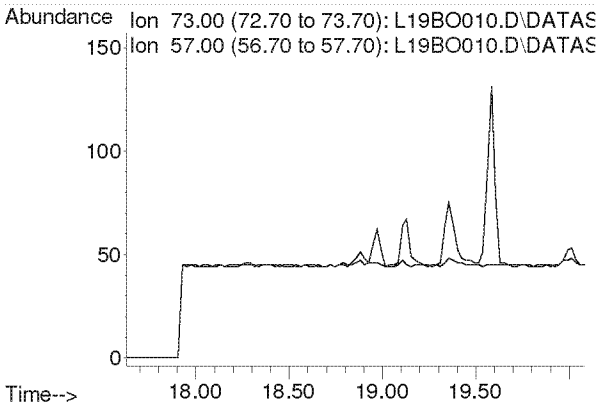


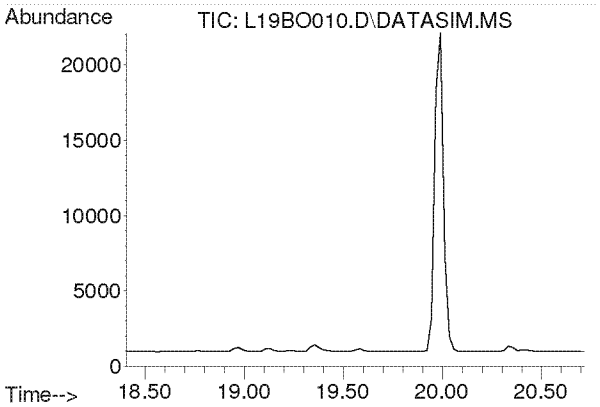
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



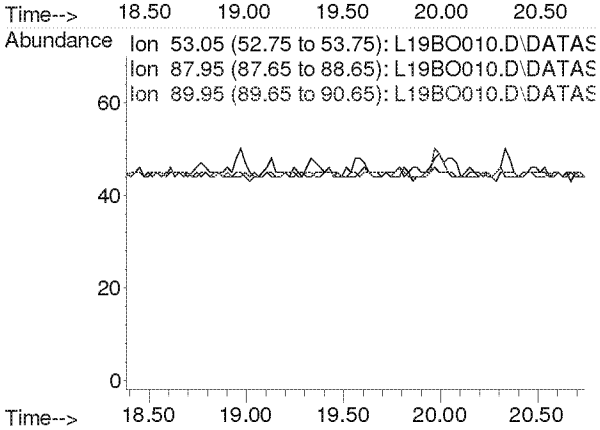


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

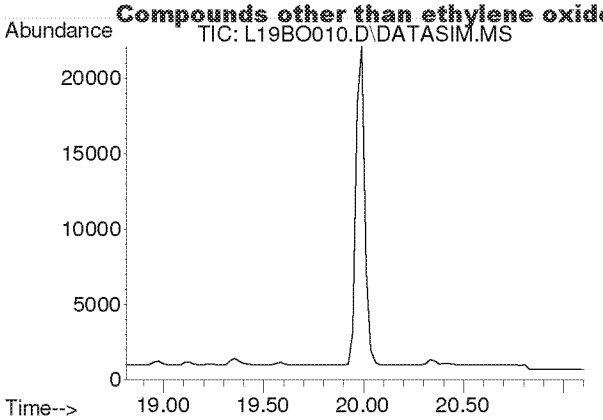
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

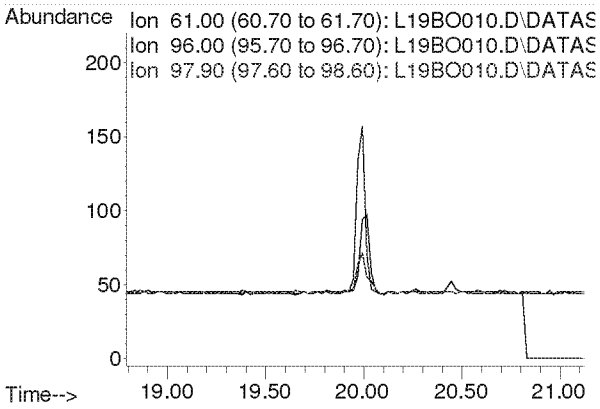


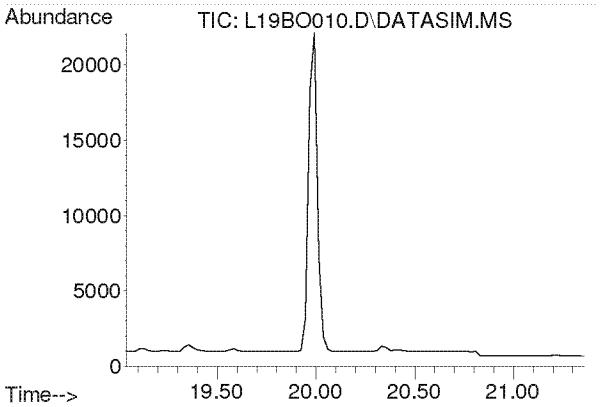
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



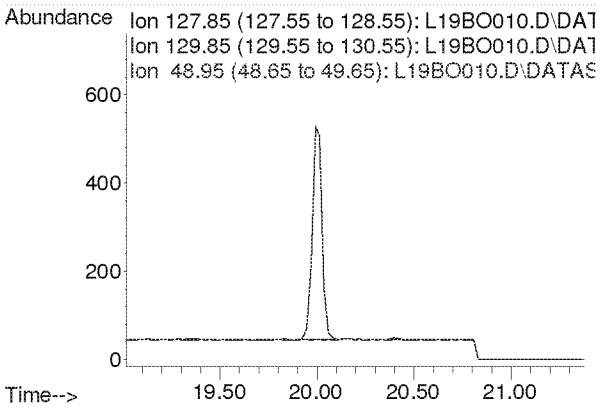


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

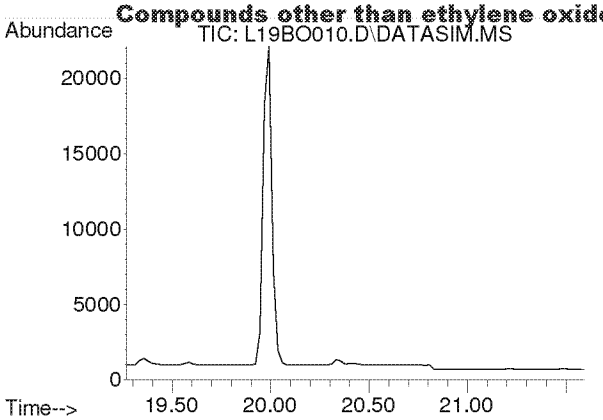
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

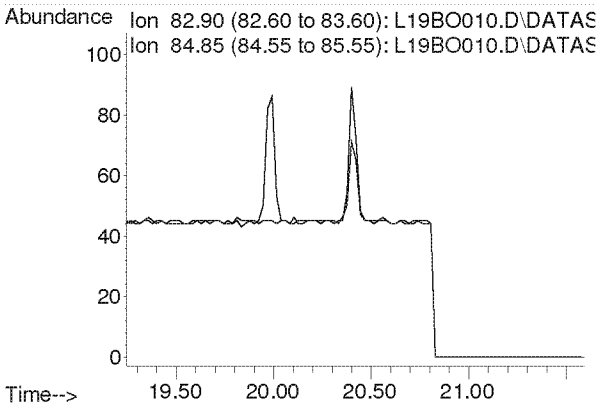


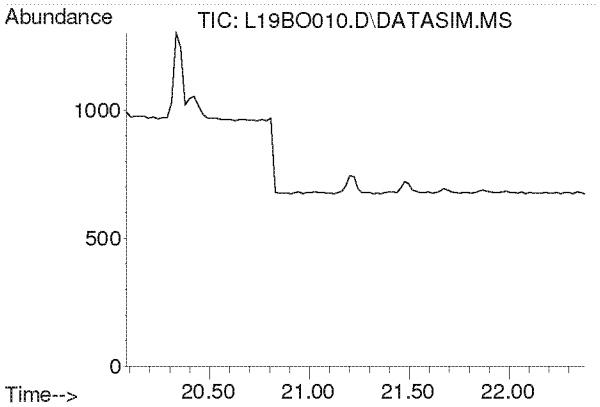
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



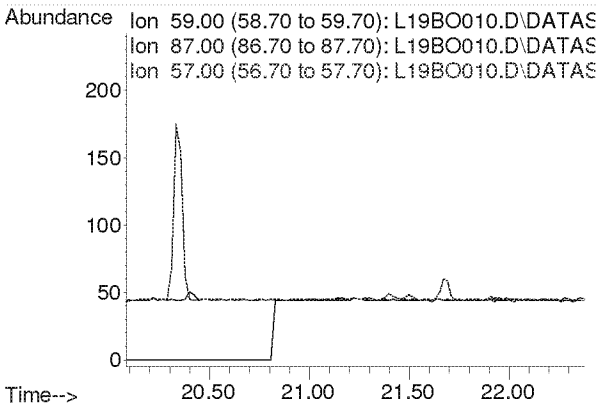


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

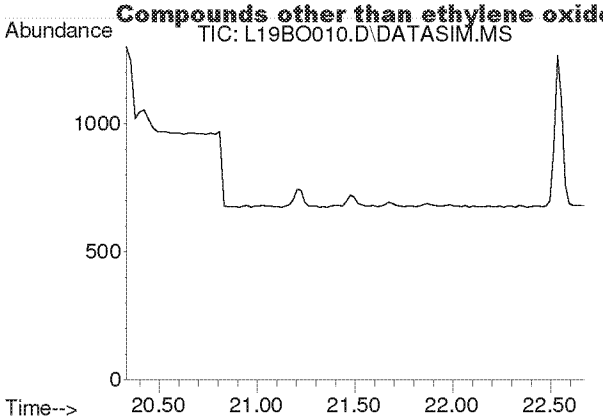
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

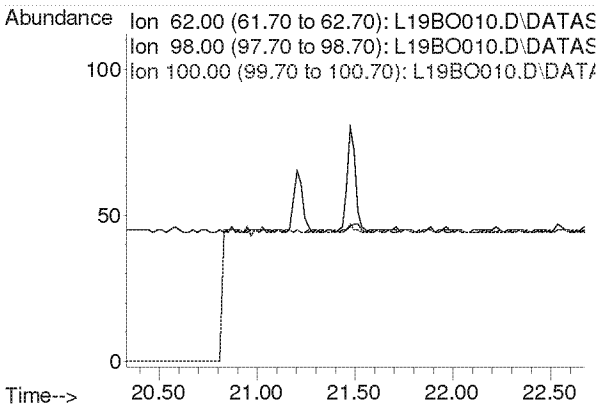


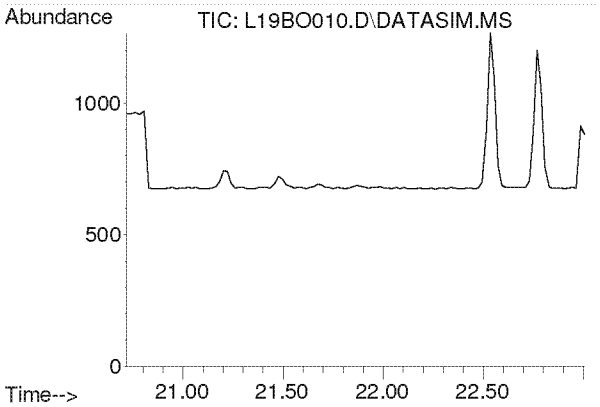
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



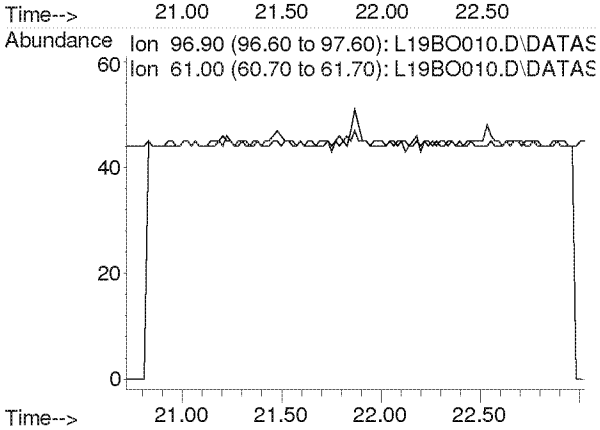


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

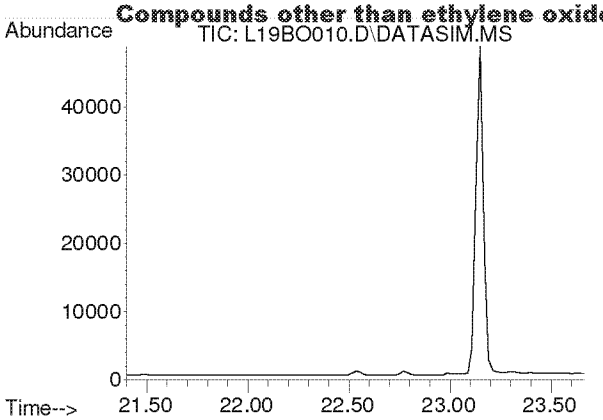
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

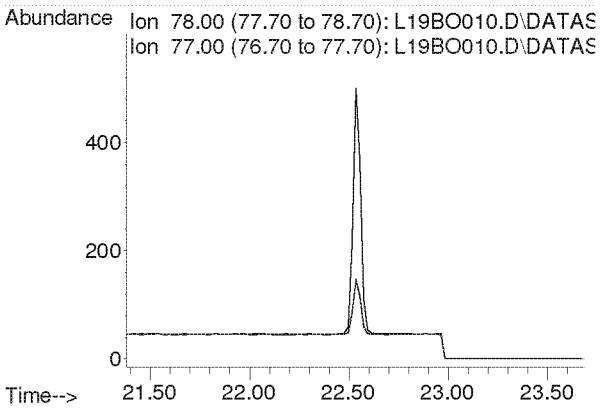


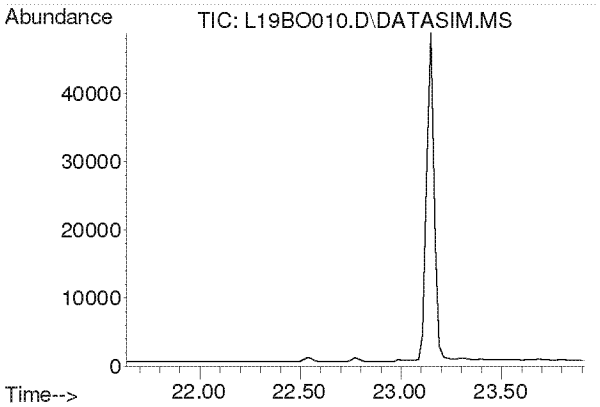
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



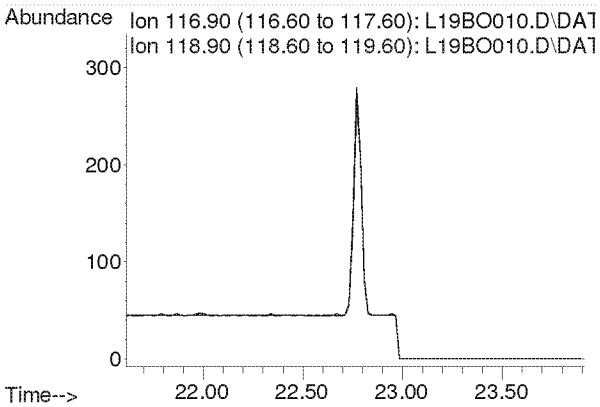


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

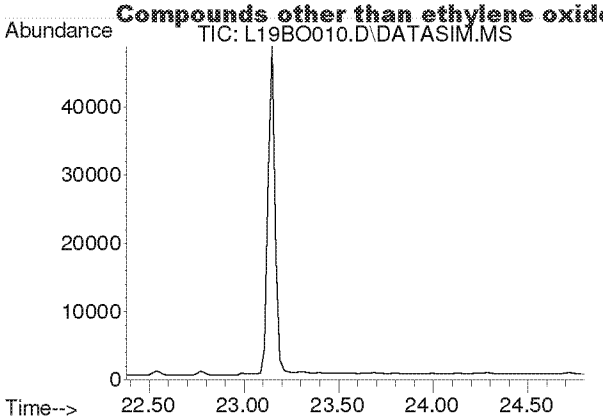
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

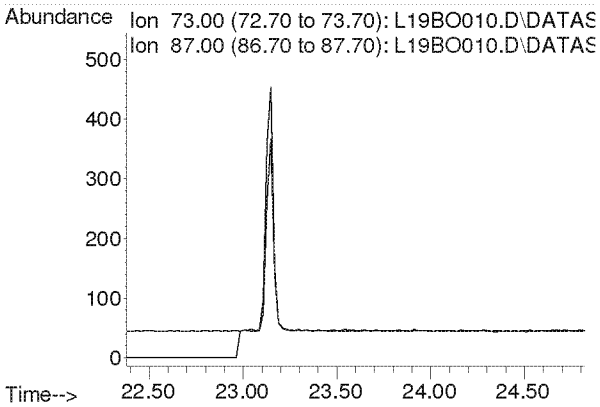


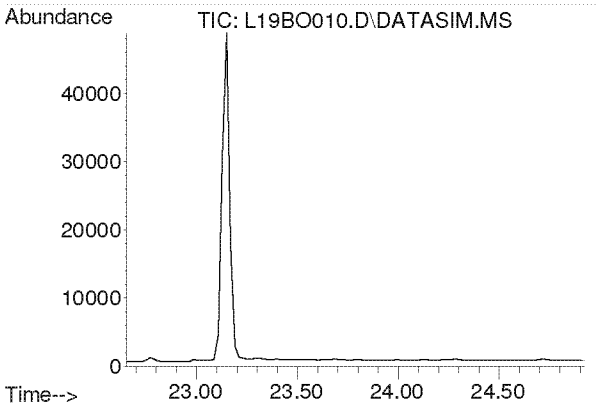
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



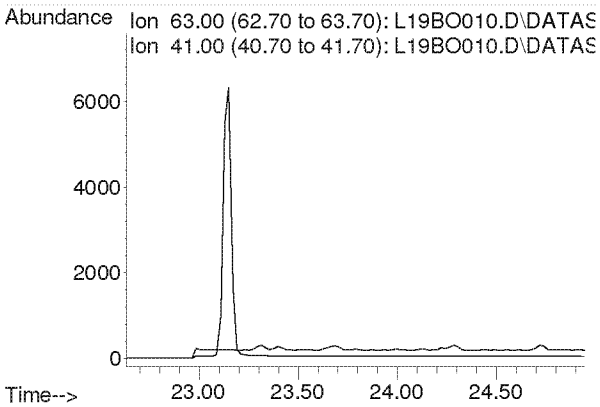


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

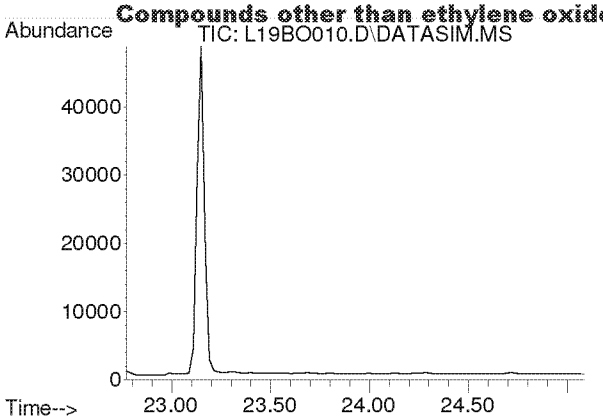
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

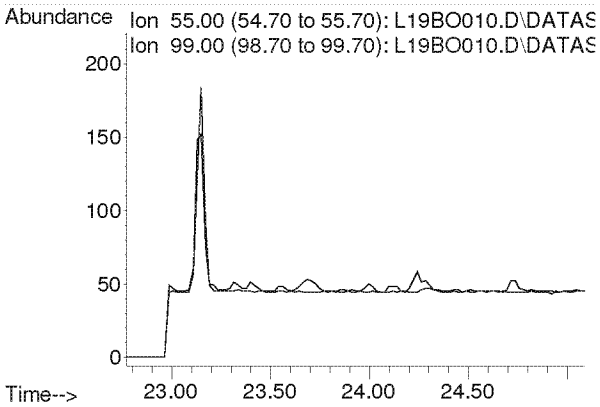


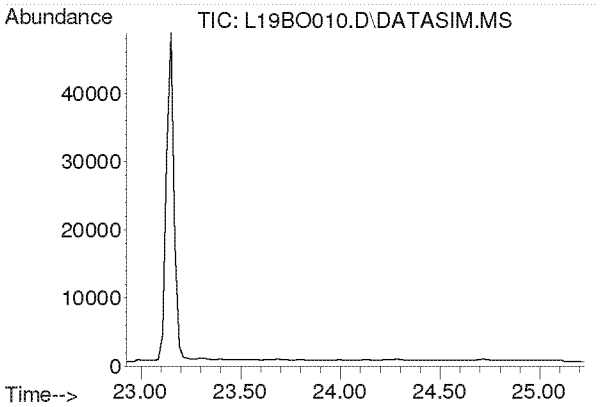
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



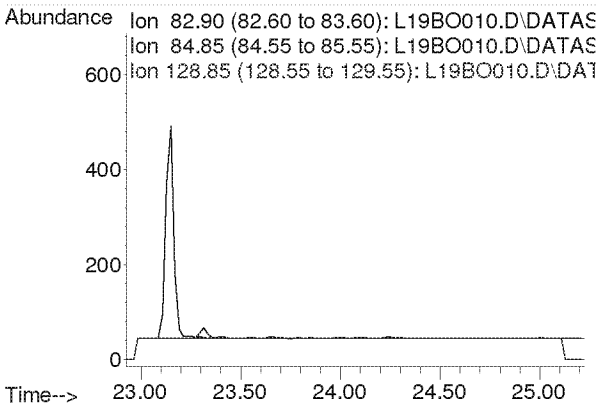


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

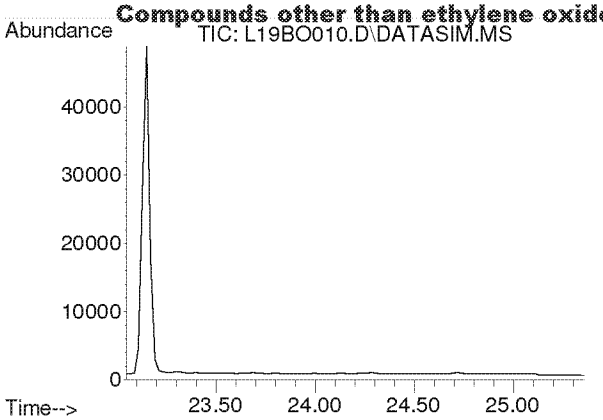
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

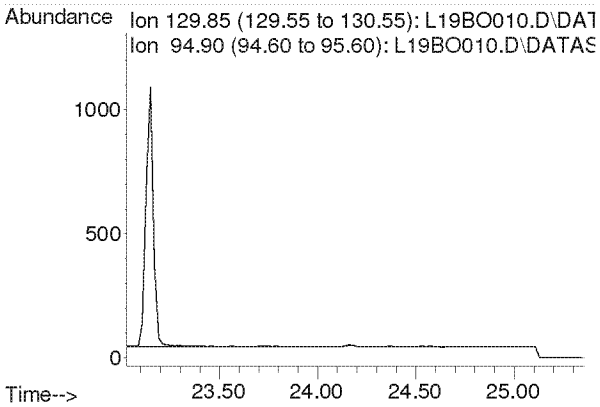


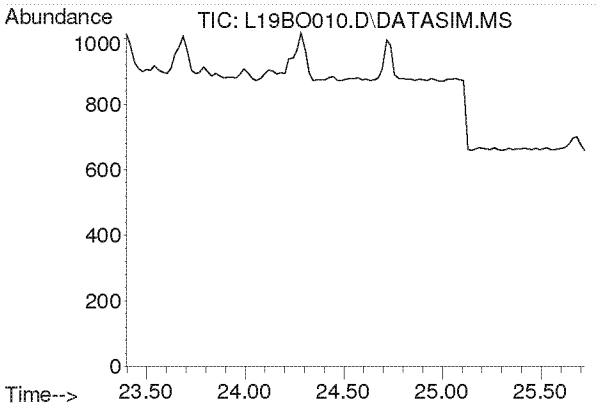
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



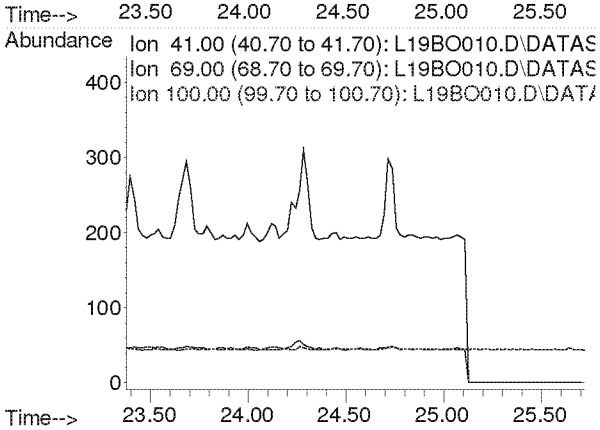


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

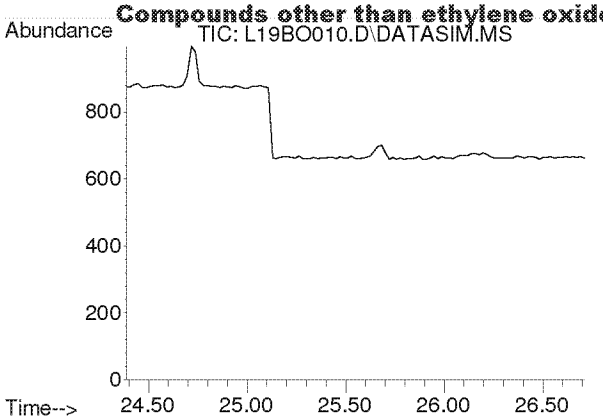
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

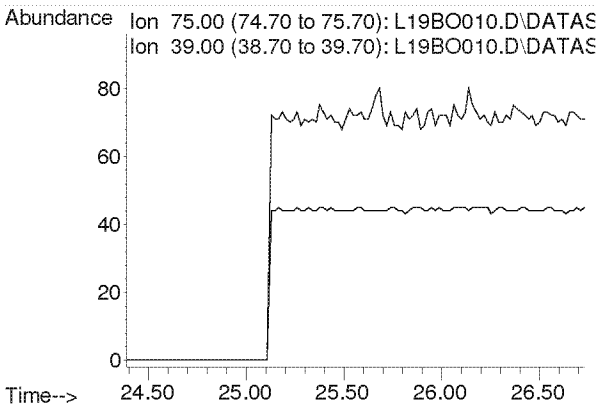


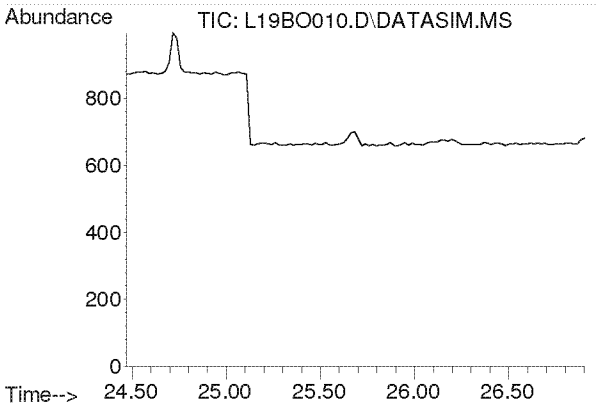
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



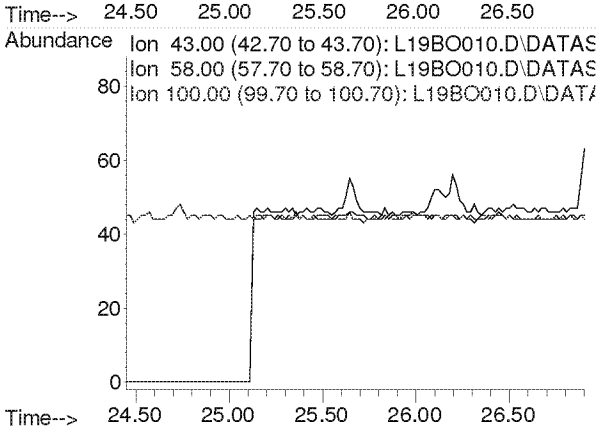


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

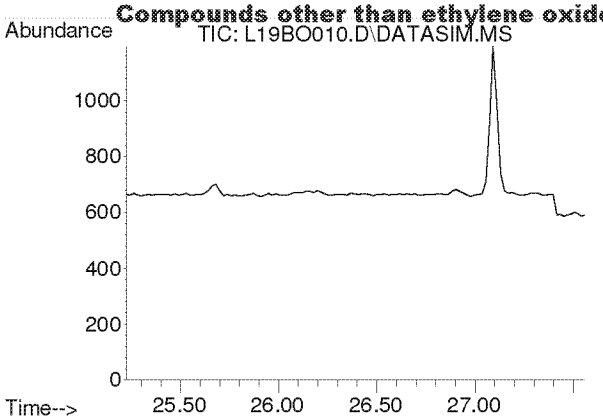
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

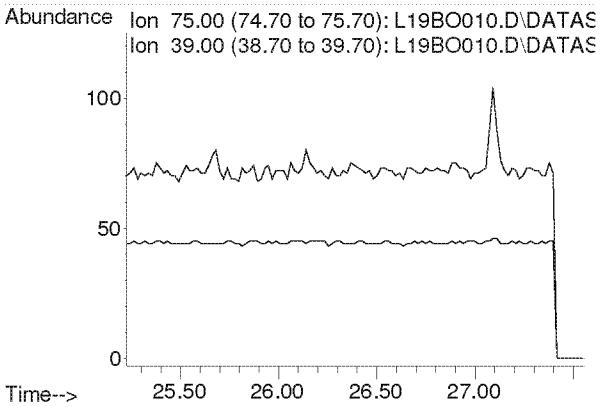


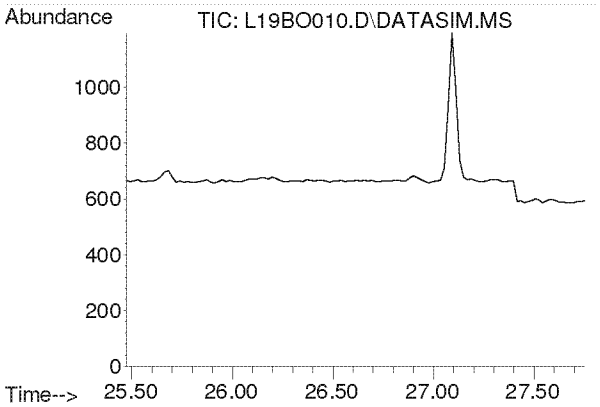
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



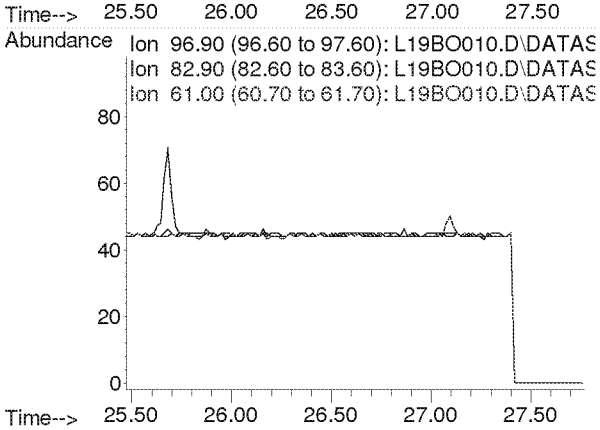


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

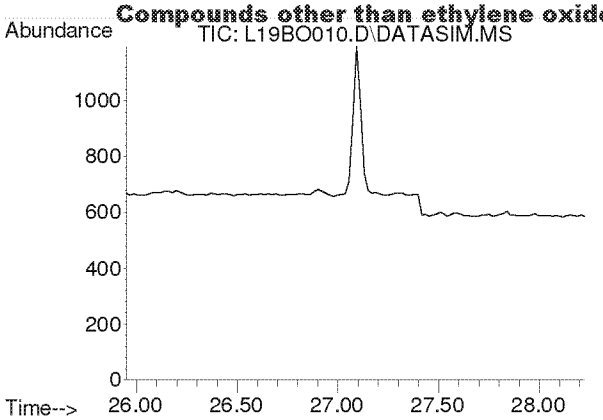
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

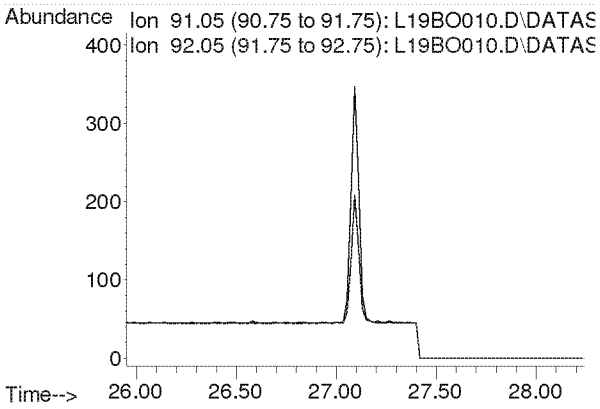


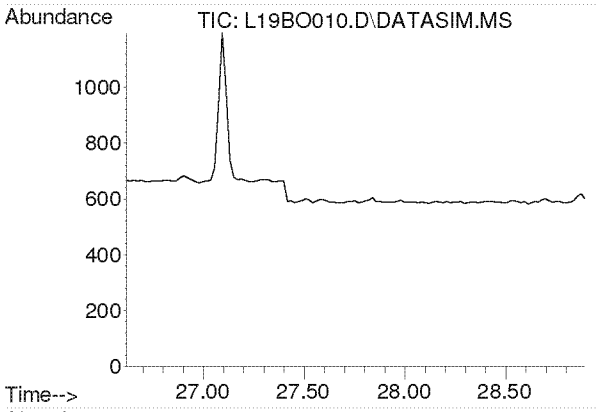
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



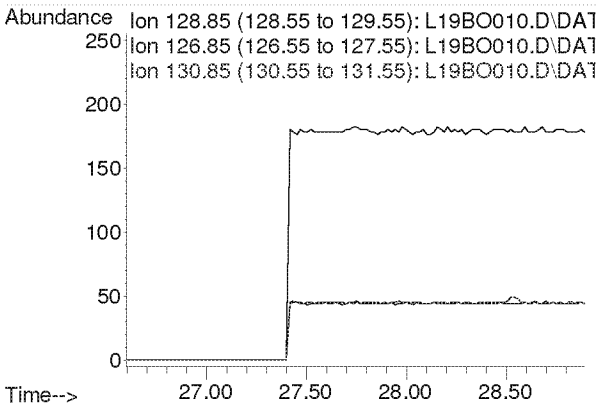


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

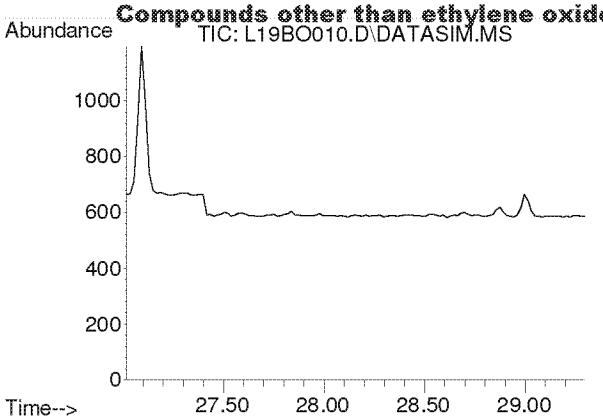
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

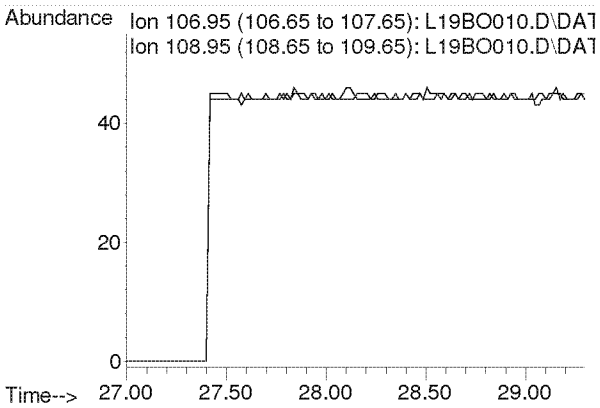


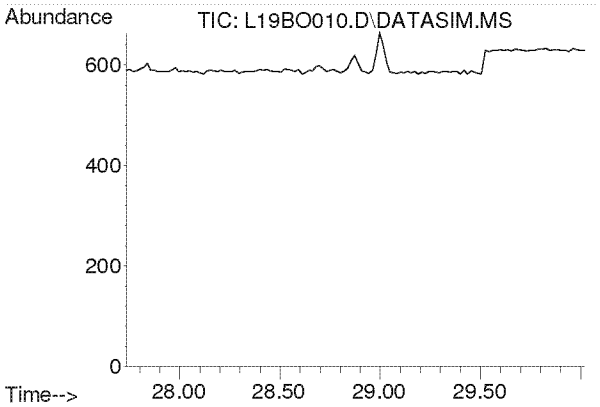
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



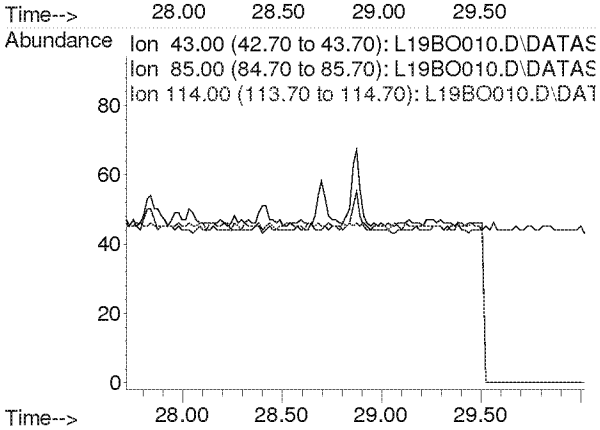


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

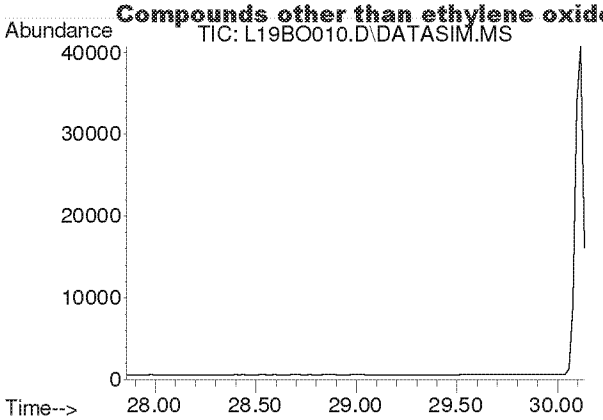
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

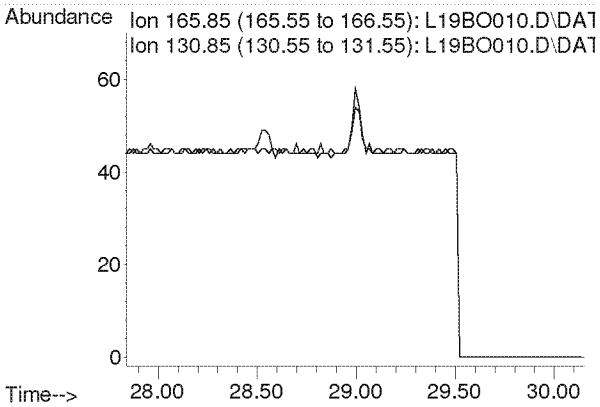


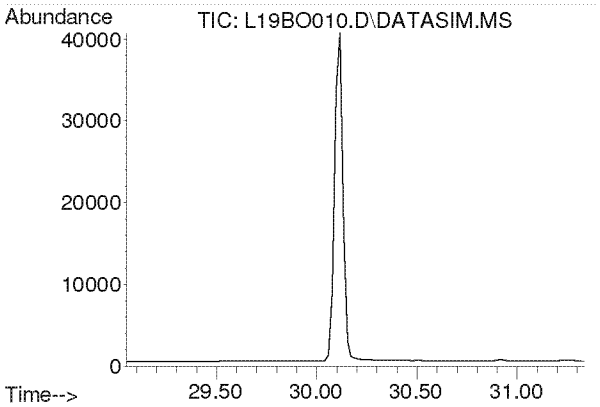
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



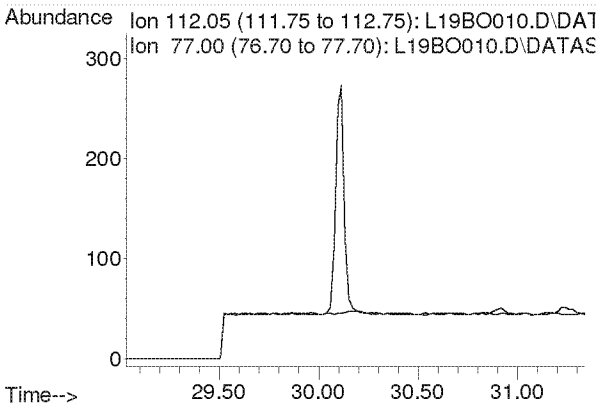


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

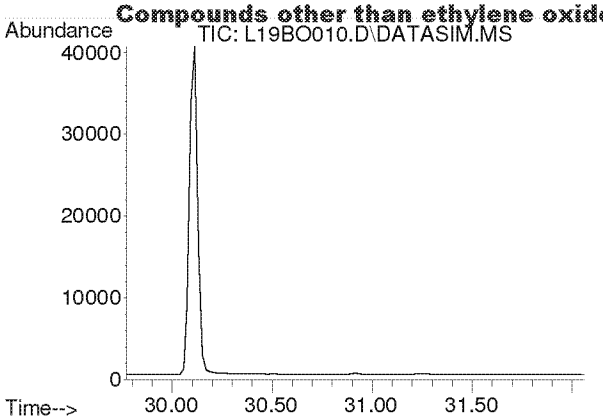
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

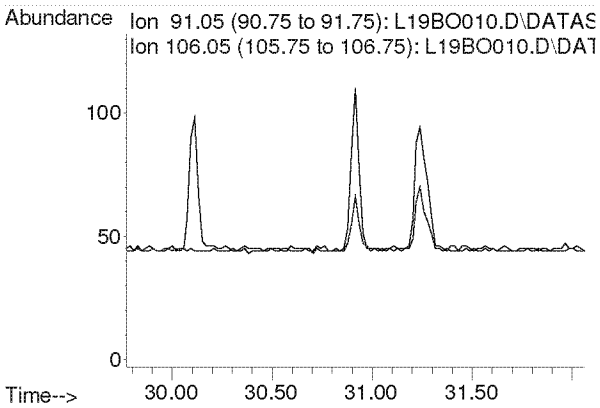


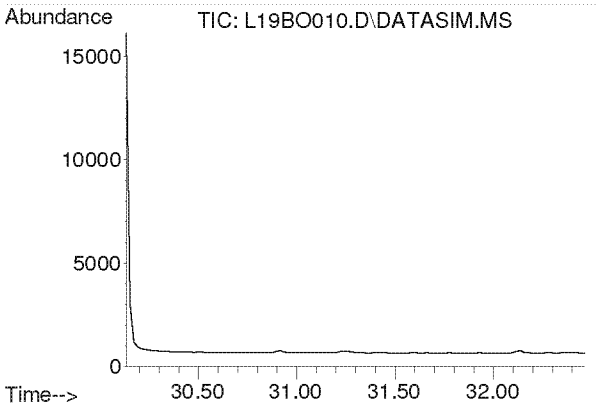
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



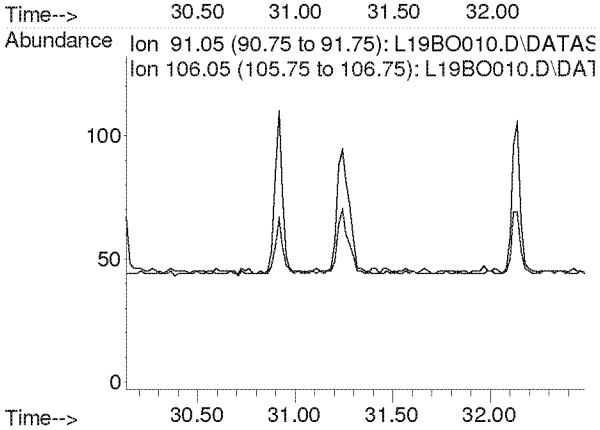


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

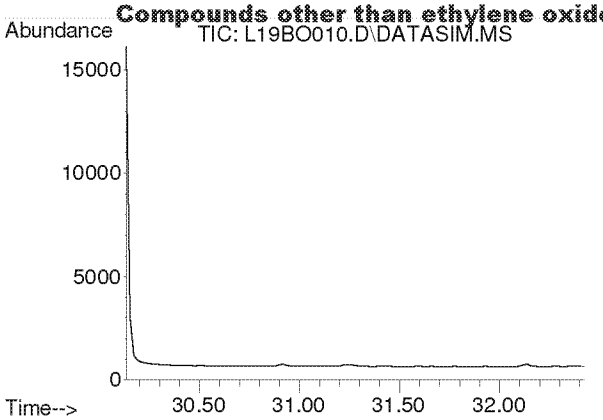
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

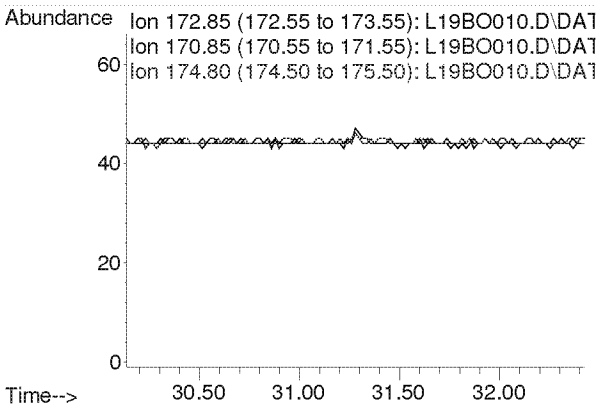


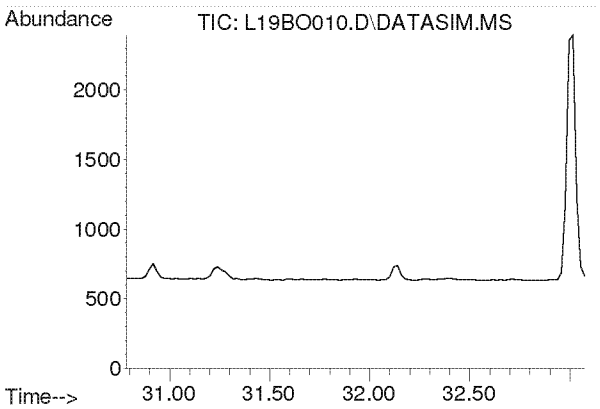
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



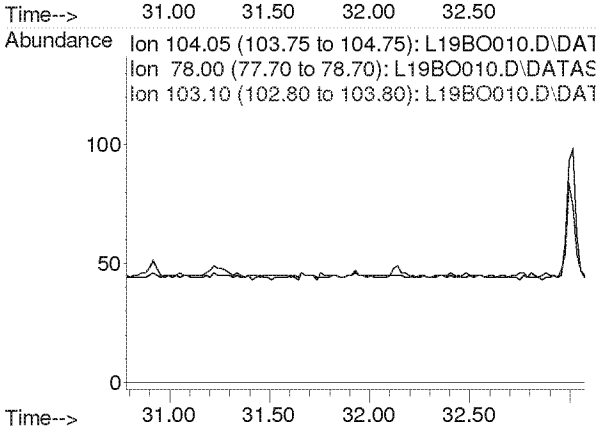


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

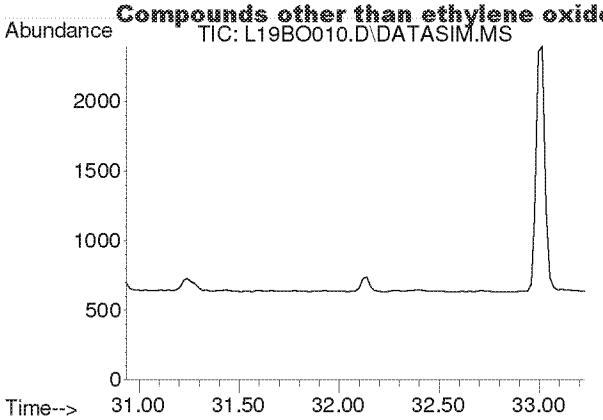
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

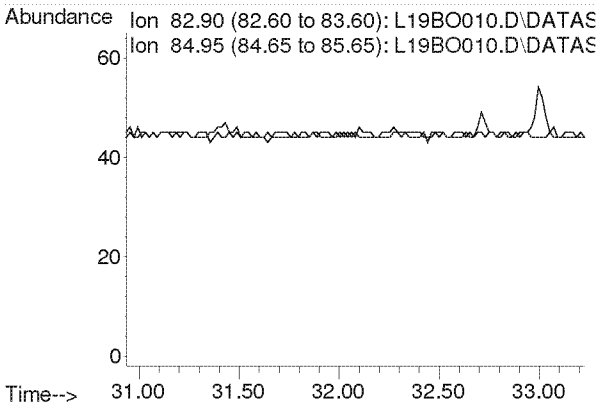


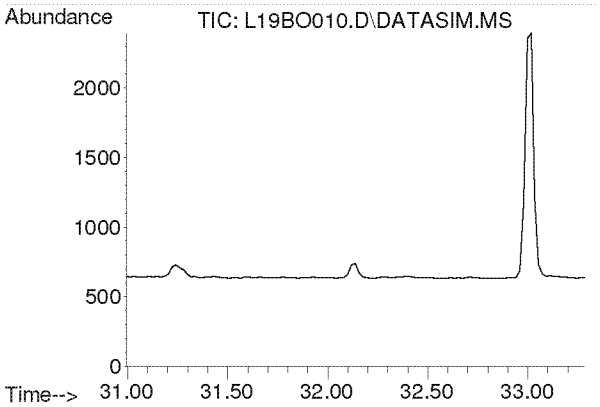
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



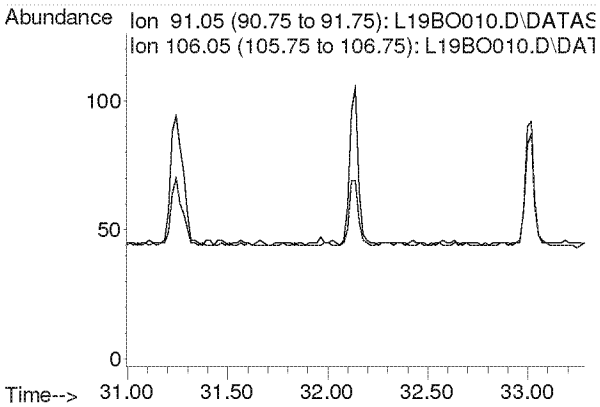


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

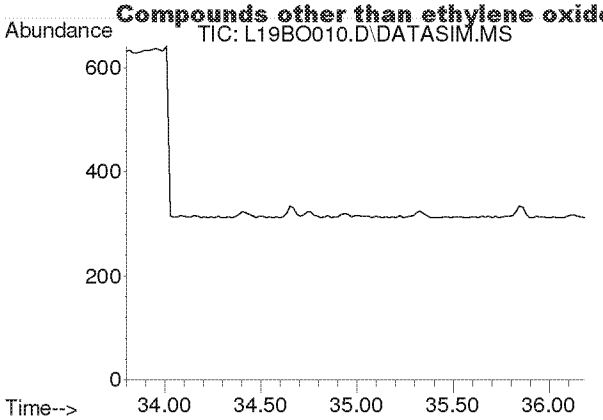
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

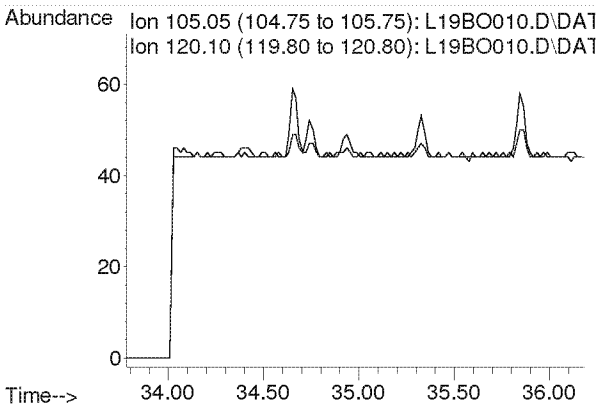


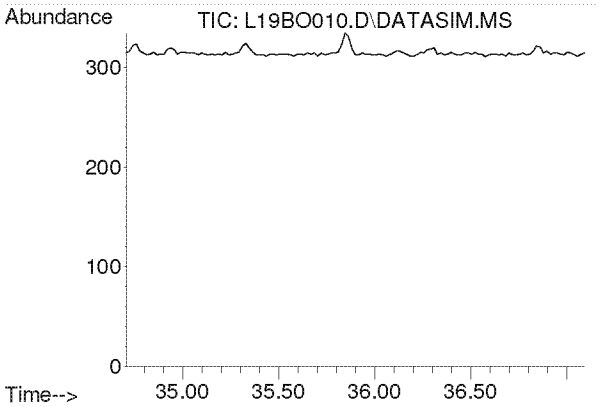
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



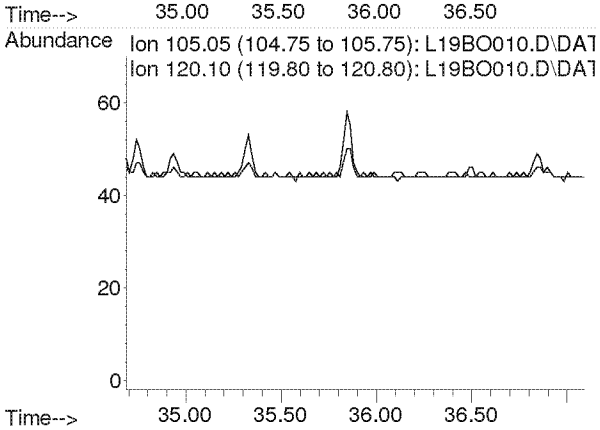


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

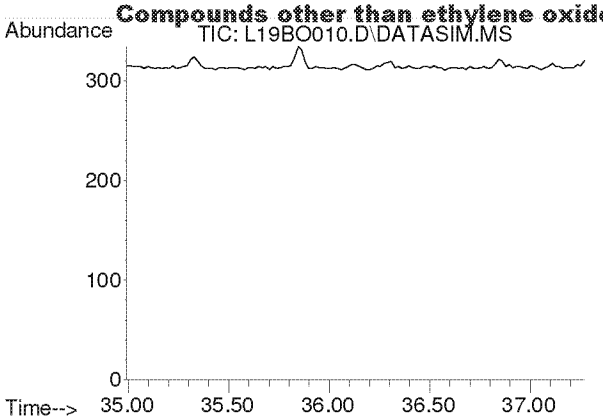
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

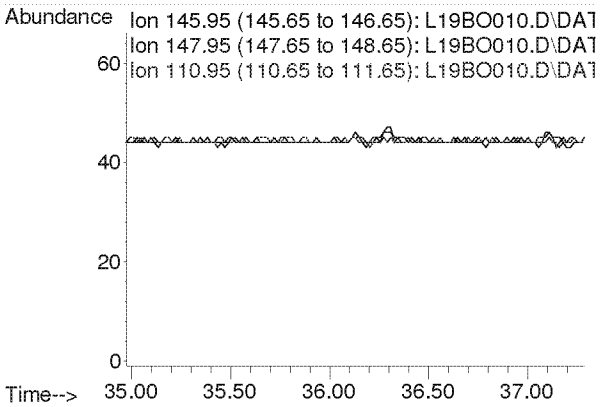


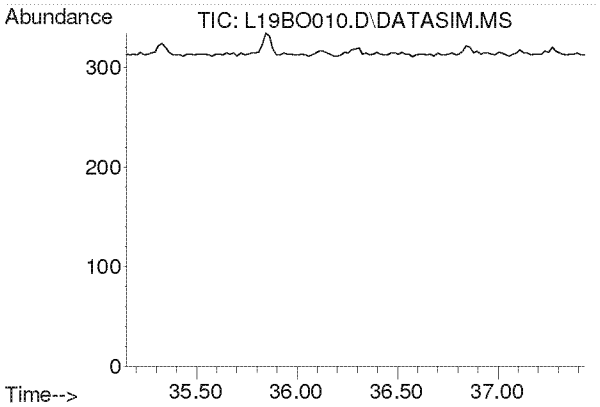
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



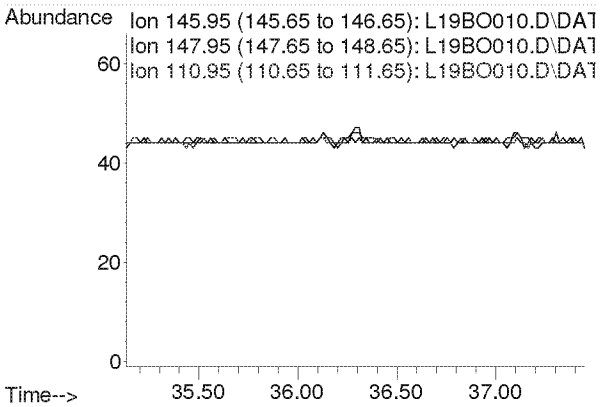


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

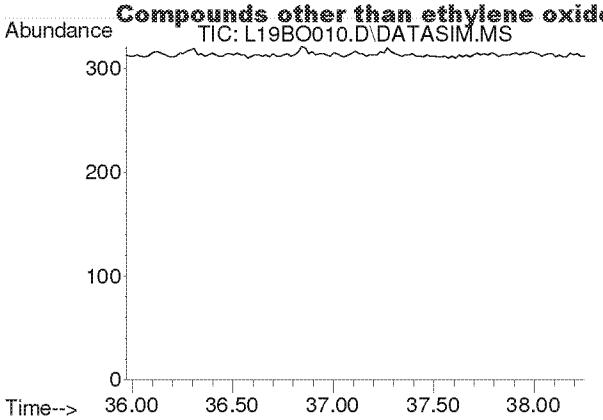
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

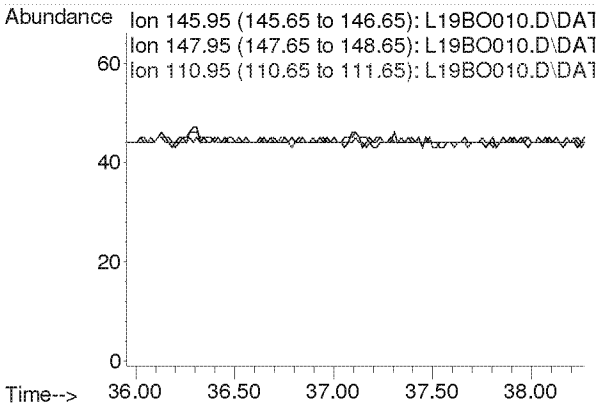


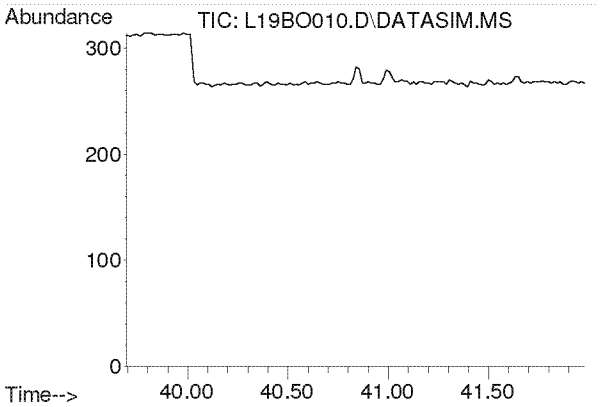
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



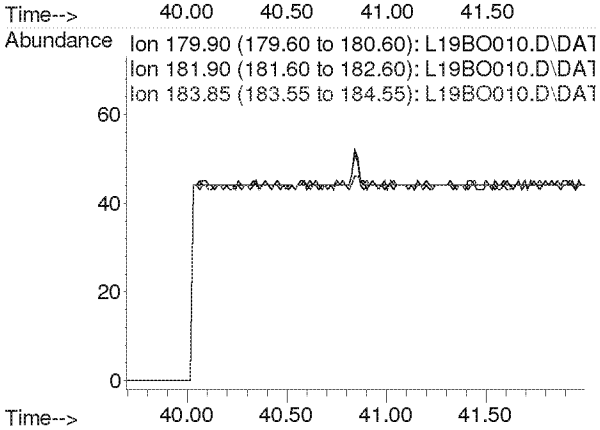


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

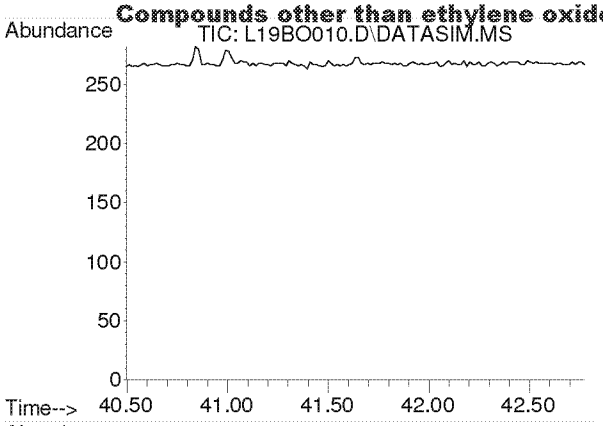
Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

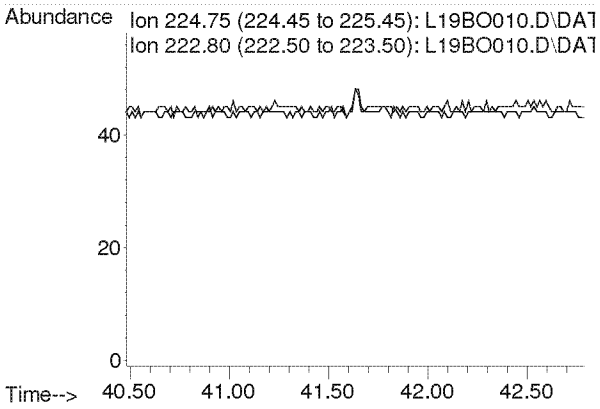


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO010.D
Acq: 15 Feb 2019 3:27 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO011.D
Acq On : 15 Feb 2019 4:29 pm (#1); 15-Feb-19, 16:24:27 (#2)
Operator : MAH
Sample : 9021313-03
Misc : WATER TOWER 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 15:06:39 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

d-AR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	40857	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	100244	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	71179	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	12.453	29	301m 2-20-19	0.1288 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO011.D
Acq On : 15 Feb 2019 4:29 pm (#1); 15-Feb-19, 16:24:27 (#2)
Operator : MAH
Sample : 9021313-03
Misc : WATER TOWER 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 15:06:39 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)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D. d	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

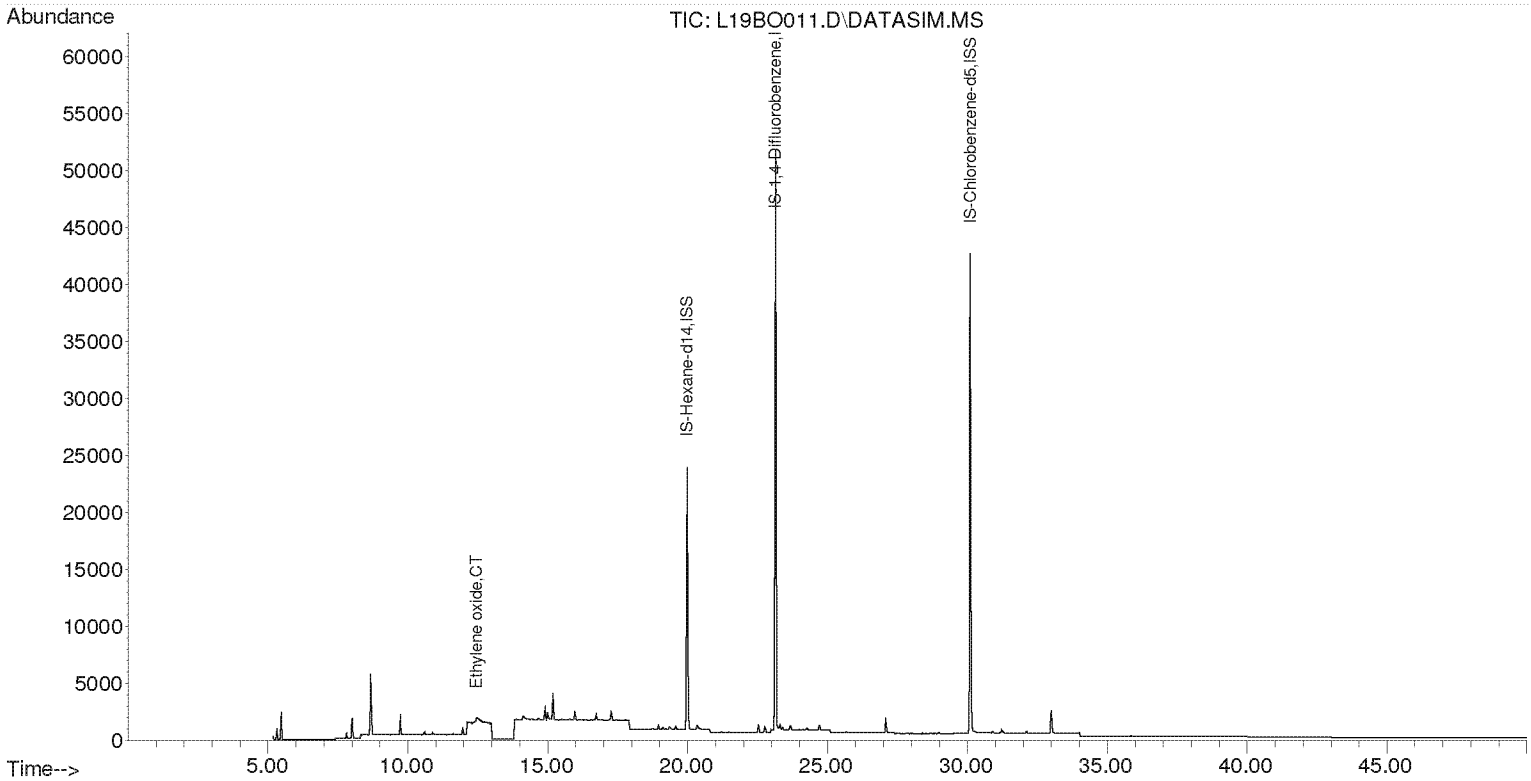
(#) = qualifier out of range (m) = manual integration (+) = signals summed

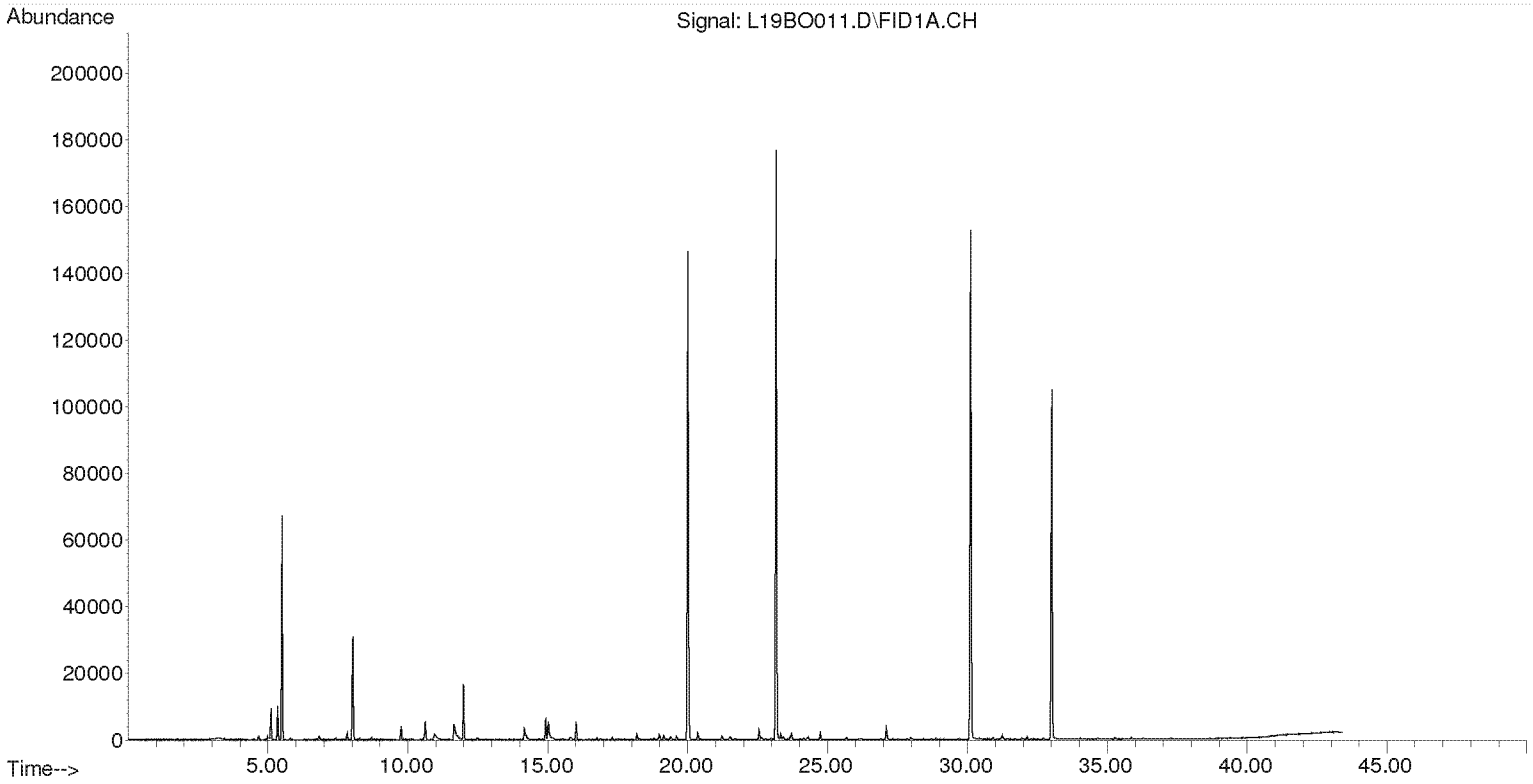
ED_002475_00000013-00147

Compounds other than ethylene oxide were not quantitated.

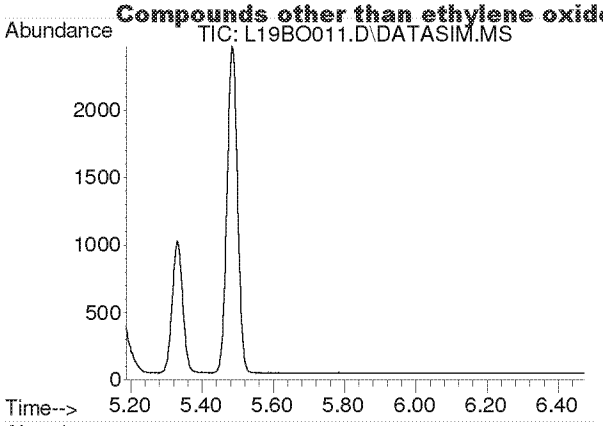
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO011.D
Acq On : 15 Feb 2019 4:29 pm (#1); 15 Feb 2019 4:24 pm (#2)
Operator : MAH
Sample : 9021313-03
Misc : WATER TOWER 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 14:46:11 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





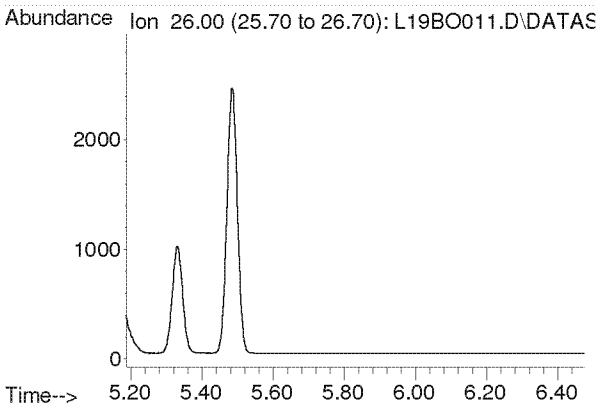
Compounds other than ethylene oxide were not quantitated.

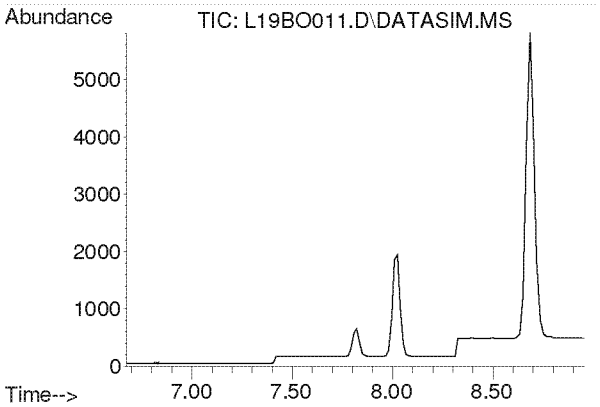


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 26



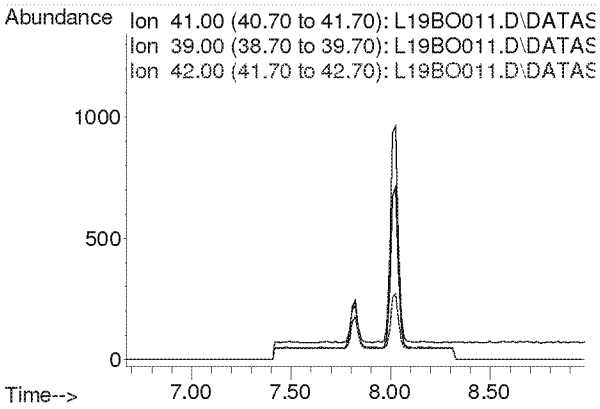


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

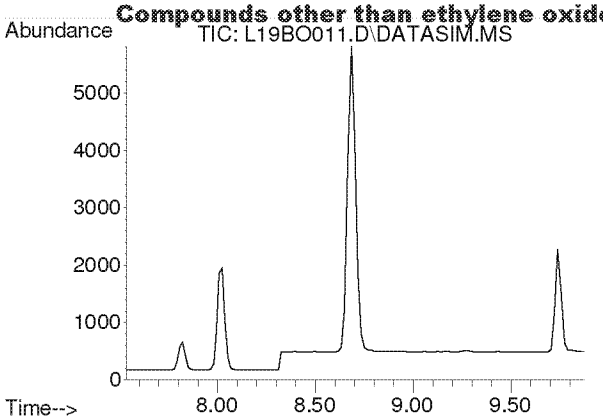
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

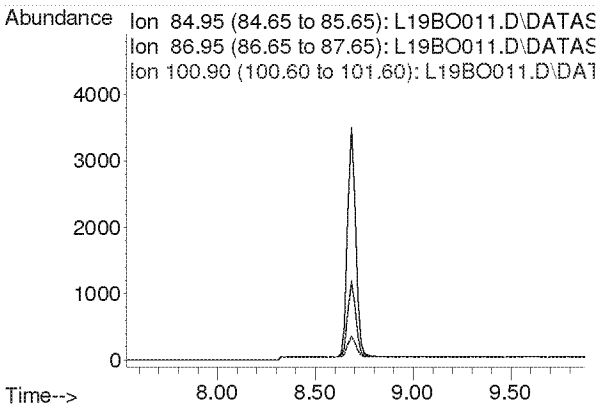


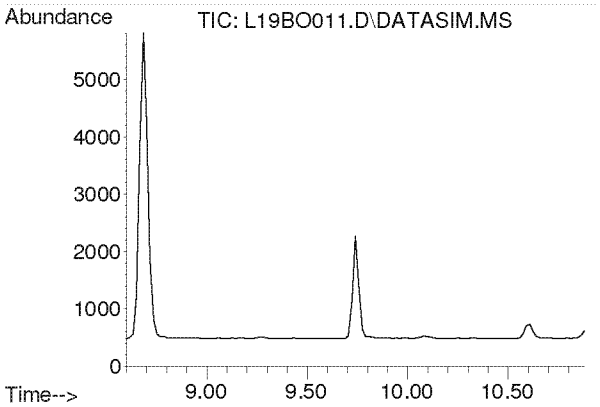
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



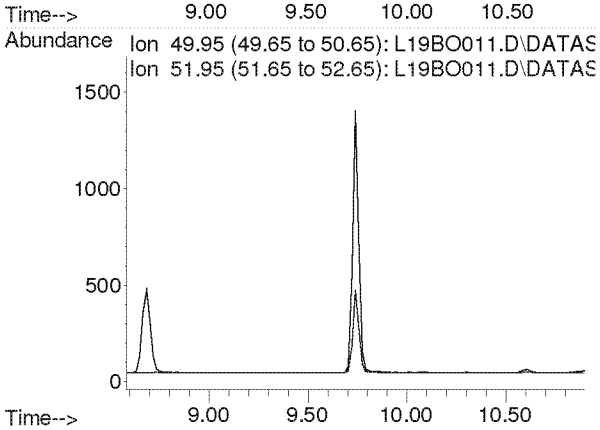


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

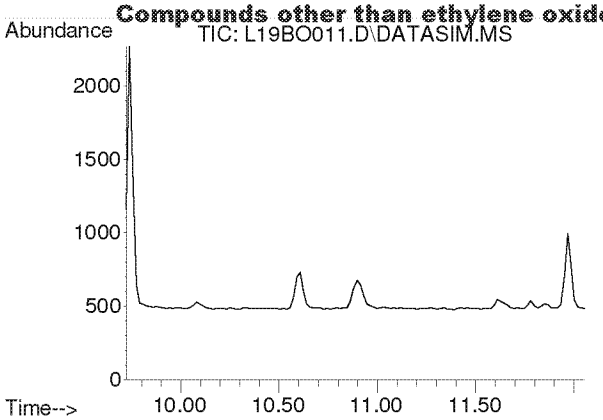
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

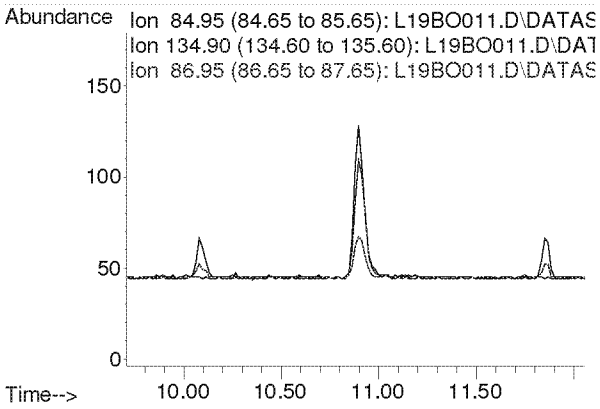


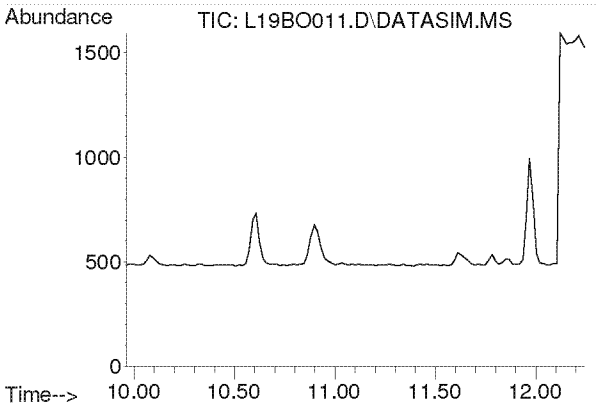
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



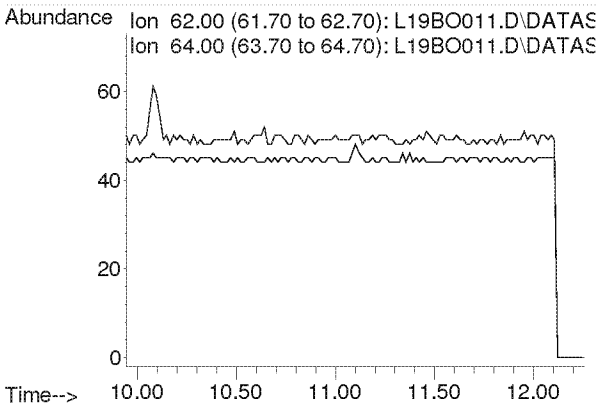


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

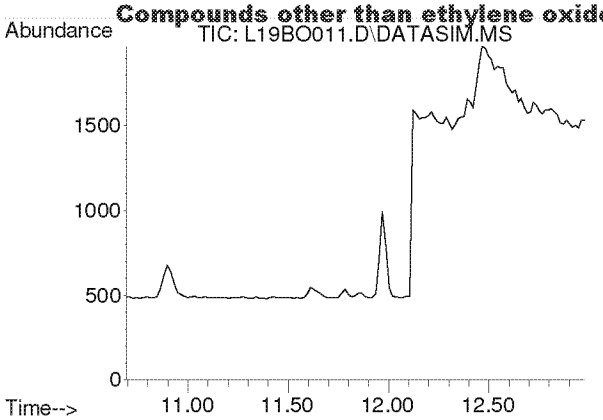
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

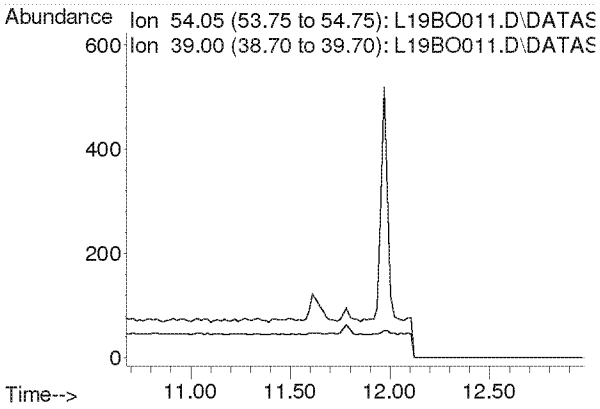


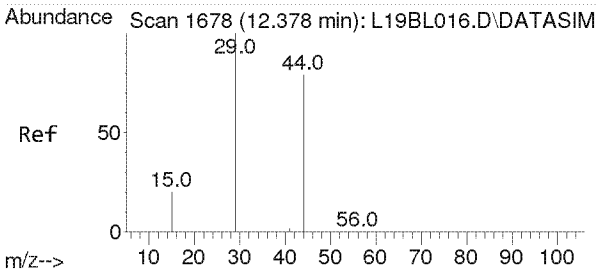
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

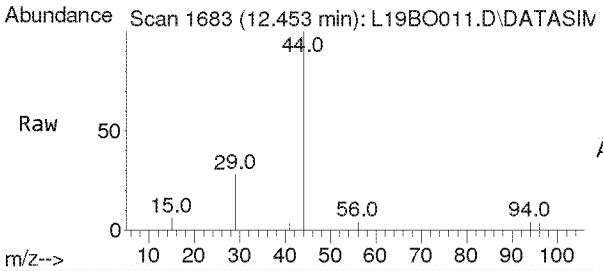


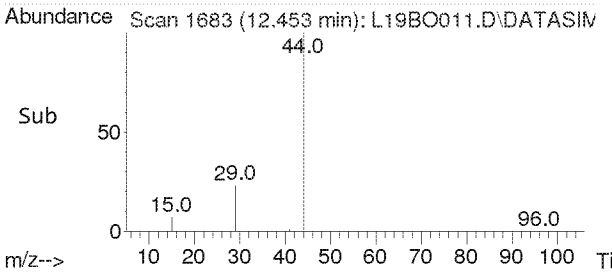


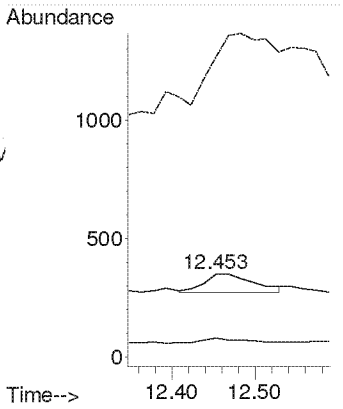
#9
Ethylene oxide
Concen: 0.129 ppbv m
RT: 12.453 min Scan# 1683
Delta R.T. 0.075 min
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 29 Resp: 301

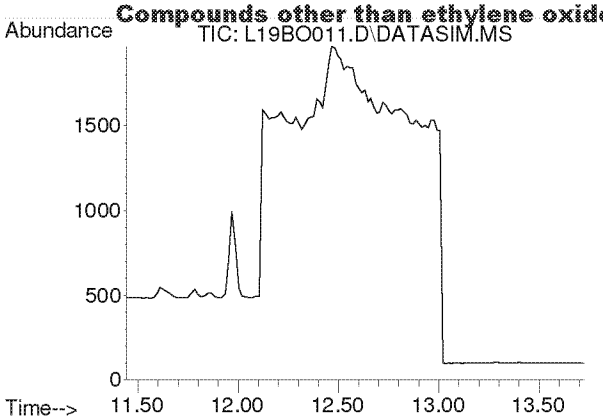
Ion	Ratio	Lower	Upper
29	100		
15	28.9	16.0	24.0#
44	1180.1	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

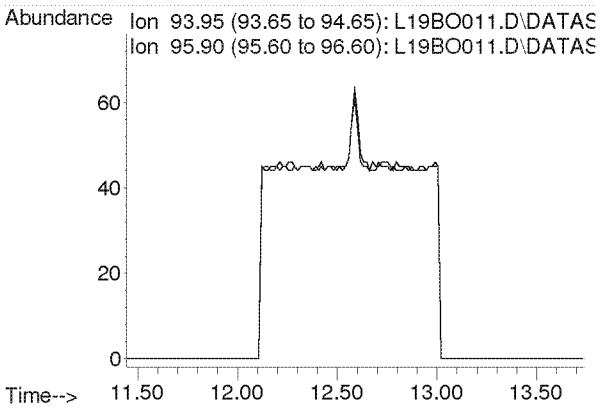


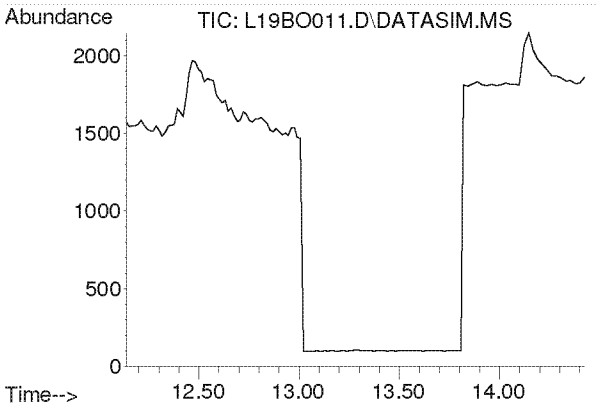
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



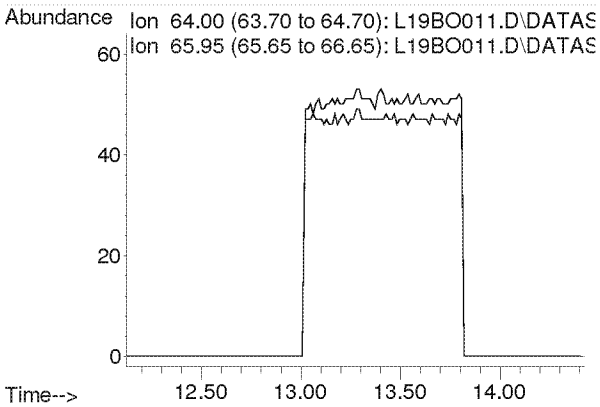


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

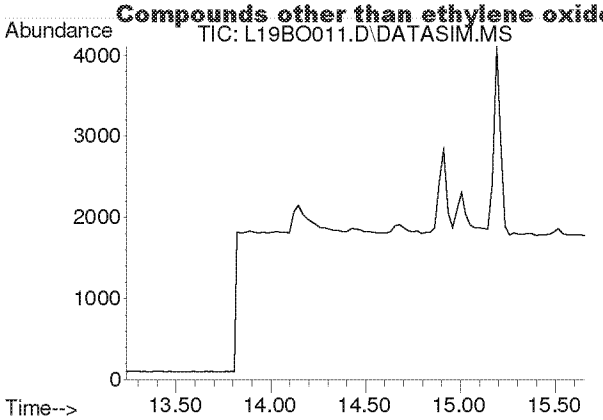
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

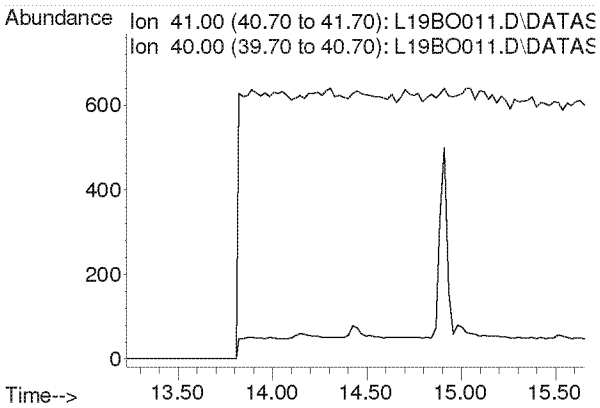


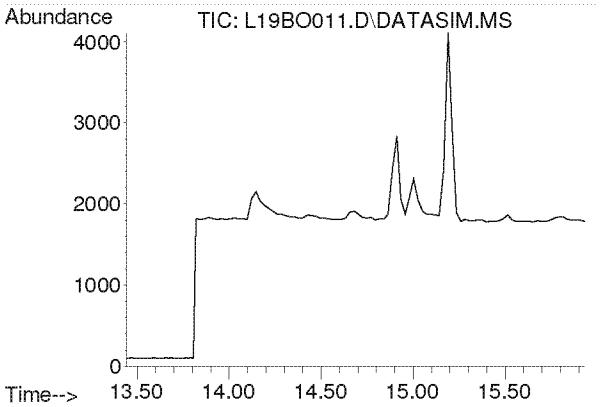
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



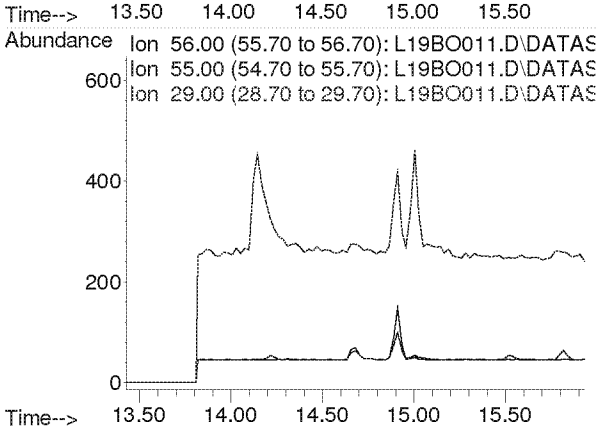


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

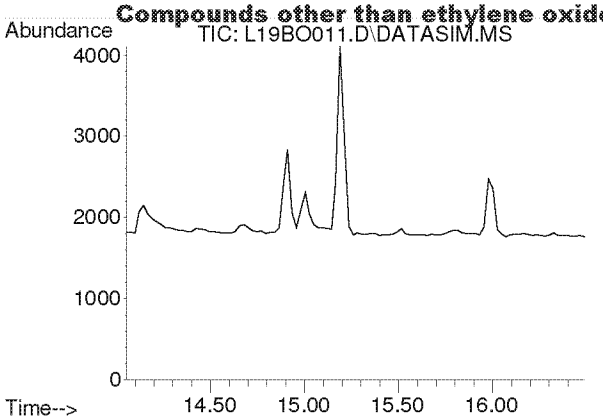
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

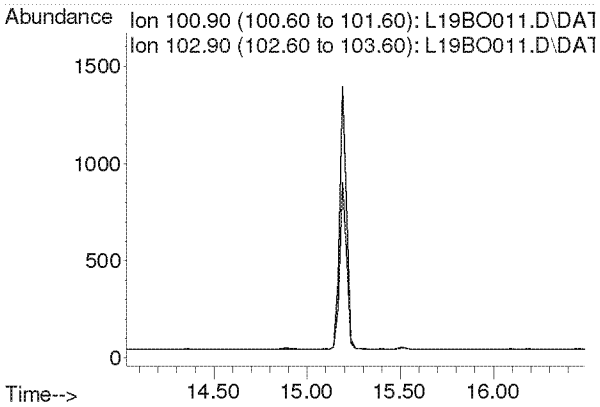


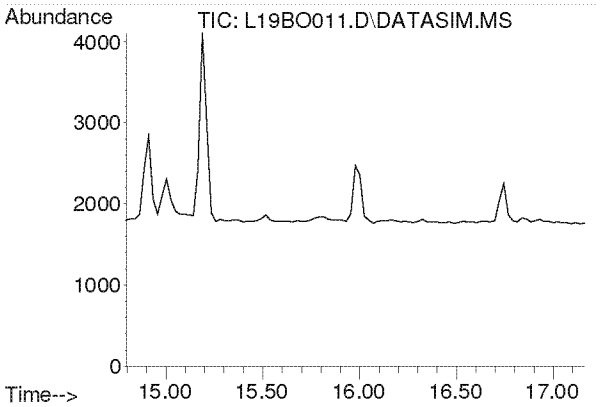
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



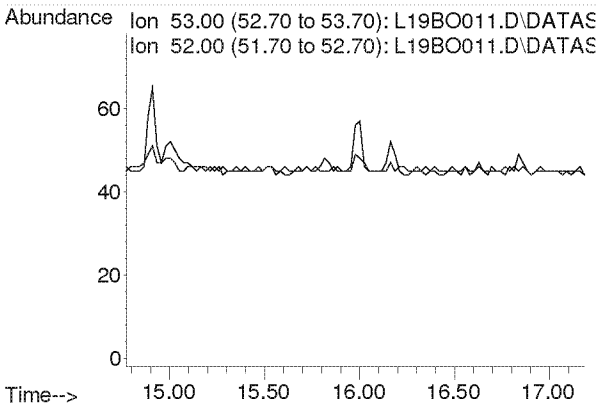


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

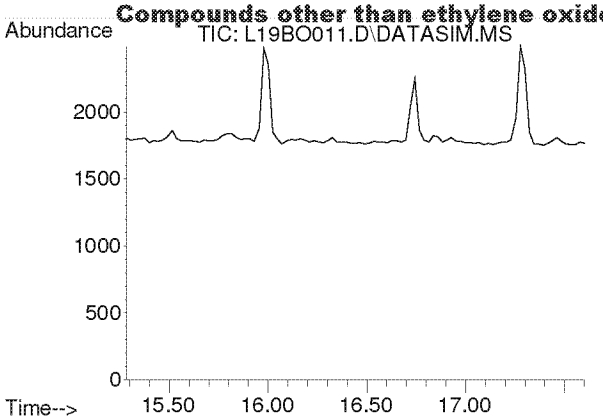
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

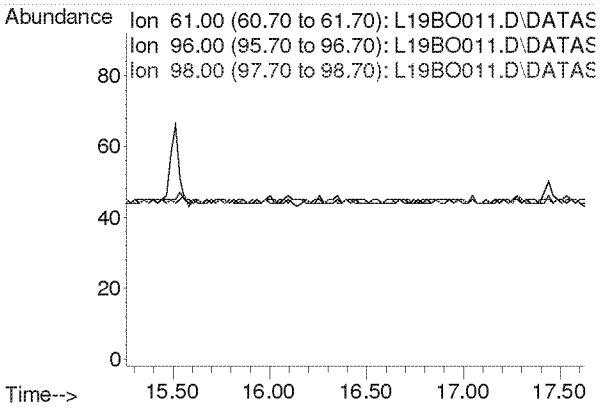


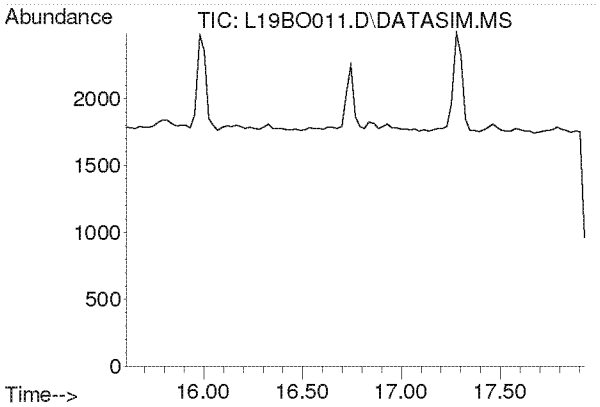
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



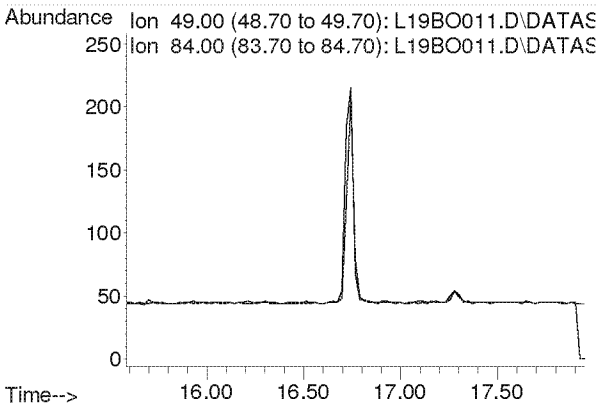


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

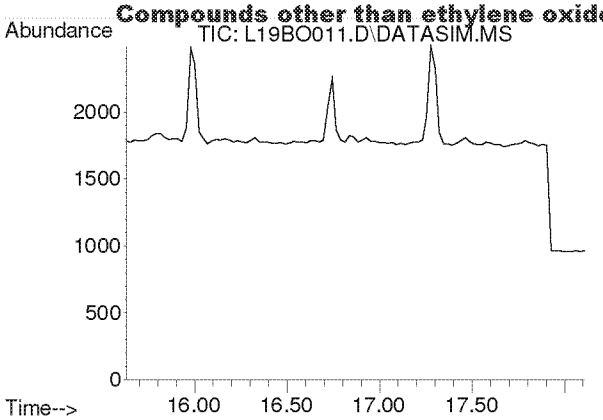
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

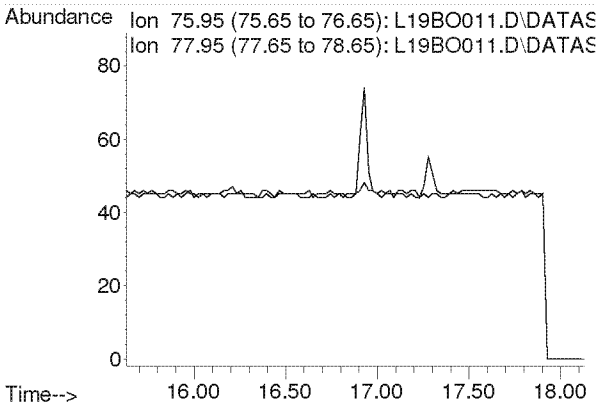


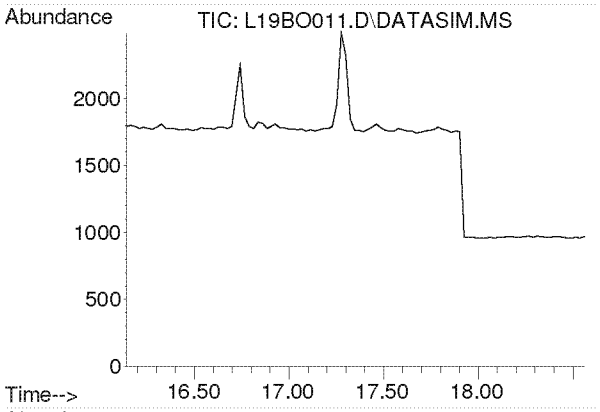
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



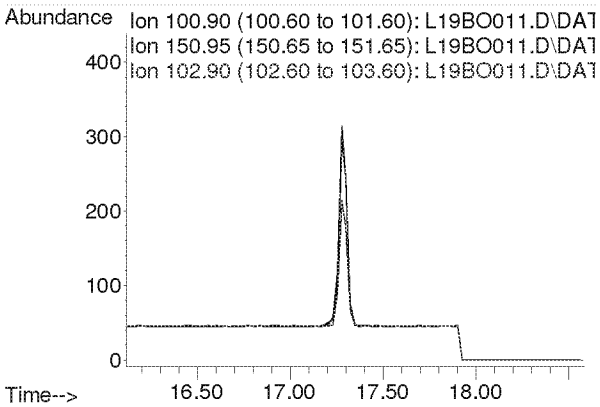


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

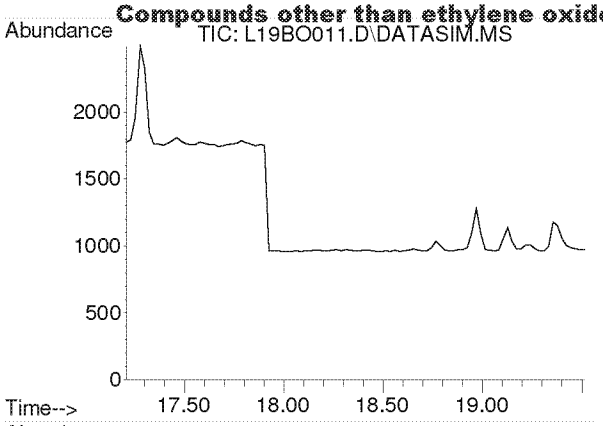
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

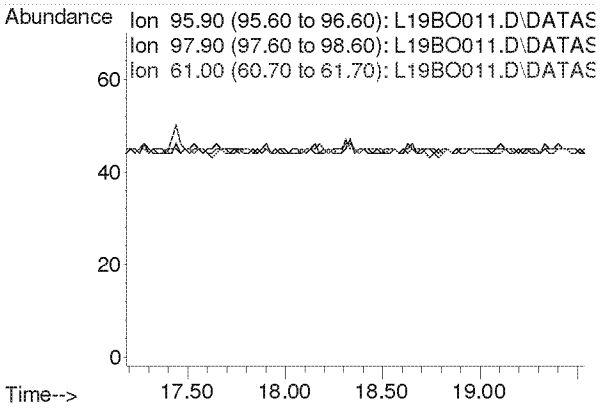


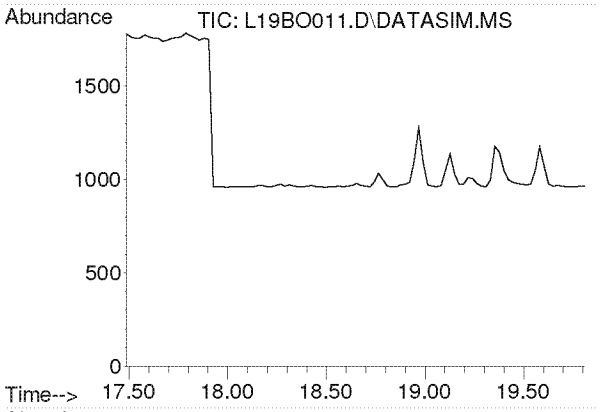
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



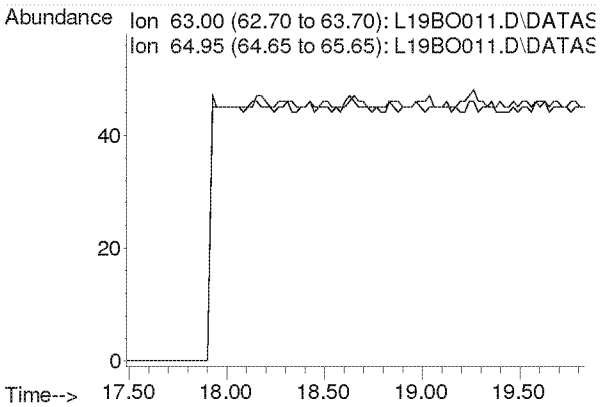


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

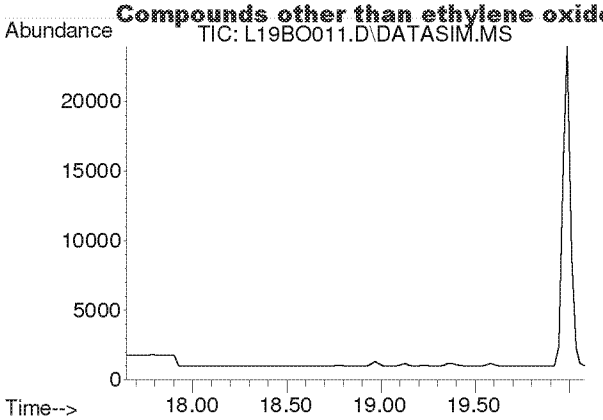
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

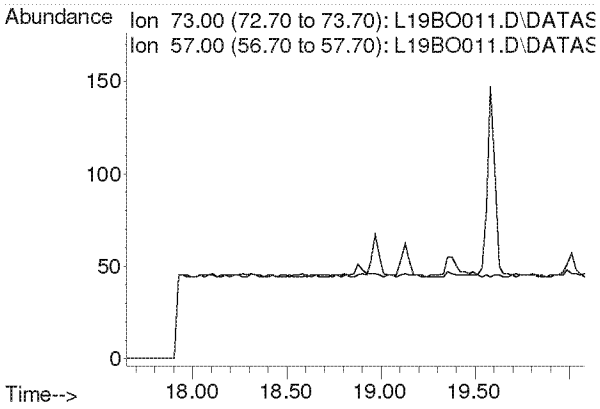


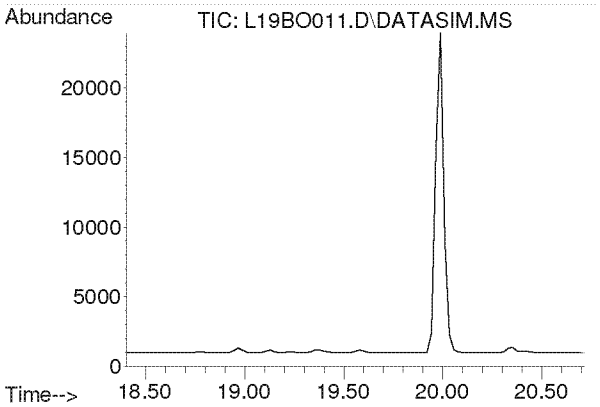
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



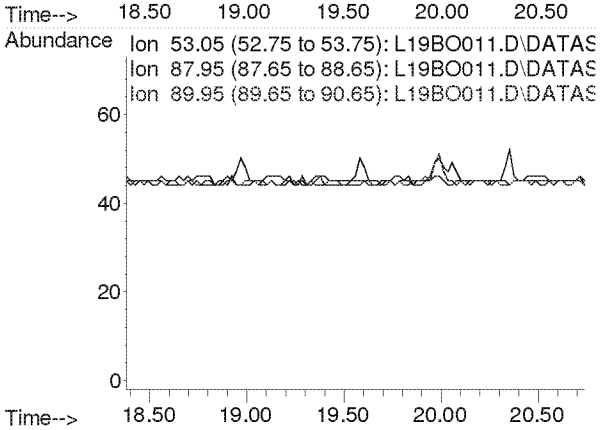


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

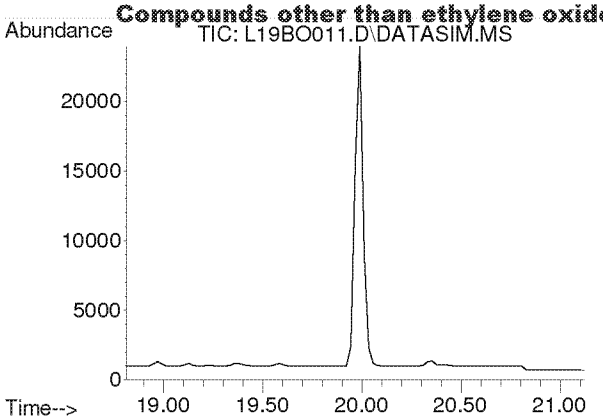
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

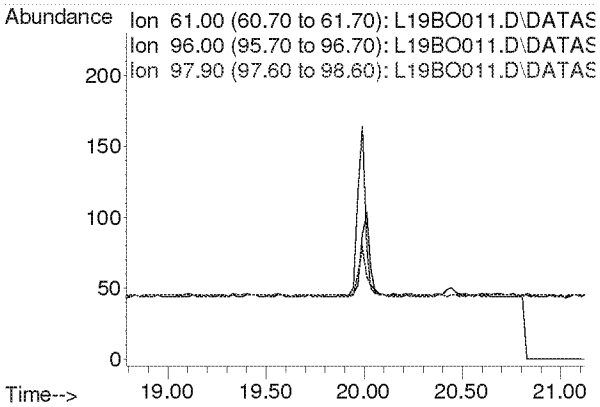


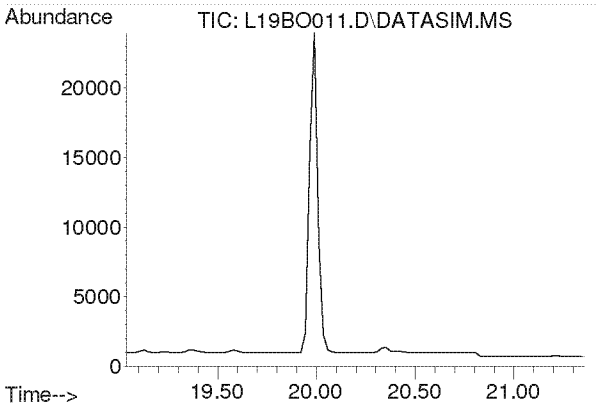
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



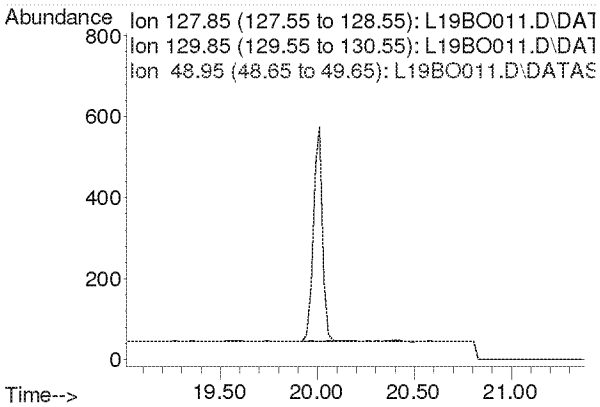


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

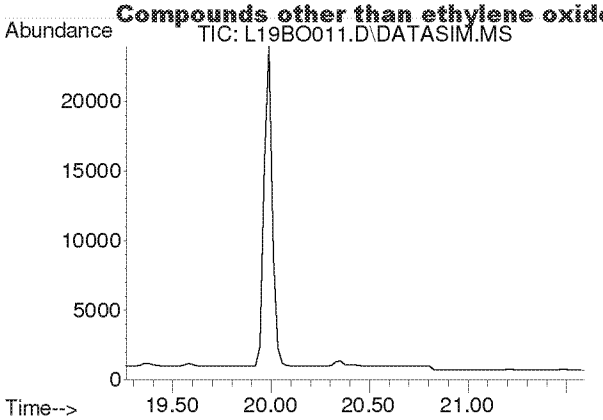
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

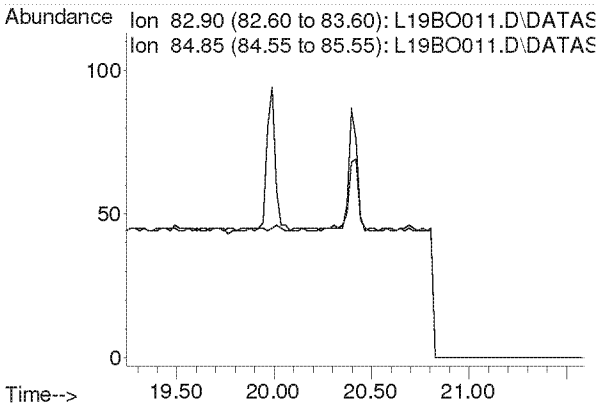


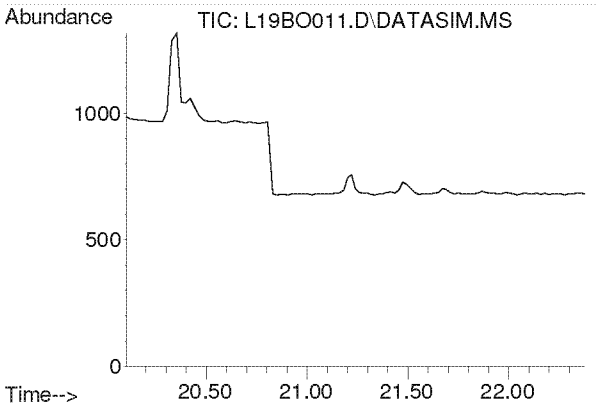
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



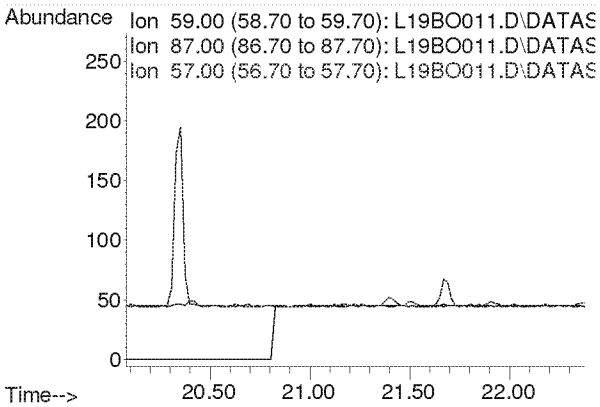


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

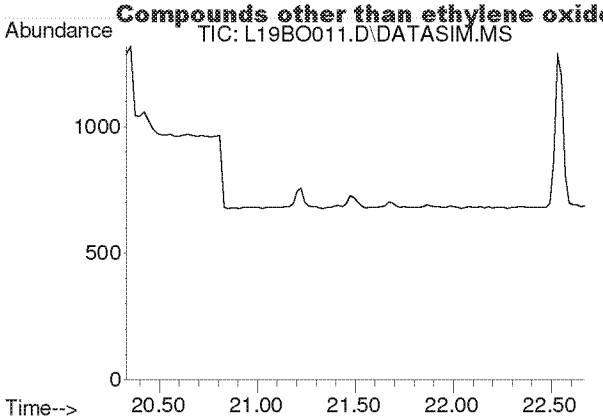
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

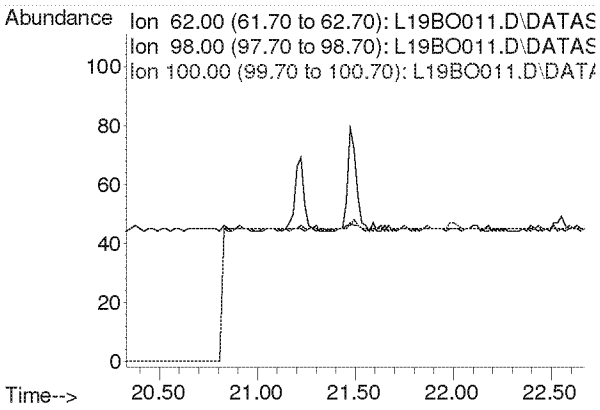


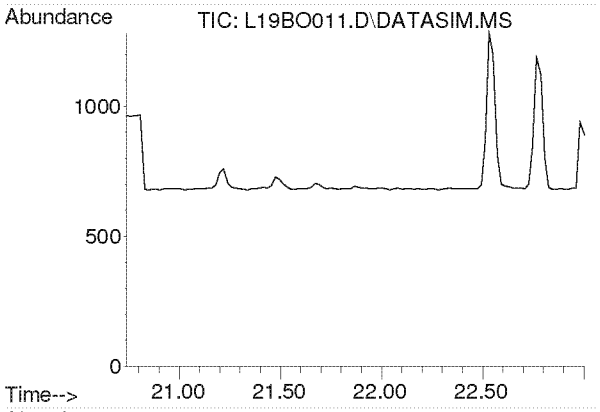
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



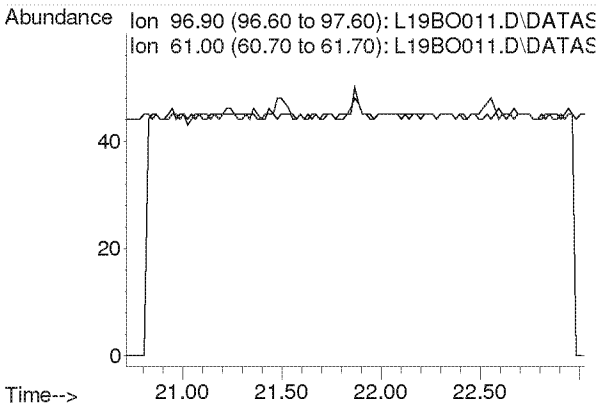


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

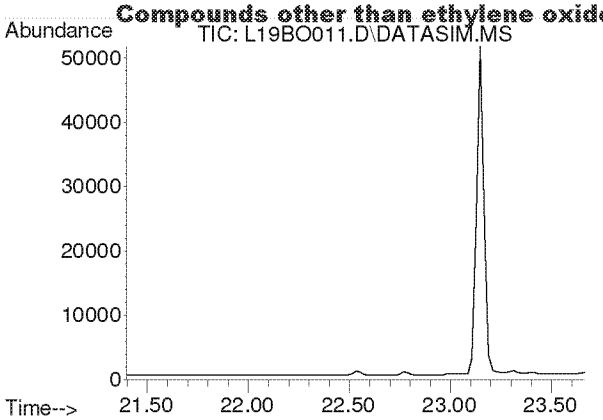
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

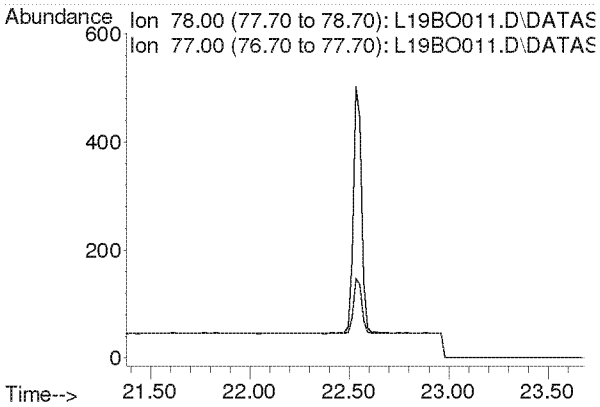


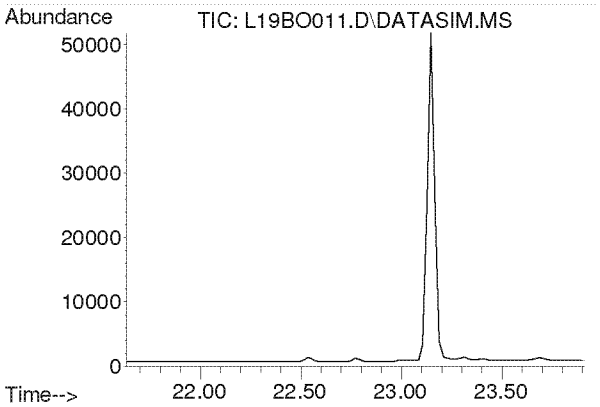
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



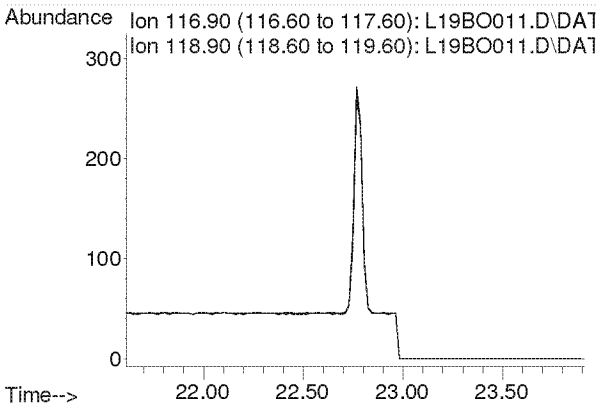


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

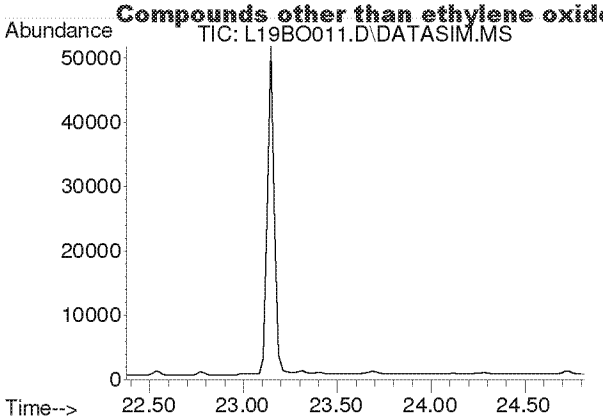
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

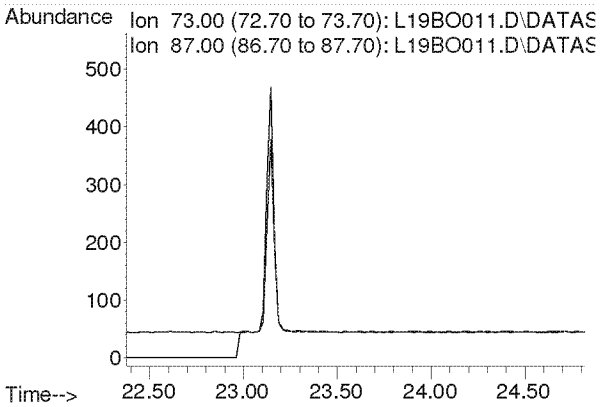


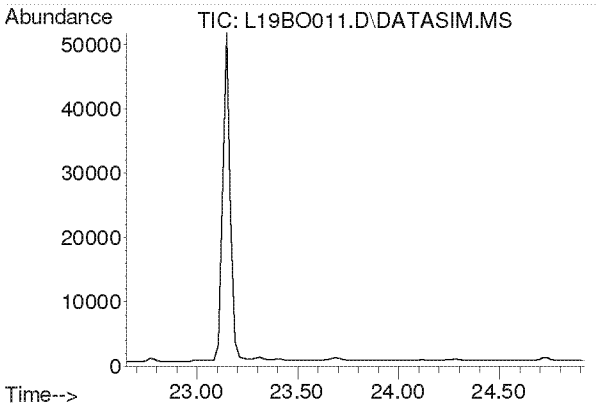
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



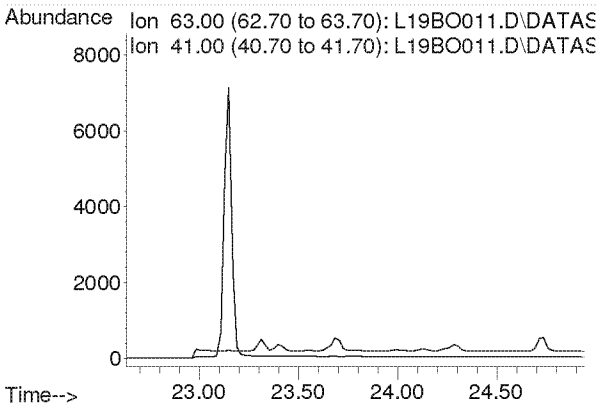


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

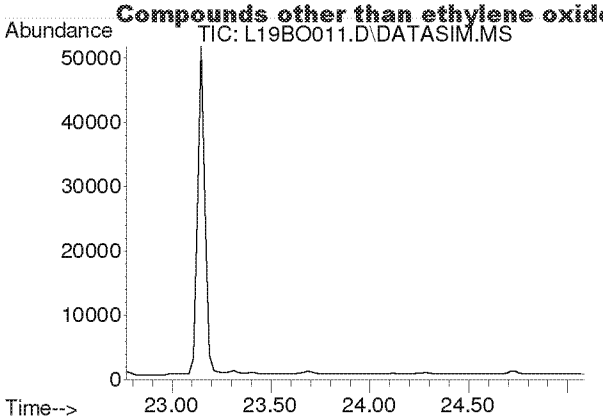
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

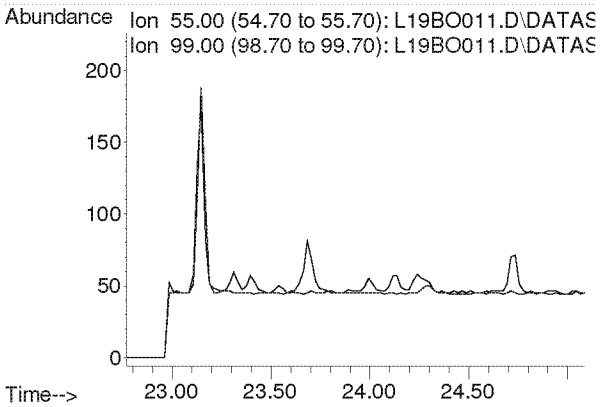


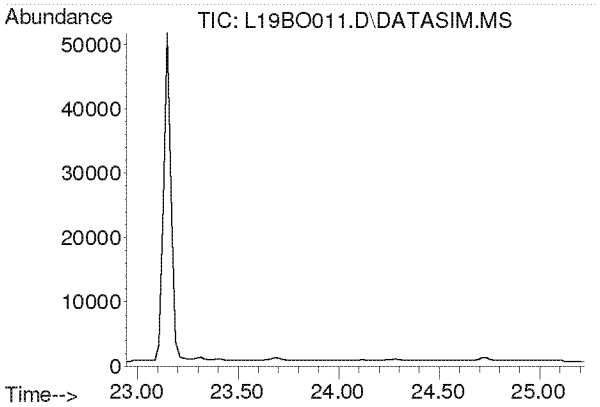
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



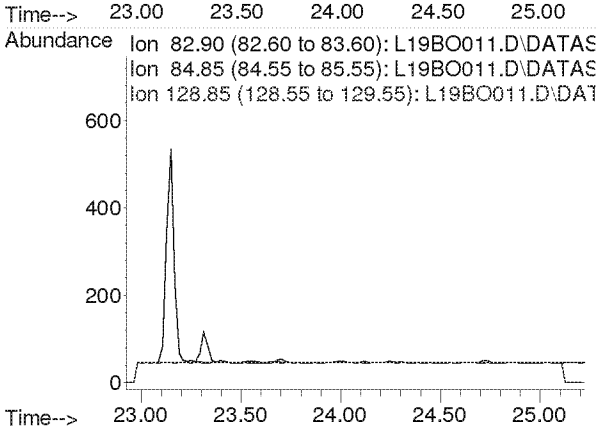


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

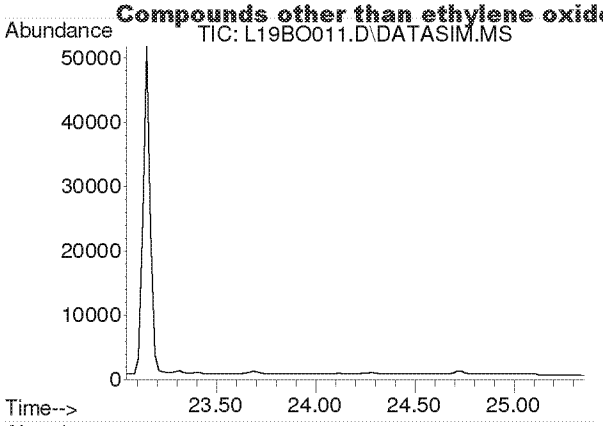
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

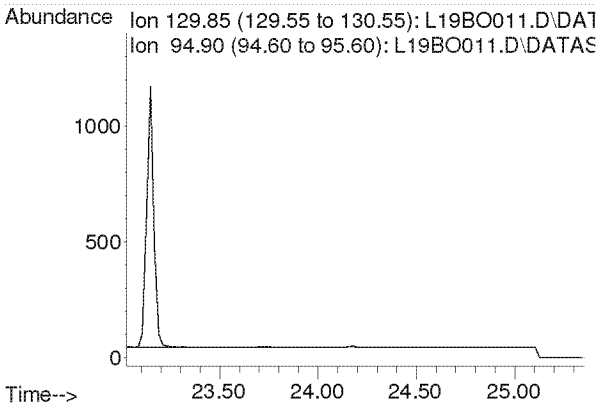


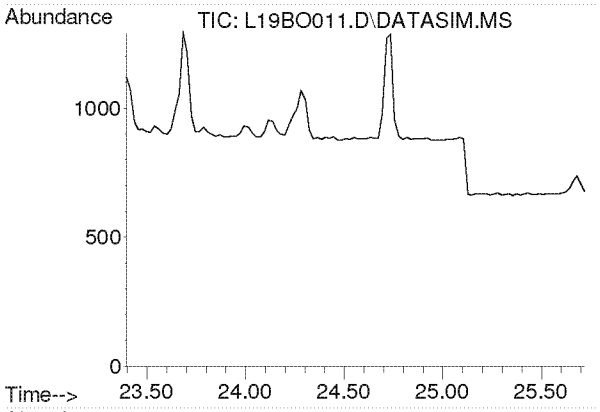
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



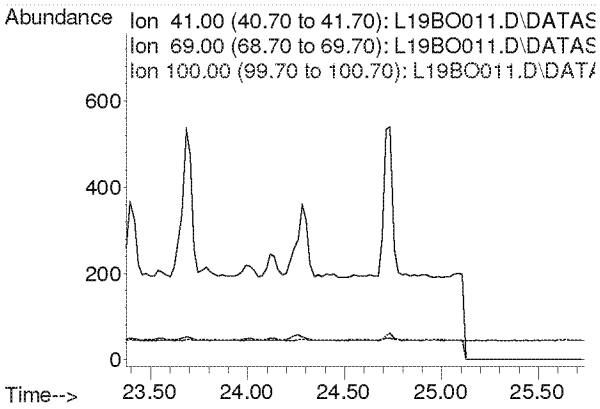


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

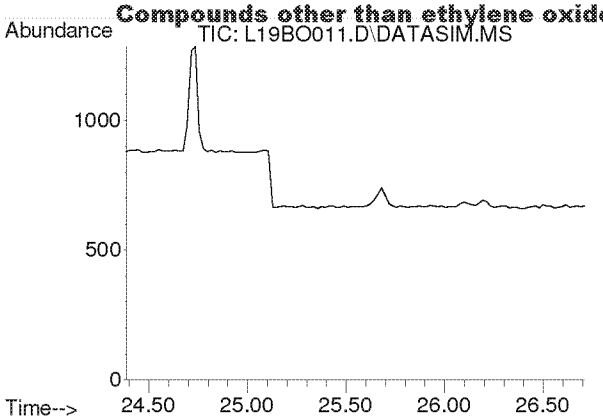
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

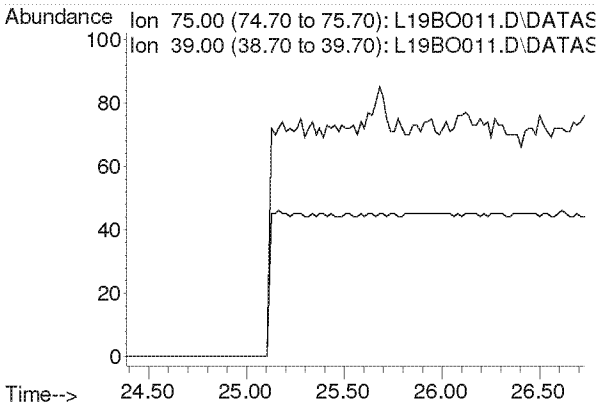


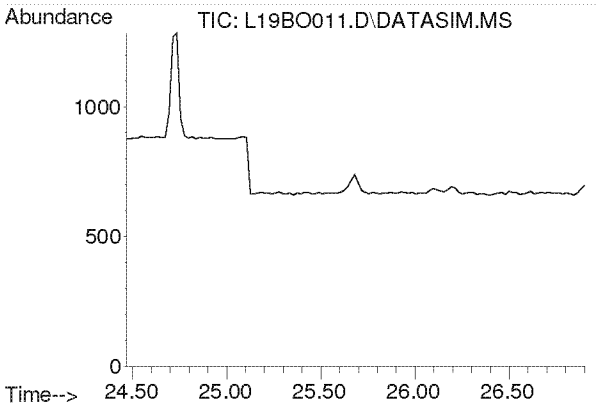
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



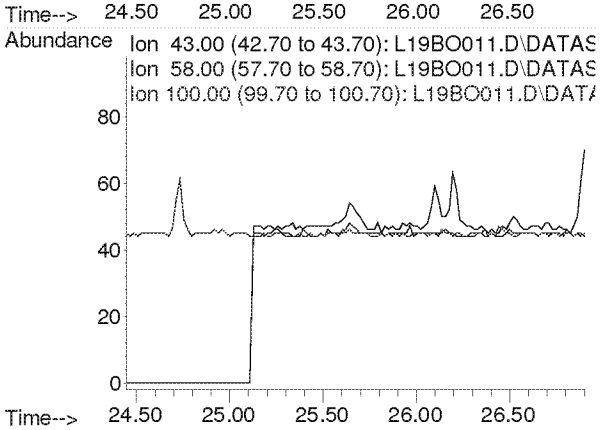


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

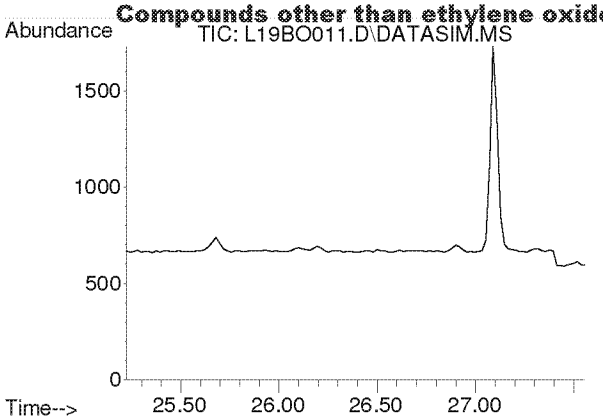
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

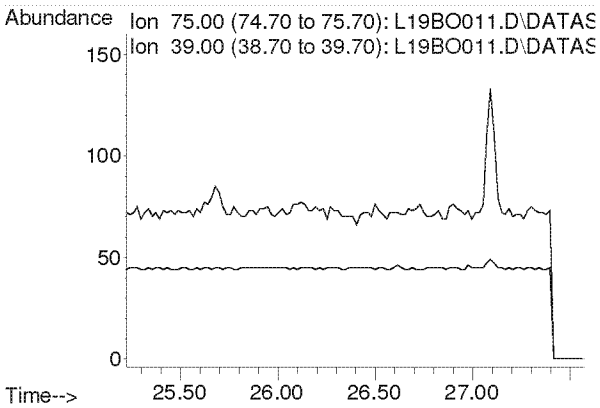


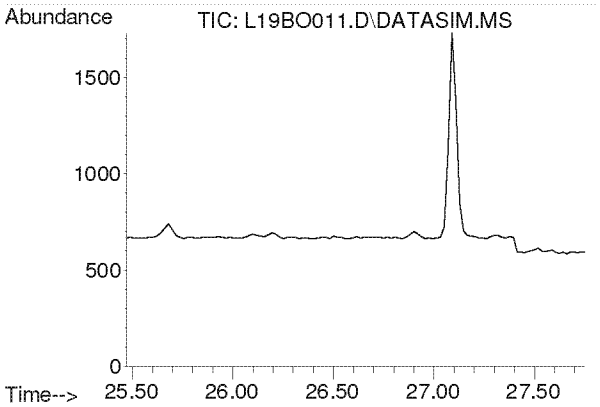
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



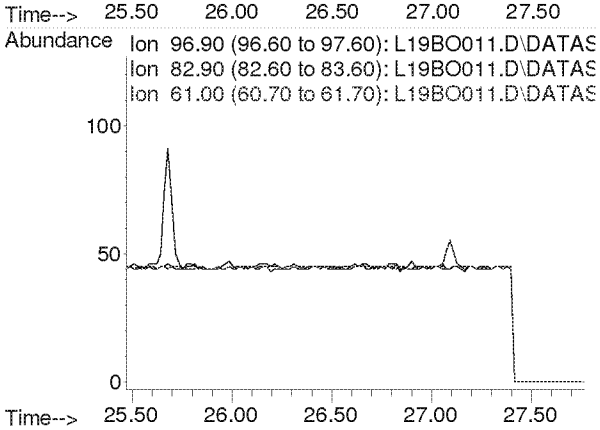


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

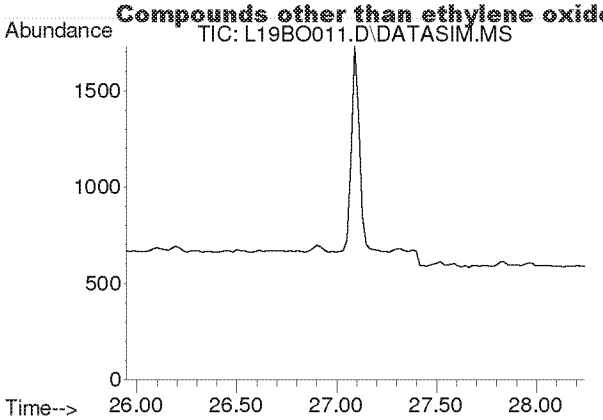
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

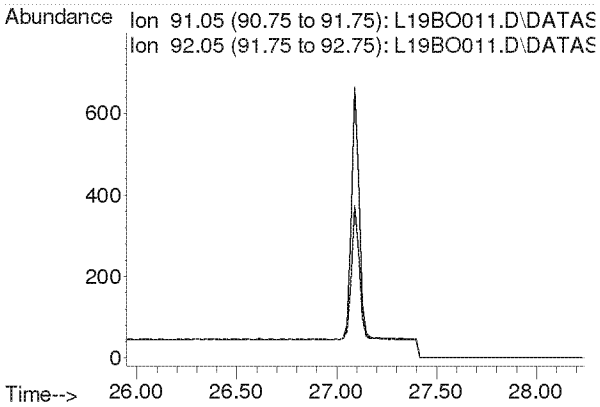


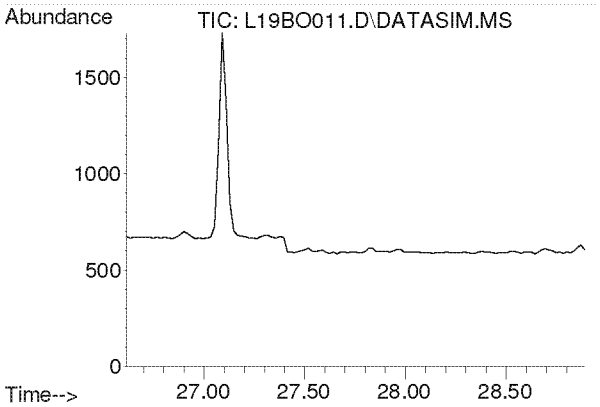
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



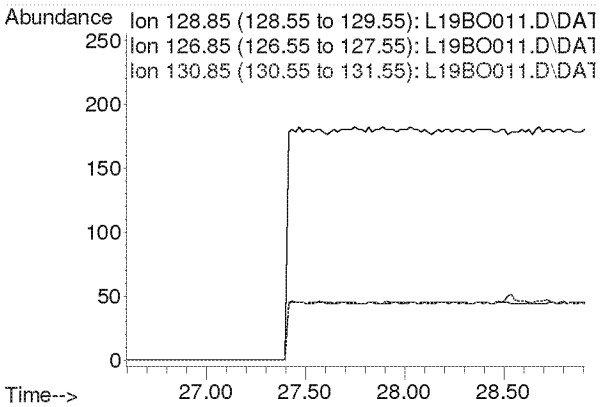


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

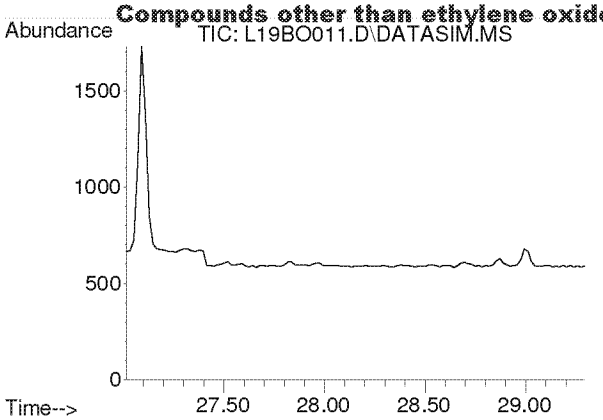
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

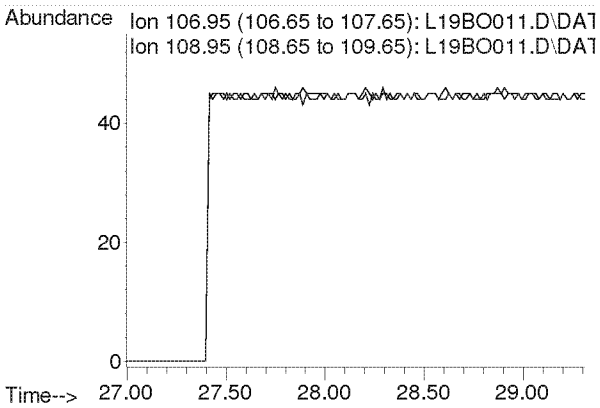


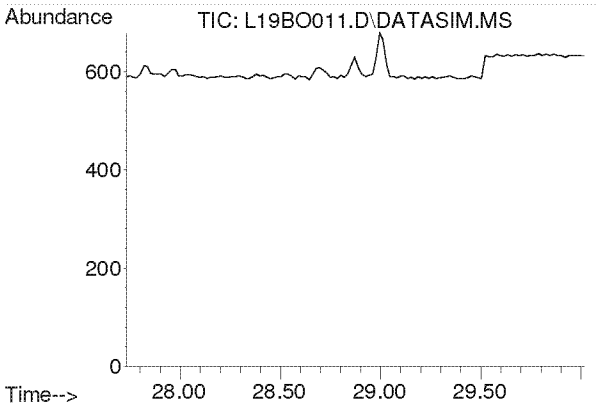
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



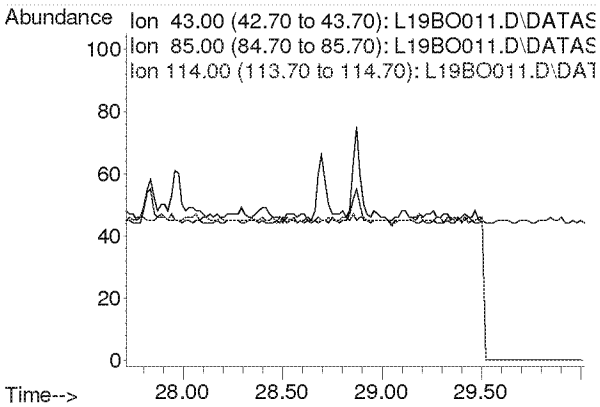


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

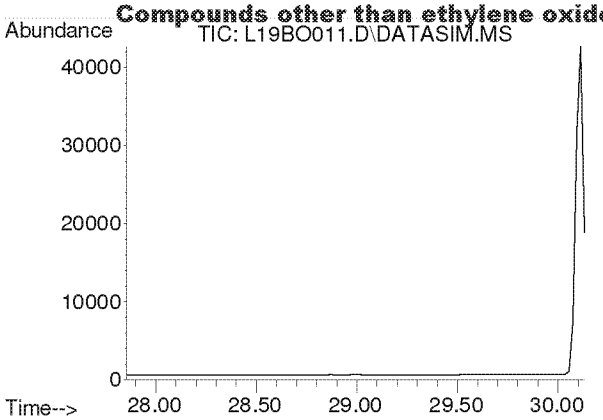
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

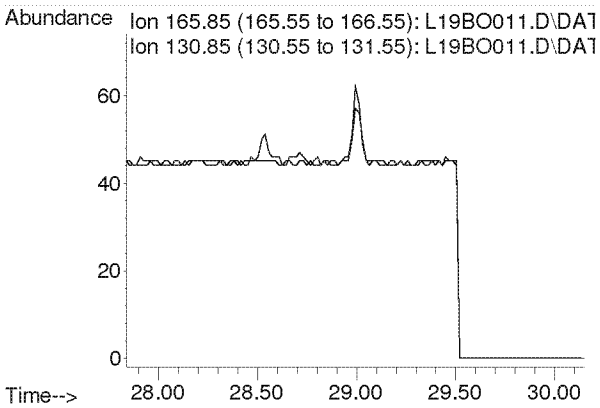


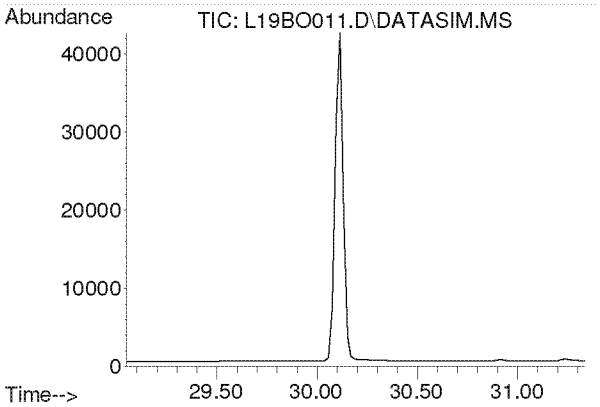
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



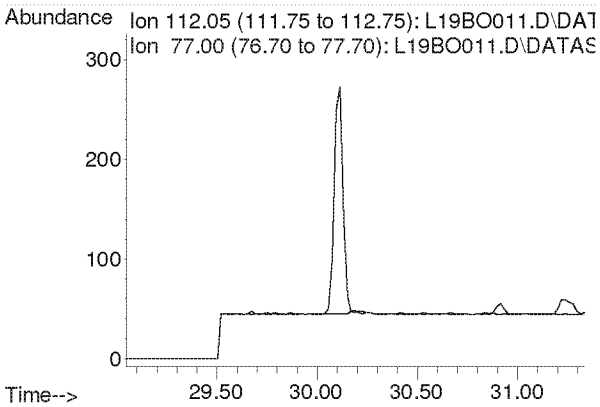


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

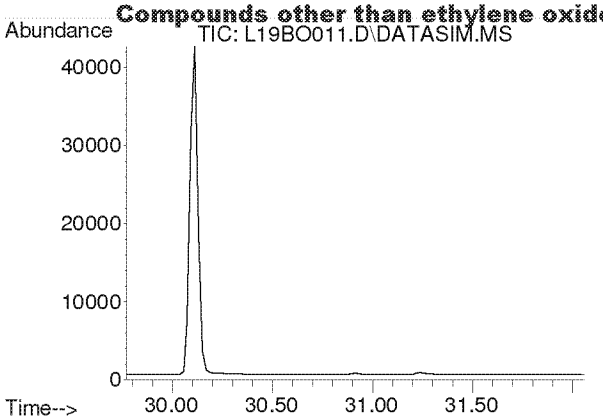
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

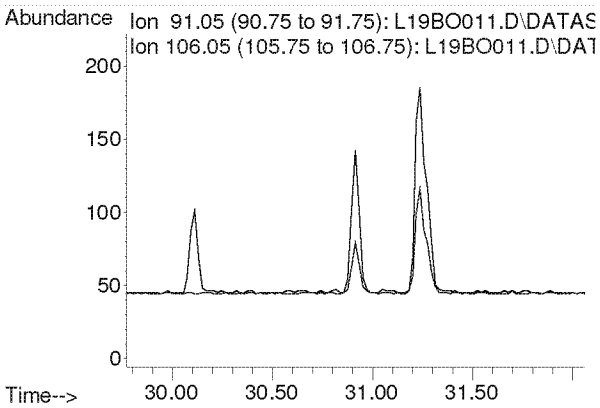


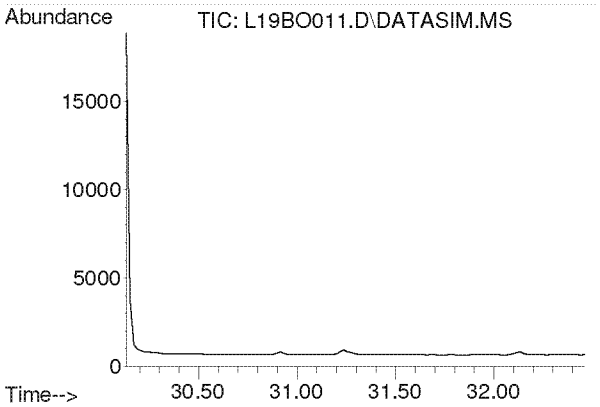
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



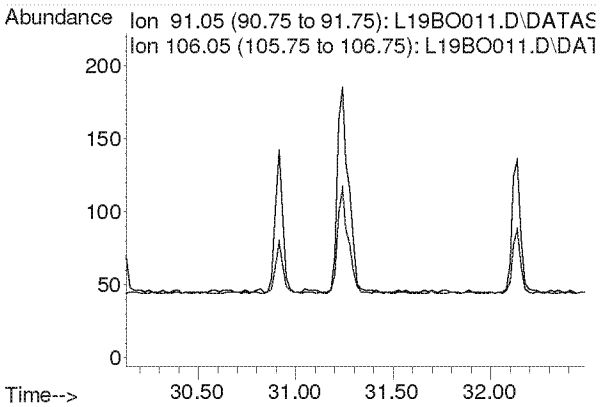


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

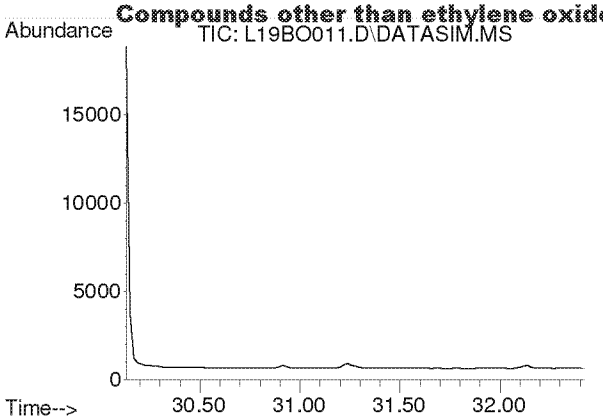
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

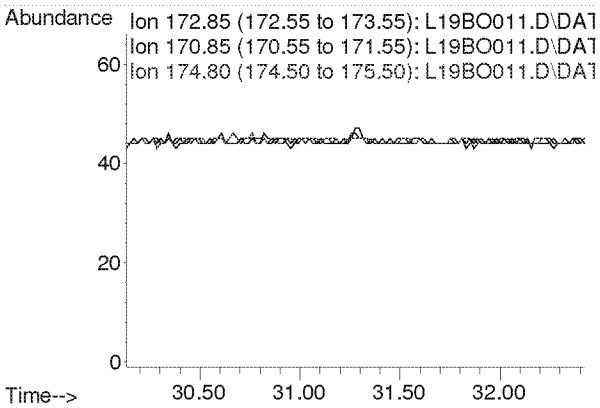


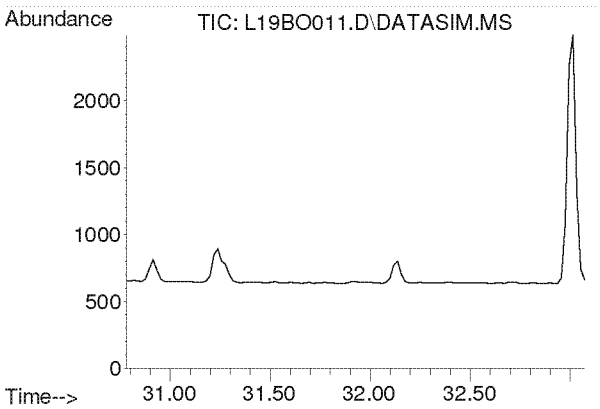
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



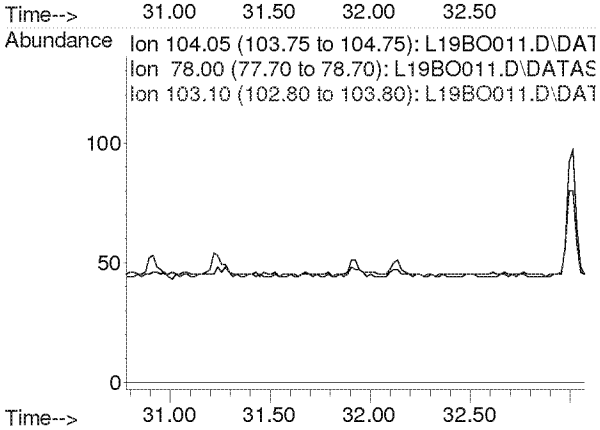


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

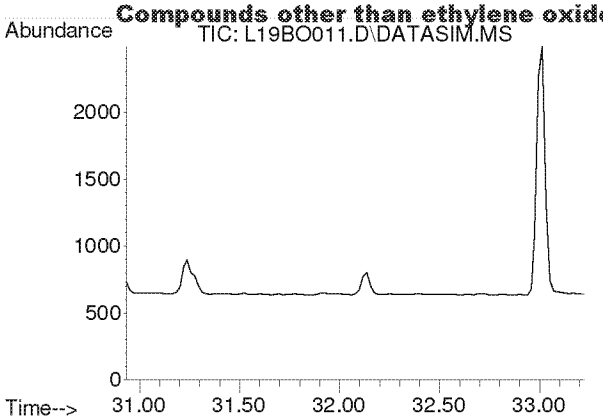
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

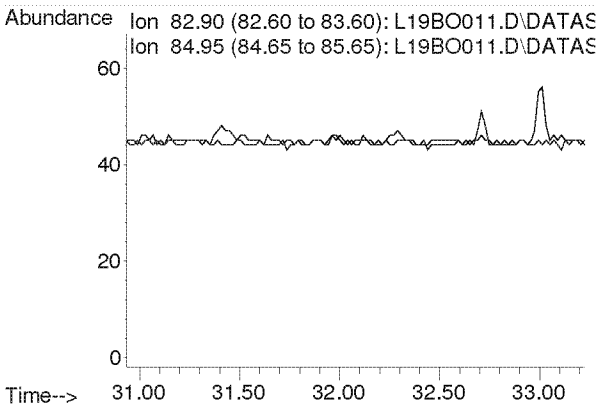


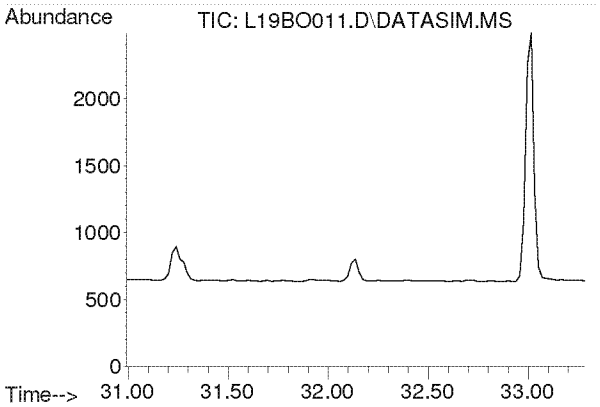
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



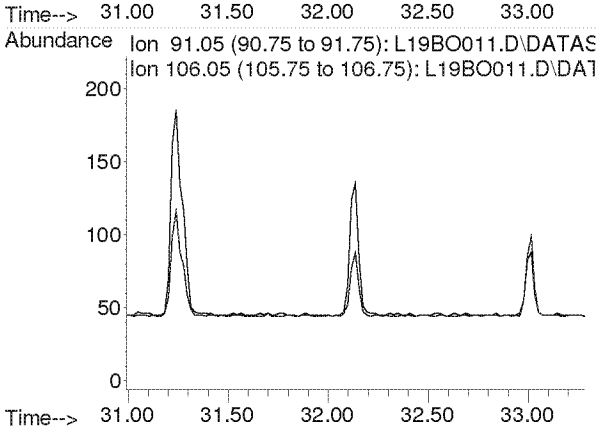


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

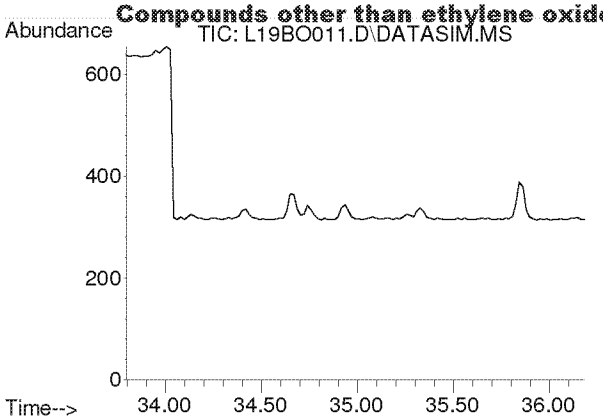
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

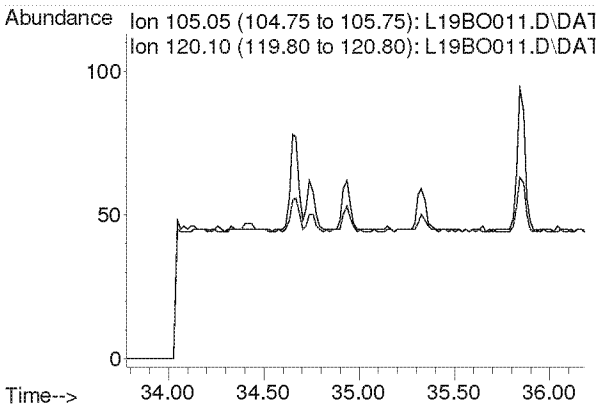


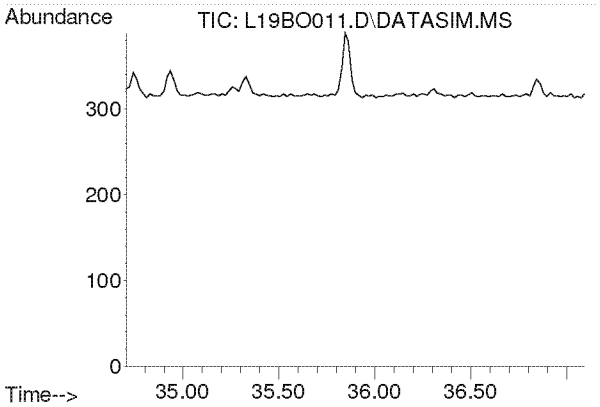
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



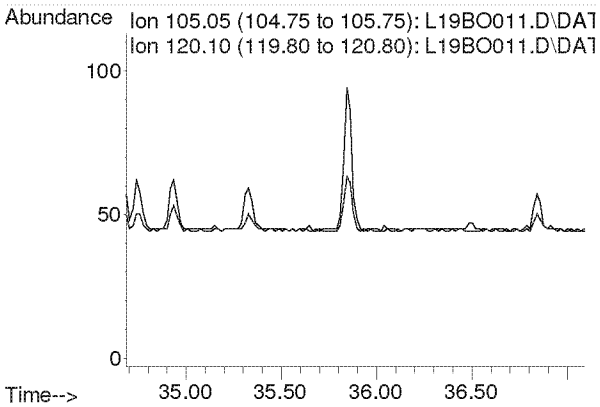


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

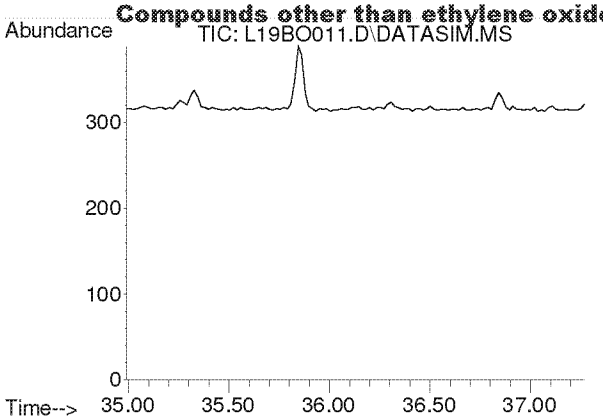
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

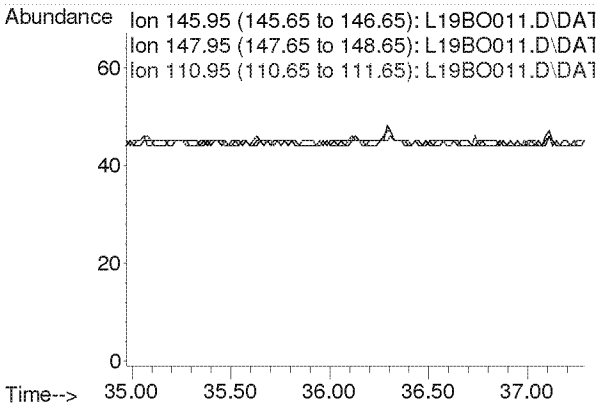


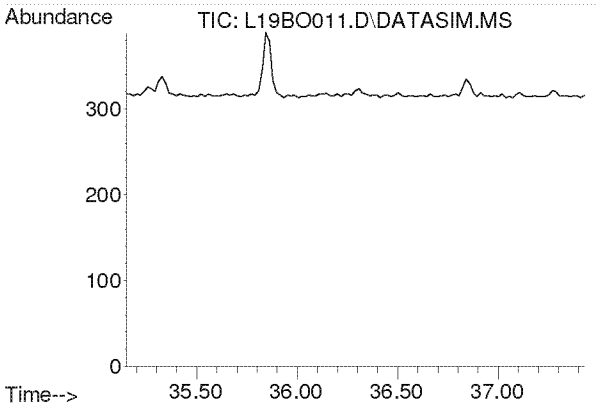
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



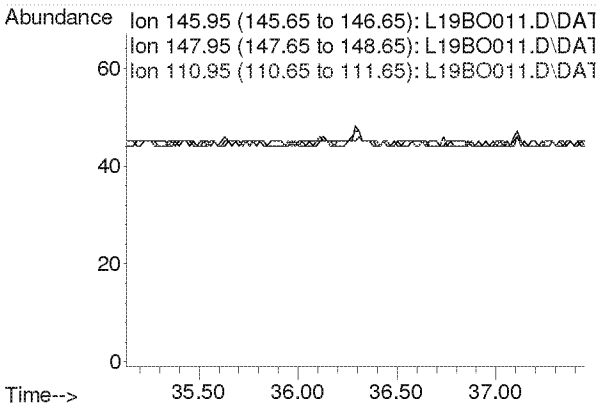


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

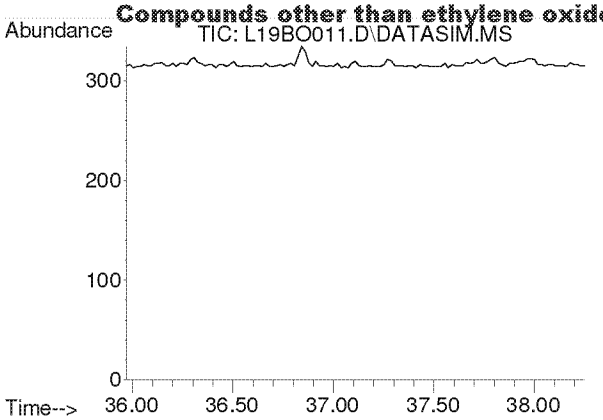
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

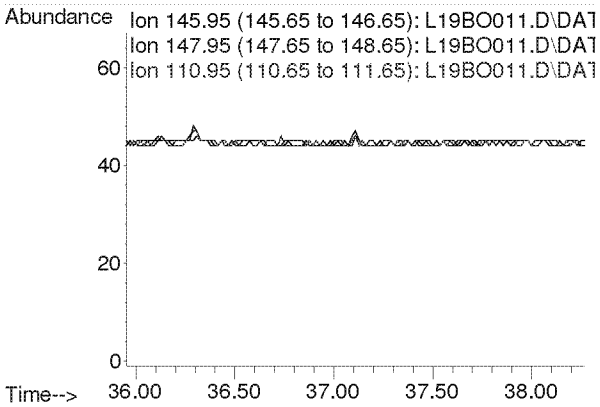


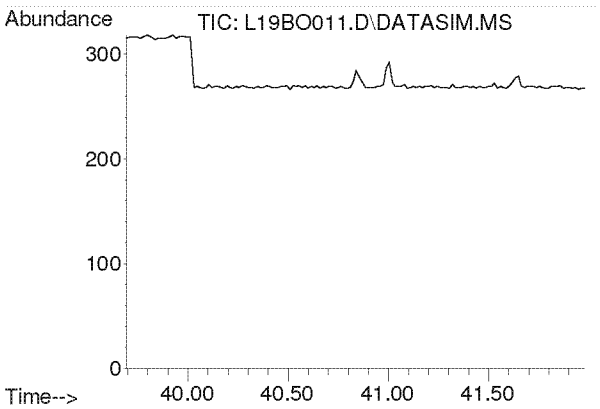
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



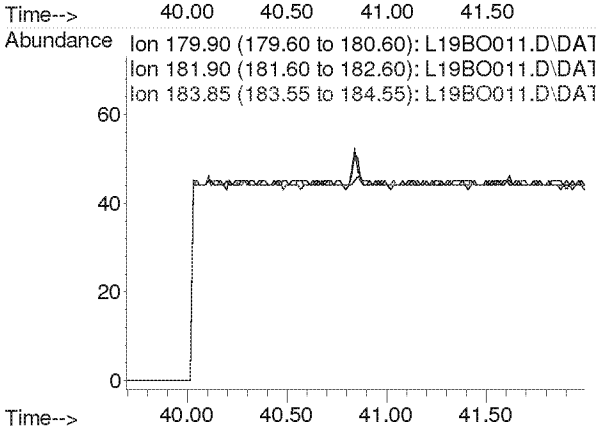


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

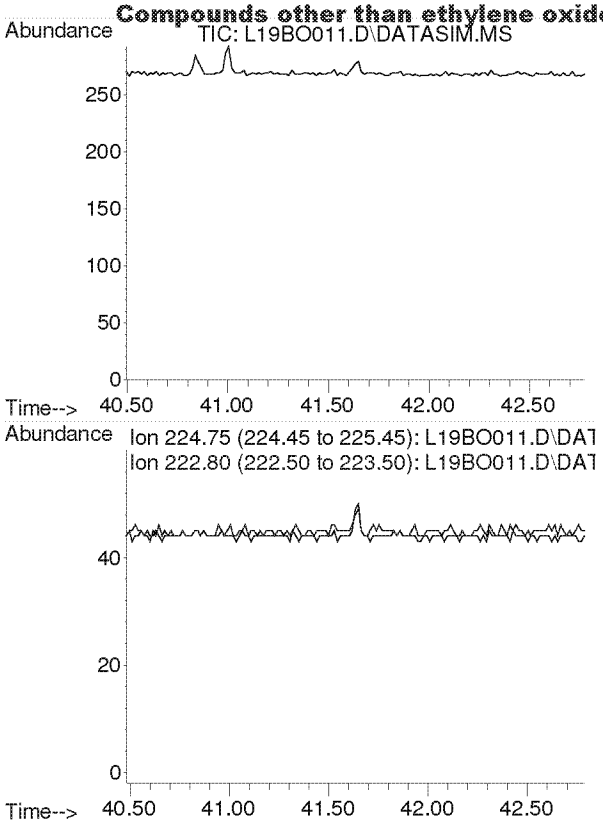
Lab File: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

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: L19BO011.D
Acq: 15 Feb 2019 4:29 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO012.D
Acq On : 15 Feb 2019 5:31 pm (#1); 15-Feb-19, 17:26:33 (#2)
Operator : MAH
Sample : 9021313-04
Misc : WEST NEIGHBOROHOOD 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 19 15:07:12 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-MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	39708	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	97921	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	68625	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.	
9) Ethylene oxide	12.453	29	346m	0.1523 ppbv	
10) Bromomethane	0.000	94	0	N.D.	d
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	d
13) Acrolein	0.000	56	0	N.D.	d
14) Trichlorofluoromethane	0.000	101	0	N.D.	d
15) Acrylonitrile	0.000	53	0	N.D.	d
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	d
18) Carbon Disulfide	0.000	76	0	N.D.	d
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	d
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	d
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D.	d
32) Carbon Tetrachloride	0.000	117	0	N.D.	d
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	d
45) Dibromochloromethane	0.000	129	0	N.D.	
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\L19BO\
Data File : L19BO012.D
Acq On : 15 Feb 2019 5:31 pm (#1); 15-Feb-19, 17:26:33 (#2)
Operator : MAH
Sample : 9021313-04
Misc : WEST NEIGHBOROHOOD 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 19 15:07:12 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

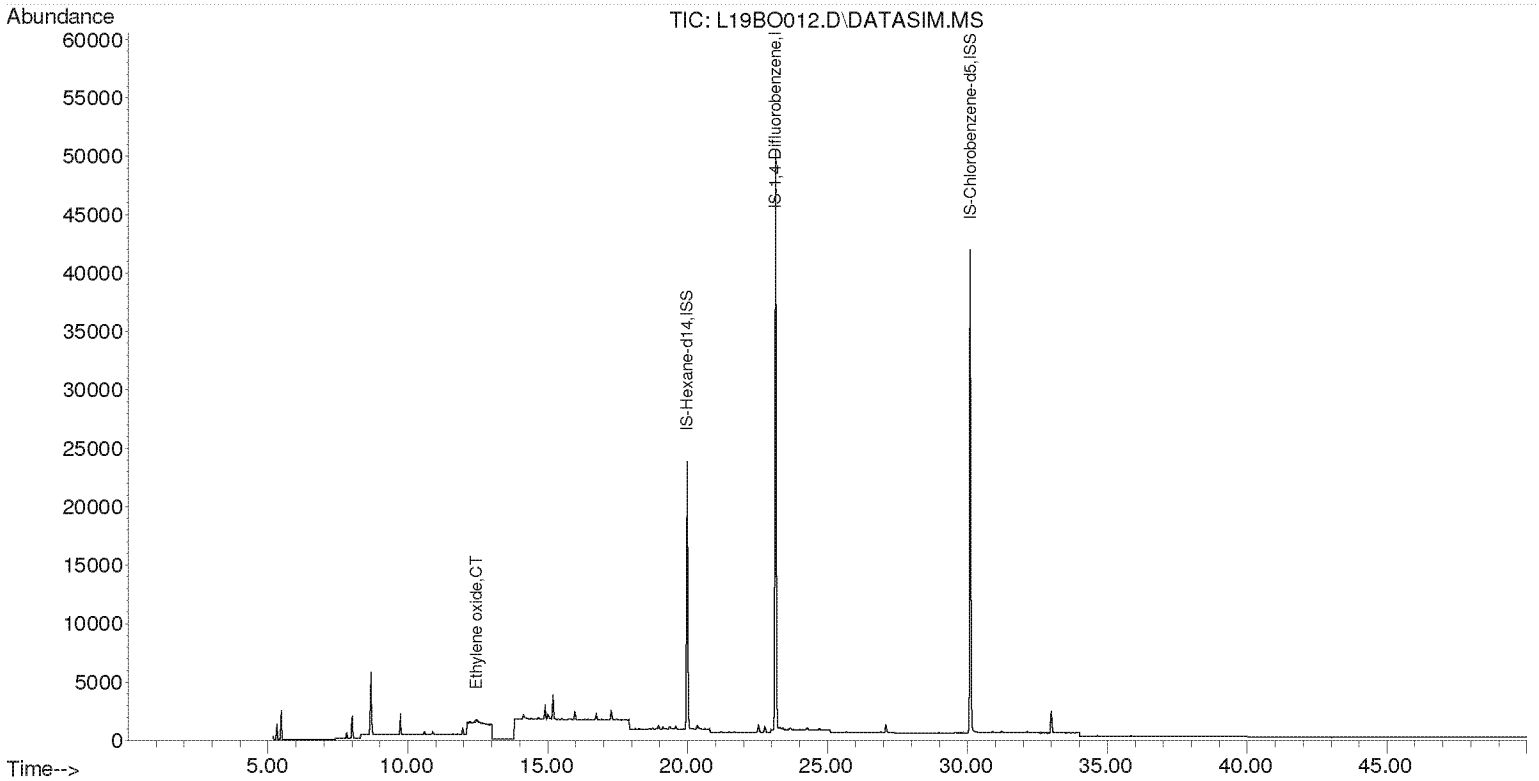
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

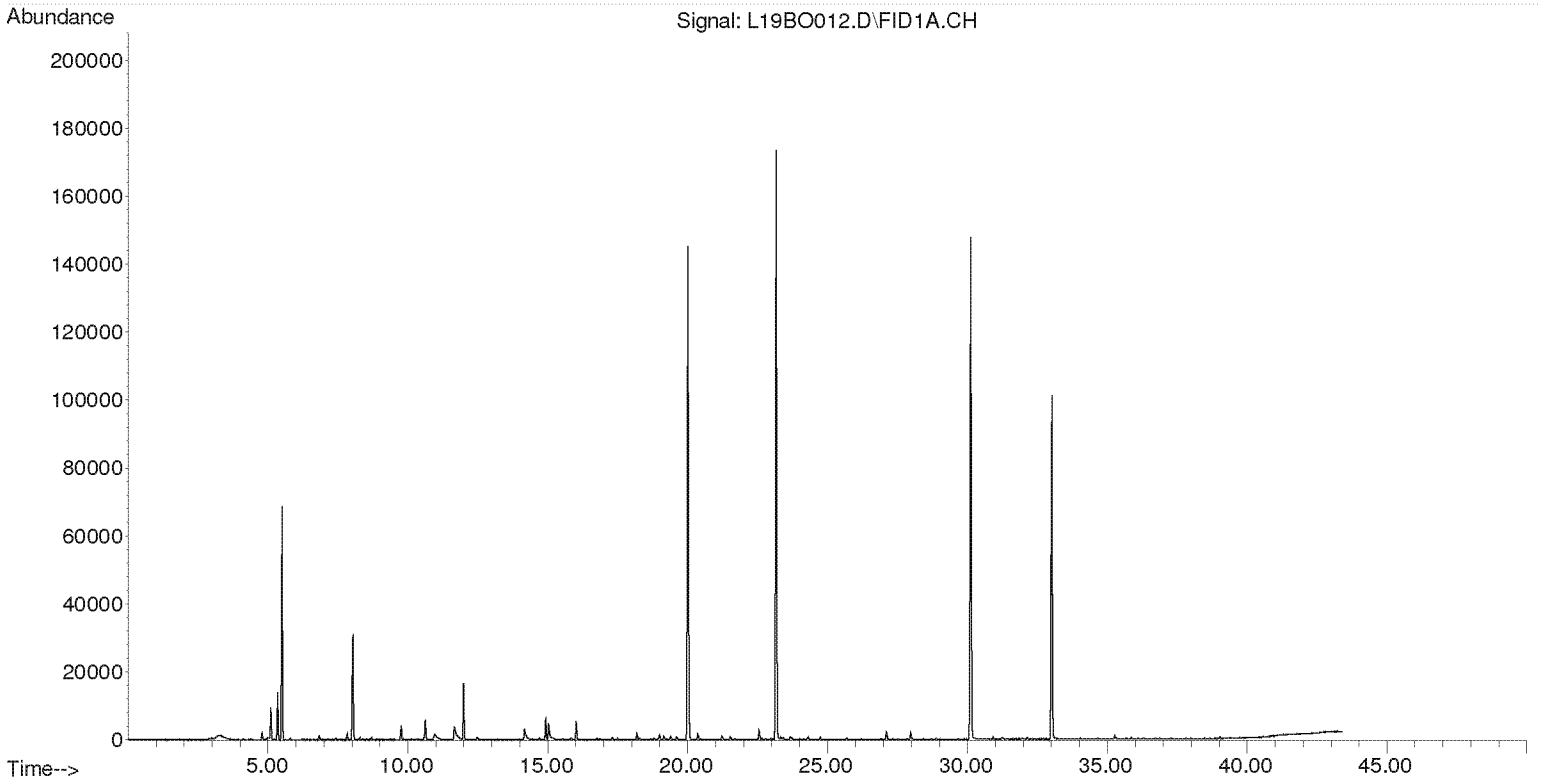
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

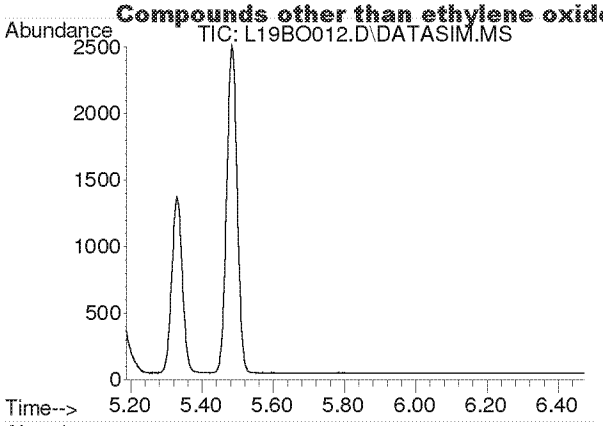
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO012.D
Acq On : 15 Feb 2019 5:31 pm (#1); 15 Feb 2019 5:26 pm (#2)
Operator : MAH
Sample : 9021313-04
Misc : WEST NEIGHBOROHOOD 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 19 14:46:19 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





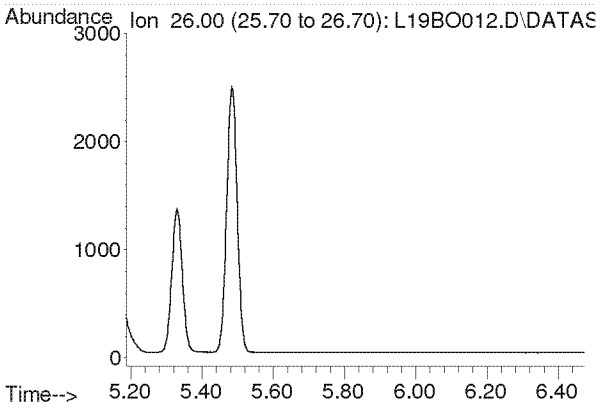
Compounds other than ethylene oxide were not quantitated.

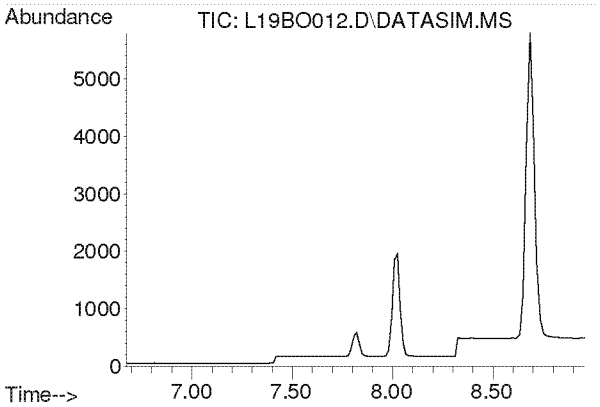


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 26



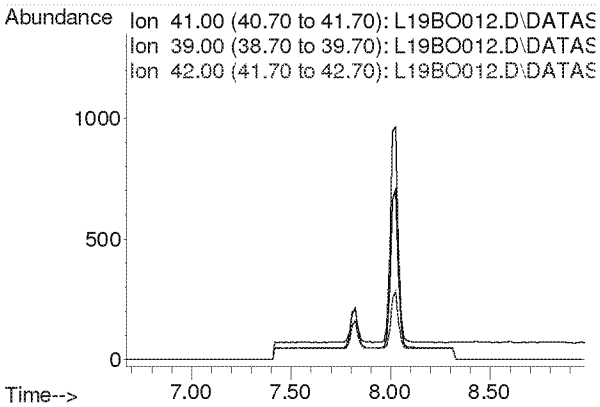


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

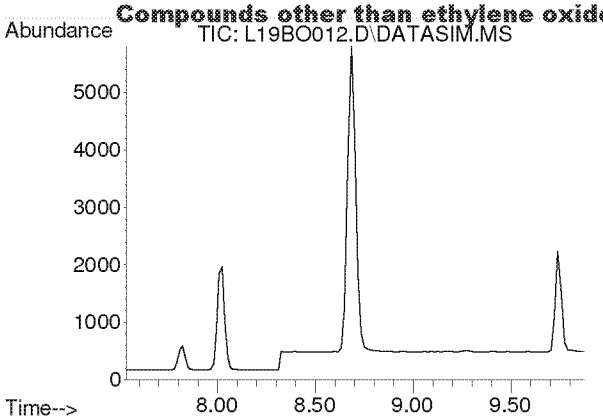
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

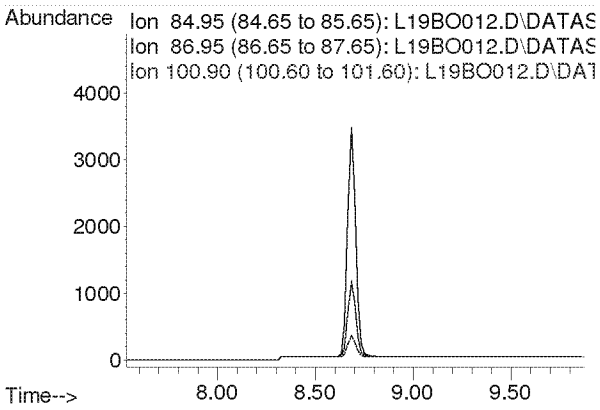


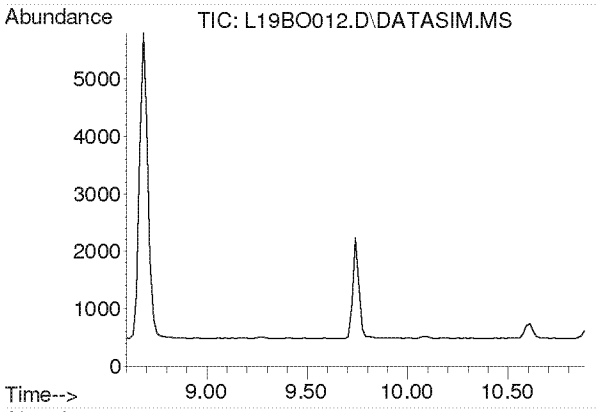
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



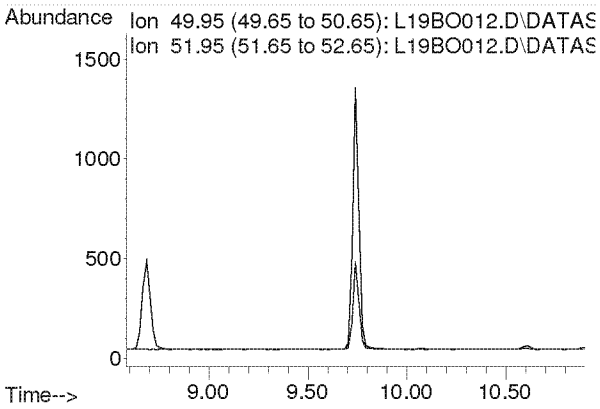


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

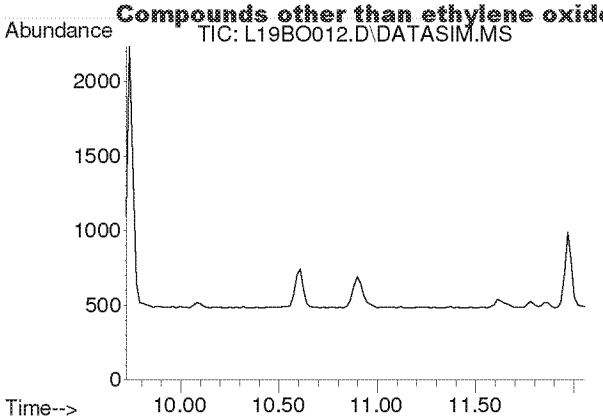
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

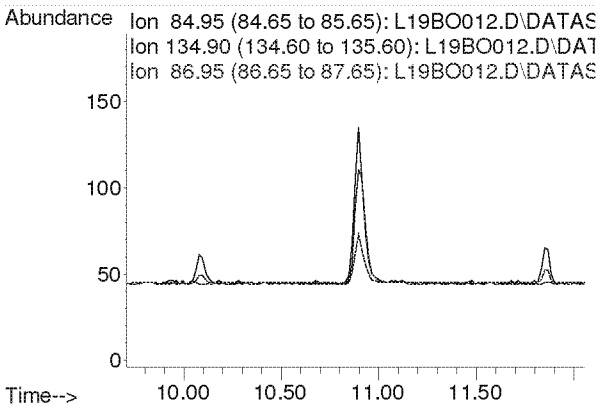


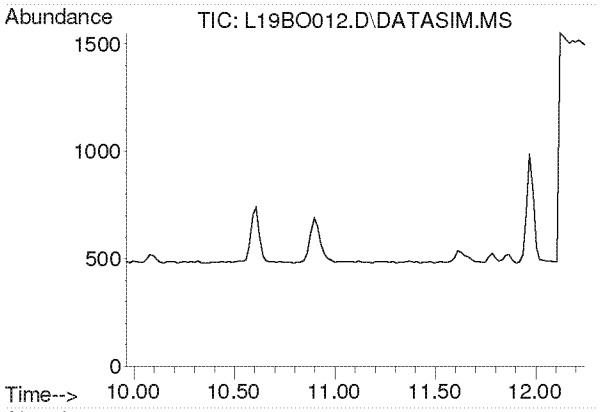
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



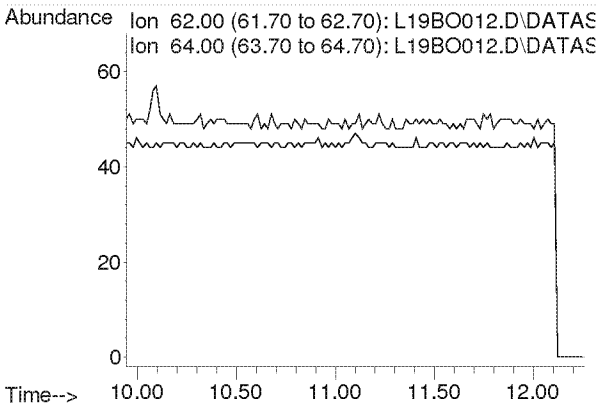


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

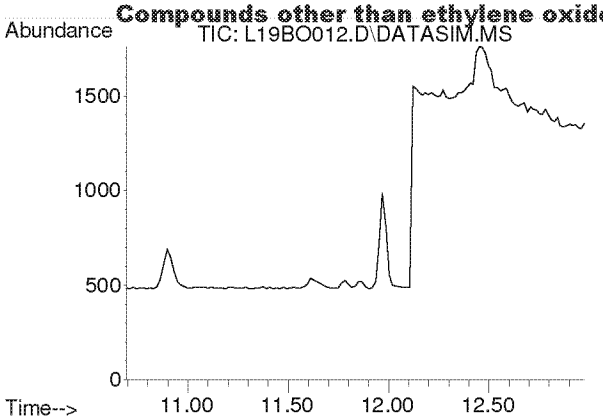
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

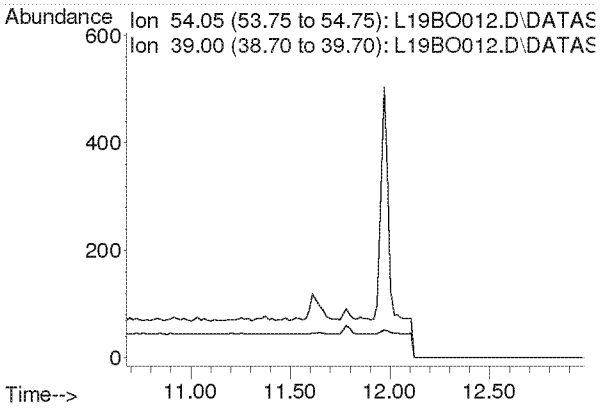


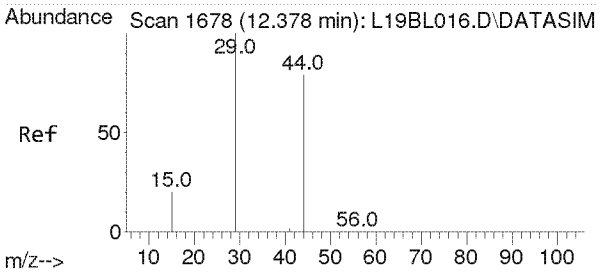
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

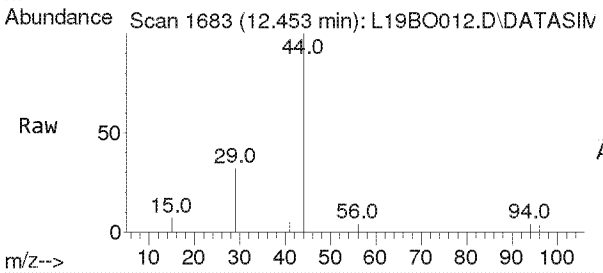


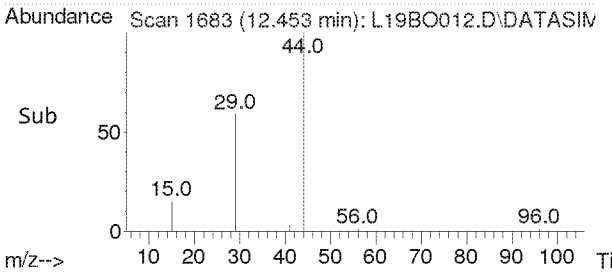


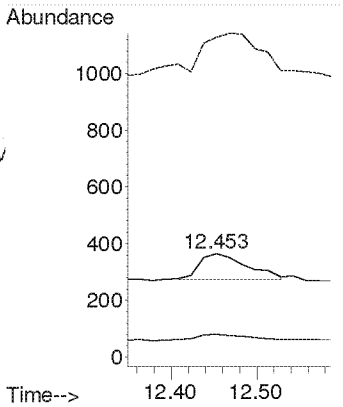
#9
Ethylene oxide
Concen: 0.152 ppbv m
RT: 12.453 min Scan# 1683
Delta R.T. 0.075 min
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 29 Resp: 346

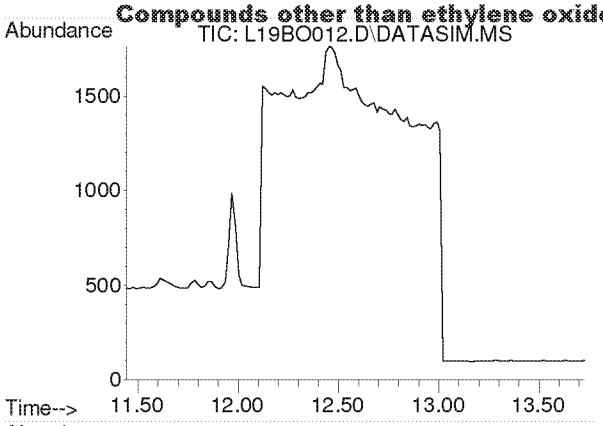
Ion	Ratio	Lower	Upper
29	100		
15	29.2	16.0	24.0#
44	369.7	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

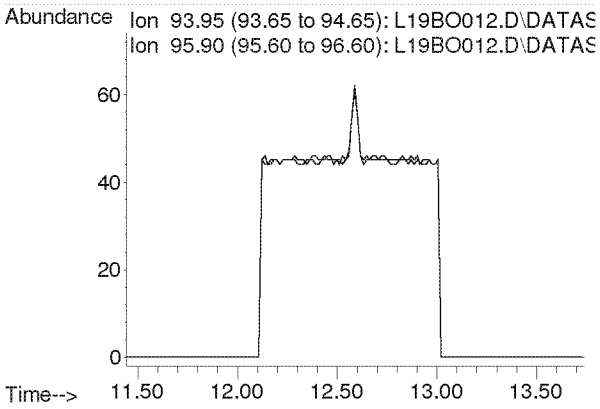


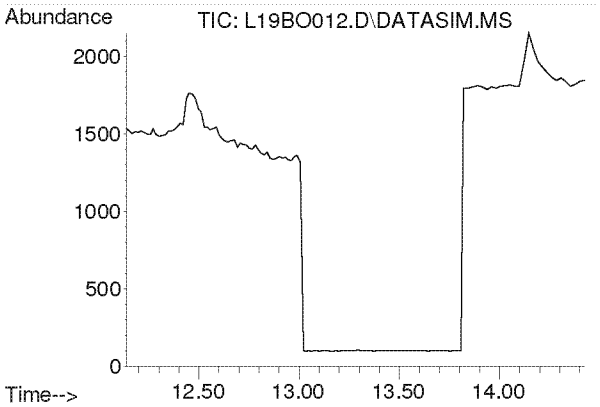
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



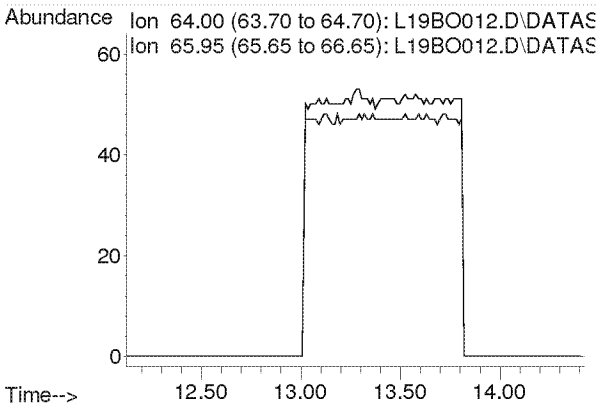


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

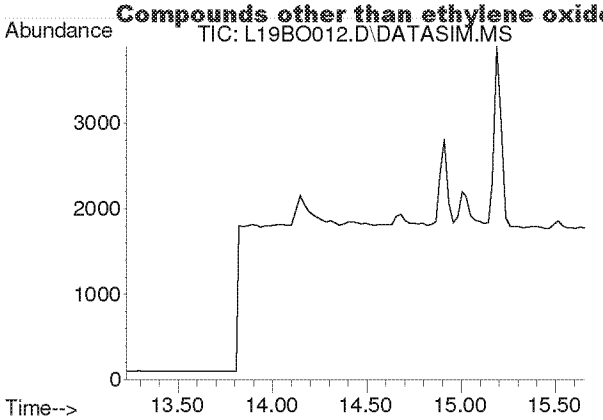
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

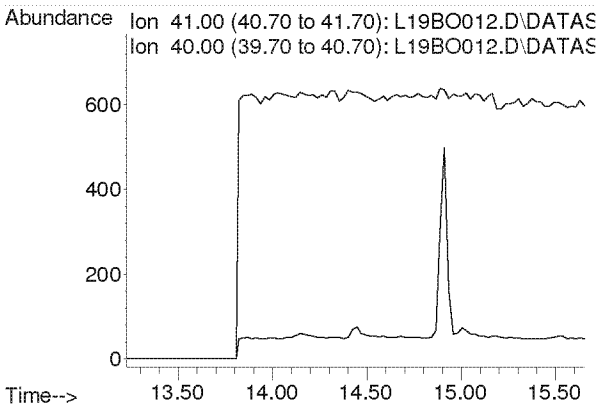


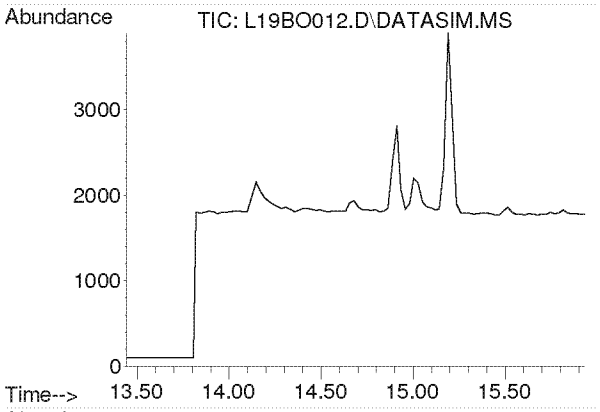
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



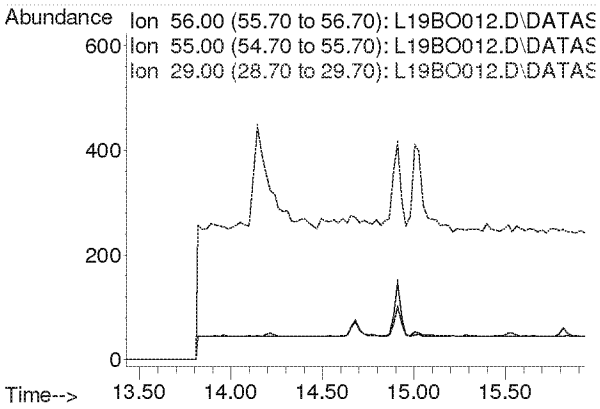


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

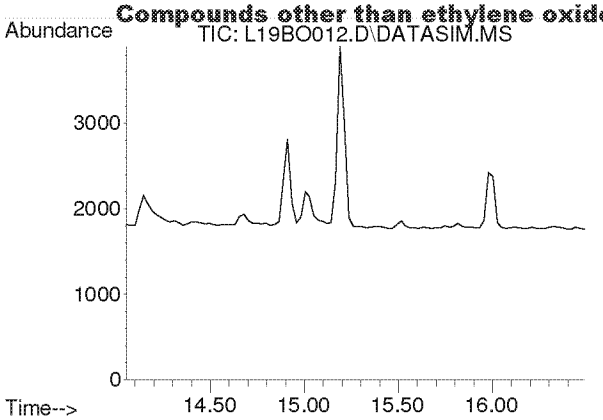
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

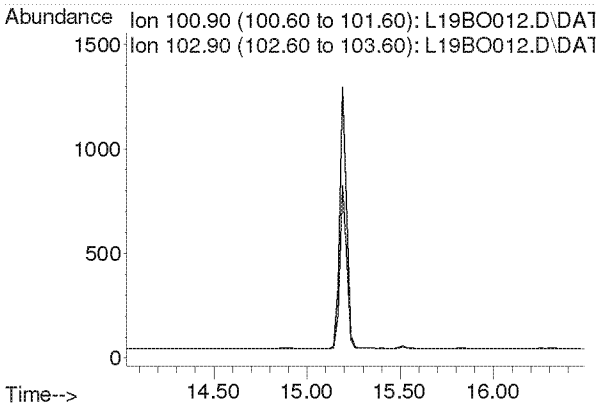


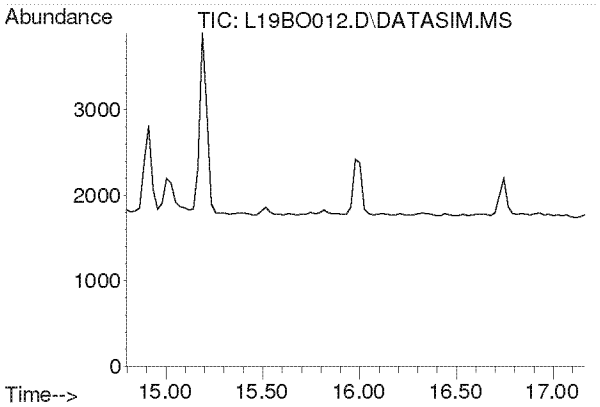
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



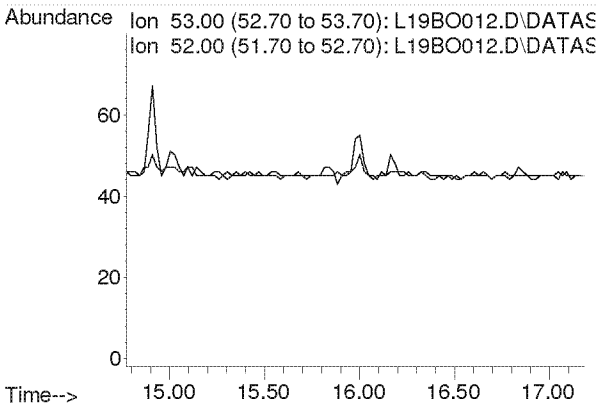


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

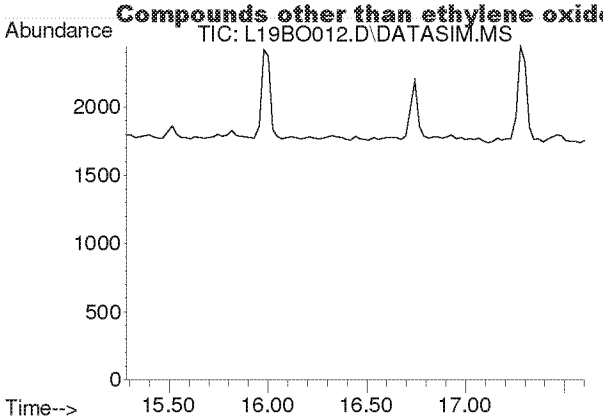
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

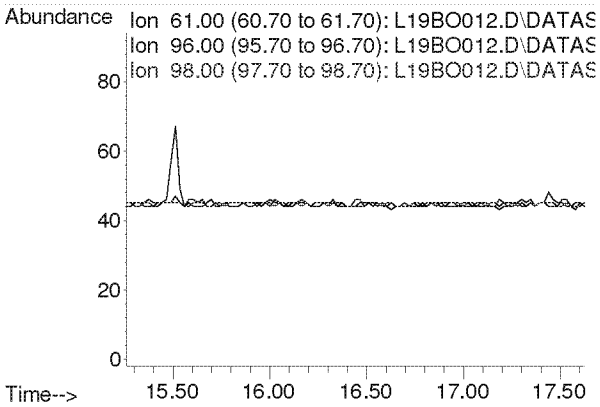


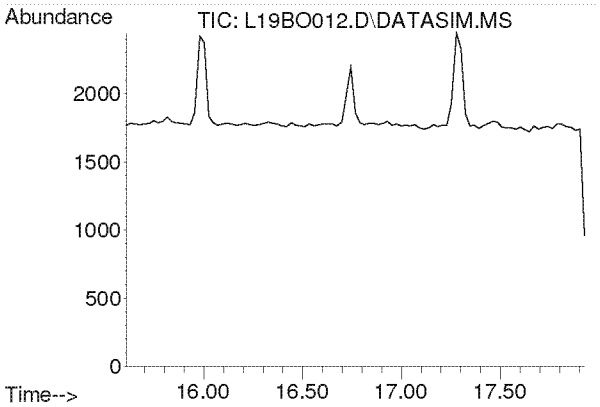
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



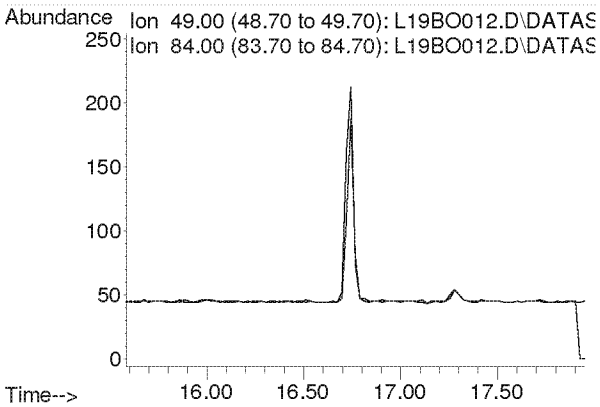


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

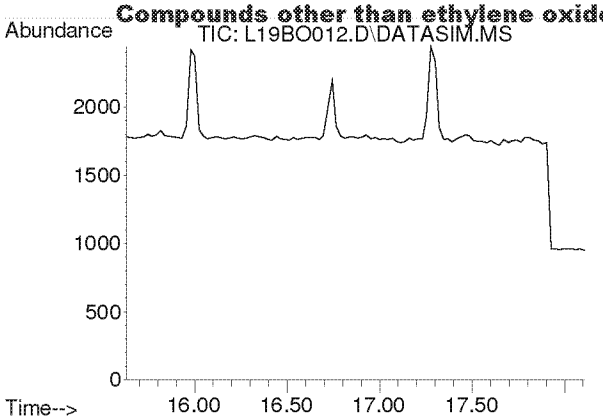
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

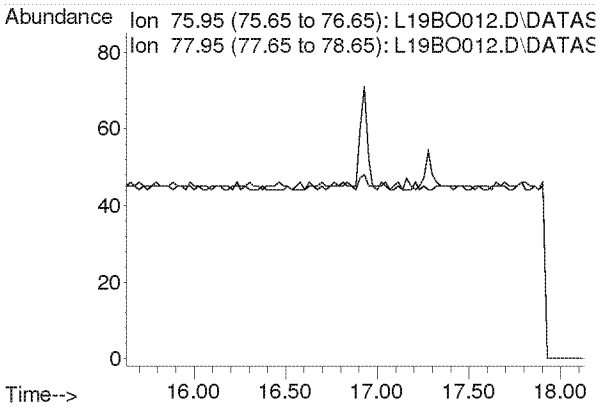


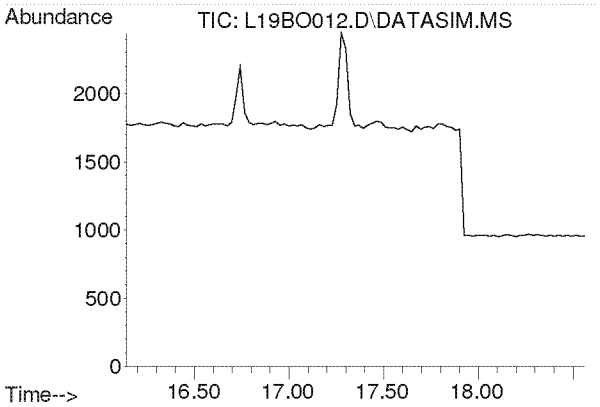
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



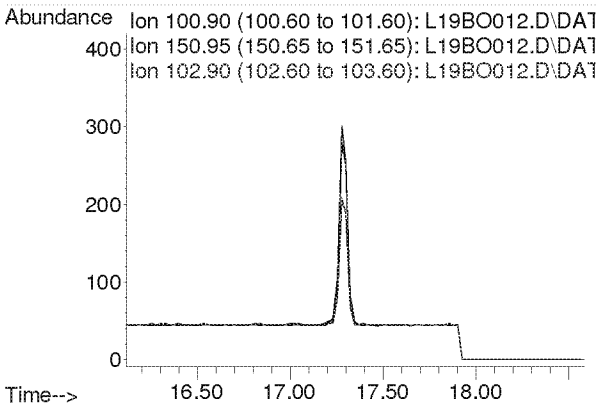


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

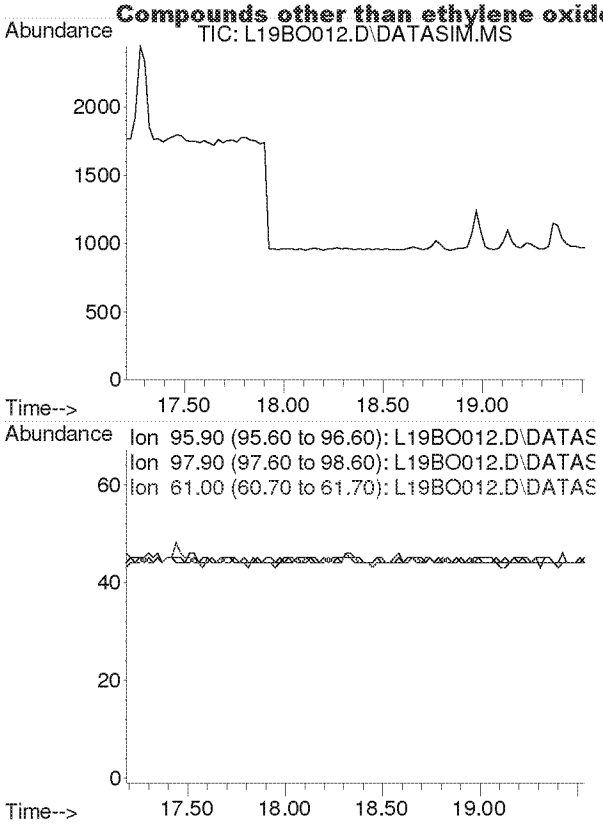
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

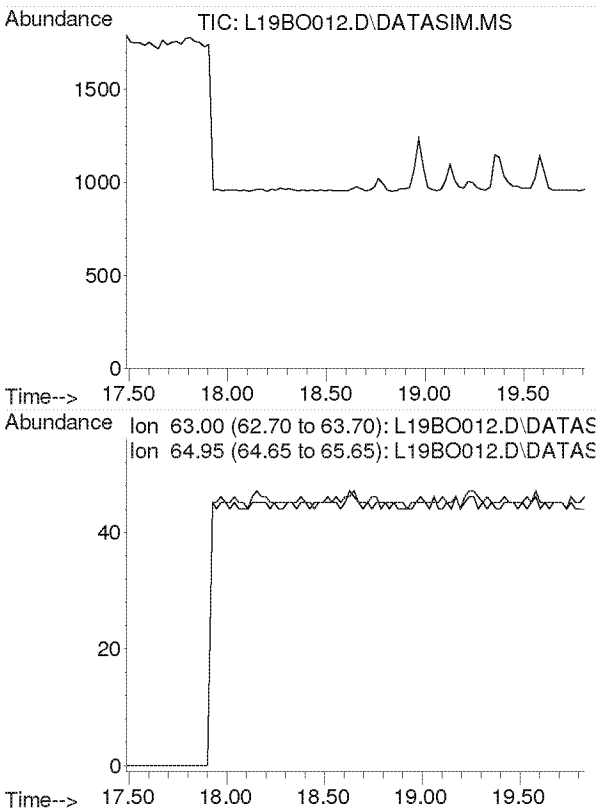


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



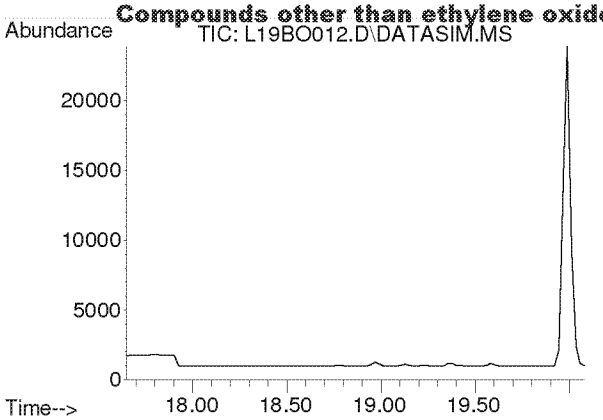
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

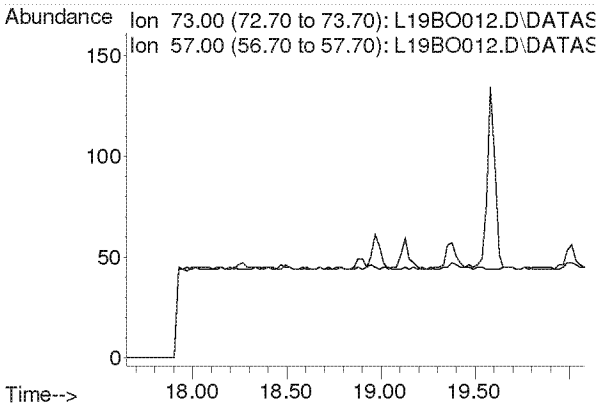


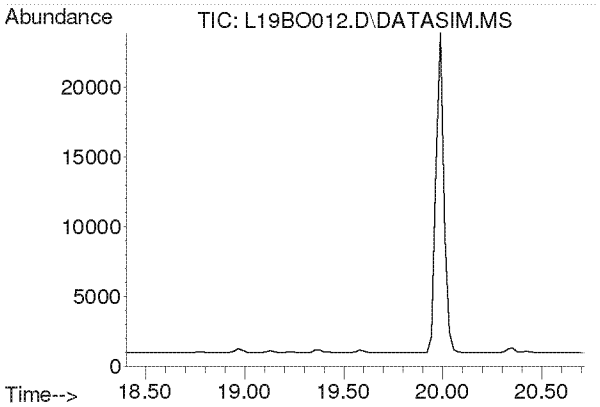
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



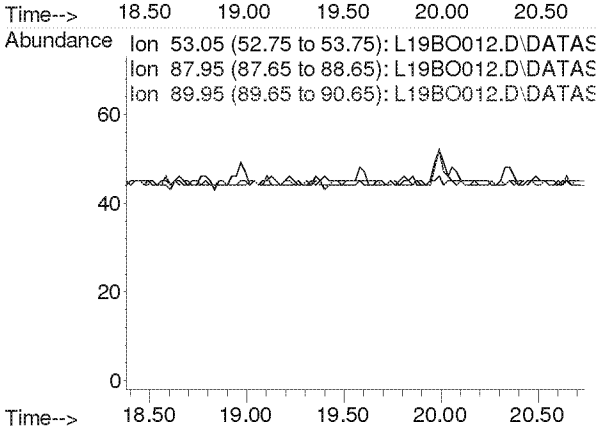


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

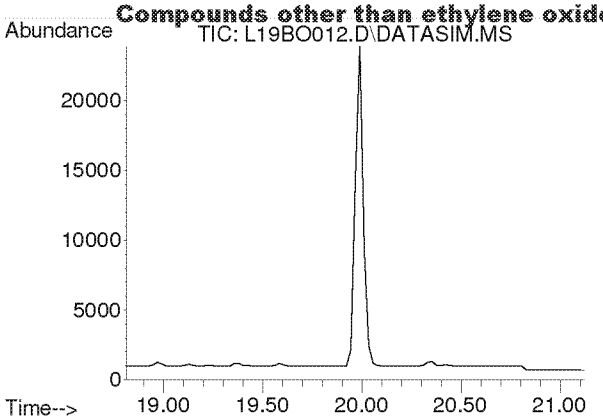
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

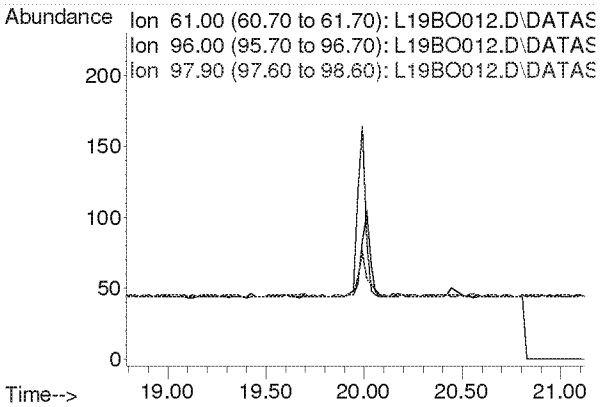


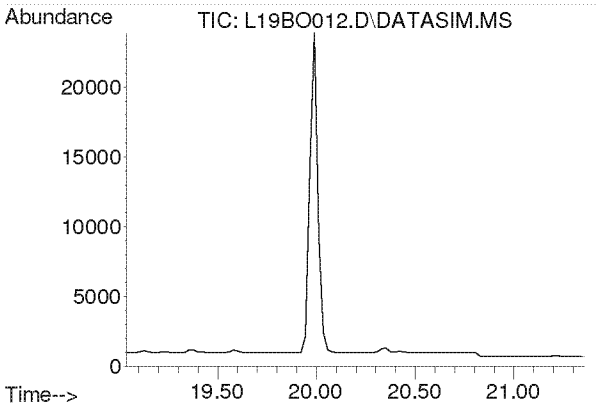
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



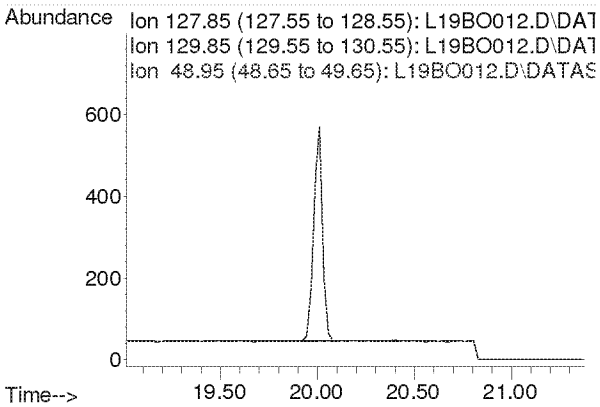


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

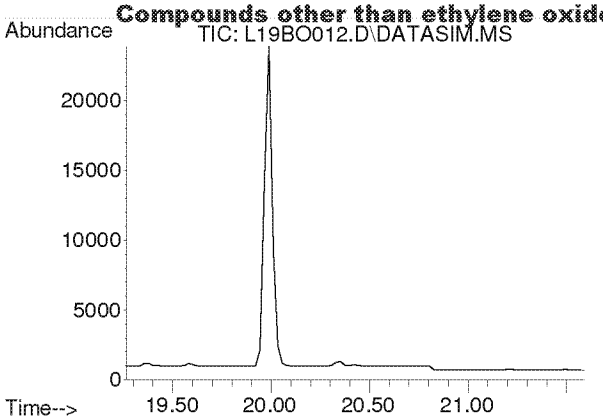
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

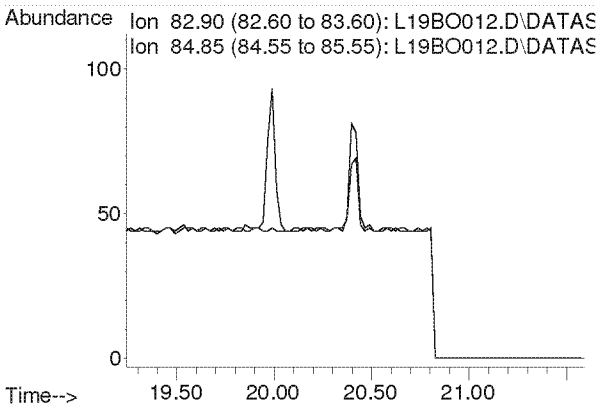


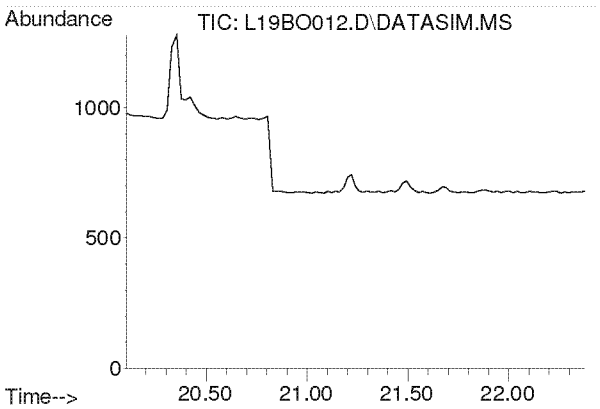
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



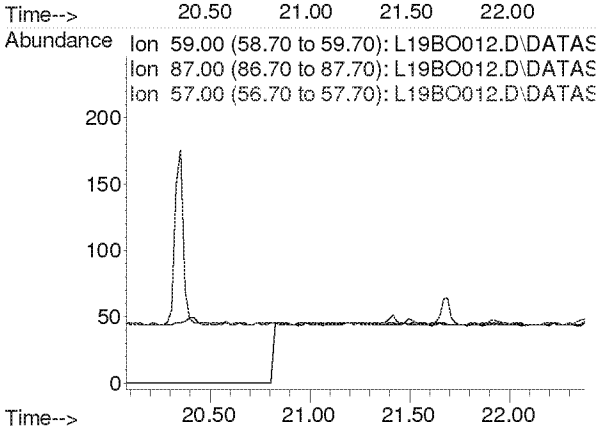


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

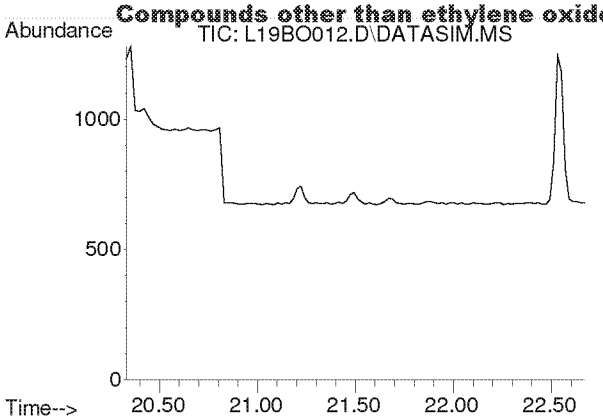
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

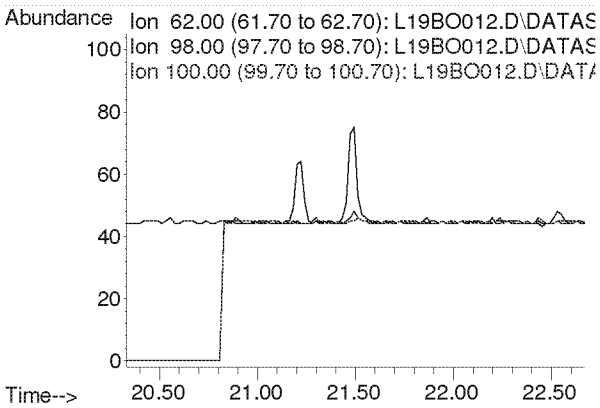


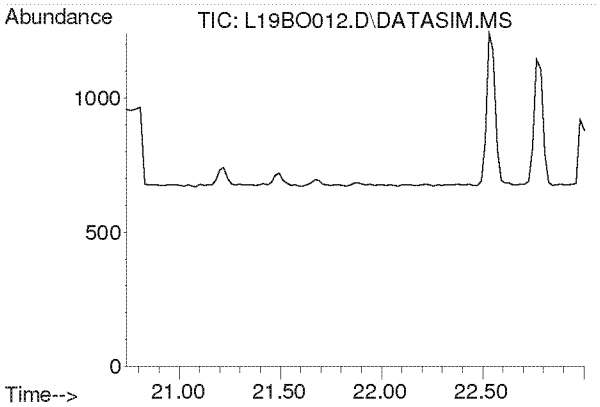
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



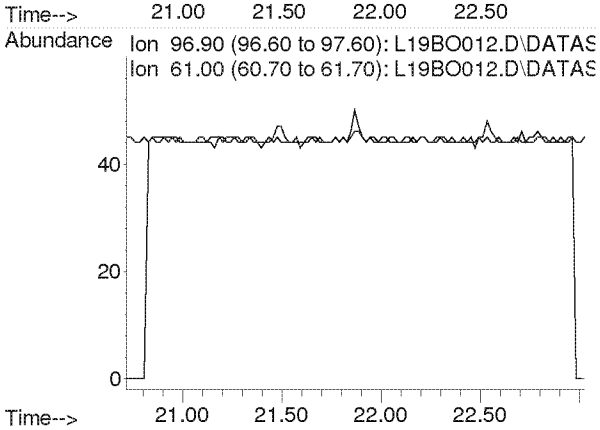


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

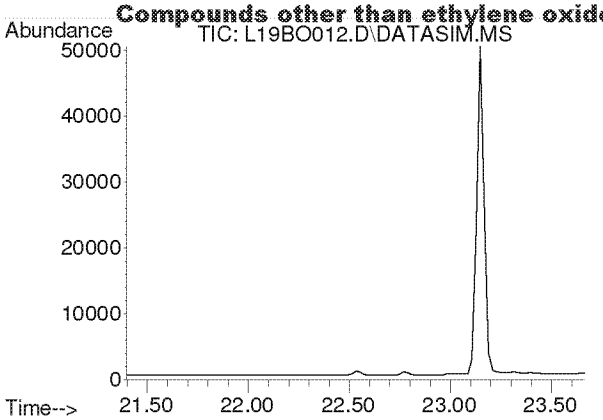
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

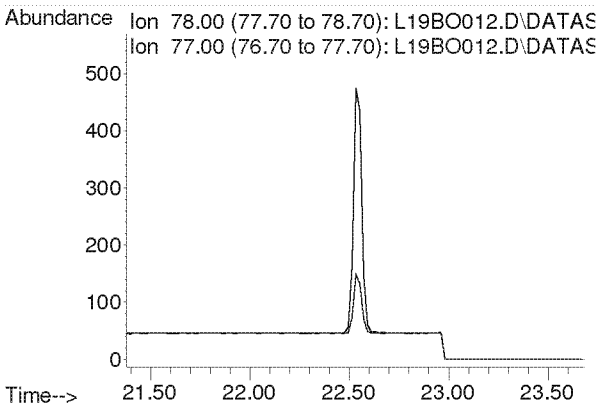


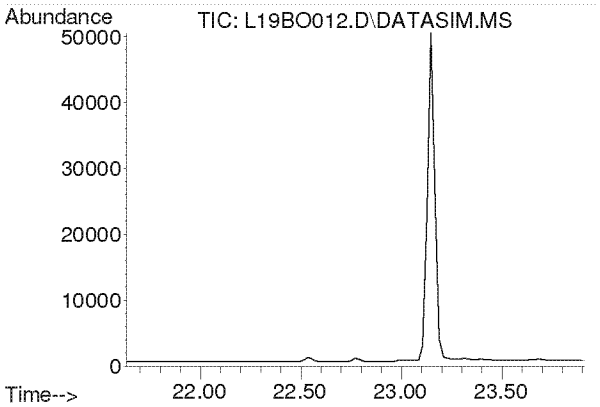
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



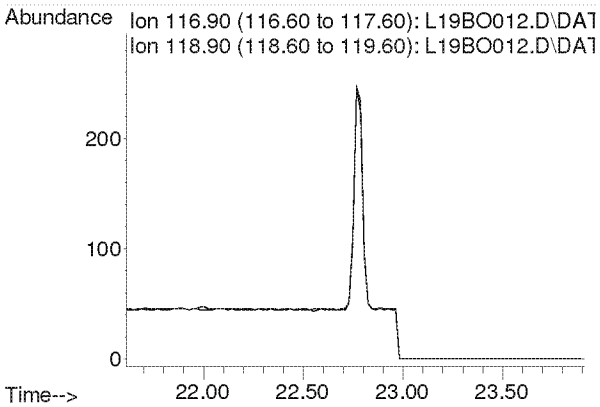


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

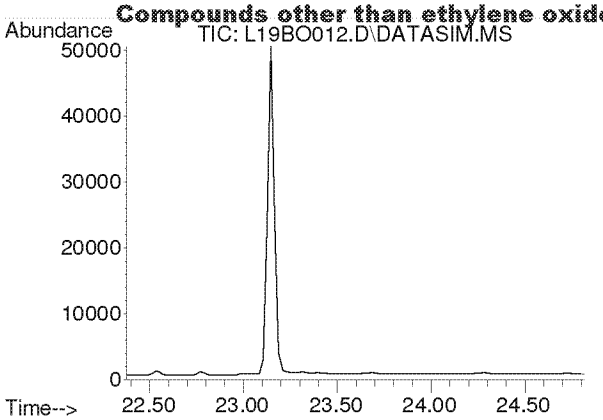
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

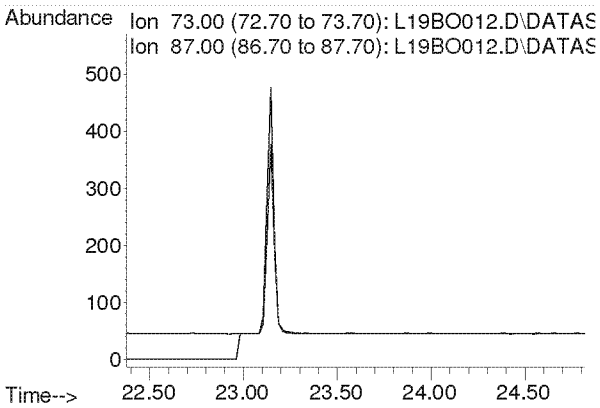


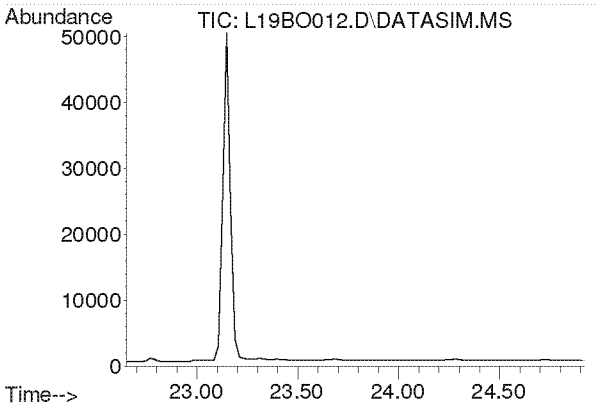
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



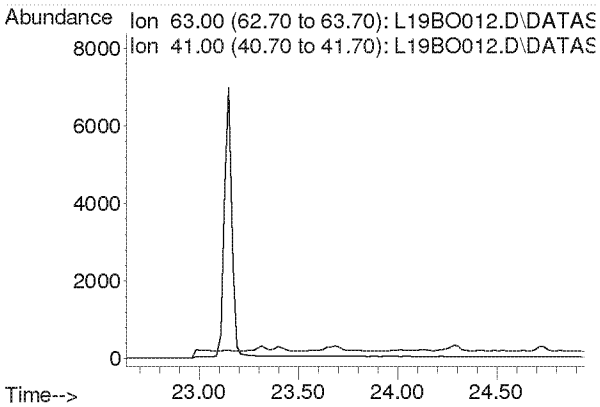


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

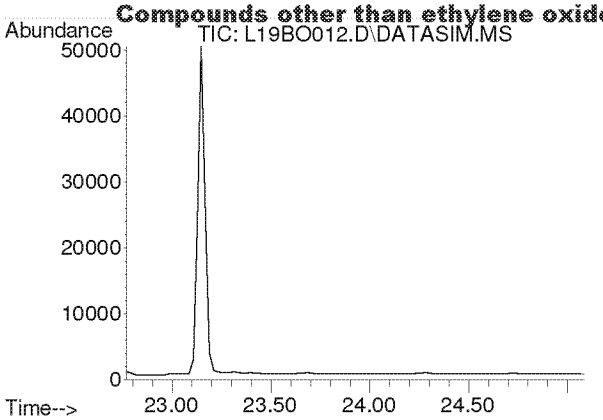
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

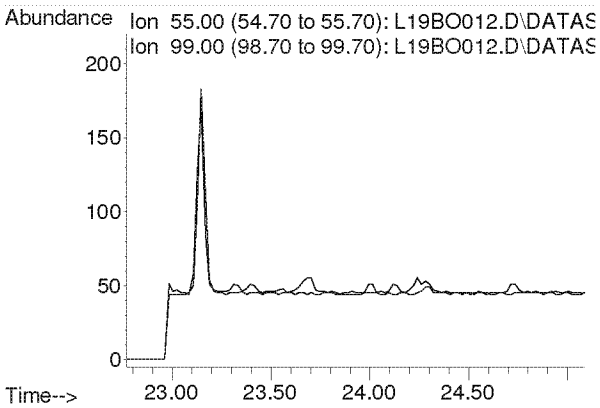


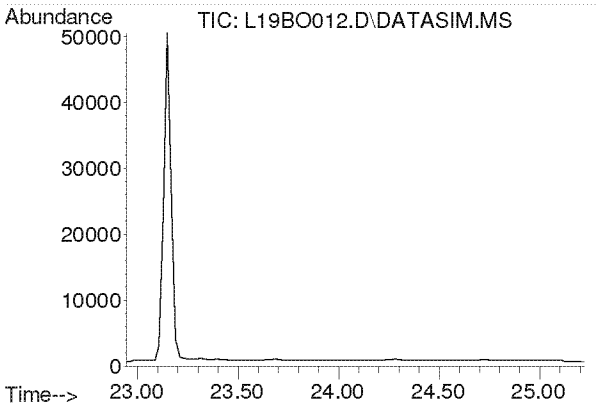
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



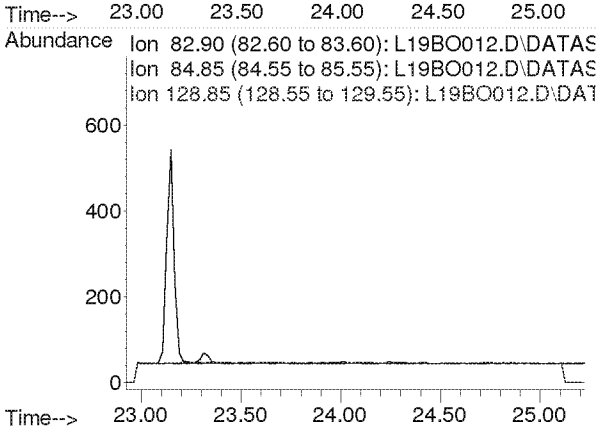


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

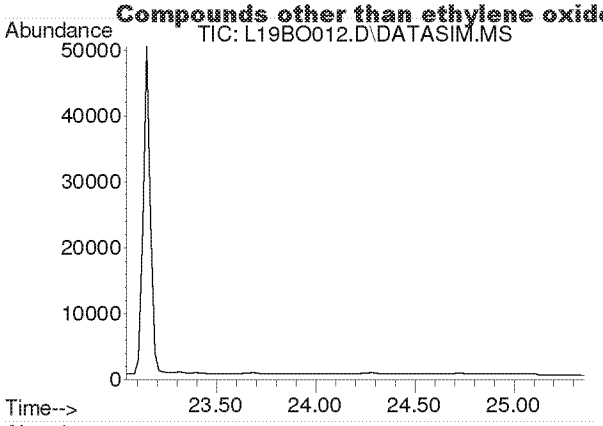
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

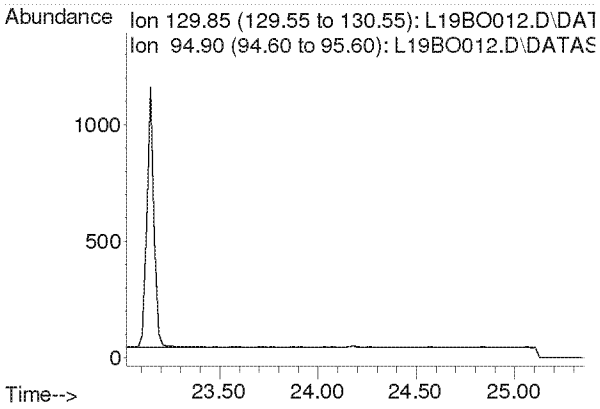


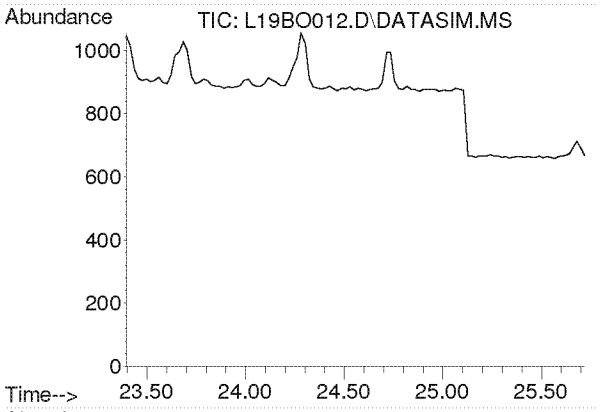
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



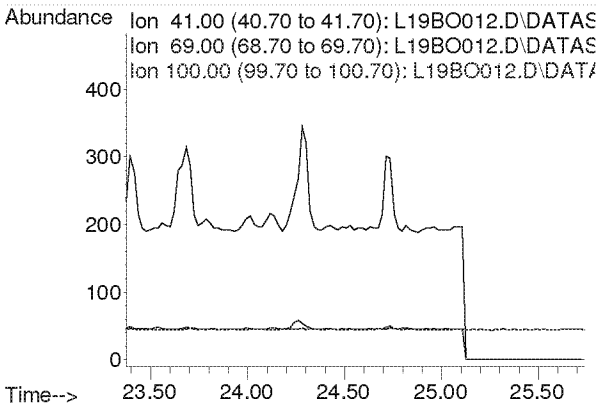


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

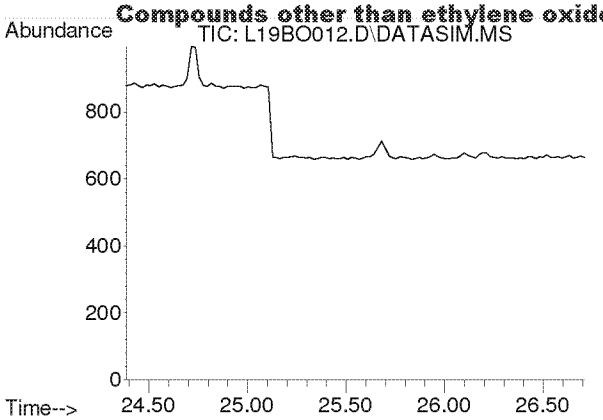
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

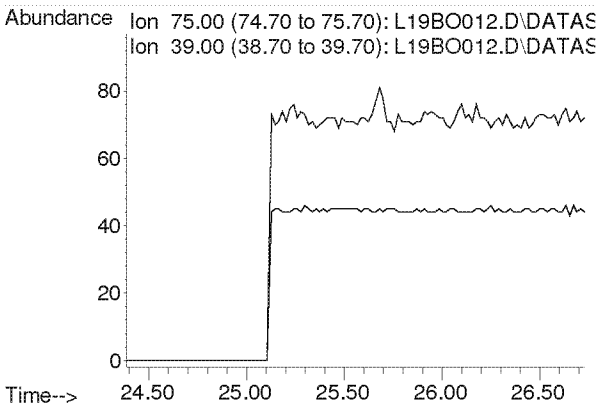


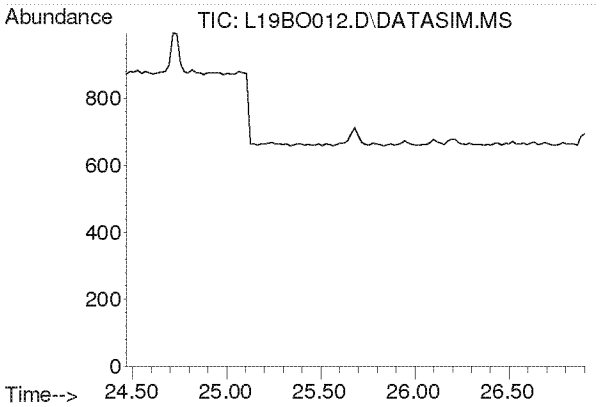
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



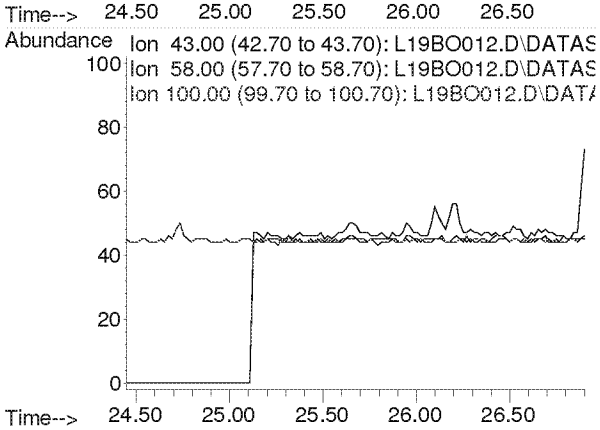


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

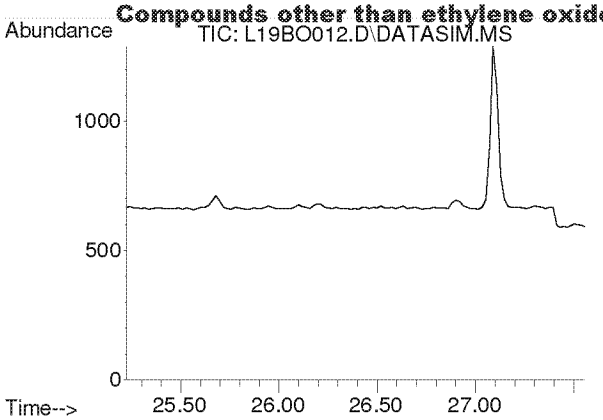
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

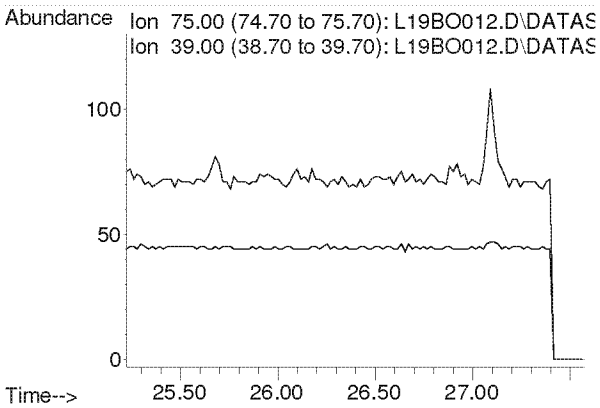


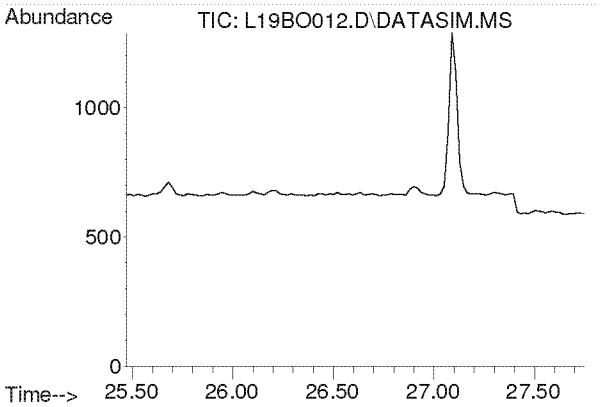
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



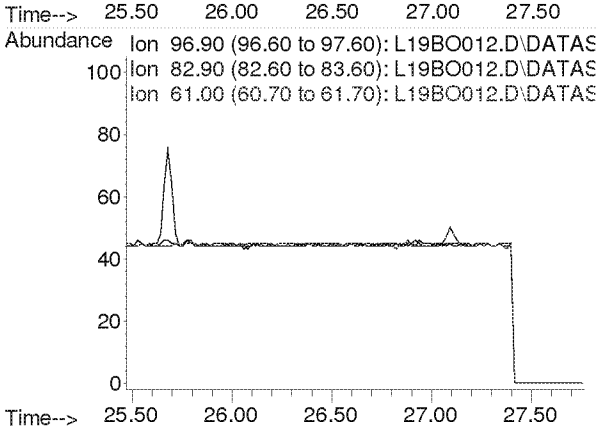


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

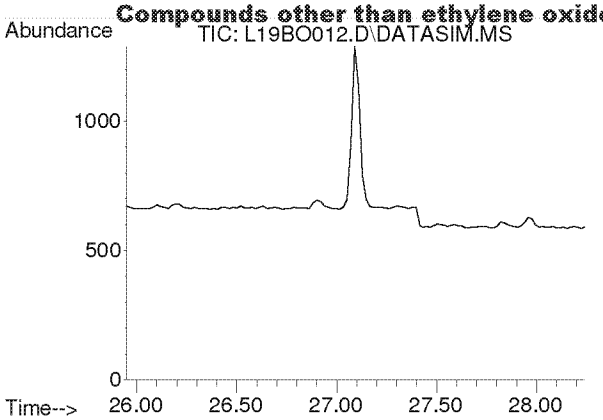
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

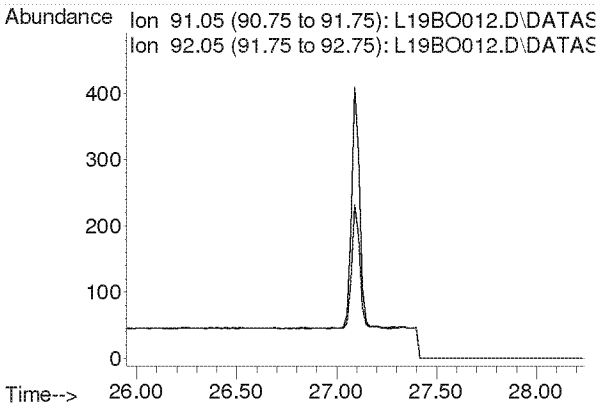


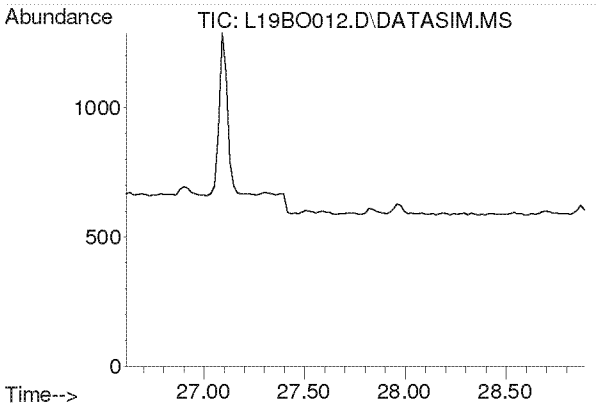
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



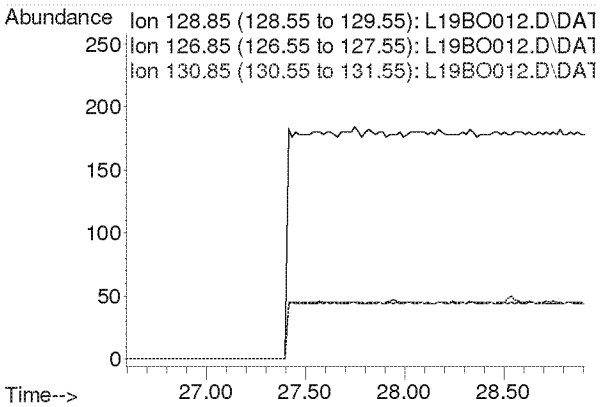


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

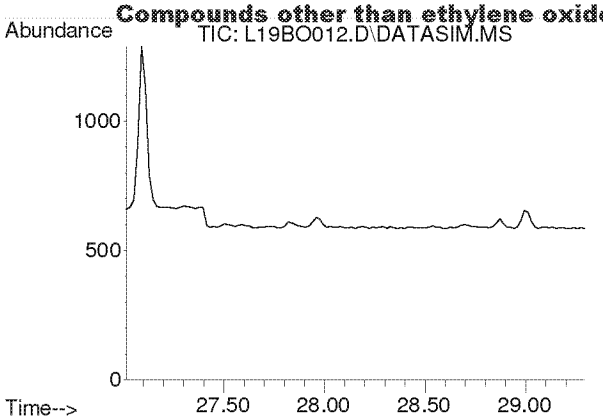
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

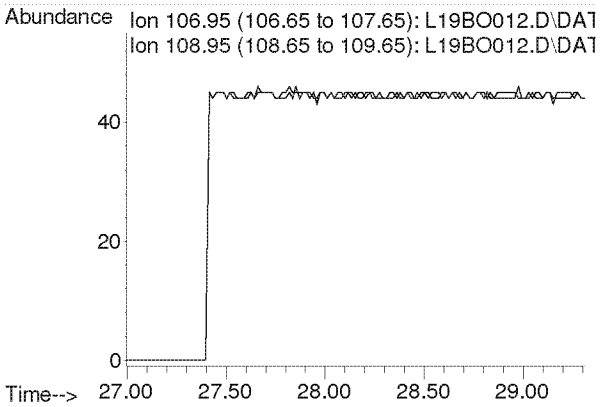


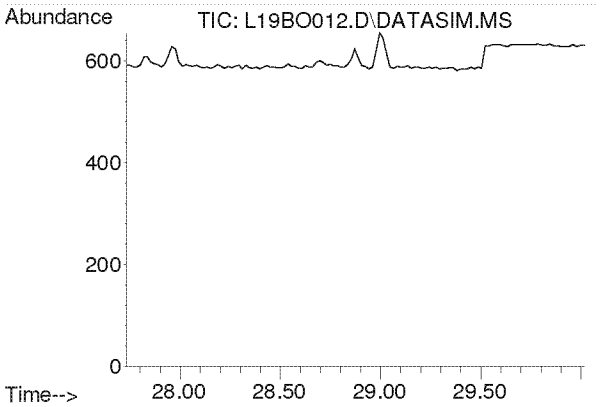
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



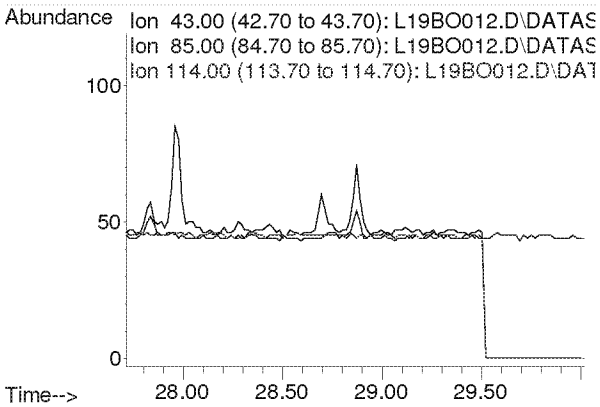


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

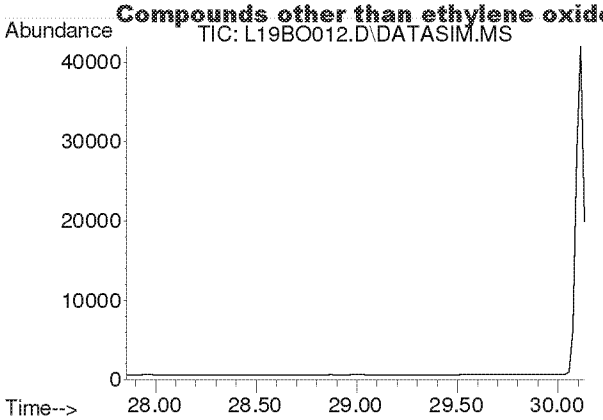
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

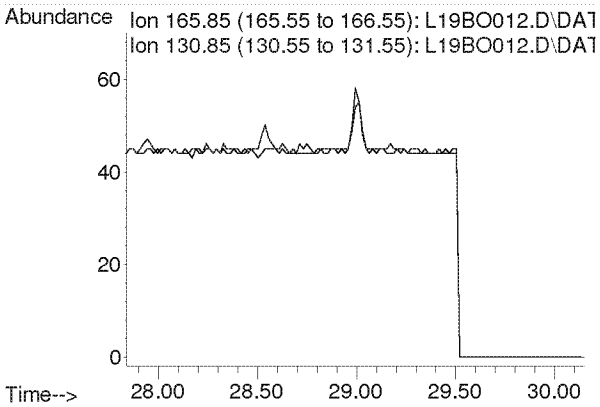


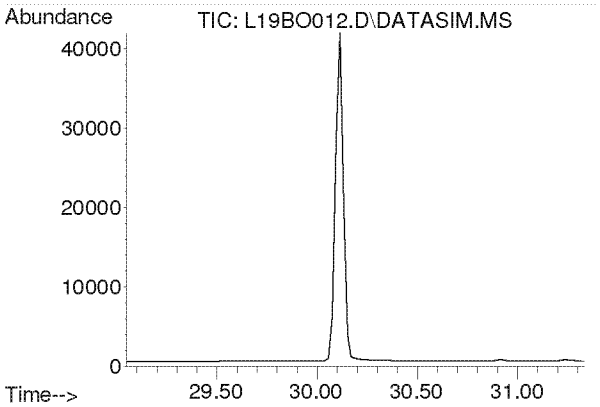
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



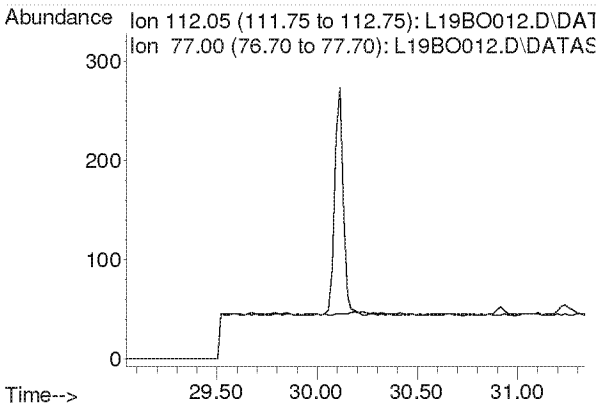


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

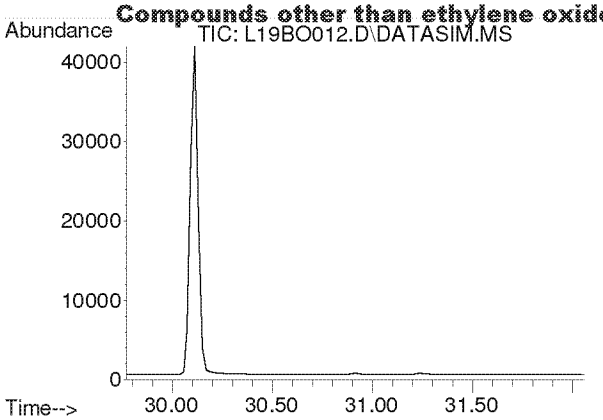
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

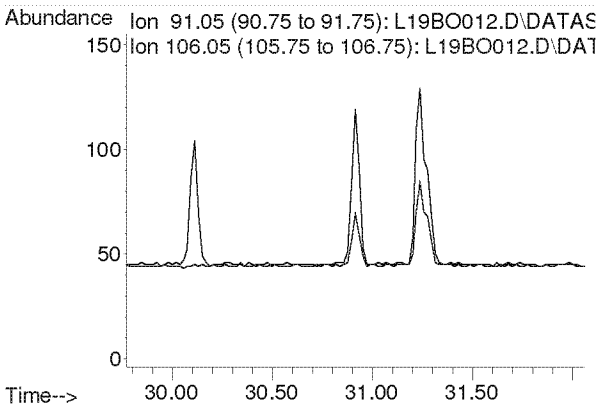


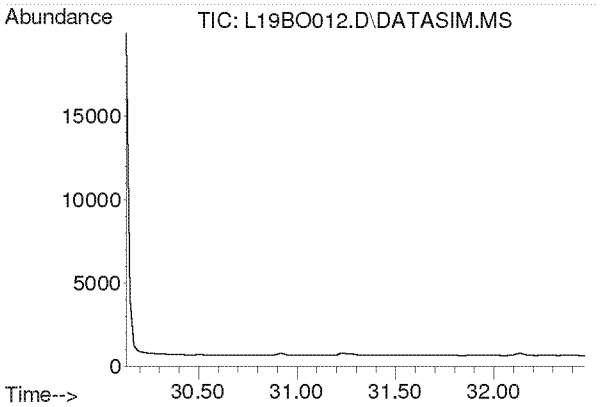
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



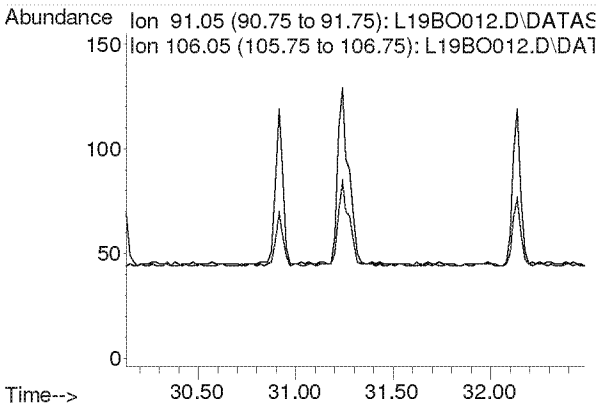


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

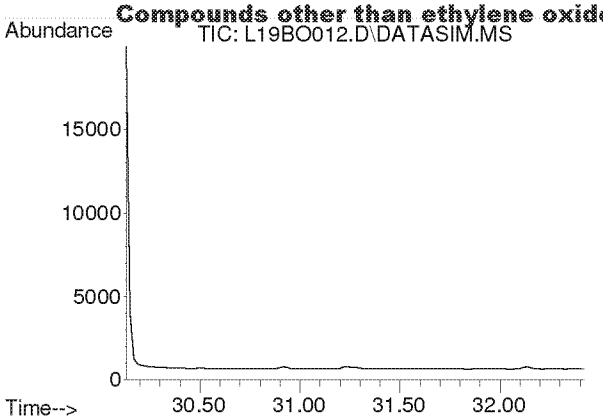
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

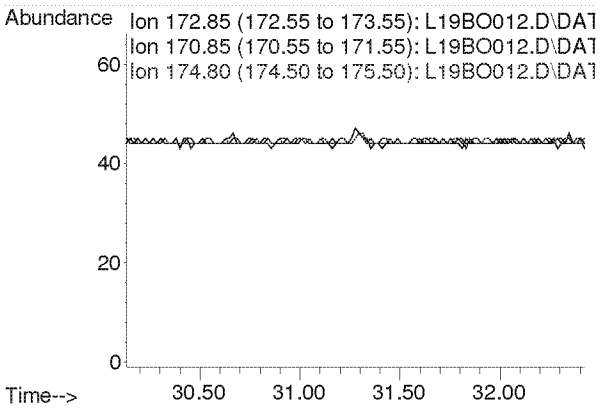


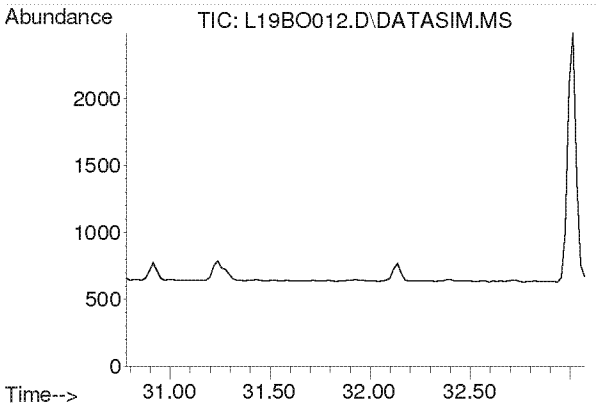
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



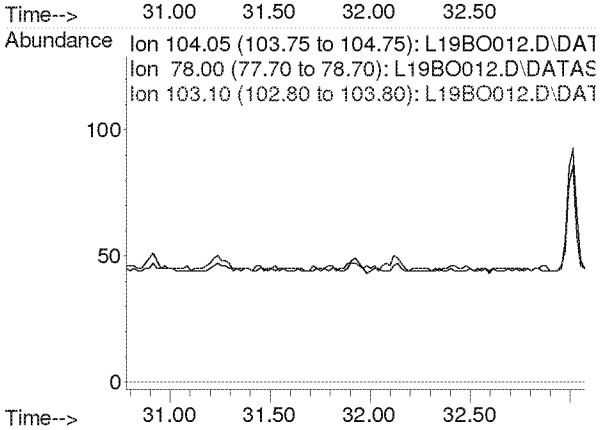


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

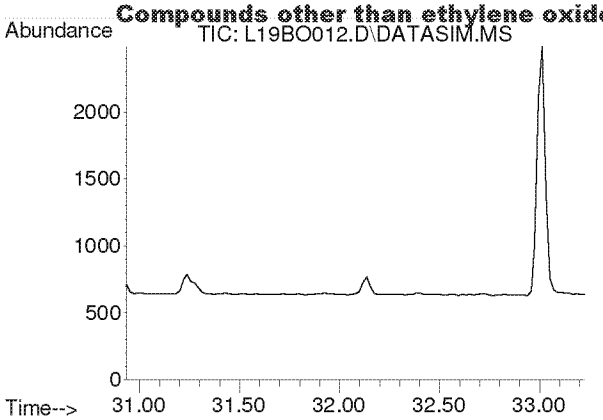
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

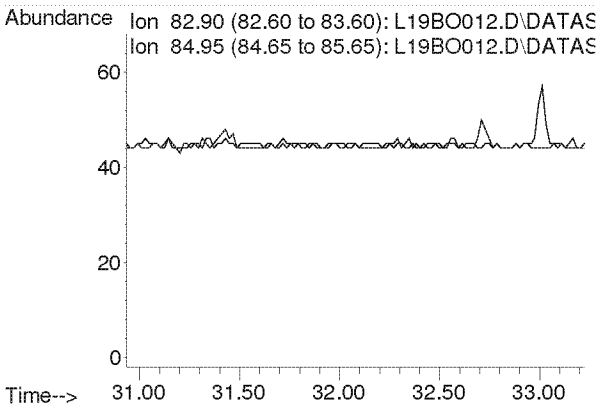


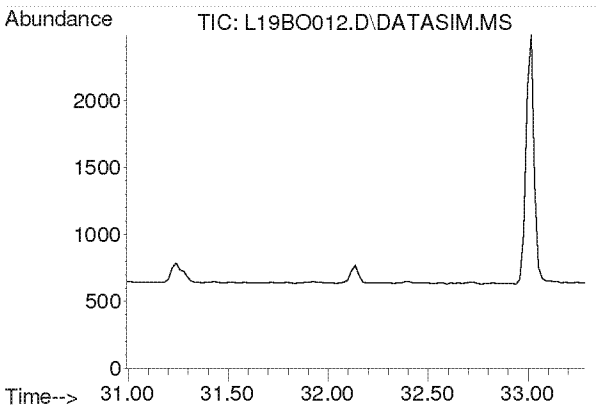
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



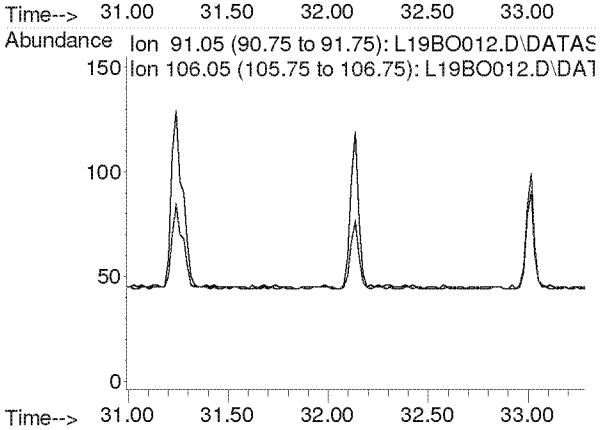


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

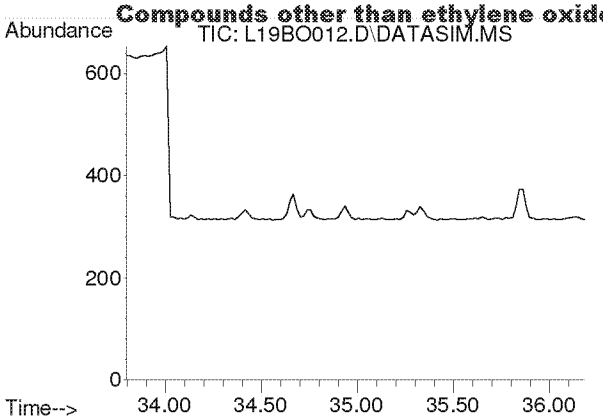
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

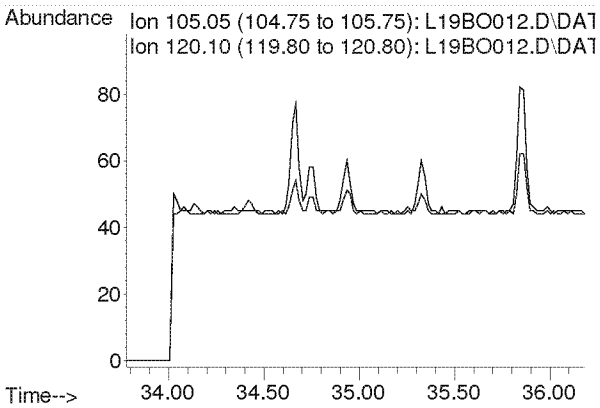


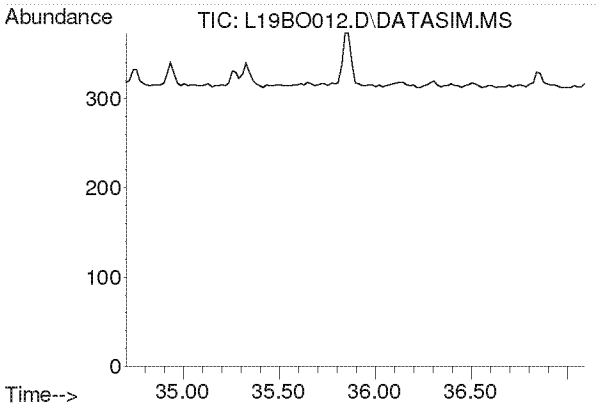
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



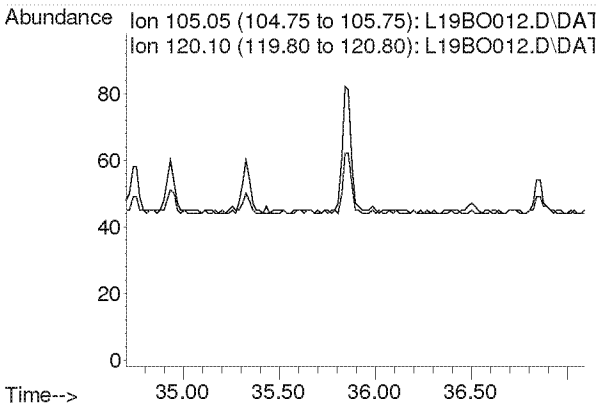


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

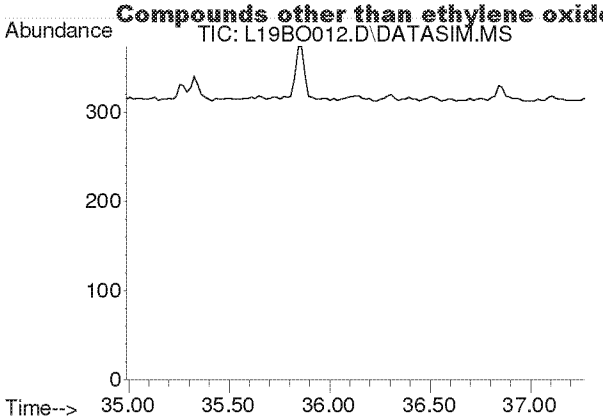
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

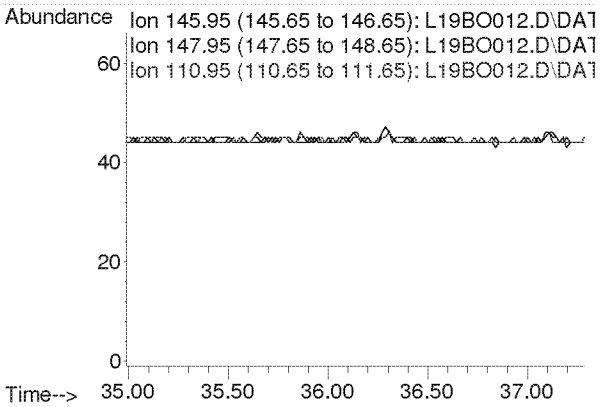


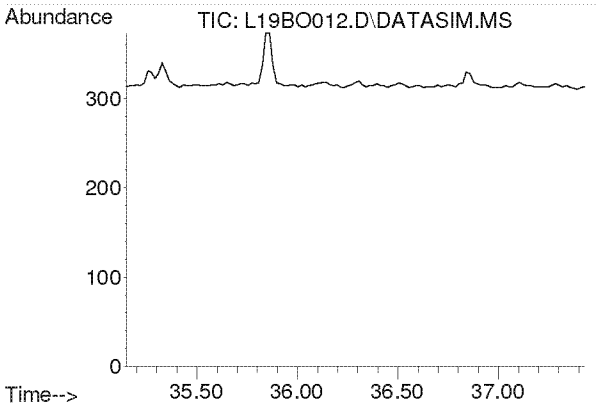
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



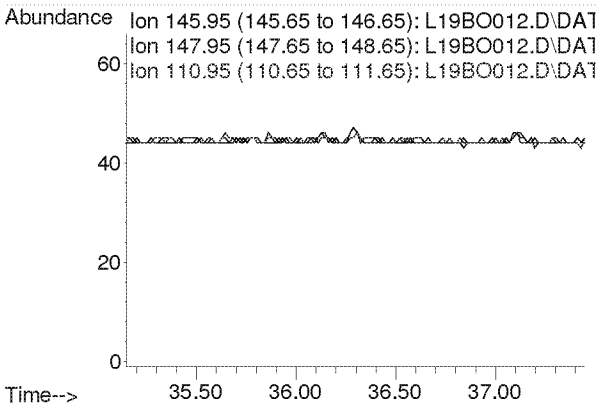


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

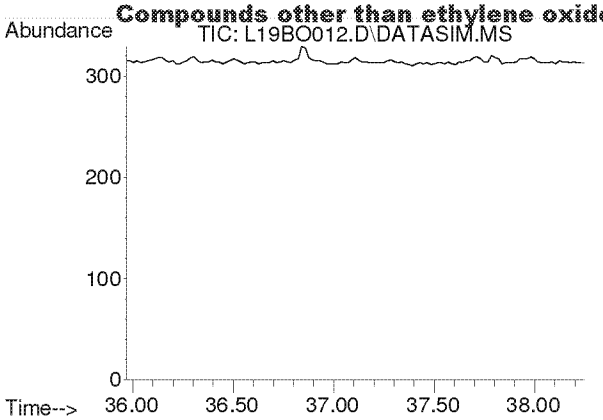
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

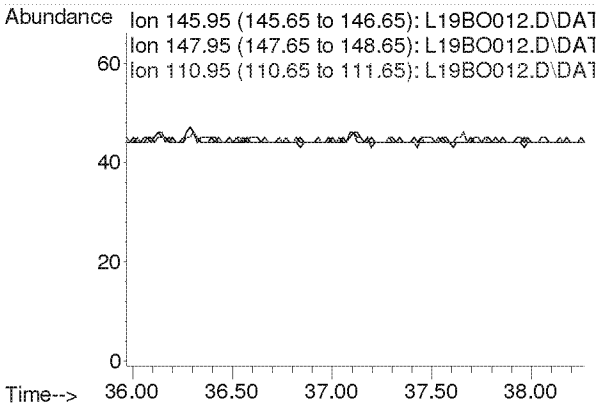


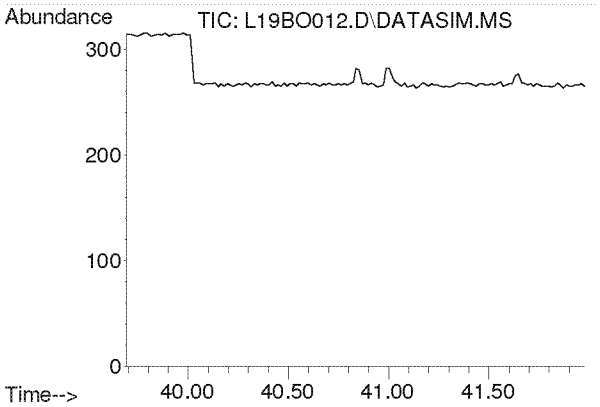
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



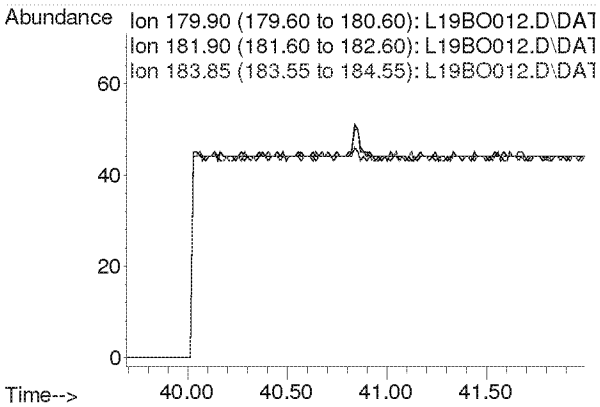


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

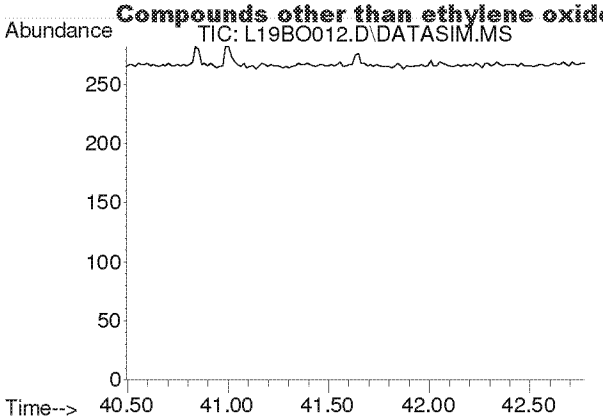
Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

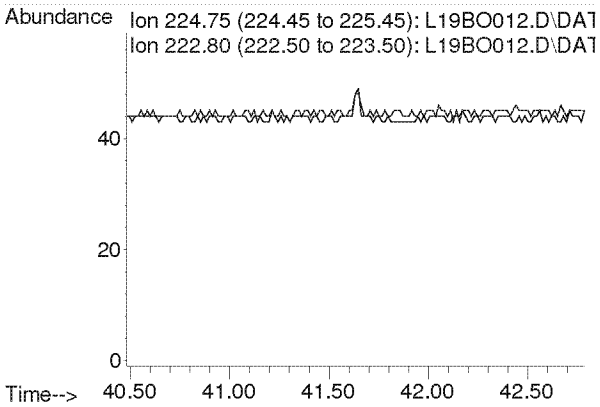


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO012.D
Acq: 15 Feb 2019 5:31 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO013.D
Acq On : 15 Feb 2019 6:31 pm (#1); 15-Feb-19, 18:26:46 (#2)
Operator : MAH
Sample : 9021313-05
Misc : HINSDALE S. HS 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 19 15:08:47 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	41122	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	101341	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	70195	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	12.453	29	452	0.1922 ppbv #	1
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
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\L19BO\
Data File : L19BO013.D
Acq On : 15 Feb 2019 6:31 pm (#1); 15-Feb-19, 18:26:46 (#2)
Operator : MAH
Sample : 9021313-05
Misc : HINSDALE S. HS 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 19 15:08:47 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

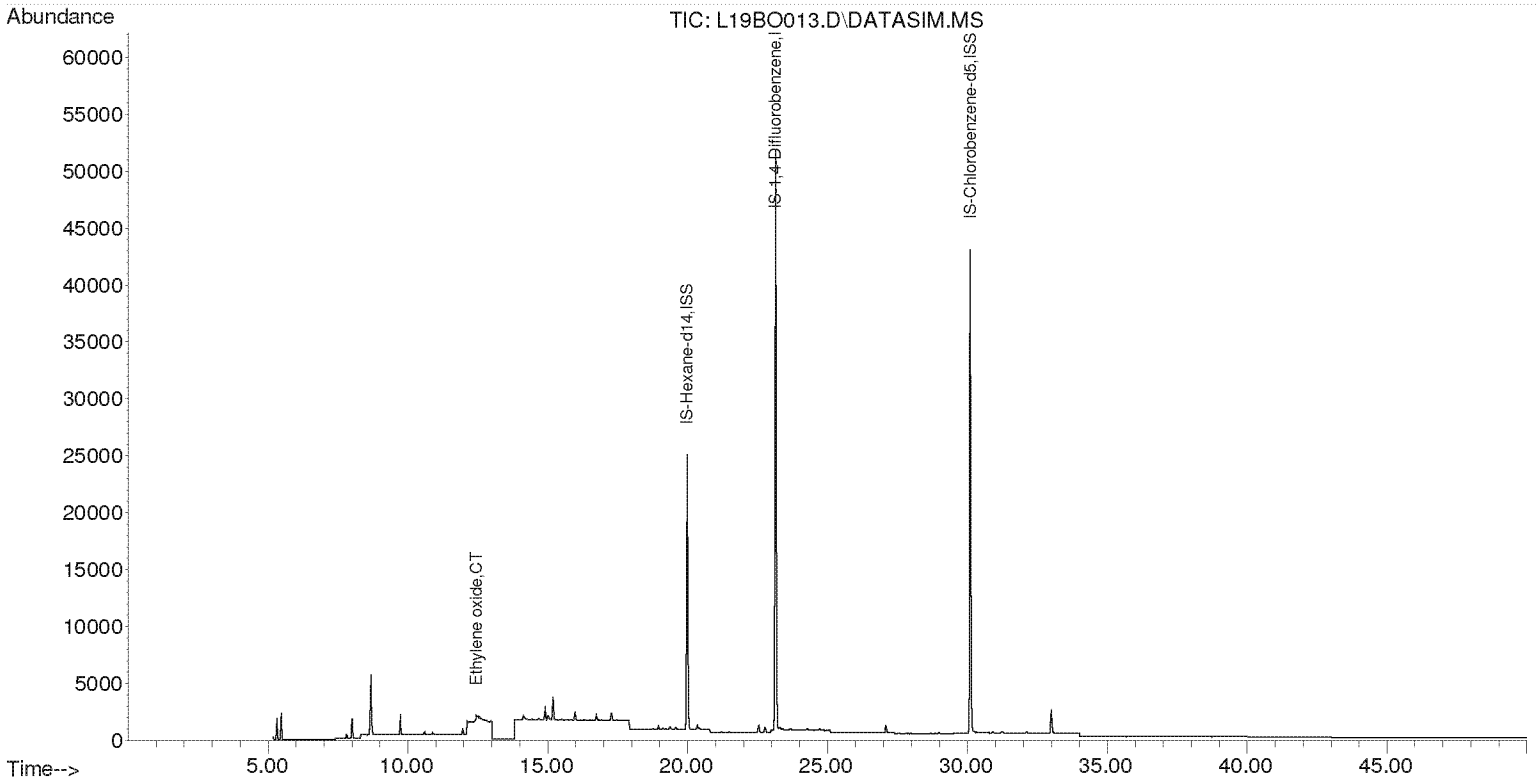
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

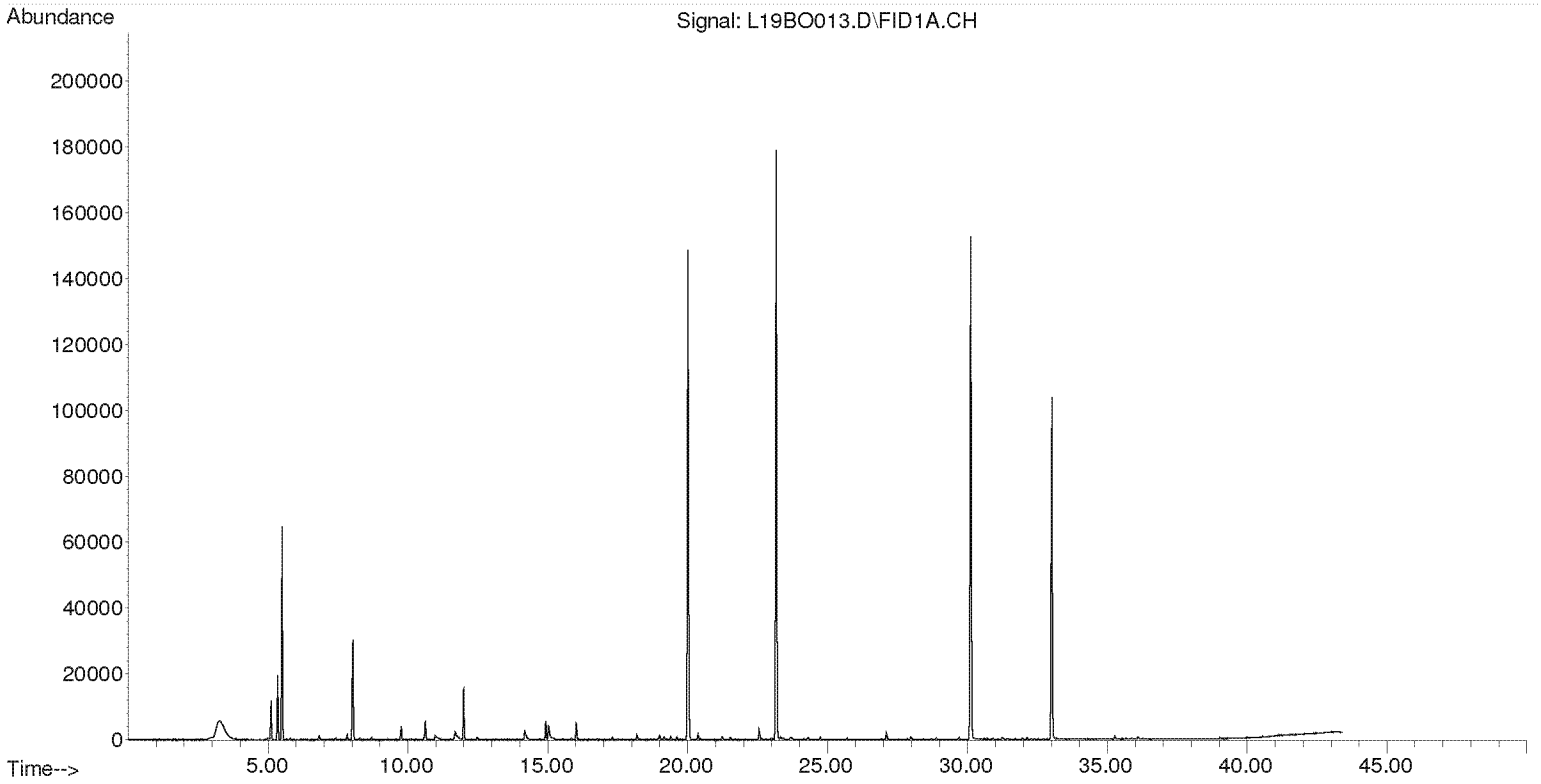
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

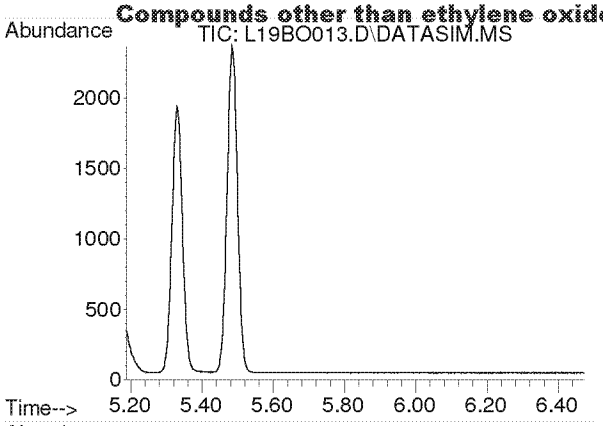
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO013.D
Acq On : 15 Feb 2019 6:31 pm (#1); 15 Feb 2019 6:26 pm (#2)
Operator : MAH
Sample : 9021313-05
Misc : HINSDALE S. HS 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 19 15:08:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





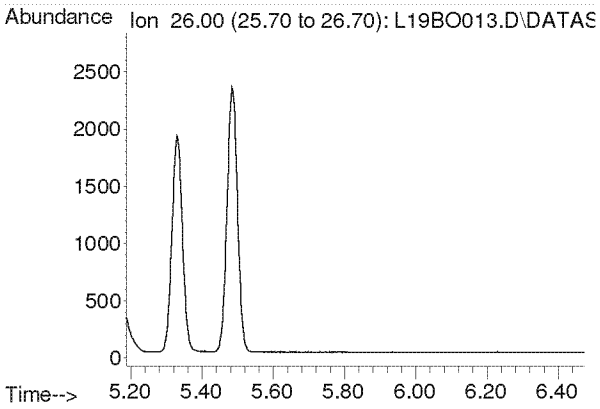
Compounds other than ethylene oxide were not quantitated.

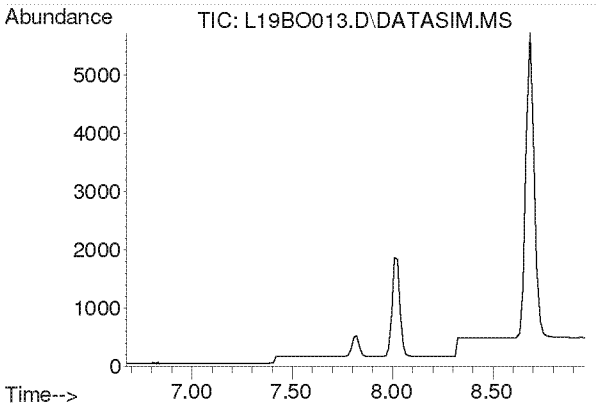


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 26



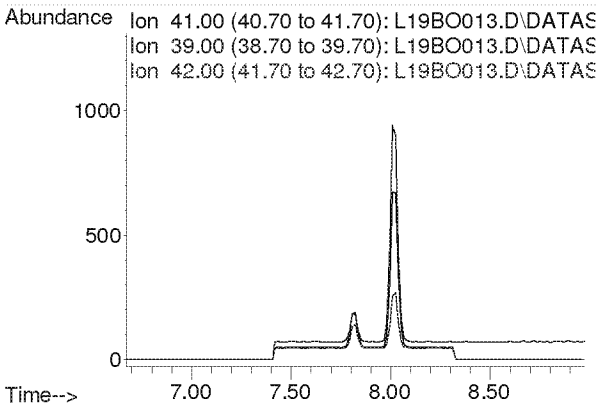


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

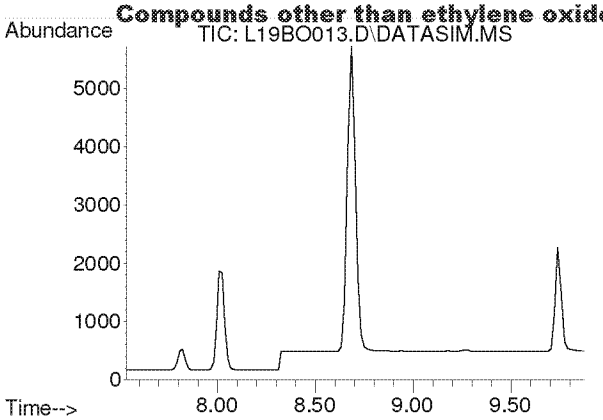
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

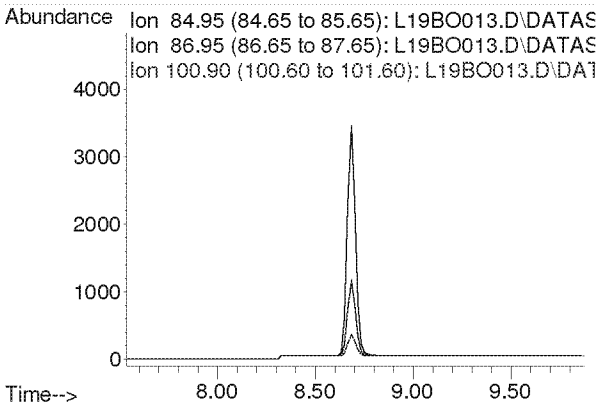


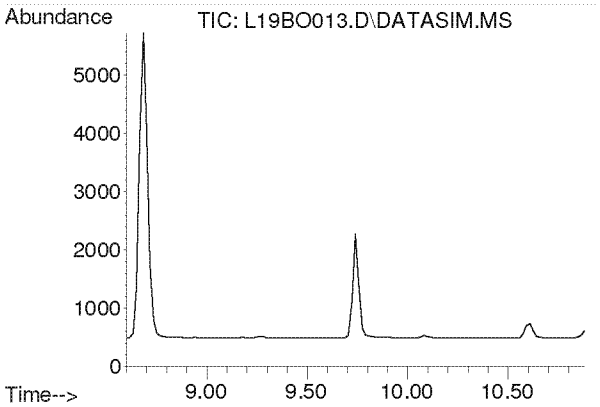
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



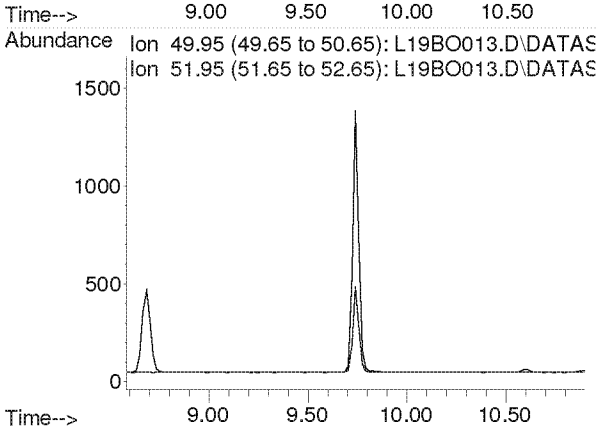


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

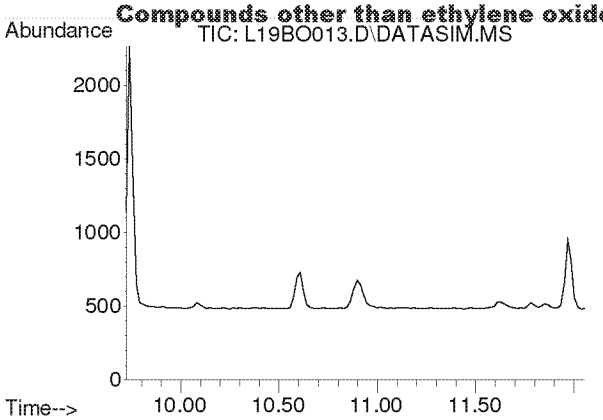
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

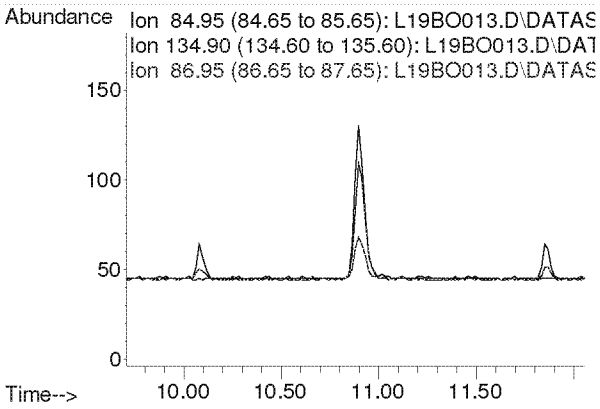


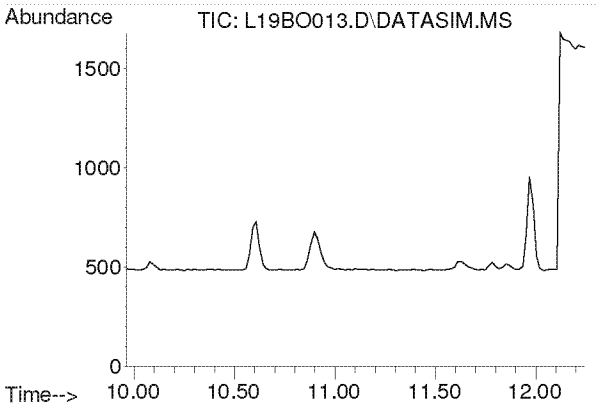
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



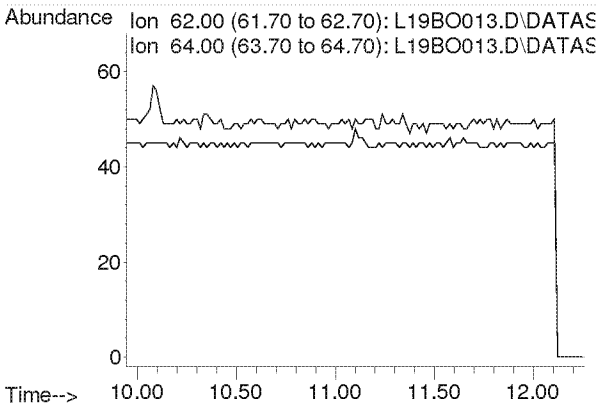


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

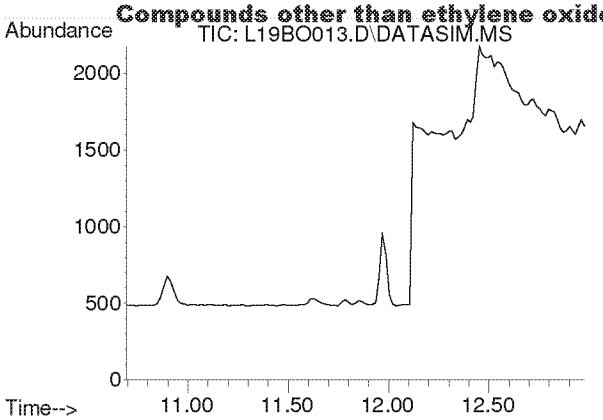
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

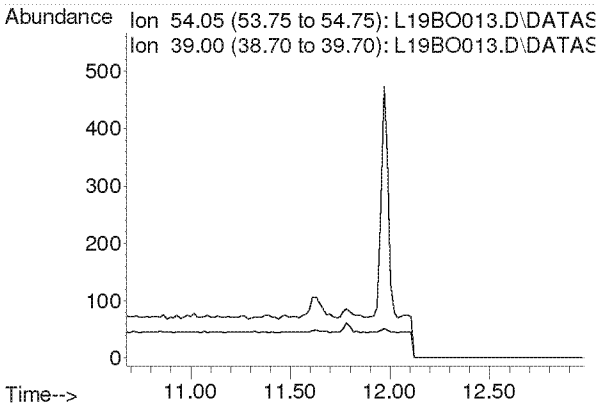


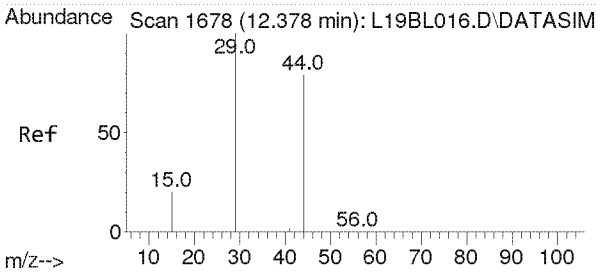
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

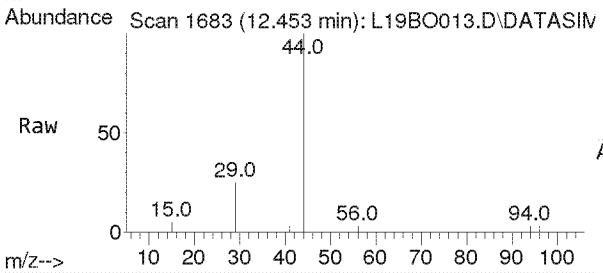


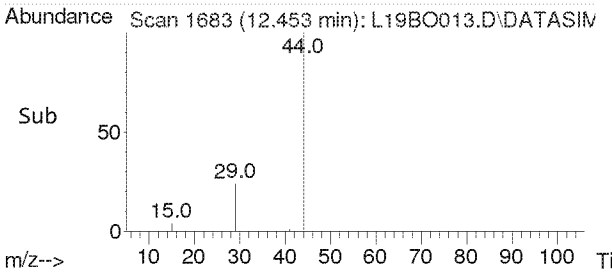


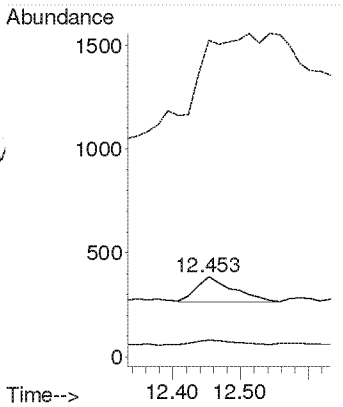
#9
Ethylene oxide
Concen: 0.192 ppbv
RT: 12.453 min Scan# 1683
Delta R.T. 0.053 min
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 29 Resp: 452

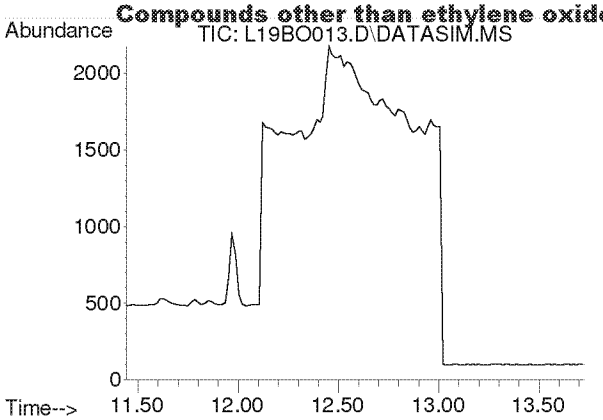
Ion	Ratio	Lower	Upper
29	100		
15	20.4	16.0	24.0
44	1074.1	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

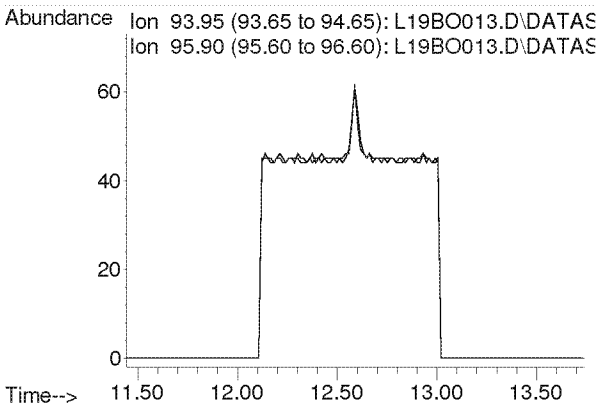


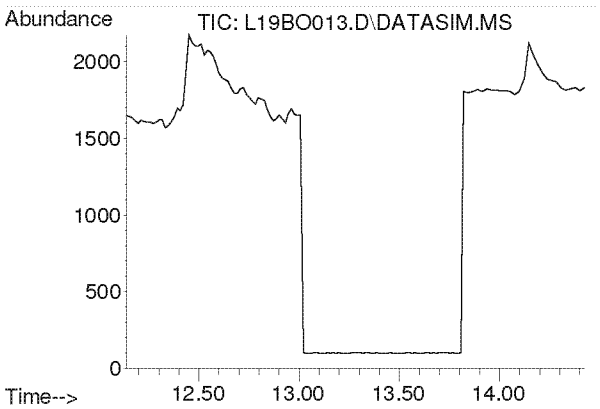
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



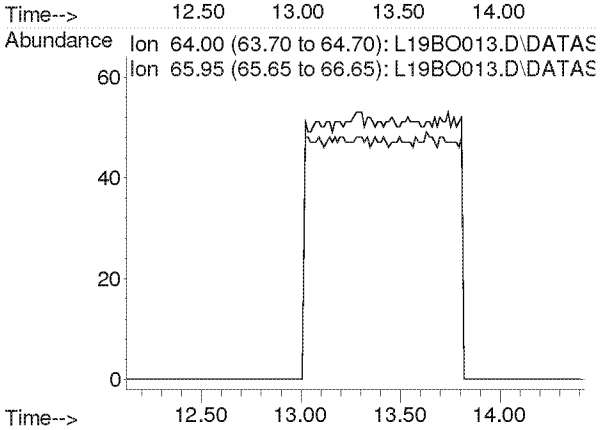


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

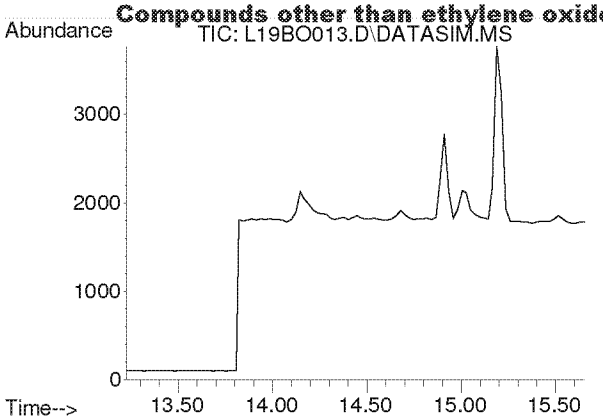
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

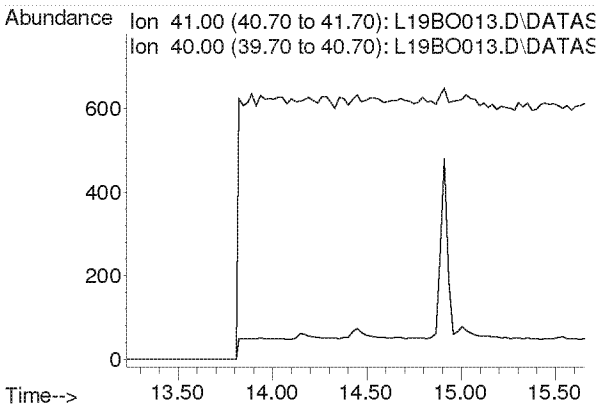


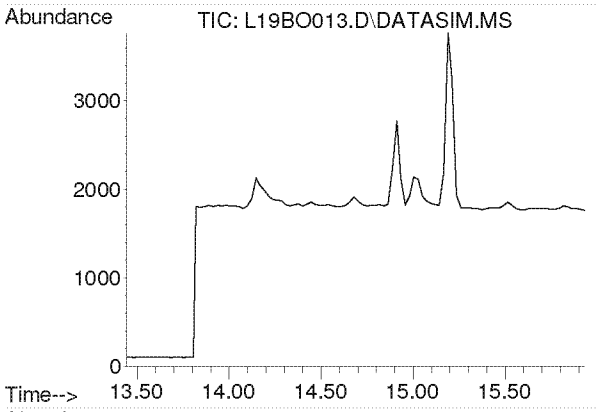
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



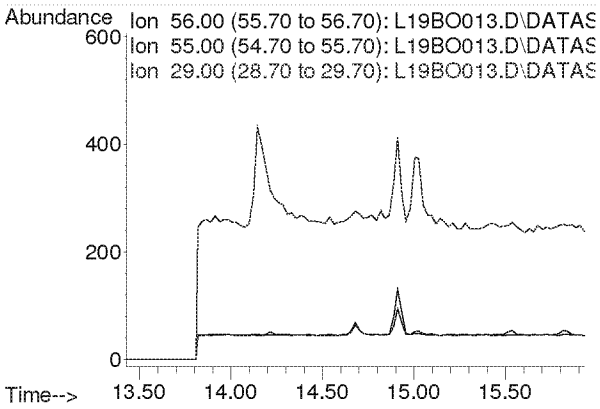


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

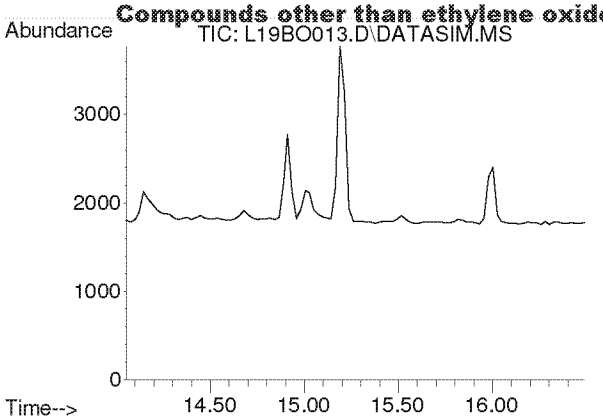
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

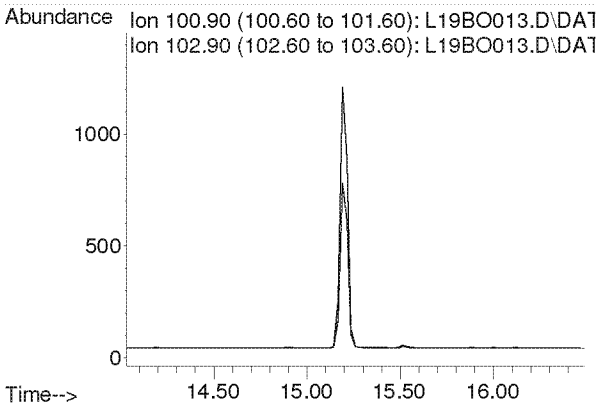


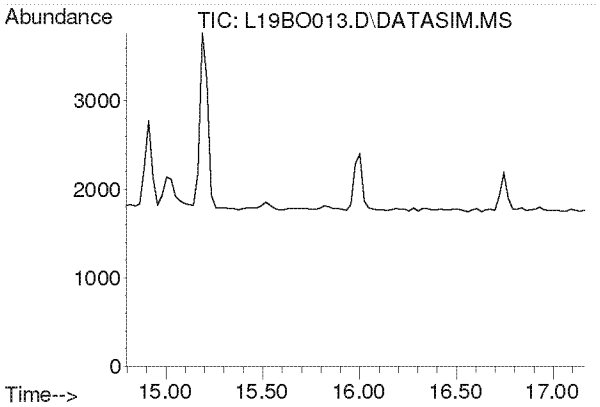
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



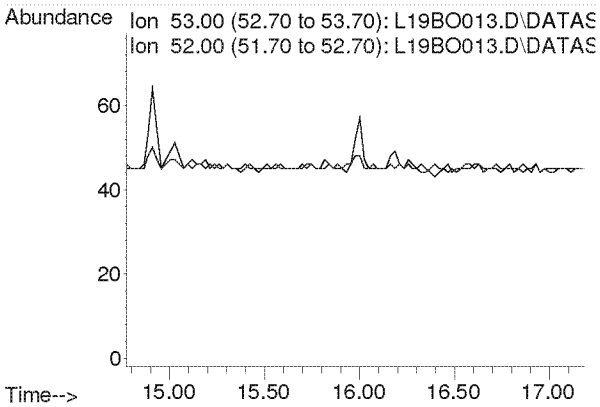


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

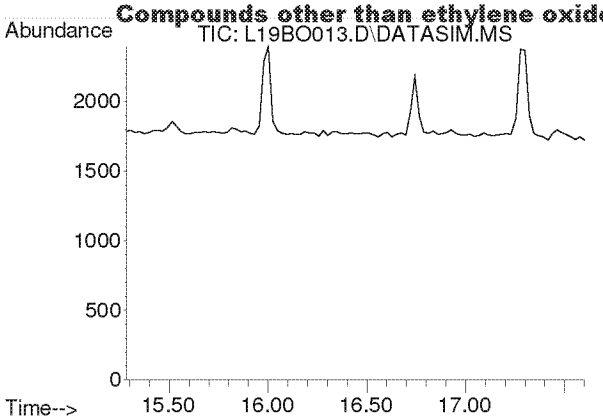
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

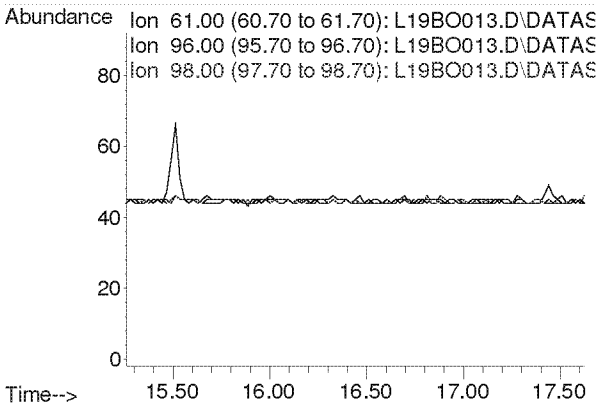


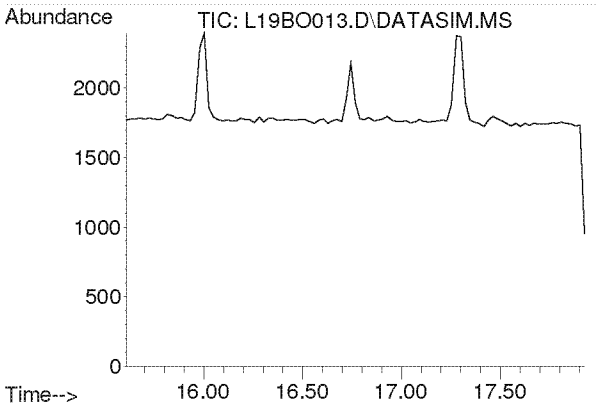
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



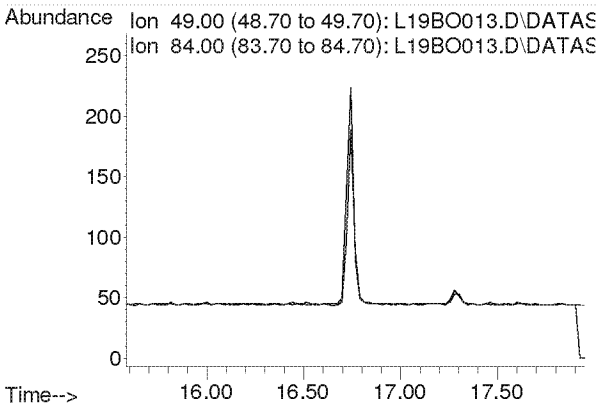


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

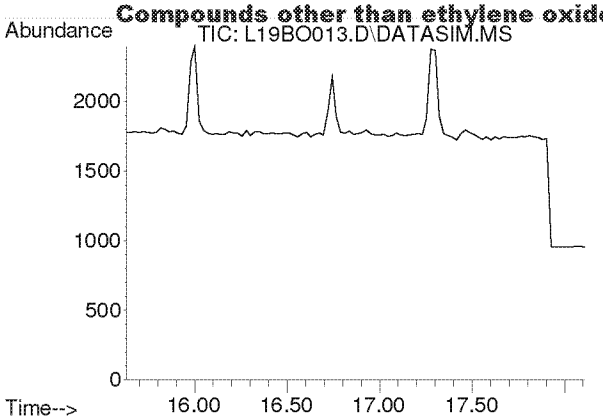
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

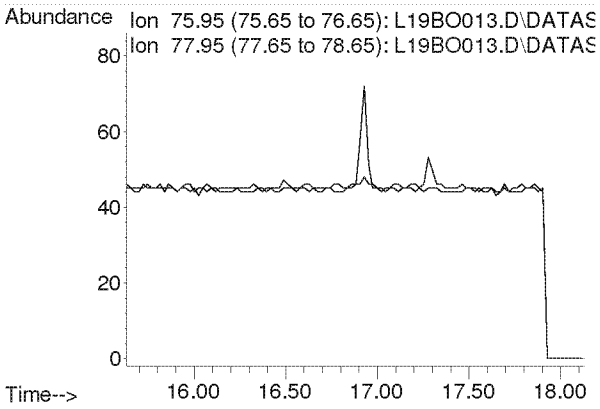


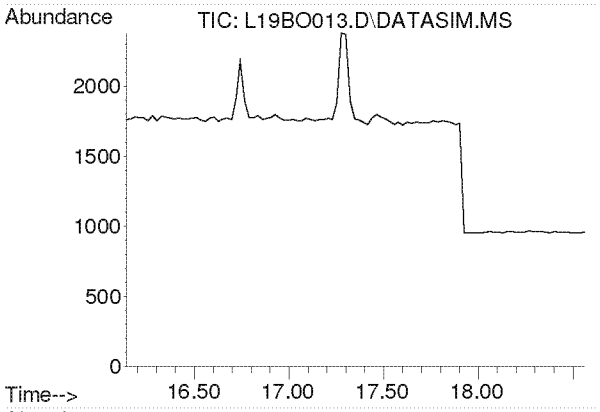
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



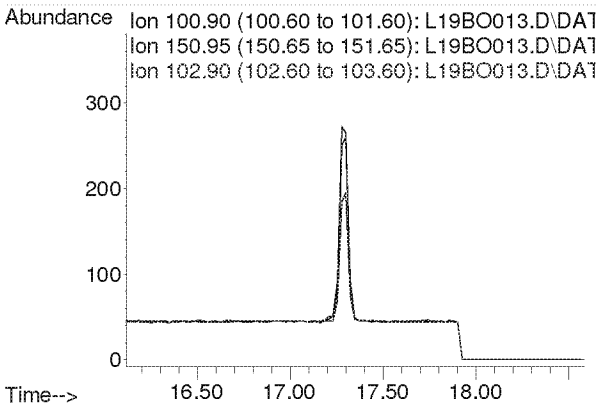


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

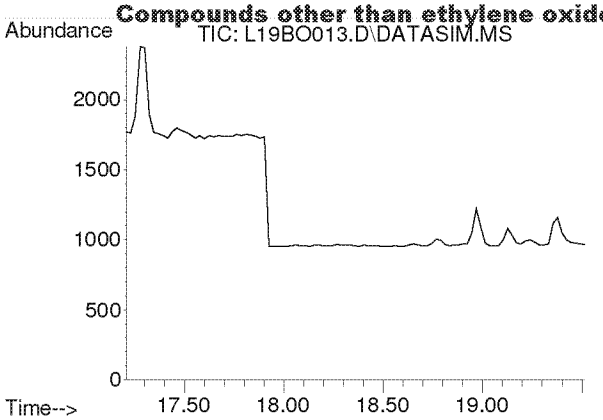
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

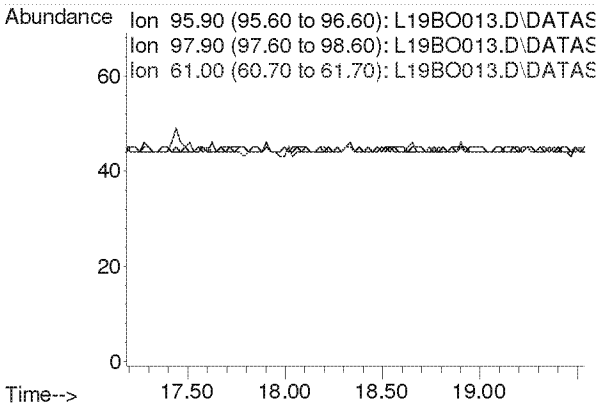


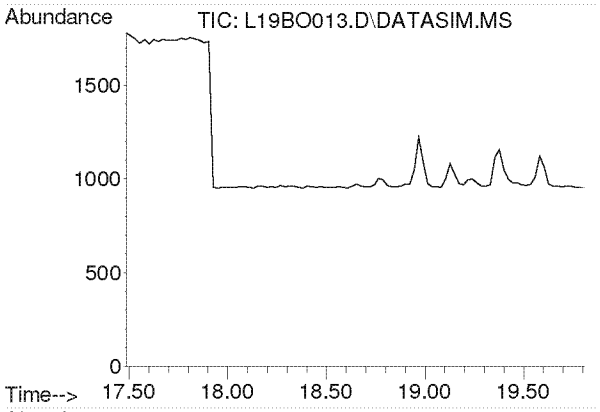
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



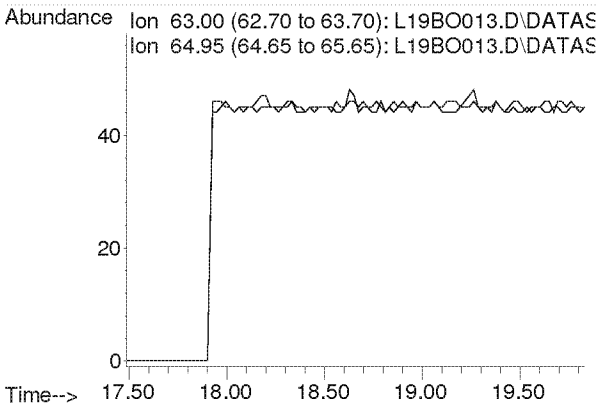


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

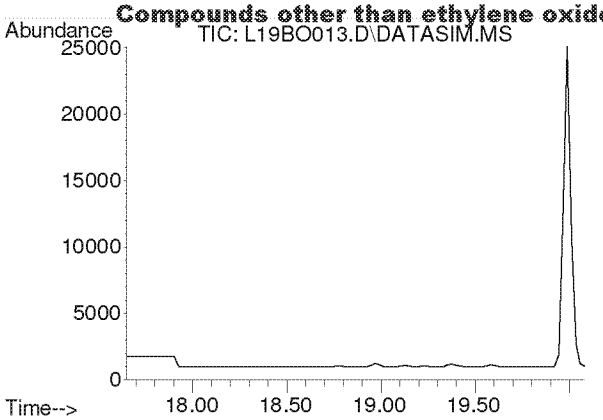
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

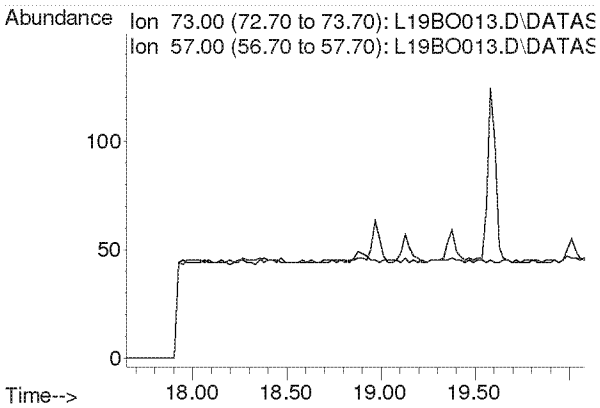


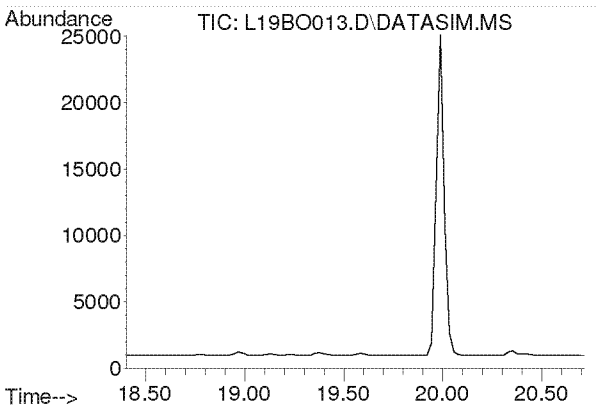
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



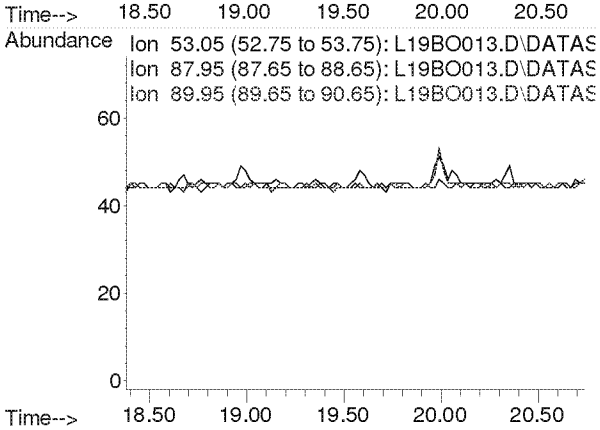


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

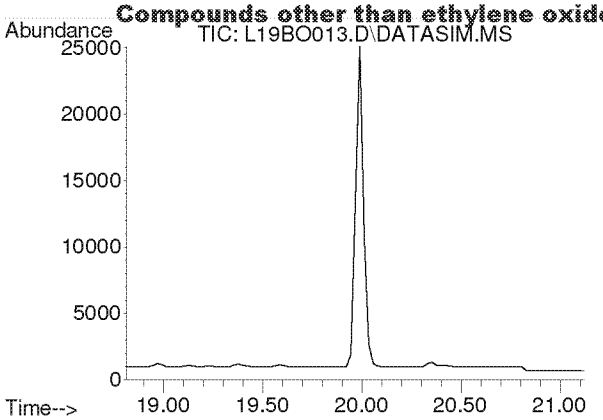
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

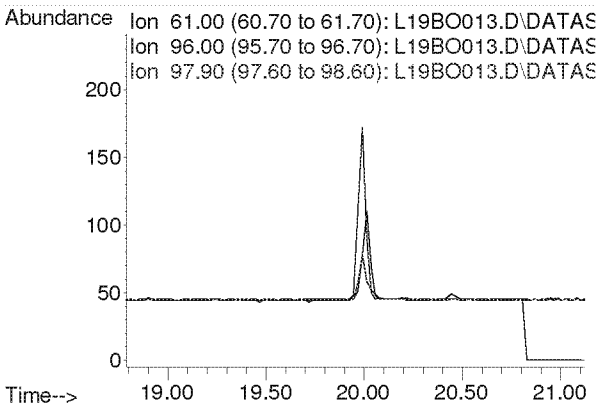


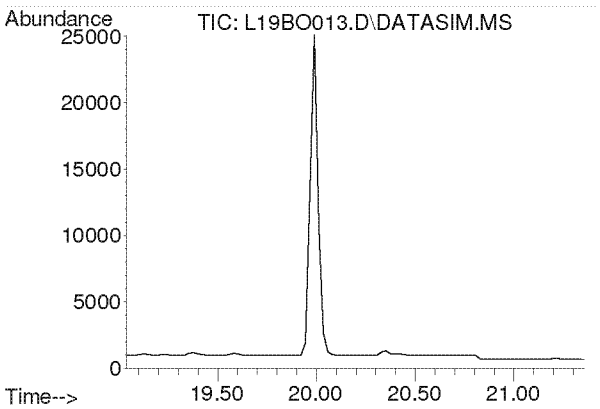
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



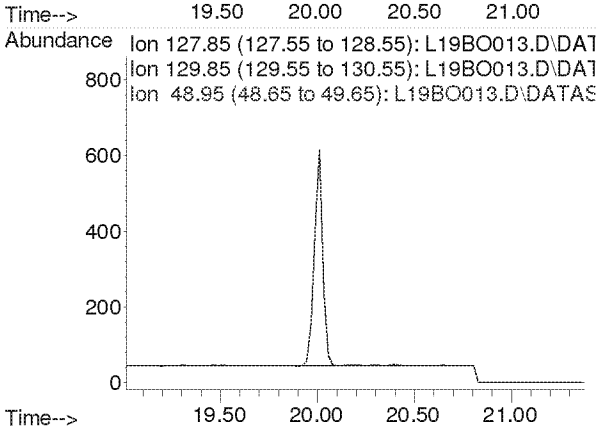


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

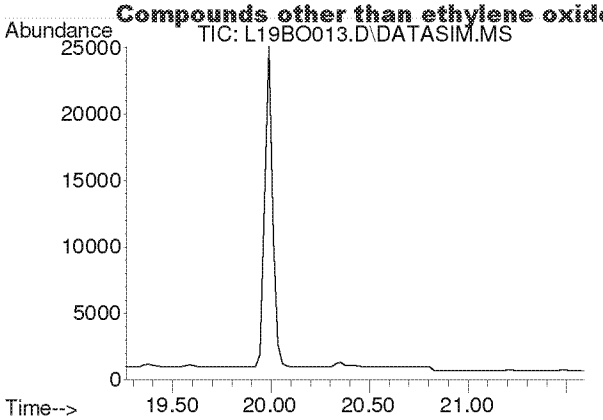
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

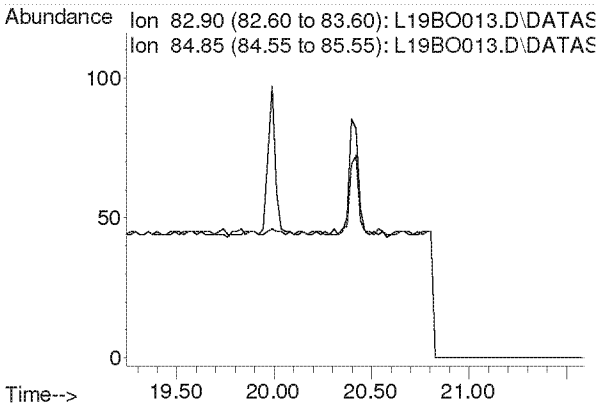


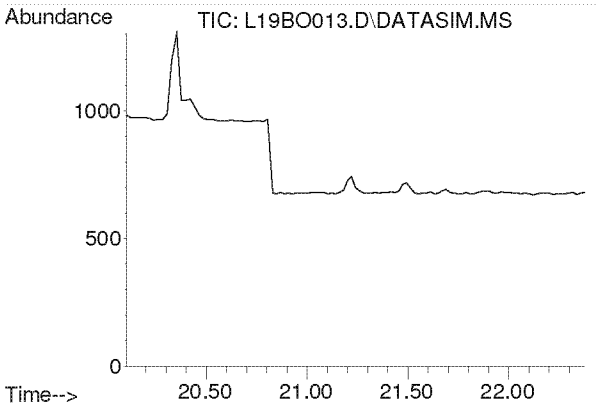
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



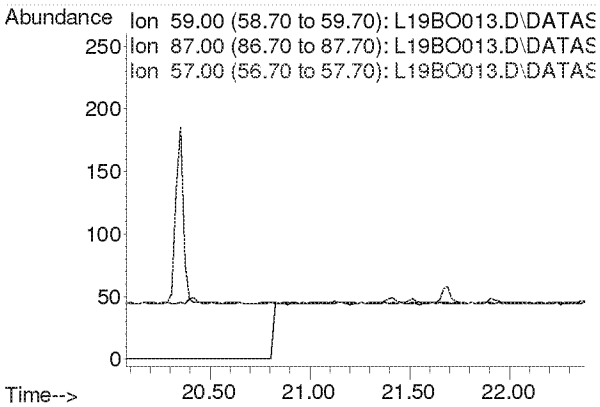


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

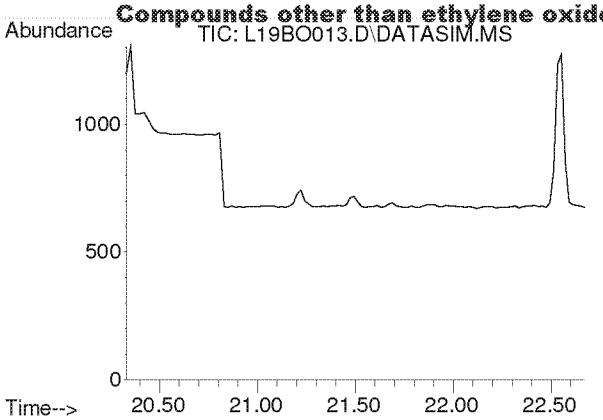
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

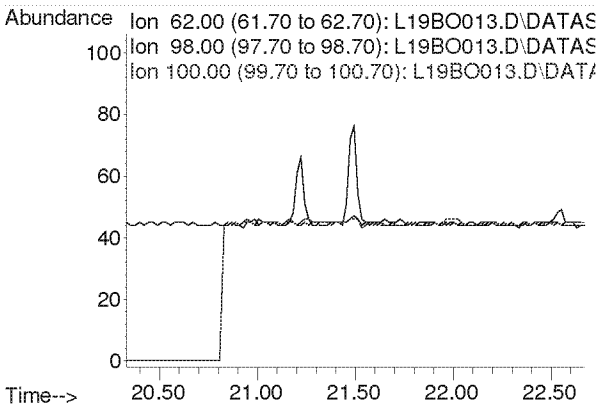


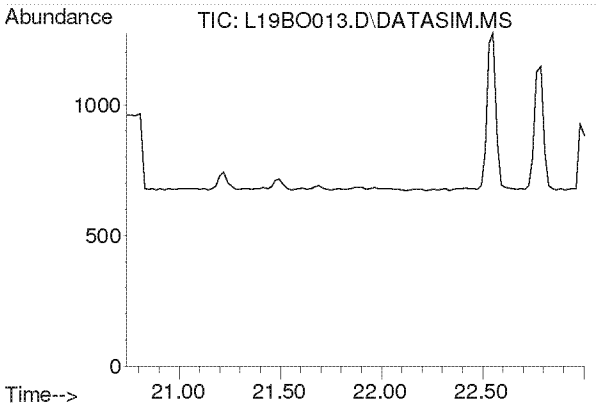
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



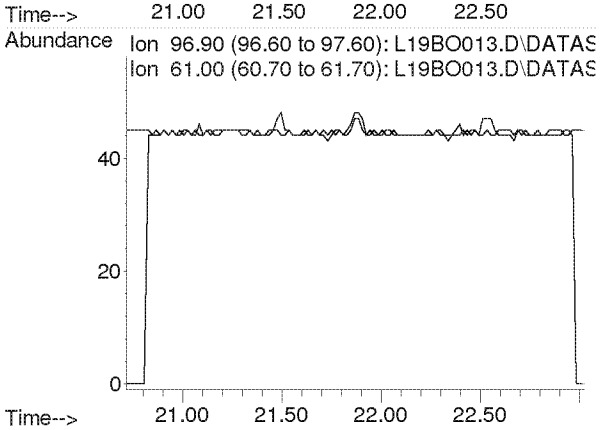


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

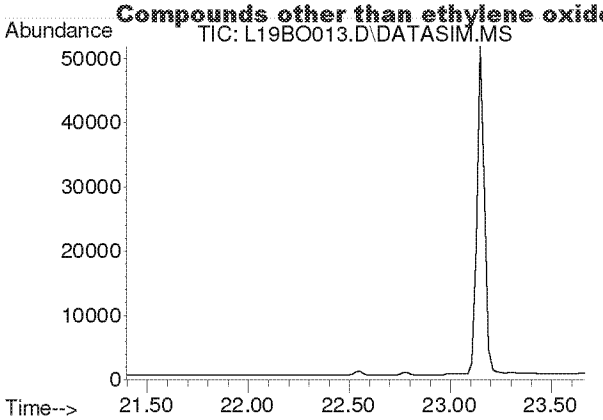
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

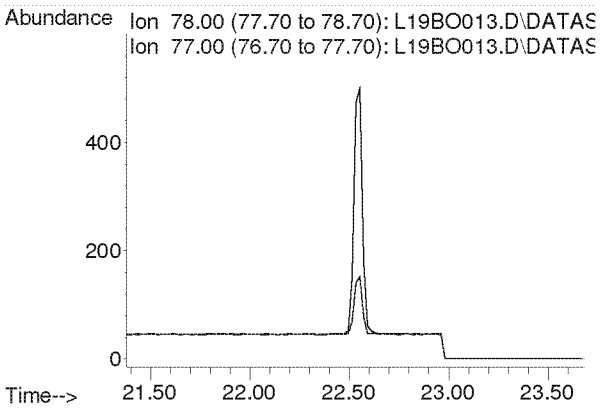


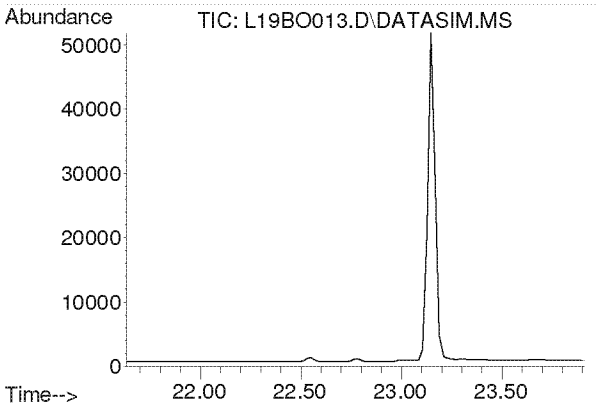
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



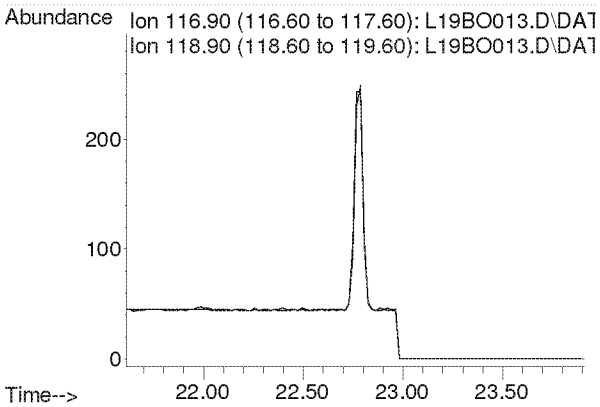


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

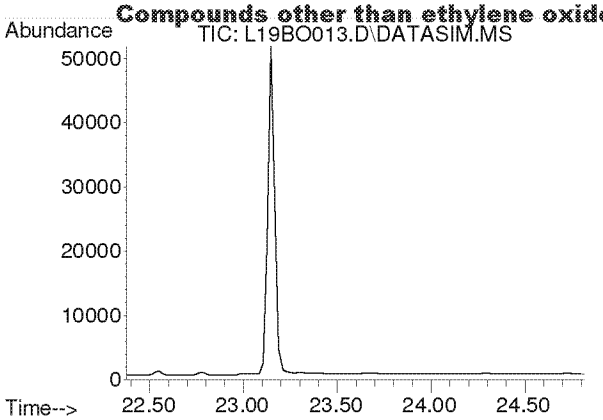
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

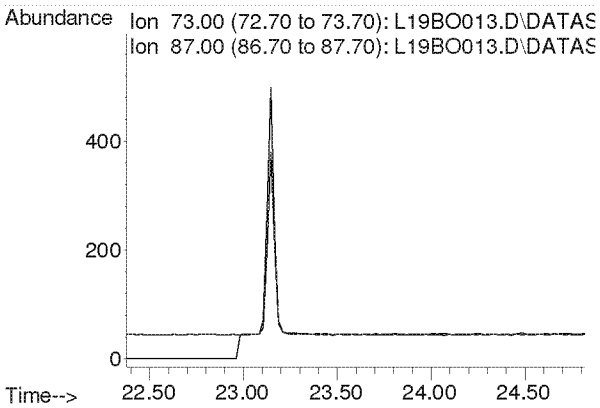


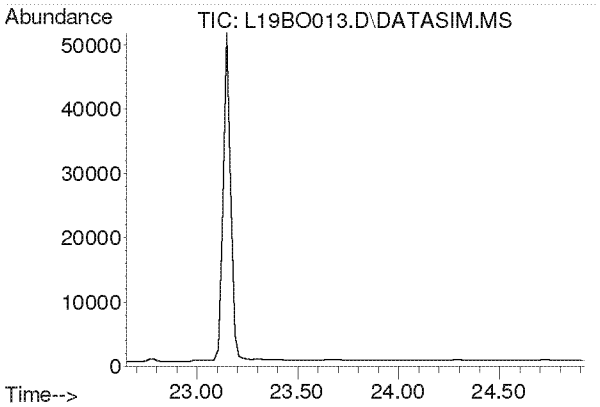
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



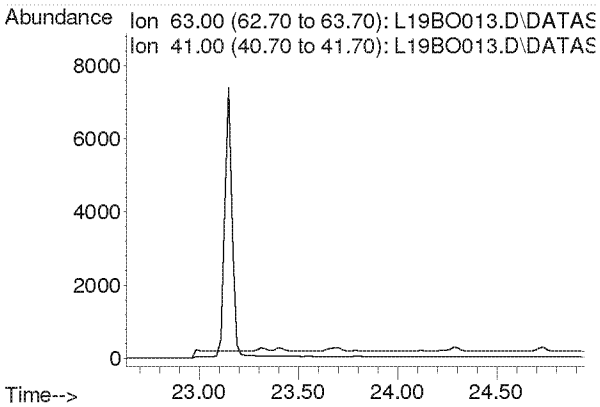


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

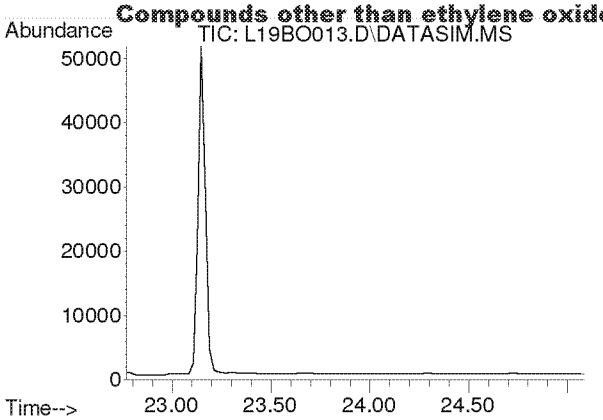
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

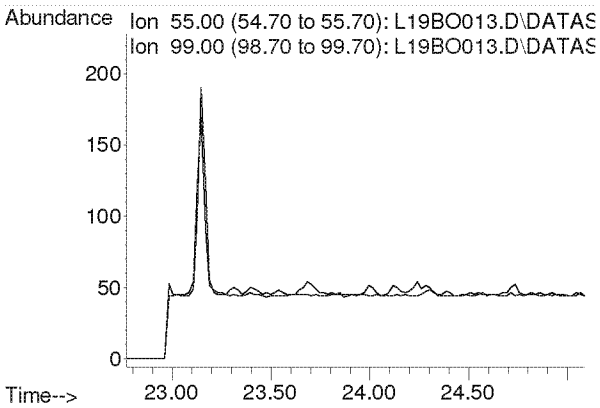


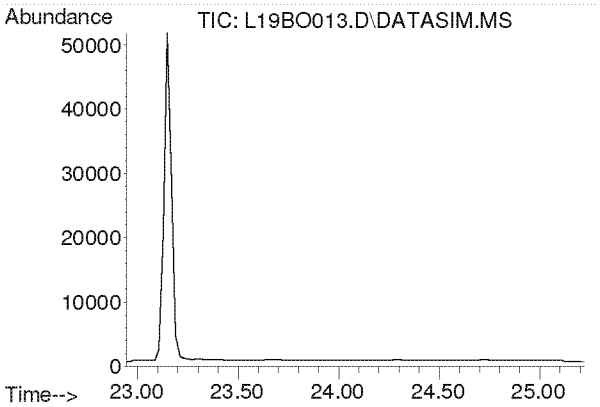
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



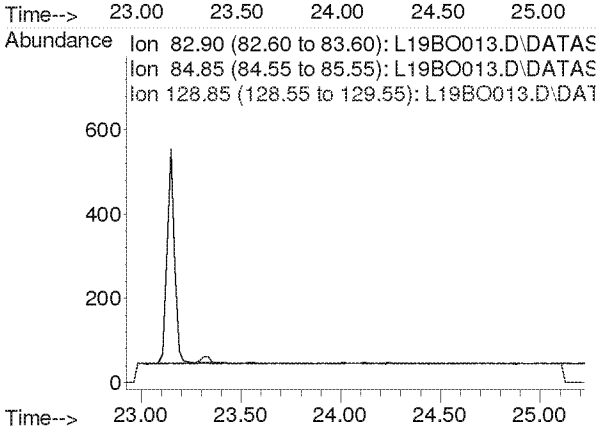


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

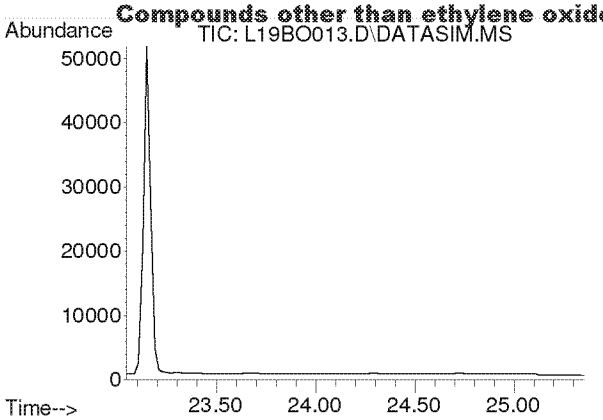
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

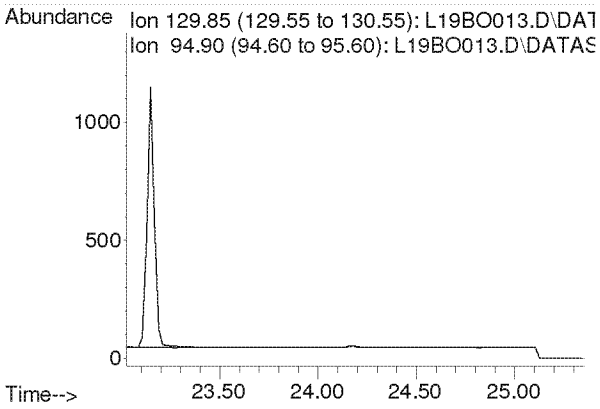


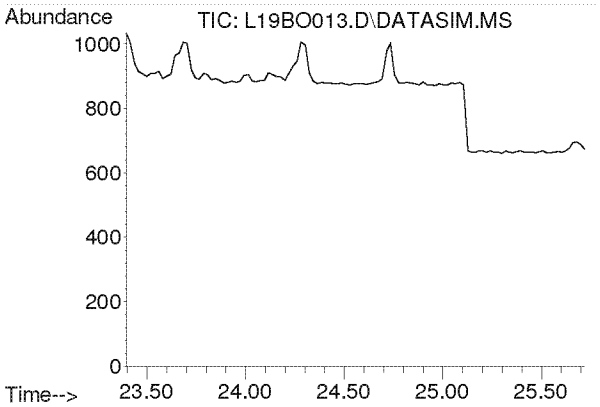
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



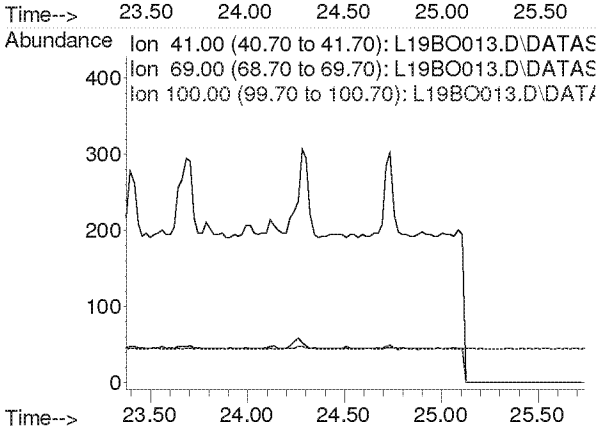


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

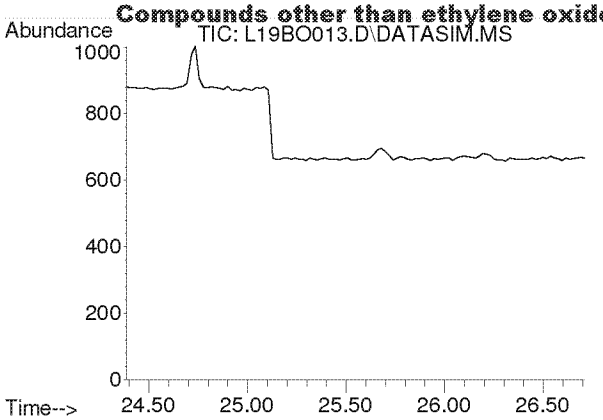
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

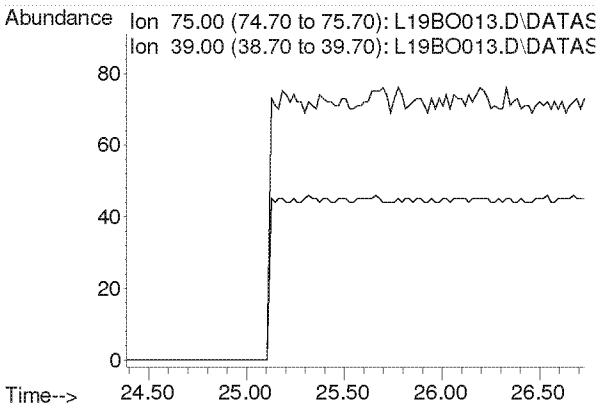


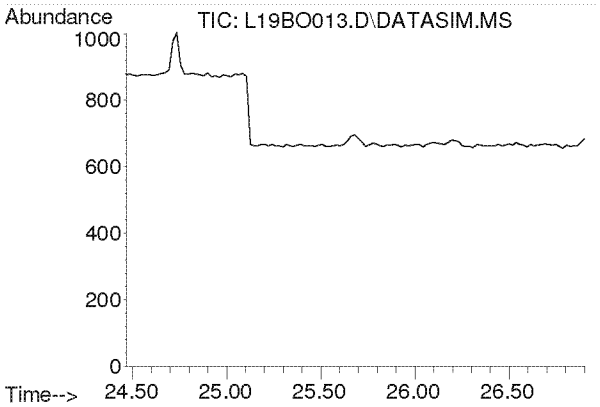
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



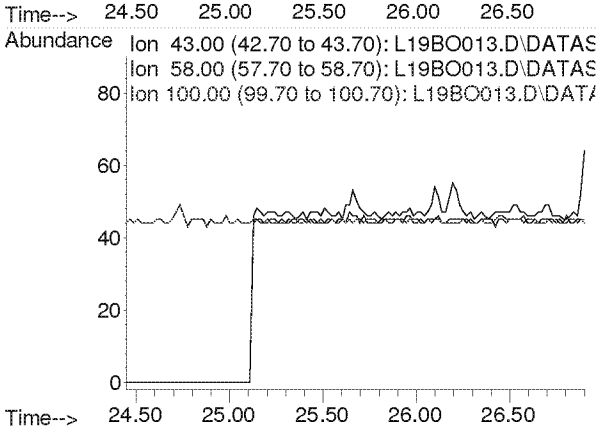


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

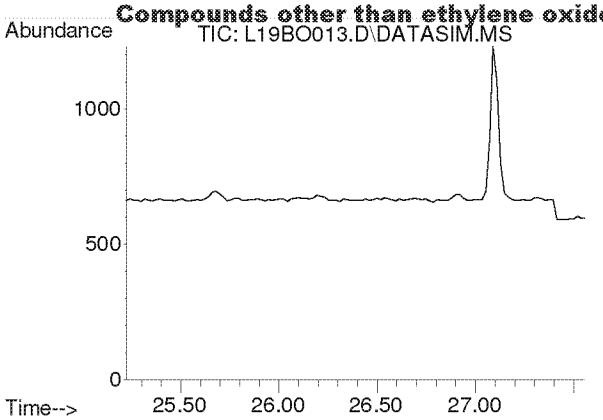
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

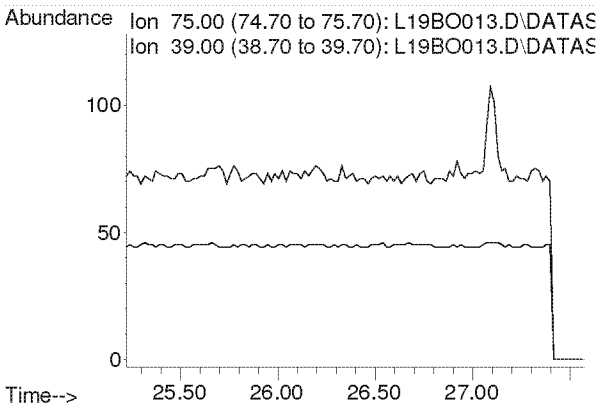


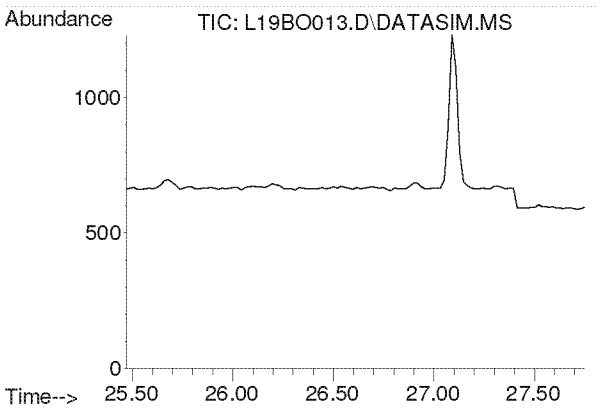
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



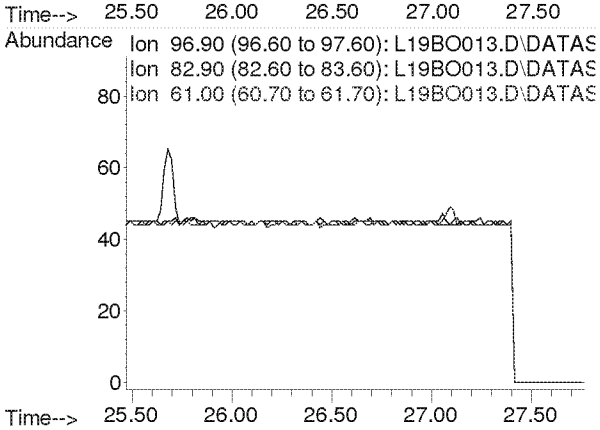


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

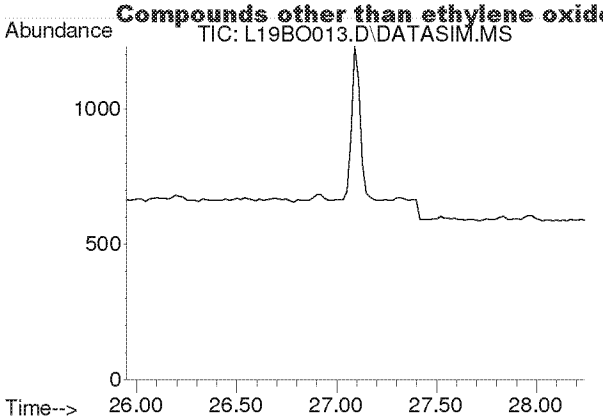
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

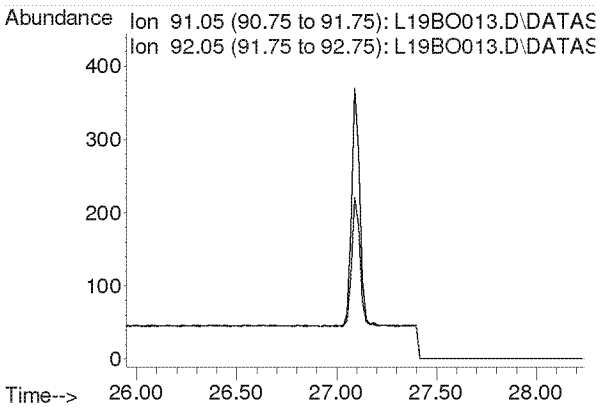


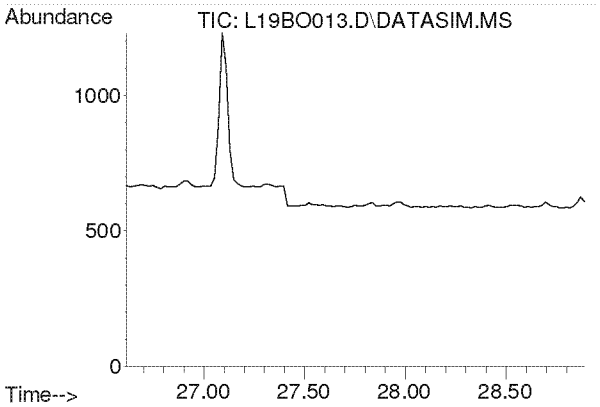
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



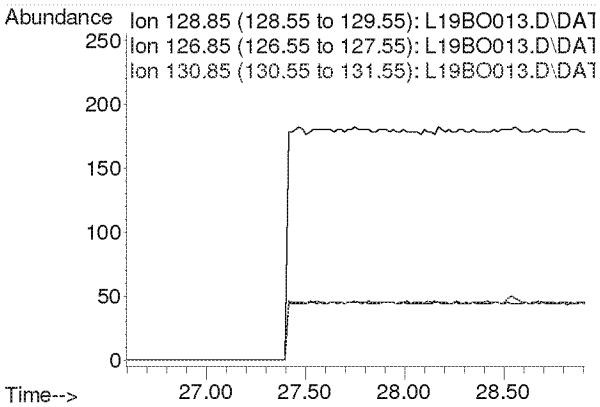


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

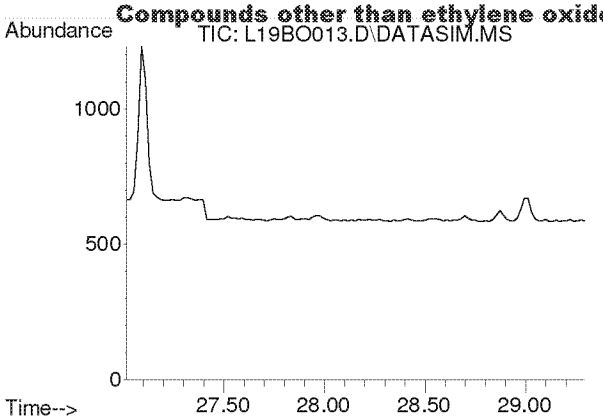
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

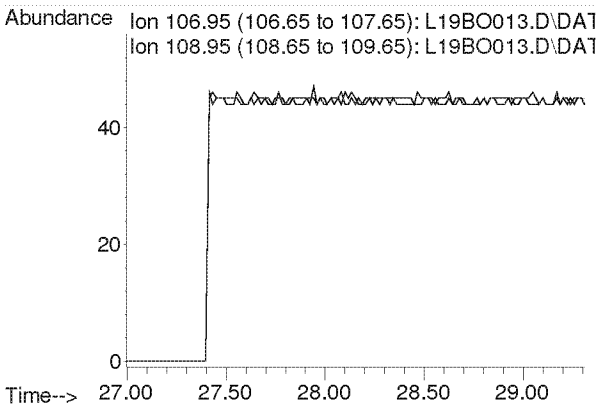


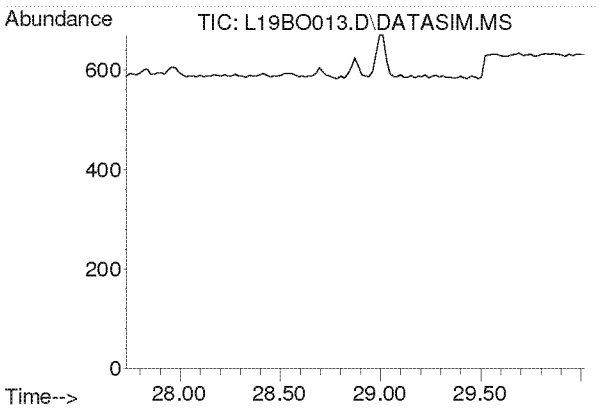
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



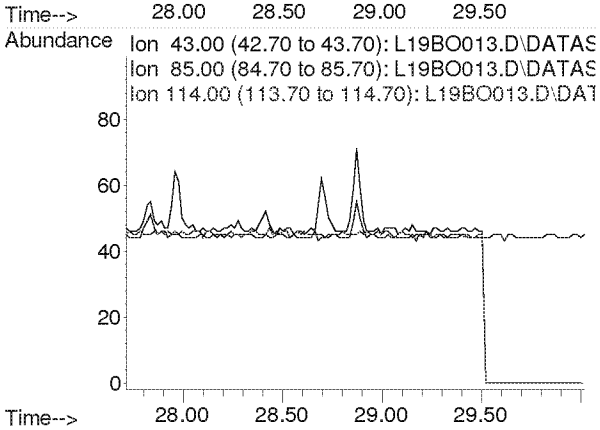


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

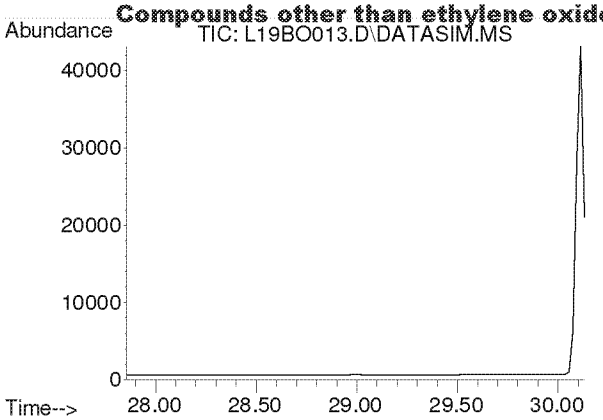
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

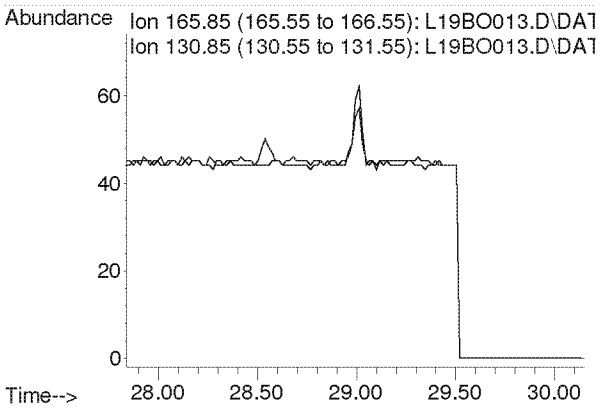


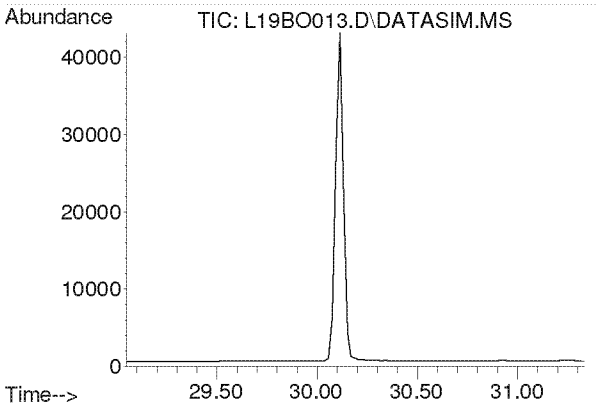
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



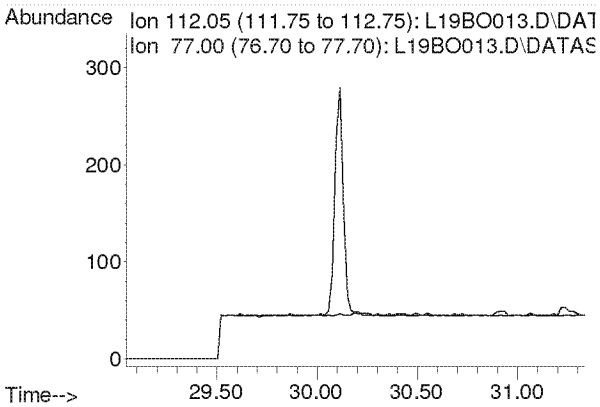


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

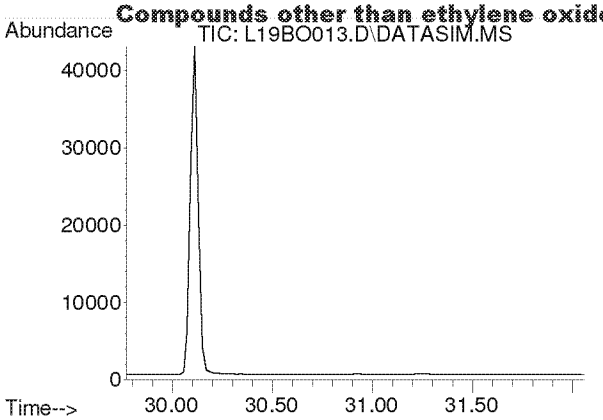
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

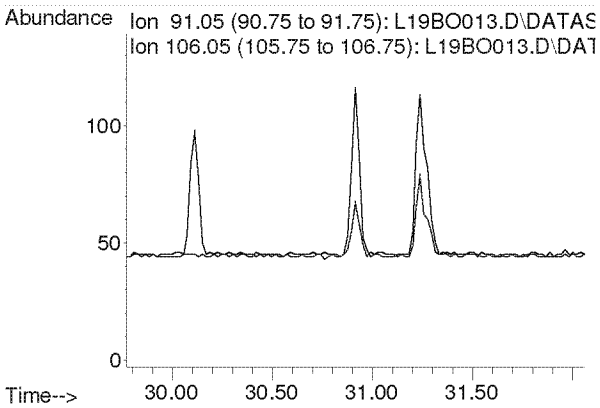


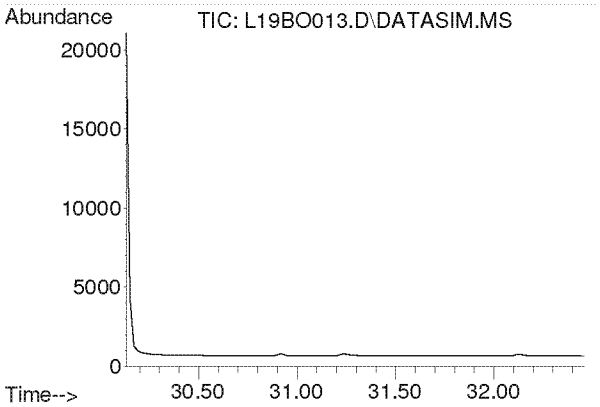
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



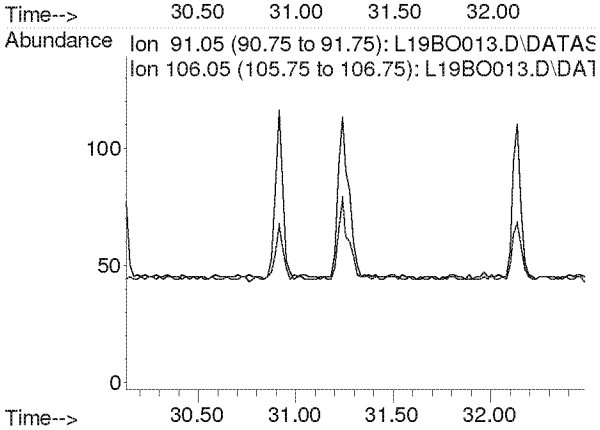


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

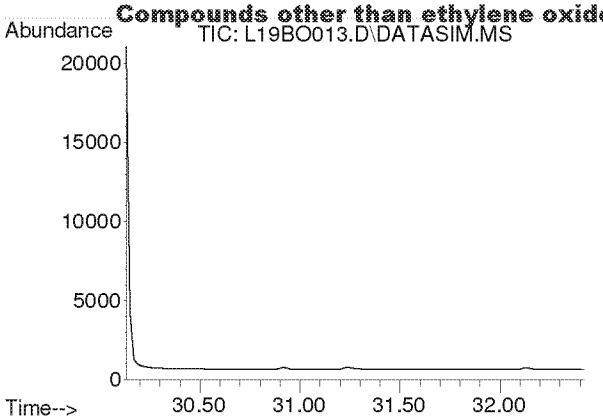
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

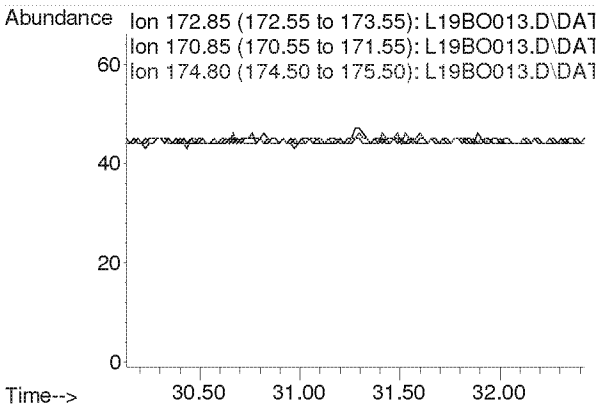


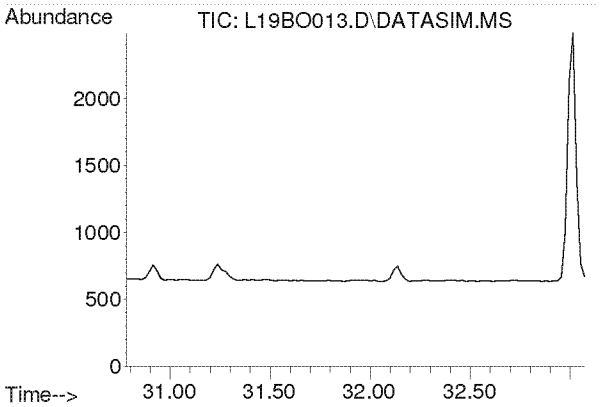
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



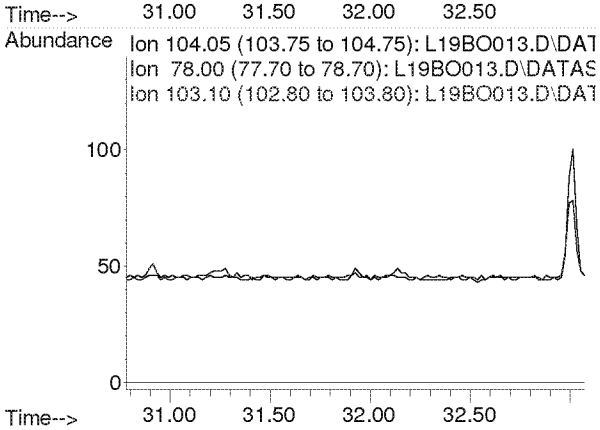


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

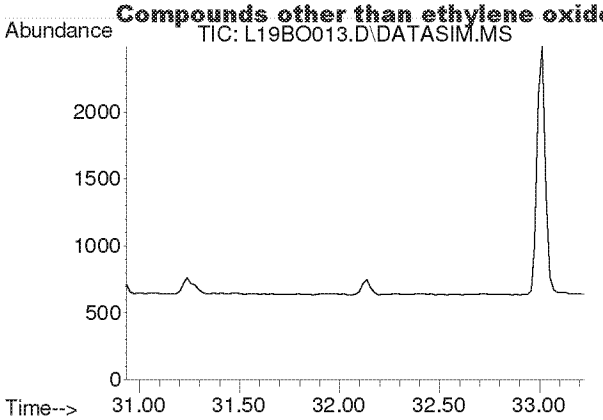
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

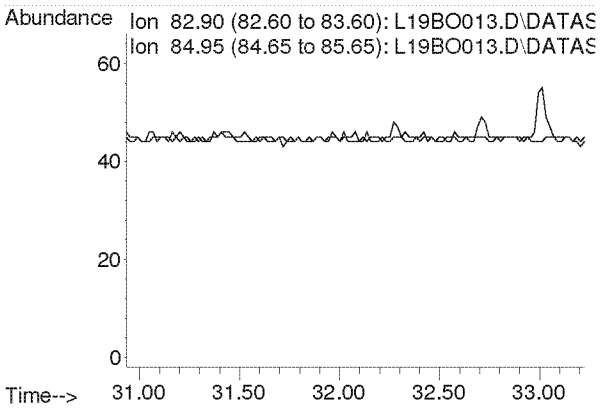


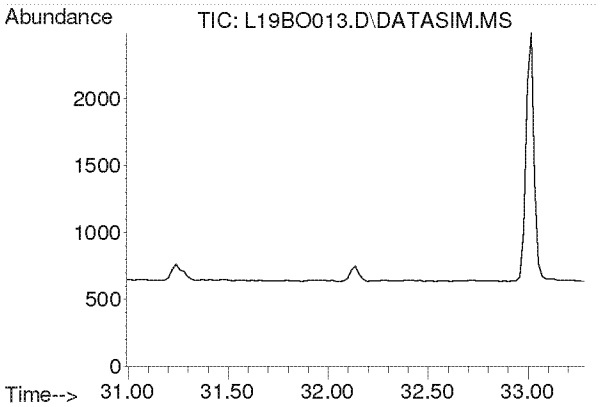
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



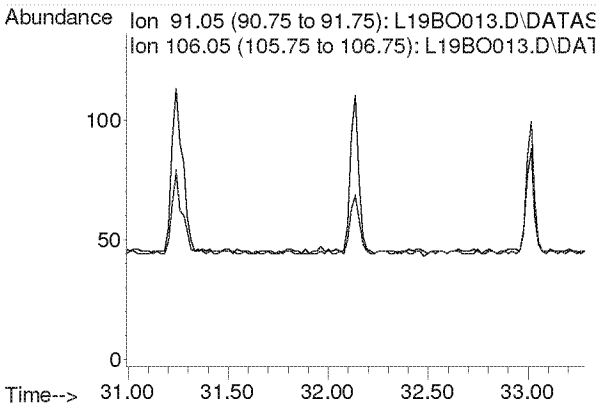


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

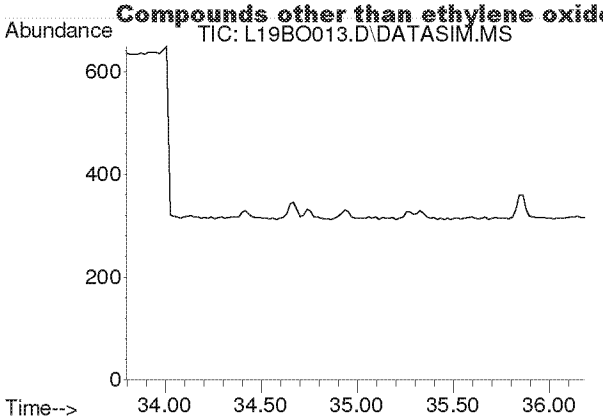
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

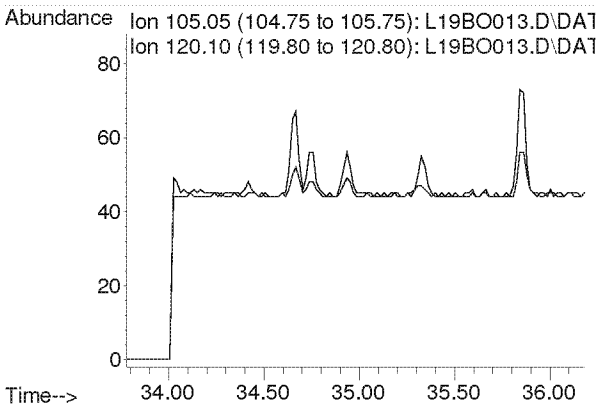


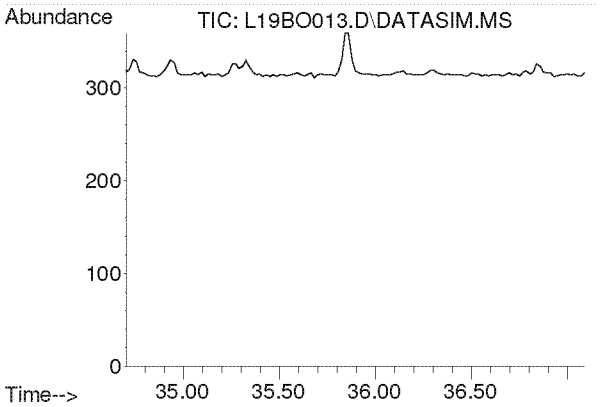
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



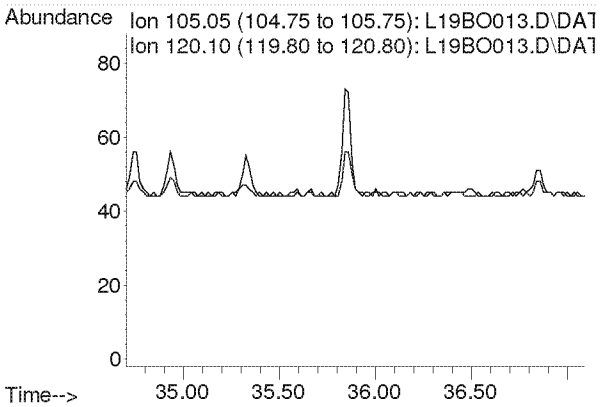


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

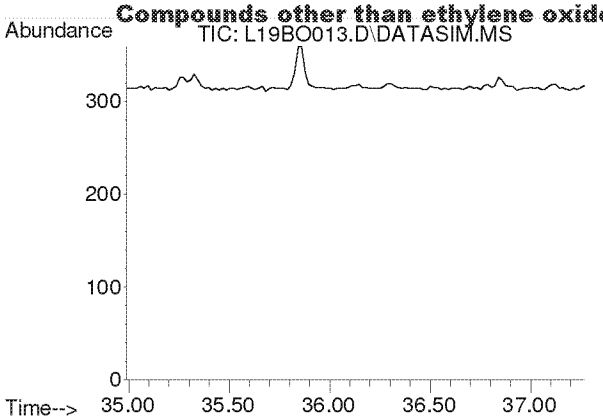
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

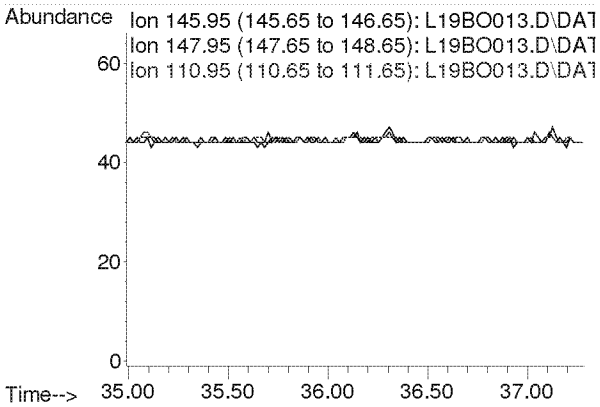


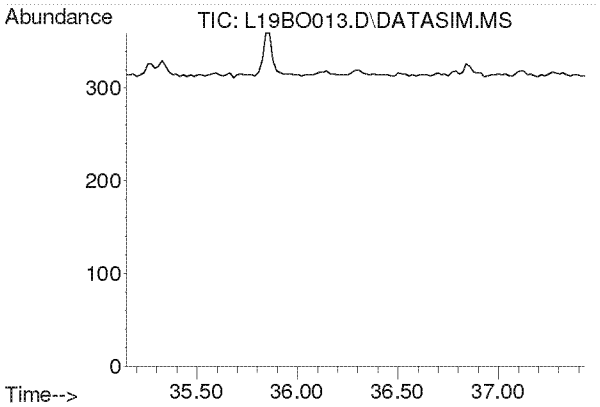
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



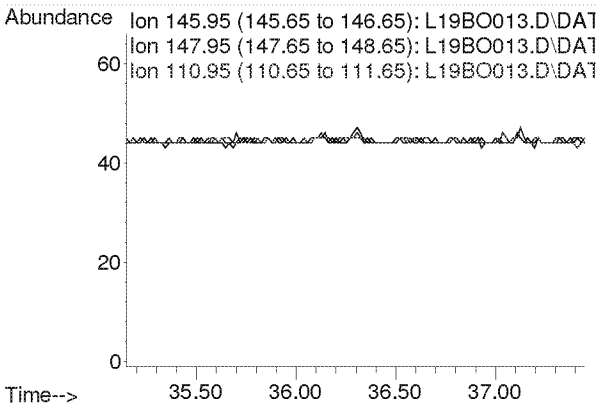


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

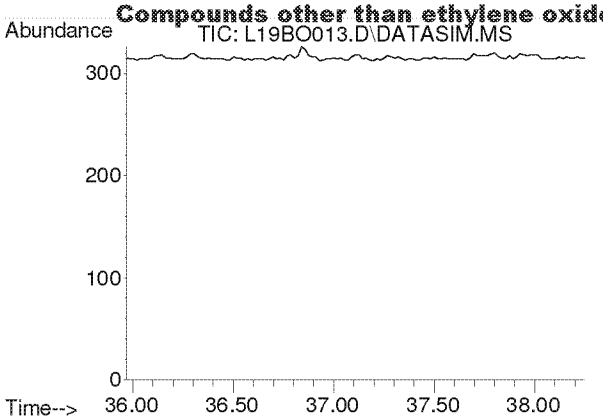
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

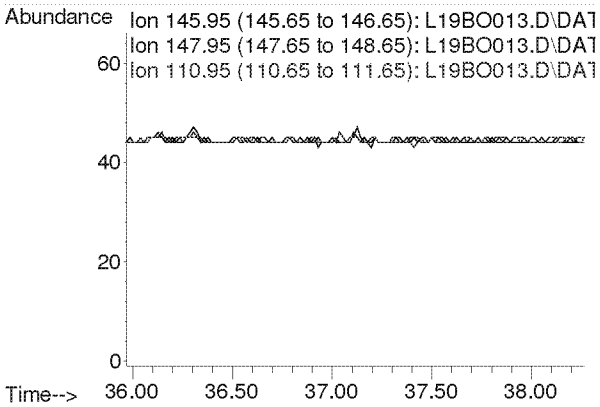


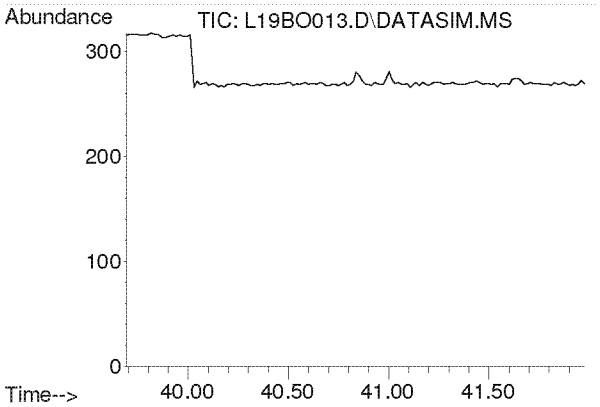
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



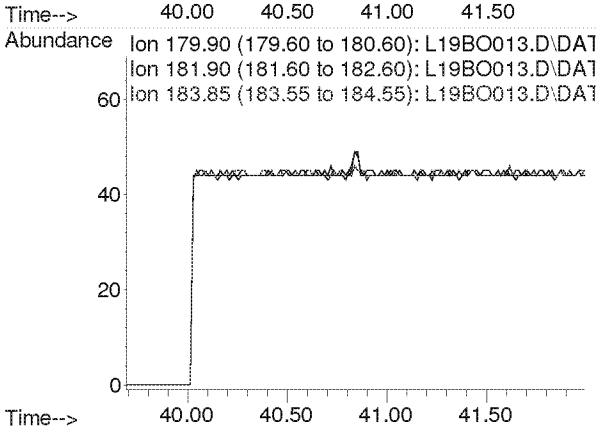


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

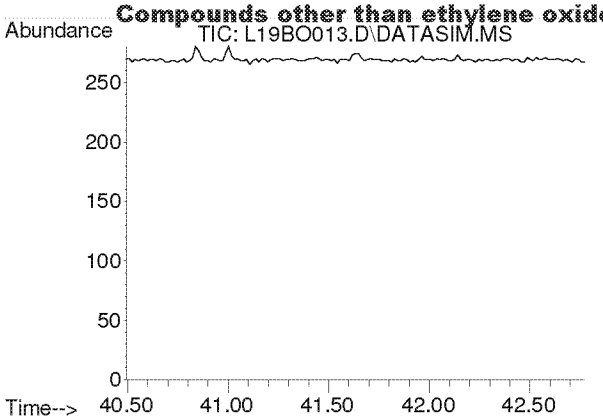
Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

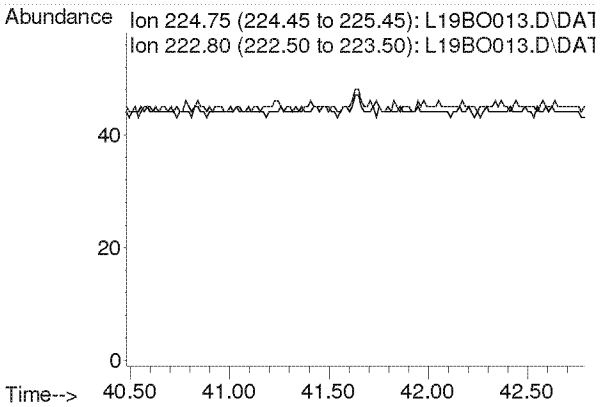


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO013.D
Acq: 15 Feb 2019 6:31 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Duplicate Samples					
		D1	D2		
File ID		L19BO014.D	L19BO015.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9021313-06	9021313-07		
Mics Comments		EPA WB WAREHO	EPA WB WAREHOUSE C2 2/9/19		
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	2.792	2.384	15.77	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-Dichloromethane	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	

2-20-19

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		L19BO014.D	L19BO016.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9021313-06	B9B1504-DUP1		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R1 2/9/19		
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	2.792	2.67	4.47	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		L19BO015.D	L19BO017.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9021313-07	B9B1504-DUP2		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R2 2/9/19		
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	2.384	2.334	2.12	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\L19BO\
Data File : L19BO014.D
Acq On : 15 Feb 2019 7:32 pm (#1); 15-Feb-19, 19:27:04 (#2)
Operator : MAH
Sample : 9021313-06
Misc : EPA WB WAREHOUSE C1 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 15:09:14 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

dE AR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	40599	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	100558	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	68995	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	12.378	29	6484	2.7923 ppbv #	72
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO014.D
Acq On : 15 Feb 2019 7:32 pm (#1); 15-Feb-19, 19:27:04 (#2)
Operator : MAH
Sample : 9021313-06
Misc : EPA WB WAREHOUSE C1 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 15:09:14 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

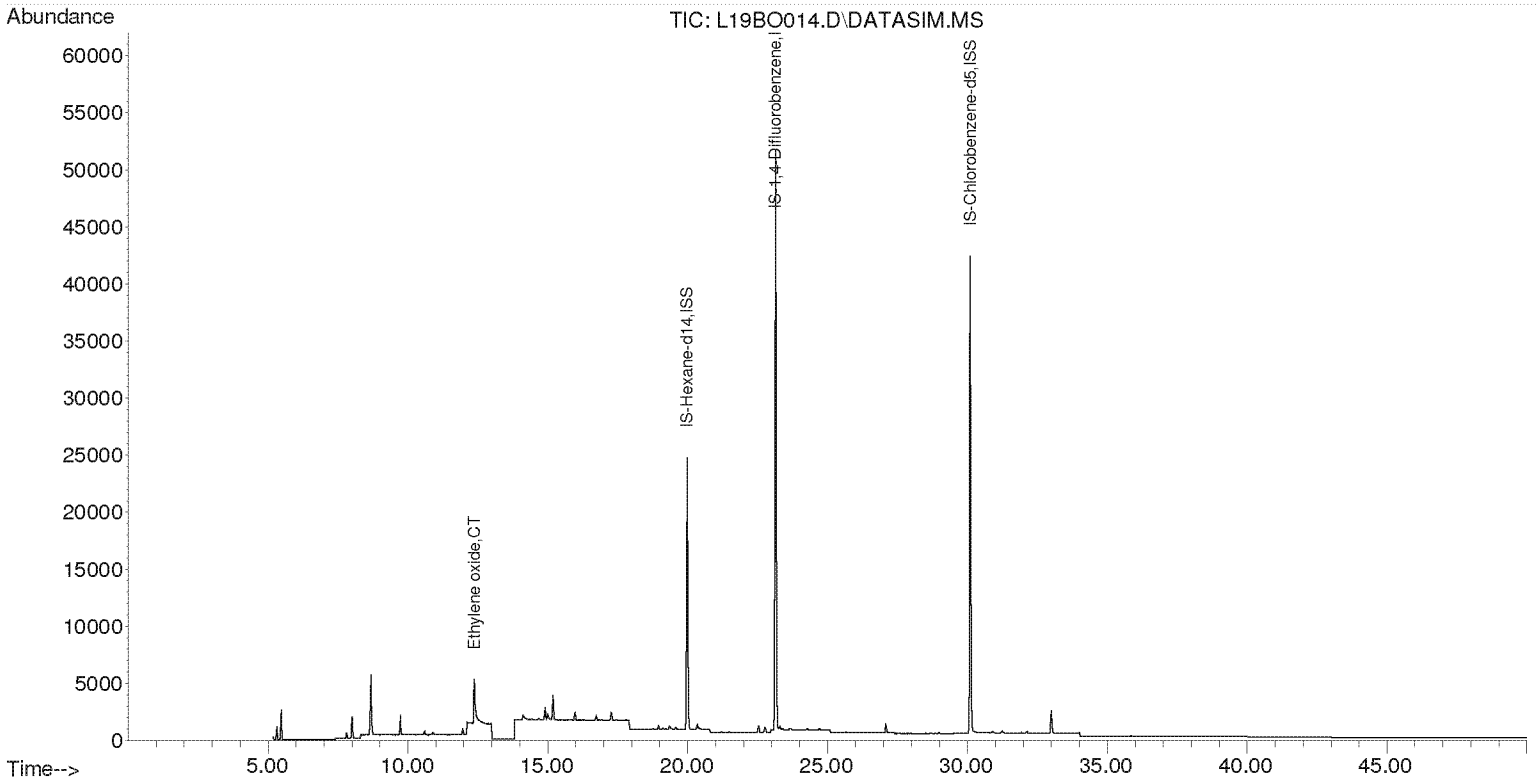
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

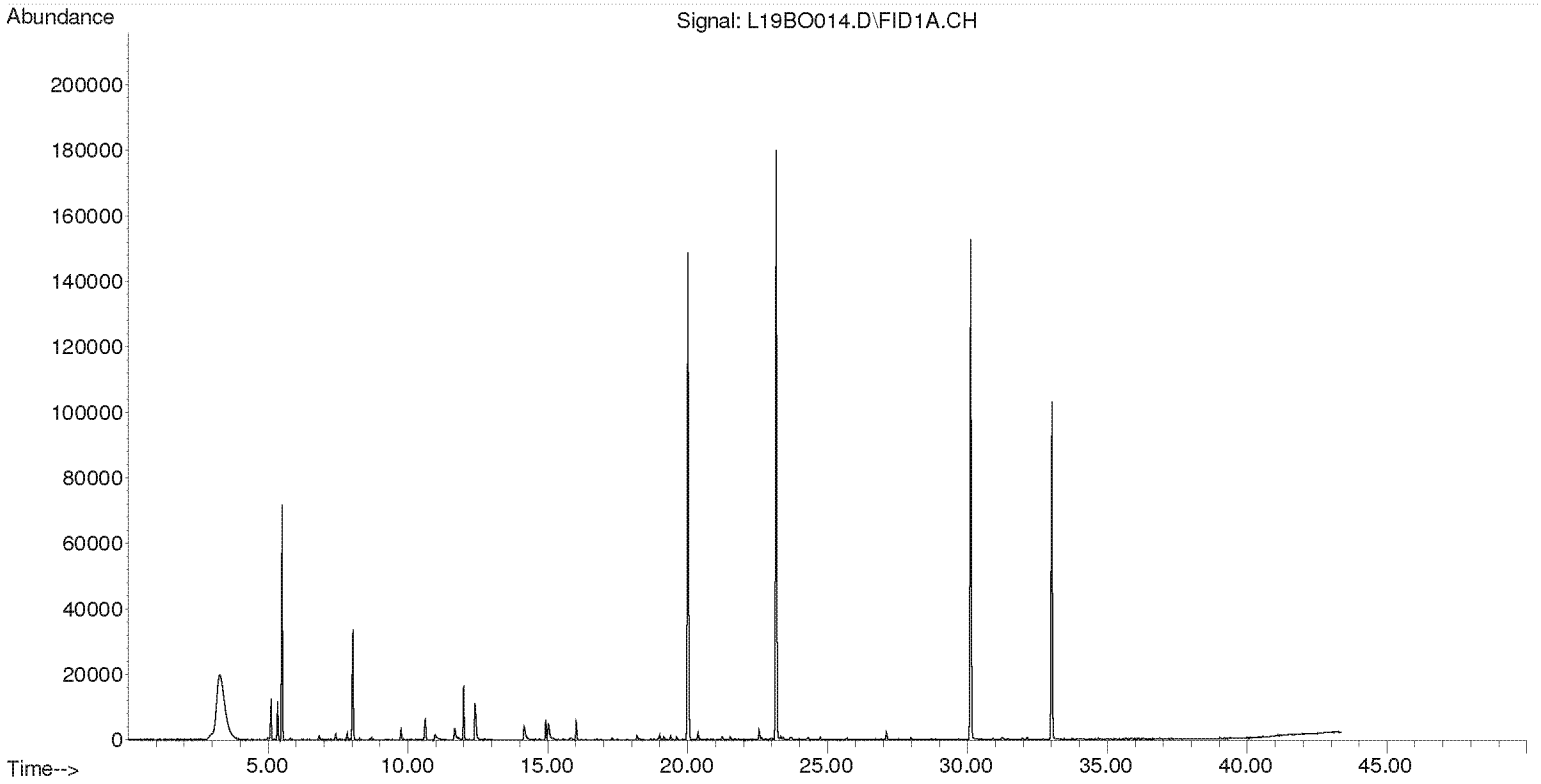
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

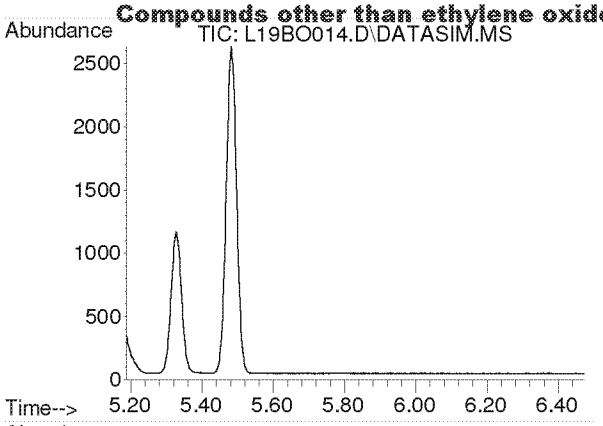
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO014.D
Acq On : 15 Feb 2019 7:32 pm (#1); 15 Feb 2019 7:27 pm (#2)
Operator : MAH
Sample : 9021313-06
Misc : EPA WB WAREHOUSE C1 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 14:46:33 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





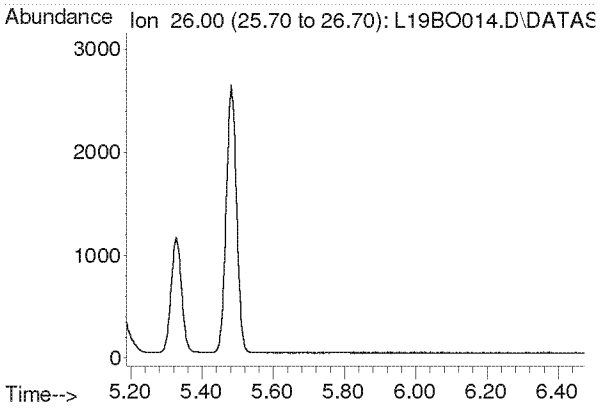
Compounds other than ethylene oxide were not quantitated.

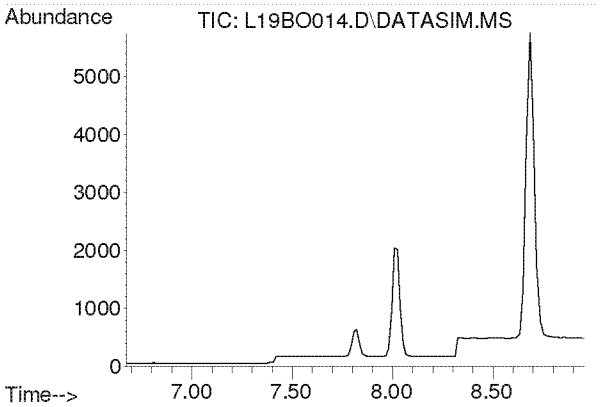


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 26



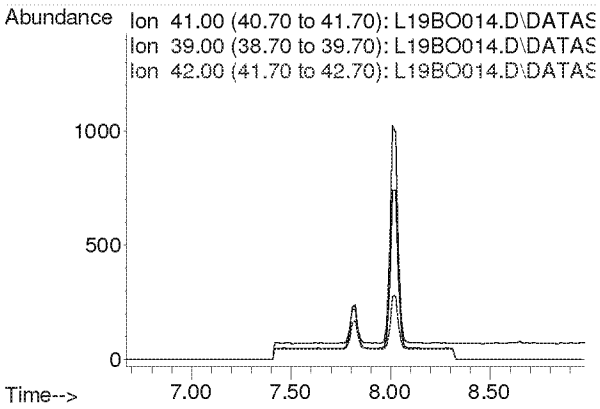


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

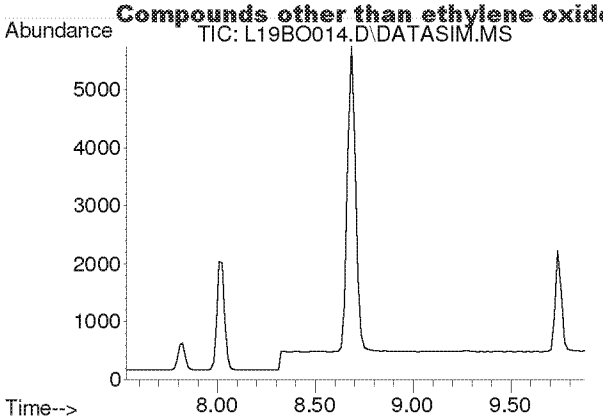
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

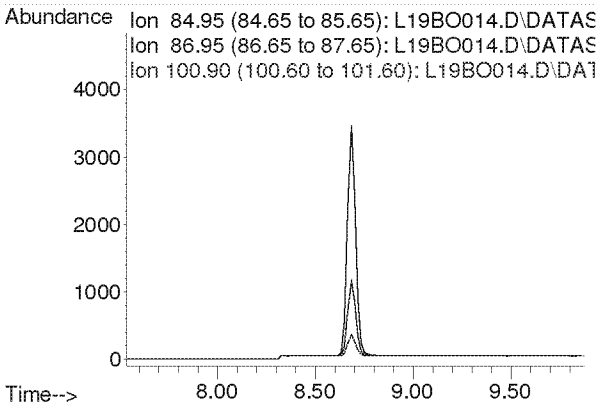


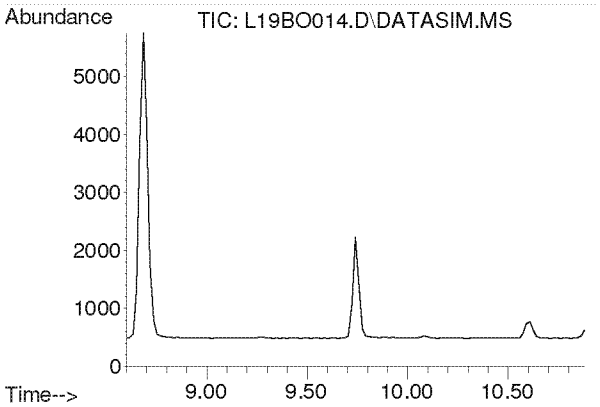
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



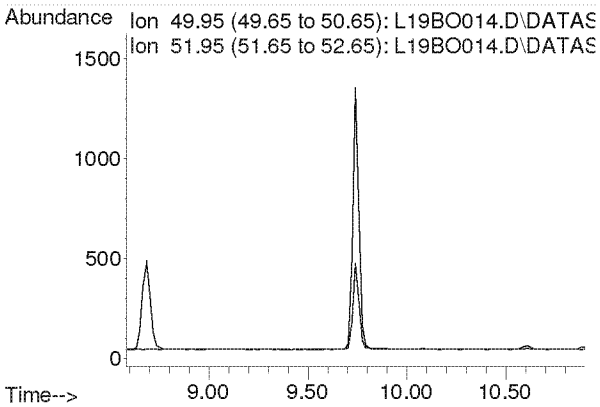


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

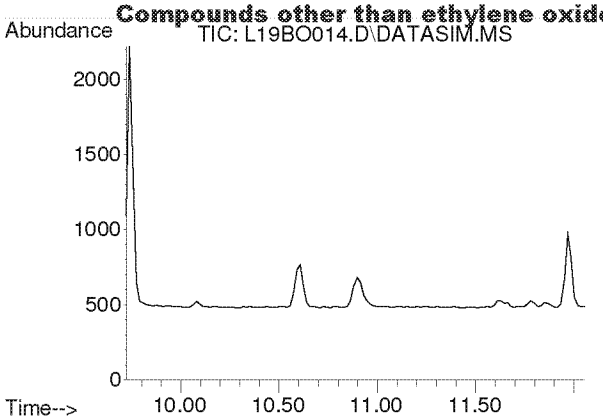
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

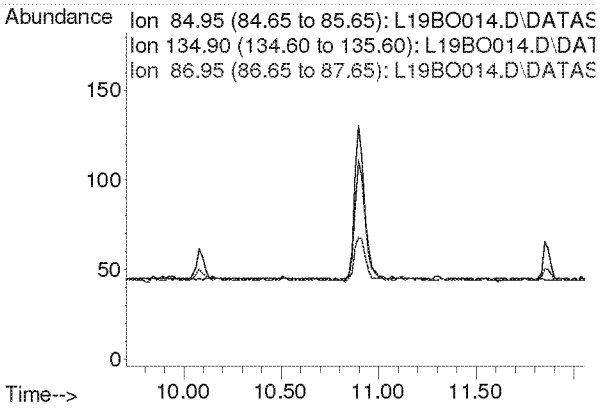


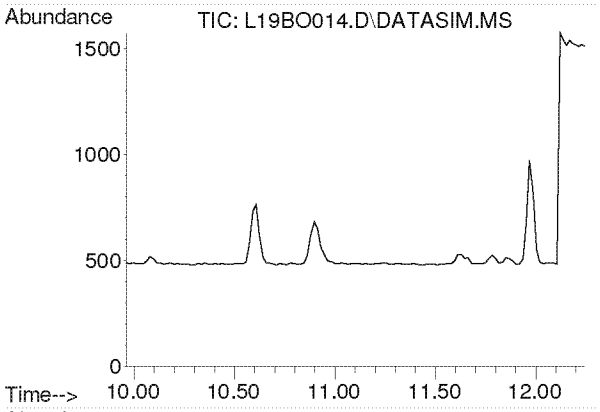
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



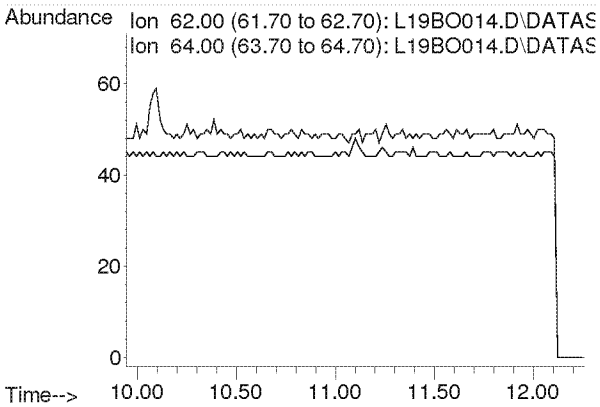


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

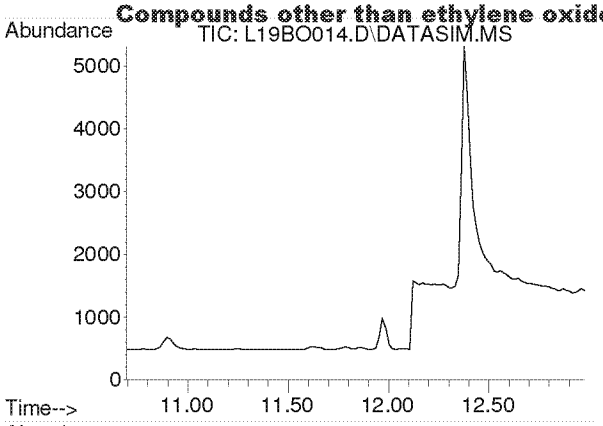
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

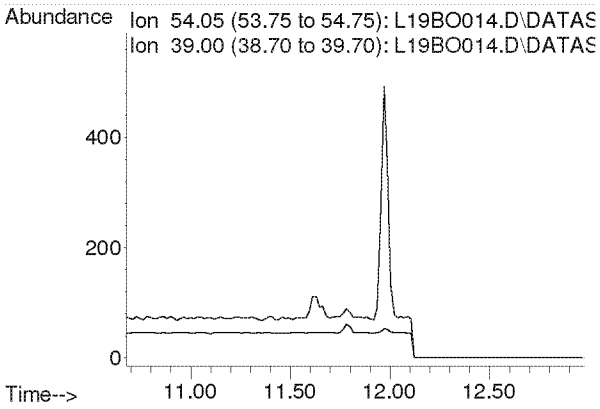


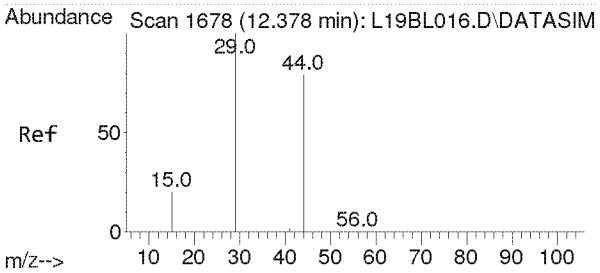
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

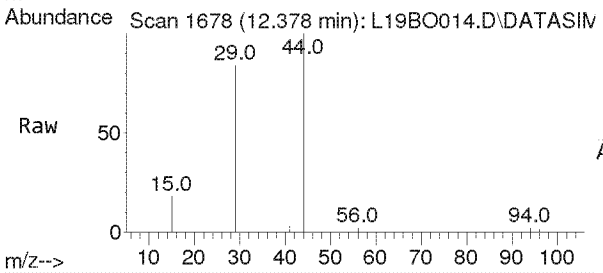


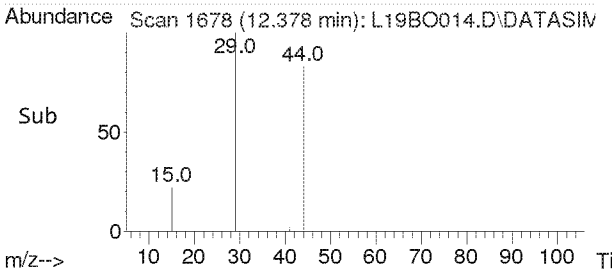


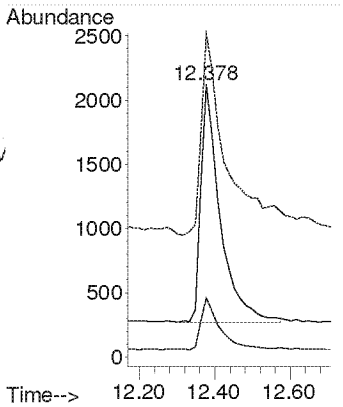
#9
Ethylene oxide
Concen: 2.792 ppbv
RT: 12.378 min Scan# 1678
Delta R.T. 0.000 min
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 29 Resp: 6484

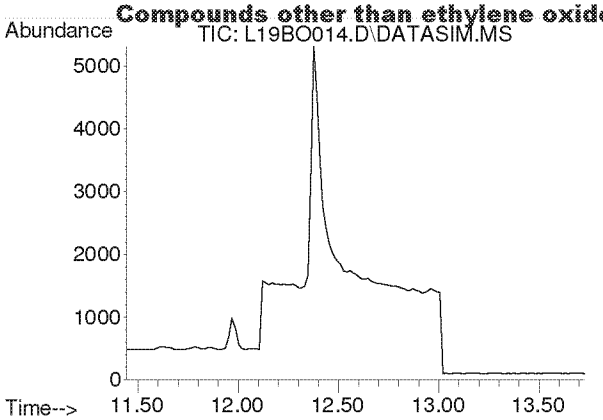
Ion	Ratio	Lower	Upper
29	100		
15	20.8	16.0	24.0
44	112.9	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

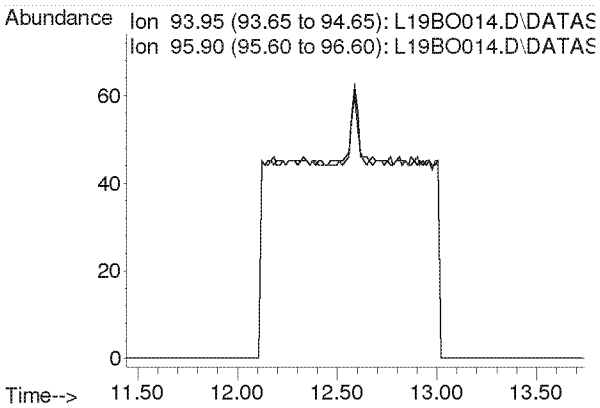


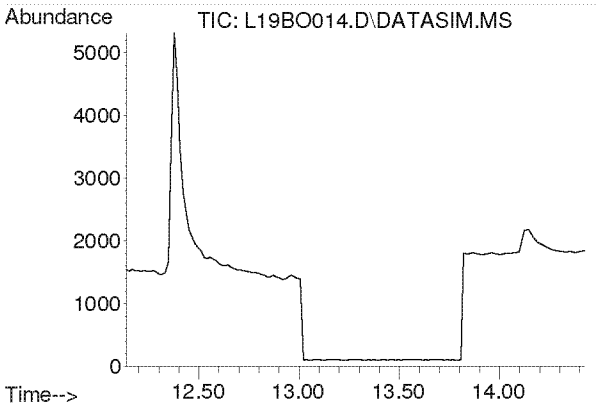
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



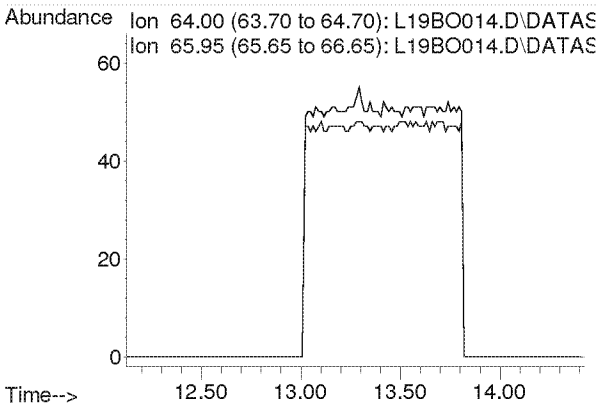


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

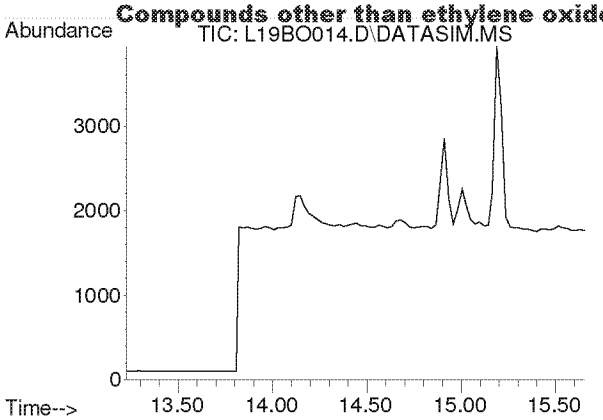
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

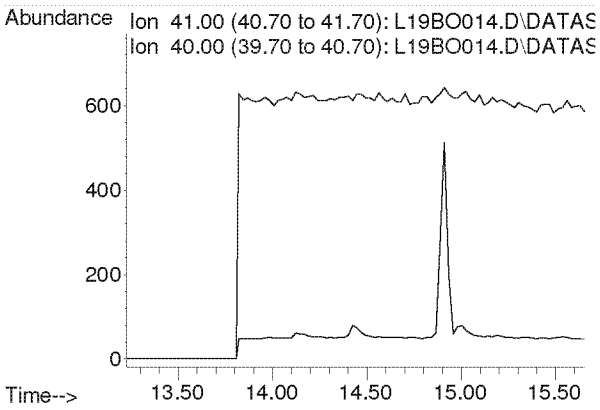


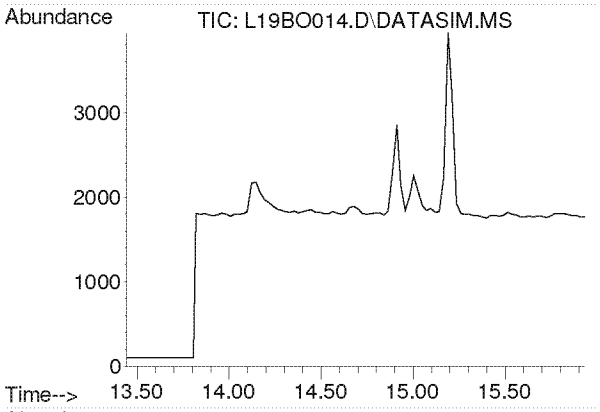
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



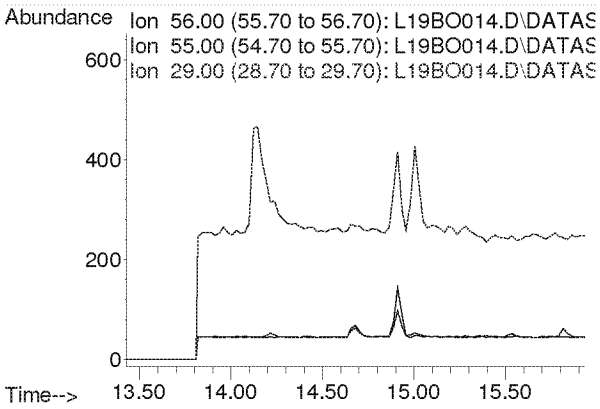


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

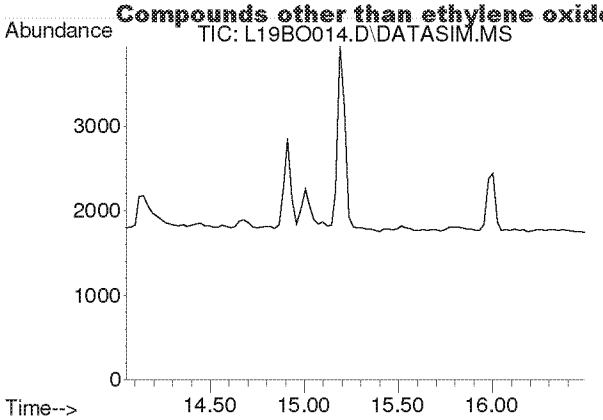
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

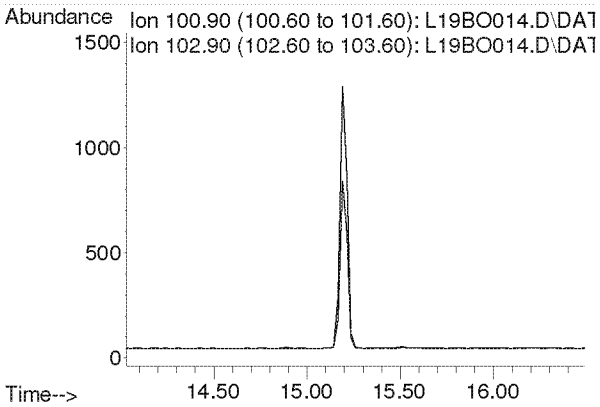


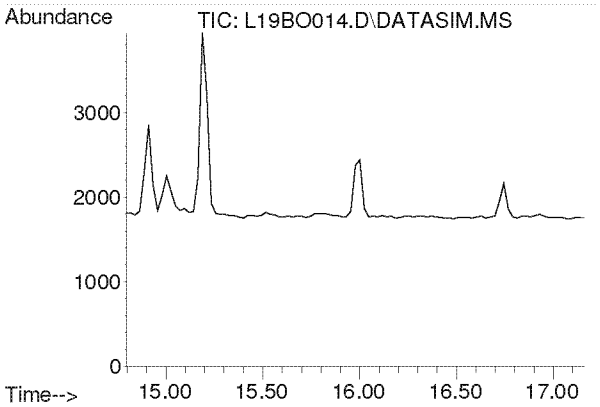
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



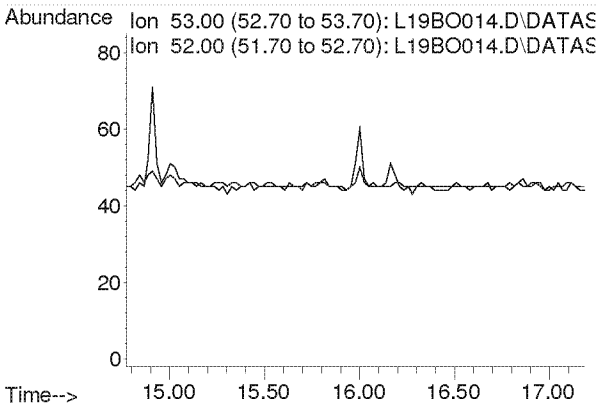


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

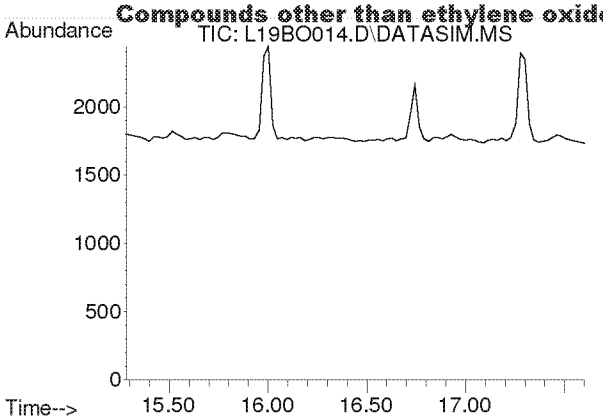
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

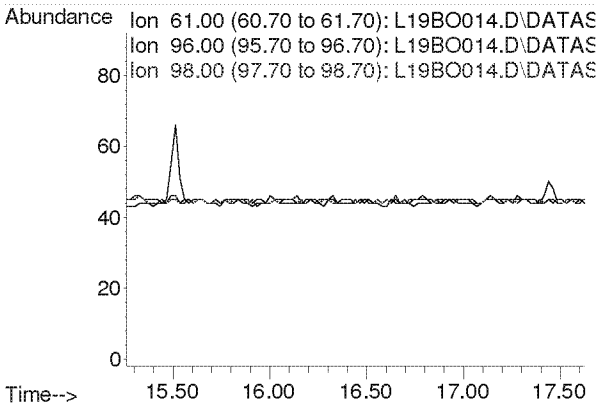


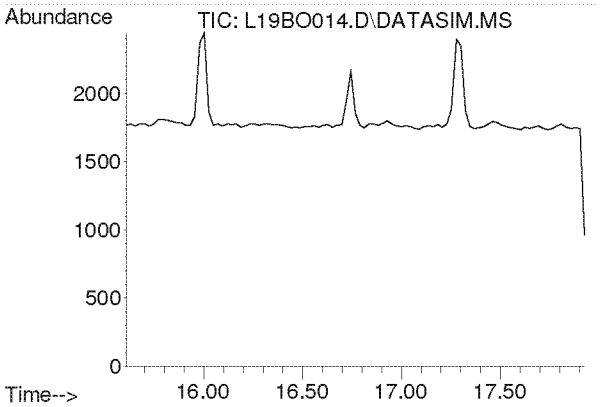
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



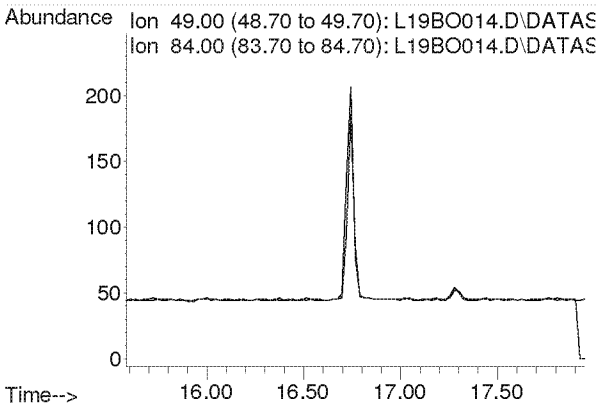


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

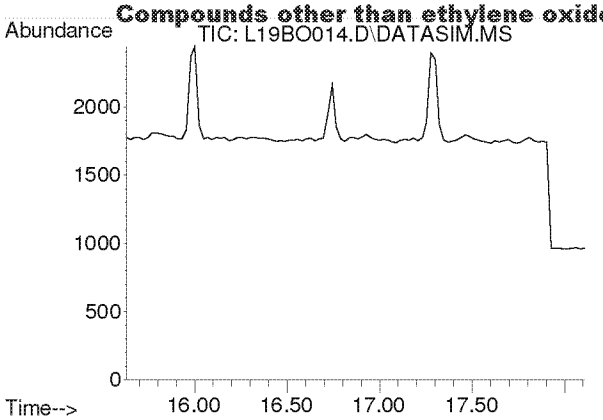
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

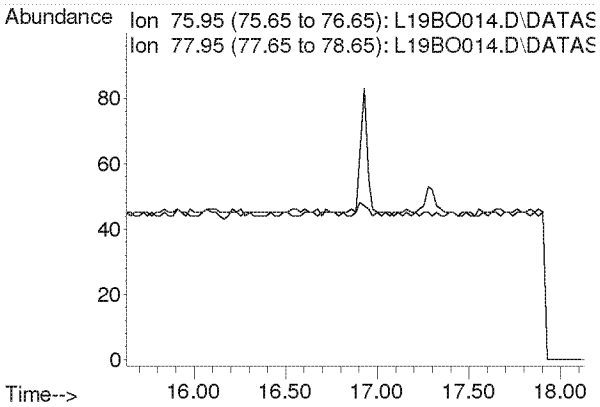


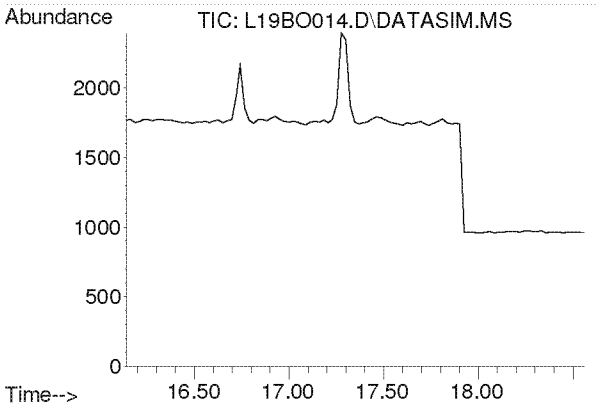
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



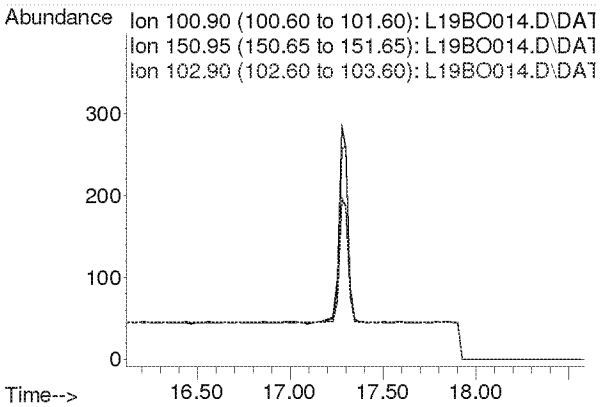


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

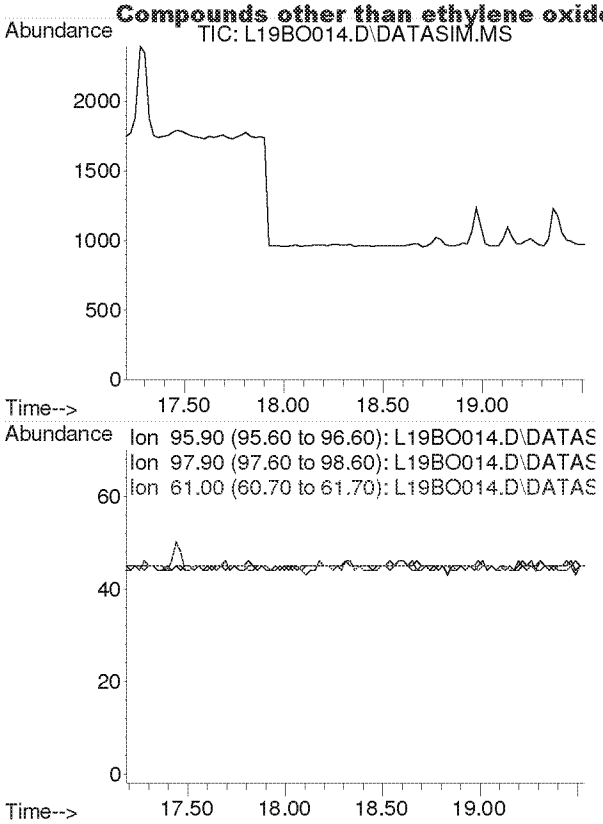
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

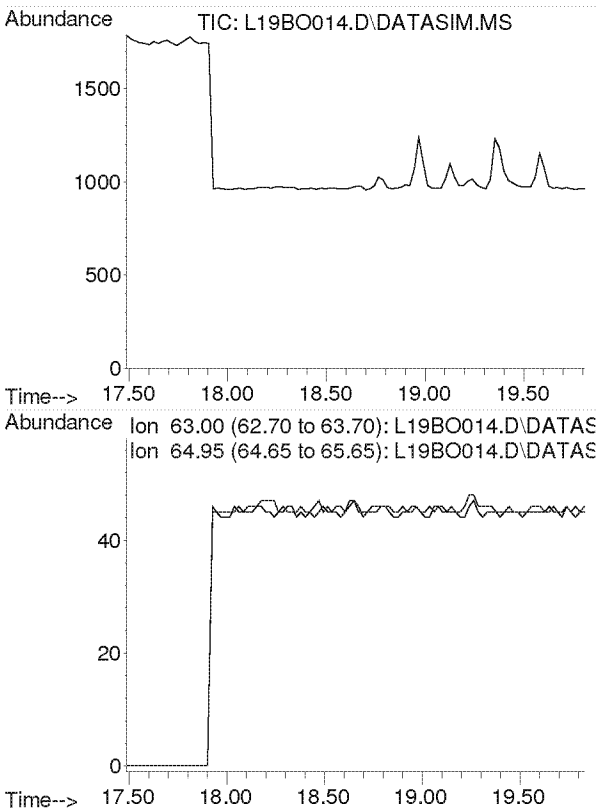


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



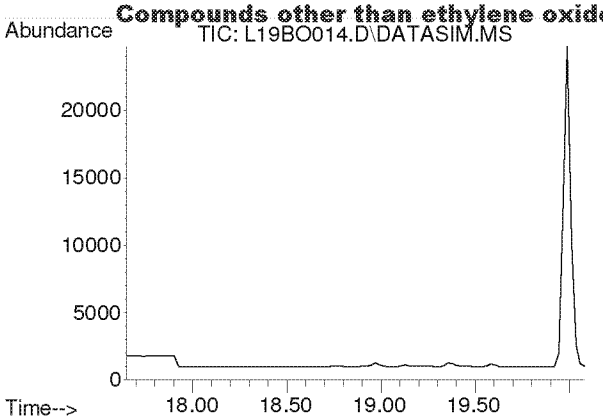
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

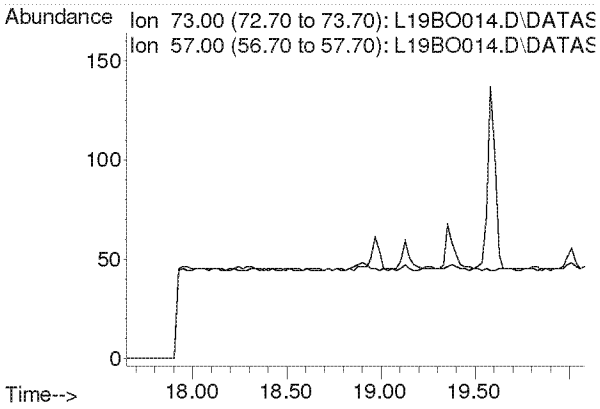


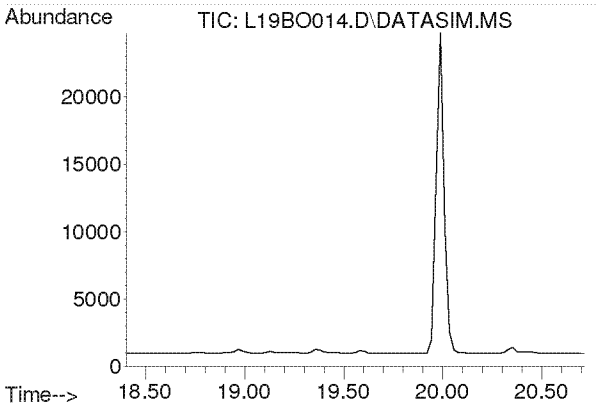
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



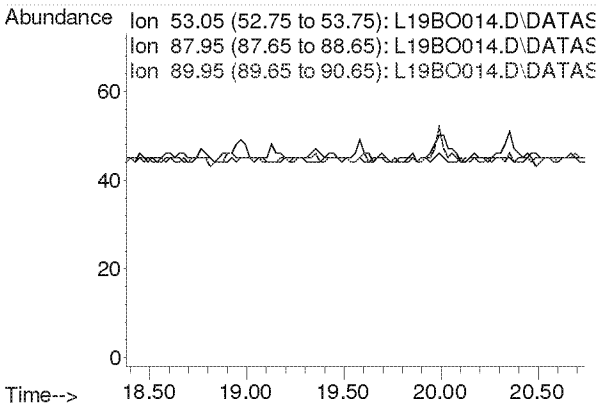


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

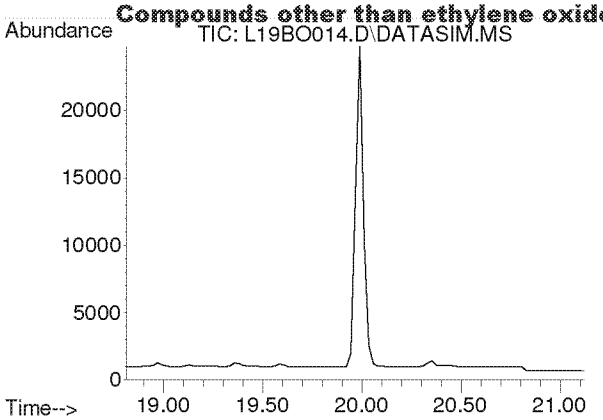
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

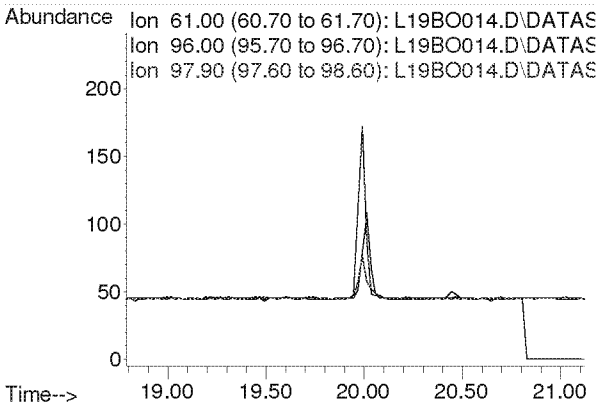


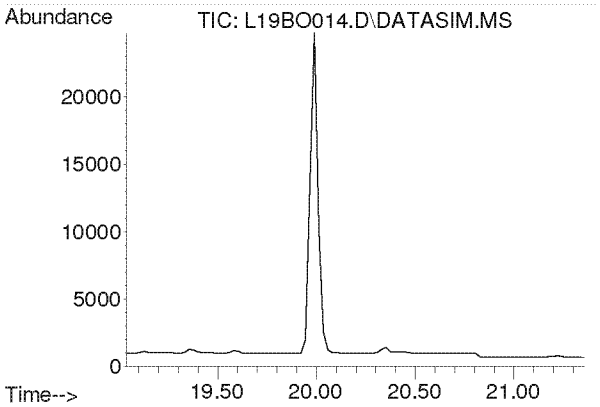
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



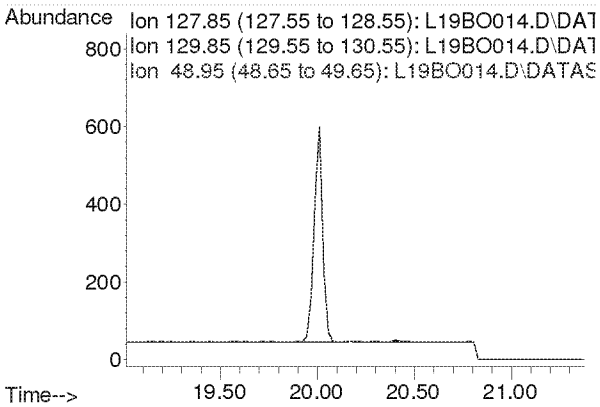


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

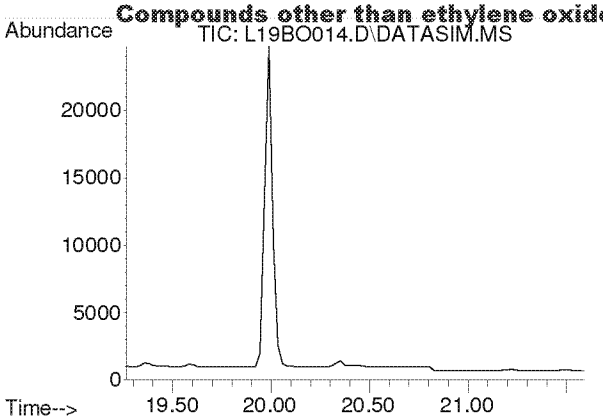
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

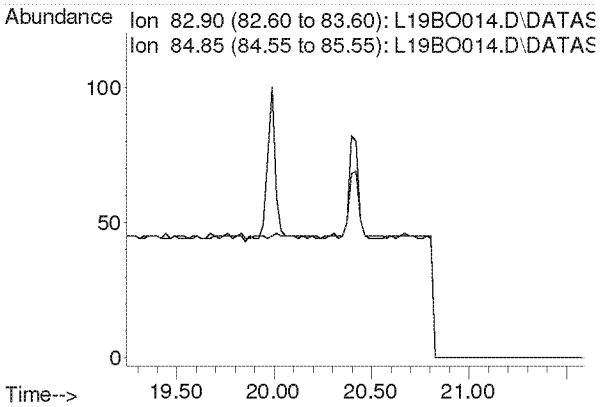


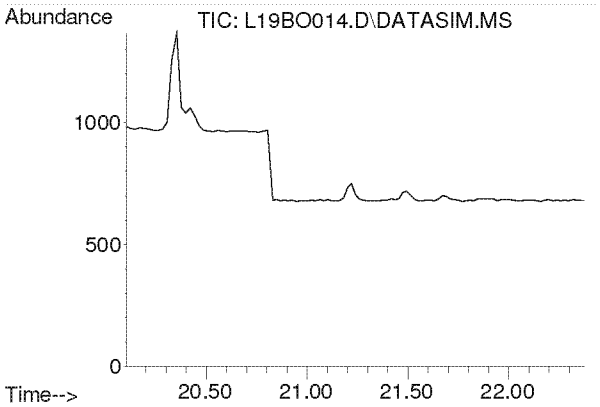
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



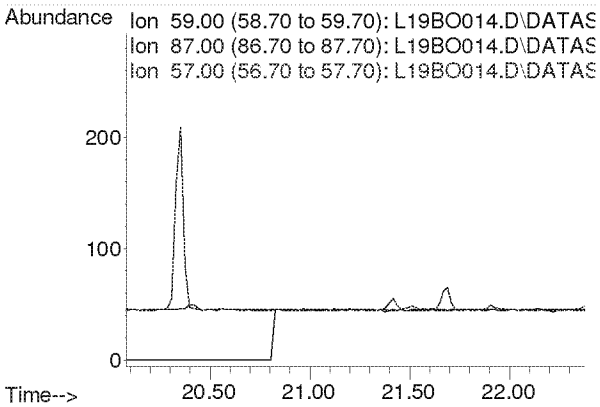


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

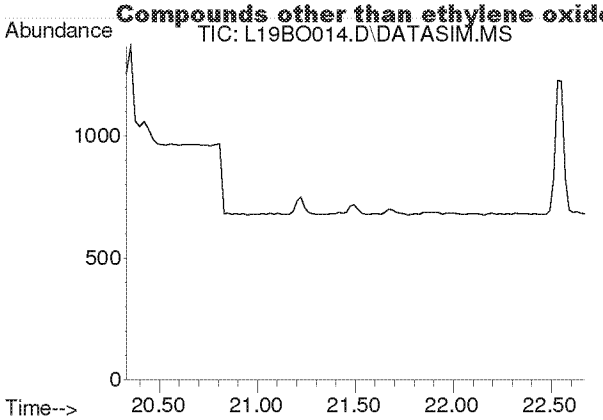
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

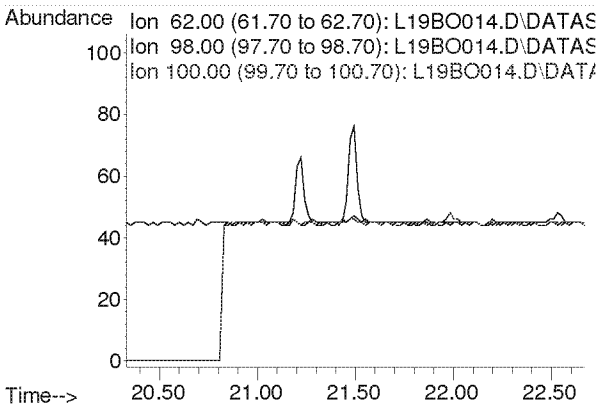


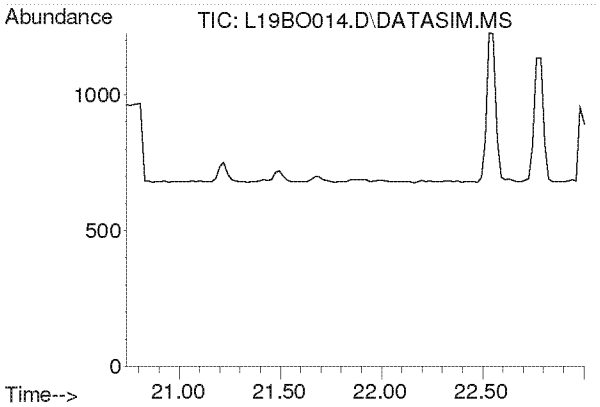
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



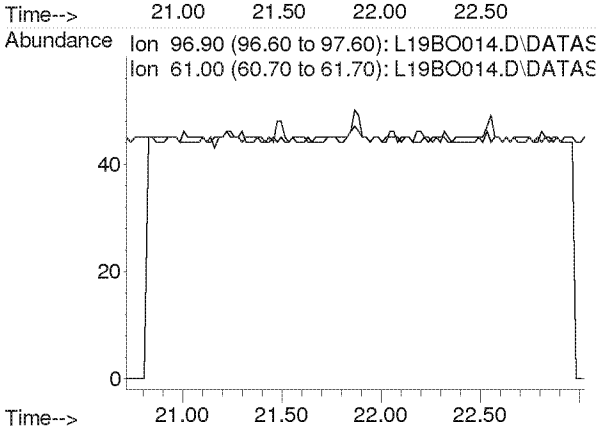


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

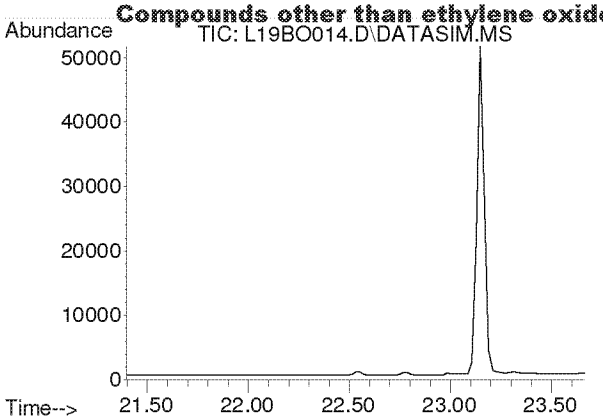
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

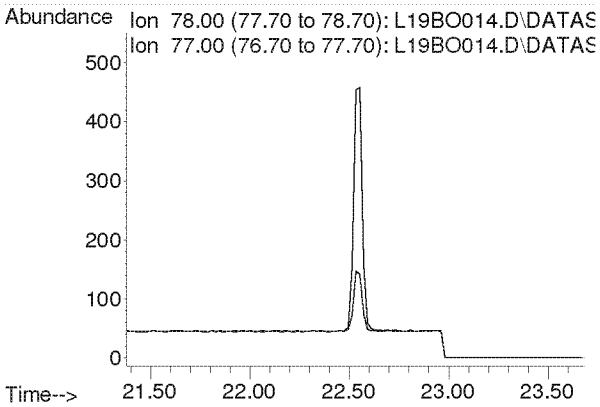


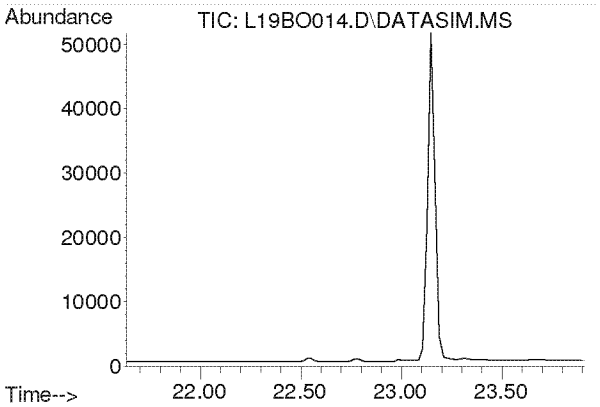
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



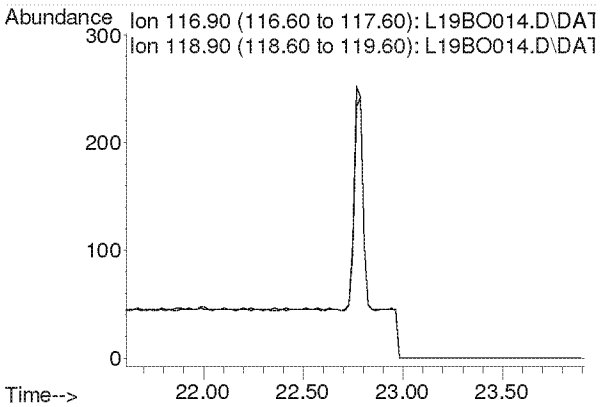


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

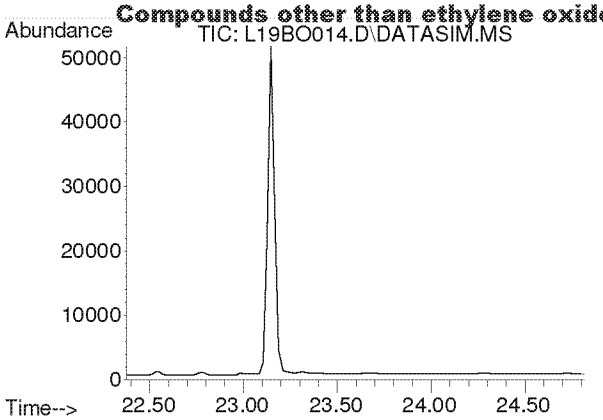
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

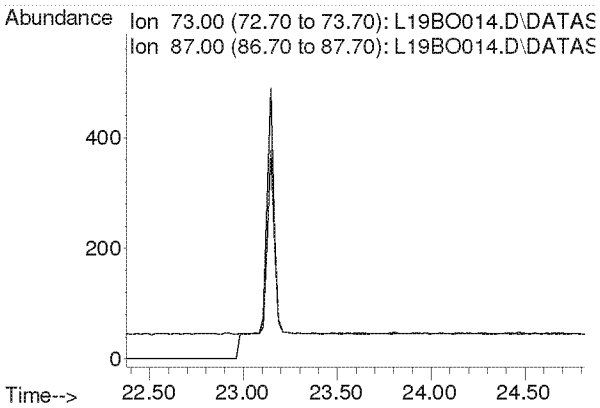


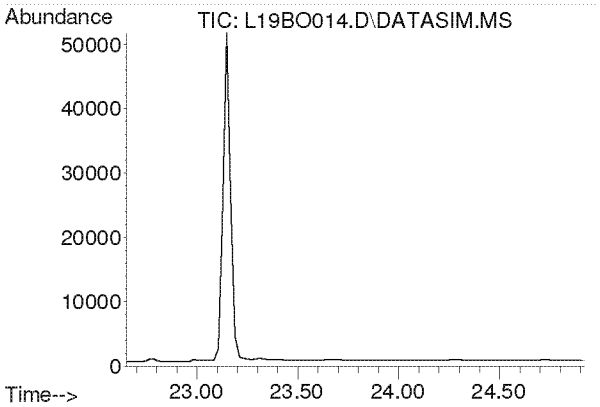
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



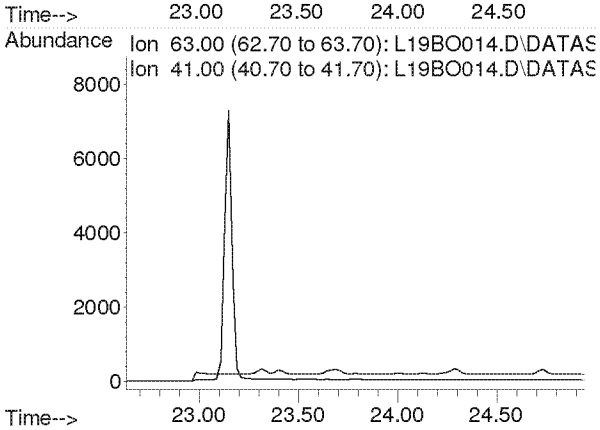


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

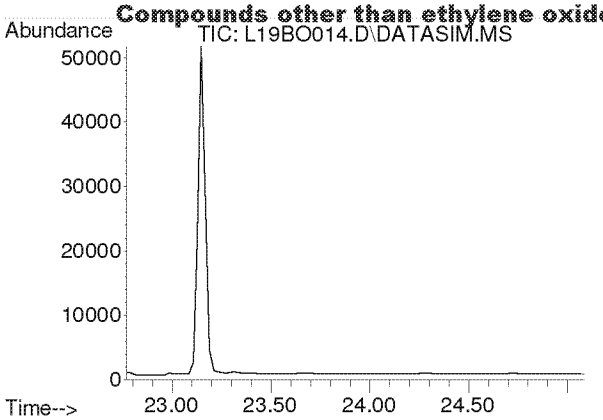
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

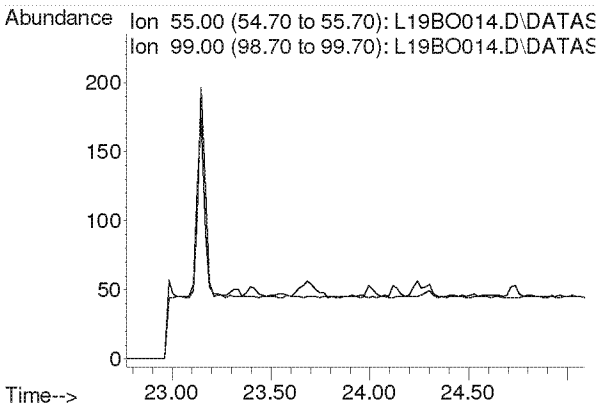


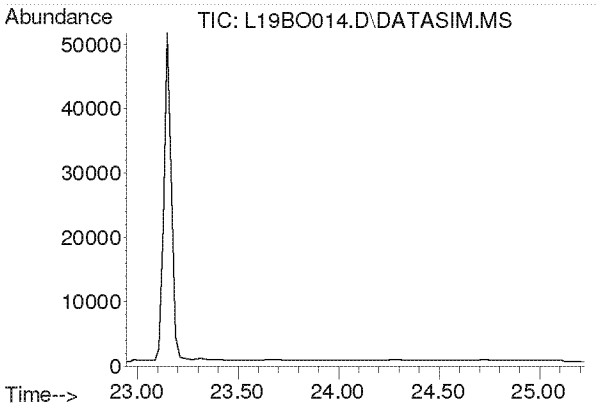
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



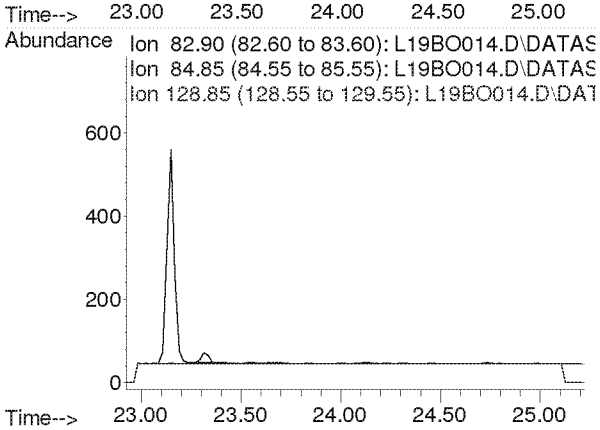


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

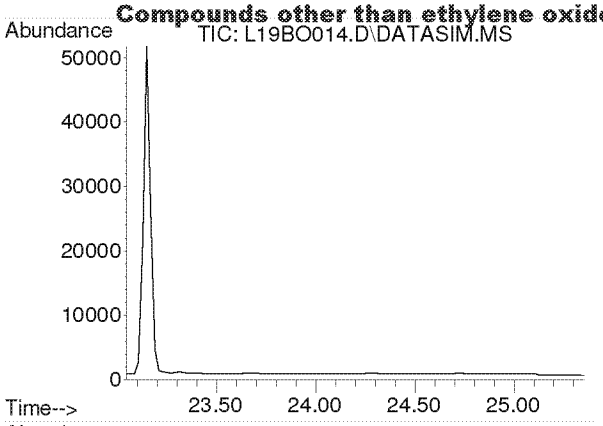
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

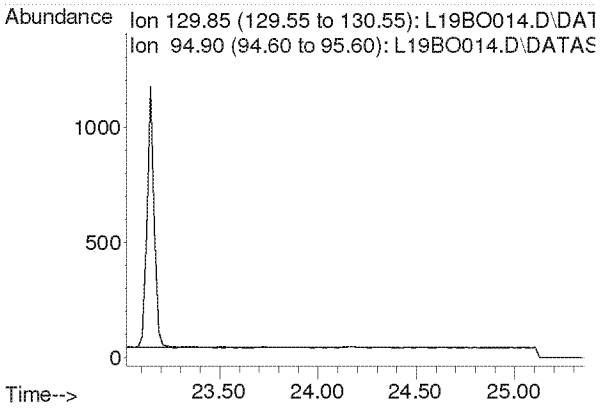


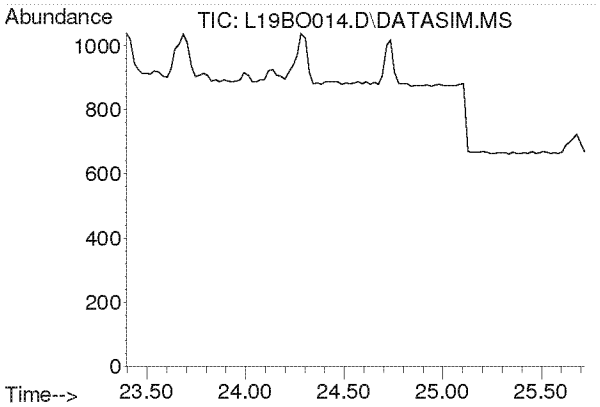
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



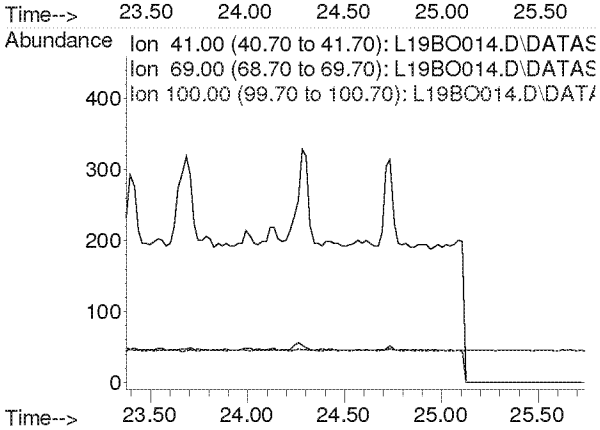


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

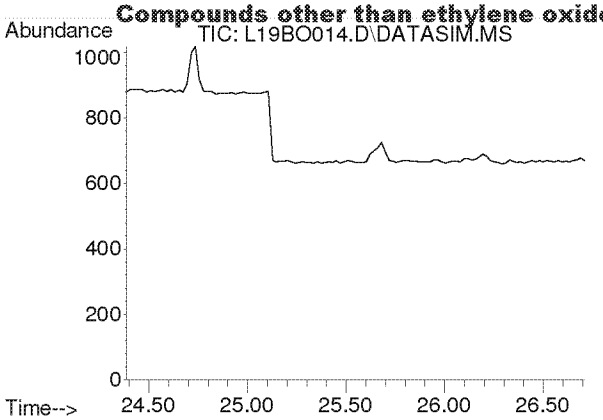
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

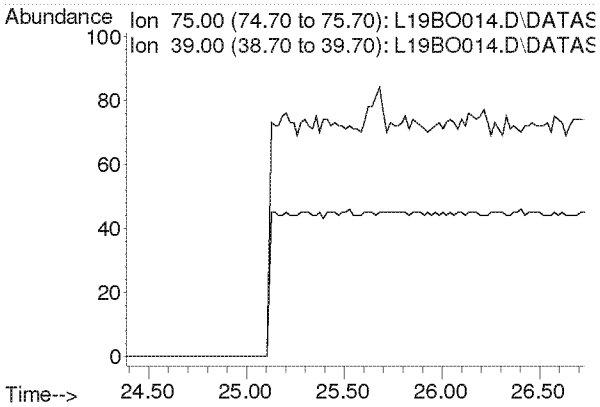


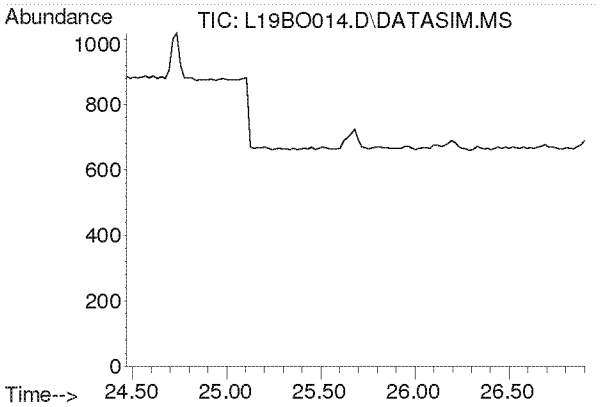
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



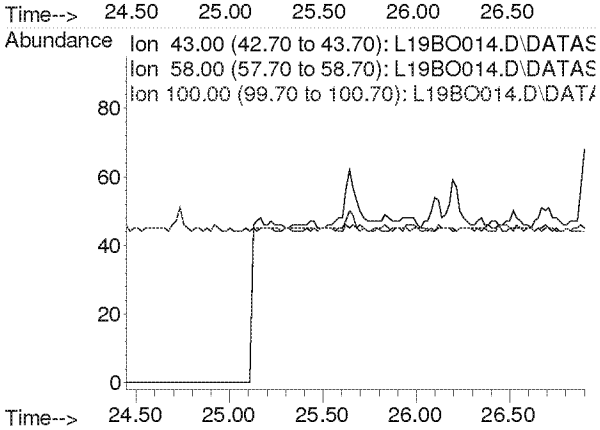


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

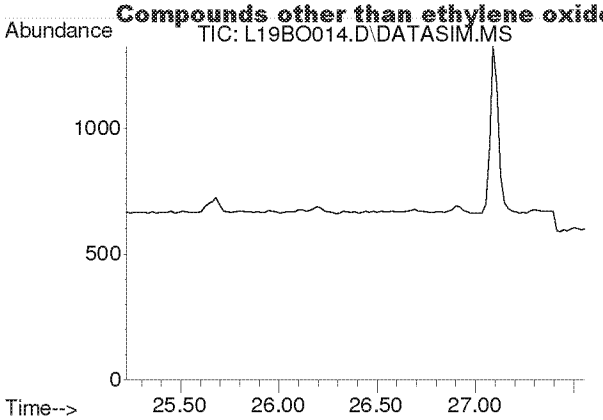
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

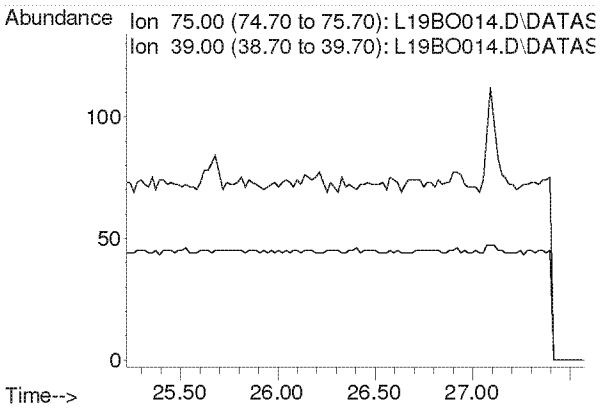


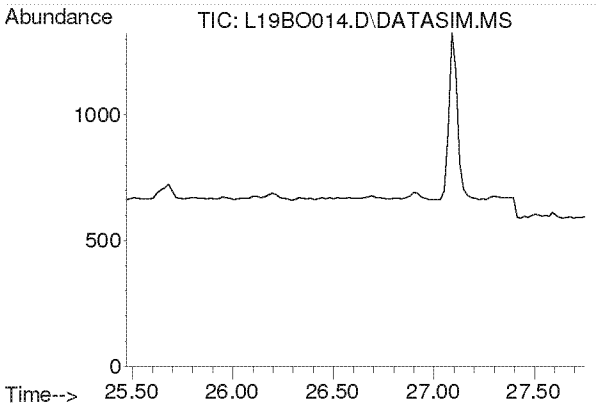
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



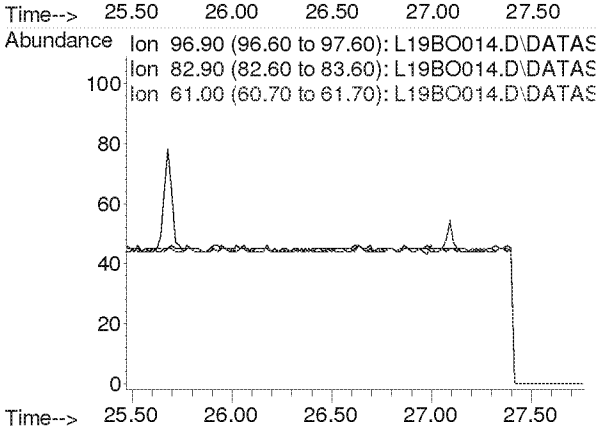


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

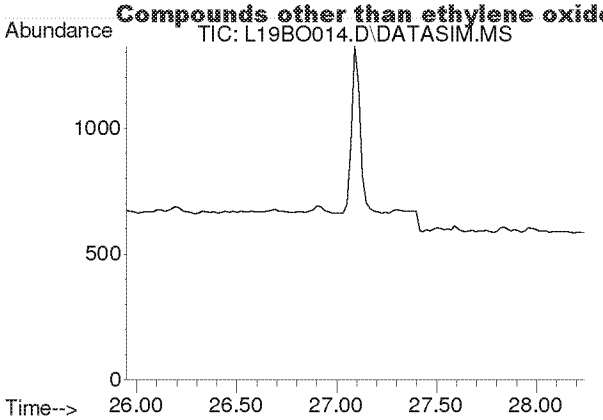
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

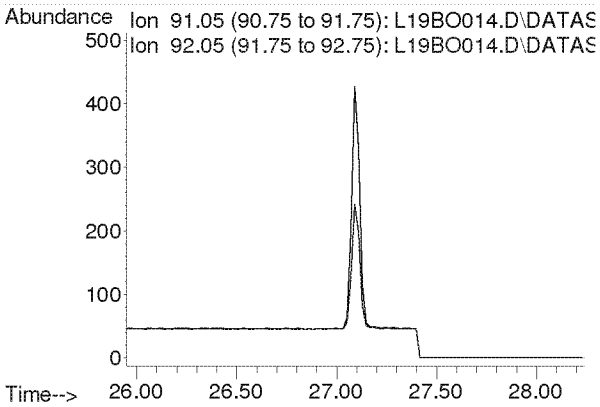


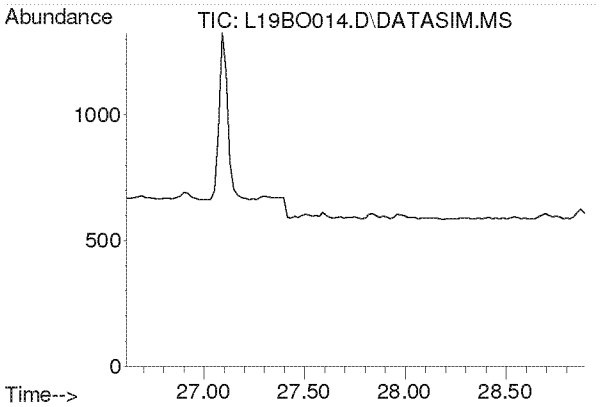
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



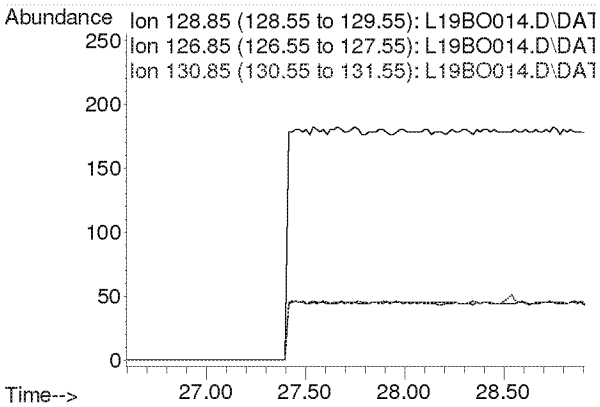


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

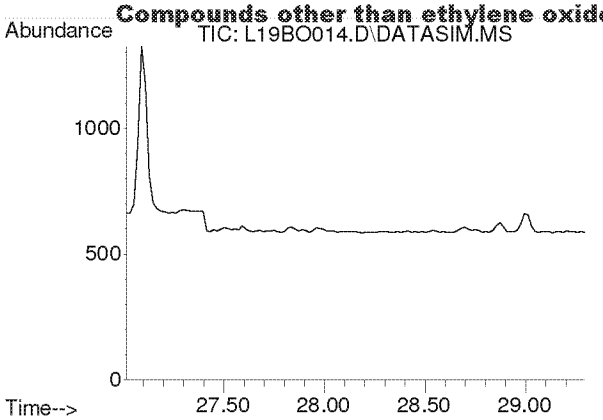
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

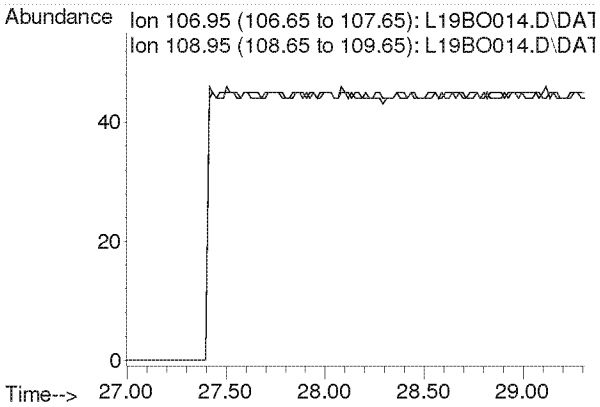


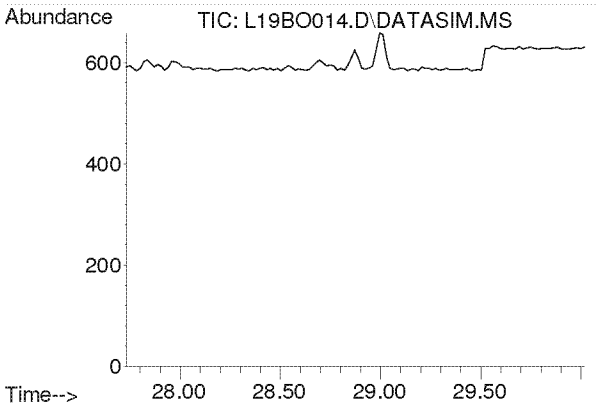
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



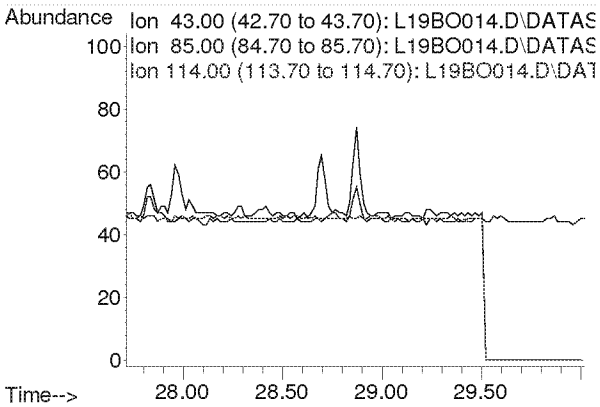


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

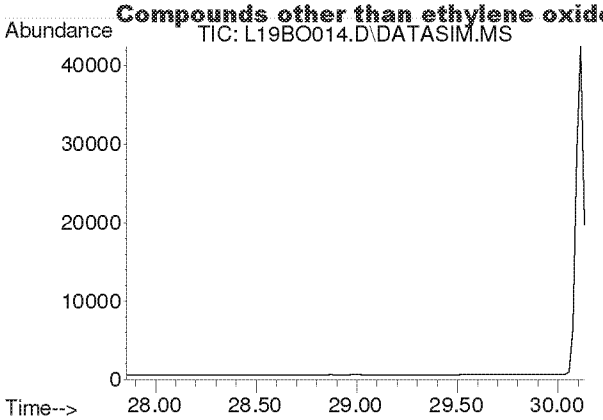
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

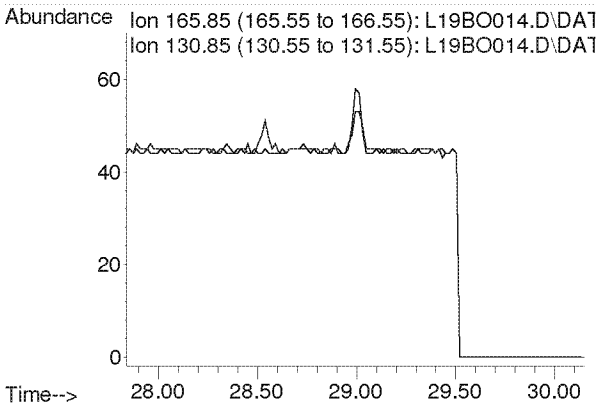


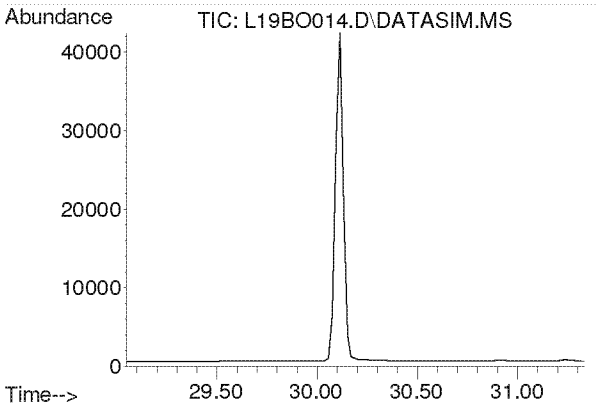
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



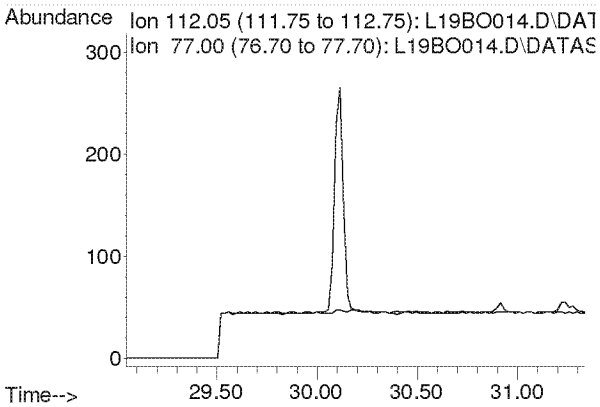


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

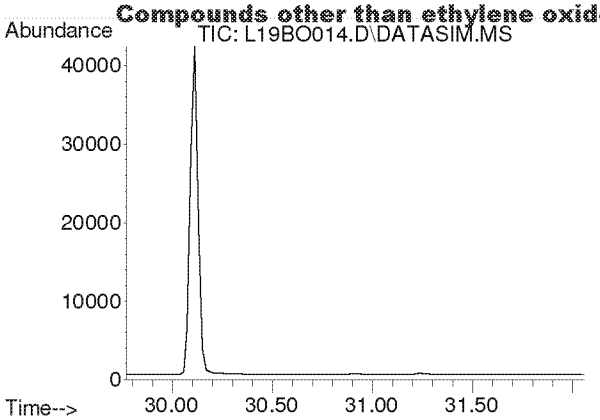
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

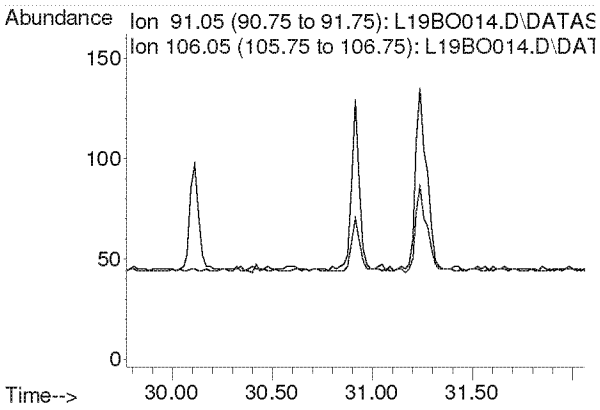


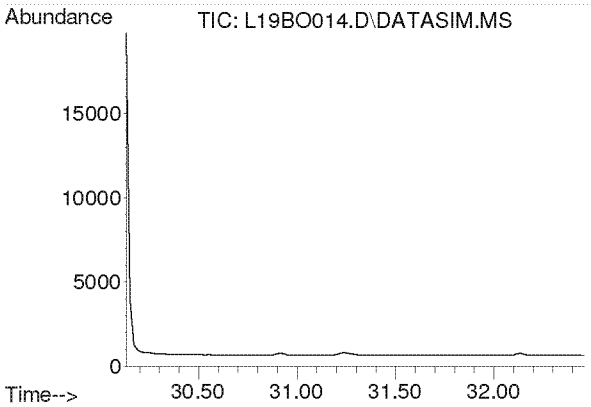
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



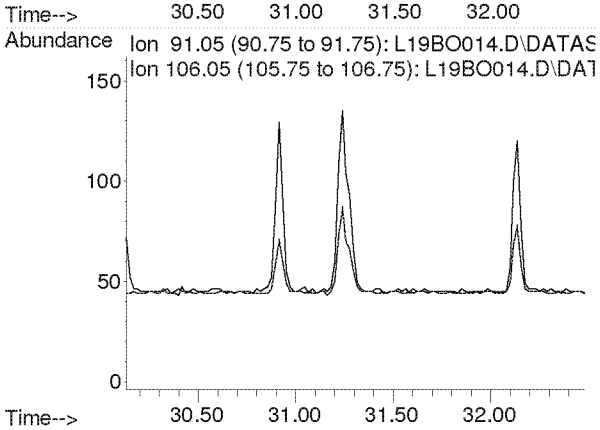


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

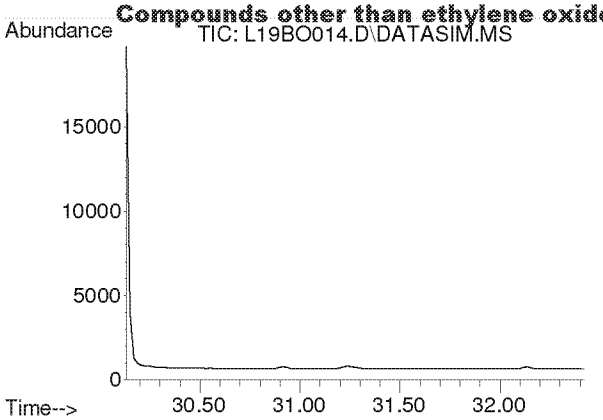
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

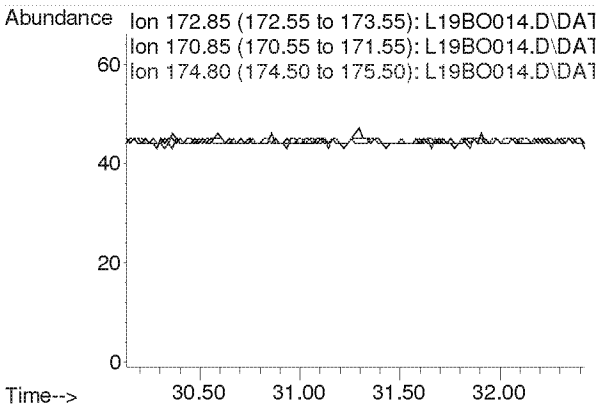


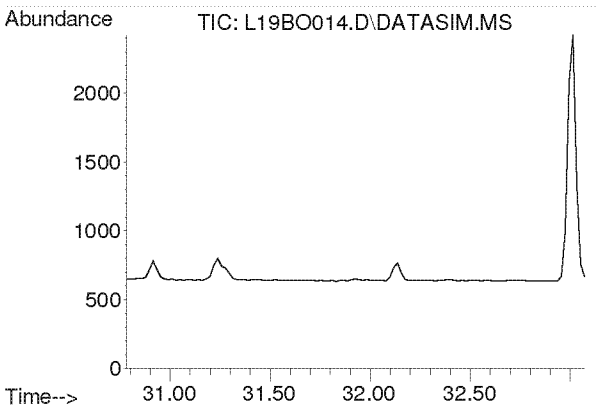
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



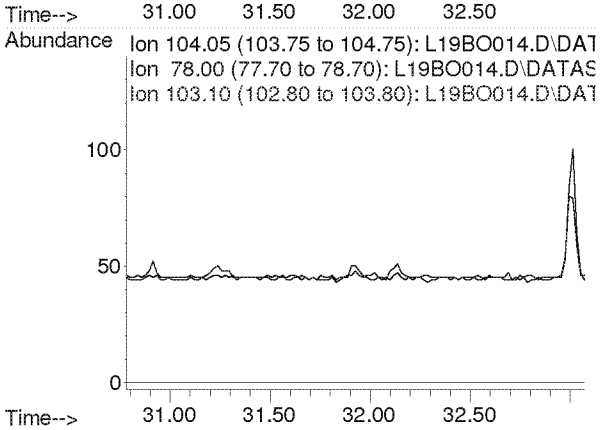


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

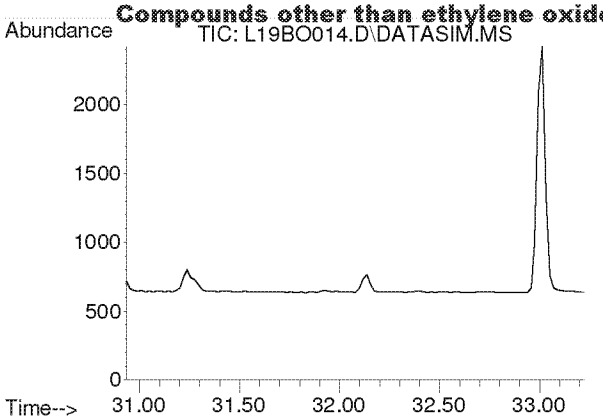
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

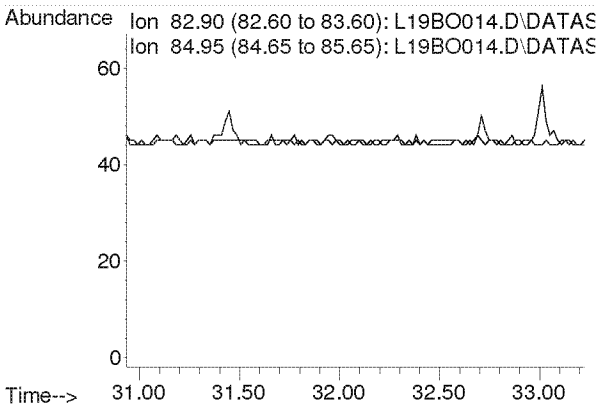


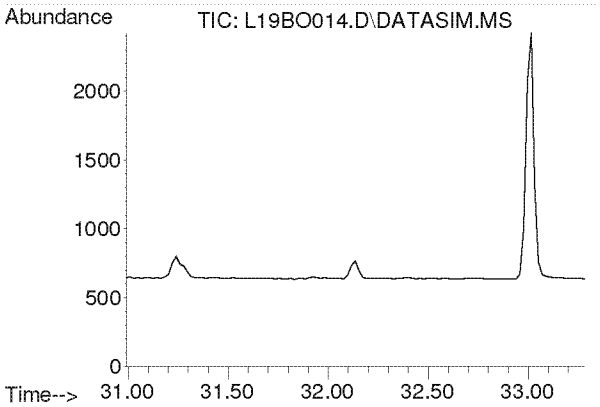
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



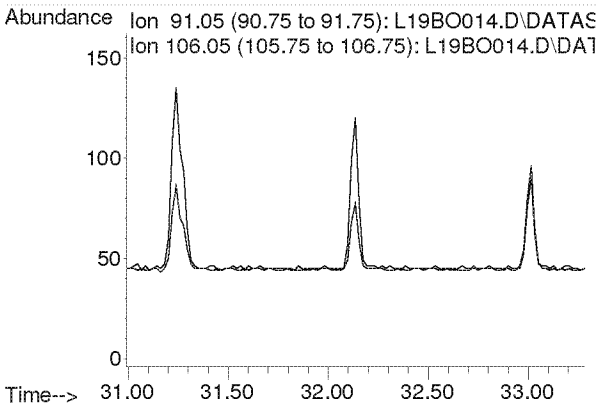


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

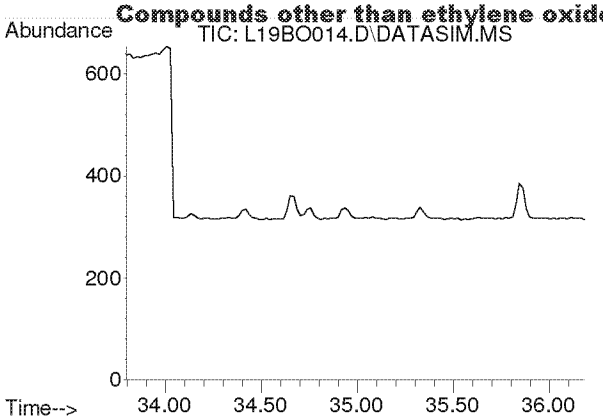
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

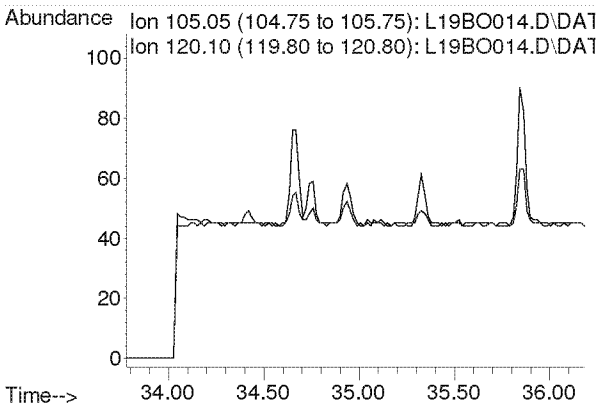


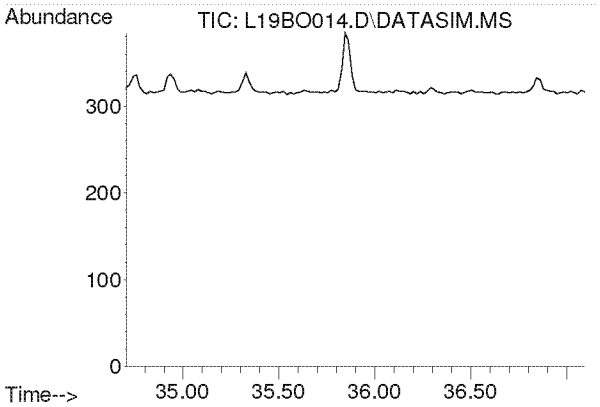
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



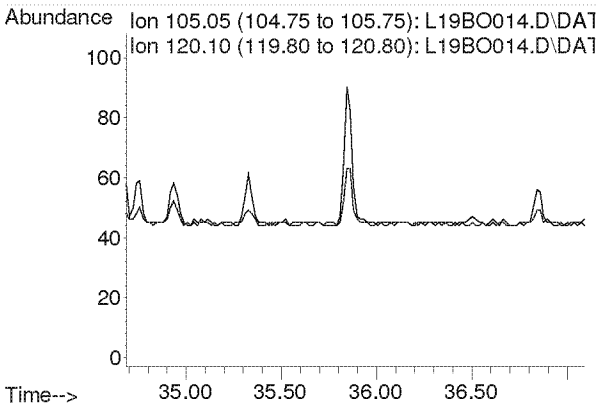


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

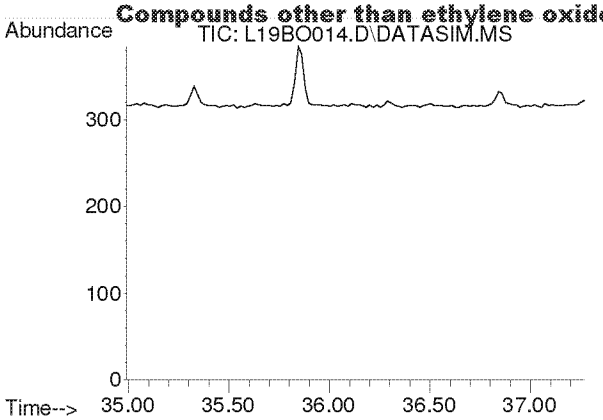
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

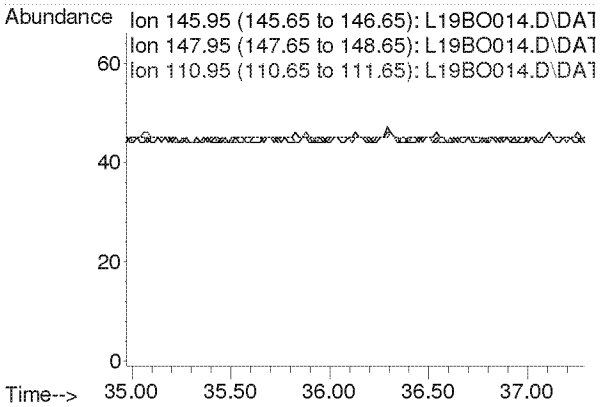


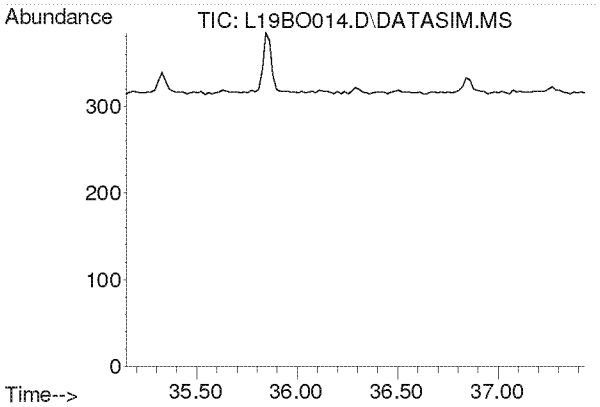
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



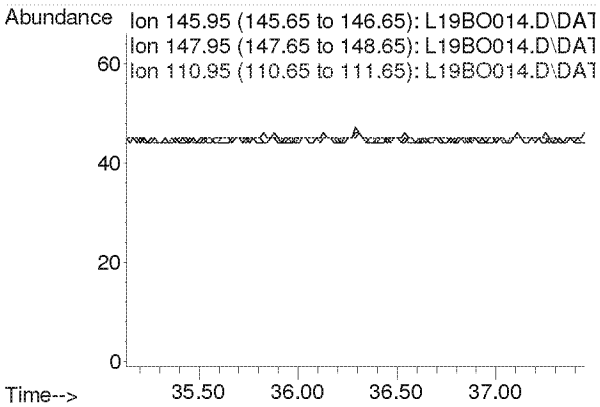


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

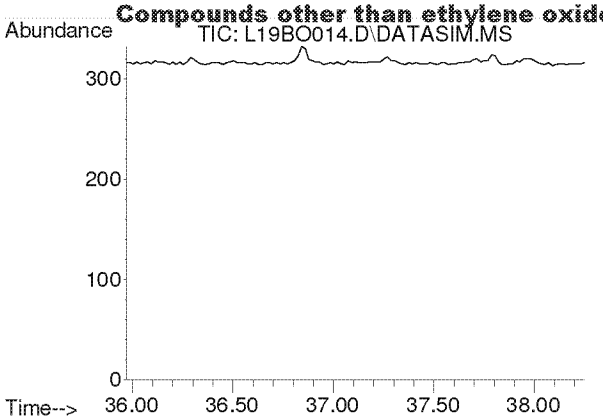
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

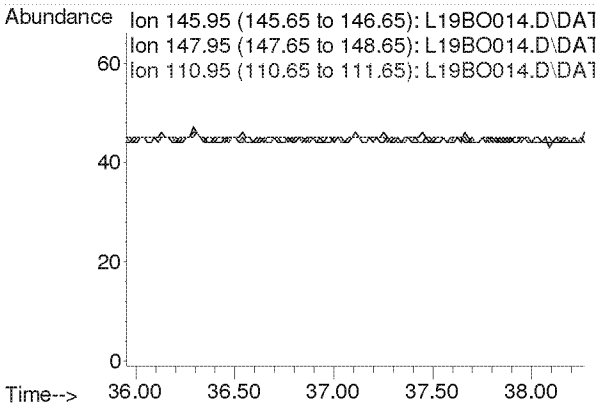


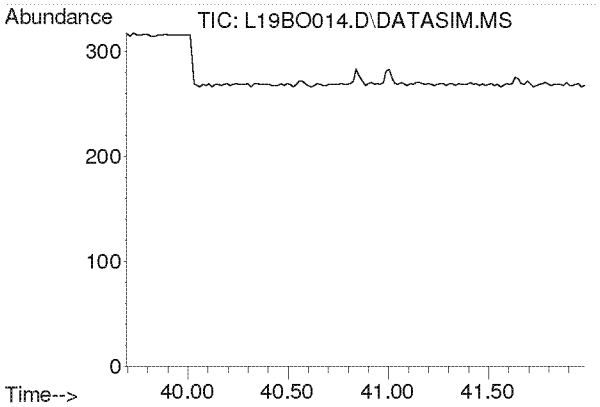
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



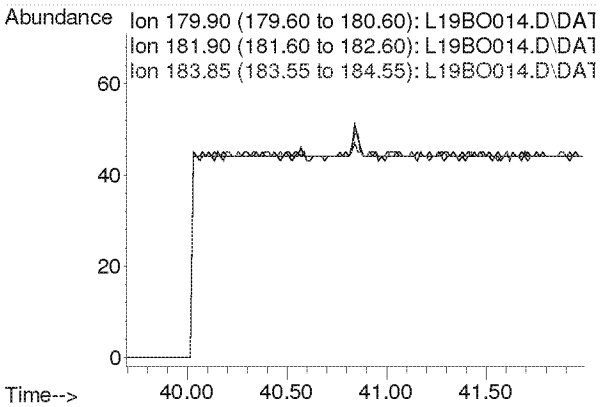


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

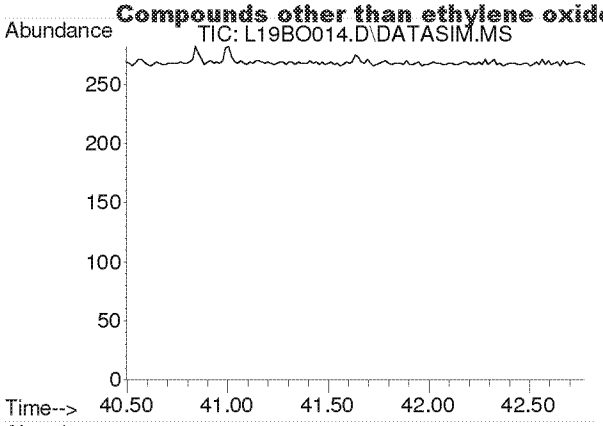
Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

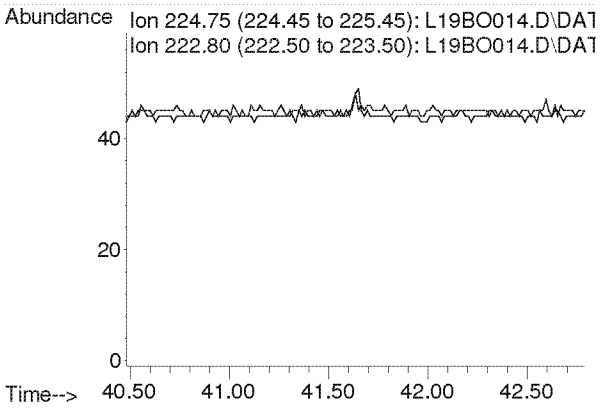


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO014.D
Acq: 15 Feb 2019 7:32 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO015.D
Acq On : 15 Feb 2019 8:32 pm (#1); 15-Feb-19, 20:27:17 (#2)
Operator : MAH
Sample : 9021313-07
Misc : EPA WB WAREHOUSE C2 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 19 15:09:39 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	19.990	66	40787	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	101464	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.115	117	68512	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	12.378	29	5562	2.3842 ppbv #	55
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. 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\L19BO\
Data File : L19BO015.D
Acq On : 15 Feb 2019 8:32 pm (#1); 15-Feb-19, 20:27:17 (#2)
Operator : MAH
Sample : 9021313-07
Misc : EPA WB WAREHOUSE C2 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 19 15:09:39 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)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

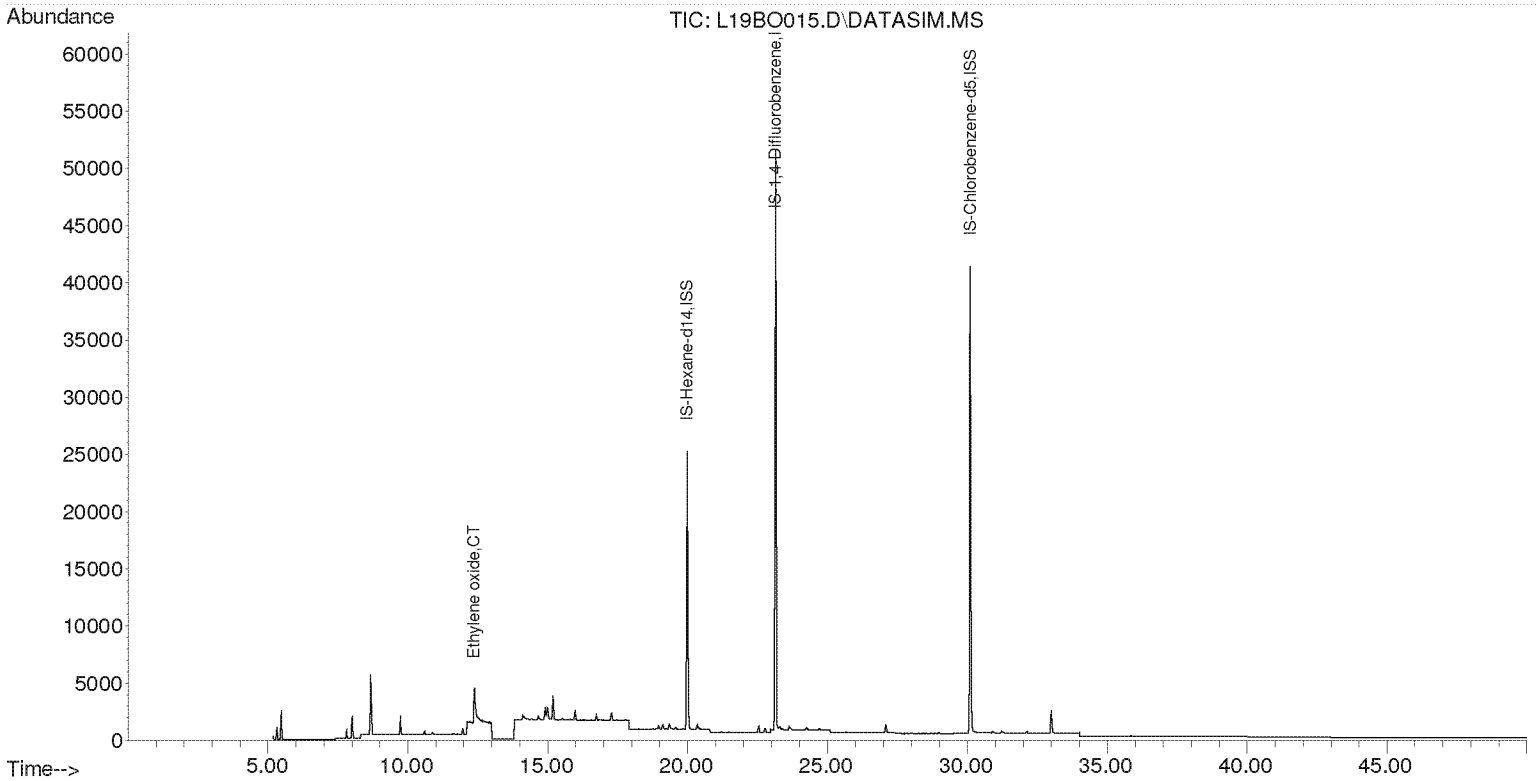
(#) = qualifier out of range (m) = manual integration (+) = signals summed

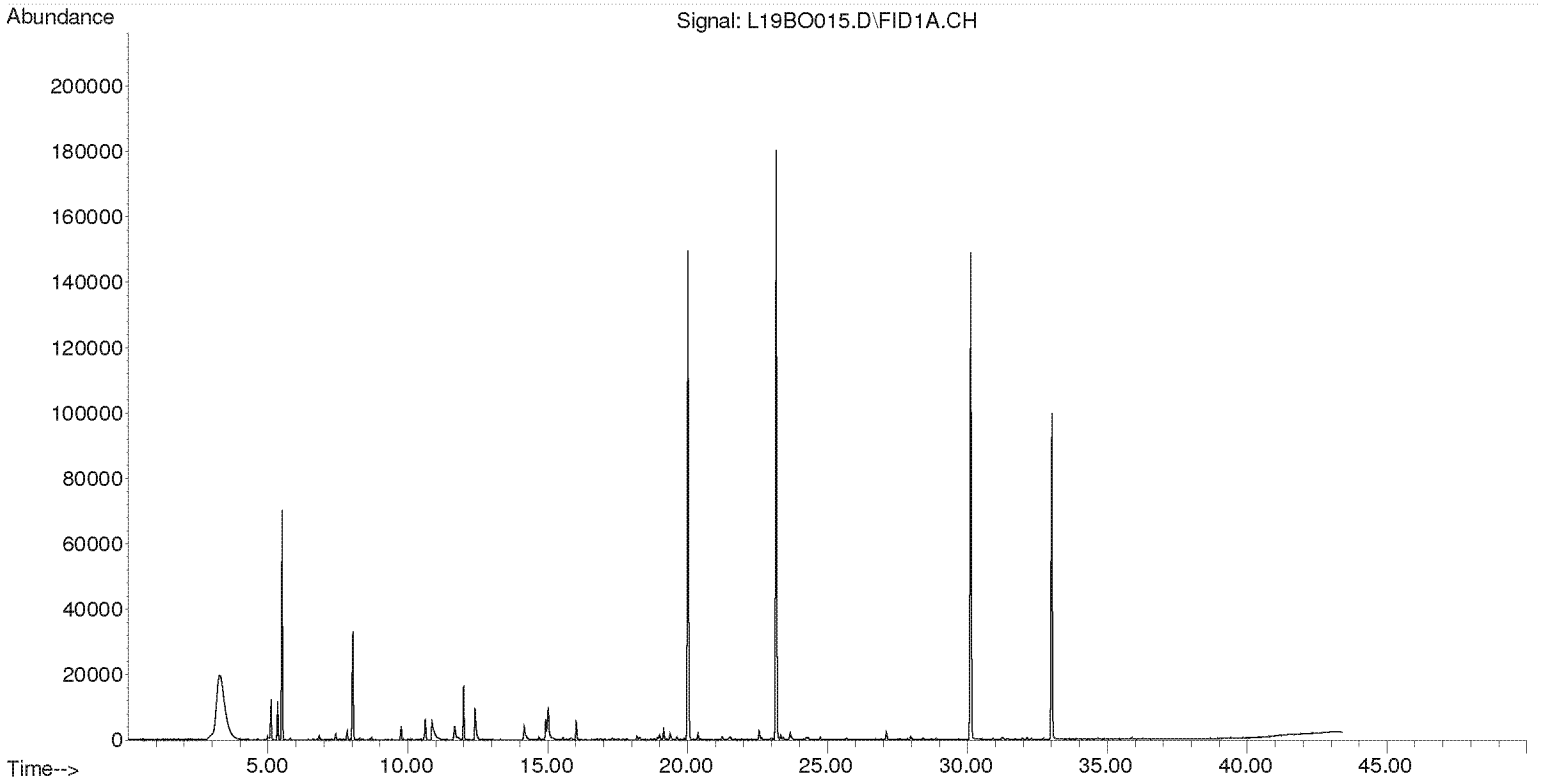
ED_002475_00000013-00281

Compounds other than ethylene oxide were not quantitated.

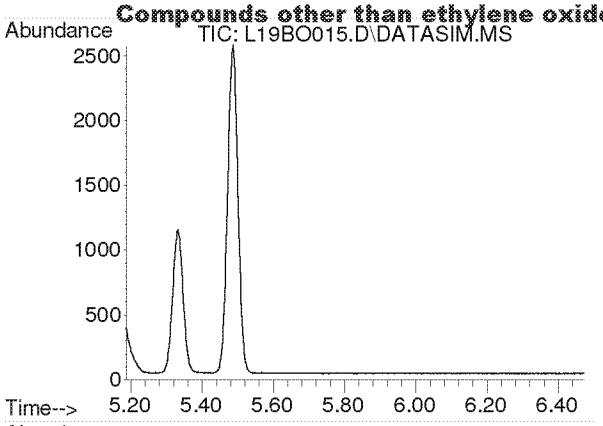
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO015.D
Acq On : 15 Feb 2019 8:32 pm (#1); 15 Feb 2019 8:27 pm (#2)
Operator : MAH
Sample : 9021313-07
Misc : EPA WB WAREHOUSE C2 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 19 14:46:49 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





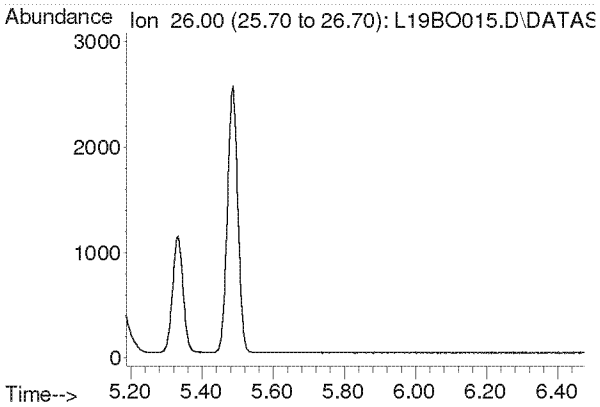
Compounds other than ethylene oxide were not quantitated.

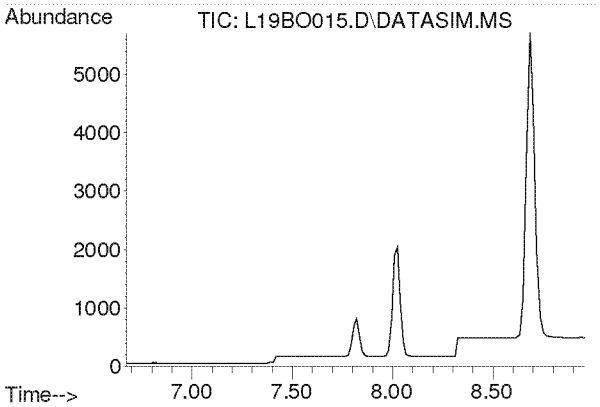


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 26



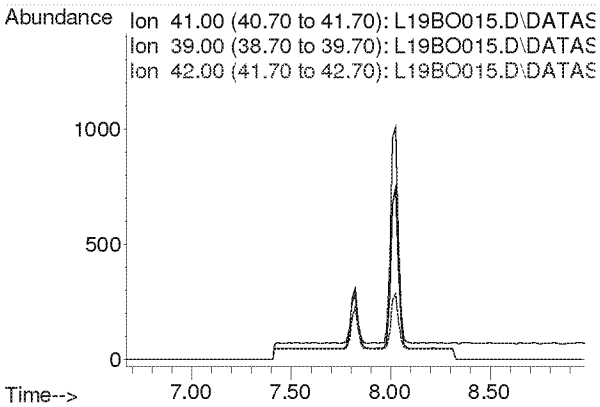


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

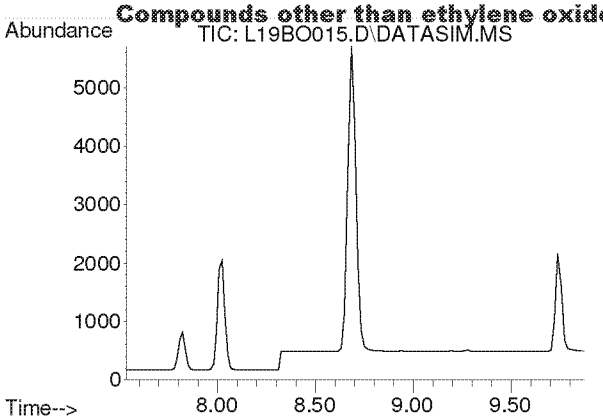
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

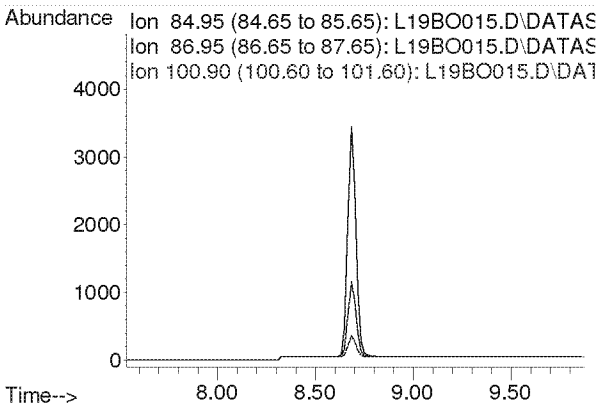


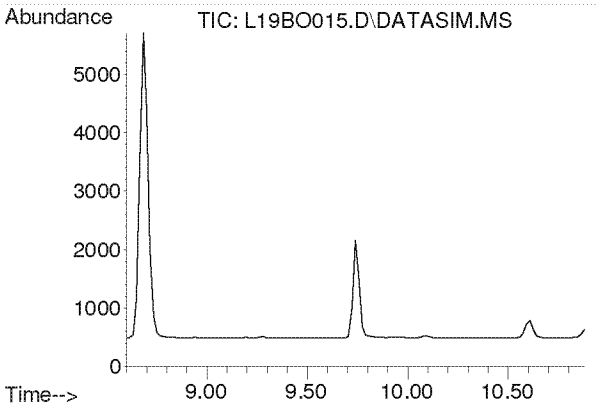
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



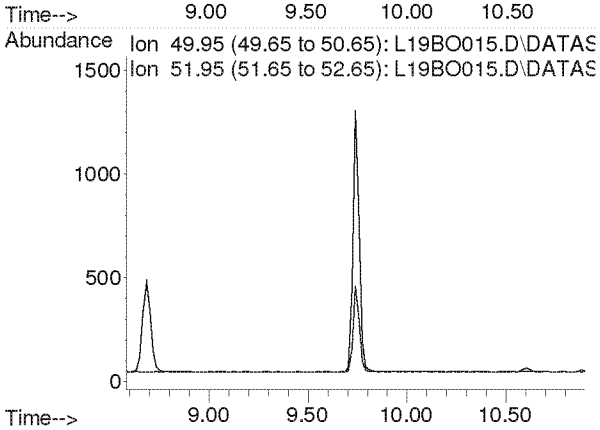


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

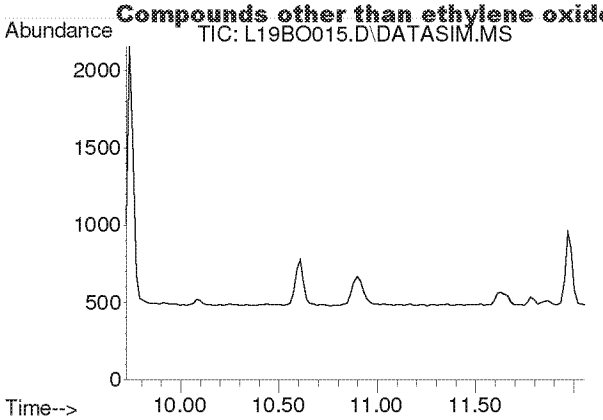
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

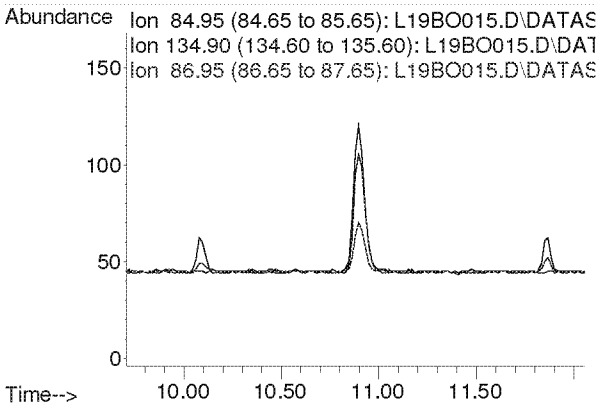


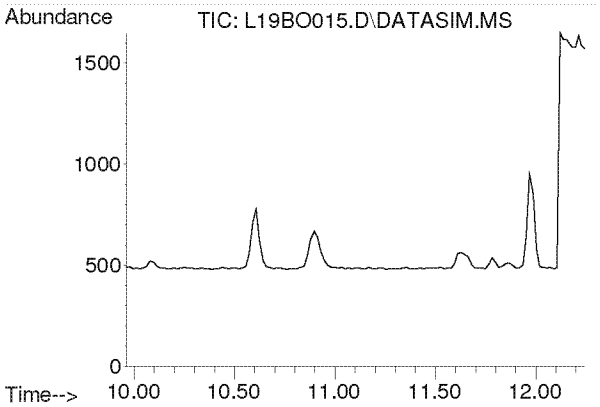
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



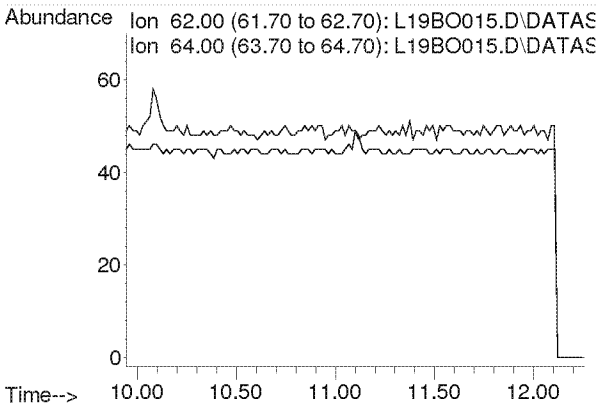


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

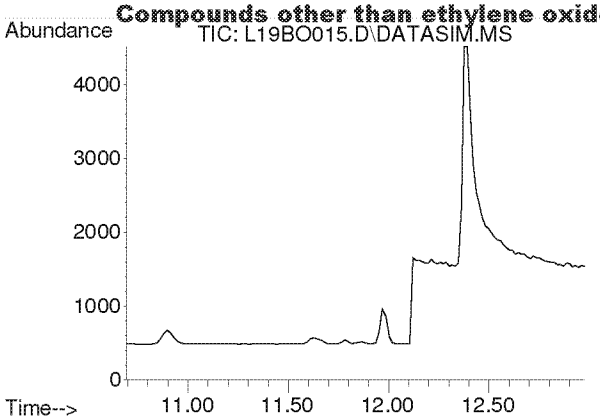
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

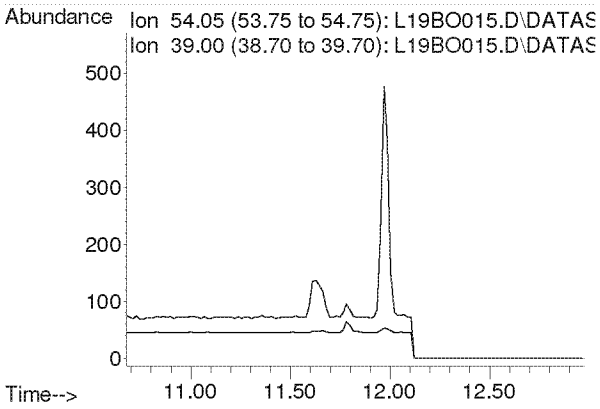


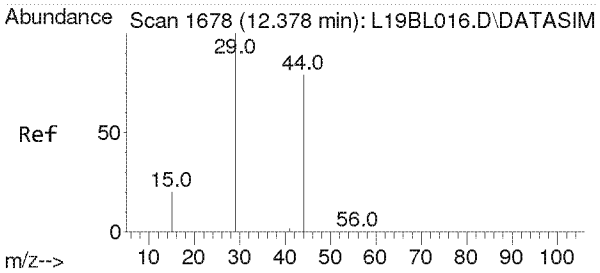
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

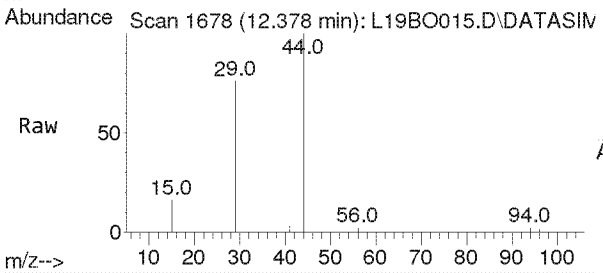


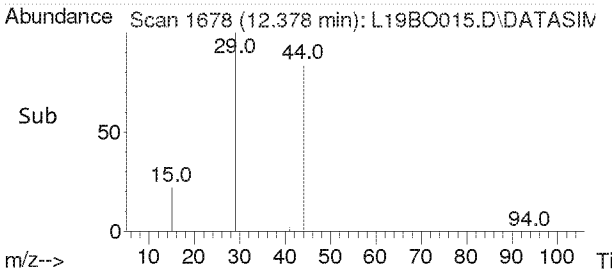


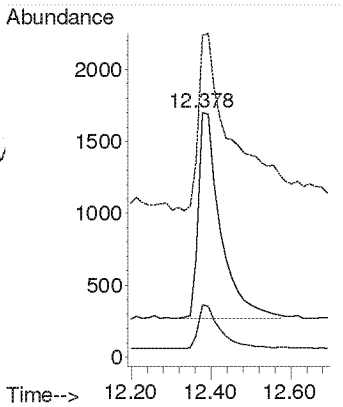
#9
Ethylene oxide
Concen: 2.384 ppbv
RT: 12.378 min Scan# 1678
Delta R.T. -0.000 min
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 29 Resp: 5562

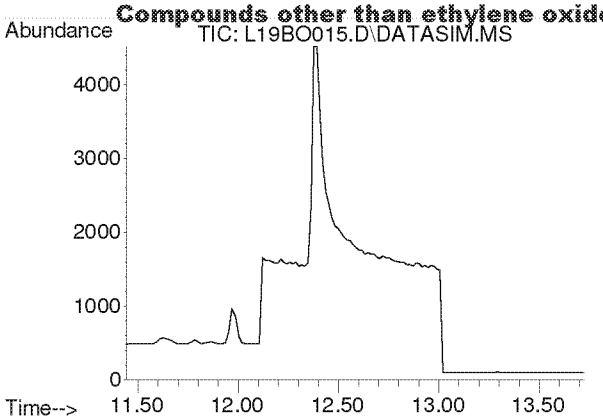
Ion	Ratio	Lower	Upper
29	100		
15	20.4	16.0	24.0
44	131.2	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

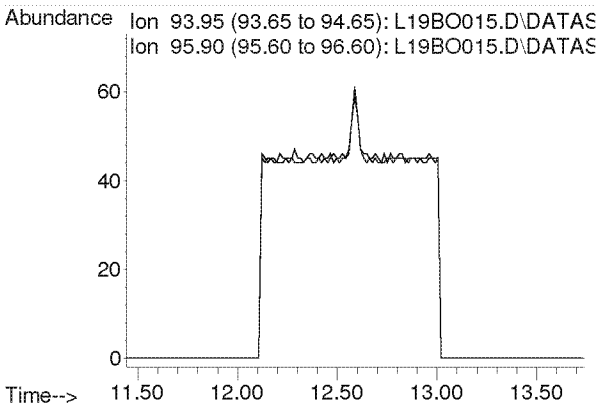


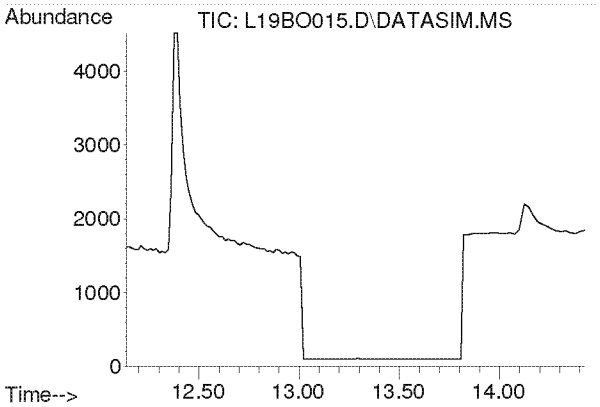
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



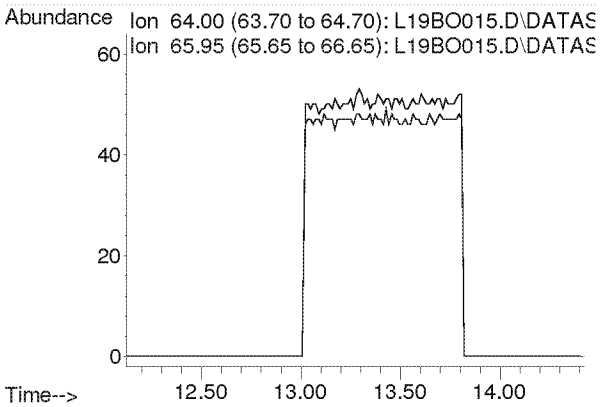


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

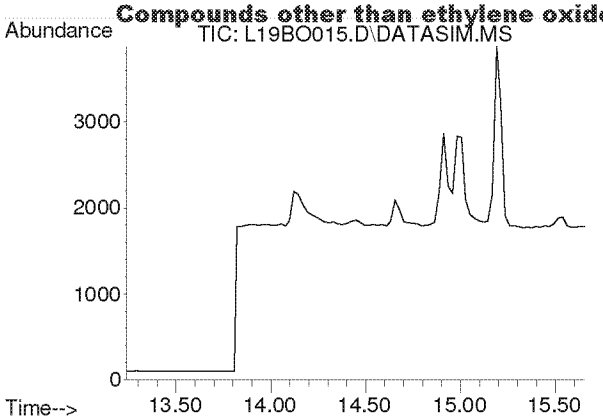
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

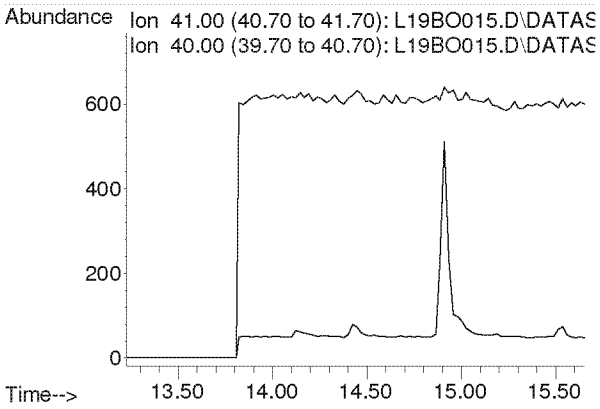


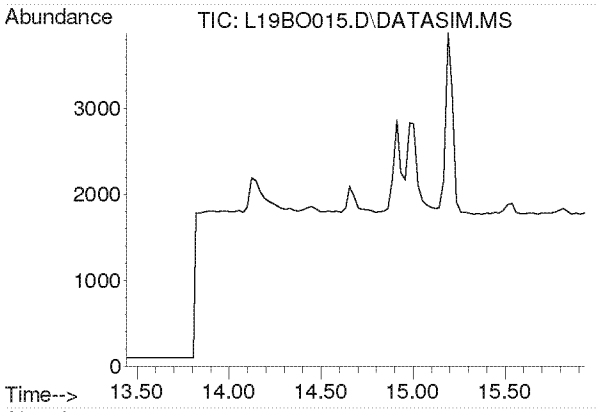
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



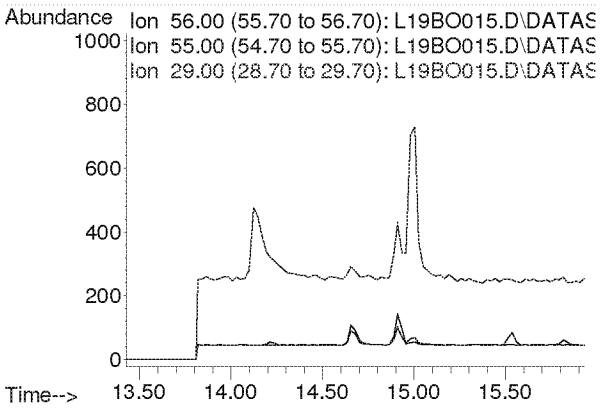


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

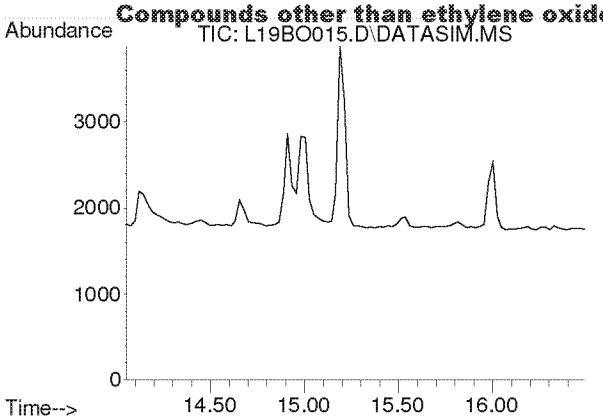
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

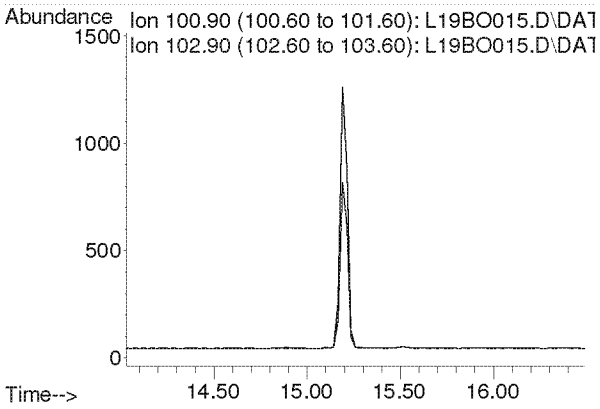


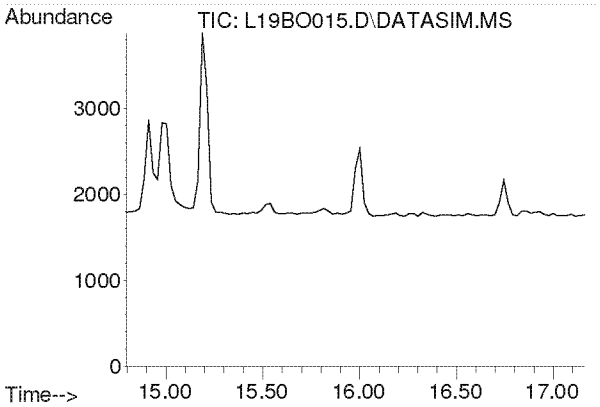
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



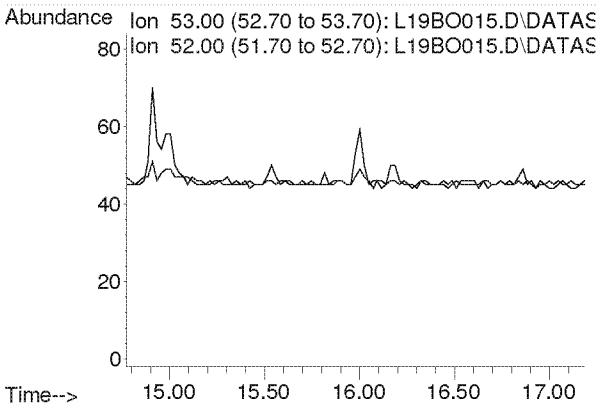


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

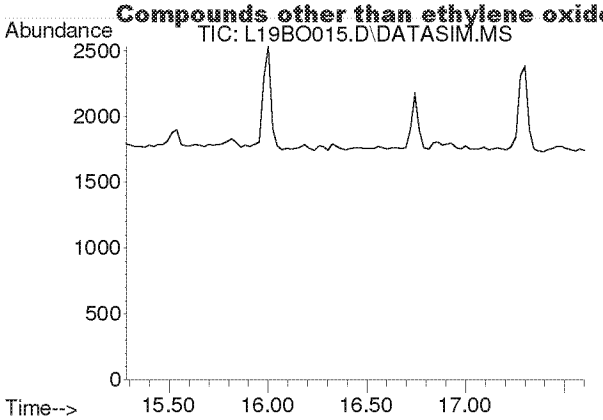
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

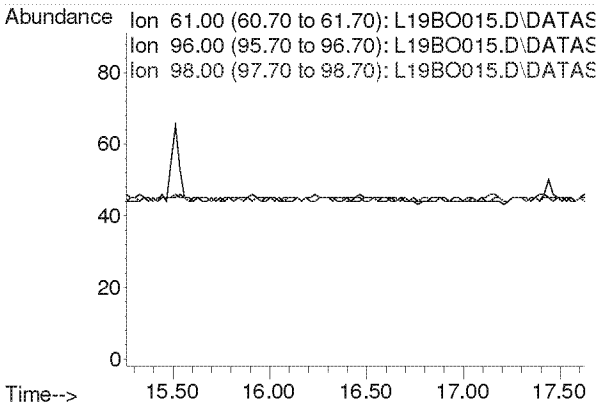


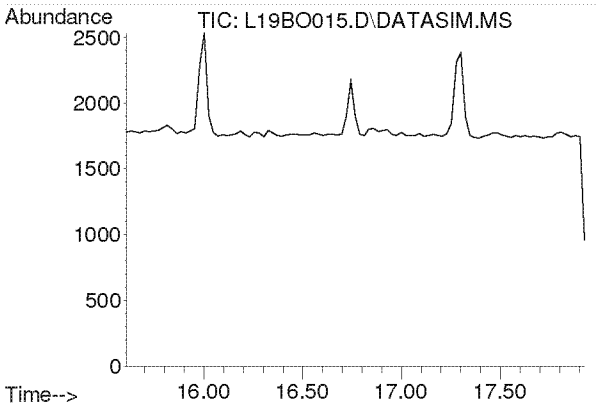
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



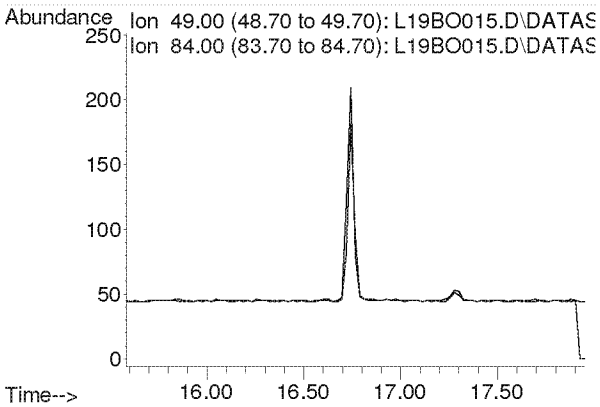


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

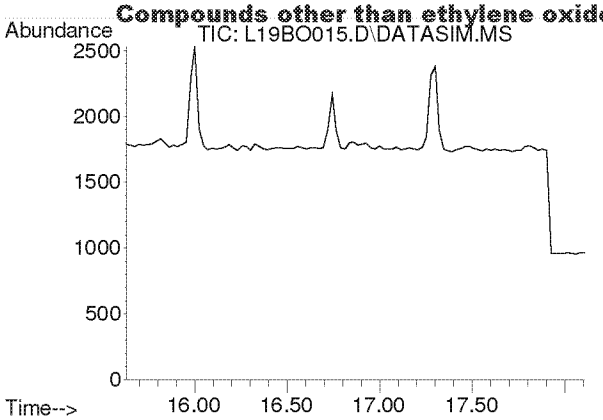
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

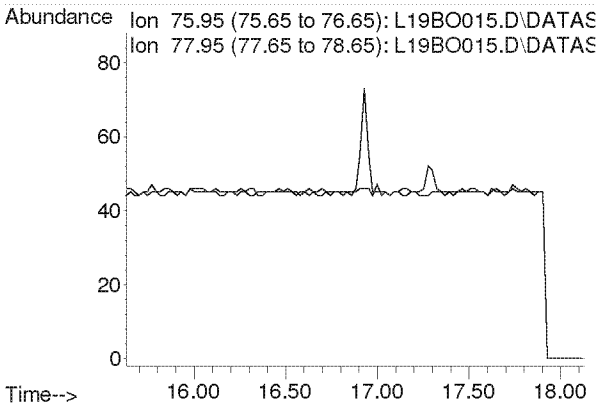


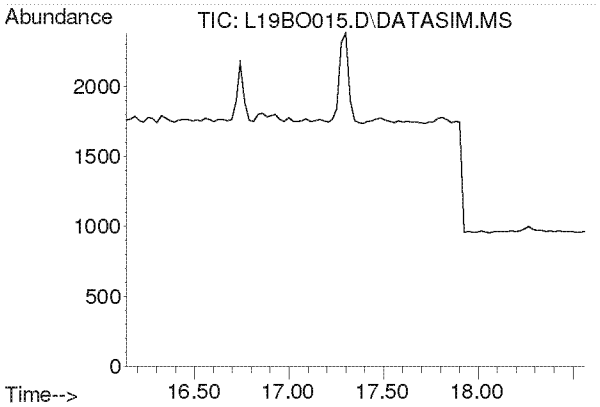
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



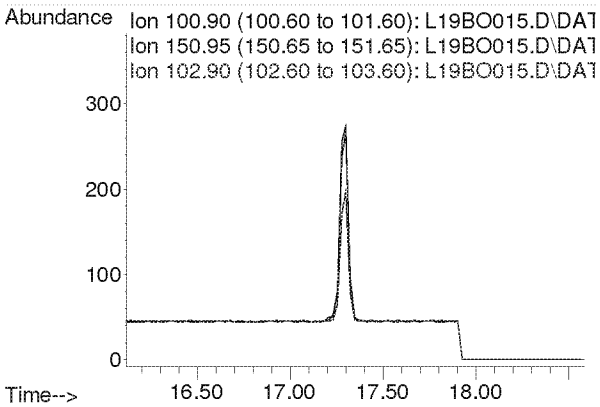


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

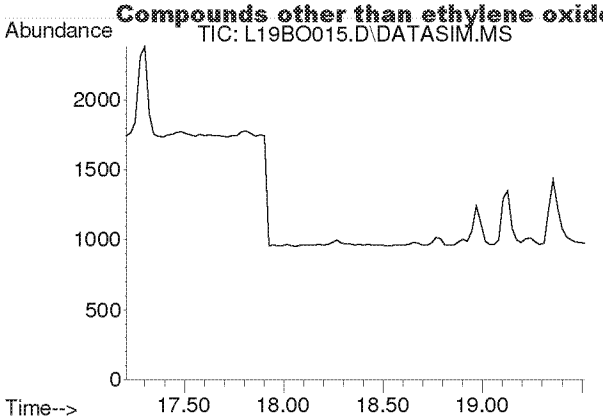
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

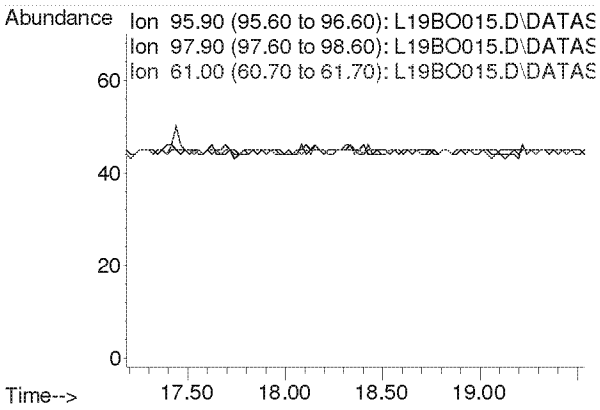


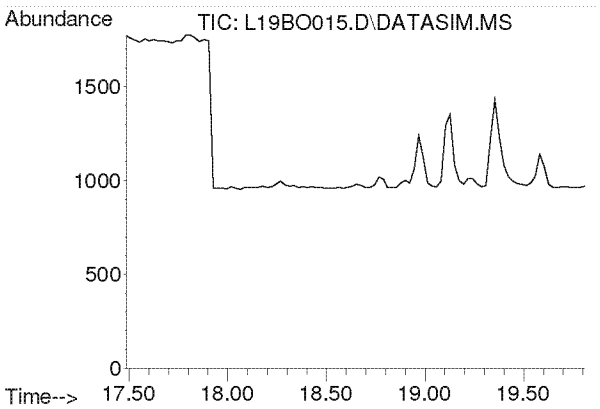
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



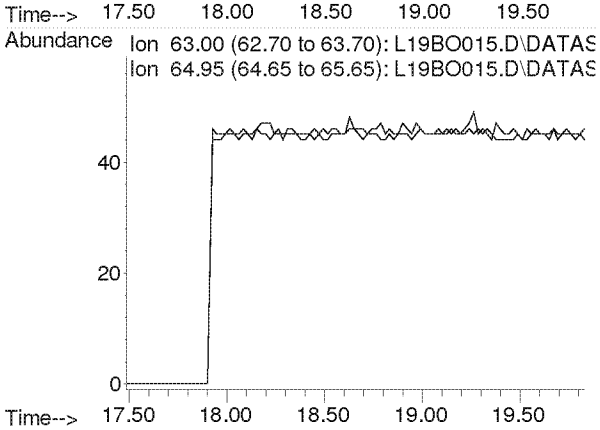


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

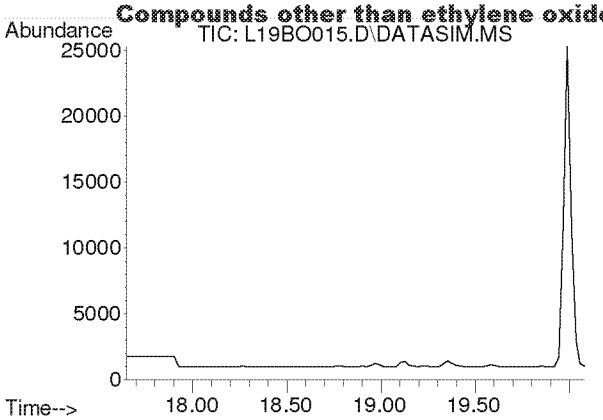
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

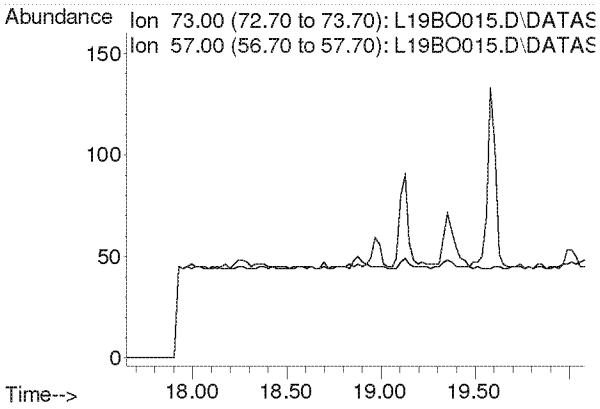


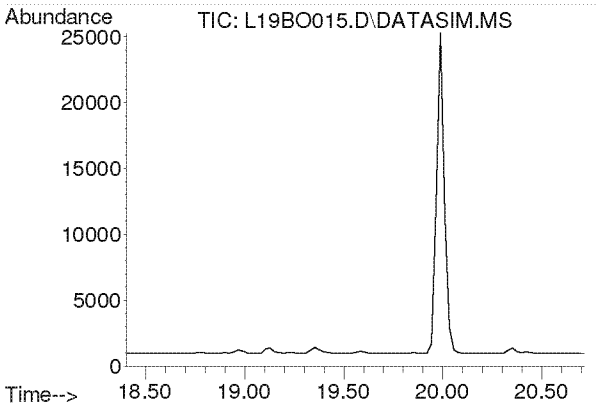
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



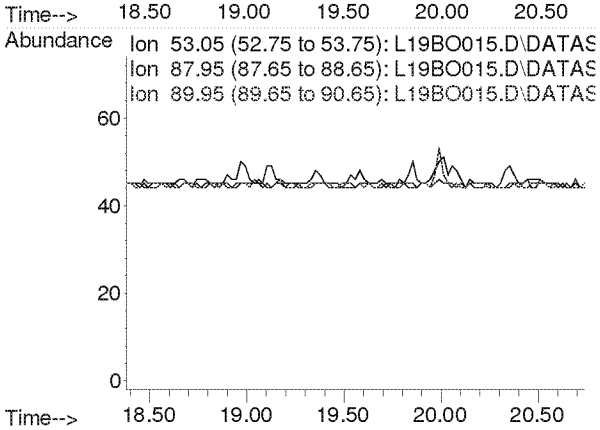


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

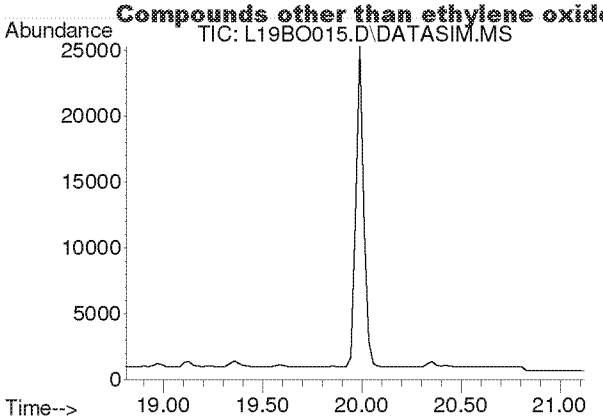
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

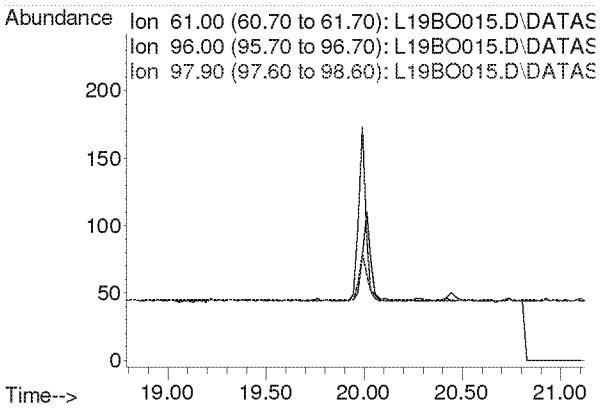


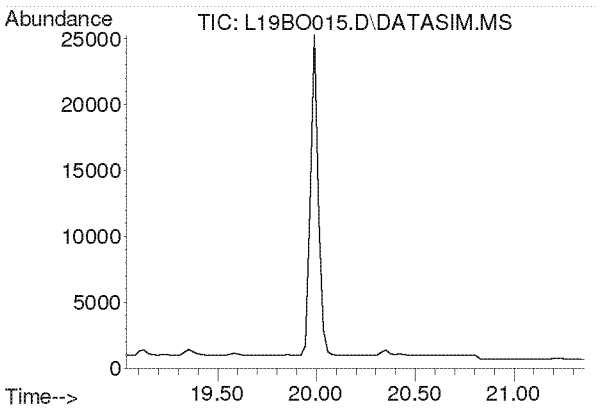
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



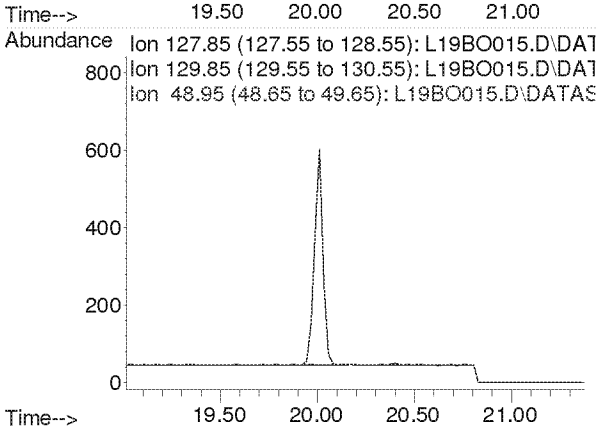


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

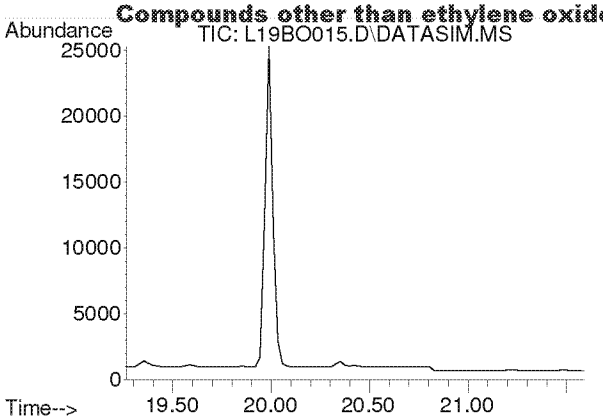
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

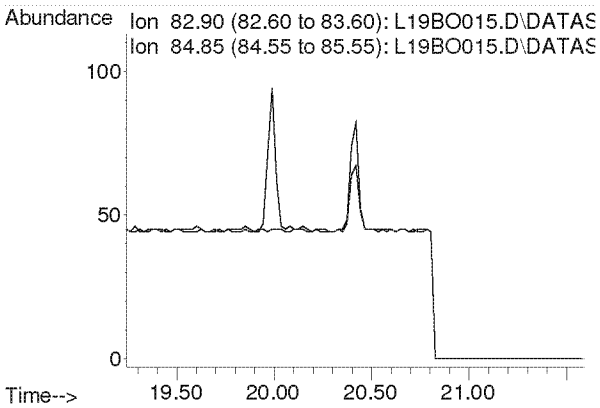


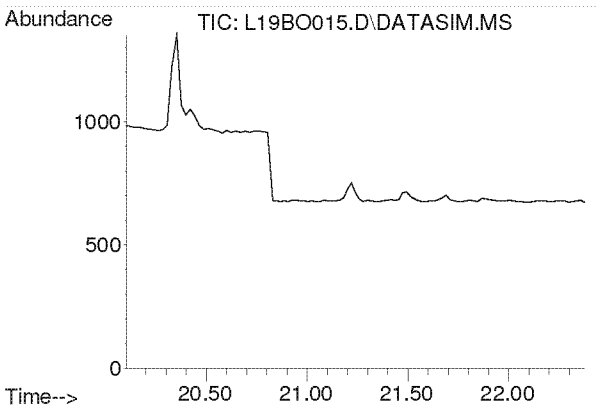
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



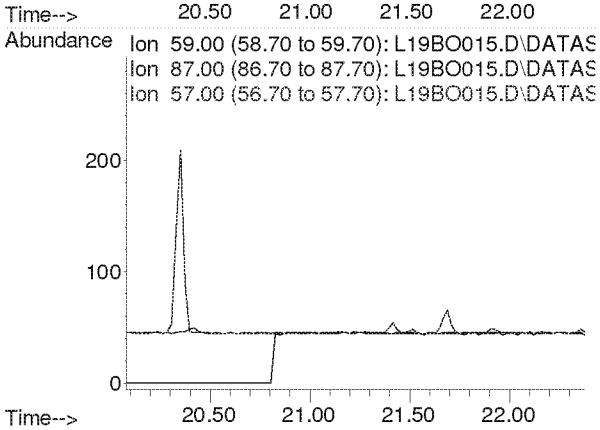


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

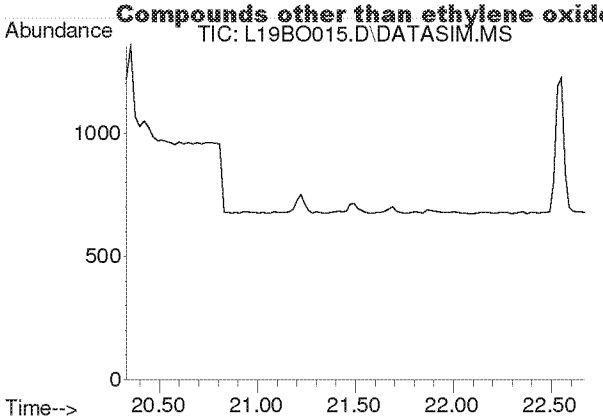
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

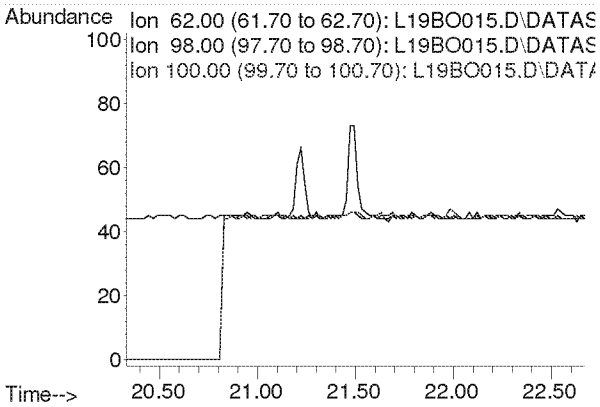


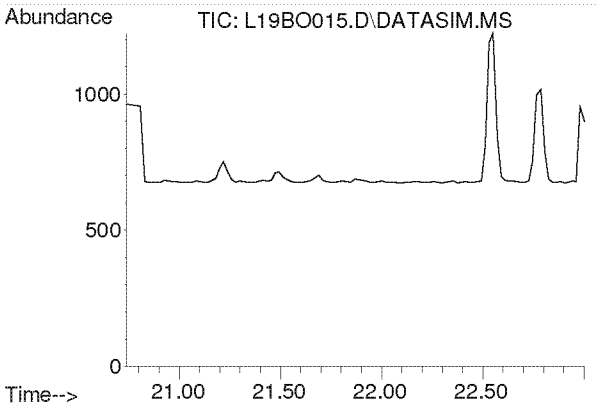
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



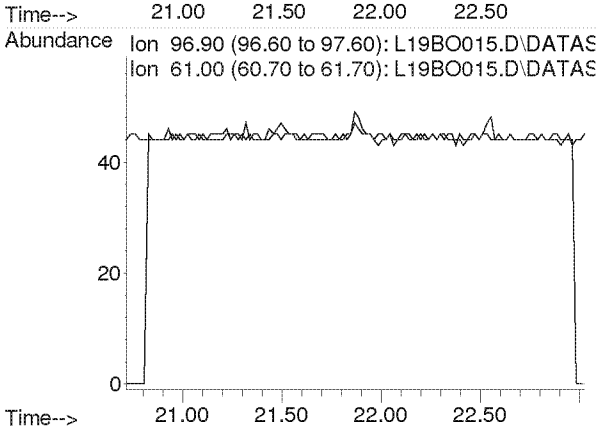


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

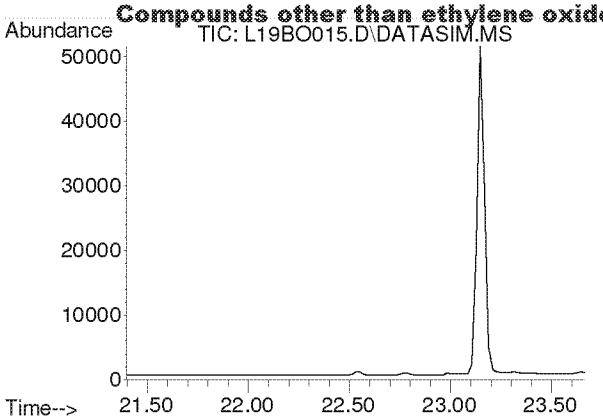
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

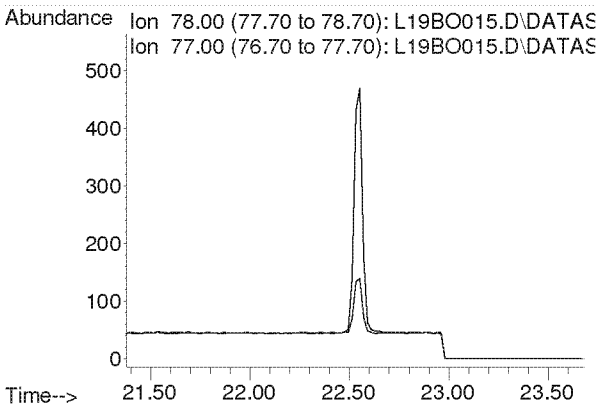


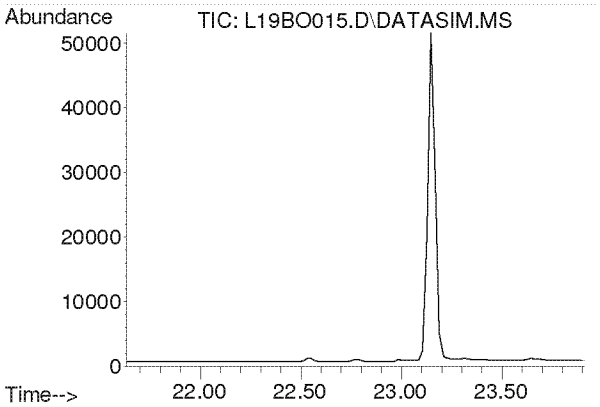
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



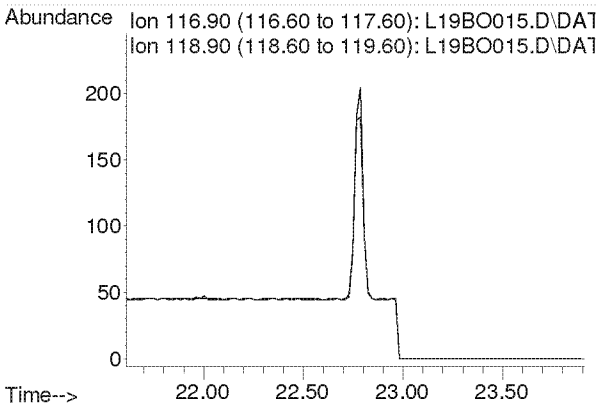


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

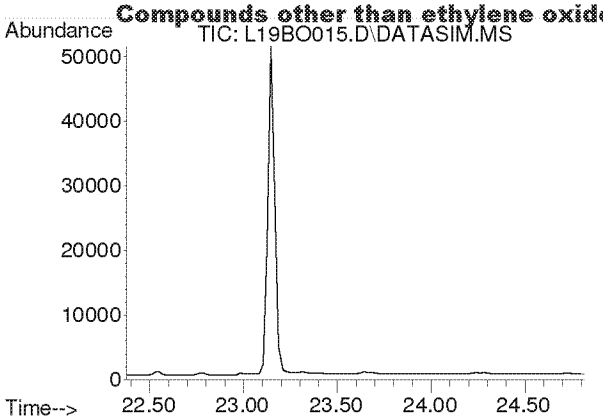
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

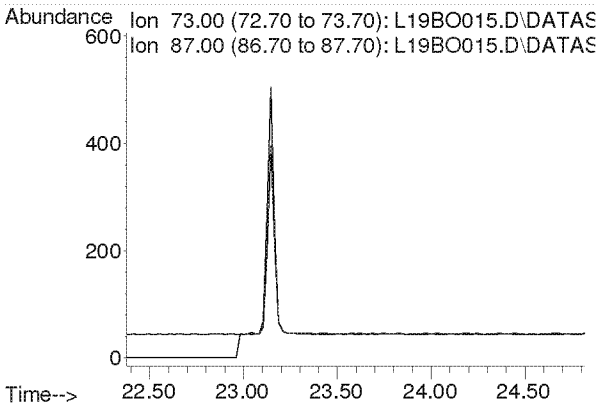


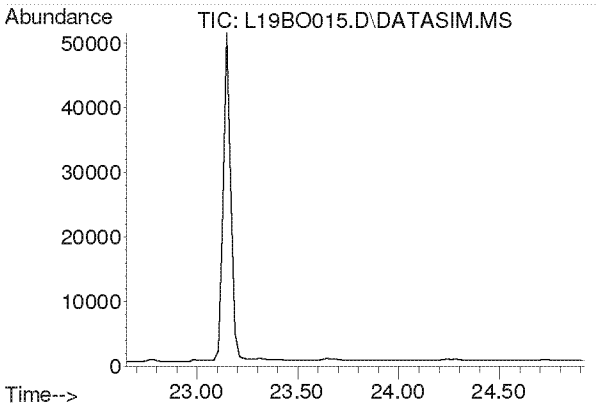
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



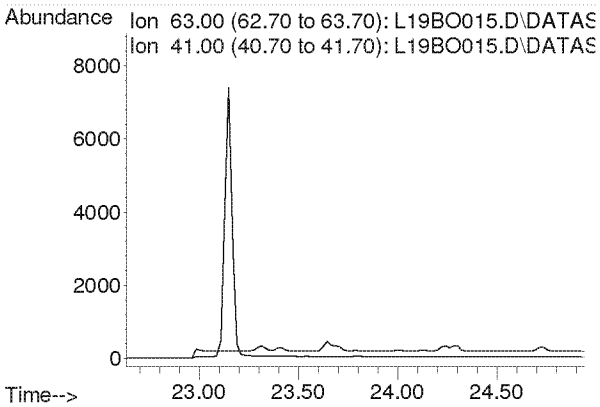


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

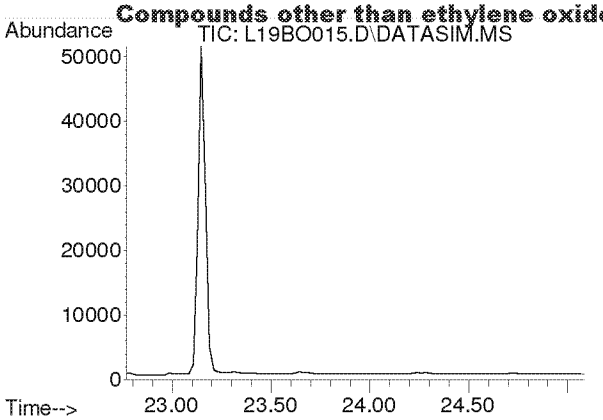
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

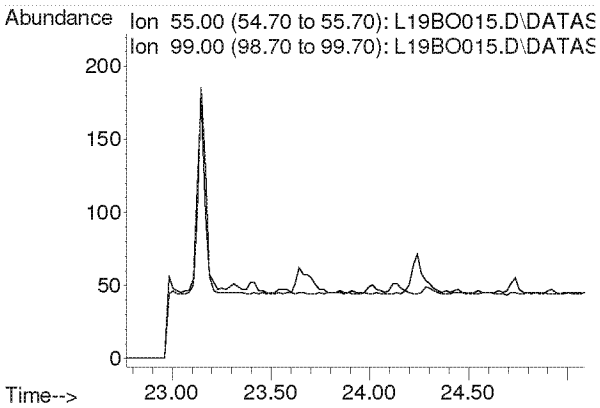


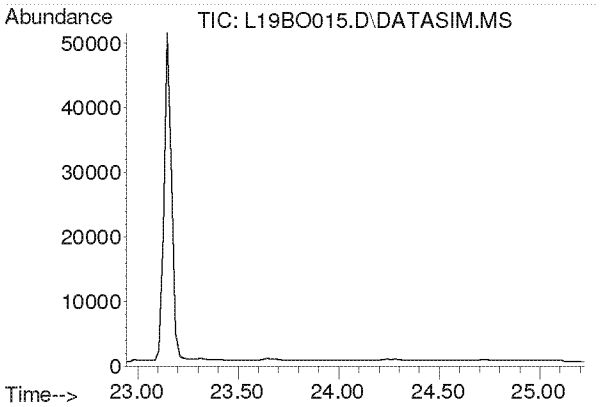
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



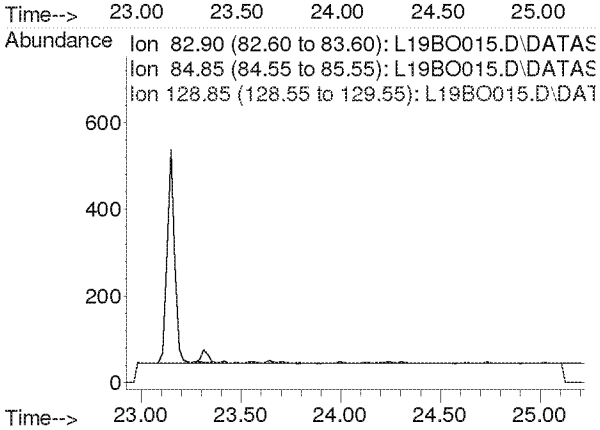


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

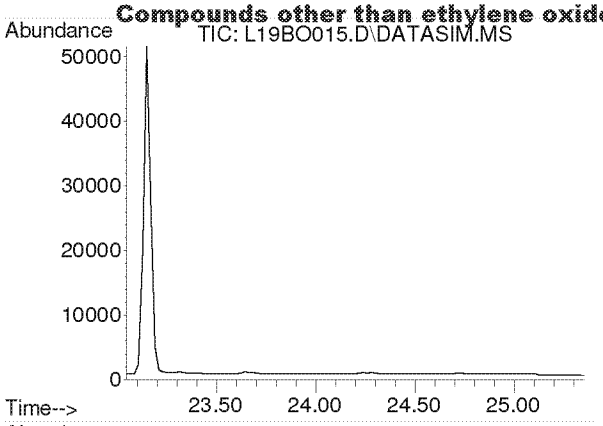
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

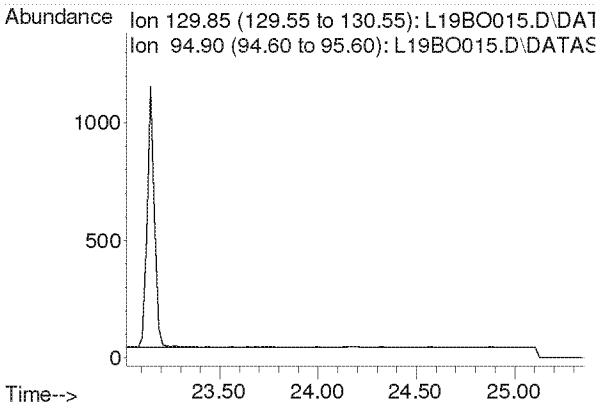


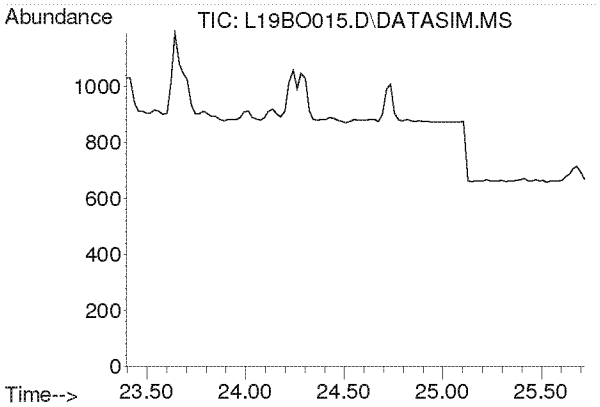
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



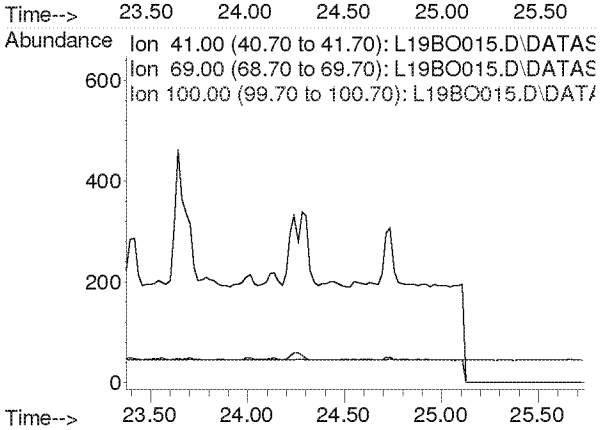


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

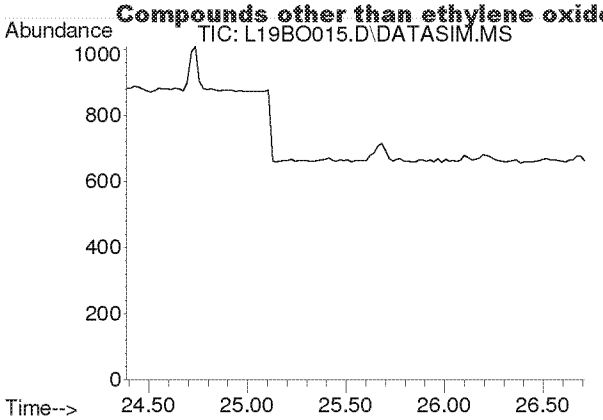
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

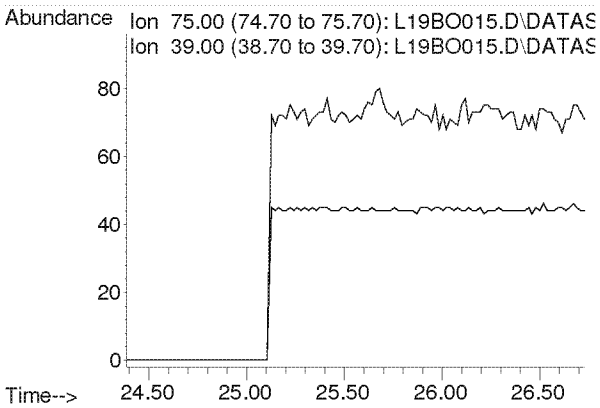


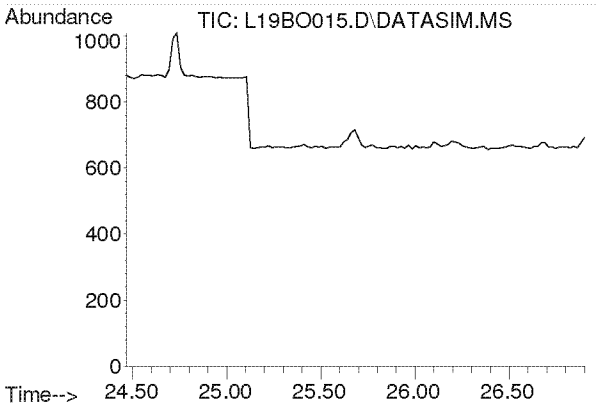
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



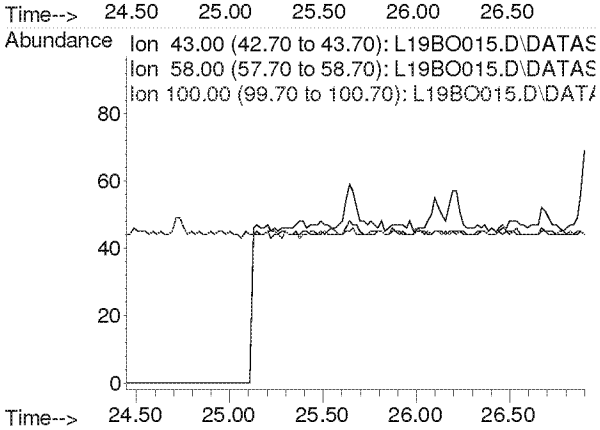


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

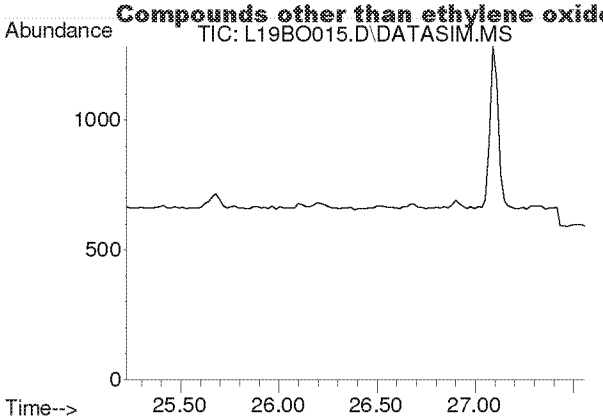
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

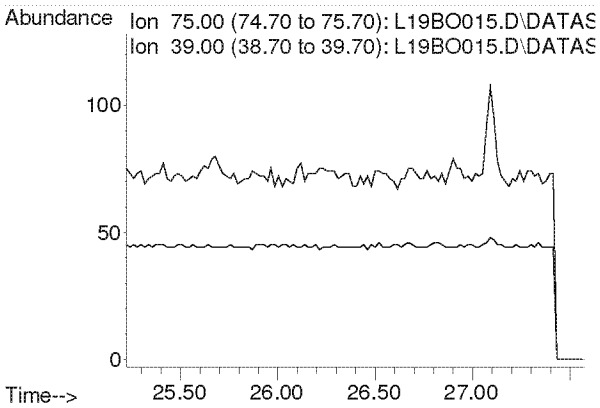


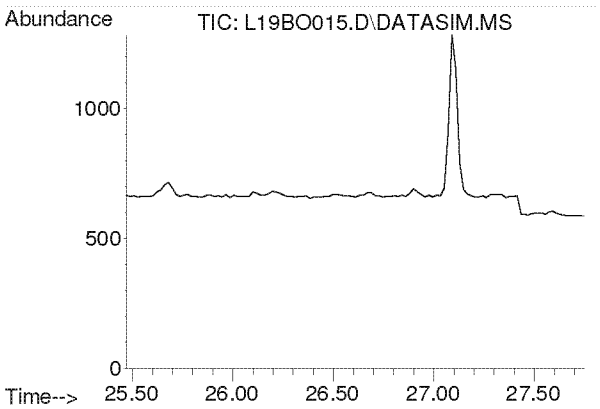
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



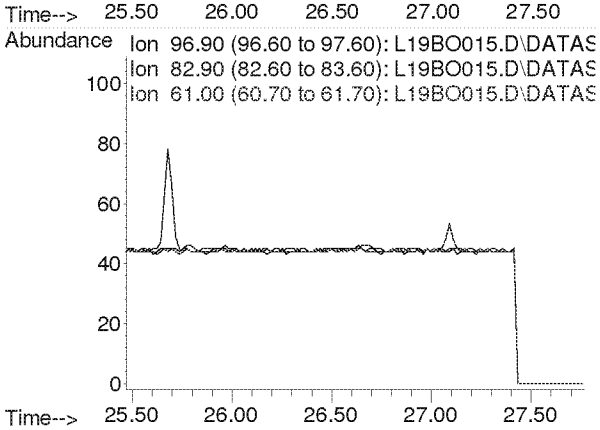


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

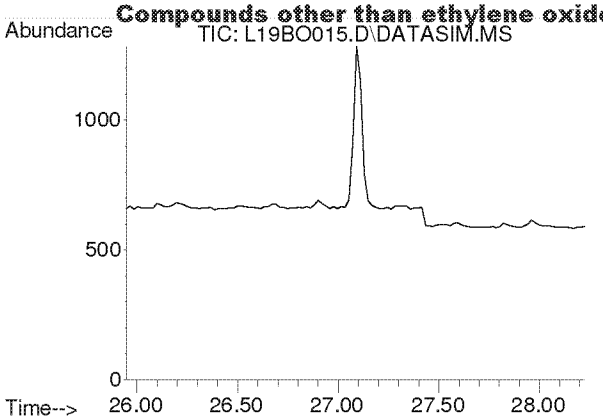
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

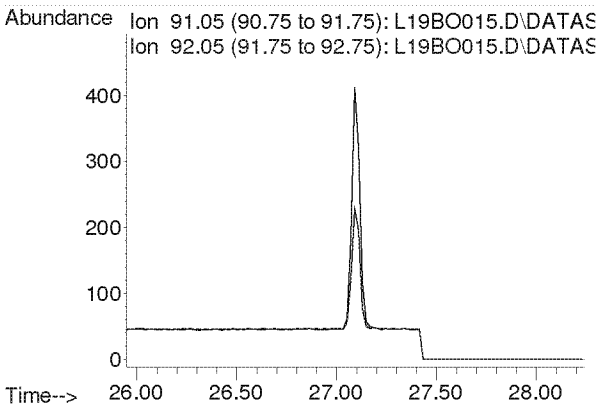


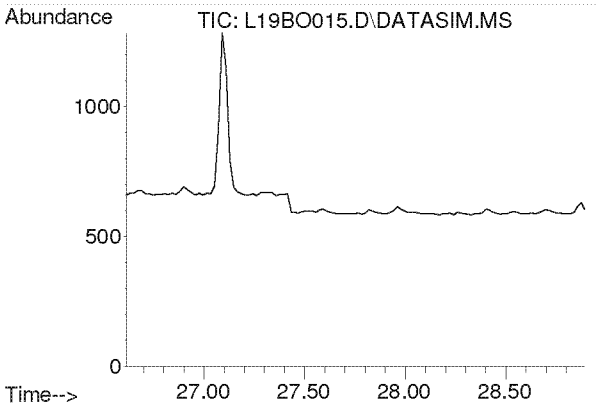
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



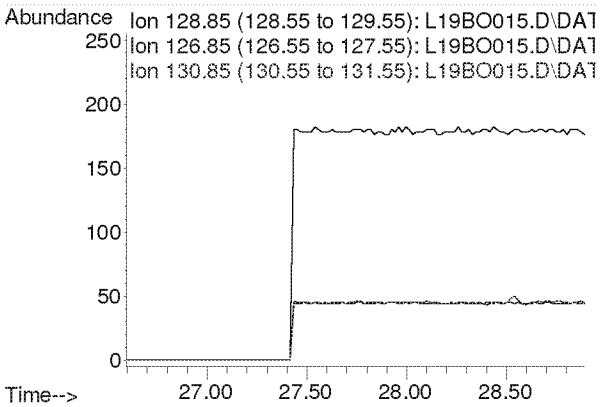


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

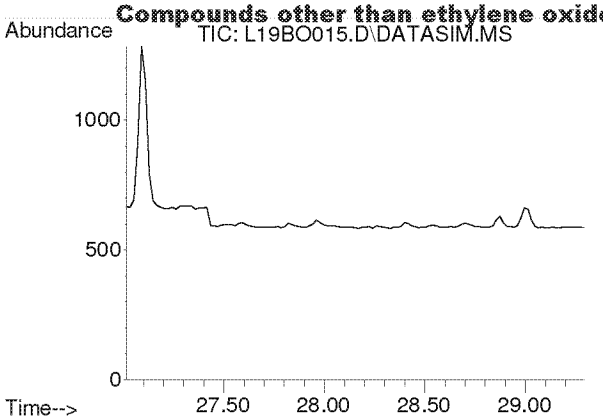
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

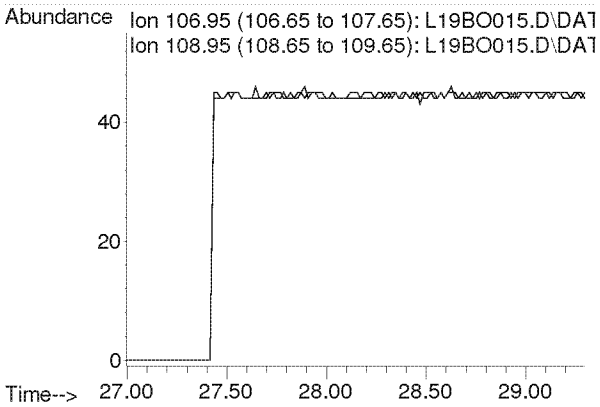


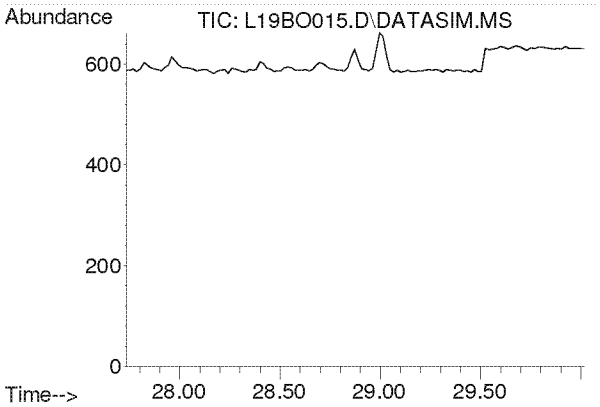
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



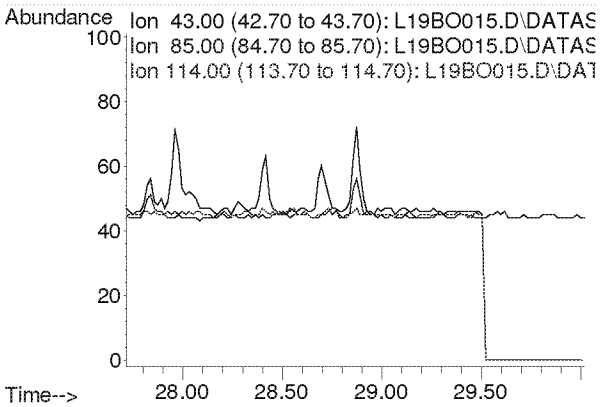


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

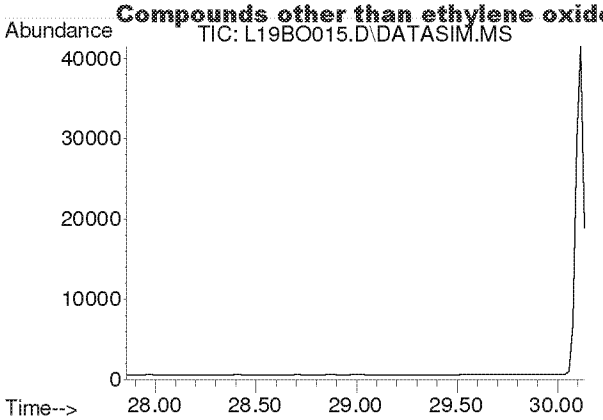
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

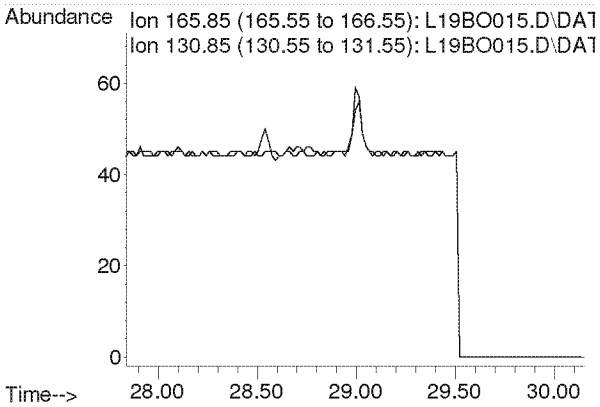


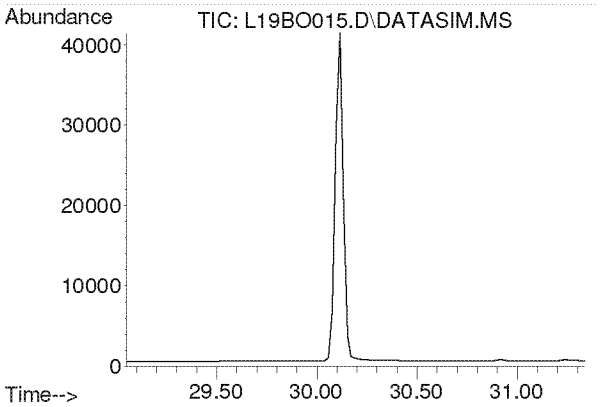
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



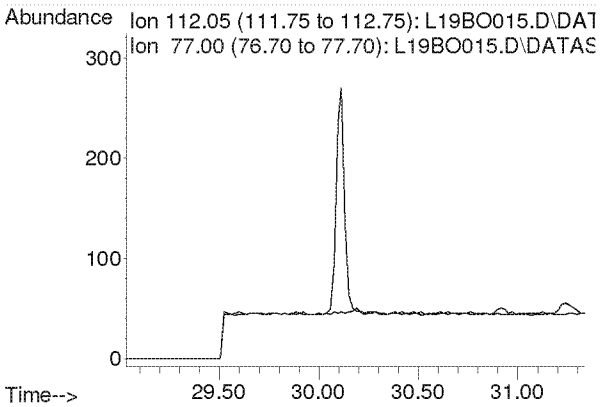


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

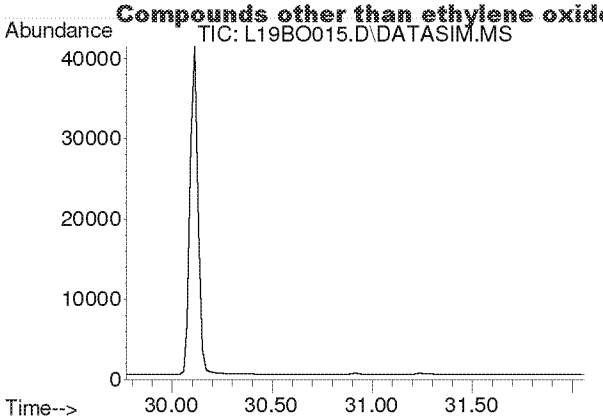
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

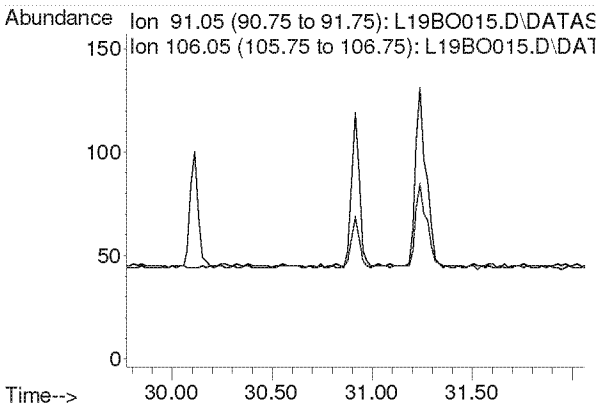


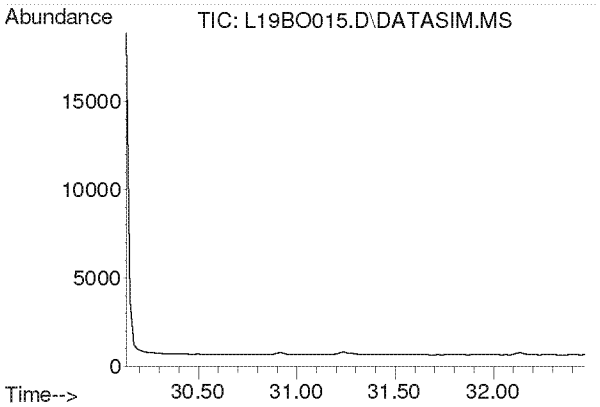
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



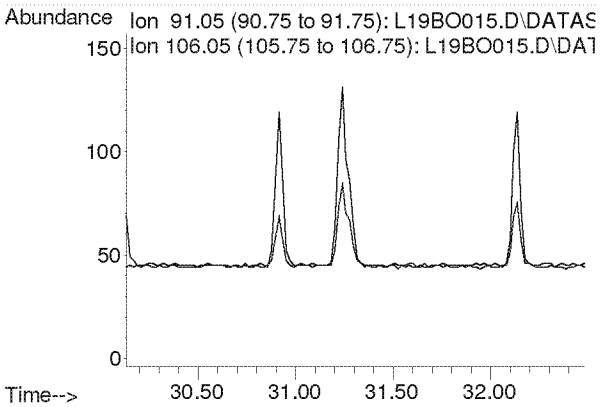


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

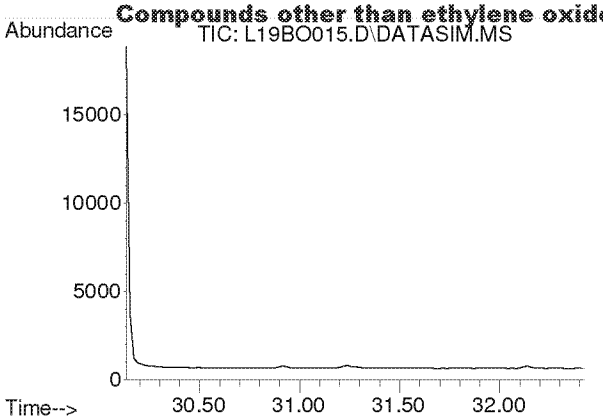
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

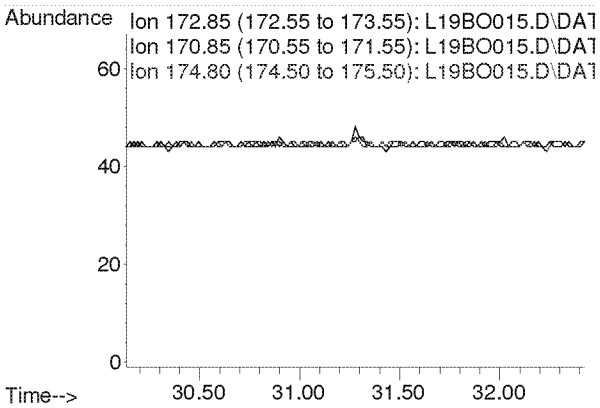


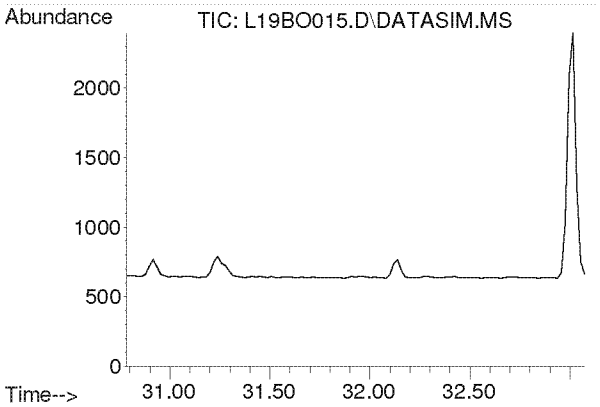
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



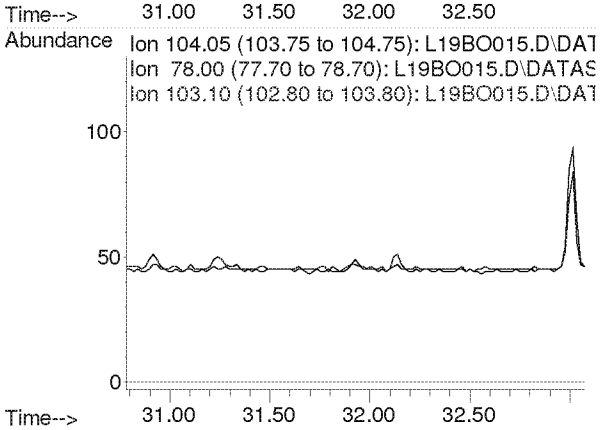


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

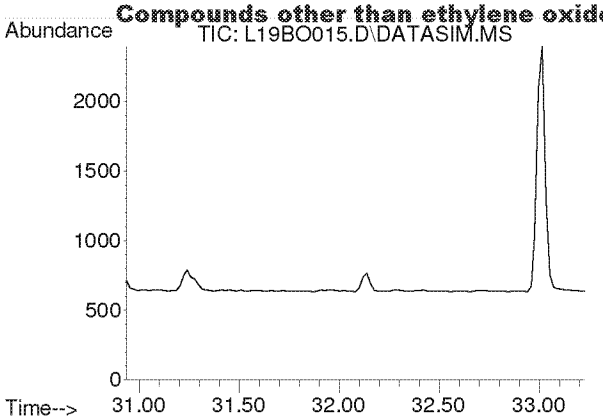
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

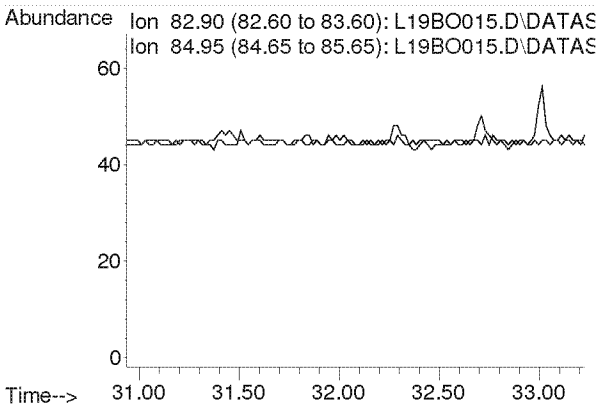


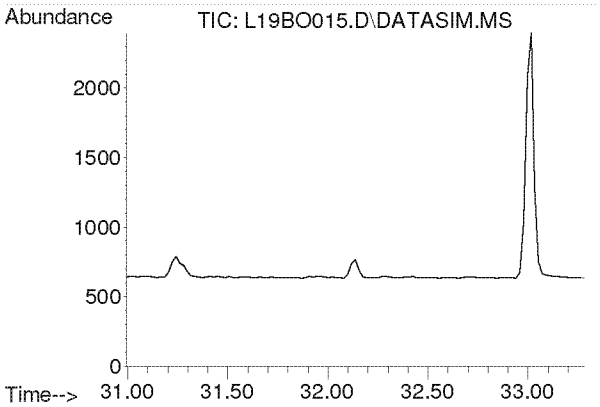
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



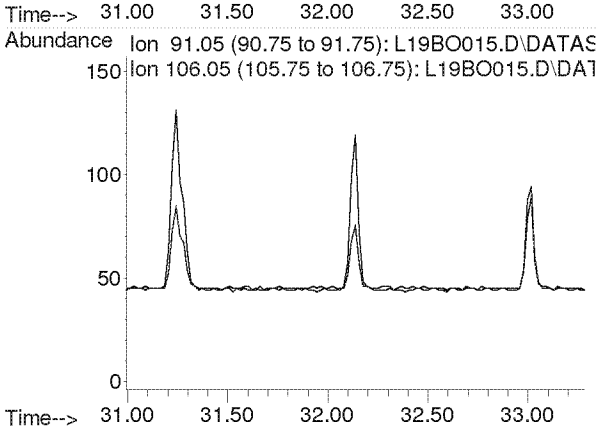


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

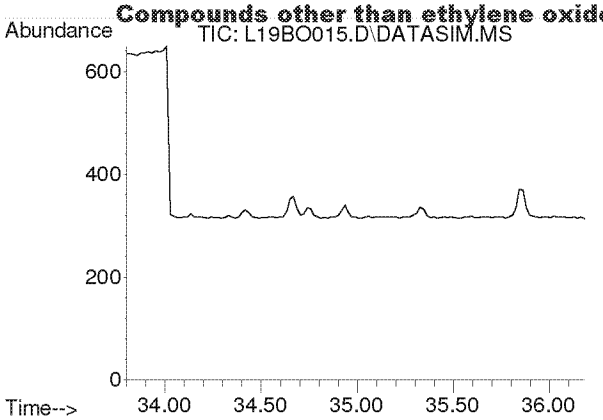
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

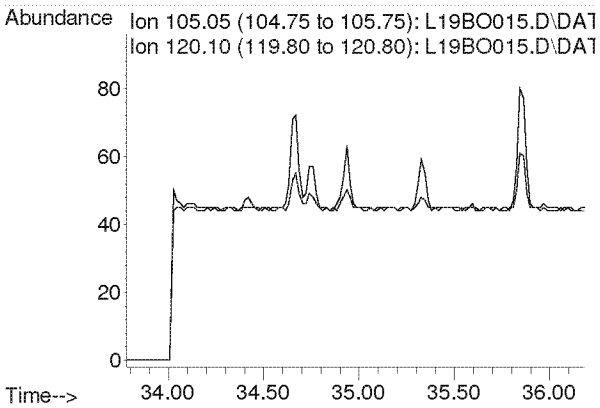


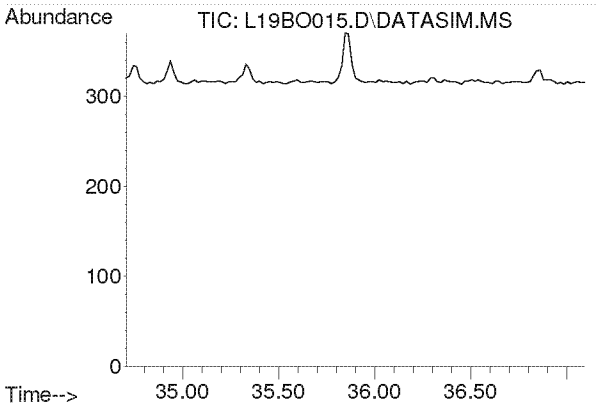
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



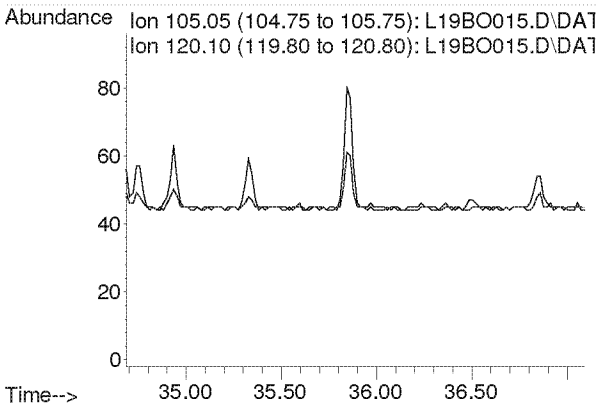


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

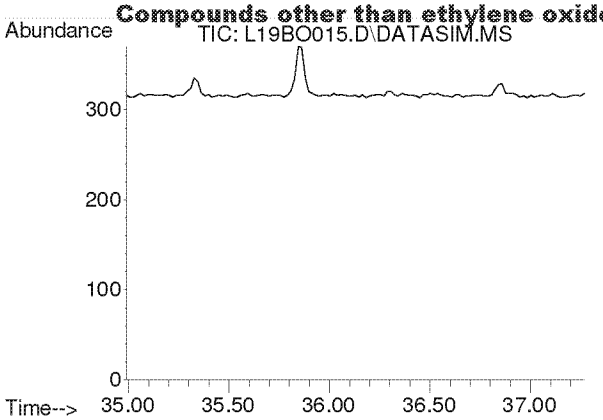
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

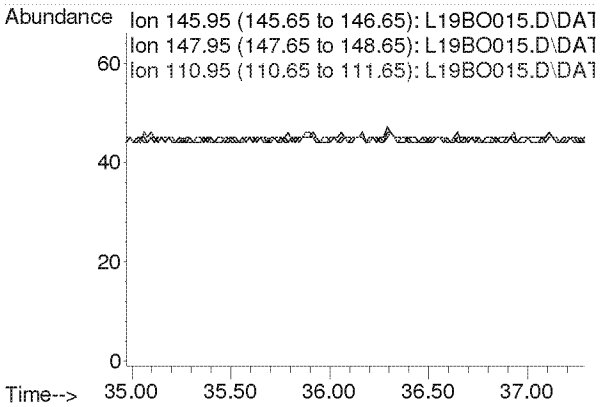


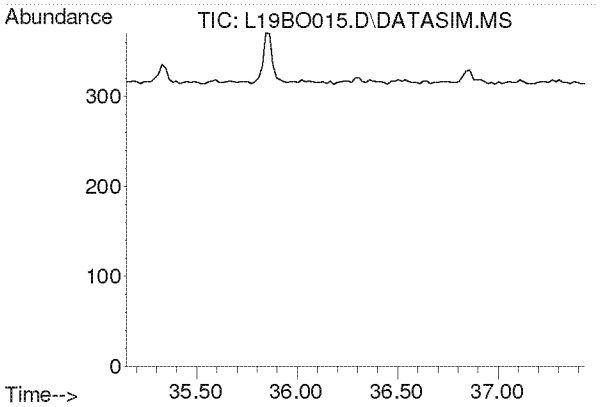
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



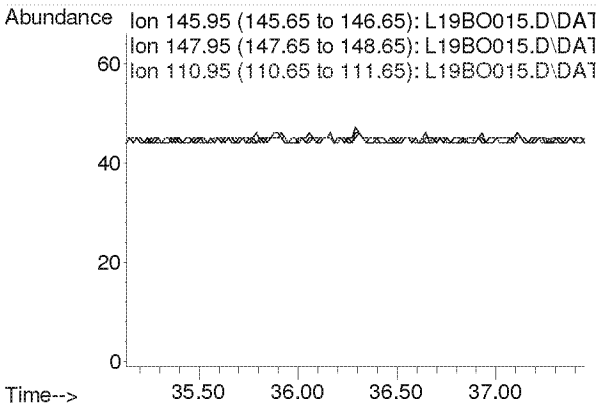


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

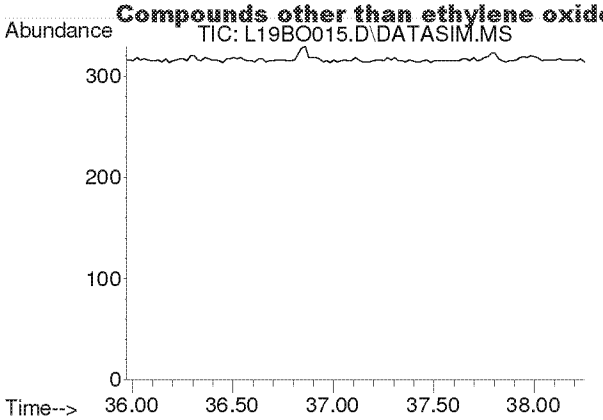
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

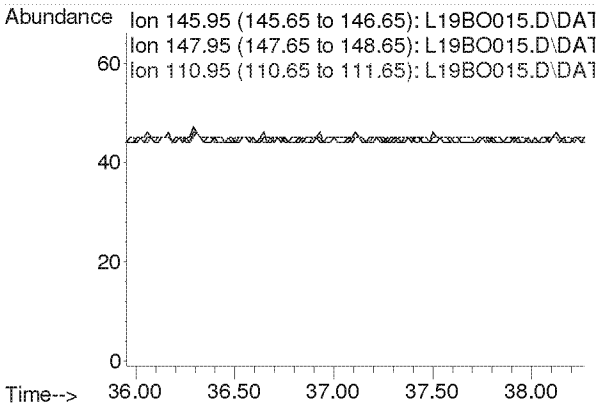


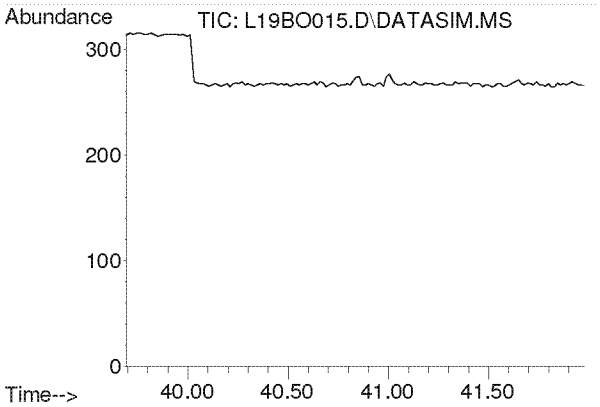
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



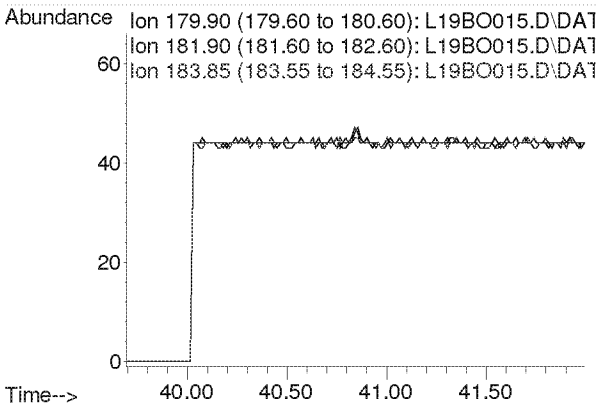


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

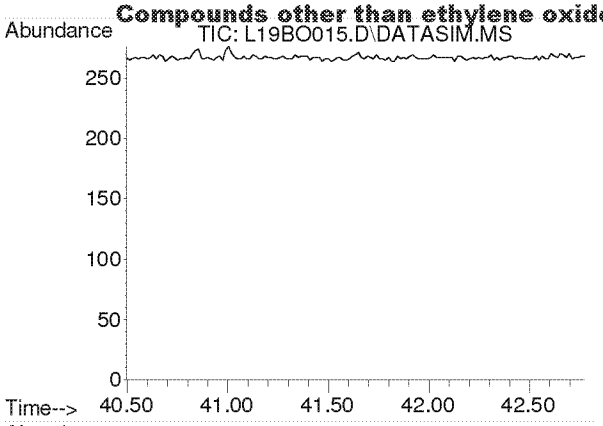
Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

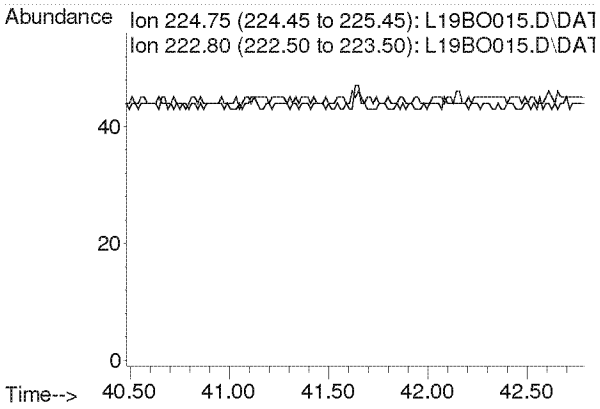


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO015.D
Acq: 15 Feb 2019 8:32 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO016.D
Acq On : 15 Feb 2019 9:32 pm (#1); 15-Feb-19, 21:27:31 (#2)
Operator : MAH
Sample : B9B1504-DUP1
Misc : EPA WB WAREHOUSE R1 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 19 15:10:03 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d=MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	40367	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	100362	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	70342	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	12.380	29	6165	2.6702 ppbv #	50
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO016.D
Acq On : 15 Feb 2019 9:32 pm (#1); 15-Feb-19, 21:27:31 (#2)
Operator : MAH
Sample : B9B1504-DUP1
Misc : EPA WB WAREHOUSE R1 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 19 15:10:03 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

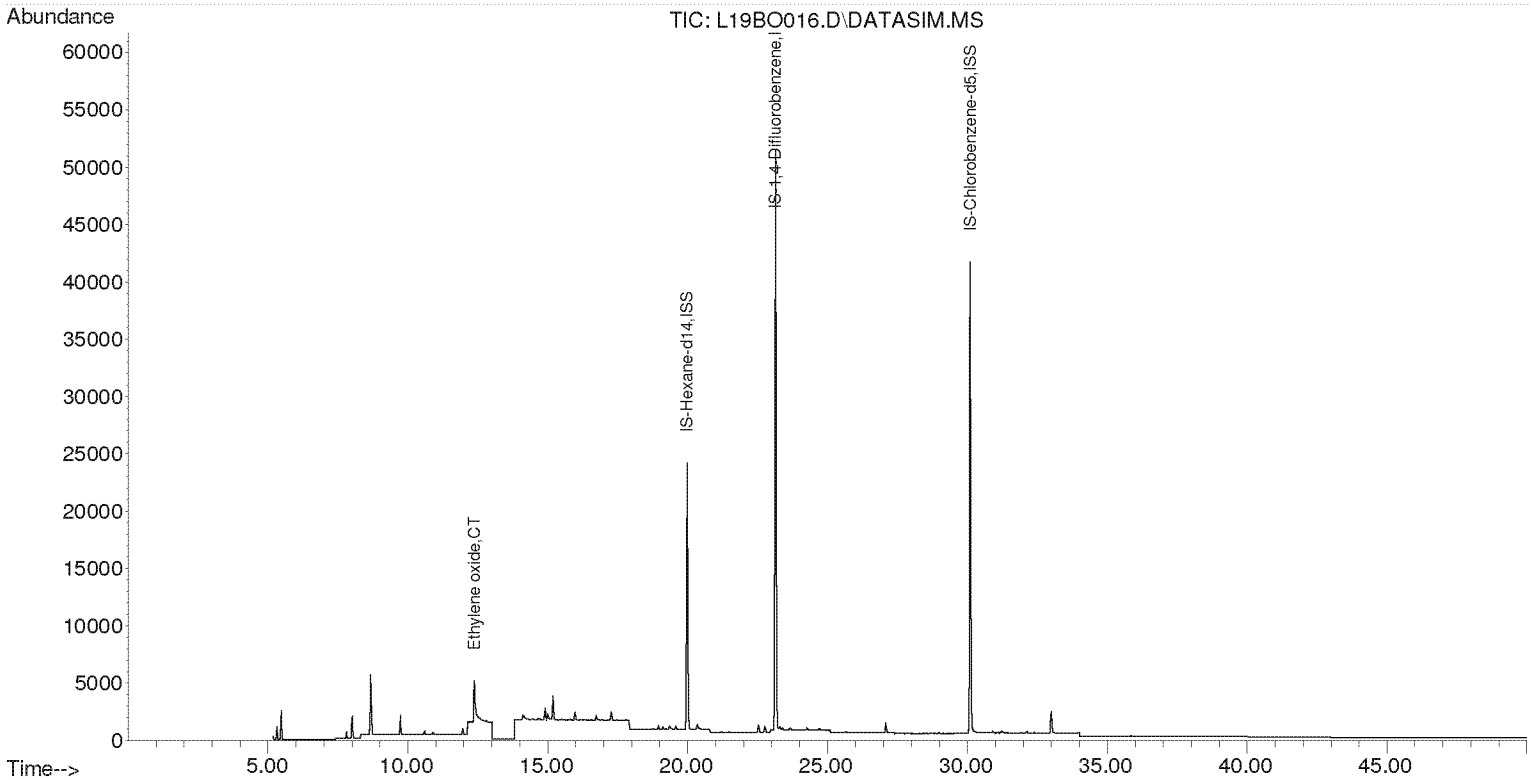
(#) = qualifier out of range (m) = manual integration (+) = signals summed

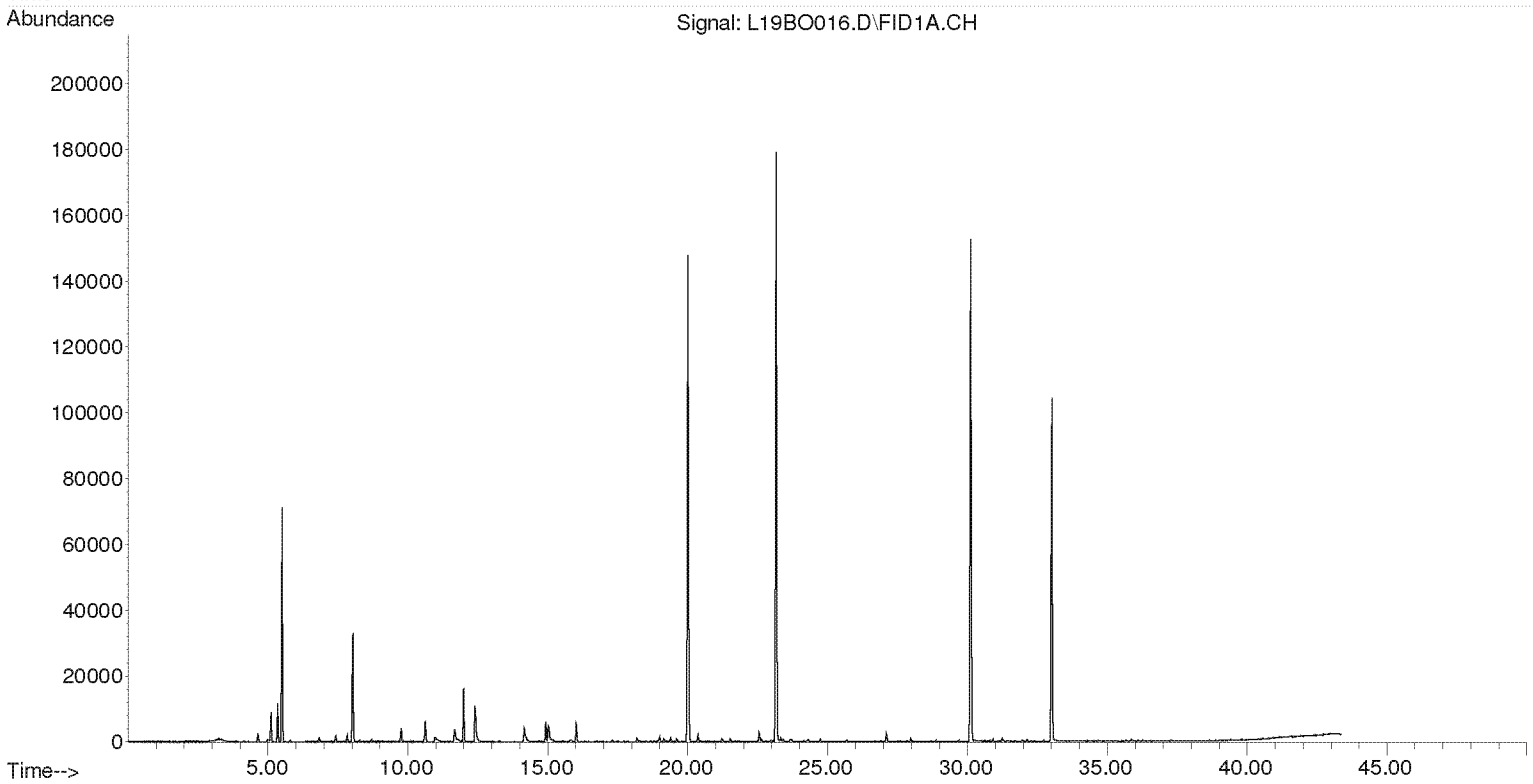
ED_002475_00000013-00314

Compounds other than ethylene oxide were not quantitated.

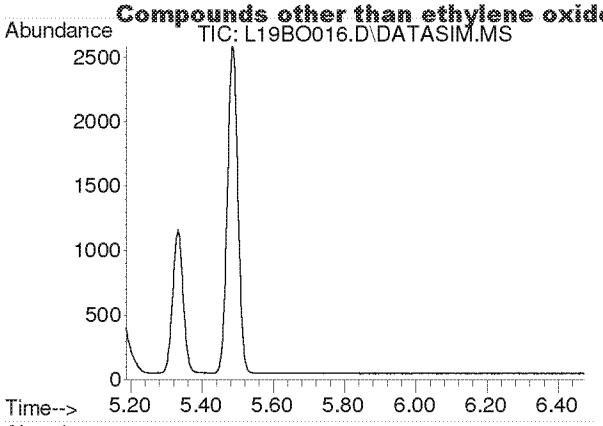
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO016.D
Acq On : 15 Feb 2019 9:32 pm (#1); 15 Feb 2019 9:27 pm (#2)
Operator : MAH
Sample : B9B1504-DUP1
Misc : EPA WB WAREHOUSE R1 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 19 14:46:55 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





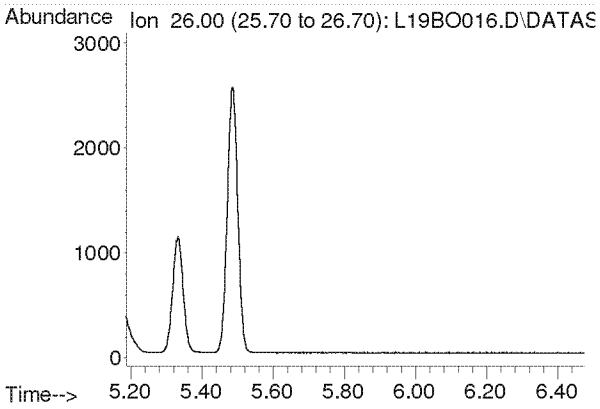
Compounds other than ethylene oxide were not quantitated.

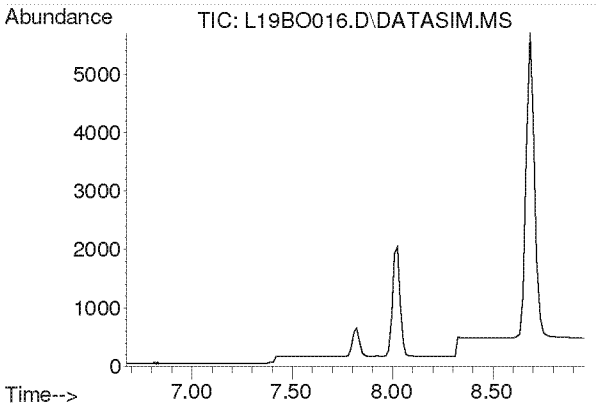


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 26



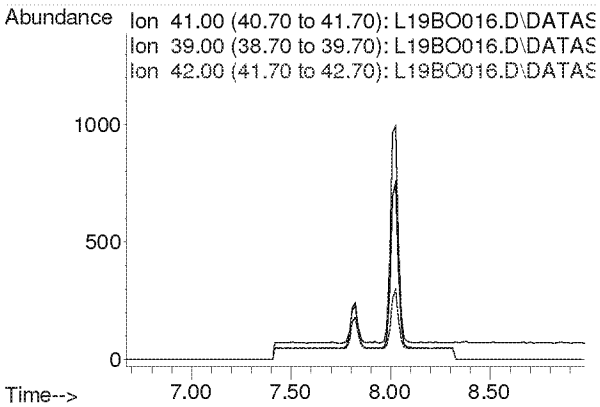


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

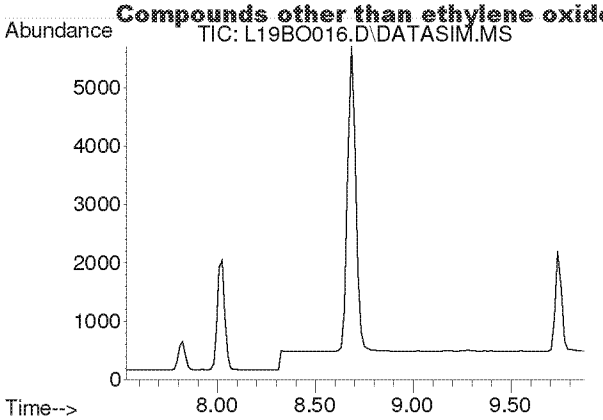
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

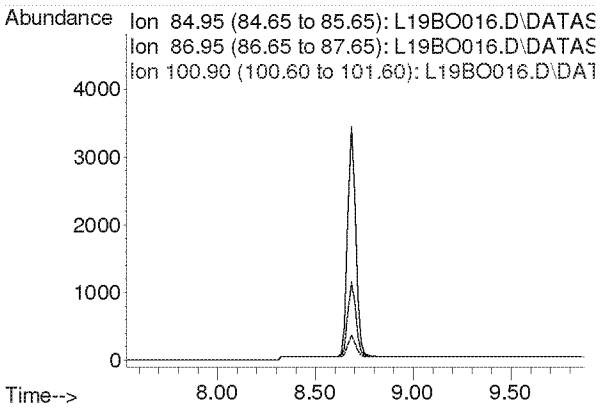


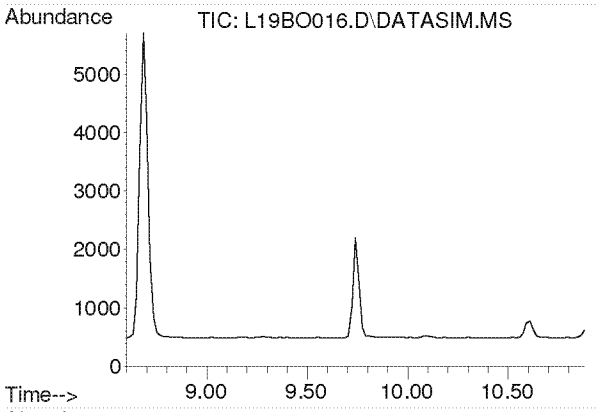
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



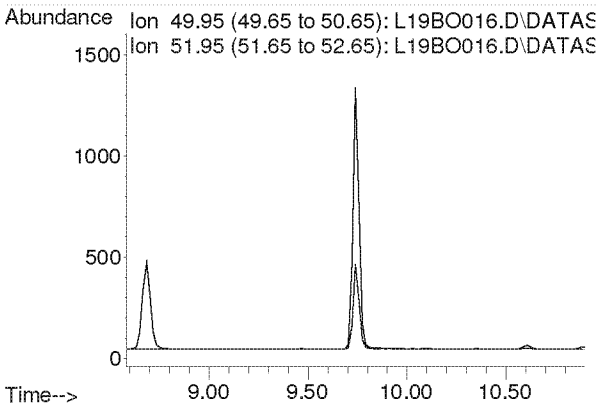


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

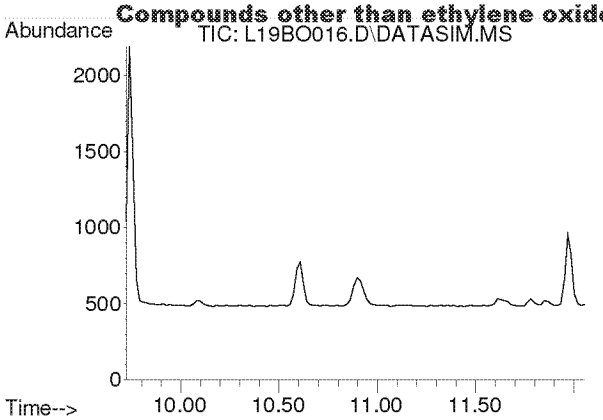
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

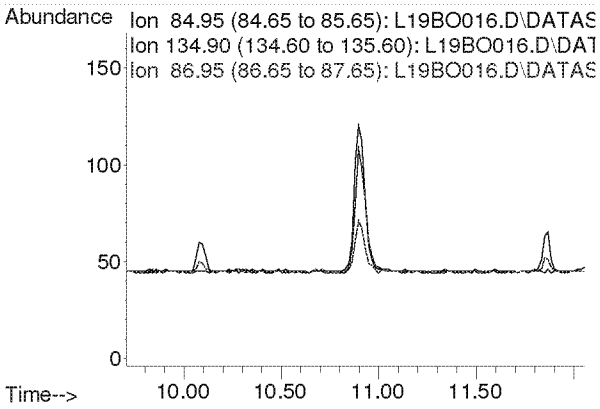


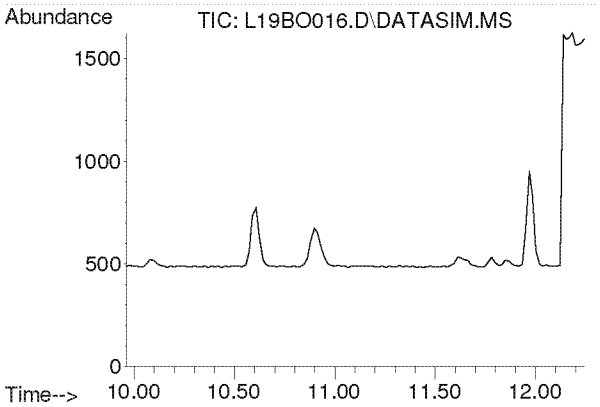
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



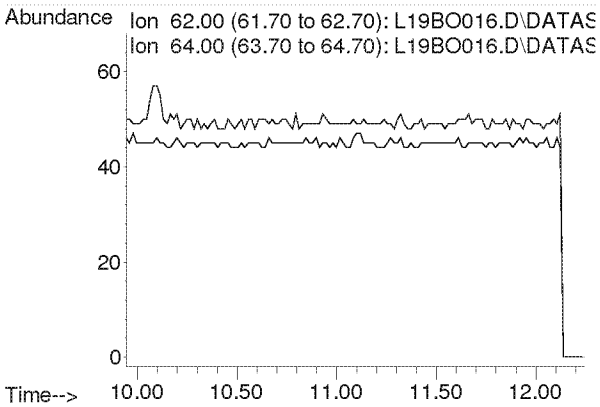


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

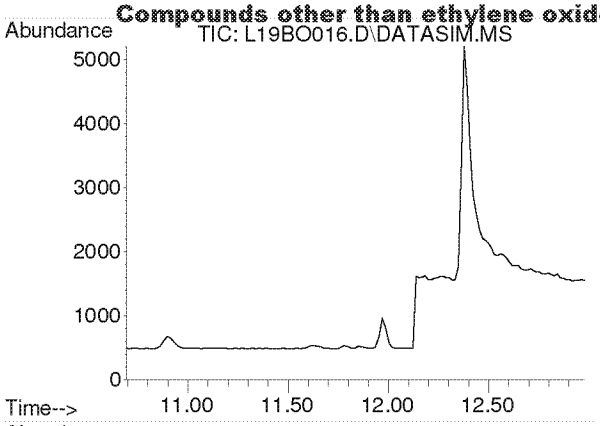
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

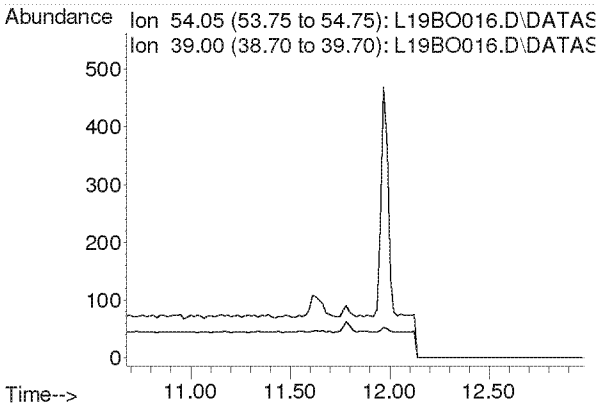


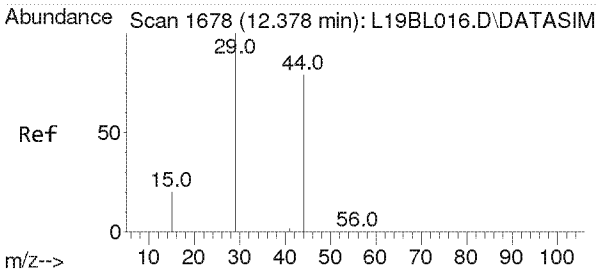
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

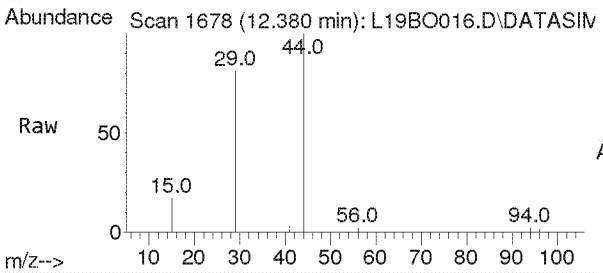


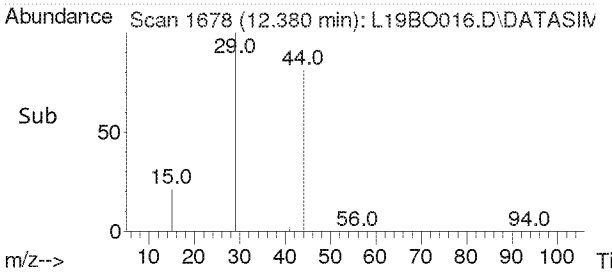


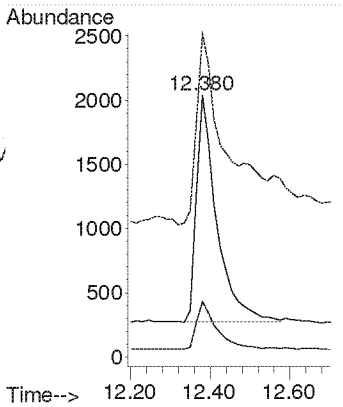
#9
Ethylene oxide
Concen: 2.670 ppbv
RT: 12.380 min Scan# 1678
Delta R.T. 0.002 min
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 29 Resp: 6165

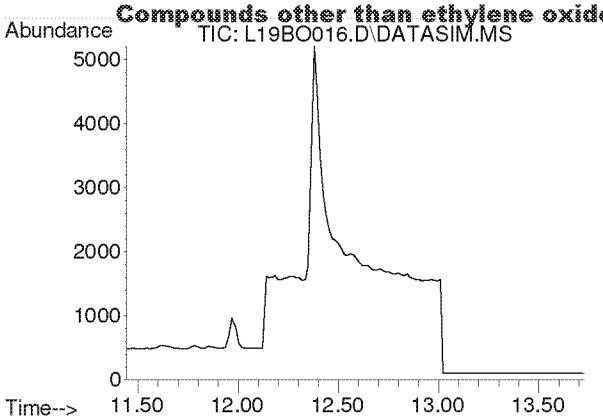
Ion	Ratio	Lower	Upper
29	100		
15	21.2	16.0	24.0
44	137.3	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

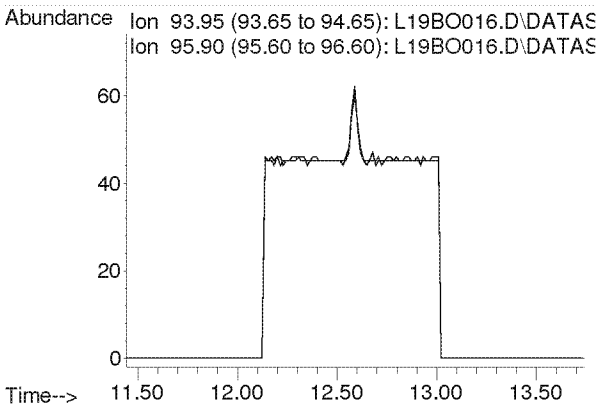


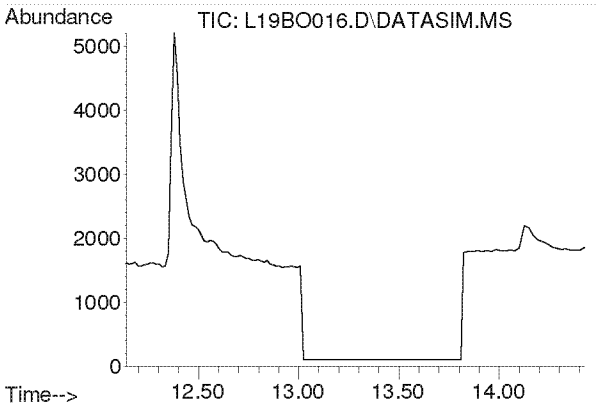
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



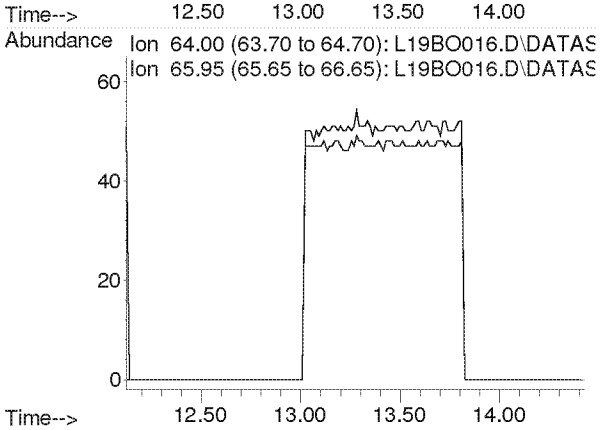


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

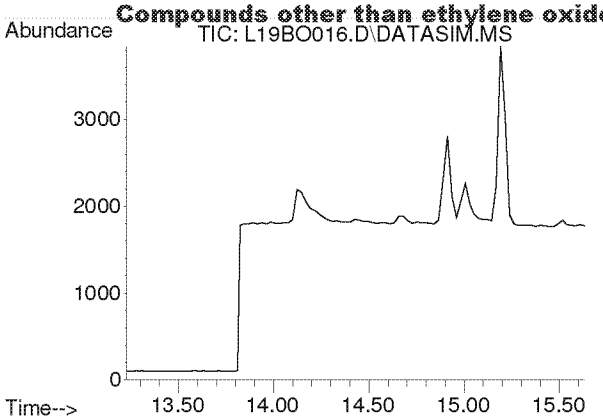
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

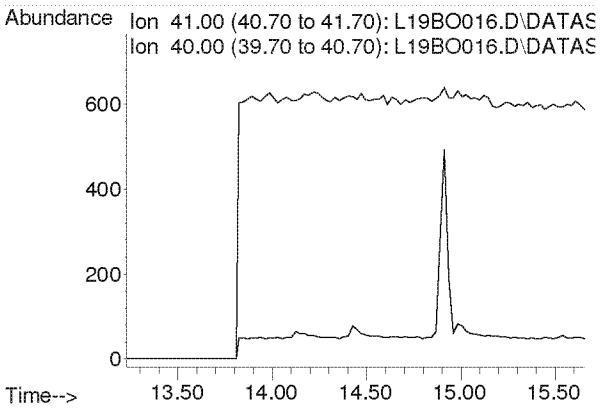


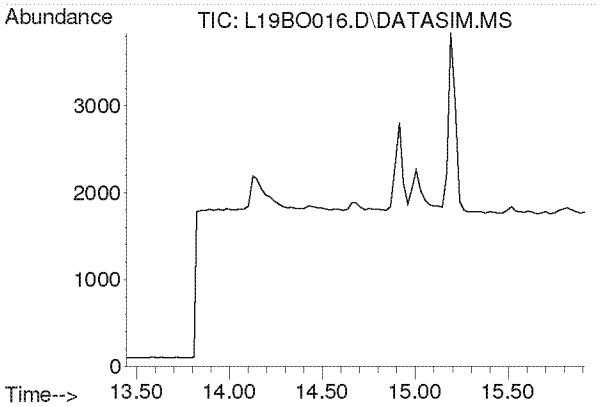
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



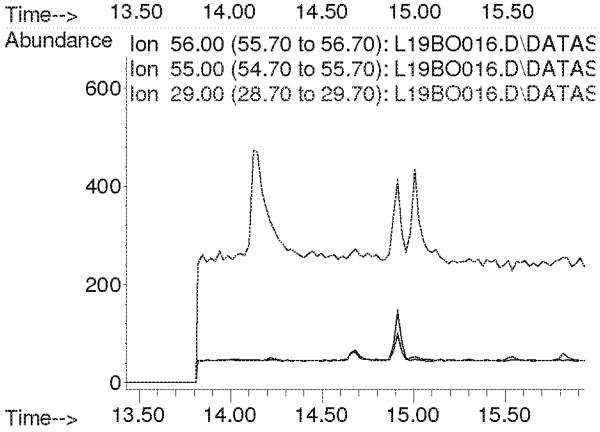


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

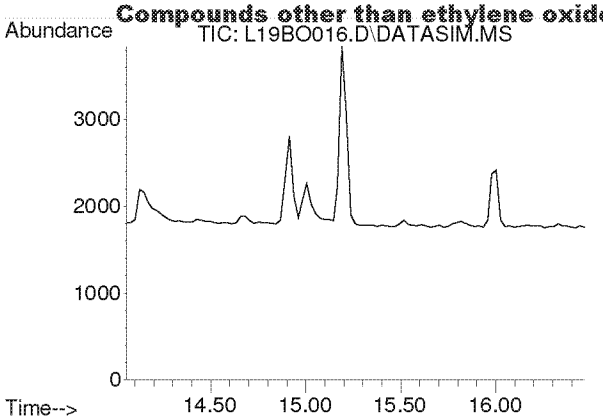
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

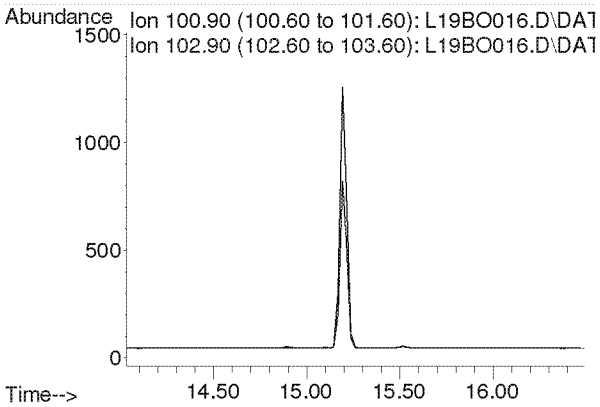


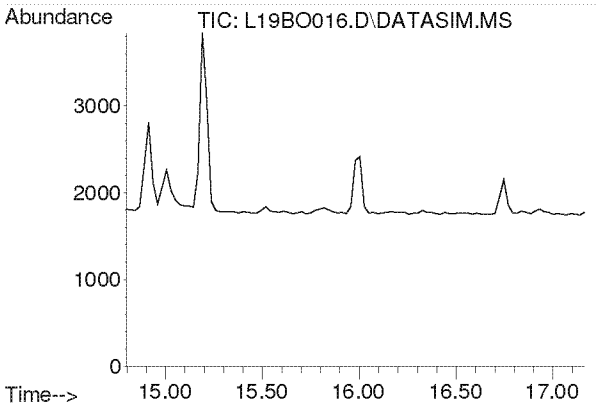
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



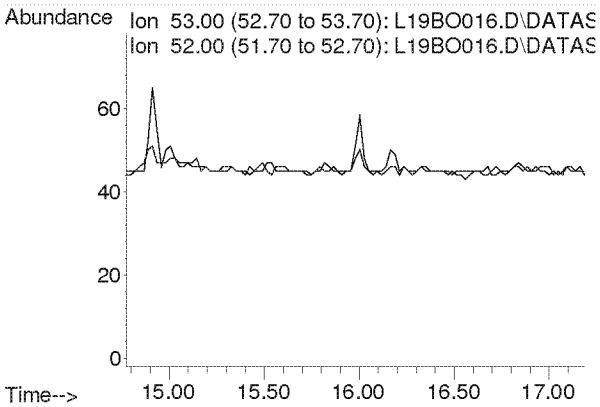


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

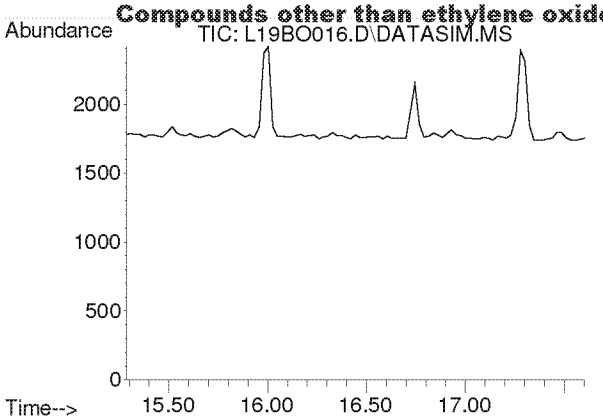
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

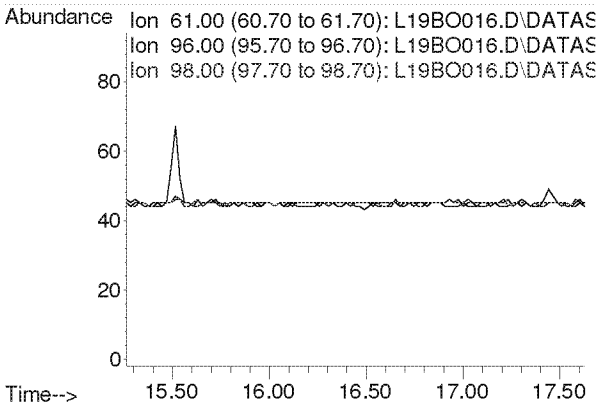


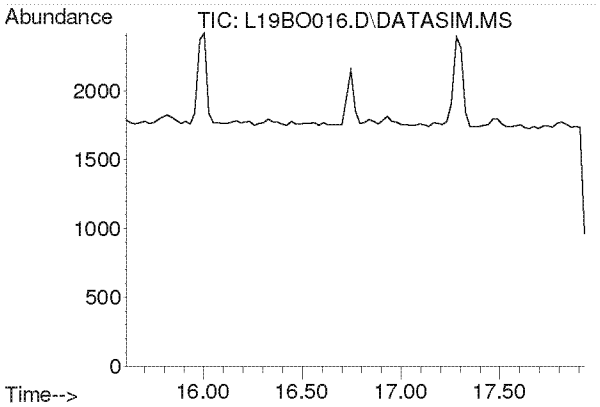
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



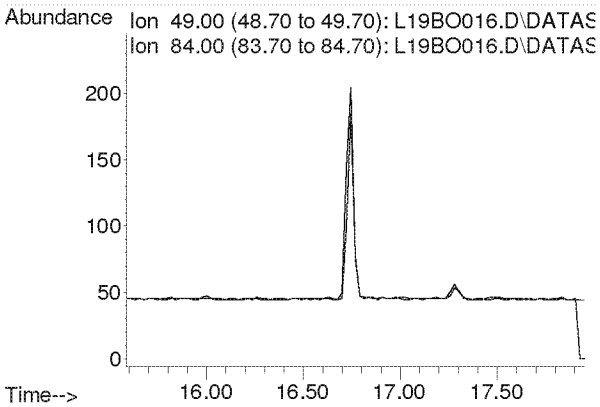


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

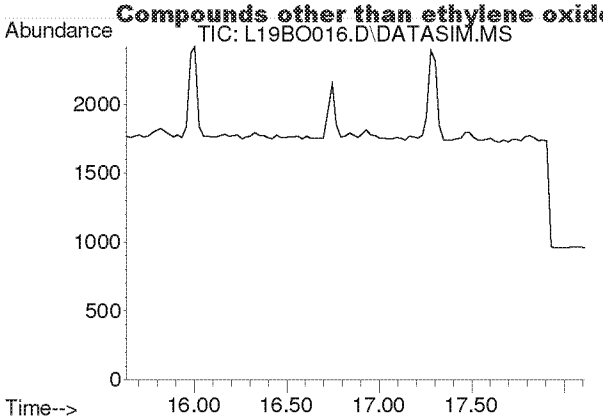
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

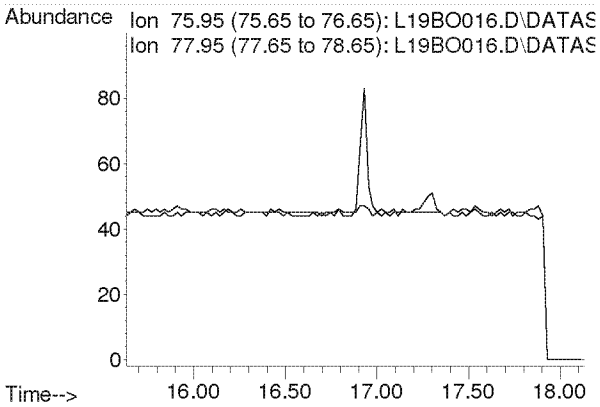


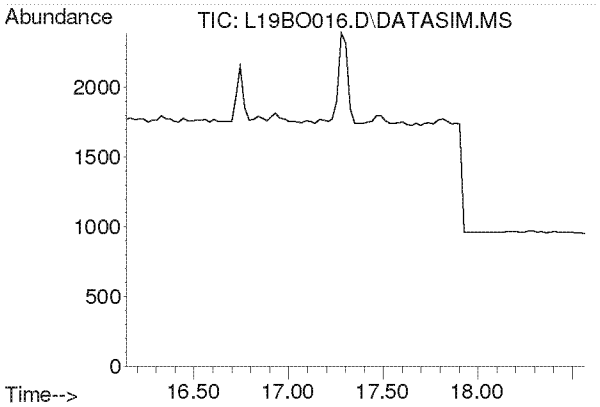
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



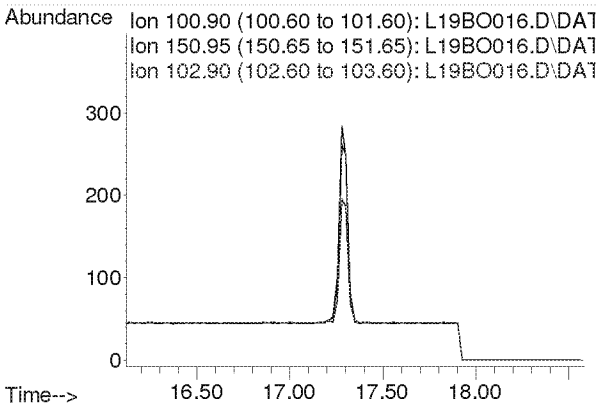


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

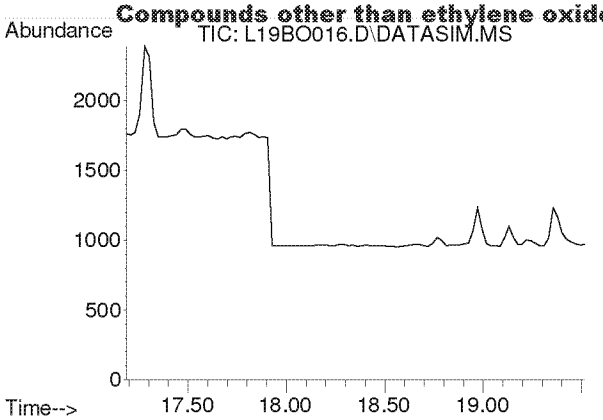
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

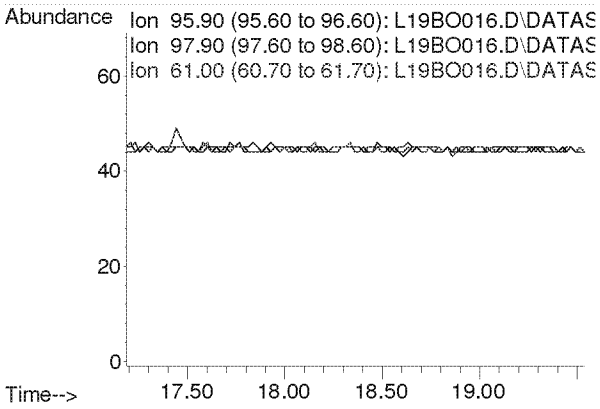


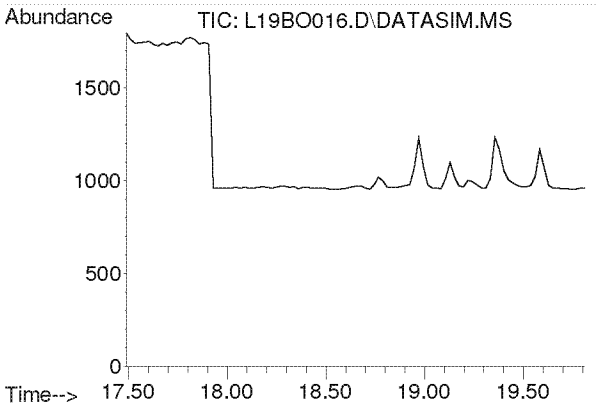
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



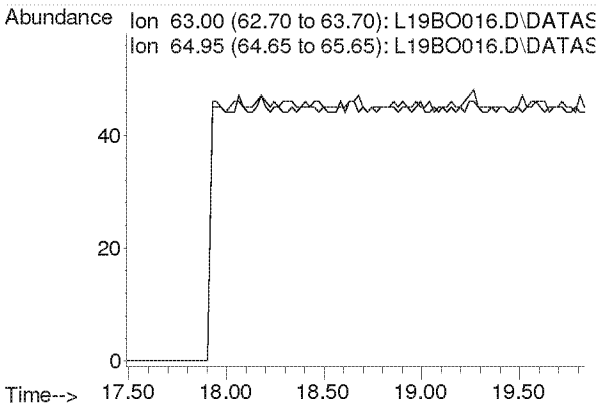


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

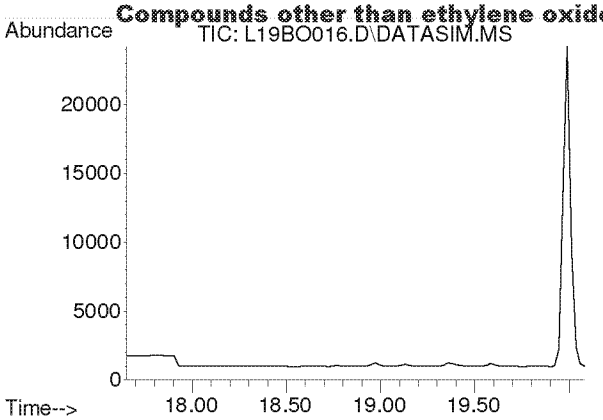
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

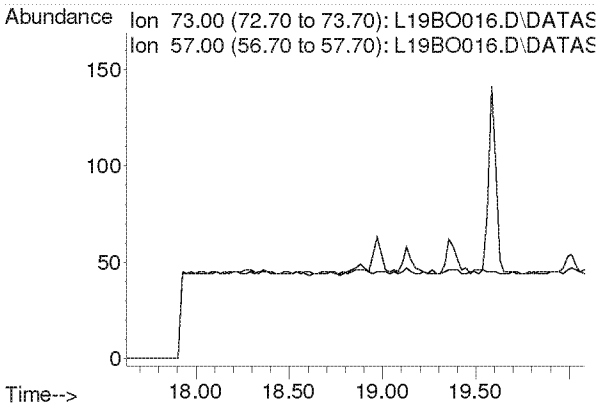


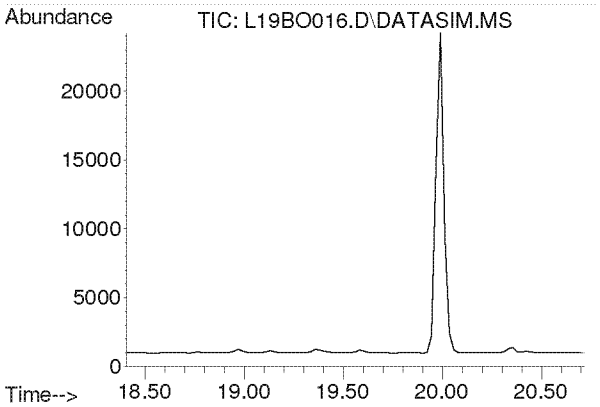
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



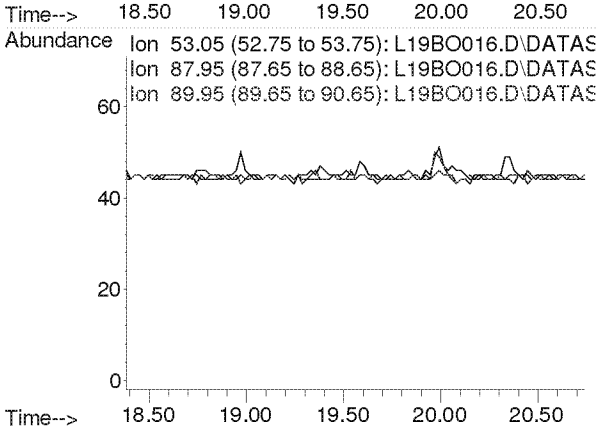


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

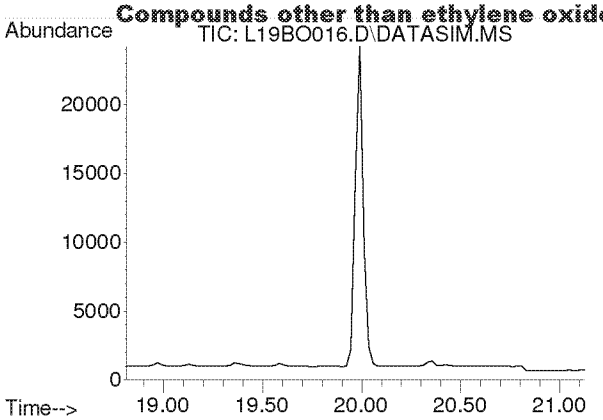
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

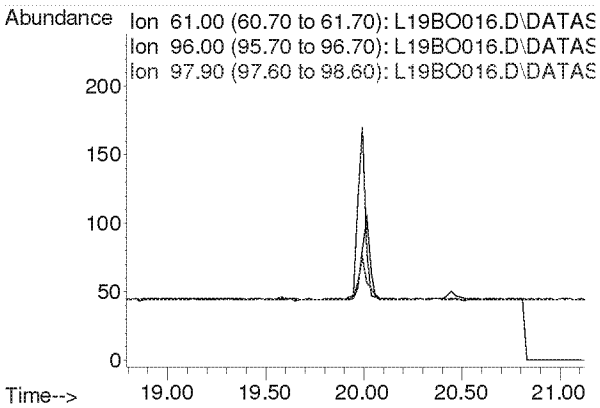


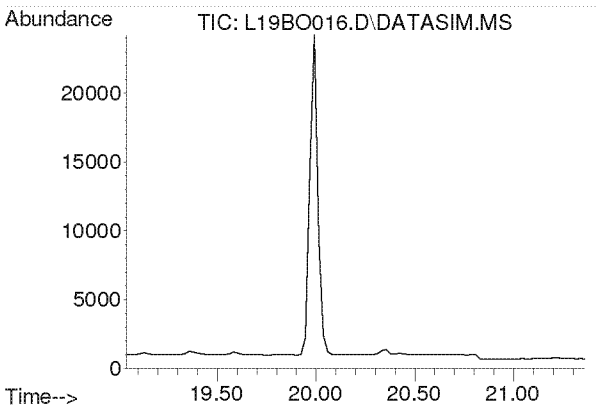
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



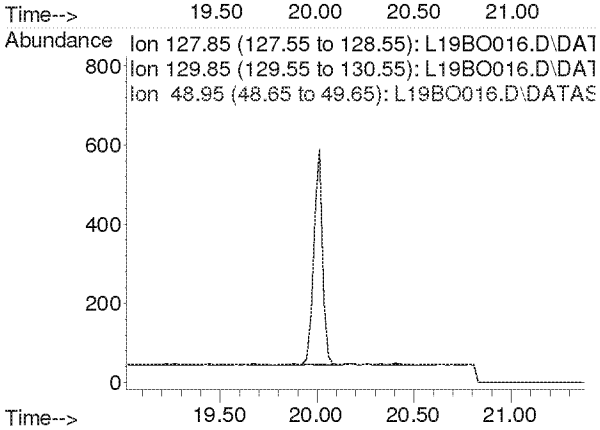


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

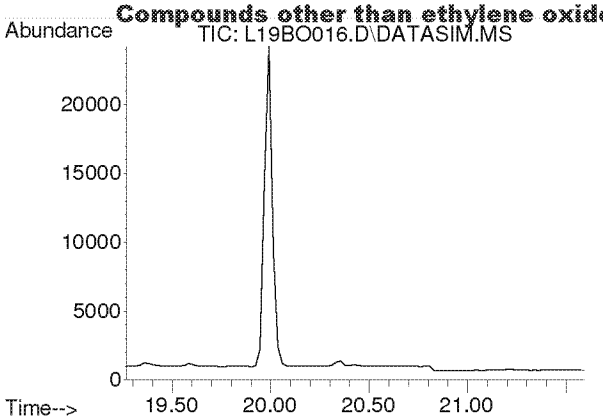
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

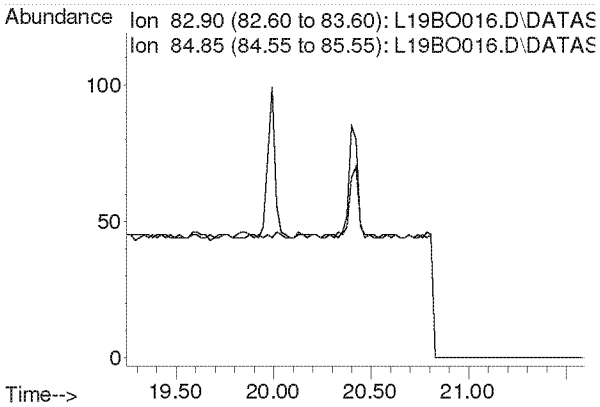


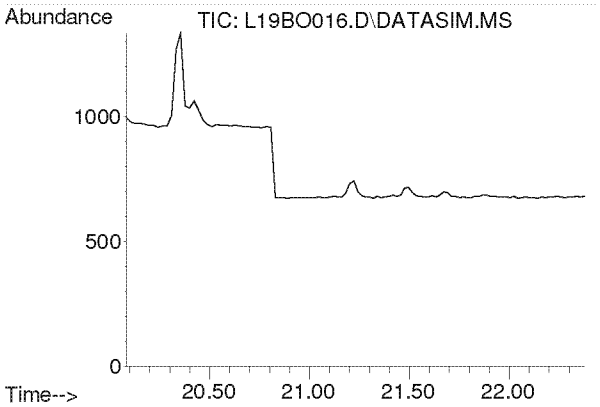
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



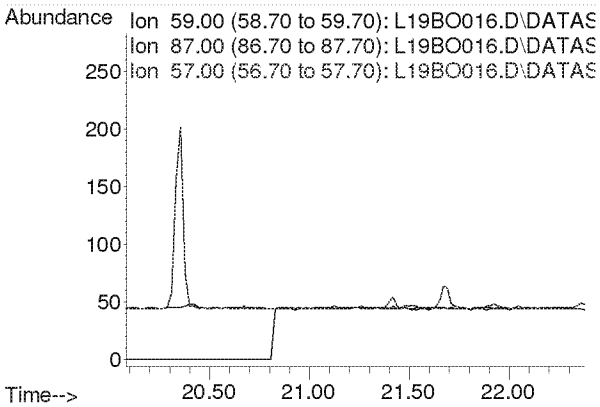


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

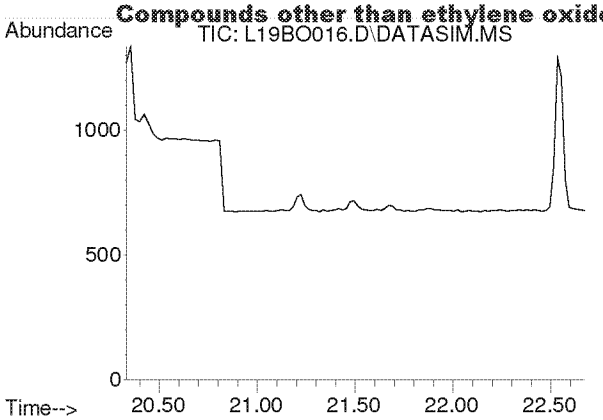
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

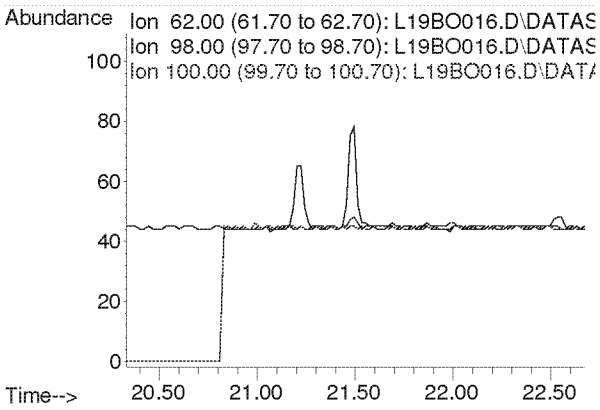


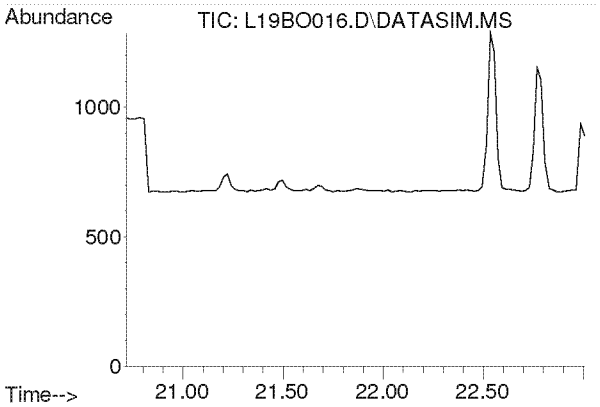
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



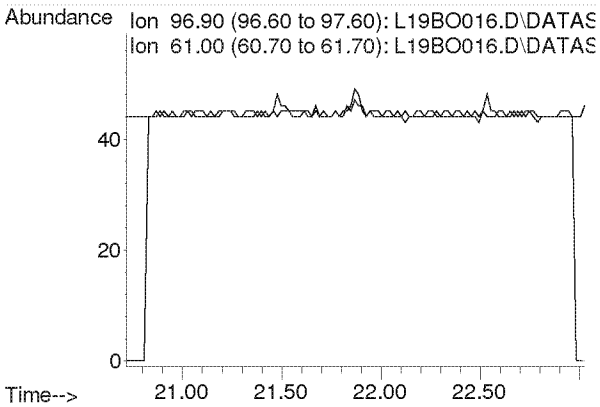


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

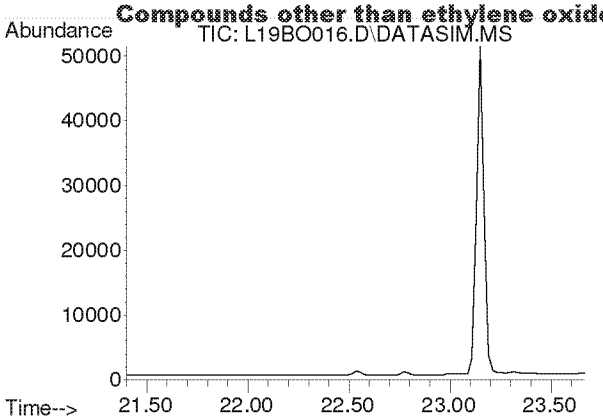
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

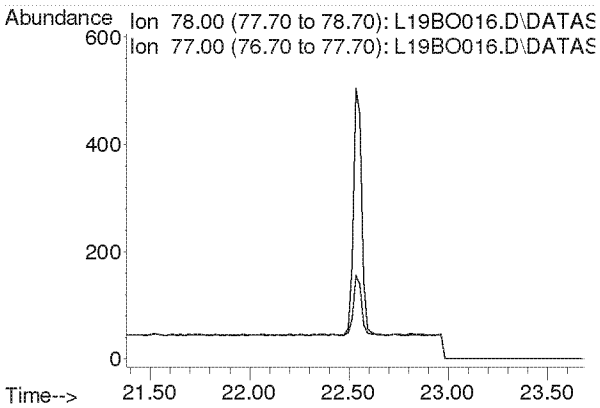


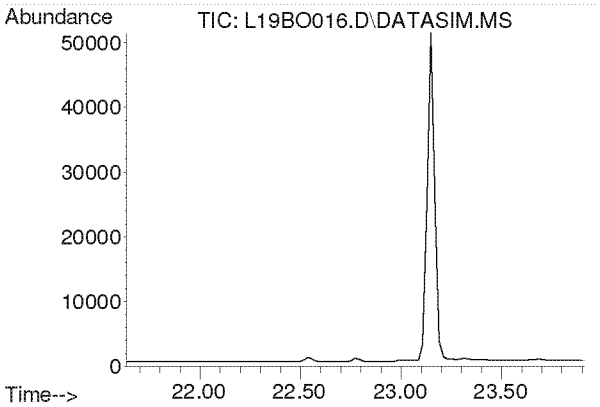
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



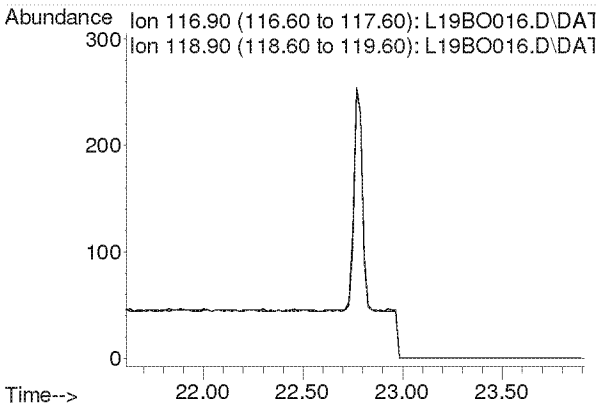


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

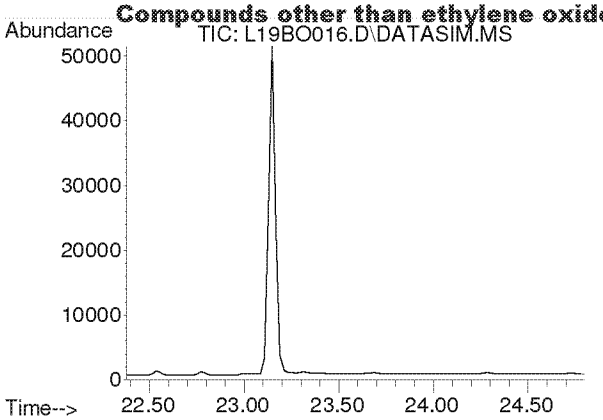
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

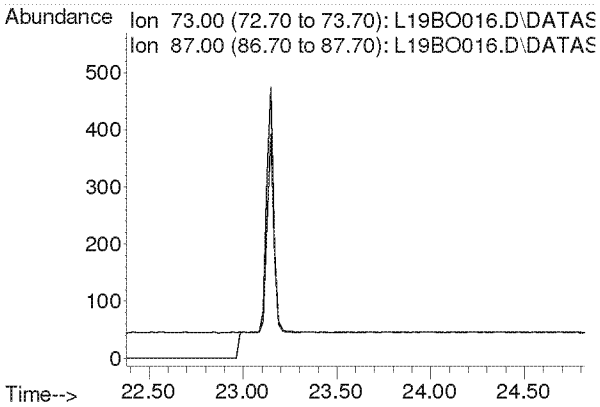


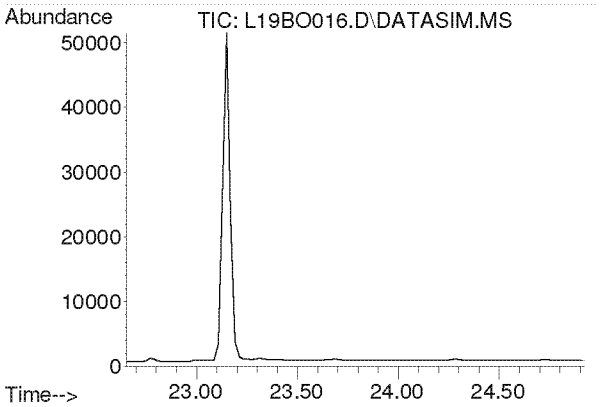
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



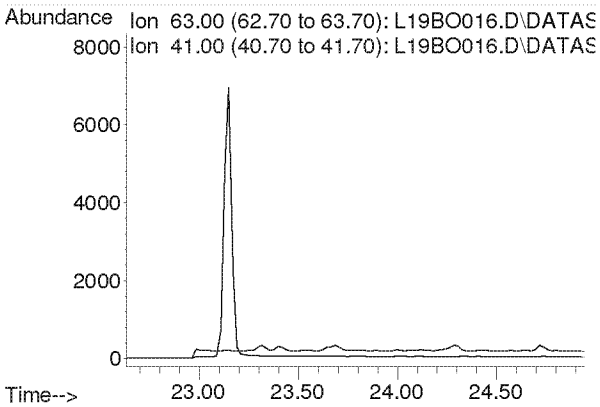


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

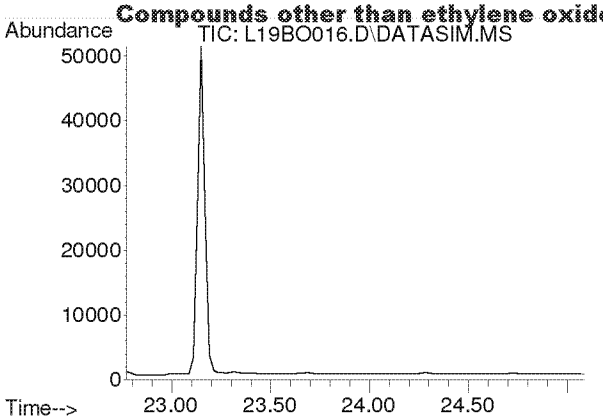
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

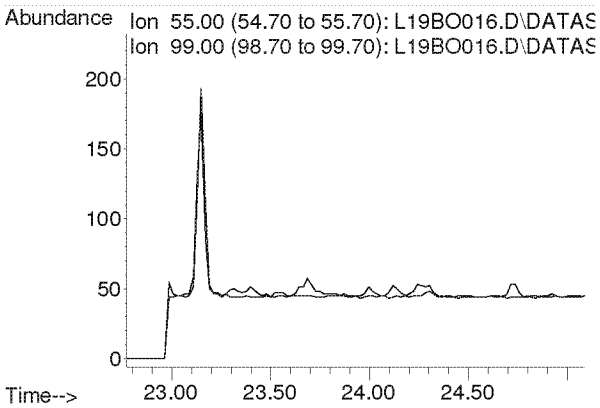


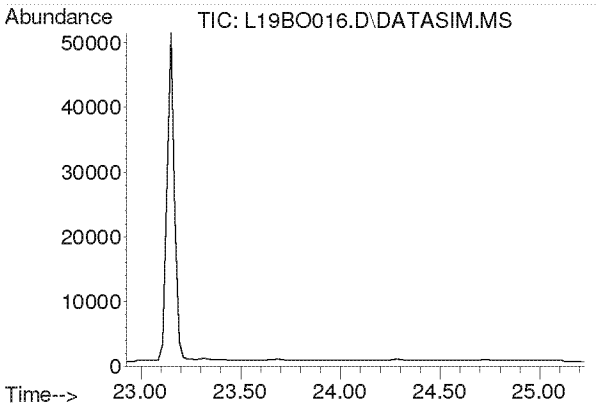
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



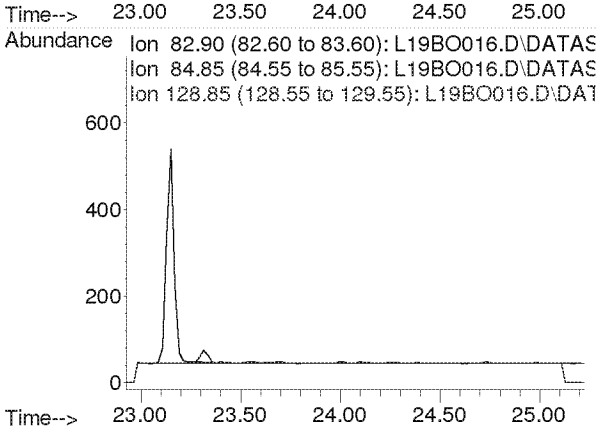


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

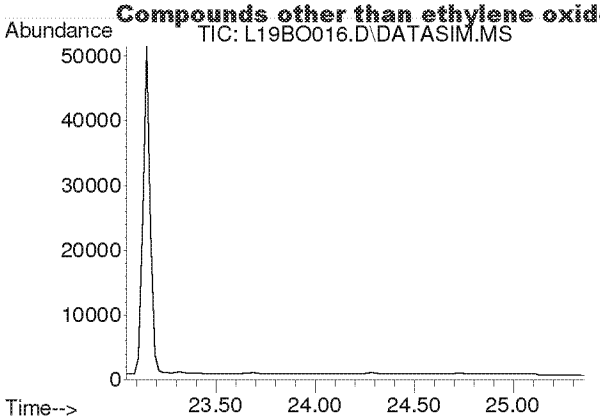
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

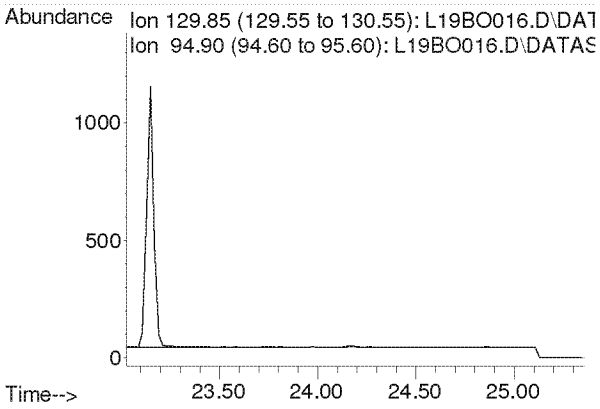


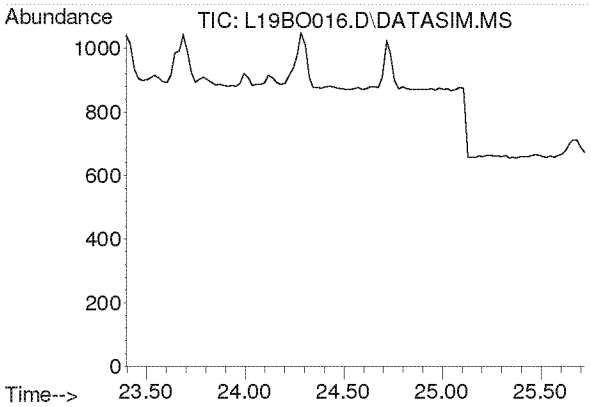
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



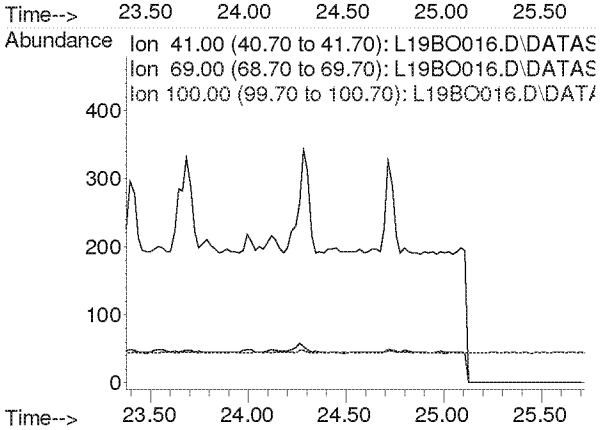


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

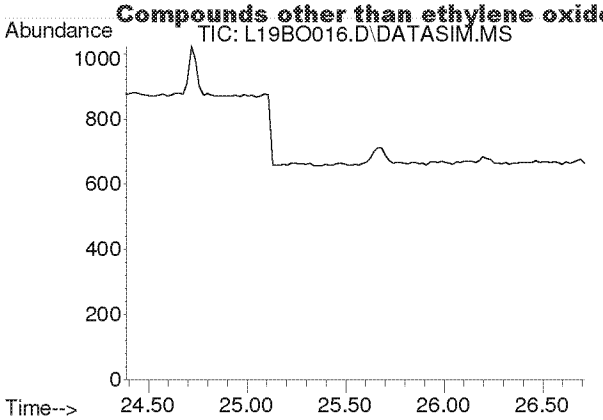
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

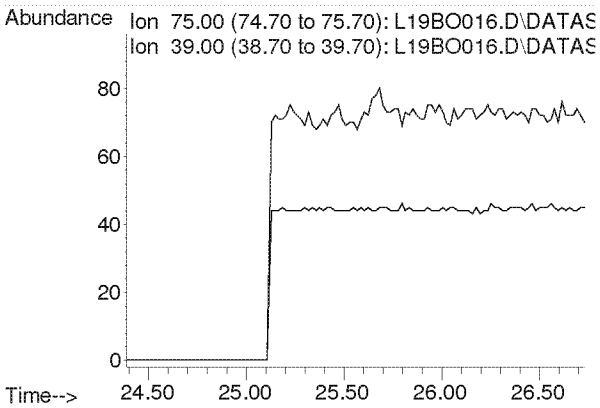


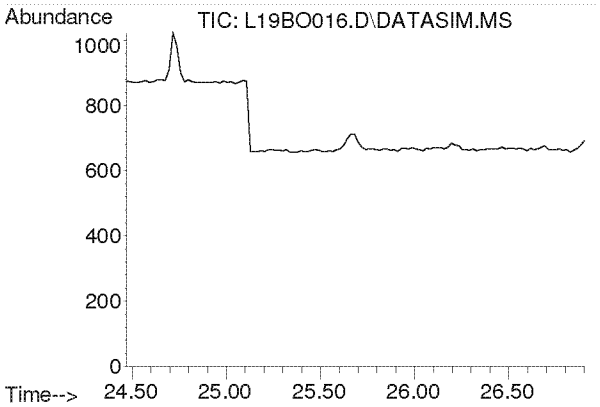
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



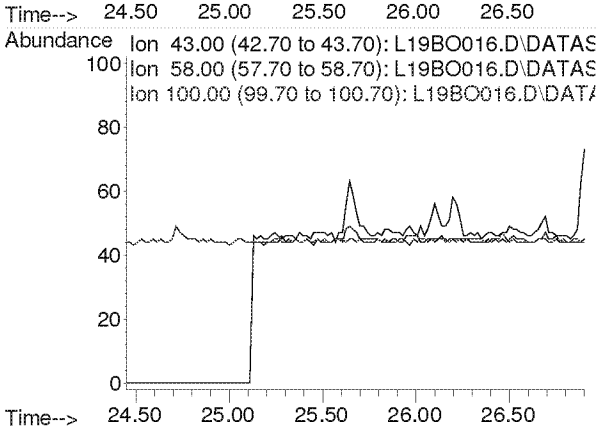


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

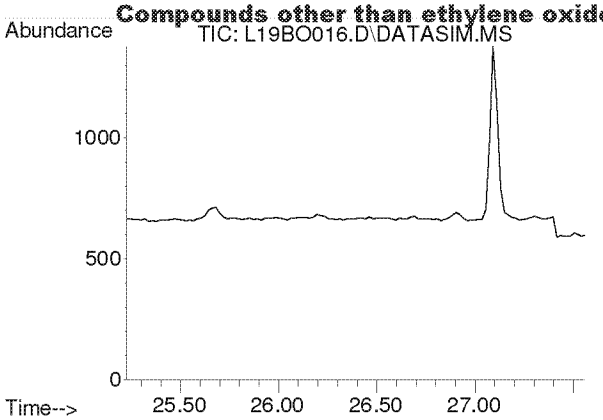
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

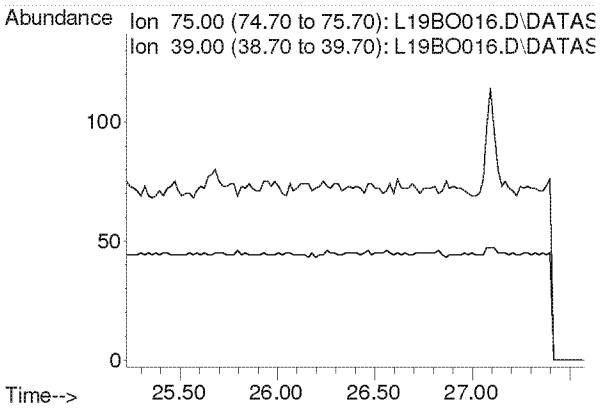


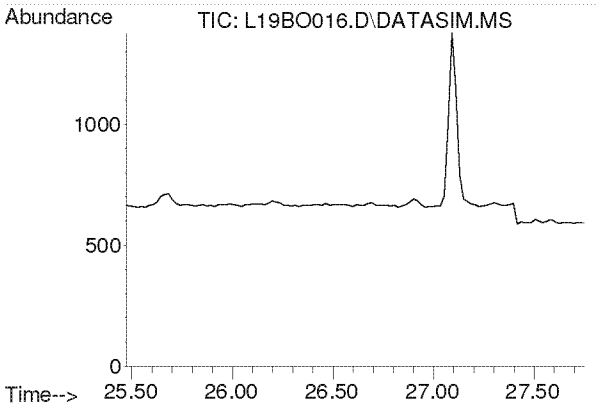
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



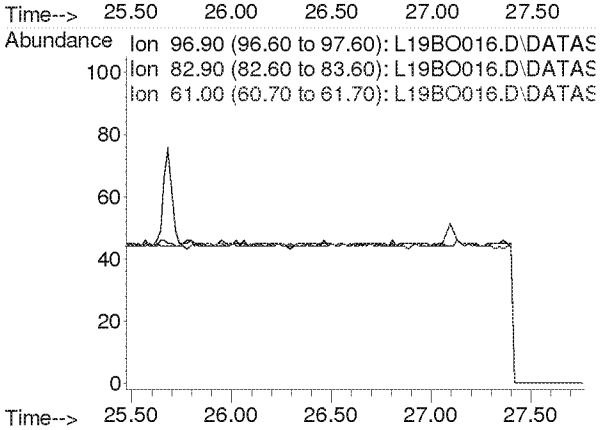


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

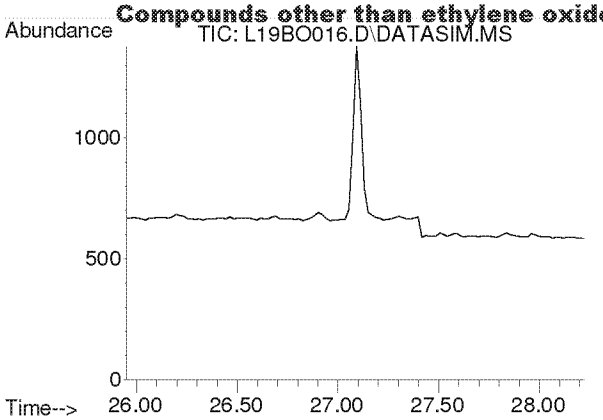
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

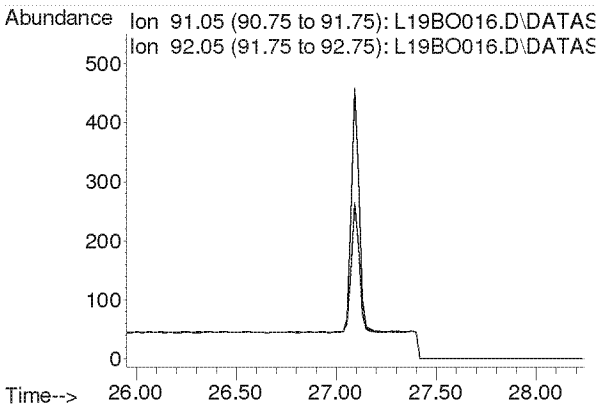


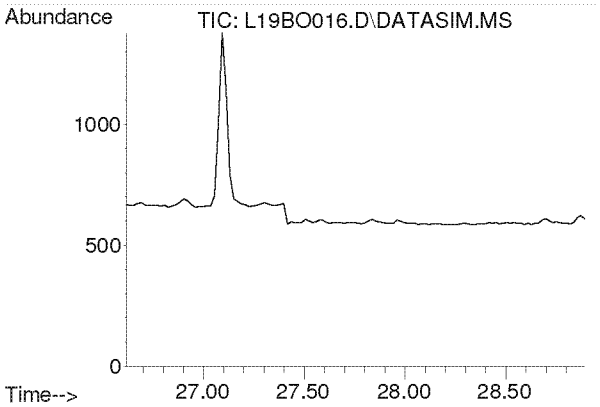
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



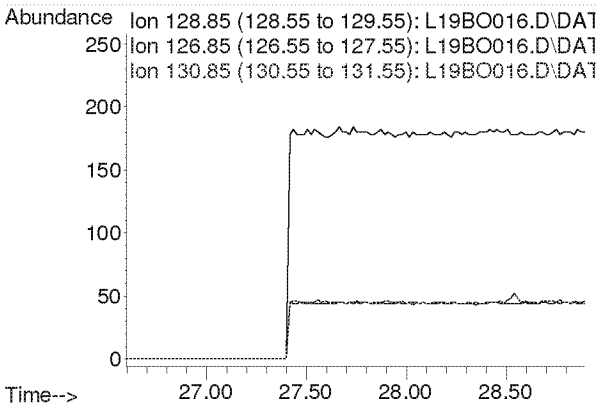


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

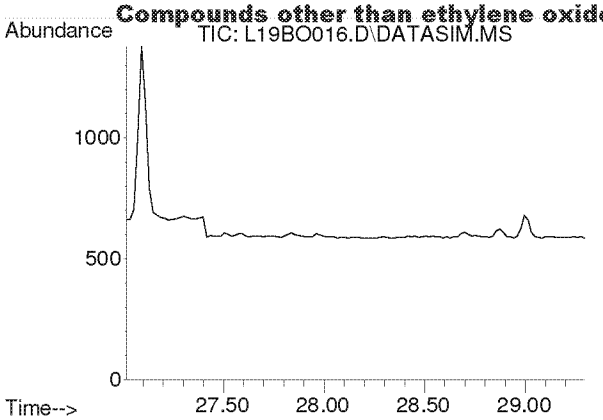
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

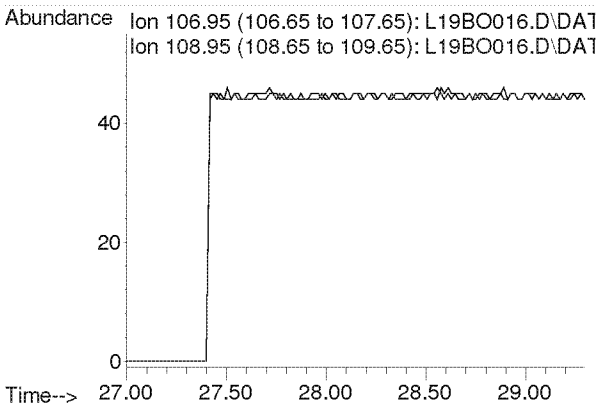


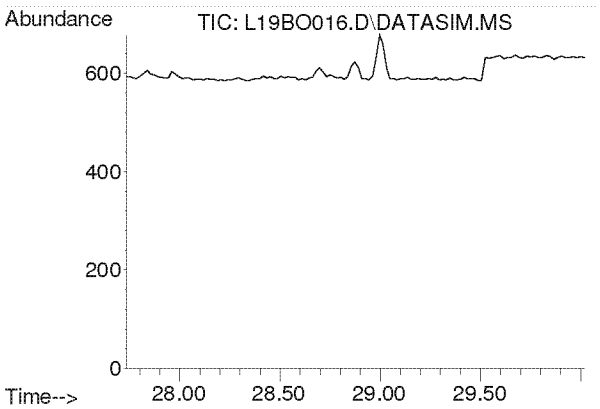
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



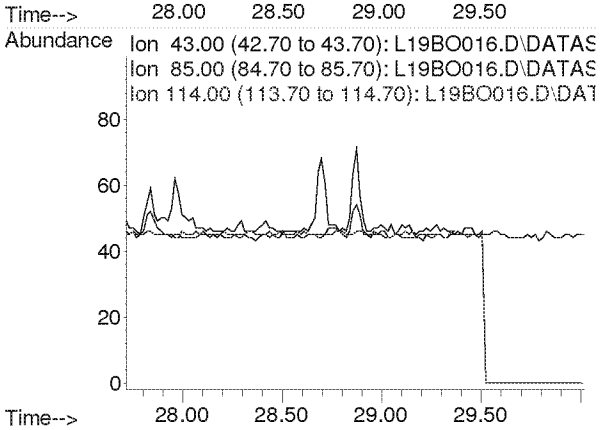


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

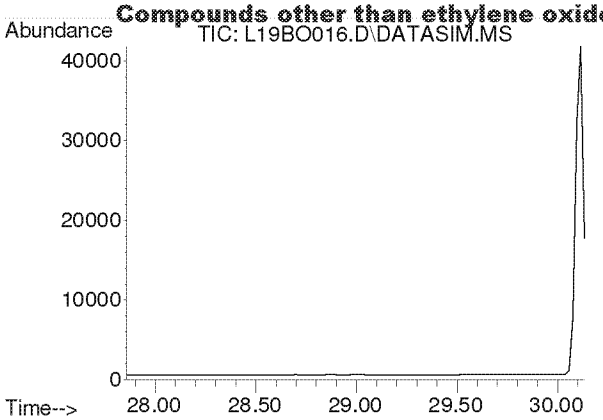
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

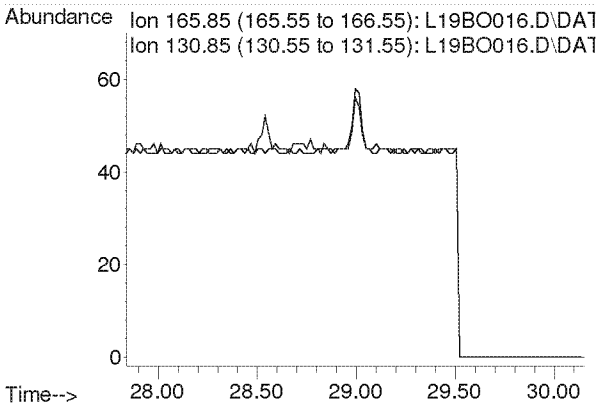


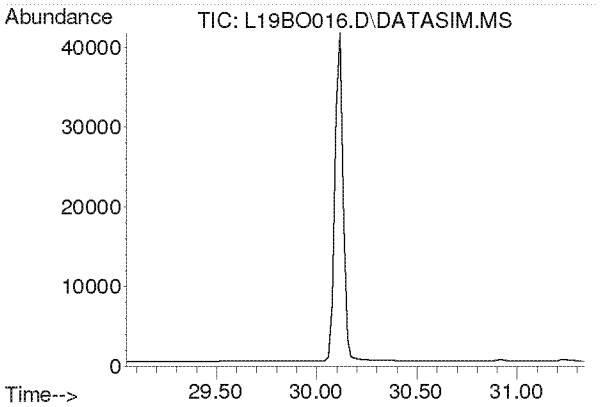
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



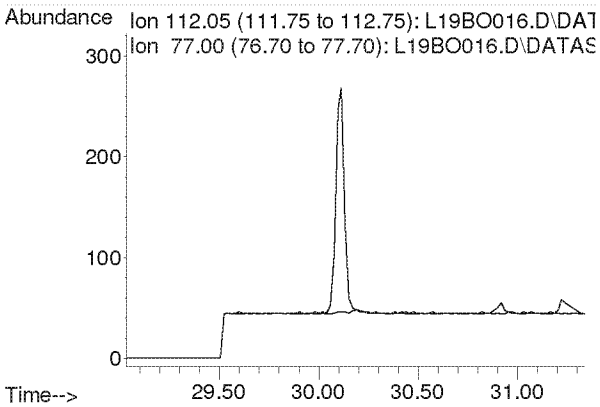


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

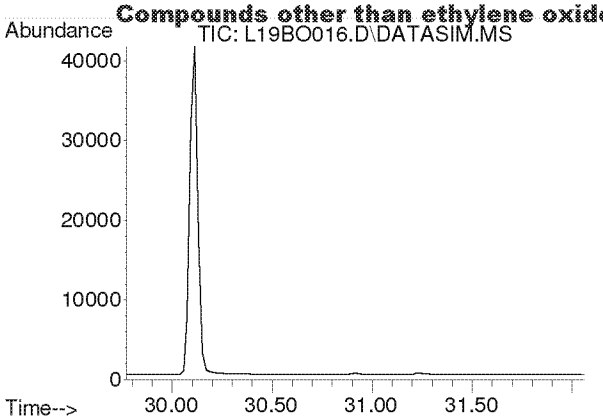
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

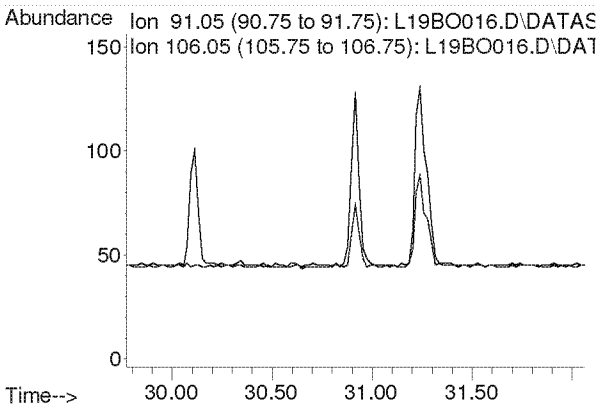


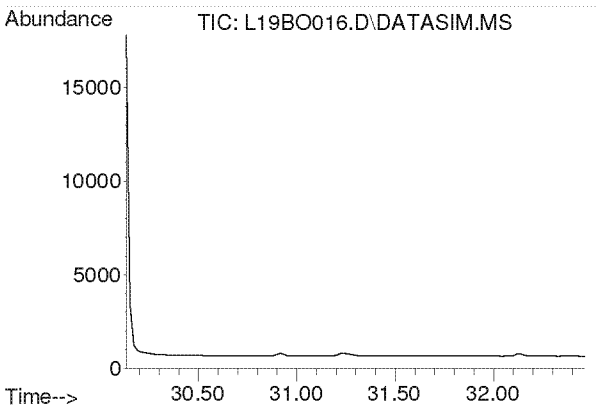
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



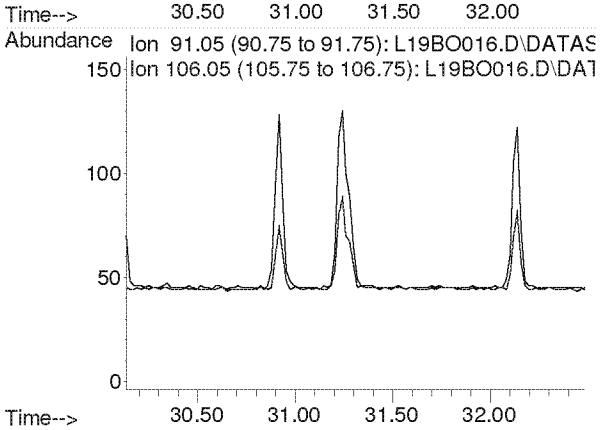


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

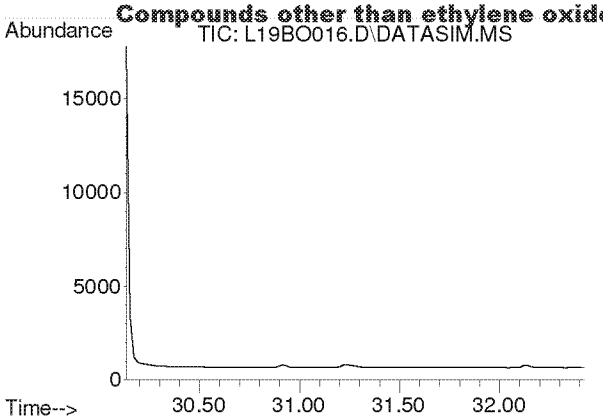
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

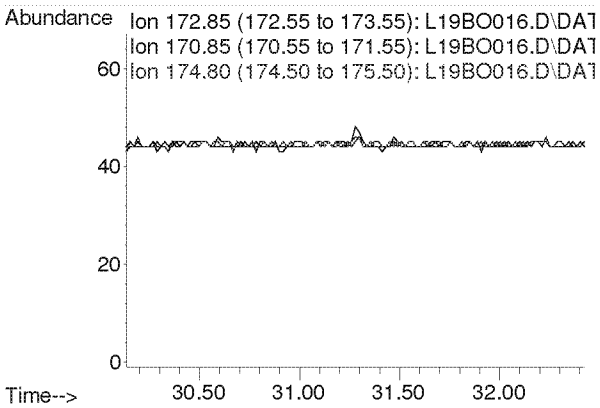


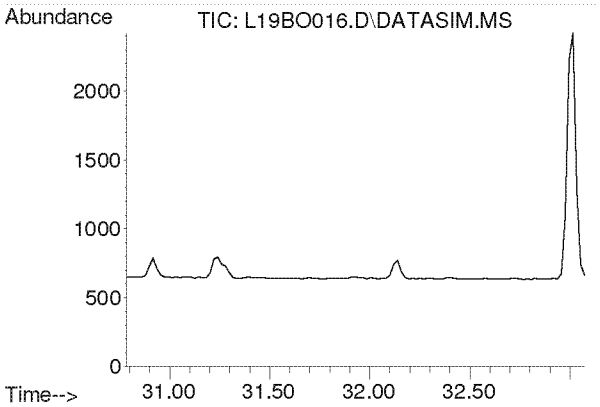
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



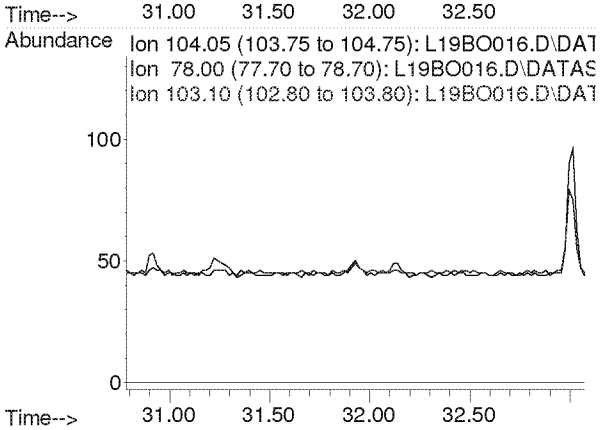


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

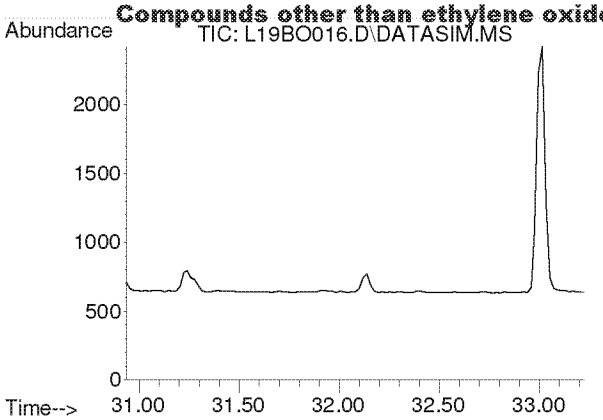
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

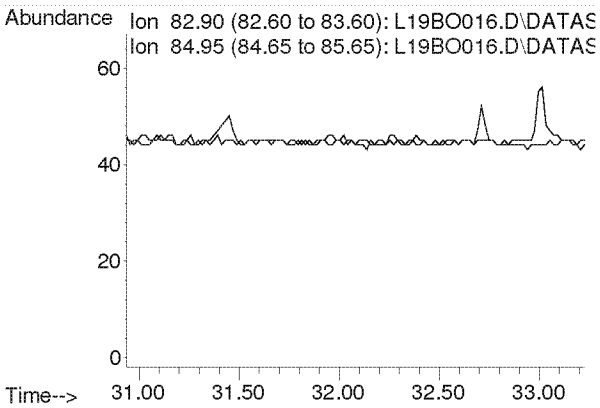


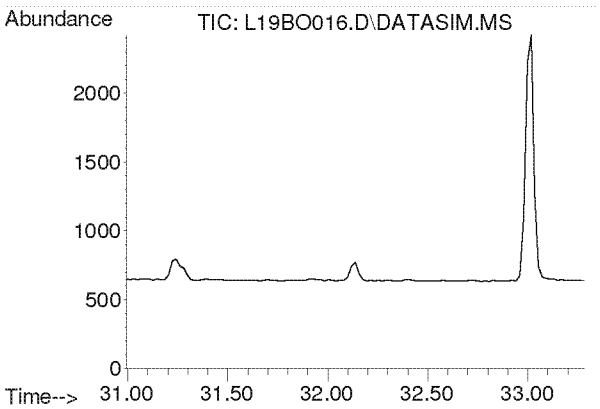
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



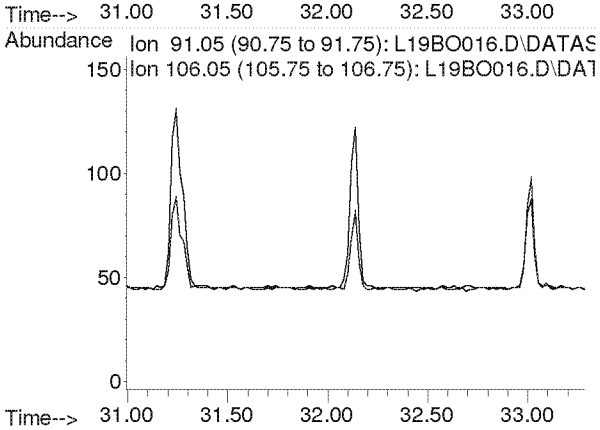


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

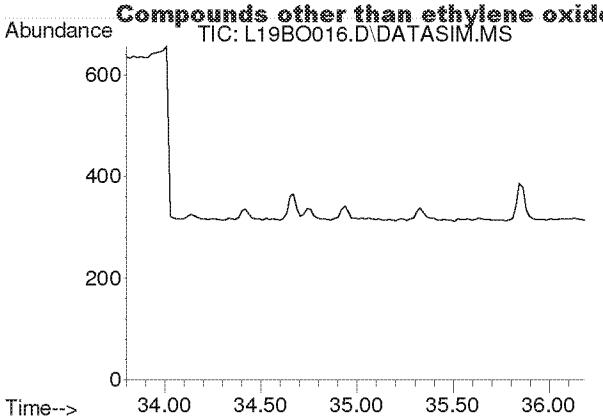
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

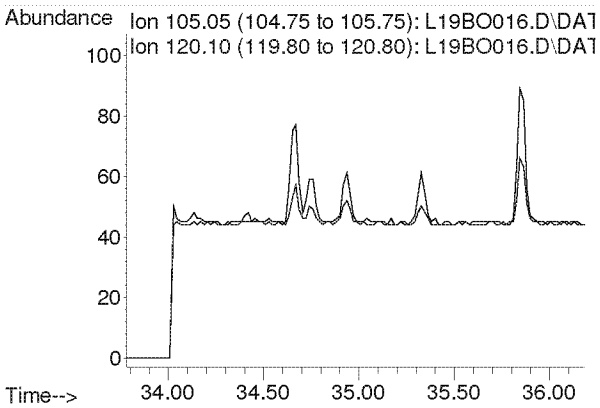


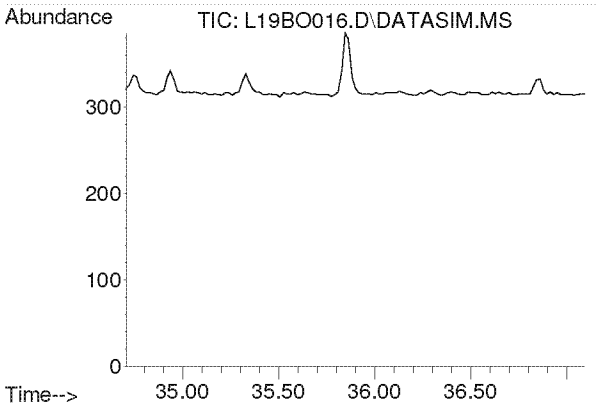
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



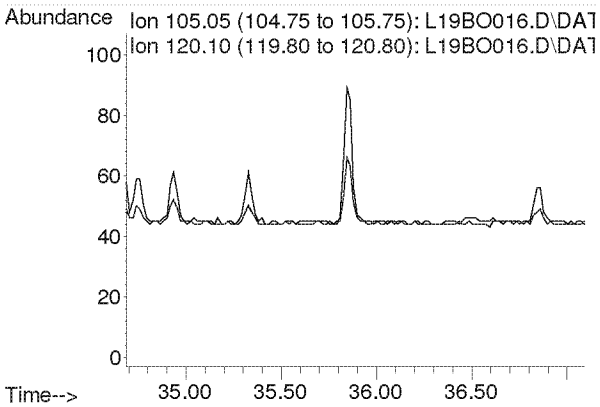


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

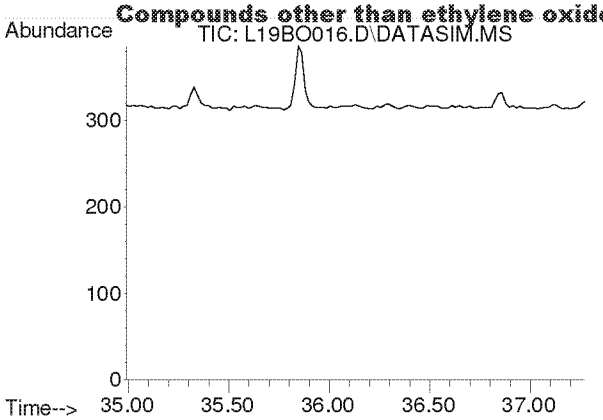
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

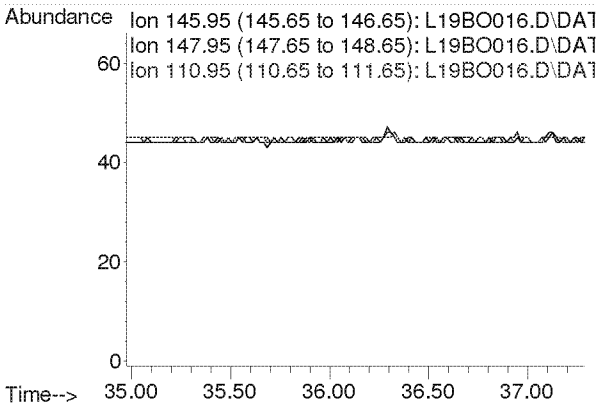


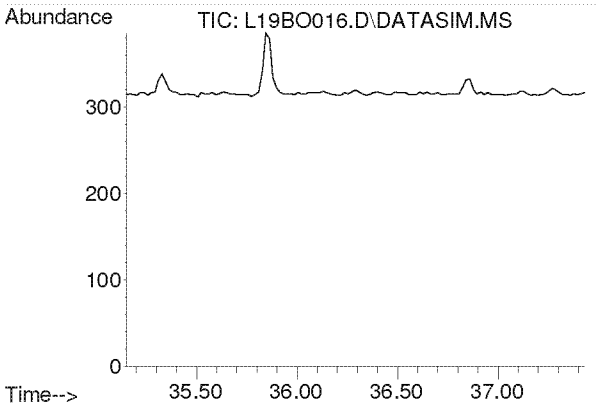
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



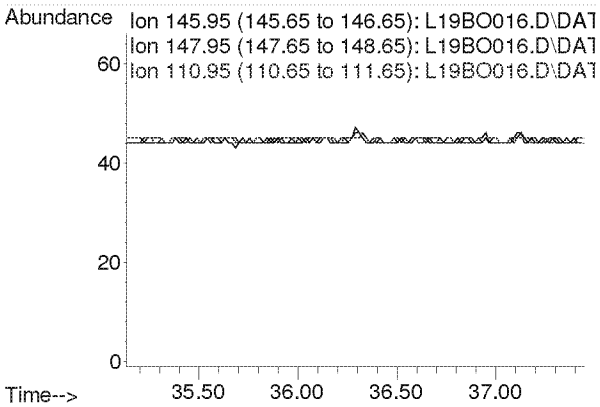


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

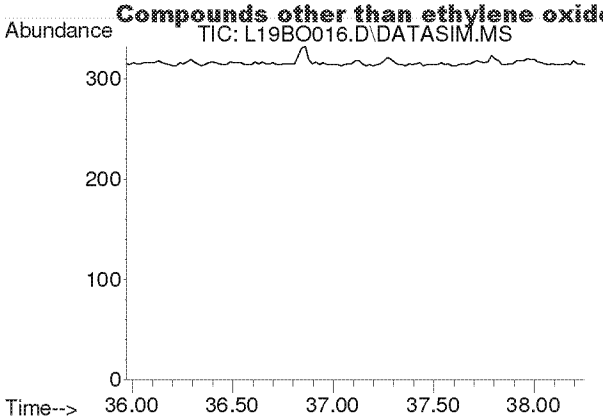
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

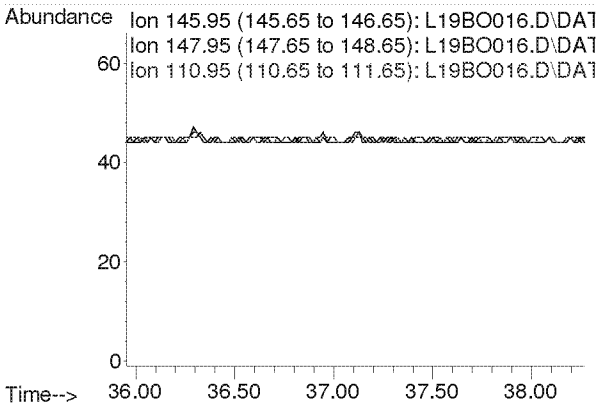


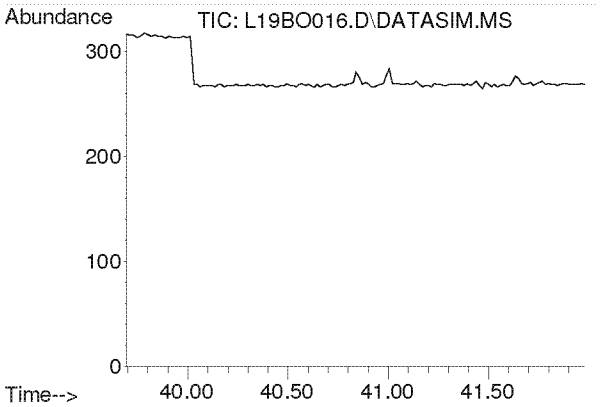
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



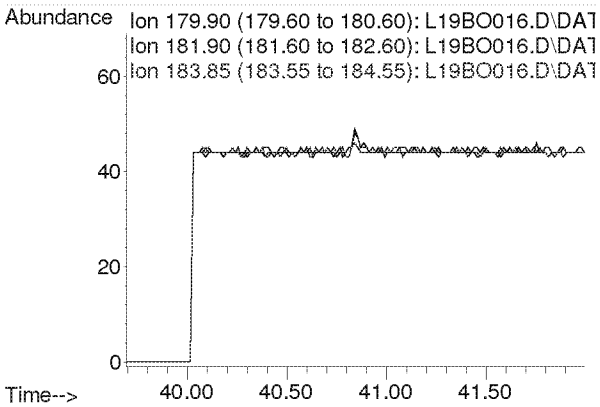


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

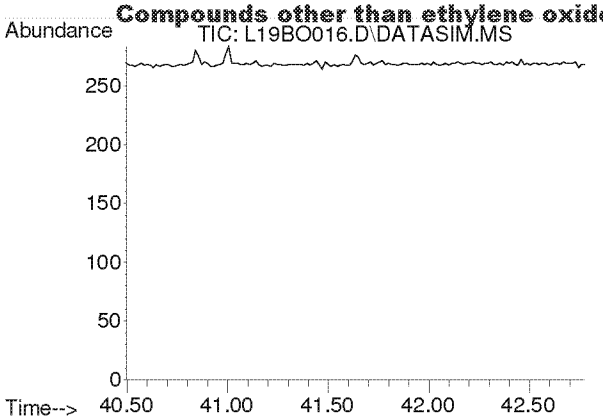
Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

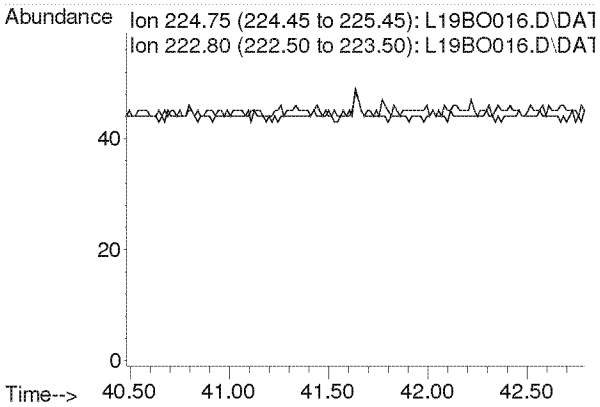


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO016.D
Acq: 15 Feb 2019 9:32 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO017.D
Acq On : 15 Feb 2019 10:32 pm (#1); 15-Feb-19, 22:27:45 (#2)
Operator : MAH
Sample : B9B1504-DUP2
Misc : EPA WB WAREHOUSE R2 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 19 15:10:27 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

cl-MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	42763	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	106308	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.115	117	71533	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	12.378	29	5709	2.3342 ppbv #	1
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. 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\L19BO\
Data File : L19BO017.D
Acq On : 15 Feb 2019 10:32 pm (#1); 15-Feb-19, 22:27:45 (#2)
Operator : MAH
Sample : B9B1504-DUP2
Misc : EPA WB WAREHOUSE R2 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 19 15:10:27 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

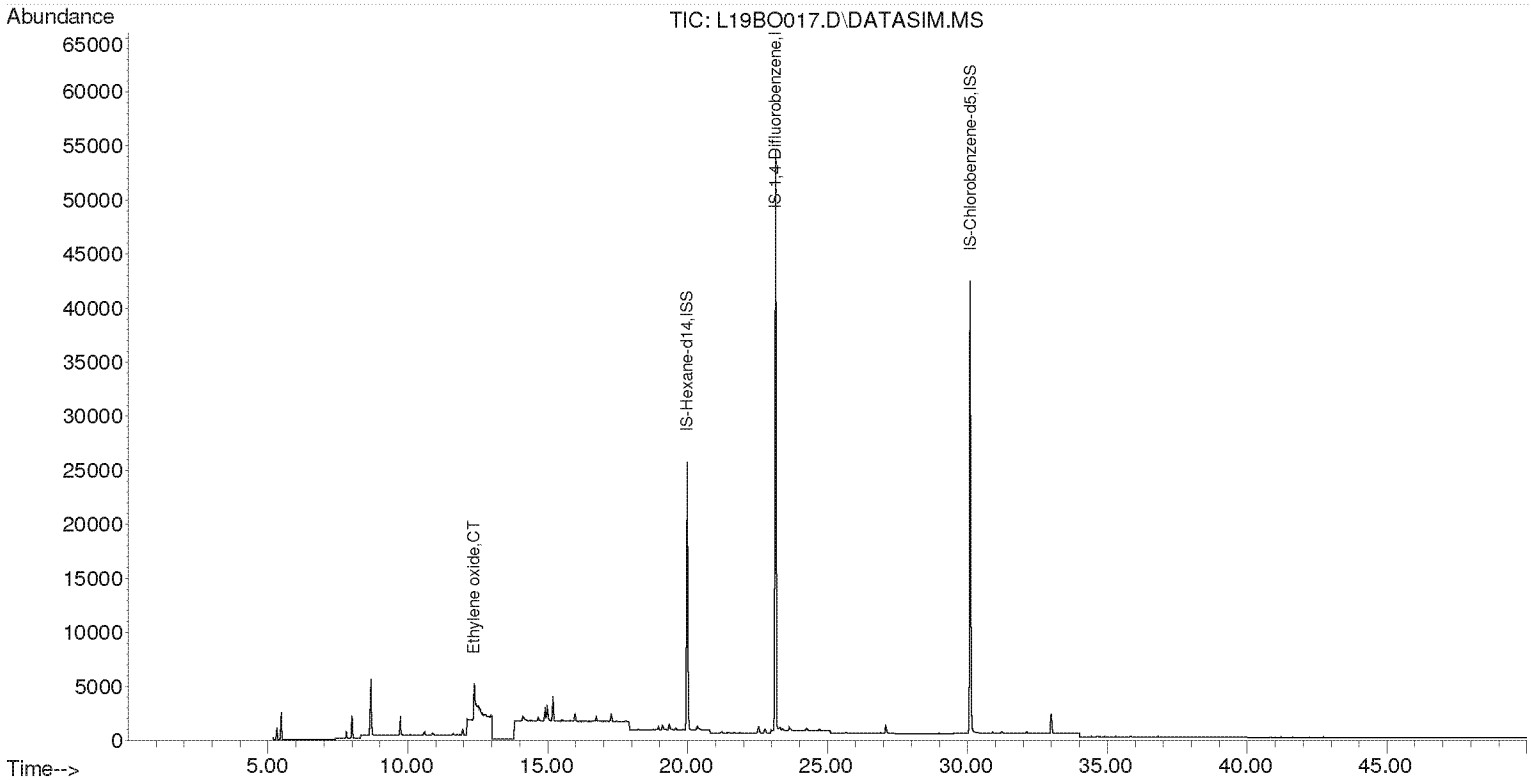
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

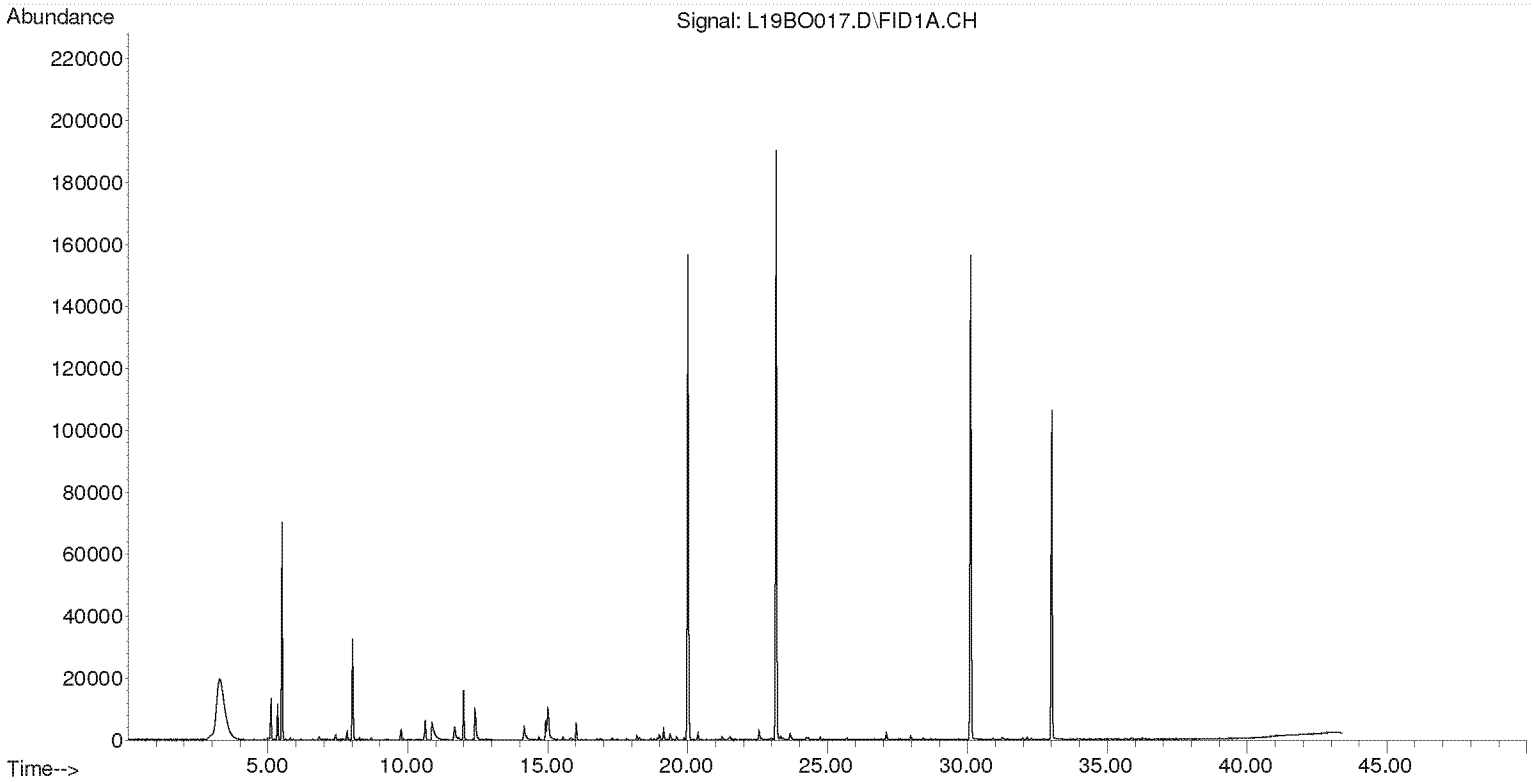
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

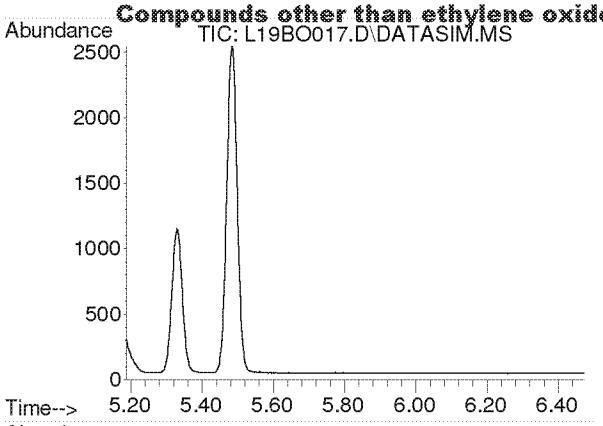
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO017.D
Acq On : 15 Feb 2019 10:32 pm (#1); 15 Feb 2019 10:27 pm (#2)
Operator : MAH
Sample : B9B1504-DUP2
Misc : EPA WB WAREHOUSE R2 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 19 14:47:08 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





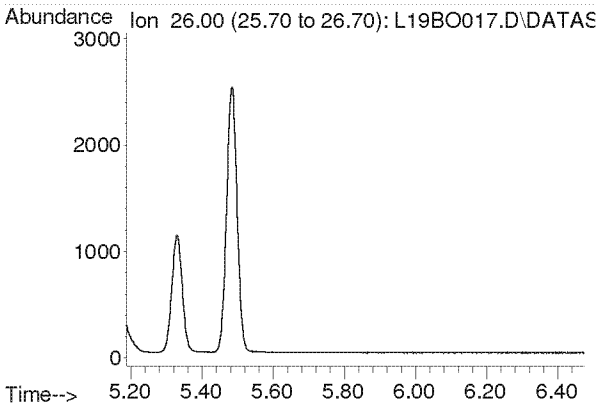
Compounds other than ethylene oxide were not quantitated.

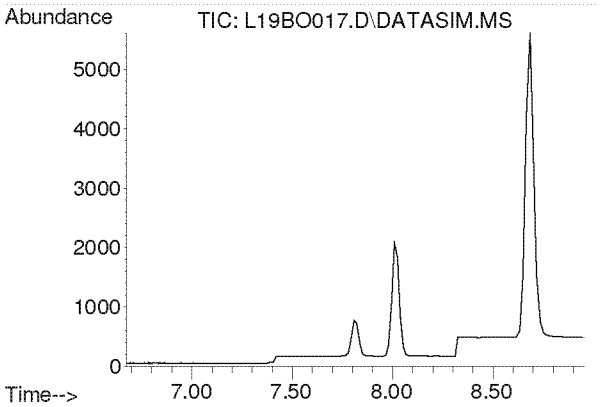


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 26



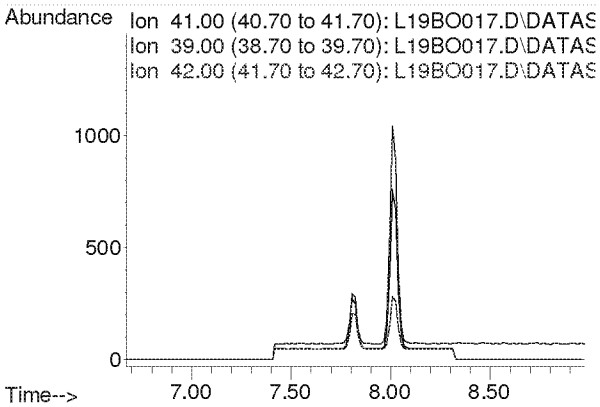


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

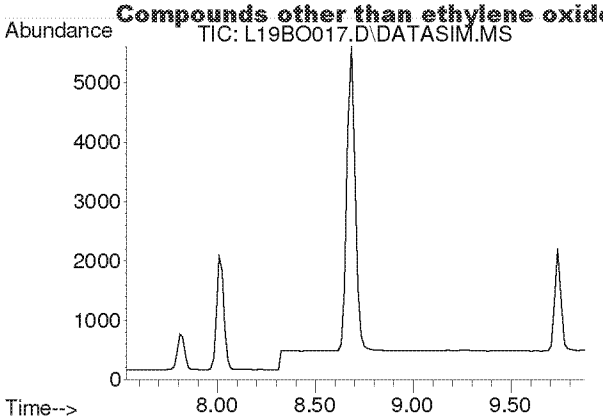
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

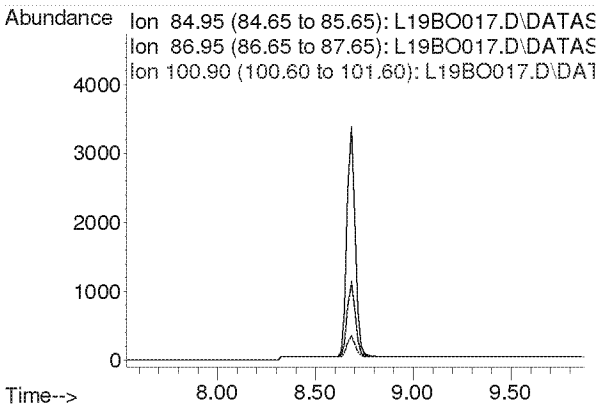


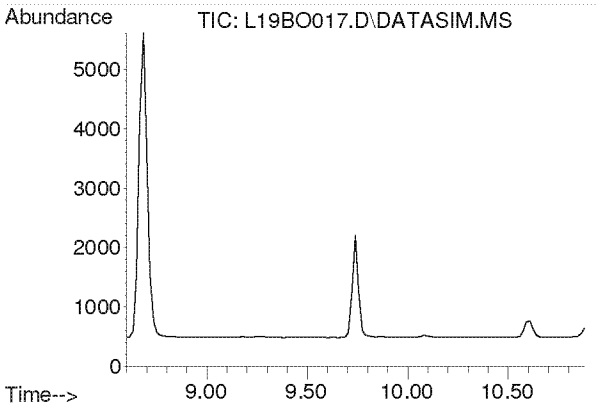
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



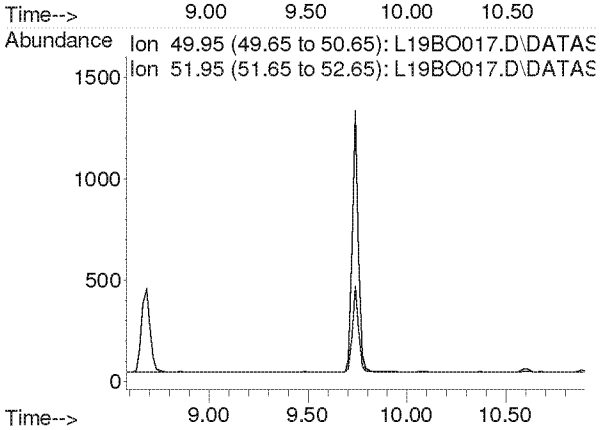


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

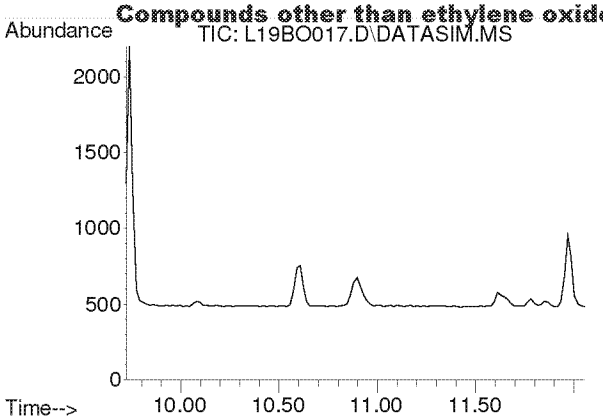
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

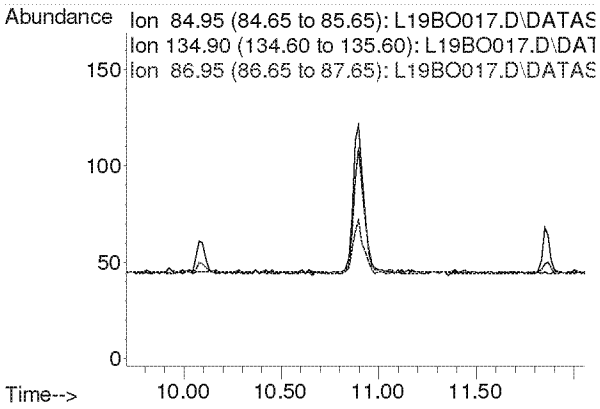


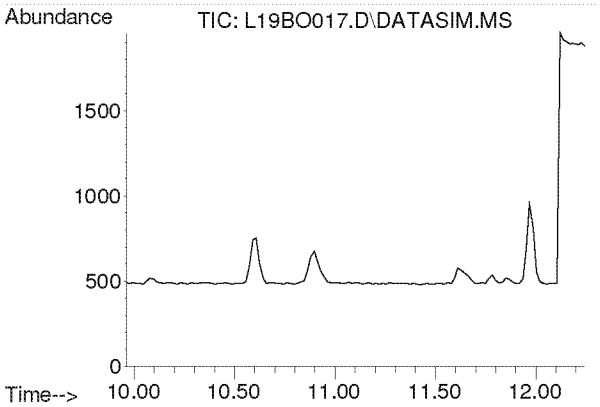
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



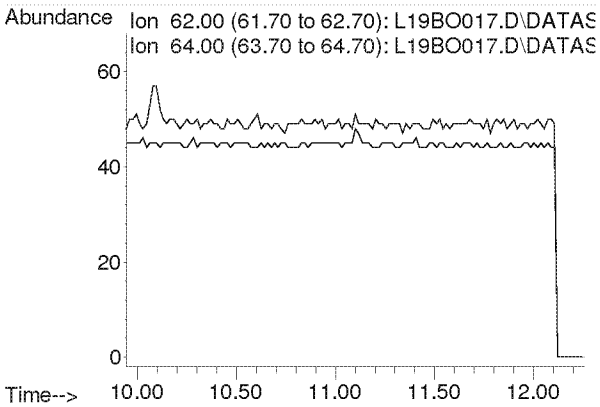


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

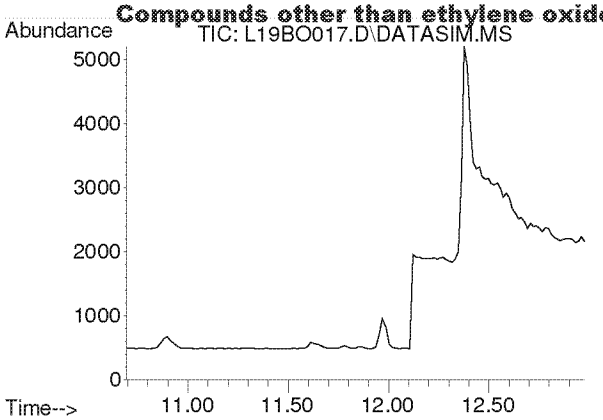
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

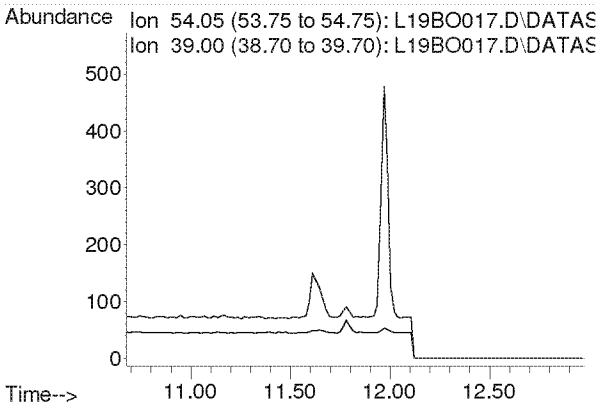


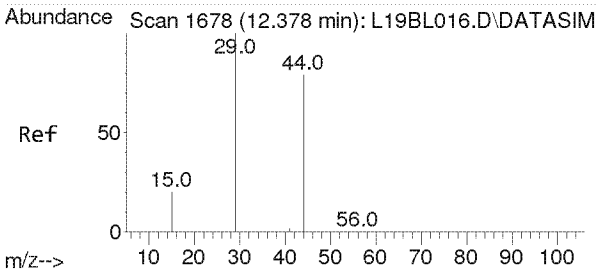
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

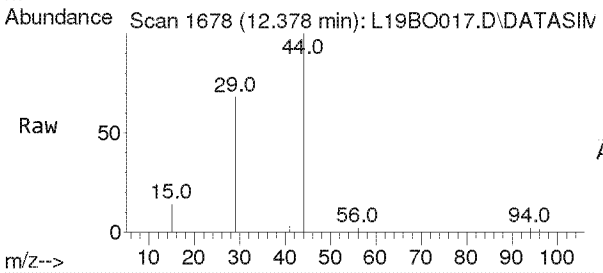


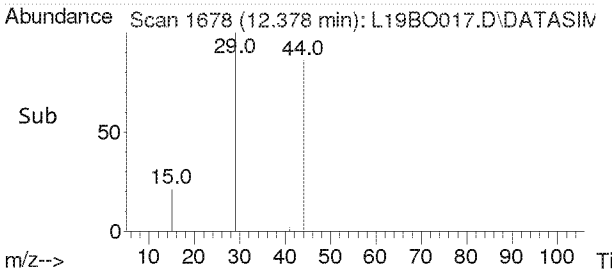


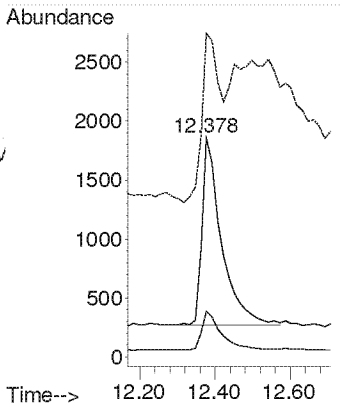
#9
Ethylene oxide
Concen: 2.334 ppbv
RT: 12.378 min Scan# 1678
Delta R.T. -0.000 min
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 29 Resp: 5709

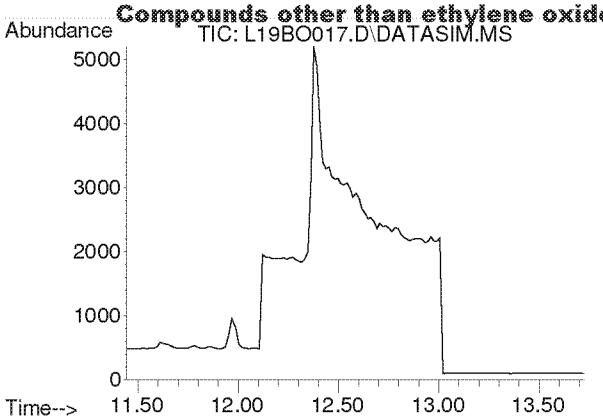
Ion	Ratio	Lower	Upper
29	100		
15	20.5	16.0	24.0
44	262.2	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

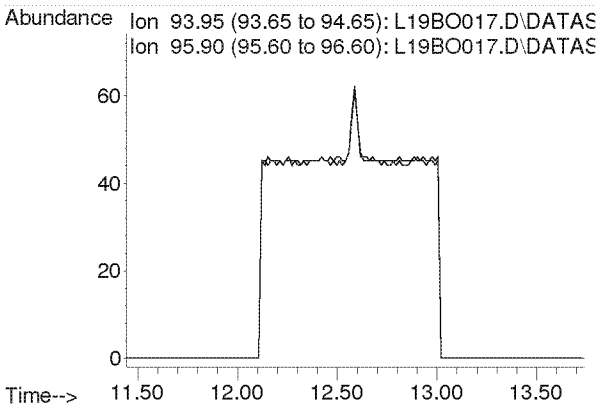


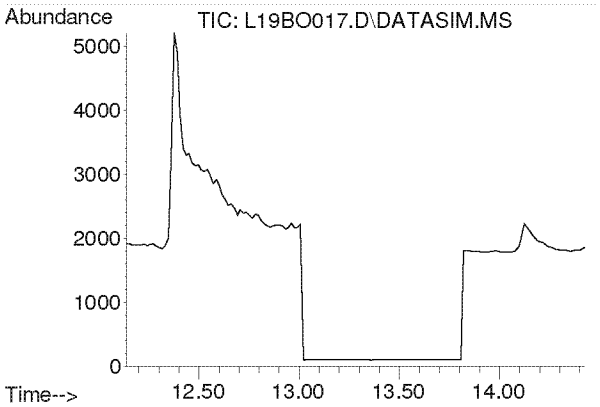
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



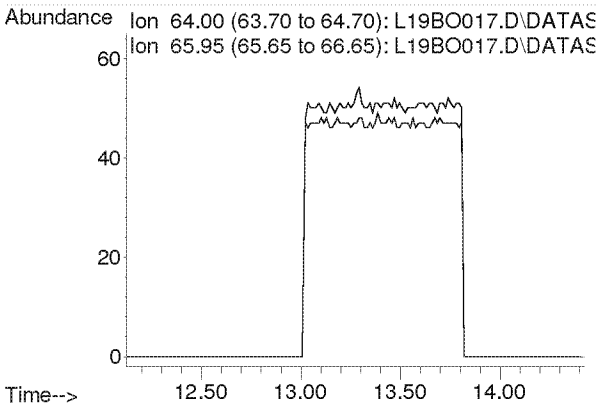


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

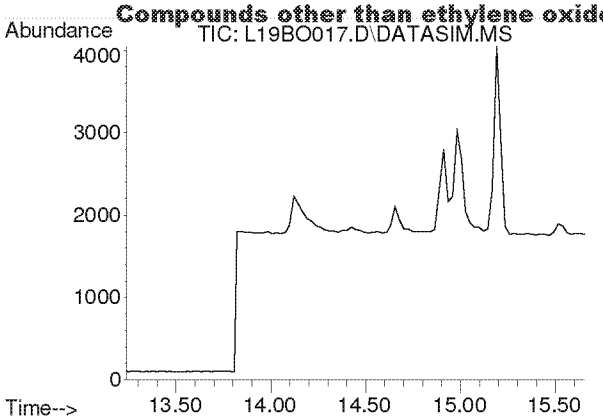
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

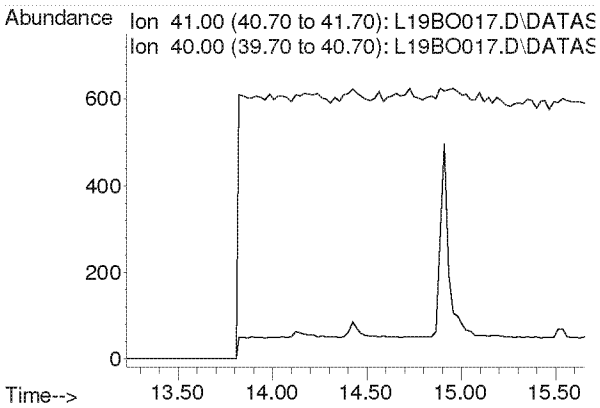


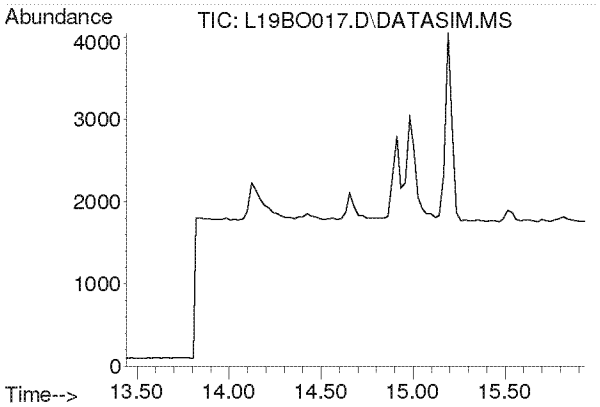
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



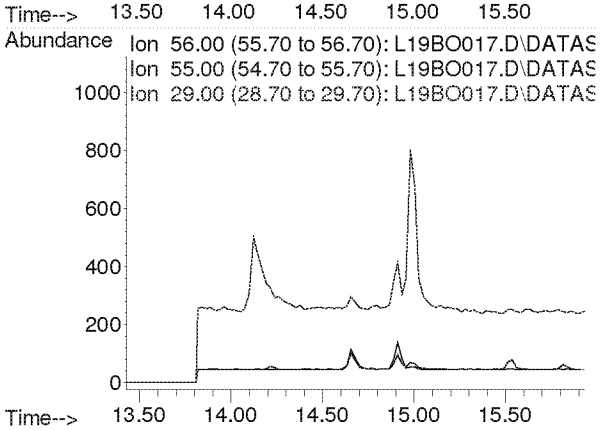


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

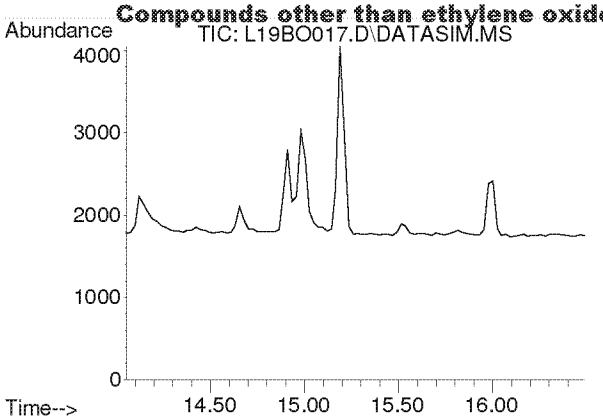
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

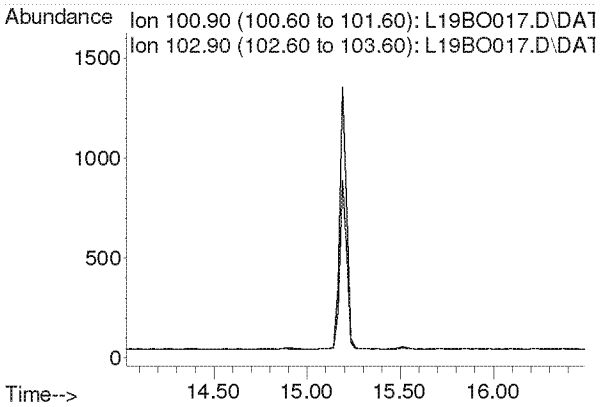


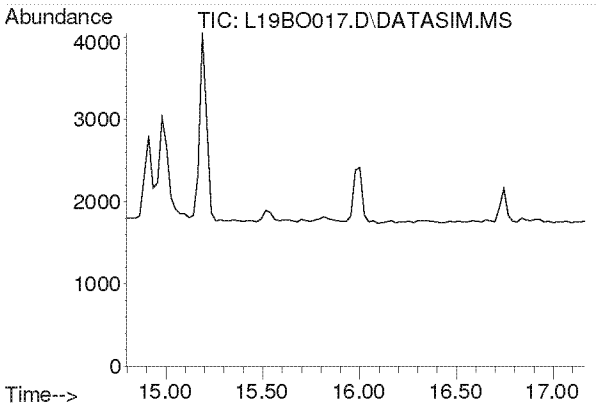
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



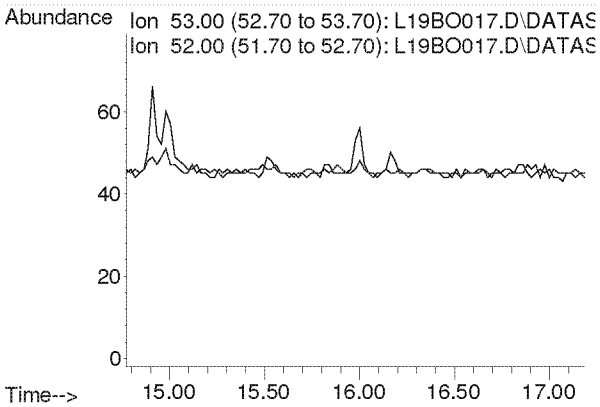


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

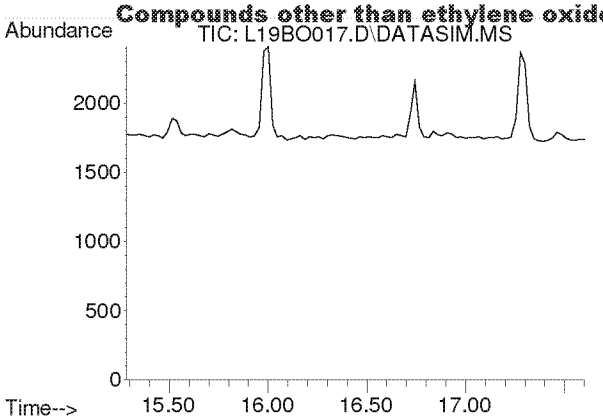
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

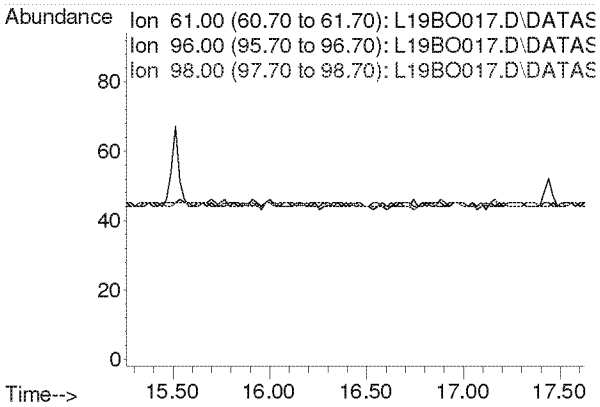


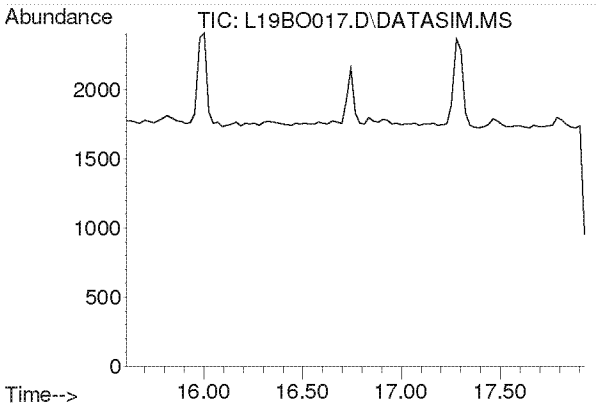
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



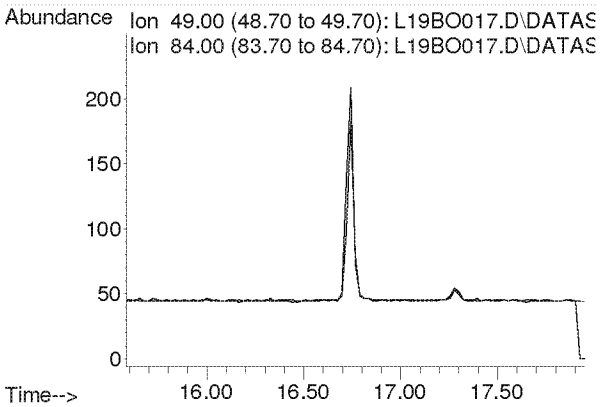


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

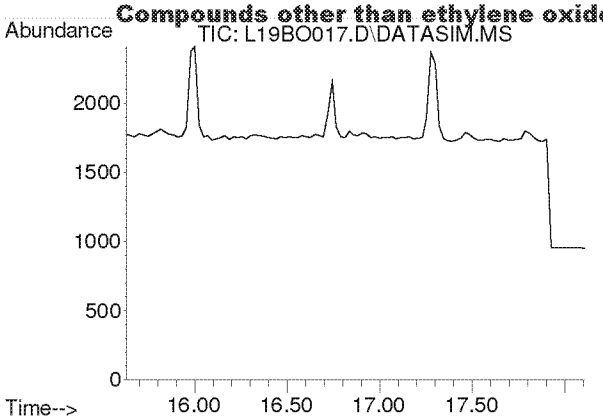
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

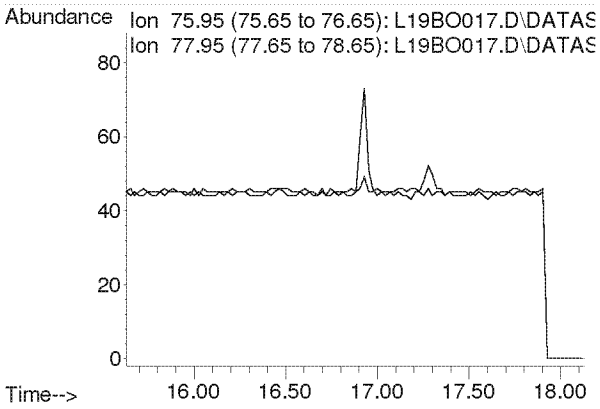


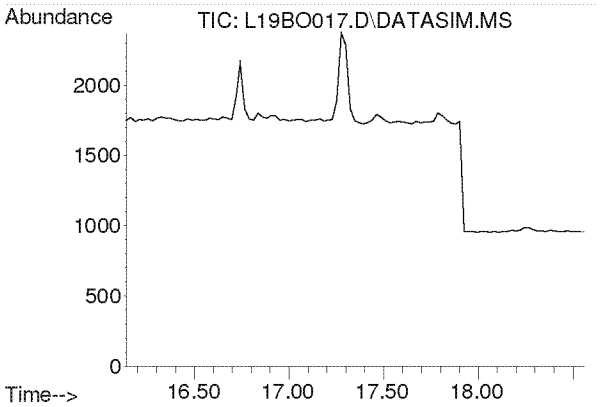
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



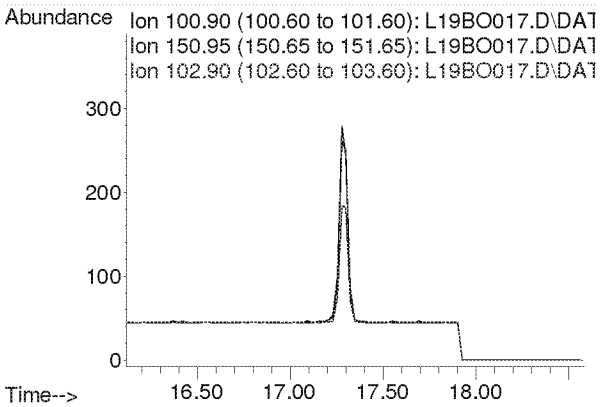


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

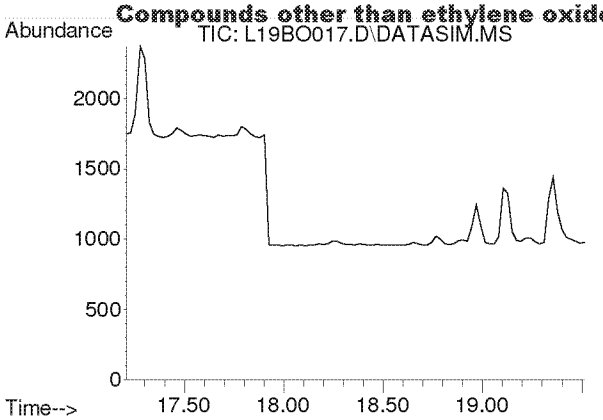
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

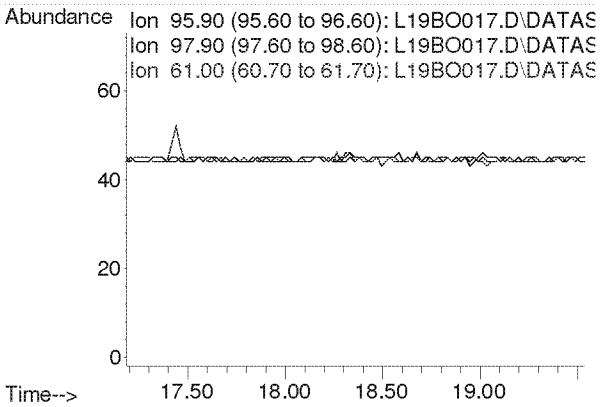


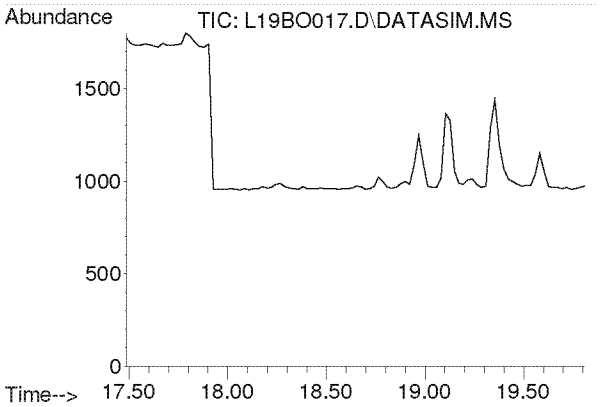
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



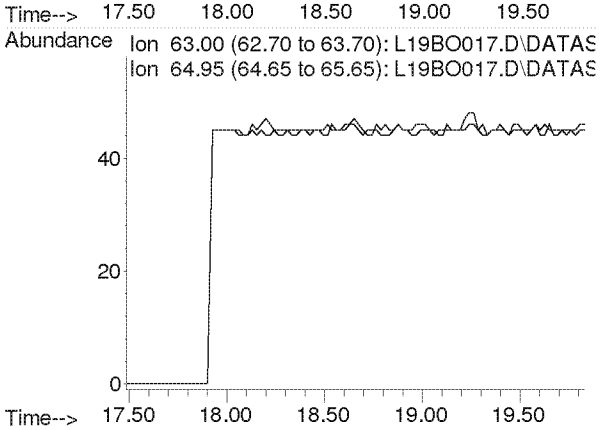


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

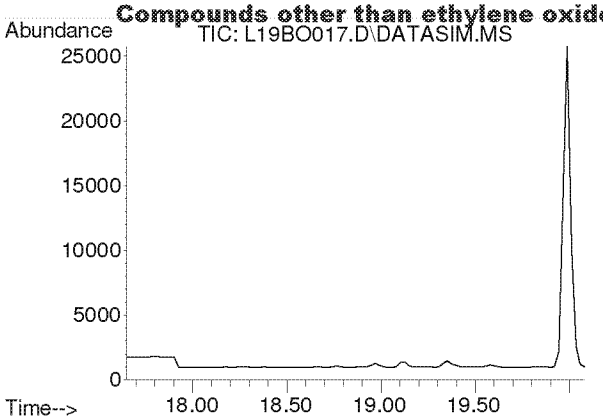
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

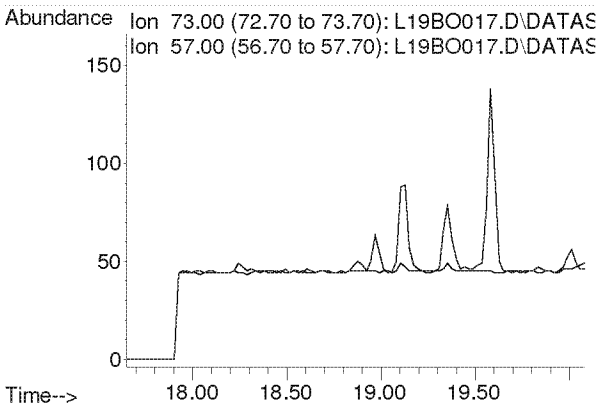


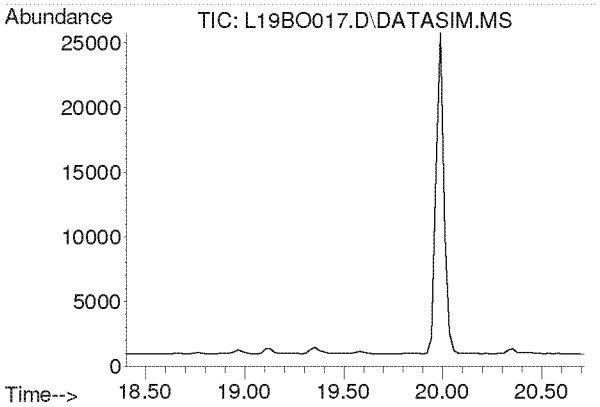
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



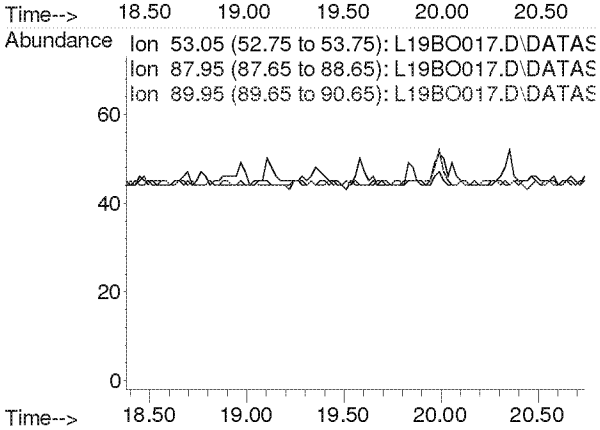


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

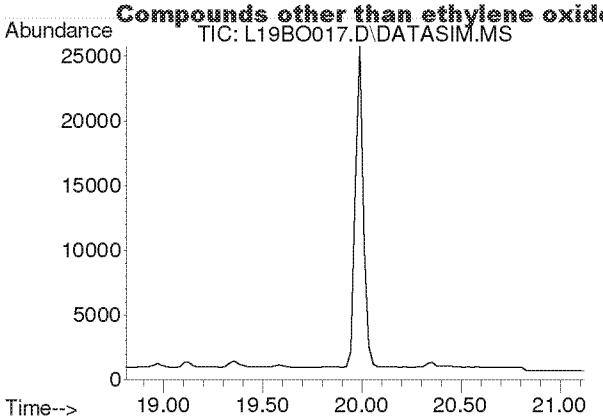
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

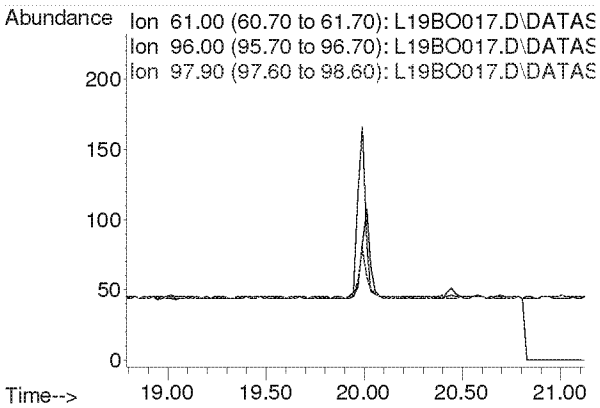


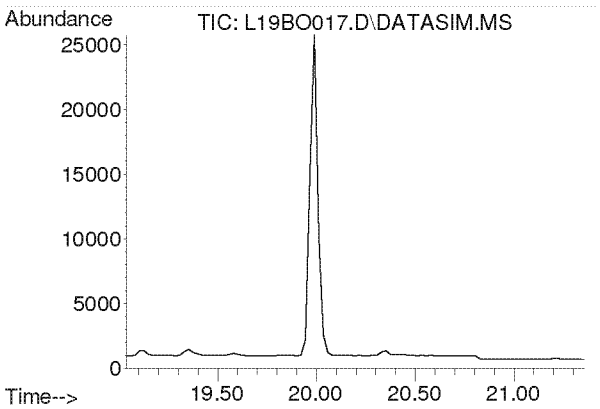
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



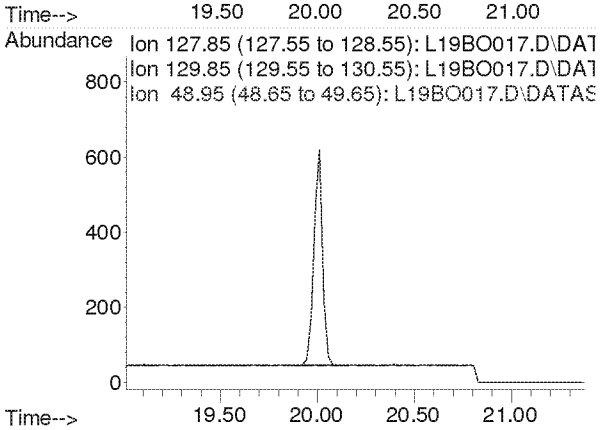


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

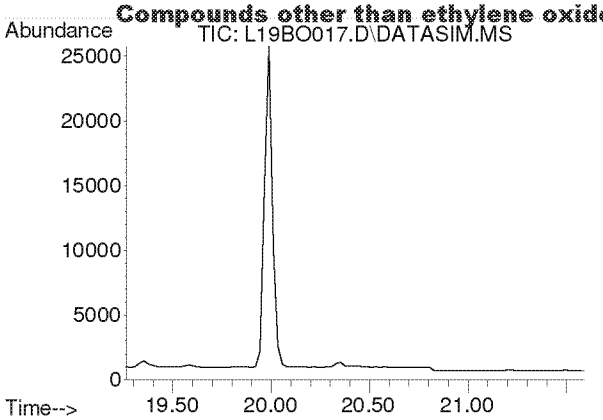
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

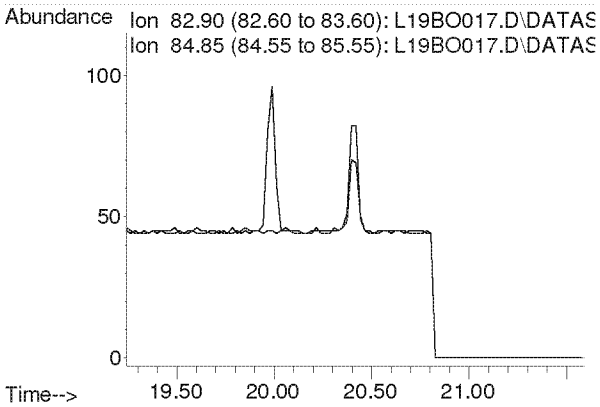


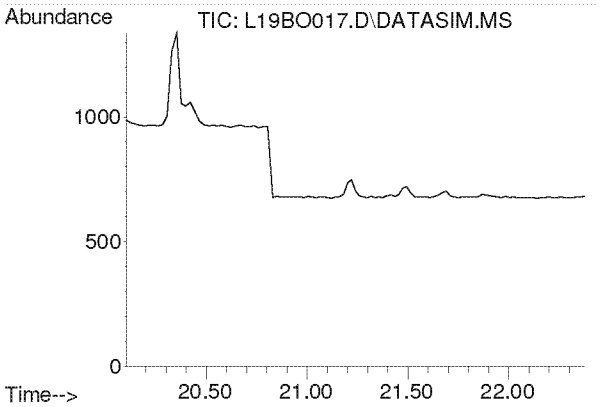
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



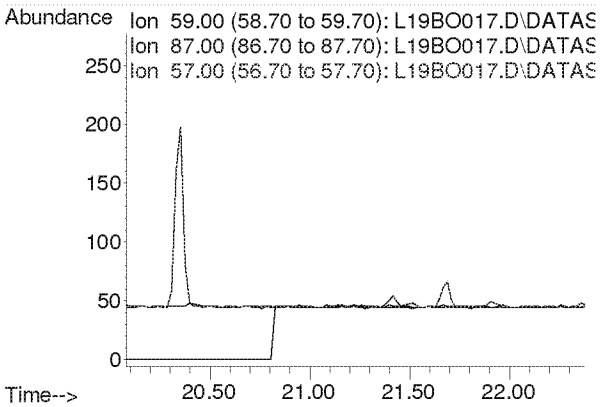


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

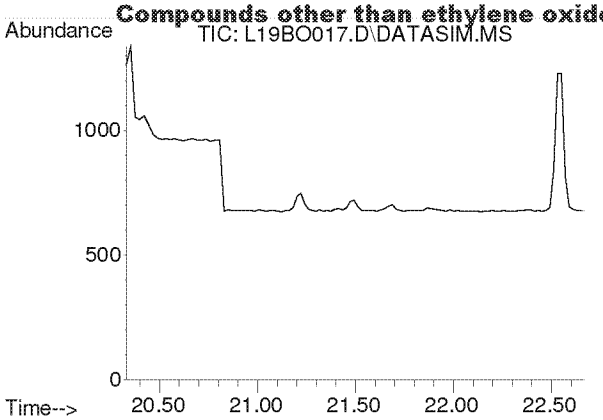
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

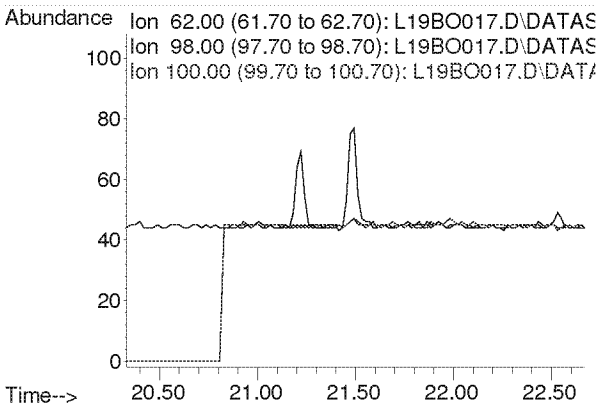


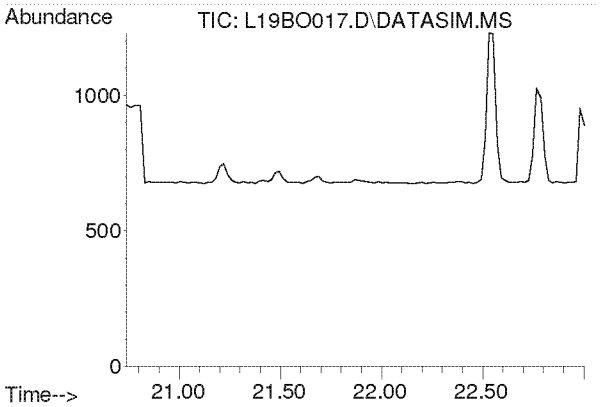
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



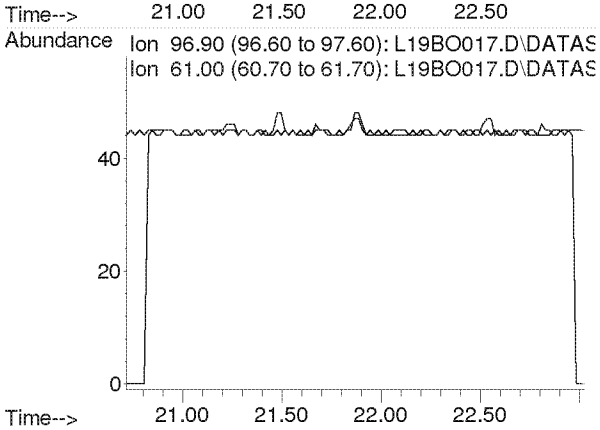


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

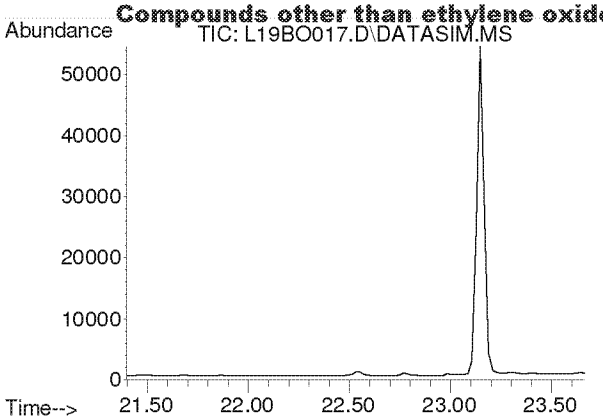
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

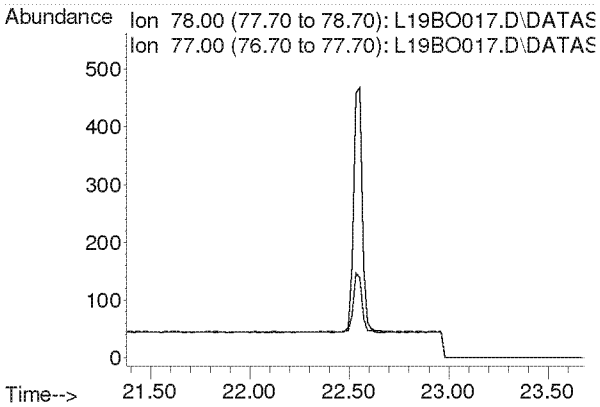


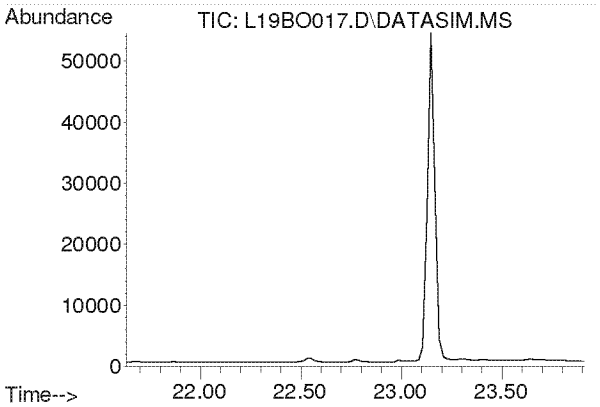
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



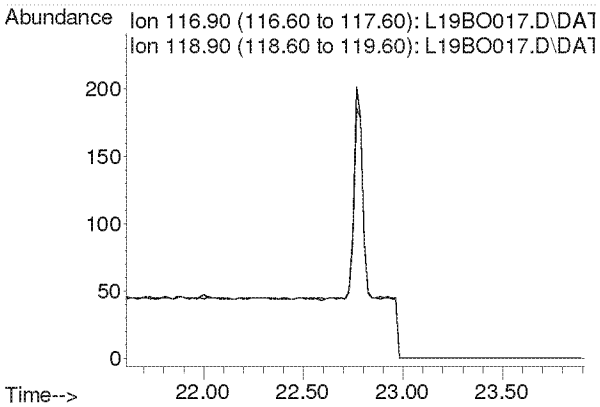


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

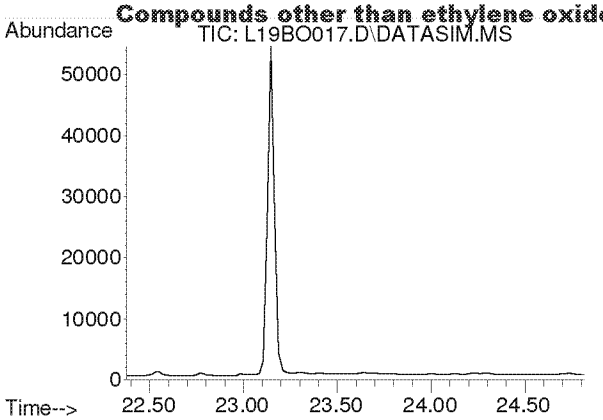
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

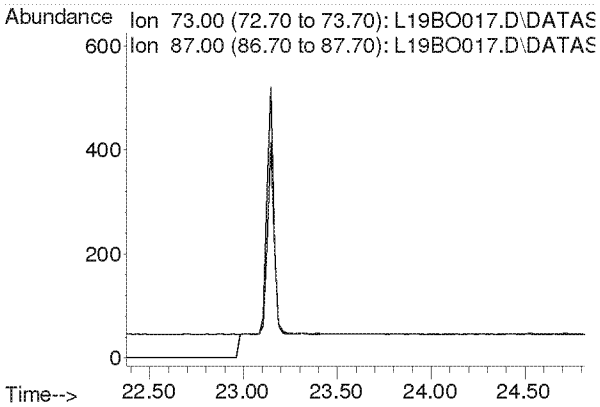


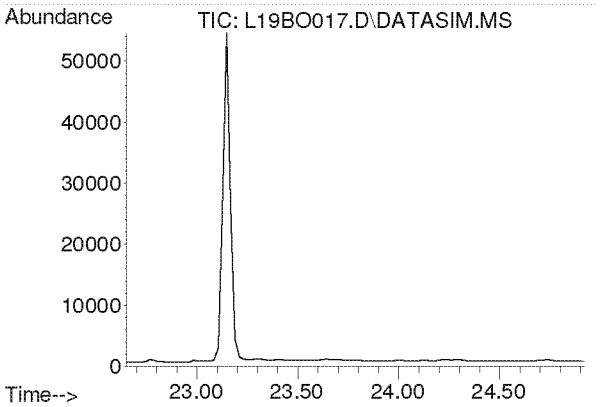
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



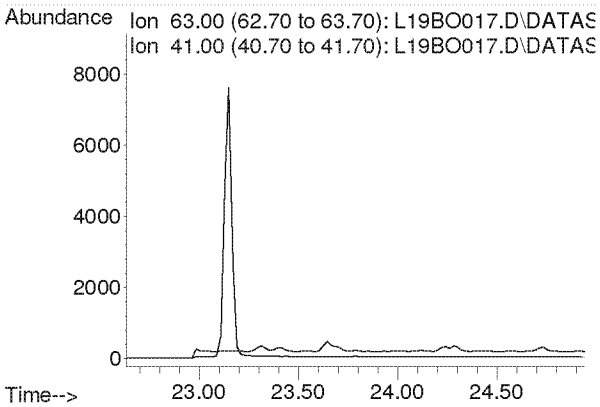


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

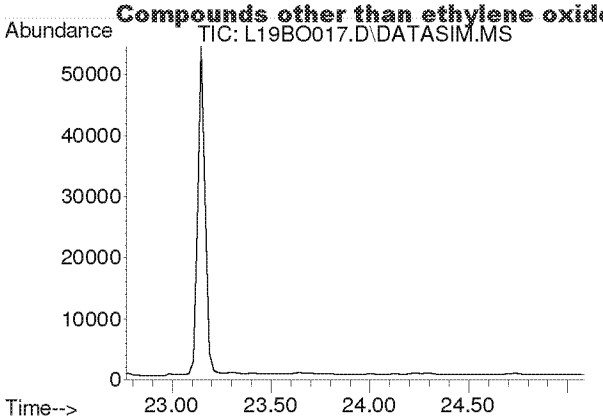
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

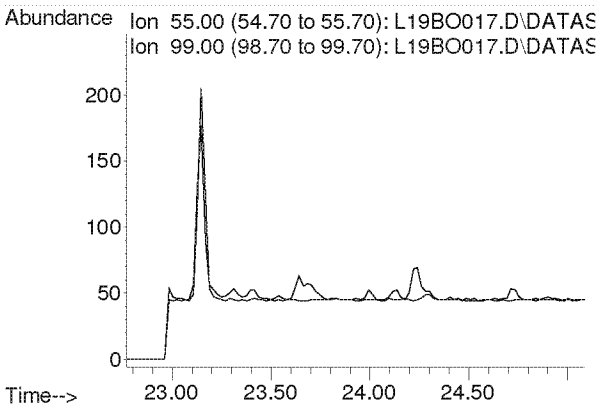


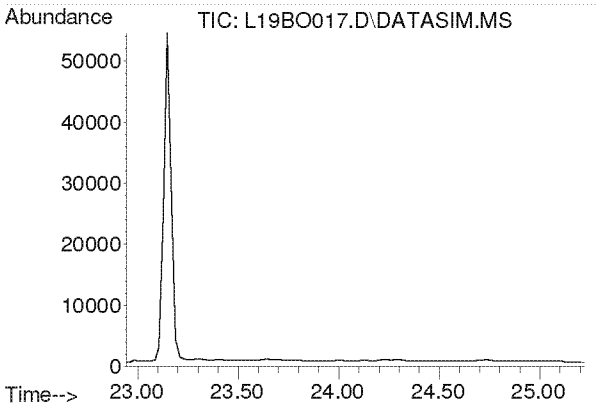
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



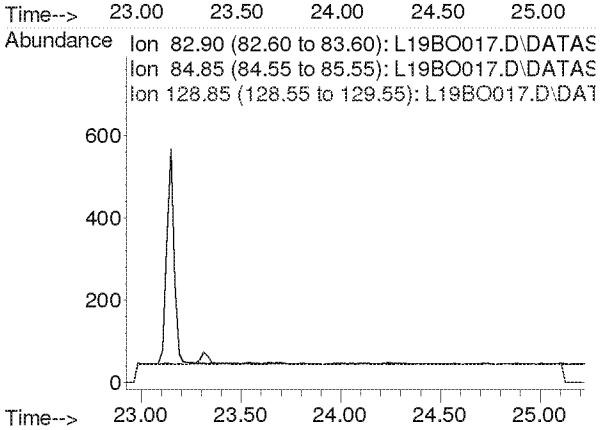


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

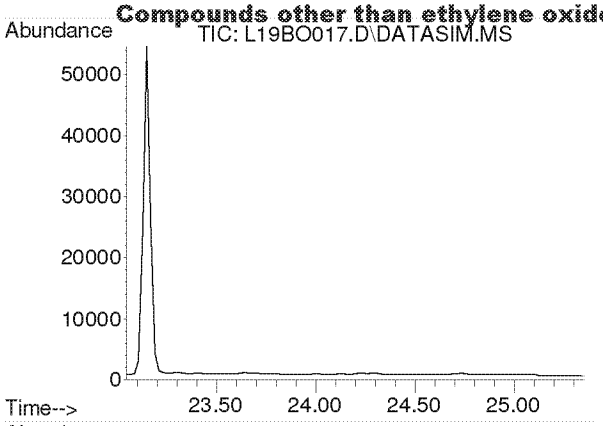
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

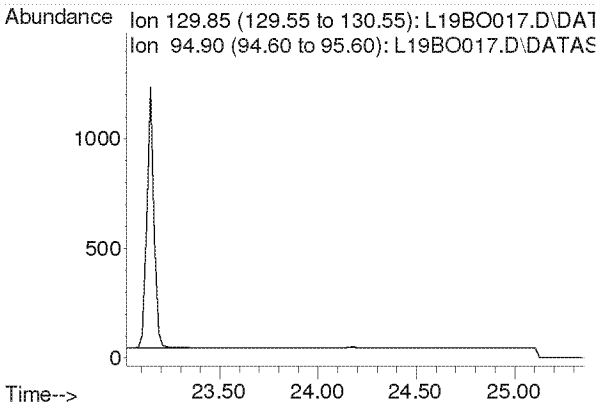


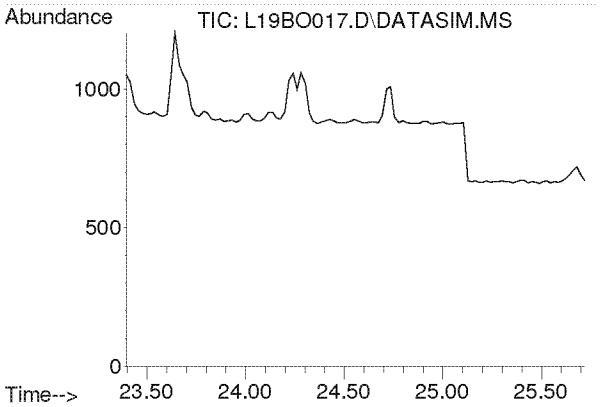
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



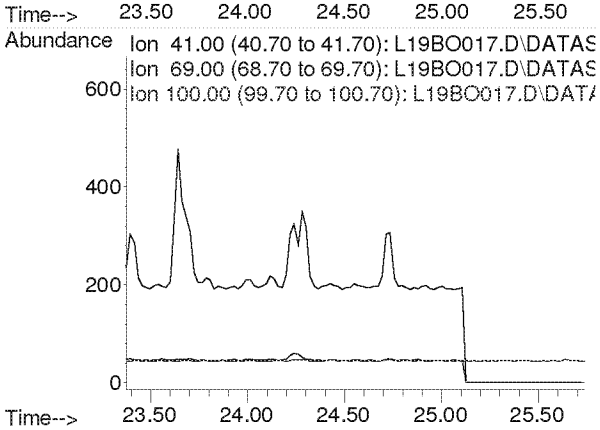


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

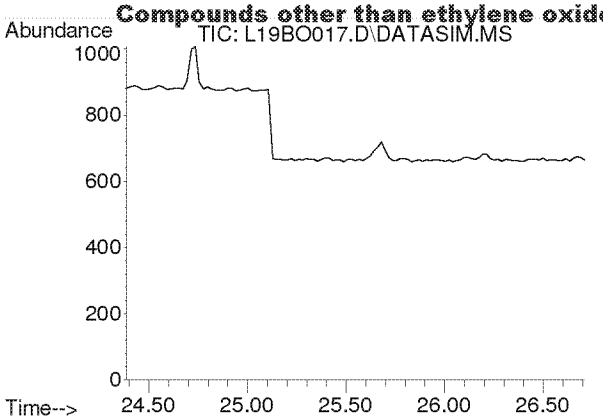
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

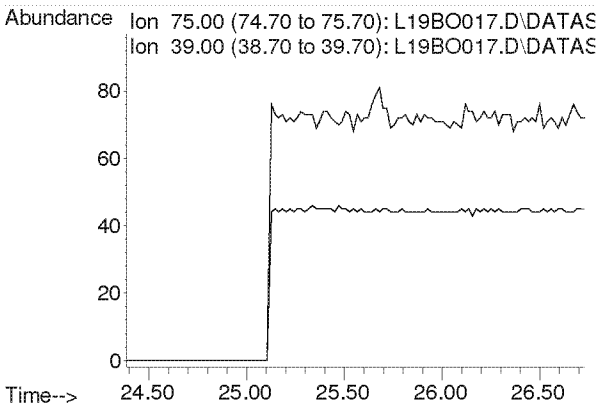


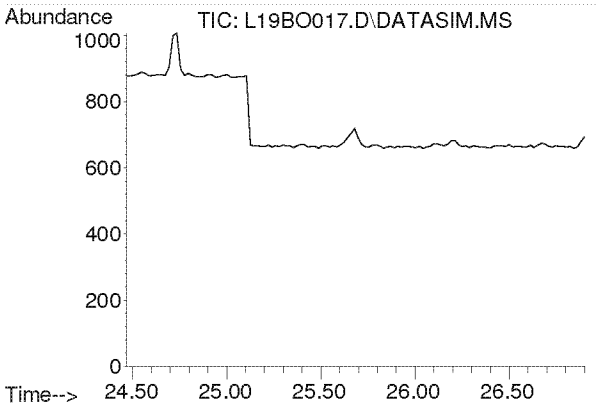
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



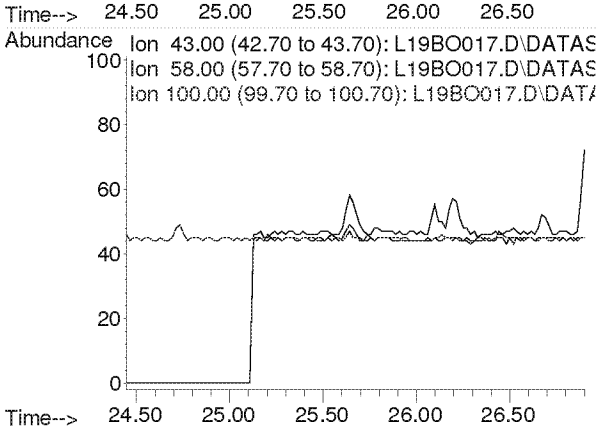


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

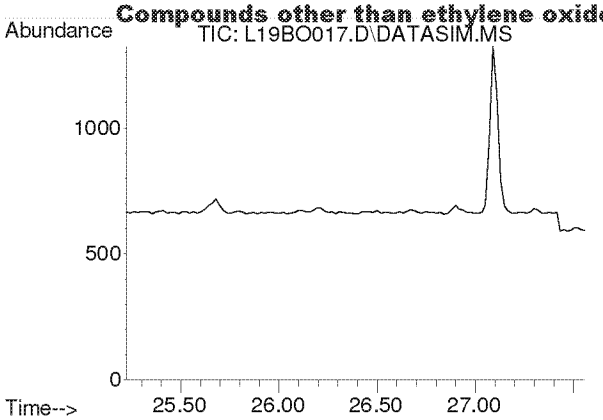
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

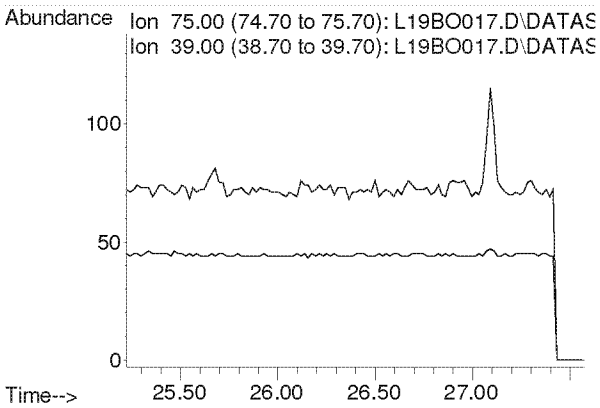


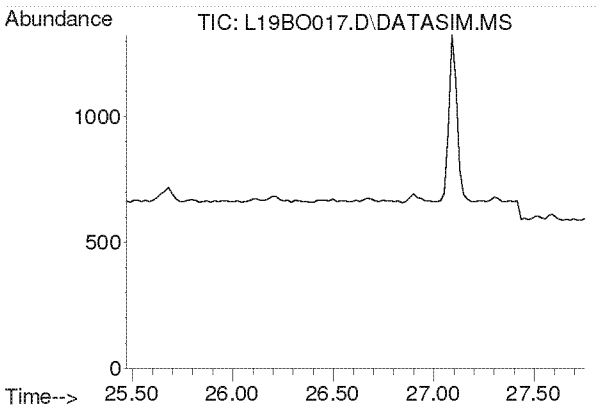
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



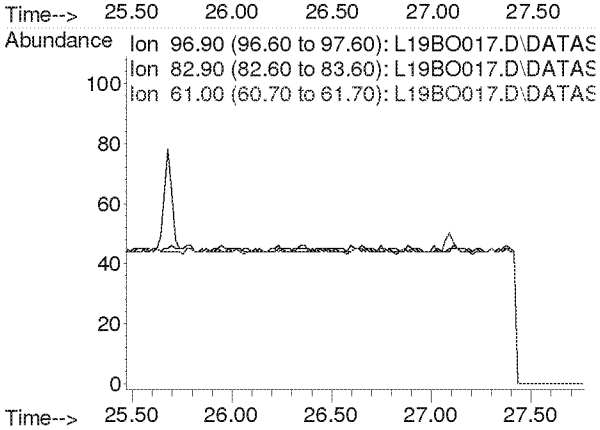


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

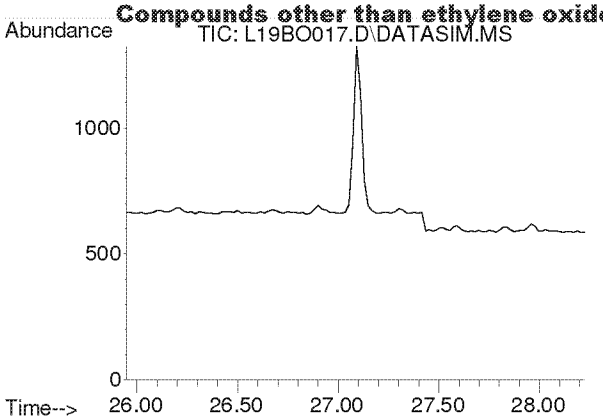
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

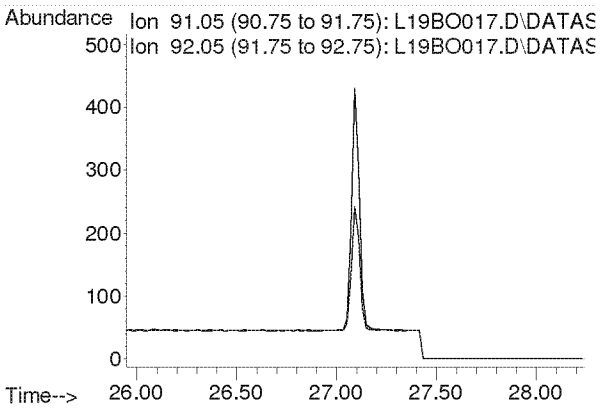


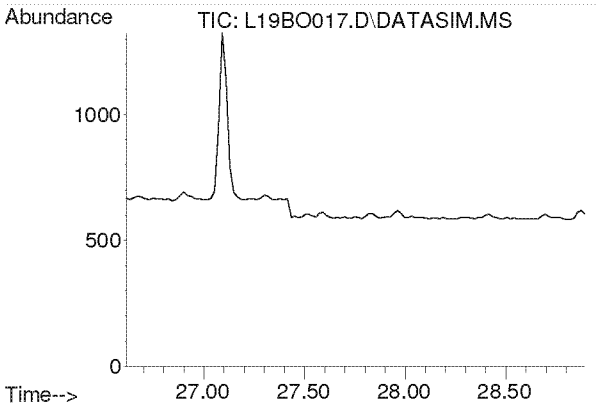
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



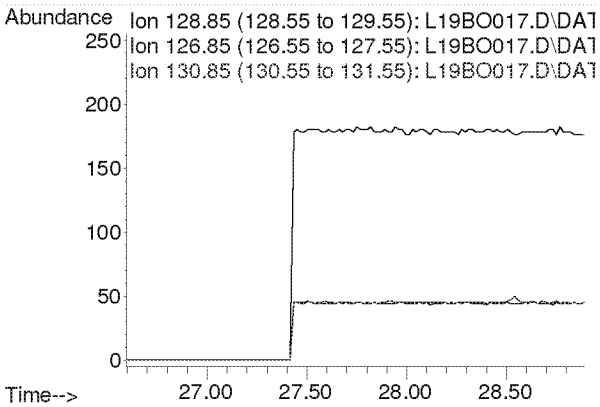


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

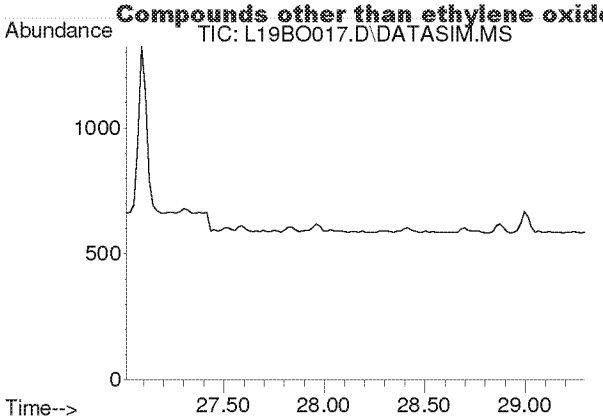
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

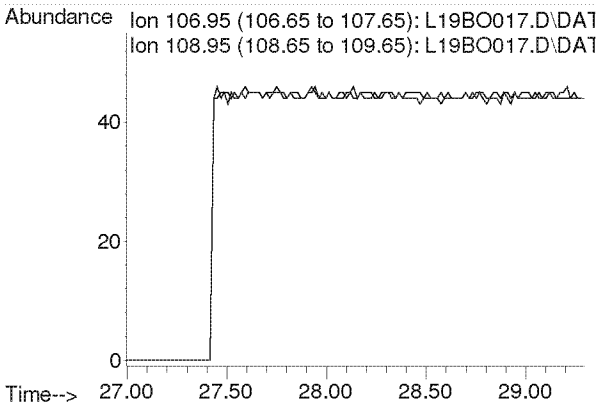


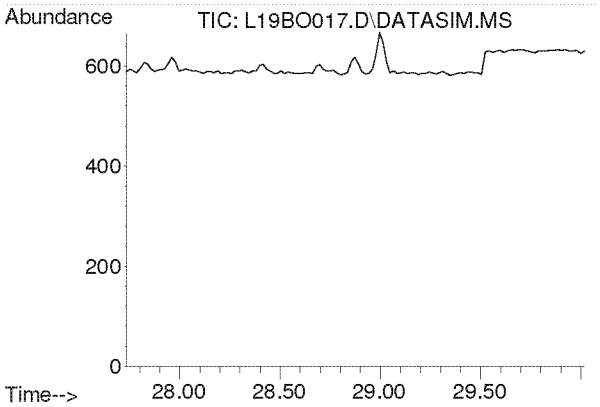
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



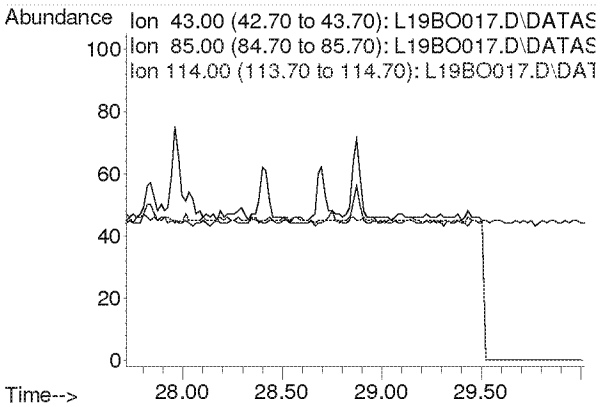


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

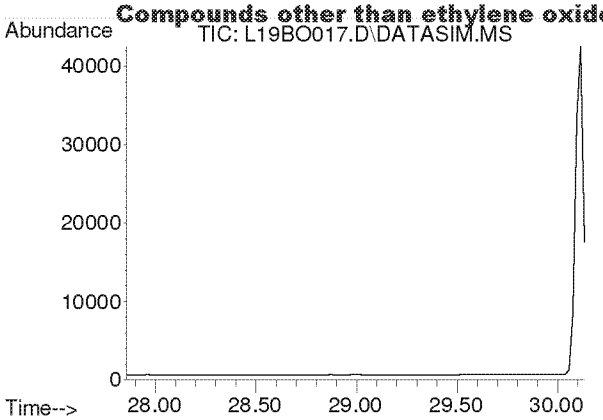
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

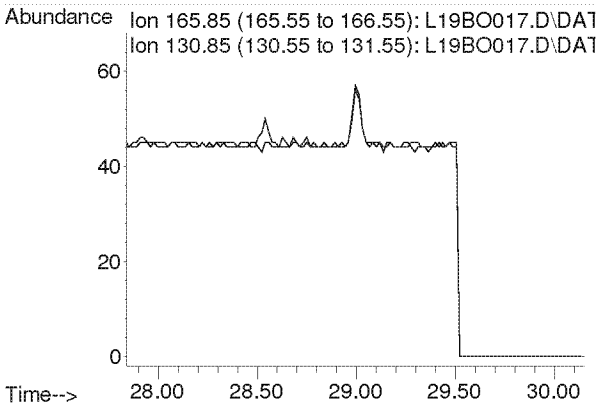


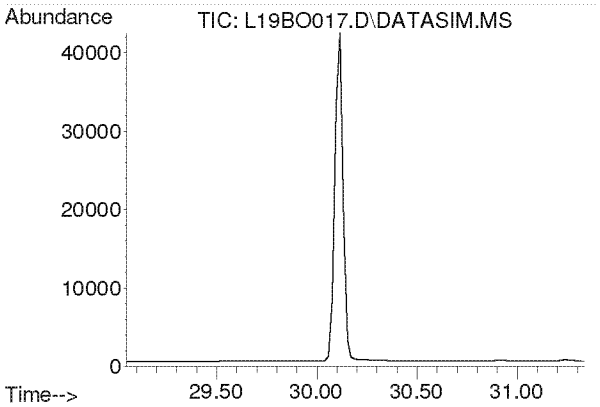
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



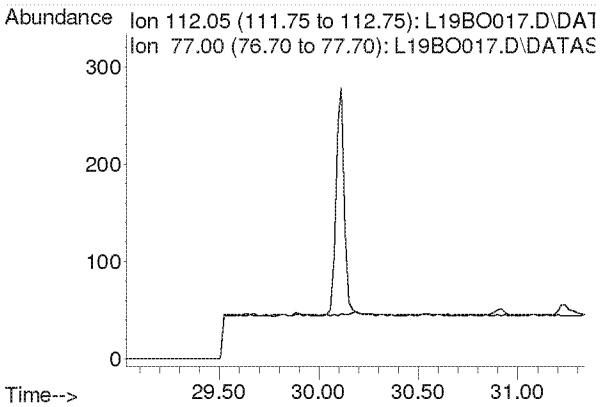


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

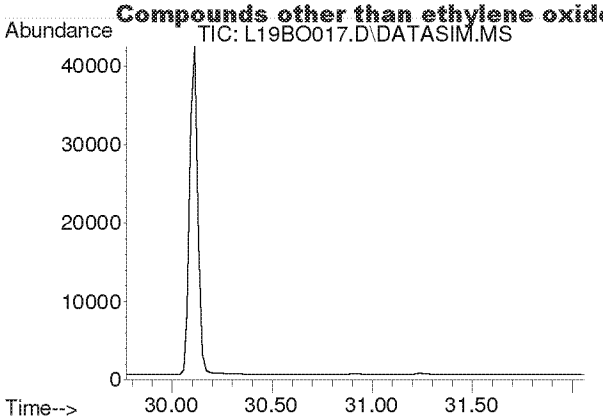
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

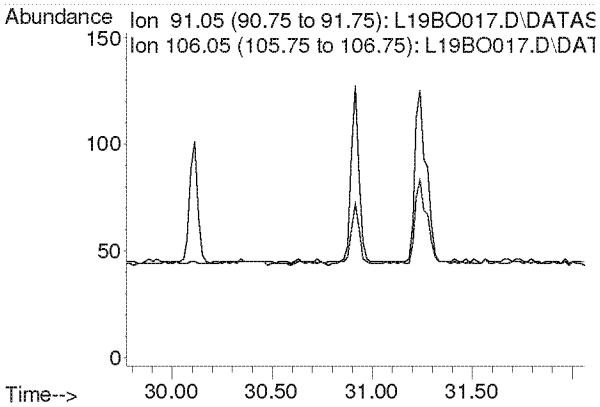


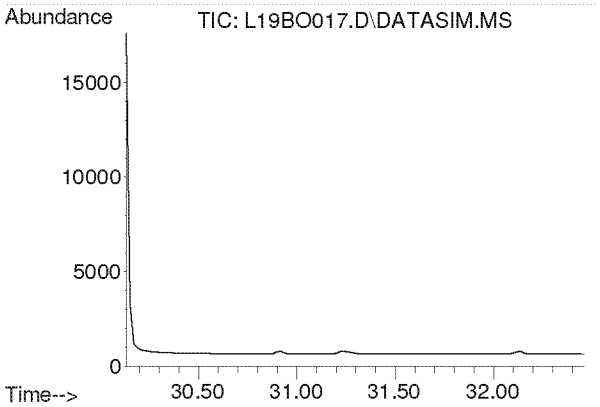
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



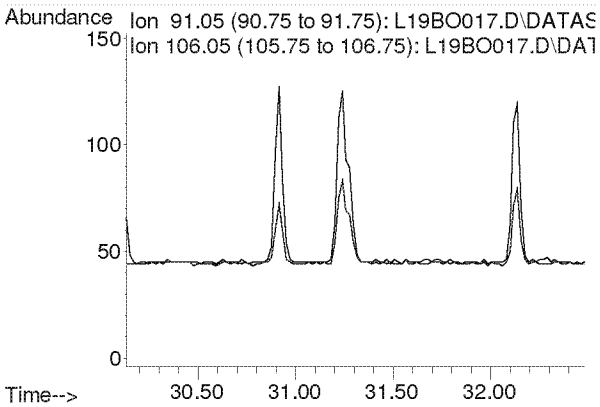


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

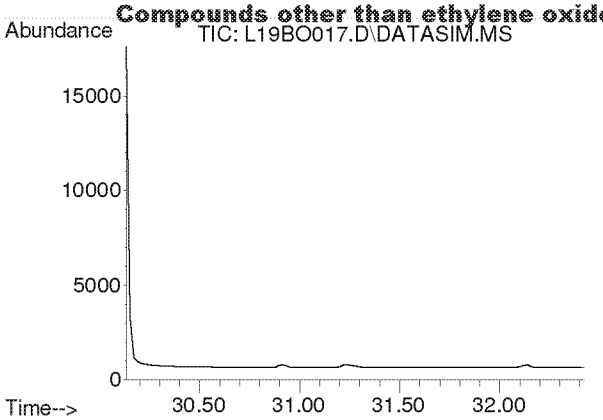
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

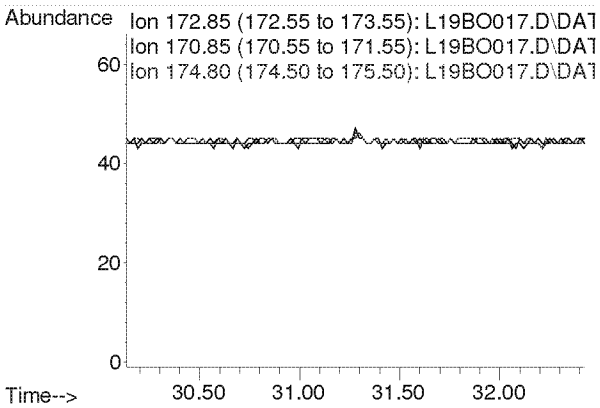


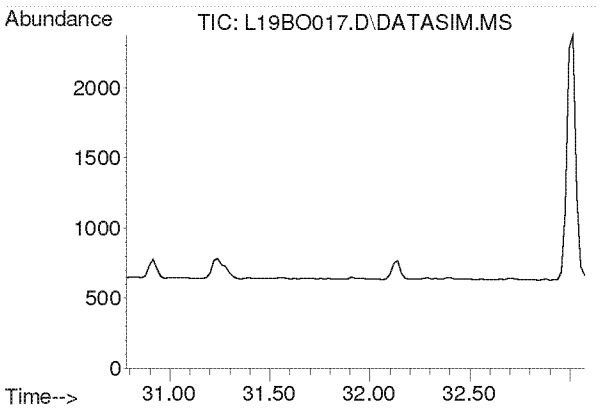
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



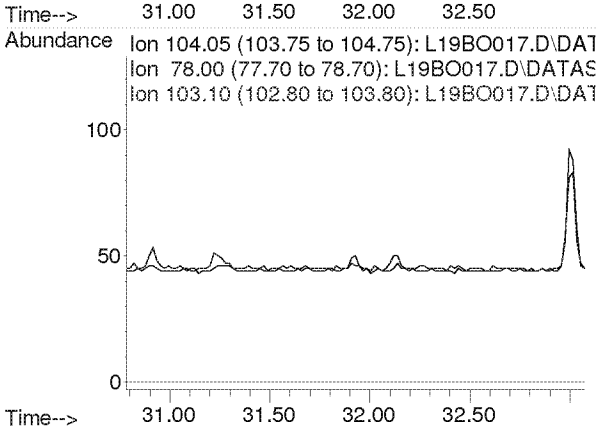


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

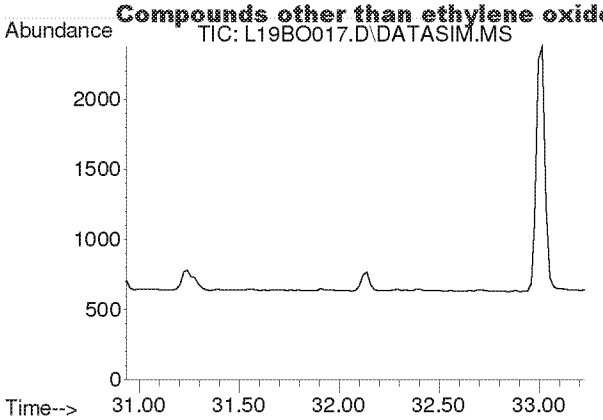
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

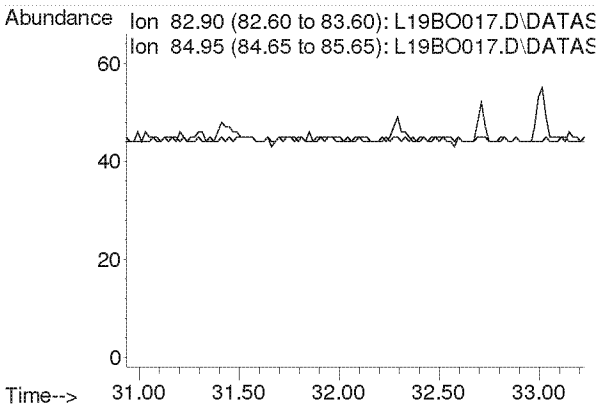


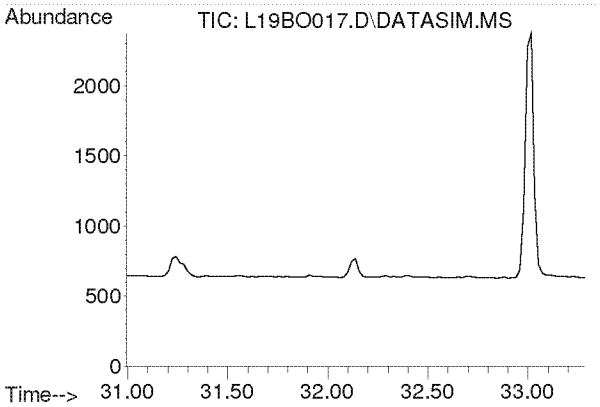
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



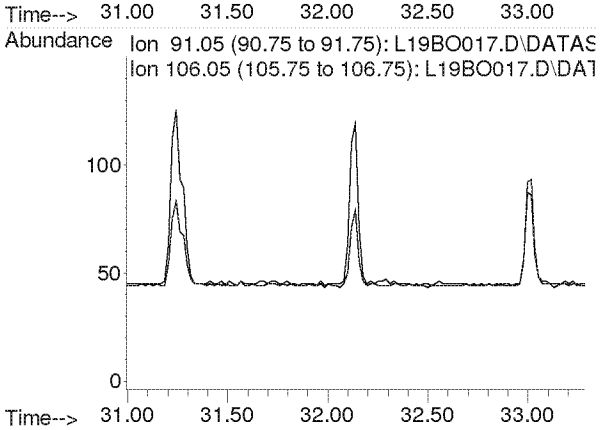


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

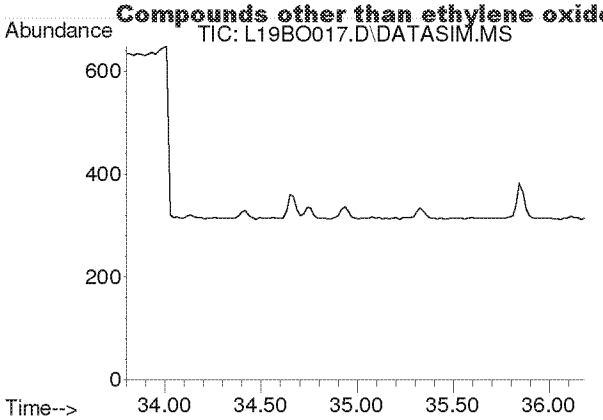
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

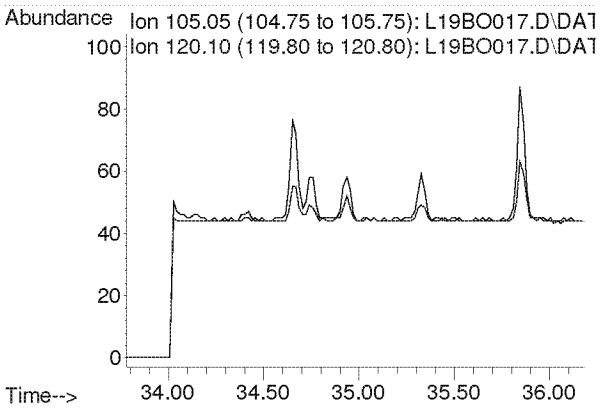


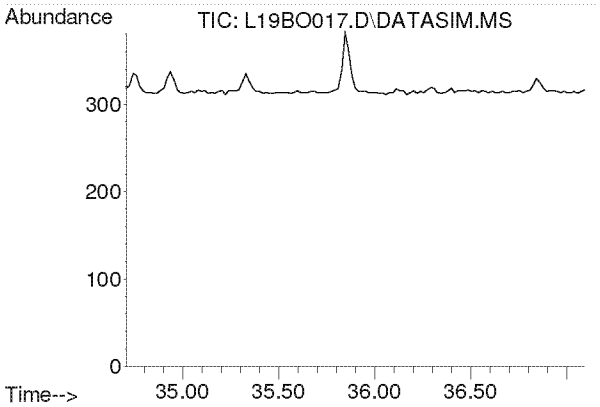
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



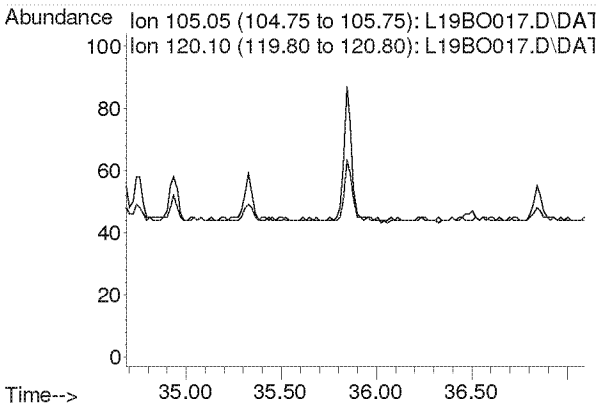


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

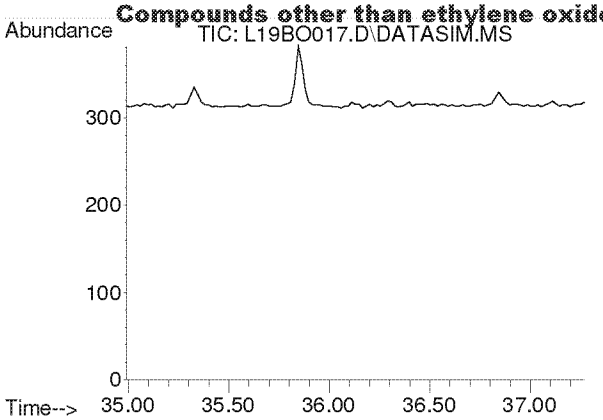
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

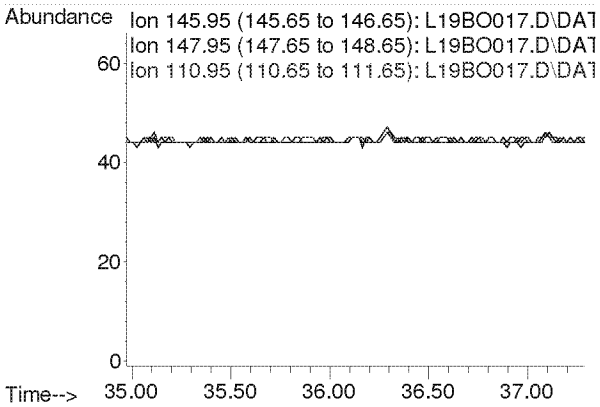


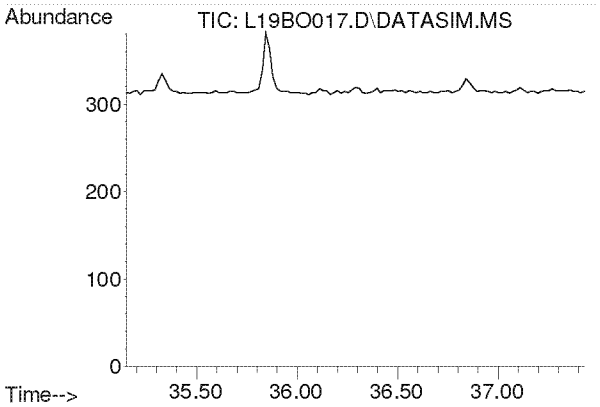
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



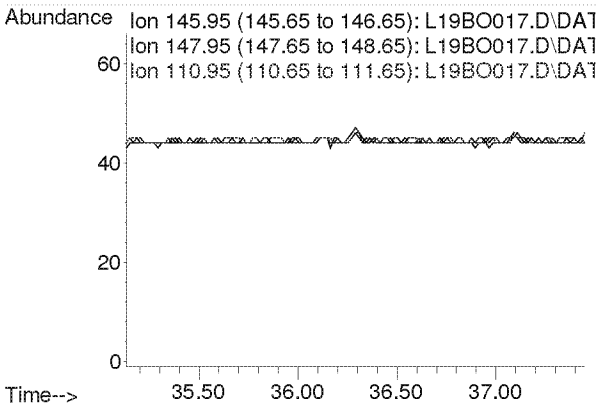


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

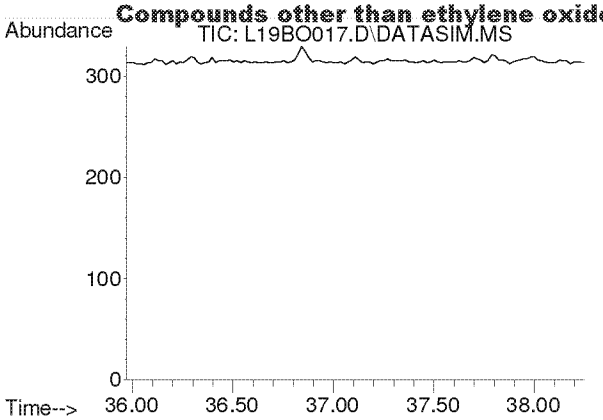
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

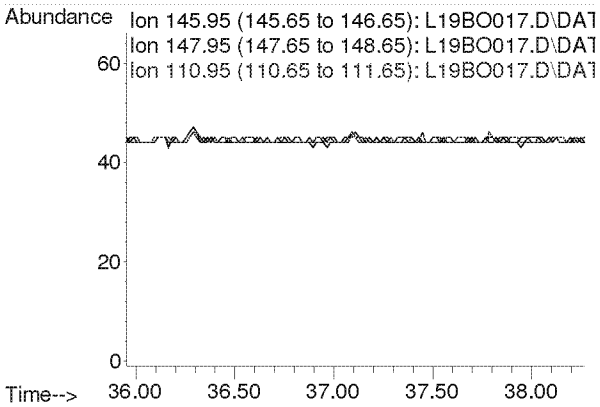


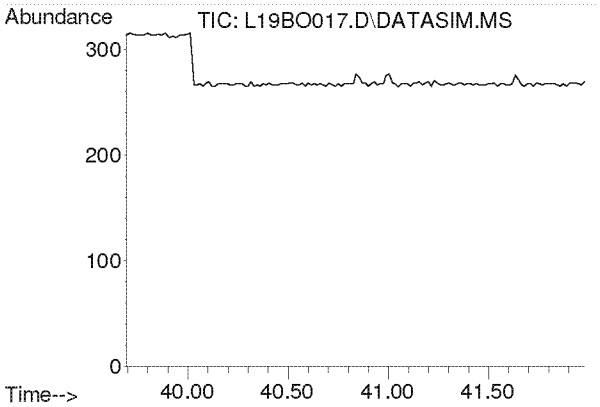
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



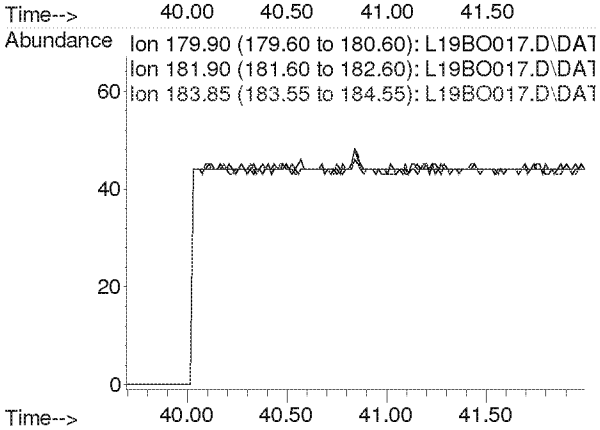


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

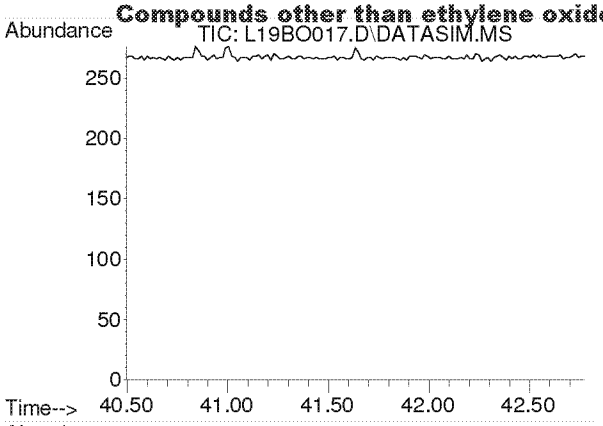
Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

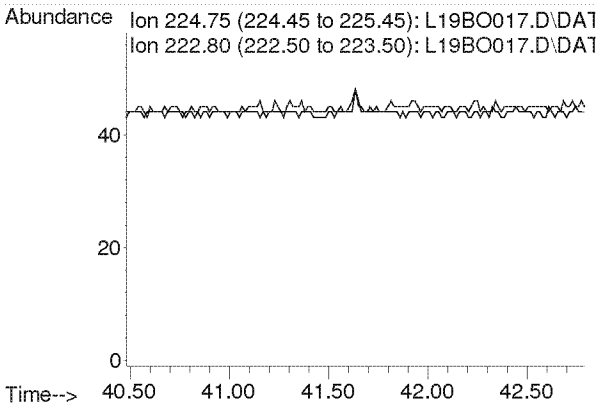


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO017.D
Acq: 15 Feb 2019 10:32 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO018.D
Acq On : 15 Feb 2019 11:33 pm (#1); 15-Feb-19, 23:27:59 (#2)
Operator : MAH
Sample : 9021313-08
Misc : GROWER ES 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 19 15:10:59 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	41100	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	102292	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.115	117	70807	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	12.483	29	263	0.1119 ppbv #	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
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\L19BO\
Data File : L19BO018.D
Acq On : 15 Feb 2019 11:33 pm (#1); 15-Feb-19, 23:27:59 (#2)
Operator : MAH
Sample : 9021313-08
Misc : GROWER ES 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 19 15:10:59 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

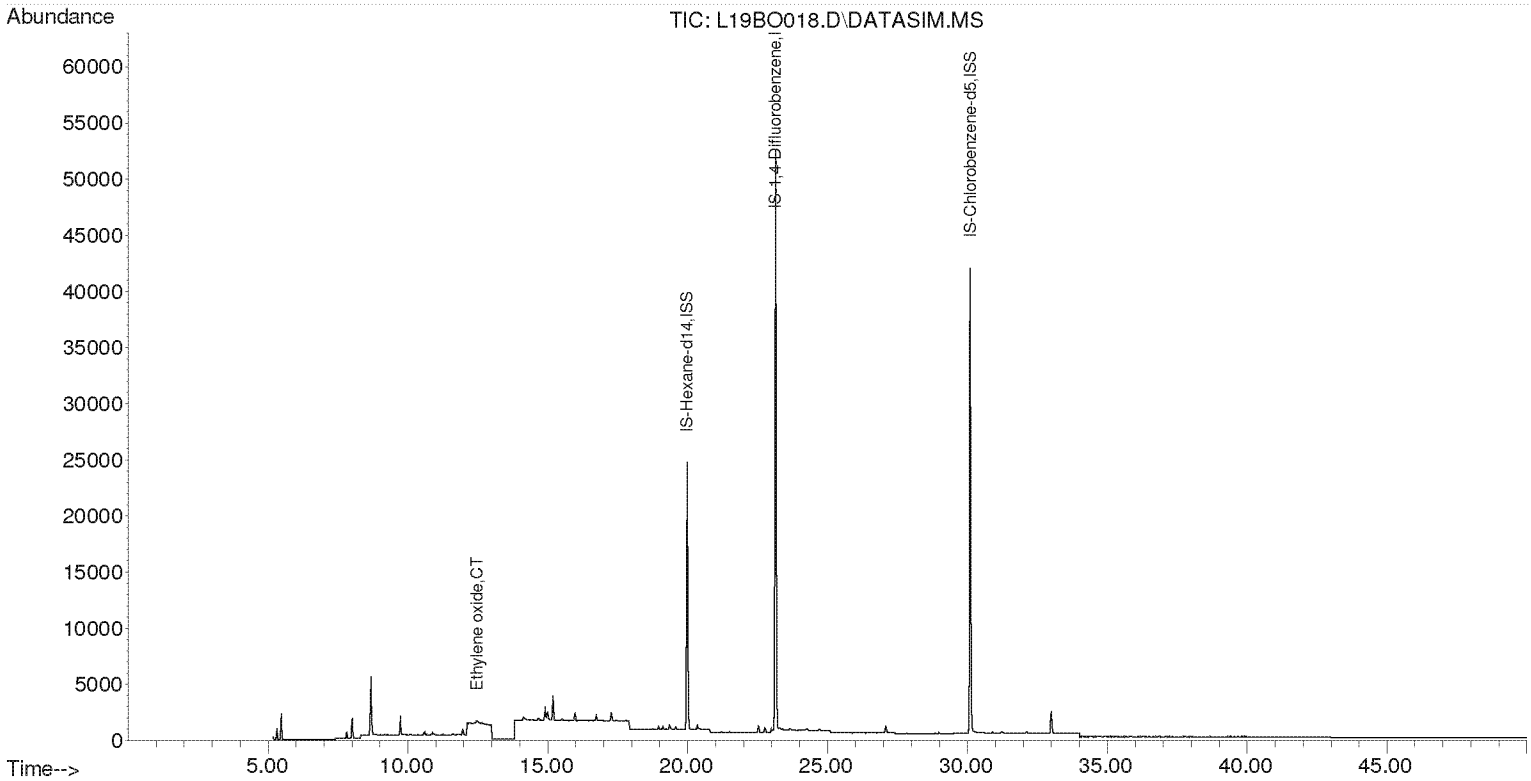
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

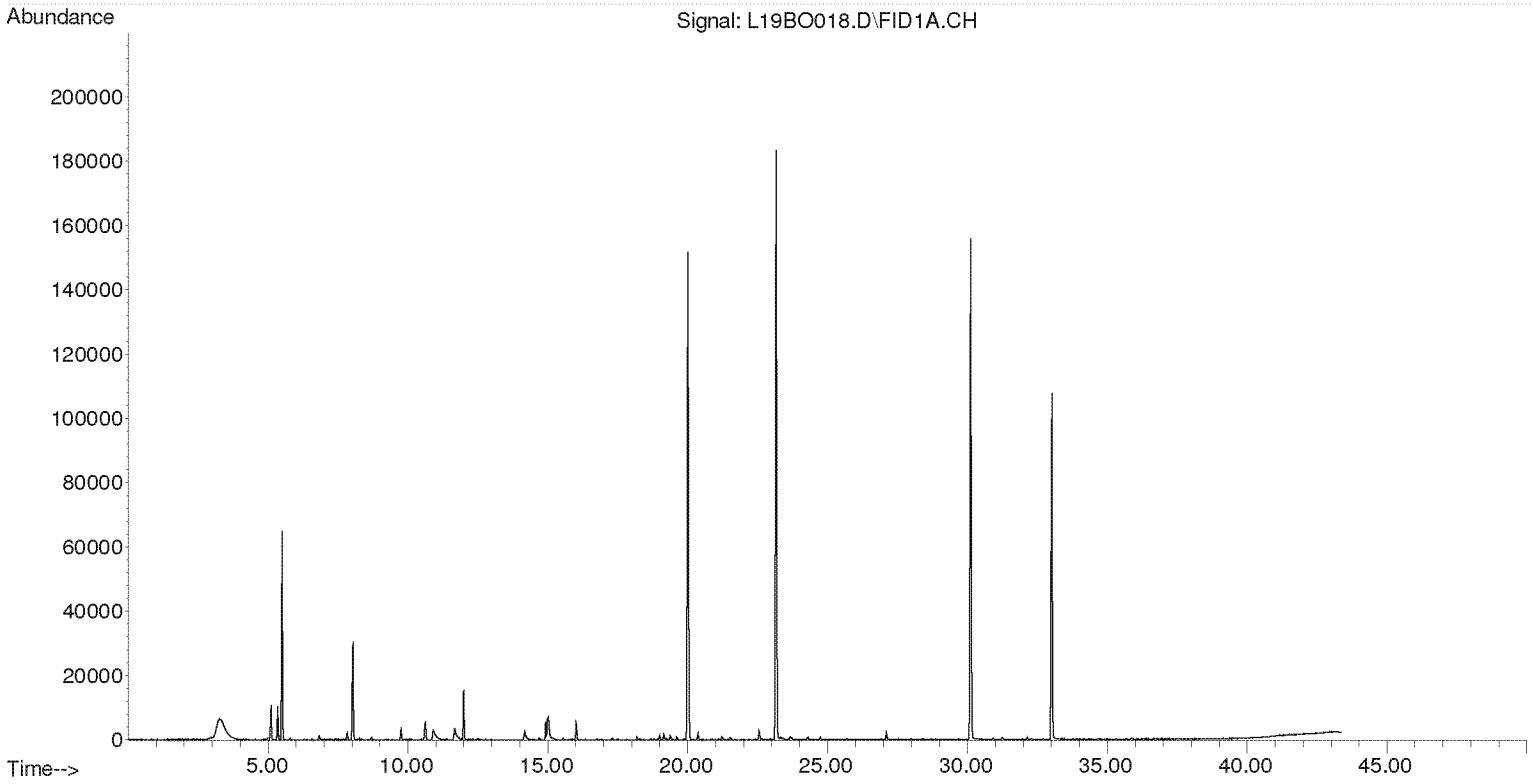
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

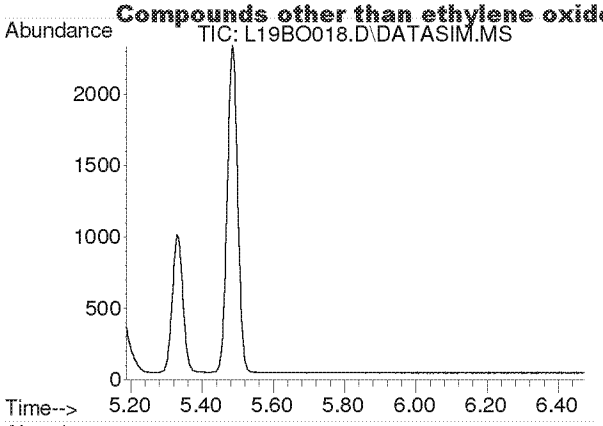
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO018.D
Acq On : 15 Feb 2019 11:33 pm (#1); 15 Feb 2019 11:27 pm (#2)
Operator : MAH
Sample : 9021313-08
Misc : GROWER ES 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 19 14:47:14 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





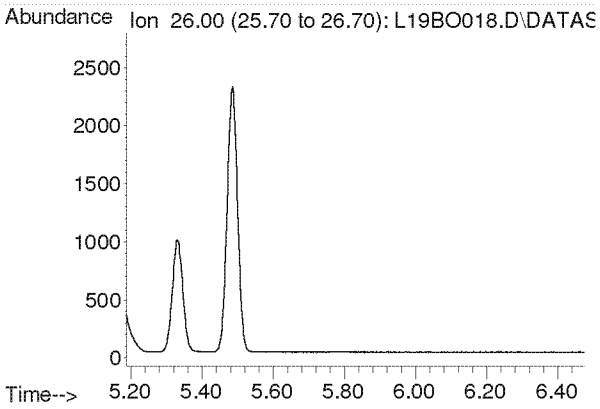
Compounds other than ethylene oxide were not quantitated.

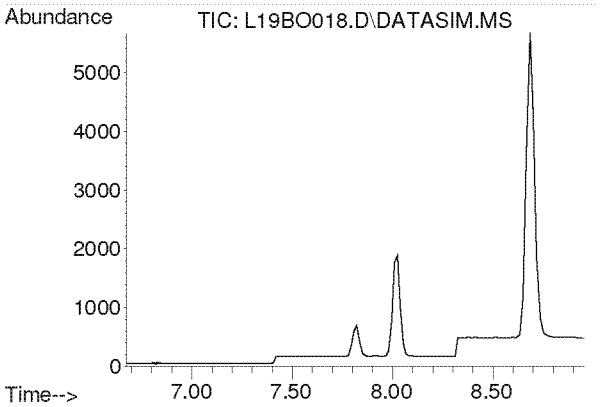


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 26



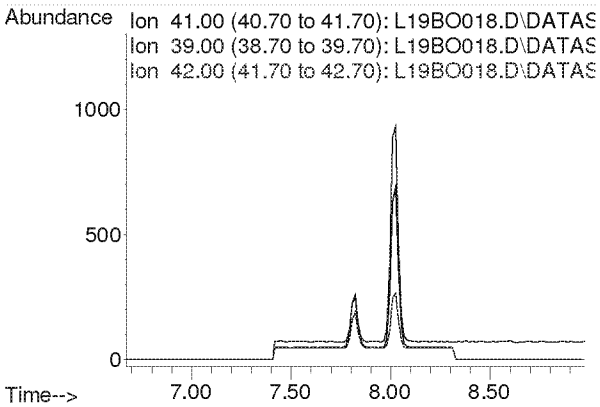


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

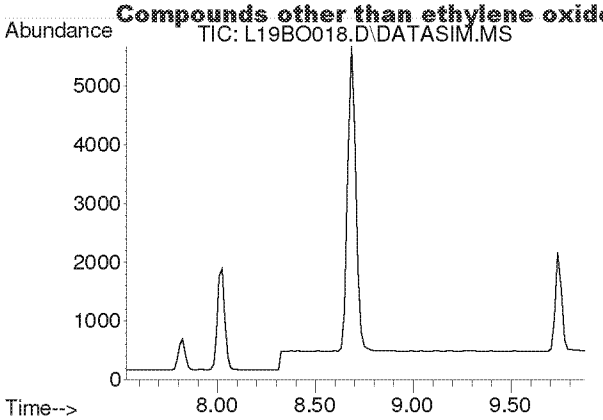
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

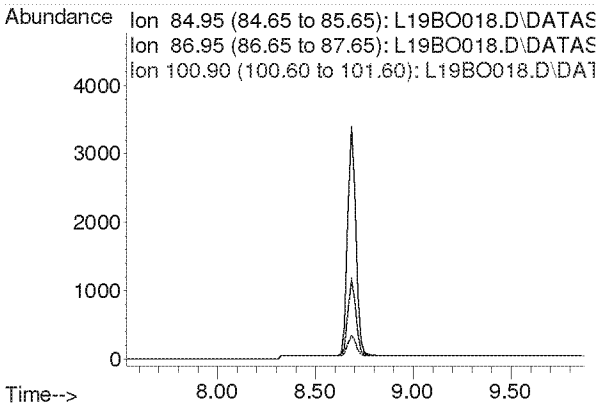


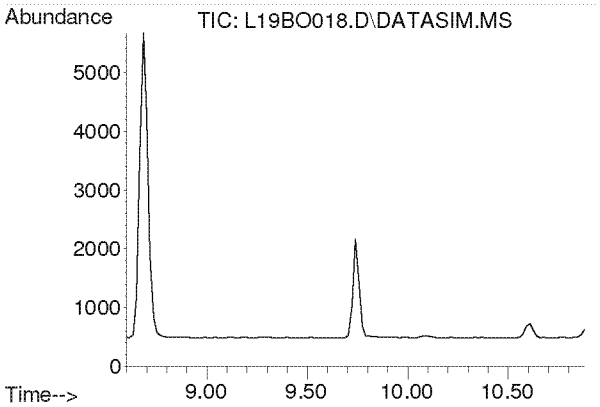
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



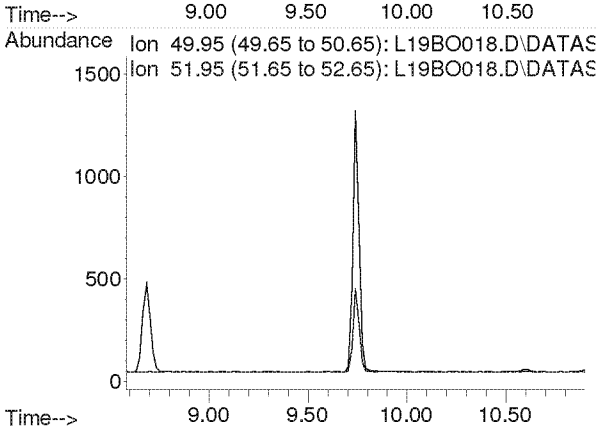


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

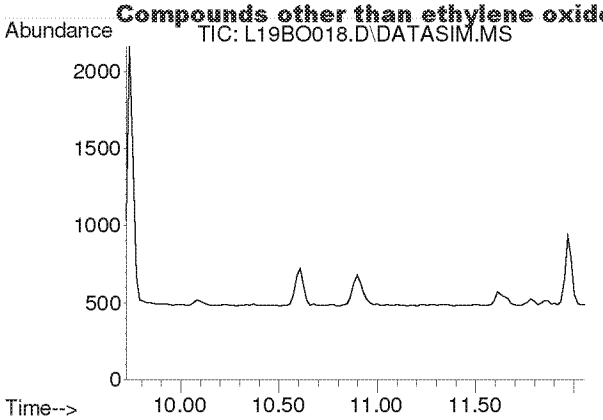
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

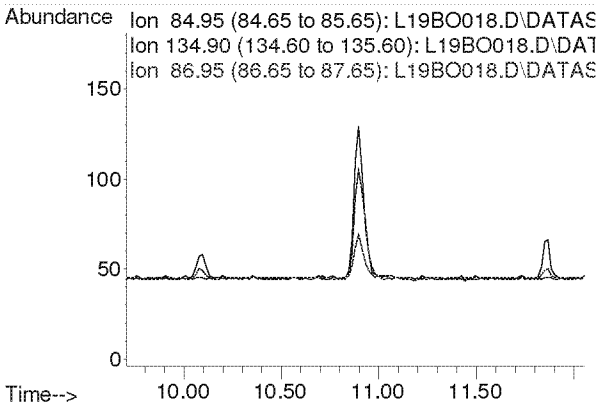


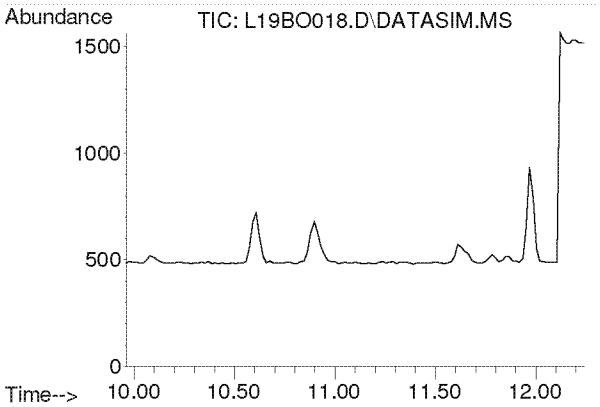
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



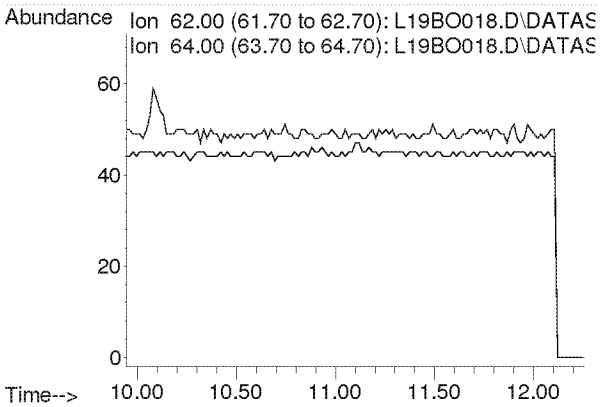


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

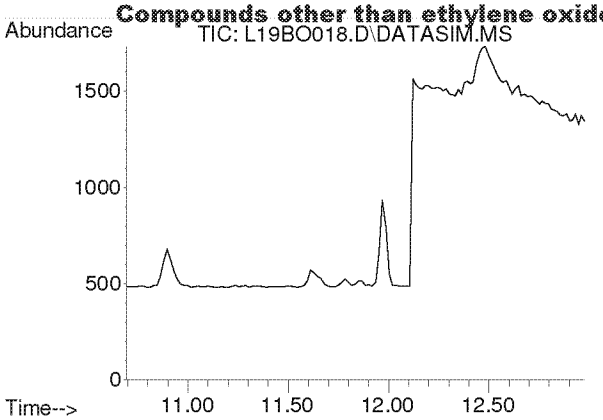
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

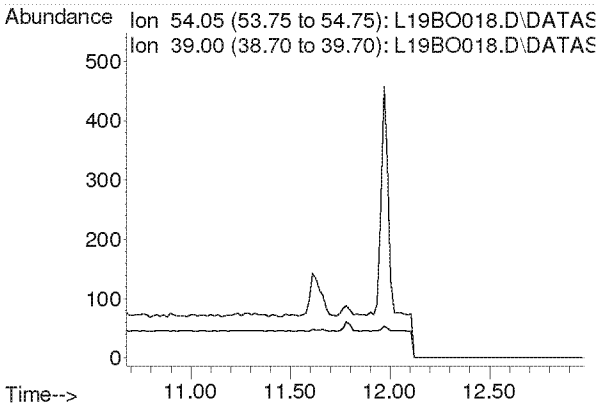


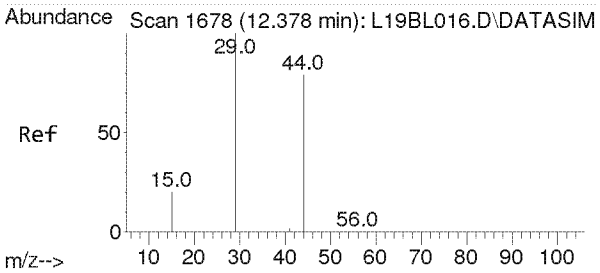
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

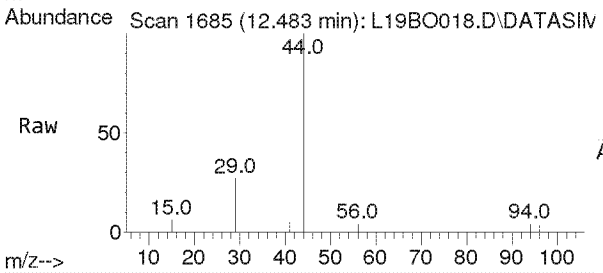


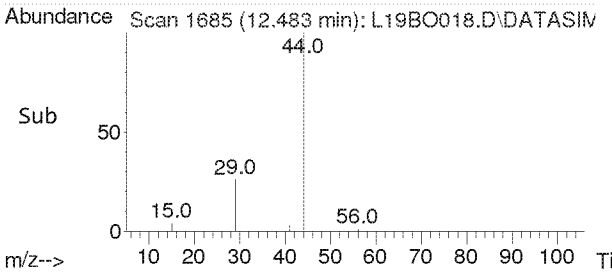


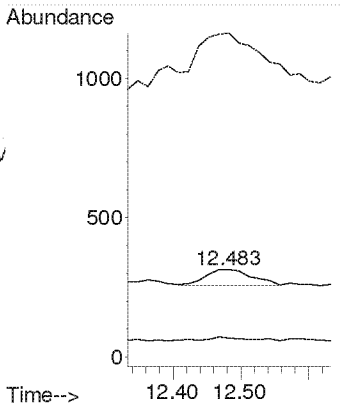
#9
Ethylene oxide
Concen: 0.112 ppbv
RT: 12.483 min Scan# 1685
Delta R.T. 0.105 min
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 29 Resp: 263

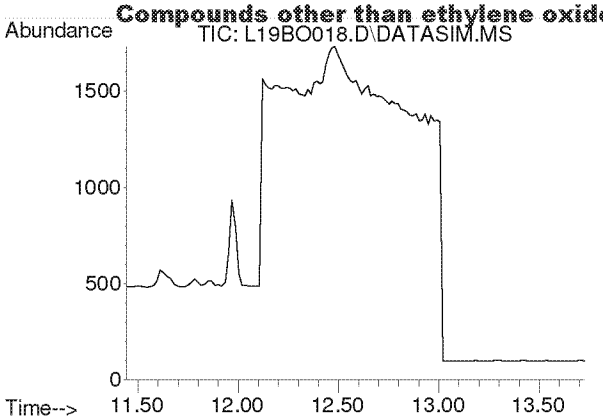
Ion	Ratio	Lower	Upper
29	100		
15	23.2	16.0	24.0
44	594.7	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

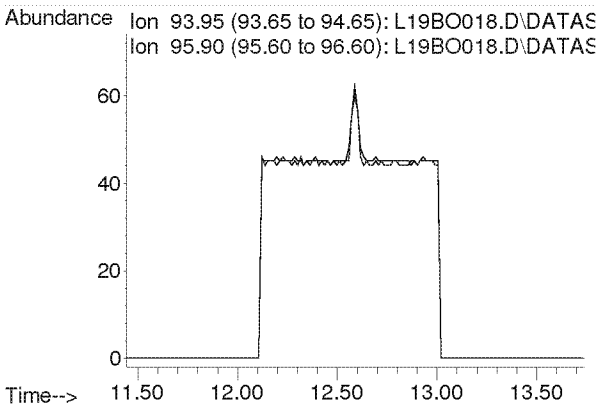


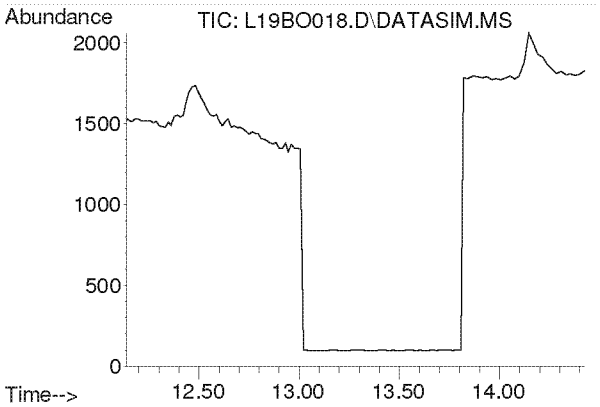
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



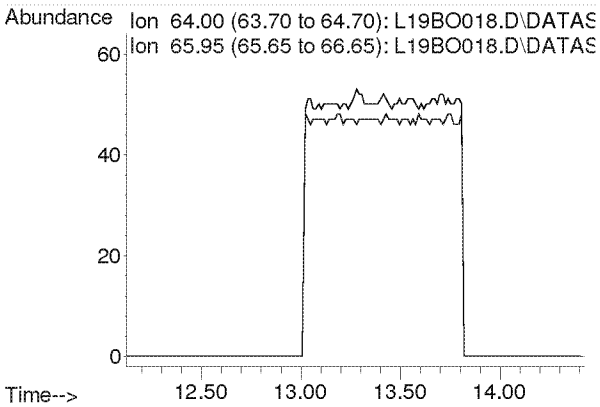


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

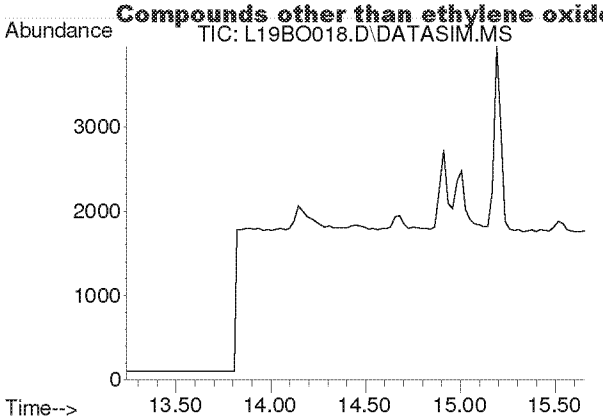
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

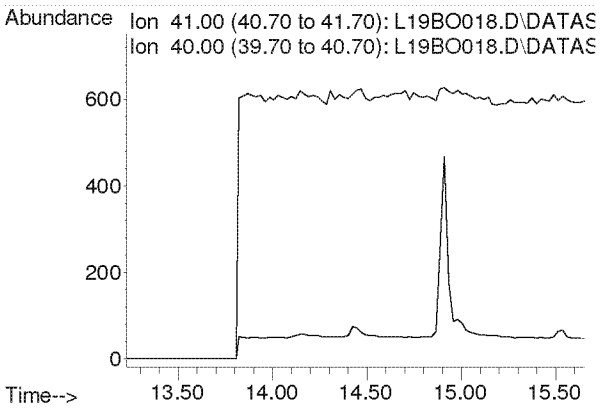


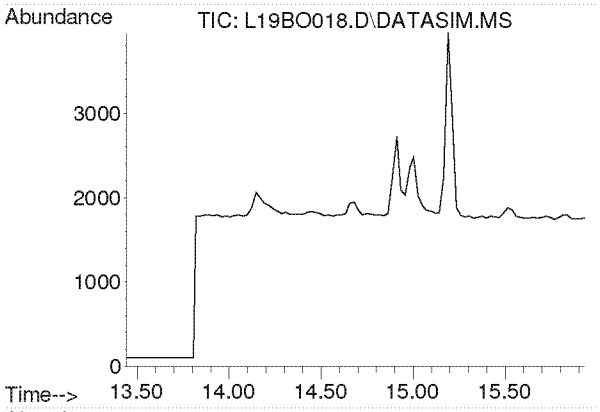
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



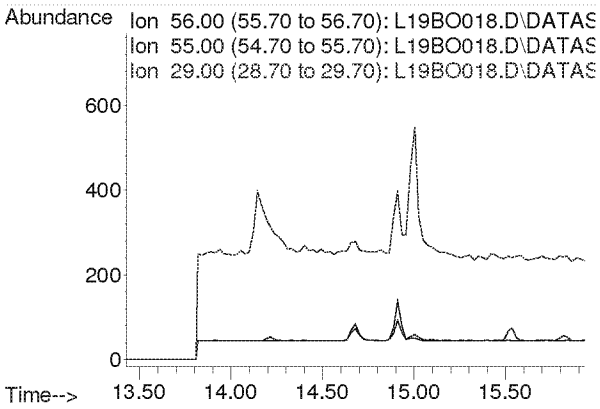


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

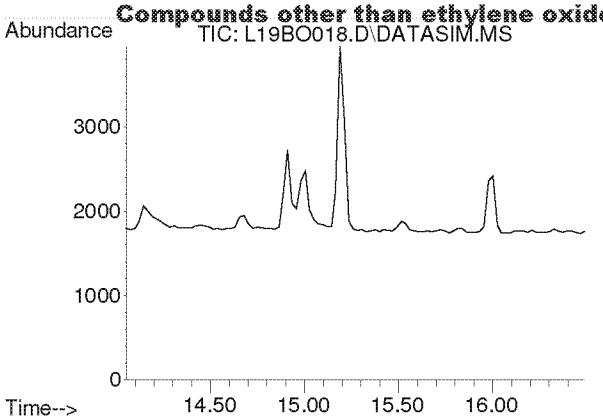
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

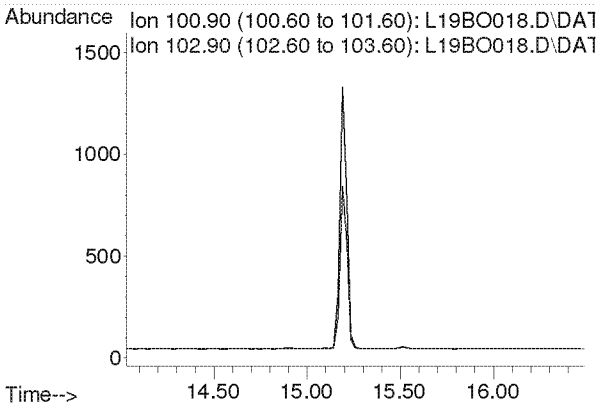


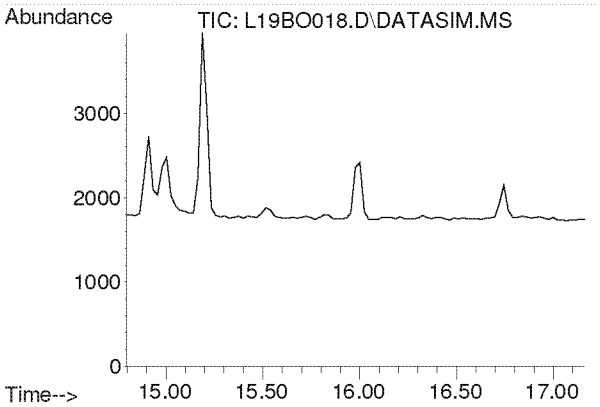
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



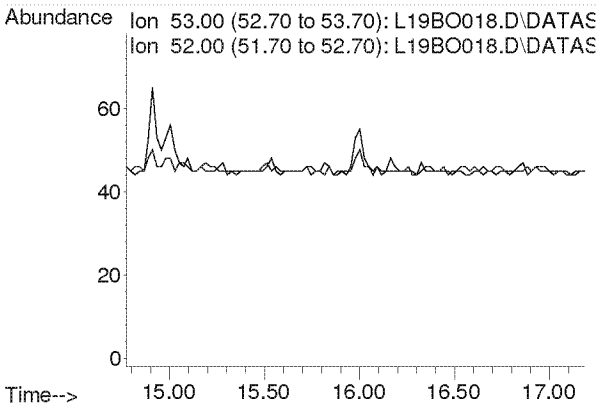


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

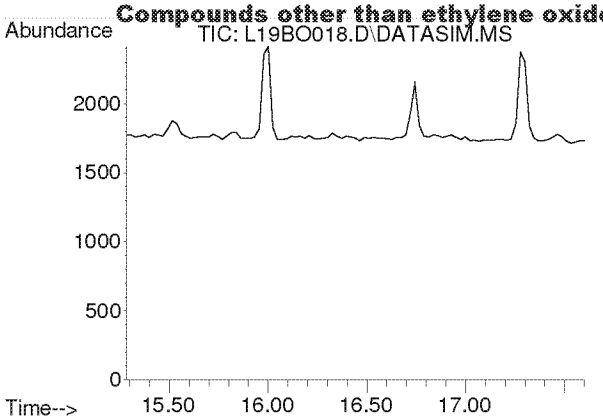
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

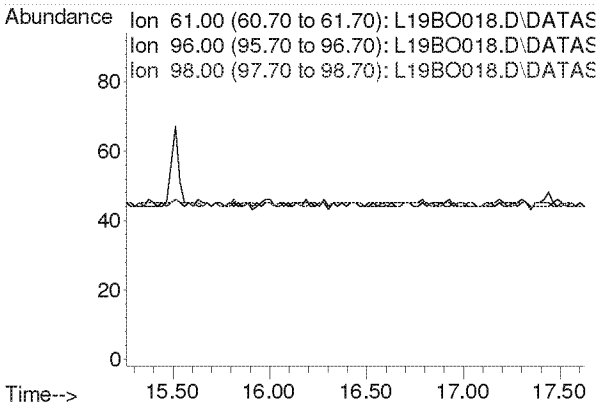


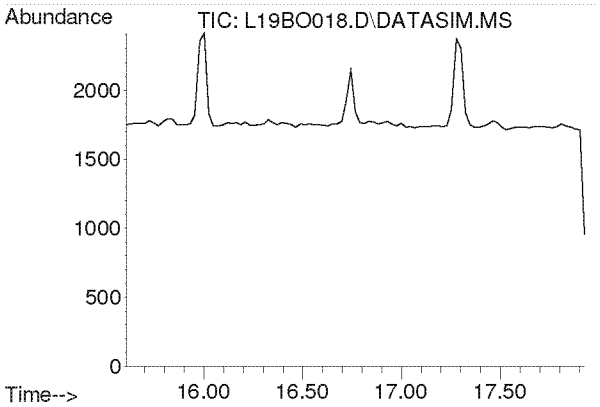
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



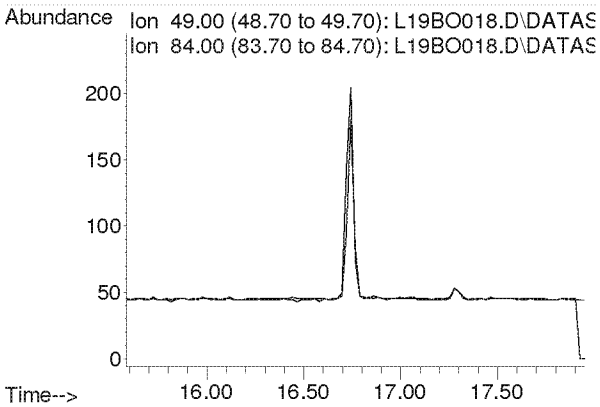


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

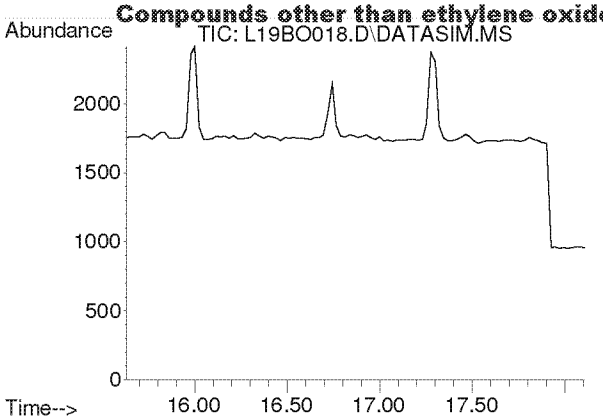
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

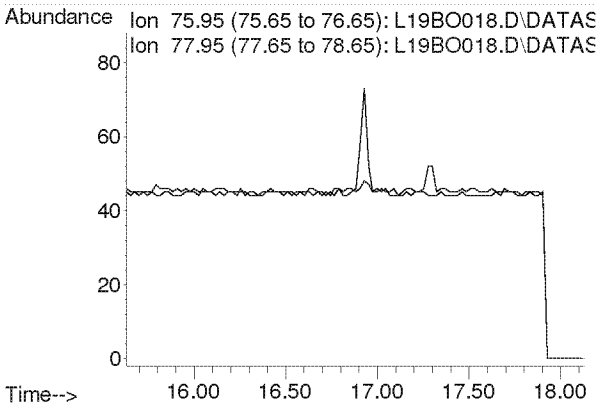


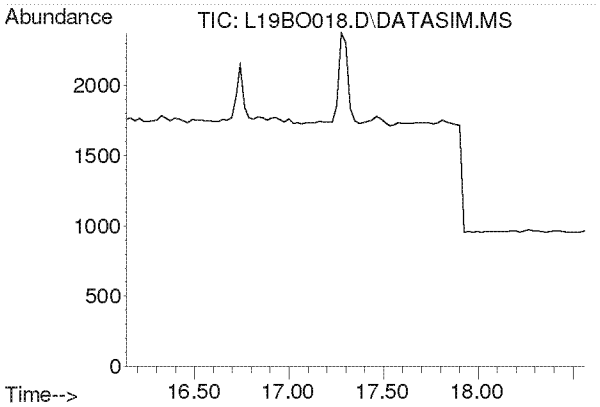
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



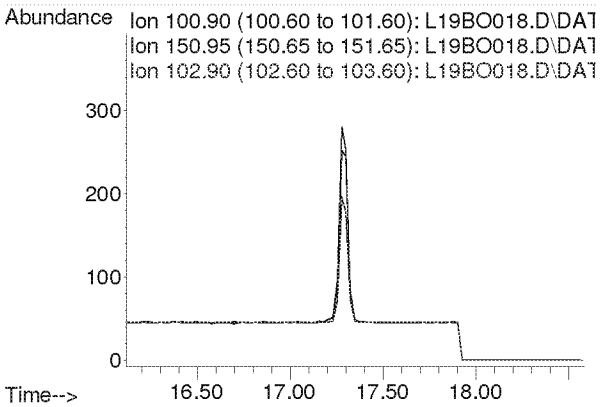


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

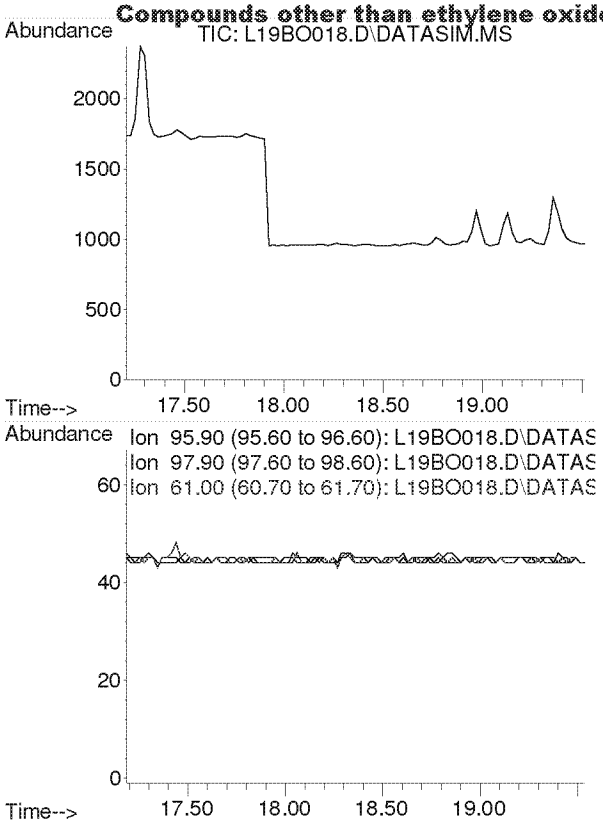
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

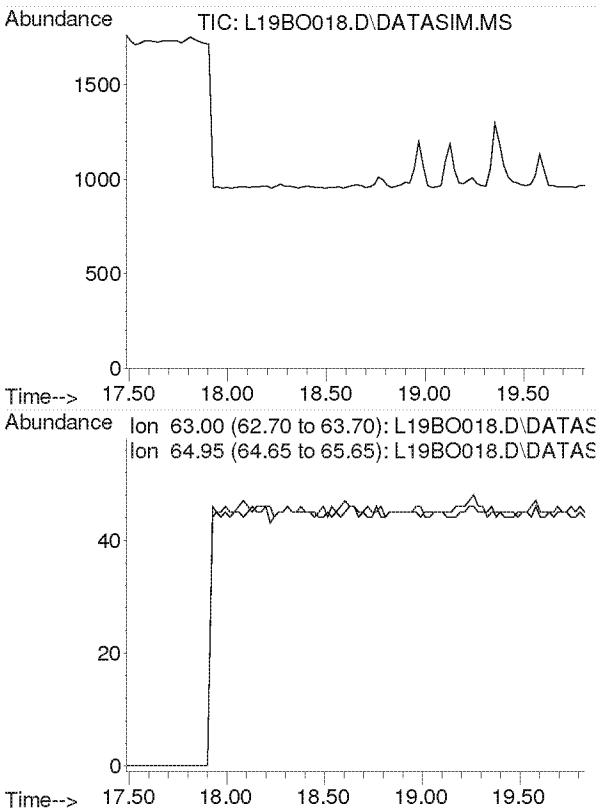


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



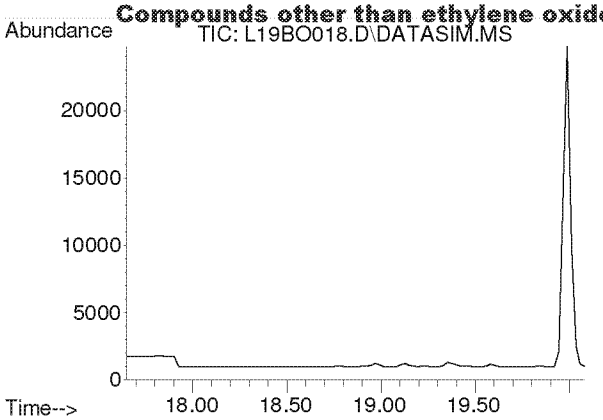
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

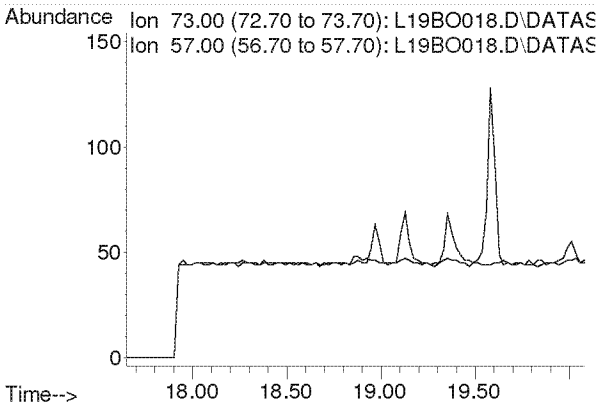


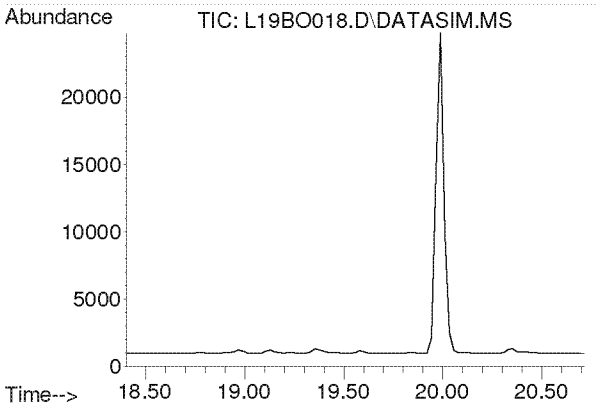
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



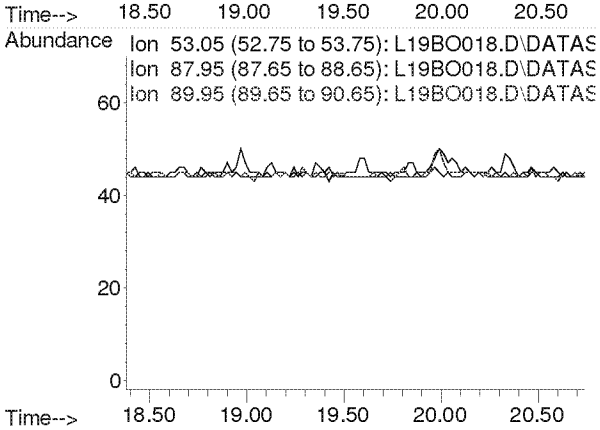


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

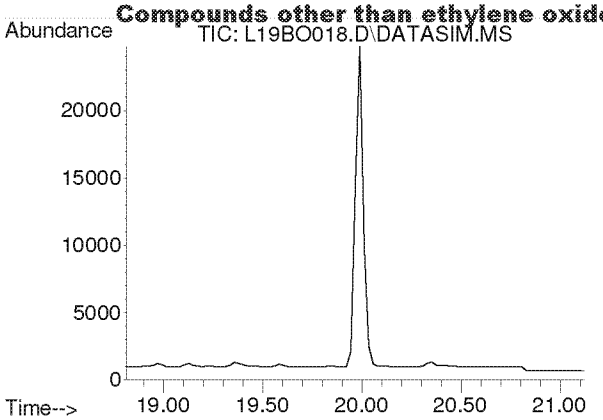
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

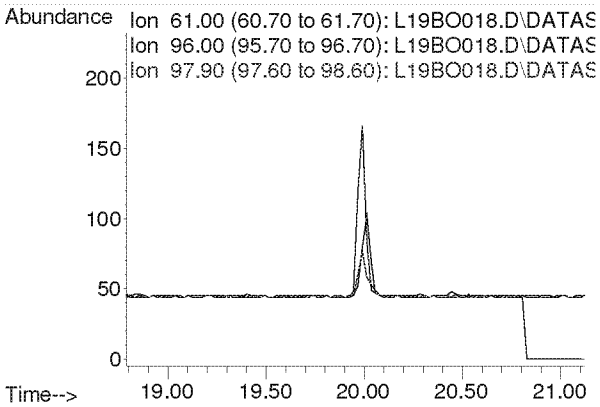


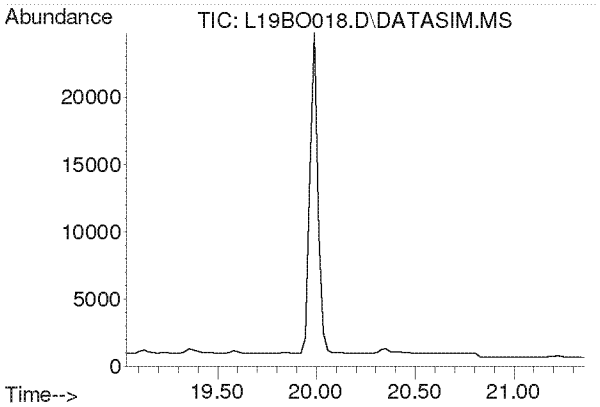
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



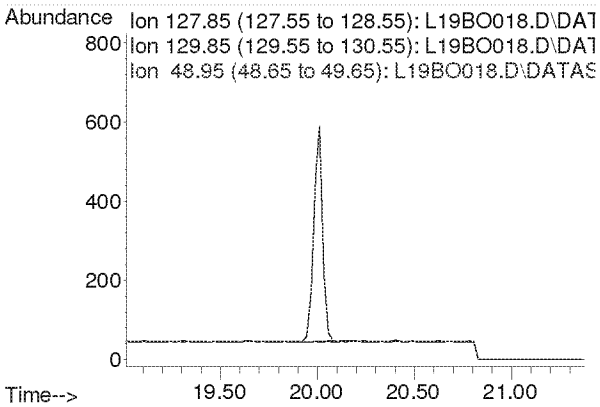


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

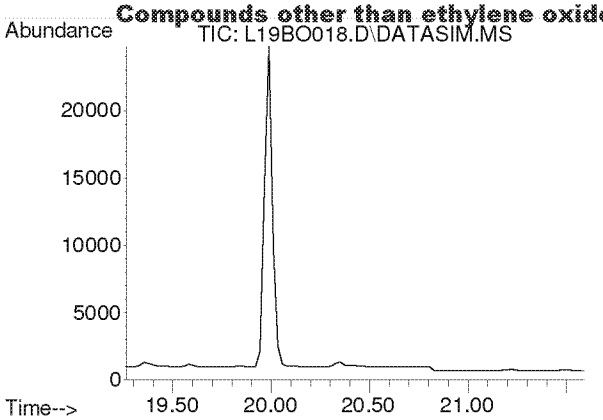
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

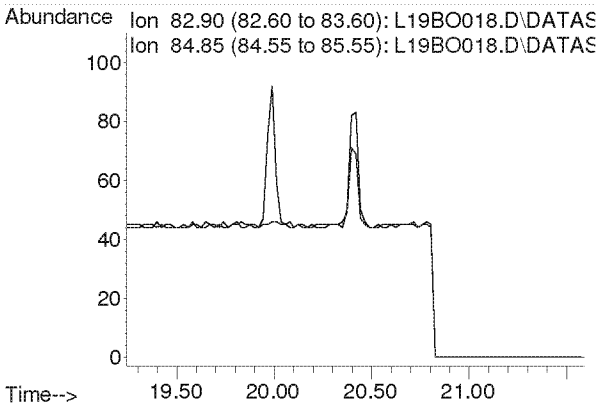


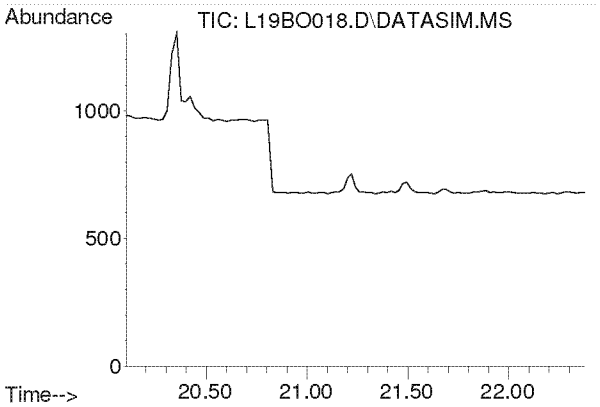
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



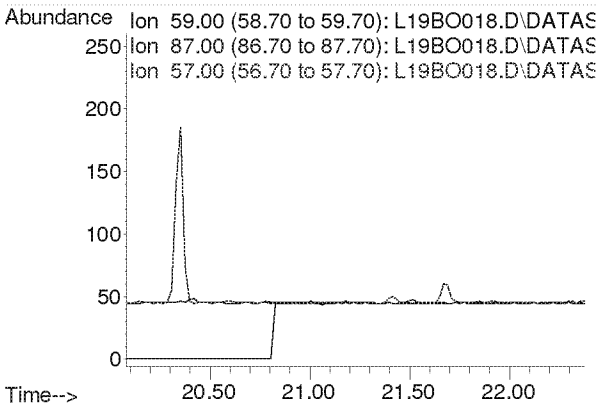


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

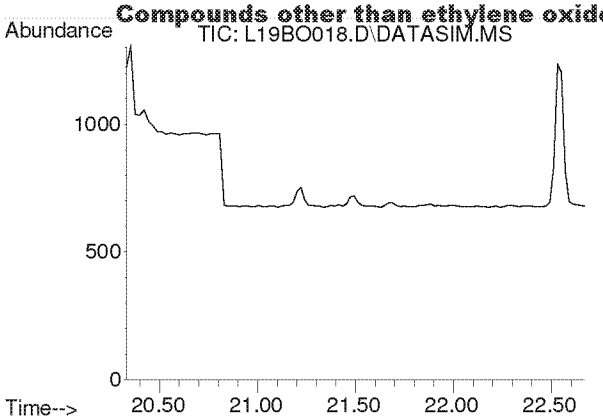
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

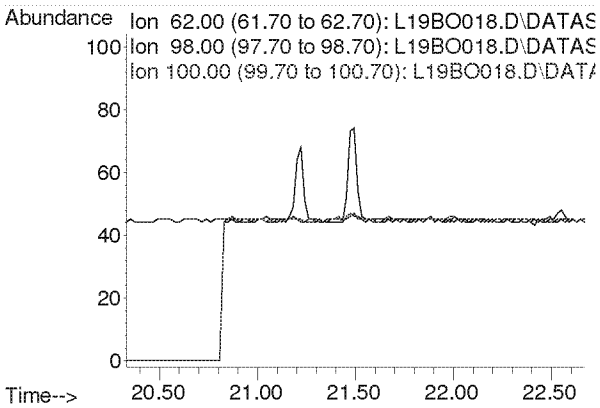


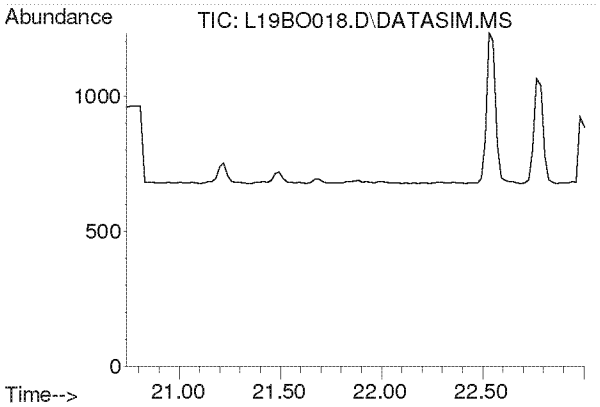
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



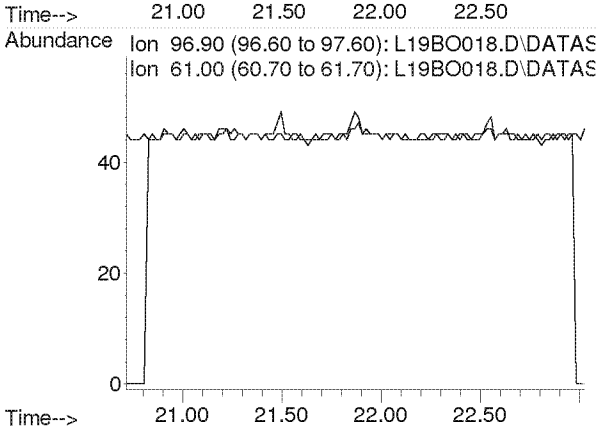


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

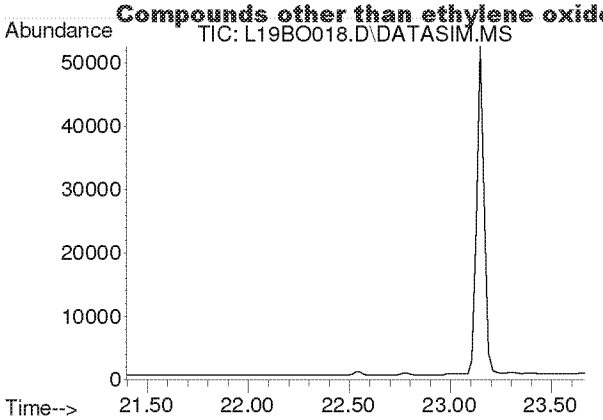
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

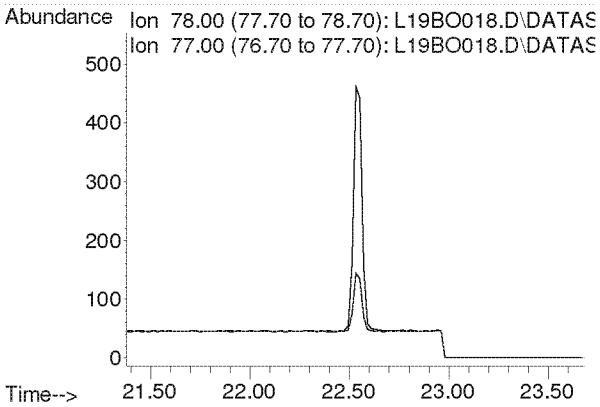


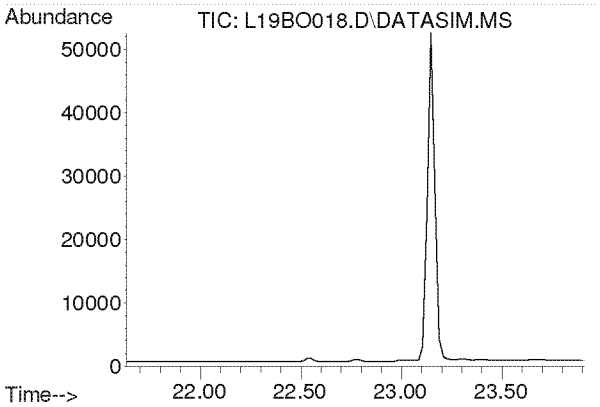
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



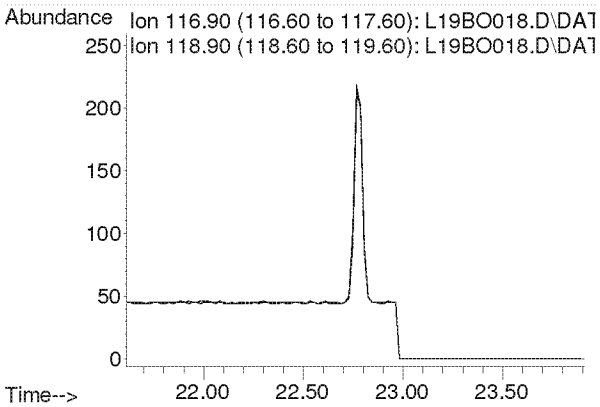


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

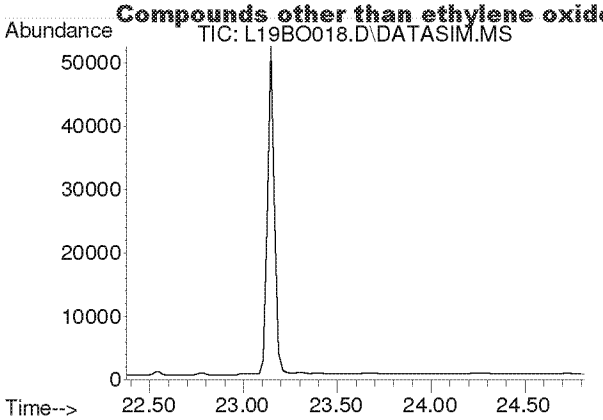
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

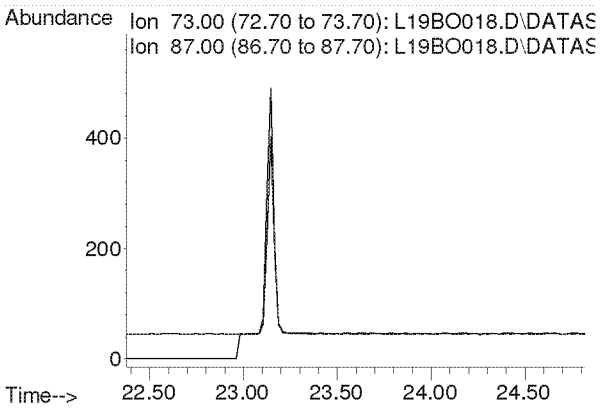


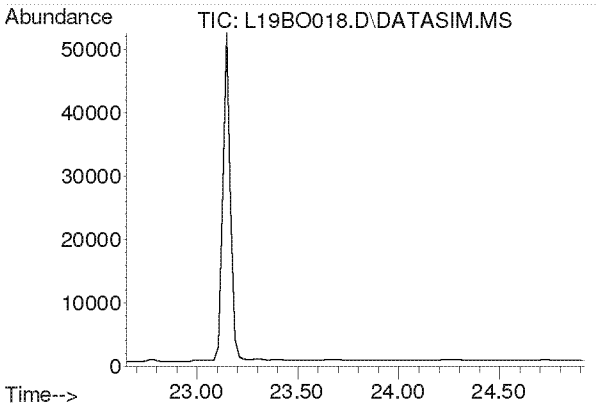
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



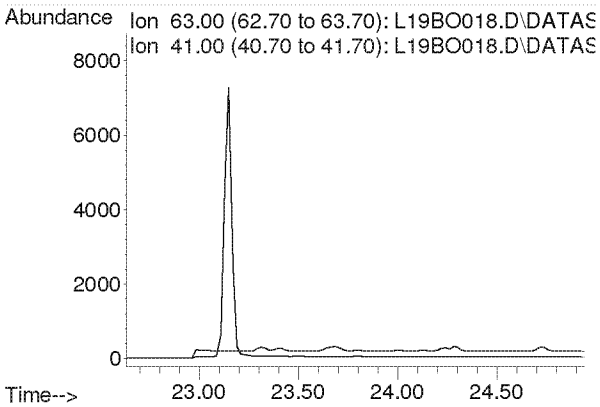


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

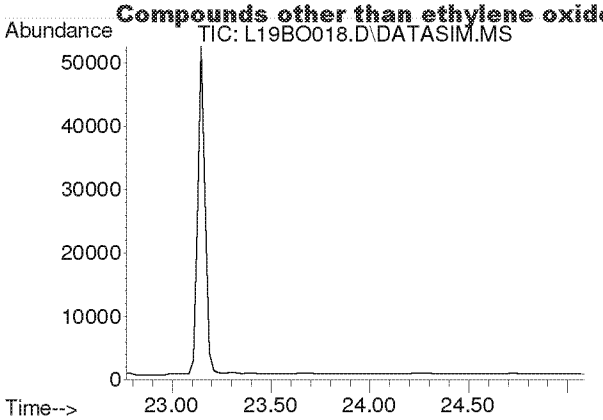
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

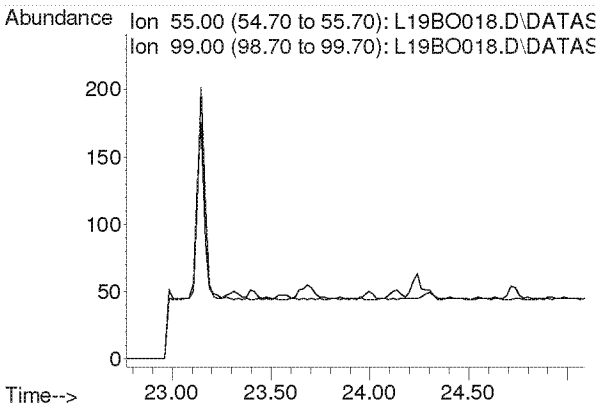


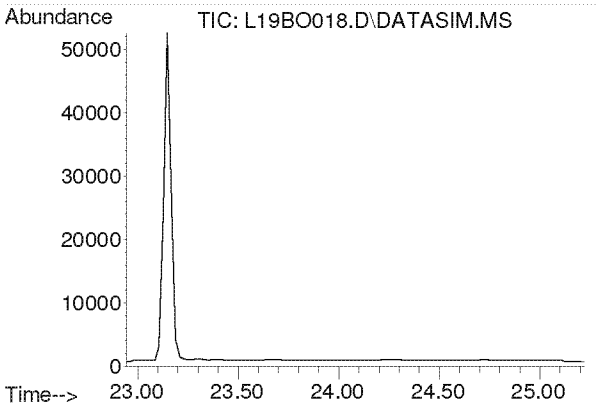
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



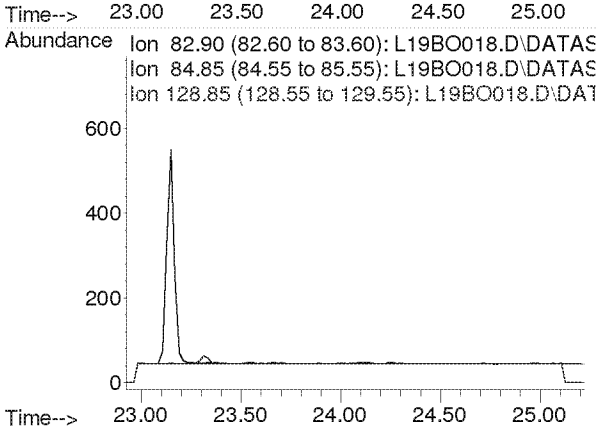


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

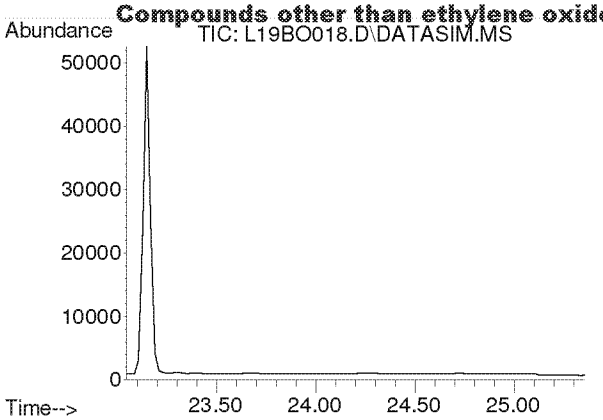
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

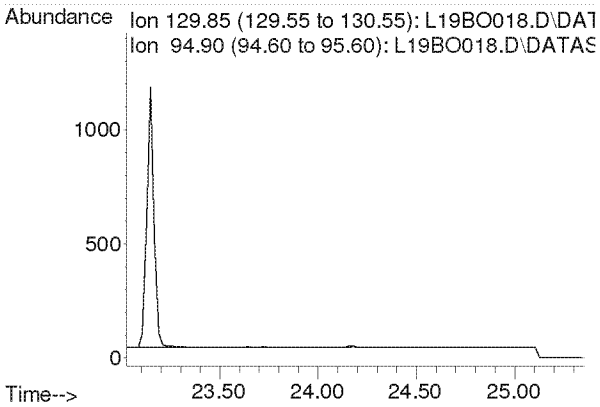


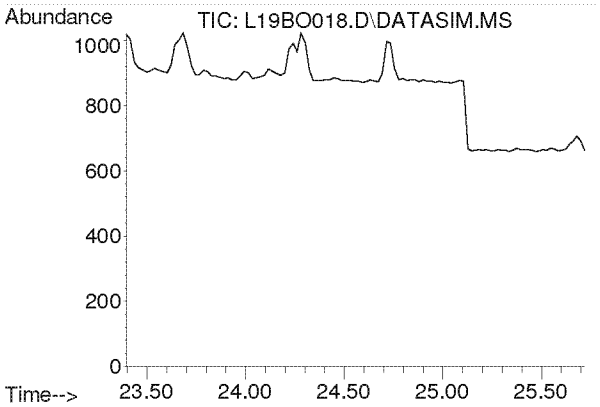
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



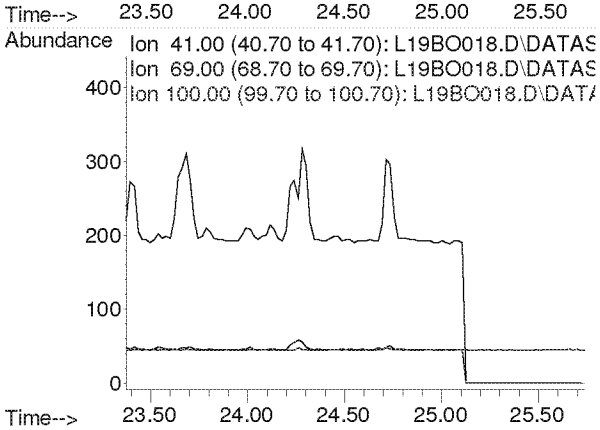


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

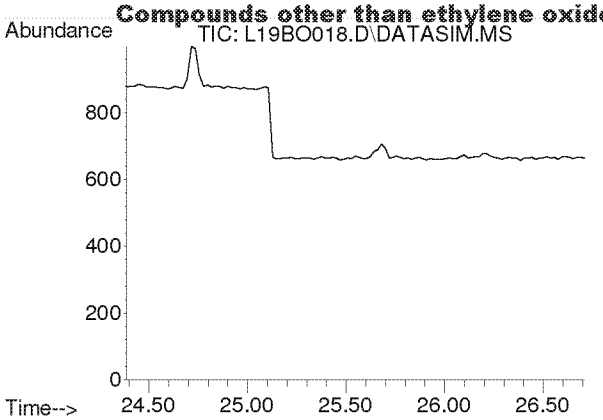
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

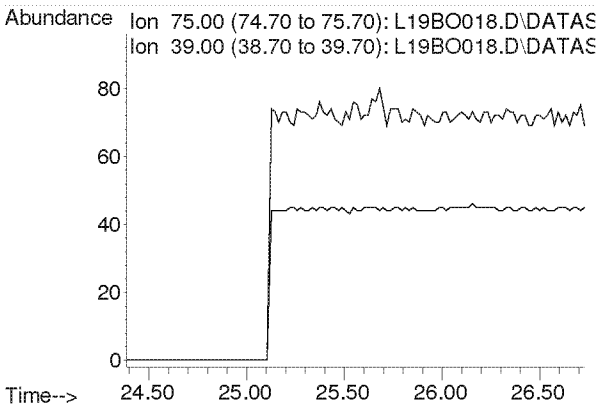


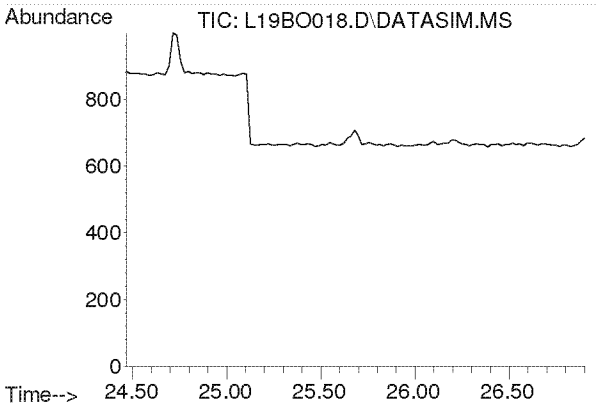
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



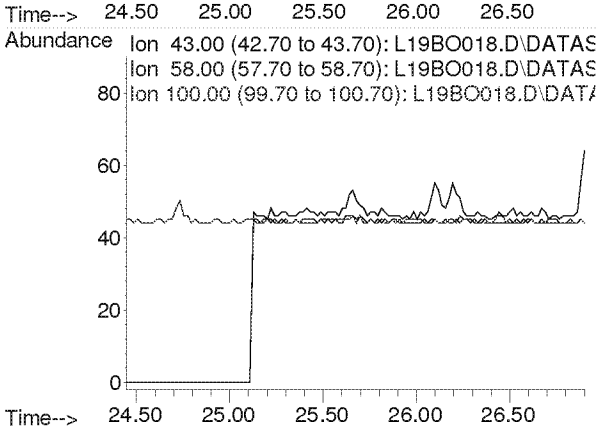


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

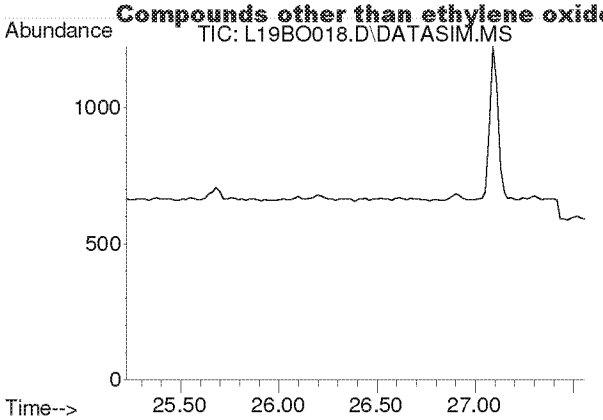
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

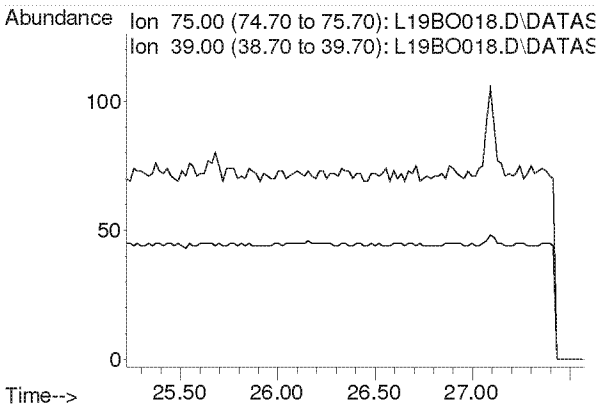


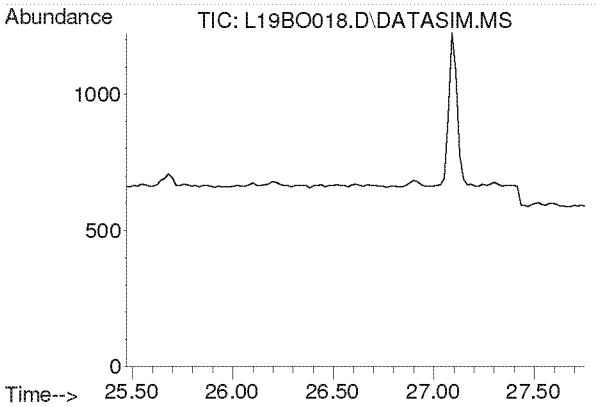
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



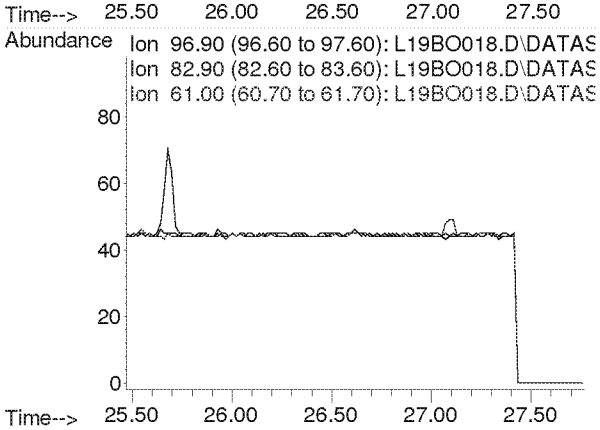


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

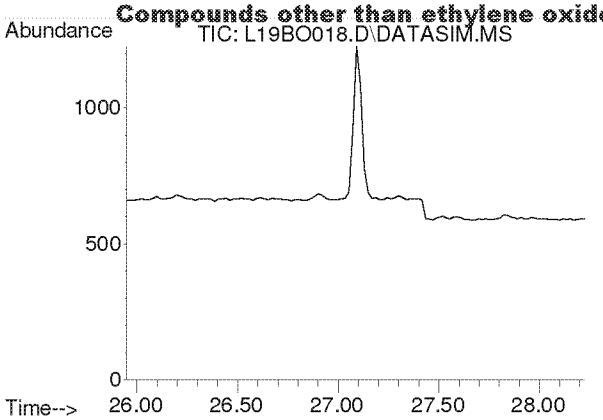
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

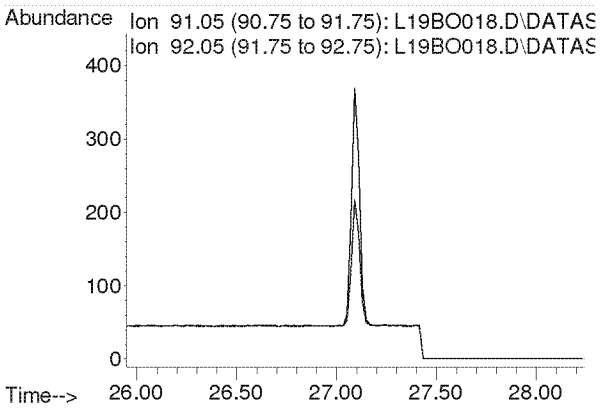


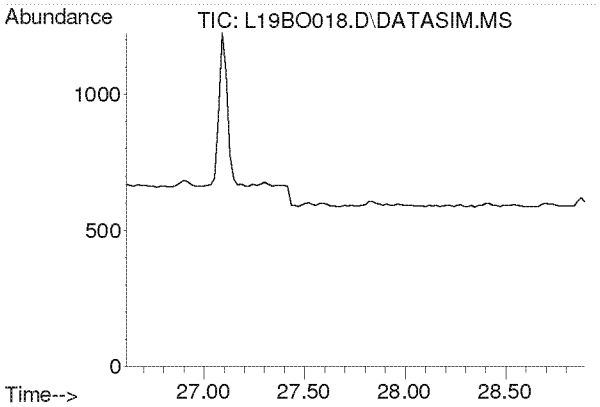
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



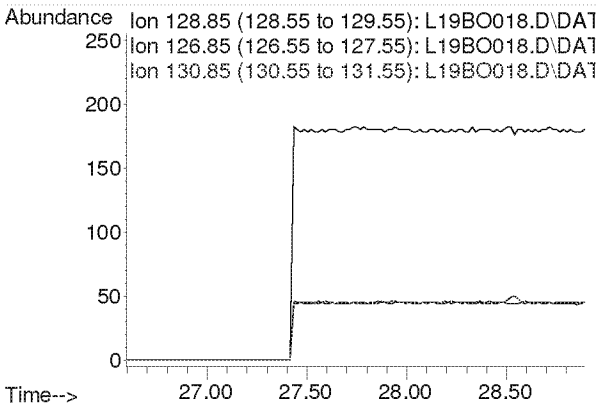


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

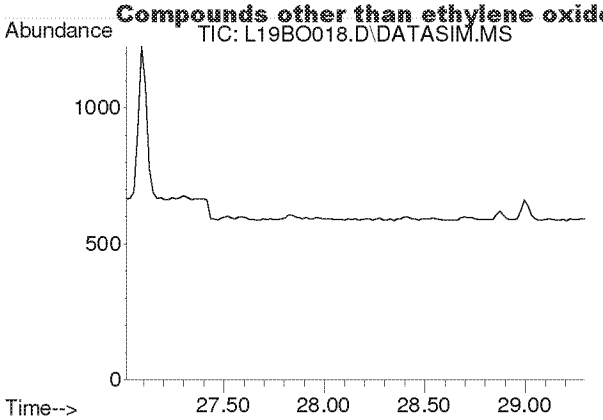
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

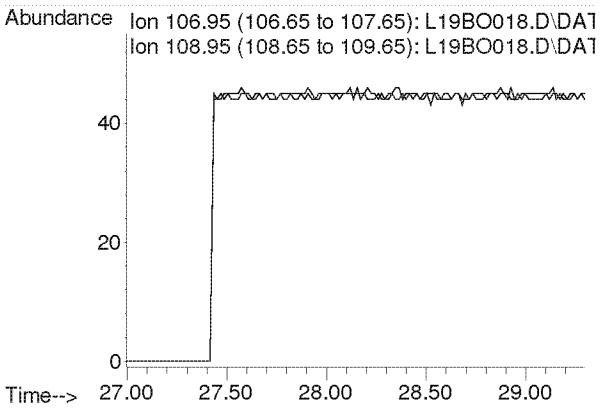


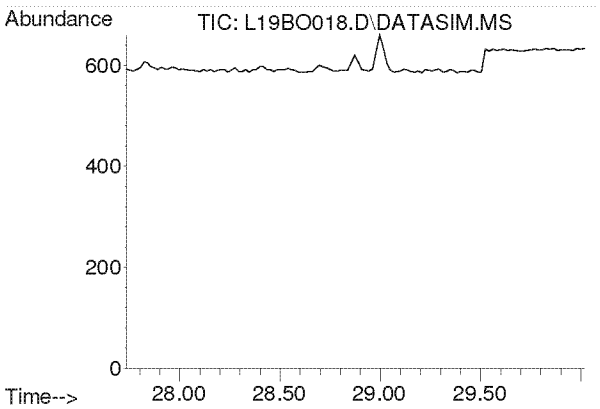
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



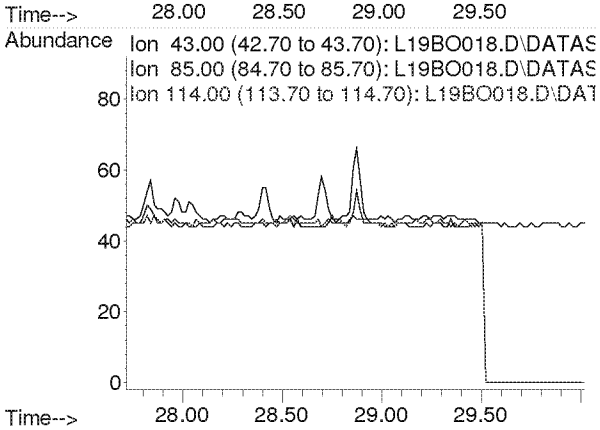


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

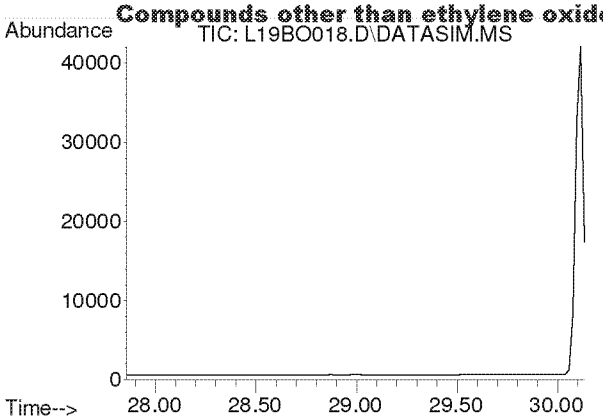
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

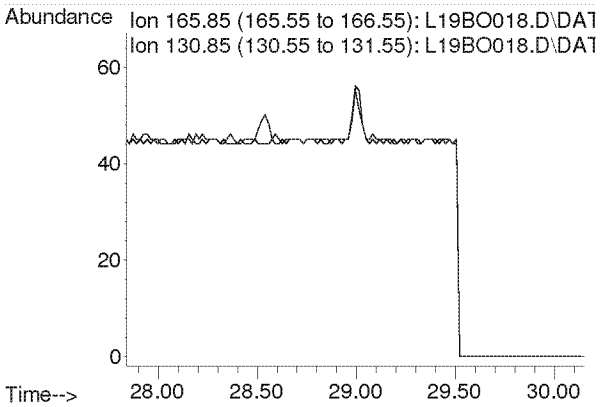


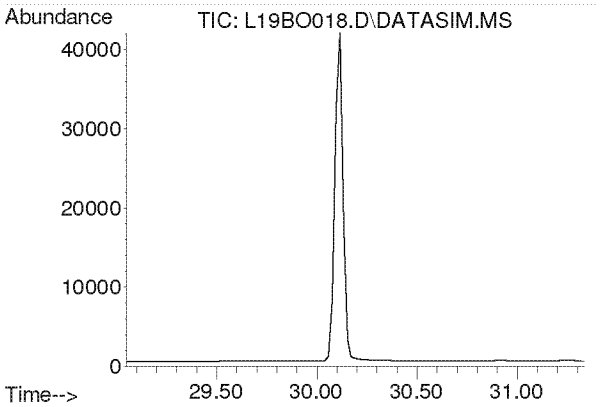
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



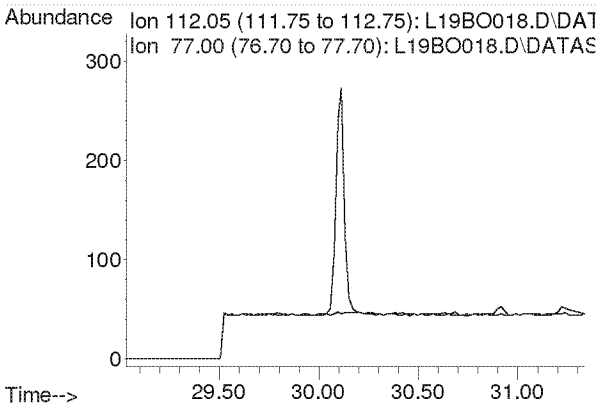


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

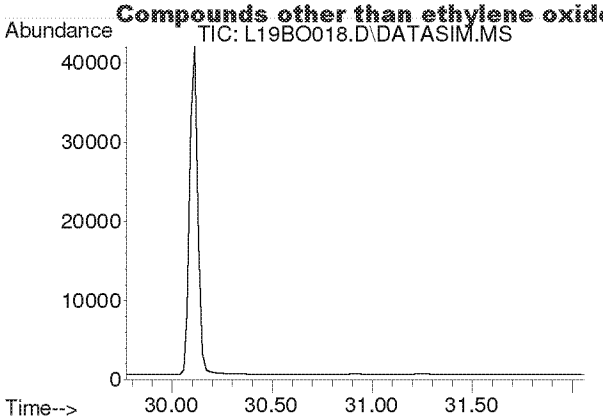
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

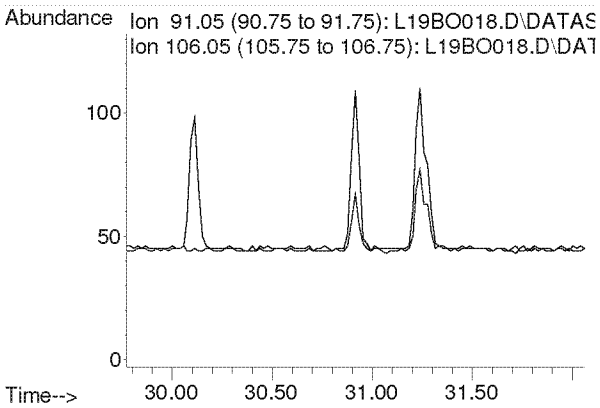


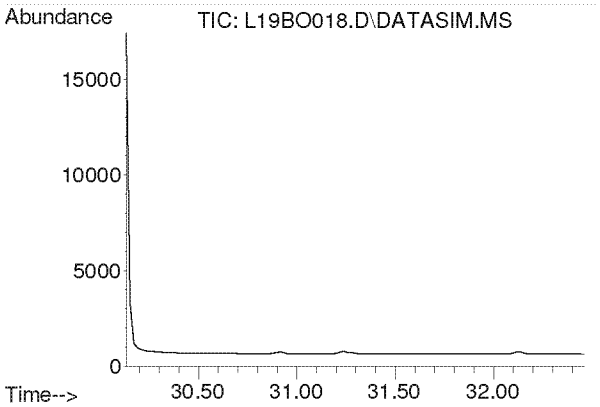
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



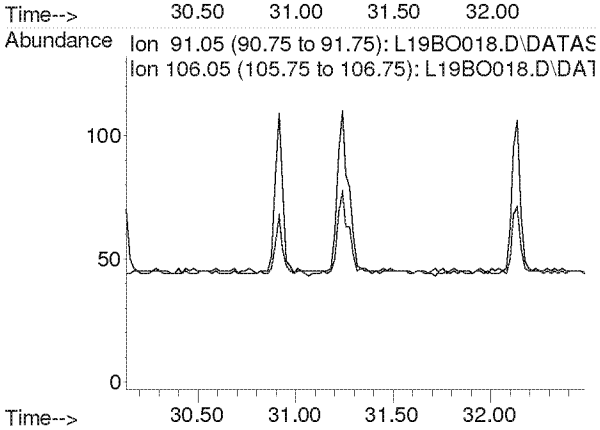


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

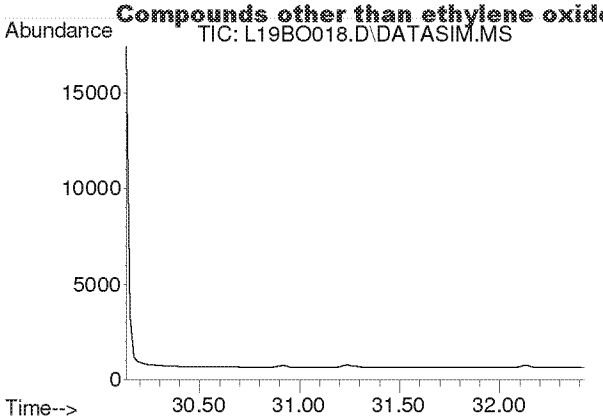
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

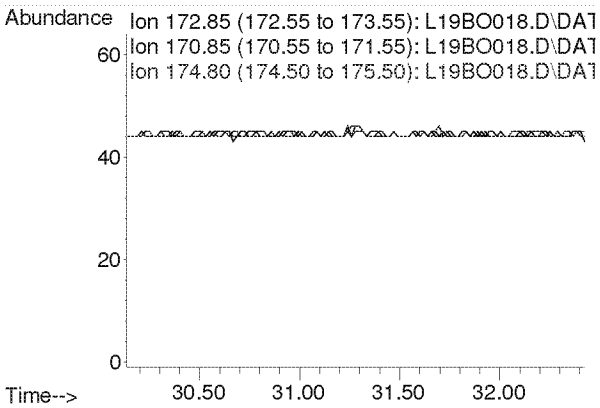


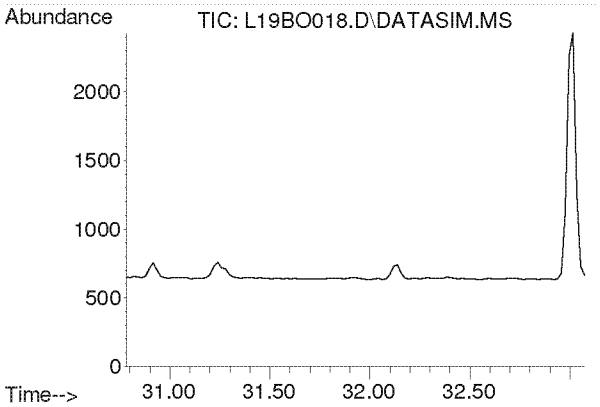
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



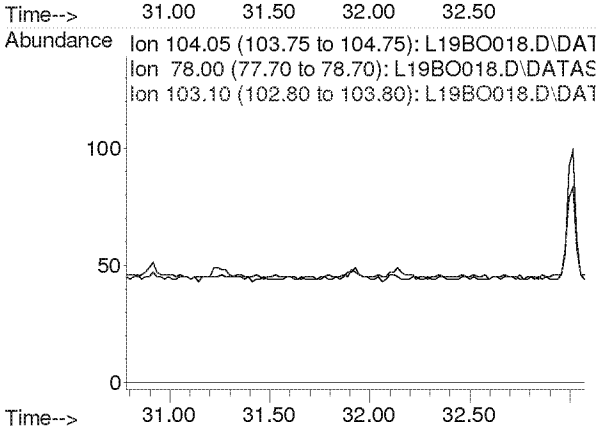


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

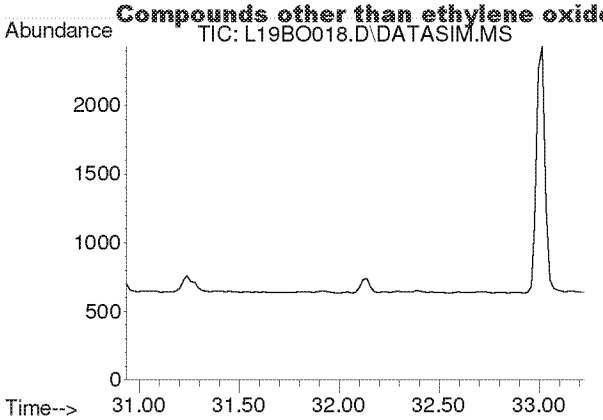
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

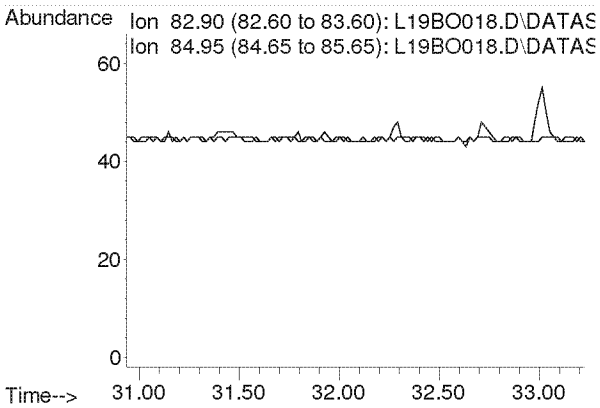


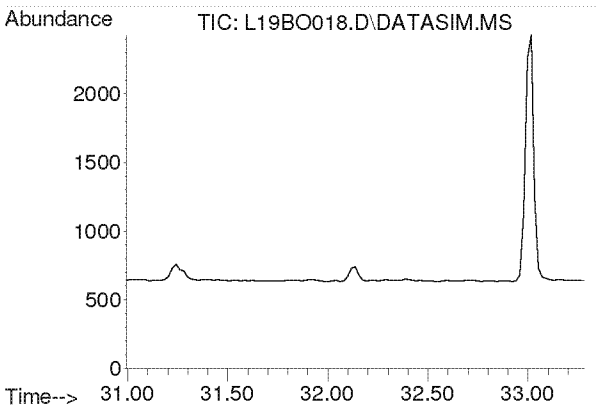
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



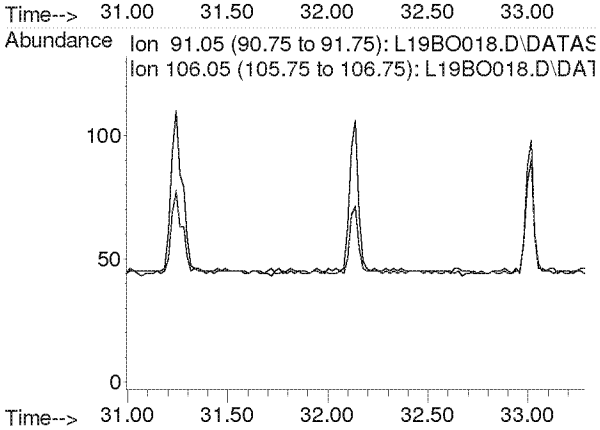


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

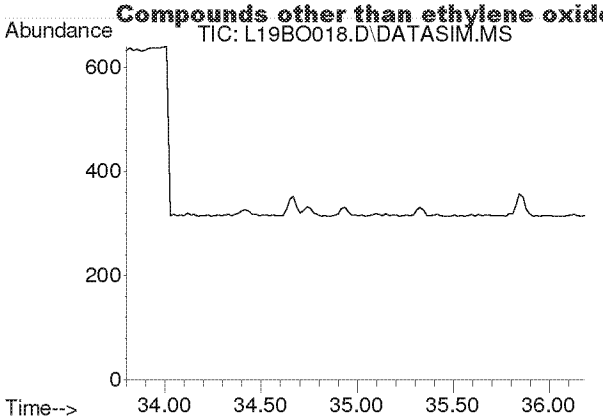
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

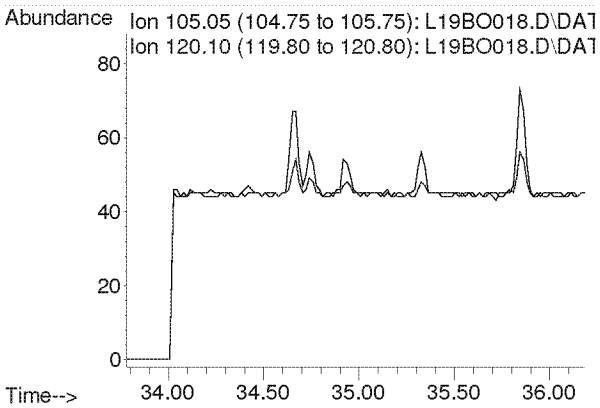


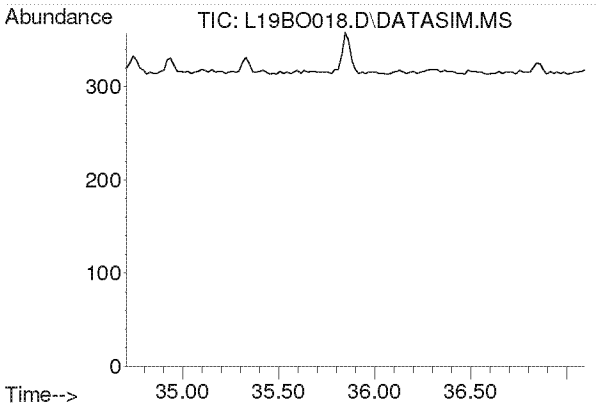
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



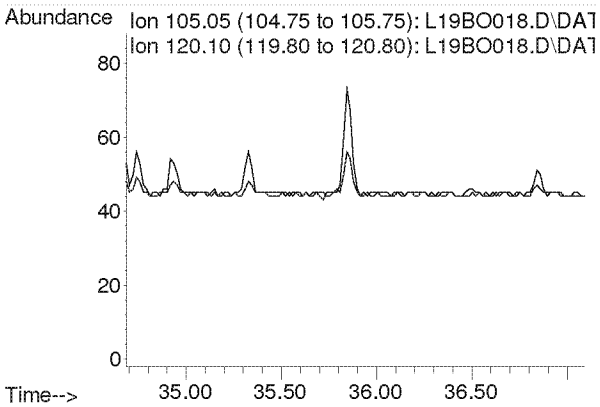


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

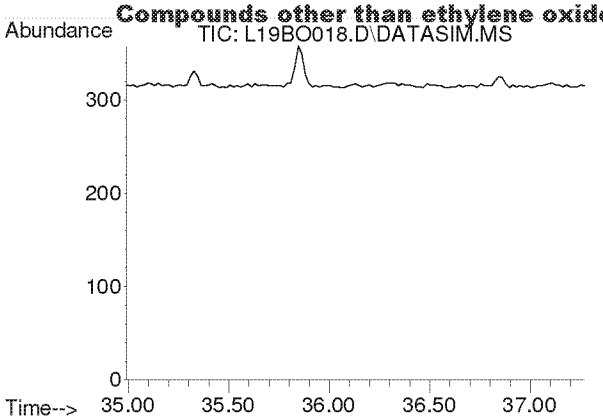
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

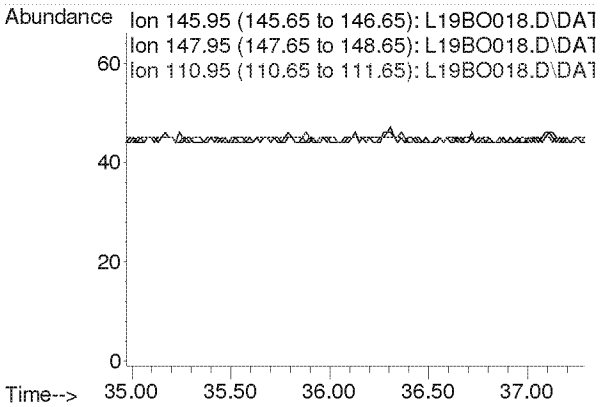


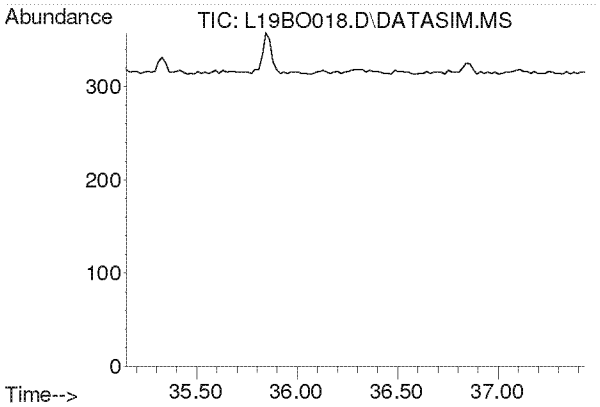
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



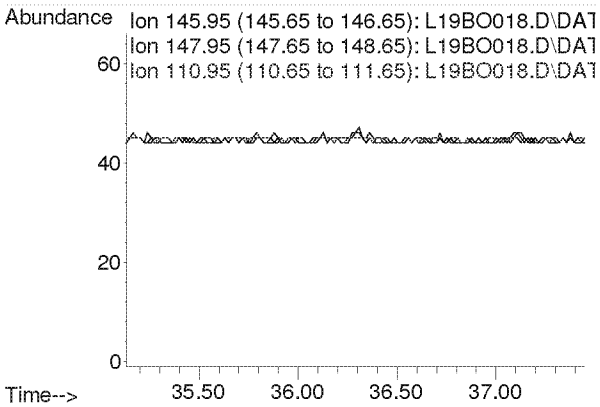


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

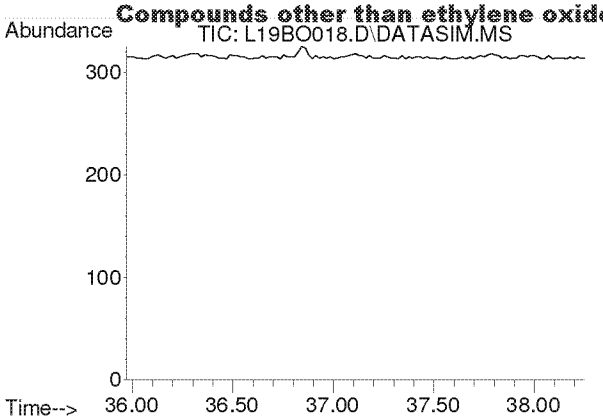
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

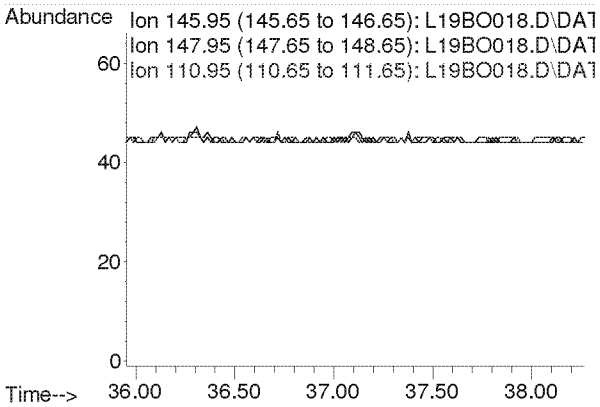


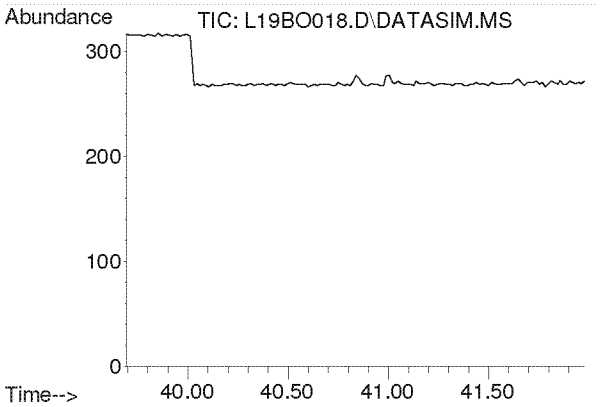
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



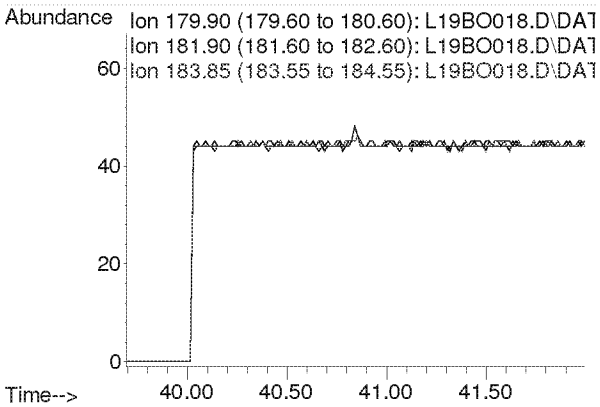


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

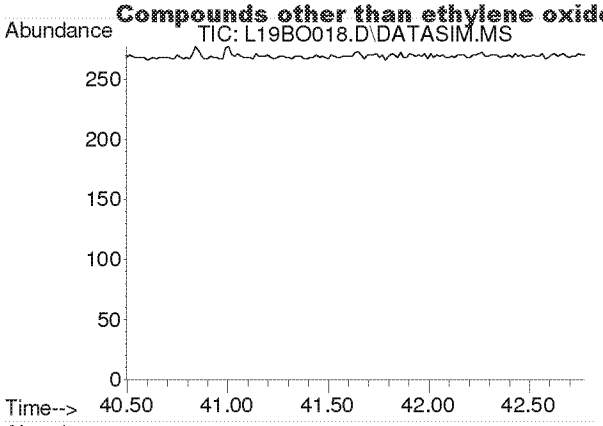
Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

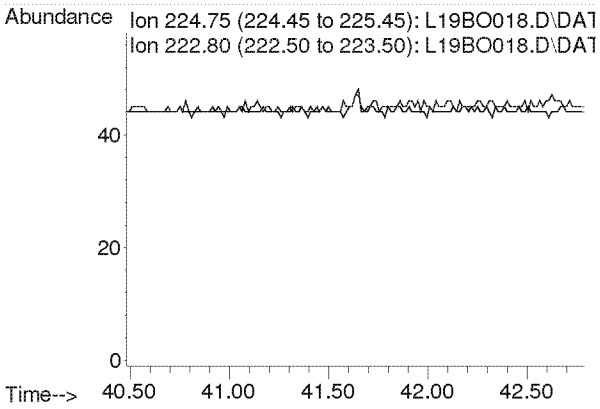


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO018.D
Acq: 15 Feb 2019 11:33 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BO\
Data File : L19BO019.D
Acq On : 16 Feb 2019 12:33 am (#1); 16-Feb-19, 00:28:12 (#2)
Operator : MAH
Sample : 9021313-09
Misc : WB VILLAGE HALL 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 19 15:11:31 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

d-MK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	39758	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	99316	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	68193	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.438	29	911	0.4006 ppbv #	1
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
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\L19BO\
Data File : L19BO019.D
Acq On : 16 Feb 2019 12:33 am (#1); 16-Feb-19, 00:28:12 (#2)
Operator : MAH
Sample : 9021313-09
Misc : WB VILLAGE HALL 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 19 15:11:31 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.	
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.	

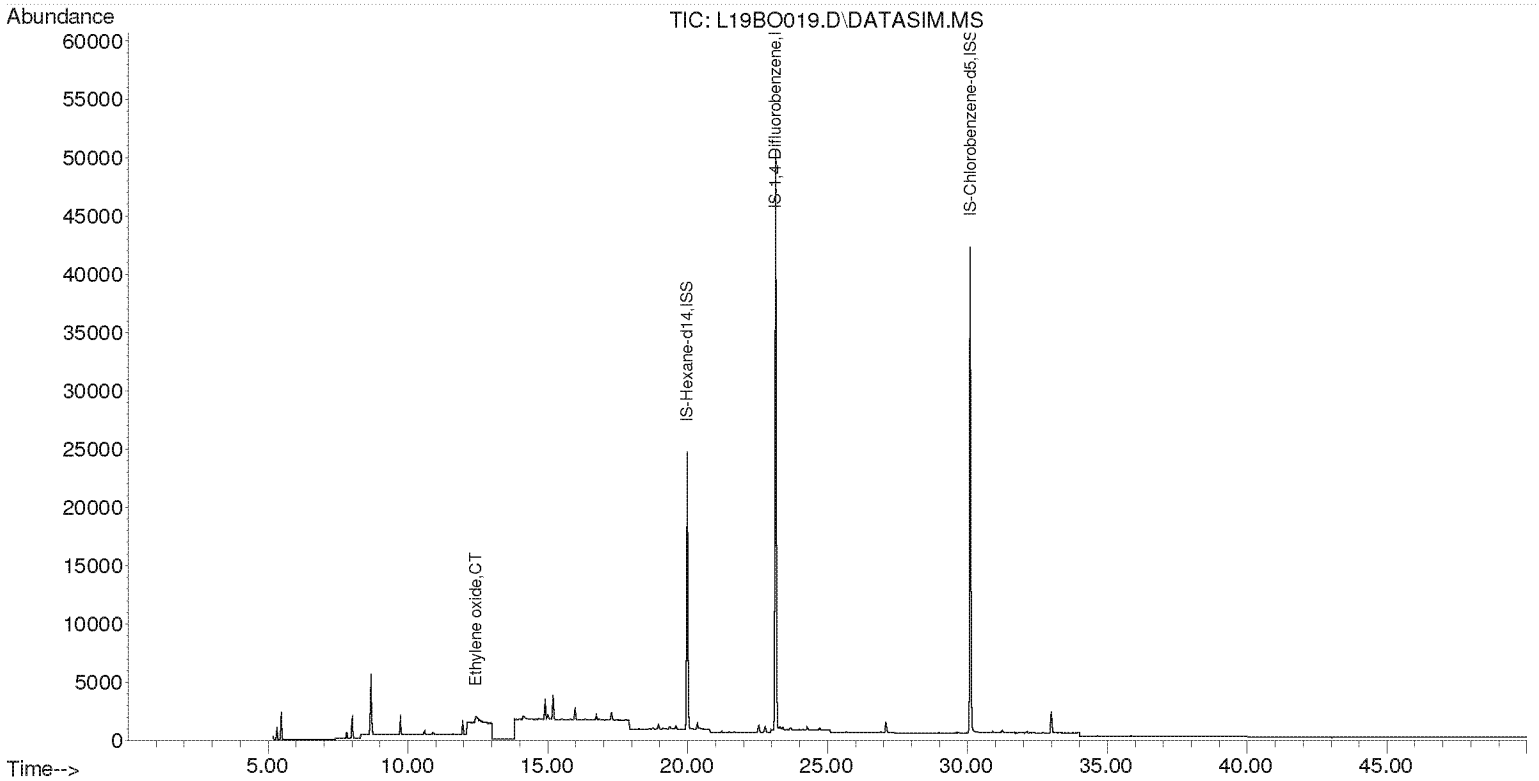
(#) = qualifier out of range (m) = manual integration (+) = signals summed

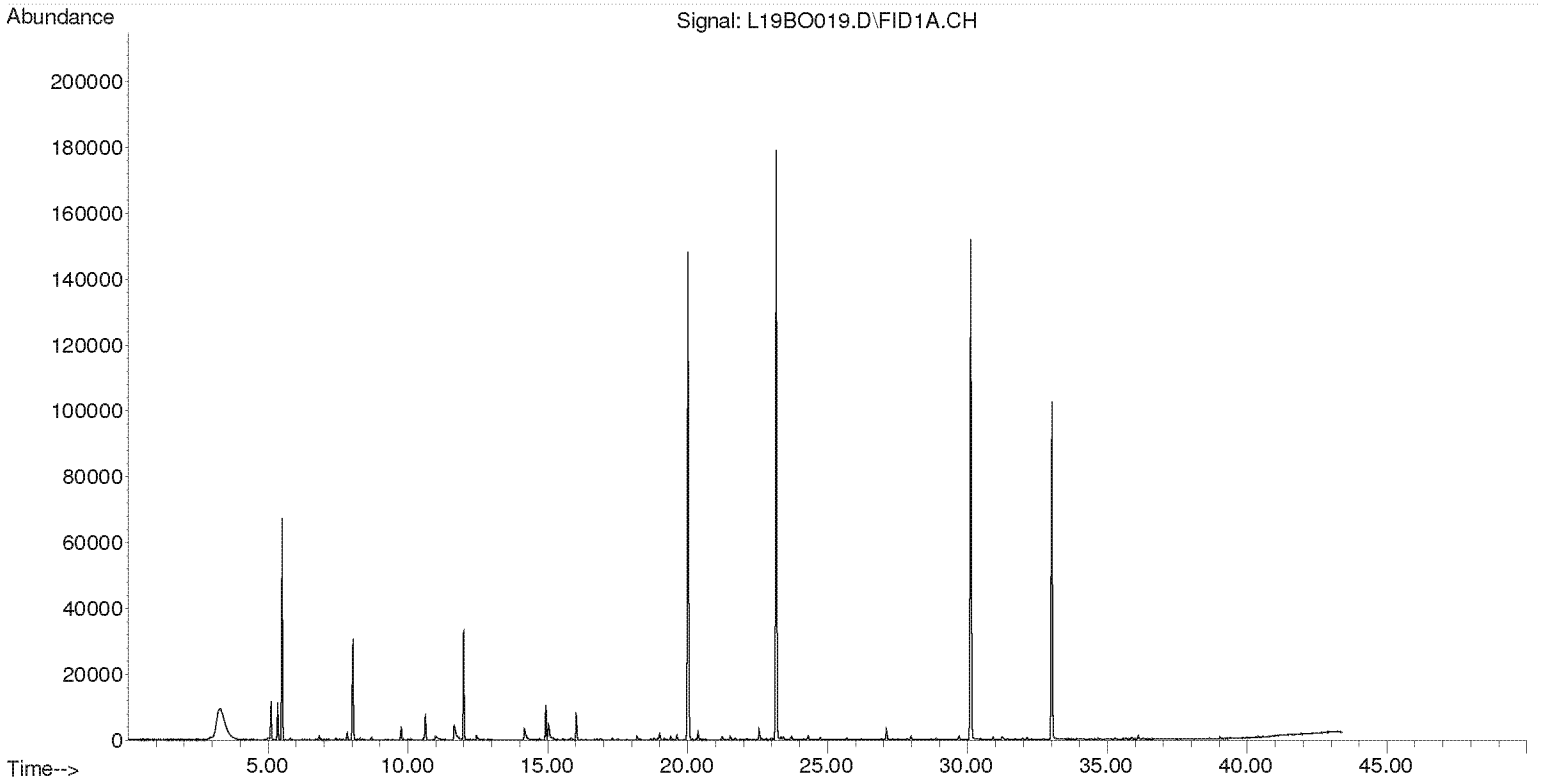
ED_002475_00000013-00413

Compounds other than ethylene oxide were not quantitated.

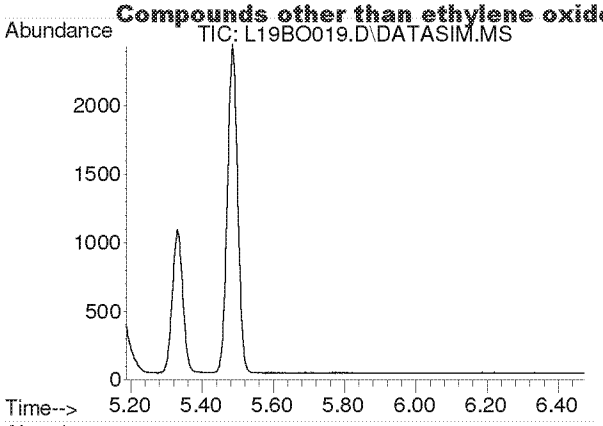
Data Path : Y:\MASS SPEC 1 DATA\L19BO\
Data File : L19BO019.D
Acq On : 16 Feb 2019 12:33 am (#1); 16 Feb 2019 0:28 am (#2)
Operator : MAH
Sample : 9021313-09
Misc : WB VILLAGE HALL 2/9/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 19 14:47:21 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





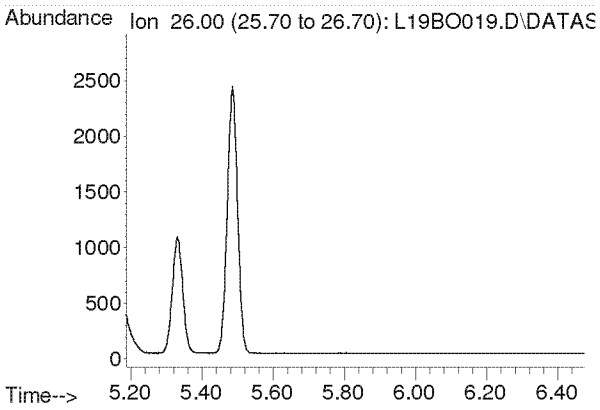
Compounds other than ethylene oxide were not quantitated.

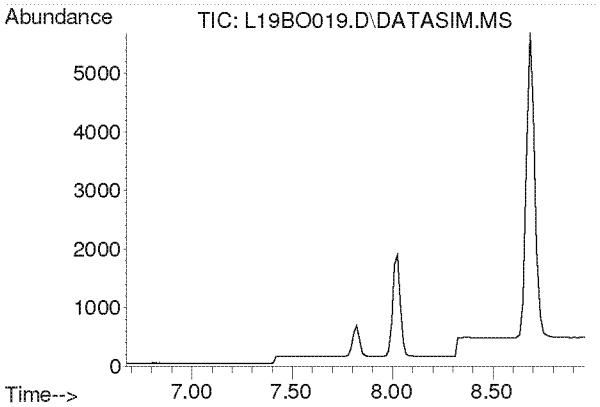


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 26



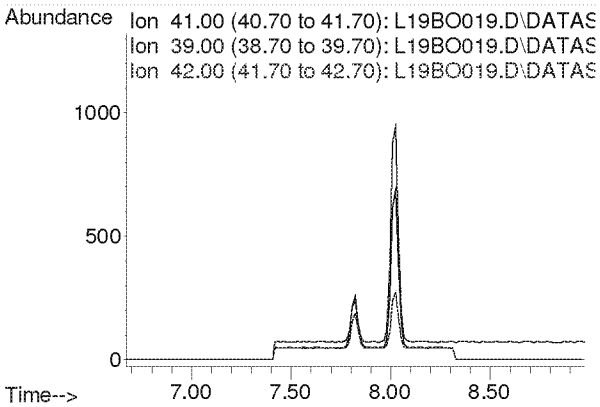


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

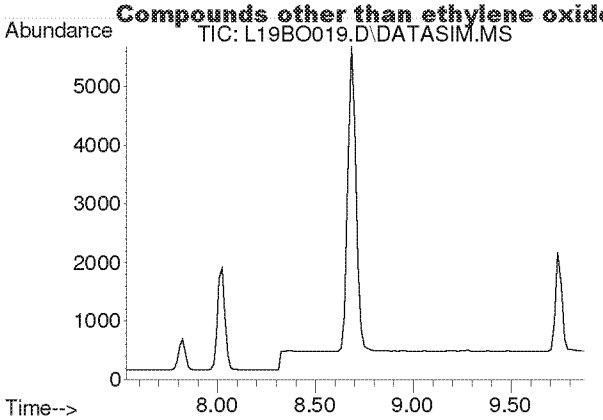
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

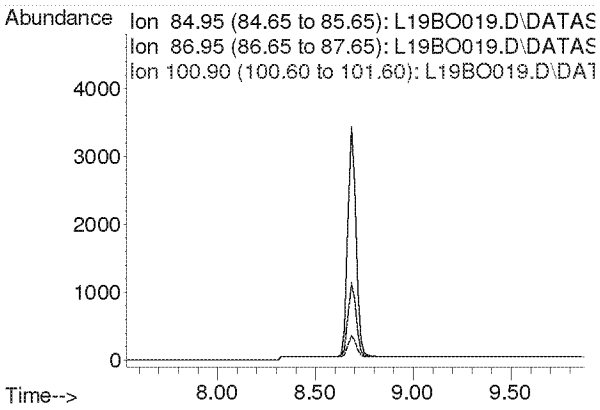


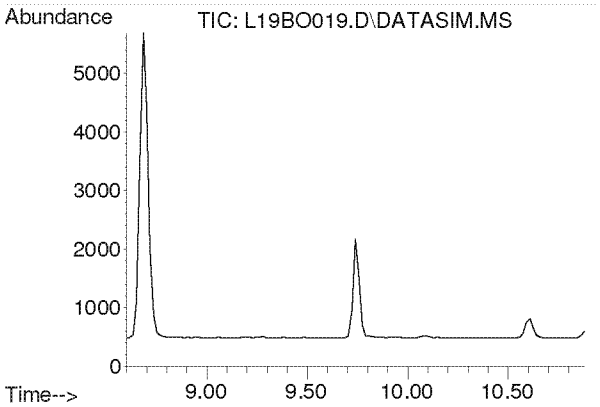
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



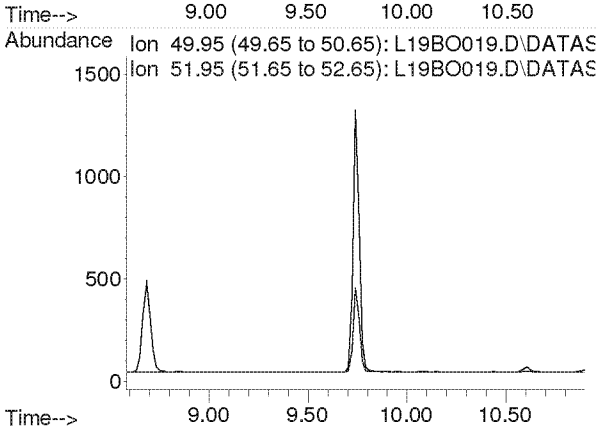


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

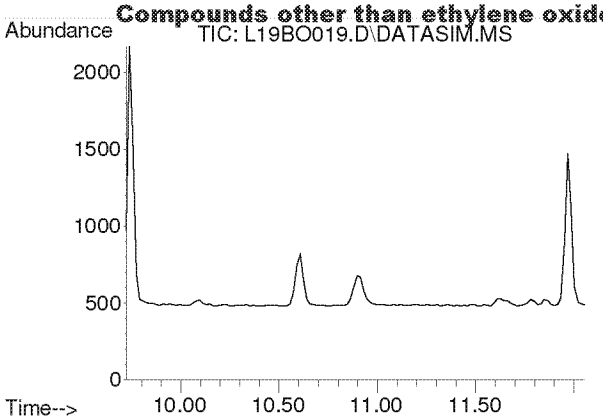
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

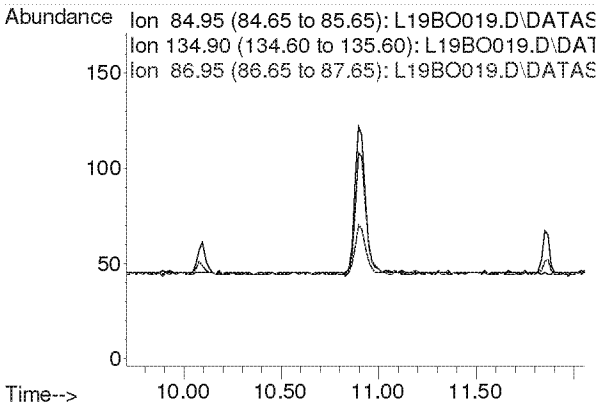


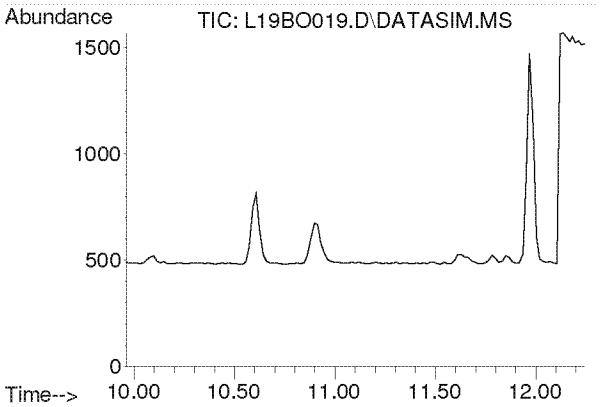
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



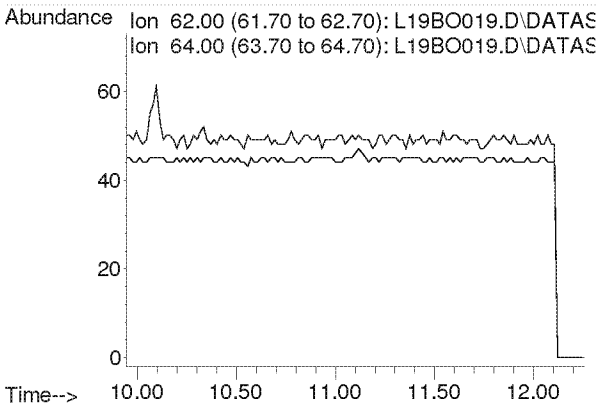


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

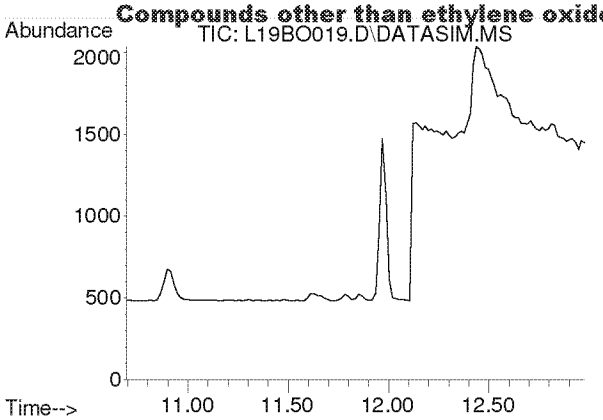
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

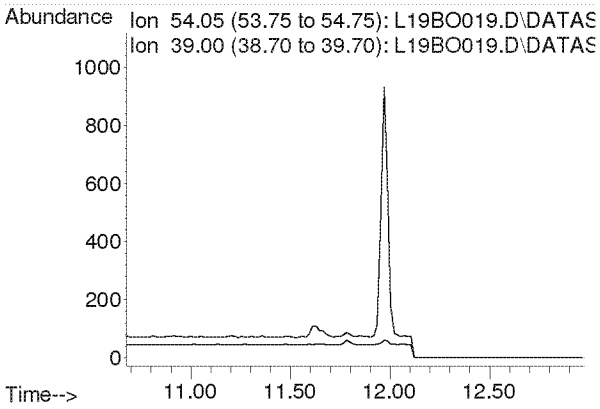


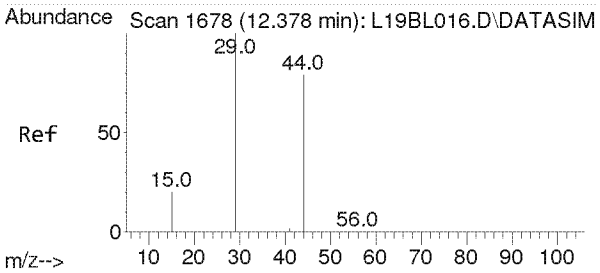
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

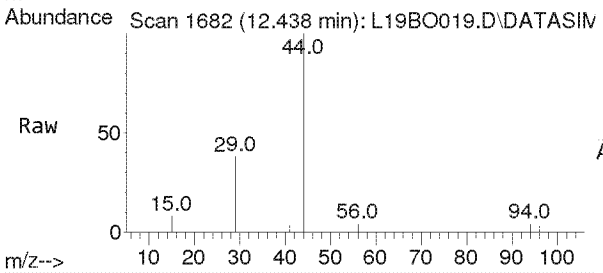


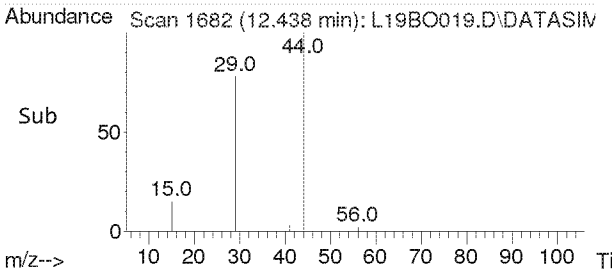


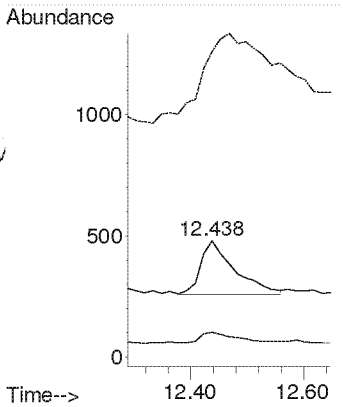
#9
Ethylene oxide
Concen: 0.401 ppbv
RT: 12.438 min Scan# 1682
Delta R.T. 0.060 min
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 29 Resp: 911

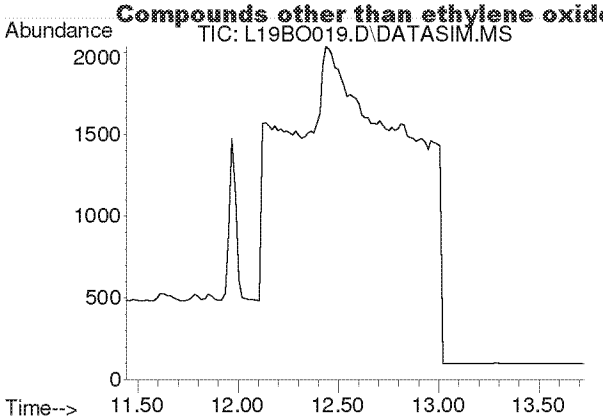
Ion	Ratio	Lower	Upper
29	100		
15	22.9	16.0	24.0
44	343.2	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

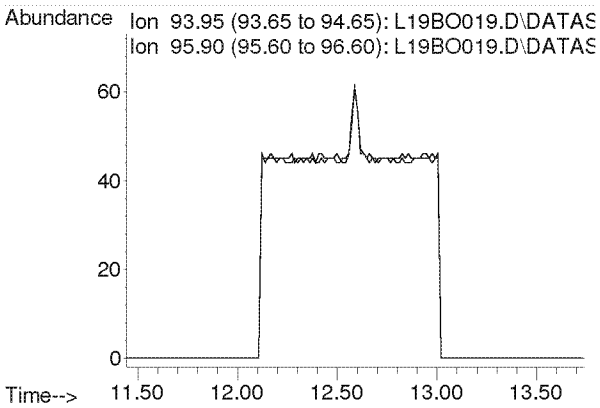


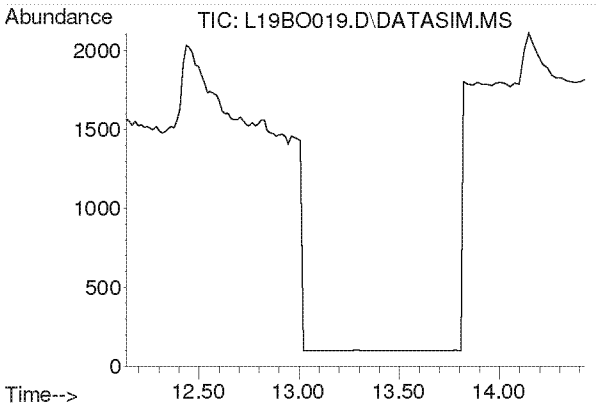
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



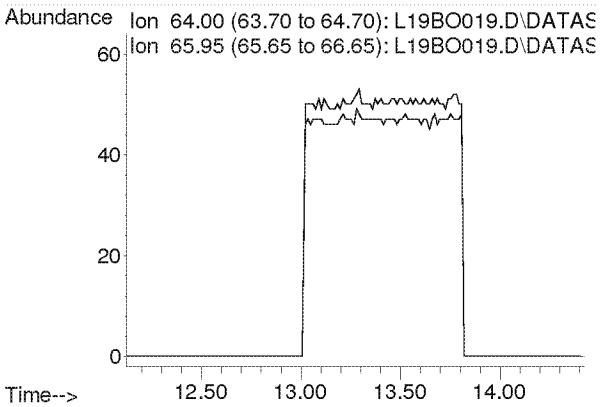


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

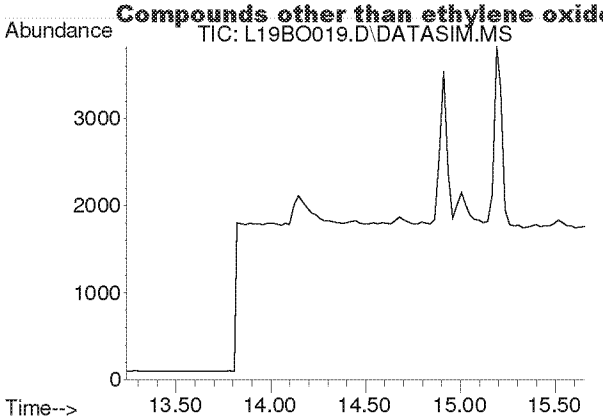
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

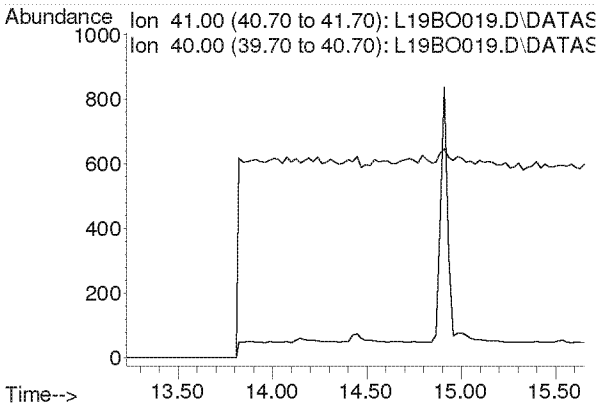


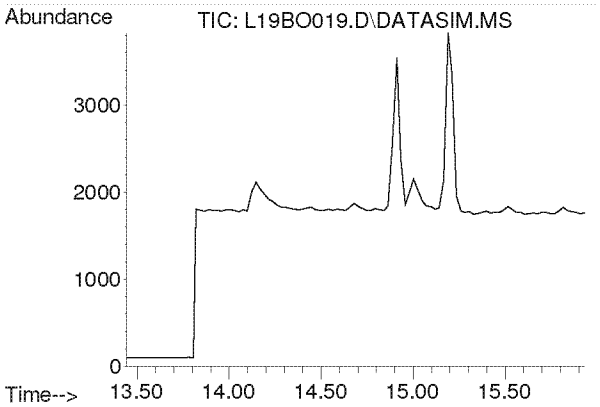
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



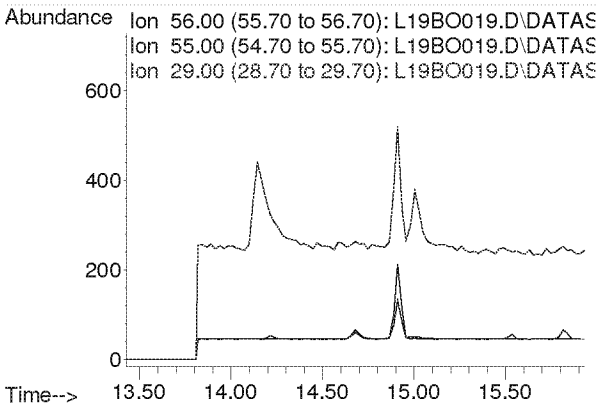


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

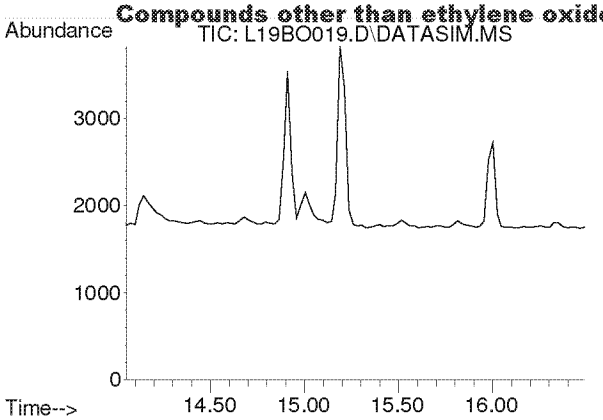
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

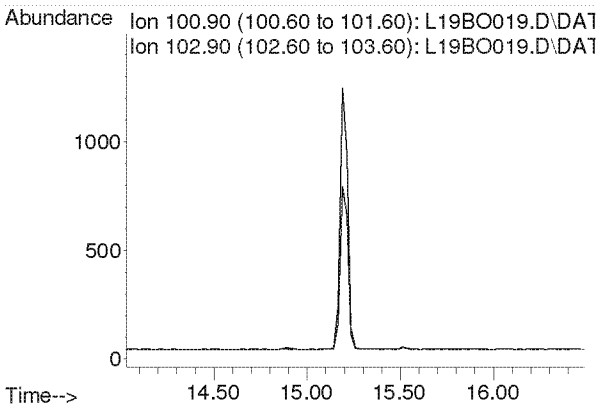


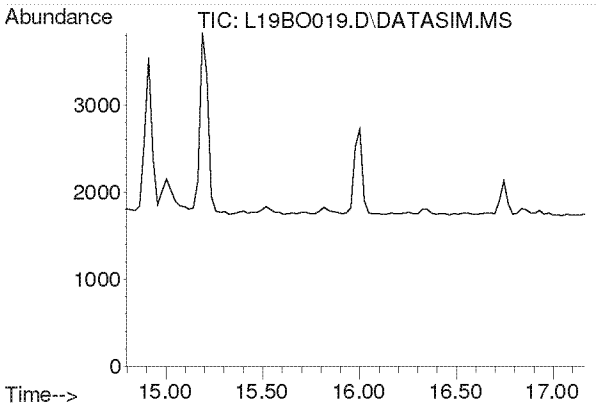
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



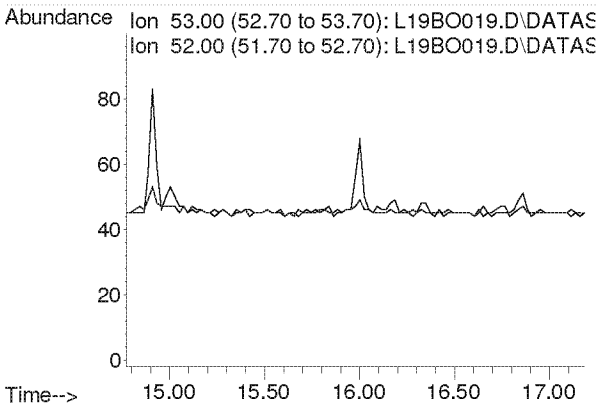


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

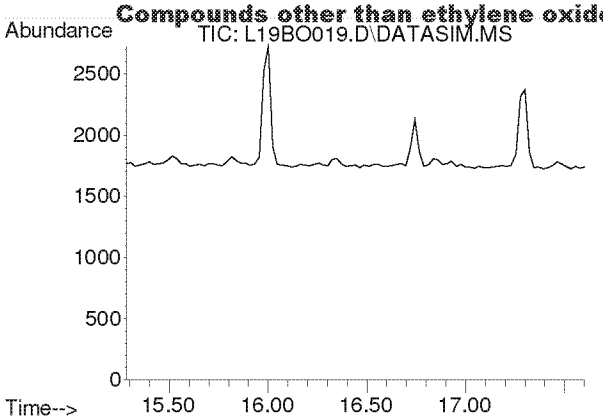
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

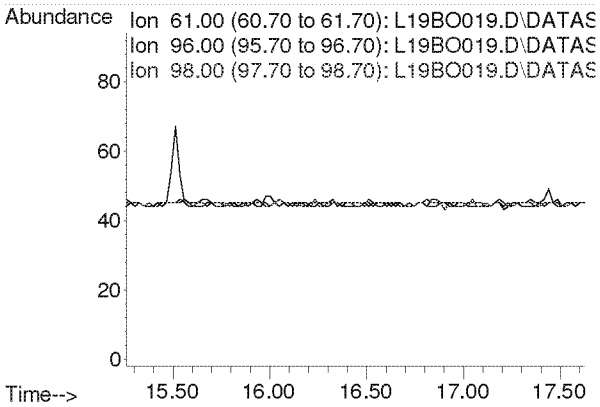


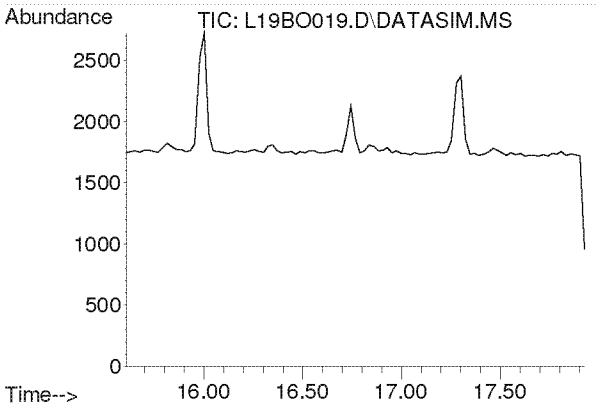
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



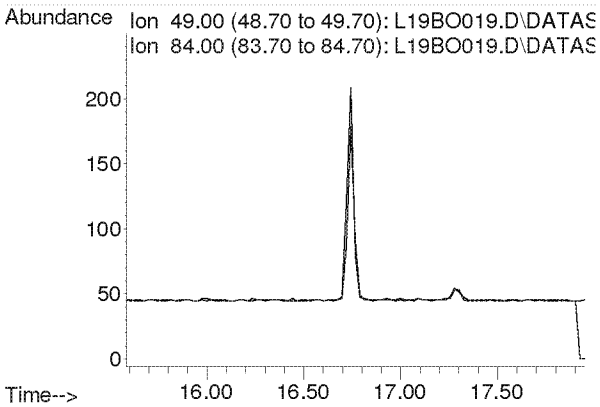


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

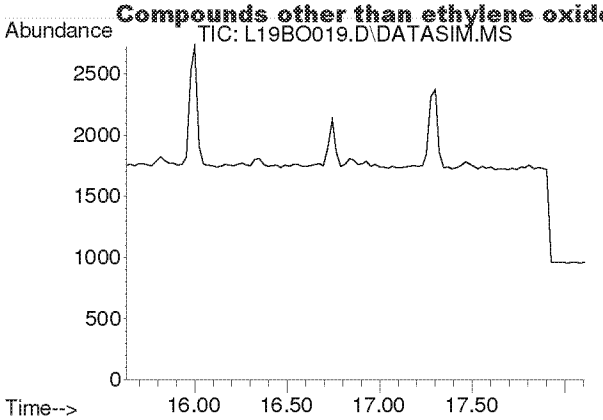
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

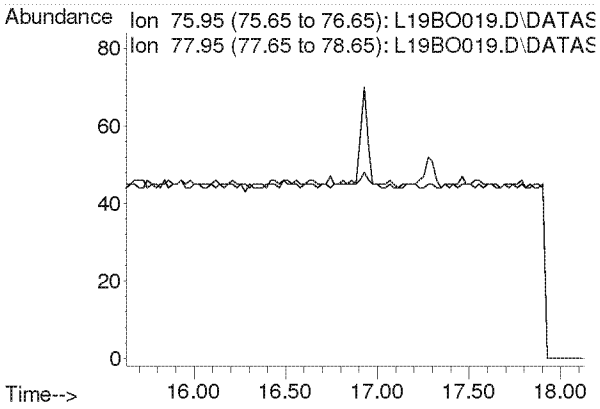


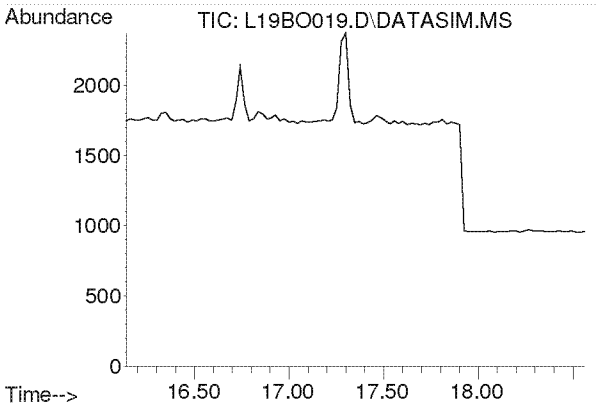
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



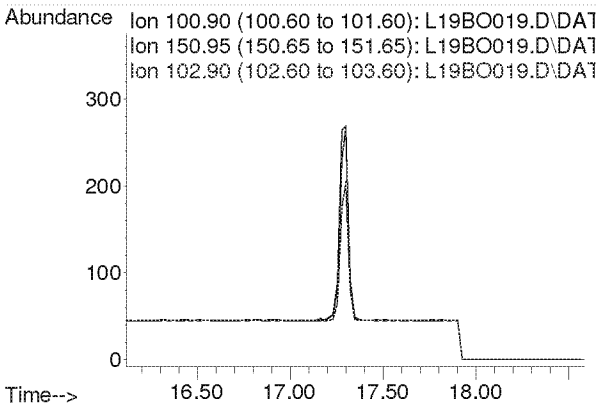


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

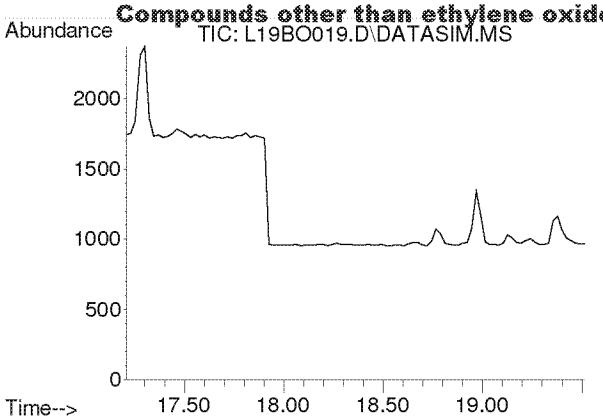
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

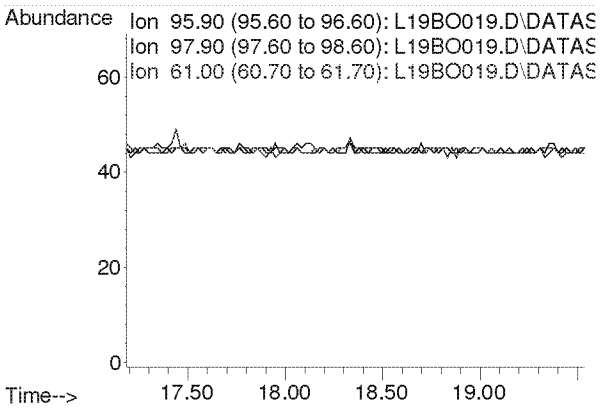


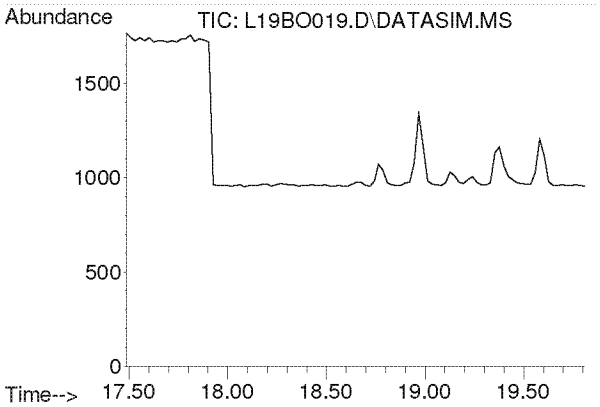
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



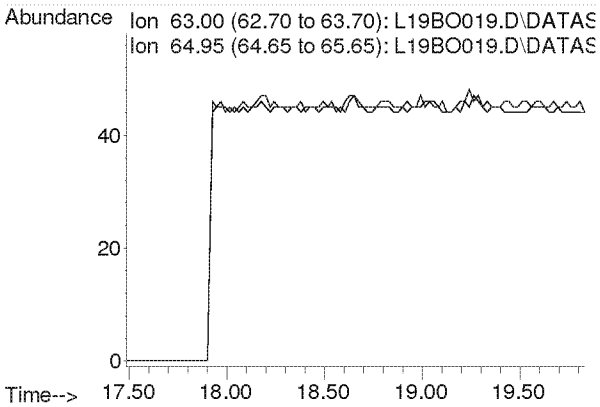


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

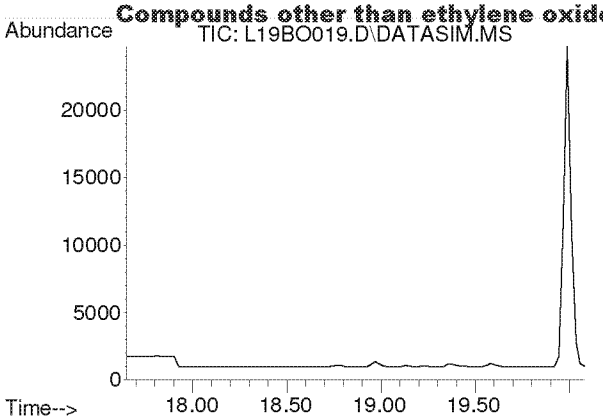
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

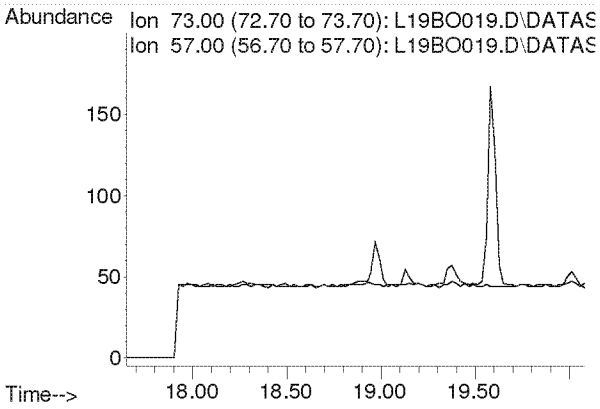


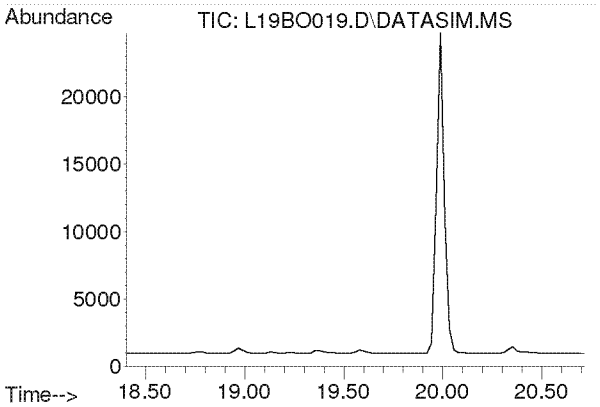
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



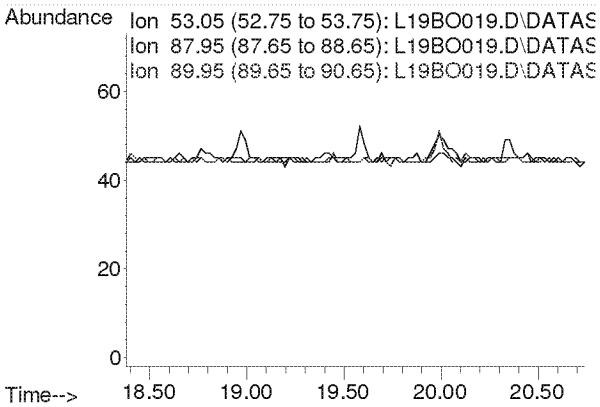


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

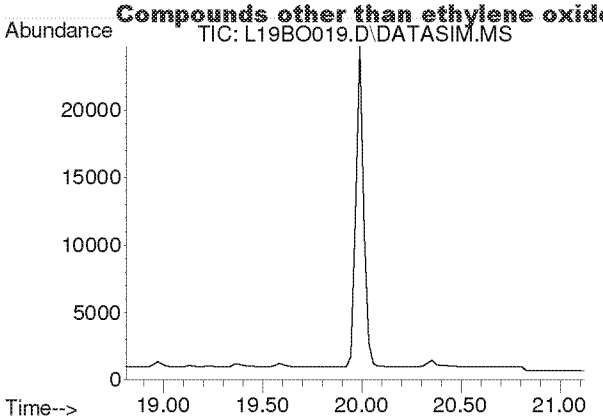
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

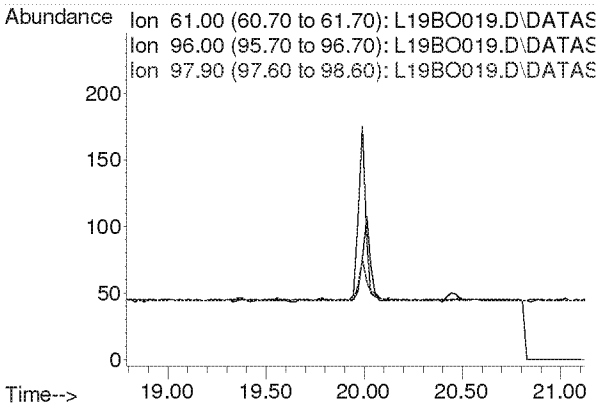


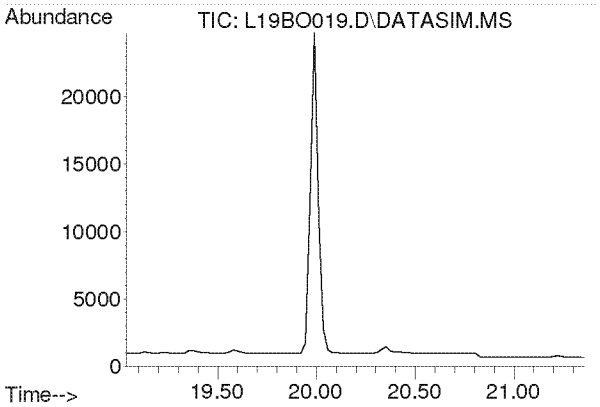
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



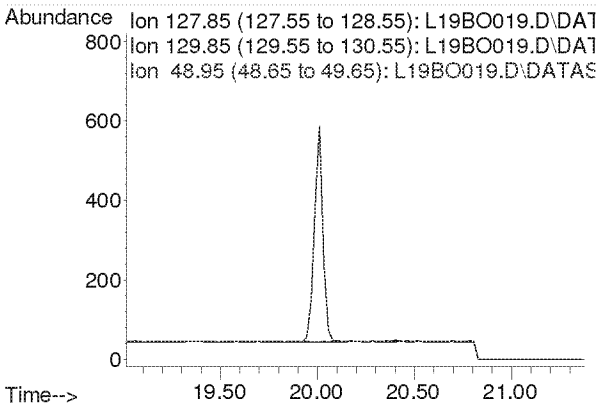


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

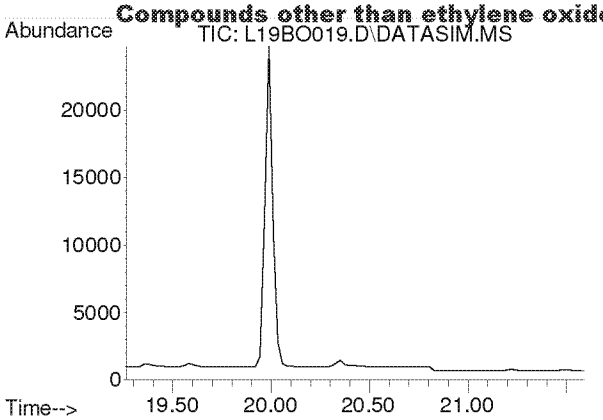
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

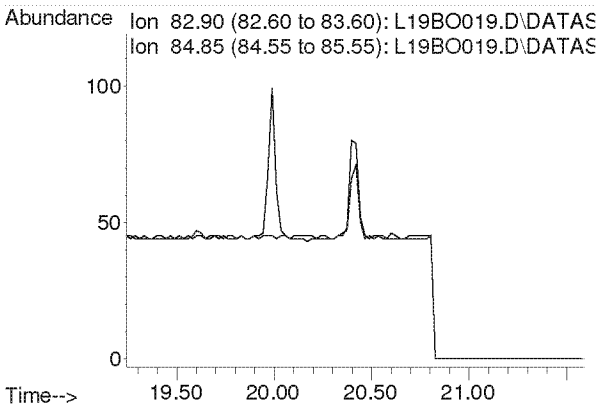


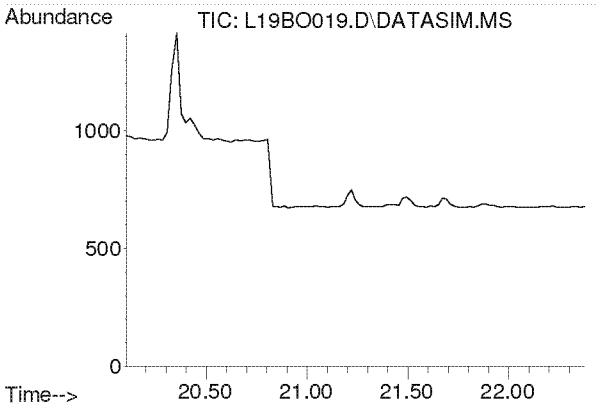
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



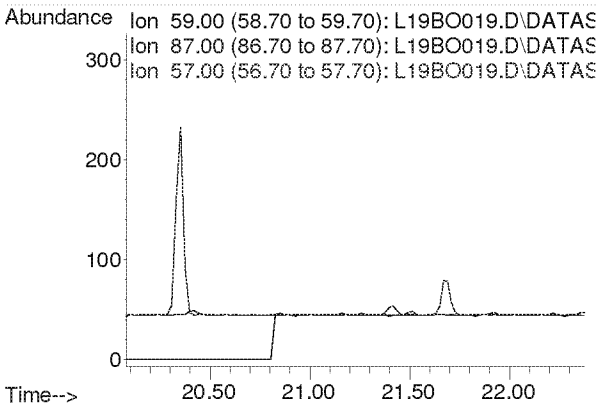


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

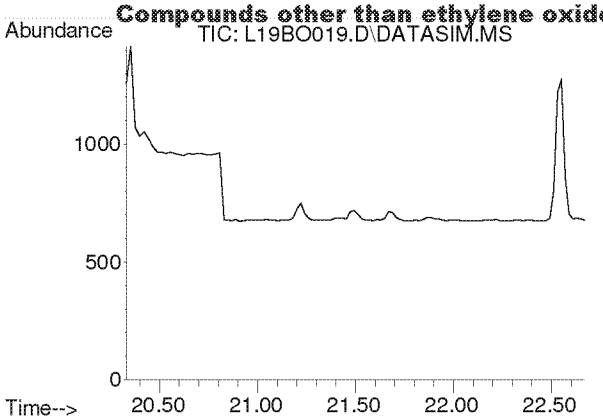
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

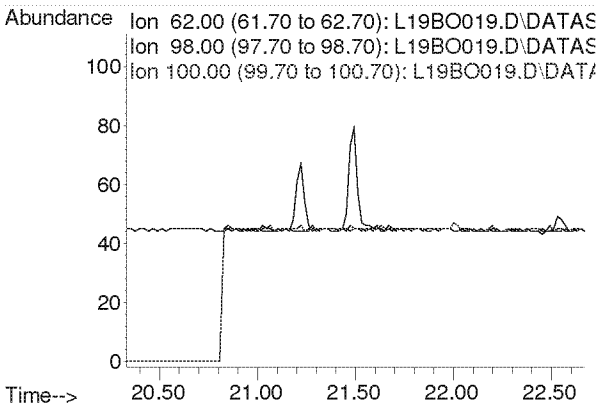


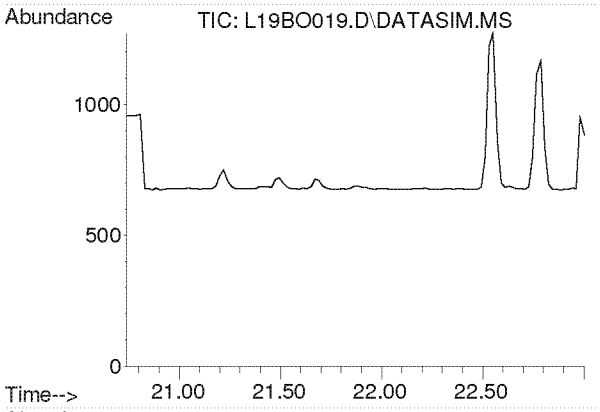
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



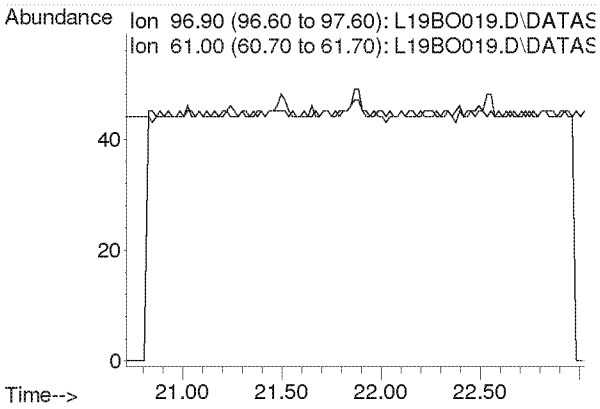


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

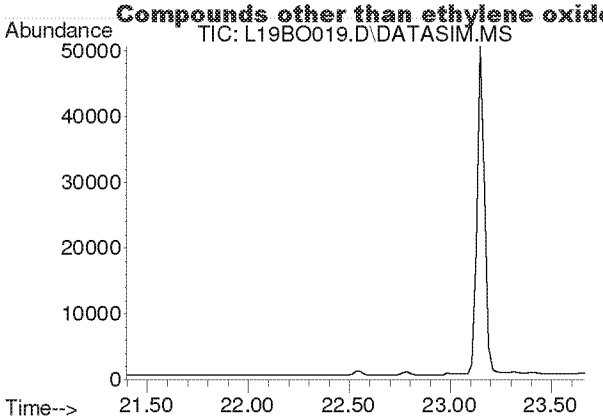
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

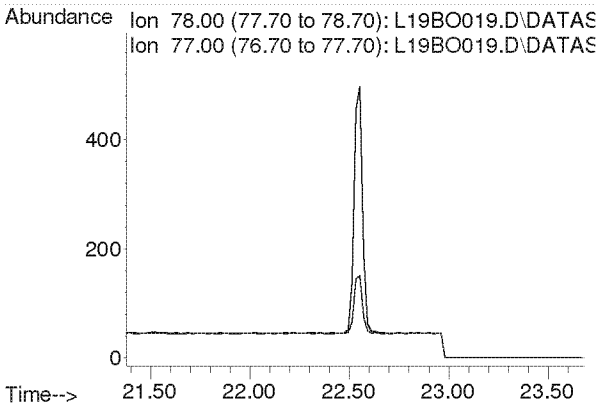


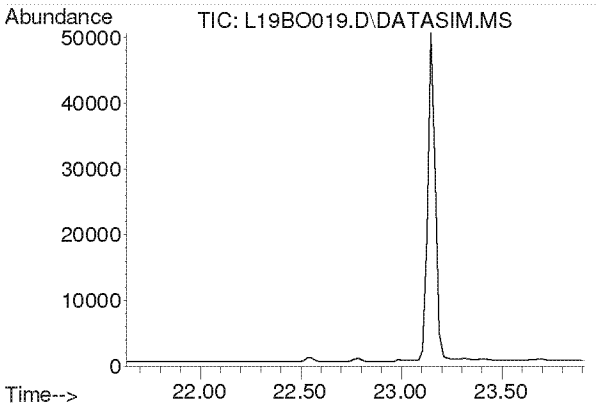
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



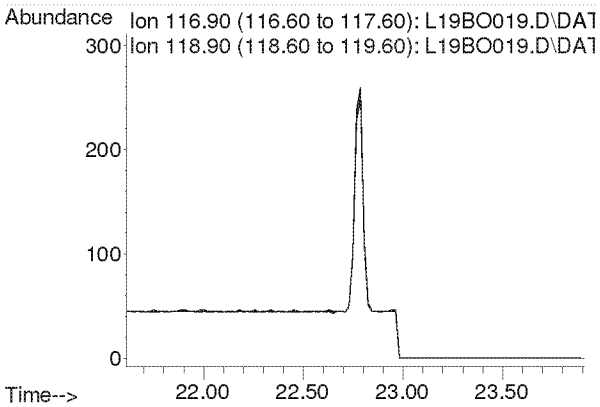


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

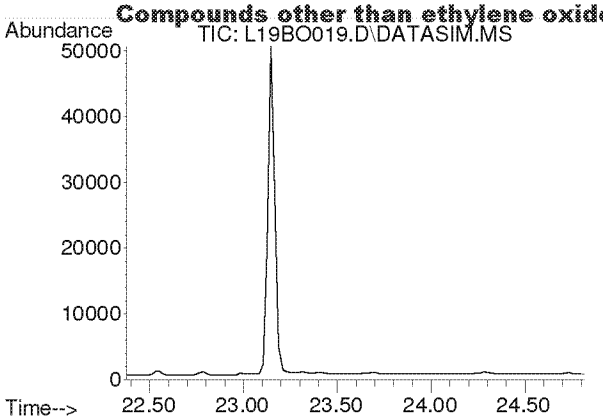
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

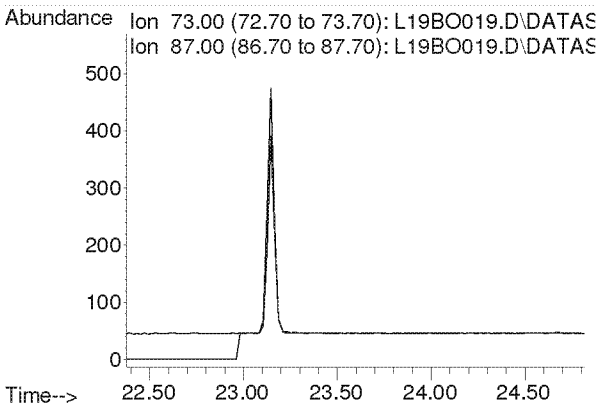


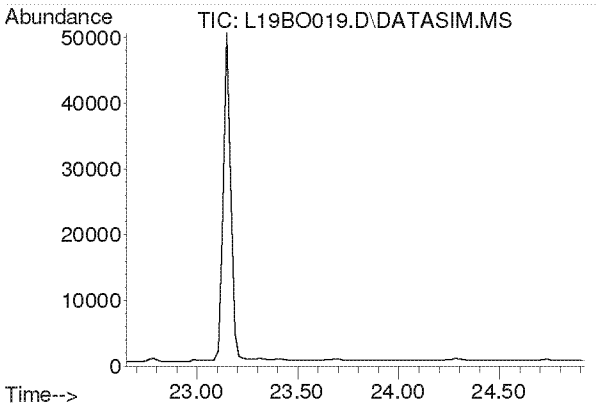
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



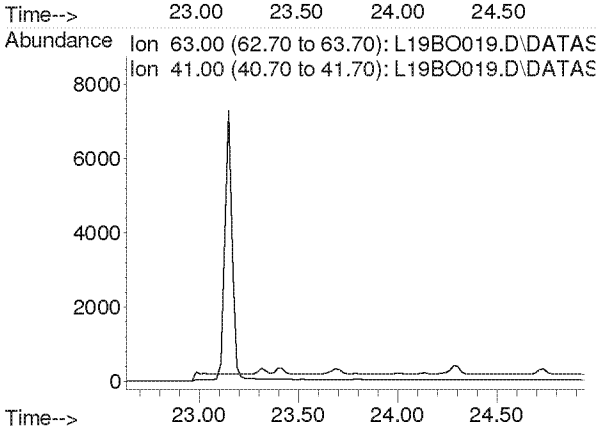


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

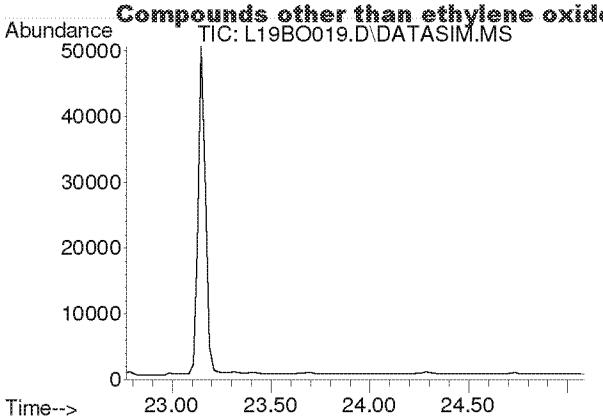
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

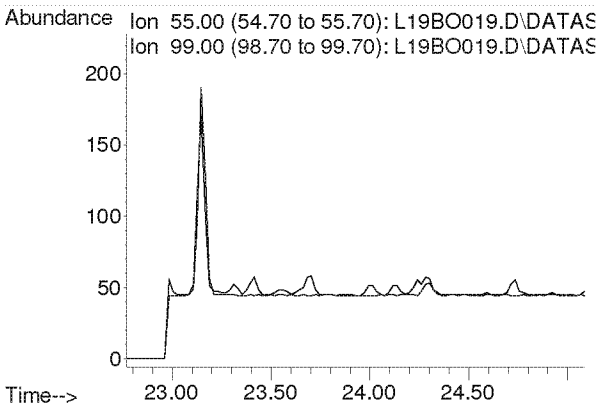


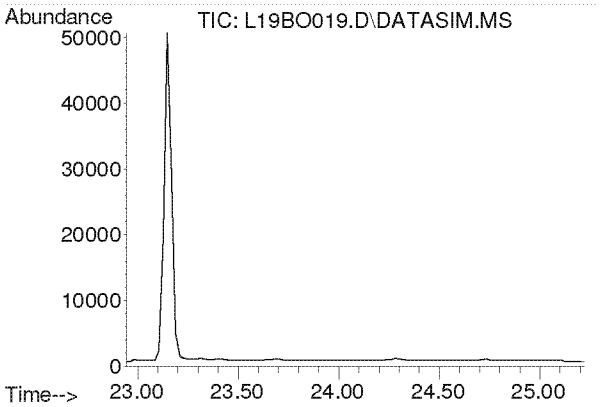
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



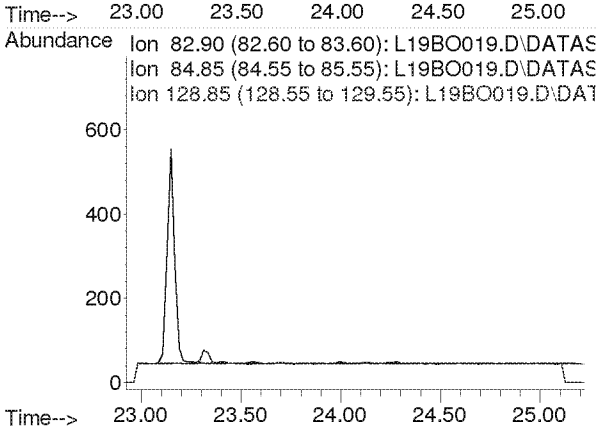


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

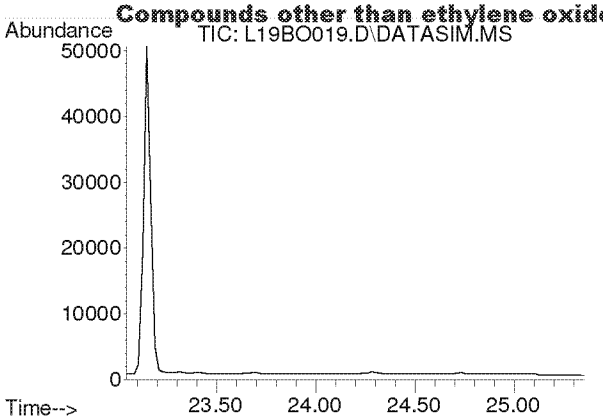
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

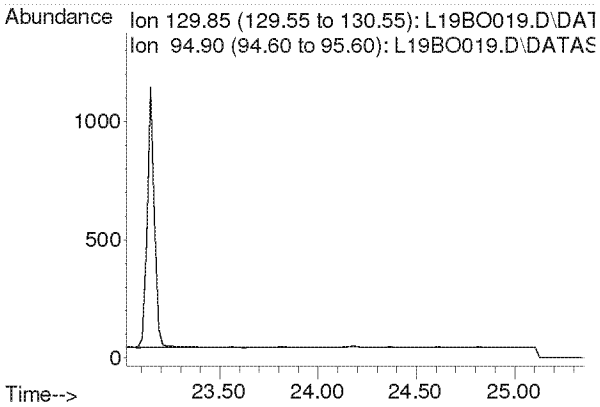


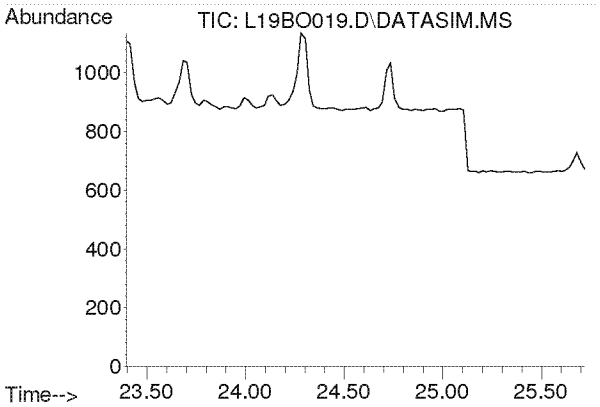
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



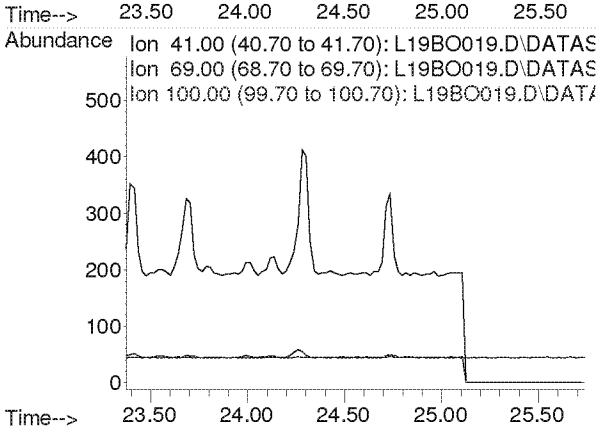


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

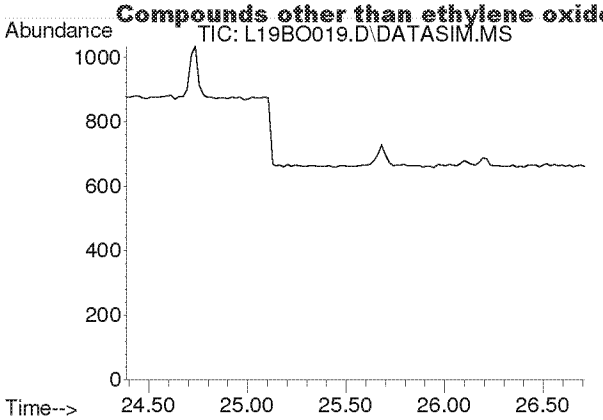
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

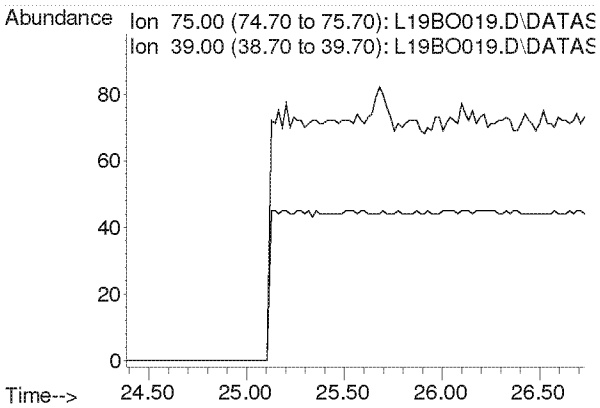


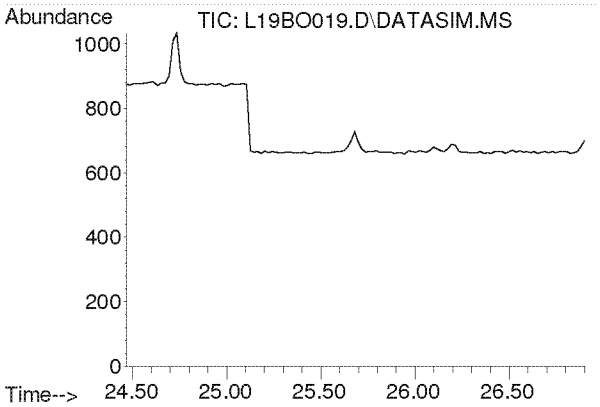
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



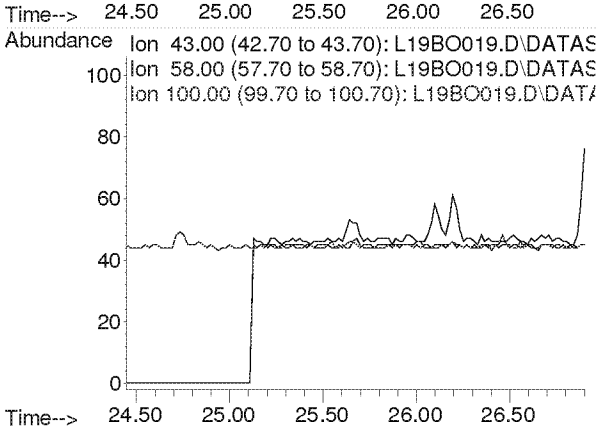


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

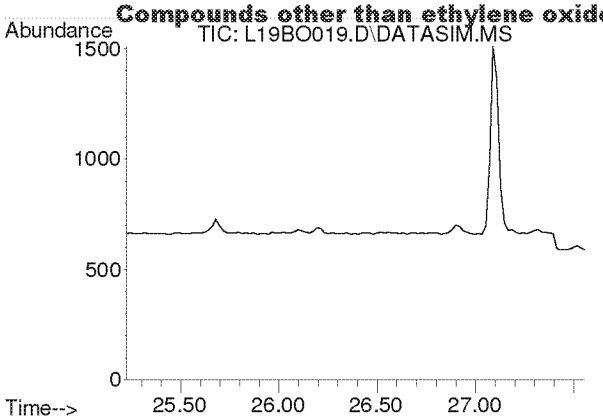
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

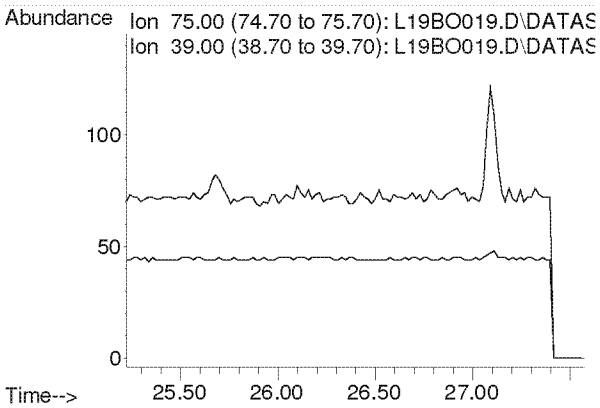


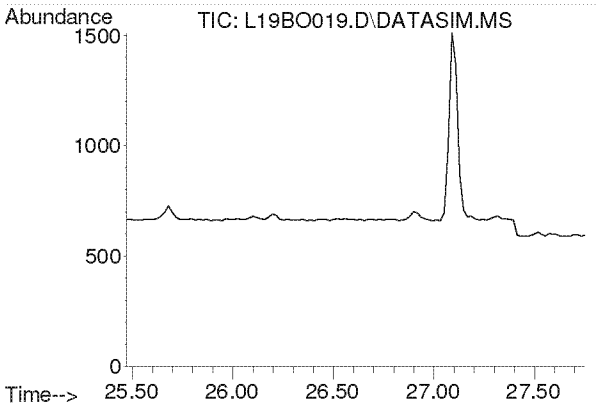
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



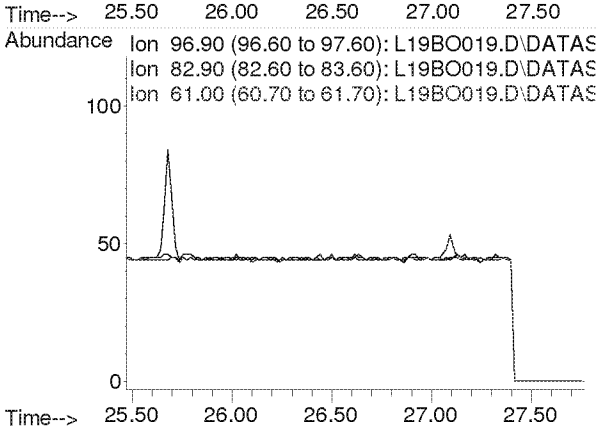


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

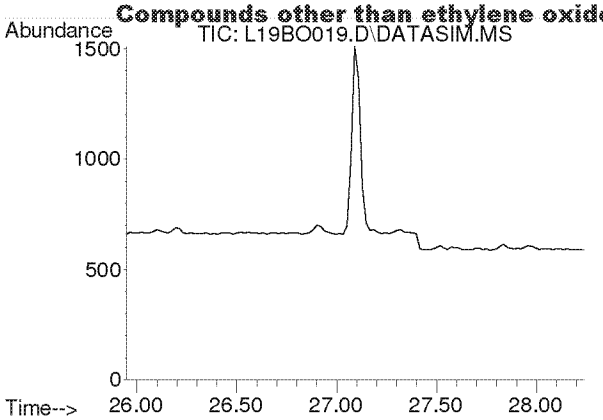
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

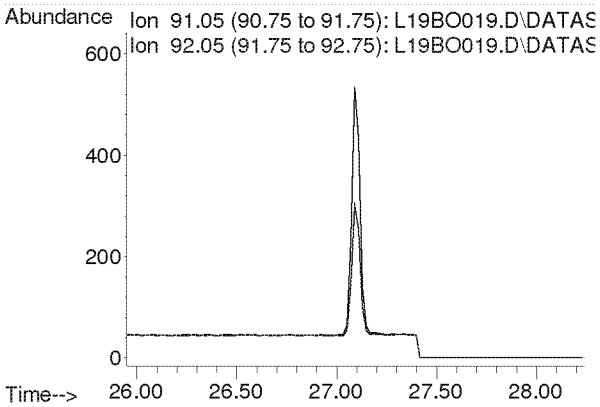


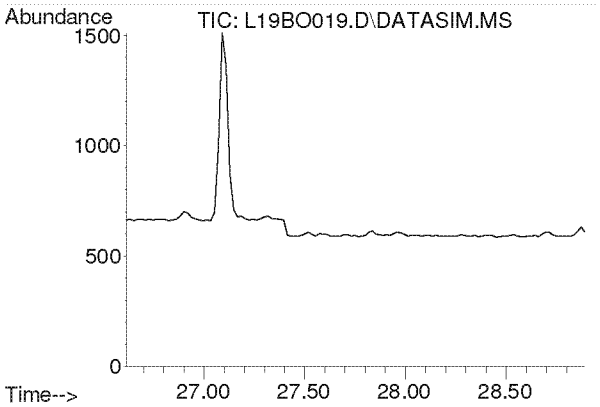
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



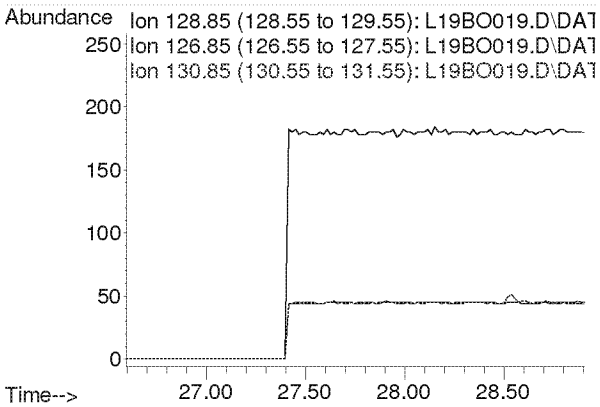


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

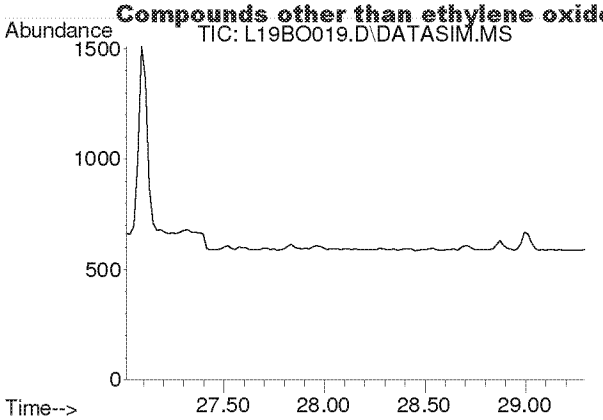
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

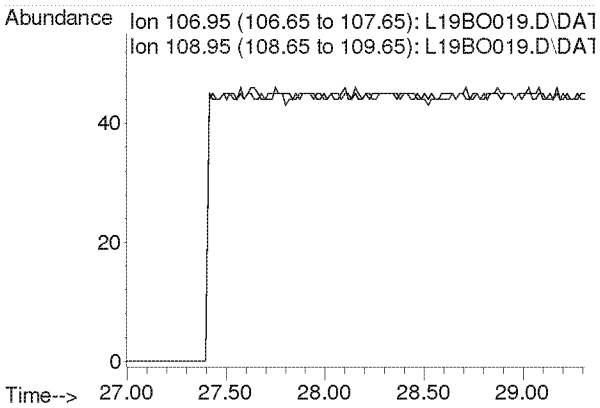


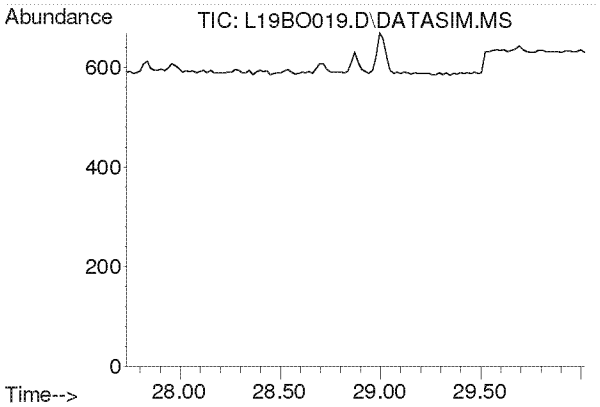
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



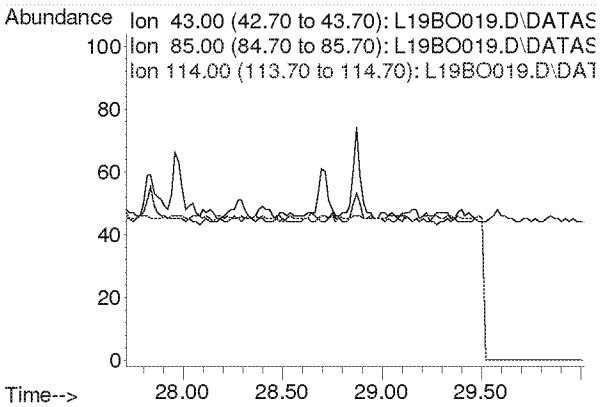


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

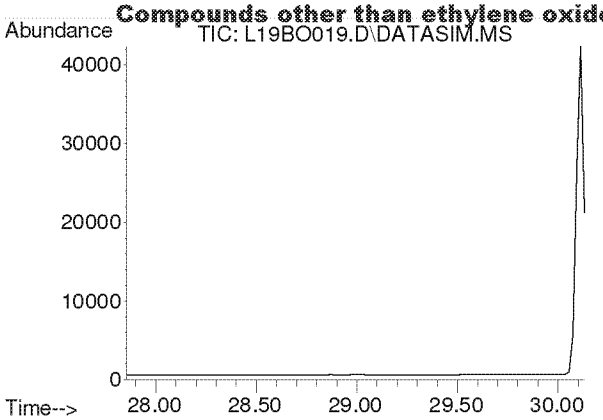
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

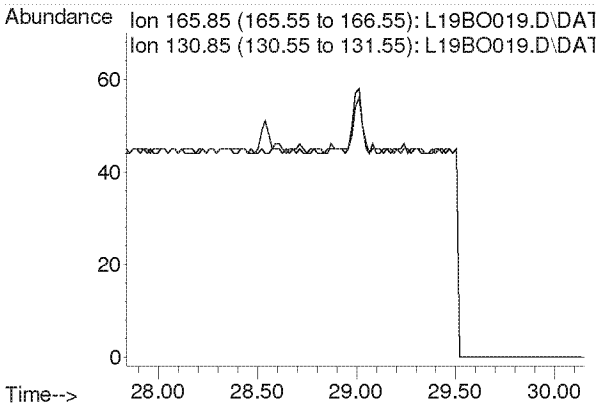


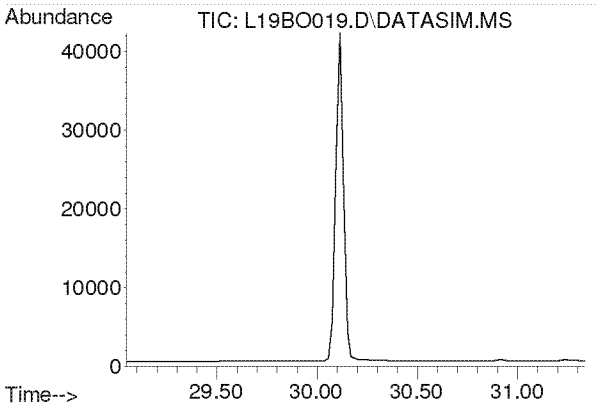
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



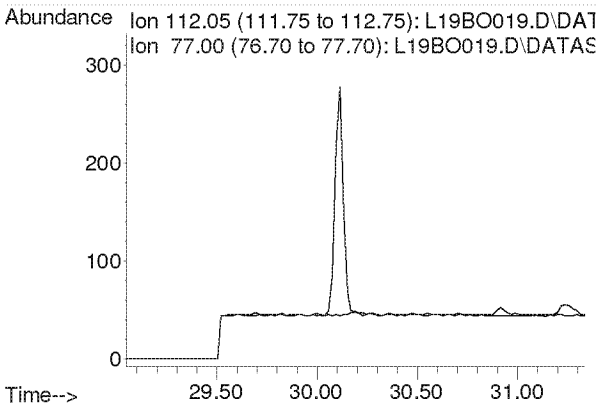


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

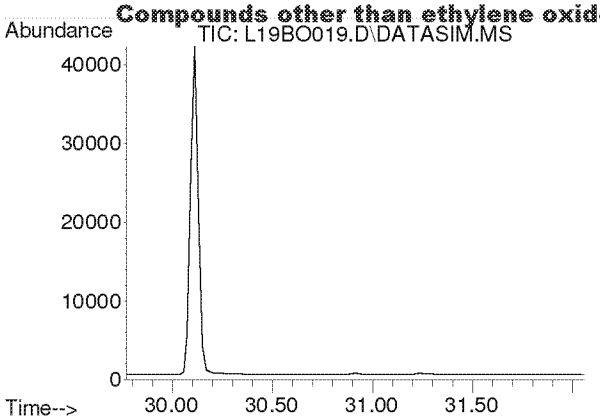
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

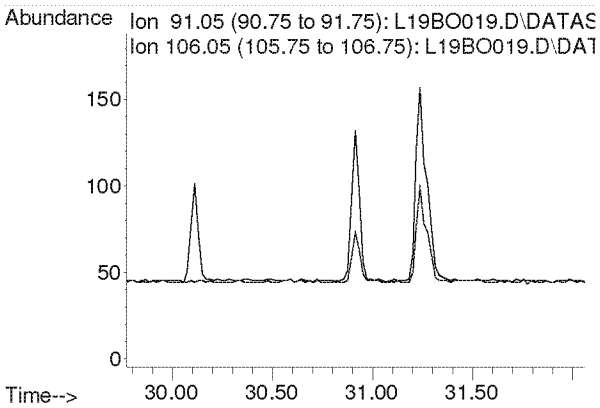


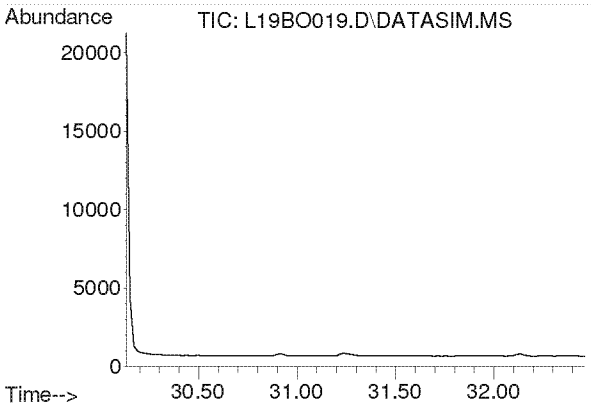
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



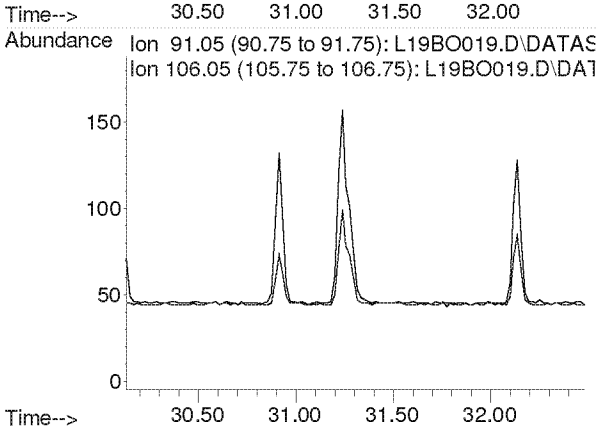


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

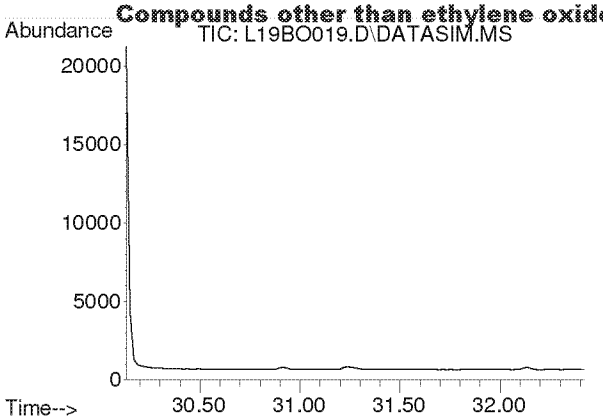
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

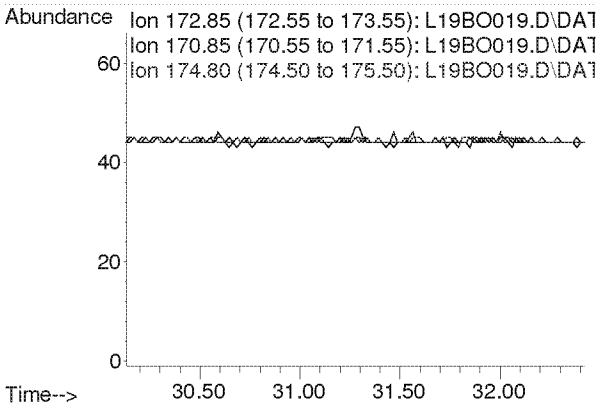


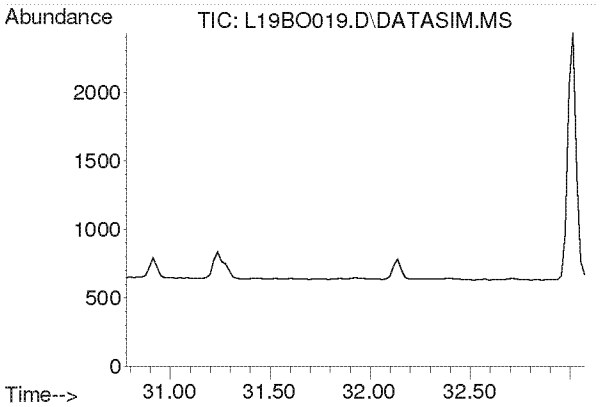
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



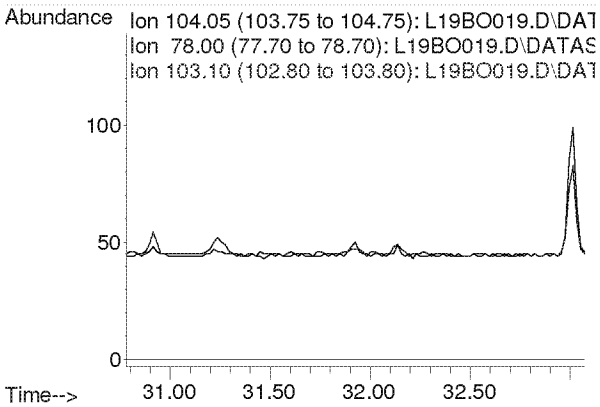


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

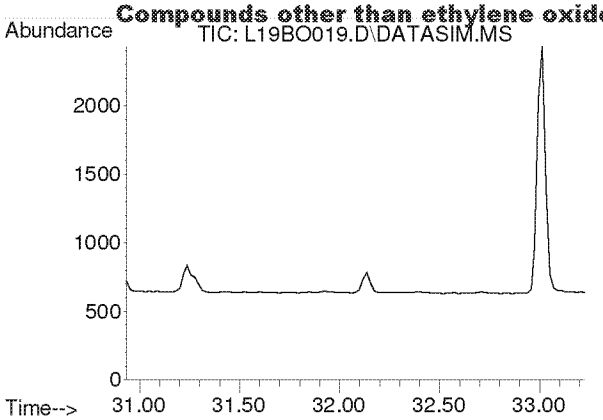
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

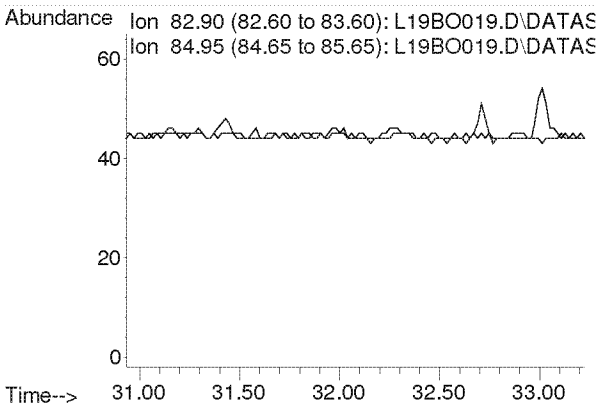


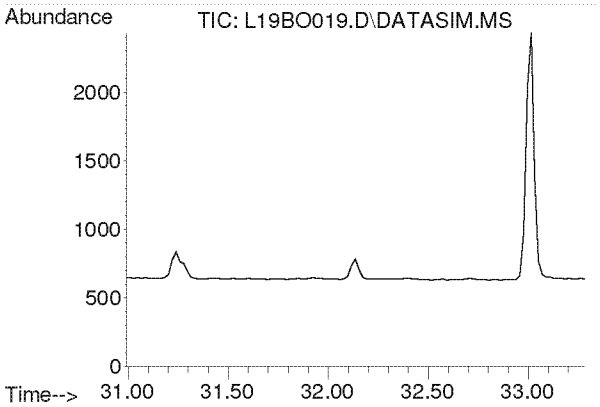
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



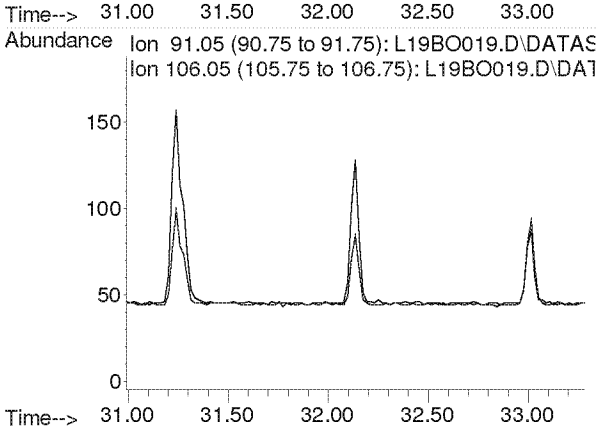


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

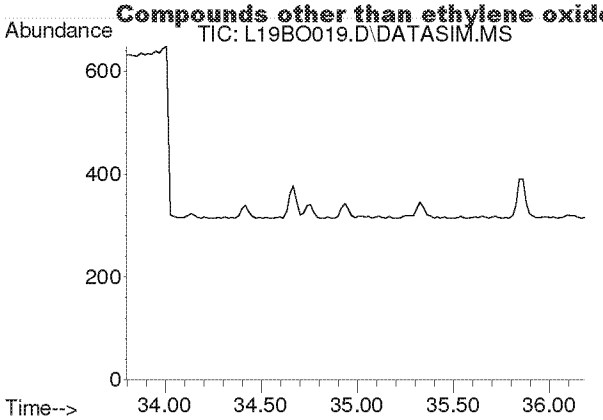
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

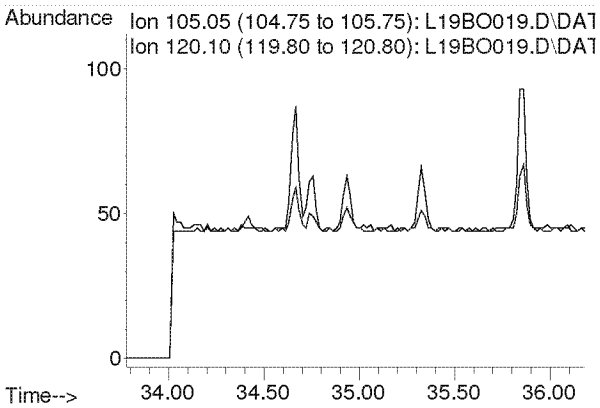


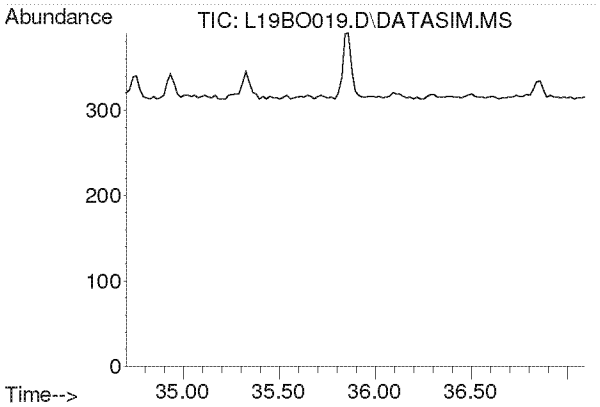
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



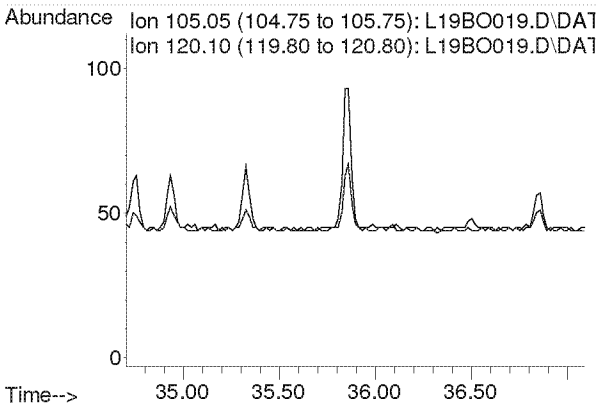


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

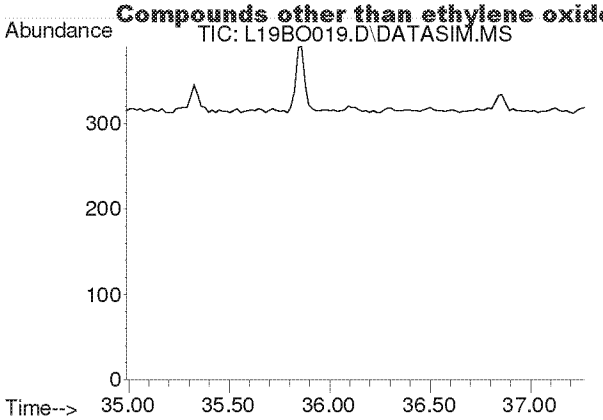
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

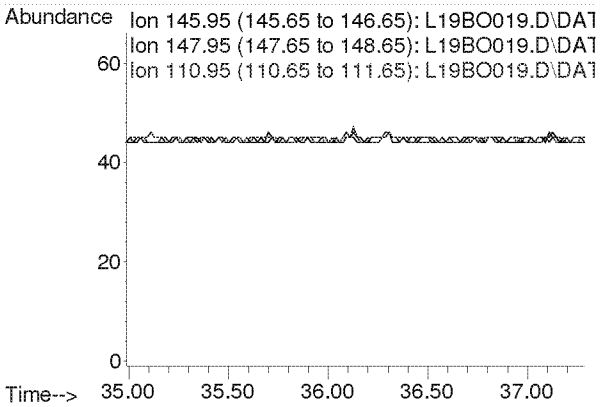


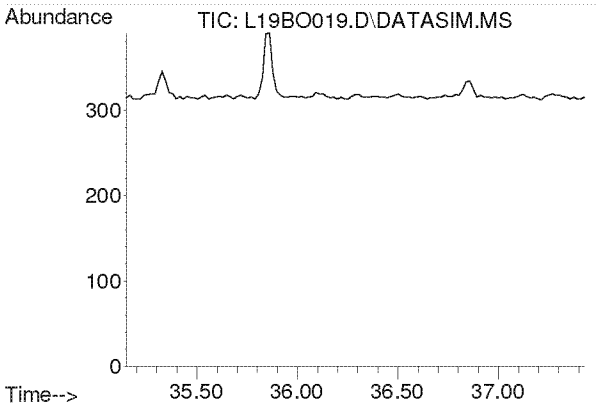
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



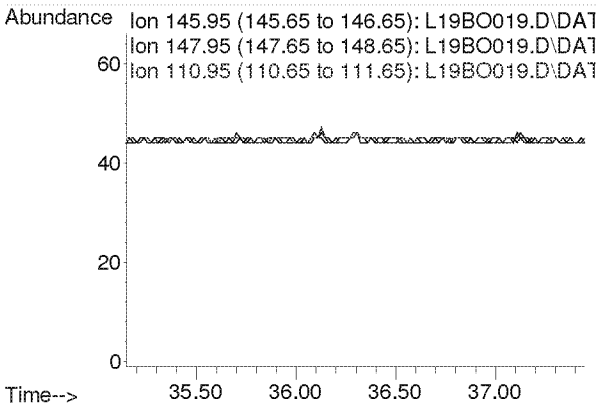


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

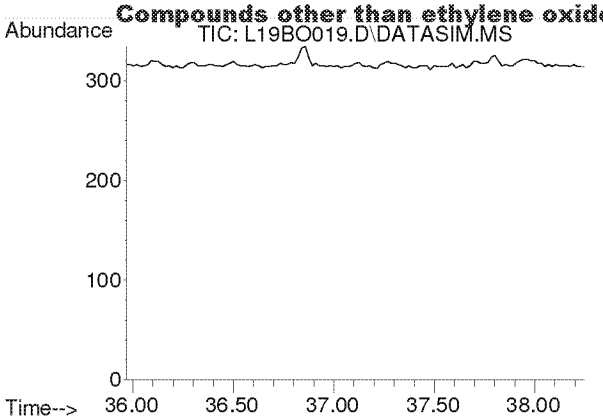
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

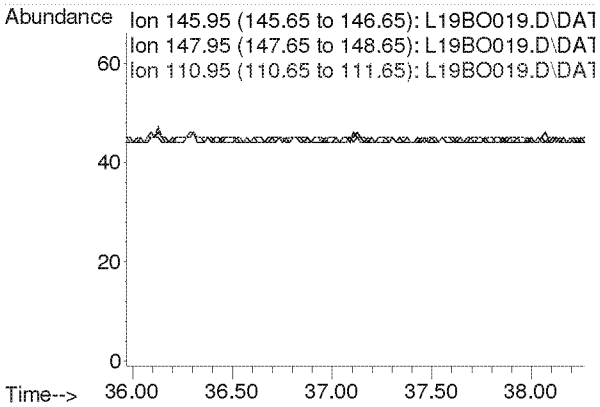


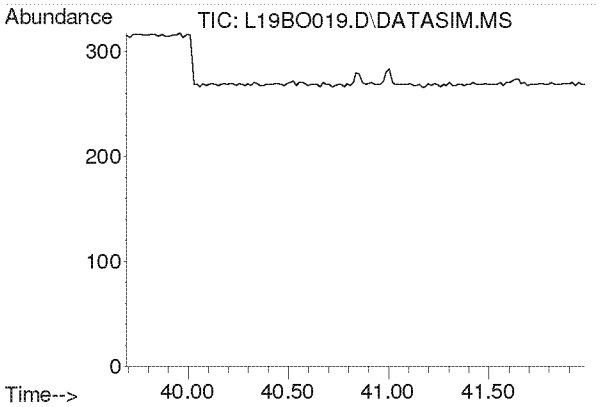
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



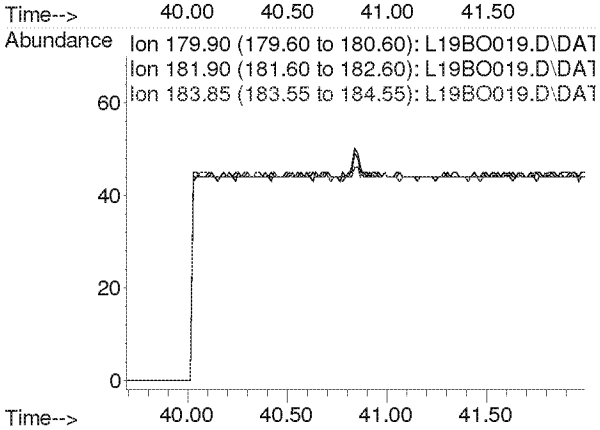


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

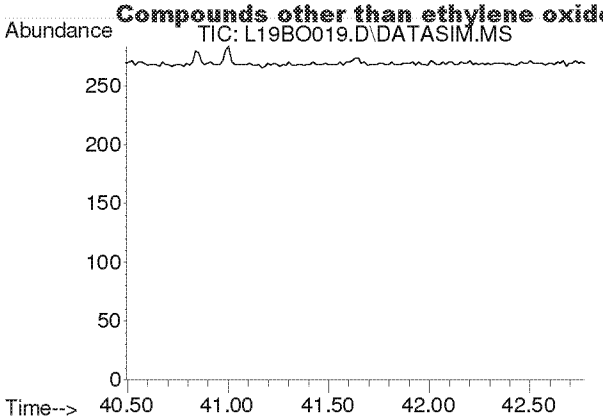
Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

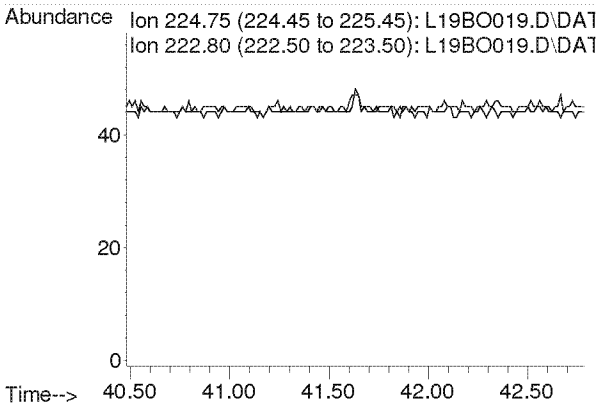


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BO019.D
Acq: 16 Feb 2019 12:33 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

PREPARATION BATCH SHEET

B9B1504

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **Printed: 2/15/2019 11:52:33AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9021313-01 *TO-15 2019*	02/09/19 09:51	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021313-02 *TO-15 2019*	02/09/19 10:15	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021313-03 *TO-15 2019*	02/09/19 10:05	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021313-04 *TO-15 2019*	02/09/19 10:45	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021313-05 *TO-15 2019*	02/09/19 10:30	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021313-06 *TO-15 2019*	02/09/19 09:20	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021313-07 *TO-15 2019*	02/09/19 09:20	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021313-08 *TO-15 2019*	02/09/19 10:40	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021313-09 *TO-15 2019*	02/09/19 09:30	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021401-01 *TO-15 2019*	02/12/19 10:01	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021401-02 *TO-15 2019*	02/12/19 09:32	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021401-03 *TO-15 2019*	02/12/19 09:24	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9021401-04 *TO-15 2019*	02/12/19 09:24	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
B9B1504-BLK1	02/14/19 08:00	250	250				t-h1-562	

Spiking Witnessed By _____ Date _____ | Preparation Reviewed By _____ Date _____ | Extracts Received By _____ Date _____

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9B1504

PREPARATION BENCH SHEET

B9B1504

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **rinted: 2/15/2019 11:52:33AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
B9B1504-DUP1	02/09/19 09:20	250	250		9021313-06		
B9B1504-DUP2	02/09/19 09:20	250	250		9021313-07		
B9B1504-DUP3	02/12/19 09:24	250	250		9021401-03		
B9B1504-DUP4	02/12/19 09:24	250	250		9021401-04		

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

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ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9021313-01

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: [illegible]
Canister Number: SAT172
City/State: [illegible]
Lab Initial Can. Press. ("Hg): 29.4
AQS Code:
Cleaning Batch # : H1-544
Collection Date: [illegible]
Date Can. Cleaned: 1/18/19 1/24/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N):
TOXICS (Y/N): [illegible]
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RUB
Date: 1/24/18

Field Setup

Received by: C. Cummings
Date: [illegible]
Operator: C. Cummings
MFC Setting:
System #: [illegible]
Elapsed Timer Reset (Y/N):
Setup Date: 2/[illegible]
Canister Valve Opened (Y/N): y @ 10:02
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/9/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: [illegible] psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): y @ [illegible]
Relinquished by: C. Cummings
Date: 2/9/19

Lab Recovery

Received by: KB
Date: 2/13/19
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 -29 @ 09:57 - [illegible]
Field [illegible]
Field Recovery: 12°F, clear

2/8/19 - empty unlabled tripod on site at Field Setup.
2/9/19 - F[illegible] [illegible] to retrieve canister as we were leaving.

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.

ERG Lab ID # 9021313-02

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Plant Park

Canister Number: 5100

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.4

AQS Code:

Cleaning Batch # : H1-514

Collection Date: 2/8/19

Date Can. Cleaned: 1/18/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 1/24/19

Field Setup

Received by: C. Cummings

Date: 2/8/19

Operator: C. Cummings

MFC Setting:

System #: 1294

Elapsed Timer Reset (Y/N):

Setup Date: 2/8/19

Canister Valve Opened (Y/N): ye 10:25

Field Initial Can. Press.: 9.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/9/19

Sample Duration (3 or 24 hr): 24

Operator: C. Cummings

Elapsed Time:

Field Final Can. Press.: -6.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): 10:15

Relinquished by: C. Cummings

Date: 2/9/19

Lab Recovery

Received by: KB

Date: 2/13/19

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: [illegible] 29.[illegible] @10:2[illegible]

Field Recovery: 12°F, clear

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9021313-03

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Water Tower
Canister Number: 19290
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code:
Cleaning Batch # : H1-544
Collection Date: 2/8/19
Date Can. Cleaned: 1/18/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): 2/8/19
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RWB
Date: 1/24/19

Field Setup

Received by: C. Cummings
Date: 2/8/19
Operator: C. Cummings
MFC Setting:
System #: 1012
Elapsed Timer Reset (Y/N):
Setup Date: 2/8/19
Canister Valve Opened (Y/N): @ 10:12
Field Initial Can. Press.: -29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/9/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: - psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N):
Relinquished by: C. Cummings
Date: C. Cummings

Lab Recovery

Received by: KB
Date: 2/13/19
Lab Final Can. Press.: 1.9 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why: Heiss gauge

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -29 @ 10:12
Field Setup: 9°F, windy
Field Recovery: 12°F, clear - GFD canister removed prior to our arrival.

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9021313 CH

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: West [illegible]

Canister Number: 18880

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.4

AQS Code:

Cleaning Batch # : H1-544

Collection Date: 2/8/19

Date Can. Cleaned: 1/18/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 1/24/19

Field Setup

Received by: C. Cummings

Date: 2/8/19

Operator: C. Cummings

MFC Setting:

System #: 10 3[illegible]

Elapsed Timer Reset (Y/N):

Setup Date: 2/8/19

Canister Valve Opened (Y/N): y @ 10:50

Field Initial Can. Press.: -28.9 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/9/19

Sample Duration (3 or 24 hr): 24

Operator: C. Cummings

Elapsed Time:

Field Final Can. Press.: -4 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): y @ 10:45

Relinquished by: C. Cummings

Date: 2/9/19

Lab Recovery

Received by: KB

Date: 2/13/19

Lab Final Can. Press.: 2.2 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -28.9 @ [illegible], -28.9 "Hg @ 10:50

Field Setup: 9°F, windy

Field Recovery: 12°F, clear

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9021313-05

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: Hinsdale S High School
Canister Number: 19340
City/State: Downers IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code:
Cleaning Batch # : H1-544
Collection Date: 2/9/19
Date Can. Cleaned: 1/18/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 1/24/19

Field Setup

Received by: C. Cummings
Date: 2/9/19
Operator: C. Cummings
MFC Setting:
System #: 1007C
Elapsed Timer Reset (Y/N):
Setup Date: 2/9/19
Canister Valve Opened (Y/N): yC 10:35 ~~3~~ 2/9/19
Field Initial Can. Press.: -28.5 "Hg psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/9/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -5.8 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): yC 10:30
Relinquished by: C. Cummings
Date: 2/9/19

Lab Recovery

Received by: KB
Date: 2/13/19
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: -29 [illegible] → -28.5 "Hg @ 10:38
Field Setup: 9°F, windy
Field Recovery: 12°F clear

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9021313-06

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA WB Warehouse
Canister Number: 2527
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code:
Cleaning Batch # : H1-544
Collection Date: 2/8/19
Date Can. Cleaned: 1/18/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): y
TOXICS (Y/N): y
Duplicate Can # : SAT 164
METHANE (Y/N):
Relinquished by: RWB
Date: 1/24/19

Field Setup

Received by: C Cummings
Date: 2/8/19
Operator: C. Cummings
MFC Setting:
System #: 10314
Elapsed Timer Reset (Y/N):
Setup Date: 2/8/19
Canister Valve Opened (Y/N): y
Field Initial Can. Press.: [illegible] psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/9/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -3 ~~-5~~ psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): 09:20
Relinquished by: C. Cummings
Date: 2/9/19

Lab Recovery

Received by: KB
Date: 2/13/19
Lab Final Can. Press.: 1.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -3 @ 09:09 [illegible]
Field Setup: 9°F, windy
Field Recovery: 12°F Clear, Took site assessment measurements

Field Setup
(Cummins Generator running (Tech [illegible] ~4 hrs) @ startup)
Guthrie/contractors on site to set up their monitor - Rambell

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

1D

ERG Lab ID # 902313-07

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: EPA WB Warehouse Duplicate
Canister Number: SAT164
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code:
Cleaning Batch # : H1-544
Collection Date: 2/8/19
Date Can. Cleaned: 1/18/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : 2527
METHANE (Y/N):
Relinquished by: RMB
Date: 1/24/19

Field Setup

Received by: C. Cummings
Date: 2/8/19
Operator: C. Cummings
MFC Setting:
System #: 10315
Elapsed Timer Reset (Y/N):
Setup Date: 2/8/19
Canister Valve Opened (Y/N): Y @ [illegible]
Field Initial Can. Press.: [illegible] psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/9/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
-8.7 valve open
Elapsed Time:
Field Final Can. Press. -2.5 (circle one) psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): 09:20
Relinquished by: C. Cummings
Date: 2/9/19

Lab Recovery

Received by: KB
Date: 2/13/19
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: [illegible]
Field Setup: 9°F, windy
Field Recovery: 12°F, clear - took site assessment measurements -
Field Notes: Cummings generator running (took sun ~4 hrs) (sample setup) → Rambell
Cynthia Contractors onsite to set up their canister
2/9/19 - [illegible] checked canister pressure again after ~30 minutes to ensure pressure [illegible] -6.1" Hg - Closed at 10:04

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

SAT

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9021313-08

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: [illegible]
Canister Number: 5007
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code:
Cleaning Batch # : 41-544
Collection Date: 2/8/19
Date Can. Cleaned: ~~HE~~ 1/18/19 RMB 1/24/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 1/24/19

Field Setup

Received by: C Cummings
Date: 2/8/19
Operator: C Cummings
MFC Setting:
System #: [illegible]
Elapsed Timer Reset (Y/N):
Setup Date: 2/8/19
Canister Valve Opened (Y/N): Y @ [illegible]
Field Initial Can. Press.: [illegible] psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/9/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -9.7 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:40
Relinquished by: C Cummings
Date: 2/9/19

Lab Recovery

Received by: KB
Date: 2/13/19
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: -27.5"Hg @ 10:49 -27.5" [illegible]
Field Setup: 9°F, windy
Field Recovery: 12°F clear
2/8/19 GHD canister already set up at site
2/9/19 GHD canister still at site site assessment measurements taken
GHD Tech arrived [illegible]

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

* received without brass cap. KB 2/13/19

Compounds other than ethylene oxide were not quantitated.

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ERG Lab ID # 9021313-09

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WB Village Hall
Canister Number: 19641
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code:
Cleaning Batch # : H2-544
Collection Date: 2/8/19
Date Can. Cleaned: 1/18/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 1/24/19

Field Setup

Received by: C. Cummings
Date: 2/8/19
Operator: C. Cummings
MFC Setting:
System #: [illegible]
Elapsed Timer Reset (Y/N):
Setup Date: 2/8/19
Canister Valve Opened (Y/N): [illegible]
Field Initial Can. Press.: -28.9 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/9/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -3.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 09:30
Relinquished by: C. Cummings
Date: 2/9/19

Lab Recovery

Received by: KB
Date: 2/13/19
Lab Final Can. Press.: 0.9 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -29.2 @ 09:[illegible]
Field Setup: 19°F, wind
Field Recovery: 12°F clear
2/9/19 notes: Ramball (cynthia) on site. She did Village Hall 1st)
Site assessment measurements on 2/9/19
New empty canister site seen in front of Police Dept.
[illegible] - Set up canisters while we set up our sample
GHD - 2 canisters already on site

Field Setup

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy