Compounds other than ethylene oxide were not quantitated.

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

Sequence ID: L19BL190206	**Instrument:** MS1	**Batch:** B9B2205
Cal Curve (Method): 9020025	**Analyst:** MAR	**Date Analyzed:** 2-22-19
10% Review Sample IDs: 9022025-04	**Reviewer:** QNadn	**Date:** 3/5/19
Optional Additional Review Sample IDs:	**Reviewer:**	**Date:**

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
BFB Instrument Tune Performance Check – one per analysis sequence	Evaluation criteria presented in Section 16.1.1	2-25-19	RMB 3/5/19	QW 3/5/19		
Initial calibration with a minimum of 5 points - quarterly	1)RSD of response factors < ±30% with two exceptions of up to ±40% (non-Tier I compounds) 2) IS response < ±40% of mean 3) RRTs for target peaks ±0.06 units from mean RRT 4) IS RTs within 20sec of mean 5) Each calibration standard within ±30% of nominal conc (for Tier I compounds)	2-25-19	RMB 3/5/19	QW 3/5/19		L19BL
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	2-25-19	RMB 3/5/19	QW 3/5/19		L19BL
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	2-25-19	RMB 3/5/19	QW 3/5/19		2nd source
Method Blank Analysis – one per analysis sequence	1) < 3xMDL or 0.2ppbv, whichever is lower 2) Internal Standard (IS) area response within < ±40% and IS Retention Time (RT) within ±0.33 min. of most recent initial calibration	2-25-19	RMB 3/5/19	QW 3/5/19		

ED_002475_00000282-00001

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	2-25-19	RMB 3/5/19	qw 3/5/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	2-25-19	RMB 3/5/19	qw 3/5/19		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	2-25-19	RMB 3/5/19	qw 3/5/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	2-25-19	RMB 3/5/19	qw 3/5/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	2-25-19	RMB 3/5/19	qw 3/5/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	2-25-19	RMB 3/5/19	qw 3/5/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 3/5/19	qw 3/5/19		9022025-04, EtO $\frac{301(4.77)}{36905(0.2728)}$ = 0.143 ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	2-25-19	RMB 3/5/19	qw 3/5/19		

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

L19BV002 ethylene oxide $\frac{4835 \times 4.77}{40839 \times 0.2728} = 2.07$ ppbv

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

Instrument: ERGMS#1

1902061

Printed: 3/5/2019 9:40:19AM

Calibration ID: 8100002

Lab Number	Sample Name	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
1902061-CCV1	Calibration Check	QC		1		9B20006	8L13002	
B9B2205-BLK1	Blank	QC		2			8L13002	
9022025-01	WB Village Hall	TO-15 2019	A	3			8L13002	Ethylene Oxide only
9022025-02	Gower ES	TO-15 2019	A	4			8L13002	Ethylene Oxide only
9022025-03	Willow Pond Park	TO-15 2019	A	5			8L13002	Ethylene Oxide only
9022025-04	Hinsdale South HS	TO-15 2019	A	6			8L13002	Ethylene Oxide only
9022025-05	Water Tower	TO-15 2019	A	7			8L13002	Ethylene Oxide only
9022025-06	Gower MS	TO-15 2019	A	8			8L13002	Ethylene Oxide only
9022025-07	WB Warehouse C2	TO-15 2019	A	9			8L13002	Ethylene Oxide only
9022025-08	WB Warehouse C1	TO-15 2019	A	10			8L13002	Ethylene Oxide only
B9B2205-DUP1	Duplicate	QC		11			8L13002	
B9B2205-DUP2	Duplicate	QC		12			8L13002	
9022025-09	West Neighborhood	TO-15 2019	A	13			8L13002	Ethylene Oxide only
9022119-01	AZ53500-Chal	TO-15 2019	A	14			8L13002	
9022120-01	OKA-5-Ch2 Chal	TO-15 2019	A	15			8L13002	
9022121-01	AT/C-8-Chal-Ch1	TO-15 2019	A	16			8L13002	
9022121-02	AT/C-8-Chal-Ch2	TO-15 2019	A	17			8L13002	

Samples Loaded By Date

Randy Bower 3/5/19

Data Processed By Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19BV.s
Comment: ANALYZE 2/22/19,9020003 exp 5/13/19, L19BV
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19BV\
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	L19BV001	BFB	BFB
2)	Sample	2	L19BV002	9020003	1902061-CCV1
3)	Sample	3	L19BV003	9020003	SNMOC-CCV1
4)	Sample	4	L19BV004	9020003	FLUSH
5)	Sample	5	L19BV005	9020003	B9B2205-BLK1
6)	Sample	6	L19BV006	9020003	T-H2-568
7)	Sample	7	L19BV007	9020003	B-H1-569
8)	Sample	8	L19BV008	9020003	B-H2-569
9)	Sample	9	L19BV009	9020003	9022025-01
10)	Sample	10	L19BV010	9020003	9022025-02
11)	Sample	11	L19BV011	9020003	9022025-03
12)	Sample	12	L19BV012	9020003	9022025-04
13)	Sample	13	L19BV013	9020003	9022025-05
14)	Sample	14	L19BV014	9020003	9022025-06
15)	Sample	15	L19BV015	9020003	9022025-07
16)	Sample	16	L19BV016	9020003	9022025-08
17)	Sample	17	L19BV017	9020003	B9B2205-DUP1
18)	Sample	18	L19BV018	9020003	B9B2205-DUP2
19)	Sample	19	L19BV019	9020003	9022025-09
20)	Sample	20	L19BV020	9020003	9022119-01
21)	Sample	21	L19BV021	9020003	9022120-01
22)	Sample	22	L19BV022	9020003	9022121-01
23)	Sample	23	L19BV023	9020003	9022121-02
24)	Sample	24	L19BV024	9020003	N40997
25)	Sample	25	L19BV025	9020003	N4075
26)	Sample	100	OFF	FIDOFF	OFF

2-25-19

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19BV001	80 ML 8L13001	1
Sample	2	1902061-CCV1	9020003	L19BV002	80 ML 8L13001,9B20006	1
Sample	3	SNMOC-CCV1	9020003	L19BV003	80 ML 8L13001,9B13007	1
Sample	4	FLUSH	9020003	L19BV004	80 ML 8L13001,	1
Sample	5	B9B2205-BLK1	9020003	L19BV005	80 ML 8L13001,T-H1-568,A21071	1
Sample	6	T-H2-568	9020003	L19BV006	CAN 5138 BATCH BLANK	1
Sample	7	B-H1-569	9020003	L19BV007	CAN SAT174 BATCH BLANK	1
Sample	8	B-H2-569	9020003	L19BV008	CAN 5023 BATCH BLANK	1
Sample	9	9022025-01	9020003	L19BV009	WB VILLAGE HALL 2/15/19	1
Sample	10	9022025-02	9020003	L19BV010	GOWER ES 2/15/19	1
Sample	11	9022025-03	9020003	L19BV011	WILLOW POND PARK 2/15/19	1
Sample	12	9022025-04	9020003	L19BV012	HINSDALE S. HS 2/15/19	1
Sample	13	9022025-05	9020003	L19BV013	WATER TOWER 2/15/19	1
Sample	14	9022025-06	9020003	L19BV014	GOWER MS 2/15/19	1
Sample	15	9022025-07	9020003	L19BV015	EPA WB WAREHOUSE XX 2/15/19 C2	1
Sample	16	9022025-08	9020003	L19BV016	EPA WB WAREHOUSE XX 2/15/19 C1	1
Sample	17	B9B2205-DUP1	9020003	L19BV017	EPA WB WAREHOUSE XX 2/15/19 R2	1
Sample	18	B9B2205-DUP2	9020003	L19BV018	EPA WB WAREHOUSE XX 2/15/19 R1	1
Sample	19	9022025-09	9020003	L19BV019	WEST NEIGHBORHOOD 2/15/19	1
Sample	20	9022119-01	9020003	L19BV020	CHALREF SIDEARM#1 AZ53500	1
Sample	21	9022120-01	9020003	L19BV021	CHALREF SIDEARM #2 OK-5-CH2	1
Sample	22	9022121-01	9020003	L19BV022	CHAL REF SIDEARM#3 AT/C-8-CH1	1
Sample	23	9022121-02	9020003	L19BV023	CHALREF SIDEARM#4 AT/C-8-CH2	1
Sample	24	N40997	9020003	L19BV024	18 MONTH CAN CERT	1
Sample	25	N4075	9020003	L19BV025	18 MONTH CAN CERT	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

2-25-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19BV.SEQ
Date: 02-25-2019
Time: 06:28:46
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
1902061-CCV1	2	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
SNMOC-CCV1	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2205-BLK1	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
T-H2-568	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B-H1-569	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B-H2-569	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022025-01	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022025-02	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022025-03	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022025-04	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022025-05	1	8	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022025-06	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022025-07	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022025-08	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2205-DUP1	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2205-DUP2	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022025-09	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022119-01	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022120-01	1	14	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022121-01	1	15	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022121-02	1	16	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
N4097 CERT	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
N4075 CERT	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00

2-25-19

Compounds other than ethylene oxide were not quantitated.

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

2/25/2019 8:19:37 AM
Leak Check for C:\Smart\L19BV.SEQ
Report File: C:\Smart\L19BV.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	2	---	---	1.2	1.3	0.10
1	3	---	---	1.1	1.2	0.10
1	2	---	---	1.1	1.2	0.10
1	3	---	---	1.1	1.2	0.10
1	4	---	---	1.1	1.2	0.10
1	5	---	---	1.1	1.2	0.10
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.1	1.2	0.10
1	8	---	---	1.1	1.2	0.10
1	9	---	---	1.2	1.2	0.00
1	10	---	---	1.1	1.2	0.10
1	11	---	---	1.1	1.2	0.10
1	12	---	---	1.1	1.2	0.10
1	13	---	---	1.2	1.2	0.00
1	14	---	---	1.2	1.2	0.00
1	15	---	---	1.2	1.2	0.00
1	16	---	---	1.2	1.4	0.20
1	1	---	---	1.2	1.2	0.00
1	2	---	---	1.1	1.2	0.10

2-25-19

Compounds other than ethylene oxide were not quantitated.

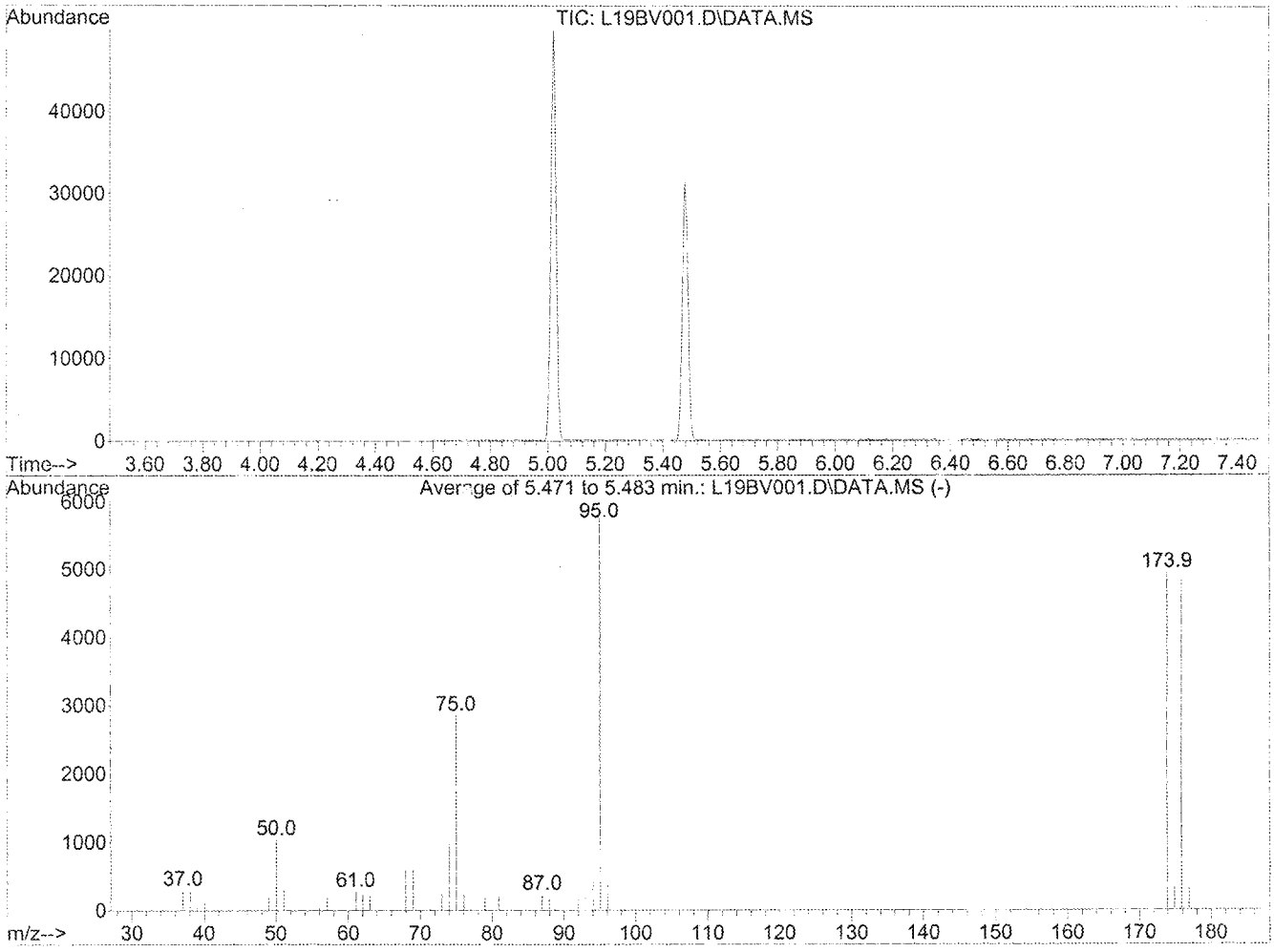
BFB

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV001.D
Acq On : 22 Feb 2019 8:38 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

R25-B



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

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.0	1037	PASS
75	95	30	66	49.6	2851	PASS
95	95	100	100	100.0	5748	PASS
96	95	5	9	7.0	404	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	86.0	4941	PASS
175	174	4	9	6.7	329	PASS
176	174	93	101	97.7	4826	PASS
177	176	5	9	6.4	308	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19BV\L19BV001.D
Tune Time : 22 Feb 2019 8:38 am

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

File	Sample	Internal Standard Responses		
L19BV002.D	1902061-CCV1	40839	98512	70469
L19BV005.D	B9B2205-BLK1	43759	109994	74920
L19BV006.D	T-H2-568	42325	104408	72338
L19BV007.D	B-H1-569	43255	107965	73036
L19BV008.D	B-H2-569	44052	111784	78564
L19BV009.D	9022025-01	40216	102487	71407
L19BV010.D	9022025-02	40551	103162	70494
L19BV011.D	9022025-03	37839	91322	67255
L19BV012.D	9022025-04	36905	89744	63900
L19BV013.D	9022025-05	38684	96063	67254
L19BV014.D	9022025-06	40924	105833	70719
L19BV015.D	9022025-07	40099	101360	70408
L19BV016.D	9022025-08	39480	100008	68818
L19BV017.D	B9B2205-DUP1	40516	103731	70432
L19BV018.D	B9B2205-DUP2	40378	103728	70429
L19BV019.D	9022025-09	39369	97975	66815
L19BV020.D	9022119-01	39444	100245	69092
L19BV021.D	9022120-01	40460	101393	70068
L19BV022.D	9022121-01	39728	97568	68202
L19BV023.D	9022121-02	36224	91772	65809
L19BV024.D	N40997	39611	97838	67457
L19BV025.D (fails)	N4075	41369	104481	70914

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

2-25-19

Compounds other than ethylene oxide were not quantitated.

C:\MSDChe[illegible]

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
	2/23/2019 8:55	L19BV025.D	41369	19.97	104481	23.13	70914	30.10
Format 1 (Yes/No)								
Format 1 Title								
Format 2 (Yes/No)			YES	YES	YES	YES	YES	YES
Format 2 Title								
Show X Axis Title			YES	YES	YES	YES	YES	YES
Show Y Axis Title								
Lines To Chart								

Start of Data	Format 1 X-axis	Format 2 X-axis	IS-Hexane-d14	% Rec	RT	DEV (min)	IS-Difluorobenzene	% Rec	RT	DEV (min)	IS-Chlorobenzene-d5	% Rec	RT	DEV (min)
		IS AVG / AVG RT	48611		19.99		118146		23.15		86564		30.11	
	2/22/2019 9:28	L19BV002.D	40839	84	19.97	-0.02	98512	83	23.13	-0.02	70469	81	30.10	-0.01
	2/22/2019 12:32	L19BV005.D	43759	90	19.97	-0.02	109994	93	23.15	0	74920	87	30.09	-0.02
	2/22/2019 13:35	L19BV006.D	42325	87	19.97	-0.02	104408	88	23.13	-0.02	72338	84	30.10	-0.01
	2/22/2019 14:35	L19BV007.D	43255	89	19.97	-0.02	107965	91	23.13	-0.02	73036	84	30.10	-0.01
	2/22/2019 15:35	L19BV008.D	44052	91	19.97	-0.02	111784	95	23.15	0	78564	91	30.09	-0.02
	2/22/2019 16:35	L19BV009.D	40216	83	19.99	0	102487	87	23.15	0	71407	82	30.09	-0.02
	2/22/2019 17:35	L19BV010.D	40551	83	19.97	-0.02	103162	87	23.13	-0.02	70494	81	30.10	-0.01
	2/22/2019 18:38	L19BV011.D	37839	78	19.97	-0.02	91322	77	23.13	-0.02	67255	78	30.09	-0.02
	2/22/2019 19:40	L19BV012.D	36905	76	19.97	-0.02	89744	76	23.13	-0.02	63900	74	30.10	-0.01
	2/22/2019 20:42	L19BV013.D	38684	80	19.97	-0.02	96063	81	23.15	0	67254	78	30.10	-0.01
	2/22/2019 21:43	L19BV014.D	40924	84	19.97	-0.02	105833	90	23.13	-0.02	70719	82	30.10	-0.01
	2/22/2019 22:43	L19BV015.D	40099	82	19.97	-0.02	101360	86	23.13	-0.02	70408	81	30.10	-0.01
	2/22/2019 23:43	L19BV016.D	39480	81	19.97	-0.02	100008	85	23.13	-0.02	68818	79	30.10	-0.01
	2/23/2019 12:43	L19BV017.D	40516	83	19.97	-0.02	103731	88	23.13	-0.02	70432	81	30.09	-0.02
	2/23/2019 1:43	L19BV018.D	40378	83	19.97	-0.02	103728	88	23.13	-0.02	70429	81	30.10	-0.01
	2/23/2019 2:45	L19BV019.D	39369	81	19.97	-0.02	97975	83	23.15	0	66815	77	30.09	-0.02
	2/23/2019 3:45	L19BV020.D	39444	81	19.97	-0.02	100245	85	23.13	-0.02	69092	80	30.10	-0.01
	2/23/2019 4:46	L19BV021.D	40460	83	19.99	0	101393	86	23.15	0	70068	81	30.10	-0.01
	2/23/2019 5:46	L19BV022.D	39728	82	19.97	-0.02	97568	83	23.13	-0.02	68202	79	30.10	-0.01
	2/23/2019 6:48	L19BV023.D	38224	79	19.97	-0.02	91772	78	23.15	0	65809	76	30.09	-0.02
	2/23/2019 7:53	L19BV024.D	39611	81	19.97	-0.02	97838	83	23.13	-0.02	67457	78	30.09	-0.02
	2/23/2019 8:55	L19BV025.D	41369	85	19.97	-0.02	104481	88	23.13	-0.02	70914	82	30.10	-0.01

2-25-19

[illegible] CONTROL_CHART_[illegible] 2/23/2019 6:59 AM

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B20006

Description:	2.50 ppbv ICV/CCV	Expires:	03/22/19
Standard Type:	Calibration Stan	Prepared:	02/20/19
Solvent:	Scientific Air	Prepared By:	Kameron Singer
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	02/20/19 14:53 by MH

canister# 3224

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

Reviewed By _____ Date 6-25-19

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record

Eastern Research Group

9B20006

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

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
8J25001	TO-15 Secondary Stock Standard	10/25/18	** Vendor **	10/04/19	11/20/18 11:30 by RMB	30
8K20015	Ethylene Oxide Secondary Stock S	11/12/18	** Vendor **	11/12/19	11/20/18 12:14 by MH	15

Reviewed By 12/5/18 Date

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV002.D
Acq On : 22 Feb 2019 9:28 am
Operator : MAH
Sample : 1902061-CCV1
Misc : 80 ML 8L13001,9B20006
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 25 06:42:09 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

2-25-19

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	0.404	-3.3	100	0.00
3	CT	Propylene	0.487	0.543	-11.5	100	0.00
4	CT	Dichlorodifluoromethane	2.300	2.483	-8.0	100	0.00
5	CT	Chloromethane	0.592	0.603	-1.9	100	0.00
6	CT	Dichlorotetrafluoroethane	2.013	2.348	-16.6	100	0.00
7	CT	Vinyl Chloride	0.662	0.689	-4.1	100	0.00
8	CT	1,3-Butadiene	0.450	0.469	-4.2	100	0.00
9	CT	Ethylene oxide	0.273	0.226	17.2	100	0.00
10	CT	Bromomethane	0.627	0.655	-4.5	100	0.00
11	CT	Chloroethane	0.263	0.274	-4.2	100	0.00
12	CT	Acetonitrile	0.414	0.412	0.5	100	0.00
13	CT	Acrolein	0.209	0.183	12.4	100	0.00
14	CT	Trichlorofluoromethane	1.944	1.751	9.9	100	0.00
15	CT	Acrylonitrile	0.330	0.305	7.6	100	0.00
16	CT	1,1-Dichloroethene	0.843	0.921	-9.3	100	0.00
17	CT	Methylene Chloride	0.557	0.598	-7.4	100	0.00
18	CT	Carbon Disulfide	1.716	1.767	-3.0	100	0.00
19	CT	Trichlorotrifluoroethane	1.307	1.415	-8.3	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.467	0.475	-1.7	100	0.00
21	CT	1,1-Dichloroethane	0.786	0.784	0.3	100	0.00
22	CT	Methyl tert-Butyl Ether	1.318	1.350	-2.4	100	0.00
23	CT	Chloroprene	0.639	0.620	3.0	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.620	0.599	3.4	100	0.00
25	CT	Bromochloromethane	0.335	0.328	2.1	100	0.00
26	CT	Chloroform	0.912	0.929	-1.9	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.260	1.301	-3.3	100	0.00
28	CT	1,2-Dichloroethane	0.560	0.556	0.7	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.370	0.395	-6.8	100	0.00
31	CT	Benzene	0.529	0.540	-2.1	100	0.00
32	CT	Carbon Tetrachloride	0.396	0.470	-18.7	100	0.00
33	CT	tert-Amyl Methyl Ether	0.449	0.456	-1.6	100	0.00
34	CT	1,2-Dichloropropane	0.201	0.193	4.0	100	0.00
35	CT	Ethyl Acrylate	0.171	0.220	-28.7	100	0.00
36	CT	Bromodichloromethane	0.356	0.321	9.8	100	0.00
37	CT	Trichloroethylene	0.252	0.233	7.5	100	0.00
38	CT	Methyl Methacrylate	0.513	0.599	-16.8	100	0.00
39	CT	cis-1,3-Dichloropropene	0.175	0.193	-10.3	100	0.00
40	CT	Methyl Isobutyl Ketone	0.377	0.380	-0.8	100	0.00
41	CT	trans-1,3-Dichloropropene	0.117	0.127	-8.5	100	0.00
42	CT	1,1,2-Trichloroethane	0.184	0.179	2.7	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.779	0.789	-1.3	100	0.00
45	CT	Dibromochloromethane	1.529	1.543	-0.9	100	0.00
46	CT	1,2-Dibromoethane	0.292	0.299	-2.4	100	0.00
47	CT	n-Octane	0.469	0.455	3.0	100	0.00
48	CT	Tetrachloroethylene	0.375	0.364	2.9	100	0.00

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV002.D
Acq On : 22 Feb 2019 9:28 am
Operator : MAH
Sample : 1902061-CCV1
Misc : 80 ML 8L13001,9B20006
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 25 06:42:09 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	0.482	3.0	100	0.00
50	CT	Ethylbenzene	0.819	0.820	-0.1	100	0.00
51	CT	m,p-Xylene	0.691	0.683	1.2	100	0.00
52	CT	Bromoform	0.296	0.298	-0.7	100	0.00
53	CT	Styrene	0.392	0.379	3.3	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.446	0.444	0.4	100	0.00
55	CT	o-Xylene	0.682	0.706	-3.5	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.732	0.697	4.8	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.633	0.596	5.8	100	0.00
58	CT	m-Dichlorobenzene	0.333	0.269	19.2	100	0.00
59	CT	p-Dichlorobenzene	0.271	0.229	15.5	100	0.00
60	CT	o-Dichlorobenzene	0.305	0.265	13.1	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.103	0.108	-4.9	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.264	0.282	-6.8	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\L19BV\
Data File : L19BV002.D
Acq On : 22 Feb 2019 9:28 am
Operator : MAH
Sample : 1902061-CCV1
Misc : 80 ML 8L13001,9B20006
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 25 06:42:09 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

2-25-19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	40839	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	98512	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	70469	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.404	26	8311	2.4851 ppbv	100
3) Propylene	7.823	41	11390	2.7302 ppbv	100
4) Dichlorodifluoromethane	8.685	85	50586	2.5685 ppbv	100
5) Chloromethane	9.740	50	12806	2.5253 ppbv	99
6) Dichlorotetrafluoroethane	10.847	85	49042	2.8449 ppbv	100
7) Vinyl Chloride	11.102	62	14747	2.6000 ppbv	99
8) 1,3-Butadiene	11.766	54	9921	2.5731 ppbv	99
9) Ethylene oxide	12.380	29	4835	2.0700 ppbv	99
10) Bromomethane	12.575	94	14022	2.6125 ppbv	100
11) Chloroethane	13.255	64	5866	2.6033 ppbv	100
12) Acetonitrile	14.334	41	8930	2.5195 ppbv	100
13) Acrolein	14.613	56	3785	2.1193 ppbv	99
14) Trichlorofluoromethane	15.169	101	37469	2.2515 ppbv	99
15) Acrylonitrile	15.911	53	6522	2.3062 ppbv	98
16) 1,1-Dichloroethene	16.399	61	19238	2.6646 ppbv	99
17) Methylene Chloride	16.723	49	12707	2.6639 ppbv	98
18) Carbon Disulfide	16.909	76	37523	2.5541 ppbv	100
19) Trichlorotrifluoroethane	17.257	101	29559	2.6411 ppbv	100
20) trans-1,2-Dichloroethy...	18.315	96	10006	2.5003 ppbv	98
21) 1,1-Dichloroethane	18.609	63	16310	2.4246 ppbv	100
22) Methyl tert-Butyl Ether	18.768	73	29366	2.6029 ppbv	99
23) Chloroprene	19.516	53	13167	2.4063 ppbv	99
24) cis-1,2-Dichloroethylene	19.924	61	12823	2.4144 ppbv	99
25) Bromochloromethane	20.151	128	6940	2.4174 ppbv	98
26) Chloroform	20.401	83	19877	2.5467 ppbv	99
27) Ethyl tert-Butyl Ether	21.164	59	28626	2.6530 ppbv	100
28) 1,2-Dichloroethane	21.458	62	11854	2.4744 ppbv	100
30) 1,1,1-Trichloroethane	21.850	97	19253	2.6365 ppbv	99
31) Benzene	22.535	78	26762	2.5627 ppbv	100
32) Carbon Tetrachloride	22.770	117	23407	2.9927 ppbv	100
33) tert-Amyl Methyl Ether	23.501	73	23416	2.6404 ppbv	100
34) 1,2-Dichloropropane	23.769	63	9646	2.4297 ppbv	97
35) Ethyl Acrylate	23.872	55	11007	3.2633 ppbv	99
36) Bromodichloromethane	24.058	83	16203	2.3062 ppbv	100
37) Trichloroethylene	24.161	130	11570	2.3258 ppbv	100
38) Methyl Methacrylate	24.532	41	30024	2.9658 ppbv	99
39) cis-1,3-Dichloropropene	25.511	75	9668	2.8044 ppbv	97
40) Methyl Isobutyl Ketone	25.587	43	18976	2.5498 ppbv	99
41) trans-1,3-Dichloropropene	26.350	75	6185	2.6778 ppbv	96
42) 1,1,2-Trichloroethane	26.617	97	8783	2.4179 ppbv	99
44) Toluene	27.075	91	28608	2.4705 ppbv	99
45) Dibromochloromethane	27.734	129	58252	2.5626 ppbv	100
46) 1,2-Dibromoethane	28.138	107	11102	2.5568 ppbv	99
47) n-Octane	28.857	43	17034	2.4423 ppbv	98
48) Tetrachloroethylene	28.980	166	13464	2.4158 ppbv	98
49) Chlorobenzene	30.173	112	17642	2.3871 ppbv	100
50) Ethylbenzene	30.898	91	30469	2.5026 ppbv	100

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV002.D
Acq On : 22 Feb 2019 9:28 am
Operator : MAH
Sample : 1902061-CCV1
Misc : 80 ML 8L13001,9B20006
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 25 06:42:09 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

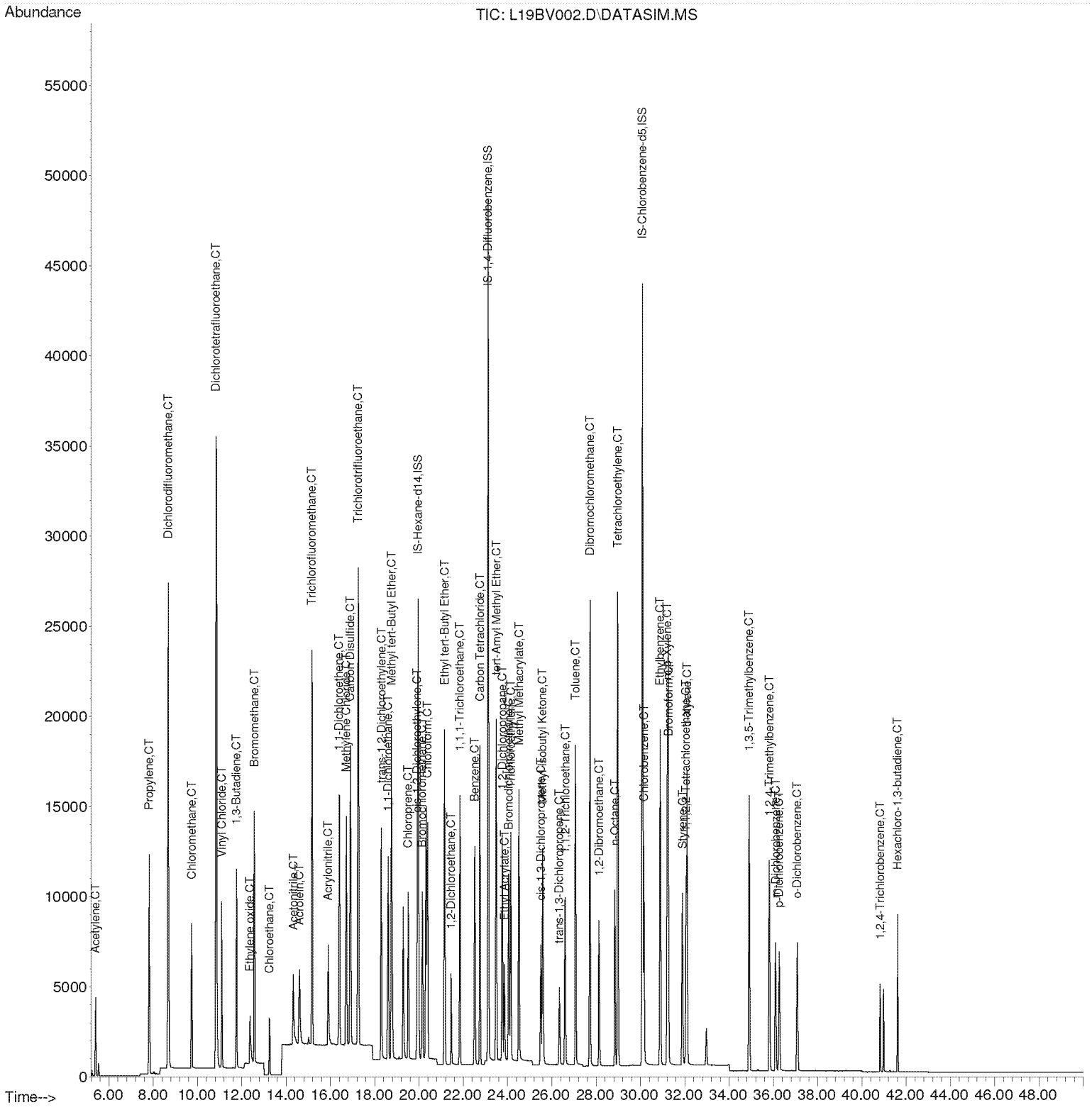
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) m,p-Xylene	31.223	91	50602	4.9280	ppbv		99
52) Bromoform	31.280	173	11243	2.5580	ppbv		100
53) Styrene	31.910	104	14070	2.4168	ppbv	#	99
54) 1,1,2,2-Tetrachloroethane	32.063	83	16696	2.5193	ppbv		100
55) o-Xylene	32.120	91	25612	2.5274	ppbv		99
56) 1,3,5-Trimethylbenzene	34.919	105	26103	2.3976	ppbv		100
57) 1,2,4-Trimethylbenzene	35.828	105	21089	2.2397	ppbv		99
58) m-Dichlorobenzene	36.113	146	9582	1.9355	ppbv		99
59) p-Dichlorobenzene	36.273	146	8887	2.2037	ppbv		99
60) o-Dichlorobenzene	37.093	146	9851	2.1756	ppbv		99
61) 1,2,4-Trichlorobenzene	40.826	180	3986	2.5956	ppbv		99
62) Hexachloro-1,3-butadiene	41.621	225	10469	2.6694	ppbv		100

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

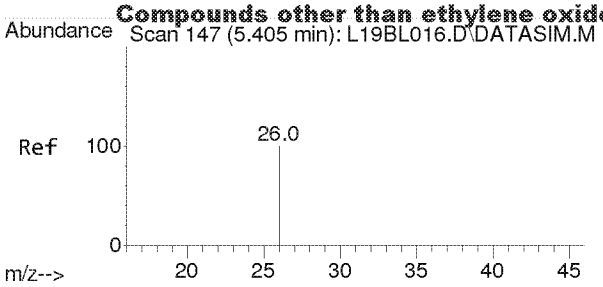
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV002.D
Acq On : 22 Feb 2019 9:28 am
Operator : MAH
Sample : 1902061-CCV1
Misc : 80 ML 8L13001,9B20006
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 25 06:42:09 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

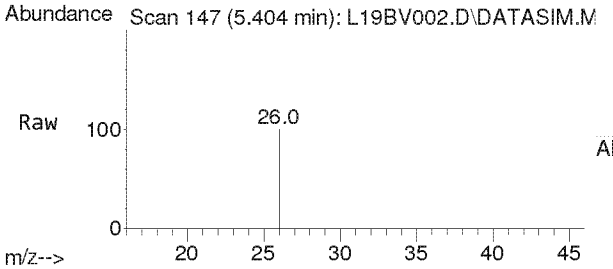


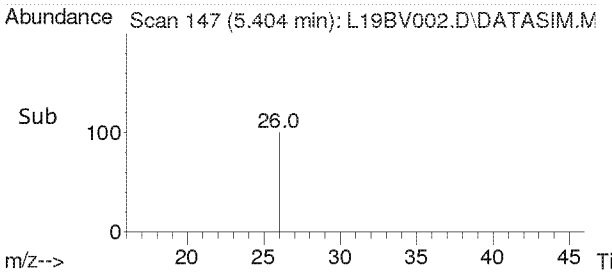
Compounds other than ethylene oxide were not quantitated.

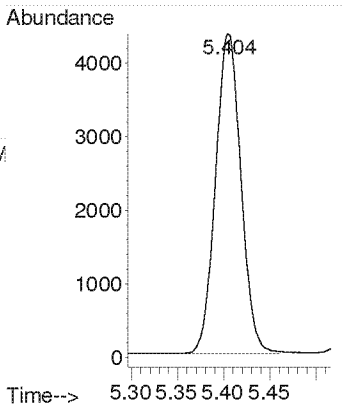


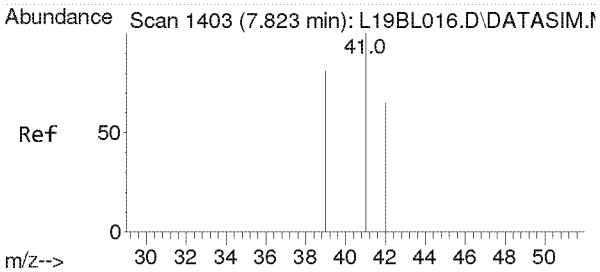
#2
Acetylene
Concen: 2.485 ppbv
RT: 5.404 min Scan# 147
Delta R.T. -0.000 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 26 Resp: 8311





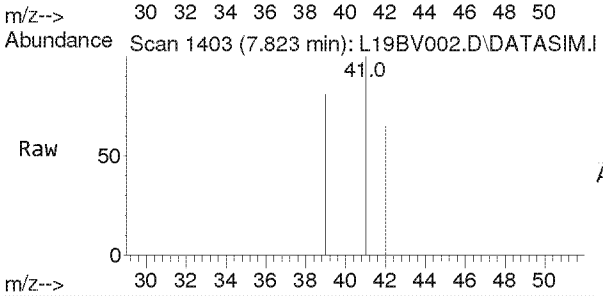


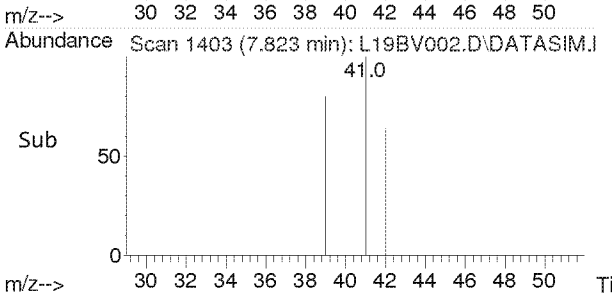


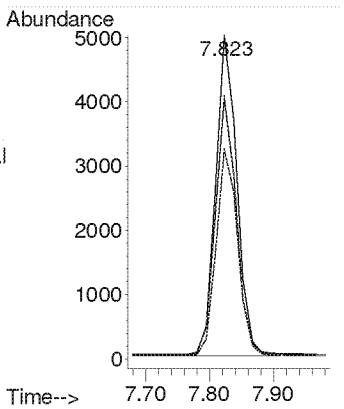
#3
Propylene
Concen: 2.730 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.000 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 41 Resp: 11390

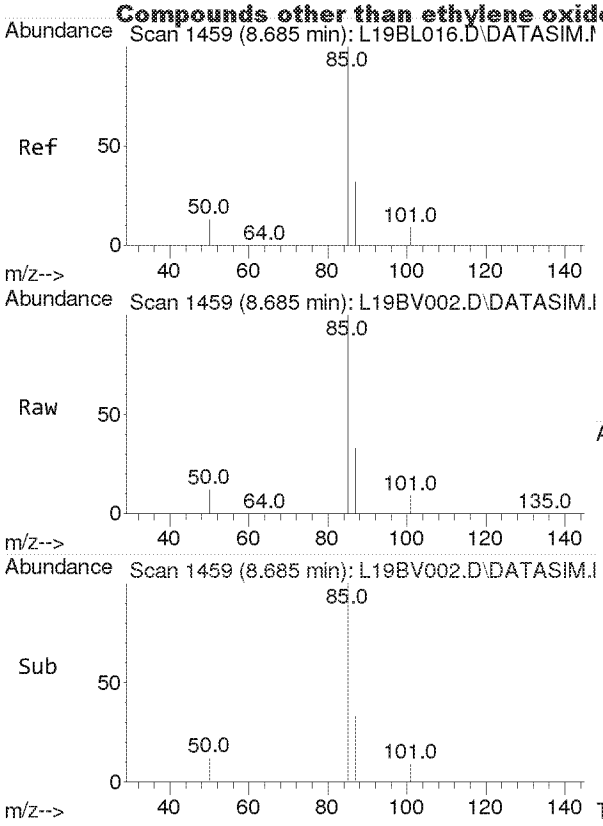
Ion	Ratio	Lower	Upper
41	100		
39	79.5	64.2	96.2
42	65.9	52.6	79.0







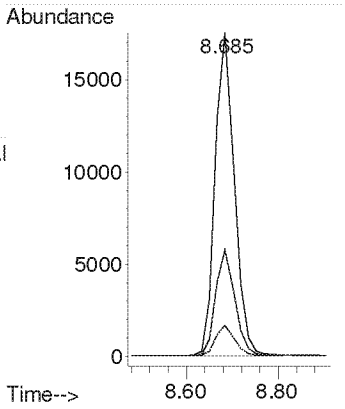
Compounds other than ethylene oxide were not quantitated.

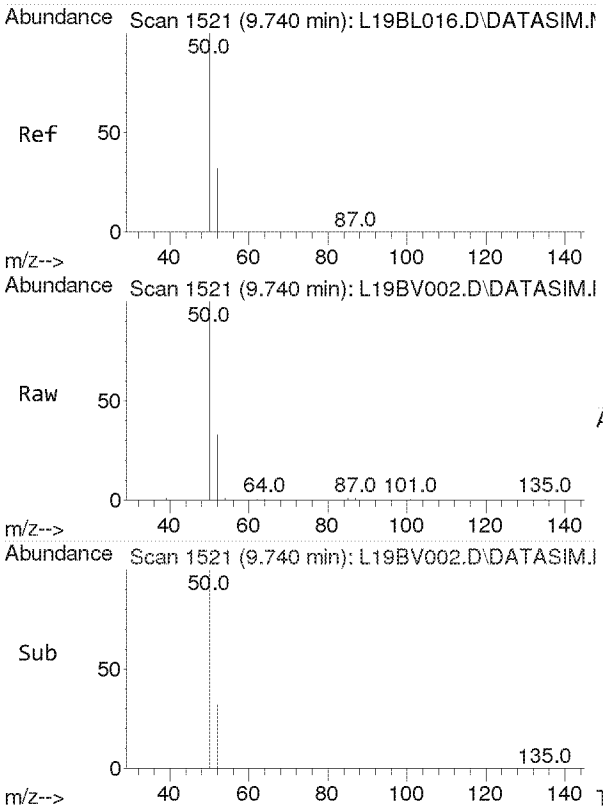


#4
Dichlorodifluoromethane
Concen: 2.568 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. -0.000 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 85 Resp: 50586

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

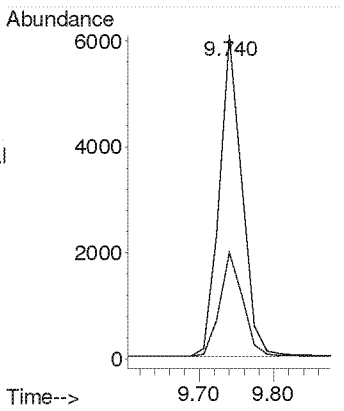




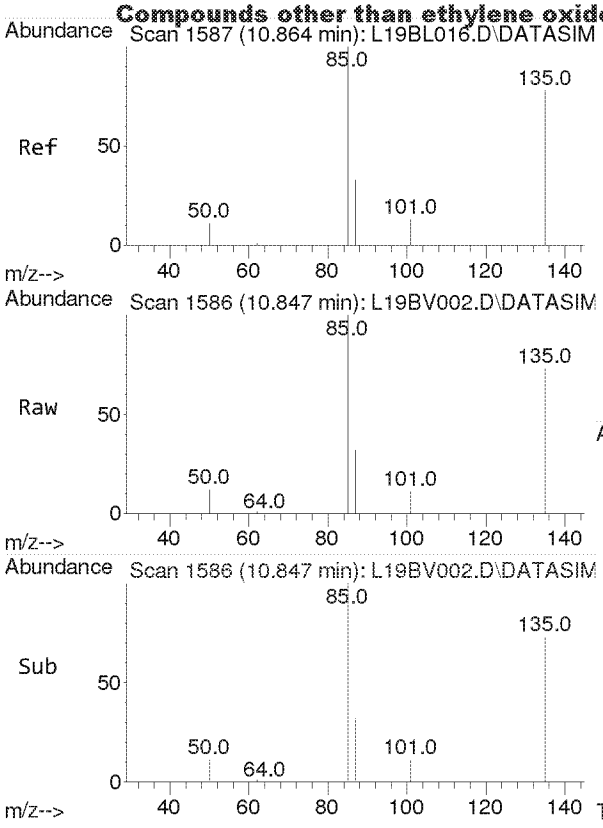
#5
Chloromethane
Concen: 2.525 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. -0.000 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 50 Resp: 12806

Ion	Ratio	Lower	Upper
50	100		
52	32.9	26.1	39.1



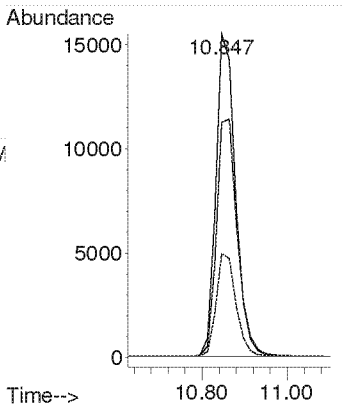
Compounds other than ethylene oxide were not quantitated.

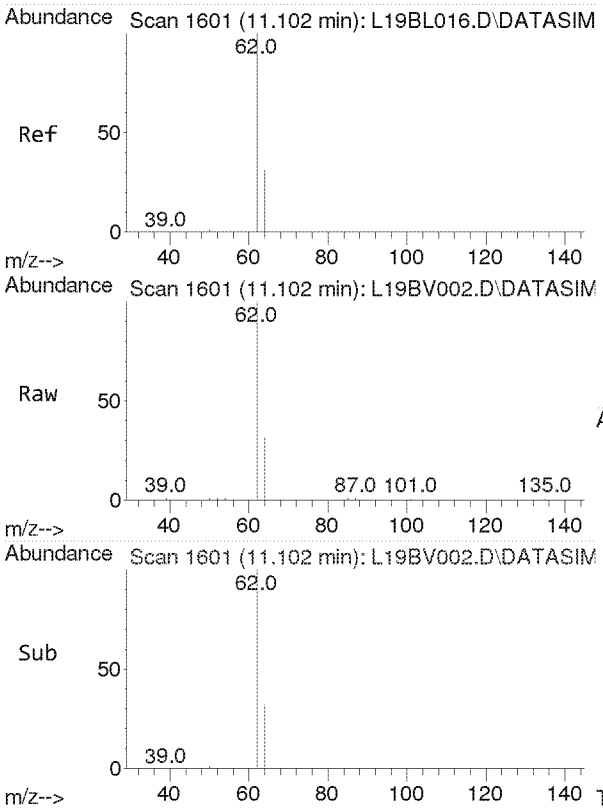


#6
Dichlorotetrafluoroethane
Concen: 2.845 ppbv
RT: 10.847 min Scan# 1586
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 85 Resp: 49042

Ion	Ratio	Lower	Upper
85	100		
135	78.8	63.2	94.8
87	32.3	25.9	38.9

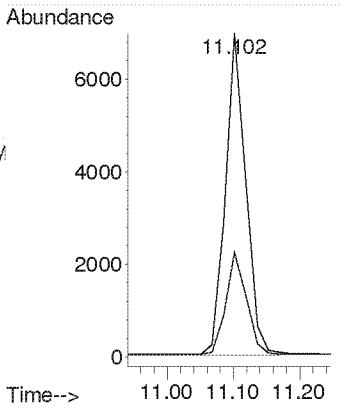




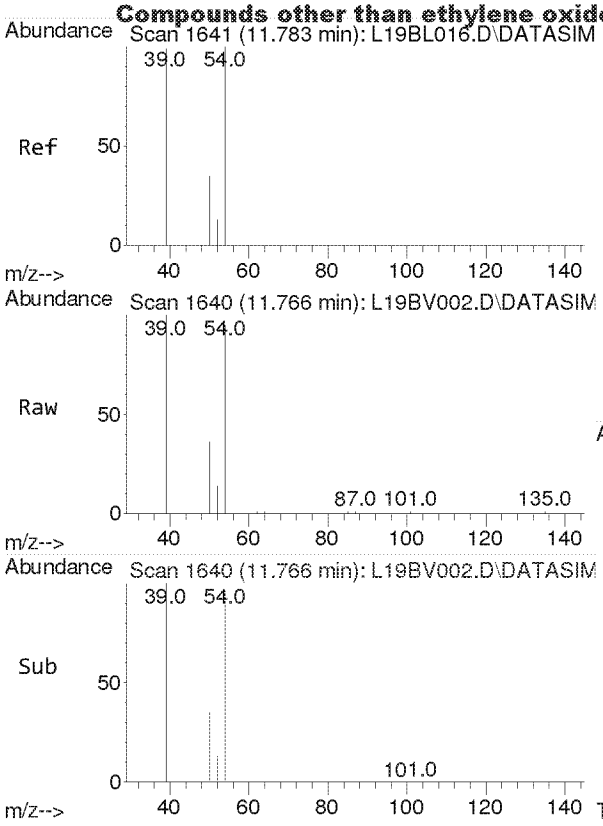
#7
Vinyl Chloride
Concen: 2.600 ppbv
RT: 11.102 min Scan# 1601
Delta R.T. -0.000 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 62 Resp: 14747

Ion	Ratio	Lower	Upper
62	100		
64	32.1	25.4	38.0



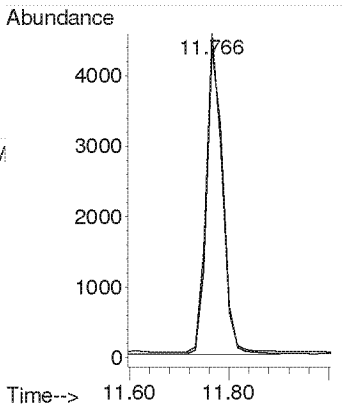
Compounds other than ethylene oxide were not quantitated.

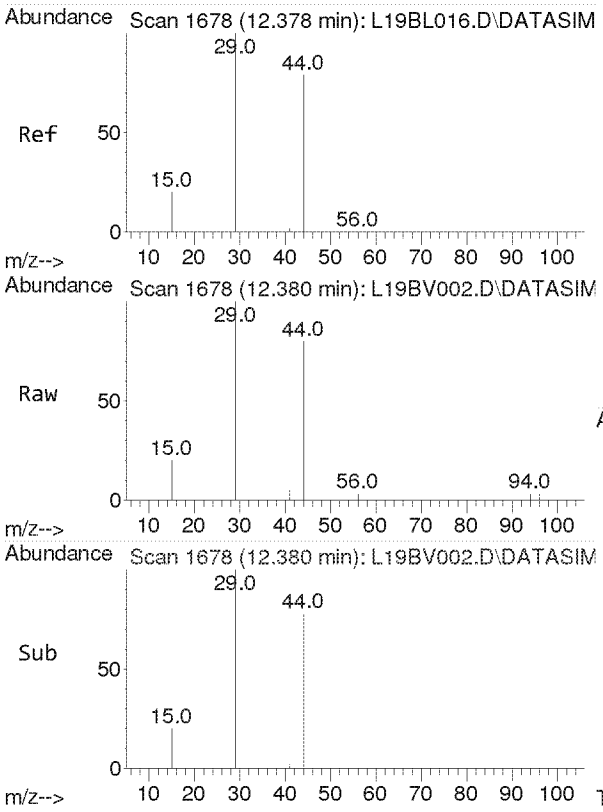


#8
1,3-Butadiene
Concen: 2.573 ppbv
RT: 11.766 min Scan# 1640
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 54 Resp: 9921

Ion	Ratio	Lower	Upper
54	100		
39	101.0	81.6	122.4

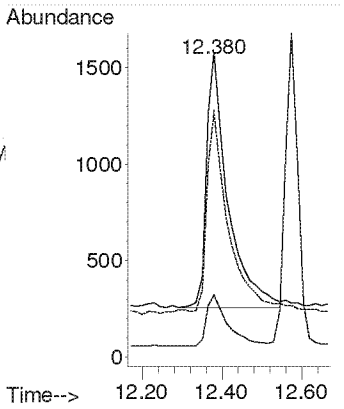




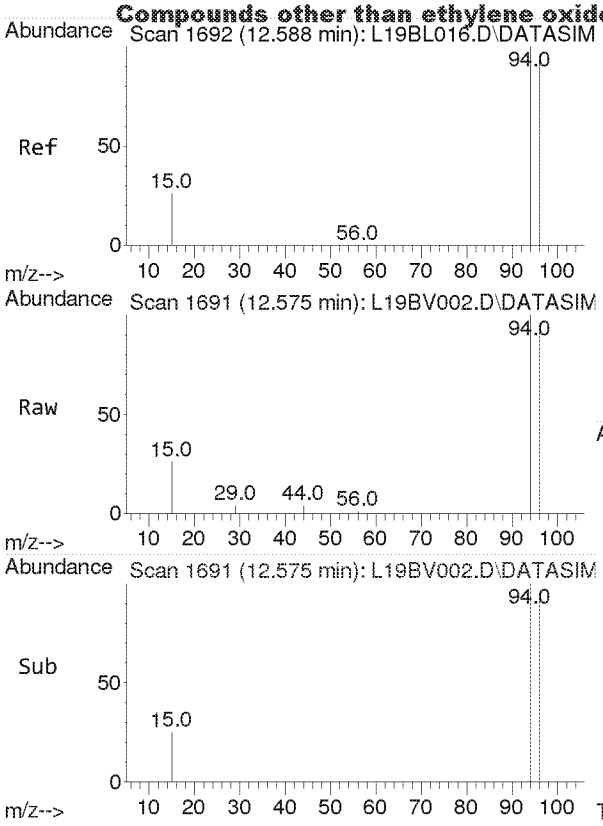
#9
Ethylene oxide
Concen: 2.070 ppbv
RT: 12.380 min Scan# 1678
Delta R.T. 0.002 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 29 Resp: 4835

Ion	Ratio	Lower	Upper
29	100		
15	20.2	16.0	24.0
44	81.1	65.4	98.2



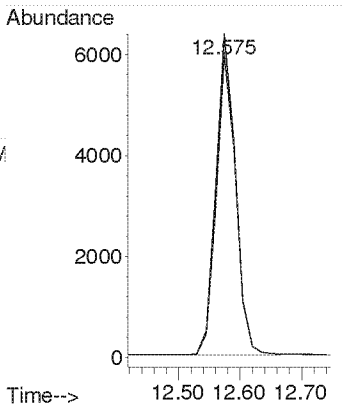
Compounds other than ethylene oxide were not quantitated.

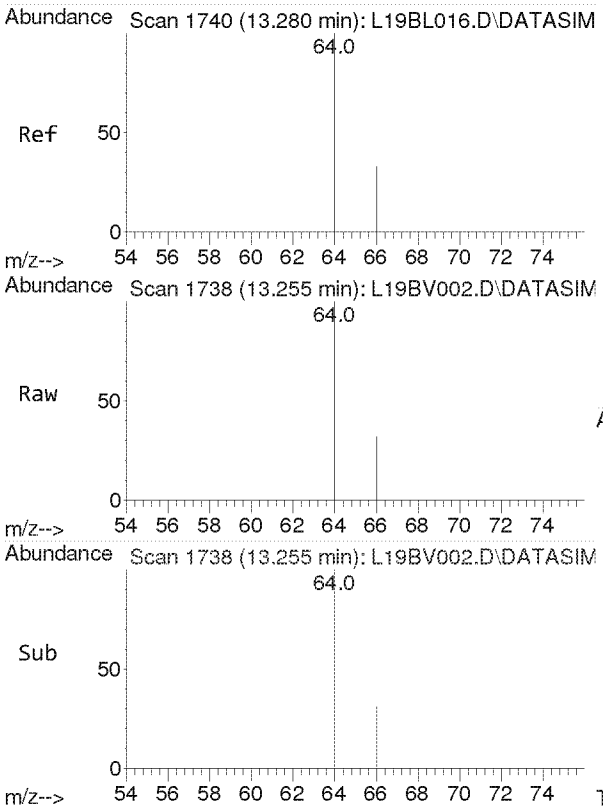


#10
Bromomethane
Concen: 2.612 ppbv
RT: 12.575 min Scan# 1691
Delta R.T. -0.013 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 94 Resp: 14022

Ion	Ratio	Lower	Upper
94	100		
96	94.0	75.5	113.3

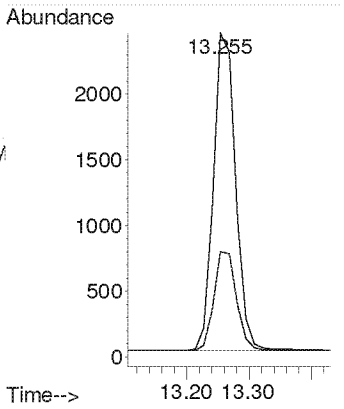




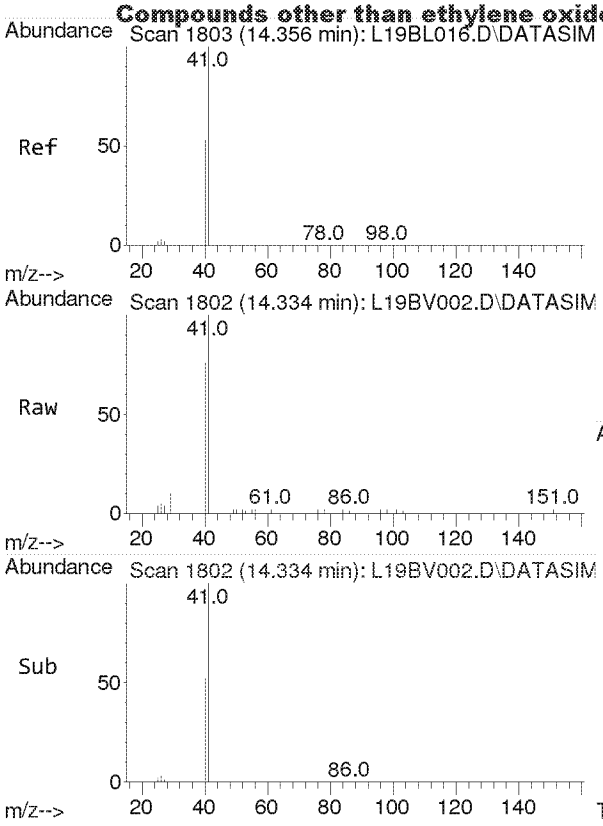
#11
Chloroethane
Concen: 2.603 ppbv
RT: 13.255 min Scan# 1738
Delta R.T. -0.025 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 64 Resp: 5866

Ion	Ratio	Lower	Upper
64	100		
66	32.0	25.8	38.6



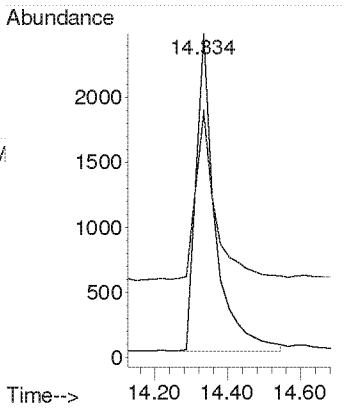
Compounds other than ethylene oxide were not quantitated.

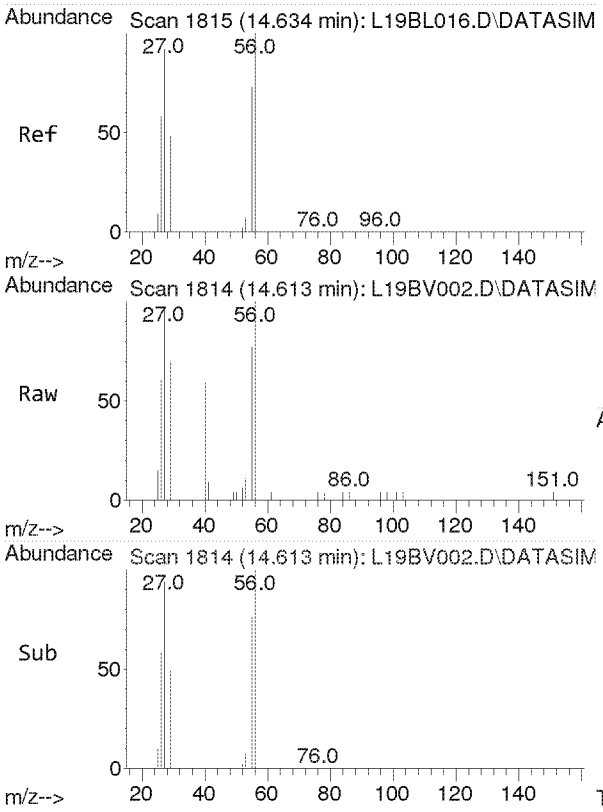


#12
Acetonitrile
Concen: 2.520 ppbv
RT: 14.334 min Scan# 1802
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 41 Resp: 8930

Ion	Ratio	Lower	Upper
41	100		
40	52.7	42.2	63.4

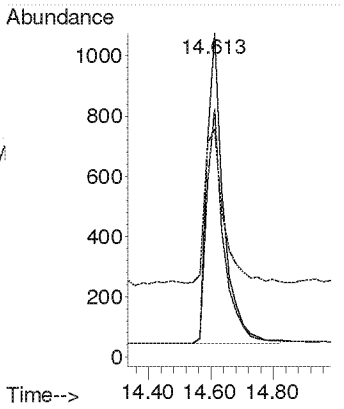




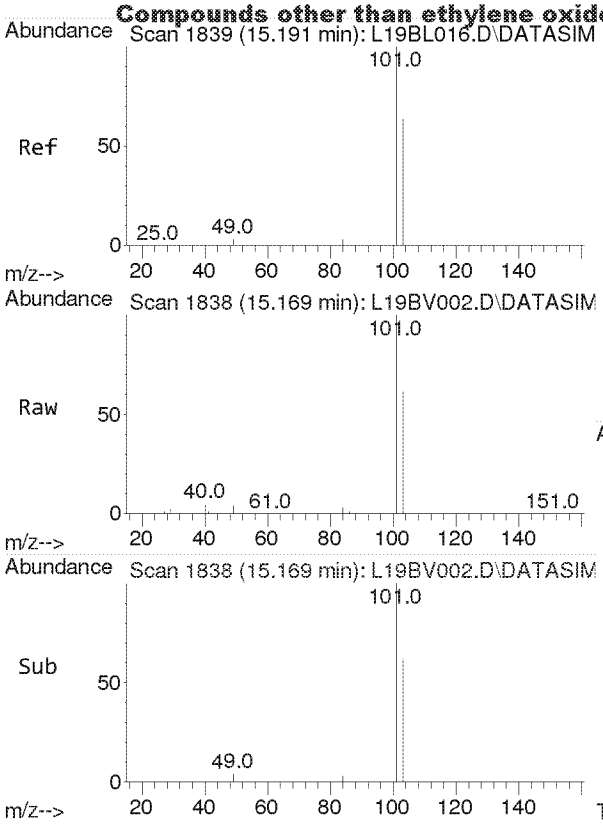
#13
Acrolein
Concen: 2.119 ppbv
RT: 14.613 min Scan# 1814
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 56 Resp: 3785

Ion	Ratio	Lower	Upper
56	100		
55	77.3	60.8	91.2
29	55.3	43.8	65.6



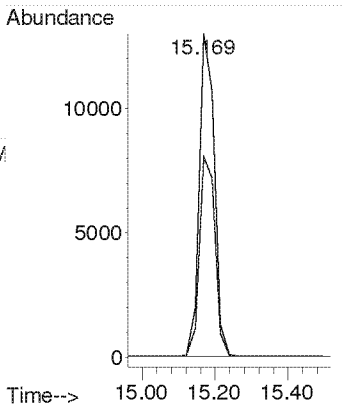
Compounds other than ethylene oxide were not quantitated.

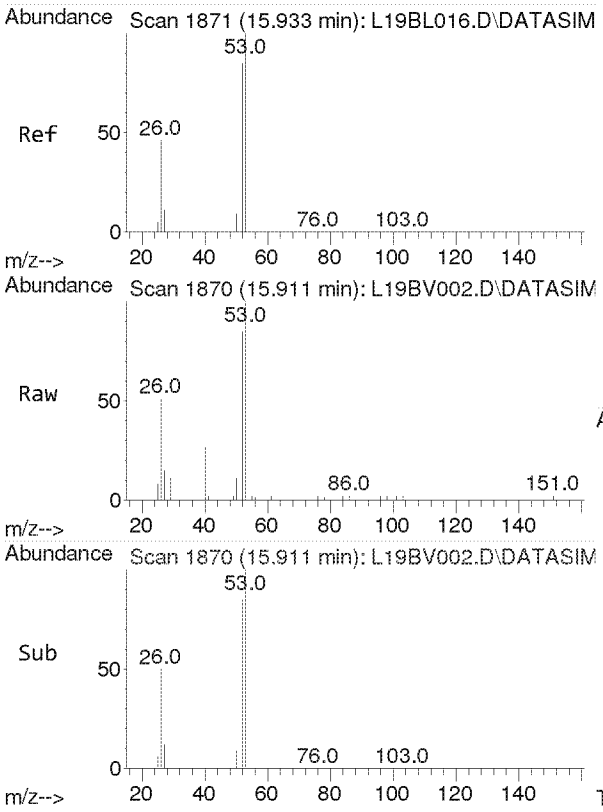


#14
Trichlorofluoromethane
Concen: 2.252 ppbv
RT: 15.169 min Scan# 1838
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:101 Resp: 37469

Ion	Ratio	Lower	Upper
101	100		
103	64.1	51.7	77.5

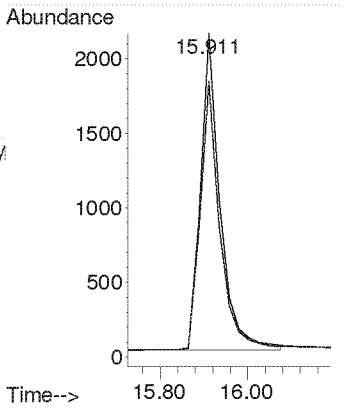




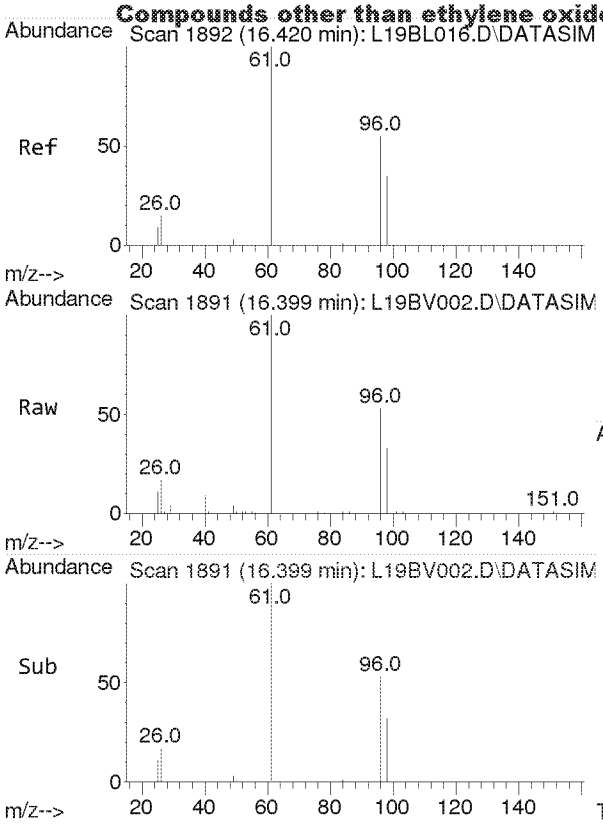
#15
Acrylonitrile
Concen: 2.306 ppbv
RT: 15.911 min Scan# 1870
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 53 Resp: 6522

Ion	Ratio	Lower	Upper
53	100		
52	85.5	69.5	104.3



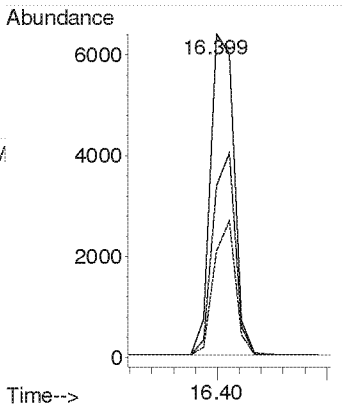
Compounds other than ethylene oxide were not quantitated.

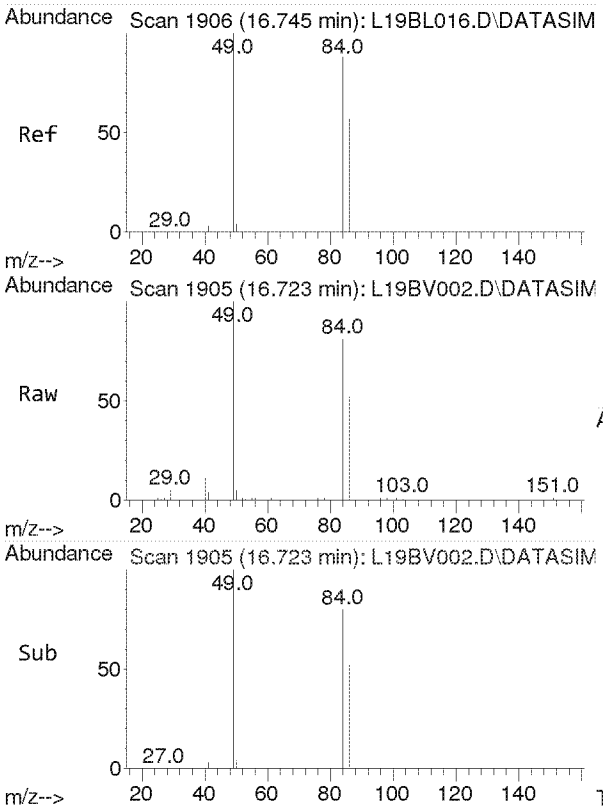


#16
1,1-Dichloroethene
Concen: 2.665 ppbv
RT: 16.399 min Scan# 1891
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 61 Resp: 19238

Ion	Ratio	Lower	Upper
61	100		
96	59.9	47.3	70.9
98	38.5	30.6	45.8

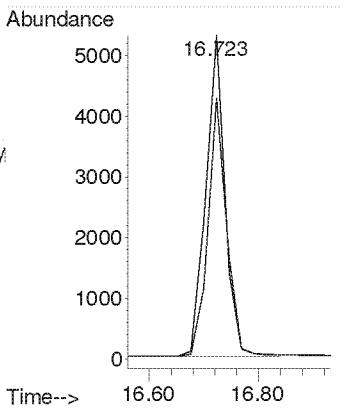




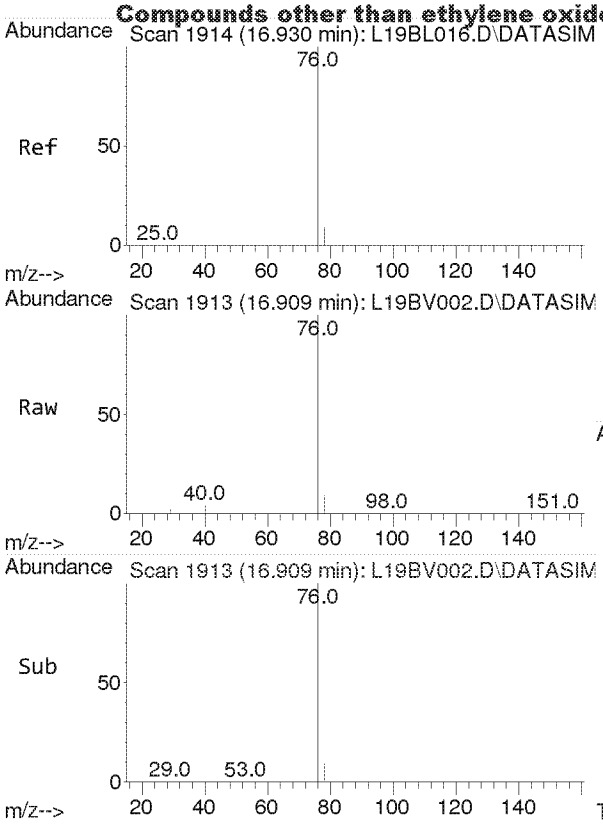
#17
Methylene Chloride
Concen: 2.664 ppbv
RT: 16.723 min Scan# 1905
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 49 Resp: 12707

Ion	Ratio	Lower	Upper
49	100		
84	78.6	54.0	100.4



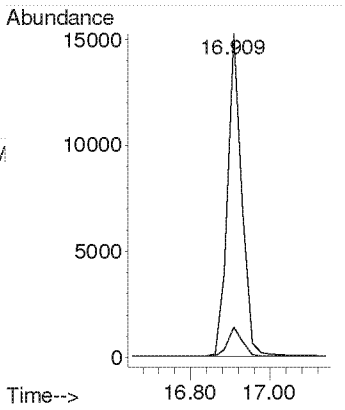
Compounds other than ethylene oxide were not quantitated.

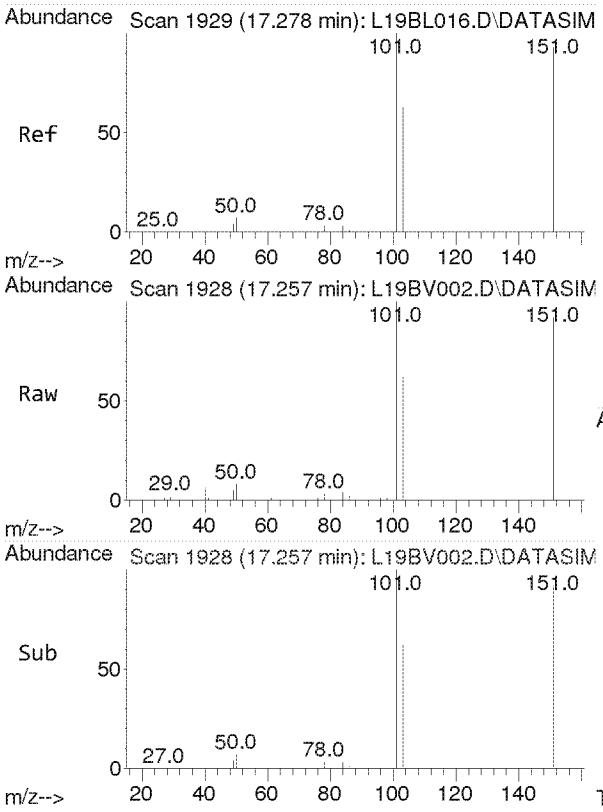


#18
Carbon Disulfide
Concen: 2.554 ppbv
RT: 16.909 min Scan# 1913
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 76 Resp: 37523

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.4	11.0

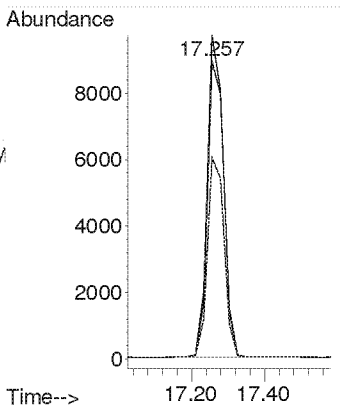




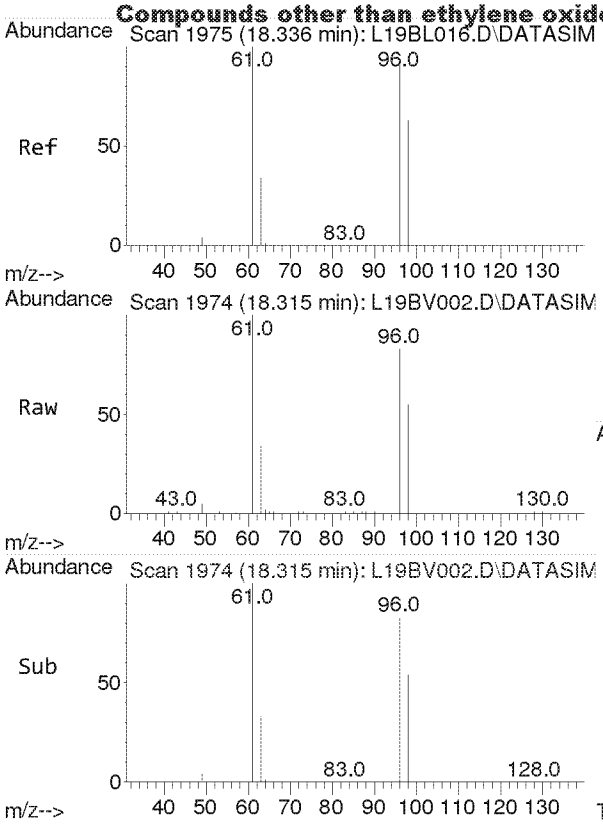
#19
Trichlorotrifluoroethane
Concen: 2.641 ppbv
RT: 17.257 min Scan# 1928
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:101 Resp: 29559

Ion	Ratio	Lower	Upper
101	100		
151	94.7	75.8	113.8
103	64.1	51.1	76.7



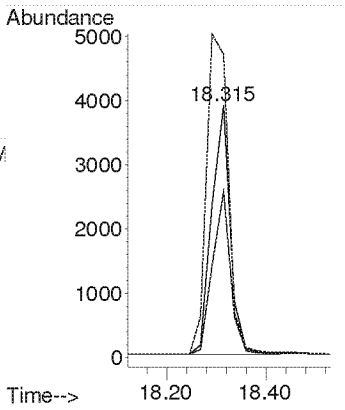
Compounds other than ethylene oxide were not quantitated.

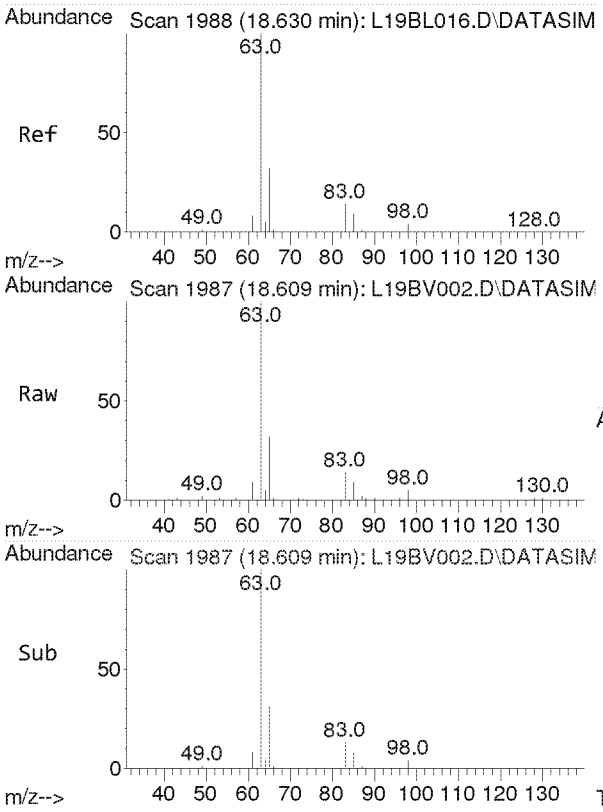


#20
trans-1,2-Dichloroethylene
Concen: 2.500 ppbv
RT: 18.315 min Scan# 1974
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 96 Resp: 10006

Ion	Ratio	Lower	Upper
96	100		
98	63.7	51.5	77.3
61	151.2	122.9	184.3

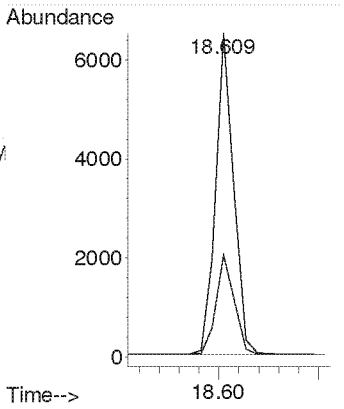




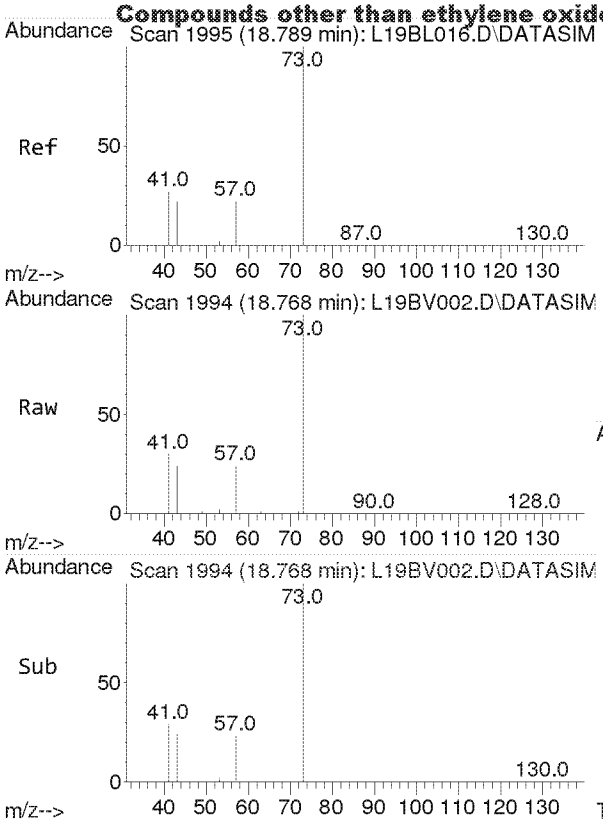
#21
1,1-Dichloroethane
Concen: 2.425 ppbv
RT: 18.609 min Scan# 1987
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 63 Resp: 16310

Ion	Ratio	Lower	Upper
63	100		
65	31.5	25.4	38.0



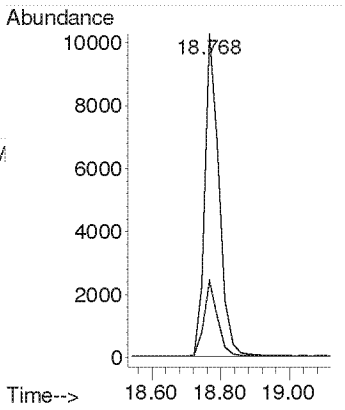
Compounds other than ethylene oxide were not quantitated.

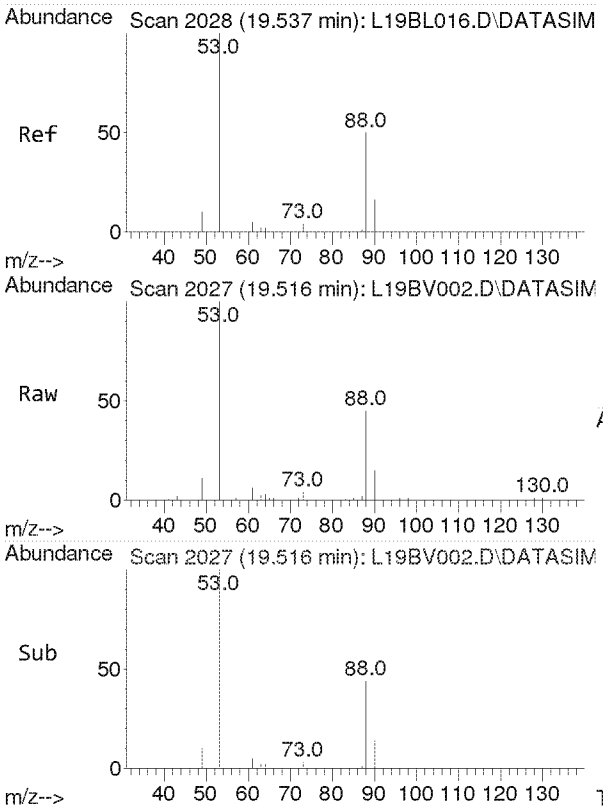


#22
Methyl tert-Butyl Ether
Concen: 2.603 ppbv
RT: 18.768 min Scan# 1994
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 73 Resp: 29366

Ion	Ratio	Lower	Upper
73	100		
57	22.2	18.0	27.0

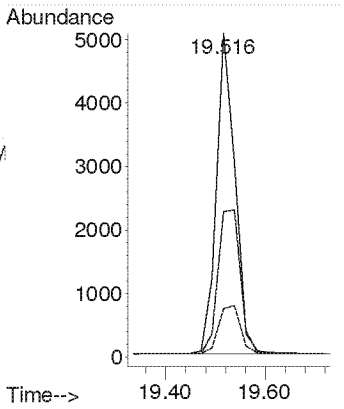




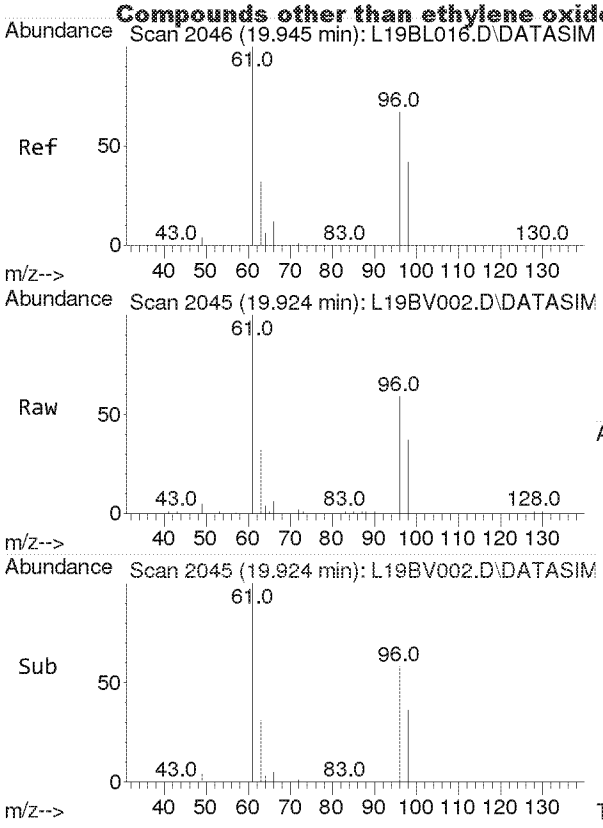
#23
Chloroprene
Concen: 2.406 ppbv
RT: 19.516 min Scan# 2027
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 53 Resp: 13167

Ion	Ratio	Lower	Upper
53	100		
88	54.0	42.6	64.0
90	17.6	13.9	20.9



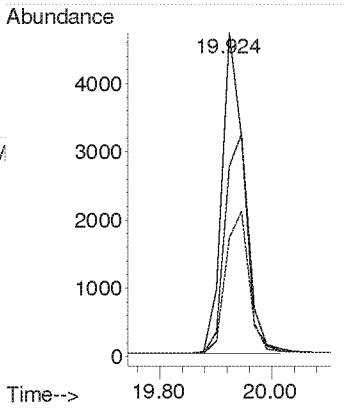
Compounds other than ethylene oxide were not quantitated.

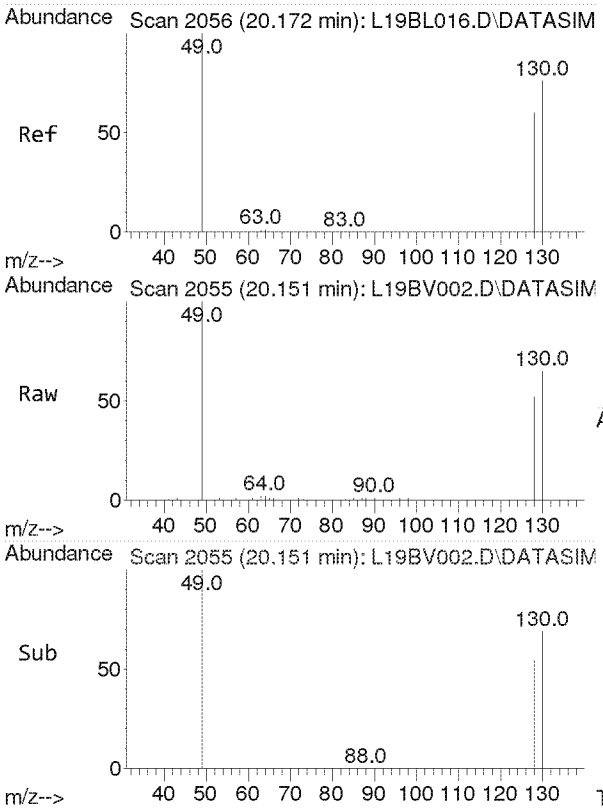


#24
cis-1,2-Dichloroethylene
Concen: 2.414 ppbv
RT: 19.924 min Scan# 2045
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 61 Resp: 12823

Ion	Ratio	Lower	Upper
61	100		
96	75.0	59.0	88.6
98	47.3	37.6	56.4

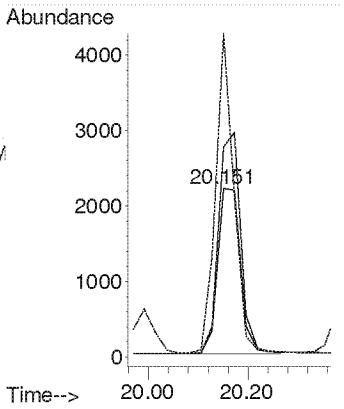




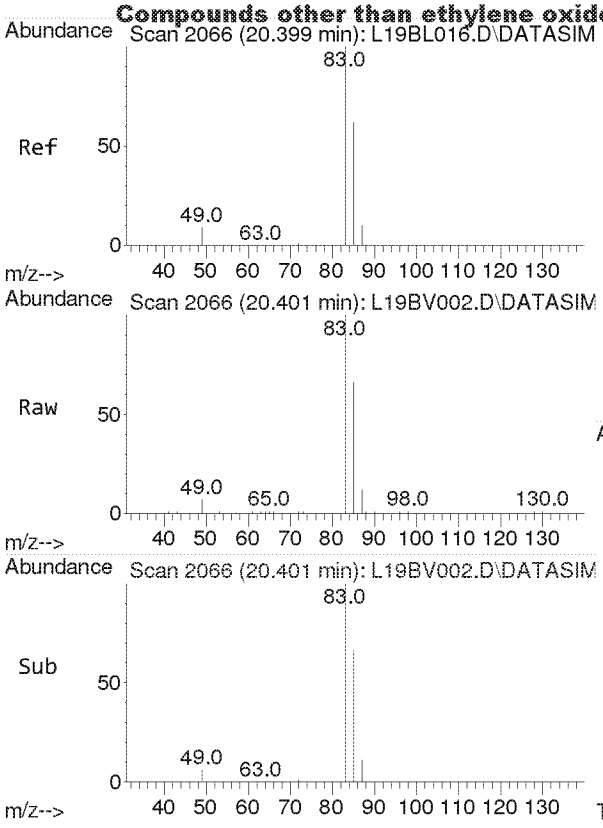
#25
Bromochloromethane
Concen: 2.417 ppbv
RT: 20.151 min Scan# 2055
Delta R.T. -0.021 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:128 Resp: 6940

Ion	Ratio	Lower	Upper
128	100		
130	130.2	103.3	154.9
49	155.7	128.3	192.5



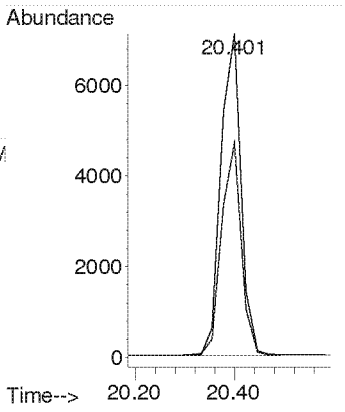
Compounds other than ethylene oxide were not quantitated.

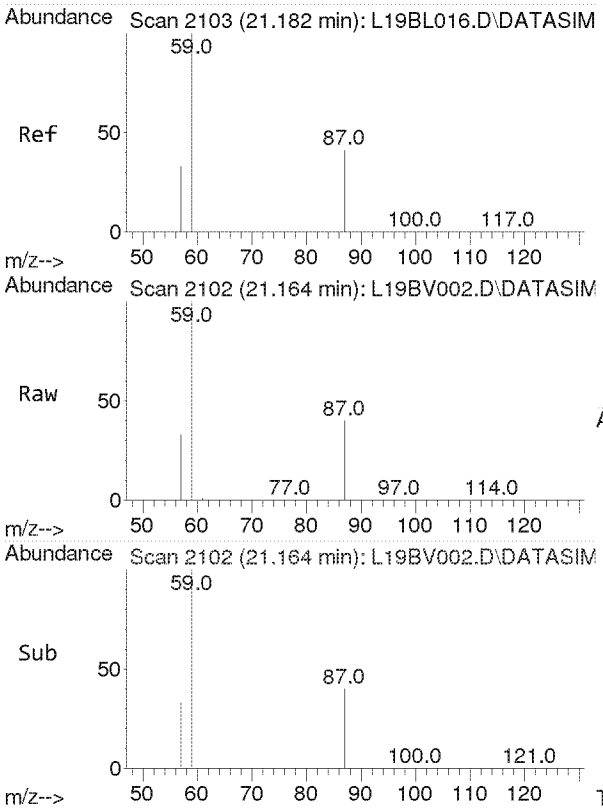


#26
Chloroform
Concen: 2.547 ppbv
RT: 20.401 min Scan# 2066
Delta R.T. 0.002 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 83 Resp: 19877

Ion	Ratio	Lower	Upper
83	100		
85	65.1	51.5	77.3

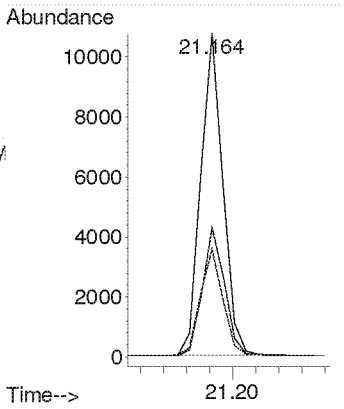




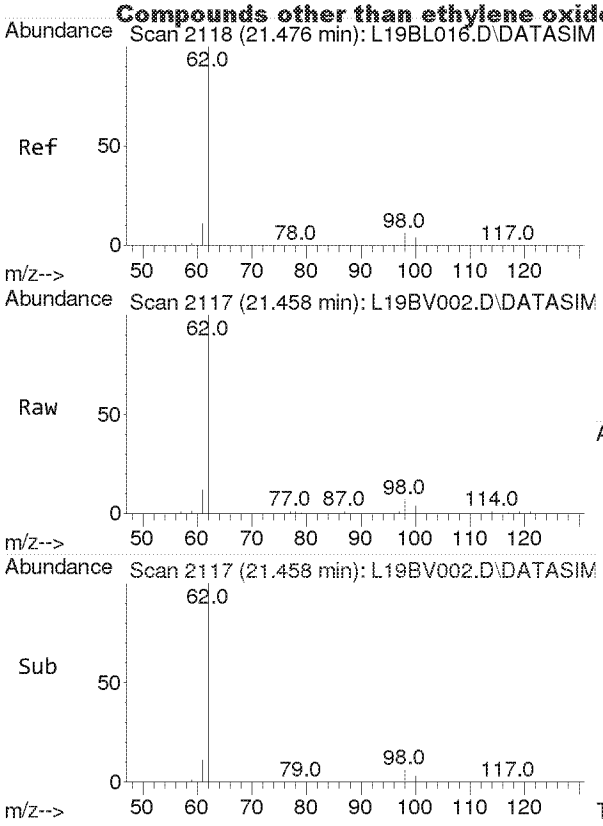
#27
Ethyl tert-Butyl Ether
Concen: 2.653 ppbv
RT: 21.164 min Scan# 2102
Delta R.T. -0.018 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 59 Resp: 28626

Ion	Ratio	Lower	Upper
59	100		
87	39.7	31.5	47.3
57	33.3	26.6	39.8



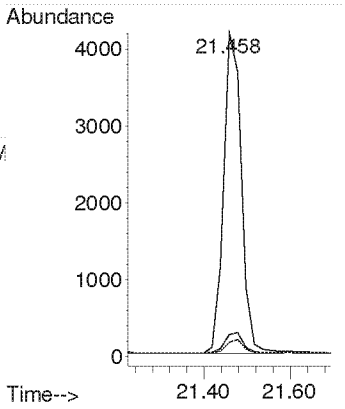
Compounds other than ethylene oxide were not quantitated.

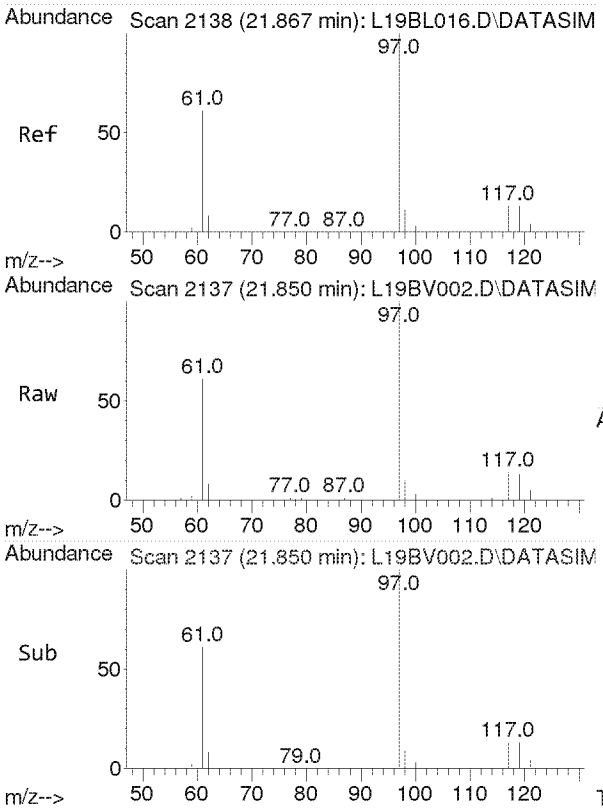


#28
1,2-Dichloroethane
Concen: 2.474 ppbv
RT: 21.458 min Scan# 2117
Delta R.T. -0.018 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 62 Resp: 11854

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

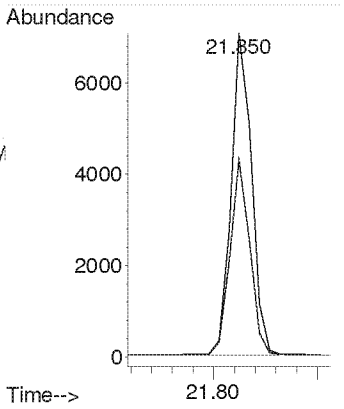




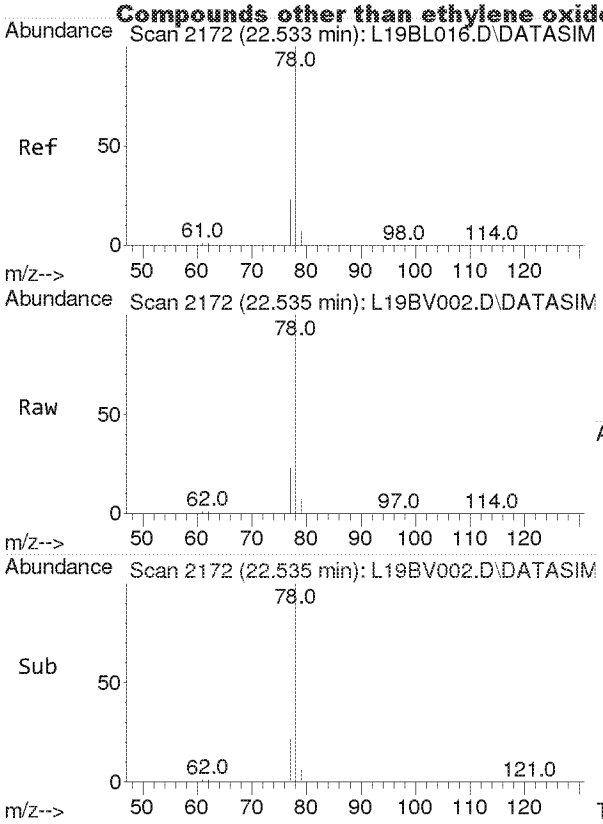
#30
1,1,1-Trichloroethane
Concen: 2.637 ppbv
RT: 21.850 min Scan# 2137
Delta R.T. -0.018 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 97 Resp: 19253

Ion	Ratio	Lower	Upper
97	100		
61	59.1	49.7	74.5



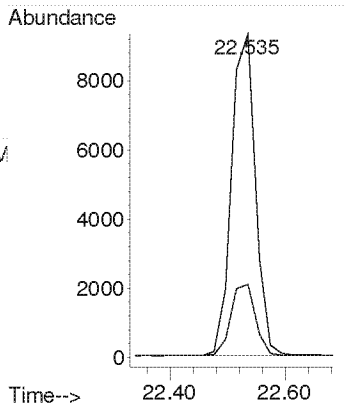
Compounds other than ethylene oxide were not quantitated.

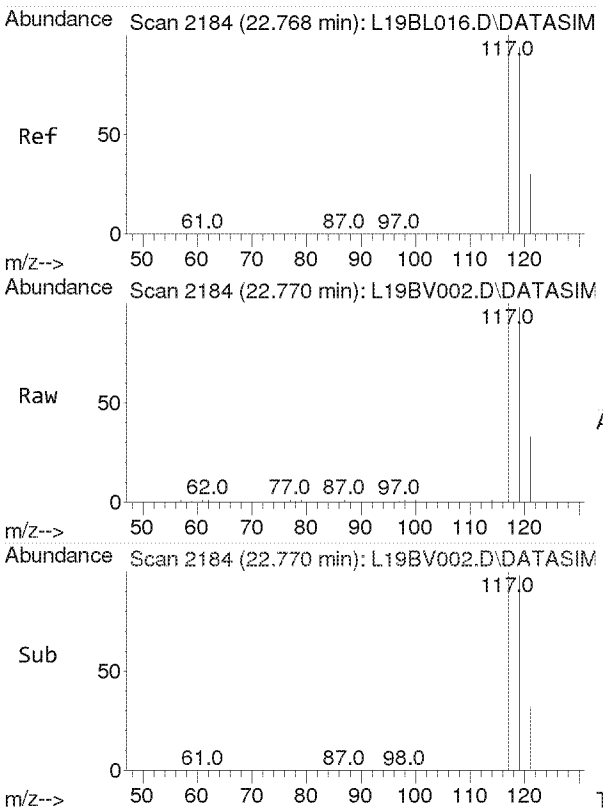


#31
Benzene
Concen: 2.563 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.002 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 78 Resp: 26762

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.2	27.4

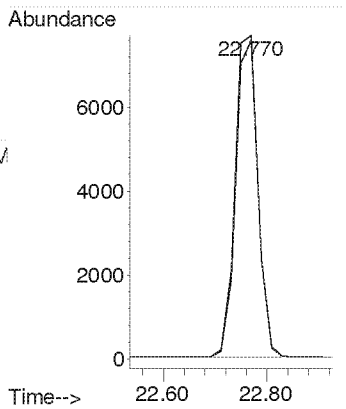




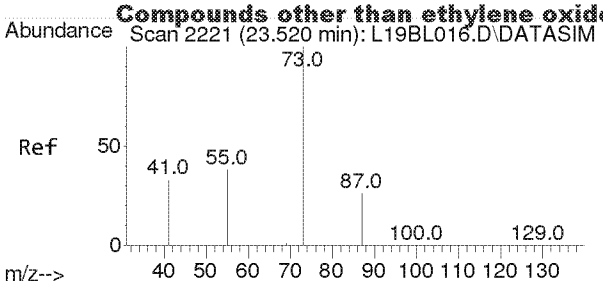
#32
Carbon Tetrachloride
Concen: 2.993 ppbv
RT: 22.770 min Scan# 2184
Delta R.T. 0.002 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:117 Resp: 23407

Ion	Ratio	Lower	Upper
117	100		
119	96.1	77.0	115.6



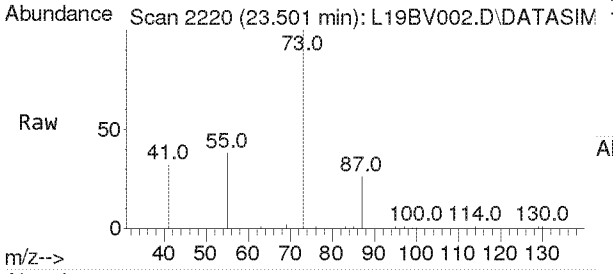
Compounds other than ethylene oxide were not quantitated.

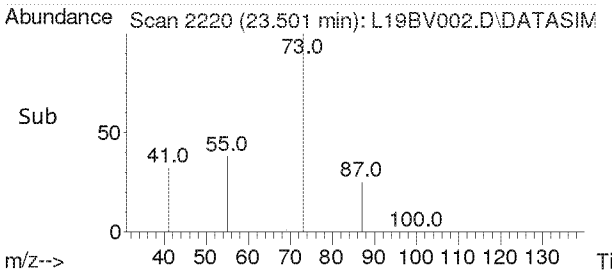


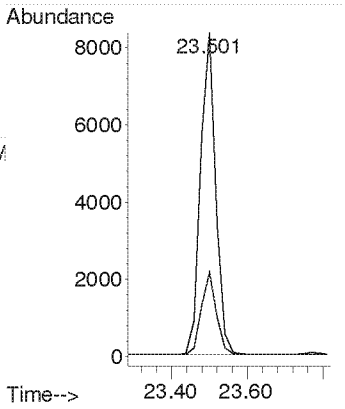
#33
tert-Amyl Methyl Ether
Concen: 2.640 ppbv
RT: 23.501 min Scan# 2220
Delta R.T. -0.019 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

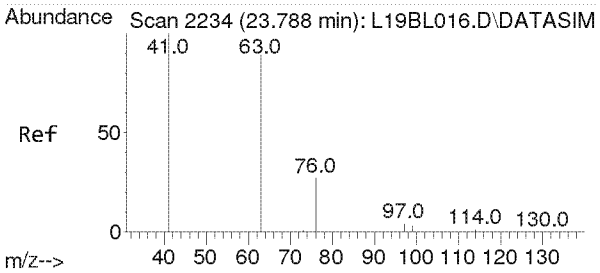
Tgt Ion: 73 Resp: 23416

Ion	Ratio	Lower	Upper
73	100		
87	25.0	20.1	30.1





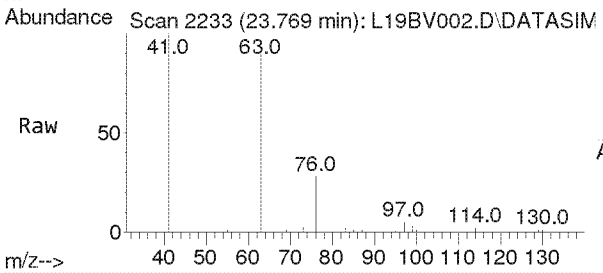


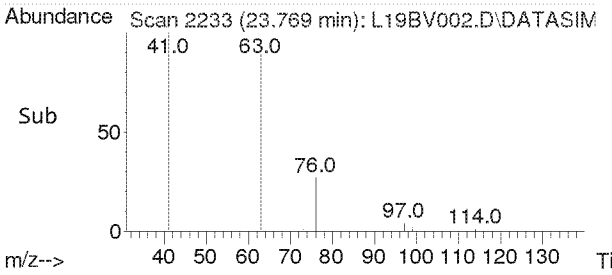


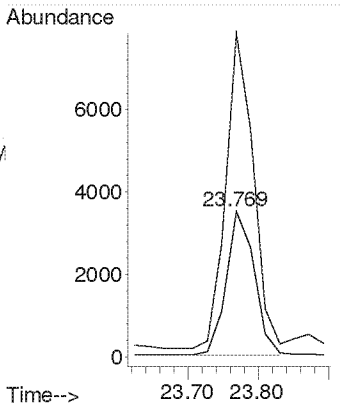
#34
1,2-Dichloropropane
Concen: 2.430 ppbv
RT: 23.769 min Scan# 2233
Delta R.T. -0.019 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 63 Resp: 9646

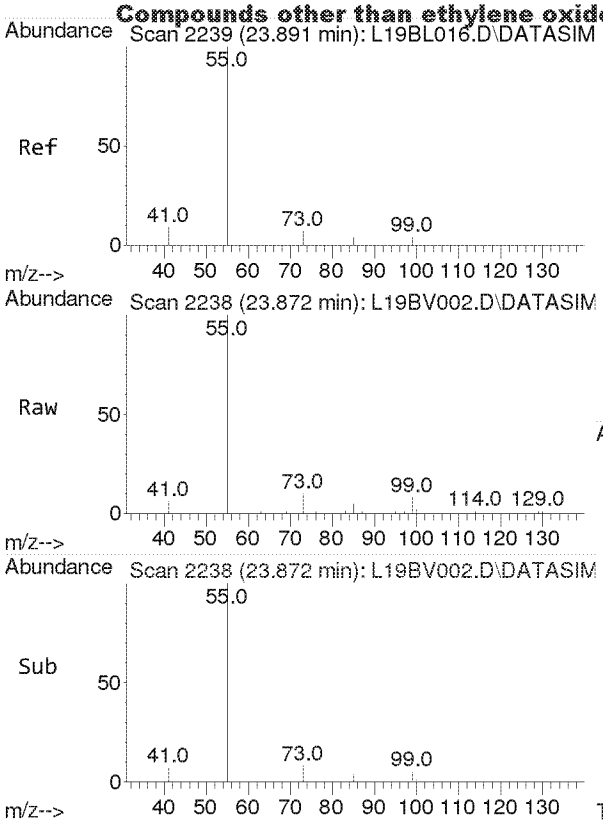
Ion	Ratio	Lower	Upper
63	100		
41	214.6	175.9	263.9







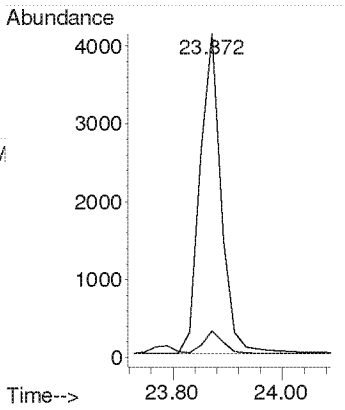
Compounds other than ethylene oxide were not quantitated.

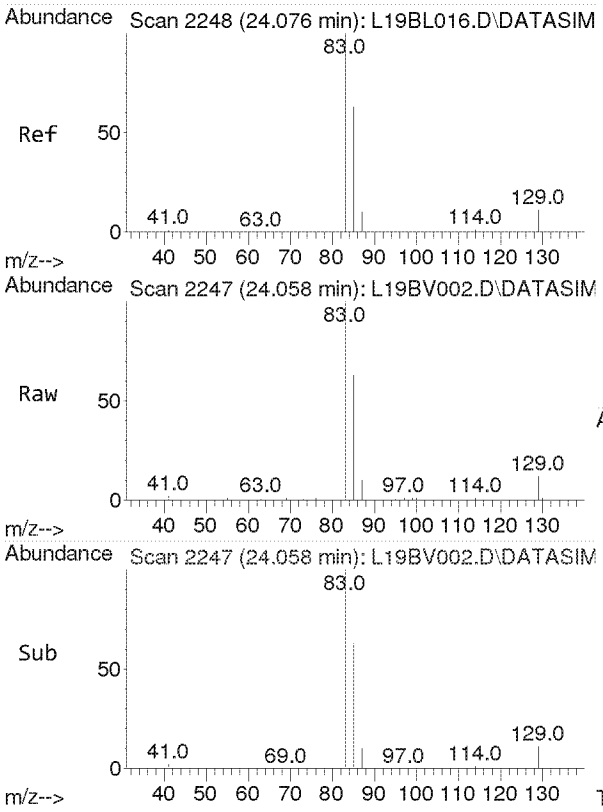


#35
Ethyl Acrylate
Concen: 3.263 ppbv
RT: 23.872 min Scan# 2238
Delta R.T. -0.019 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 55 Resp: 11007

Ion	Ratio	Lower	Upper
55	100		
99	6.5	5.0	7.6

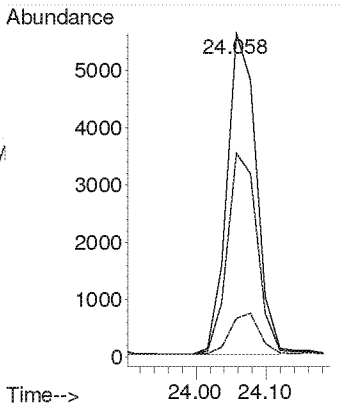




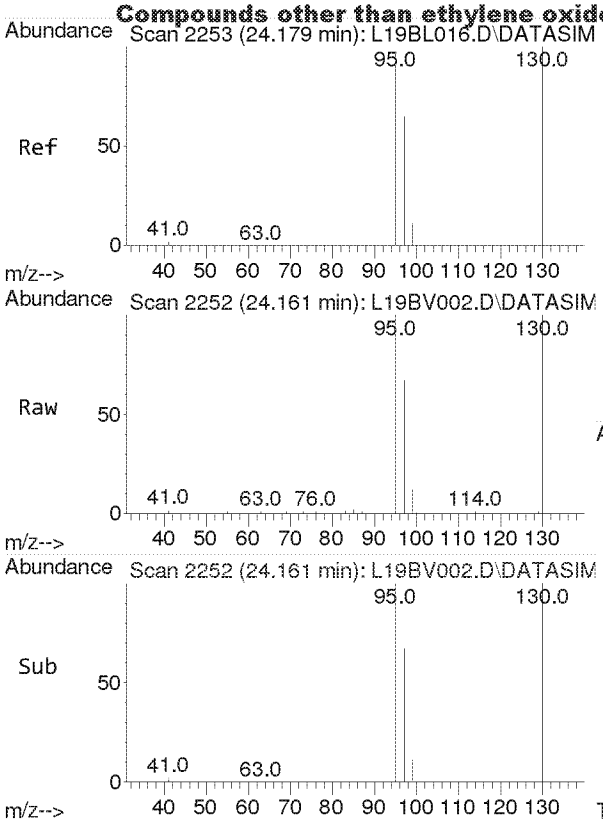
#36
Bromodichloromethane
Concen: 2.306 ppbv
RT: 24.058 min Scan# 2247
Delta R.T. -0.019 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 83 Resp: 16203

Ion	Ratio	Lower	Upper
83	100		
85	63.9	51.0	76.4
129	12.8	9.9	14.9



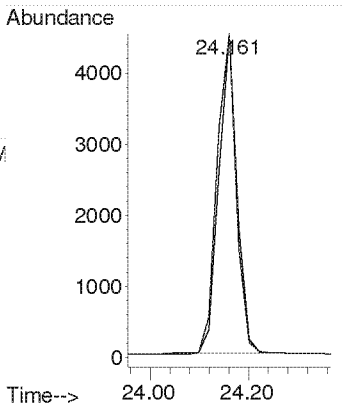
Compounds other than ethylene oxide were not quantitated.

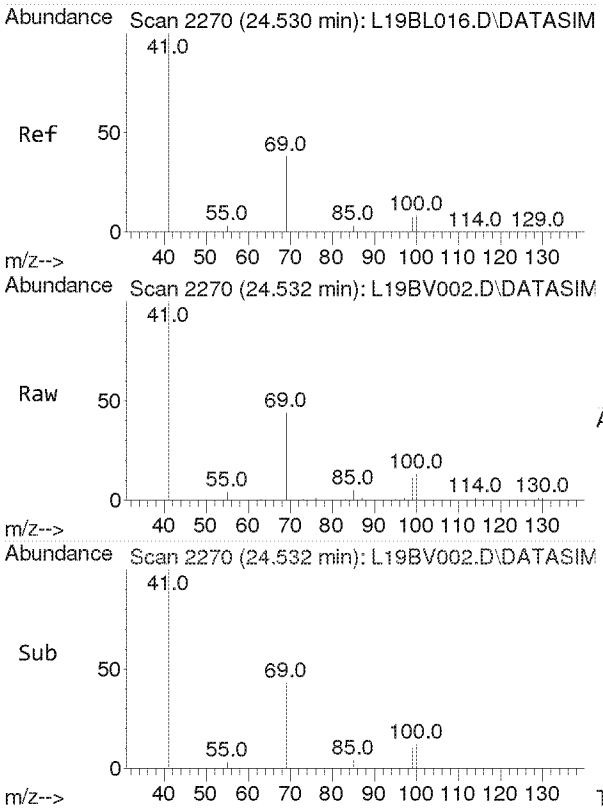


#37
Trichloroethylene
Concen: 2.326 ppbv
RT: 24.161 min Scan# 2252
Delta R.T. -0.019 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:130 Resp: 11570

Ion	Ratio	Lower	Upper
130	100		
95	106.2	84.9	127.3

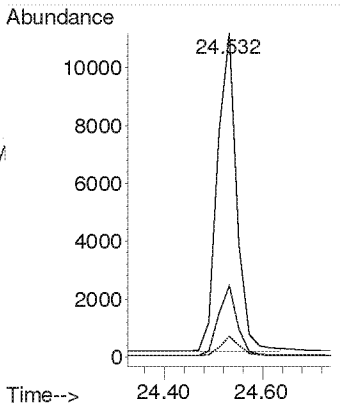




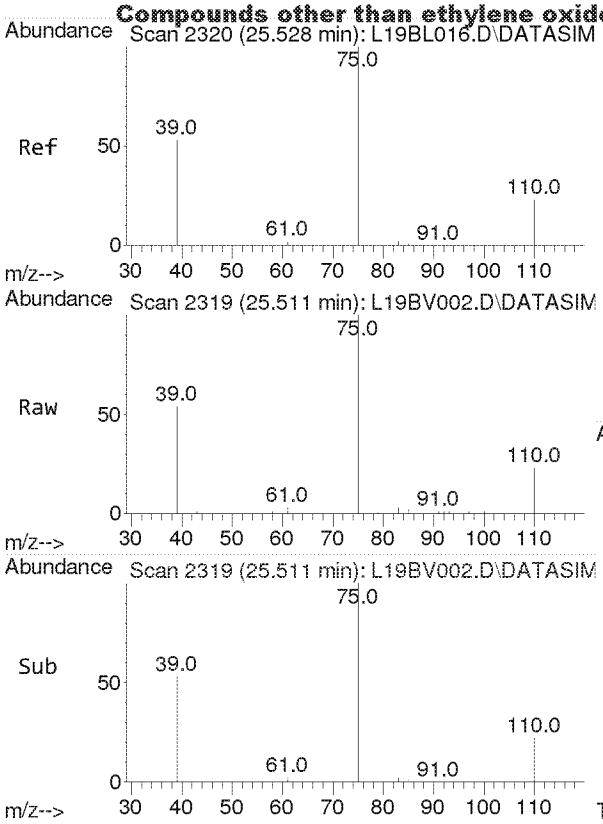
#38
Methyl Methacrylate
Concen: 2.966 ppbv
RT: 24.532 min Scan# 2270
Delta R.T. 0.002 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 41 Resp: 30024

Ion	Ratio	Lower	Upper
41	100		
69	21.3	16.8	25.2
100	5.8	4.5	6.7



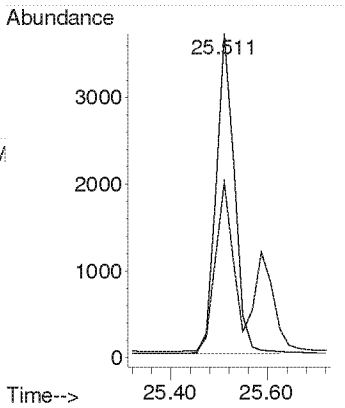
Compounds other than ethylene oxide were not quantitated.

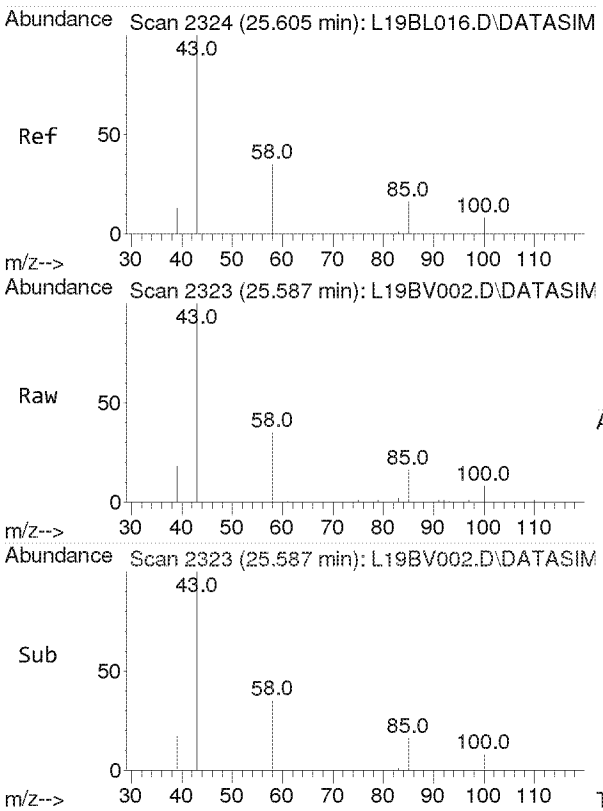


#39
cis-1,3-Dichloropropene
Concen: 2.804 ppbv
RT: 25.511 min Scan# 2319
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 75 Resp: 9668

Ion	Ratio	Lower	Upper
75	100		
39	52.1	43.4	65.0

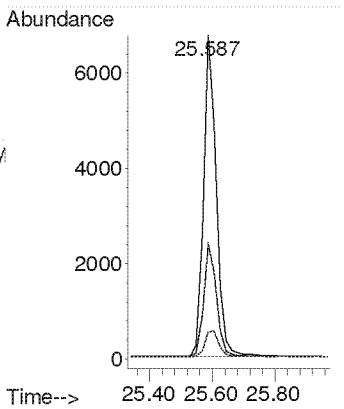




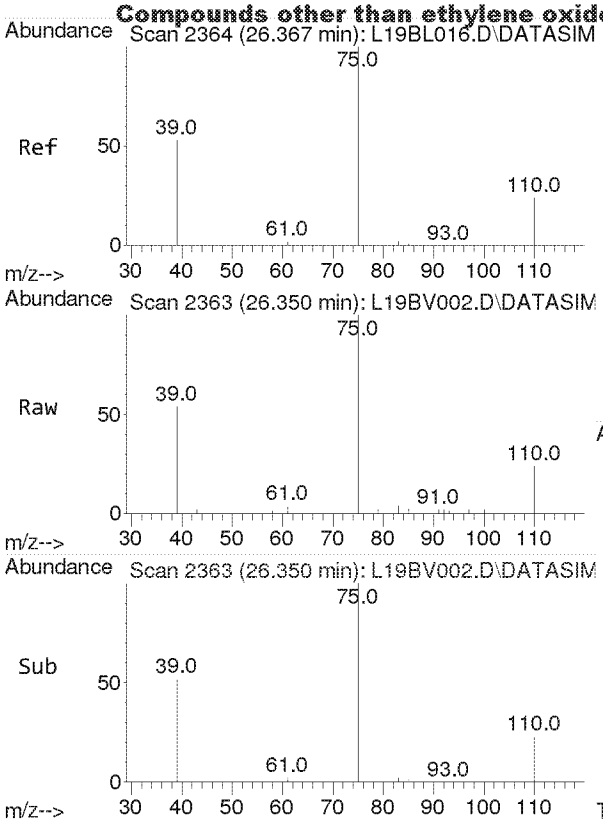
#40
Methyl Isobutyl Ketone
Concen: 2.550 ppbv
RT: 25.587 min Scan# 2323
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 43 Resp: 18976

Ion	Ratio	Lower	Upper
43	100		
58	35.3	28.0	42.0
100	9.0	7.0	10.4



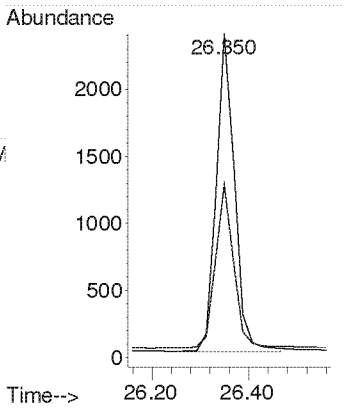
Compounds other than ethylene oxide were not quantitated.

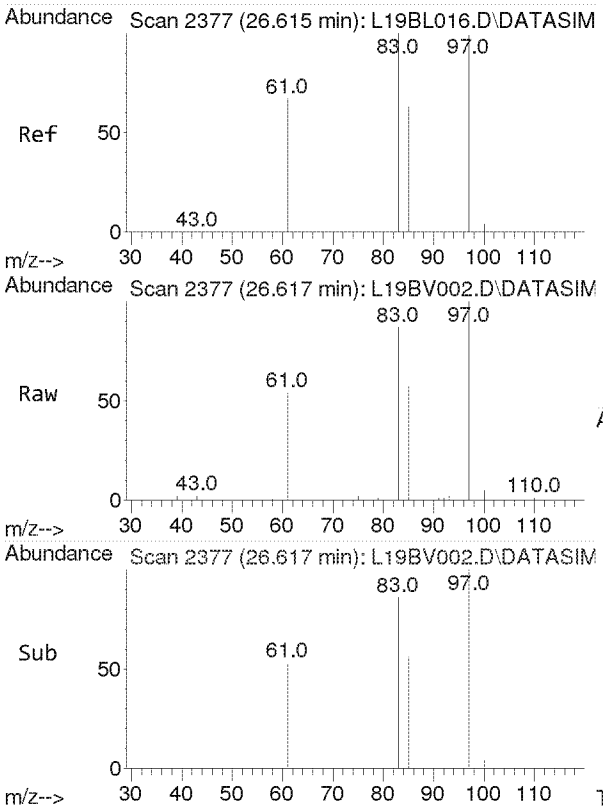


#41
trans-1,3-Dichloropropene
Concen: 2.678 ppbv
RT: 26.350 min Scan# 2363
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 75 Resp: 6185

Ion	Ratio	Lower	Upper
75	100		
39	50.8	42.9	64.3

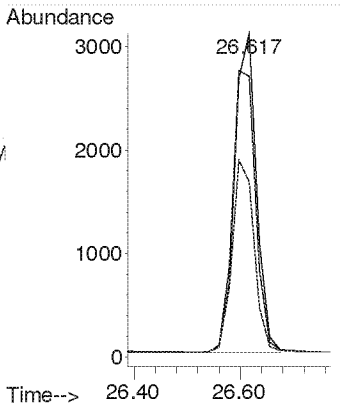




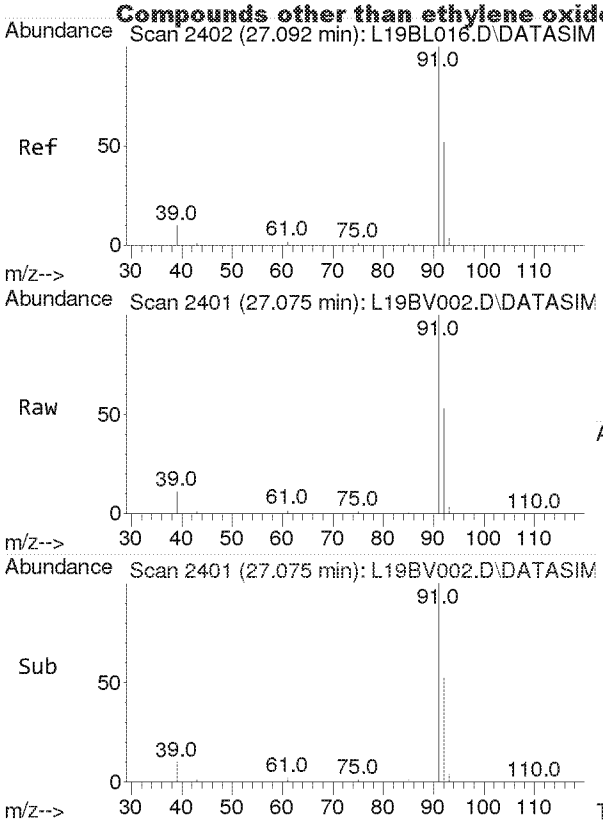
#42
1,1,2-Trichloroethane
Concen: 2.418 ppbv
RT: 26.617 min Scan# 2377
Delta R.T. 0.002 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 97 Resp: 8783

Ion	Ratio	Lower	Upper
97	100		
83	93.8	75.4	113.0
61	61.0	49.8	74.6



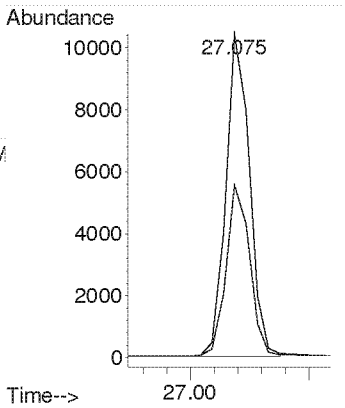
Compounds other than ethylene oxide were not quantitated.

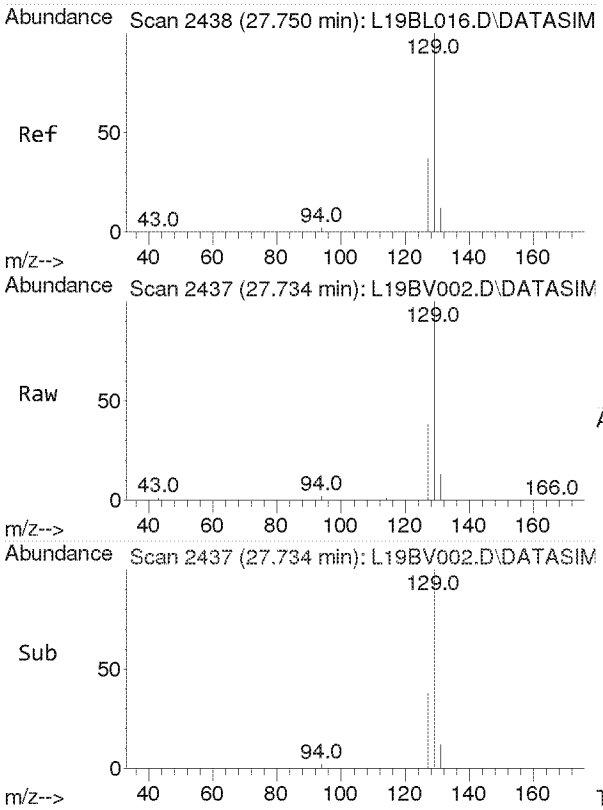


#44
Toluene
Concen: 2.471 ppbv
RT: 27.075 min Scan# 2401
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 91 Resp: 28608

Ion	Ratio	Lower	Upper
91	100		
92	53.1	42.0	63.0

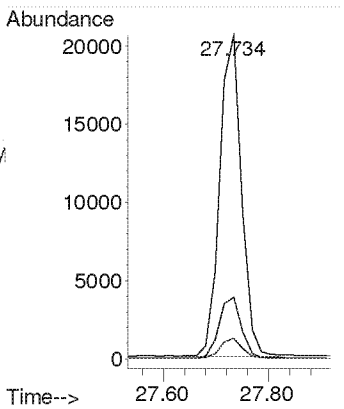




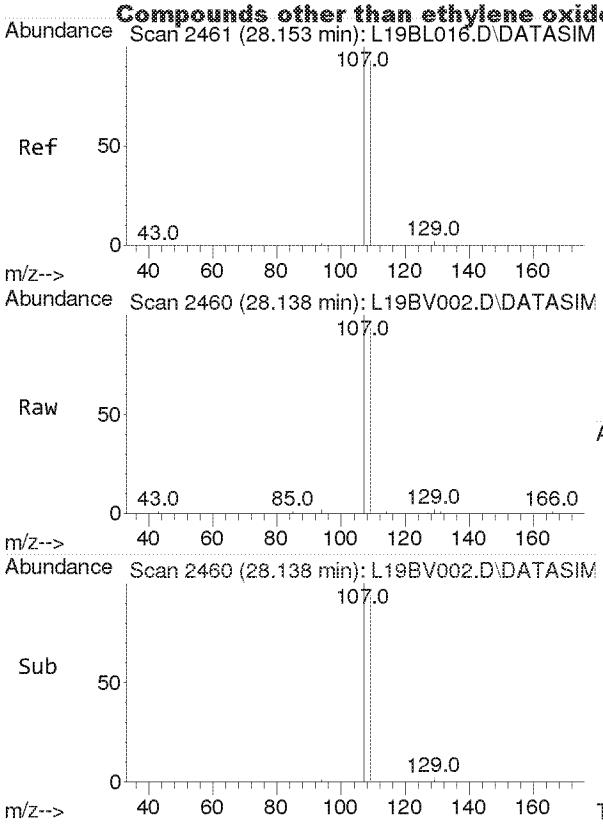
#45
Dibromochloromethane
Concen: 2.563 ppbv
RT: 27.734 min Scan# 2437
Delta R.T. -0.016 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:129 Resp: 58252

Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.2
131	6.1	4.8	7.2



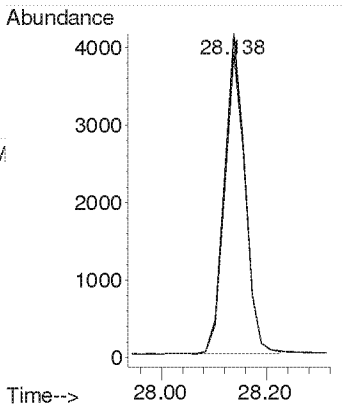
Compounds other than ethylene oxide were not quantitated.

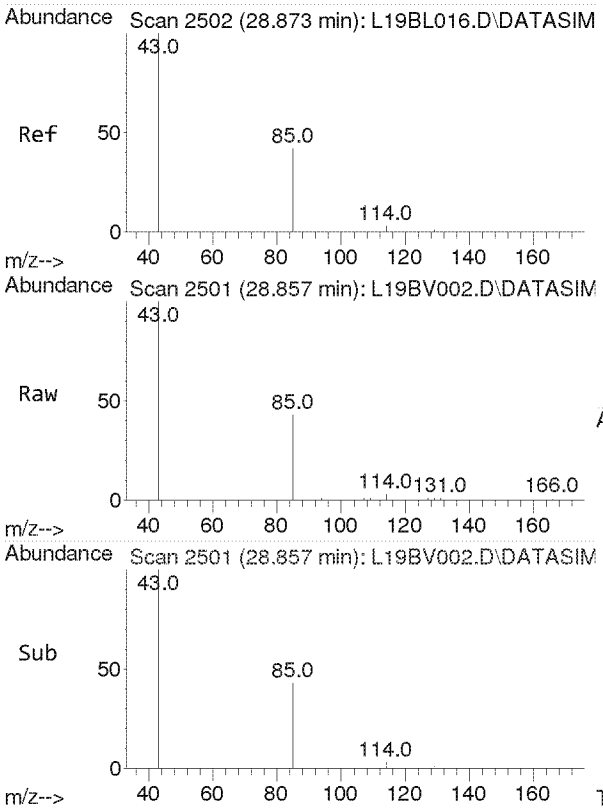


#46
1,2-Dibromoethane
Concen: 2.557 ppbv
RT: 28.138 min Scan# 2460
Delta R.T. -0.016 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:107 Resp: 11102

Ion	Ratio	Lower	Upper
107	100		
109	94.8	75.4	113.0

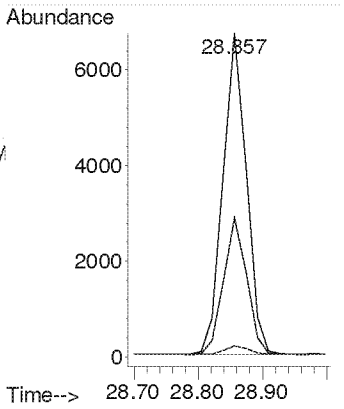




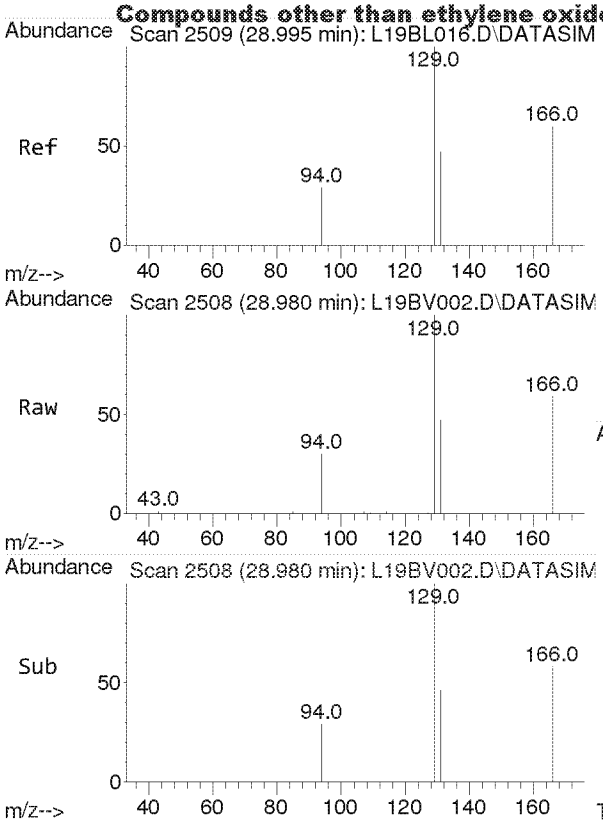
#47
n-Octane
Concen: 2.442 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. -0.016 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 43 Resp: 17034

Ion	Ratio	Lower	Upper
43	100		
85	42.3	33.0	49.6
114	2.7	2.2	3.4



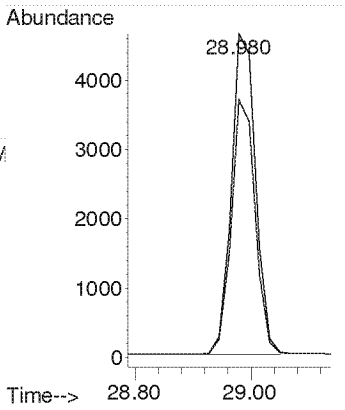
Compounds other than ethylene oxide were not quantitated.

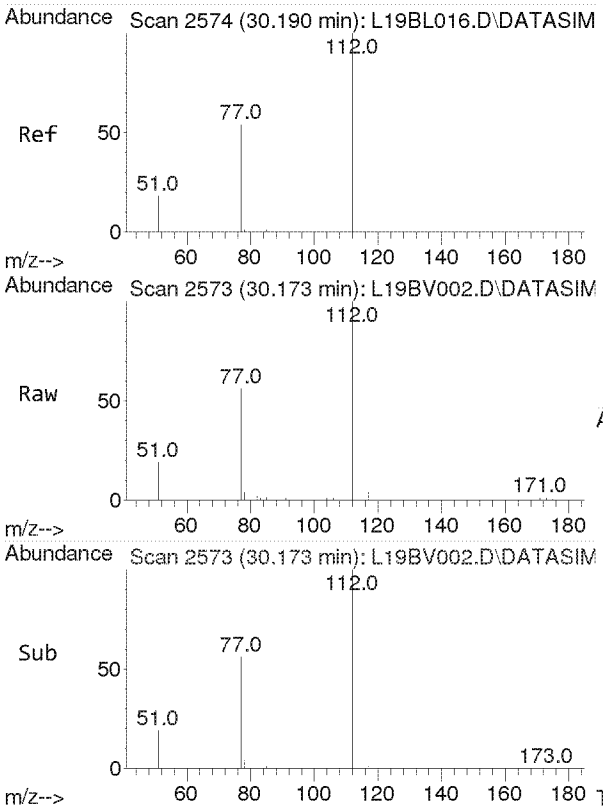


#48
Tetrachloroethylene
Concen: 2.416 ppbv
RT: 28.980 min Scan# 2508
Delta R.T. -0.016 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:166 Resp: 13464

Ion	Ratio	Lower	Upper
166	100		
131	78.7	61.5	92.3

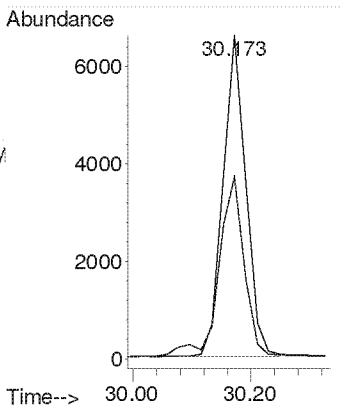




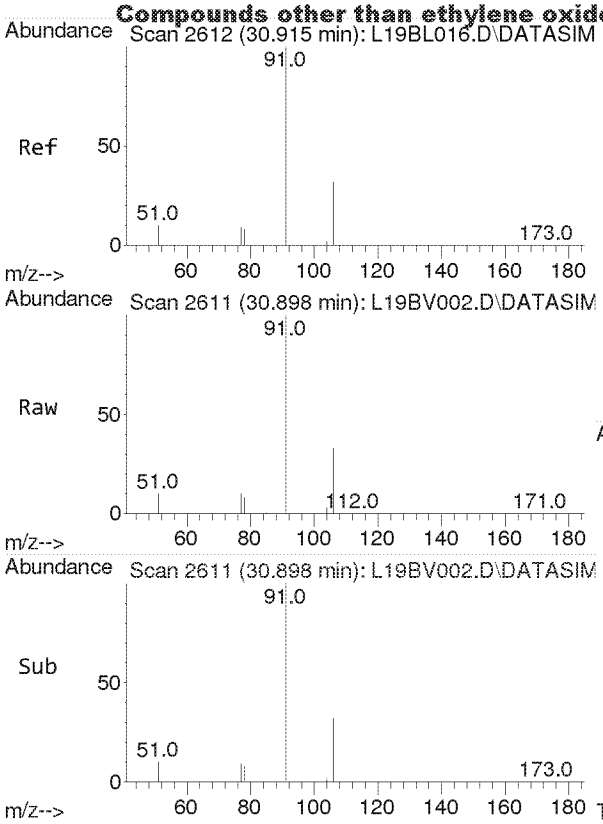
#49
Chlorobenzene
Concen: 2.387 ppbv
RT: 30.173 min Scan# 2573
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:112 Resp: 17642

Ion	Ratio	Lower	Upper
112	100		
77	59.8	47.8	71.6



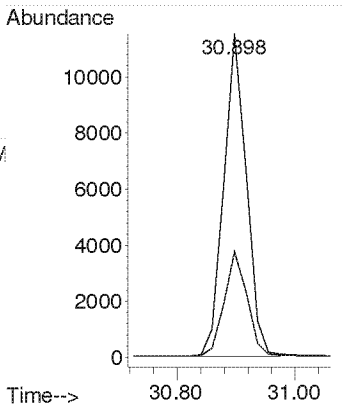
Compounds other than ethylene oxide were not quantitated.

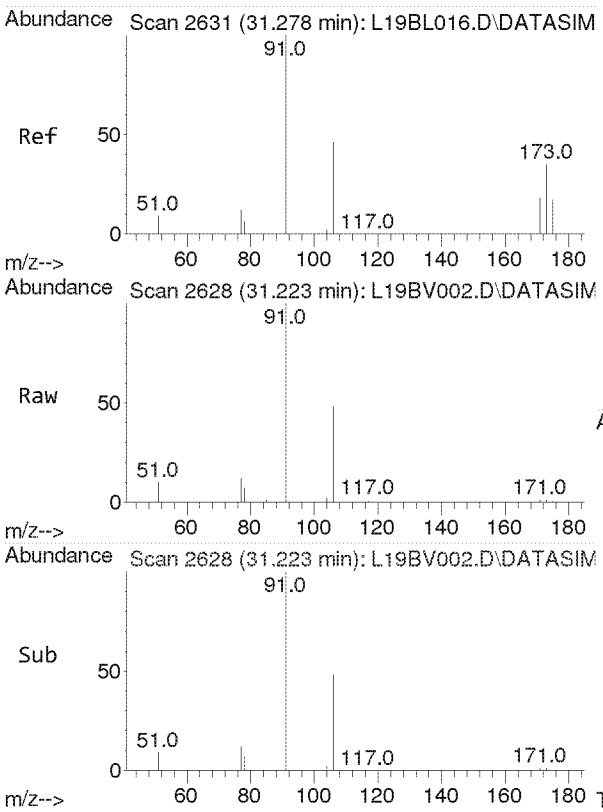


#50
Ethylbenzene
Concen: 2.503 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 91 Resp: 30469

Ion	Ratio	Lower	Upper
91	100		
106	32.5	26.0	39.0

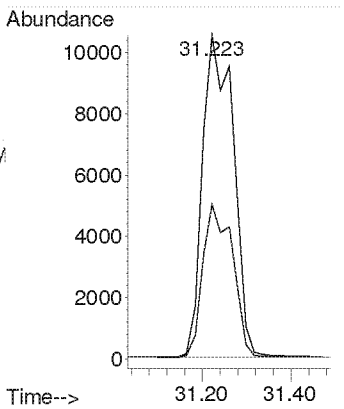




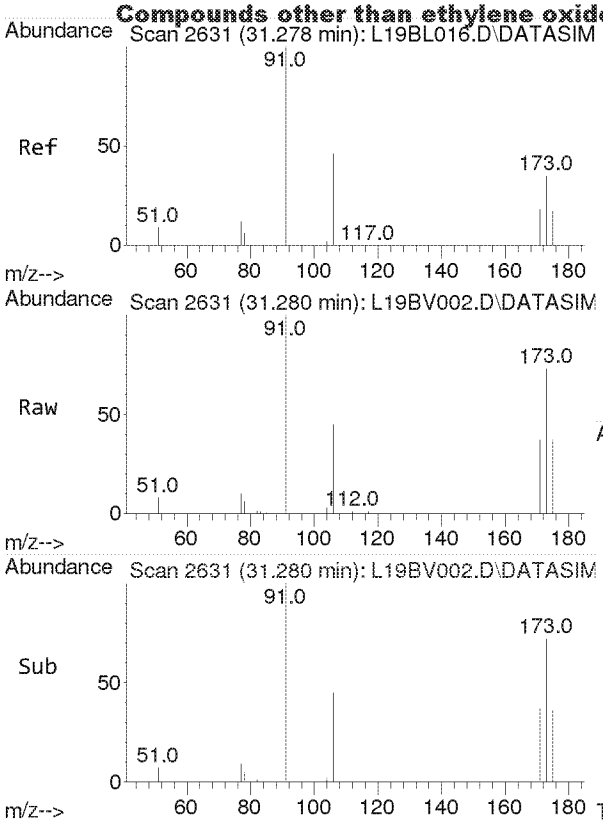
#51
m,p-Xylene
Concen: 4.928 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 91 Resp: 50602

Ion	Ratio	Lower	Upper
91	100		
106	45.8	37.3	55.9



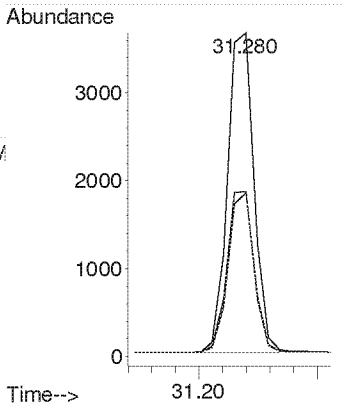
Compounds other than ethylene oxide were not quantitated.

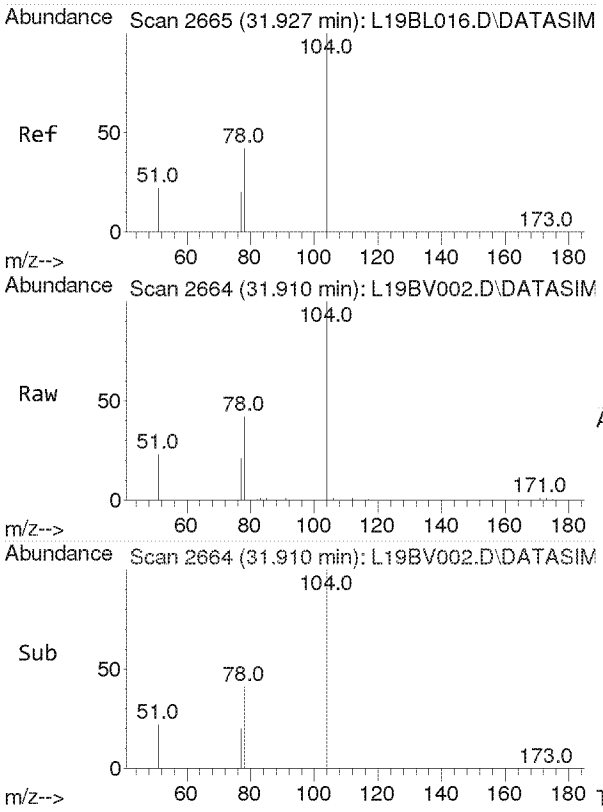


#52
Bromoform
Concen: 2.558 ppbv
RT: 31.280 min Scan# 2631
Delta R.T. 0.002 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:173 Resp: 11243

Ion	Ratio	Lower	Upper
173	100		
171	51.1	41.0	61.6
175	48.9	39.1	58.7

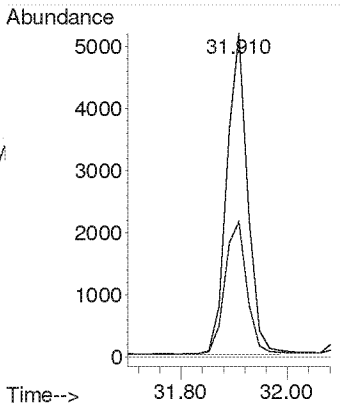




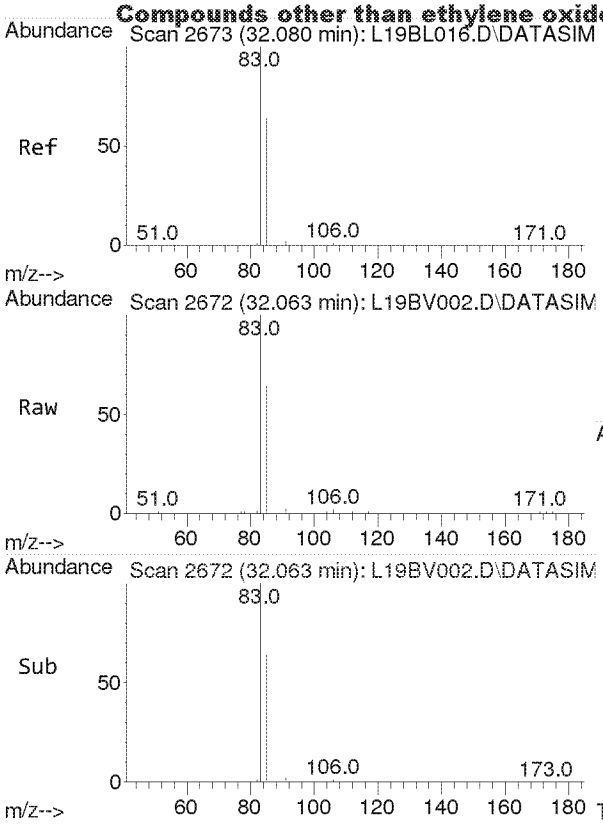
#53
Styrene
Concen: 2.417 ppbv
RT: 31.910 min Scan# 2664
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:104 Resp: 14070

Ion	Ratio	Lower	Upper
104	100		
78	43.7	35.4	53.2
103	0.0	0.0	0.0



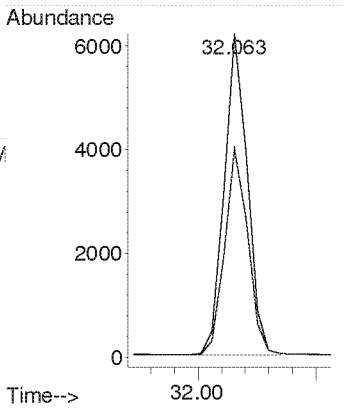
Compounds other than ethylene oxide were not quantitated.

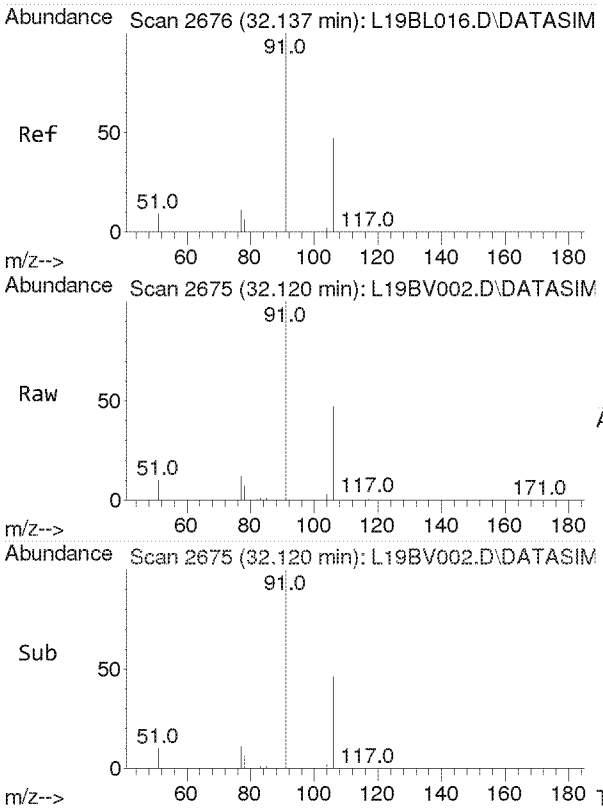


#54
1,1,2,2-Tetrachloroethane
Concen: 2.519 ppbv
RT: 32.063 min Scan# 2672
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 83 Resp: 16696

Ion	Ratio	Lower	Upper
83	100		
85	64.8	51.6	77.4

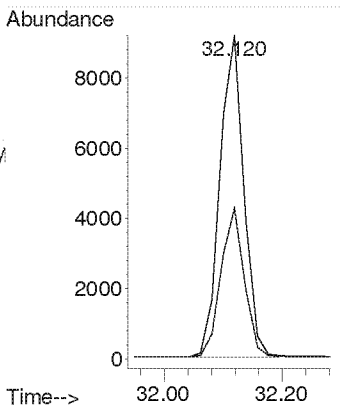




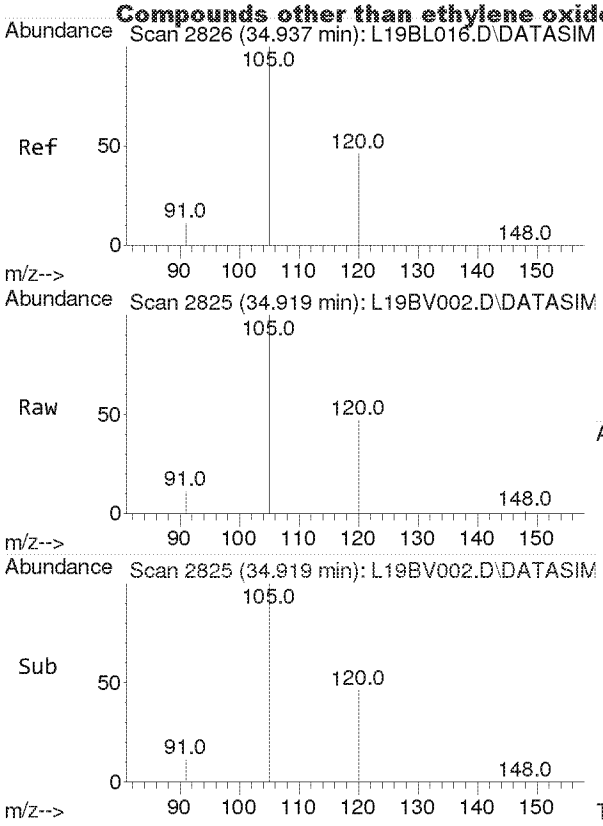
#55
o-Xylene
Concen: 2.527 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion: 91 Resp: 25612

Ion	Ratio	Lower	Upper
91	100		
106	45.3	36.6	55.0



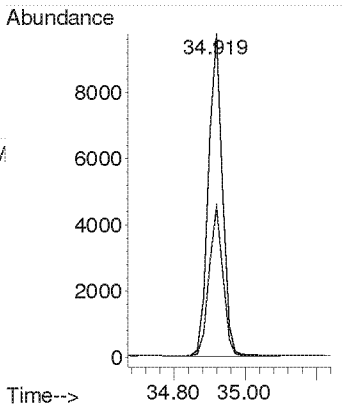
Compounds other than ethylene oxide were not quantitated.

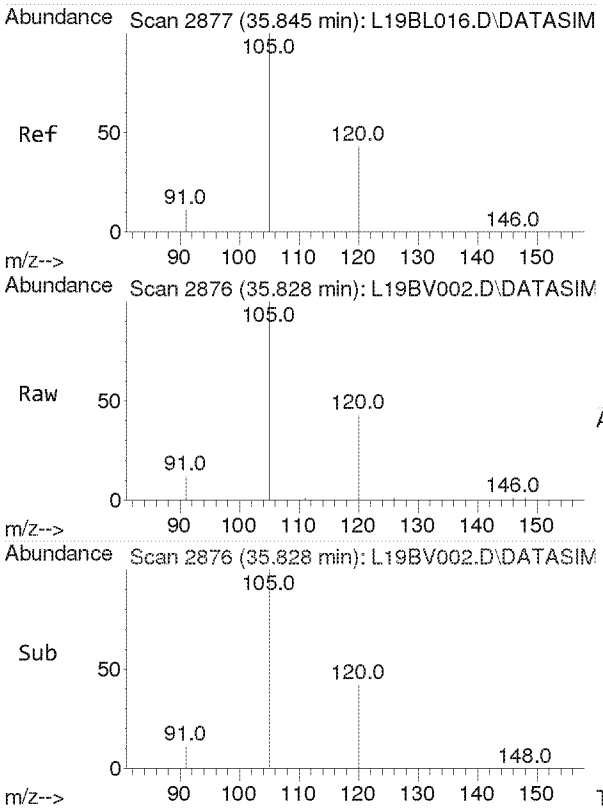


#56
1,3,5-Trimethylbenzene
Concen: 2.398 ppbv
RT: 34.919 min Scan# 2825
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:105 Resp: 26103

Ion	Ratio	Lower	Upper
105	100		
120	45.8	36.8	55.2

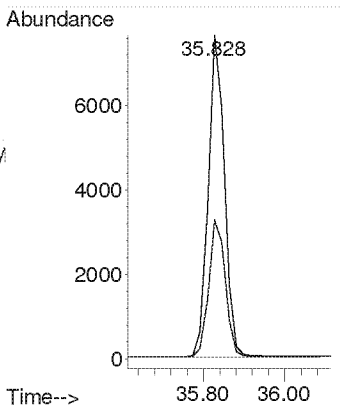




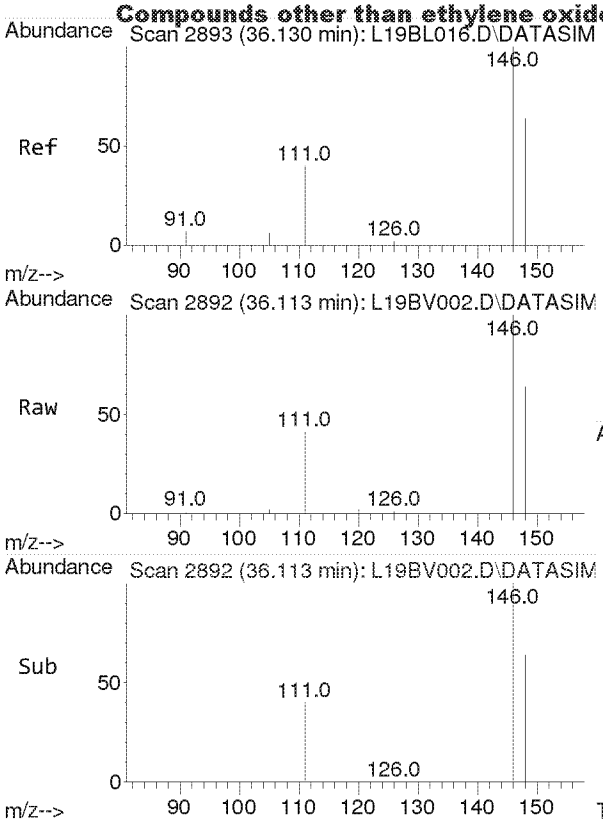
#57
1,2,4-Trimethylbenzene
Concen: 2.240 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:105 Resp: 21089

Ion	Ratio	Lower	Upper
105	100		
120	43.5	35.2	52.8



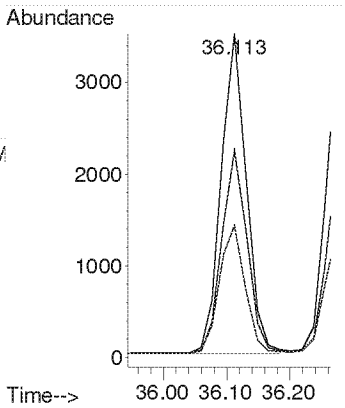
Compounds other than ethylene oxide were not quantitated.

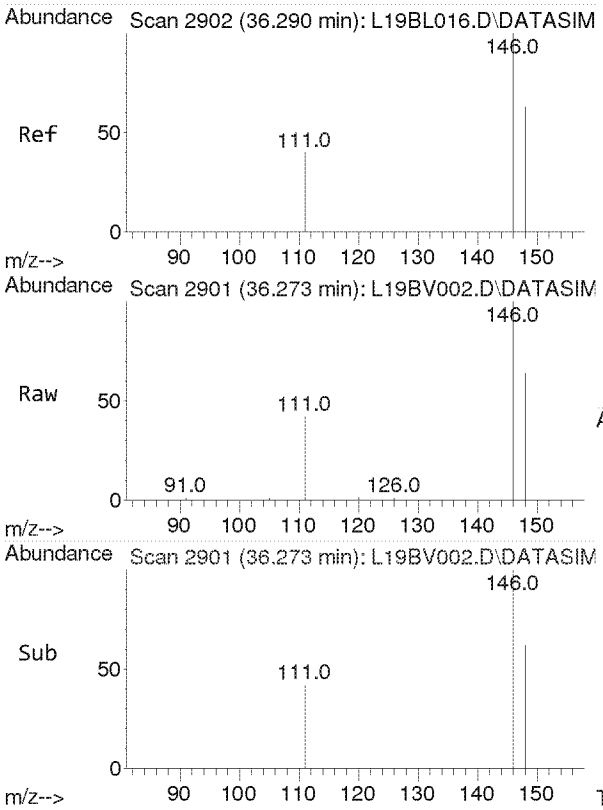


#58
m-Dichlorobenzene
Concen: 1.936 ppbv
RT: 36.113 min Scan# 2892
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:146 Resp: 9582

Ion	Ratio	Lower	Upper
146	100		
148	63.9	51.3	76.9
111	41.1	32.1	48.1

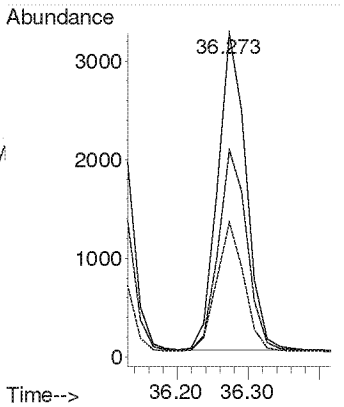




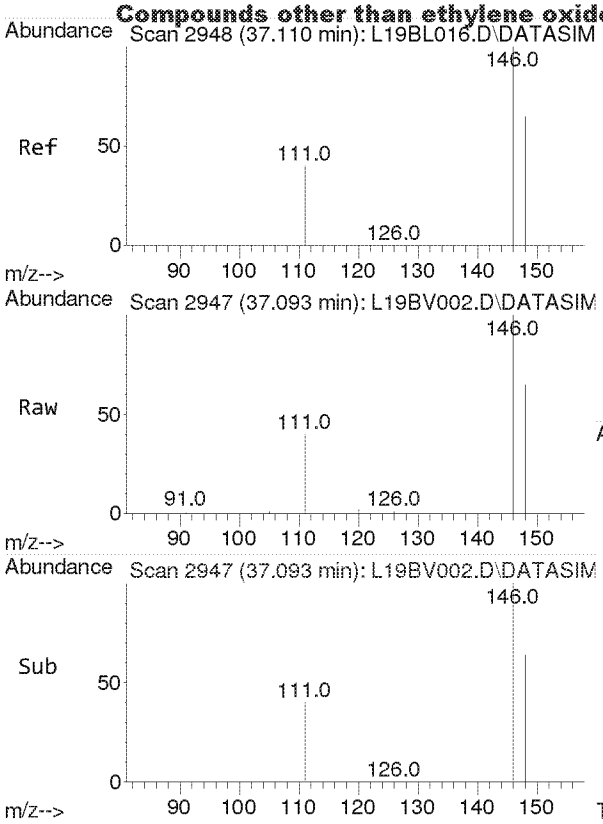
#59
p-Dichlorobenzene
Concen: 2.204 ppbv
RT: 36.273 min Scan# 2901
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:146 Resp: 8887

Ion	Ratio	Lower	Upper
146	100		
148	63.9	51.4	77.2
111	39.8	31.0	46.4



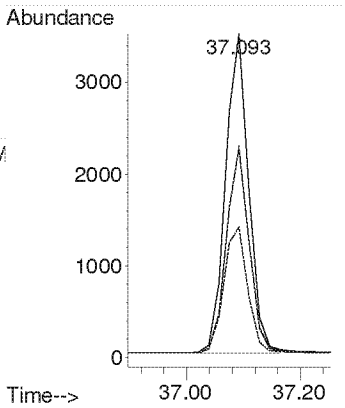
Compounds other than ethylene oxide were not quantitated.

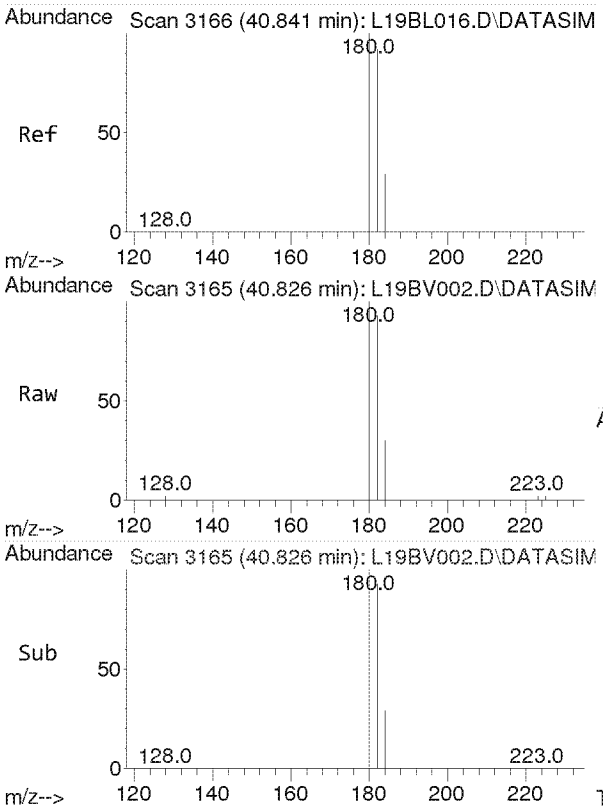


#60
o-Dichlorobenzene
Concen: 2.176 ppbv
RT: 37.093 min Scan# 2947
Delta R.T. -0.017 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:146 Resp: 9851

Ion	Ratio	Lower	Upper
146	100		
148	63.4	51.2	76.8
111	41.4	32.6	49.0

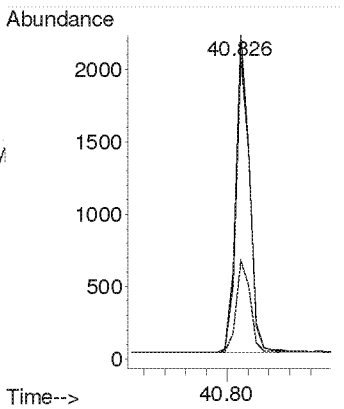




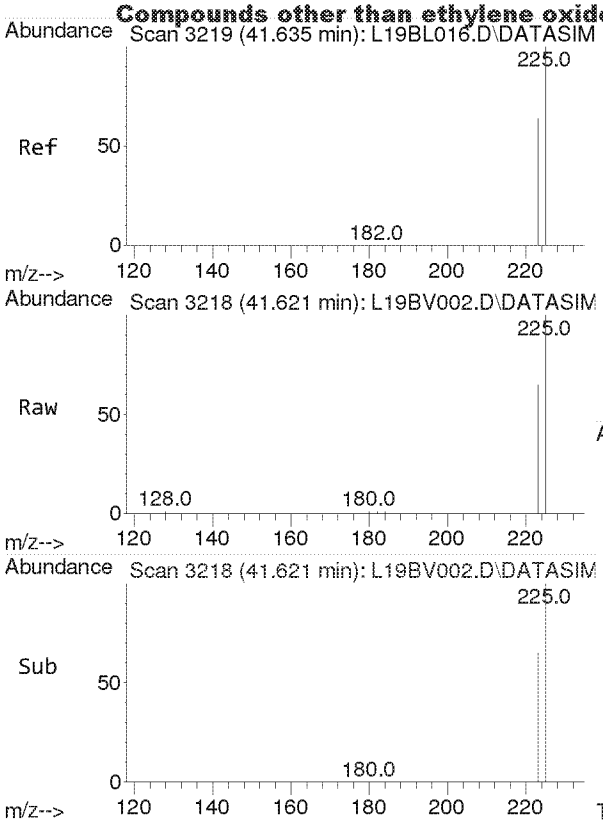
#61
1,2,4-Trichlorobenzene
Concen: 2.596 ppbv
RT: 40.826 min Scan# 3165
Delta R.T. -0.014 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:180 Resp: 3986

Ion	Ratio	Lower	Upper
180	100		
182	94.2	75.7	113.5
184	29.9	24.2	36.2



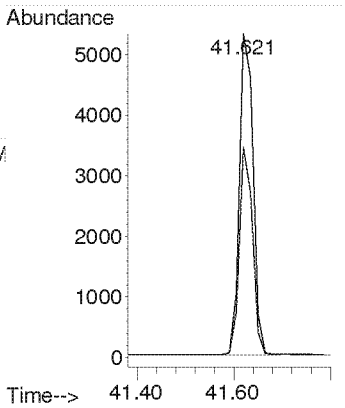
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.669 ppbv
RT: 41.621 min Scan# 3218
Delta R.T. -0.014 min
Lab File: L19BV002.D
Acq: 22 Feb 2019 9:28 am

Tgt Ion:225 Resp: 10469

Ion	Ratio	Lower	Upper
225	100		
223	62.2	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

	Analyst: [illegible] Date: 3-5-19	Data File Name	L19BV005.D			
		Operator	MAH			
		Acq. Method File	9020003.M			
	Reviewer: [illegible] Date: 3/5/19	Sample Name	B9B2205-BLK1			
		Misc Info	ML 8L13001,T-H1-568,A21071			
#	Name	Target Response	Amount	PASS*		Blank Criteria
1)	IS-Hexane-d14	43759		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	44	0.010	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	100	0.026	Y	MAX	0.049
12)	Acrolein	0	0.000	Y		0.200
13)	Trichlorofluoromethane	0	0.000	Y		0.035
14)	Acrylonitrile	0	0.000	Y		0.032
15)	1,1-Dichloroethene	0	0.000	Y		0.036
16)	Methylene Chloride	0	0.000	Y		0.043
17)	Carbon Disulfide	53	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	109994		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	41	0.004	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	208	0.018	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	0	0.000	Y		0.071
40)	trans-1,3-Dichloropropene	0	0.000	Y		0.059
41)	1,1,2-Trichloroethane	0	0.000	Y		0.057
42)	IS-Chlorobenzene-d5	74920		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	80	0.006	Y		0.077
50)	m,p-Xylene	50	0.005	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	0	0.000	Y		0.109
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y		0.063
54)	o-Xylene	102	0.009	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	0	0.000	Y		0.080
57)	m-Dichlorobenzene	0	0.000	Y		0.055
58)	p-Dichlorobenzene	0	0.000	Y		0.060
59)	o-Dichlorobenzene	0	0.000	Y		0.062
60)	1,2,4-Trichlorobenzene	0	0.000	Y		0.200
61)	Hexachloro-1,3-butadiene	0	0.000	Y		0.082

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

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV005.D
Acq On : 22 Feb 2019 12:32 pm
Operator : MAH
Sample : B9B2205-BLK1
Misc : 80 ML 8L13001,T-H1-568,A21071
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 10:09:51 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)
1) IS-Hexane-d14	19.968	66	43759	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.149	114	109994	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	74920	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.823	41	44	0.0098 ppbv #	36
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	0.000	50	0	N.D.	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	14.495	41	100m	0.0263 ppbv	
13) Acrolein	0.000	56	0	N.D.	
14) Trichlorofluoromethane	0.000	101	0	N.D.	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.930	76	53	0.0034 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.	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	22.533	78	41	0.0035 ppbv #	53
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	24.551	41	208	0.0184 ppbv #	61
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.	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV005.D
Acq On : 22 Feb 2019 12:32 pm
Operator : MAH
Sample : B9B2205-BLK1
Misc : 80 ML 8L13001,T-H1-568,A21071
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 10:09:51 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)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.896	91	80	0.0062 ppbv #	42
51) m,p-Xylene	31.221	91	50	0.0046 ppbv #	30
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.118	91	102	0.0095 ppbv	96
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

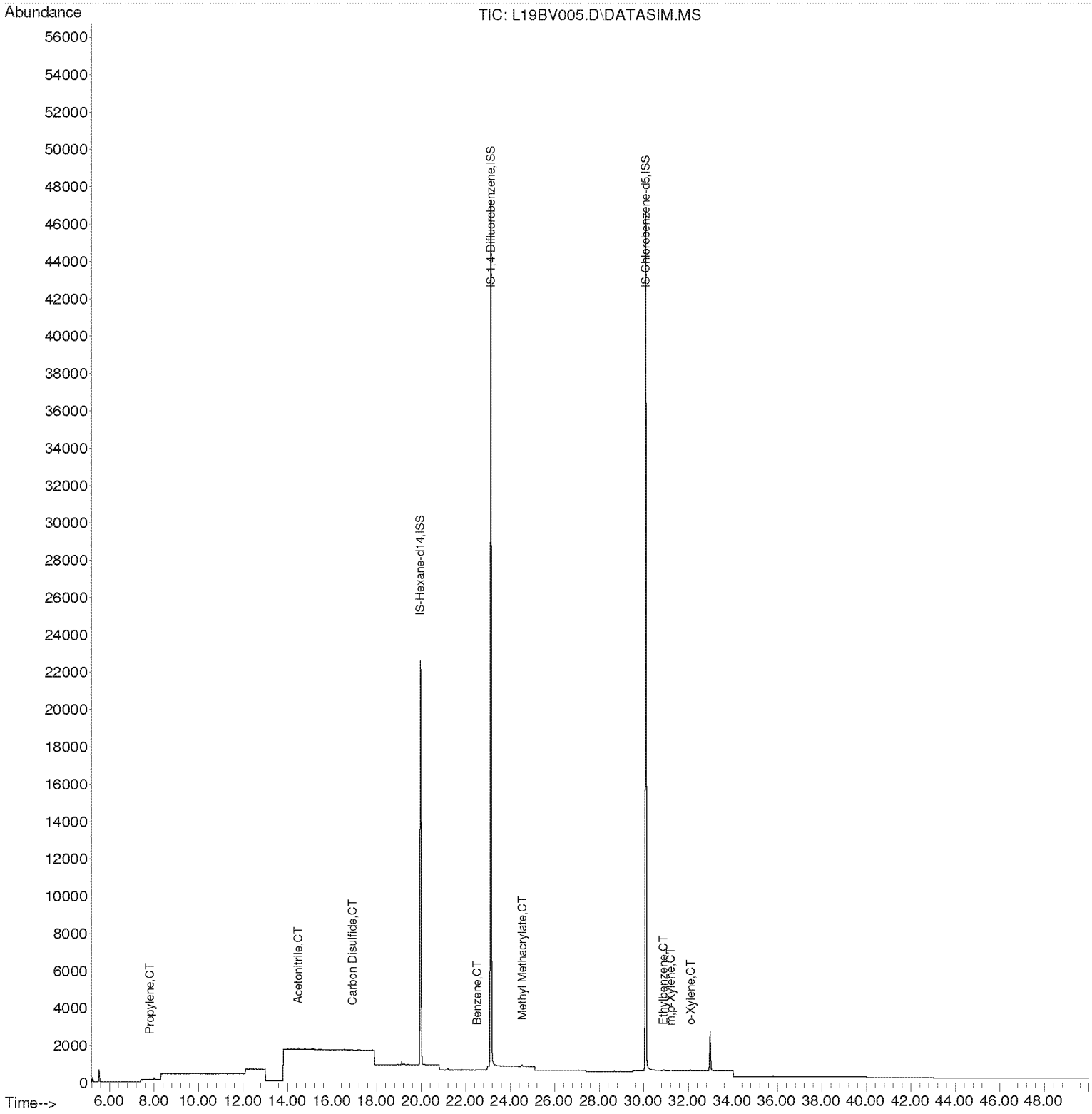
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

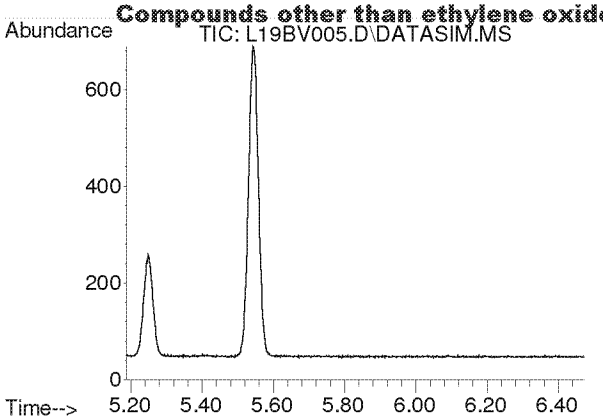
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV005.D
Acq On : 22 Feb 2019 12:32 pm
Operator : MAH
Sample : B9B2205-BLK1
Misc : 80 ML 8L13001,T-H1-568,A21071
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 10:09:51 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



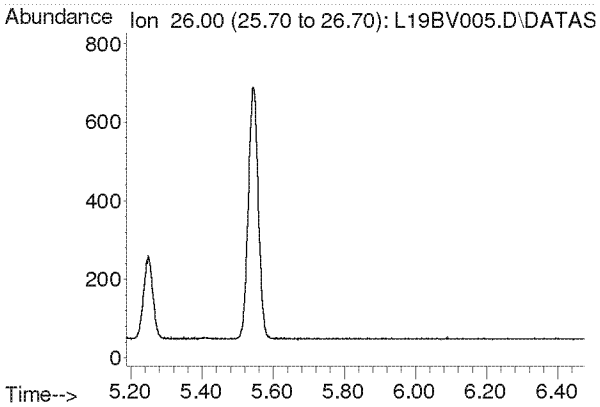
Compounds other than ethylene oxide were not quantitated.

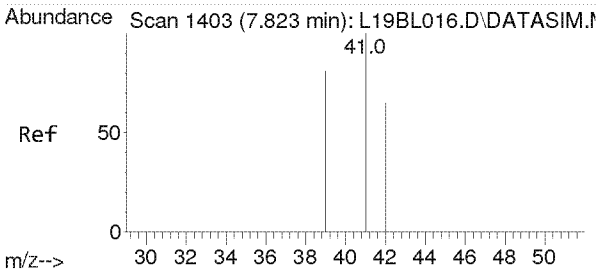


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 26

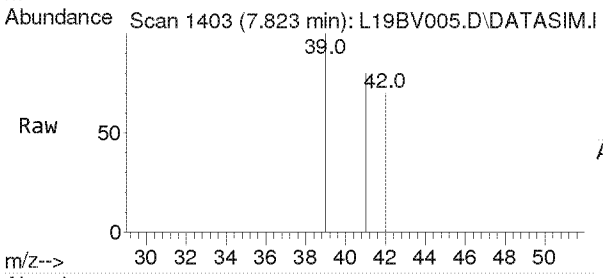


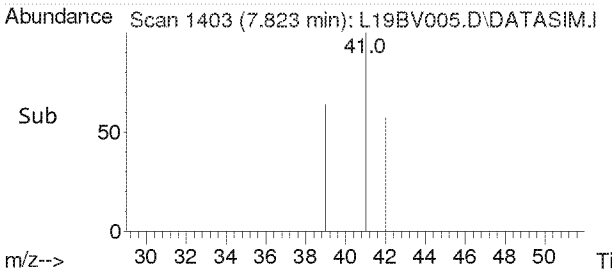


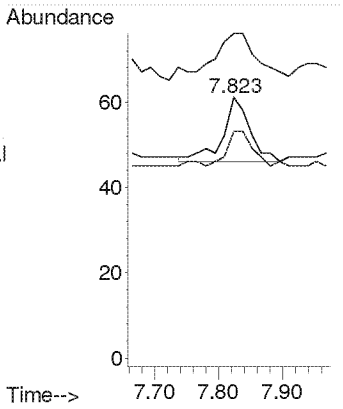
#3
Propylene
Concen: 0.010 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.000 min
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 41 Resp: 44

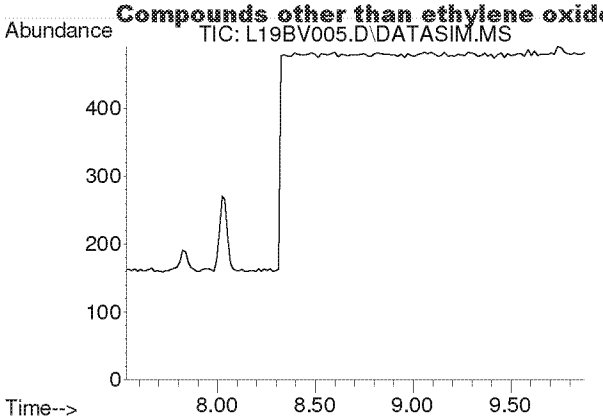
Ion	Ratio	Lower	Upper
41	100		
39	122.7	64.2	96.2#
42	0.0	52.6	79.0#







Compounds other than ethylene oxide were not quantitated.

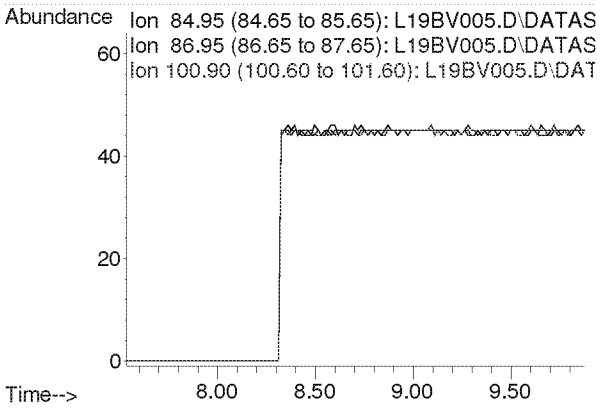


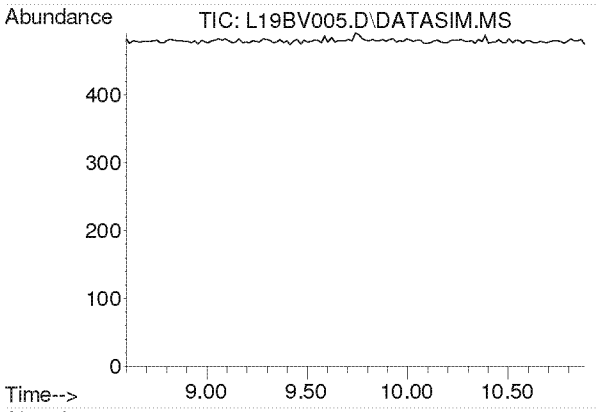
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



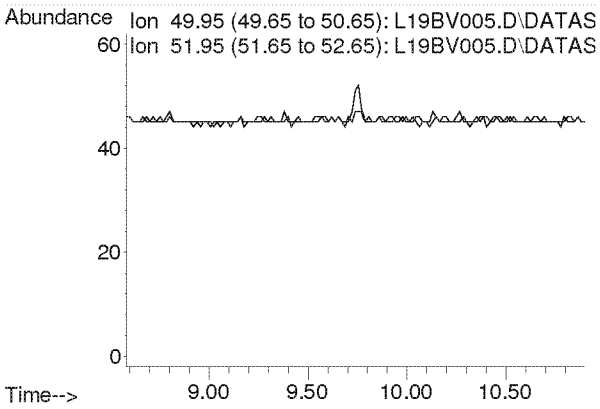


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

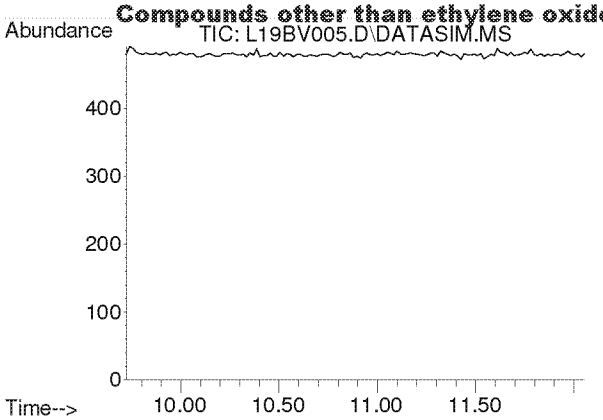
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

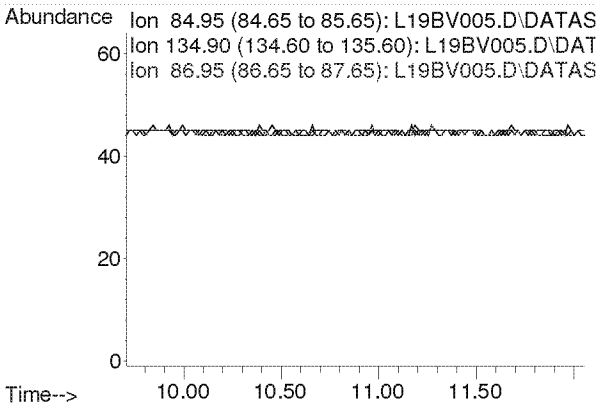


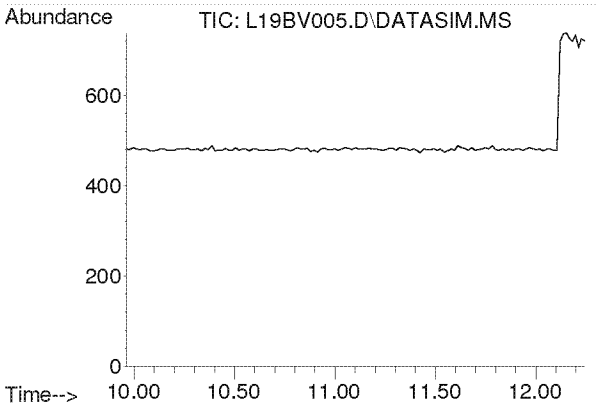
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



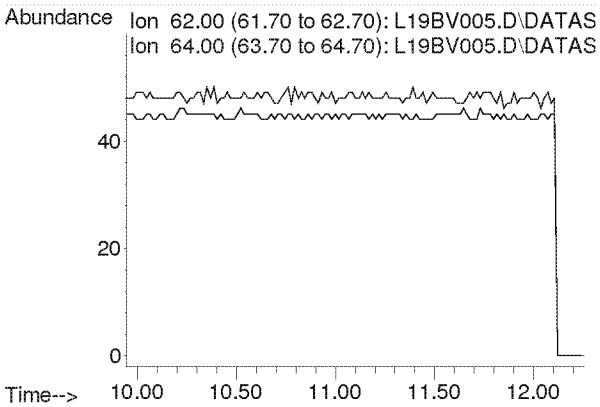


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

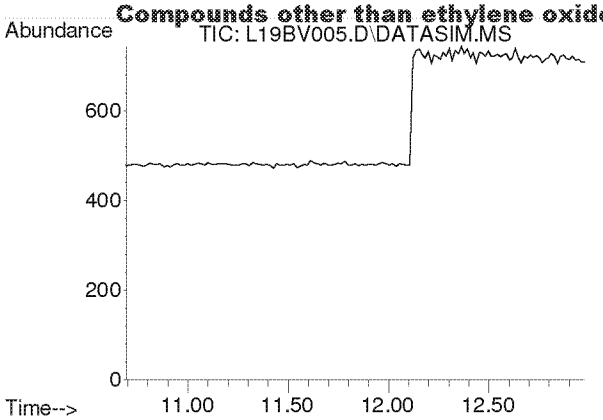
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

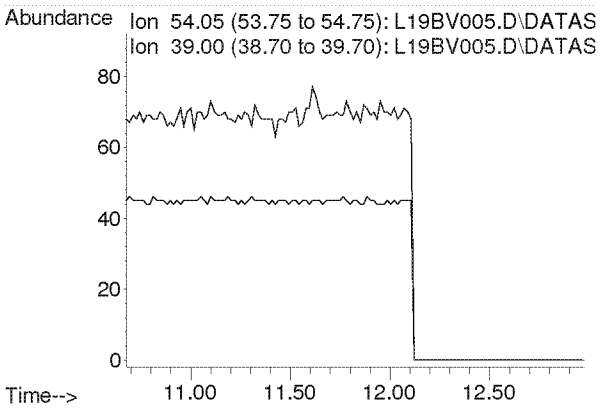


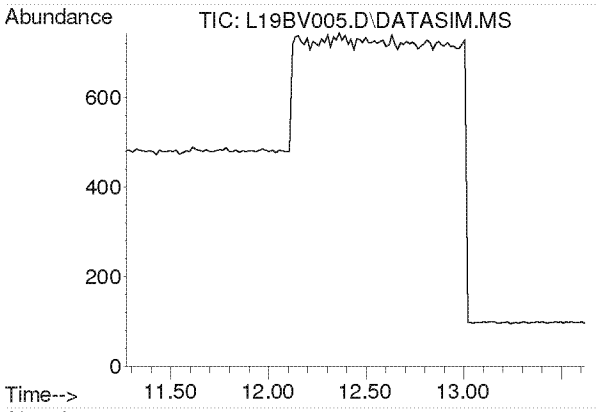
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



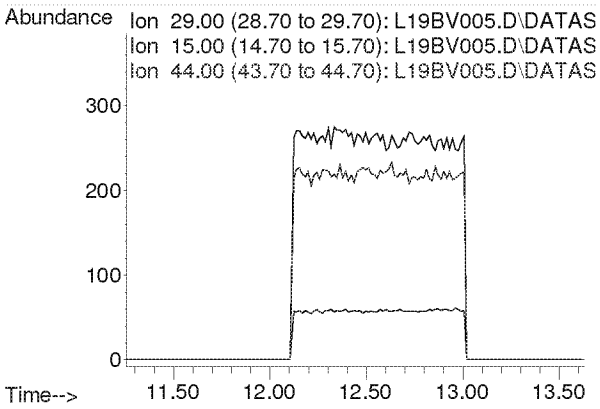


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

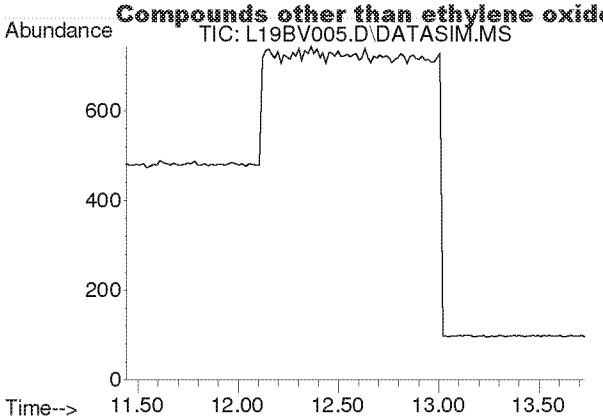
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

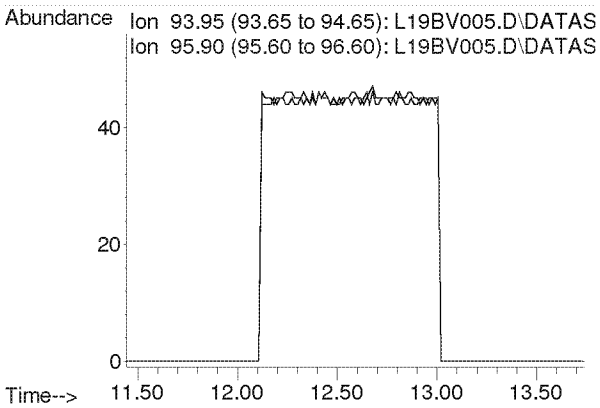


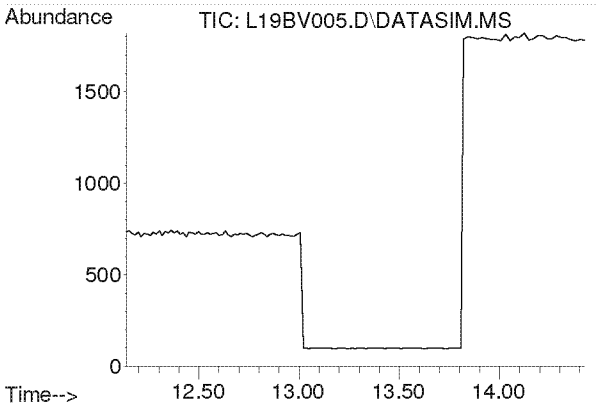
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



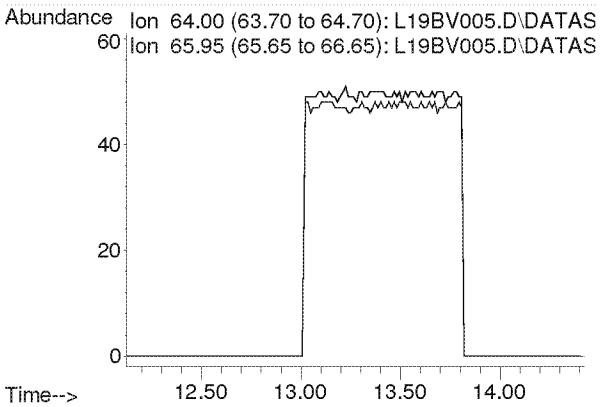


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

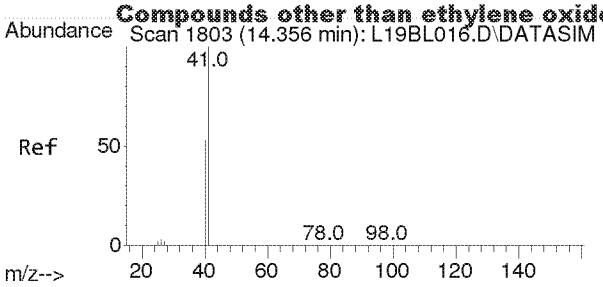
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



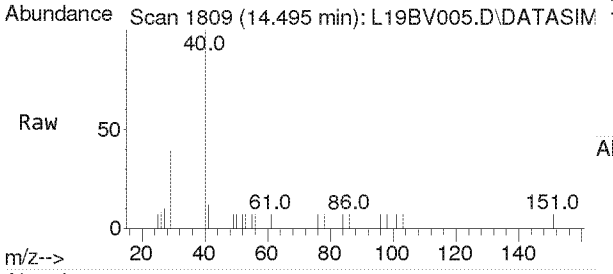
Compounds other than ethylene oxide were not quantitated.

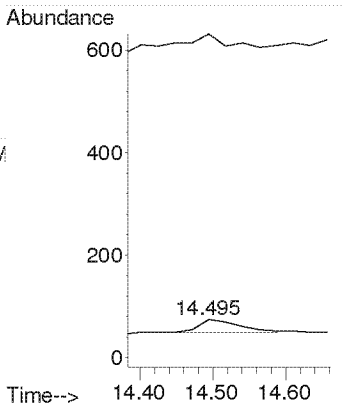


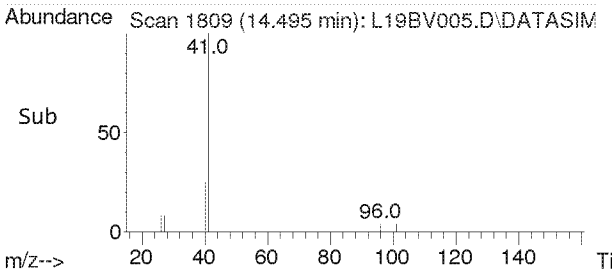
#12
Acetonitrile
Concen: 0.026 ppbv m
RT: 14.495 min Scan# 1809
Delta R.T. 0.139 min
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

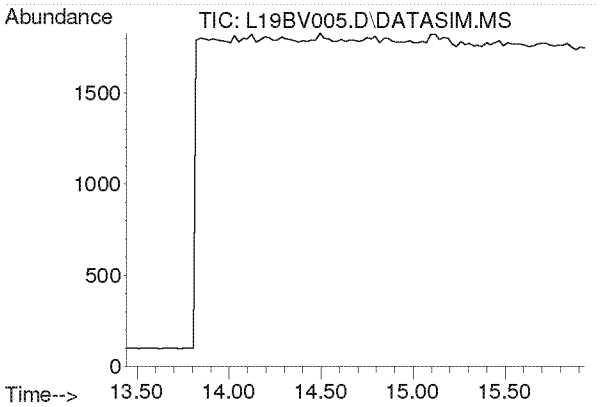
Tgt Ion: 41 Resp: 100

Ion	Ratio	Lower	Upper
41	100		
40	139.0	42.2	63.4#







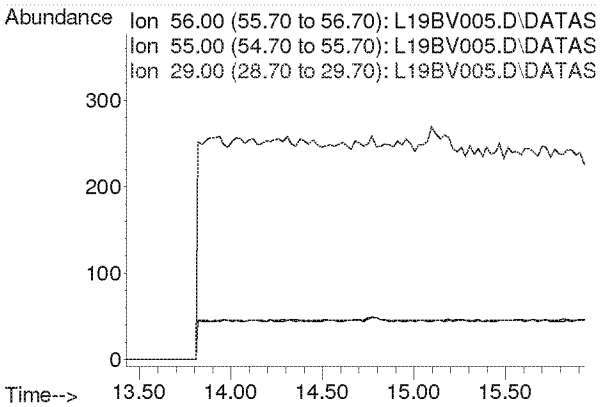


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

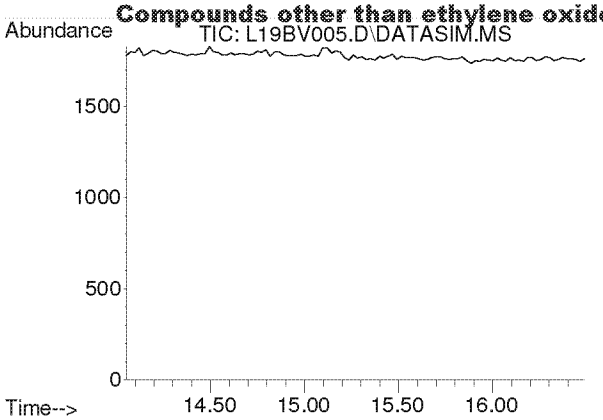
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

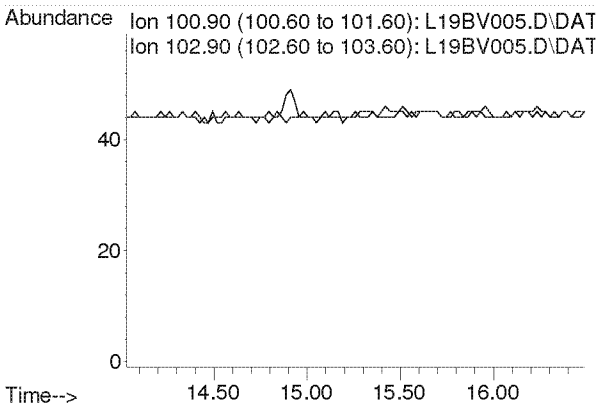


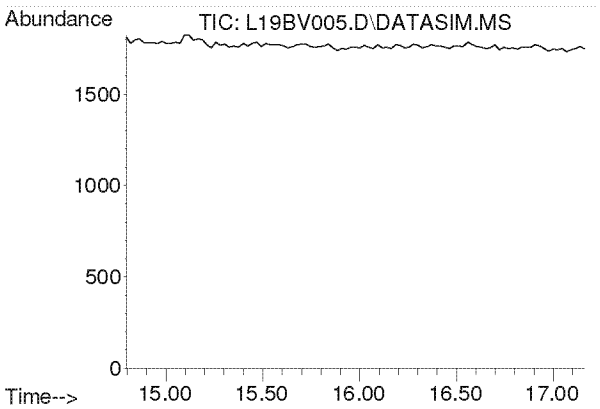
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



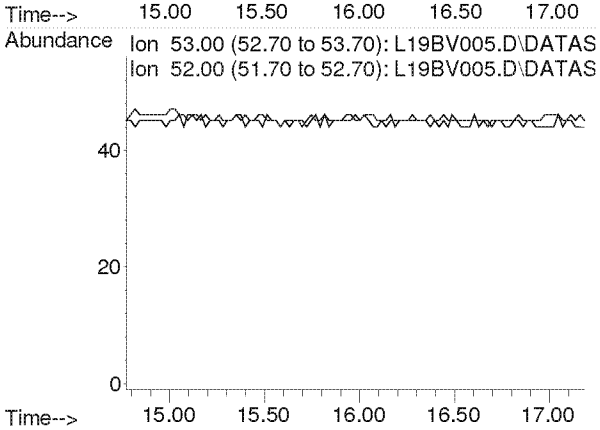


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

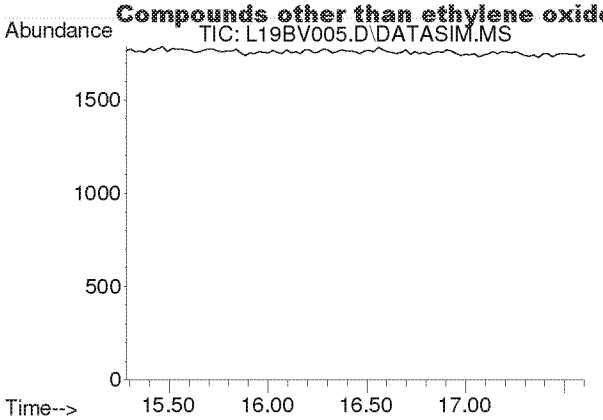
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

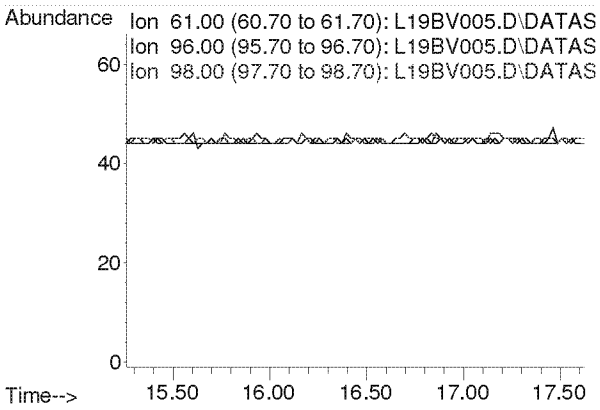


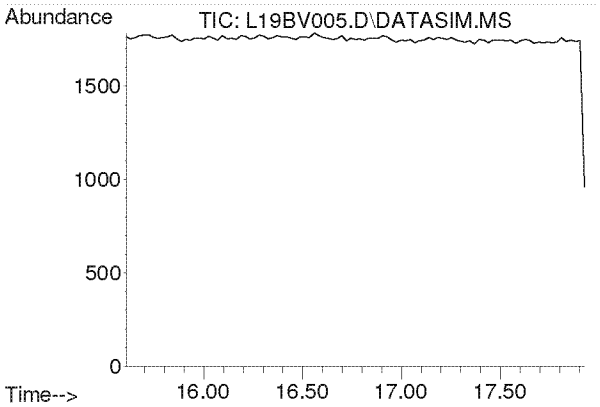
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



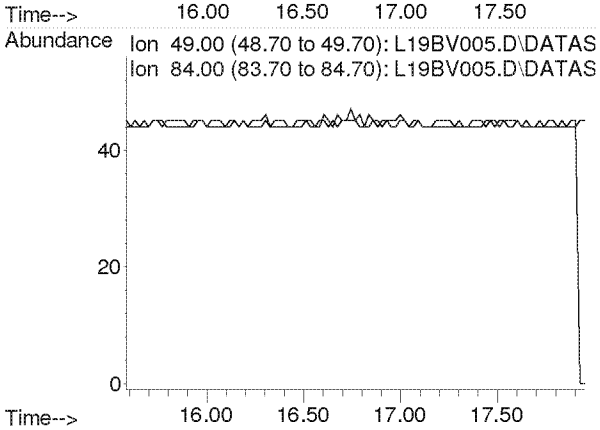


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

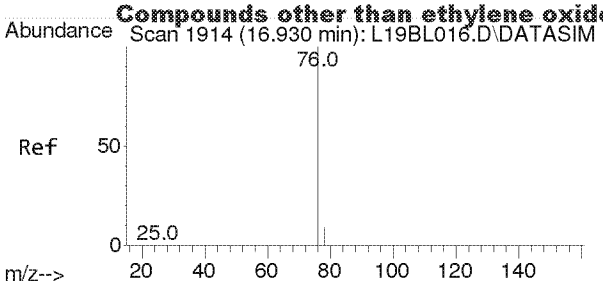
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



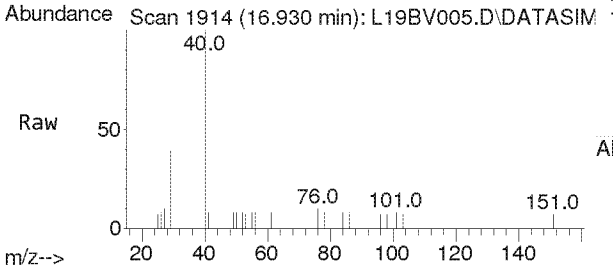
Compounds other than ethylene oxide were not quantitated.

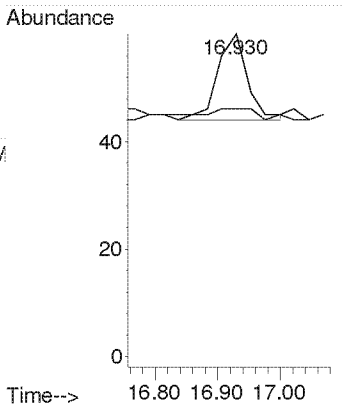


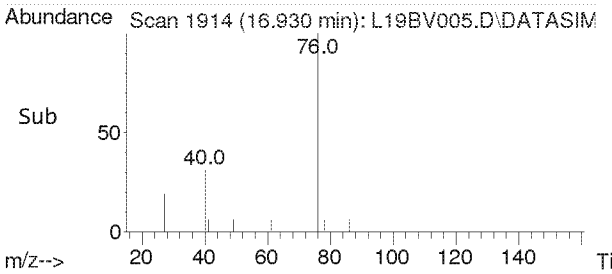
#18
Carbon Disulfide
Concen: 0.003 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. -0.000 min
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

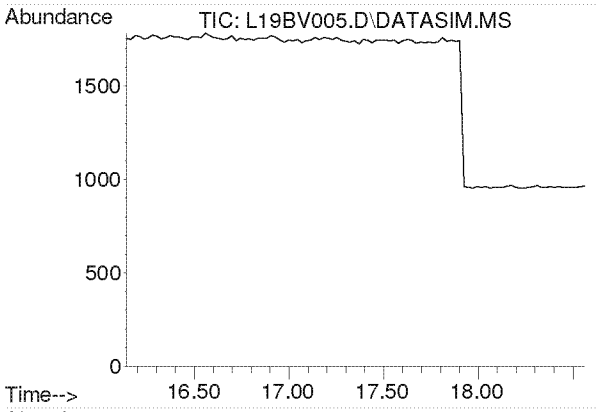
Tgt Ion: 76 Resp: 53

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.4	11.0#







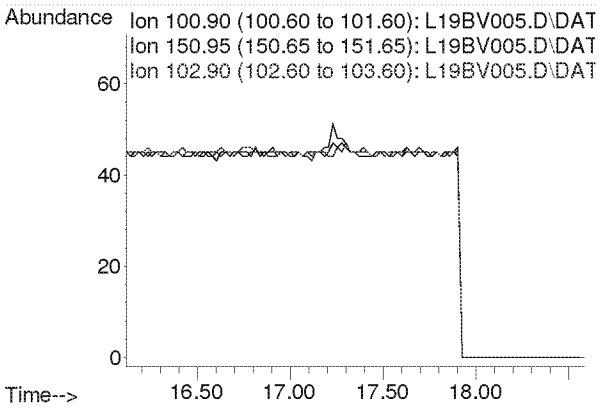


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

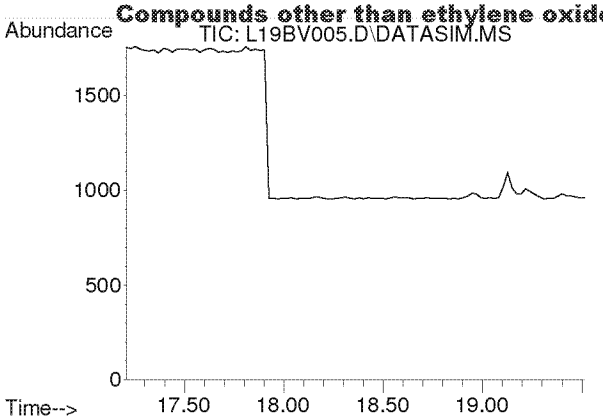
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

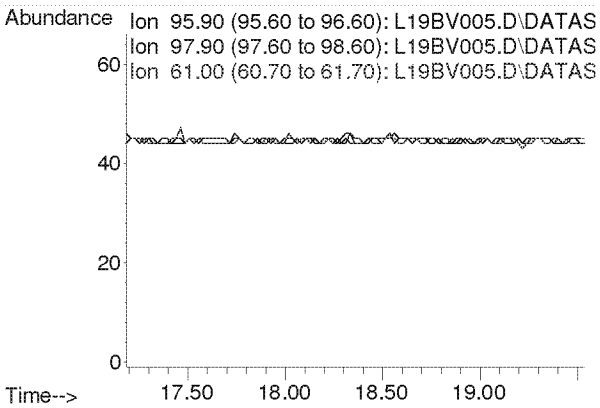


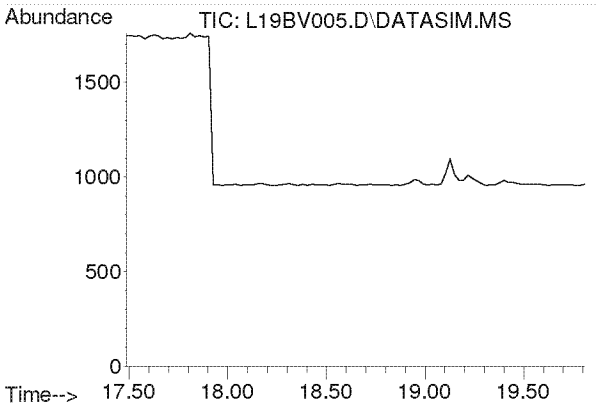
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



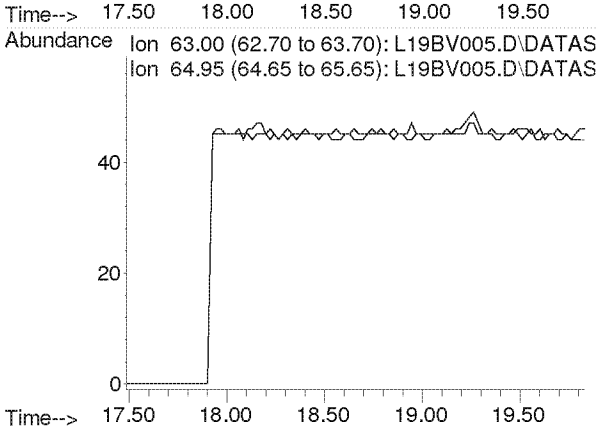


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

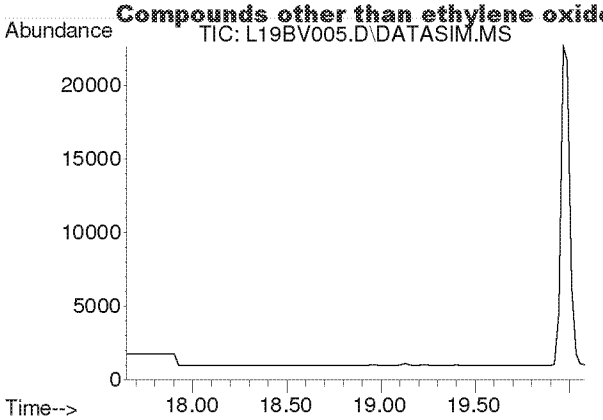
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

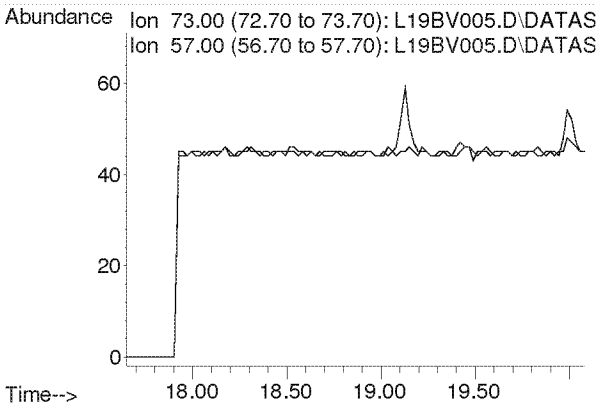


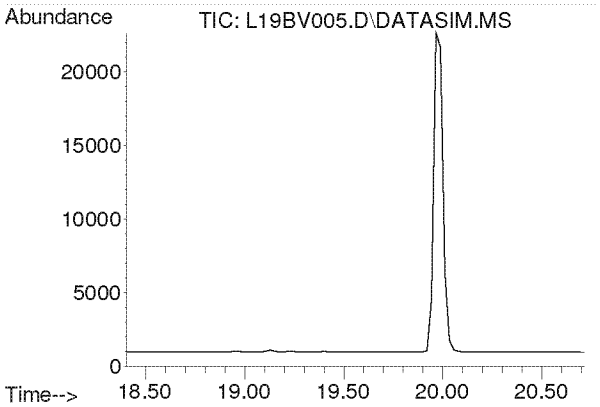
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



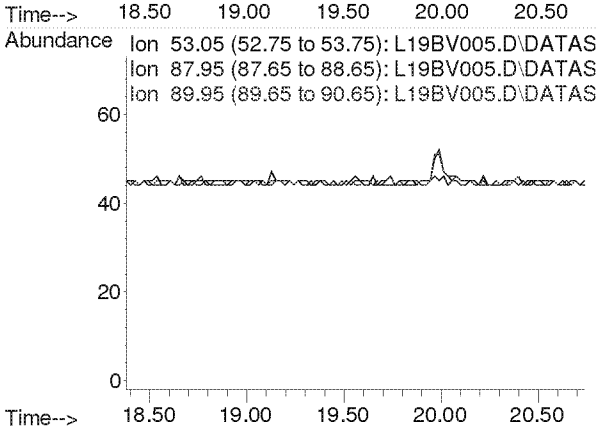


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

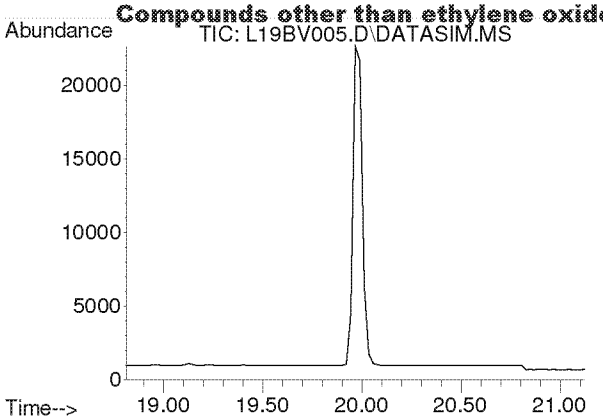
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

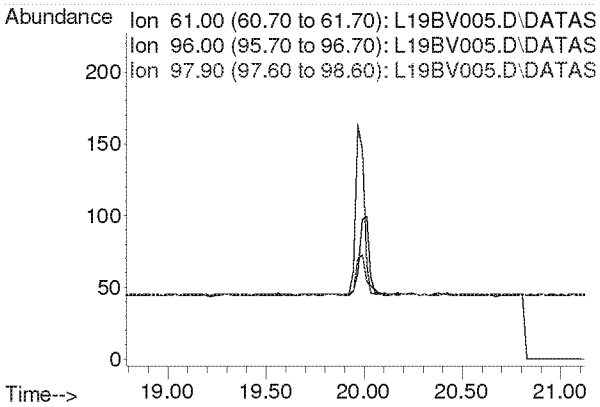


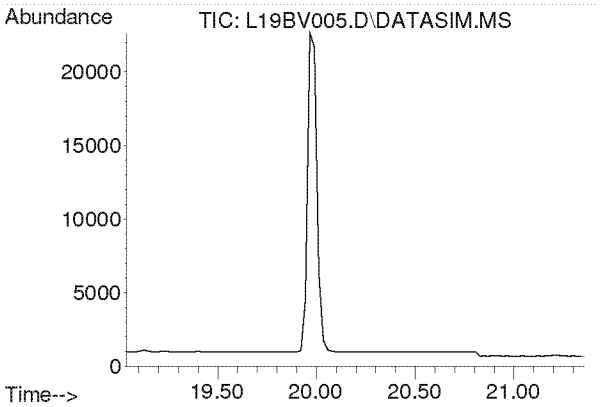
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



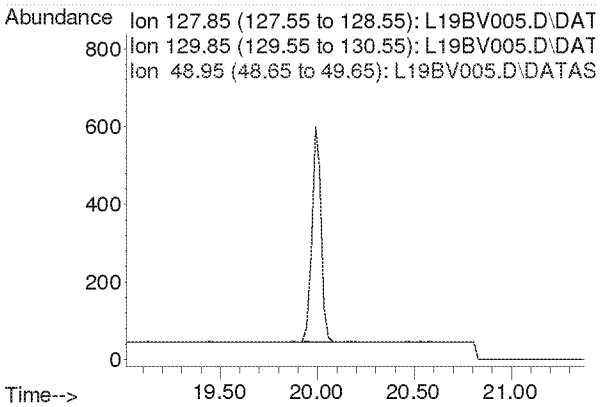


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

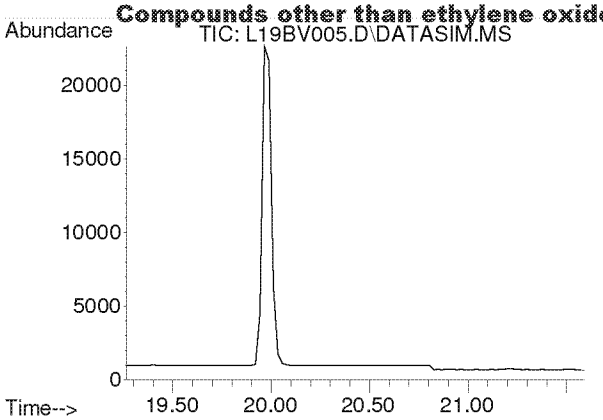
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

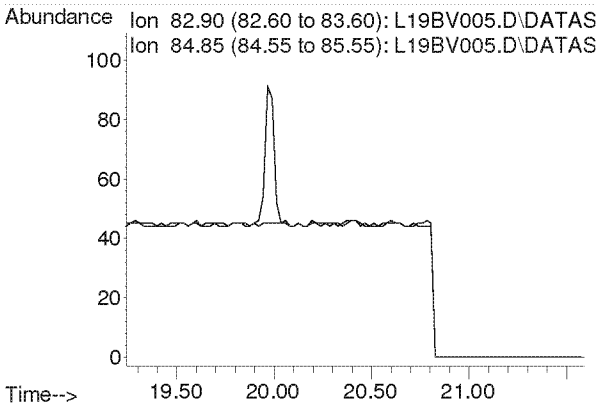


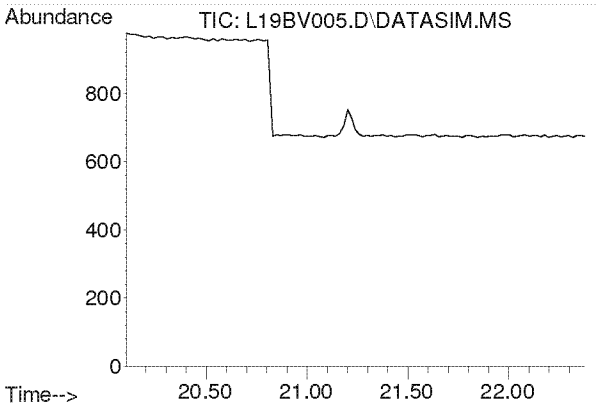
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



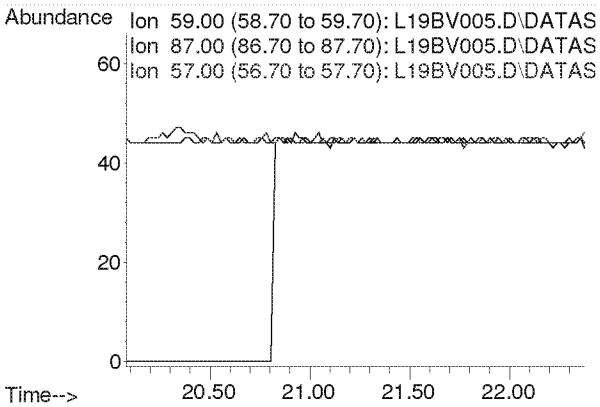


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

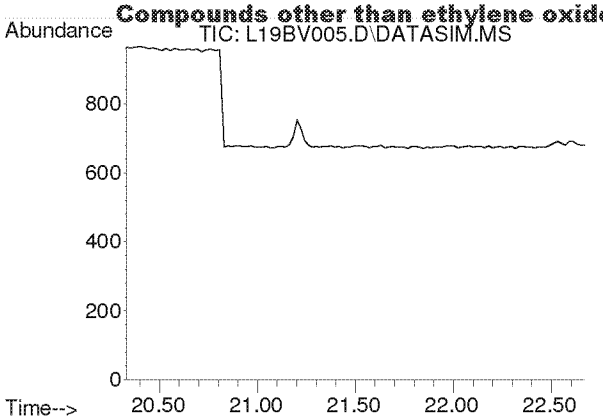
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

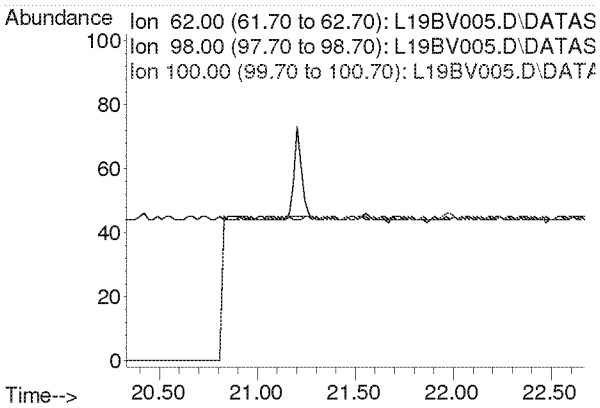


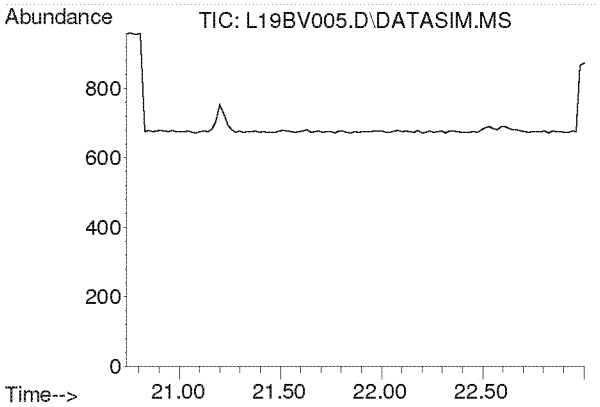
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



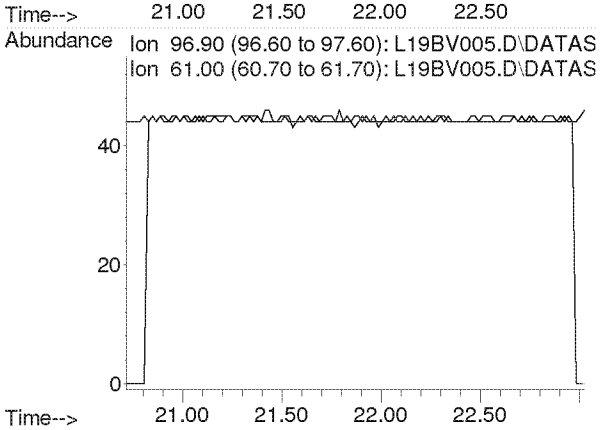


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

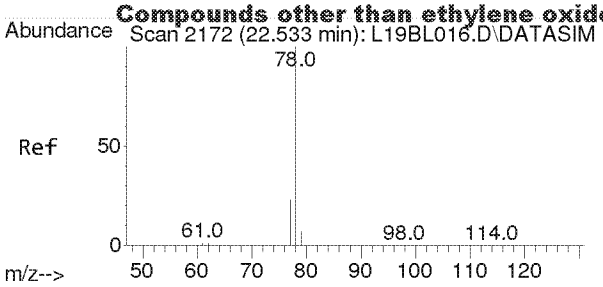
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



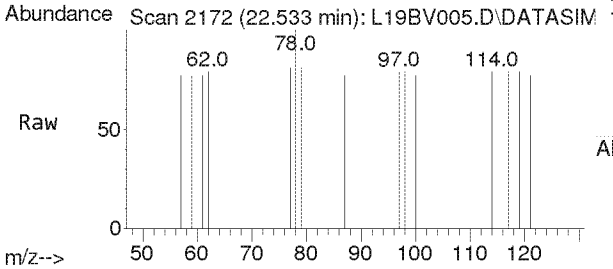
Compounds other than ethylene oxide were not quantitated.

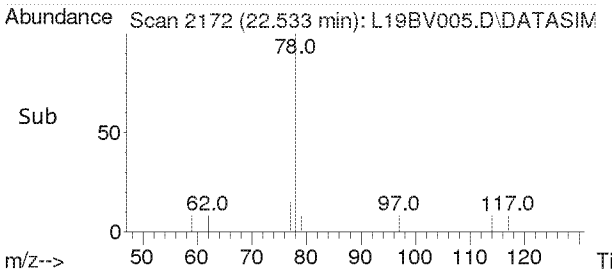


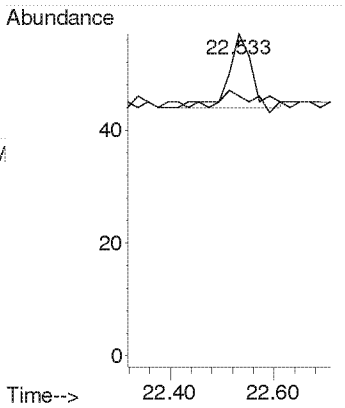
#31
Benzene
Concen: 0.004 ppbv
RT: 22.533 min Scan# 2172
Delta R.T. 0.000 min
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

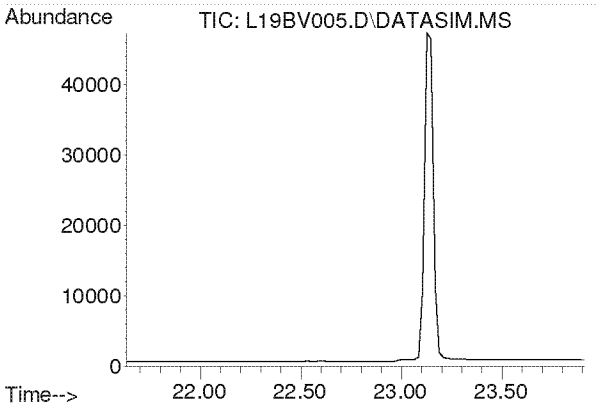
Tgt Ion: 78 Resp: 41

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.4#







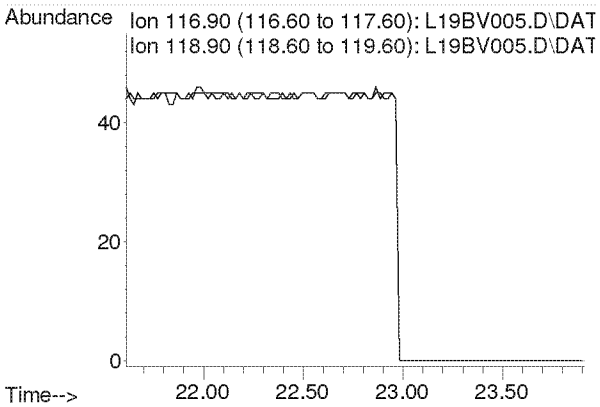


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

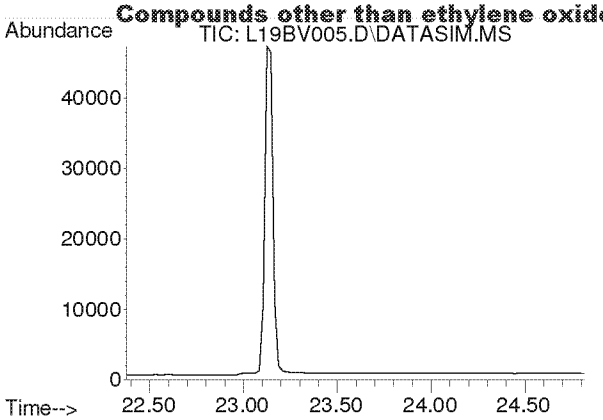
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

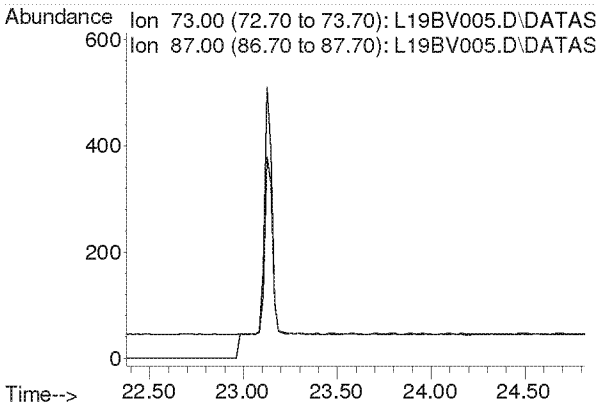


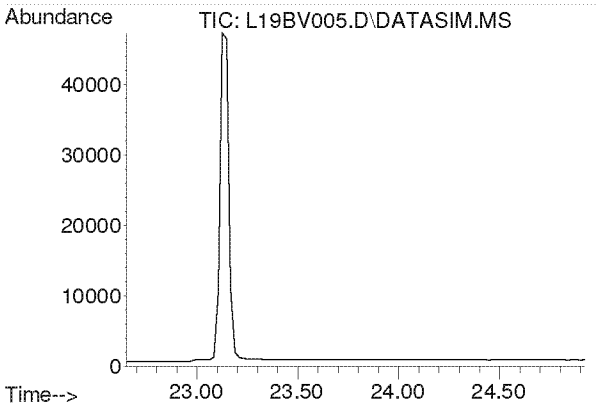
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



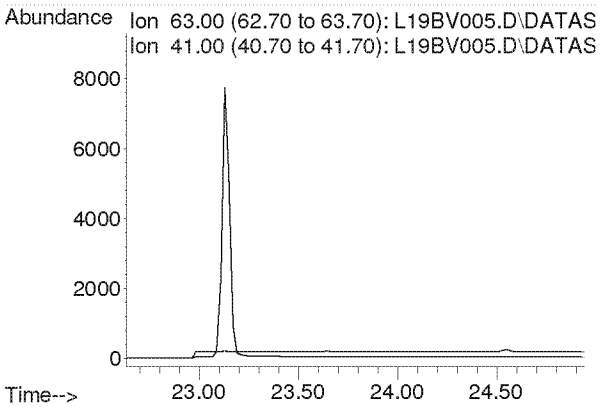


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

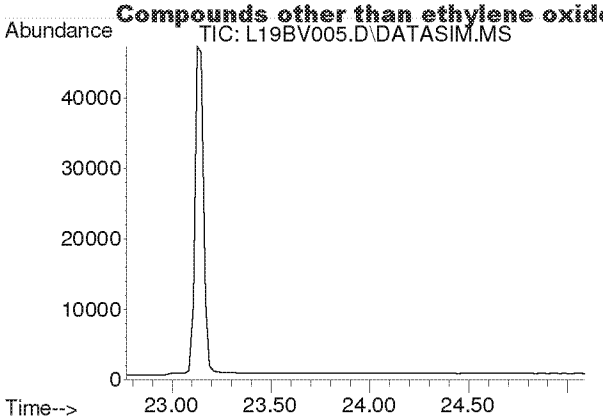
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

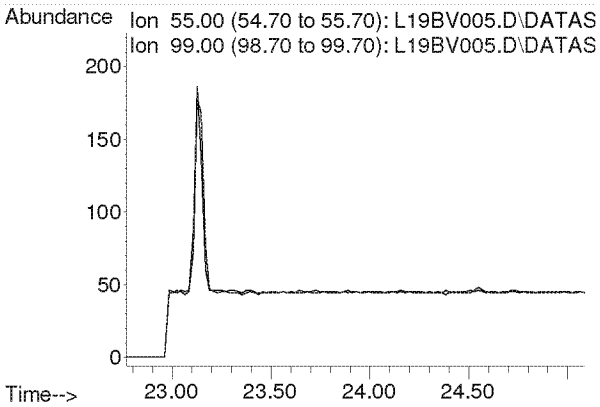


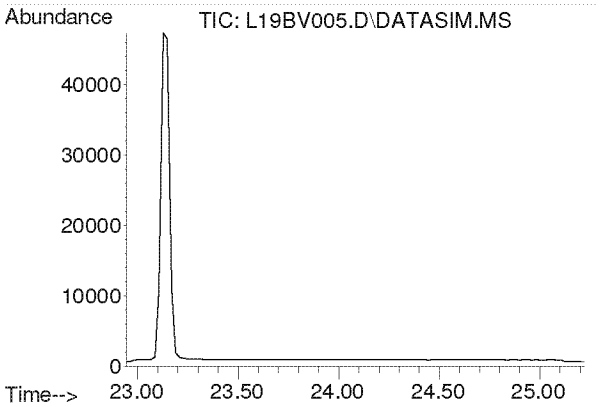
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



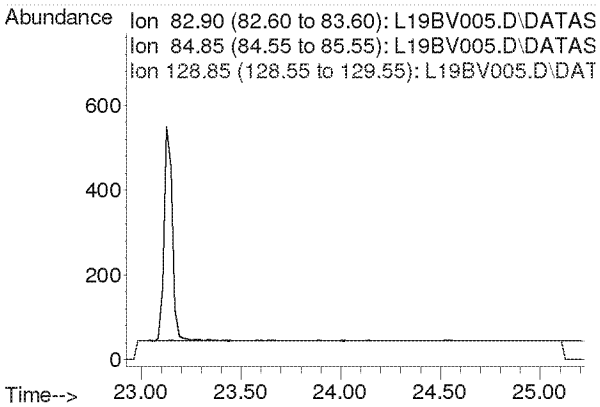


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

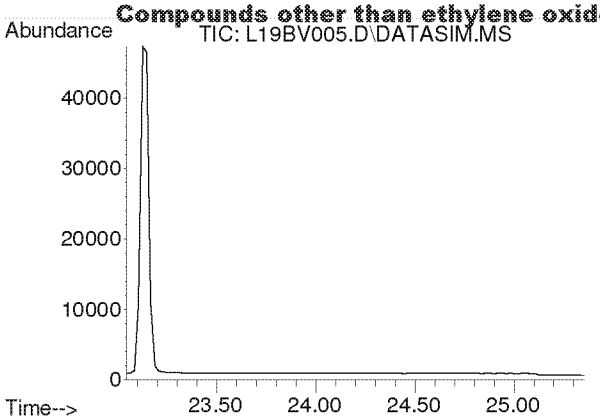
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

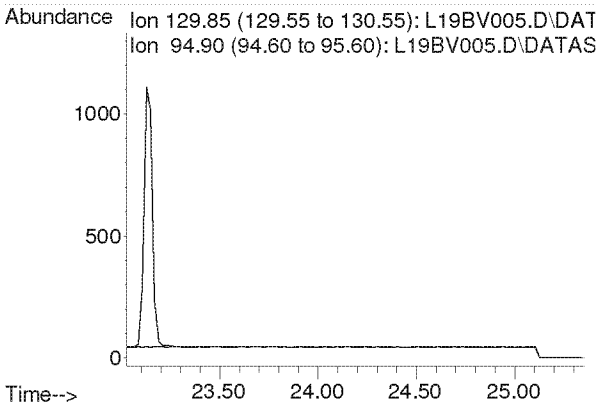


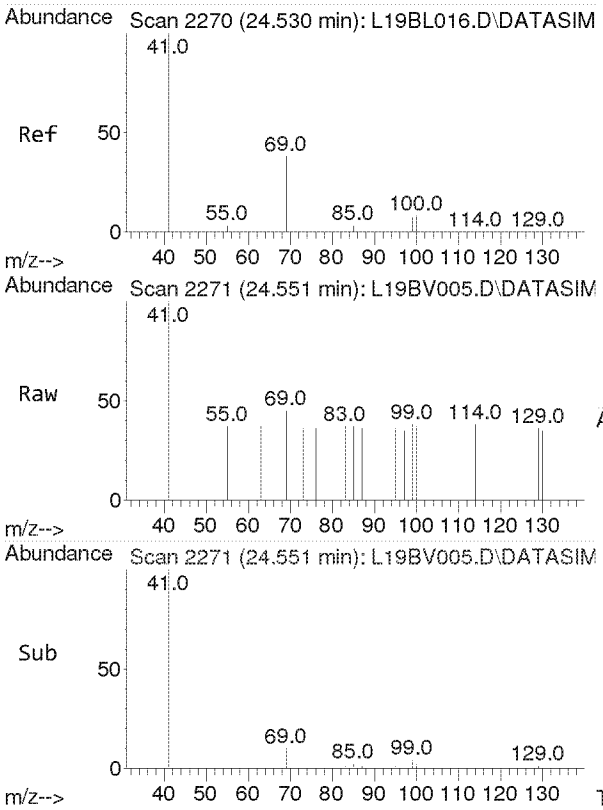
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1

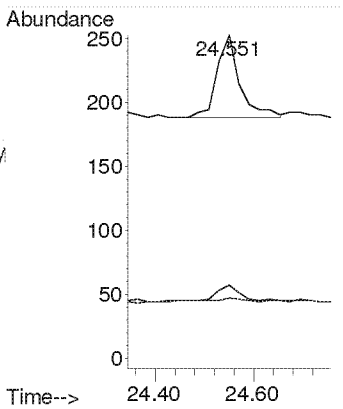




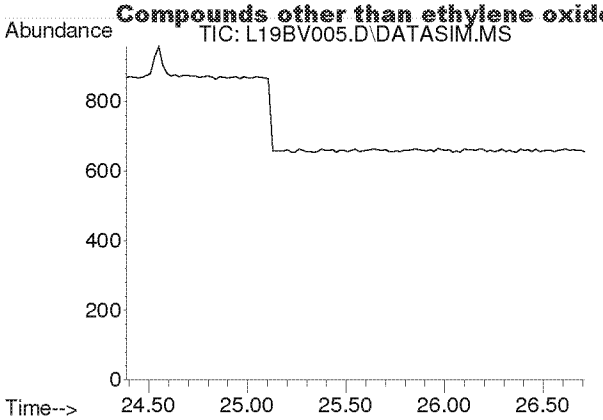
#38
Methyl Methacrylate
Concen: 0.018 ppbv
RT: 24.551 min Scan# 2271
Delta R.T. 0.021 min
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 41 Resp: 208

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



Compounds other than ethylene oxide were not quantitated.

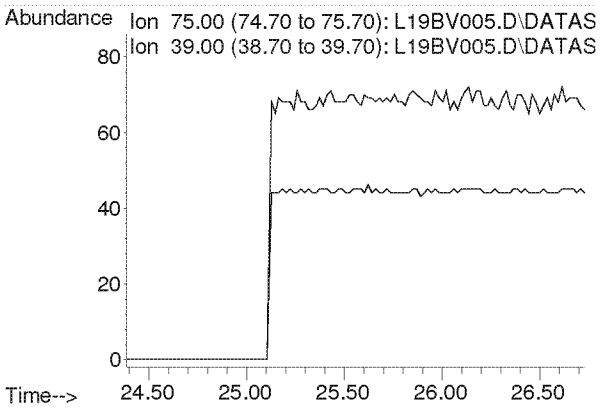


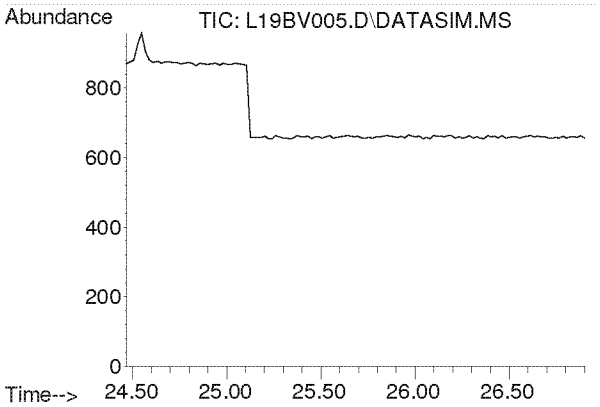
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



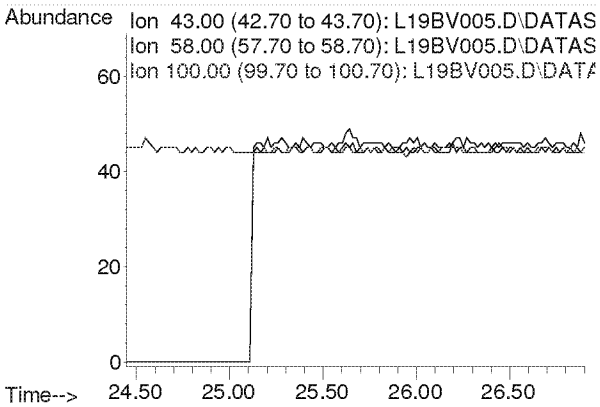


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

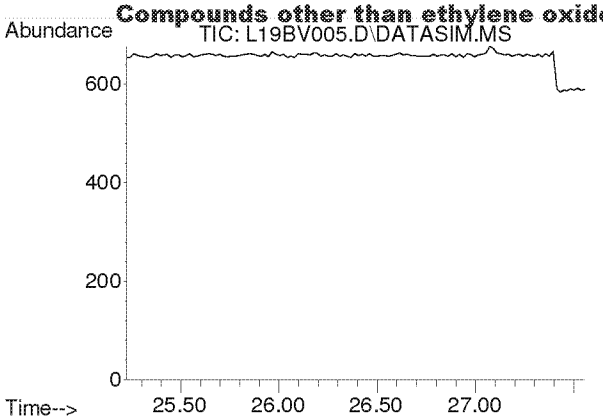
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

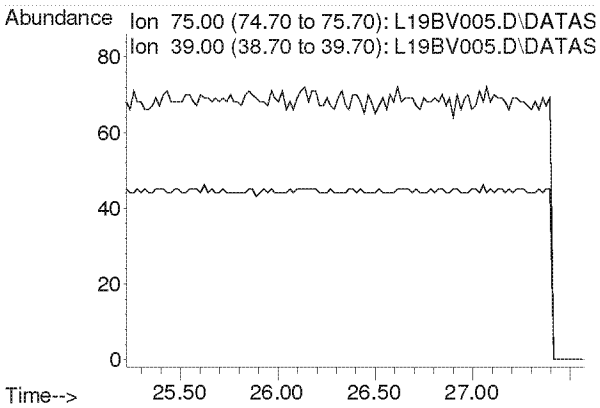


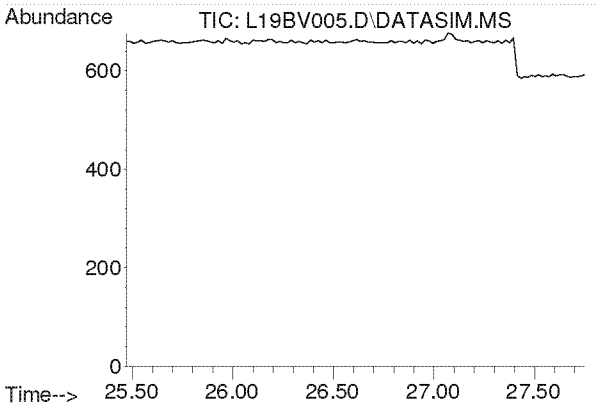
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



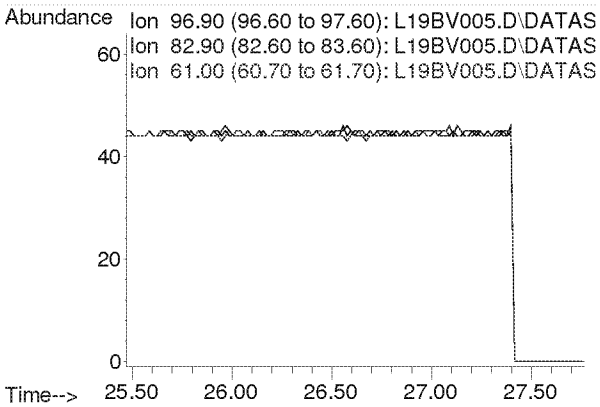


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

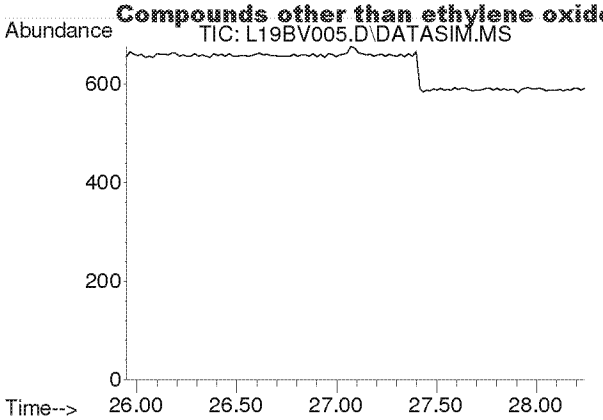
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

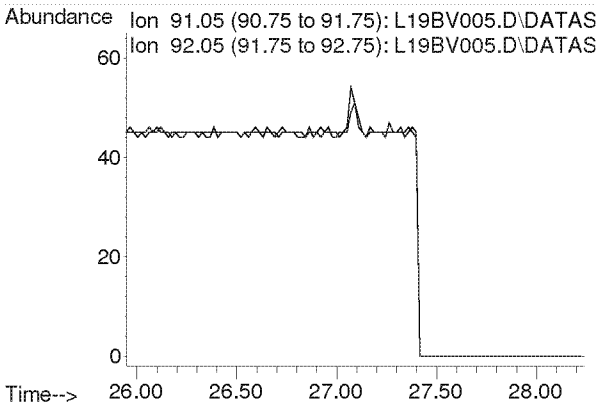


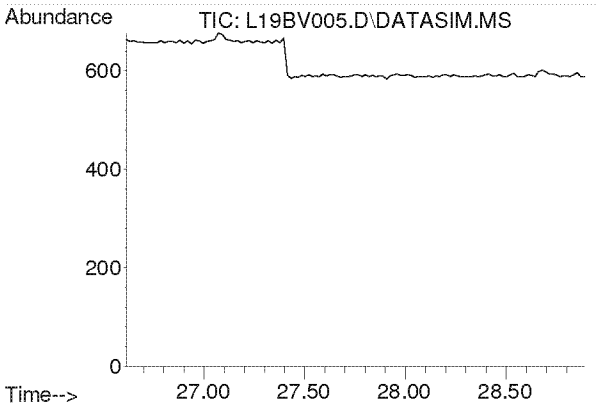
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



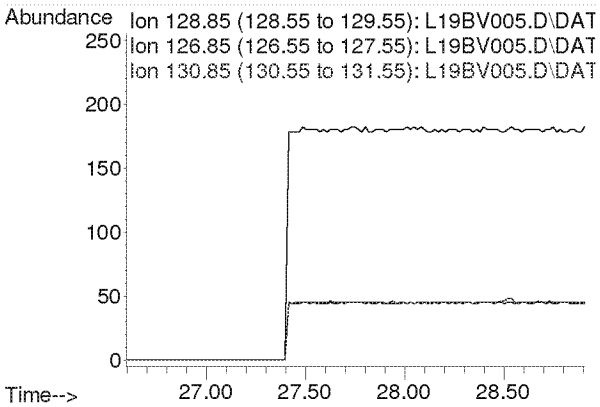


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

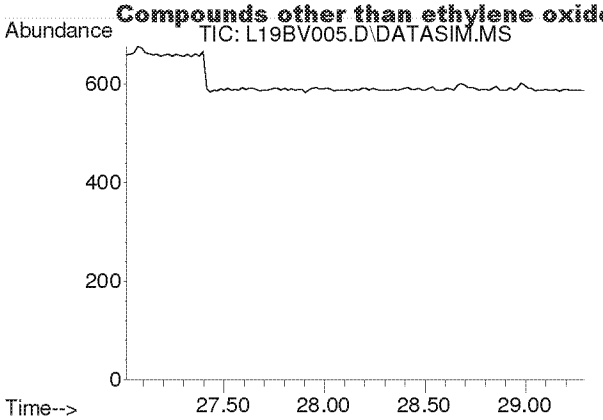
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

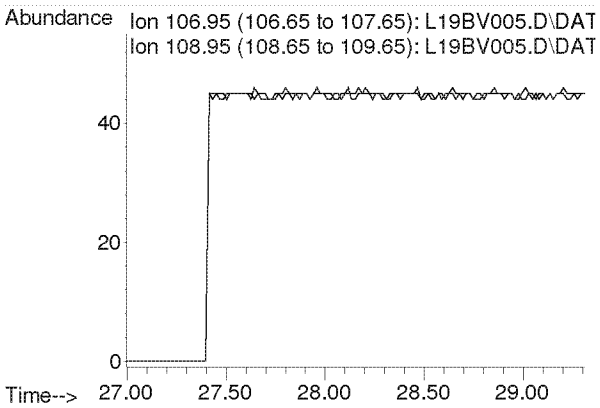


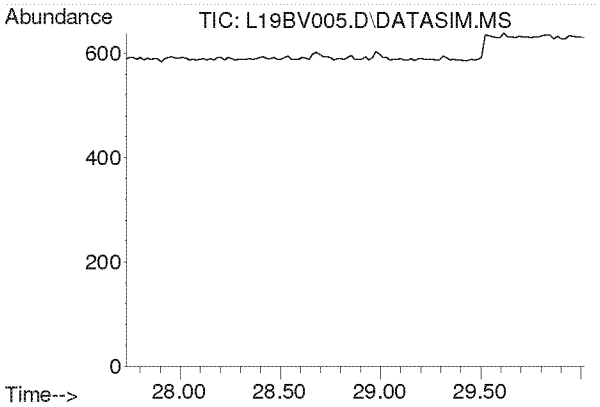
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



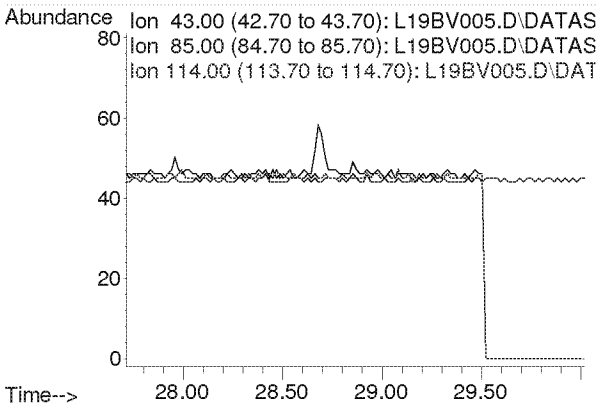


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

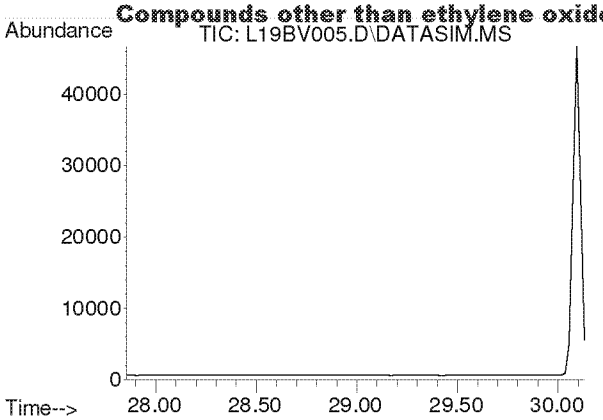
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

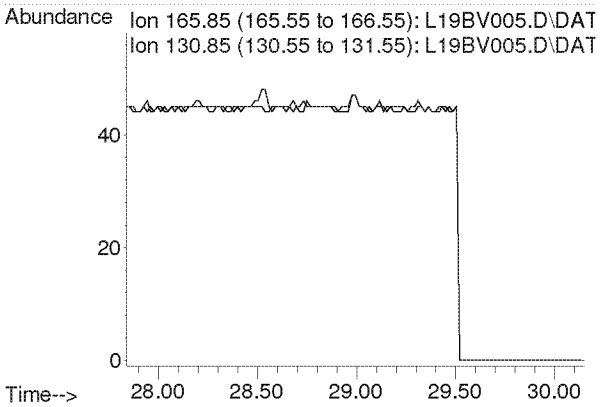


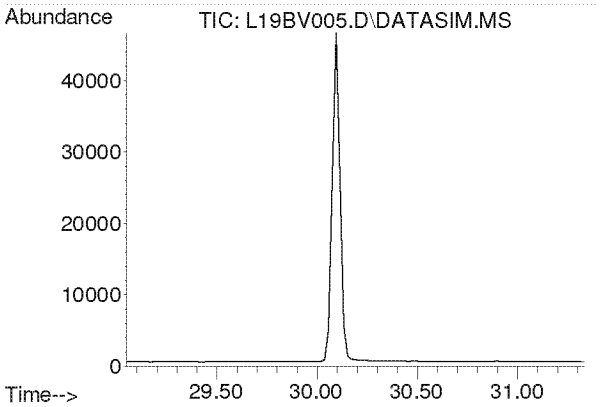
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



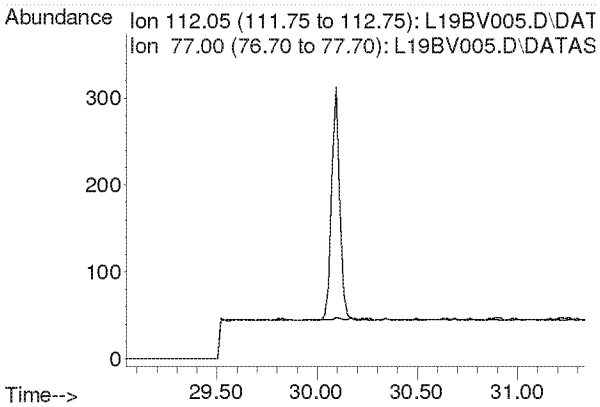


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

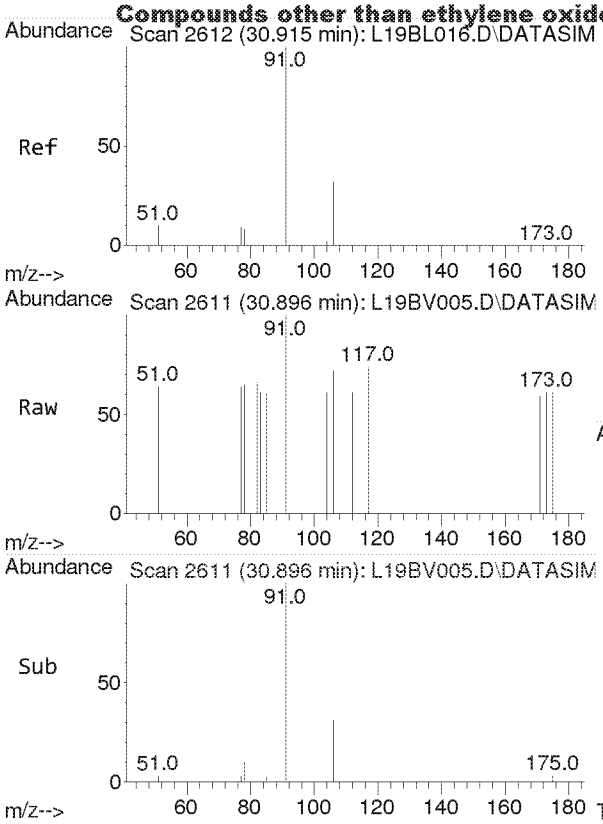
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



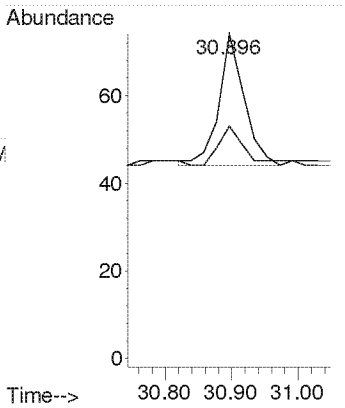
Compounds other than ethylene oxide were not quantitated.

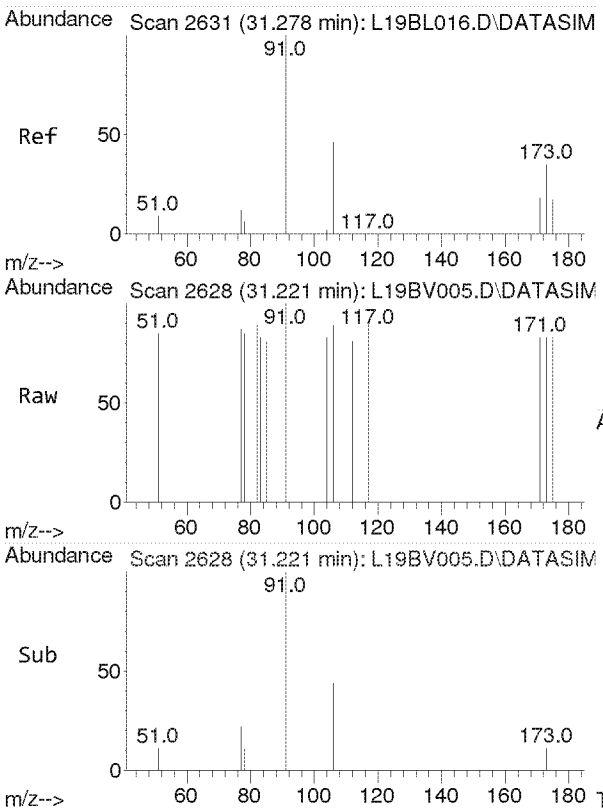


#50
Ethylbenzene
Concen: 0.006 ppbv
RT: 30.896 min Scan# 2611
Delta R.T. -0.019 min
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 91 Resp: 80

Ion	Ratio	Lower	Upper
91	100		
106	0.0	26.0	39.0#

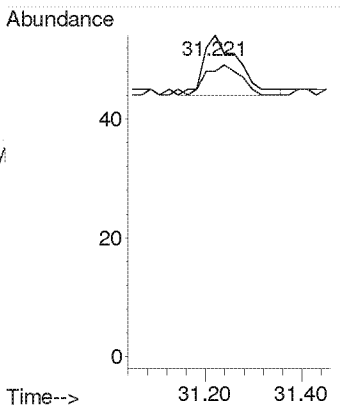




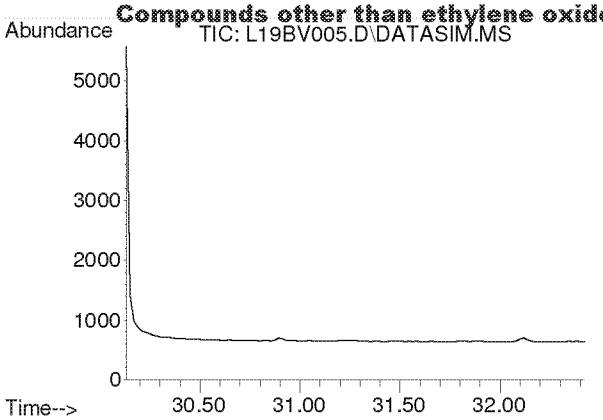
#51
m,p-Xylene
Concen: 0.005 ppbv
RT: 31.221 min Scan# 2628
Delta R.T. -0.057 min
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 91 Resp: 50

Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.3	55.9#



Compounds other than ethylene oxide were not quantitated.

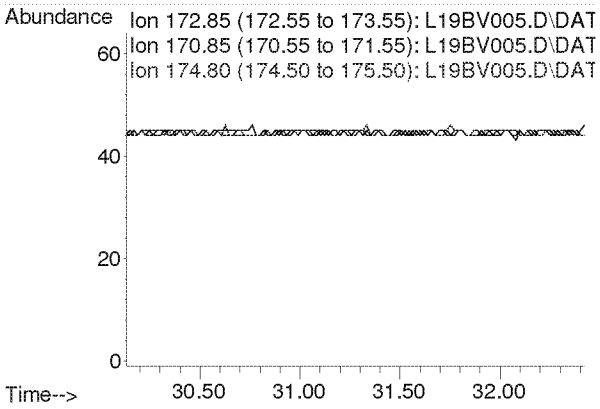


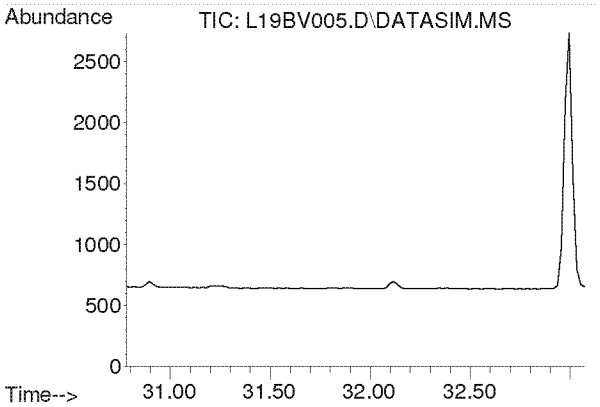
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



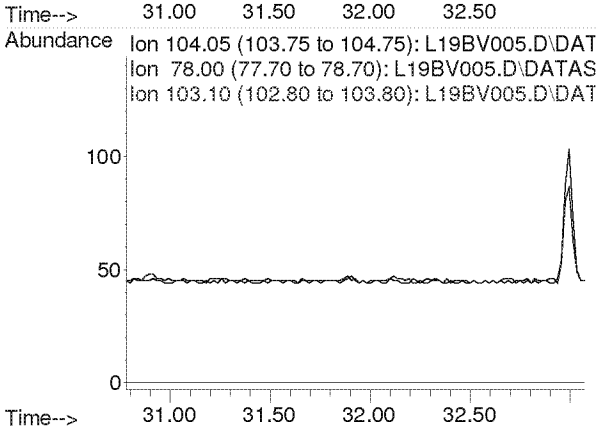


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

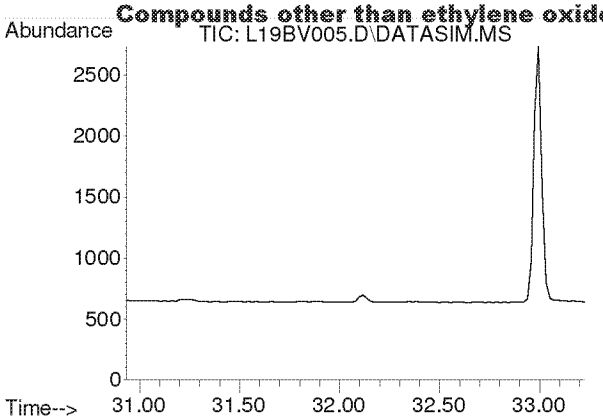
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

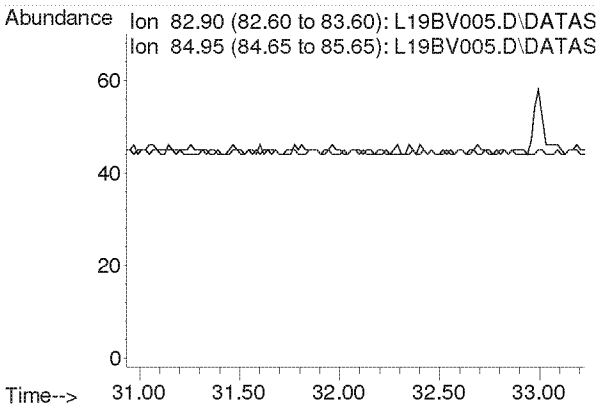


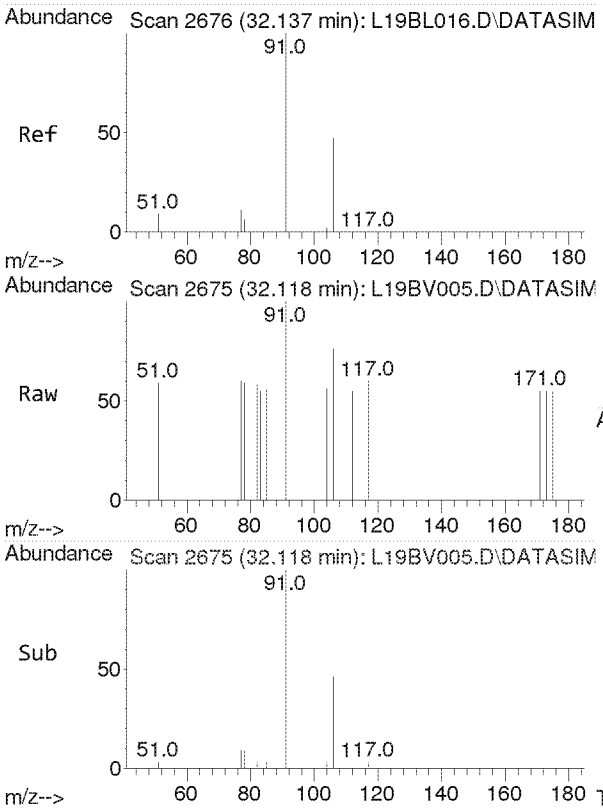
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

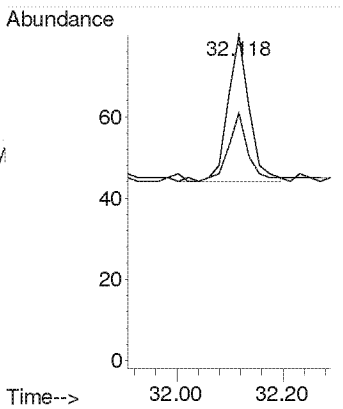




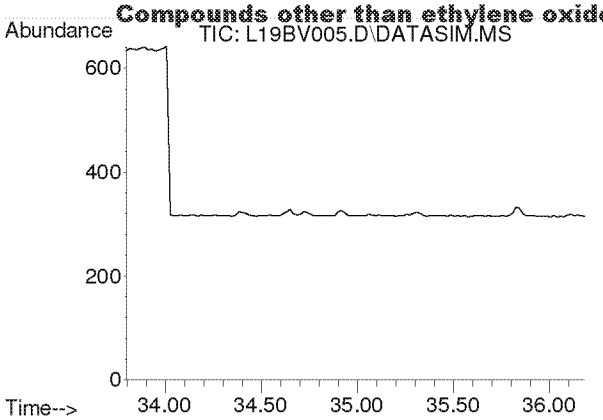
#55
o-Xylene
Concen: 0.009 ppbv
RT: 32.118 min Scan# 2675
Delta R.T. -0.019 min
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 91 Resp: 102

Ion	Ratio	Lower	Upper
91	100		
106	43.1	36.6	55.0



Compounds other than ethylene oxide were not quantitated.

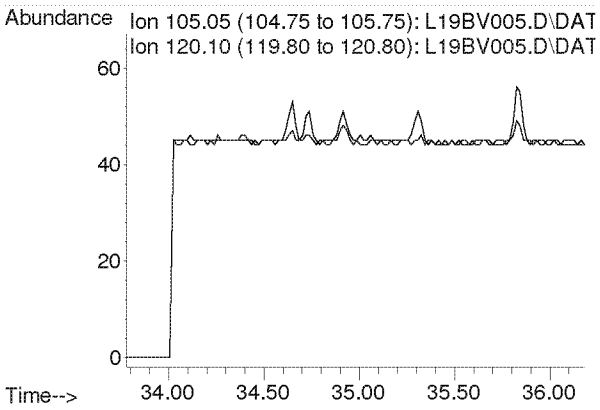


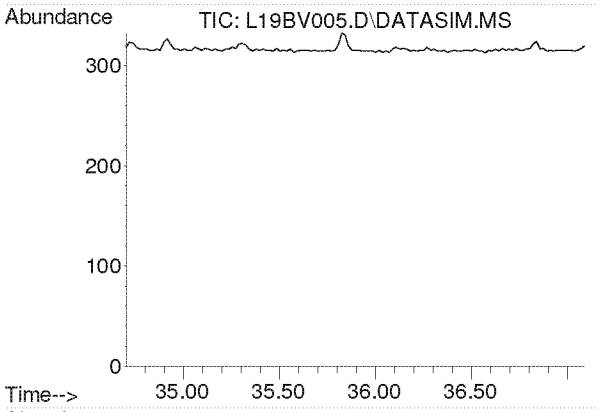
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



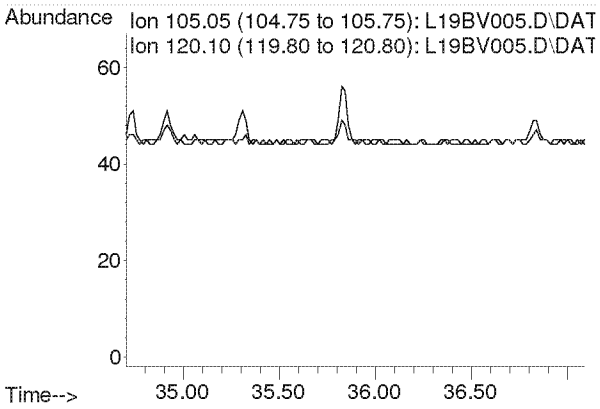


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

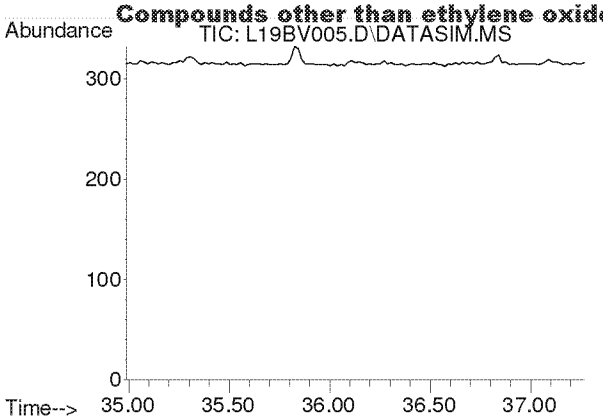
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

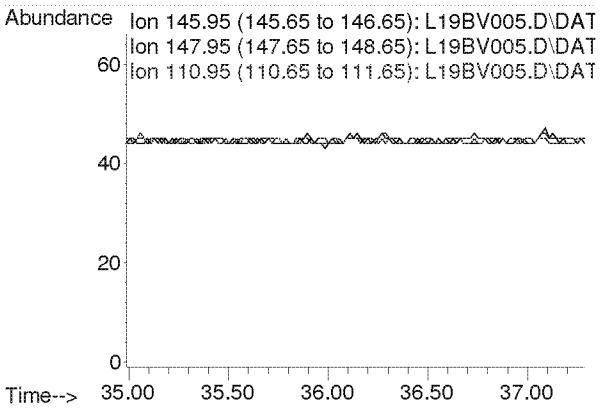


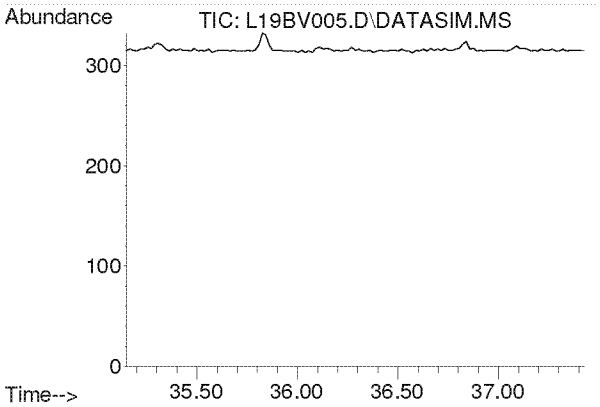
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



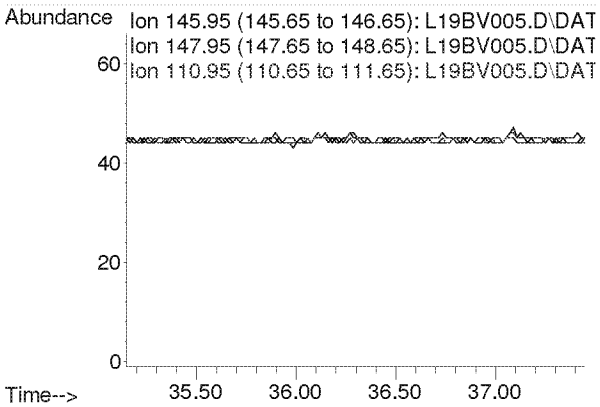


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

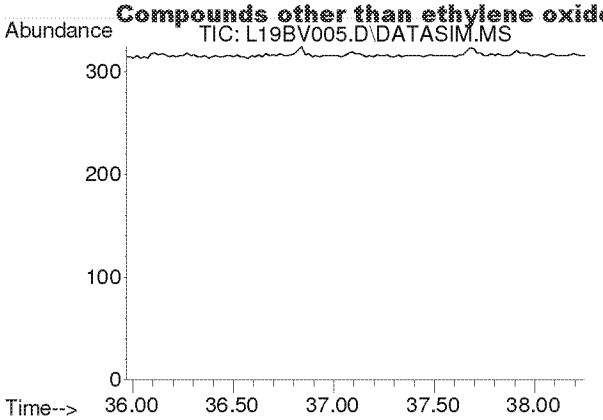
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

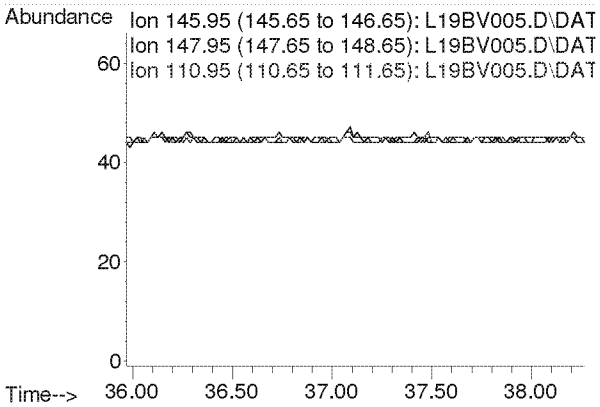


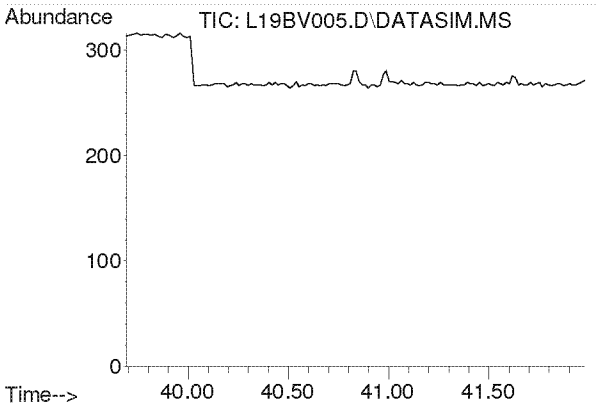
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



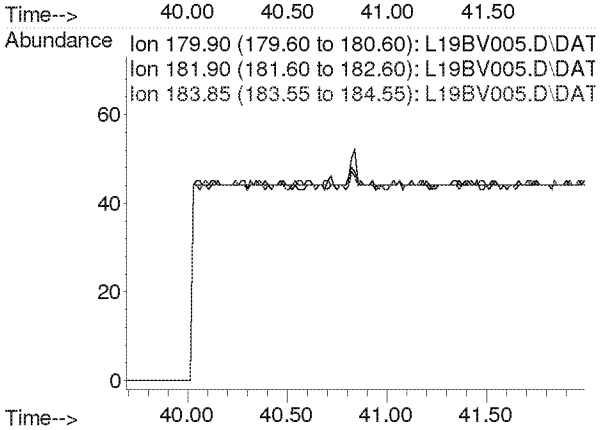


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

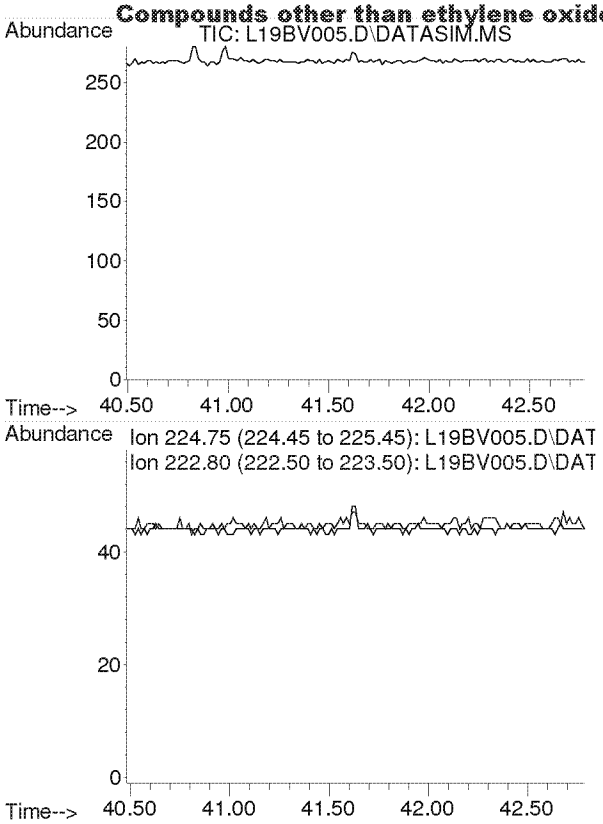
Lab File: L19BV005.D
Acq: 22 Feb 2019 12:32 pm

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: L19BV005.D
Acq: 22 Feb 2019 12:32 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 : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV009.D
Acq On : 22 Feb 2019 4:35 pm (#1); 22 Feb 2019 4:30 pm (#2)
Operator : MAH
Sample : 9022025-01
Misc : WB VILLAGE HALL 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 06:46:51 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)
1) IS-Hexane-d14	19.991	66	40216	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	102487	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	71407	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.483	29	226m	0.0983 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	

AMB 3/5/19

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV009.D
Acq On : 22 Feb 2019 4:35 pm (#1); 22 Feb 2019 4:30 pm (#2)
Operator : MAH
Sample : 9022025-01
Misc : WB VILLAGE HALL 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 06:46:51 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

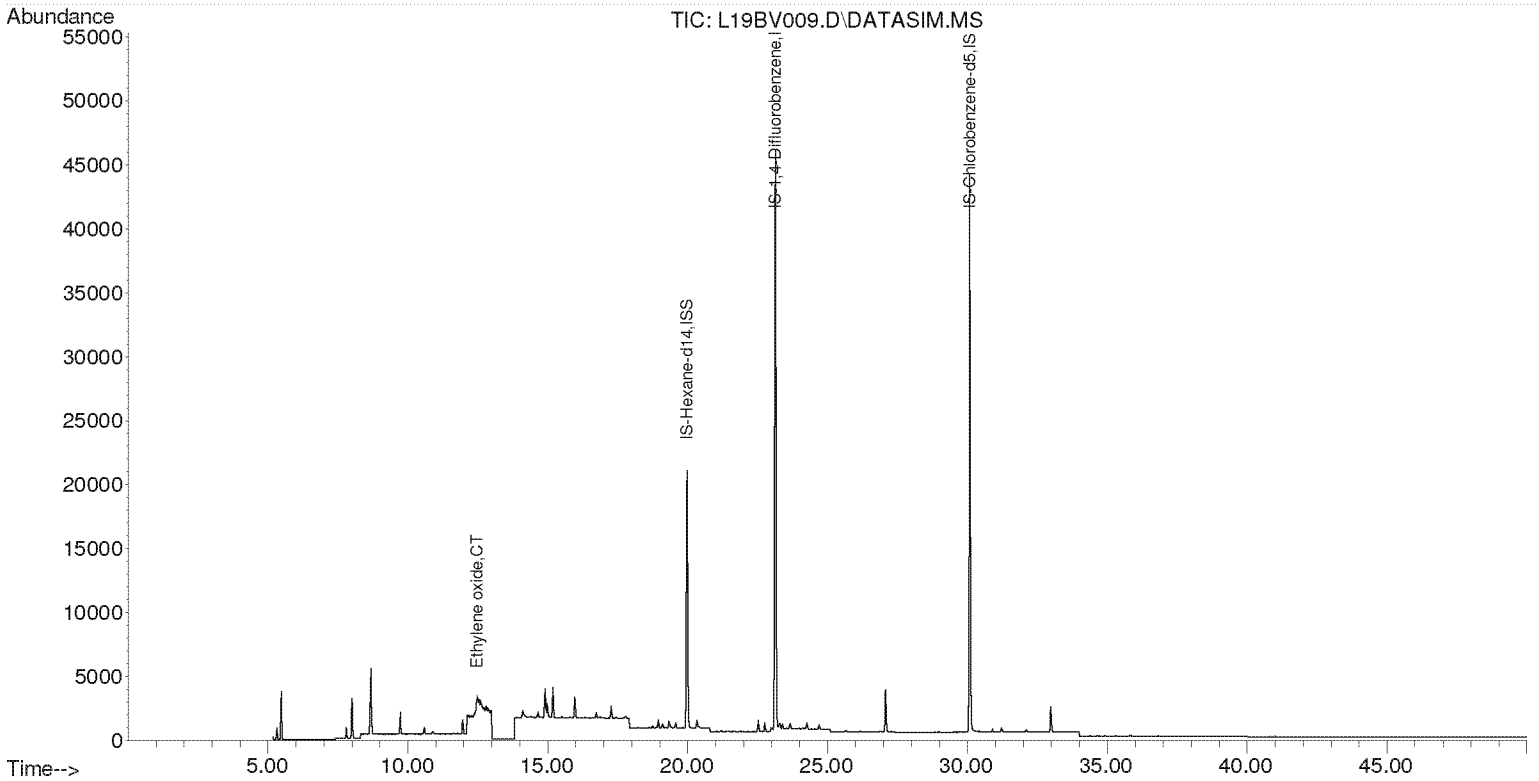
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d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

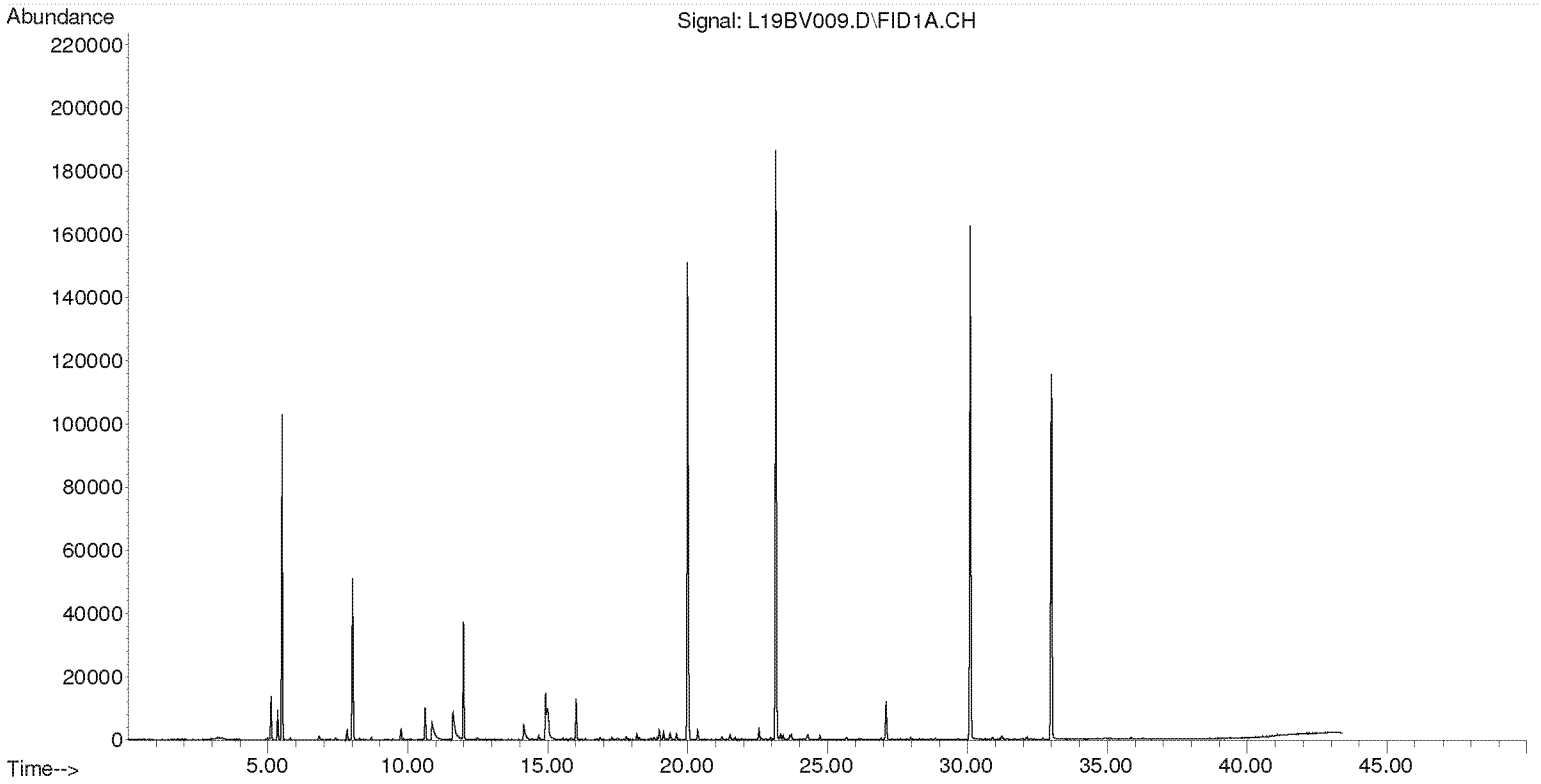
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

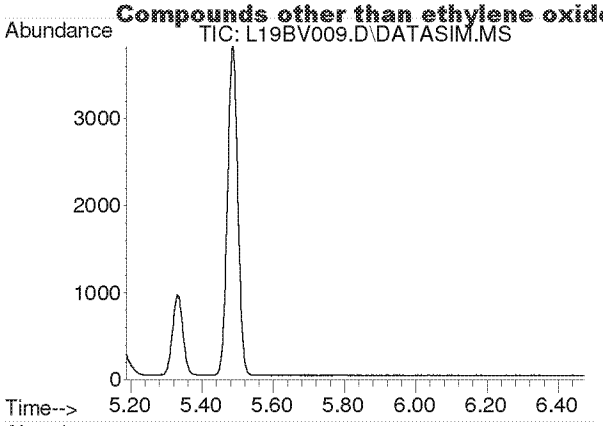
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV009.D
Acq On : 22 Feb 2019 4:35 pm (#1); 22 Feb 2019 4:30 pm (#2)
Operator : MAH
Sample : 9022025-01
Misc : WB VILLAGE HALL 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 06:46:51 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





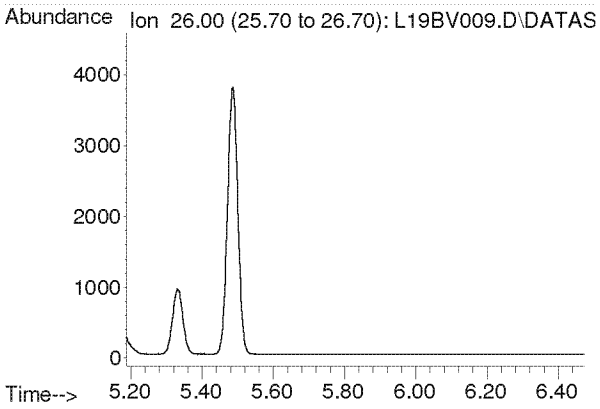
Compounds other than ethylene oxide were not quantitated.

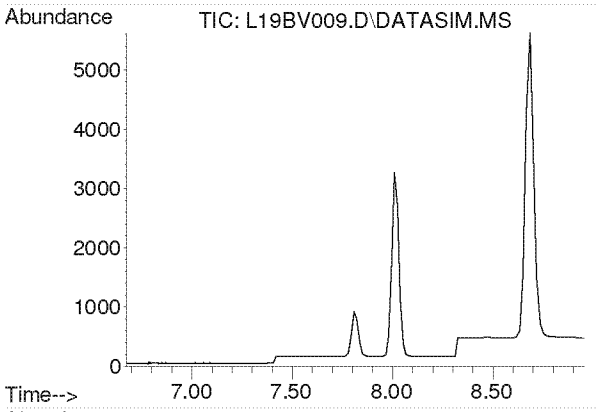


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 26



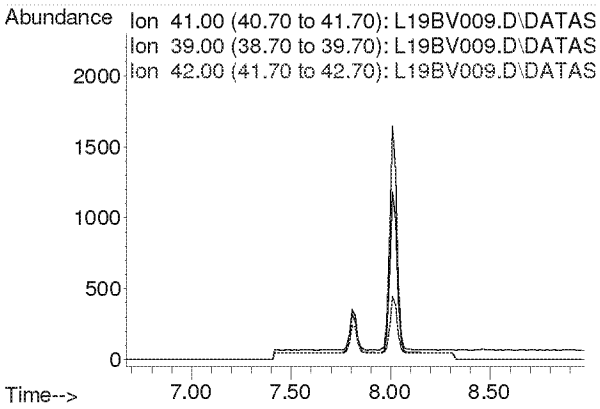


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

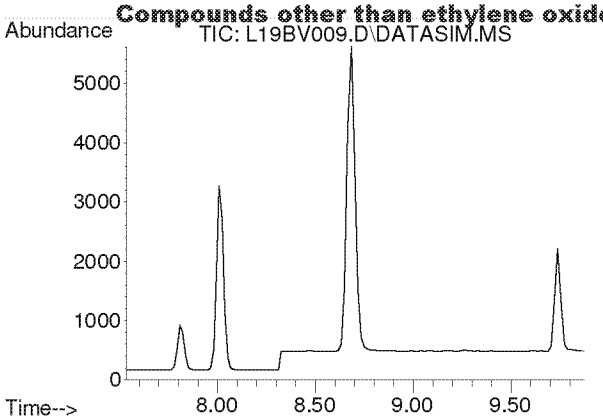
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

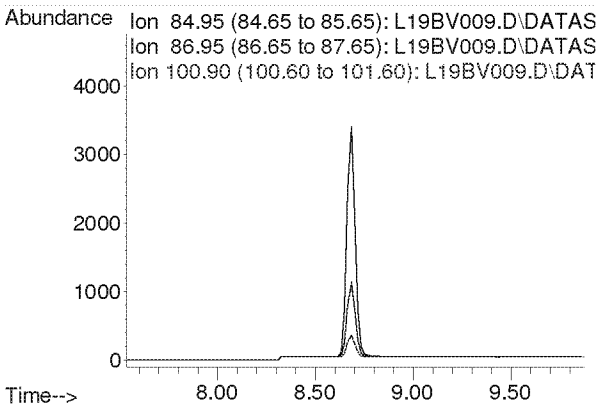


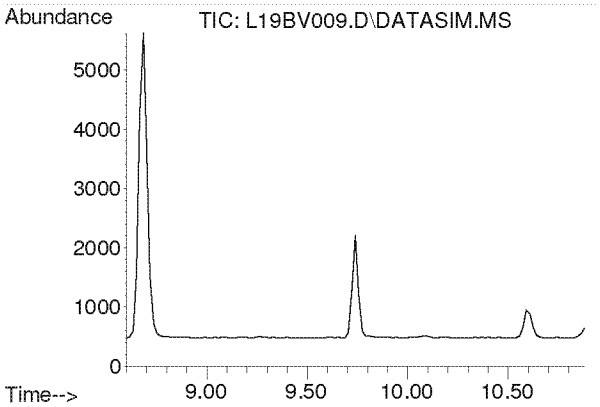
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



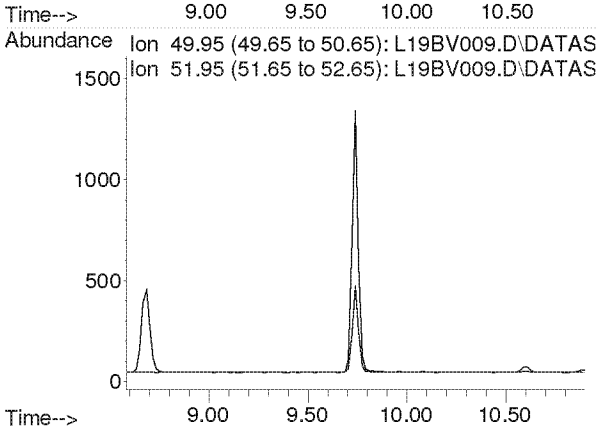


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

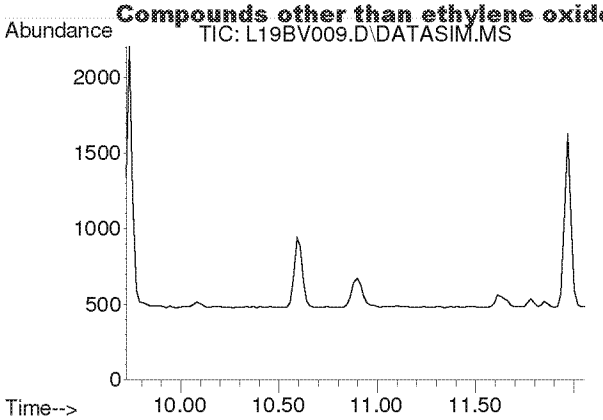
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

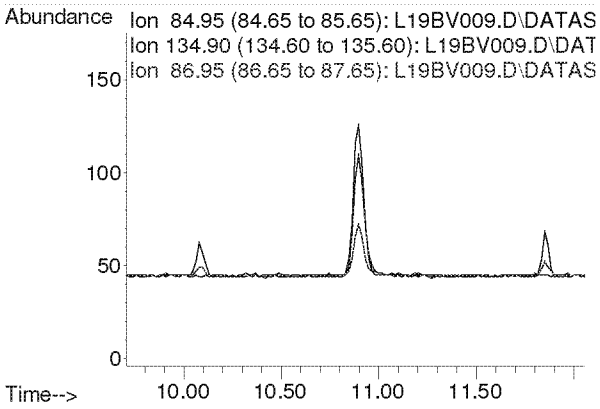


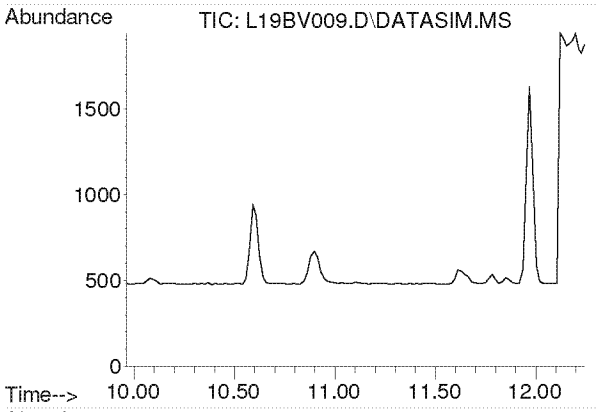
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



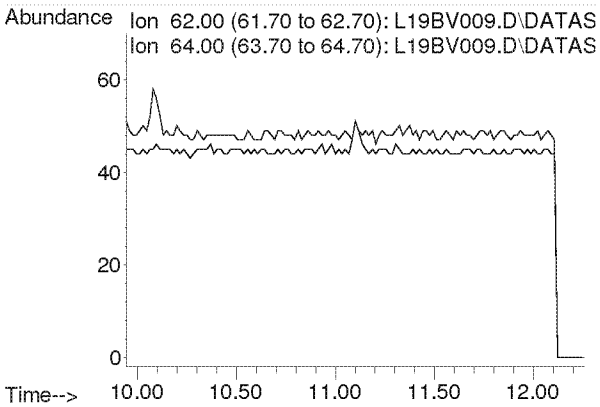


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

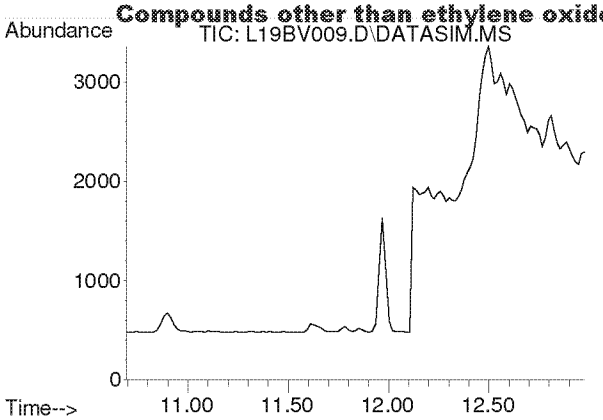
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

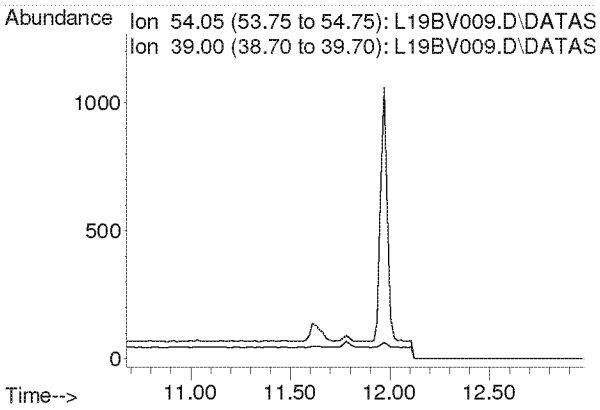


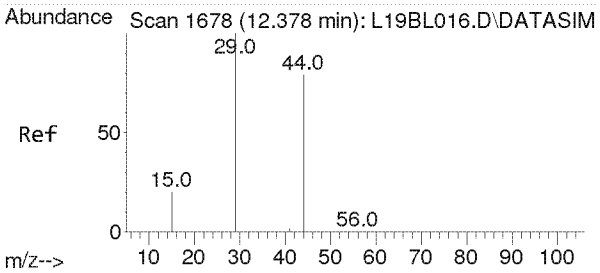
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

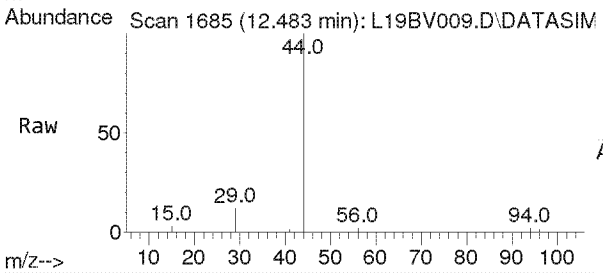


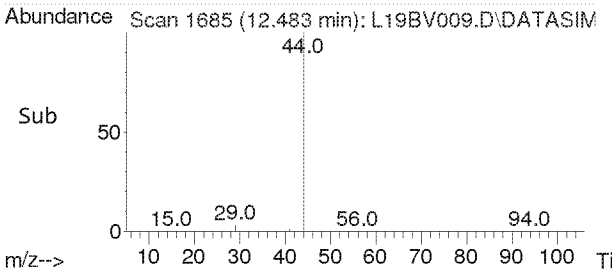


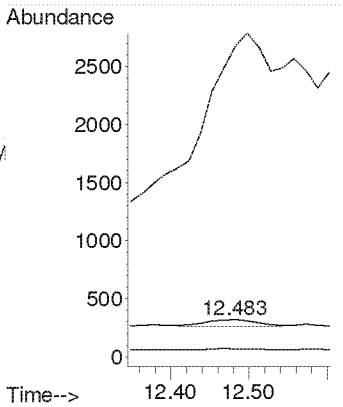
#9
Ethylene oxide
Concen: 0.098 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.105 min
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 29 Resp: 226

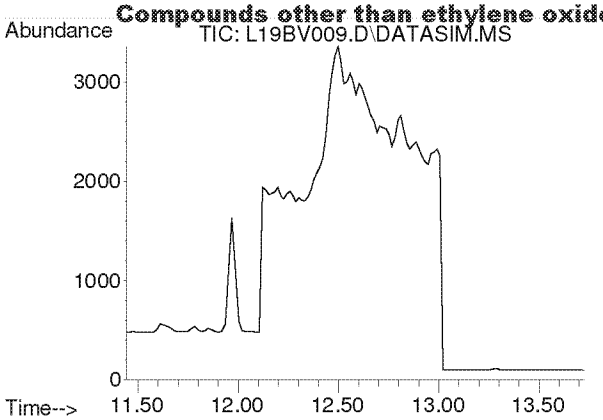
Ion	Ratio	Lower	Upper
29	100		
15	26.1	16.0	24.0#
44	5292.9	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

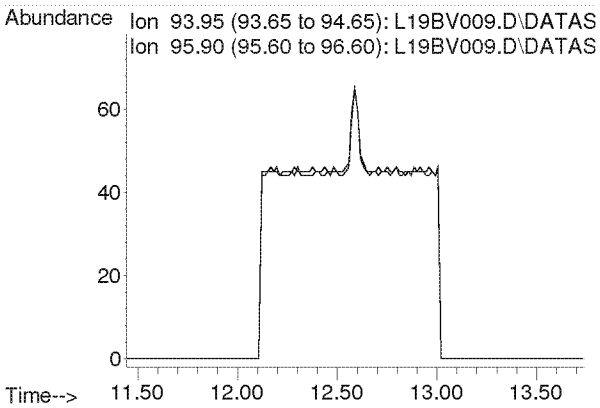


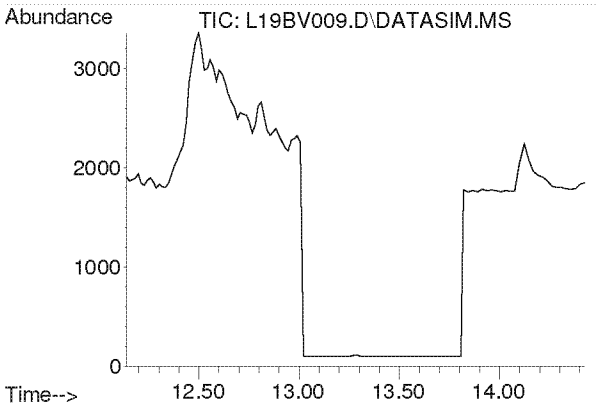
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



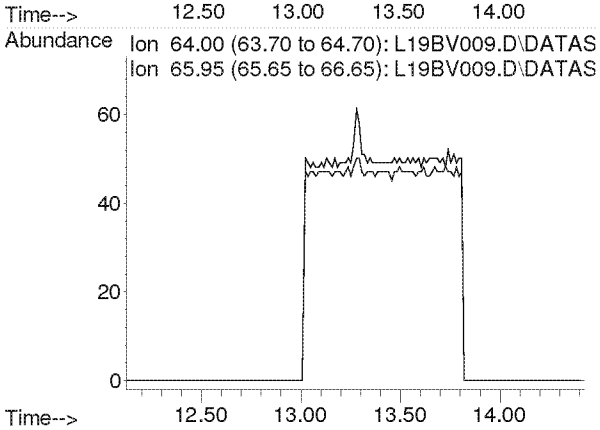


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

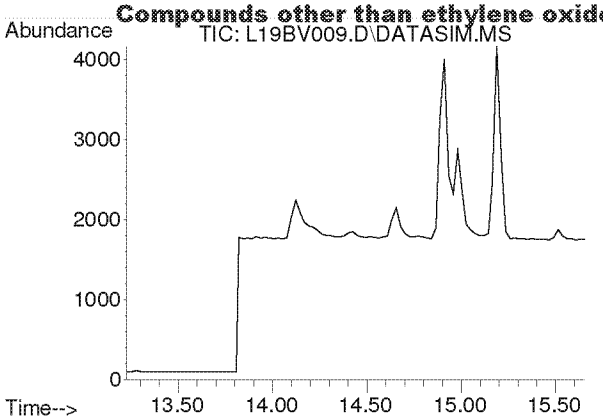
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

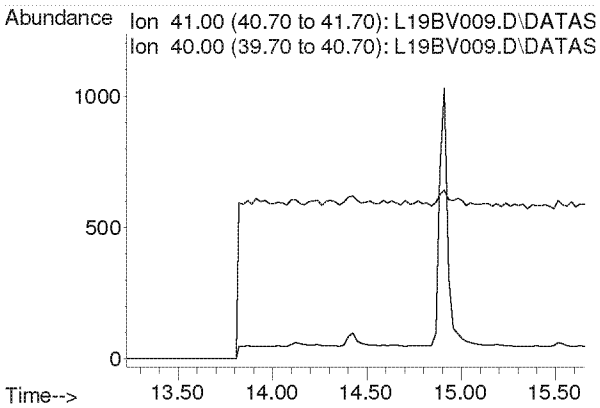


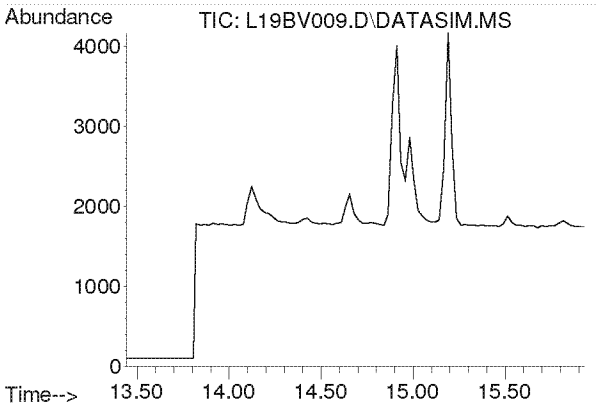
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



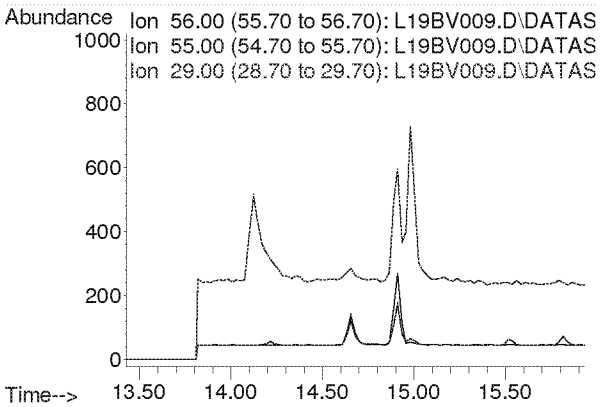


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

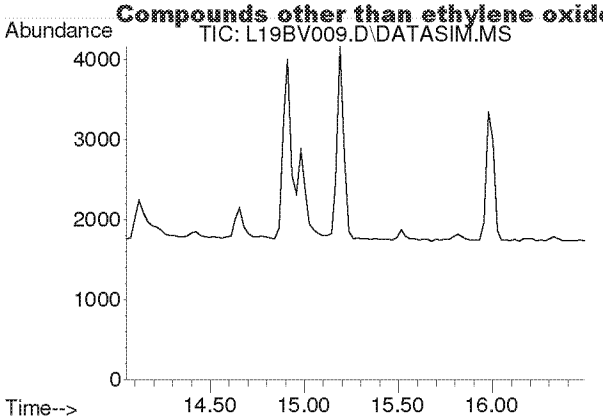
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

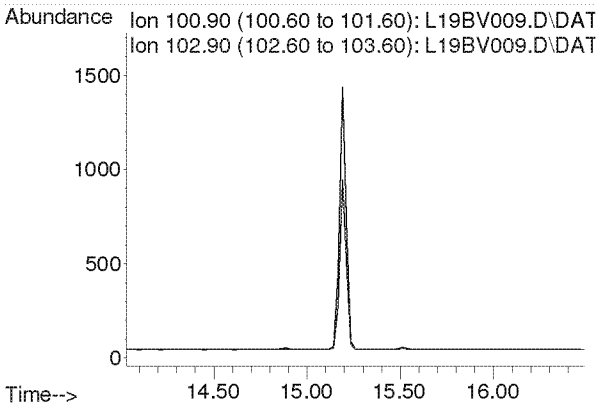


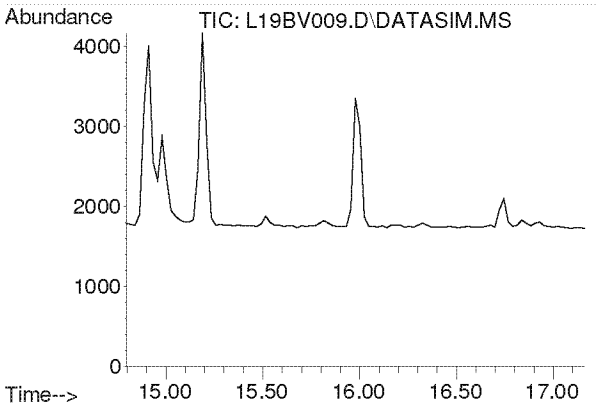
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



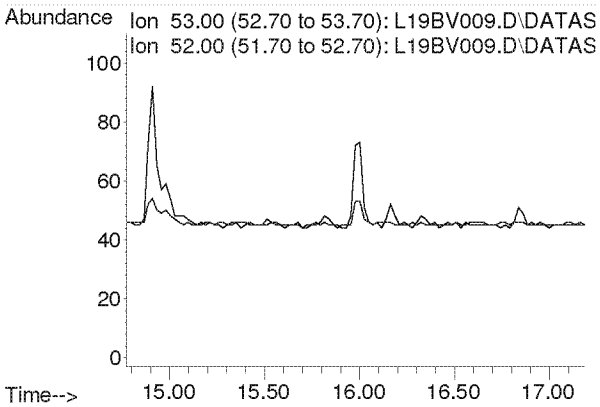


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

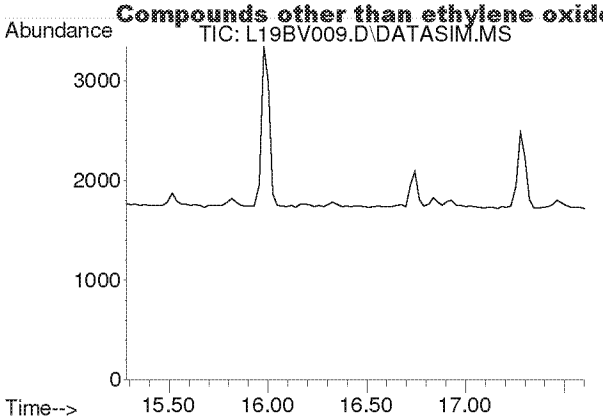
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

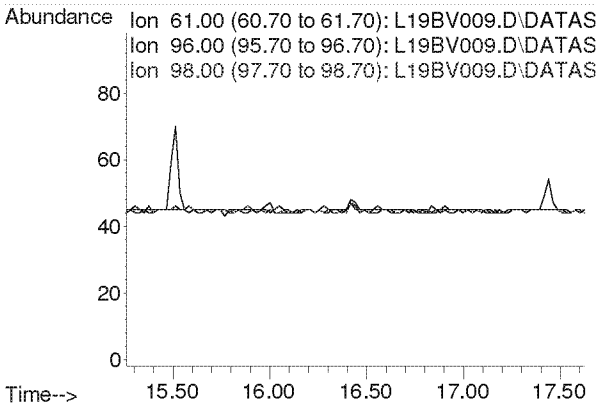


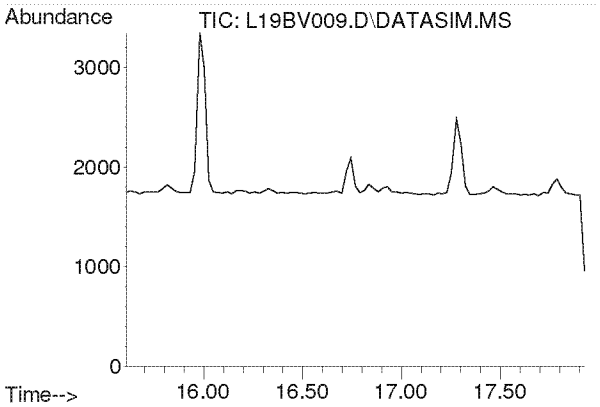
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



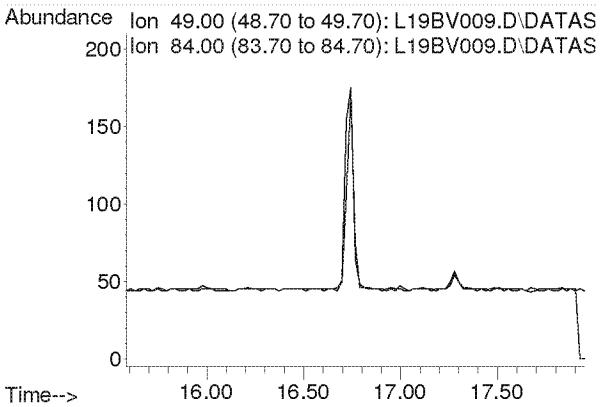


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

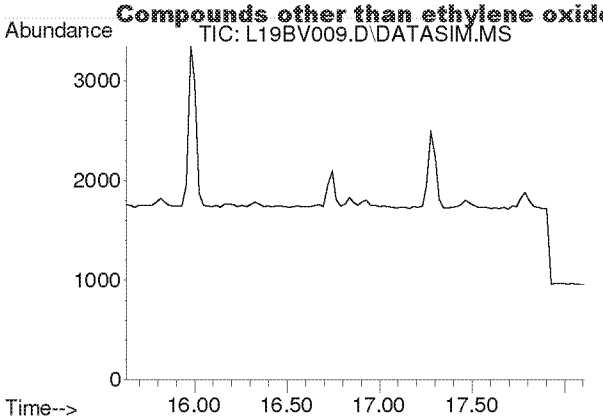
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

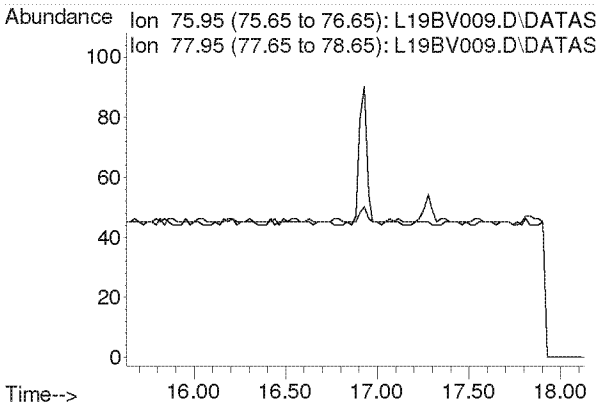


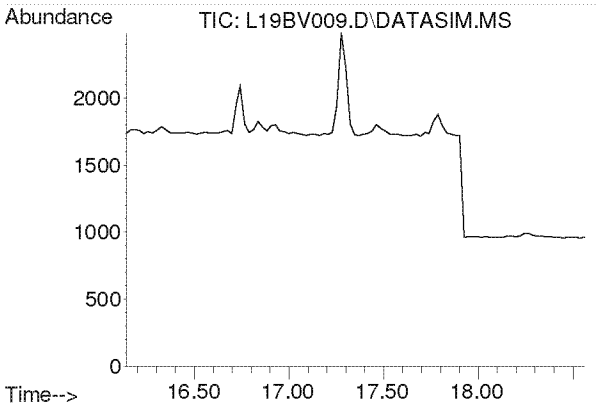
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



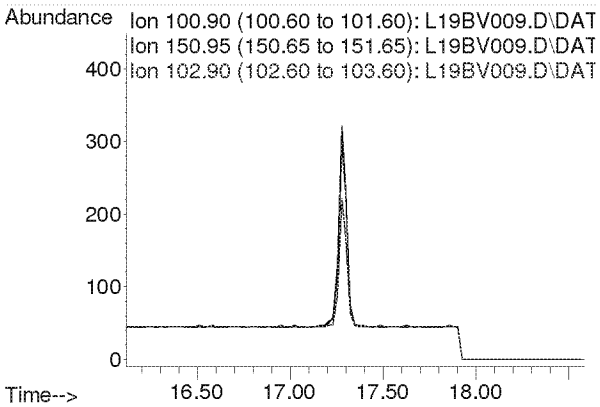


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

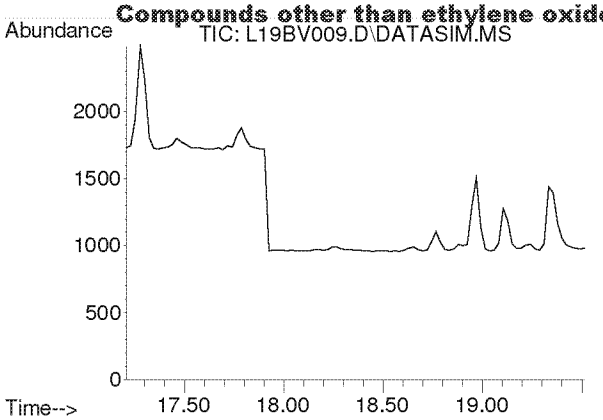
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

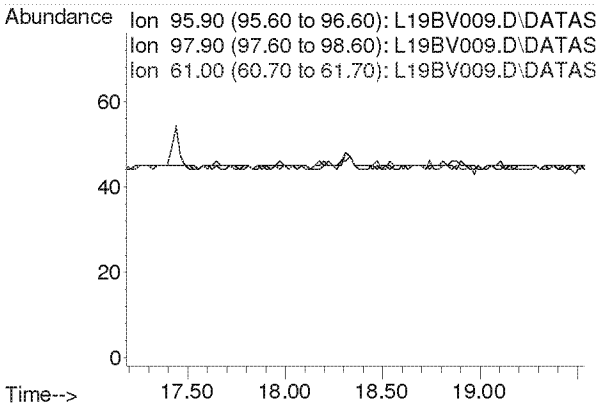


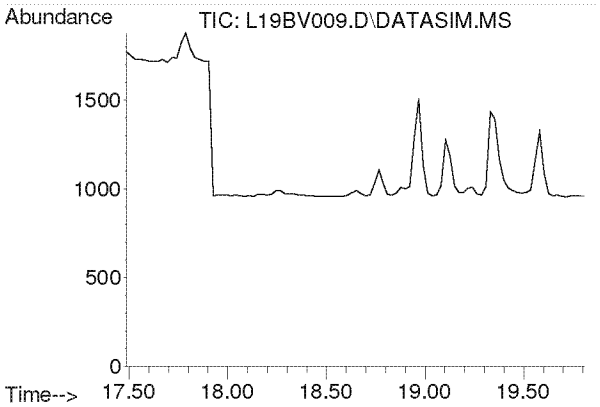
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



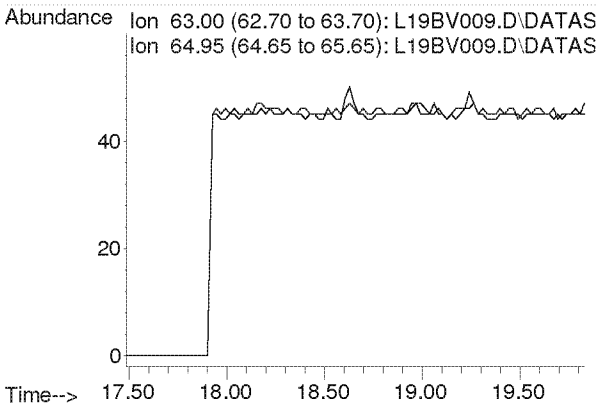


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

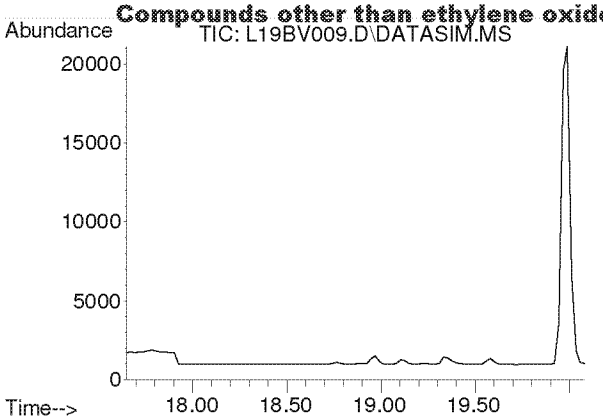
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

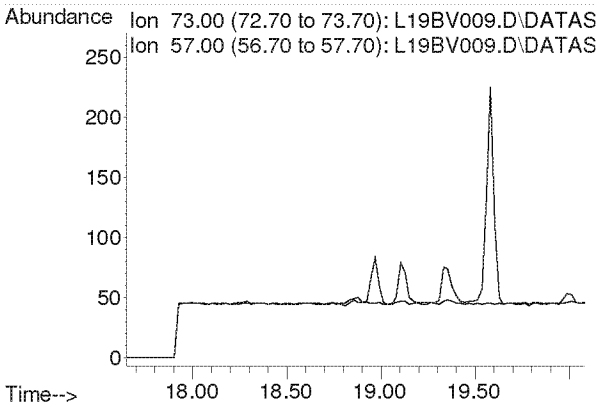


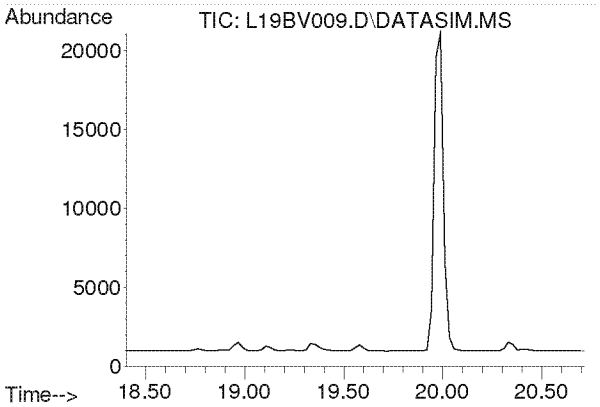
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



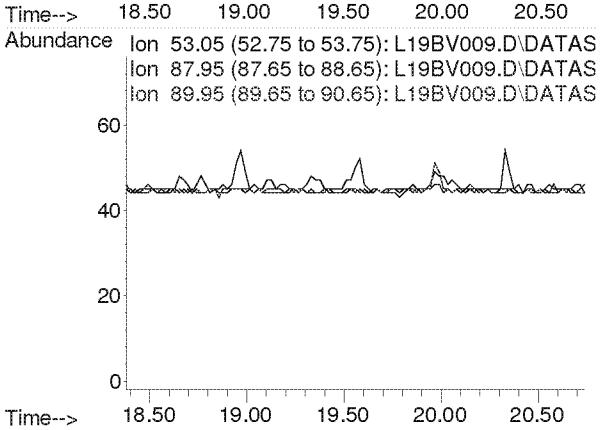


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

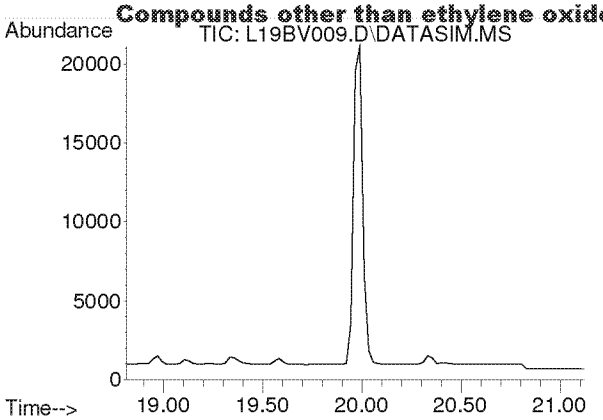
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

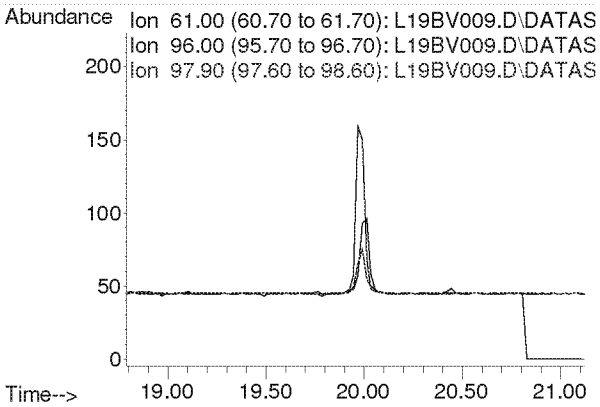


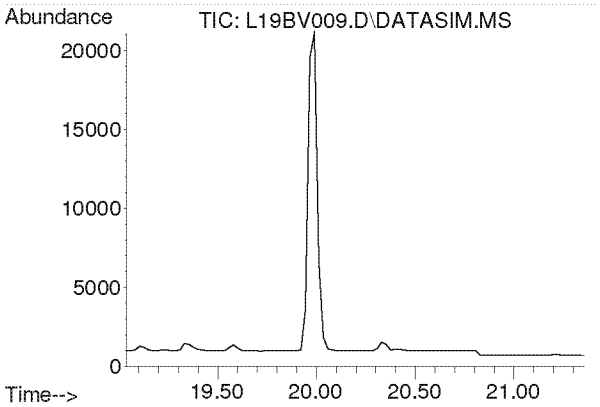
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



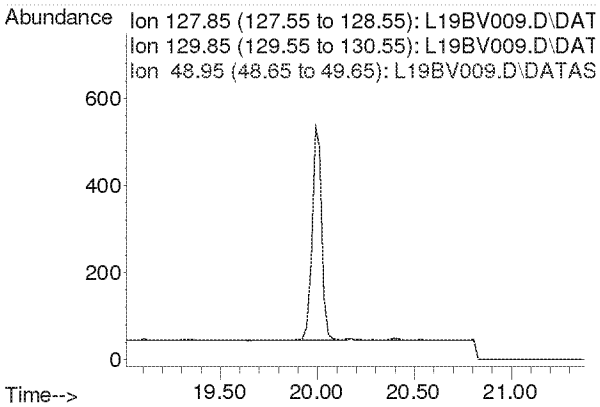


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

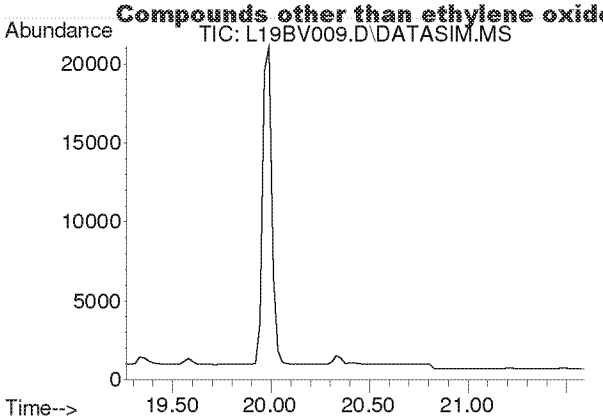
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

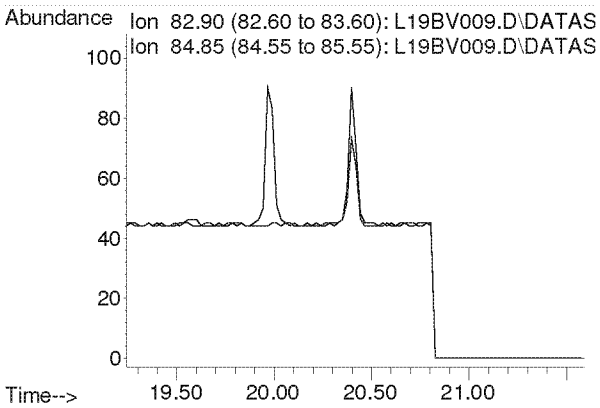


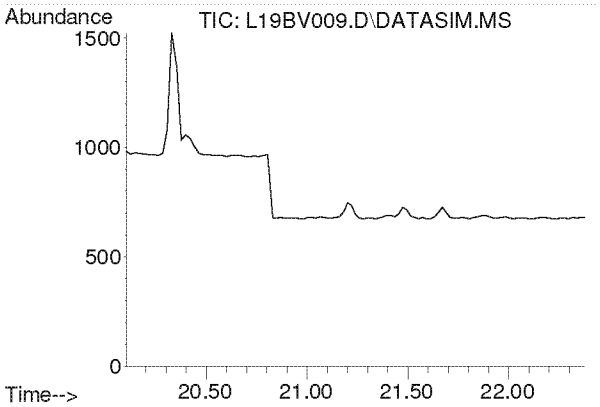
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



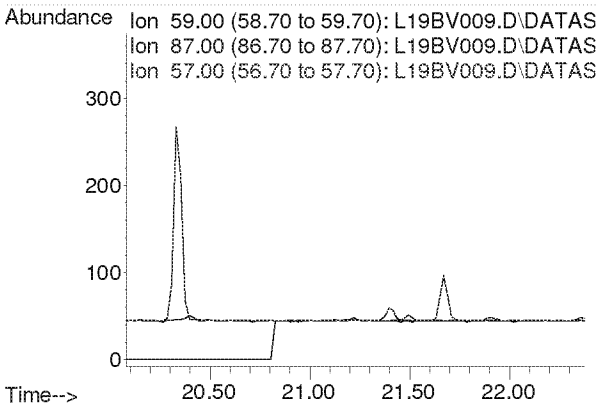


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

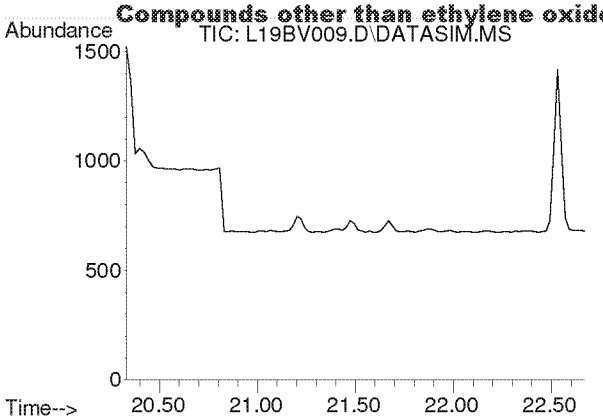
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

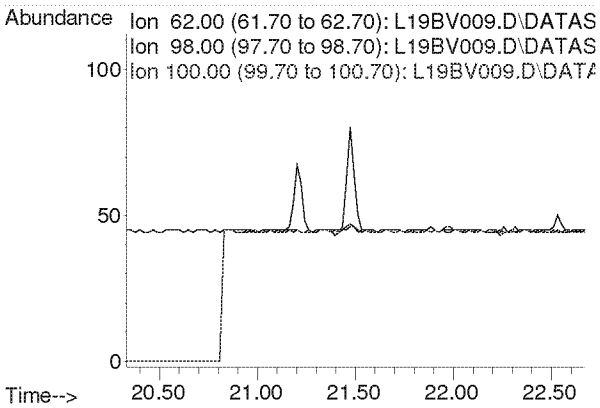


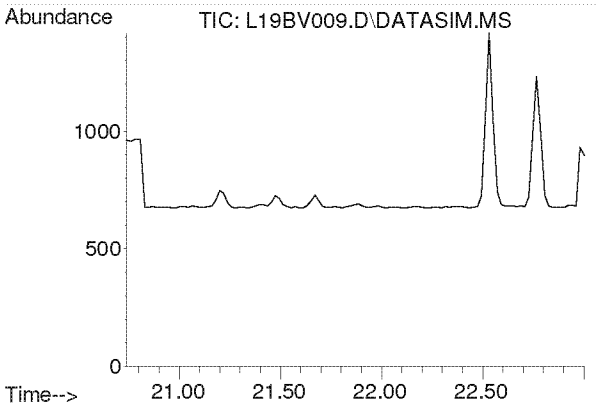
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



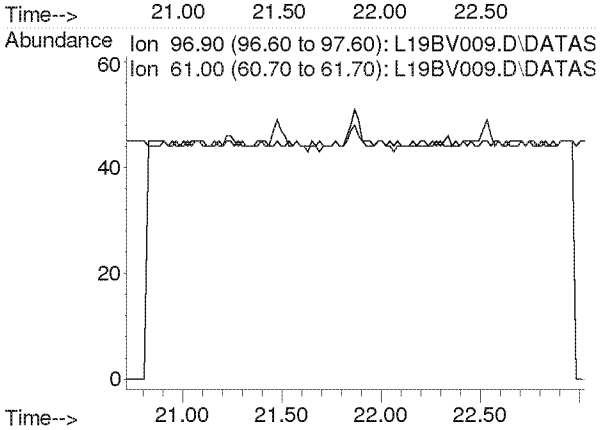


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

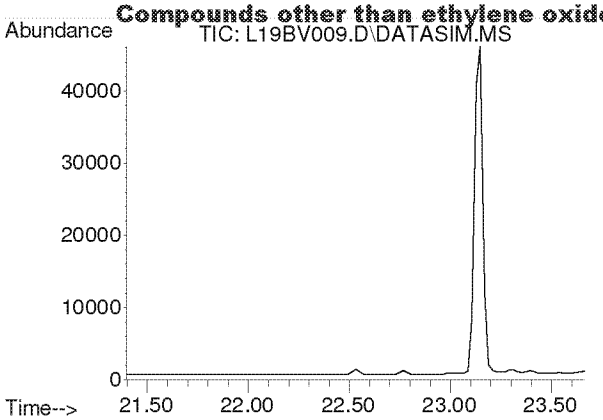
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

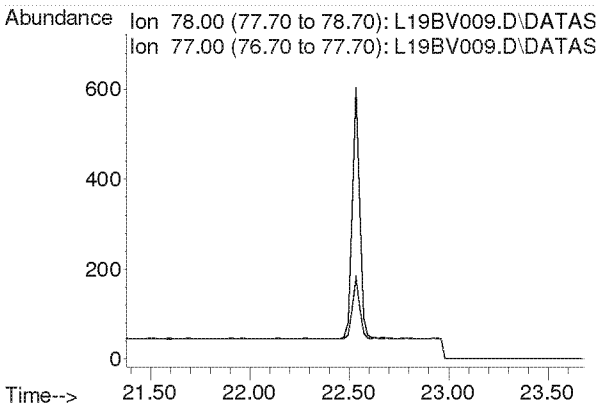


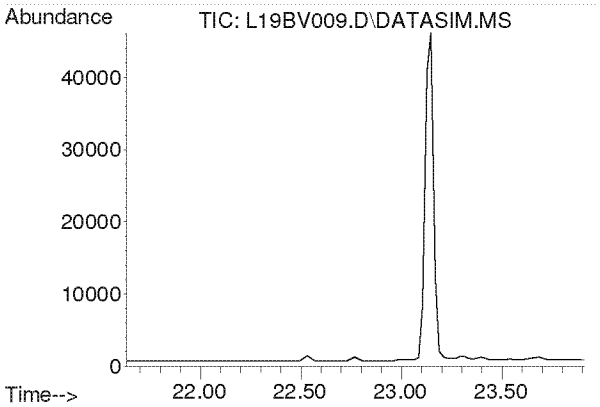
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



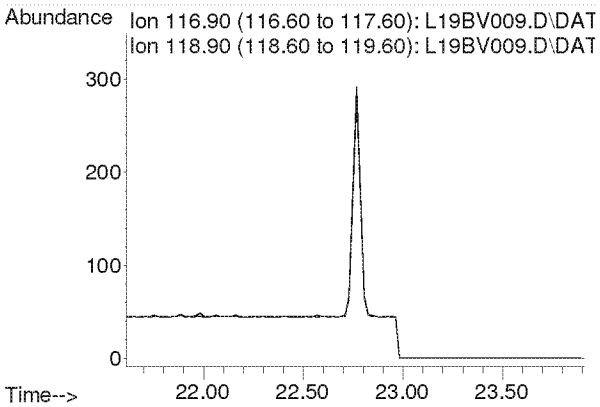


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

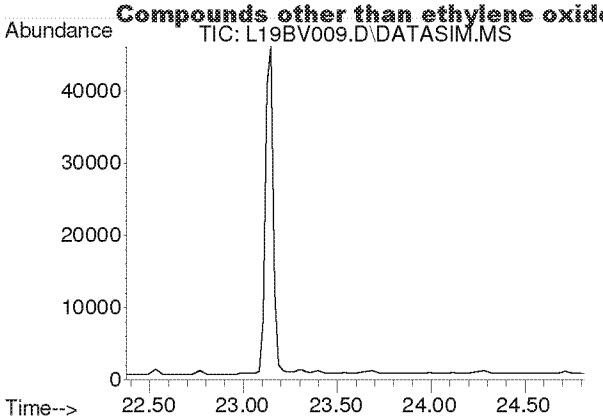
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

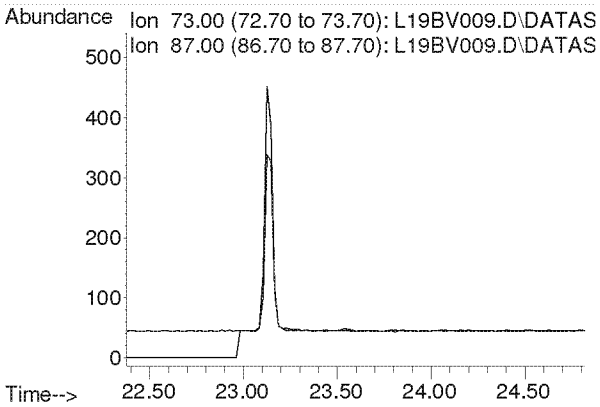


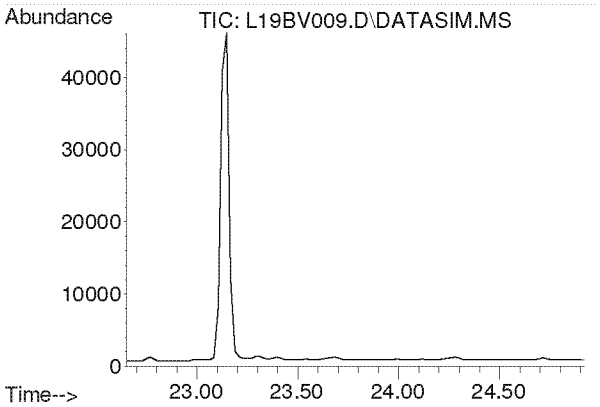
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



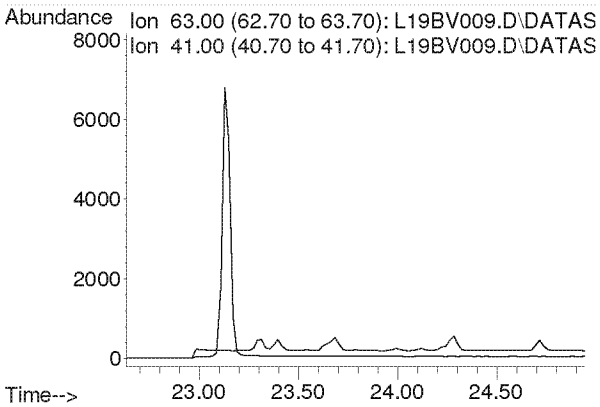


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

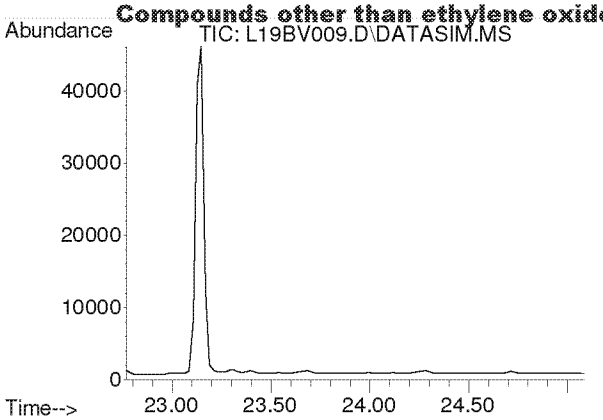
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

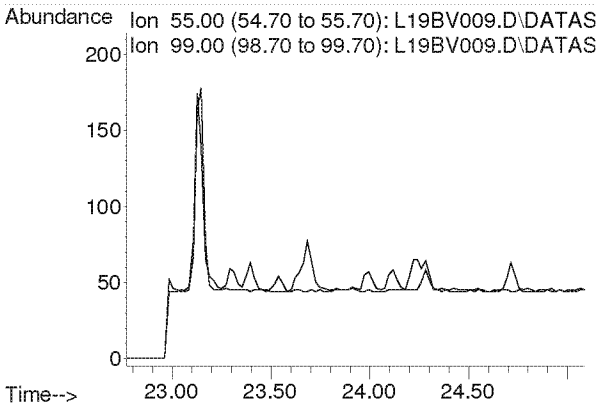


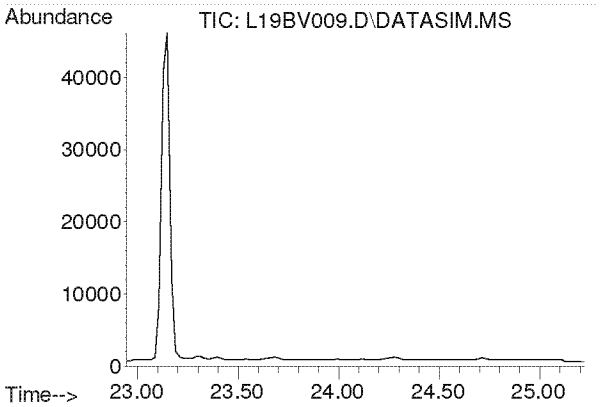
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



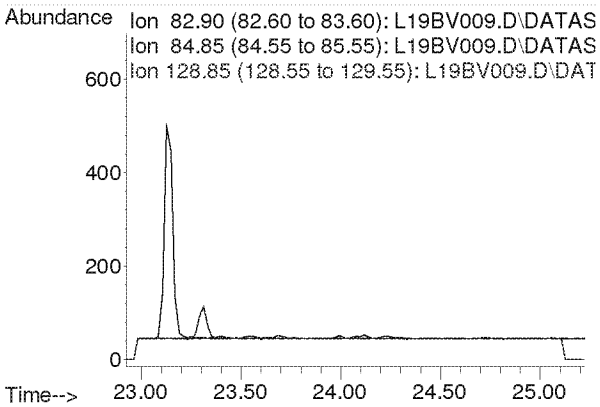


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

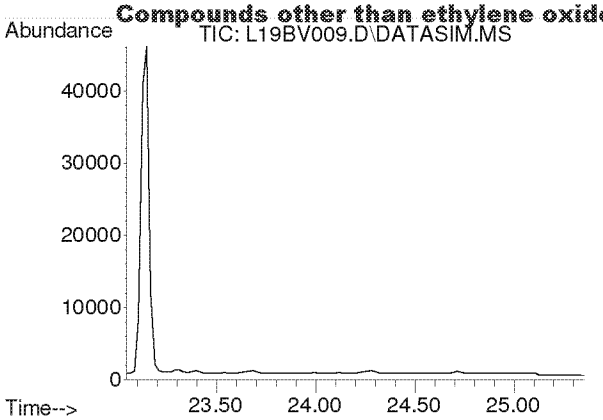
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

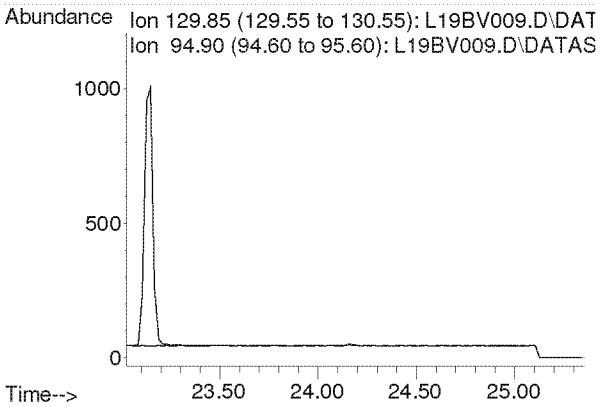


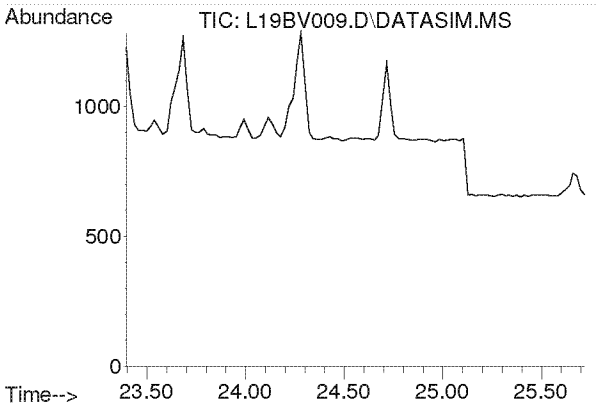
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



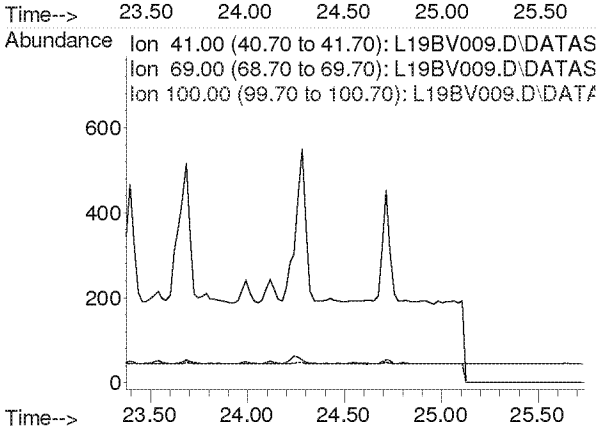


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

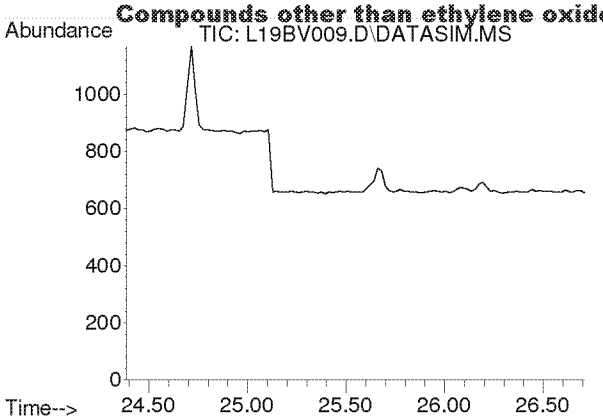
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

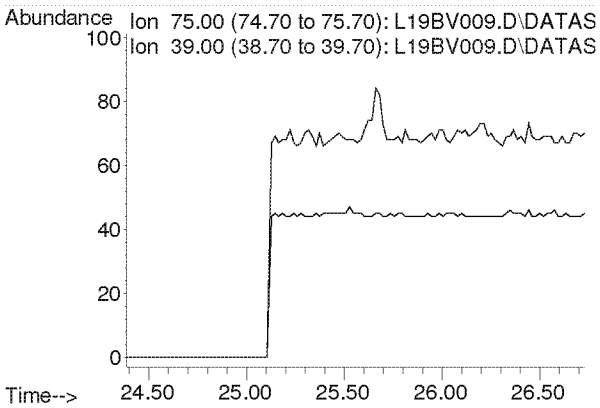


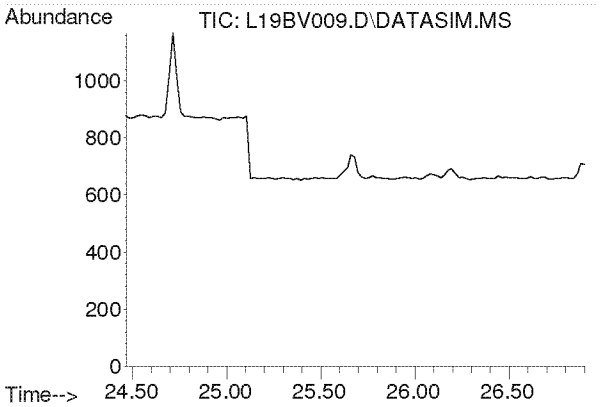
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



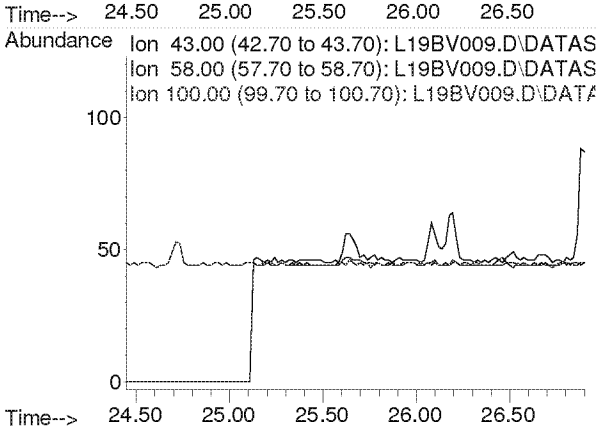


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

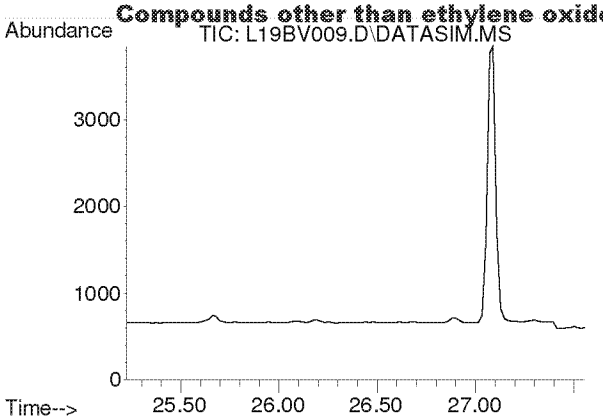
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

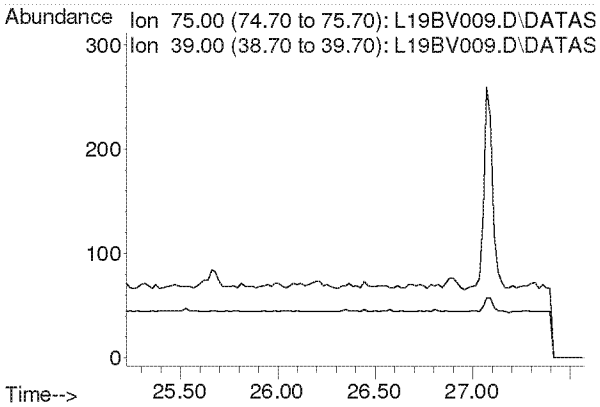


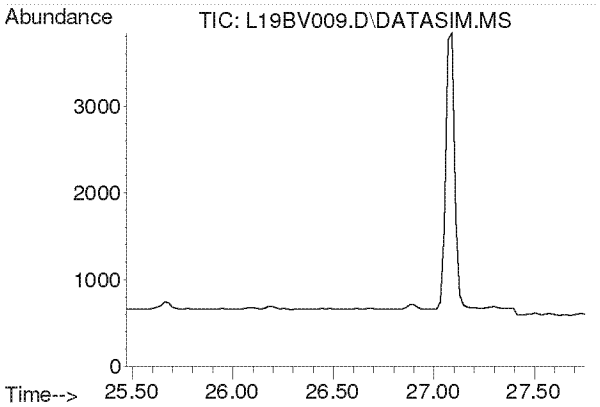
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



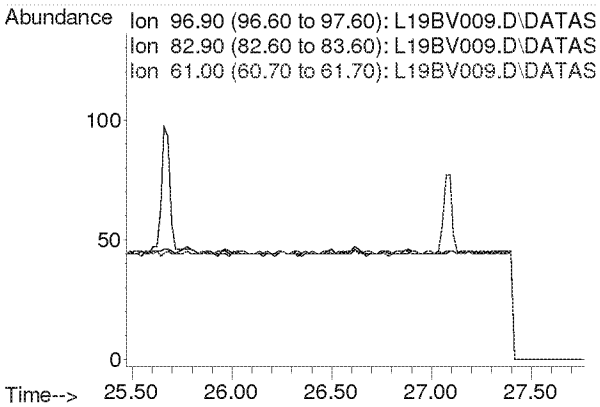


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

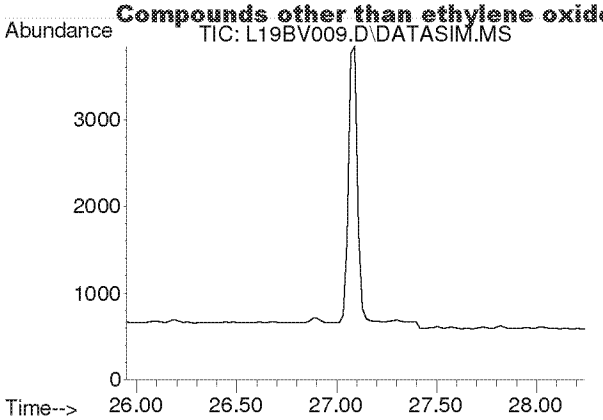
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

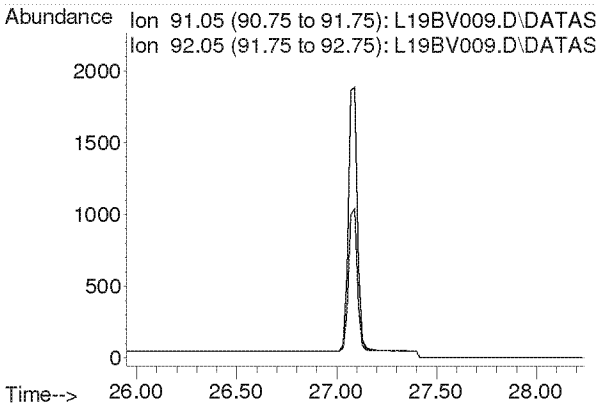


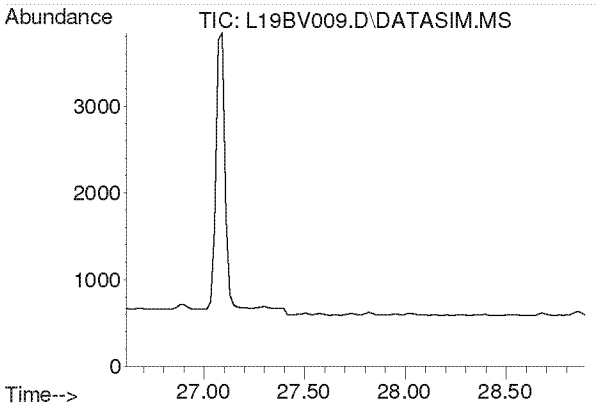
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



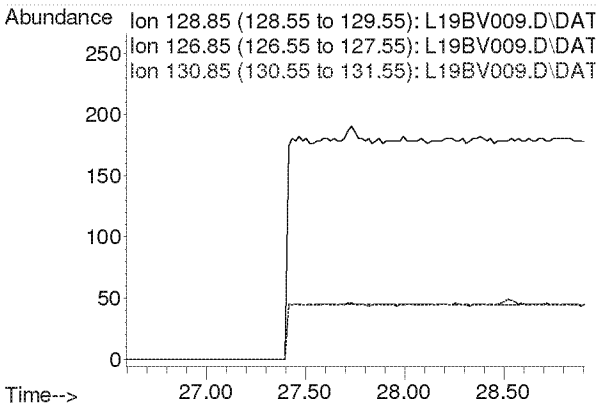


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

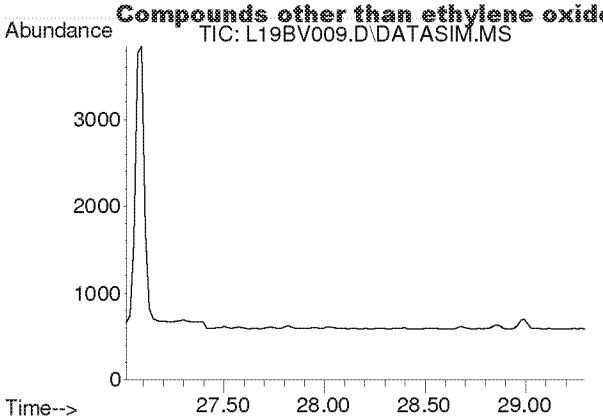
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

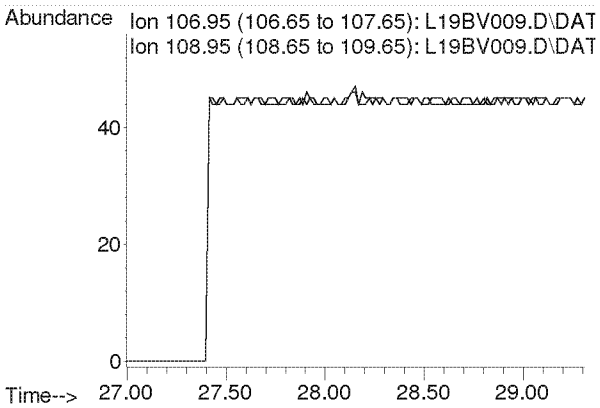


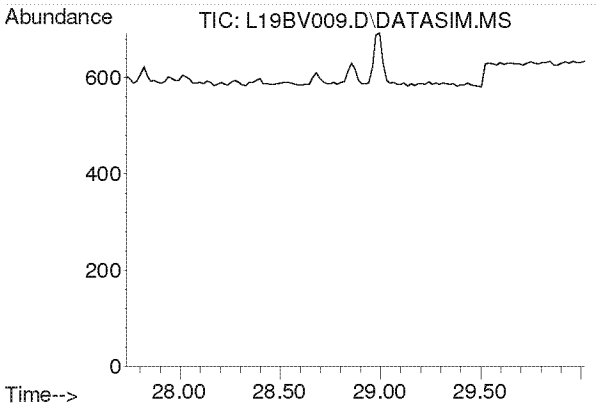
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



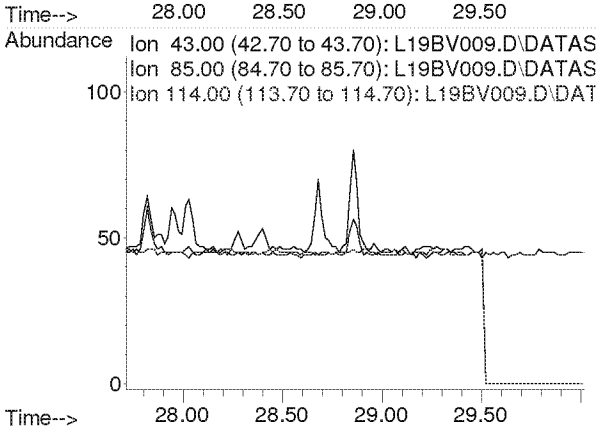


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

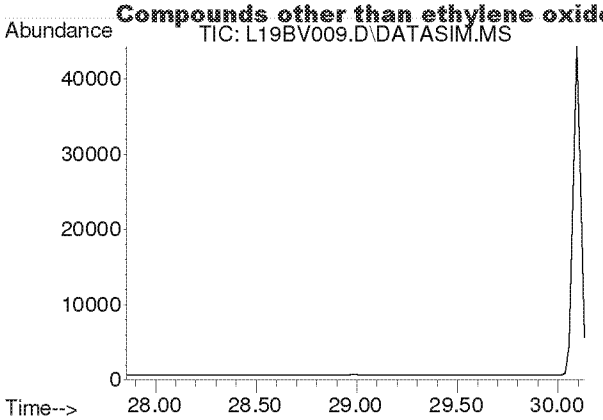
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

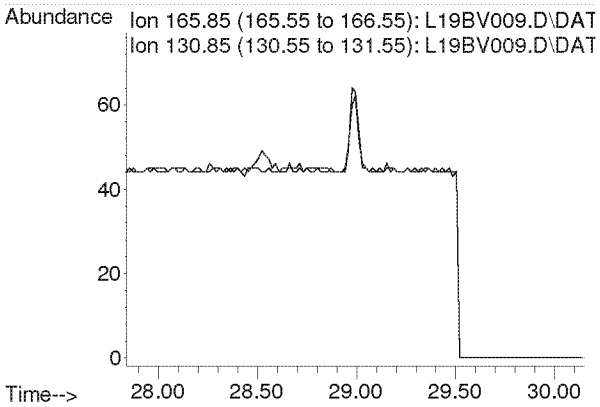


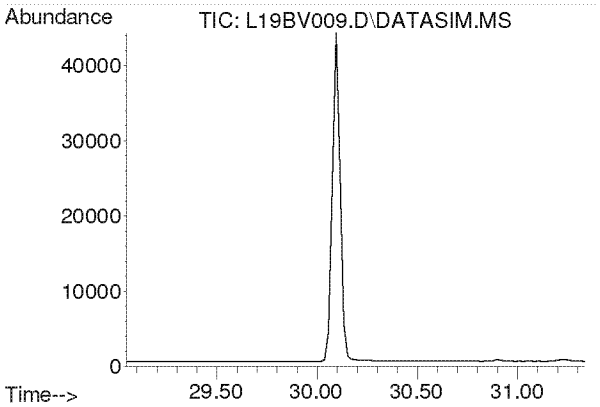
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



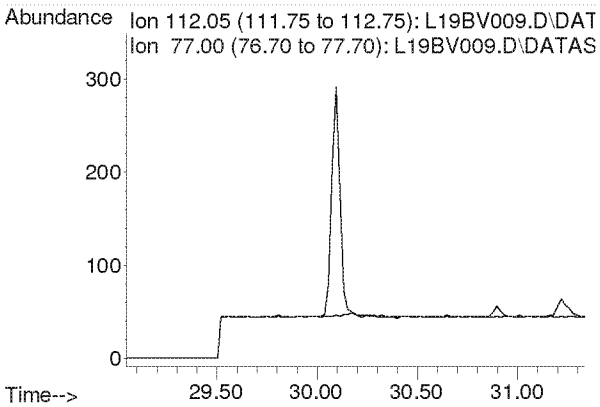


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

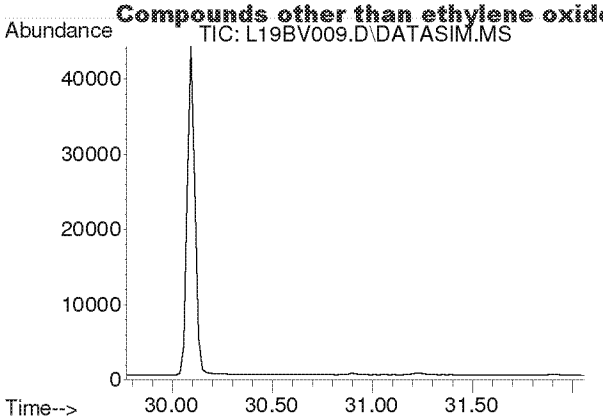
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

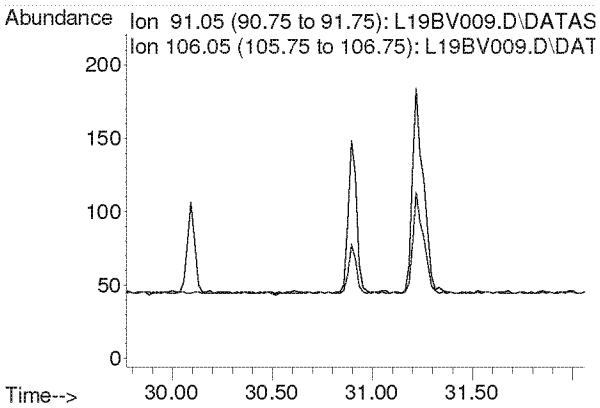


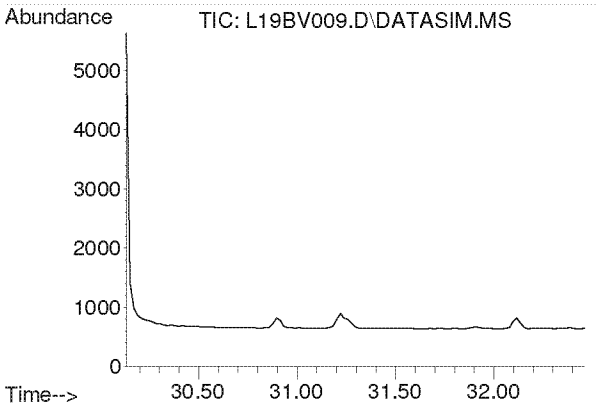
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



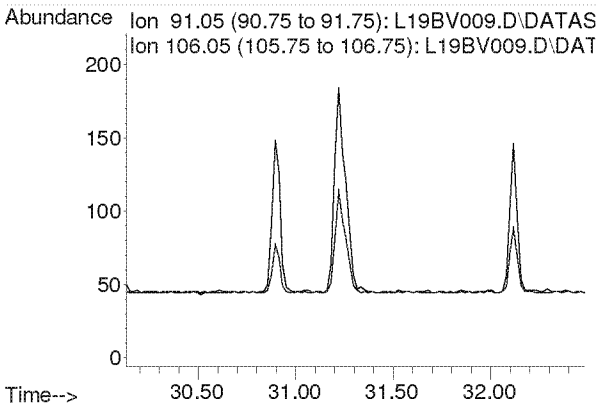


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

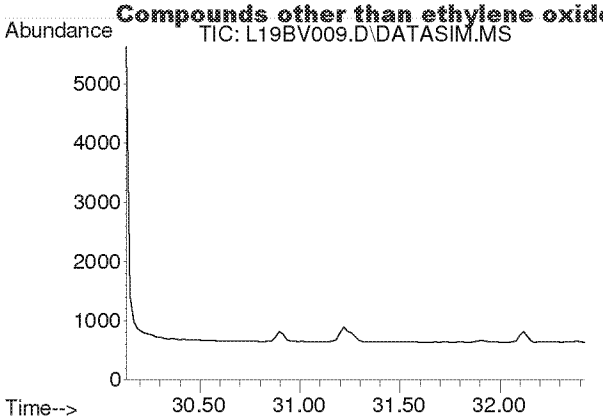
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

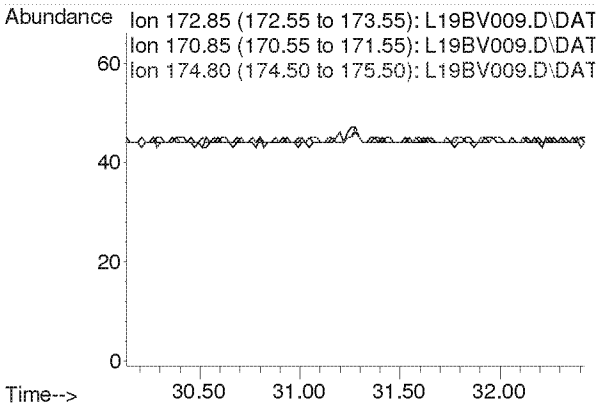


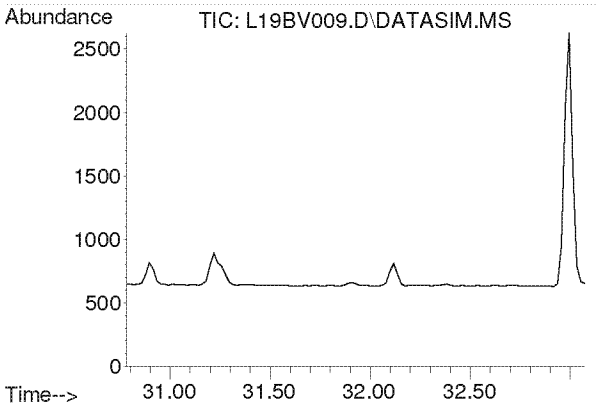
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



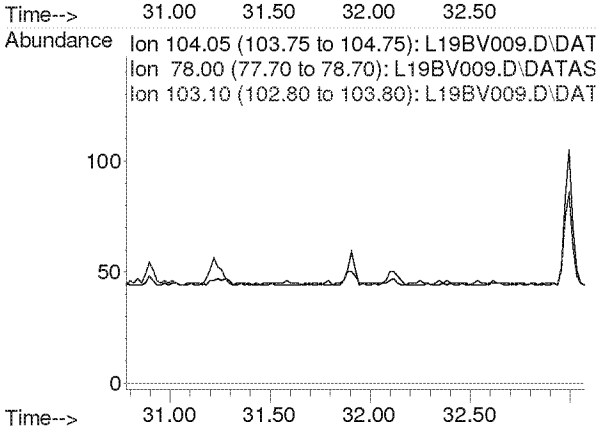


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

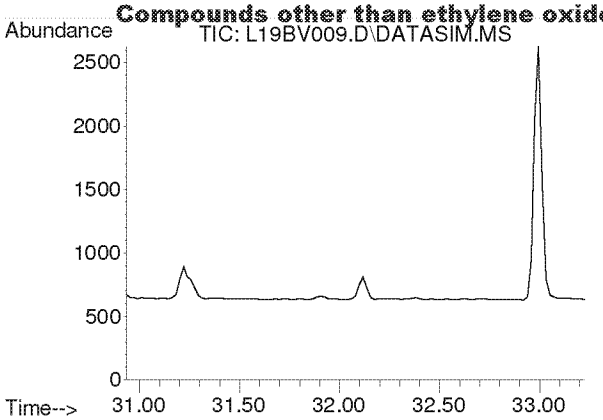
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

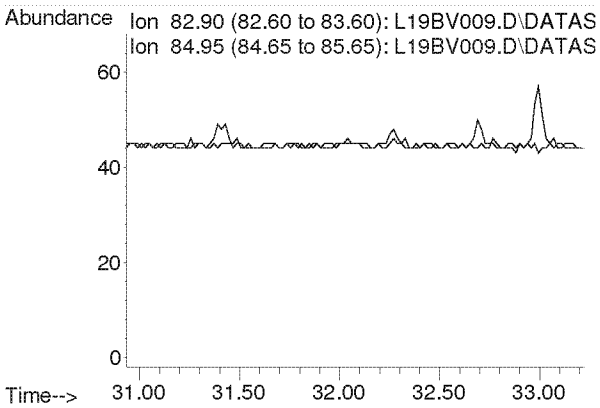


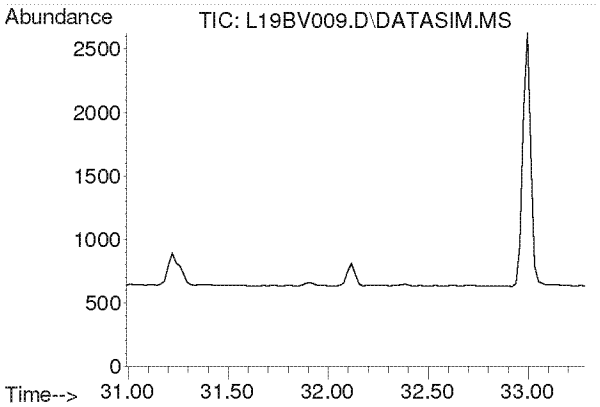
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



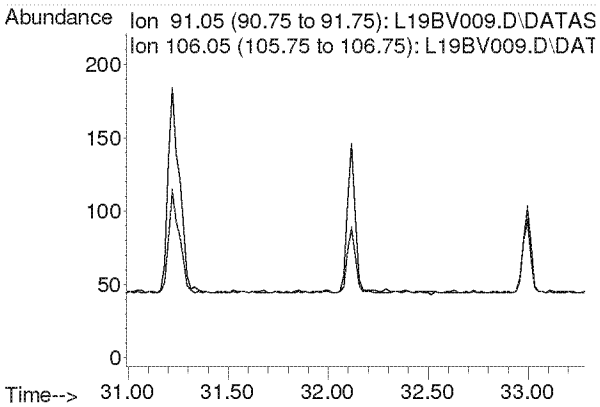


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

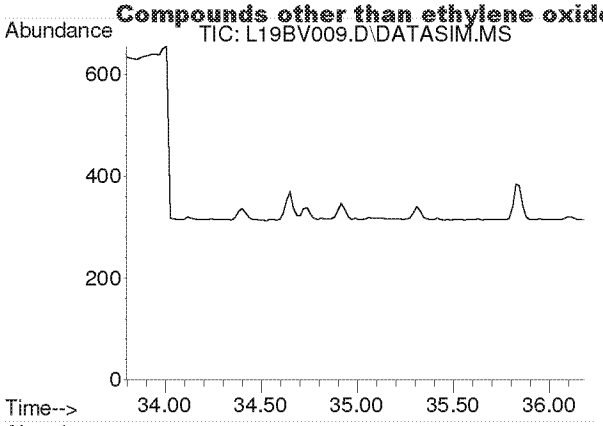
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

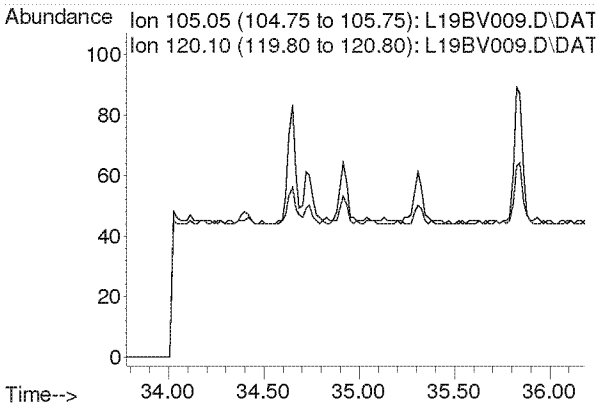


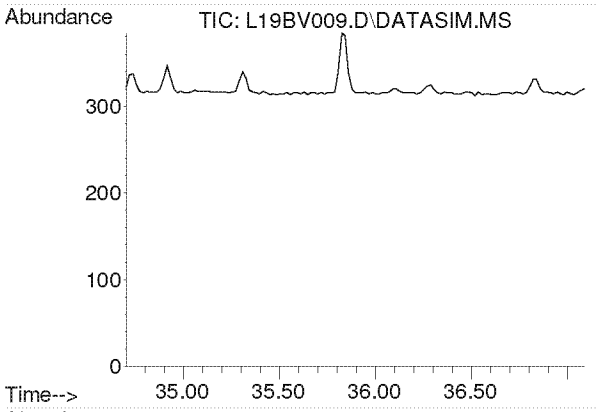
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



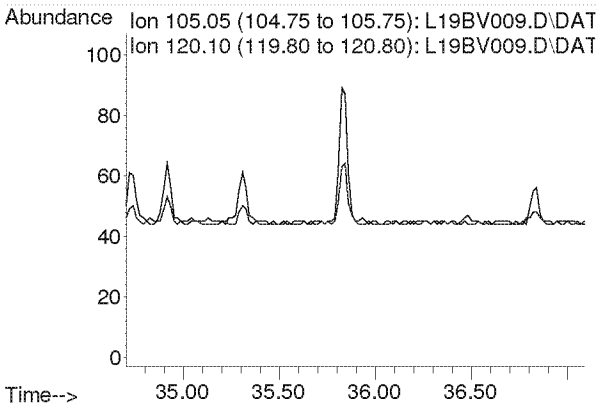


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

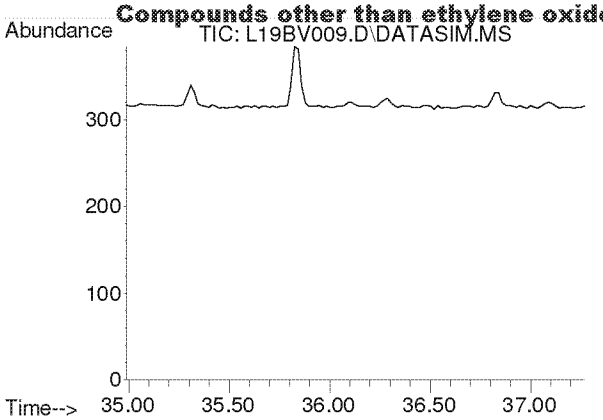
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

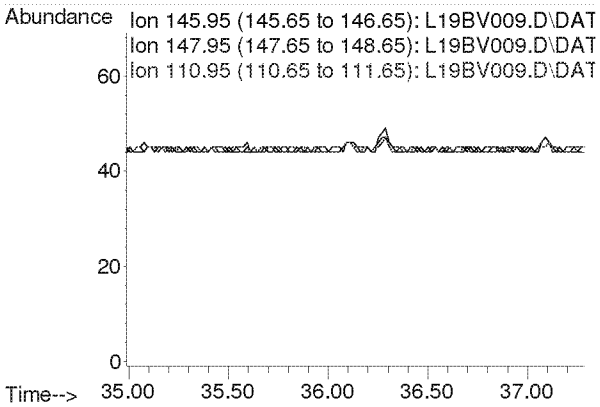


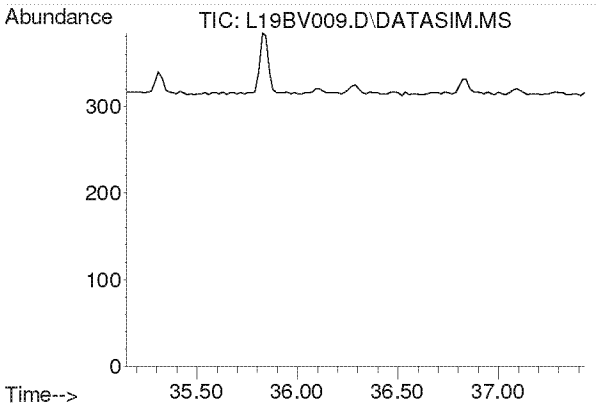
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



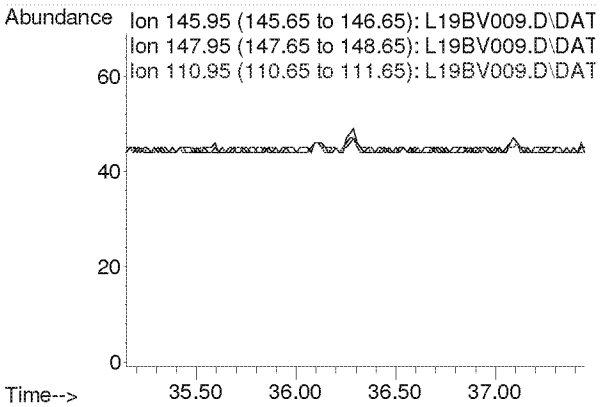


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

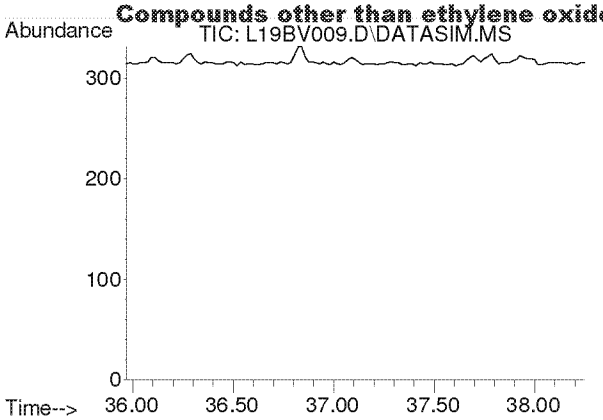
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

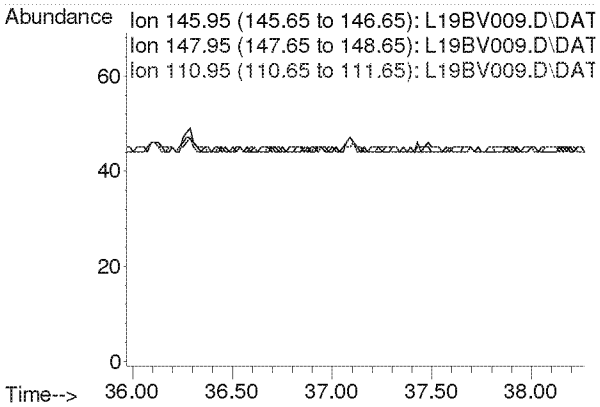


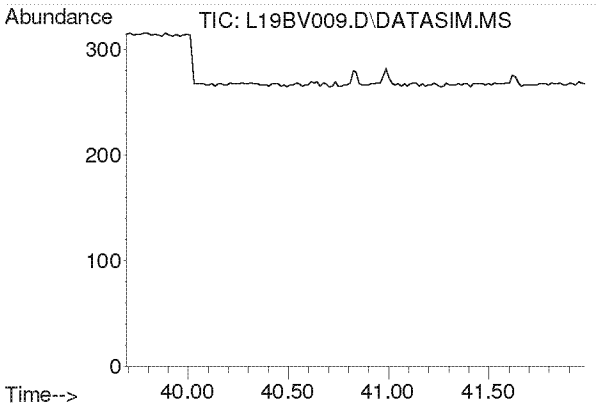
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



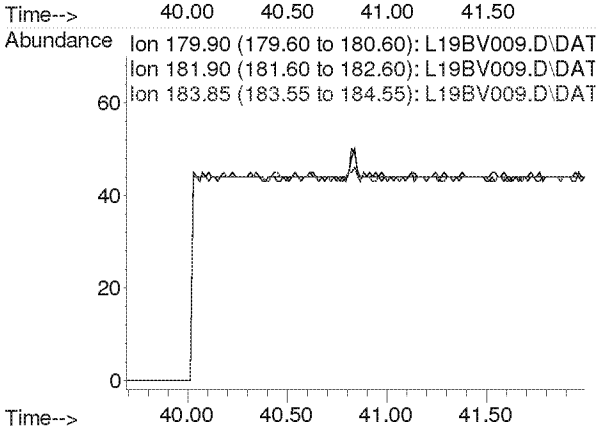


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

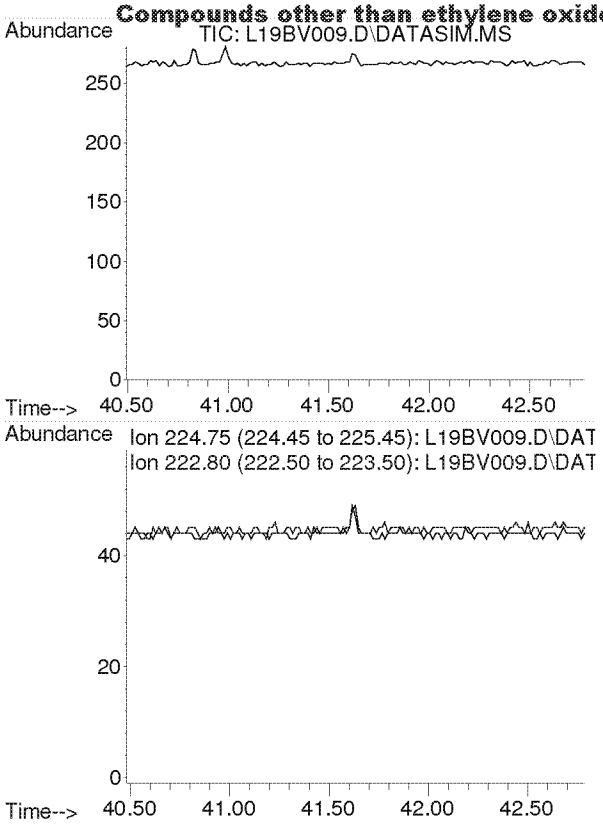
Lab File: L19BV009.D
Acq: 22 Feb 2019 4:35 pm

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: L19BV009.D
Acq: 22 Feb 2019 4:35 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\L19BV\
Data File : L19BV010.D
Acq On : 22 Feb 2019 5:35 pm (#1); 22-Feb-19, 17:30:39 (#2)
Operator : MAH
Sample : 9022025-02
Misc : GOWER ES 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 25 07:20:13 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

ETH only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	40551	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	103162	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	70494	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	0.000	29	0	N.D. d SV	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D. 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. d	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. 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. 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\L19BV\
Data File : L19BV010.D
Acq On : 22 Feb 2019 5:35 pm (#1); 22-Feb-19, 17:30:39 (#2)
Operator : MAH
Sample : 9022025-02
Misc : GOWER ES 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 25 07:20:13 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

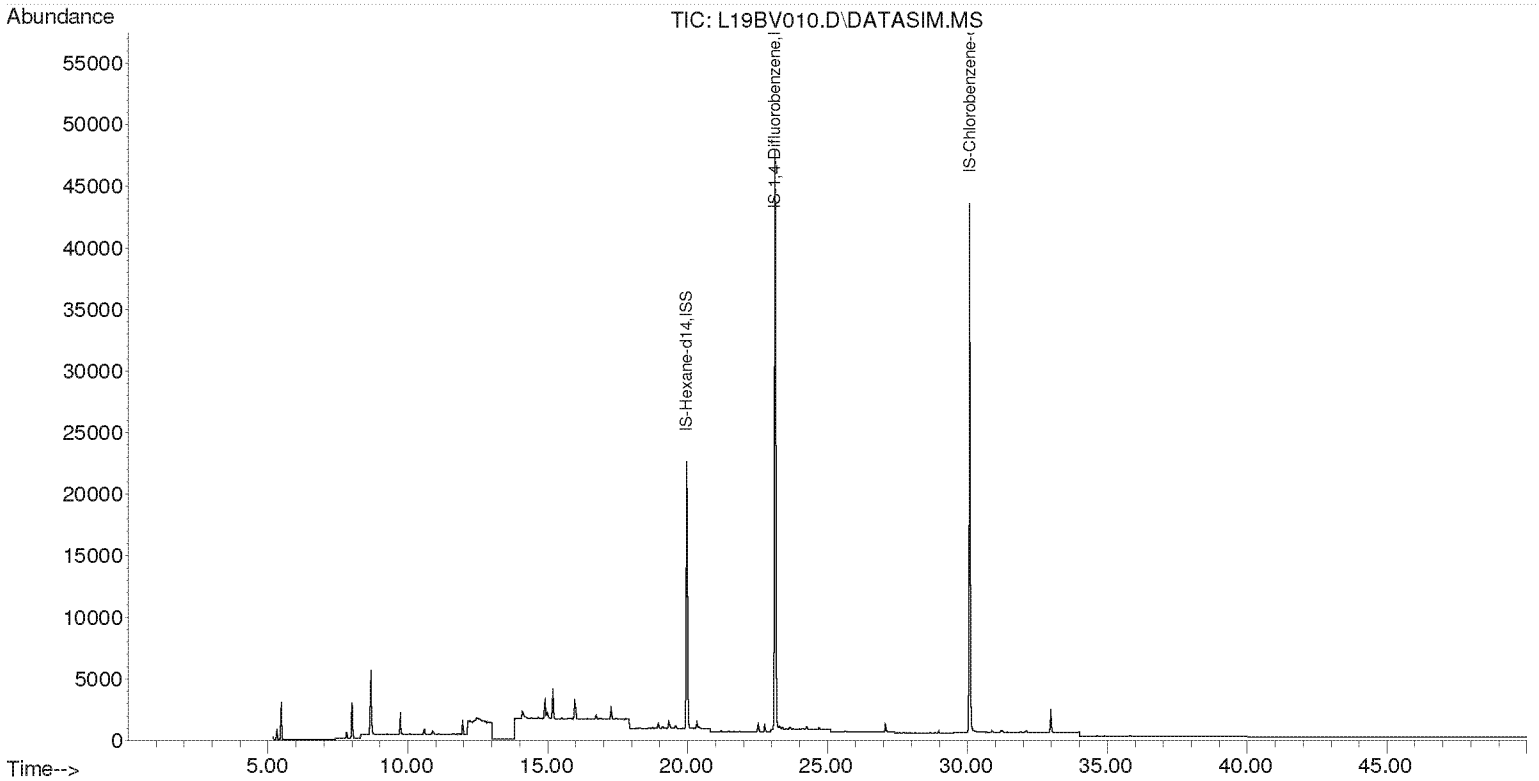
(#) = qualifier out of range (m) = manual integration (+) = signals summed

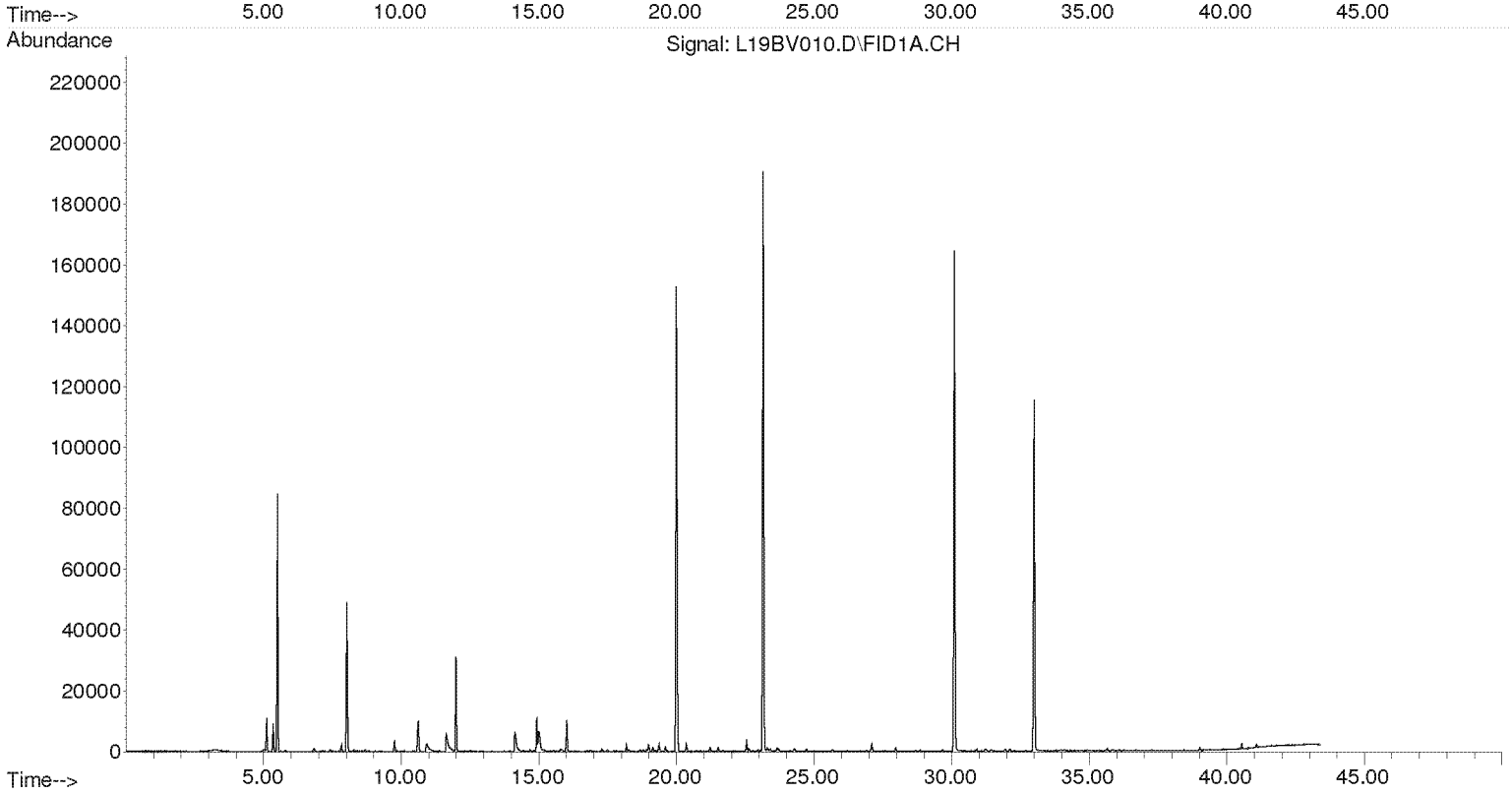
ED_002475_00000282-00116

Compounds other than ethylene oxide were not quantitated.

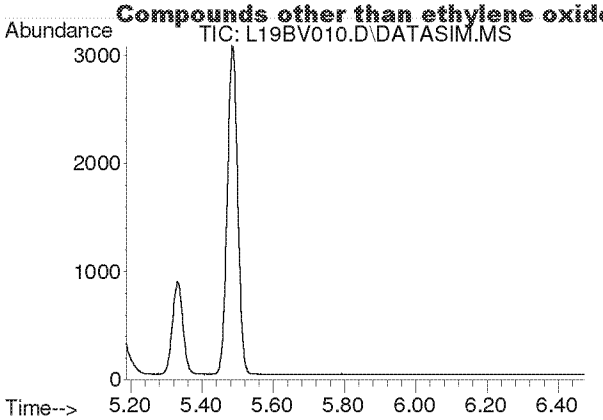
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV010.D
Acq On : 22 Feb 2019 5:35 pm (#1); 22 Feb 2019 5:30 pm (#2)
Operator : MAH
Sample : 9022025-02
Misc : GOWER ES 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 25 06:46:54 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





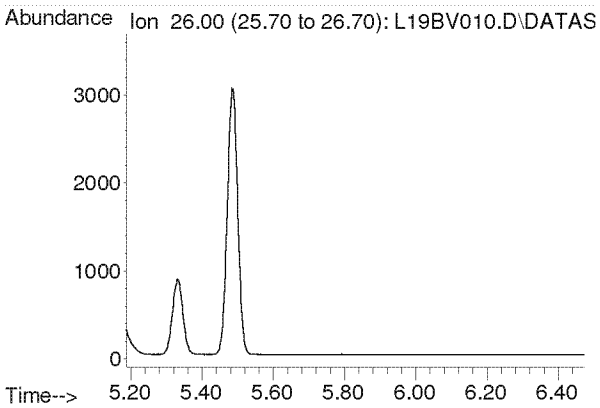
Compounds other than ethylene oxide were not quantitated.

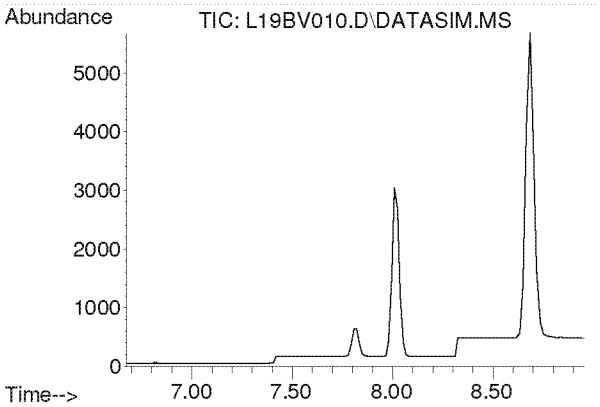


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 26



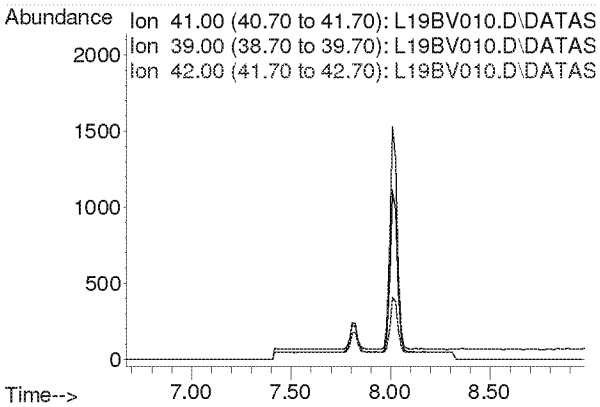


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

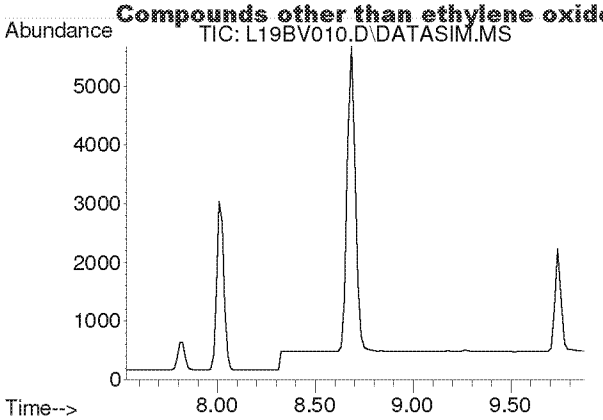
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

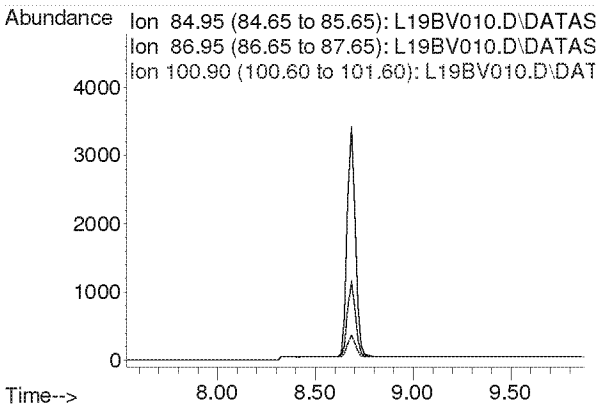


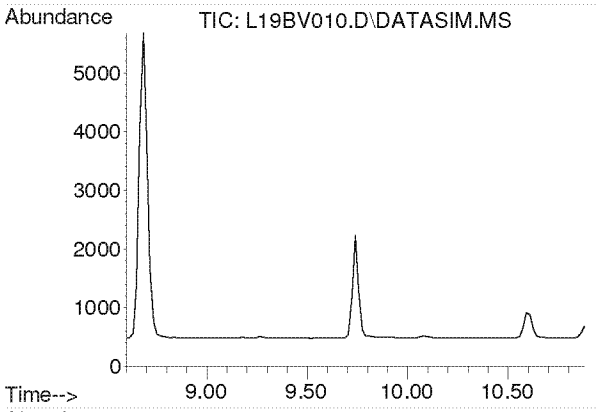
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



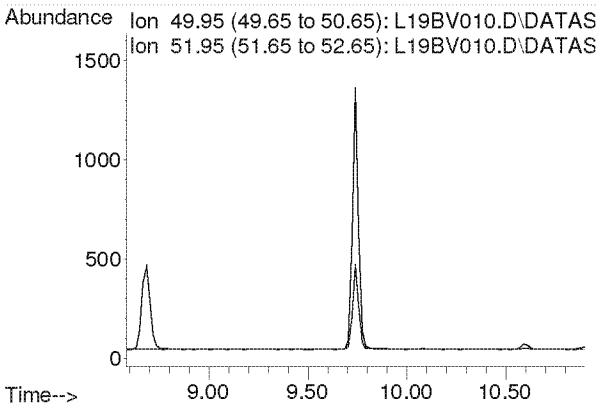


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

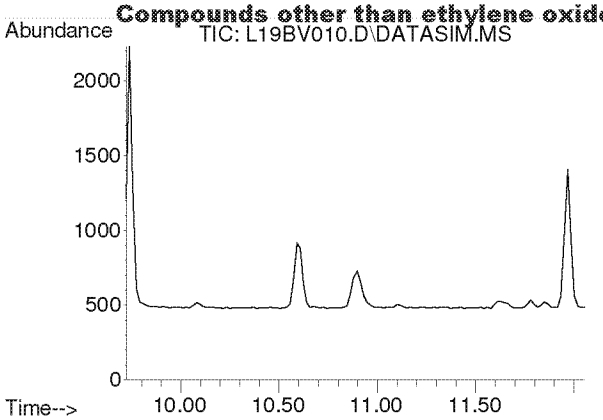
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

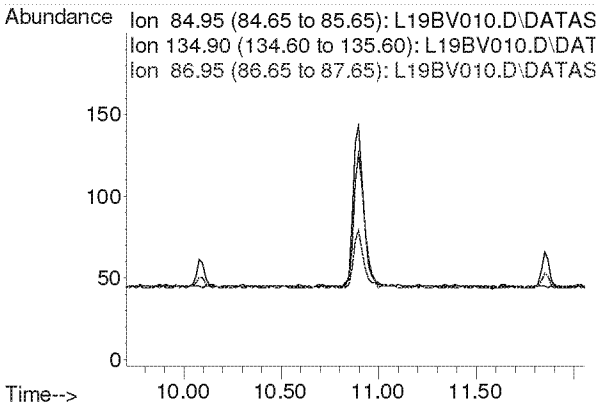


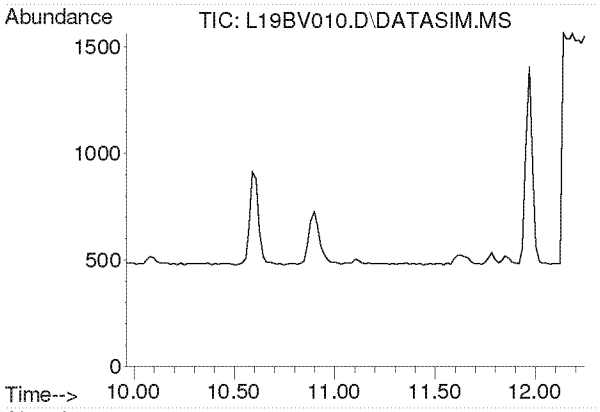
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



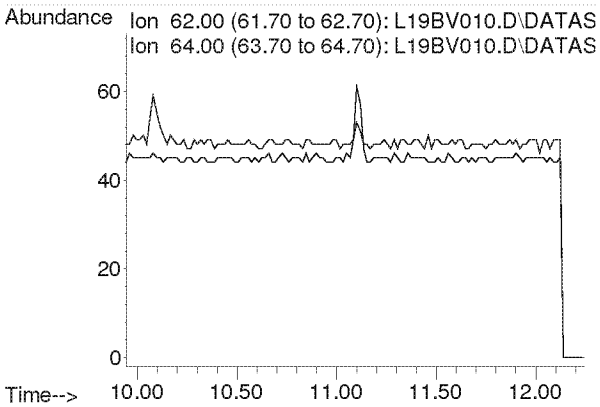


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

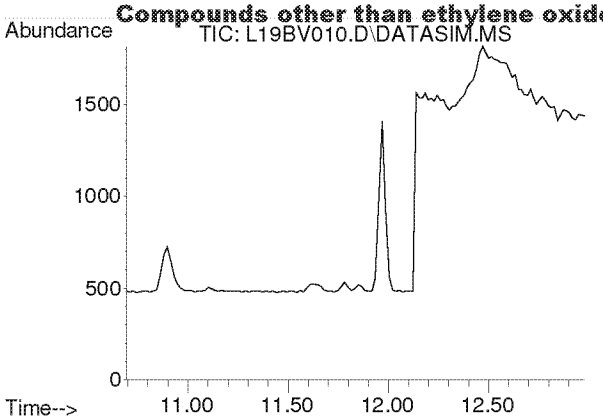
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

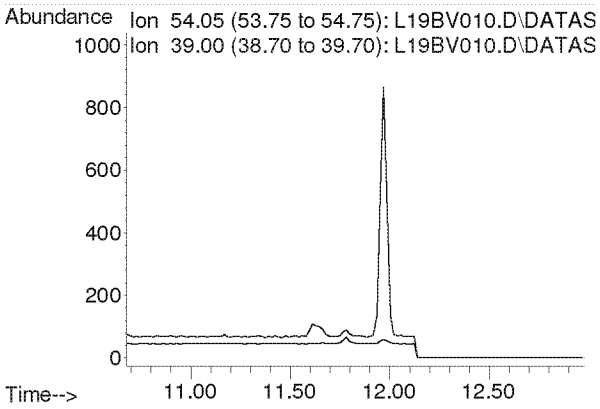


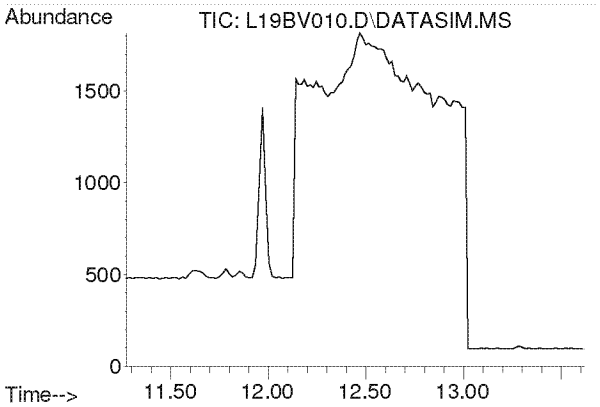
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



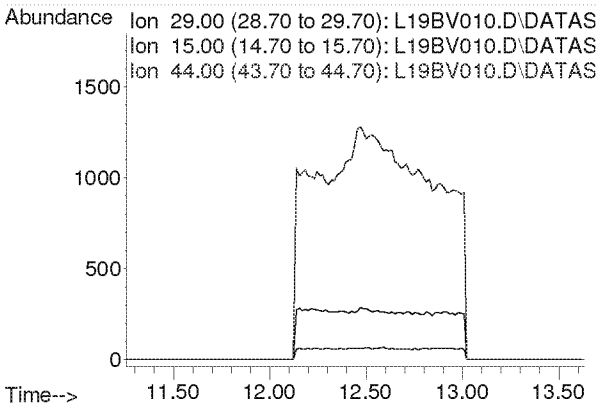


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

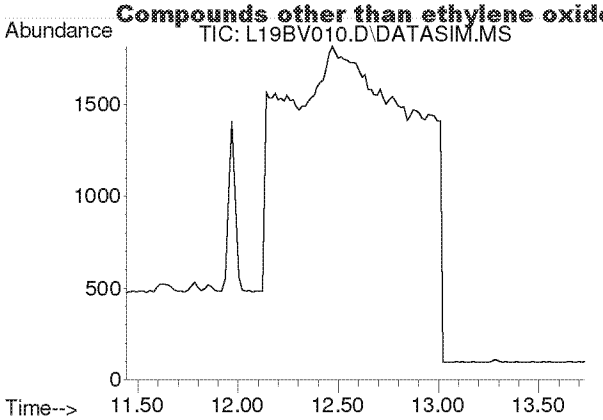
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

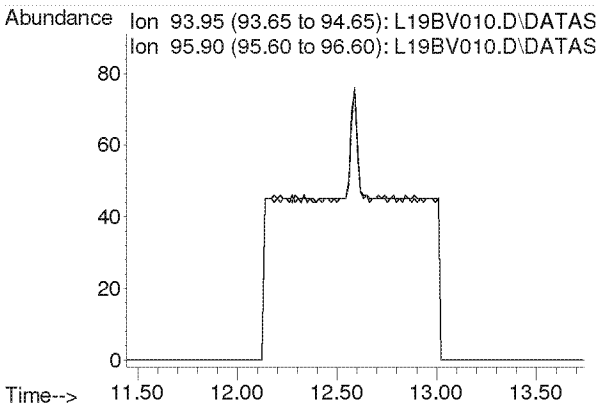


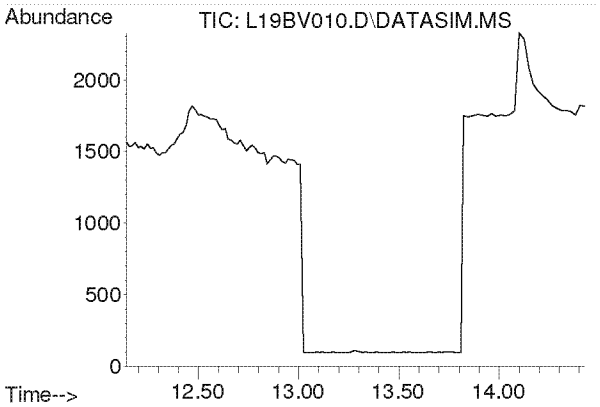
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



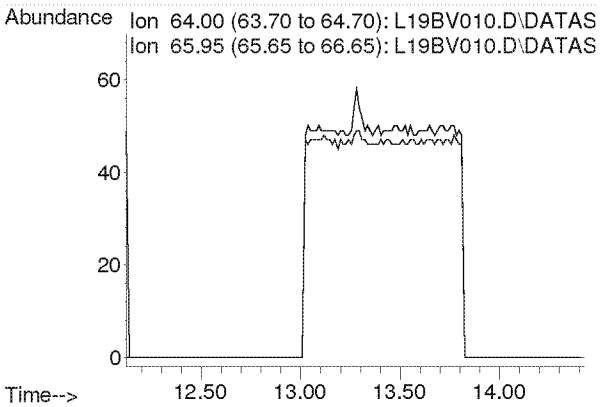


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

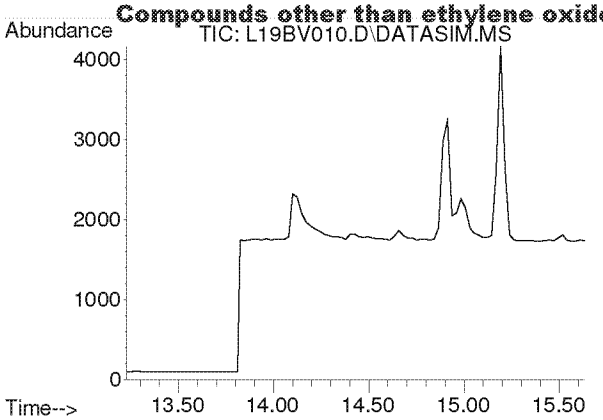
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

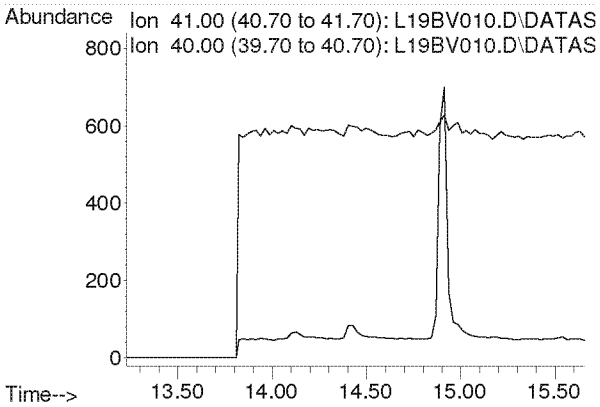


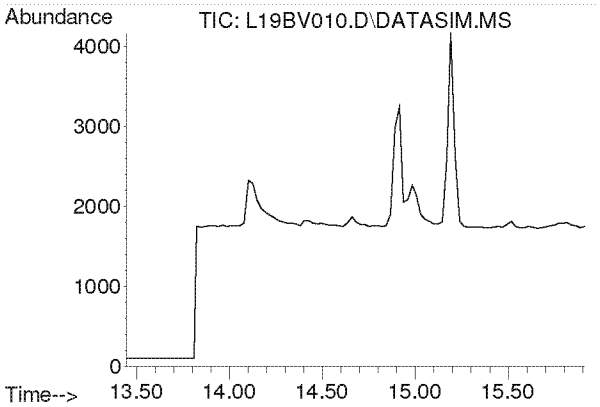
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



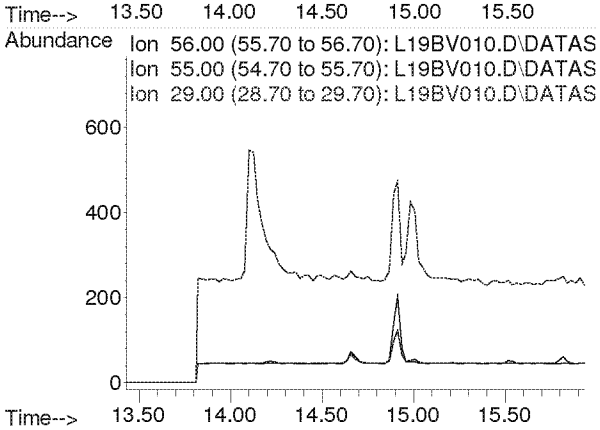


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

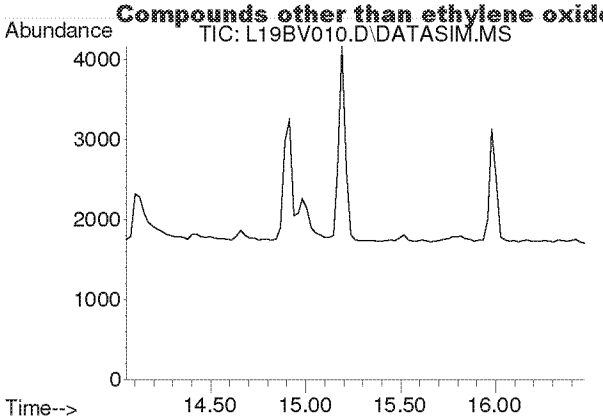
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

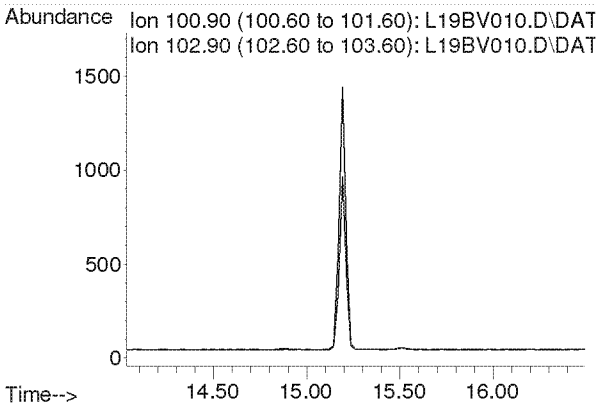


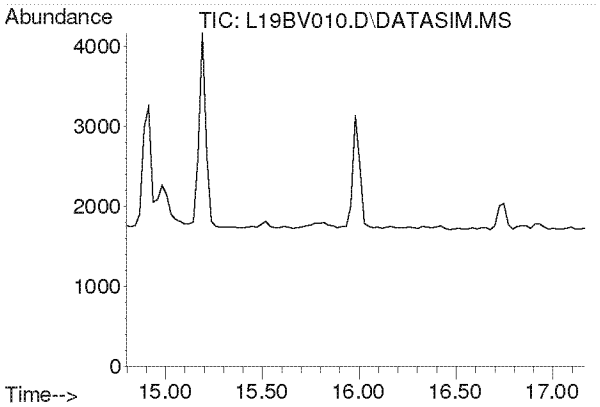
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



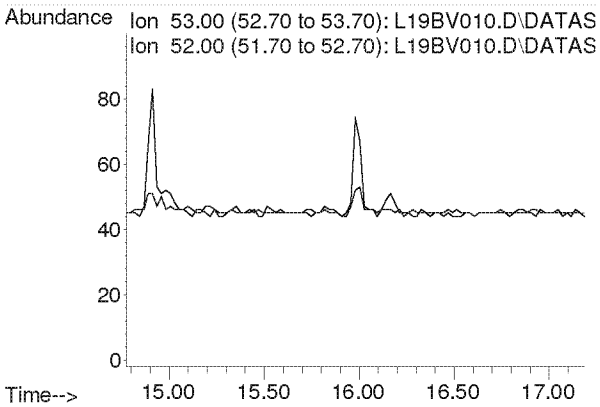


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

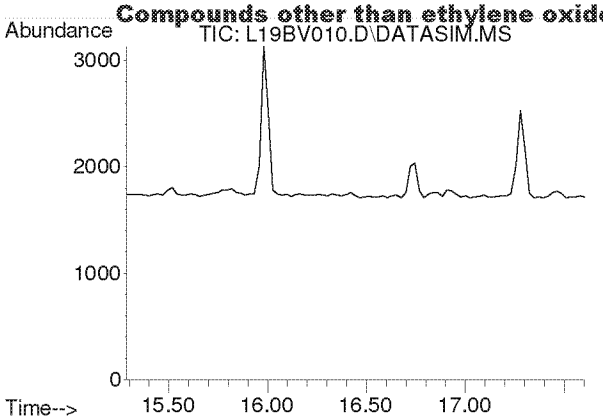
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

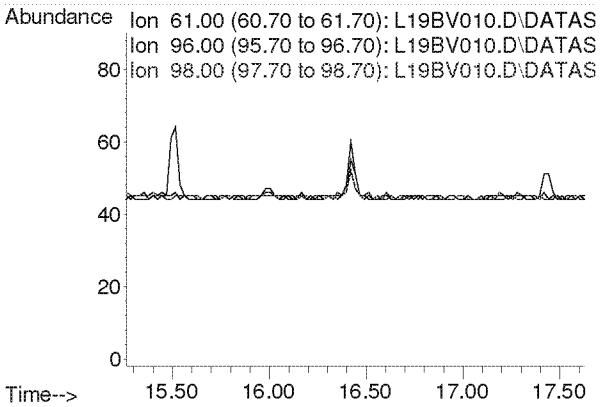


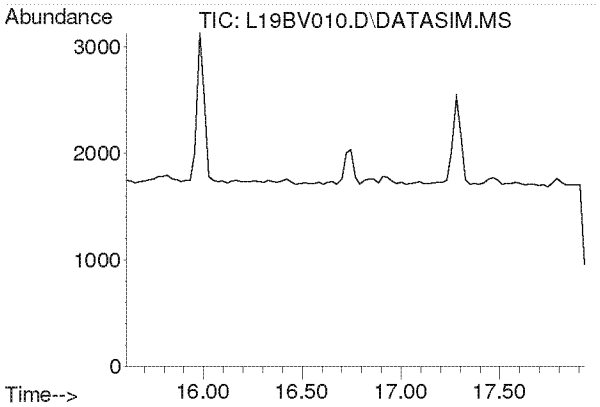
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



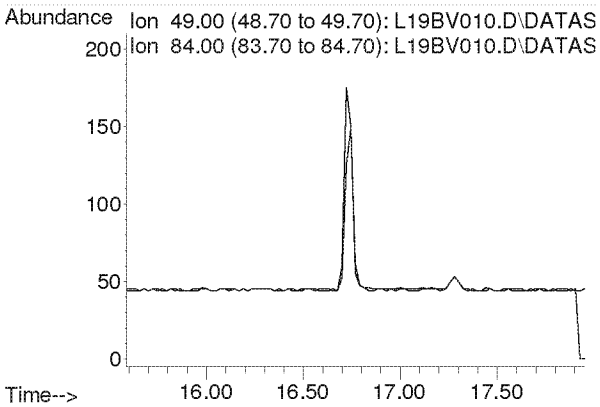


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

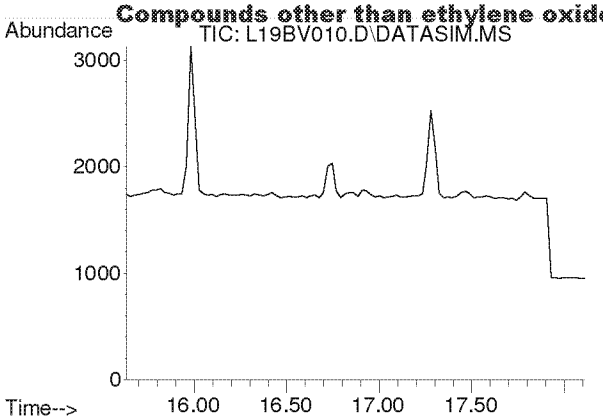
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

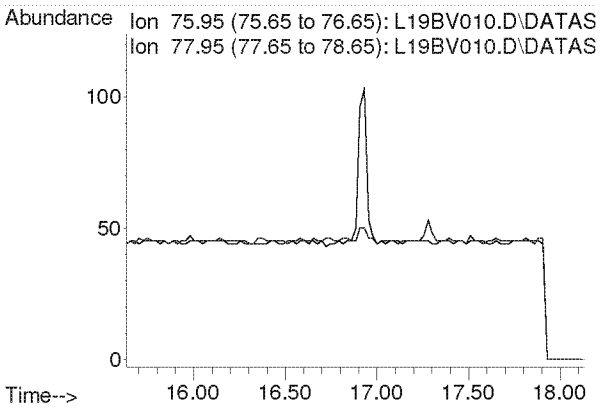


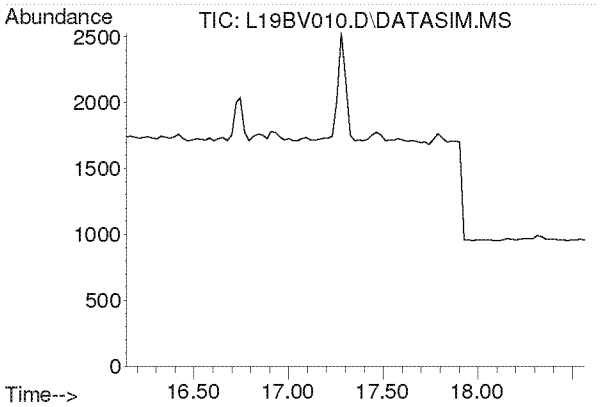
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



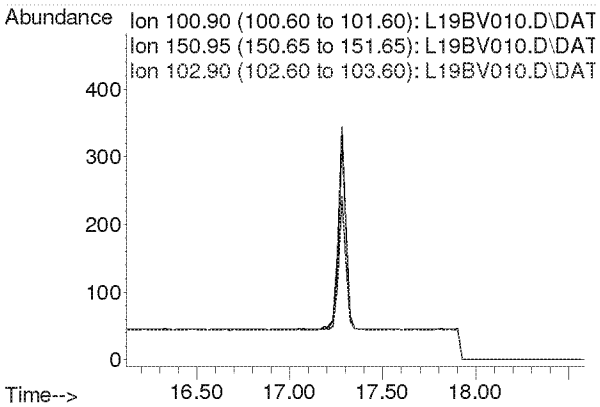


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

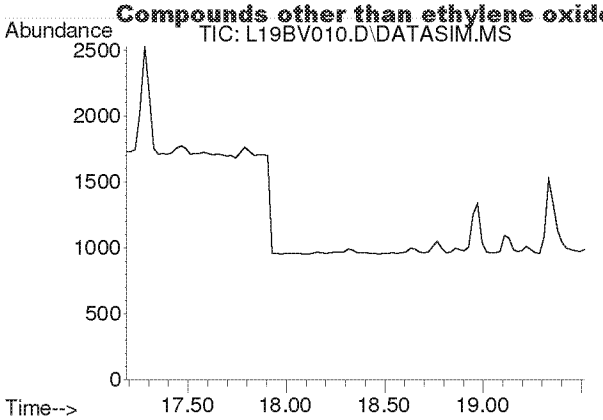
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

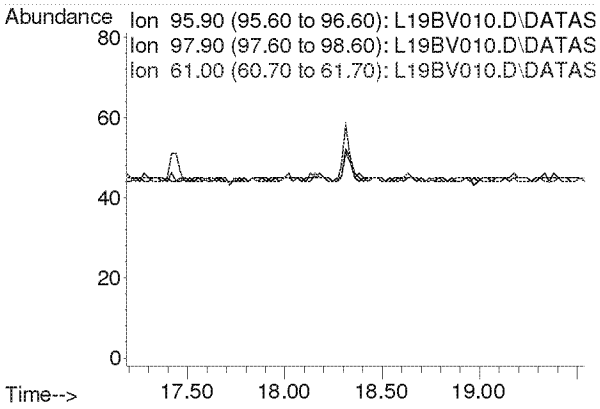


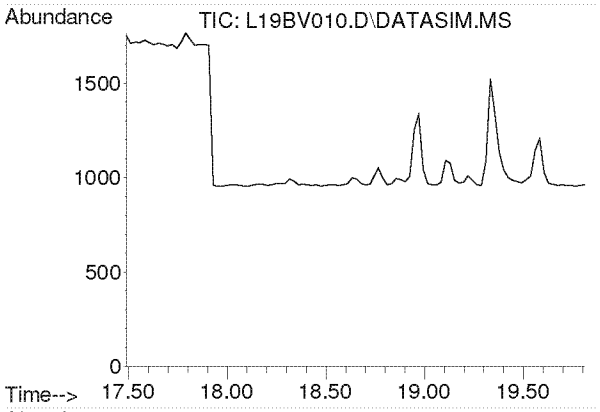
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



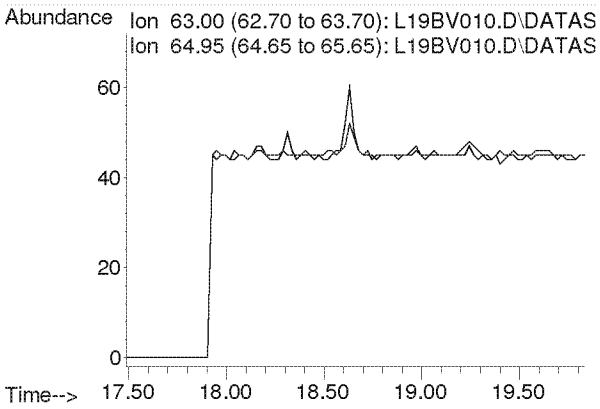


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

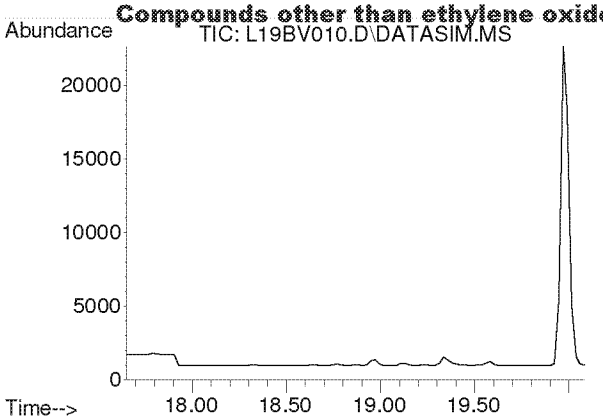
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

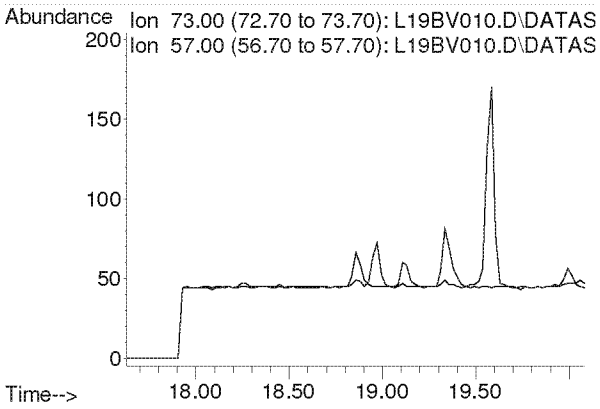


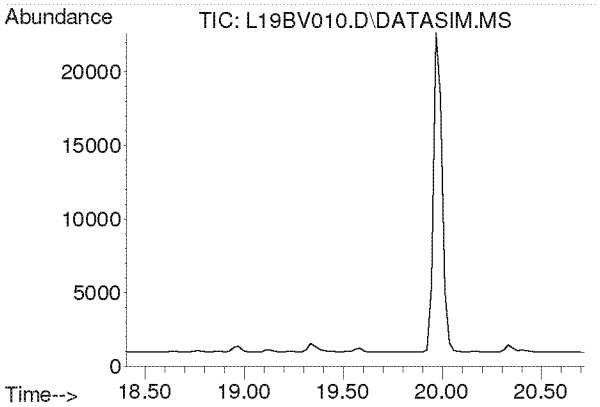
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



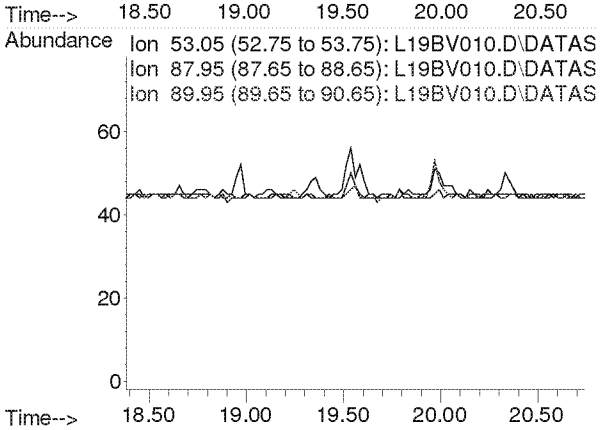


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

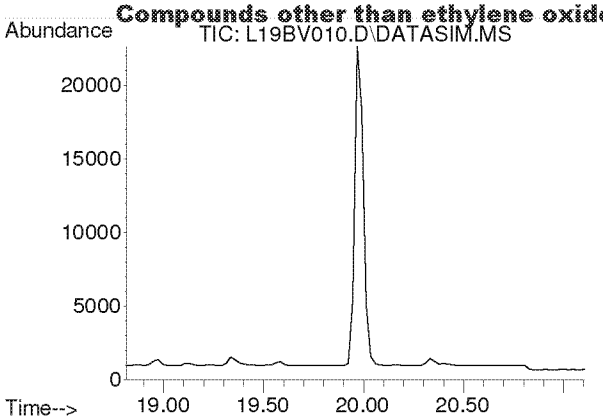
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

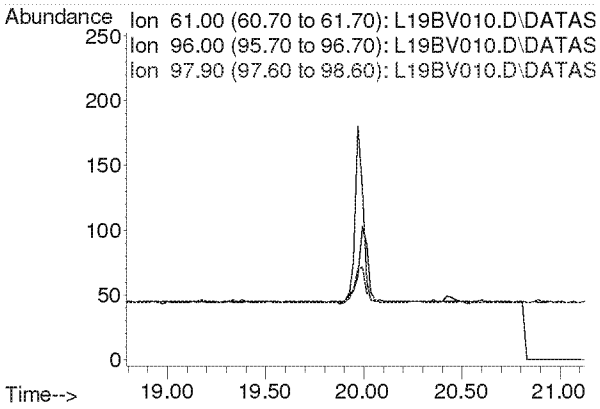


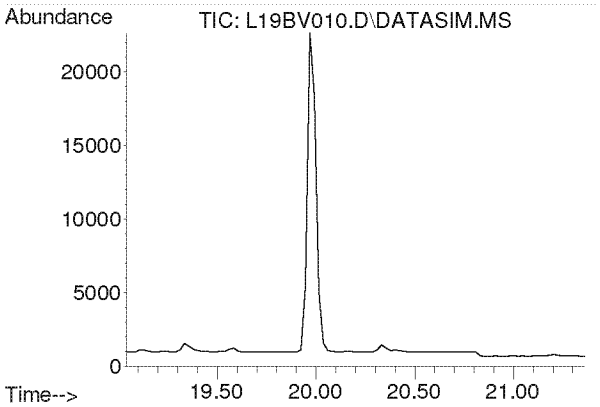
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



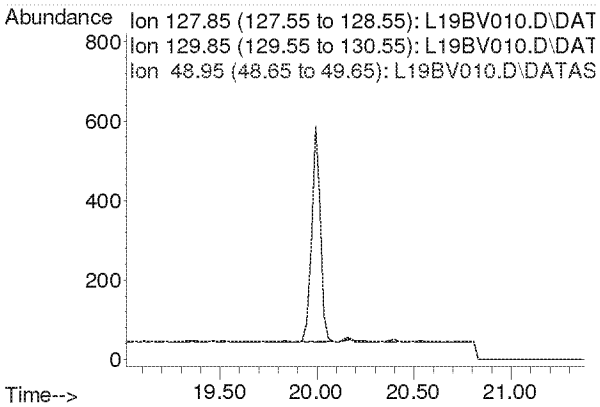


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

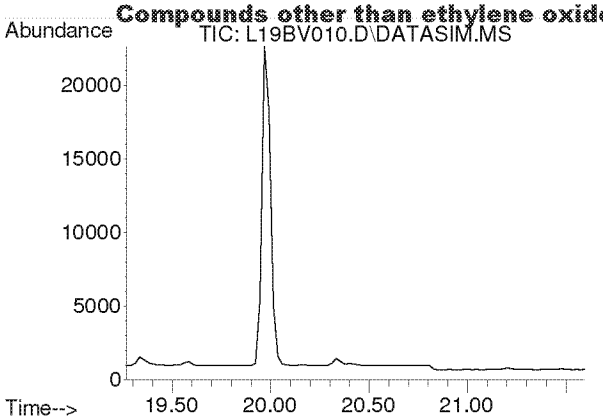
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

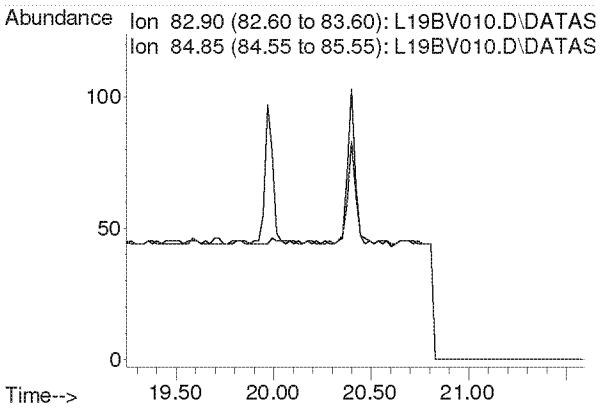


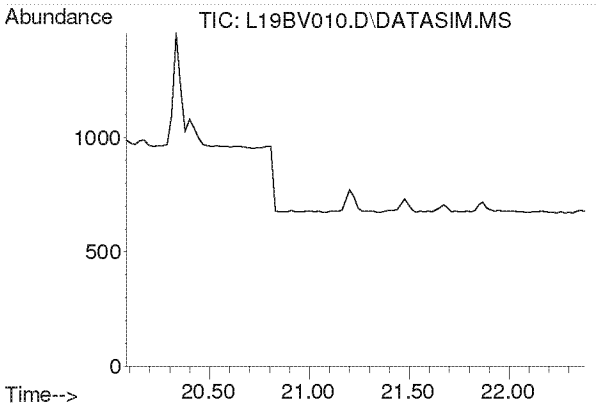
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



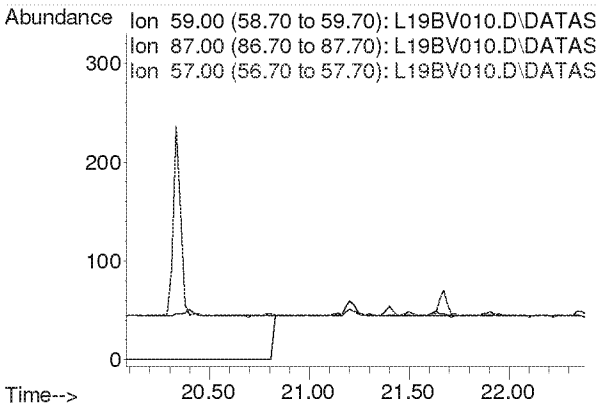


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

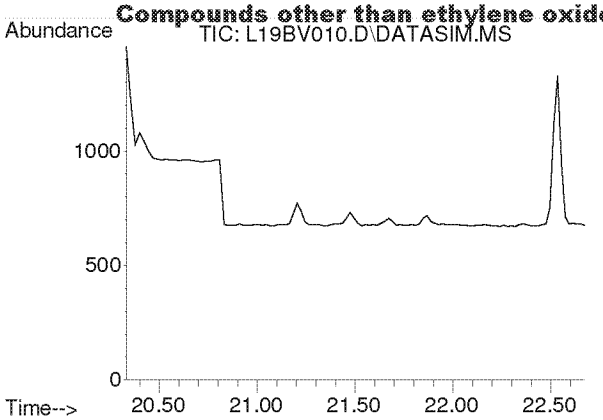
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

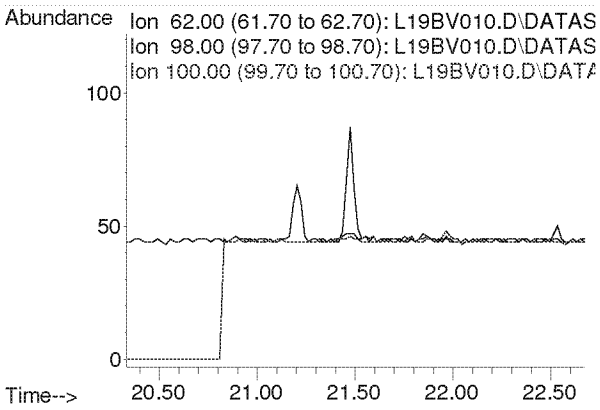


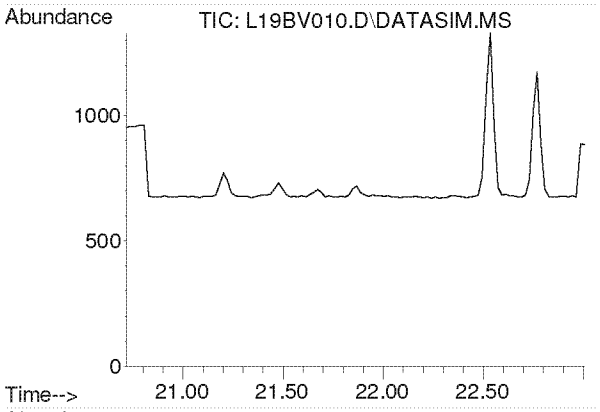
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



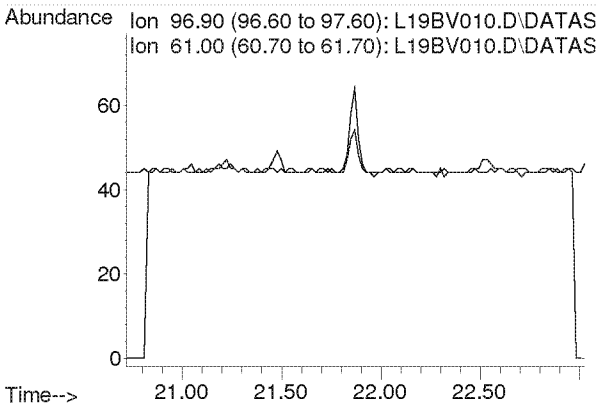


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

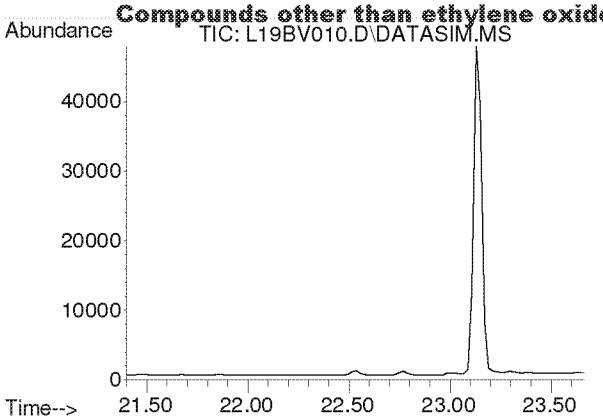
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

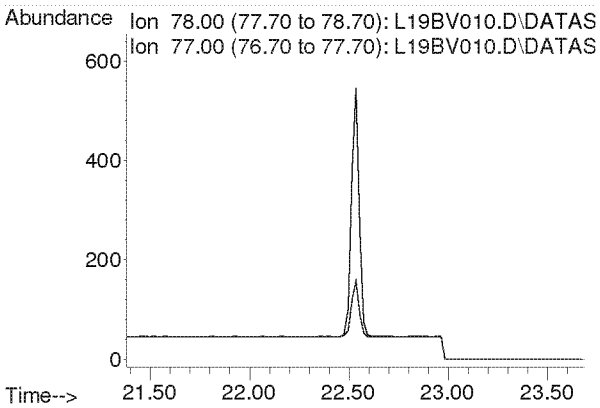


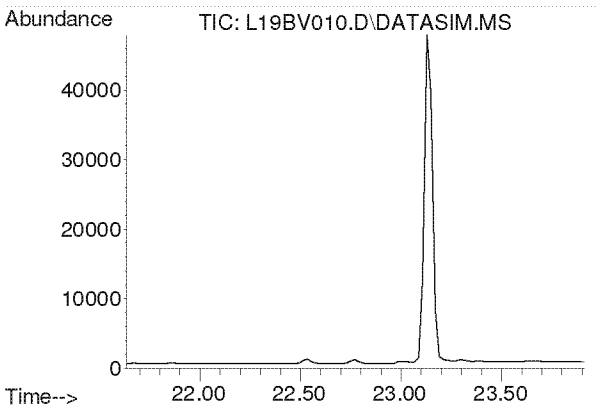
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



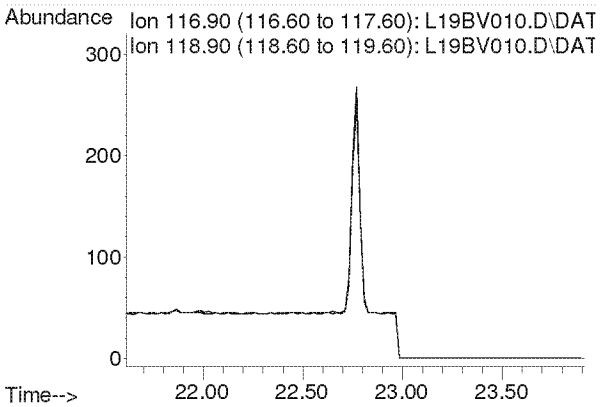


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

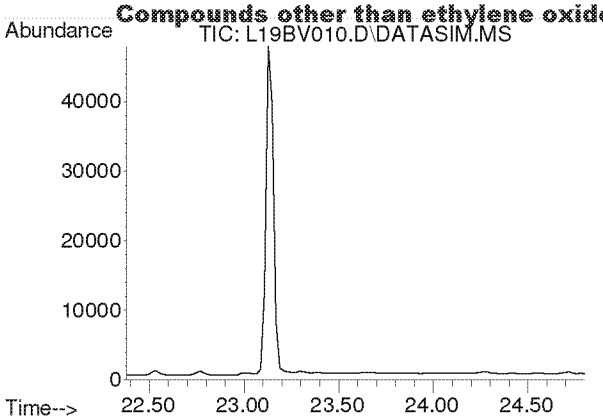
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

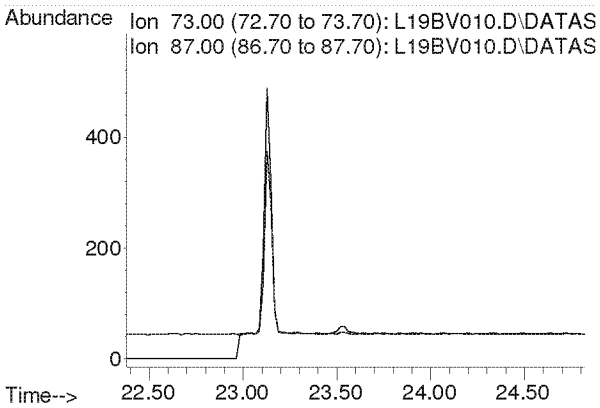


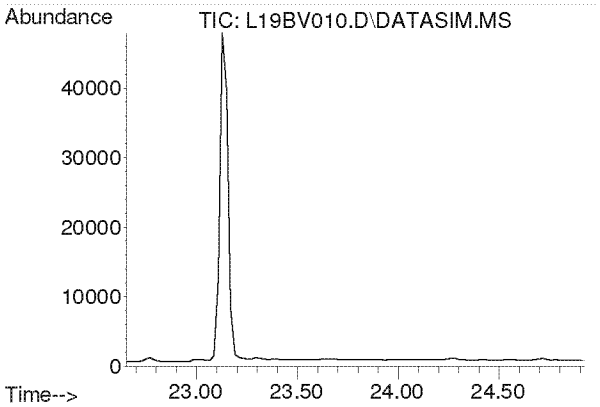
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



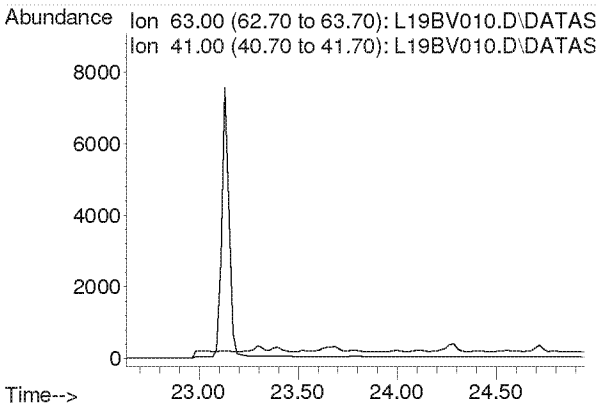


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

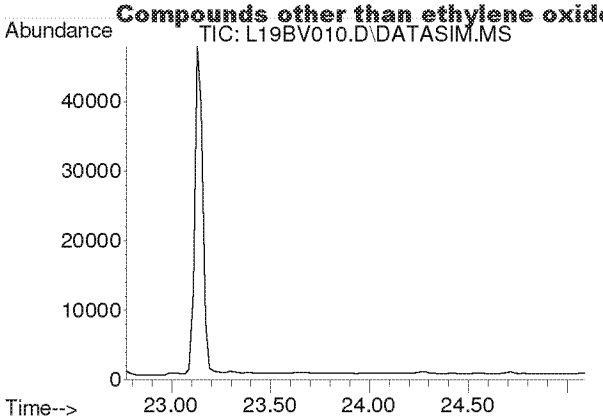
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

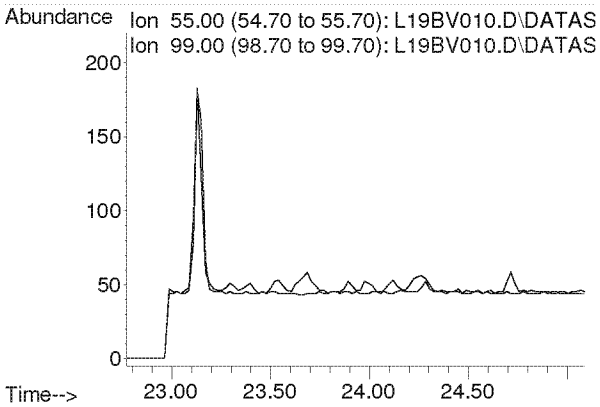


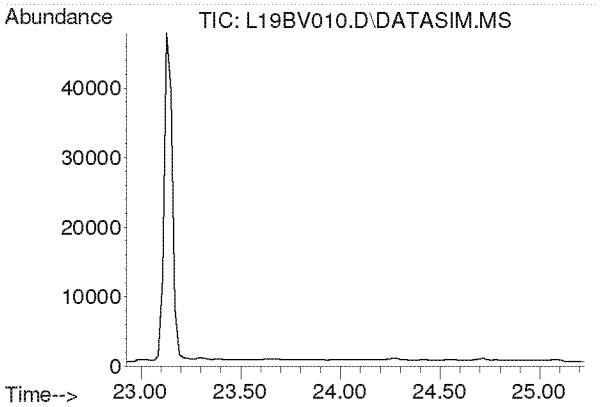
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



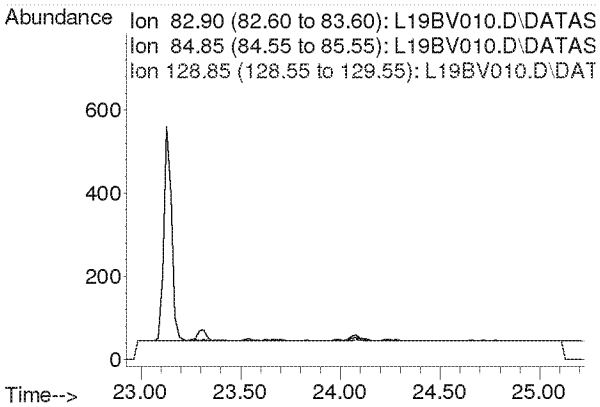


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

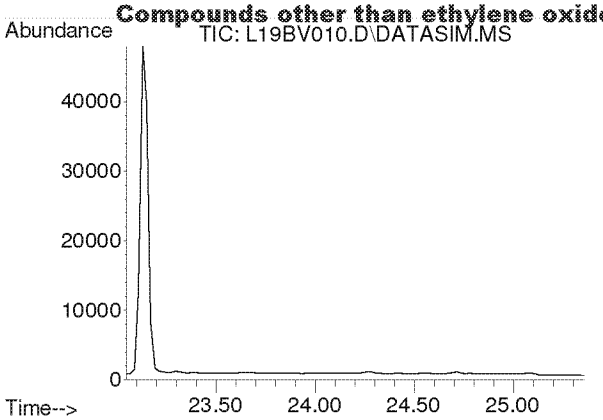
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

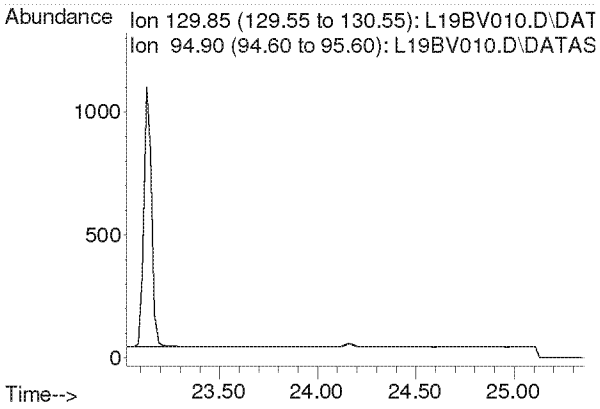


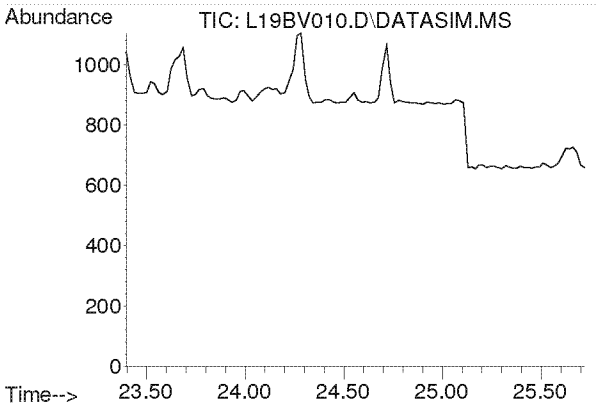
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



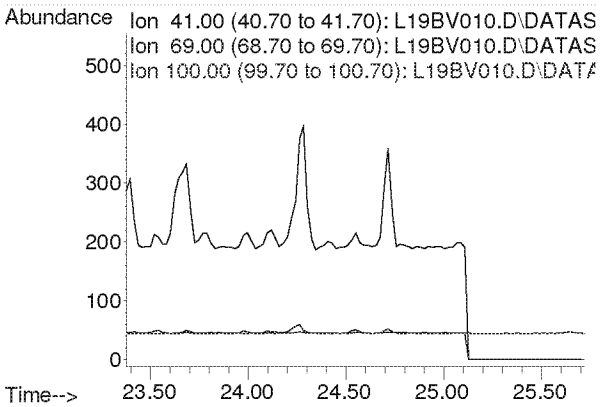


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

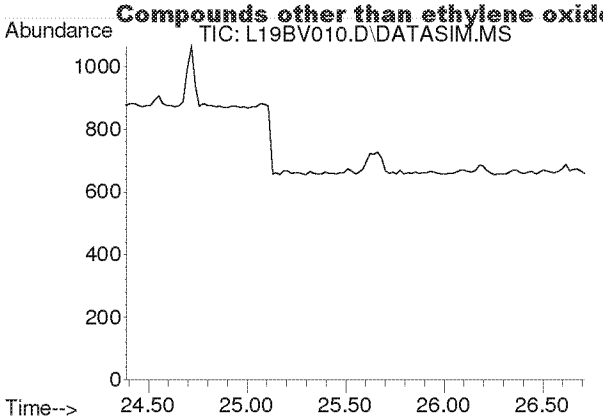
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

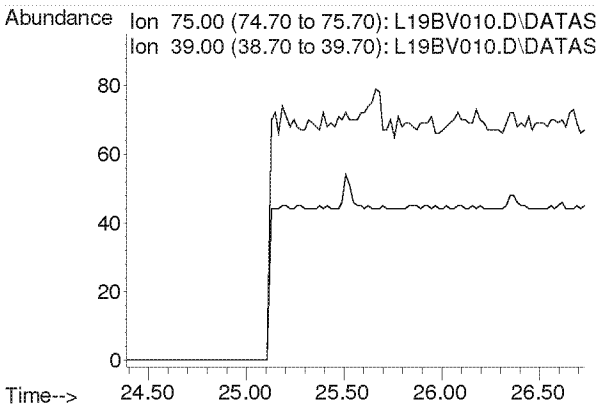


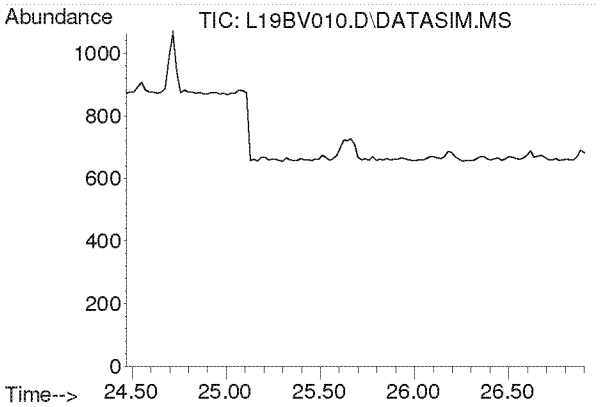
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



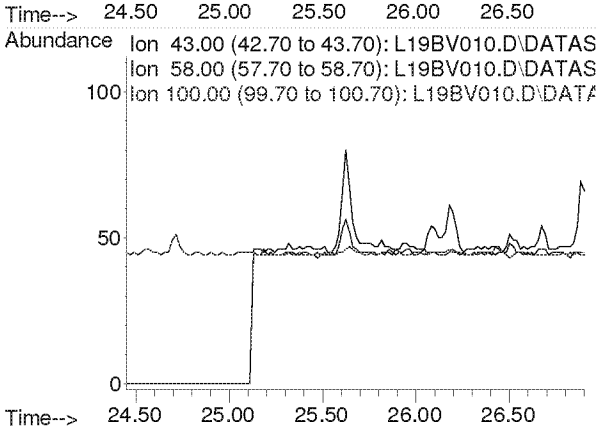


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

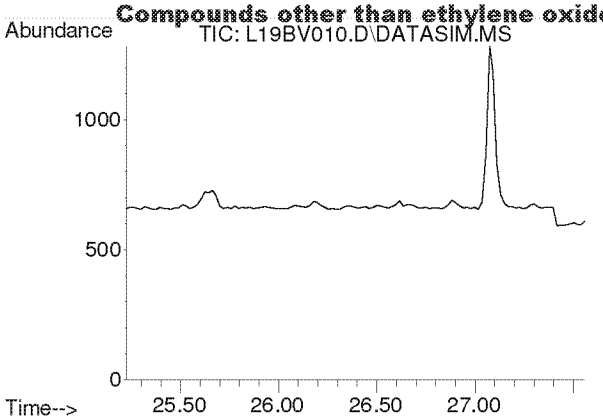
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

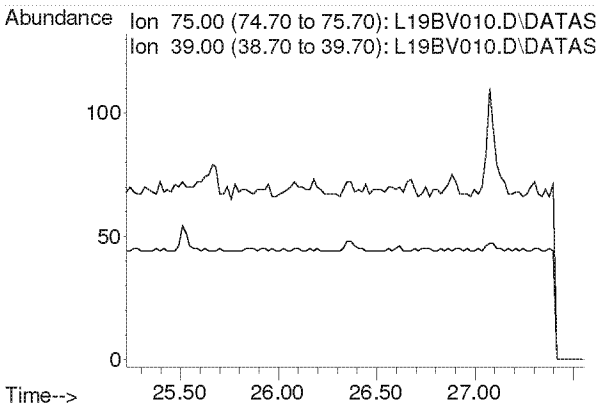


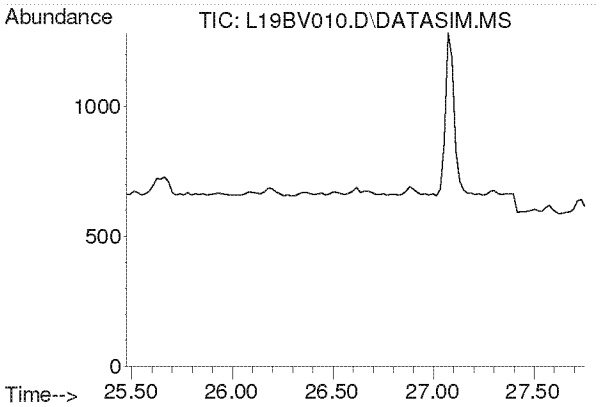
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



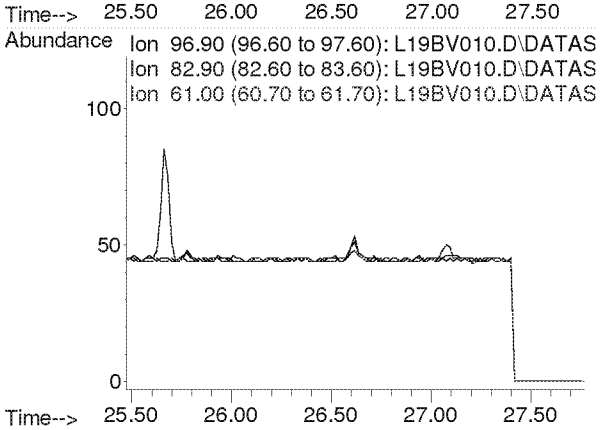


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

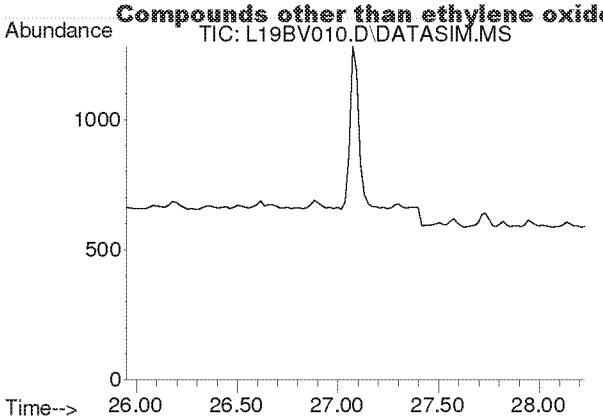
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

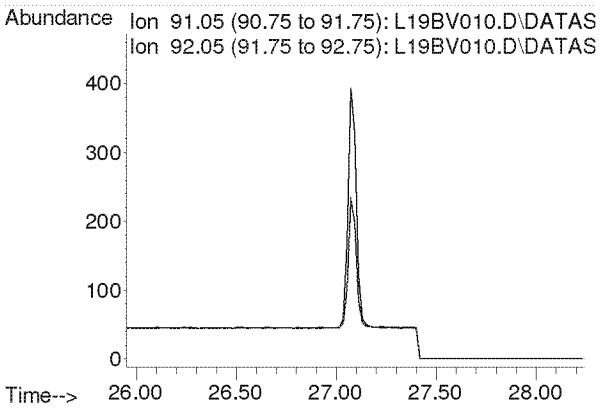


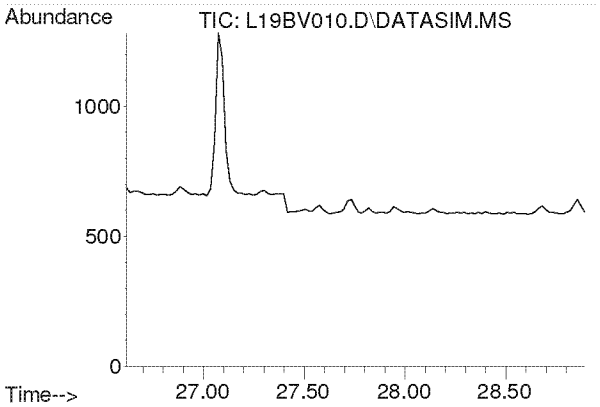
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



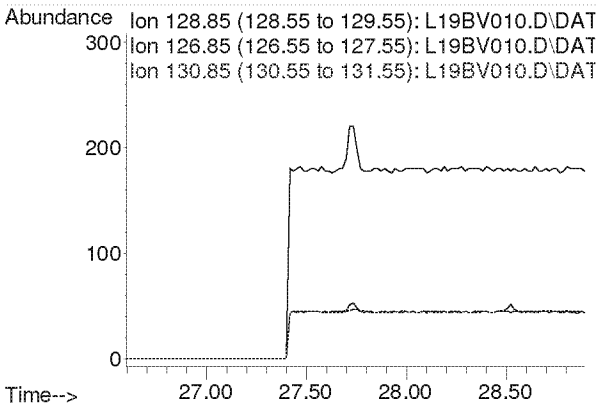


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

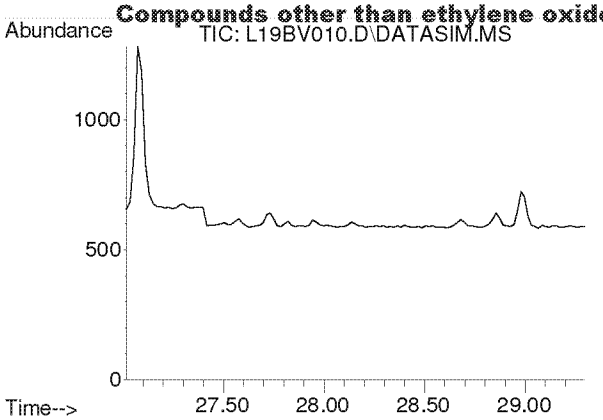
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

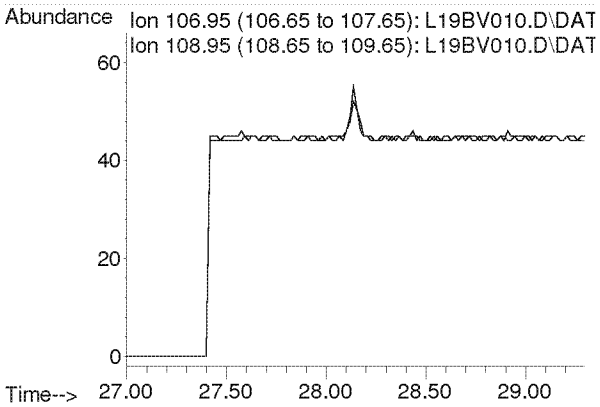


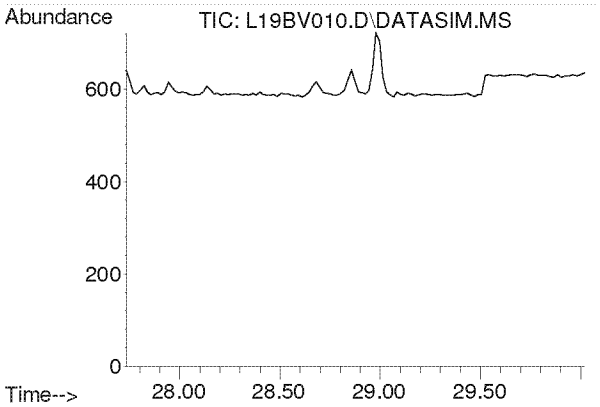
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



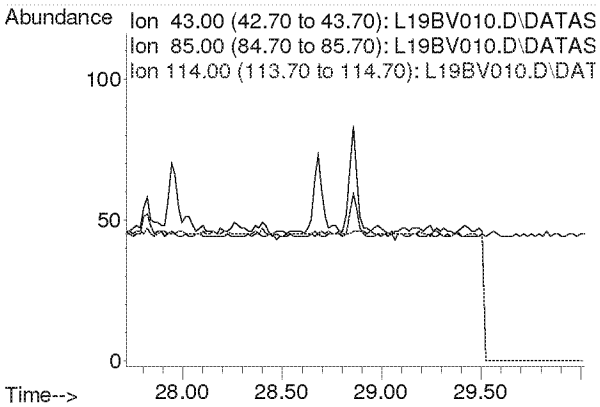


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

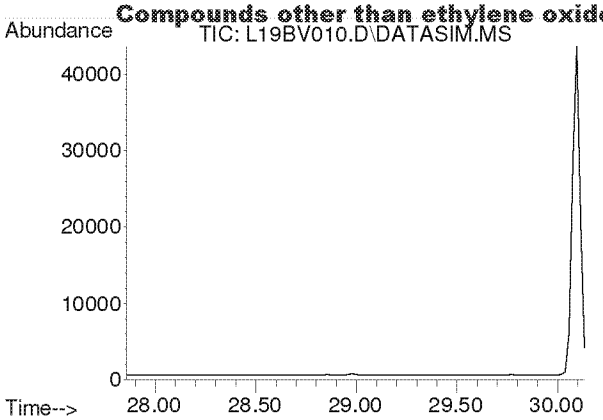
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

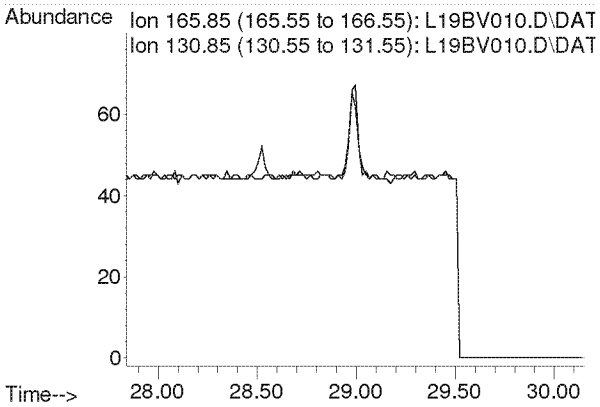


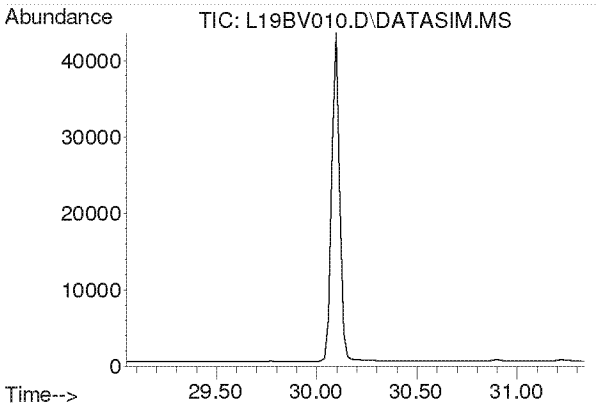
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



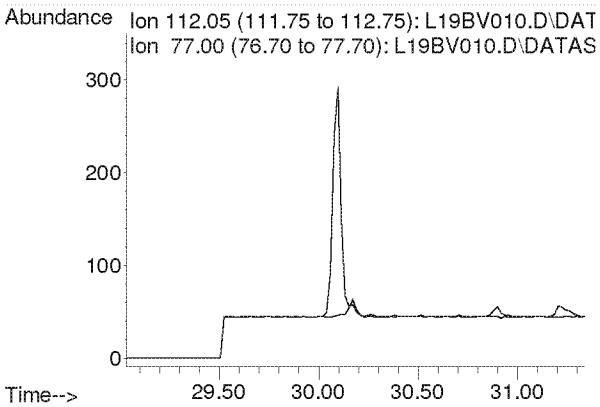


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

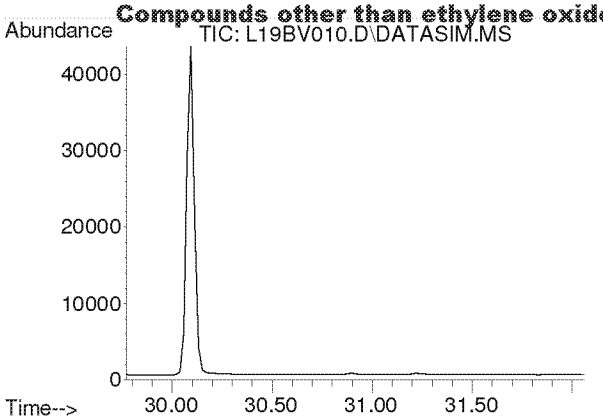
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

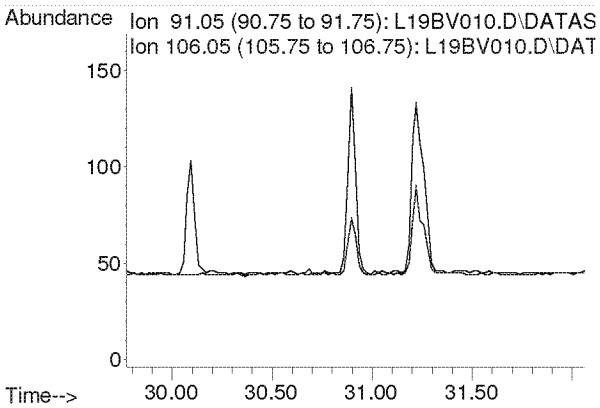


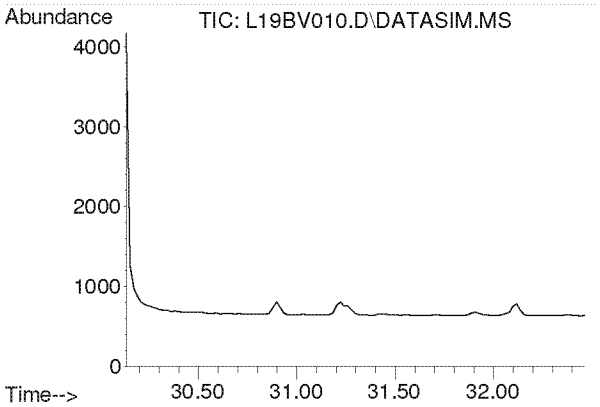
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



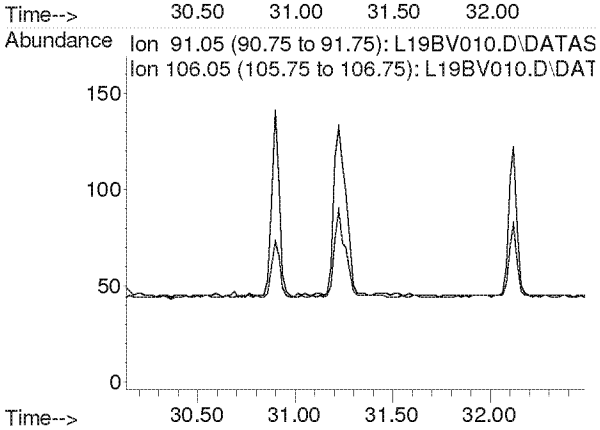


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

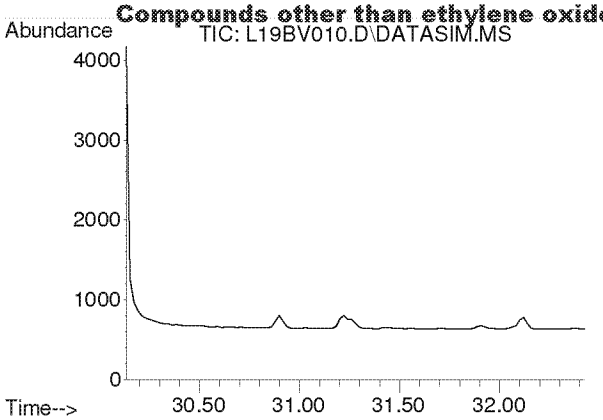
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

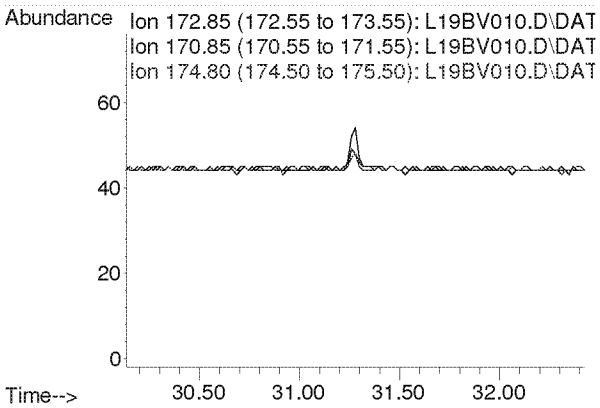


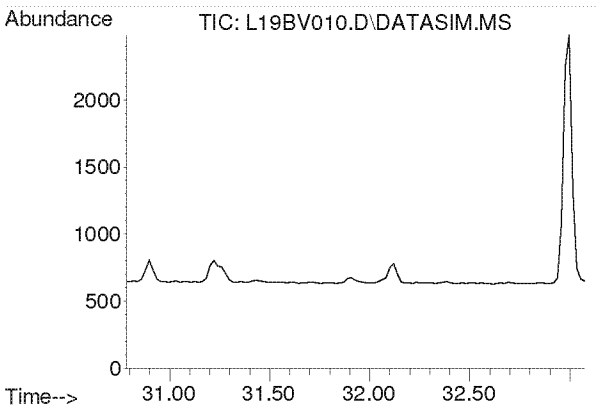
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



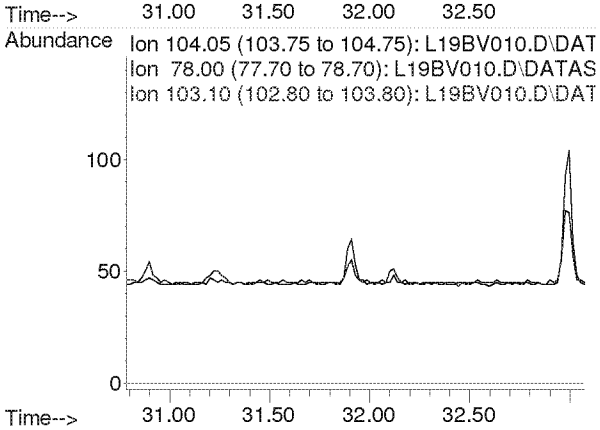


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

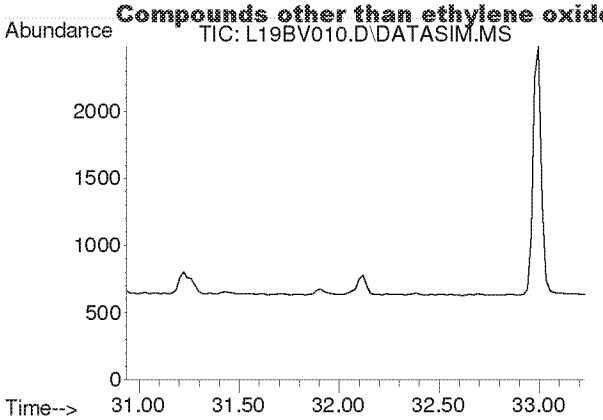
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

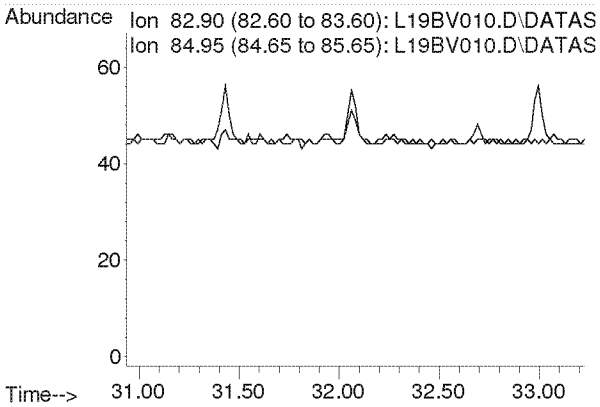


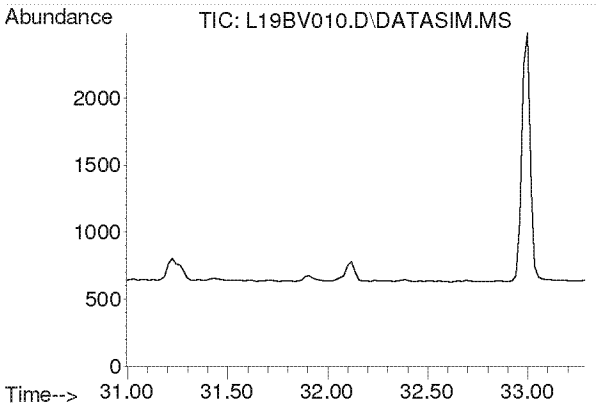
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



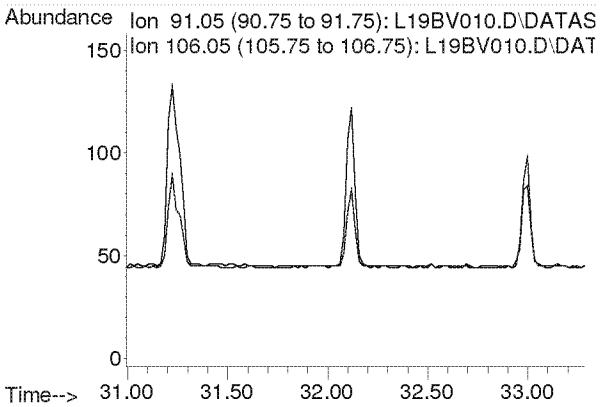


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

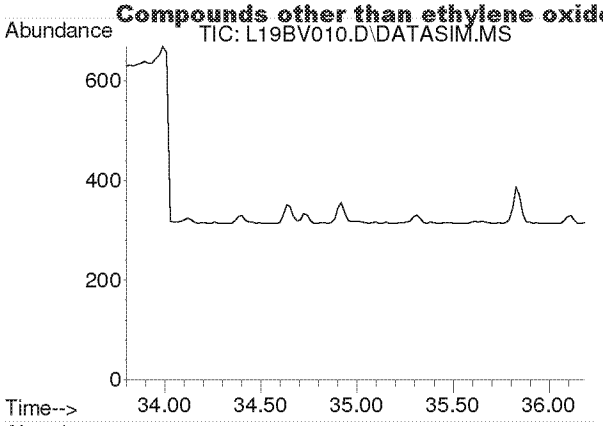
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

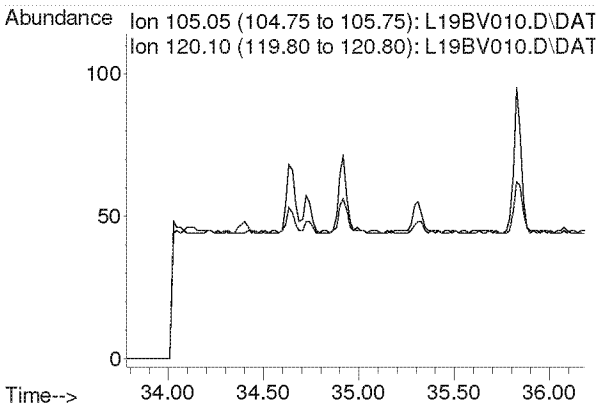


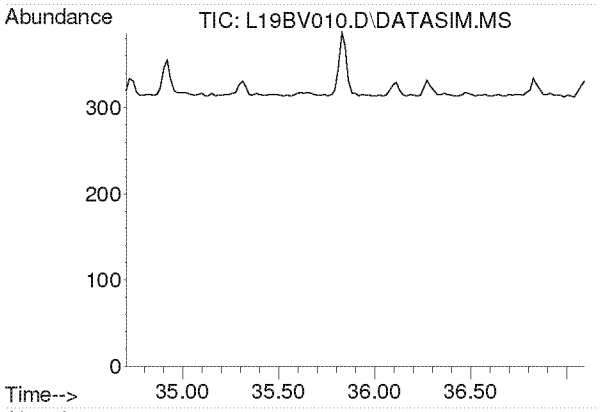
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



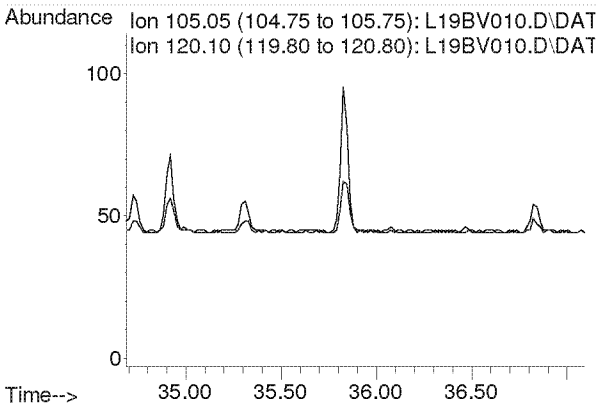


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

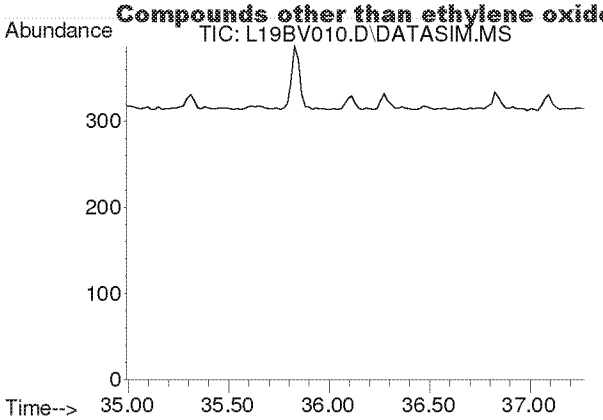
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

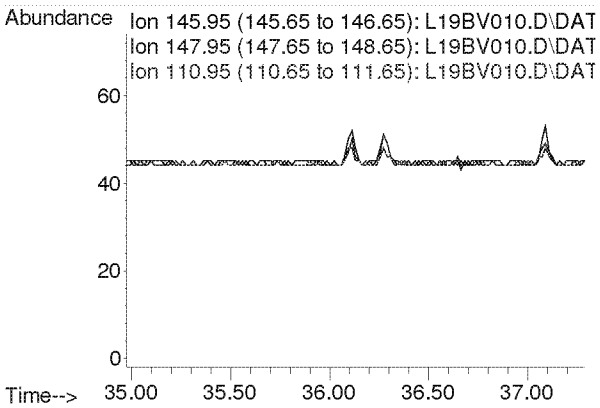


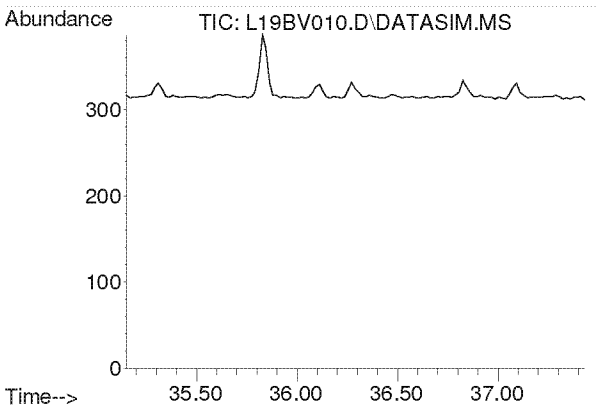
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



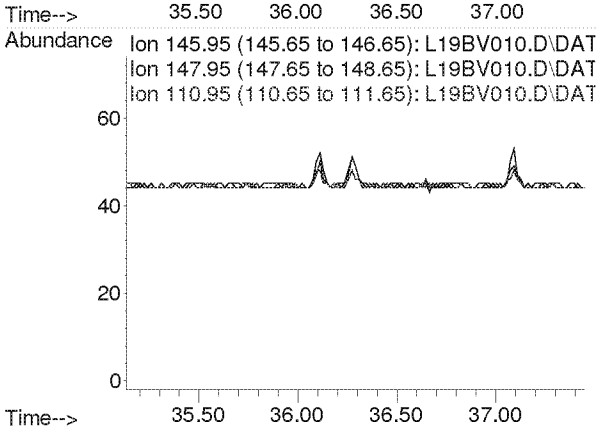


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

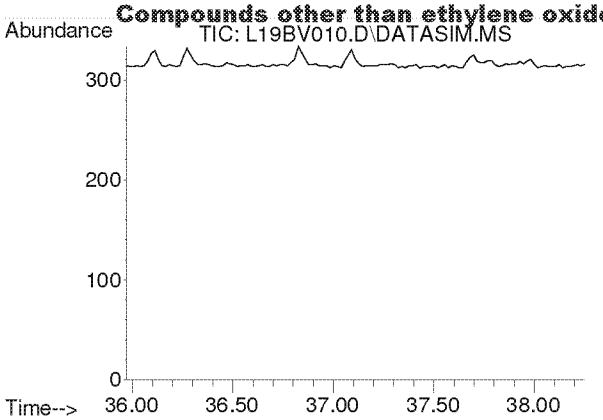
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

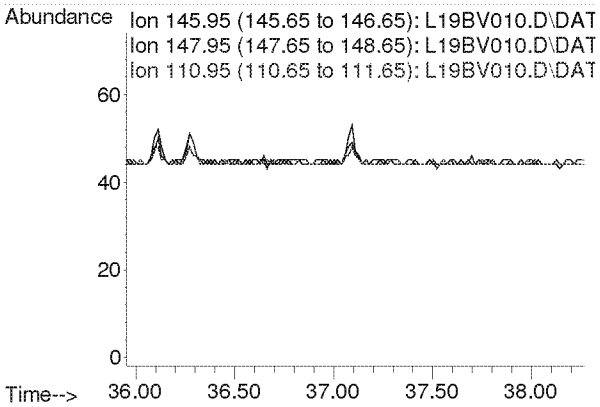


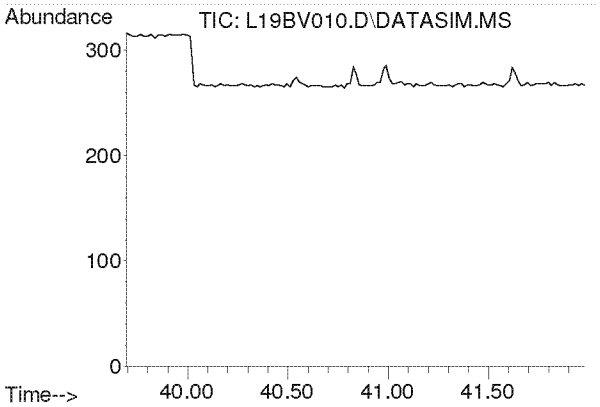
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



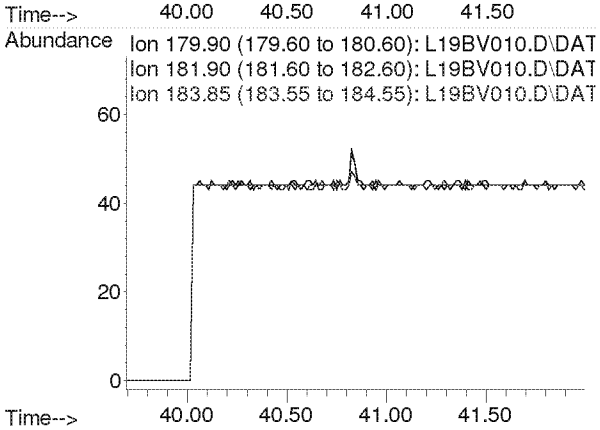


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

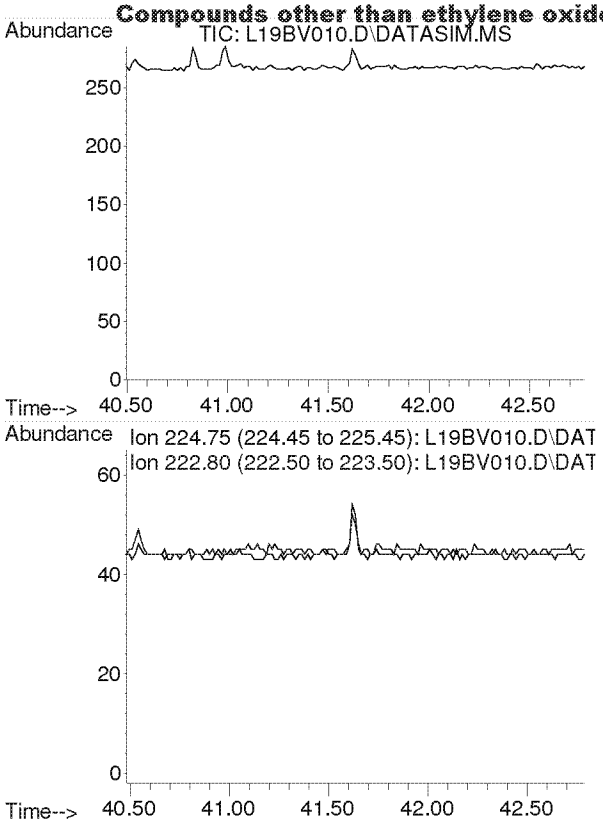
Lab File: L19BV010.D
Acq: 22 Feb 2019 5:35 pm

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: L19BV010.D
Acq: 22 Feb 2019 5:35 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\L19BV\
Data File : L19BV011.D
Acq On : 22 Feb 2019 6:38 pm (#1); 22-Feb-19, 18:33:06 (#2)
Operator : MAH
Sample : 9022025-03
Misc : WILLOW POND PARK 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 25 07:20:57 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.968	66	37839	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.128	114	91322	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.094	117	67255	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.468	29	293	0.1354 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. d	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D. 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\L19BV\
Data File : L19BV011.D
Acq On : 22 Feb 2019 6:38 pm (#1); 22-Feb-19, 18:33:06 (#2)
Operator : MAH
Sample : 9022025-03
Misc : WILLOW POND PARK 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 25 07:20:57 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

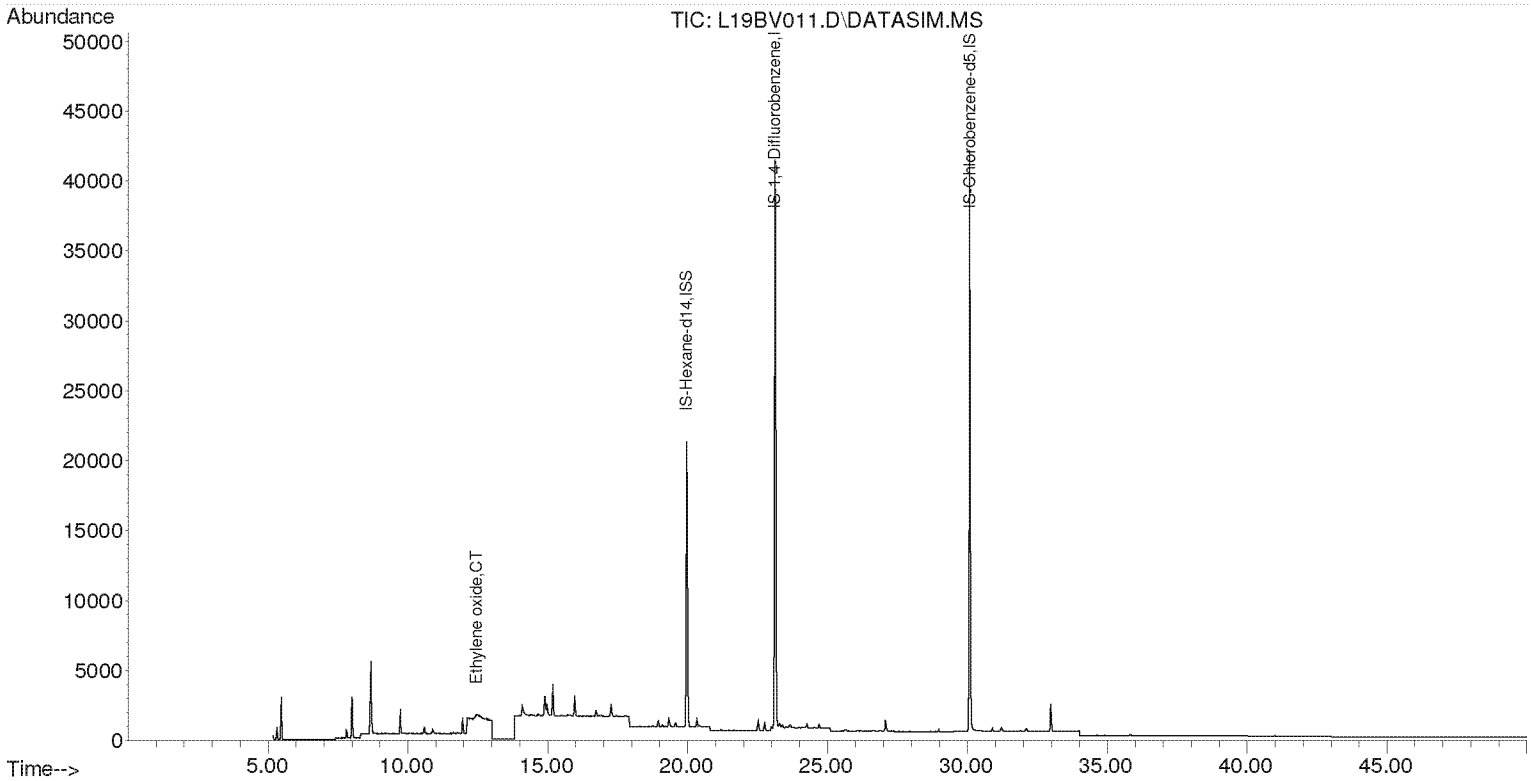
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

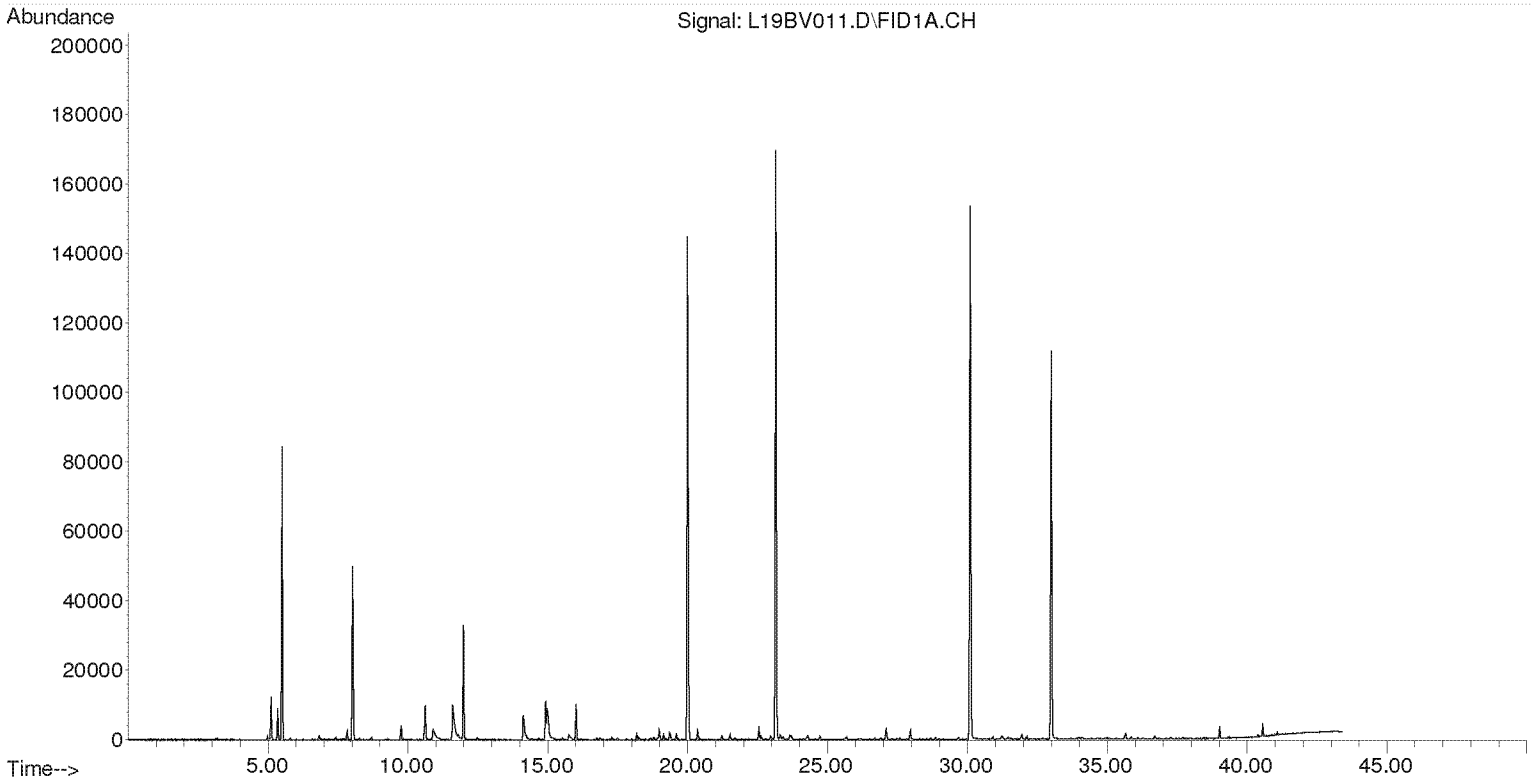
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

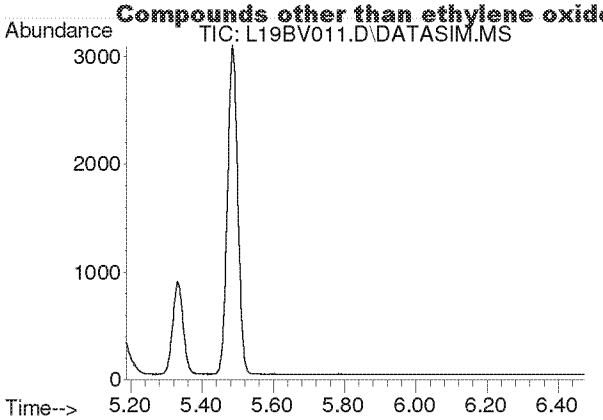
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV011.D
Acq On : 22 Feb 2019 6:38 pm (#1); 22 Feb 2019 6:33 pm (#2)
Operator : MAH
Sample : 9022025-03
Misc : WILLOW POND PARK 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 25 06:47:05 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





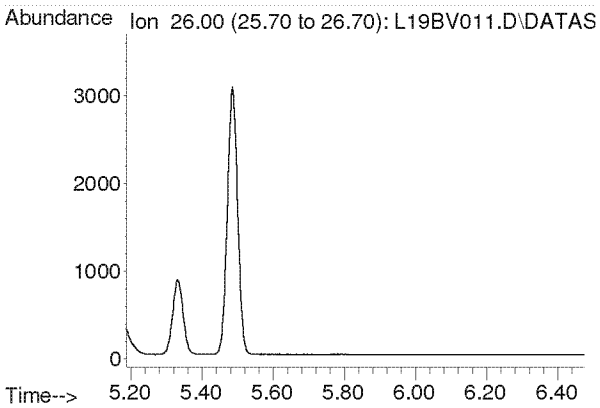
Compounds other than ethylene oxide were not quantitated.

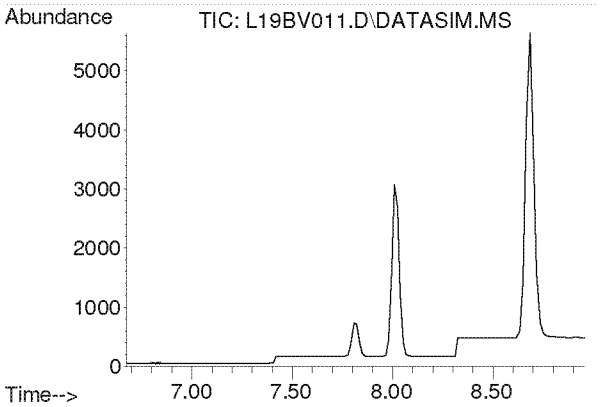


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 26



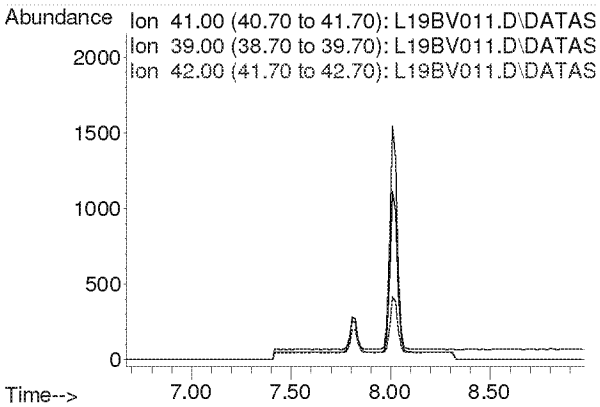


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

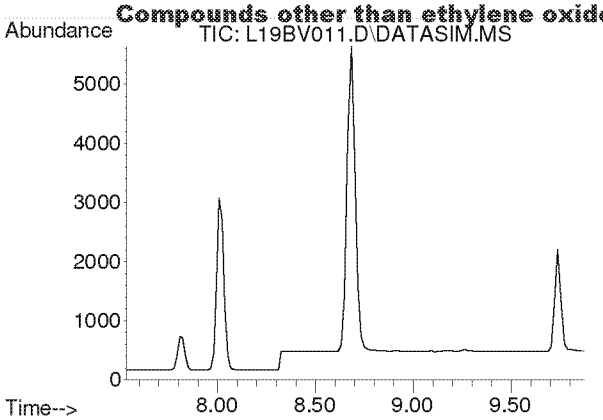
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

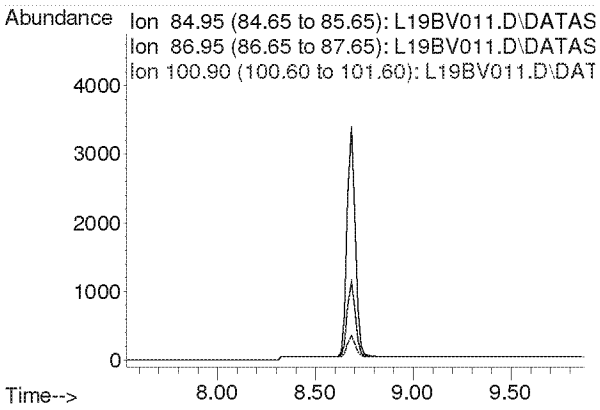


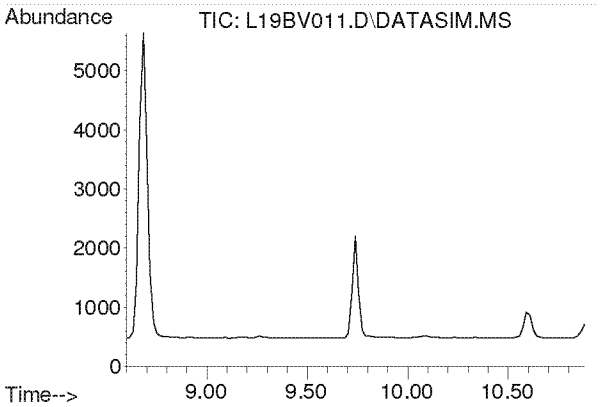
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



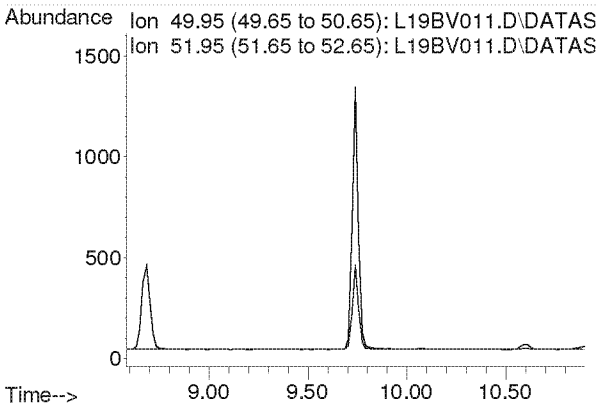


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

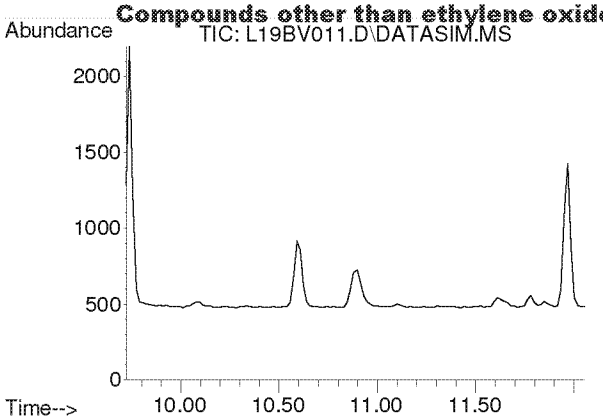
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

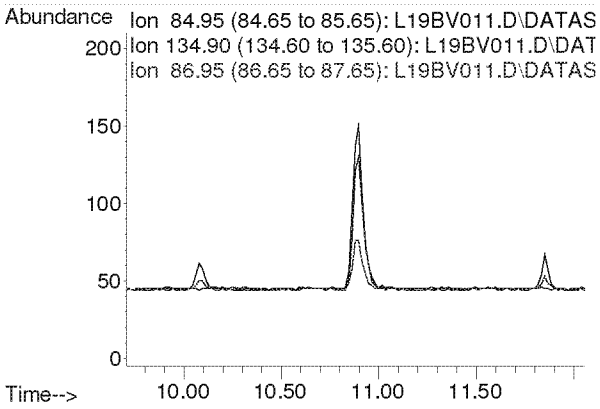


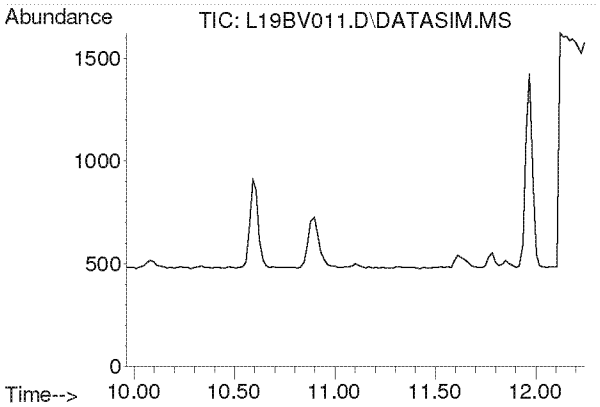
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



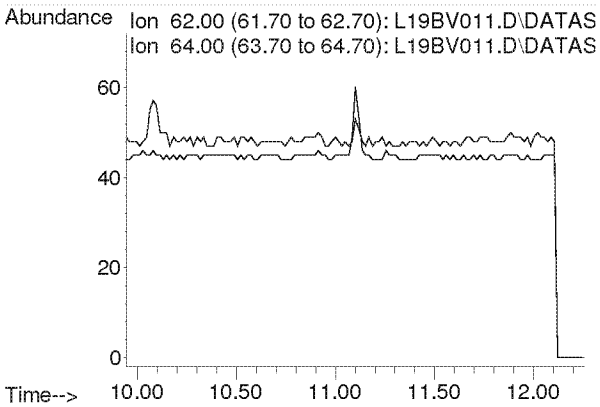


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

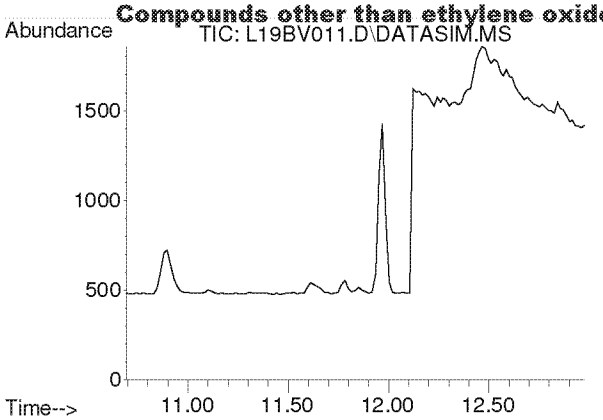
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

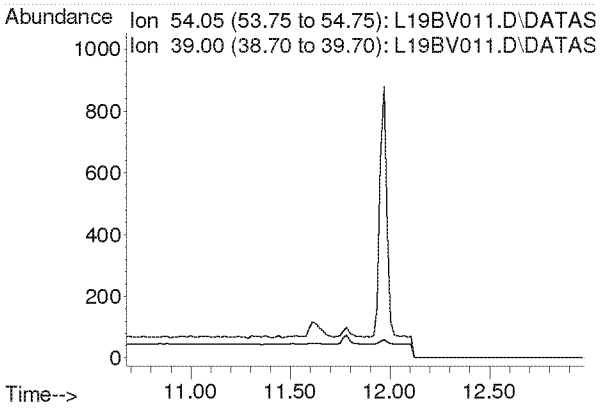


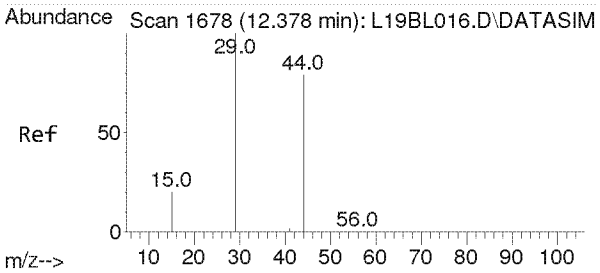
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

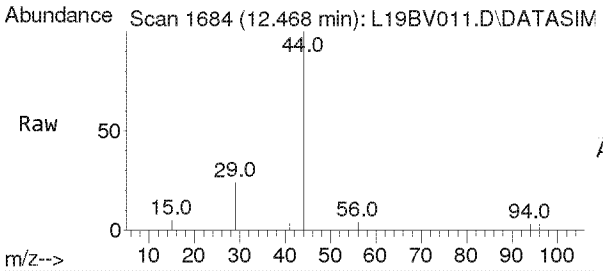


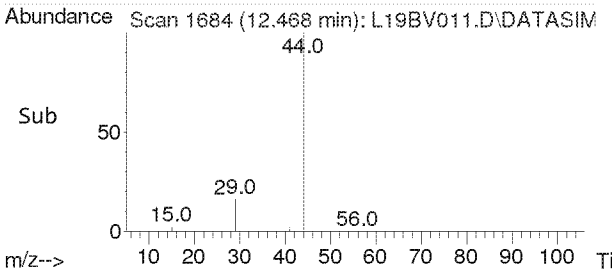


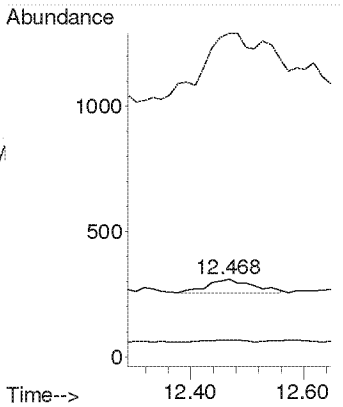
#9
Ethylene oxide
Concen: 0.135 ppbv
RT: 12.468 min Scan# 1684
Delta R.T. 0.090 min
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 29 Resp: 293

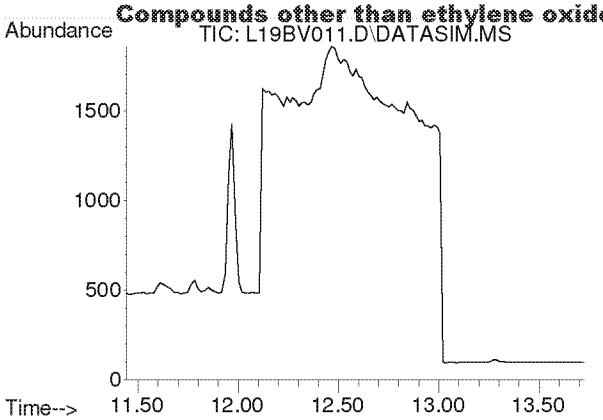
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	748.5	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

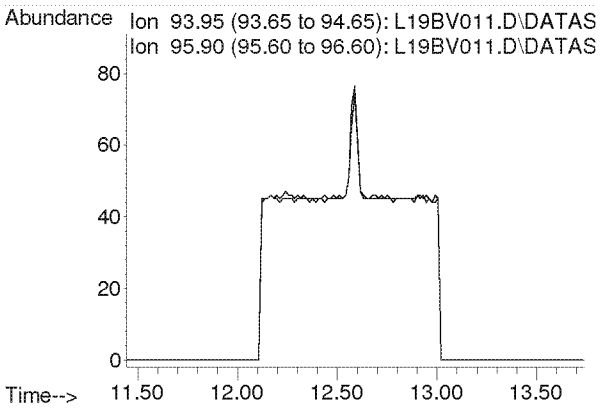


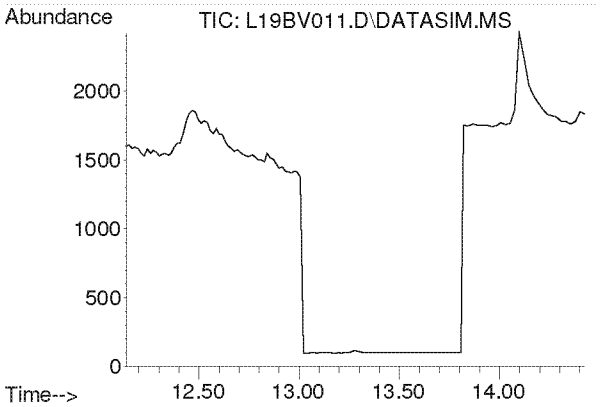
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



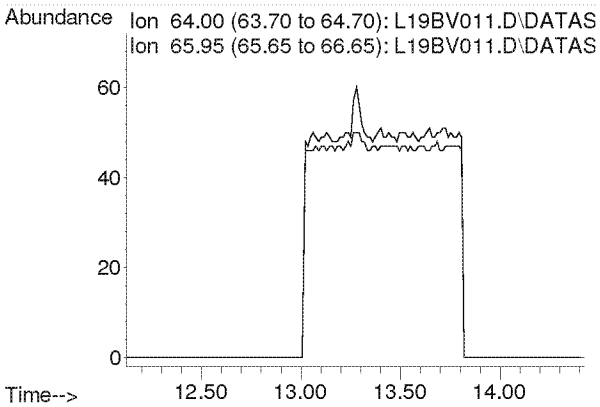


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

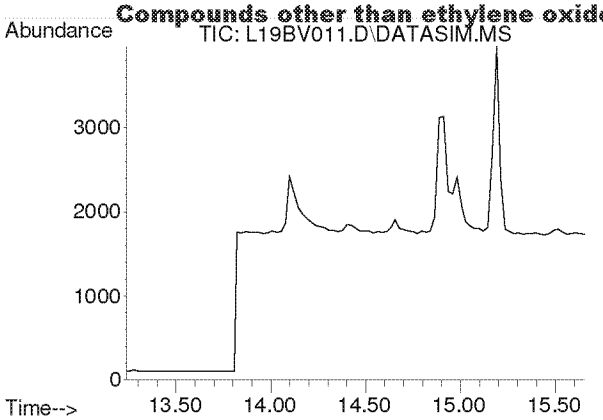
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

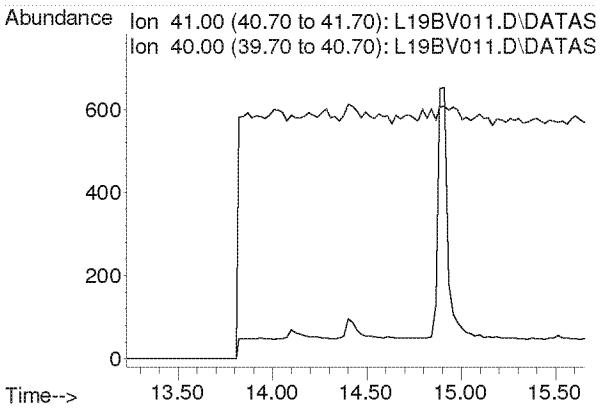


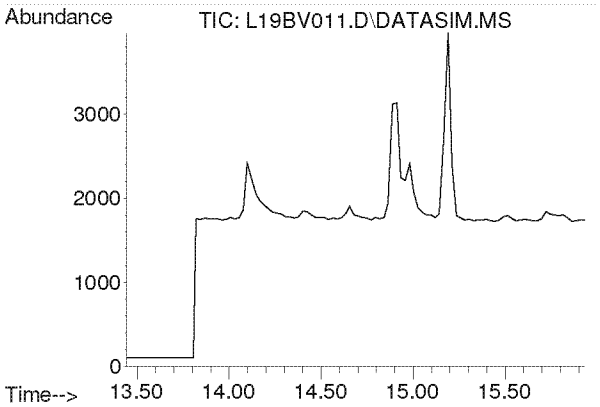
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



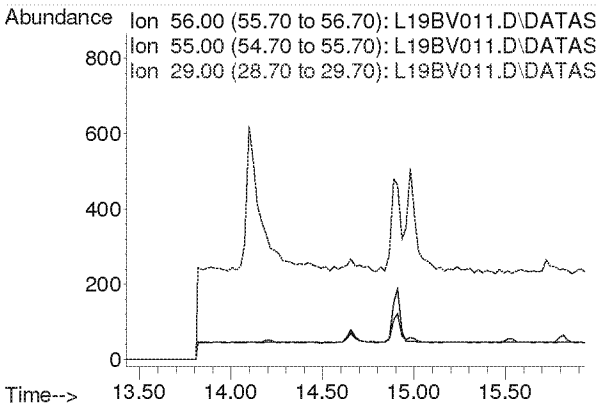


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

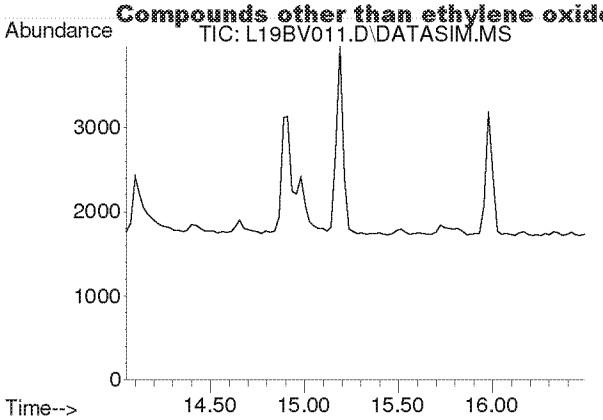
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

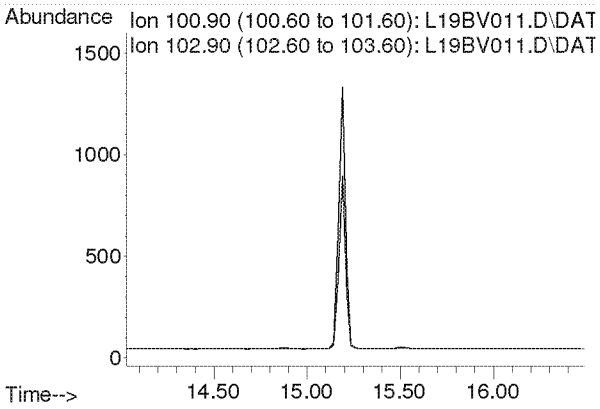


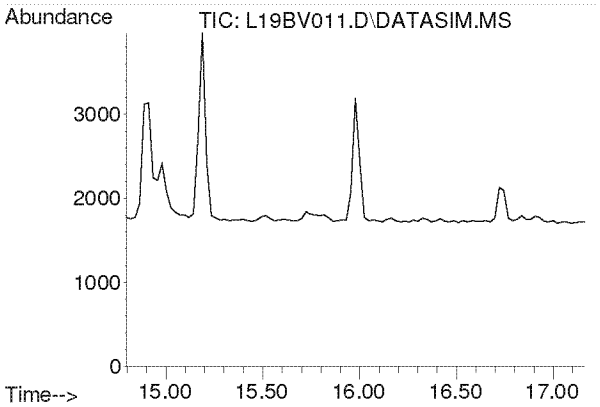
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



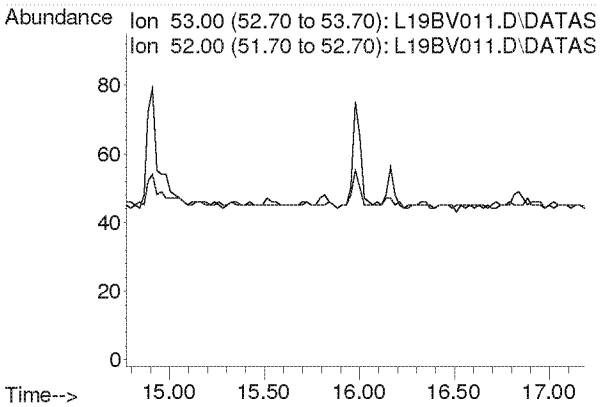


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

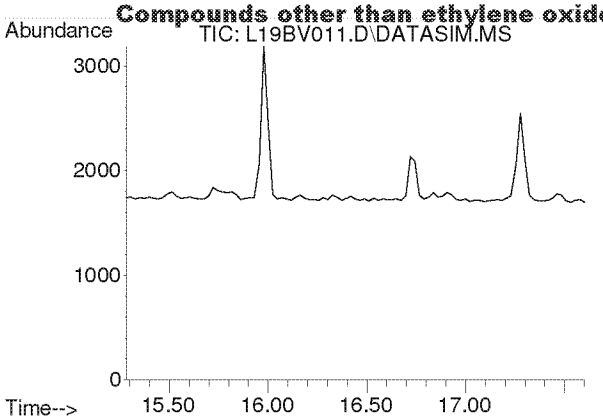
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

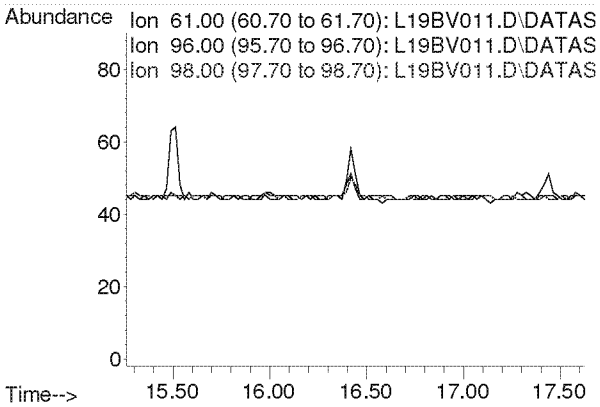


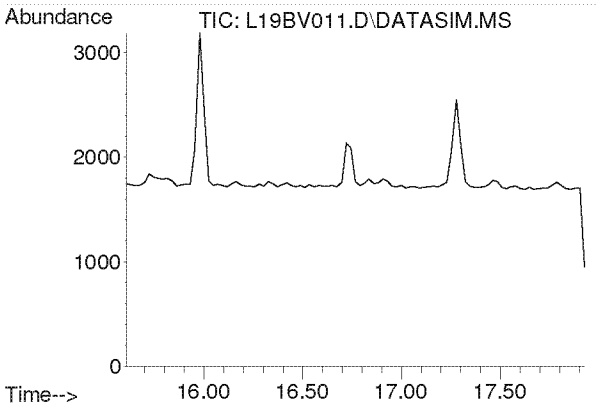
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



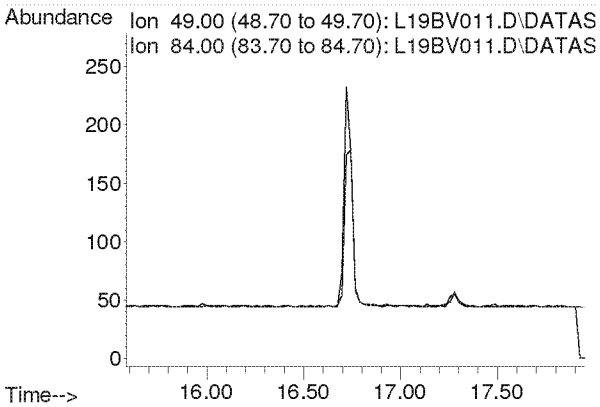


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

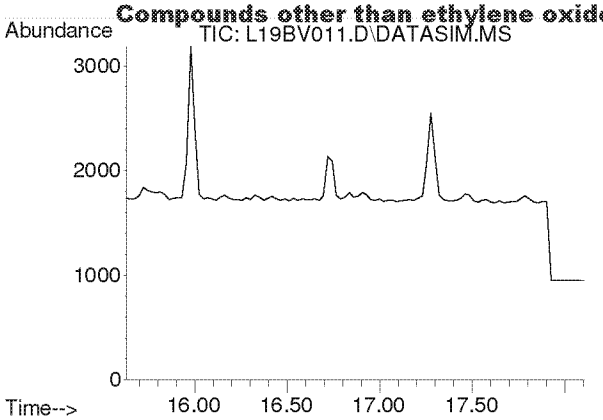
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

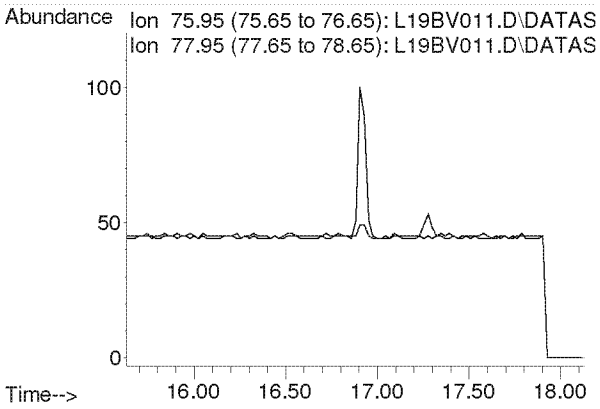


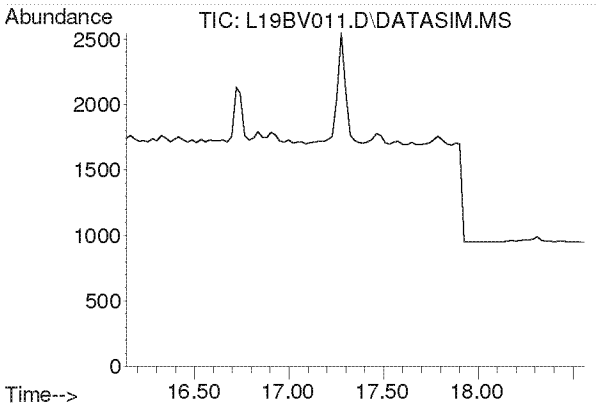
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



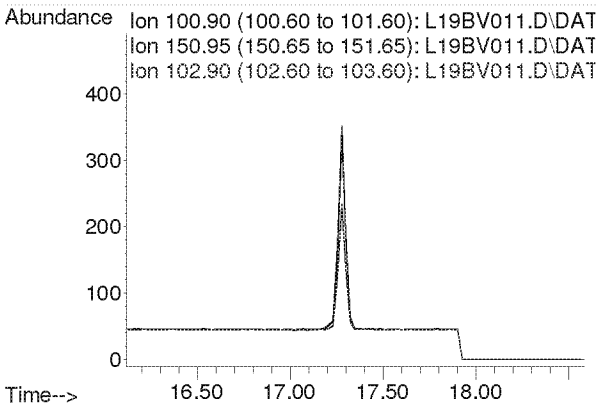


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

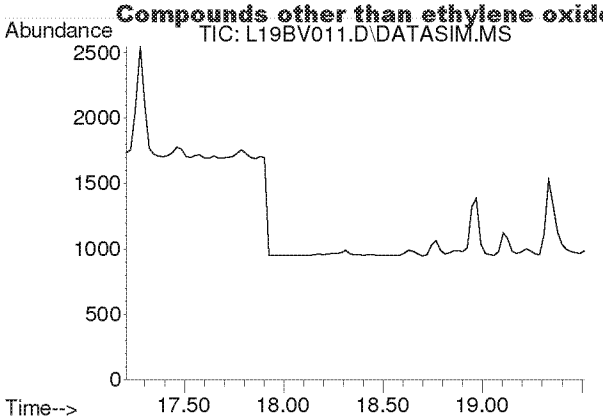
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

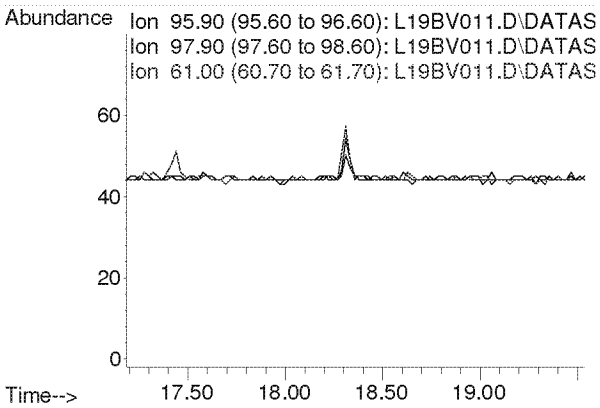


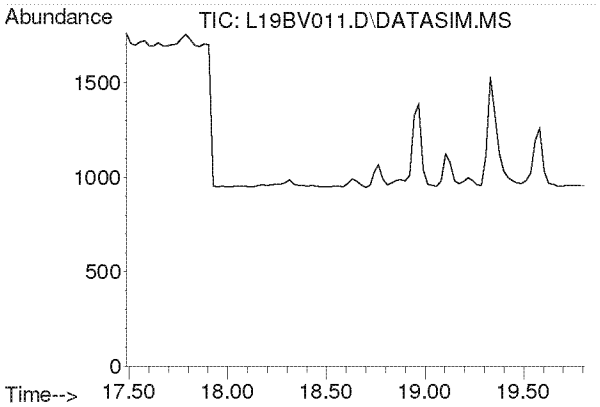
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



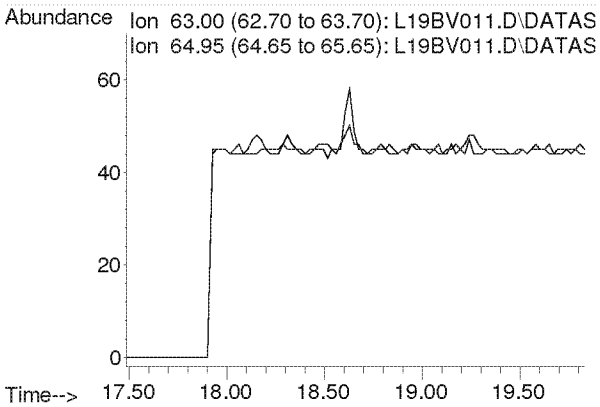


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

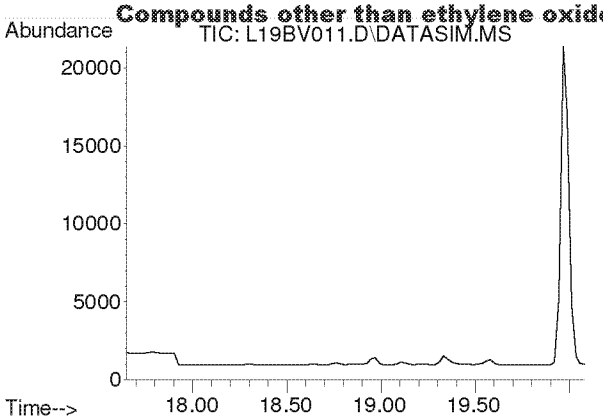
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

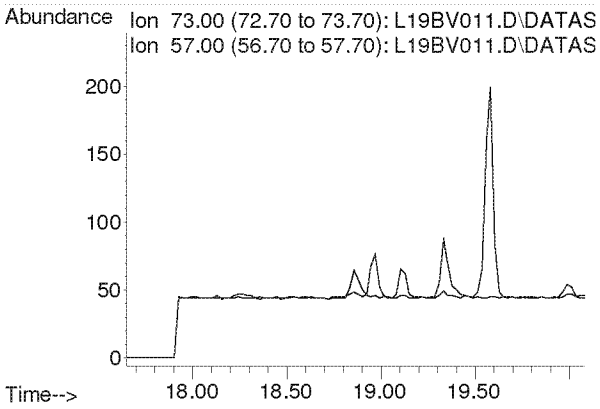


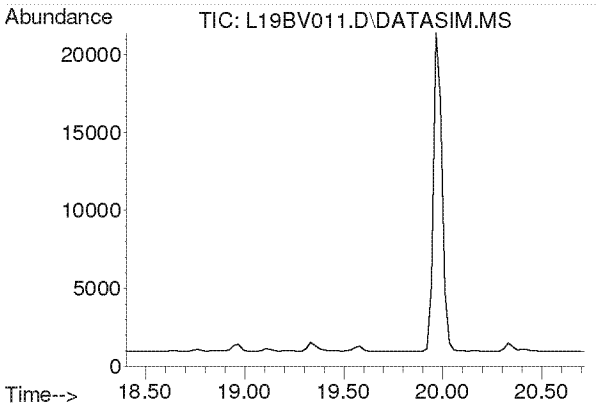
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



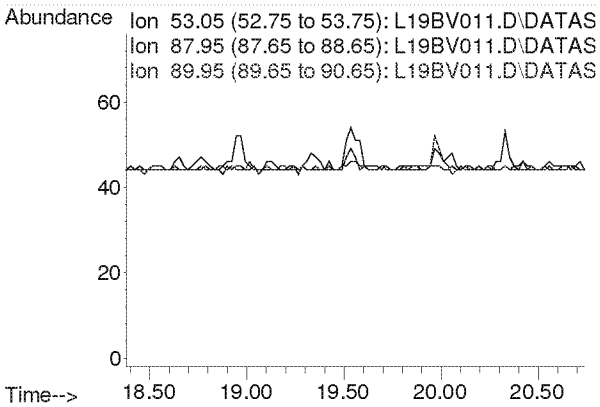


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

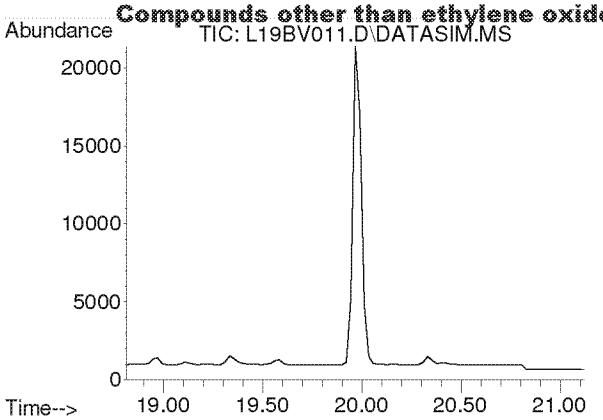
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

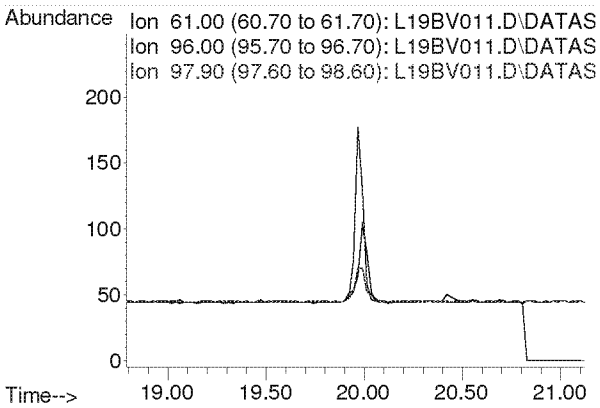


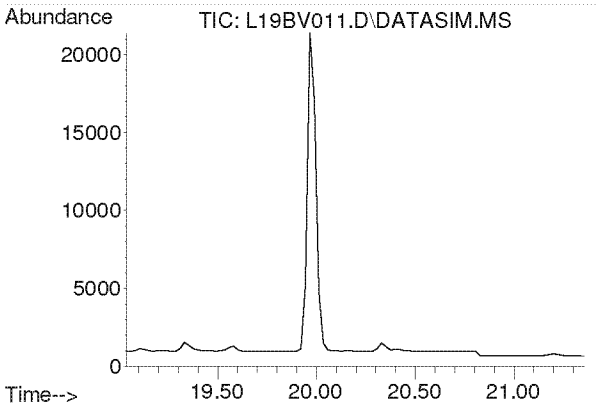
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



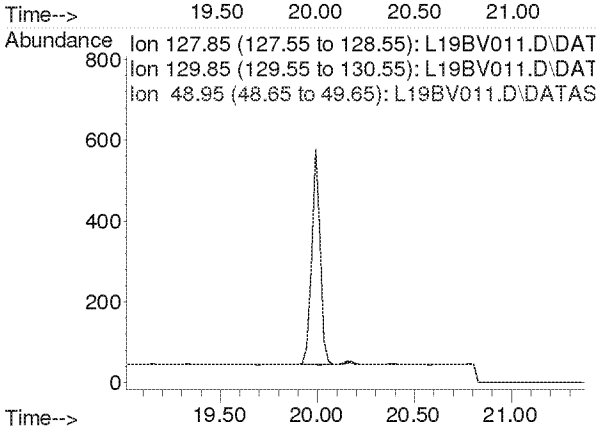


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

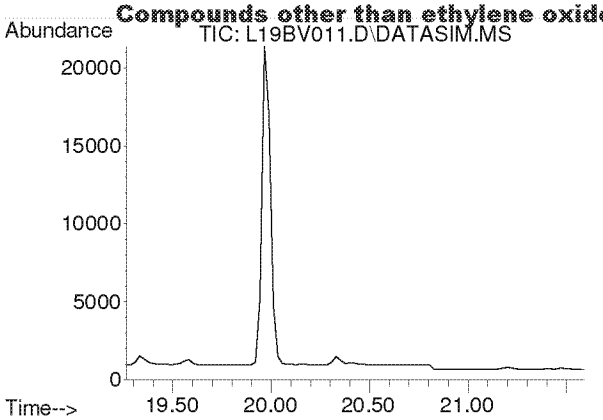
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

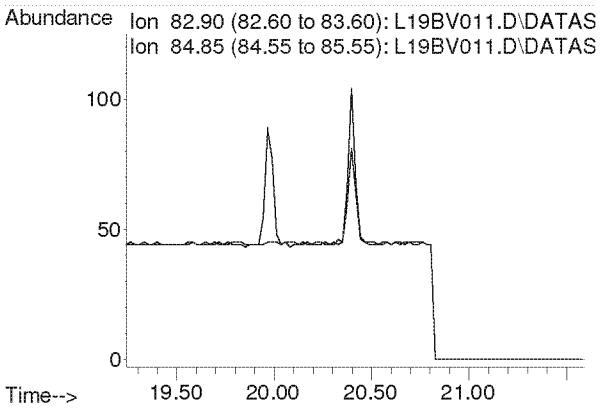


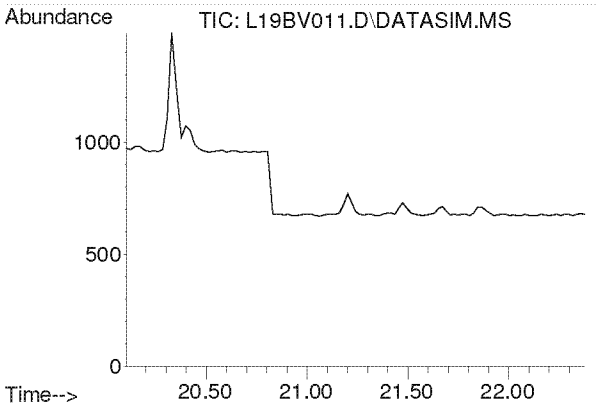
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



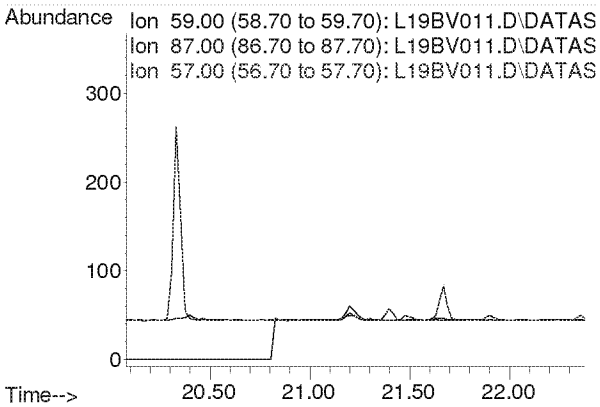


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

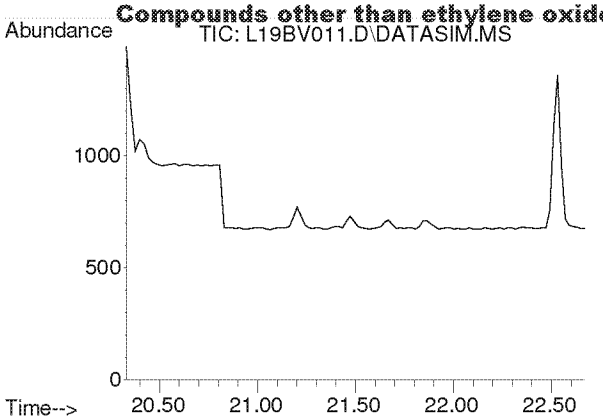
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

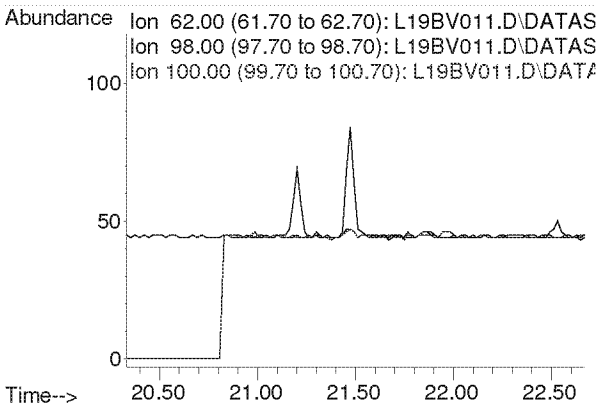


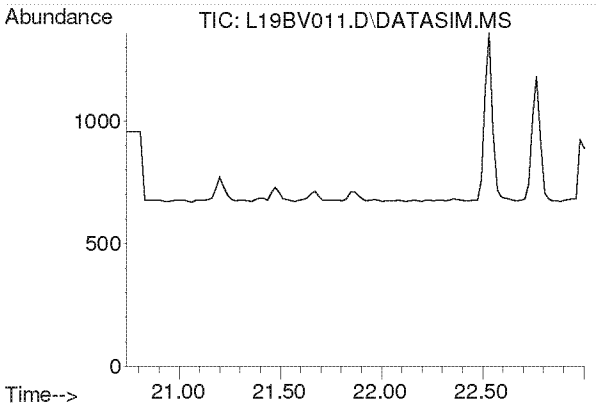
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



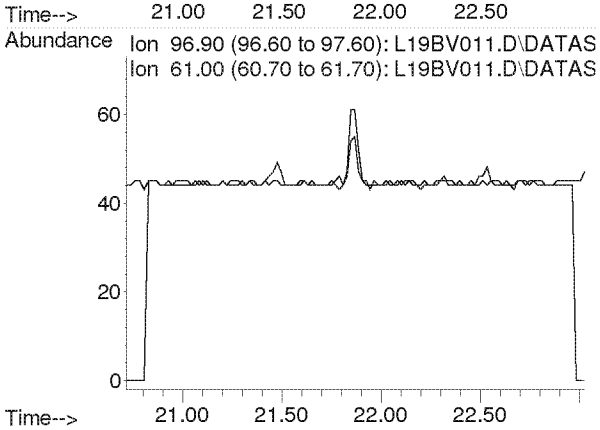


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

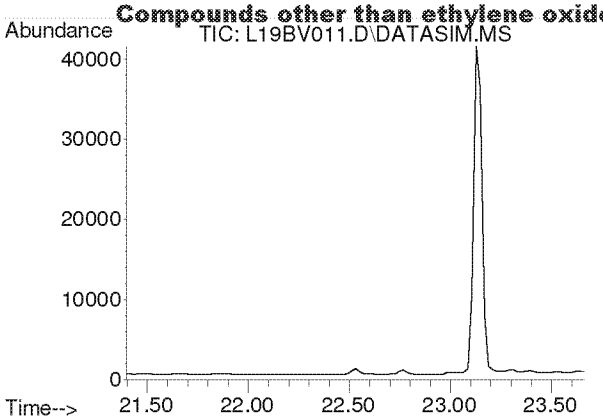
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

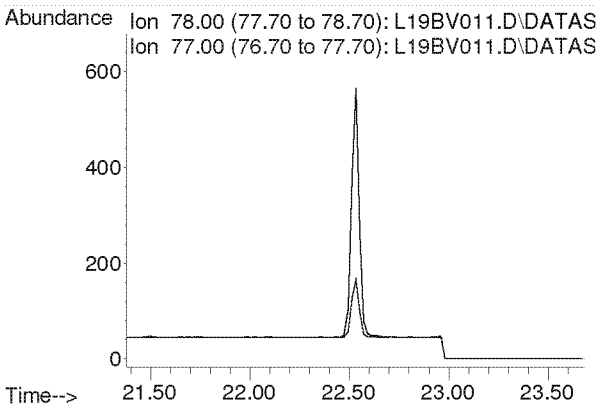


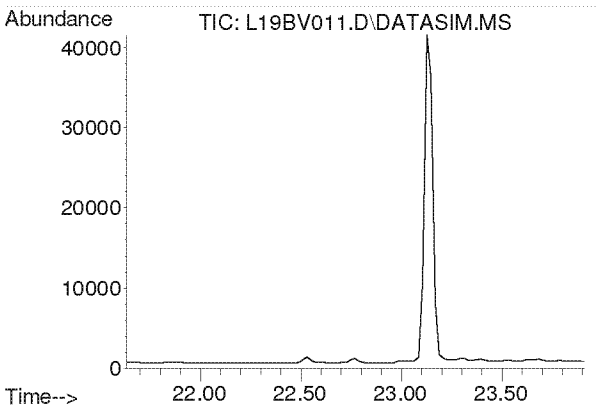
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



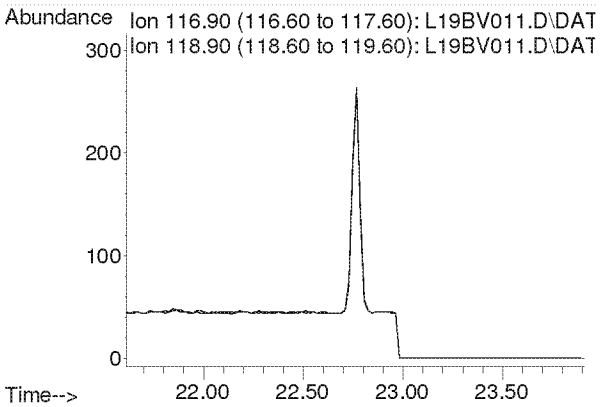


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

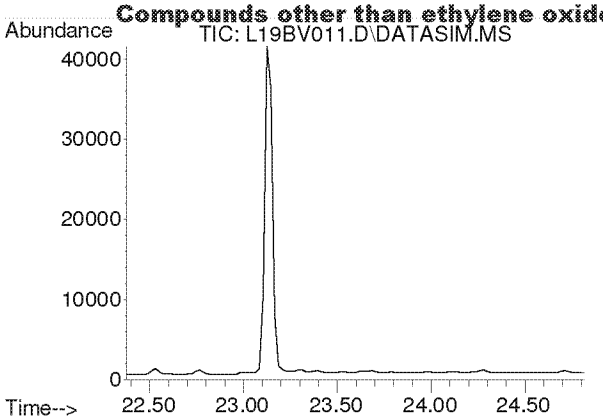
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

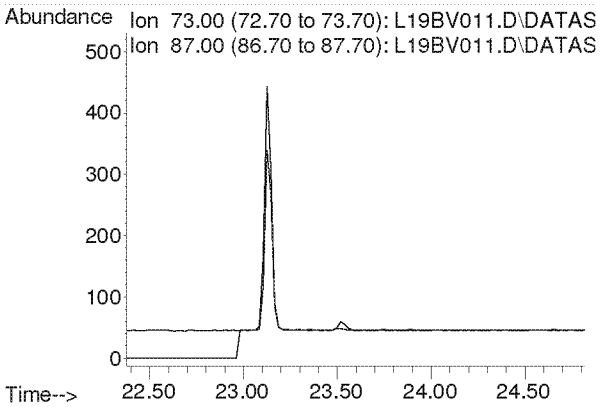


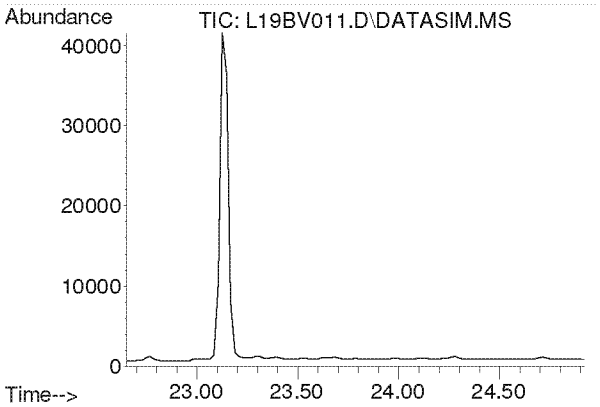
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



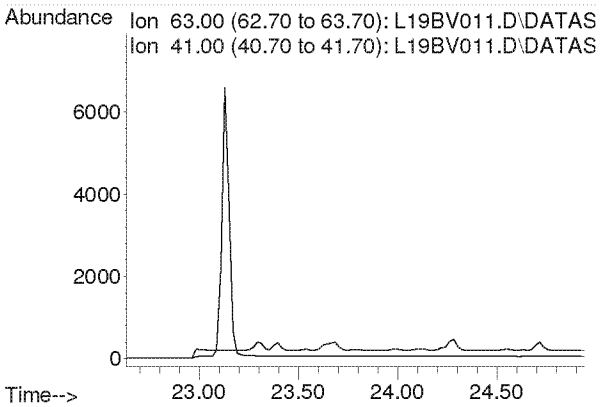


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

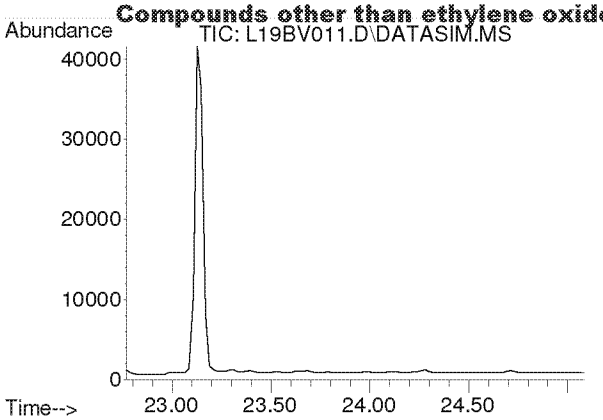
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

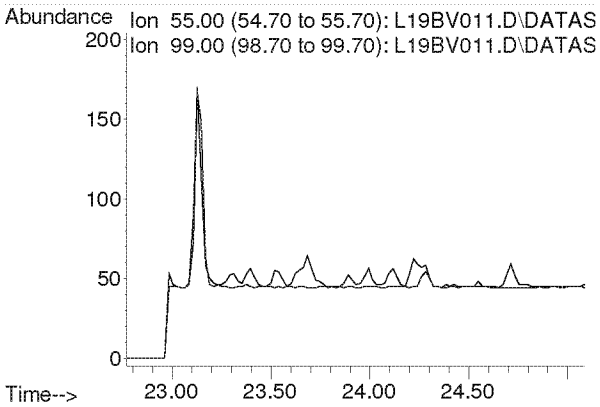


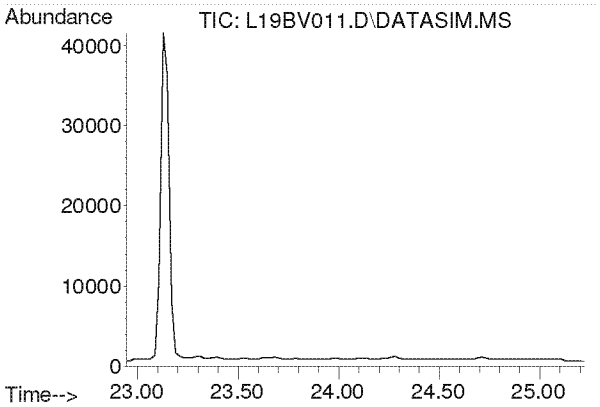
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



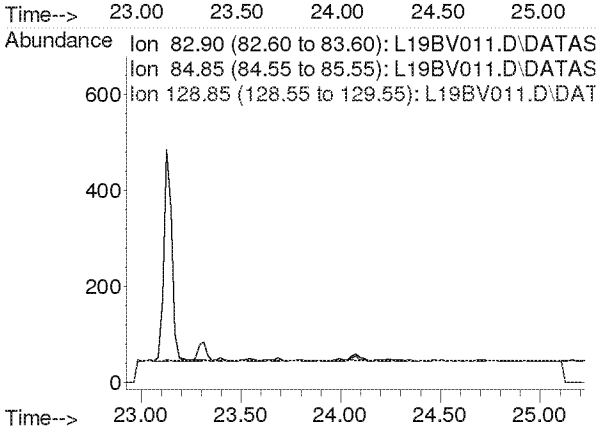


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

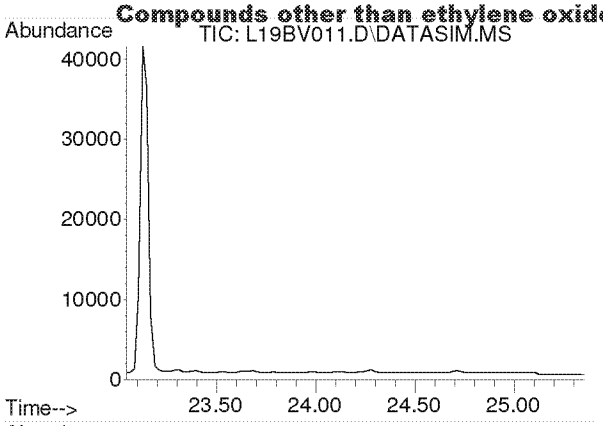
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

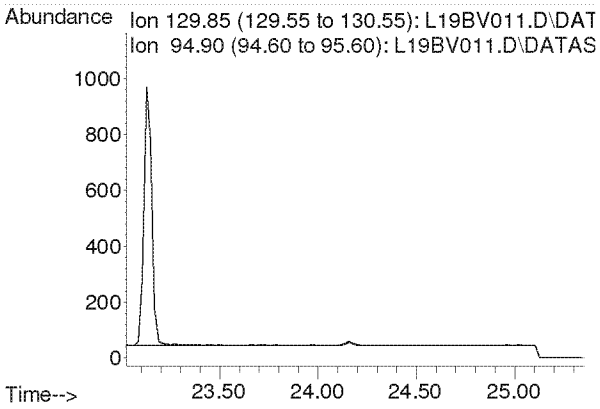


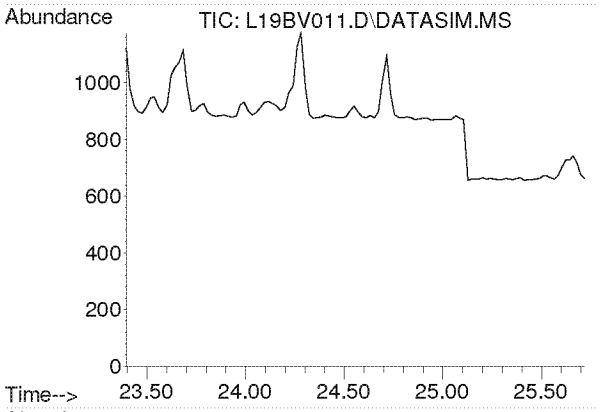
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



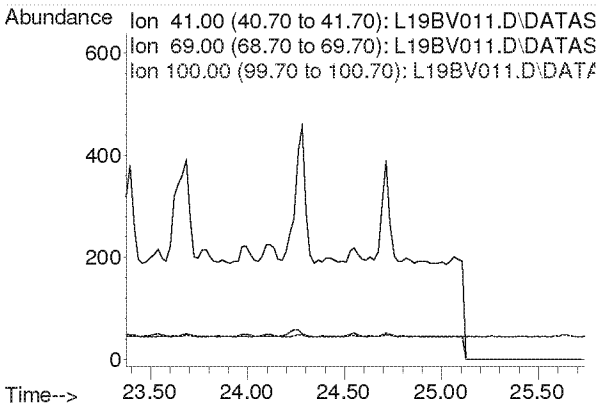


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

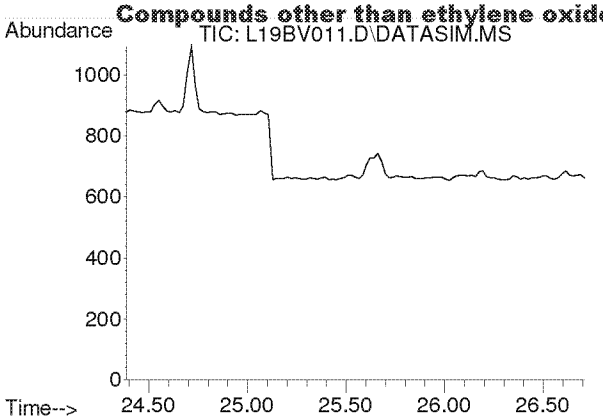
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

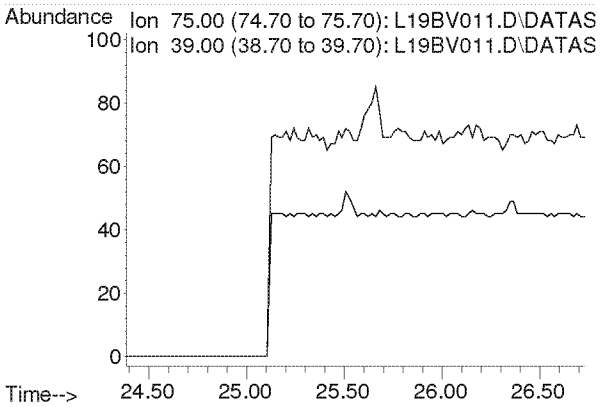


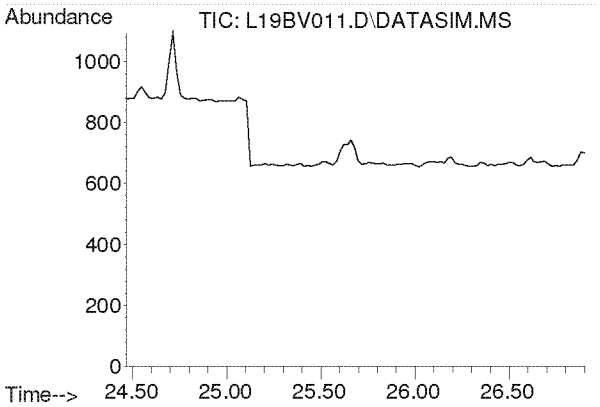
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



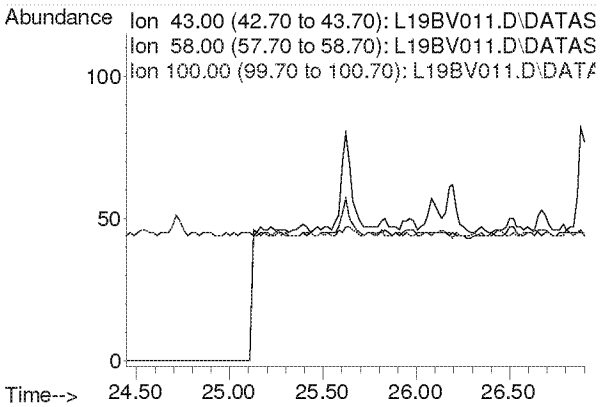


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

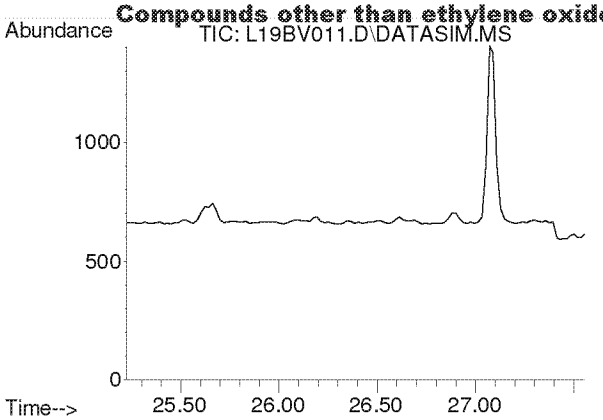
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

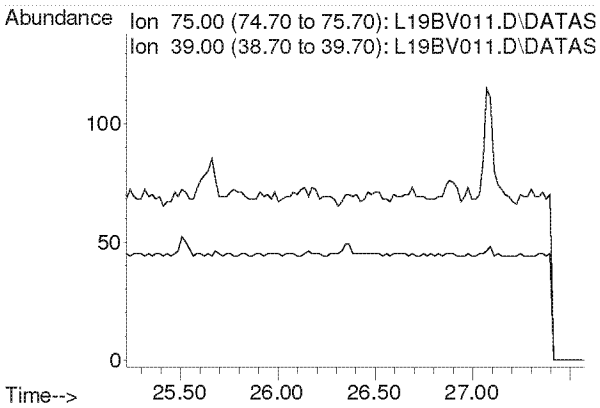


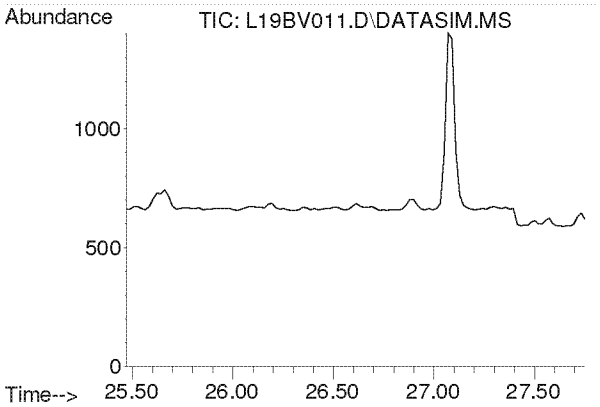
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



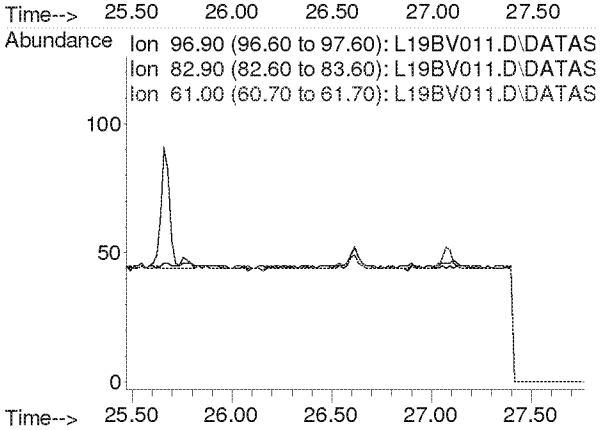


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

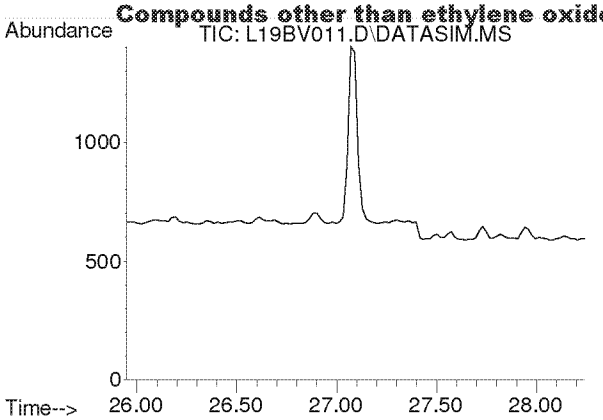
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

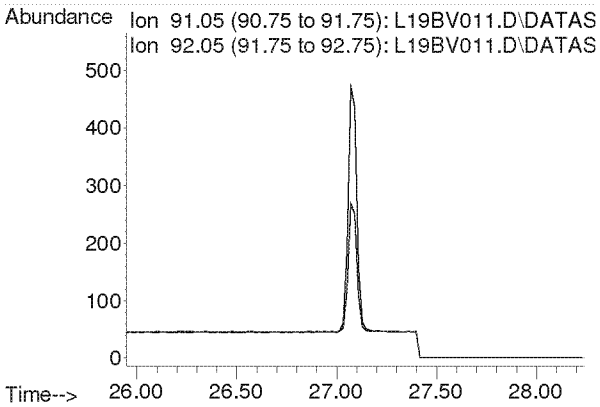


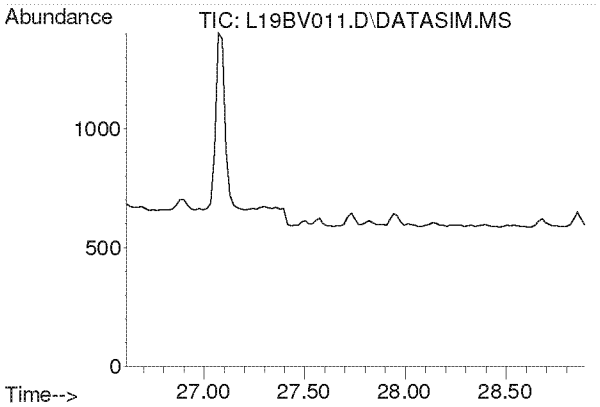
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



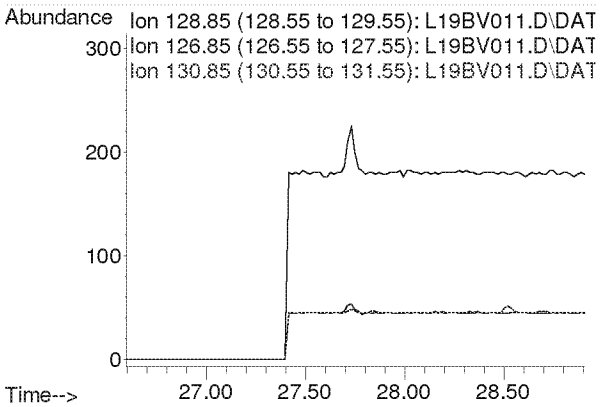


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

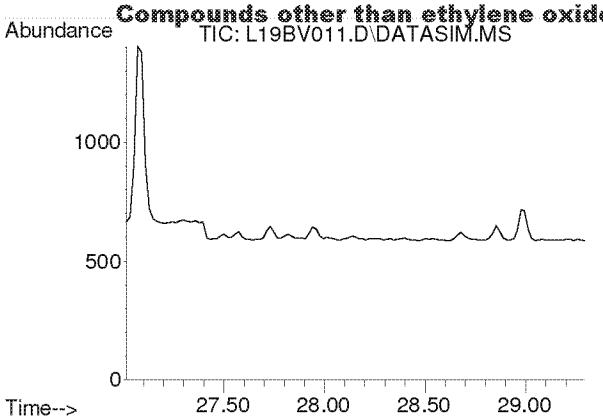
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

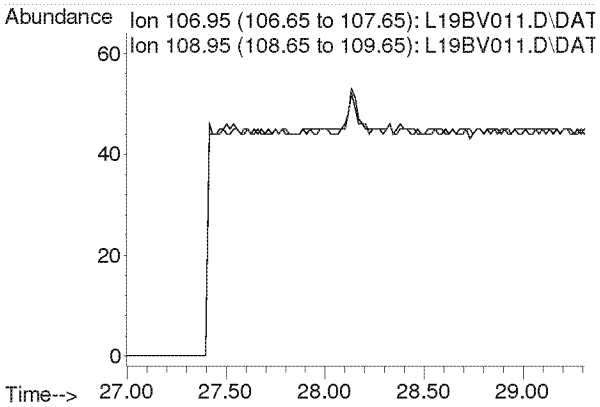


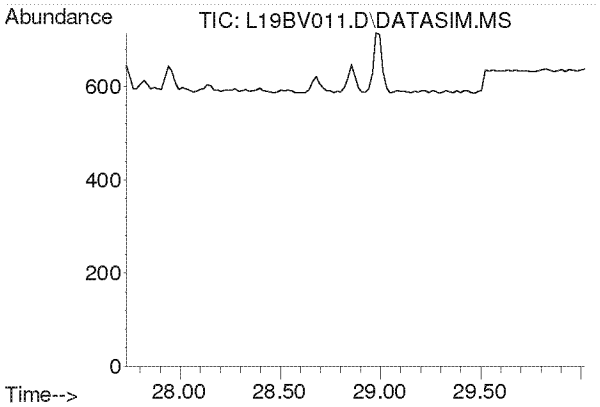
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



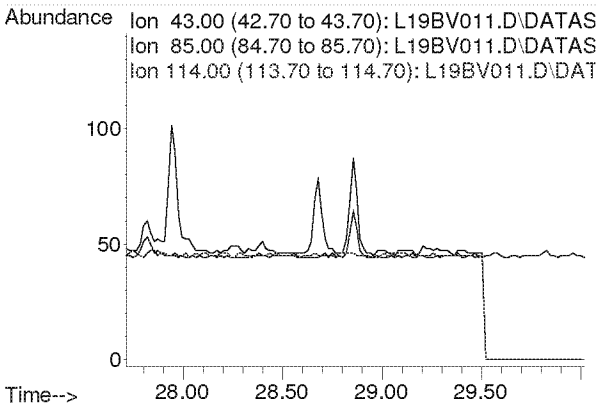


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

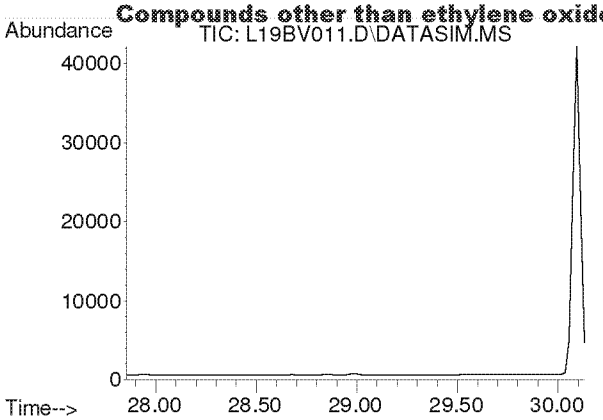
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

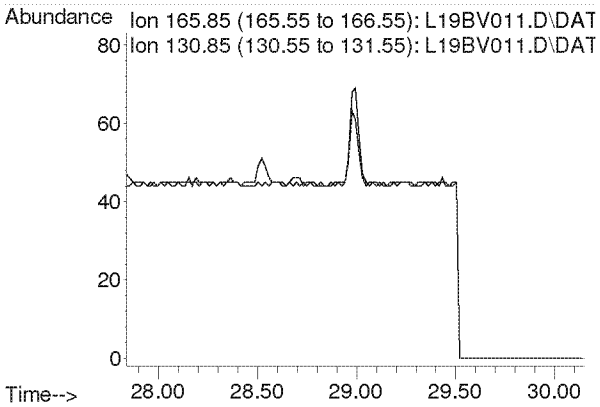


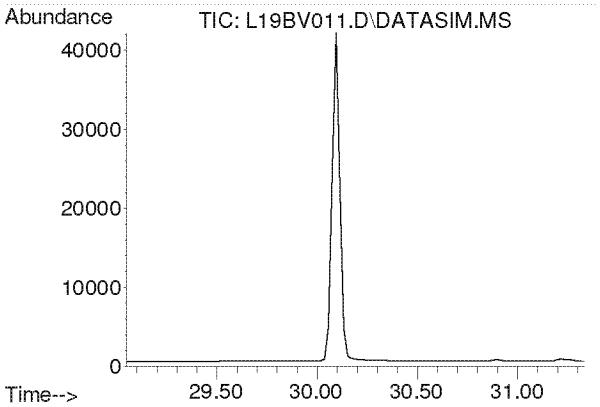
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



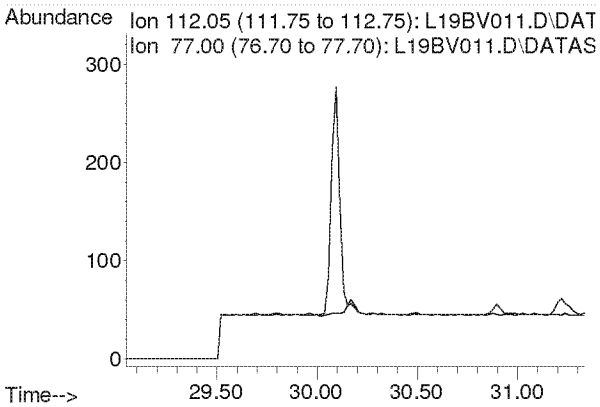


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

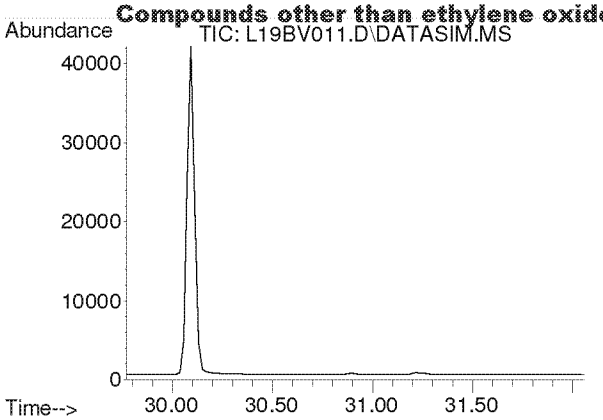
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

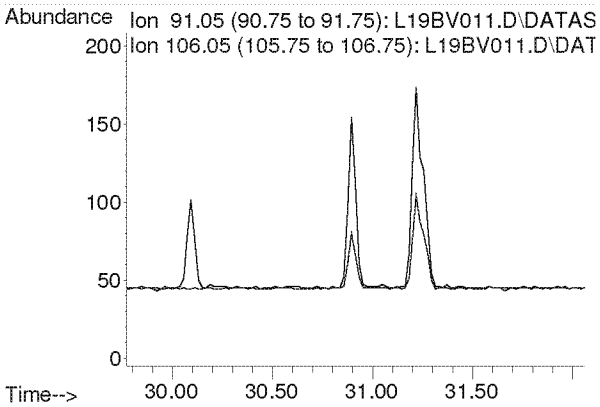


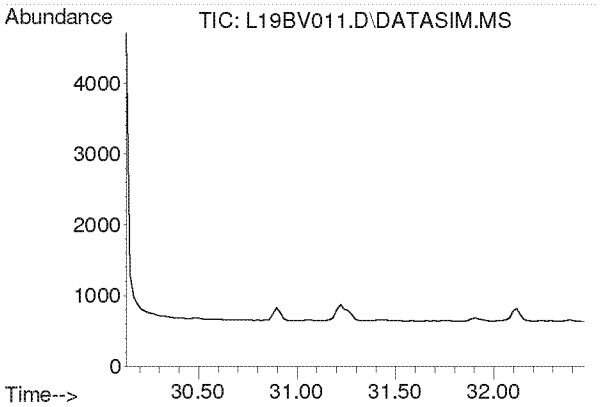
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



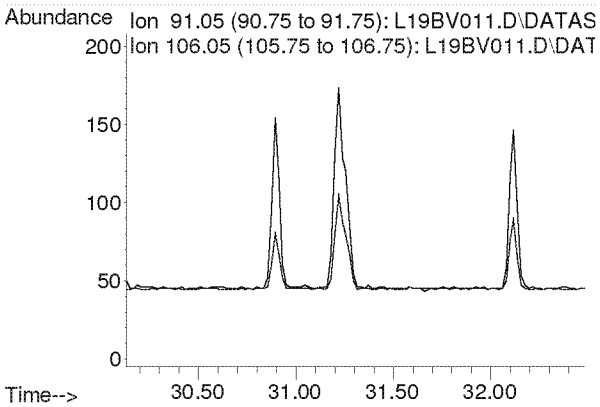


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

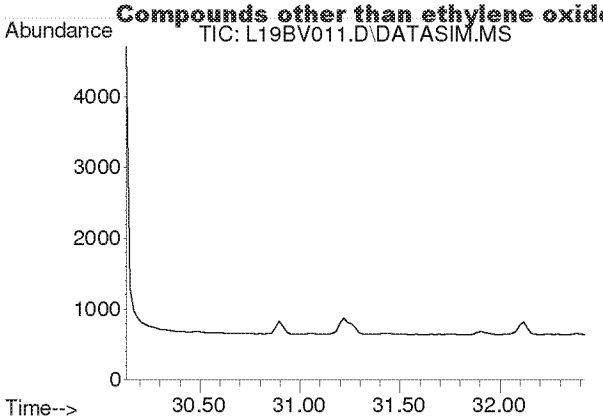
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

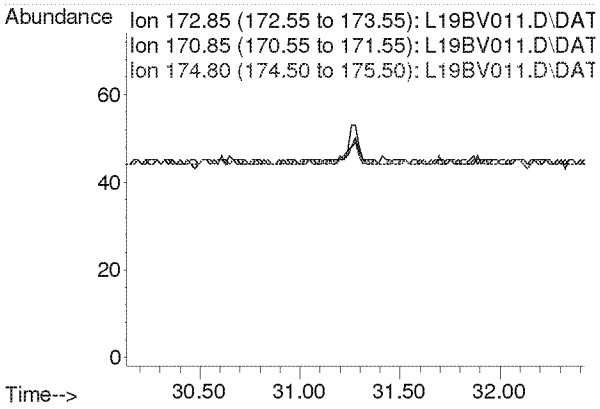


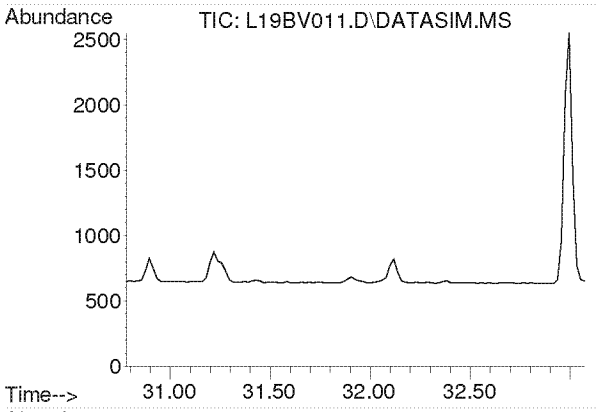
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



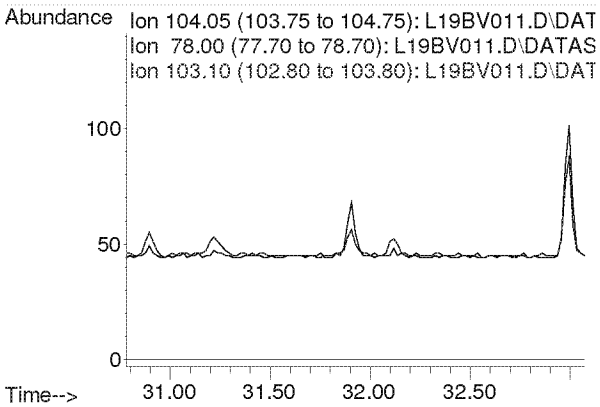


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

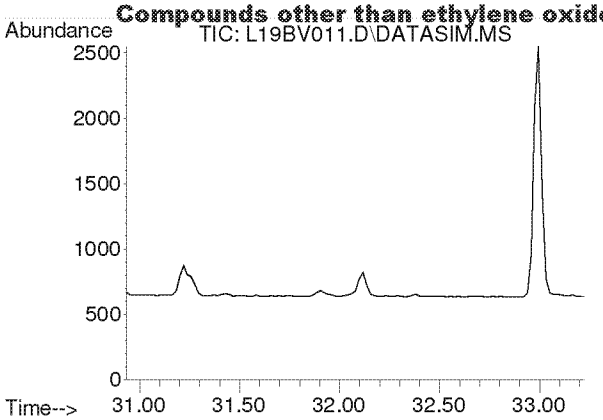
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

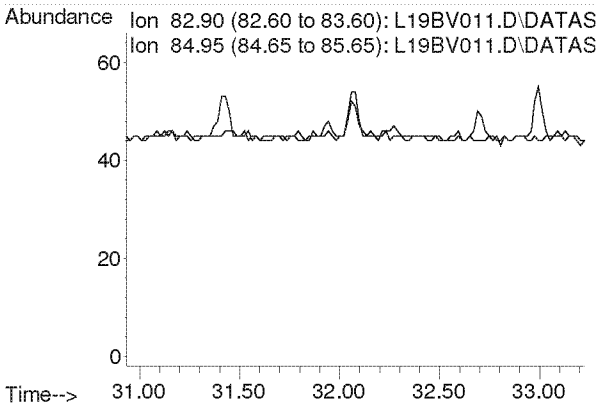


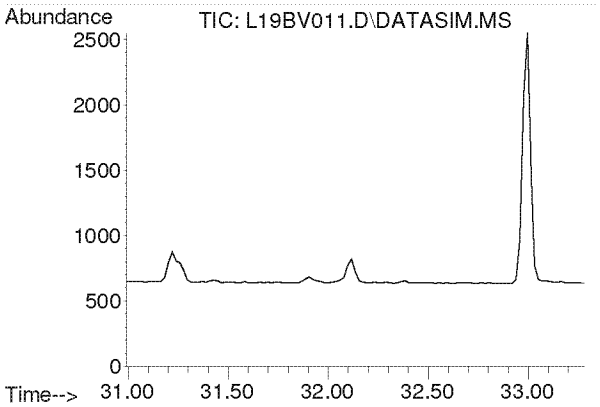
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



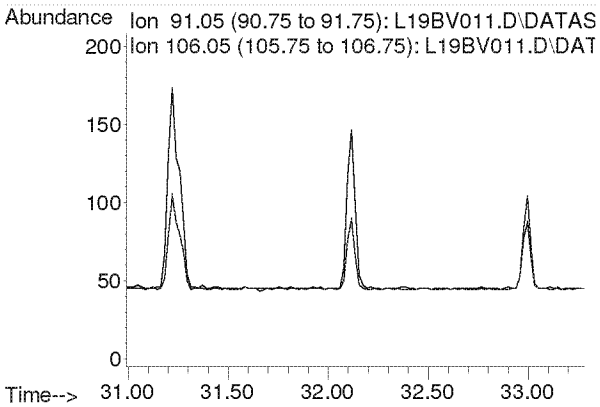


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

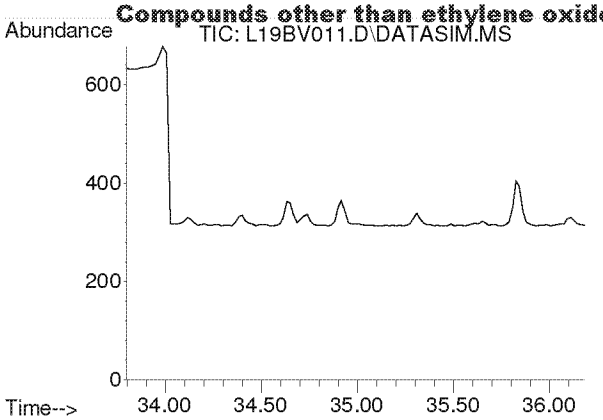
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

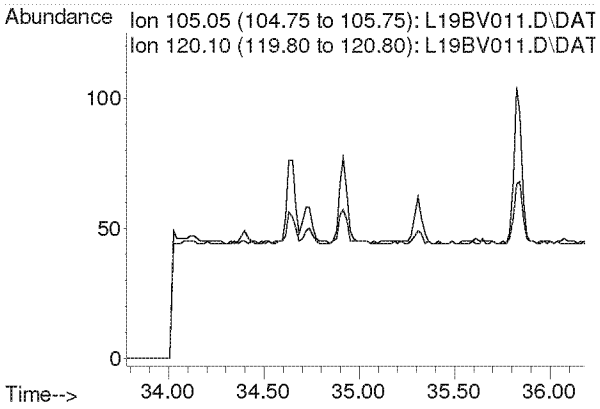


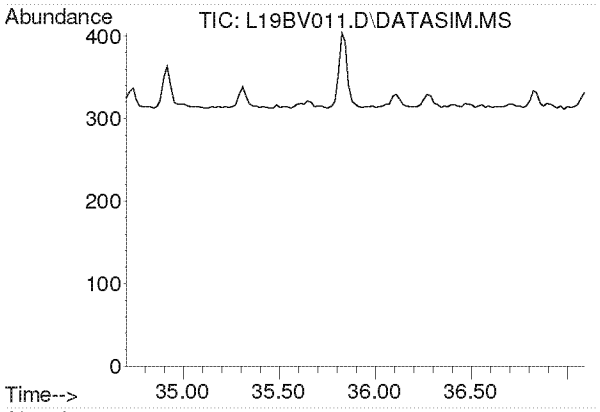
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



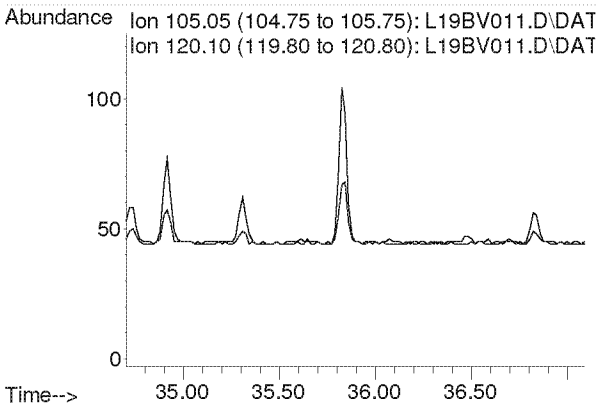


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

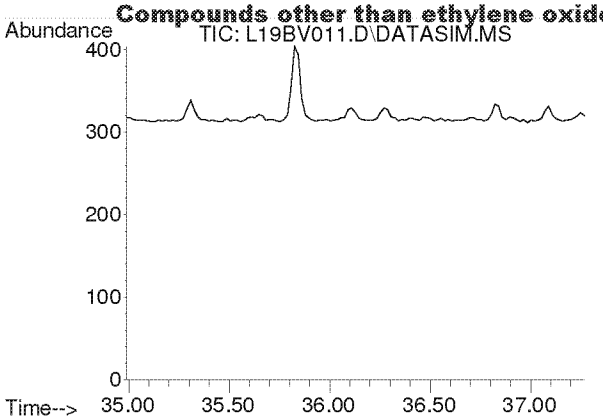
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

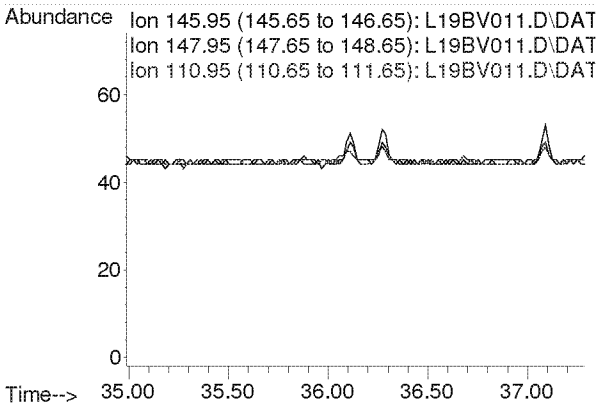


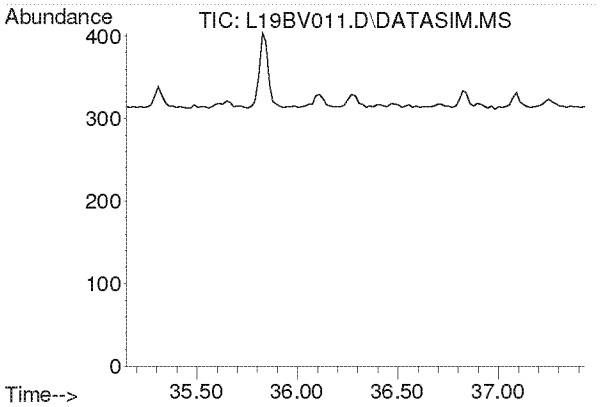
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



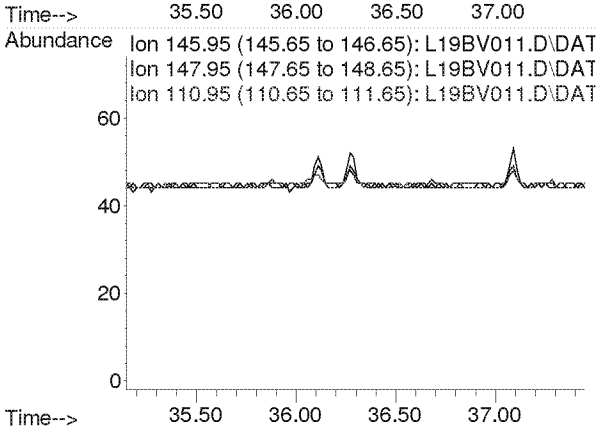


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

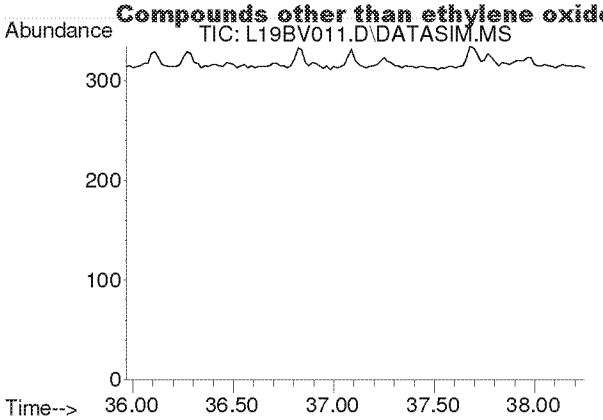
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

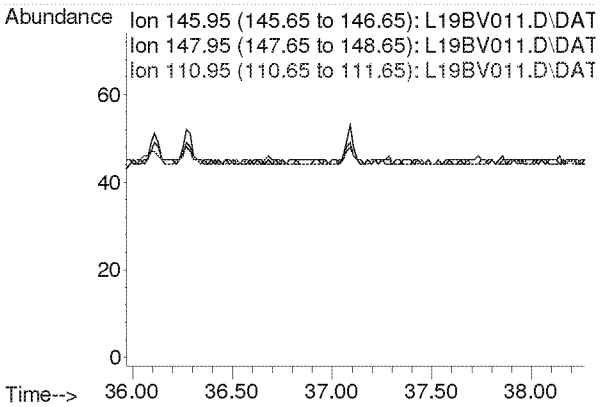


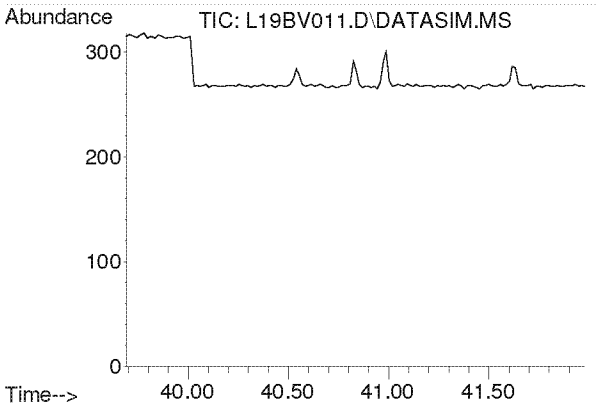
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



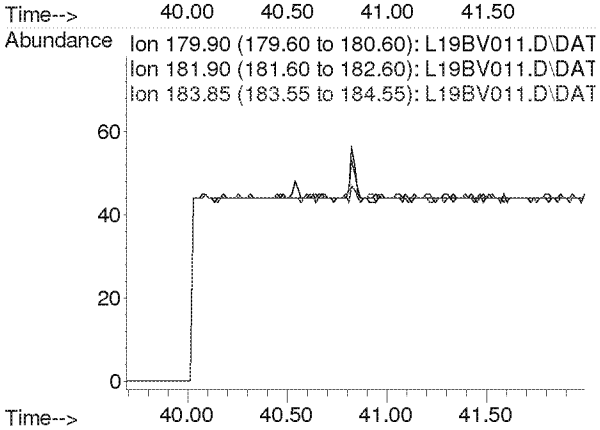


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

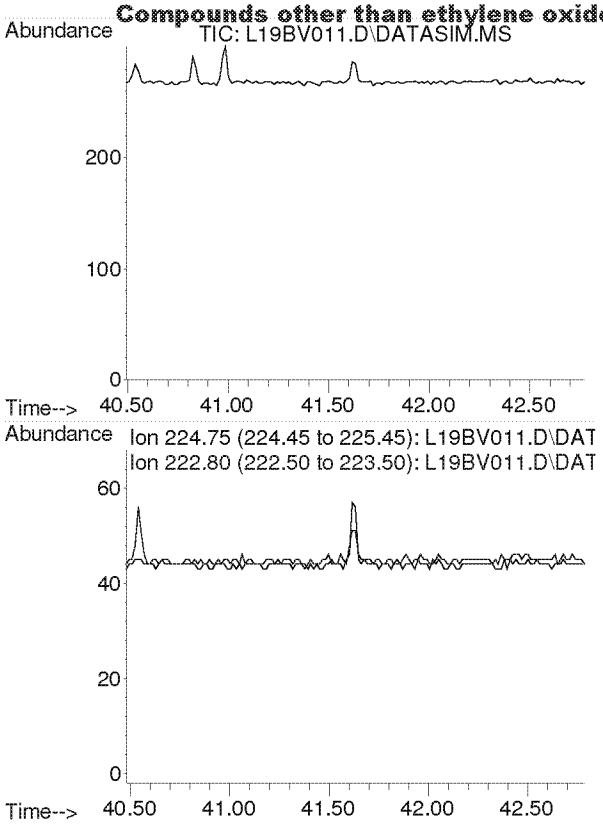
Lab File: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

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: L19BV011.D
Acq: 22 Feb 2019 6:38 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV012.D
Acq On : 22 Feb 2019 7:40 pm (#1); 22-Feb-19, 19:35:31 (#2)
Operator : MAH
Sample : 9022025-04
Misc : HINSDALE S. HS 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 25 07:22:02 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	36905	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	89744	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	63900	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.455	29	301m	0.1426 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. 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. d	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. d	
34) 1,2-Dichloropropane	0.000	63	0	N.D. d	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. 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. 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\L19BV\
Data File : L19BV012.D
Acq On : 22 Feb 2019 7:40 pm (#1); 22-Feb-19, 19:35:31 (#2)
Operator : MAH
Sample : 9022025-04
Misc : HINSDALE S. HS 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 25 07:22:02 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

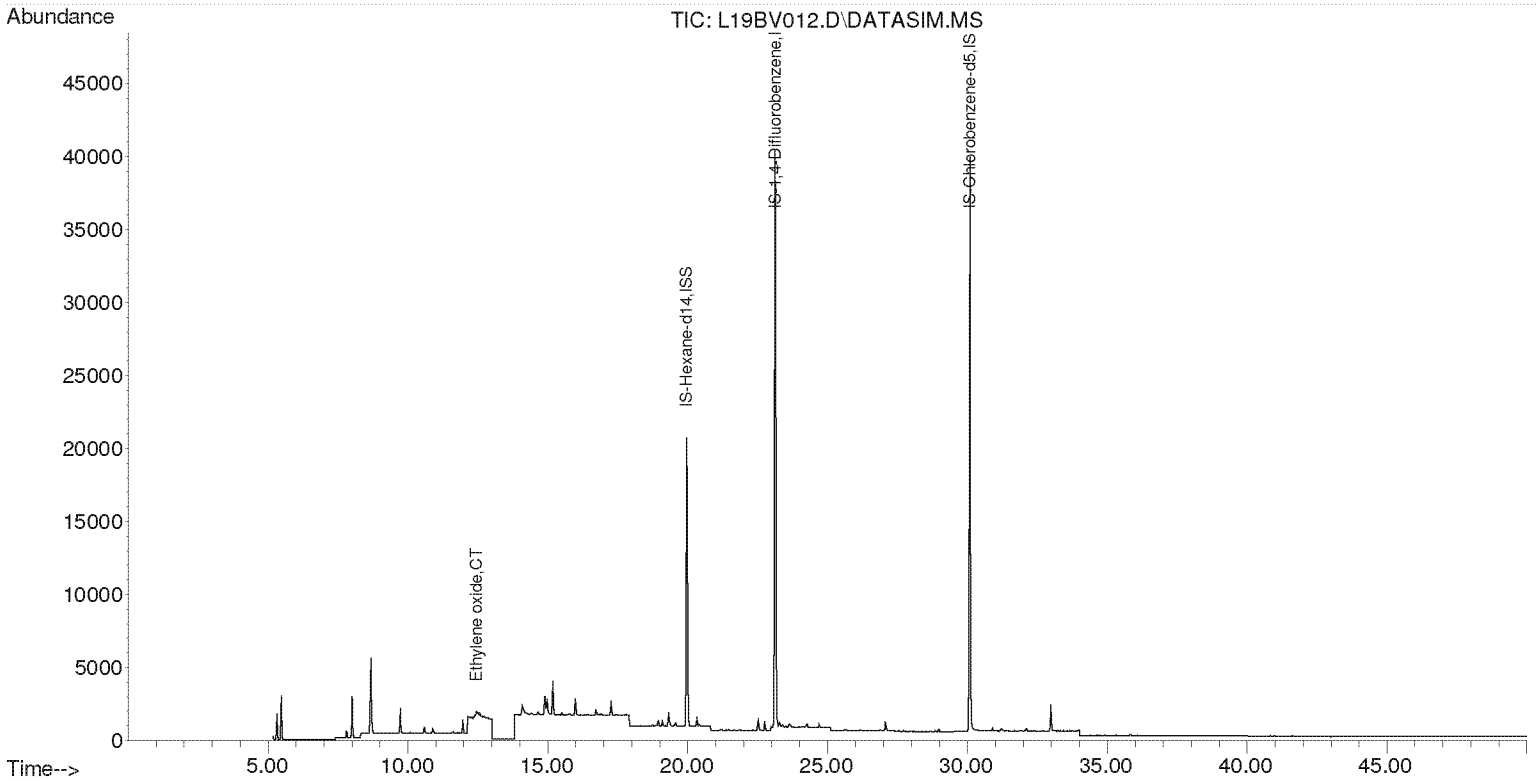
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

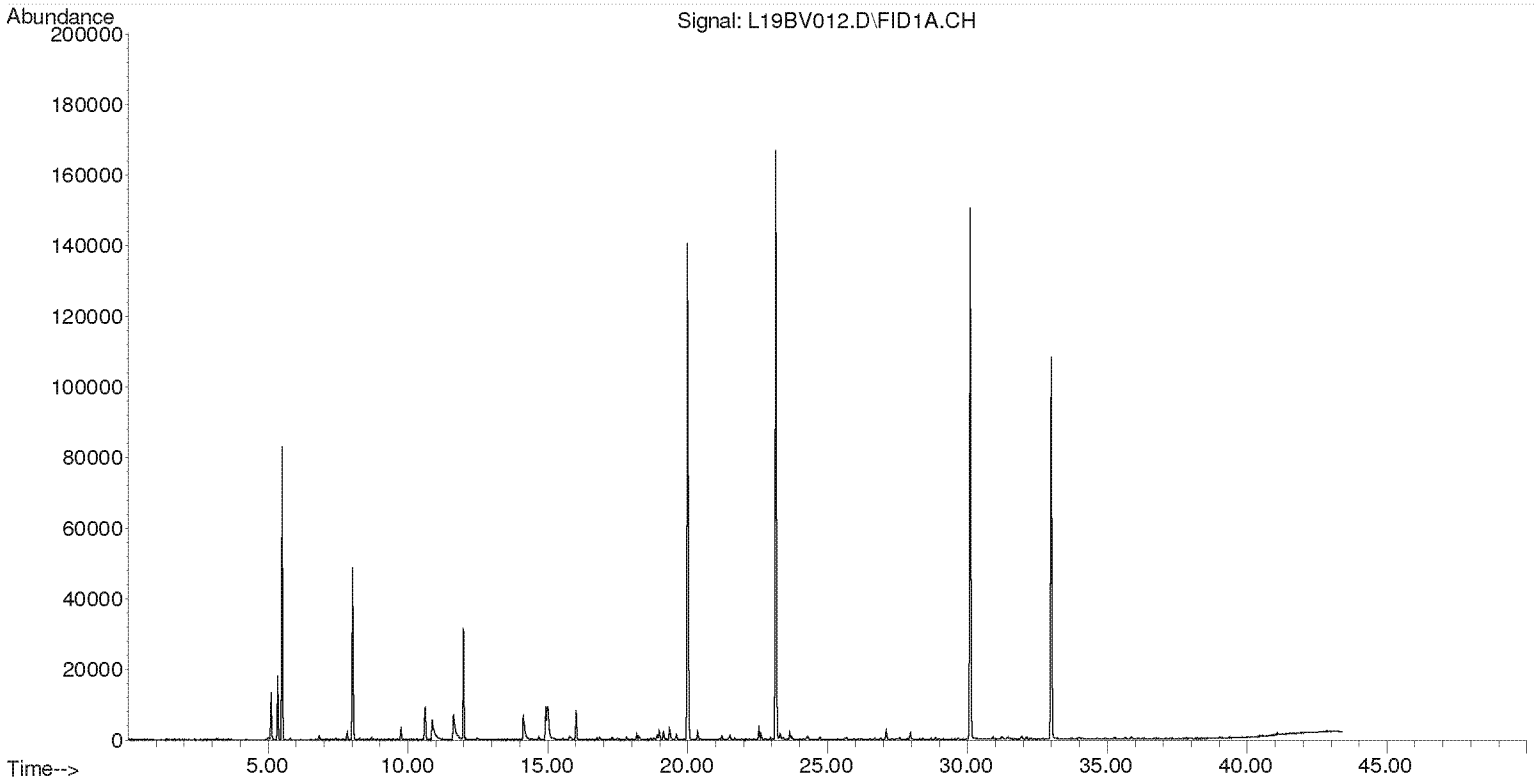
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

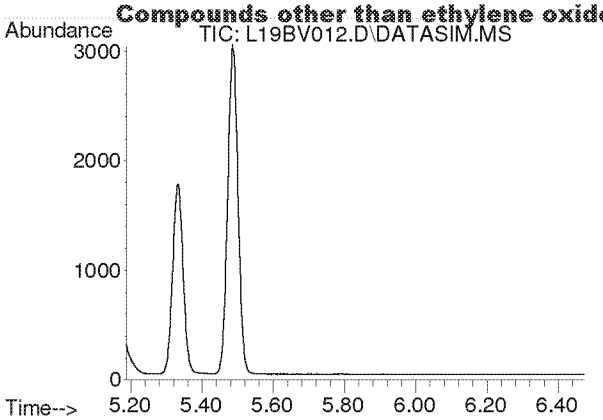
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV012.D
Acq On : 22 Feb 2019 7:40 pm (#1); 22 Feb 2019 7:35 pm (#2)
Operator : MAH
Sample : 9022025-04
Misc : HINSDALE S. HS 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 25 07:21:29 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





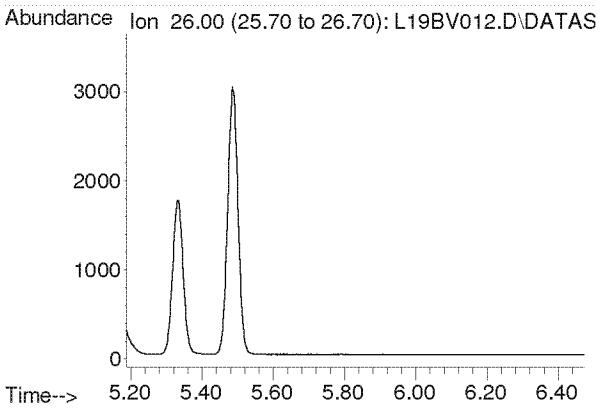
Compounds other than ethylene oxide were not quantitated.

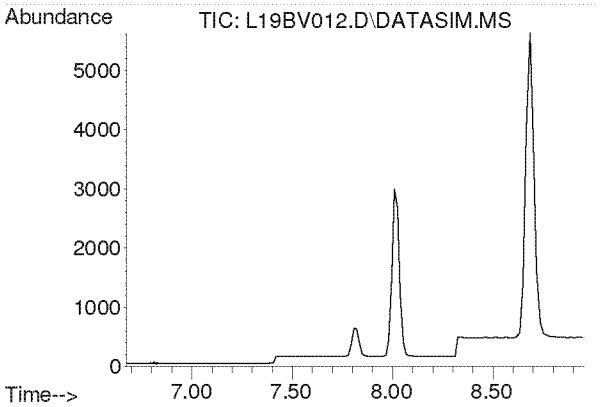


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 26



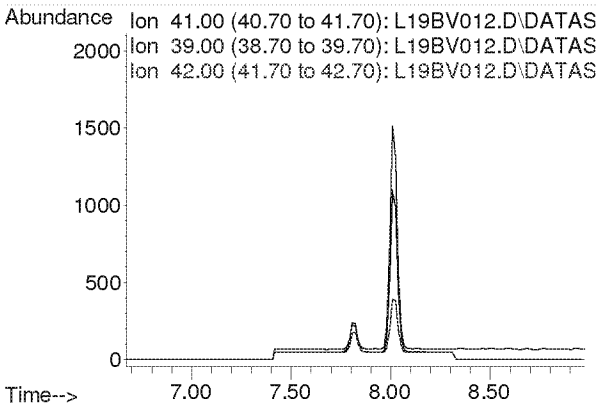


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

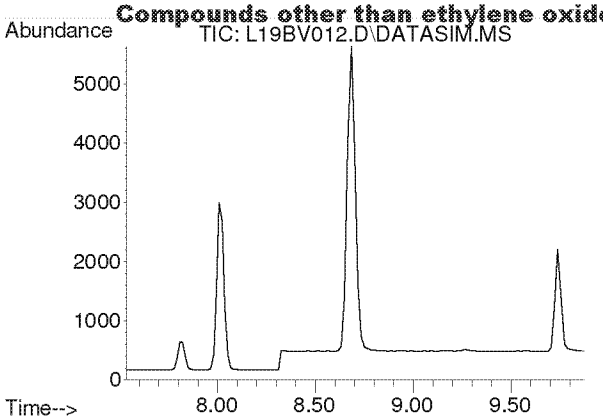
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

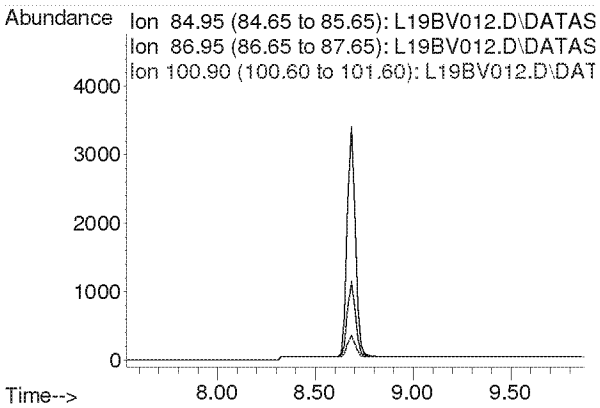


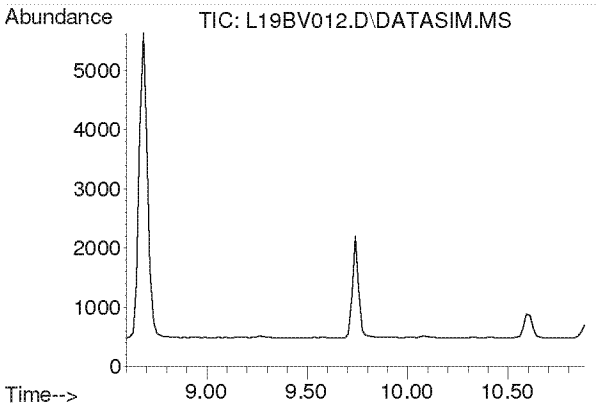
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



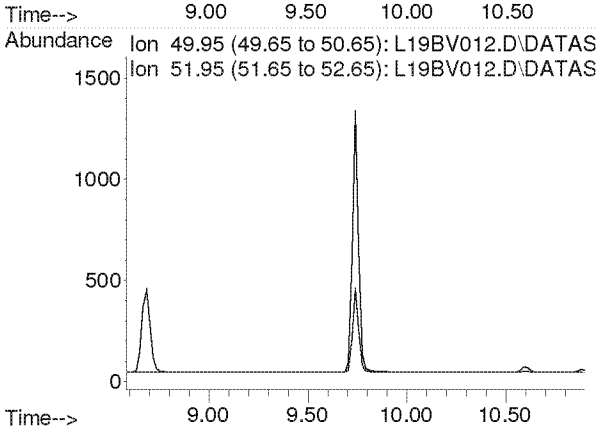


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

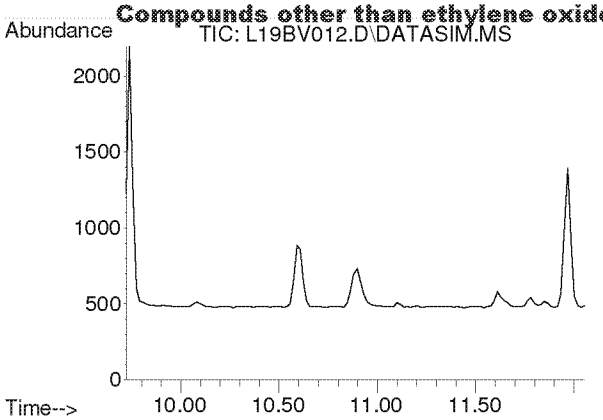
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

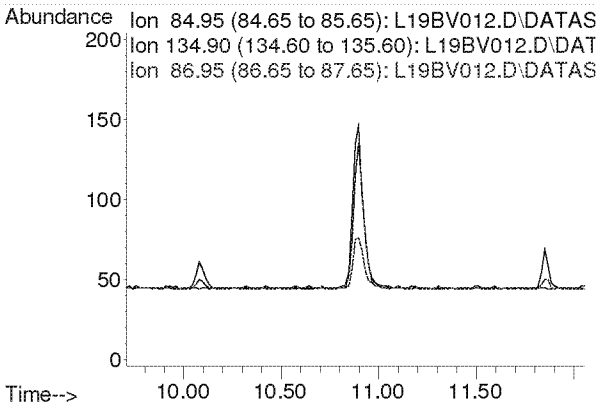


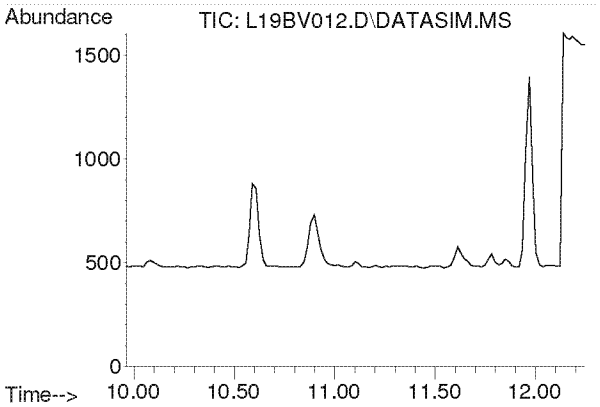
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



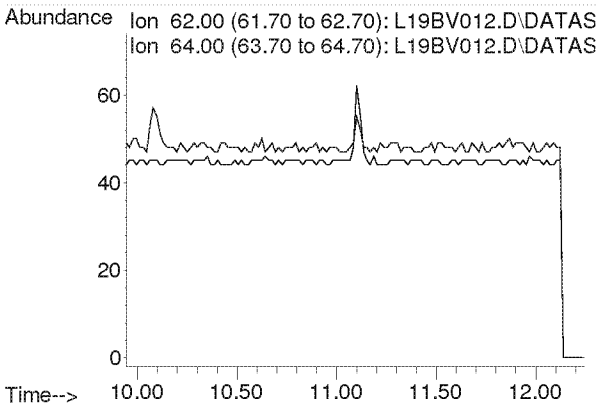


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

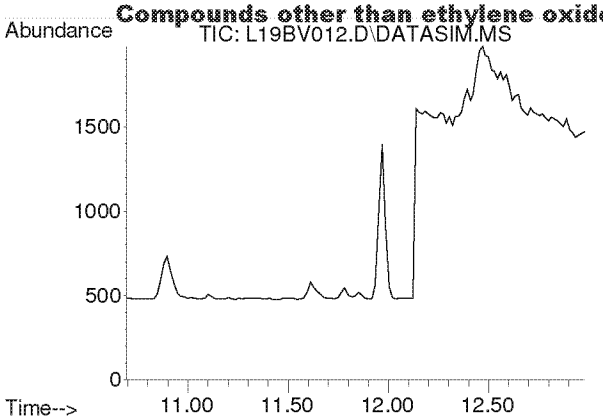
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

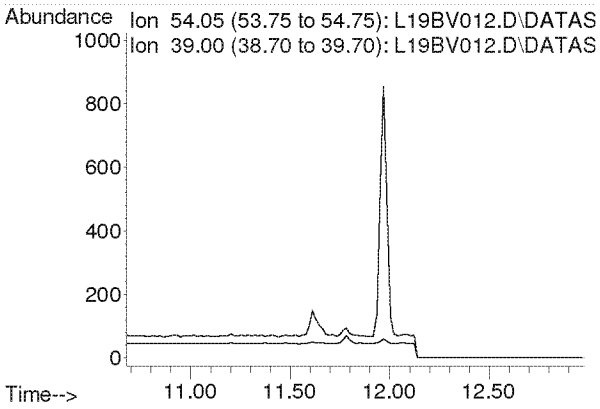


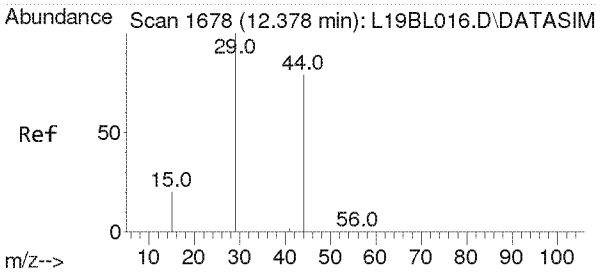
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

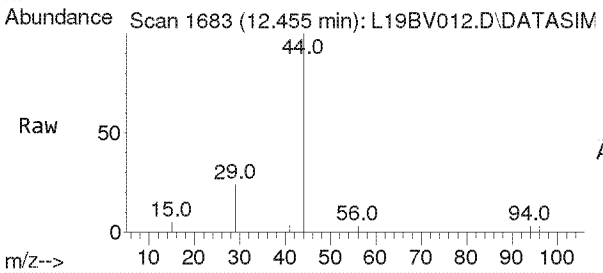


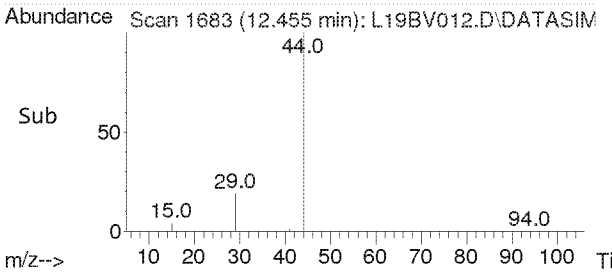


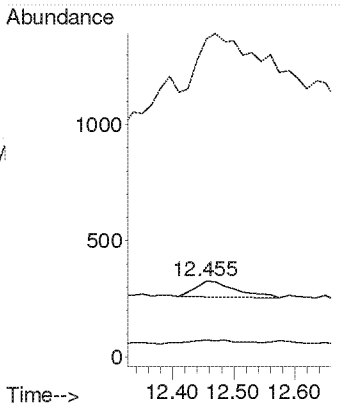
#9
Ethylene oxide
Concen: 0.143 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.005 min
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 29 Resp: 301

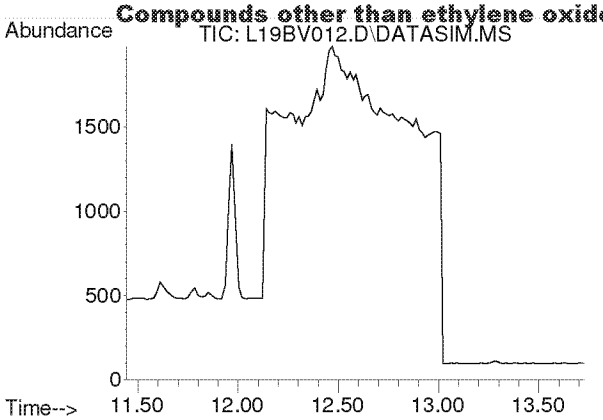
Ion	Ratio	Lower	Upper
29	100		
15	29.9	16.0	24.0#
44	676.7	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

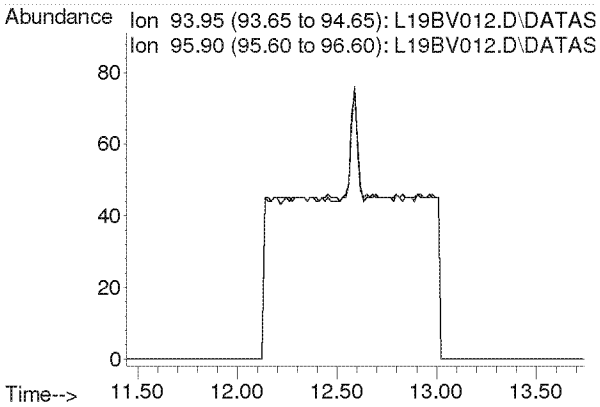


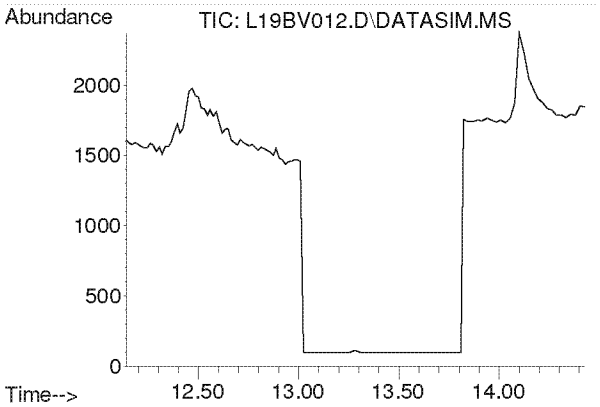
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



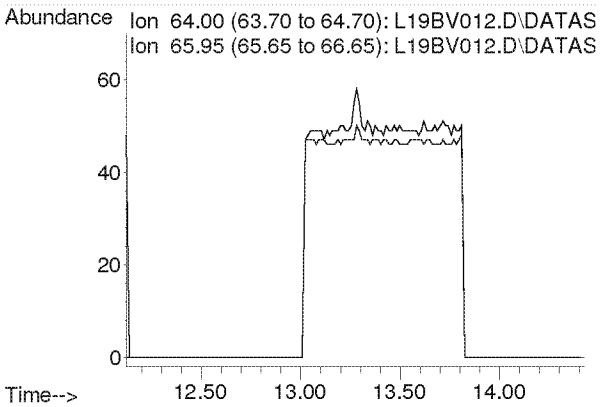


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

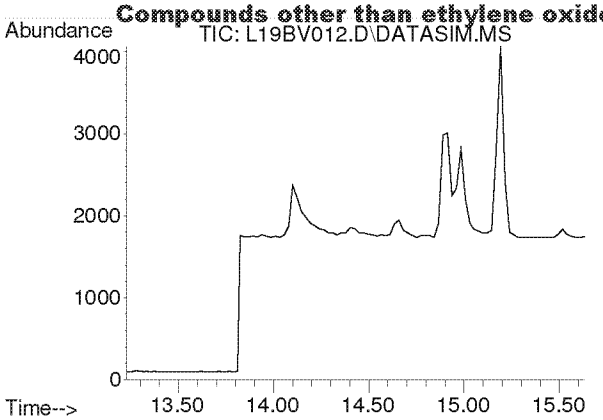
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

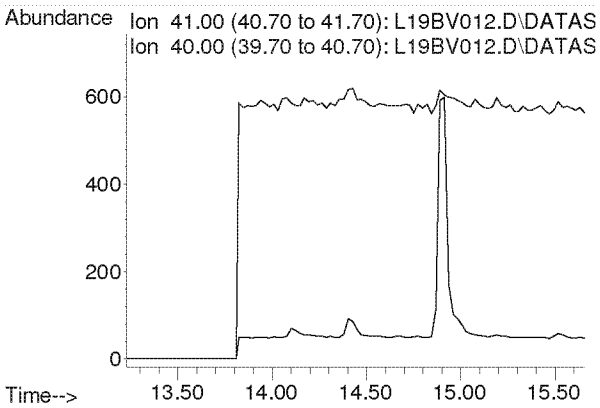


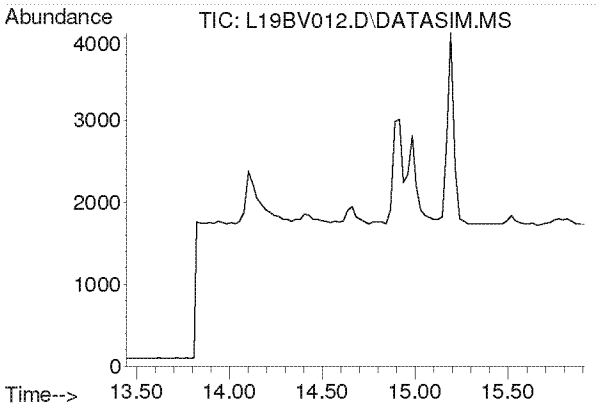
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



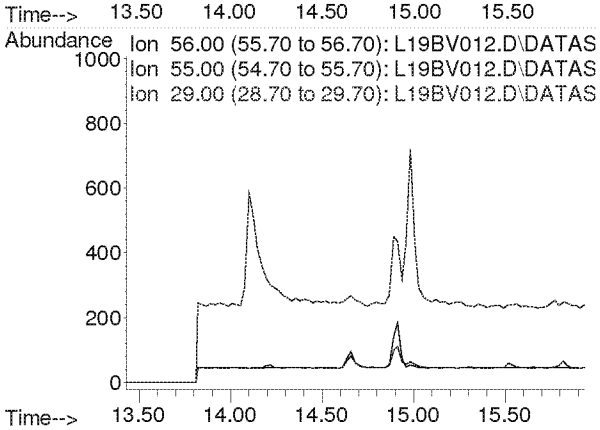


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

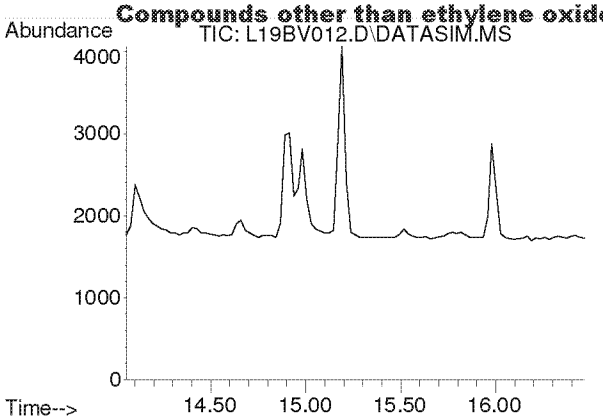
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

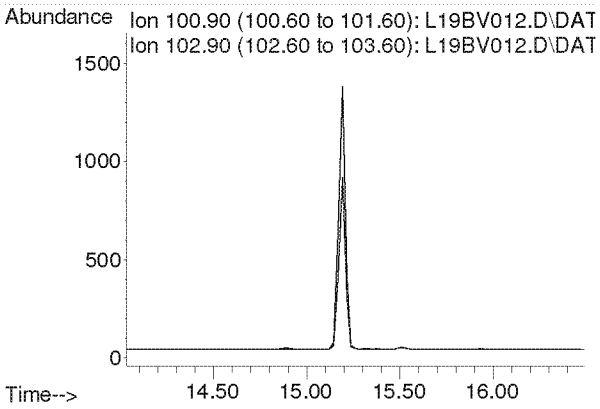


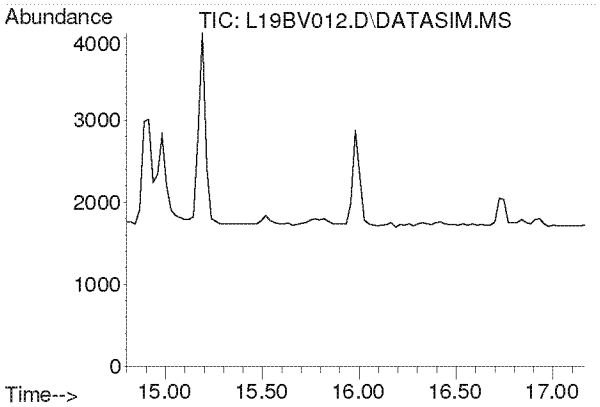
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



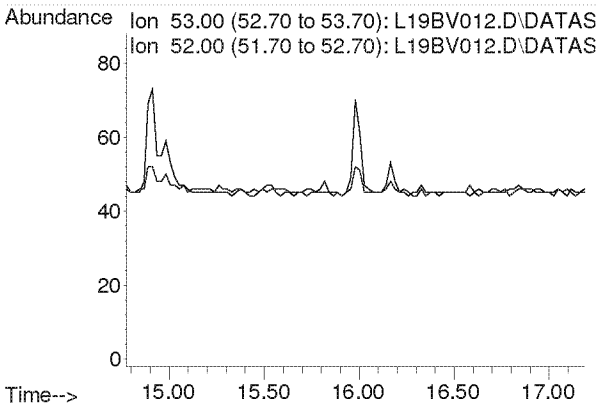


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

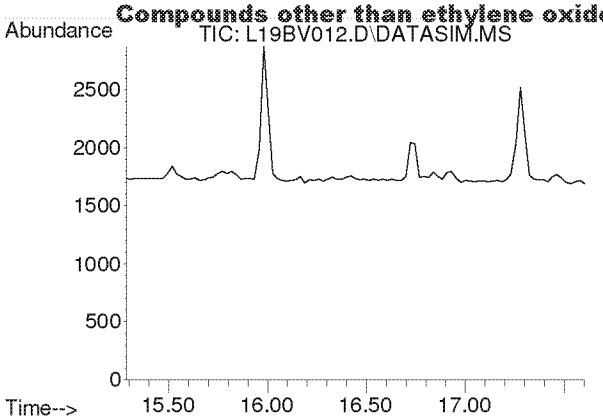
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

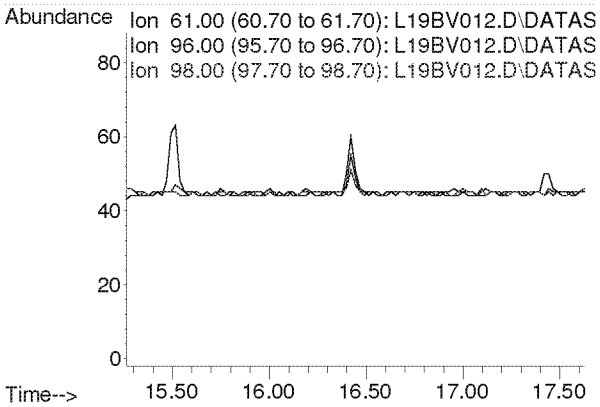


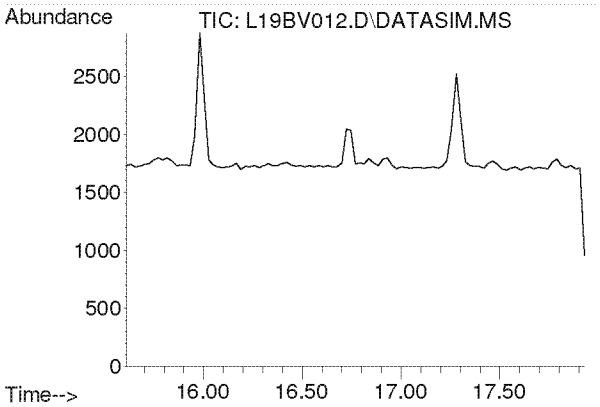
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



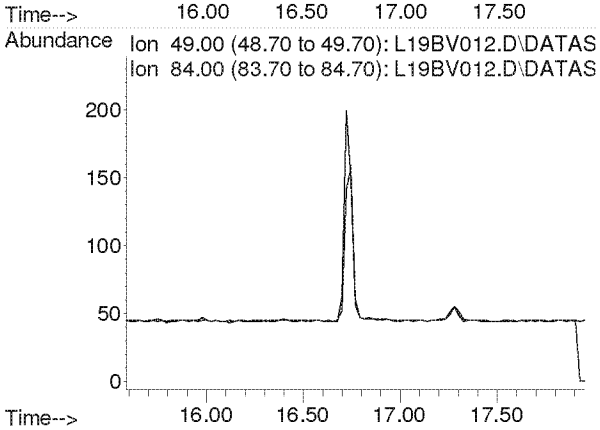


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

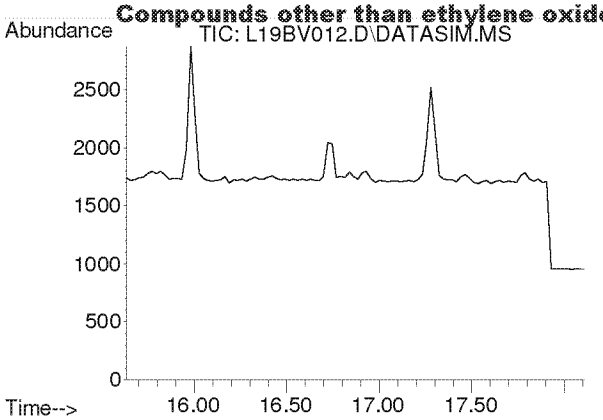
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

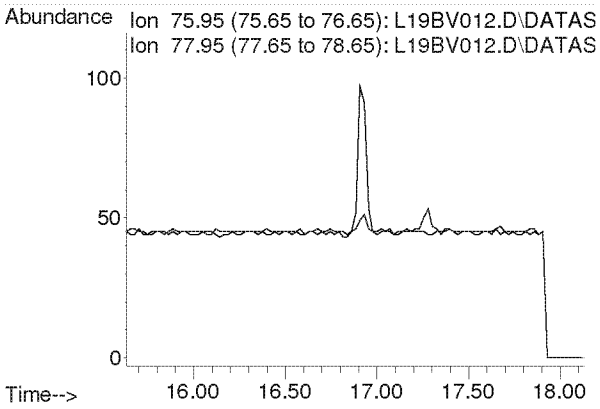


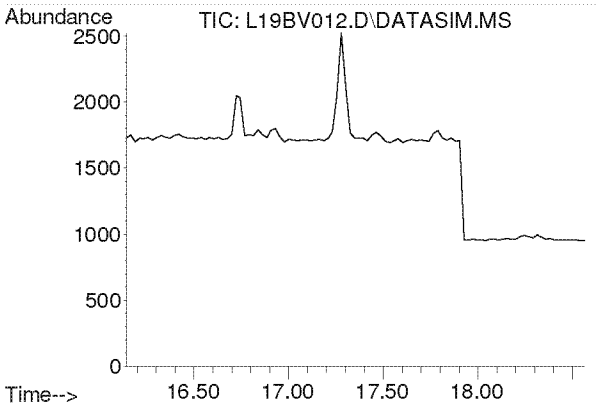
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



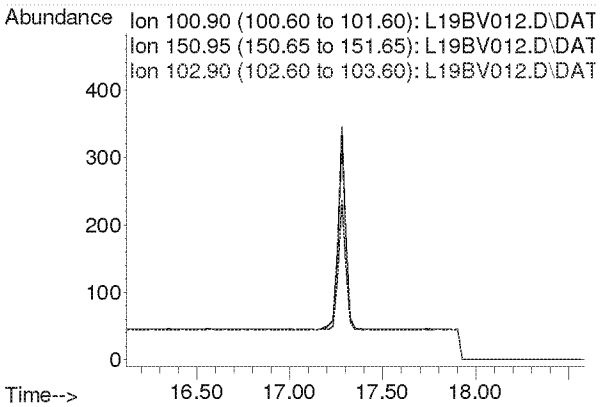


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

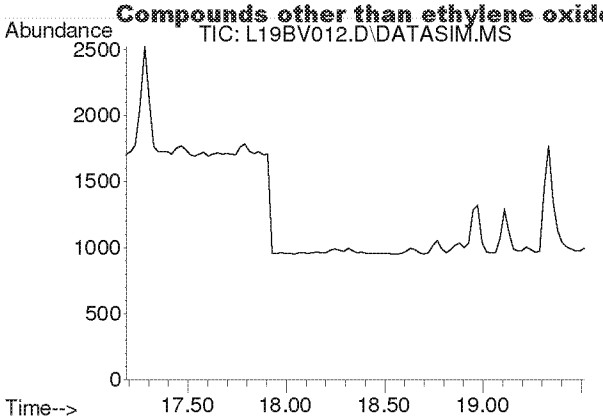
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

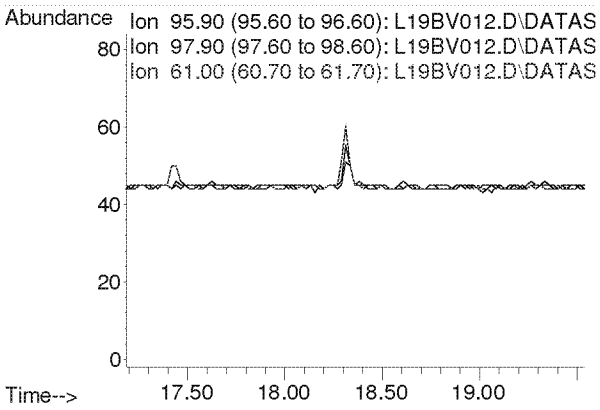


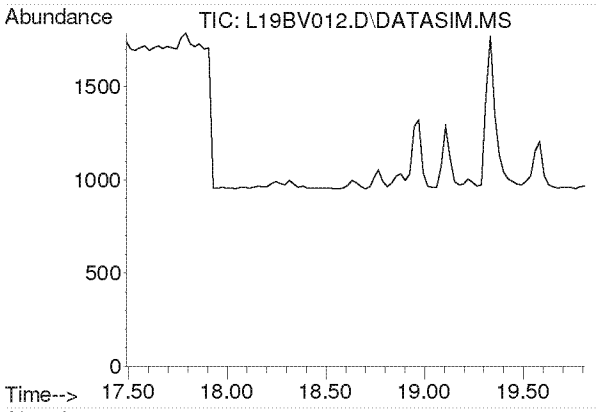
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



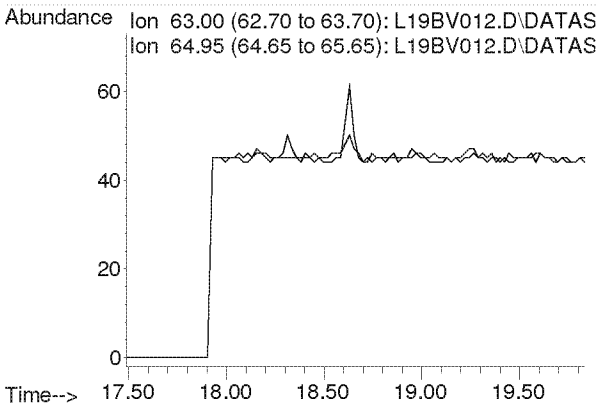


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

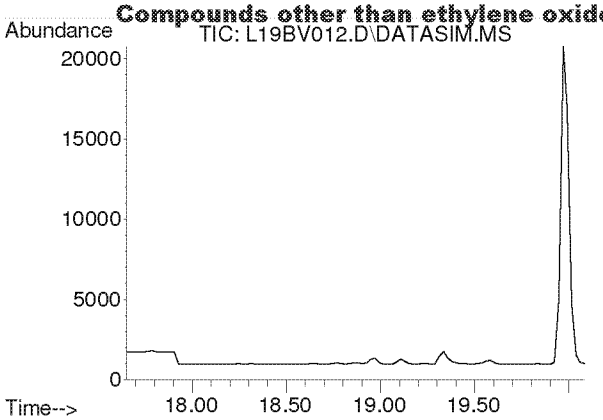
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

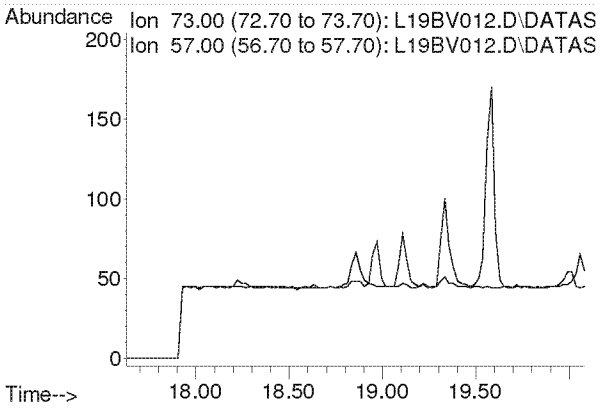


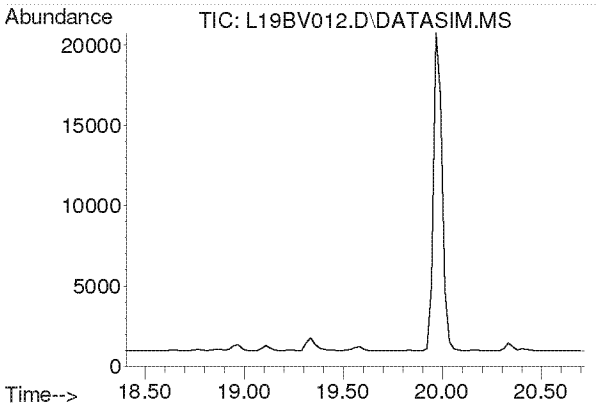
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



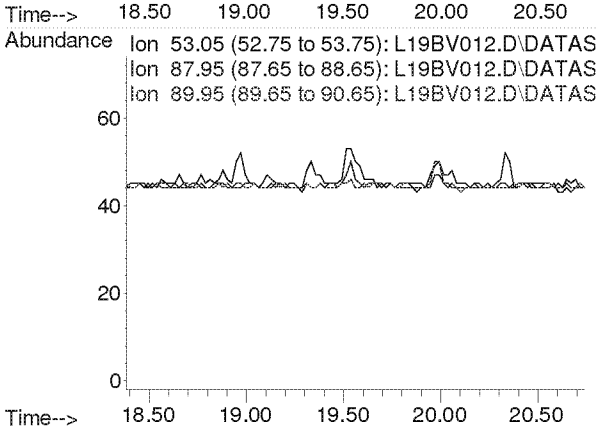


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

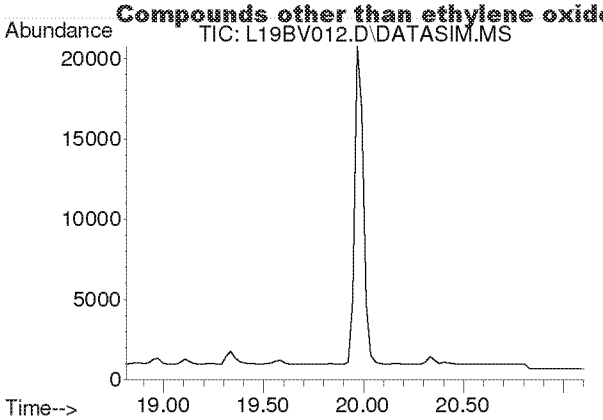
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

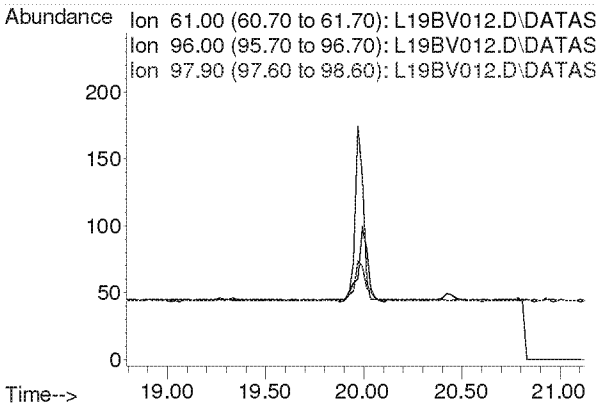


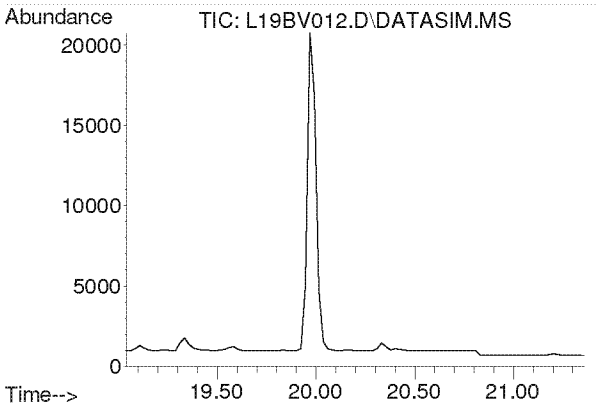
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



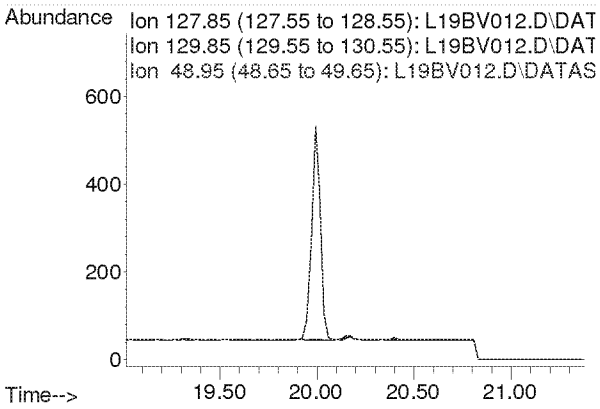


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

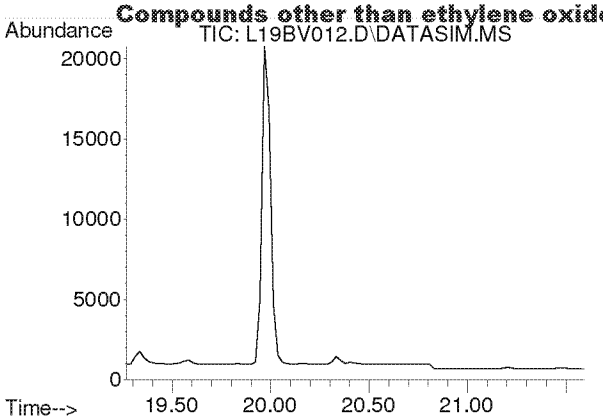
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

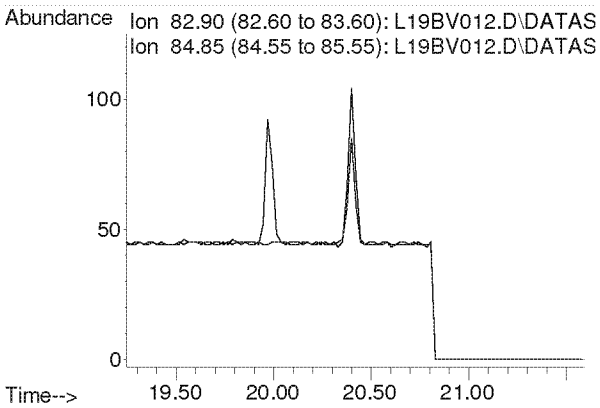


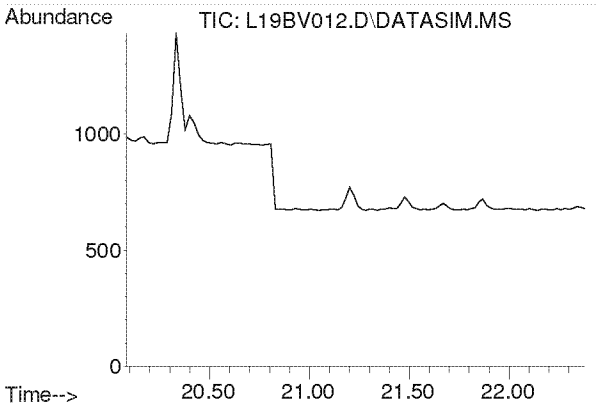
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



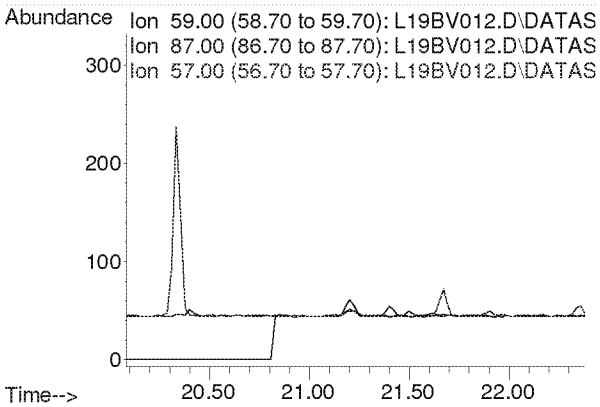


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

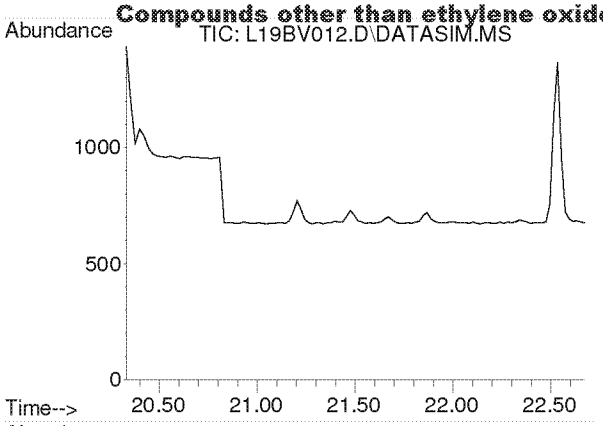
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

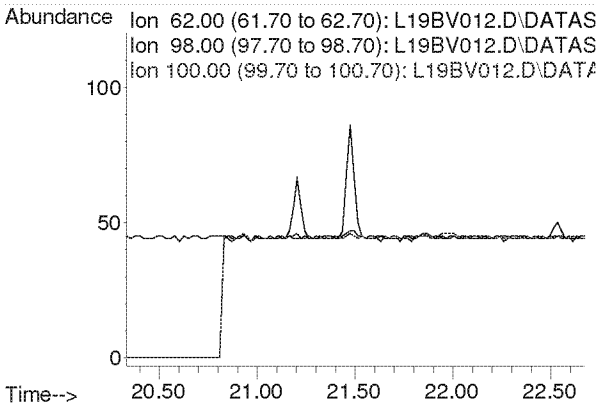


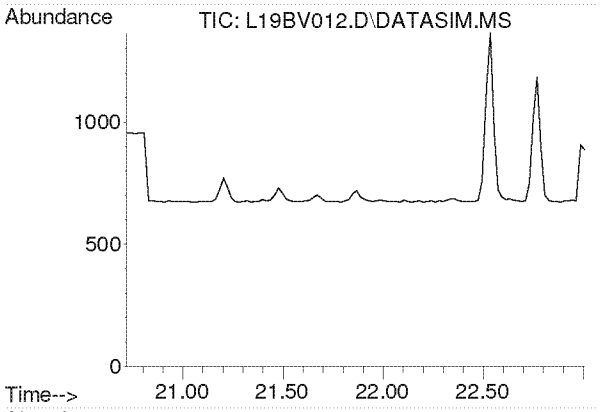
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



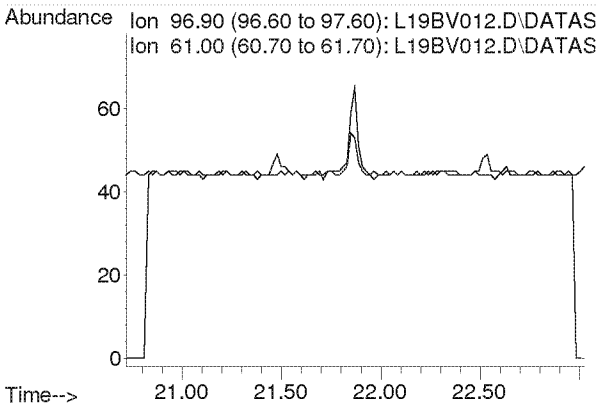


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

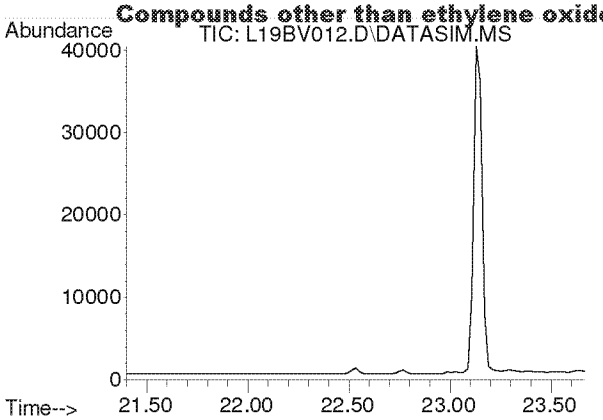
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

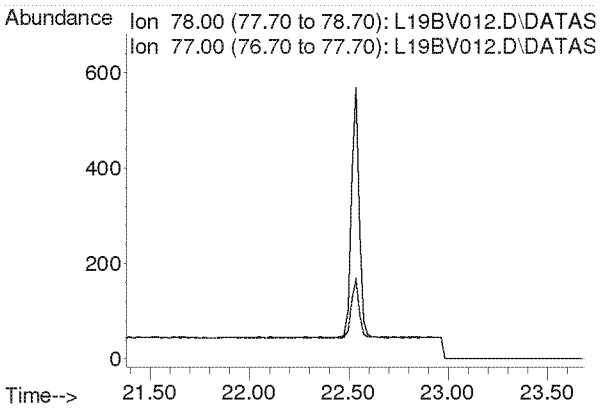


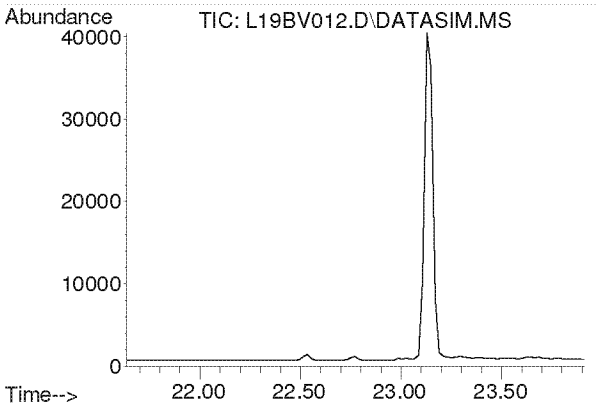
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



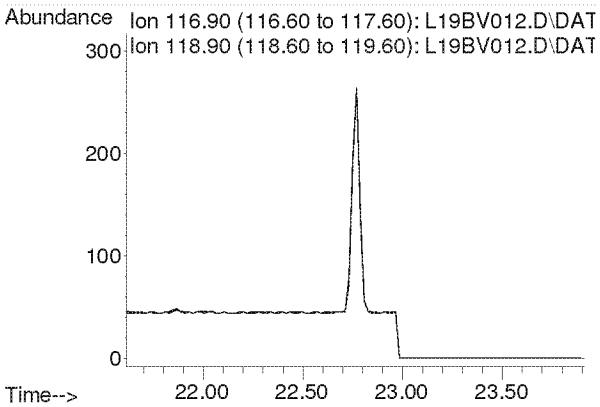


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

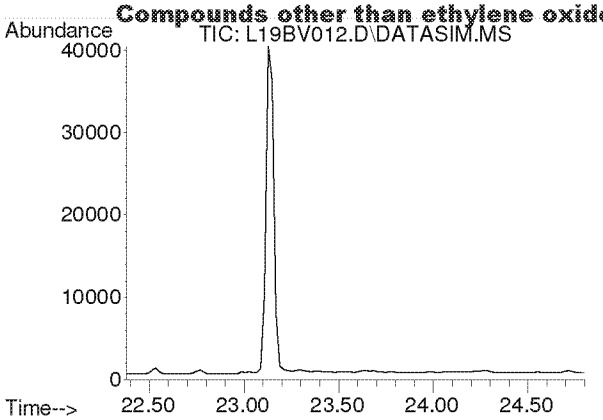
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

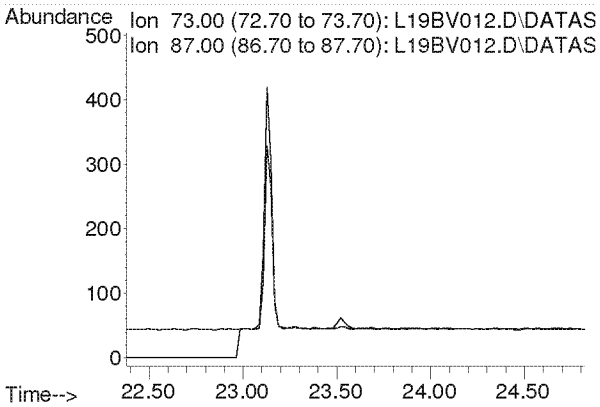


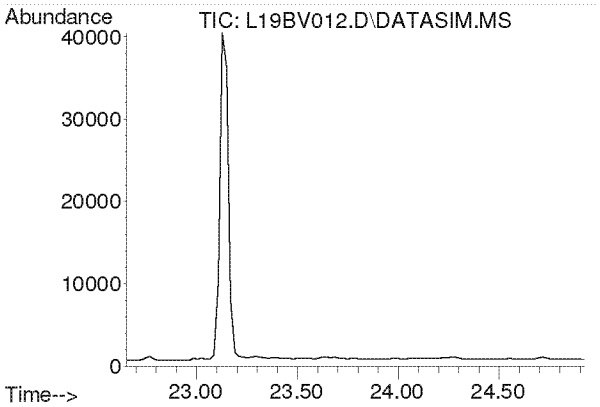
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



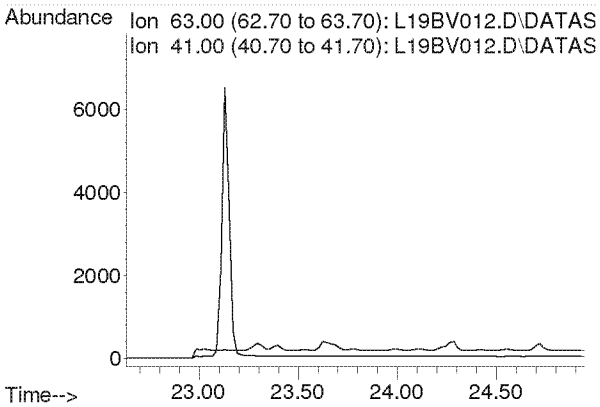


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

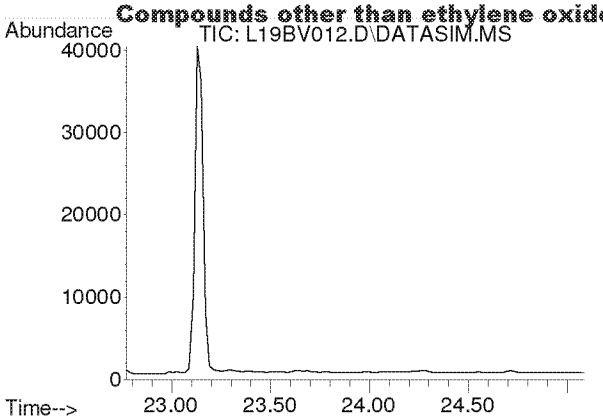
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

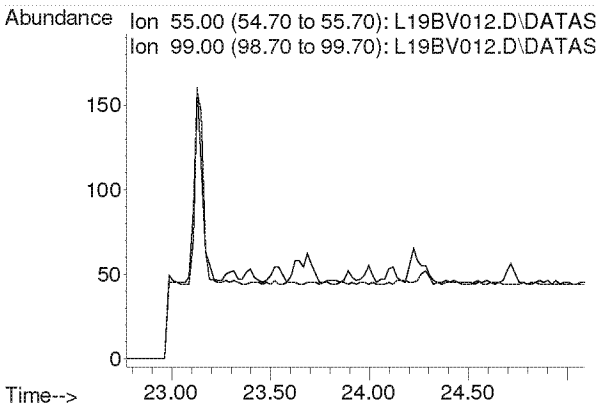


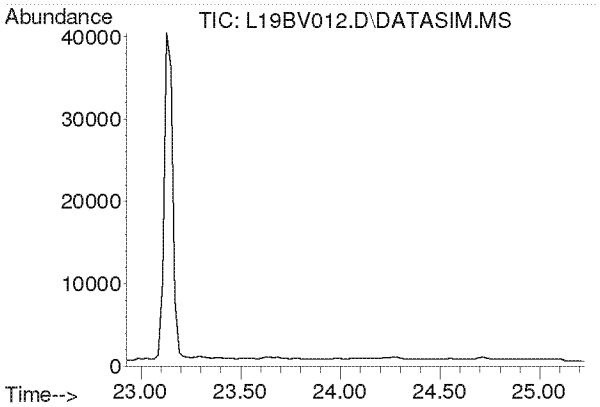
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



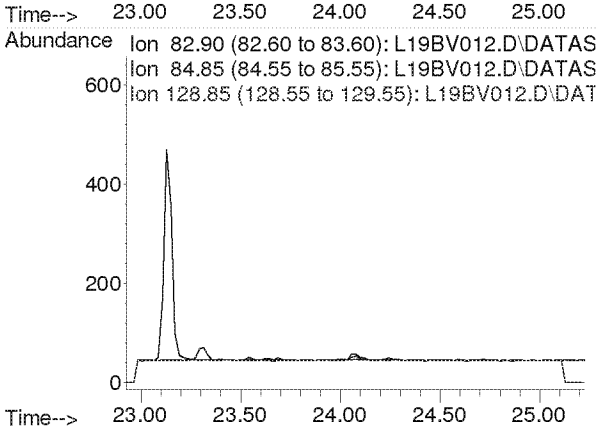


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

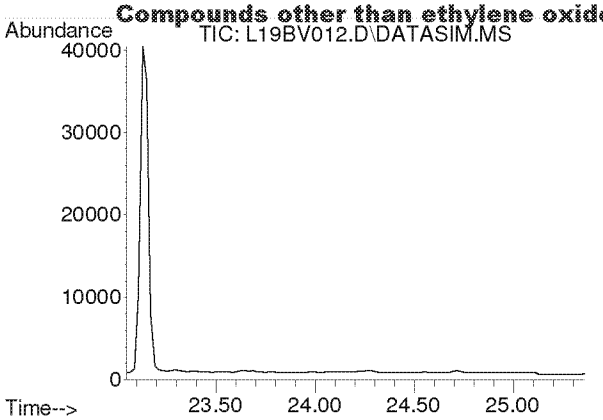
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

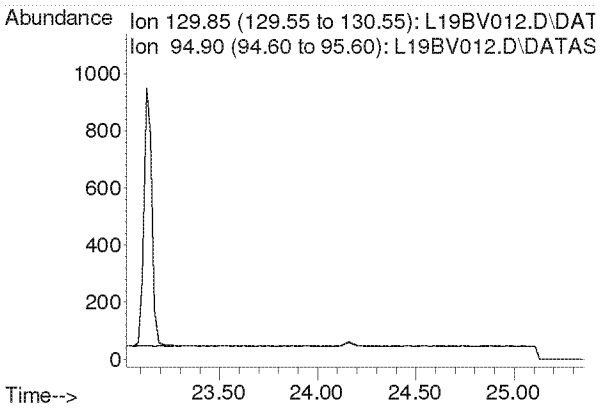


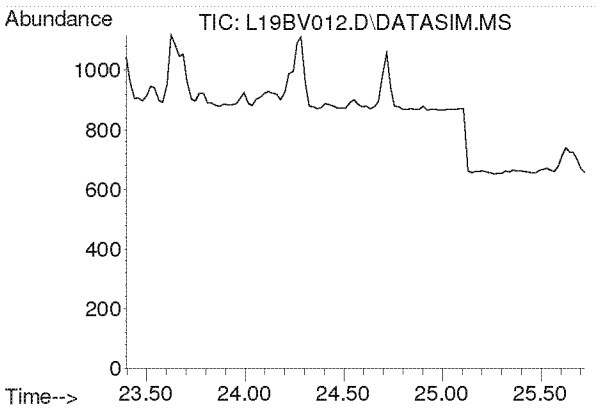
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



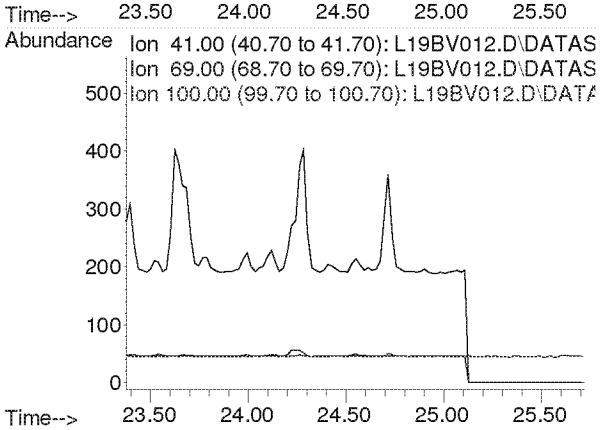


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

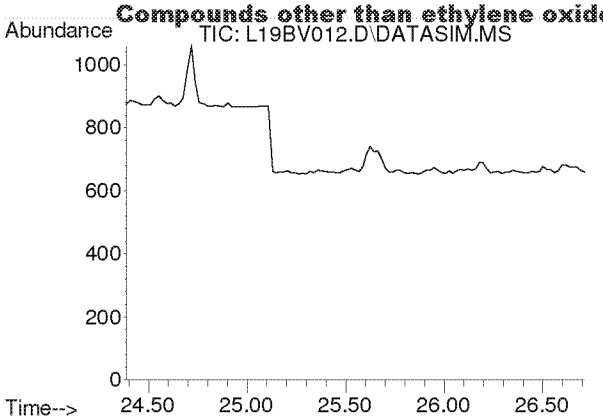
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

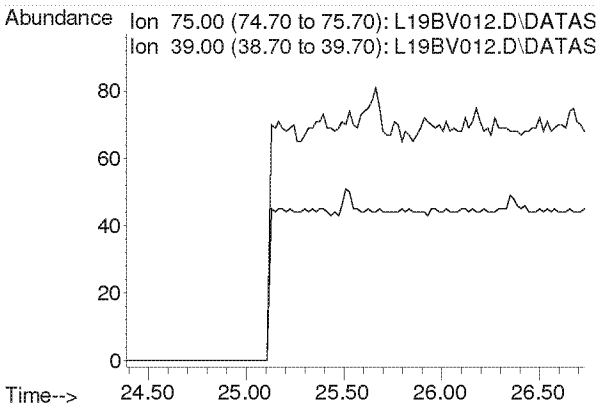


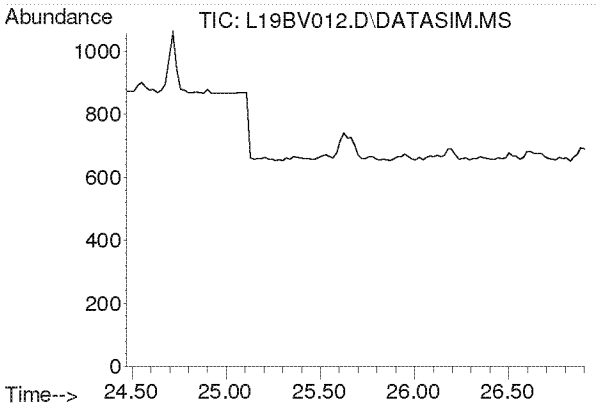
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



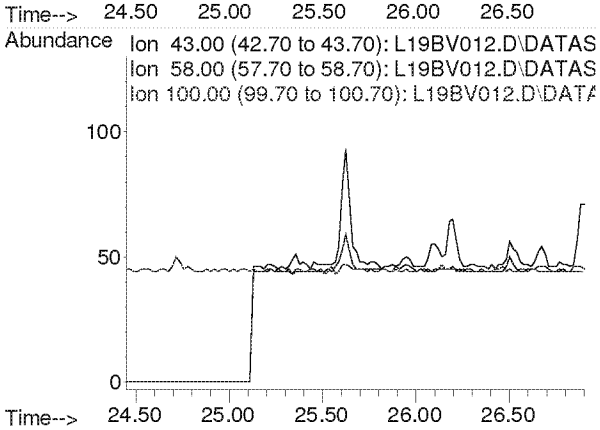


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

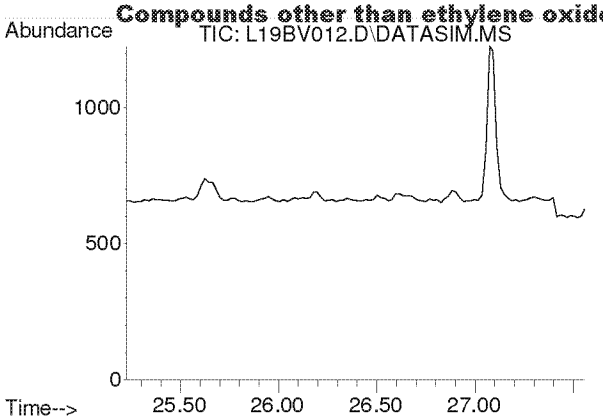
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

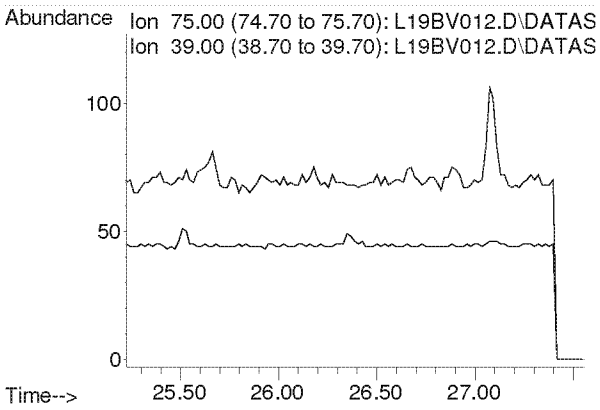


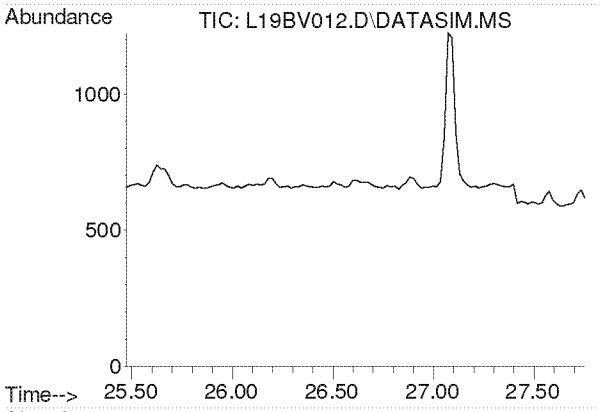
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



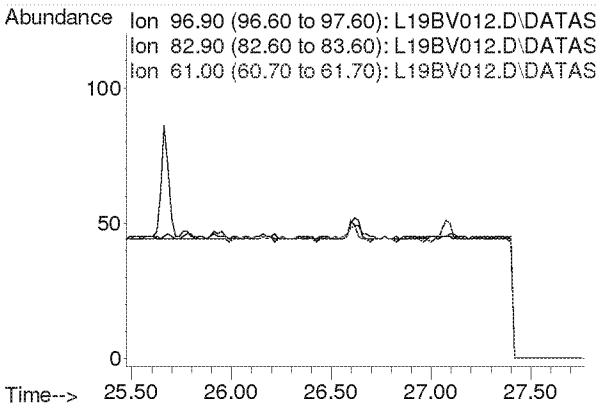


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

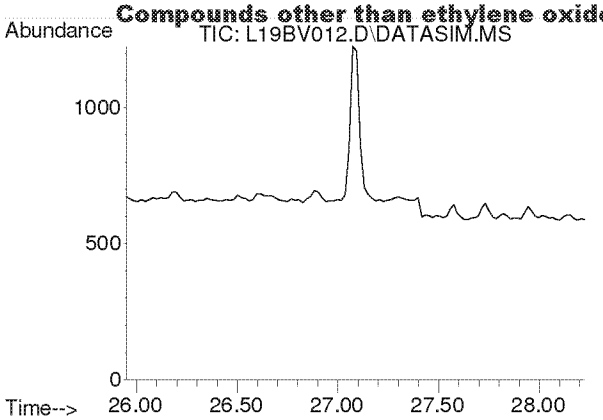
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

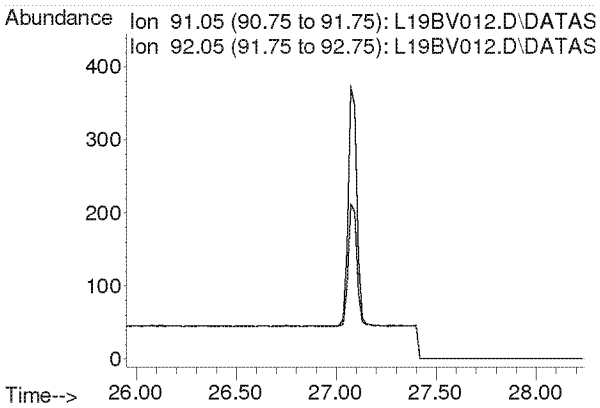


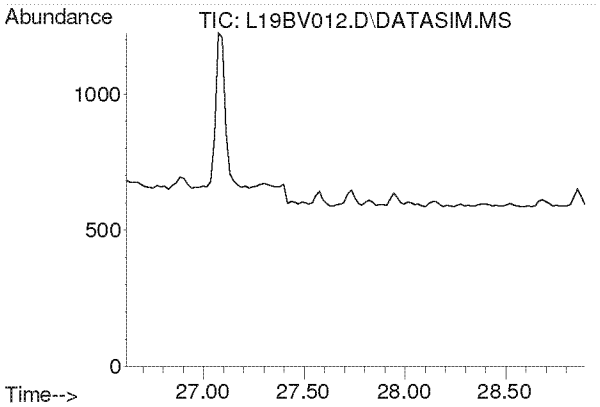
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



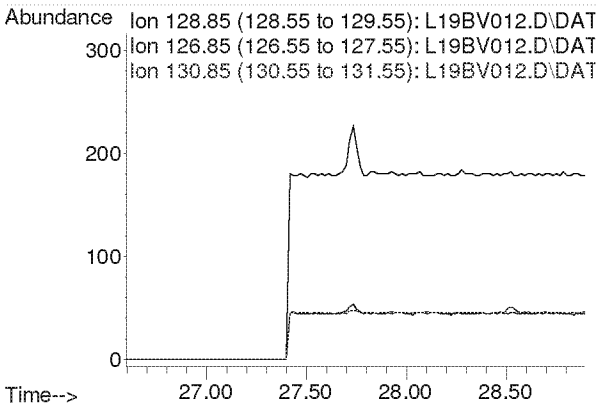


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

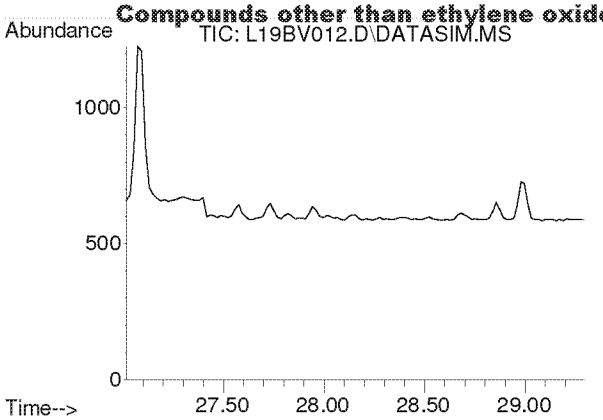
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

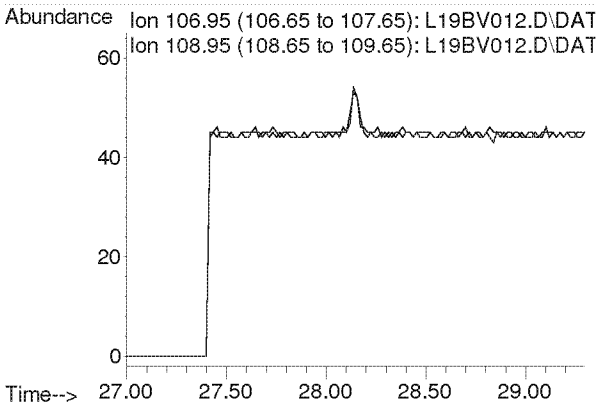


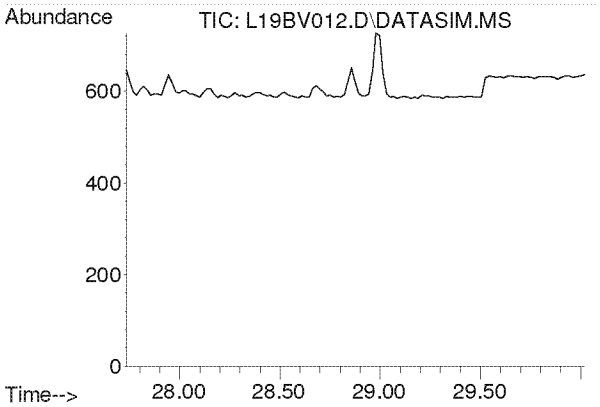
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



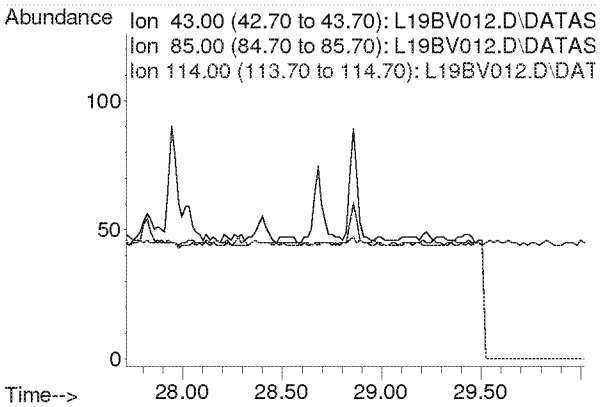


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

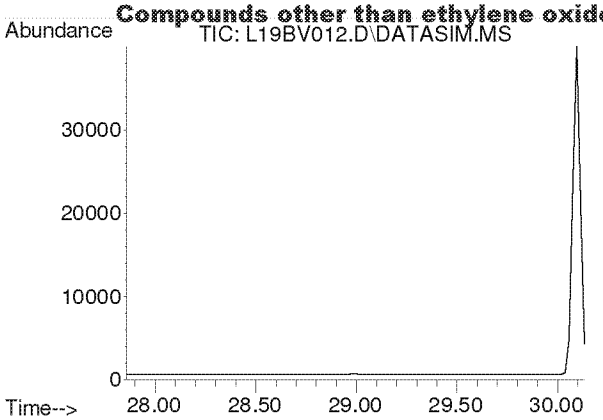
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

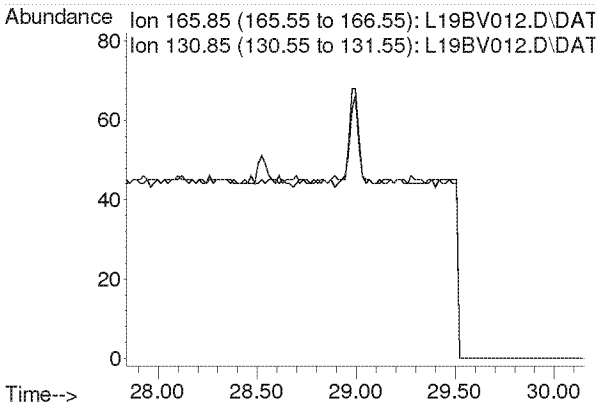


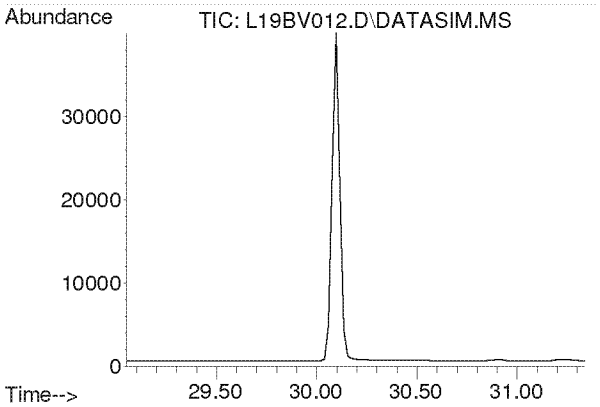
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



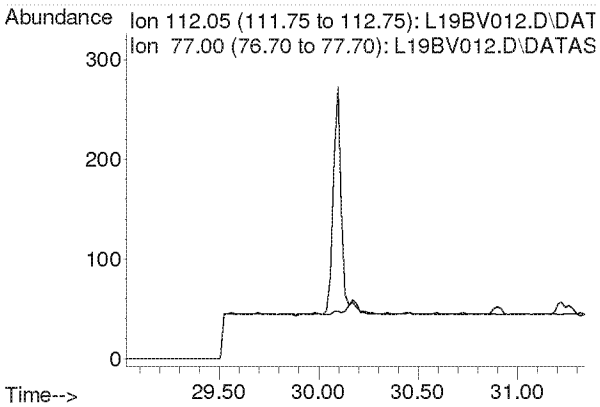


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

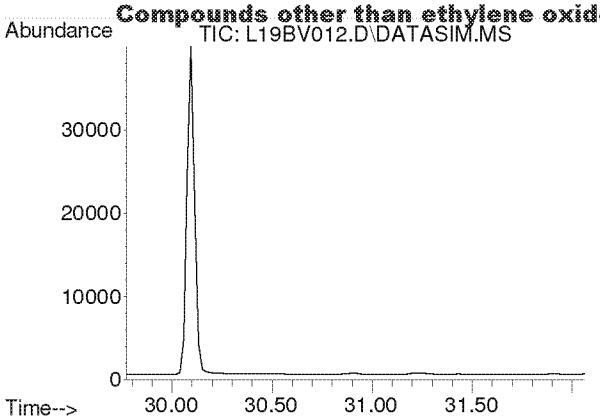
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

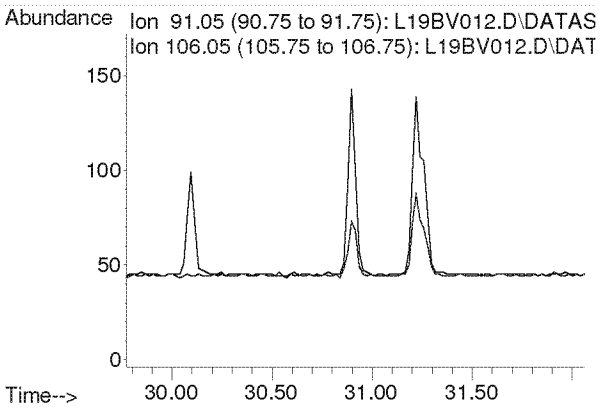


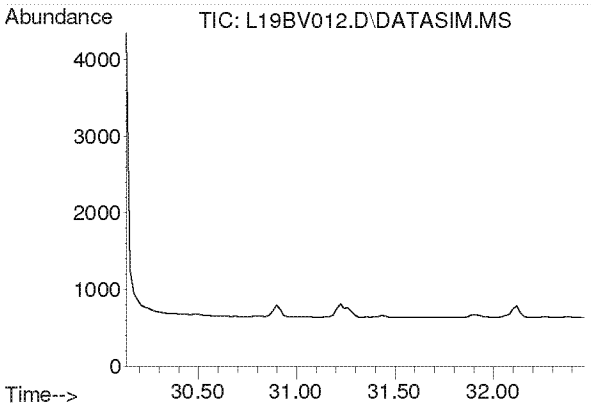
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



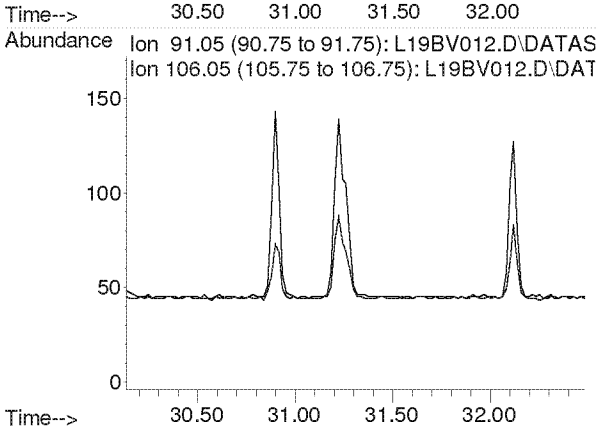


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

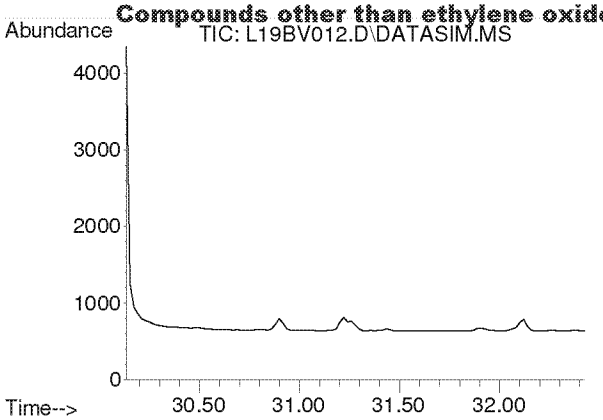
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

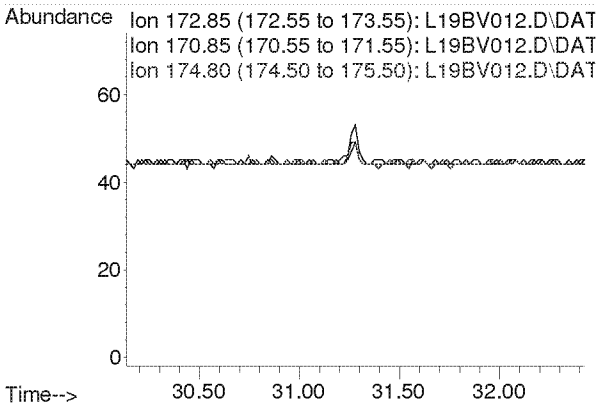


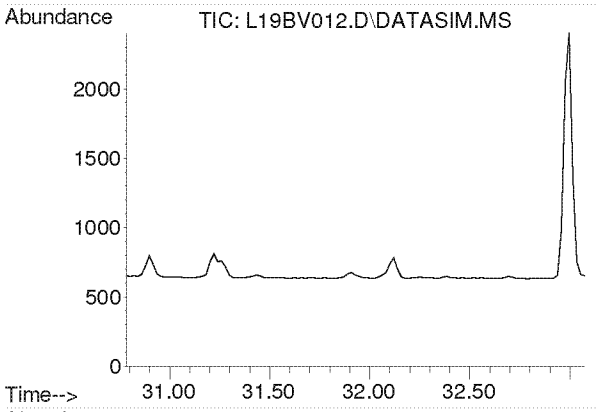
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



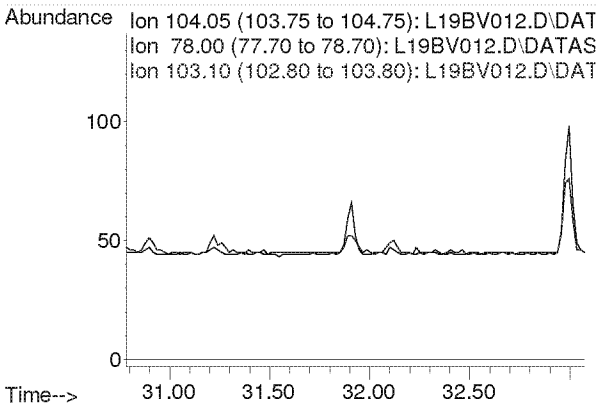


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

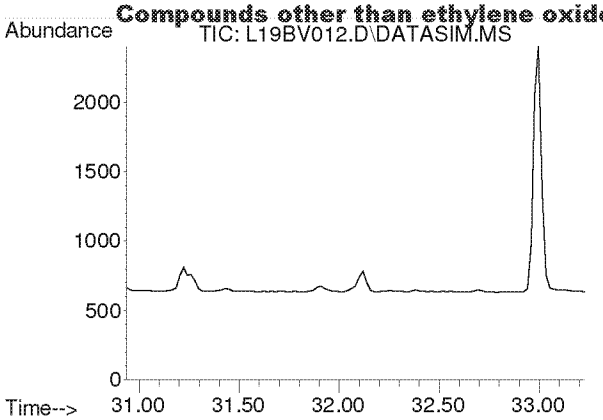
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

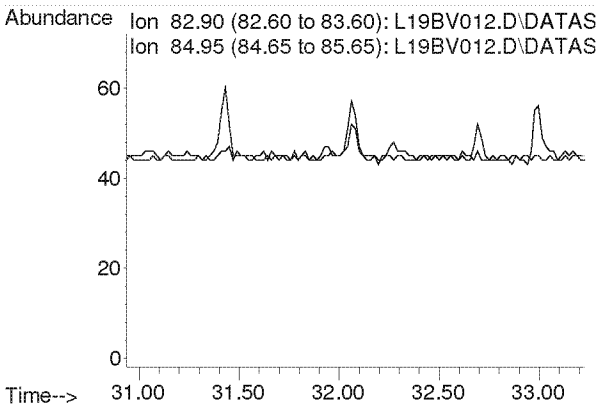


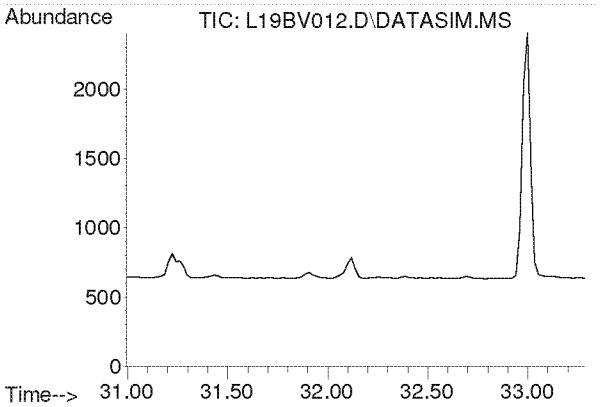
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



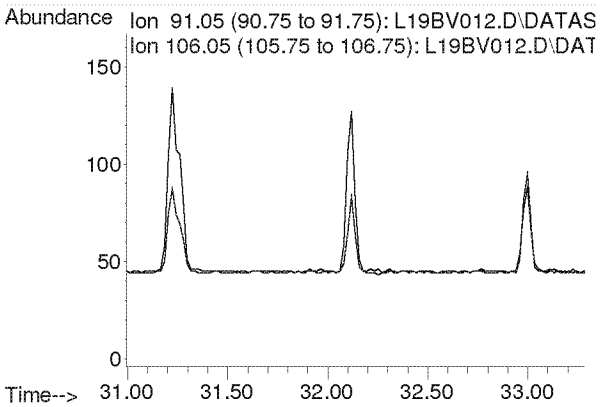


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

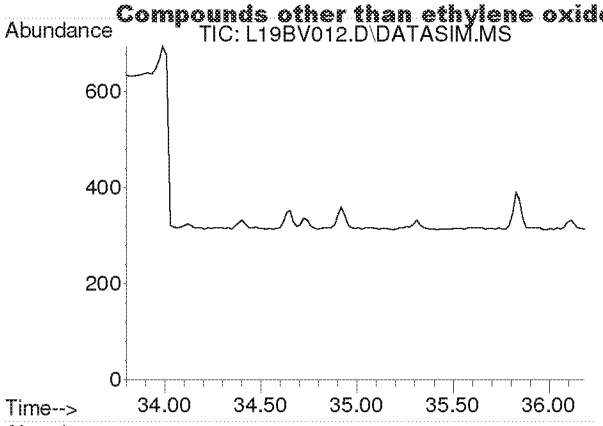
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

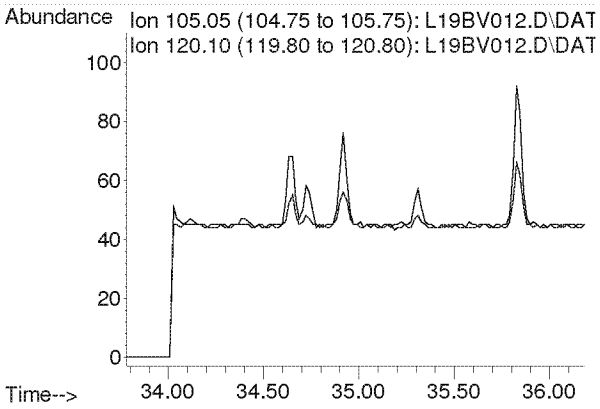


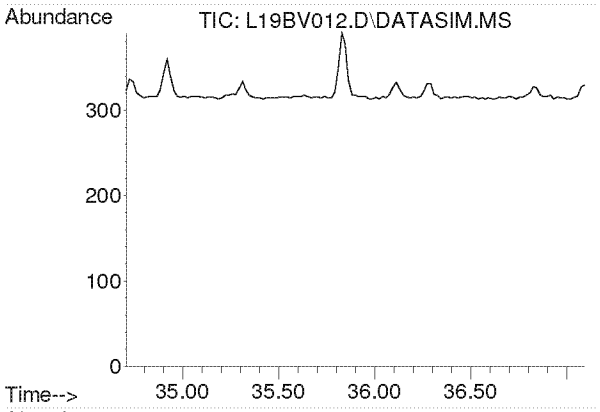
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



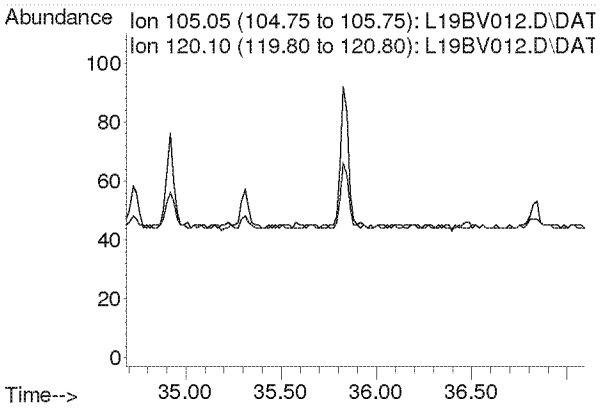


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

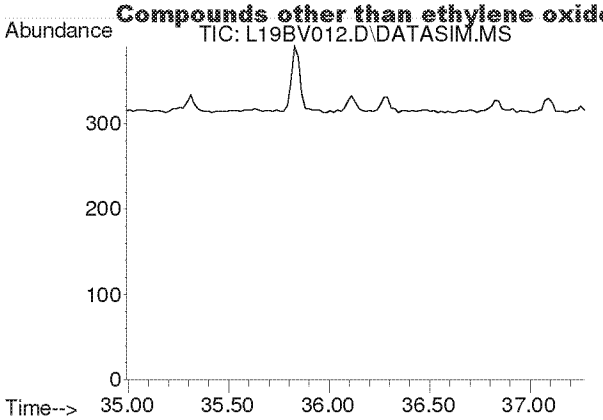
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

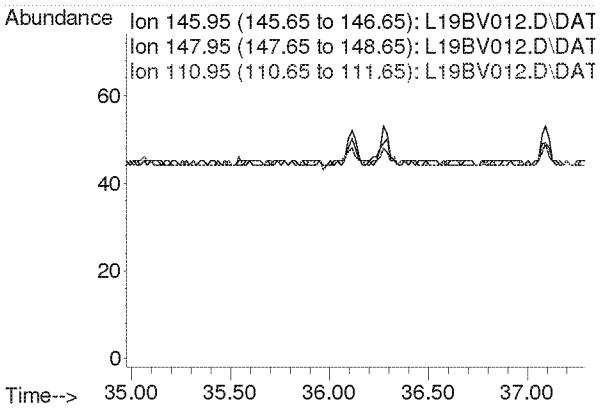


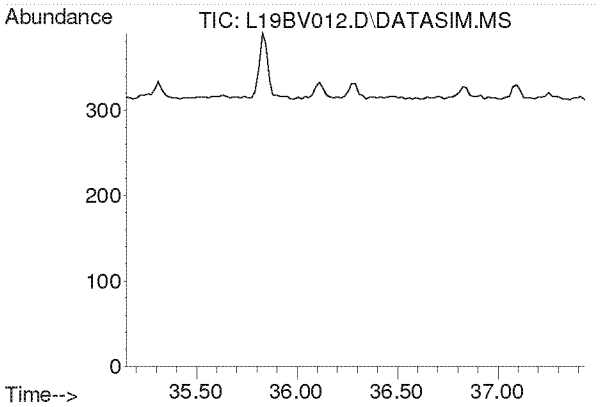
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



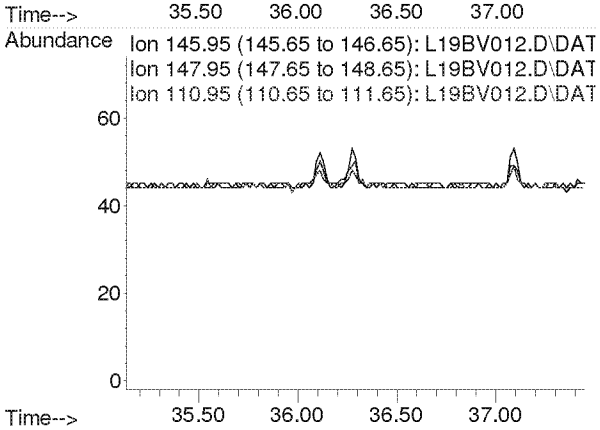


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

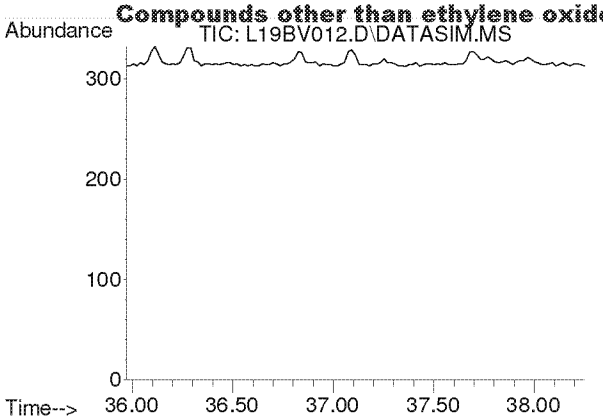
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

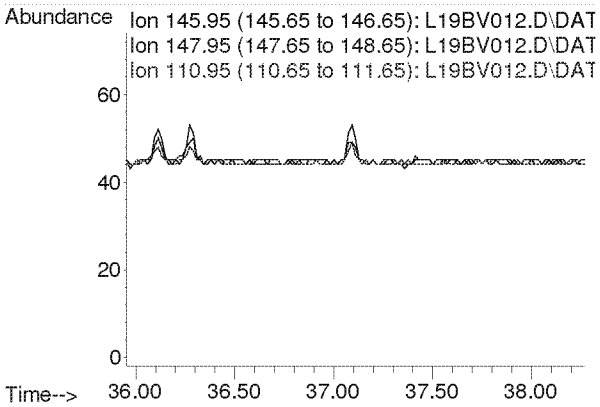


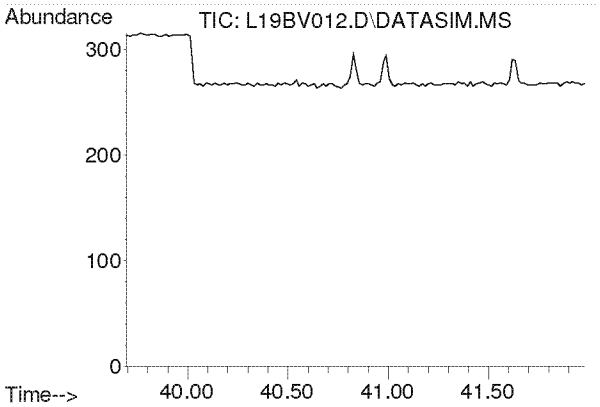
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



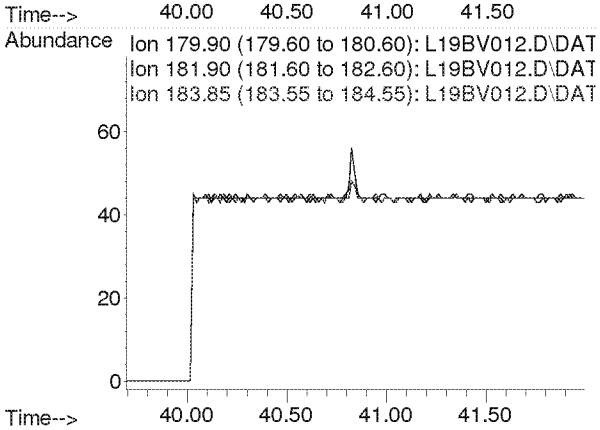


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

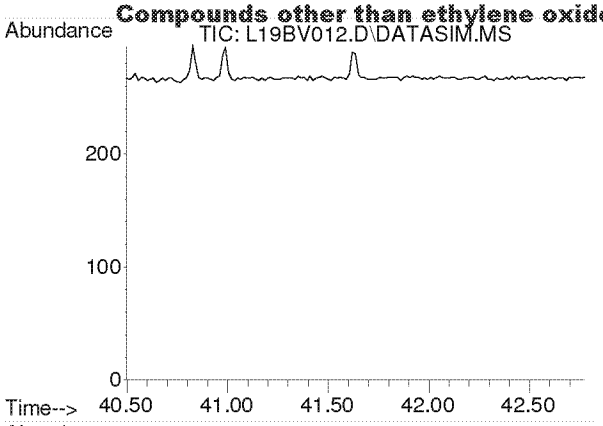
Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

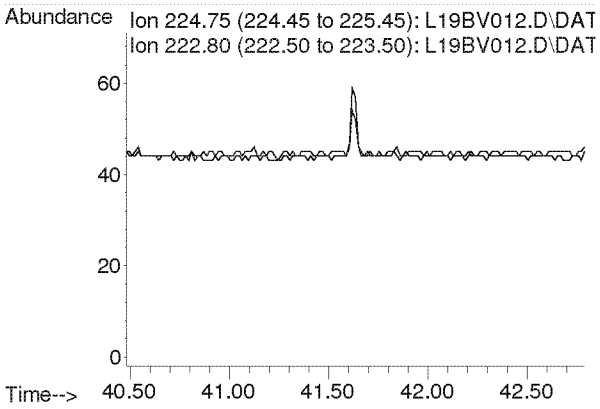


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BV012.D
Acq: 22 Feb 2019 7:40 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV013.D
Acq On : 22 Feb 2019 8:42 pm (#1); 22-Feb-19, 20:37:44 (#2)
Operator : MAH
Sample : 9022025-05
Misc : WATER TOWER 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 25 07:22:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

dt-MK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.968	66	38684	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.148	114	96063	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	67254	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.438	29	606	0.2739 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. 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. d	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. d	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D. d	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated (Reviewed)

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV013.D
Acq On : 22 Feb 2019 8:42 pm (#1); 22-Feb-19, 20:37:44 (#2)
Operator : MAH
Sample : 9022025-05
Misc : WATER TOWER 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 25 07:22:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

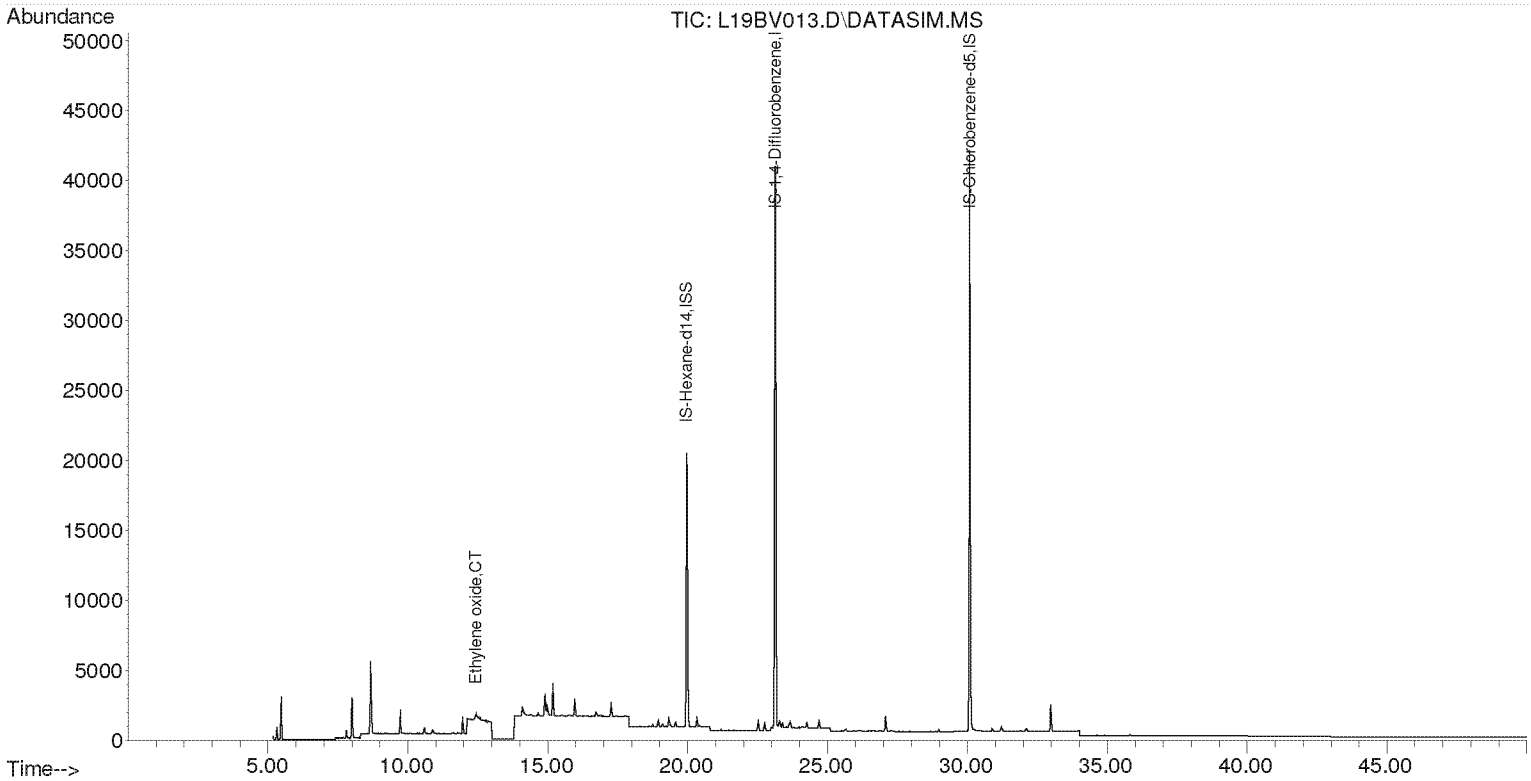
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

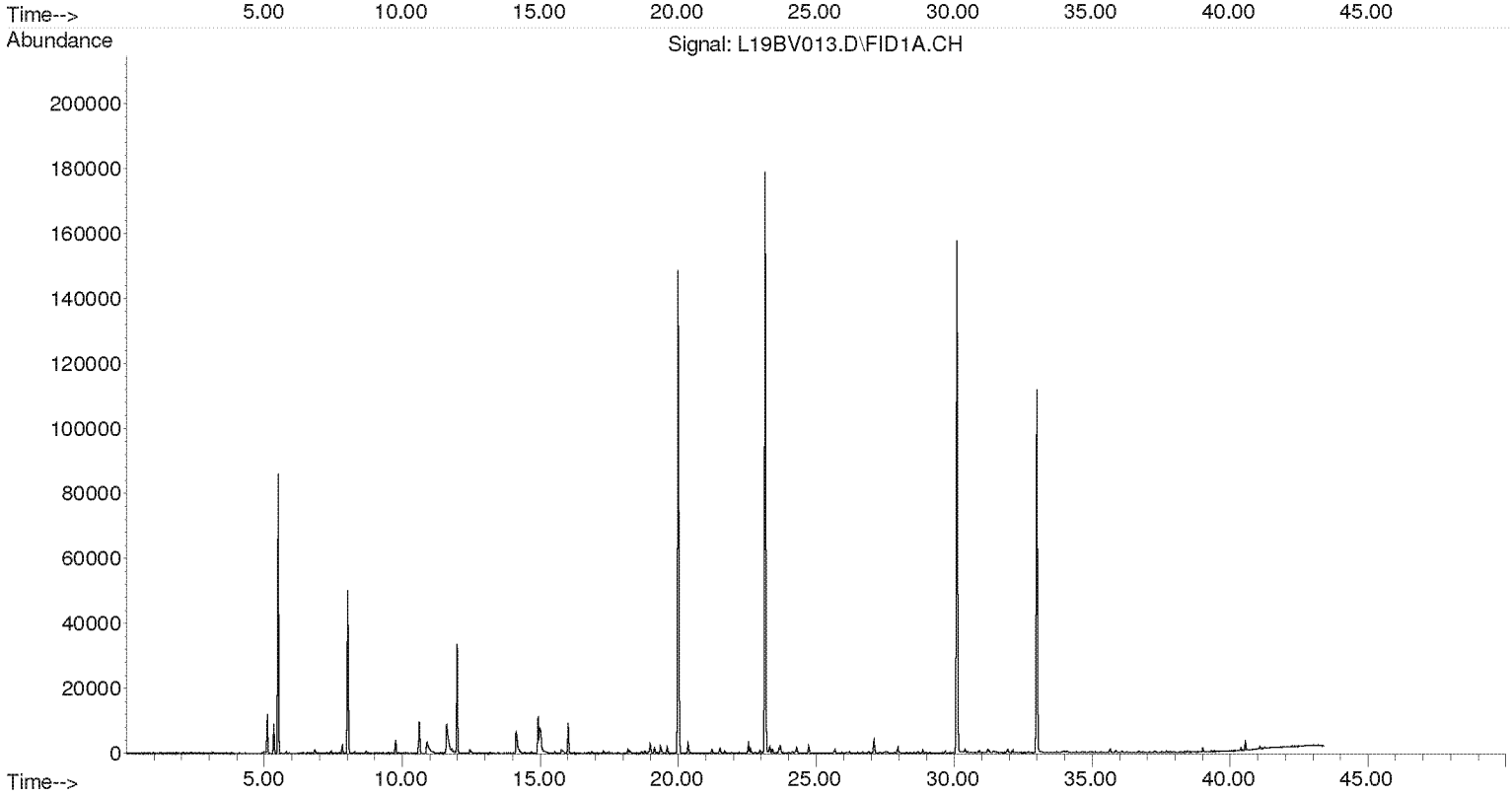
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

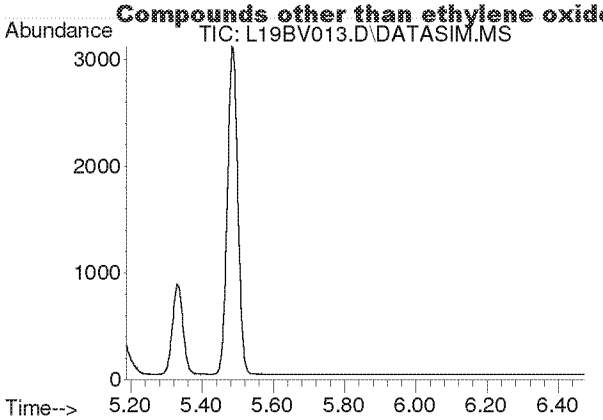
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV013.D
Acq On : 22 Feb 2019 8:42 pm (#1); 22 Feb 2019 8:37 pm (#2)
Operator : MAH
Sample : 9022025-05
Misc : WATER TOWER 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 25 06:47:19 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





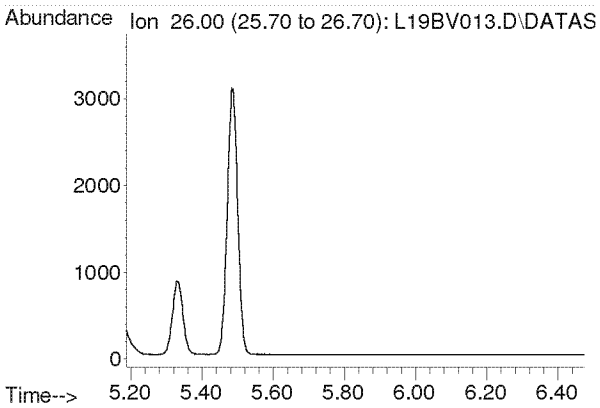
Compounds other than ethylene oxide were not quantitated.

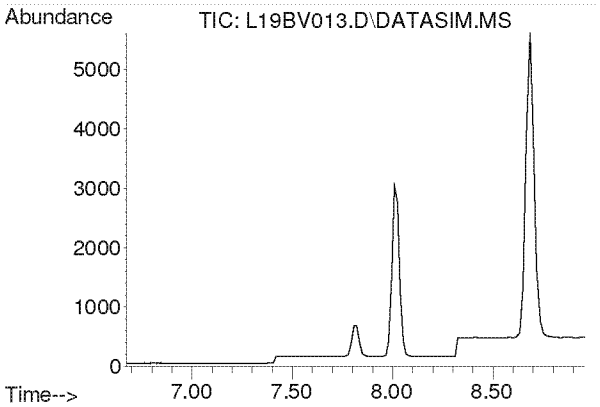


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 26



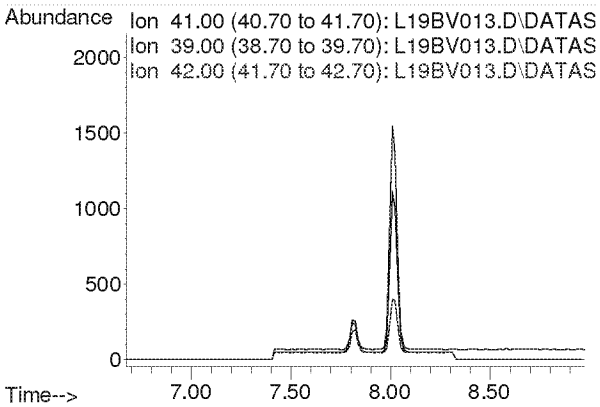


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

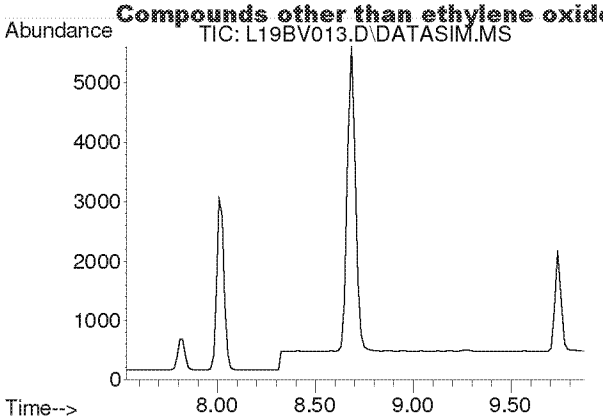
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

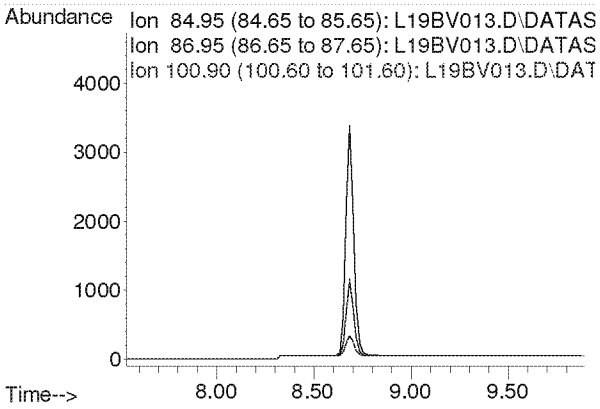


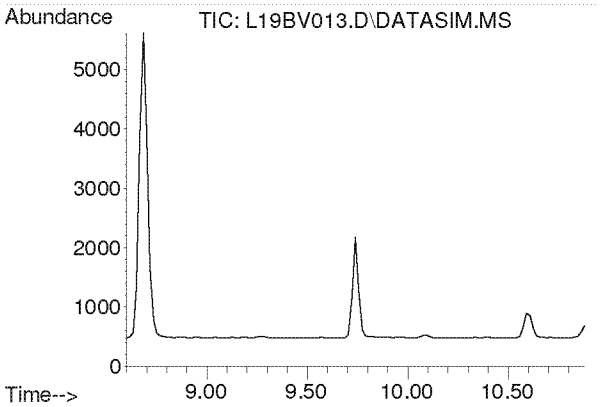
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



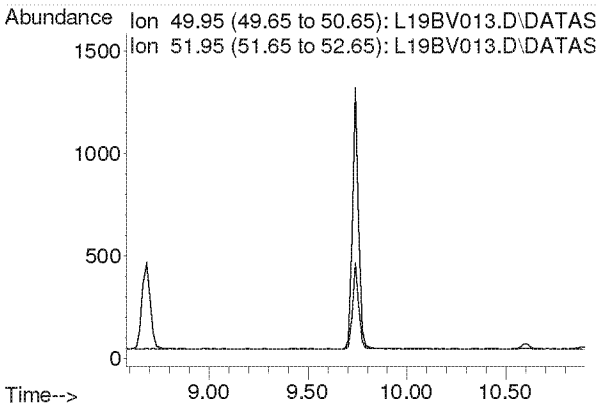


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

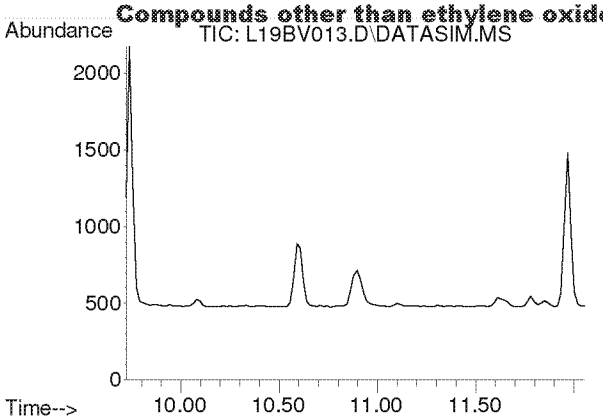
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

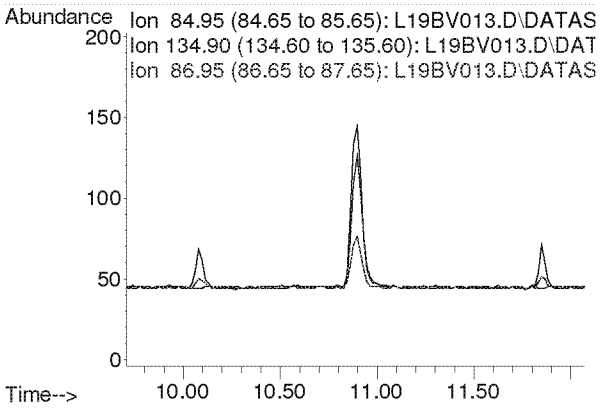


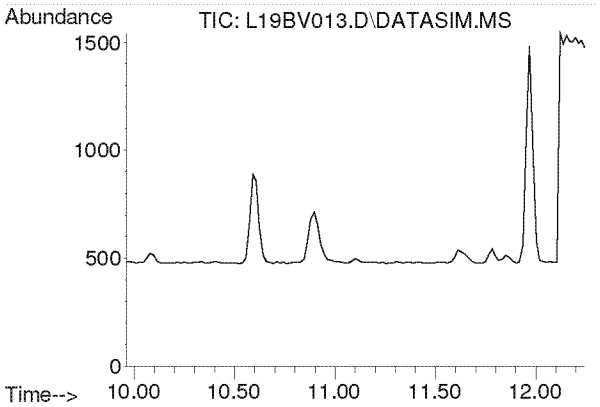
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



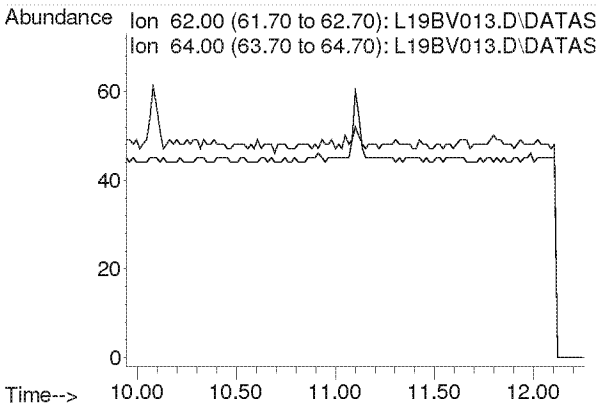


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

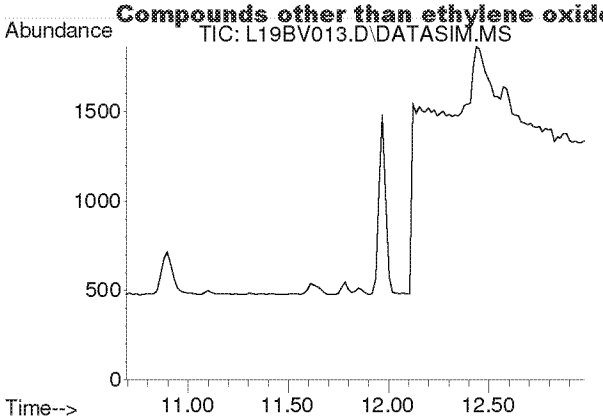
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

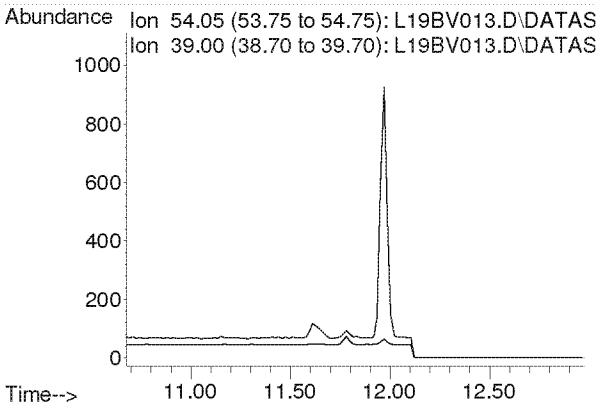


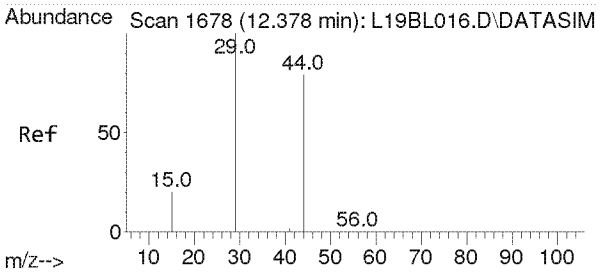
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

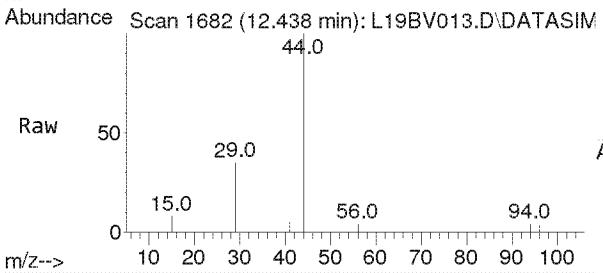


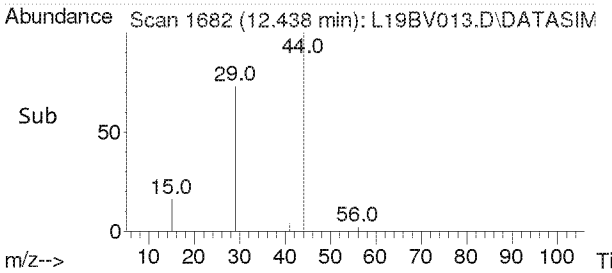


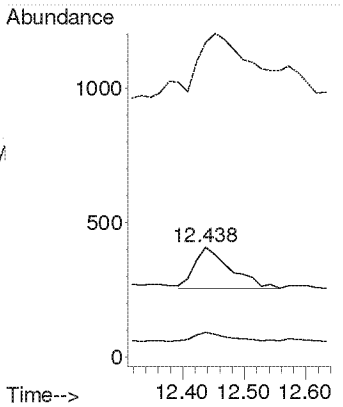
#9
Ethylene oxide
Concen: 0.274 ppbv
RT: 12.438 min Scan# 1682
Delta R.T. 0.060 min
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 29 Resp: 606

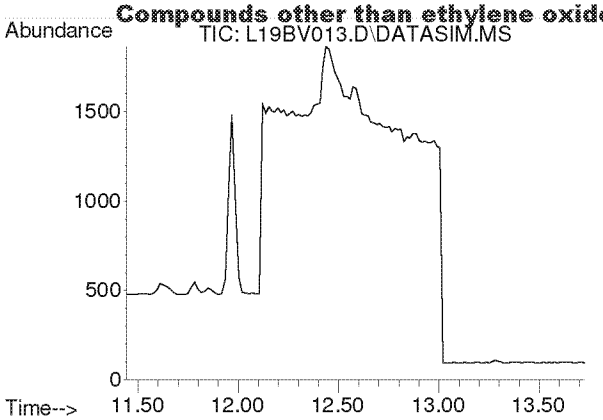
Ion	Ratio	Lower	Upper
29	100		
15	22.4	16.0	24.0
44	245.9	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

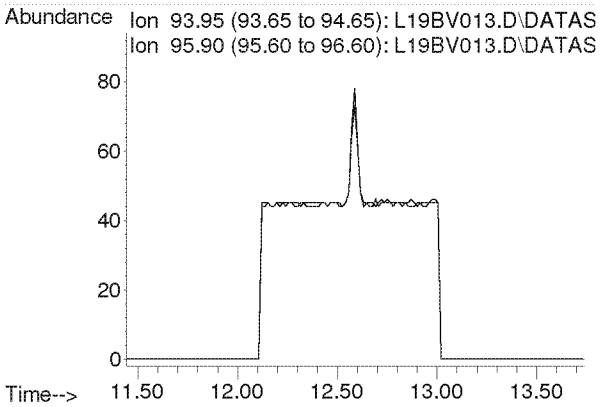


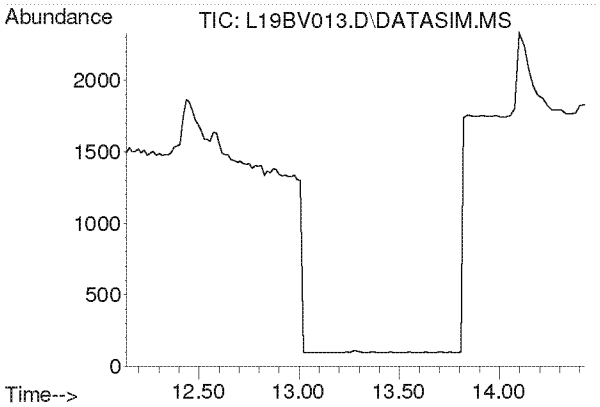
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



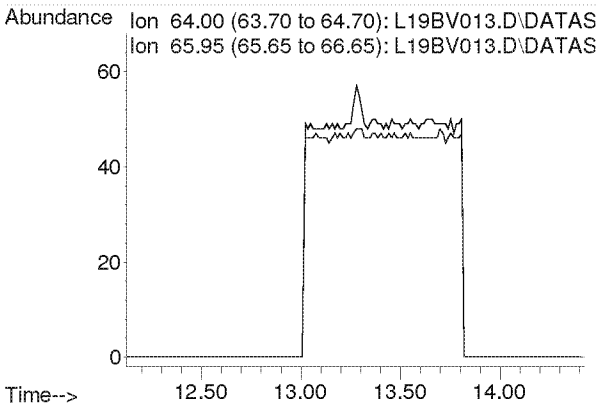


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

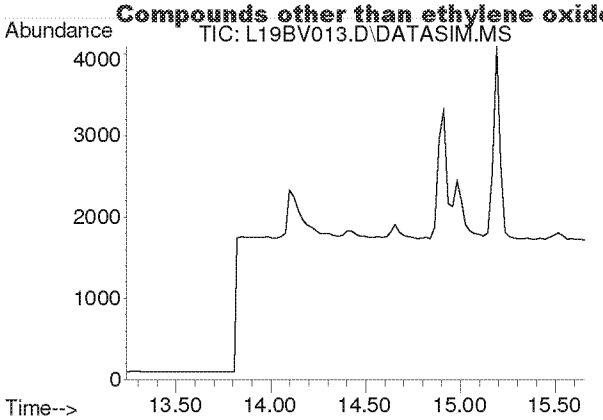
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

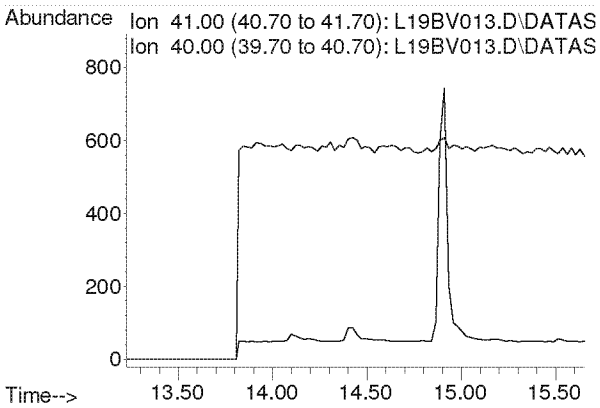


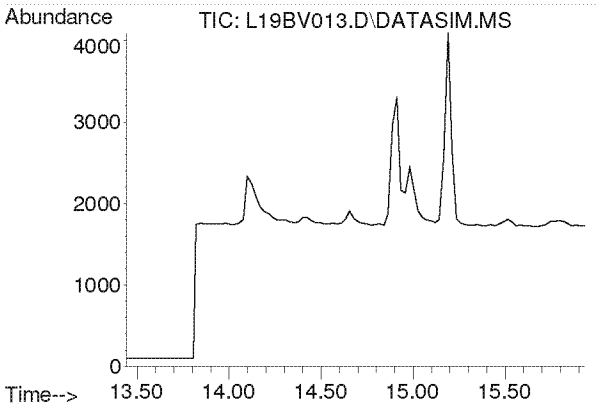
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



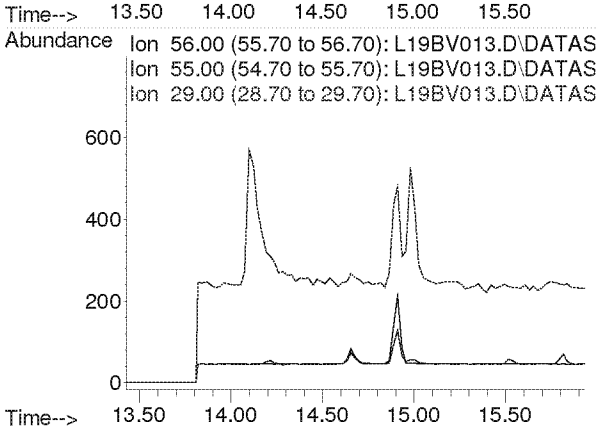


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

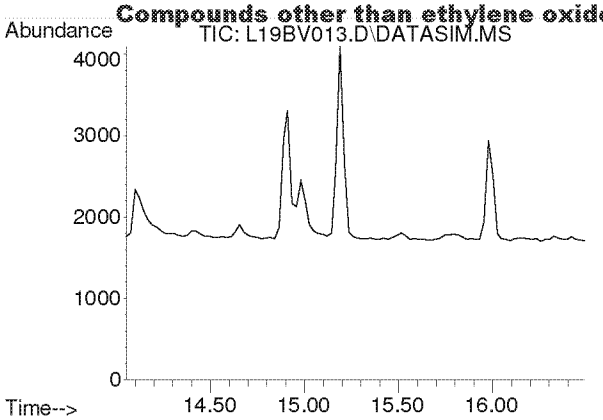
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

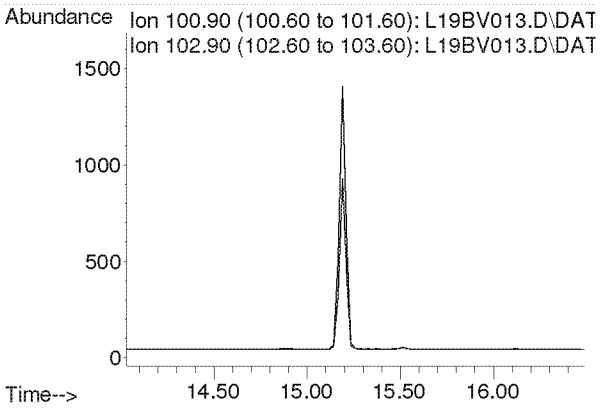


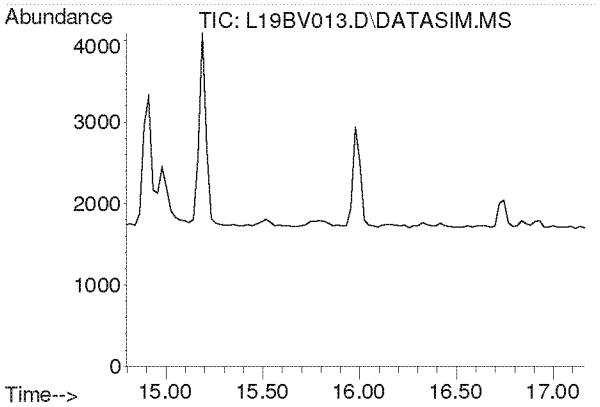
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



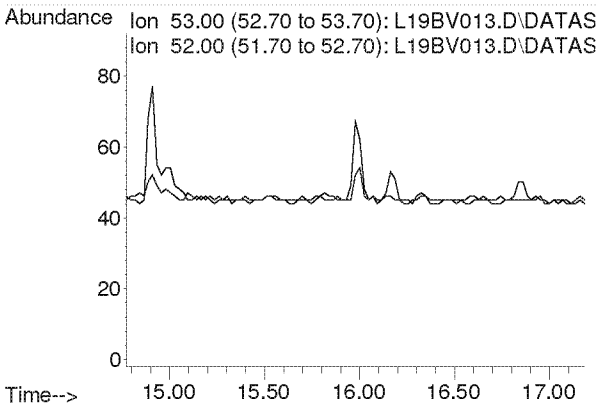


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

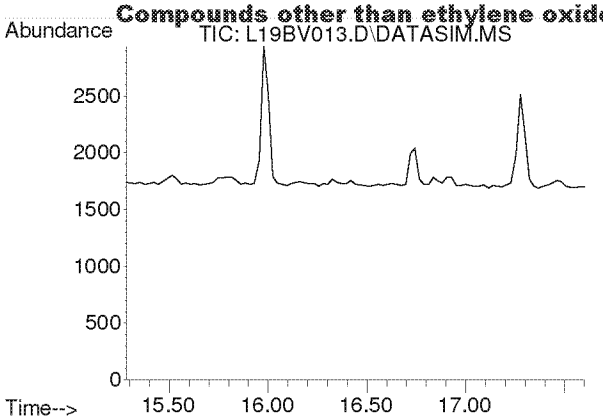
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

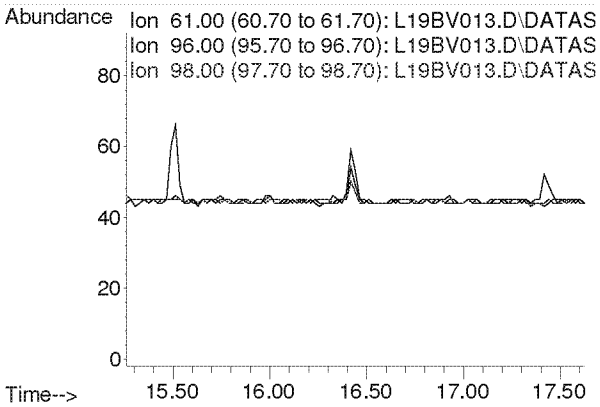


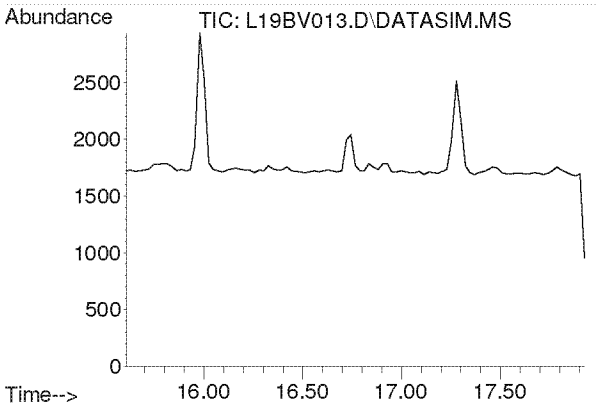
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



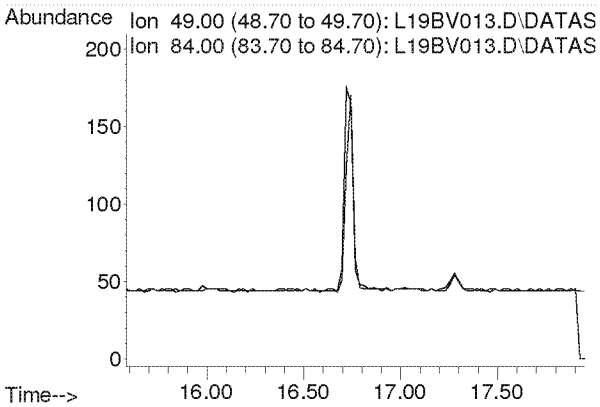


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

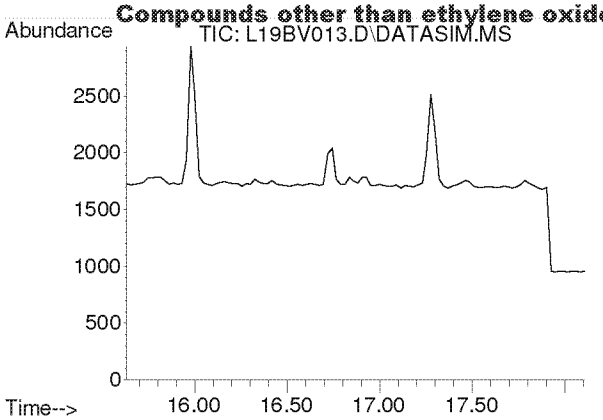
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

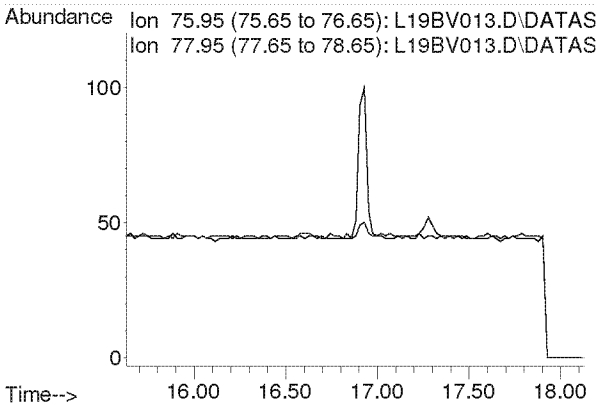


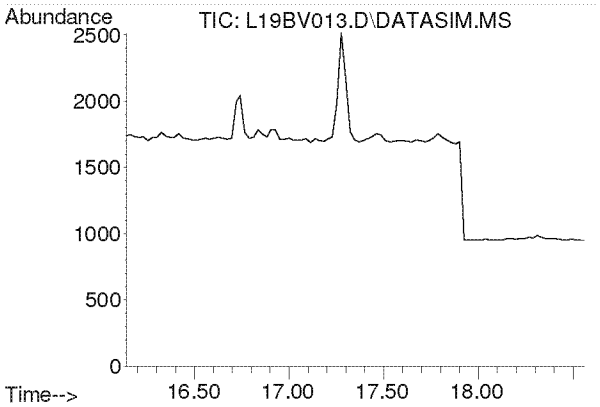
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



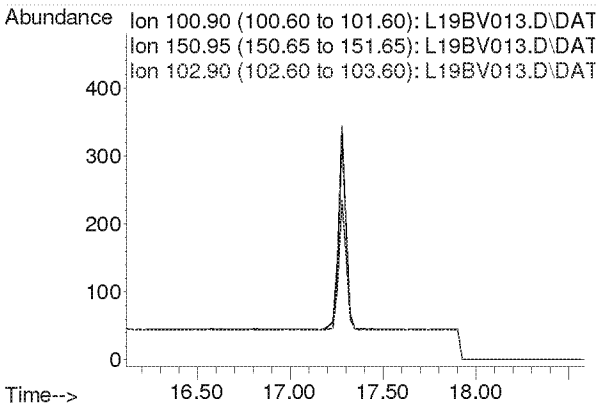


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

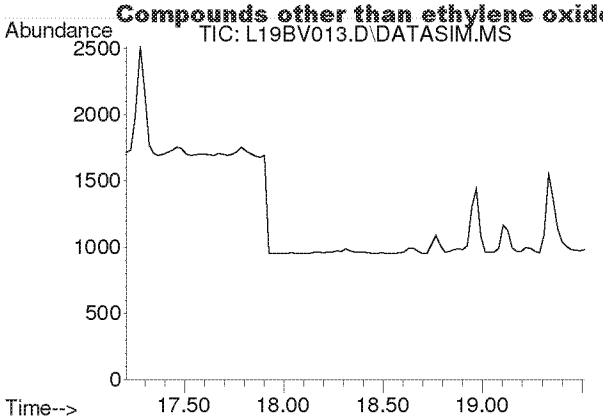
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

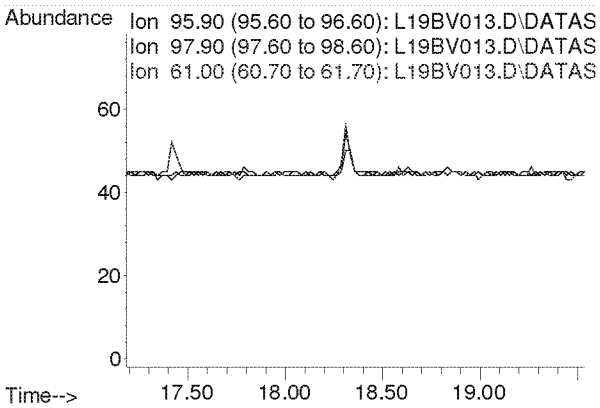


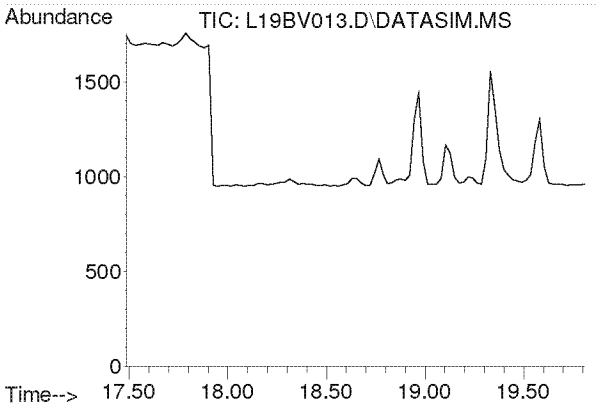
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



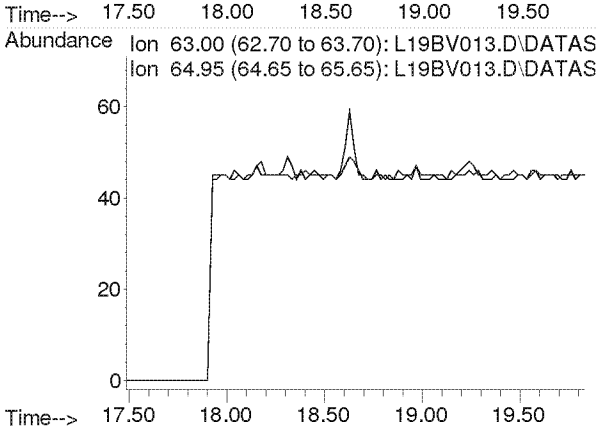


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

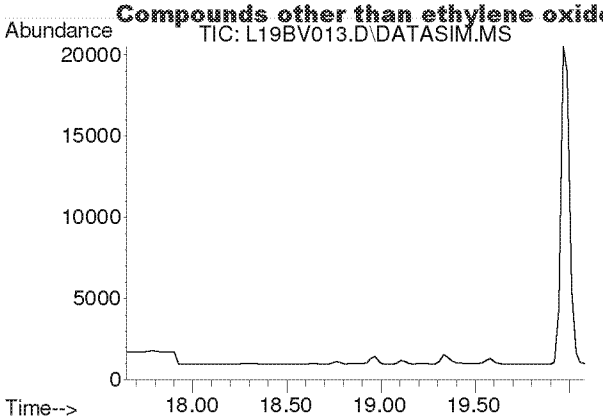
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

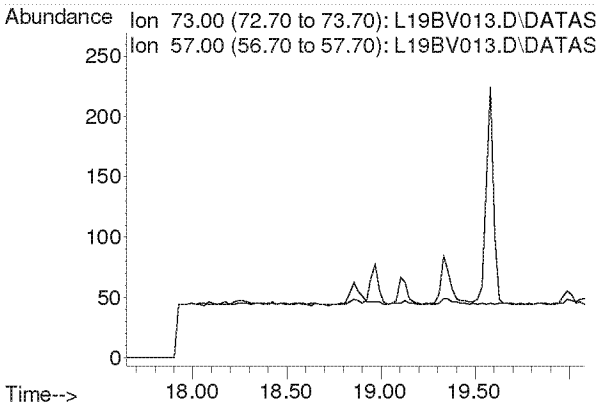


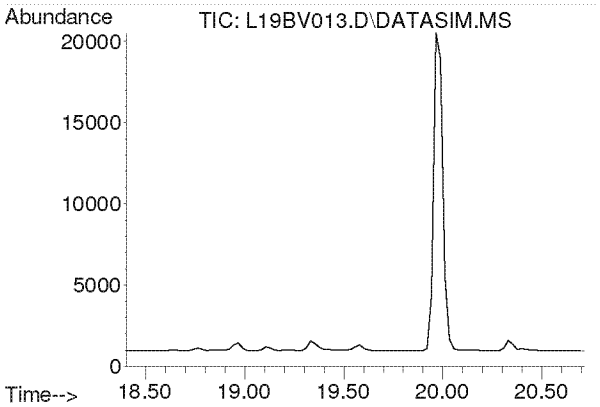
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



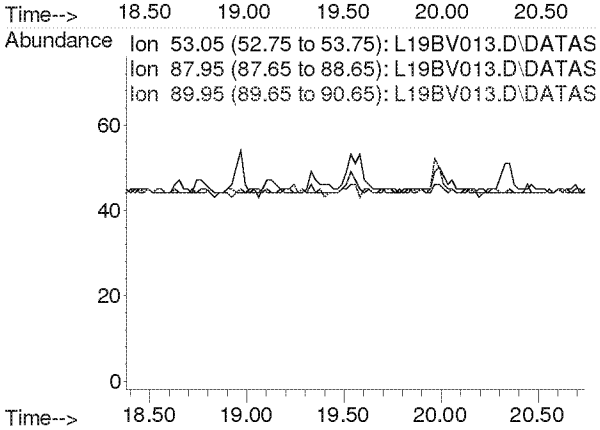


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

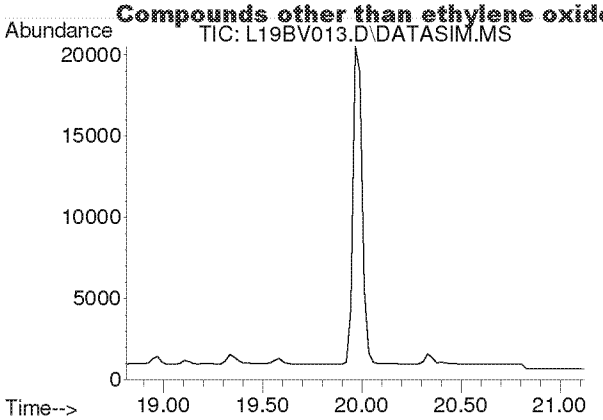
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

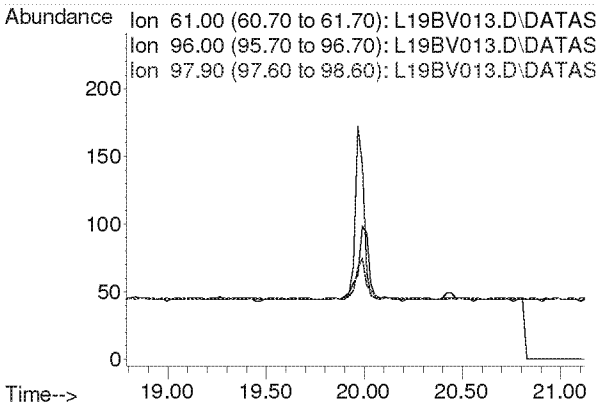


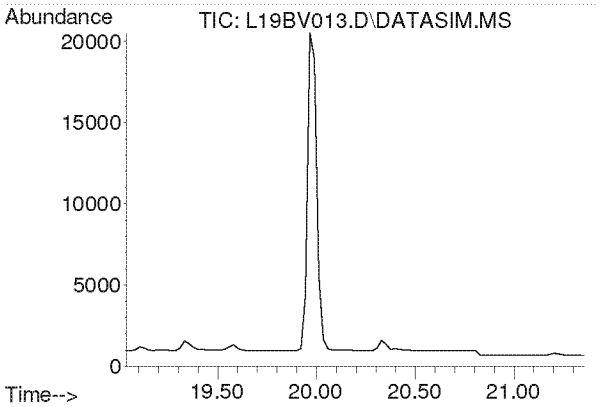
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



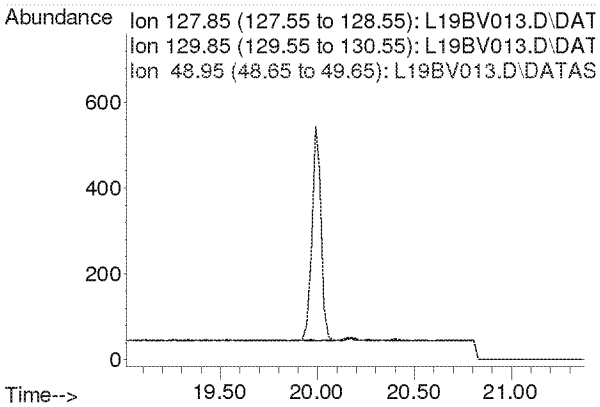


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

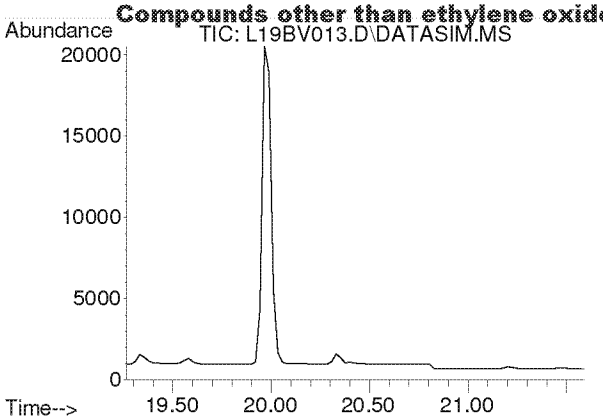
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

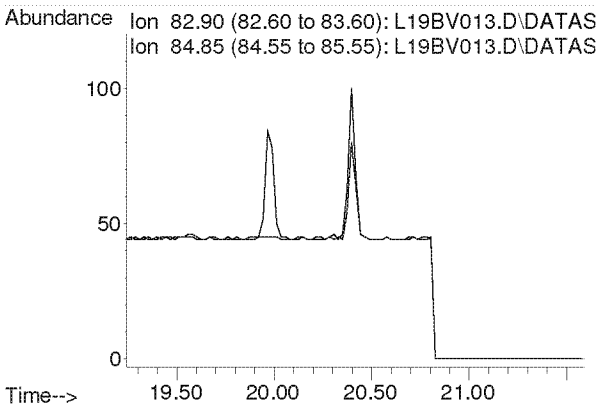


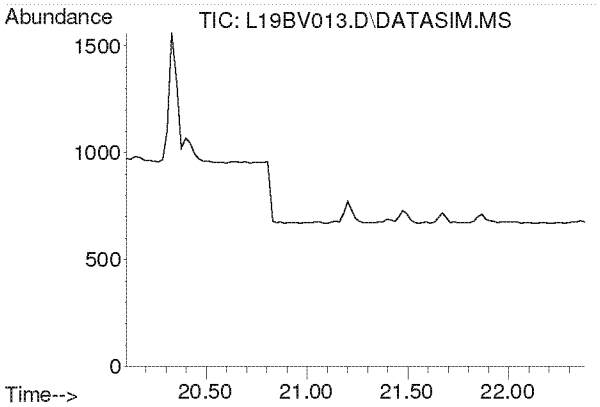
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



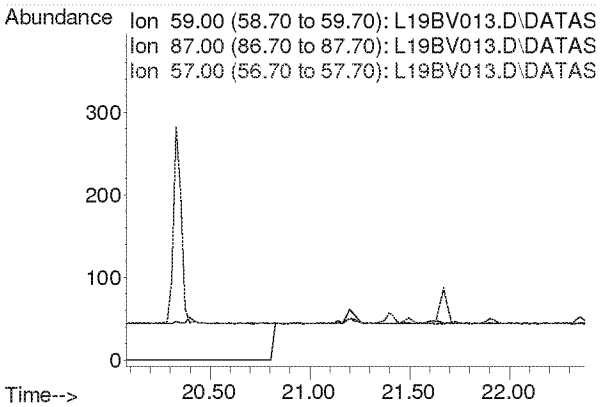


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

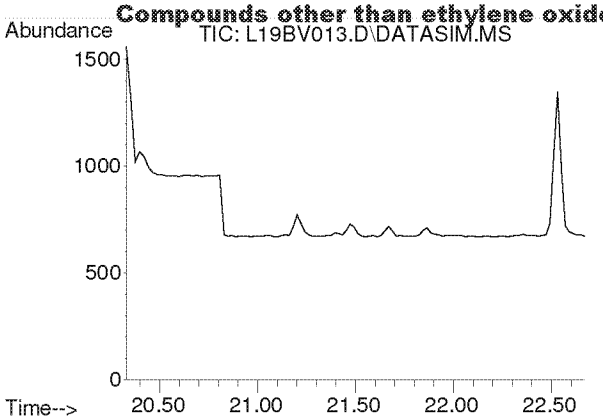
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

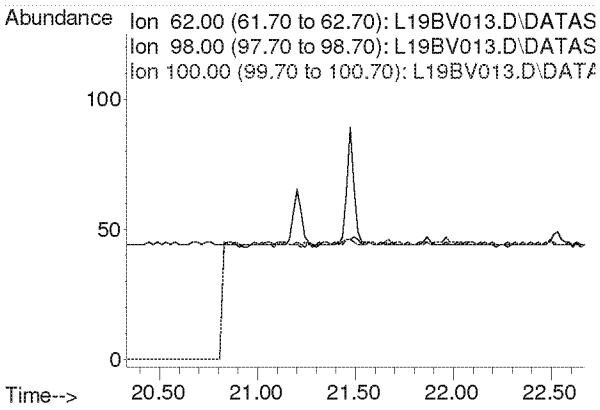


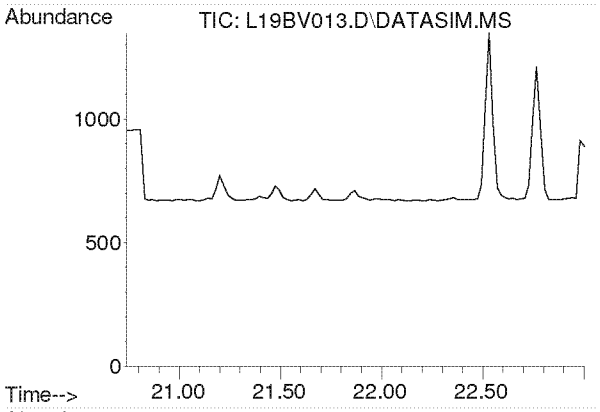
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



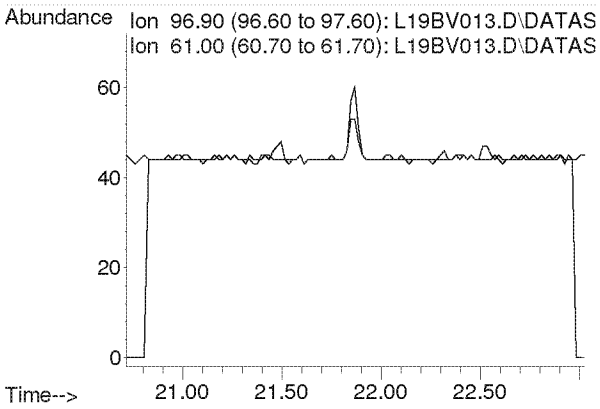


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

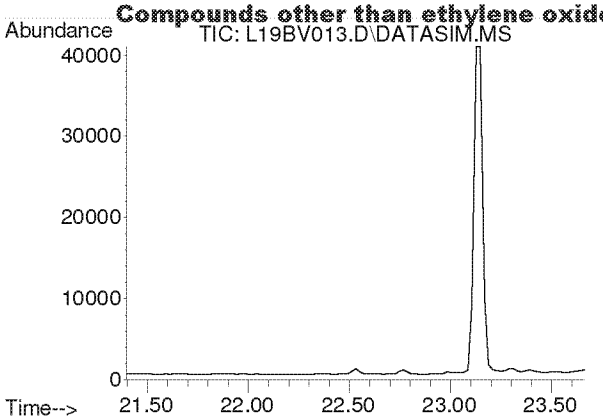
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

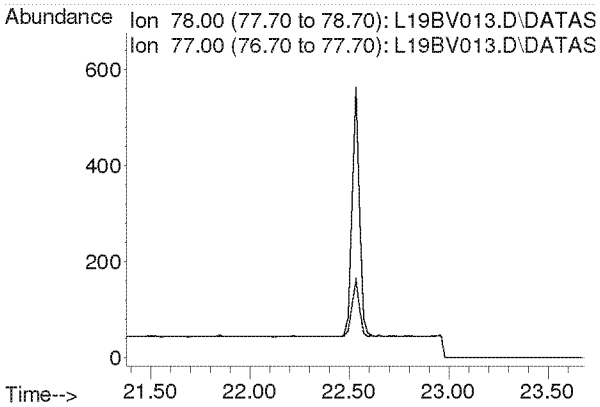


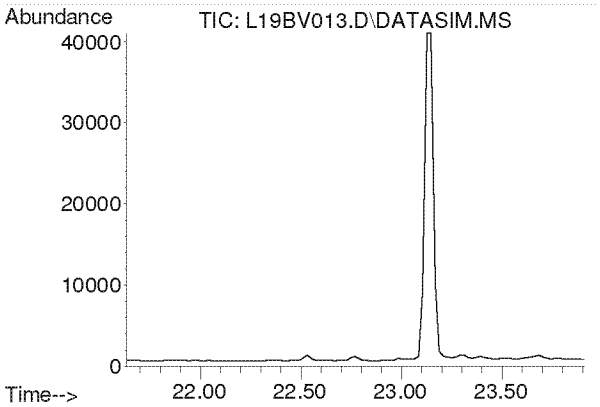
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



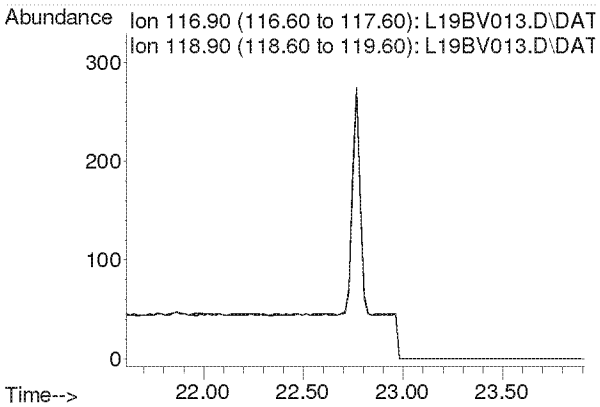


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

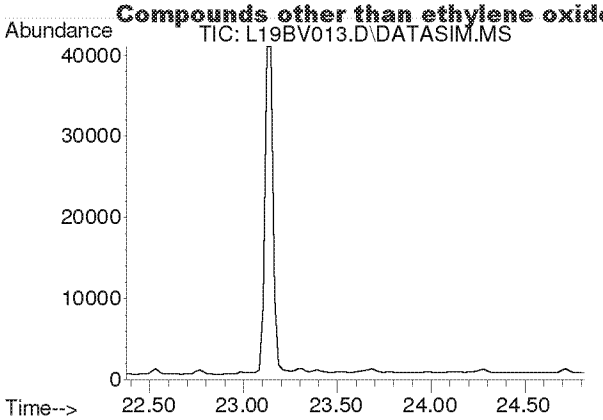
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

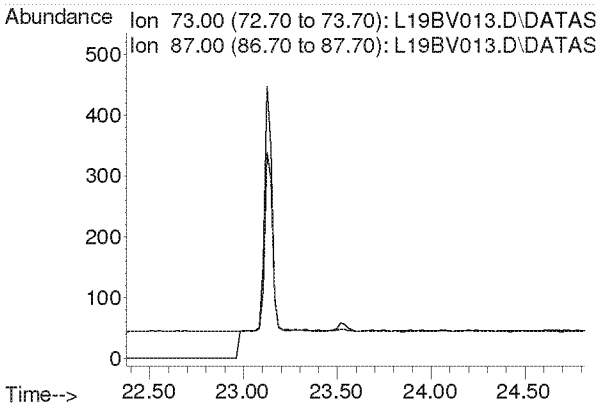


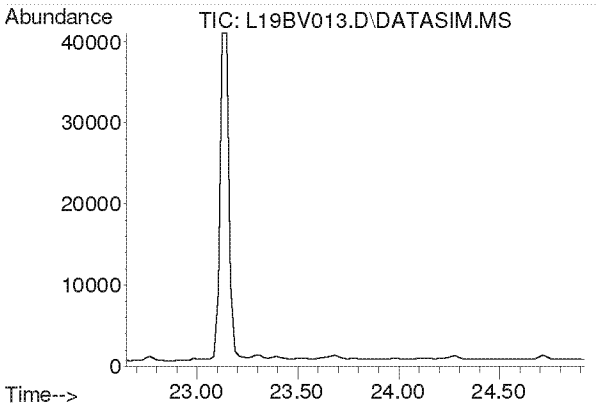
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



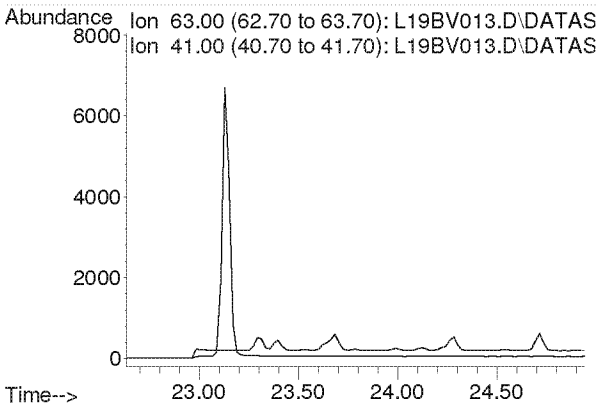


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

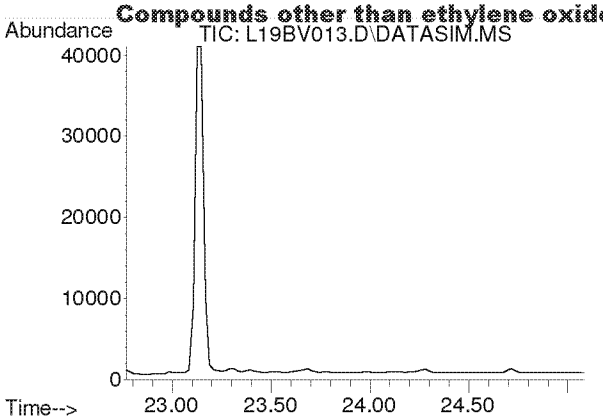
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

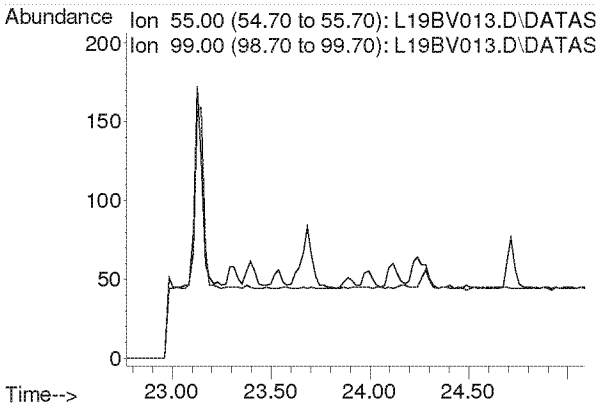


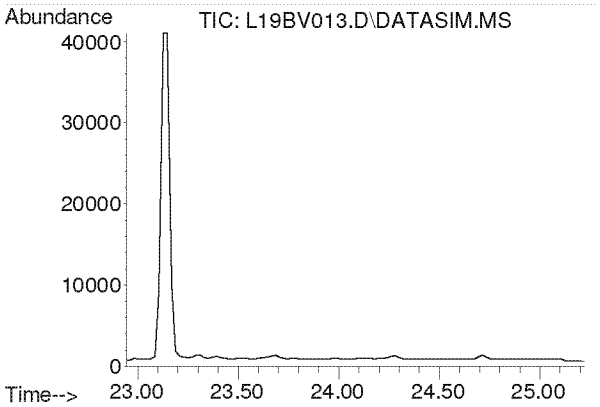
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



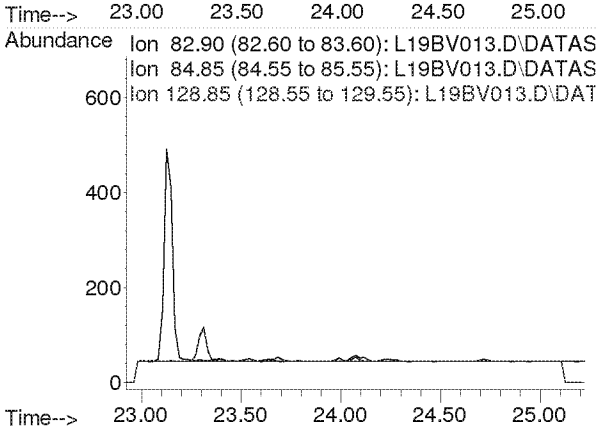


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

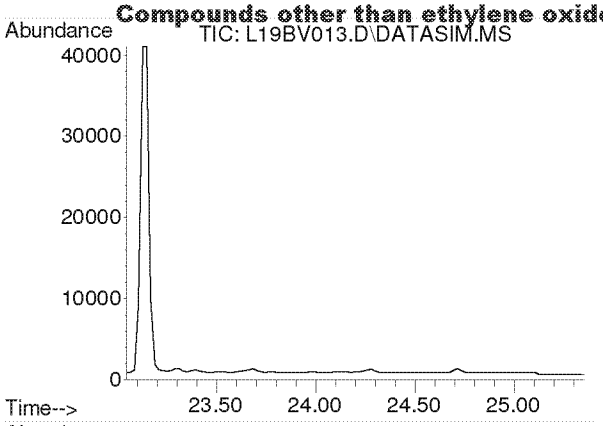
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

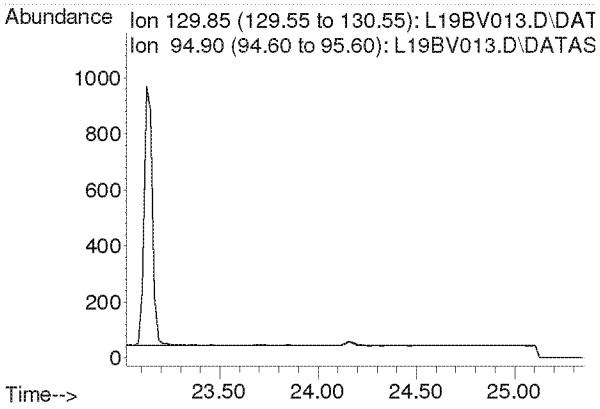


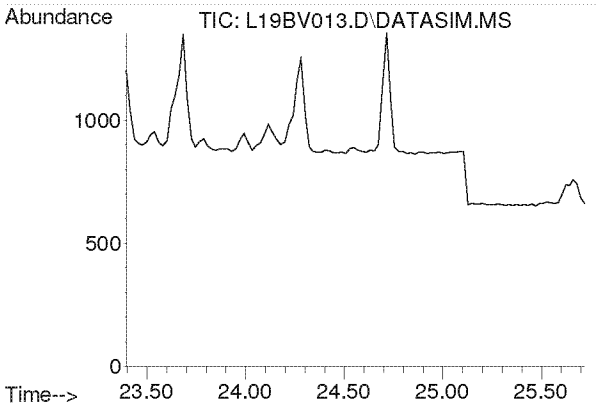
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



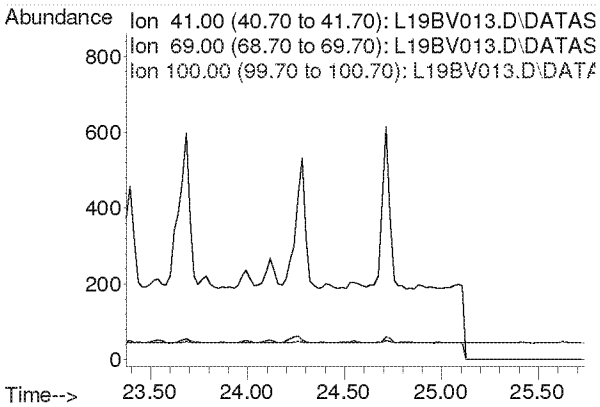


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

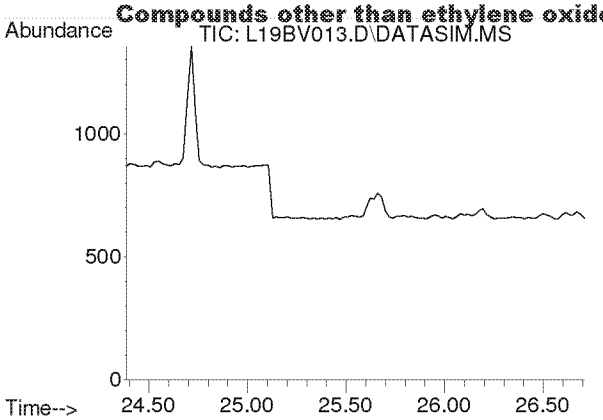
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

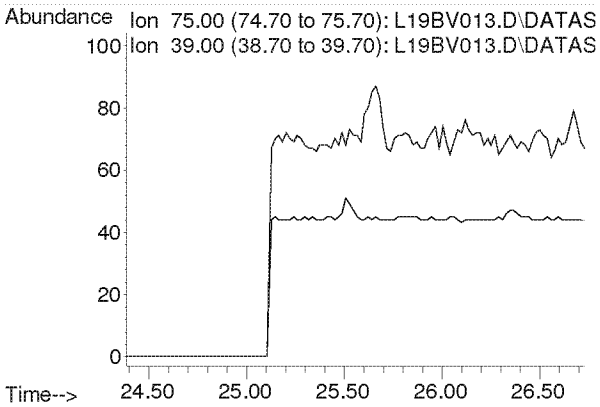


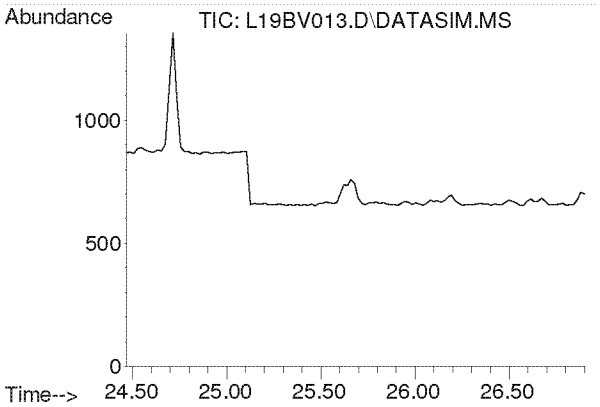
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



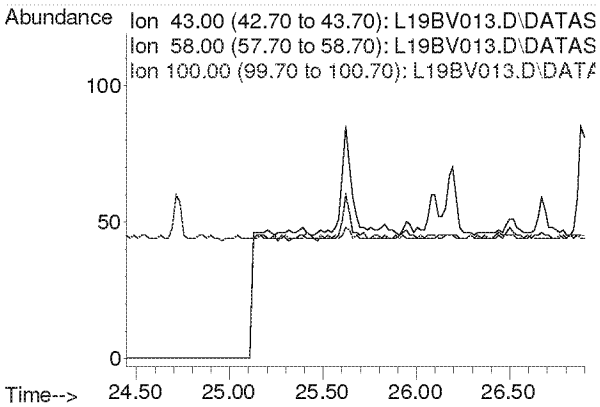


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

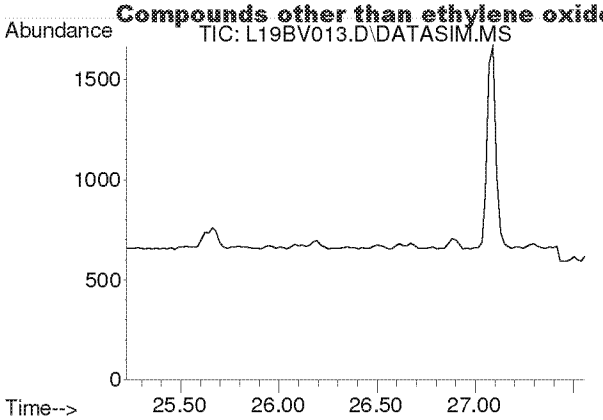
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

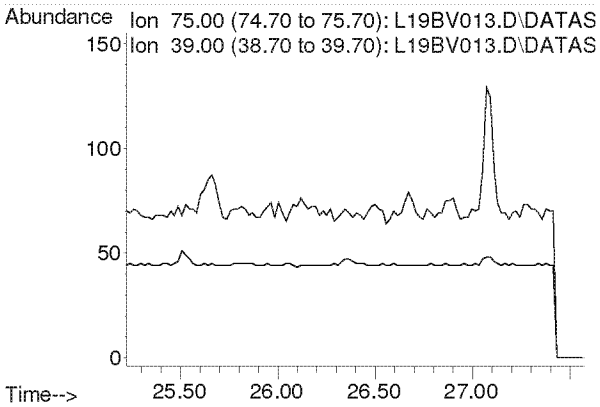


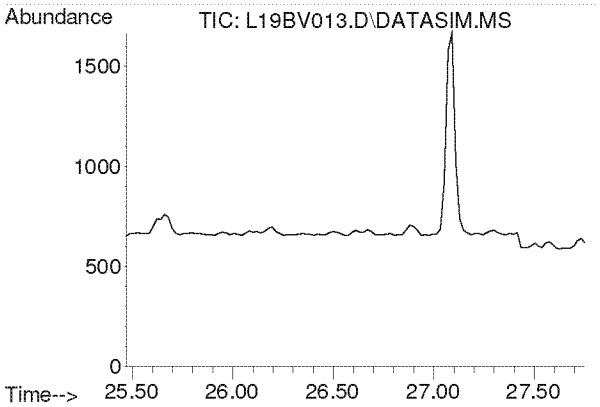
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



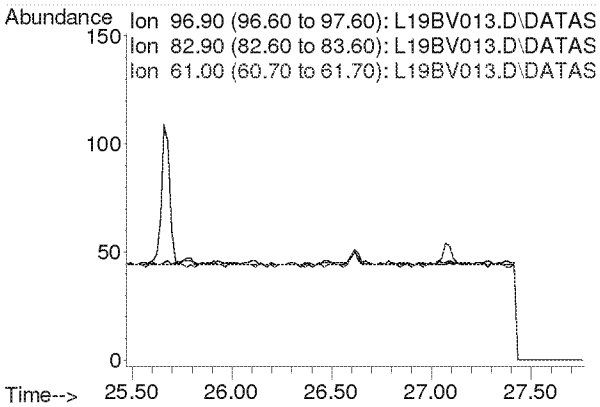


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

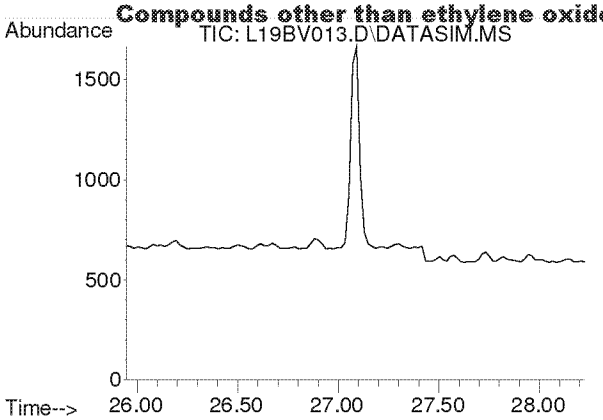
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

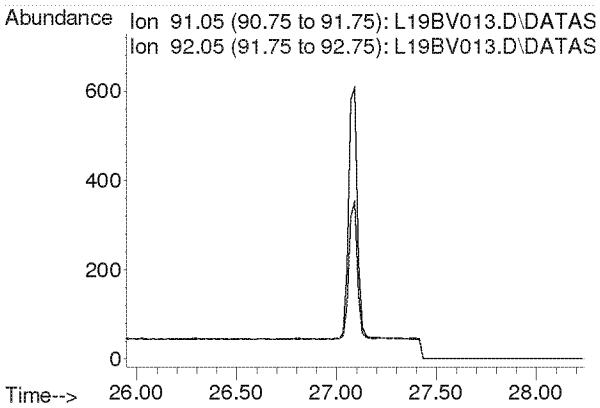


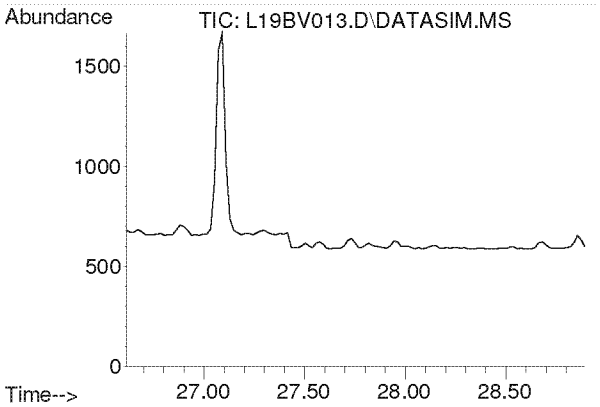
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



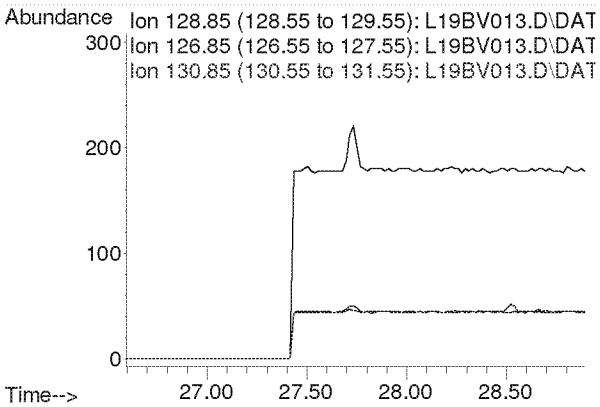


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

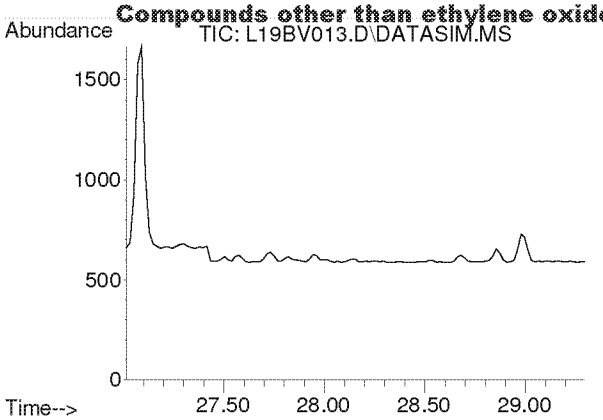
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

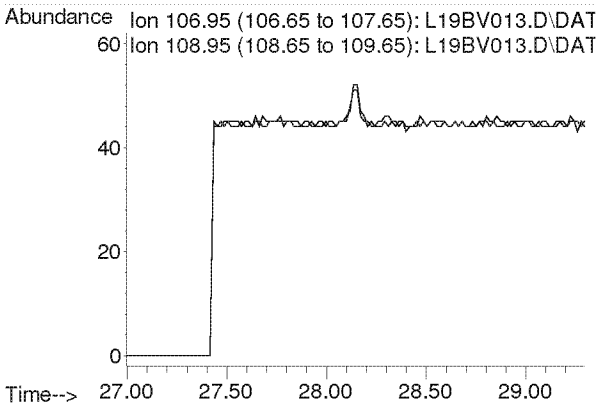


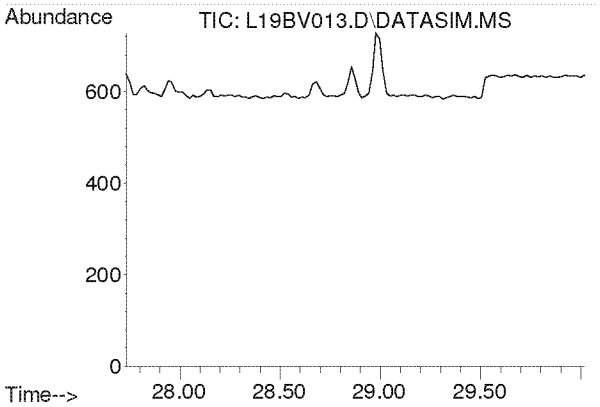
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



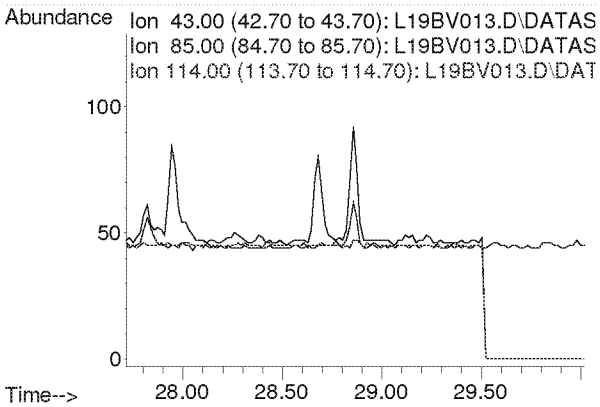


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

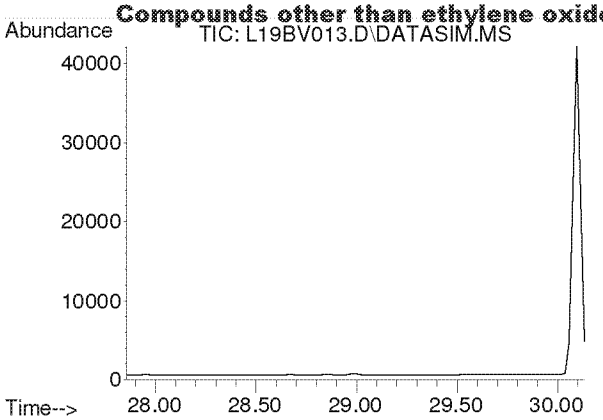
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

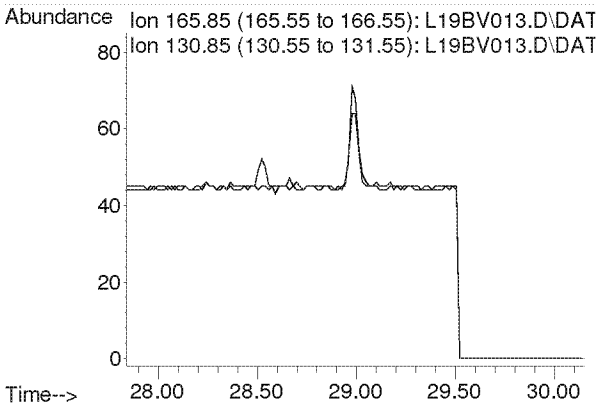


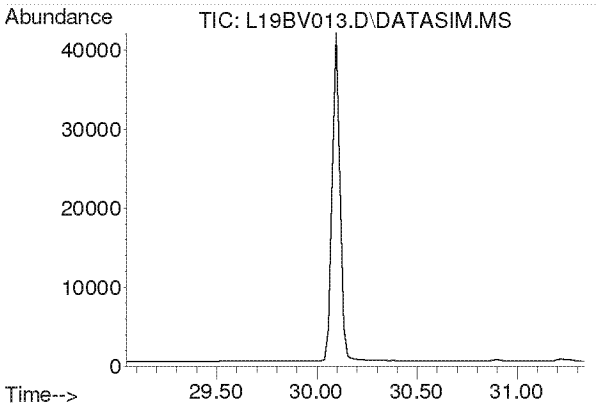
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



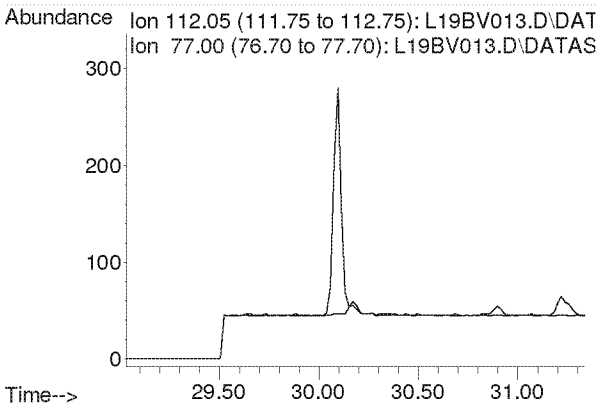


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

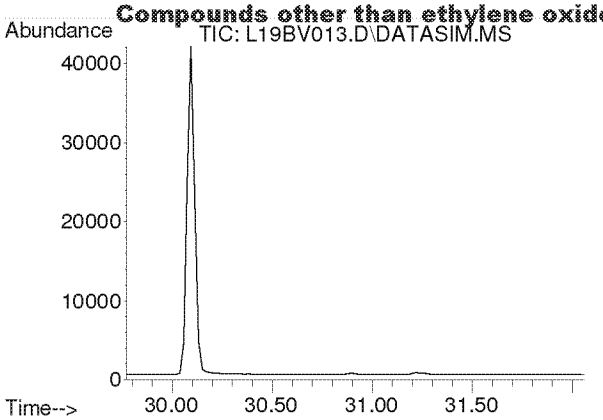
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

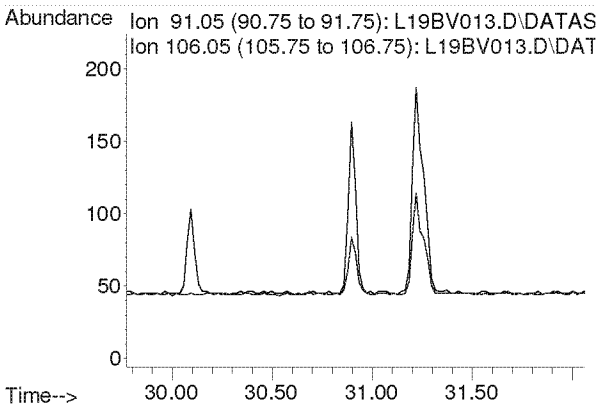


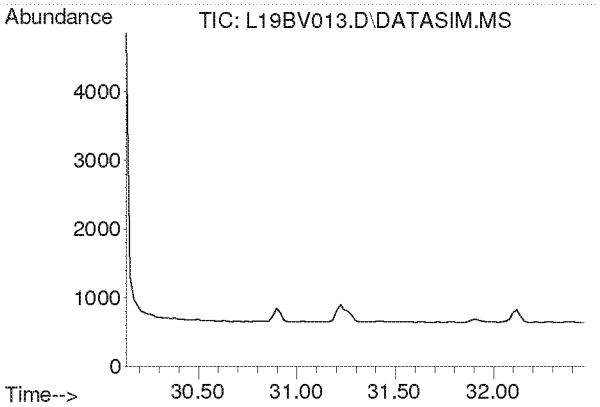
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



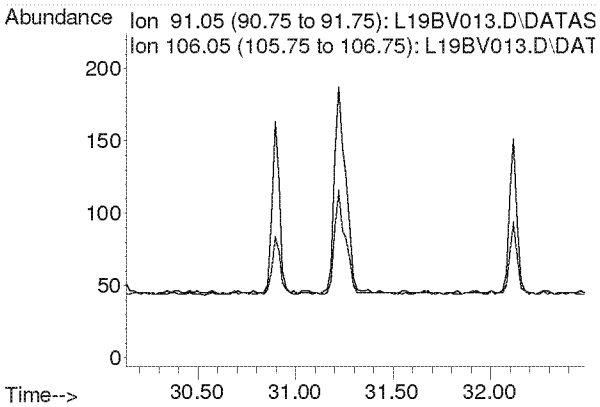


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

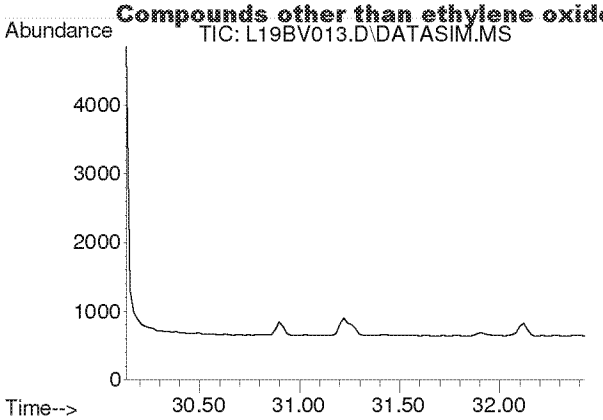
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

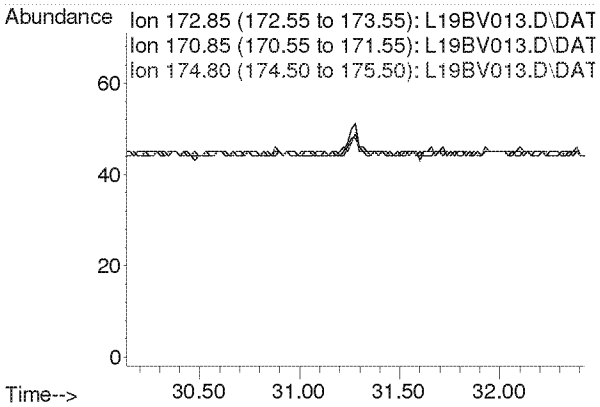


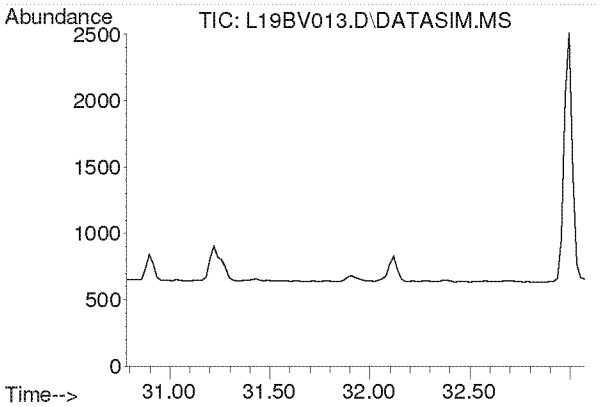
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



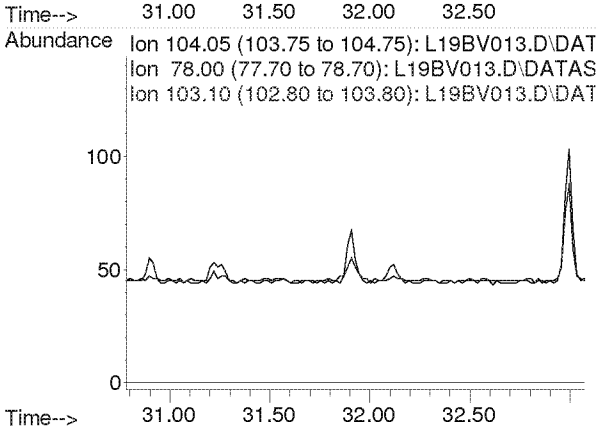


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

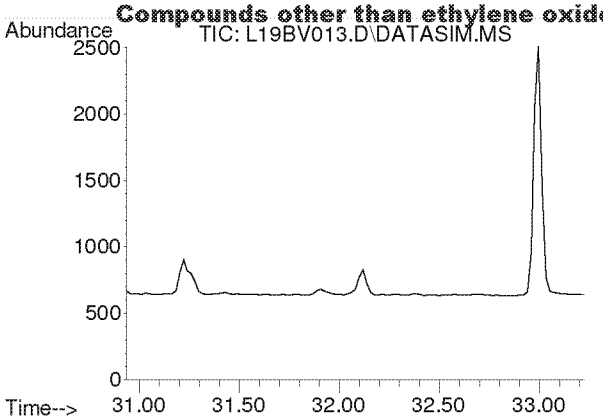
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

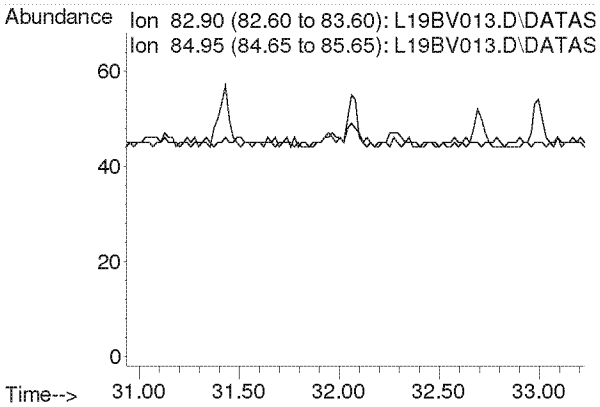


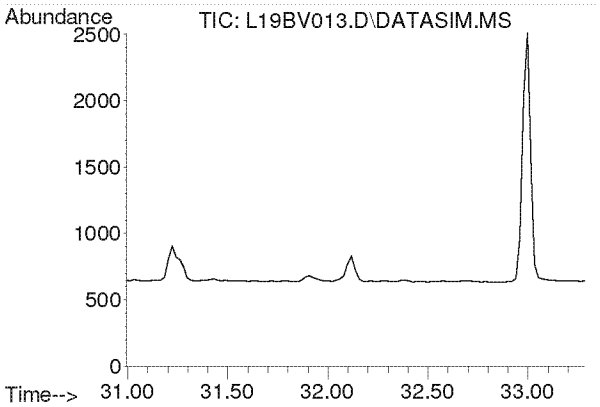
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



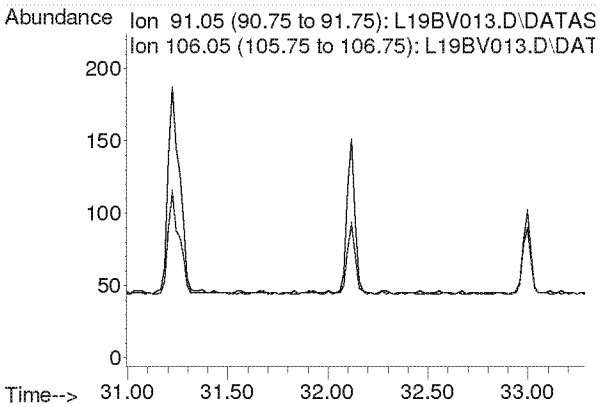


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

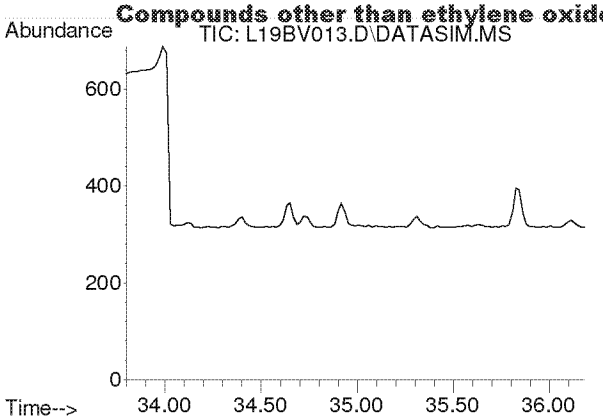
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

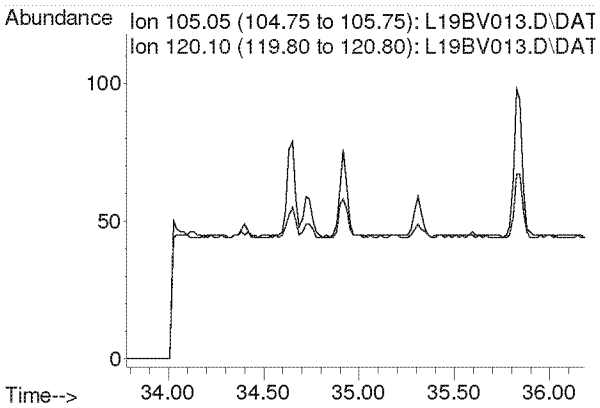


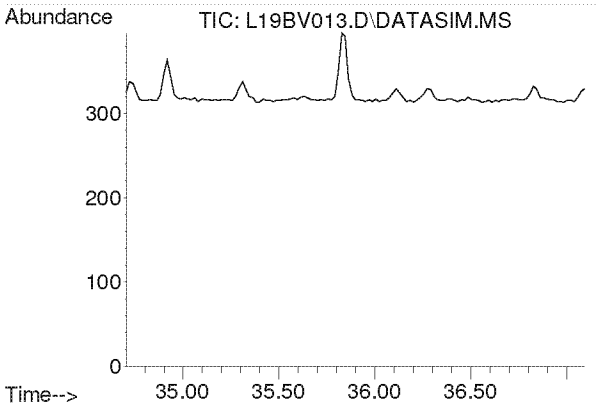
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



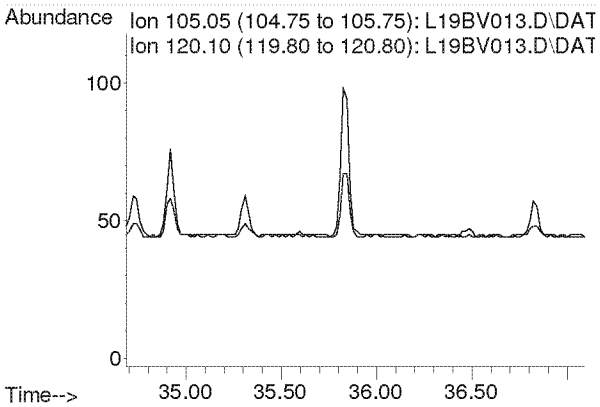


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

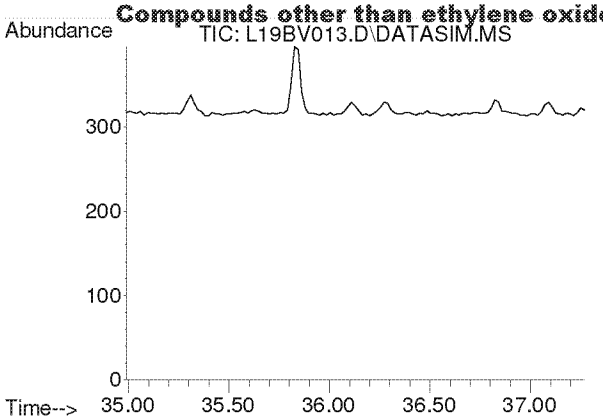
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

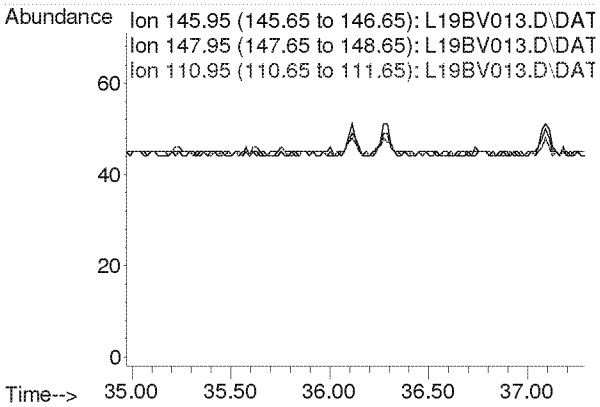


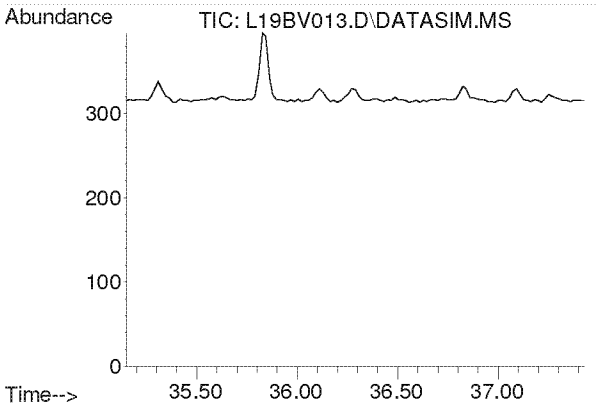
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



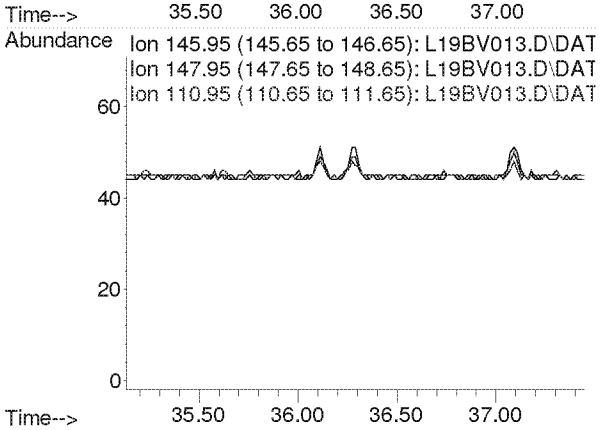


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

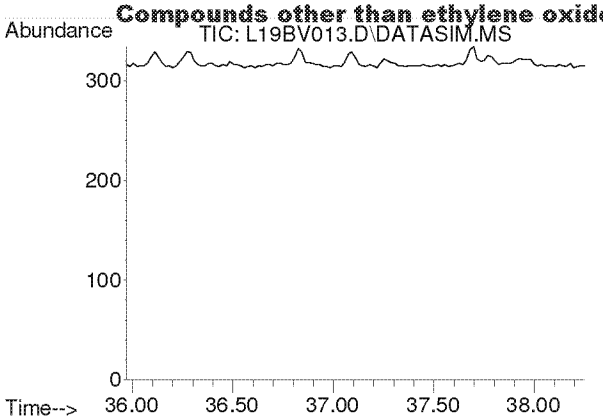
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

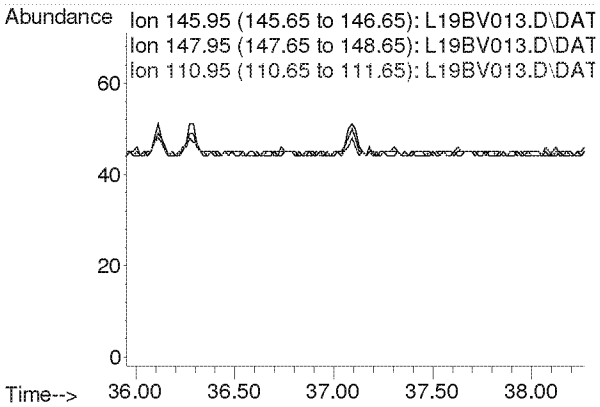


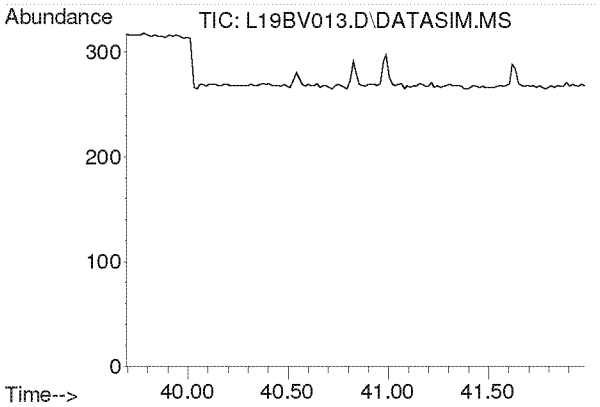
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



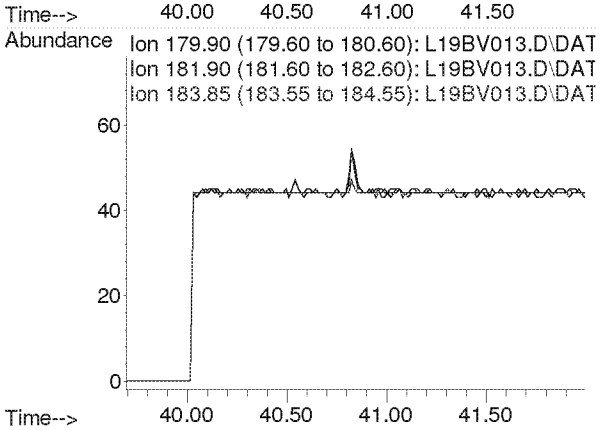


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

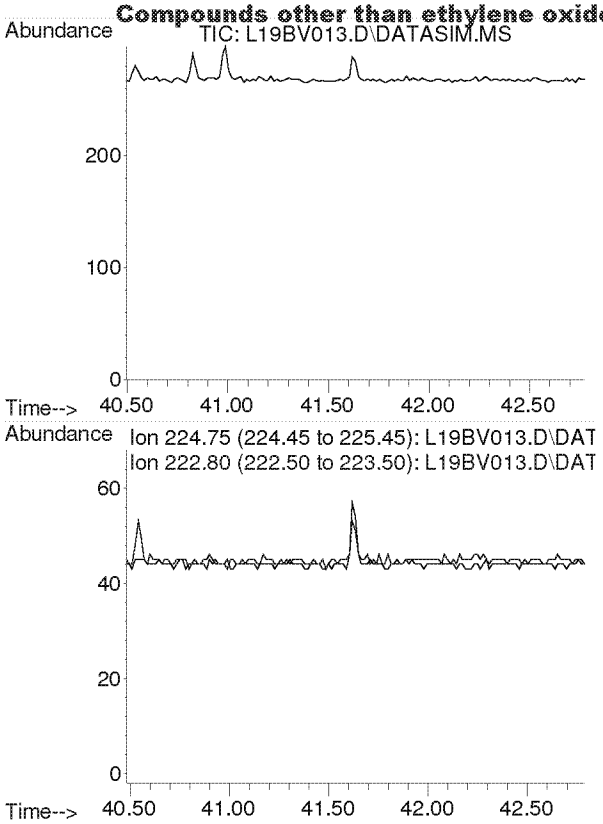
Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19BV013.D
Acq: 22 Feb 2019 8:42 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV014.D
Acq On : 22 Feb 2019 9:43 pm (#1); 22-Feb-19, 21:37:51 (#2)
Operator : MAH
Sample : 9022025-06
Misc : GOWER MS 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 25 07:23:31 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.968	66	40924	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.128	114	105833	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	70719	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.453	29	369m	0.1576 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. 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. d	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. 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. 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\L19BV\
Data File : L19BV014.D
Acq On : 22 Feb 2019 9:43 pm (#1); 22-Feb-19, 21:37:51 (#2)
Operator : MAH
Sample : 9022025-06
Misc : GOWER MS 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 25 07:23:31 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

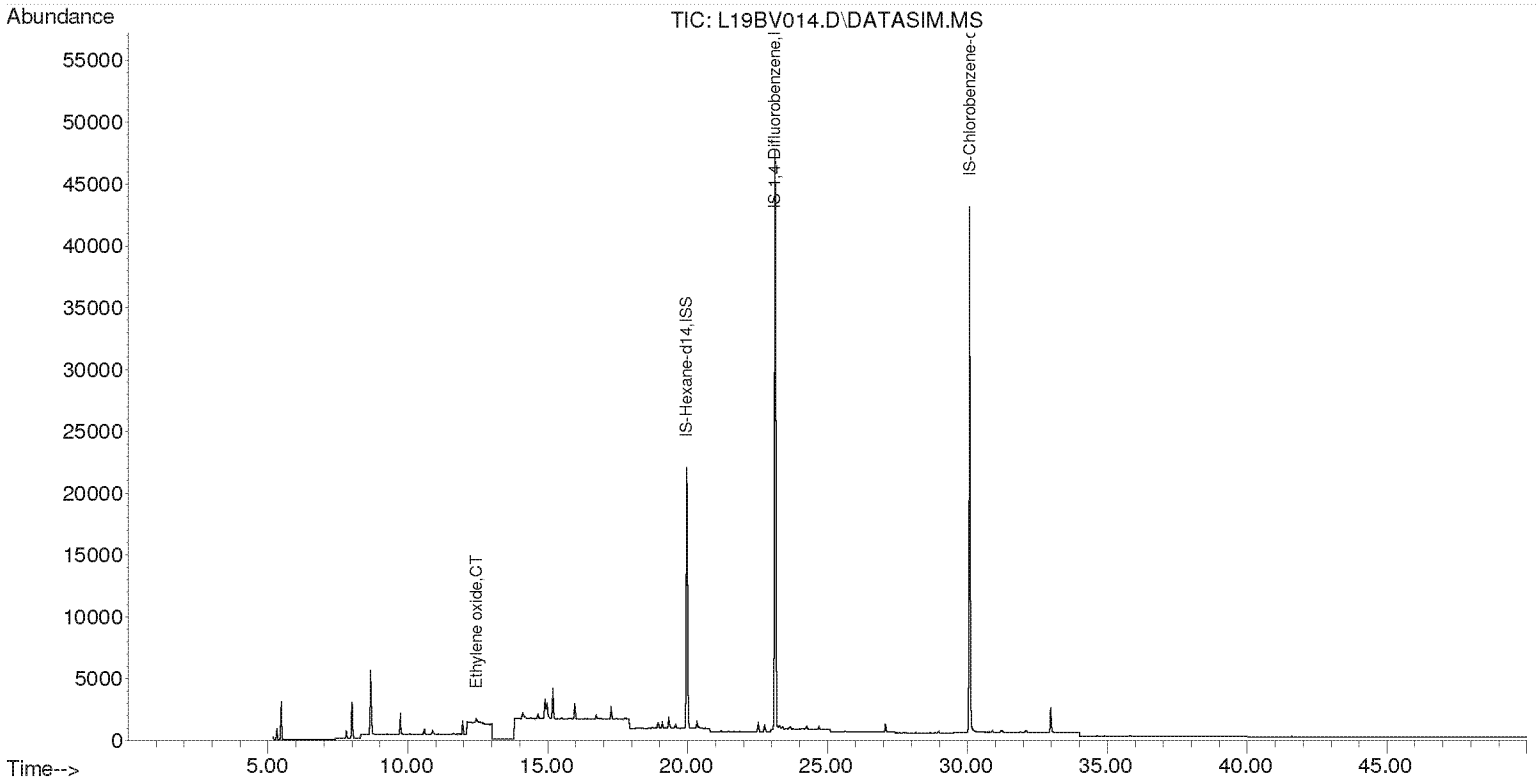
(#) = qualifier out of range (m) = manual integration (+) = signals summed

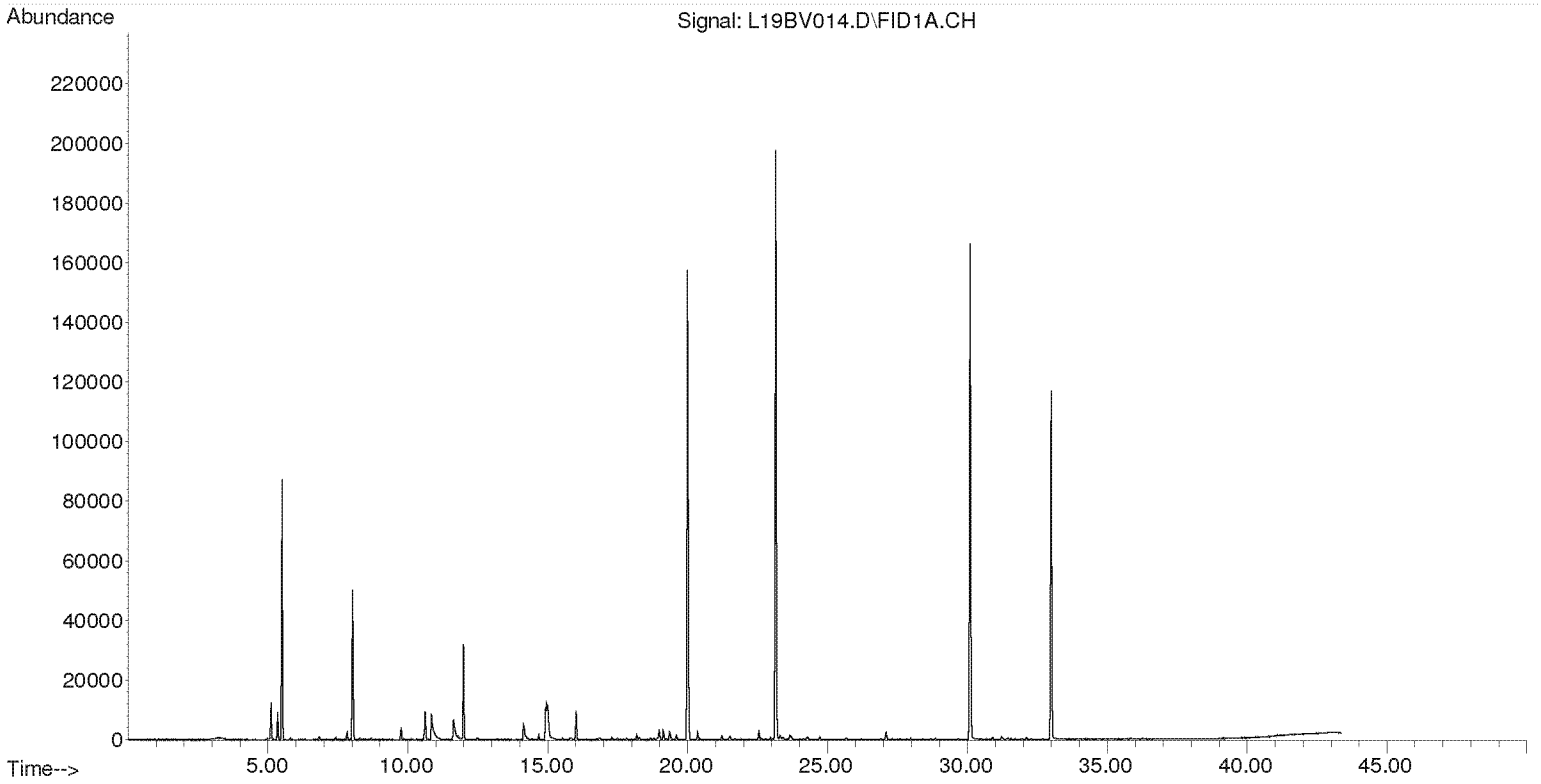
ED_002475_00000282-00248

Compounds other than ethylene oxide were not quantitated.

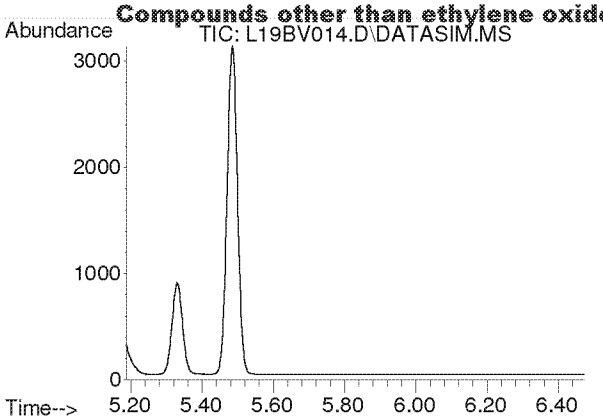
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV014.D
Acq On : 22 Feb 2019 9:43 pm (#1); 22 Feb 2019 9:37 pm (#2)
Operator : MAH
Sample : 9022025-06
Misc : GOWER MS 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 25 07:22:50 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





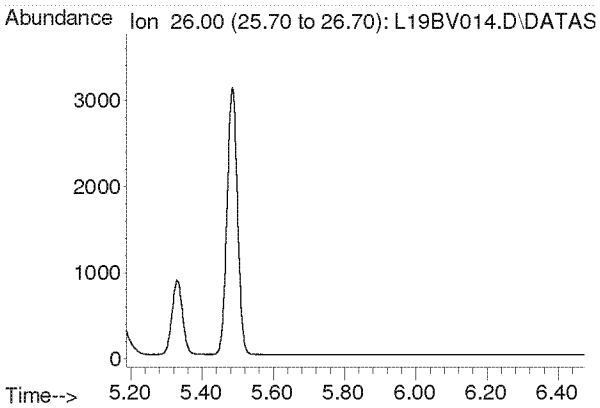
Compounds other than ethylene oxide were not quantitated.

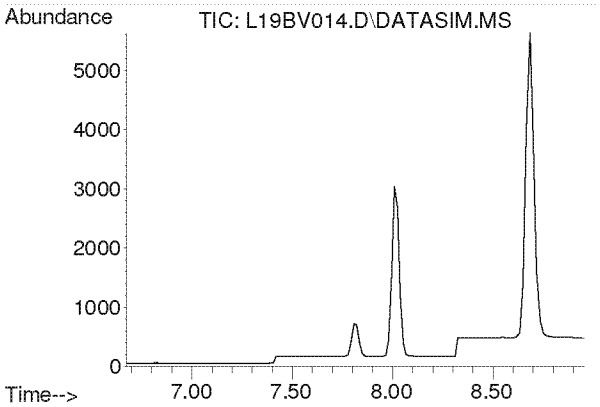


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 26



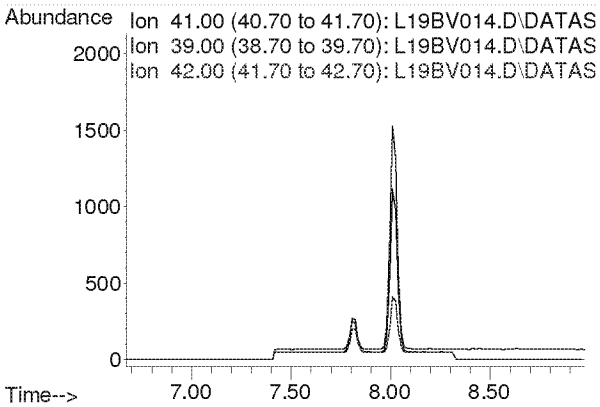


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

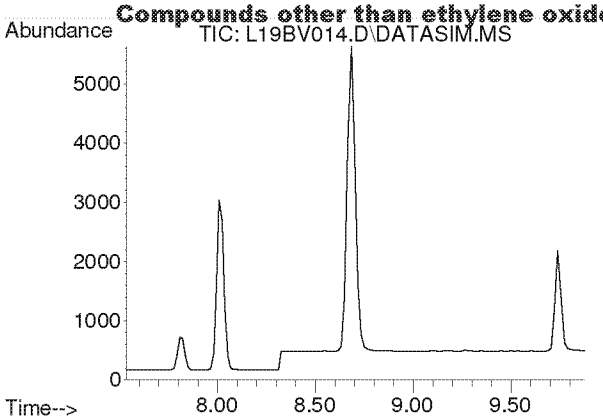
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

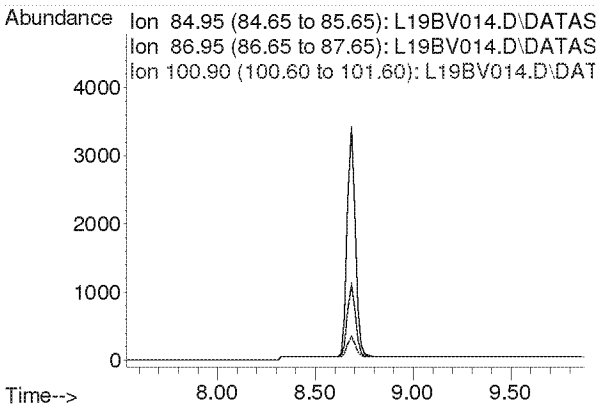


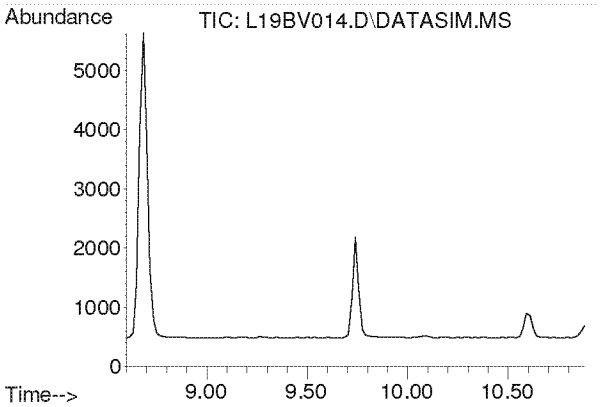
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



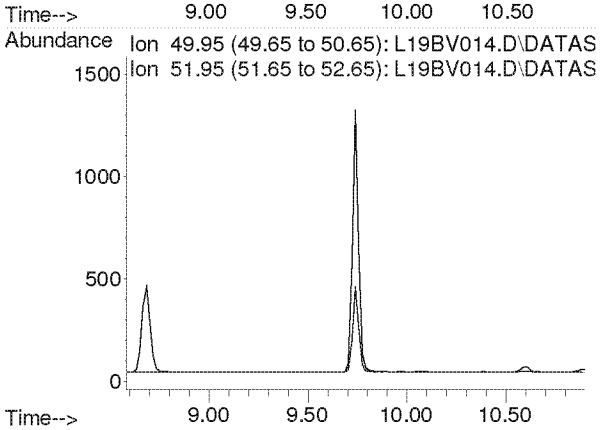


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

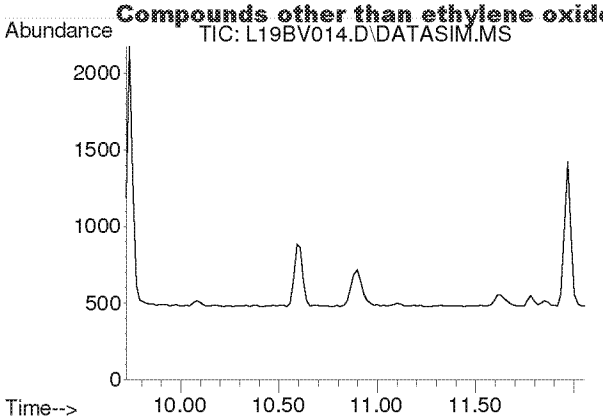
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

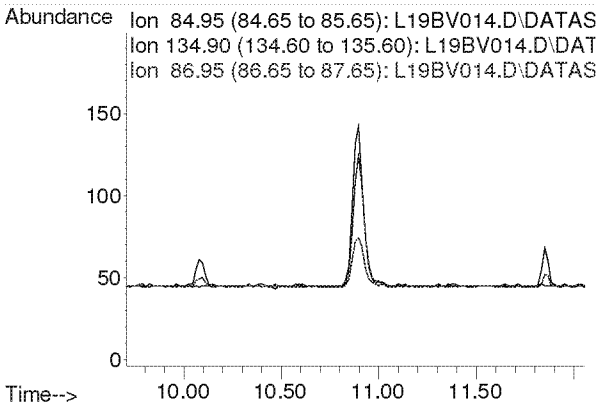


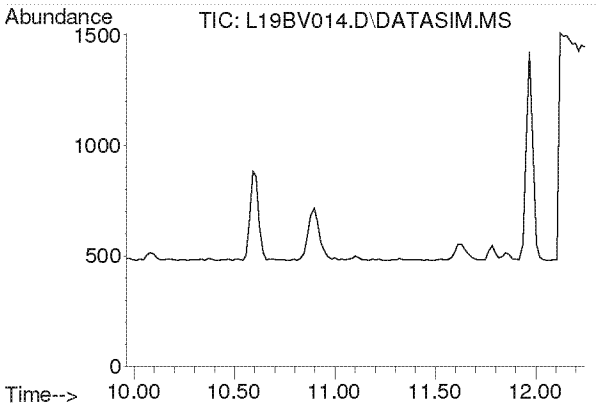
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



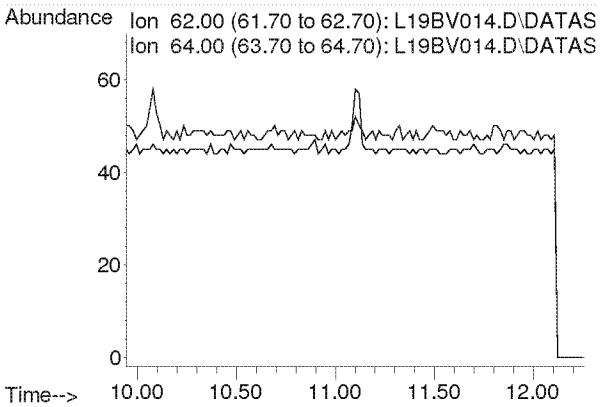


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

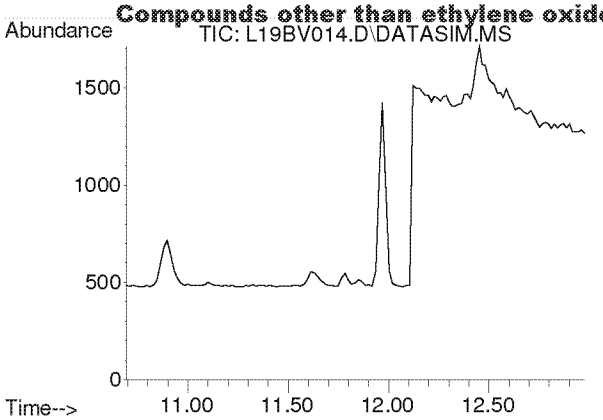
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

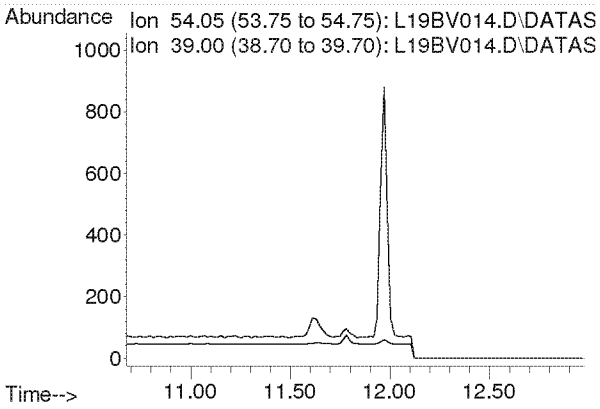


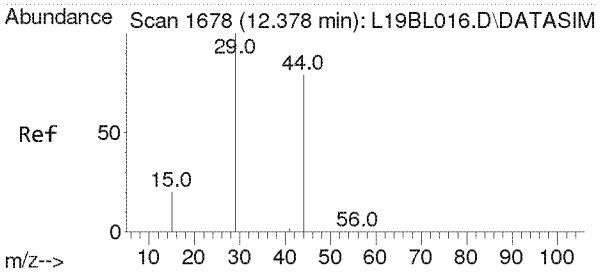
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

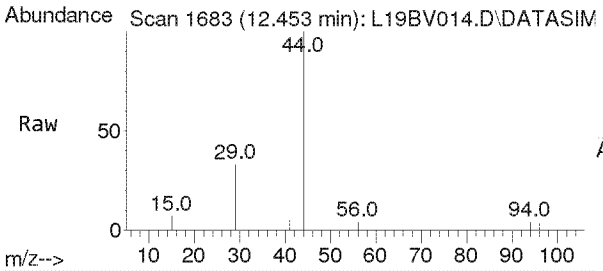


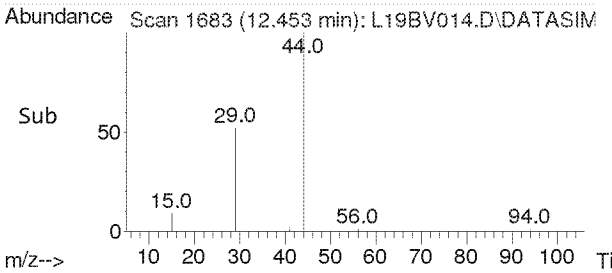


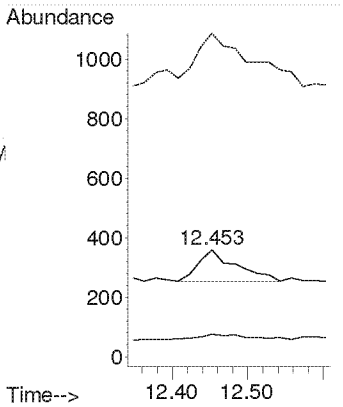
#9
Ethylene oxide
Concen: 0.158 ppbv m
RT: 12.453 min Scan# 1683
Delta R.T. 0.003 min
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 29 Resp: 369

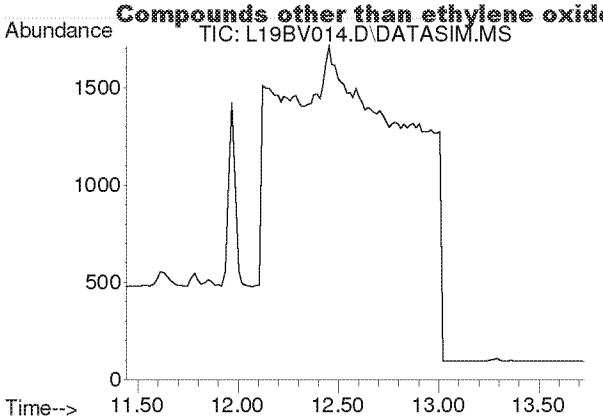
Ion	Ratio	Lower	Upper
29	100		
15	28.2	16.0	24.0#
44	269.1	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

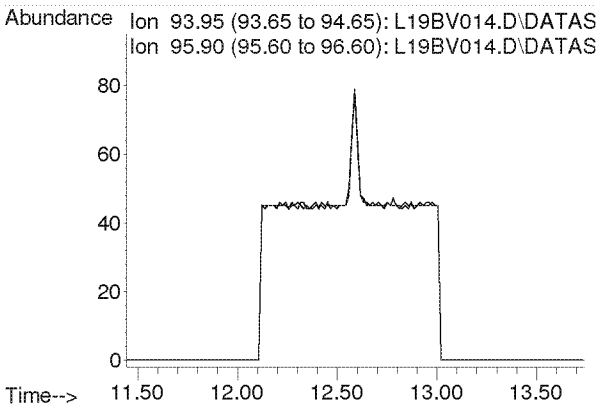


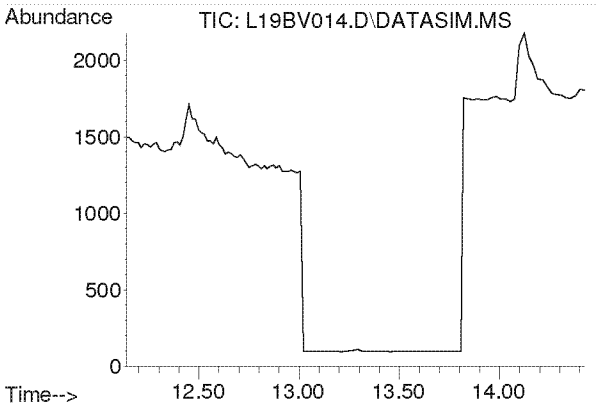
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



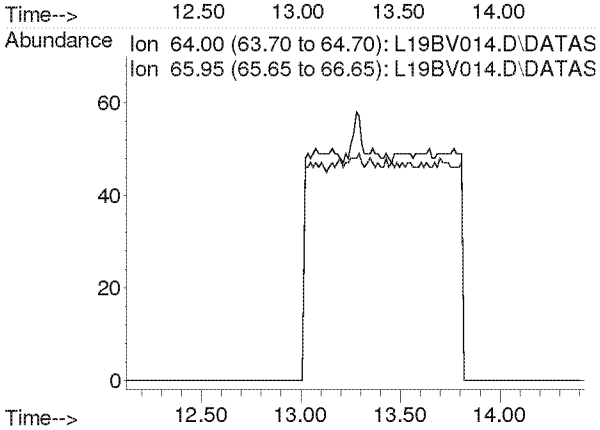


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

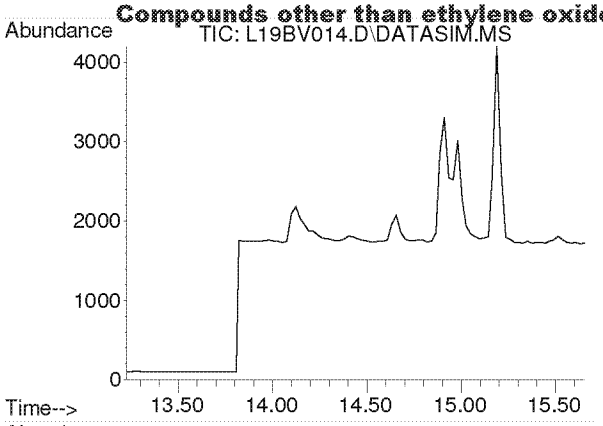
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

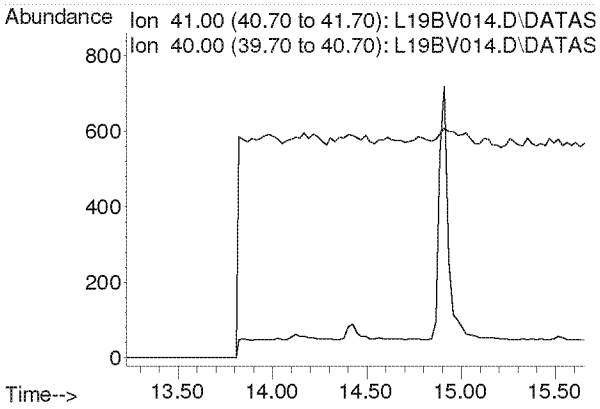


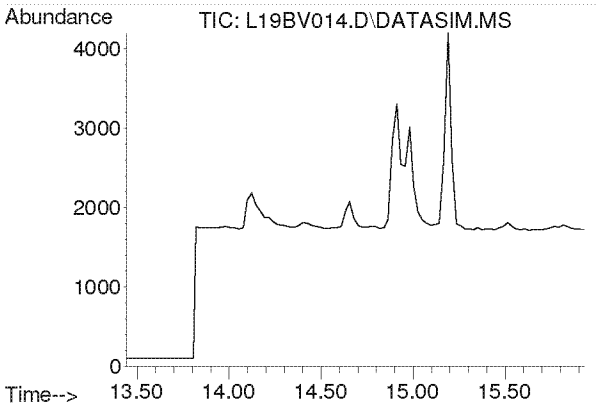
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



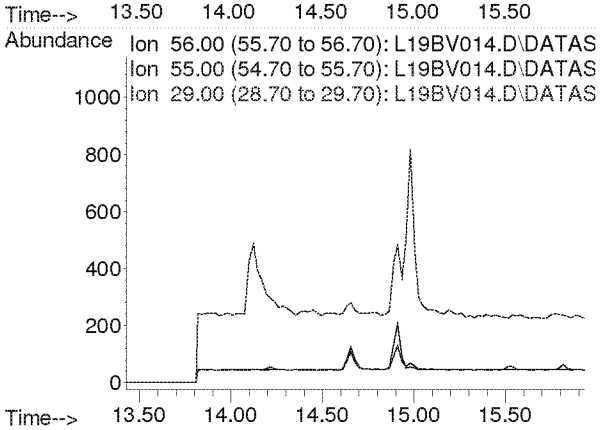


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

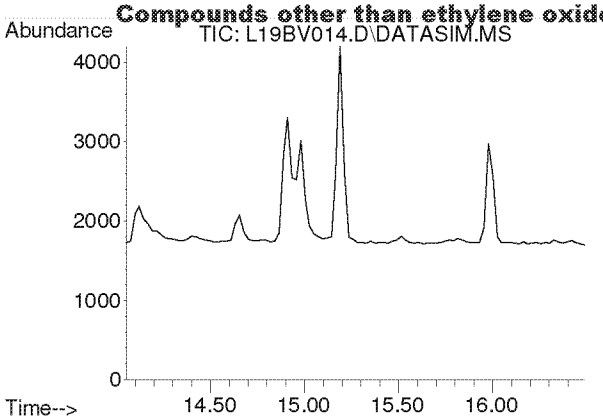
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

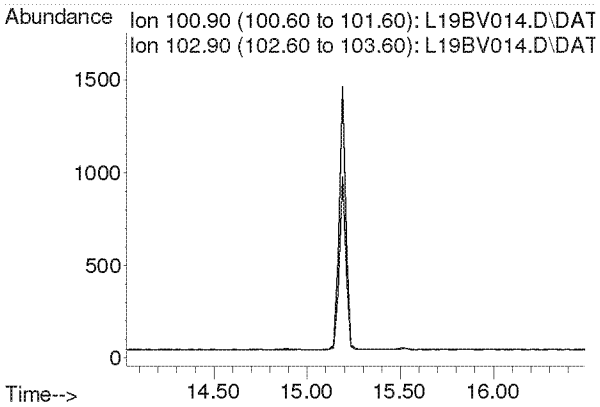


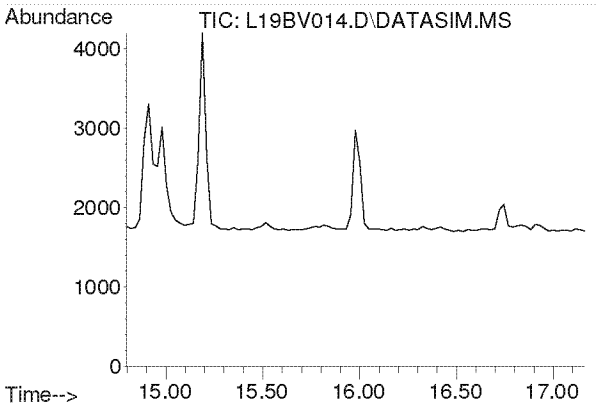
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



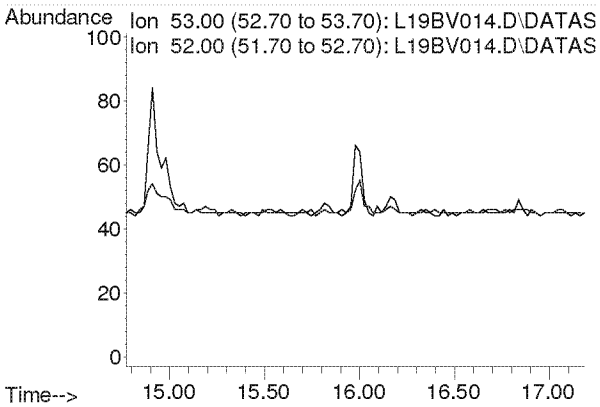


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

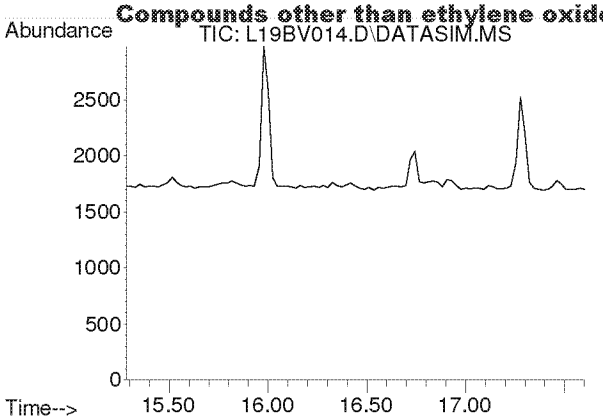
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

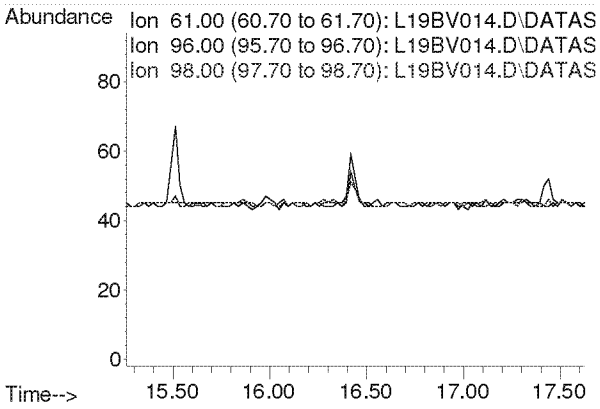


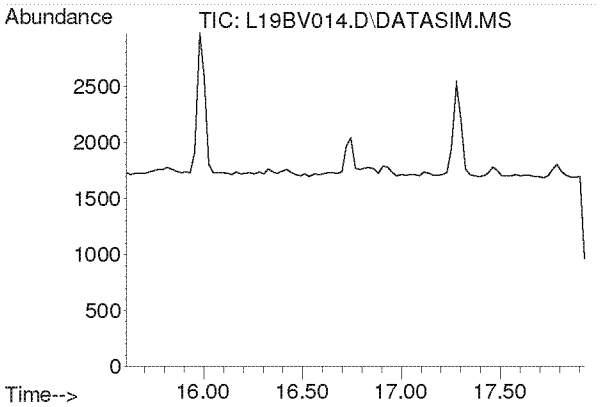
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



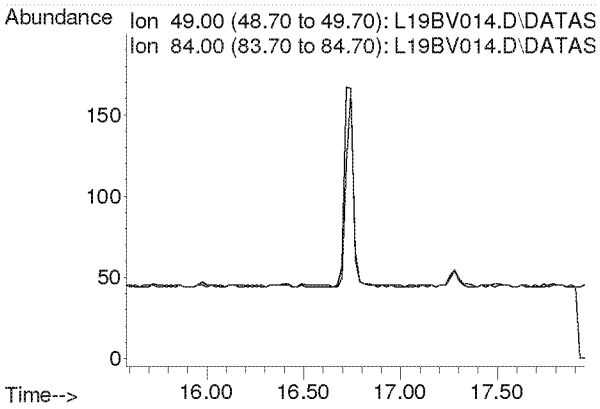


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

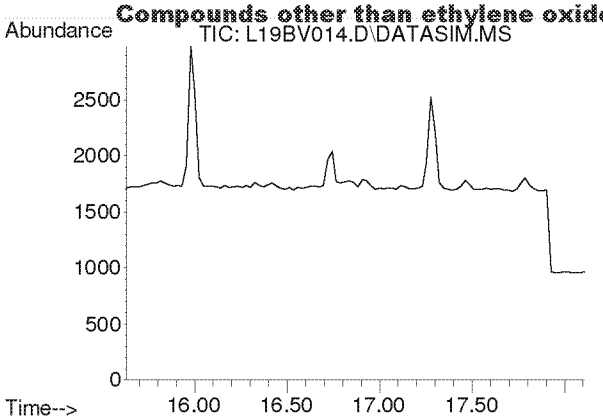
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

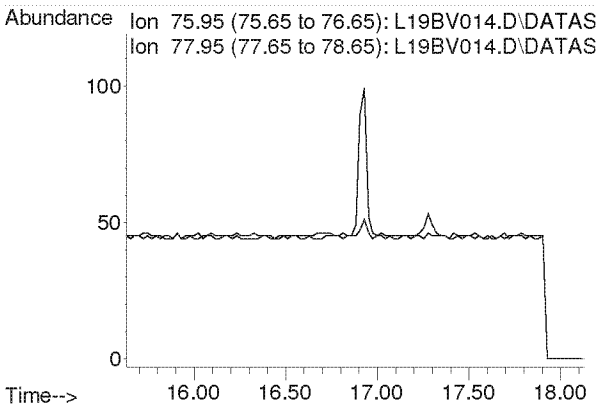


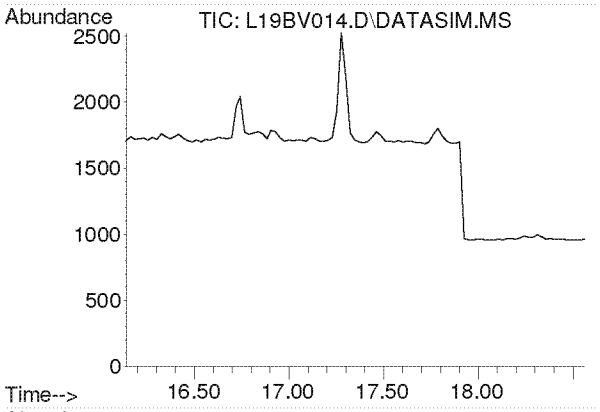
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



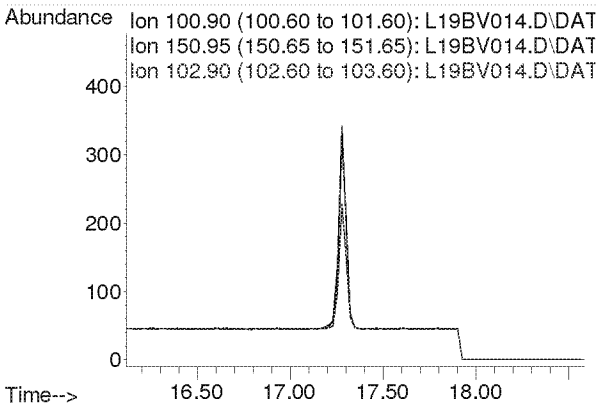


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

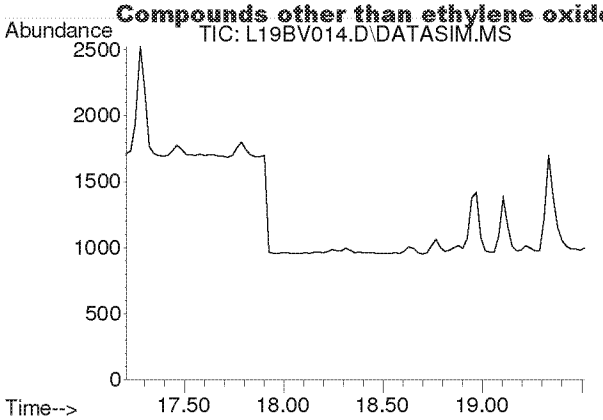
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

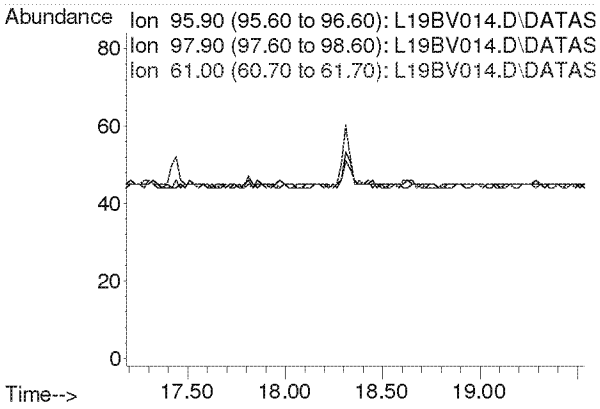


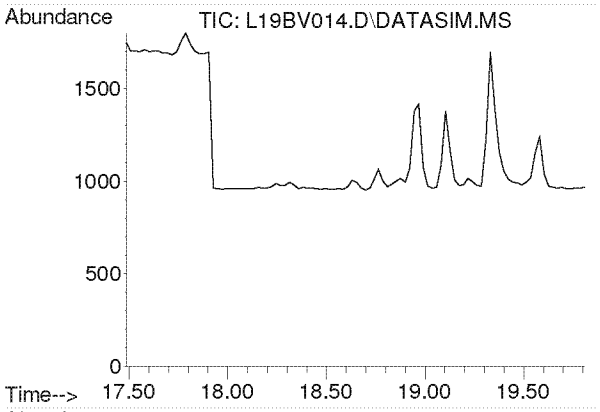
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



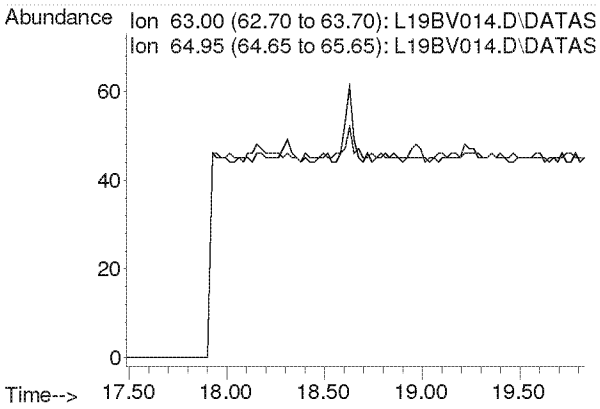


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

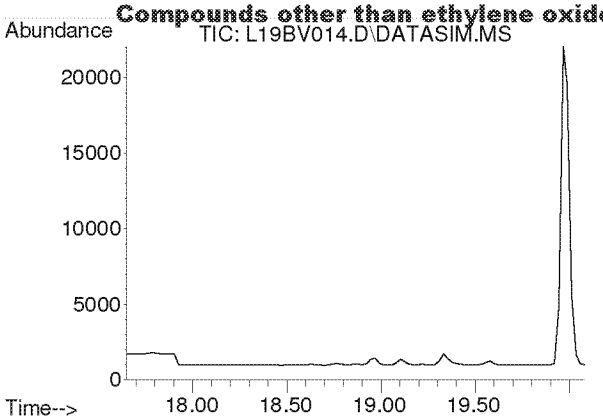
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

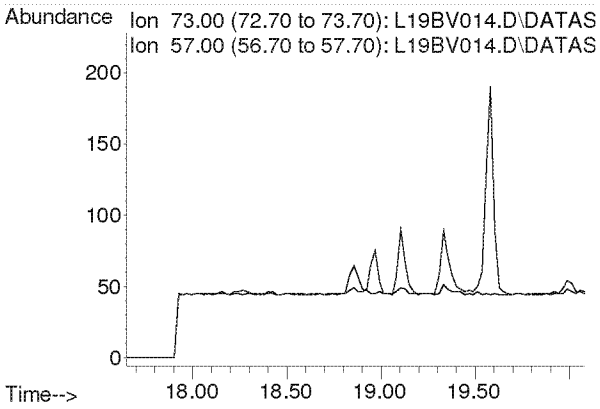


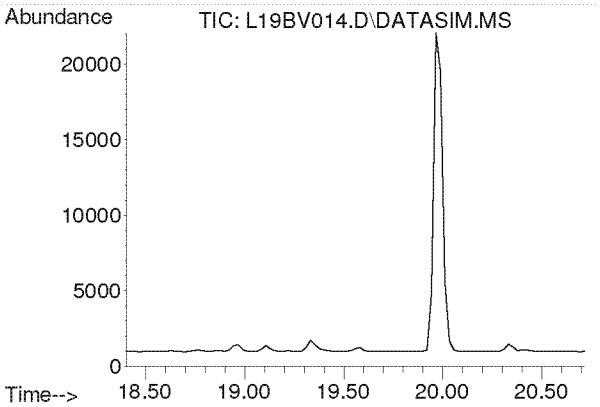
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



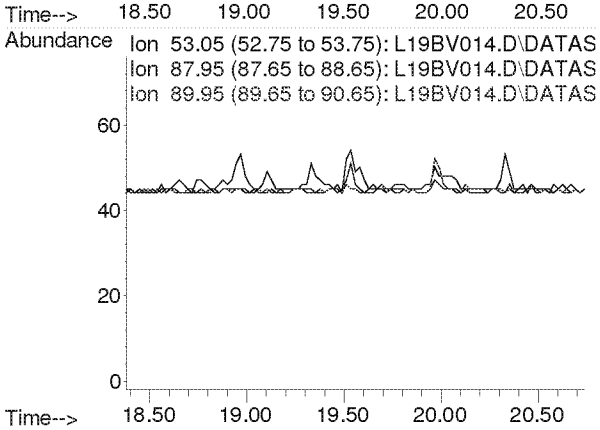


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

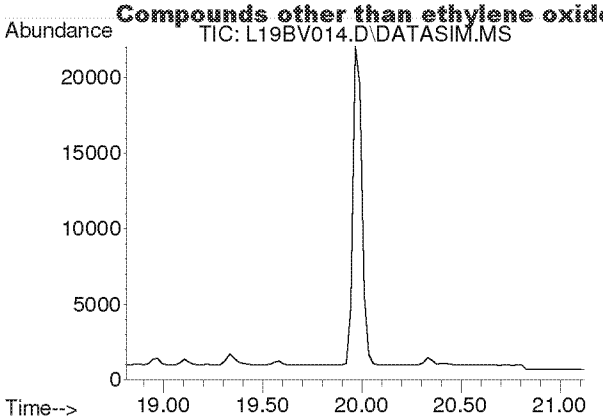
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

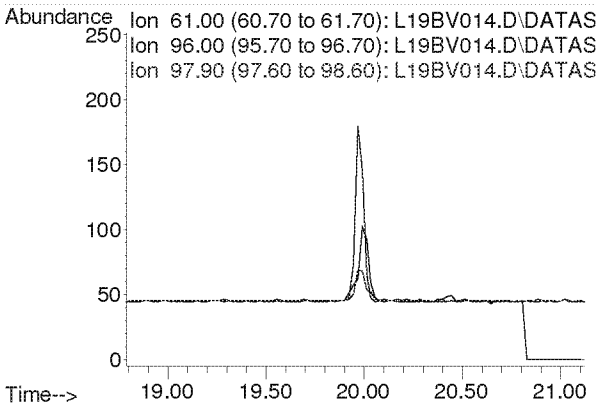


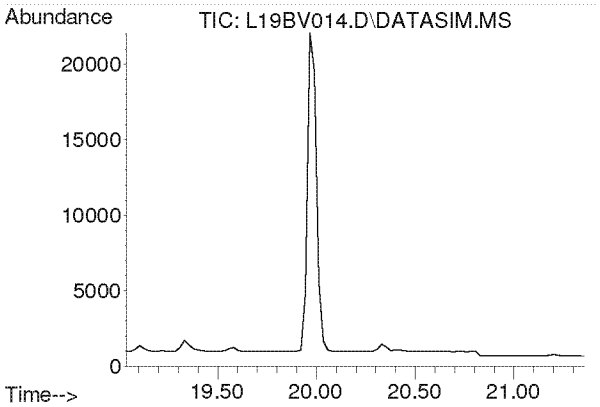
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



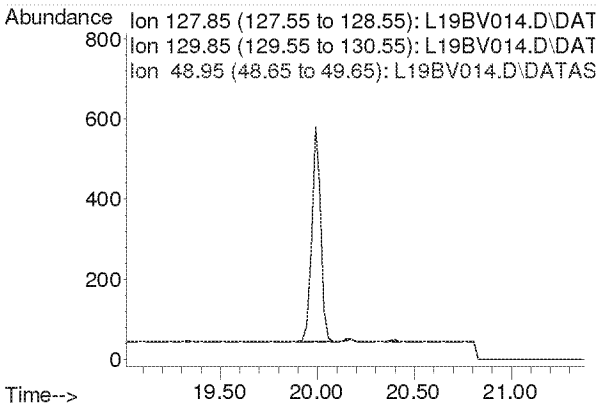


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

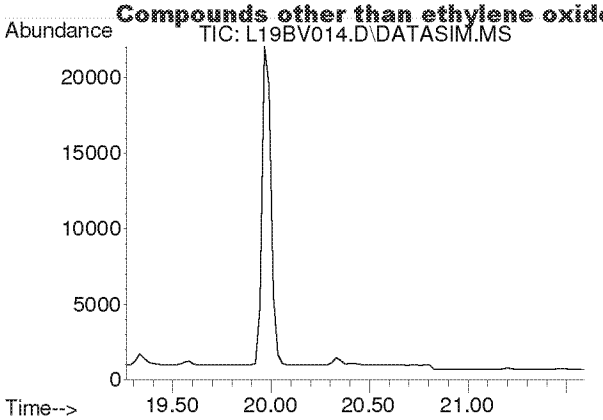
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

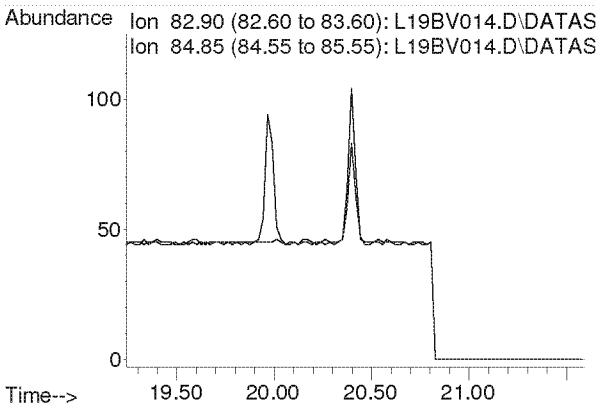


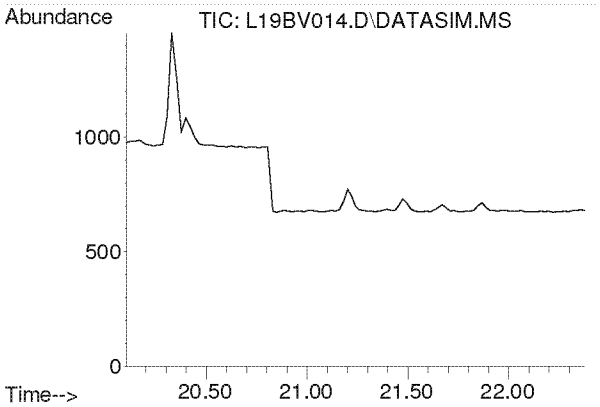
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



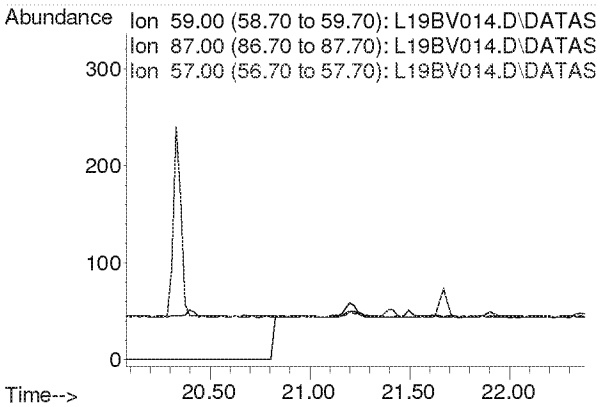


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

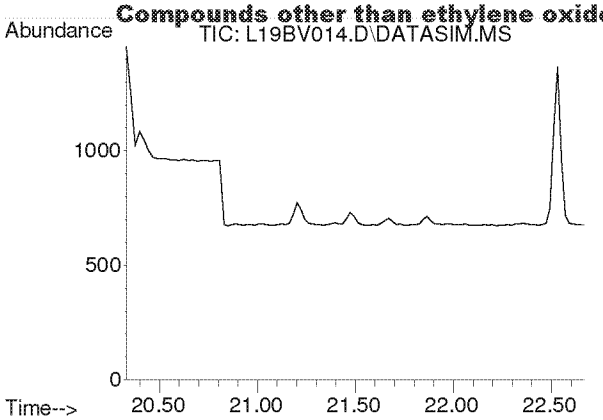
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

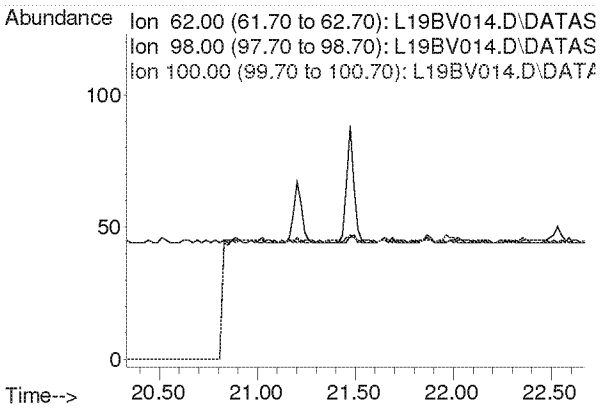


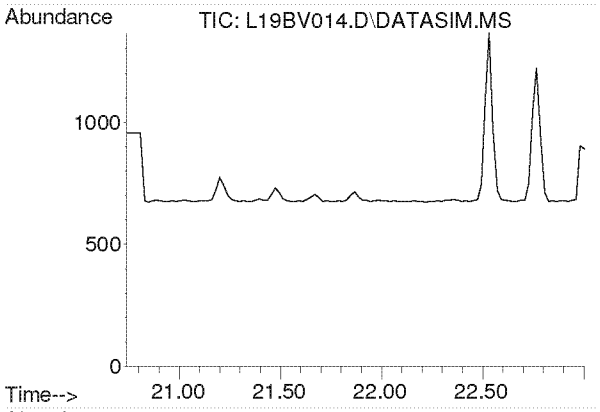
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



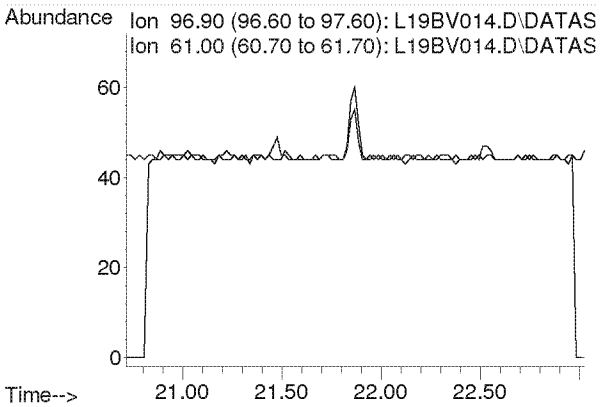


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

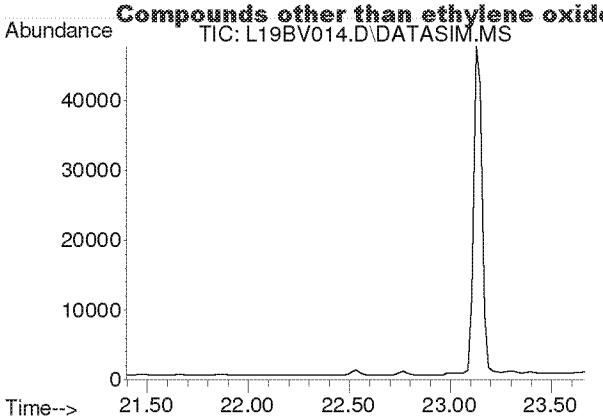
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

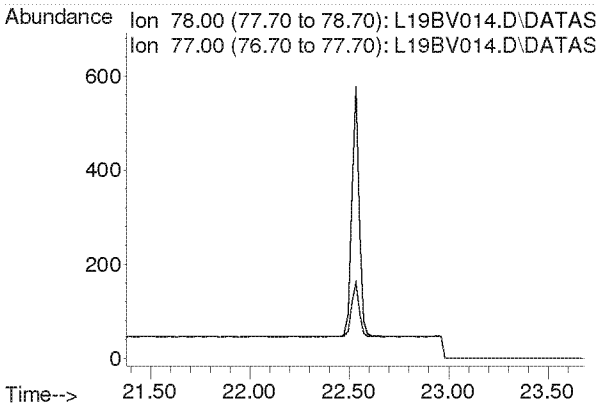


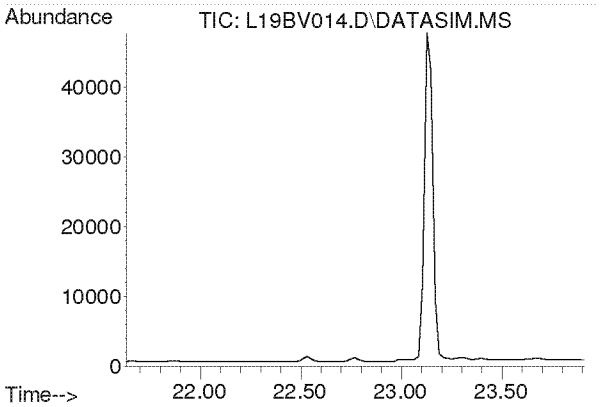
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



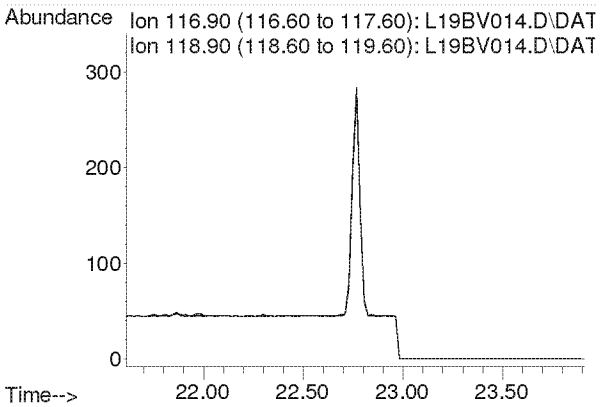


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

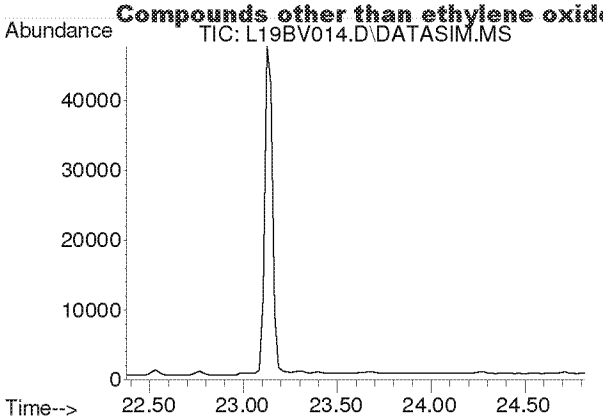
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

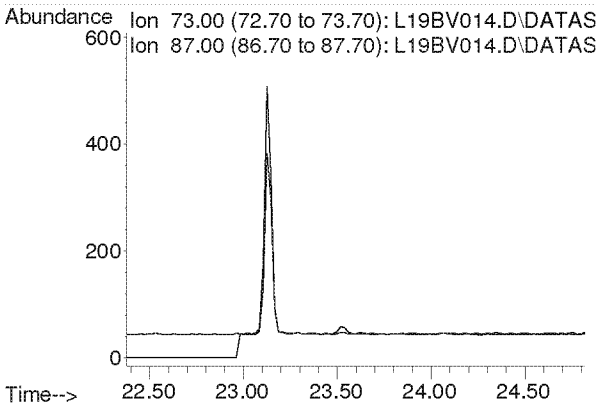


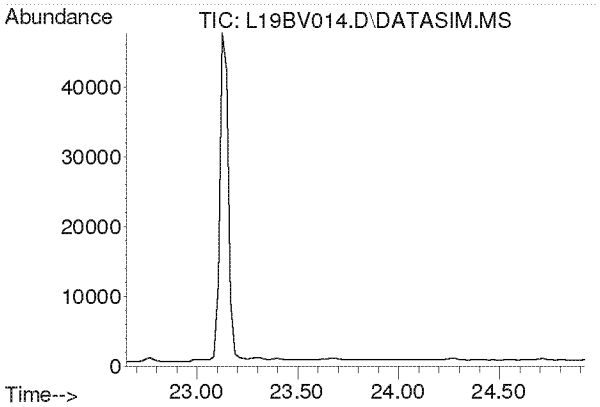
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



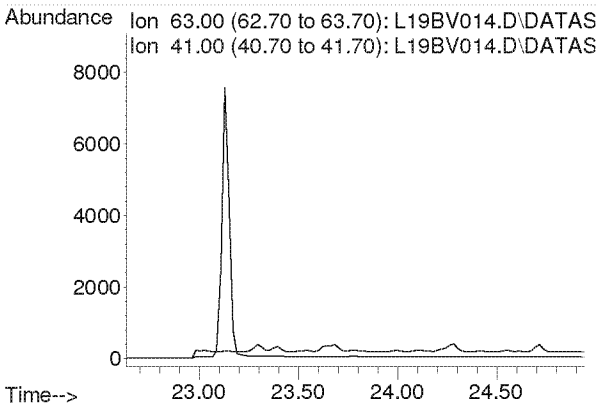


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

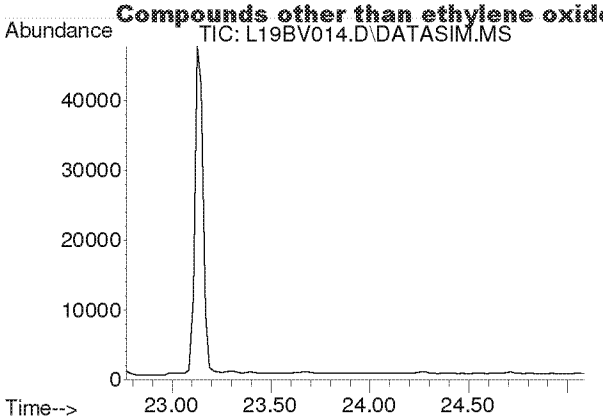
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

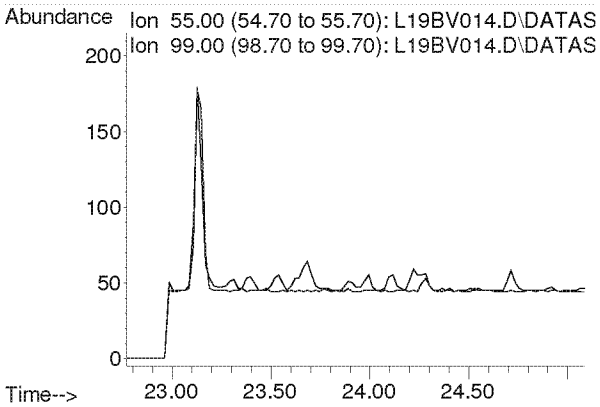


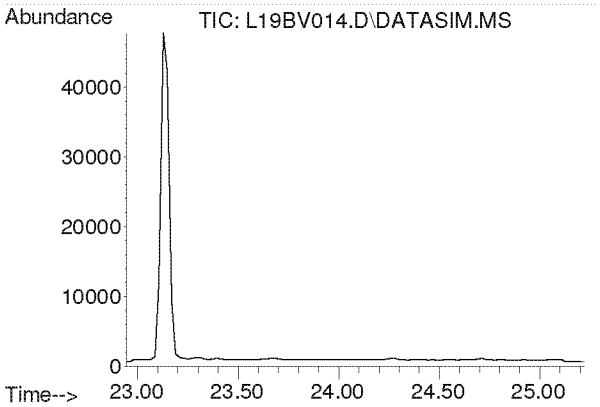
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



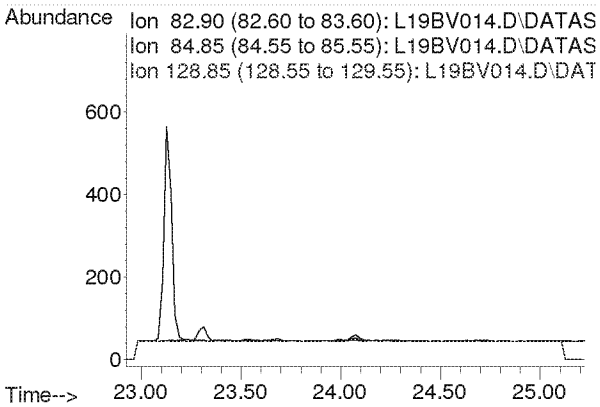


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

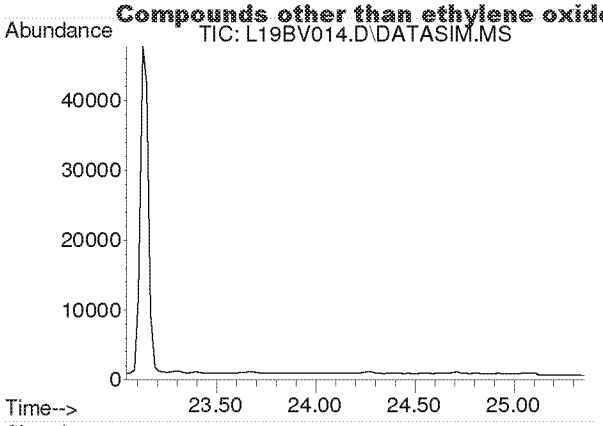
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

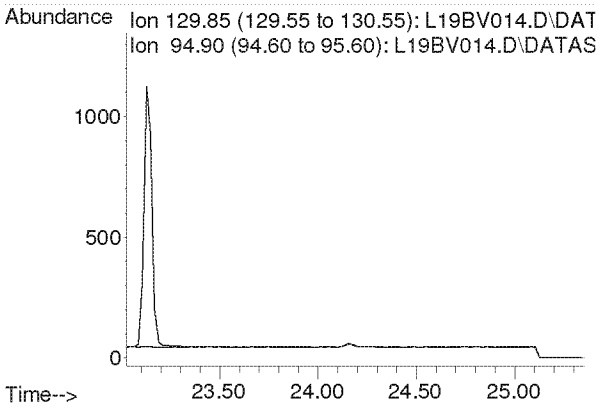


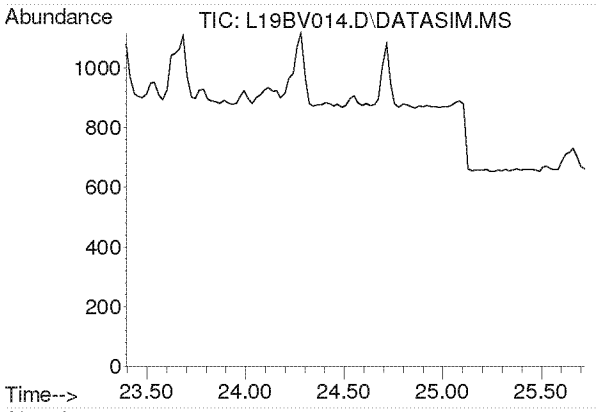
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



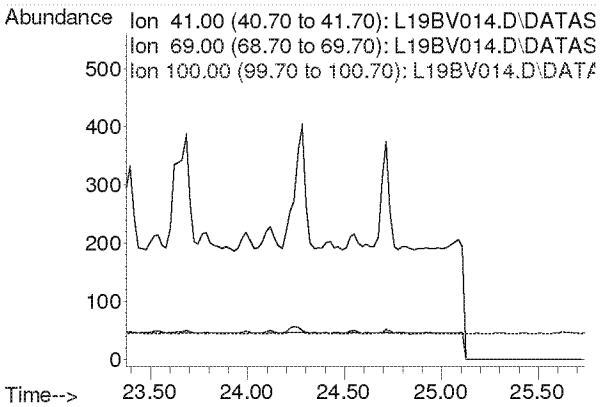


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

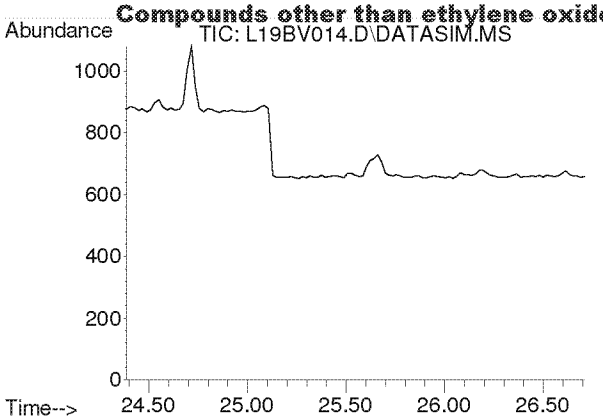
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

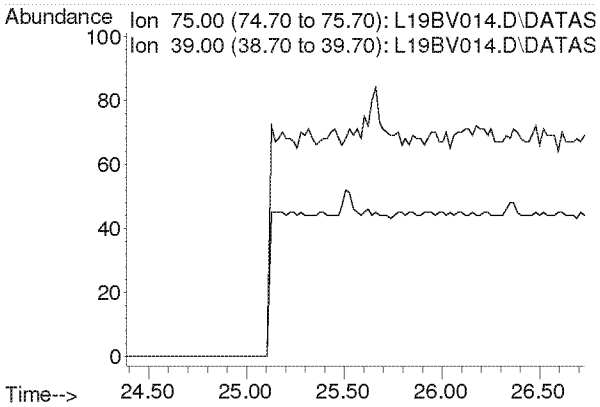


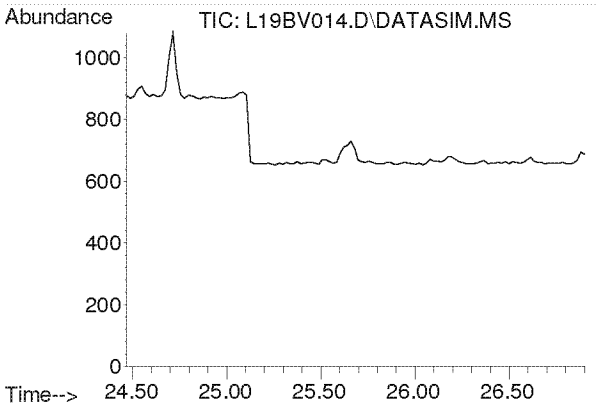
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



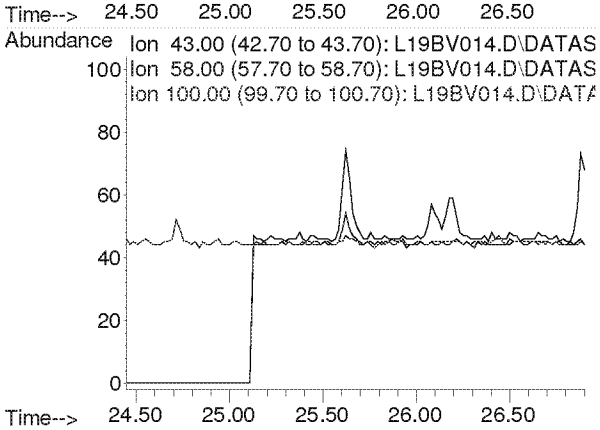


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

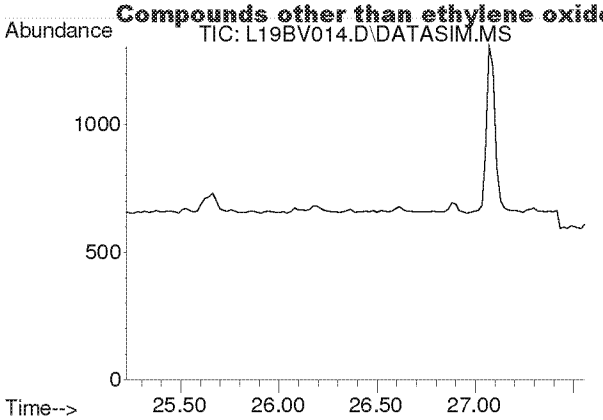
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

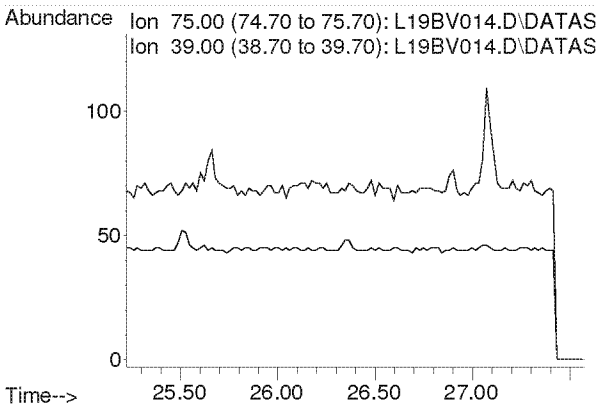


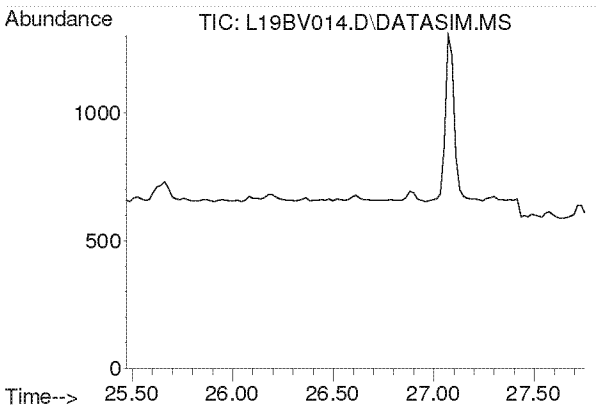
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



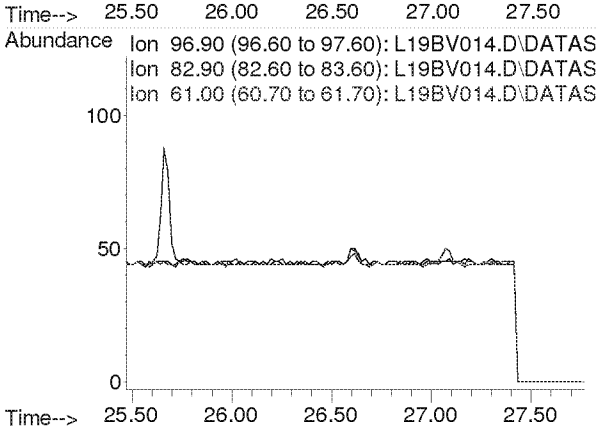


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

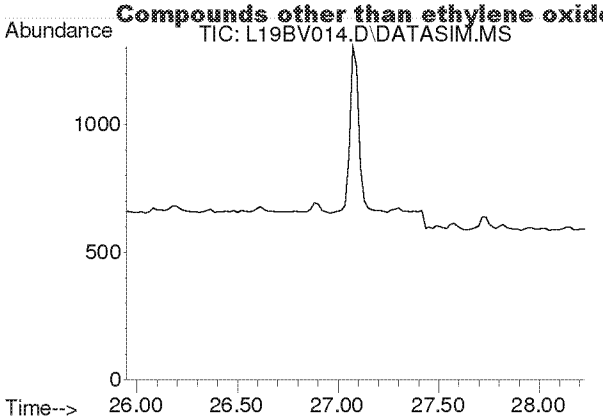
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

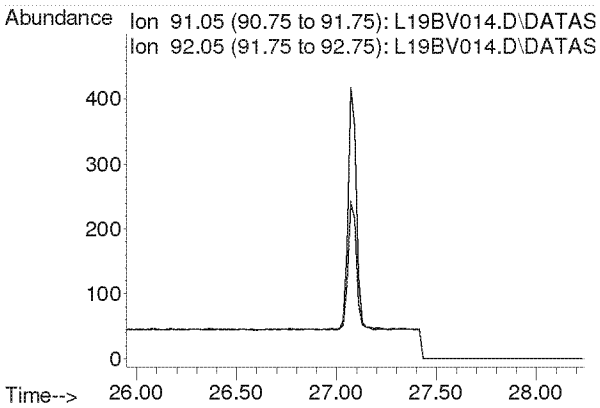


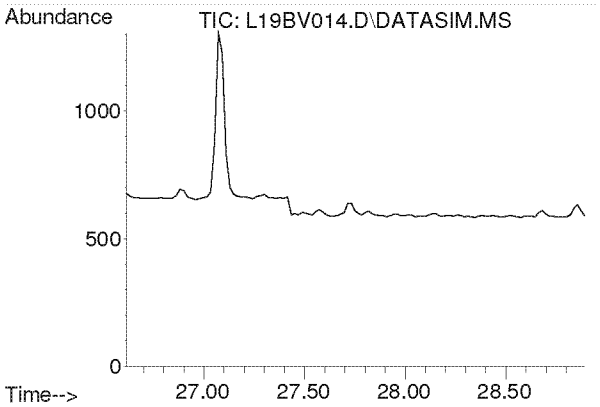
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



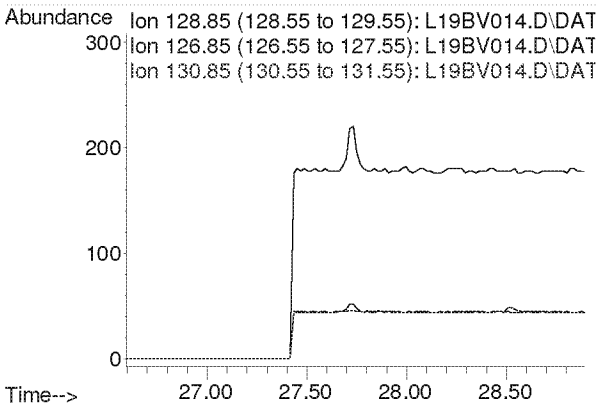


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

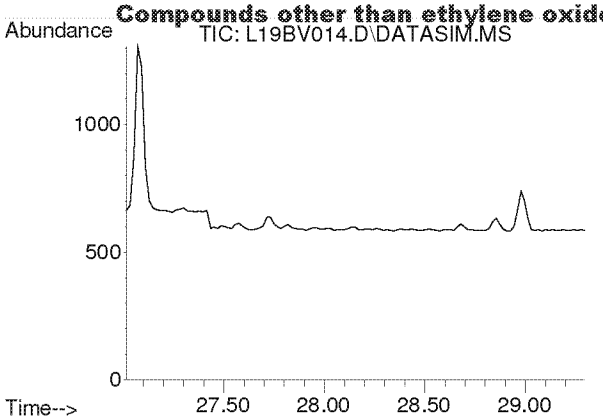
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

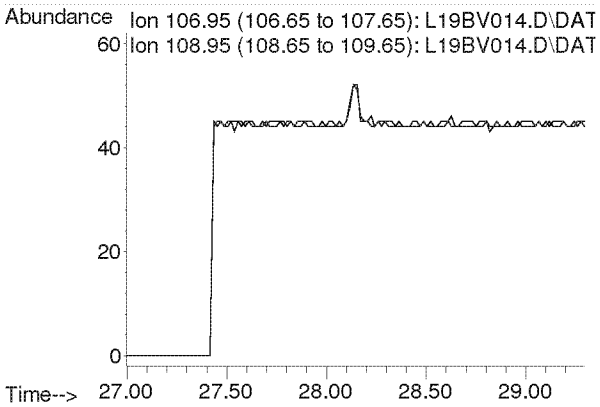


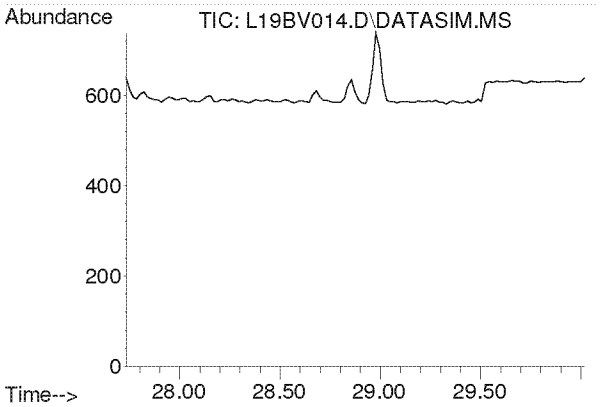
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



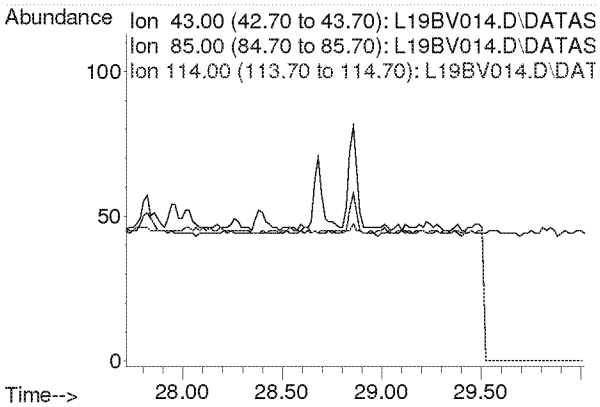


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

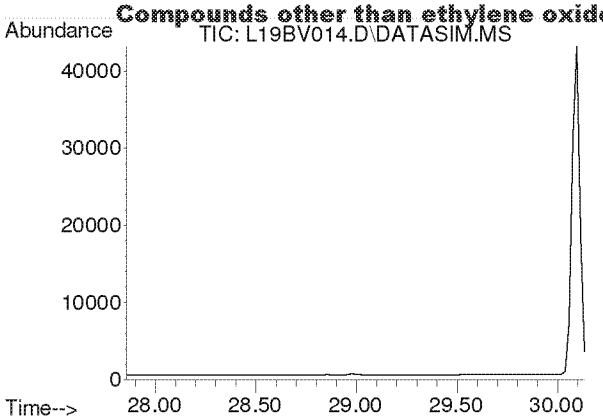
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

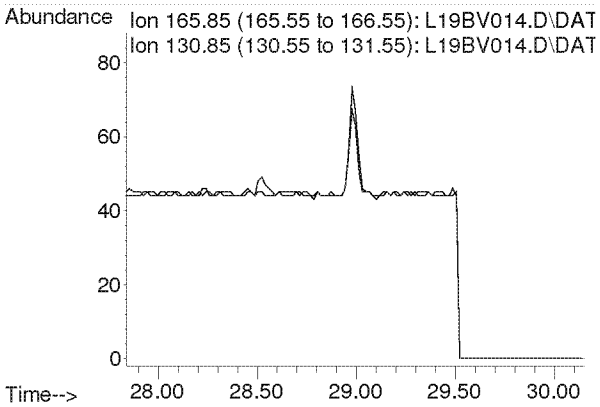


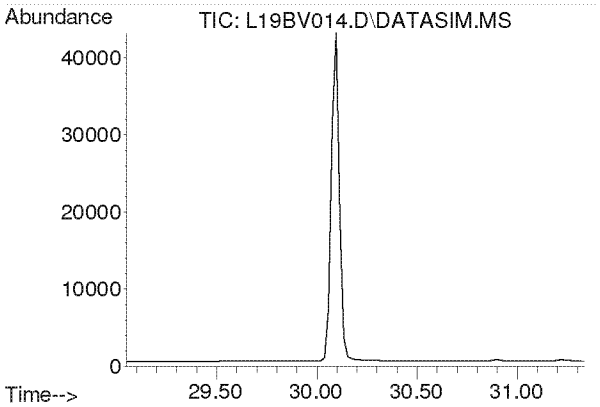
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



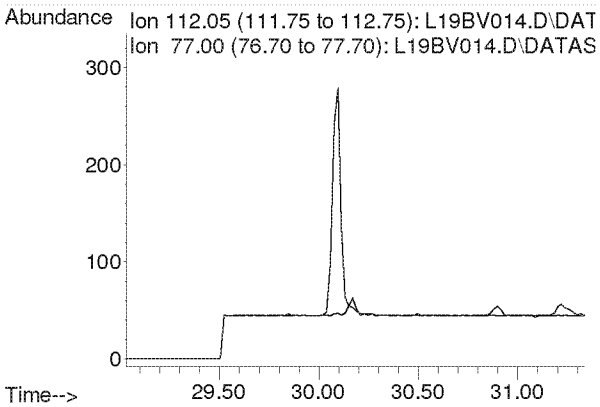


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

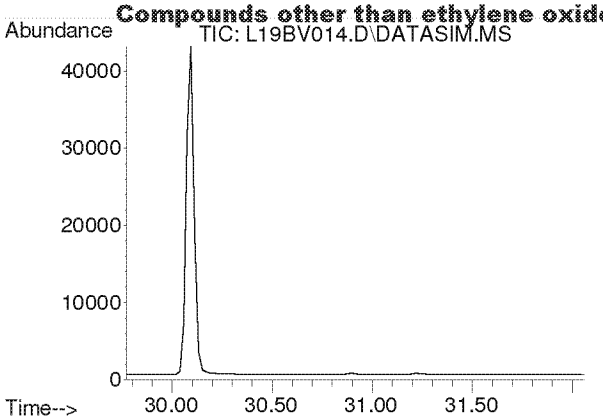
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

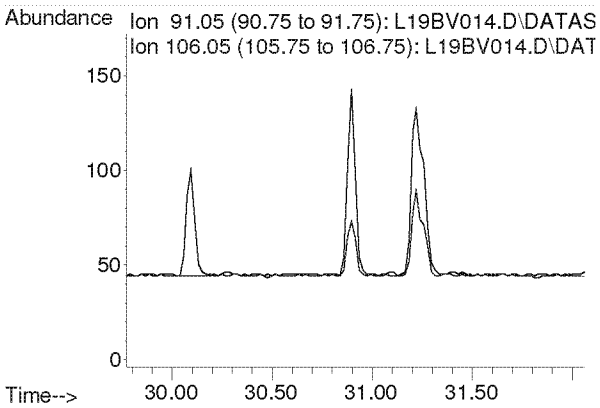


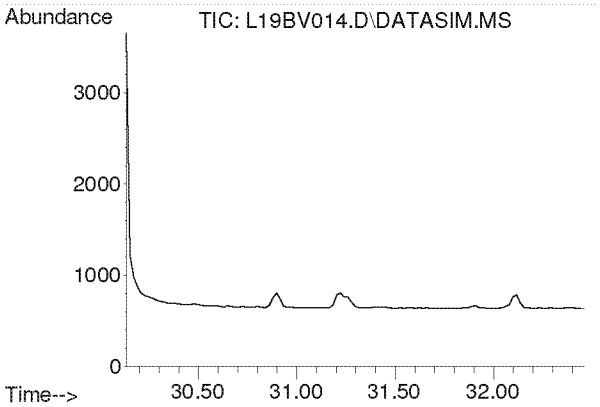
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



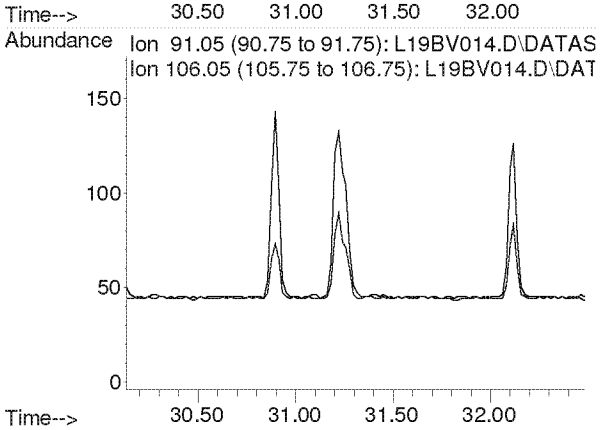


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

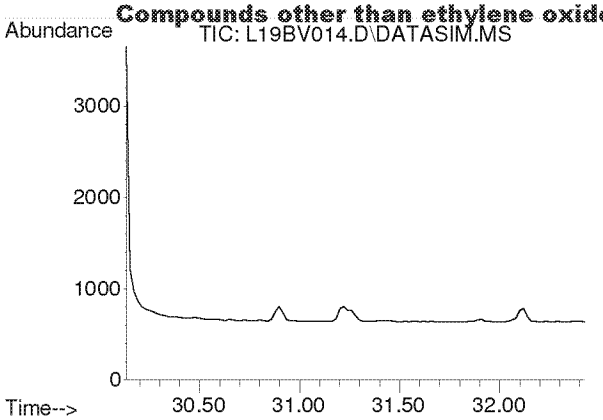
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

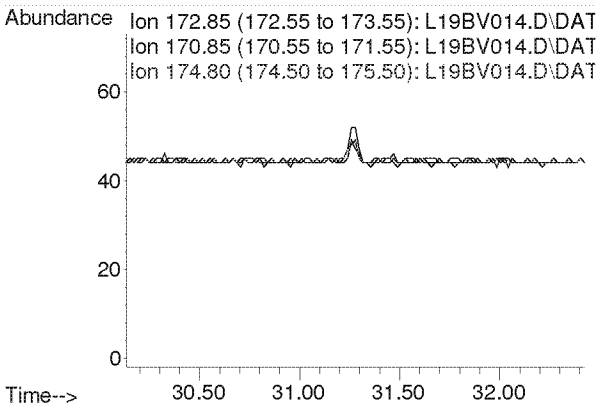


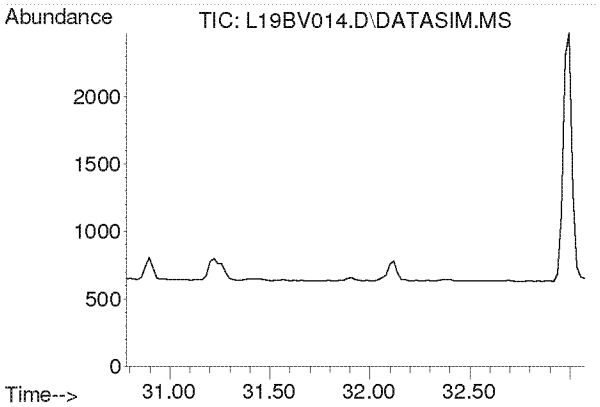
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



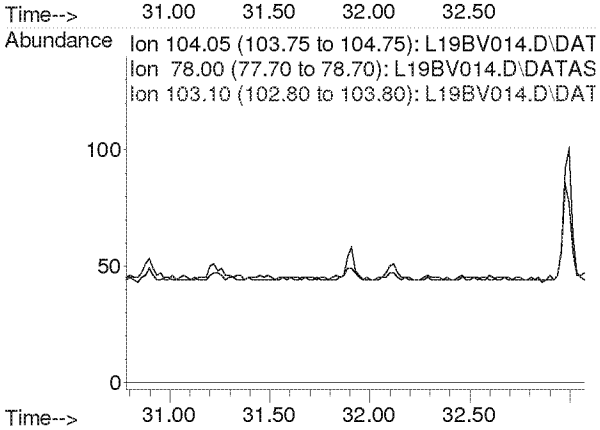


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

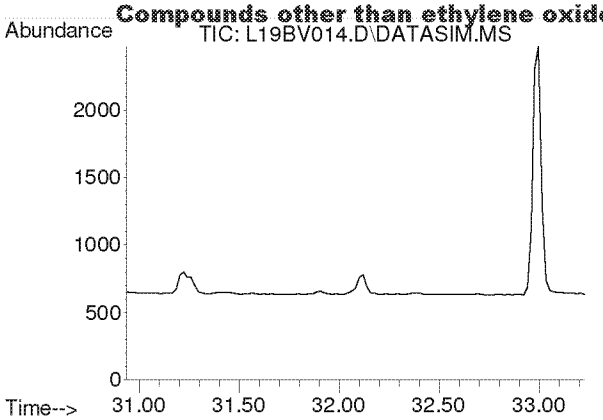
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

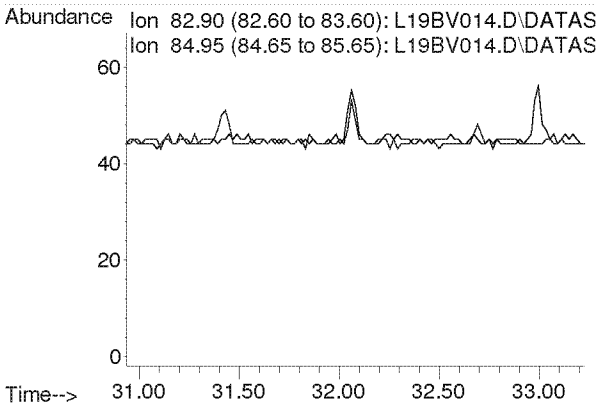


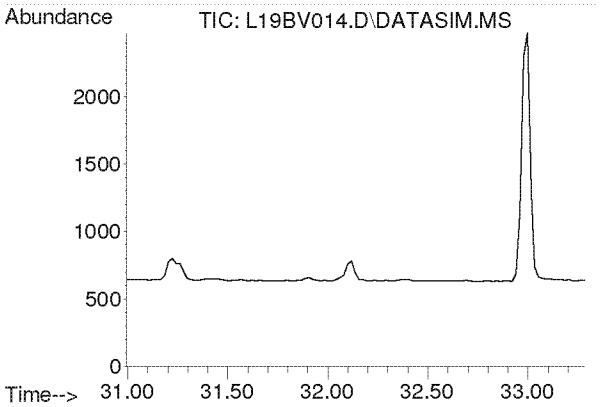
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



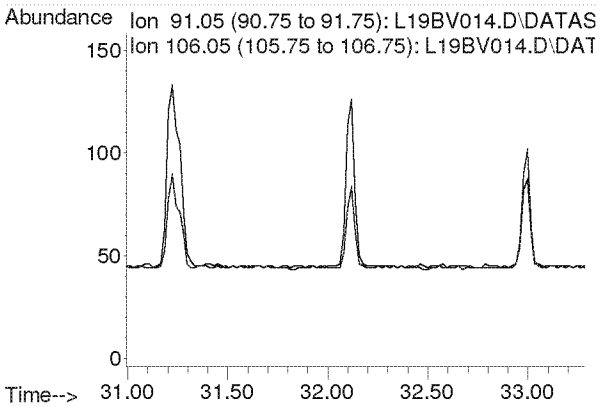


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

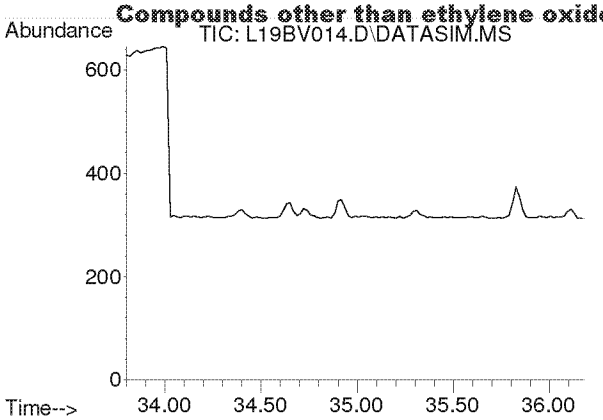
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

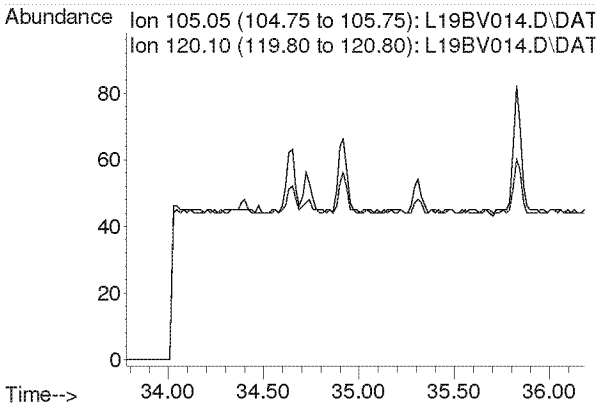


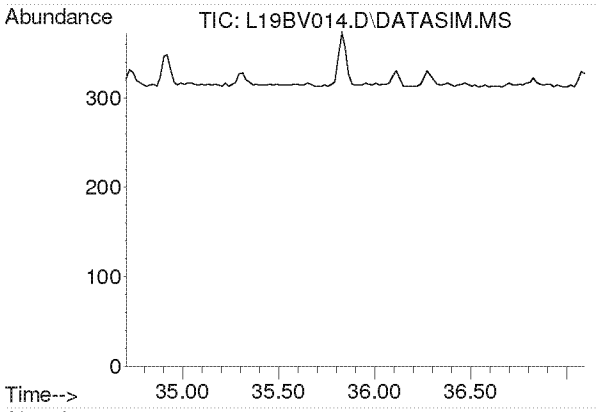
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



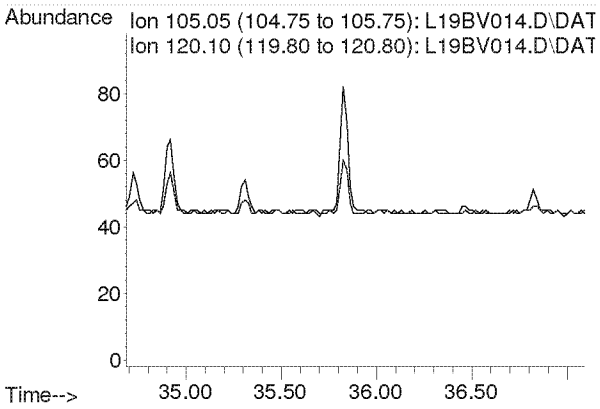


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

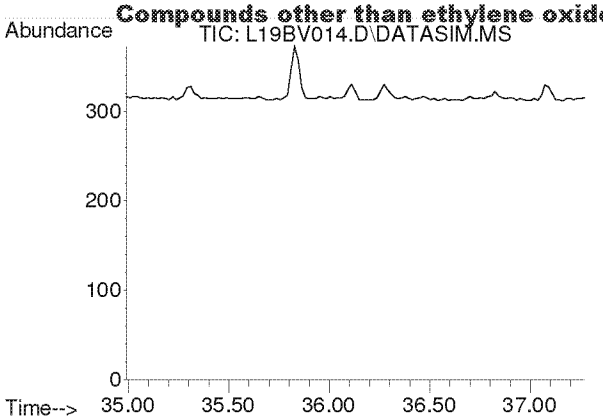
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

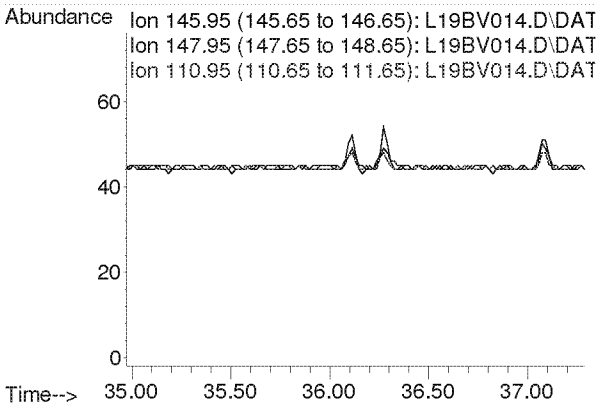


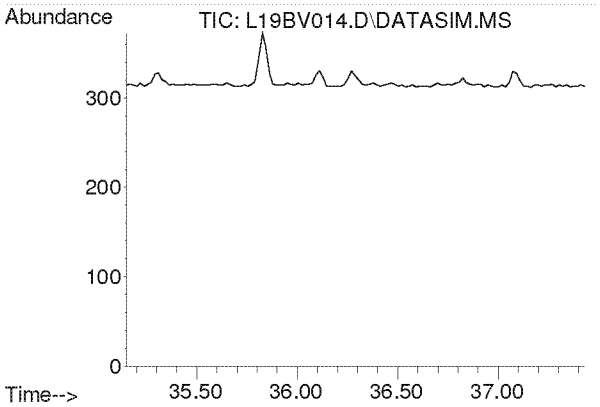
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



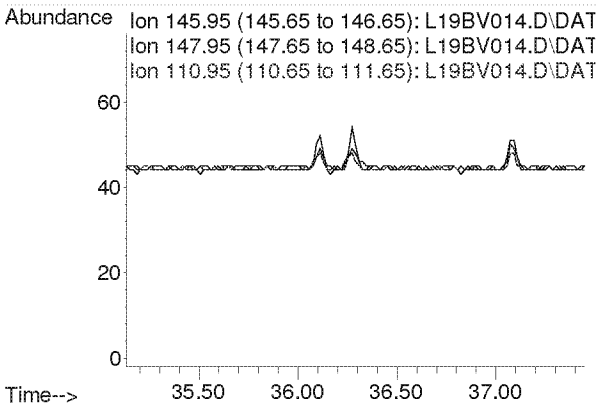


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

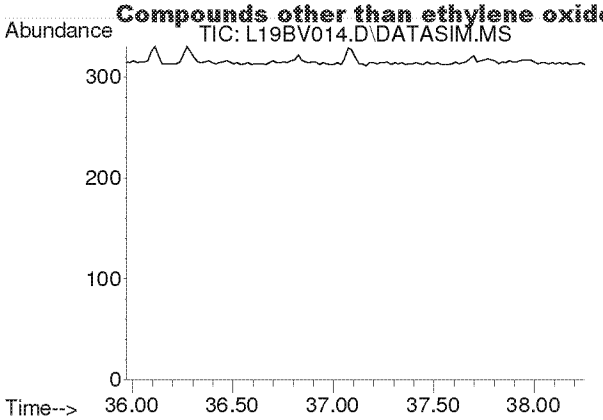
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

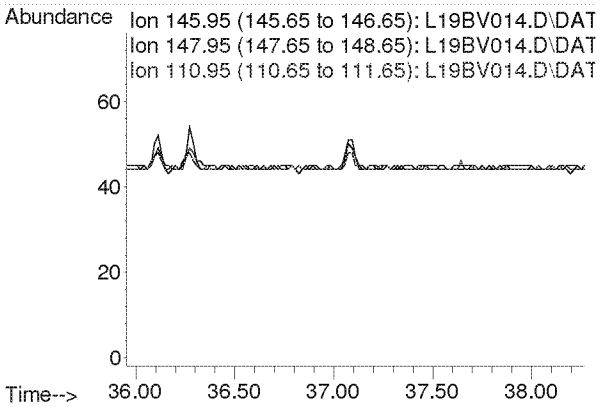


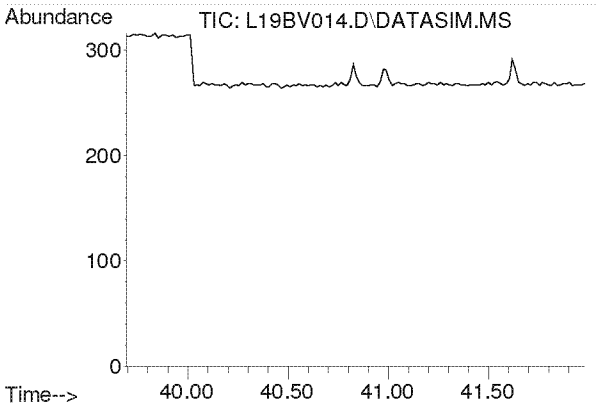
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



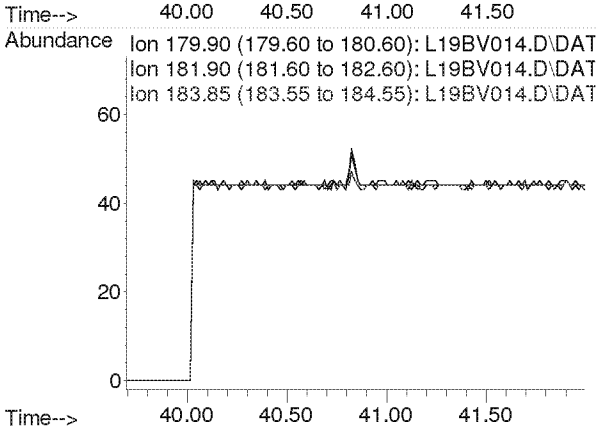


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

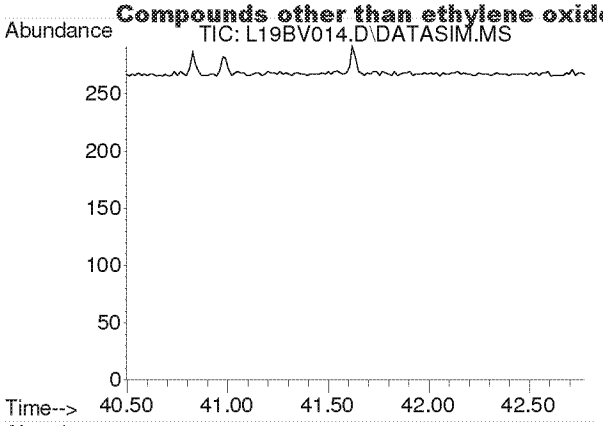
Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

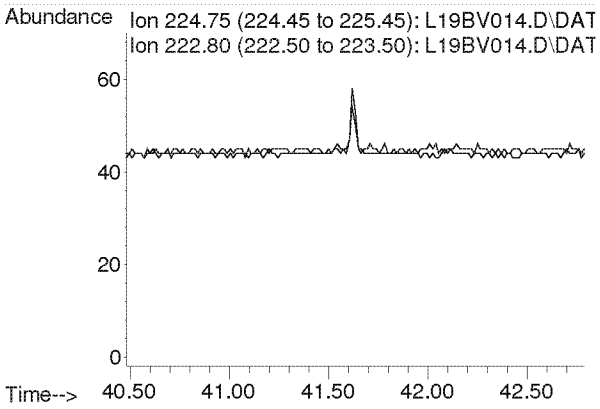


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BV014.D
Acq: 22 Feb 2019 9:43 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 Replicate Analyses

		D1	R1		
File ID		L19BV015.D	L19BV017.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022025-07	B9B2205-DUP1		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R1 2/15/19		
Compound	**MDL**	**Amount/ppbv**	**Amount (ppbv)**	**RPD**	**Passed?**
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.337	0.315	6.75	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		L19BV016.D	L19BV018.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022025-08	B9B2205-DUP2		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R2 2/15/19		
Compound	**MDL**	**Amount/ppbv**	**Amount (ppbv)**	**RPD**	**Passed?**
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.412	0.393	4.72	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.

Duplicate Comparison Check

Comparison of Duplicate Samples					
		D1	D2		
File ID		L19BV015.D	L19BV016.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022025-07	9022025-08		
Mics Comments		EPA WB WAREHO	EPA WB WAREHOUSE C2 2/15/19		
Compound	**MDL**	**Amount (ppbv)**	**Amount (ppbv)**	**RPD**	**Passed?**
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.337	0.412	20.03	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	

RWB 3/5/19

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV015.D
Acq On : 22 Feb 2019 10:43 pm (#1); 22-Feb-19, 22:38:03 (#2)
Operator : MAH
Sample : 9022025-07 C2
Misc : EPA WB WAREHOUSE XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 25 07:24:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d-nk

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	40099	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	101360	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	70408	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.425	29	772m	0.3366 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. 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. d	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. d	
34) 1,2-Dichloropropane	0.000	63	0	N.D. d	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D. d	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated (Reviewed)

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV015.D
Acq On : 22 Feb 2019 10:43 pm (#1); 22-Feb-19, 22:38:03 (#2)
Operator : MAH
Sample : 9022025-07 C2
Misc : EPA WB WAREHOUSE XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 25 07:24:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

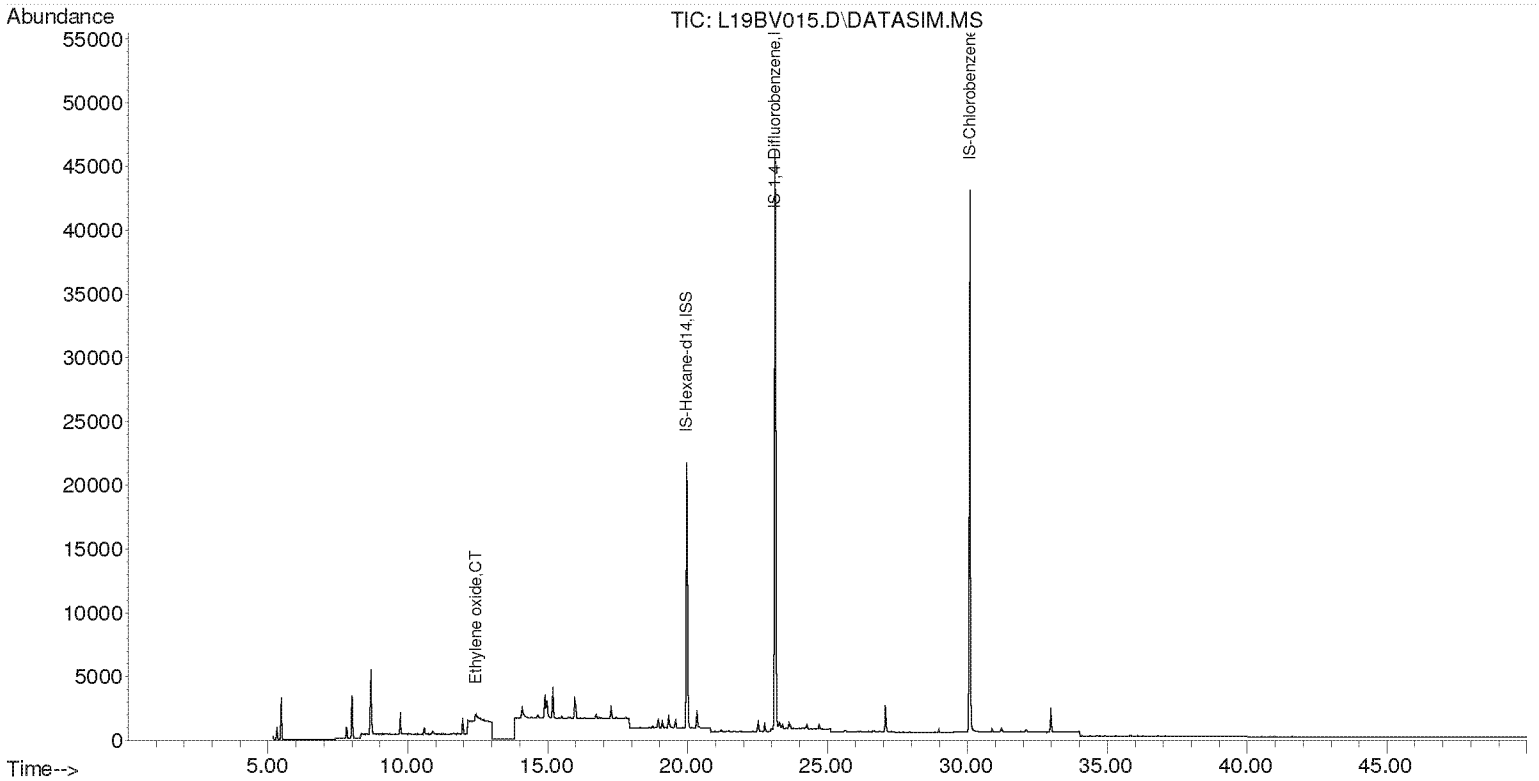
(#) = qualifier out of range (m) = manual integration (+) = signals summed

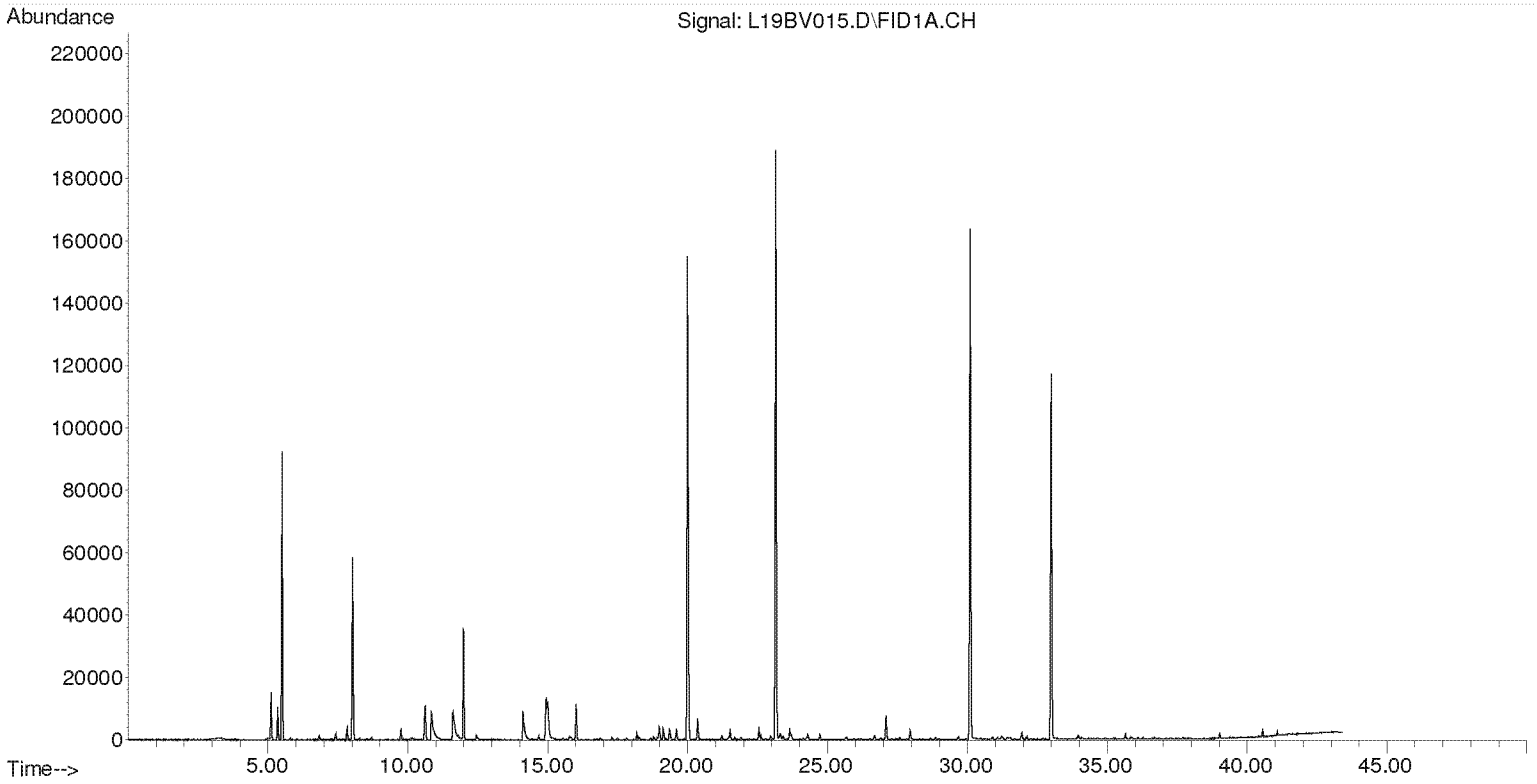
ED_002475_00000282-00283

Compounds other than ethylene oxide were not quantitated.

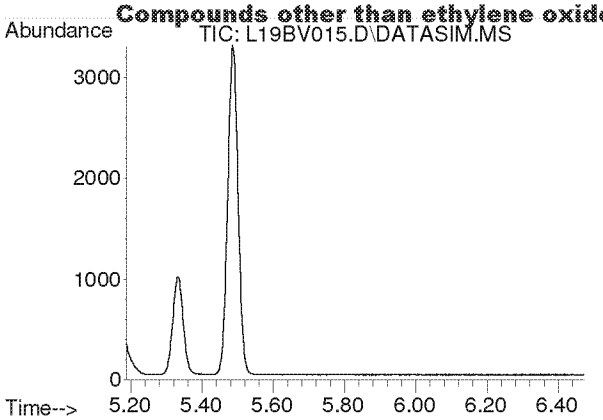
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV015.D
Acq On : 22 Feb 2019 10:43 pm (#1); 22 Feb 2019 10:38 pm (#2)
Operator : MAH
Sample : 9022025-07
Misc : EPA WB WAREHOUSE C2 XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 25 07:23:59 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





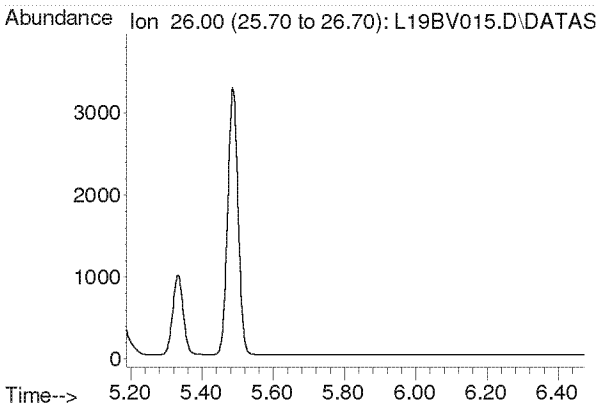
Compounds other than ethylene oxide were not quantitated.

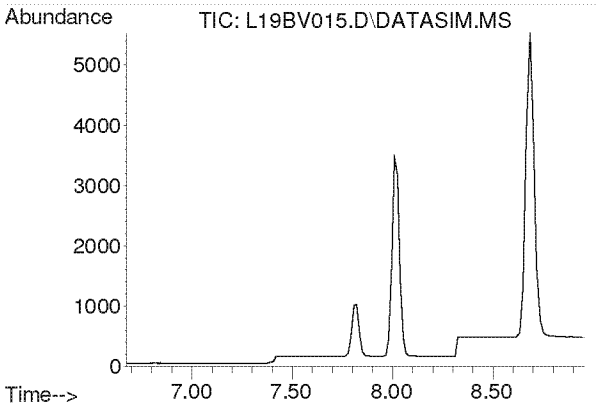


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 26



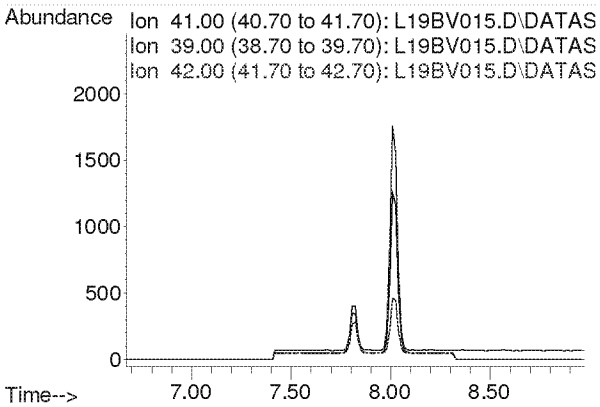


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

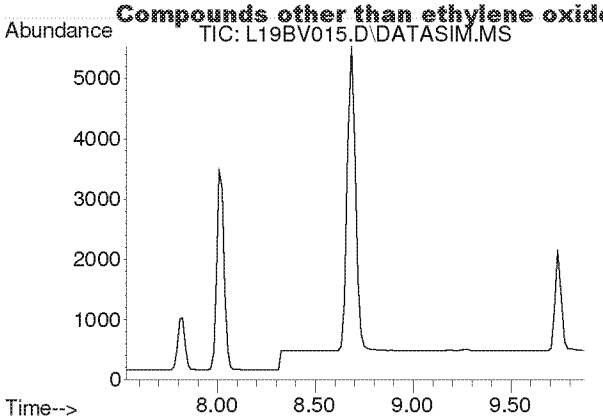
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

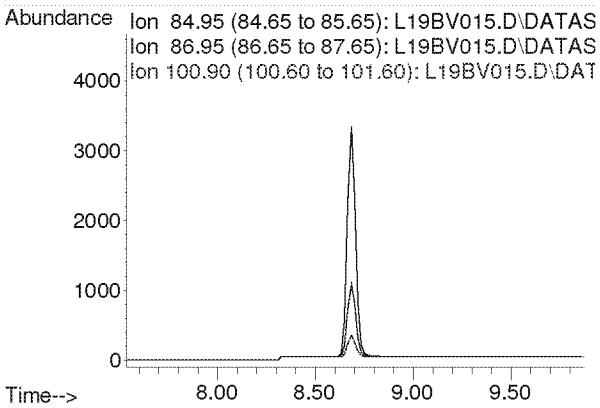


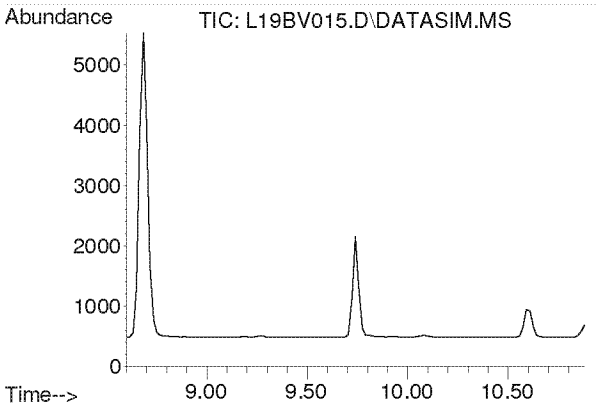
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



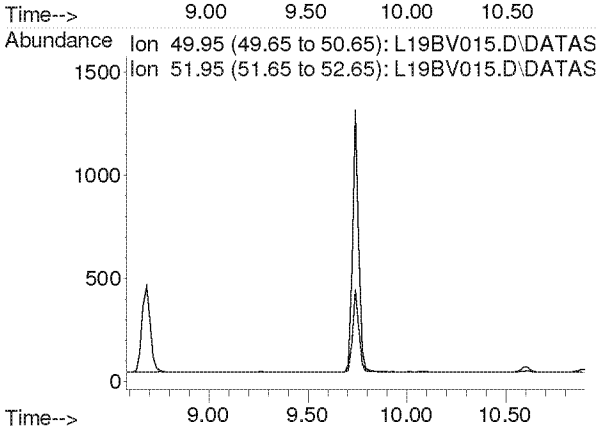


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

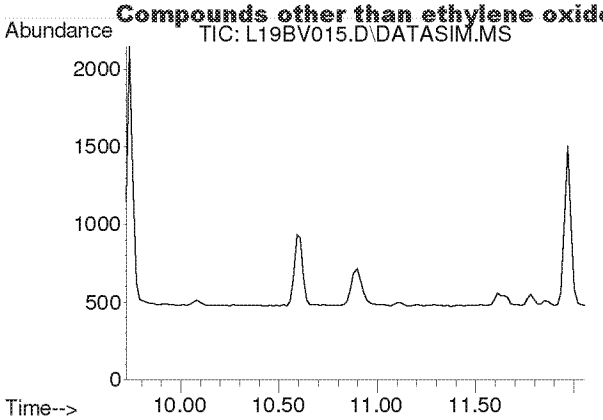
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

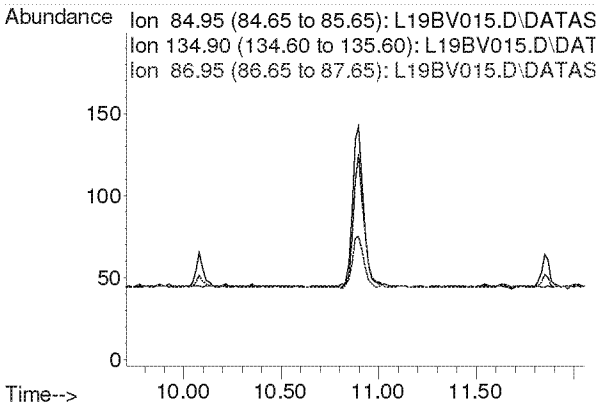


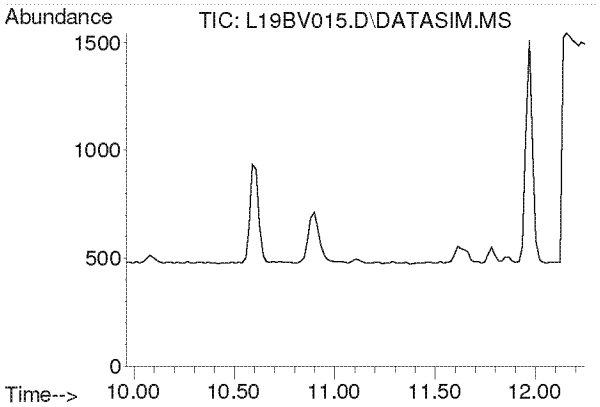
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



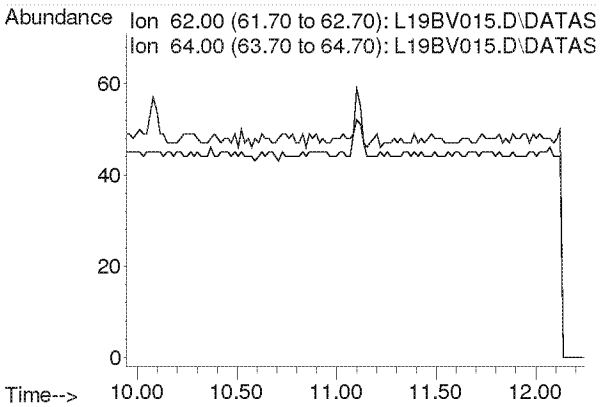


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

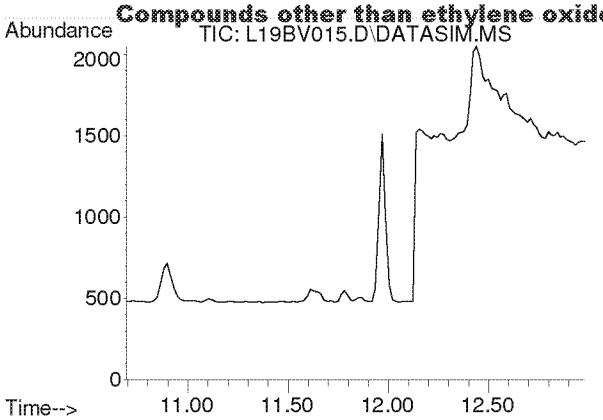
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

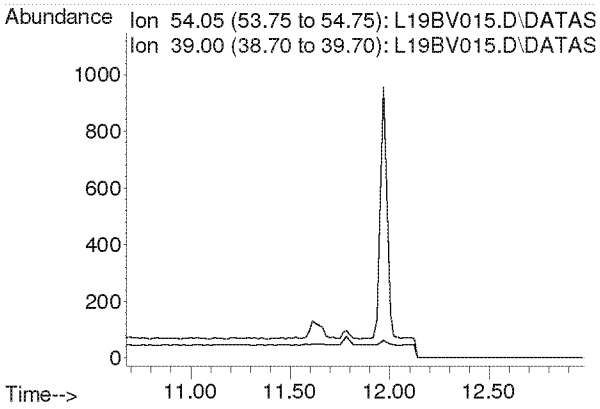


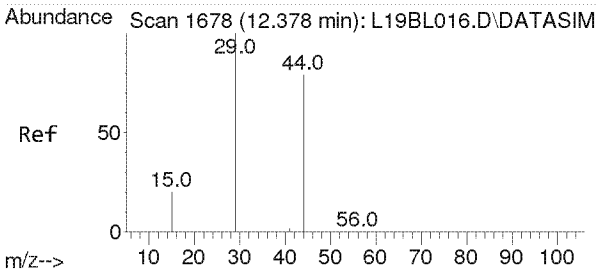
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

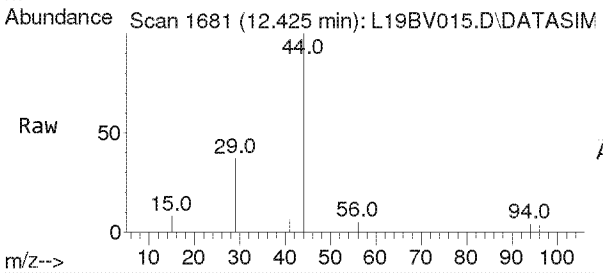


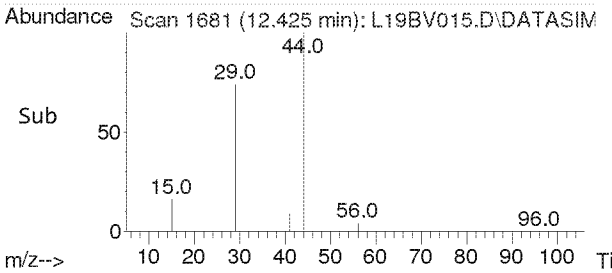


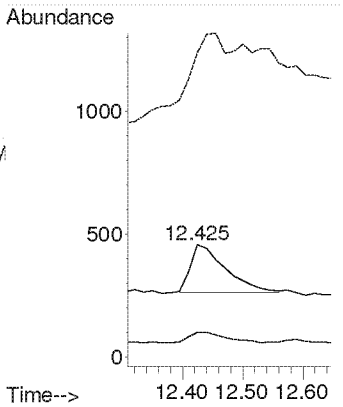
#9
Ethylene oxide
Concen: 0.337 ppbv m
RT: 12.425 min Scan# 1681
Delta R.T. -0.025 min
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 29 Resp: 772

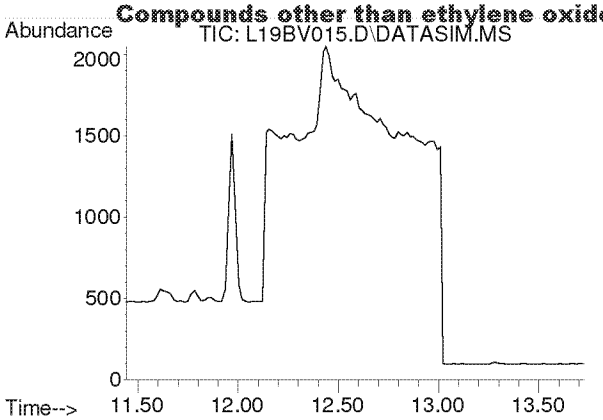
Ion	Ratio	Lower	Upper
29	100		
15	21.2	16.0	24.0
44	369.7	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

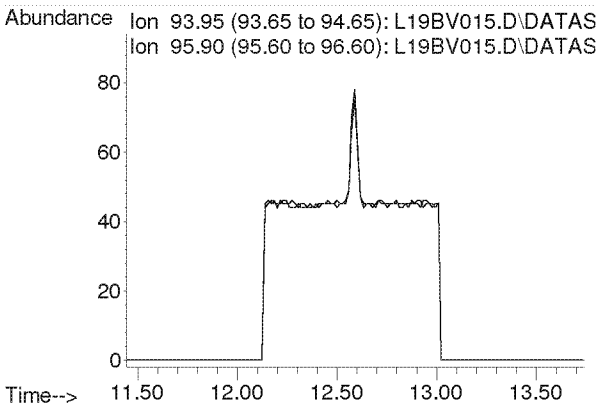


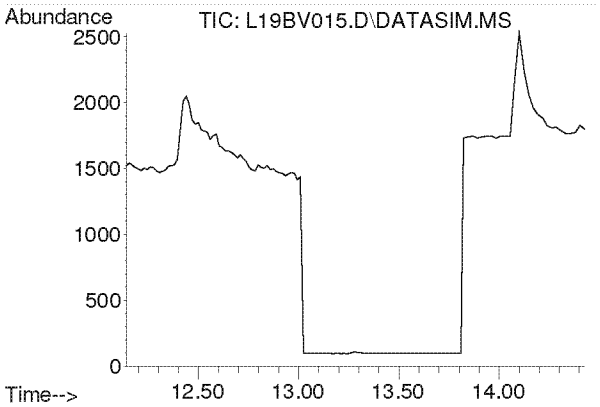
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



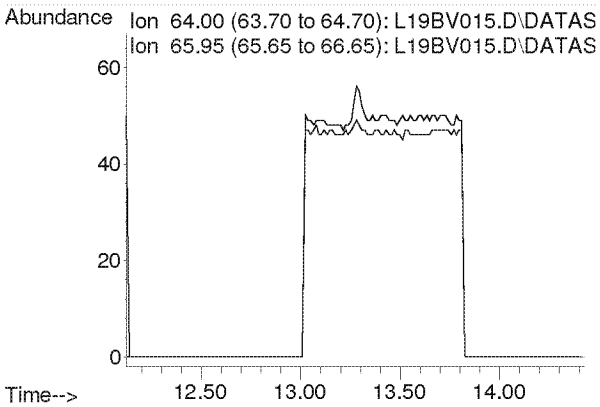


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

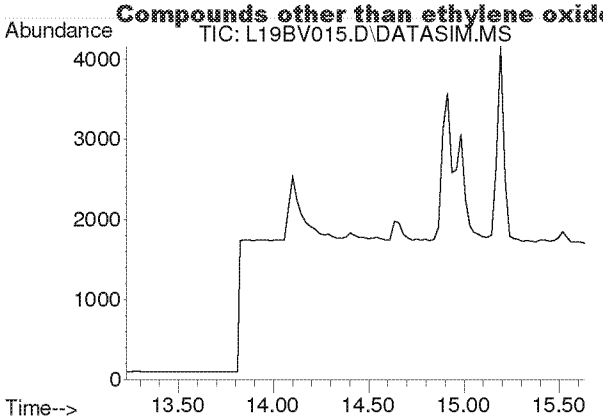
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

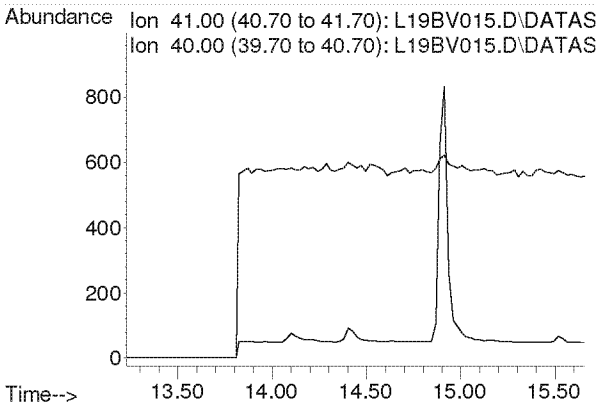


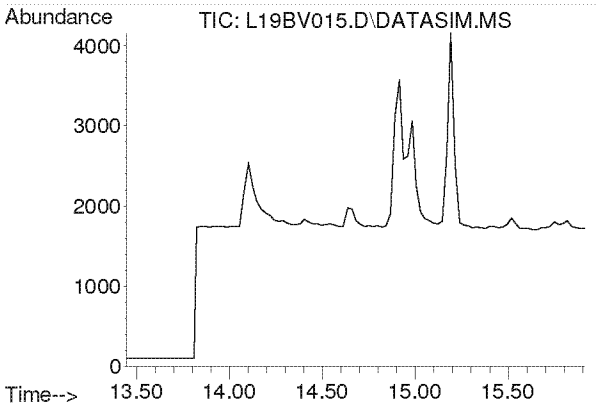
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



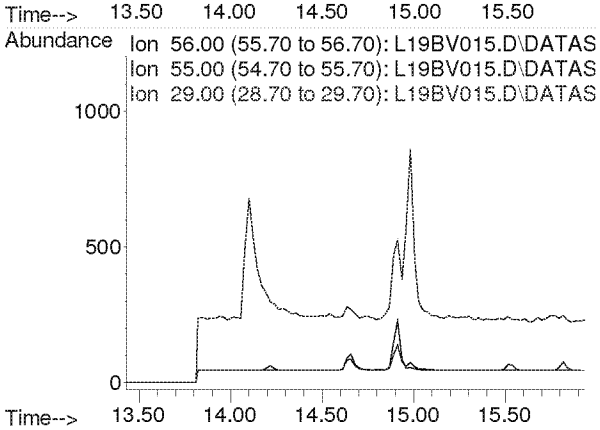


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

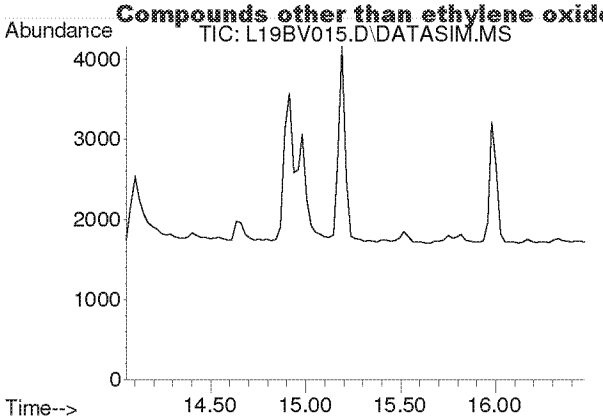
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

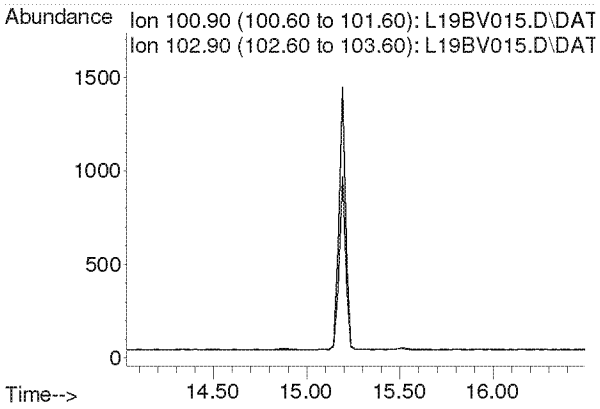


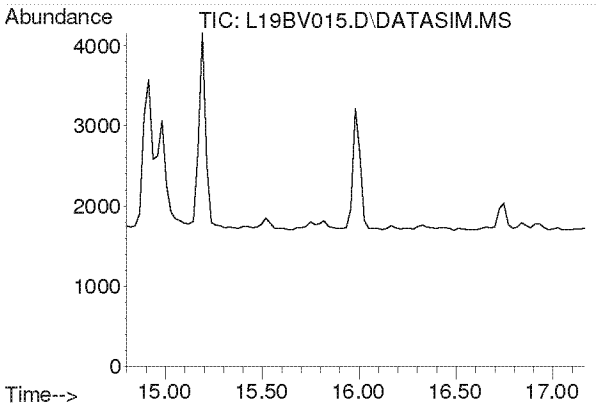
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



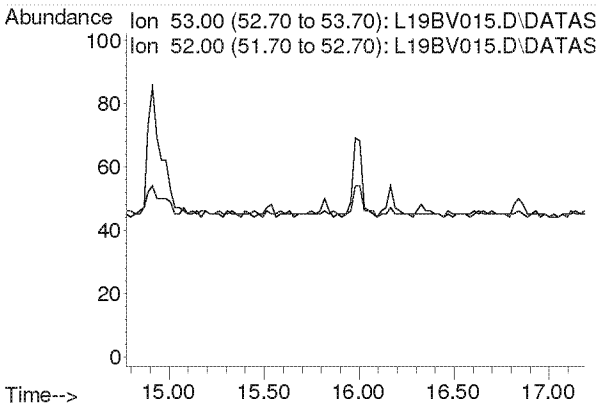


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

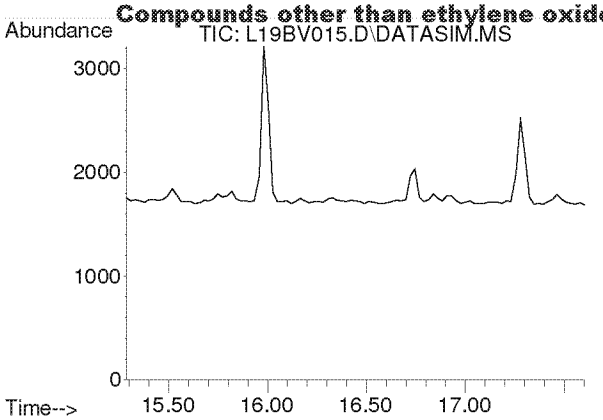
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

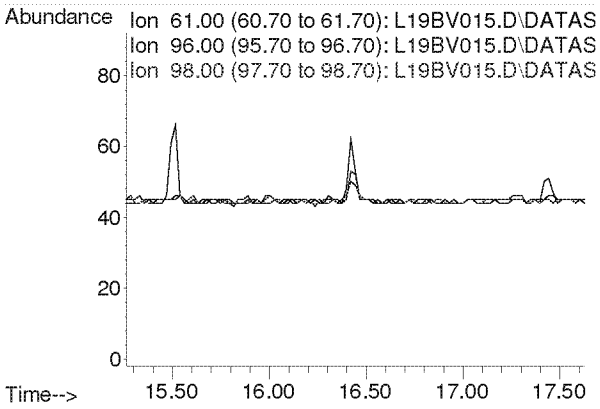


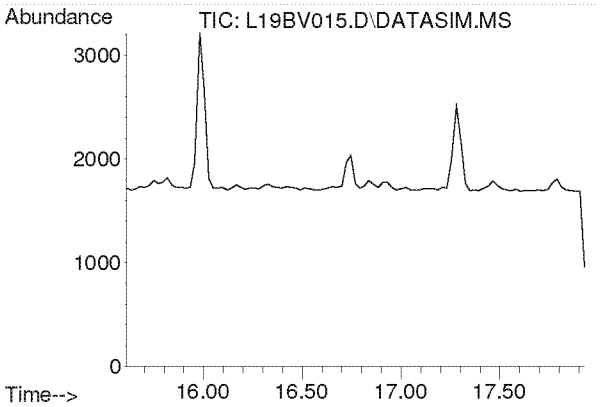
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



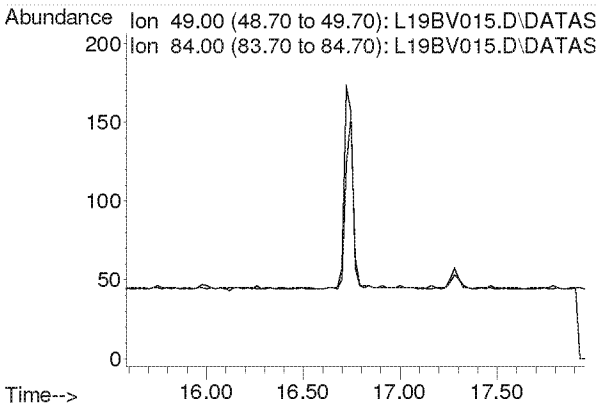


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

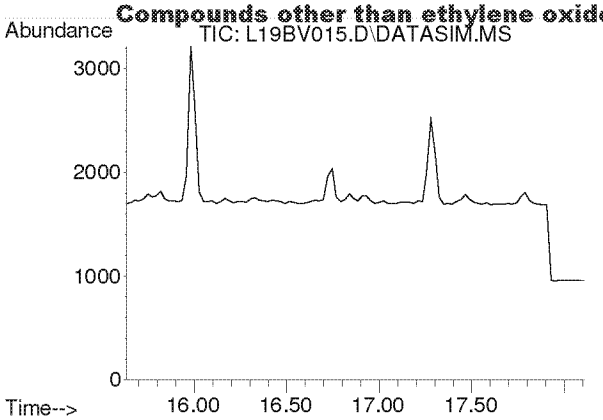
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

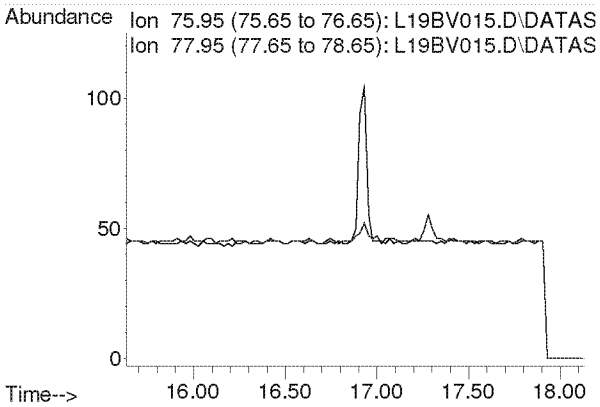


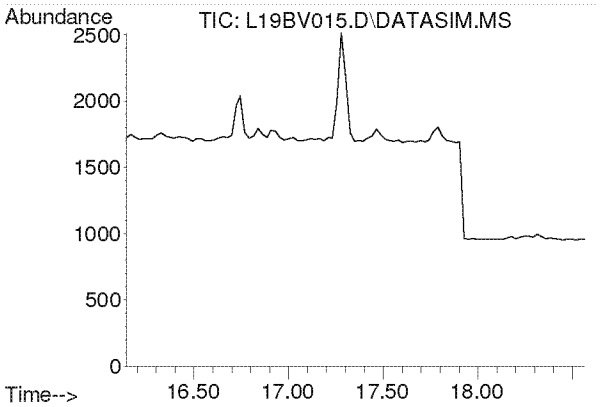
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



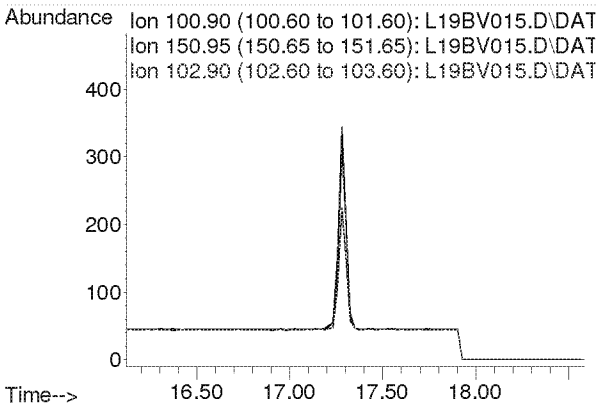


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

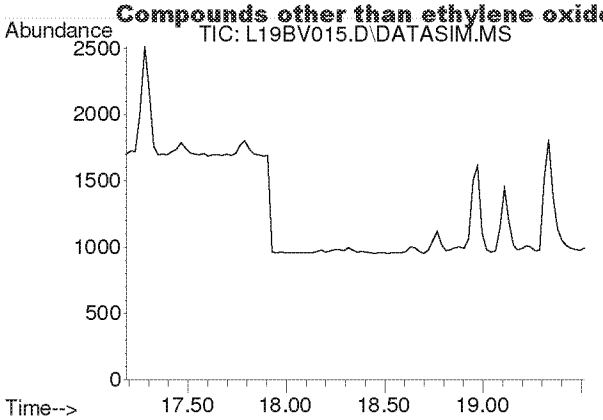
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

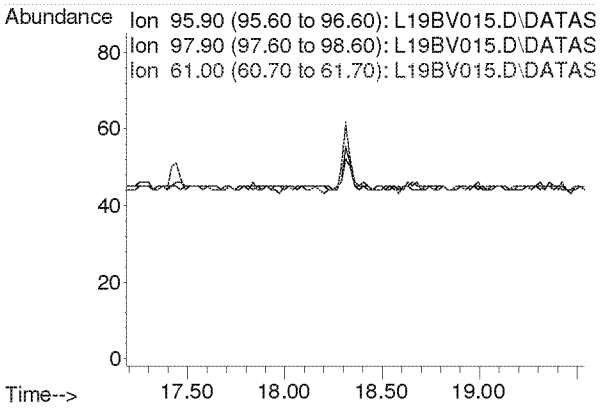


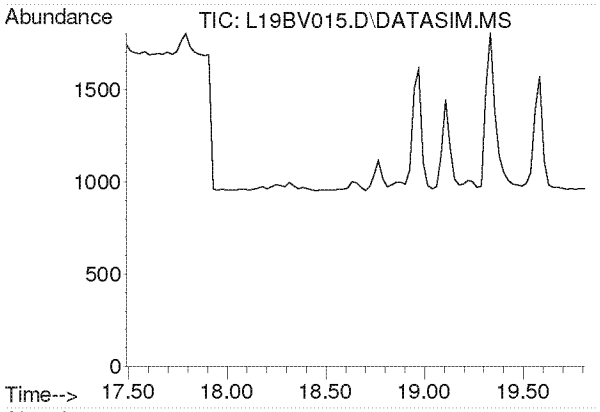
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



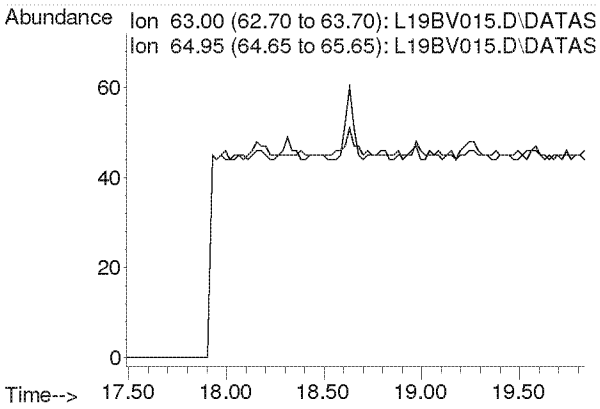


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

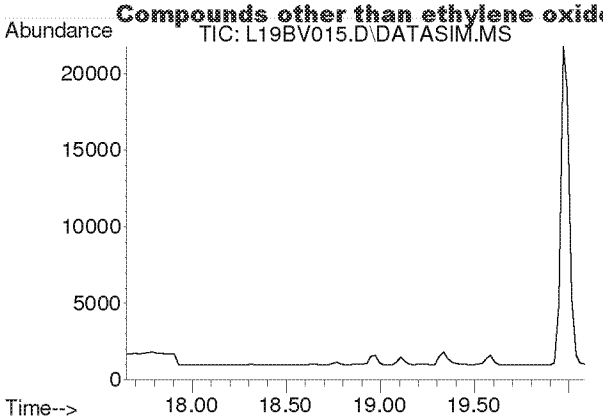
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

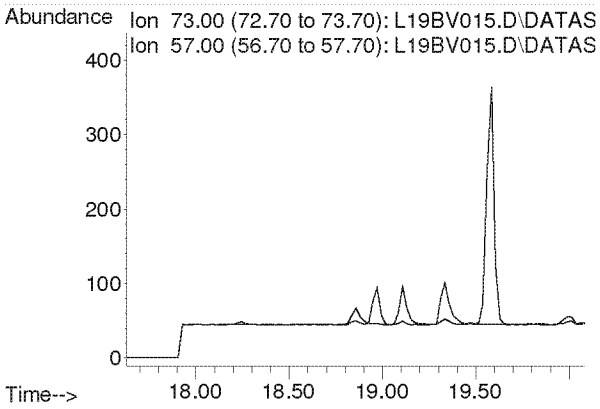


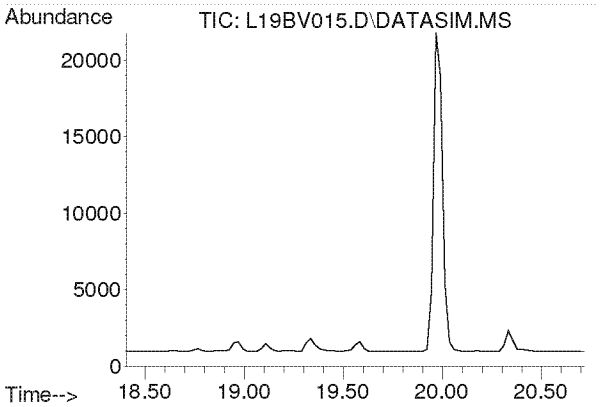
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



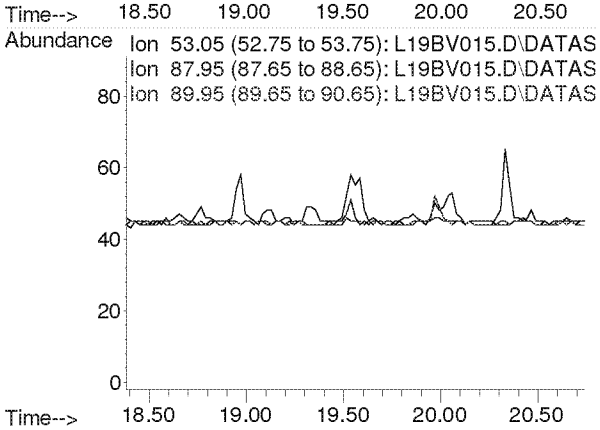


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

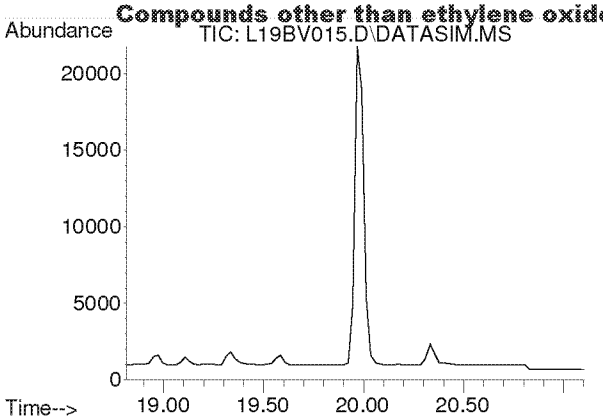
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

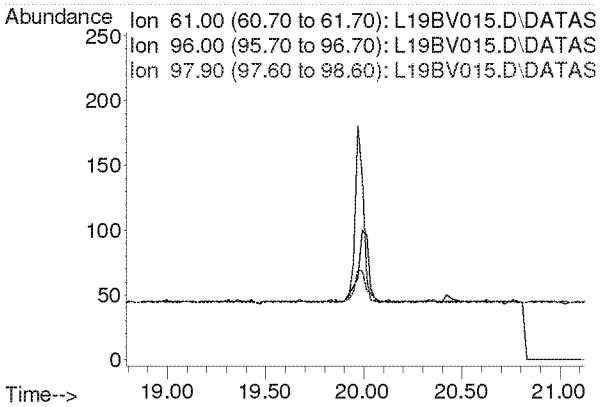


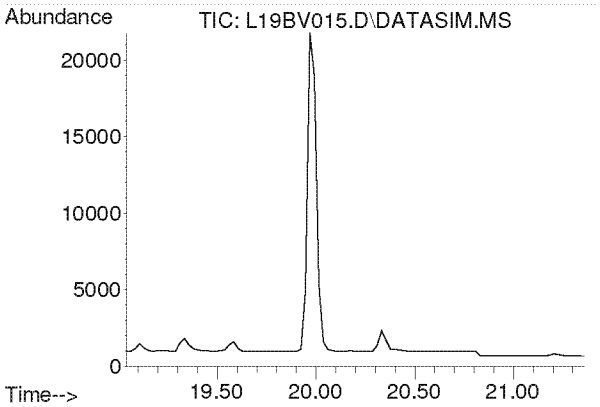
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



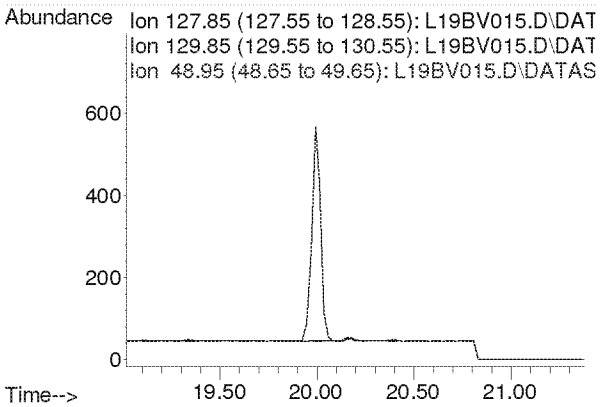


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

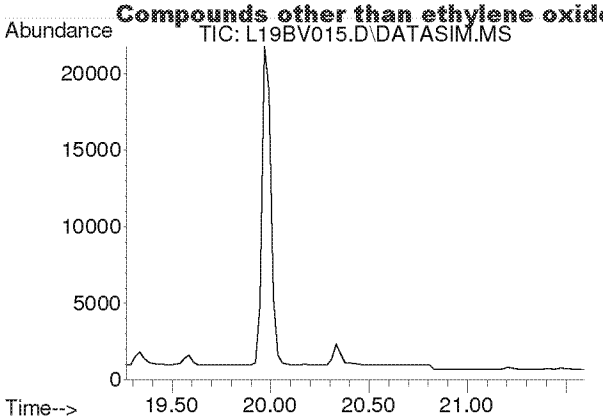
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

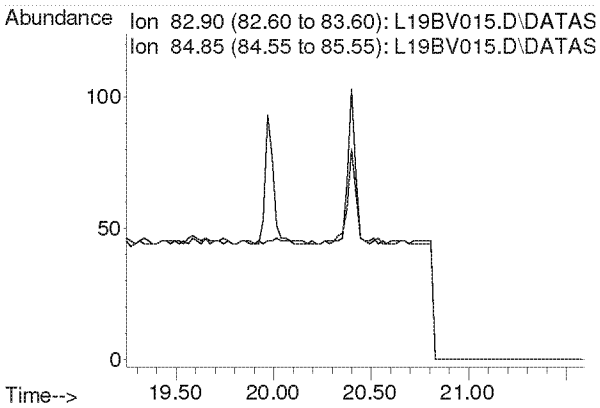


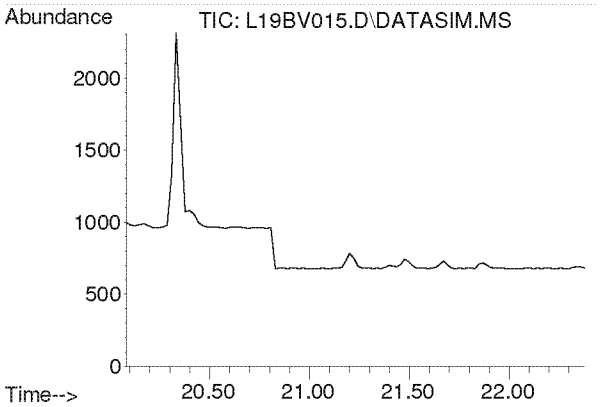
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



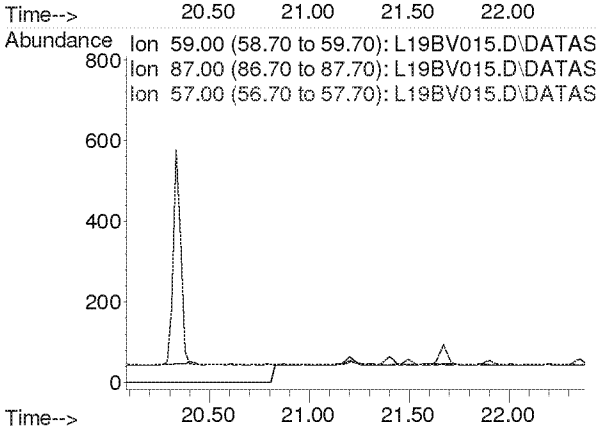


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

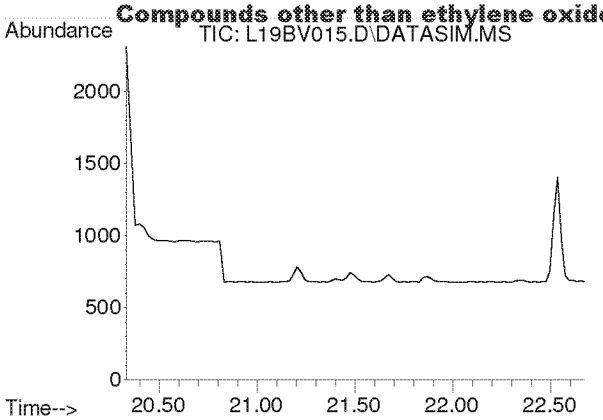
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

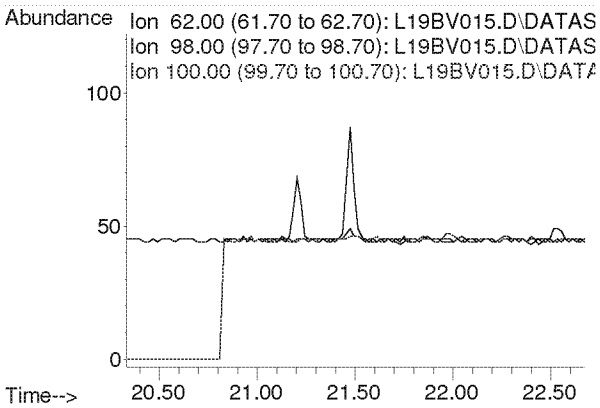


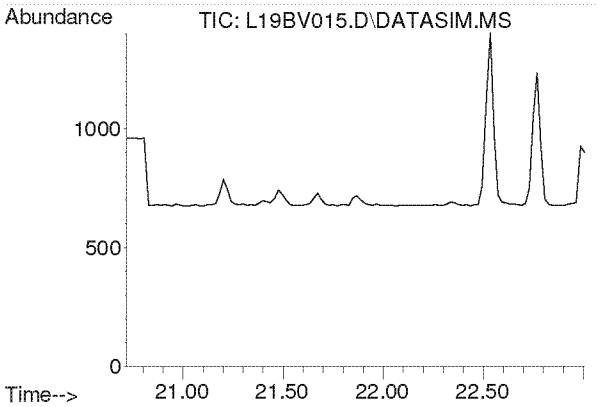
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



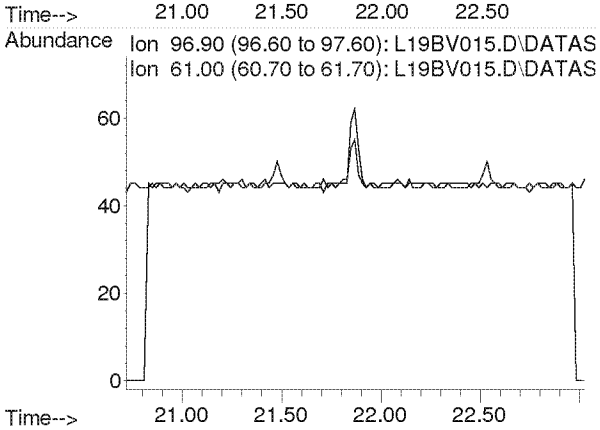


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

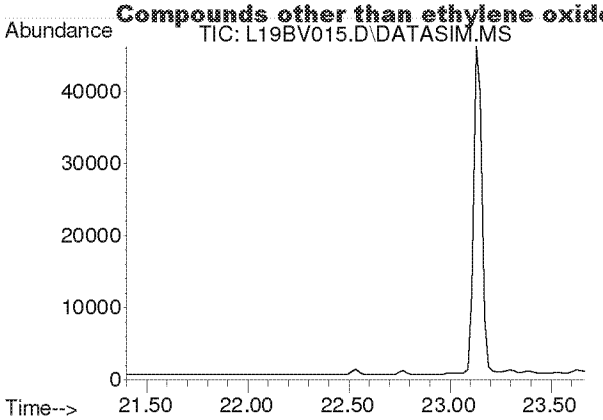
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

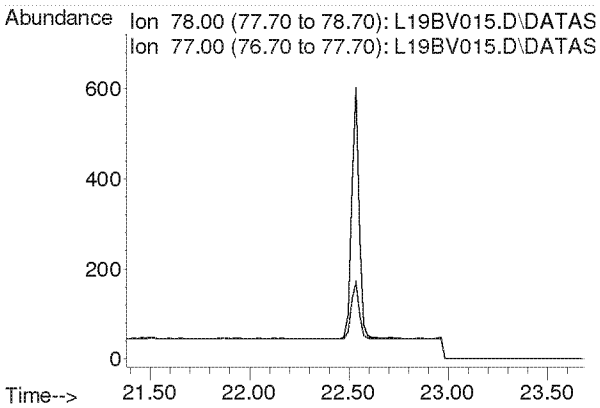


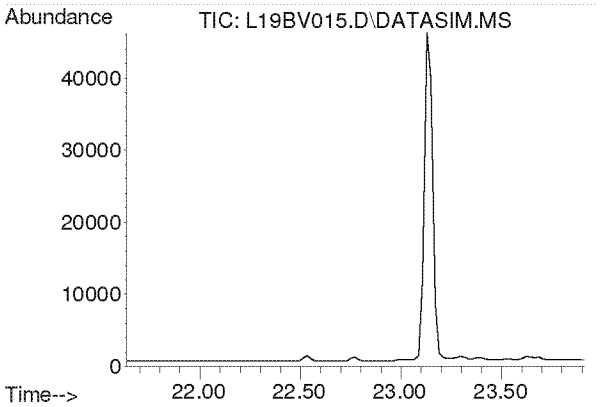
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



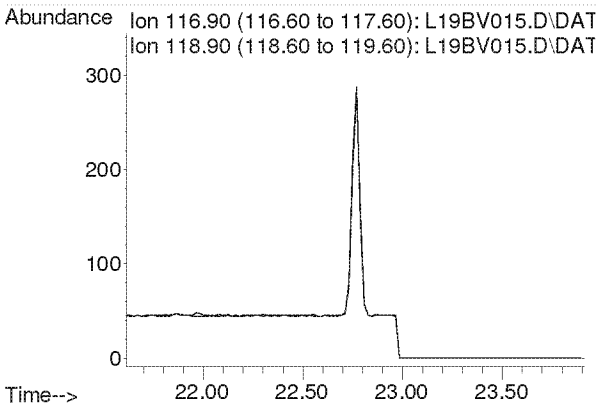


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

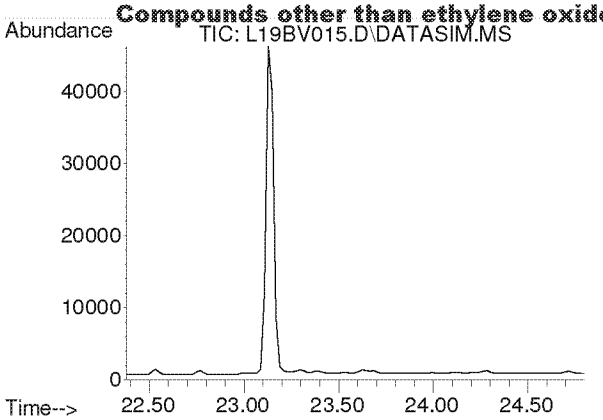
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

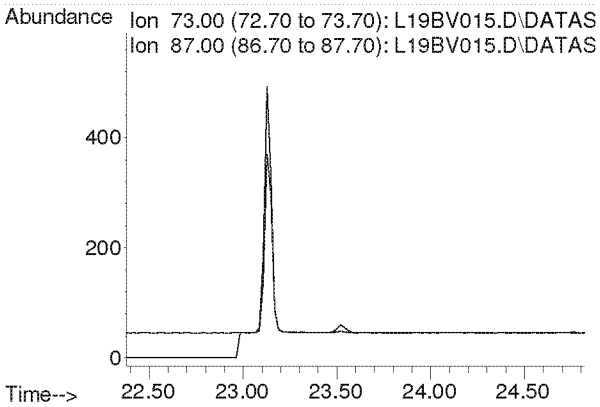


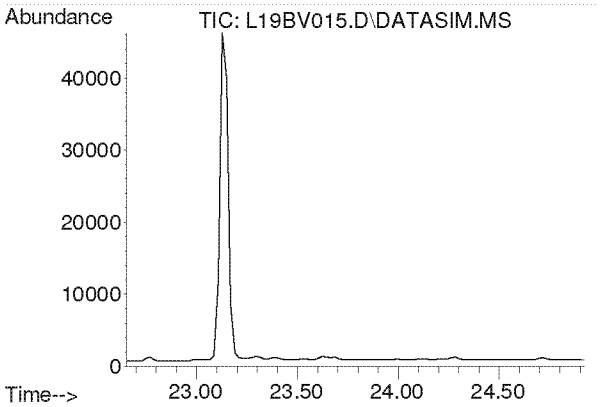
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



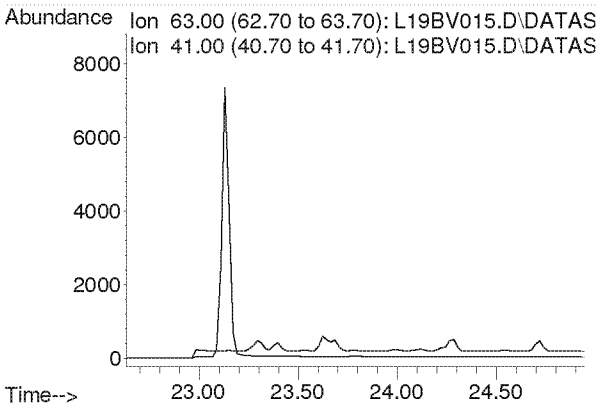


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

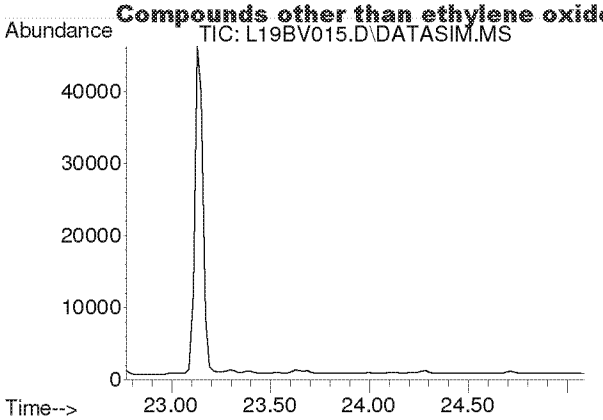
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

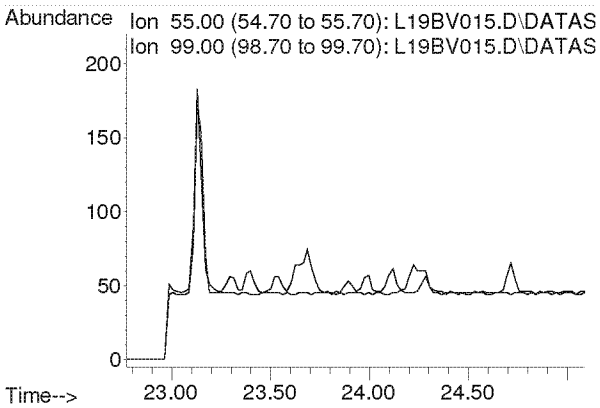


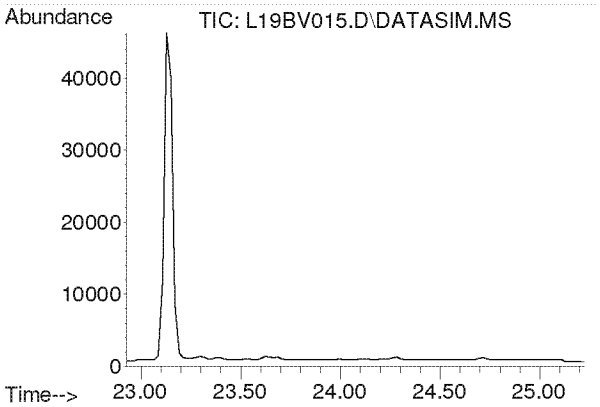
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



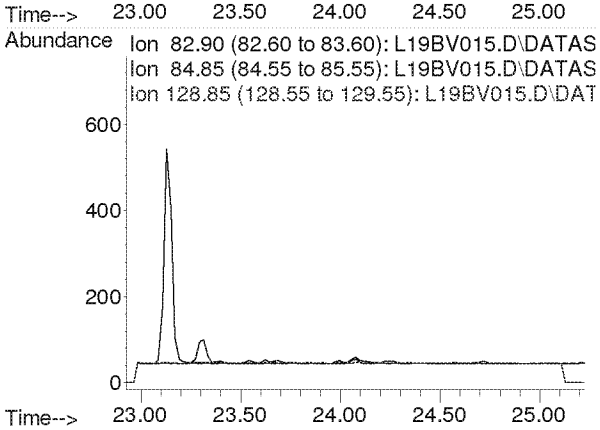


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

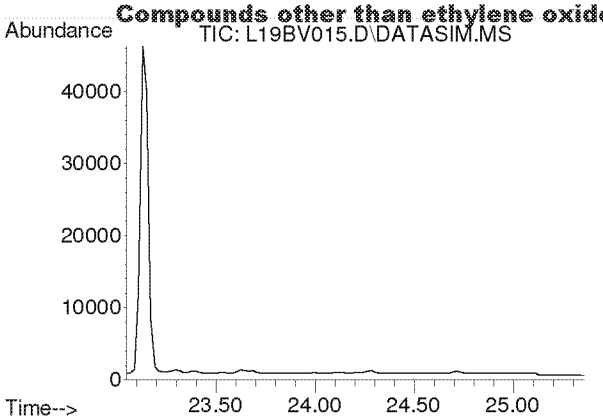
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

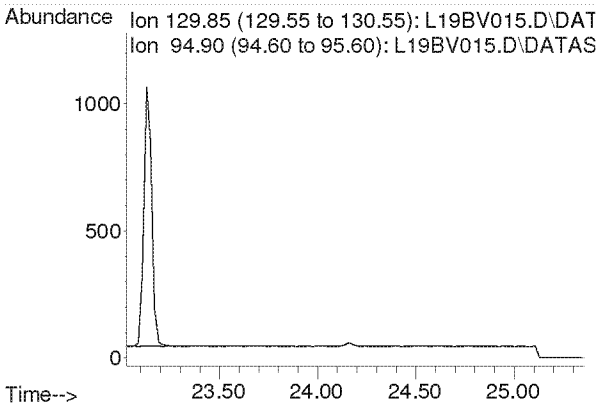


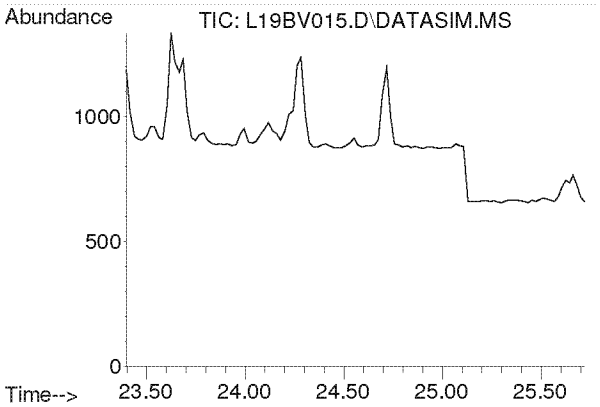
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



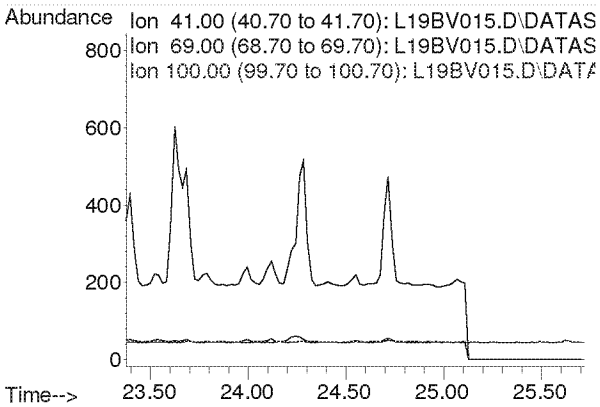


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

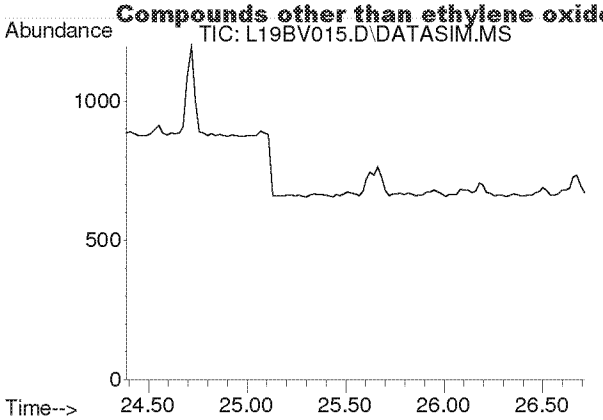
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

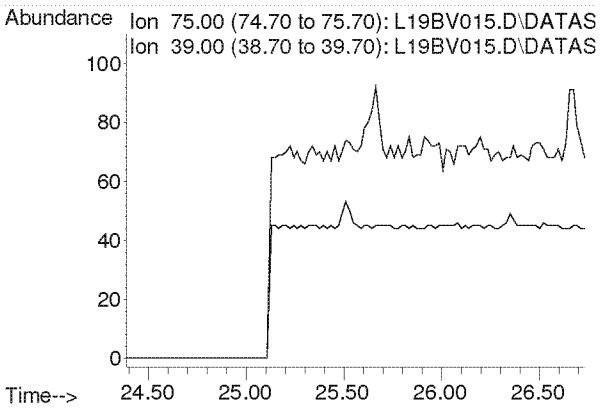


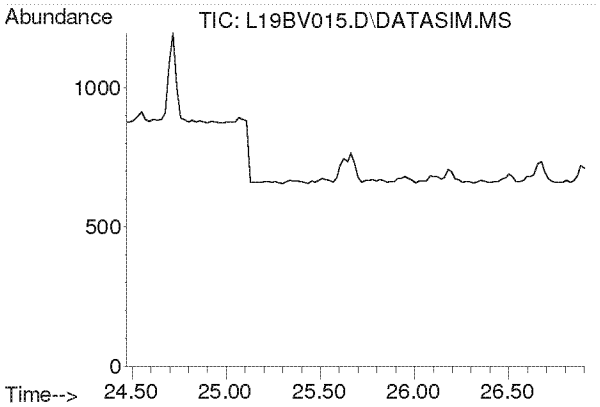
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



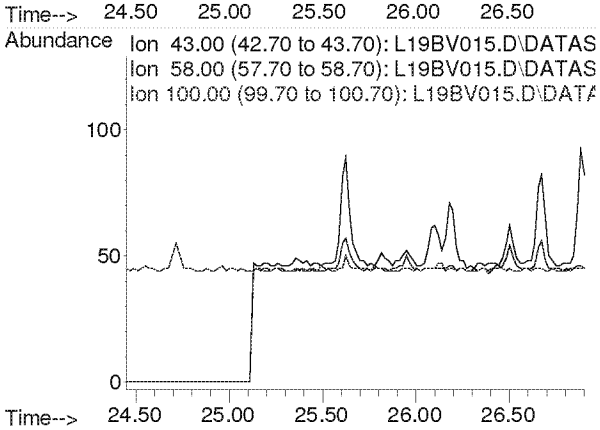


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

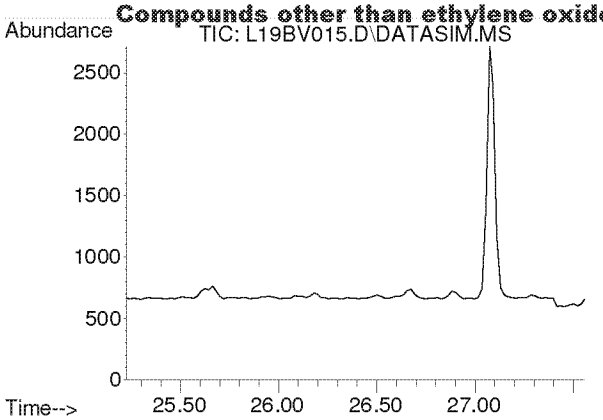
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

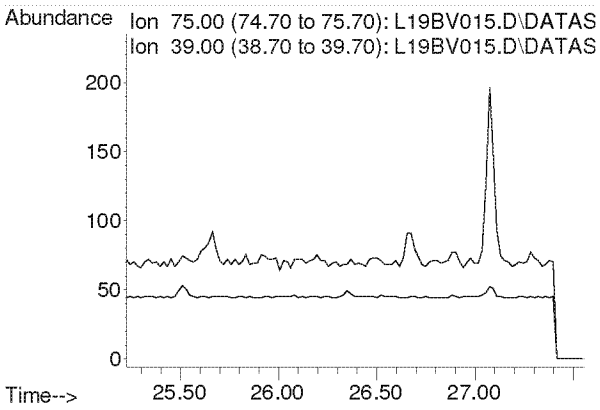


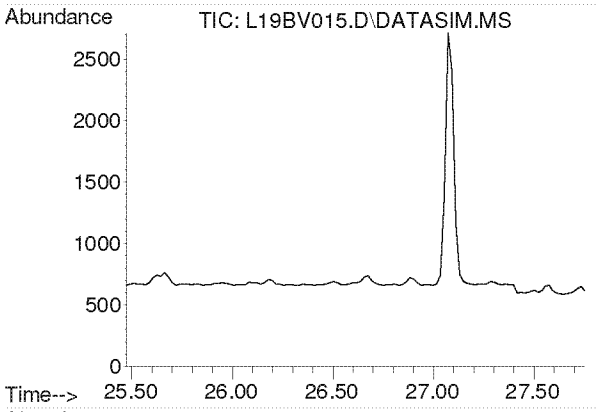
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



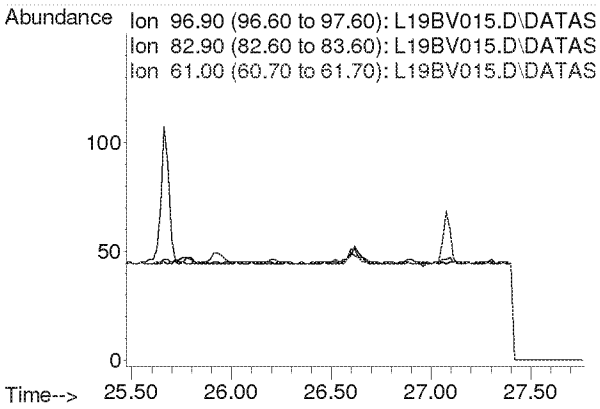


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

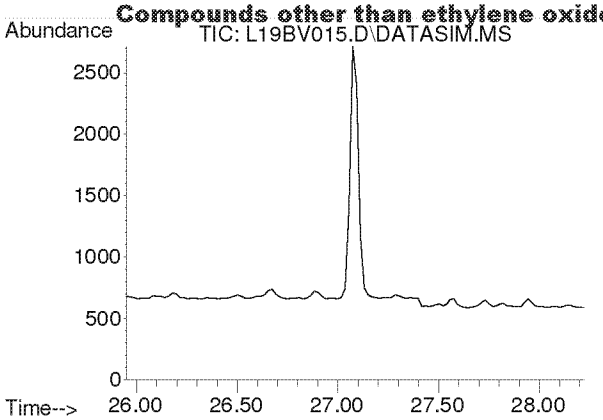
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

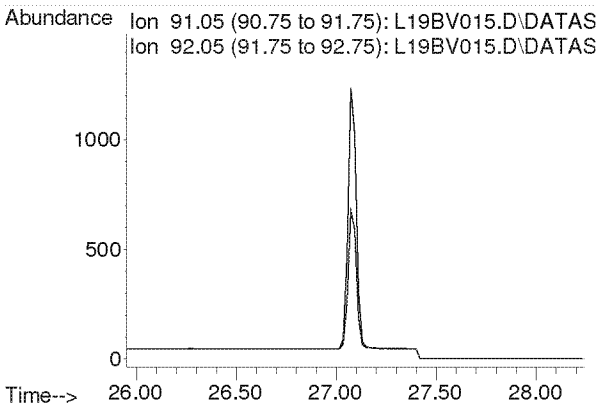


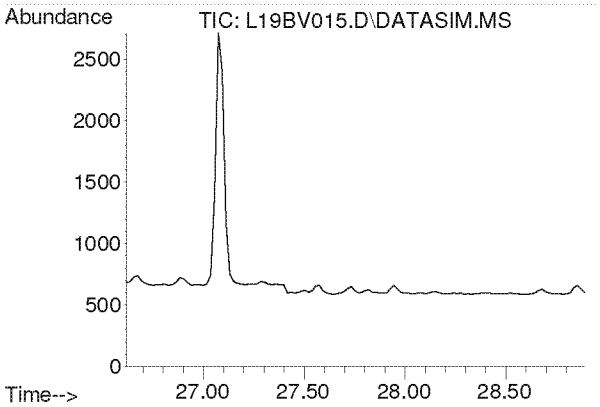
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



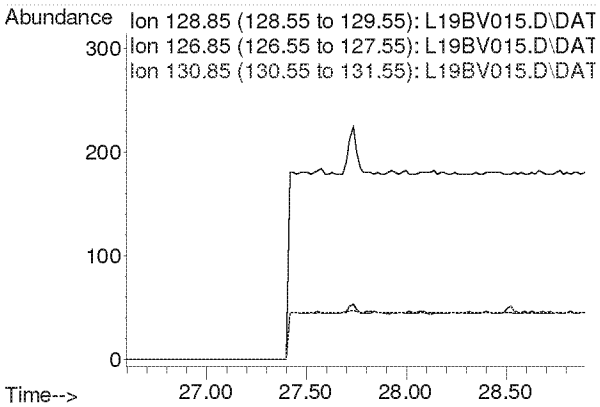


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

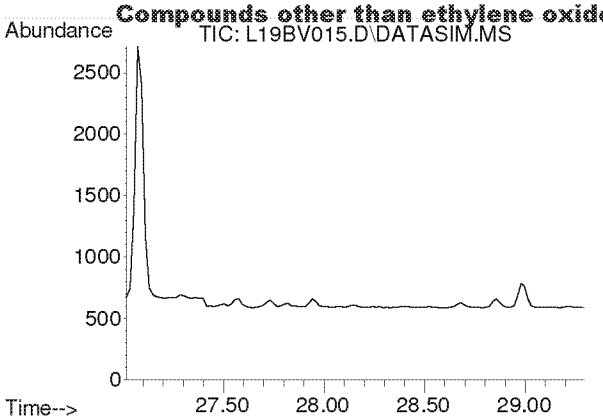
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

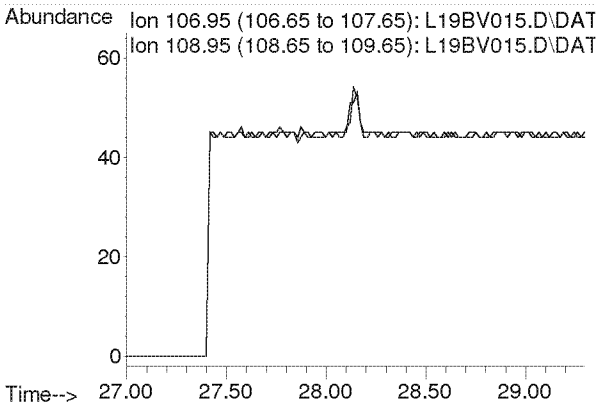


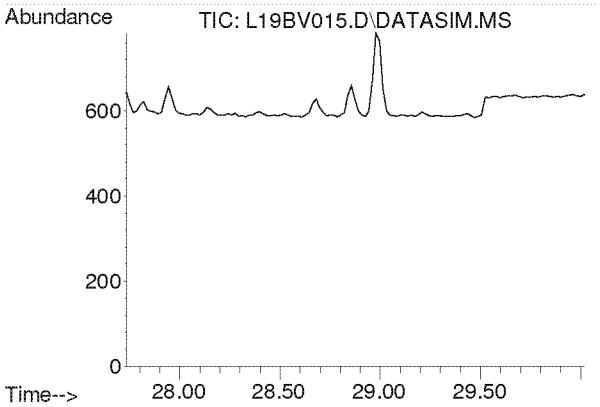
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



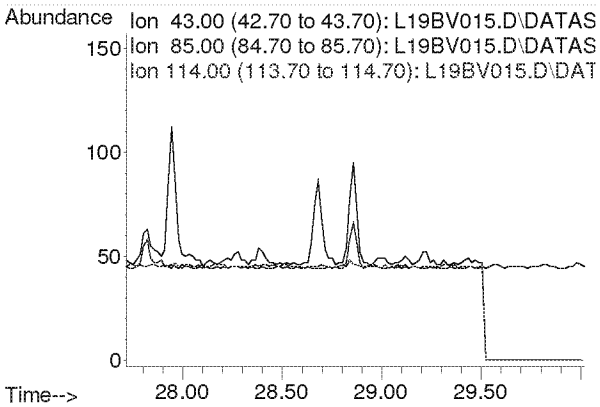


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

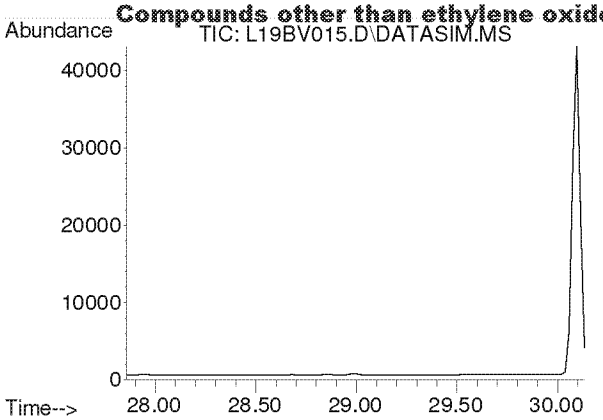
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

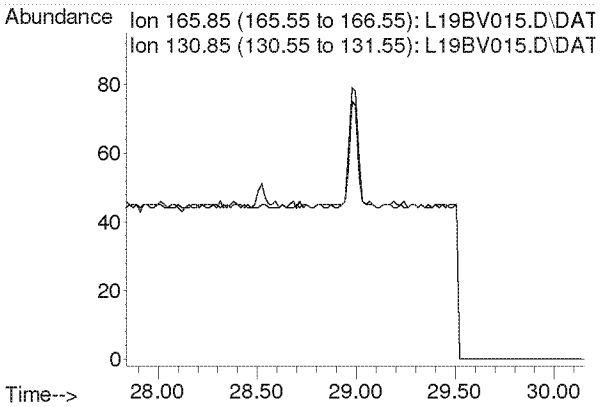


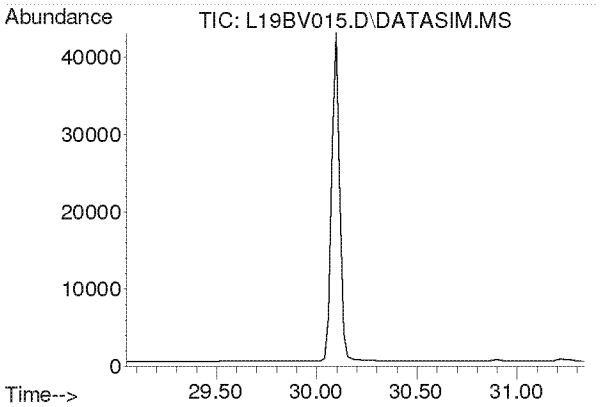
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



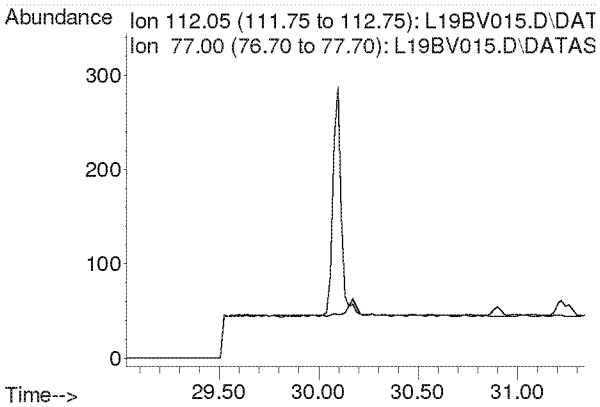


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

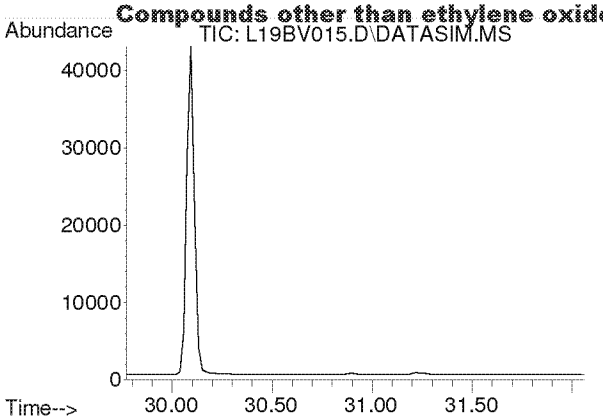
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

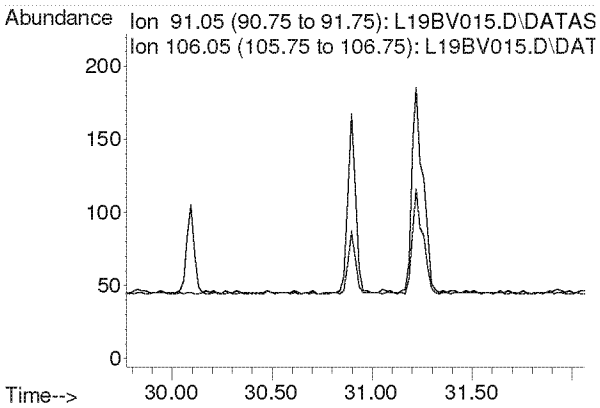


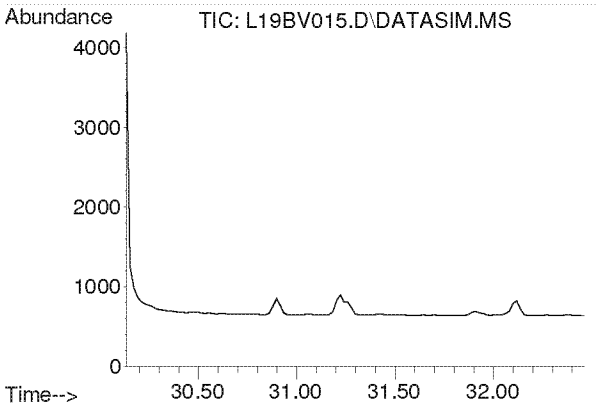
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



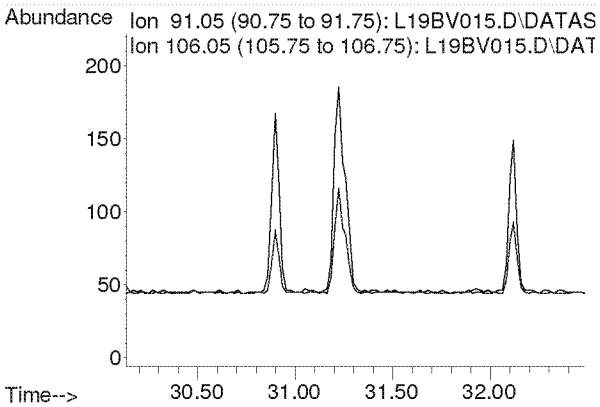


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

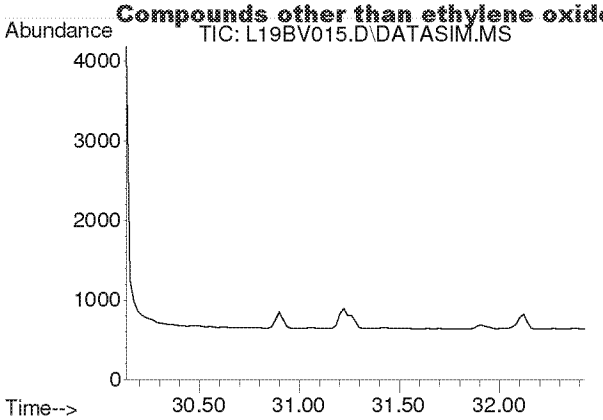
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

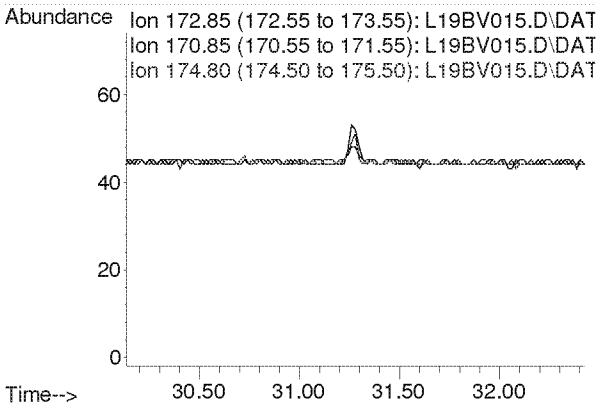


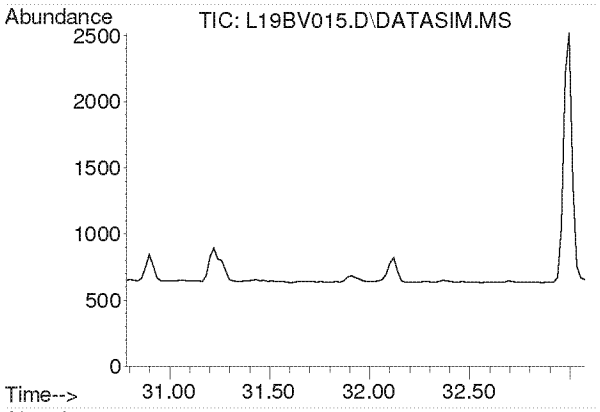
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



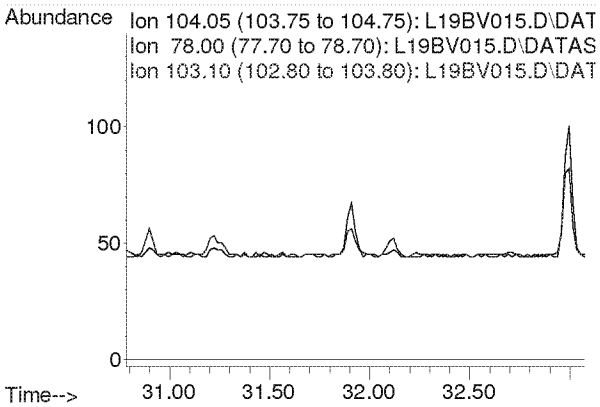


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

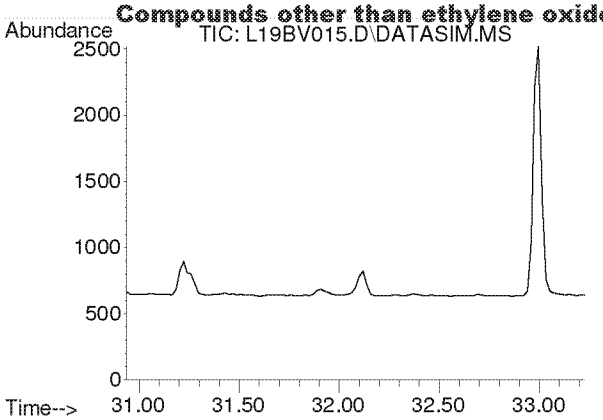
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

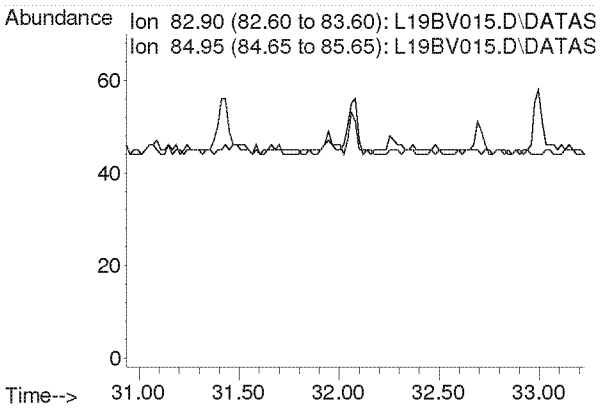


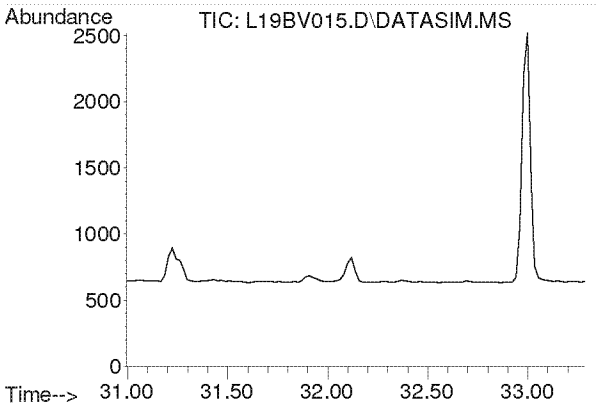
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



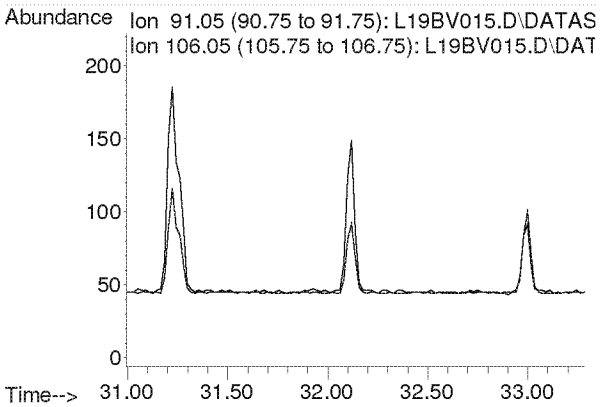


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

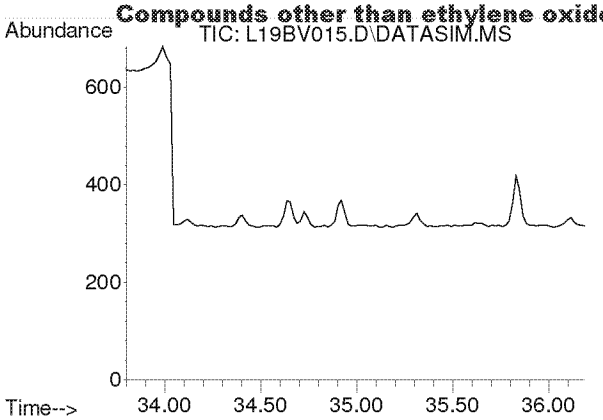
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

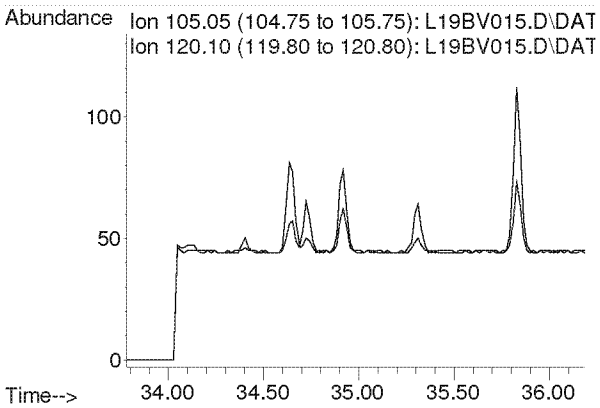


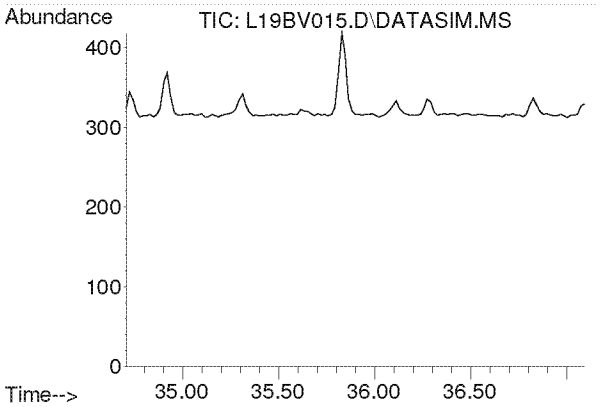
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



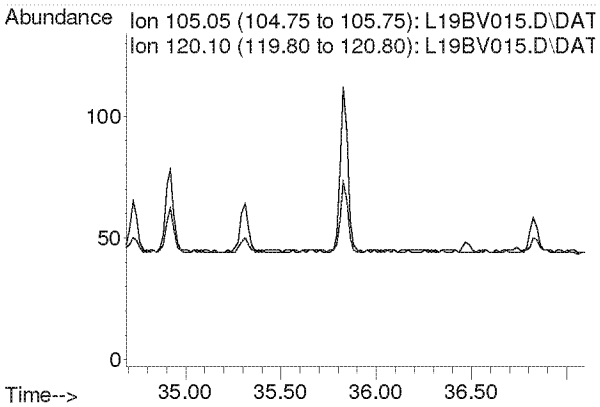


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

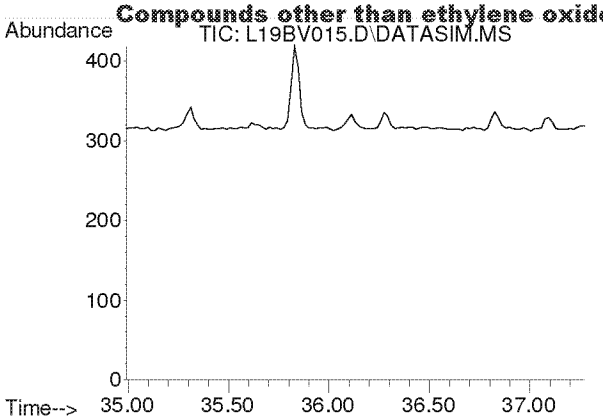
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

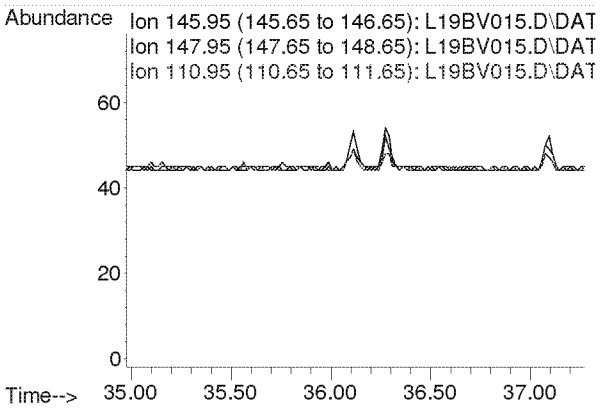


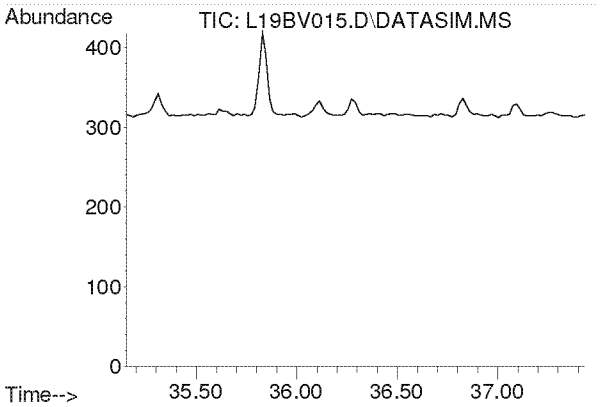
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



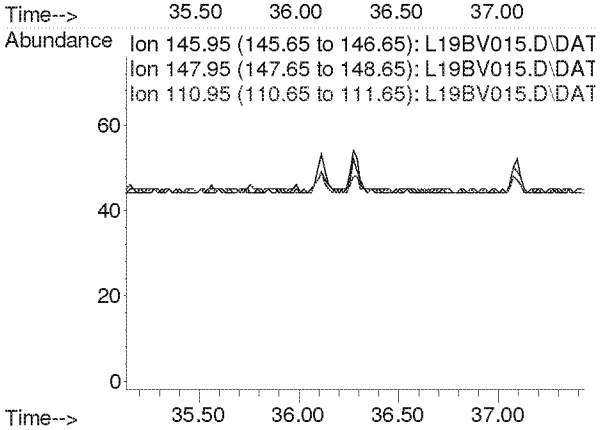


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

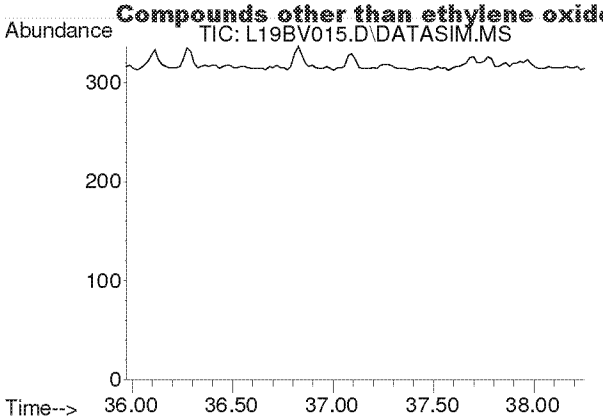
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

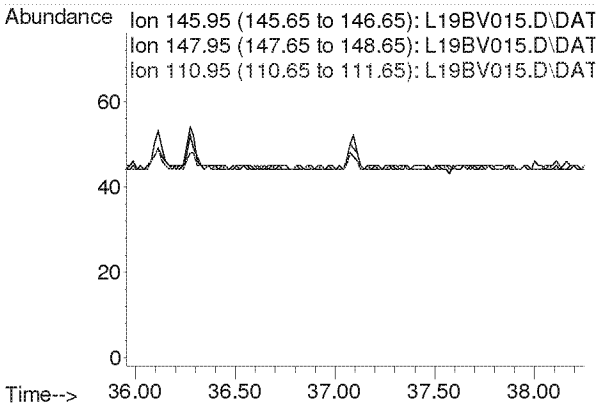


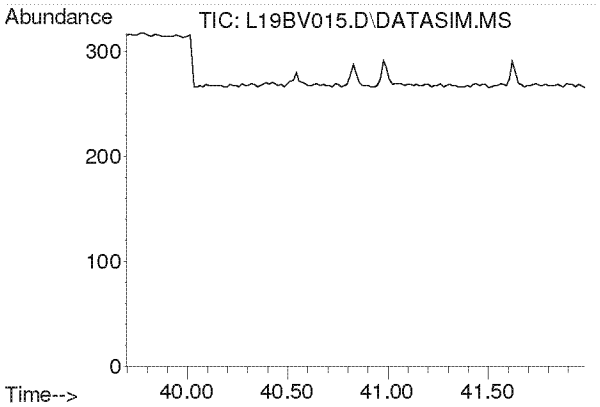
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



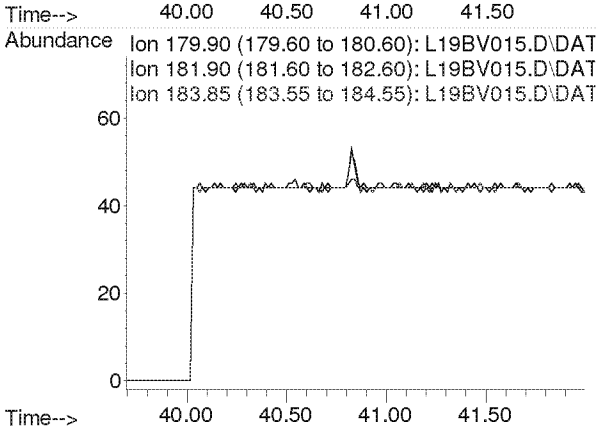


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

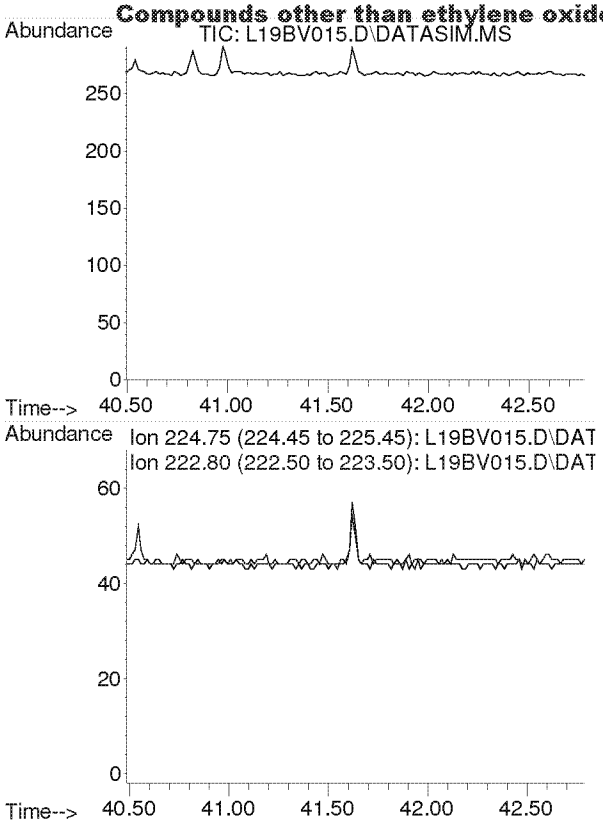
Lab File: L19BV015.D
Acq: 22 Feb 2019 10:43 pm

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: L19BV015.D
Acq: 22 Feb 2019 10:43 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\L19BV\
Data File : L19BV016.D
Acq On : 22 Feb 2019 11:43 pm (#1); 22-Feb-19, 23:38:12 (#2)
Operator : MAH
Sample : 9022025-08 C1
Misc : EPA WB WAREHOUSE XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 25 07:43:16 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d-MK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.971	66	39480	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.133	114	100008	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.099	117	68818	4.7400 ppbv	-0.01

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.	d
8) 1,3-Butadiene	0.000	54	0	N.D.	d
9) Ethylene oxide	12.427	29	930m 2-25-19	0.4119 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.	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.	d
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	d
23) Chloroprene	0.000	53	0	N.D.	d
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	d
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	d
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	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.	d
34) 1,2-Dichloropropane	0.000	63	0	N.D.	d
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	d
37) Trichloroethylene	0.000	130	0	N.D.	d
38) Methyl Methacrylate	0.000	41	0	N.D.	d
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	d
45) Dibromochloromethane	0.000	129	0	N.D.	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.	d
50) Ethylbenzene	0.000	91	0	N.D.	d

Compounds other than ethylene oxide were not quantitated. (Reviewed)

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV016.D
Acq On : 22 Feb 2019 11:43 pm (#1); 22-Feb-19, 23:38:12 (#2)
Operator : MAH
Sample : 9022025-08
Misc : EPA WB WAREHOUSE ~~XX~~ C1 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 25 07:43:16 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

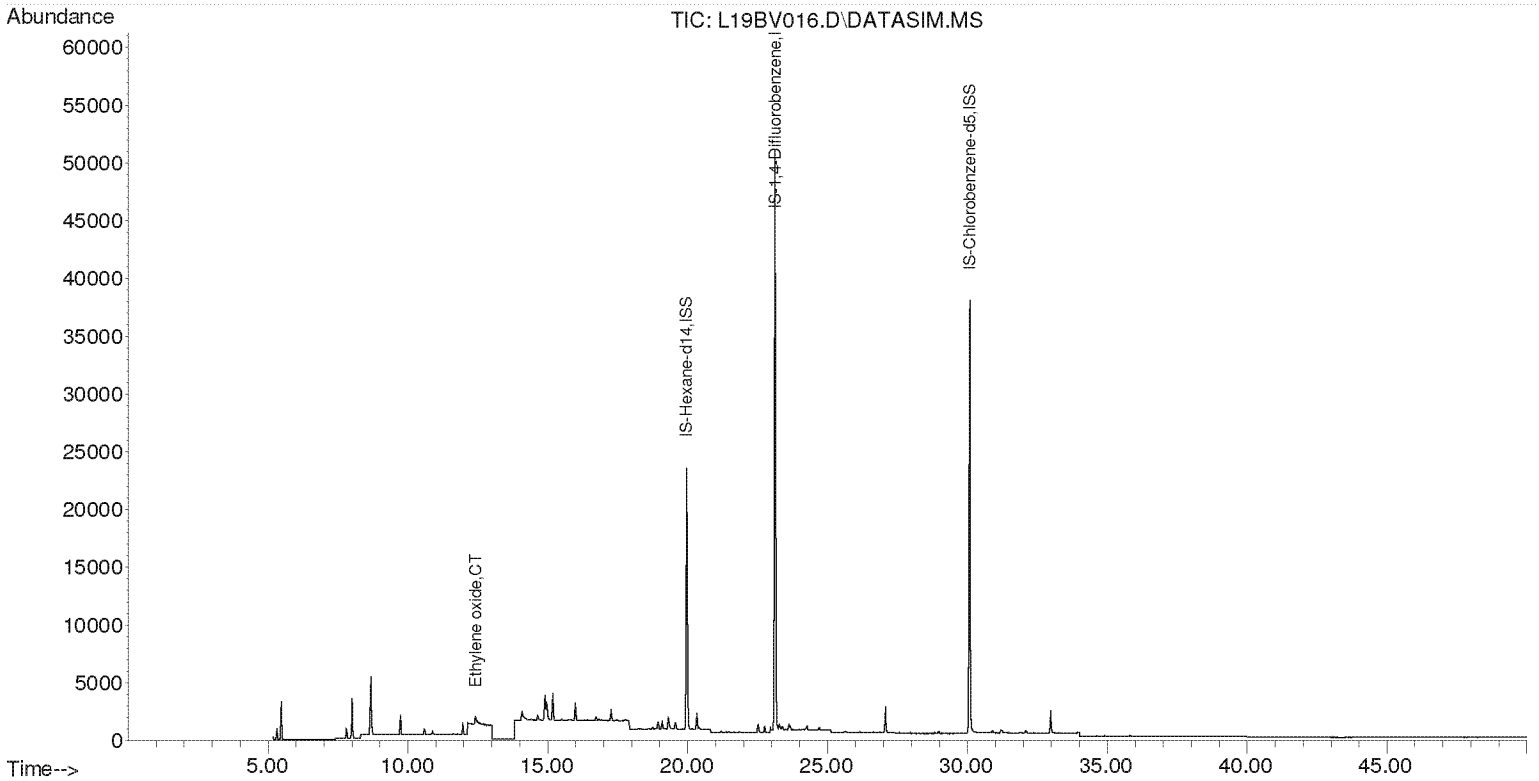
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	d
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

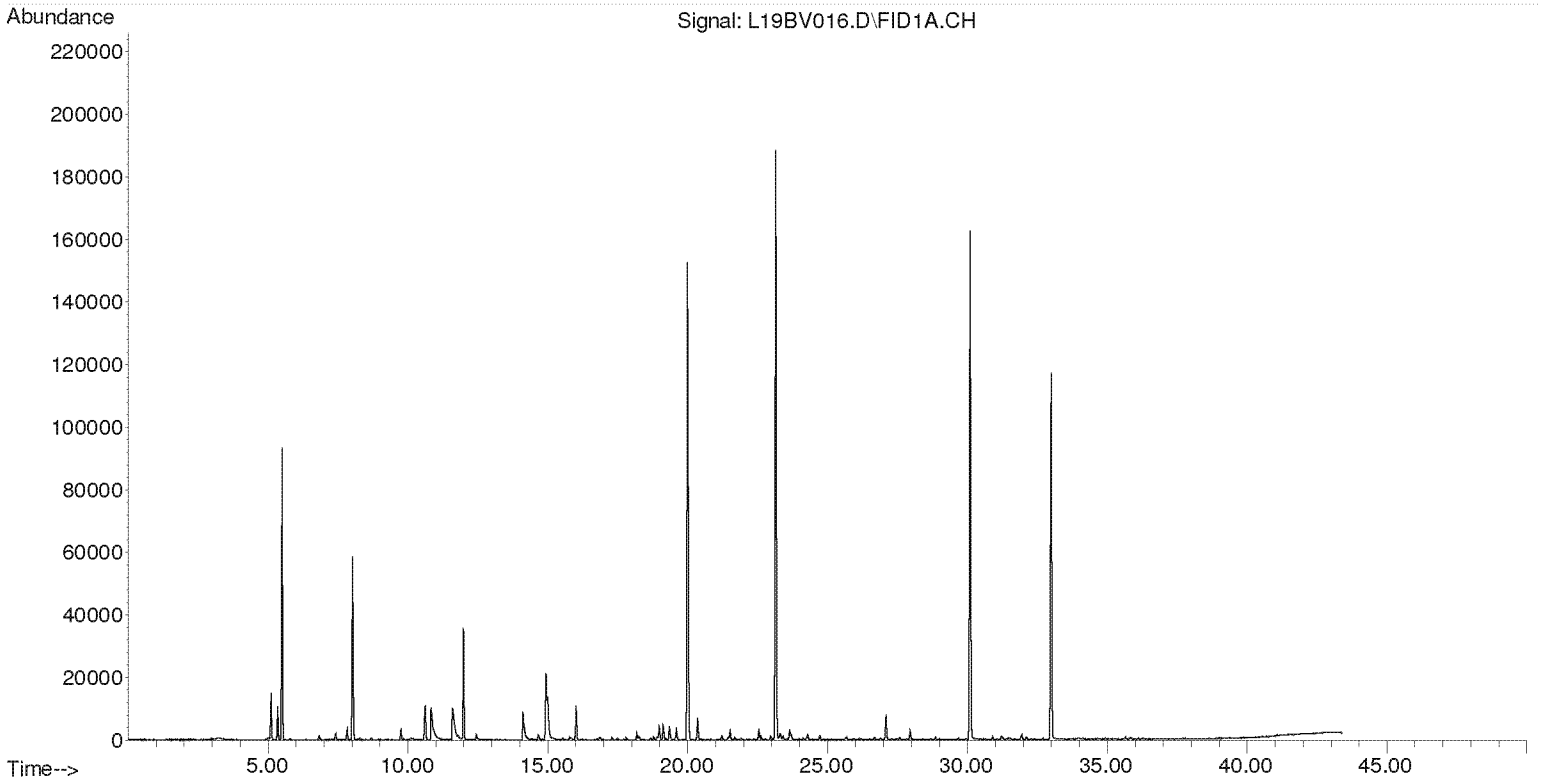
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

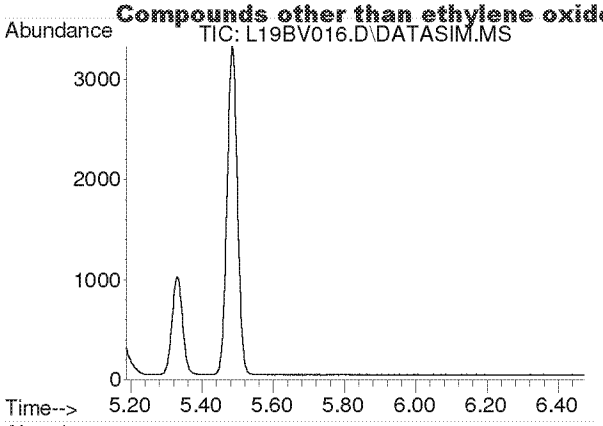
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV016.D
Acq On : 22 Feb 2019 11:43 pm (#1); 22 Feb 2019 11:38 pm (#2)
Operator : MAH
Sample : 9022025-08 C1
Misc : EPA WB WAREHOUSE XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 25 06:47:39 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





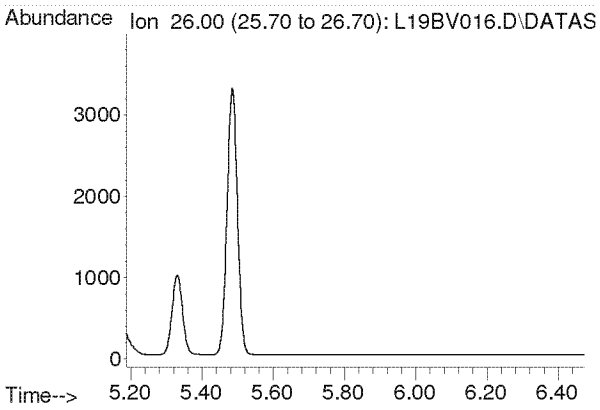
Compounds other than ethylene oxide were not quantitated.

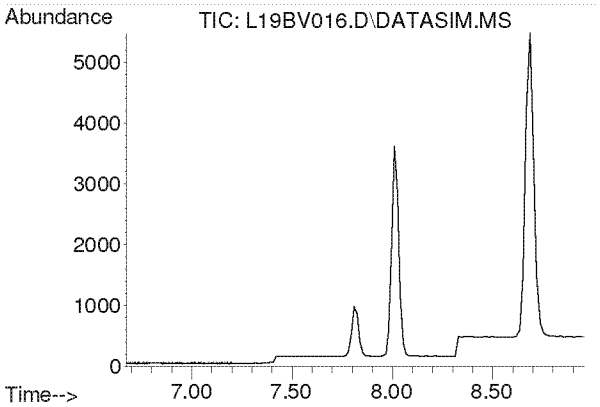


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 26



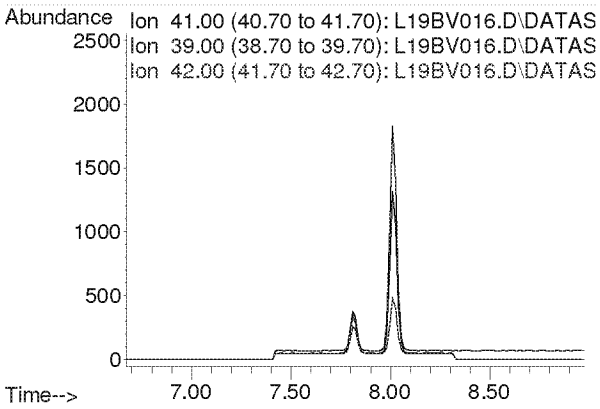


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

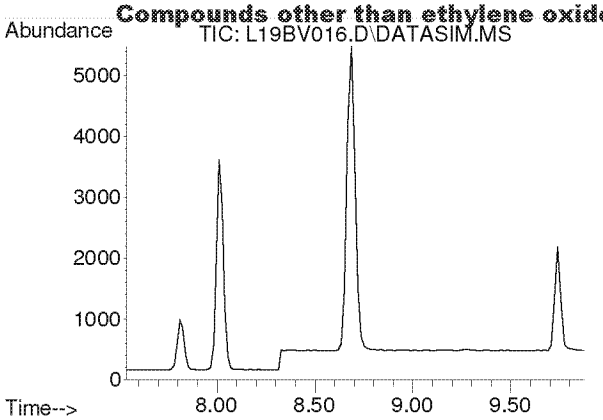
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

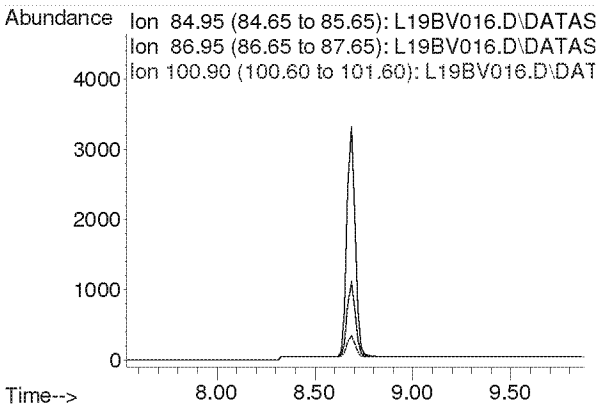


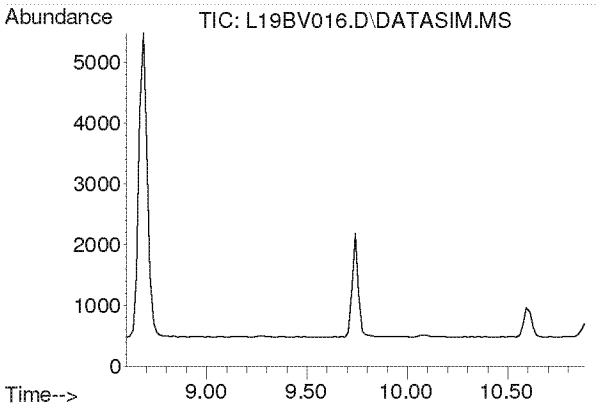
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



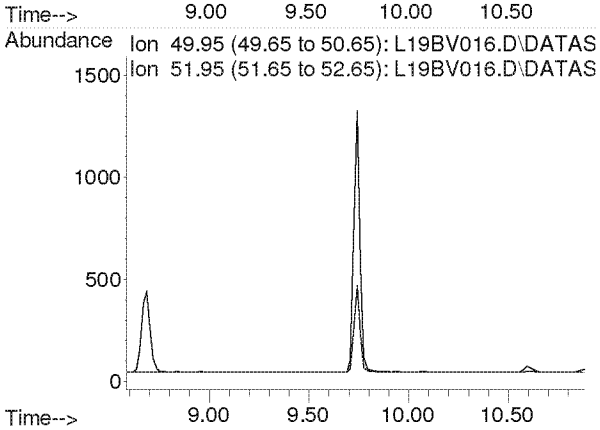


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

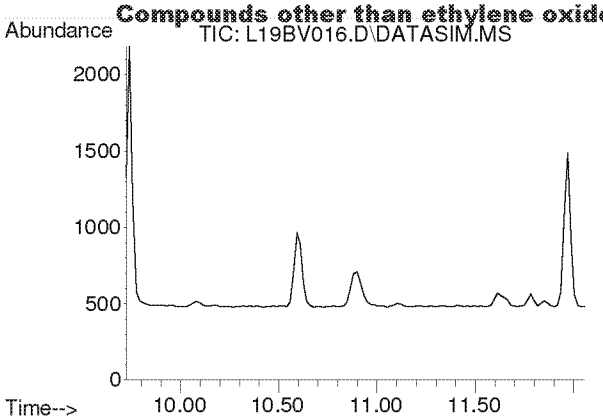
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

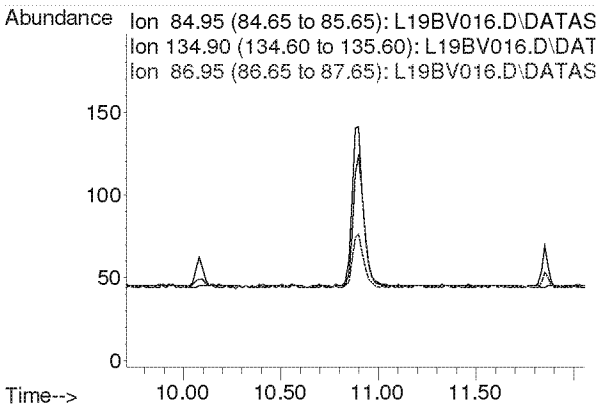


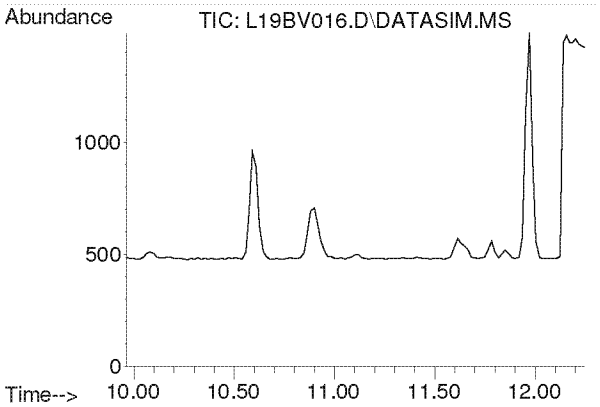
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



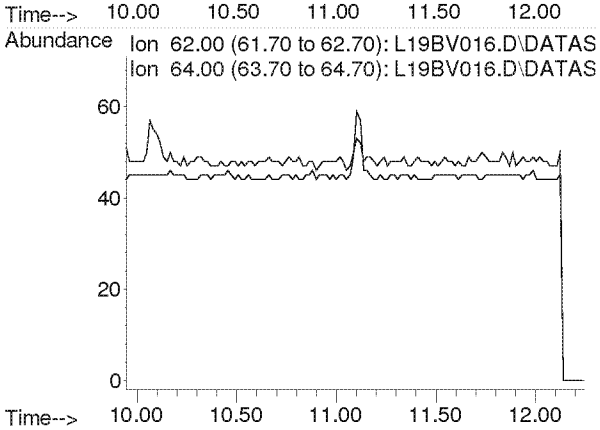


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

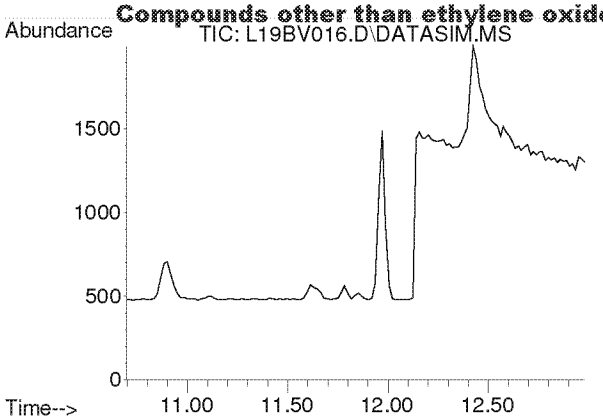
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

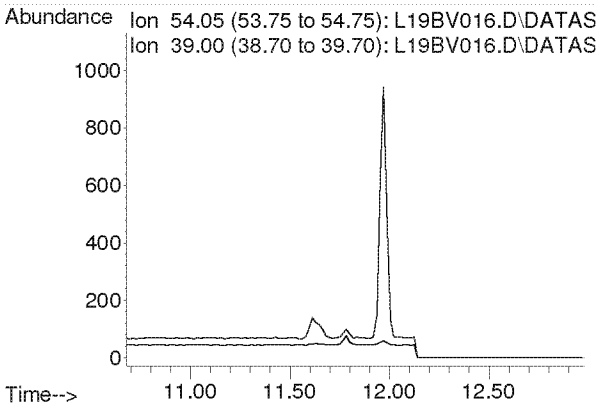


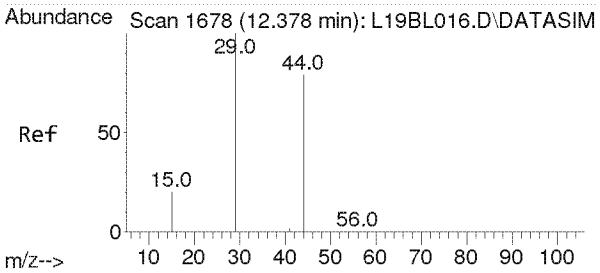
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

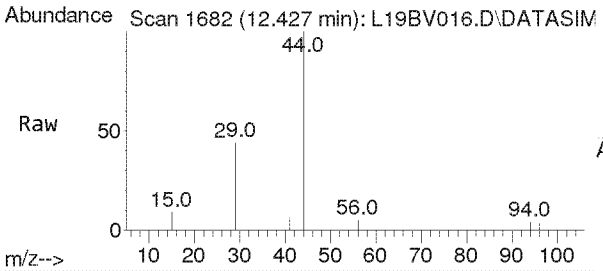


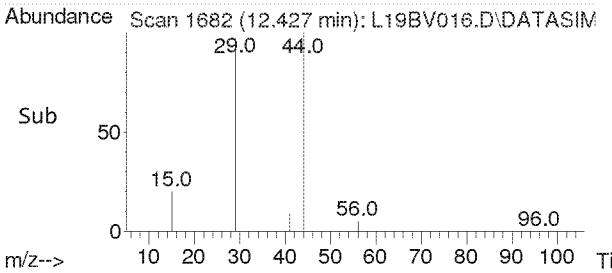


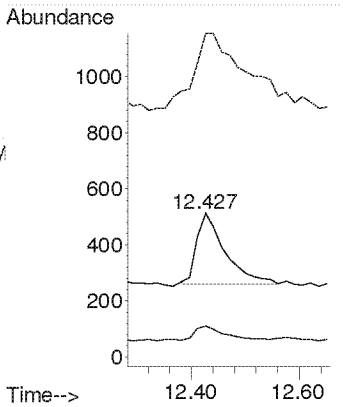
#9
Ethylene oxide
Concen: 0.412 ppbv m
RT: 12.427 min Scan# 1682
Delta R.T. 0.049 min
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 29 Resp: 930

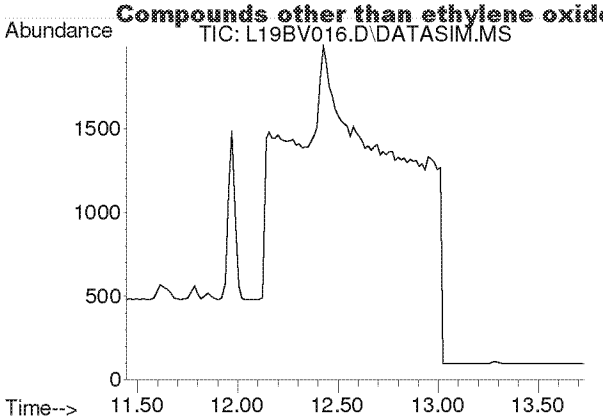
Ion	Ratio	Lower	Upper
29	100		
15	22.5	16.0	24.0
44	194.6	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

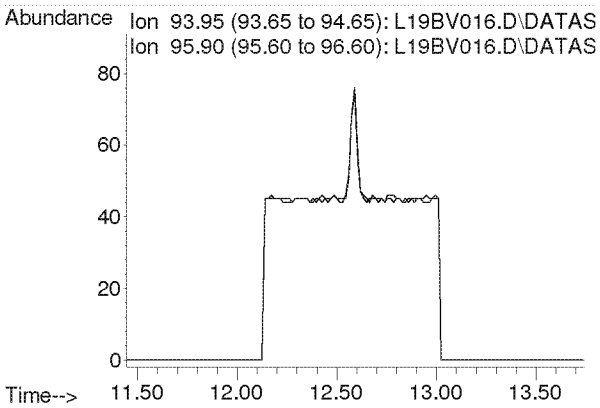


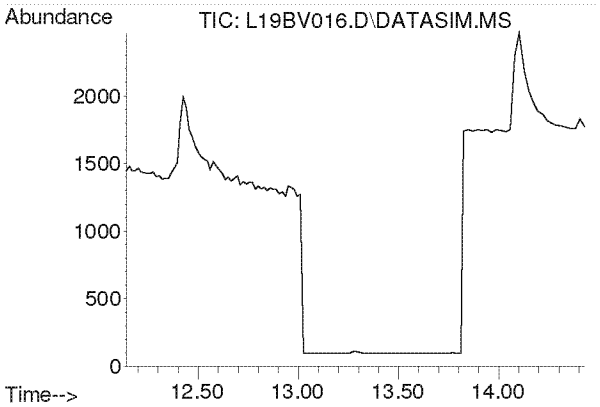
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



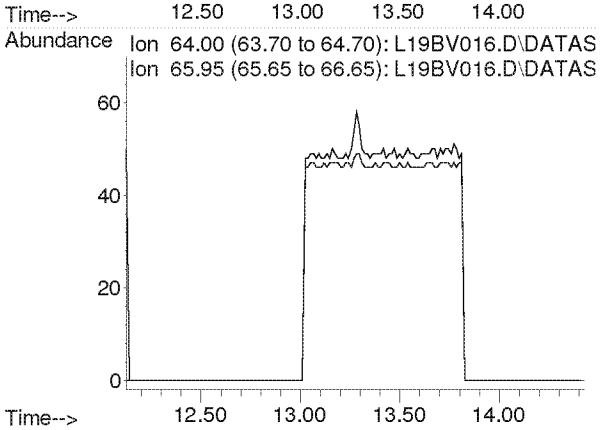


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

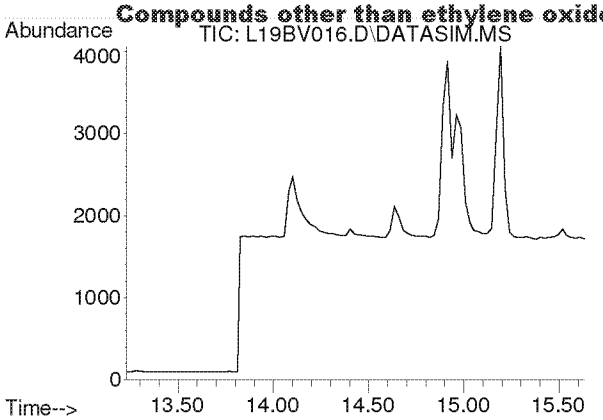
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

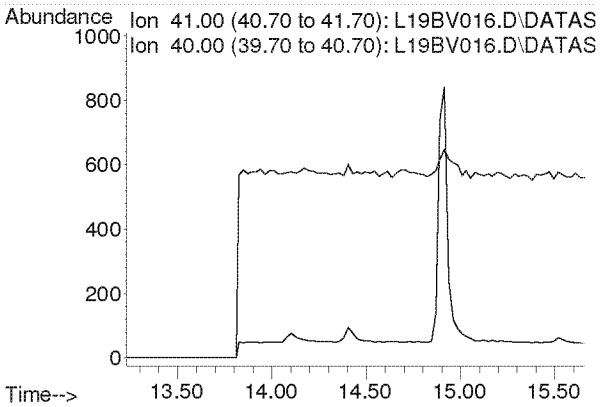


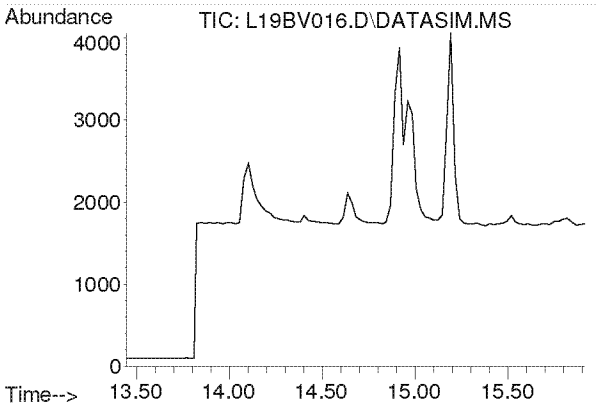
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



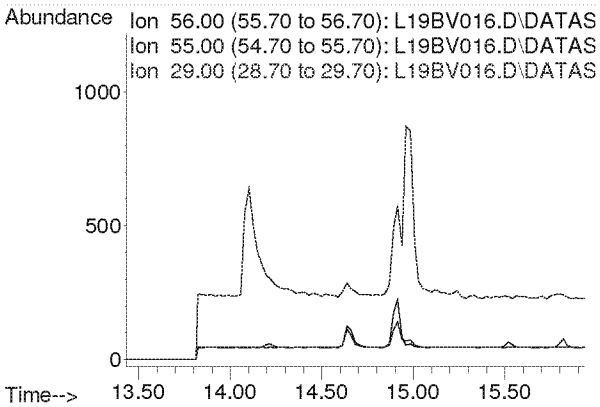


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

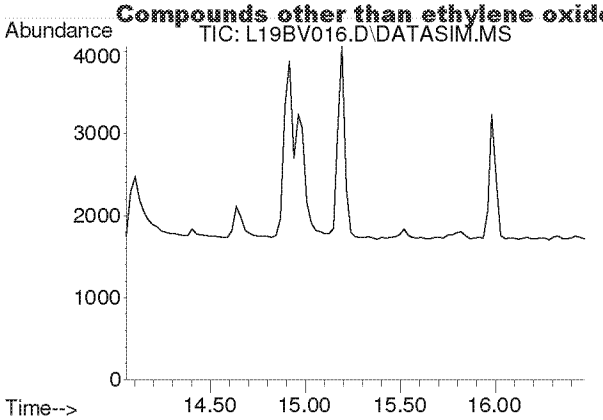
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

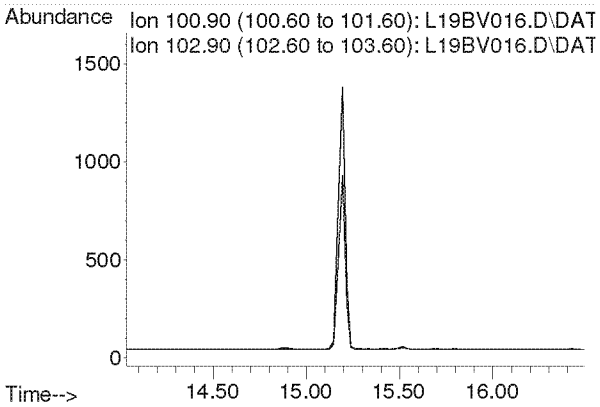


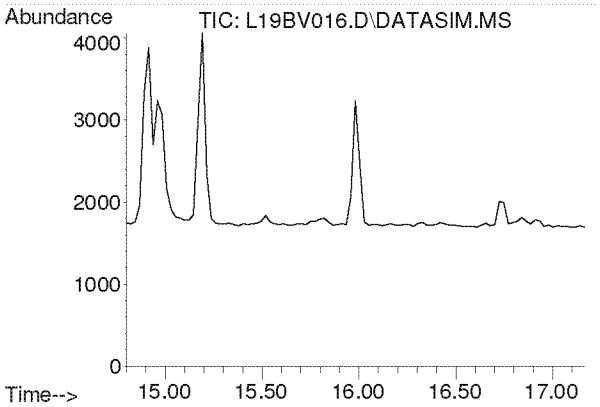
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



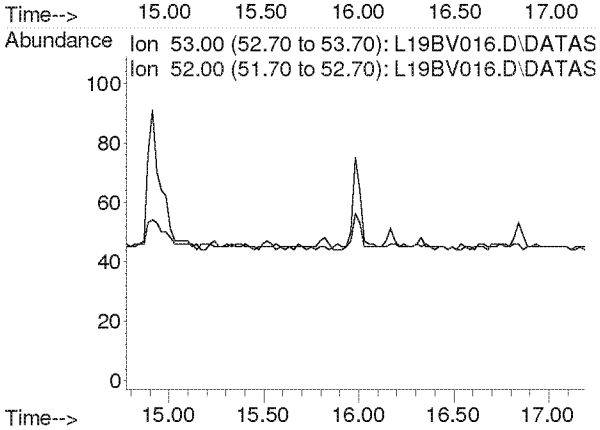


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

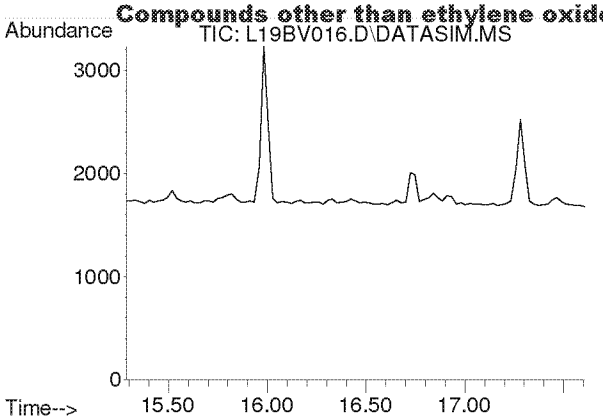
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

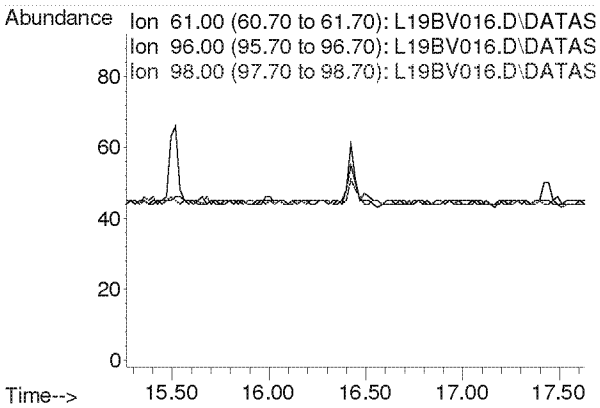


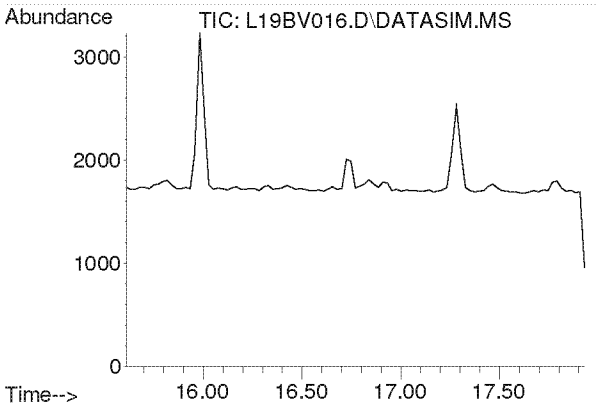
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



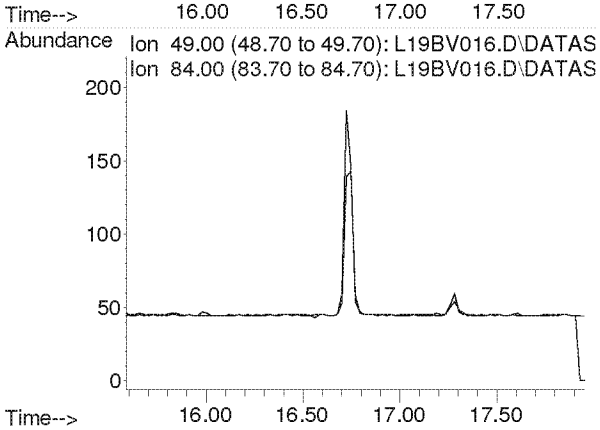


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

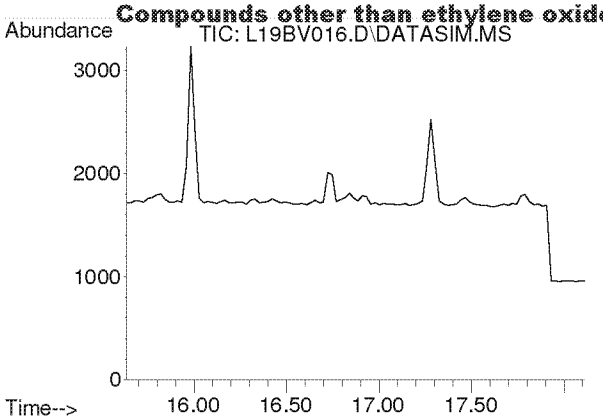
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

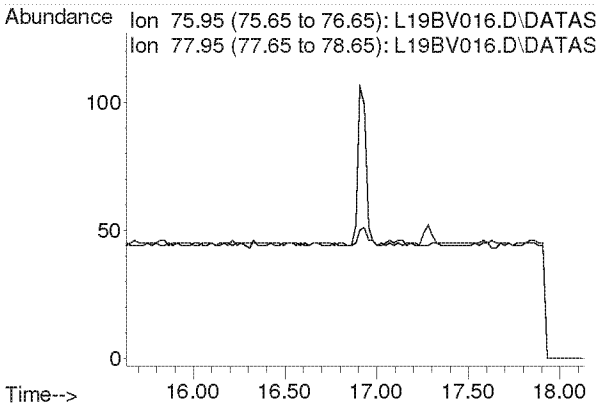


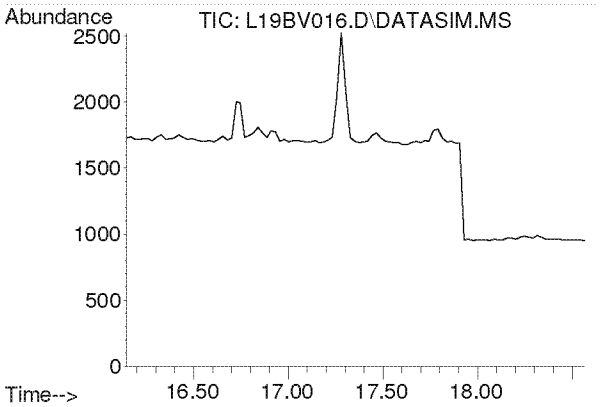
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



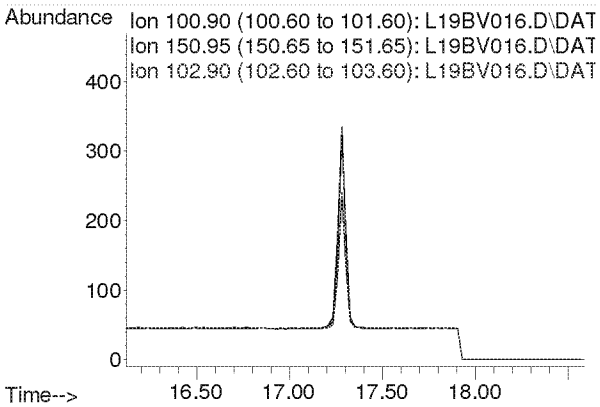


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

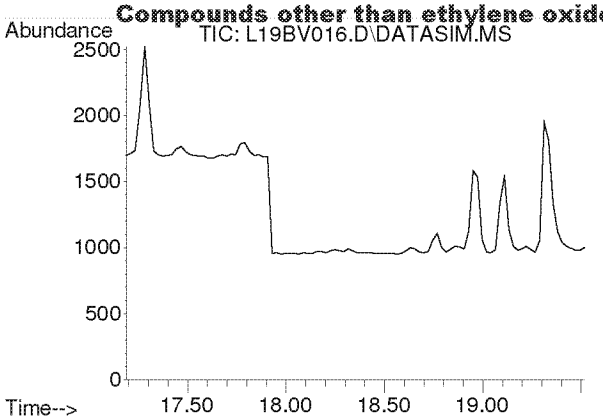
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

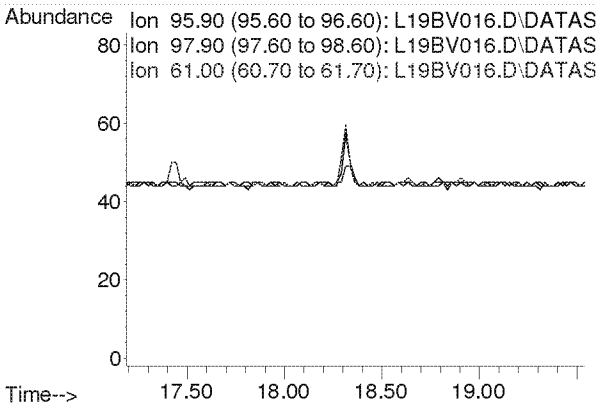


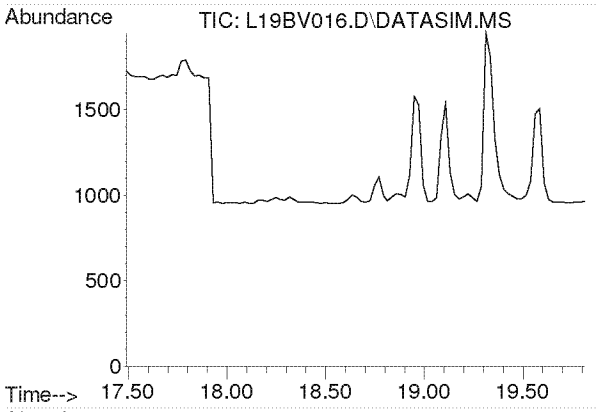
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



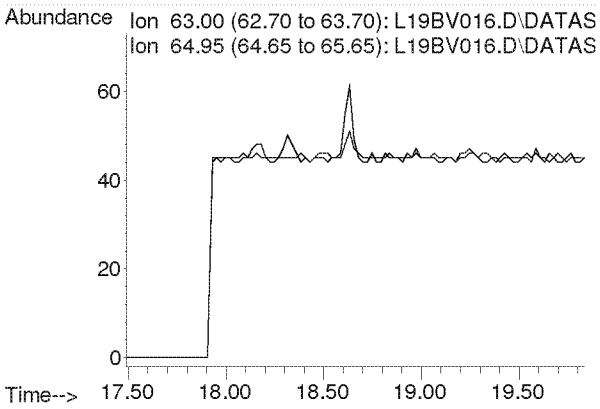


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

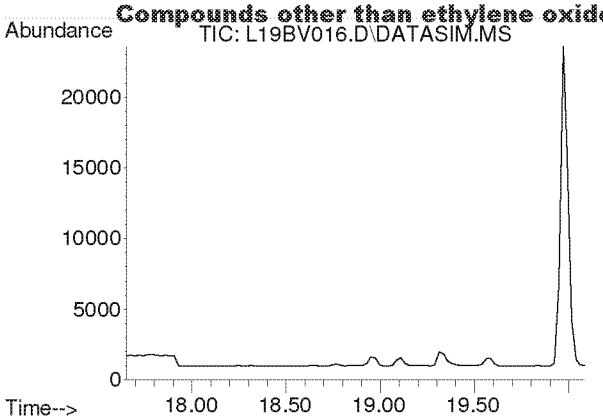
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

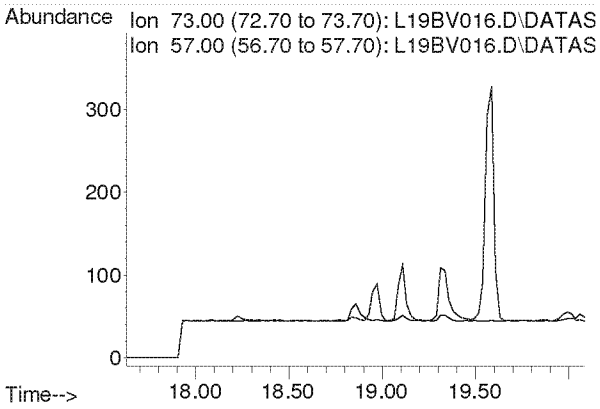


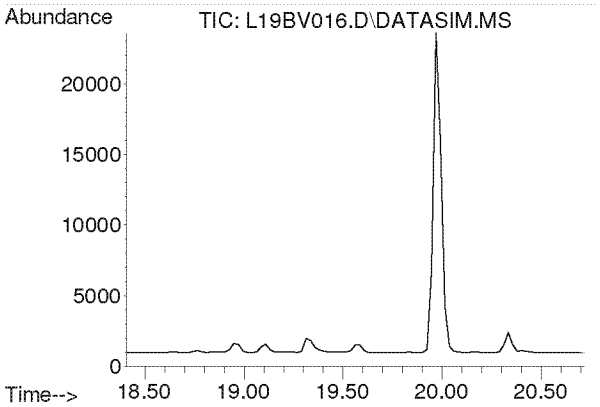
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



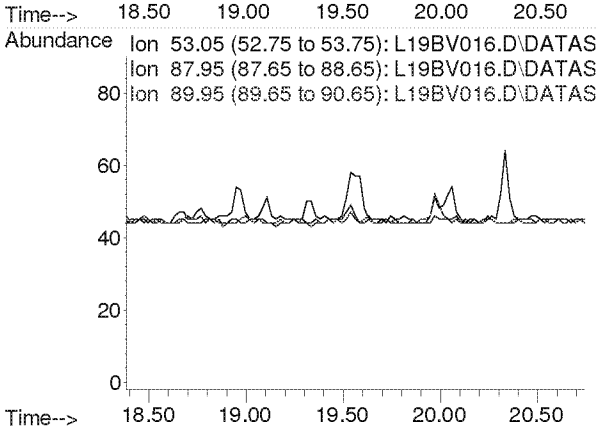


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

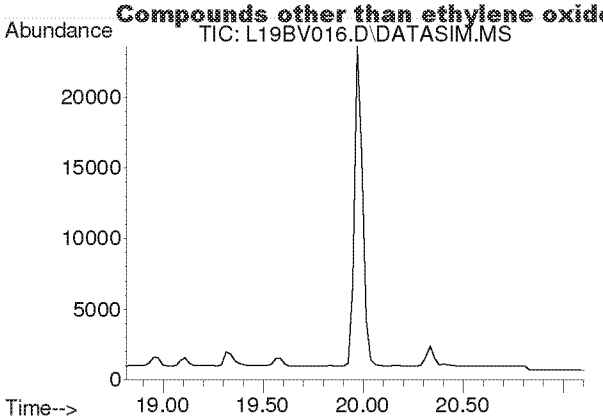
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

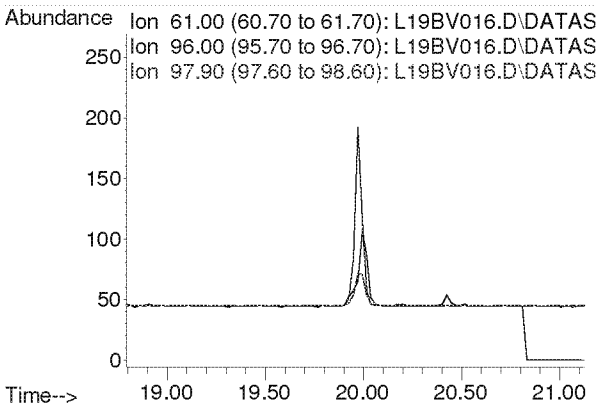


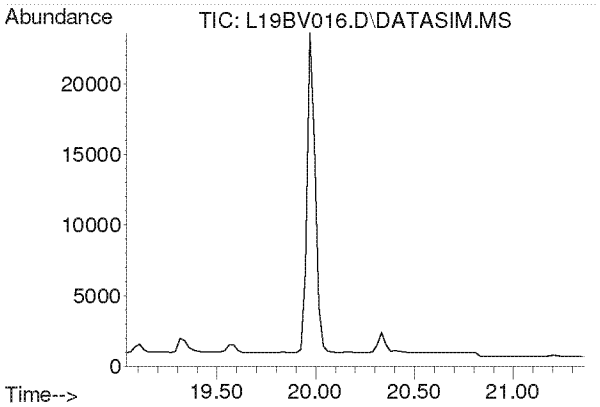
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



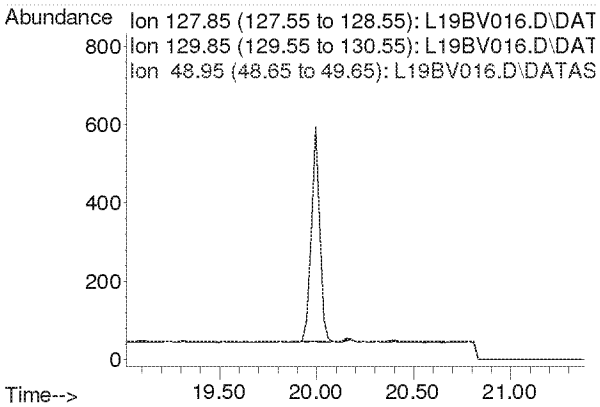


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

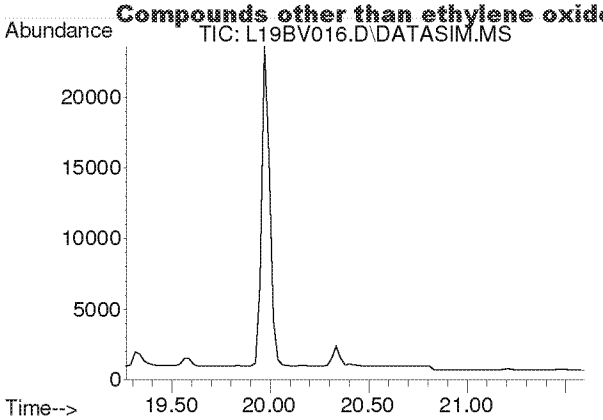
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

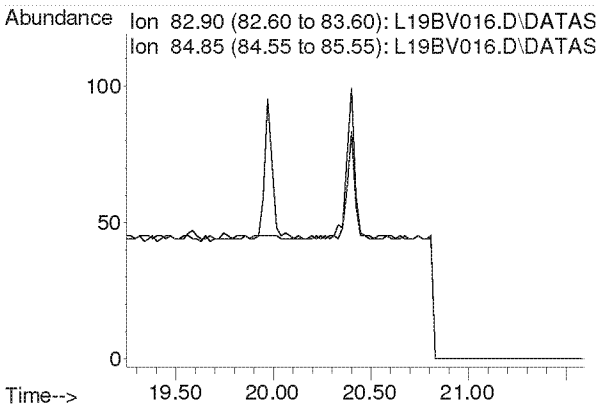


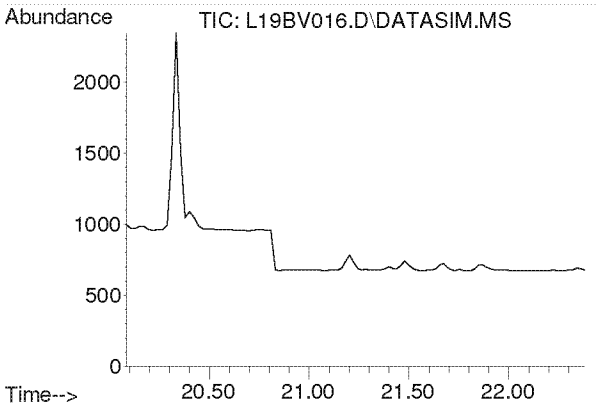
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



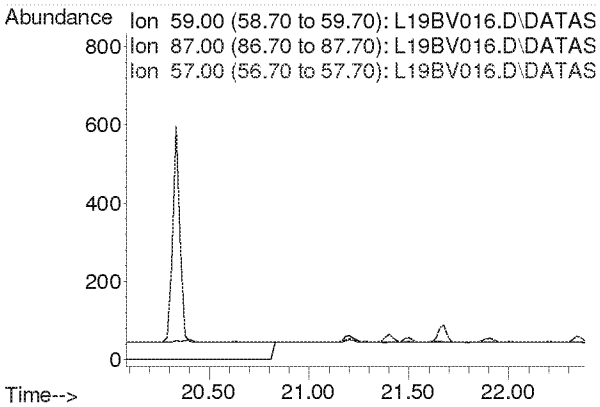


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

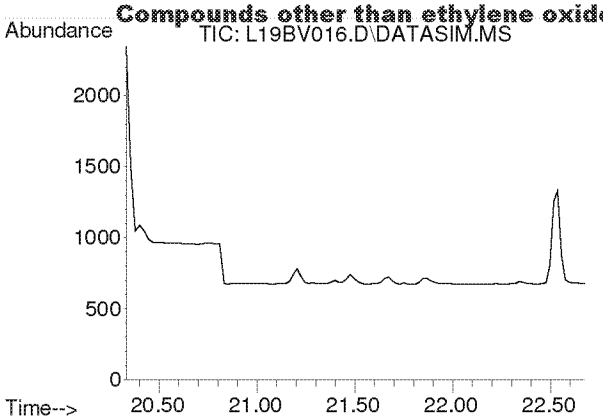
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

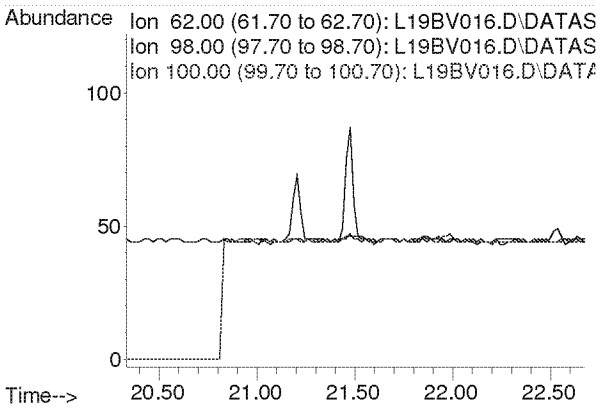


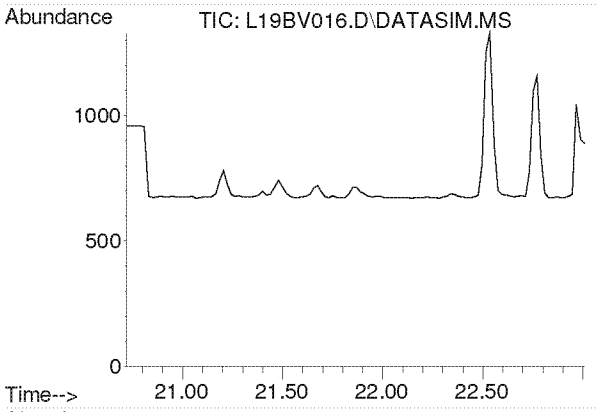
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



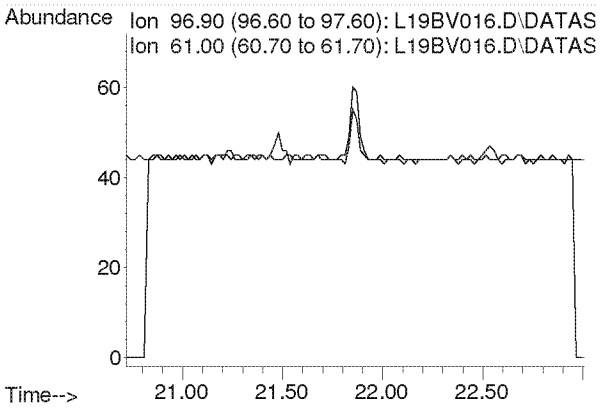


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

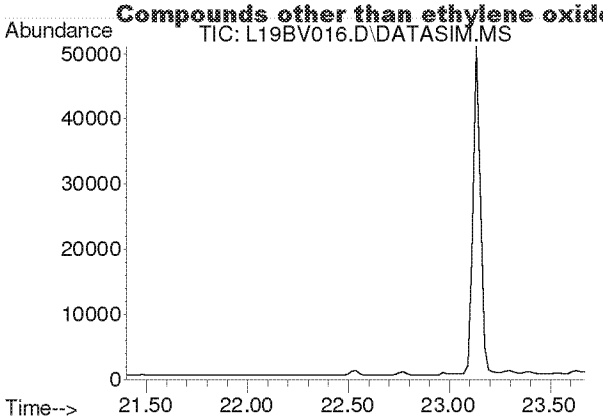
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

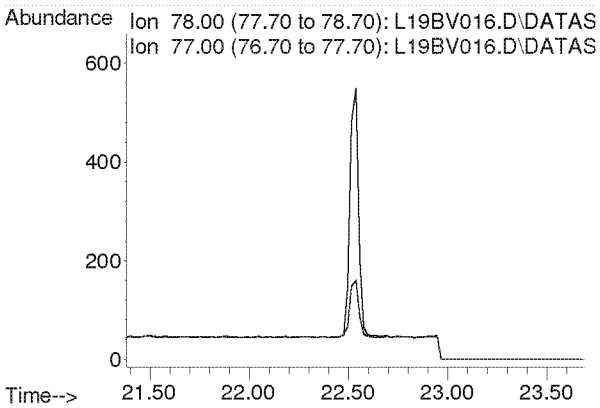


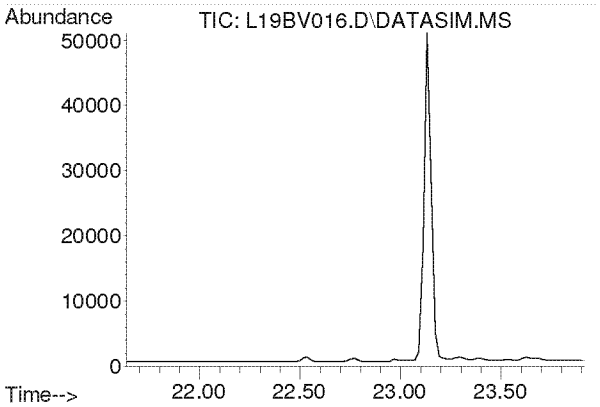
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



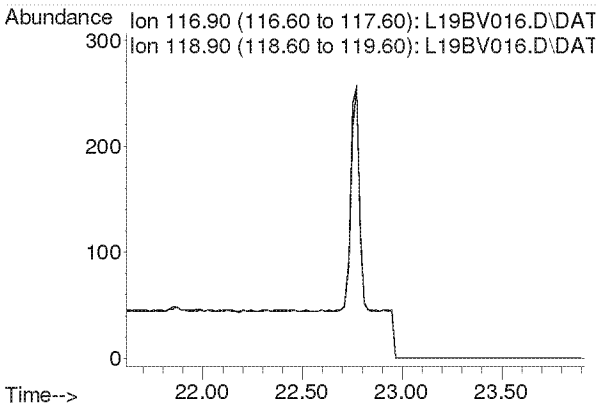


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

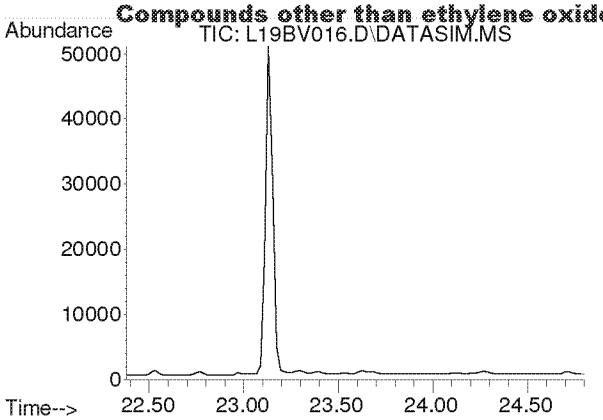
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

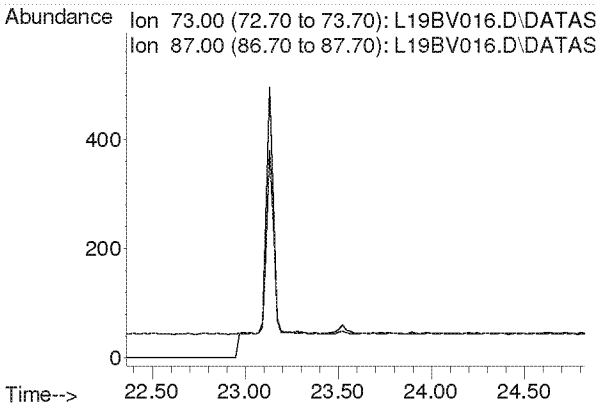


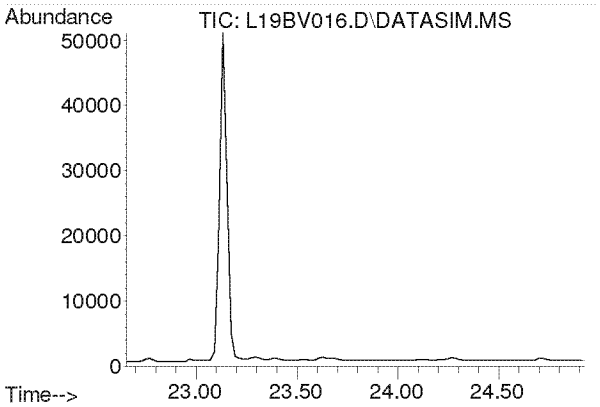
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



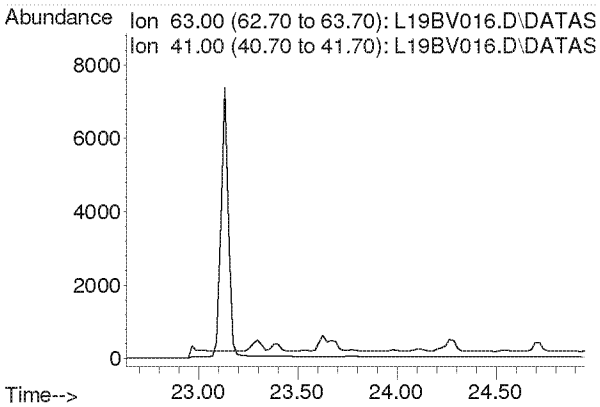


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

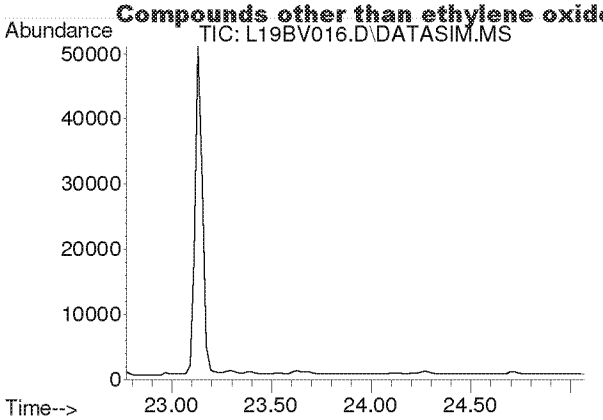
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

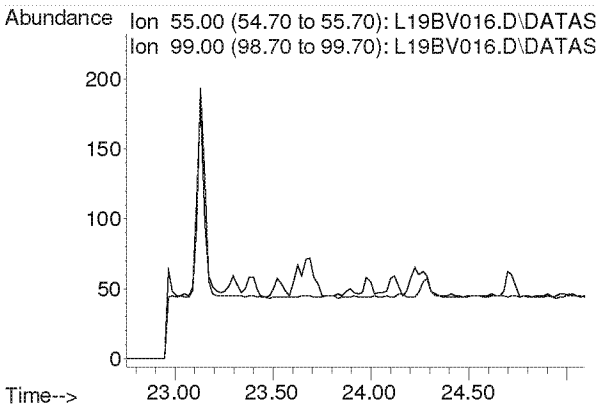


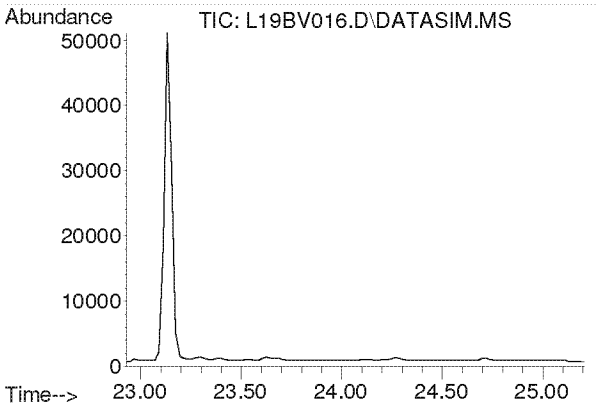
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



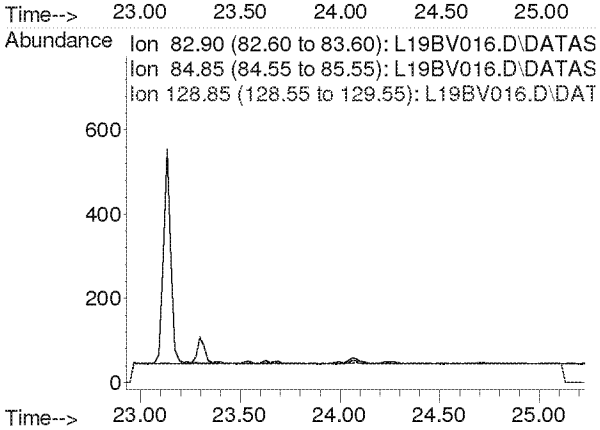


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

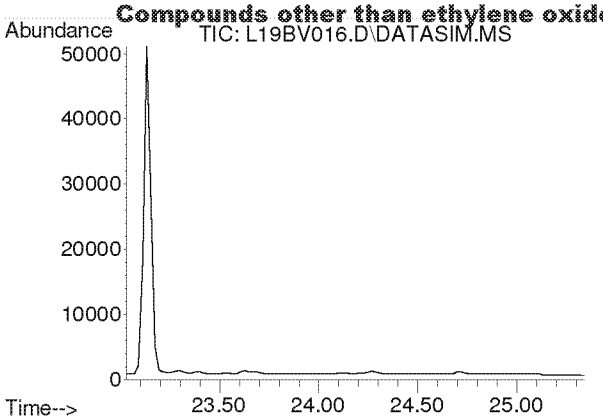
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

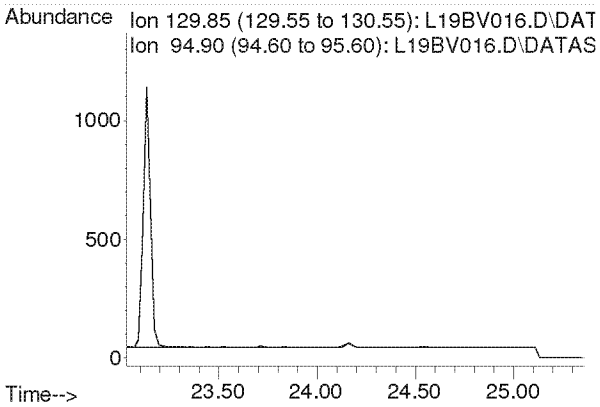


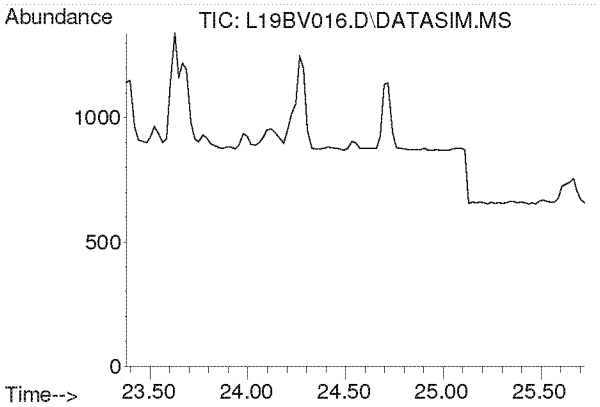
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



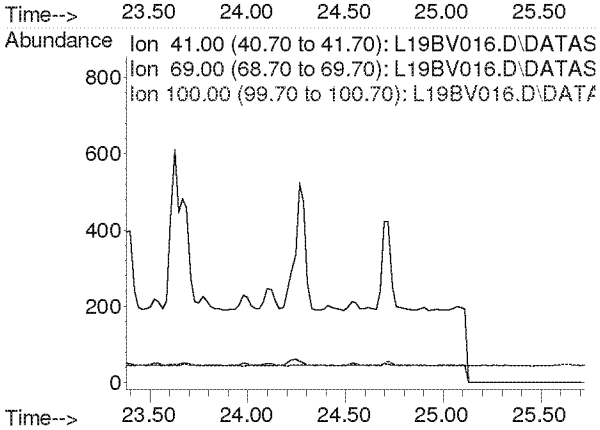


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

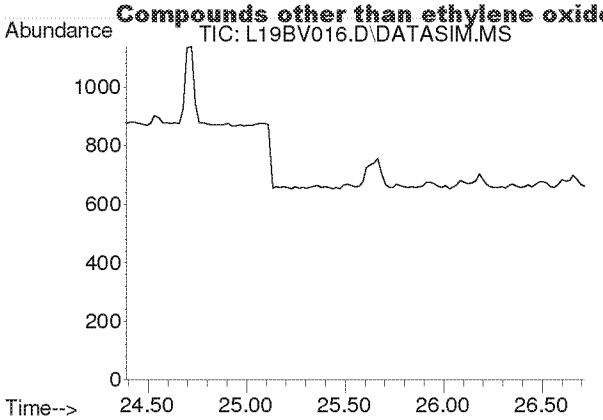
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

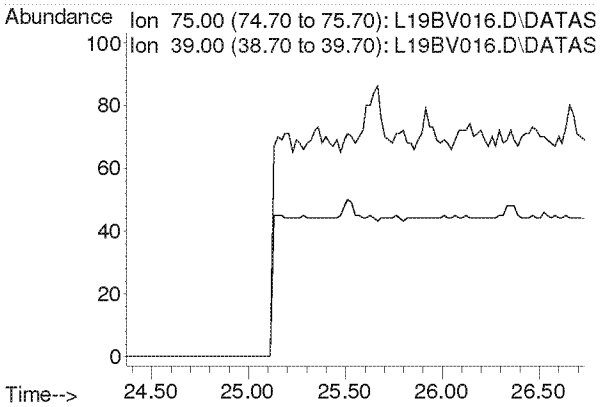


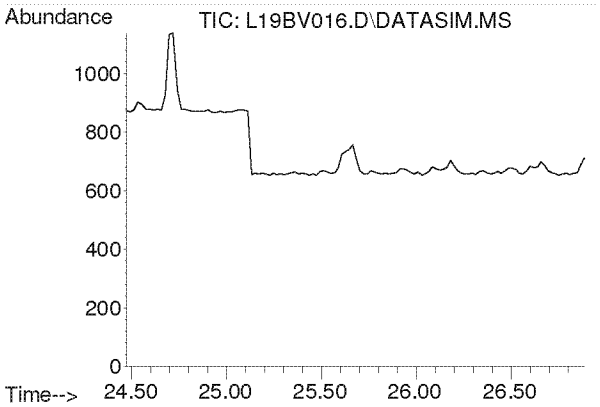
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



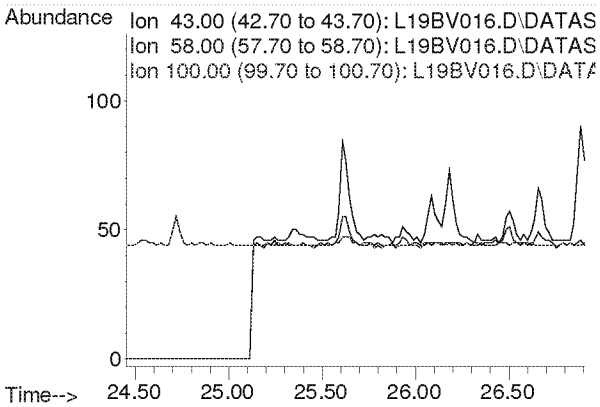


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

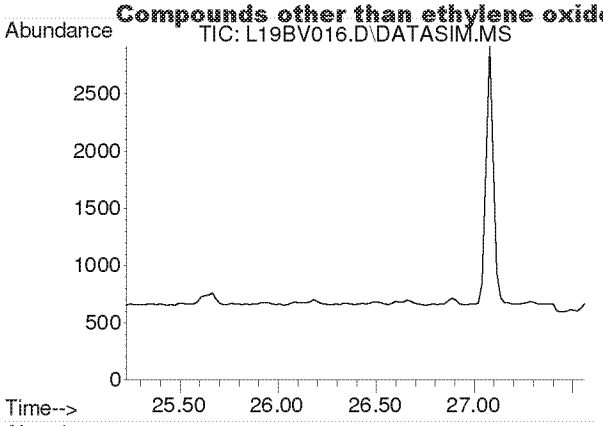
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

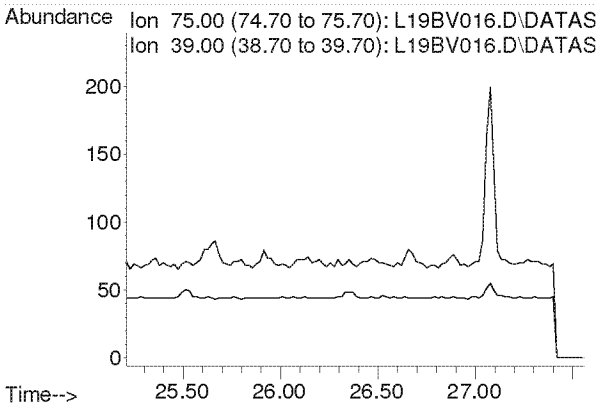


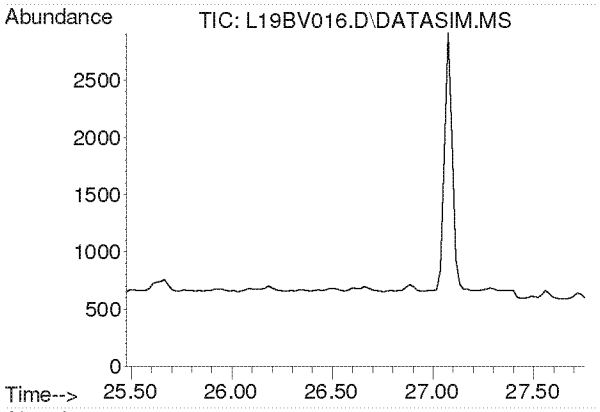
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



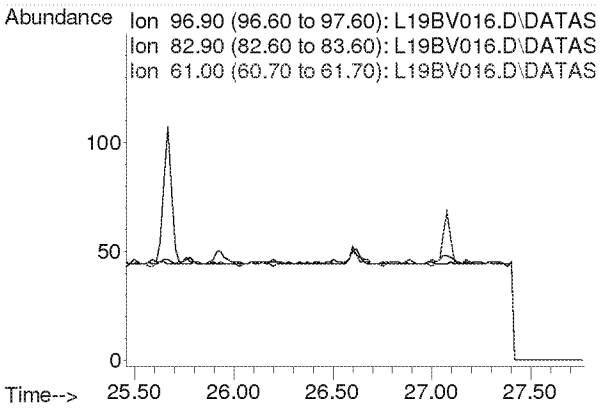


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

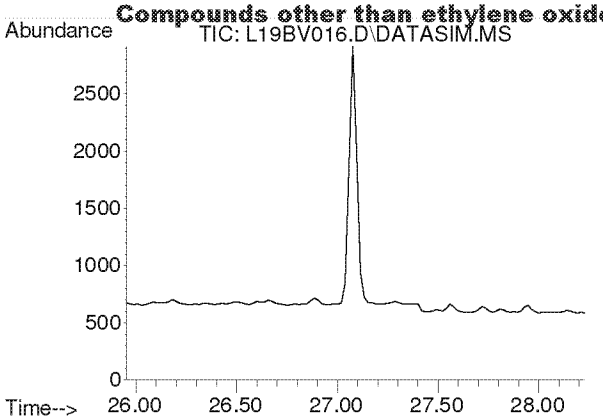
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

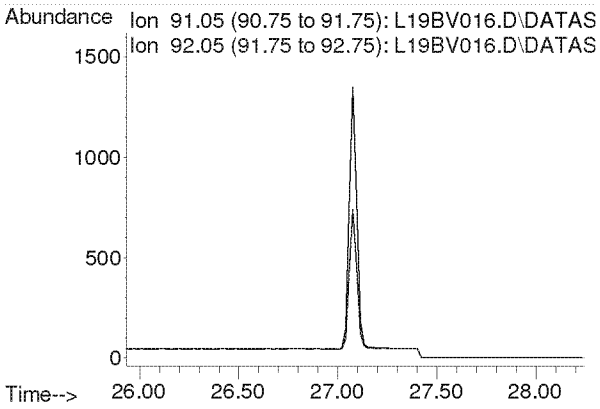


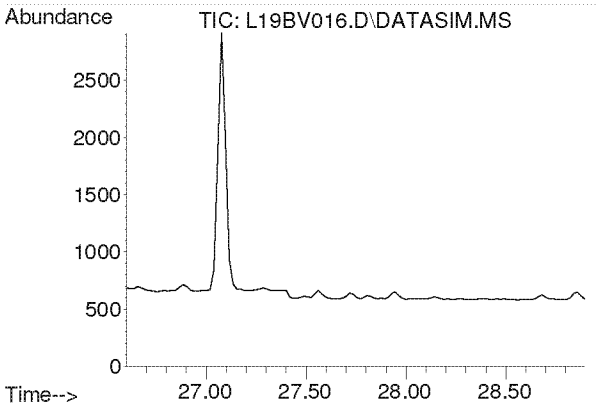
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



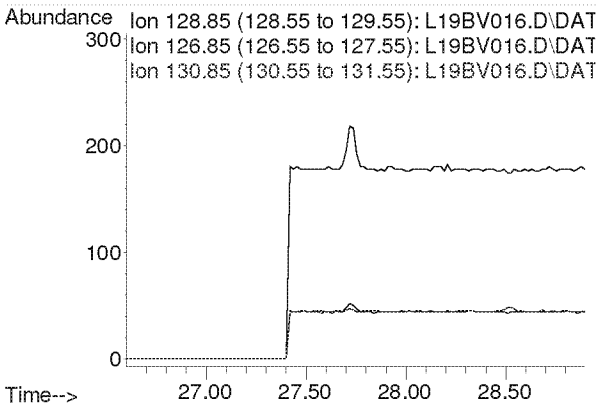


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

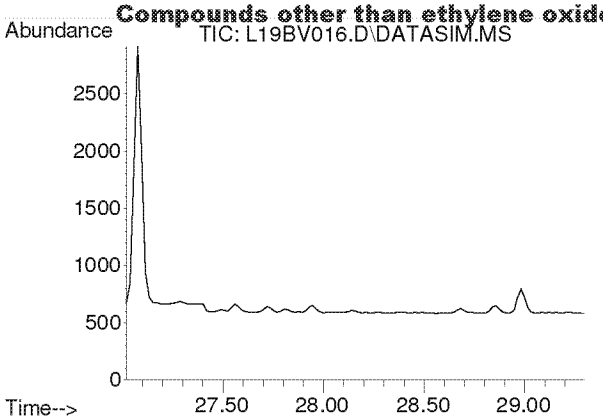
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

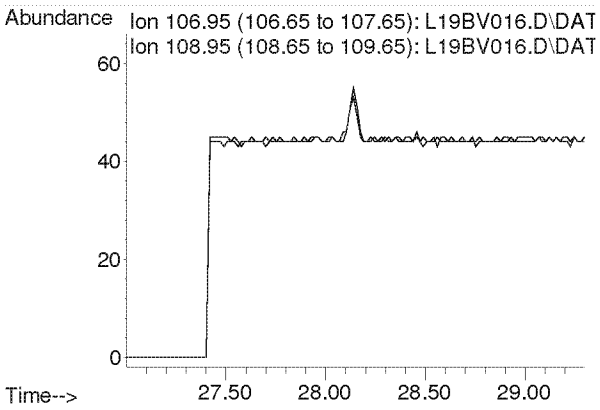


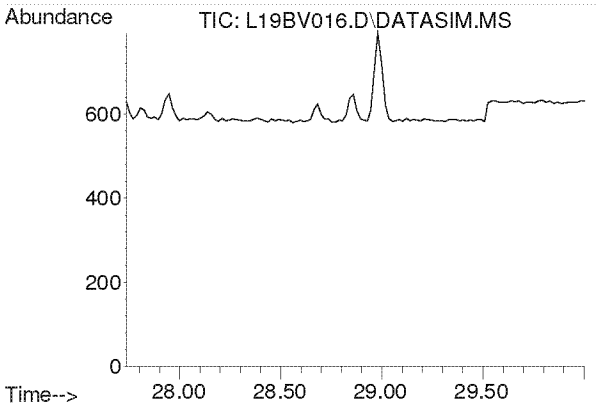
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



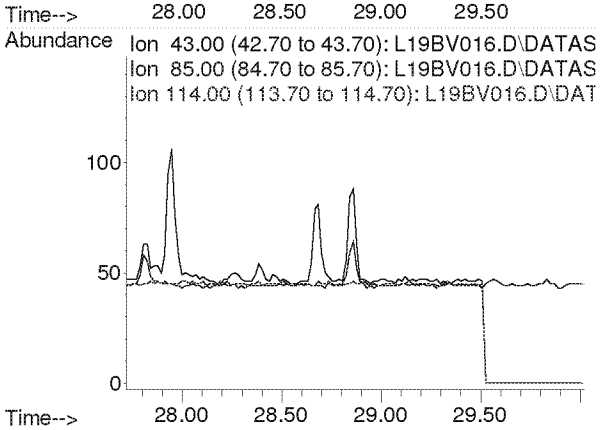


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

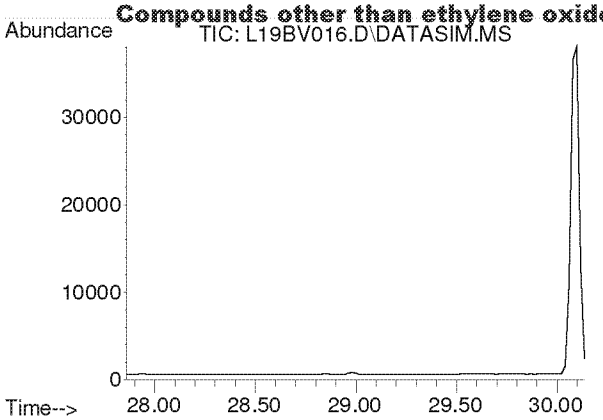
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

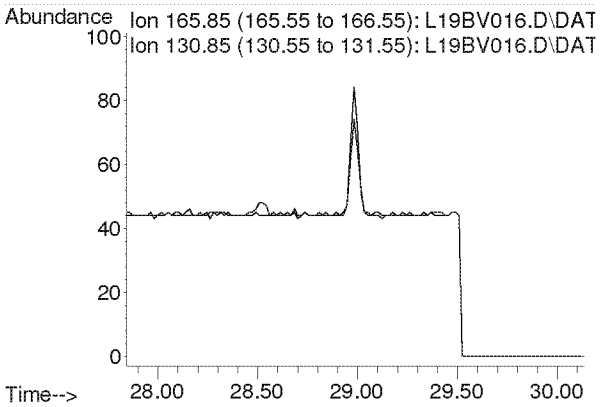


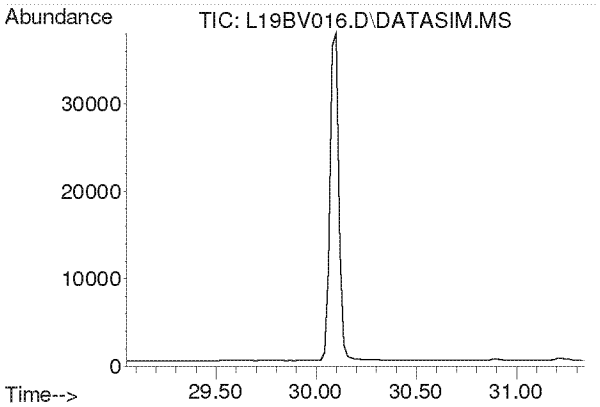
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



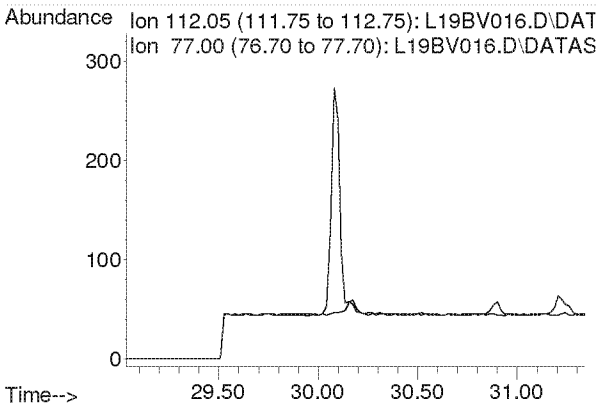


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

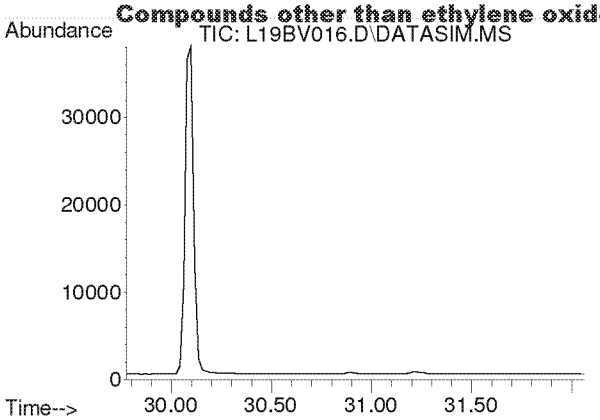
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

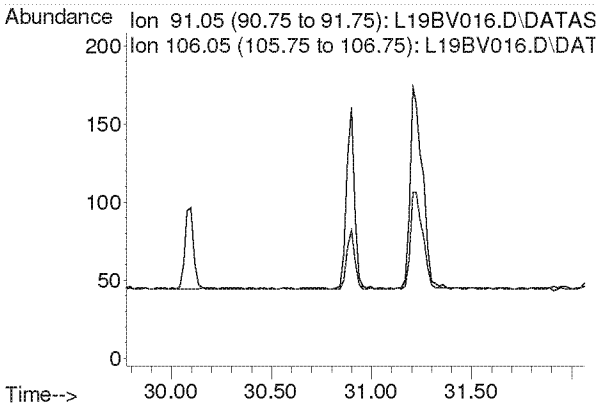


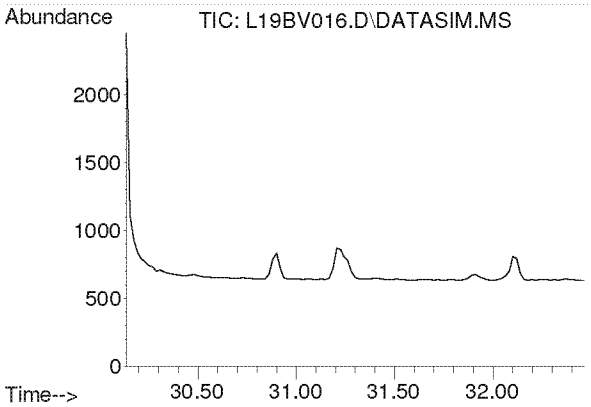
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



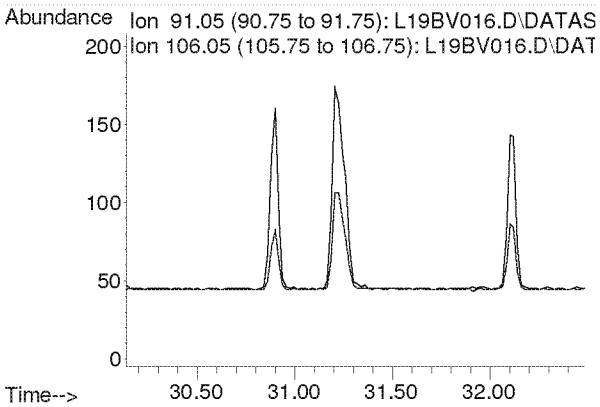


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

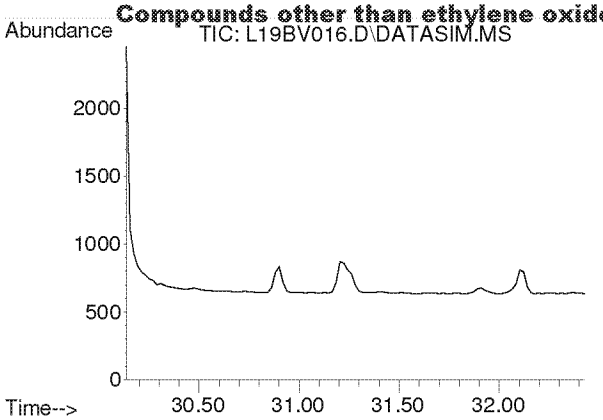
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

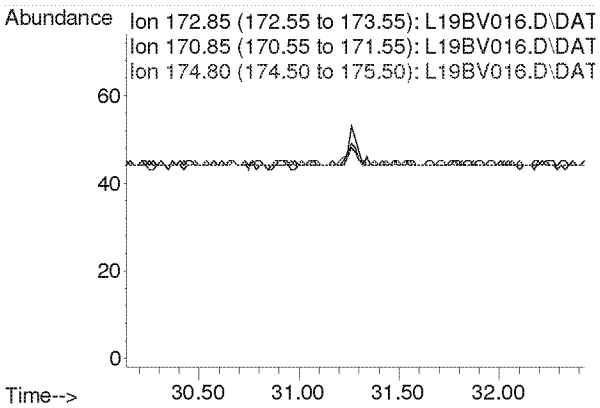


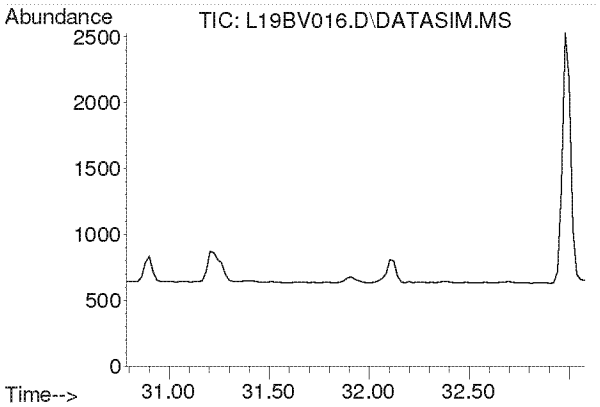
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



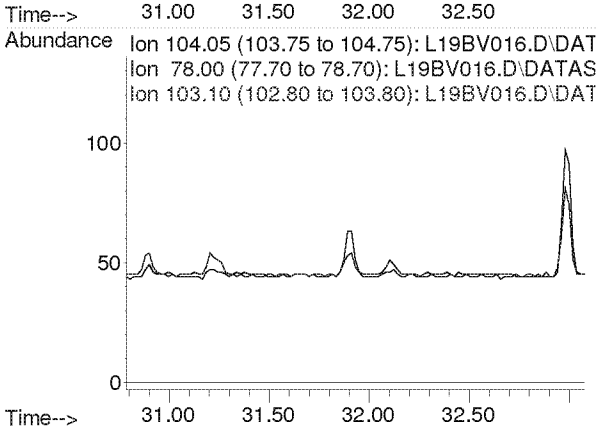


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

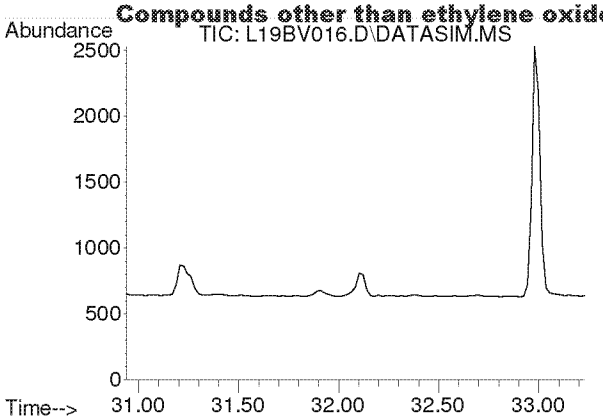
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

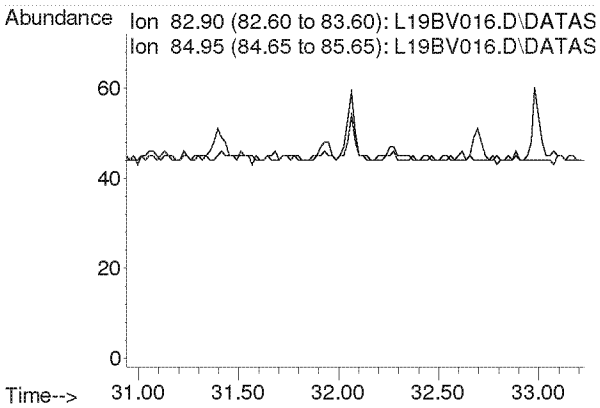


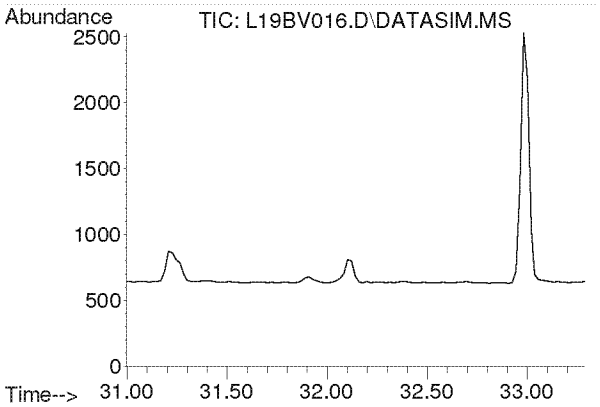
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



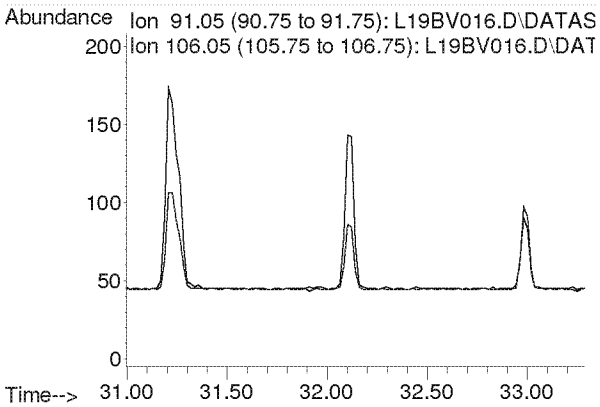


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

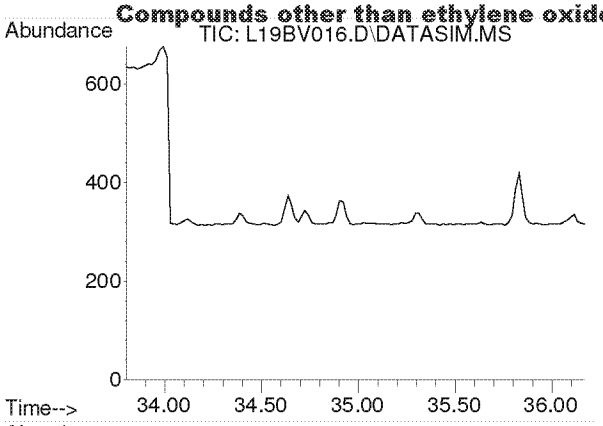
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

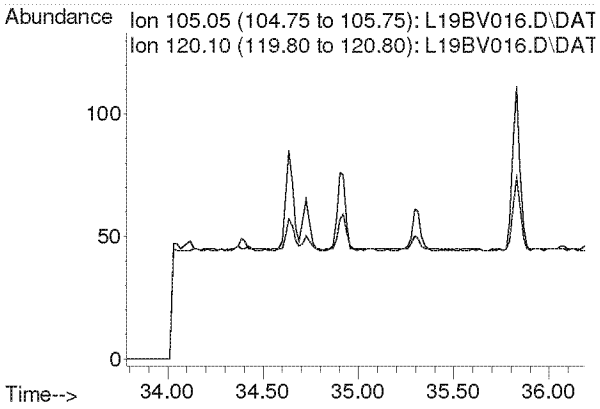


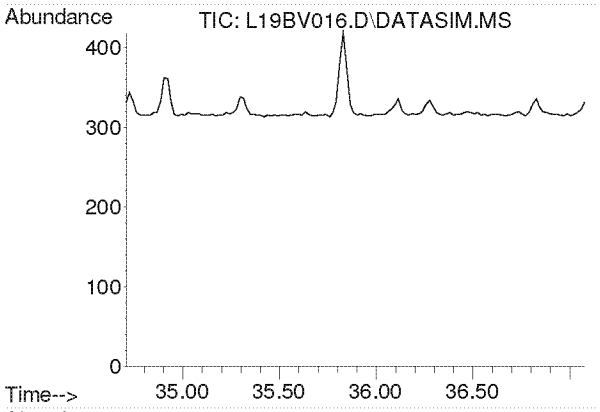
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



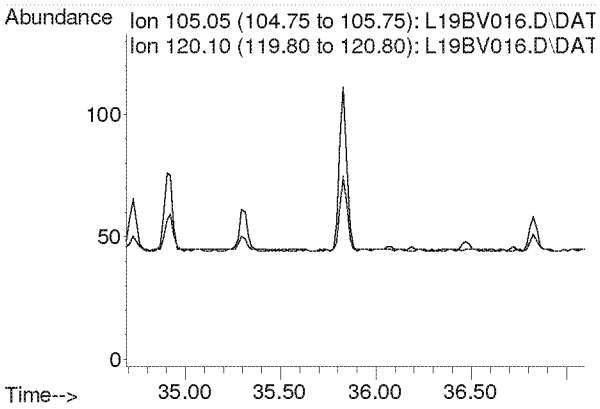


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

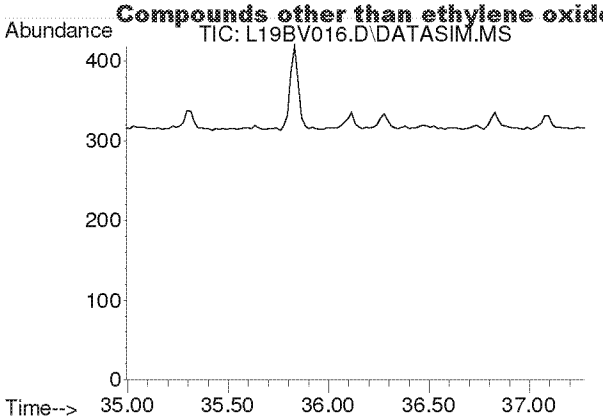
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

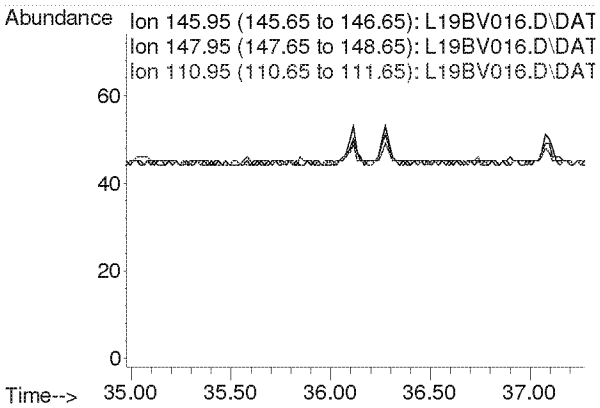


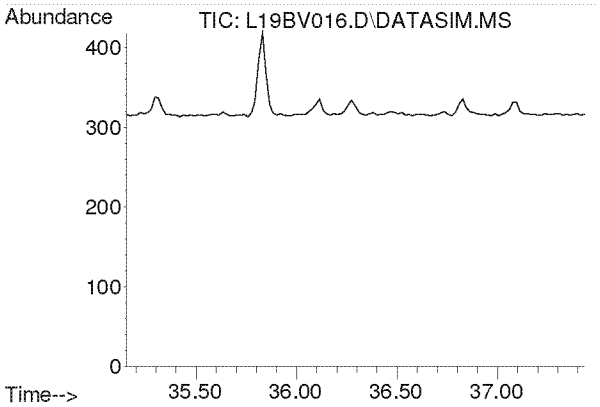
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



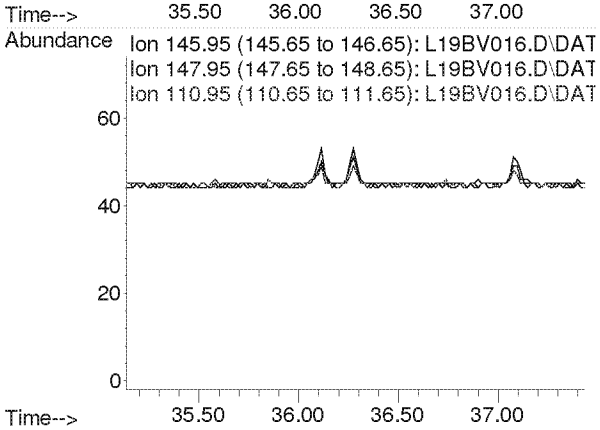


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

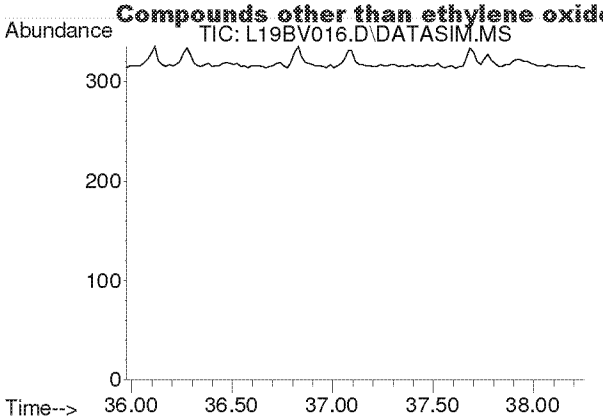
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

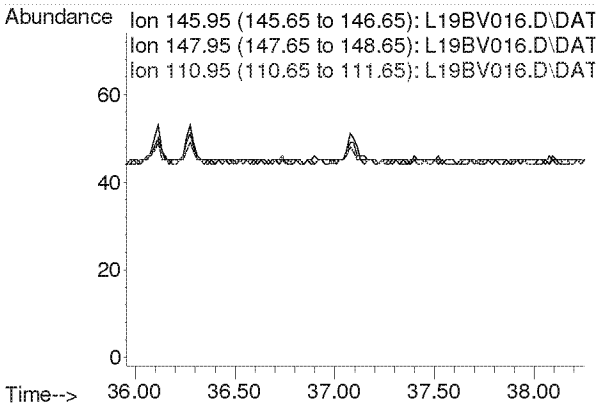


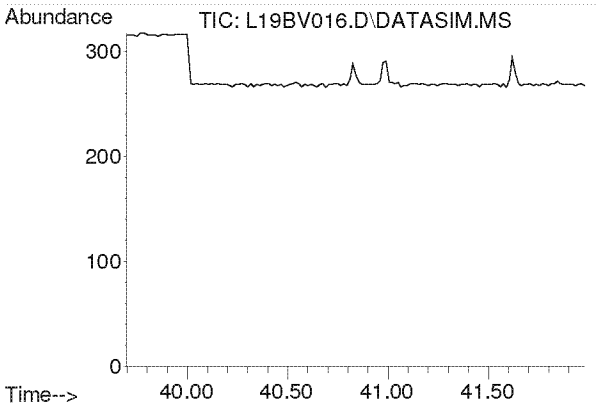
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



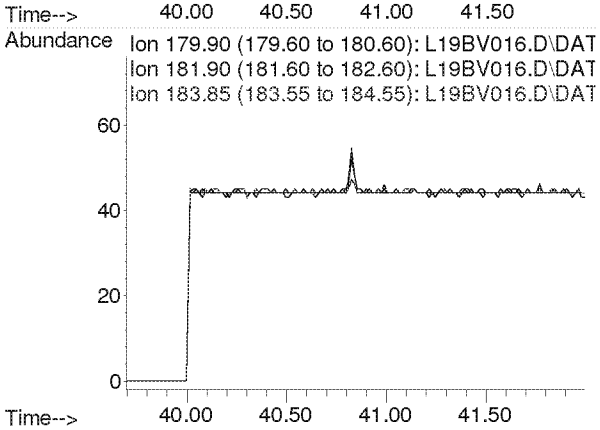


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

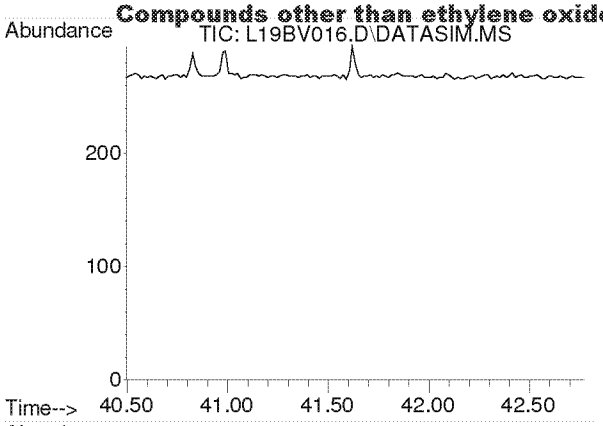
Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

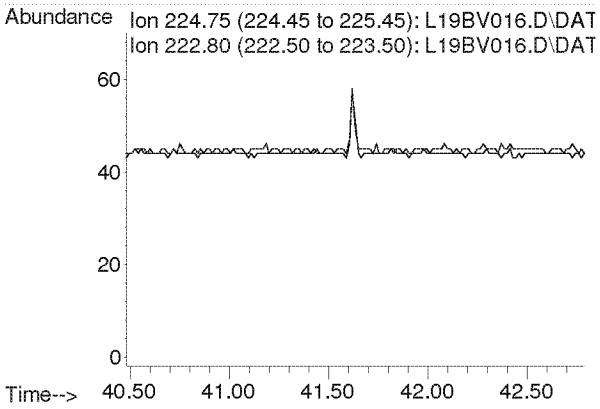


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BV016.D
Acq: 22 Feb 2019 11:43 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV017.D
Acq On : 23 Feb 2019 12:43 am (#1); 23 Feb 2019 0:38 am (#2)
Operator : MAH
Sample : B9B2205-DUP1 R2
Misc : EPA WB WAREHOUSE XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 25 07:25:26 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)
1) IS-Hexane-d14	19.968	66	40516	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.128	114	103731	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.095	117	70432	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.438	29	731m	0.3154 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. 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. d	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	
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. d	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. 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. 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. d	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. 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	

DMB 3/5/19

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV017.D
Acq On : 23 Feb 2019 12:43 am (#1); 23 Feb 2019 0:38 am (#2)
Operator : MAH
Sample : B9B2205-DUP1 R2
Misc : EPA WB WAREHOUSE XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 25 07:25:26 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)
49) Chlorobenzene	0.000	112	0	N.D. d	
50) Ethylbenzene	0.000	91	0	N.D. d	
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D. 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.	

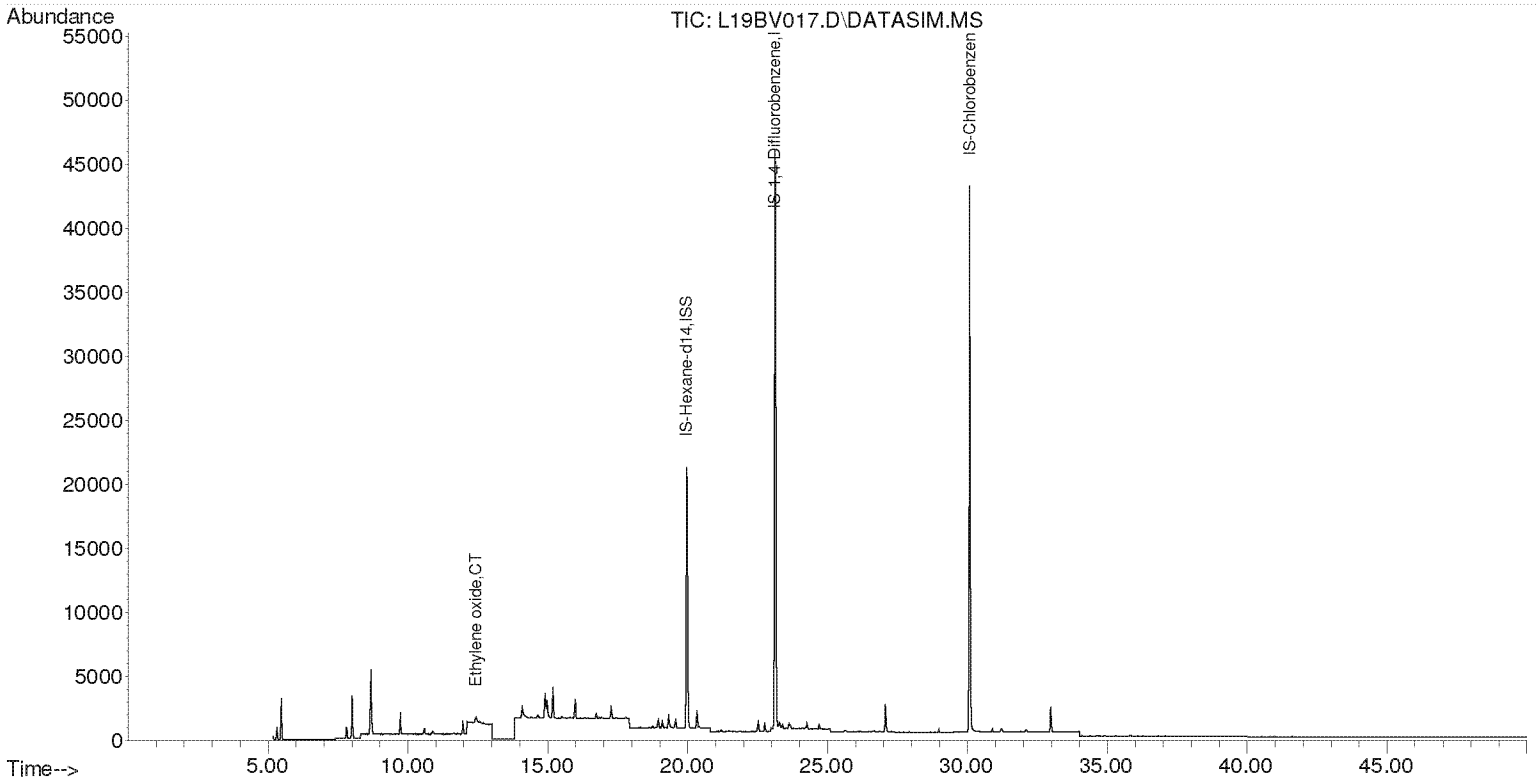
(#) = qualifier out of range (m) = manual integration (+) = signals summed

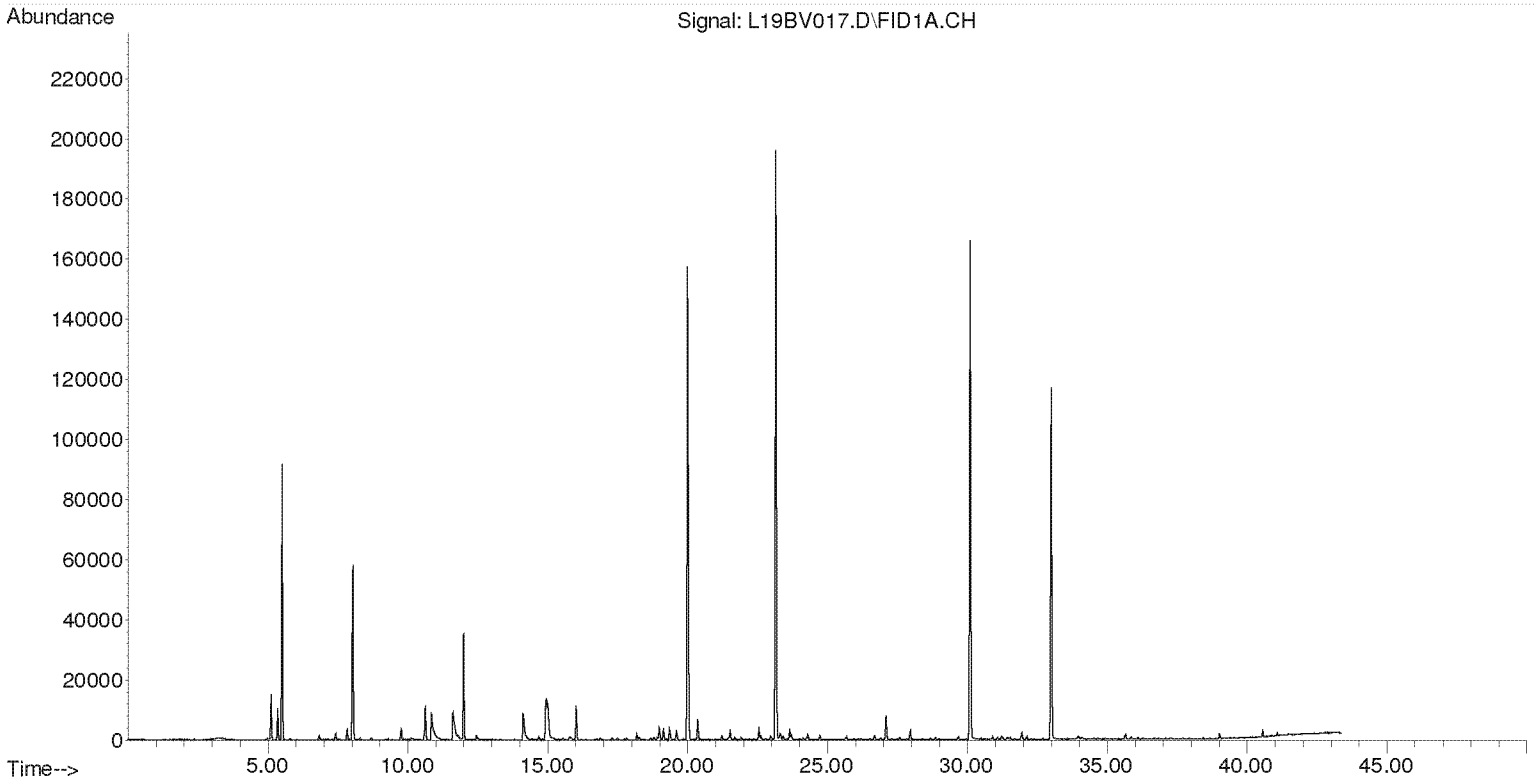
Quantitation Report (QT Reviewed)

Compounds other than ethylene oxide were not quantitated.

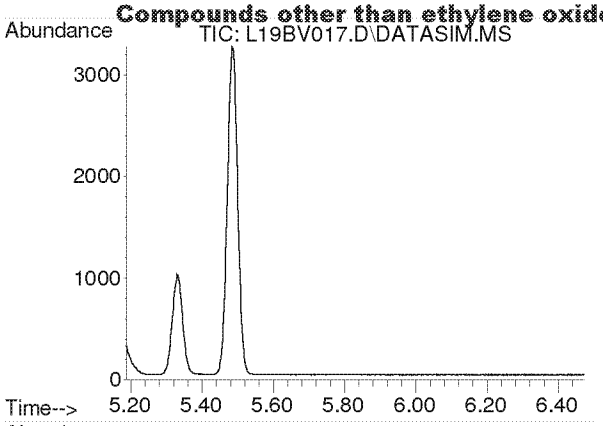
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV017.D
Acq On : 23 Feb 2019 12:43 am (#1); 23 Feb 2019 0:38 am (#2)
Operator : MAH
Sample : B9B2205-DUP1 R2
Misc : EPA WB WAREHOUSE XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 25 07:25:26 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





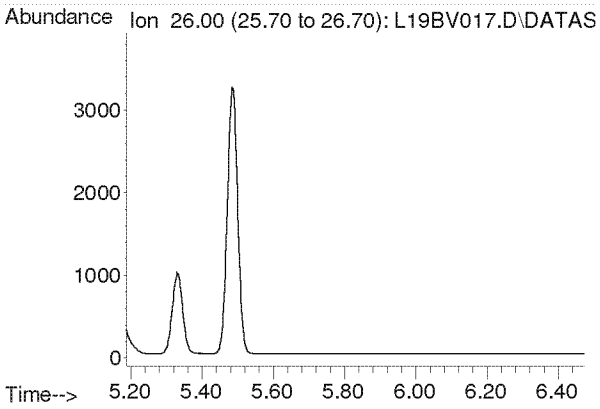
Compounds other than ethylene oxide were not quantitated.

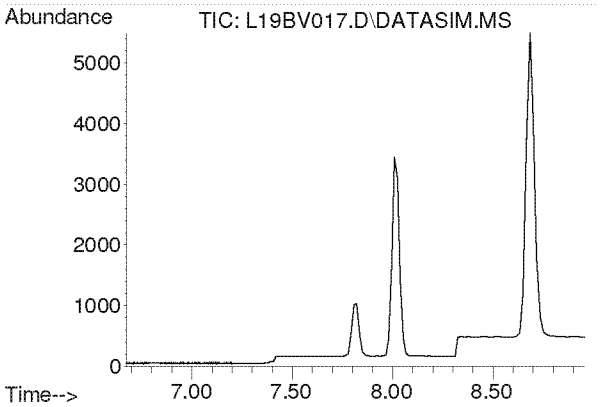


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 26



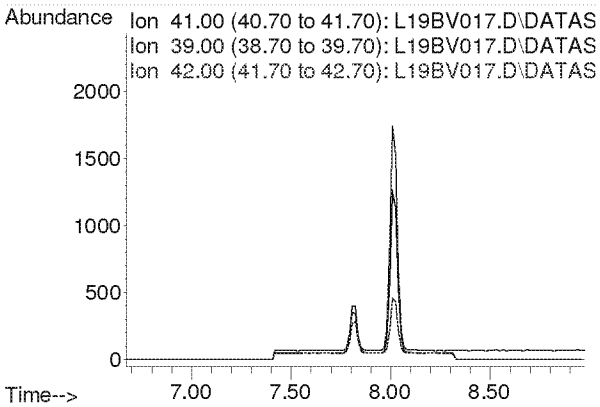


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

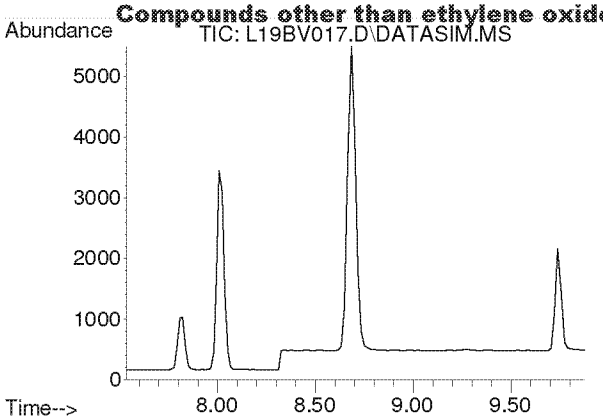
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

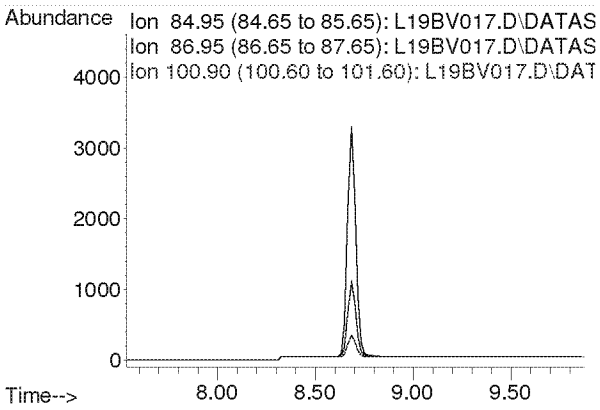


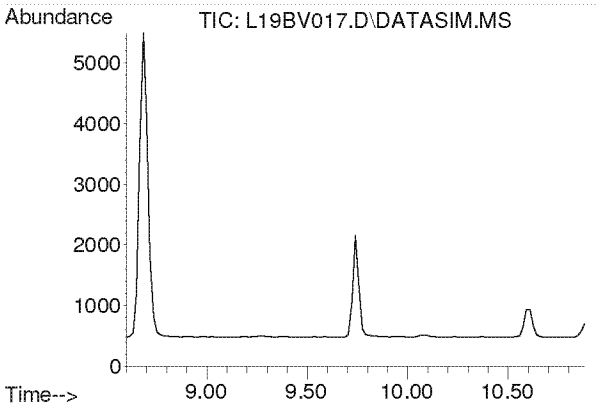
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



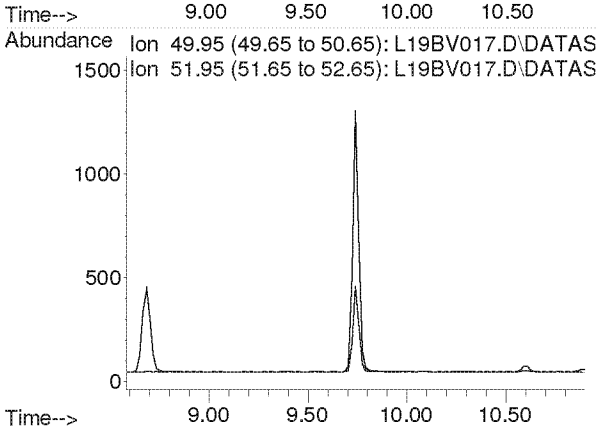


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

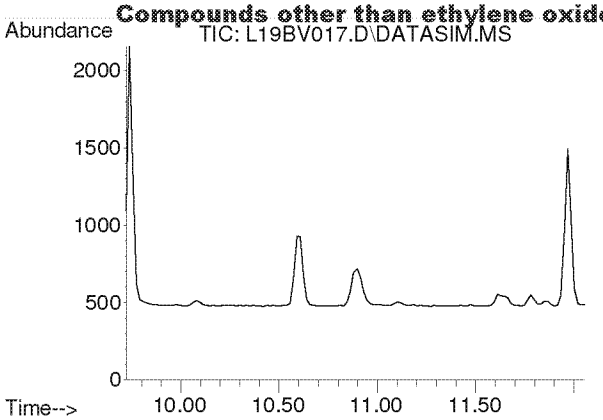
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

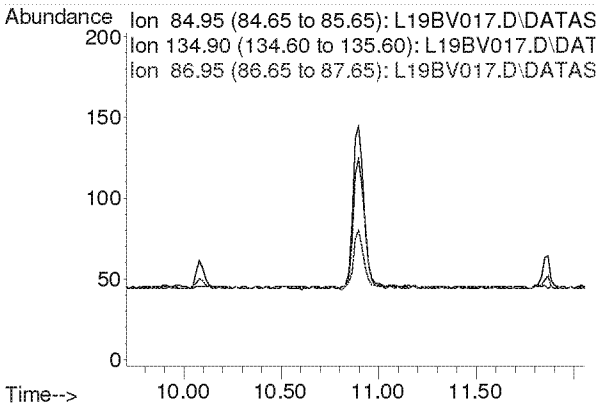


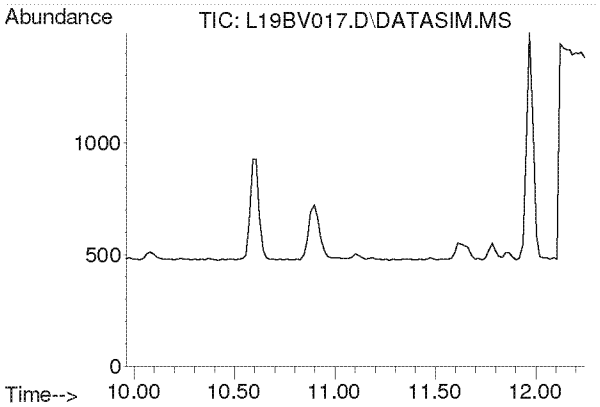
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



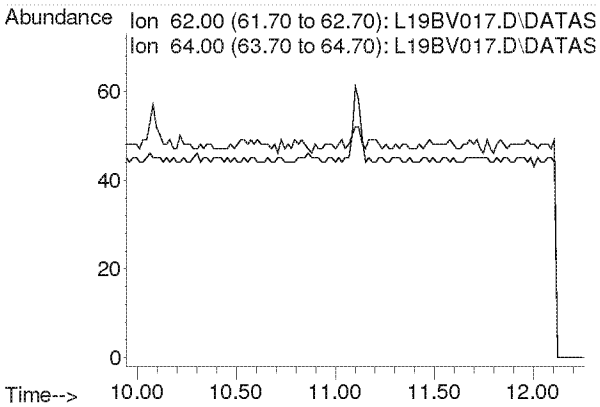


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

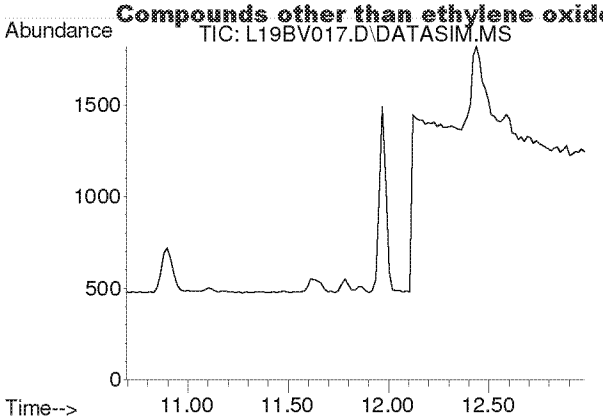
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

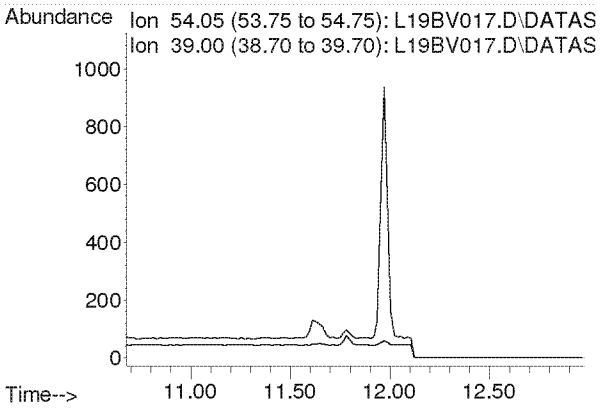


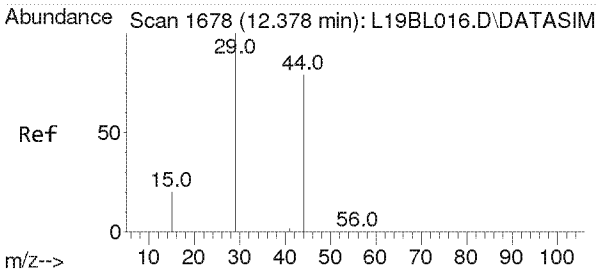
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

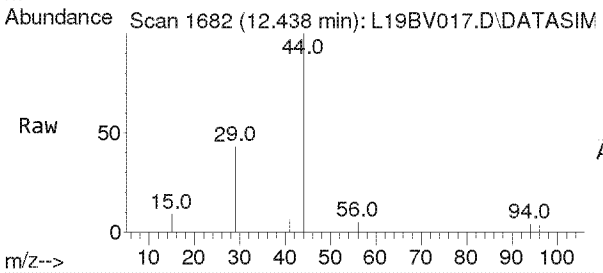


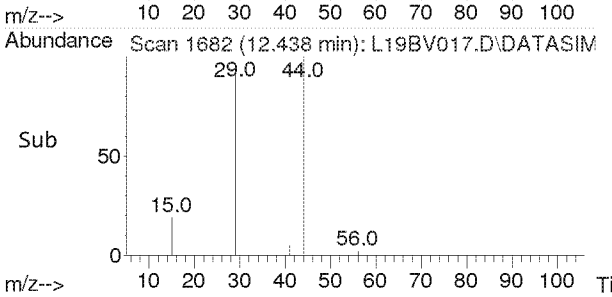


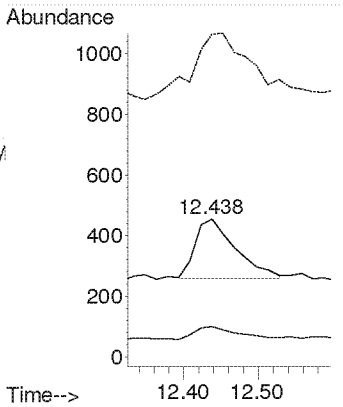
#9
Ethylene oxide
Concen: 0.315 ppbv m
RT: 12.438 min Scan# 1682
Delta R.T. -0.012 min
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 29 Resp: 731

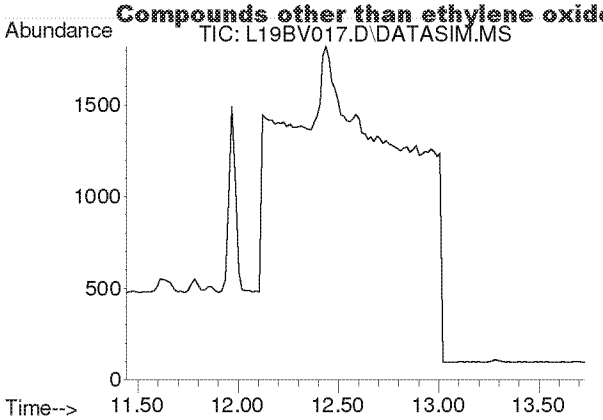
Ion	Ratio	Lower	Upper
29	100		
15	27.9	16.0	24.0#
44	195.6	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

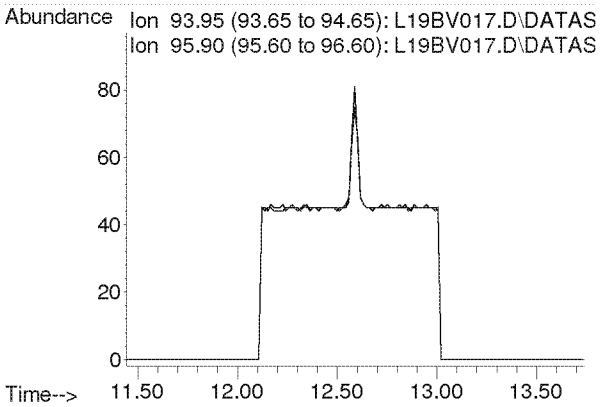


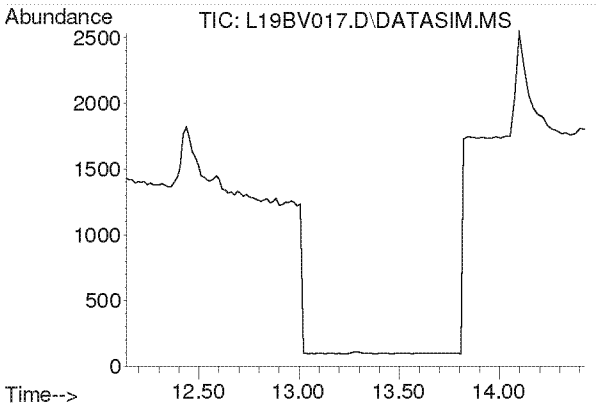
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



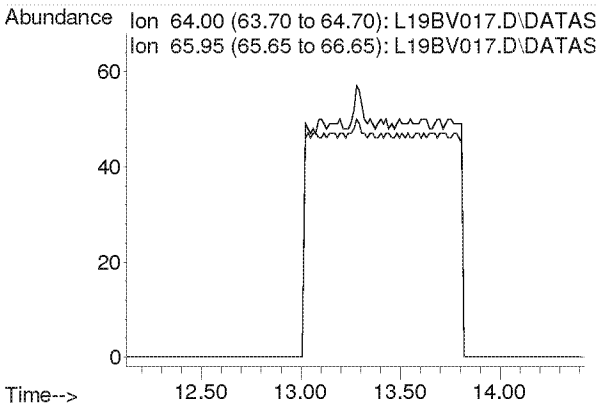


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

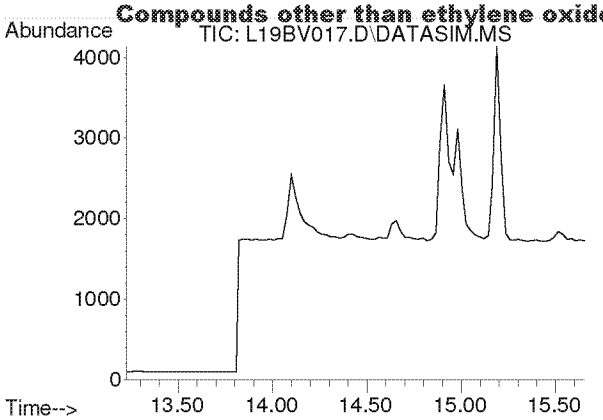
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

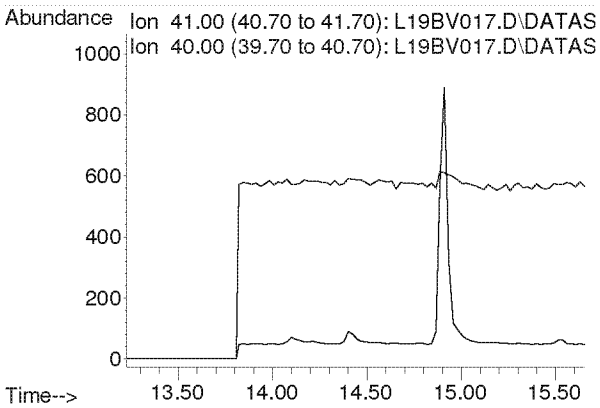


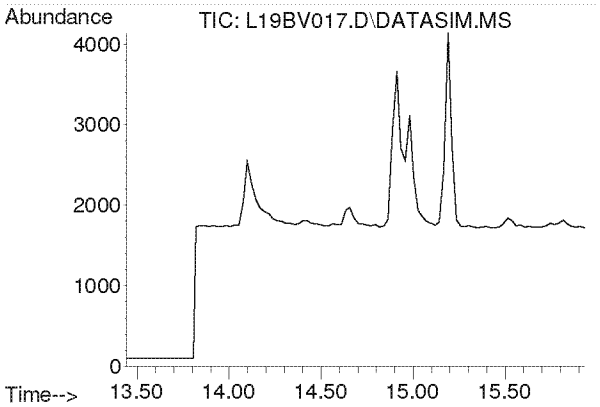
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



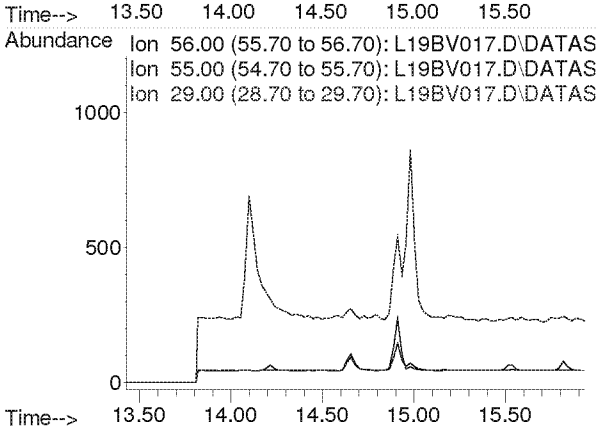


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

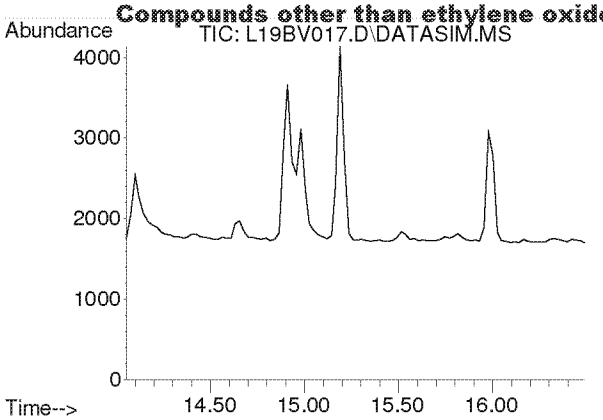
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

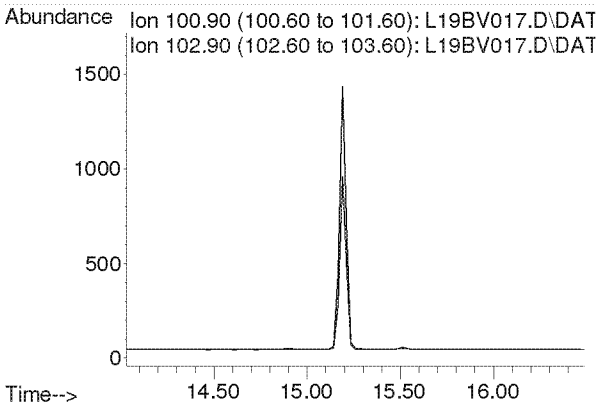


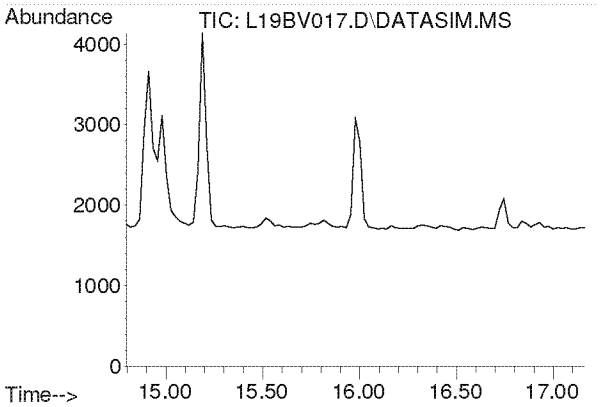
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



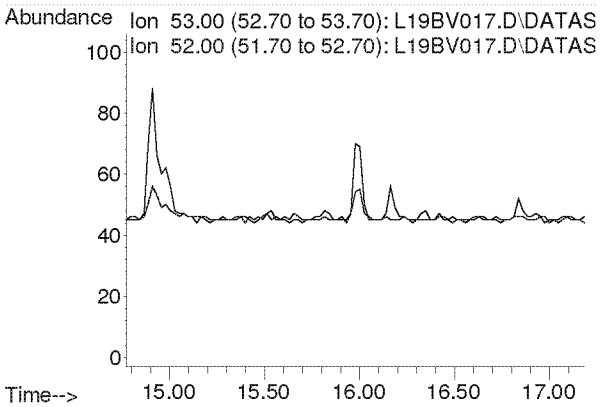


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

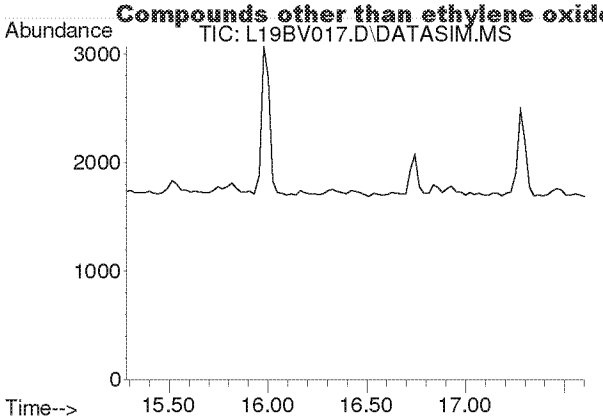
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

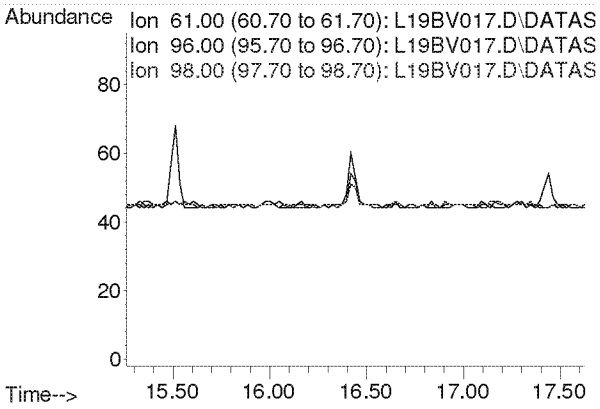


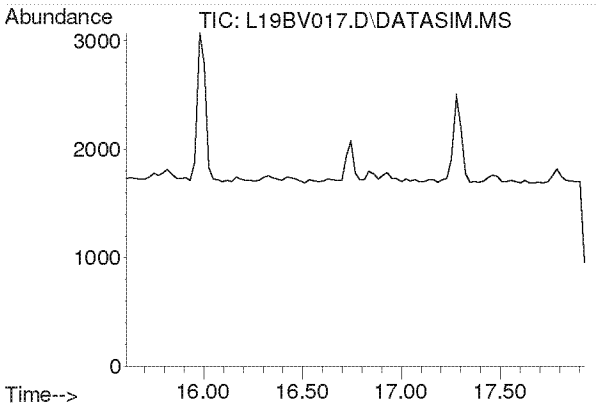
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



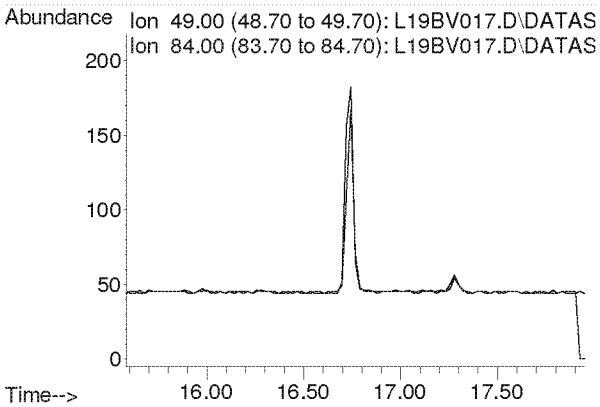


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

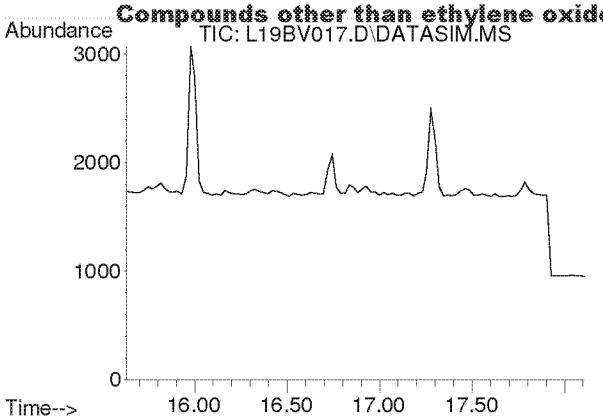
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

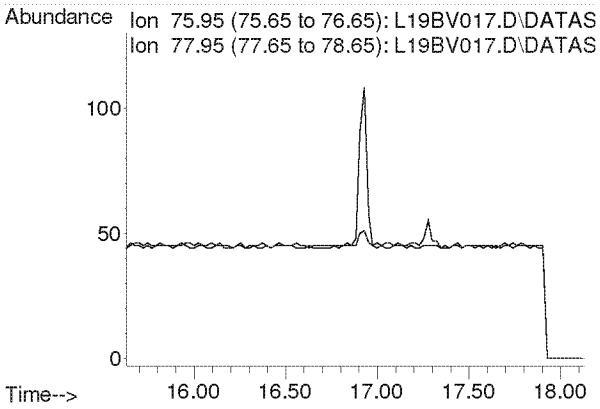


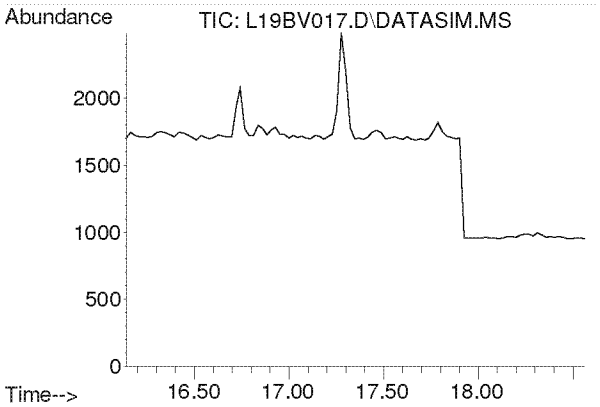
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



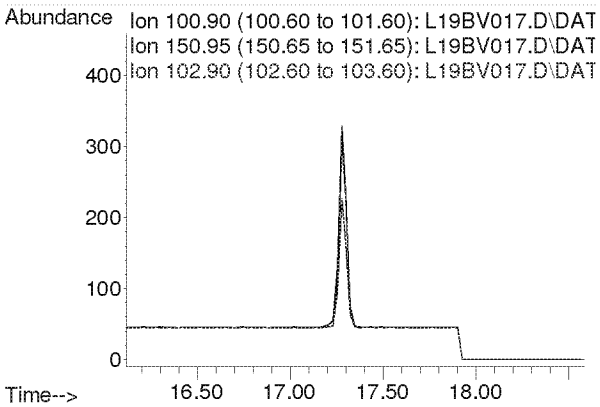


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

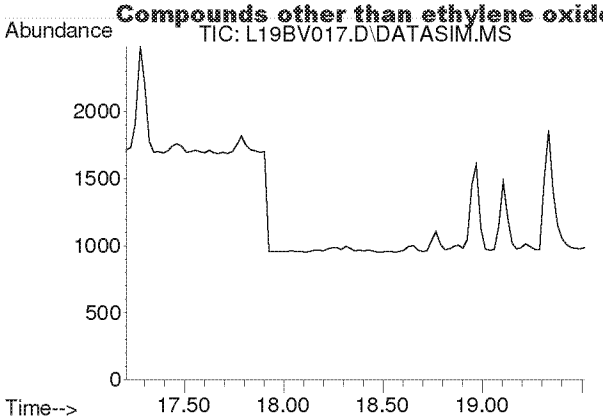
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

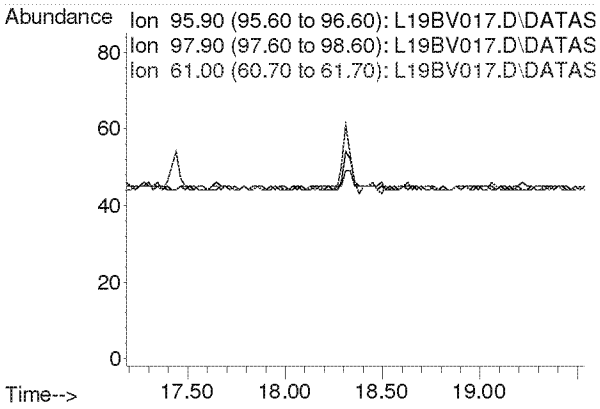


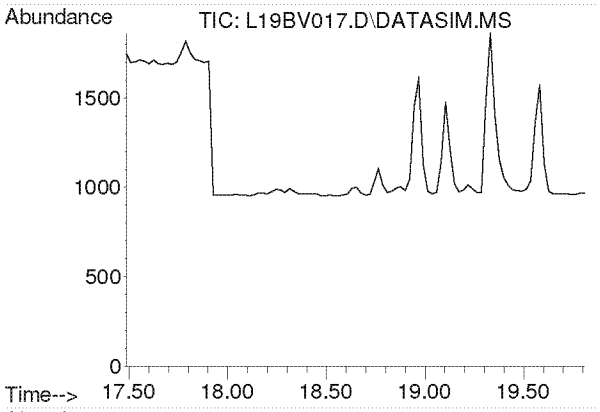
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



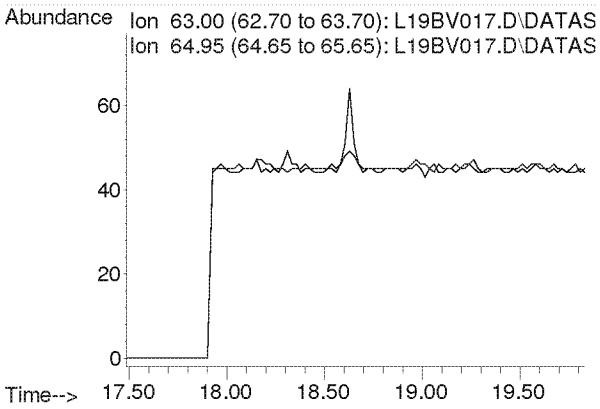


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

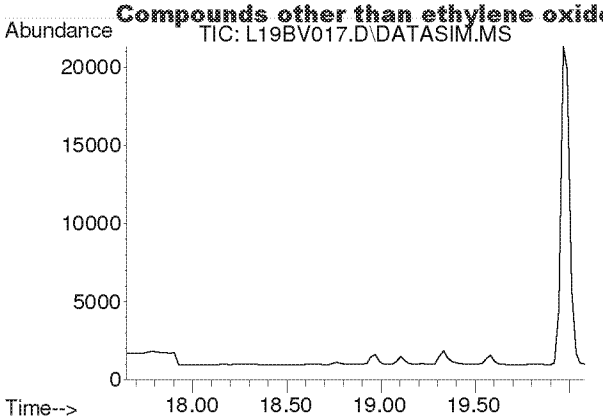
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

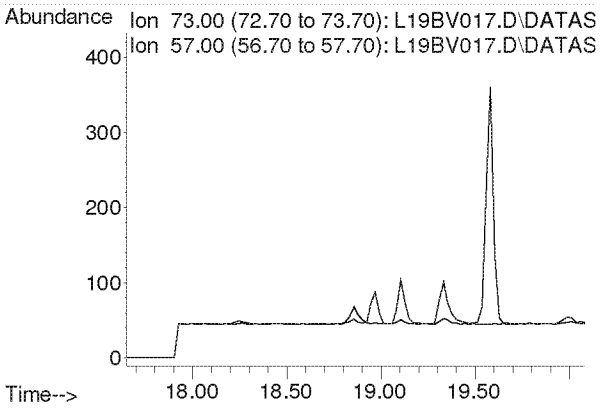


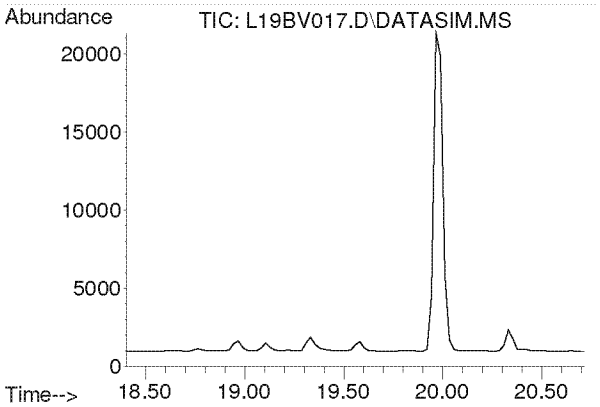
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



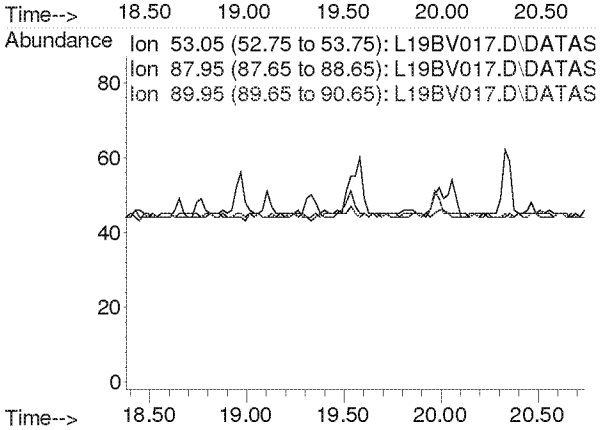


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

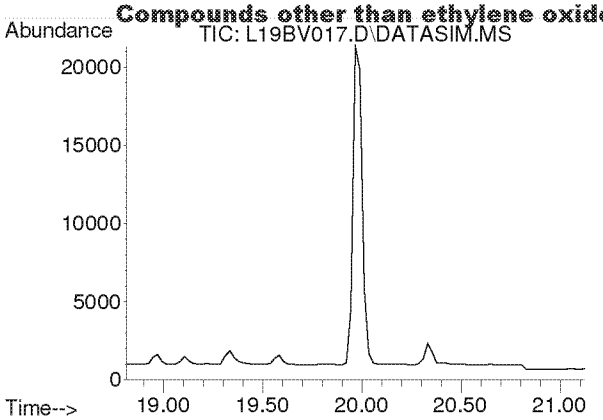
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

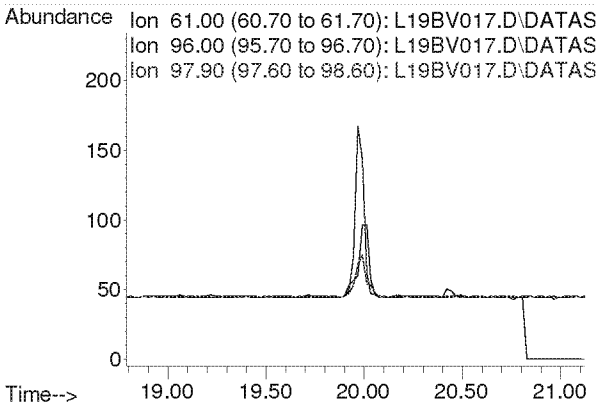


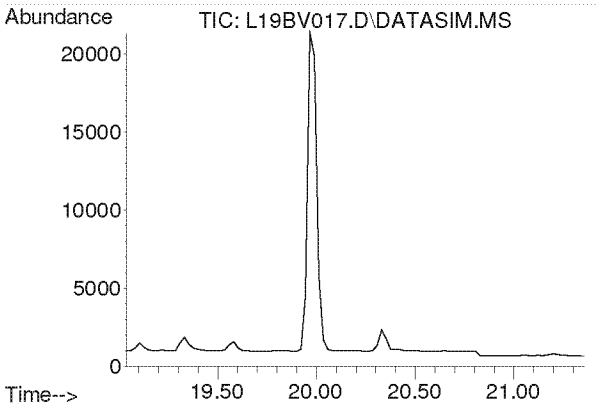
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



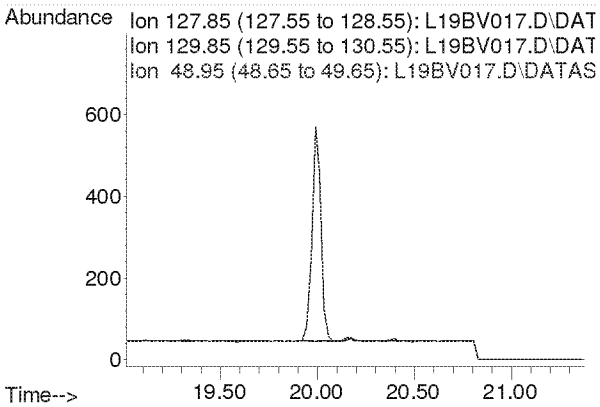


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

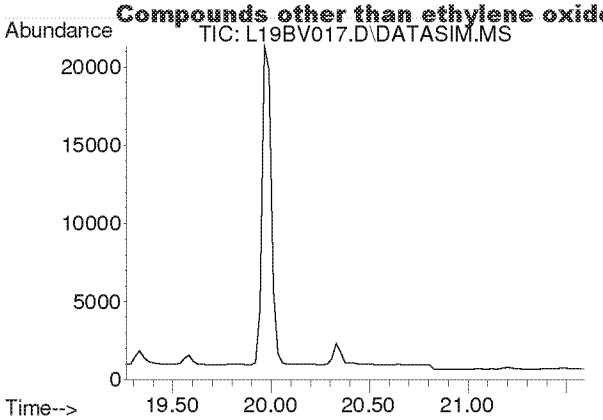
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

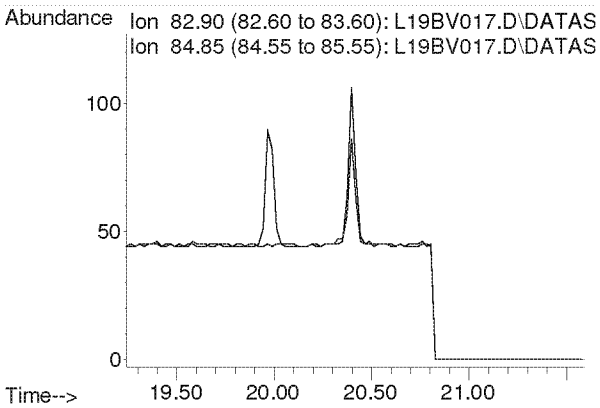


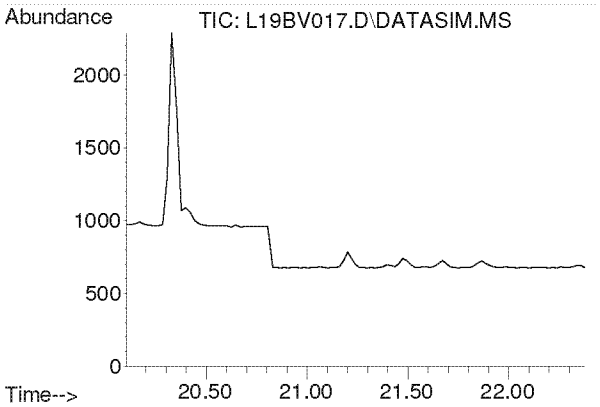
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



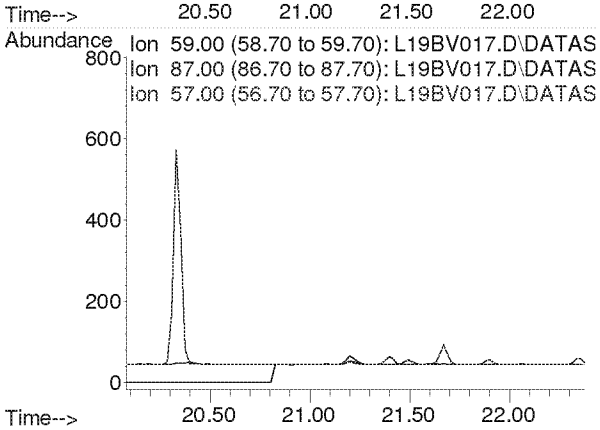


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

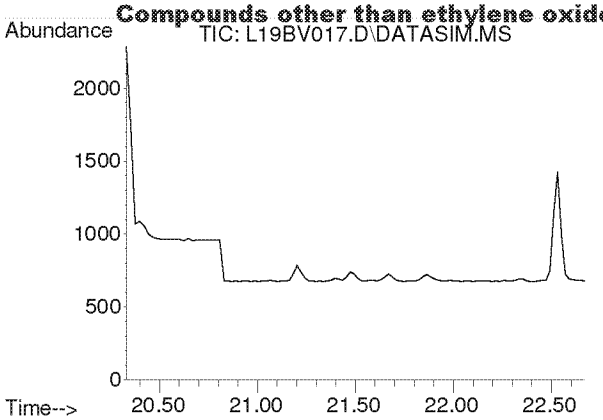
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

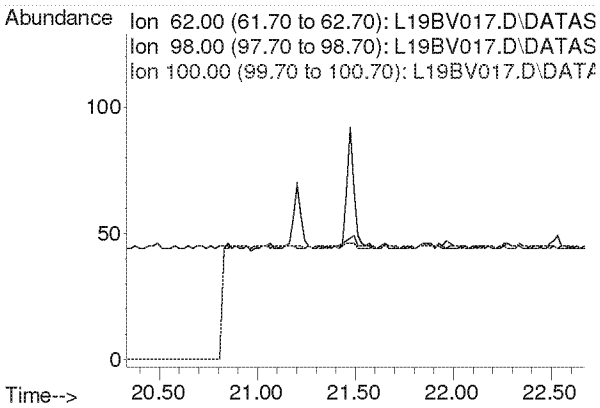


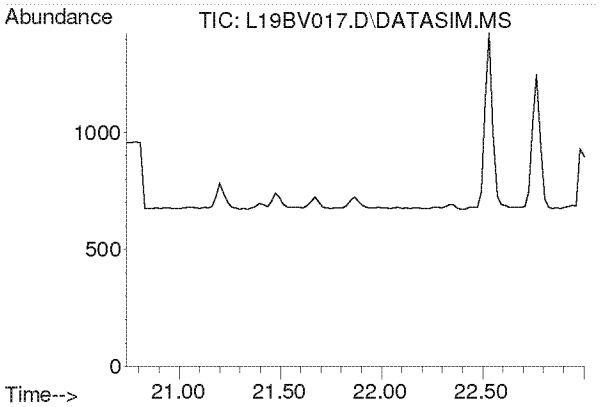
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



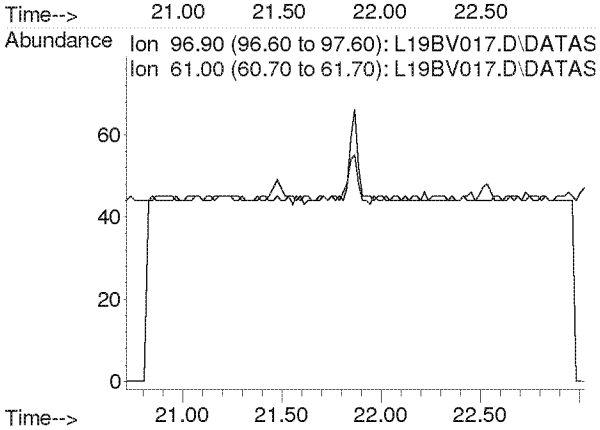


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

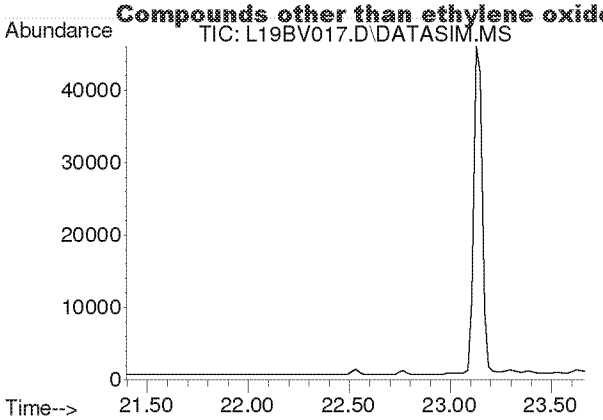
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

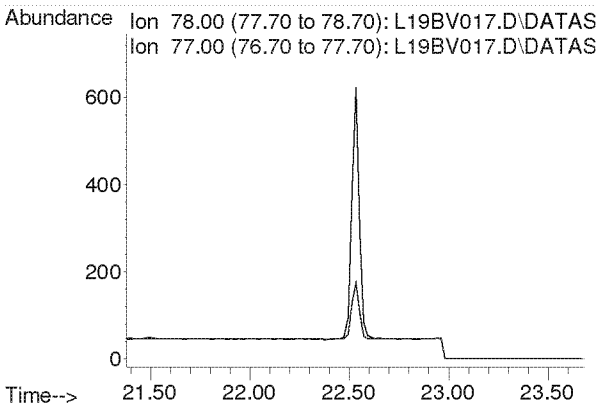


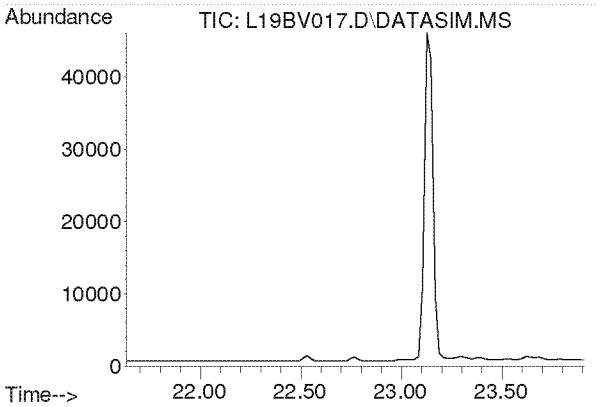
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



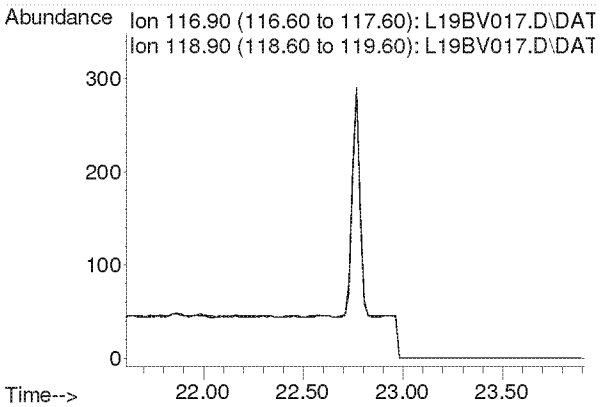


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

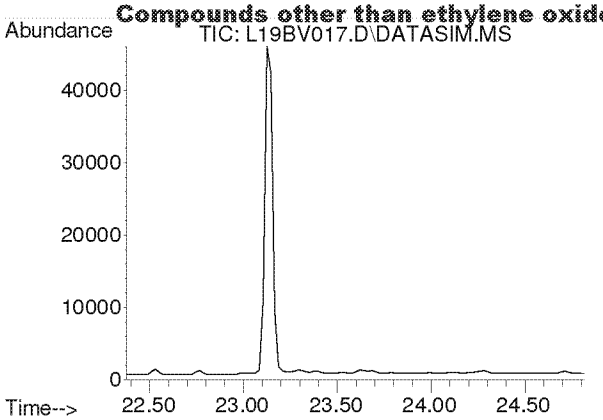
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

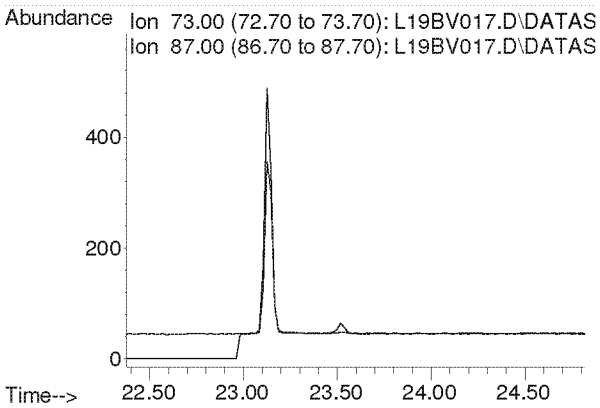


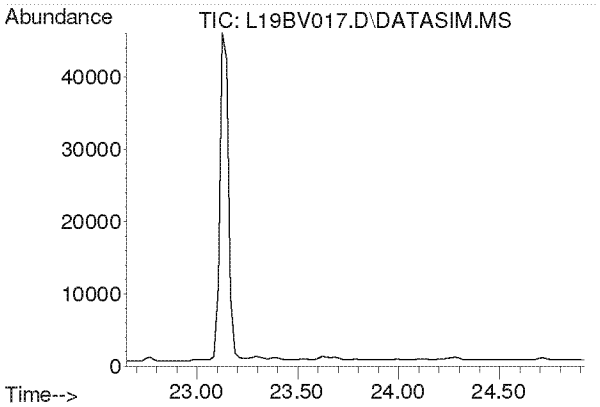
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



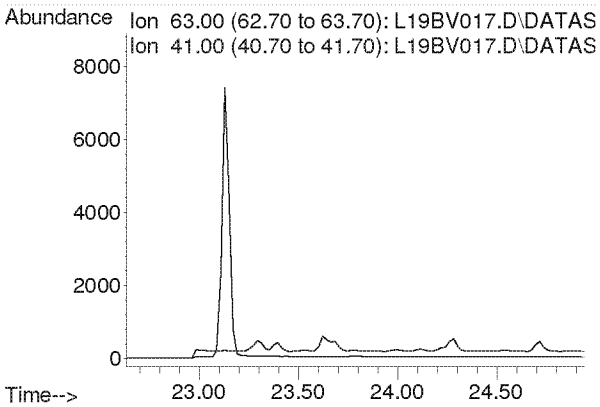


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

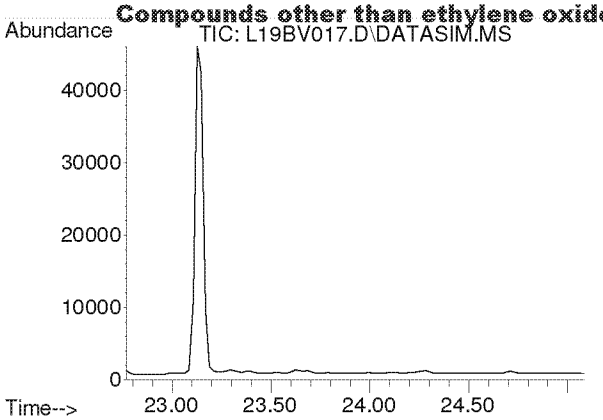
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

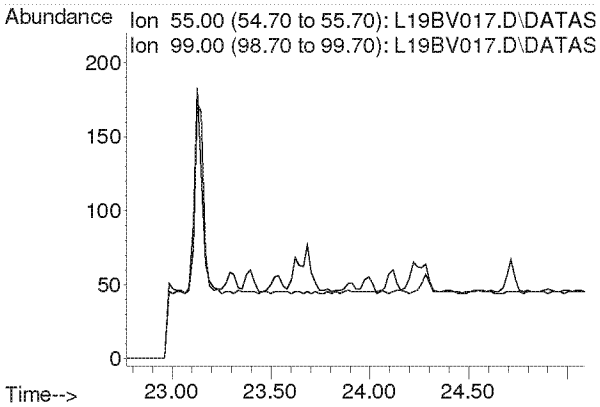


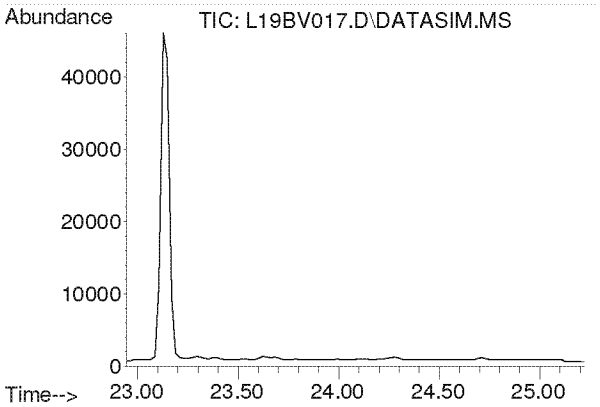
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



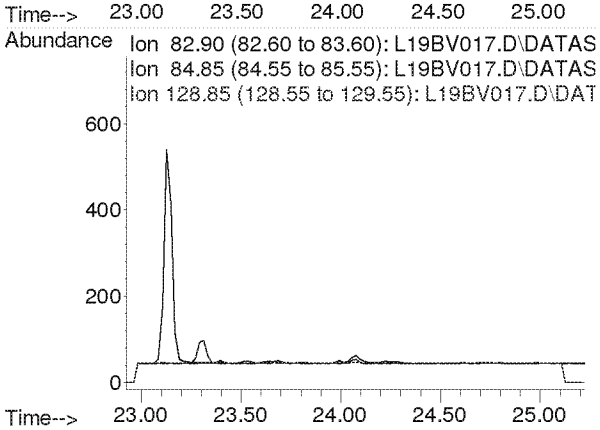


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

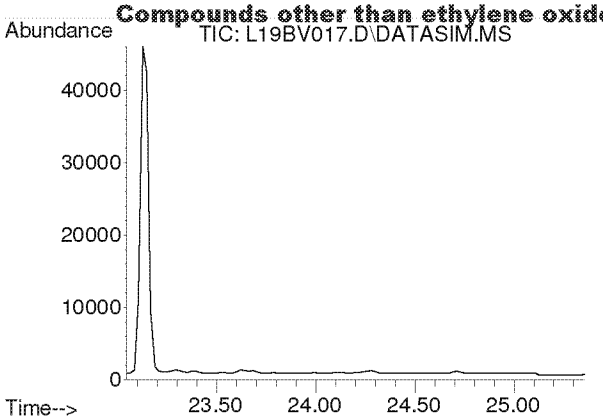
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

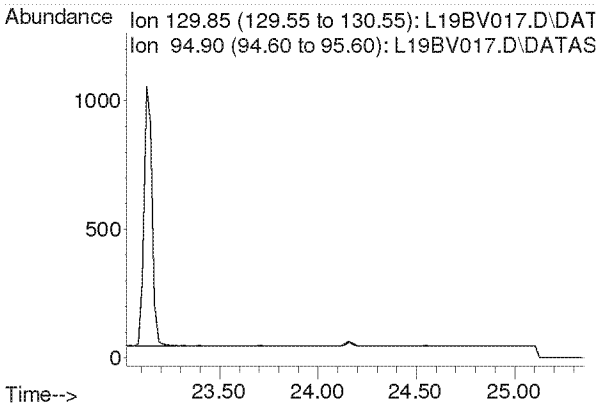


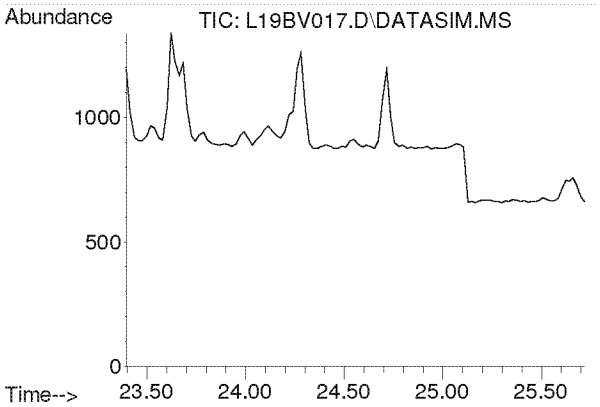
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



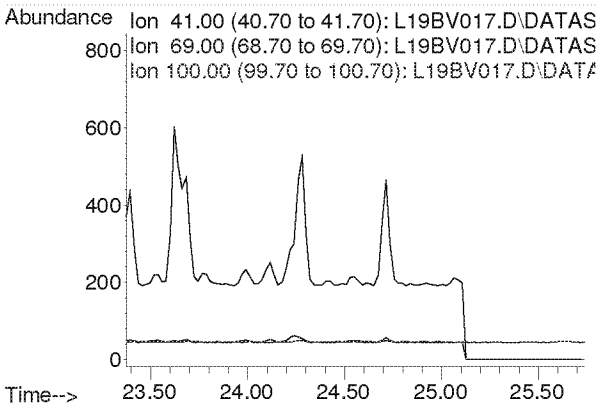


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

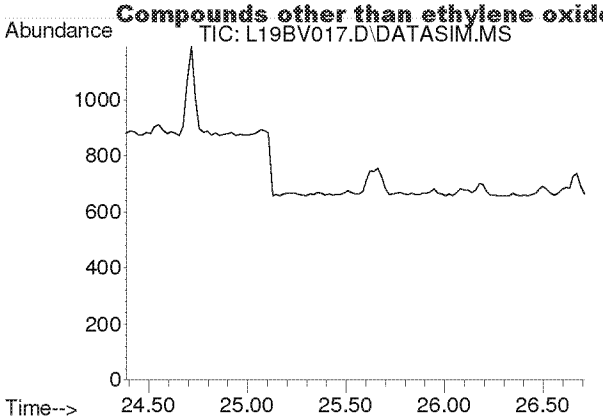
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

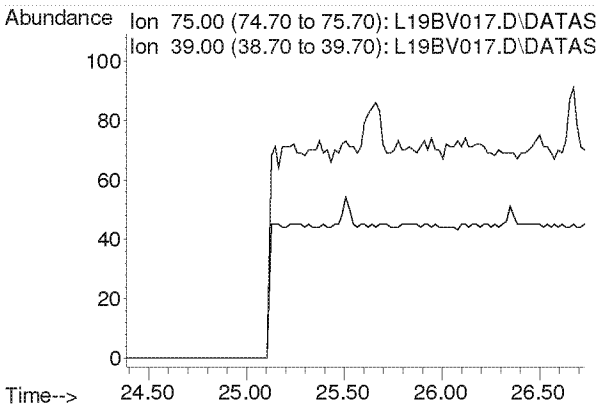


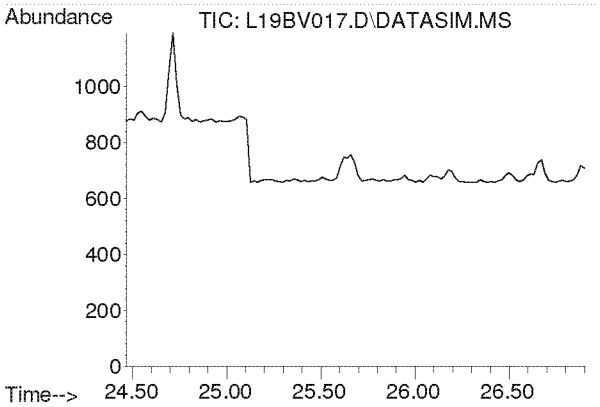
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



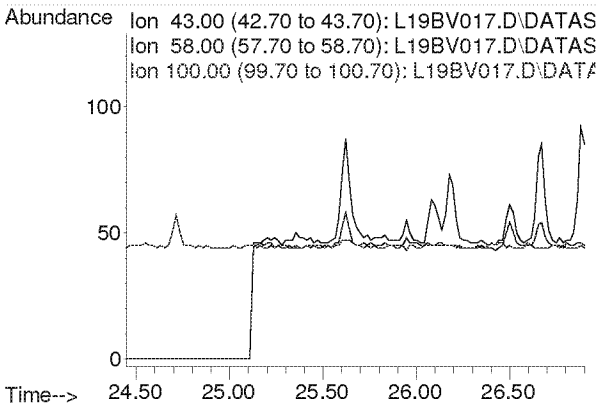


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

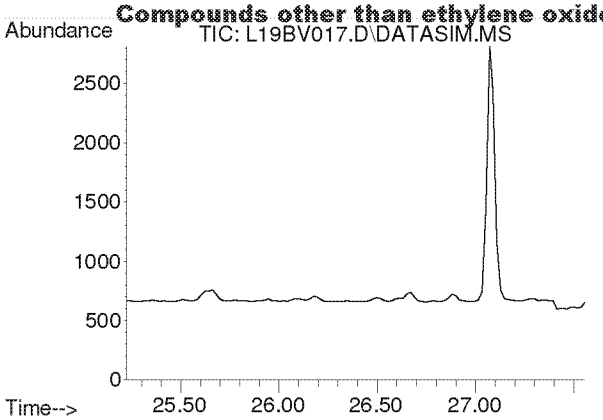
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

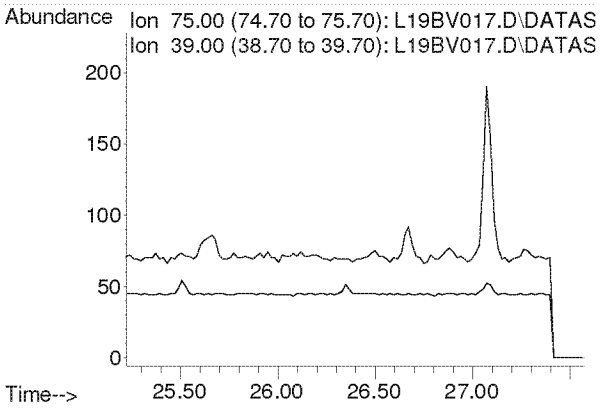


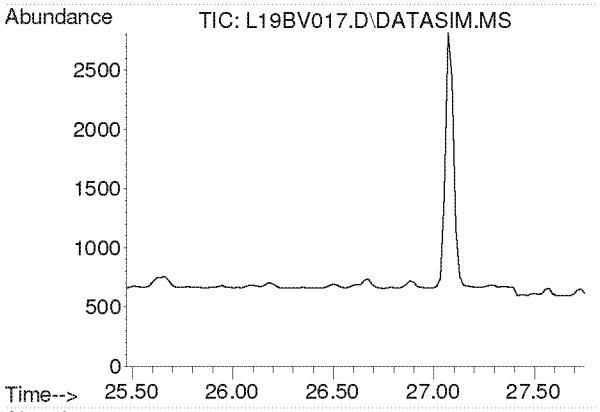
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



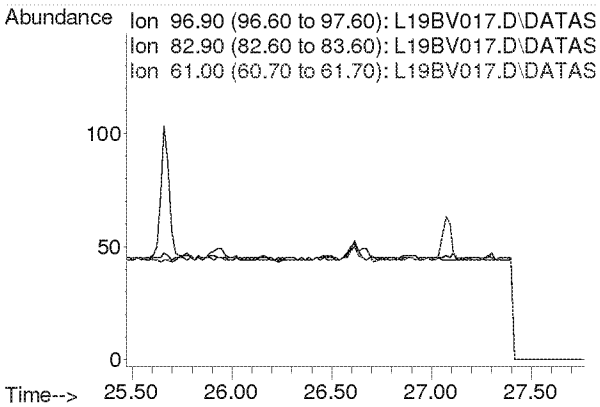


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

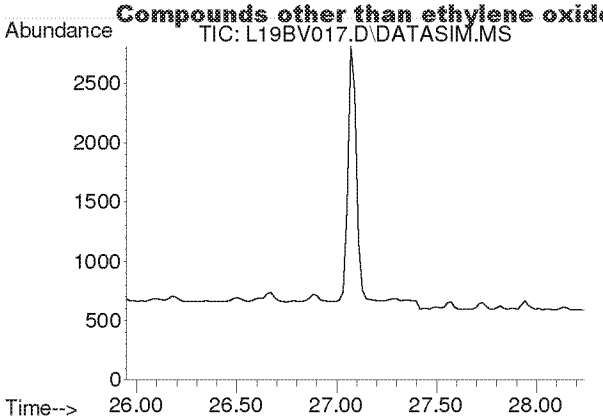
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

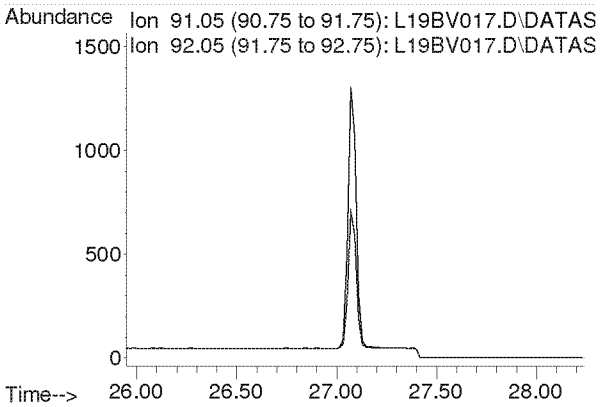


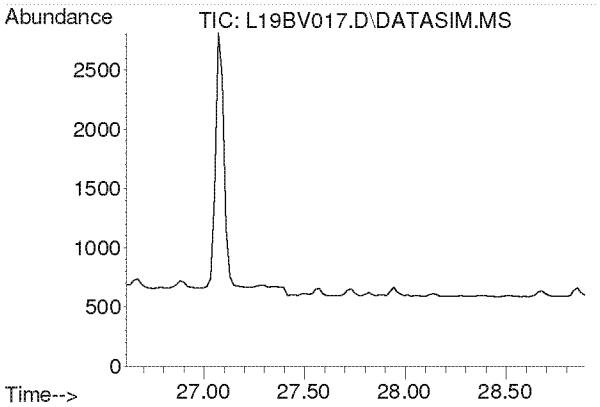
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



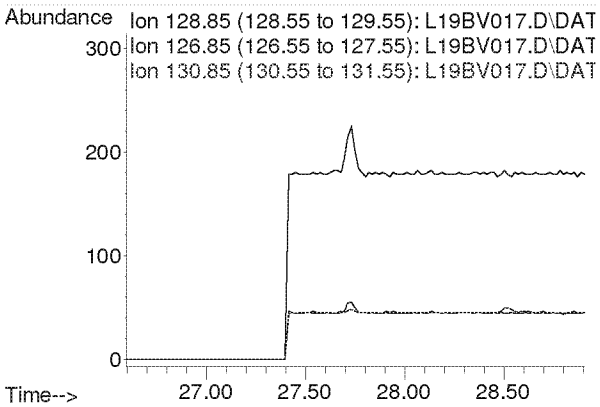


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

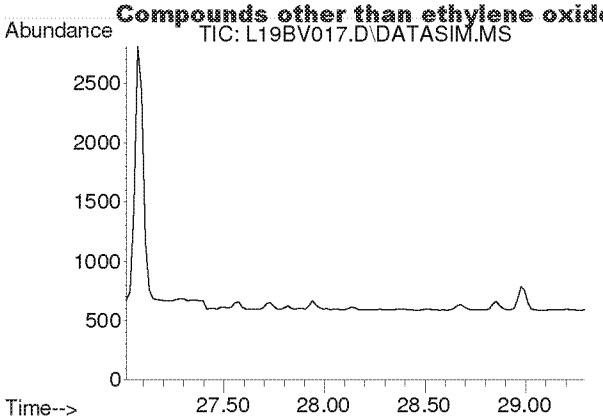
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

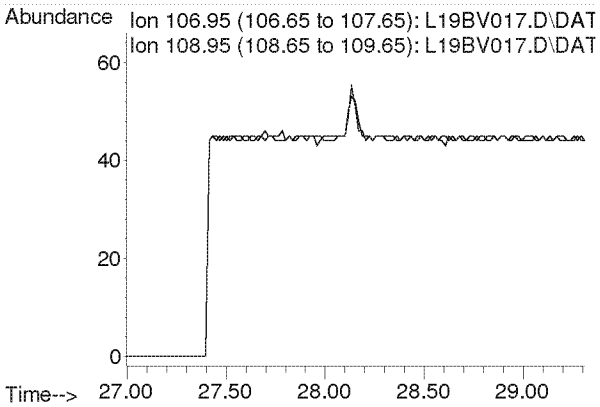


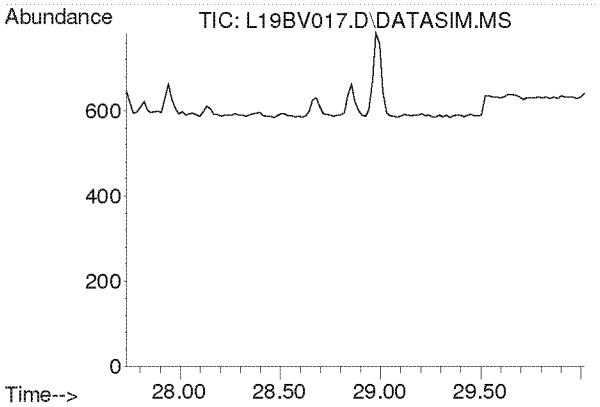
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



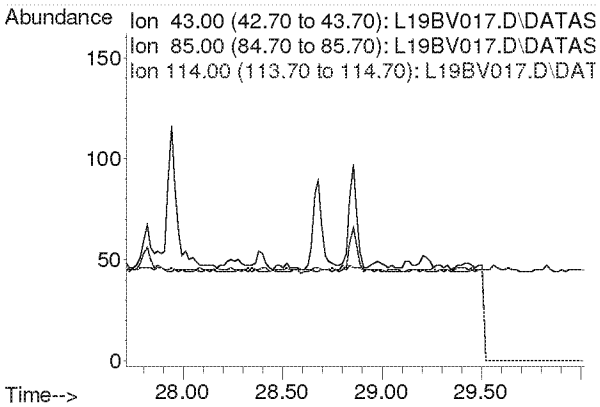


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

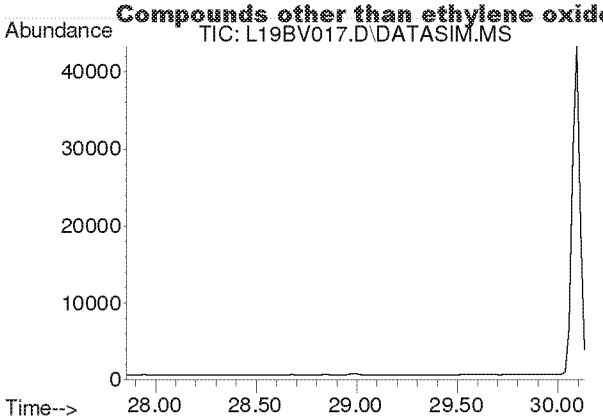
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

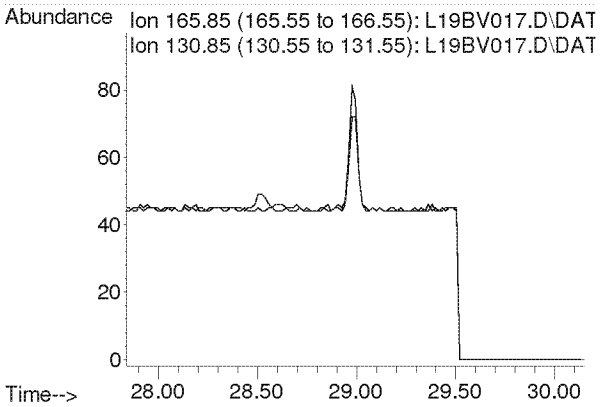


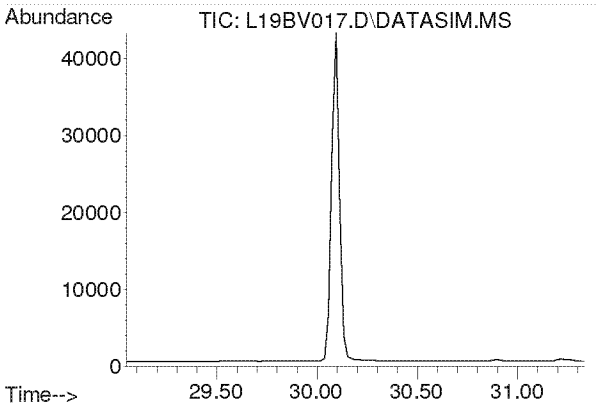
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



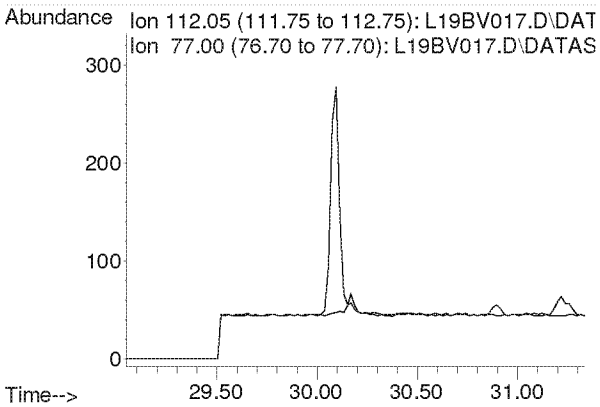


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

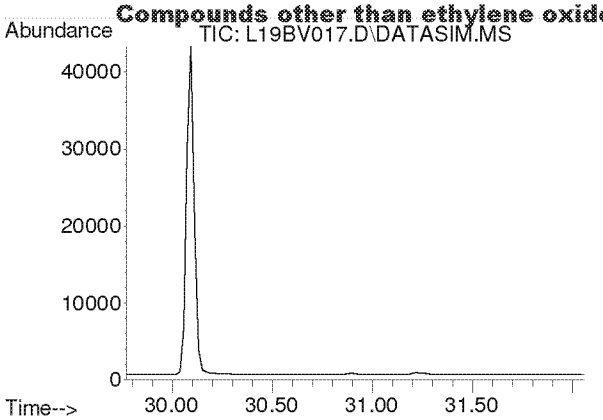
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

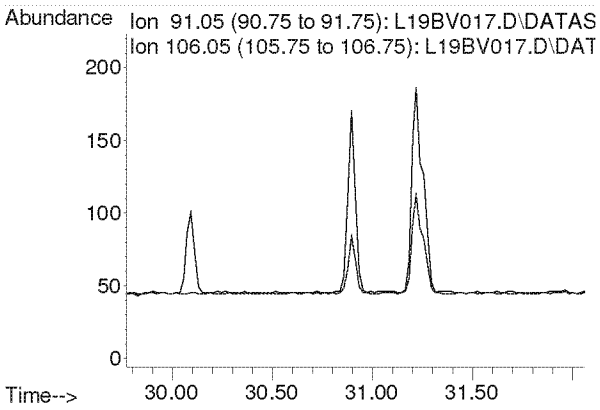


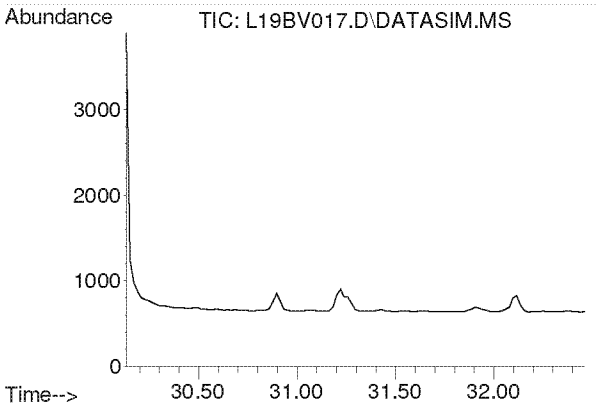
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



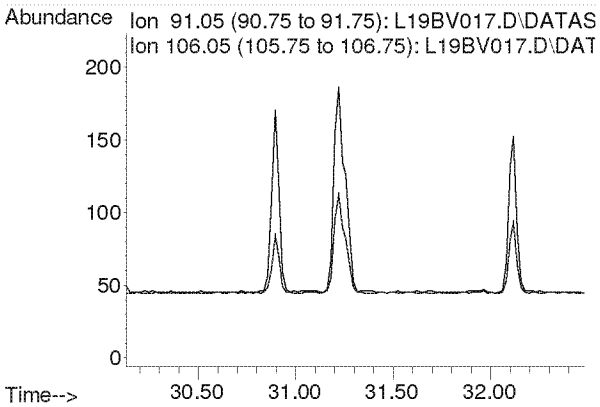


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

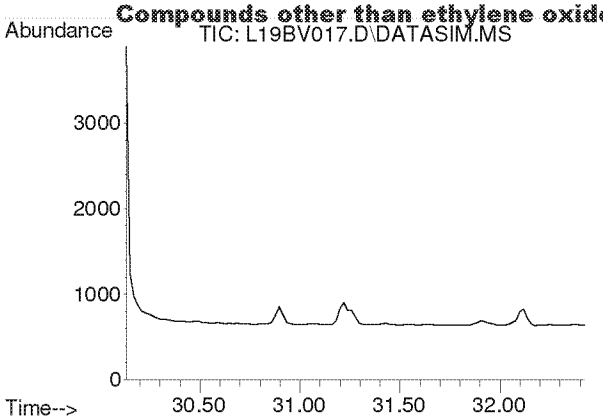
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

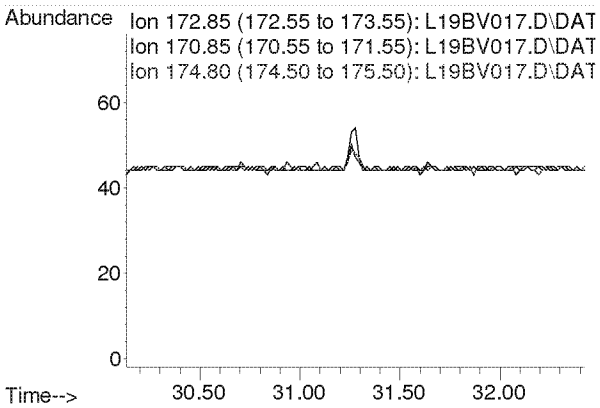


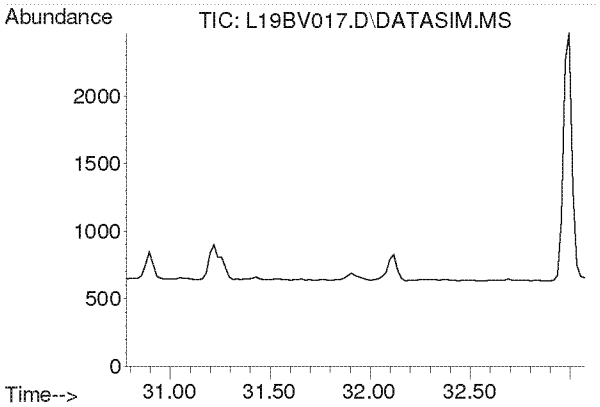
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



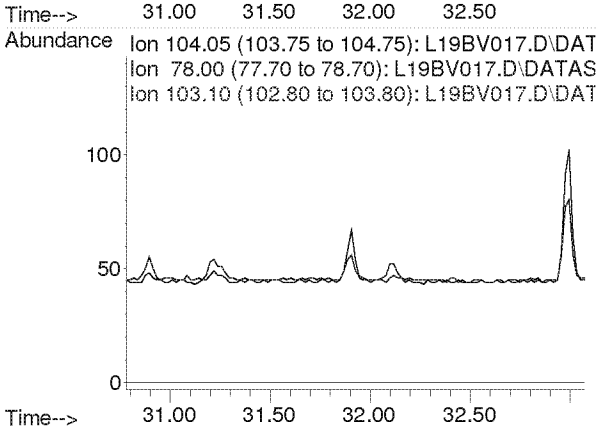


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

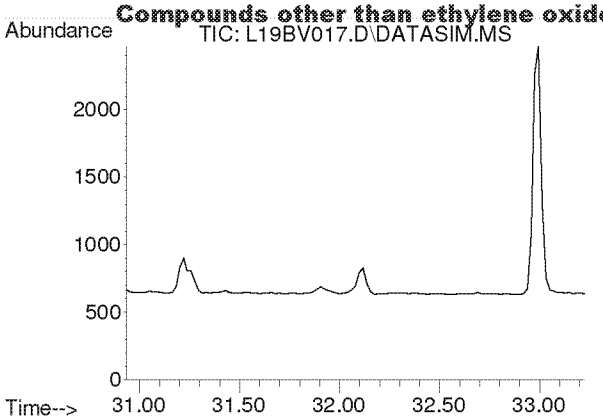
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

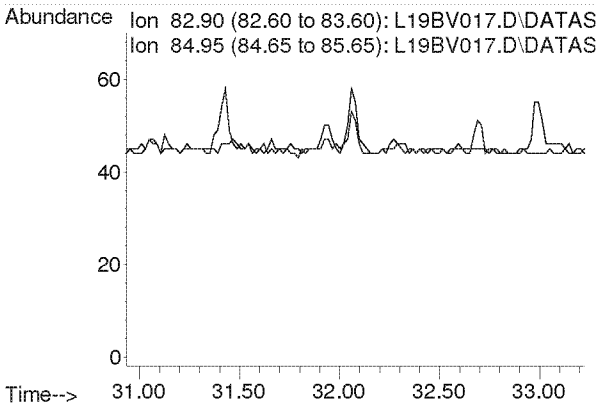


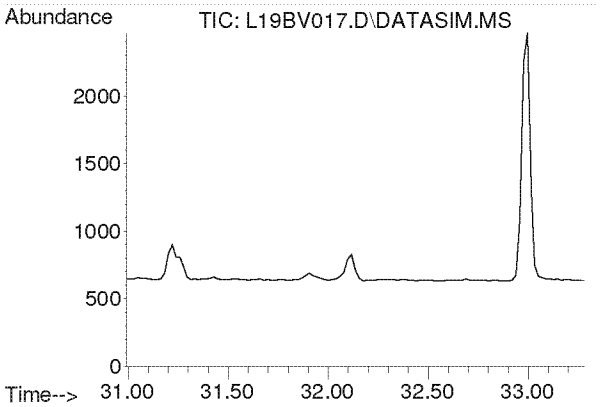
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



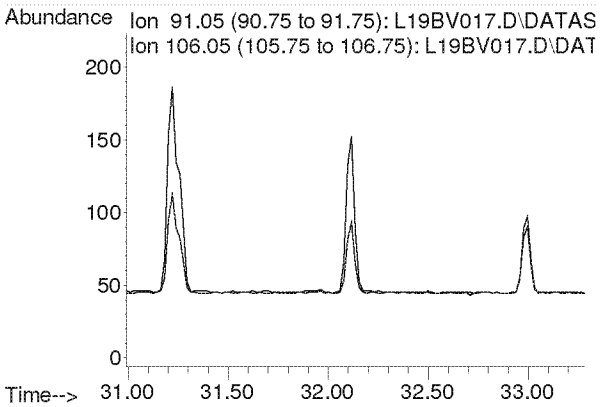


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

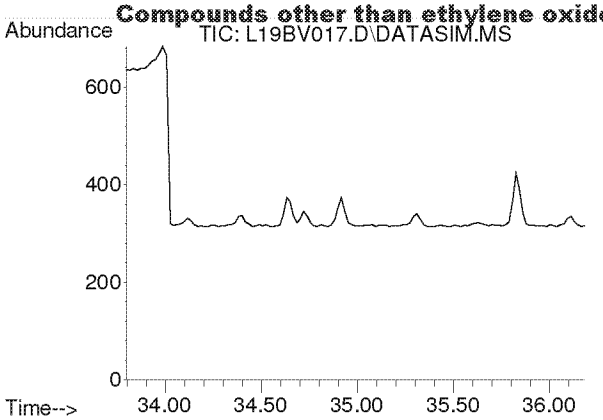
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

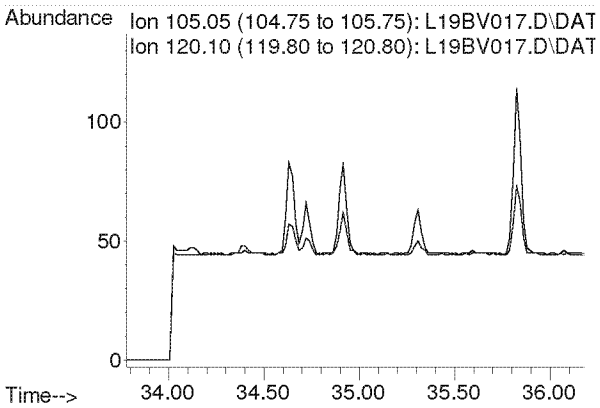


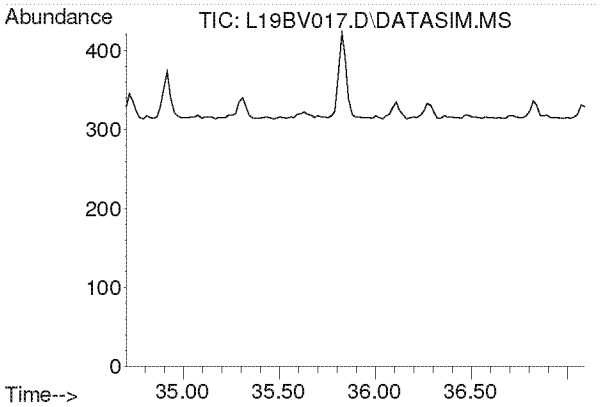
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



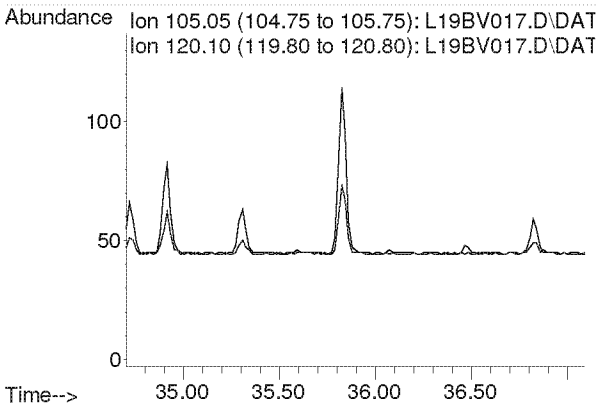


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

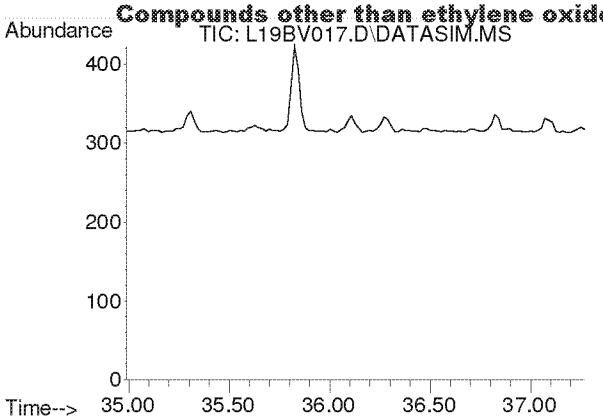
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

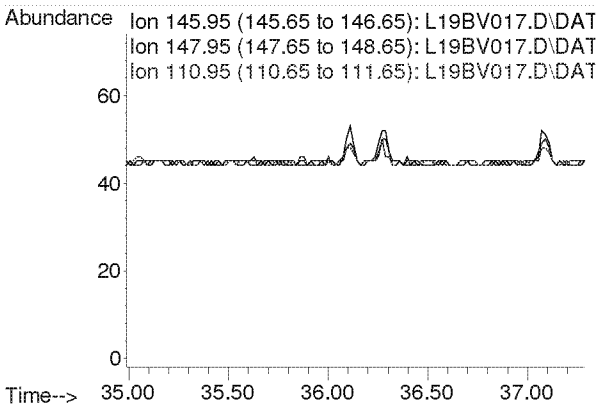


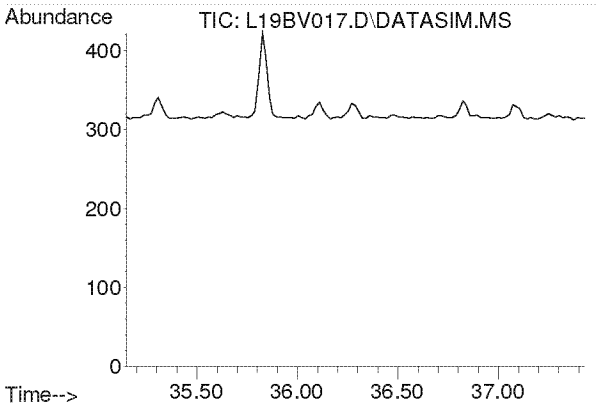
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



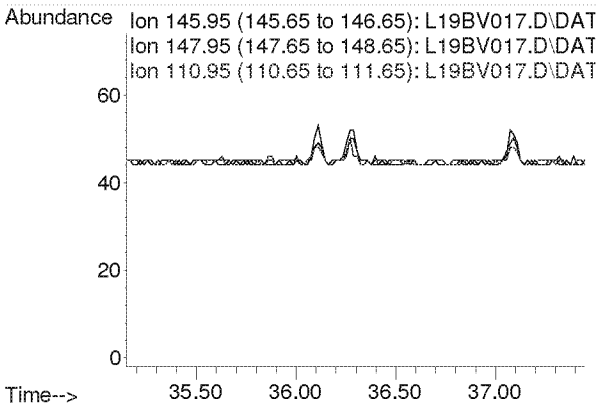


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

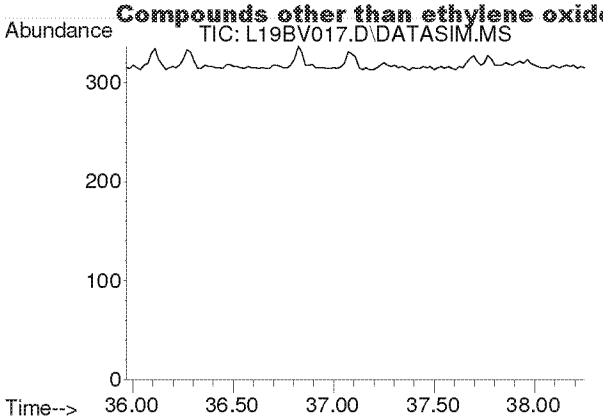
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

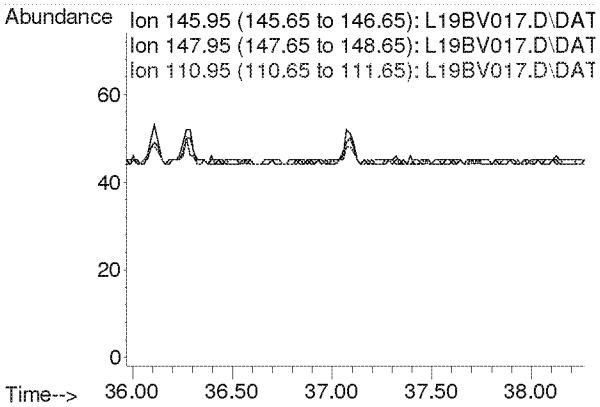


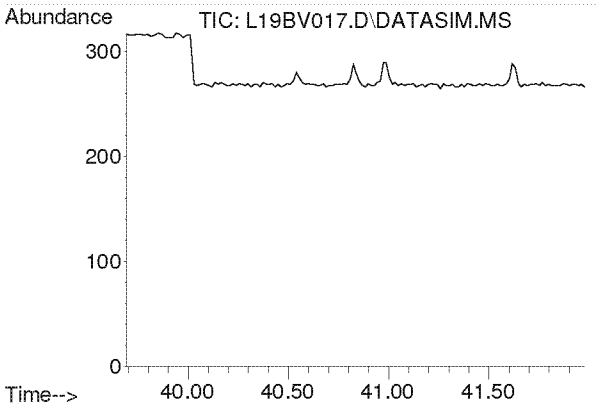
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



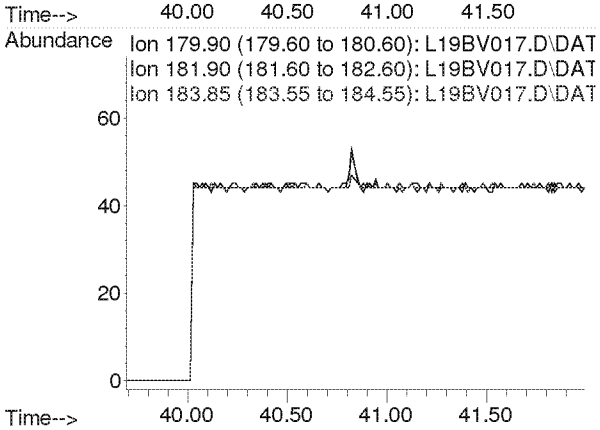


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

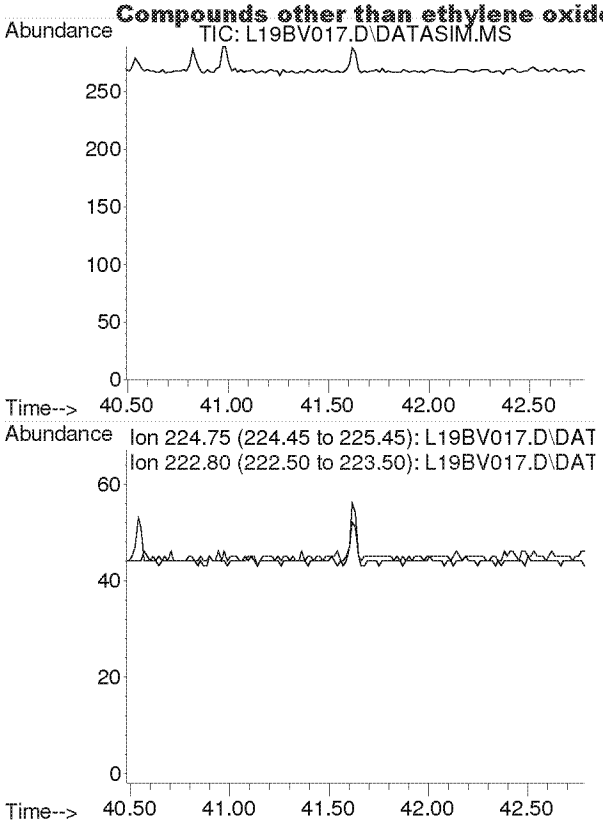
Lab File: L19BV017.D
Acq: 23 Feb 2019 12:43 am

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: L19BV017.D
Acq: 23 Feb 2019 12:43 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\L19BV\
Data File : L19BV018.D
Acq On : 23 Feb 2019 1:43 am (#1); 23-Feb-19, 01:38:31 (#2)
Operator : MAH
Sample : B9B2205-DUP2 R1
Misc : EPA WB WAREHOUSE XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 25 07:26:32 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	40378	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	103728	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	70429	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	d
3) Propylene	0.000	41	0	N.D.	d
4) Dichlorodifluoromethane	0.000	85	0	N.D.	d
5) Chloromethane	0.000	50	0	N.D.	d
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	d
7) Vinyl Chloride	0.000	62	0	N.D.	d
8) 1,3-Butadiene	0.000	54	0	N.D.	d
9) Ethylene oxide	12.425	29	908m	0.3932 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.	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.	d
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	d
23) Chloroprene	0.000	53	0	N.D.	d
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	d
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	d
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	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.	d
34) 1,2-Dichloropropane	0.000	63	0	N.D.	d
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	d
37) Trichloroethylene	0.000	130	0	N.D.	d
38) Methyl Methacrylate	0.000	41	0	N.D.	d
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	d
45) Dibromochloromethane	0.000	129	0	N.D.	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.	d
50) Ethylbenzene	0.000	91	0	N.D.	d

Compounds other than ethylene oxide were not quantitated (Reviewed)

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV018.D
Acq On : 23 Feb 2019 1:43 am (#1); 23-Feb-19, 01:38:31 (#2)
Operator : MAH
Sample : B9B2205-DUP2 R1
Misc : EPA WB WAREHOUSE XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 25 07:26:32 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

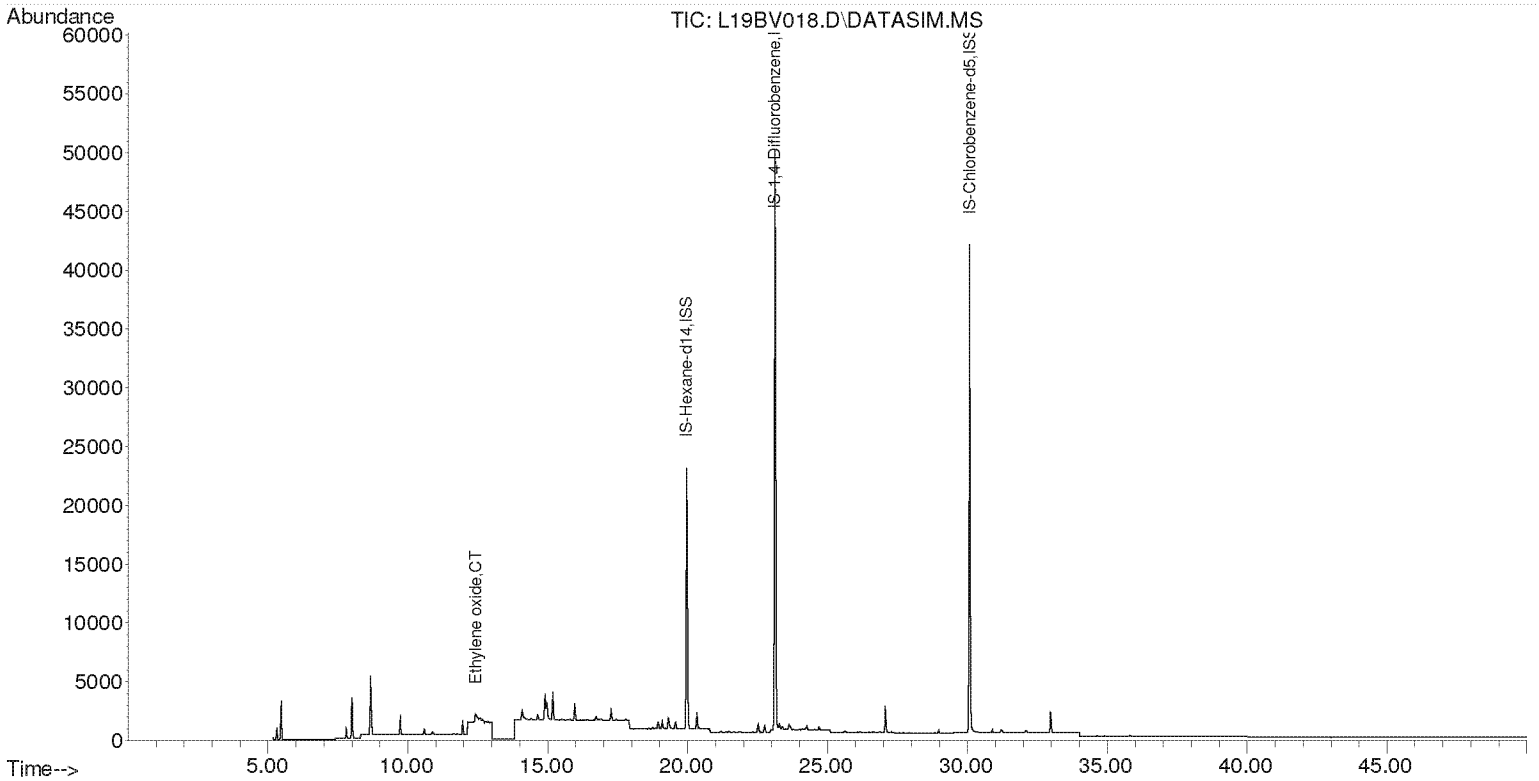
(#) = qualifier out of range (m) = manual integration (+) = signals summed

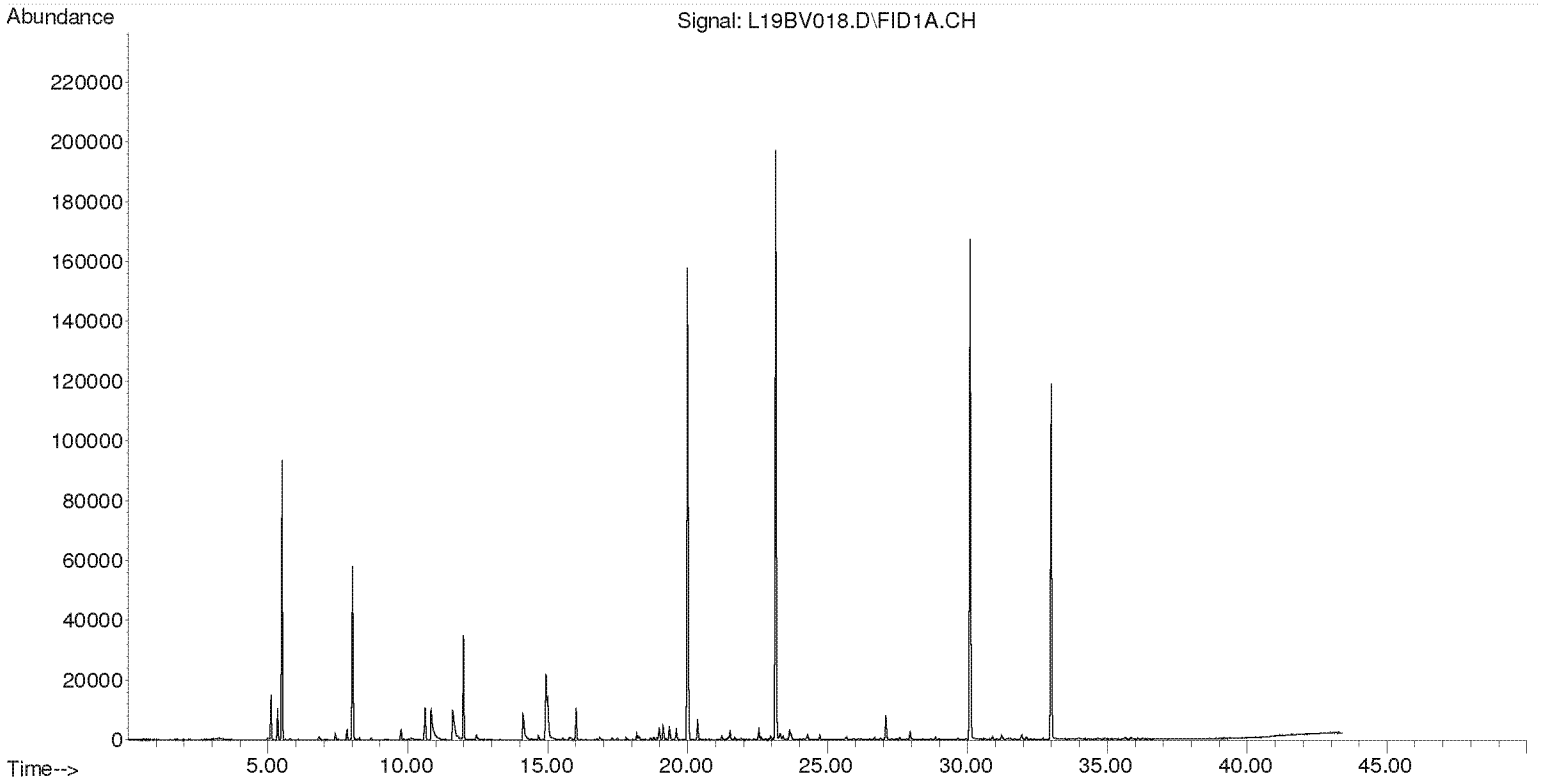
ED_002475_00000282-00382

Compounds other than ethylene oxide were not quantitated.

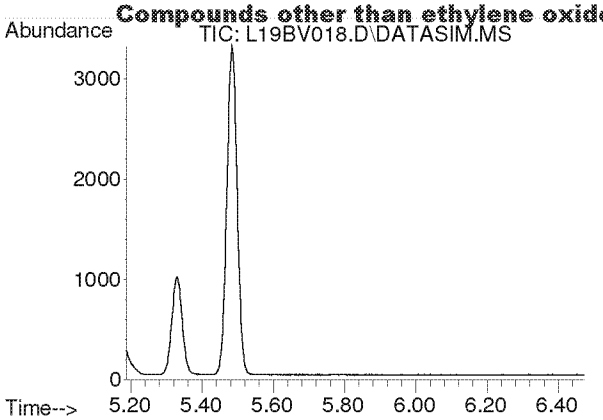
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV018.D
Acq On : 23 Feb 2019 1:43 am (#1); 23 Feb 2019 1:38 am (#2)
Operator : MAH
Sample : B9B2205-DUP2 R1
Misc : EPA WB WAREHOUSE XX 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 25 06:47:59 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





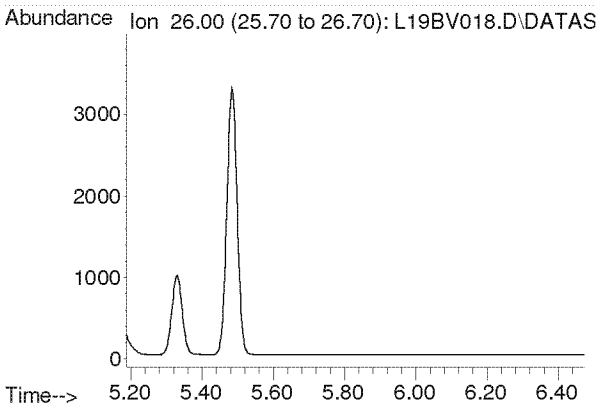
Compounds other than ethylene oxide were not quantitated.

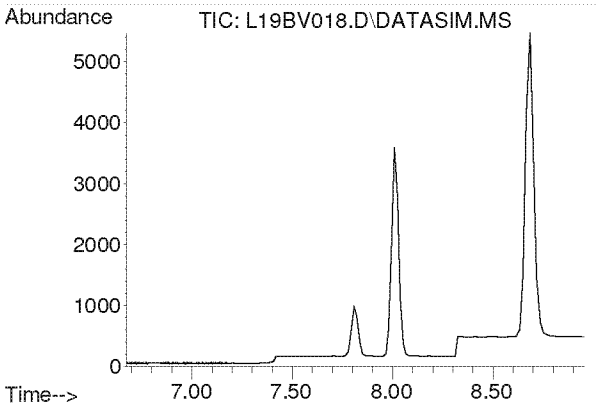


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 26



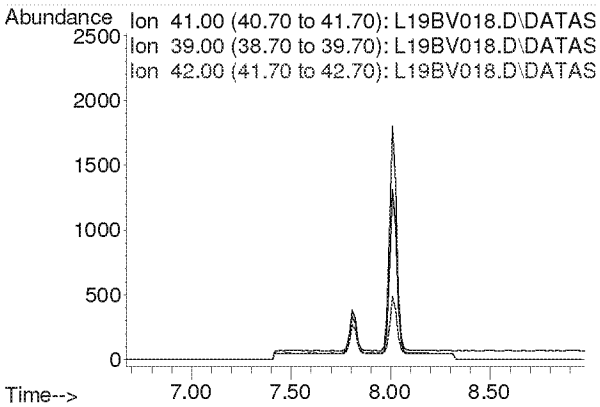


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

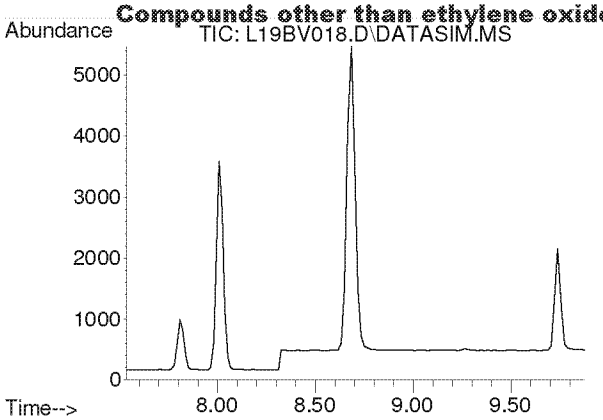
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

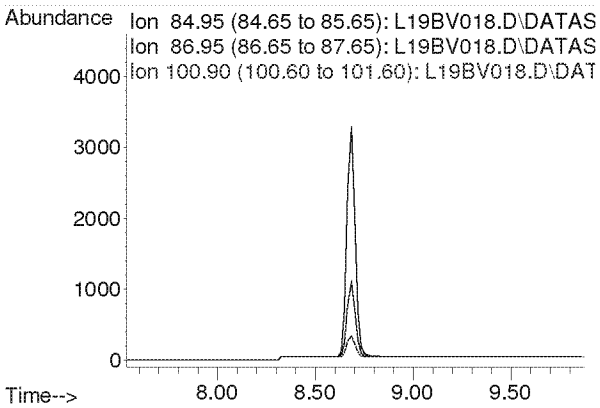


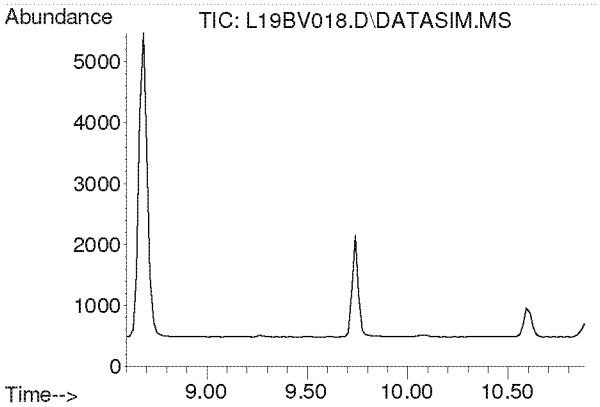
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



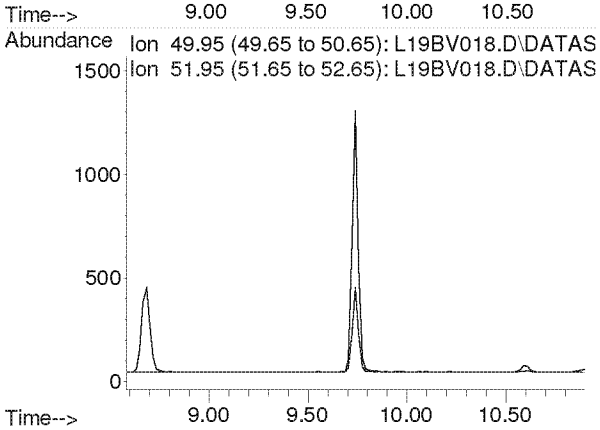


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

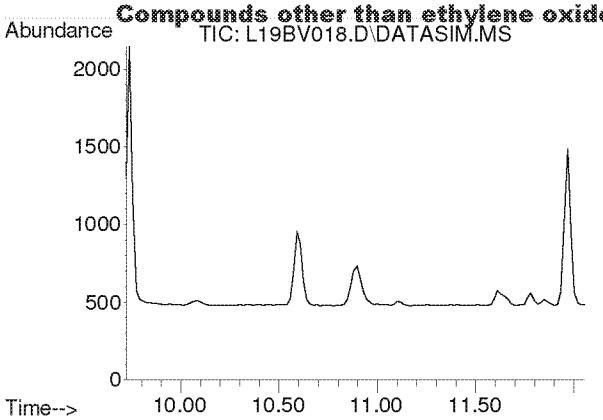
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

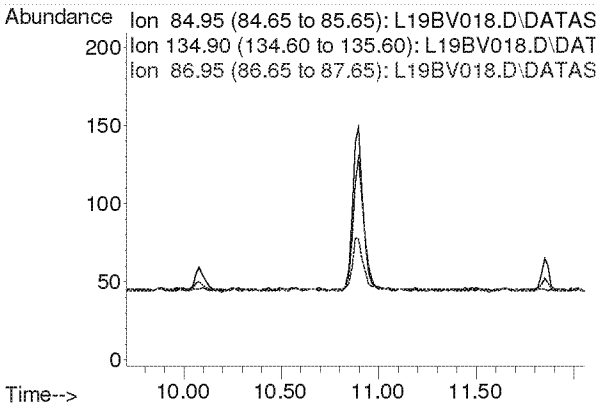


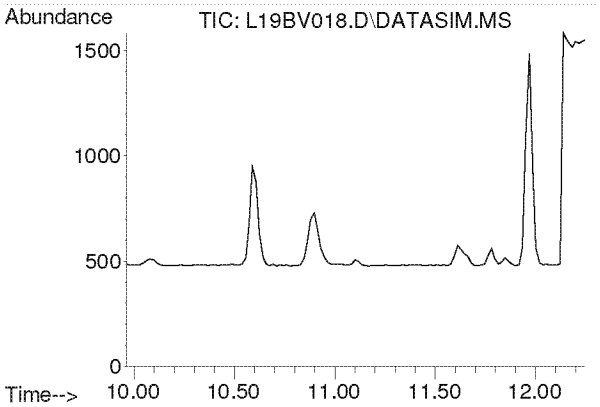
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



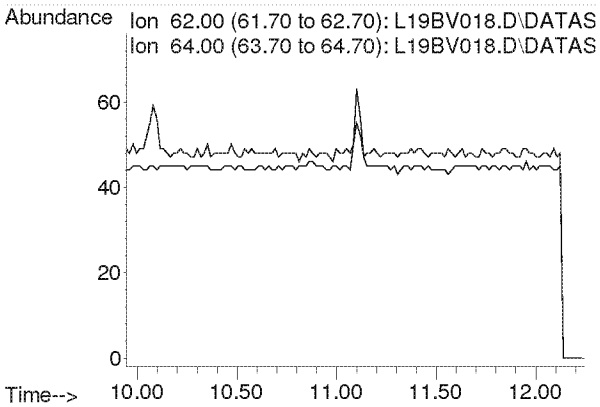


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

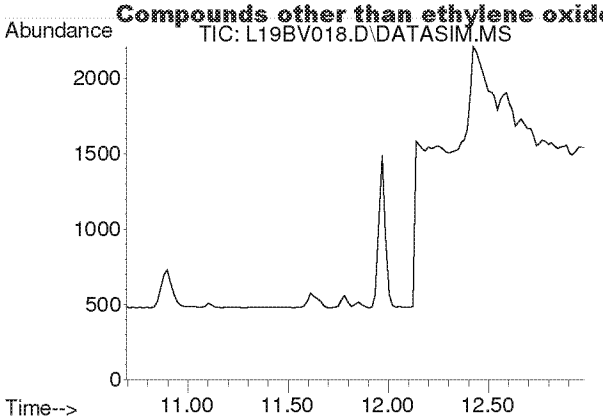
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

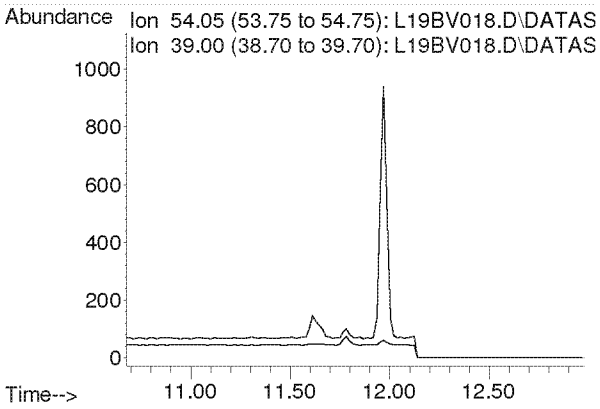


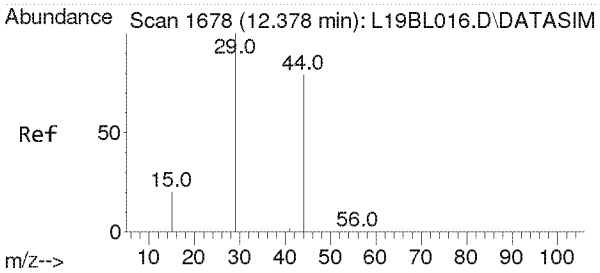
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

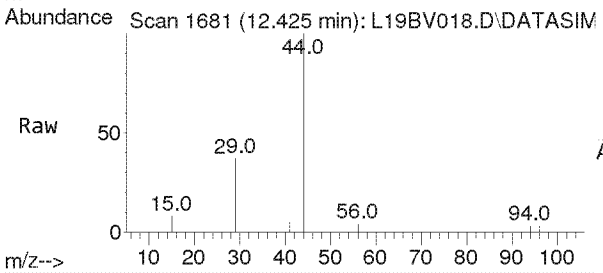


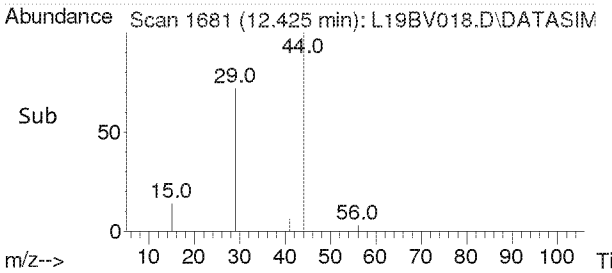


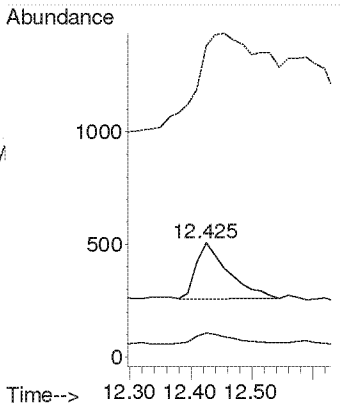
#9
Ethylene oxide
Concen: 0.393 ppbv m
RT: 12.425 min Scan# 1681
Delta R.T. 0.047 min
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 29 Resp: 908

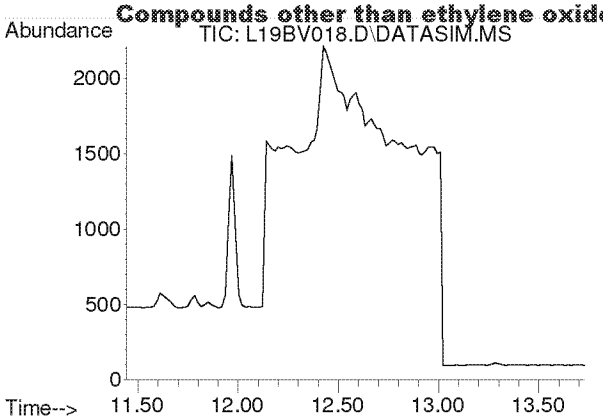
Ion	Ratio	Lower	Upper
29	100		
15	22.9	16.0	24.0
44	386.3	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

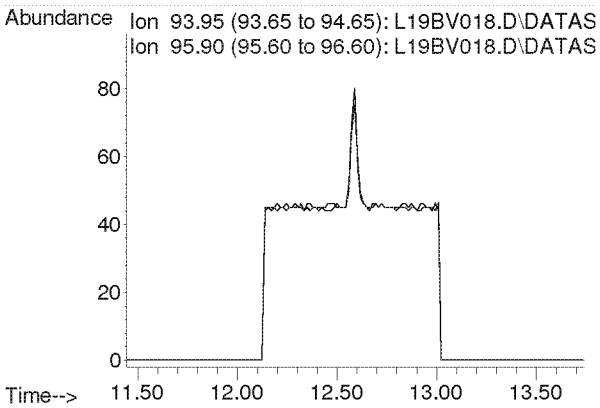


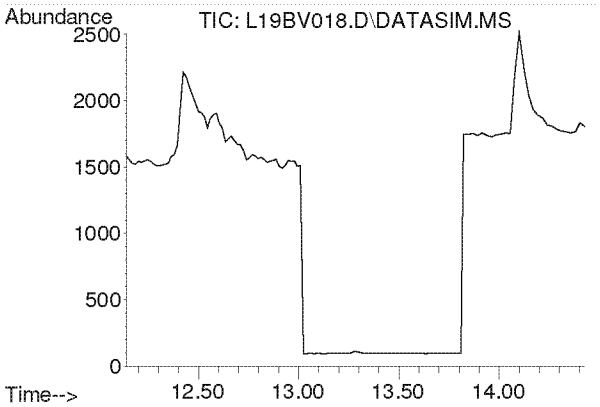
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



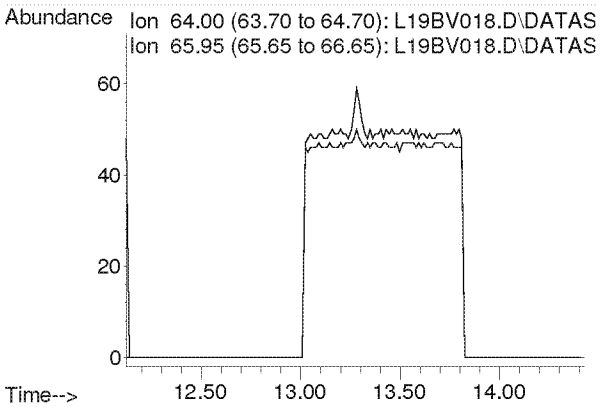


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

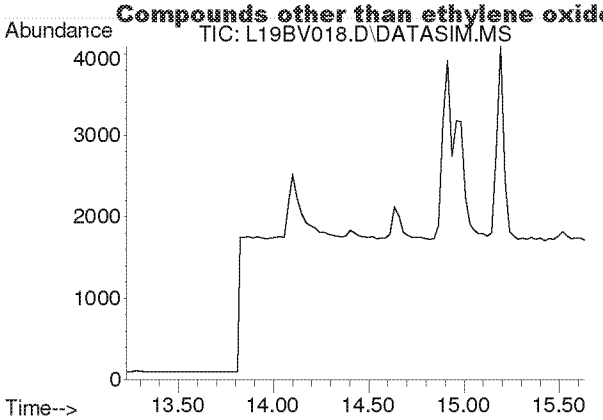
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

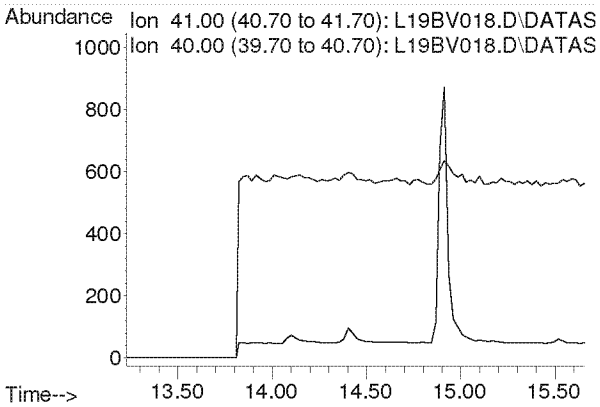


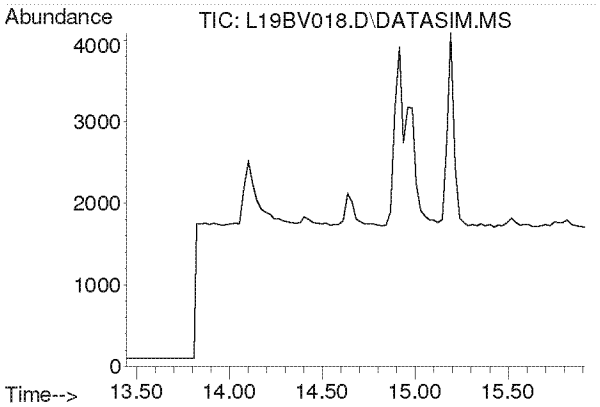
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



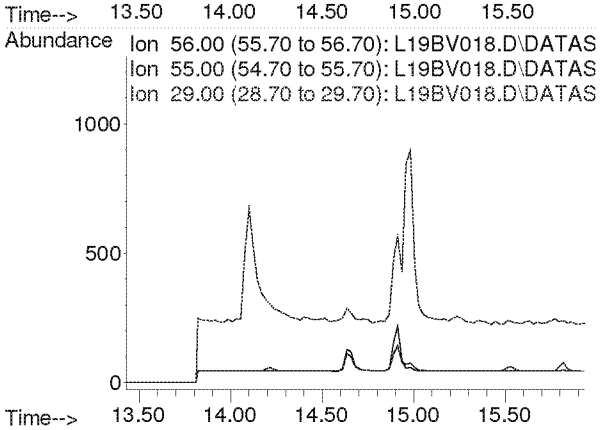


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

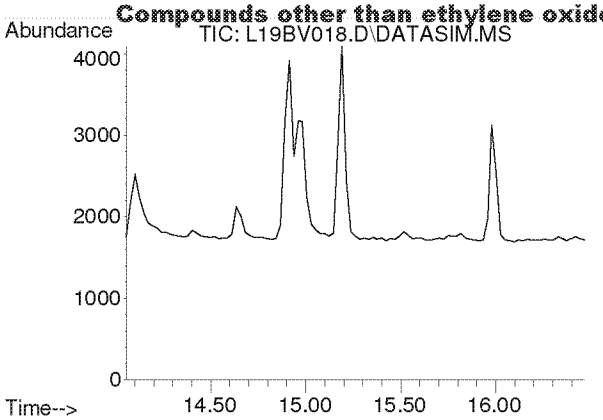
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

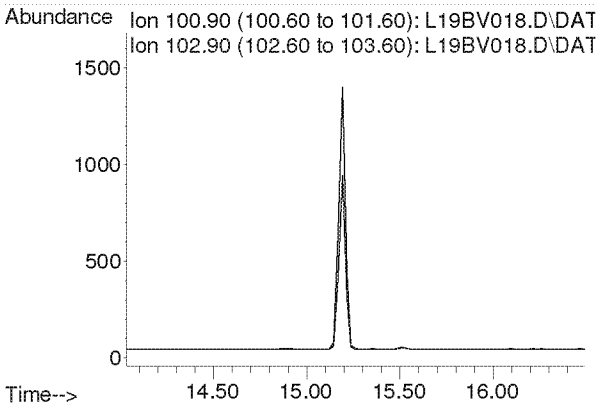


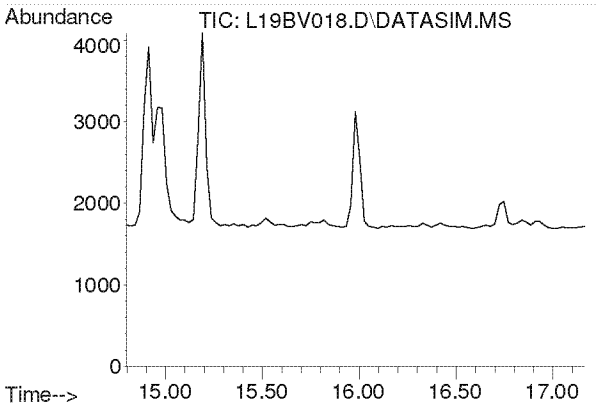
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



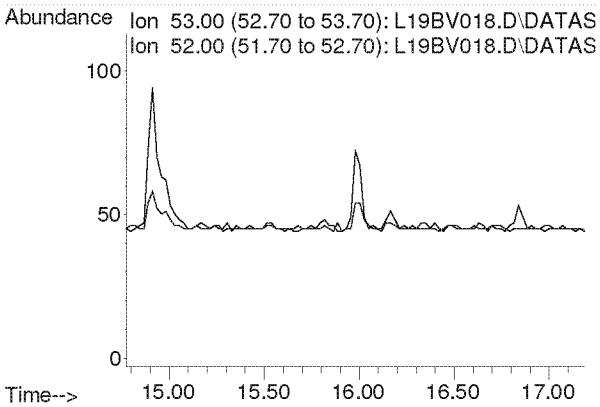


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

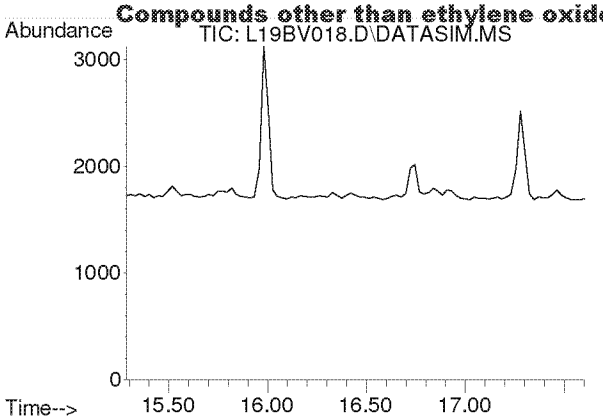
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

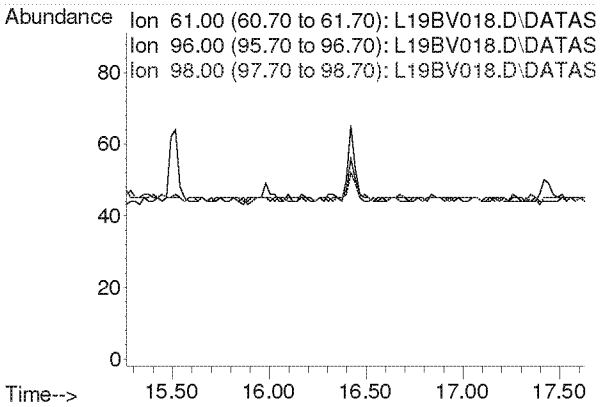


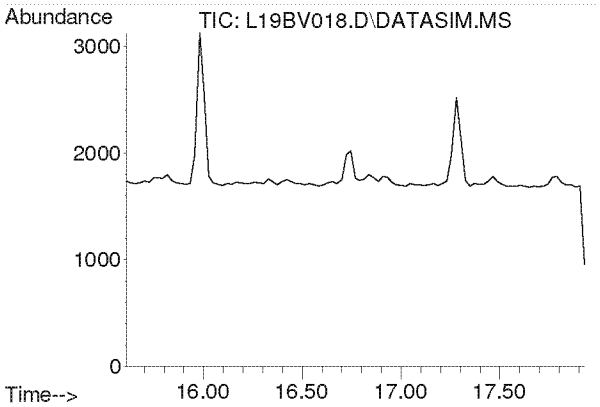
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



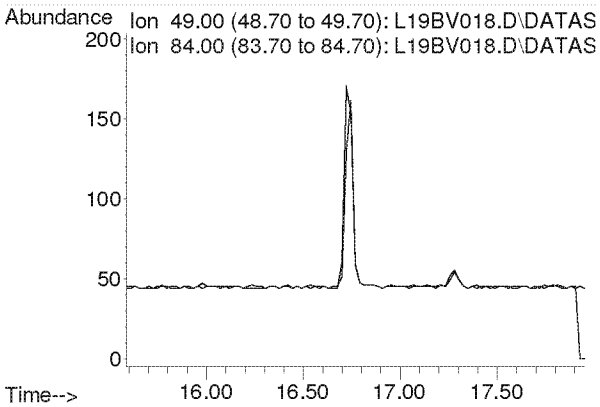


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

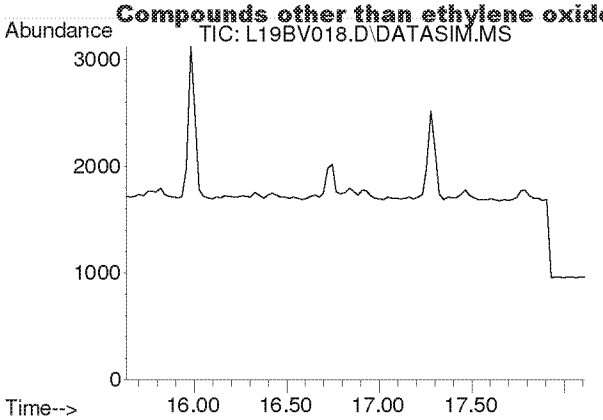
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

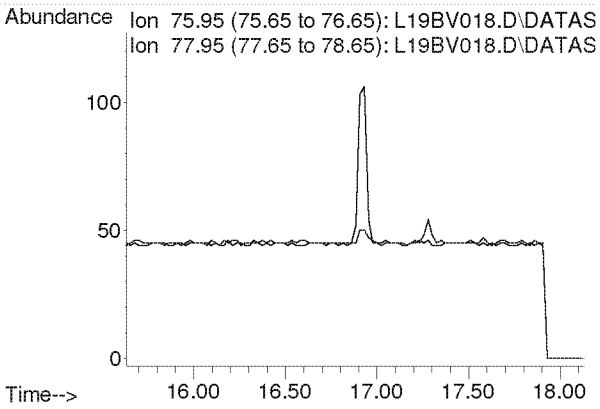


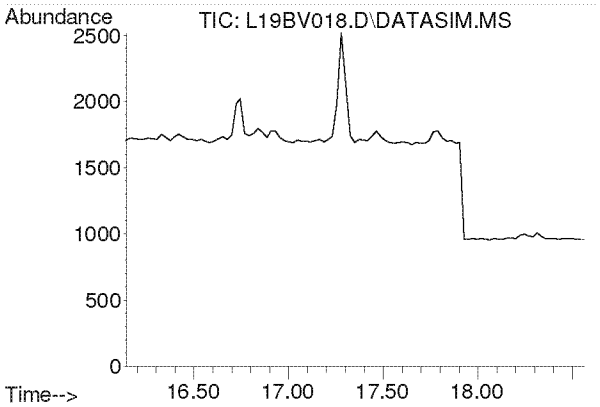
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



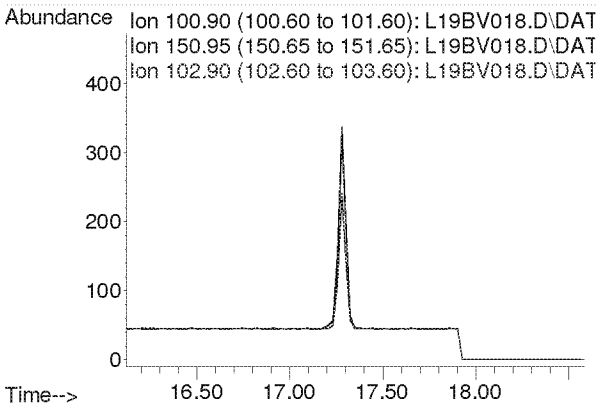


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

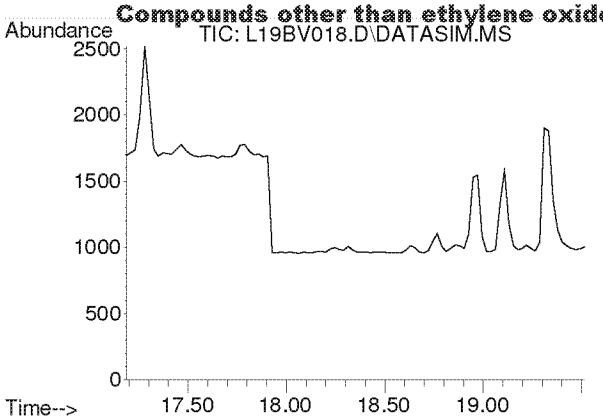
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

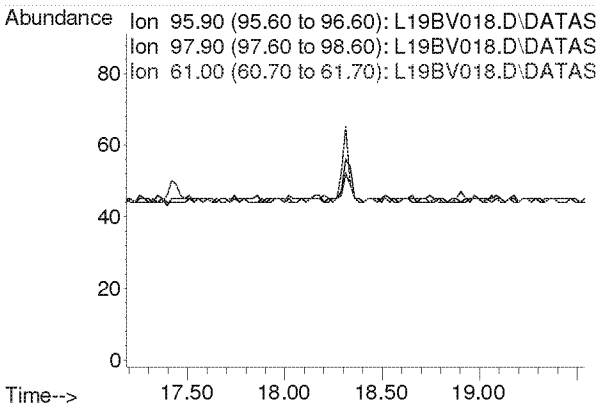


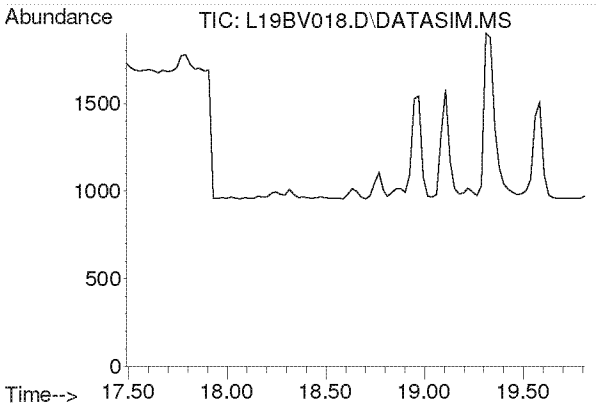
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



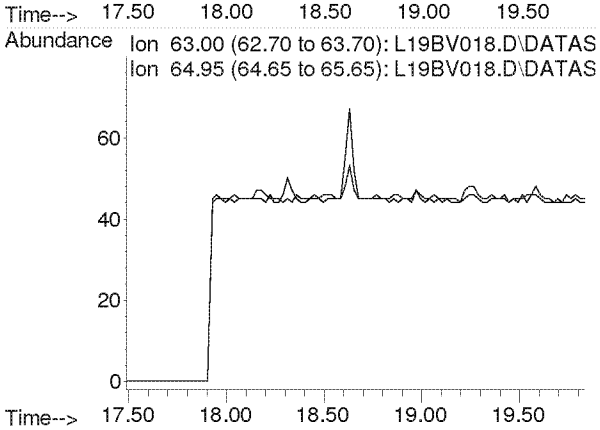


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

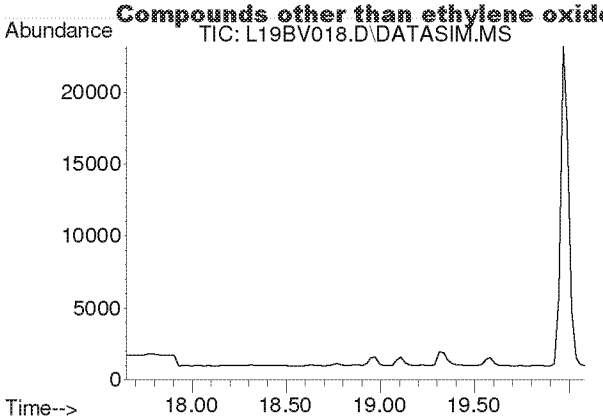
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

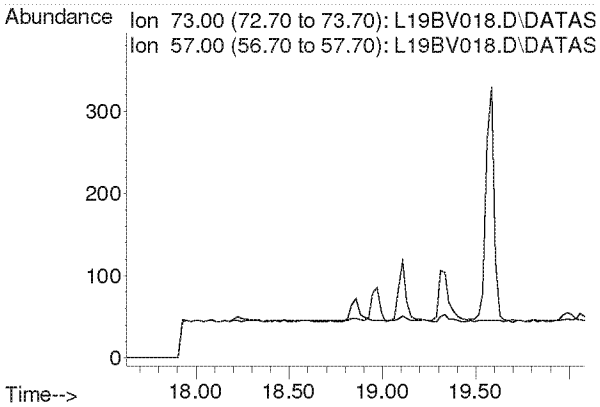


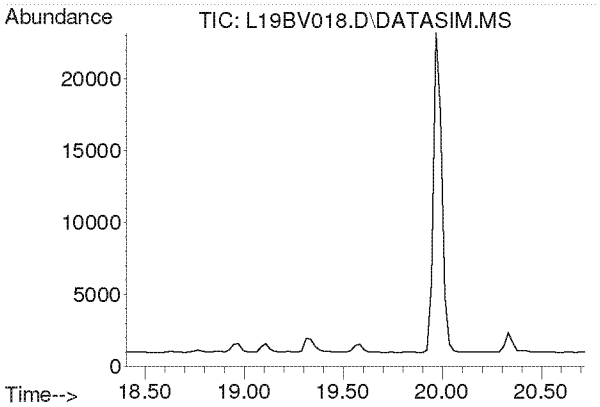
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



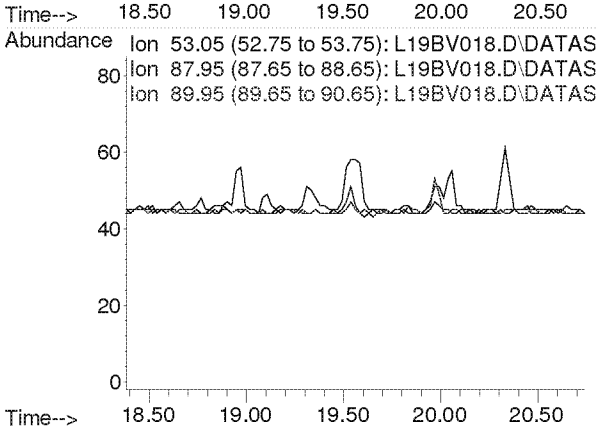


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

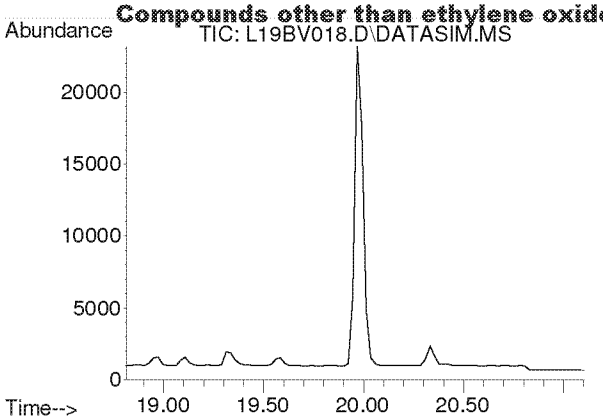
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

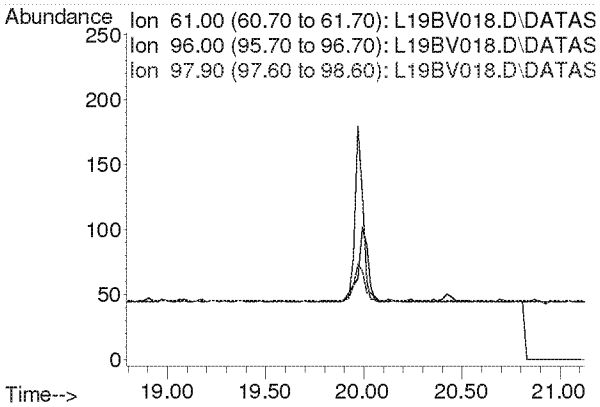


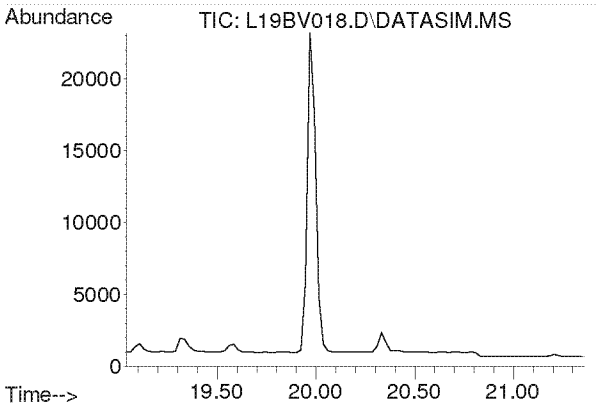
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



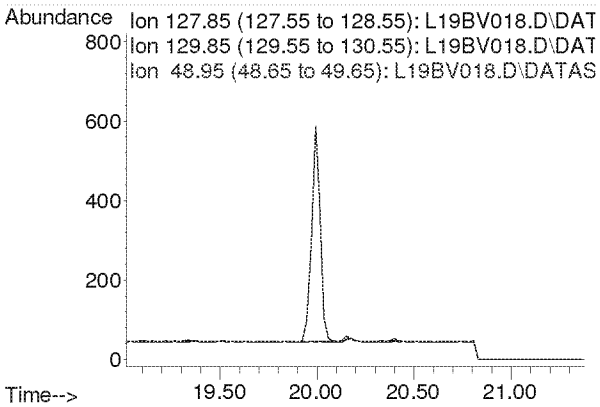


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

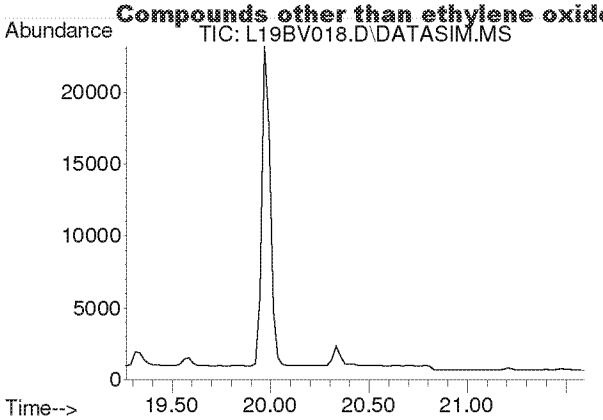
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

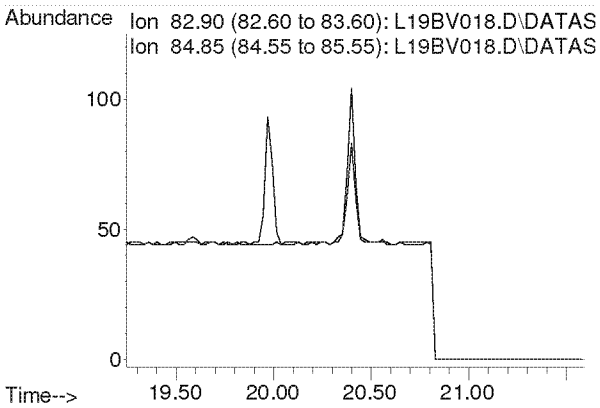


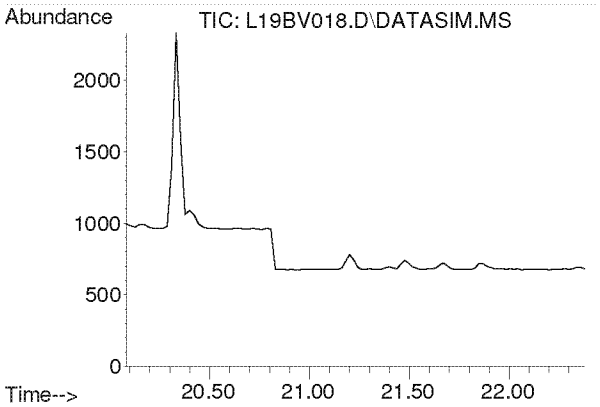
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



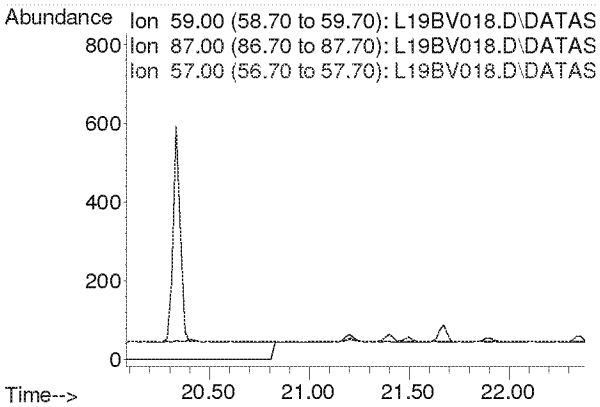


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

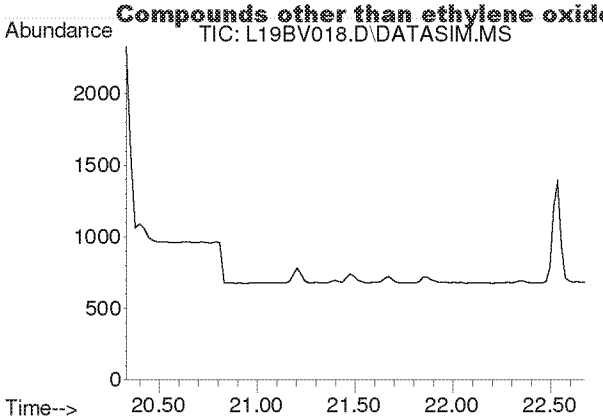
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

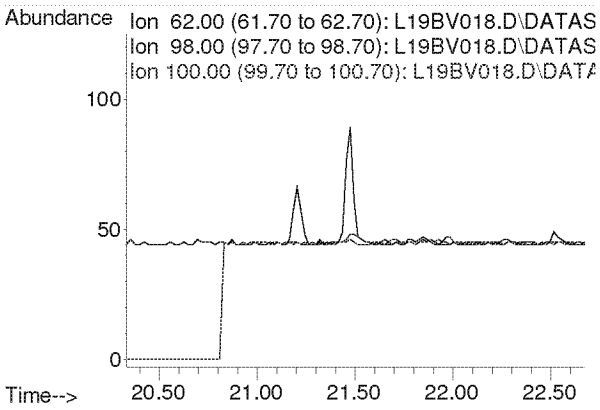


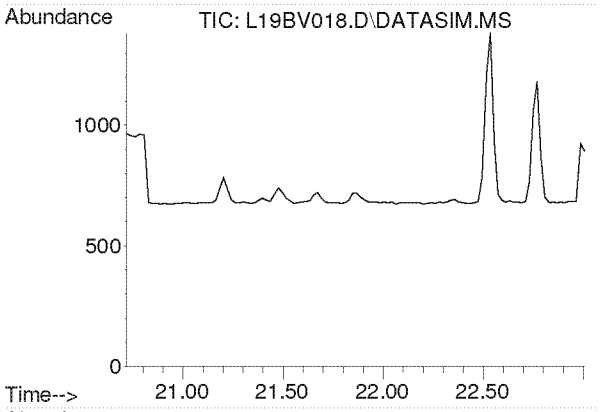
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



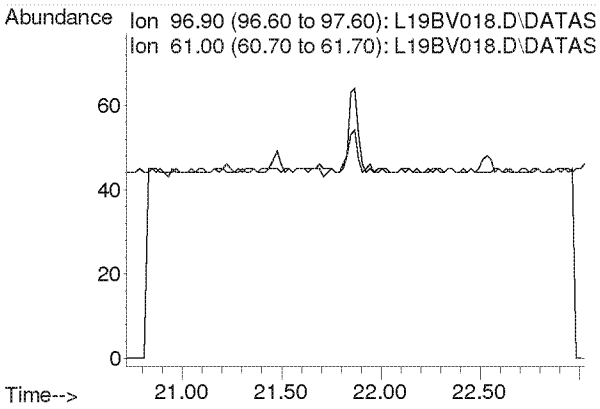


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

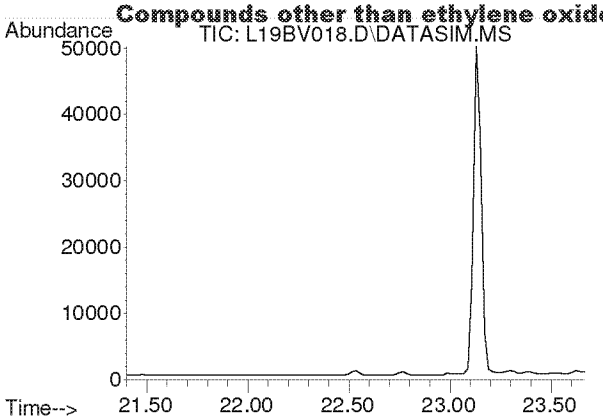
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

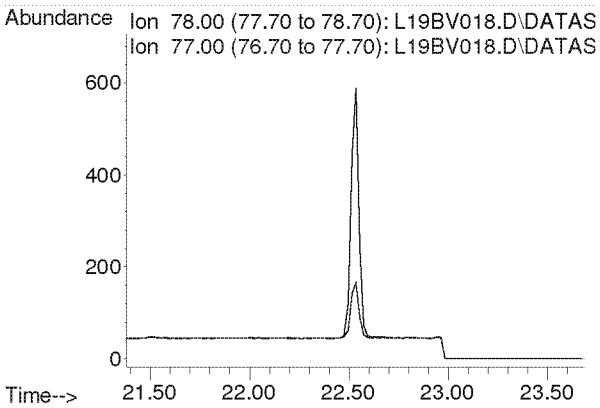


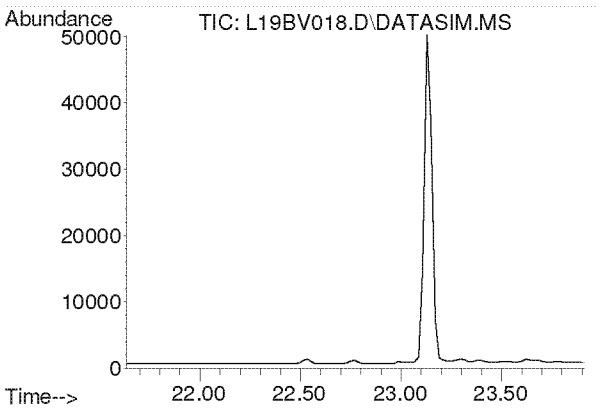
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



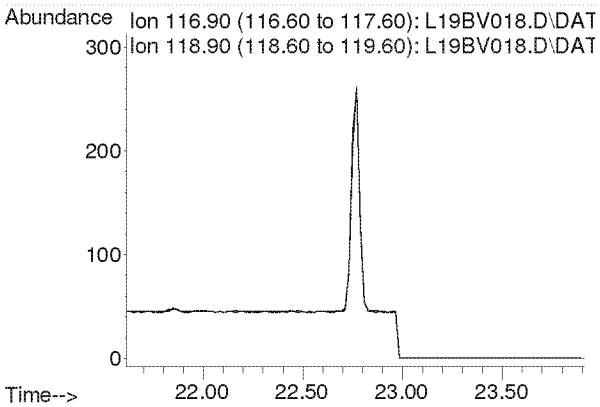


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

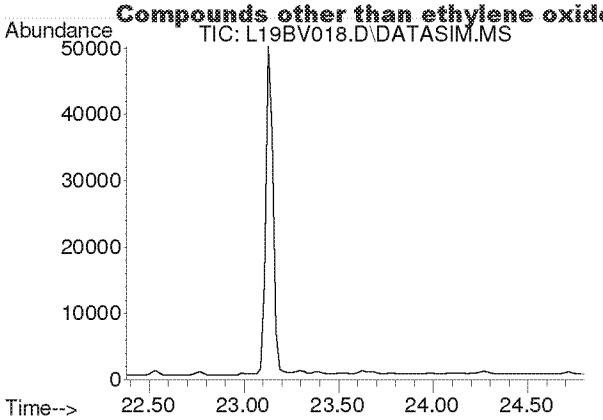
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

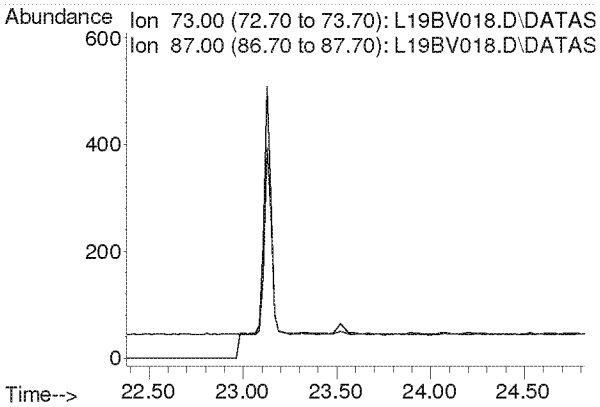


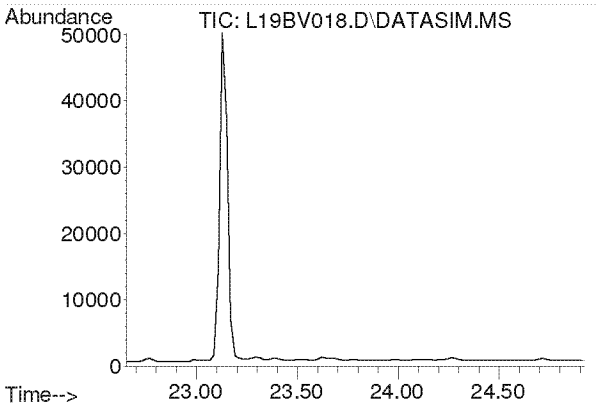
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



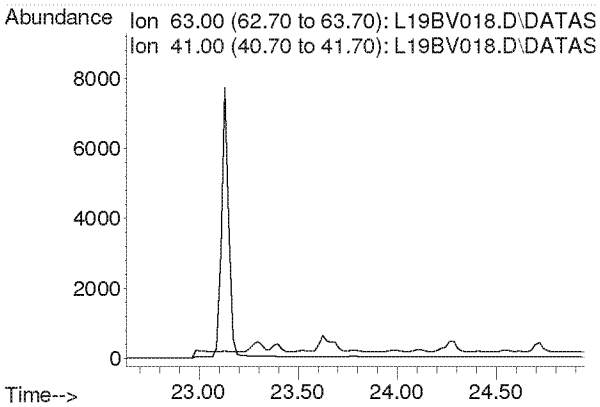


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

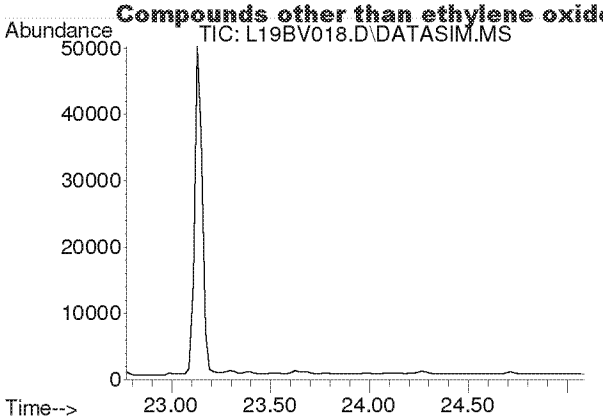
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

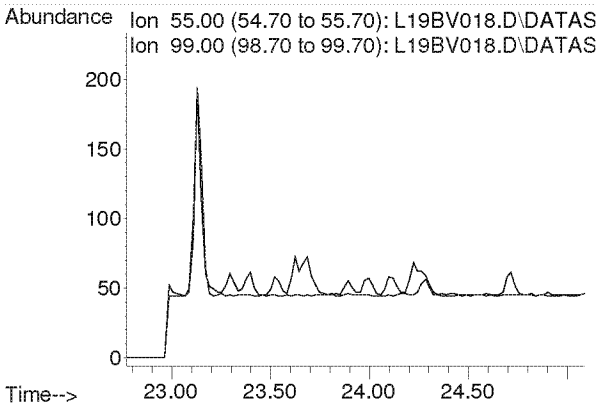


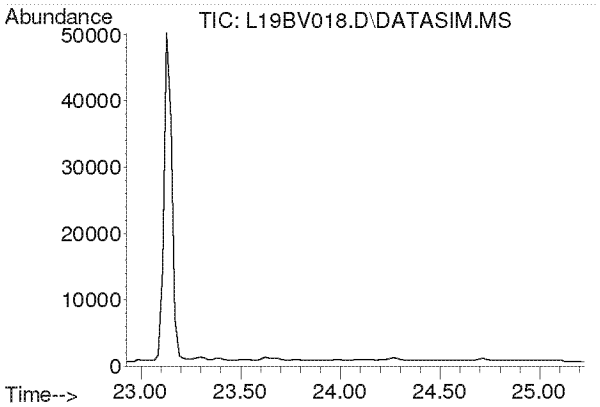
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



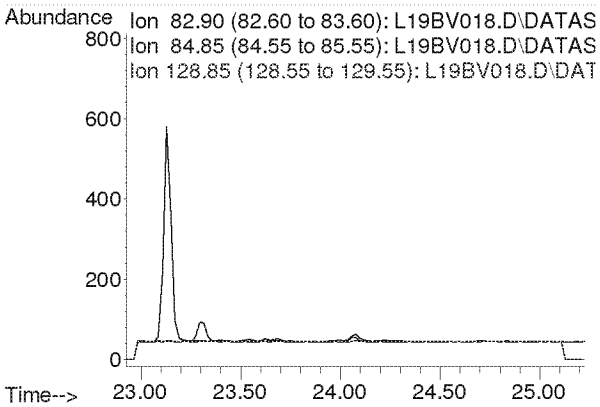


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

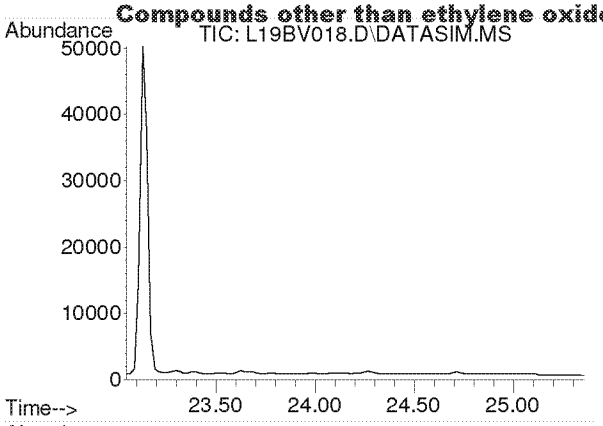
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

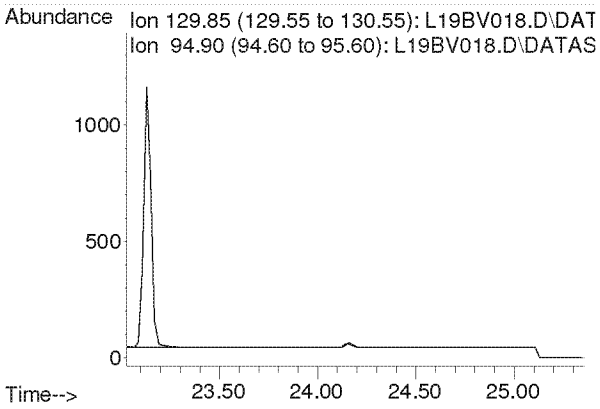


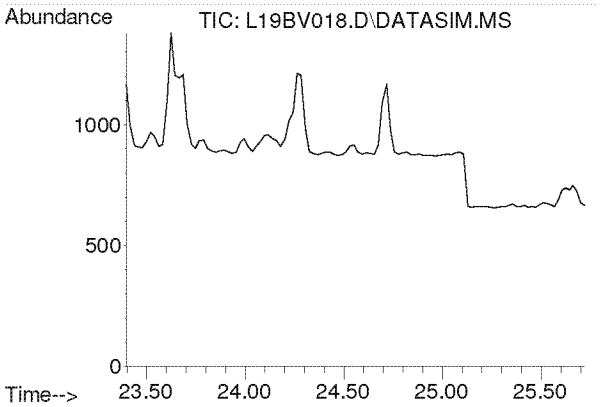
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



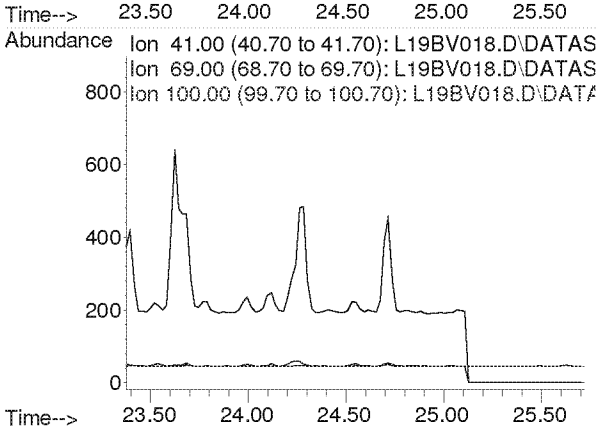


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

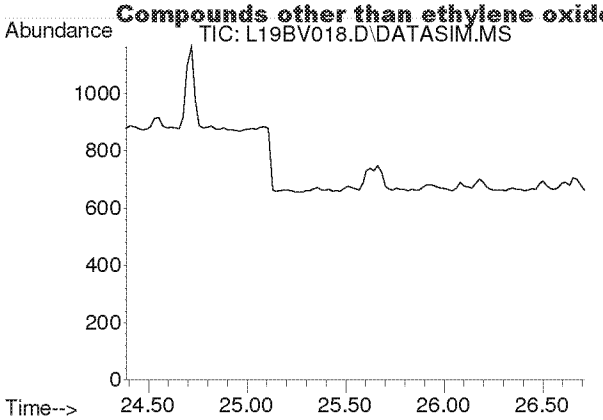
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

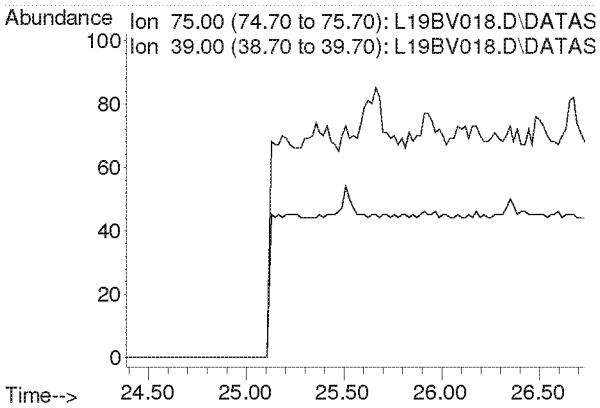


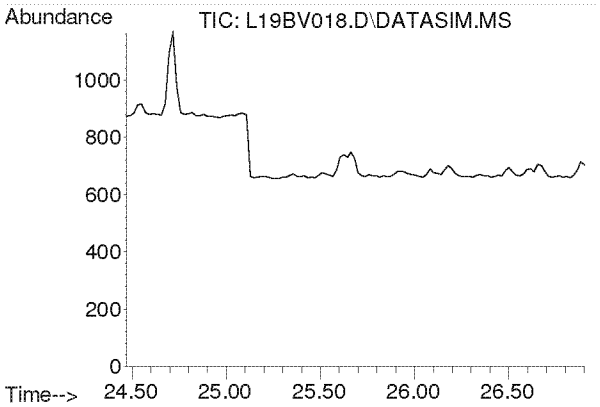
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



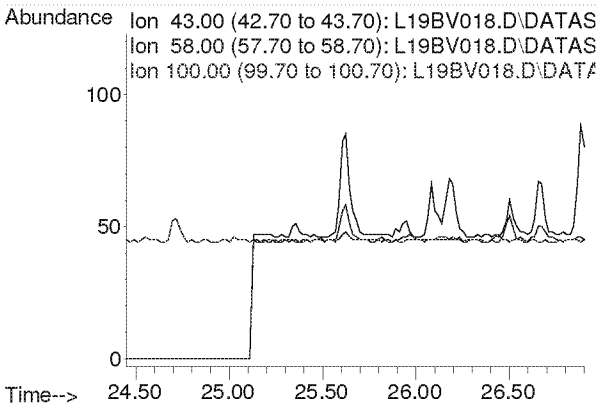


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

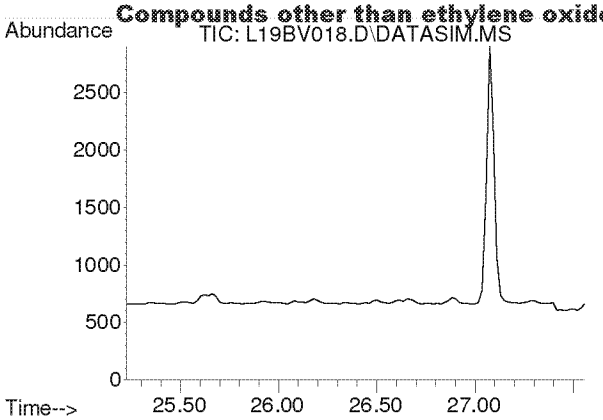
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

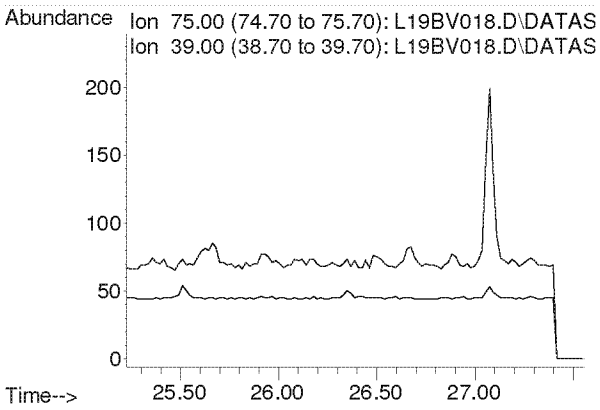


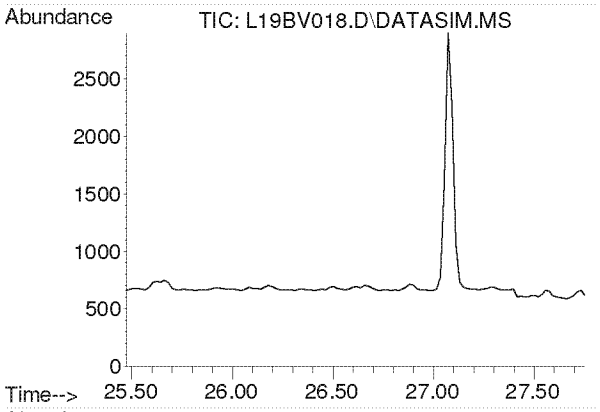
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



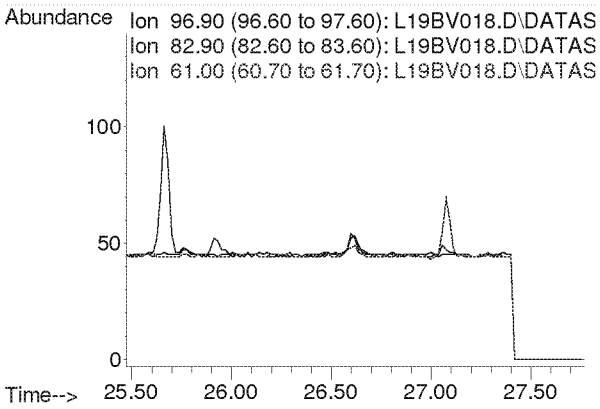


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

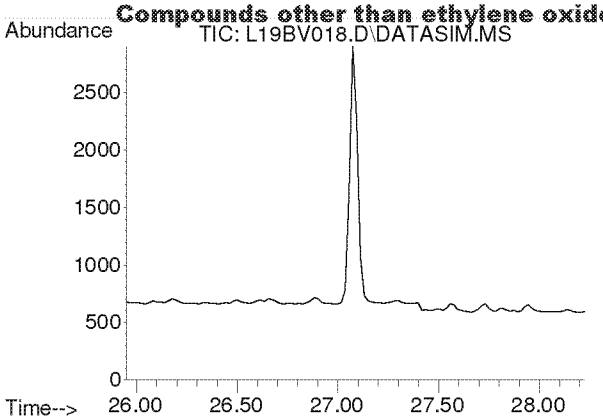
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

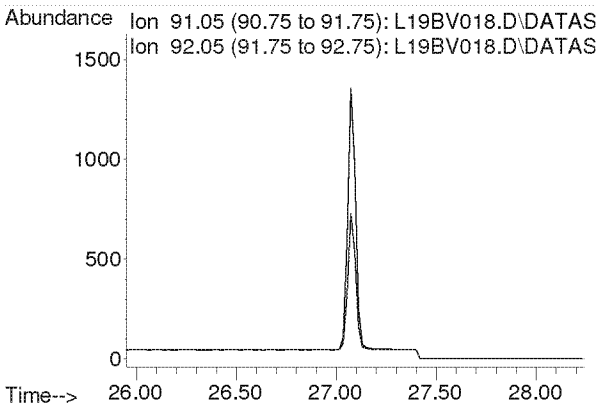


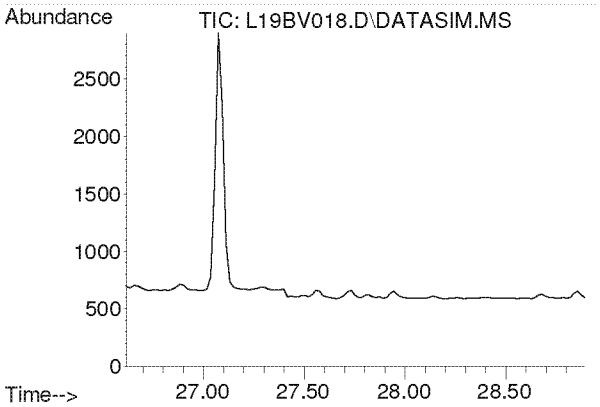
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



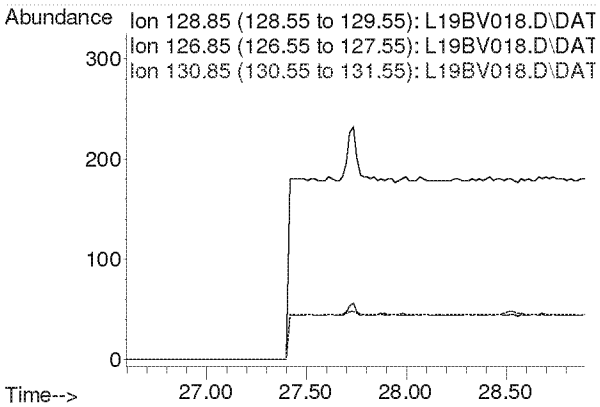


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

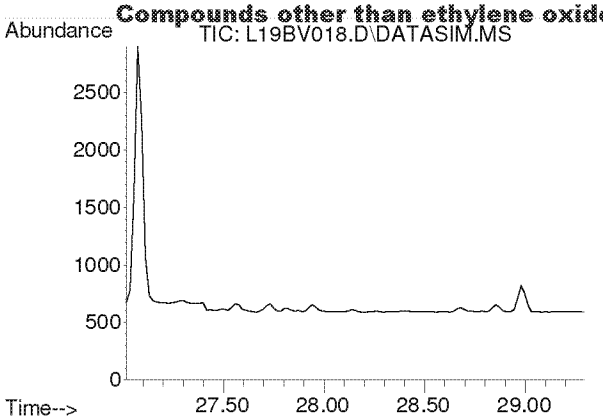
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

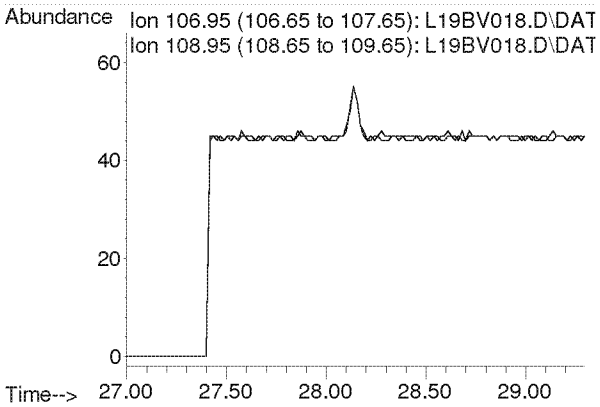


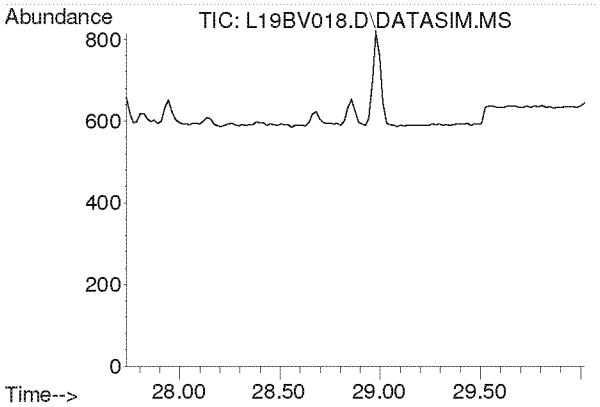
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



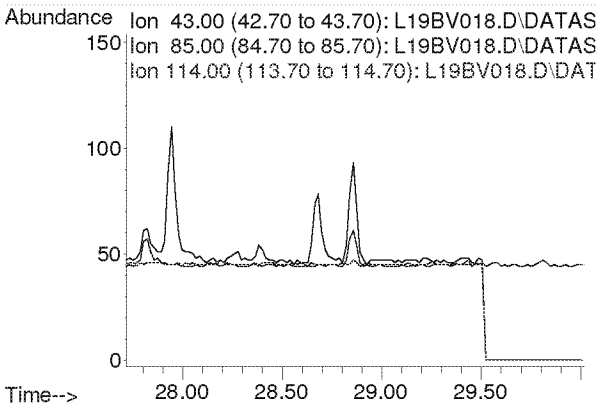


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

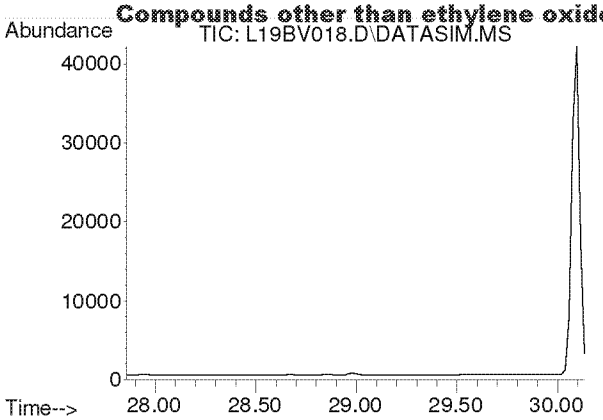
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

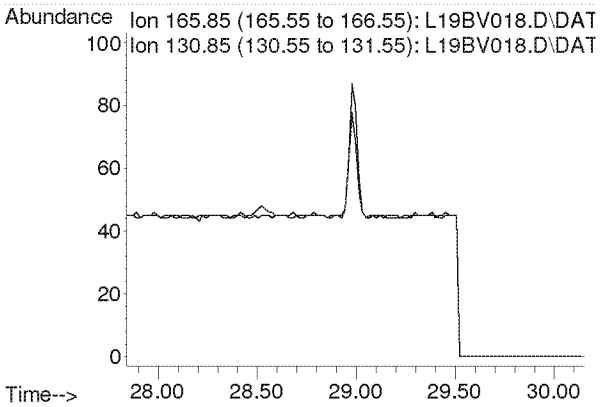


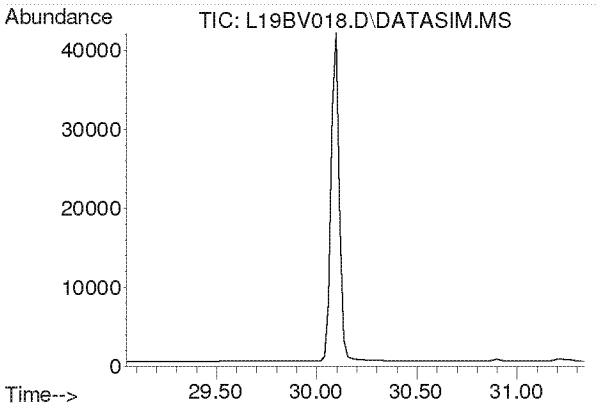
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



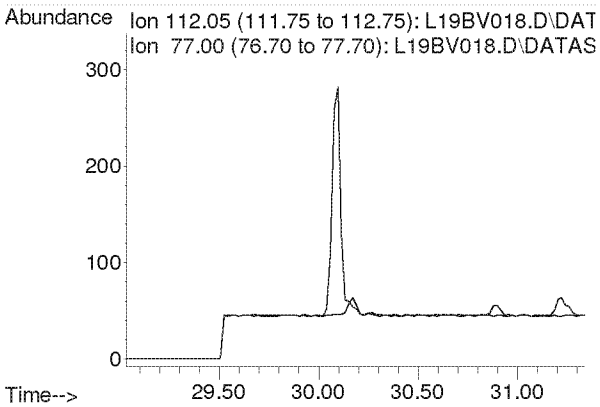


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

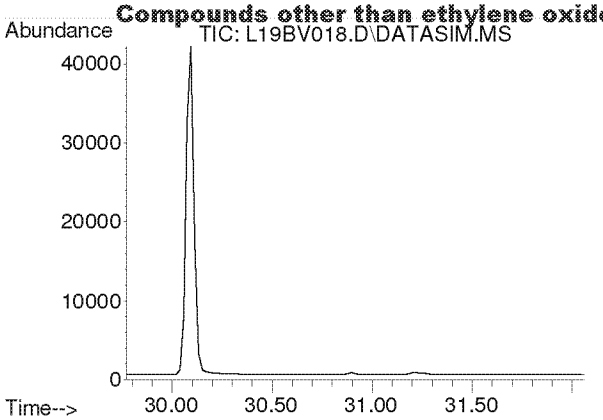
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

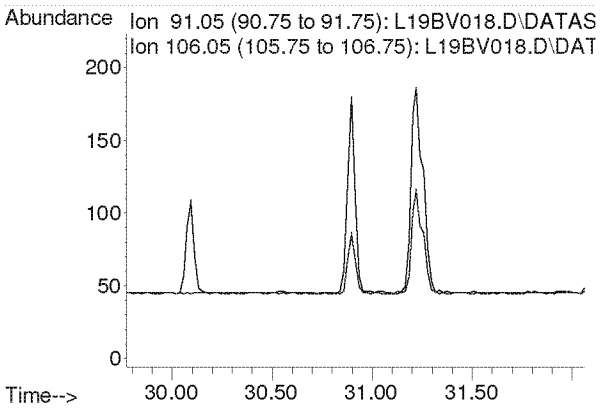


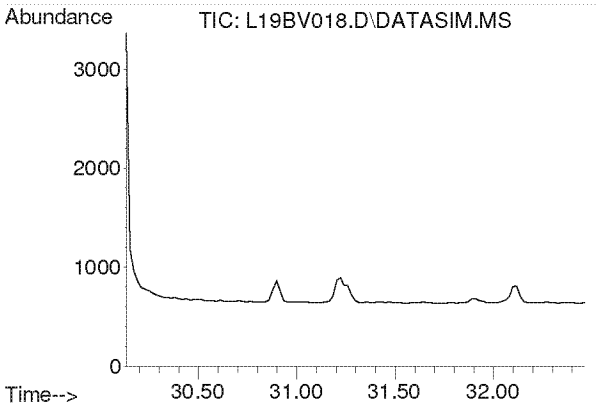
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



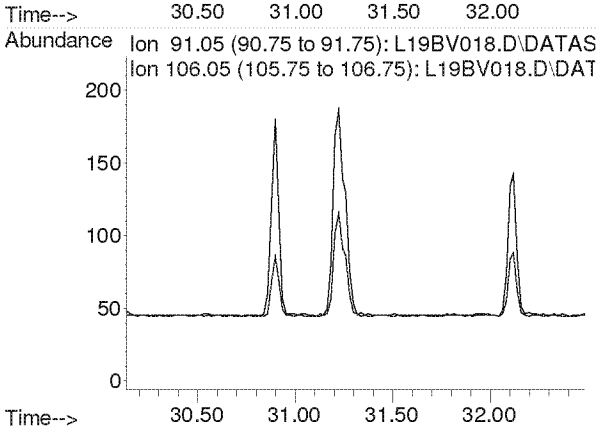


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

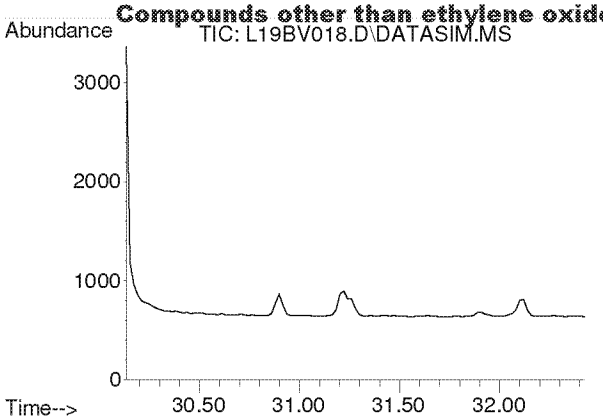
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

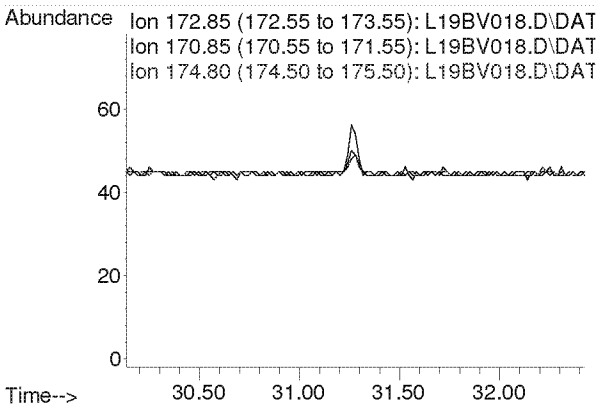


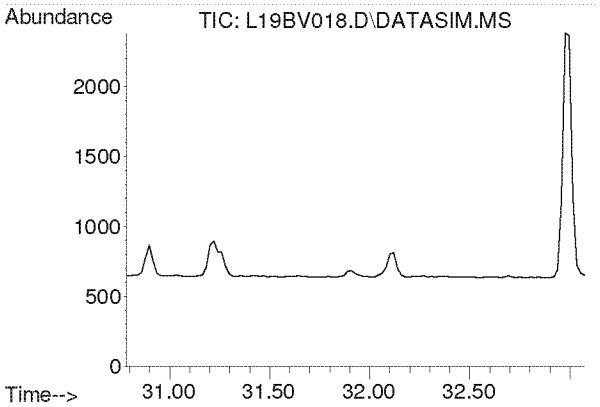
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



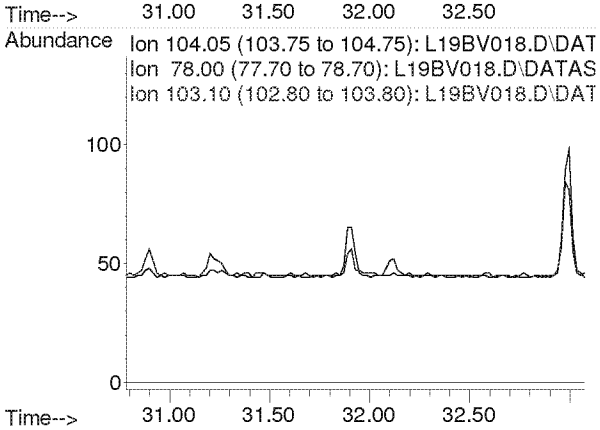


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

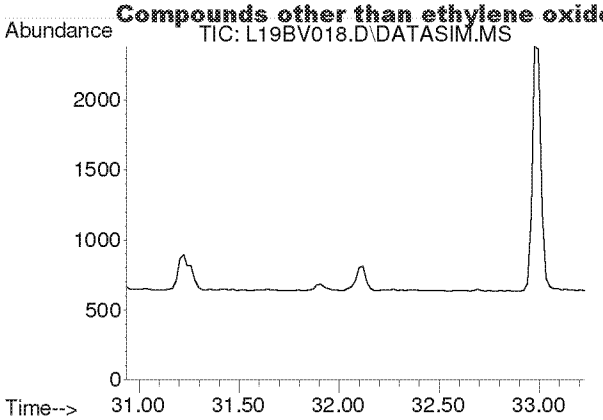
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

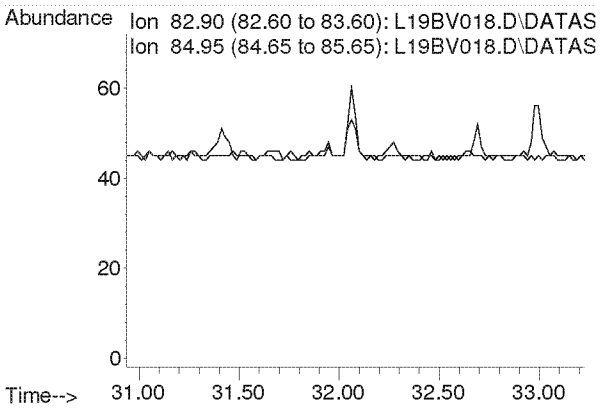


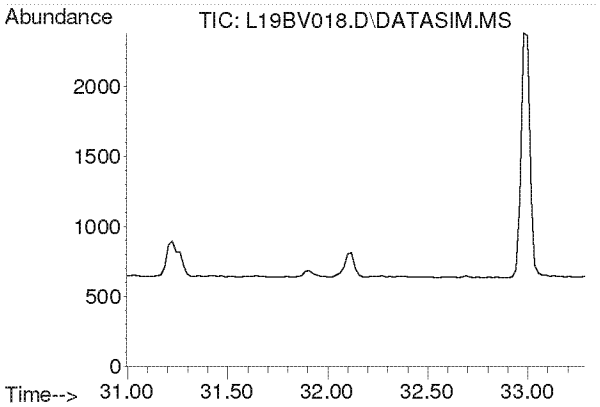
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



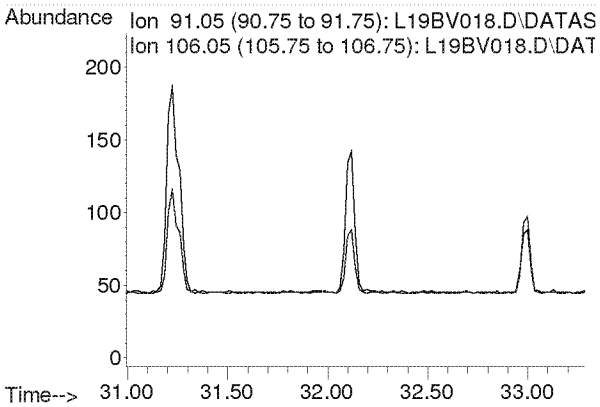


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

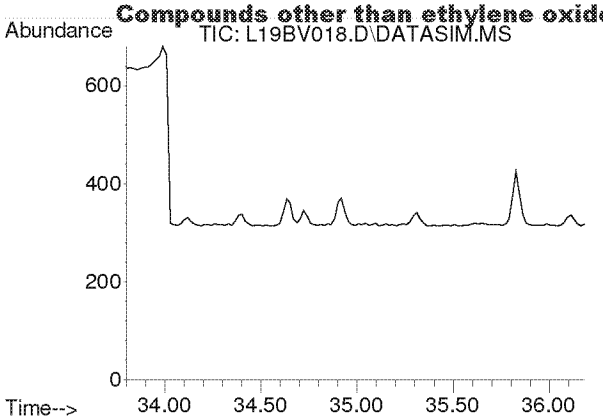
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

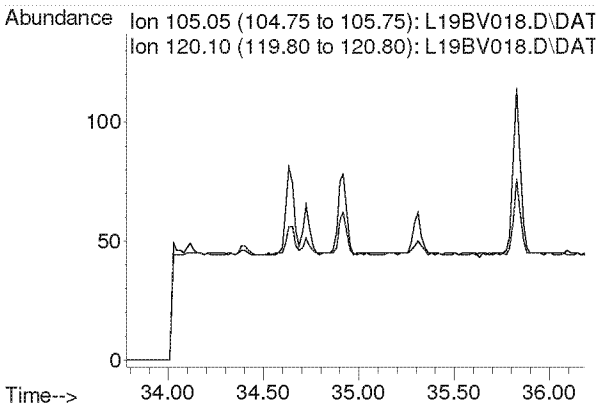


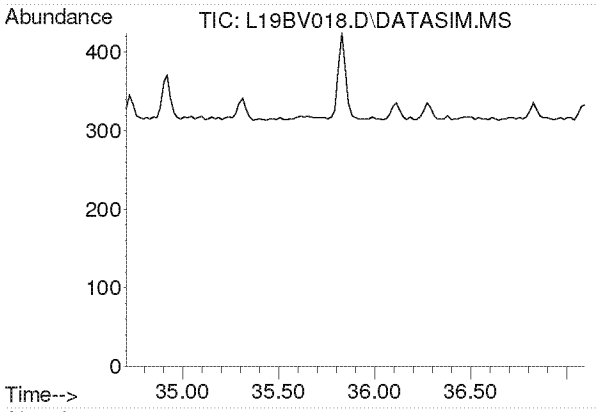
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



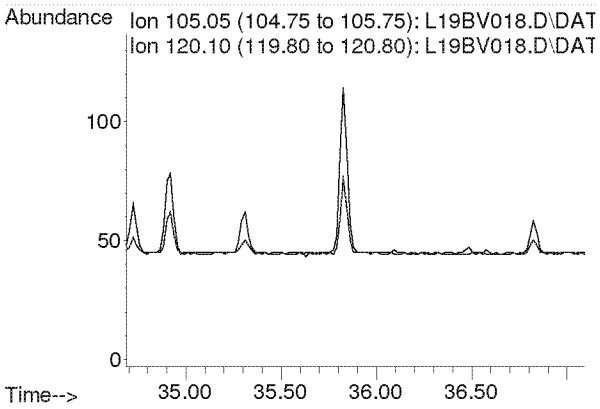


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

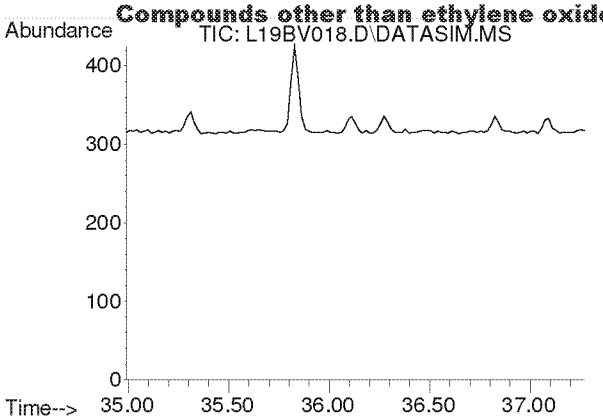
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

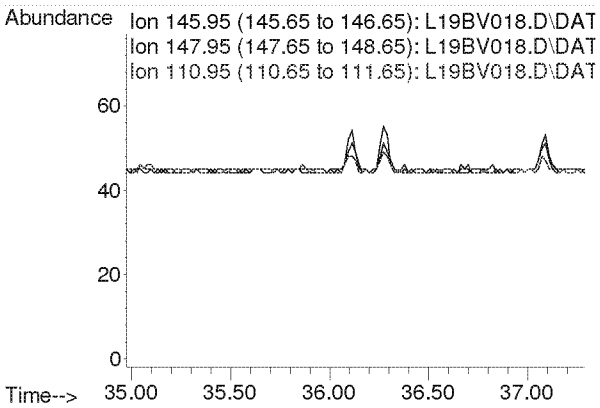


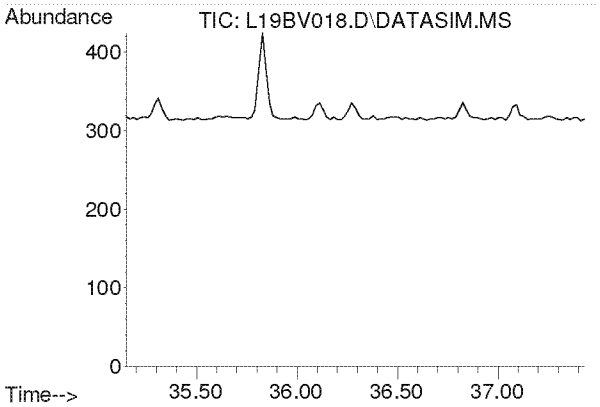
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



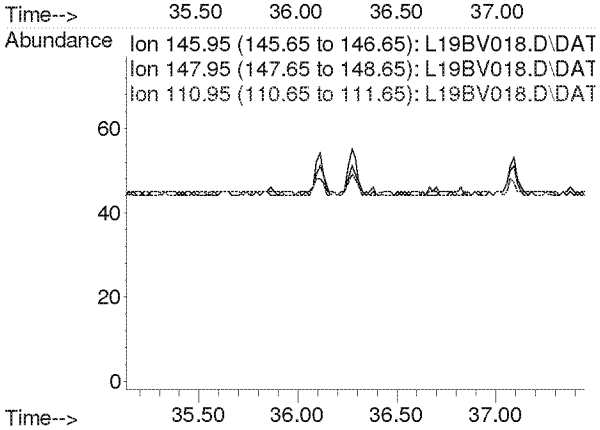


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

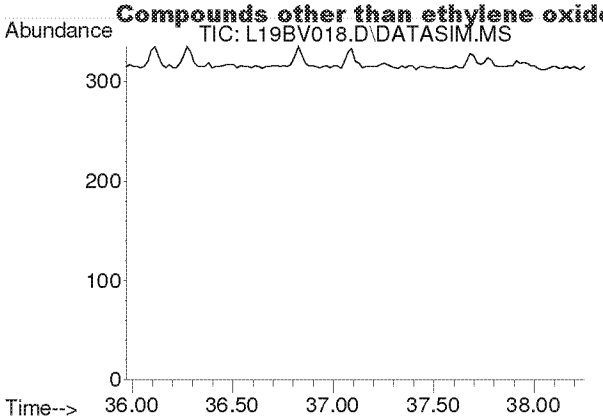
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

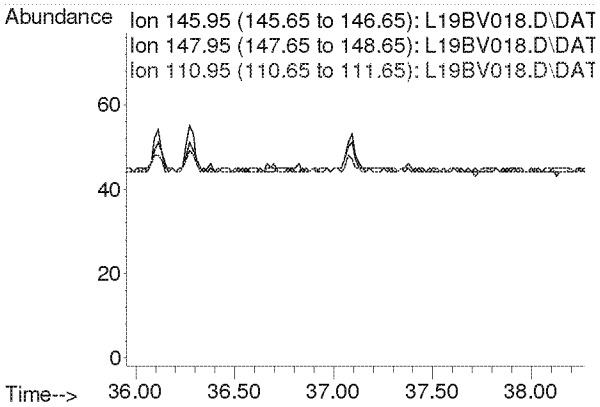


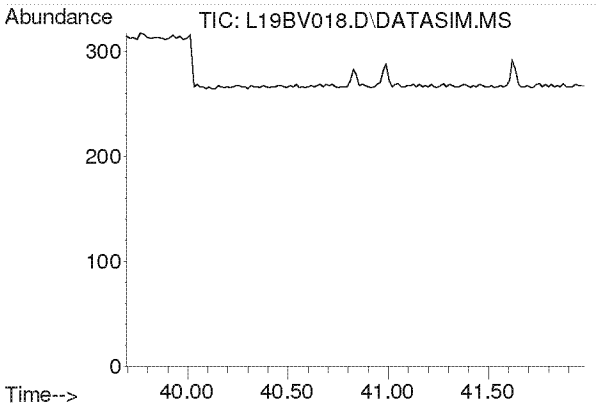
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



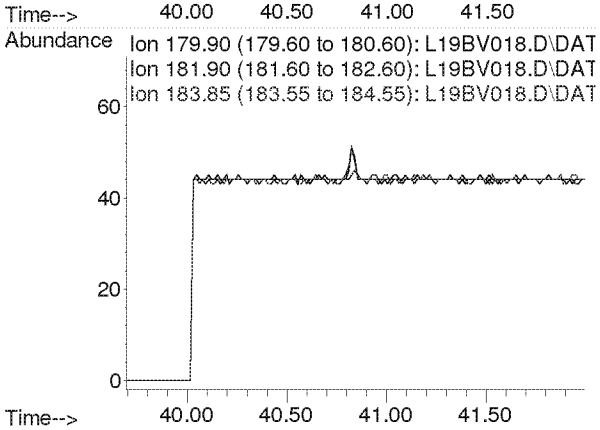


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

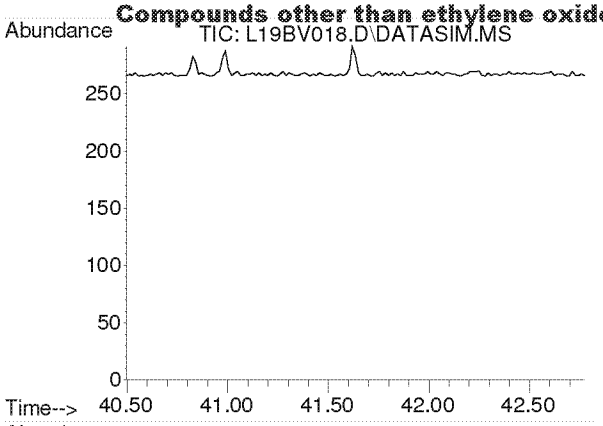
Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

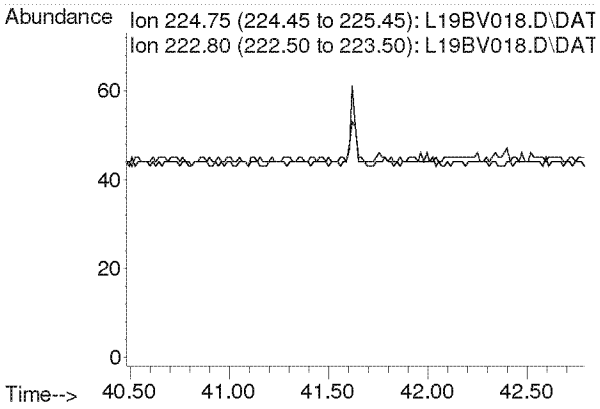


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BV018.D
Acq: 23 Feb 2019 1:43 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\L19BV\
Data File : L19BV019.D
Acq On : 23 Feb 2019 2:45 am (#1); 23-Feb-19, 02:40:31 (#2)
Operator : MAH
Sample : 9022025-09
Misc : WEST NEIGHBORHOOD 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 25 07:26:54 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

EPA only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.968	66	39369	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.149	114	97975	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.094	117	66815	4.7400 ppbv	-0.02

System Monitoring Compounds

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

ED_002475_00000282-00414

Compounds other than ethylene oxide were not quantitated (Reviewed)

Data Path : C:\msdchem\1\DATA\L19BV\
Data File : L19BV019.D
Acq On : 23 Feb 2019 2:45 am (#1); 23-Feb-19, 02:40:31 (#2)
Operator : MAH
Sample : 9022025-09
Misc : WEST NEIGHBORHOOD 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 25 07:26:54 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

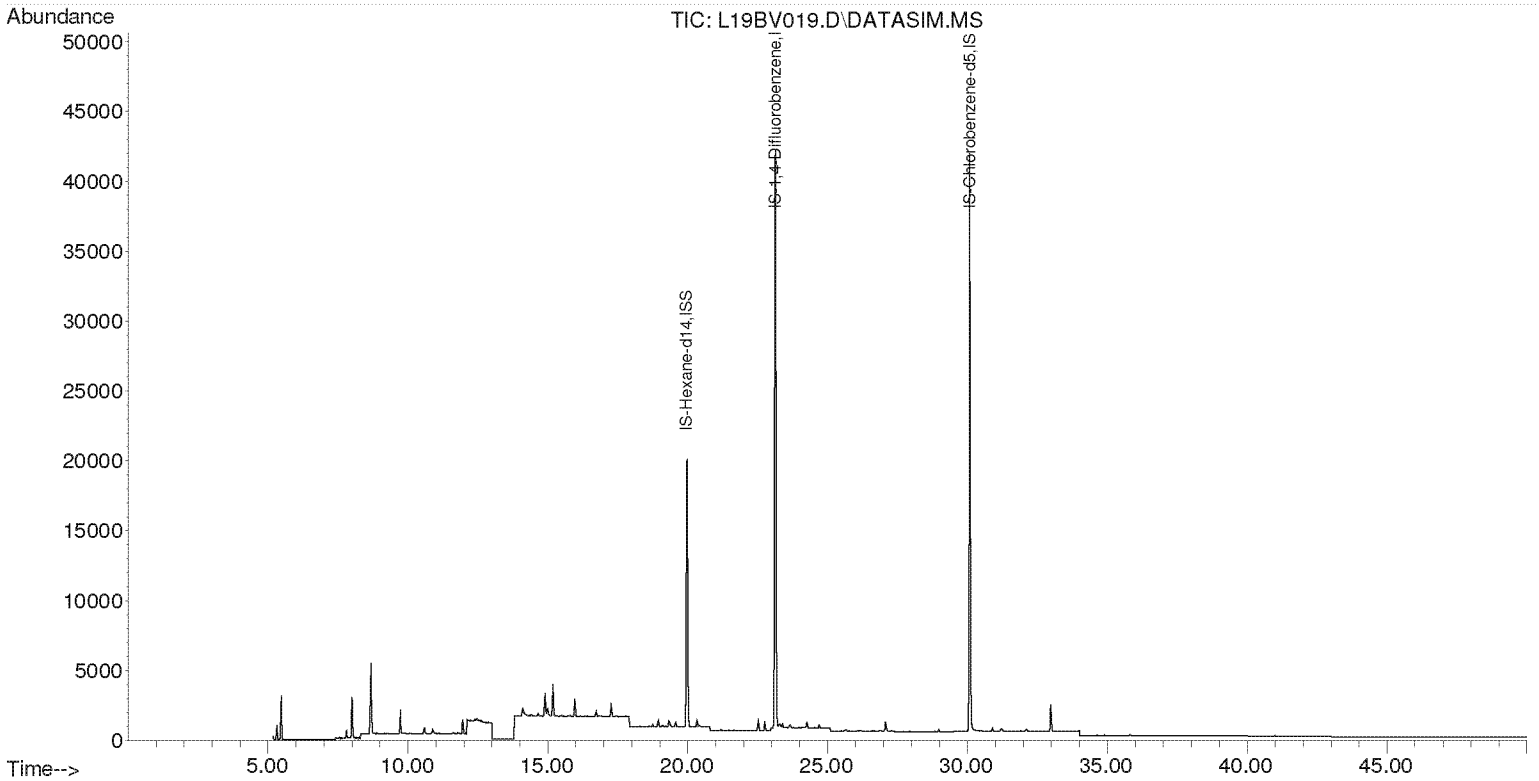
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

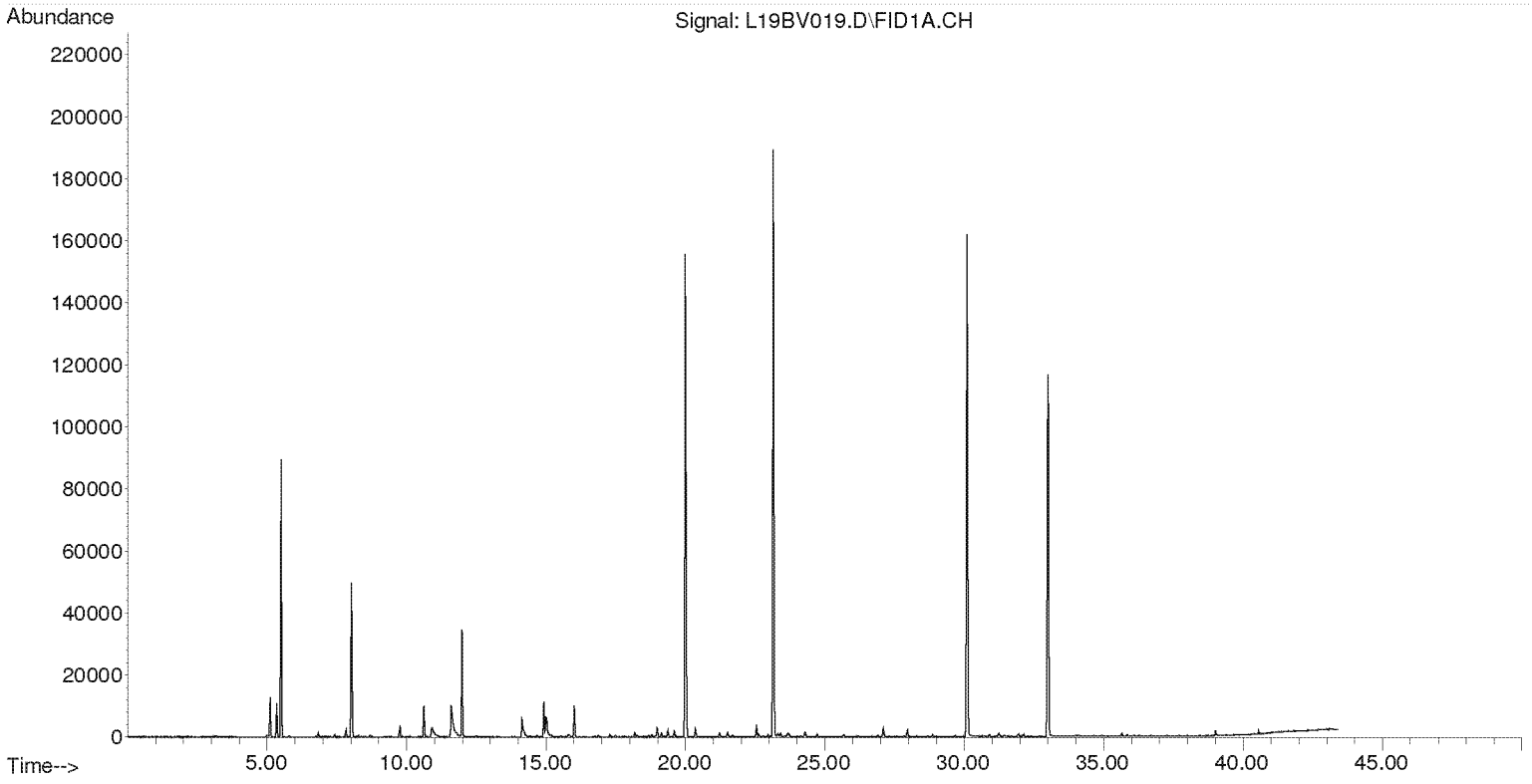
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

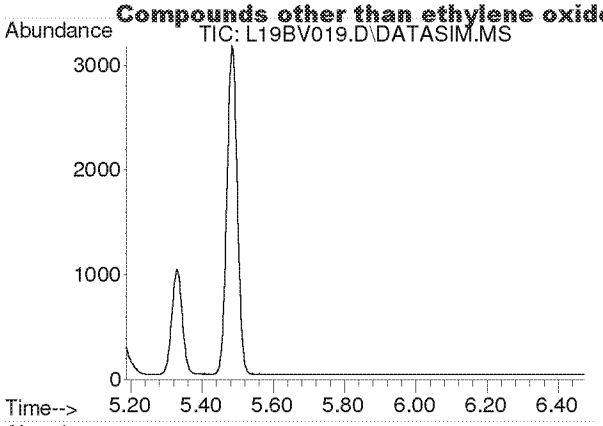
Data Path : Y:\MASS SPEC 1 DATA\L19BV\
Data File : L19BV019.D
Acq On : 23 Feb 2019 2:45 am (#1); 23 Feb 2019 2:40 am (#2)
Operator : MAH
Sample : 9022025-09
Misc : WEST NEIGHBORHOOD 2/15/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 25 06:48:06 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





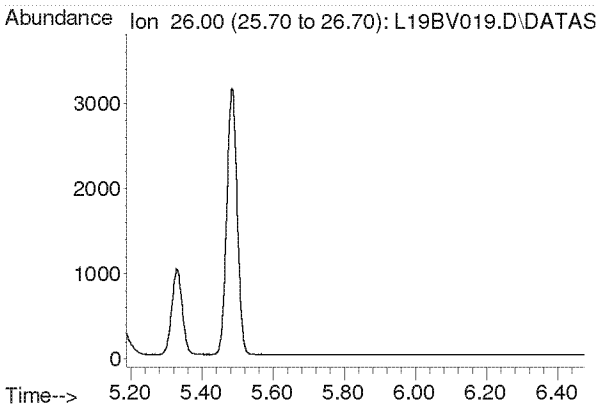
Compounds other than ethylene oxide were not quantitated.

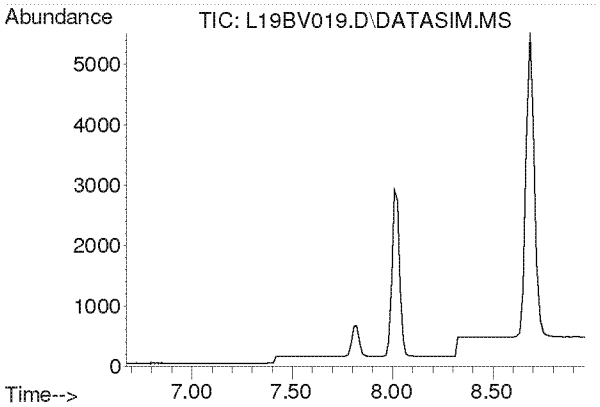


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 26



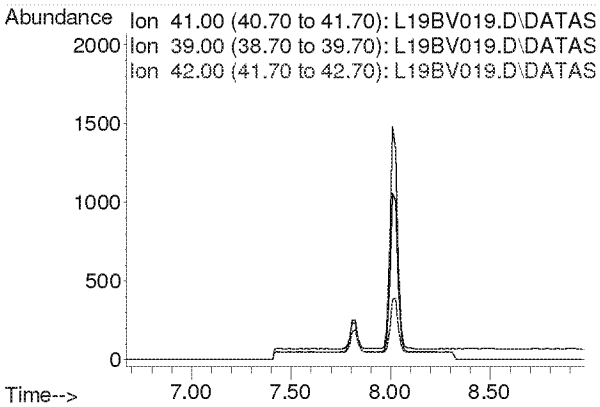


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

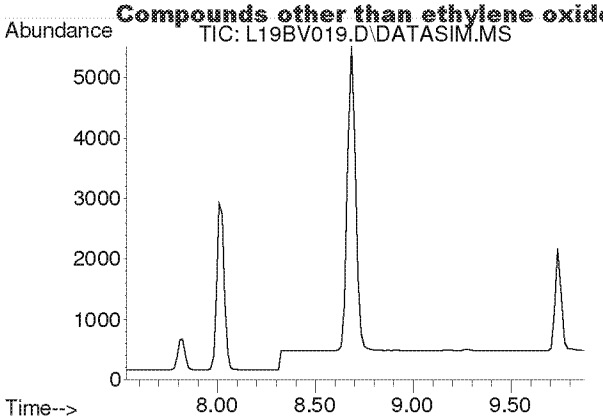
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

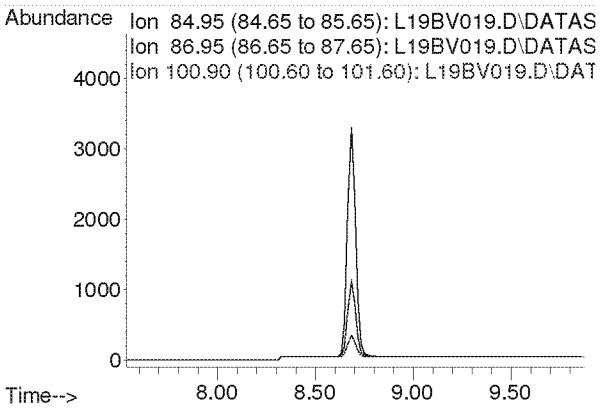


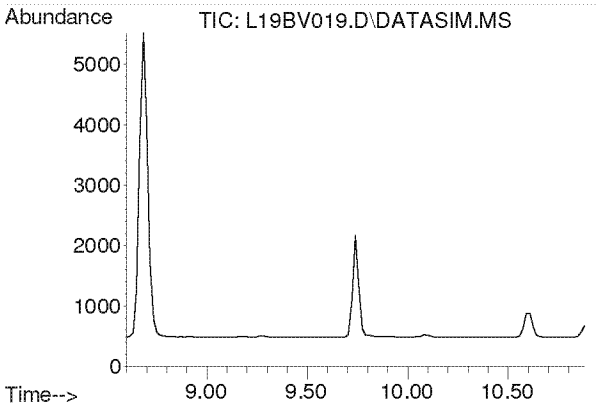
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



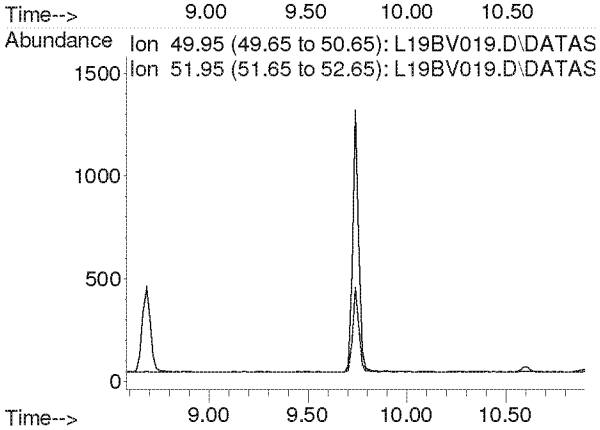


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

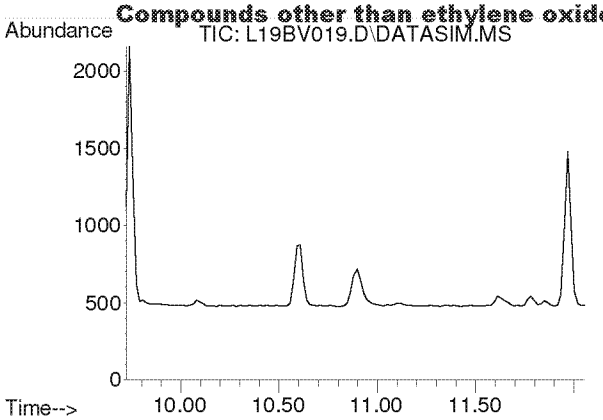
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

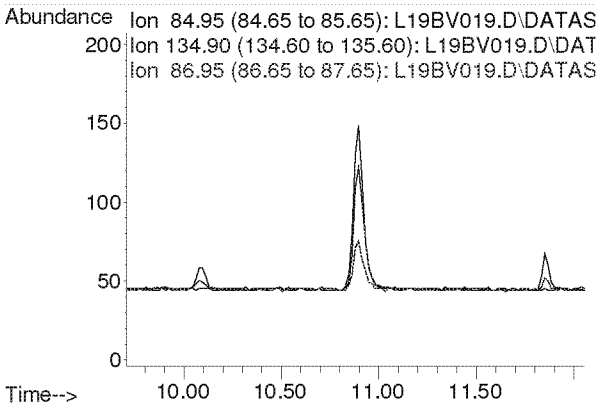


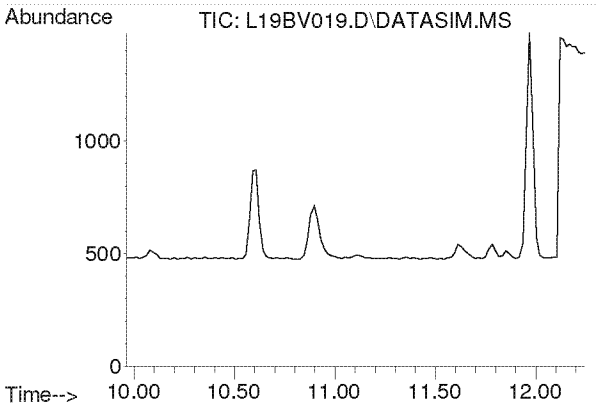
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



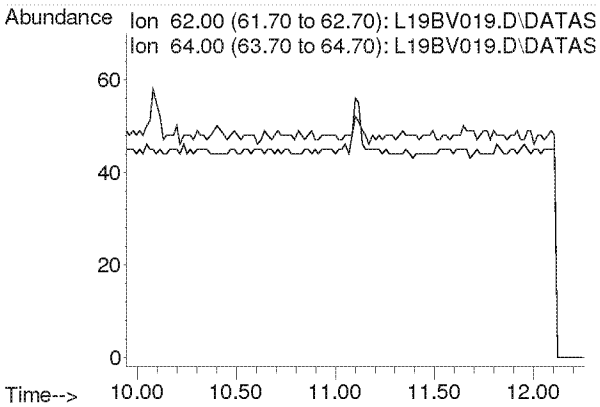


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

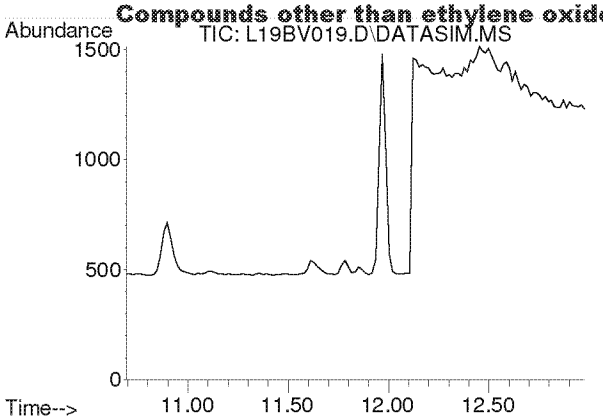
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

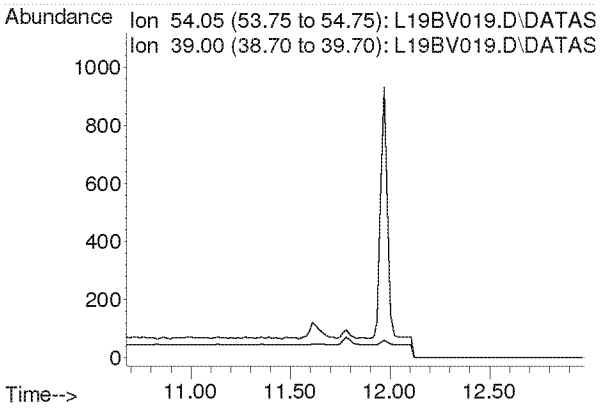


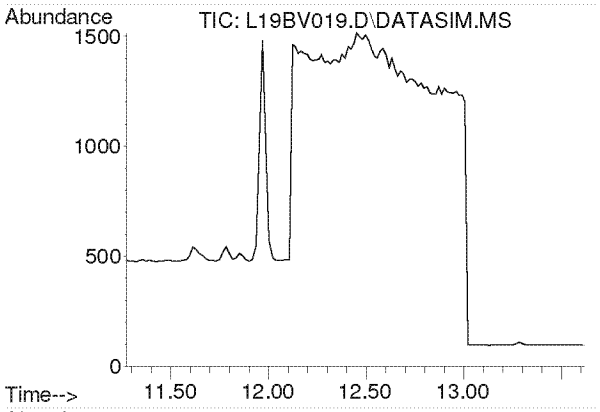
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



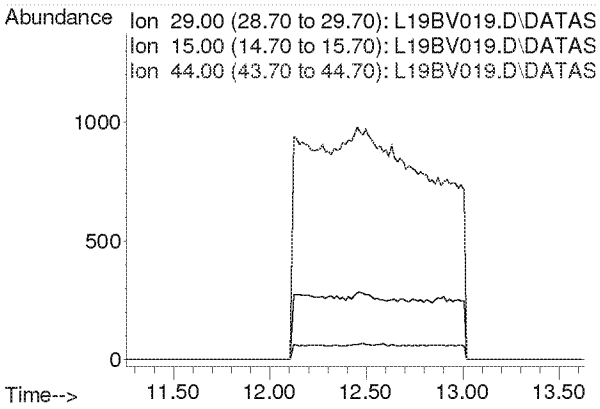


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

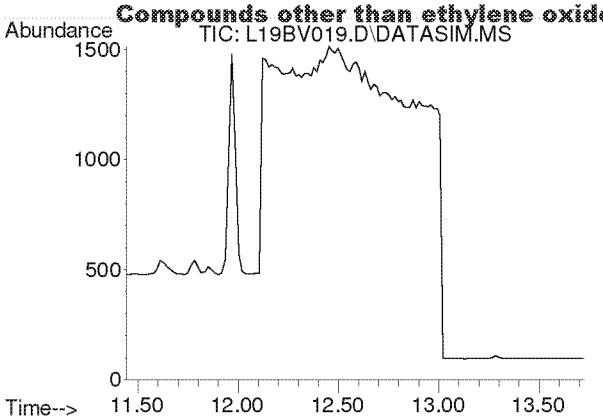
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

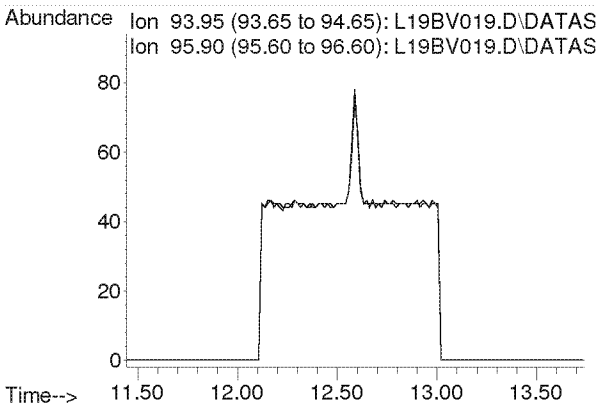


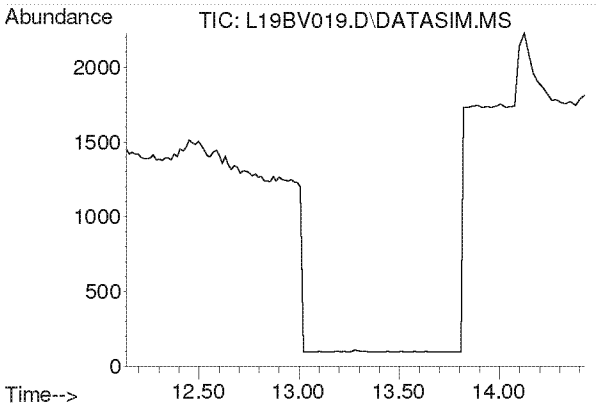
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



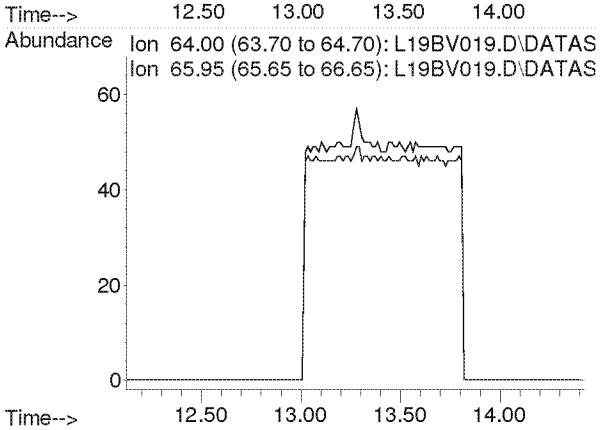


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

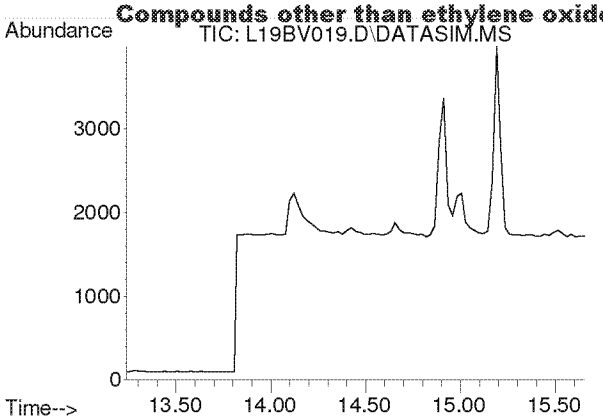
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

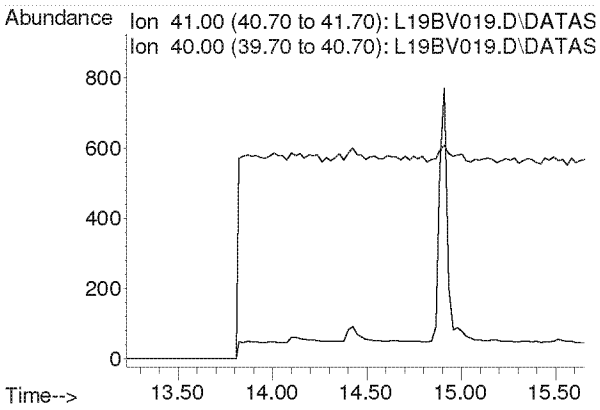


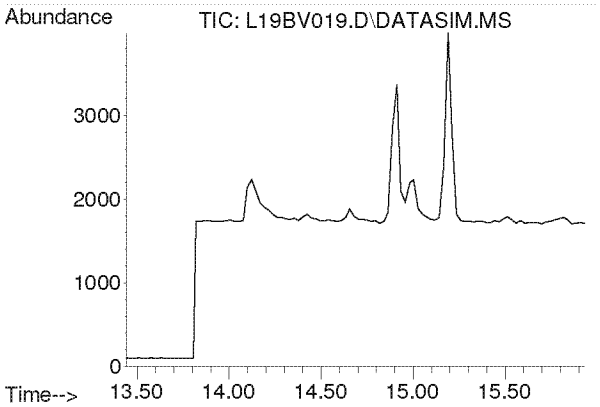
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



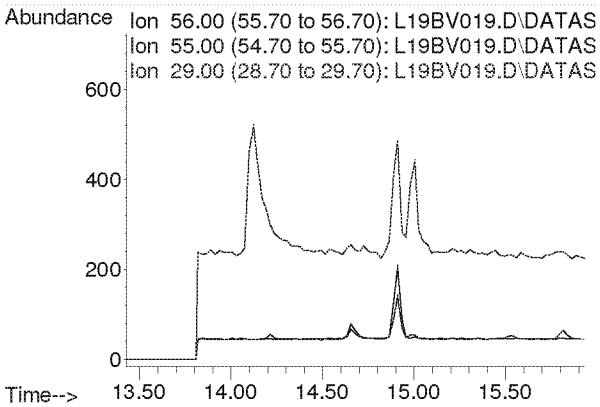


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

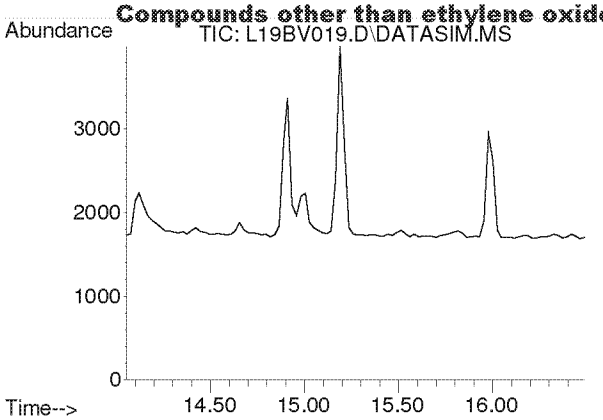
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

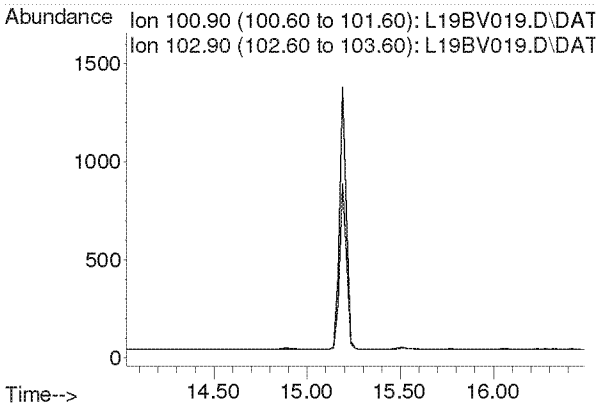


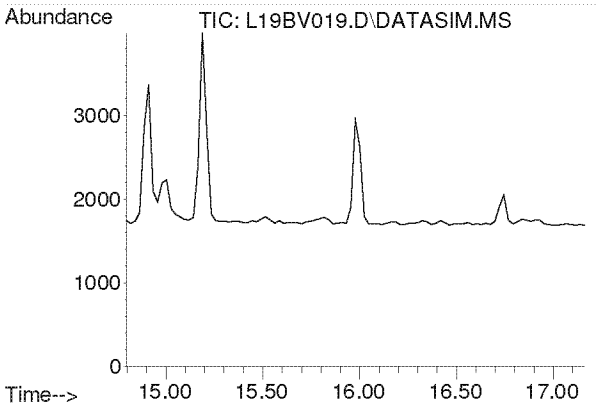
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



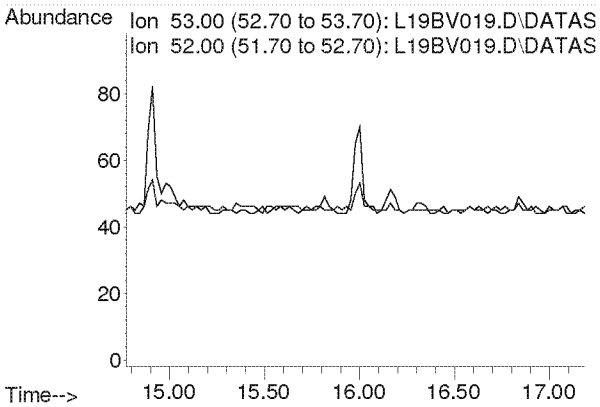


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

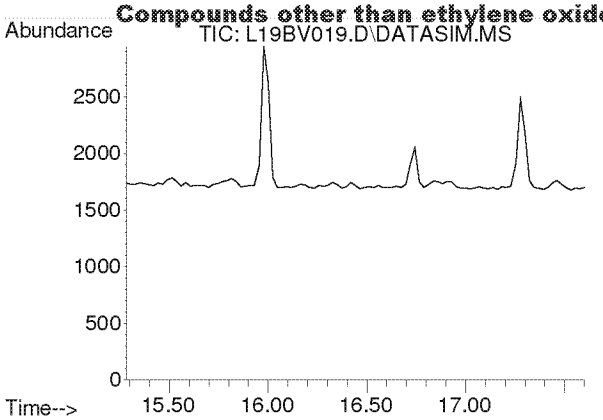
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

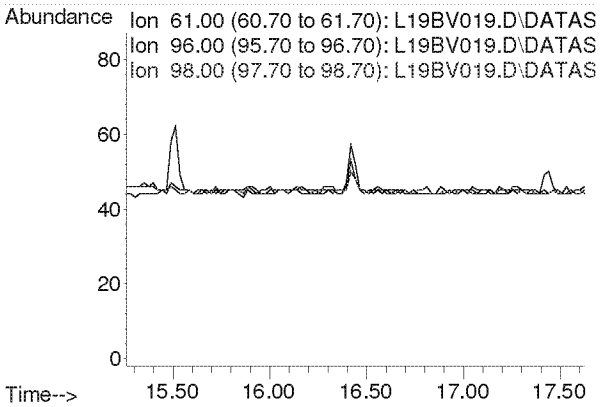


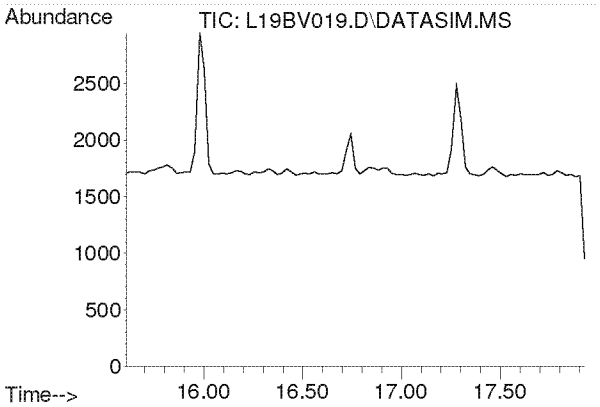
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



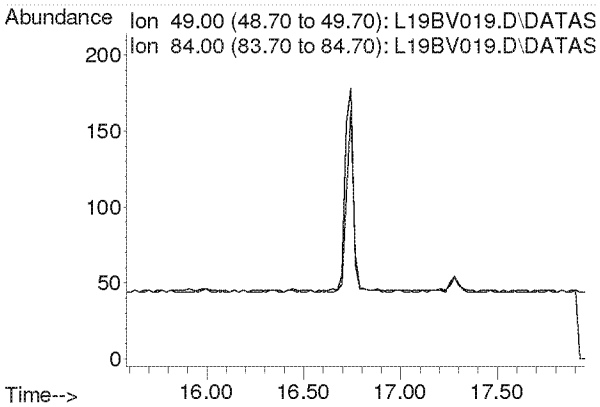


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

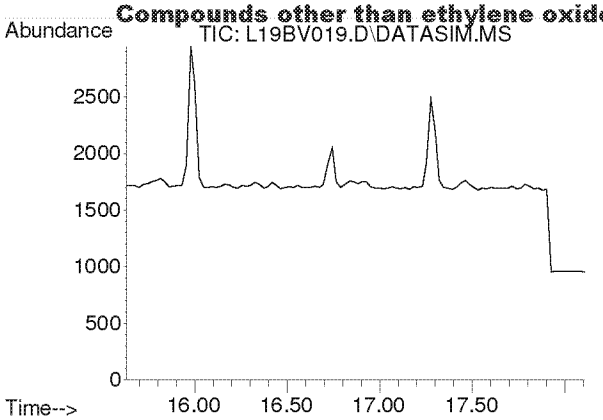
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

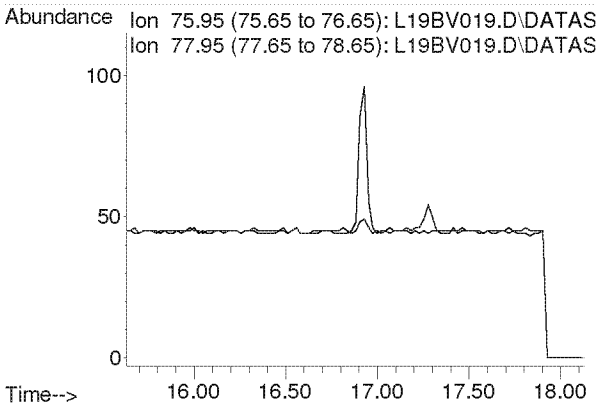


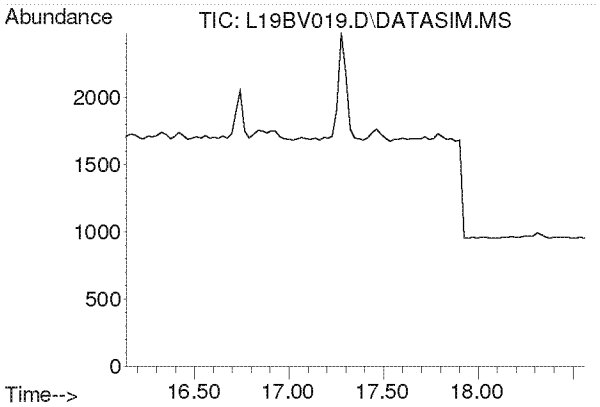
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



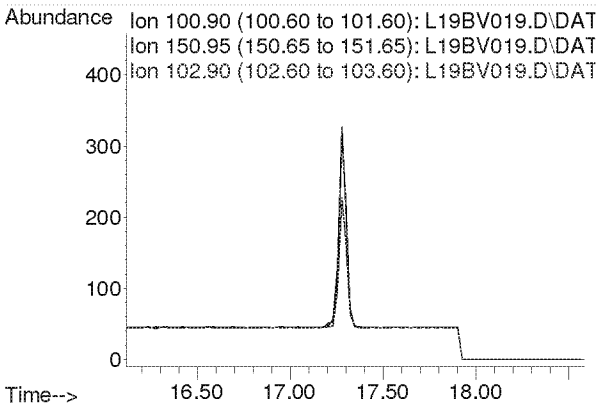


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

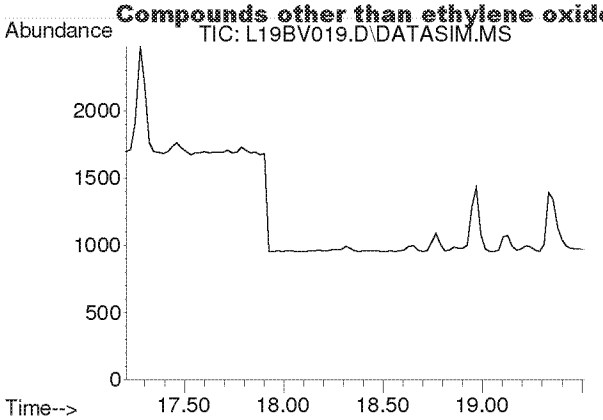
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

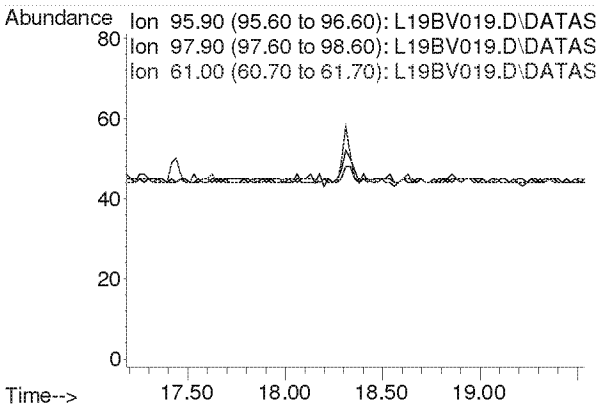


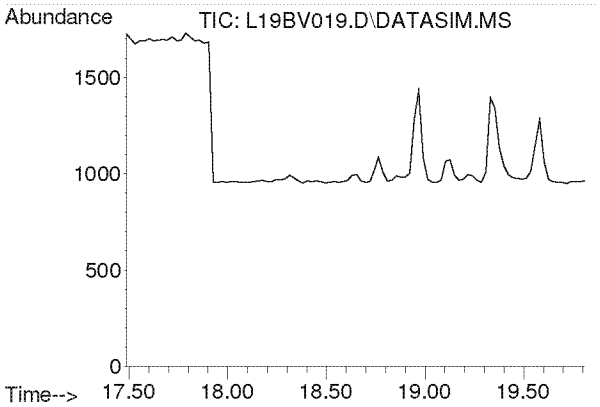
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



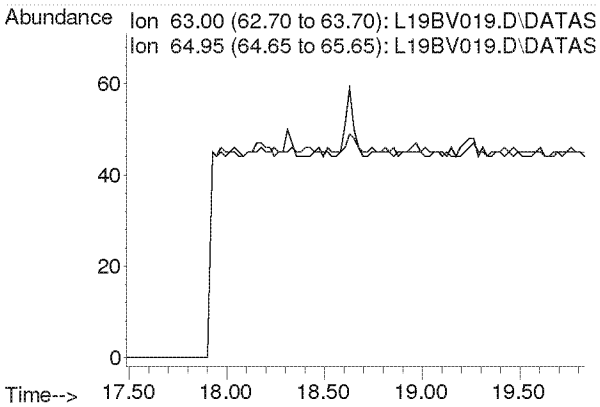


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

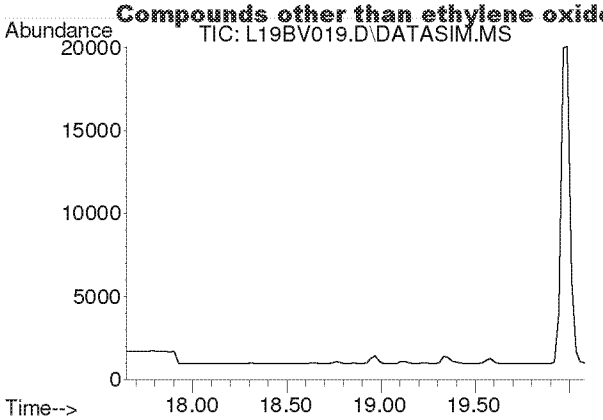
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

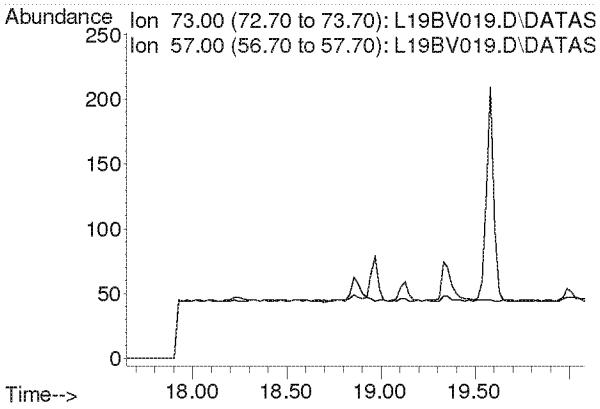


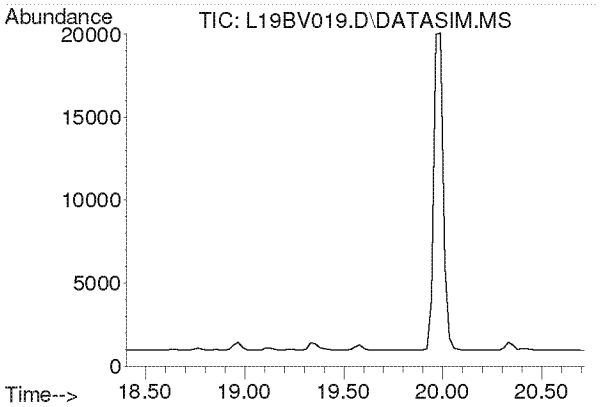
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



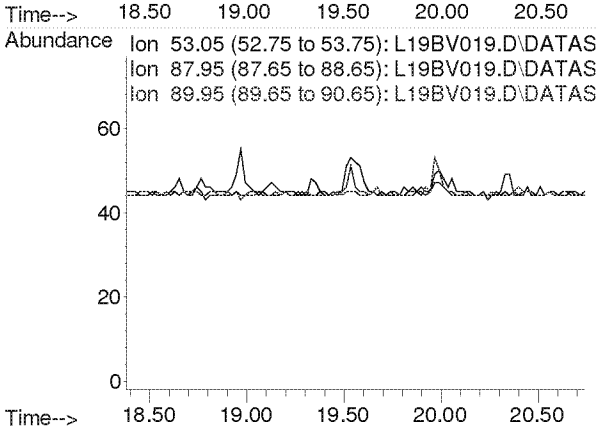


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

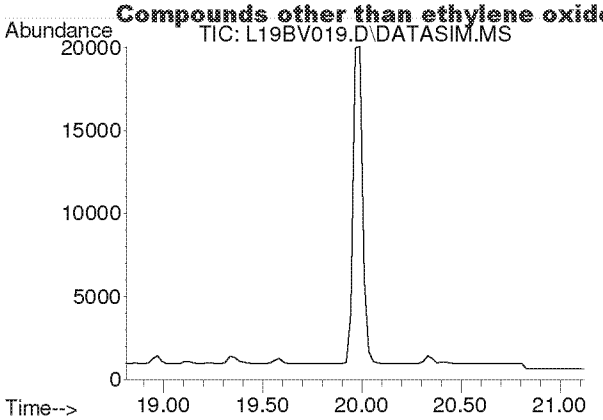
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

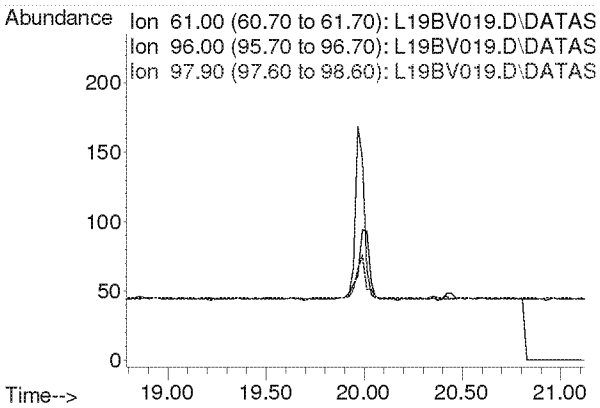


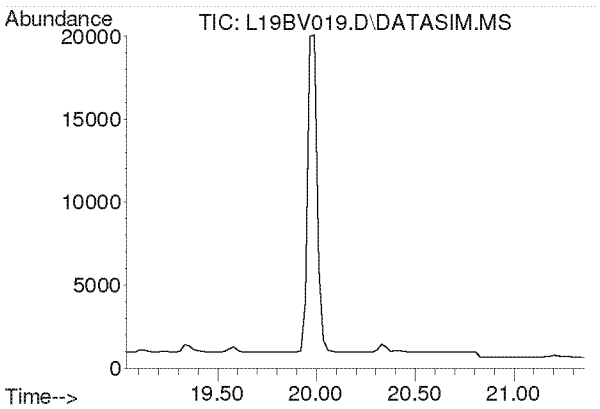
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



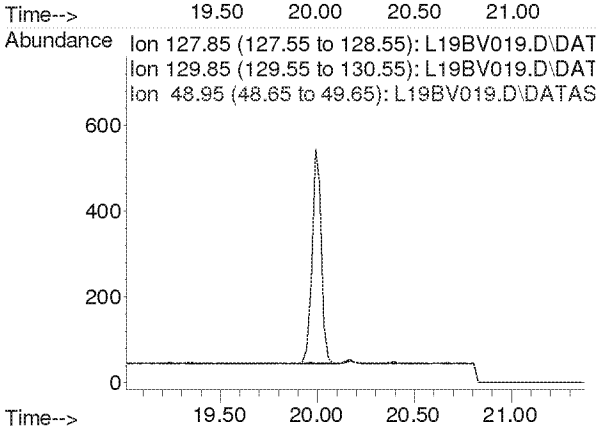


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

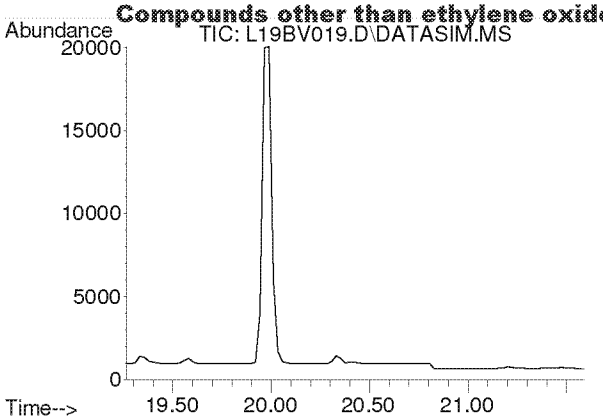
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

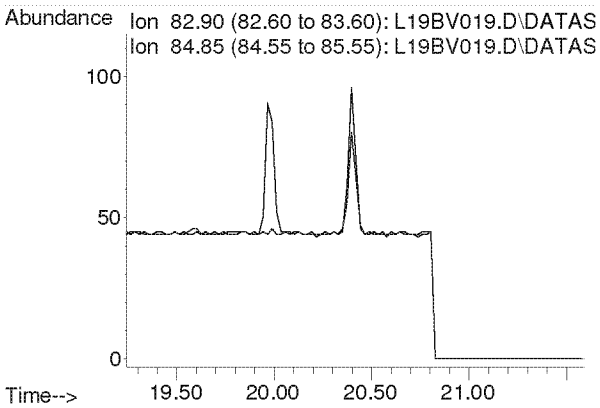


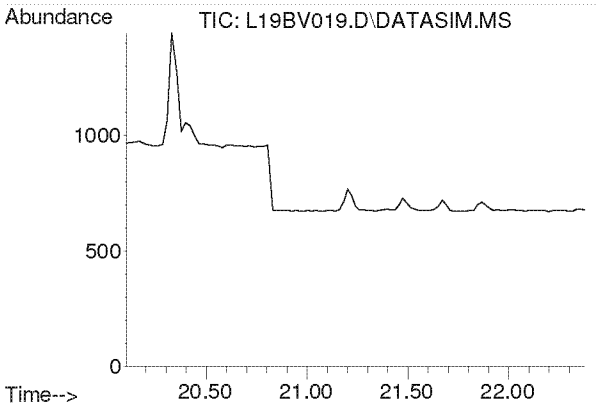
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



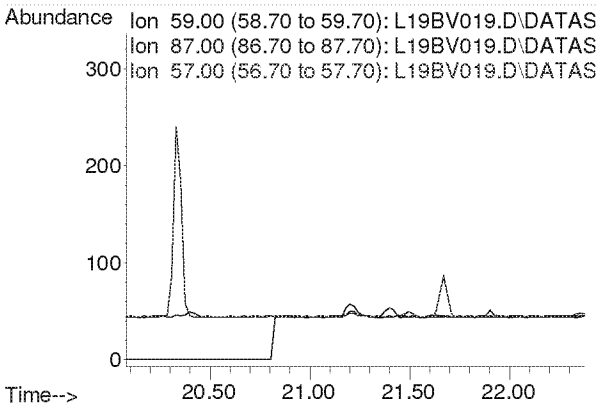


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

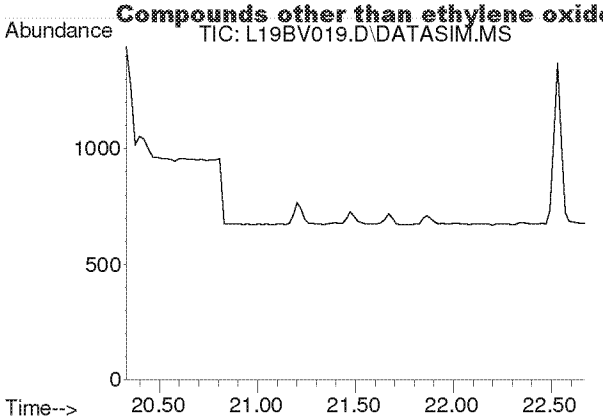
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

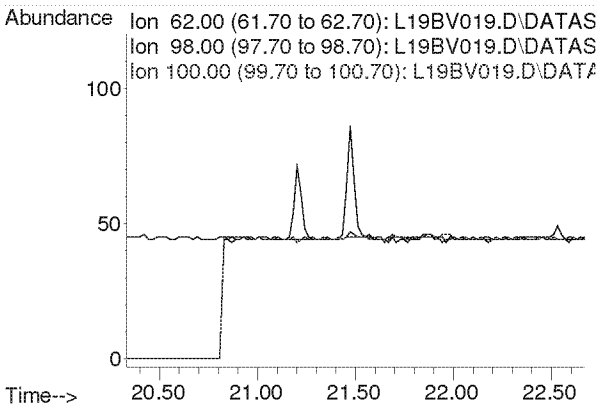


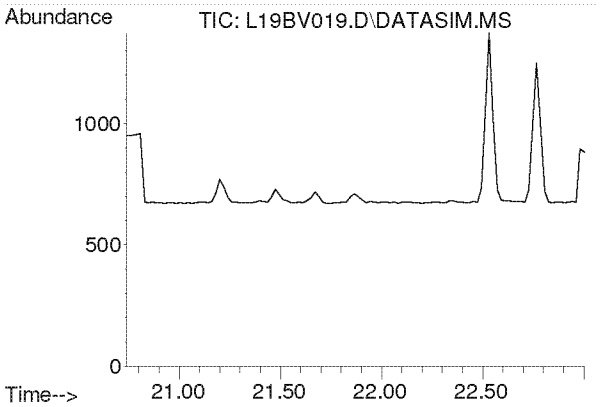
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



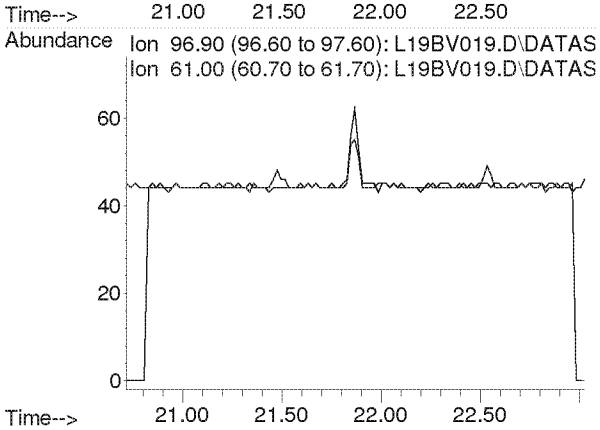


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

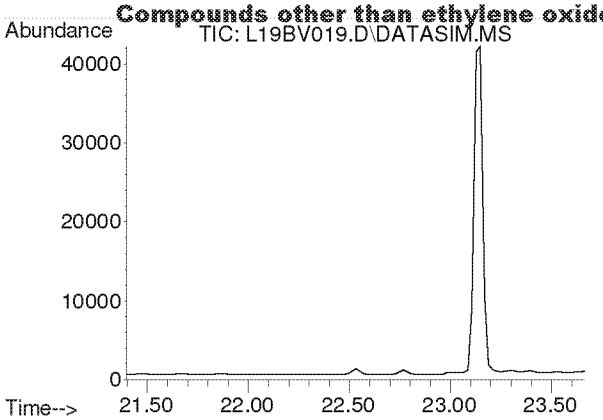
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

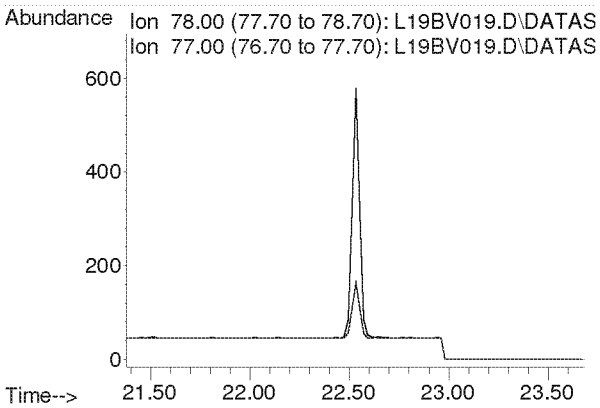


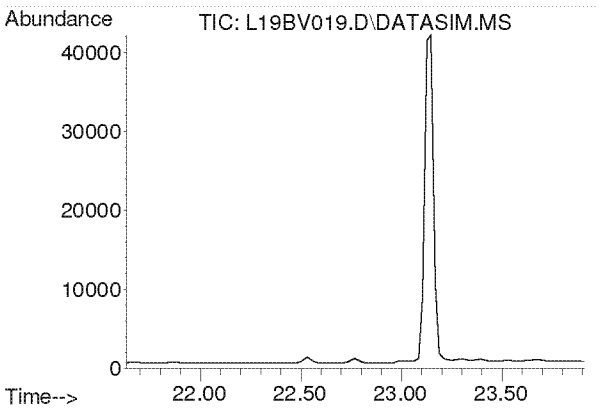
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



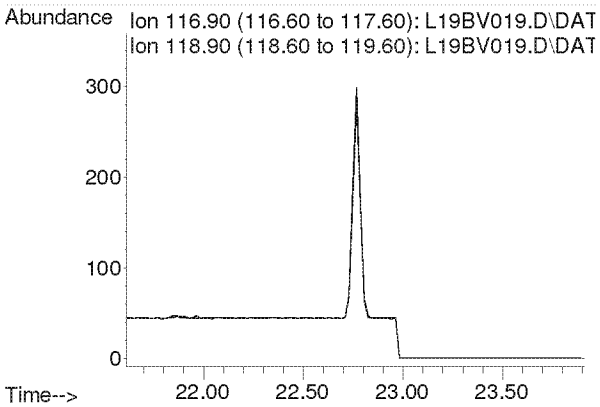


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

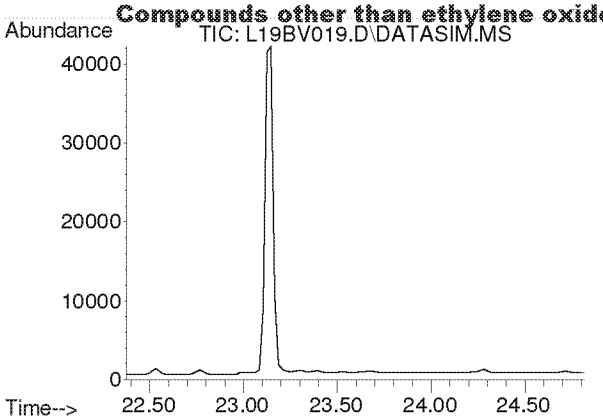
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

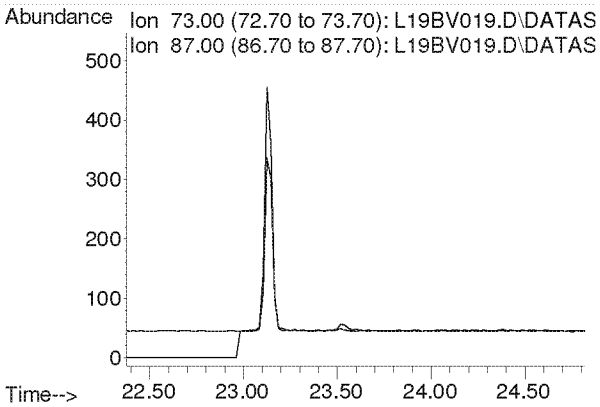


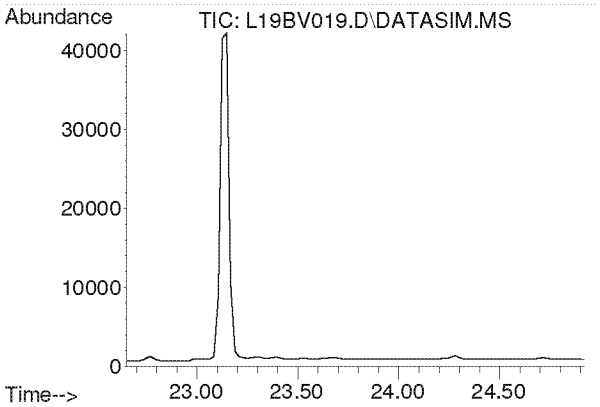
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



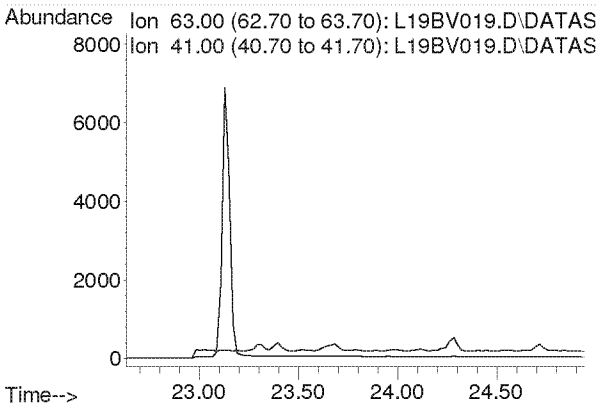


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

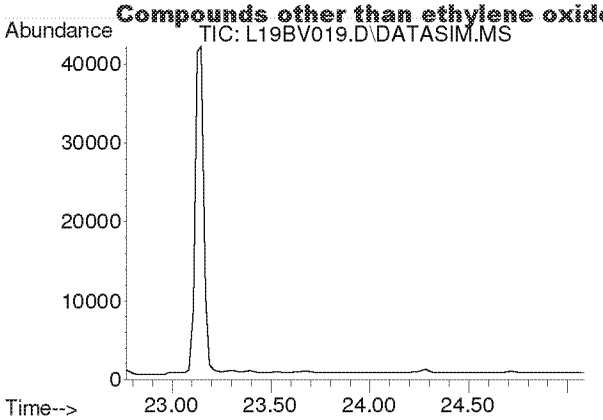
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

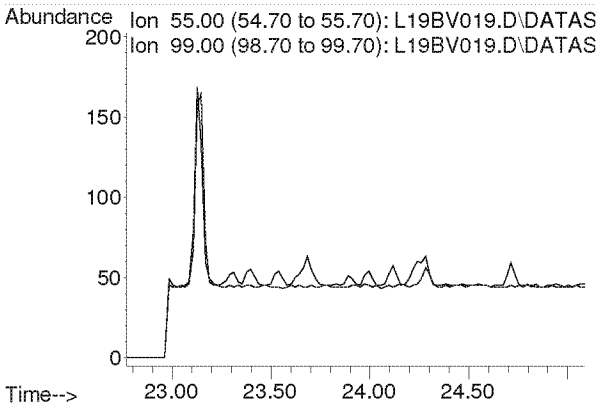


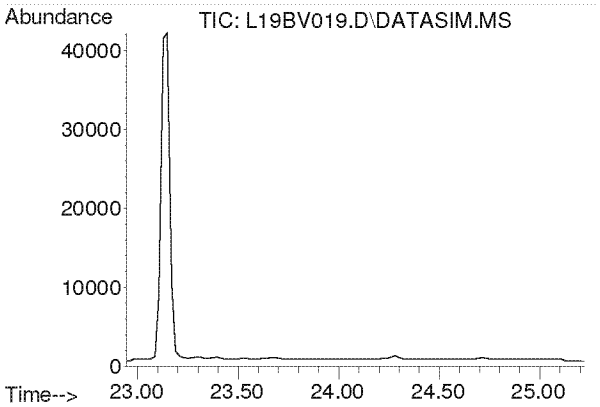
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



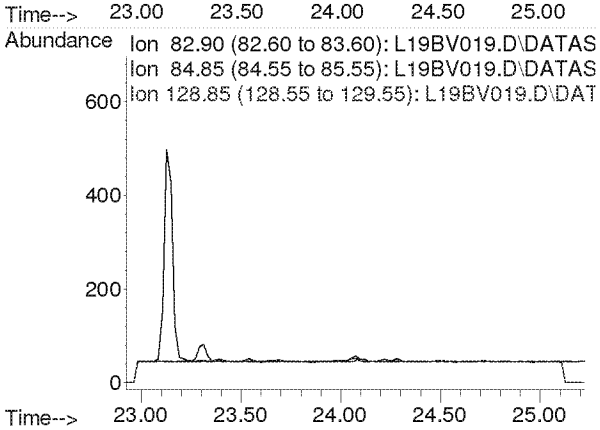


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

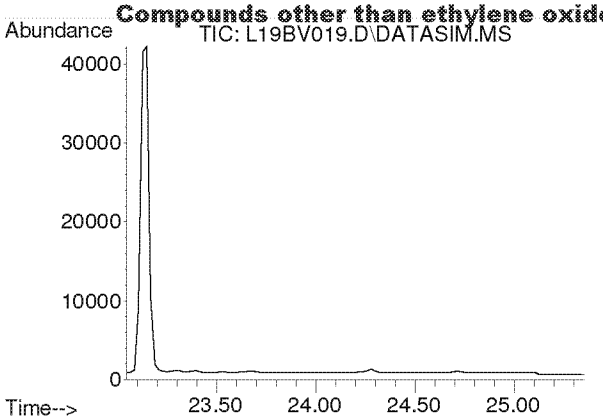
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

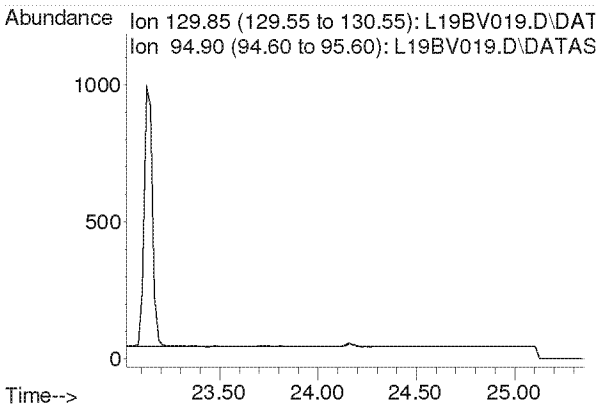


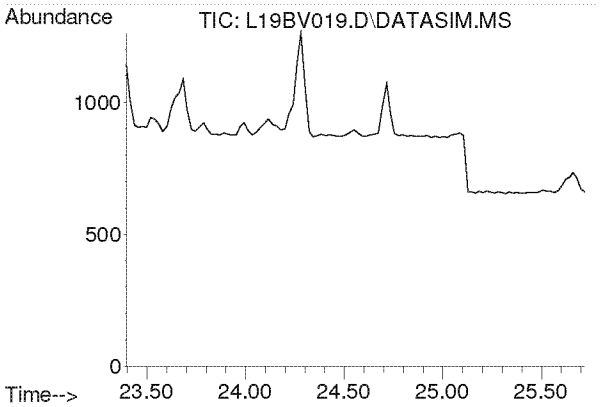
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



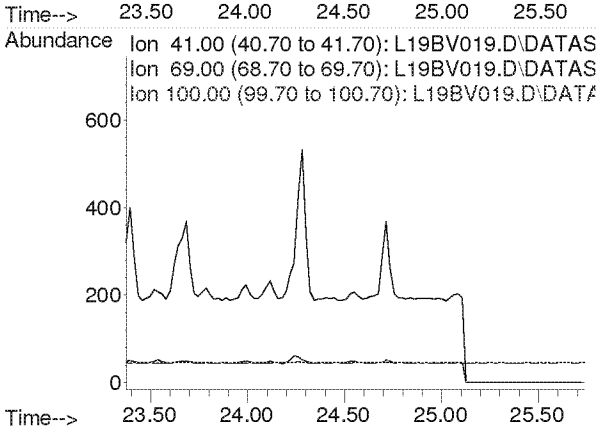


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

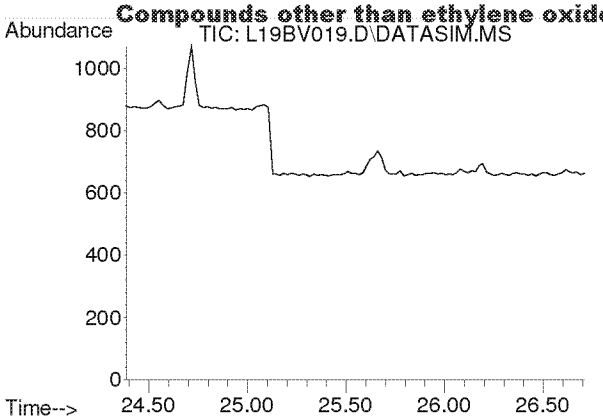
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

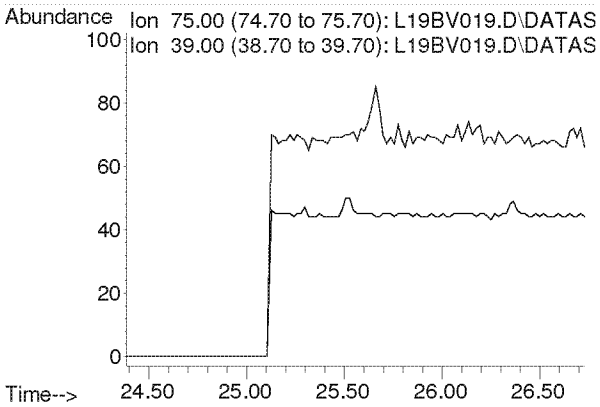


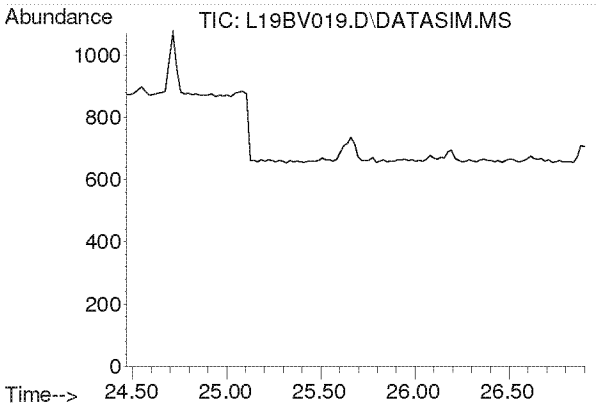
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



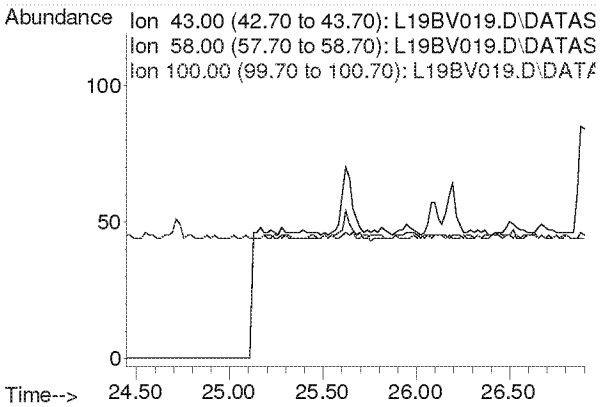


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

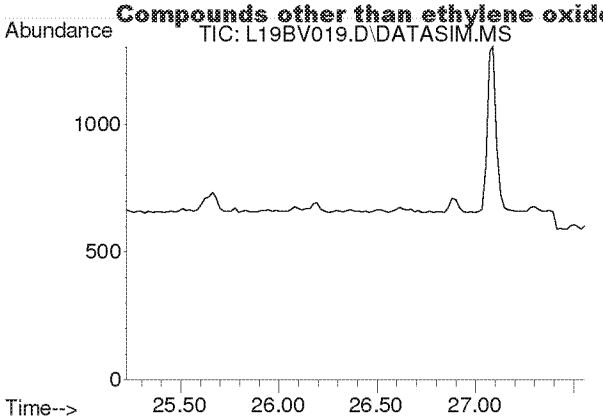
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

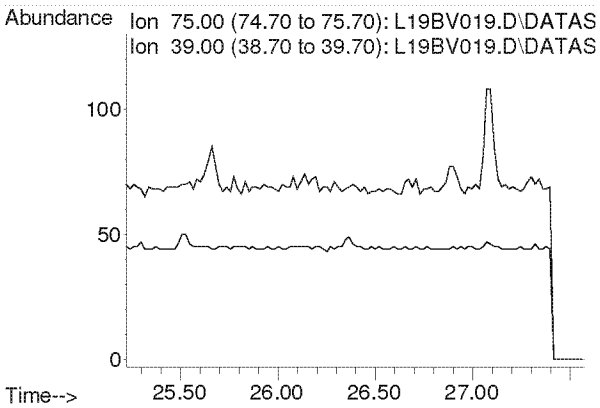


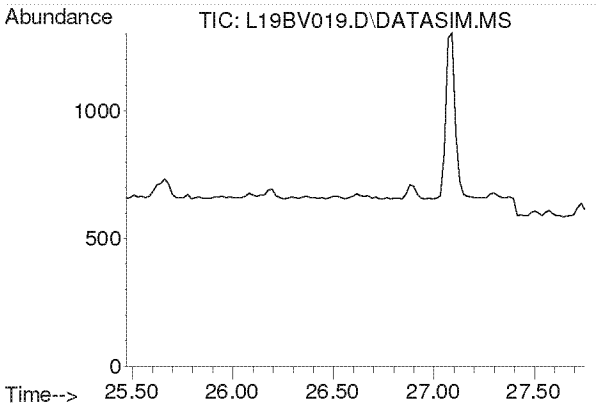
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



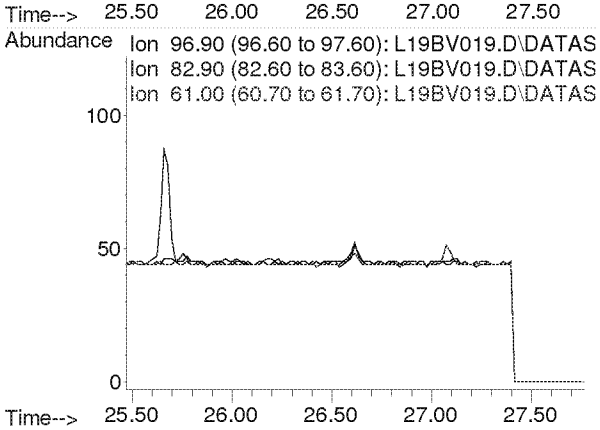


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

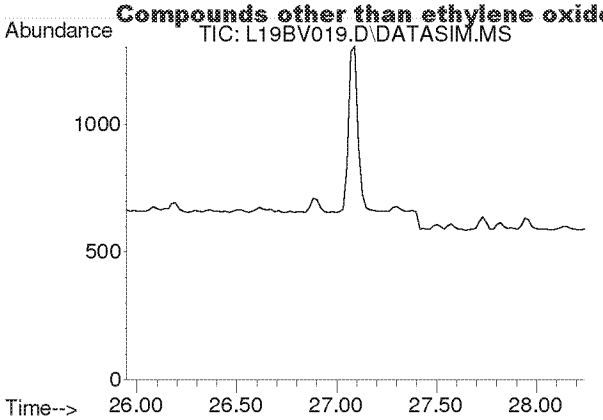
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

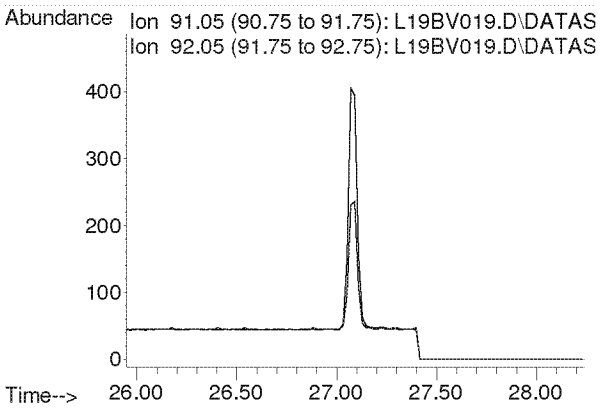


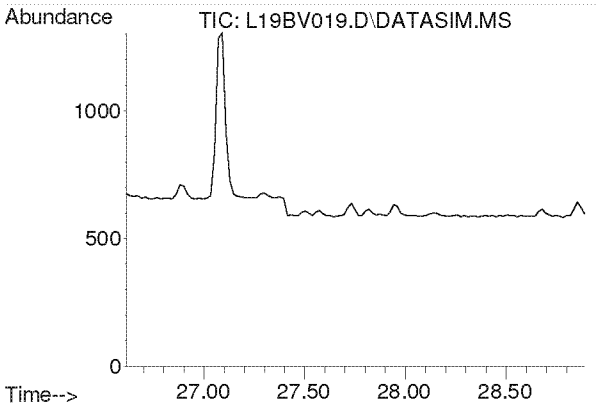
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



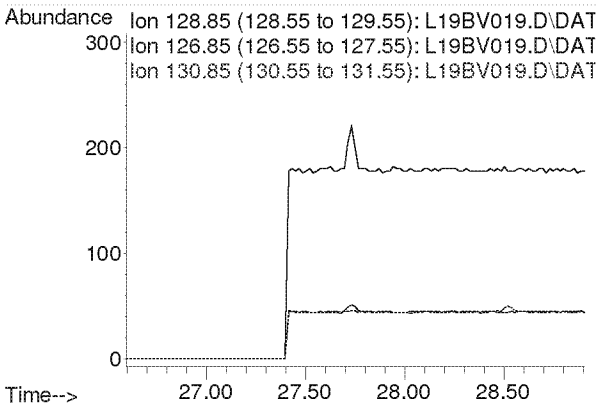


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

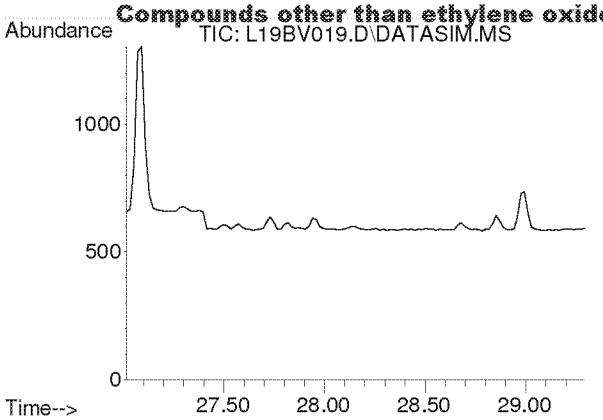
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

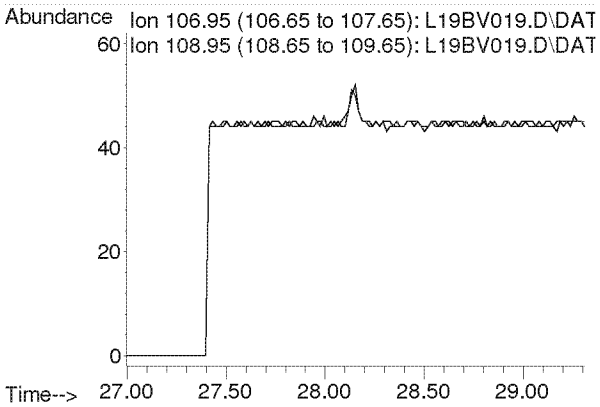


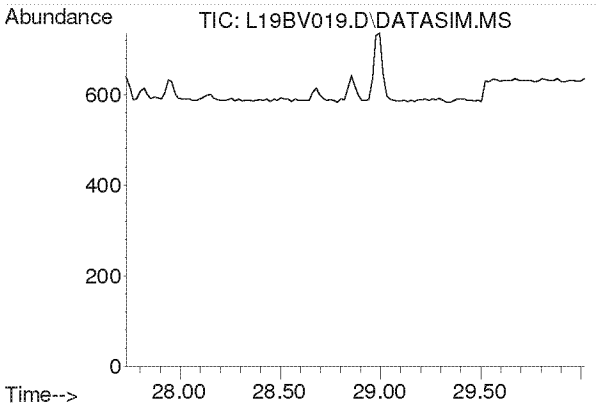
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



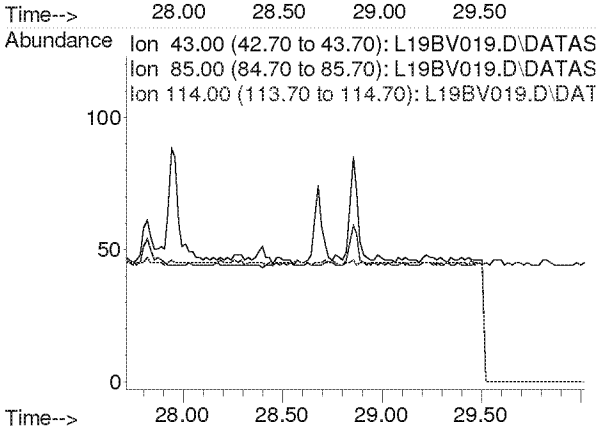


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

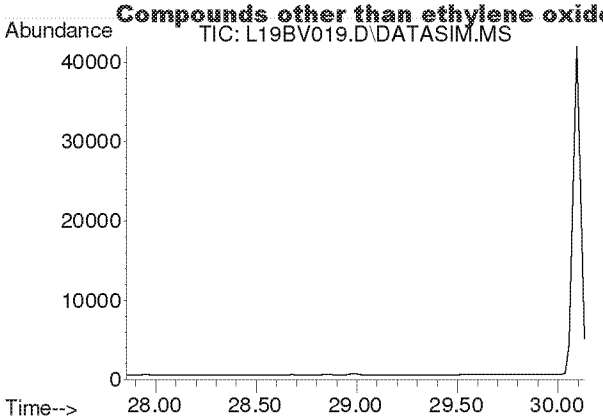
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

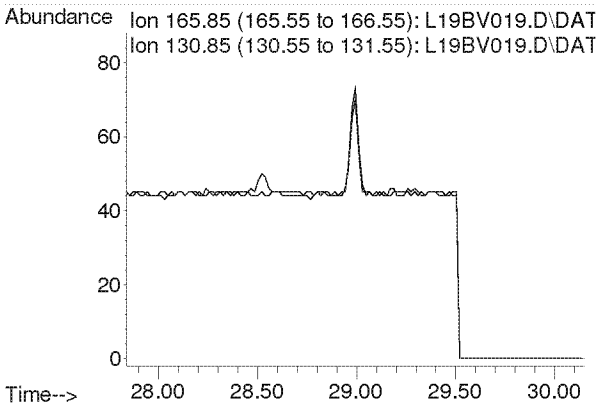


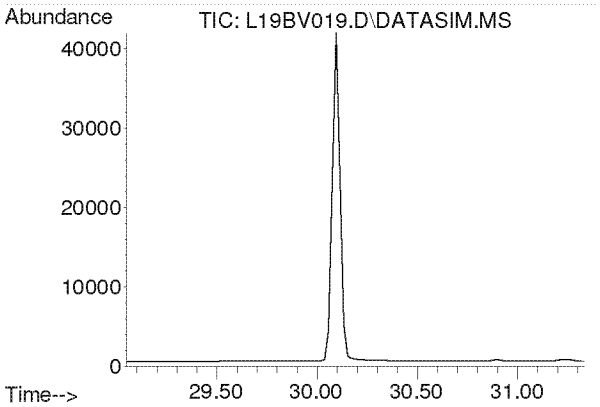
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



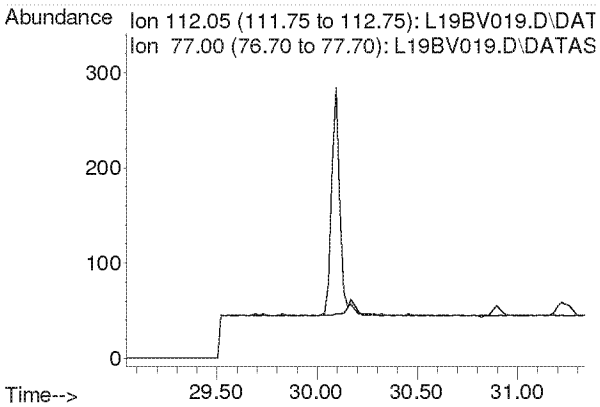


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

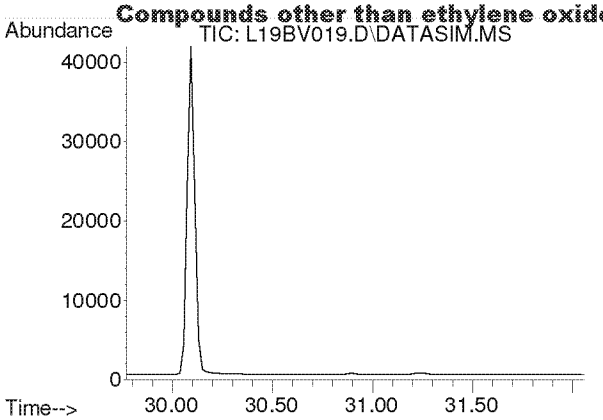
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

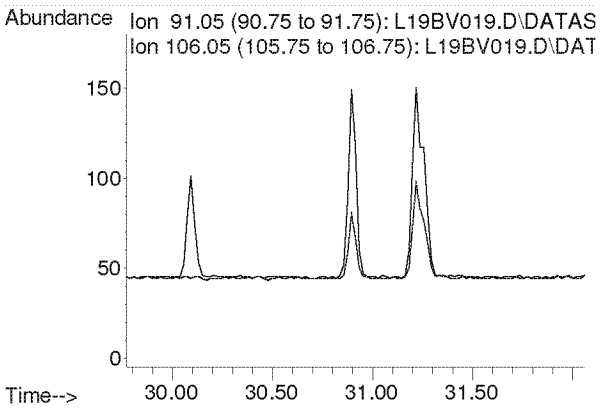


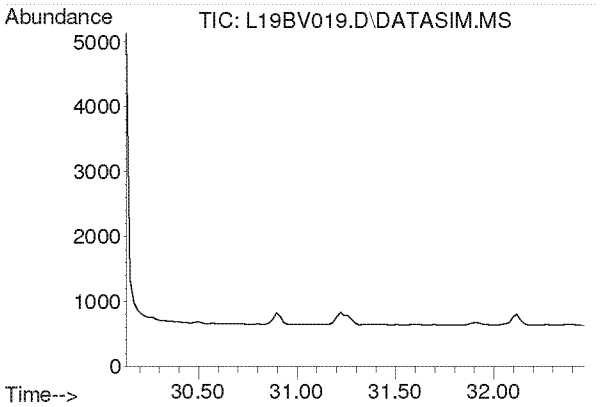
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



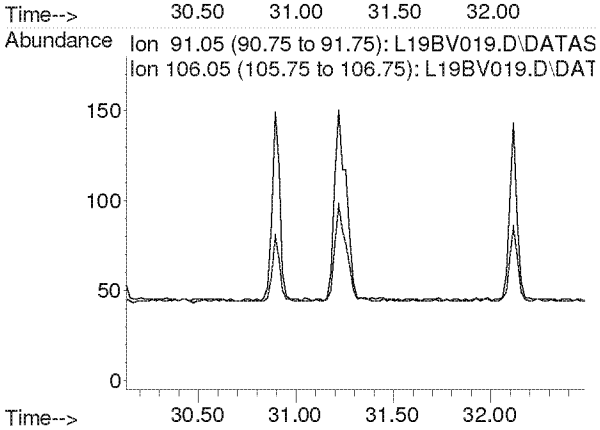


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

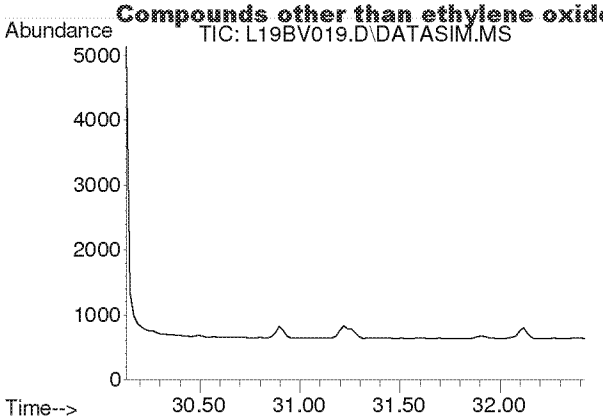
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

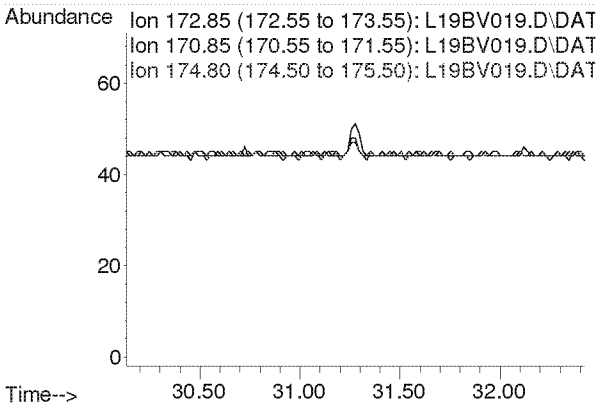


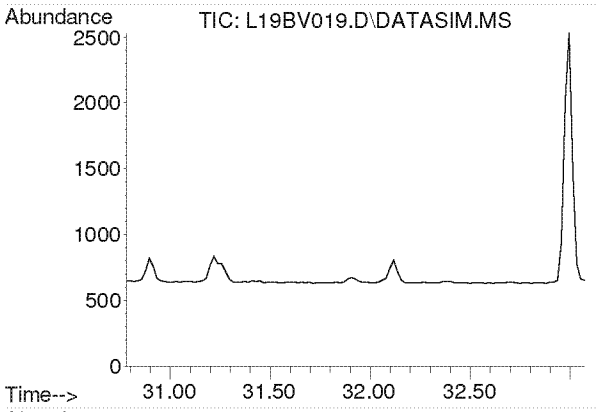
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



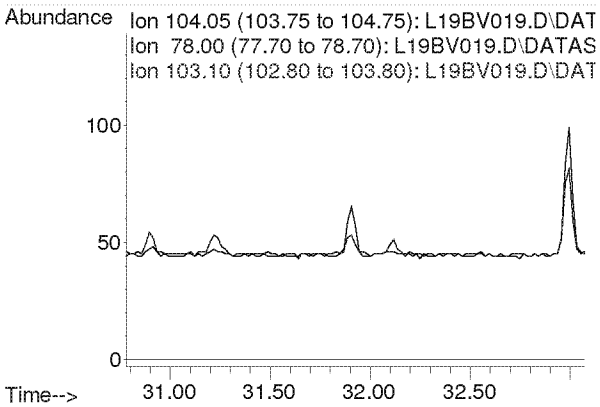


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

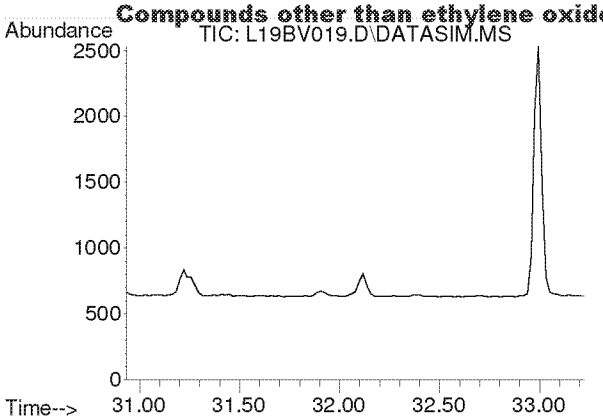
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

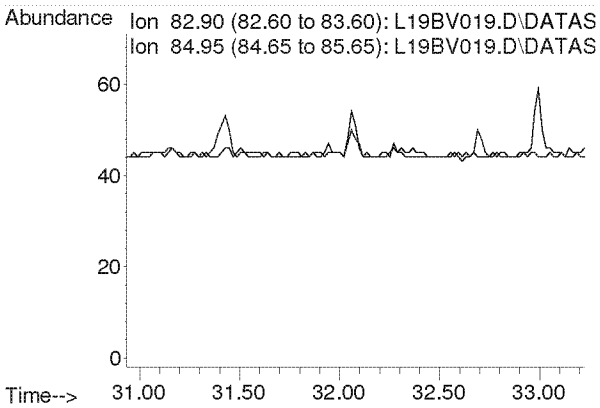


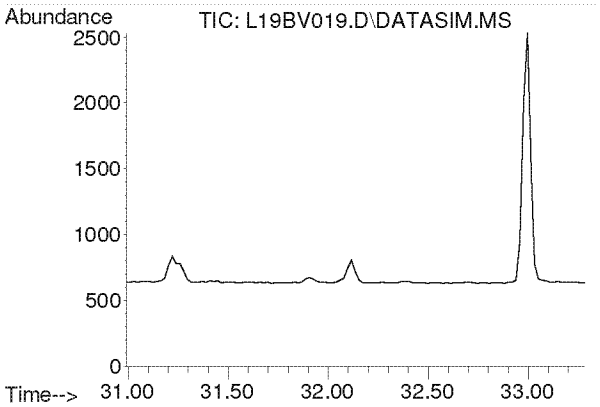
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



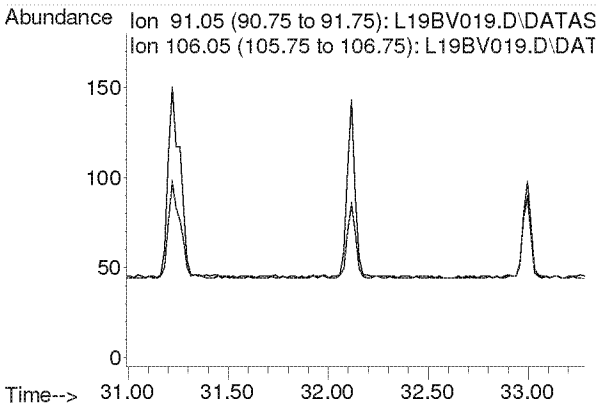


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

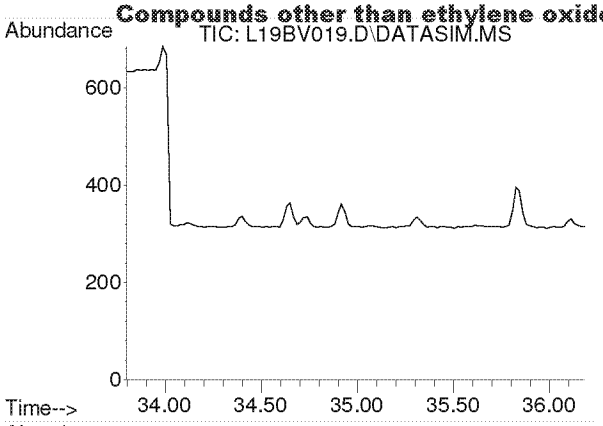
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

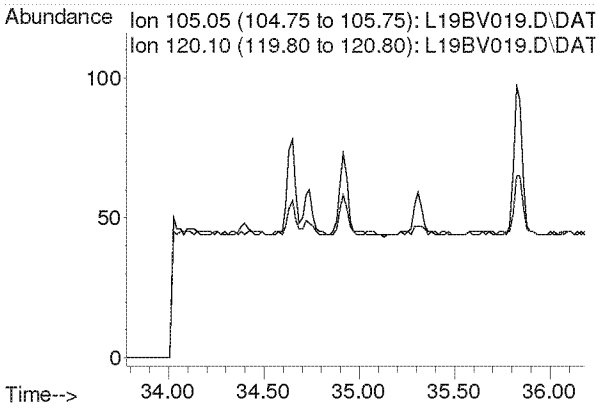


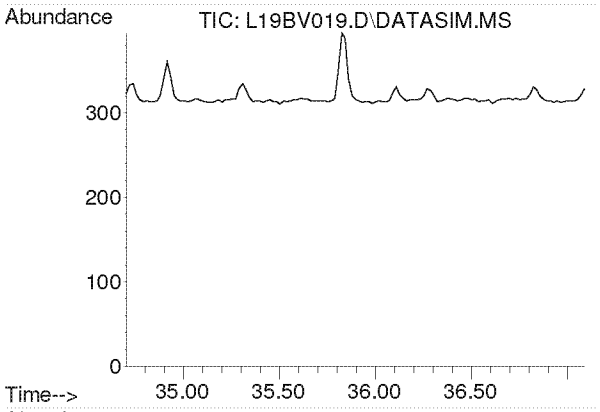
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



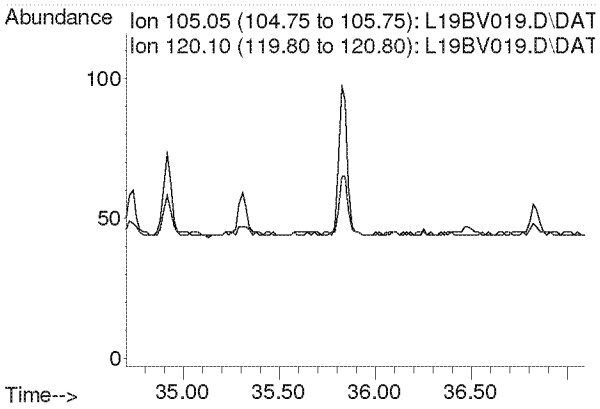


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

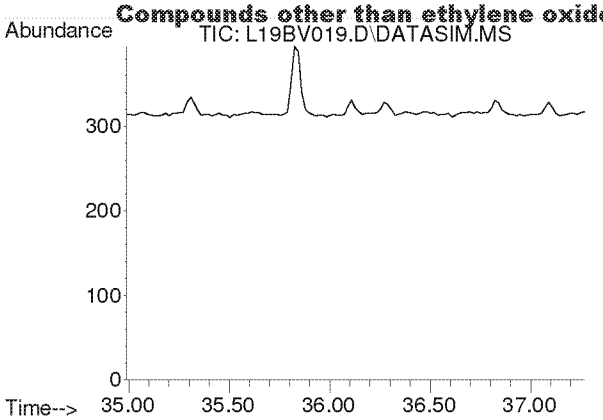
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

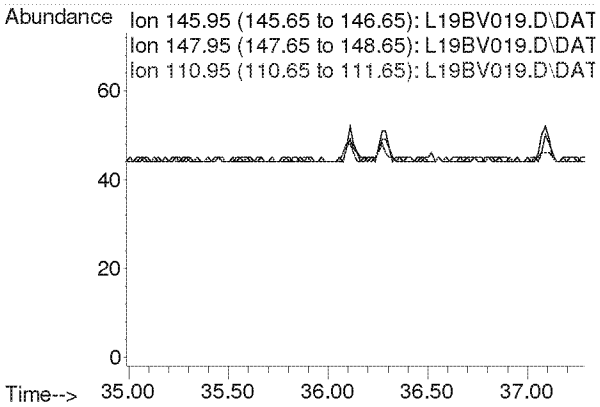


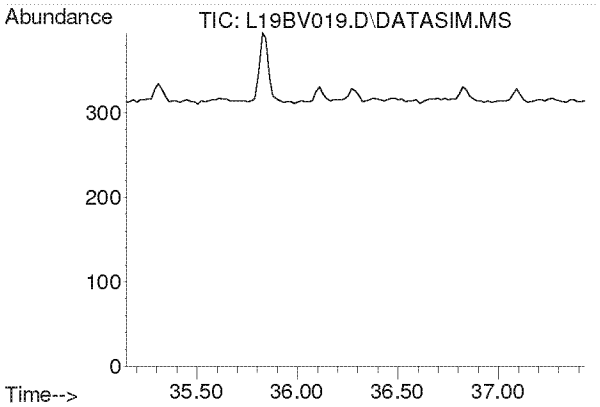
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



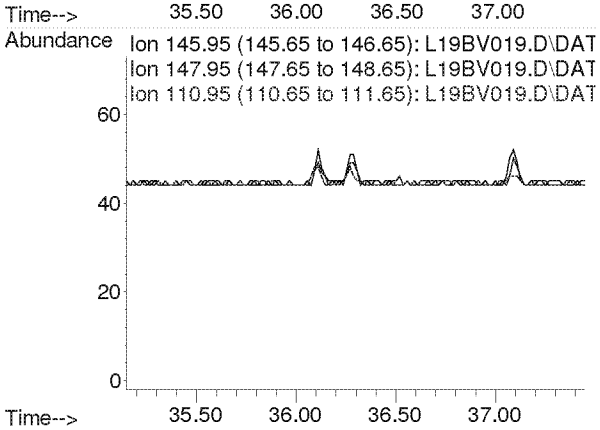


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

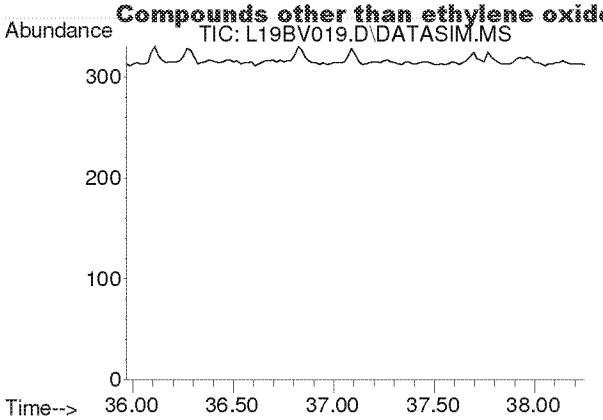
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

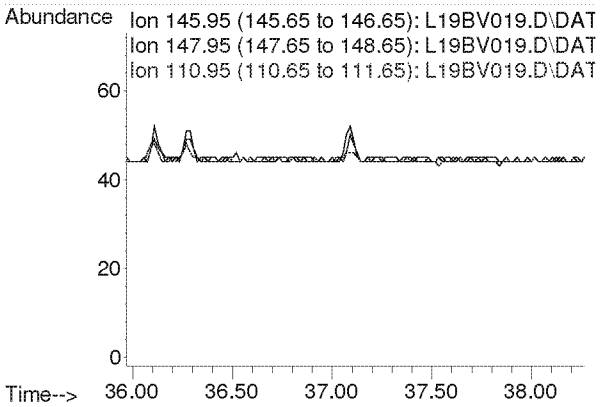


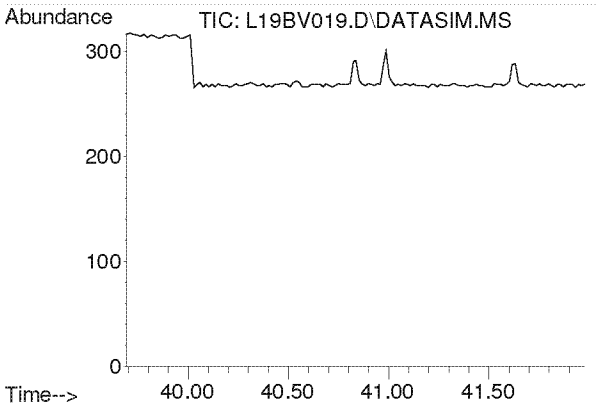
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



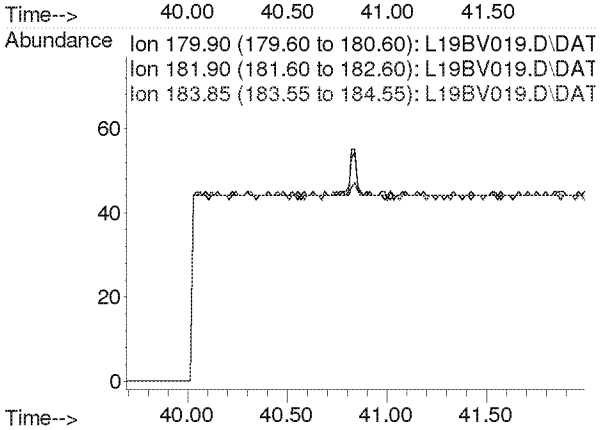


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

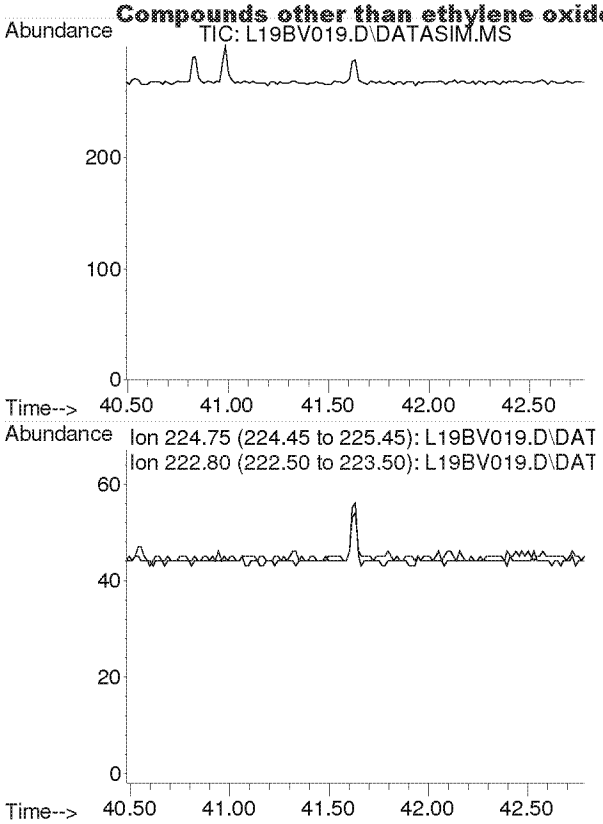
Lab File: L19BV019.D
Acq: 23 Feb 2019 2:45 am

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: L19BV019.D
Acq: 23 Feb 2019 2:45 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9B2205

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **Printed: 3/5/2019 9:40:11AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9022025-01 *TO-15 2019*	02/15/19 10:44	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022025-02 *TO-15 2019*	02/15/19 11:10	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022025-03 *TO-15 2019*	02/15/19 10:59	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022025-04 *TO-15 2019*	02/15/19 11:05	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022025-05 *TO-15 2019*	02/15/19 10:54	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022025-06 *TO-15 2019*	02/15/19 10:49	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022025-07 *TO-15 2019*	02/15/19 10:39	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022025-08 *TO-15 2019*	02/15/19 10:39	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022025-09 *TO-15 2019*	02/15/19 11:14	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022119-01 *TO-15 2019*	02/21/19 00:00	250	250	ERG Sampler Certs				
9022120-01 *TO-15 2019*	02/21/19 00:00	250	250	ERG Sampler Certs				
9022121-01 *TO-15 2019*	02/21/19 00:00	250	250	ERG Sampler Certs				
9022121-02 *TO-15 2019*	02/21/19 00:00	250	250	ERG Sampler Certs				
B9B2205-BLK1	02/21/19 08:00	250	250				t-h1-568	

Randy Bower 3/5/19

Spiking Witnessed By Date | Preparation Reviewed By Date | Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9B2205

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **Printed: 3/5/2019 9:40:11AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
B9B2205-DUP1	02/15/19 10:39	250	250		9022025-07		
B9B2205-DUP2	02/15/19 10:39	250	250		9022025-08		

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

4

ERG Eastern Research Group, Inc.

ERG Lab ID # 9022025-01

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WBVILLAGE HALL

Canister Number: 5091

City/State: WILLOW BROOK, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code: —

Cleaning Batch # : H2-551

Collection Date: 2/14/19

Date Can. Cleaned: 1/30/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # : —

METHANE (Y/N):

Relinquished by: RMB

Date: 2/6/19

Field Setup

Received by: NWIA

Date: ~~2/9~~ JN ~~2/14/19~~ 2/14/19

Operator: NWIA

MFC Setting:

System #: 10313

Elapsed Timer Reset (Y/N): —

Setup Date: 2/14/19

Canister Valve Opened (Y/N): Y @ 10:38

Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/15/19

Sample Duration (3 or 24 hr): 24H

Operator: NWIA

Elapsed Time:

Field Final Can. Press.: -5.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 1044

Relinquished by:

Date: 02/15/19

Lab Recovery

Received by: KB

Date: 2/20/19

Lab Final Can. Press.: 4.00 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check = 10:33 am -28" / 10:38 am -28"
Temperature @ deployment = 40°F
" " collection = 17°F
02/15/19 - temp 17°F and sunny
FINAL INDOOR PRESSURE = -3.5" Hg

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

5

ERG Eastern Research Group, Inc.

ERG Lab ID # 9022025-02

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: GOWER ES

Canister Number: EP092

City/State: WILLOWBROOK

Lab Initial Can. Press. ("Hg): 29.8

AQS Code:

Cleaning Batch # : H1-552

Collection Date: 02/14/19 – 02/15/19

Date Can. Cleaned: 1/31/19

Options:

SNMOC (Y/N): —

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 2/6/19

Field Setup

Received by: M Fuoco

Date: 02/14/19

Operator: M Fuoco

MFC Setting:

System #: REG # 1043

Elapsed Timer Reset (Y/N):

Setup Date: 02/14/19

Canister Valve Opened (Y/N): Y @ 11:42am

Field Initial Can. Press.: -28" Hg psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/15/19

Sample Duration (3 or 24 hr): 24-H

Operator: NWIA

Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 11:10AM

Relinquished by: Fuoco

Date: 02/15/19

Lab Recovery

Received by: KB

Date: 2/20/19

Lab Final Can. Press.: 5.00 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Temp 40°F 02/14/19
Leak Check: -27" Hg @ 11:37am / -27" Hg @ 11:41am
02/15/19 - temp 17° F and sunny
Indoor Final temp -4" Hg

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 902202503

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WILLOW POND PARK
Canister Number: 050
City/State: WILLOWBROOK
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H2-552
Collection Date: 02/14/19 - 02/15/19
Date Can. Cleaned: 1/31/19
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N): —
Relinquished by: RMB
Date: 2/6/19

Field Setup

Received by: M Fuoco
Date: 02/14/19
Operator: M Fuoco
MFC Setting: —
System #: # 10294 REG
Elapsed Timer Reset (Y/N): —
Setup Date: 02/14/19
Canister Valve Opened (Y/N): Y @ 11:13
Field Initial Can. Press.: -29 **psig psia "Hg (Circle one)**

Field Recovery

Recovery Date: 02/15/19
Sample Duration (3 or 24 hr): 24H
Operator: NWIA
Elapsed Time:
Field Final Can. Press.: -5.5 **psig psia "Hg (Circle one)**
Status: **VALID** **VOID** (Circle one)
Canister Valve Closed (Y/N): Y @ 10:59 AM
Relinquished by:
Date: 02/15/19

Lab Recovery

Received by: KB
Date: 2/20/19
Lab Final Can. Press.: 5.50 **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: 02/14/19: 40°F
Leak Check 11:08 -28.5 "Hg
02/15/19 temp 17°F and sunny
Could not open valve for final indoor pressure.

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

7

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9022025-04

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: HINSDALE SOUTH HS

Canister Number: SAT176

City/State: DARIEN, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code: —

Cleaning Batch # : H2-551

Collection Date: 2/14/19

Date Can. Cleaned: 1/30/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # : —

METHANE (Y/N):

Relinquished by: RLB

Date: 2/6/19

Field Setup

Received by: NWIA

Date: 2/14/19

Operator: NWIA

MFC Setting: —

System #: 10076

Elapsed Timer Reset (Y/N): —

Setup Date: 2/14/19

Canister Valve Opened (Y/N): Y @ 11:30am

Field Initial Can. Press.: -28.8 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/15/19

Sample Duration (3 or 24 hr): 24-H

Operator: NWIA

Elapsed Time:

Field Final Can. Press.: -7 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 11:05AM

Relinquished by:

Date: 02/15/19

Lab Recovery

Received by: KB

Date: 2/20/19

Lab Final Can. Press.: 6.00 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check = -28" @ 11:20 am / -26.5 @ 11:22 am = fail
temp @ deploy = 40°F
" " collection =
[* Redone = 28.5" @ 11:24 am
leak check -28" @ 11:29 am]
02/15/19 - temp 17°F and sunny
Final pressure (INDOORS) = -5.5 "Hg.

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9022025-05

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: WILLOWBROOK WATER TOWER
Canister Number: 183
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : H2-552
Collection Date: 2/14/19
Date Can. Cleaned: 1/31/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: RMB
Date: 2/6/19

Field Setup

Received by: NWIA
Date: 2/14/19
Operator: 2/14/19 NWIA Fluco
MFC Setting: —
System #: 10312
Elapsed Timer Reset (Y/N): —
Setup Date: 2/14/19
Canister Valve Opened (Y/N): Y @ 11:01 AM
Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/15/19
Sample Duration (3 or 24 hr): 24H
Operator: NWIA
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:54
Relinquished by: Fluco
Date: 02/15/19

Lab Recovery

Received by: KB
Date: 2/20/19
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: Link Creek -28.5 @ 10:50AM / -28.5 @ 11:01AM
Temp @ deploy = 40°F
" " collection =
02/15/19 - temp 17°F and sunny
Indoor Final Pressure: - 3" Hg (INDOOR)

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

5

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9022025-06

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: GOWER MS

Canister Number: 5135

City/State: BUFFER RIDGE, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code:

Cleaning Batch # : H2-551

Collection Date: 2/14/19

Date Can. Cleaned: 1/30/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # : —

METHANE (Y/N):

Relinquished by: RMB

Date: 2/6/19

Field Setup

Received by: NWIA

Date: 2/14/19

Operator: NWIA

MFC Setting: —

System #: 10311

Elapsed Timer Reset (Y/N): —

Setup Date: 2/14/19

Canister Valve Opened (Y/N): Y @ 10:49am

Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/15/19

Sample Duration (3 or 24 hr): 24 H

Operator: NWIA

Elapsed Time: —

Field Final Can. Press.: -8 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 10:49

Relinquished by:

Date: 02/15/19

Lab Recovery

Received by: RB

Date: 2/20/19

Lab Final Can. Press.: 5.50 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -29" @ 10:44 / -28.7 @ 10:49am

Temp @ deploy = 40°F

" " collect = 17°F

FINAL INDOOR PRESSURE = -6" Hg

MR

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

1D

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 902202507

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WB WAREHOUSE - DUPLICATE

Canister Number: SAT151

City/State: WILLOWBROOK

Lab Initial Can. Press. ("Hg): 29.8

AQS Code:

Cleaning Batch # : H2-552

Collection Date: 02/14/19 - 02/15/19

Date Can. Cleaned: 1/31/19

Options:

SNMOC (Y/N): —

Duplicate Event (Y/N): Y

TOXICS (Y/N): Y

Duplicate Can # : 5037

METHANE (Y/N): —

Relinquished by: RMB

Date: 2/6/19

Field Setup

Received by: M Flores

Date: 02/14/19

Operator: M Flores

MFC Setting:

System #: 10315 REG #

Elapsed Timer Reset (Y/N):

Setup Date: 02/14/19

Canister Valve Opened (Y/N):

Field Initial Can. Press.: psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/15/19

Sample Duration (3 or 24 hr): 24H

Operator: Flores

Elapsed Time:

Field Final Can. Press.: -6 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 1029 AM

Relinquished by: Flores

Date: 02/15/19

Lab Recovery

Received by: RB

Date: 2/20/19

Lab Final Can. Press.: 4.50 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: 02/14/19: 40°F 9:52AM

[illegible] 21.5 @ 9:27AM MF 02/14/19

-27.0 @ 10:00AM

02/15/19: Ambient temp 17°F and sunny

Final Indoor Temp: -5.5 "Hg

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9022025-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WB Warehouse
Canister Number: SAT 147
City/State: Williamsburg Crk
Lab Initial Can. Press. ("Hg): 29.9
AQS Code:
Cleaning Batch # : H1-552
Collection Date: 02/14/19 - 02/15/19
Date Can. Cleaned: 1/31/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : SAT 151
METHANE (Y/N):
Relinquished by: MB
Date: 2/11/19

Field Setup

Received by: J Franco
Date: 02/14/19
Operator: J Franco MF 02/14/19
MFC Setting:
System #: ~~SAT 147~~ TOC 7.7
Elapsed Timer Reset (Y/N):
Setup Date: 02/14/19
Canister Valve Opened (Y/N): Y @ 1037 MF
Field Initial Can. Press.: -28 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/15/19
Sample Duration (3 or 24 hr): 24H
Operator: Franco
Elapsed Time: ~~[illegible]~~ MF 02/15/19
Field Final Can. Press.: -7 psig psia "Hg (Circle one)
Status: **VALID** **VOID** (Circle one)
Canister Valve Closed (Y/N): Y @ 1039 MF
Relinquished by: Franco
Date: 02/15/19

Lab Recovery

Received by: KB
Date: 2/20/19
Lab Final Can. Press.: 5.50 psig "Hg (Circle one)
Converted to psia:
Status: **VALID** **VOID** (Circle one)
Gauge: 1 2 (Circle one)
If void, why: RS 3/13/19

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Equipment on for WB Warehouse, leak check failed X3 and check 10:27 AM - 28 psi MF psi < 28
Temp: 40°F
02/15/19 Temp 17°F and Sunny
Indoor Final Pressure - 5.5"

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9022025-01

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WEST NEIGHBORHOOD
Canister Number: 19280
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : H2-951
Collection Date: 2/14/19
Date Can. Cleaned: 1/30/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 2/6/19

Field Setup

Received by: NWIA
Date: 2/14/19
Operator: NWIA
MFC Setting: —
System #: 10310
Elapsed Timer Reset (Y/N): —
Setup Date: 2/14/19
Canister Valve Opened (Y/N): Y @ 11:53am
Field Initial Can. Press.: -28" psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/15/19
Sample Duration (3 or 24 hr): 24H
Operator: NWIA
Elapsed Time:
Field Final Can. Press.: -5.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 11:14 AM
Relinquished by: FEDEX
Date: 02/15/19

Lab Recovery

Received by: KB
Date: 2/20/19
Lab Final Can. Press.: 4.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: leak check = 28.4 @ 11:47am / 11:52am -28.5"
temp @ deploy = 40°F
" " collection =
02/15/19 - temp 17°F and sunny
Indoor Final ~~Temp~~ Pressure: -3" Hg

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy