Compounds other than ethylene oxide were not quantitated.

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

Sequence ID:	L19A0, 1901067	**Instrument:**	MS1	**Batch:**	19A1507
Cal Curve (Method):	9010002	**Analyst:**	MM	**Date Analyzed:**	1-15-19
10% Review Sample IDs:	9010716-01, -07	**Reviewer:**	DST	**Date:**	1/30/19
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	✓ 1-24-19	RMB 1/30/19	DST 1/30/19		
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)	✓ 1-24-19	RMB 1/30/19	DST 1/30/19		L19AE
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	✓ 1-24-19	RMB 1/30/19	DST 1/30/19		L19AE
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	✓ 1-24-19	RMB 1/30/19	DST 1/30/19		
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	✓ 1-24-19	RMB 1/30/19	DST 1/30/19		

Sample 9010716-01, -07 are non-detects. DST 1/30/19

Compounds other than ethylene oxide were not quantitated.

SOP ERG-MOR-005
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	1-24-19	RMB 1/30/19	DST 1/30/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	—	RMB 1/30/19	NA		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	1-24-19	RMB 1/30/19	DST 1/30/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	1-24-19	RMB 1/30/19	DST 1/30/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	1-24-19	RMB 1/30/19	DST 1/30/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	1-24-19	RMB 1/30/19	DST 1/30/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 1/30/19	DST 1/30/19		901076-03 906(4.77 ppbv) / 50136(0.2464) = 0.3498 ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	1-24-19	RMB 1/30/19	DST 1/30/19		

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

L19A0002
ethylene oxide

$$\frac{7217 \times 4.77}{62377 \times 0.2464} = 2.24 \text{ ppbv}$$

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

Instrument: ERGMS#1

Calibration ID: 9010002

1901067

Printed: 1/30/2019 1:37:29PM

Lab Number	Sample Name	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
1901067-CCV1	Calibration Check	QC		1		9A10002	8L13002	
B9A1508-BLK1	Blank	QC		2			8L13002	
9010401-01	West Neighborhood	TO-15 2019	A	3			8L13002	Ethylene Oxide only
9010401-02	Willow Pond Park	TO-15 2019	A	4			8L13002	Ethylene Oxide only
9010716-07	Grover MS	TO-15 2019	A	5			8L13002	Ethylene Oxide only
9010401-03	Water Tower	TO-15 2019	A	6			8L13002	Ethylene Oxide only
9010401-04	WB Warehouse C2	TO-15 2019	A	7			8L13002	Ethylene Oxide only
9010401-09	WB Warehouse C1	TO-15 2019	A	8			8L13002	Ethylene Oxide only
B9A1508-DUP1	Duplicate	QC		9			8L13002	
B9A1508-DUP2	Duplicate	QC		10			8L13002	
9010401-05	Gower MS	TO-15 2019	A	11			8L13002	Ethylene Oxide only
9010401-06	Gower ES	TO-15 2019	A	12			8L13002	Ethylene Oxide only
9010401-07	WB Village Hall	TO-15 2019	A	13			8L13002	Ethylene Oxide only
9010401-08	Hinsdale South HS	TO-15 2019	A	14			8L13002	Ethylene Oxide only
9010716-01	Willow Pond Park	TO-15 2019	A	15			8L13002	Ethylene Oxide only
9010716-02	EPA WB Warehouse	TO-15 2019	A	16			8L13002	Ethylene Oxide only
9010716-03	Gower ES	TO-15 2019	A	17			8L13002	Ethylene Oxide only
9010716-04	Water Tower	TO-15 2019	A	18			8L13002	Ethylene Oxide only
9010716-06	West Neighborhood	TO-15 2019	A	19			8L13002	Ethylene Oxide only

Samples Loaded By Date

Randy Bowe 1/30/19

Data Processed By Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19AO.s
Comment: ANALYZE 1/15/19,8120004 exp 4/5/19, L19AO
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19AO\
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	L19AO001	BFB	BFB
2)	Sample	2	L19AO002	9010002	1901067-CCV1
3)	Sample	4	L19AO003	9010002	FLUSH
4)	Sample	5	L19AO004	9010002	B9A1508-BLK1
5)	Sample	6	L19AO005	9010002	9010401-01
6)	Sample	6	L19AO006	9010002	9010401-02
7)	Sample	7	L19AO007	9010002	9010716-07
8)	Sample	8	L19AO008	9010002	9010401-03
9)	Sample	9	L19AO009	9010002	9010401-04
10)	Sample	10	L19AO010	9010002	9010401-09
11)	Sample	11	L19AO011	9010002	B9A1508-DUP1
12)	Sample	12	L19AO012	9010002	B9A1508-DUP2
13)	Sample	13	L19AO013	9010002	9010401-05
14)	Sample	14	L19AO014	9010002	9010401-06
15)	Sample	15	L19AO015	9010002	9010401-07
16)	Sample	16	L19AO016	9010002	9010401-08
17)	Sample	17	L19AO017	9010002	9010716-01
18)	Sample	18	L19AO018	9010002	9010716-02
19)	Sample	19	L19AO019	9010002	9010716-03
20)	Sample	20	L19AO020	9010002	9010716-04
21)	Sample	21	L19AO021	9010002	9010716-06
22)	Sample	100	OFF	FIDOFF	OFF

1/24/19

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19AO001	80 ML 8L13001	1
Sample	2	1901067-CCV1	9010002	L19AO002	80 ML 8L13001,9A10002	1
Sample	4	FLUSH	9010002	L19AO003	80 ML 8L13001	1
Sample	5	B9A1508-BLK1	9010002	L19AO004	80 ML 8L13001	1
Sample	6	9010401-01	9010002	L19AO005	WEST NEIGHBORHOOD 1/3/19	1
Sample	6	9010401-02	9010002	L19AO006	WILLOW POND PARK 1/3/19	1
Sample	7	9010716-07	9010002	L19AO007	GOWER MS 1/4/19	1
Sample	8	9010401-03	9010002	L19AO008	WATER TOWER 1/3/19	1
Sample	9	9010401-04	9010002	L19AO009	EPA WB WAREHOUSE ~~C1~~ 1/3/18 C2	1
Sample	10	9010401-09	9010002	L19AO010	EPA WB WAREHOUSE ~~C2~~ 1/3/18 C1	1
Sample	11	B9A1508-DUP1	9010002	L19AO011	EPA WB WAREHOUSE ~~R1~~ 1/3/18 R2	1
Sample	12	B9A1508-DUP2	9010002	L19AO012	EPA WB WAREHOUSE ~~R2~~ 1/3/18 R1	1
Sample	13	9010401-05	9010002	L19AO013	GOWER MS 1/3/19	1
Sample	14	9010401-06	9010002	L19AO014	GOWER ES 1/3/19	1
Sample	15	9010401-07	9010002	L19AO015	WB VILLAGE HALL 1/3/19	1
Sample	16	9010401-08	9010002	L19AO016	HINSDALE S. HS 1/3/19	1
Sample	17	9010716-01	9010002	L19AO017	WILLOW POND PARK 1/4/19	1
Sample	18	9010716-02	9010002	L19AO018	EPA WAREHOUSE 1/4/19	1
Sample	19	9010716-03	9010002	L19AO019	GOWER ES 1/4/19	1
Sample	20	9010716-04	9010002	L19AO020	WATER TOWER 1/4/49	1
Sample	21	9010716-06	9010002	L19AO021	WEST NEIGHBORHOOD 1/4/19	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

5-2-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19AO.SEQ
Date: 01-22-2019
Time: 14:30:55
Int. Std Volume: 80 cc

Sample Name	Inlet #	Auto	Samp Pos	Cal Vol.	Std Vol.	Method	Time
BFB	1	1	0	0		C:\Smart\BFB.MPT	12:00
1901067-CCV1	2	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9A1508-BLK1	1	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010401-01	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010401-02	1	3	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010716-07	1	4	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010401-03	1	5	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010401-04	1	6	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010401-09	1	7	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9A1508-DUP1	1	6	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9A1508-DUP2	1	7	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010401-05	1	8	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010401-06	1	9	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010401-07	1	10	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010401-08	1	11	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010716-01	1	12	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010716-02	1	13	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010716-03	1	14	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010716-04	1	15	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9010716-06	1	16	250		0	C:\Smart\TO-15A_MS1.MPT	12:00

7-24-19

Compounds other than ethylene oxide were not quantitated.

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

1/16/2019 11:31:40 AM
Leak Check for C:\Smart\L19AO.SEQ
Report File: C:\Smart\L19AO.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	---	---	1.2	1.2	0.00
1	4	---	---	1.2	1.2	0.00
1	5	---	---	1.2	1.2	0.00
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.1	1.2	0.10
1	8	---	---	1.2	1.2	0.00
1	9	---	---	1.2	1.2	0.00
1	10	---	---	1.1	1.2	0.10
1	11	---	---	1.2	1.2	0.00
1	12	---	---	1.2	1.2	0.00
1	13	---	---	1.2	1.3	0.10
1	14	---	---	1.2	1.3	0.10
1	15	---	---	1.2	1.2	0.00
1	16	---	---	1.2	1.2	0.00

7-24-9

Compounds other than ethylene oxide were not quantitated.

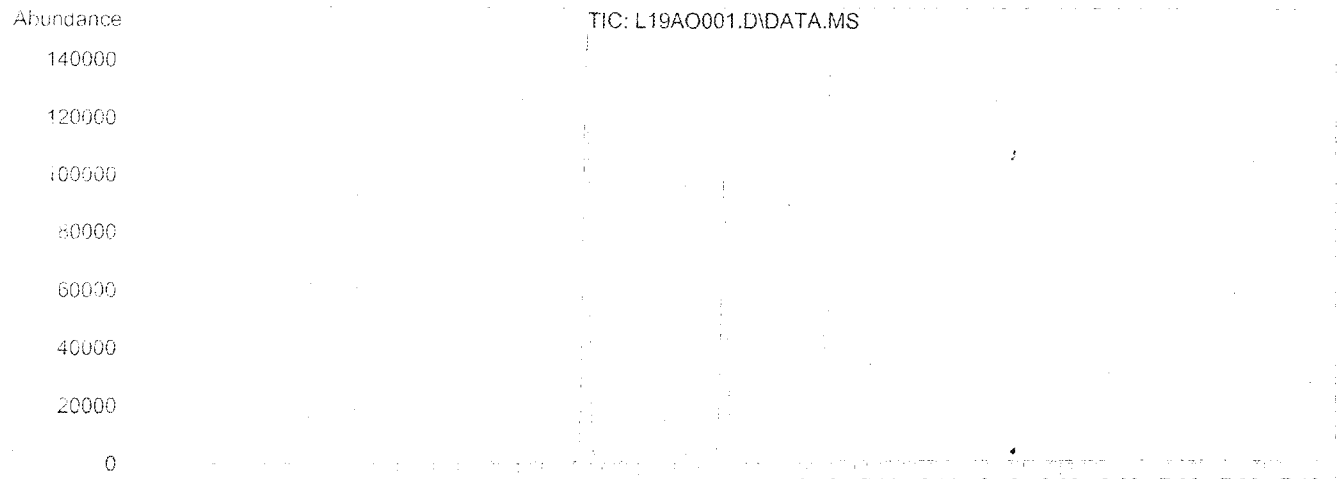
BFB

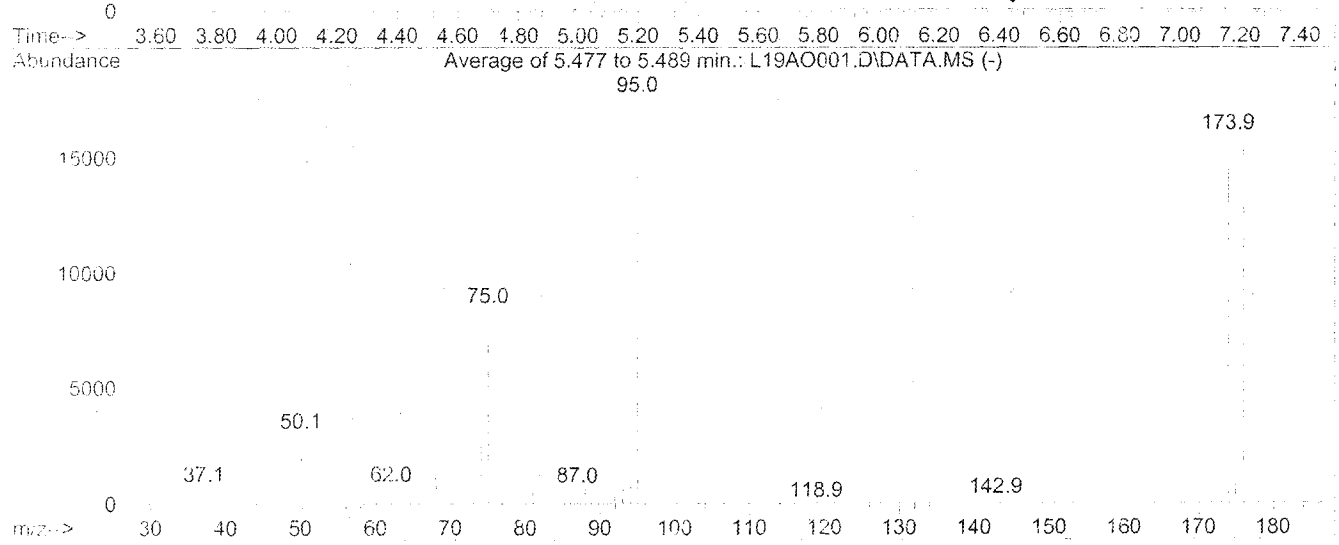
Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO001.D
Acq On : 15 Jan 2019 8:52 am
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

7-24-5

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\9010002.M
Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 2019





Autofind: Scans 146, 147, 148; Background Corrected with Scan 140

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.1	3053	PASS
75	95	30	66	47.6	8500	PASS
95	95	100	100	100.0	17846	PASS
96	95	5	9	6.7	1188	PASS
173	174	0.00	2	0.3	44	PASS
174	95	50	120	89.7	16000	PASS
175	174	4	9	6.8	1090	PASS
176	174	93	101	96.6	15455	PASS
177	176	5	9	6.6	1013	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Data File : C:\msdchem\1\DATA\L19AO\L19AO001.D
Date Time : 15 Jan 2019 3:52 am

8010000	IS Avg Area	61735	149820	118119
	+40%	86428	209748	165367
	-40%	37041	89892	70872

Data File	Sample	Surrogate Recovery %	Internal Standard Responses	
L19AO002.D	1001067-CCV1	62377	163125	119064
L19AO004.D	B9A1508-BLK1	55465	137322	108757
L19AO005.D	9010401-01	54813	135955	107942
L19AO006.D	9010401-02	52048	124969	103181
L19AO007.D	9010716-07	55751	136223	109912
L19AO008.D	9010401-03	53200	129403	103134
L19AO009.D	9010401-04	54568	131899	105396
L19AO010.D	9010401-09	55708	142673	107769
L19AO011.D	B9A1508-DUP1	55225	132789	105226
L19AO012.D	B9A1508-DUP2	52618	133403	102696
L19AO013.D	9010401-05	51925	125351	101935
L19AO014.D	9010401-06	53238	132177	105615
L19AO015.D	9010401-07	54258	132047	103276
L19AO016.D	9010401-08	55332	136275	107698
L19AO017.D	9010716-01	50920	123321	97883
L19AO018.D	9010716-02	50629	121969	99420
L19AO019.D	9010716-03	50136	120644	97604
L19AO020.D	9010716-04	50896	121851	97631
L19AO021.D	9010716-06	52070	127699	102536

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

Created: Tue Jan 22 11:28:05 2019 MS1

7-2419

Compounds other than ethylene oxide were not quantitated.

Compound Name			IS-Hexane-d14	IS-Hexane-d14	IS-Difluorobenzene	IS-Difluorobenzene	IS-Chlorobenzene-d5	IS-Chlorobenzene-d5
Labels	Date Acquired	Data File Name	(# 1) Target Response	(# 1) Ret Time	(# 28) Target Response	(# 28) Ret Time	(# 42) Target Response	(# 42) Ret Time
	1/16/2019 5:47	L19AO021.D	52070	19.99	127699	23.15	102536	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	61735		19.99		149820		23.15		118119		30.12	
	1/15/2019 9:39	L19AO002.D	62377	101	19.99	0	153125	102	23.15	0	119064	101	30.10	-0.02
	1/15/2019 11:40	L19AO004.D	55465	90	19.99	0	137322	92	23.15	0	108757	92	30.10	-0.02
	1/15/2019 13:27	L19AO005.D	54813	89	19.99	0	135955	91	23.15	0	107942	91	30.10	-0.02
	1/15/2019 14:28	L19AO006.D	52048	84	19.99	0	124969	83	23.15	0	103181	87	30.10	-0.02
	1/15/2019 15:30	L19AO007.D	55751	90	19.99	0	136223	91	23.15	0	109912	93	30.10	-0.02
	1/15/2019 16:31	L19AO008.D	53200	86	19.99	0	129403	86	23.15	0	103134	87	30.10	-0.02
	1/15/2019 17:33	L19AO009.D	54568	88	19.99	0	131899	88	23.15	0	105396	89	30.10	-0.02
	1/15/2019 18:32	L19AO010.D	55708	90	19.99	0	142673	95	23.15	0	107769	91	30.10	-0.02
	1/15/2019 19:34	L19AO011.D	55225	89	19.99	0	132759	89	23.15	0	105226	89	30.10	-0.02
	1/15/2019 20:34	L19AO012.D	52618	85	19.99	0	133403	89	23.15	0	102696	87	30.10	-0.02
	1/15/2019 21:35	L19AO013.D	51925	84	19.99	0	125351	84	23.15	0	101935	86	30.10	-0.02
	1/15/2019 22:37	L19AO014.D	53238	86	19.99	0	132177	88	23.15	0	105615	89	30.09	-0.03
	1/15/2019 23:38	L19AO015.D	54258	88	19.99	0	132047	88	23.15	0	103276	87	30.10	-0.02
	1/16/2019 12:39	L19AO016.D	55332	90	19.99	0	136275	91	23.15	0	107698	91	30.10	-0.02
	1/16/2019 1:41	L19AO017.D	50920	82	19.99	0	123321	82	23.15	0	97883	83	30.10	-0.02
	1/16/2019 2:42	L19AO018.D	50629	82	19.99	0	121969	81	23.15	0	99420	84	30.10	-0.02
	1/16/2019 3:44	L19AO019.D	50136	81	19.99	0	120644	81	23.15	0	97604	83	30.10	-0.02
	1/16/2019 4:45	L19AO020.D	50896	82	19.99	0	121851	81	23.15	0	97631	83	30.09	-0.03
	1/16/2019 5:47	L19AO021.D	52070	84	19.99	0	127699	85	23.15	0	102536	87	30.10	-0.02

1-24-19

OST
1/30/19

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9A10002

Description:	2.50 ppbv ICV/CCV	Expires:	02/09/19
Standard Type:	Calibration Stan	Prepared:	01/10/19
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	01/10/19 07:20 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 1-14-19 Date

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9A10002

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

Reviewed By 1-24-19 Date

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19AO\
Data File : L19AO002.D
Acq On : 15 Jan 2019 9:39 am
Operator : MAH
Sample : 1901067-CCV1
Misc : 80 ML 8L13001,9A10002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 11:24:48 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

1-CY-A

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	0.368	0.364	1.1	100	0.00
3	CT	Propylene	0.454	0.481	-5.9	100	0.00
4	CT	Dichlorodifluoromethane	1.966	1.952	0.7	100	0.00
5	CT	Chloromethane	0.586	0.550	6.1	100	0.00
6	CT	Dichlorotetrafluoroethane	1.864	2.004	-7.5	100	0.00
7	CT	Vinyl Chloride	0.630	0.609	3.3	100	0.00
8	CT	1,3-Butadiene	0.415	0.396	4.6	100	0.00
9	CT	Ethylene oxide	0.246	0.221	10.2	100	0.00
10	CT	Bromomethane	0.634	0.611	3.6	100	0.00
11	CT	Chloroethane	0.279	0.265	5.0	100	0.00
12	CT	Acetonitrile	0.479	0.468	2.3	100	0.00
13	CT	Acrolein	0.236	0.197	16.5	100	0.00
14	CT	Trichlorofluoromethane	1.865	1.614	13.5	100	0.00
15	CT	Acrylonitrile	0.385	0.336	12.7	100	0.00
16	CT	1,1-Dichloroethene	0.856	0.877	-2.5	100	0.00
17	CT	Methylene Chloride	0.612	0.588	3.9	100	0.00
18	CT	Carbon Disulfide	1.862	1.781	4.4	100	0.00
19	CT	Trichlorotrifluoroethane	1.345	1.361	-1.2	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.483	0.465	3.7	100	0.00
21	CT	1,1-Dichloroethane	0.877	0.858	2.2	100	0.00
22	CT	Methyl tert-Butyl Ether	1.298	1.227	5.5	100	0.00
23	CT	Chloroprene	0.602	0.601	0.2	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.670	0.633	5.5	100	0.00
25	CT	Bromochloromethane	0.368	0.341	7.3	100	0.00
26	CT	Chloroform	1.004	1.005	-0.1	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.360	1.317	3.2	100	0.00
28	CT	1,2-Dichloroethane	0.596	0.573	3.9	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.417	0.389	6.7	100	0.00
31	CT	Benzene	0.574	0.602	-4.9	100	0.00
32	CT	Carbon Tetrachloride	0.452	0.476	-5.3	100	0.00
33	CT	tert-Amyl Methyl Ether	0.483	0.467	3.3	100	0.00
34	CT	1,2-Dichloropropane	0.241	0.236	2.1	100	0.00
35	CT	Ethyl Acrylate	0.323	0.308	4.6	100	0.00
36	CT	Bromodichloromethane	0.440	0.375	14.8	100	0.00
37	CT	Trichloroethylene	0.276	0.249	9.8	100	0.00
38	CT	Methyl Methacrylate	0.850	0.792	6.8	100	0.00
39	CT	cis-1,3-Dichloropropene	0.221	0.232	-5.0	100	0.00
40	CT	Methyl Isobutyl Ketone	0.465	0.427	8.2	100	0.00
41	CT	trans-1,3-Dichloropropene	0.172	0.165	4.1	100	0.00
42	CT	1,1,2-Trichloroethane	0.214	0.208	2.8	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.762	0.791	-3.8	100	0.00
45	CT	Dibromochloromethane	1.910	1.732	9.3	100	0.00
46	CT	1,2-Dibromoethane	0.346	0.334	3.5	100	0.00
47	CT	n-Octane	0.471	0.473	-0.4	100	0.00
48	CT	Tetrachloroethylene	0.387	0.398	-2.8	100	0.00

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19AO\
Data File : L19AO002.D
Acq On : 15 Jan 2019 9:39 am
Operator : MAH
Sample : 1901067-CCV1
Misc : 80 ML 8L13001,9A10002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 11:24:48 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 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	0.538	0.520	3.3	100	0.00
50 CT	Ethylbenzene	0.814	0.806	1.0	100	0.00
51 CT	m,p-Xylene	0.708	0.686	3.1	100	0.00
52 CT	Bromoform	0.414	0.352	15.0	100	0.00
53 CT	Styrene	0.391	0.360	7.9	100	0.00
54 CT	1,1,2,2-Tetrachloroethane	0.517	0.488	5.6	100	0.00
55 CT	o-Xylene	0.683	0.708	-3.7	100	0.00
56 CT	1,3,5-Trimethylbenzene	0.669	0.640	4.3	100	0.00
57 CT	1,2,4-Trimethylbenzene	0.583	0.560	3.9	100	0.00
58 CT	m-Dichlorobenzene	0.401	0.298	25.7	100	0.00
59 CT	p-Dichlorobenzene	0.323	0.249	22.9	100	0.00
60 CT	o-Dichlorobenzene	0.349	0.302	13.5	100	0.00
61 CT	1,2,4-Trichlorobenzene	0.142	0.111	21.8	100	0.00
62 CT	Hexachloro-1,3-butadiene	0.360	0.359	0.3	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 : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO002.D
Acq On : 15 Jan 2019 9:39 am
Operator : MAH
Sample : 1901067-CCV1
Misc : 80 ML 8L13001,9A10002
ALS Vial : 2 Sample Multiplier: 1

RJB 1/30/19

Quant Time: Jan 22 11:24:48 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	62377	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	153125	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	119064	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.418	26	11420	2.3713 ppbv	100
3) Propylene	7.823	41	15410	2.5932 ppbv	100
4) Dichlorodifluoromethane	8.685	85	60738	2.3629 ppbv	100
5) Chloromethane	9.740	50	17840	2.3265 ppbv	99
6) Dichlorotetrafluoroethane	10.864	85	63946	2.6231 ppbv	99
7) Vinyl Chloride	11.119	62	19896	2.4137 ppbv	100
8) 1,3-Butadiene	11.783	54	12785	2.3542 ppbv	98
9) Ethylene oxide	12.380	29	7217	2.2400 ppbv	93
10) Bromomethane	12.590	94	19984	2.4101 ppbv	99
11) Chloroethane	13.282	64	8654	2.3728 ppbv	99
12) Acetonitrile	14.358	41	15477	2.4706 ppbv	100
13) Acrolein	14.613	56	6232	2.0200 ppbv	99
14) Trichlorofluoromethane	15.193	101	52781	2.1642 ppbv	100
15) Acrylonitrile	15.935	53	10987	2.1831 ppbv	99
16) 1,1-Dichloroethene	16.422	61	27993	2.5007 ppbv	99
17) Methylene Chloride	16.747	49	19066	2.3823 ppbv	99
18) Carbon Disulfide	16.932	76	57753	2.3722 ppbv	100
19) Trichlorotrifluoroethane	17.280	101	43422	2.4682 ppbv	100
20) trans-1,2-Dichloroethy...	18.315	96	14949	2.3658 ppbv	100
21) 1,1-Dichloroethane	18.632	63	27268	2.3776 ppbv	100
22) Methyl tert-Butyl Ether	18.791	73	40749	2.4012 ppbv	100
23) Chloroprene	19.539	53	19503	2.4758 ppbv	99
24) cis-1,2-Dichloroethylene	19.947	61	20708	2.3650 ppbv	99
25) Bromochloromethane	20.174	128	11025	2.2880 ppbv	98
26) Chloroform	20.401	83	32868	2.5046 ppbv	99
27) Ethyl tert-Butyl Ether	21.164	59	44254	2.4889 ppbv	100
28) 1,2-Dichloroethane	21.478	62	18664	2.3962 ppbv	99
30) 1,1,1-Trichloroethane	21.869	97	29480	2.3038 ppbv	98
31) Benzene	22.535	78	46404	2.6363 ppbv	100
32) Carbon Tetrachloride	22.770	117	36837	2.6558 ppbv	100
33) tert-Amyl Methyl Ether	23.501	73	37259	2.5138 ppbv	100
34) 1,2-Dichloropropane	23.790	63	18308	2.4735 ppbv	95
35) Ethyl Acrylate	23.872	55	24000	2.4185 ppbv	100
36) Bromodichloromethane	24.078	83	29438	2.1816 ppbv	100
37) Trichloroethylene	24.161	130	19290	2.2754 ppbv	99
38) Methyl Methacrylate	24.532	41	61736	2.3672 ppbv	99
39) cis-1,3-Dichloropropene	25.511	75	18100	2.6658 ppbv	98
40) Methyl Isobutyl Ketone	25.588	43	33179	2.3240 ppbv	99
41) trans-1,3-Dichloropropene	26.350	75	12449	2.3551 ppbv	96
42) 1,1,2-Trichloroethane	26.617	97	15848	2.4138 ppbv	99
44) Toluene	27.075	91	48498	2.5352 ppbv	100
45) Dibromochloromethane	27.734	129	110481	2.3024 ppbv	100
46) 1,2-Dibromoethane	28.138	107	21002	2.4156 ppbv	100
47) n-Octane	28.857	43	29965	2.5328 ppbv	99
48) Tetrachloroethylene	28.998	166	24874	2.5563 ppbv	100

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO002.D
Acq On : 15 Jan 2019 9:39 am
Operator : MAH
Sample : 1901067-CCV1
Misc : 80 ML 8L13001,9A10002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 11:24:48 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	30.173	112	32157	2.3812 ppbv	100
50) Ethylbenzene	30.898	91	50585	2.4735 ppbv	99
51) m,p-Xylene	31.223	91	85806	4.8254 ppbv	99
52) Bromoform	31.280	173	22453	2.1585 ppbv	100
53) Styrene	31.910	104	22610	2.3038 ppbv #	99
54) 1,1,2,2-Tetrachloroethane	32.063	83	31020	2.3867 ppbv	100
55) o-Xylene	32.120	91	43395	2.5311 ppbv	100
56) 1,3,5-Trimethylbenzene	34.920	105	40494	2.4086 ppbv	100
57) 1,2,4-Trimethylbenzene	35.828	105	33508	2.2889 ppbv	100
58) m-Dichlorobenzene	36.113	146	17977	1.7860 ppbv	99
59) p-Dichlorobenzene	36.274	146	16321	2.0127 ppbv	100
60) o-Dichlorobenzene	37.093	146	18996	2.1696 ppbv	100
61) 1,2,4-Trichlorobenzene	40.827	180	6901	1.9337 ppbv	99
62) Hexachloro-1,3-butadiene	41.621	225	22515	2.4868 ppbv	100

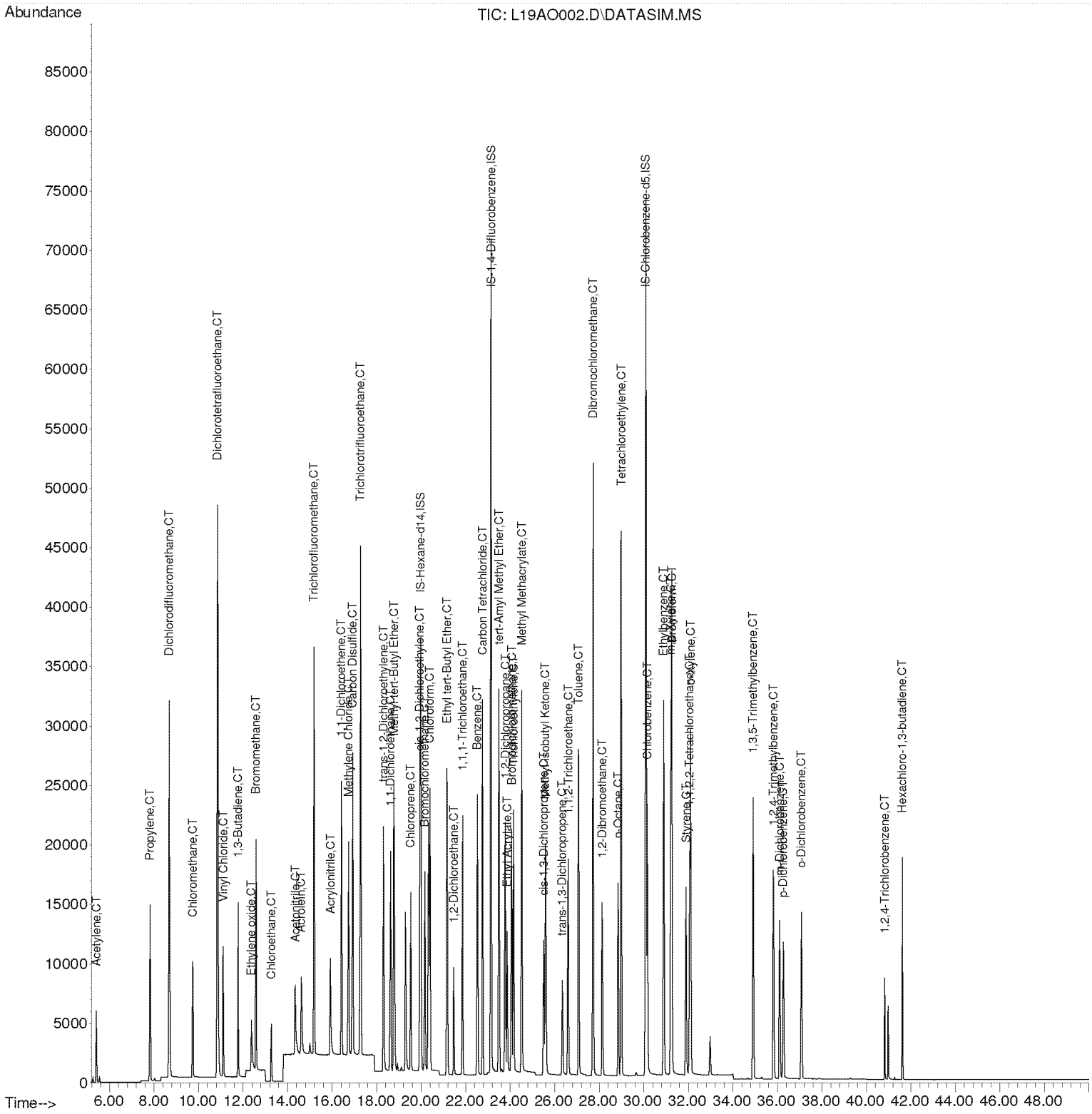
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

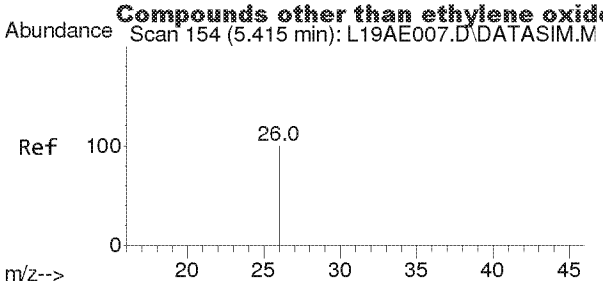
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO002.D
Acq On : 15 Jan 2019 9:39 am
Operator : MAH
Sample : 1901067-CCV1
Misc : 80 ML 8L13001,9A10002
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 11:24:48 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

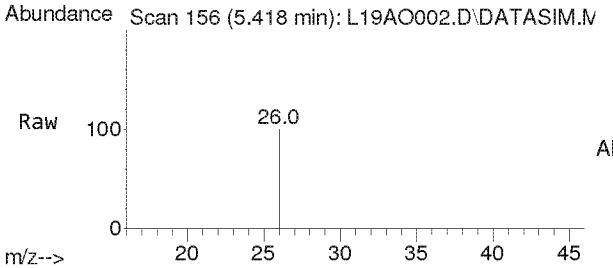


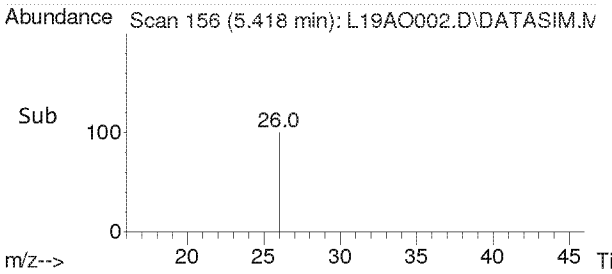
Compounds other than ethylene oxide were not quantitated.

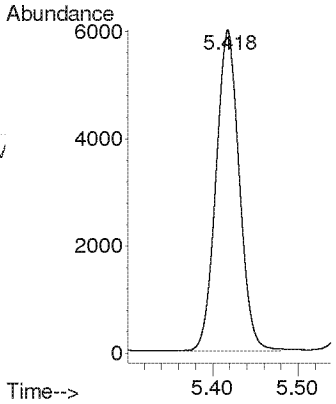


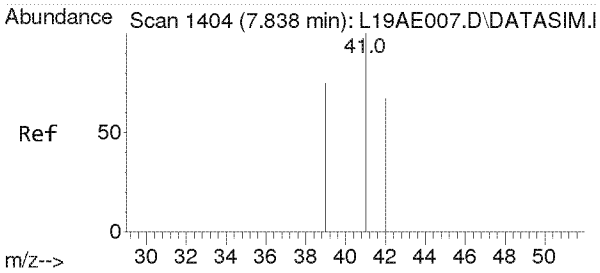
#2
Acetylene
Concen: 2.371 ppbv
RT: 5.418 min Scan# 156
Delta R.T. 0.003 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 26 Resp: 11420





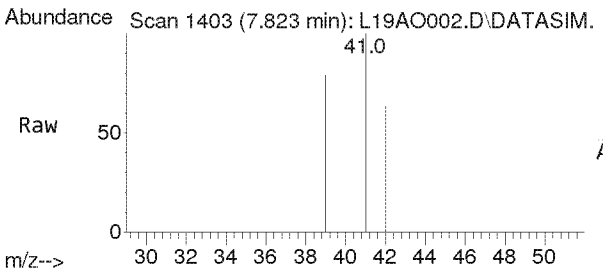


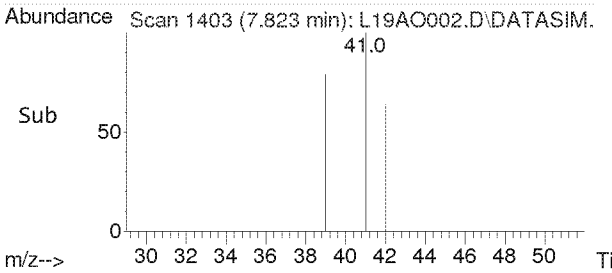


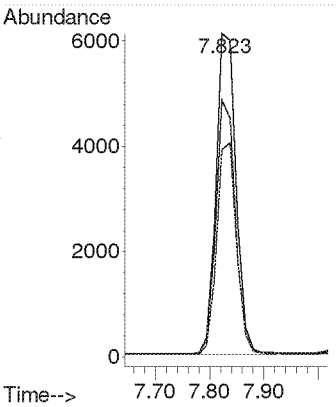
#3
Propylene
Concen: 2.593 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.014 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 41 Resp: 15410

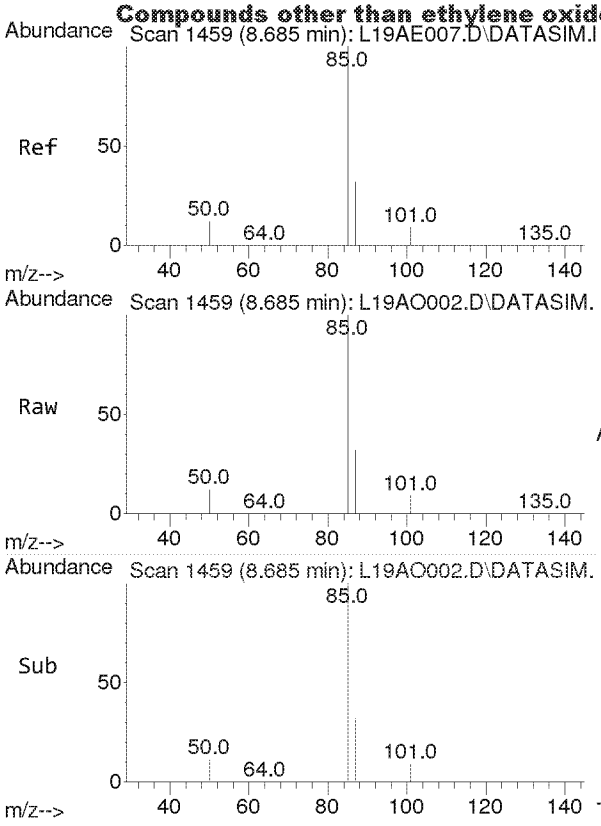
Ion	Ratio	Lower	Upper
41	100		
39	77.2	61.6	92.4
42	65.8	52.6	79.0







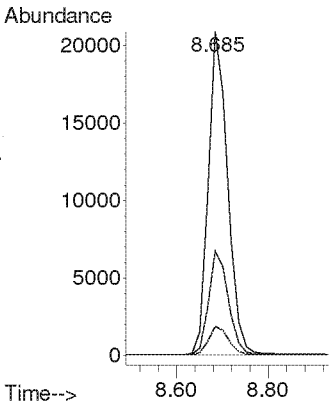
Compounds other than ethylene oxide were not quantitated.

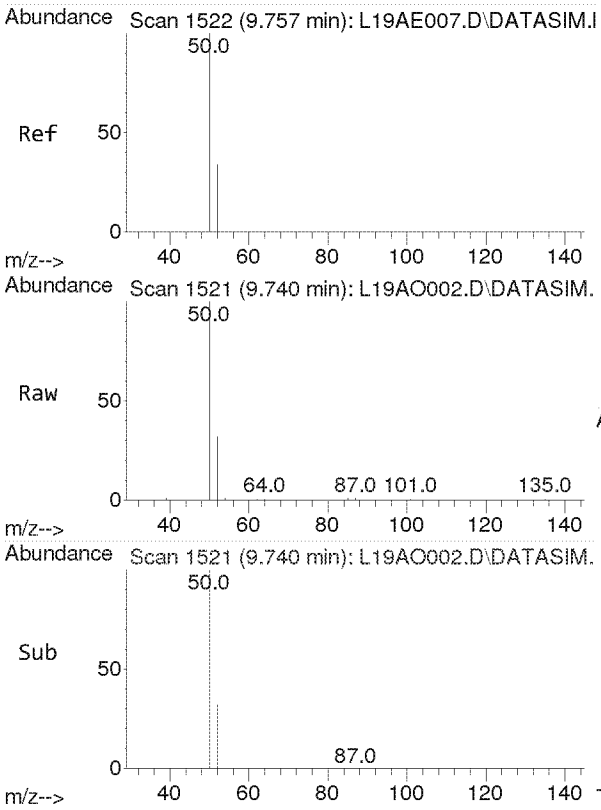


#4
Dichlorodifluoromethane
Concen: 2.363 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. -0.000 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 85 Resp: 60738

Ion	Ratio	Lower	Upper
85	100		
87	32.4	26.0	39.0
101	8.8	7.1	10.7

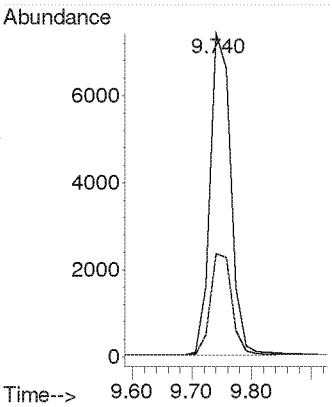




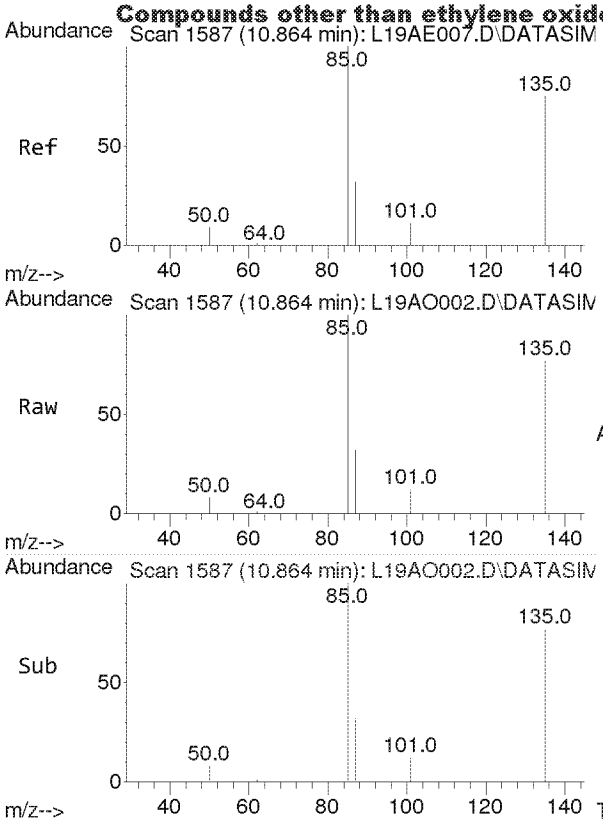
#5
Chloromethane
Concen: 2.326 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 50 Resp: 17840

Ion	Ratio	Lower	Upper
50	100		
52	32.7	25.9	38.9



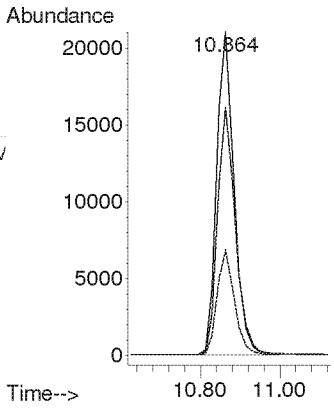
Compounds other than ethylene oxide were not quantitated.

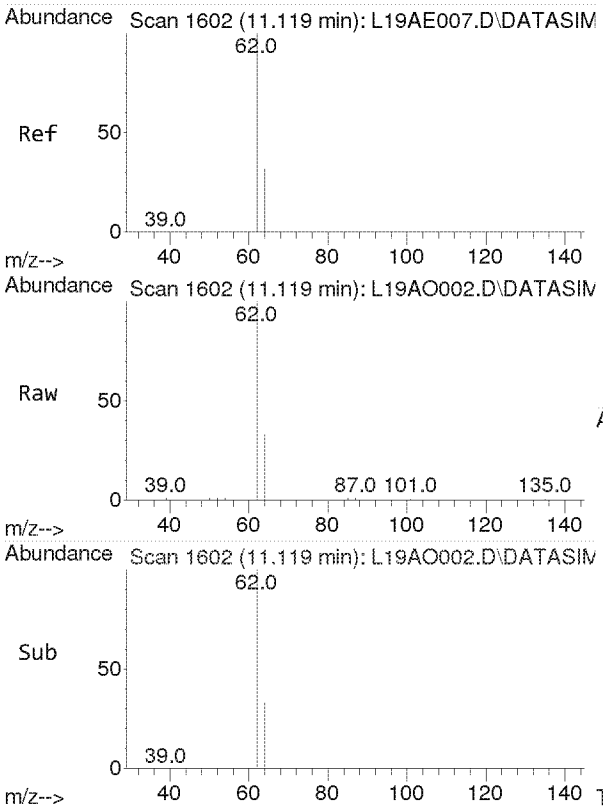


#6
Dichlorotetrafluoroethane
Concen: 2.623 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. 0.000 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 85 Resp: 63946

Ion	Ratio	Lower	Upper
85	100		
135	78.8	63.6	95.4
87	32.1	25.8	38.6

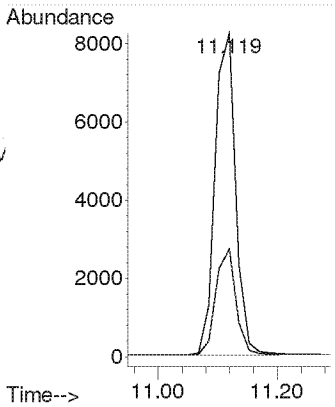




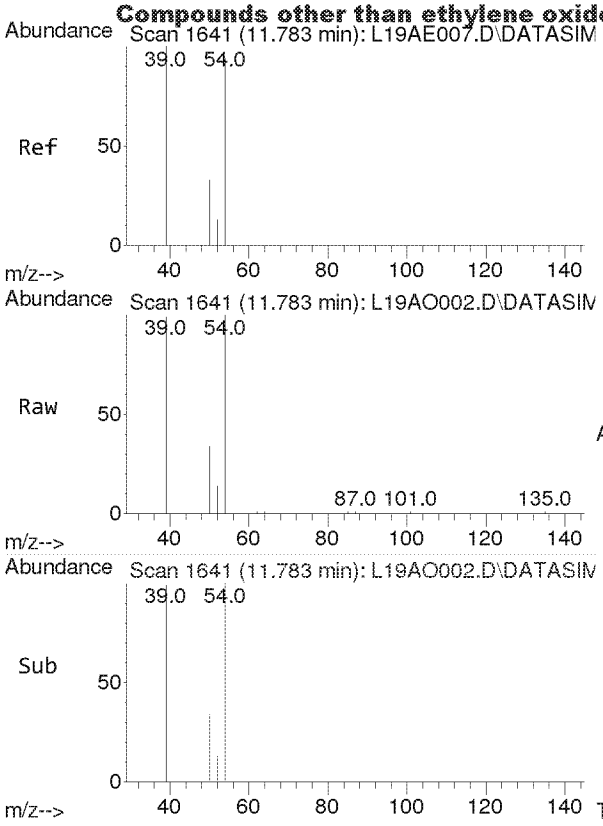
#7
Vinyl Chloride
Concen: 2.414 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. -0.000 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 62 Resp: 19896

Ion	Ratio	Lower	Upper
62	100		
64	32.1	25.7	38.5



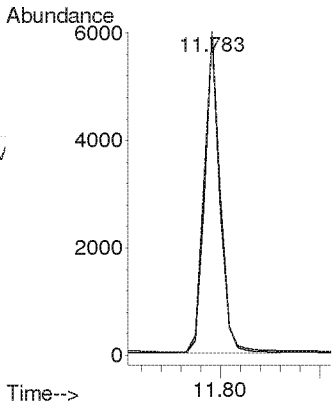
Compounds other than ethylene oxide were not quantitated.

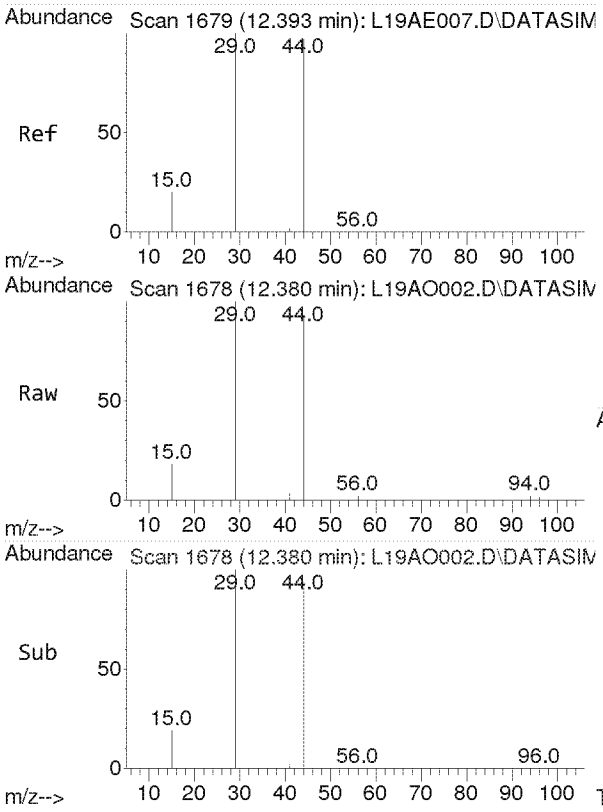


#8
1,3-Butadiene
Concen: 2.354 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. -0.000 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 54 Resp: 12785

Ion	Ratio	Lower	Upper
54	100		
39	101.5	82.6	124.0

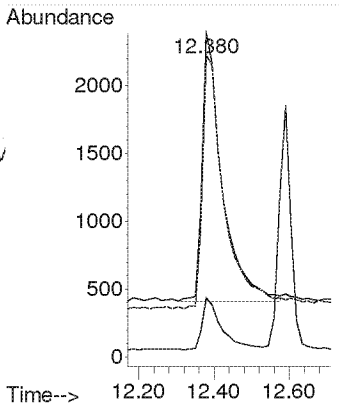




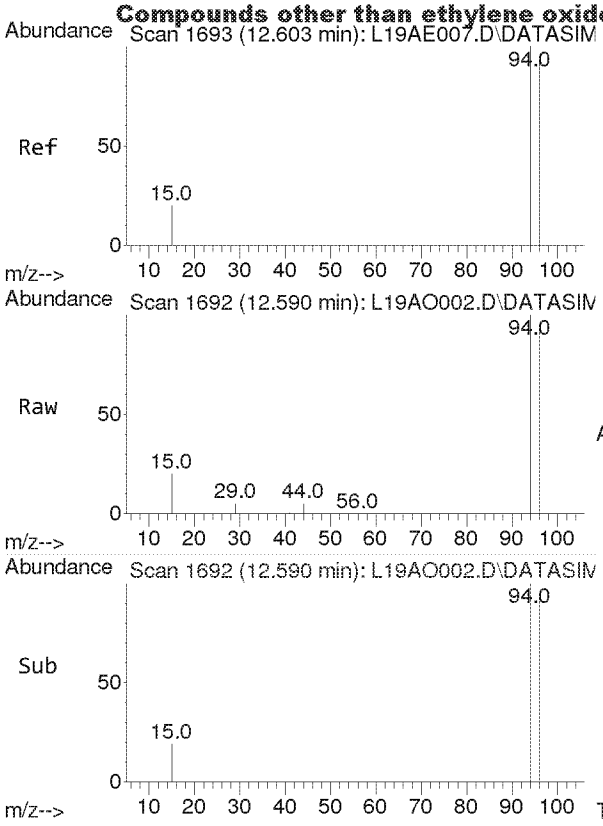
#9
Ethylene oxide
Concen: 2.240 ppbv
RT: 12.380 min Scan# 1678
Delta R.T. -0.013 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 29 Resp: 7217

Ion	Ratio	Lower	Upper
29	100		
15	18.4	15.4	23.0
44	105.2	77.4	116.2



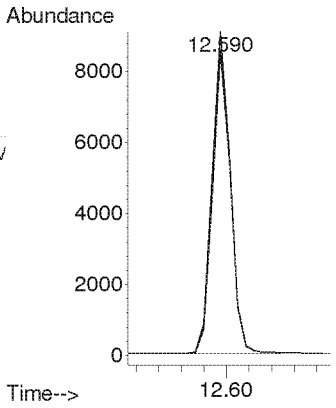
Compounds other than ethylene oxide were not quantitated.

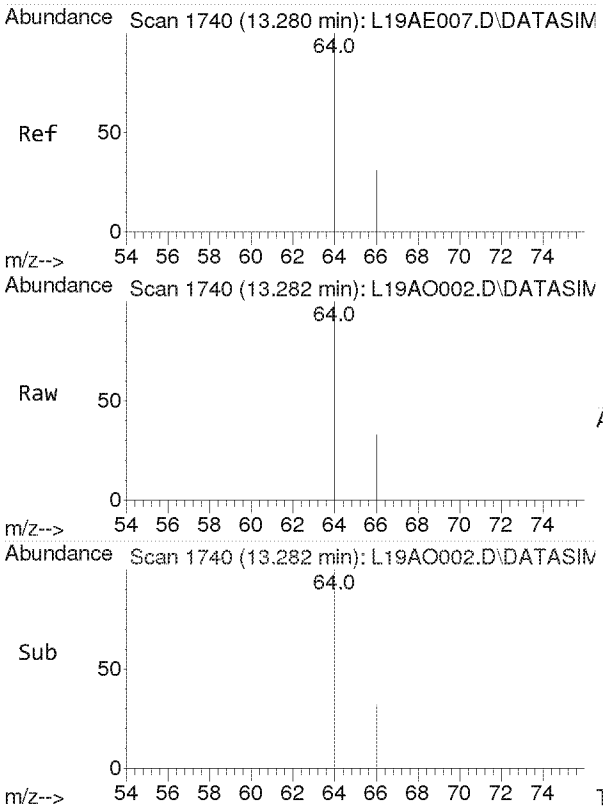


#10
Bromomethane
Concen: 2.410 ppbv
RT: 12.590 min Scan# 1692
Delta R.T. -0.013 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 94 Resp: 19984

Ion	Ratio	Lower	Upper
94	100		
96	93.7	75.4	113.2

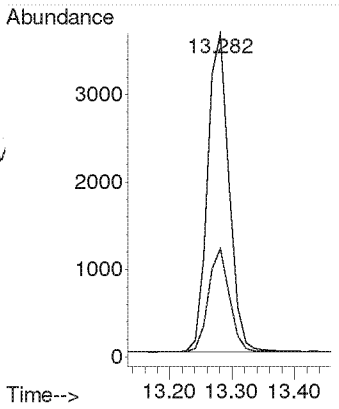




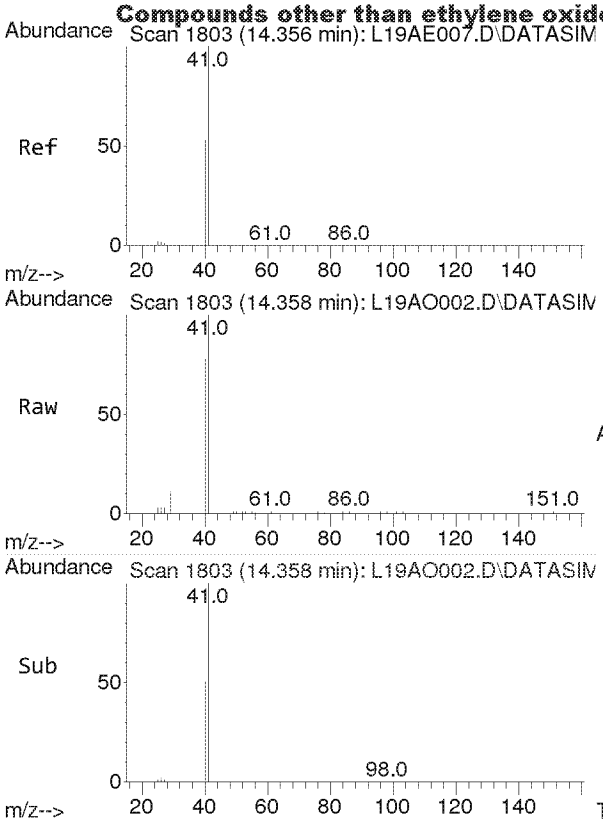
#11
Chloroethane
Concen: 2.373 ppbv
RT: 13.282 min Scan# 1740
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 64 Resp: 8654

Ion	Ratio	Lower	Upper
64	100		
66	31.7	25.9	38.9



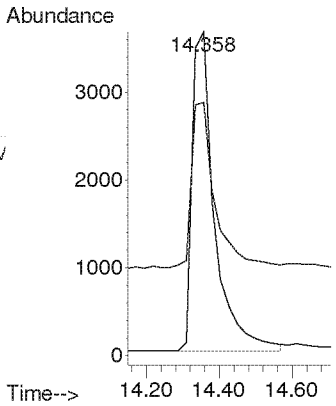
Compounds other than ethylene oxide were not quantitated.

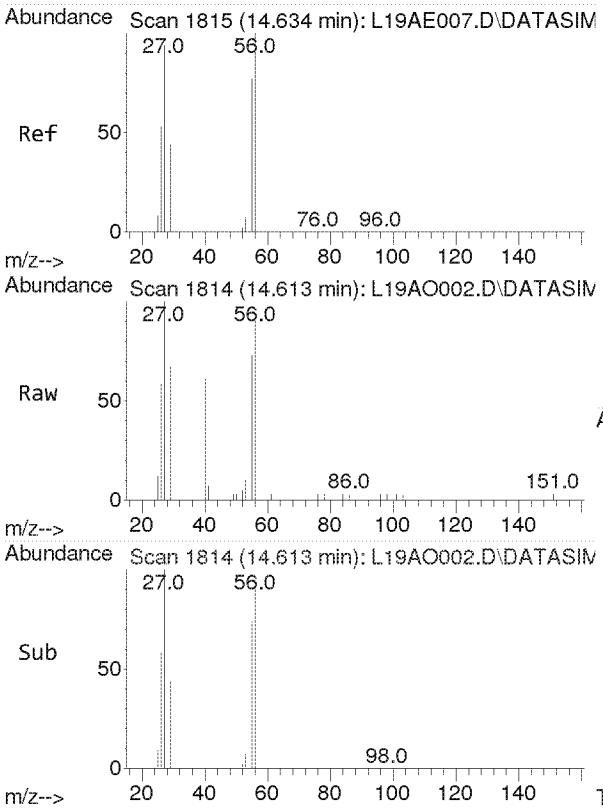


#12
Acetonitrile
Concen: 2.471 ppbv
RT: 14.358 min Scan# 1803
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 41 Resp: 15477

Ion	Ratio	Lower	Upper
41	100		
40	52.9	42.6	63.8

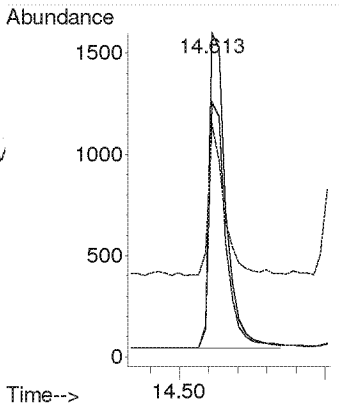




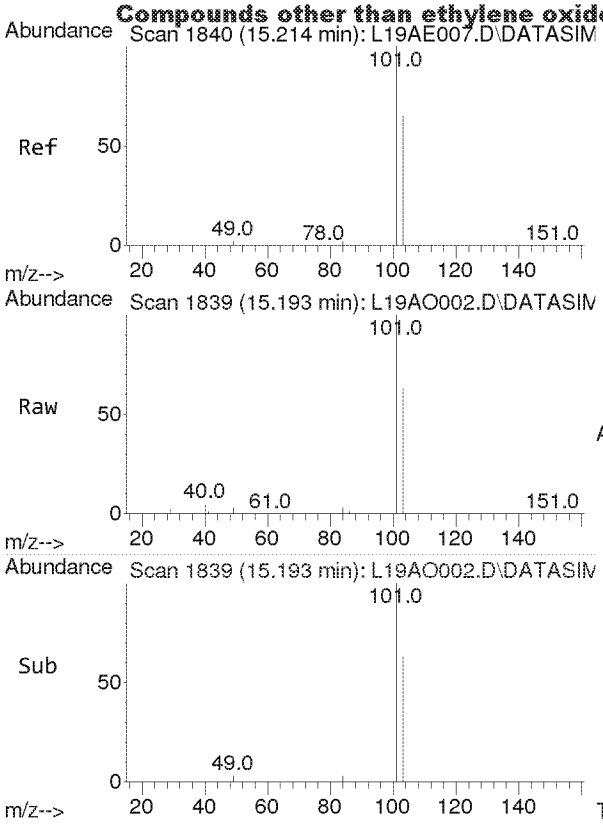
#13
Acrolein
Concen: 2.020 ppbv
RT: 14.613 min Scan# 1814
Delta R.T. -0.021 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 56 Resp: 6232

Ion	Ratio	Lower	Upper
56	100		
55	77.5	61.2	91.8
29	44.9	35.9	53.9



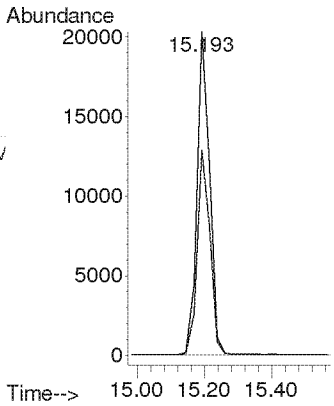
Compounds other than ethylene oxide were not quantitated.

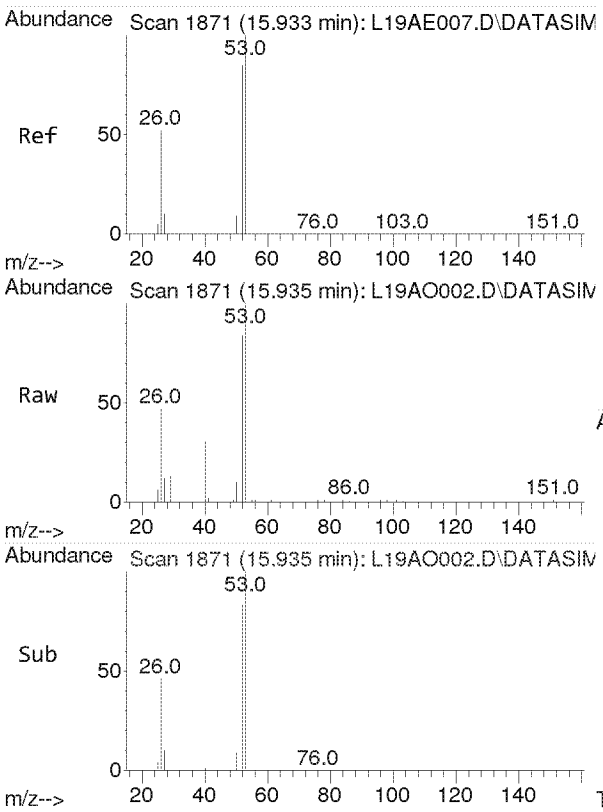


#14
Trichlorofluoromethane
Concen: 2.164 ppbv
RT: 15.193 min Scan# 1839
Delta R.T. -0.021 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:101 Resp: 52781

Ion	Ratio	Lower	Upper
101	100		
103	64.4	51.7	77.5

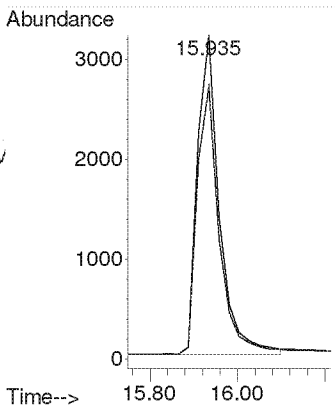




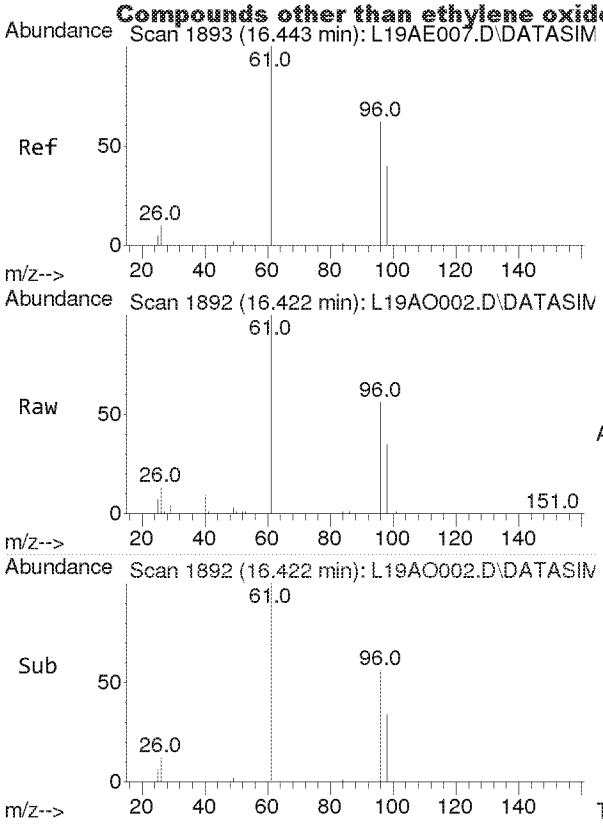
#15
Acrylonitrile
Concen: 2.183 ppbv
RT: 15.935 min Scan# 1871
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 53 Resp: 10987

Ion	Ratio	Lower	Upper
53	100		
52	85.2	67.8	101.6



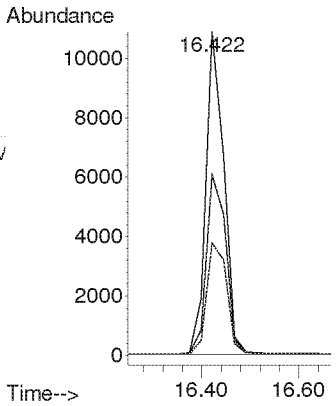
Compounds other than ethylene oxide were not quantitated.

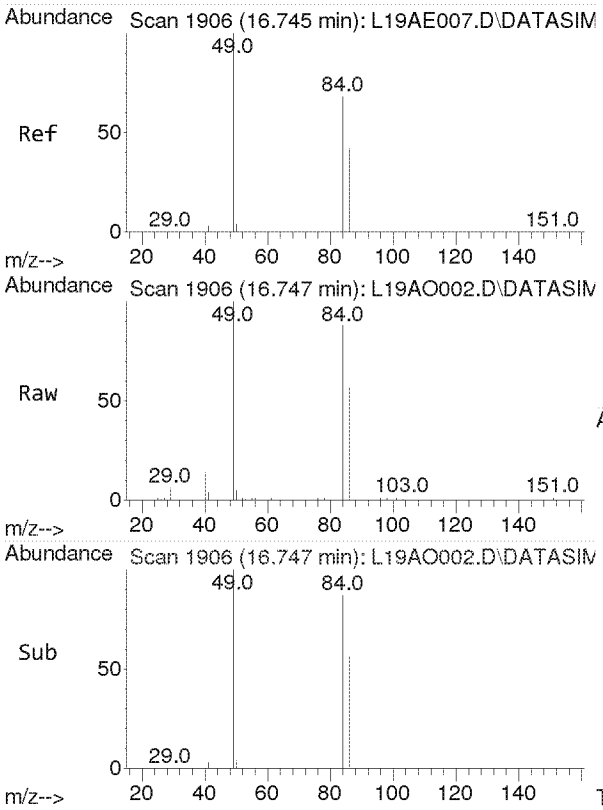


#16
1,1-Dichloroethene
Concen: 2.501 ppbv
RT: 16.422 min Scan# 1892
Delta R.T. -0.021 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 61 Resp: 27993

Ion	Ratio	Lower	Upper
61	100		
96	60.2	47.6	71.4
98	38.5	30.5	45.7

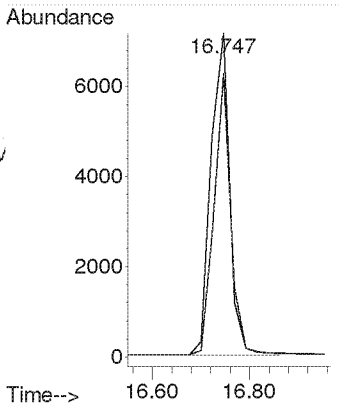




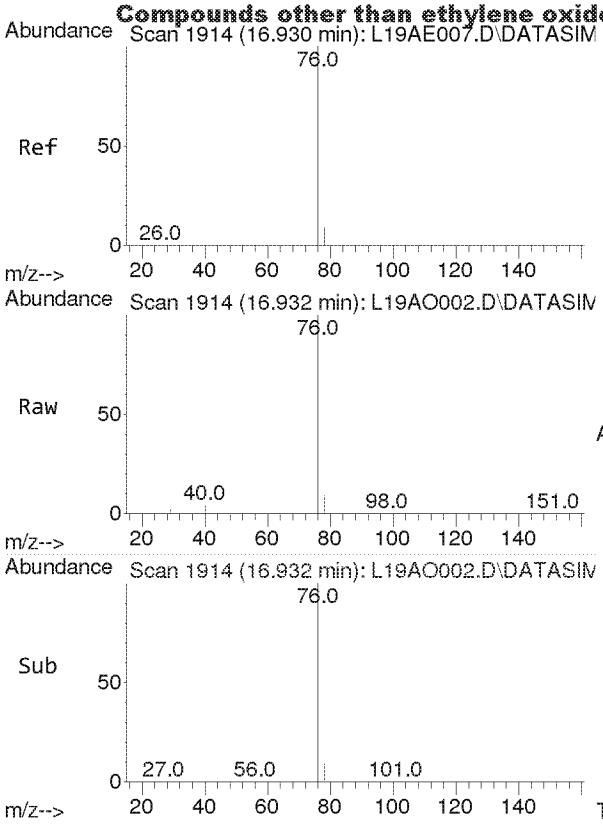
#17
Methylene Chloride
Concen: 2.382 ppbv
RT: 16.747 min Scan# 1906
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 49 Resp: 19066

Ion	Ratio	Lower	Upper
49	100		
84	78.4	54.1	100.5



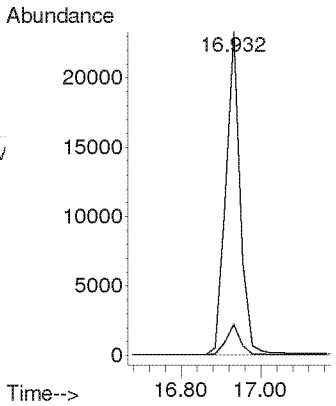
Compounds other than ethylene oxide were not quantitated.

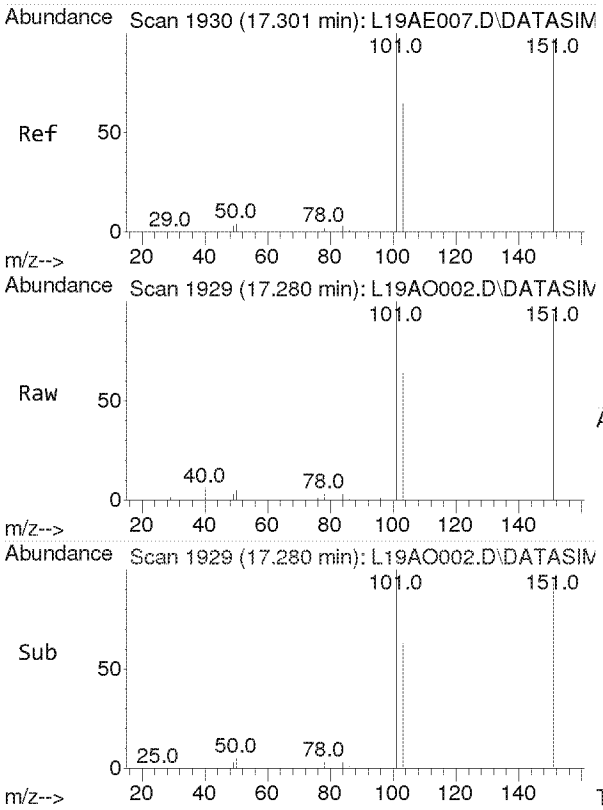


#18
Carbon Disulfide
Concen: 2.372 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 76 Resp: 57753

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.2	10.8

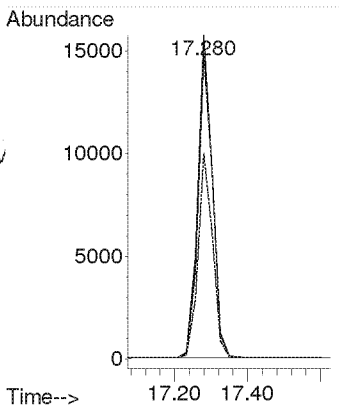




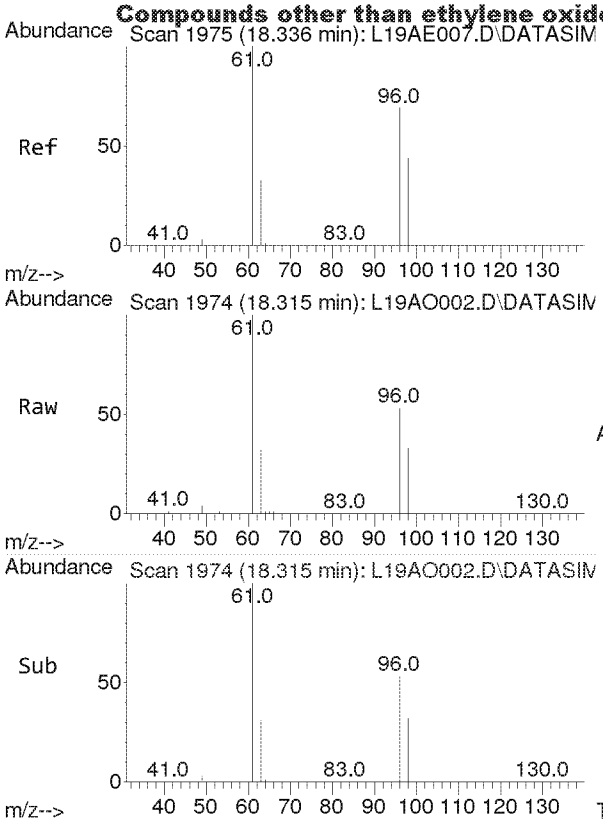
#19
Trichlorotrifluoroethane
Concen: 2.468 ppbv
RT: 17.280 min Scan# 1929
Delta R.T. -0.021 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:101 Resp: 43422

Ion	Ratio	Lower	Upper
101	100		
151	95.2	76.3	114.5
103	64.0	51.1	76.7



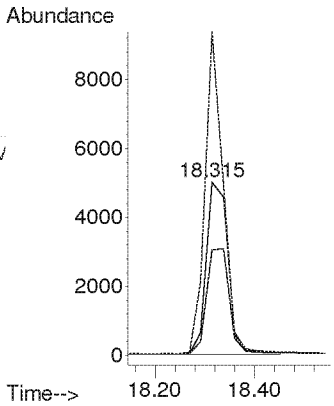
Compounds other than ethylene oxide were not quantitated.

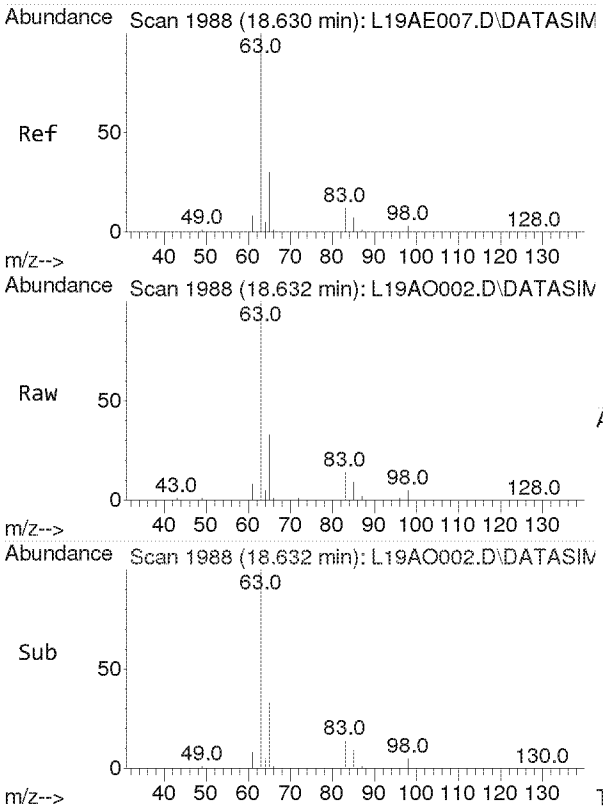


#20
trans-1,2-Dichloroethylene
Concen: 2.366 ppbv
RT: 18.315 min Scan# 1974
Delta R.T. -0.021 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 96 Resp: 14949

Ion	Ratio	Lower	Upper
96	100		
98	63.8	50.9	76.3
61	156.4	125.2	187.8

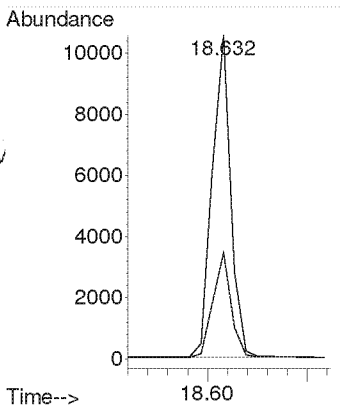




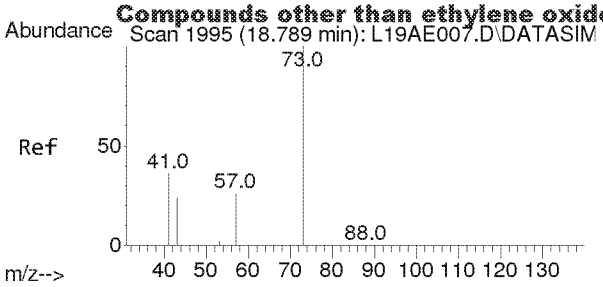
#21
1,1-Dichloroethane
Concen: 2.378 ppbv
RT: 18.632 min Scan# 1988
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 63 Resp: 27268

Ion	Ratio	Lower	Upper
63	100		
65	31.7	25.4	38.0



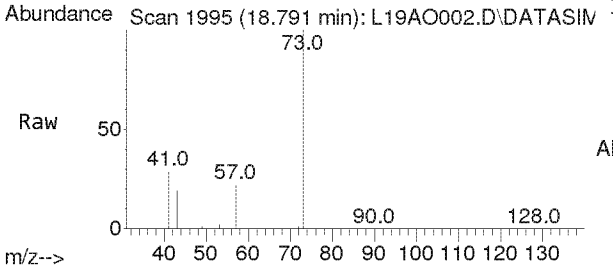
Compounds other than ethylene oxide were not quantitated.

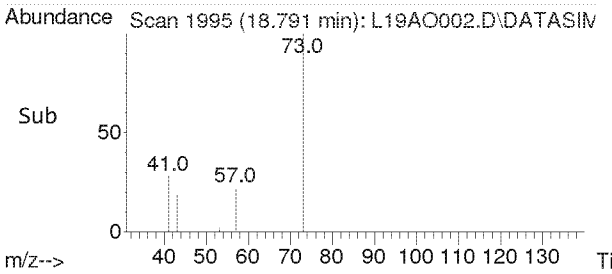


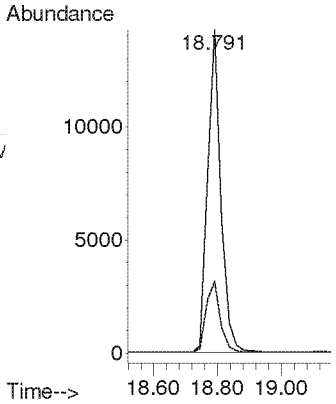
#22
Methyl tert-Butyl Ether
Concen: 2.401 ppbv
RT: 18.791 min Scan# 1995
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

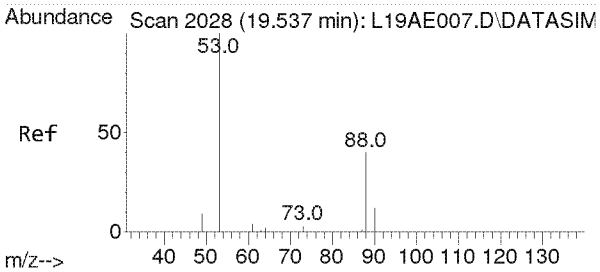
Tgt Ion: 73 Resp: 40749

Ion	Ratio	Lower	Upper
73	100		
57	23.4	18.9	28.3





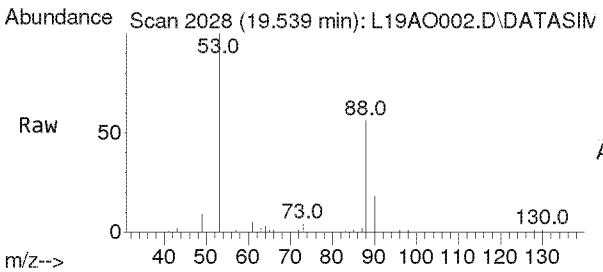


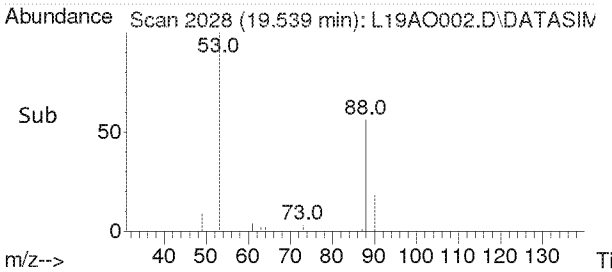


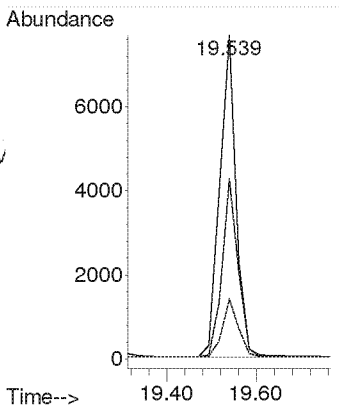
#23
Chloroprene
Concen: 2.476 ppbv
RT: 19.539 min Scan# 2028
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 53 Resp: 19503

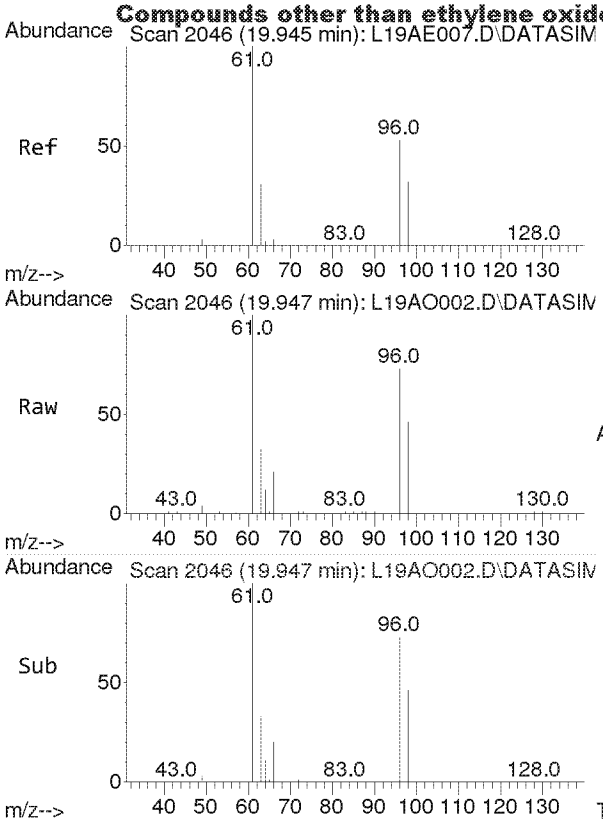
Ion	Ratio	Lower	Upper
53	100		
88	54.5	43.2	64.8
90	17.7	13.8	20.8







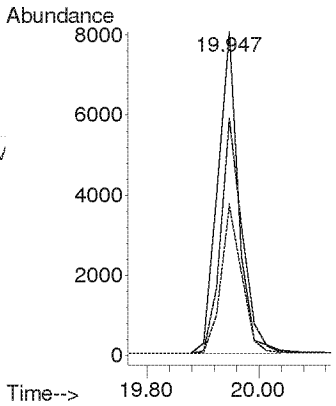
Compounds other than ethylene oxide were not quantitated.

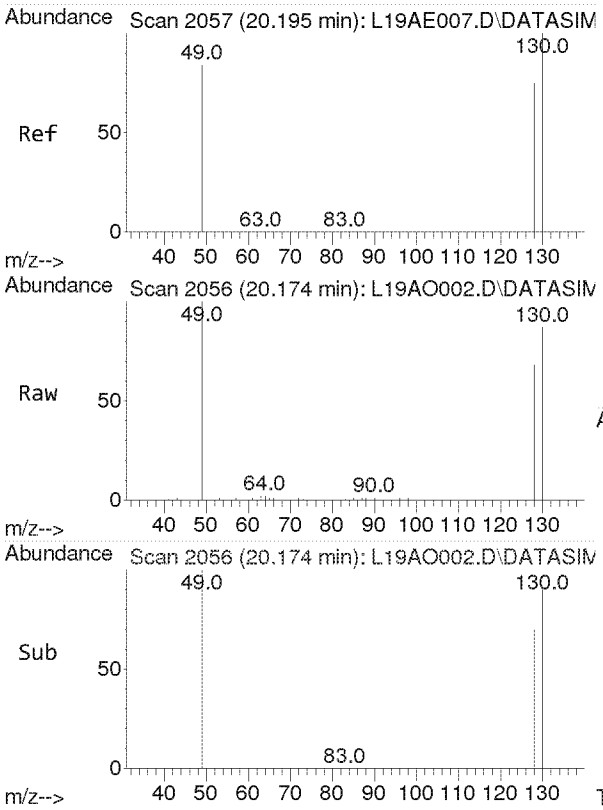


#24
cis-1,2-Dichloroethylene
Concen: 2.365 ppbv
RT: 19.947 min Scan# 2046
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 61 Resp: 20708

Ion	Ratio	Lower	Upper
61	100		
96	76.8	60.6	90.8
98	46.6	37.1	55.7

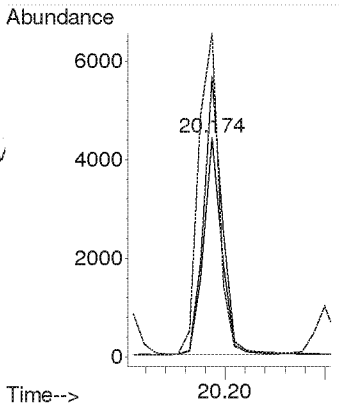




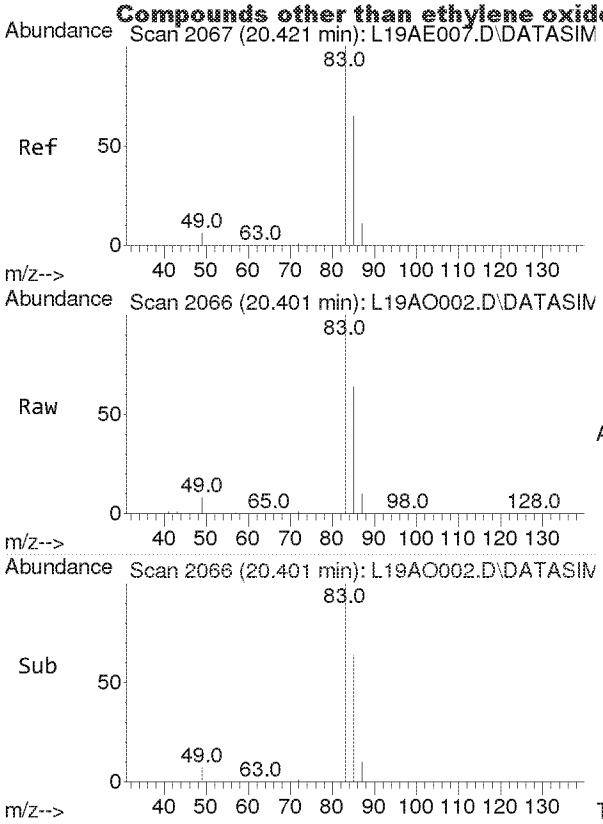
#25
Bromochloromethane
Concen: 2.288 ppbv
RT: 20.174 min Scan# 2056
Delta R.T. -0.021 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:128 Resp: 11025

Ion	Ratio	Lower	Upper
128	100		
130	129.3	104.3	156.5
49	167.4	136.6	205.0



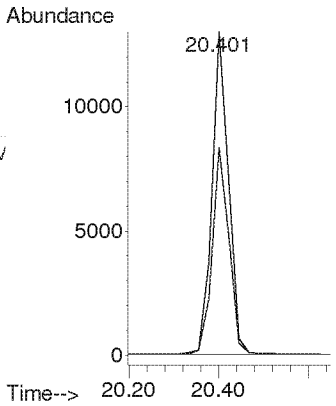
Compounds other than ethylene oxide were not quantitated.

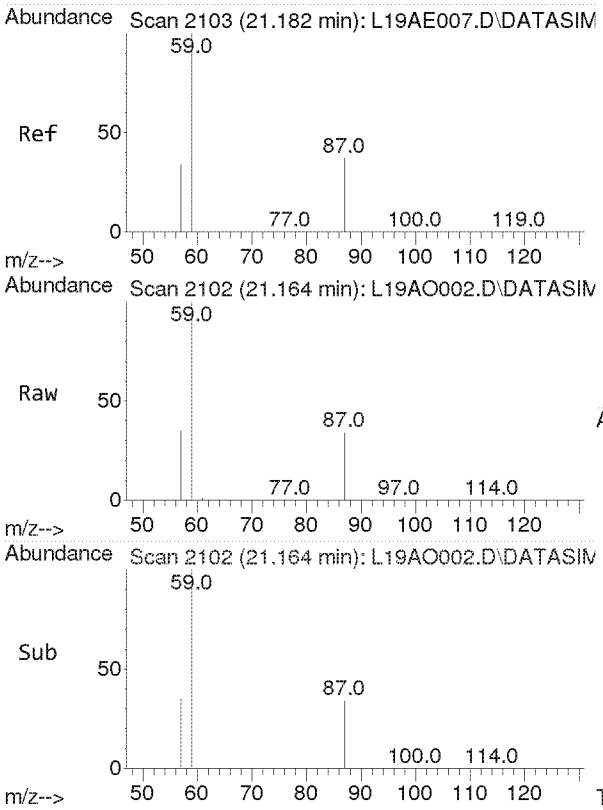


#26
Chloroform
Concen: 2.505 ppbv
RT: 20.401 min Scan# 2066
Delta R.T. -0.021 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 83 Resp: 32868

Ion	Ratio	Lower	Upper
83	100		
85	65.0	51.6	77.4

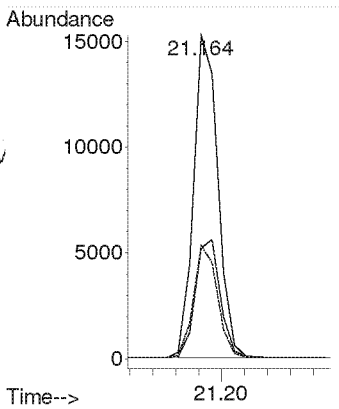




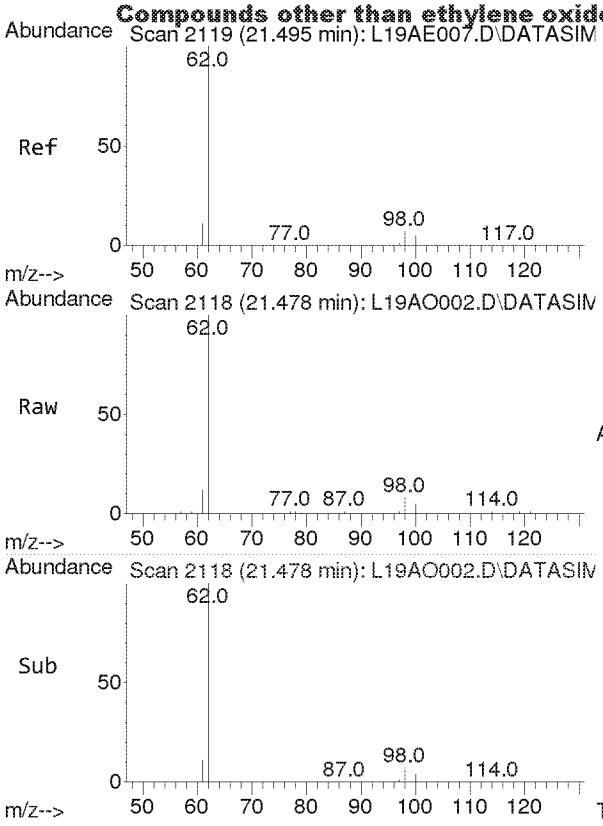
#27
Ethyl tert-Butyl Ether
Concen: 2.489 ppbv
RT: 21.164 min Scan# 2102
Delta R.T. -0.018 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 59 Resp: 44254

Ion	Ratio	Lower	Upper
59	100		
87	37.7	30.2	45.4
57	34.3	27.4	41.2



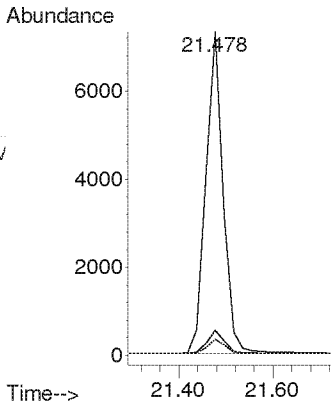
Compounds other than ethylene oxide were not quantitated.

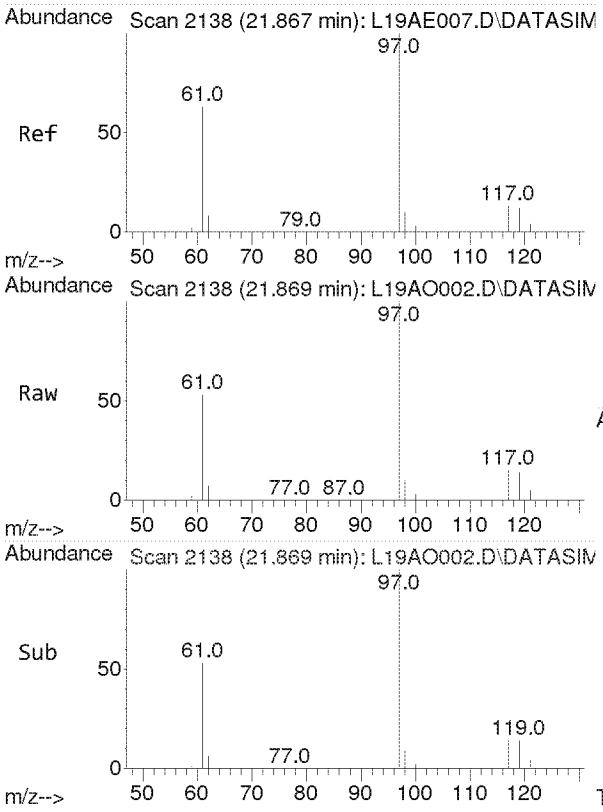


#28
1,2-Dichloroethane
Concen: 2.396 ppbv
RT: 21.478 min Scan# 2118
Delta R.T. -0.018 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 62 Resp: 18664

Ion	Ratio	Lower	Upper
62	100		
98	7.0	5.4	8.2
100	4.4	3.4	5.0

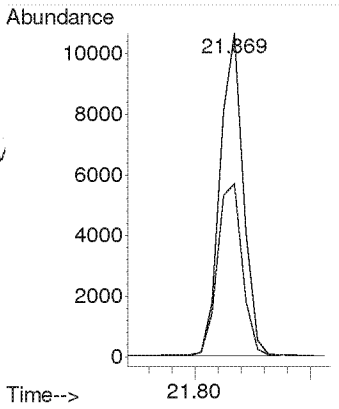




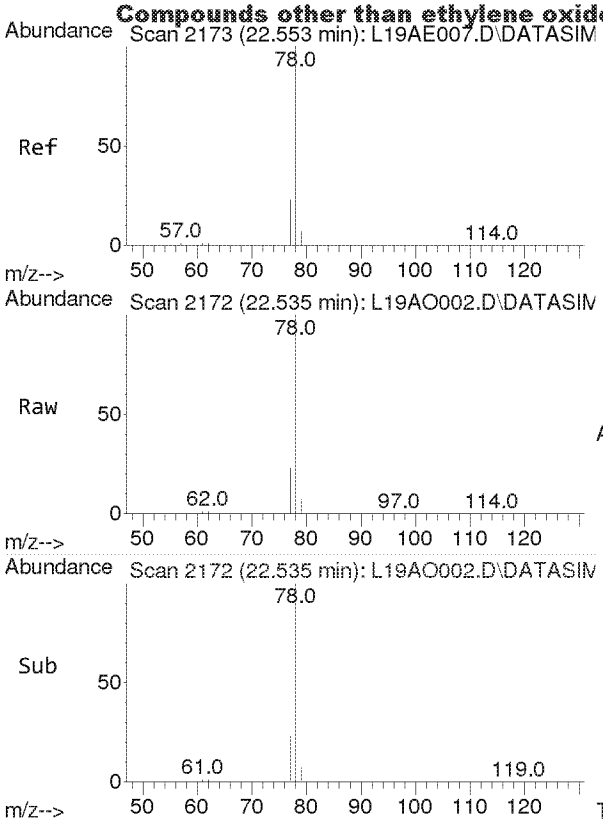
#30
1,1,1-Trichloroethane
Concen: 2.304 ppbv
RT: 21.869 min Scan# 2138
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 97 Resp: 29480

Ion	Ratio	Lower	Upper
97	100		
61	57.3	46.9	70.3



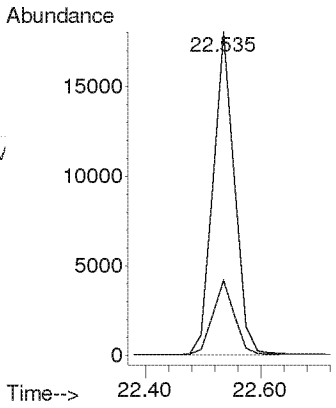
Compounds other than ethylene oxide were not quantitated.

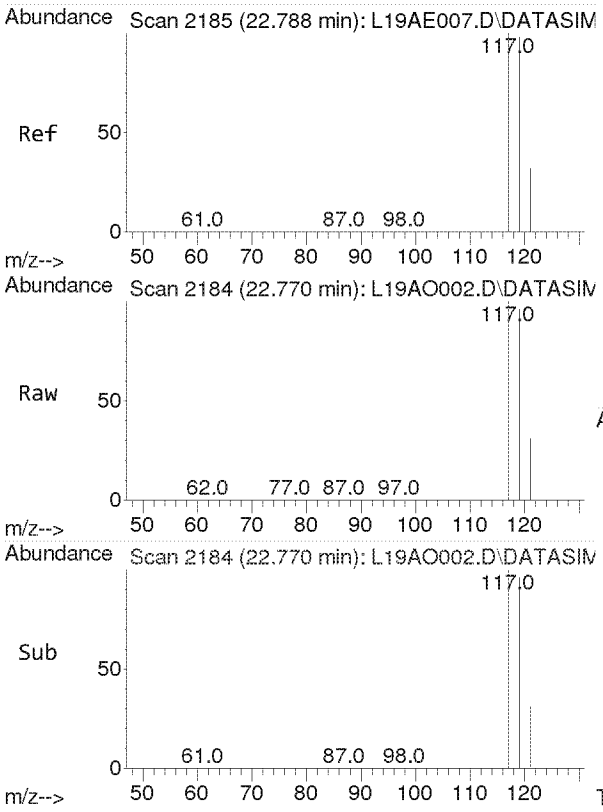


#31
Benzene
Concen: 2.636 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. -0.018 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 78 Resp: 46404

Ion	Ratio	Lower	Upper
78	100		
77	23.0	18.3	27.5

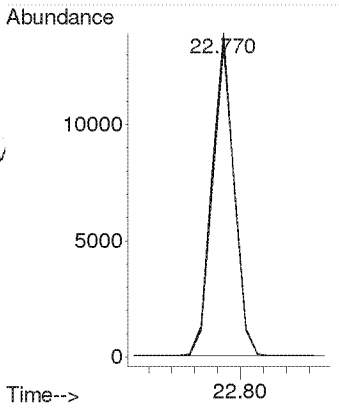




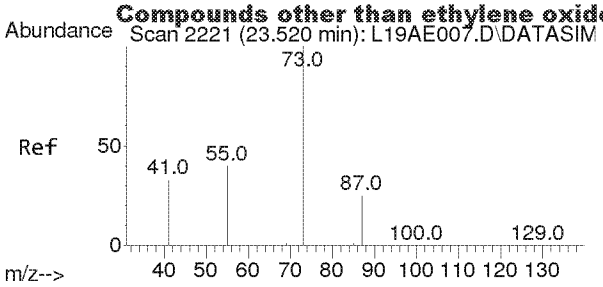
#32
Carbon Tetrachloride
Concen: 2.656 ppbv
RT: 22.770 min Scan# 2184
Delta R.T. -0.018 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:117 Resp: 36837

Ion	Ratio	Lower	Upper
117	100		
119	96.3	77.2	115.8



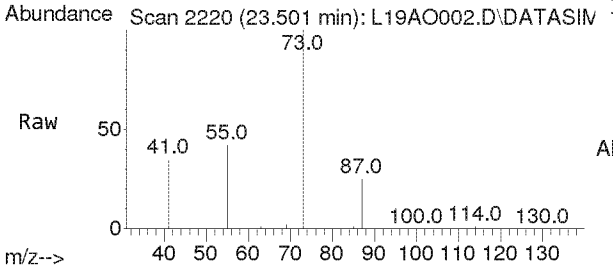
Compounds other than ethylene oxide were not quantitated.

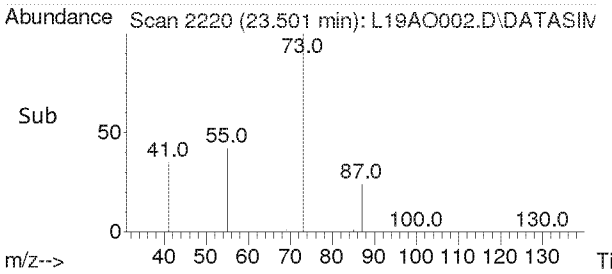


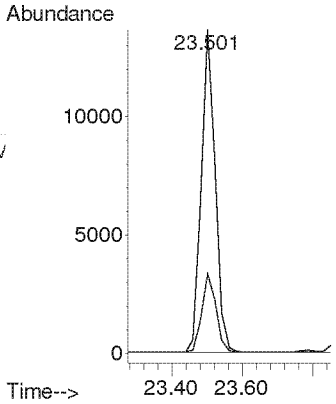
#33
tert-Amyl Methyl Ether
Concen: 2.514 ppbv
RT: 23.501 min Scan# 2220
Delta R.T. -0.019 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

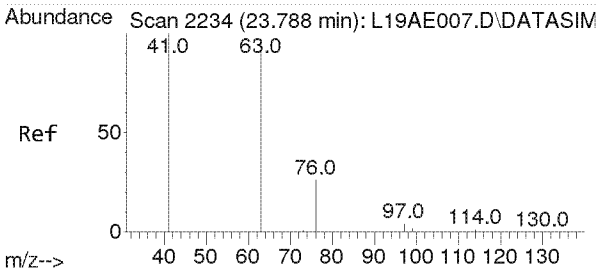
Tgt Ion: 73 Resp: 37259

Ion	Ratio	Lower	Upper
73	100		
87	24.9	19.8	29.8





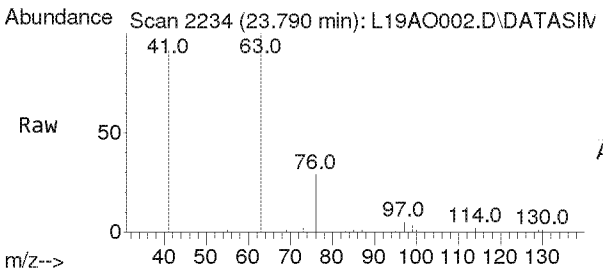


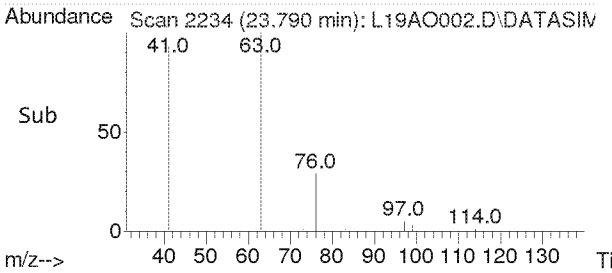


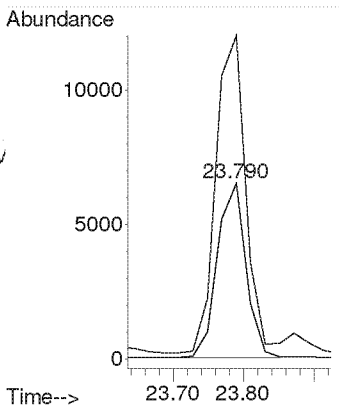
#34
1,2-Dichloropropane
Concen: 2.473 ppbv
RT: 23.790 min Scan# 2234
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 63 Resp: 18308

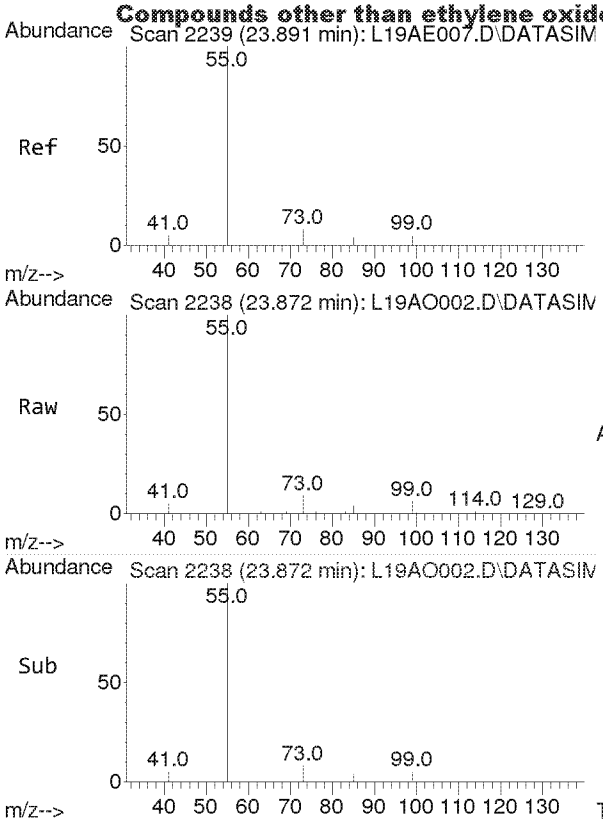
Ion	Ratio	Lower	Upper
63	100		
41	188.9	156.8	235.2







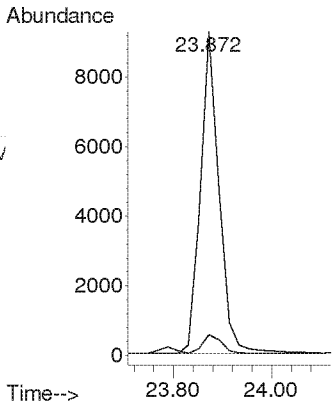
Compounds other than ethylene oxide were not quantitated.

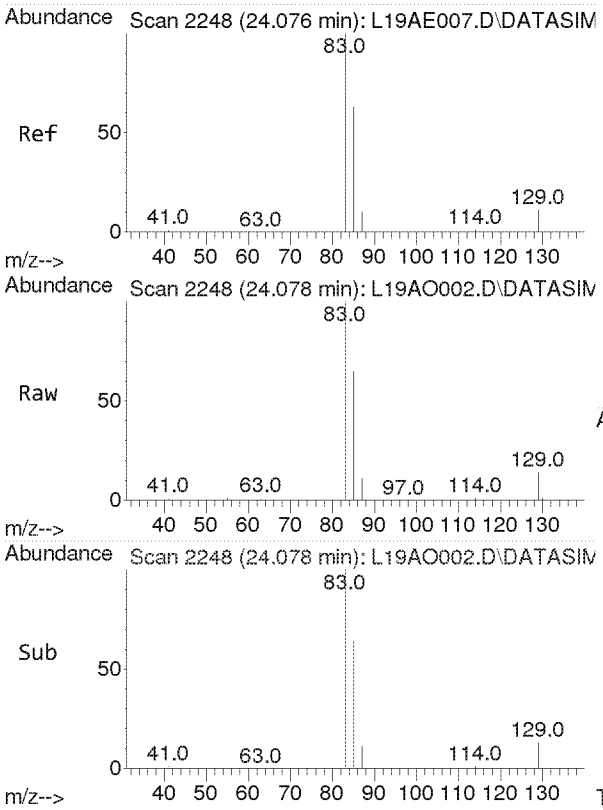


#35
Ethyl Acrylate
Concen: 2.419 ppbv
RT: 23.872 min Scan# 2238
Delta R.T. -0.019 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 55 Resp: 24000

Ion	Ratio	Lower	Upper
55	100		
99	6.0	4.8	7.2

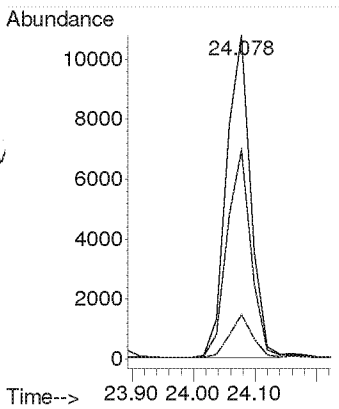




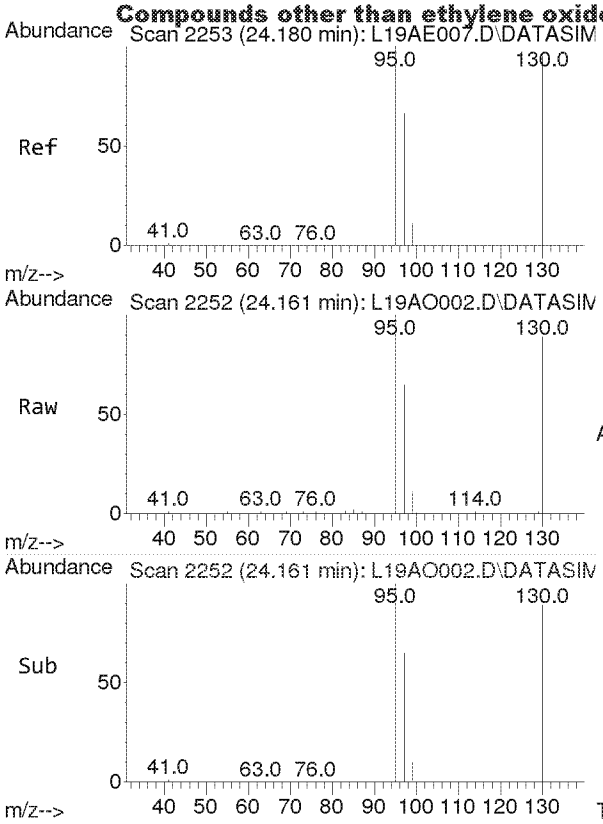
#36
Bromodichloromethane
Concen: 2.182 ppbv
RT: 24.078 min Scan# 2248
Delta R.T. 0.002 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 83 Resp: 29438

Ion	Ratio	Lower	Upper
83	100		
85	63.9	51.1	76.7
129	12.6	10.0	15.0



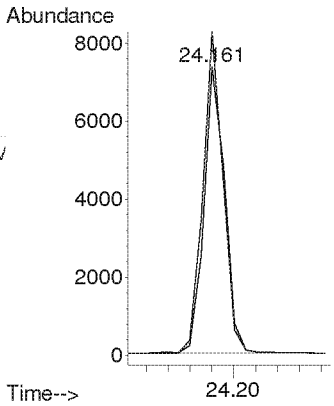
Compounds other than ethylene oxide were not quantitated.

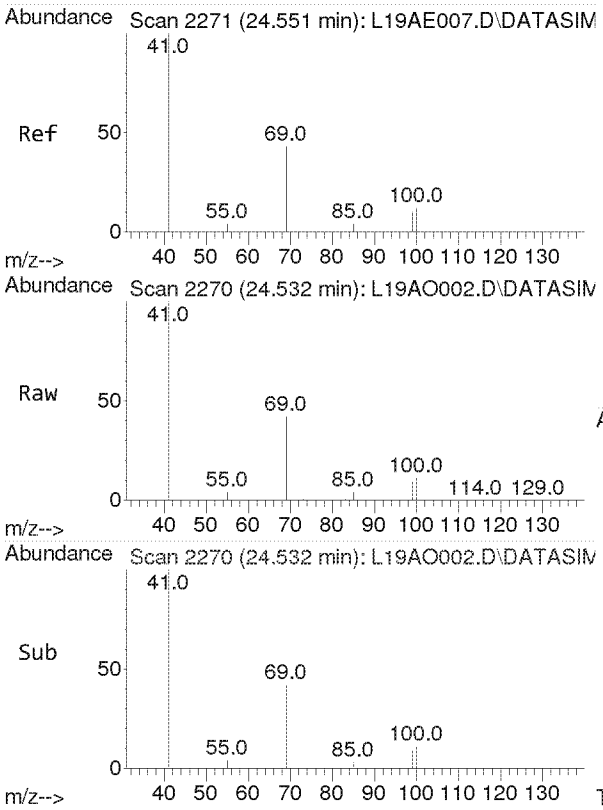


#37
Trichloroethylene
Concen: 2.275 ppbv
RT: 24.161 min Scan# 2252
Delta R.T. -0.019 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:130 Resp: 19290

Ion	Ratio	Lower	Upper
130	100		
95	109.6	86.9	130.3

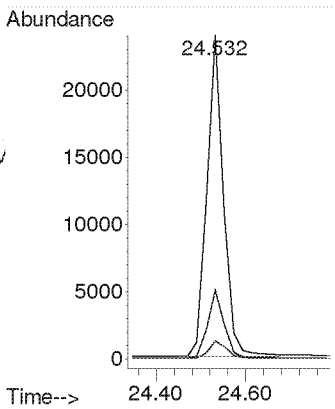




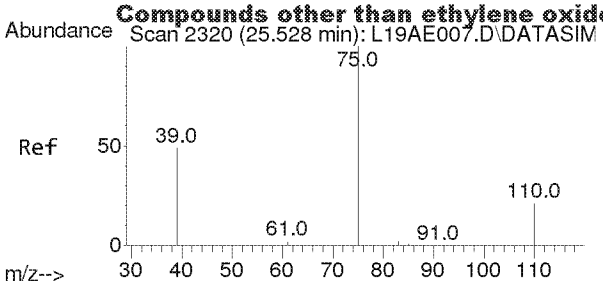
#38
Methyl Methacrylate
Concen: 2.367 ppbv
RT: 24.532 min Scan# 2270
Delta R.T. -0.019 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 41 Resp: 61736

Ion	Ratio	Lower	Upper
41	100		
69	21.1	16.6	24.8
100	5.5	4.2	6.4



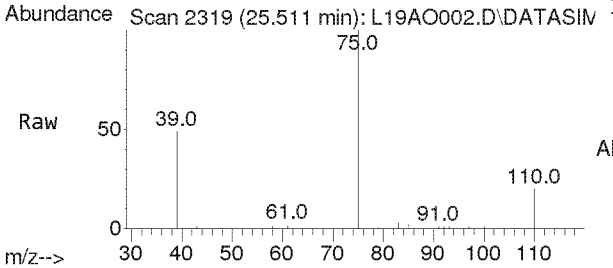
Compounds other than ethylene oxide were not quantitated.

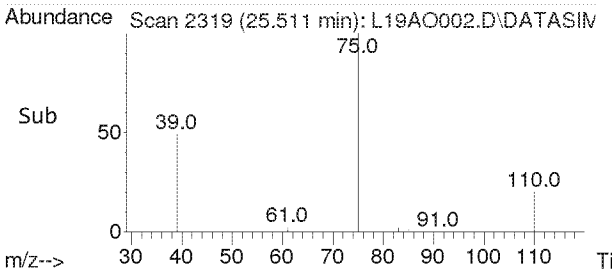


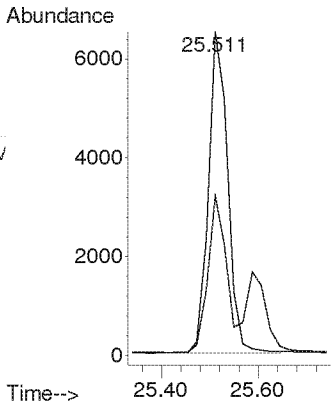
#39
cis-1,3-Dichloropropene
Concen: 2.666 ppbv
RT: 25.511 min Scan# 2319
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

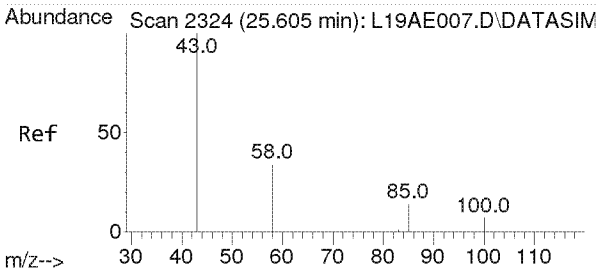
Tgt Ion: 75 Resp: 18100

Ion	Ratio	Lower	Upper
75	100		
39	49.9	38.6	58.0





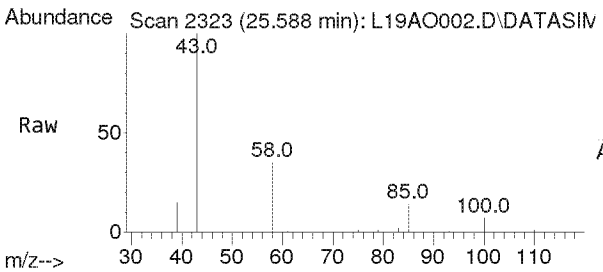


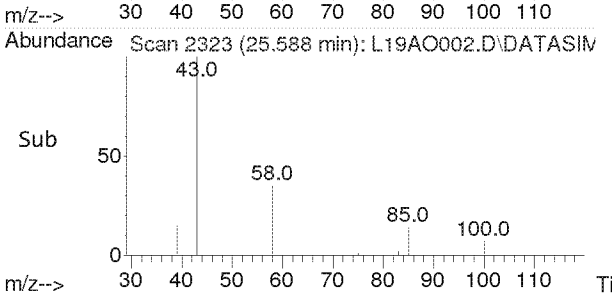


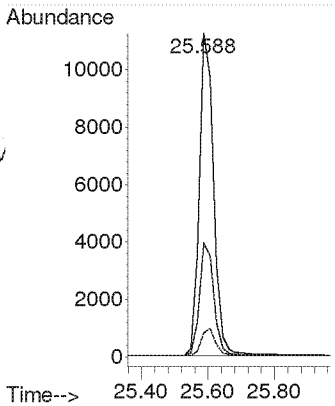
#40
Methyl Isobutyl Ketone
Concen: 2.324 ppbv
RT: 25.588 min Scan# 2323
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 43 Resp: 33179

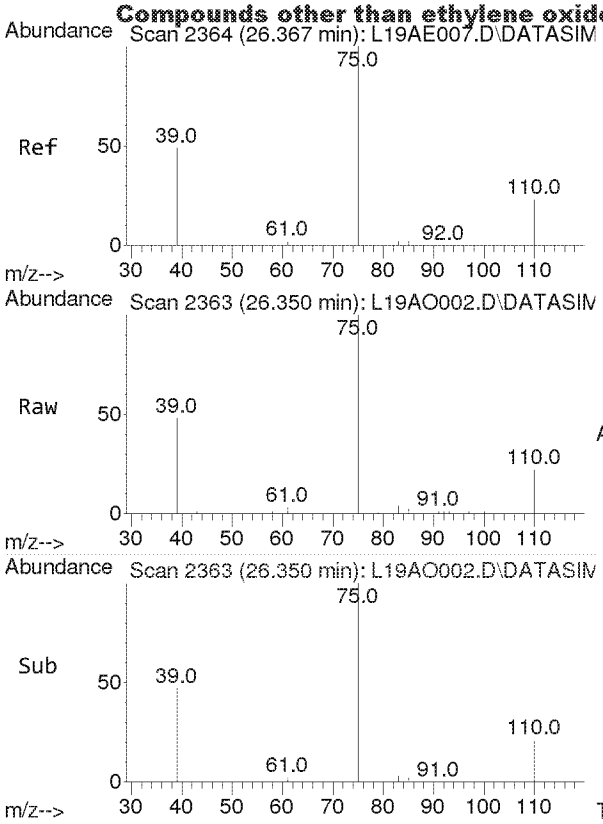
Ion	Ratio	Lower	Upper
43	100		
58	35.2	27.6	41.4
100	8.2	6.5	9.7







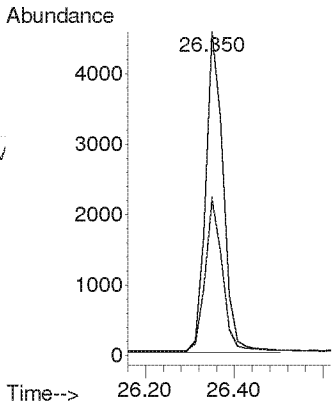
Compounds other than ethylene oxide were not quantitated.

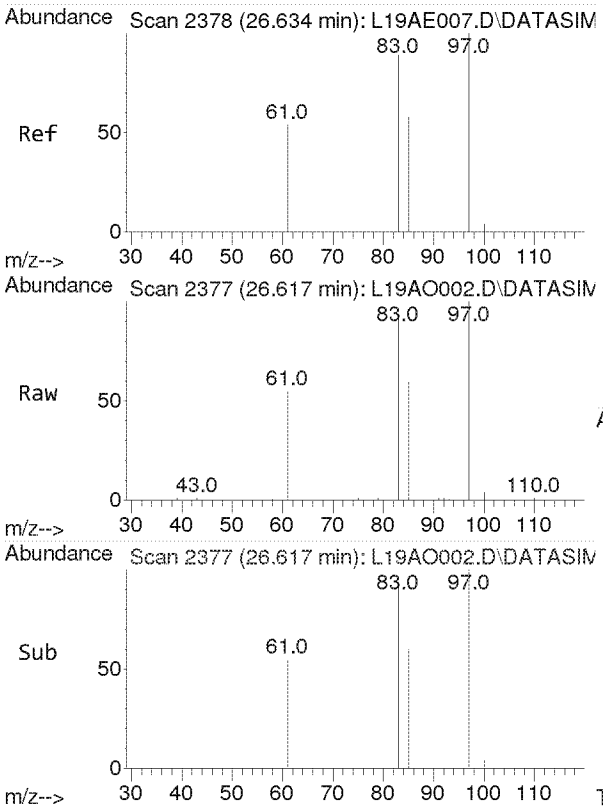


#41
trans-1,3-Dichloropropene
Concen: 2.355 ppbv
RT: 26.350 min Scan# 2363
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 75 Resp: 12449

Ion	Ratio	Lower	Upper
75	100		
39	46.4	39.0	58.6

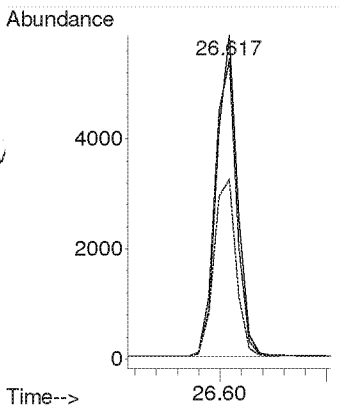




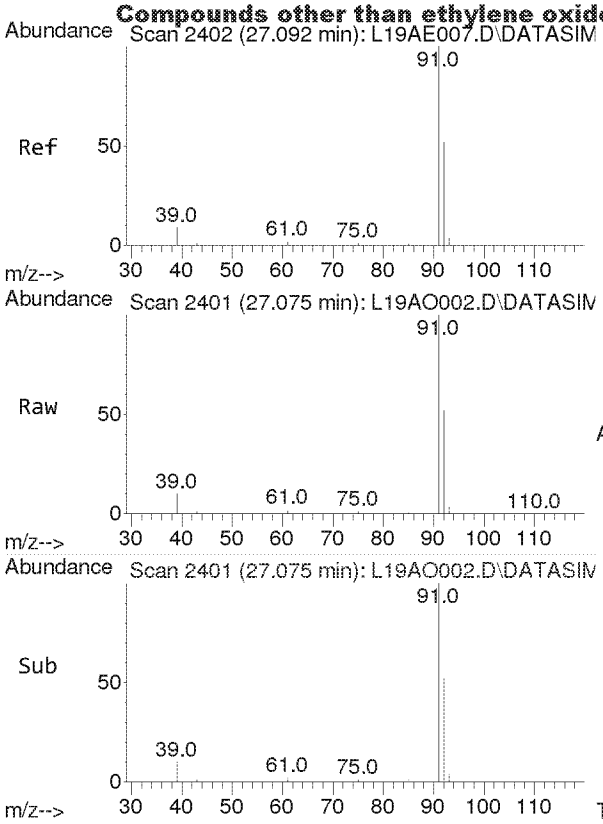
#42
1,1,2-Trichloroethane
Concen: 2.414 ppbv
RT: 26.617 min Scan# 2377
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 97 Resp: 15848

Ion	Ratio	Lower	Upper
97	100		
83	96.1	77.3	115.9
61	59.4	49.1	73.7



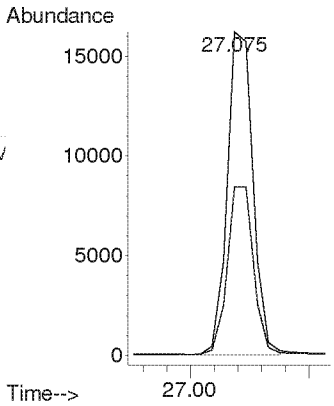
Compounds other than ethylene oxide were not quantitated.

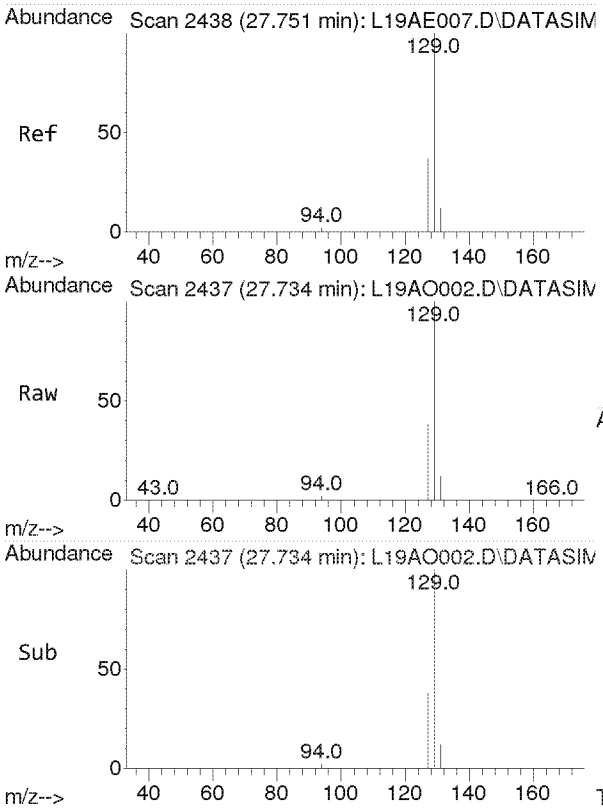


#44
Toluene
Concen: 2.535 ppbv
RT: 27.075 min Scan# 2401
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 91 Resp: 48498

Ion	Ratio	Lower	Upper
91	100		
92	52.9	42.0	63.0

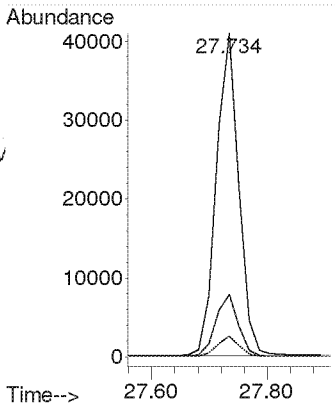




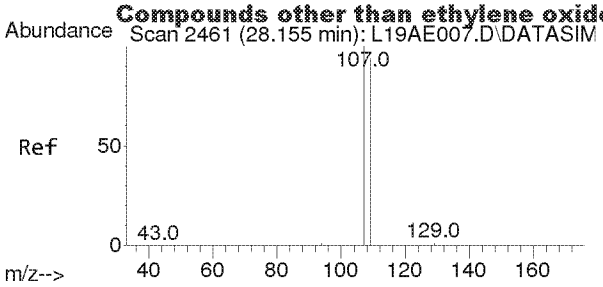
#45
Dibromochloromethane
Concen: 2.302 ppbv
RT: 27.734 min Scan# 2437
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:129 Resp: 110481

Ion	Ratio	Lower	Upper
129	100		
127	19.3	15.4	23.0
131	6.0	4.8	7.2



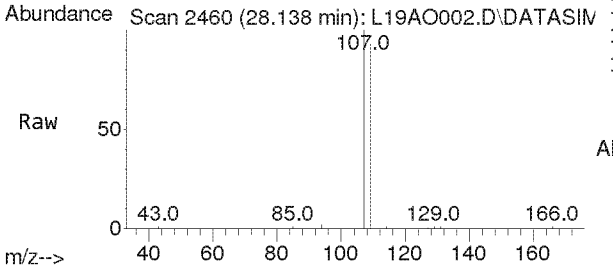
Compounds other than ethylene oxide were not quantitated.

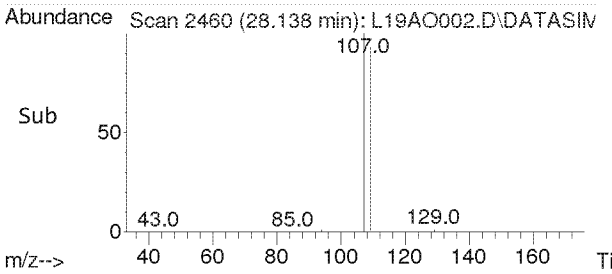


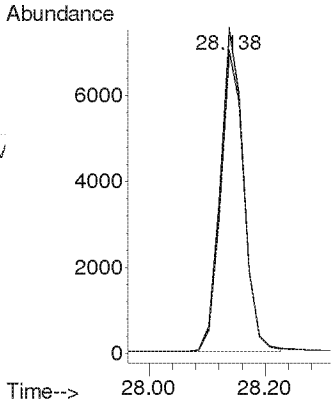
#46
1,2-Dibromoethane
Concen: 2.416 ppbv
RT: 28.138 min Scan# 2460
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

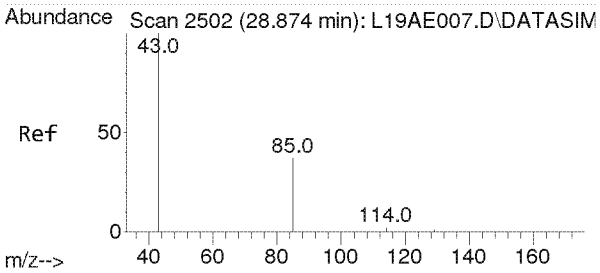
Tgt Ion:107 Resp: 21002

Ion	Ratio	Lower	Upper
107	100		
109	94.3	75.4	113.2





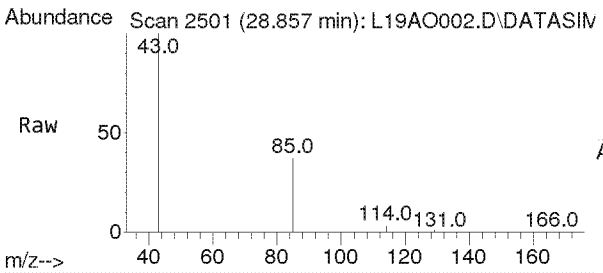


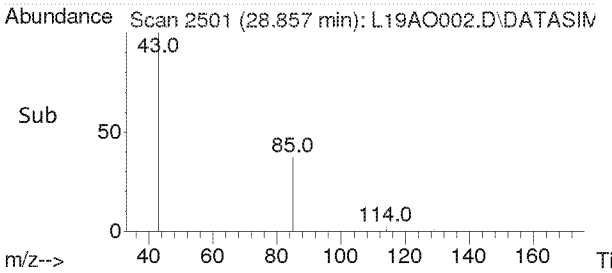


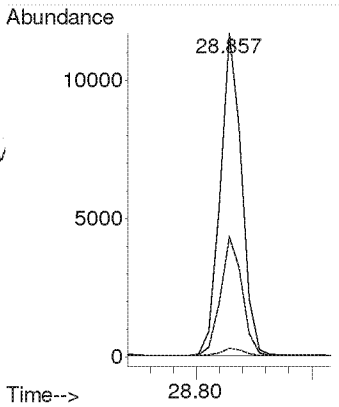
#47
n-Octane
Concen: 2.533 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 43 Resp: 29965

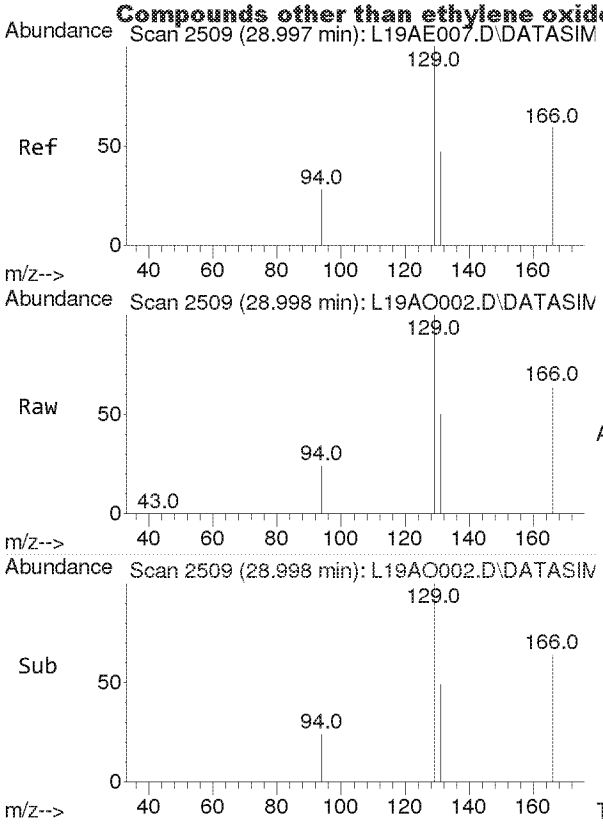
Ion	Ratio	Lower	Upper
43	100		
85	37.1	29.3	43.9
114	2.3	1.8	2.8







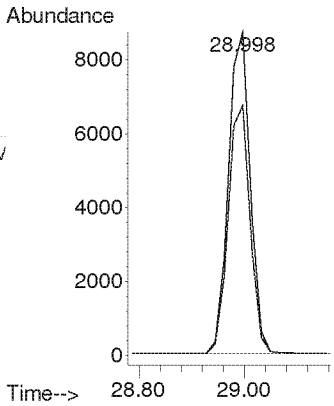
Compounds other than ethylene oxide were not quantitated.

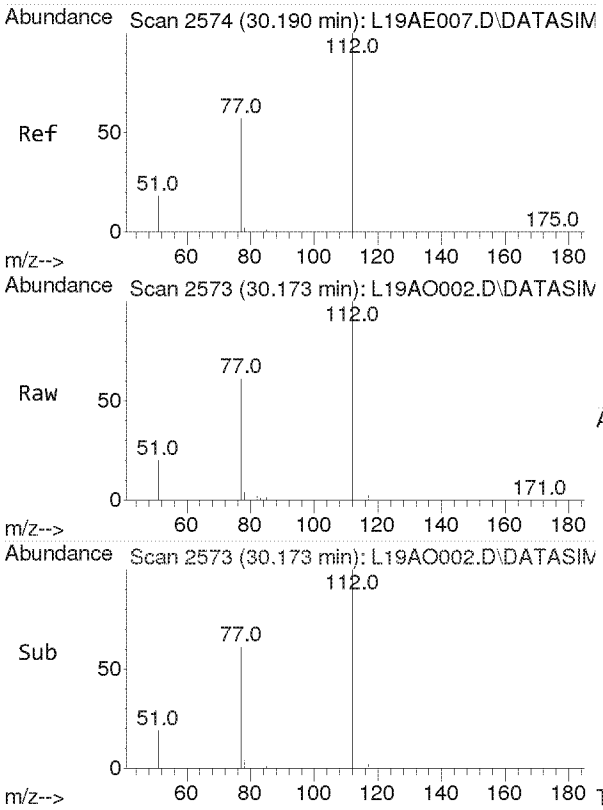


#48
Tetrachloroethylene
Concen: 2.556 ppbv
RT: 28.998 min Scan# 2509
Delta R.T. 0.001 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:166 Resp: 24874

Ion	Ratio	Lower	Upper
166	100		
131	78.0	62.6	93.8

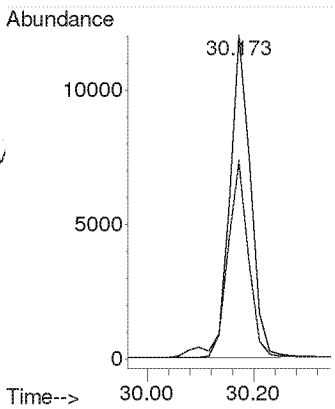




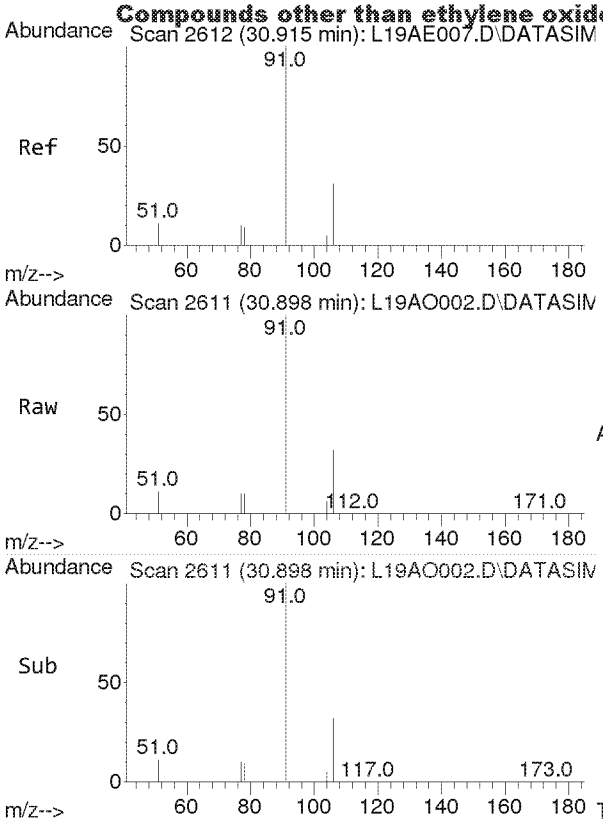
#49
Chlorobenzene
Concen: 2.381 ppbv
RT: 30.173 min Scan# 2573
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:112 Resp: 32157

Ion	Ratio	Lower	Upper
112	100		
77	61.3	49.0	73.4



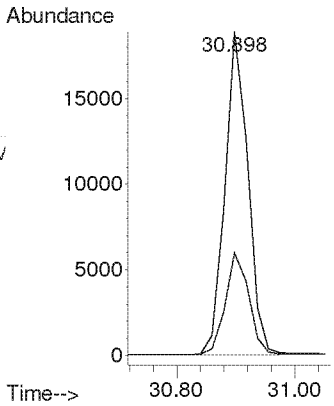
Compounds other than ethylene oxide were not quantitated.

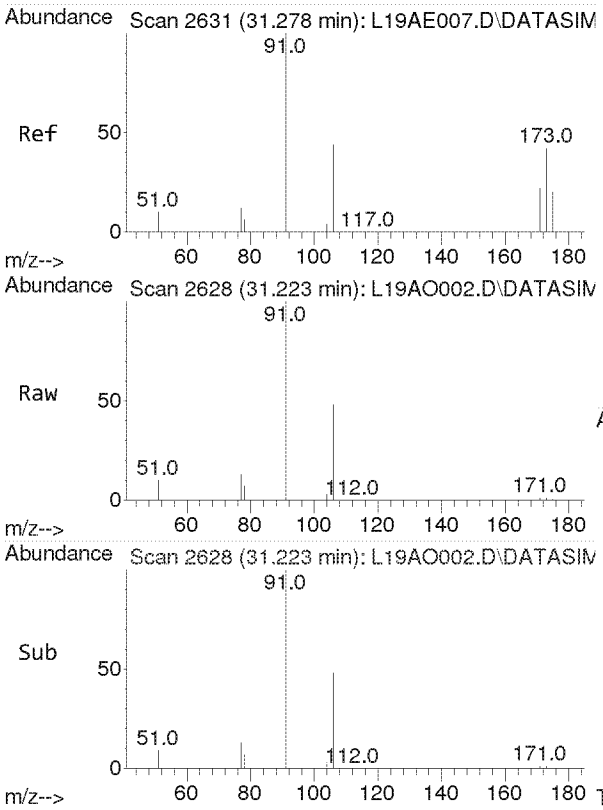


#50
Ethylbenzene
Concen: 2.473 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 91 Resp: 50585

Ion	Ratio	Lower	Upper
91	100		
106	32.0	25.4	38.0

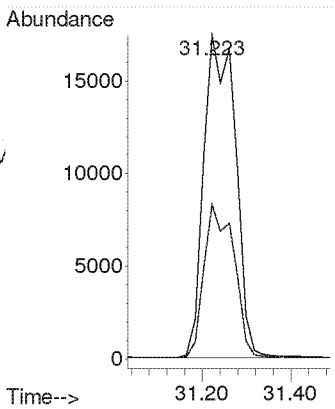




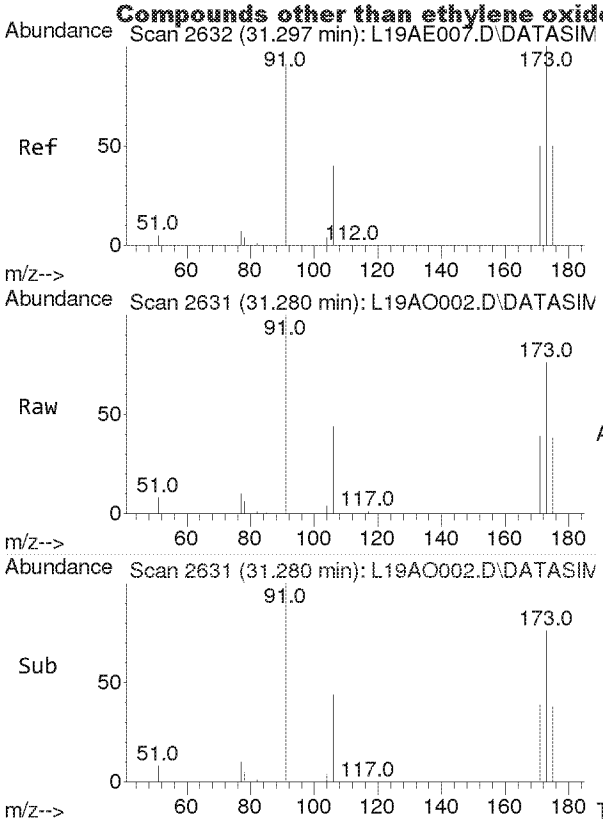
#51
m,p-Xylene
Concen: 4.825 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 91 Resp: 85806

Ion	Ratio	Lower	Upper
91	100		
106	45.0	35.7	53.5



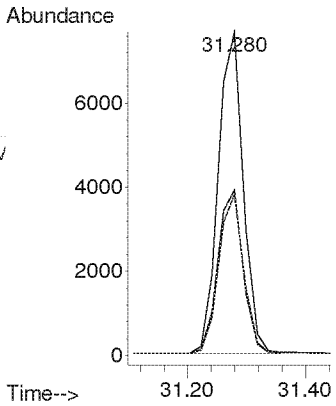
Compounds other than ethylene oxide were not quantitated.

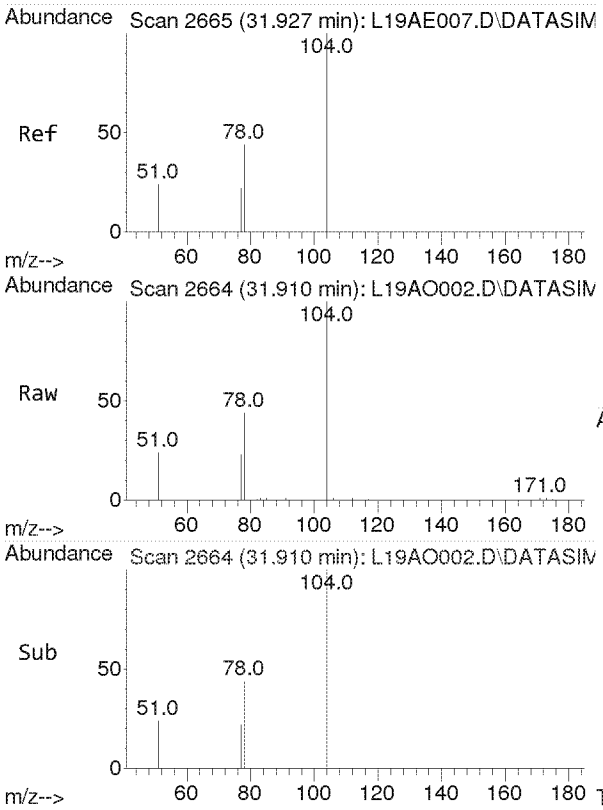


#52
Bromoform
Concen: 2.159 ppbv
RT: 31.280 min Scan# 2631
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:173 Resp: 22453

Ion	Ratio	Lower	Upper
173	100		
171	51.2	41.1	61.7
175	49.2	39.1	58.7

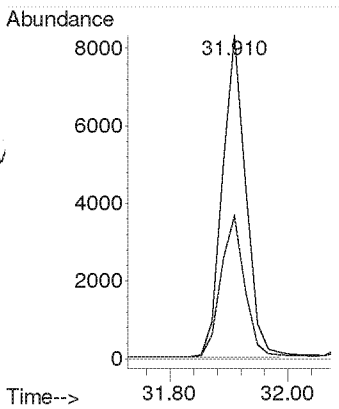




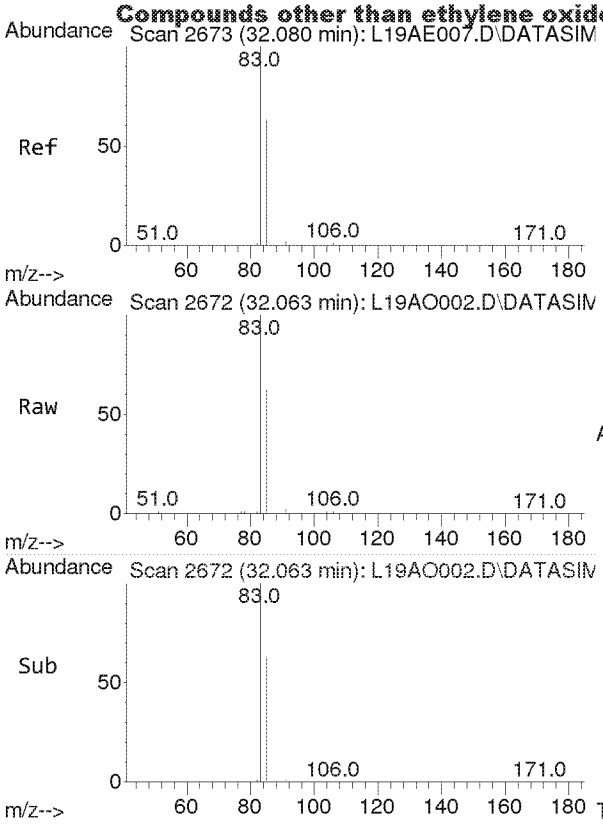
#53
Styrene
Concen: 2.304 ppbv
RT: 31.910 min Scan# 2664
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:104 Resp: 22610

Ion	Ratio	Lower	Upper
104	100		
78	44.9	36.6	55.0
103	0.0	0.0	0.0



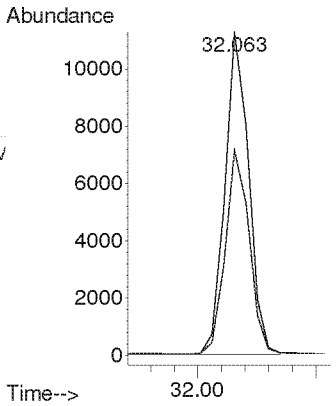
Compounds other than ethylene oxide were not quantitated.

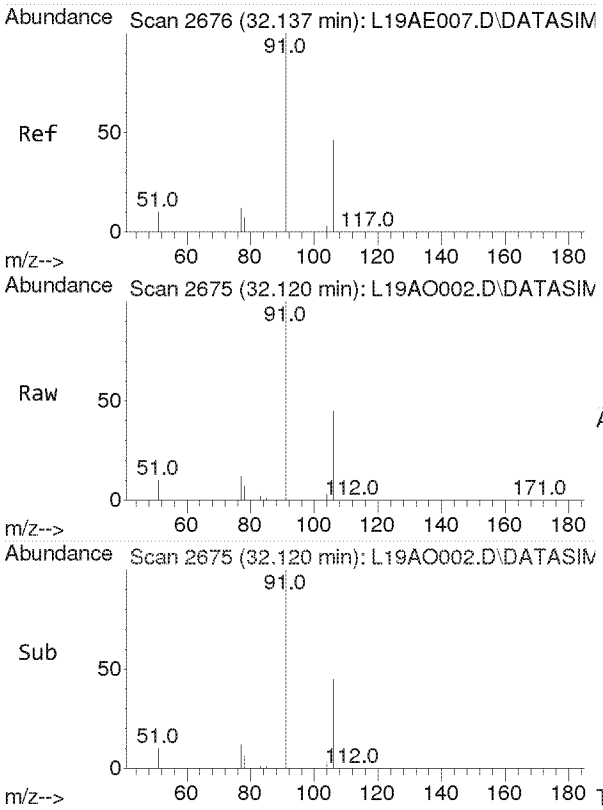


#54
1,1,2,2-Tetrachloroethane
Concen: 2.387 ppbv
RT: 32.063 min Scan# 2672
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 83 Resp: 31020

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.2	76.8

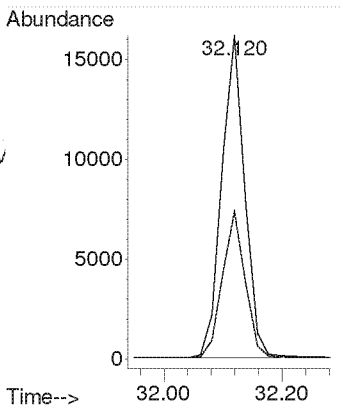




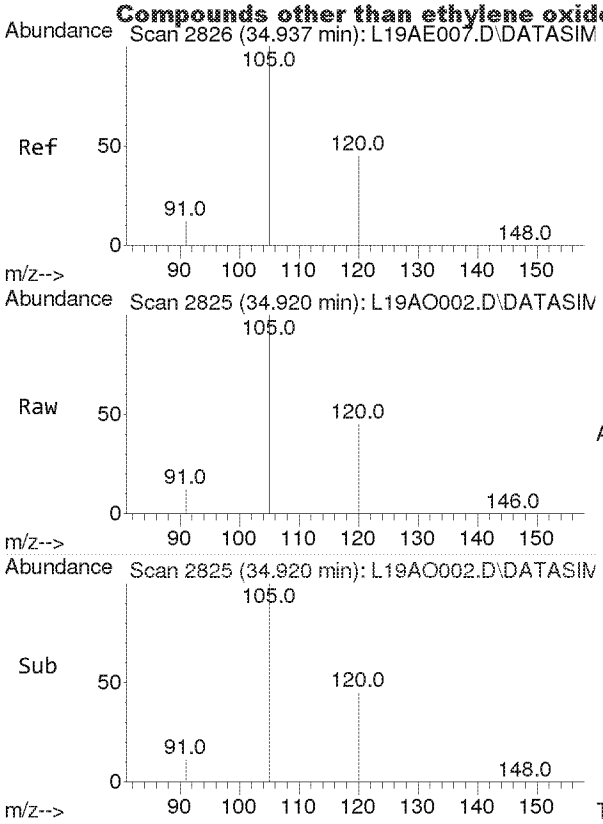
#55
o-Xylene
Concen: 2.531 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion: 91 Resp: 43395

Ion	Ratio	Lower	Upper
91	100		
106	44.9	35.8	53.8



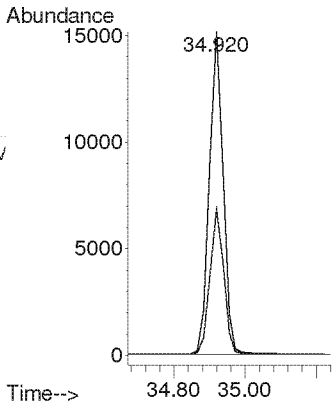
Compounds other than ethylene oxide were not quantitated.

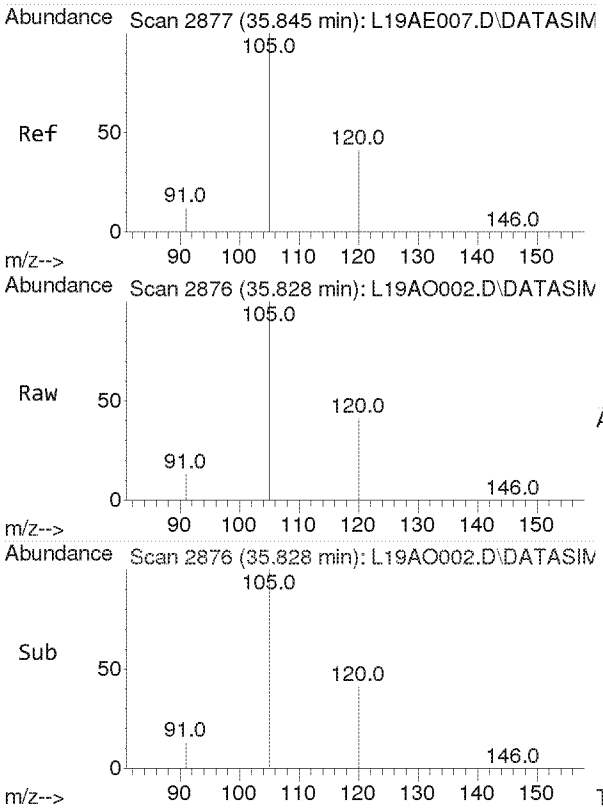


#56
1,3,5-Trimethylbenzene
Concen: 2.409 ppbv
RT: 34.920 min Scan# 2825
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:105 Resp: 40494

Ion	Ratio	Lower	Upper
105	100		
120	45.1	36.0	54.0

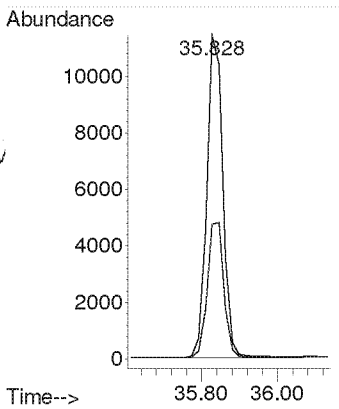




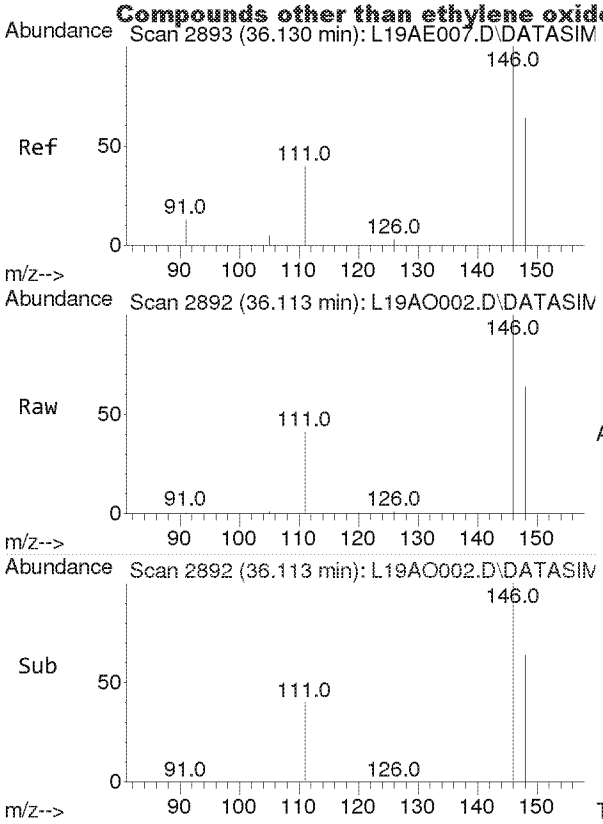
#57
1,2,4-Trimethylbenzene
Concen: 2.289 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:105 Resp: 33508

Ion	Ratio	Lower	Upper
105	100		
120	43.2	34.3	51.5



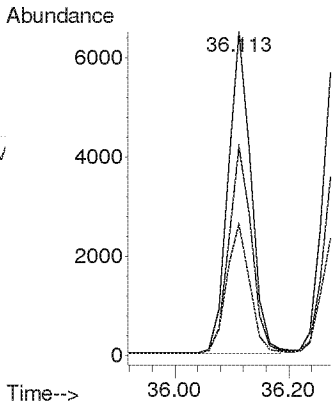
Compounds other than ethylene oxide were not quantitated.

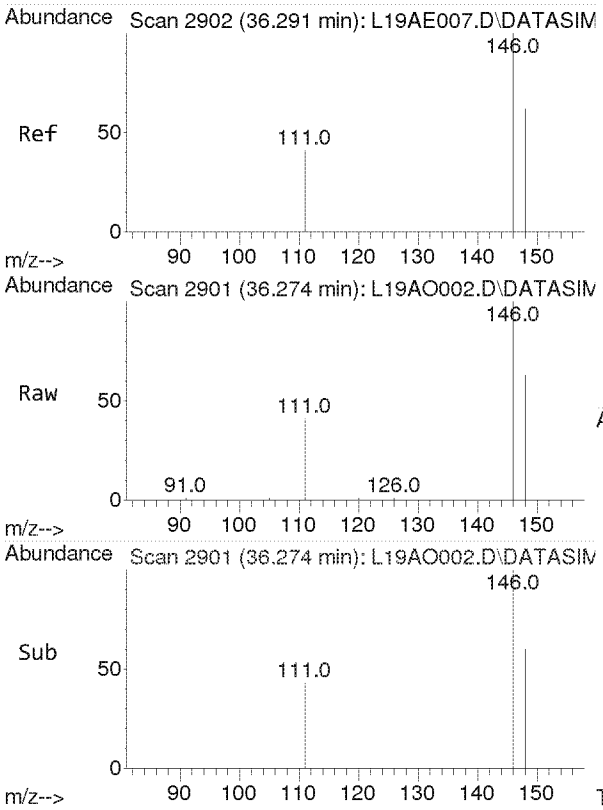


#58
m-Dichlorobenzene
Concen: 1.786 ppbv
RT: 36.113 min Scan# 2892
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:146 Resp: 17977

Ion	Ratio	Lower	Upper
146	100		
148	64.4	51.3	76.9
111	41.1	32.4	48.6

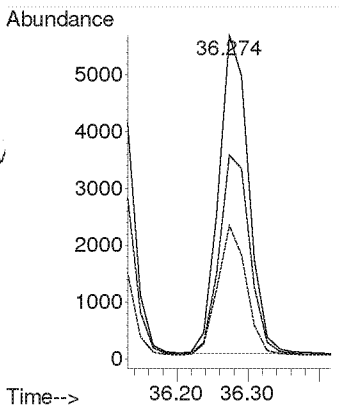




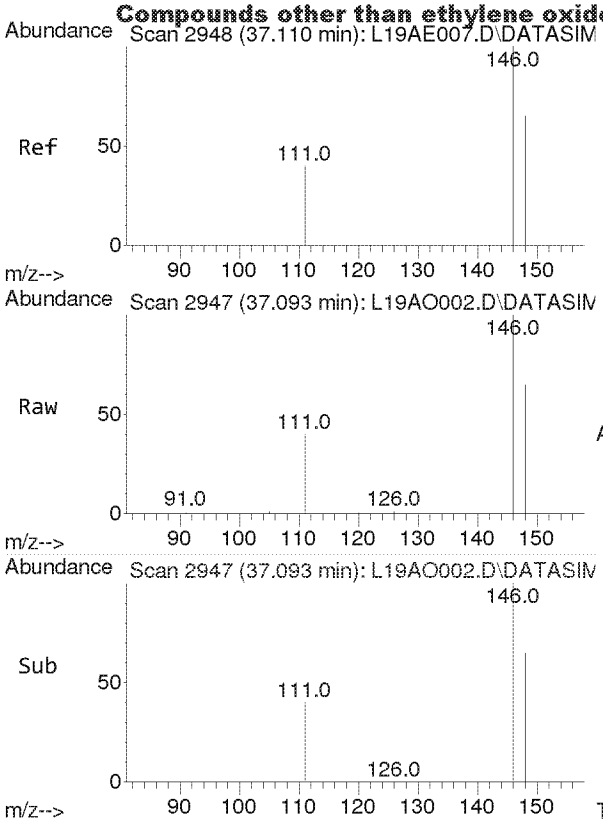
#59
p-Dichlorobenzene
Concen: 2.013 ppbv
RT: 36.274 min Scan# 2901
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:146 Resp: 16321

Ion	Ratio	Lower	Upper
146	100		
148	64.1	51.1	76.7
111	39.4	31.4	47.2



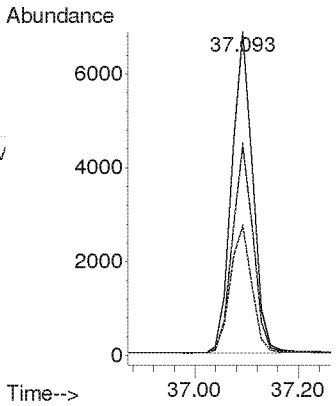
Compounds other than ethylene oxide were not quantitated.

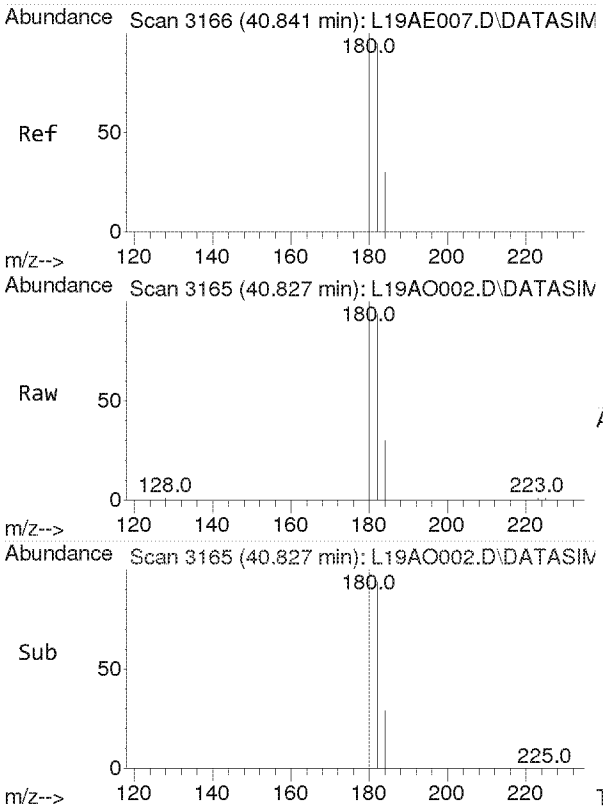


#60
o-Dichlorobenzene
Concen: 2.170 ppbv
RT: 37.093 min Scan# 2947
Delta R.T. -0.017 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:146 Resp: 18996

Ion	Ratio	Lower	Upper
146	100		
148	64.1	51.2	76.8
111	40.9	32.6	48.8

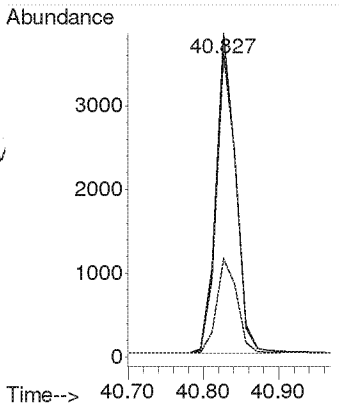




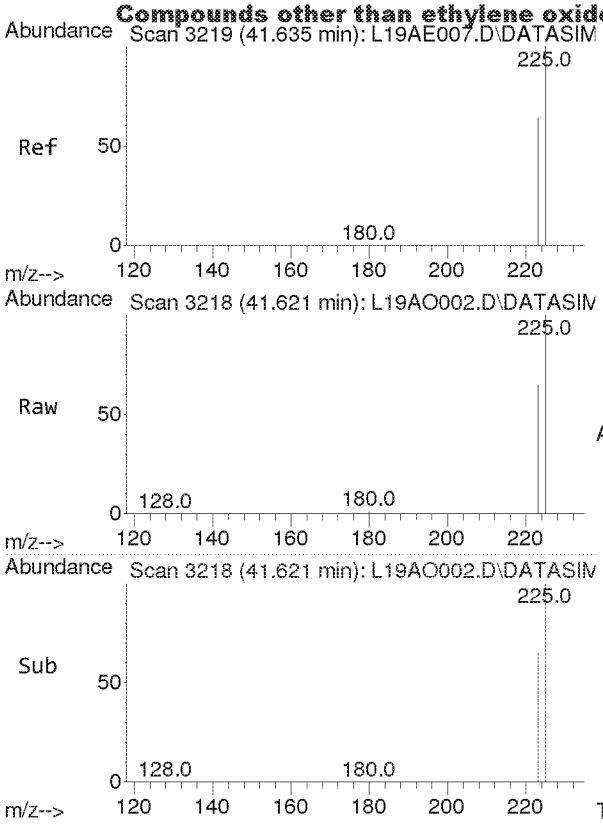
#61
1,2,4-Trichlorobenzene
Concen: 1.934 ppbv
RT: 40.827 min Scan# 3165
Delta R.T. -0.014 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:180 Resp: 6901

Ion	Ratio	Lower	Upper
180	100		
182	96.1	76.0	114.0
184	30.9	24.4	36.6



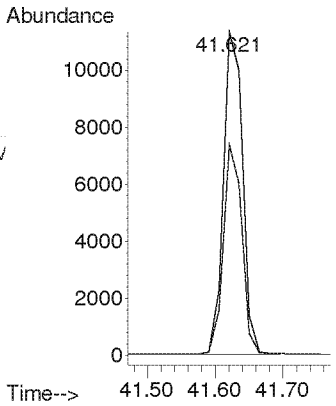
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.487 ppbv
RT: 41.621 min Scan# 3218
Delta R.T. -0.014 min
Lab File: L19AO002.D
Acq: 15 Jan 2019 9:39 am

Tgt Ion:225 Resp: 22515

Ion	Ratio	Lower	Upper
225	100		
223	62.7	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: [illegible] Date: 1-24-19
Reviewer: RHB Date: 1/30/19

Data File Name	L19A0004.D
Operator	MAH
Acq. Method File	9010002.M
Sample Name	B9A1508-BLK1
Misc Info	80 ML 3L13001

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	55465		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	48	0.009	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	0	0.000	Y		0.139
6)	Dichlorotetrafluoroethane	0	0.000	Y		0.040
7)	Vinyl Chloride	0	0.000	Y		0.038
8)	1,3-Butadiene	0	0.000	Y		0.058
	Ethylene oxide	0	0.000	Y		0.136
9)	Bromomethane	0	0.000	Y		0.035
10)	Chloroethane	0	0.000	Y		0.075
11)	Acetonitrile	203	0.036	Y	MAX	0.049
12)	Acrolein	64	0.023	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	509	0.024	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	137322		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	51	0.003	Y		0.043
31)	Carbon Tetrachloride	0	0.000	Y		0.040
32)	tert-Amyl Methyl Ether	0	0.000	Y		0.037
33)	1,2-Dichloropropane	0	0.000	Y		0.061
34)	Ethyl Acrylate	0	0.000	Y		0.070
35)	Bromodichloromethane	0	0.000	Y		0.049
36)	Trichloroethylene	0	0.000	Y		0.045
37)	Methyl Methacrylate	0	0.000	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	108757		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		0.053
49)	Ethylbenzene	86	0.005	Y		0.077
50)	m,p-Xylene	56	0.003	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	0	0.000	Y		0.100
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y		0.063
54)	o-Xylene	118	0.008	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	47	0.004	Y		0.080
57)	m-Dichlorobenzene	0	0.000	Y		0.055
58)	p-Dichlorobenzene	0	0.000	Y		0.060
59)	o-Dichlorobenzene	0	0.000	Y		0.062
60)	1,2,4-Trichlorobenzene	0	0.000	Y		0.200
61)	Hexachloro-1,3-butadiene	40	0.005	Y		0.082

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

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO004.D
Acq On : 15 Jan 2019 11:40 am
Operator : MAH
Sample : B9A1508-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 11:33:46 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	55465	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	137322	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	108757	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.823	41	48	0.0091 ppbv #	47
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	14.497	41	203	0.0364 ppbv #	25
13) Acrolein	14.775	56	64	0.0233 ppbv #	60
14) Trichlorofluoromethane	0.000	101	0	N.D.	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.932	76	509	0.0235 ppbv	100
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	22.535	78	51	0.0032 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	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.	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.898	91	86	0.0046 ppbv #	43

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO004.D
Acq On : 15 Jan 2019 11:40 am
Operator : MAH
Sample : B9A1508-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 11:33:46 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

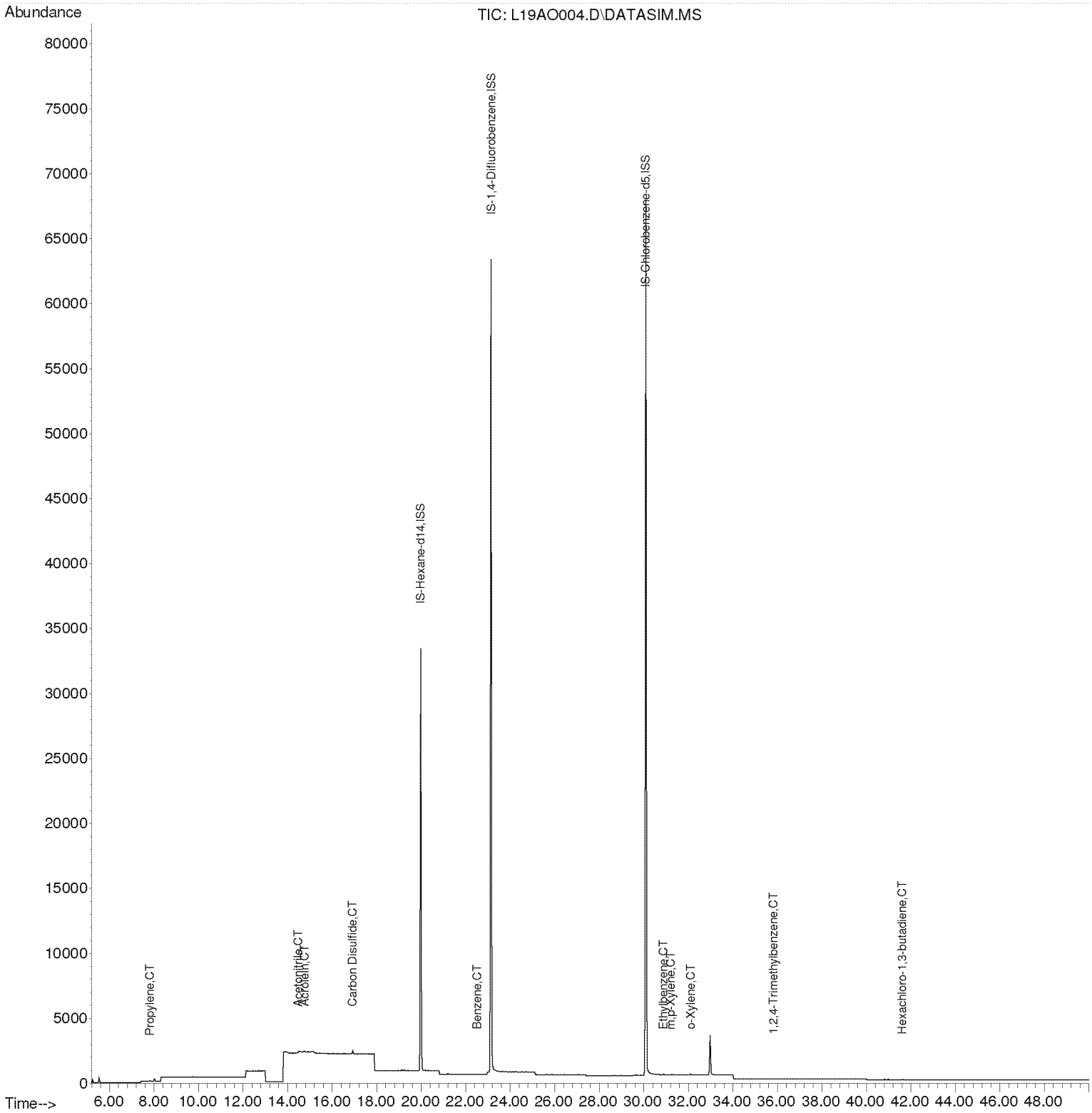
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.223	91	56	0.0034 ppbv #	31
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.120	91	118	0.0075 ppbv	30
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.828	105	47	0.0035 ppbv #	33
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	41.621	225	40	0.0048 ppbv #	25

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

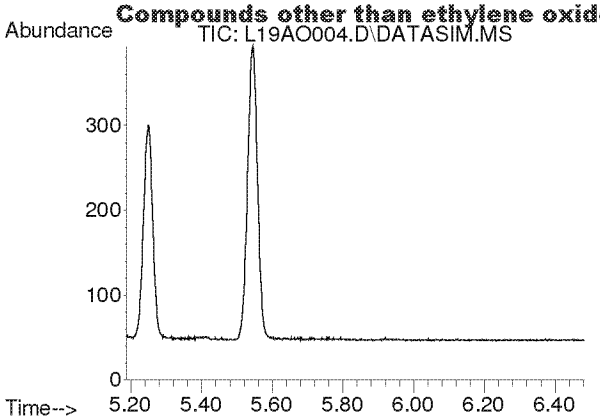
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO004.D
Acq On : 15 Jan 2019 11:40 am
Operator : MAH
Sample : B9A1508-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 11:25:00 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



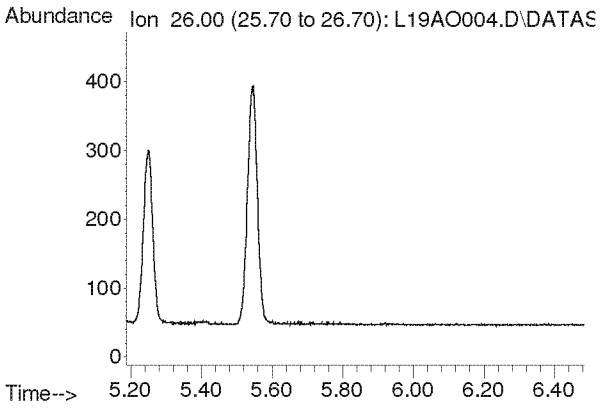
Compounds other than ethylene oxide were not quantitated.

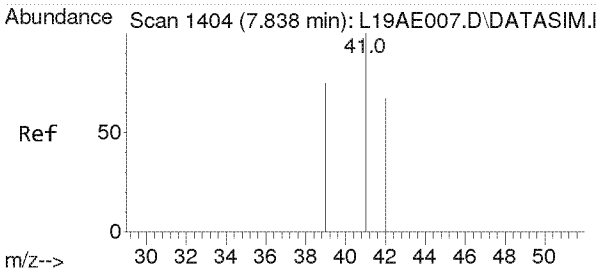


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 26

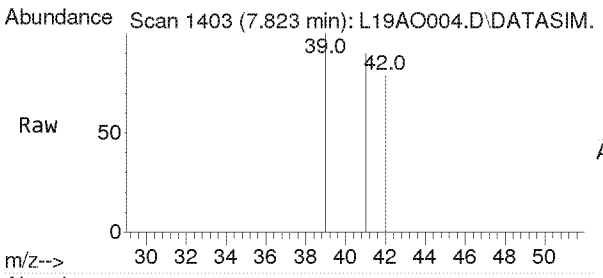


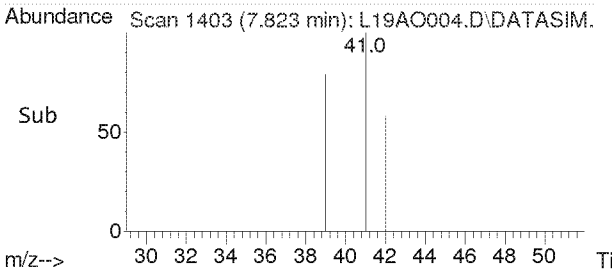


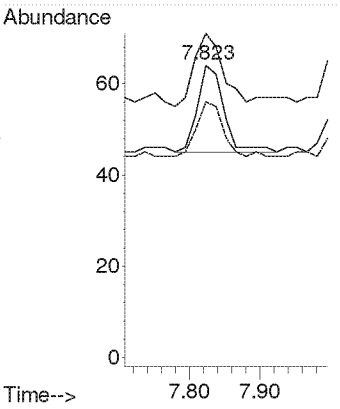
#3
Propylene
Concen: 0.009 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.015 min
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 41 Resp: 48

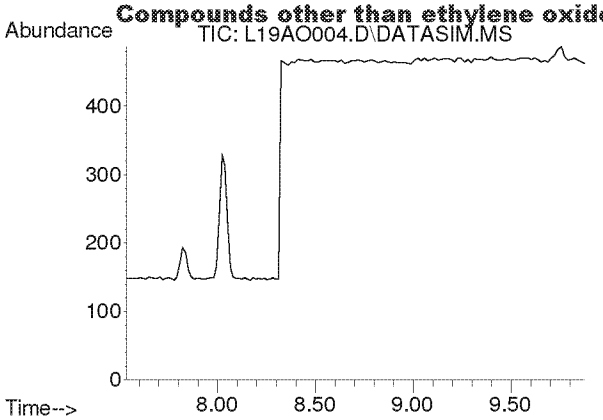
Ion	Ratio	Lower	Upper
41	100		
39	100.0	61.6	92.4#
42	0.0	52.6	79.0#







Compounds other than ethylene oxide were not quantitated.

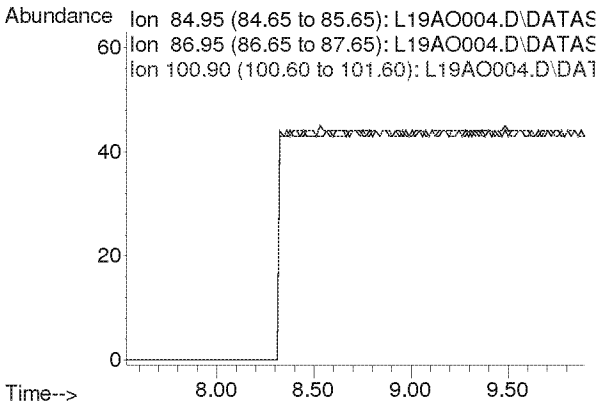


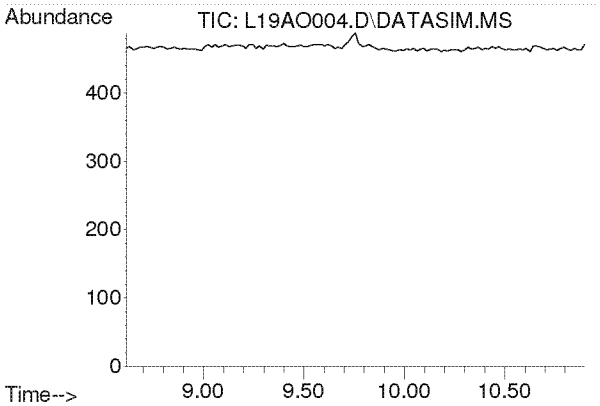
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



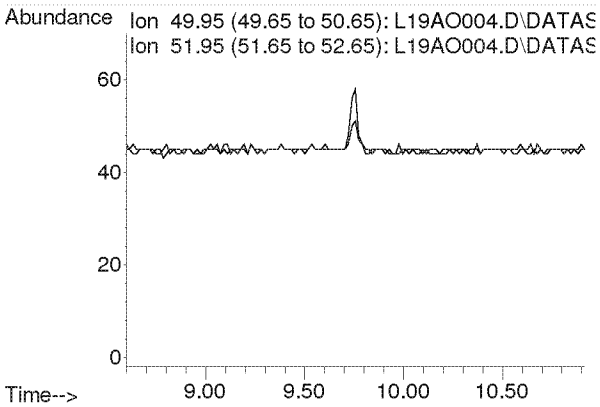


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

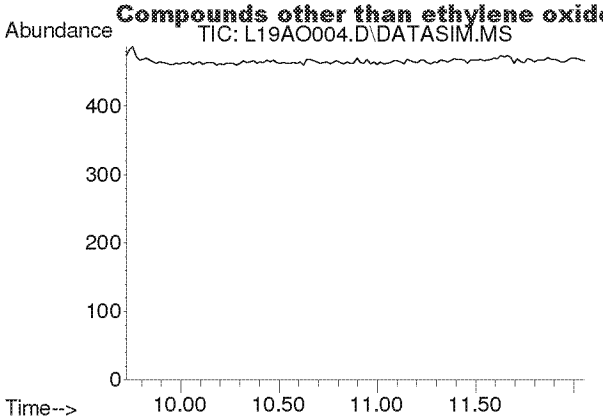
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

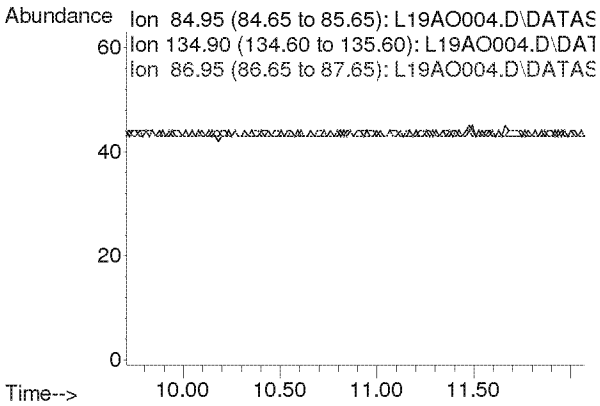


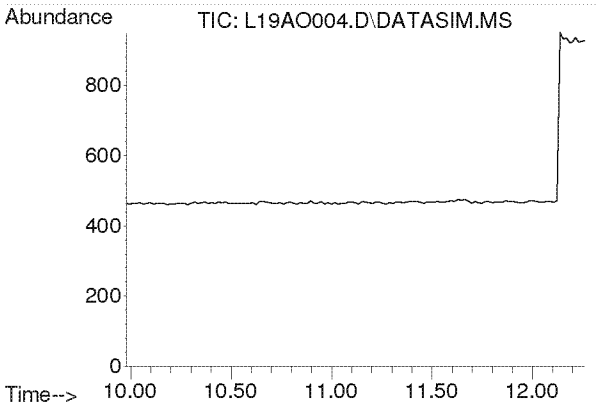
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



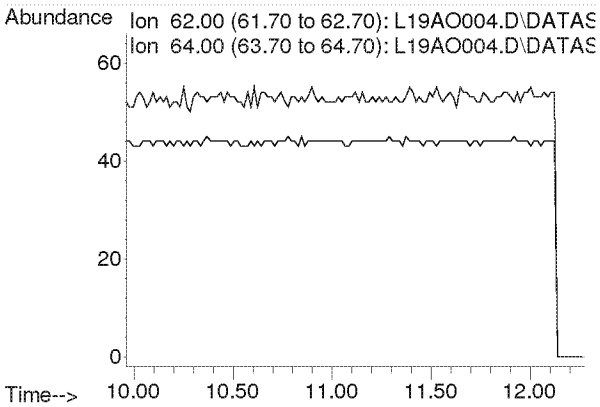


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

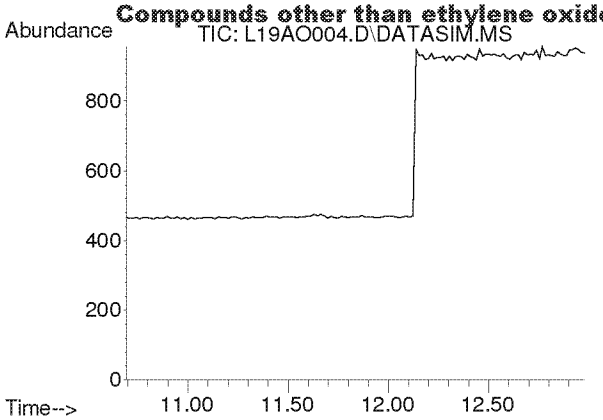
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

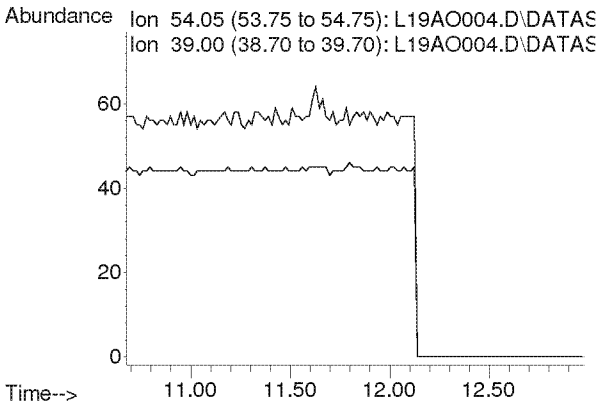


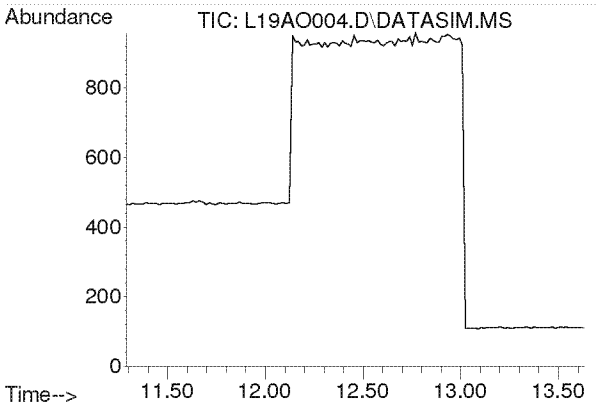
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



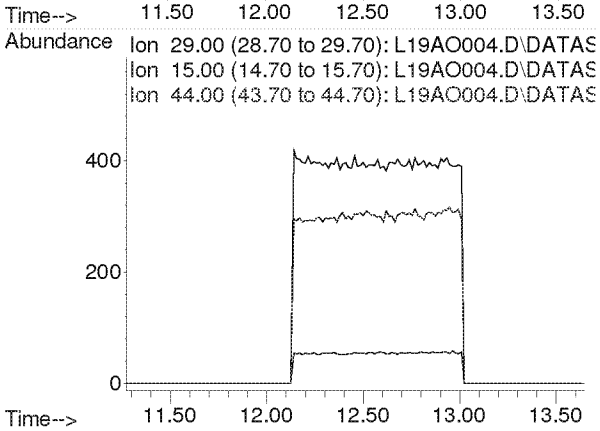


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

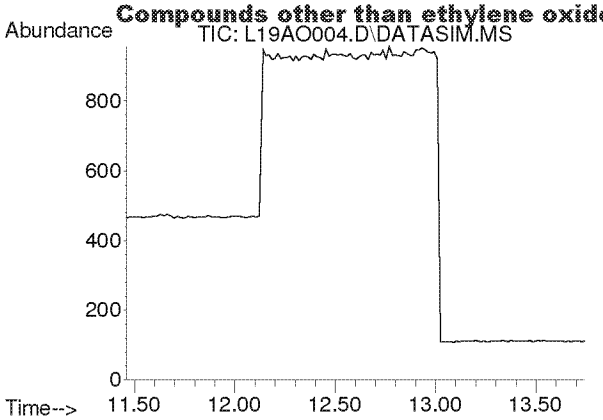
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

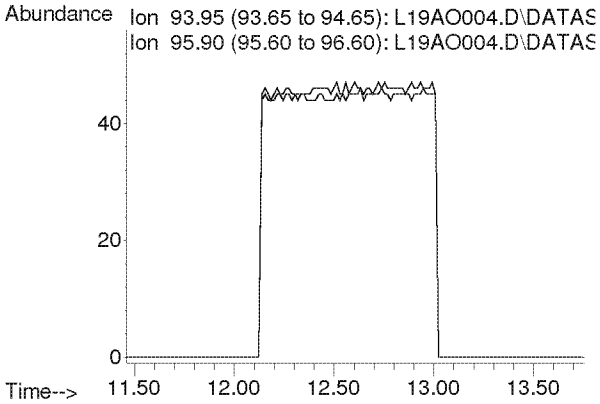


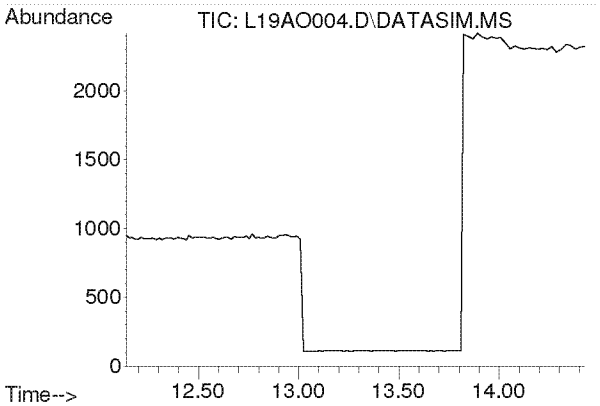
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



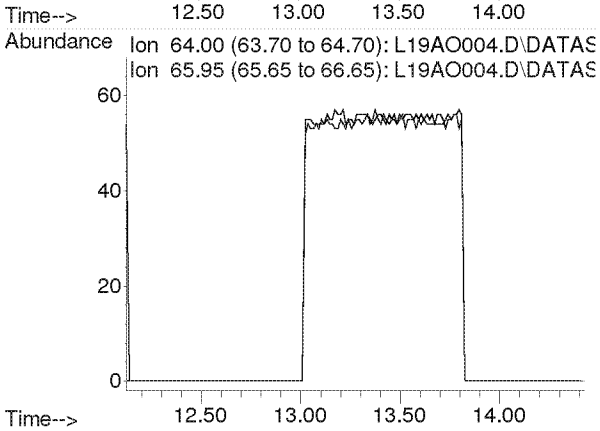


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

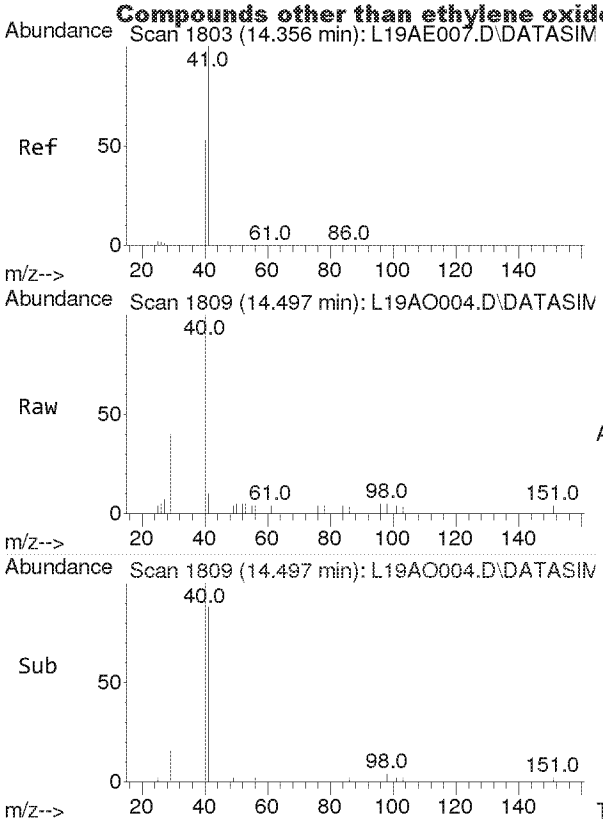
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



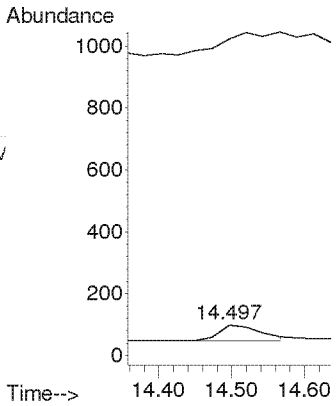
Compounds other than ethylene oxide were not quantitated.

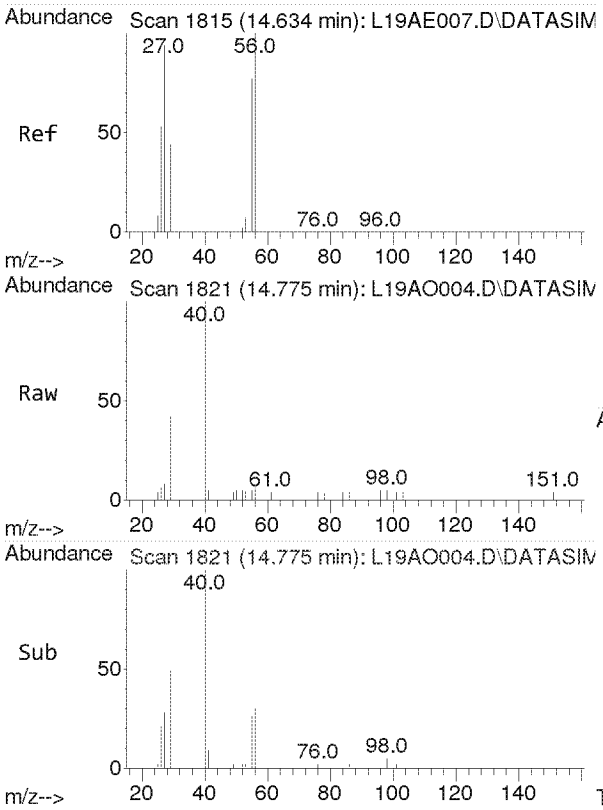


#12
Acetonitrile
Concen: 0.036 ppbv
RT: 14.497 min Scan# 1809
Delta R.T. 0.141 min
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 41 Resp: 203

Ion	Ratio	Lower	Upper
41	100		
40	0.0	42.6	63.8#

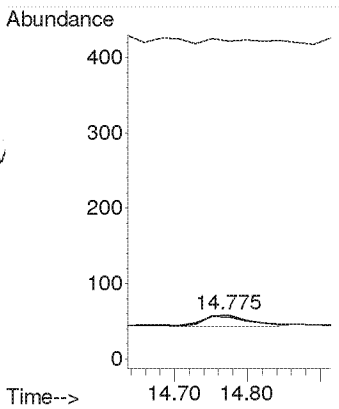




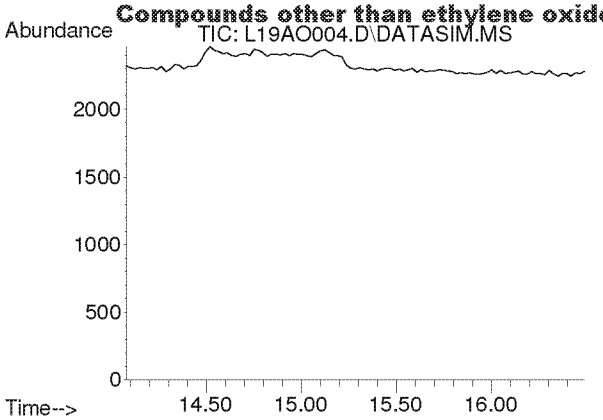
#13
Acrolein
Concen: 0.023 ppbv
RT: 14.775 min Scan# 1821
Delta R.T. 0.141 min
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 56 Resp: 64

Ion	Ratio	Lower	Upper
56	100		
55	84.4	61.2	91.8
29	0.0	35.9	53.9#



Compounds other than ethylene oxide were not quantitated.

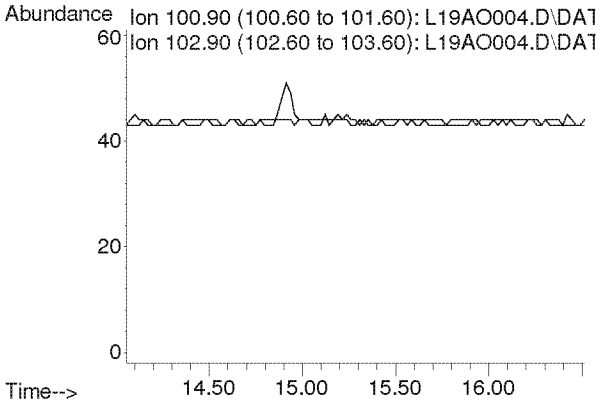


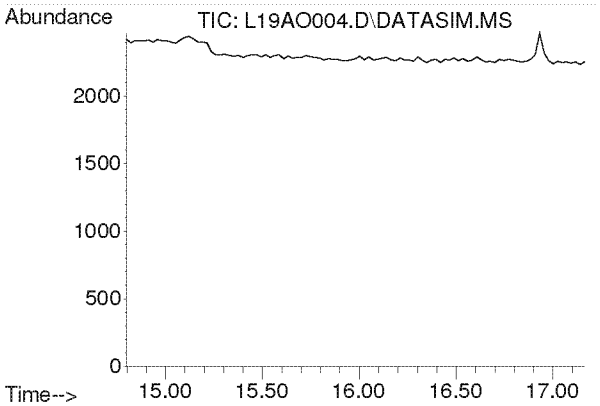
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



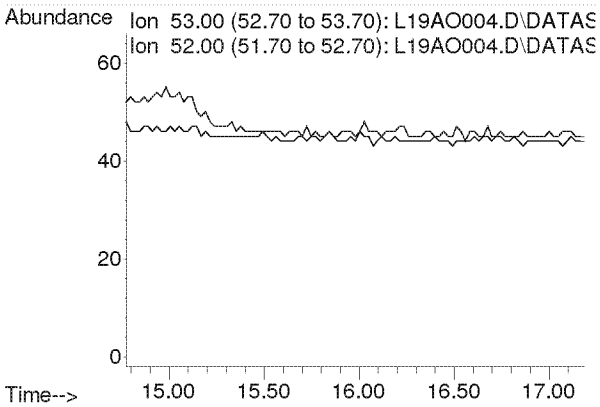


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

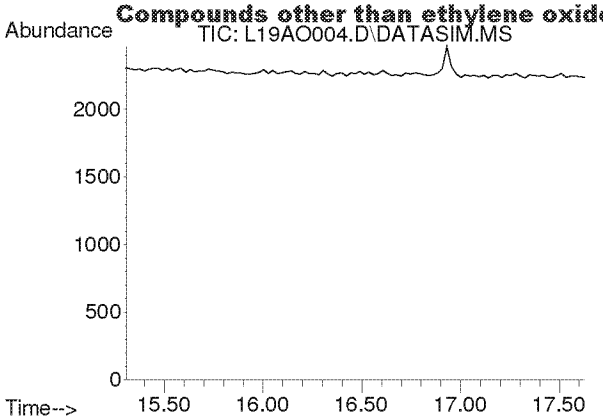
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

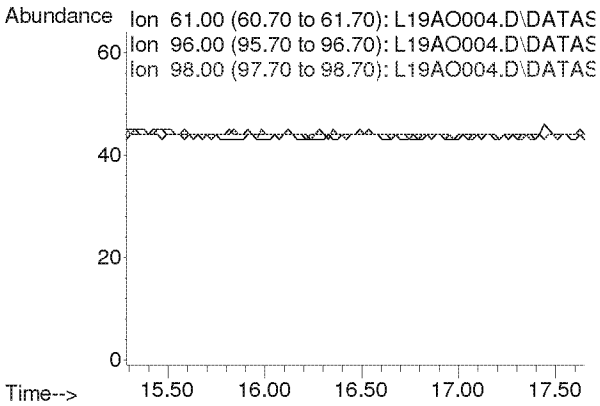


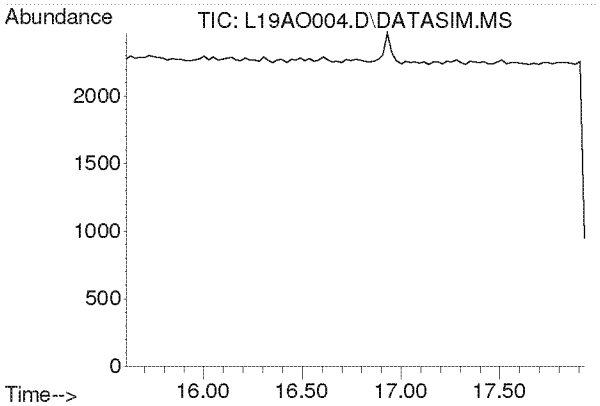
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



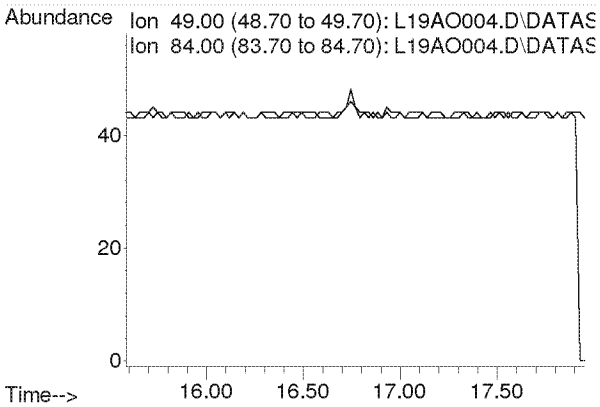


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

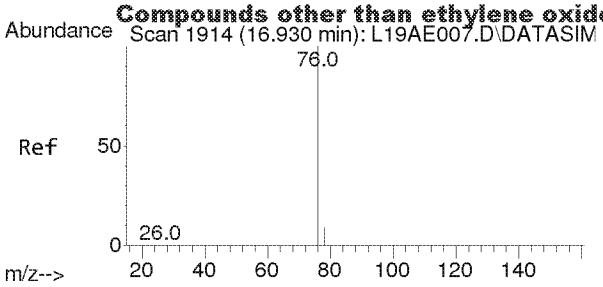
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



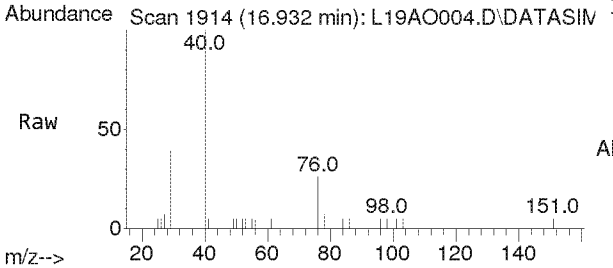
Compounds other than ethylene oxide were not quantitated.

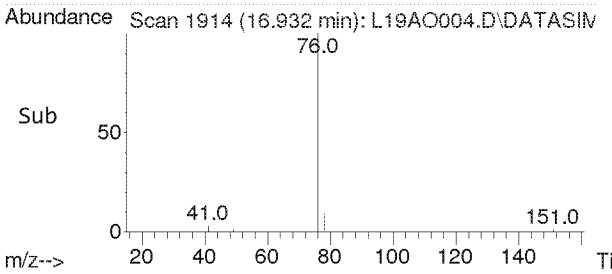


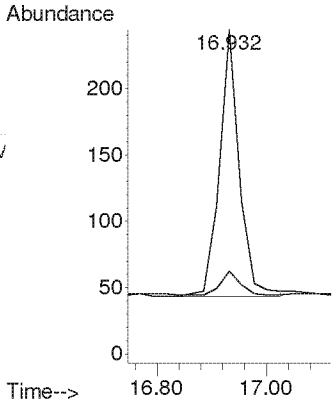
#18
Carbon Disulfide
Concen: 0.024 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

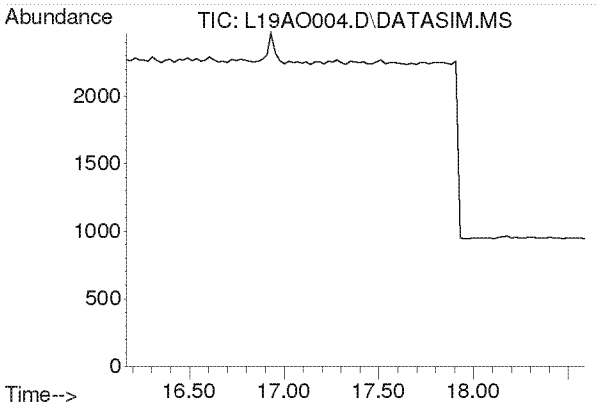
Tgt Ion: 76 Resp: 509

Ion	Ratio	Lower	Upper
76	100		
78	8.8	7.2	10.8







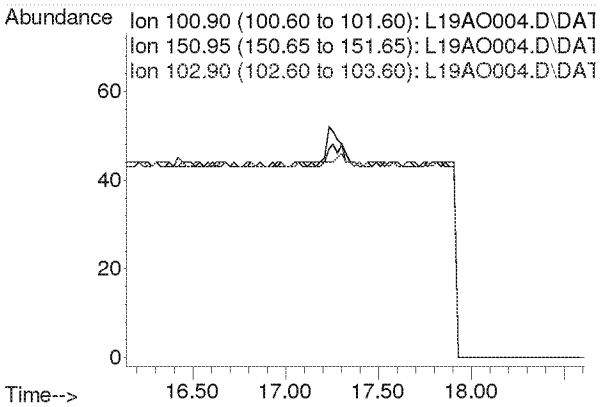


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

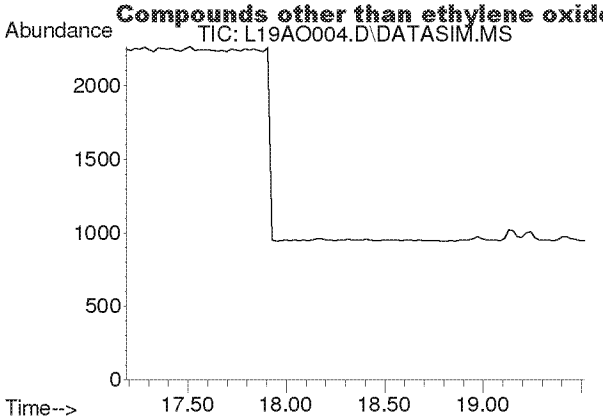
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

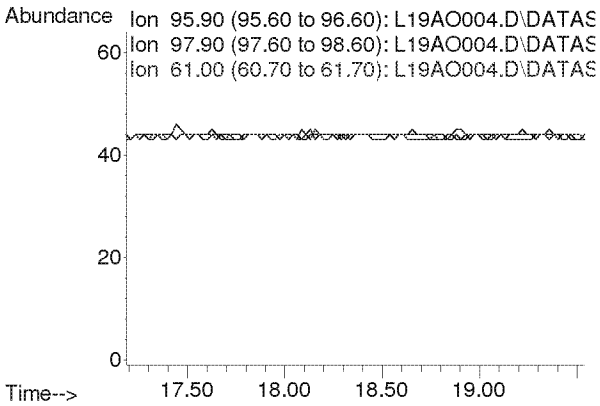


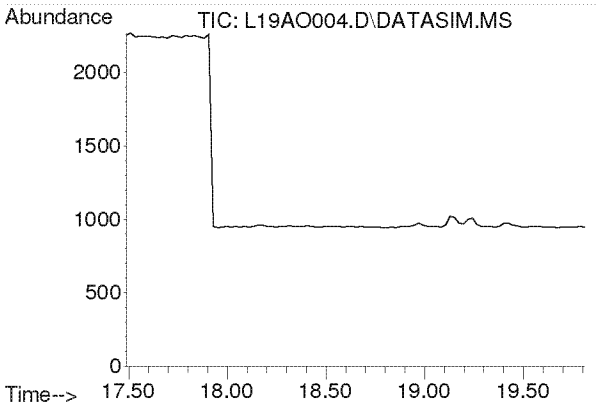
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



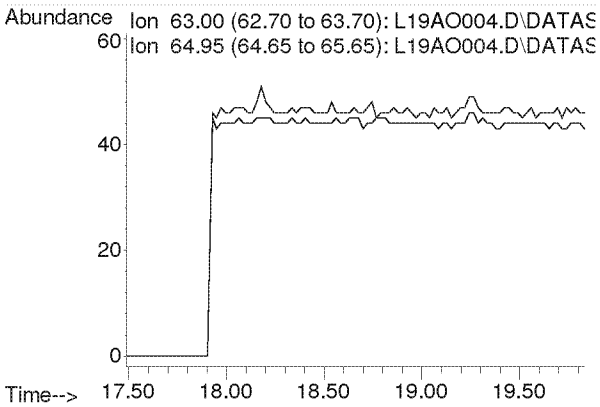


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

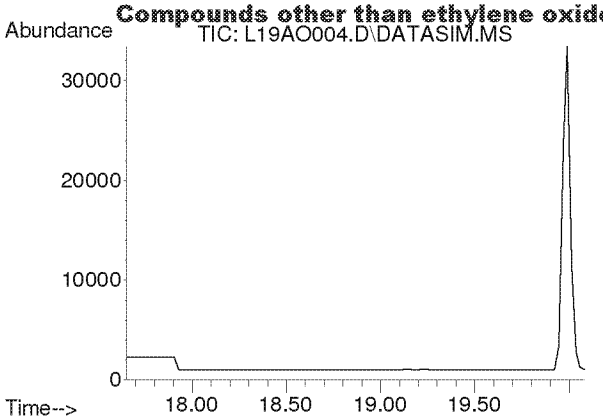
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

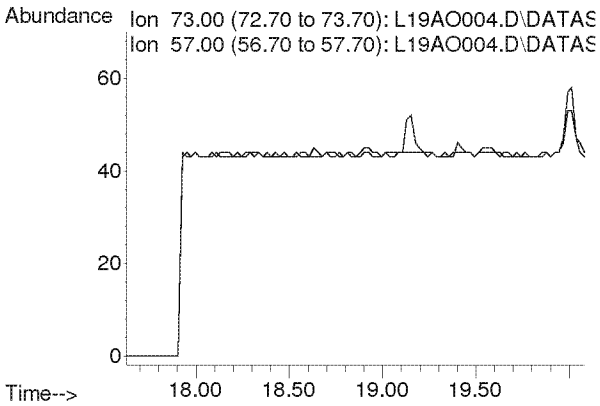


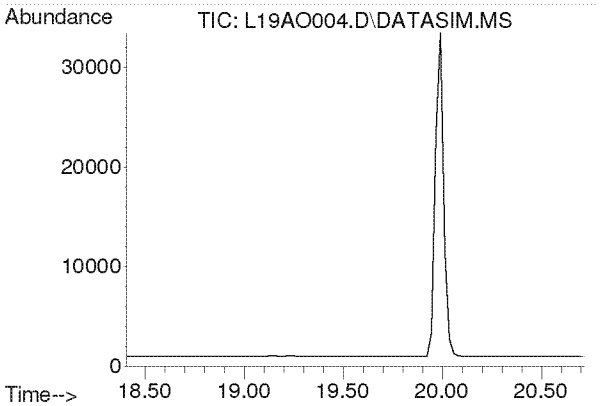
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



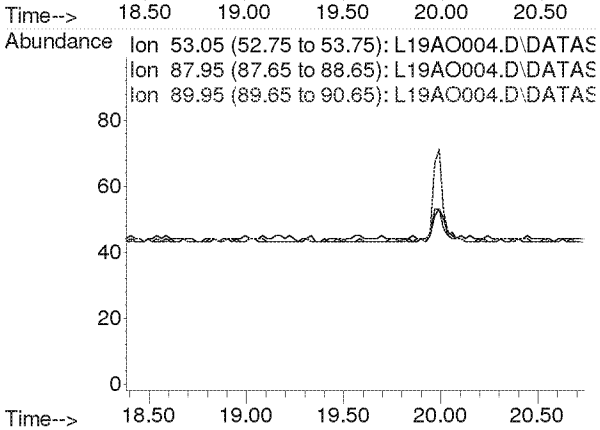


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

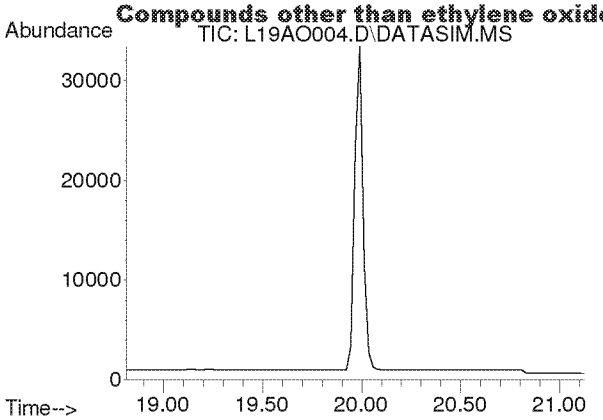
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

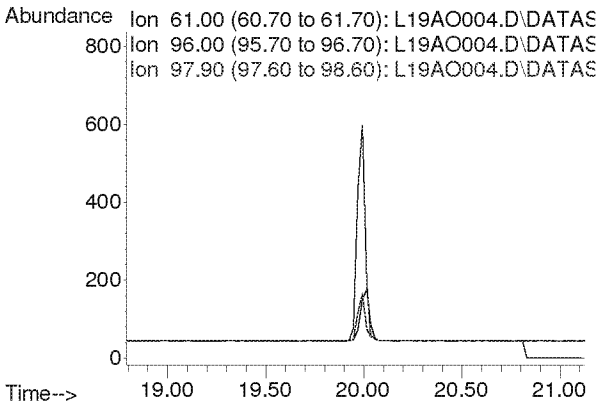


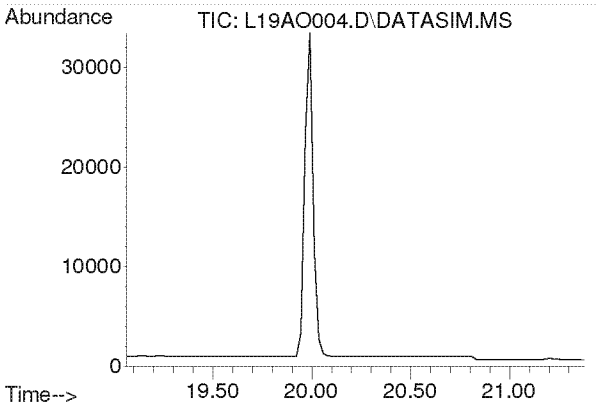
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



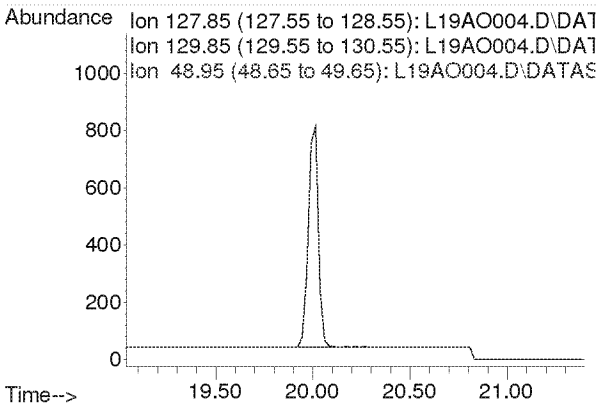


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

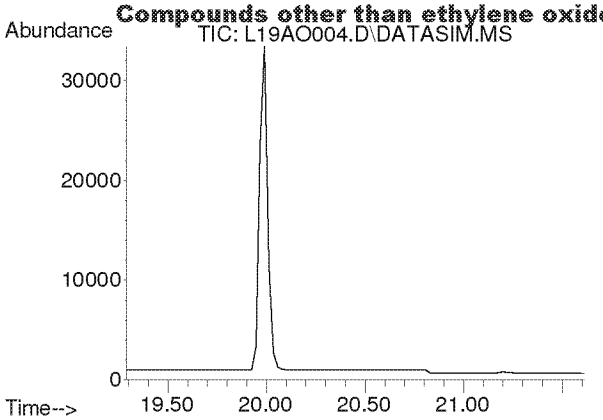
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

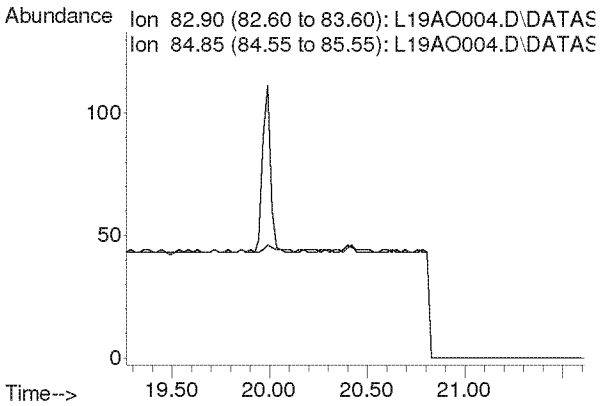


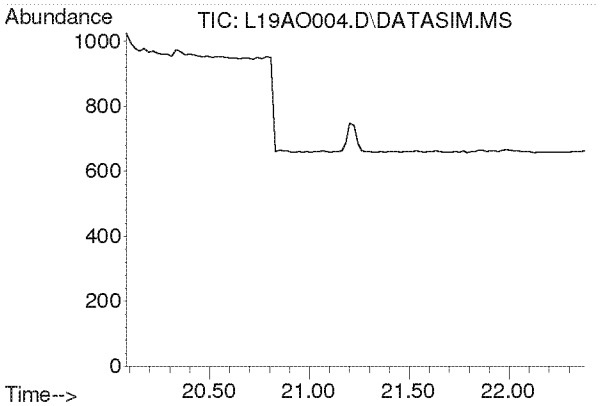
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



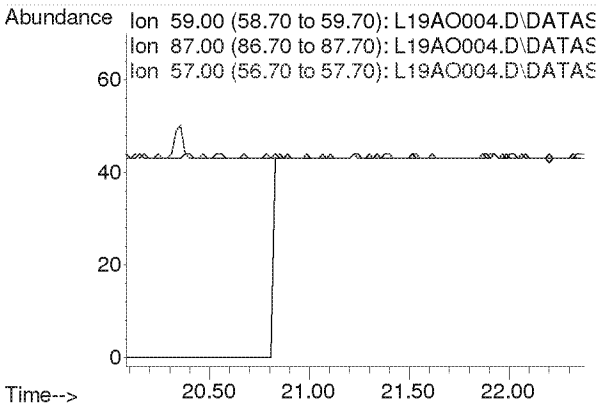


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

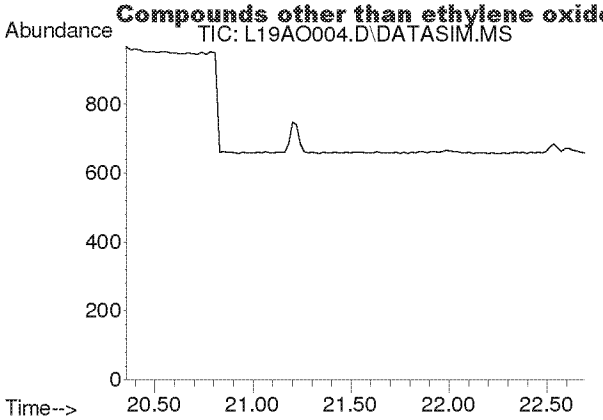
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

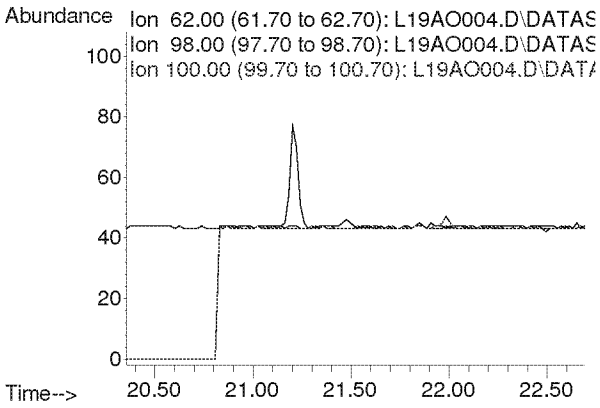


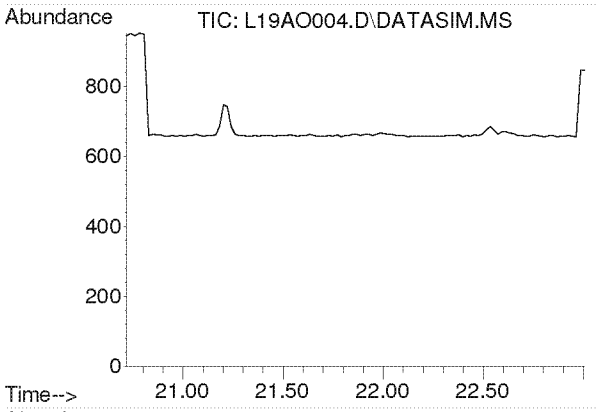
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



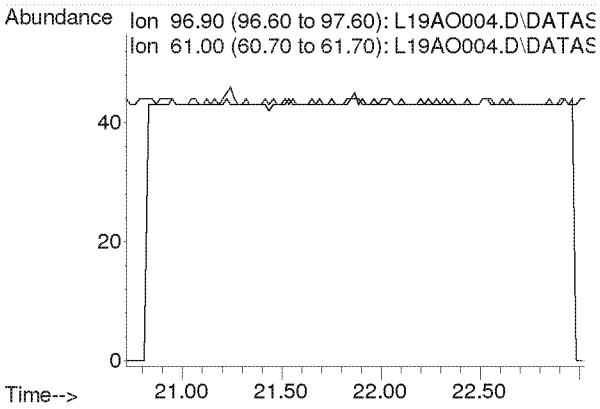


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

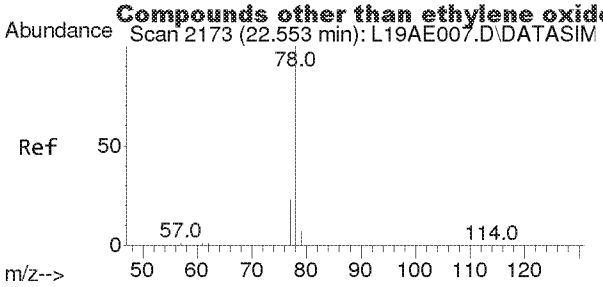
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



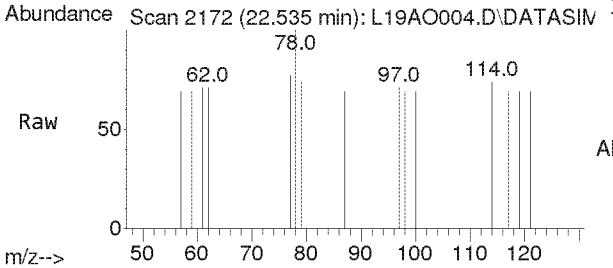
Compounds other than ethylene oxide were not quantitated.

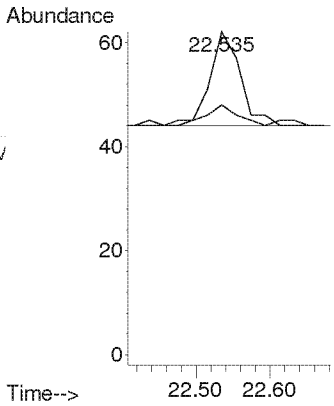


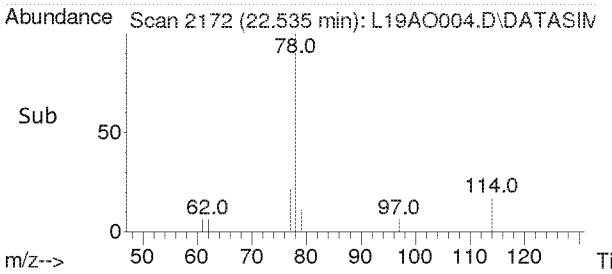
#31
Benzene
Concen: 0.003 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. -0.018 min
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

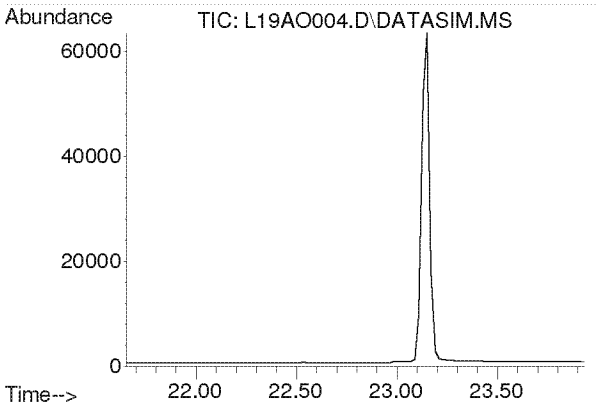
Tgt Ion: 78 Resp: 51

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.3	27.5#







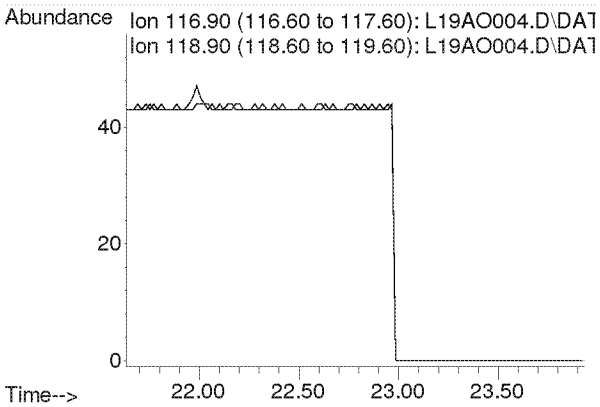


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

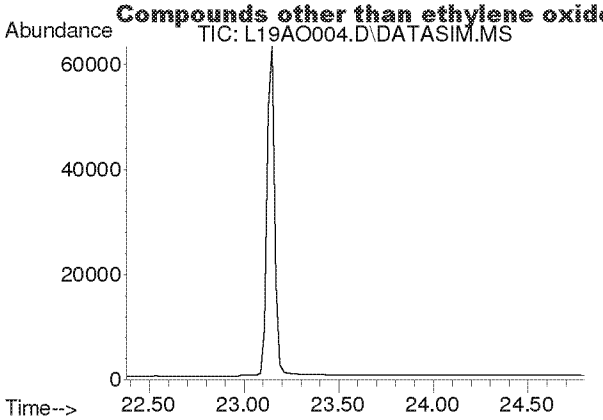
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

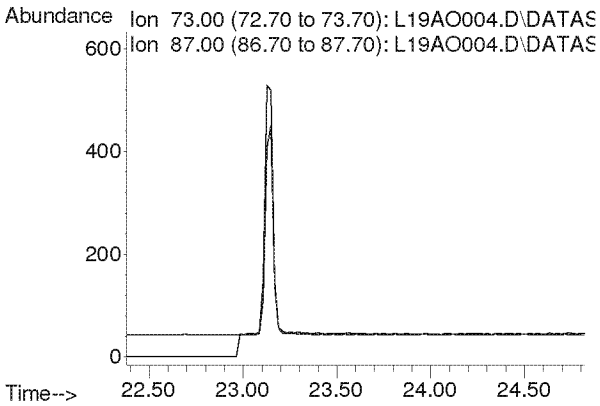


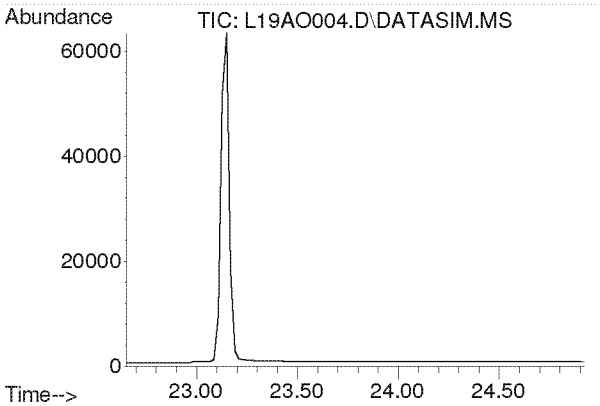
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



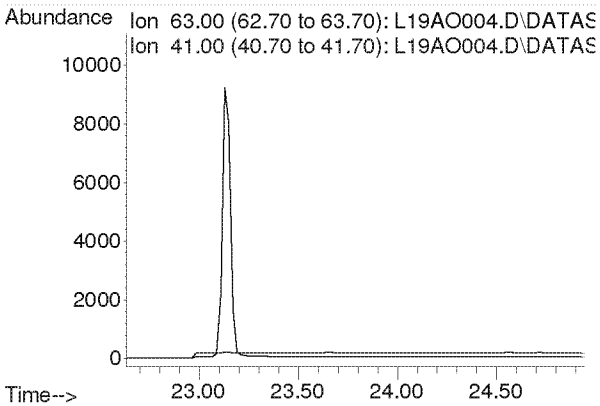


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

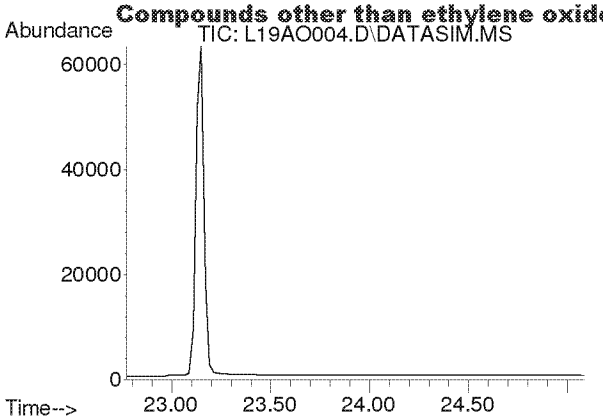
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

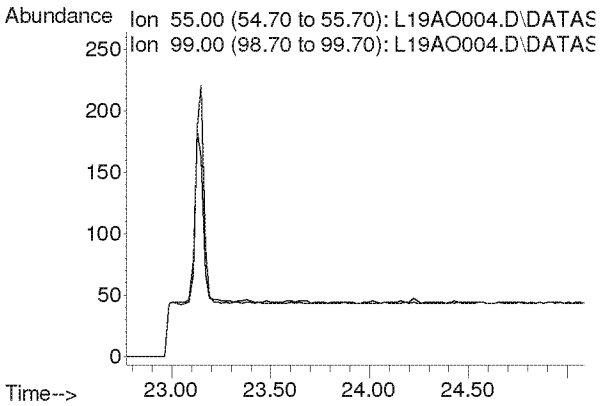


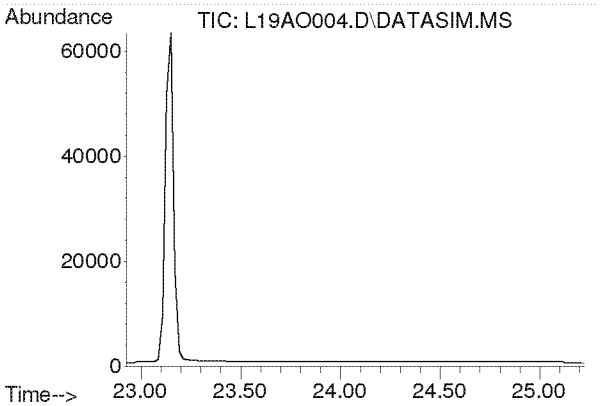
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



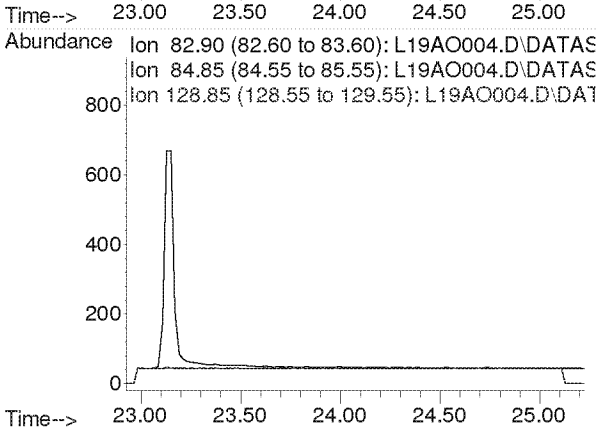


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

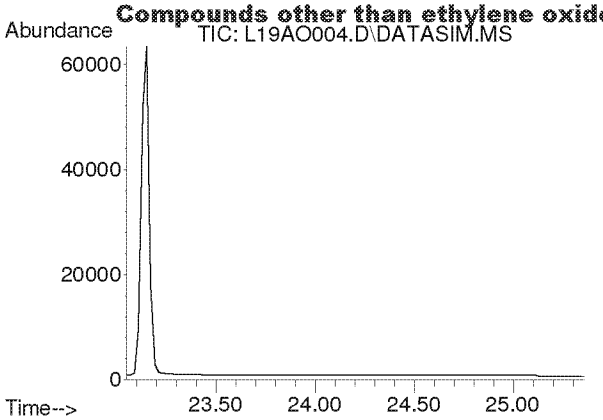
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

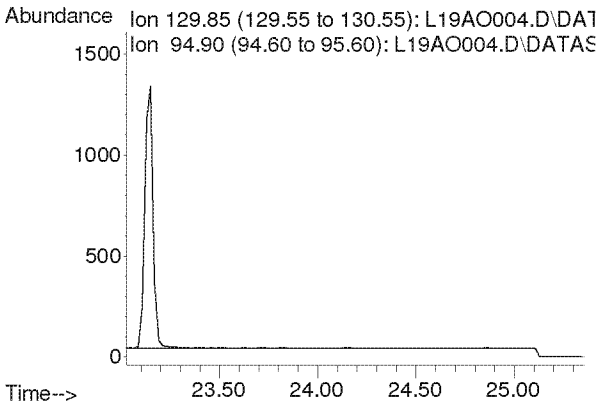


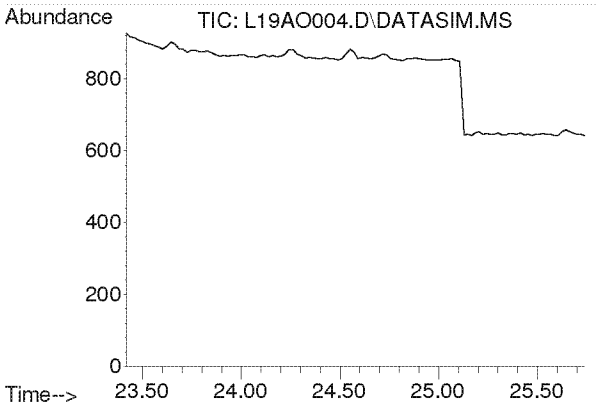
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



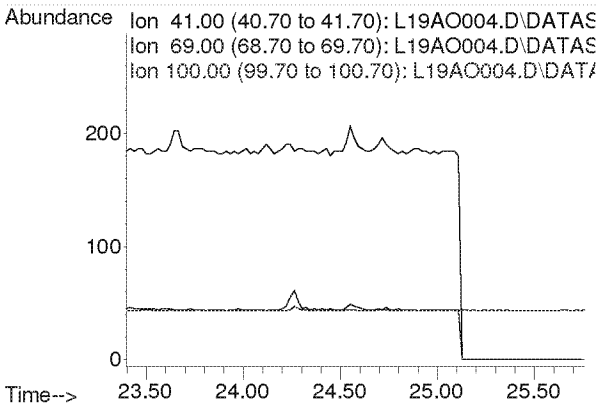


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

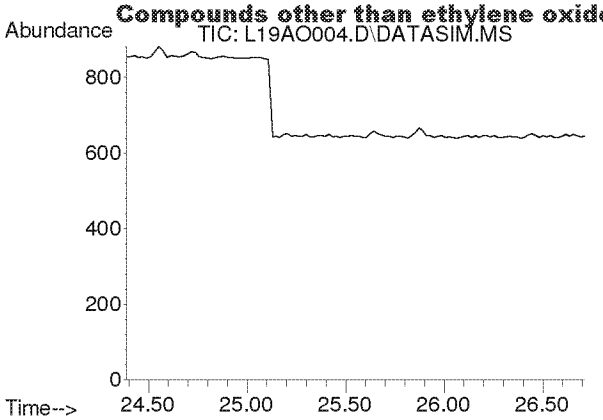
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

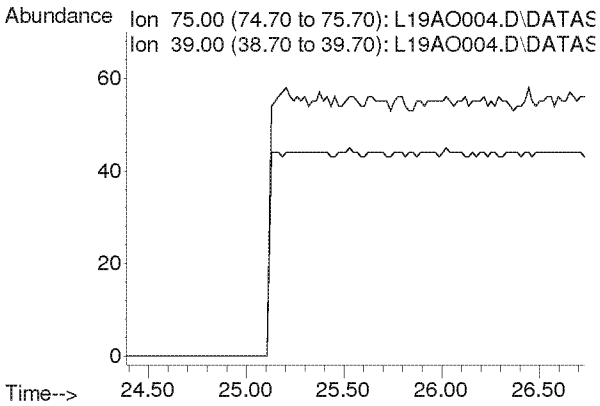


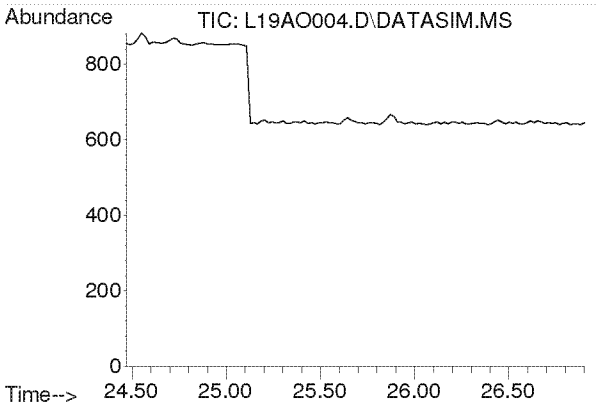
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



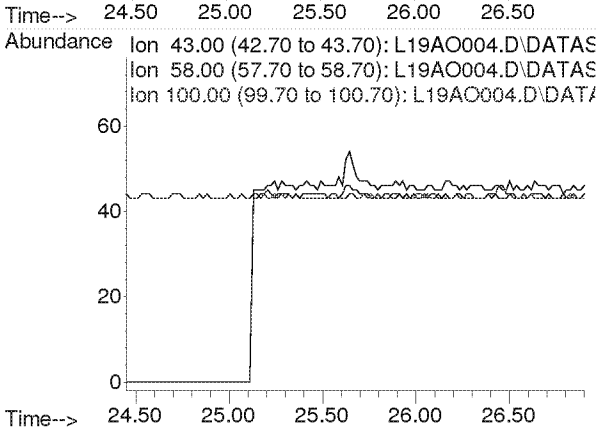


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

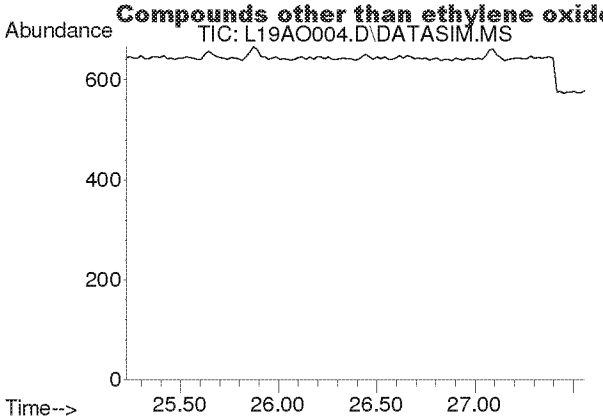
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

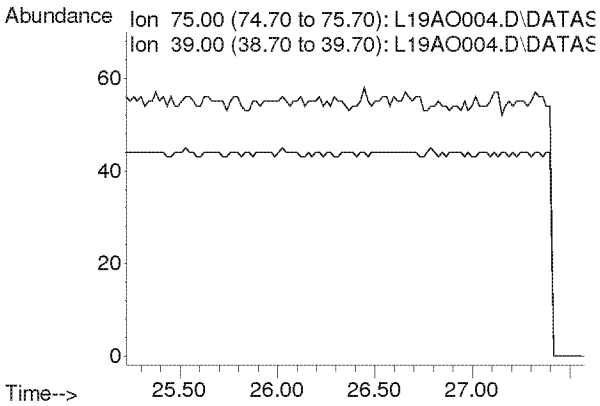


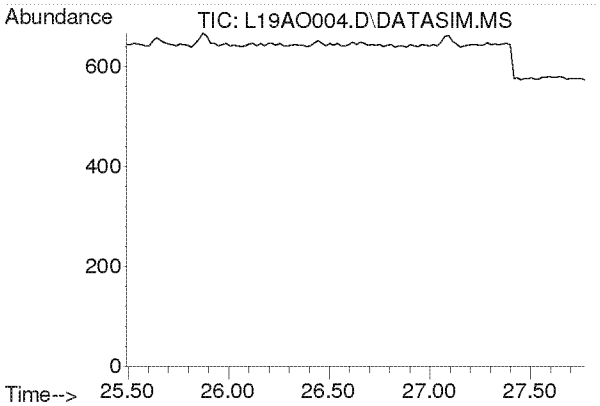
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



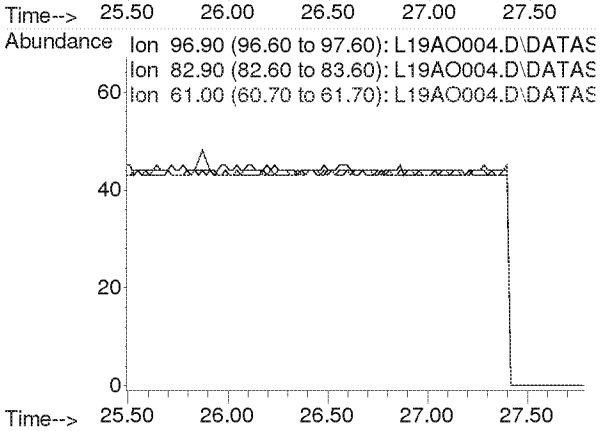


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

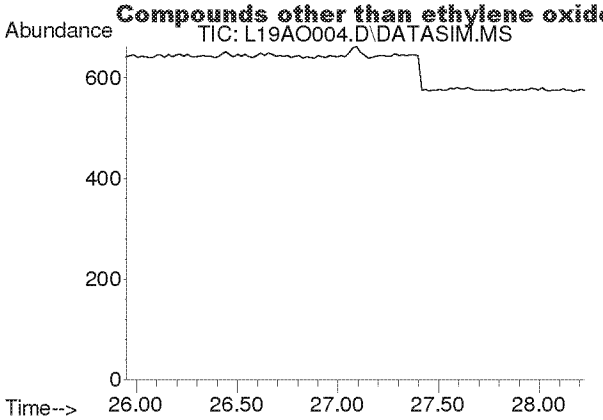
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

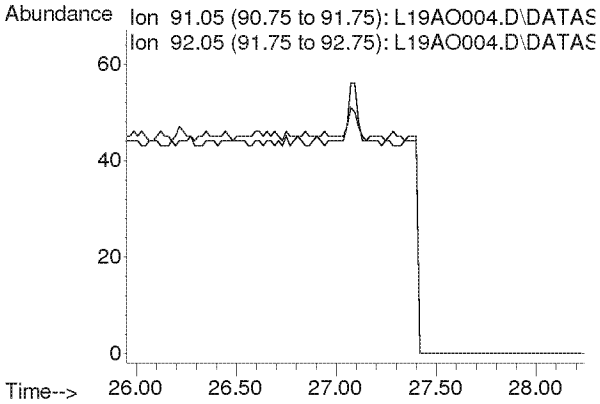


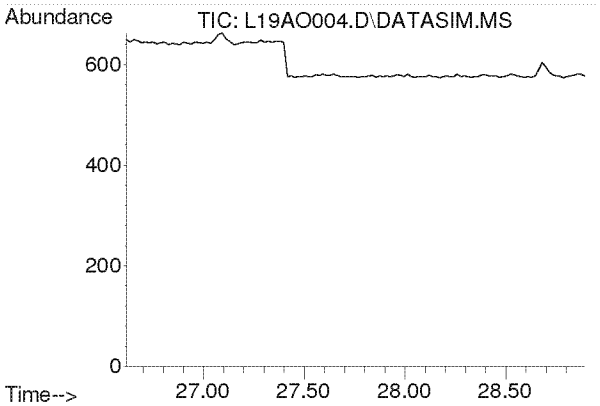
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



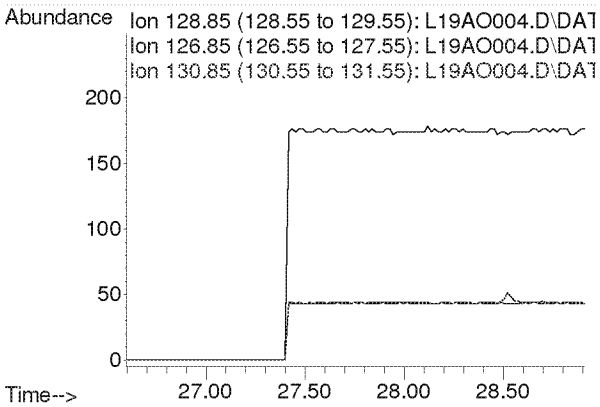


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

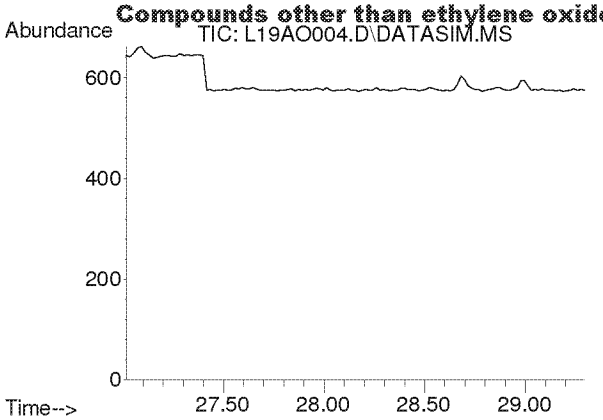
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

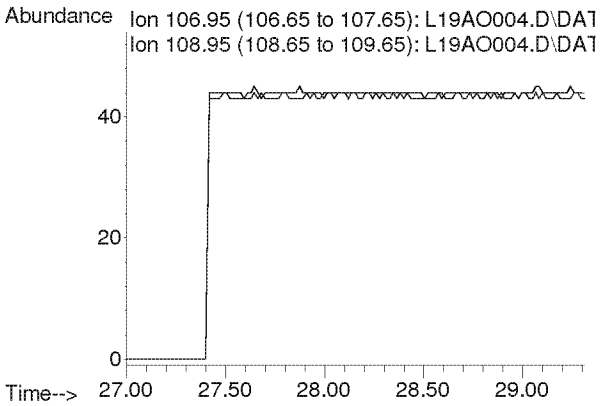


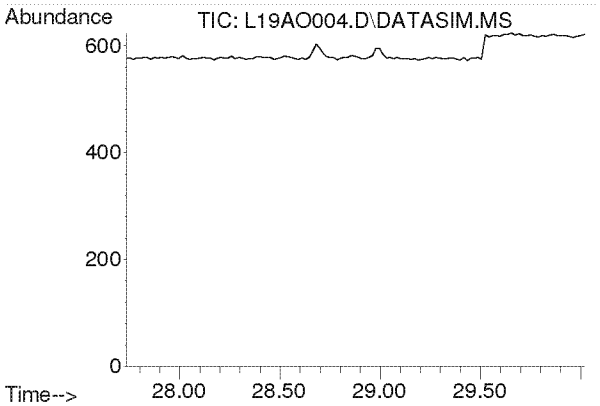
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



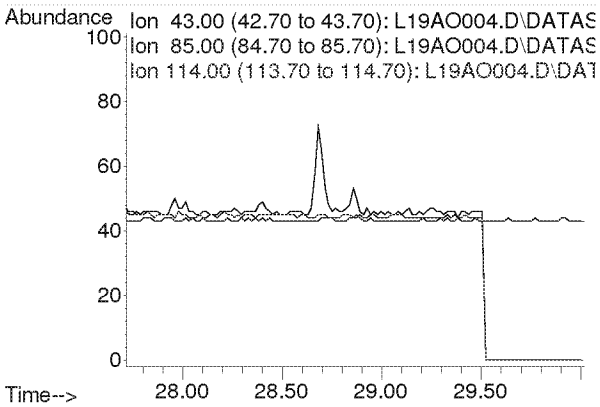


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

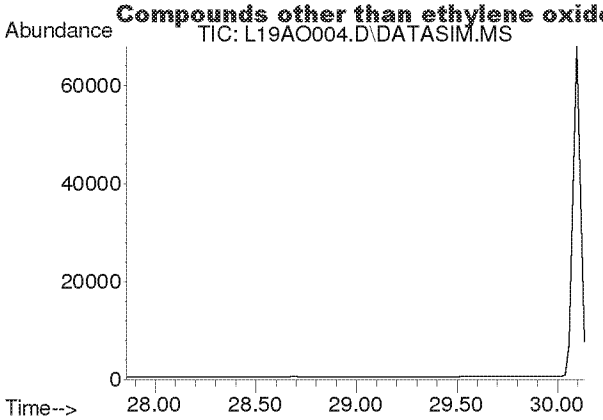
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

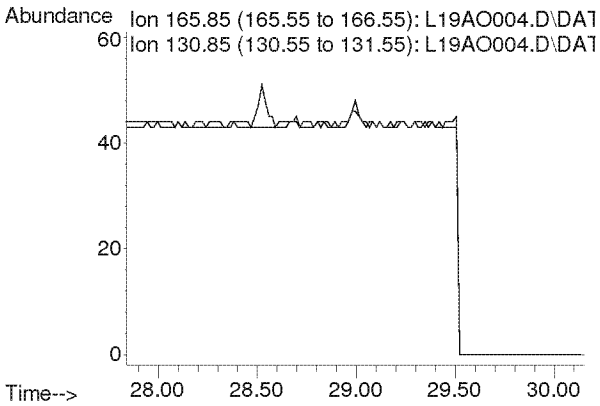


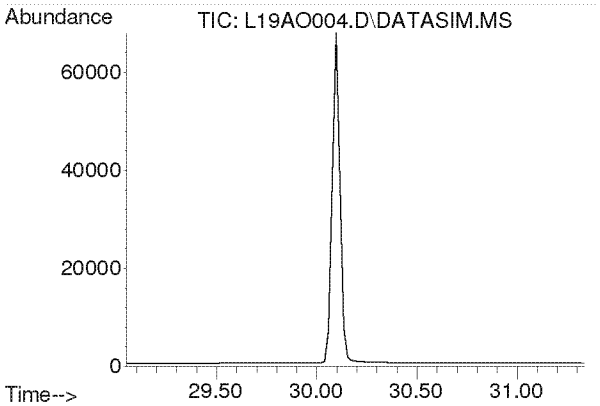
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



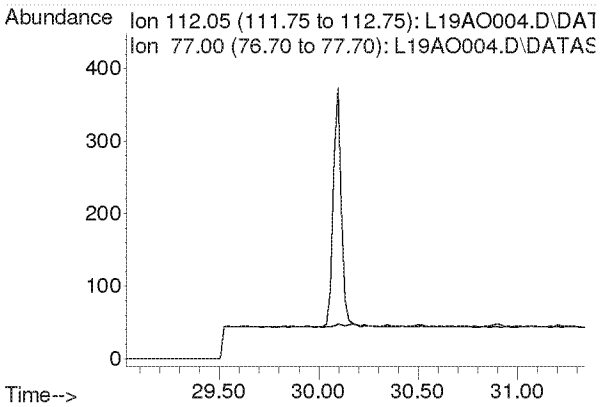


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

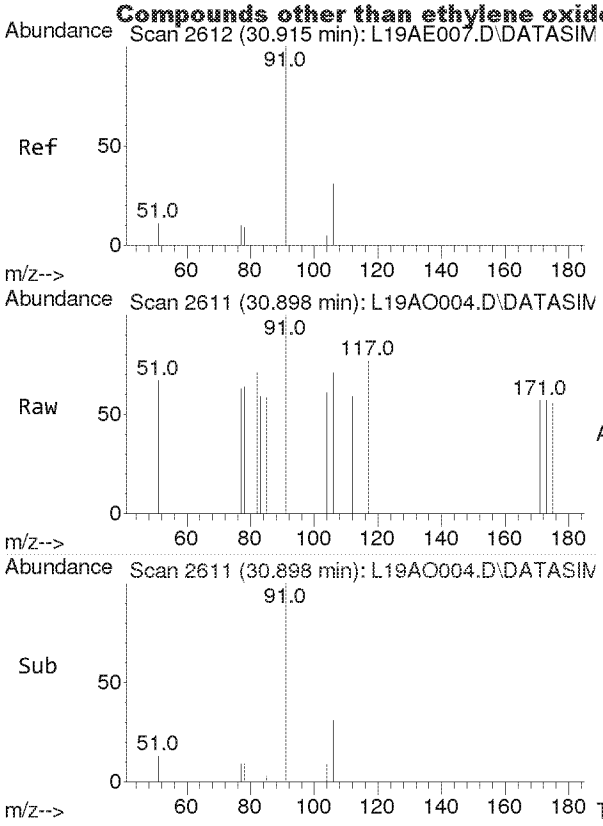
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



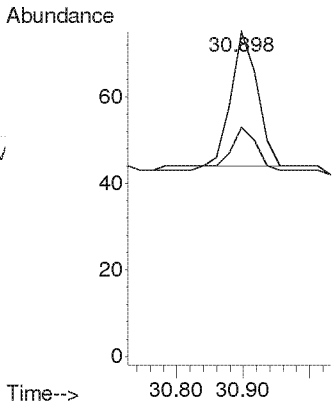
Compounds other than ethylene oxide were not quantitated.

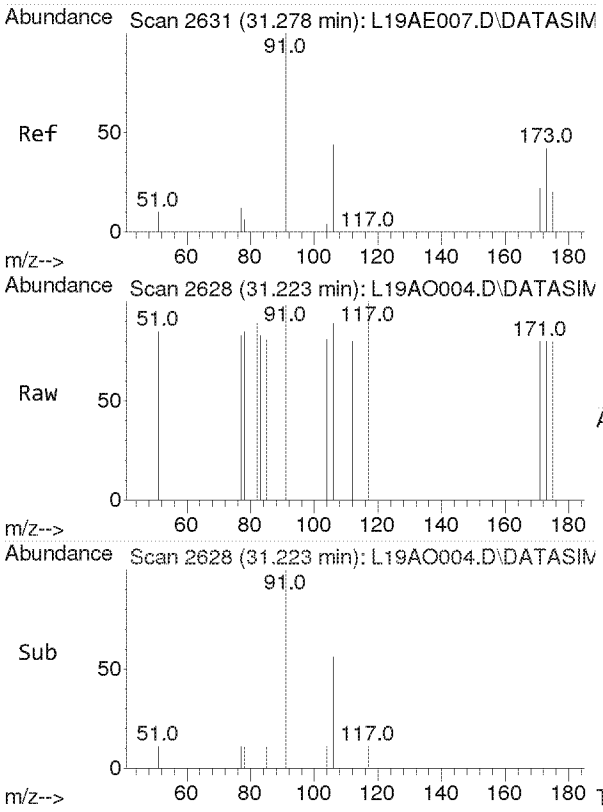


#50
Ethylbenzene
Concen: 0.005 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 91 Resp: 86

Ion	Ratio	Lower	Upper
91	100		
106	0.0	25.4	38.0#

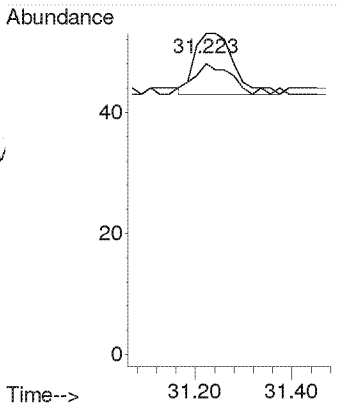




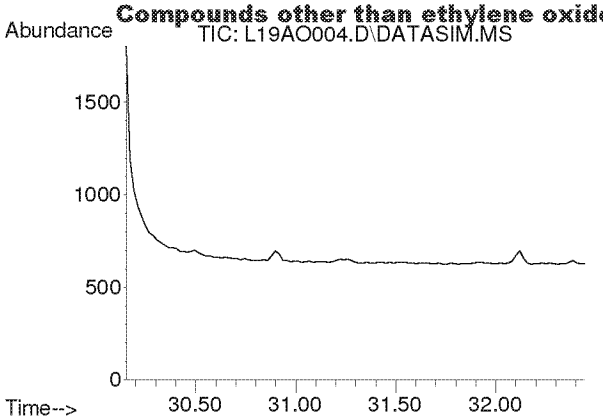
#51
m,p-Xylene
Concen: 0.003 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 91 Resp: 56

Ion	Ratio	Lower	Upper
91	100		
106	0.0	35.7	53.5#



Compounds other than ethylene oxide were not quantitated.

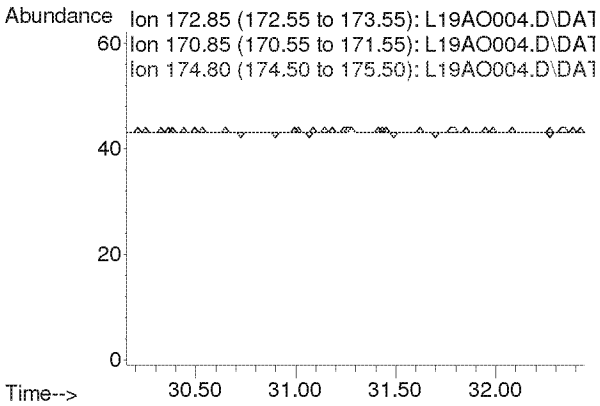


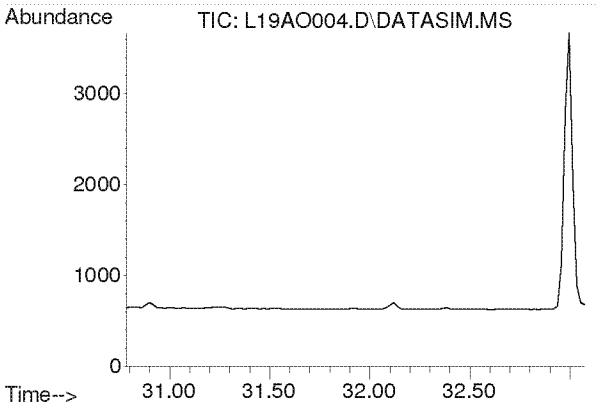
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



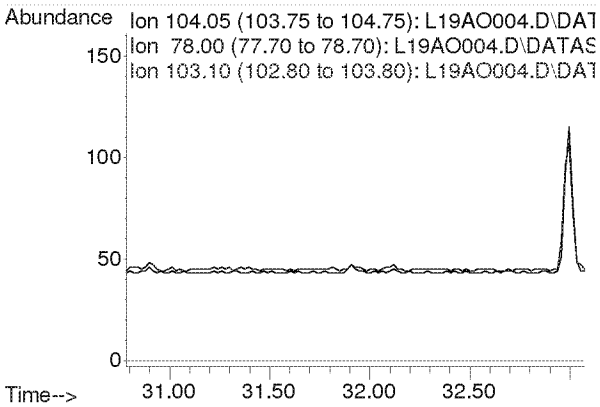


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

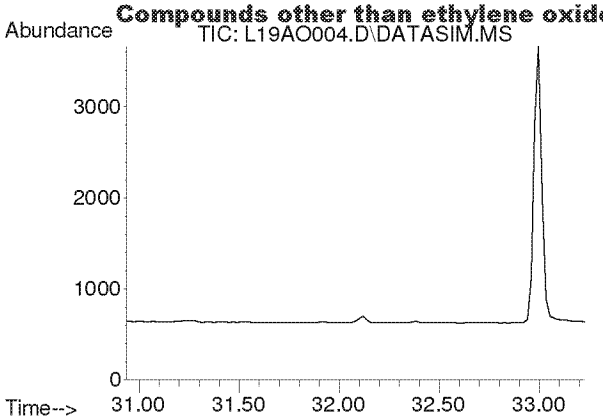
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

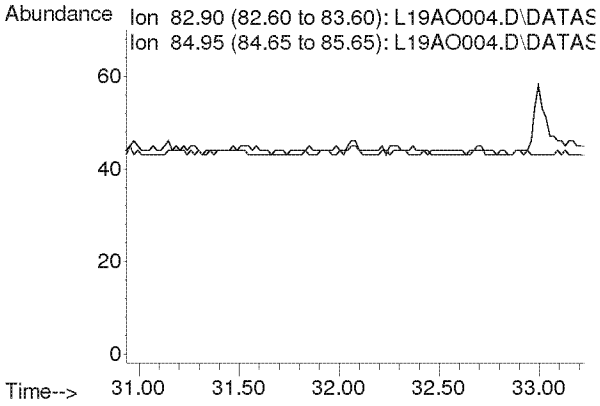


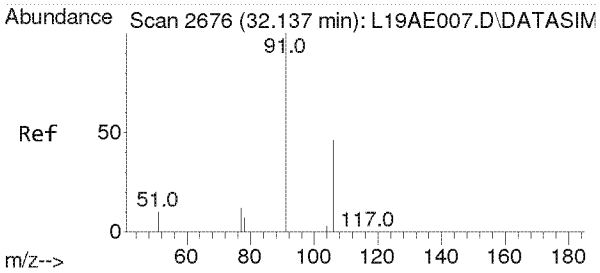
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0

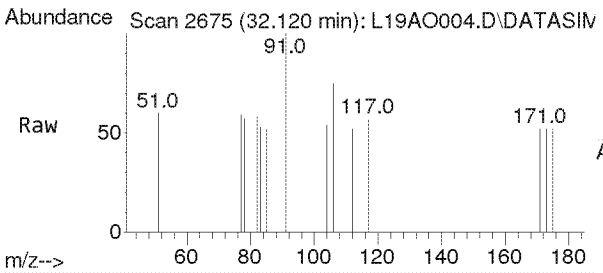


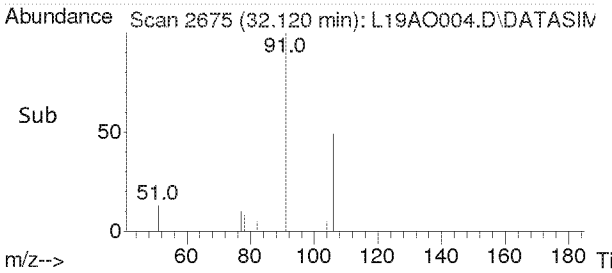


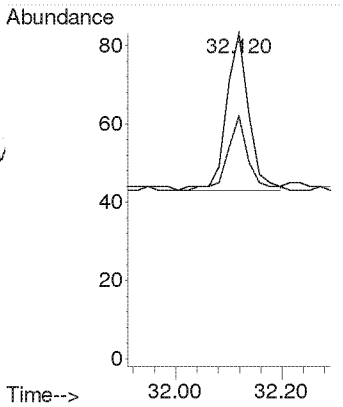
#55
o-Xylene
Concen: 0.008 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 91 Resp: 118

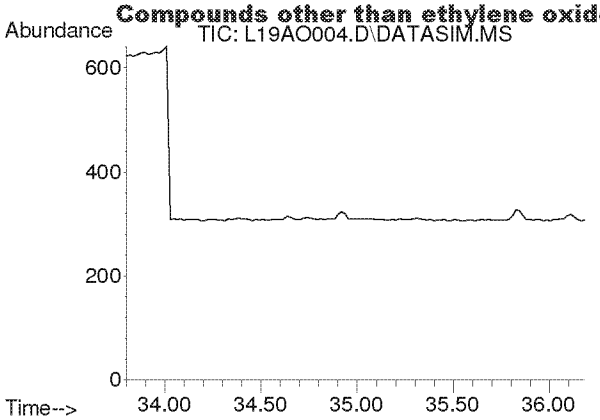
Ion	Ratio	Lower	Upper
91	100		
106	42.4	35.8	53.8







Compounds other than ethylene oxide were not quantitated.

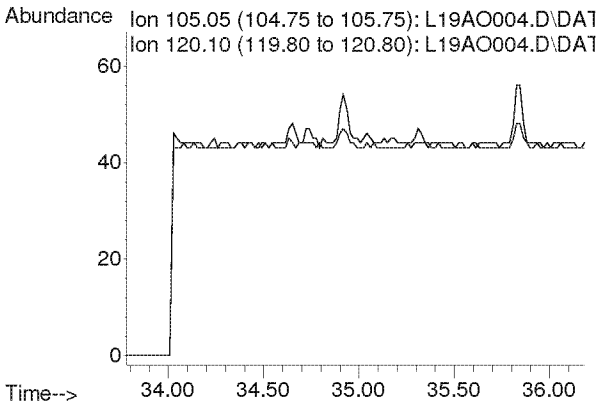


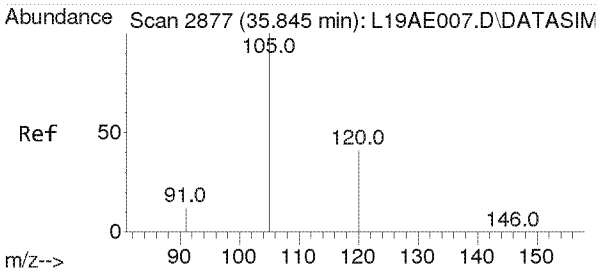
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0

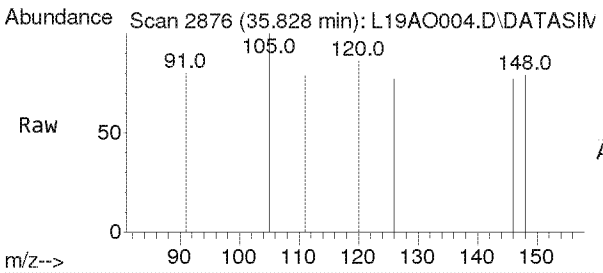


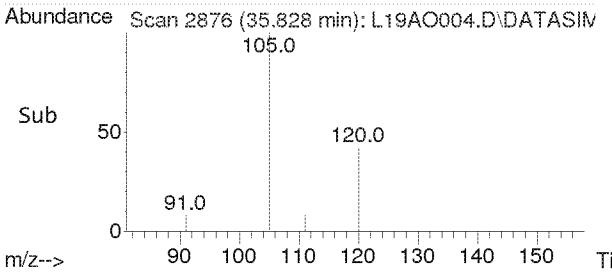


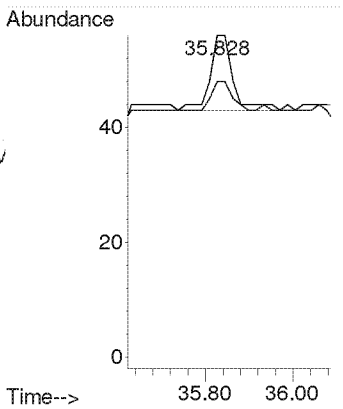
#57
1,2,4-Trimethylbenzene
Concen: 0.004 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.017 min
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion:105 Resp: 47

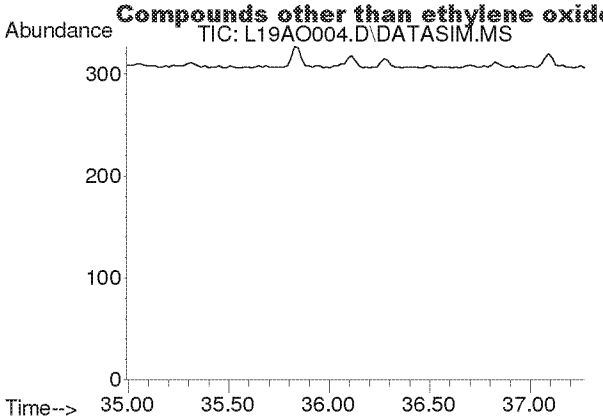
Ion	Ratio	Lower	Upper
105	100		
120	0.0	34.3	51.5#







Compounds other than ethylene oxide were not quantitated.

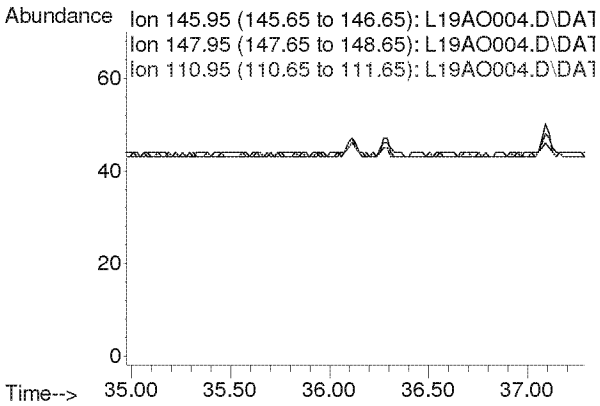


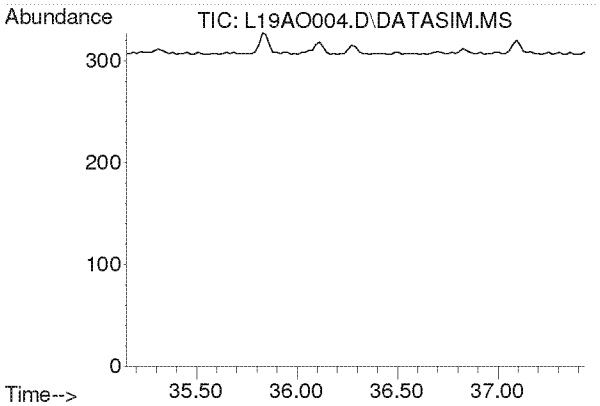
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



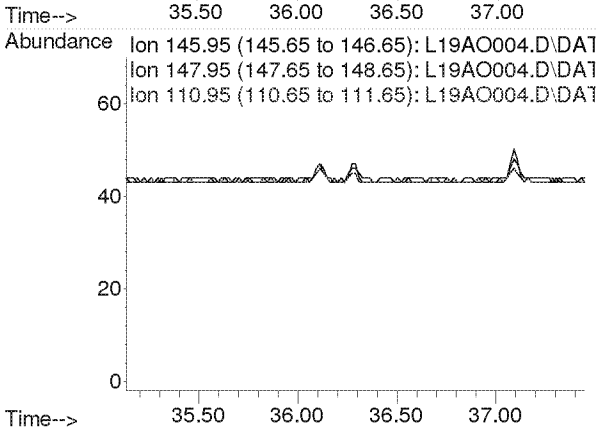


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

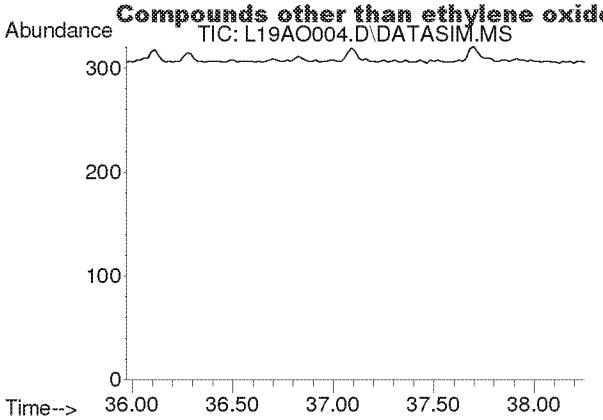
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

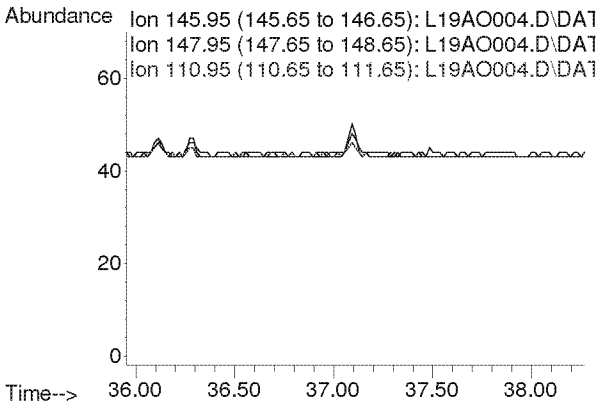


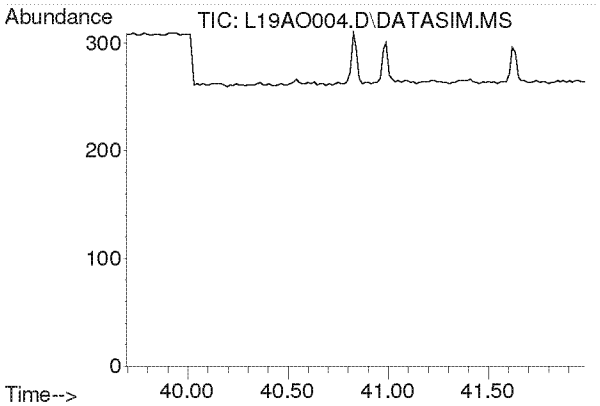
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



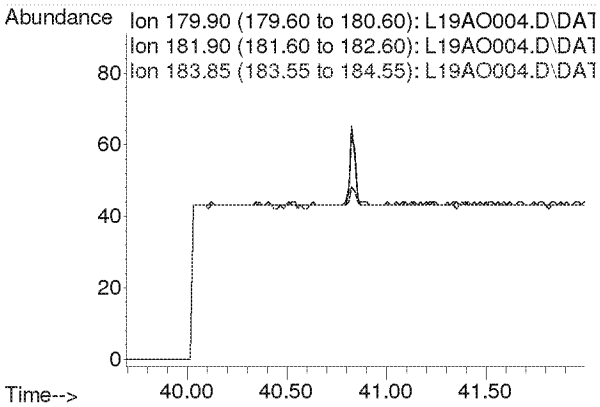


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

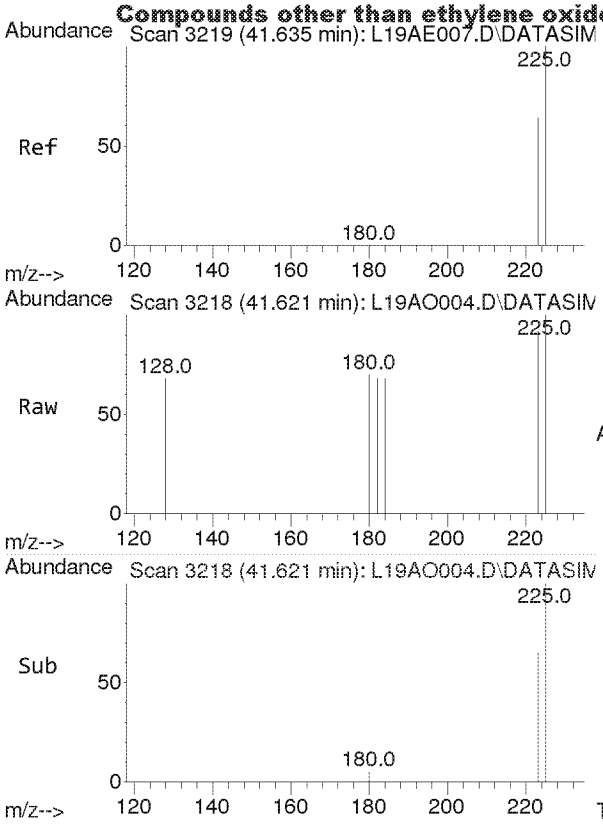
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



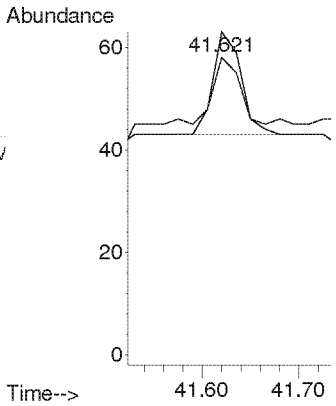
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 0.005 ppbv
RT: 41.621 min Scan# 3218
Delta R.T. -0.014 min
Lab File: L19AO004.D
Acq: 15 Jan 2019 11:40 am

Tgt Ion:225 Resp: 40

Ion	Ratio	Lower	Upper
225	100		
223	120.0	49.9	74.9#



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO005.D
Acq On : 15 Jan 2019 1:27 pm
Operator : MAH
Sample : 9010401-01
Misc : WEST NEIGHBORHOOD 1/3/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 22 11:34:38 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

EPA only

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	54813	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	135955	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	107942	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	
10) Bromomethane	0.000	94	0	N.D.	d	
11) Chloroethane	0.000	64	0	N.D.		
12) Acetonitrile	0.000	41	0	N.D.	d	
13) Acrolein	0.000	56	0	N.D.	d	
14) Trichlorofluoromethane	0.000	101	0	N.D.	d	
15) Acrylonitrile	0.000	53	0	N.D.	d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.		
17) Methylene Chloride	0.000	49	0	N.D.	d	
18) Carbon Disulfide	0.000	76	0	N.D.	d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.		
21) 1,1-Dichloroethane	0.000	63	0	N.D.		
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	d	
23) Chloroprene	0.000	53	0	N.D.		
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d	
25) Bromochloromethane	0.000	128	0	N.D.		
26) Chloroform	0.000	83	0	N.D.	d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.		
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.		
31) Benzene	0.000	78	0	N.D.	d	
32) Carbon Tetrachloride	0.000	117	0	N.D.	d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.		
34) 1,2-Dichloropropane	0.000	63	0	N.D.		
35) Ethyl Acrylate	0.000	55	0	N.D.		
36) Bromodichloromethane	0.000	83	0	N.D.		
37) Trichloroethylene	0.000	130	0	N.D.		
38) Methyl Methacrylate	0.000	41	0	N.D.		
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.		
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.		
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.		
44) Toluene	0.000	91	0	N.D.	d	
45) Dibromochloromethane	0.000	129	0	N.D.		
46) 1,2-Dibromoethane	0.000	107	0	N.D.		
47) n-Octane	0.000	43	0	N.D.	d	
48) Tetrachloroethylene	0.000	166	0	N.D.	d	
49) Chlorobenzene	0.000	112	0	N.D.		
50) Ethylbenzene	0.000	91	0	N.D.	d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO005.D
Acq On : 15 Jan 2019 1:27 pm
Operator : MAH
Sample : 9010401-01
Misc : WEST NEIGHBORHOOD 1/3/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 22 11:34:38 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

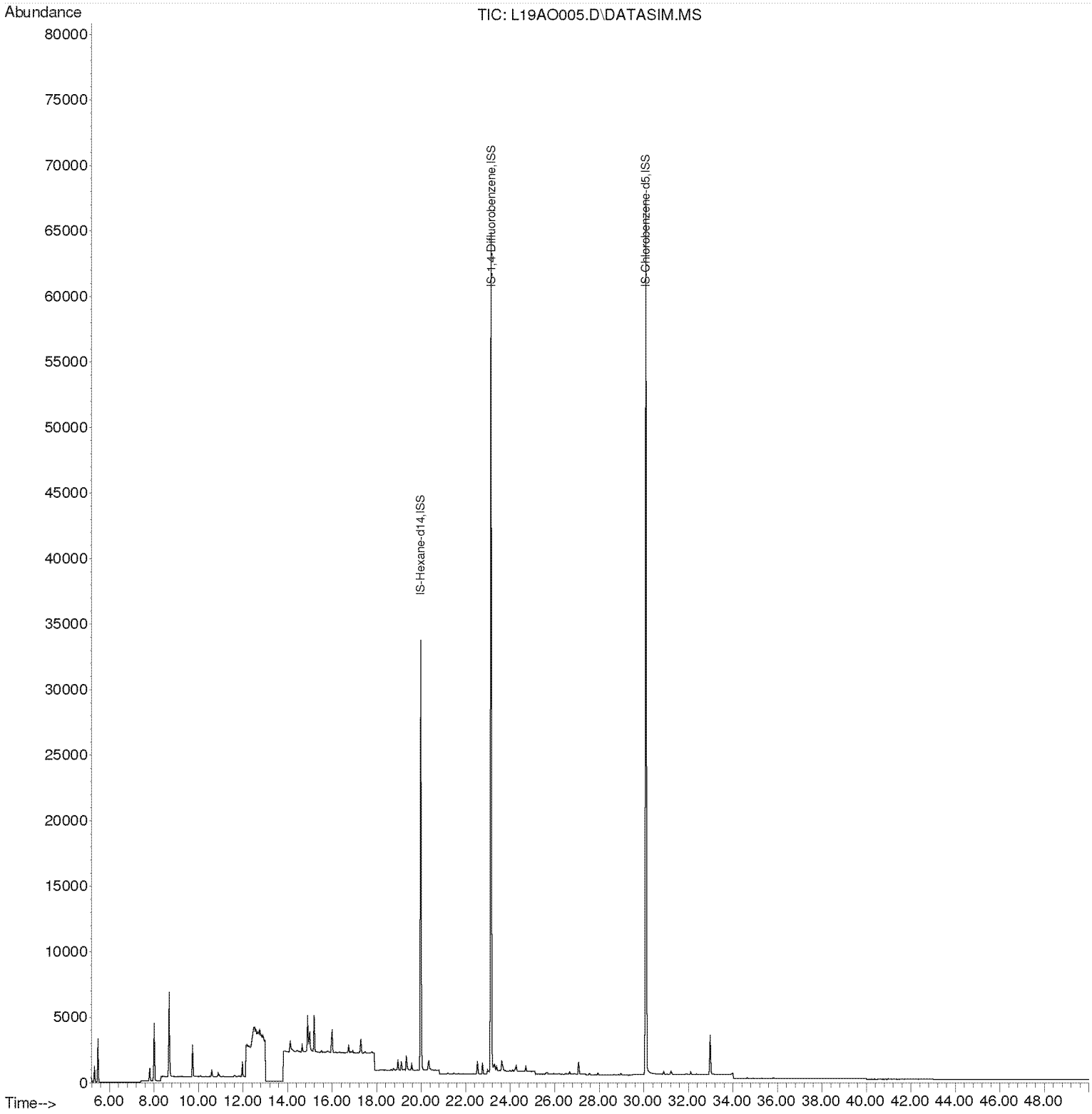
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

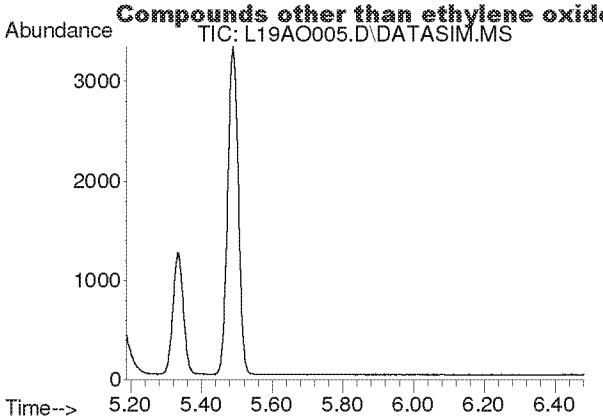
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO005.D
Acq On : 15 Jan 2019 1:27 pm
Operator : MAH
Sample : 9010401-01
Misc : WEST NEIGHBORHOOD 1/3/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 22 11:25:11 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



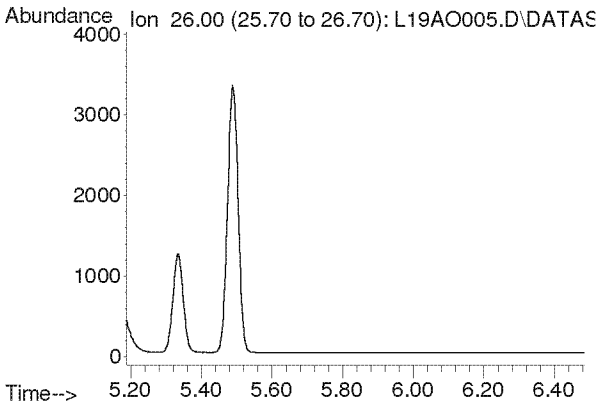
Compounds other than ethylene oxide were not quantitated.

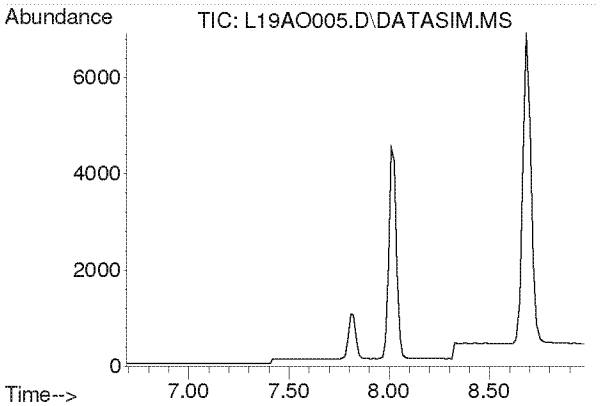


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 26



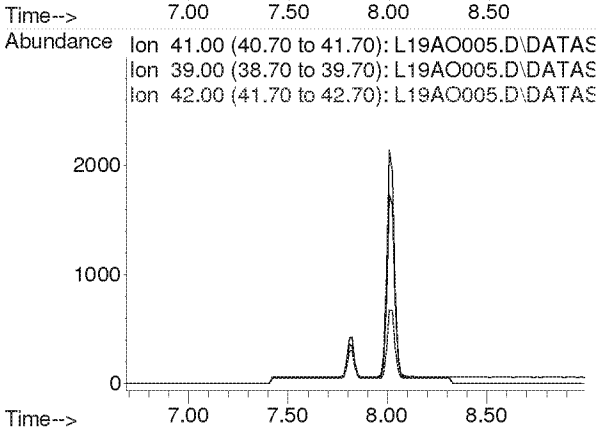


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

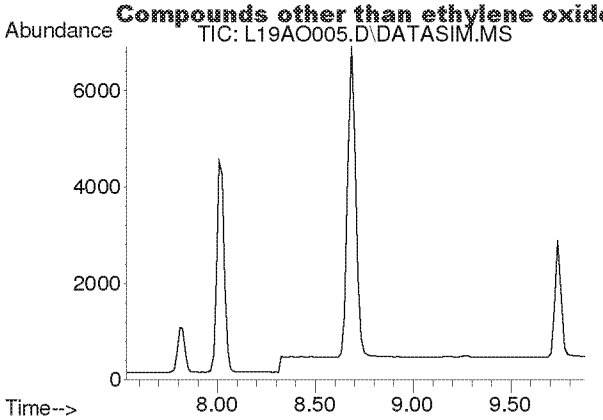
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

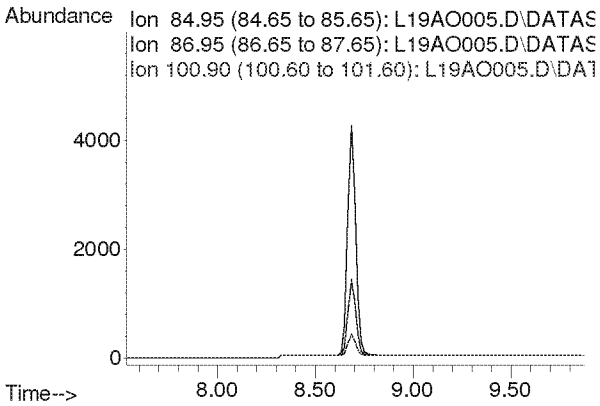


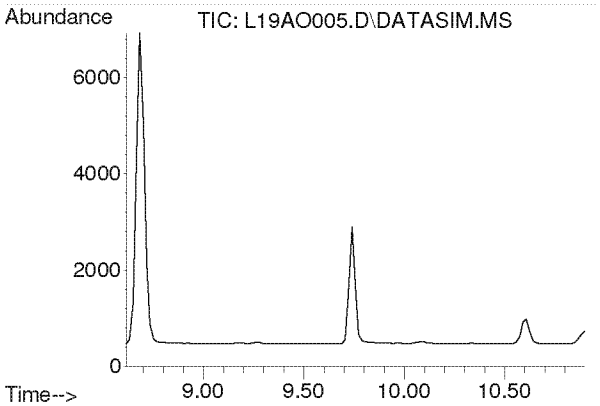
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



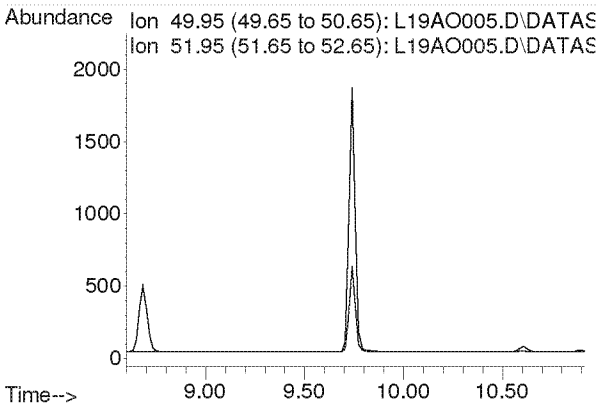


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

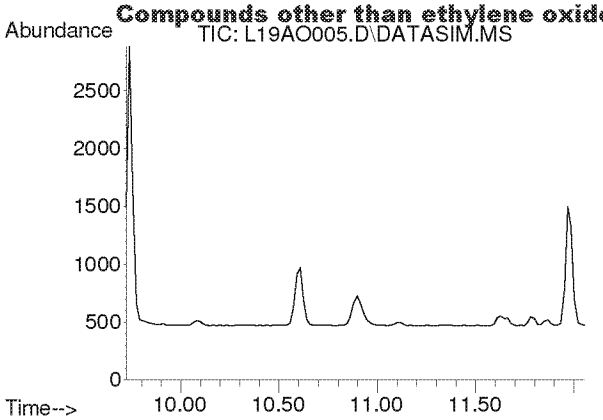
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

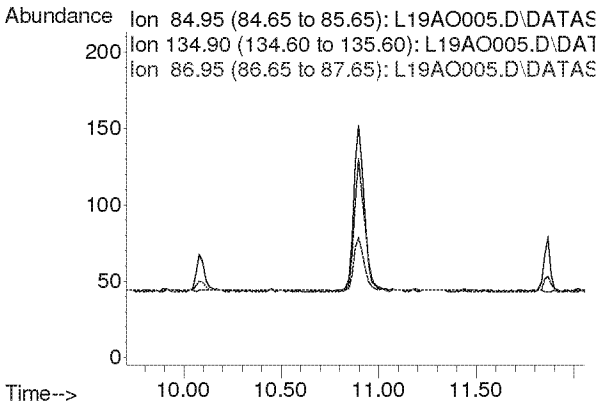


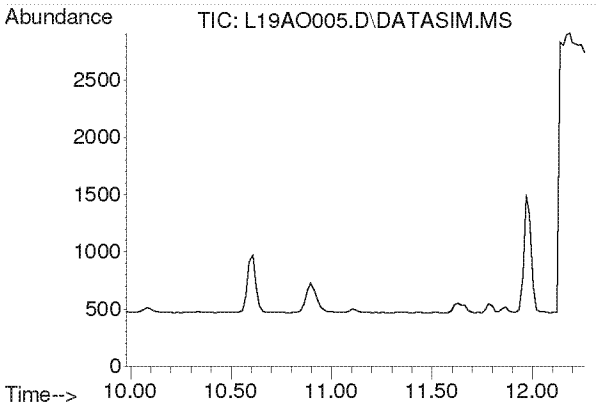
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



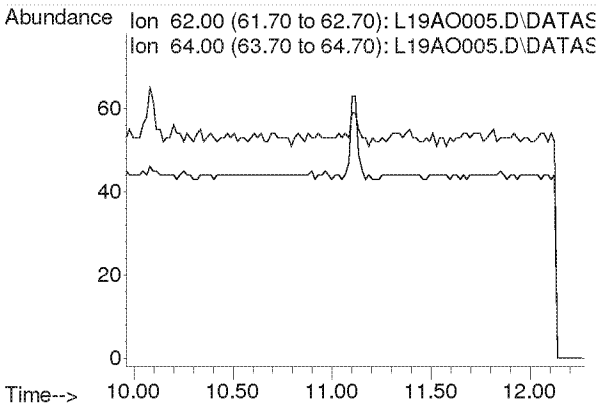


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

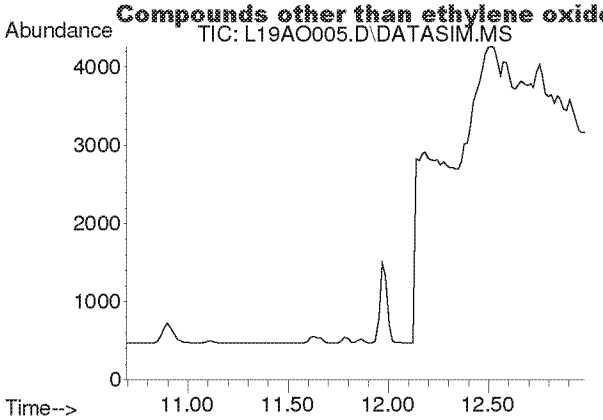
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

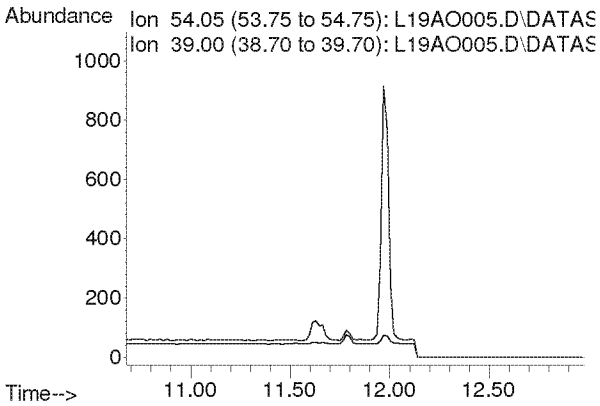


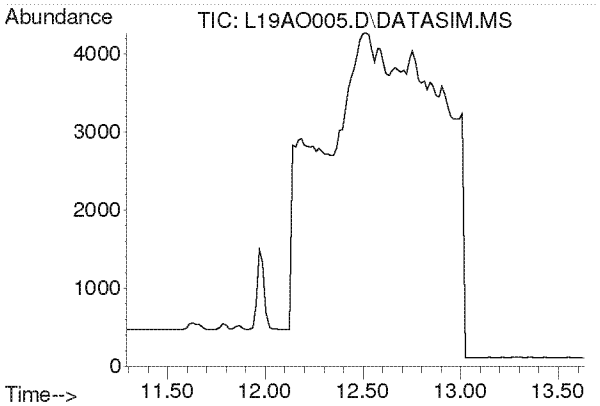
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



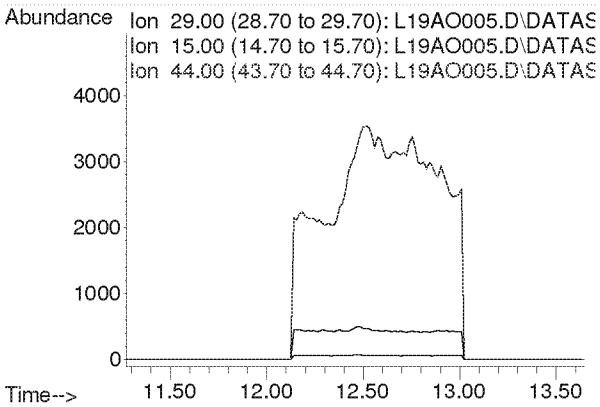


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

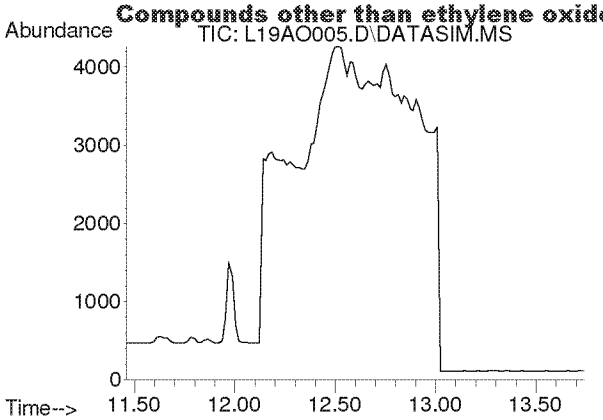
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

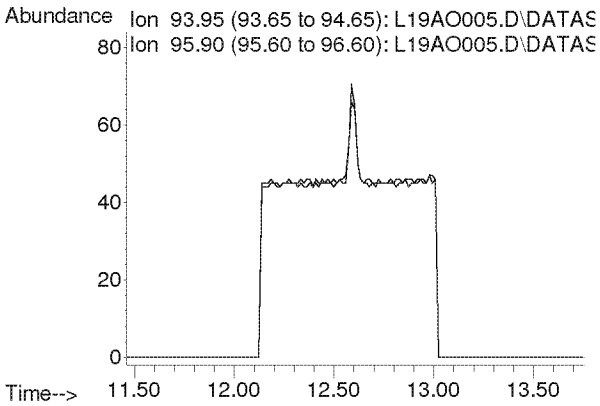


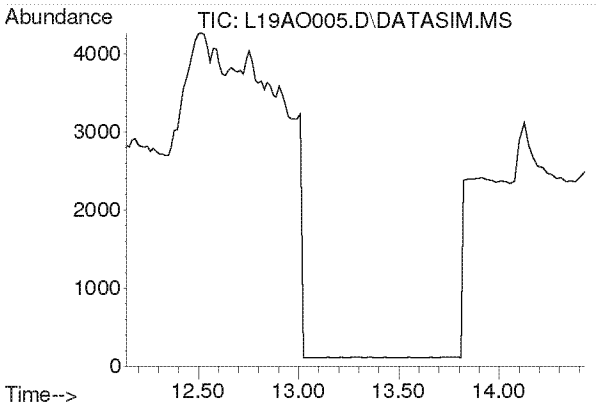
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



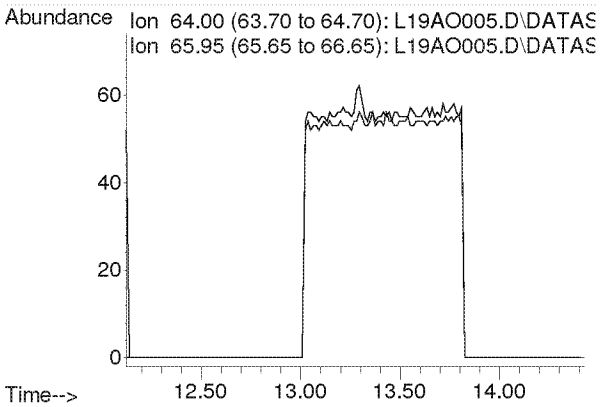


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

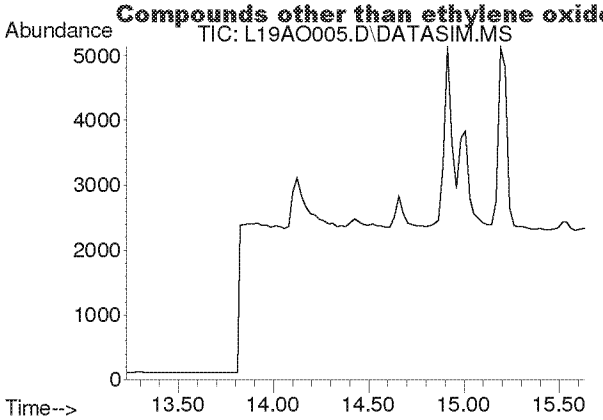
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

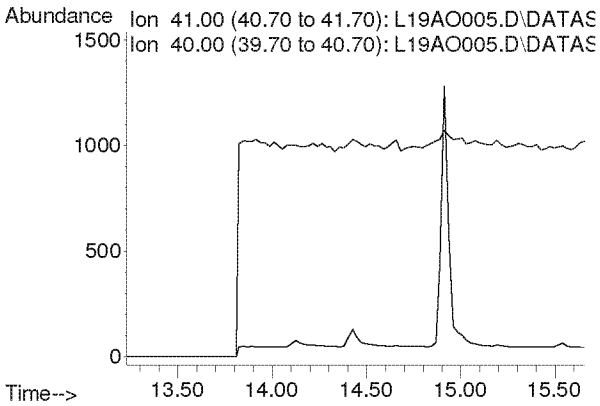


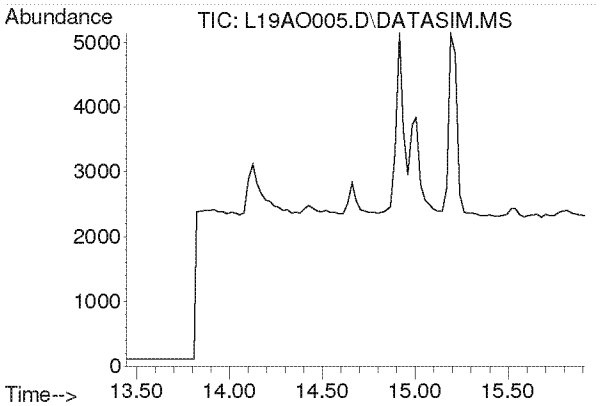
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



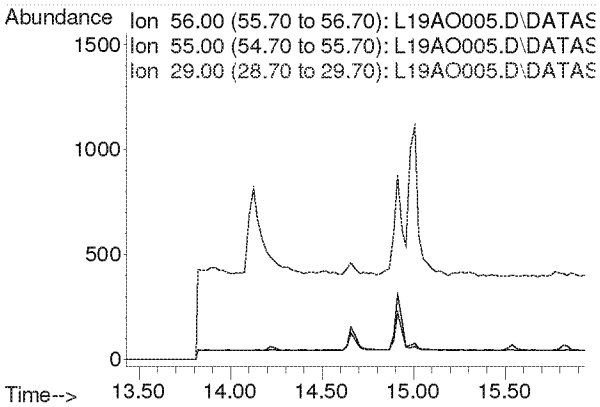


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

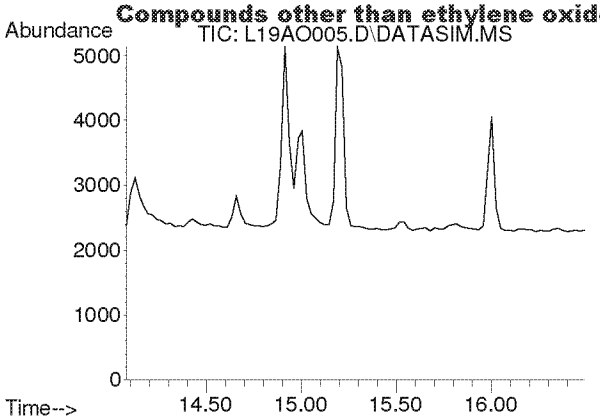
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

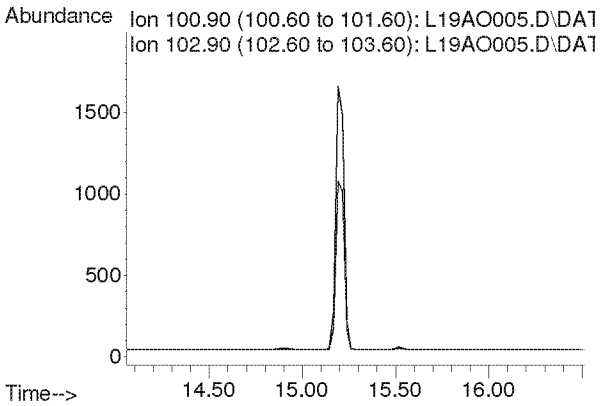


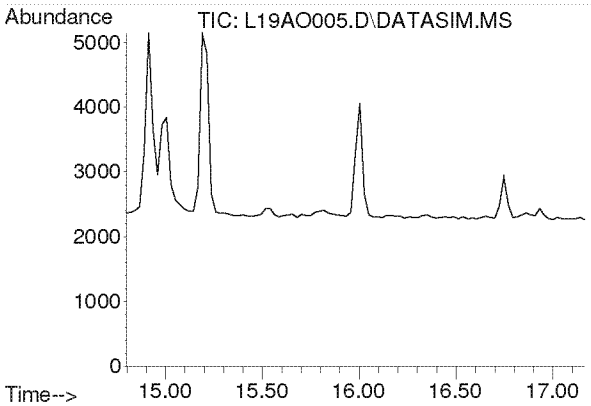
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



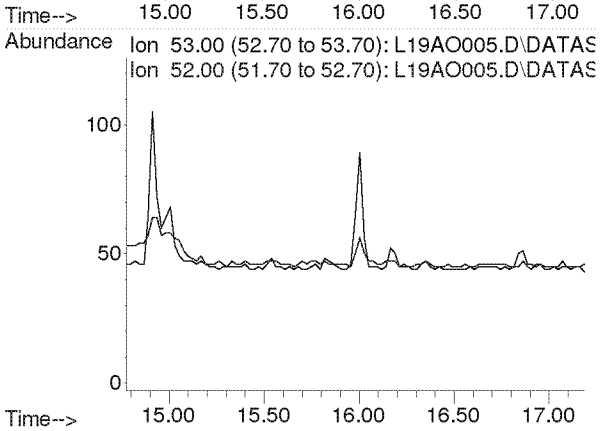


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

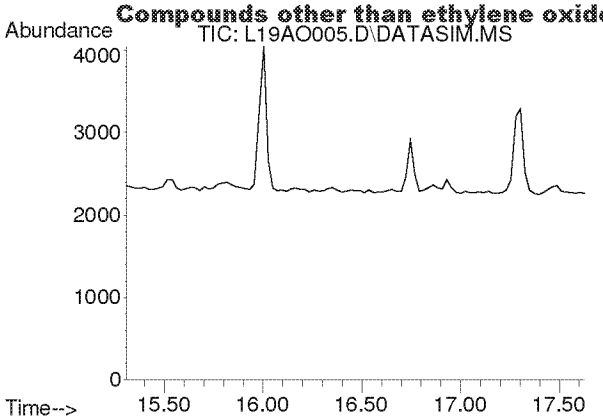
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

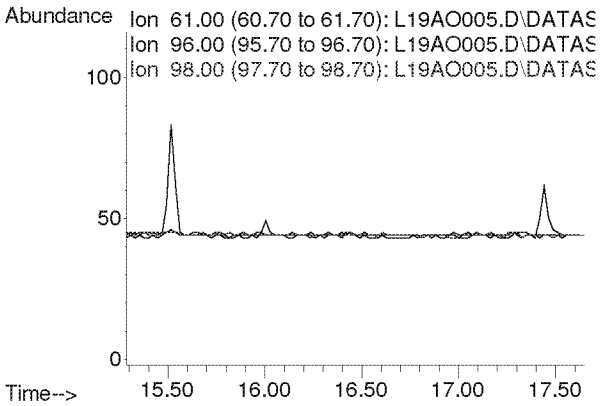


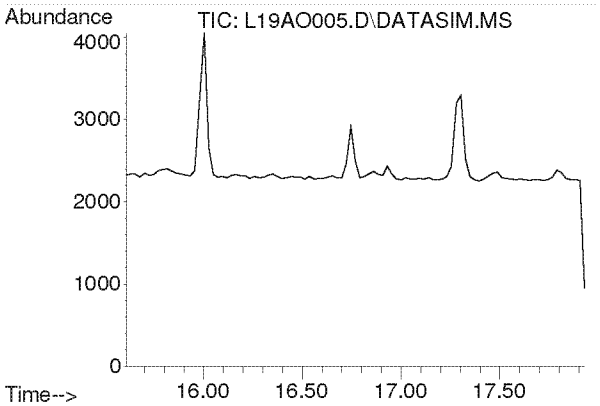
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



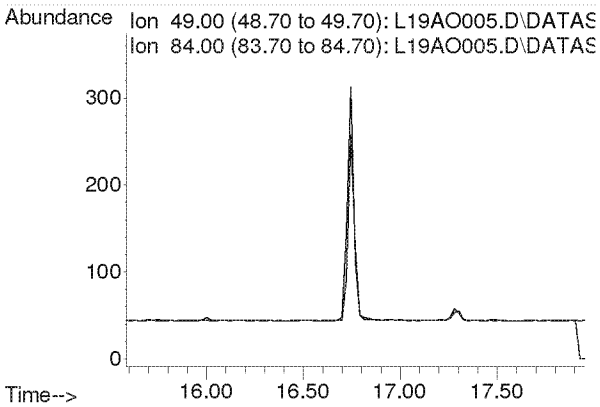


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

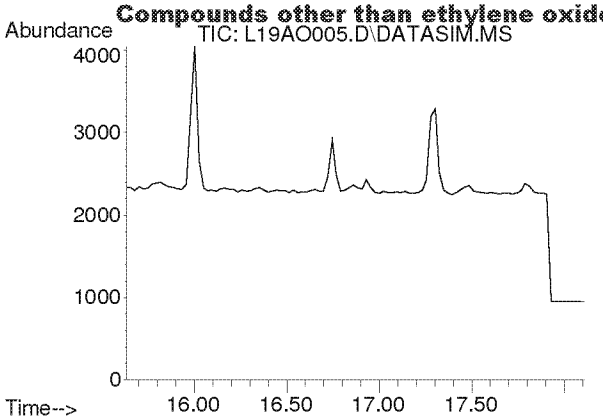
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

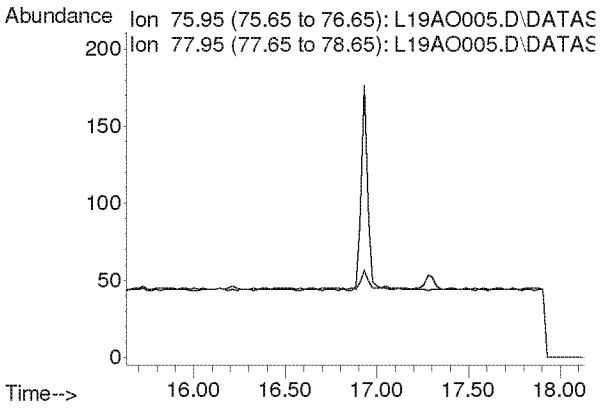


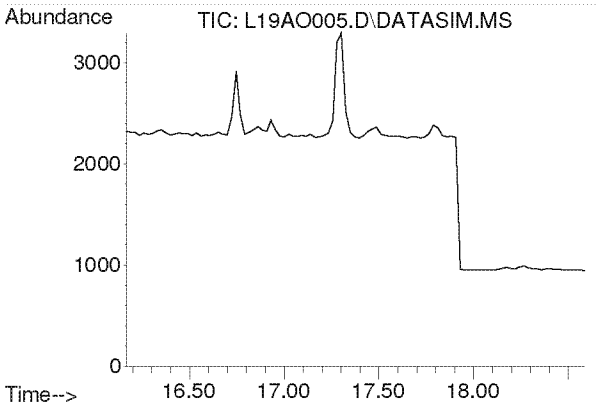
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



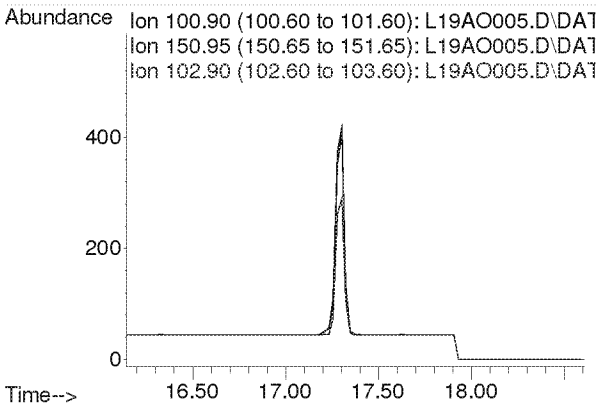


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

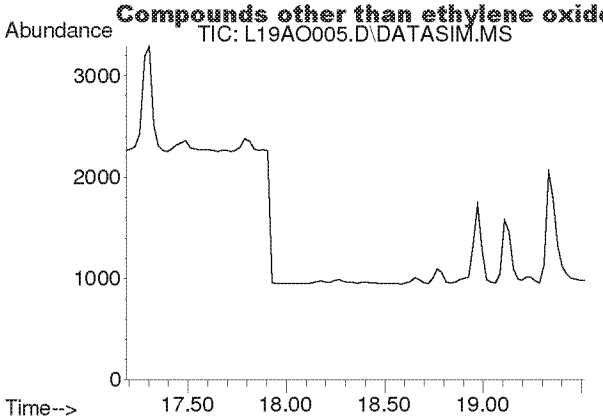
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

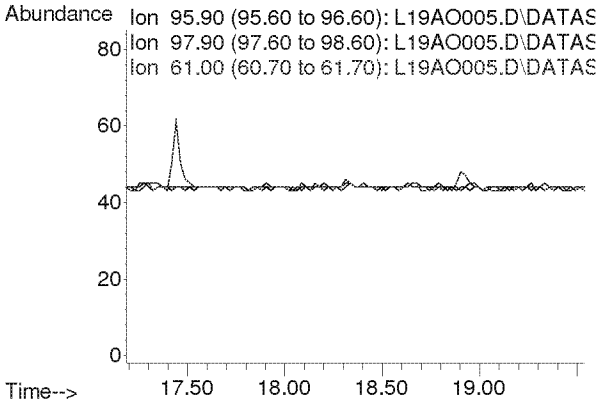


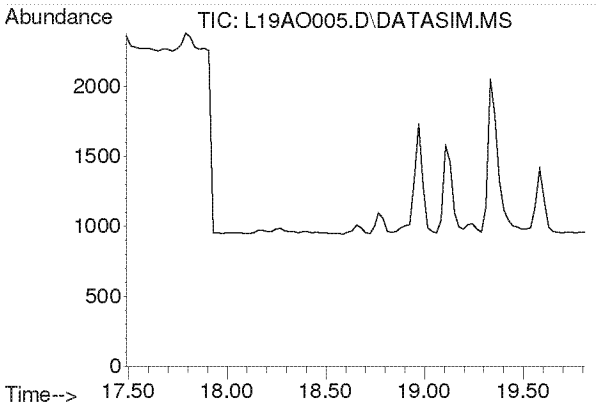
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



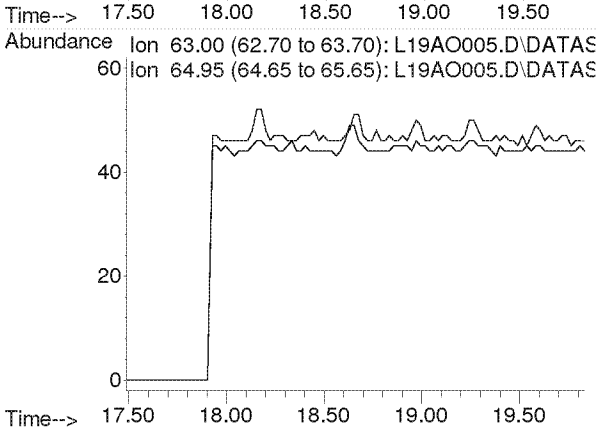


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

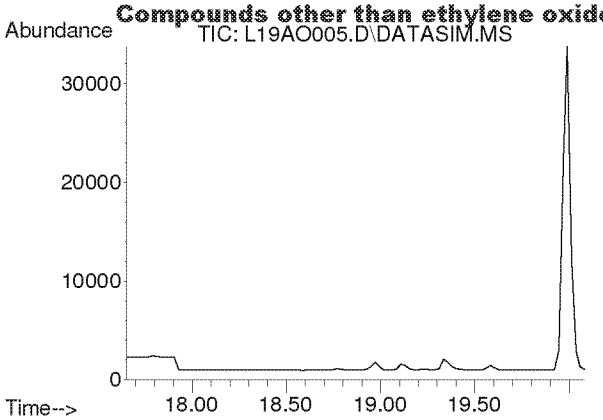
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

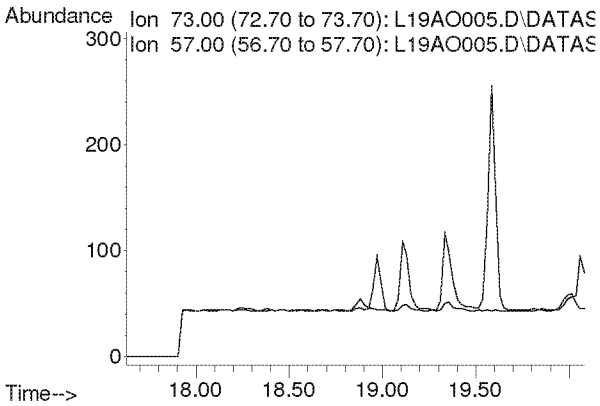


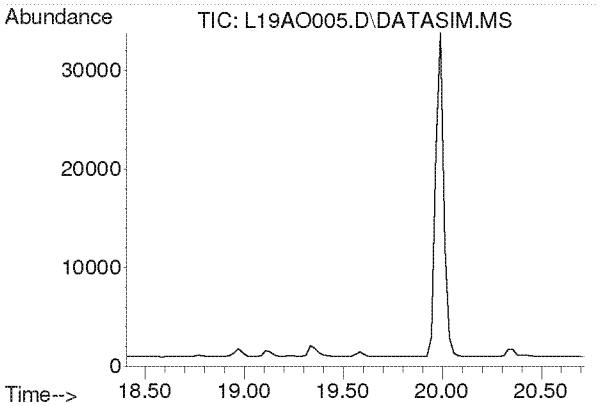
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



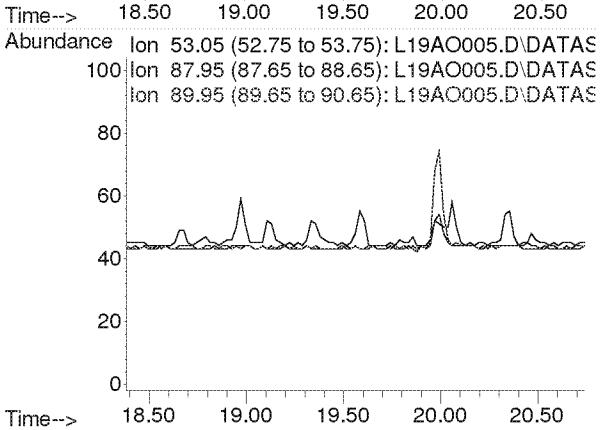


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

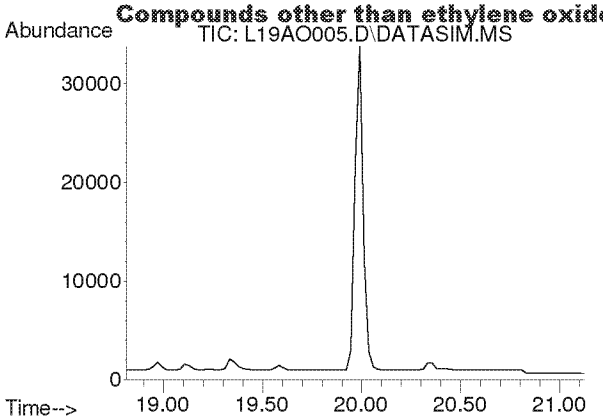
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

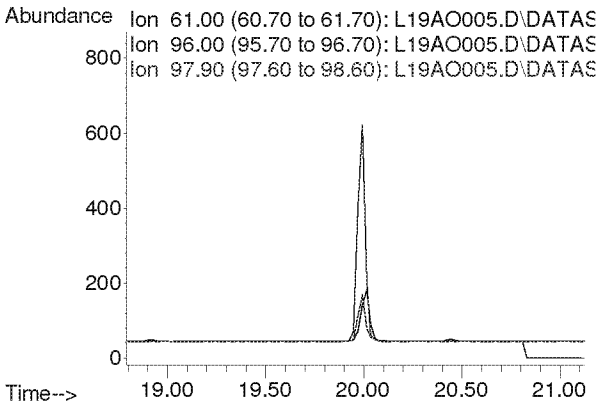


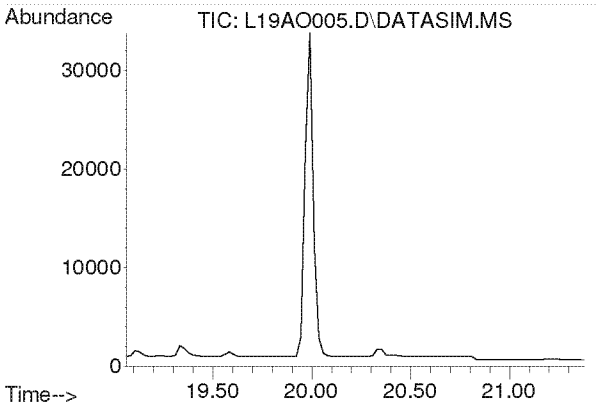
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



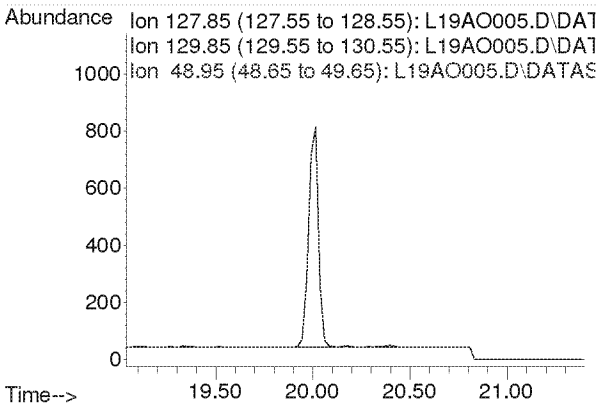


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

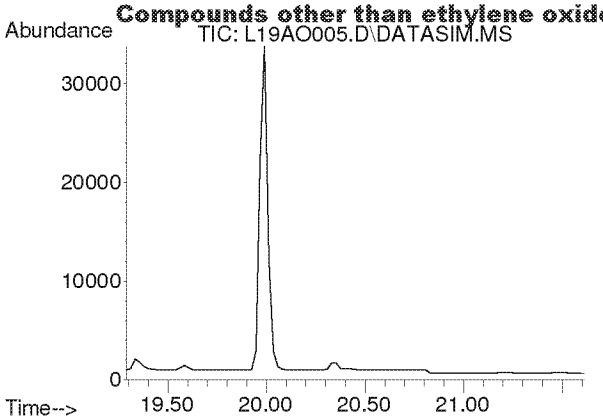
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

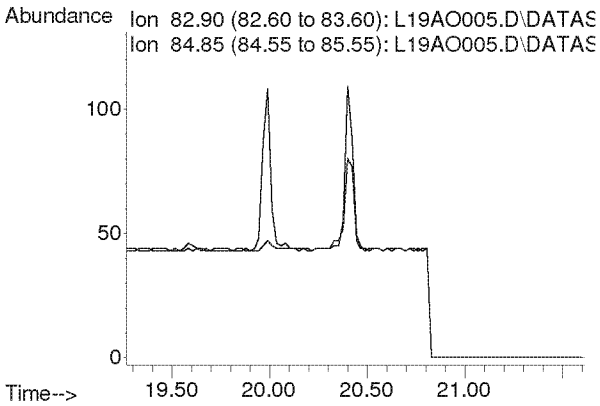


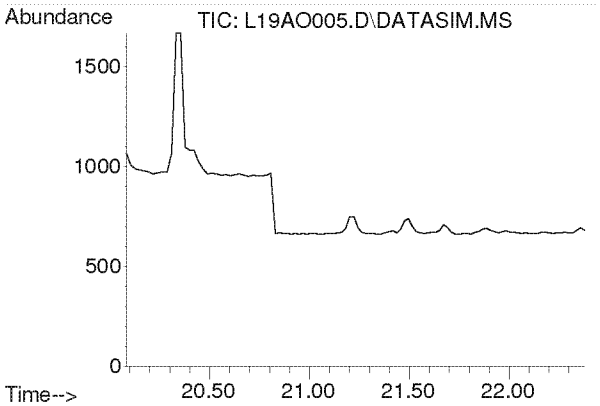
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



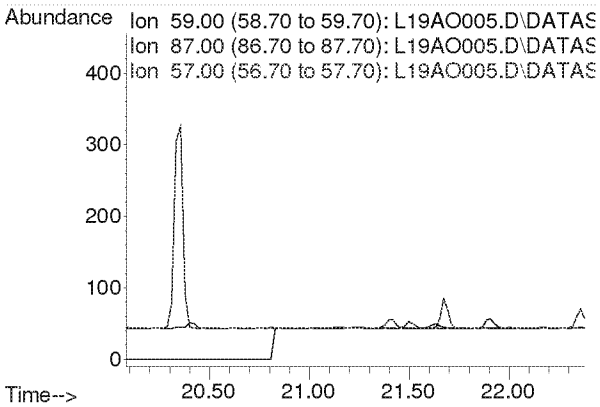


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

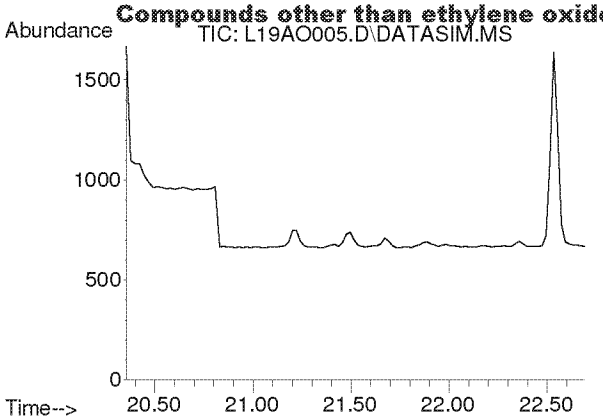
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

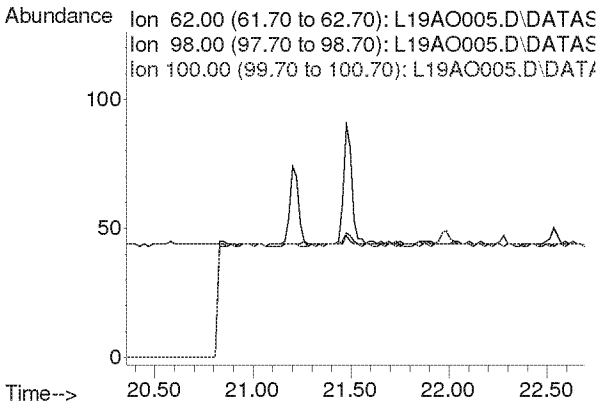


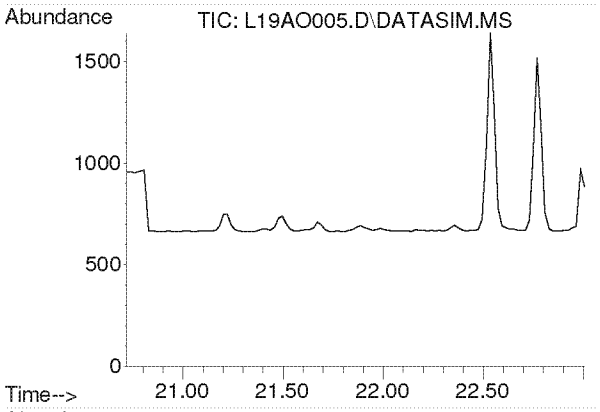
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



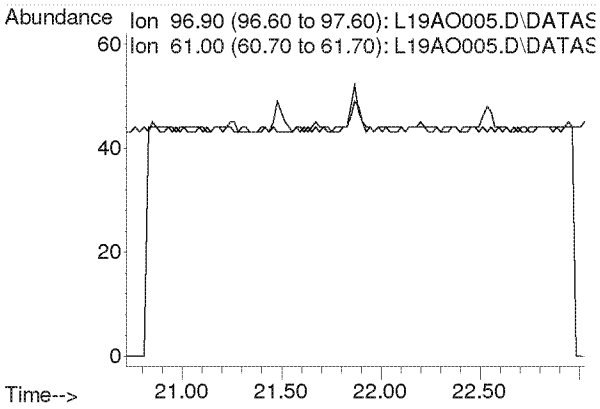


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

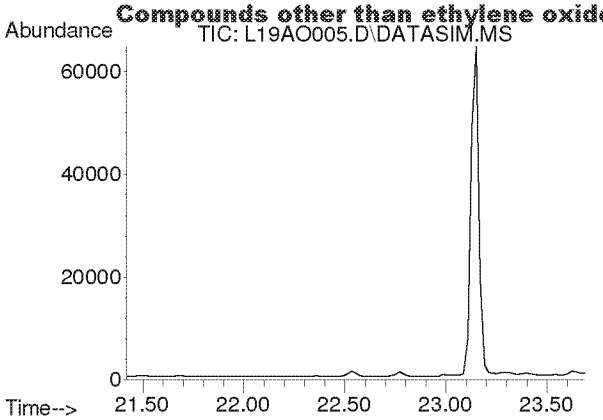
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

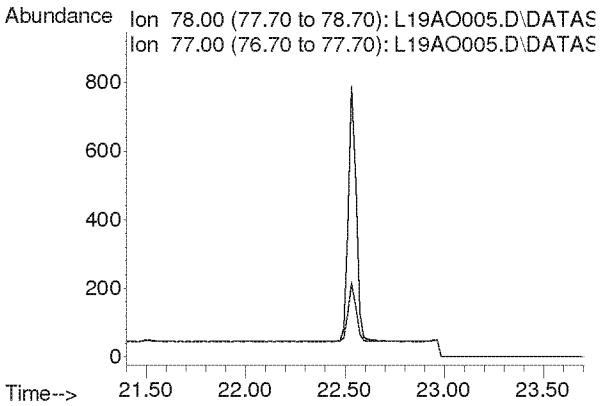


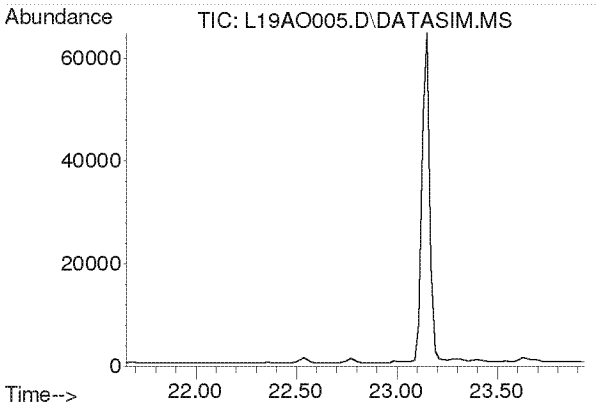
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



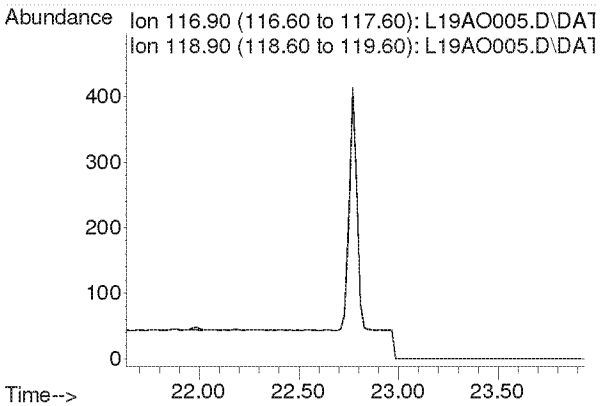


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

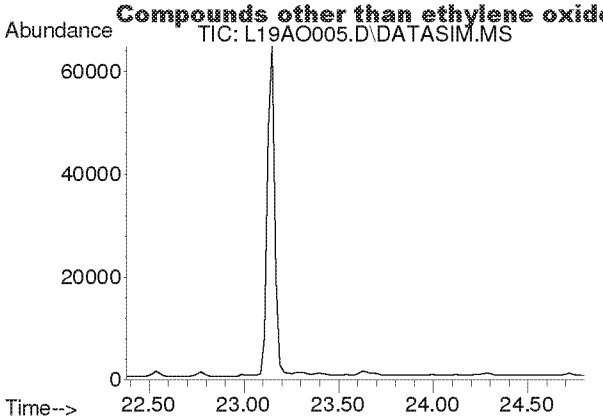
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

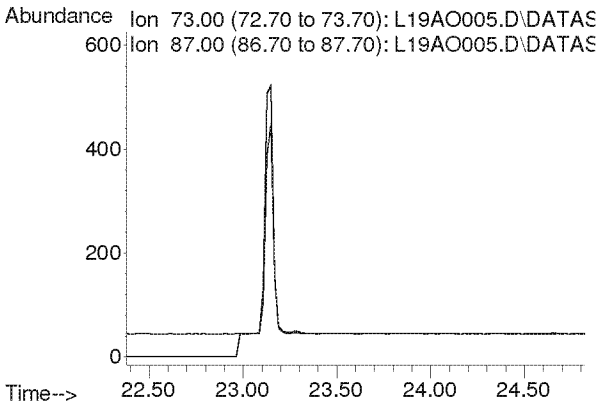


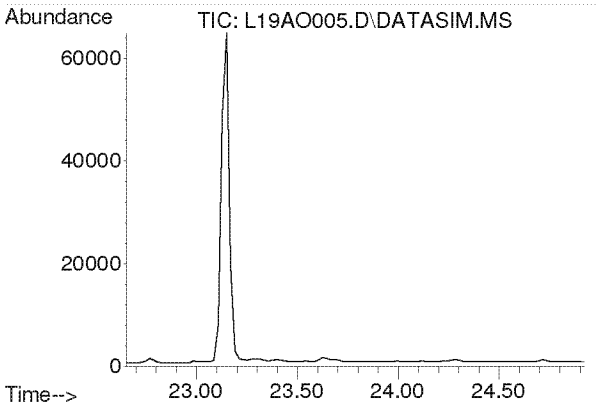
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



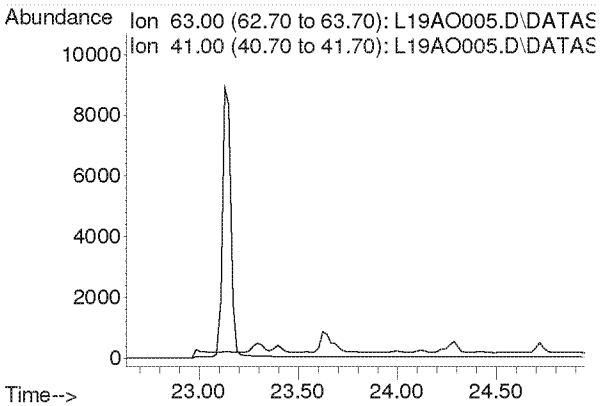


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

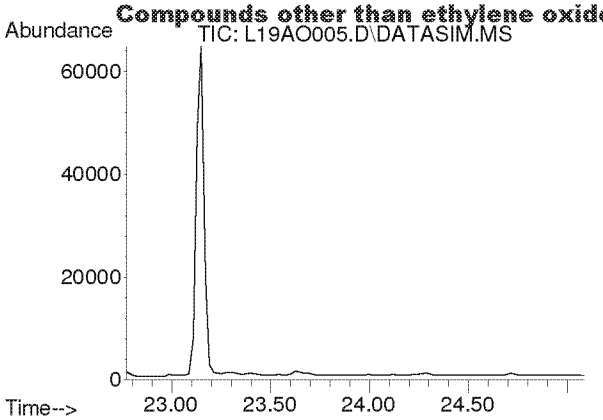
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

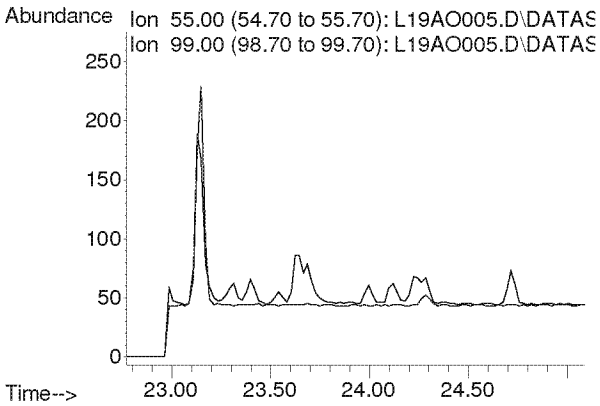


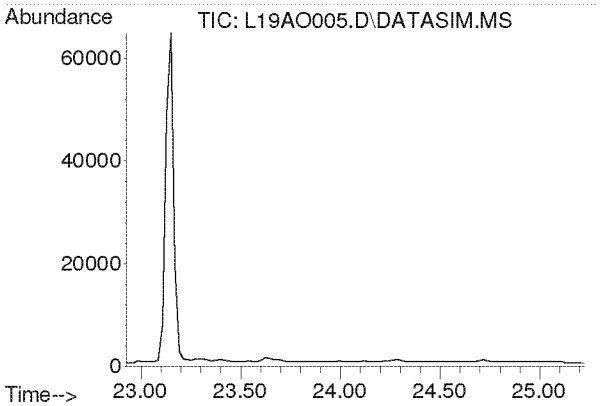
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



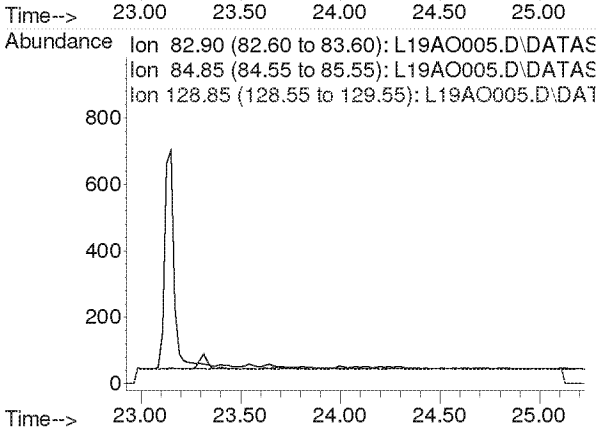


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

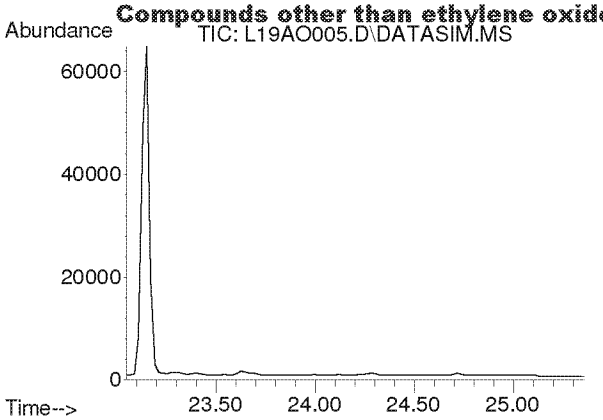
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

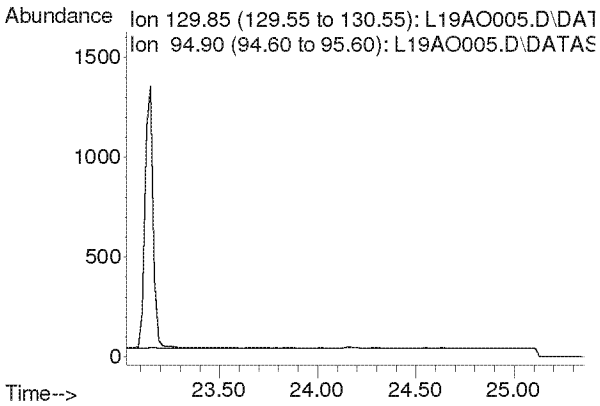


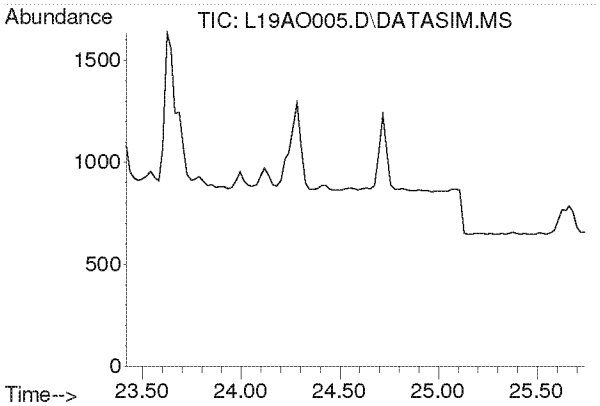
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



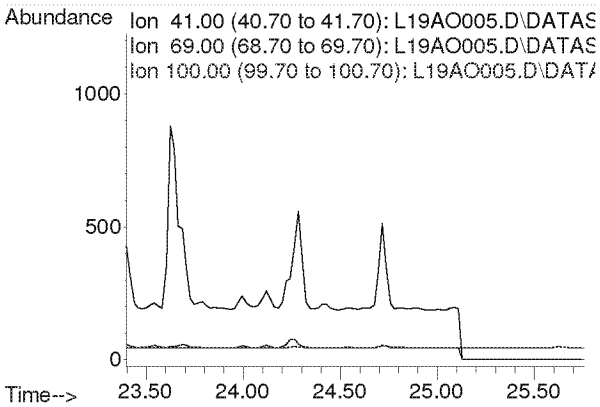


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

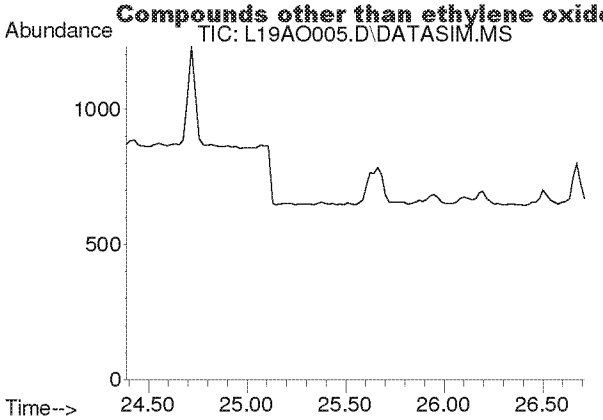
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

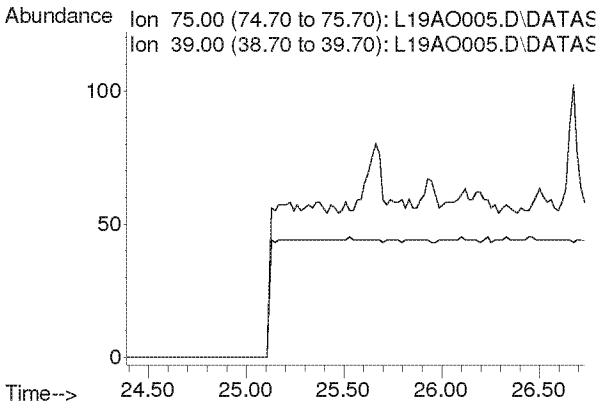


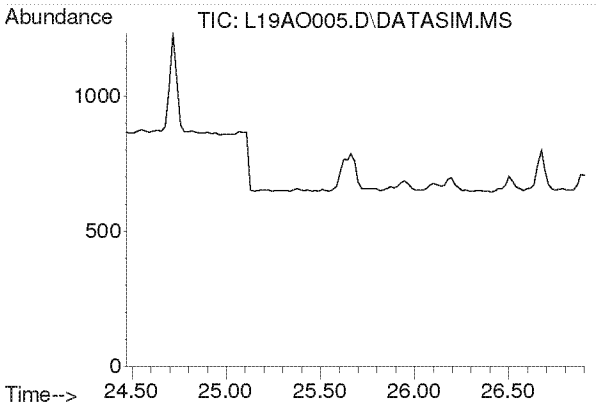
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



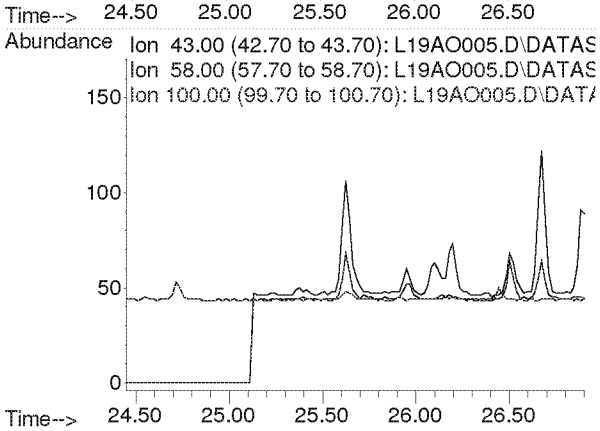


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

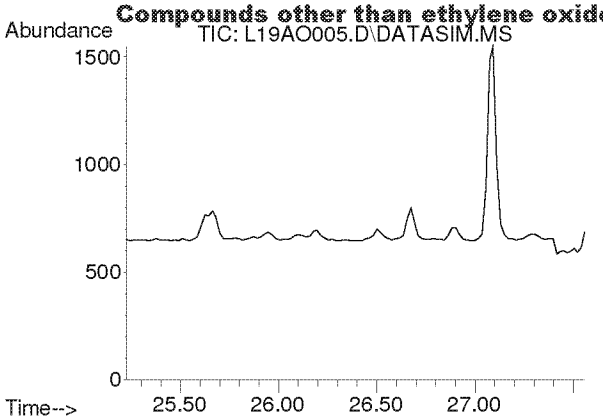
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

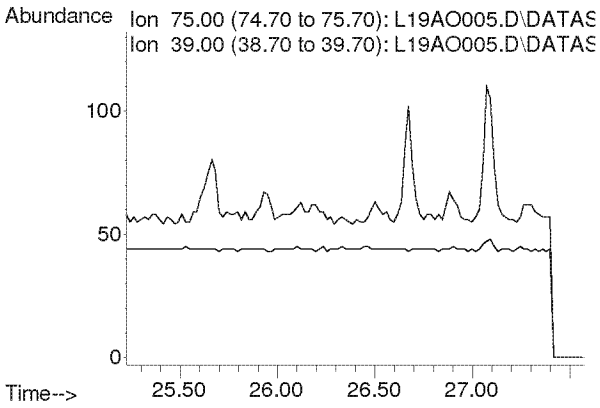


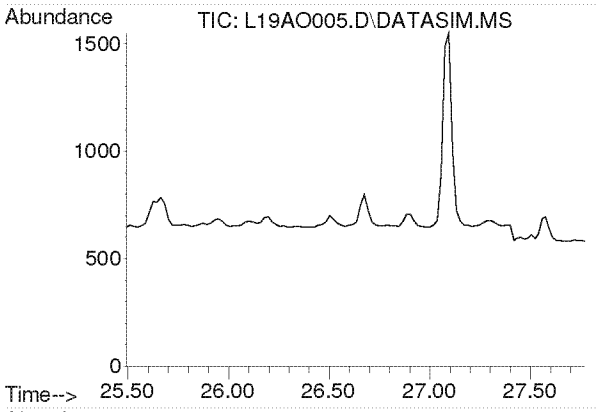
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



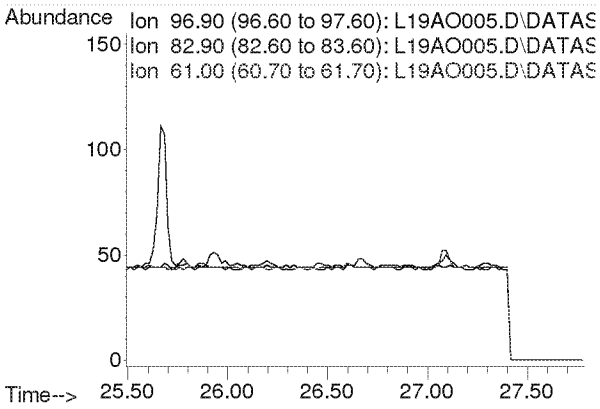


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

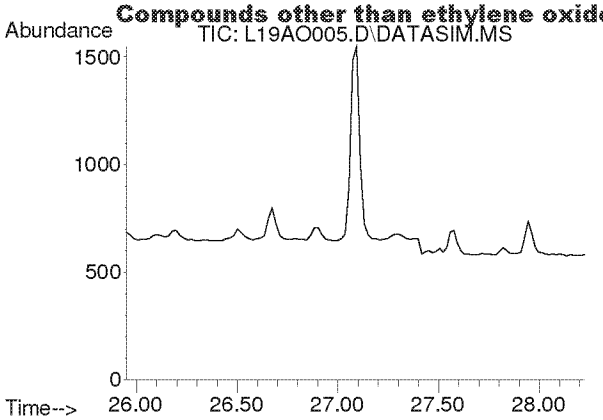
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

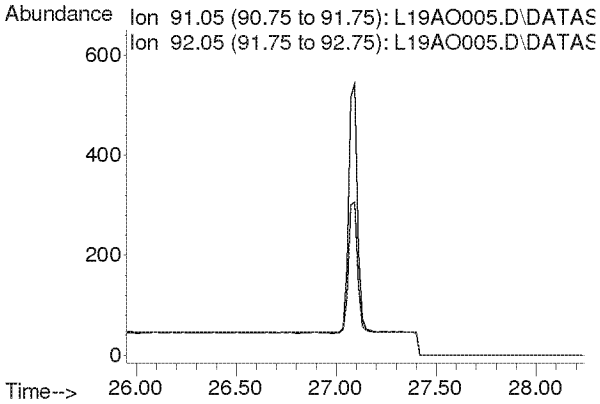


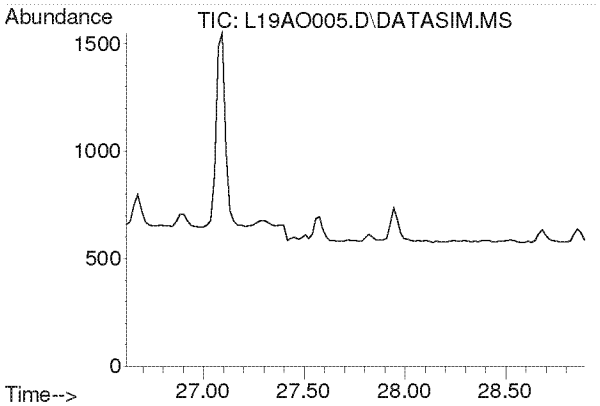
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



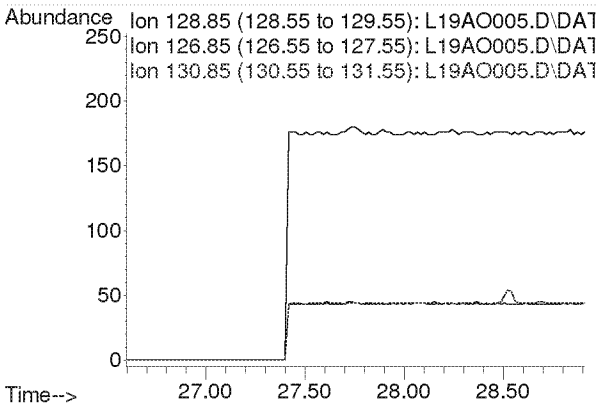


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

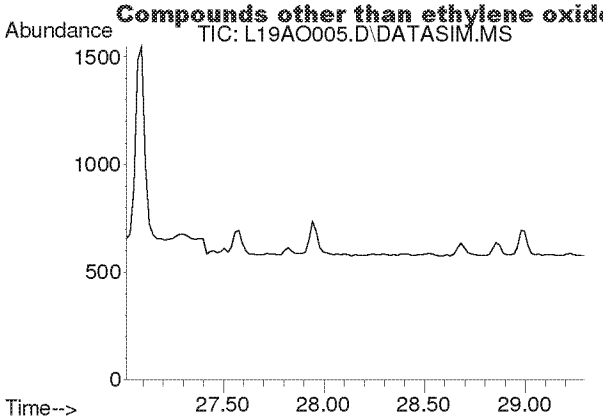
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

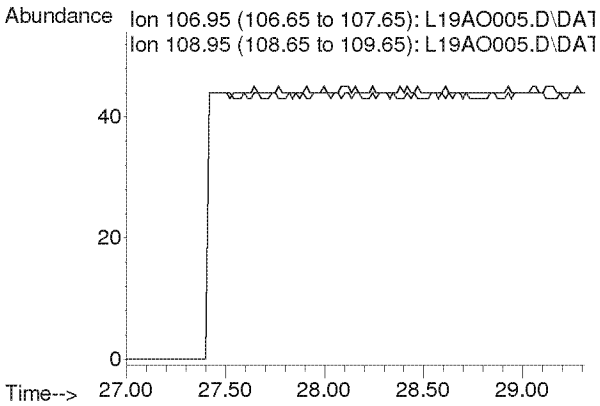


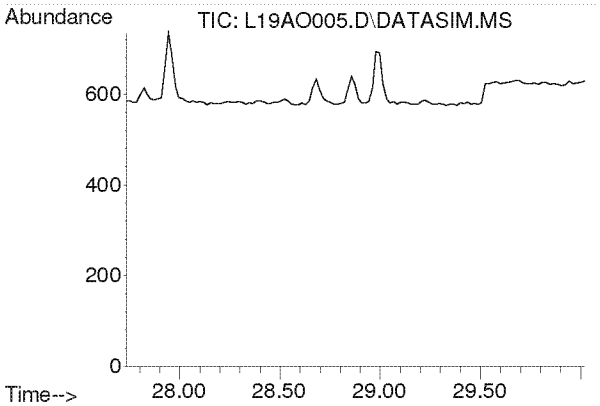
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



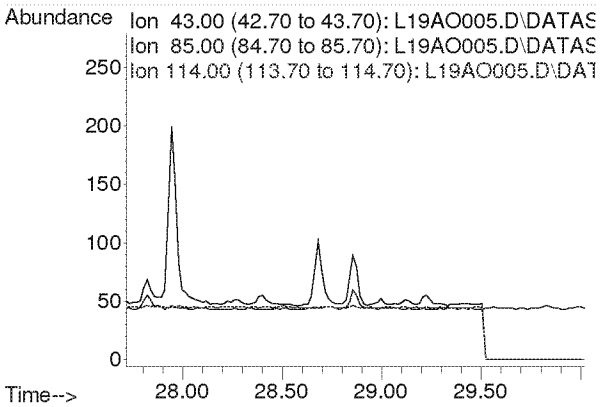


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

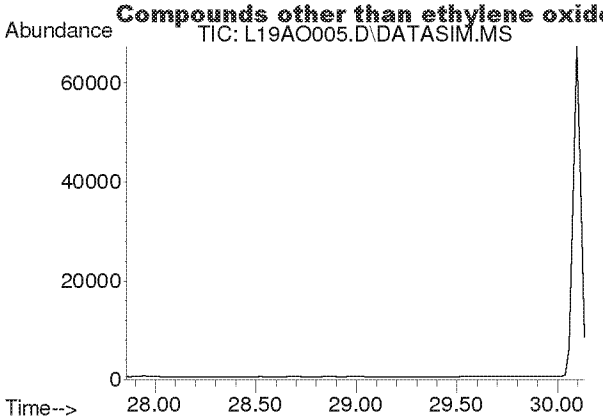
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

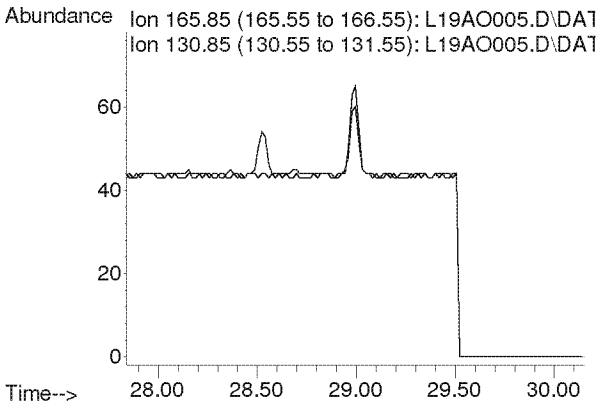


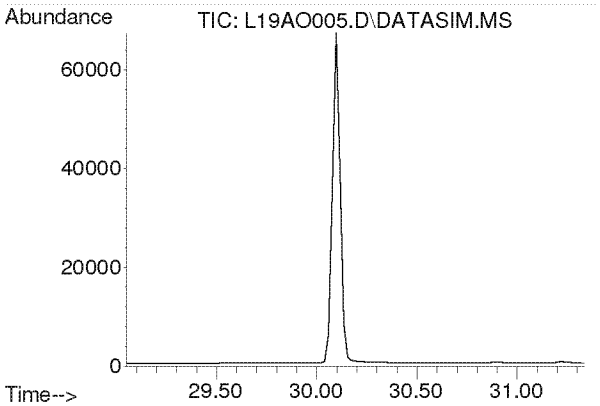
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



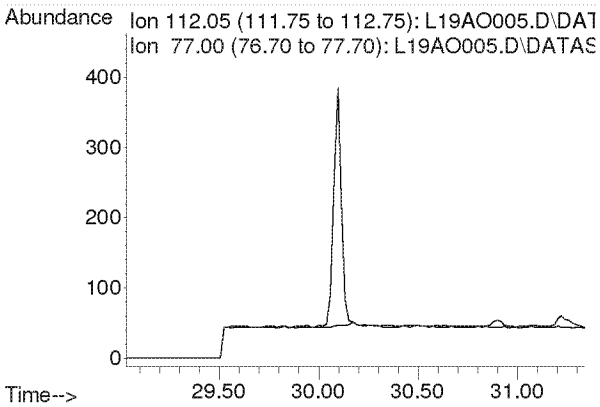


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

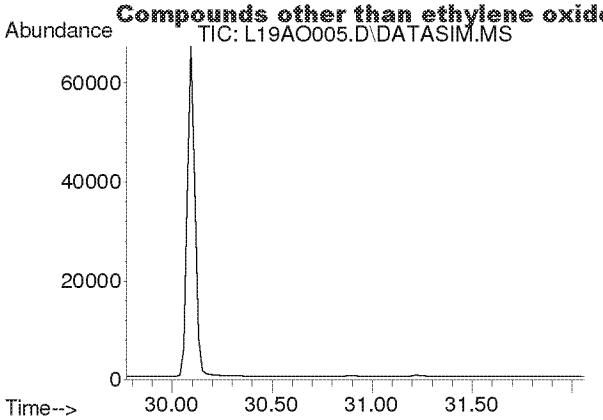
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

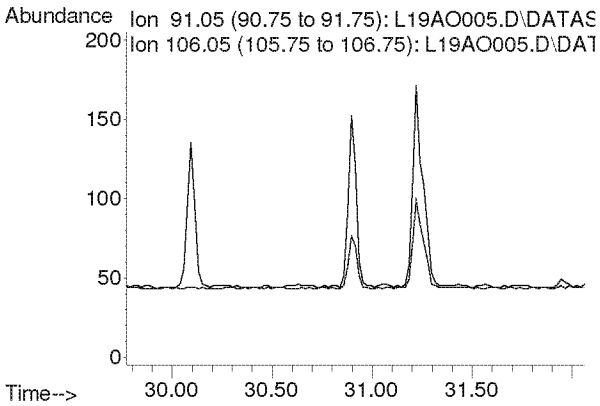


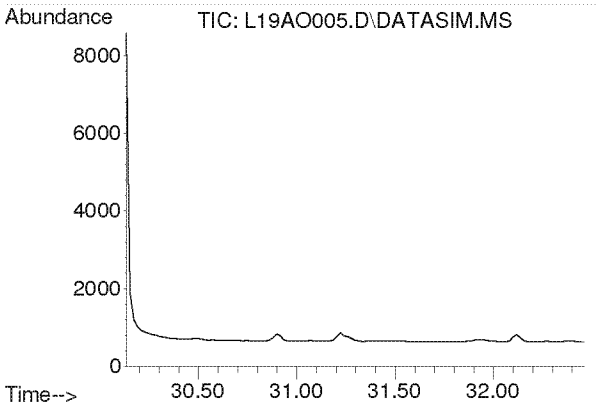
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



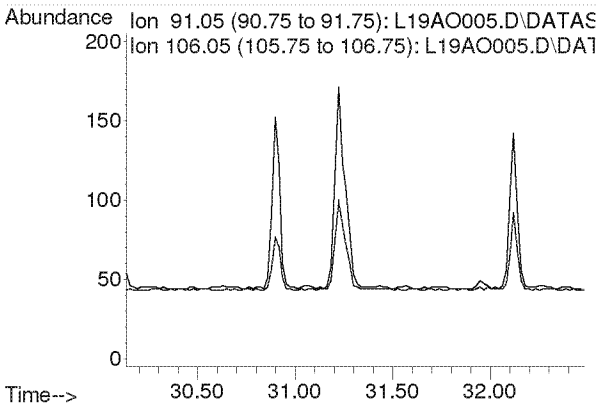


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

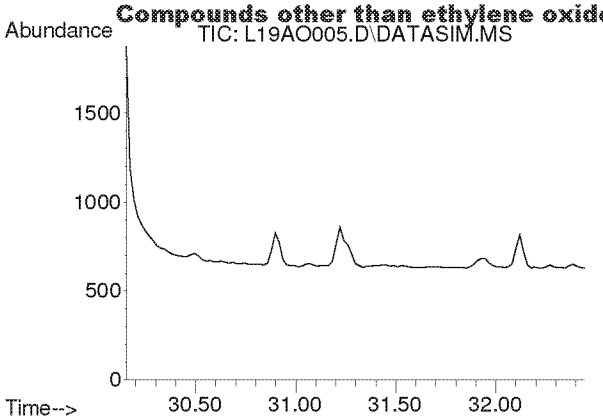
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

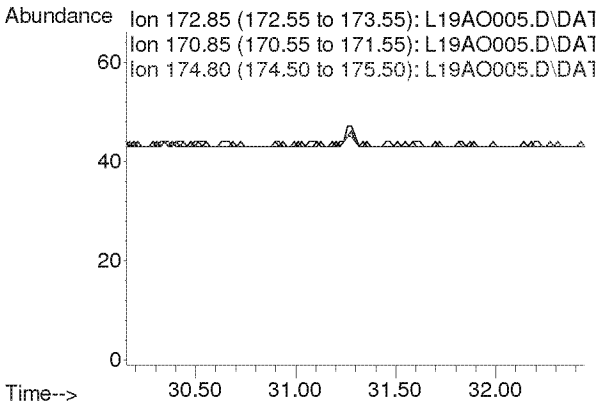


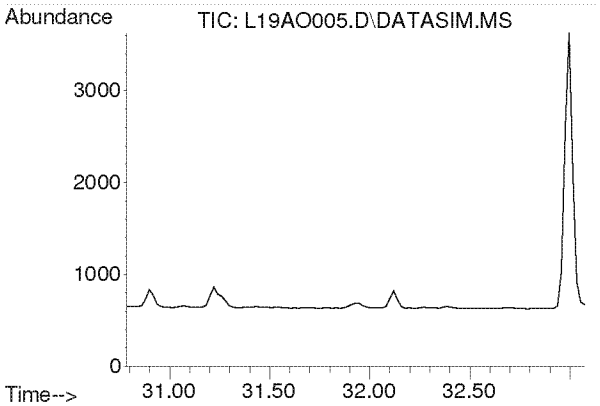
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



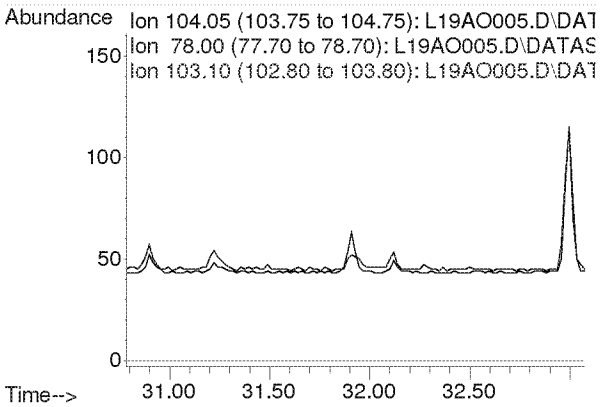


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

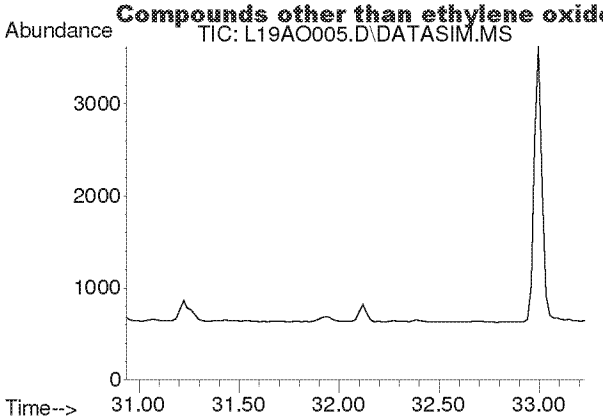
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

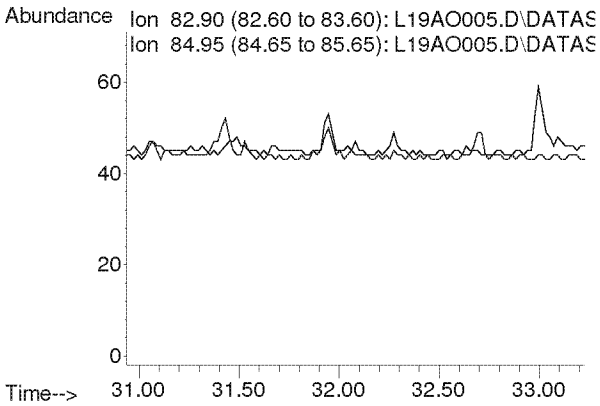


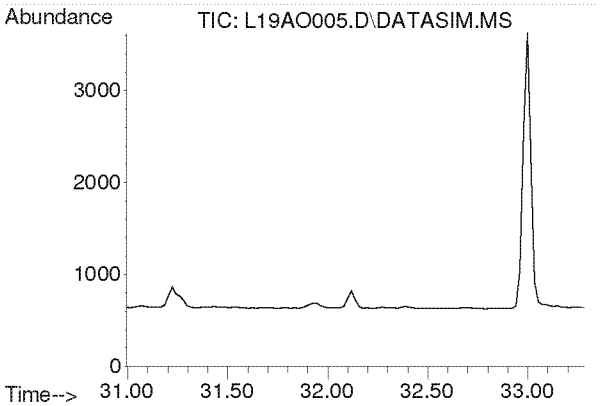
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



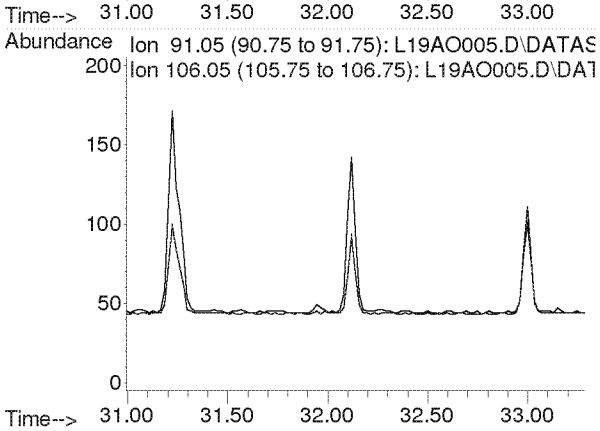


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

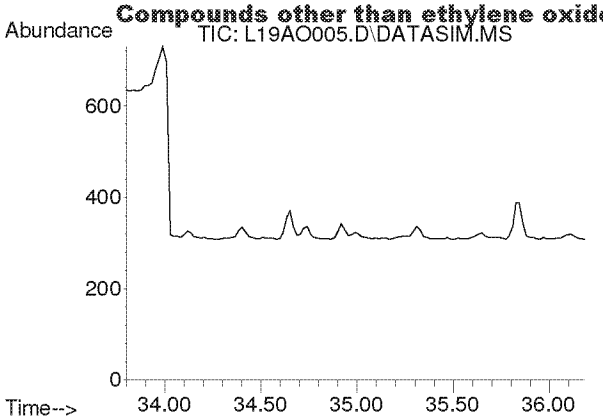
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

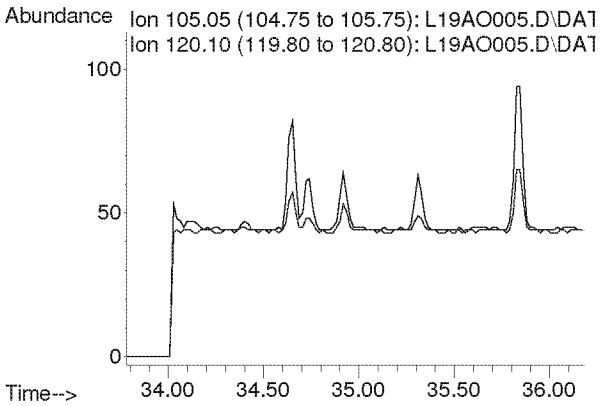


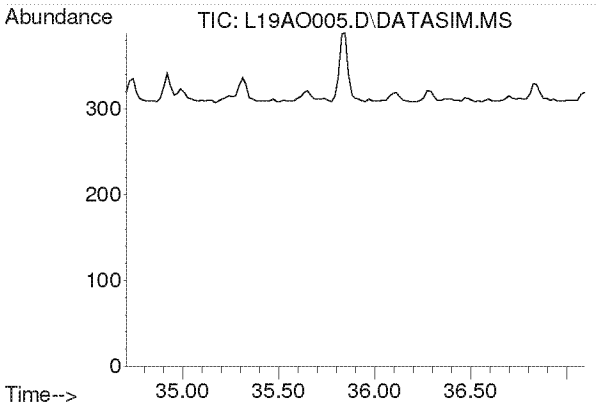
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



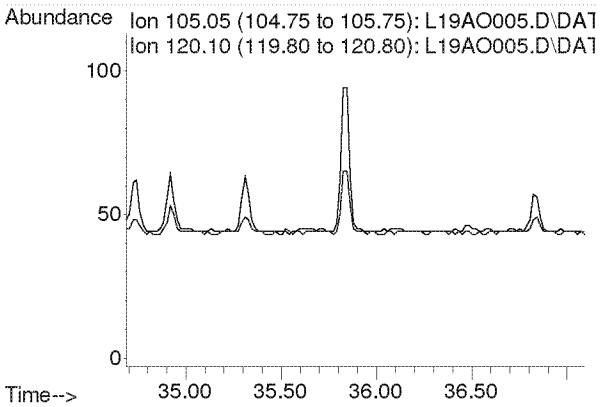


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

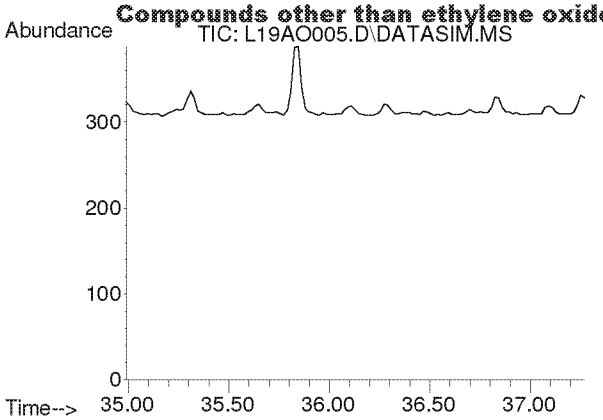
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

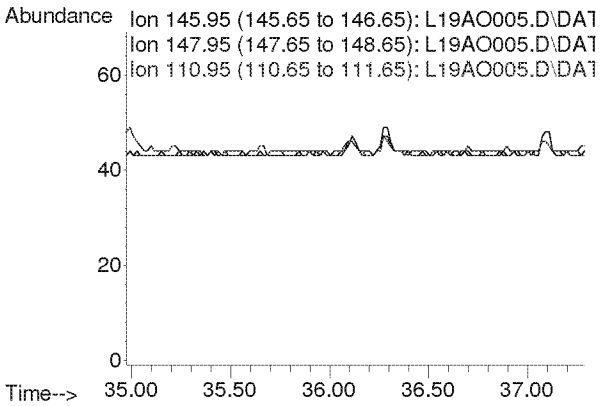


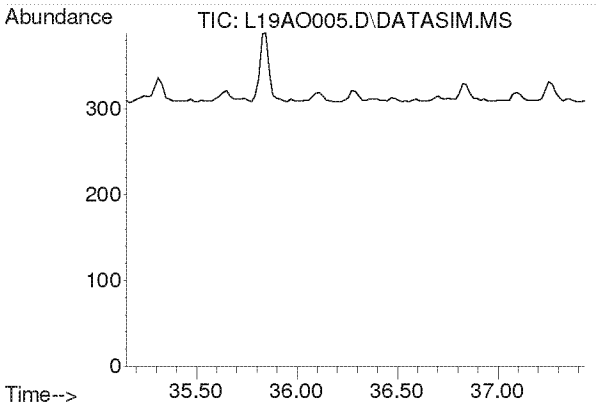
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



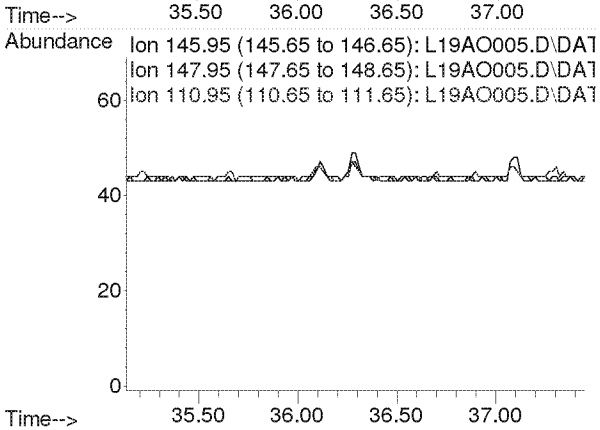


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

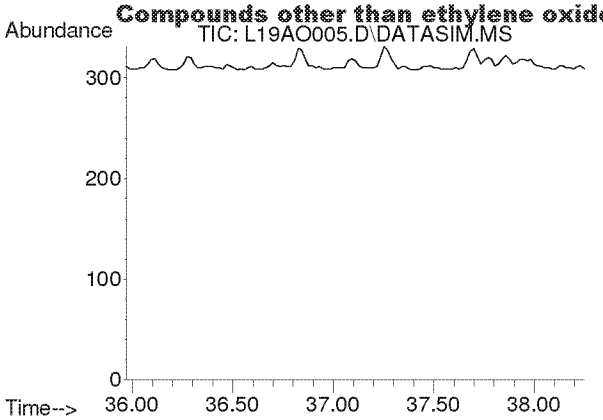
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

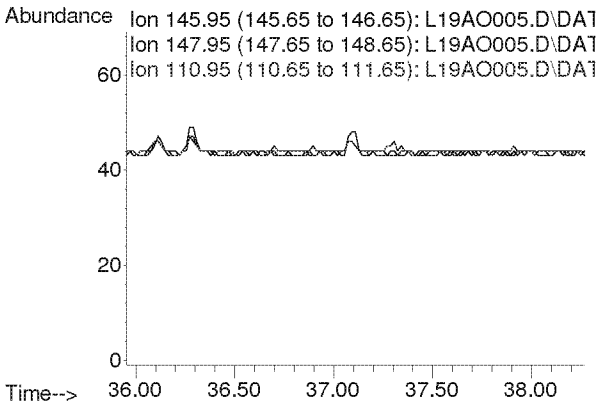


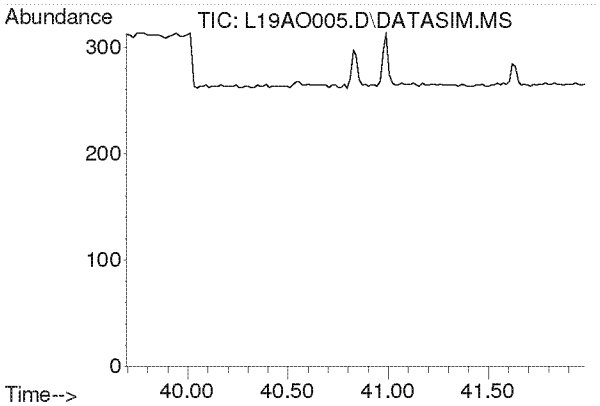
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



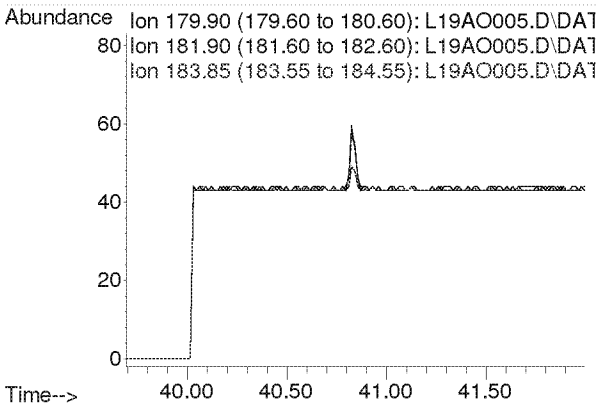


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

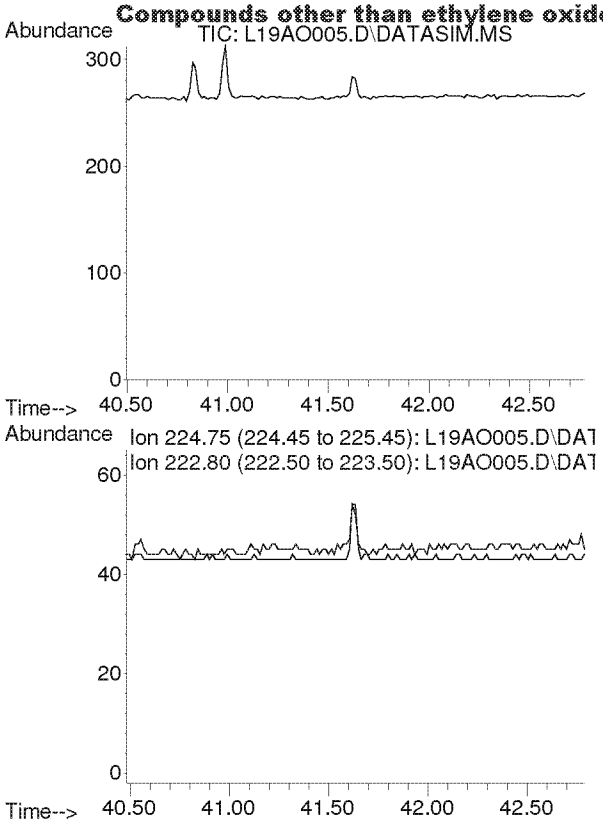
Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19AO005.D
Acq: 15 Jan 2019 1:27 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO006.D
Acq On : 15 Jan 2019 2:28 pm
Operator : MAH
Sample : 9010401-02
Misc : WILLOW POND PARK 1/3/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 22 11:35:30 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	52048	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	124969	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	103181	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	12.470	29	324m	0.1205 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO006.D
Acq On : 15 Jan 2019 2:28 pm
Operator : MAH
Sample : 9010401-02
Misc : WILLOW POND PARK 1/3/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 22 11:35:30 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

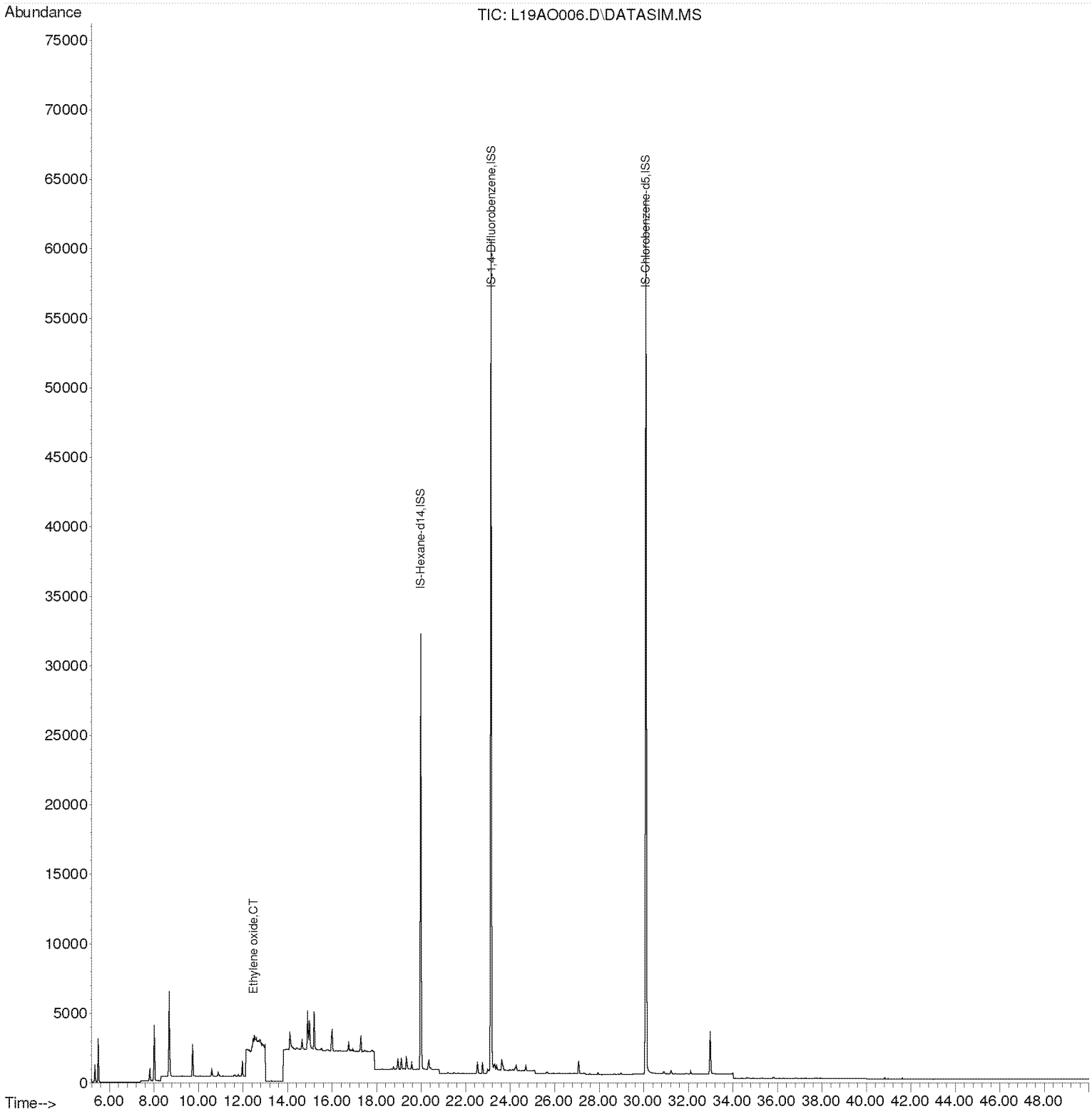
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

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

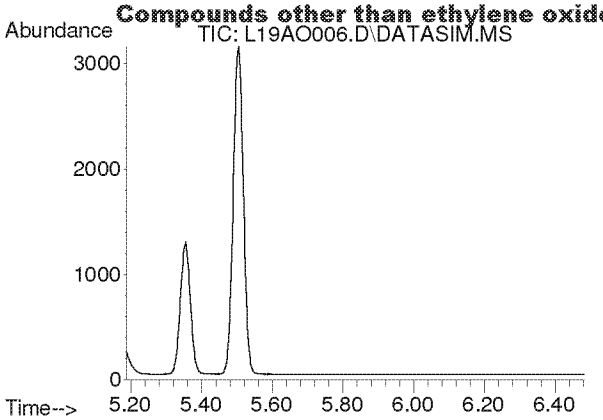
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO006.D
Acq On : 15 Jan 2019 2:28 pm
Operator : MAH
Sample : 9010401-02
Misc : WILLOW POND PARK 1/3/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 22 11:25:17 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



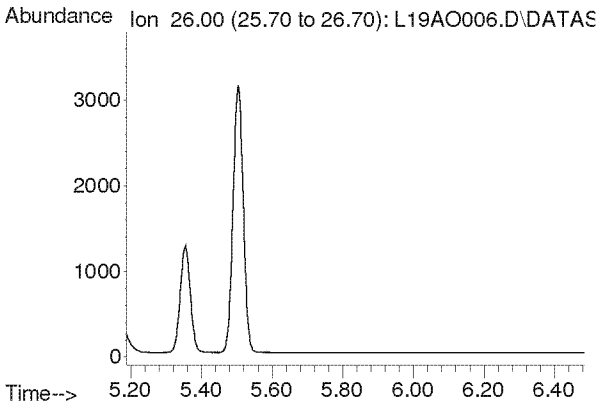
Compounds other than ethylene oxide were not quantitated.

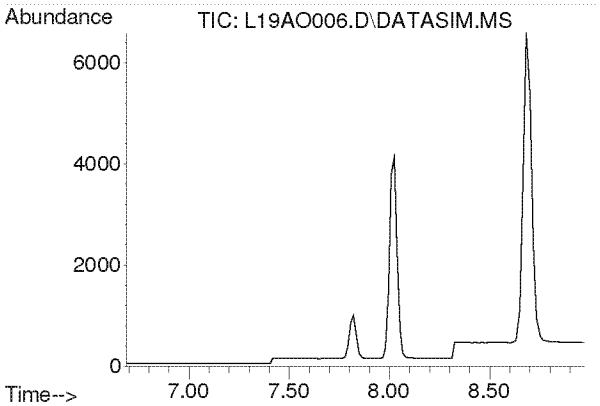


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 26



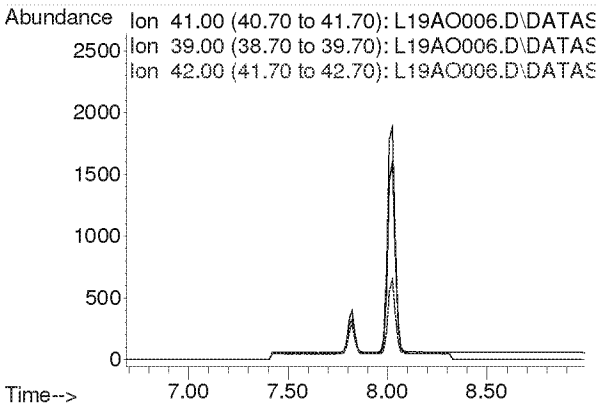


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

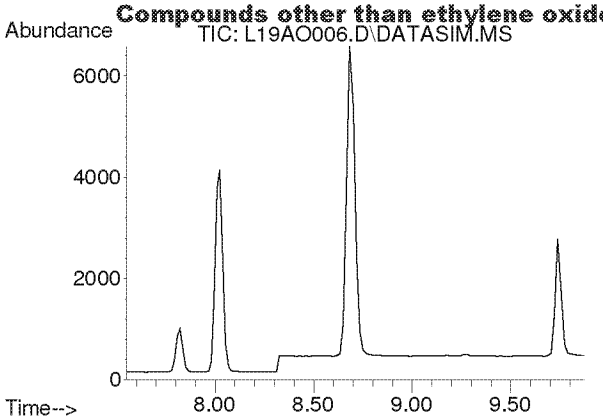
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

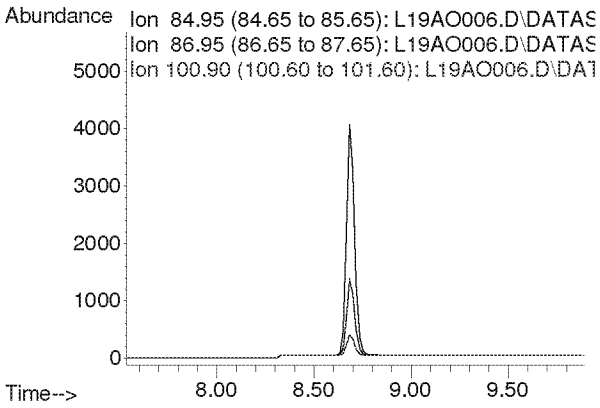


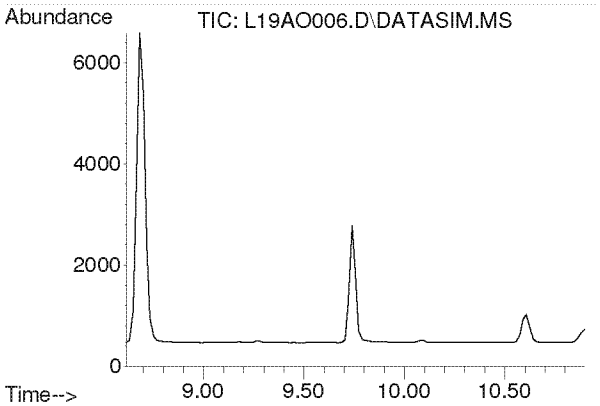
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



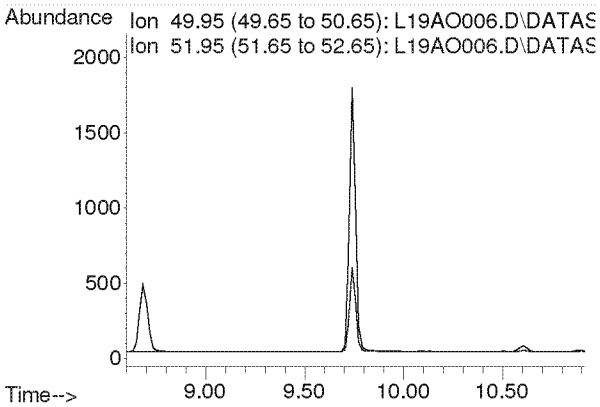


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

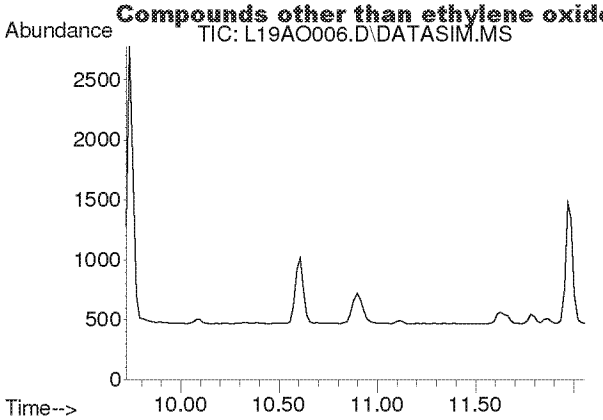
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

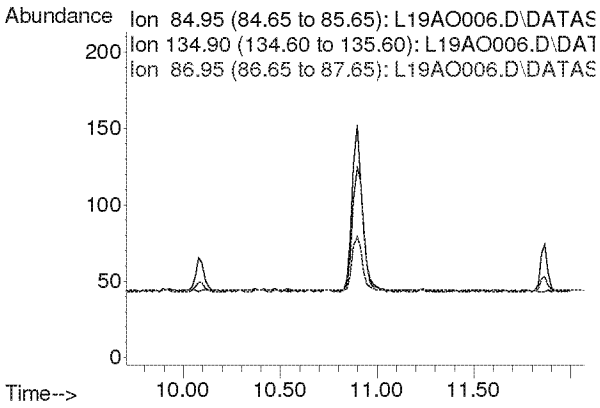


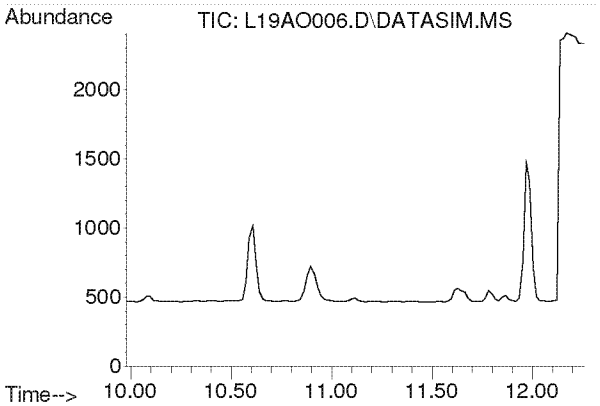
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



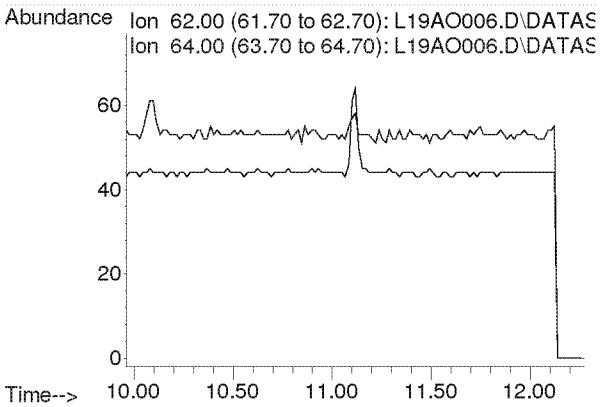


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

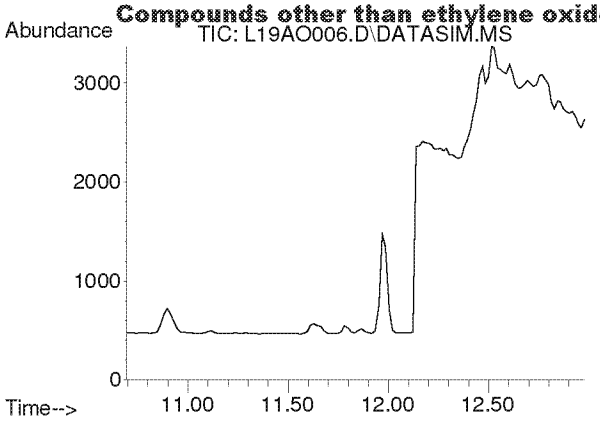
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

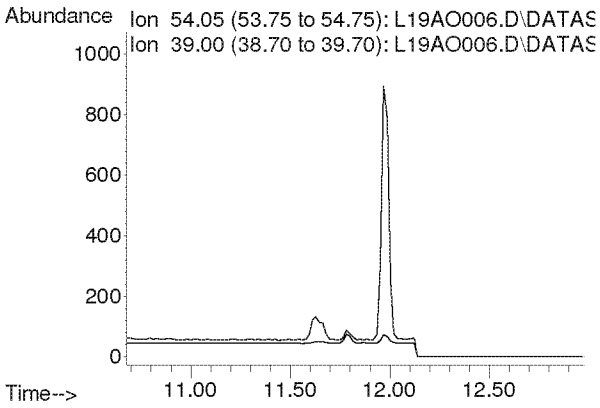


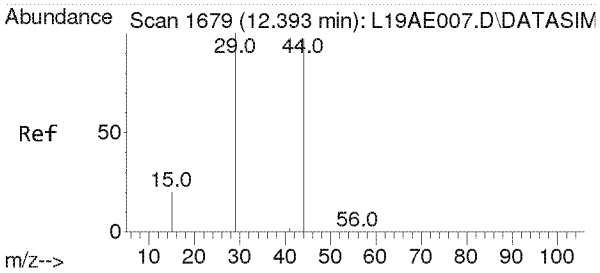
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

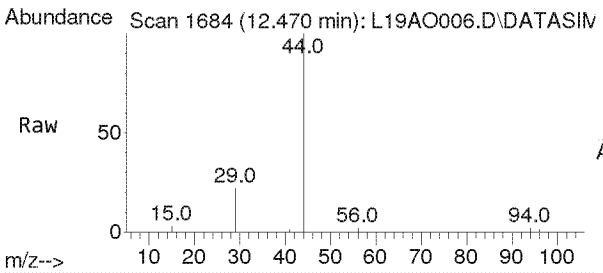


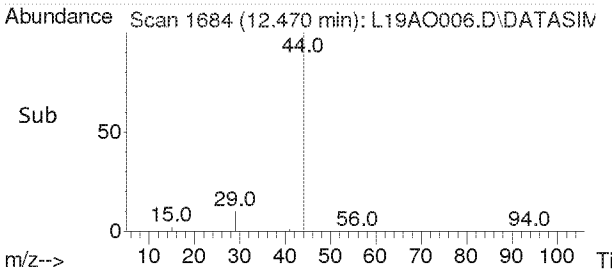


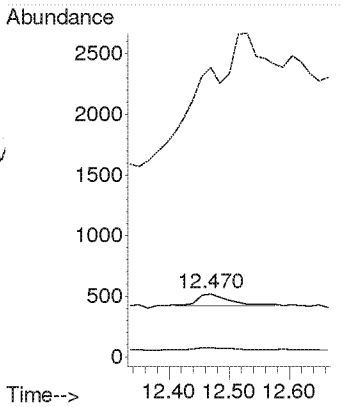
#9
Ethylene oxide
Concen: 0.121 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.077 min
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 29 Resp: 324

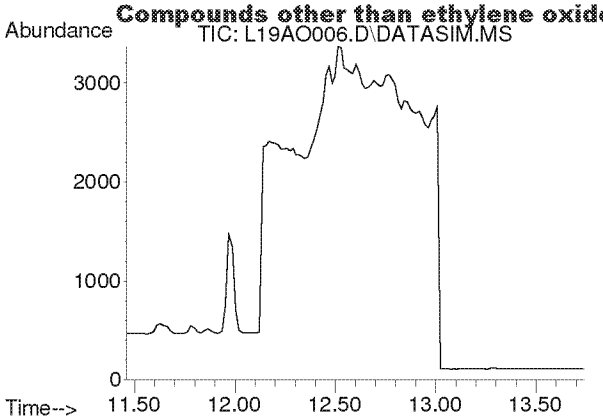
Ion	Ratio	Lower	Upper
29	100		
15	27.2	15.4	23.0#
44	2847.8	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

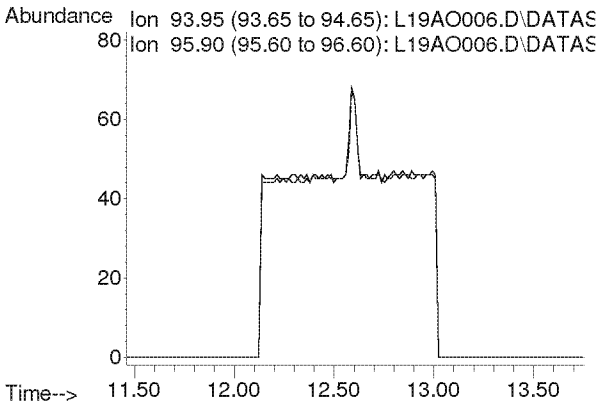


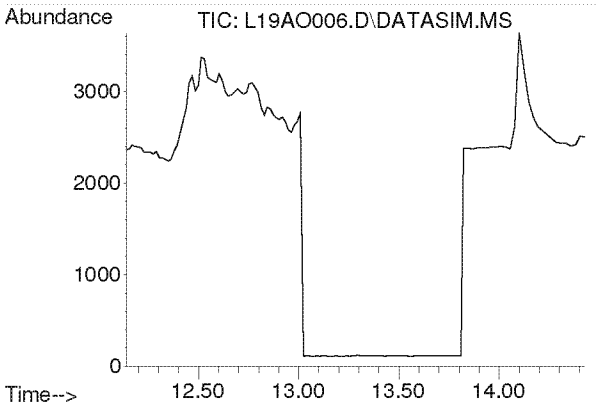
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



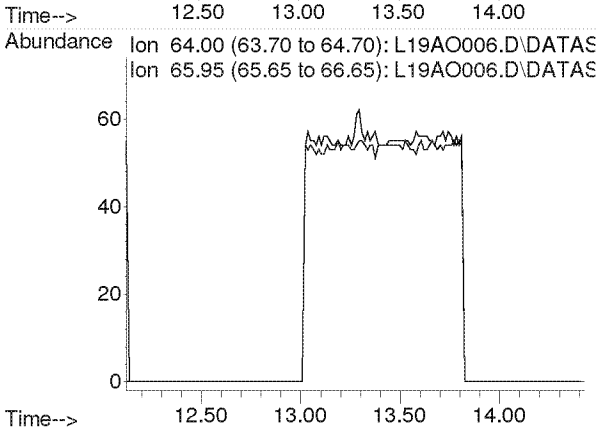


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

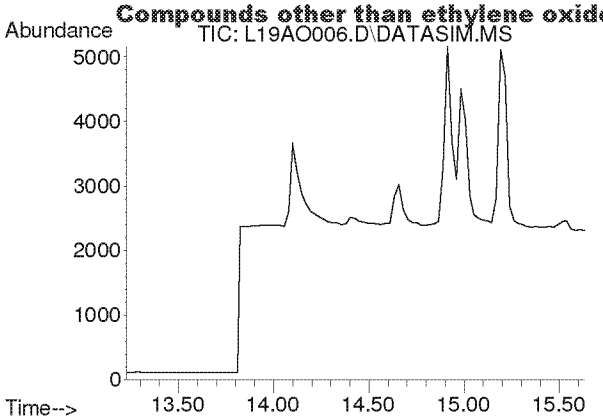
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

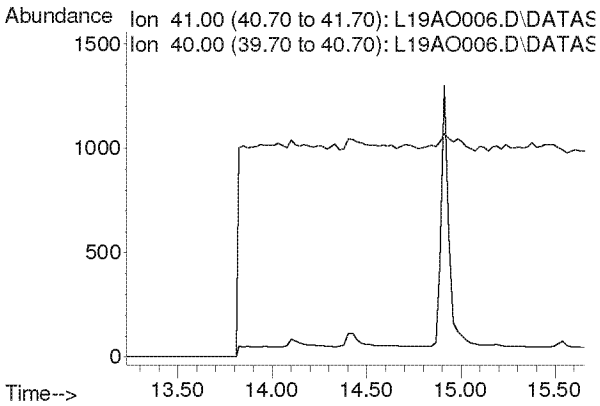


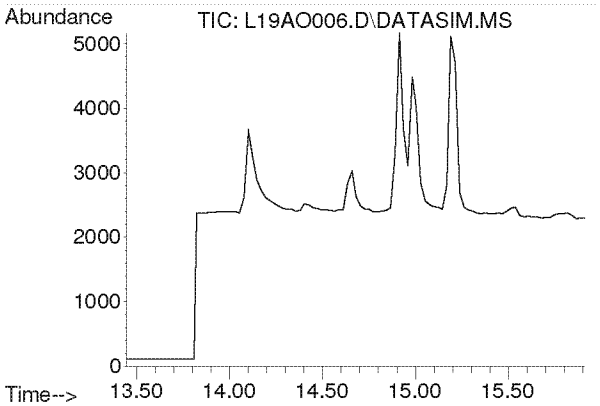
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



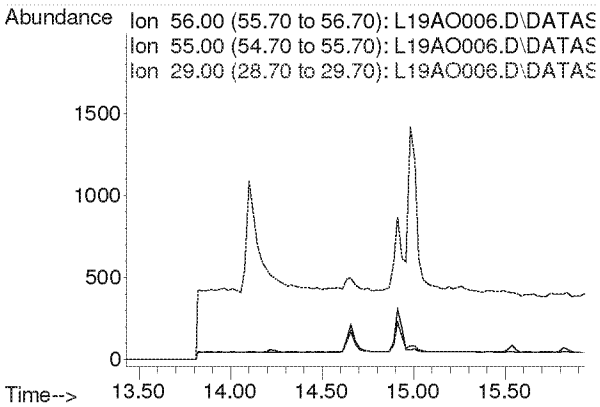


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

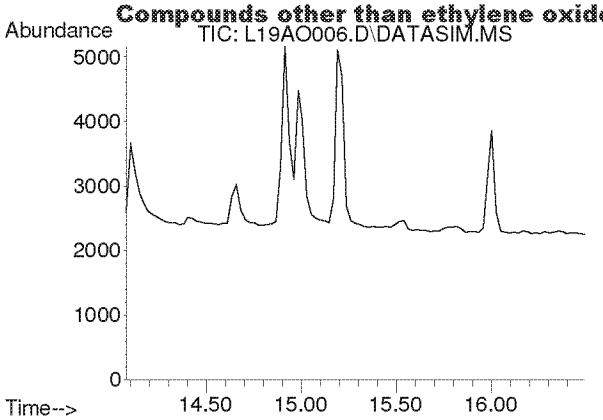
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

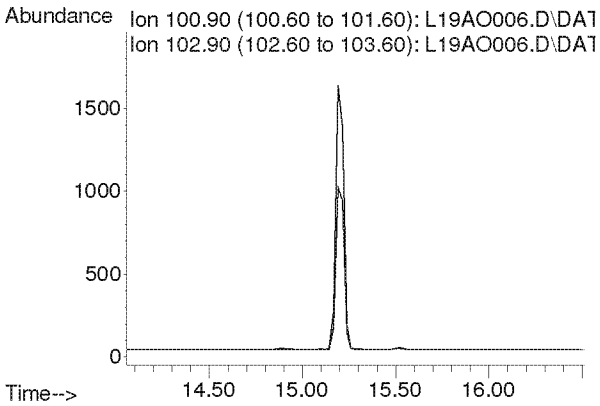


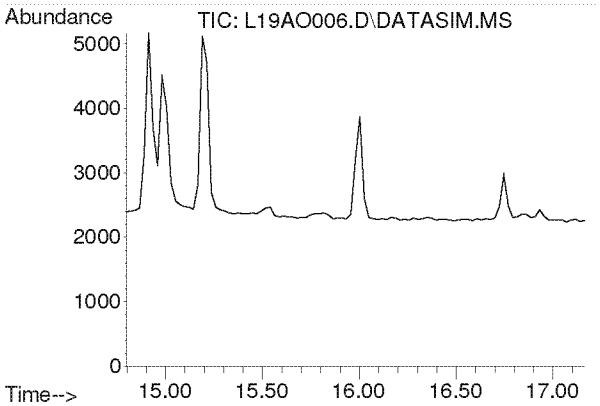
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



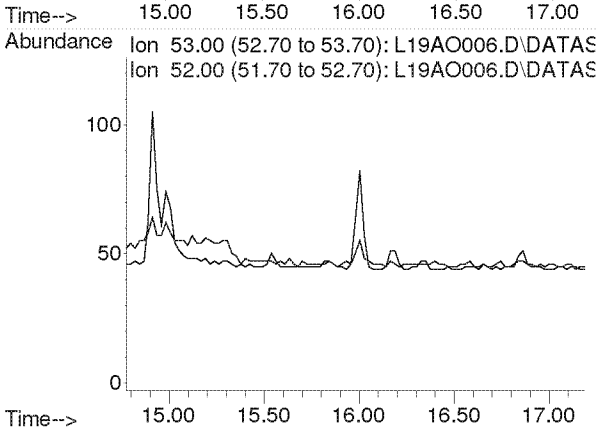


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

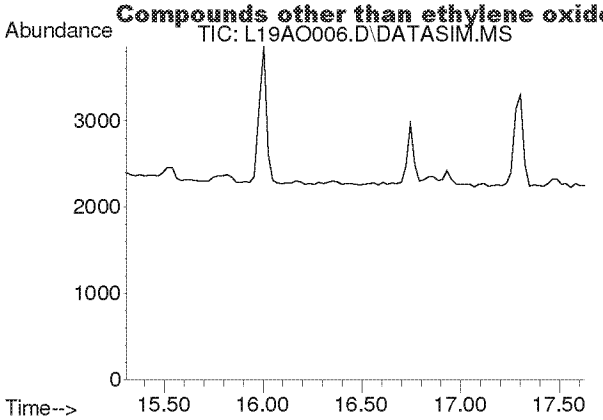
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

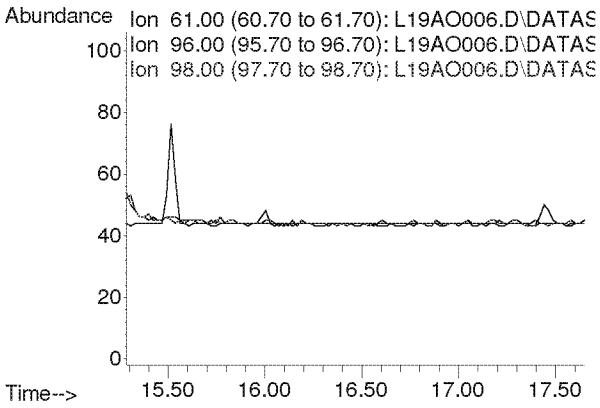


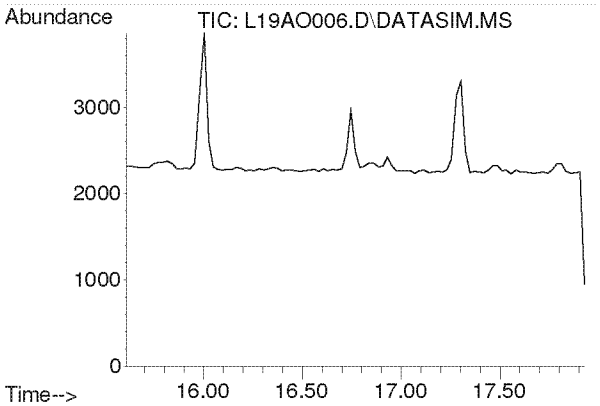
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



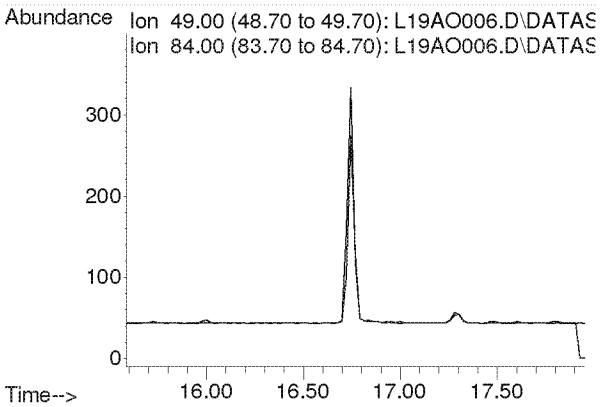


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

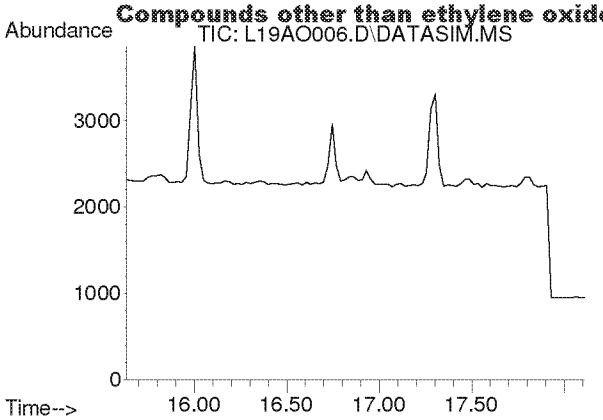
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

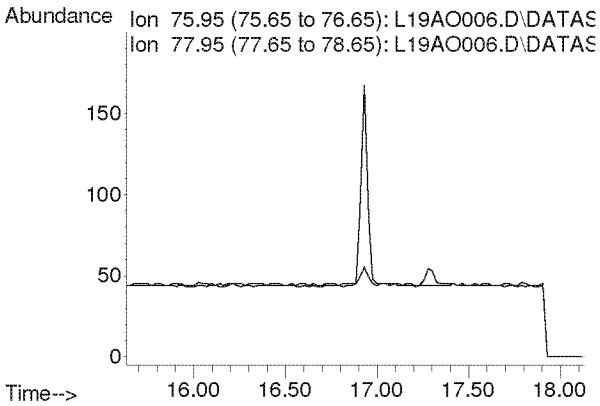


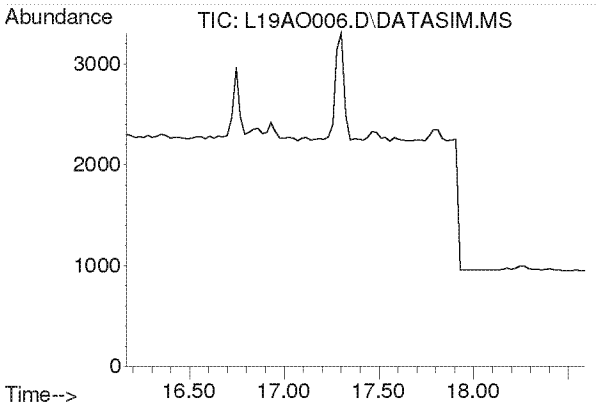
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



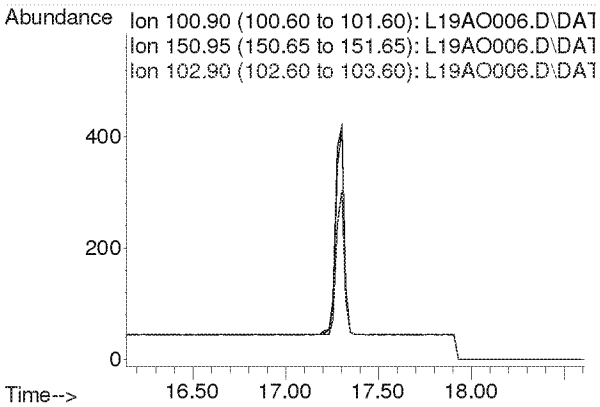


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

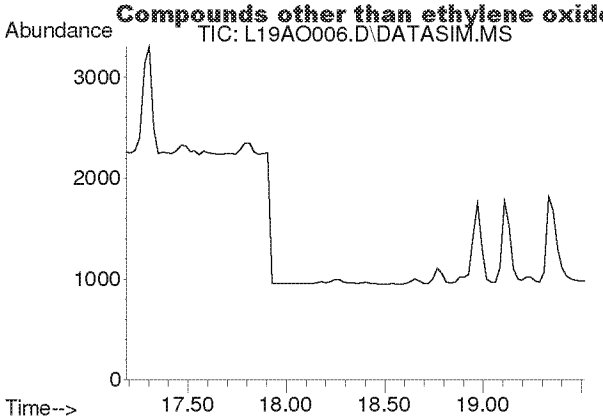
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

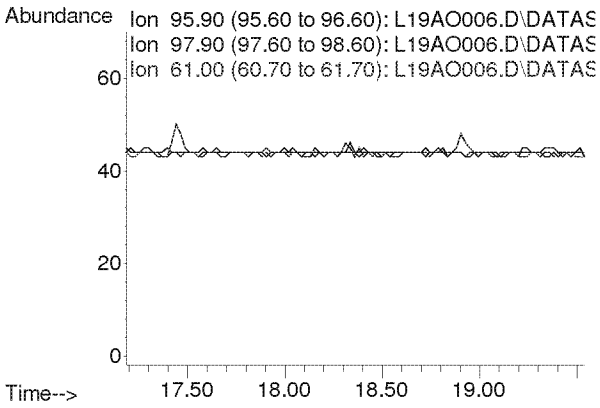


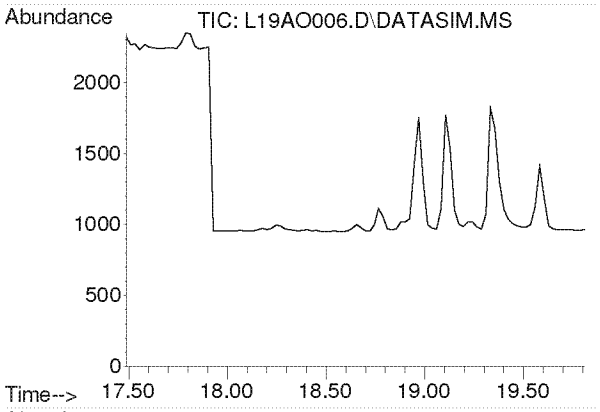
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



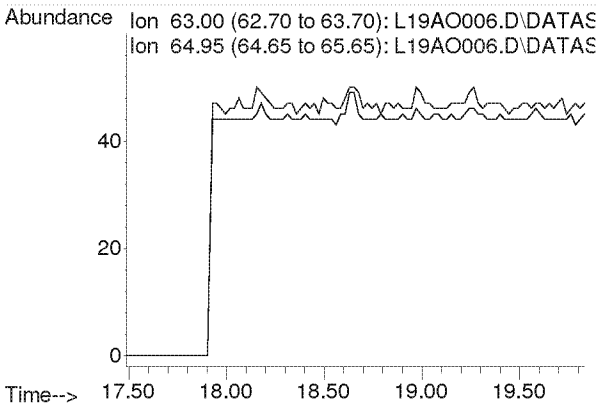


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

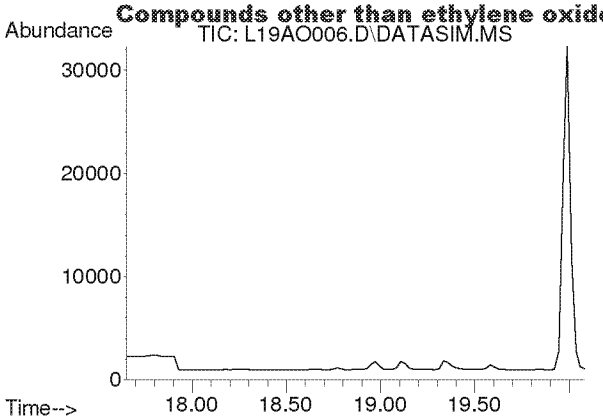
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

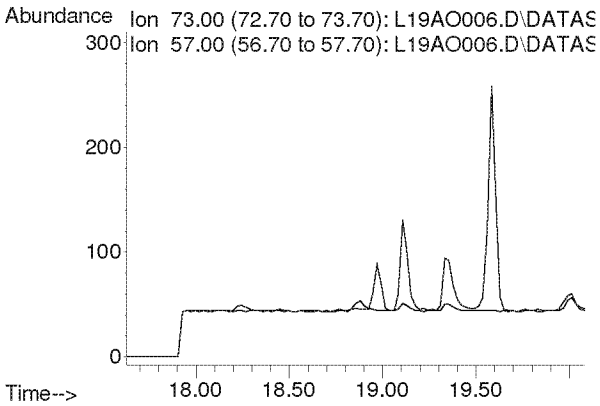


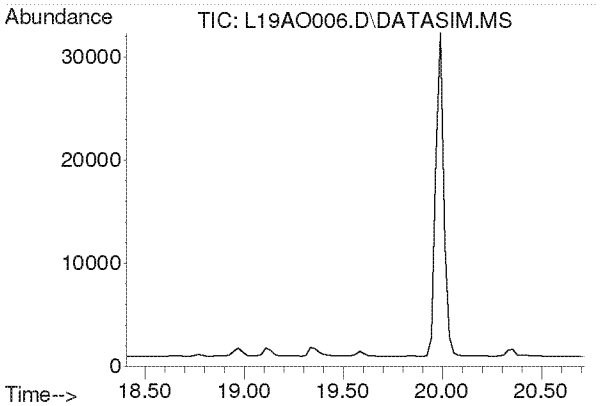
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



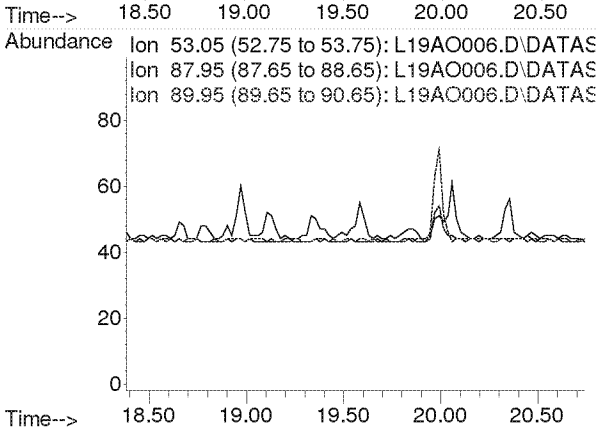


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

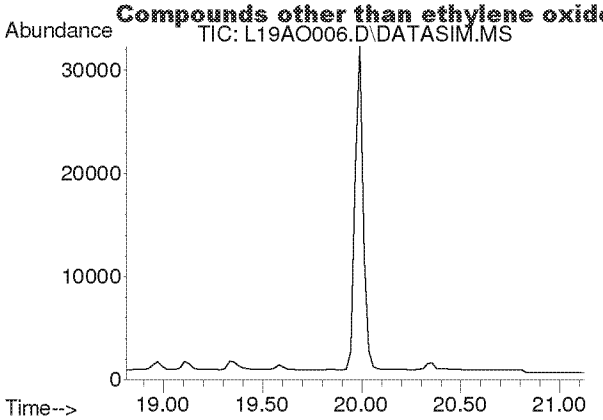
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

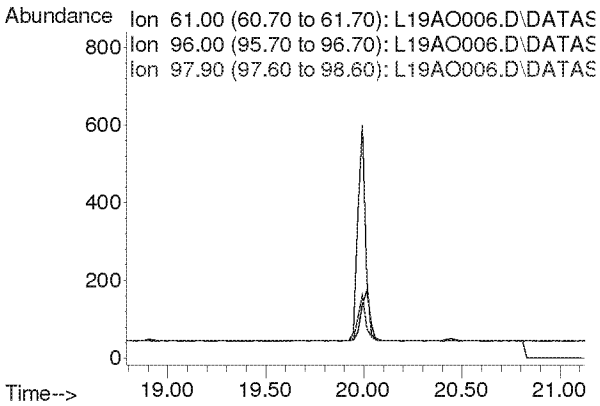


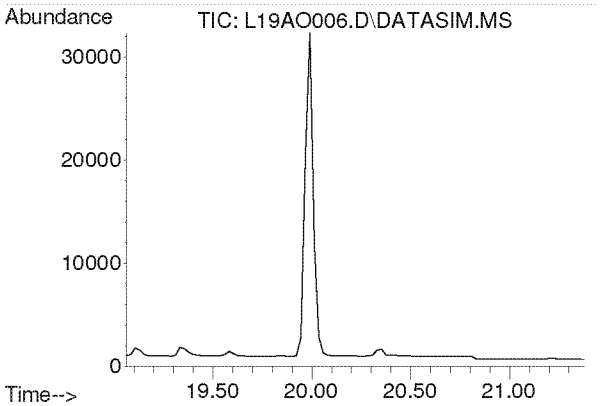
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



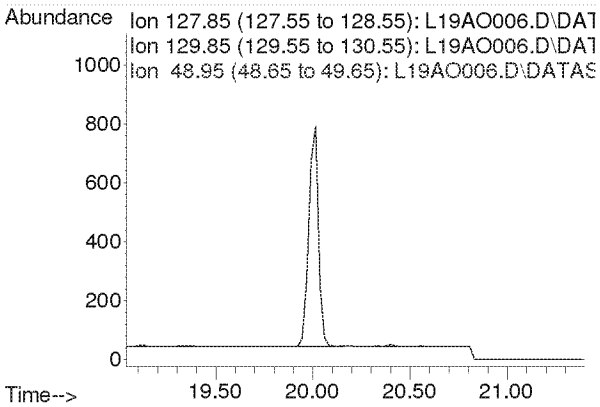


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

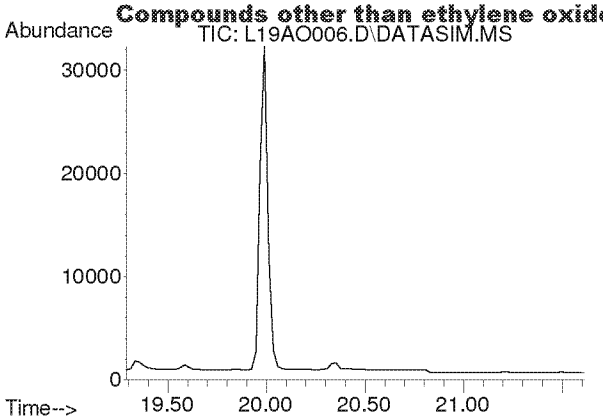
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

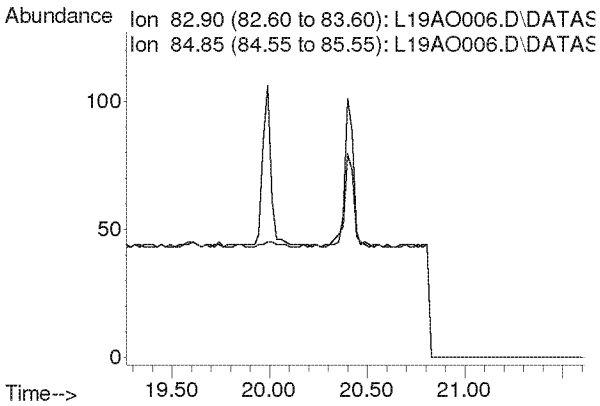


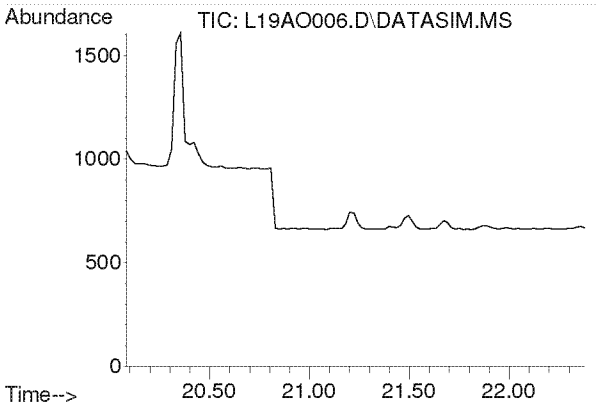
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



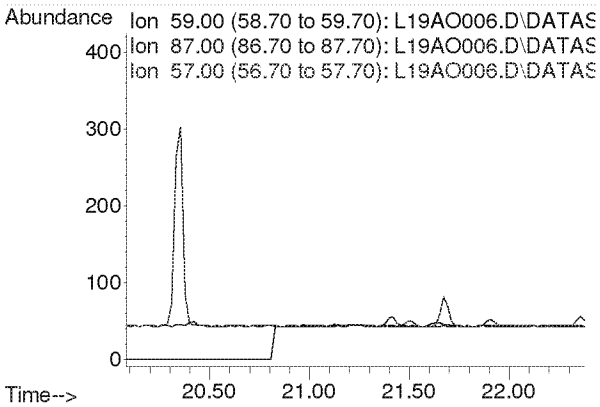


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

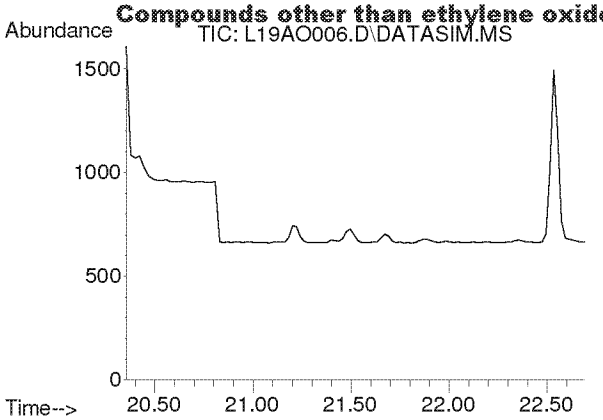
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

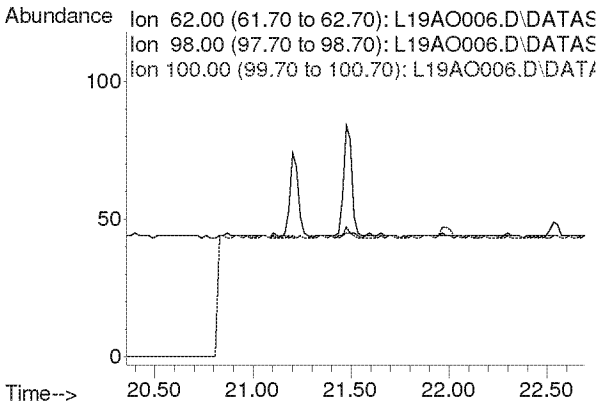


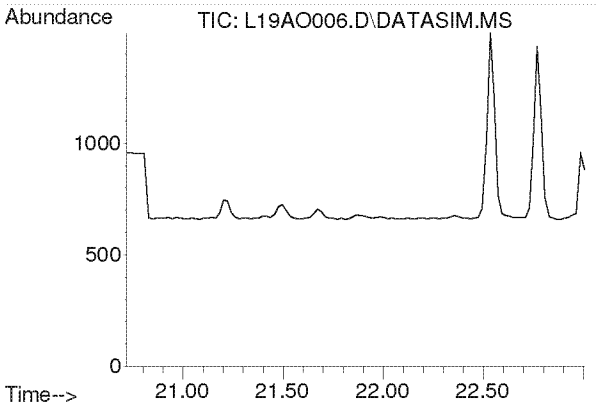
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



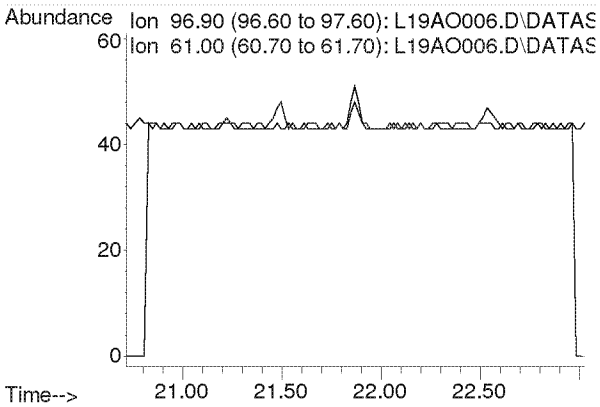


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

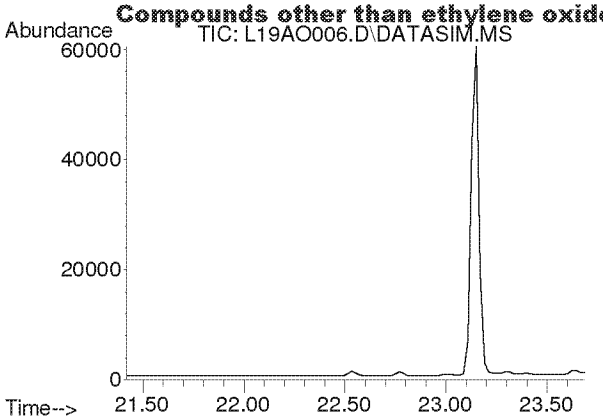
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

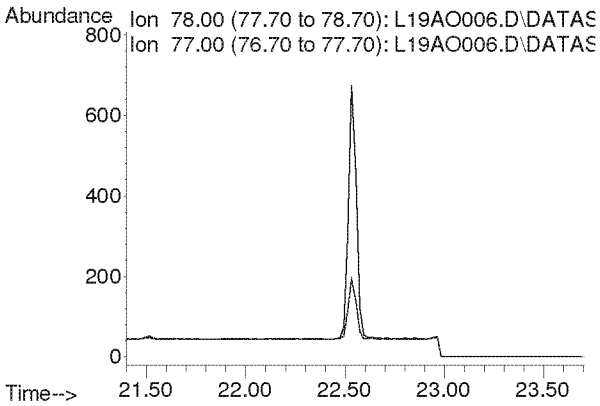


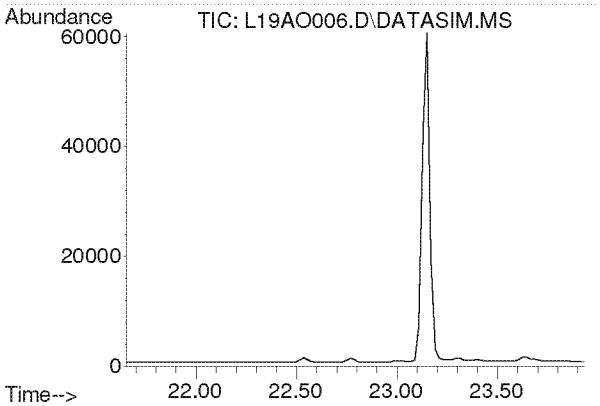
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



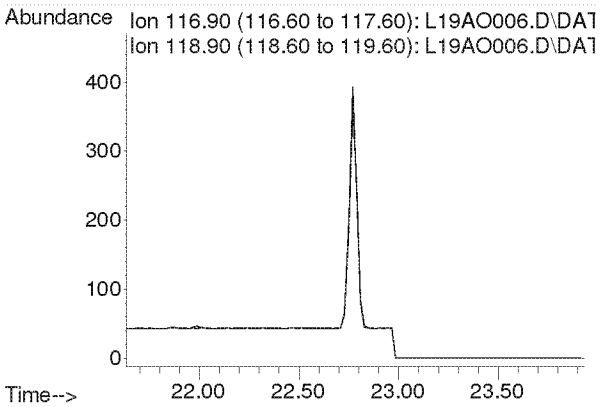


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

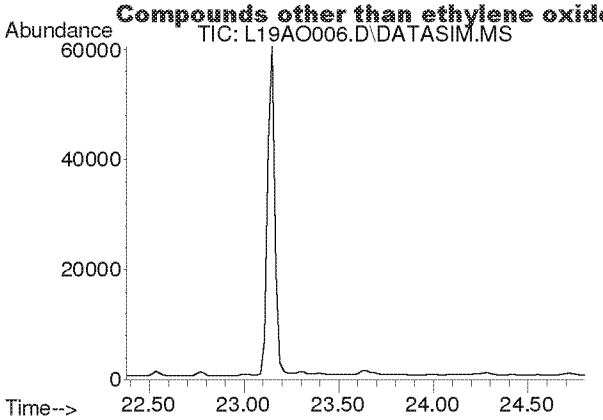
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

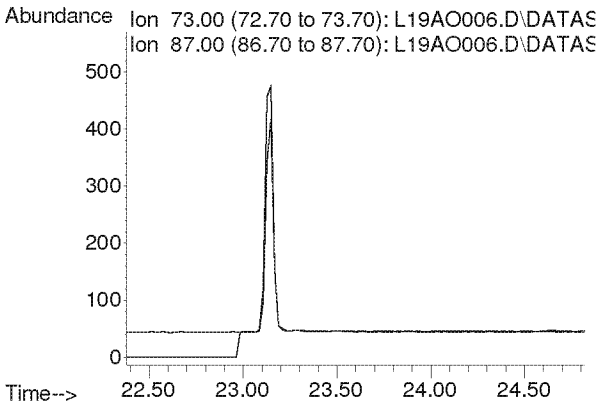


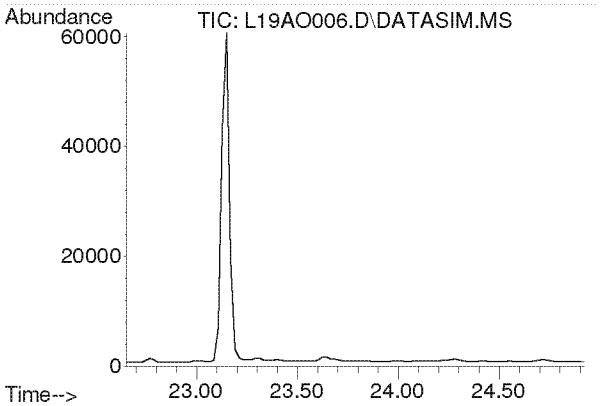
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



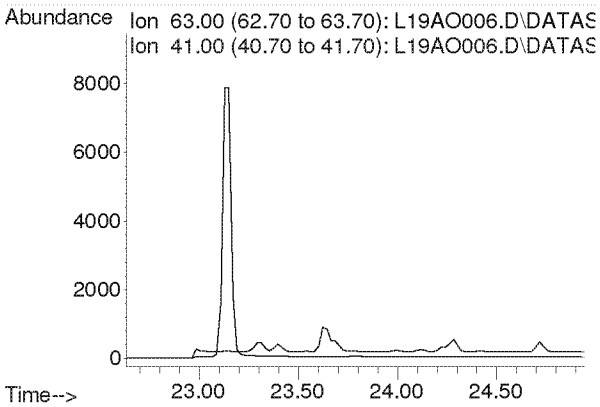


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

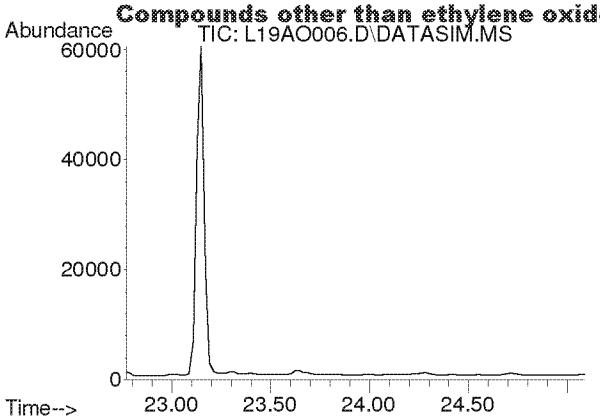
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

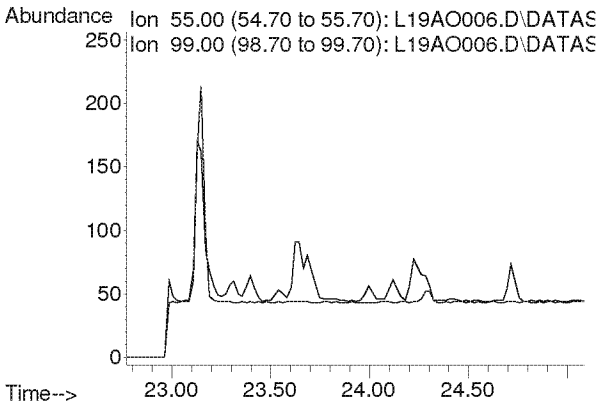


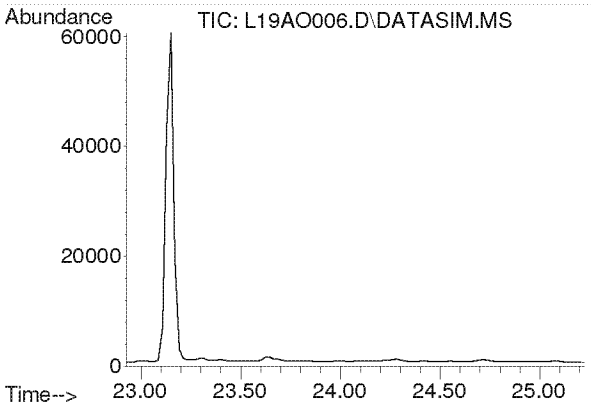
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



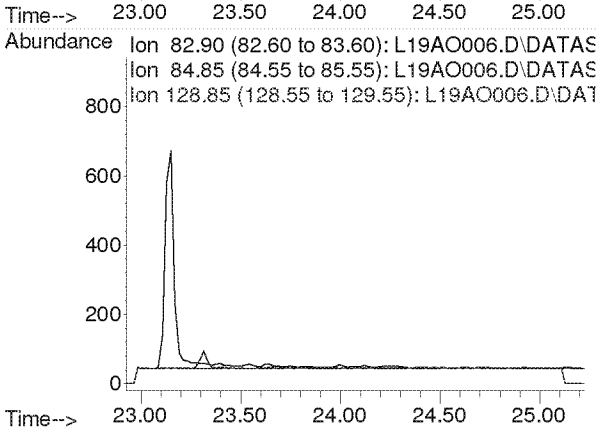


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

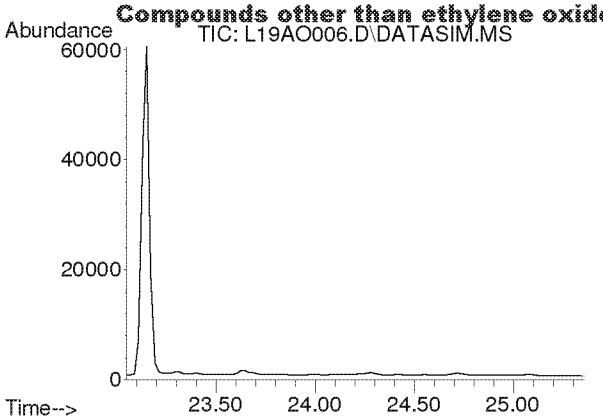
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

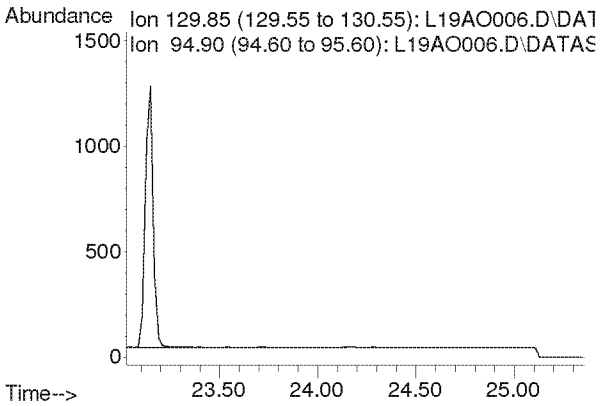


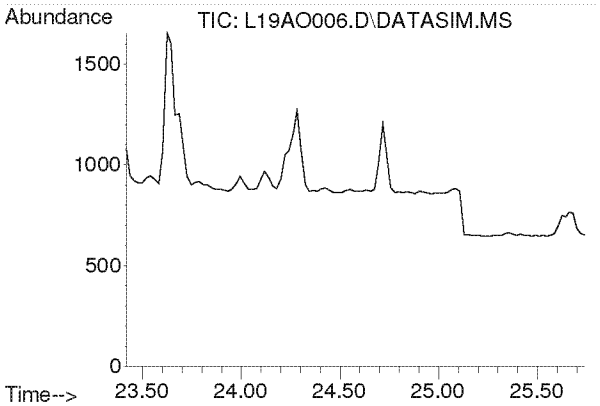
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



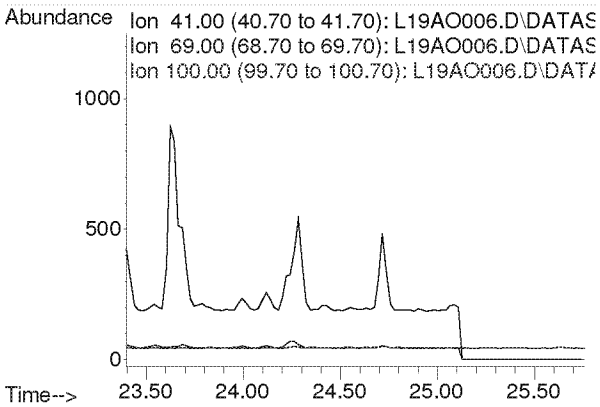


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

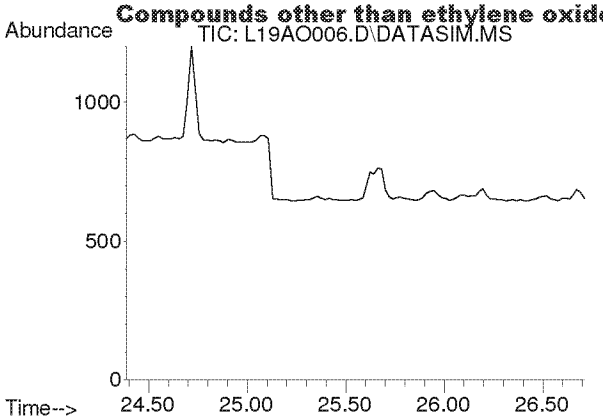
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

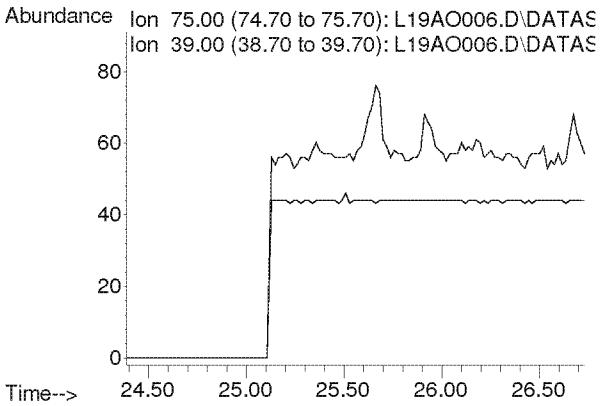


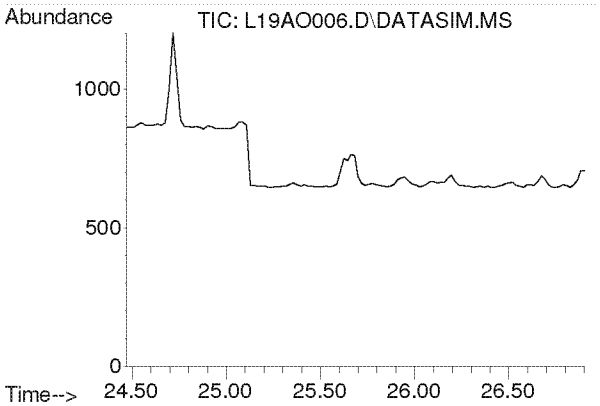
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



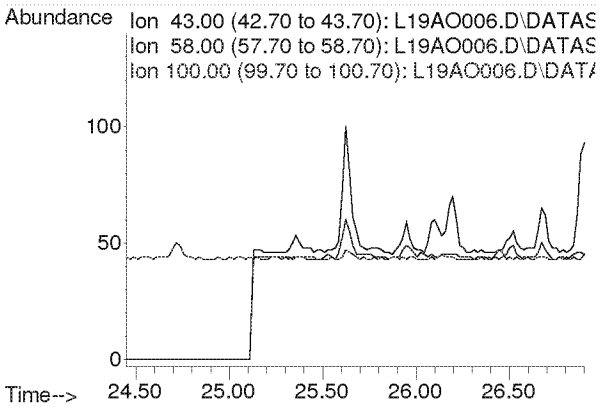


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

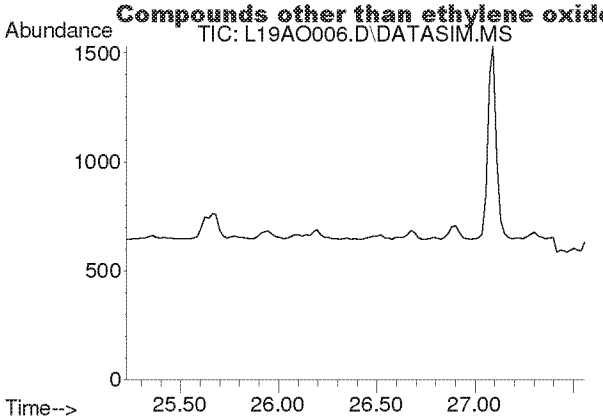
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

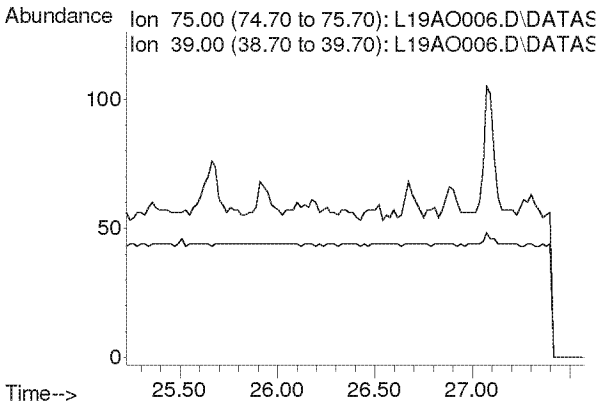


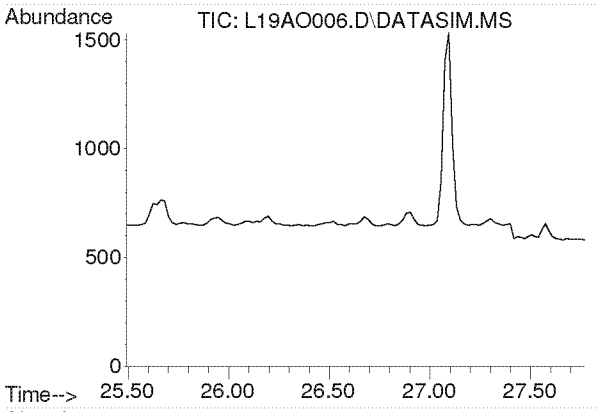
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



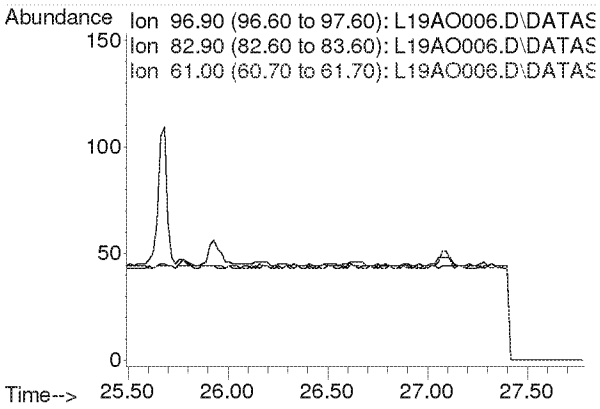


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

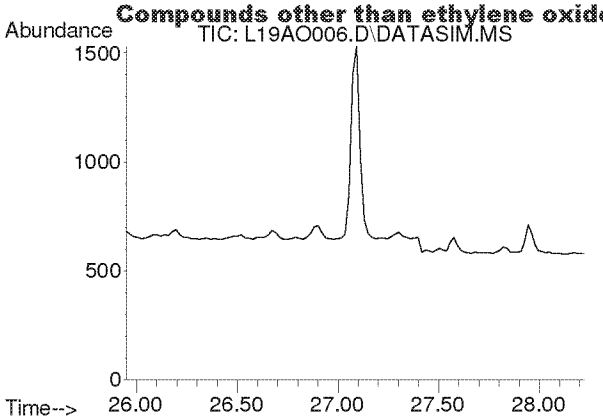
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

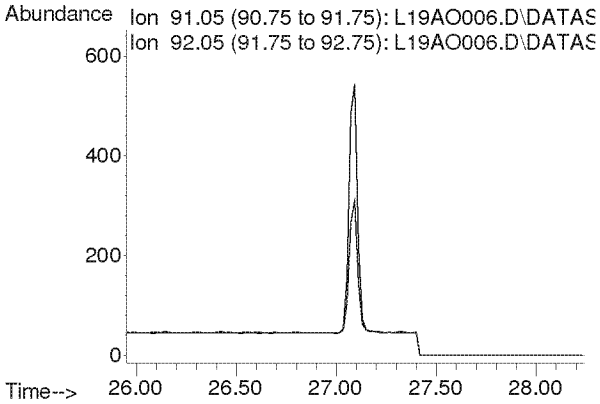


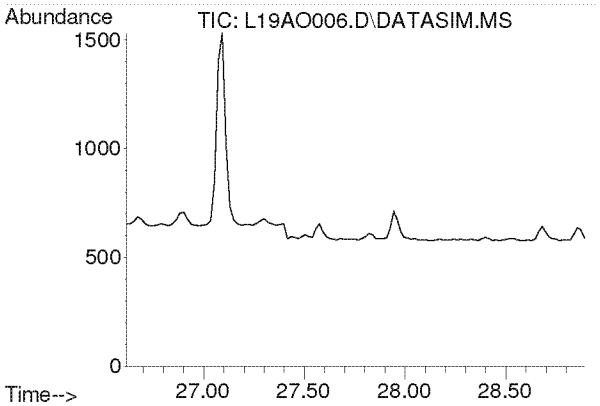
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



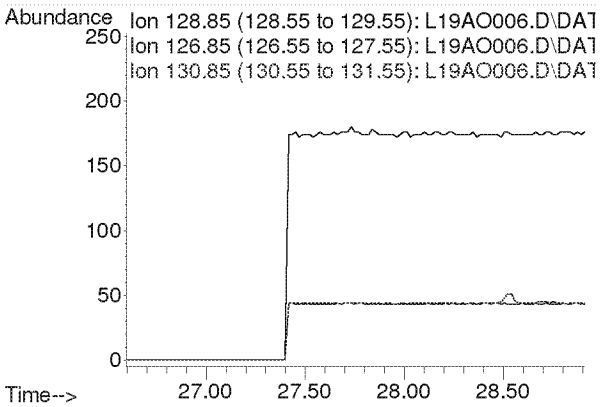


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

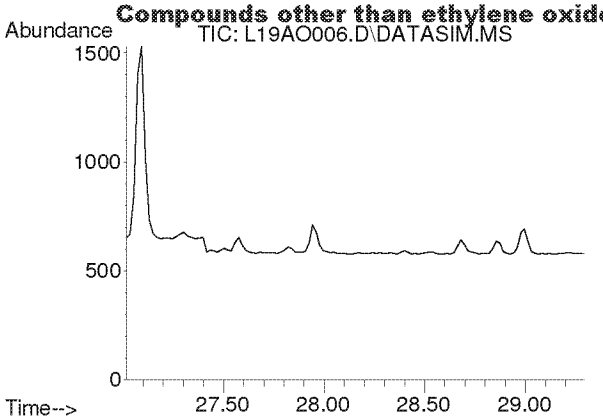
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

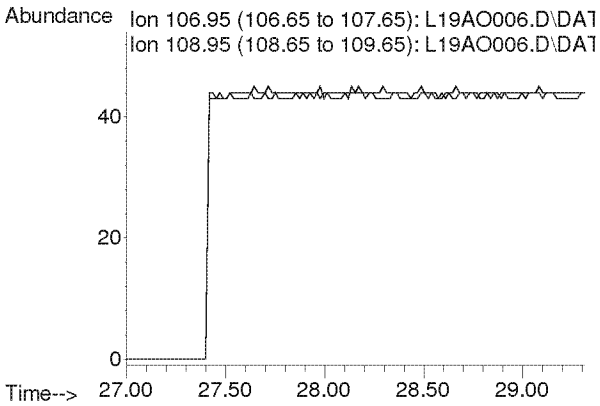


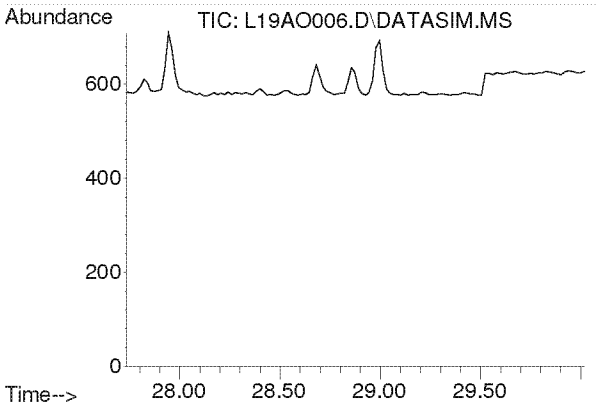
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



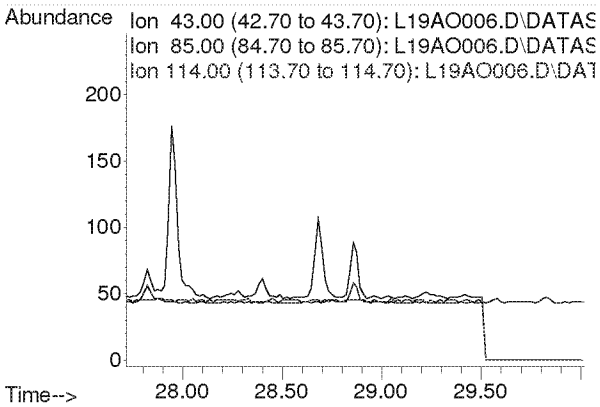


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

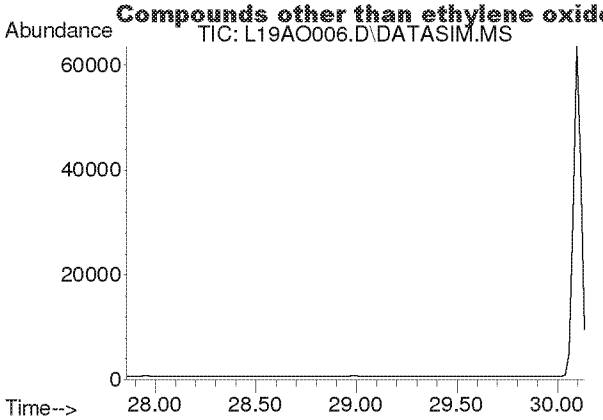
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

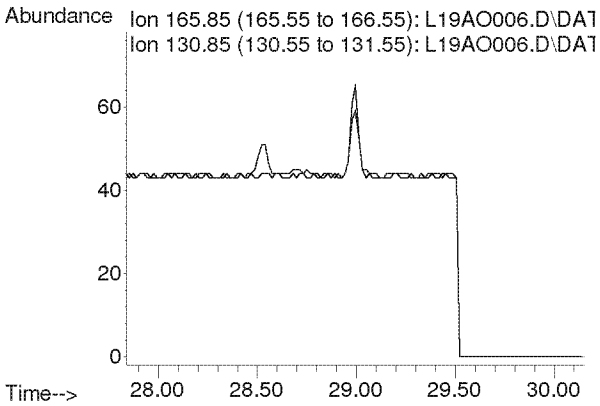


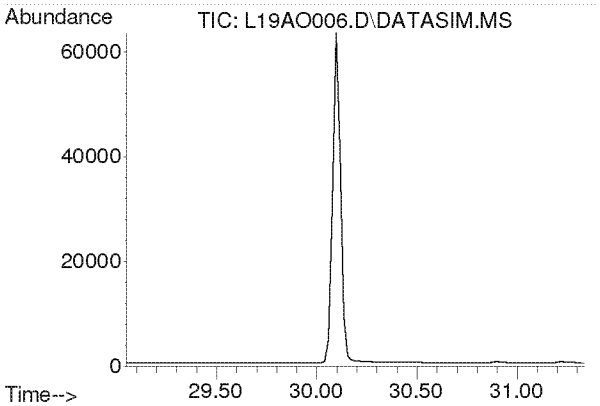
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



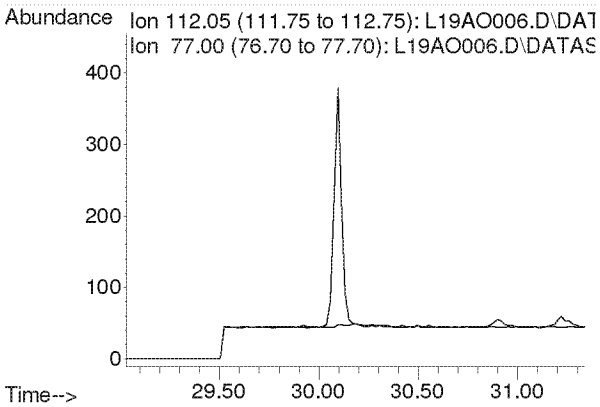


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

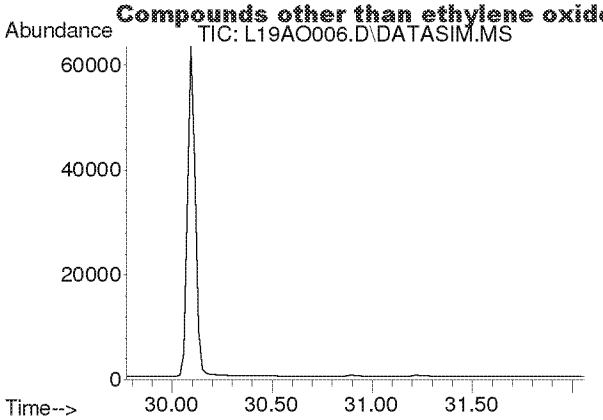
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

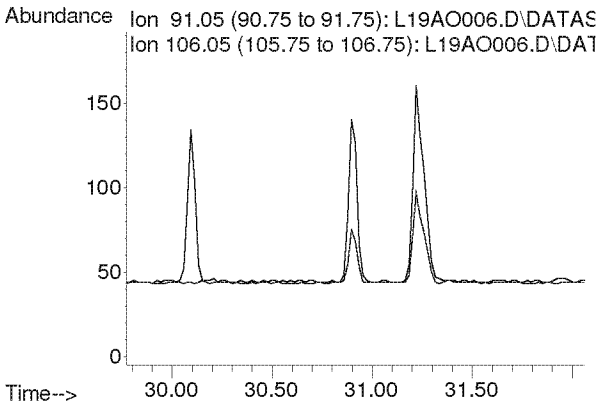


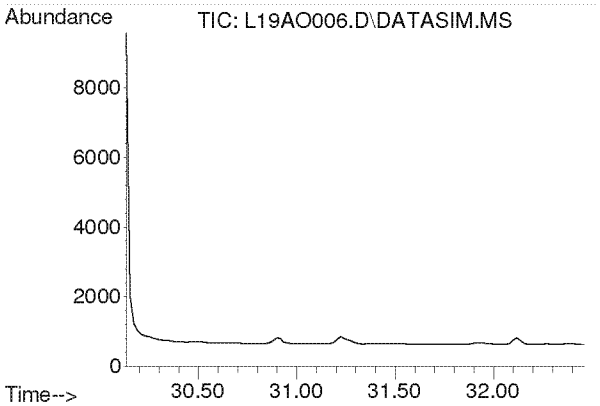
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



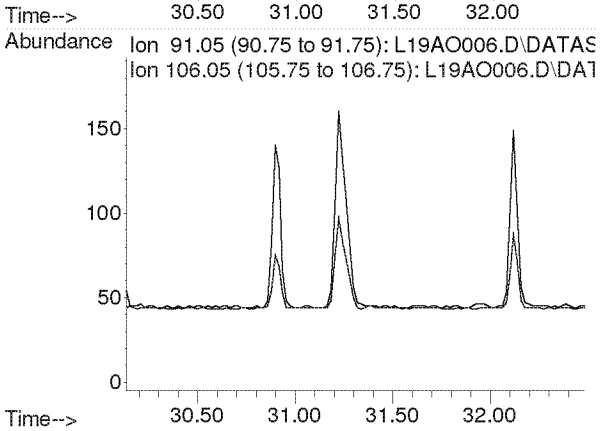


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

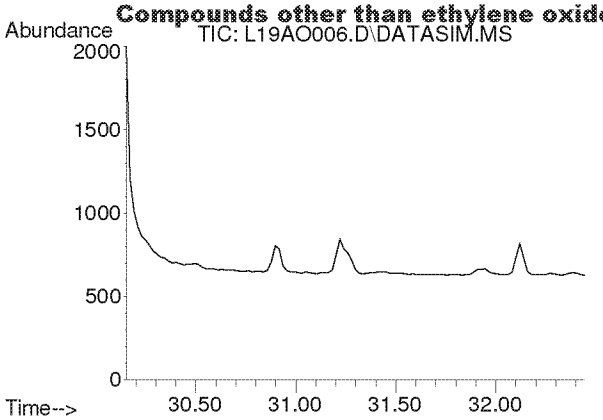
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

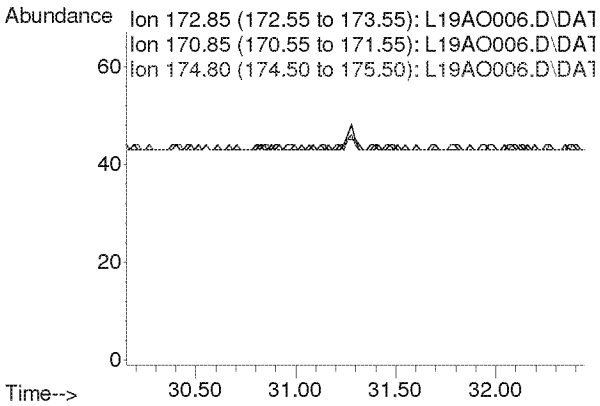


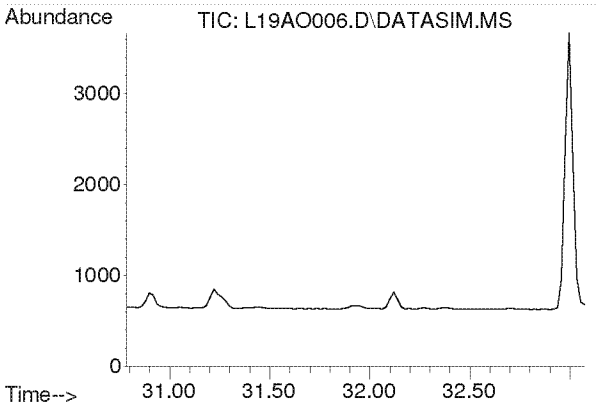
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



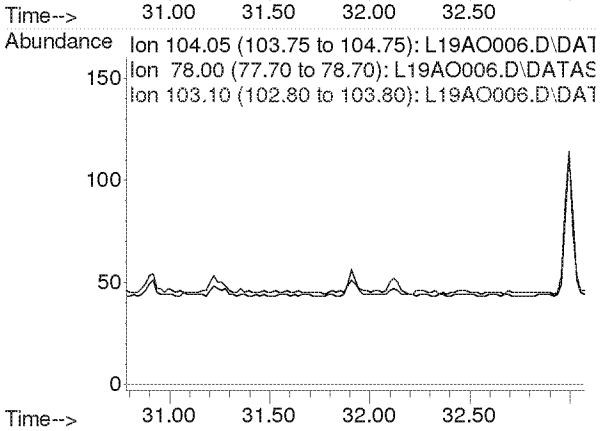


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

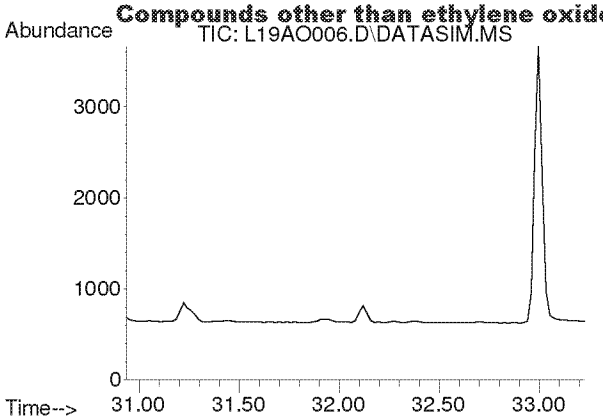
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

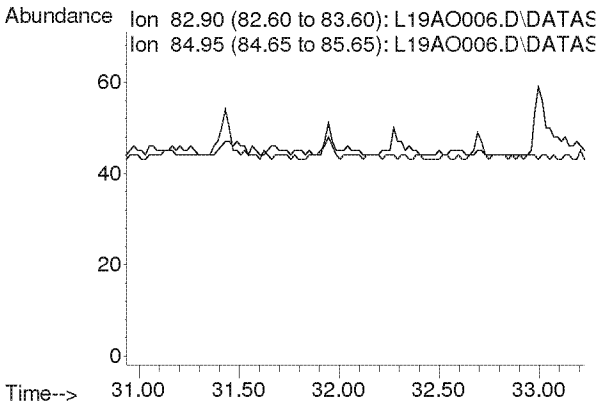


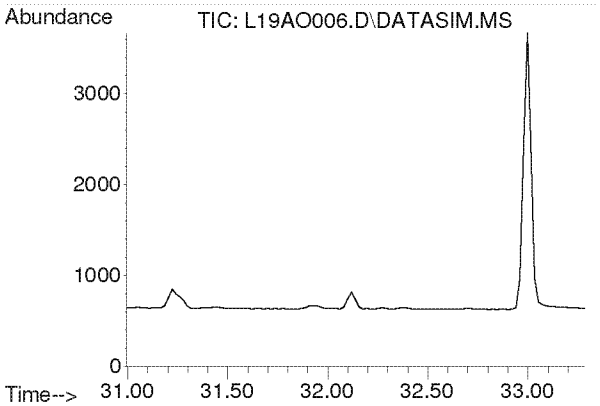
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



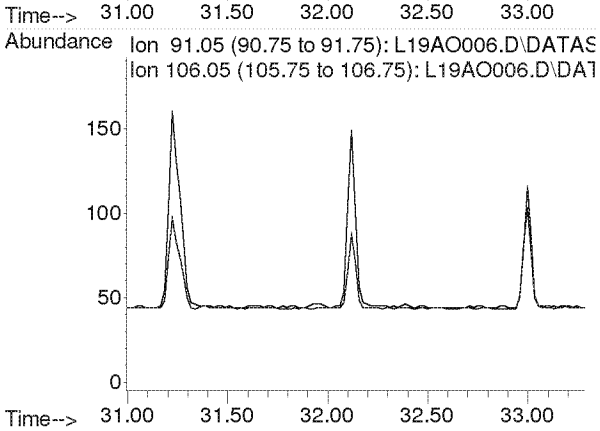


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

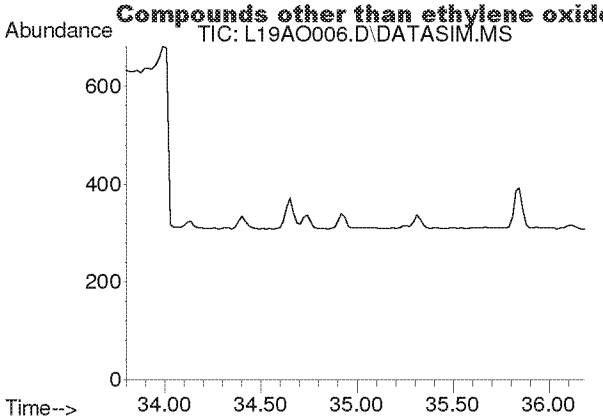
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

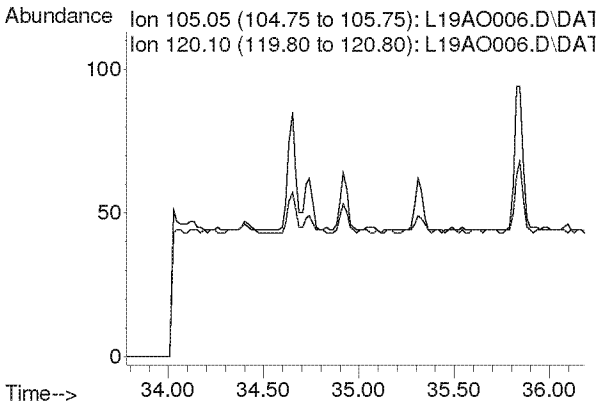


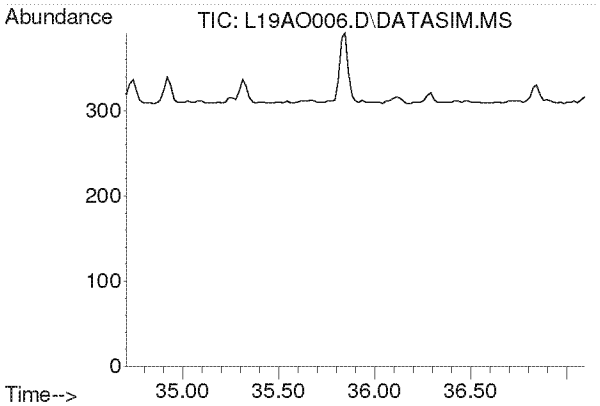
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



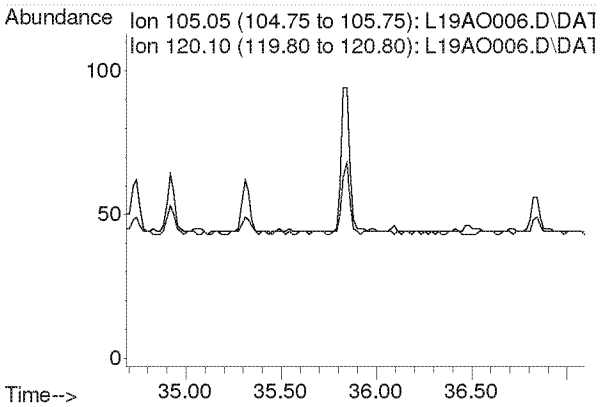


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

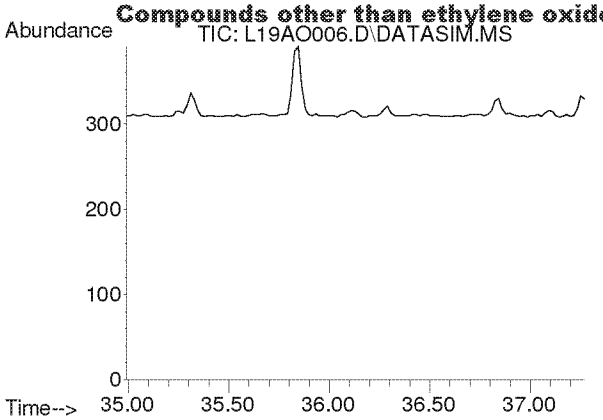
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

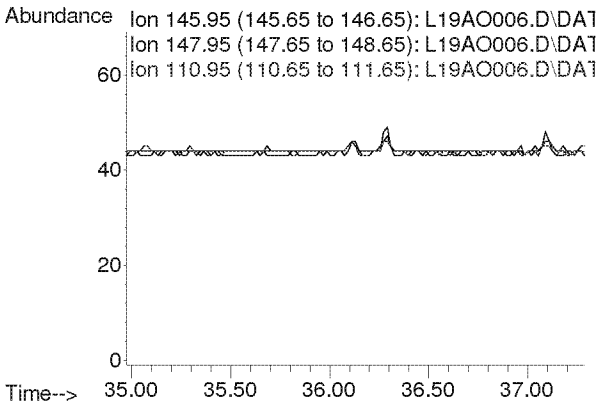


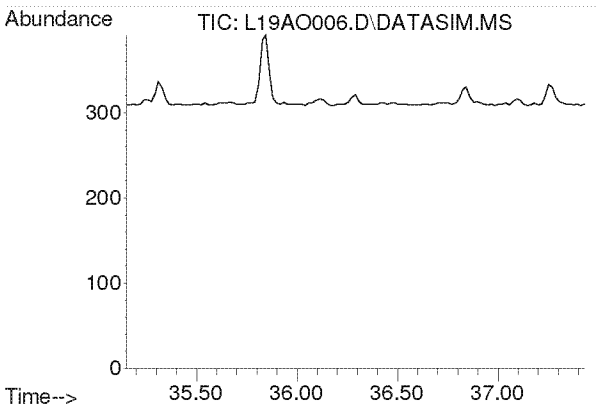
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



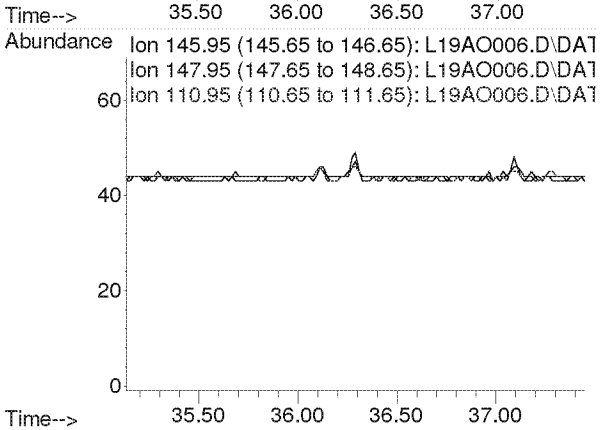


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

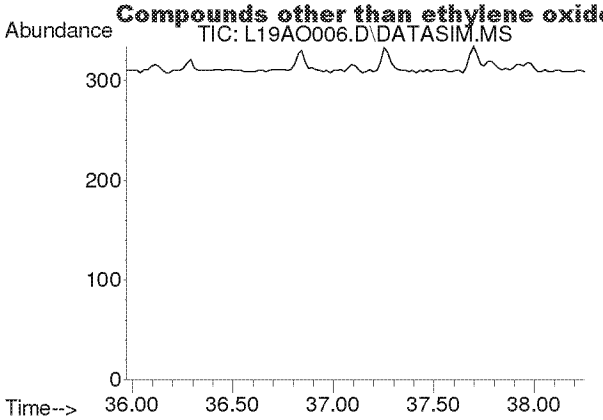
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

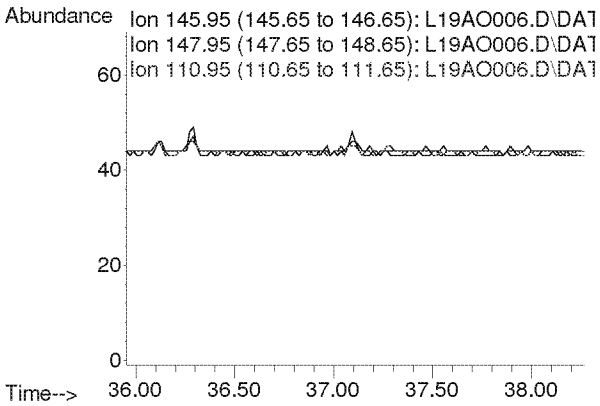


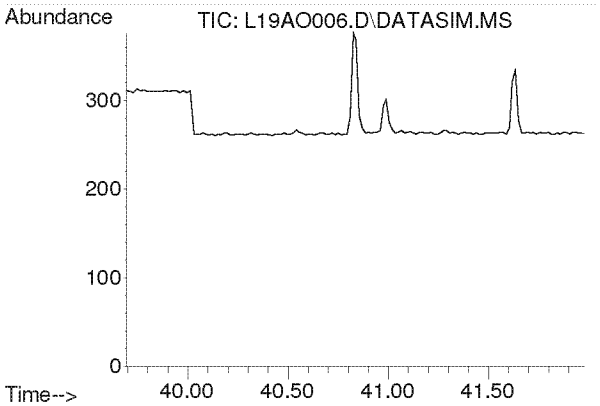
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



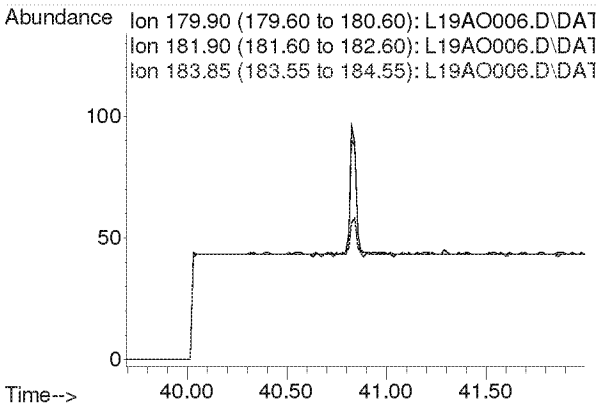


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

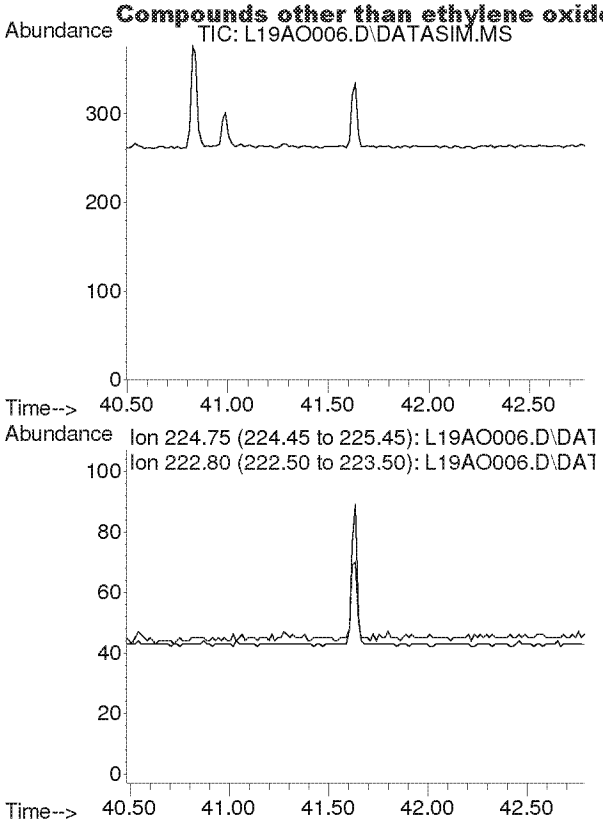
Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19AO006.D
Acq: 15 Jan 2019 2:28 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\L19AO\
Data File : L19AO008.D
Acq On : 15 Jan 2019 4:31 pm
Operator : MAH
Sample : 9010401-03
Misc : WATER TOWER 1/3/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 22 11:36:31 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

ETOT only

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	53200	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	129403	4.9900	ppbv	0.00
42) IS-Chlorobenzene-d5	30.097	117	103134	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.		
17) Methylene Chloride	0.000	49	0	N.D.	d	
18) Carbon Disulfide	0.000	76	0	N.D.	d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.		
21) 1,1-Dichloroethane	0.000	63	0	N.D.		
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.		
23) Chloroprene	0.000	53	0	N.D.		
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d	
25) Bromochloromethane	0.000	128	0	N.D.		
26) Chloroform	0.000	83	0	N.D.	d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.		
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.		
31) Benzene	0.000	78	0	N.D.	d	
32) Carbon Tetrachloride	0.000	117	0	N.D.	d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.		
34) 1,2-Dichloropropane	0.000	63	0	N.D.		
35) Ethyl Acrylate	0.000	55	0	N.D.	d	
36) Bromodichloromethane	0.000	83	0	N.D.		
37) Trichloroethylene	0.000	130	0	N.D.		
38) Methyl Methacrylate	0.000	41	0	N.D.		
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.		
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.		
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.		
44) Toluene	0.000	91	0	N.D.	d	
45) Dibromochloromethane	0.000	129	0	N.D.		
46) 1,2-Dibromoethane	0.000	107	0	N.D.		
47) n-Octane	0.000	43	0	N.D.	d	
48) Tetrachloroethylene	0.000	166	0	N.D.	d	
49) Chlorobenzene	0.000	112	0	N.D.		
50) Ethylbenzene	0.000	91	0	N.D.	d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO008.D
Acq On : 15 Jan 2019 4:31 pm
Operator : MAH
Sample : 9010401-03
Misc : WATER TOWER 1/3/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 22 11:36:31 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

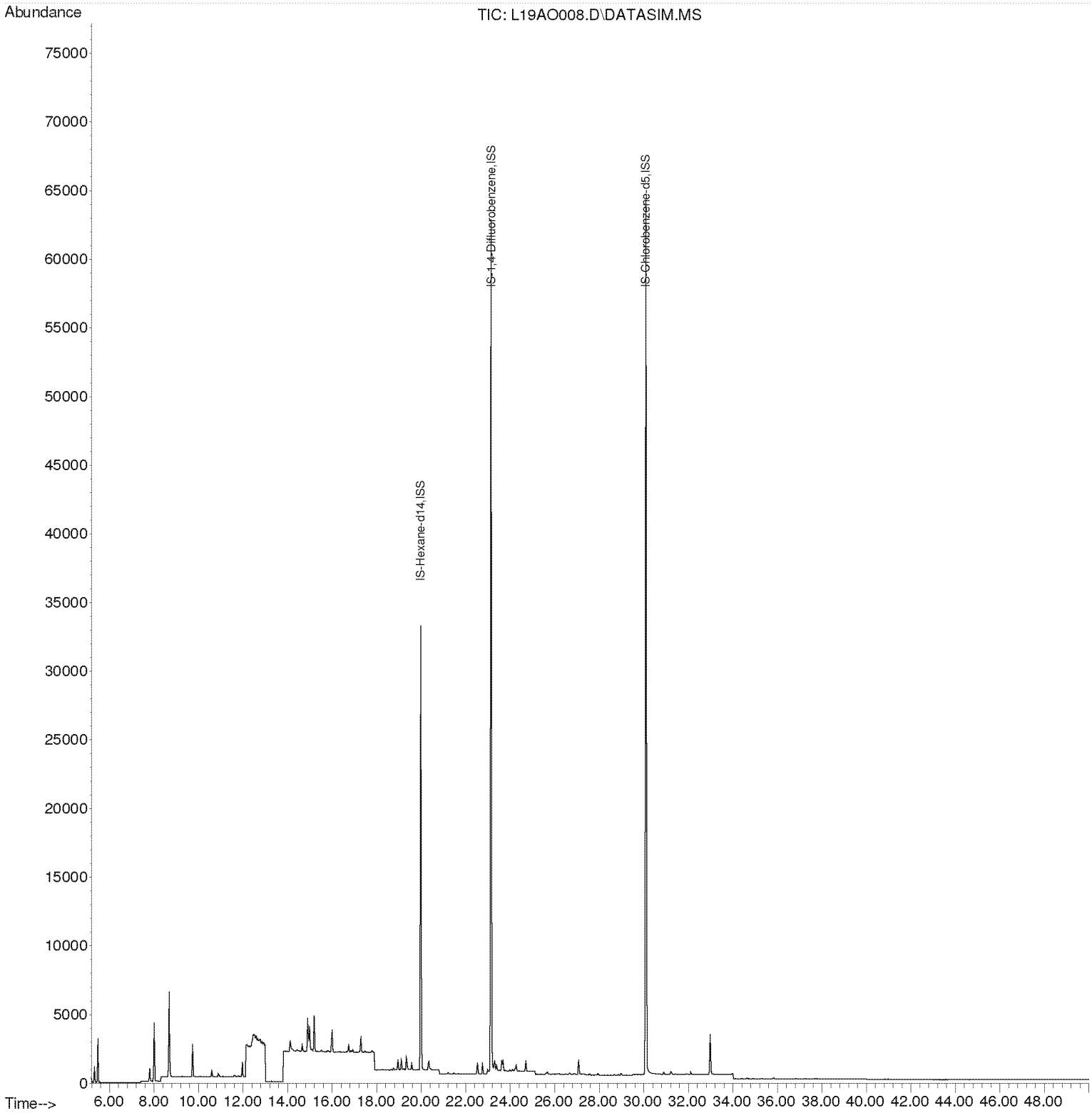
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

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

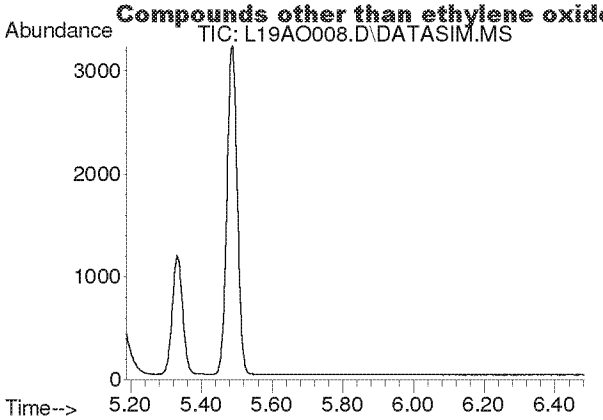
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO008.D
Acq On : 15 Jan 2019 4:31 pm
Operator : MAH
Sample : 9010401-03
Misc : WATER TOWER 1/3/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 22 11:25:31 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



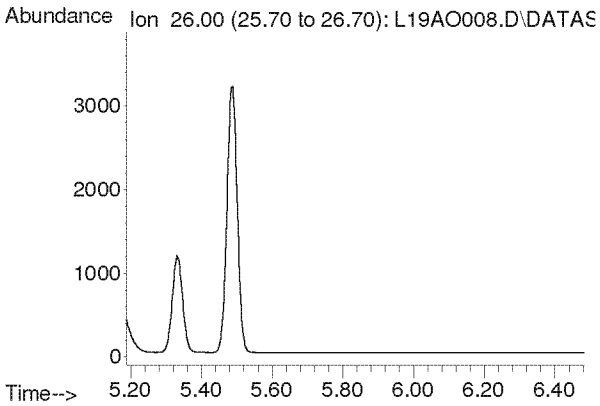
Compounds other than ethylene oxide were not quantitated.

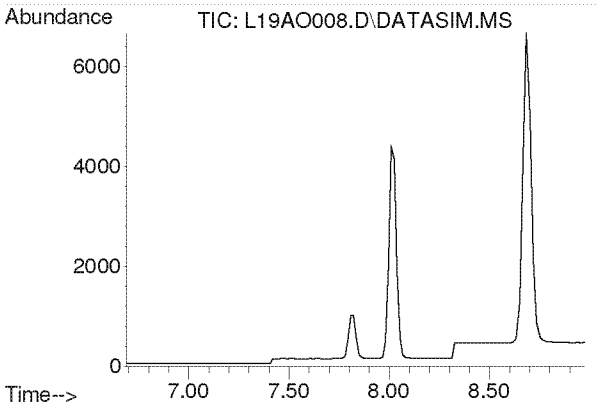


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 26



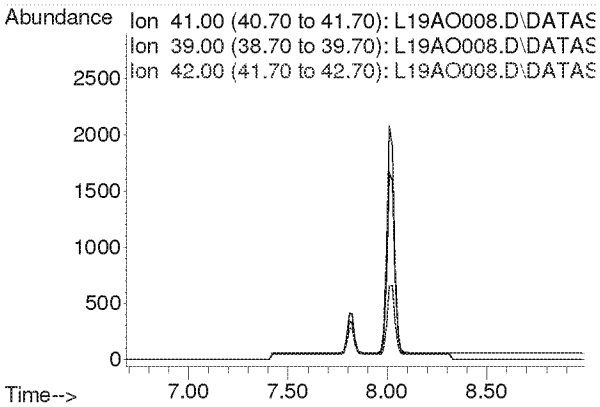


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

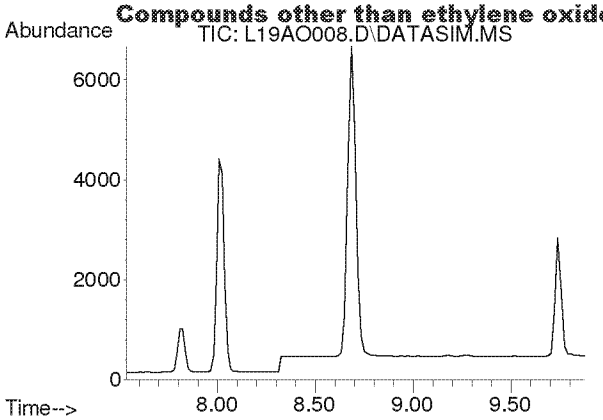
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

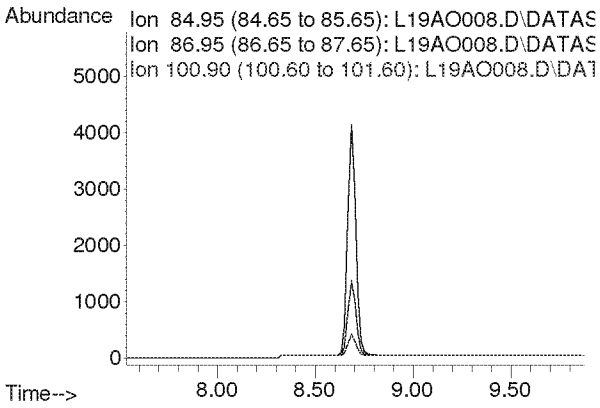


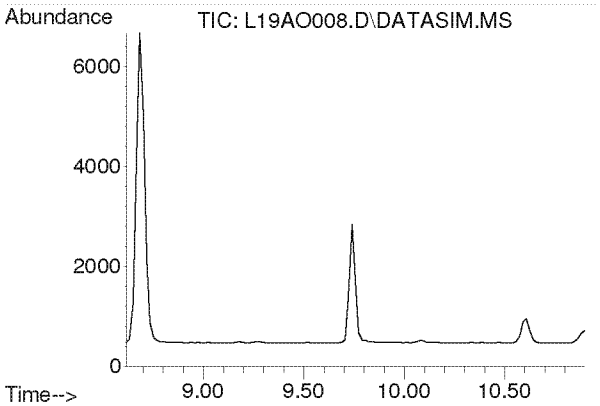
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



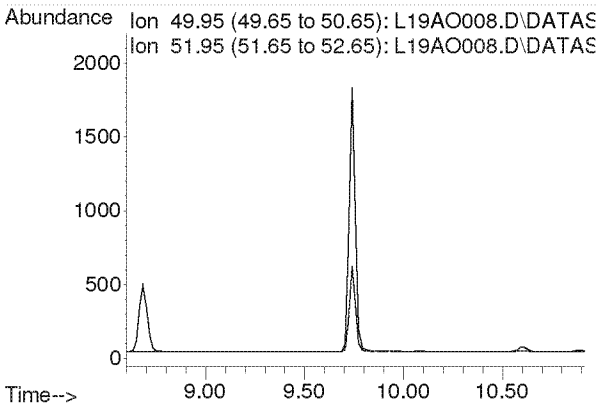


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

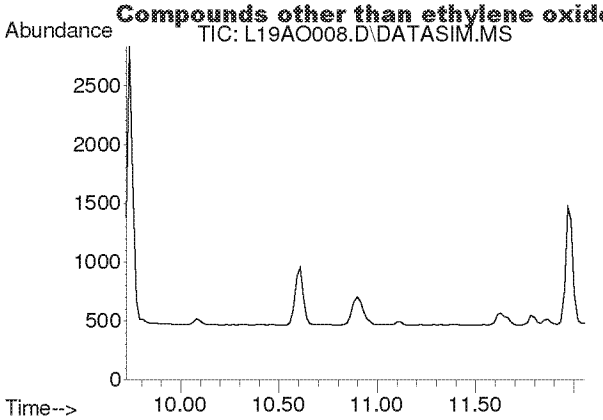
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

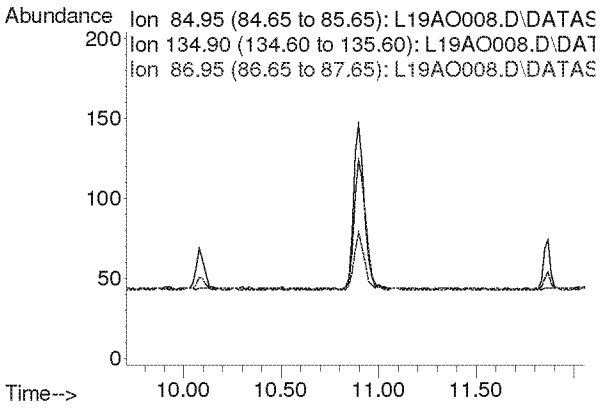


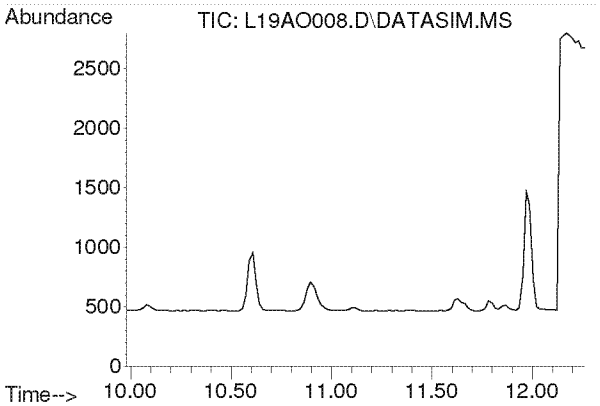
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



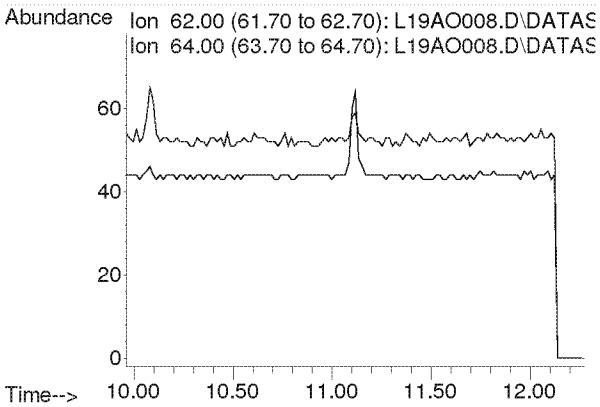


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

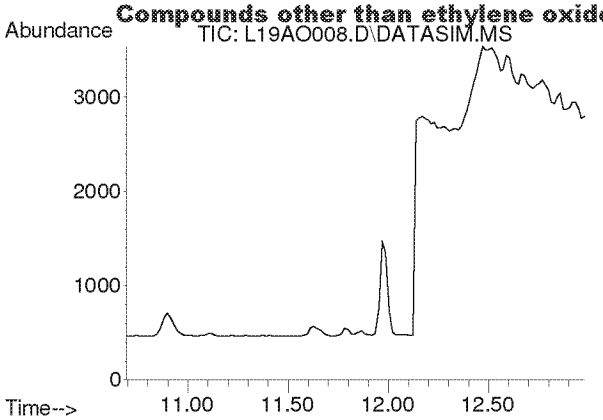
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

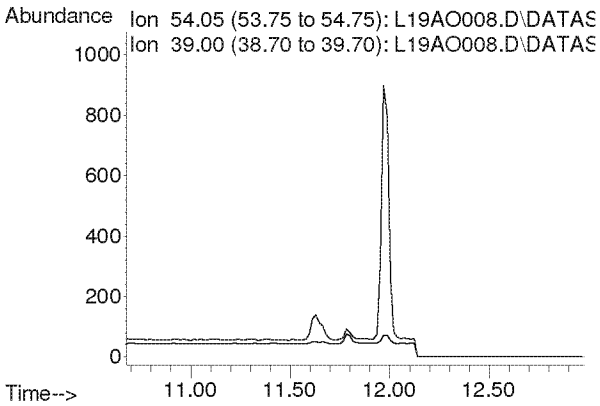


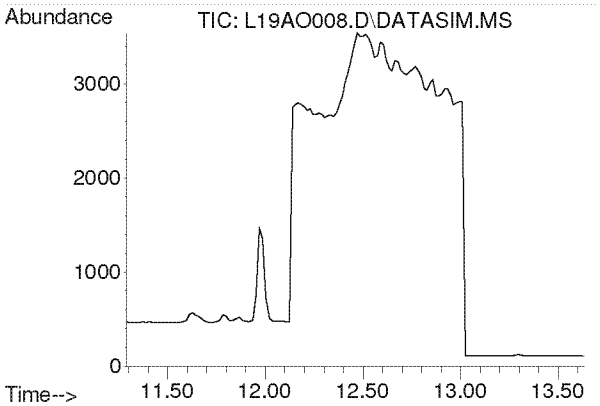
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



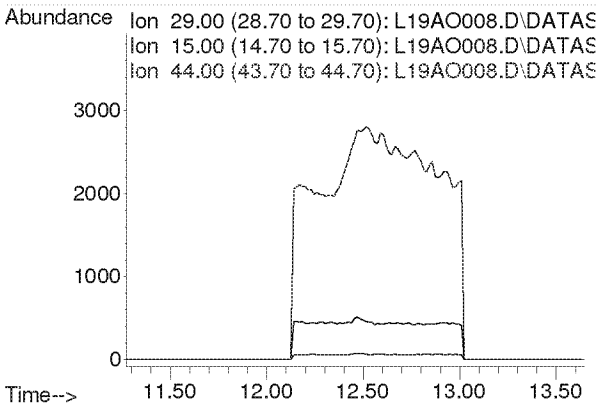


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

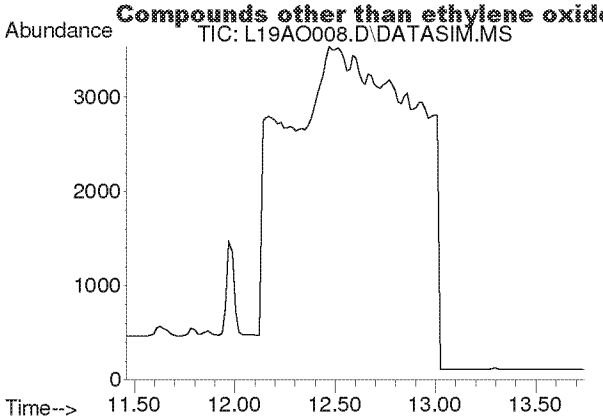
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

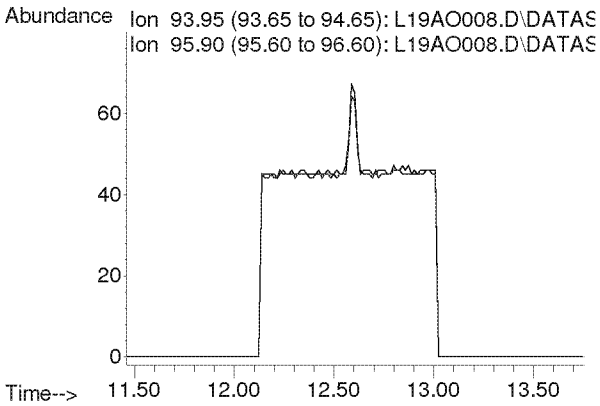


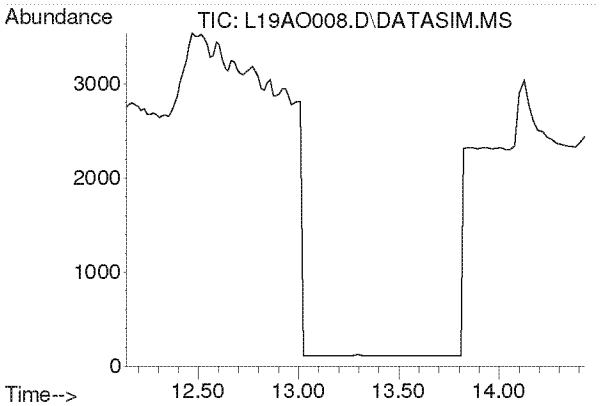
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



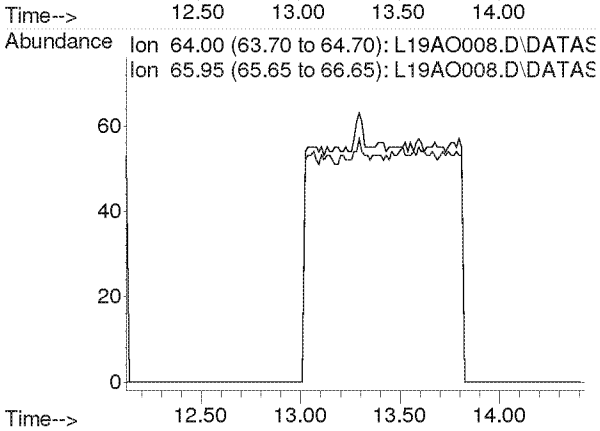


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

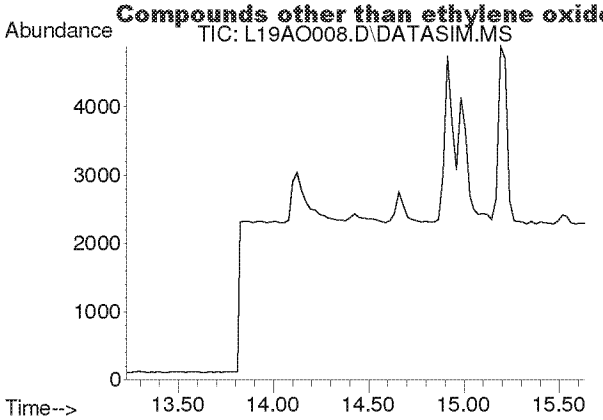
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

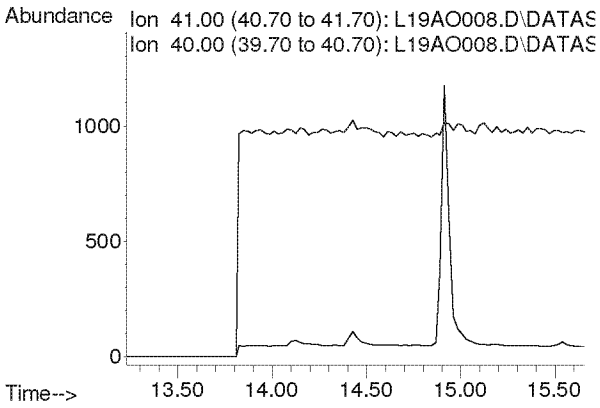


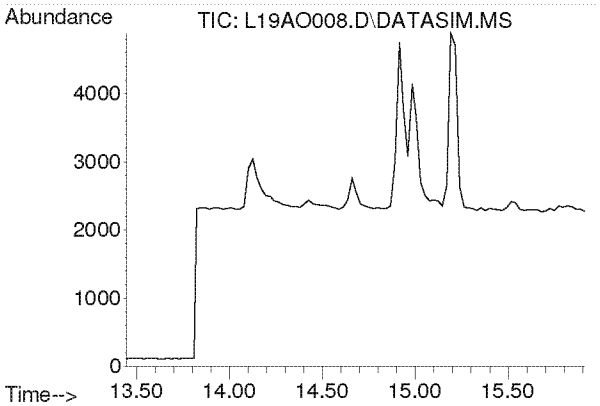
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



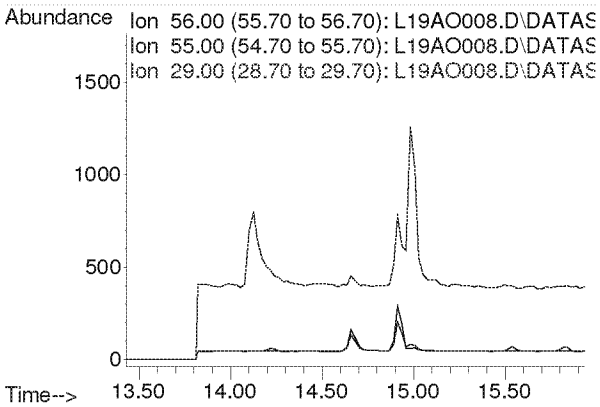


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

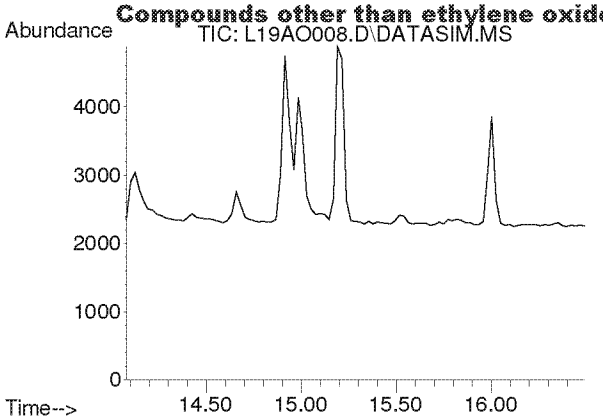
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

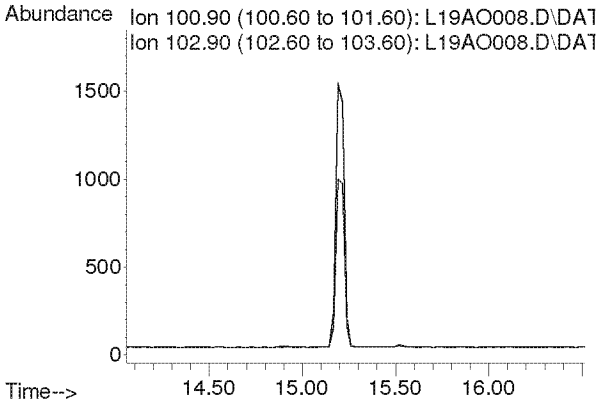


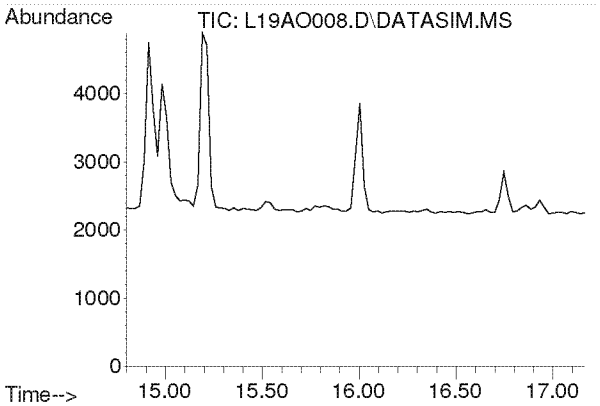
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



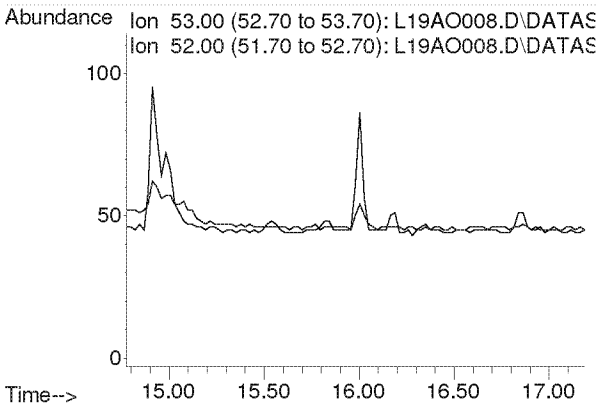


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

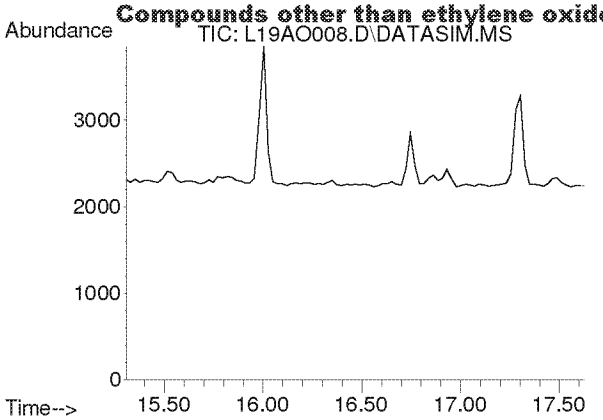
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

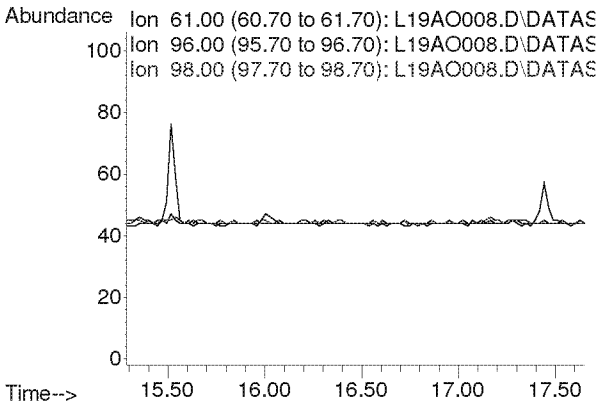


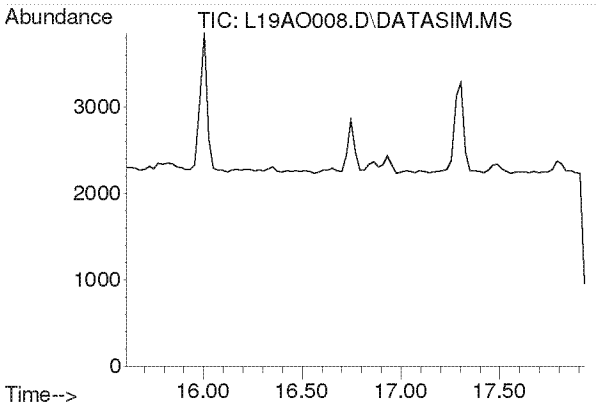
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



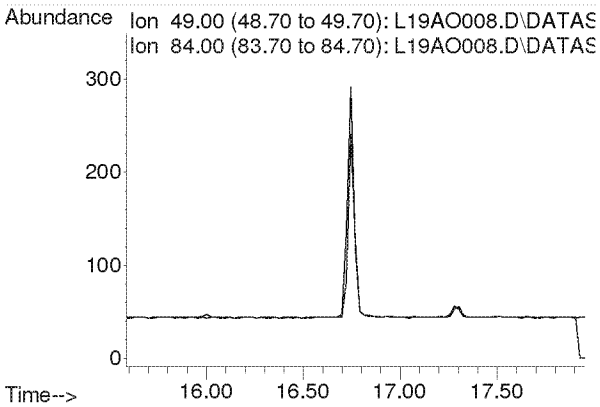


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

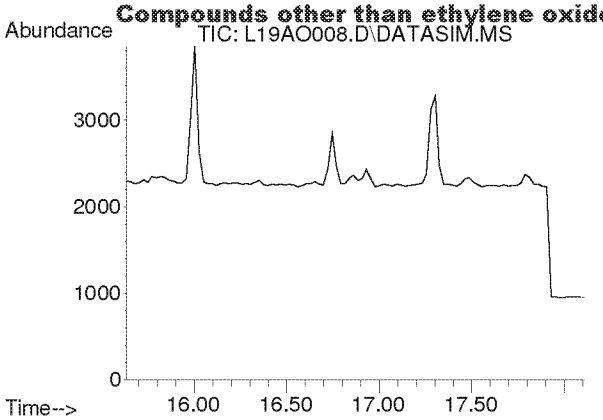
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

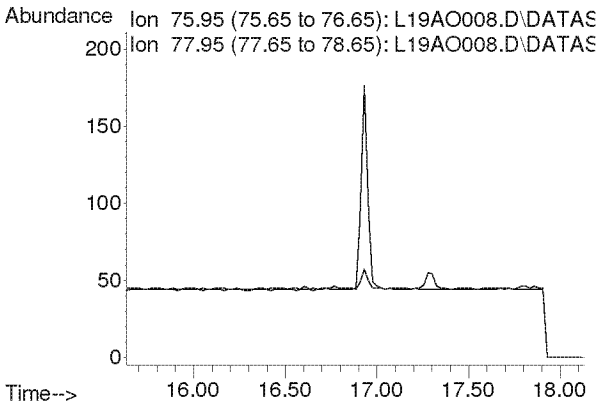


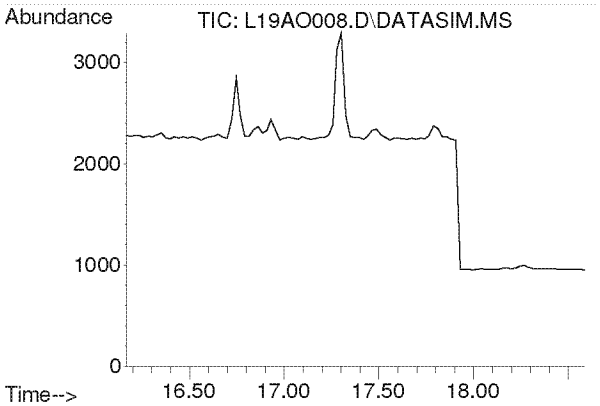
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



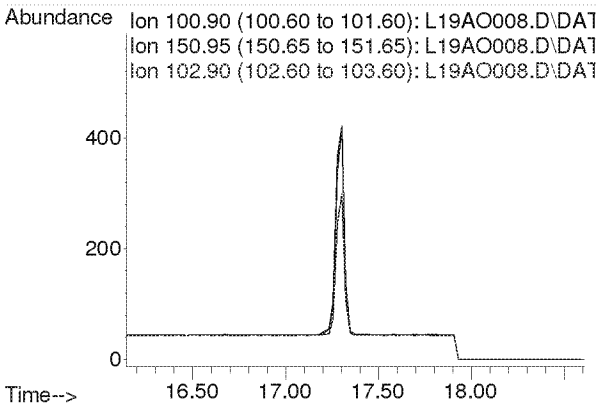


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

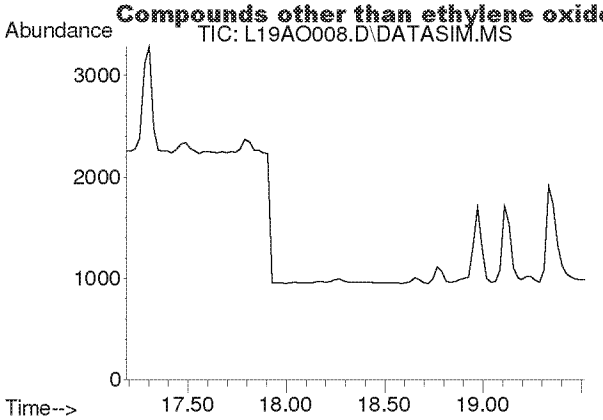
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

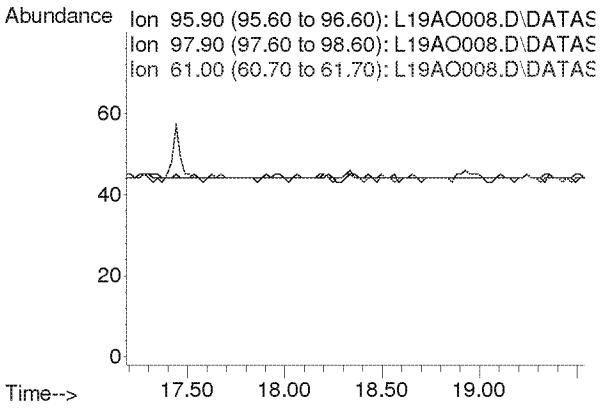


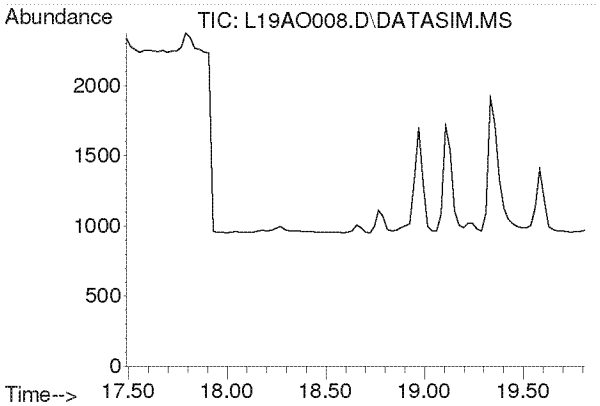
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



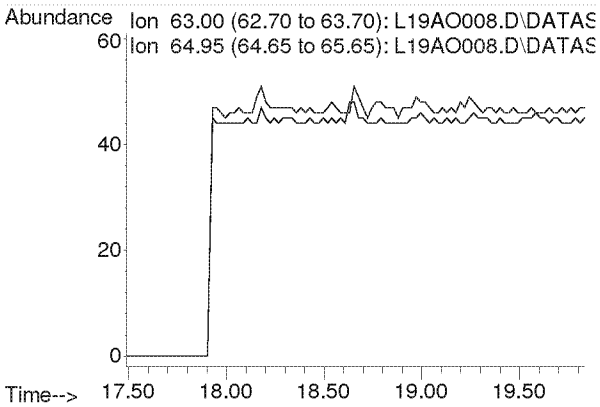


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

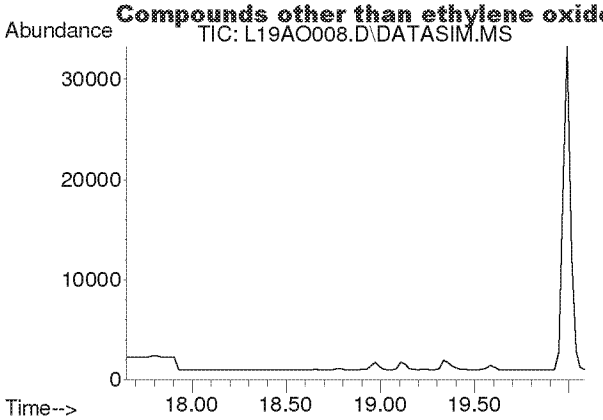
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

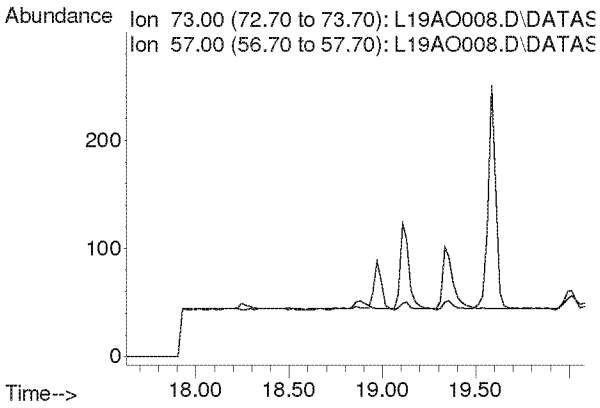


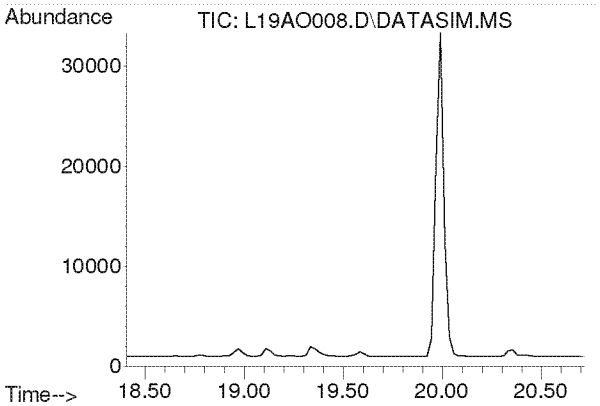
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



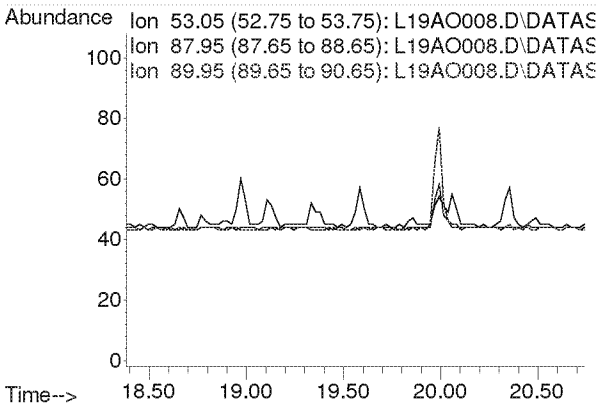


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

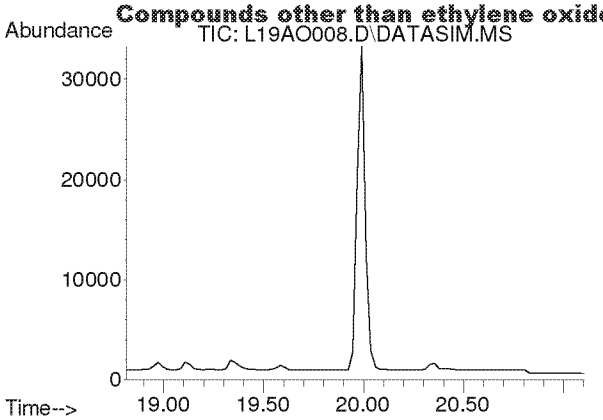
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

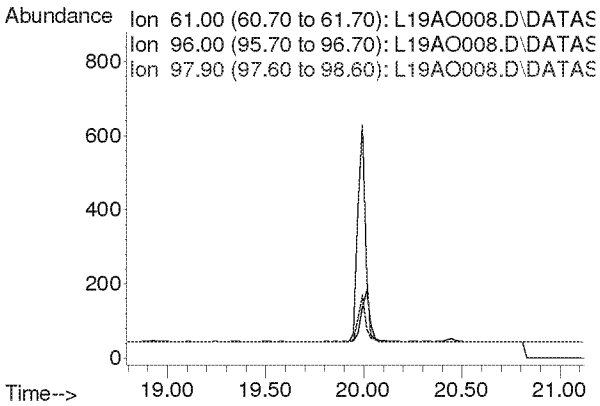


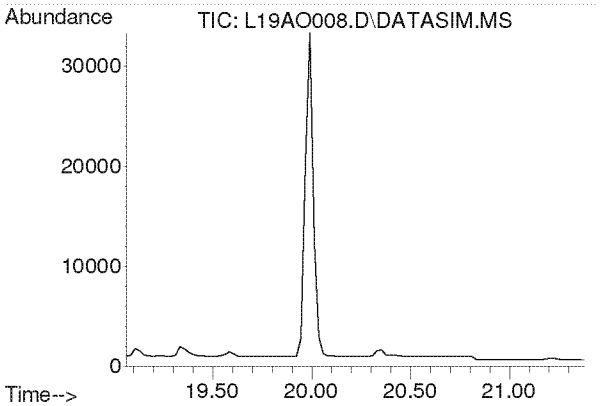
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



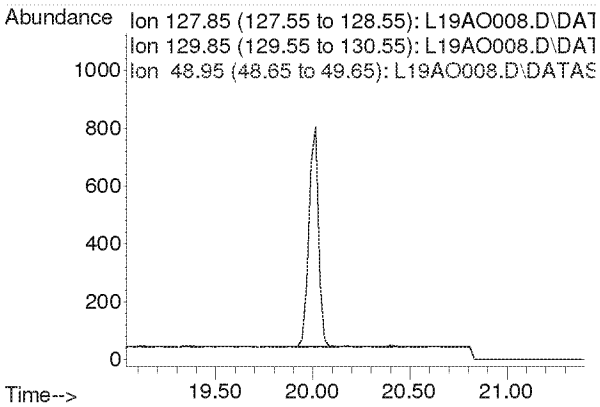


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

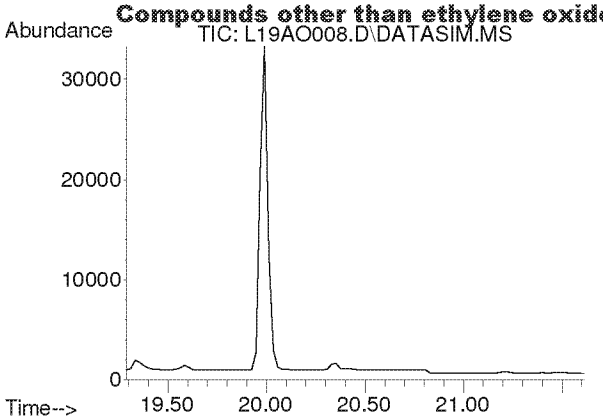
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

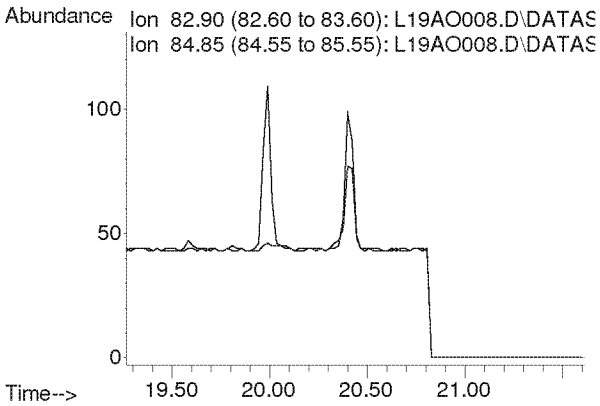


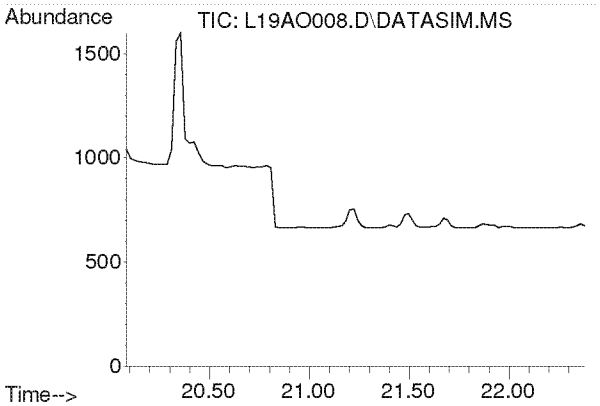
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



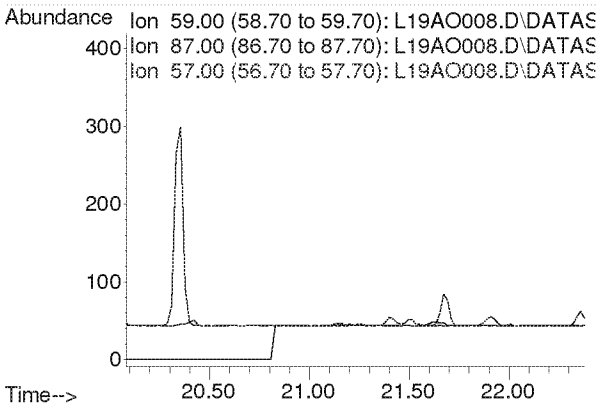


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

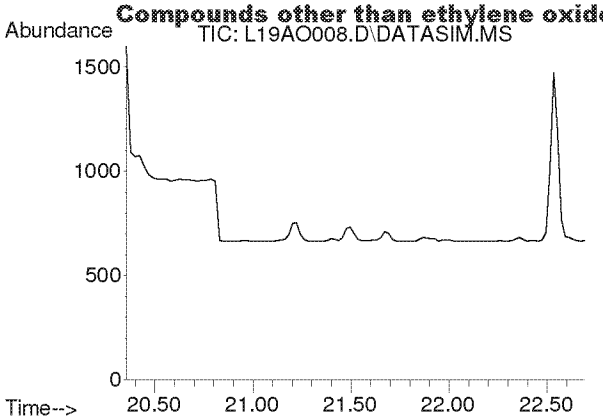
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

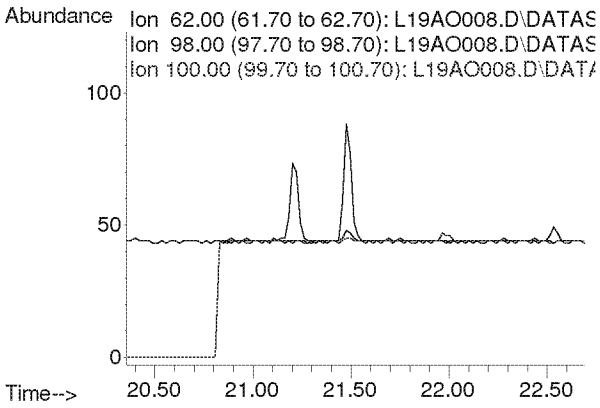


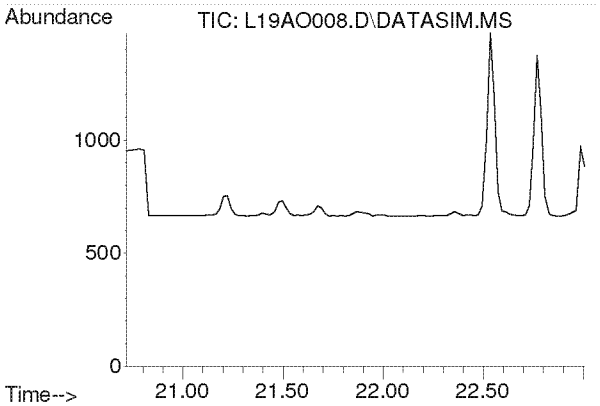
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



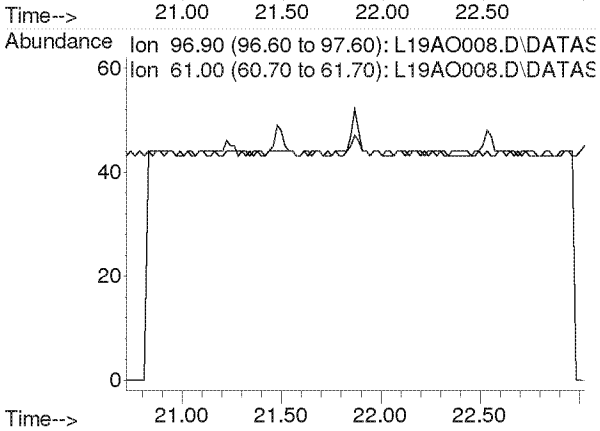


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

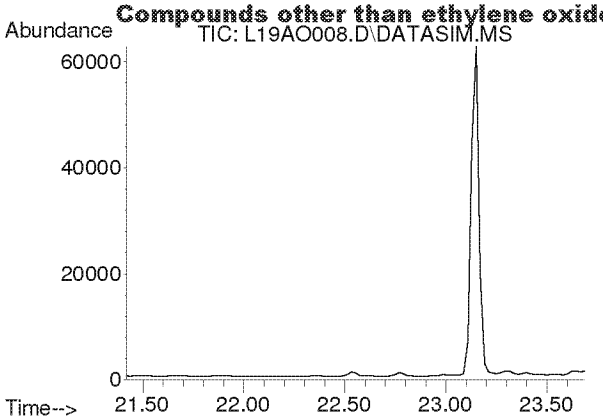
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

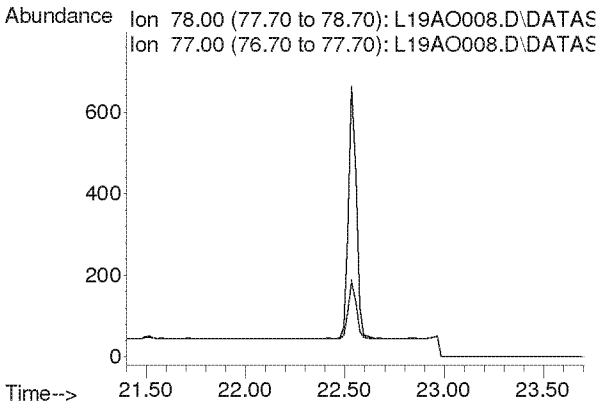


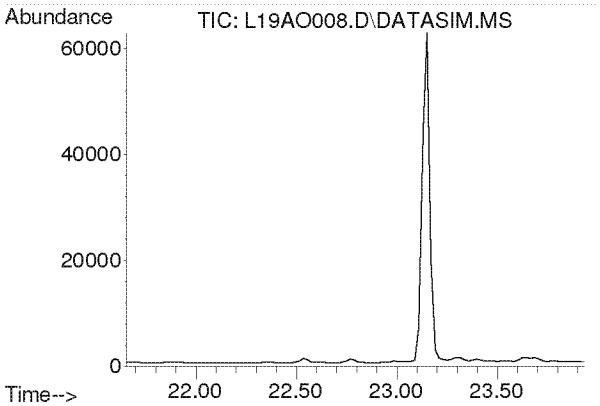
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



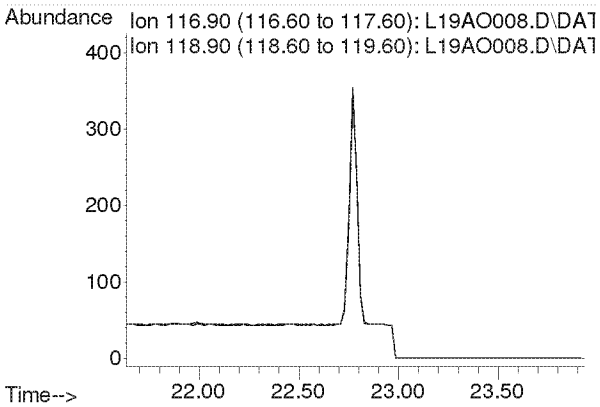


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

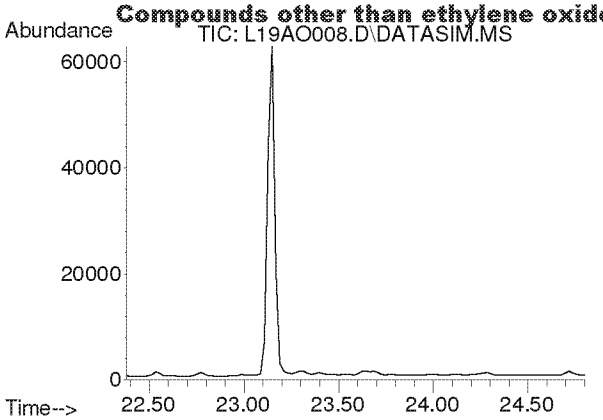
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

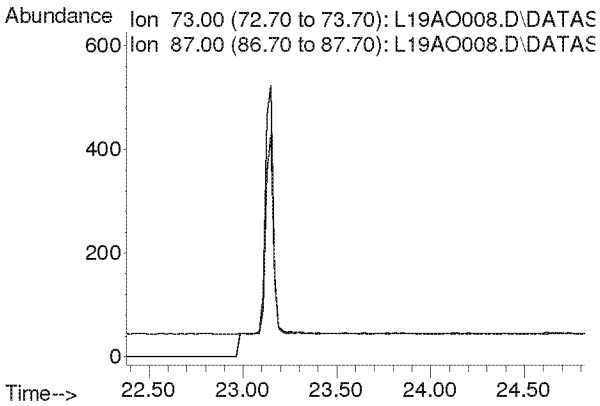


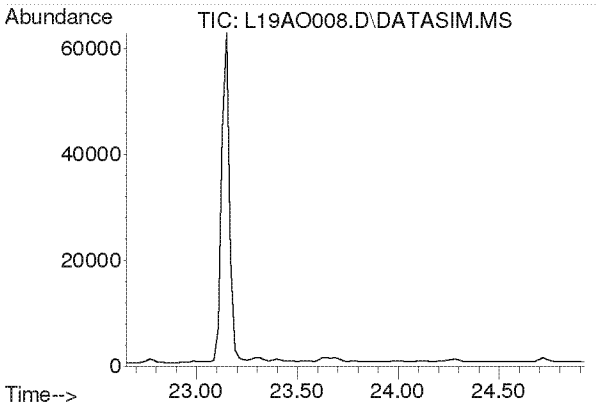
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



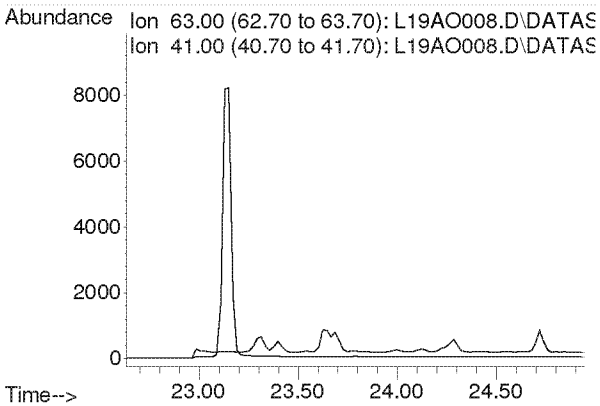


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

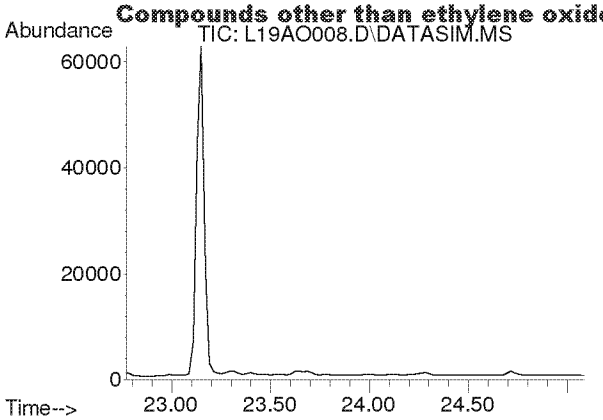
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

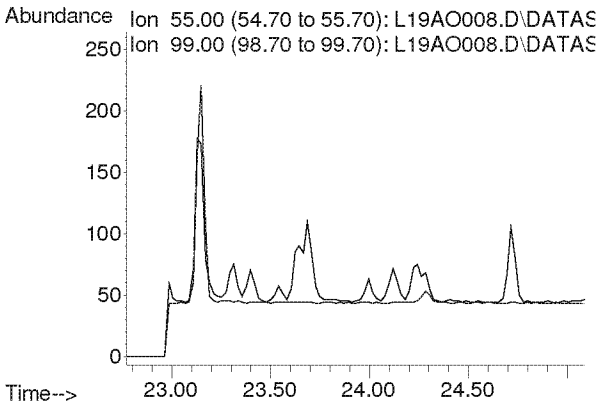


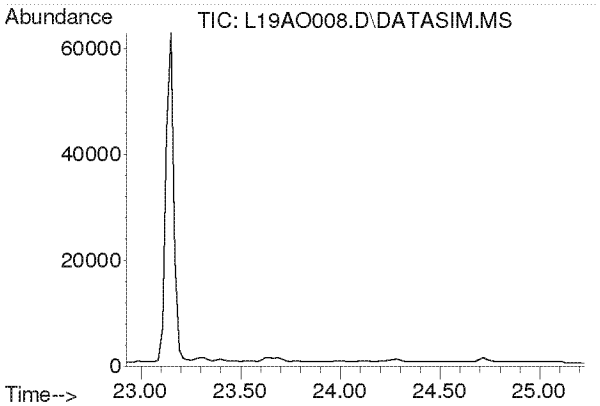
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



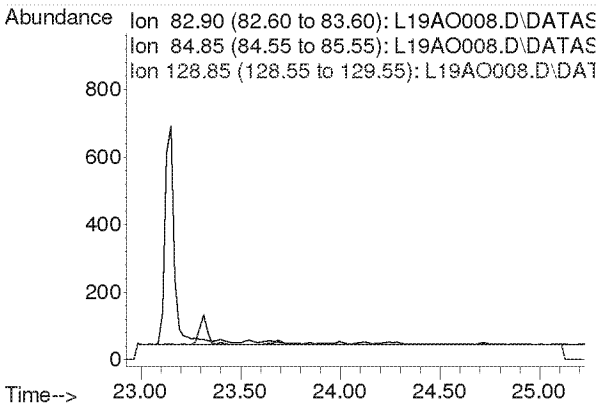


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

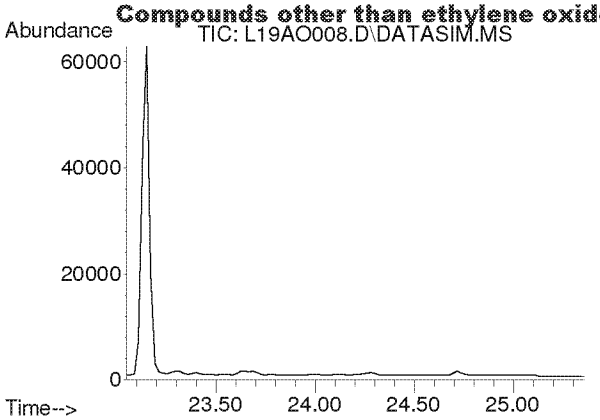
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

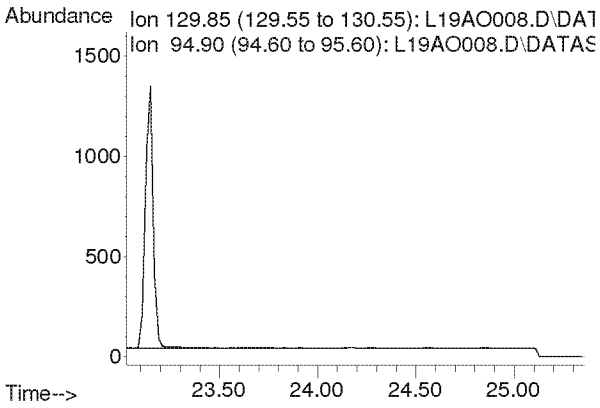


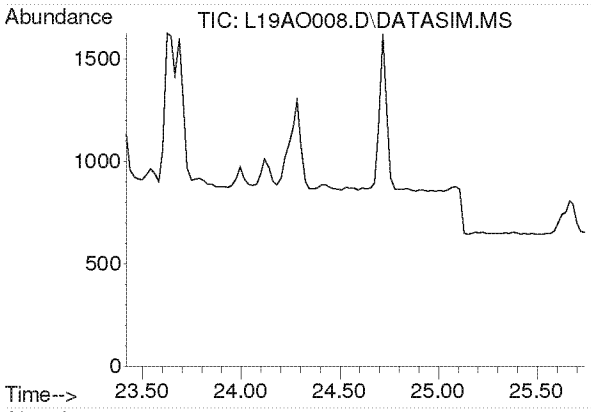
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



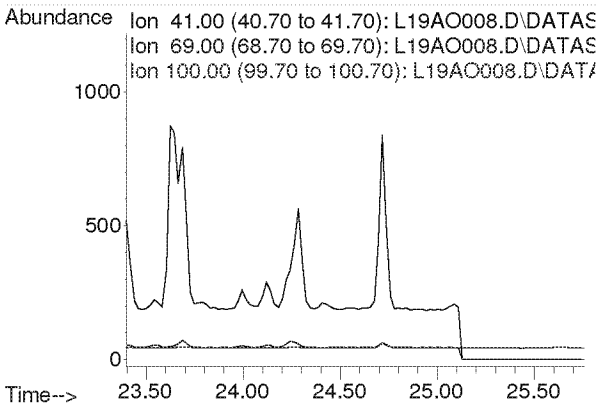


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

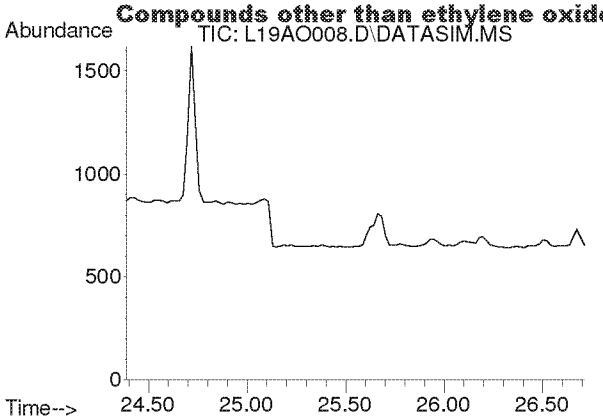
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

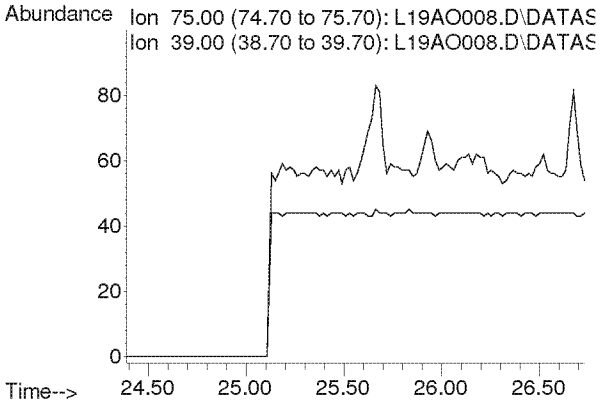


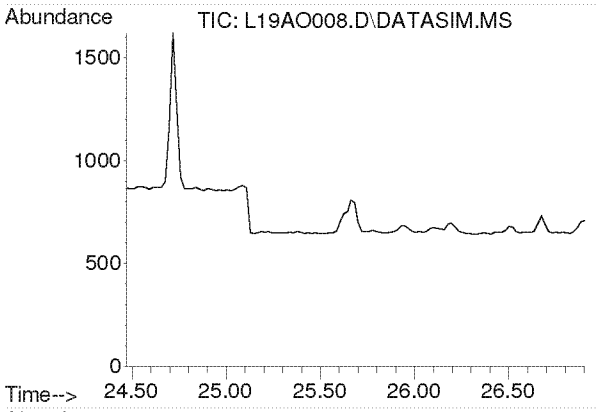
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



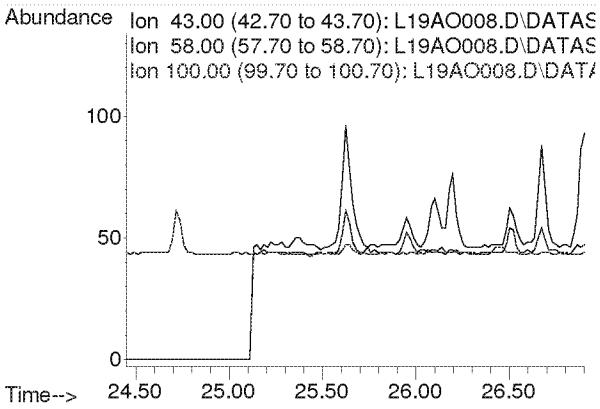


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

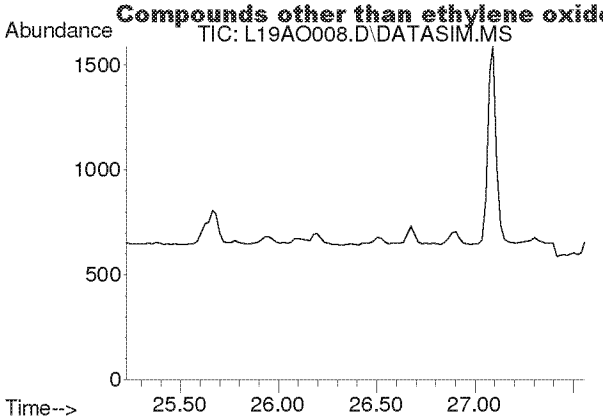
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

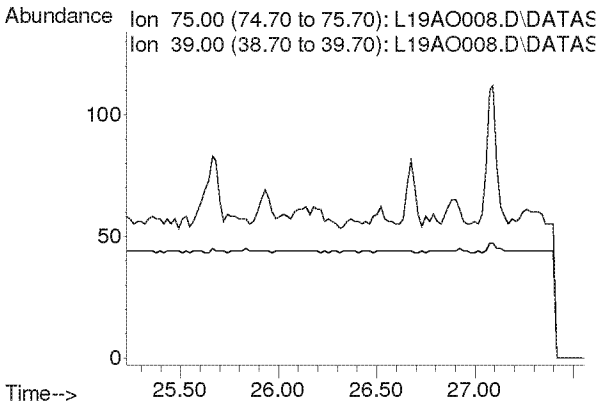


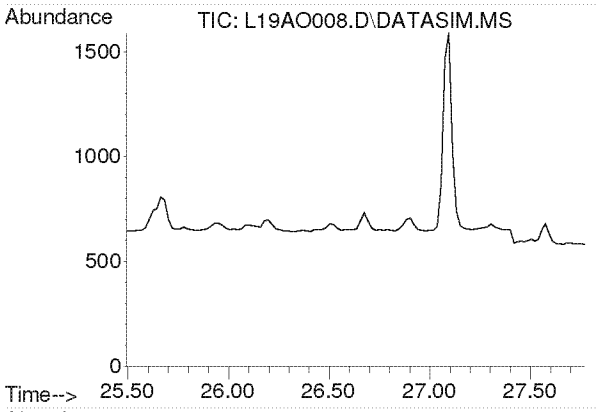
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



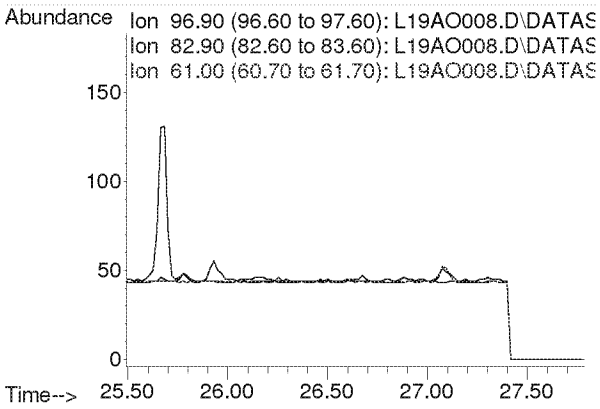


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

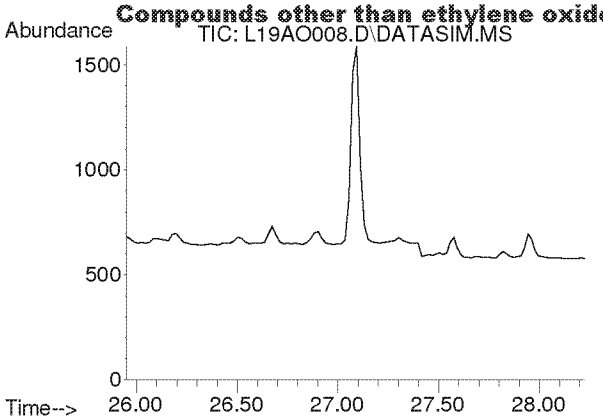
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

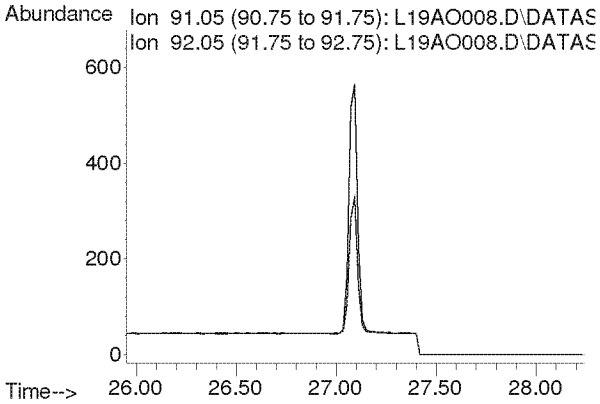


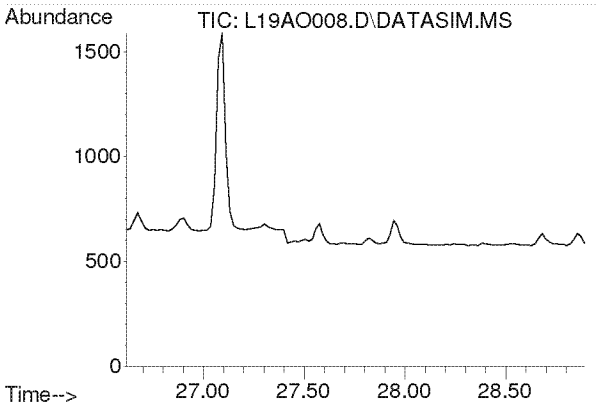
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



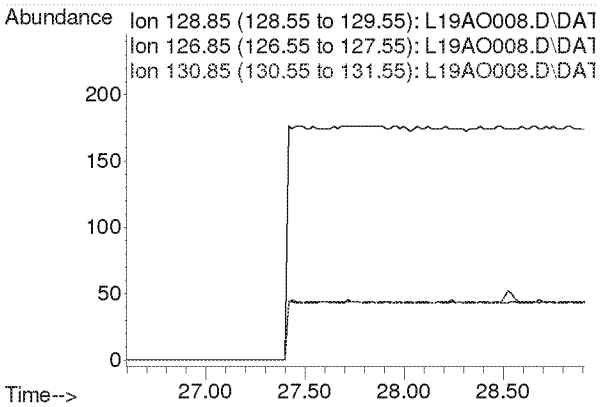


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

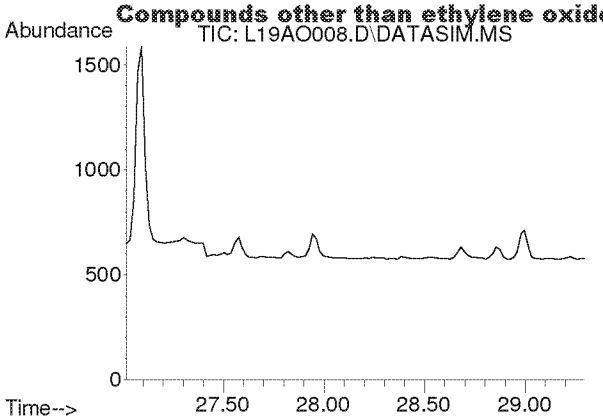
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

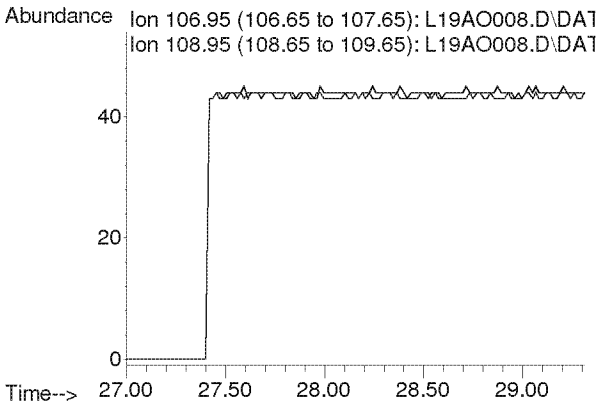


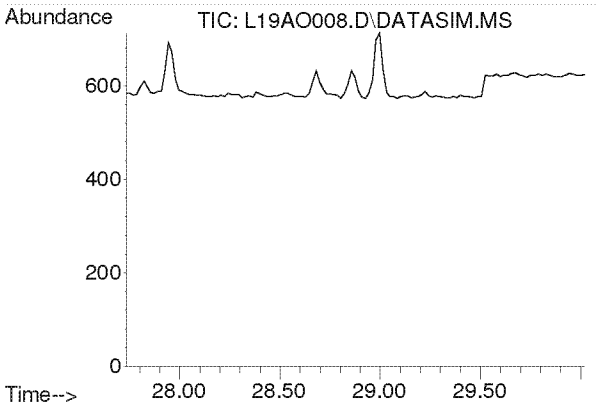
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



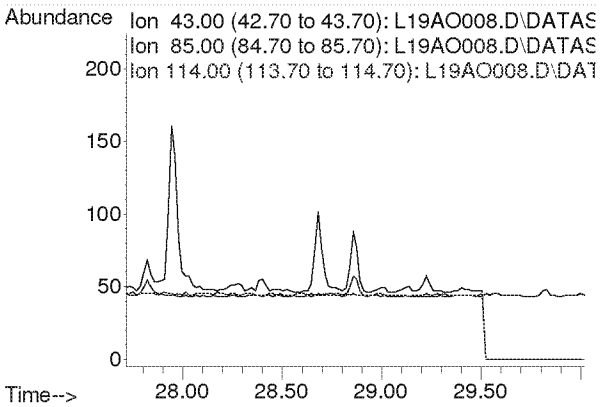


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

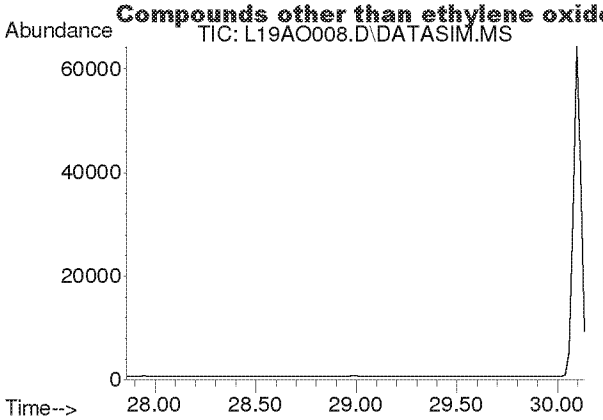
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

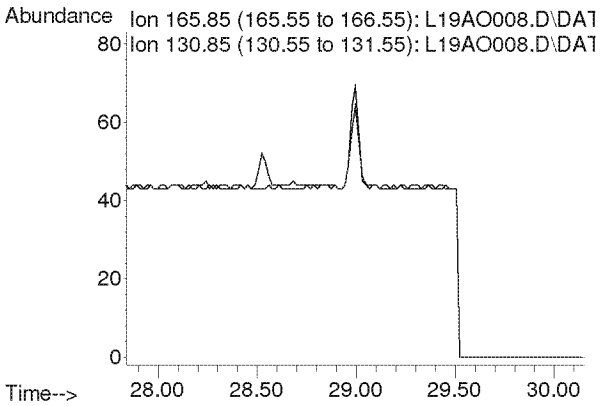


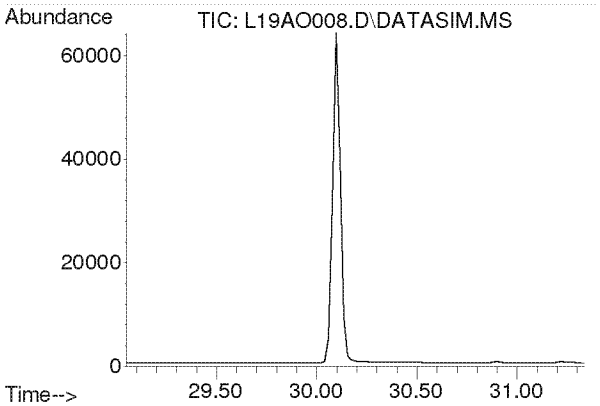
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



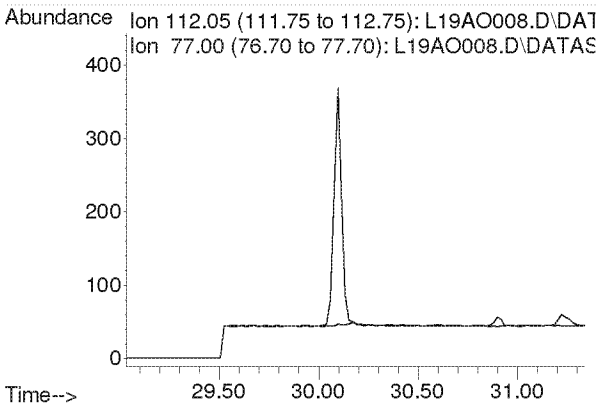


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

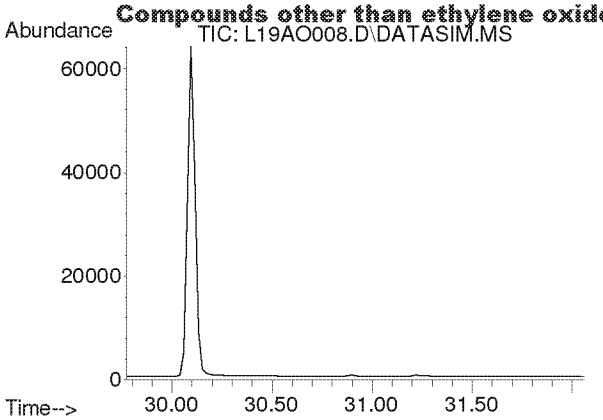
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

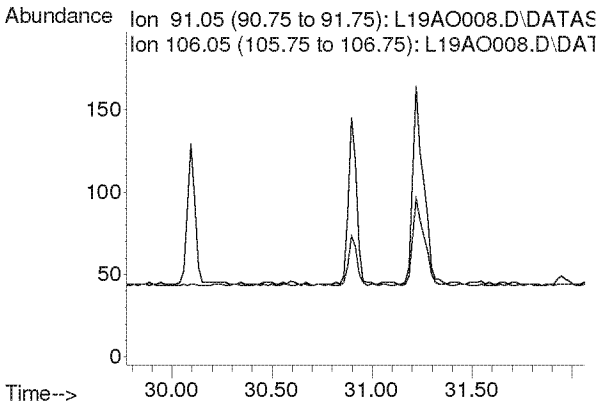


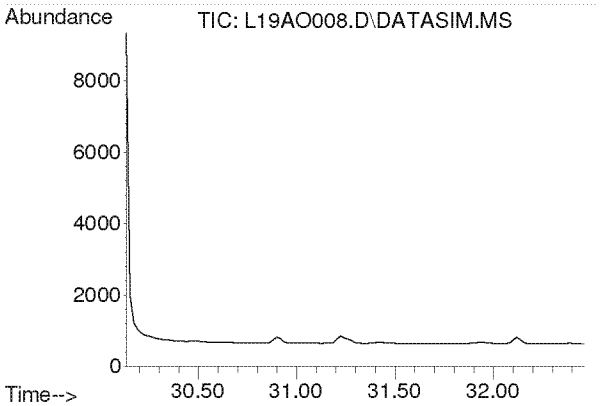
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



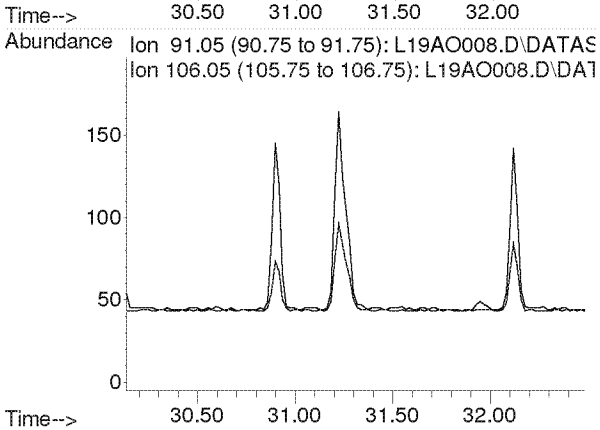


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

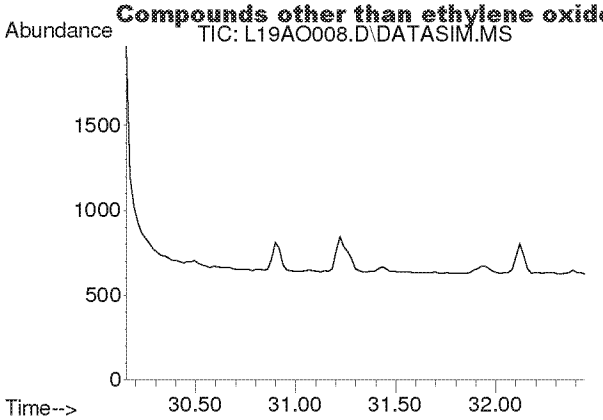
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

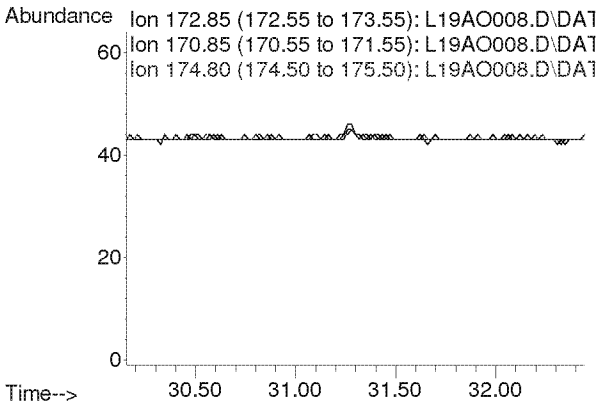


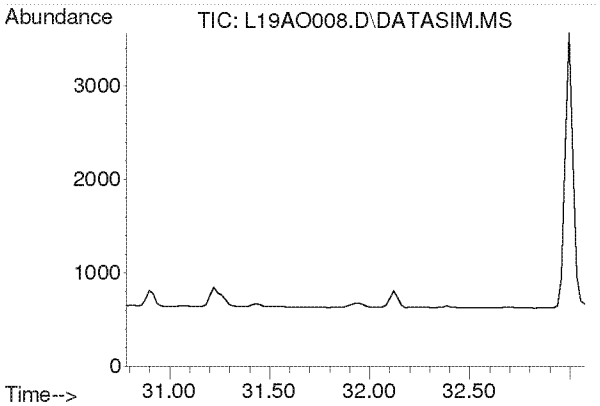
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



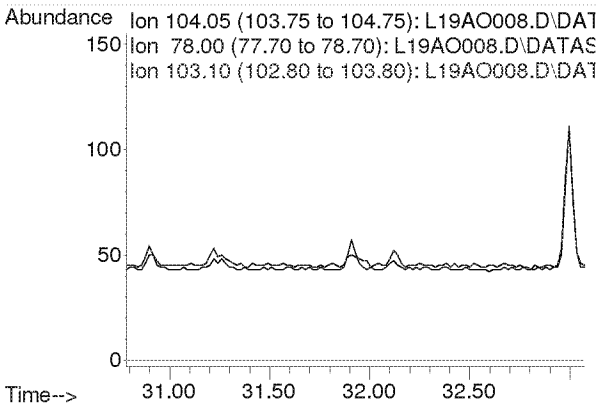


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

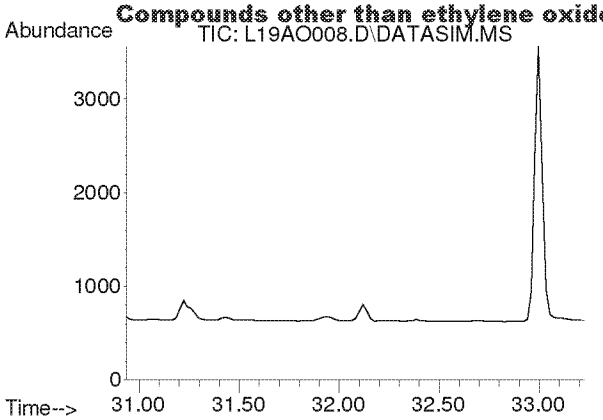
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

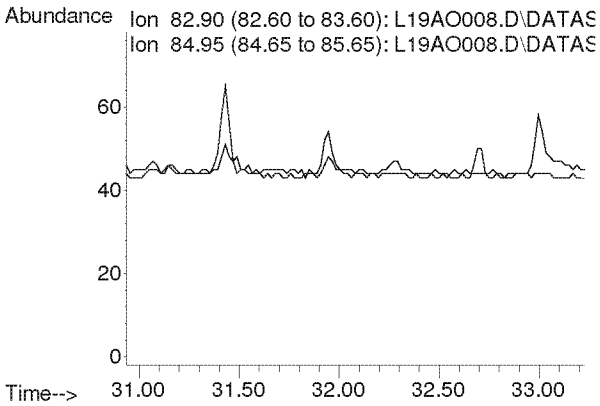


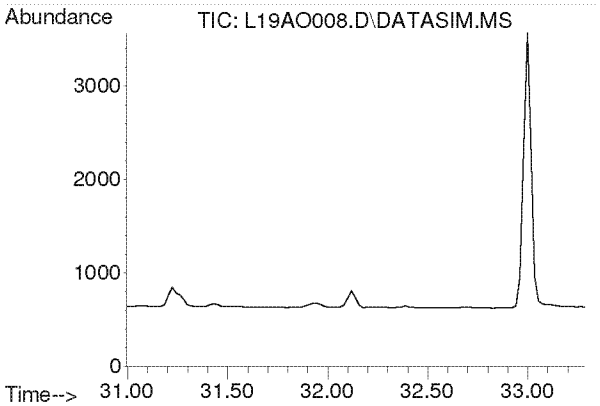
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



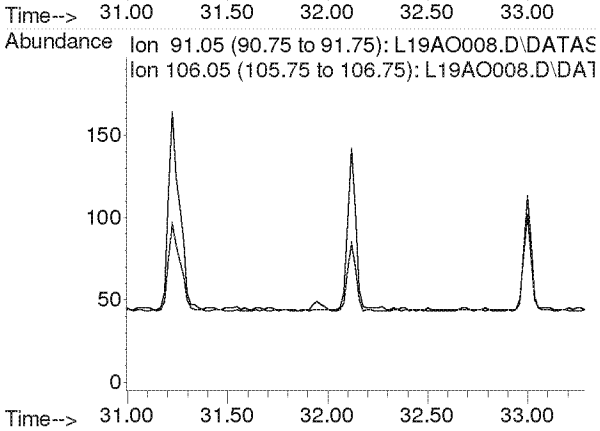


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

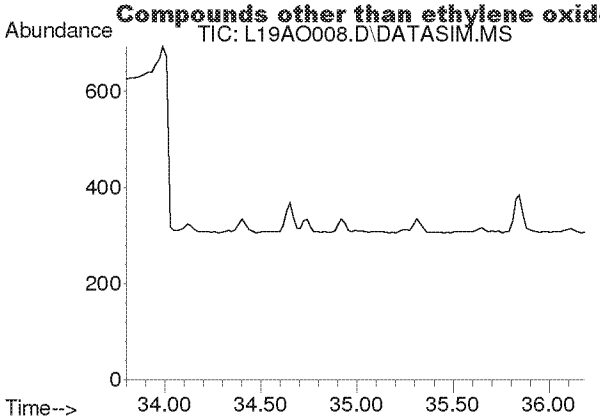
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

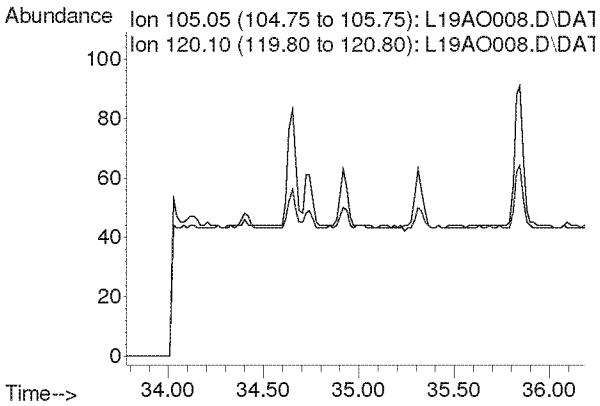


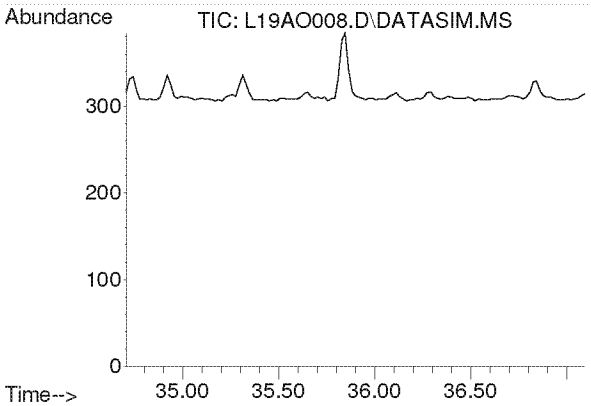
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



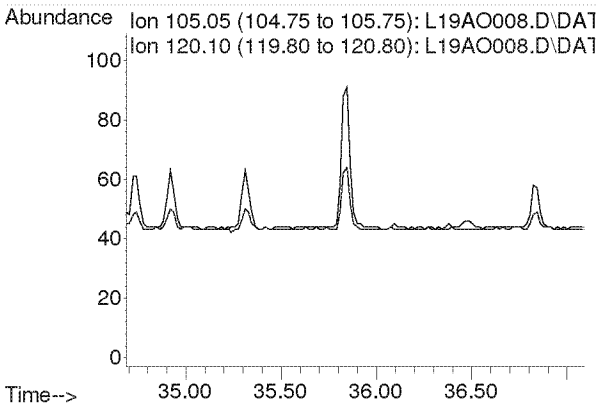


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

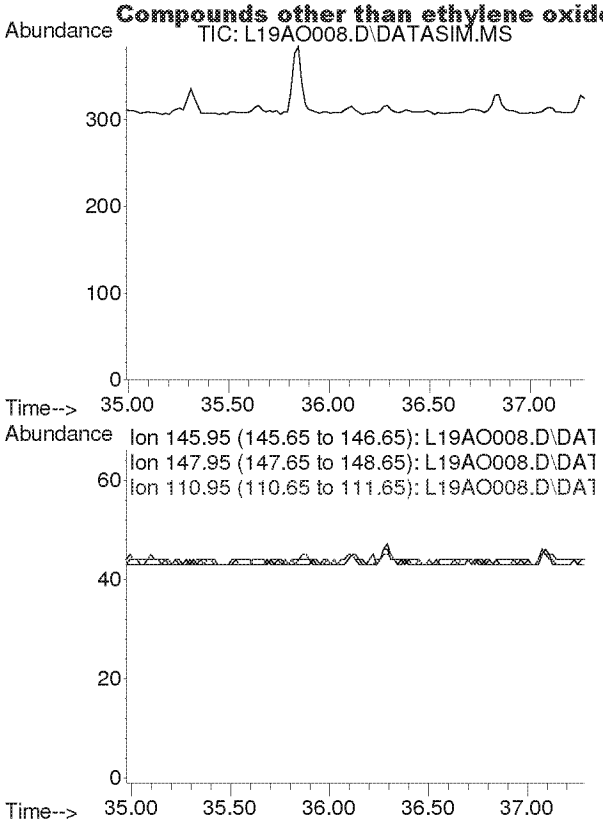
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

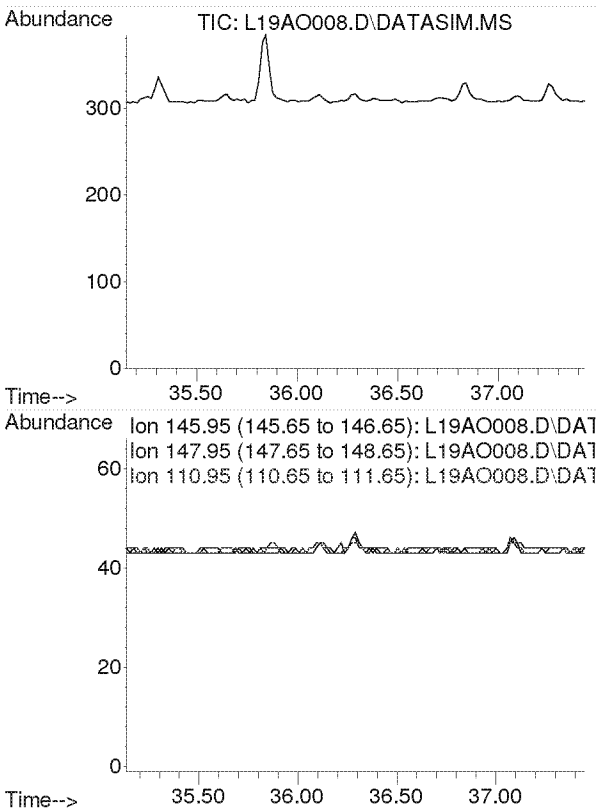


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



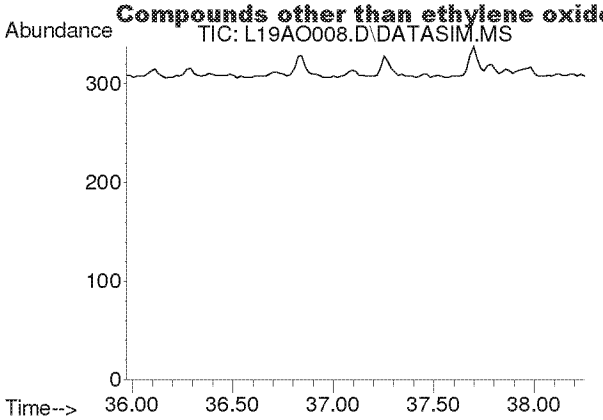
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

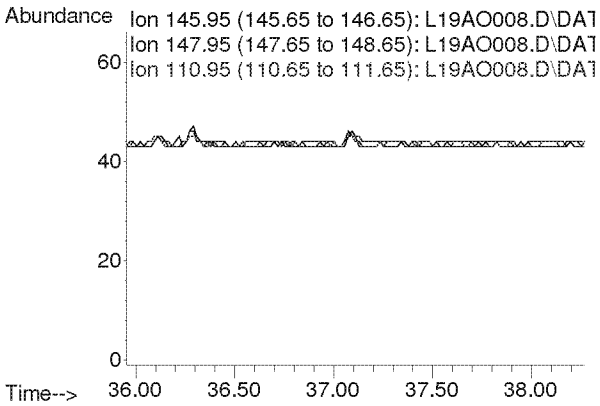


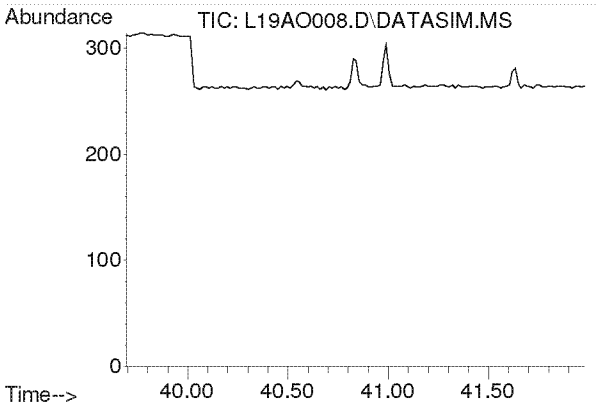
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



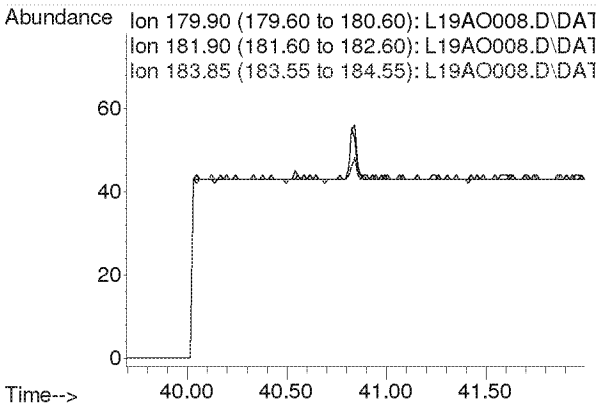


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

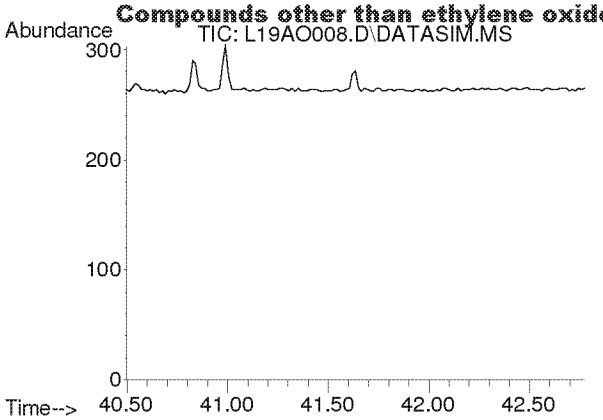
Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

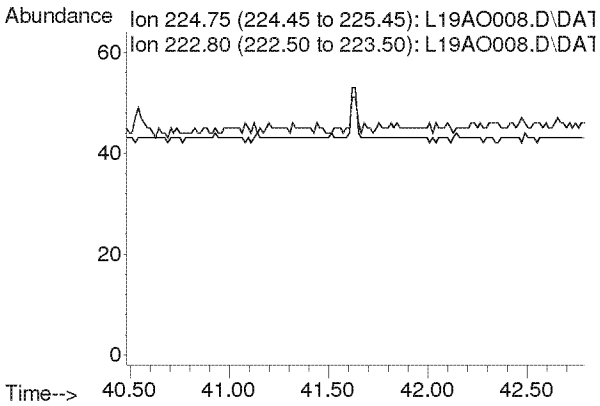


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AO008.D
Acq: 15 Jan 2019 4:31 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Duplicate Samples					
		D1	D2		
File ID		L19AO009.D	L19AO010.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9010401-04	9010401-09		
Mics Comments		EPA WB WAREHO	EPA WB WAREHOUSE C2 1/3/18		
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	0.2186	0.131	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

RLB 1/30/19

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

Y:\AIR TOX\TO-15 DUPTEST\DUPTEST_2018_NATTS\ETOX\EPA WB WAREHOUSE 1_3_19.xlsx
DUPTEST 2017 TEMPLATE 012517

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Replicate Analyses

		D1	R1		
File ID		L19AO009.D	L19AO011.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9010401-04	B9A1508-DUP1		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R1 1/3/18		
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	0.2186	0.2289	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

Comparison of Replicate Analyses

		D2	R2		
File ID		L19AO010.D	L19AO012.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9010401-09	B9A1508-DUP2		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R2 1/3/18		
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	0.131	0.171	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO009.D
Acq On : 15 Jan 2019 5:33 pm
Operator : MAH
Sample : 9010401-04
Misc : EPA WB WAREHOUSE XX 1/3/18 C2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 22 11:25:38 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

KLB 1/30/19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	54568	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	131899	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	105396	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	616m	0.2186 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO009.D
Acq On : 15 Jan 2019 5:33 pm
Operator : MAH
Sample : 9010401-04
Misc : EPA WB WAREHOUSE ~~XX~~ 1/3/18 C2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 22 11:25:38 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

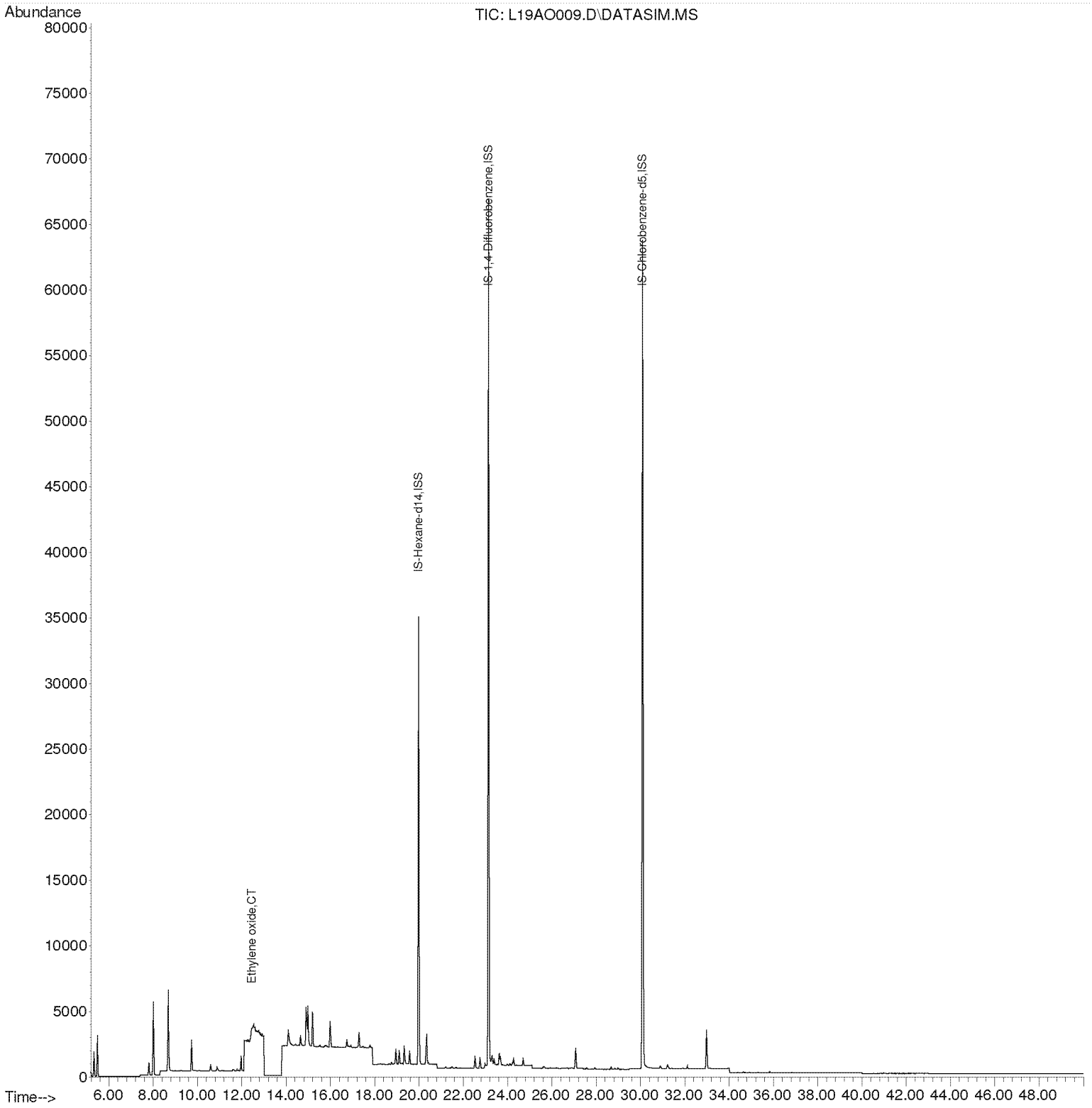
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d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

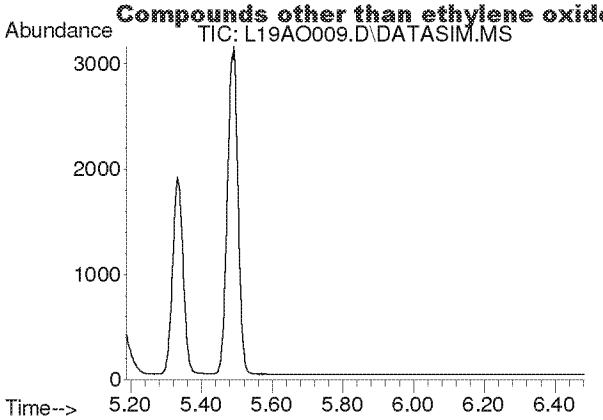
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO009.D
Acq On : 15 Jan 2019 5:33 pm
Operator : MAH
Sample : 9010401-04
Misc : EPA WB WAREHOUSE C1 1/3/18
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 22 11:25:38 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



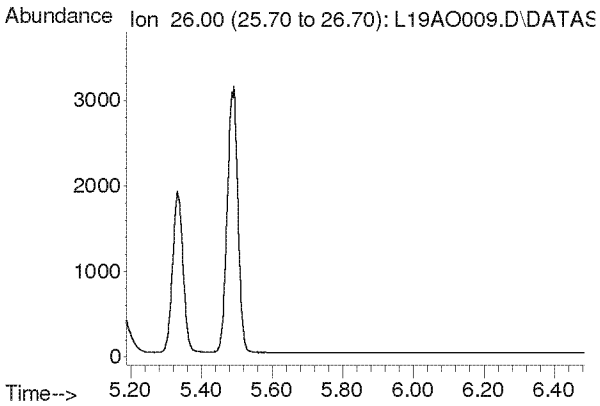
Compounds other than ethylene oxide were not quantitated.

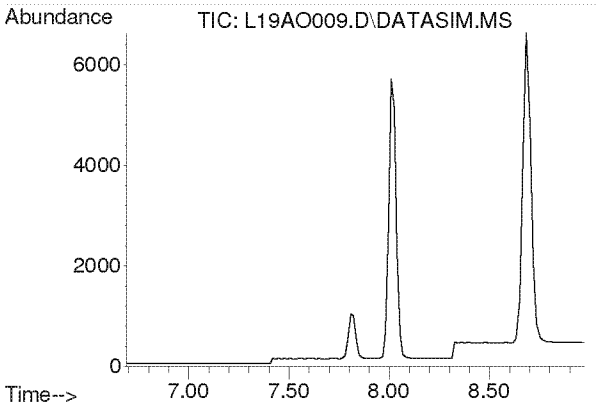


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 26



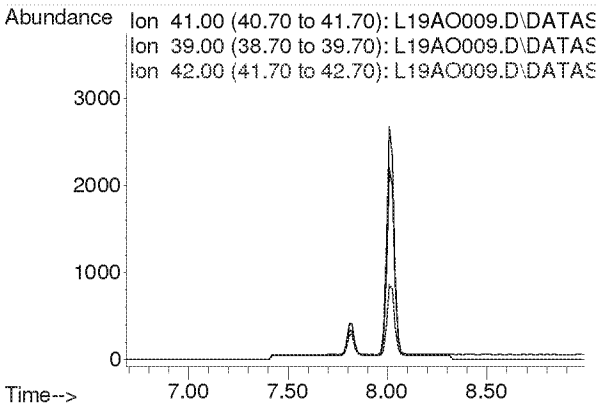


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

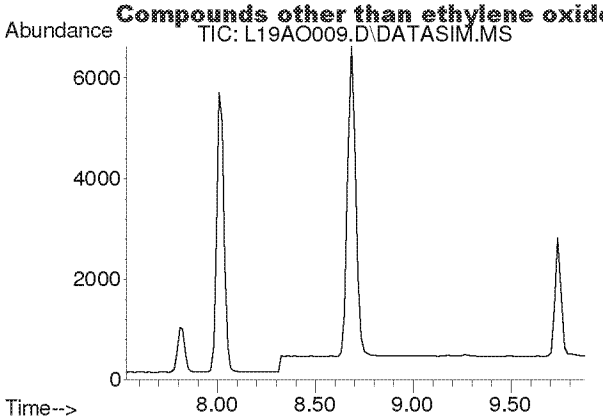
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

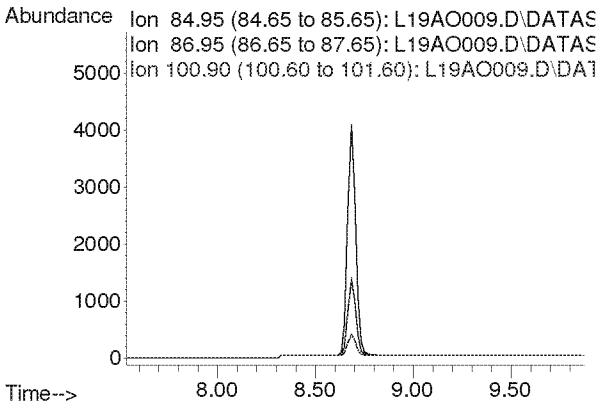


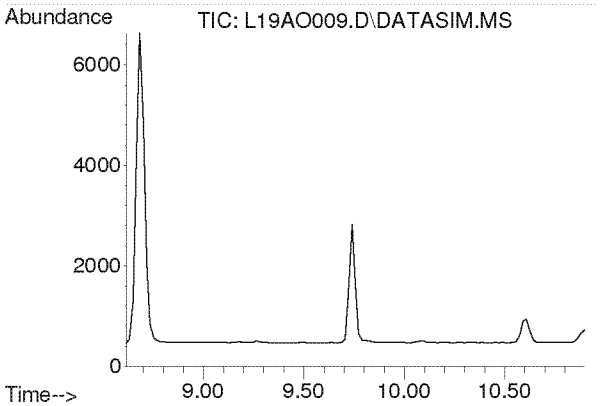
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



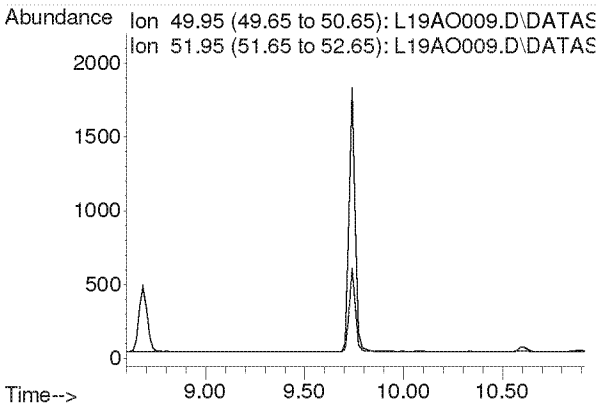


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

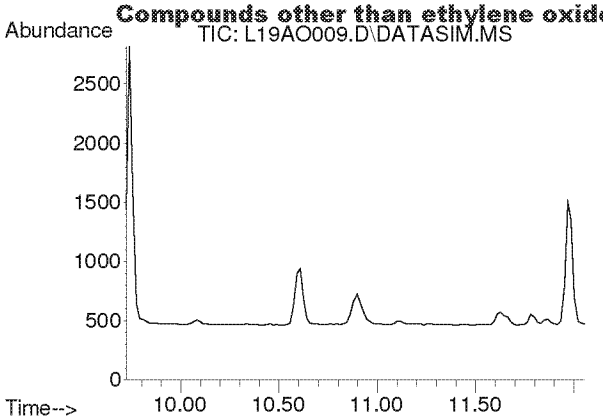
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

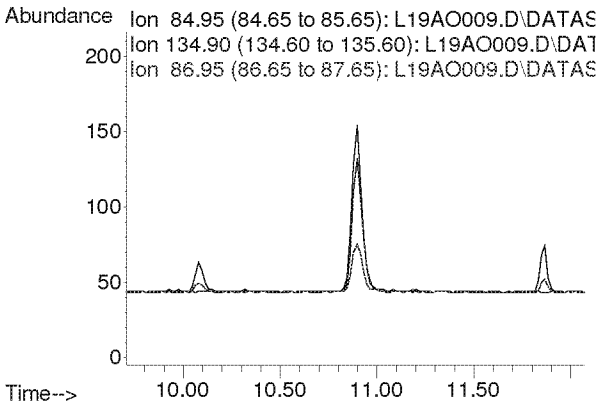


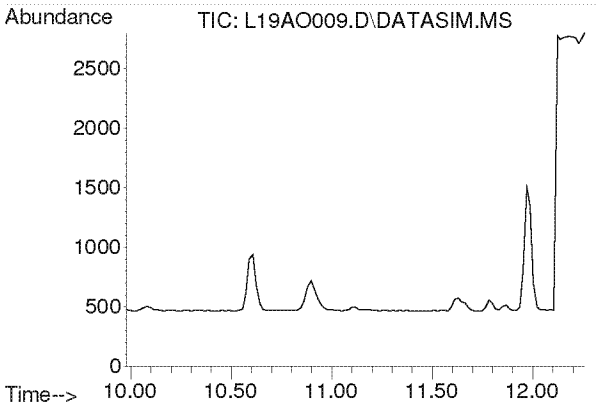
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



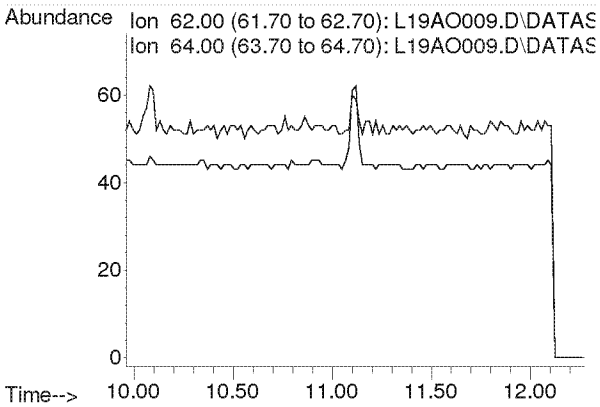


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

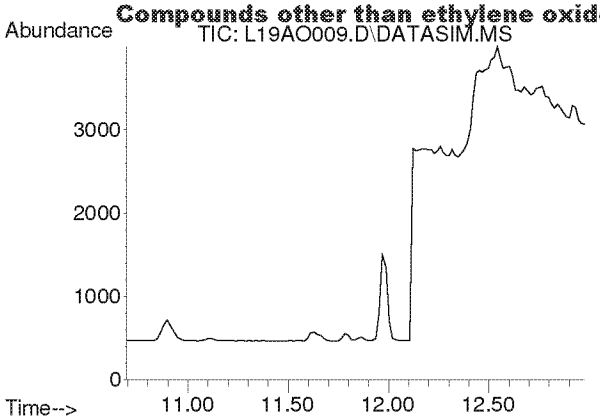
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

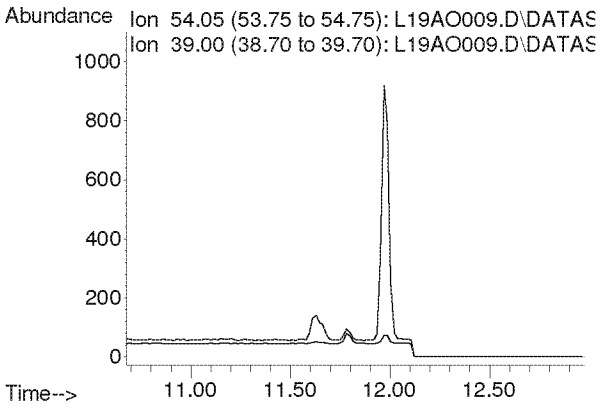


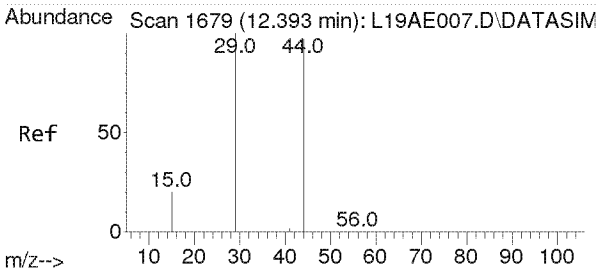
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

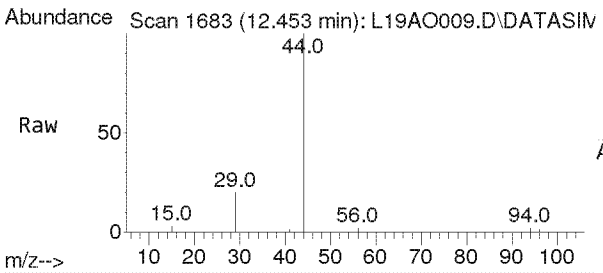


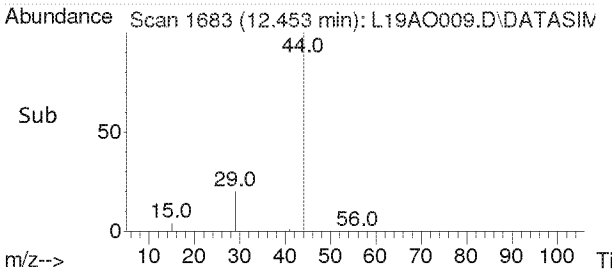


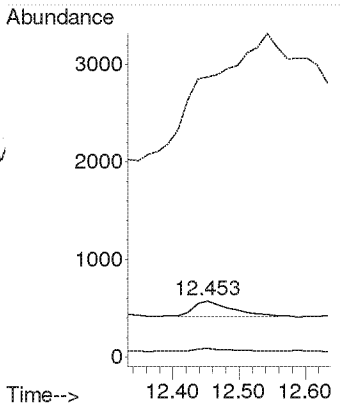
#9
Ethylene oxide
Concen: 0.219 ppbv m
RT: 12.453 min Scan# 1683
Delta R.T. 0.060 min
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 29 Resp: 616

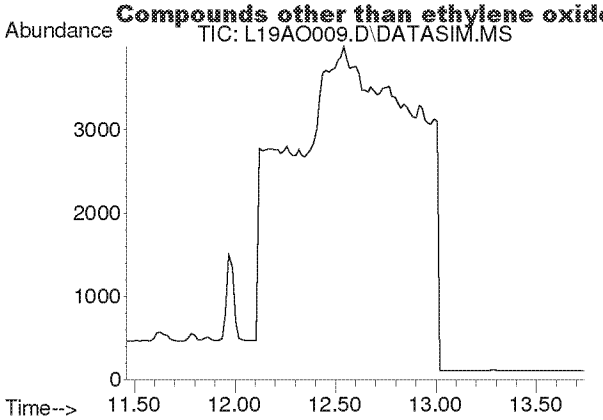
Ion	Ratio	Lower	Upper
29	100		
15	19.8	15.4	23.0
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

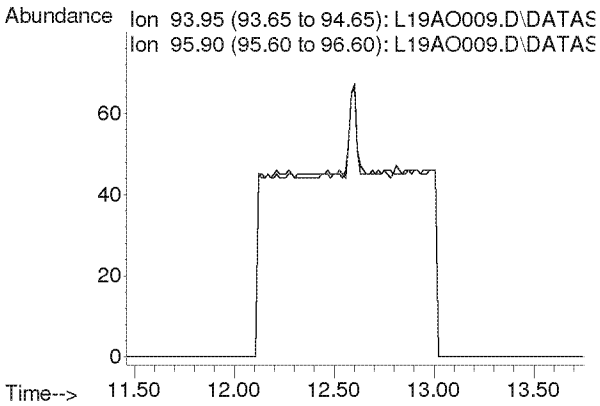


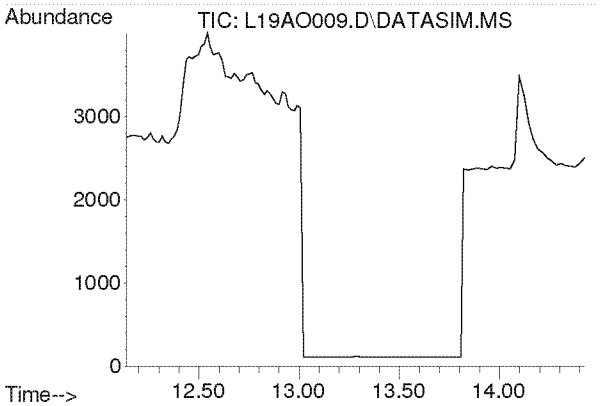
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



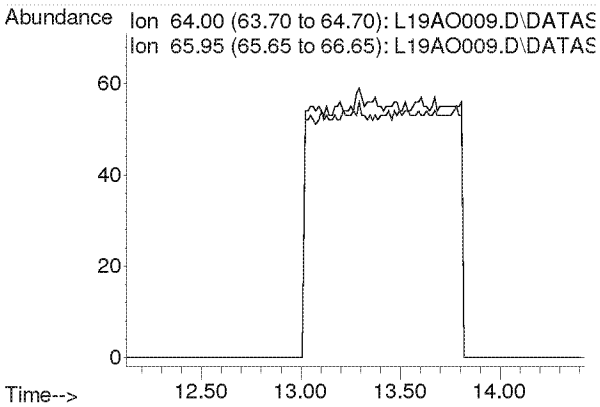


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

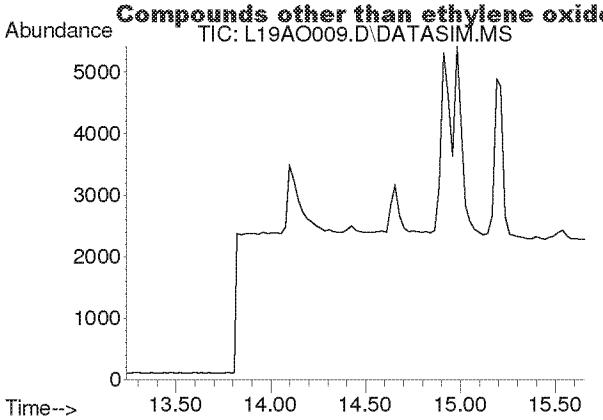
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

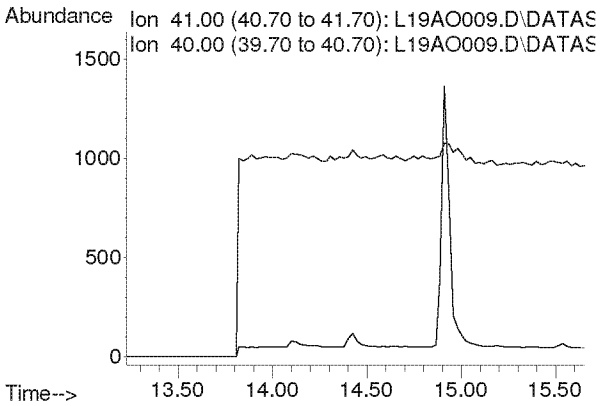


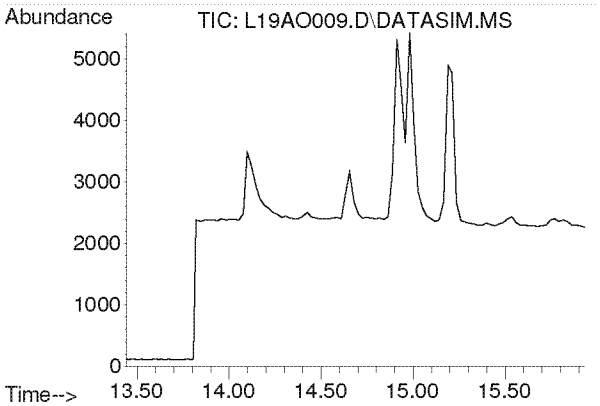
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



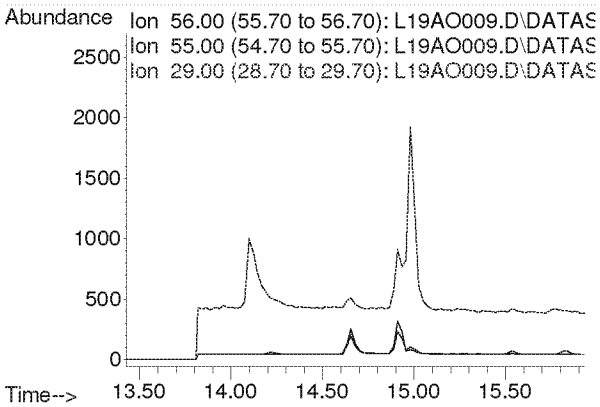


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

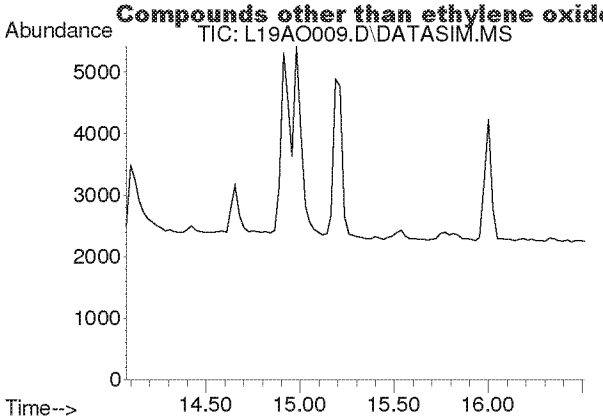
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

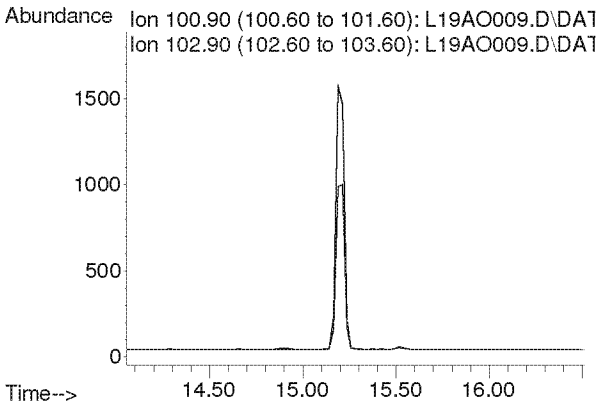


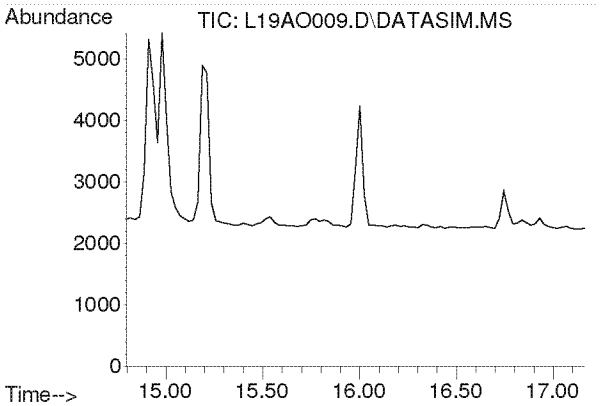
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



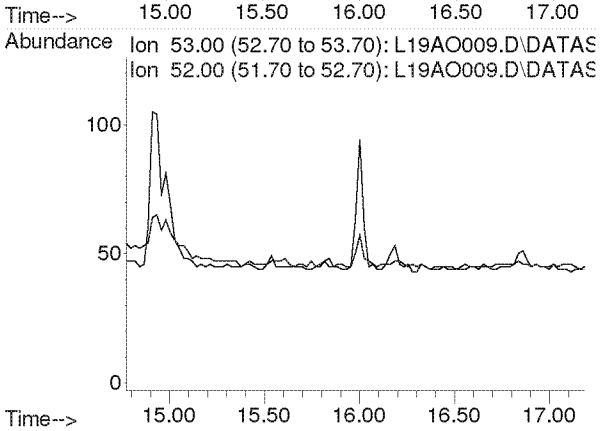


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

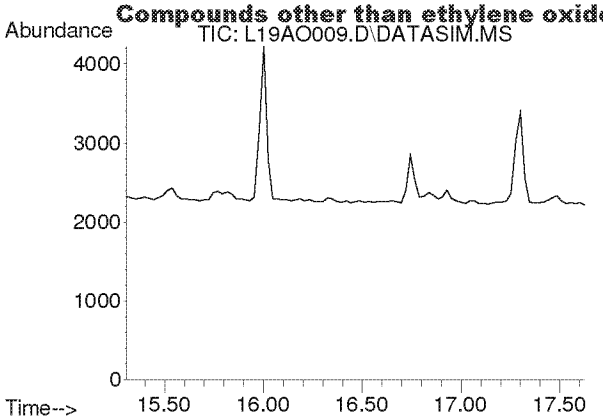
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

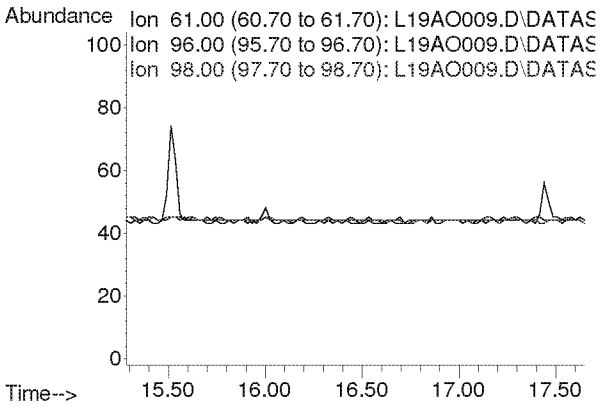


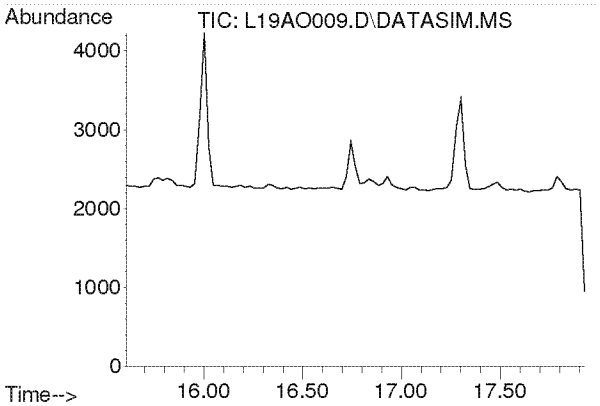
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



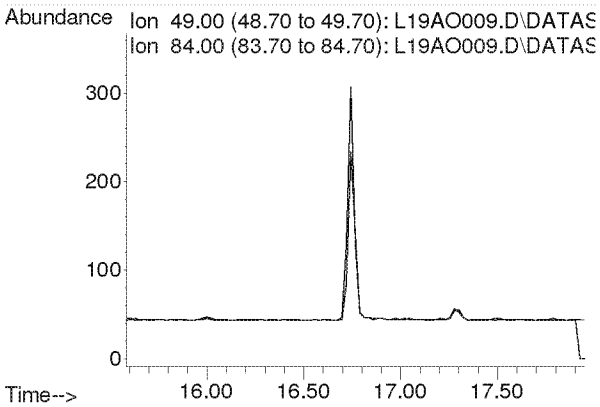


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

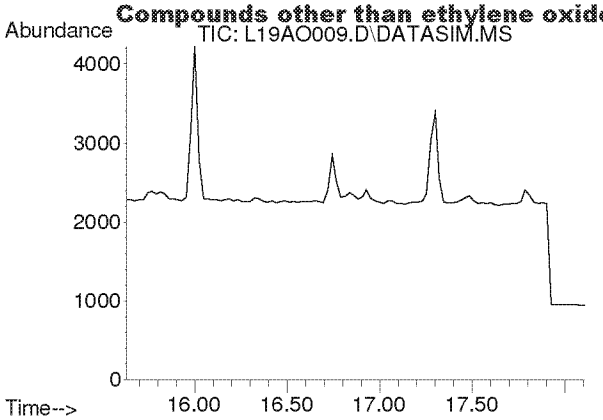
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

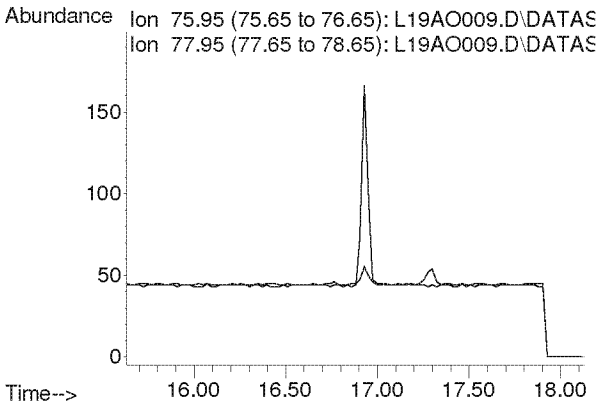


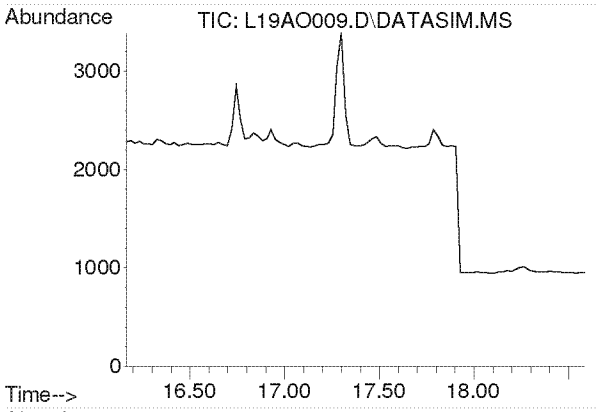
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



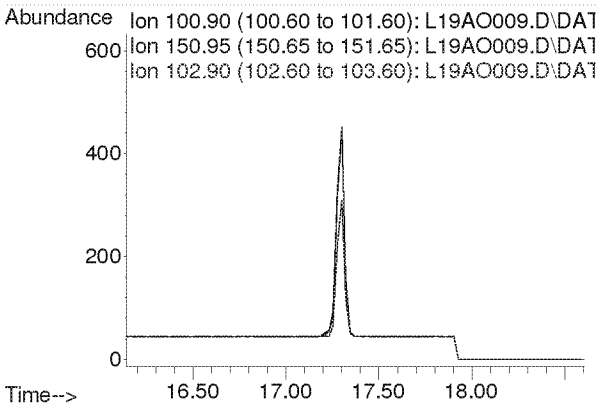


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

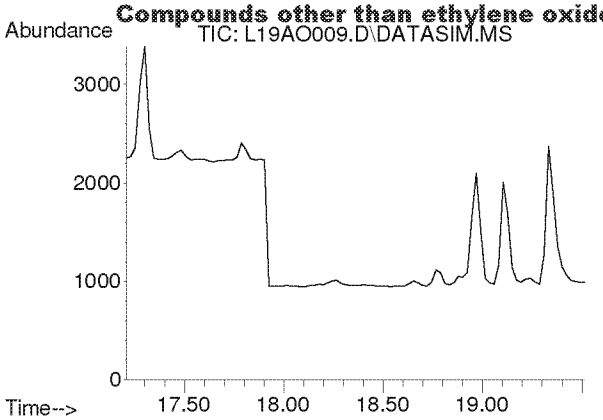
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

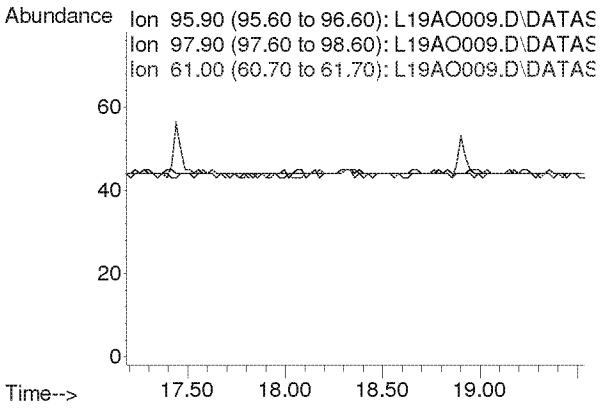


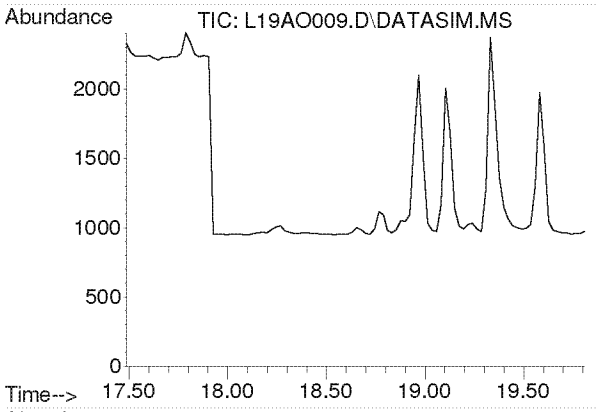
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



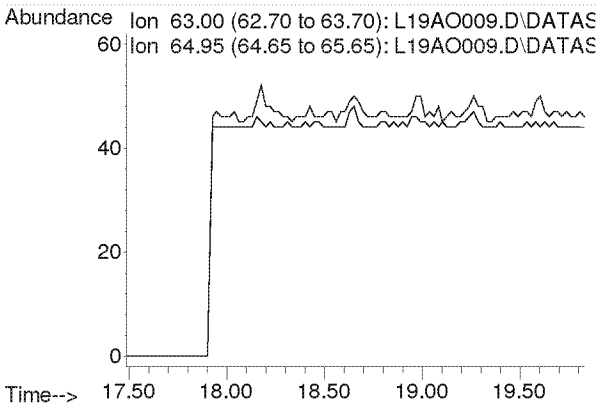


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

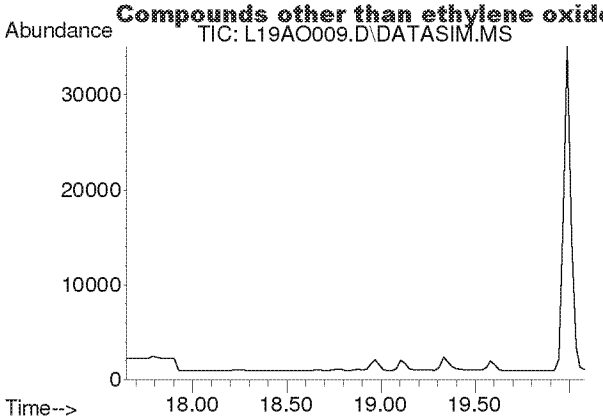
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

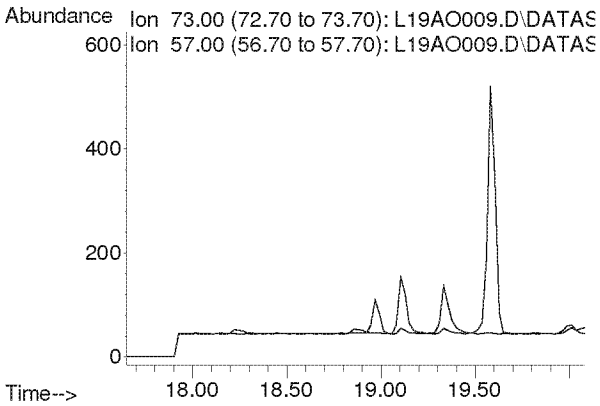


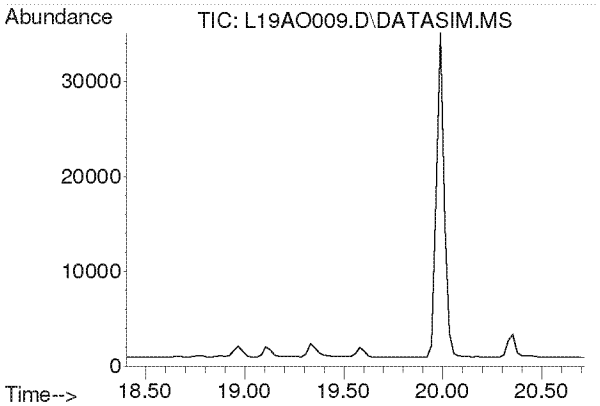
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



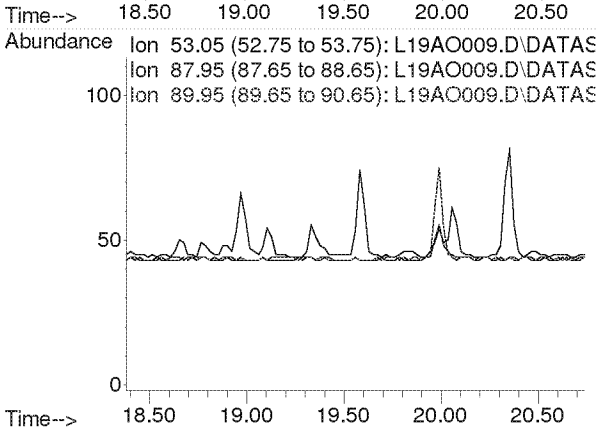


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

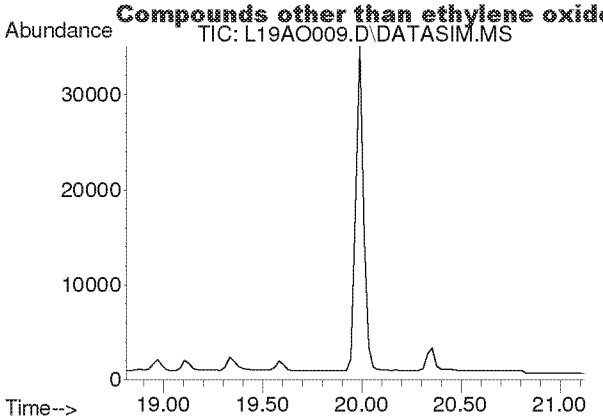
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

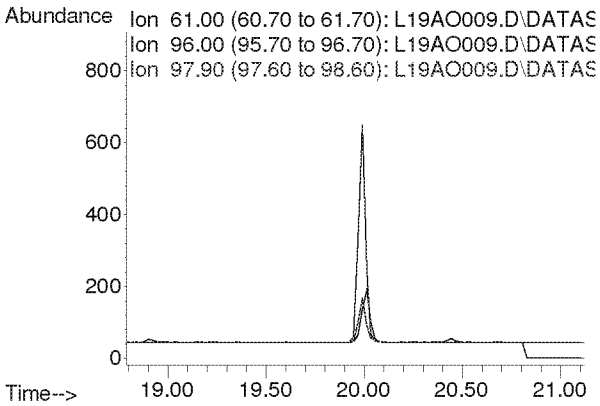


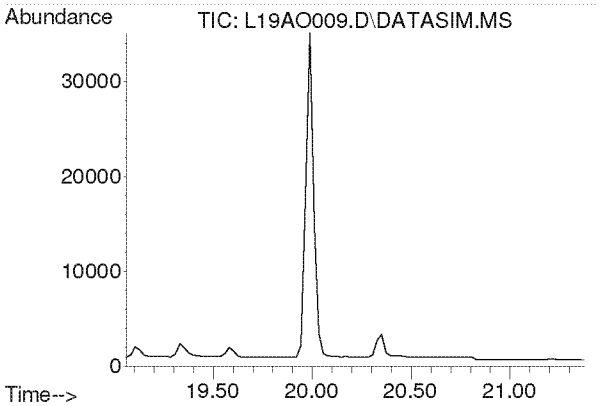
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



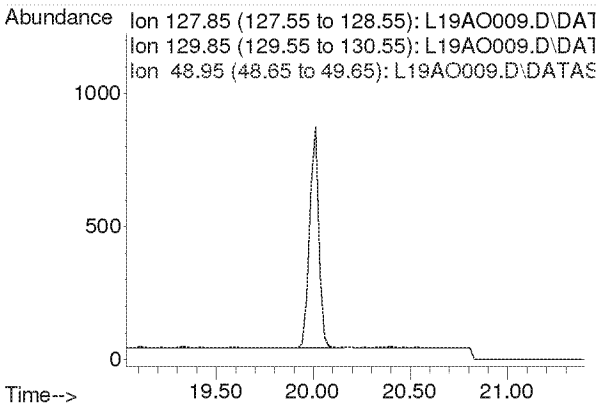


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

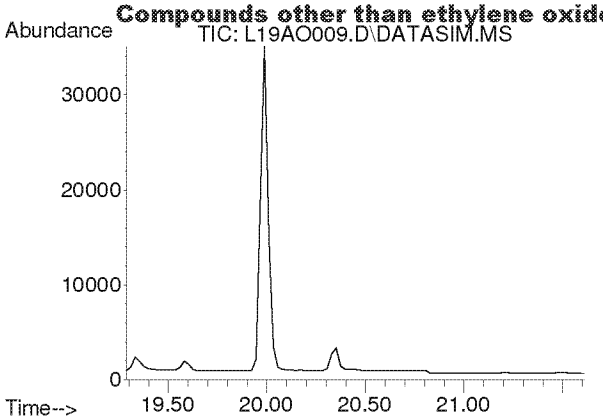
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

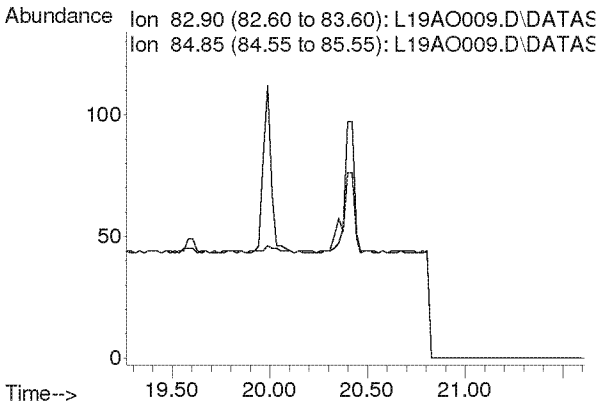


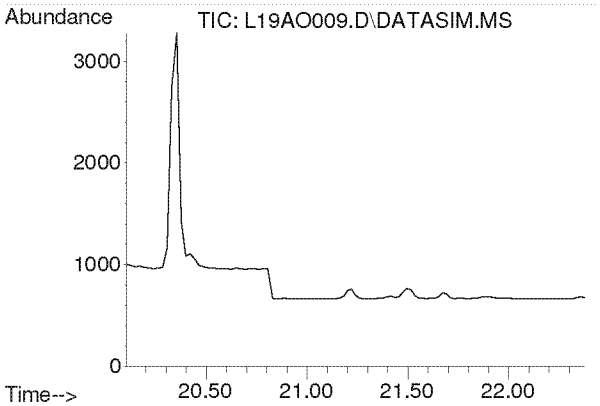
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



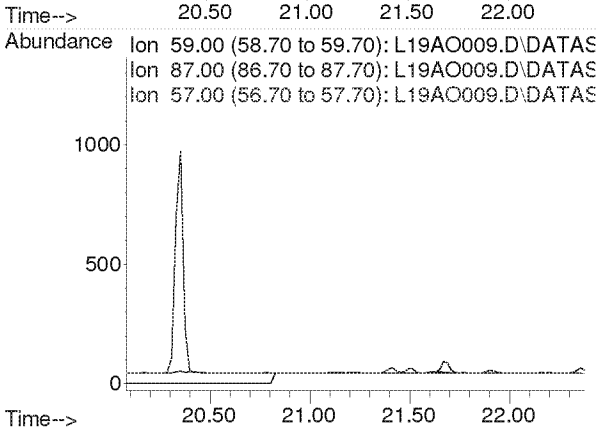


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

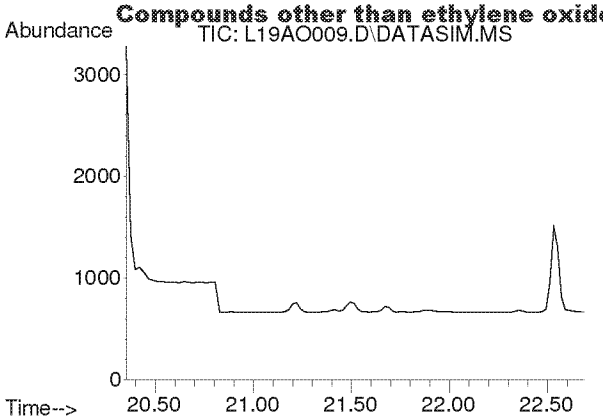
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

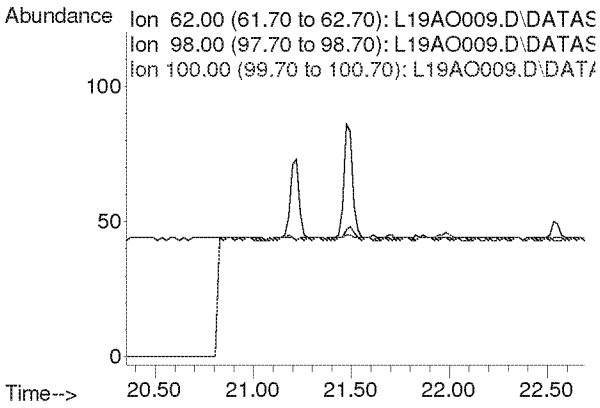


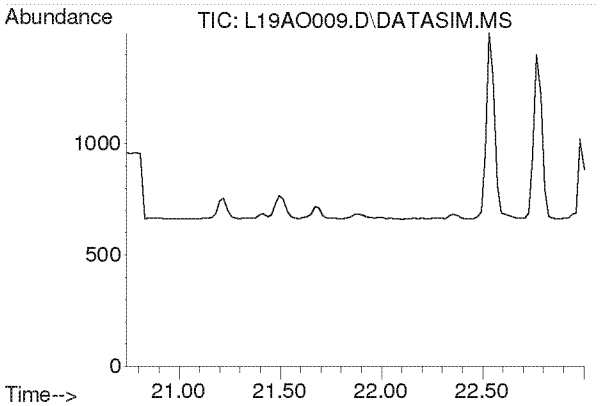
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



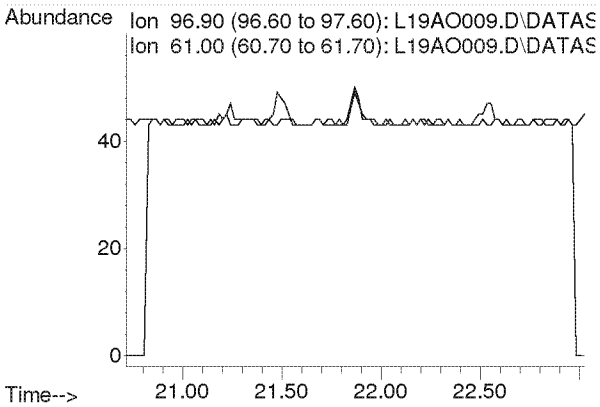


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

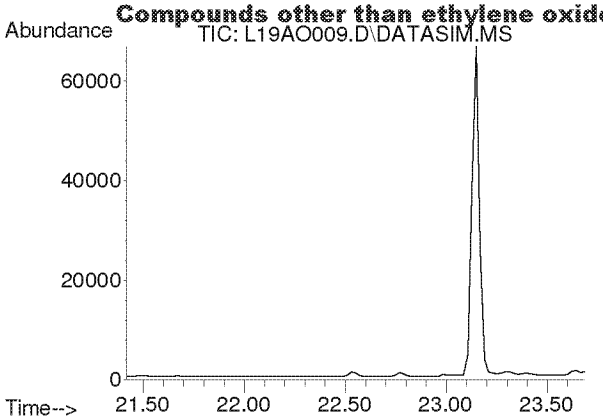
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

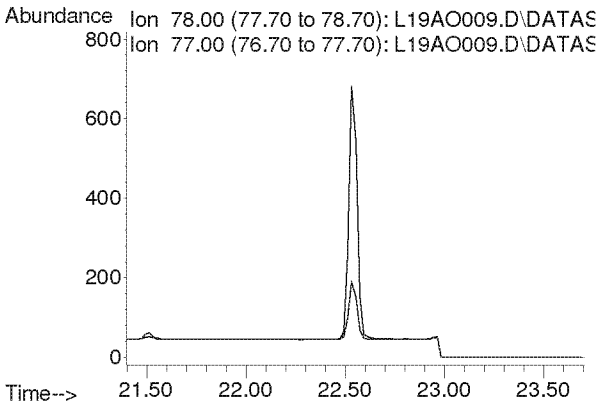


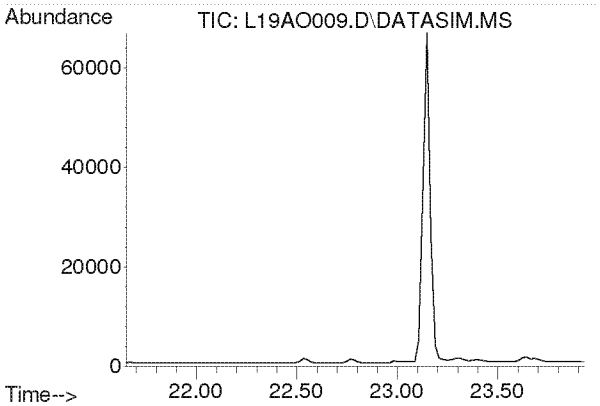
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



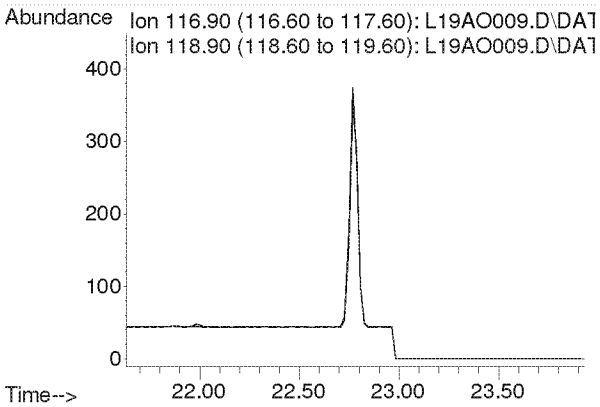


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

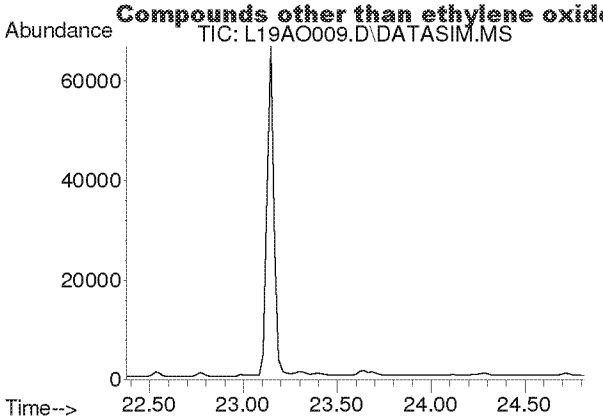
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

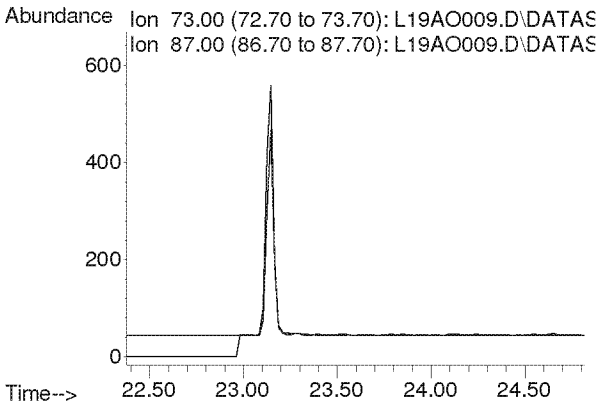


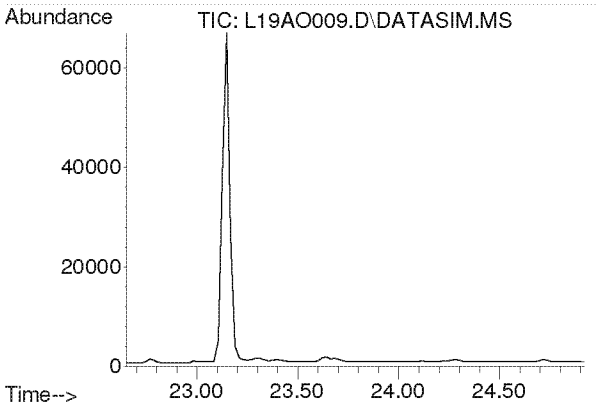
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



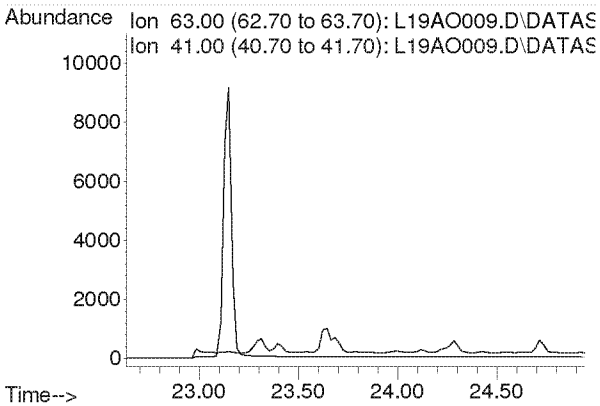


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

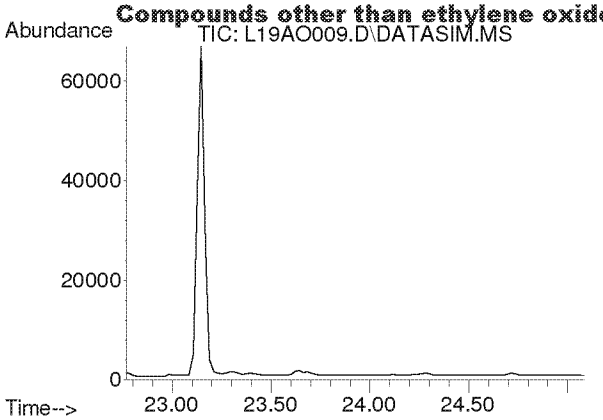
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

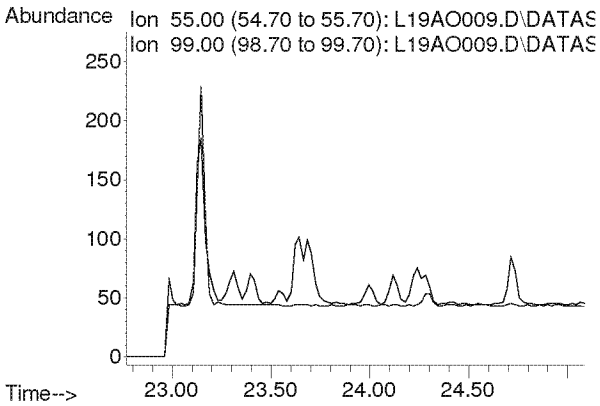


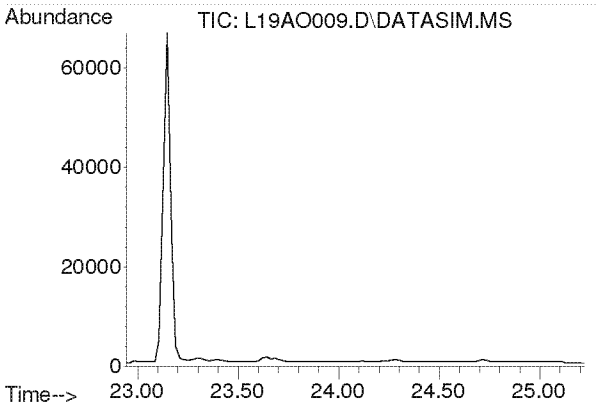
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



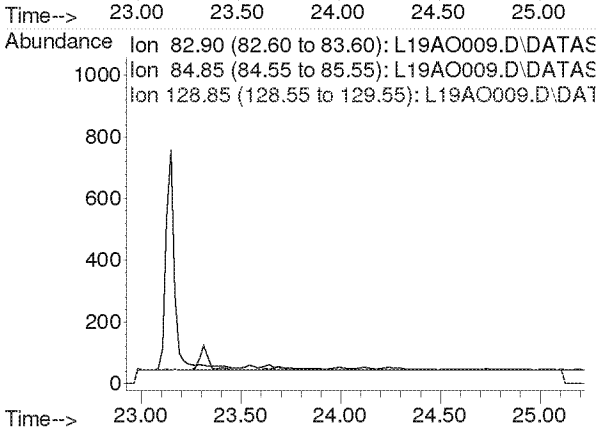


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

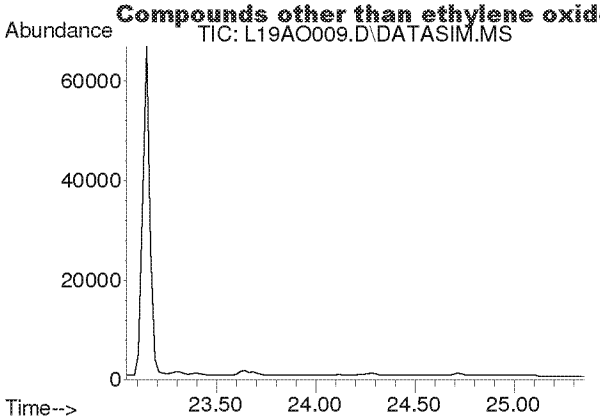
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

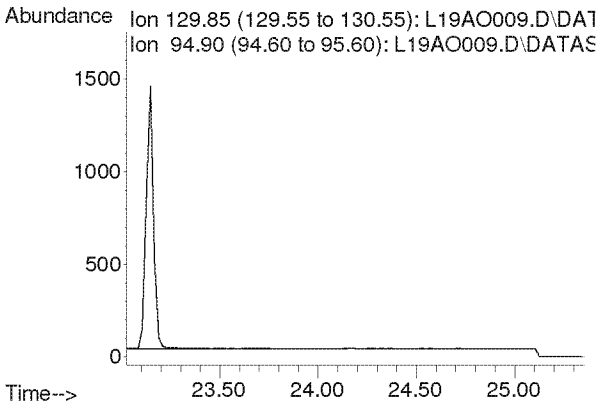


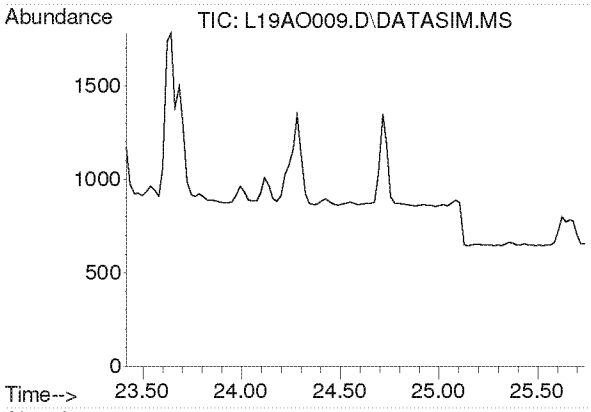
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



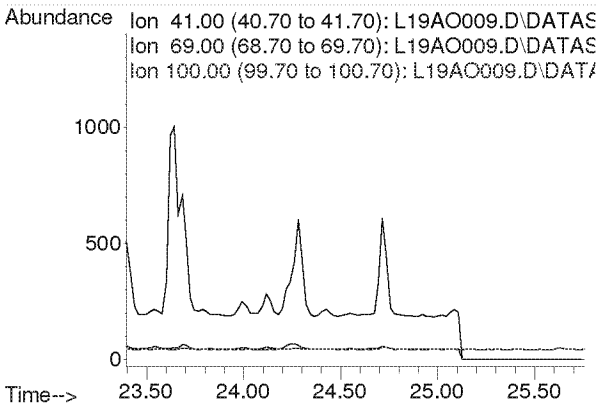


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

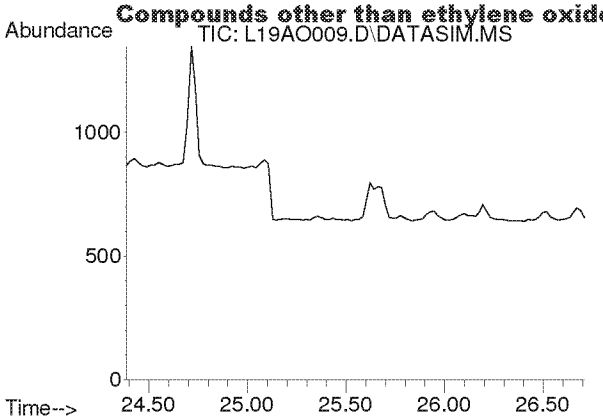
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

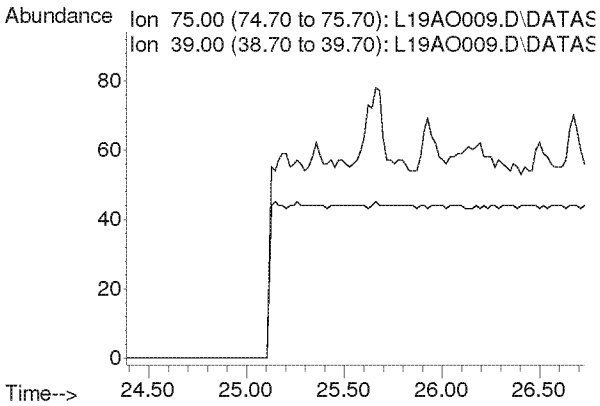


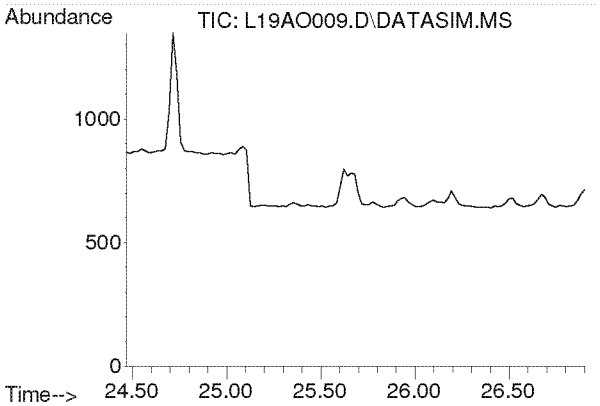
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



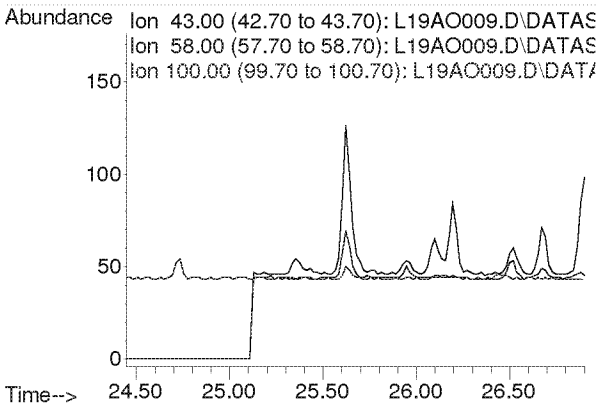


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

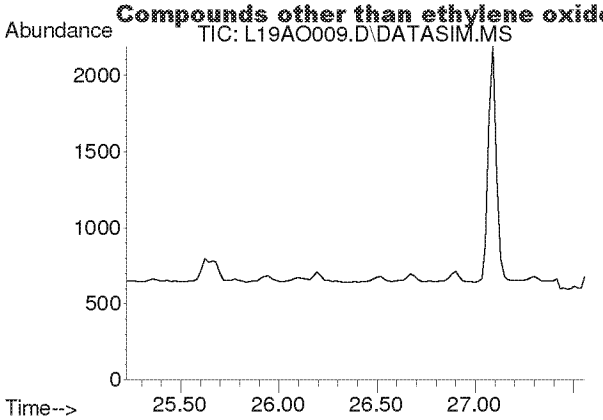
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

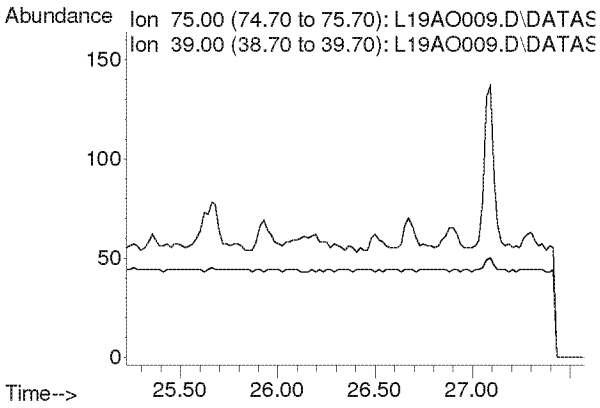


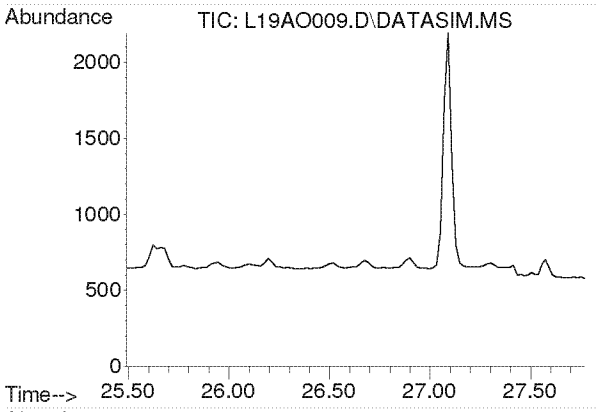
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



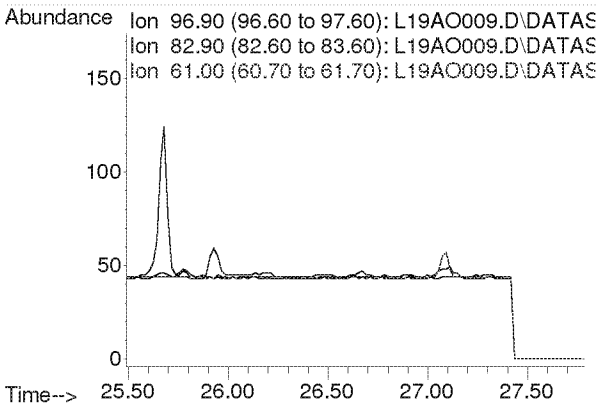


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

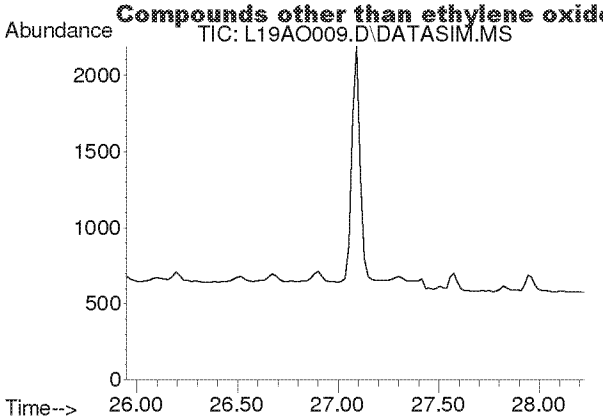
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

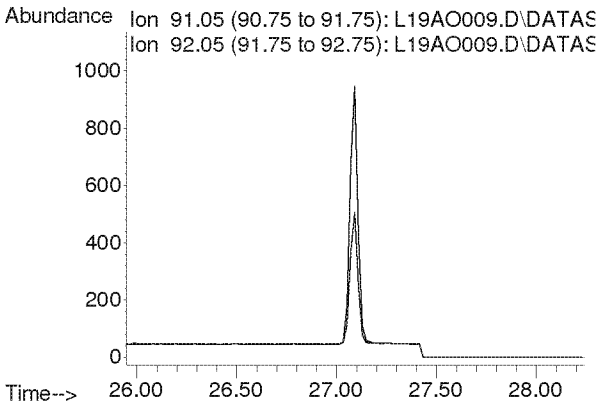


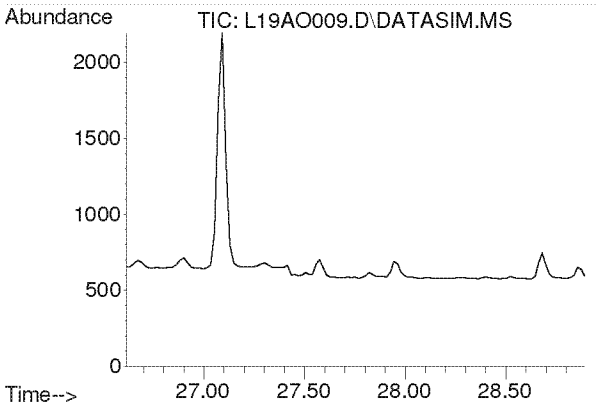
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



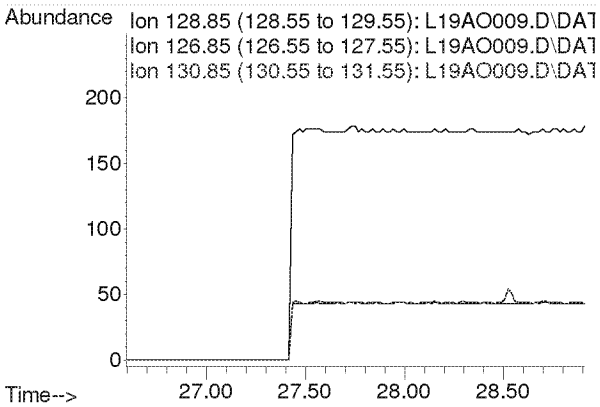


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

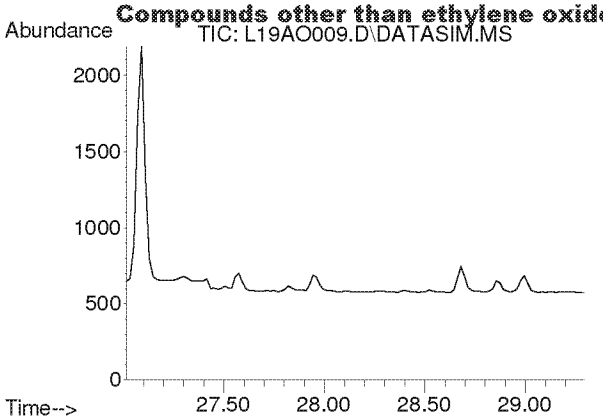
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

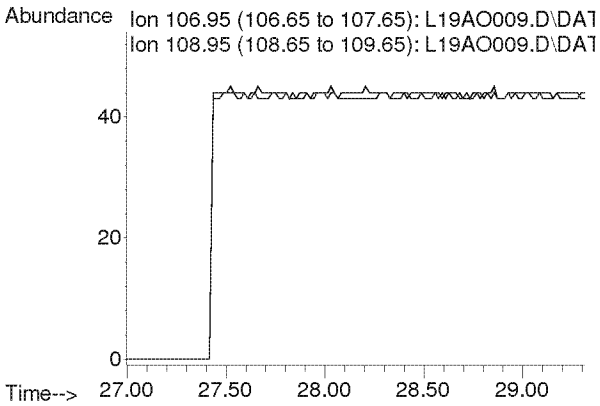


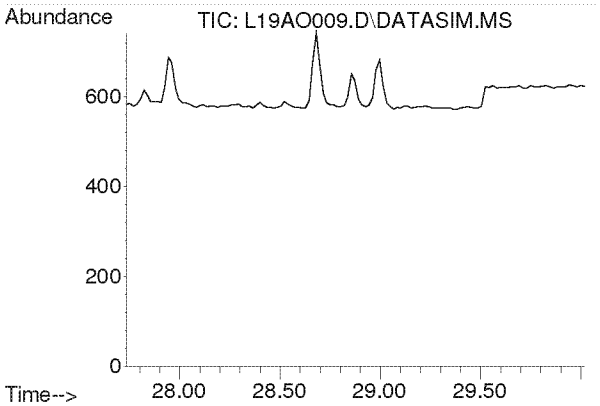
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



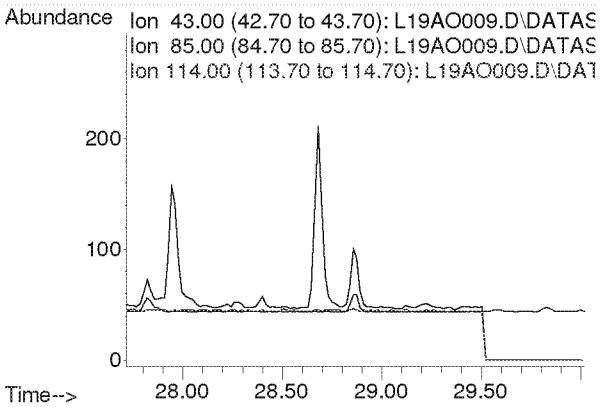


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

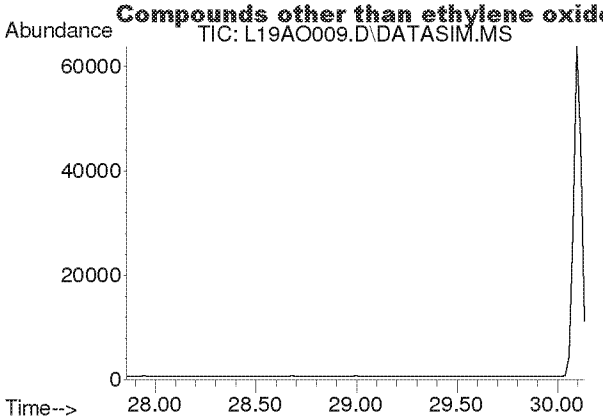
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

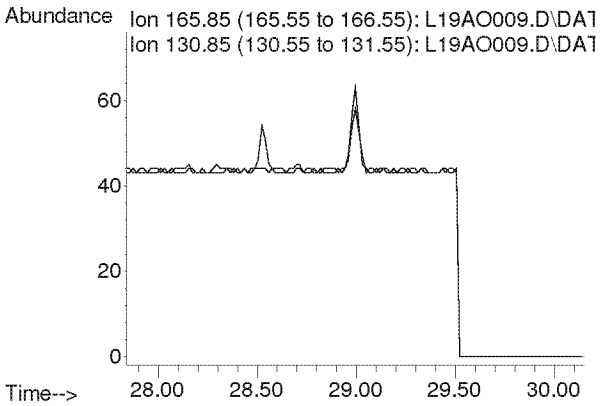


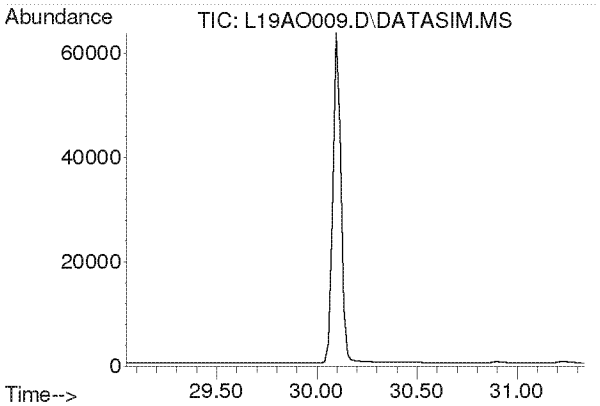
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



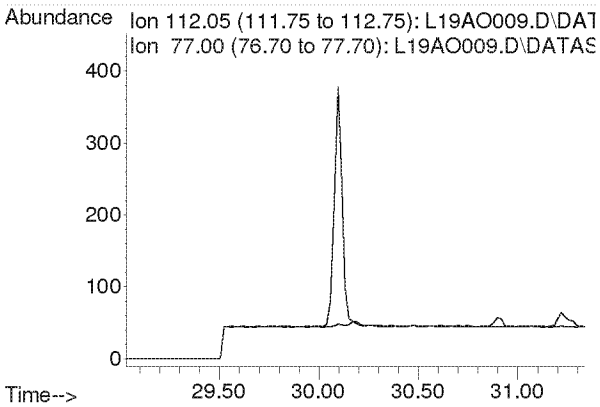


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

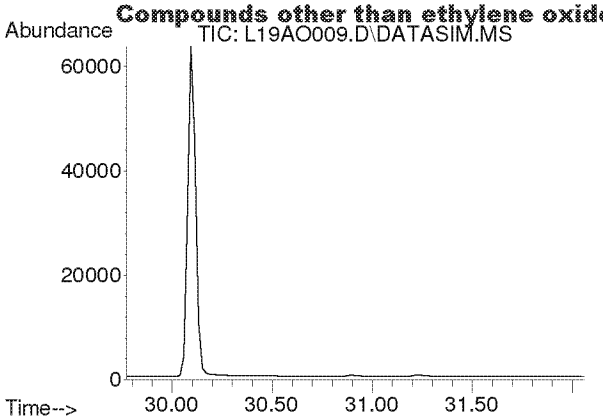
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

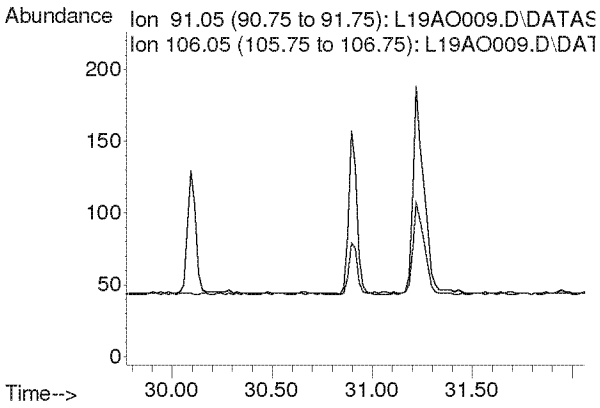


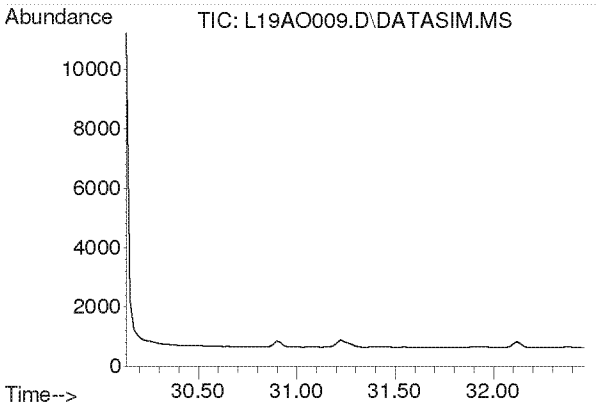
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



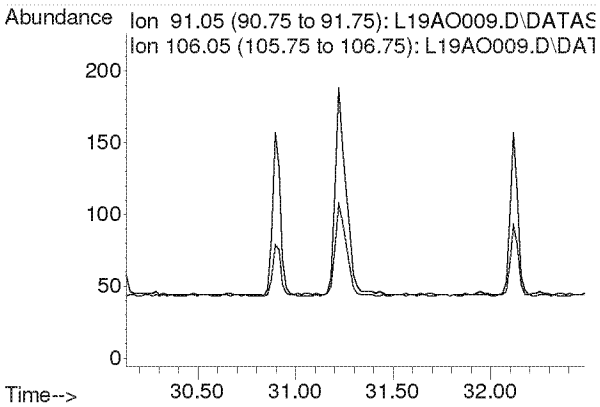


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

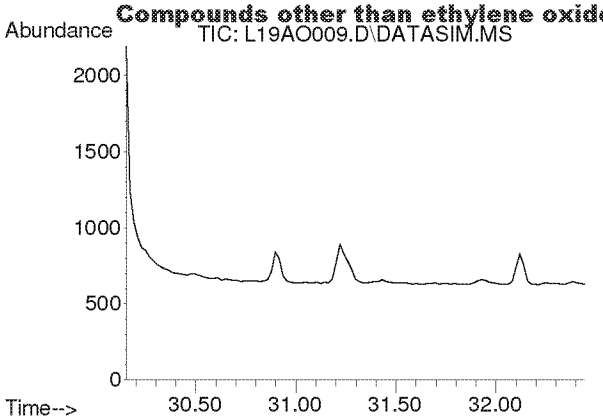
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

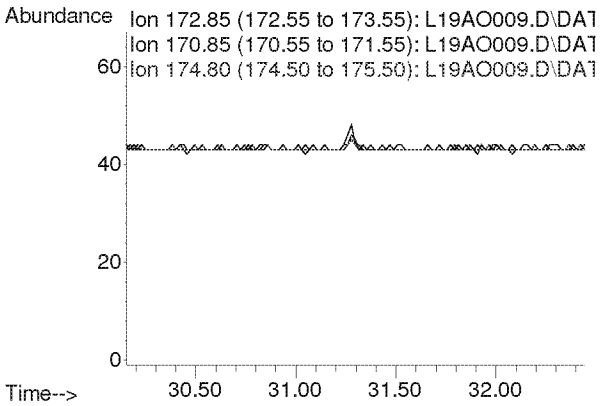


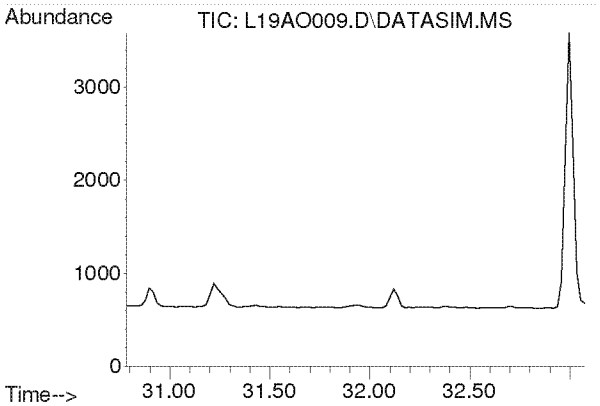
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



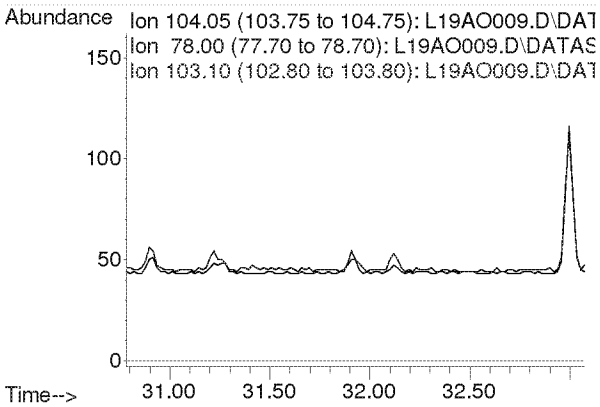


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

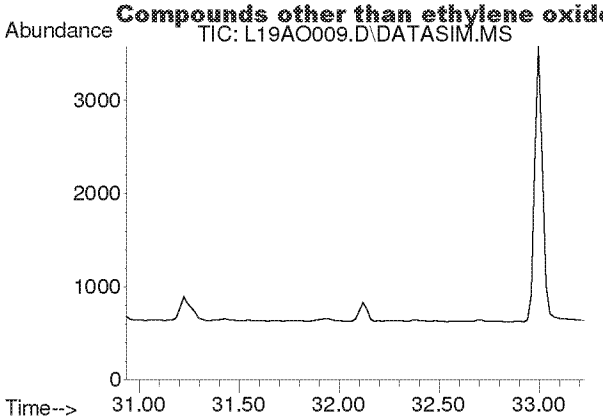
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

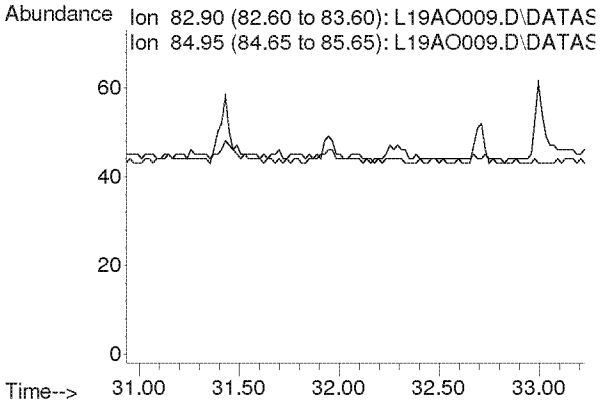


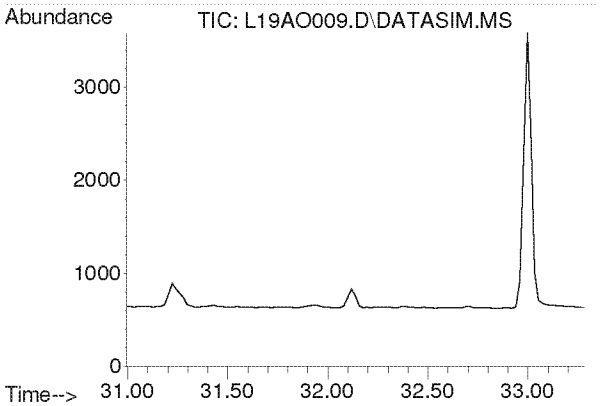
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



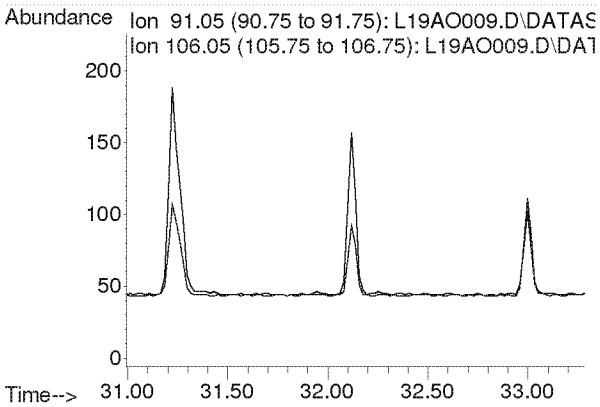


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

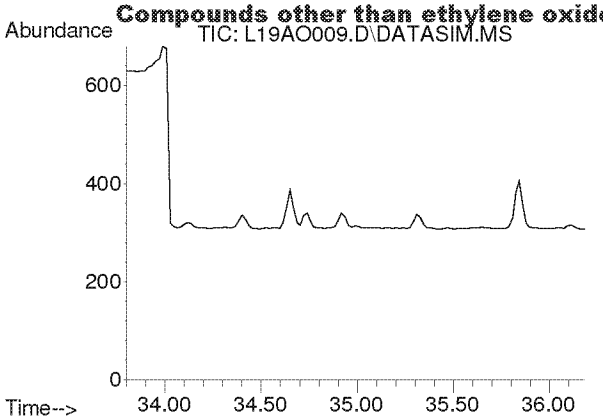
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

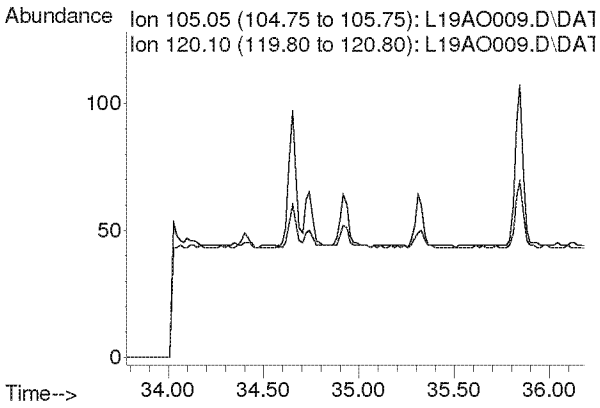


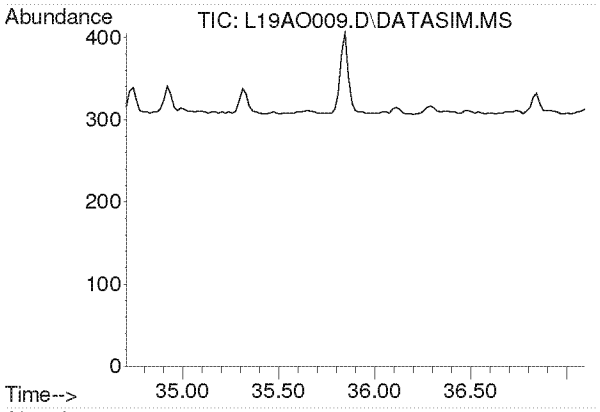
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



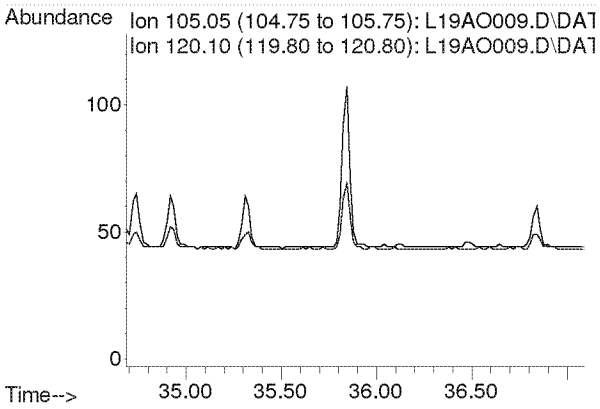


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

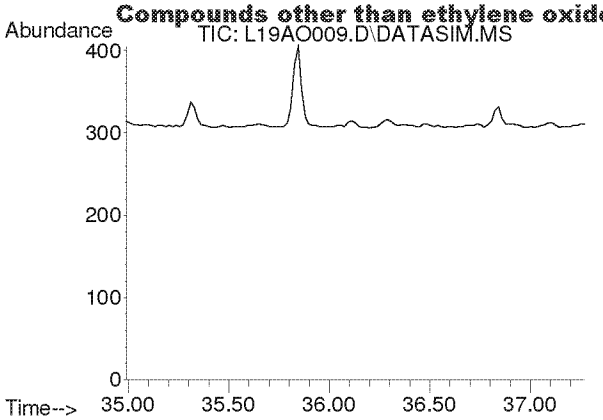
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

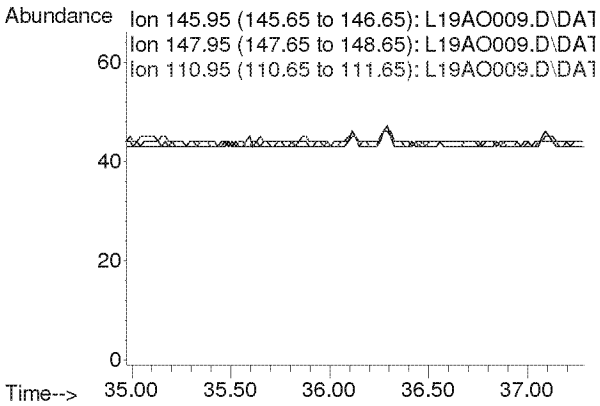


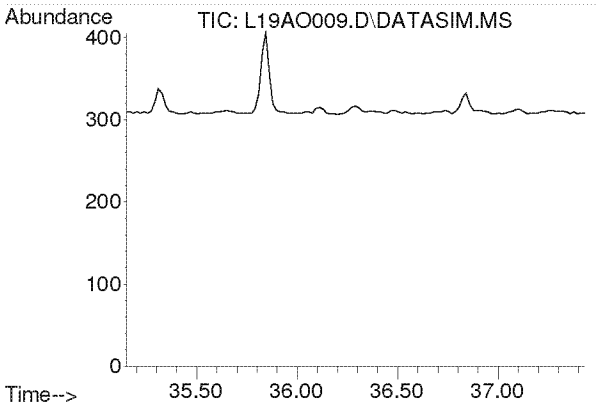
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



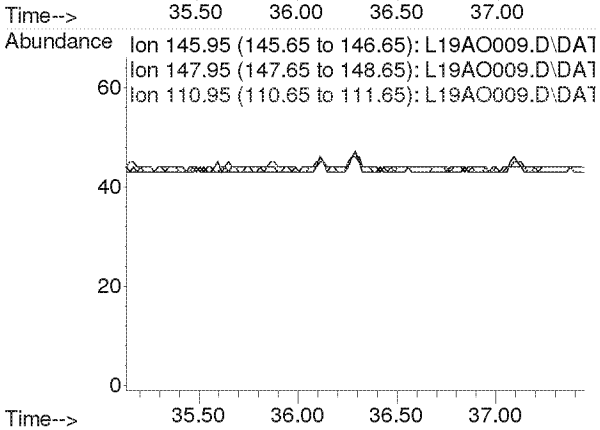


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

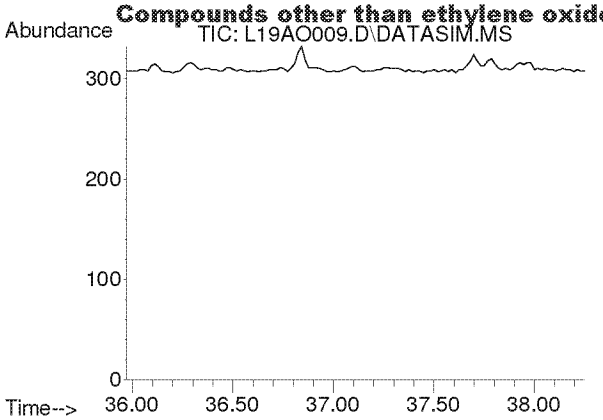
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

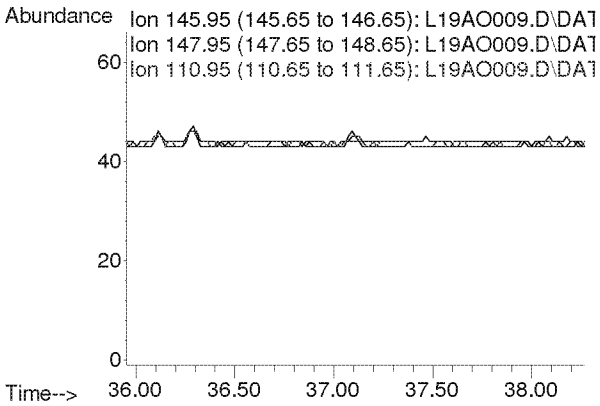


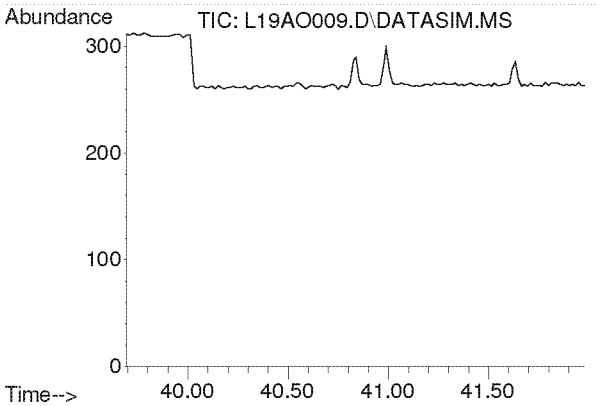
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



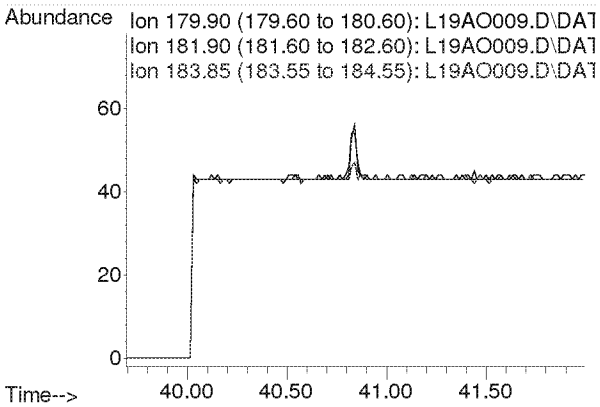


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

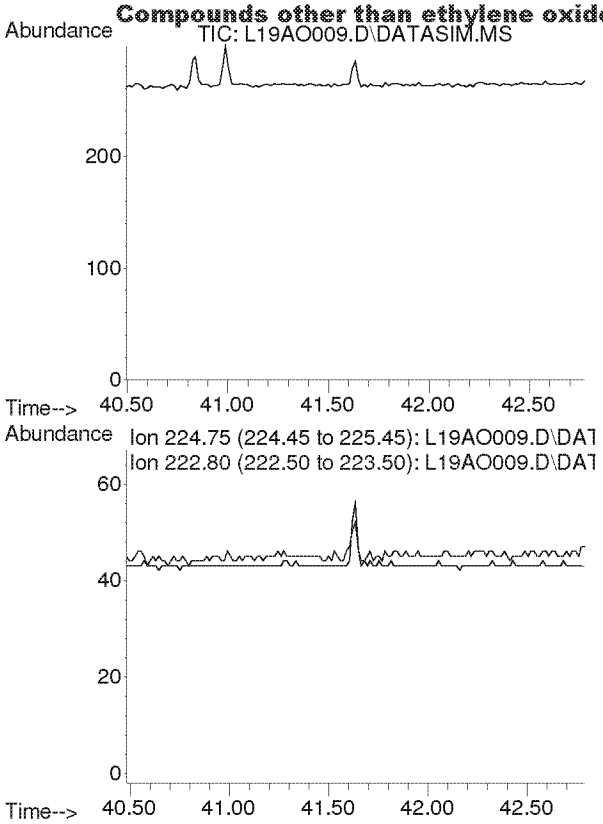
Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19AO009.D
Acq: 15 Jan 2019 5:33 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO010.D
Acq On : 15 Jan 2019 6:32 pm
Operator : MAH
Sample : 9010401-09
Misc : EPA WB WAREHOUSE ~~XX~~ 1/3/18 C1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 22 11:37:46 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	55708	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	142673	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	107769	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	12.455	29	378m	0.1314 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantification Report 1 (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO010.D
Acq On : 15 Jan 2019 6:32 pm
Operator : MAH
Sample : 9010401-09
Misc : EPA WB WAREHOUSE C2 1/3/18
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 22 11:37:46 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 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.	

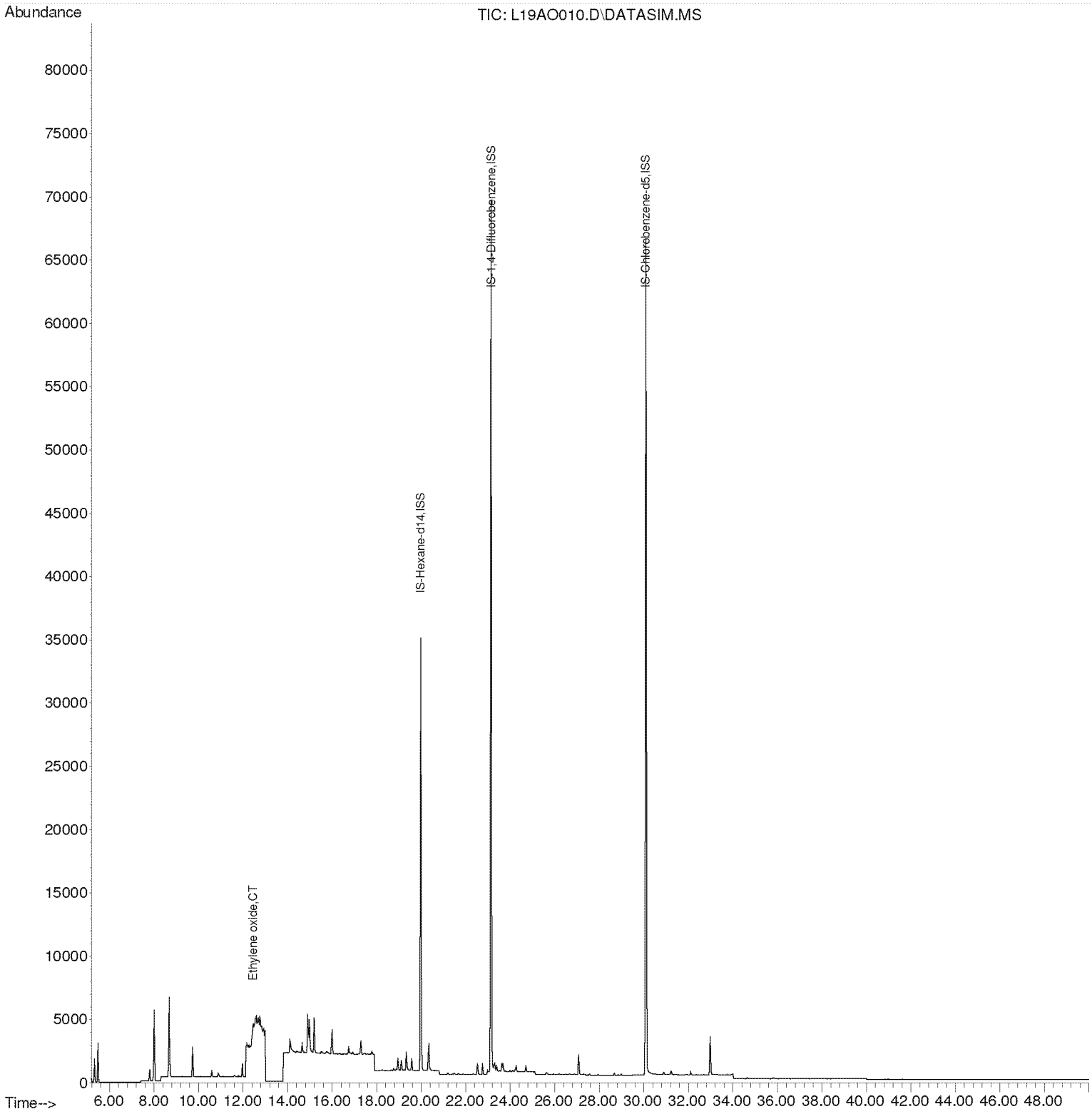
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000267-00217

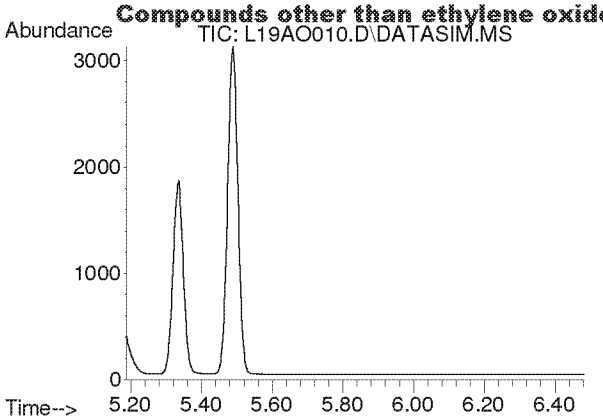
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO010.D
Acq On : 15 Jan 2019 6:32 pm
Operator : MAH
Sample : 9010401-09
Misc : EPA WB WAREHOUSE C2 1/3/18
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 22 11:25:44 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



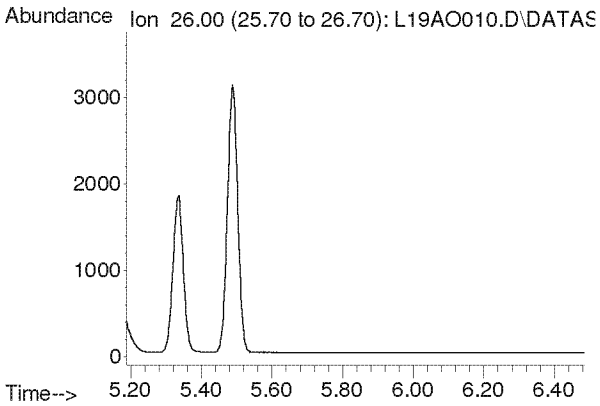
Compounds other than ethylene oxide were not quantitated.

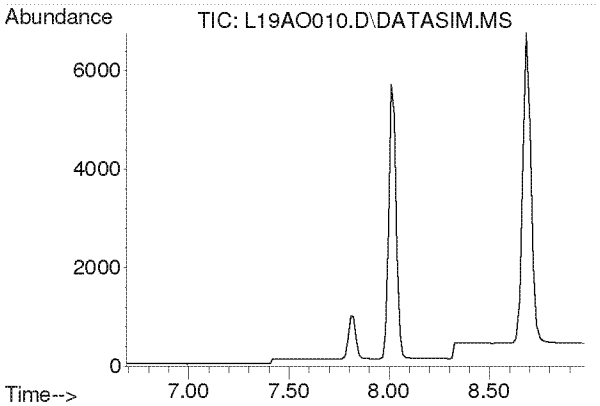


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 26



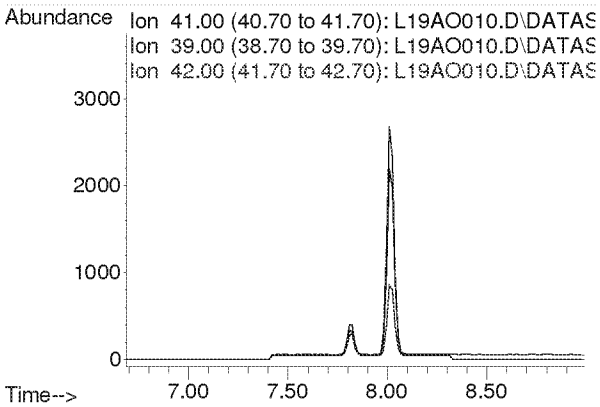


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

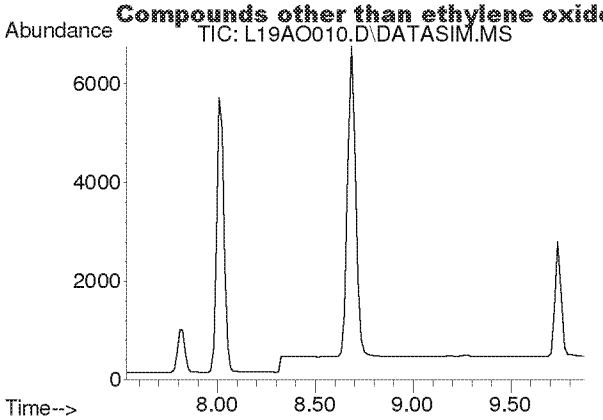
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

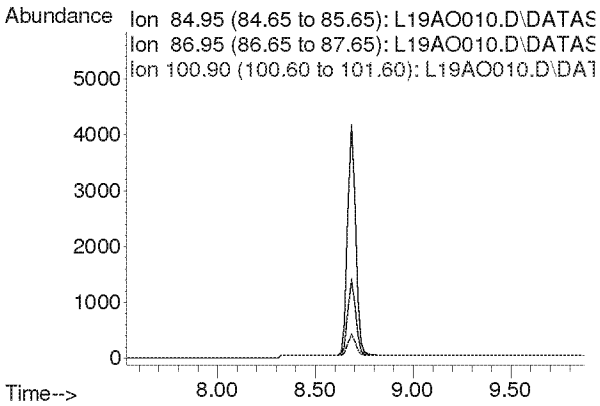


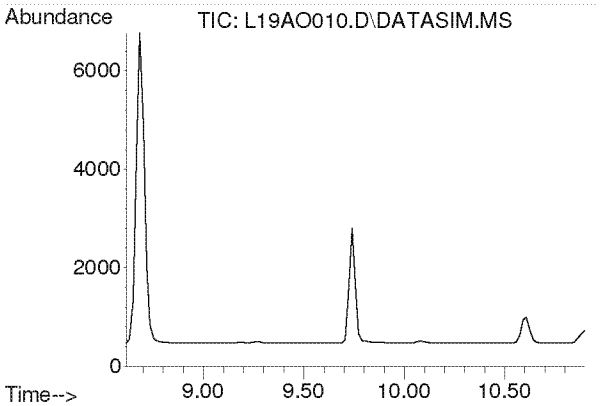
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



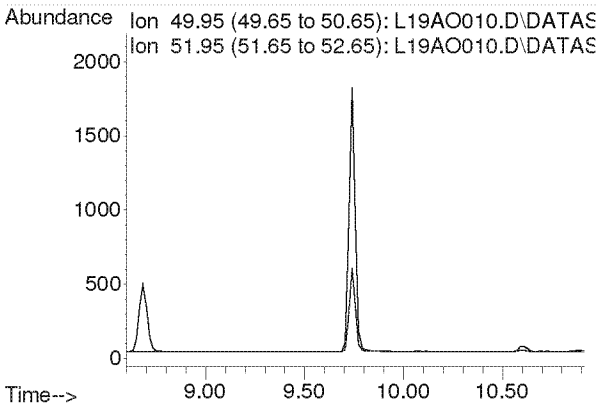


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

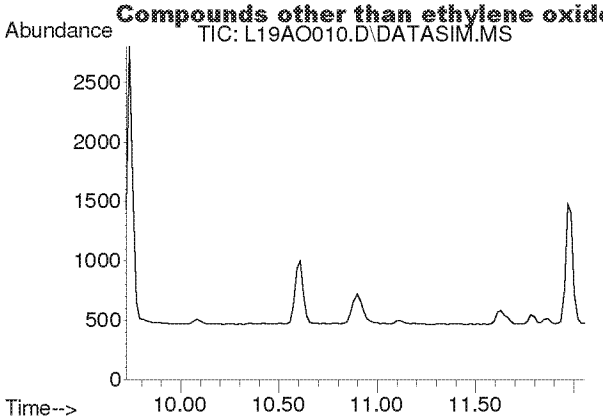
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

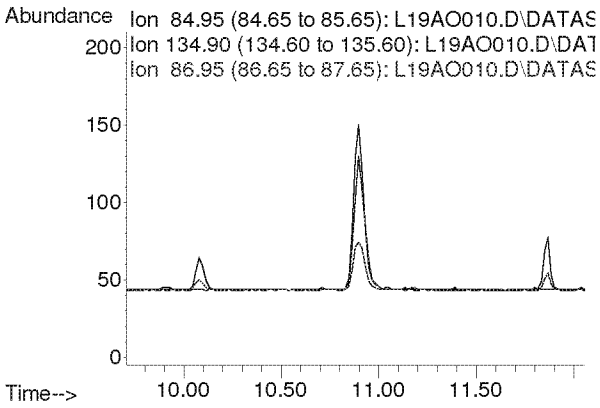


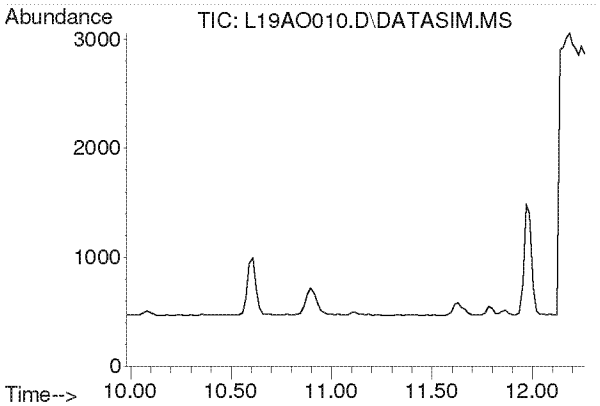
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



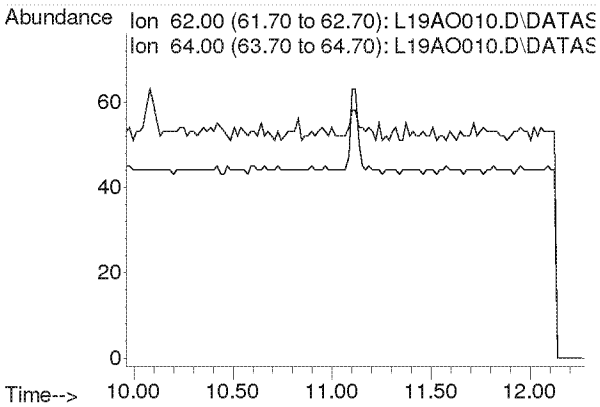


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

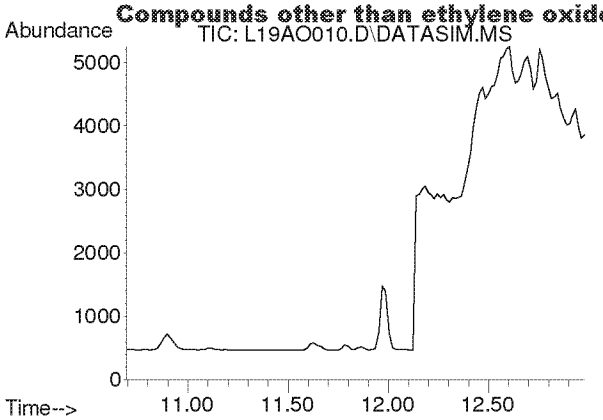
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

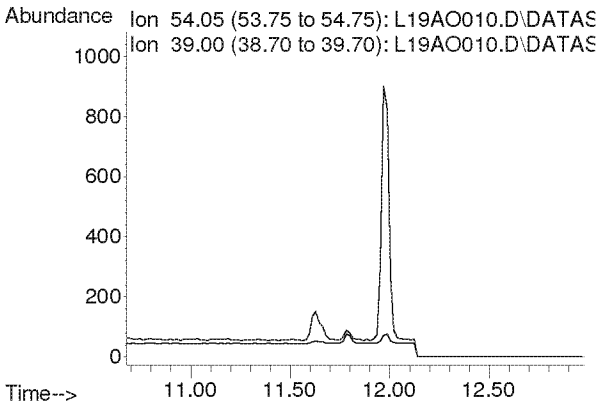


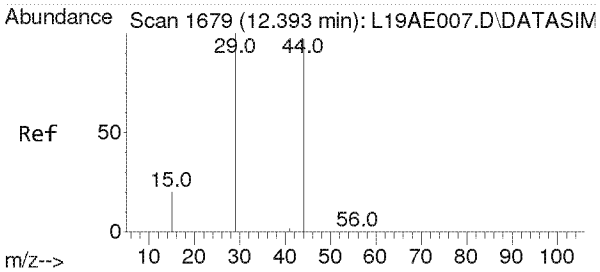
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

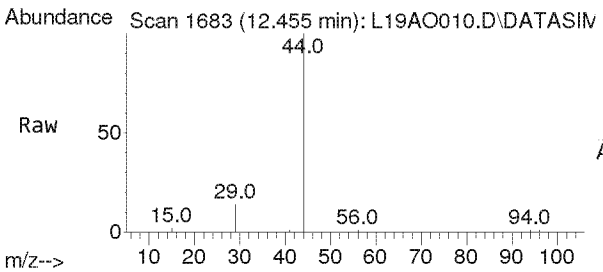


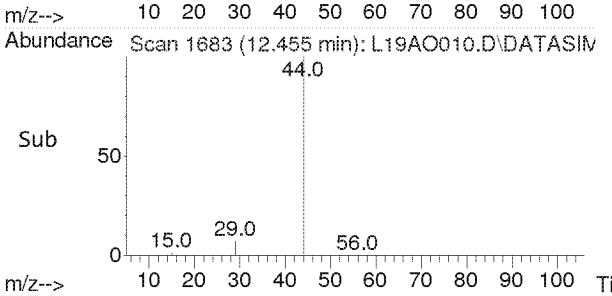


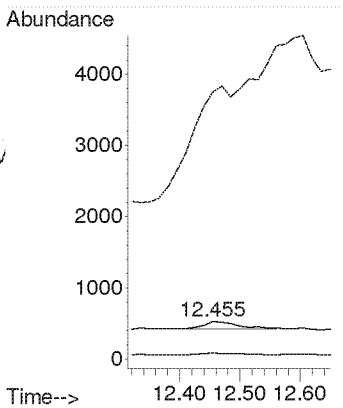
#9
Ethylene oxide
Concen: 0.131 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.062 min
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 29 Resp: 378

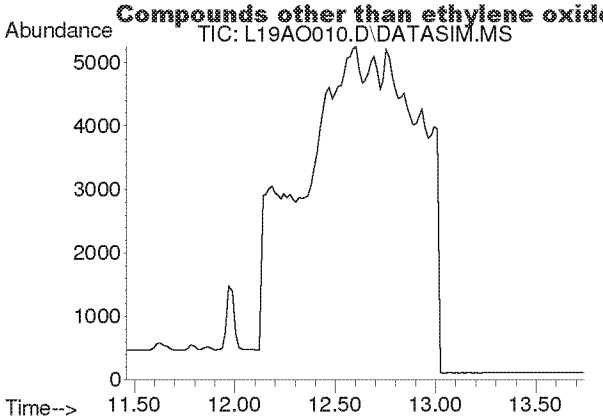
Ion	Ratio	Lower	Upper
29	100		
15	0.0	15.4	23.0#
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

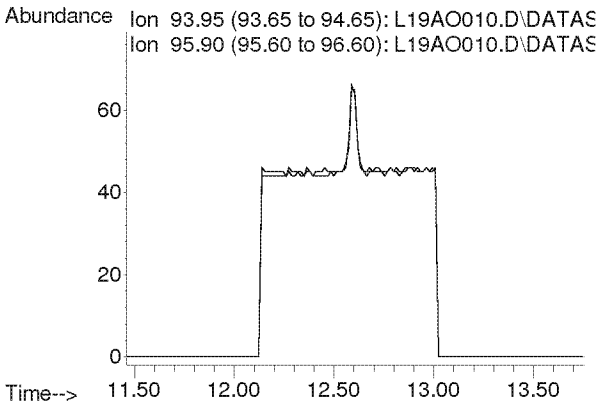


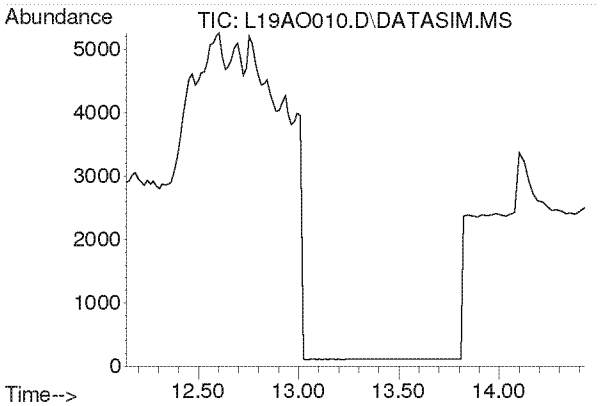
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



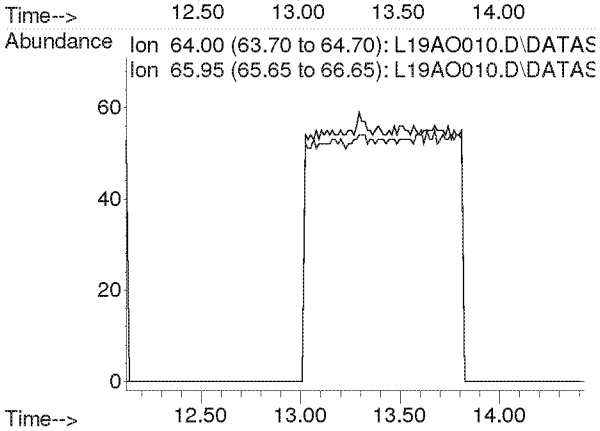


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

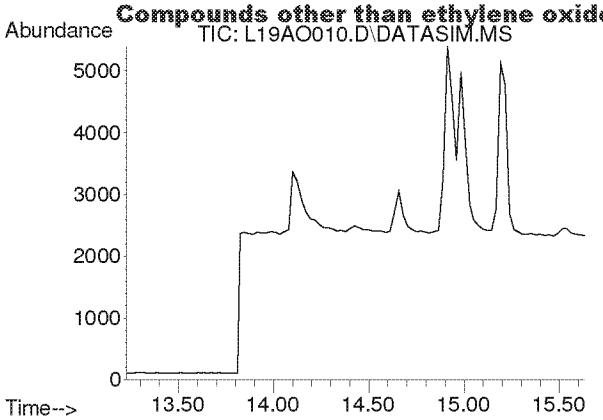
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

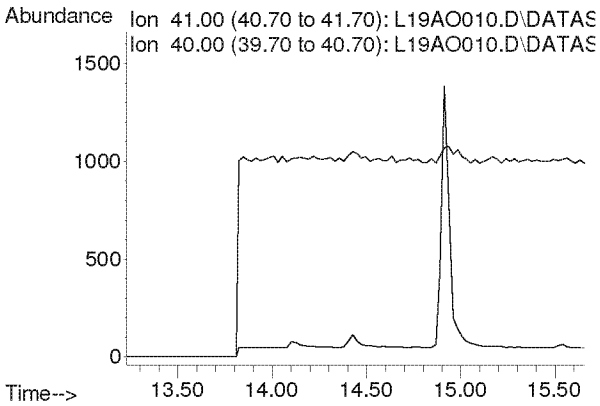


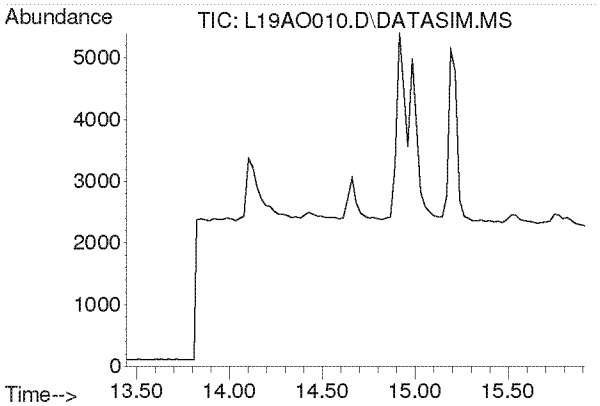
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



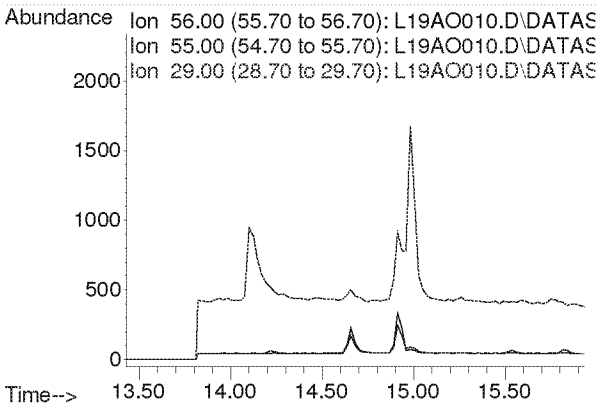


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

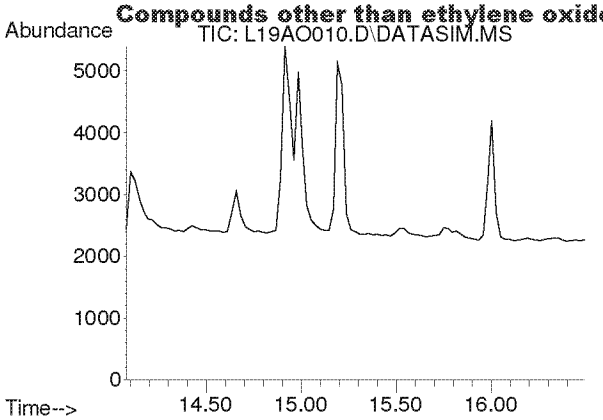
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

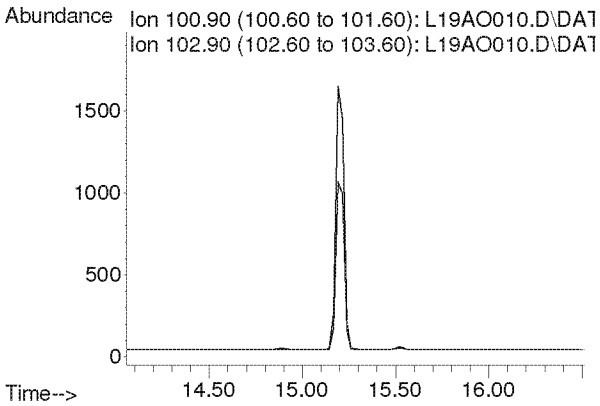


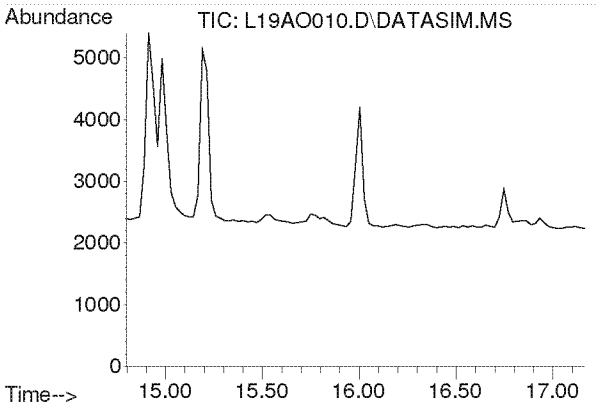
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



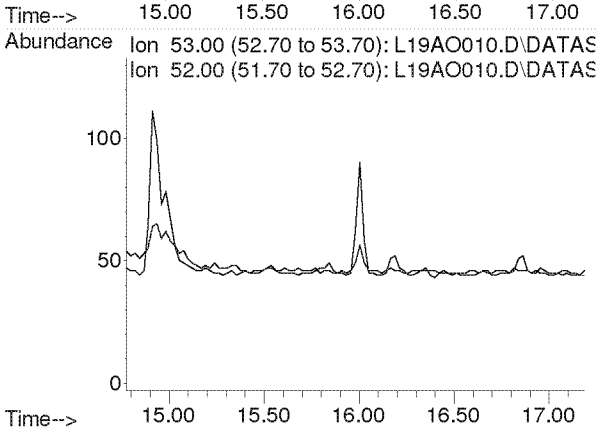


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

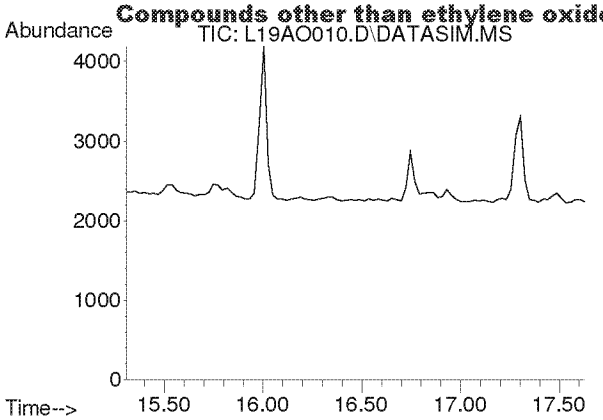
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

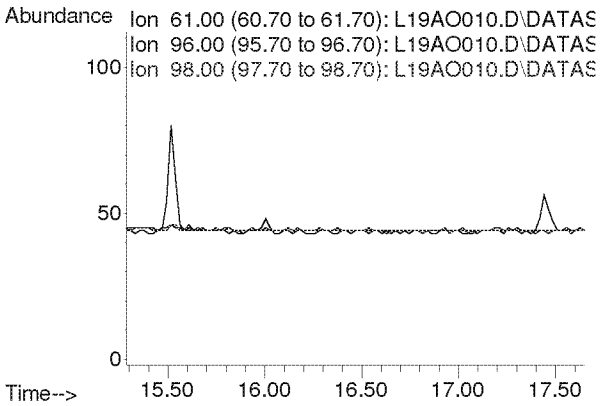


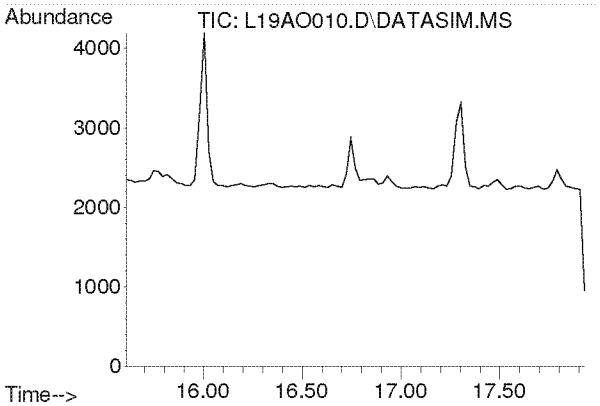
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



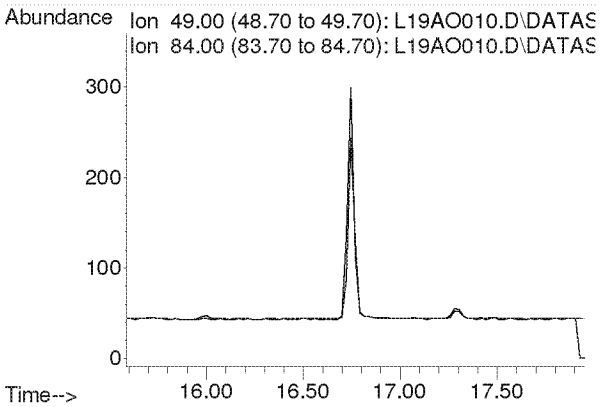


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

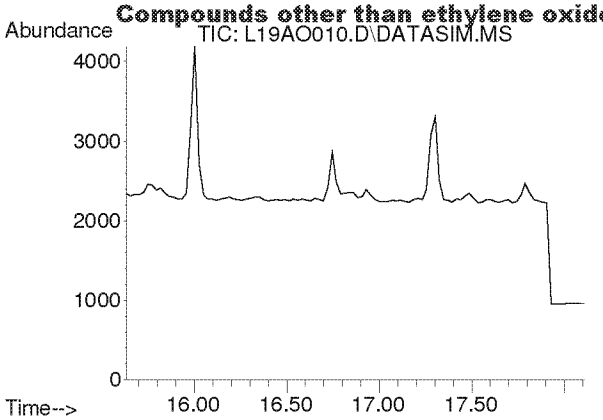
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

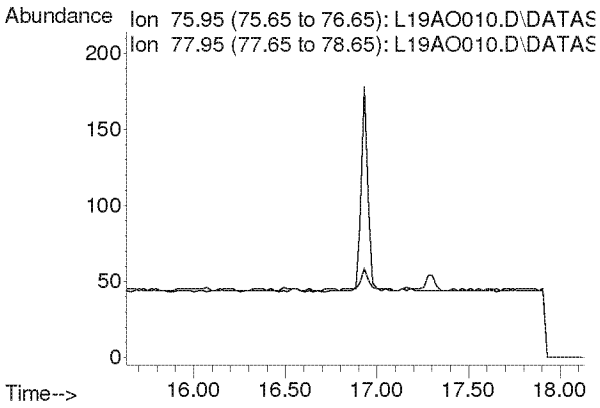


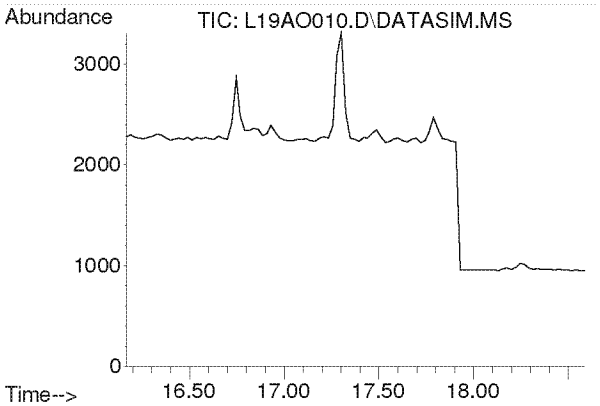
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



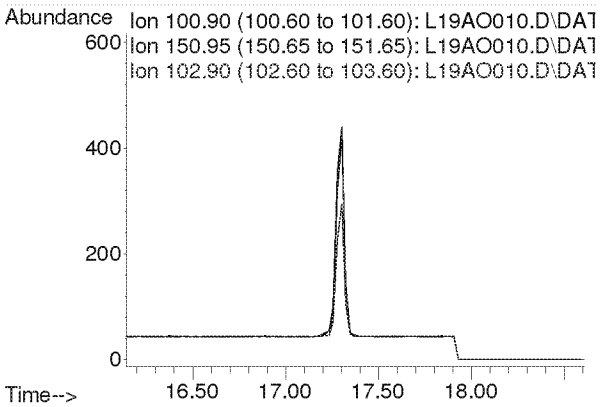


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

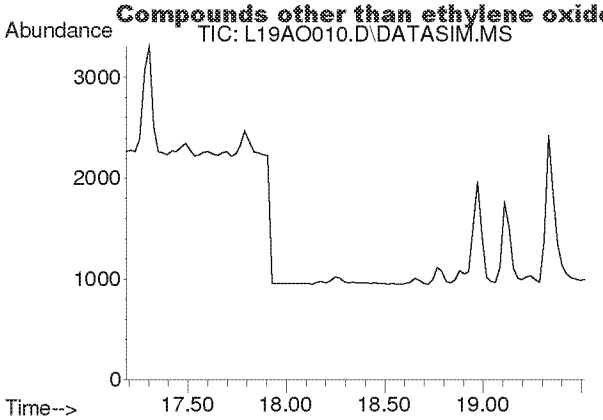
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

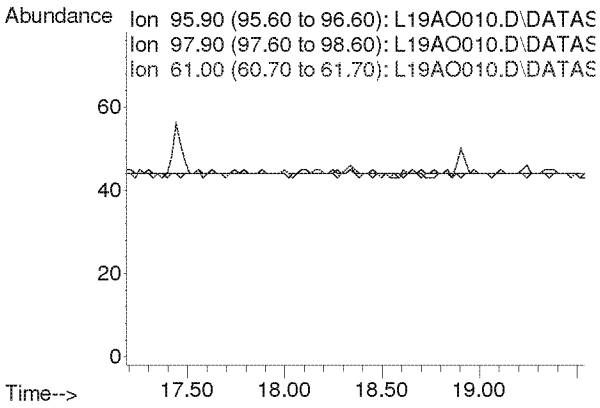


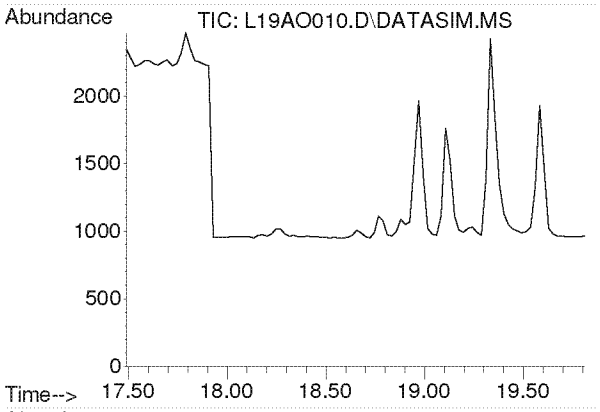
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



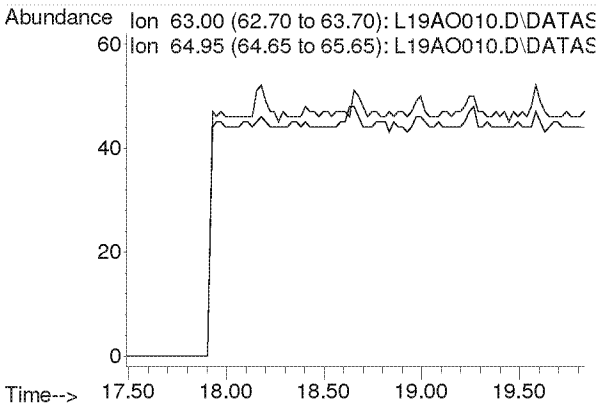


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

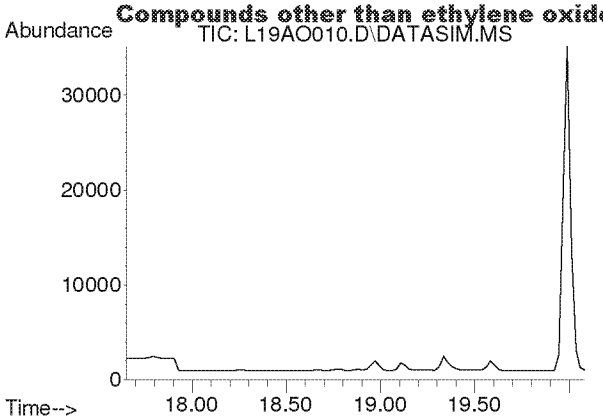
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

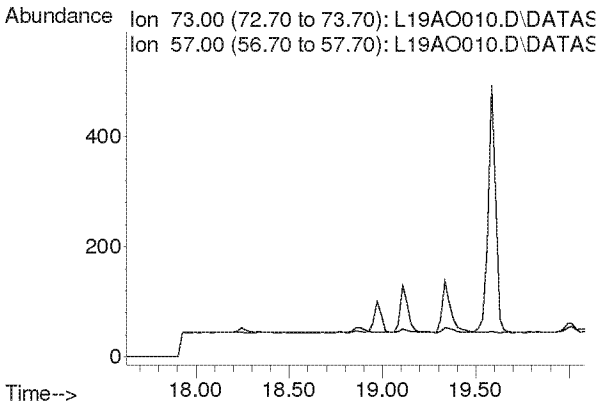


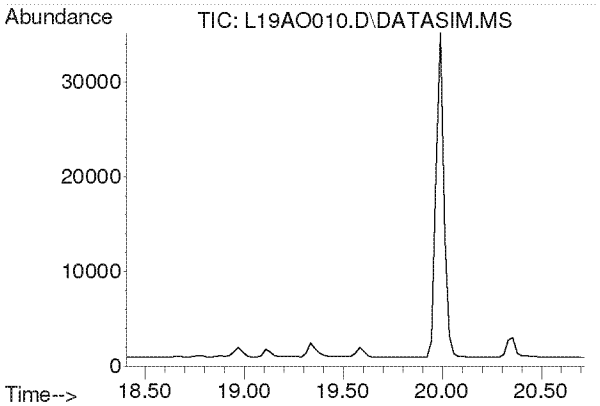
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



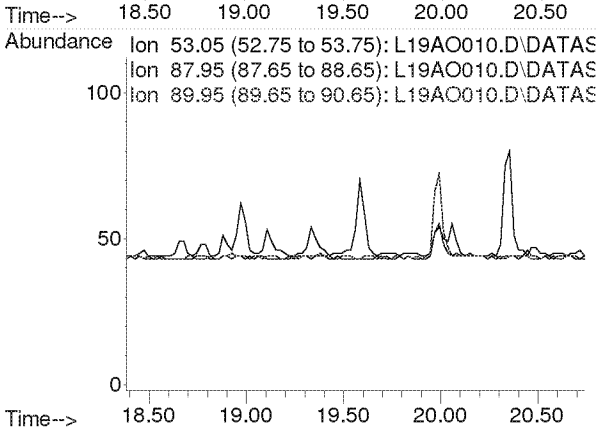


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

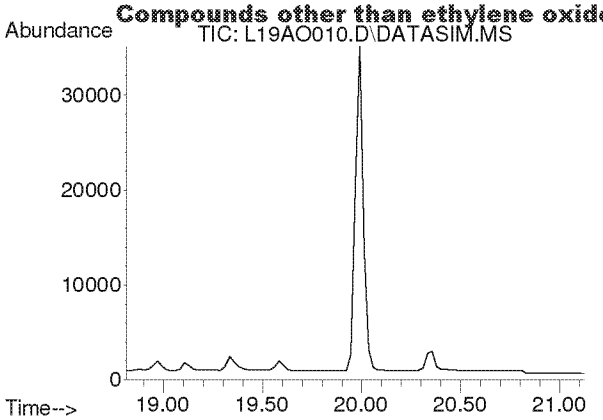
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

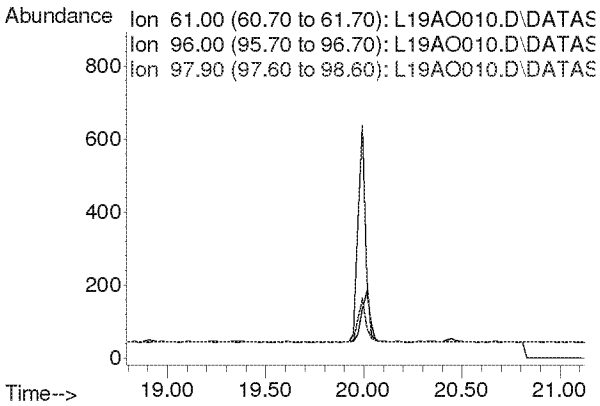


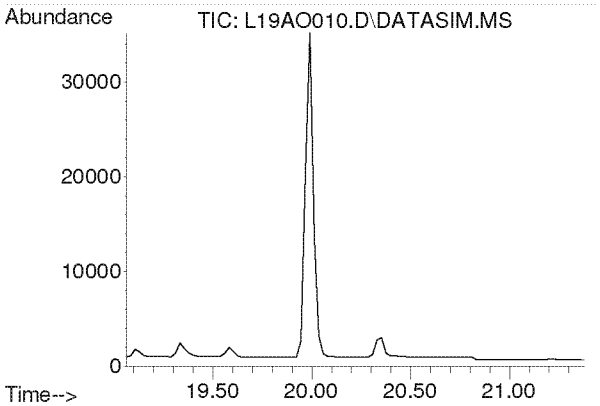
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



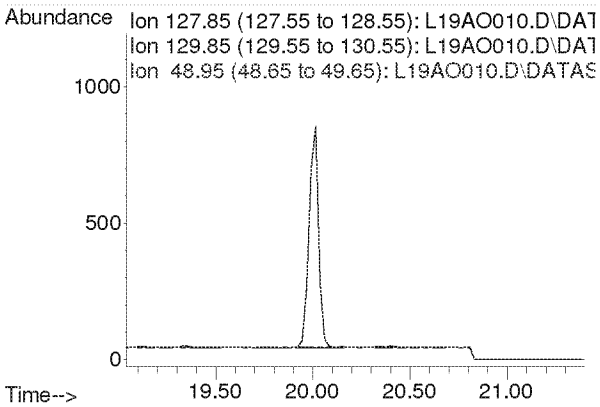


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

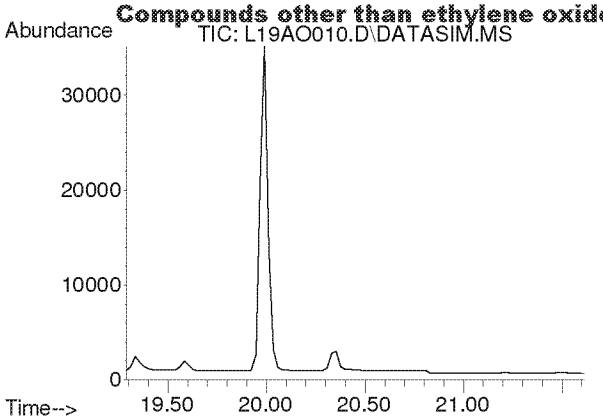
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

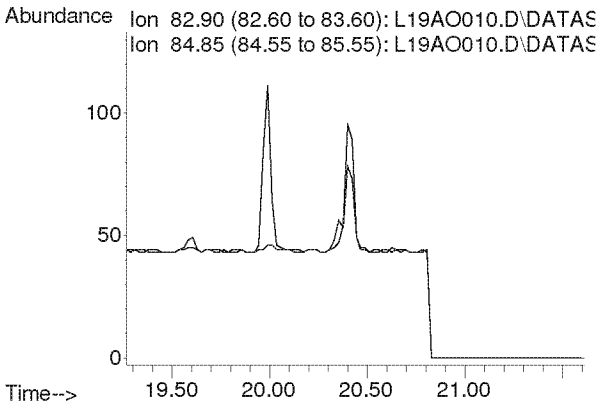


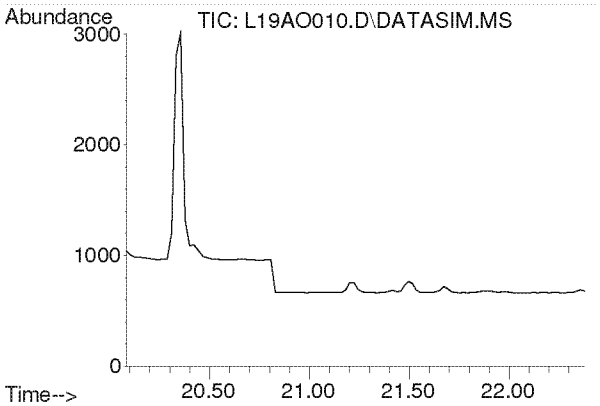
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



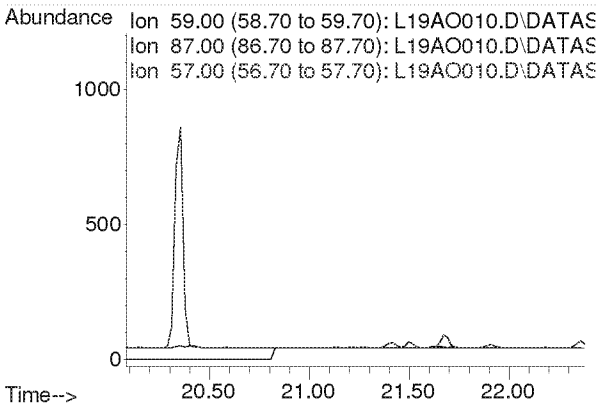


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

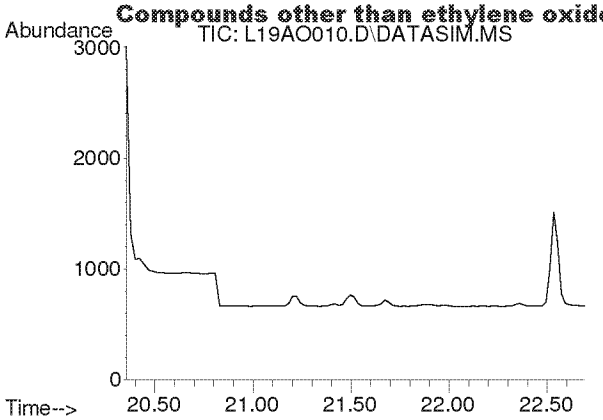
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

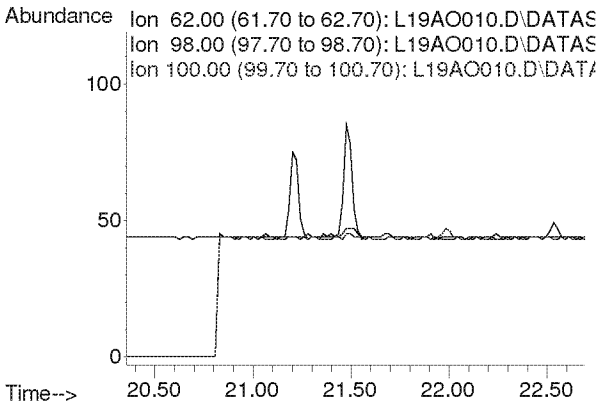


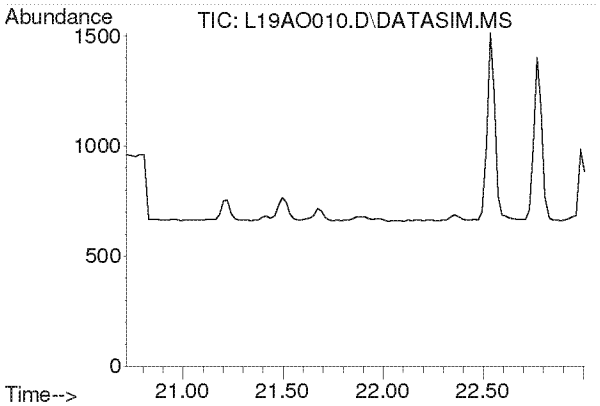
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



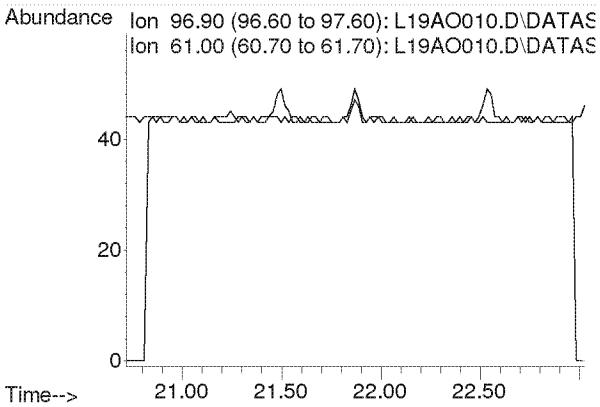


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

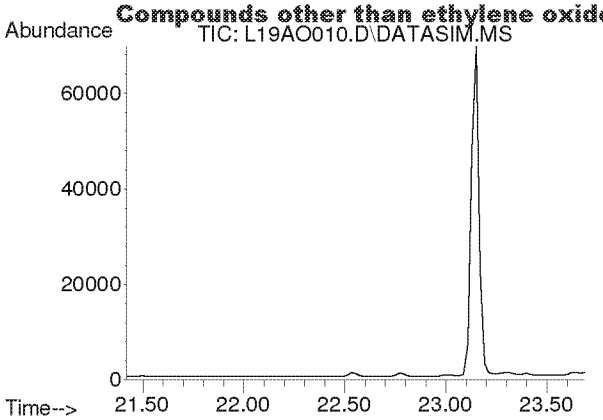
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

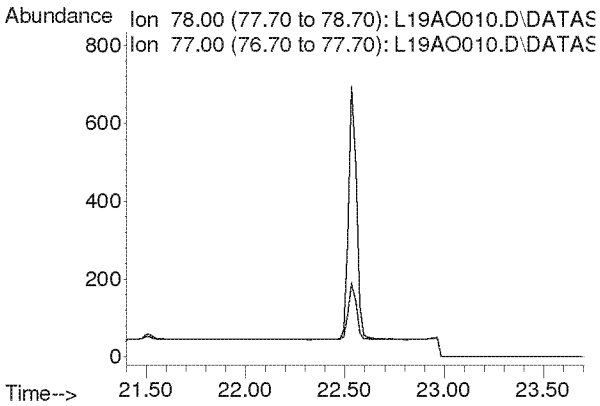


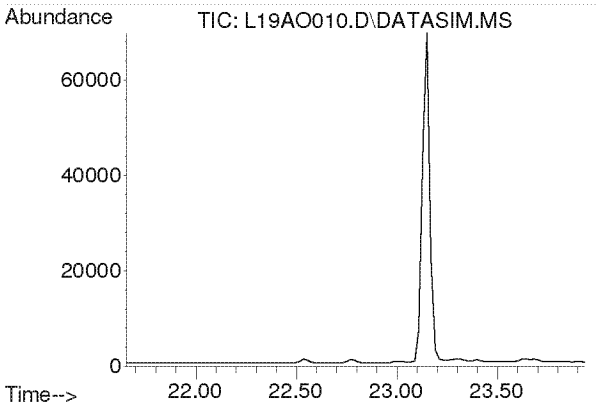
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



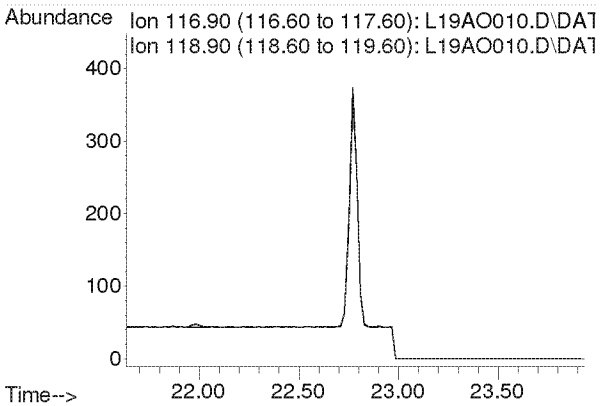


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

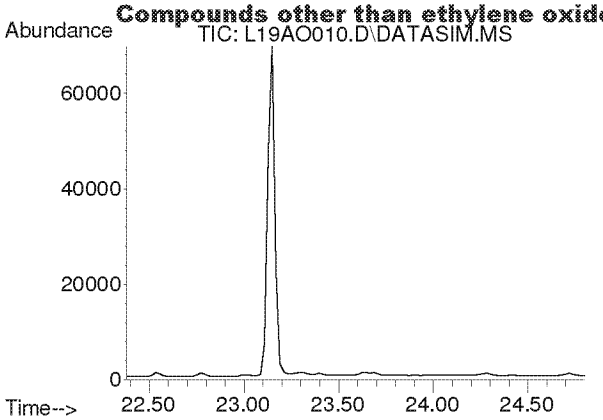
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

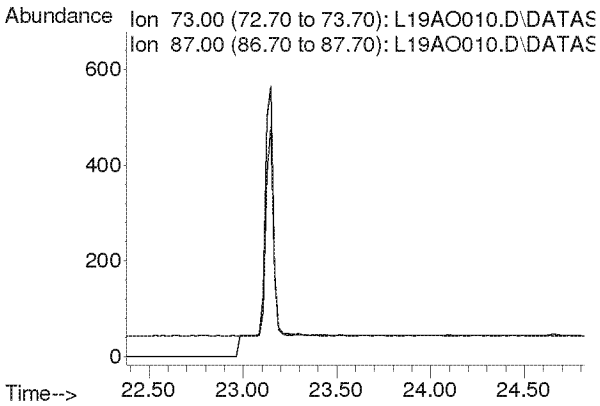


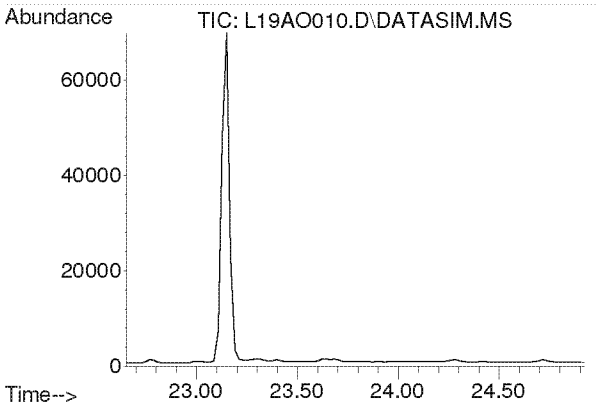
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



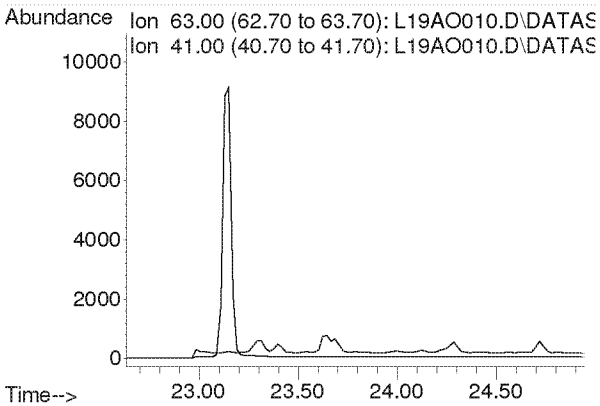


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

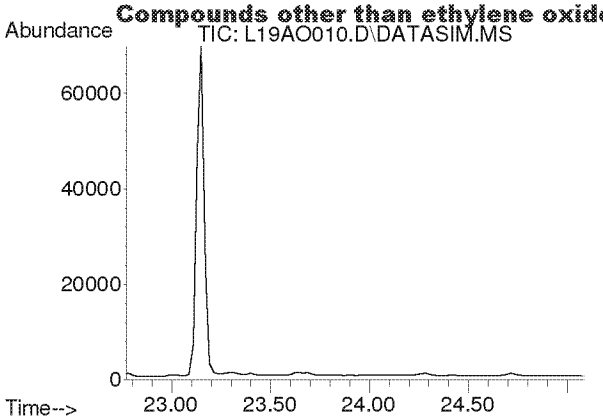
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

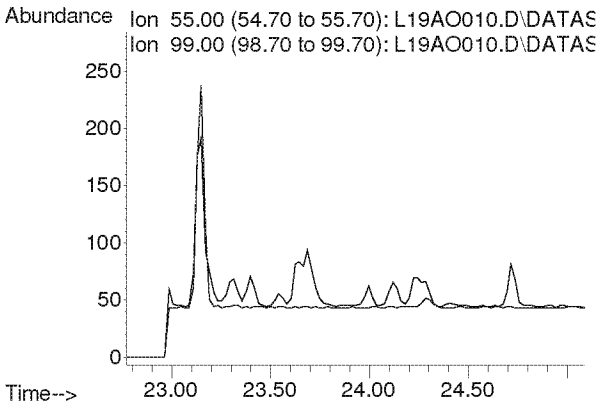


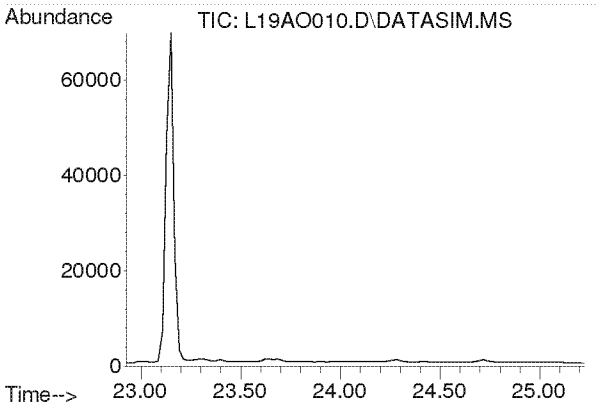
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



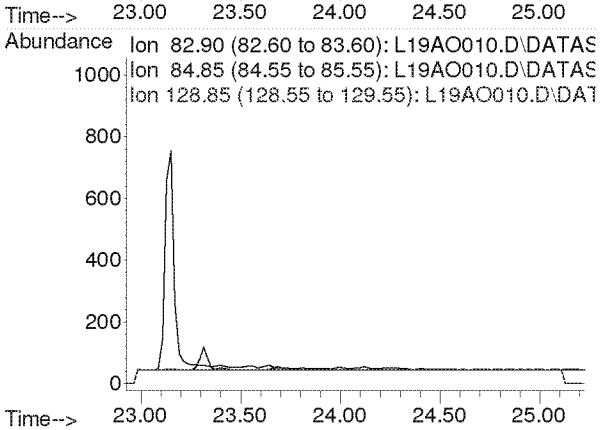


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

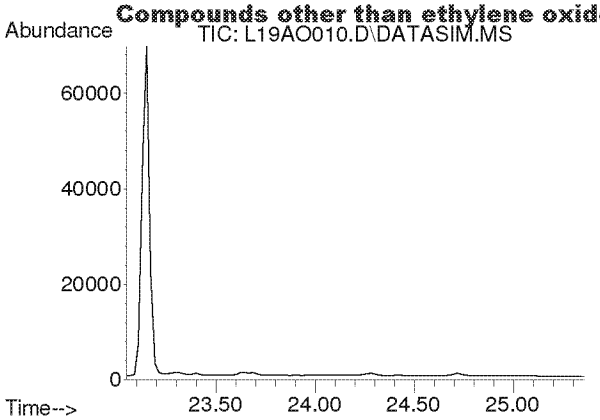
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

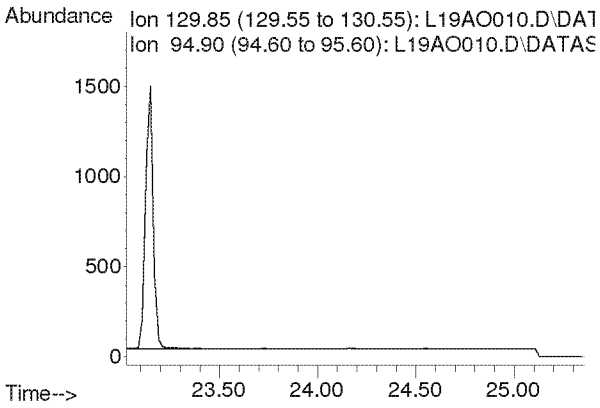


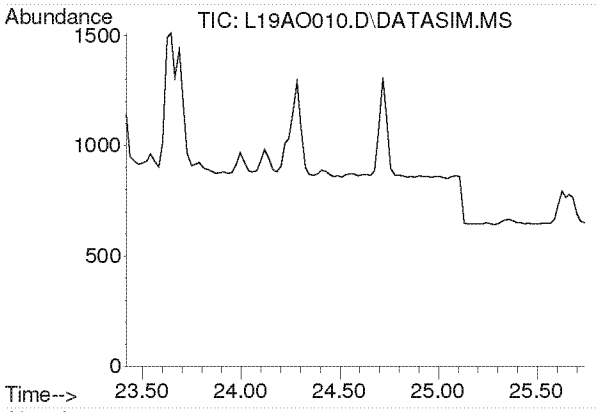
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



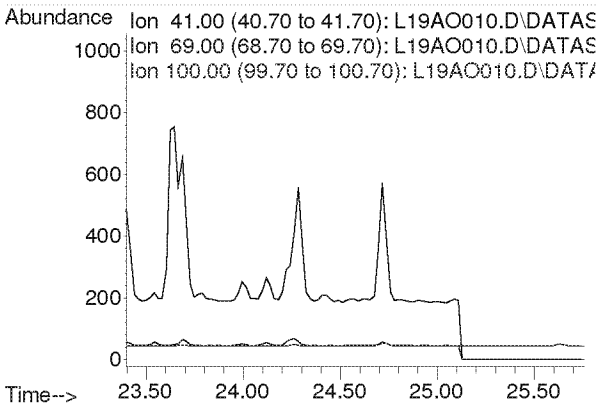


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

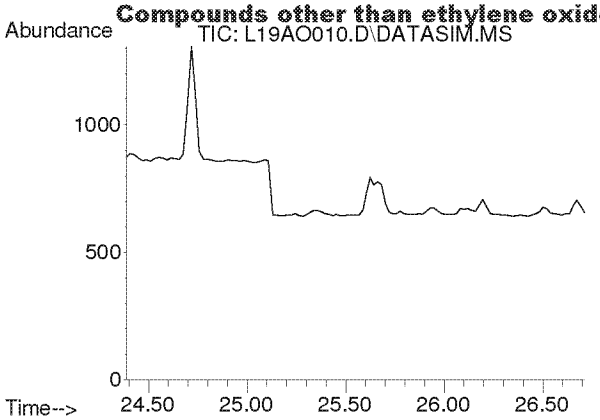
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

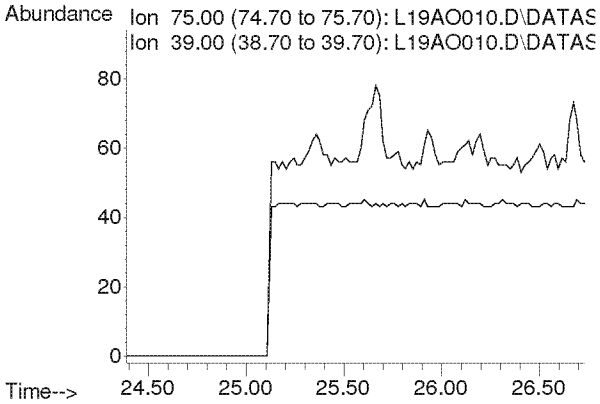


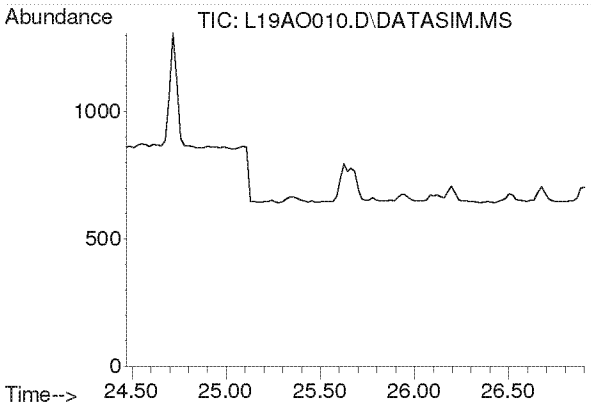
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



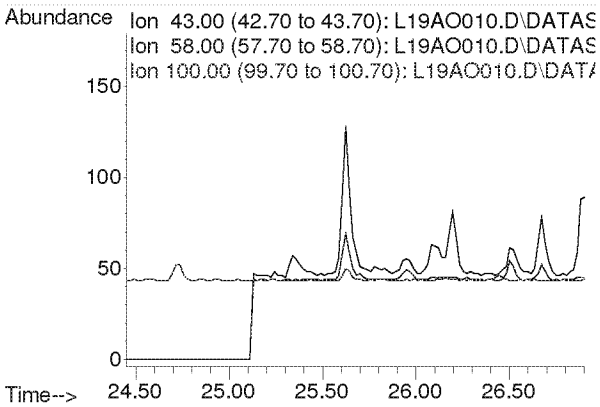


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

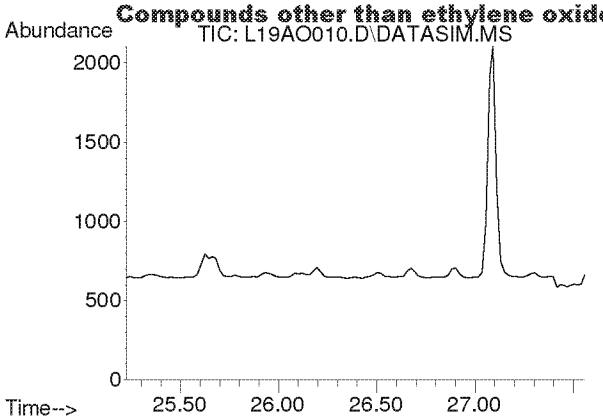
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

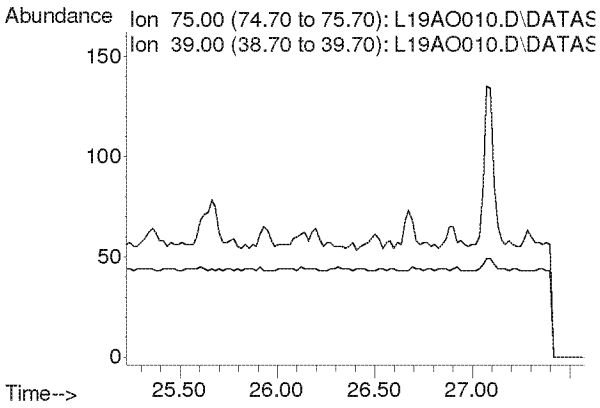


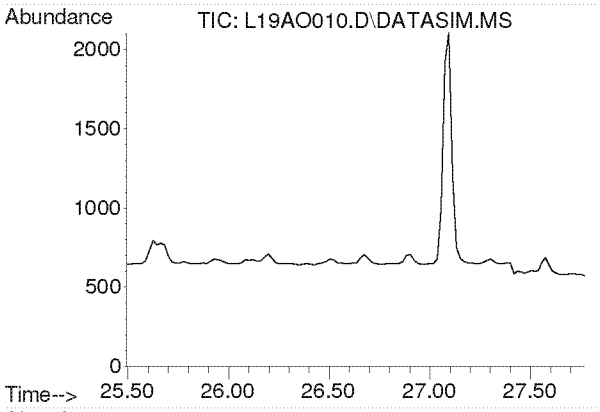
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



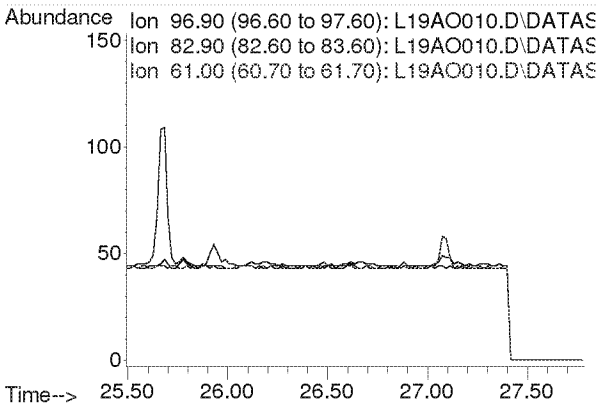


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

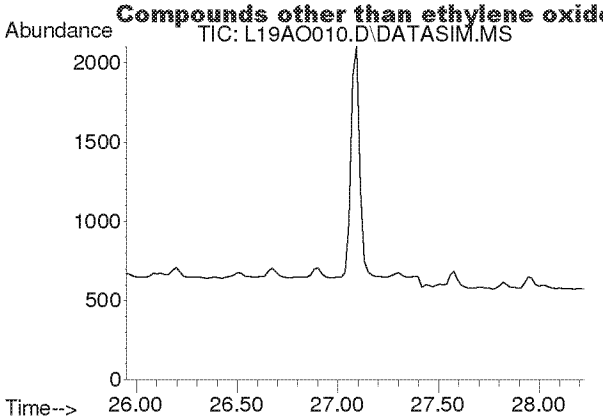
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

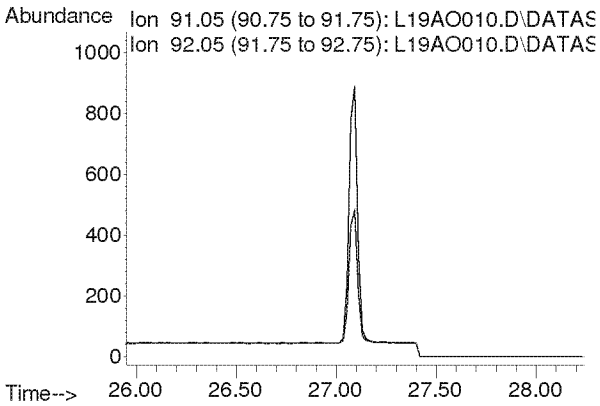


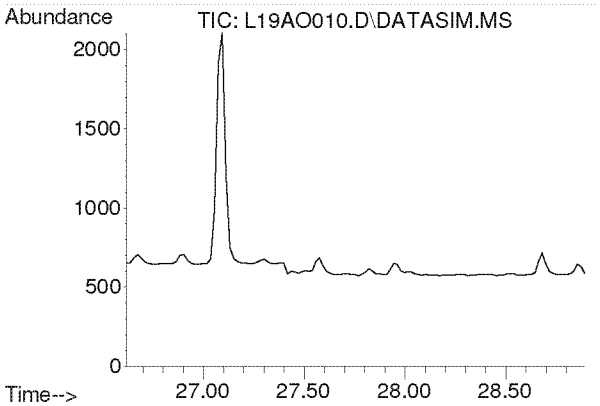
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



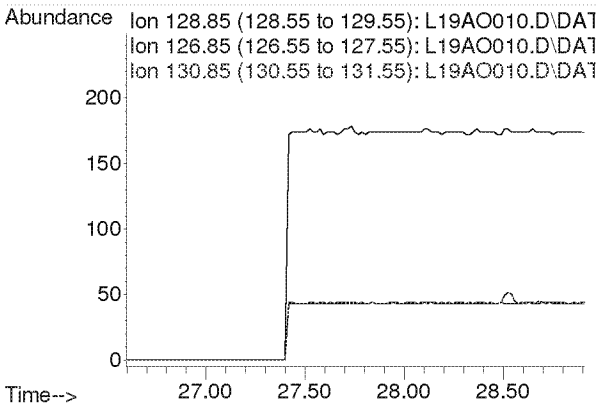


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

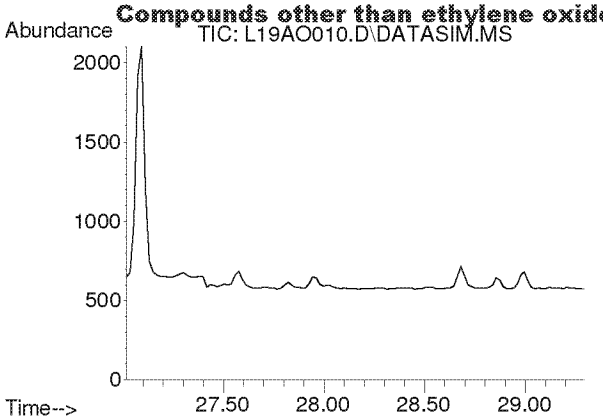
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

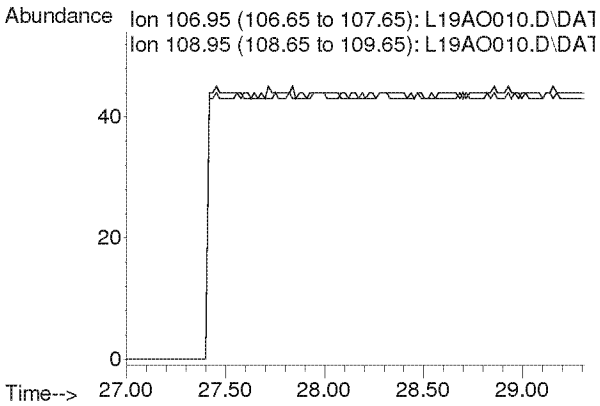


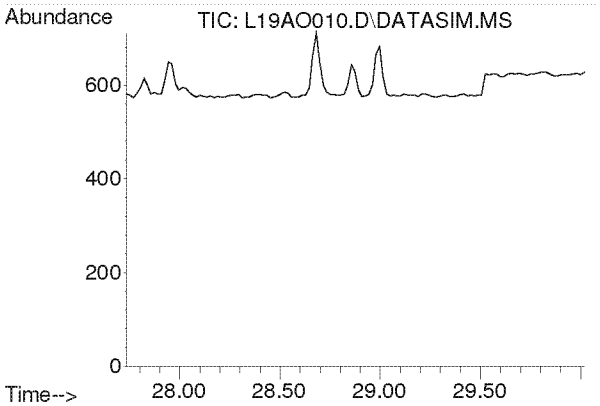
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



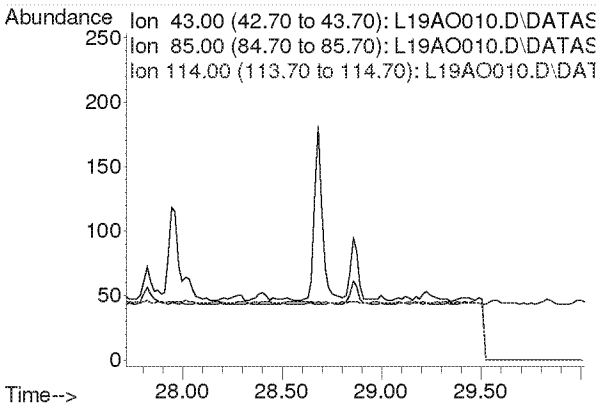


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

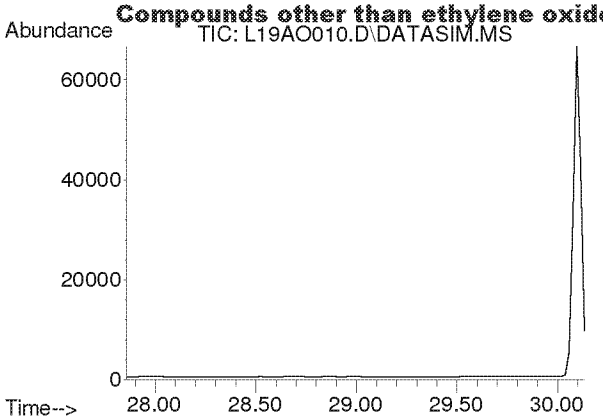
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

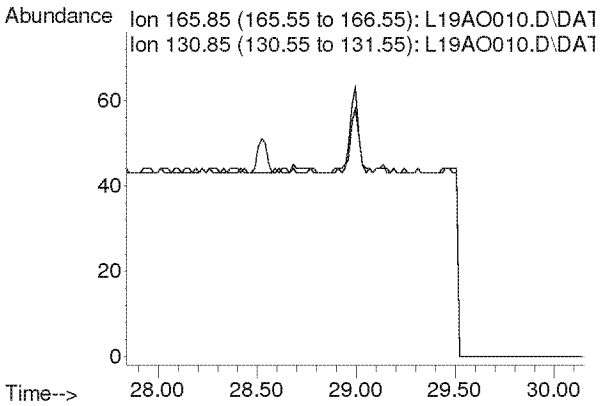


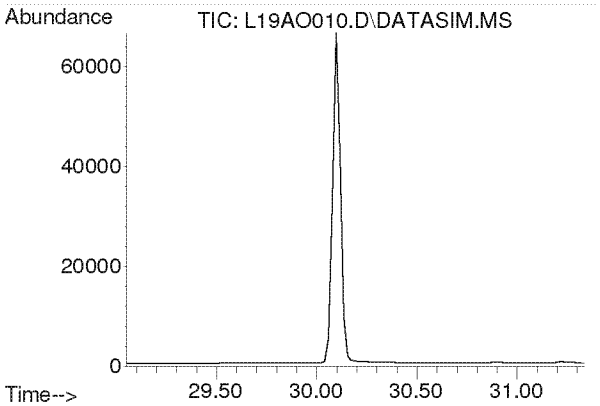
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



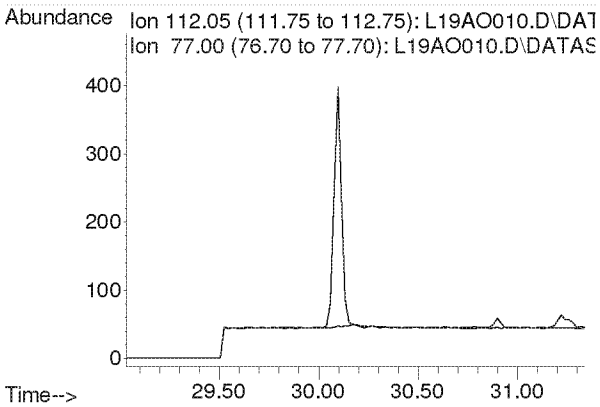


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

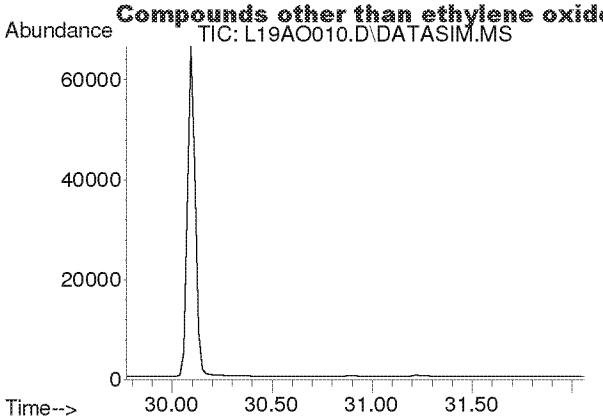
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

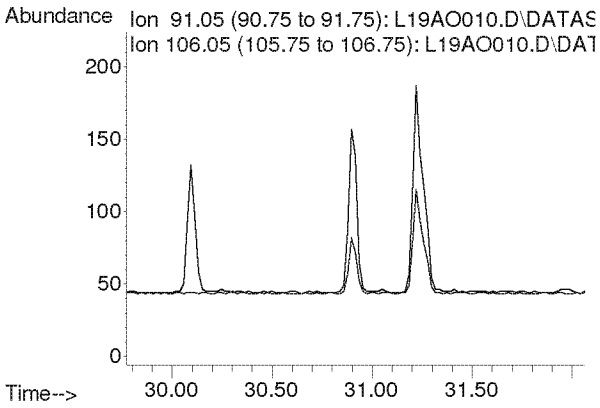


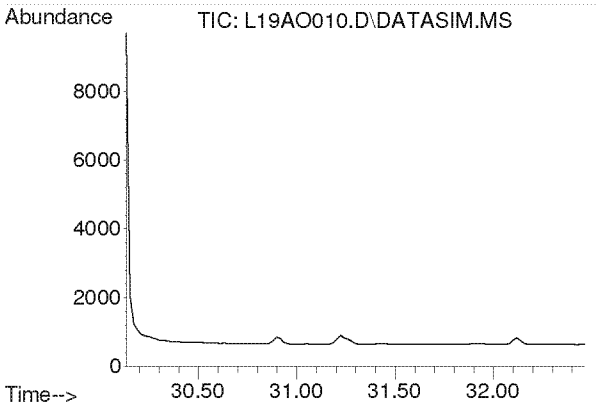
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



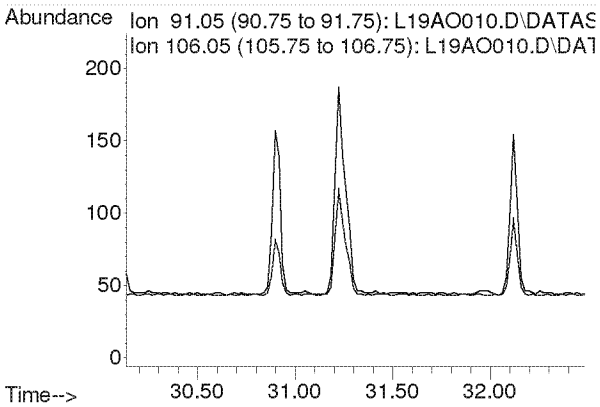


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

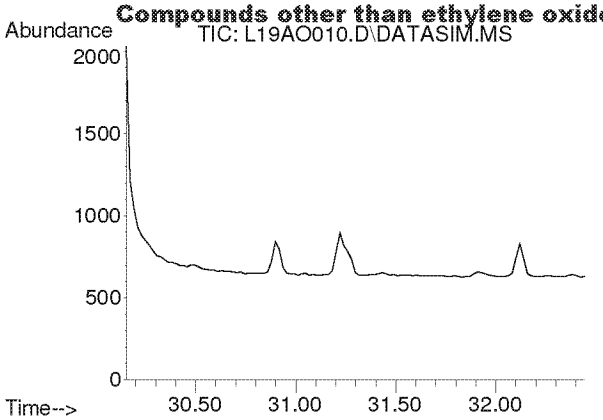
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

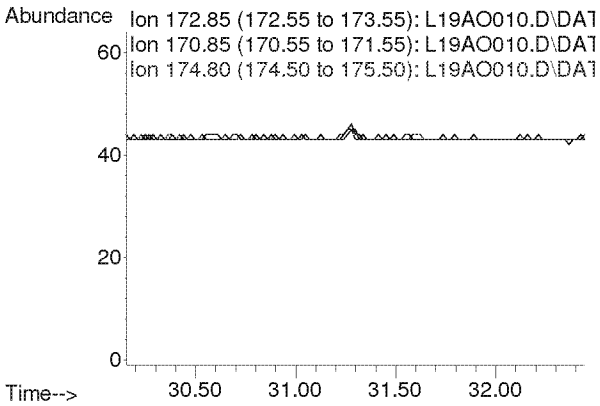


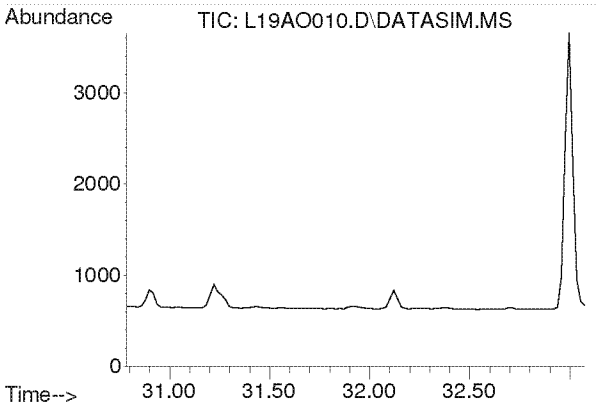
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



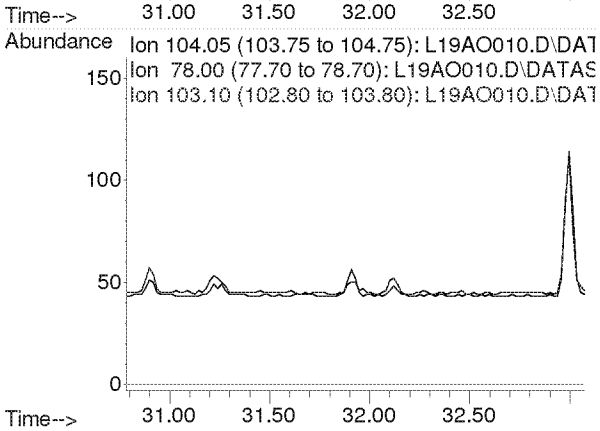


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

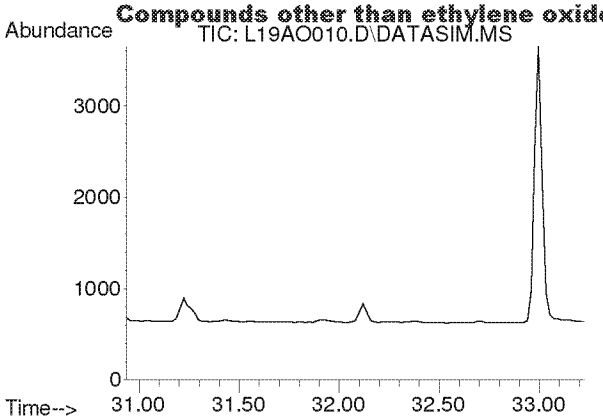
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

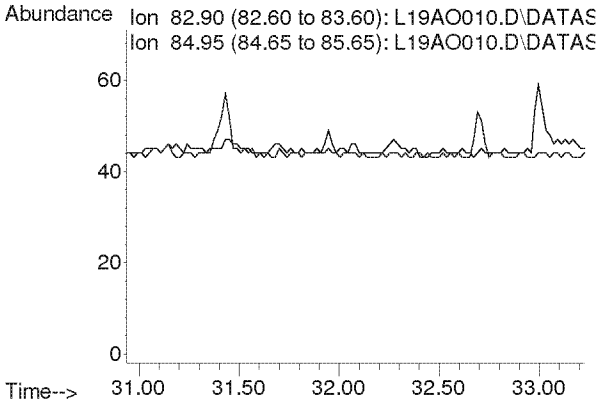


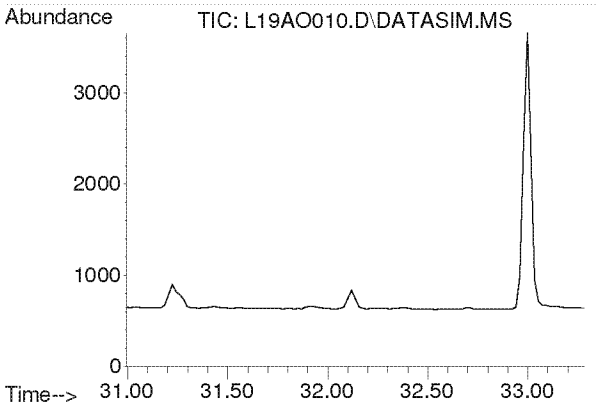
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



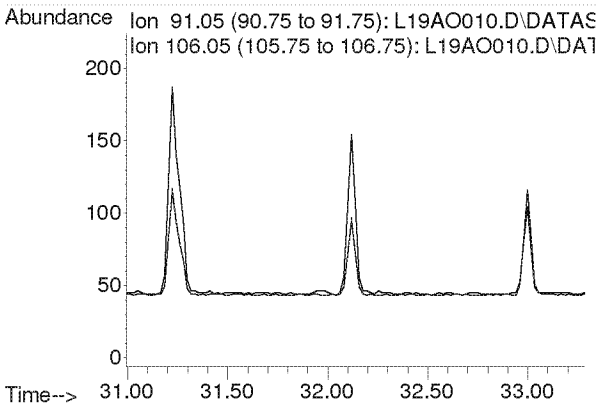


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

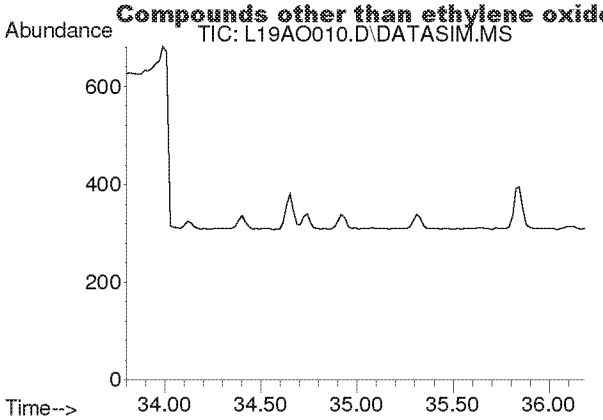
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

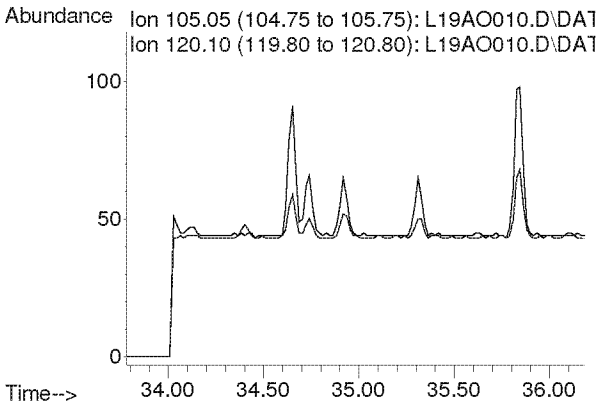


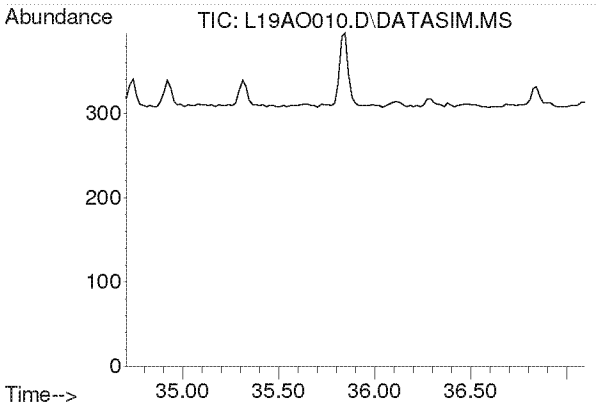
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



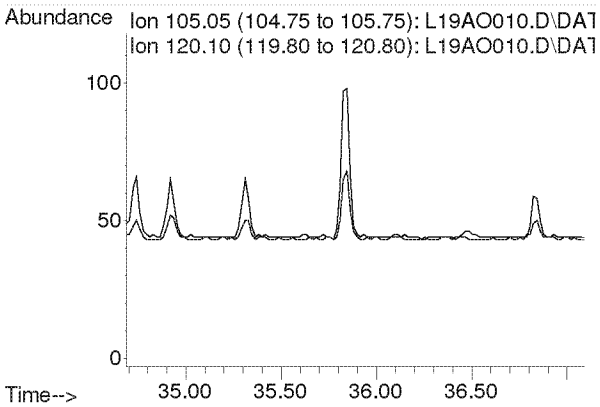


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

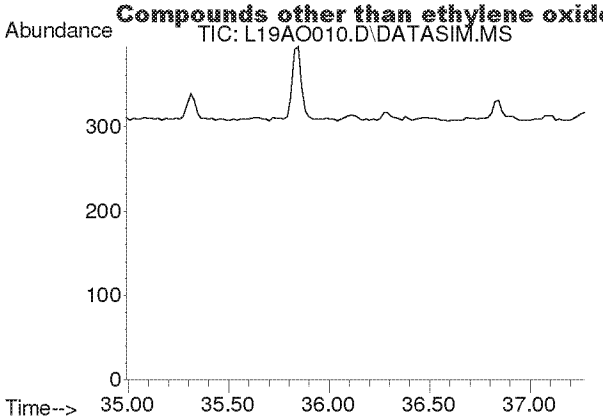
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

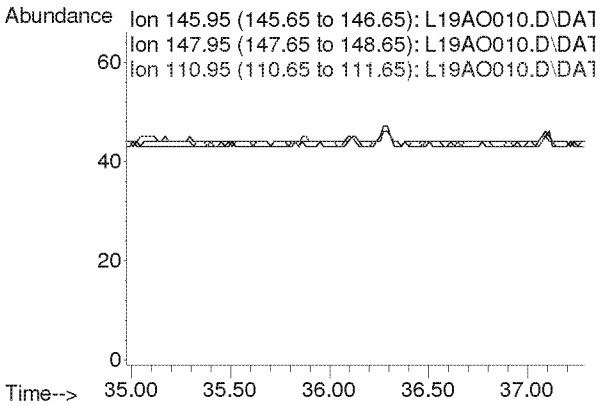


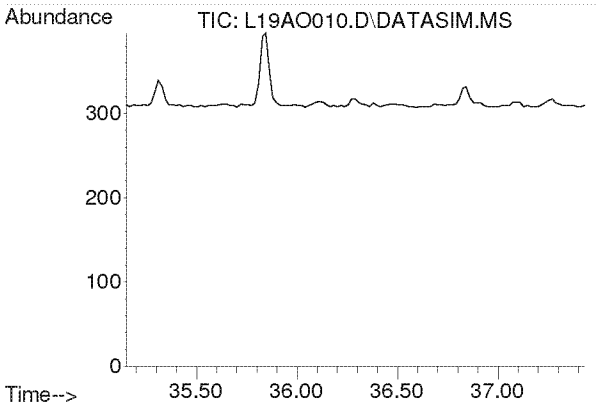
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



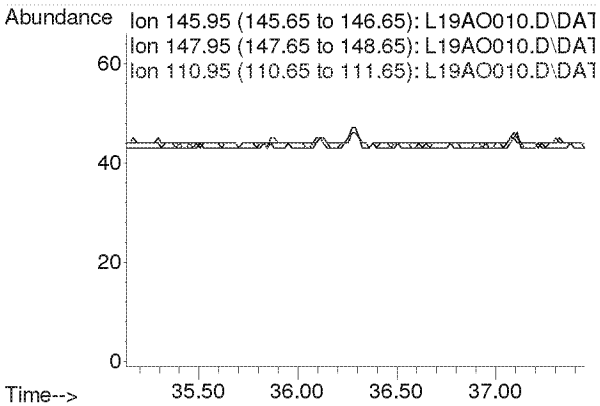


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

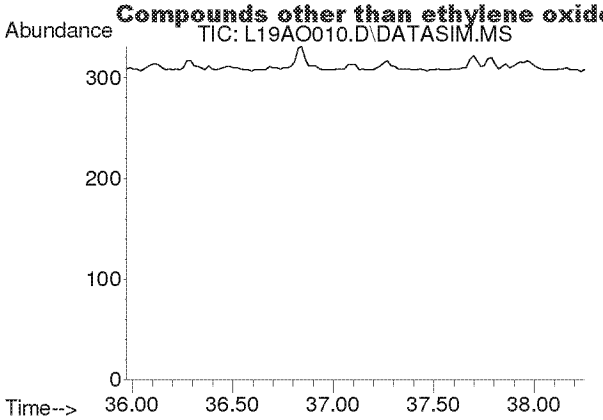
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

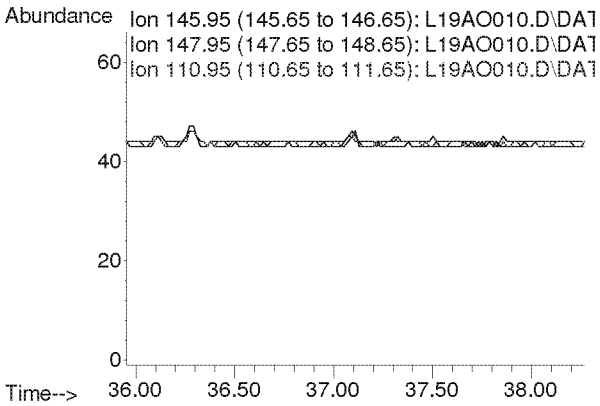


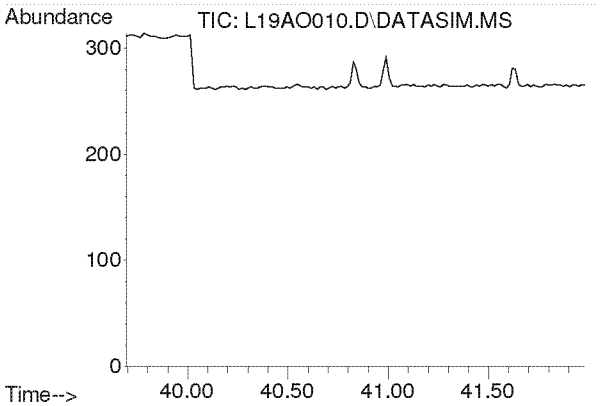
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



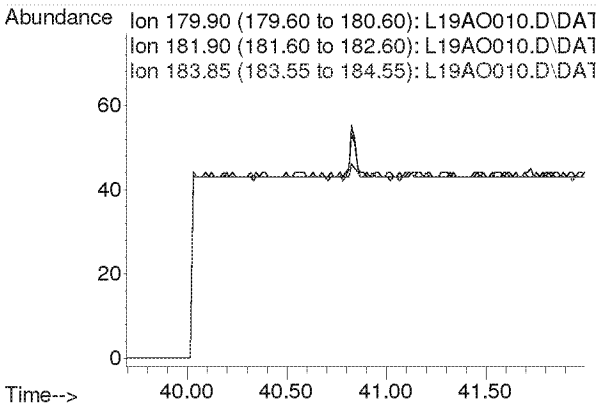


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

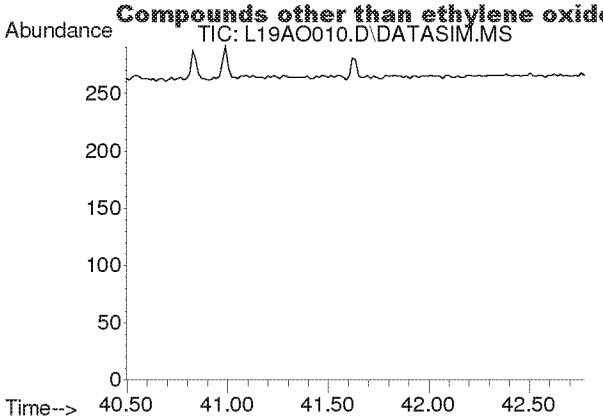
Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

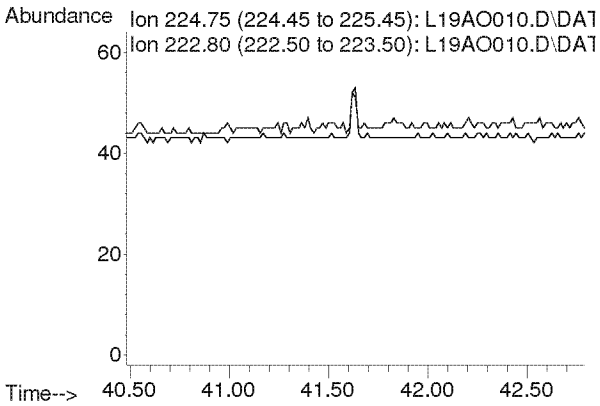


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AO010.D
Acq: 15 Jan 2019 6:32 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\L19AO\
Data File : L19AO011.D
Acq On : 15 Jan 2019 7:34 pm
Operator : MAH
Sample : B9A1508-DUP1
Misc : EPA WB WAREHOUSE XX 1/3/18 R2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 22 11:25:56 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

RMB 1/30/19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	55225	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	132789	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	105226	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	12.455	29	653m	0.2289 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO011.D
Acq On : 15 Jan 2019 7:34 pm
Operator : MAH
Sample : B9A1508-DUP1
Misc : EPA WB WAREHOUSE XX 1/3/18 R2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 22 11:25:56 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

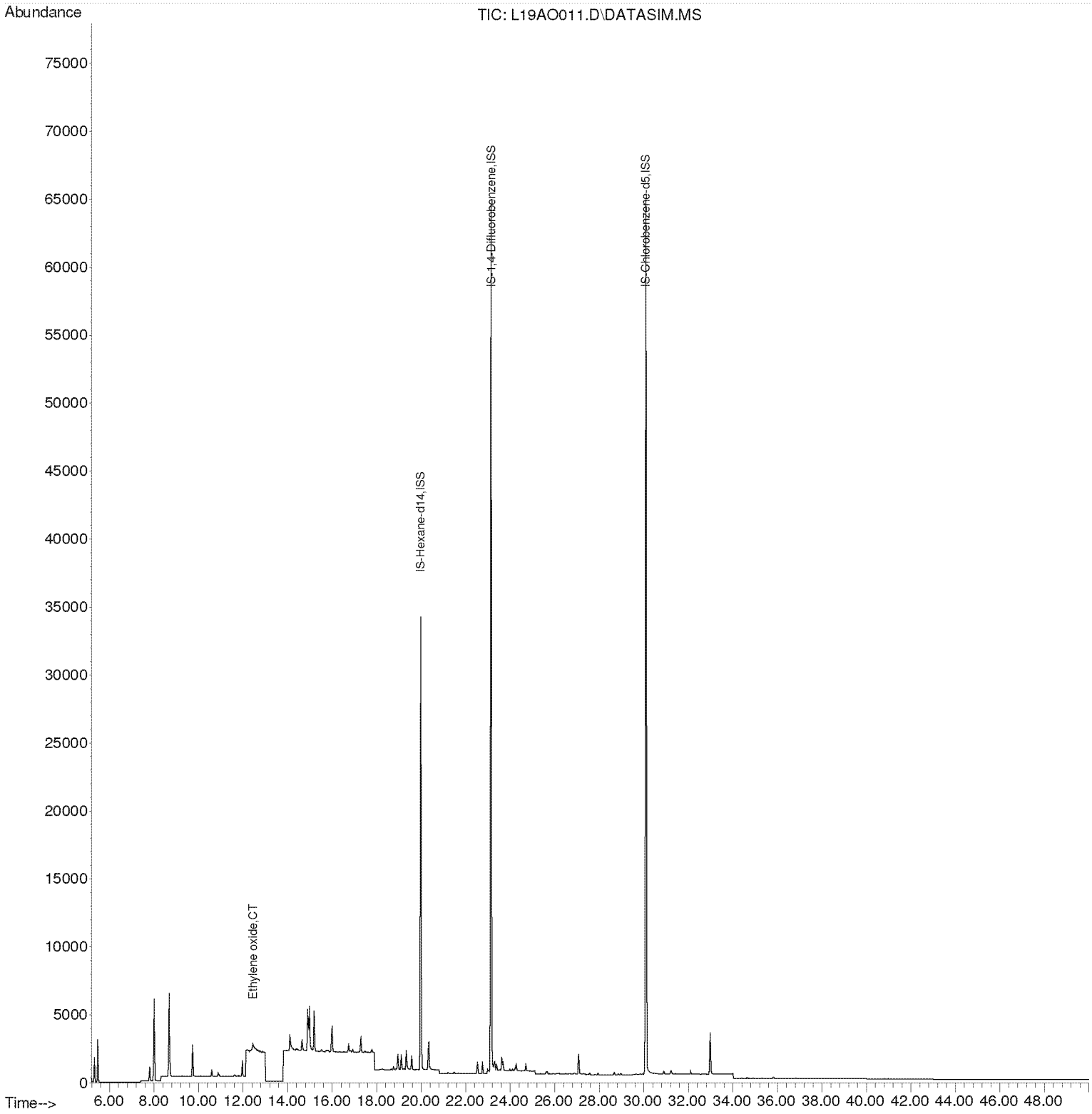
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d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

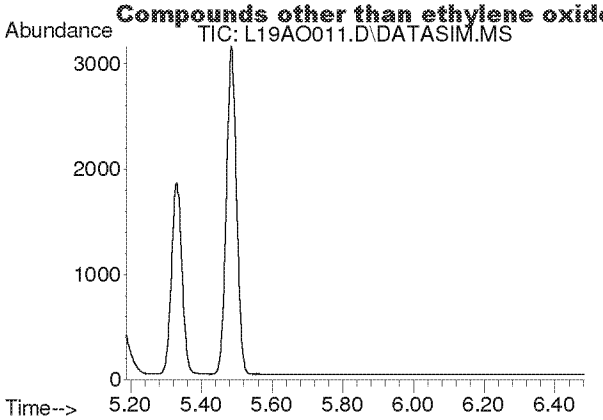
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO011.D
Acq On : 15 Jan 2019 7:34 pm
Operator : MAH
Sample : B9A1508-DUP1
Misc : EPA WB WAREHOUSE R1 1/3/18
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 22 11:25:56 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



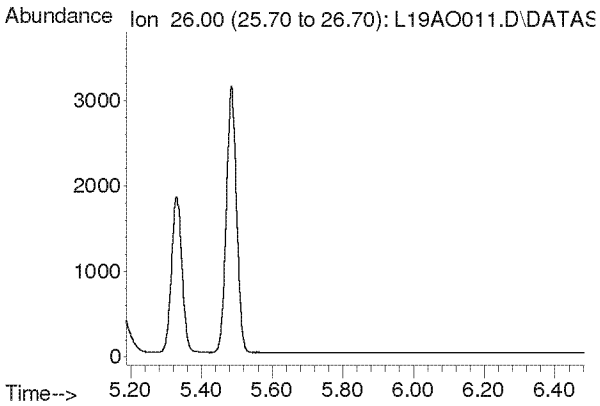
Compounds other than ethylene oxide were not quantitated.

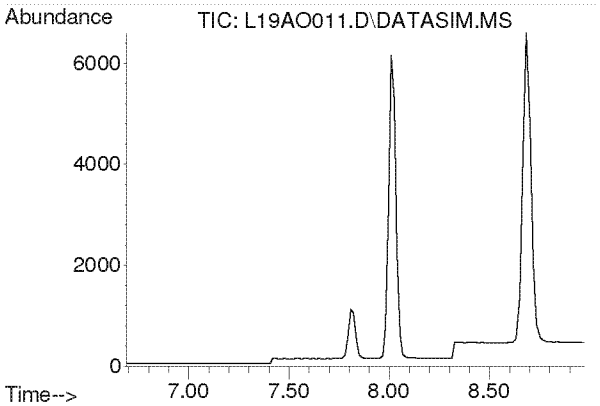


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 26



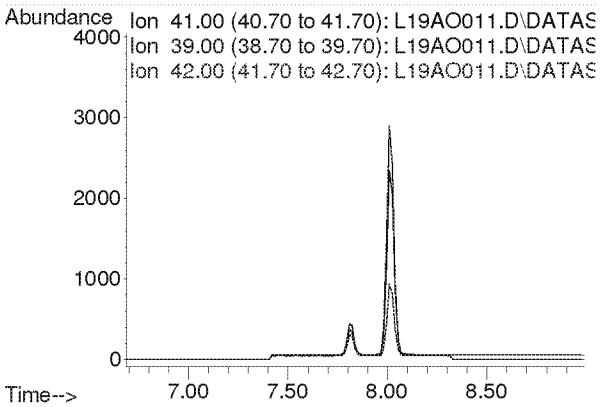


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

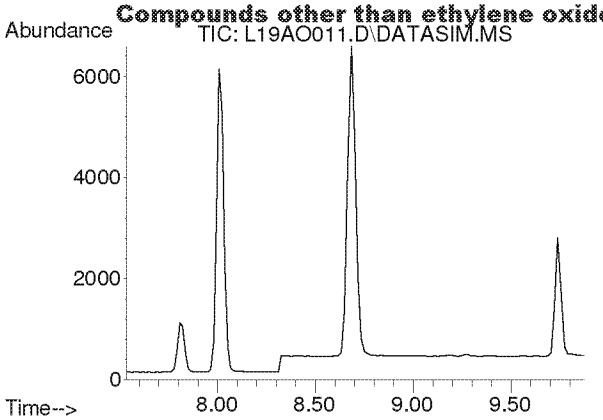
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

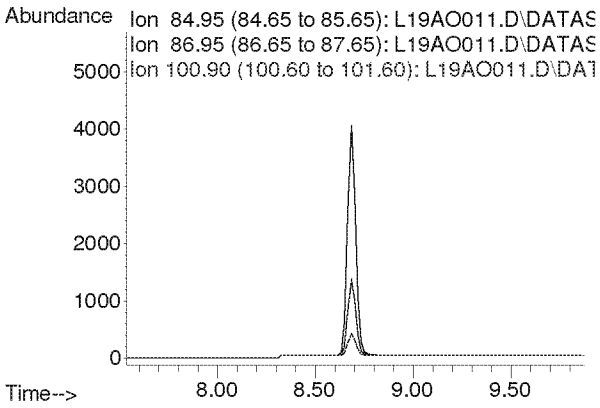


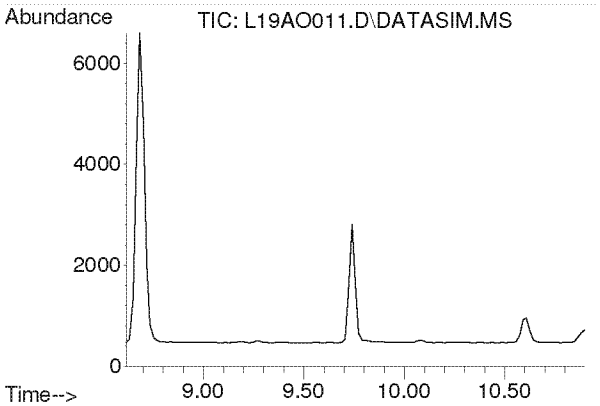
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



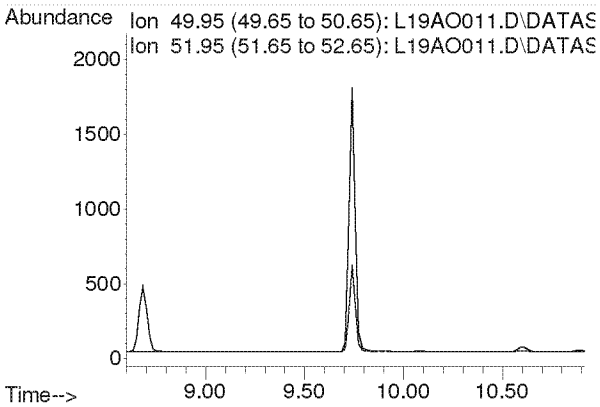


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

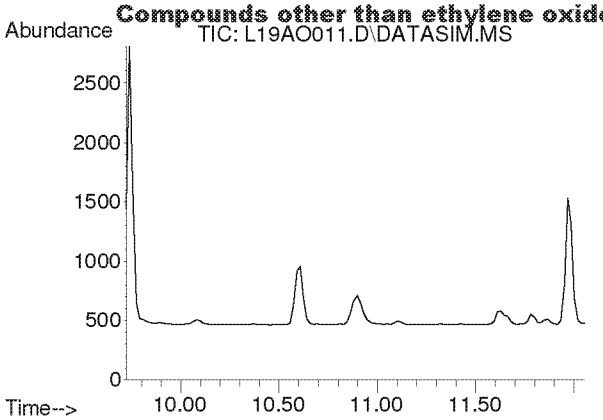
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

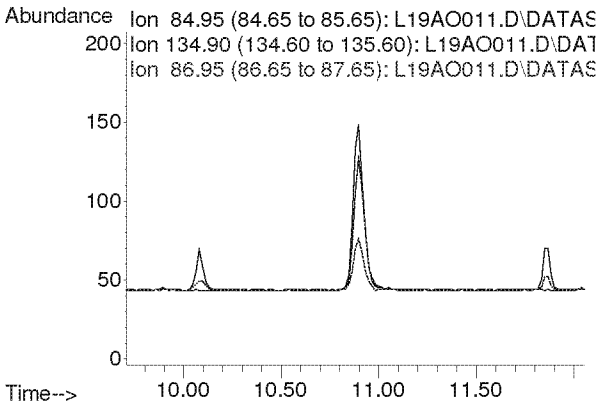


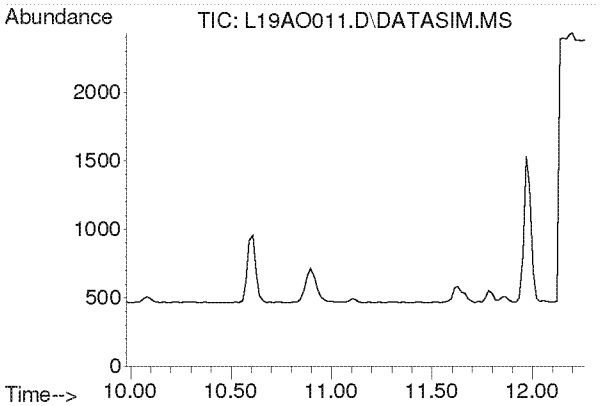
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



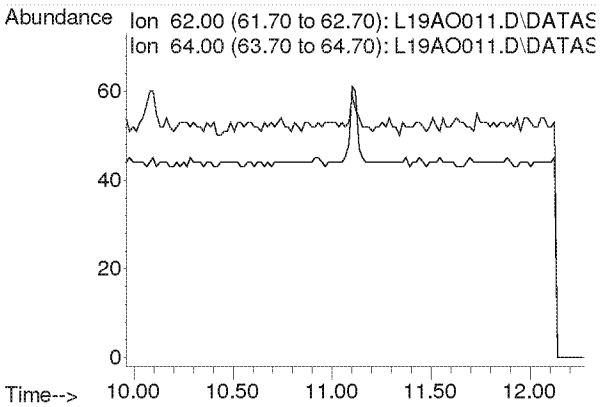


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

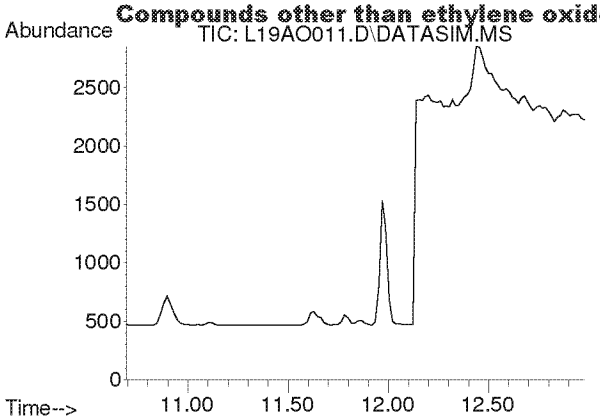
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

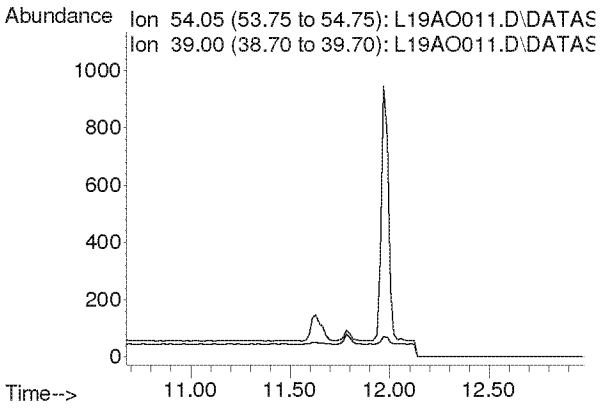


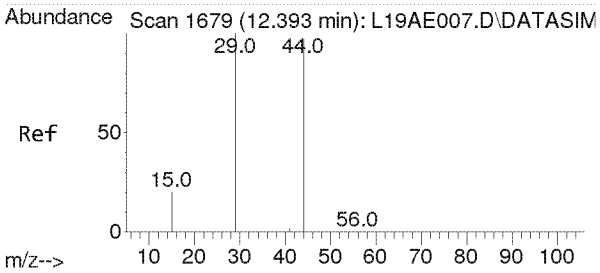
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

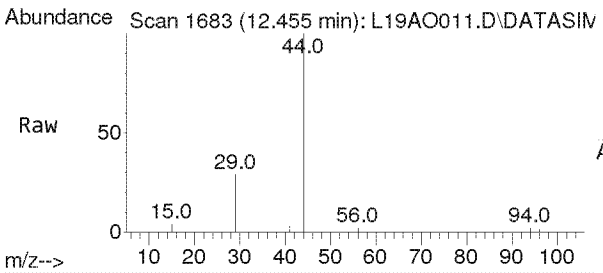


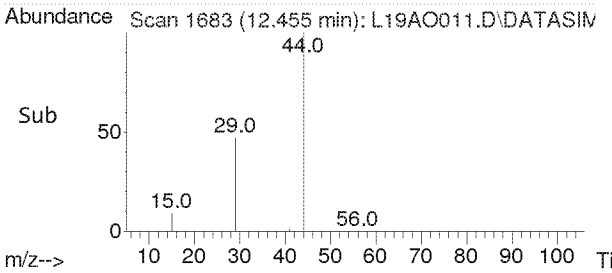


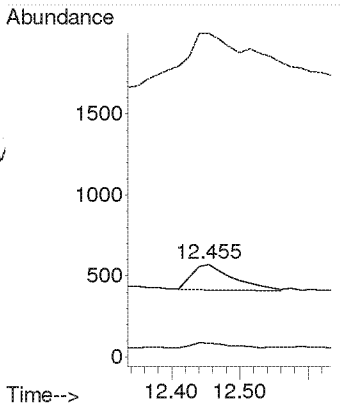
#9
Ethylene oxide
Concen: 0.229 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.062 min
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 29 Resp: 653

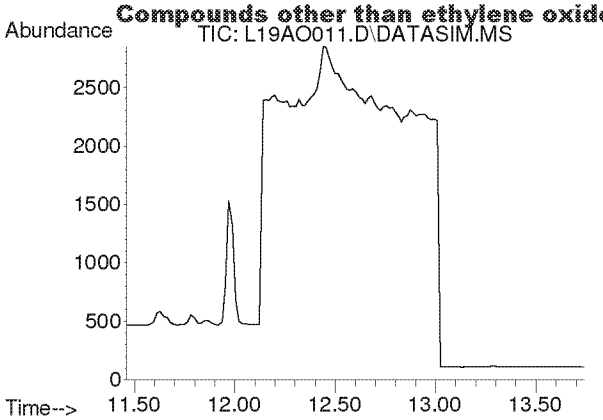
Ion	Ratio	Lower	Upper
29	100		
15	16.8	15.4	23.0
44	413.3	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

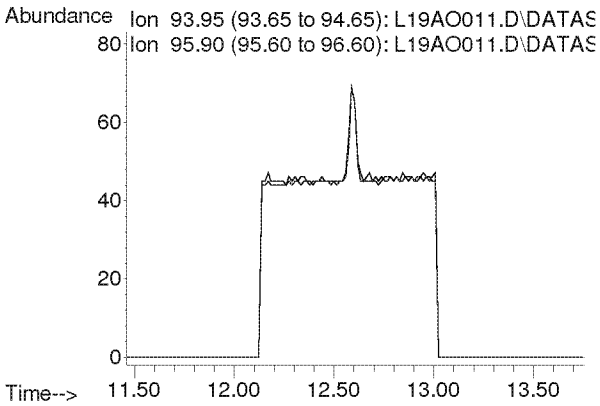


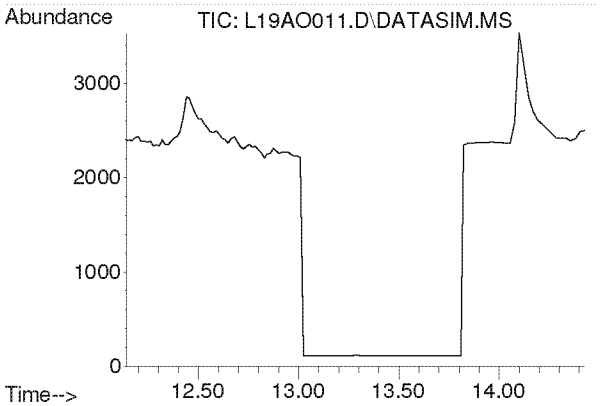
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



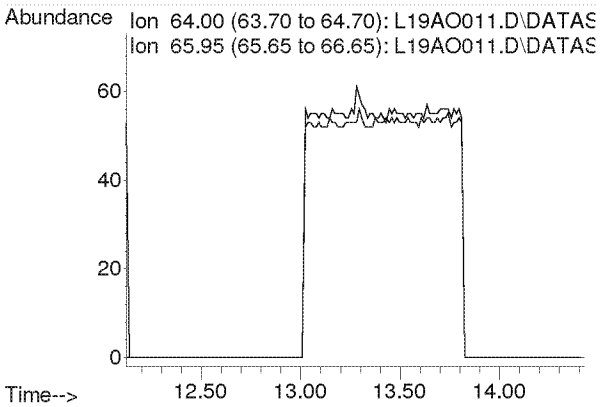


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

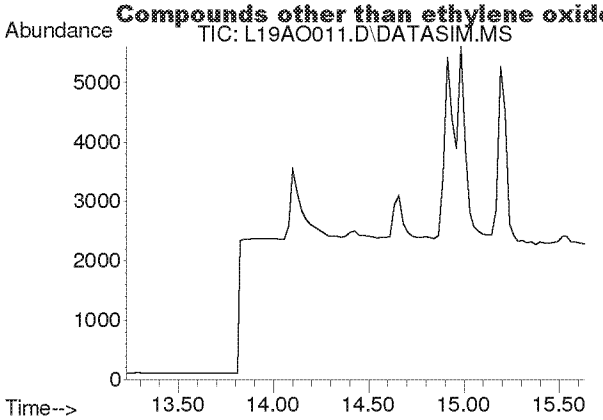
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

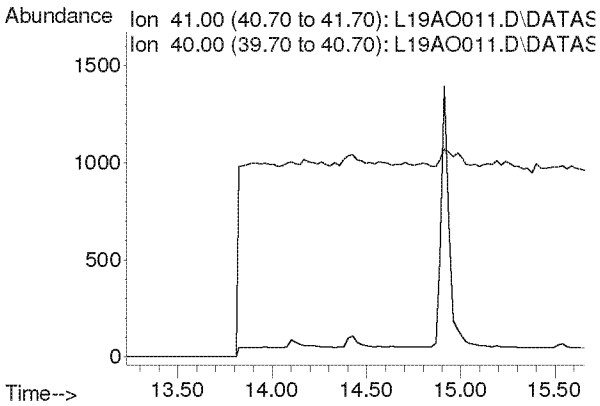


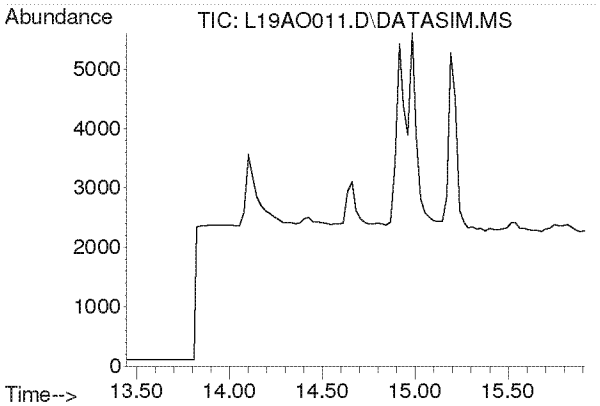
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



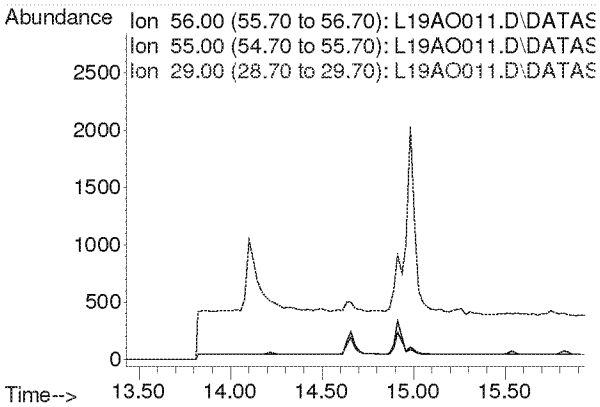


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

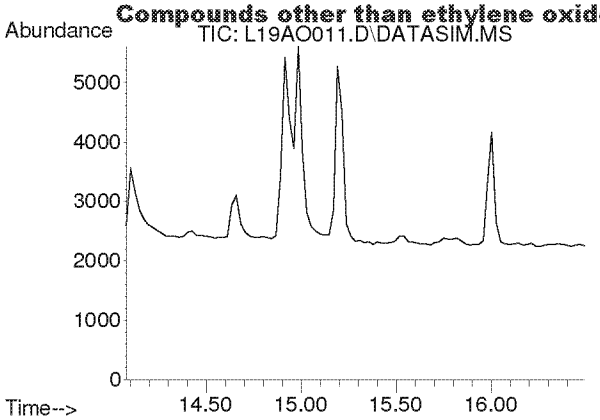
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

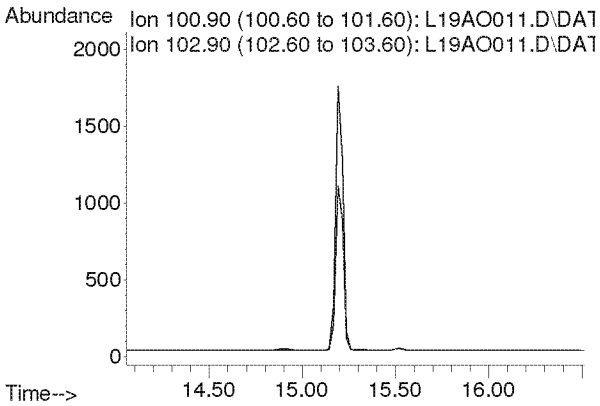


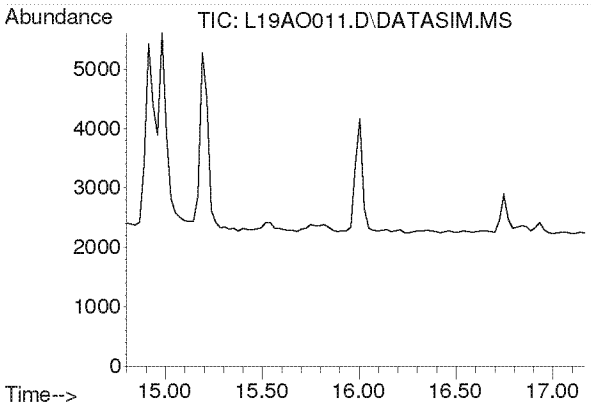
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



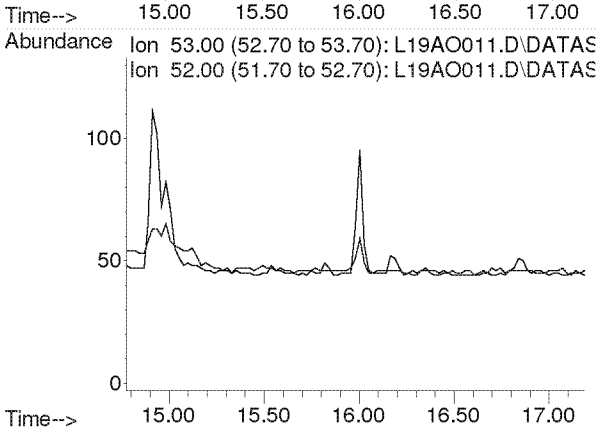


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

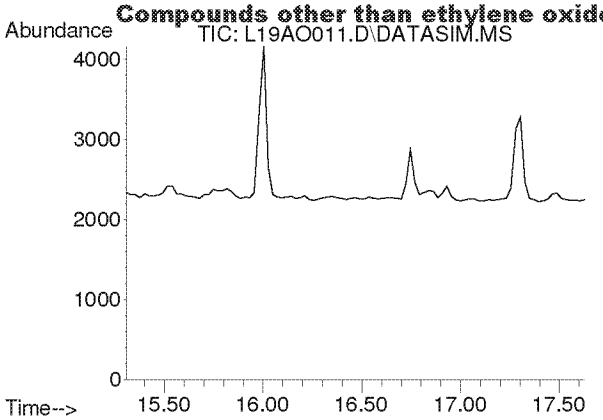
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

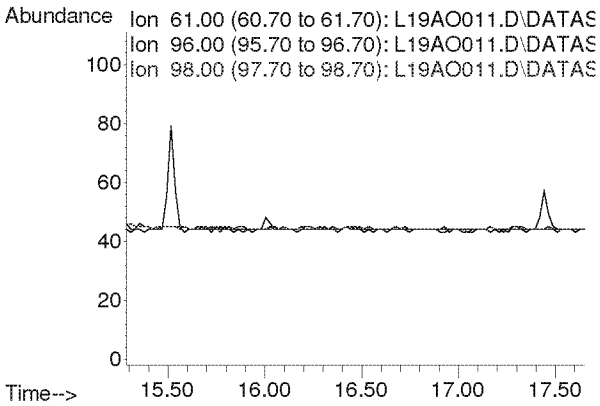


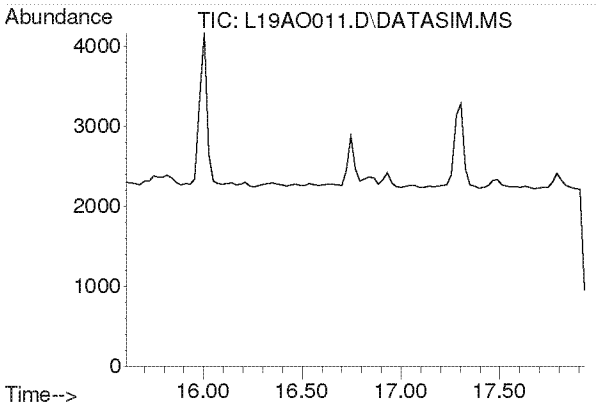
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



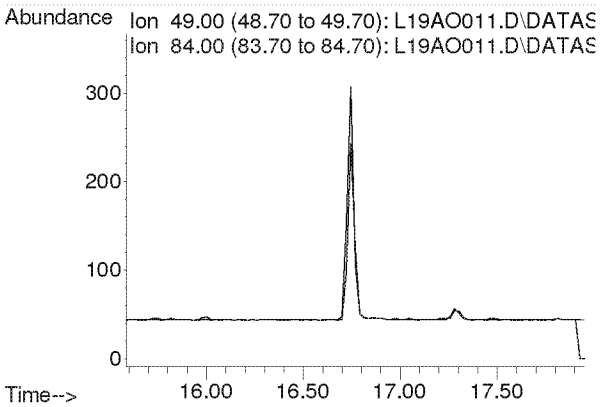


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

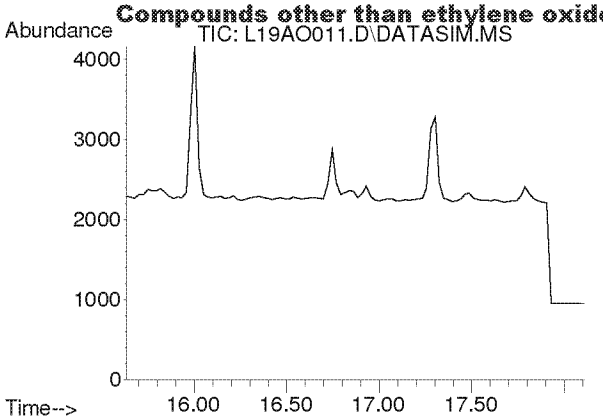
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

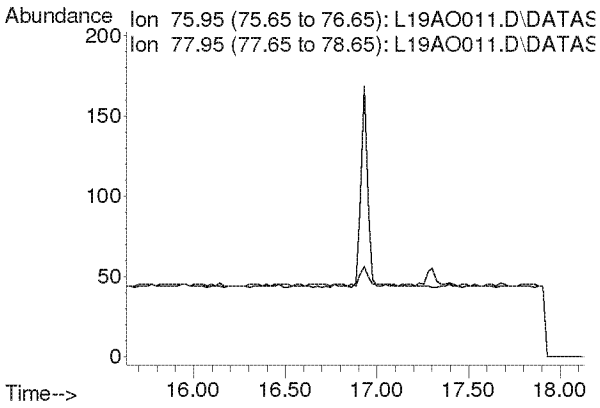


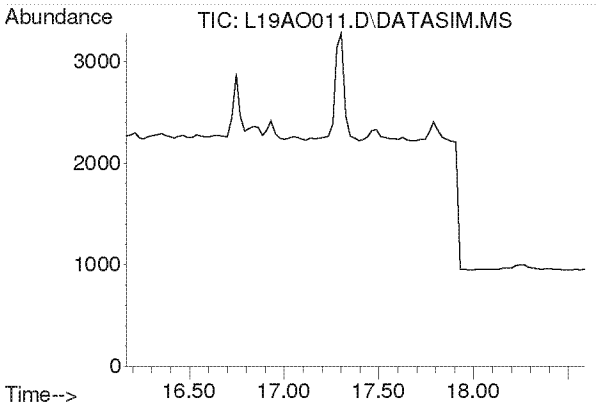
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



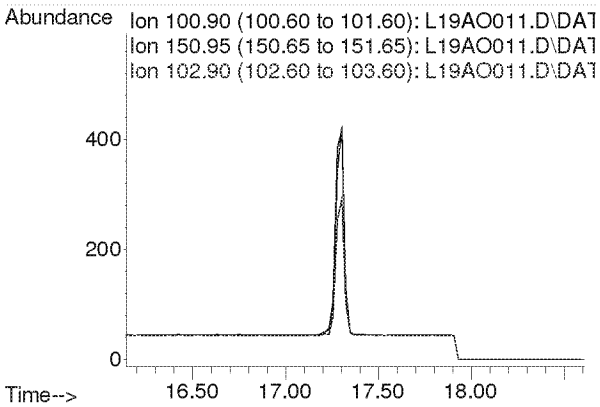


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

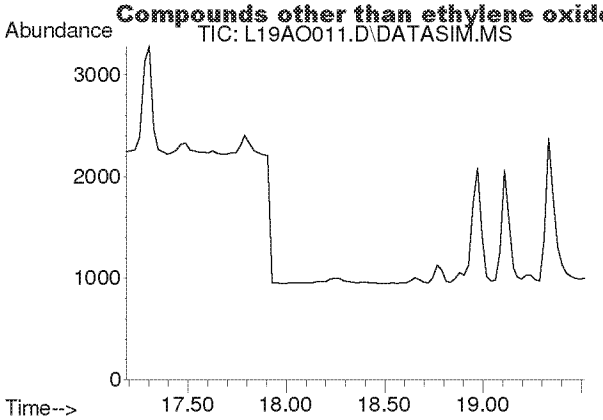
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

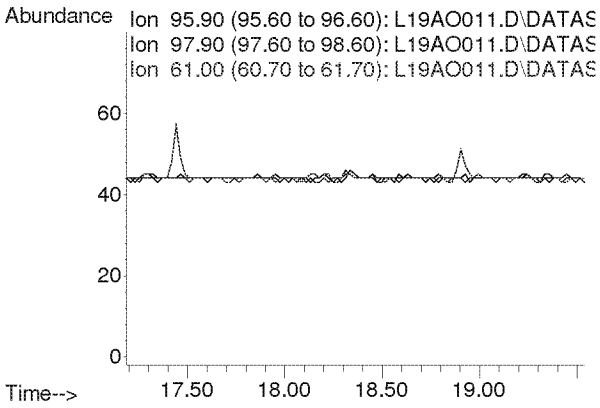


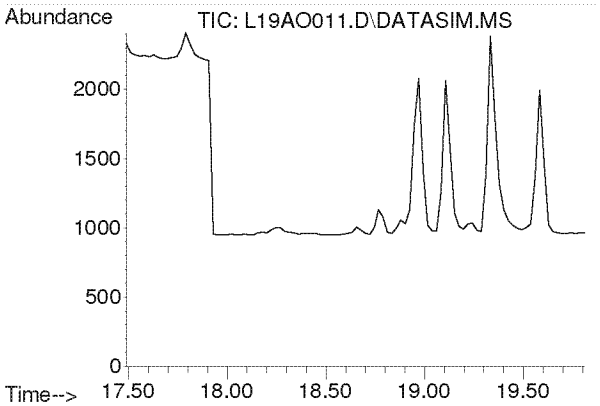
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



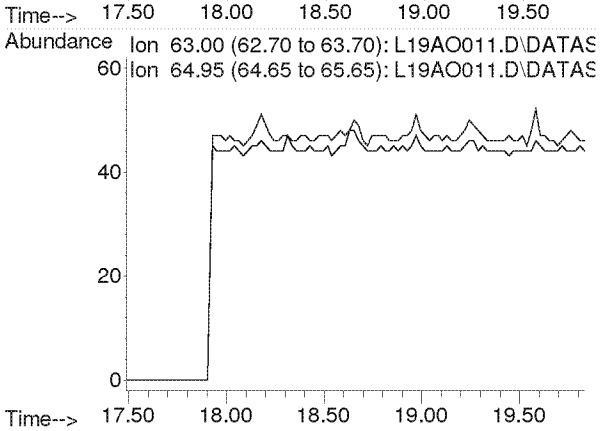


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

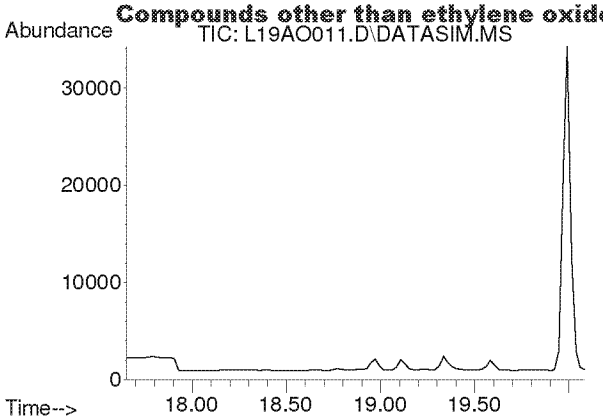
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

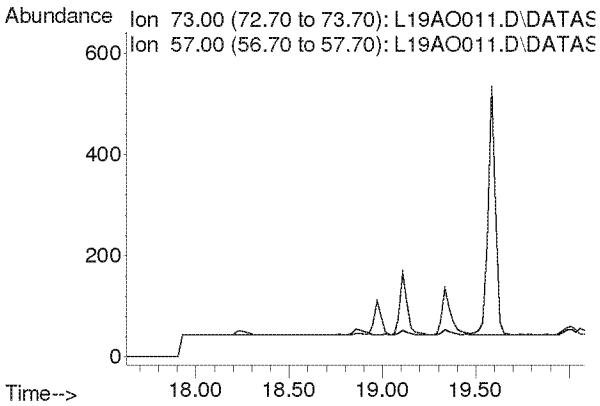


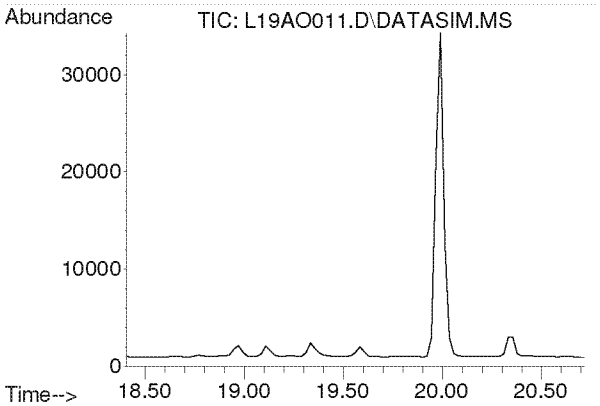
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



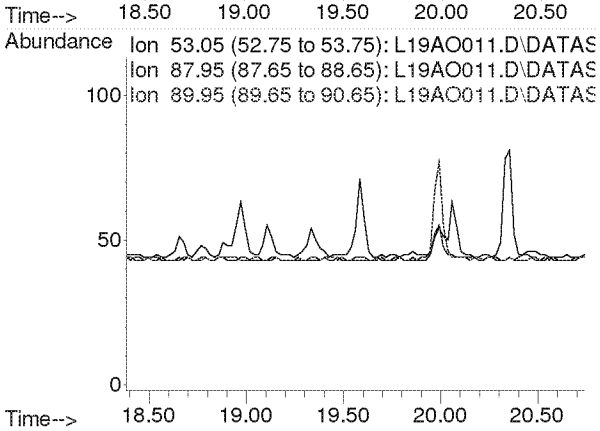


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

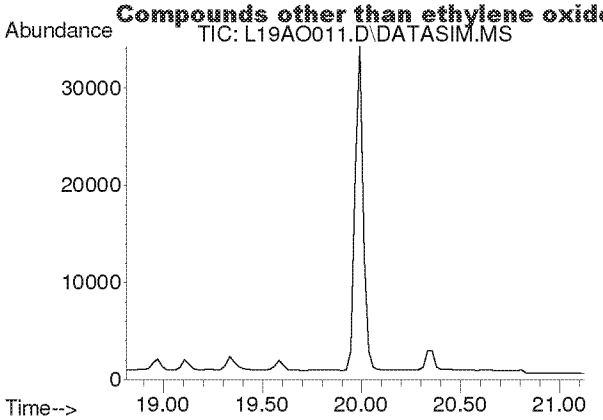
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

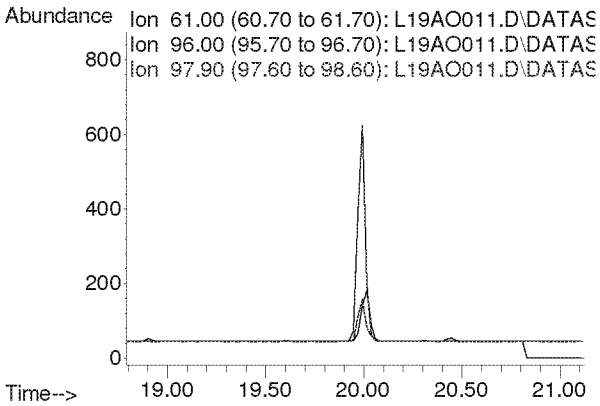


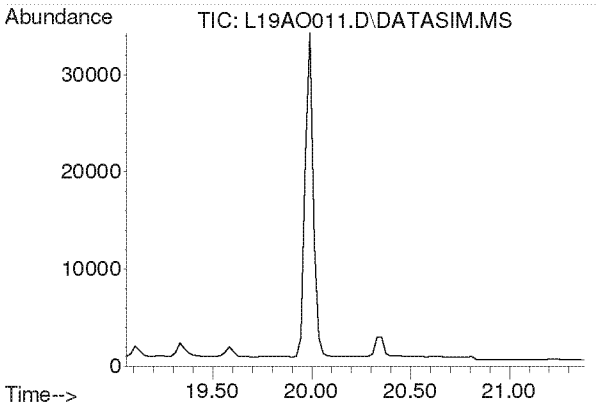
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



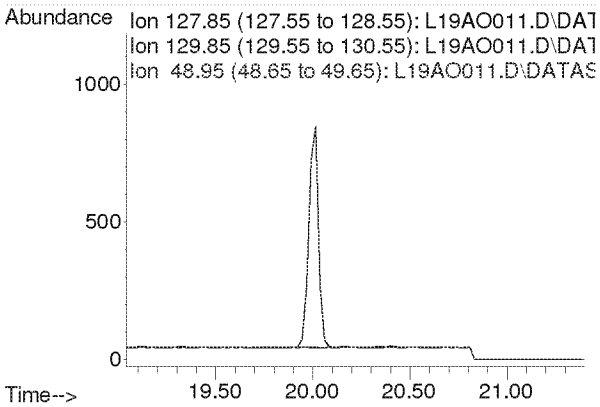


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

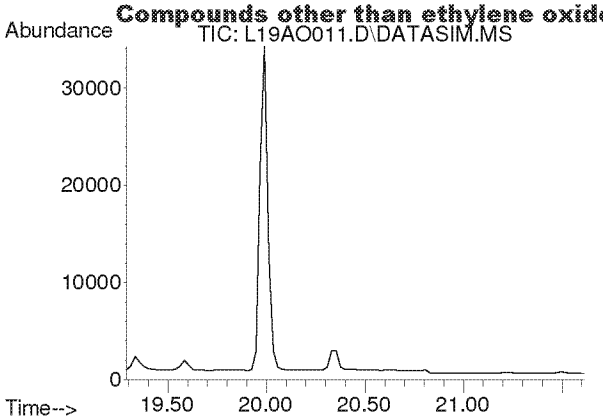
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

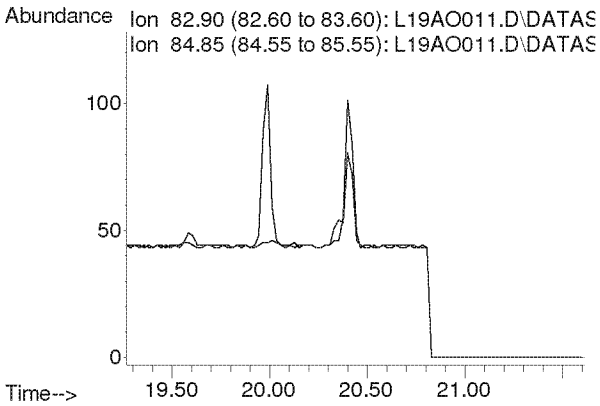


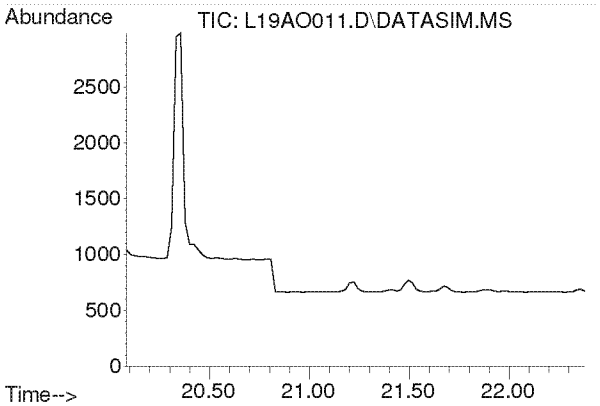
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



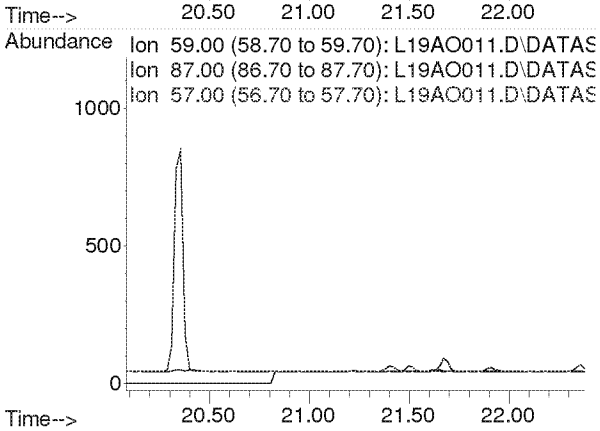


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

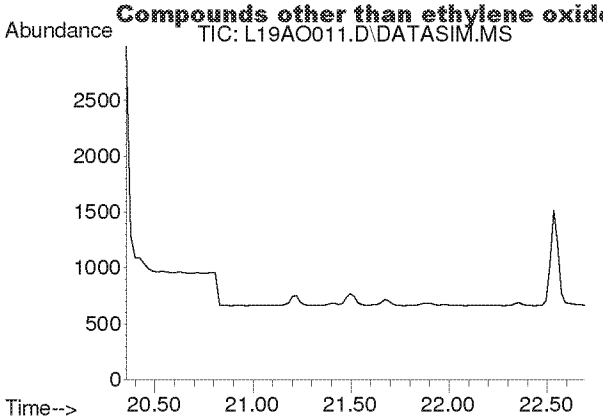
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

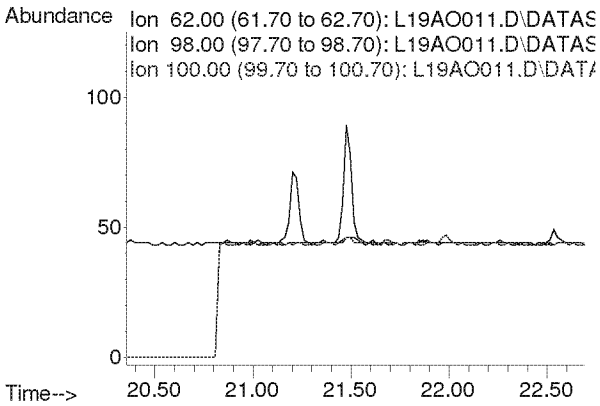


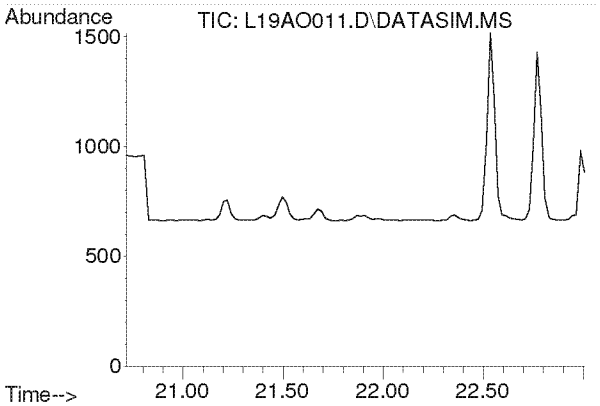
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



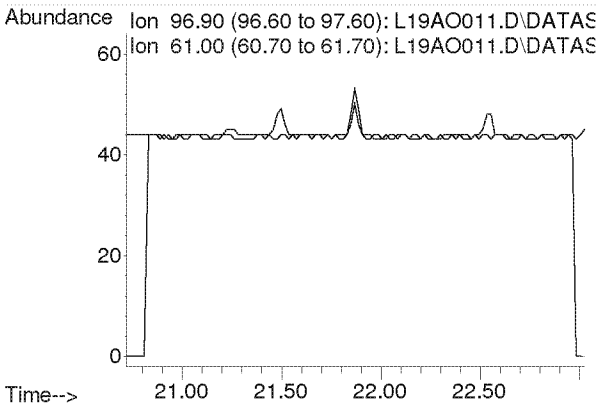


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

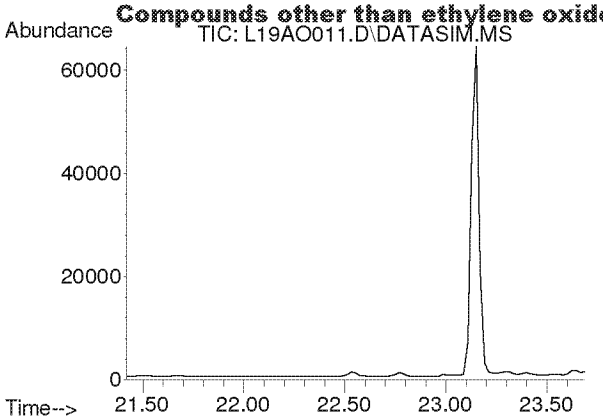
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

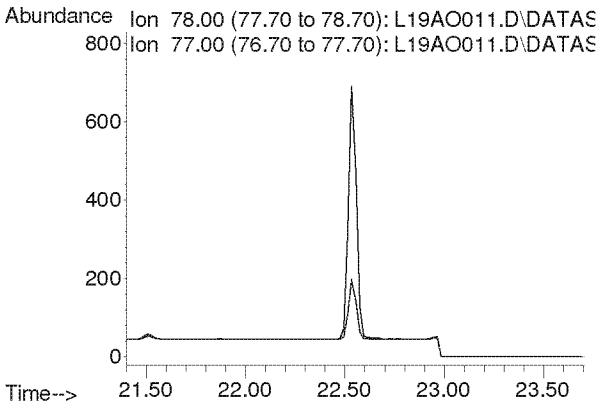


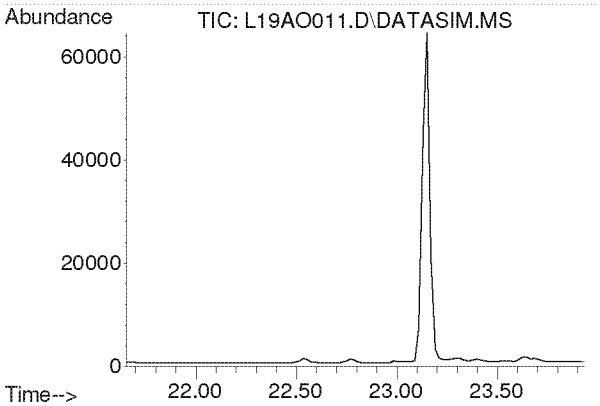
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



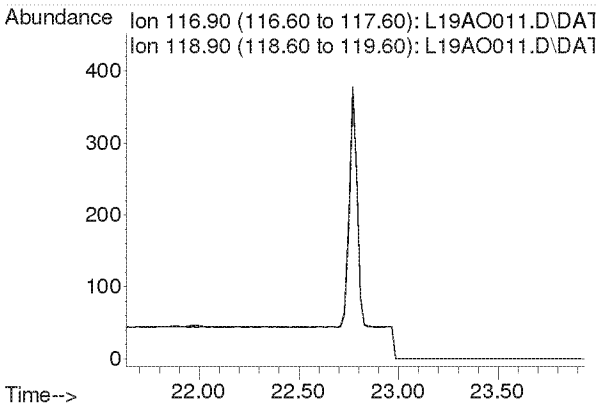


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

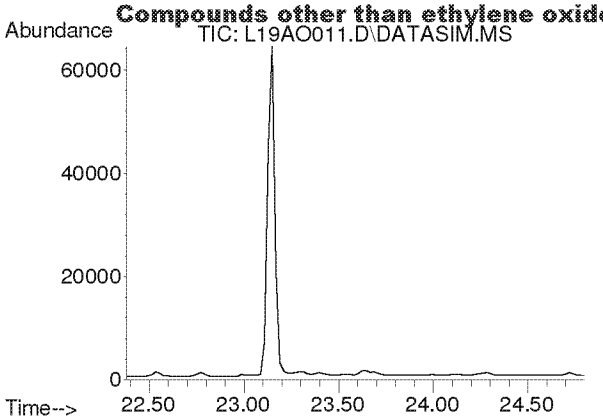
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

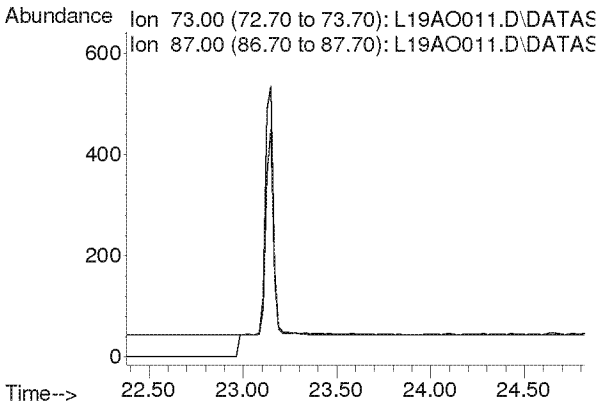


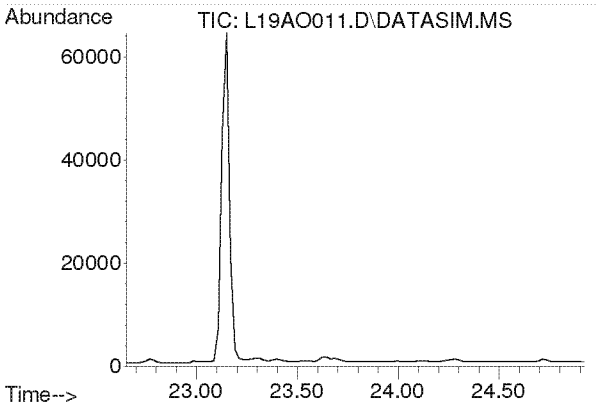
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



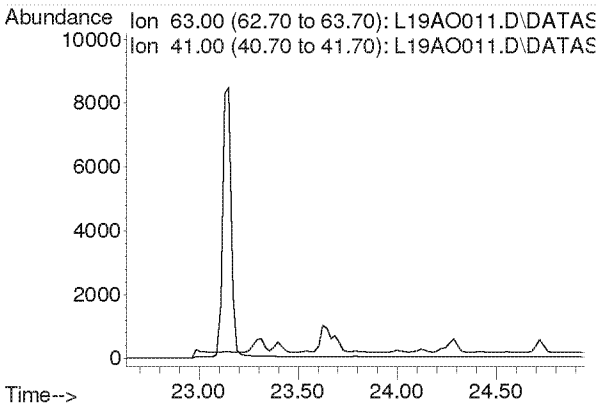


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

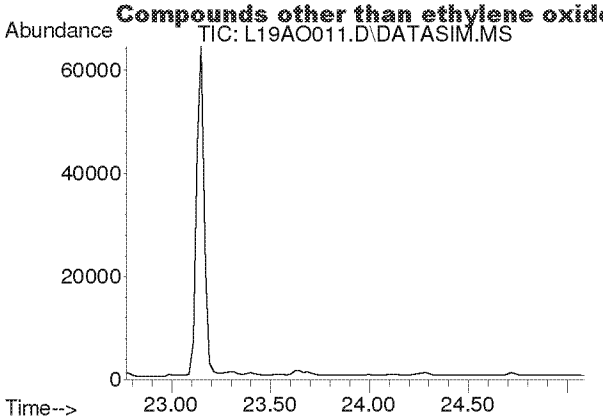
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

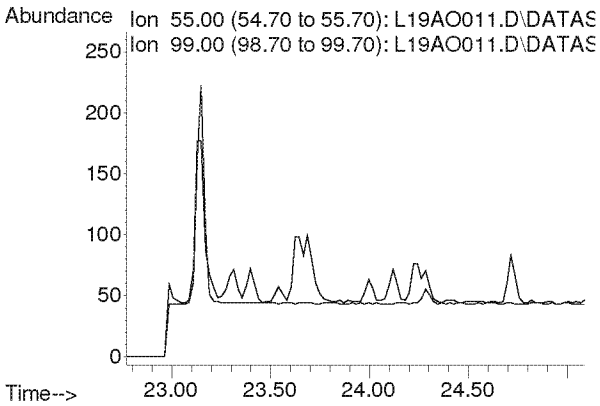


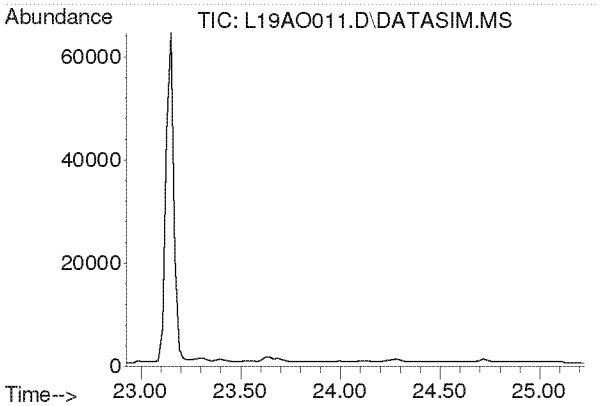
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



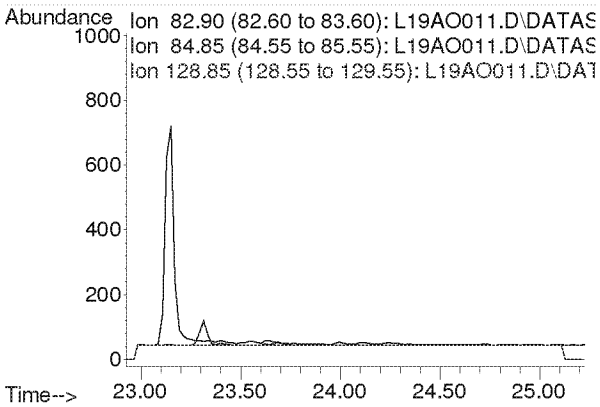


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

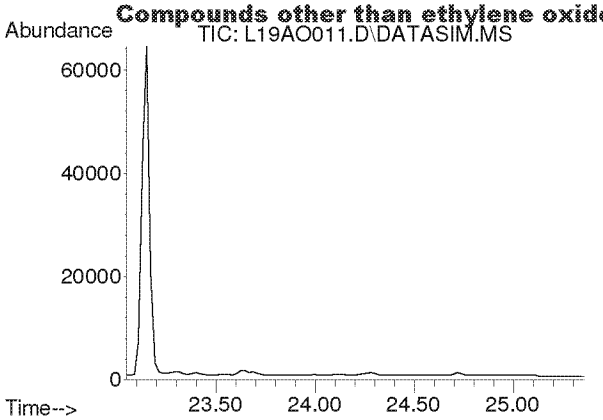
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

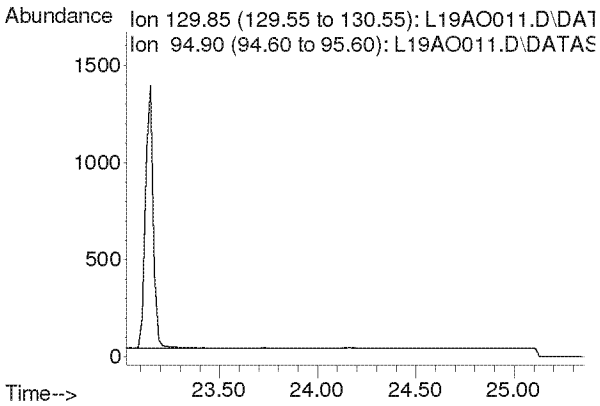


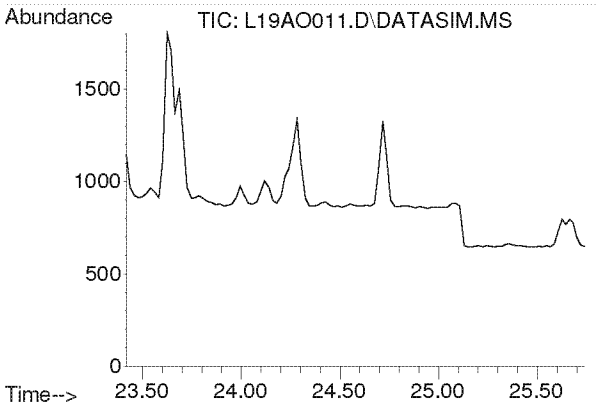
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



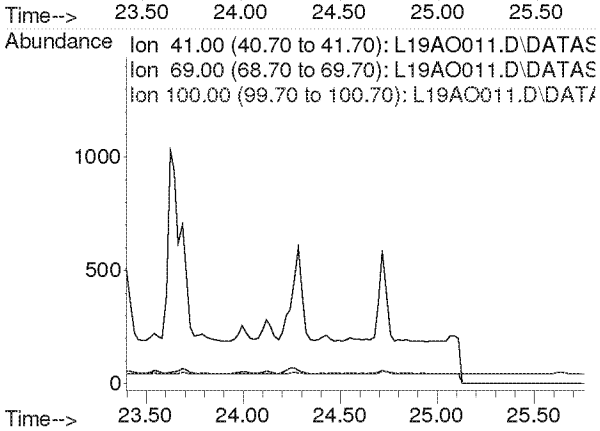


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

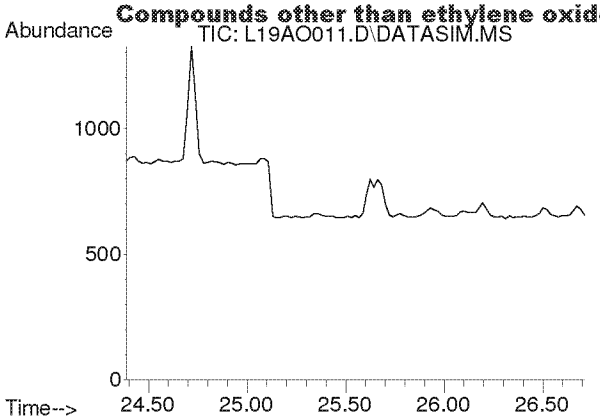
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

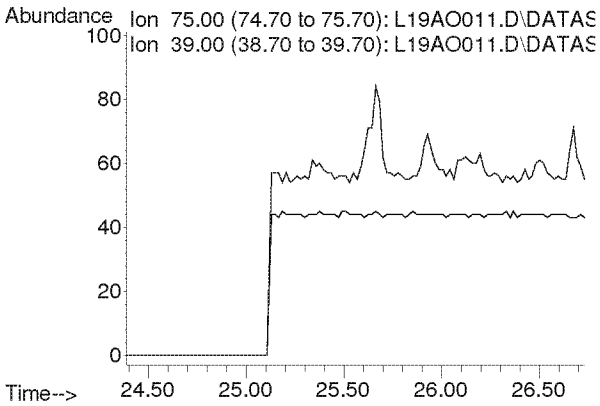


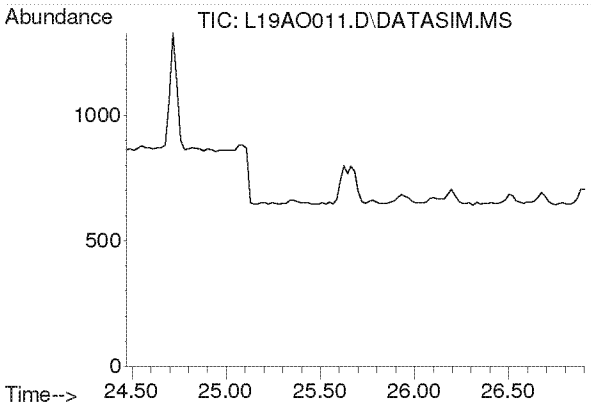
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



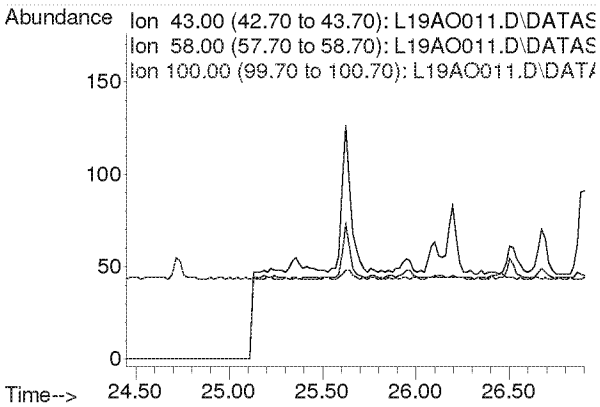


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

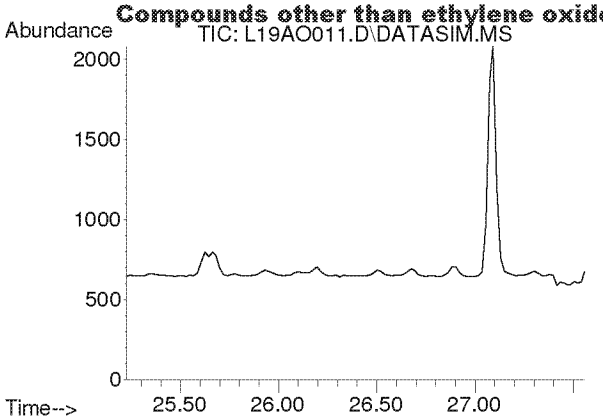
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

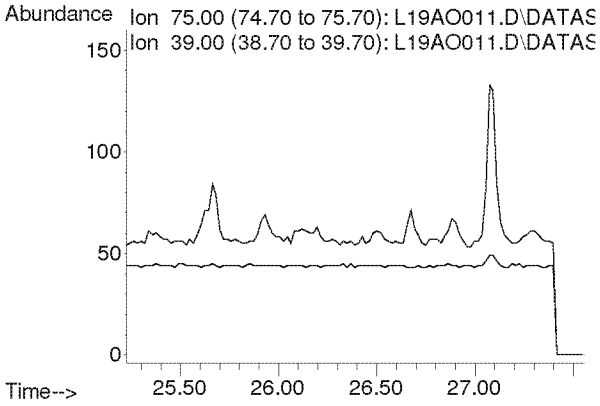


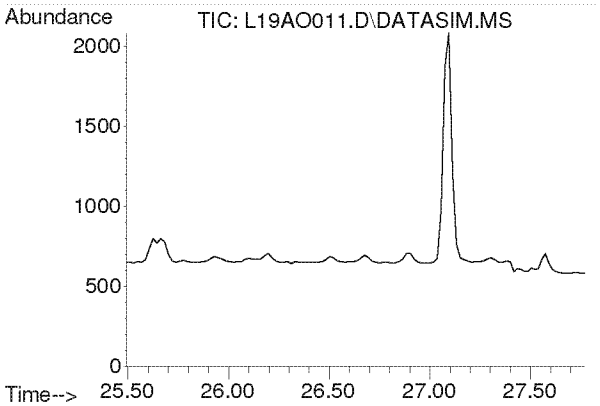
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



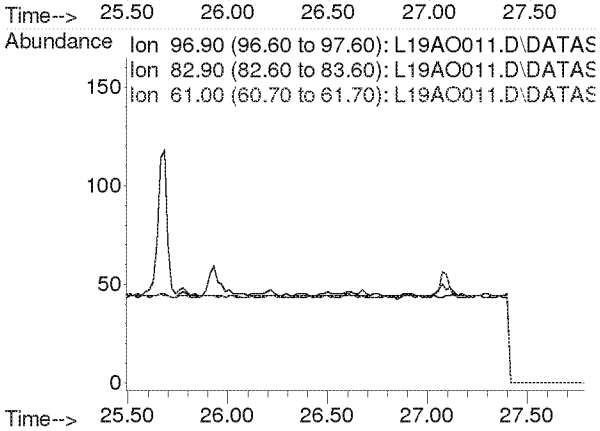


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

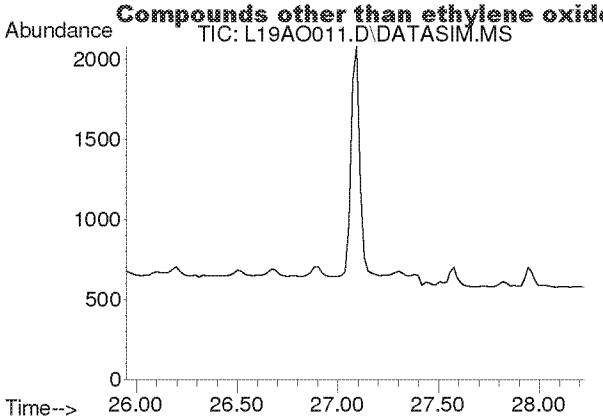
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

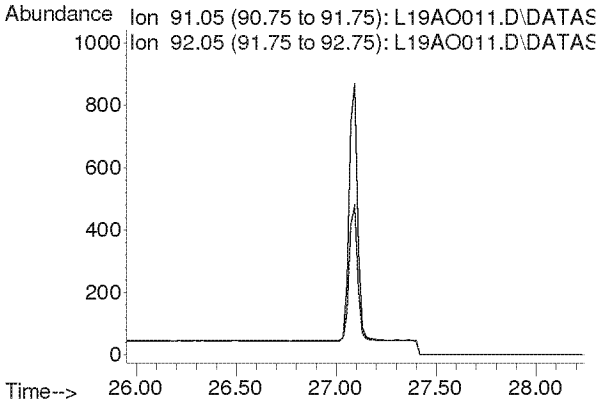


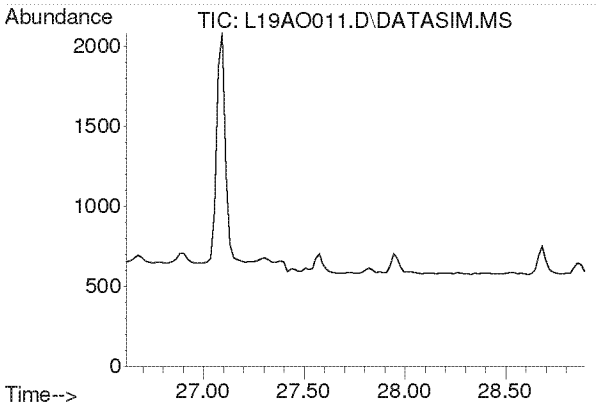
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



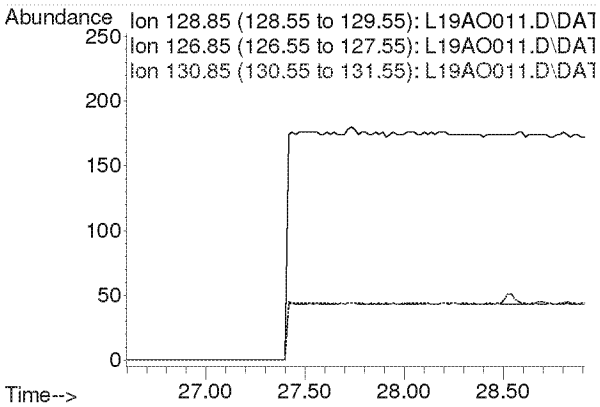


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

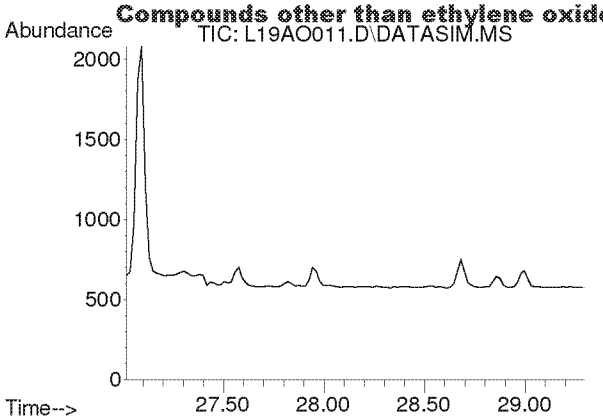
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

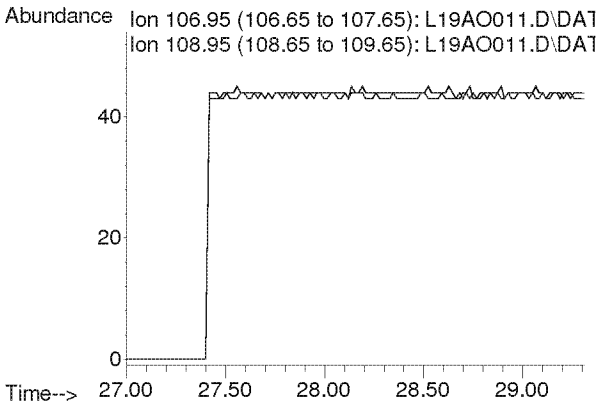


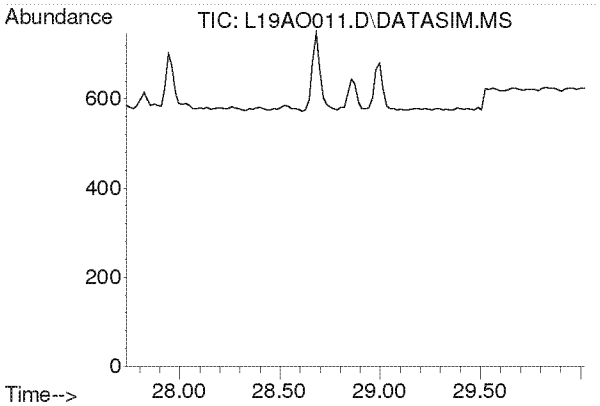
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



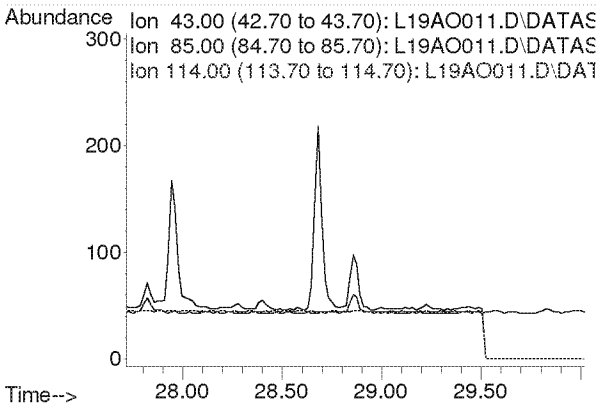


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

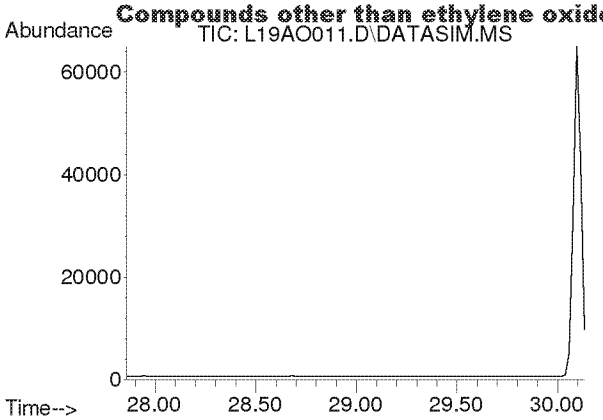
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

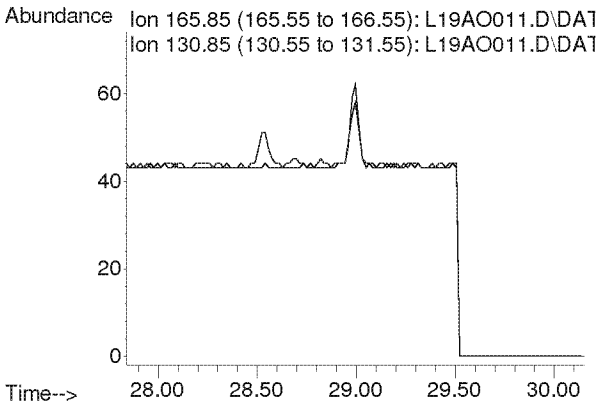


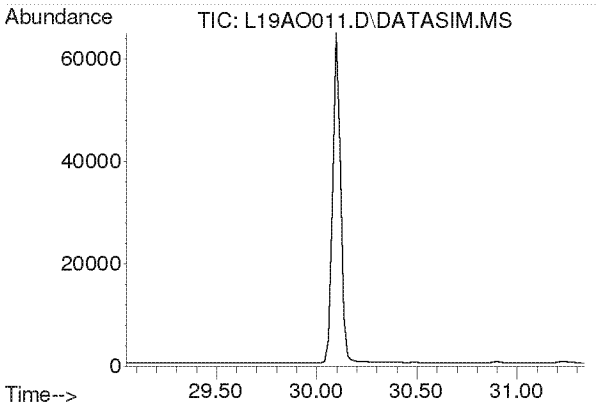
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



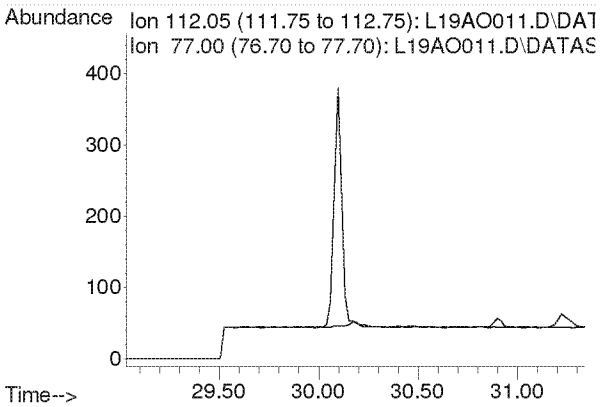


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

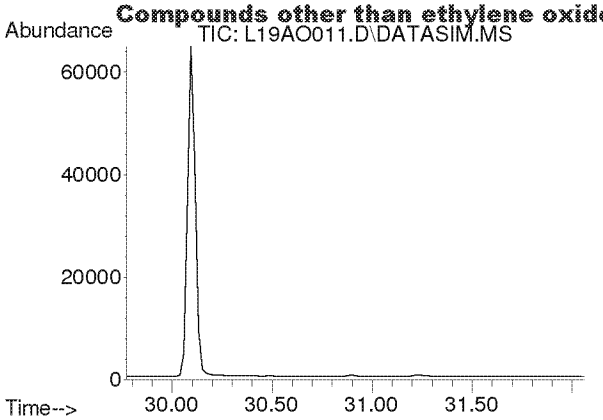
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

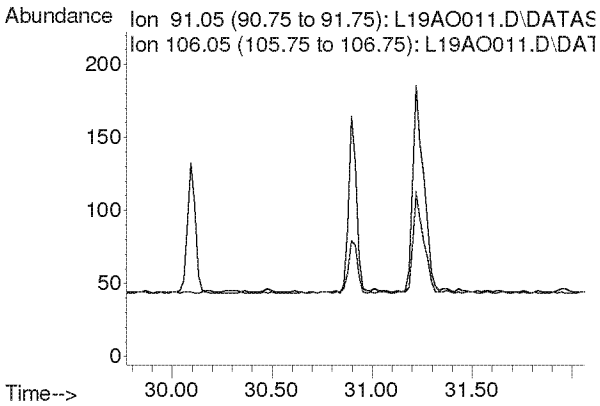


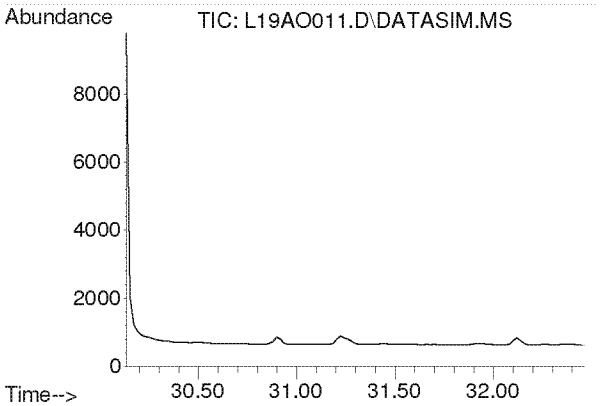
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



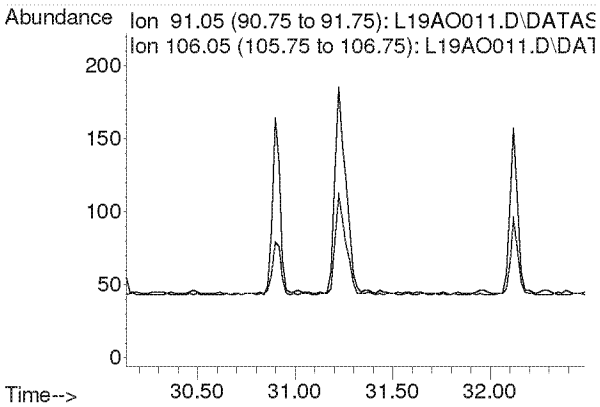


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

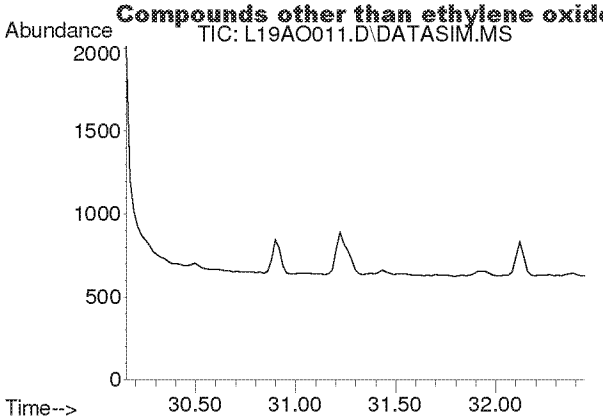
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

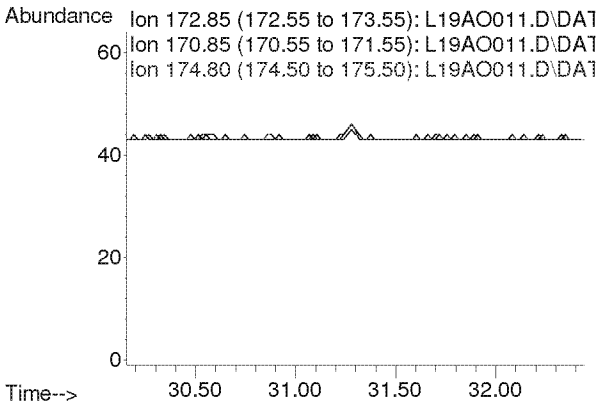


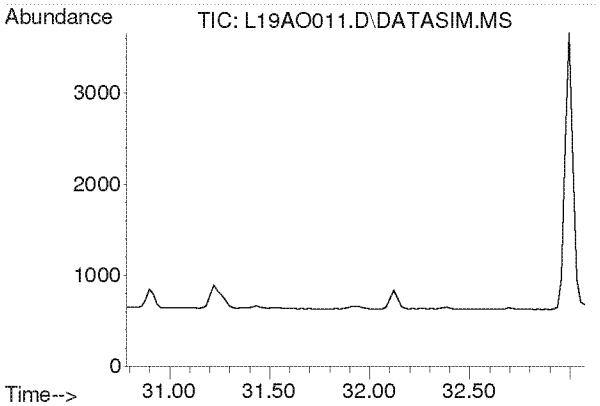
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



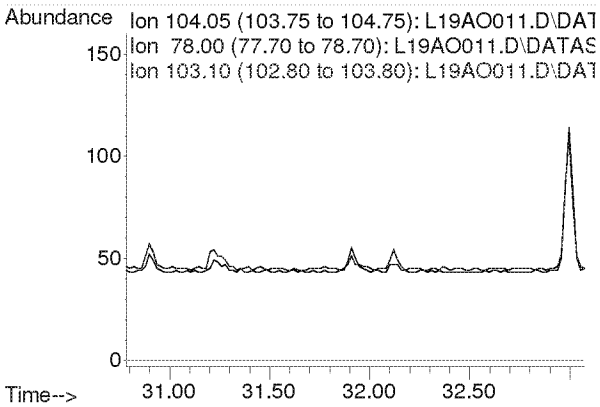


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

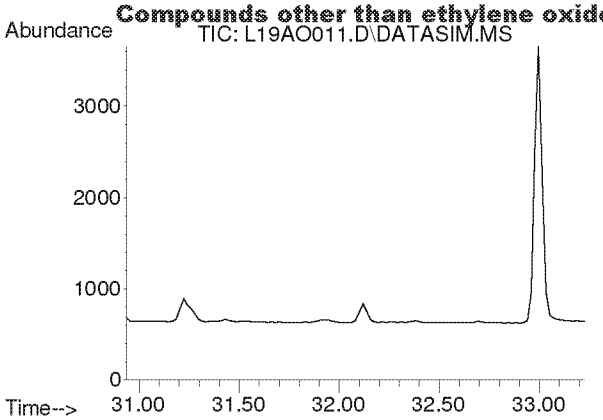
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

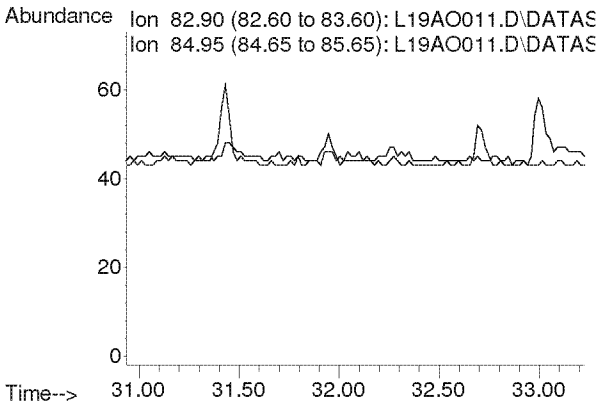


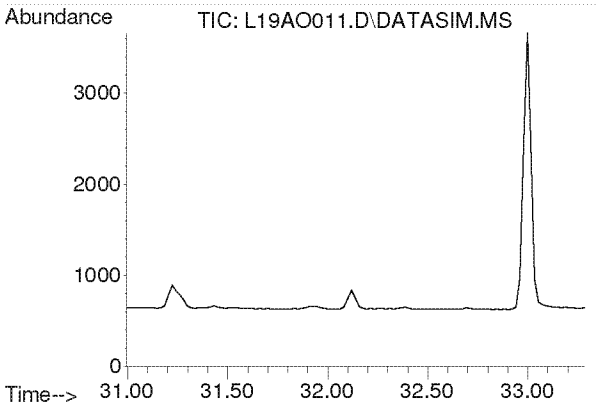
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



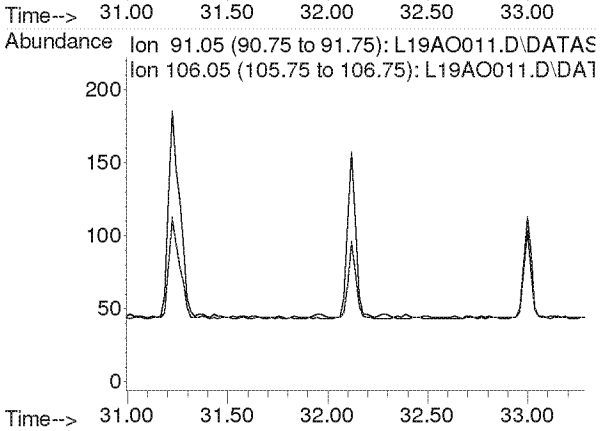


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

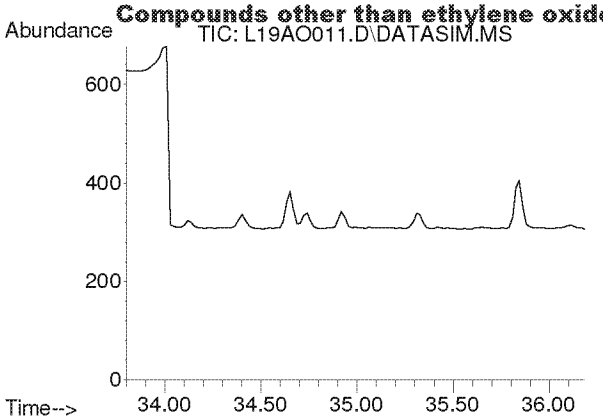
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

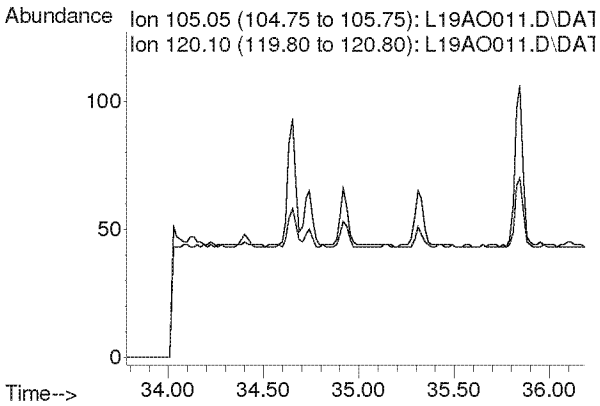


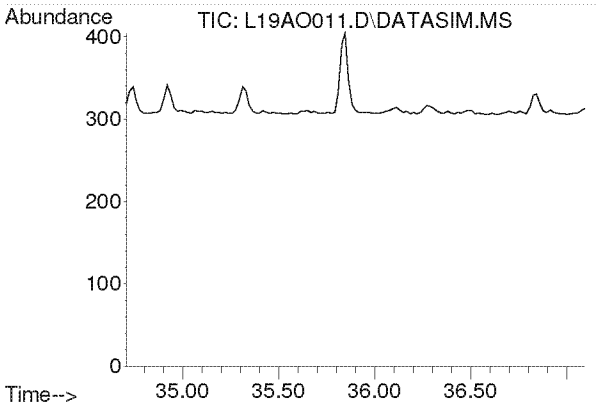
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



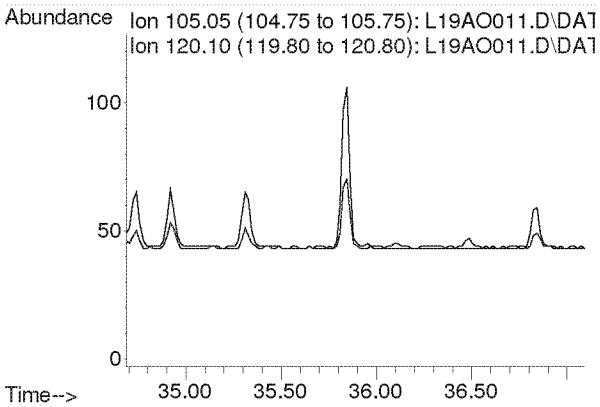


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

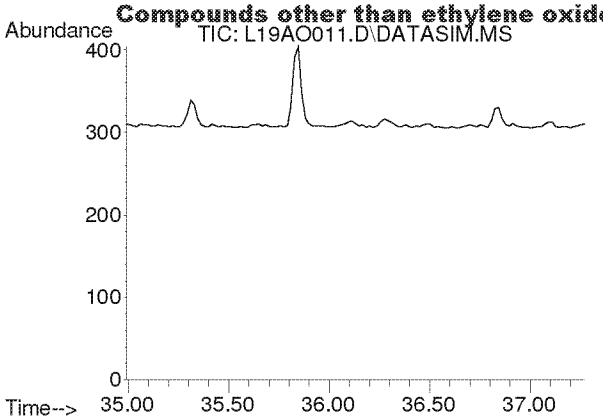
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

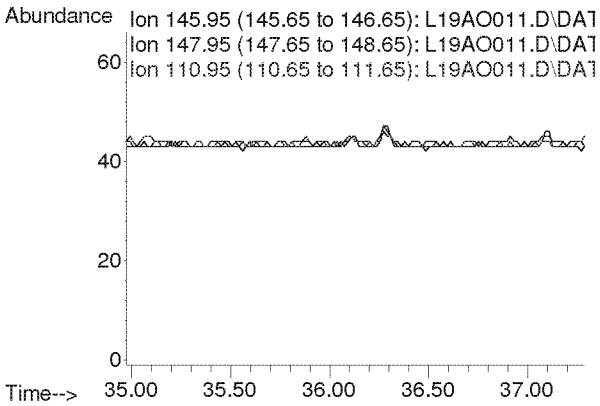


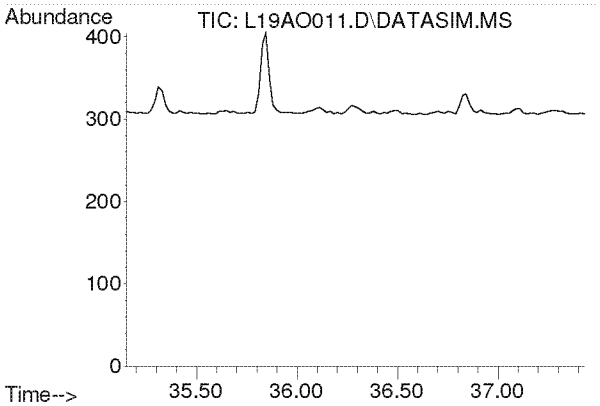
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



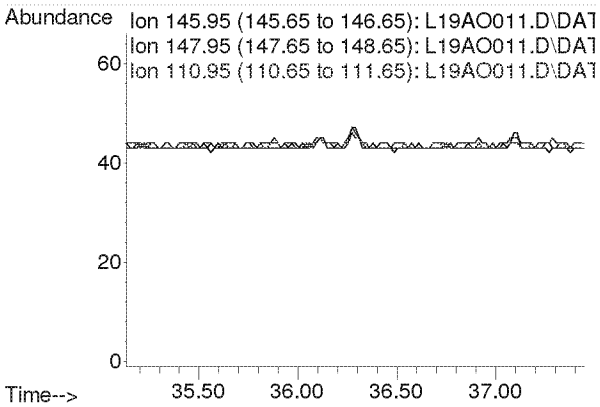


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

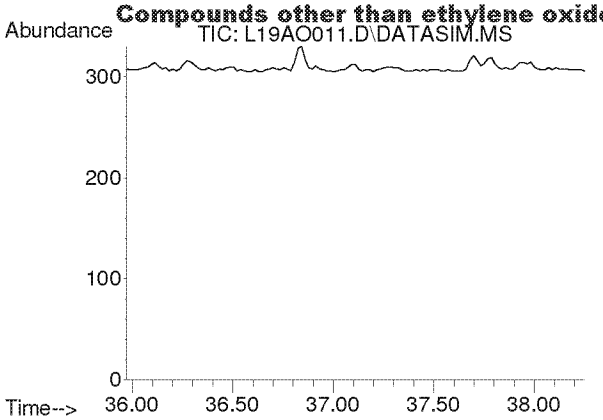
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

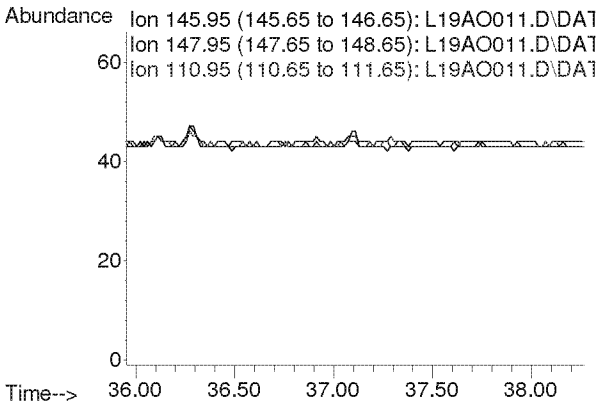


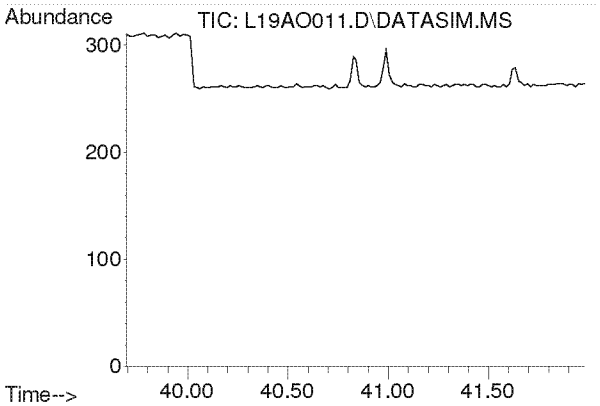
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



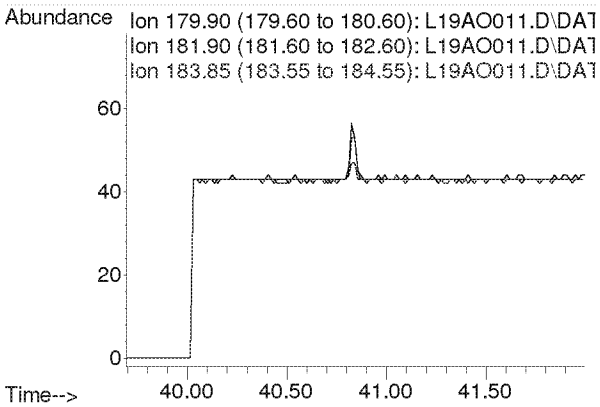


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

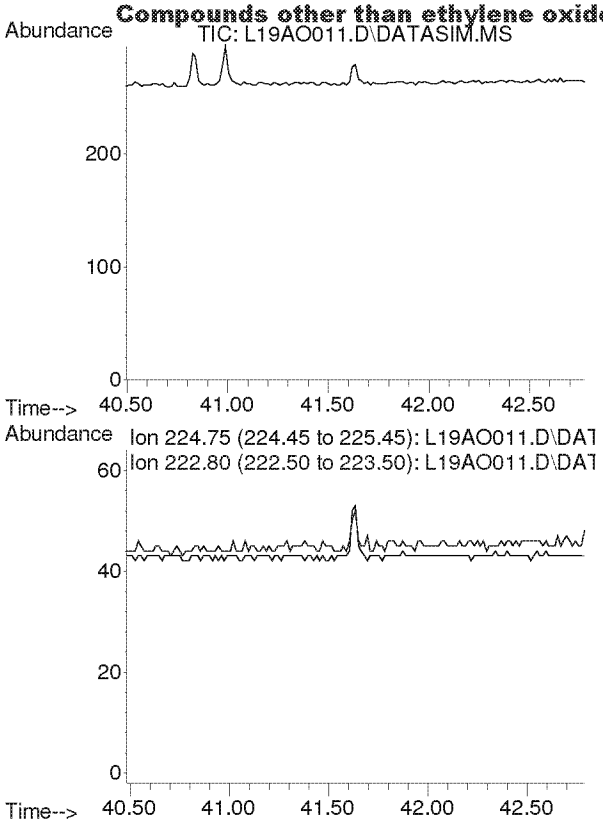
Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19AO011.D
Acq: 15 Jan 2019 7:34 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\L19AO\
Data File : L19AO012.D
Acq On : 15 Jan 2019 8:34 pm
Operator : MAH
Sample : B9A1508-DUP2
Misc : EPA WB WAREHOUSE ~~XX~~ 1/3/18 R1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 22 11:39:12 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	52618	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	133403	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	102696	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	12.470	29	464m	0.1707 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. 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. d	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO012.D
Acq On : 15 Jan 2019 8:34 pm
Operator : MAH
Sample : B9A1508-DUP2 R1
Misc : EPA WB WAREHOUSE ~~XX~~ 1/3/18
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 22 11:39:12 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

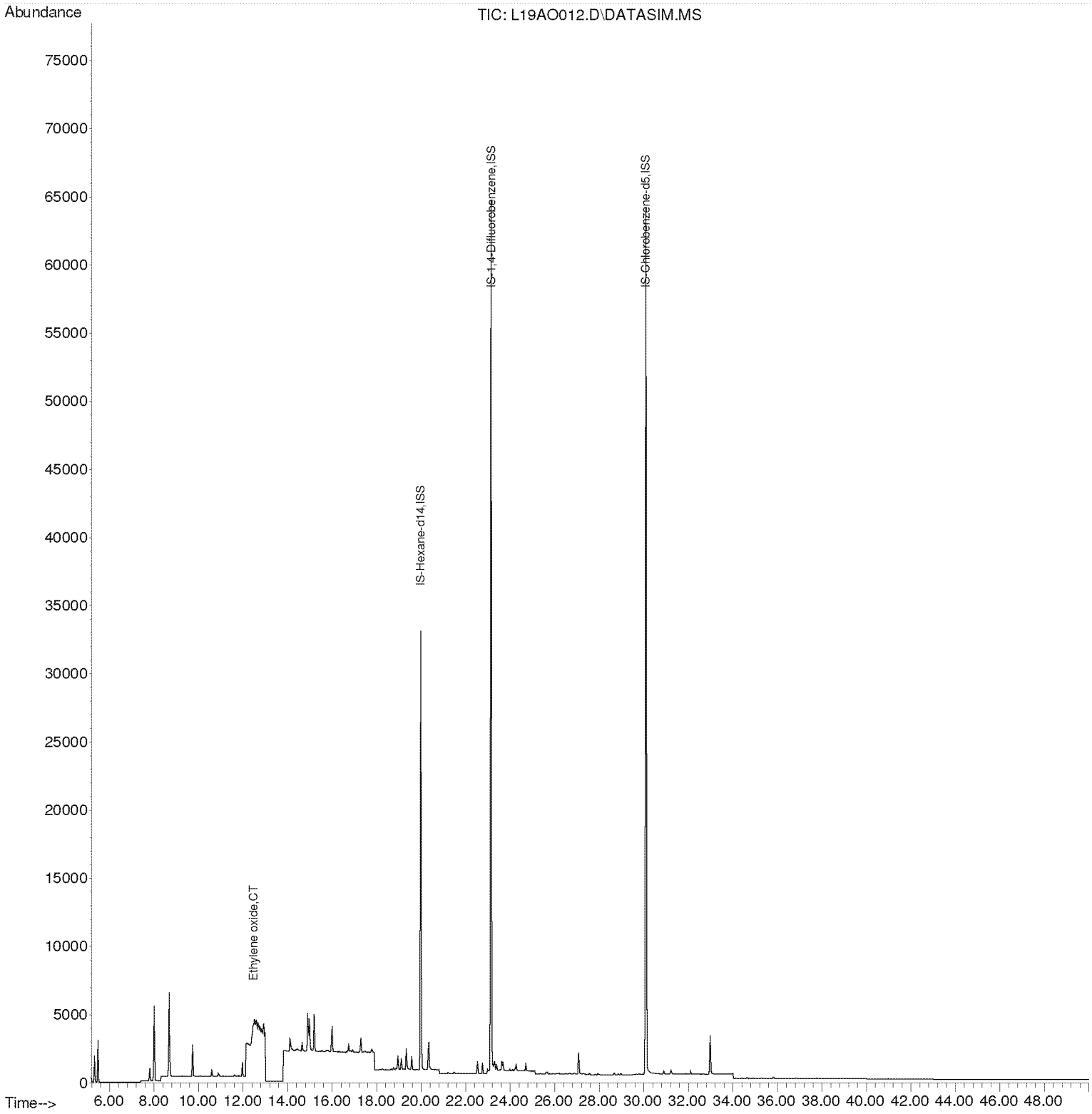
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

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

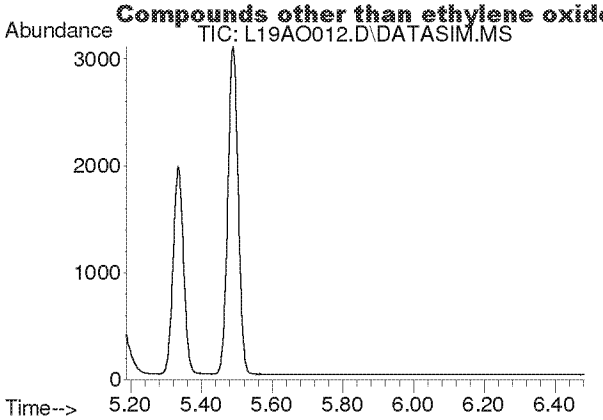
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO012.D
Acq On : 15 Jan 2019 8:34 pm
Operator : MAH
Sample : B9A1508-DUP2
Misc : EPA WB WAREHOUSE R2 1/3/18
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 22 11:26:02 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



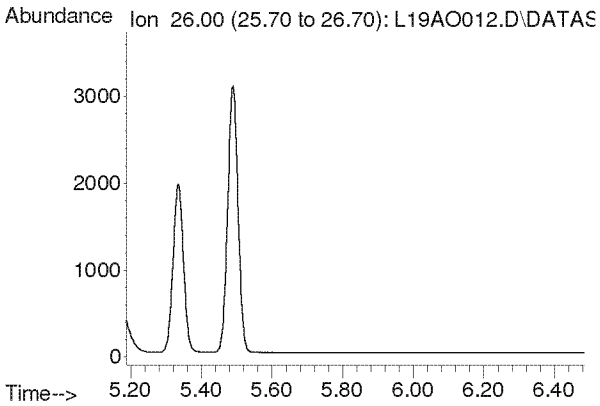
Compounds other than ethylene oxide were not quantitated.

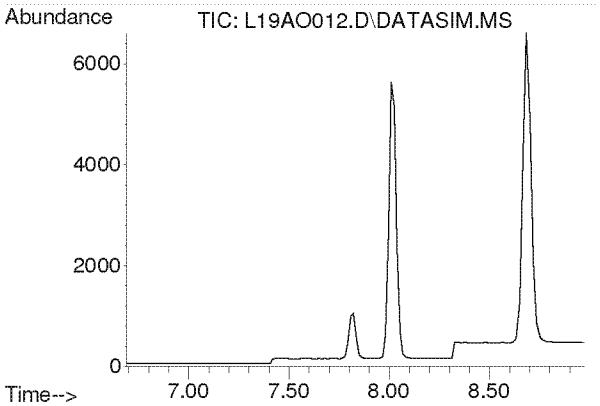


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 26



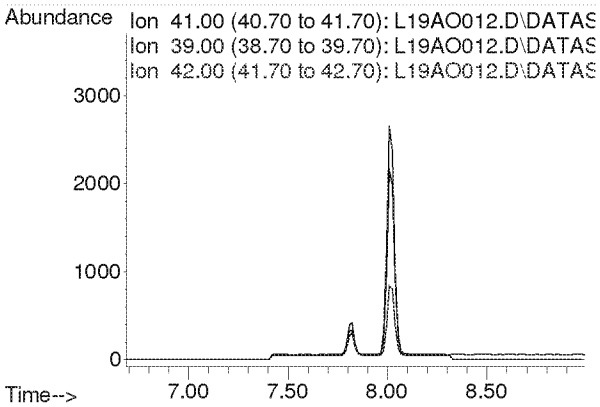


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

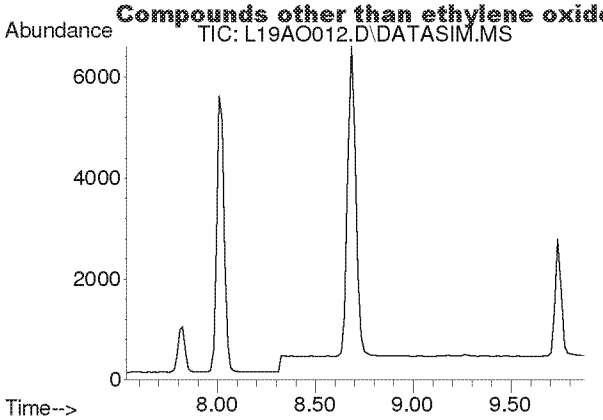
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

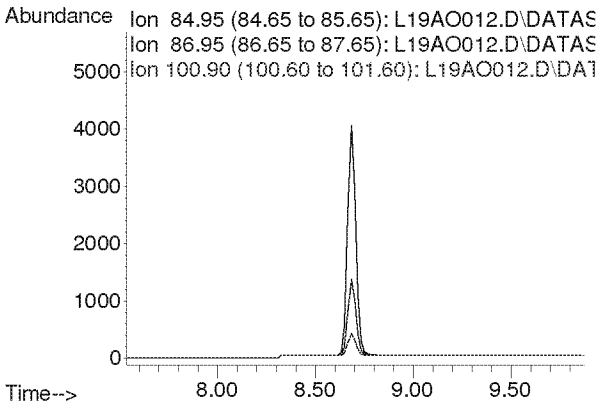


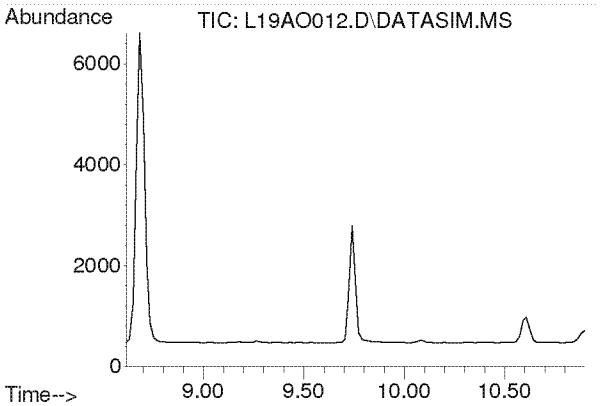
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



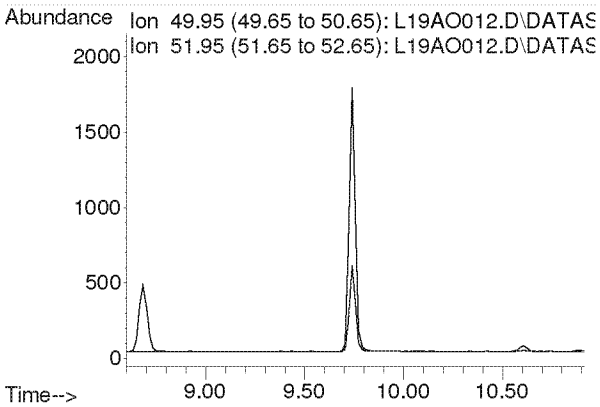


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

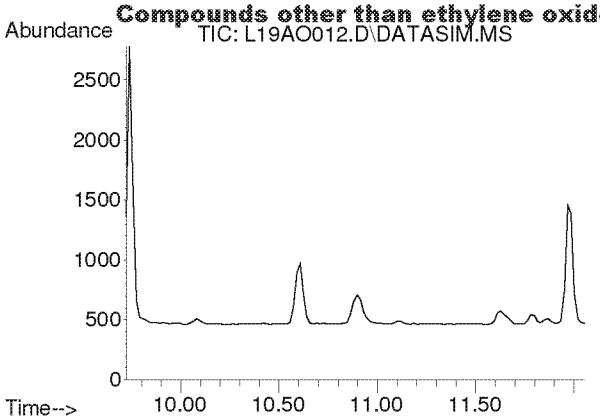
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

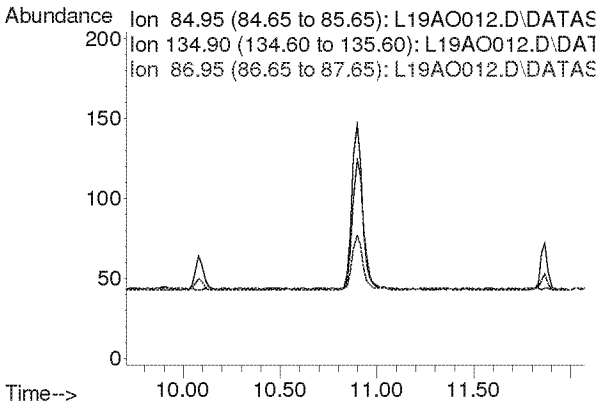


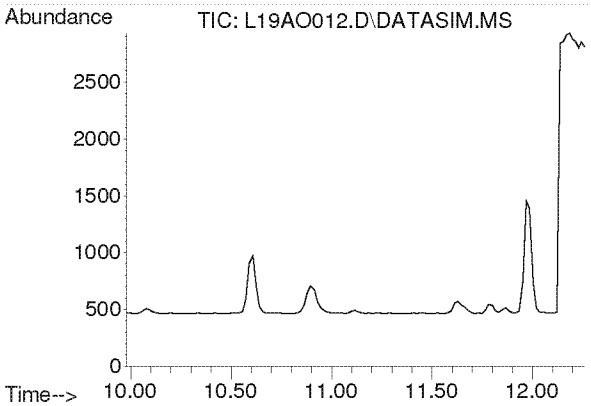
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



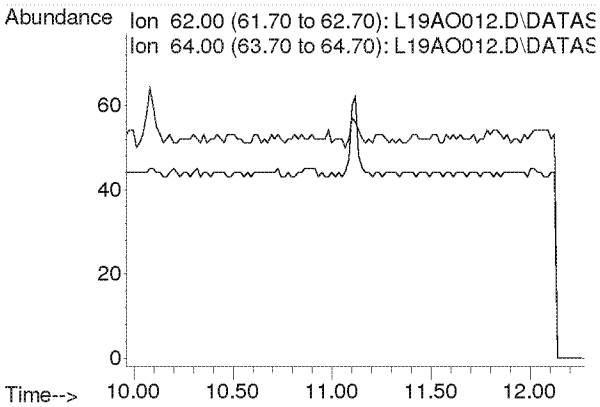


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

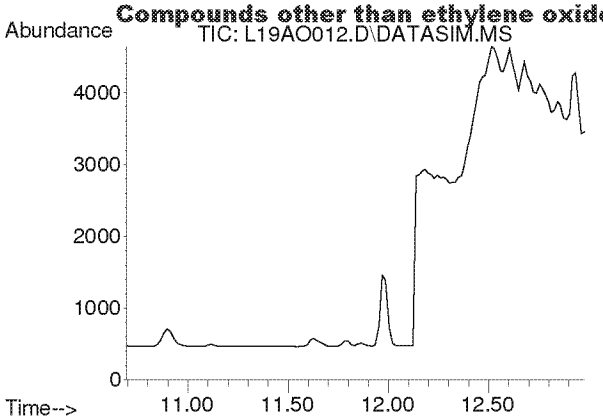
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

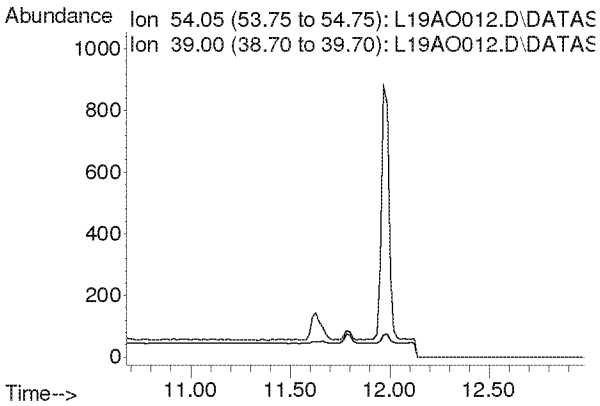


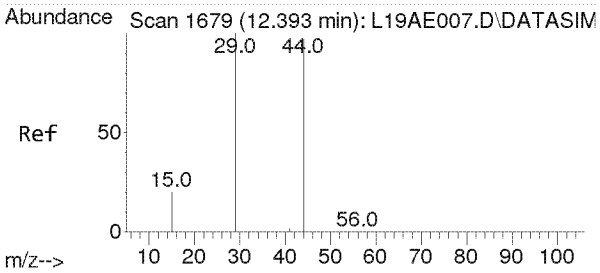
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

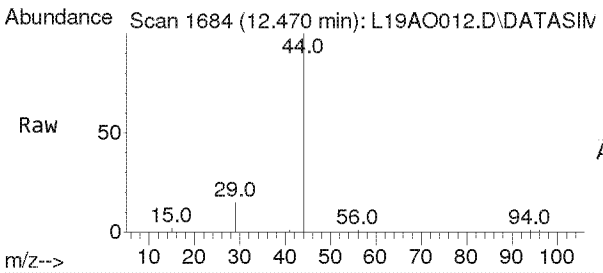


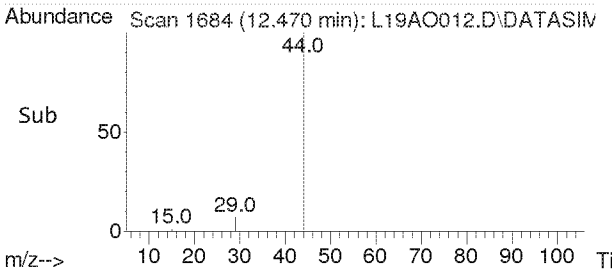


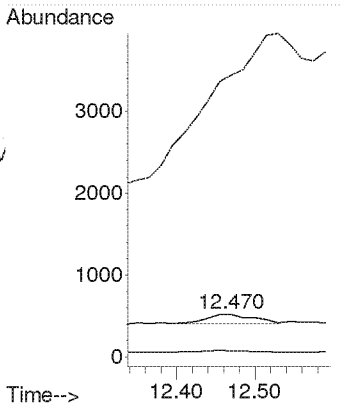
#9
Ethylene oxide
Concen: 0.171 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.077 min
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 29 Resp: 464

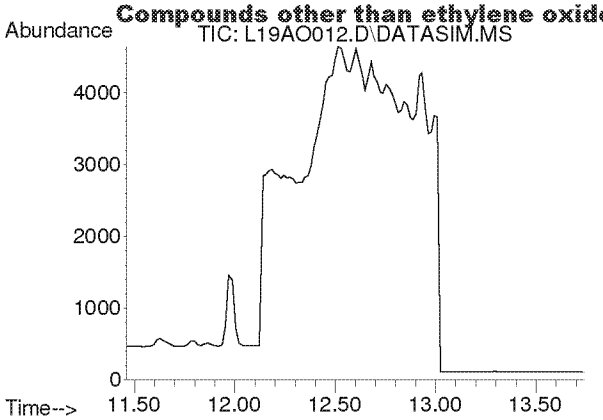
Ion	Ratio	Lower	Upper
29	100		
15	15.3	15.4	23.0#
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

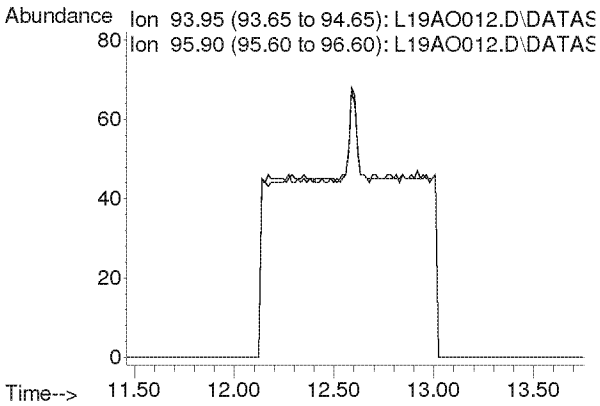


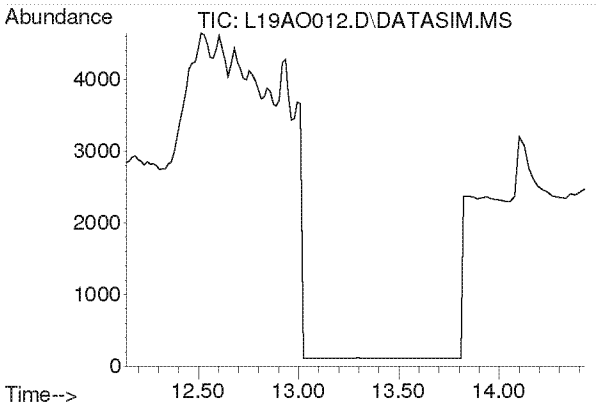
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



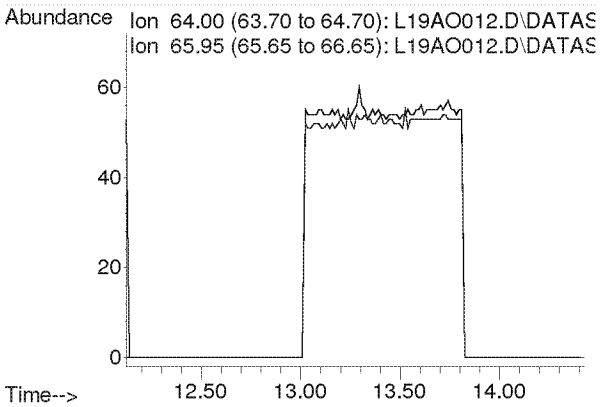


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

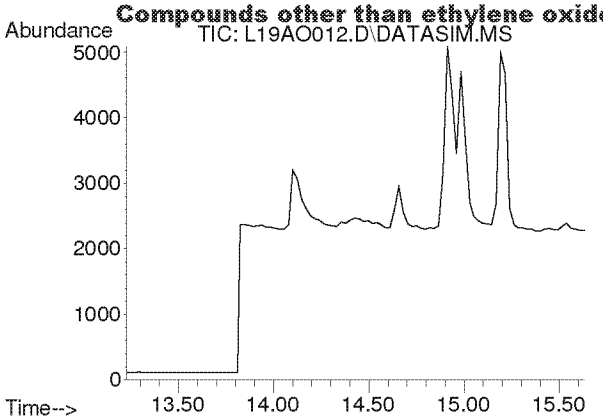
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

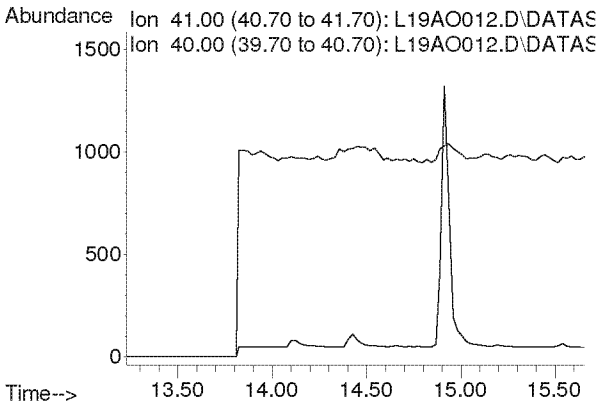


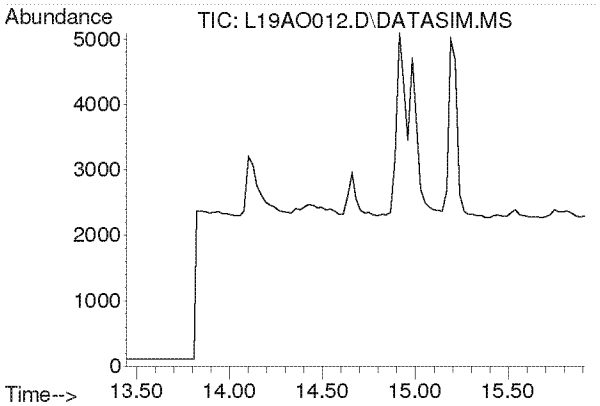
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



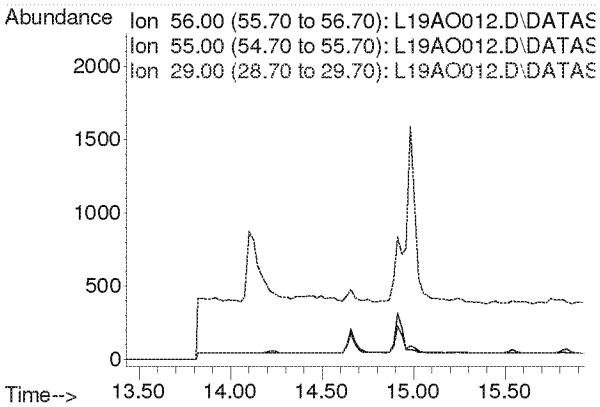


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

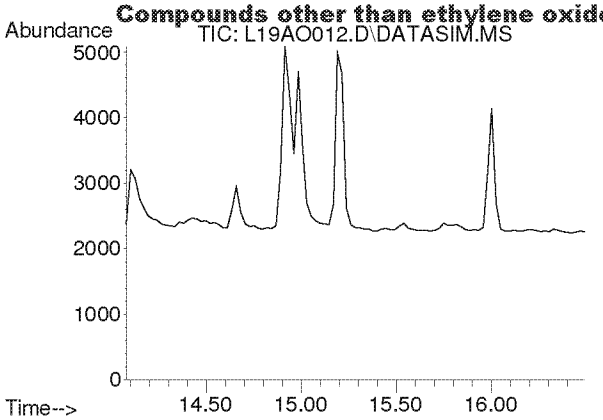
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

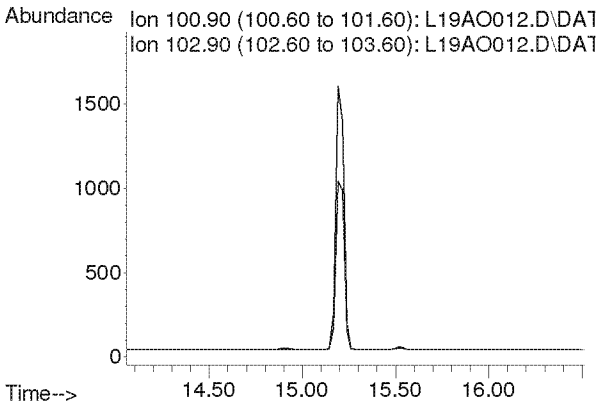


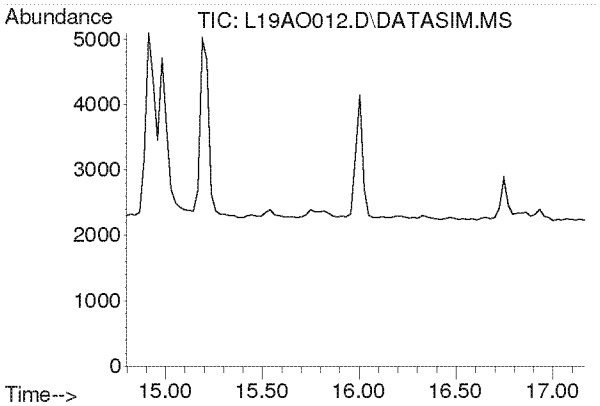
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



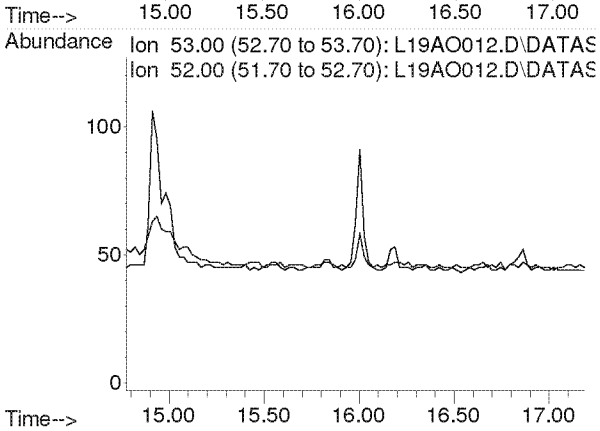


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

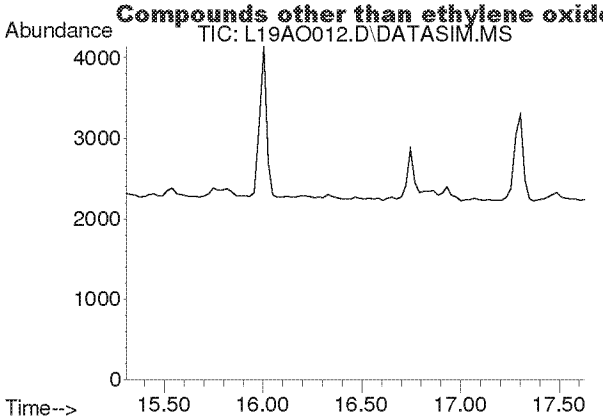
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

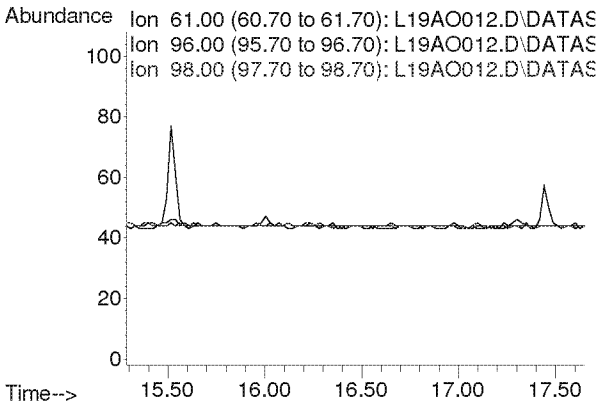


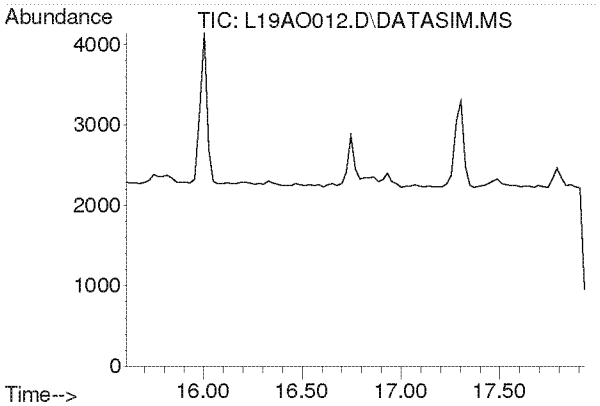
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



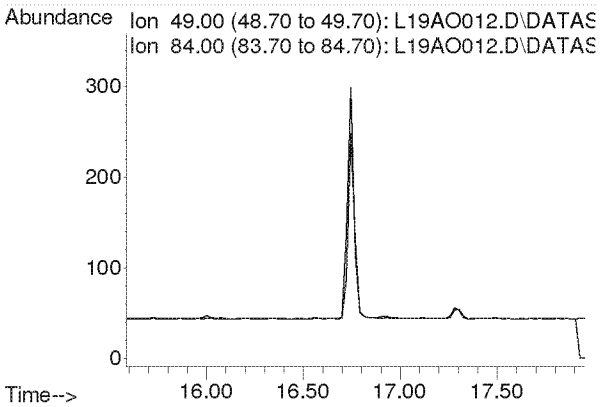


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

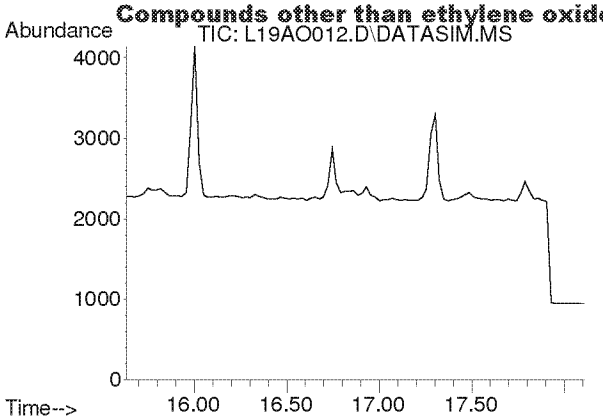
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

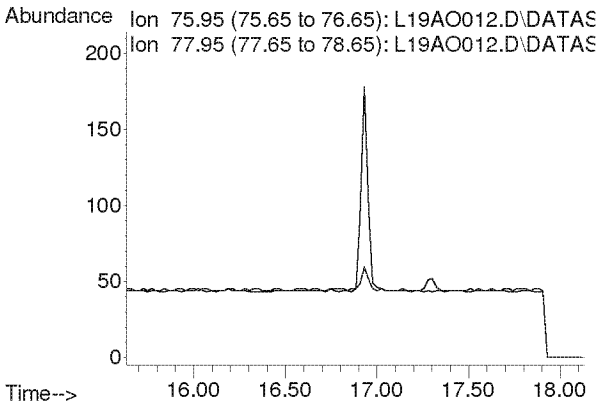


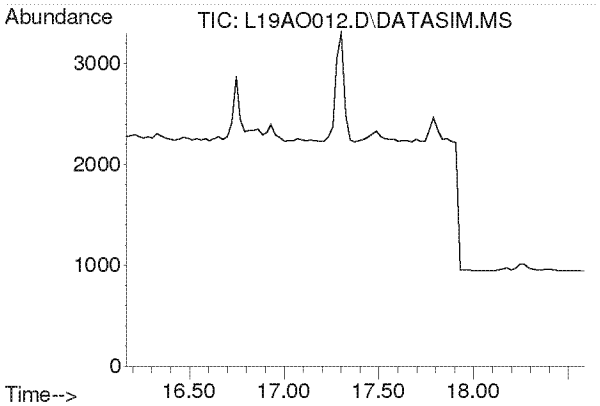
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



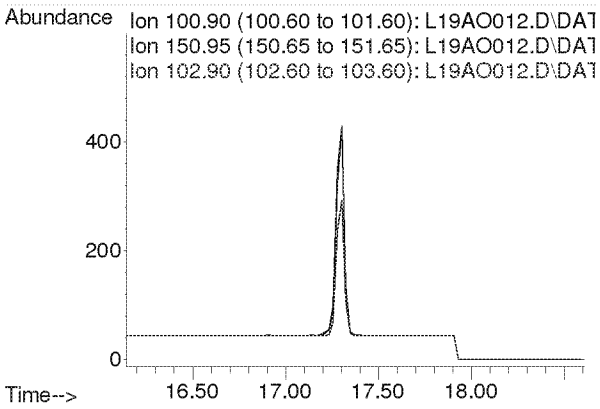


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

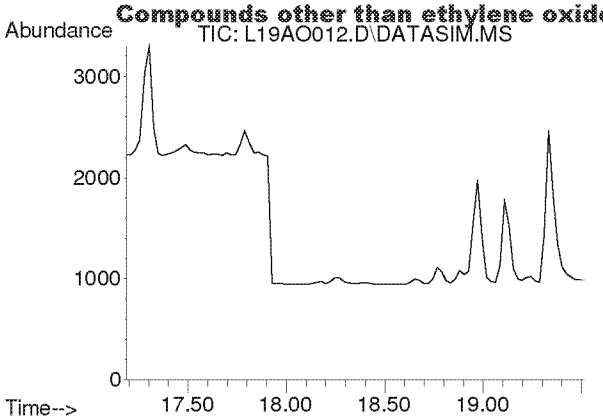
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

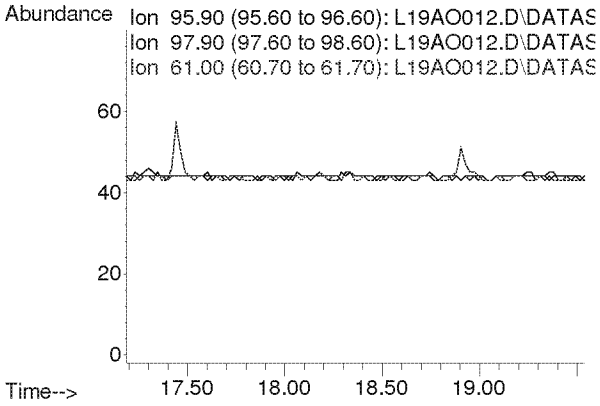


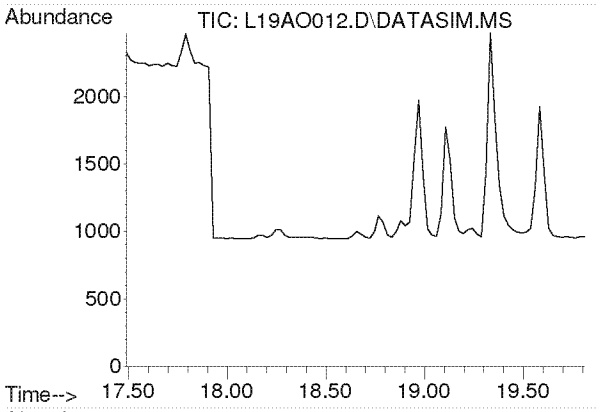
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



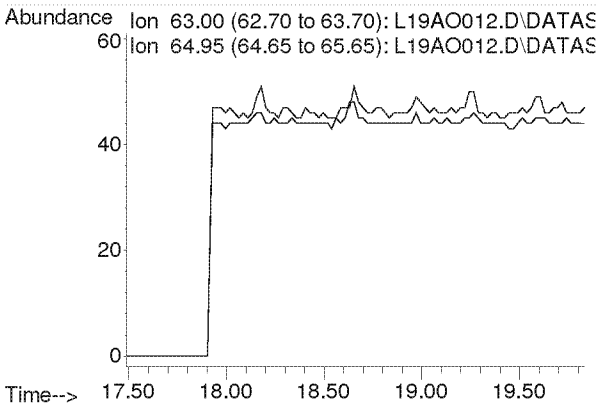


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

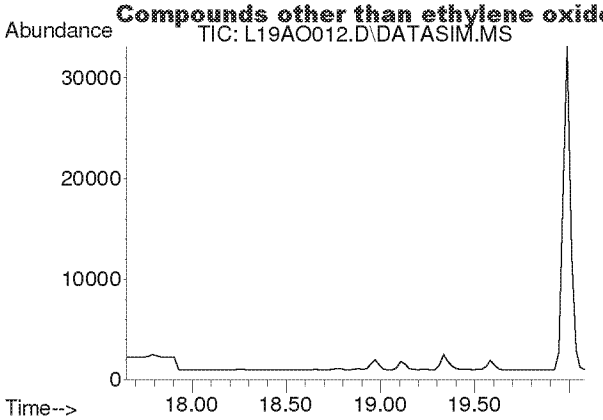
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

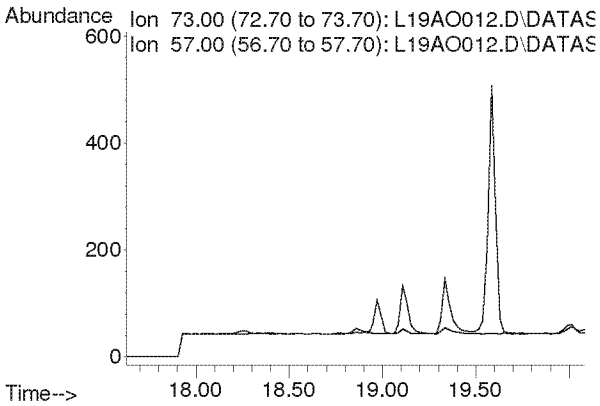


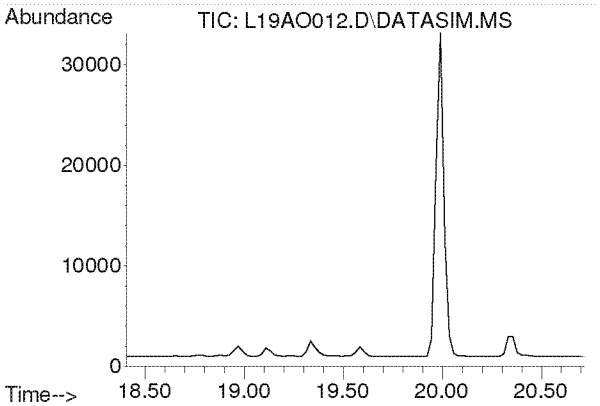
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



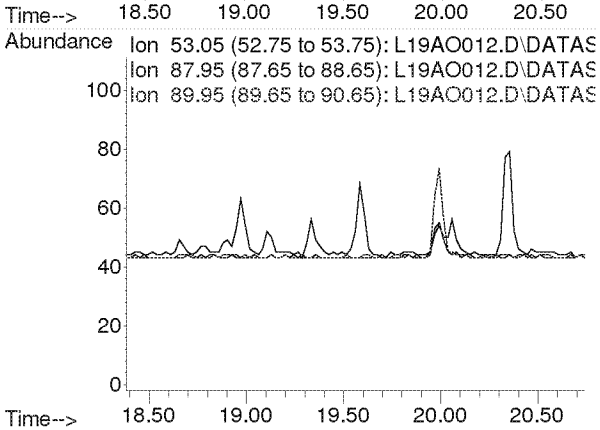


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

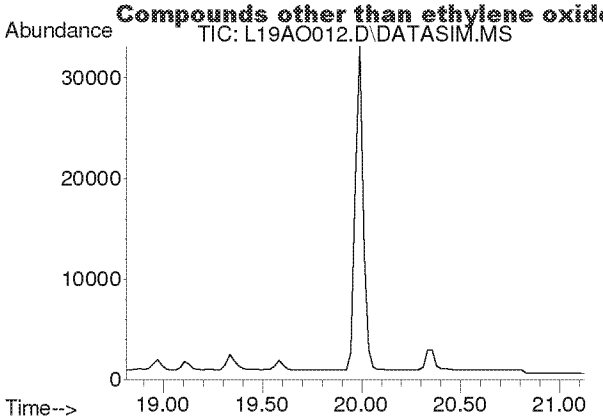
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

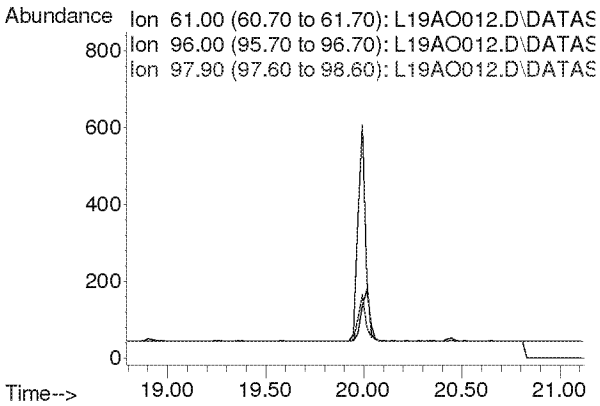


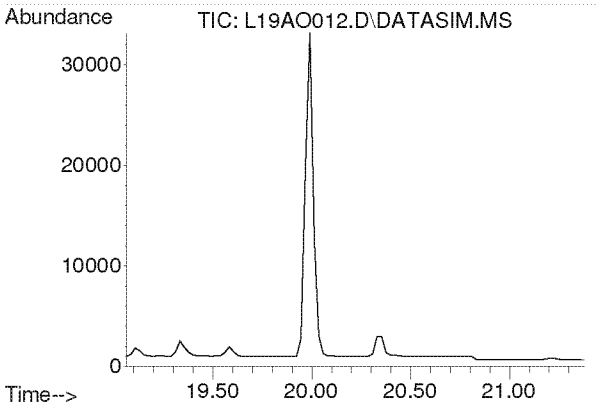
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



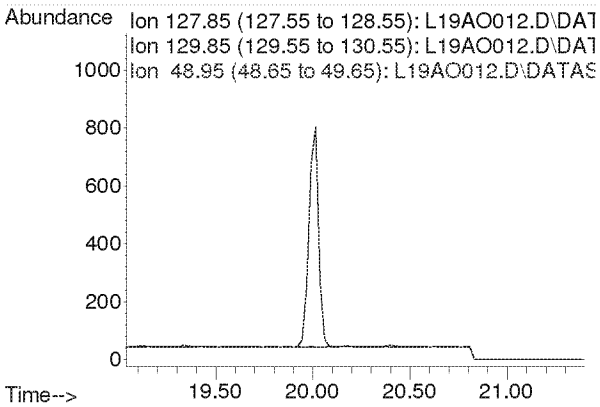


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

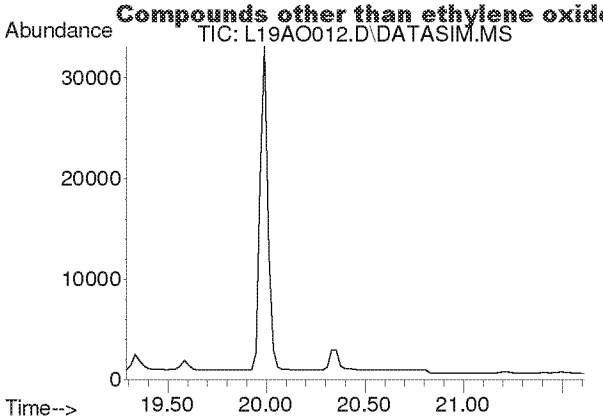
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

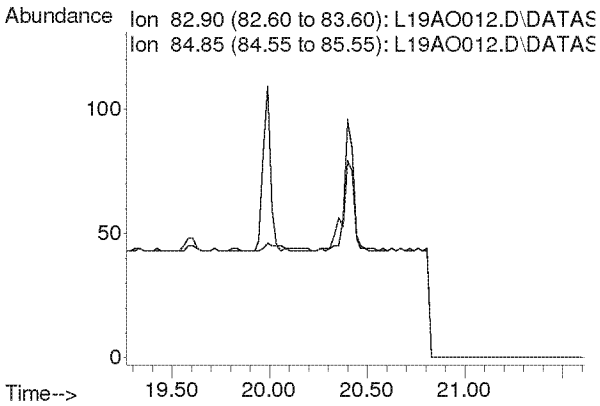


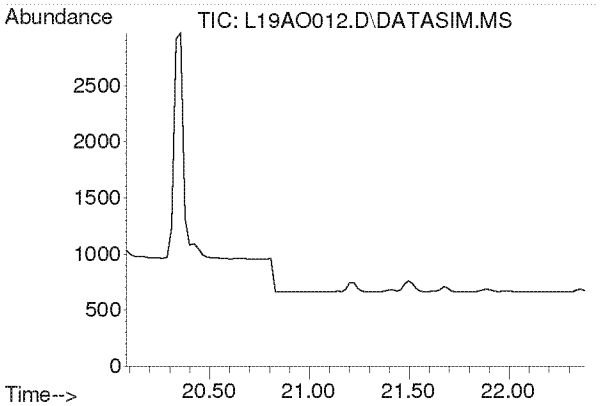
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



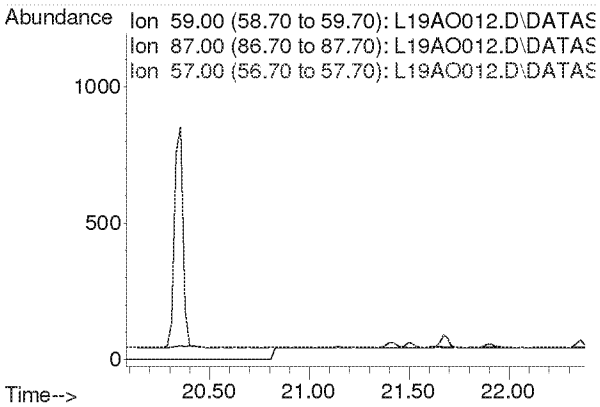


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

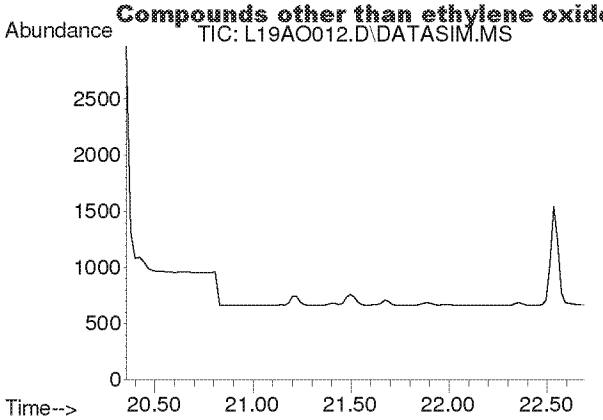
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

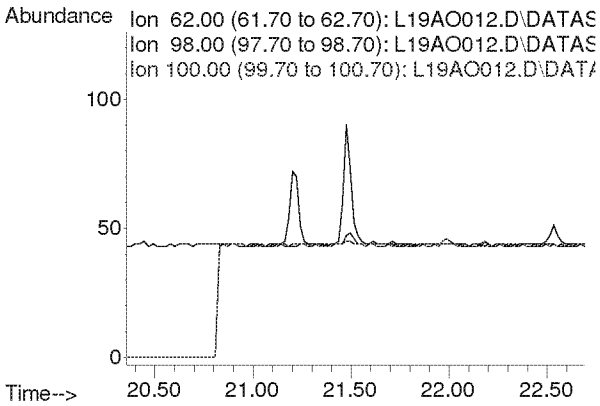


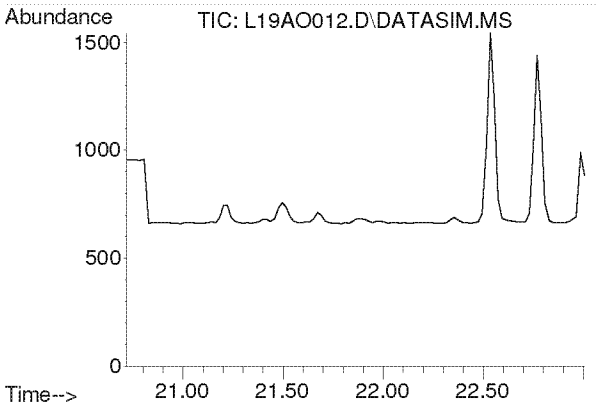
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



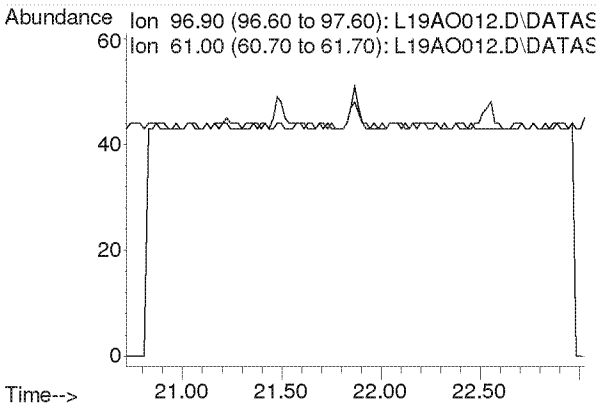


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

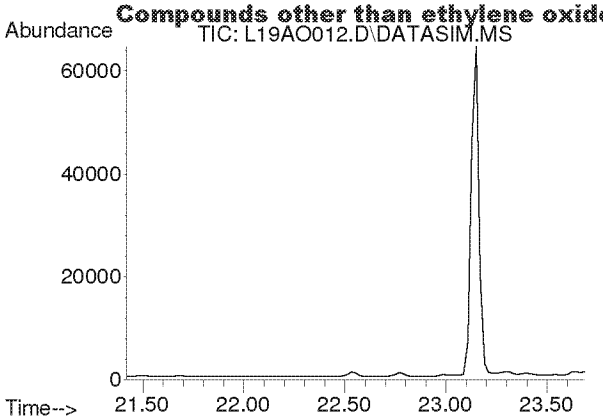
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

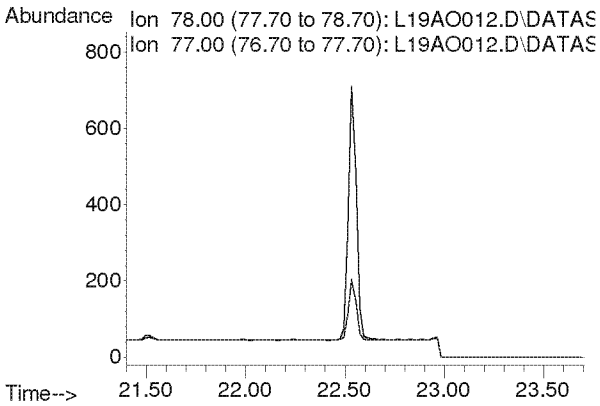


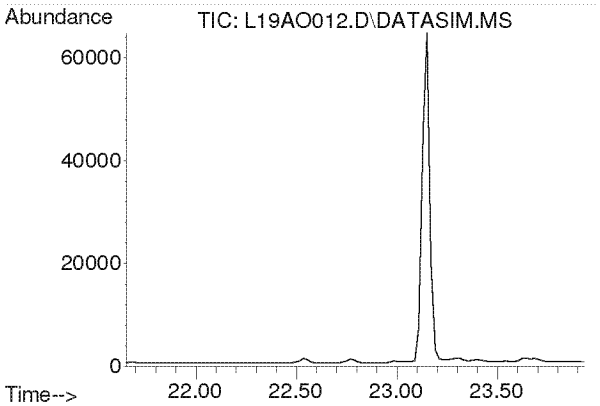
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



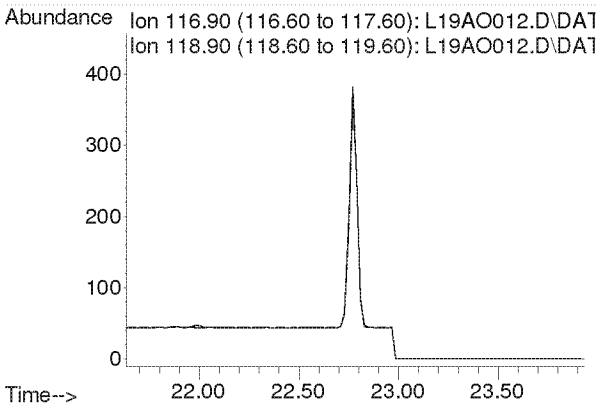


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

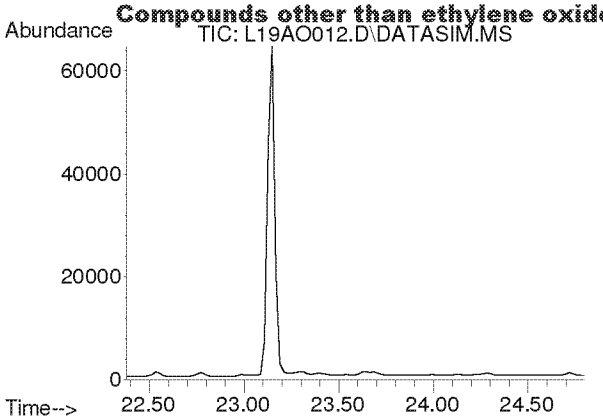
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

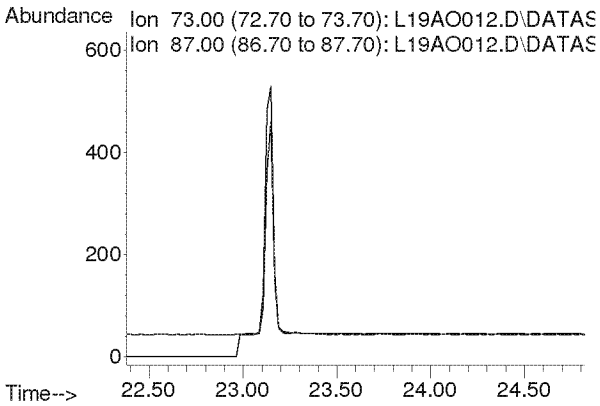


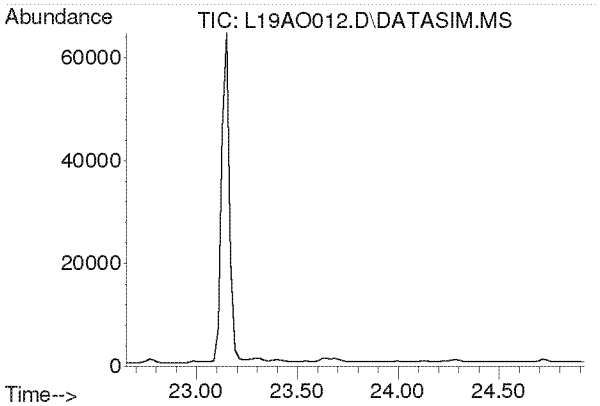
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



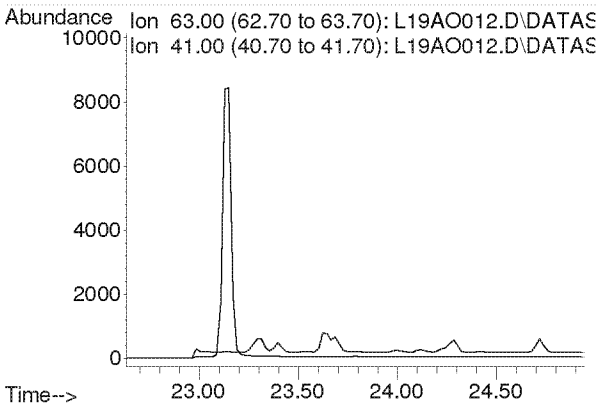


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

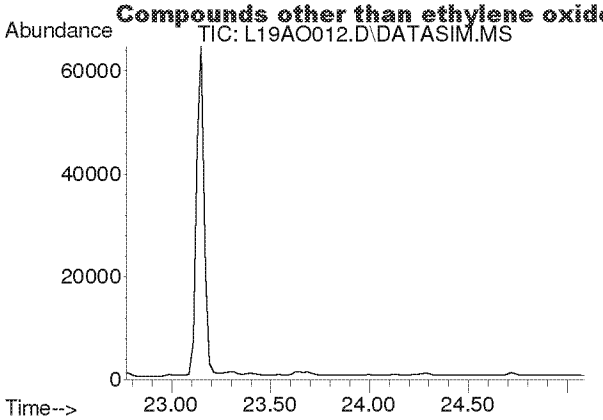
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

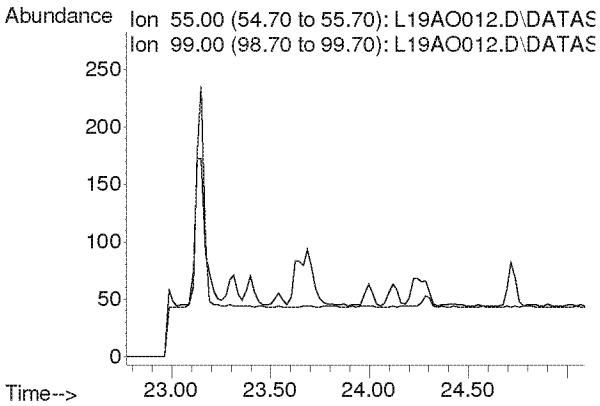


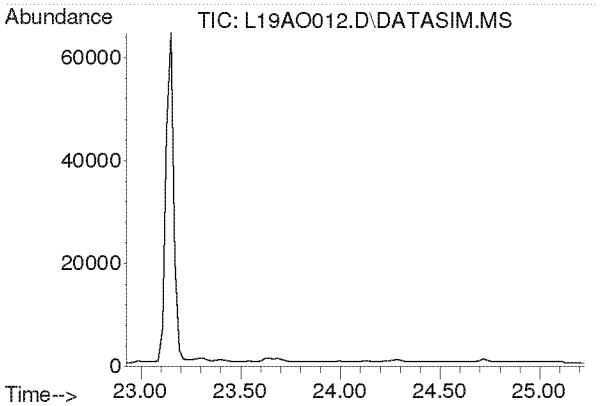
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



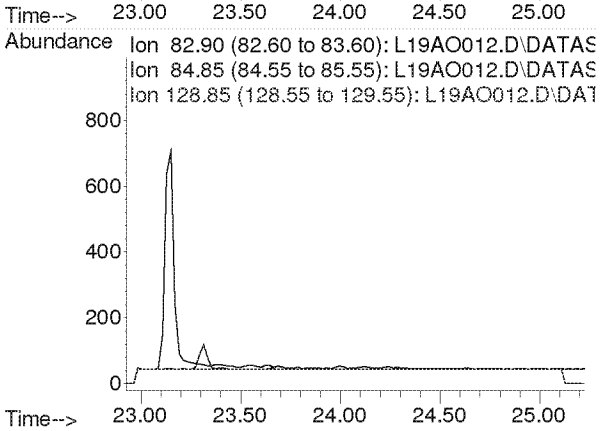


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

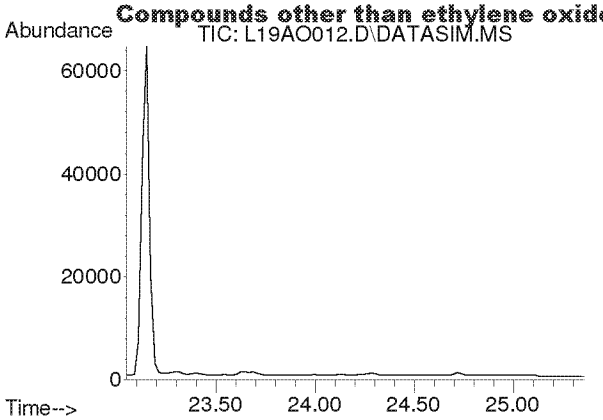
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

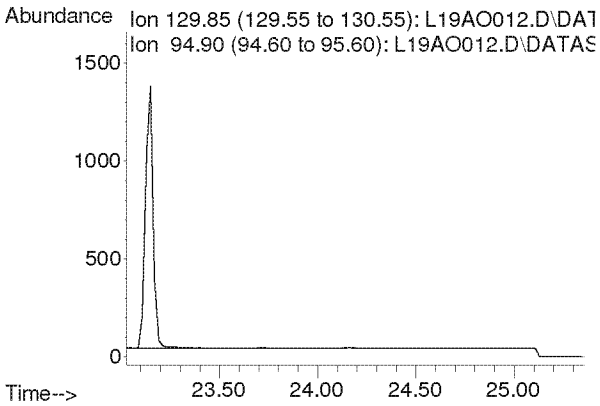


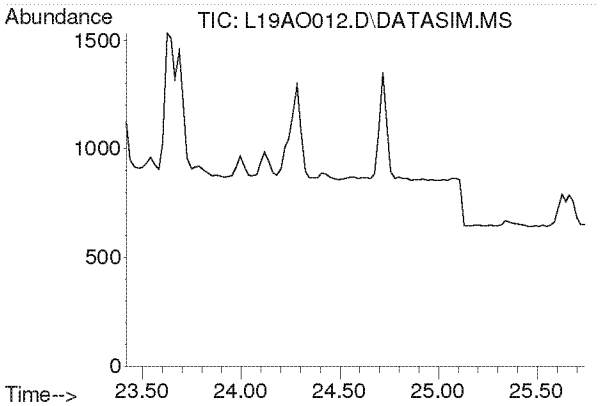
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



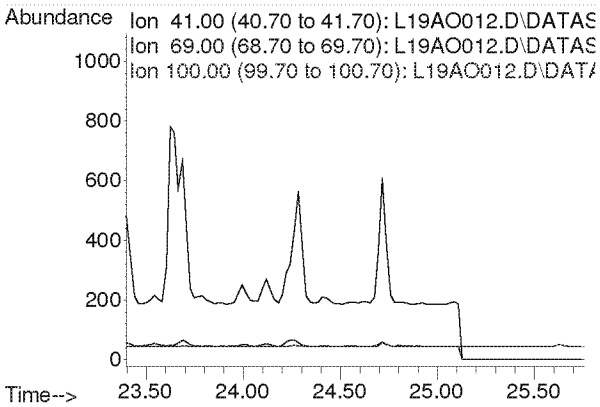


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

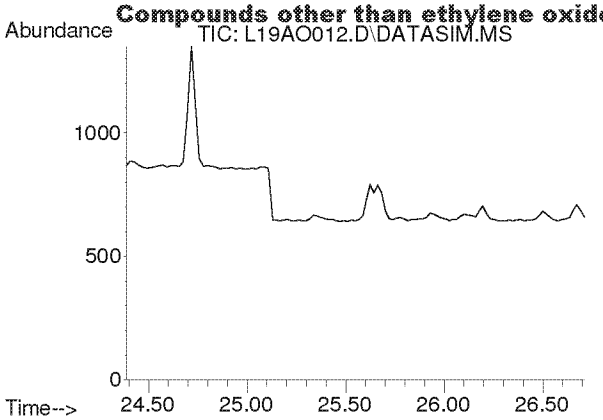
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

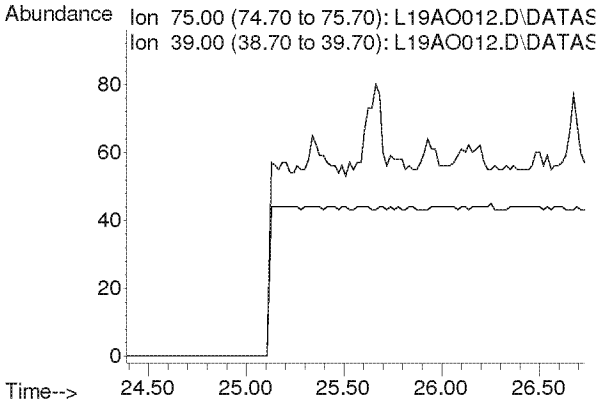


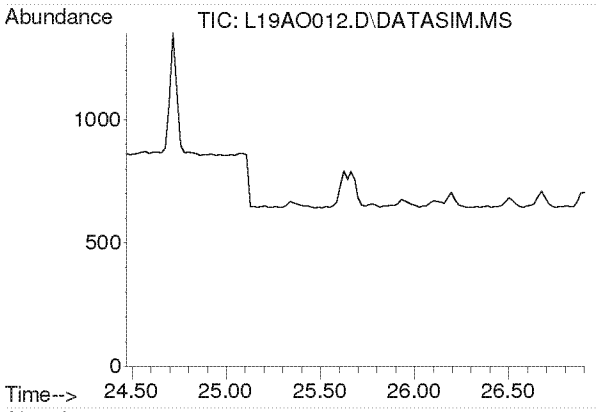
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



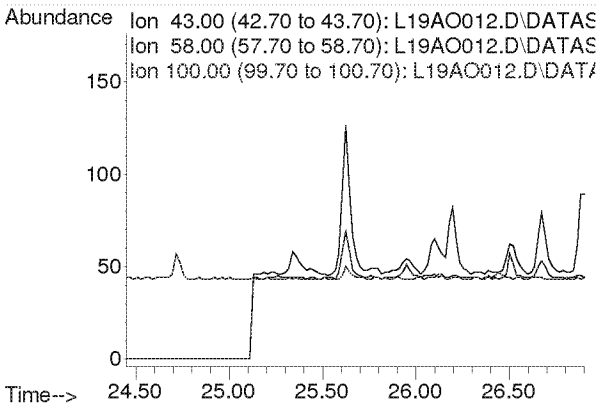


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

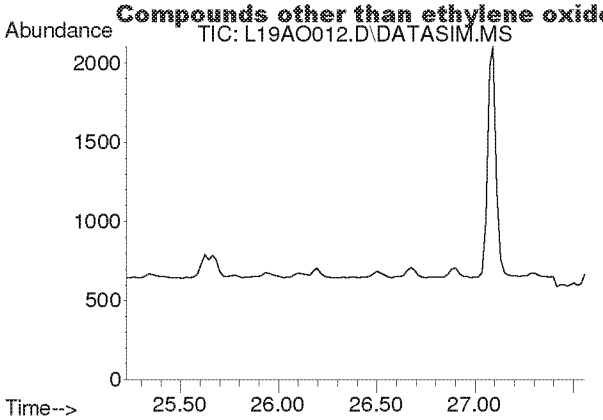
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

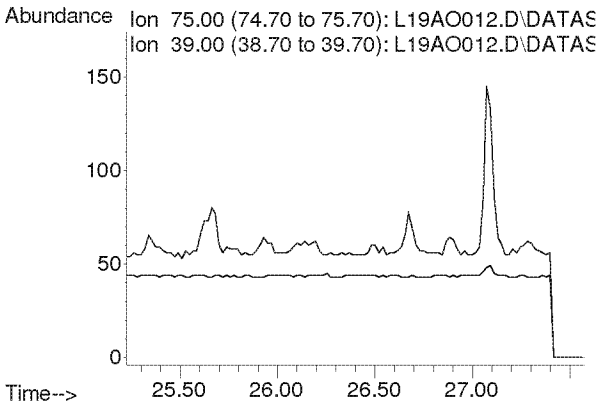


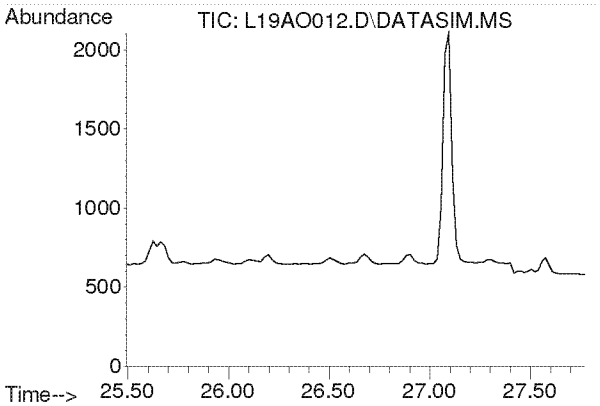
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



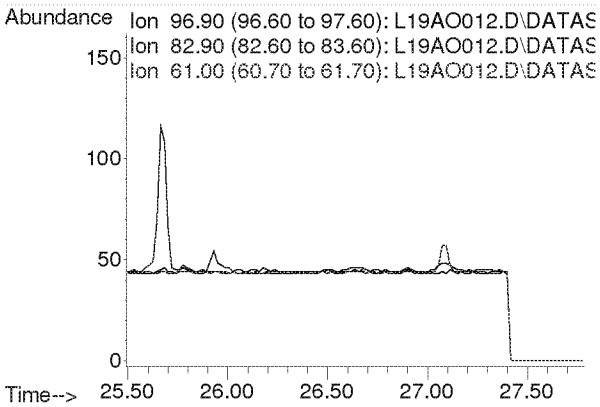


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

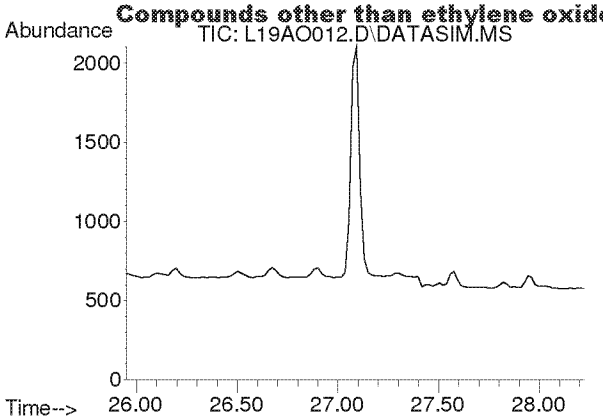
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

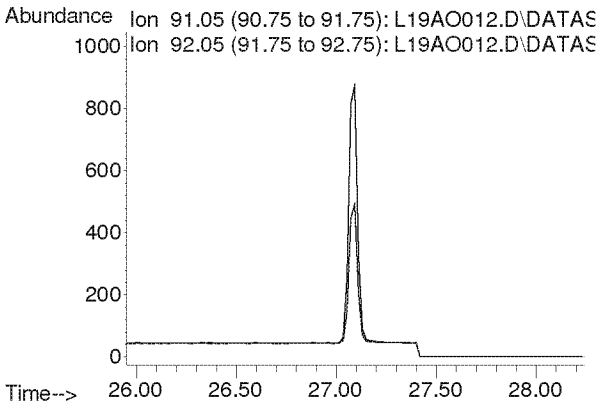


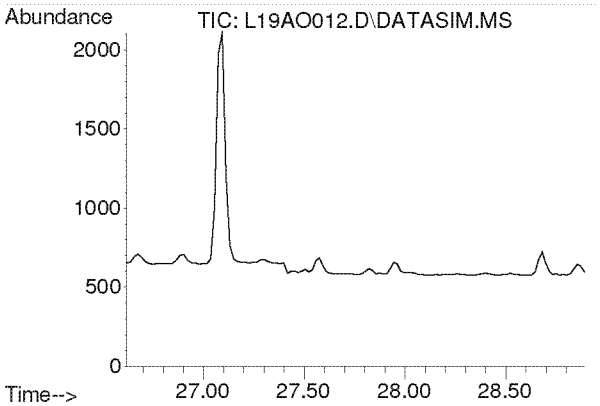
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



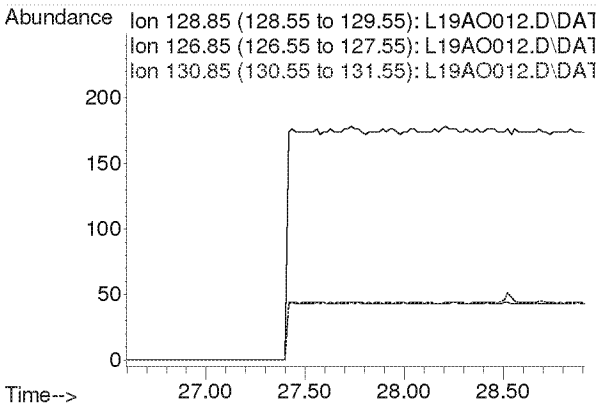


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

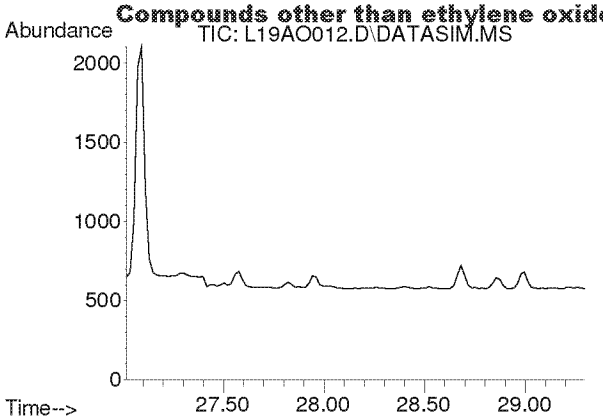
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

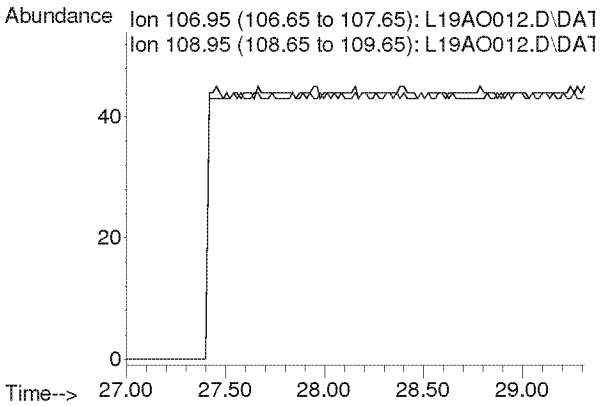


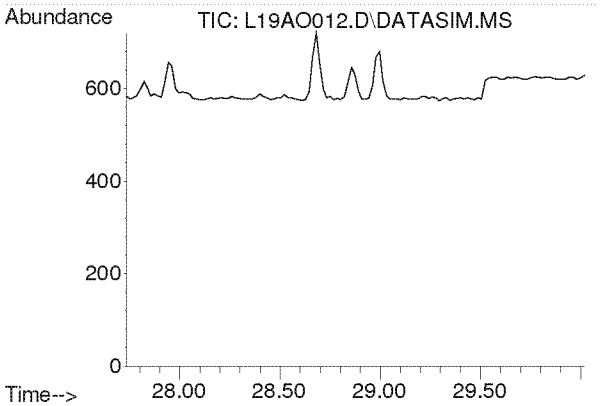
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



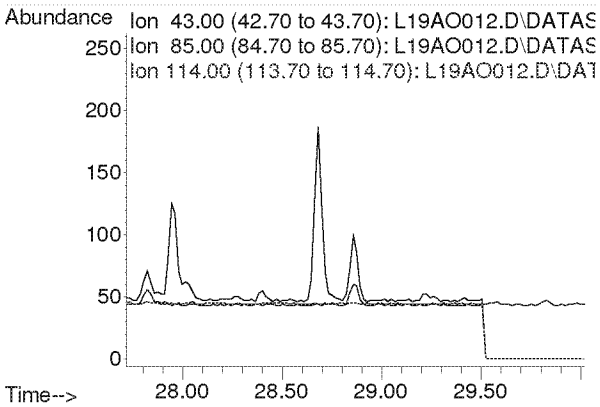


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

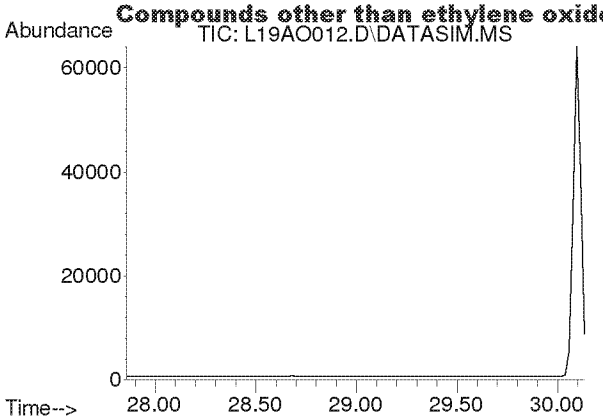
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

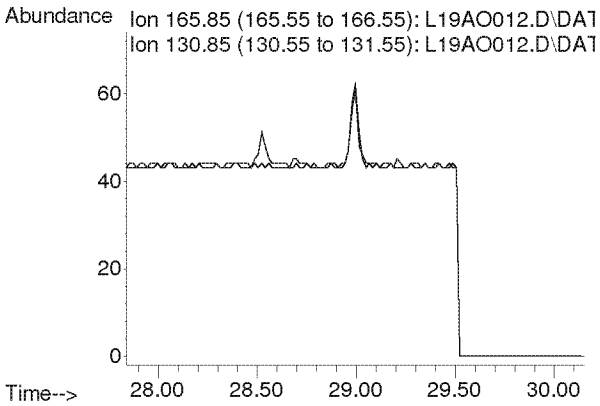


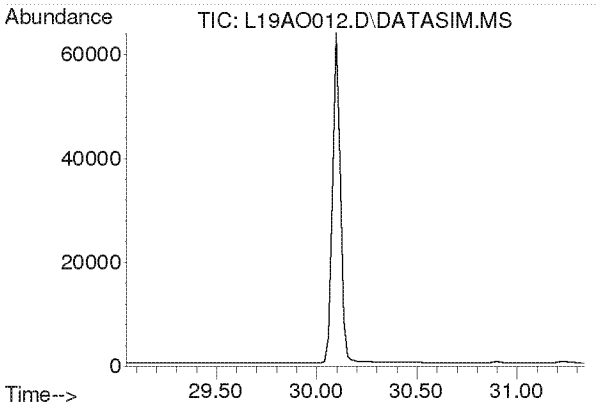
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



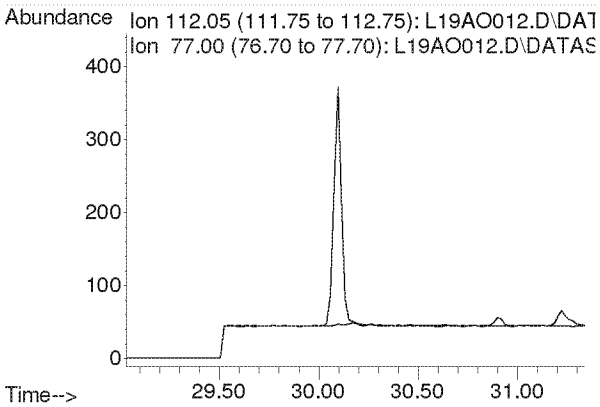


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

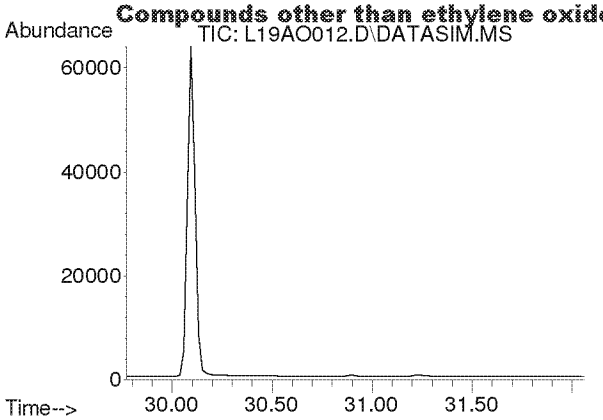
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

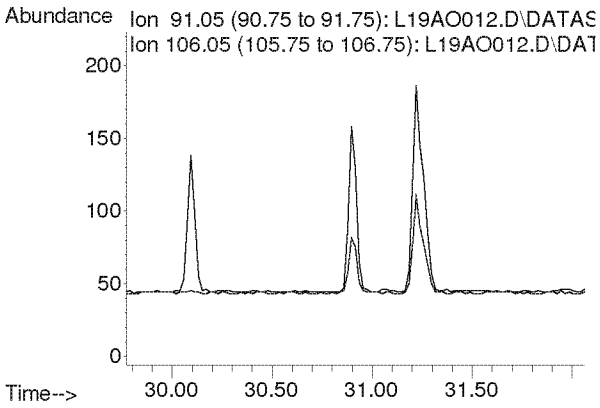


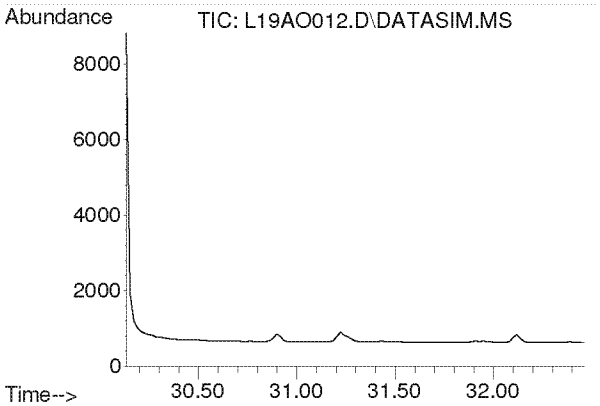
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



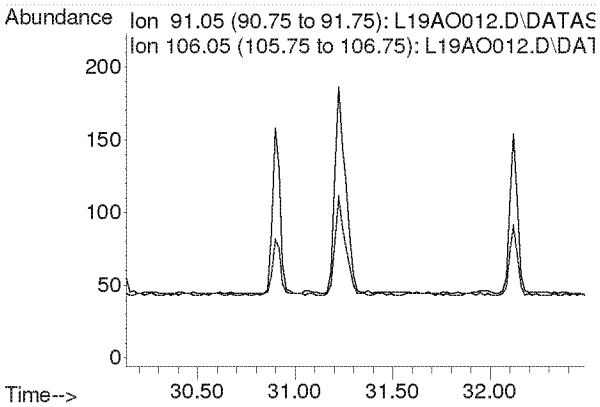


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

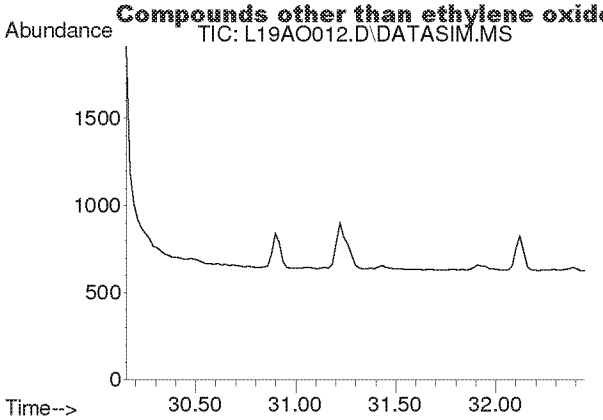
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

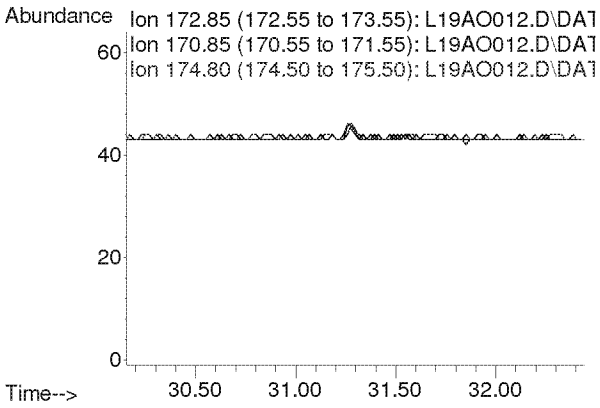


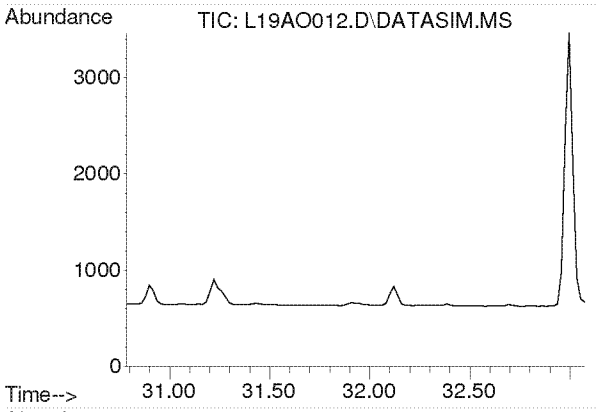
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



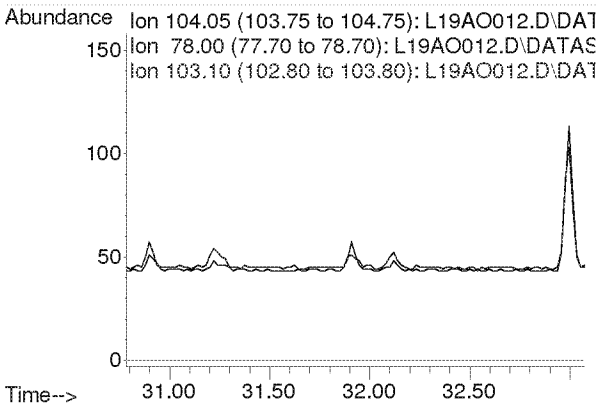


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

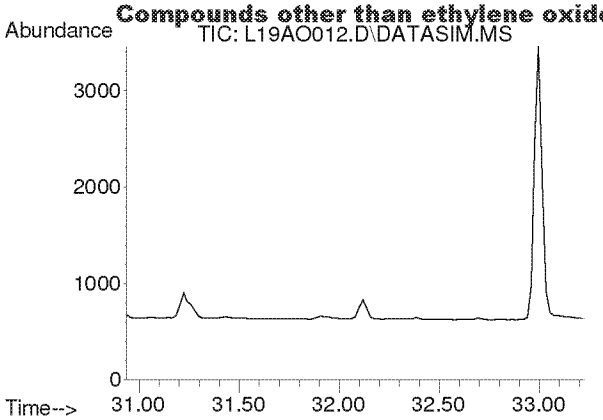
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

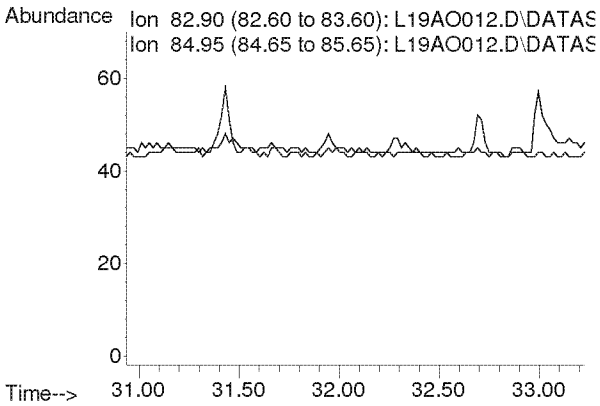


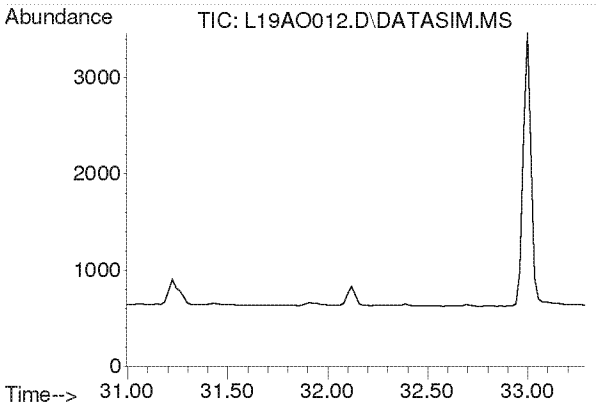
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



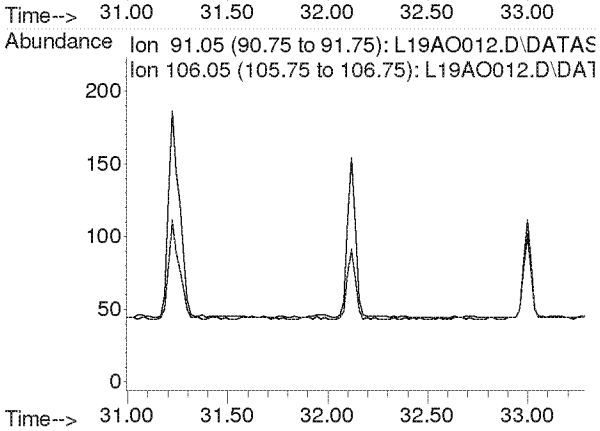


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

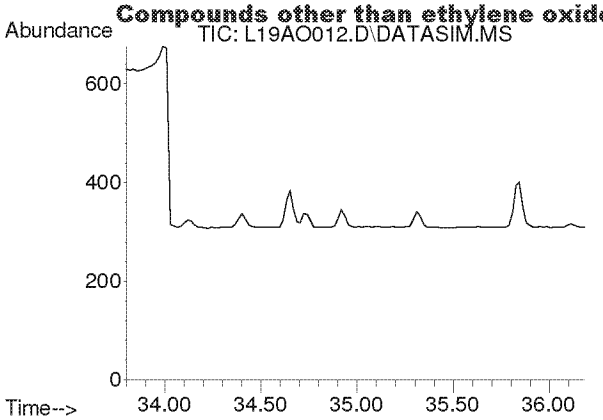
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

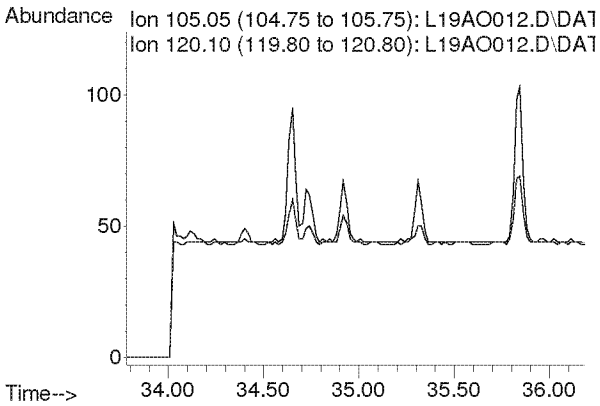


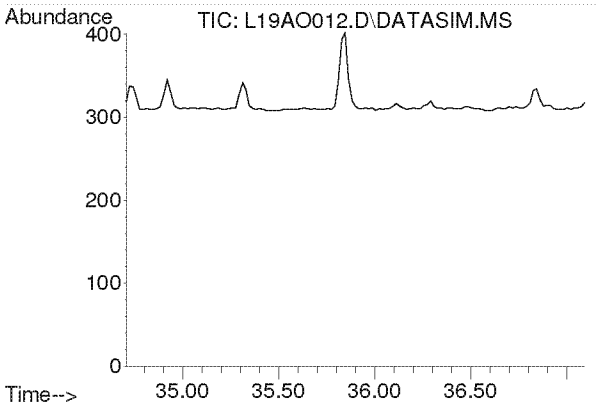
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



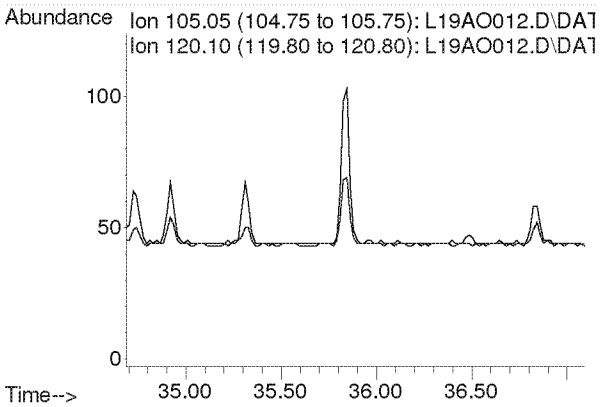


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

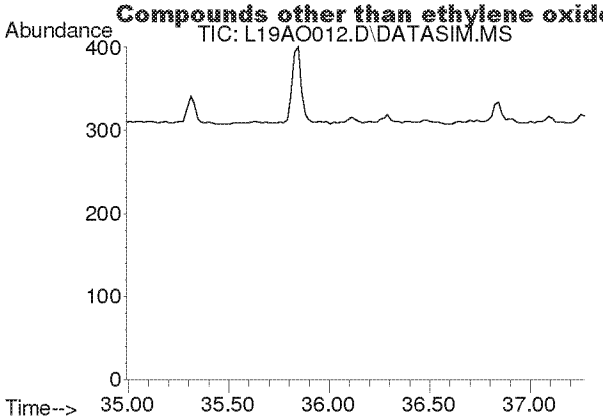
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

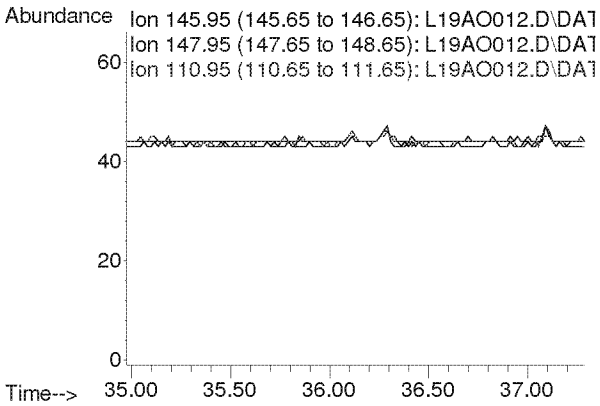


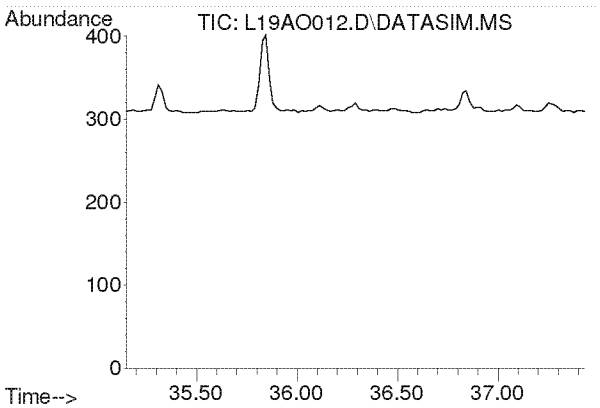
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



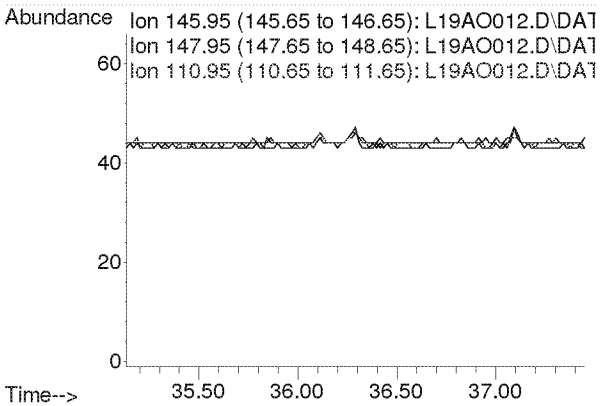


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

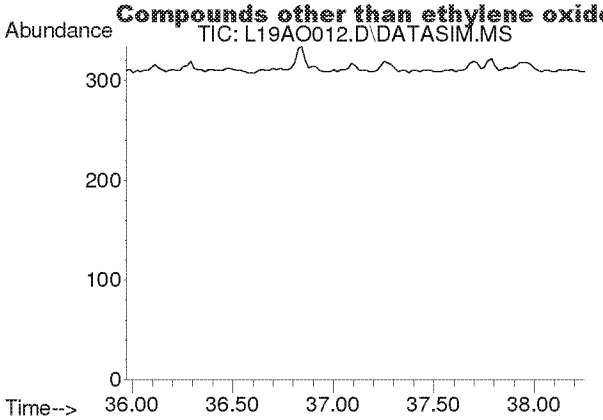
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

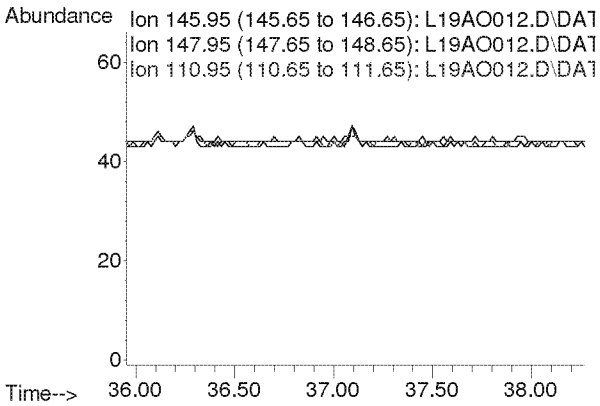


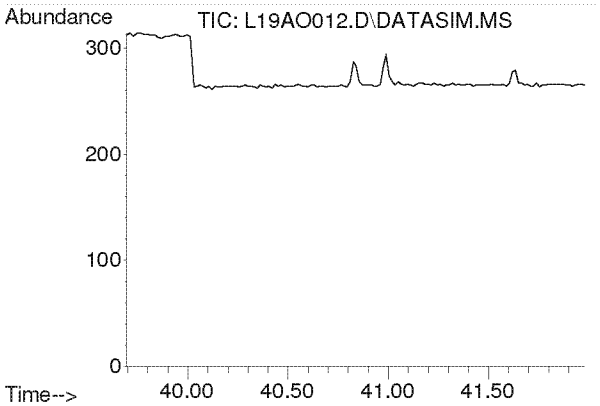
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



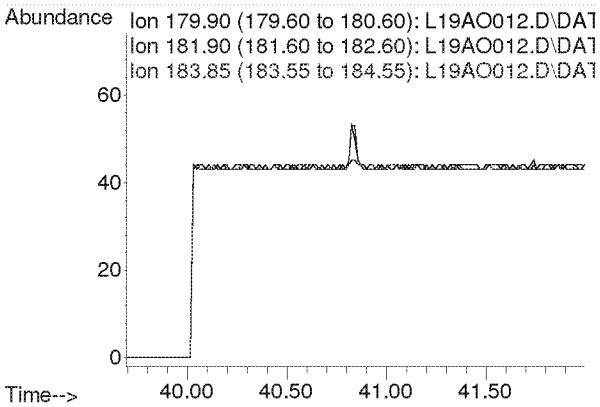


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

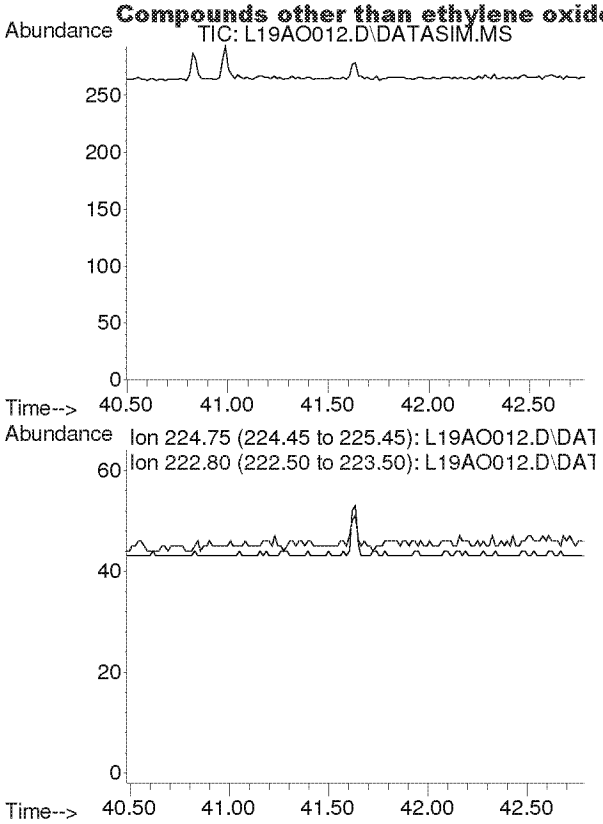
Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19AO012.D
Acq: 15 Jan 2019 8:34 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\L19AO\
Data File : L19AO013.D
Acq On : 15 Jan 2019 9:35 pm
Operator : MAH
Sample : 9010401-05
Misc : GOWER MS 1/3/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 22 11:43:07 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

EtO only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	51925	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	125351	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	101935	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	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO013.D
Acq On : 15 Jan 2019 9:35 pm
Operator : MAH
Sample : 9010401-05
Misc : GOWER MS 1/3/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 22 11:43:07 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

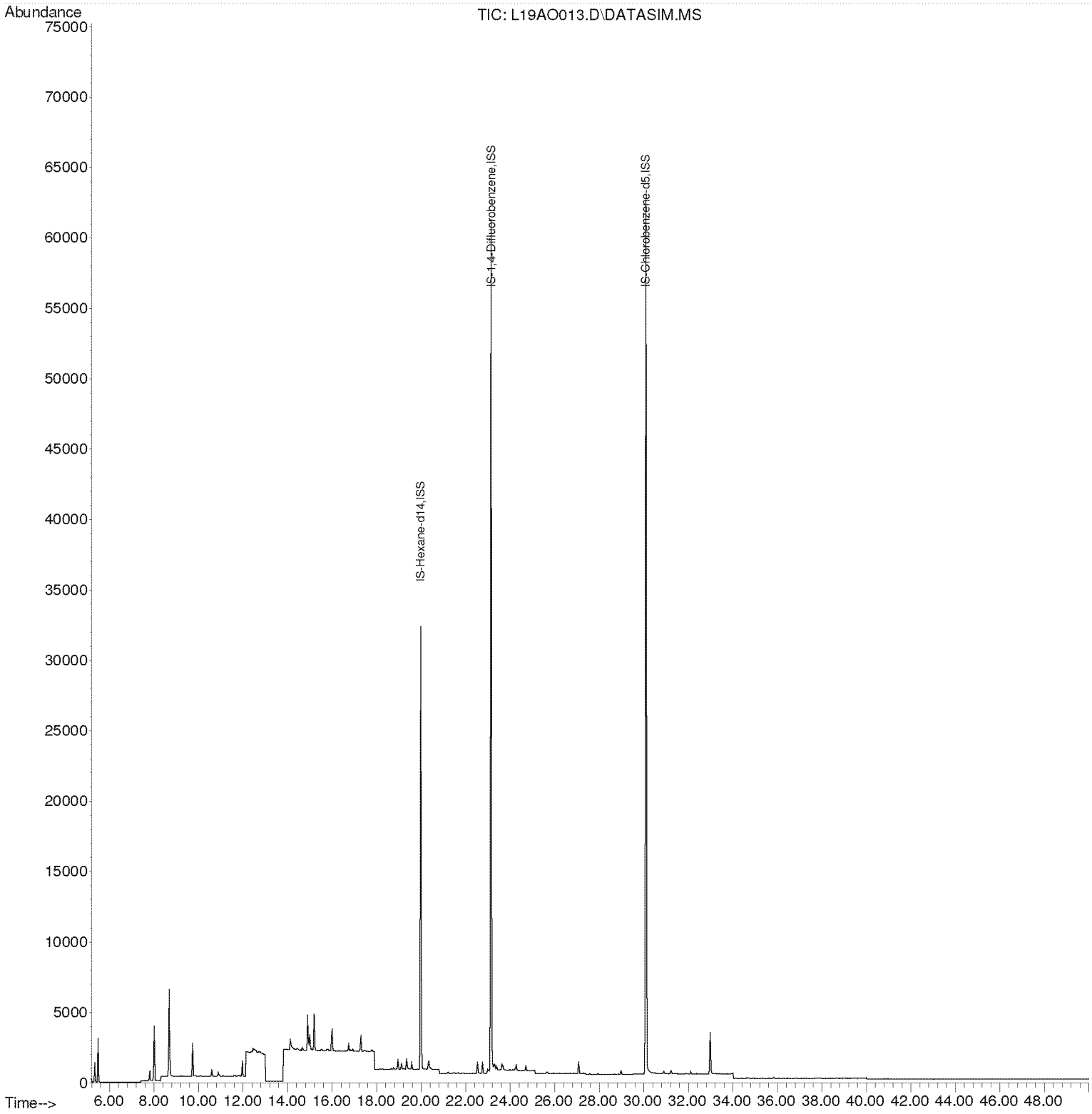
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

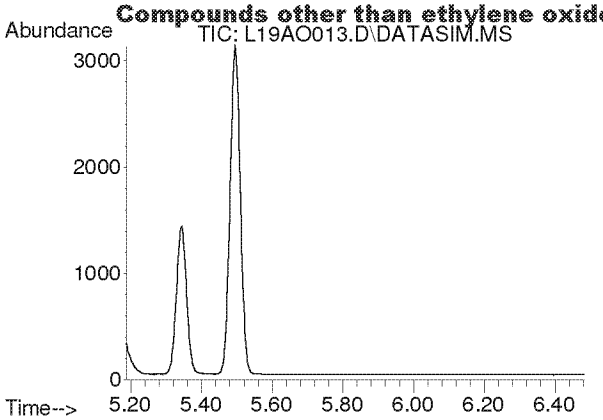
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO013.D
Acq On : 15 Jan 2019 9:35 pm
Operator : MAH
Sample : 9010401-05
Misc : GOWER MS 1/3/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 22 11:26:09 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



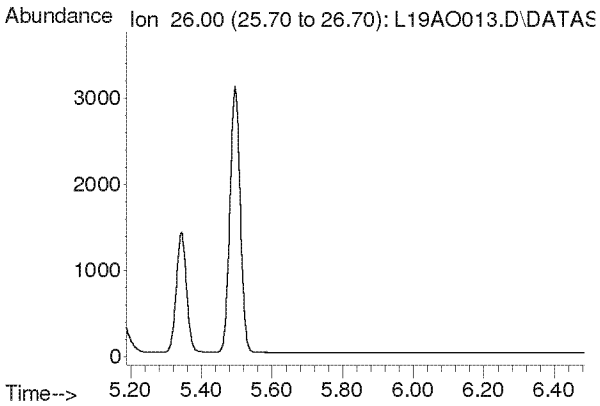
Compounds other than ethylene oxide were not quantitated.

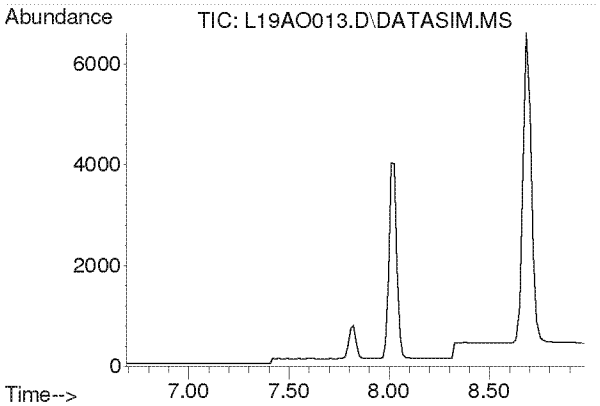


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 26



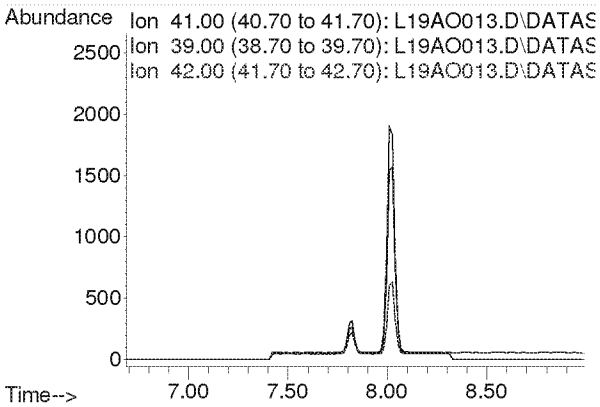


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

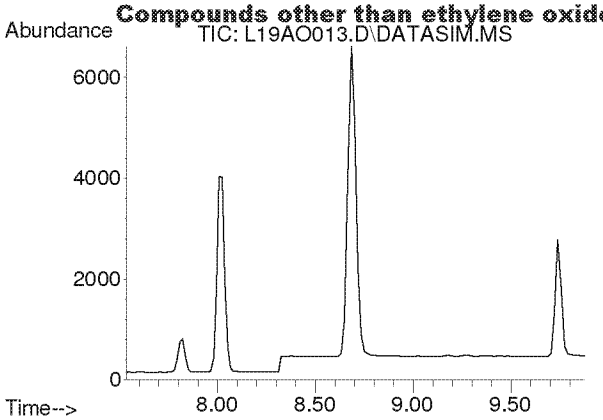
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

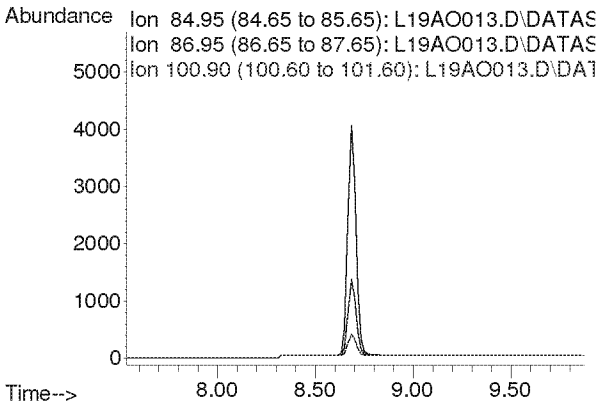


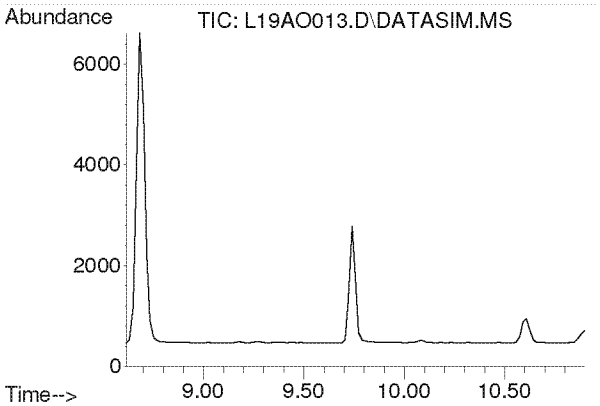
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



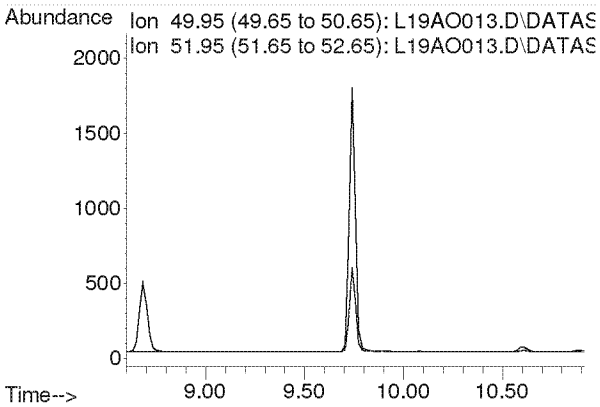


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

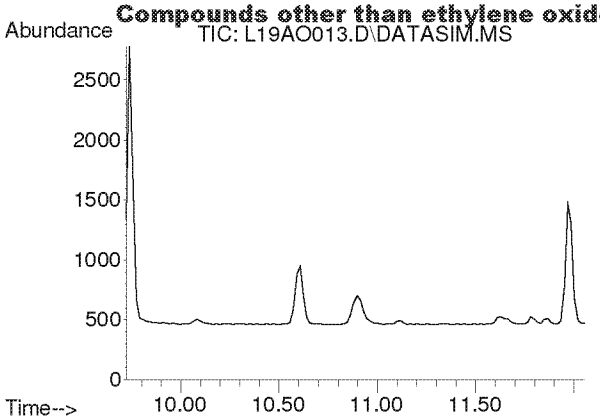
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

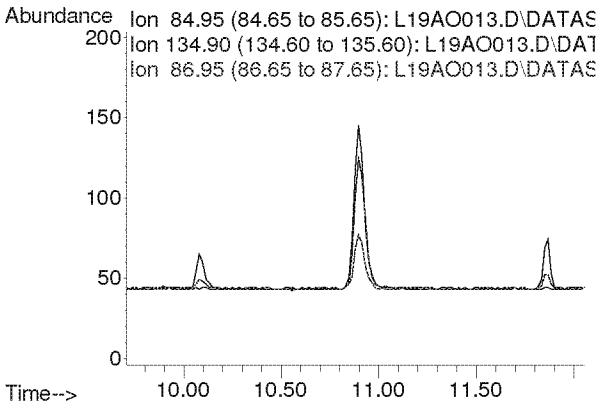


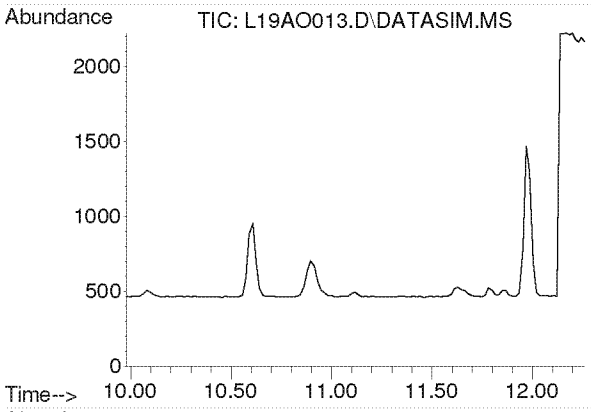
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



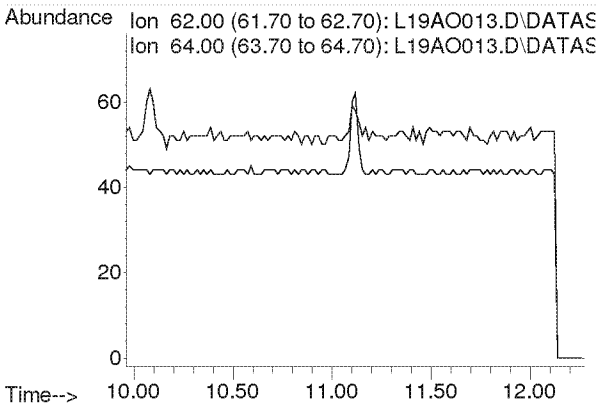


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

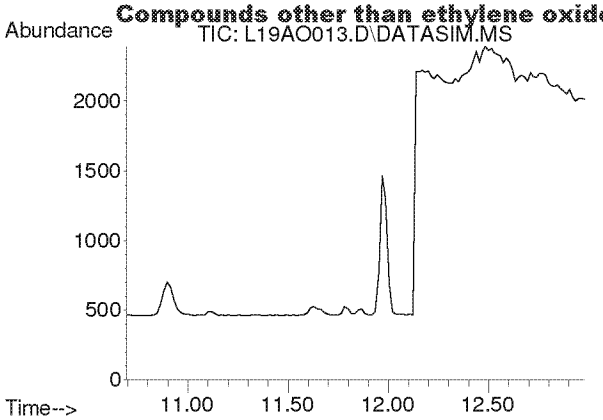
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

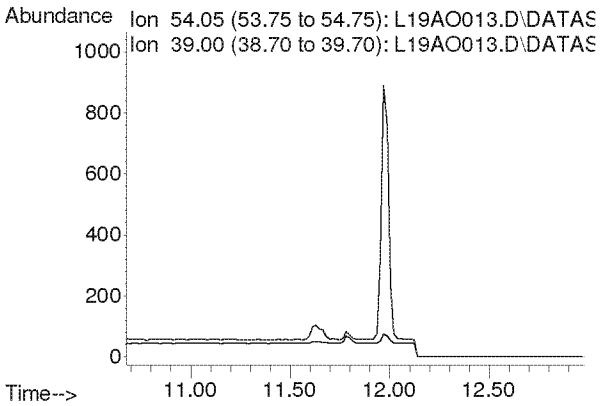


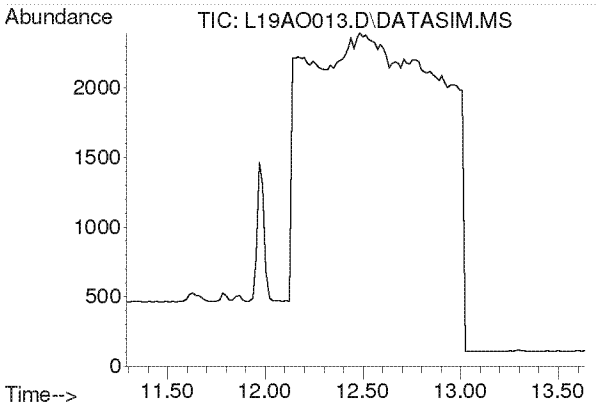
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



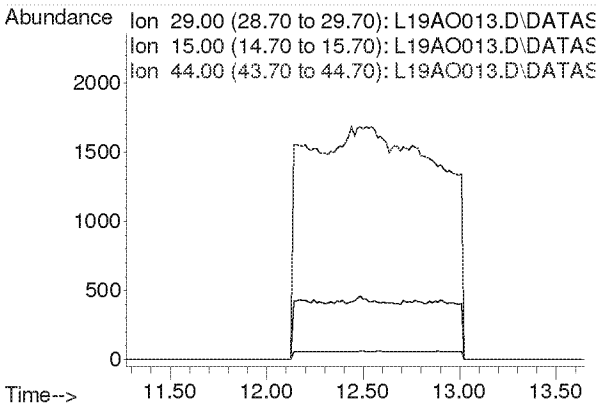


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

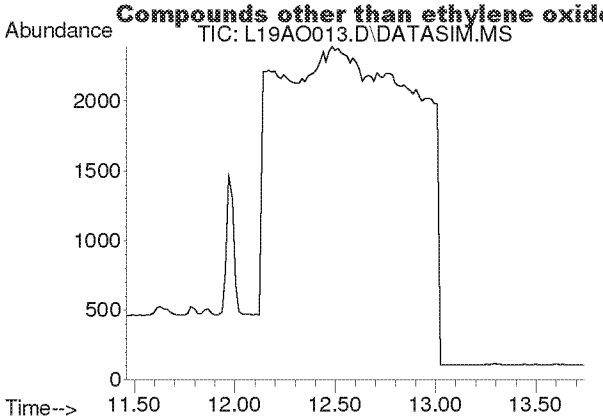
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

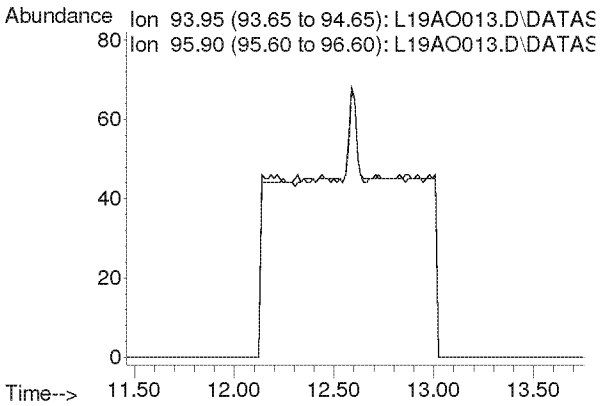


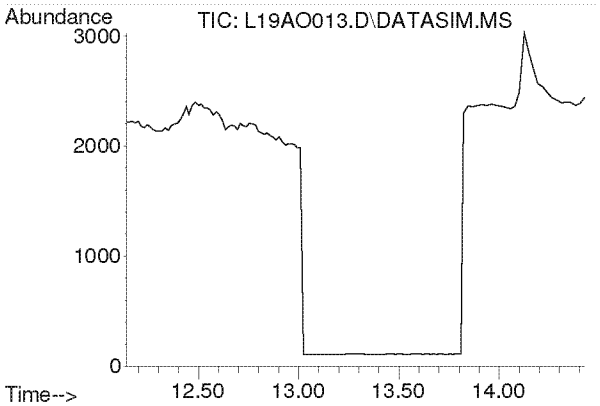
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



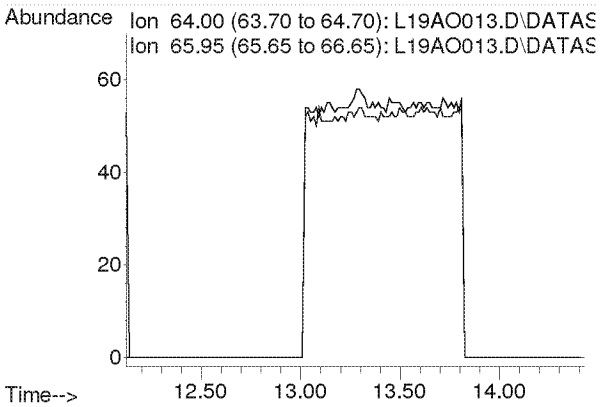


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

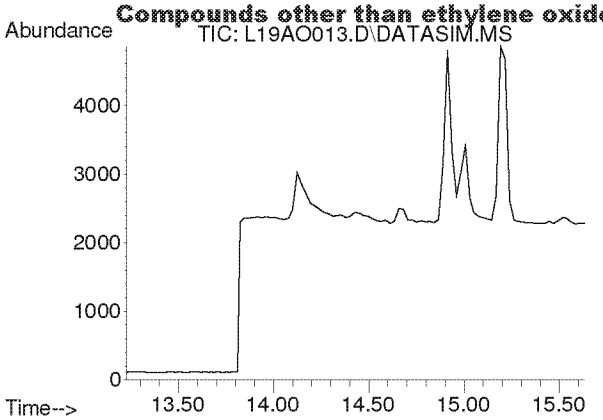
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

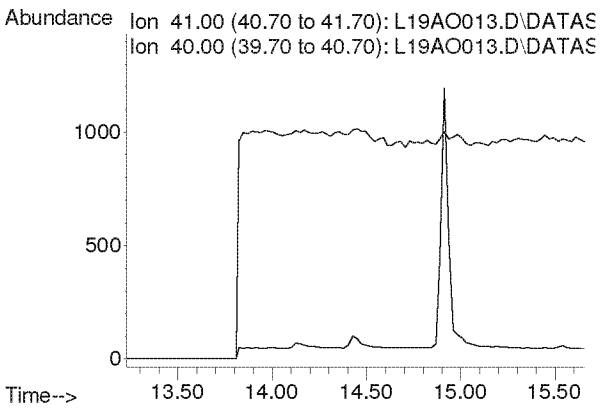


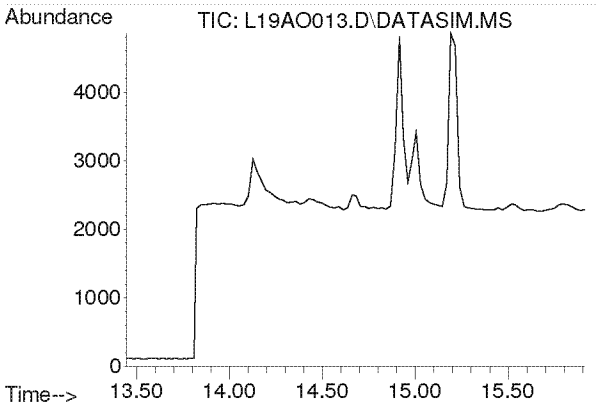
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



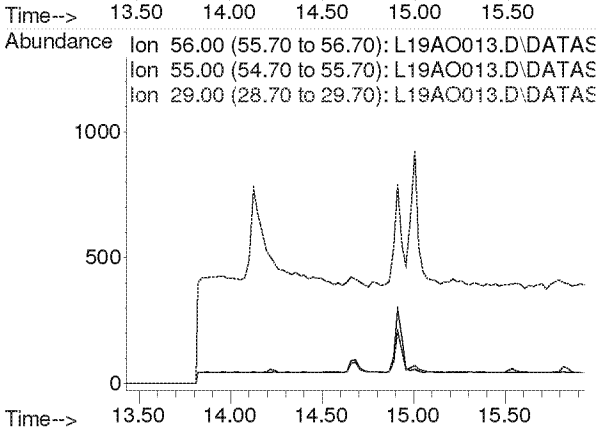


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

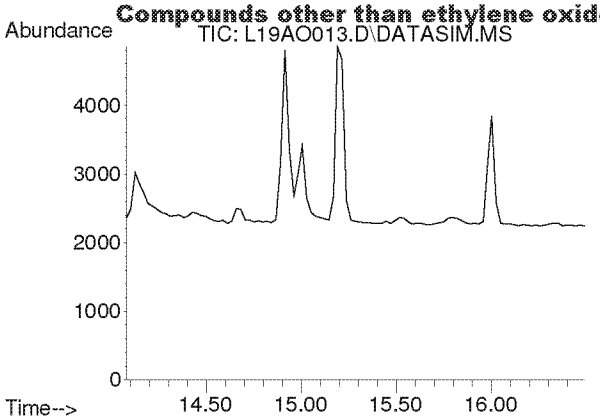
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

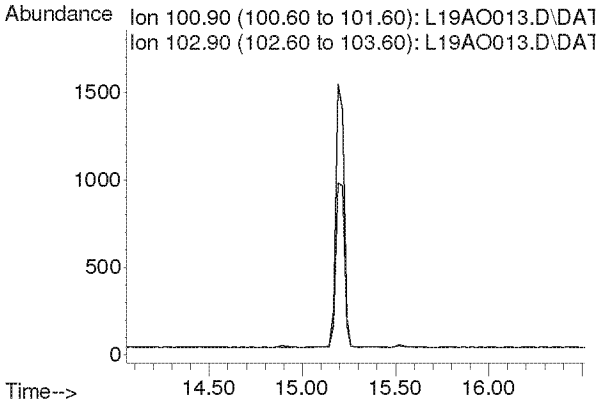


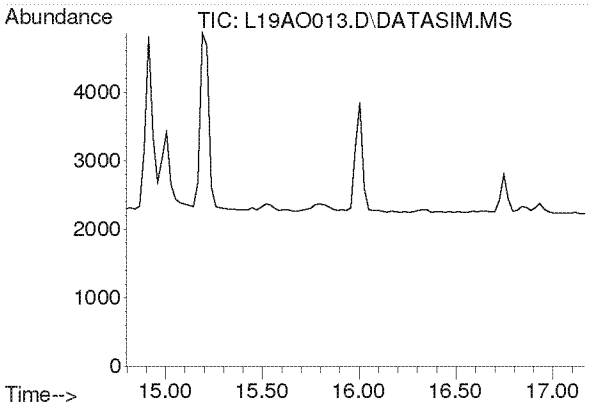
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



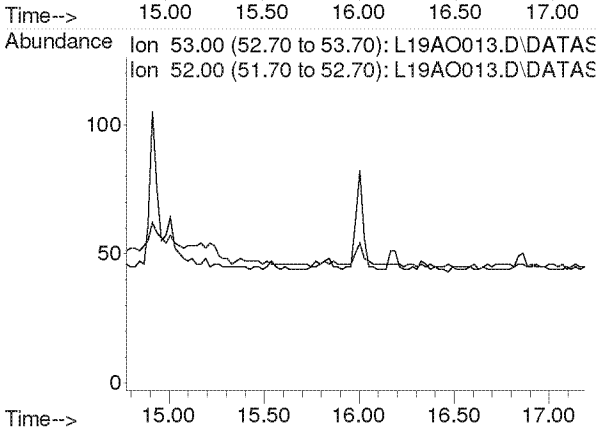


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

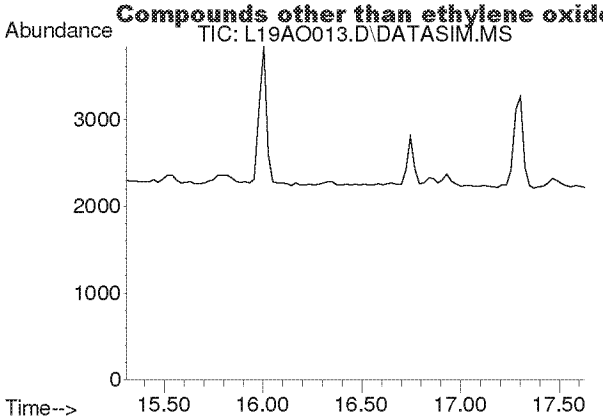
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

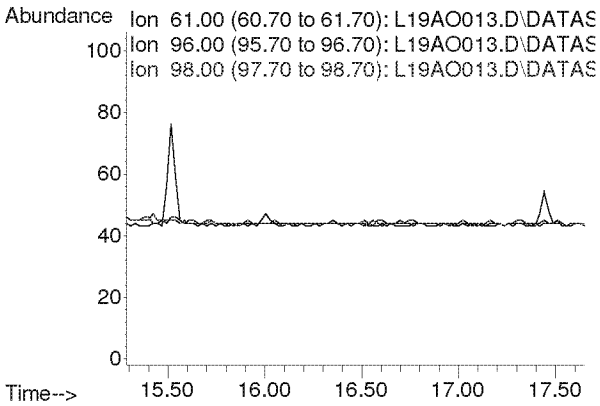


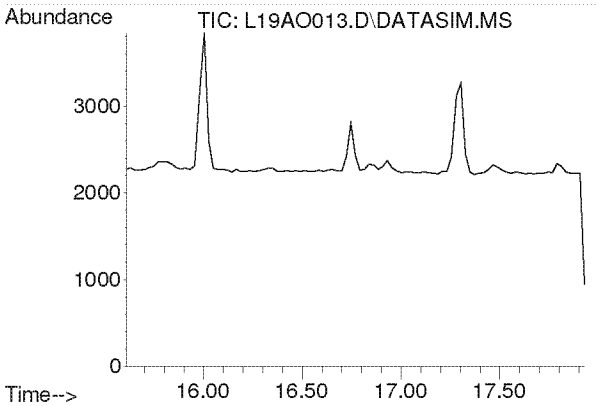
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



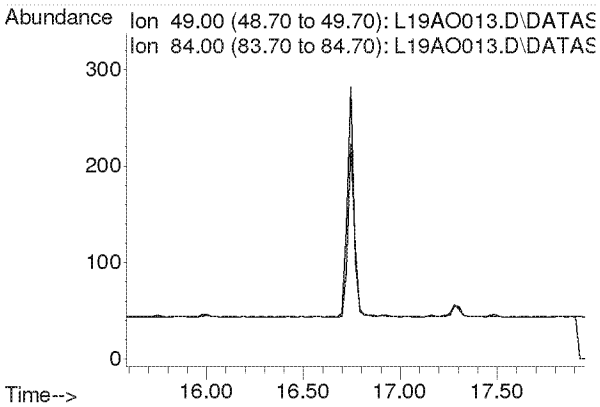


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

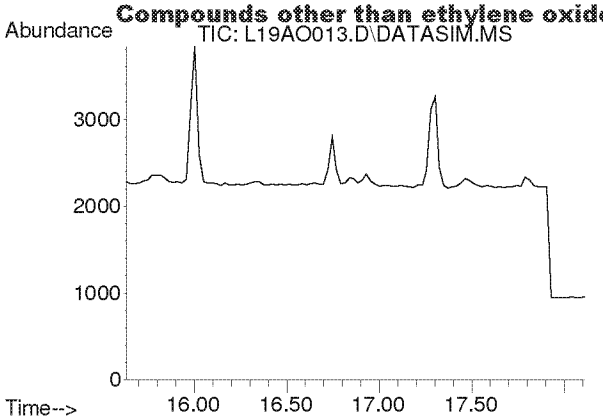
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

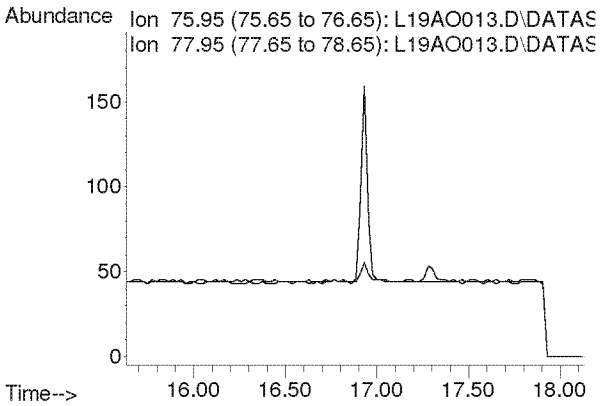


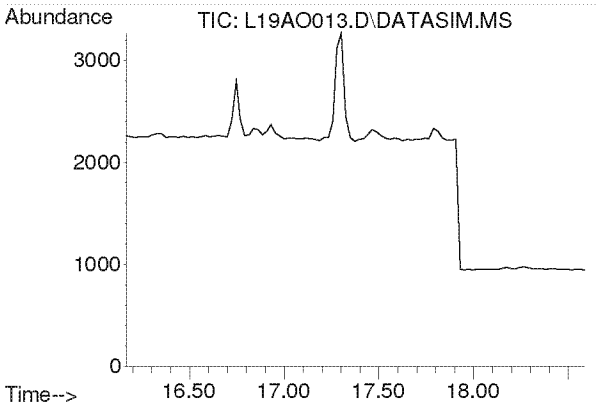
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



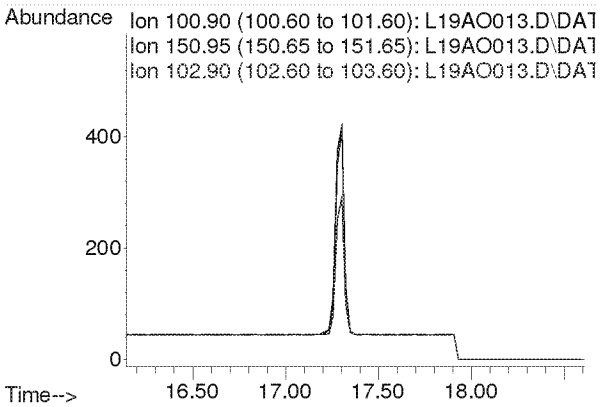


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

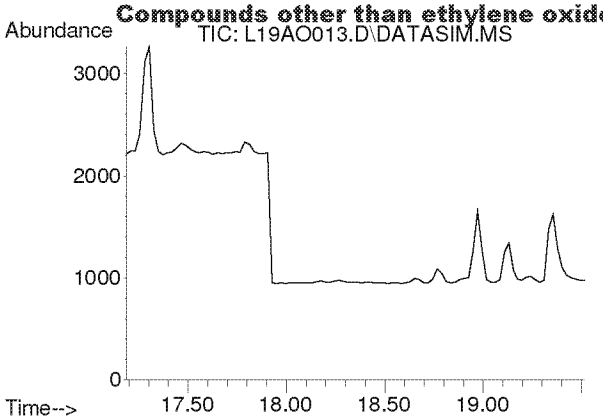
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

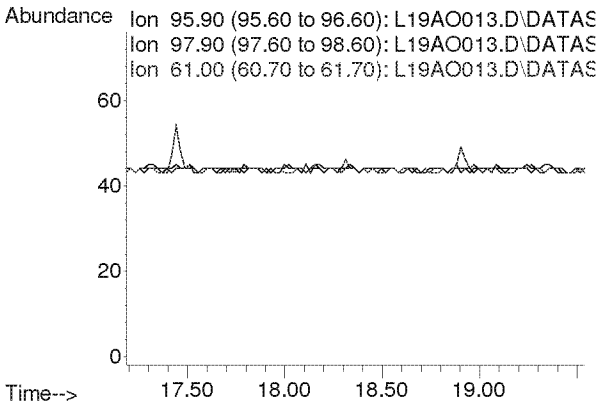


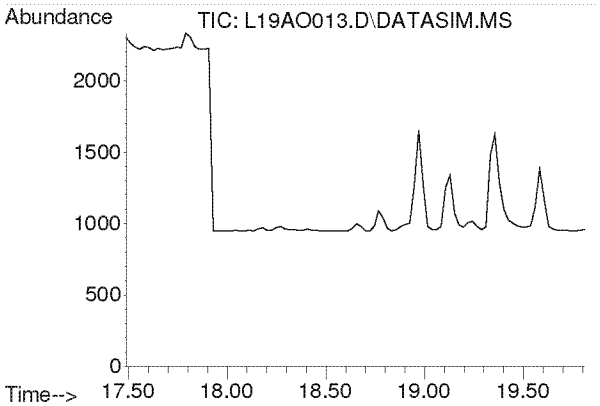
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



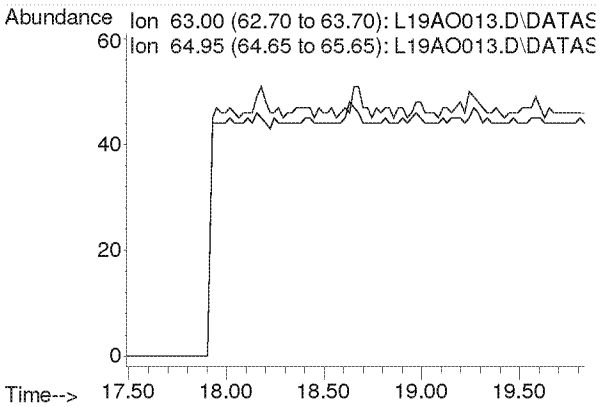


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

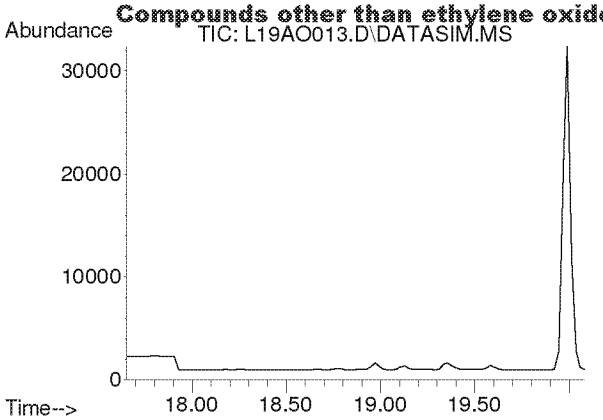
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

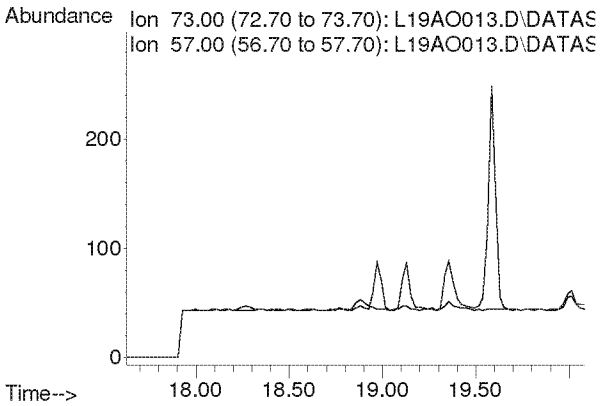


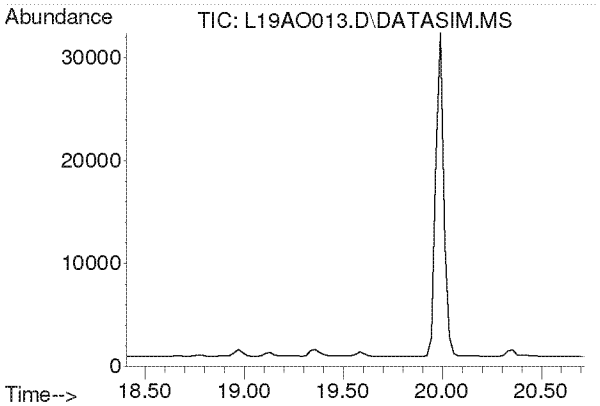
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



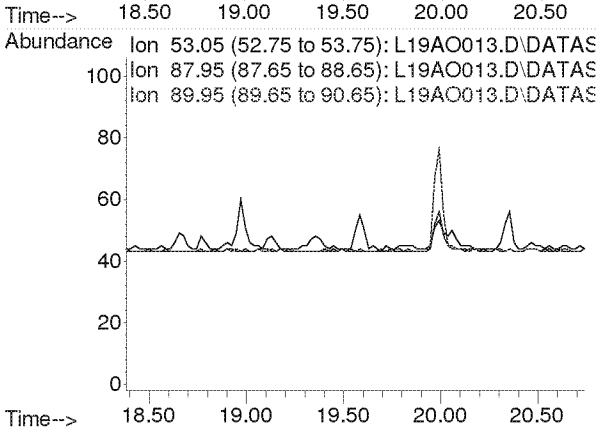


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

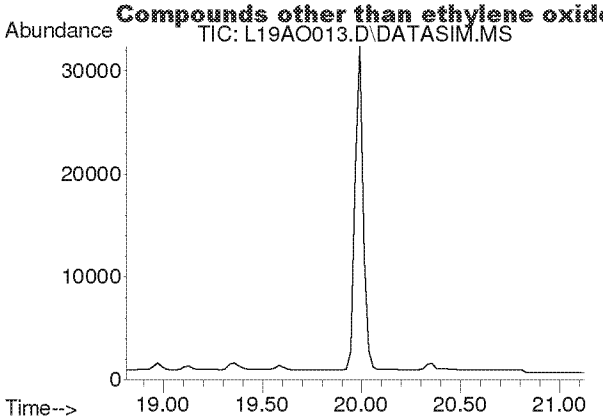
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

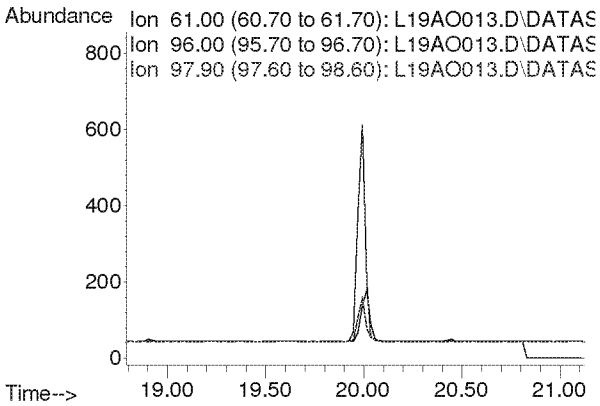


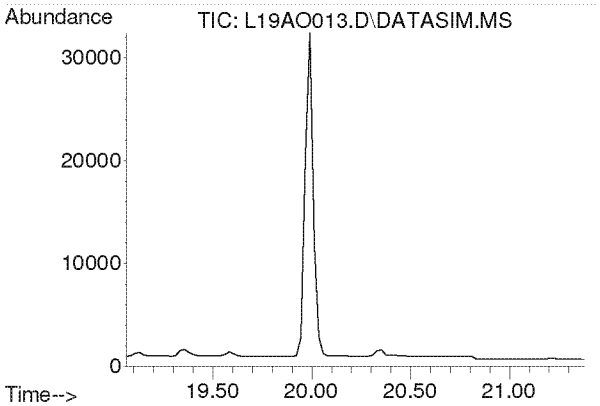
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



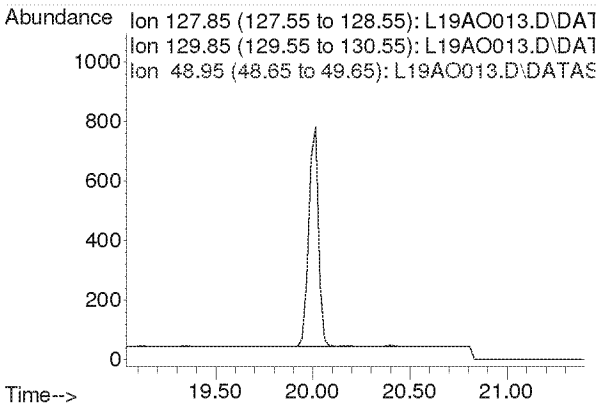


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

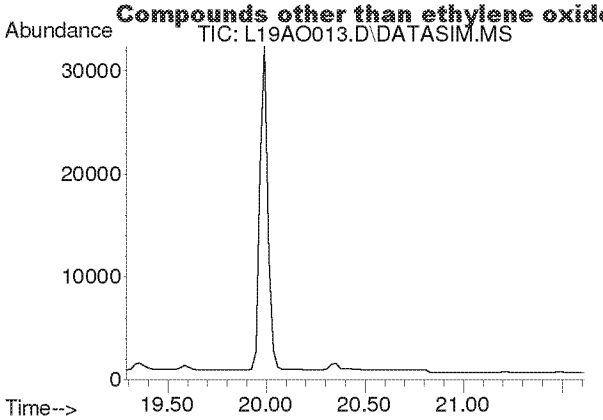
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

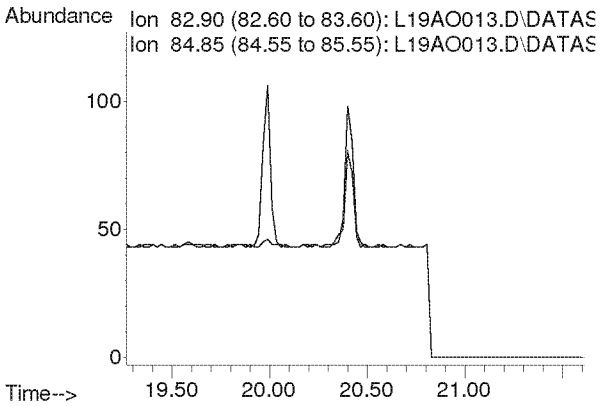


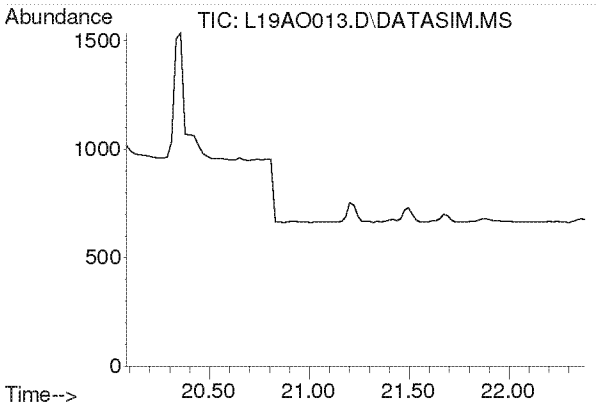
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



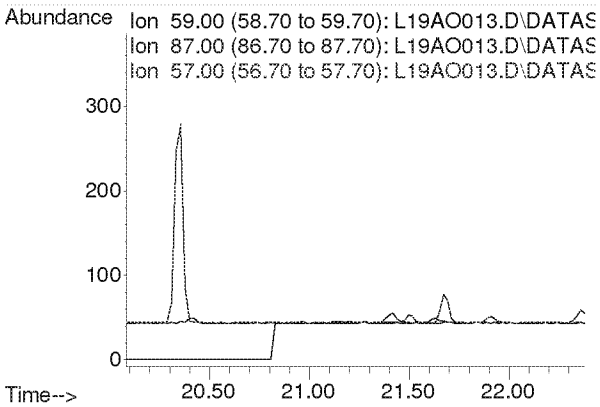


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

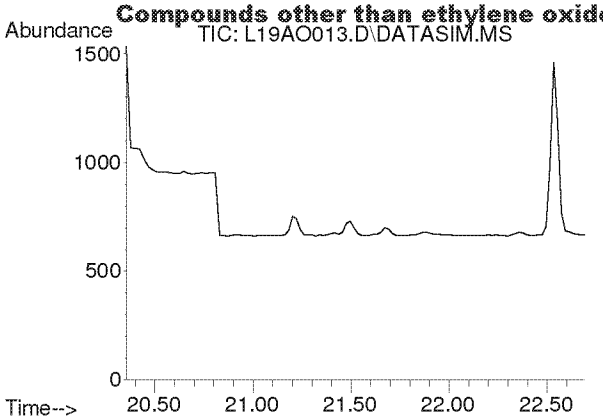
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

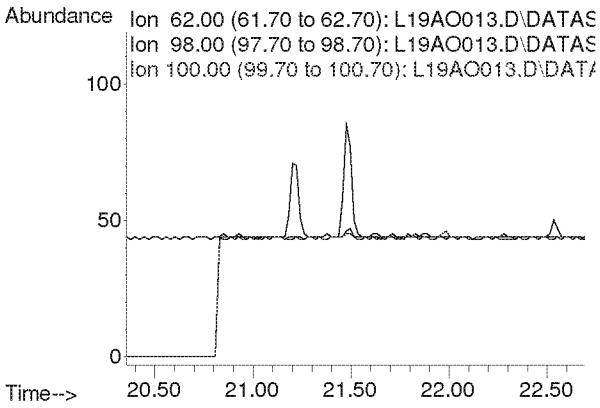


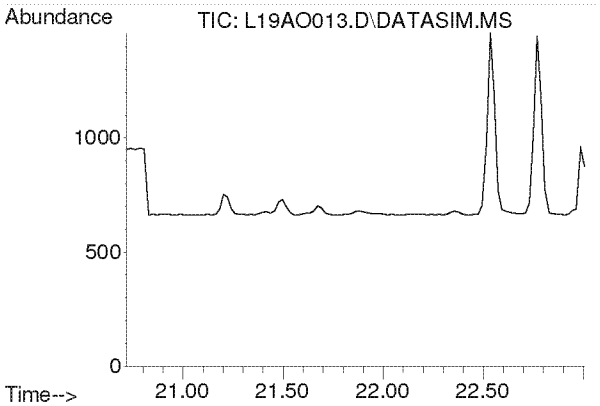
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



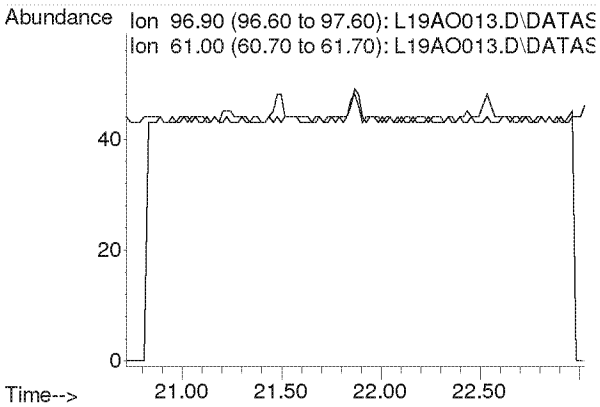


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

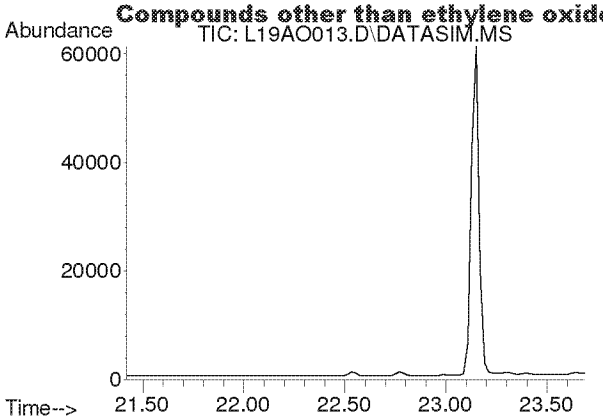
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

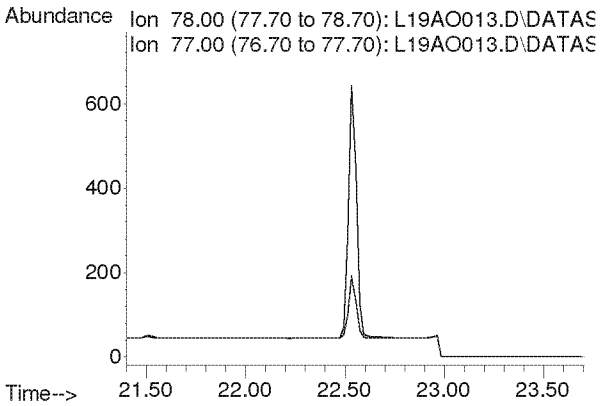


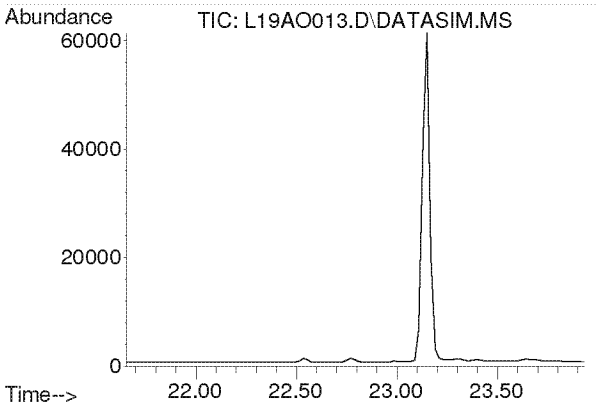
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



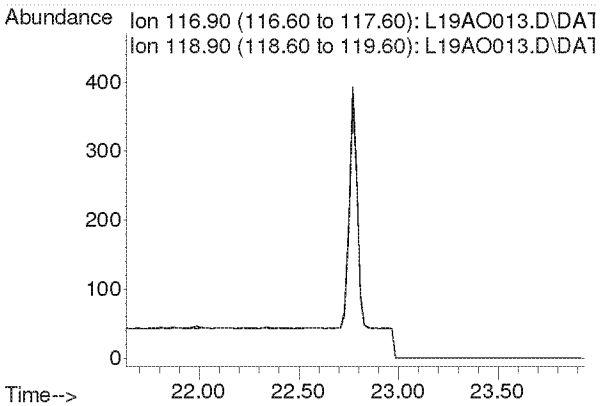


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

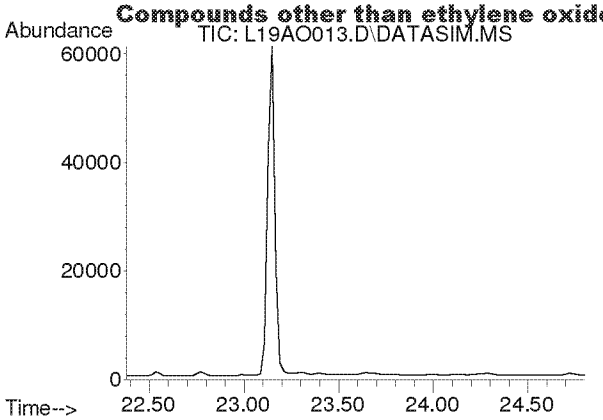
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

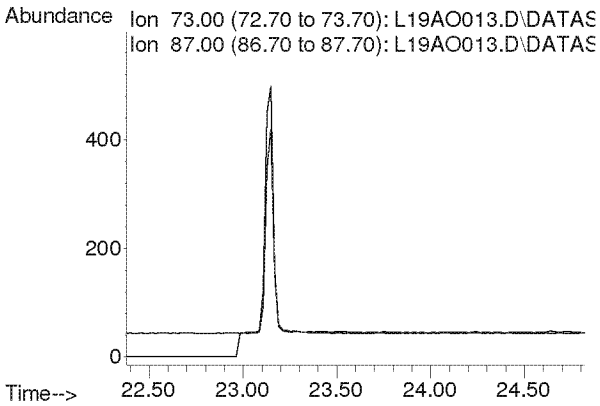


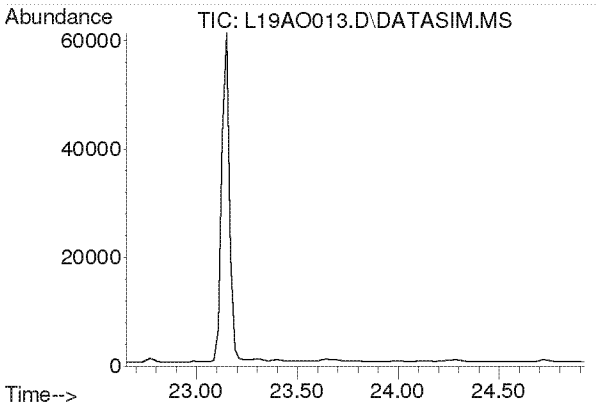
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



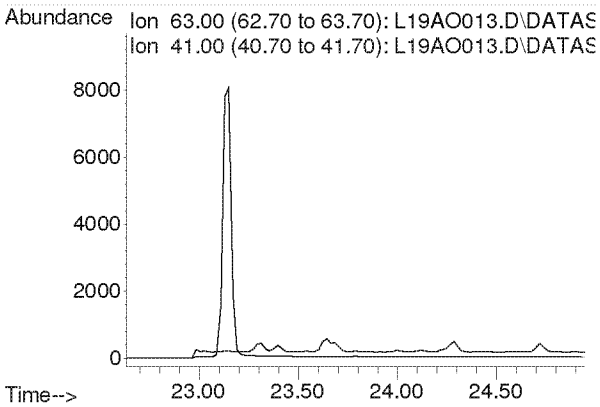


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

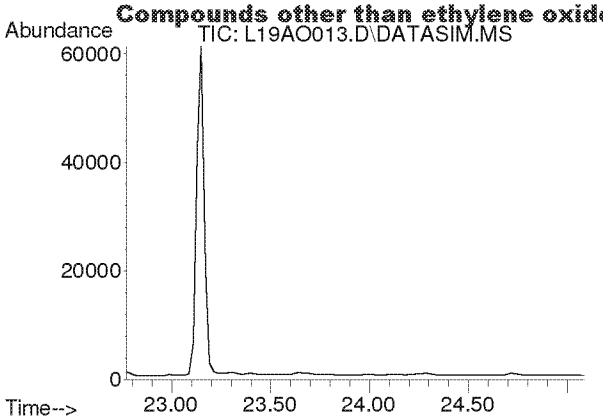
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

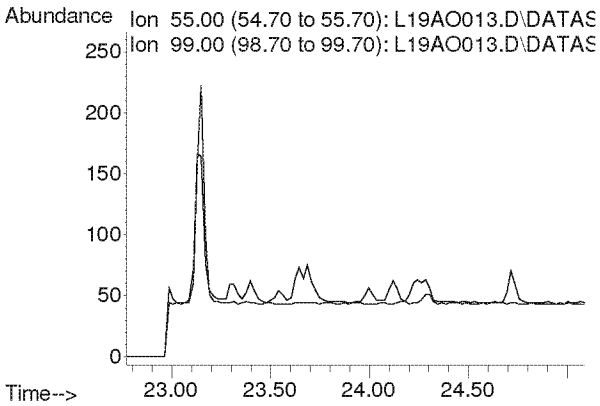


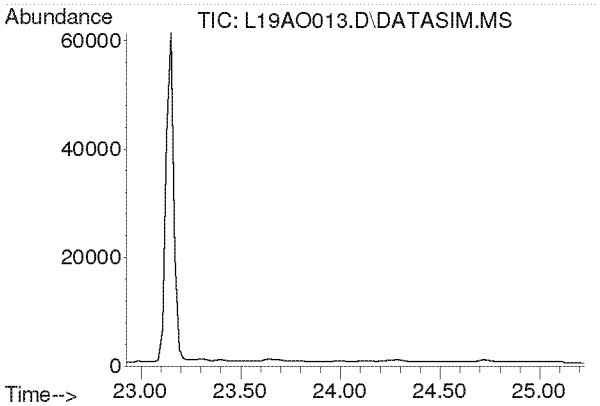
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



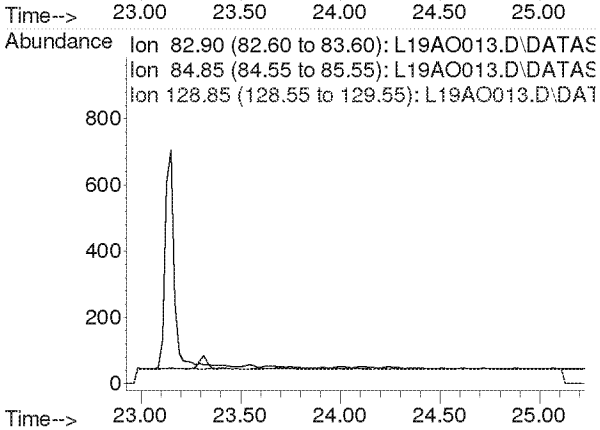


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

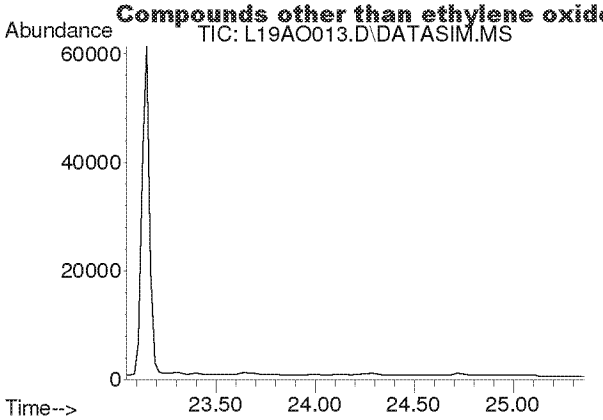
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

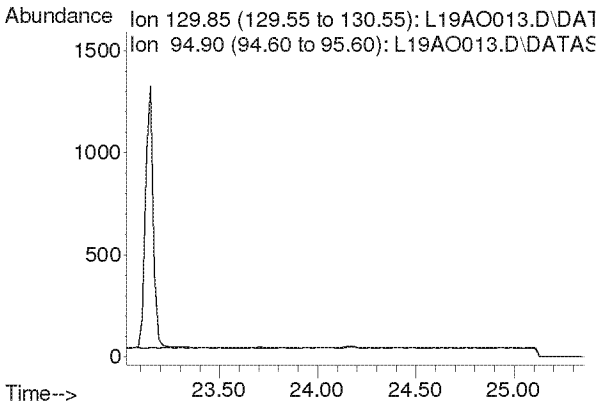


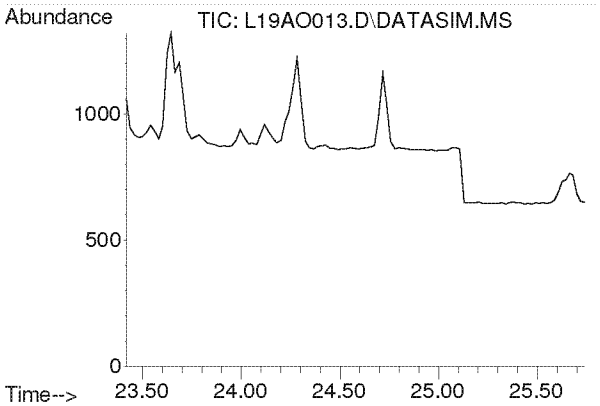
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



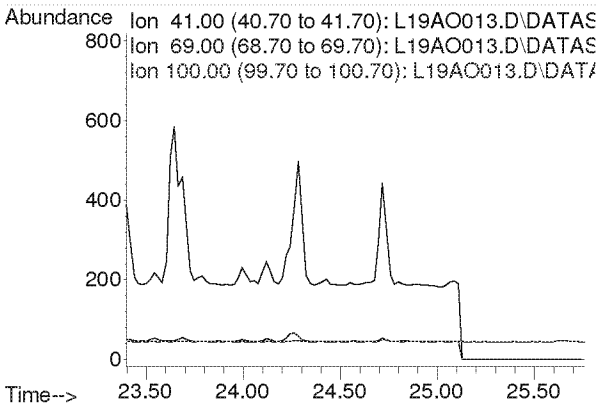


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

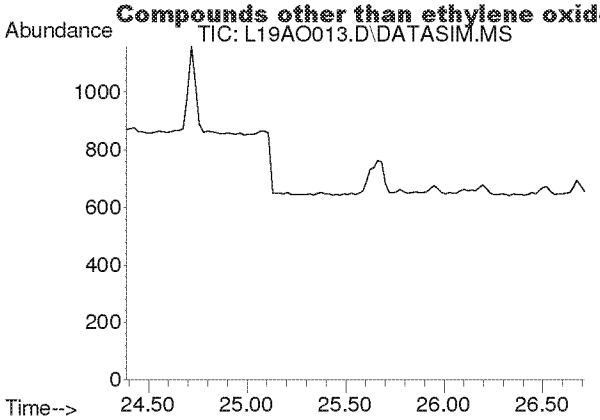
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

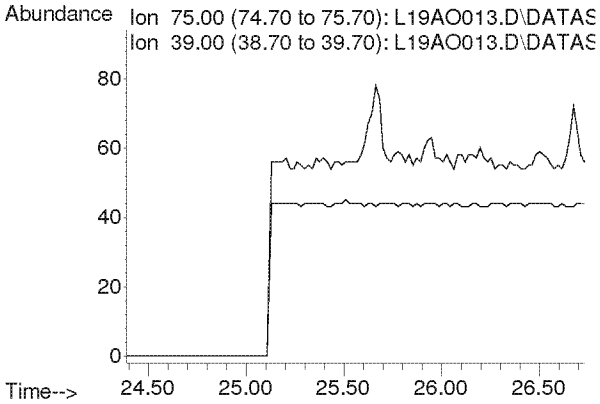


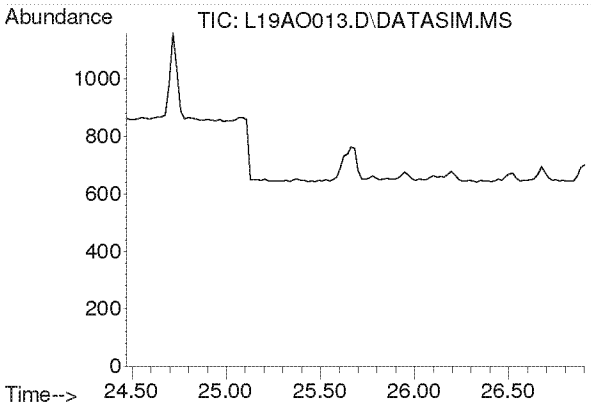
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



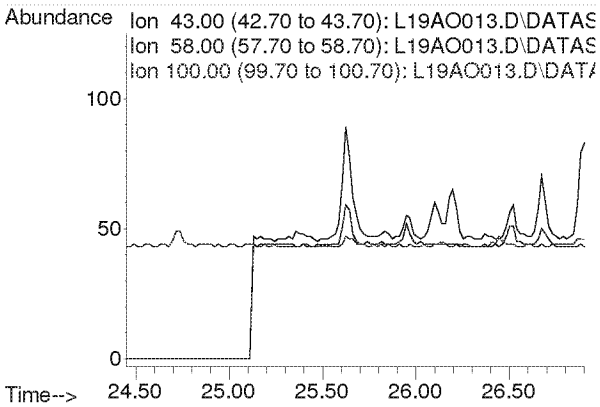


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

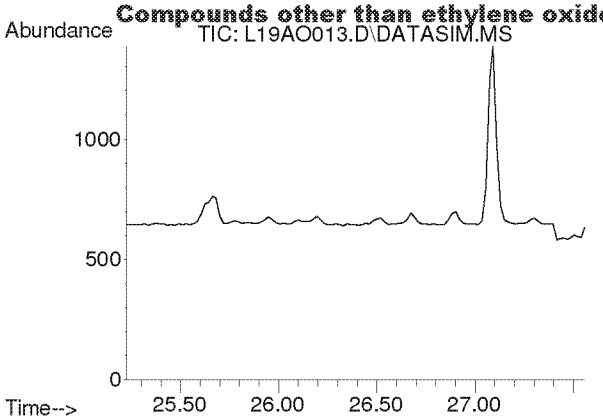
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

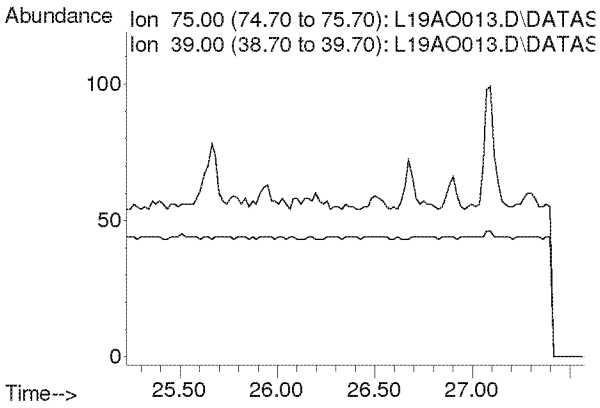


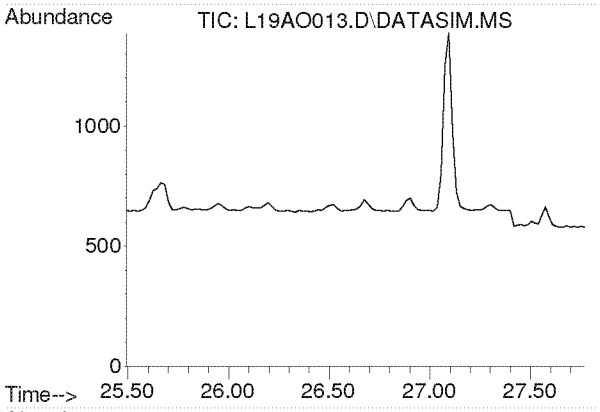
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



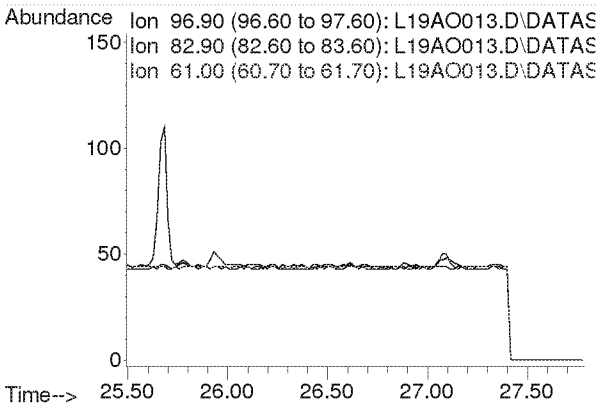


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

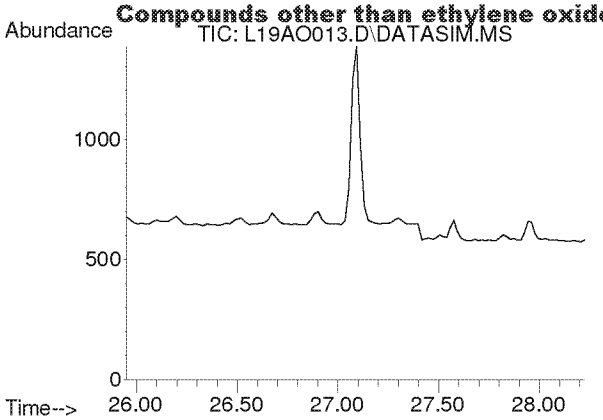
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

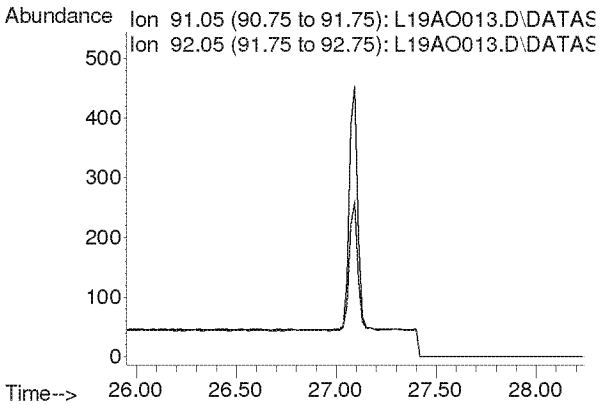


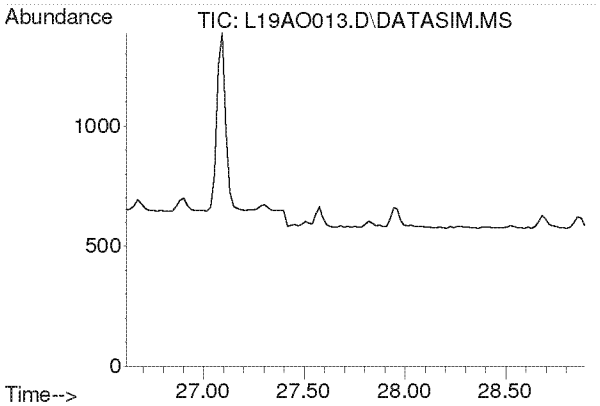
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



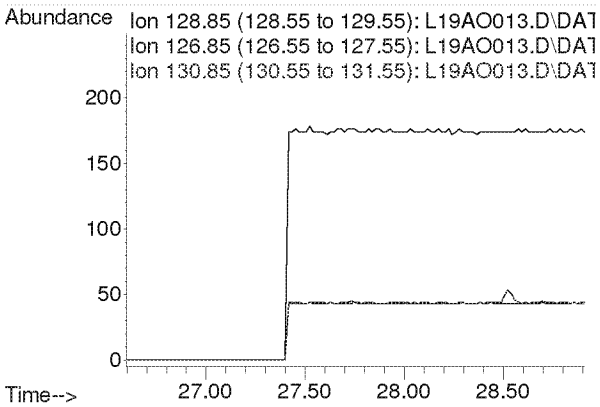


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

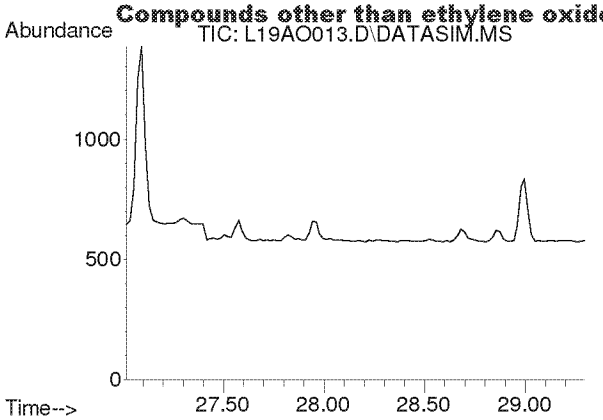
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

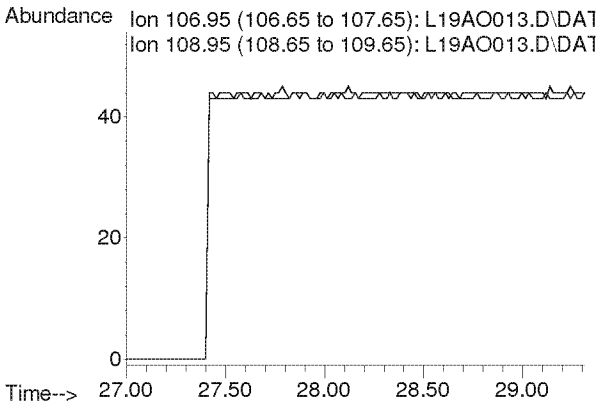


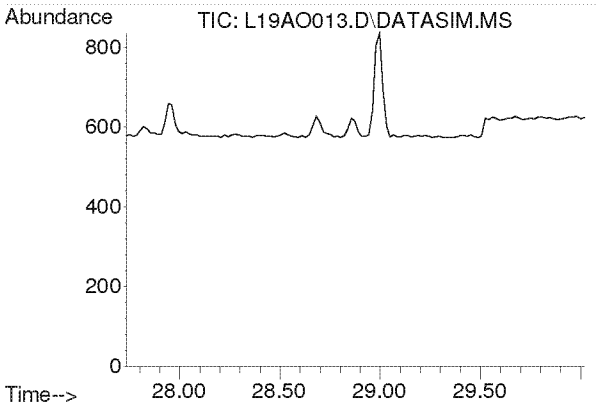
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



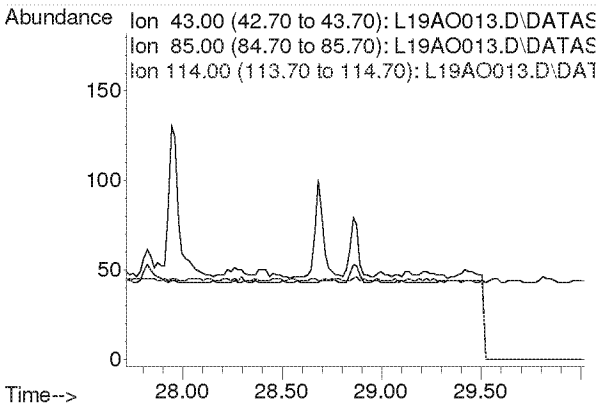


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

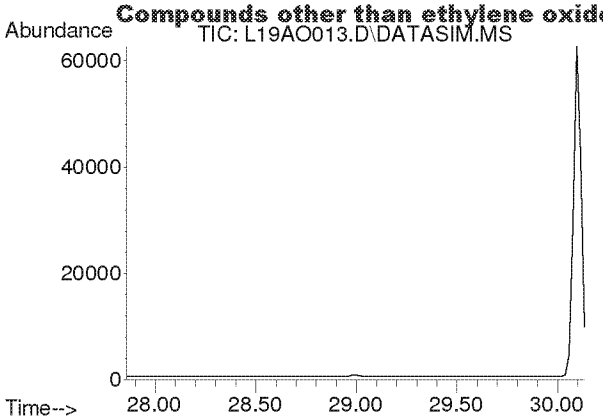
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

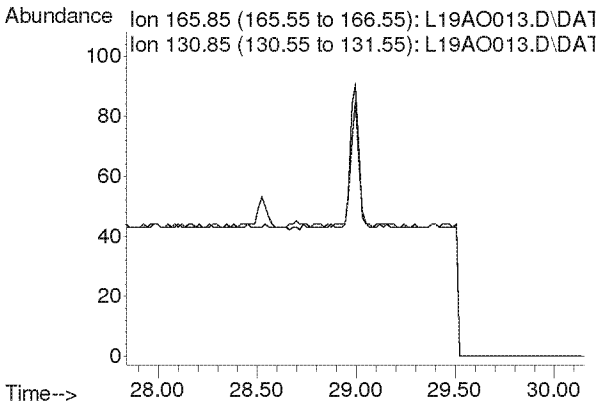


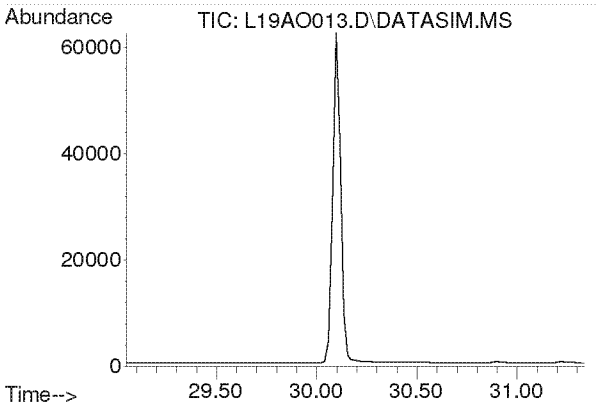
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



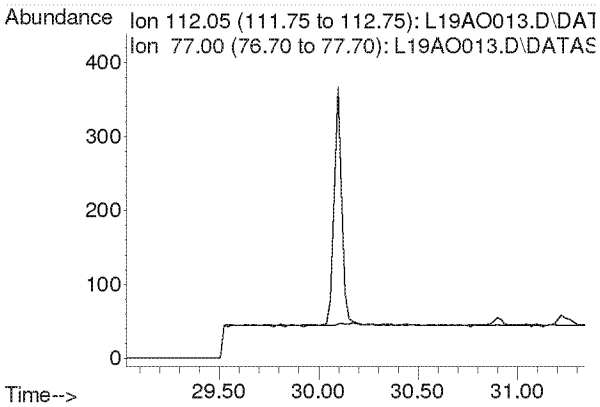


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

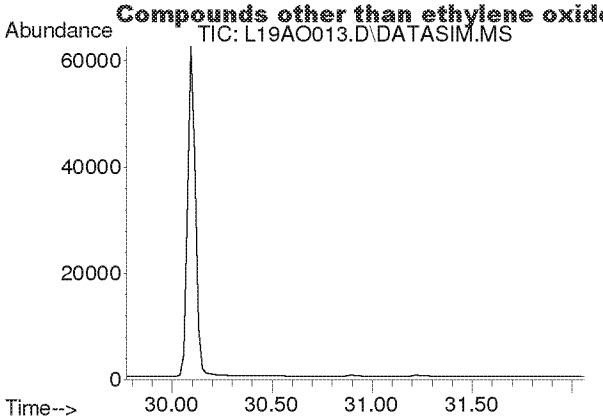
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

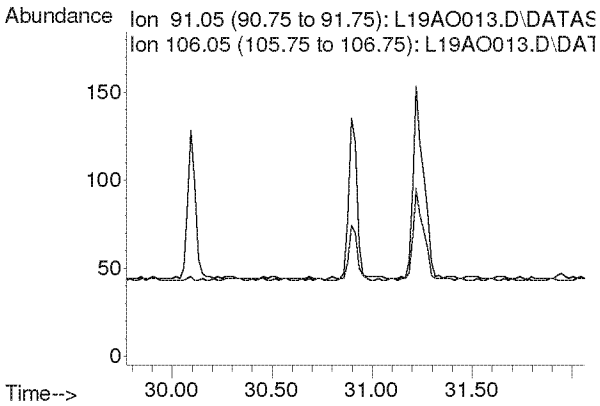


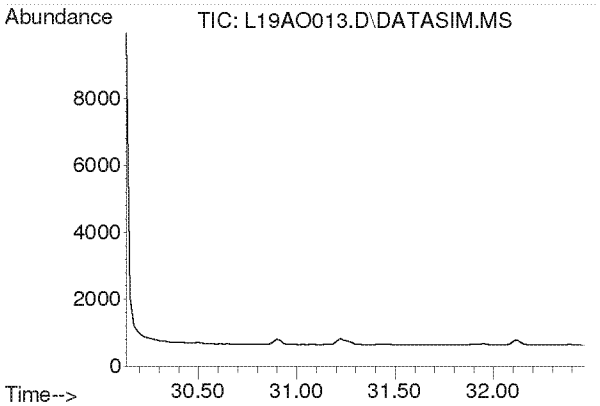
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



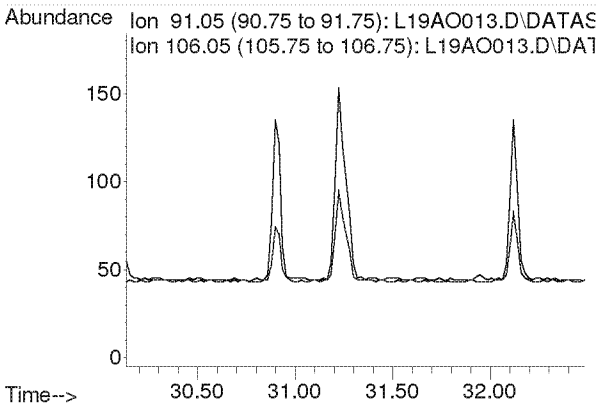


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

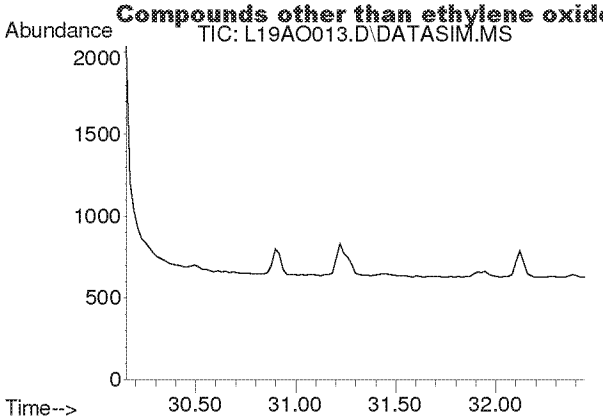
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

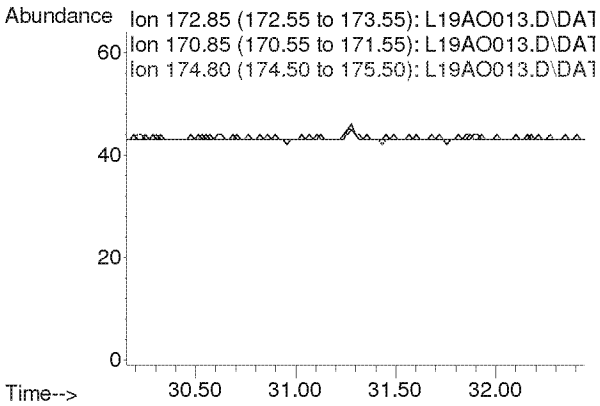


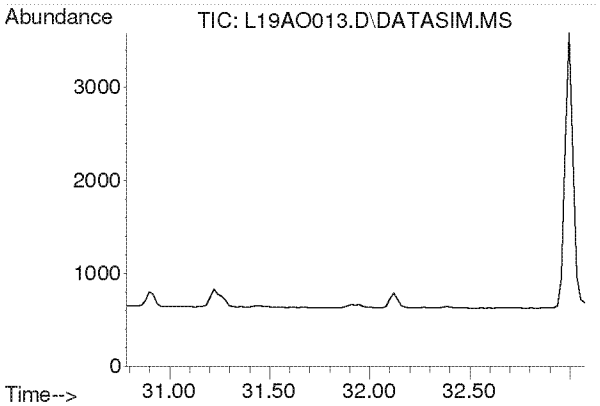
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



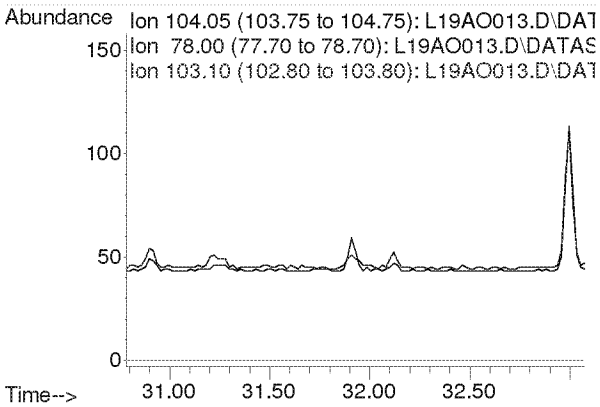


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

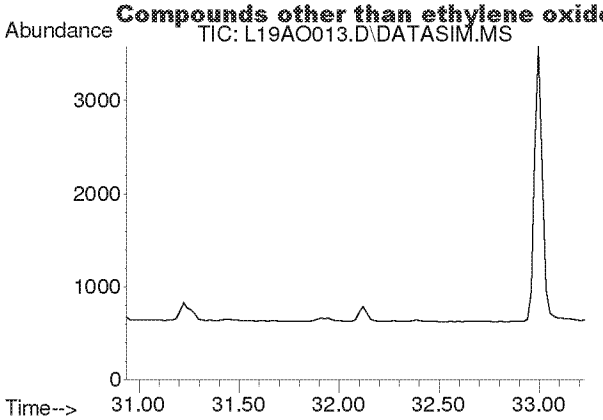
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

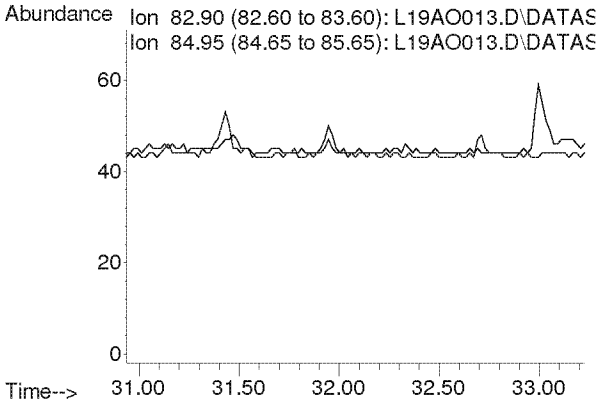


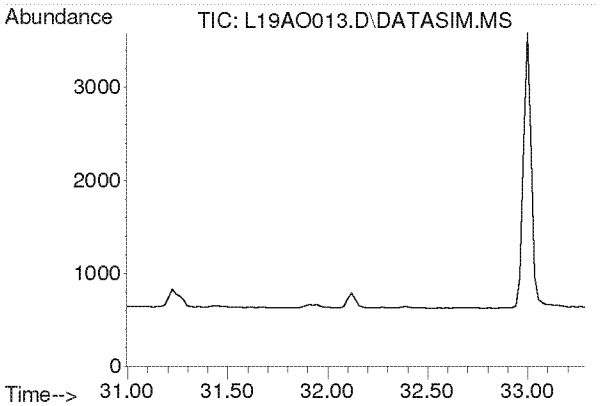
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



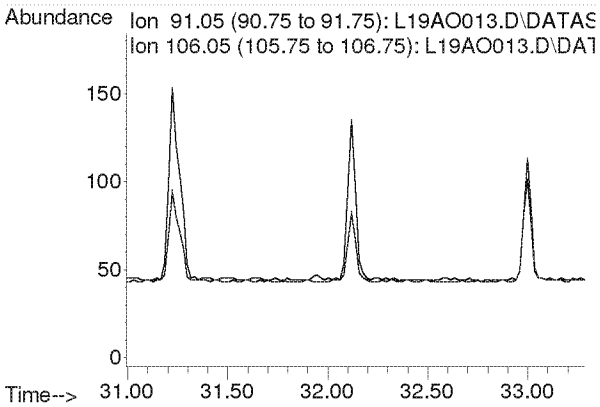


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

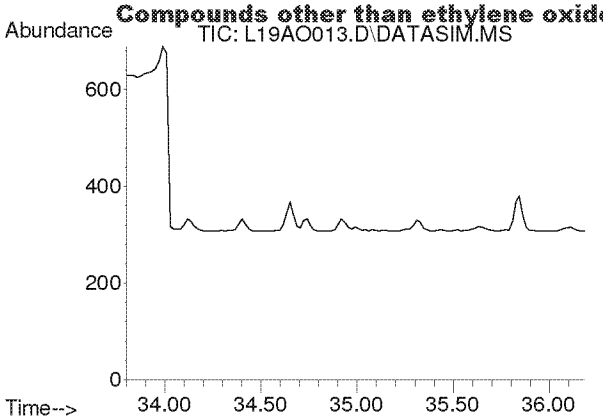
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

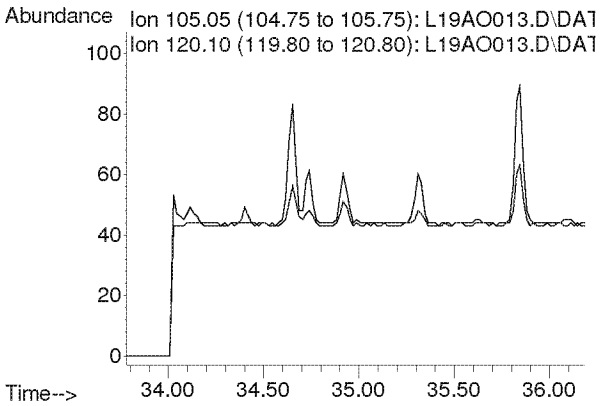


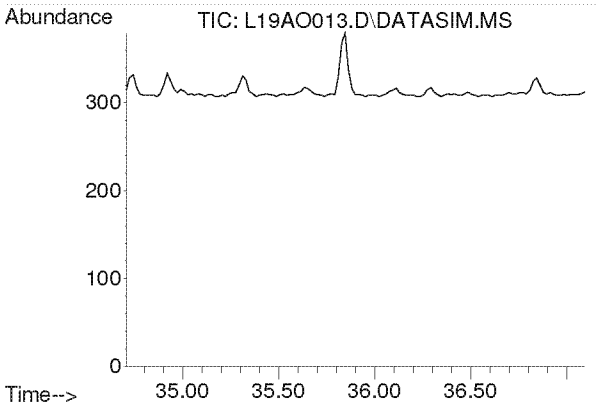
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



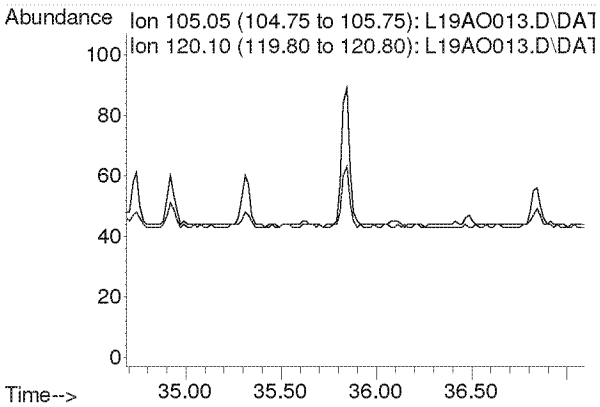


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

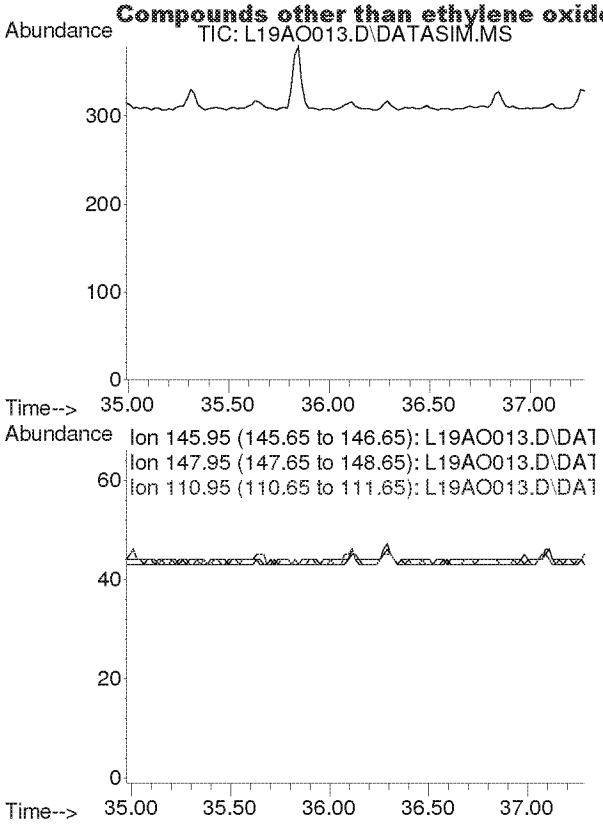
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

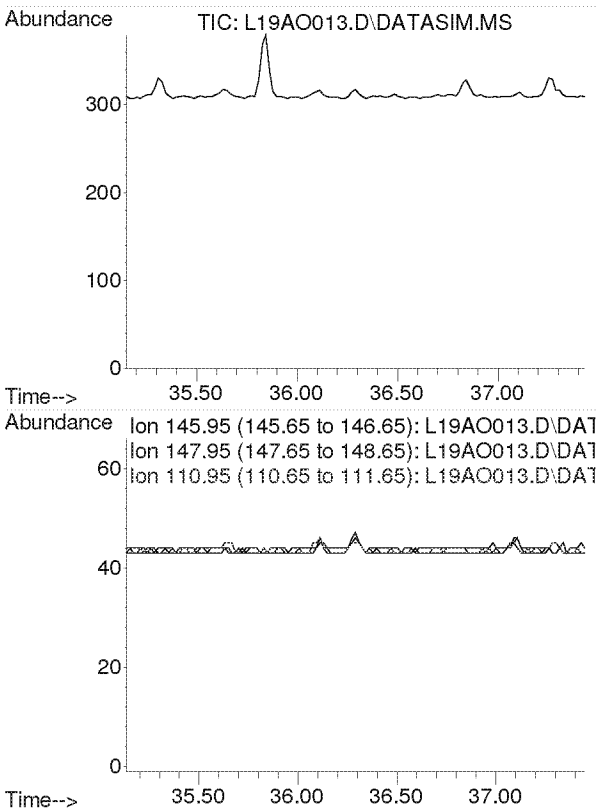


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



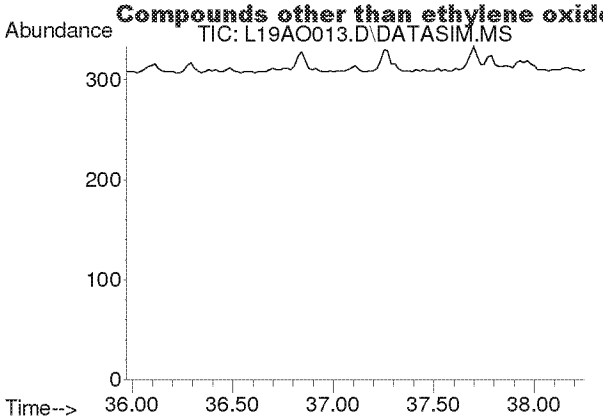
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

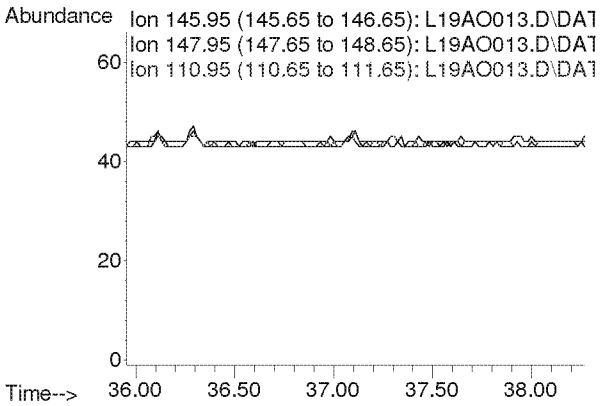


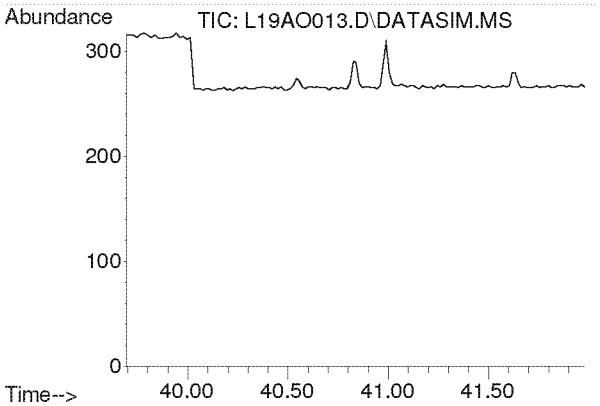
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



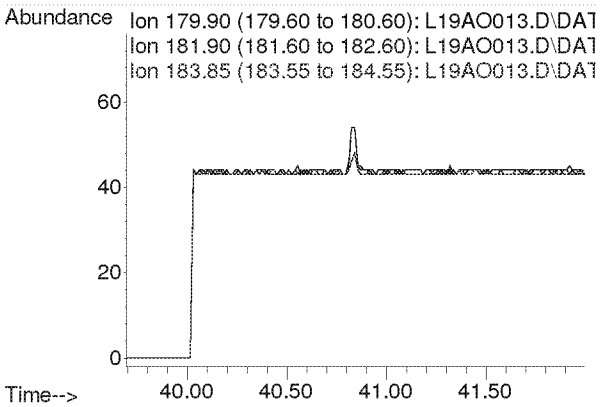


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

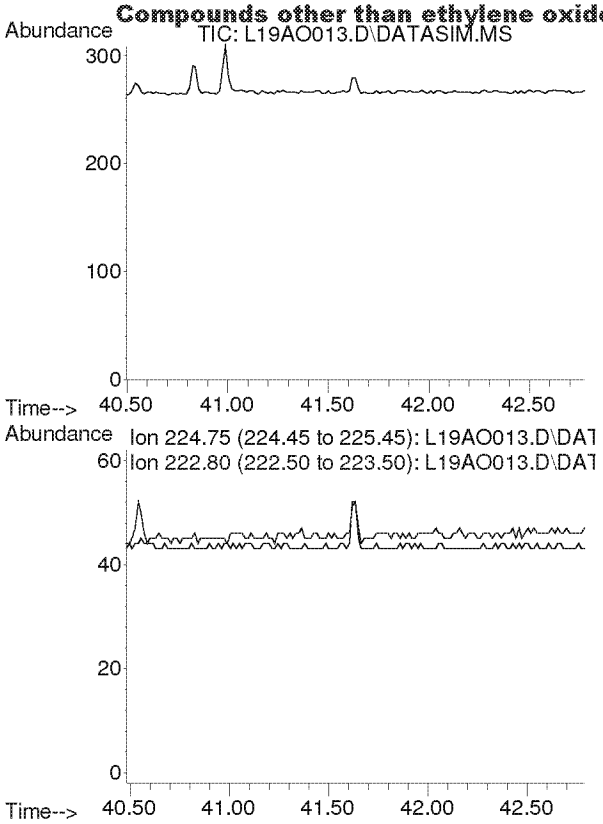
Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19AO013.D
Acq: 15 Jan 2019 9:35 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\L19AO\
Data File : L19AO014.D
Acq On : 15 Jan 2019 10:37 pm
Operator : MAH
Sample : 9010401-06
Misc : GOWER ES 1/3/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 22 11:43:46 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	53238	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	132177	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	105615	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	12.468	29	319m	0.1160 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. d	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO014.D
Acq On : 15 Jan 2019 10:37 pm
Operator : MAH
Sample : 9010401-06
Misc : GOWER ES 1/3/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 22 11:43:46 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

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

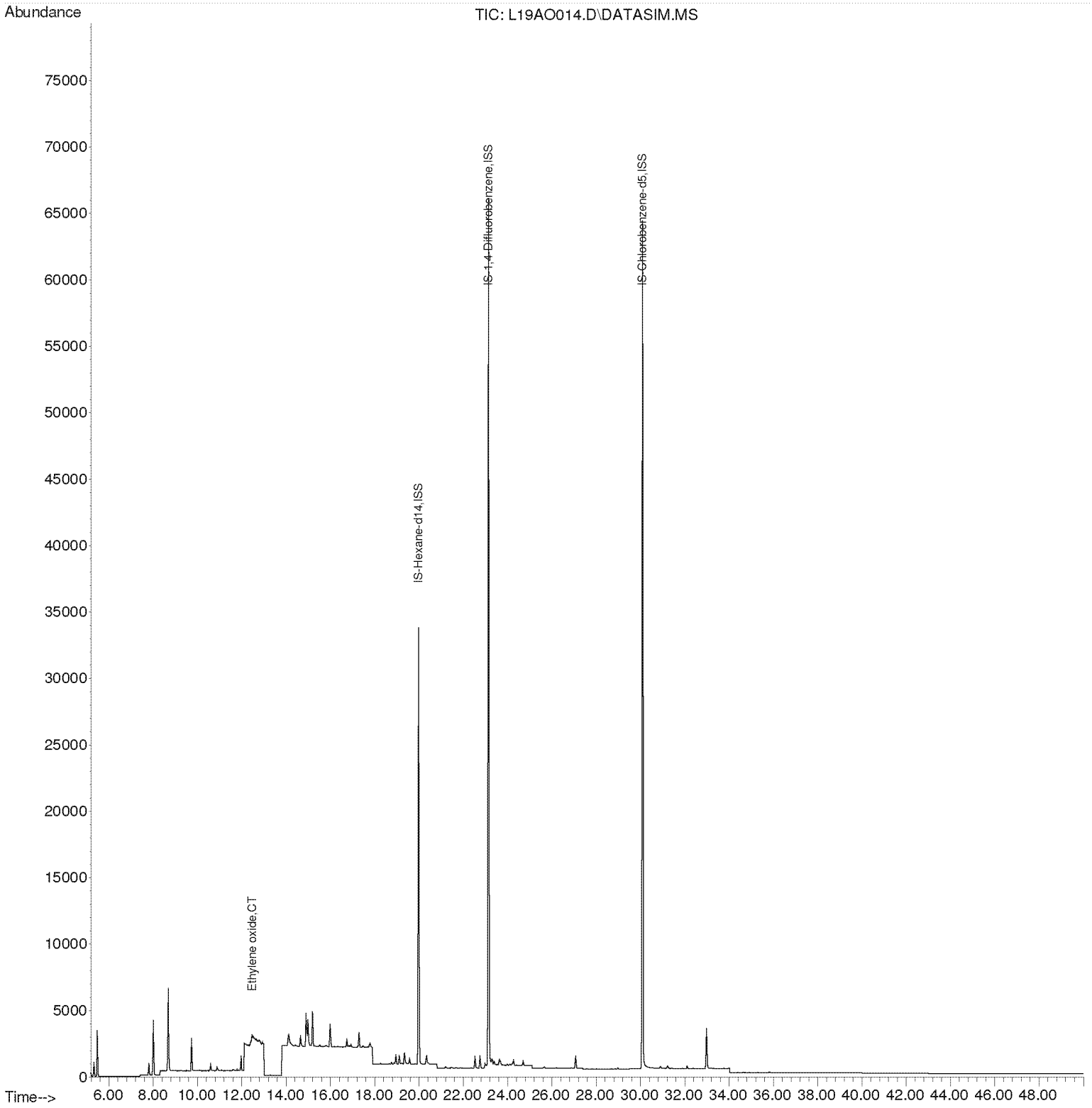
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000267-00349

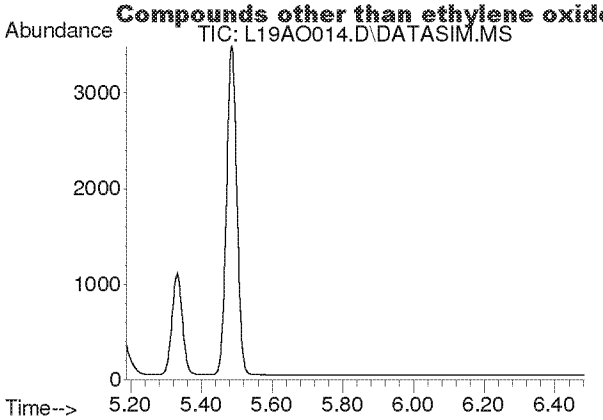
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO014.D
Acq On : 15 Jan 2019 10:37 pm
Operator : MAH
Sample : 9010401-06
Misc : GOWER ES 1/3/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 22 11:26:16 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



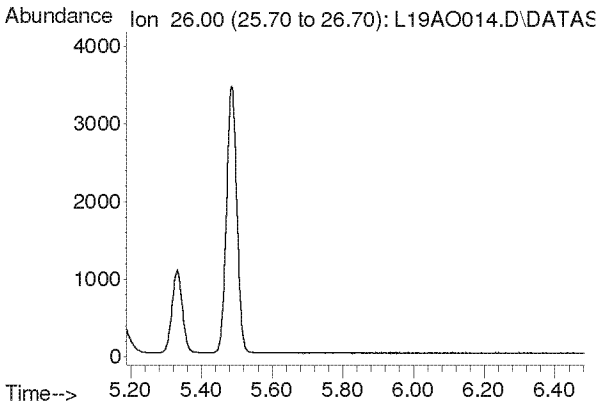
Compounds other than ethylene oxide were not quantitated.

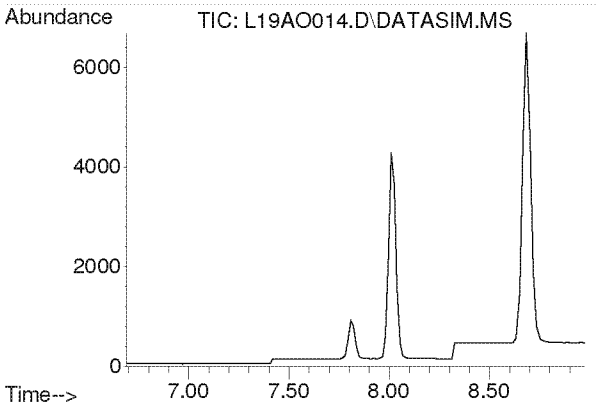


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 26



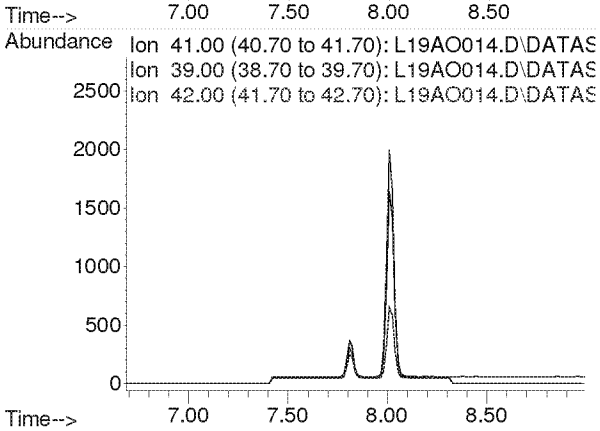


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

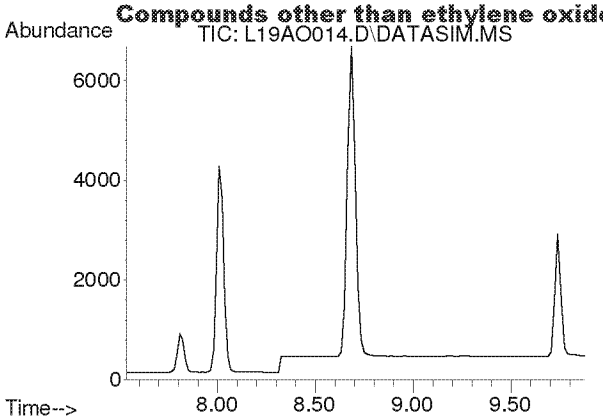
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

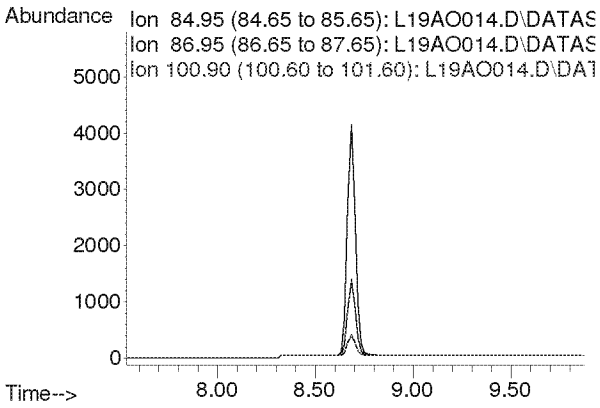


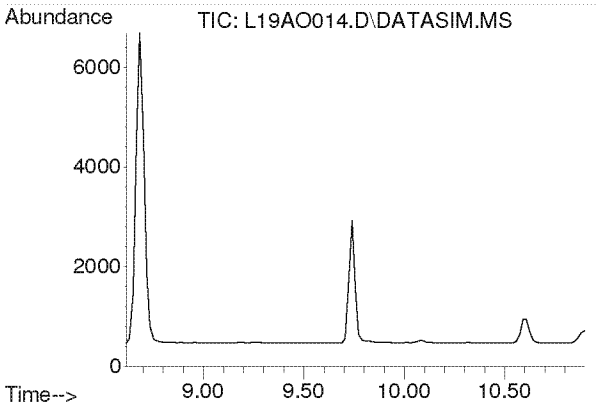
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



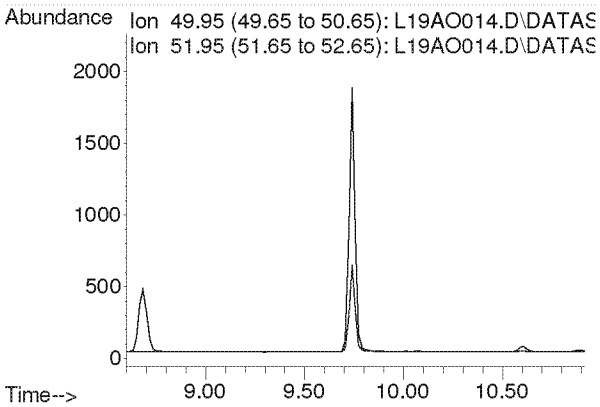


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

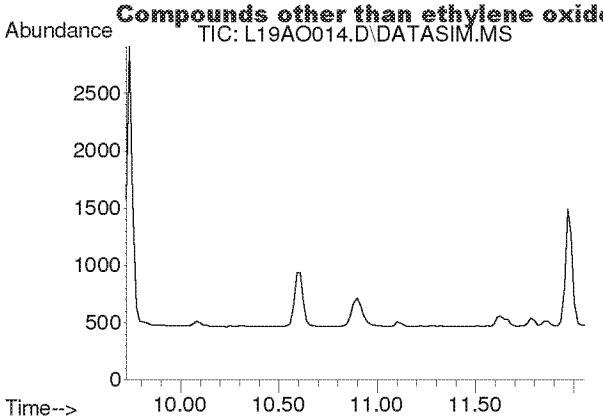
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

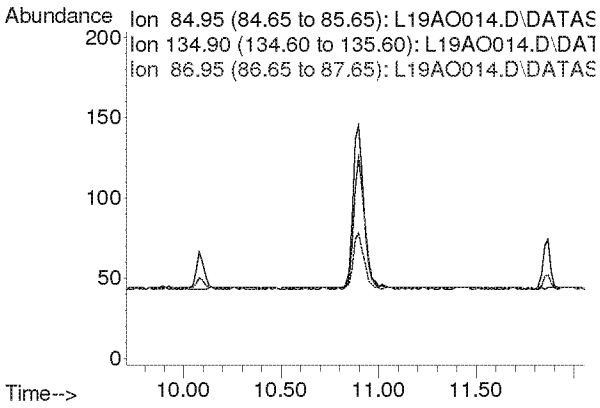


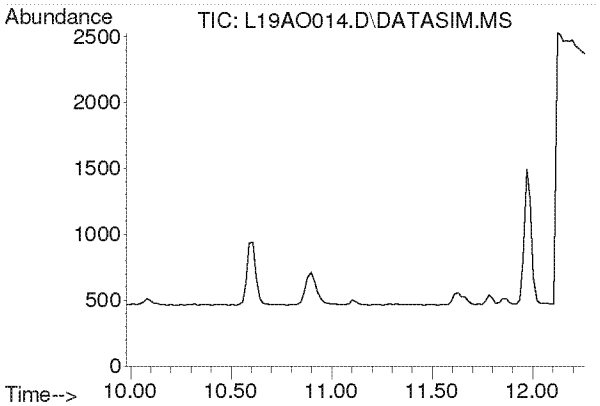
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



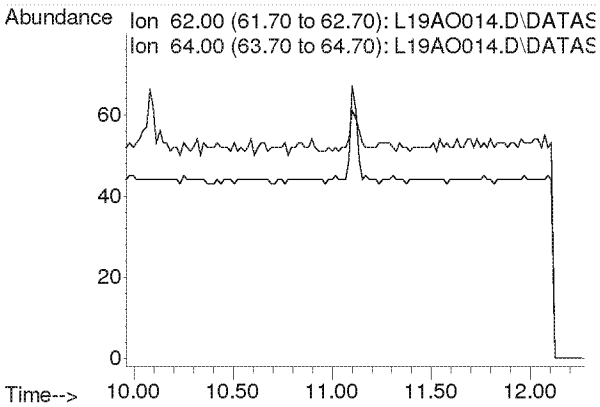


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

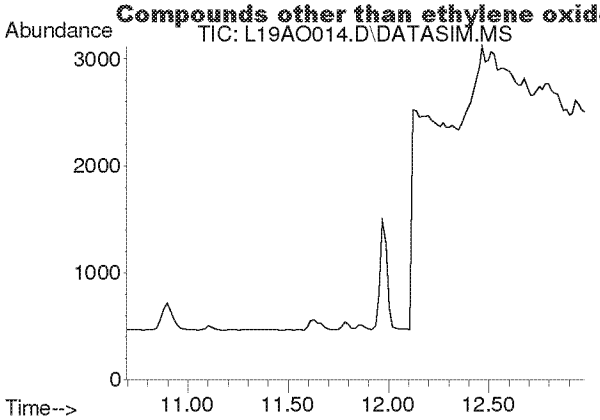
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

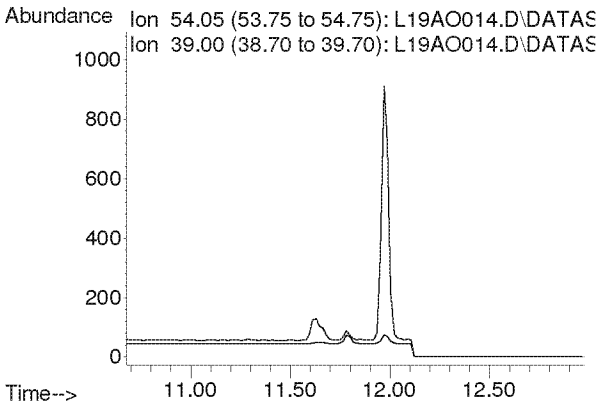


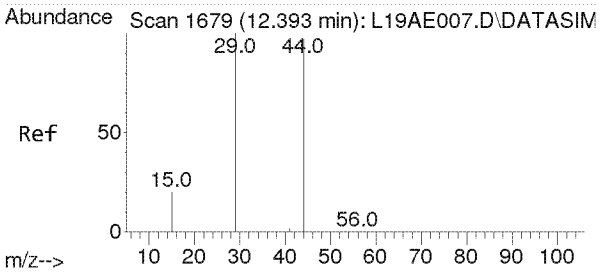
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

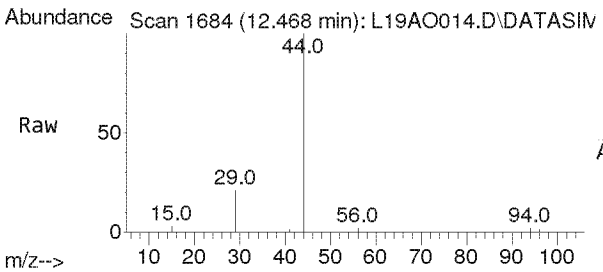


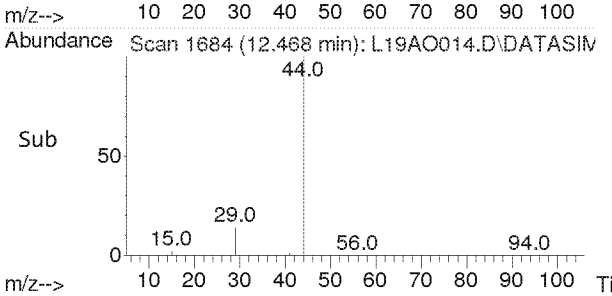


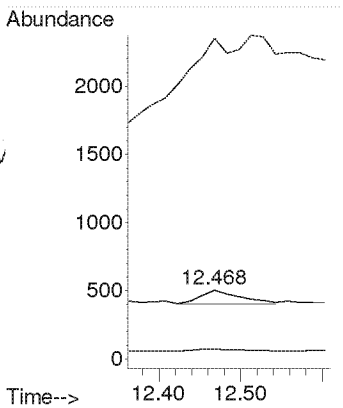
#9
Ethylene oxide
Concen: 0.116 ppbv m
RT: 12.468 min Scan# 1684
Delta R.T. 0.075 min
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 29 Resp: 319

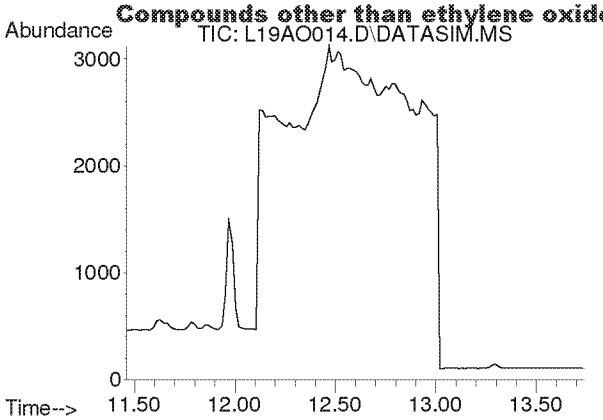
Ion	Ratio	Lower	Upper
29	100		
15	0.0	15.4	23.0#
44	15.4	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

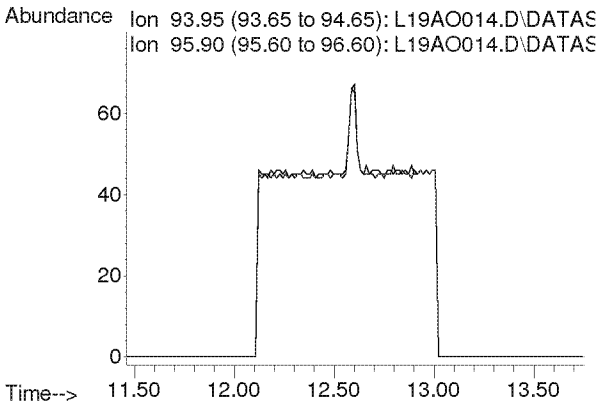


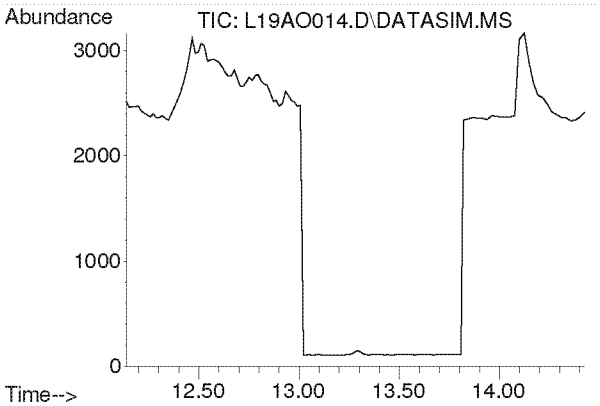
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



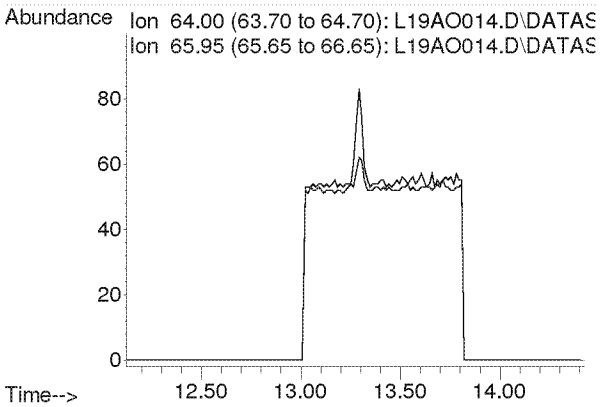


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

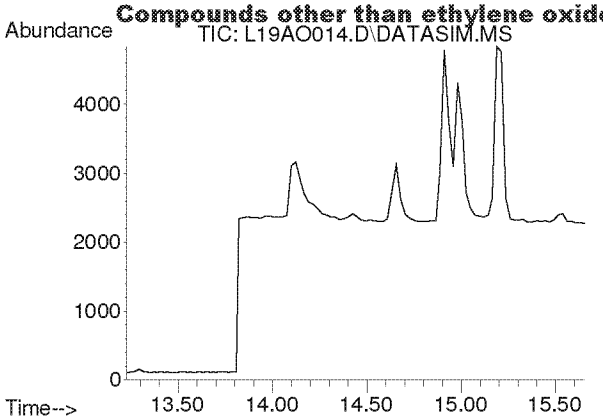
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

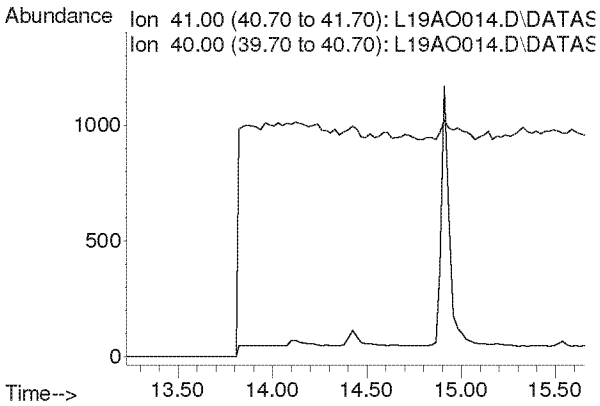


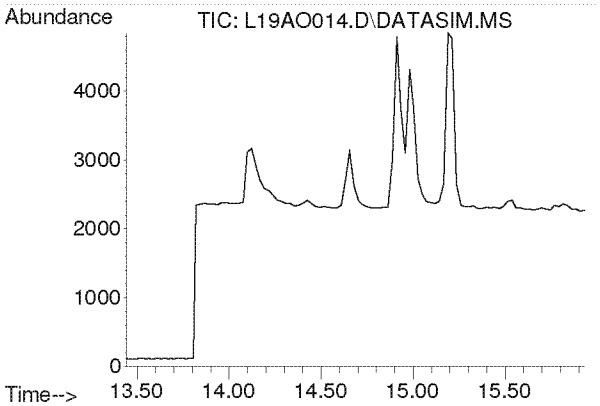
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



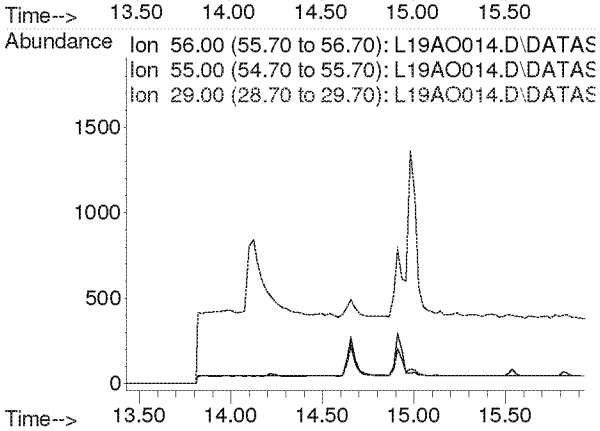


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

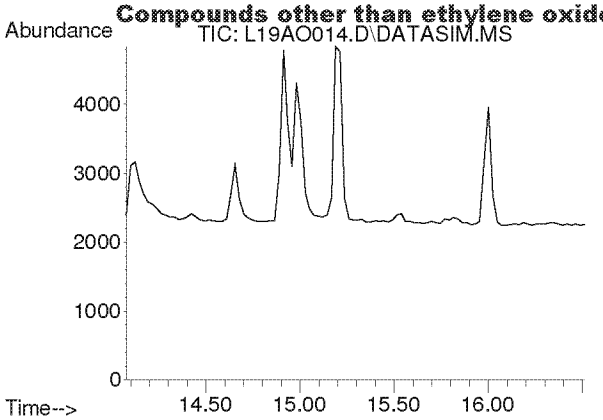
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

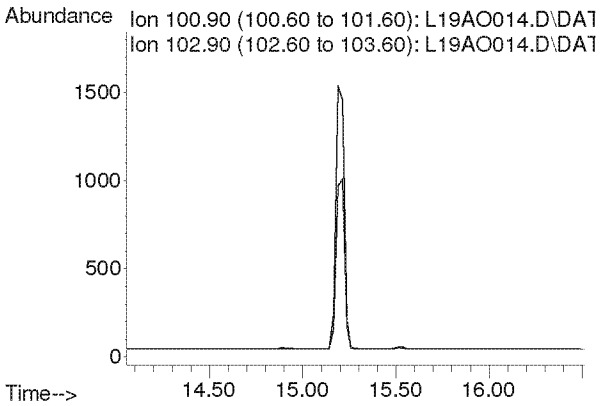


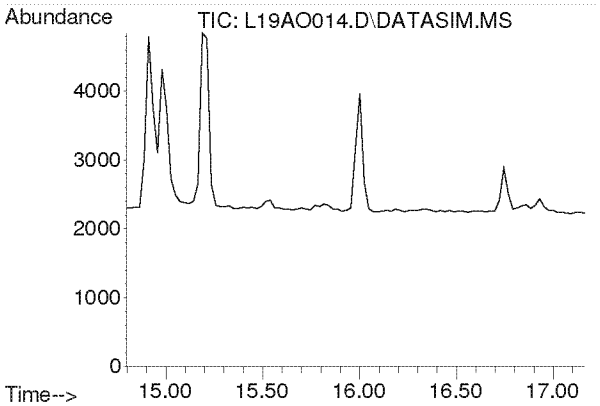
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



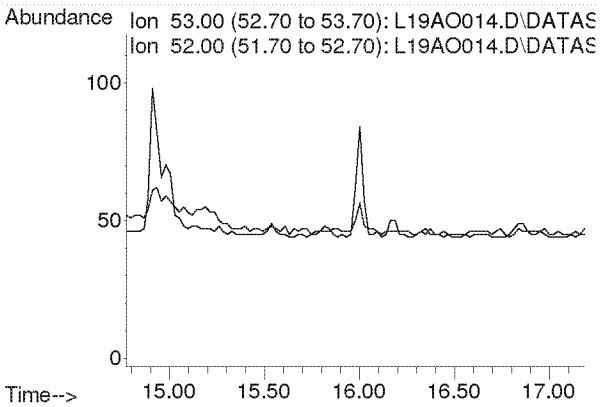


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

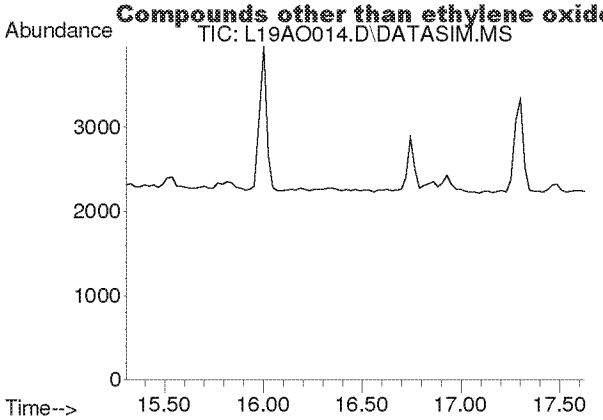
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

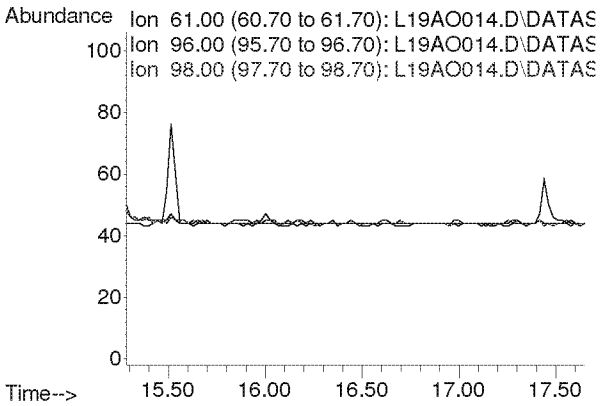


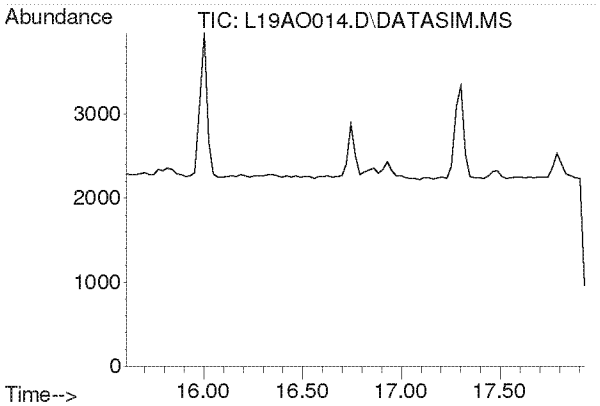
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



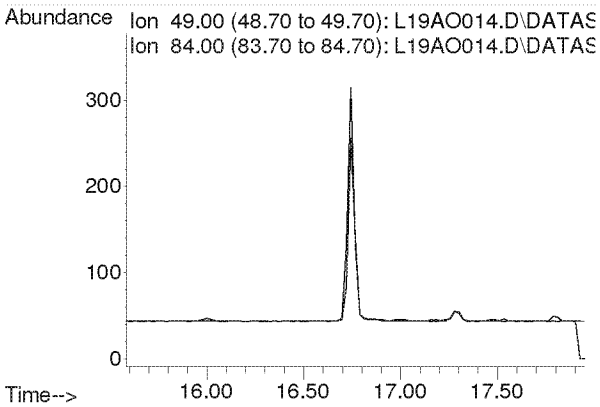


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

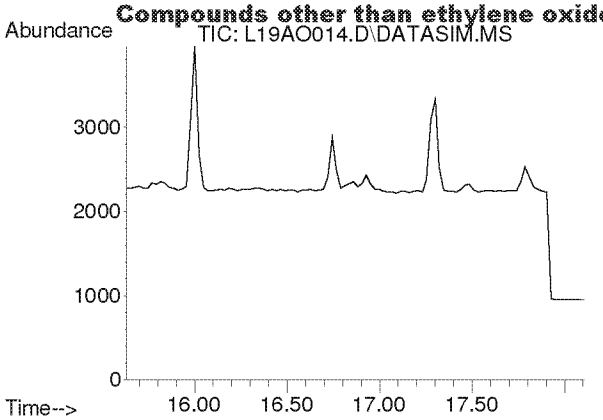
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

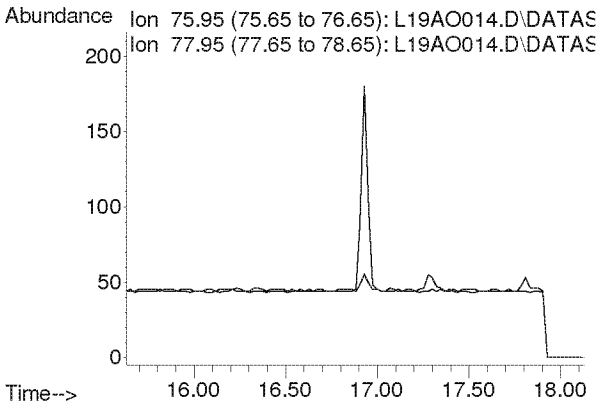


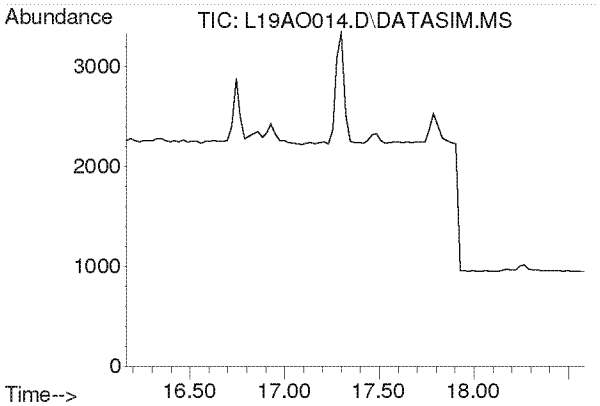
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



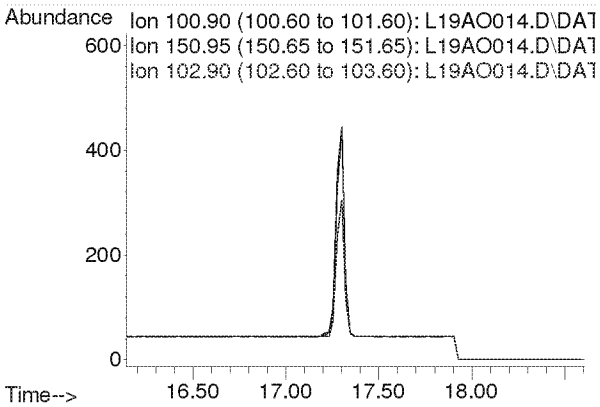


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

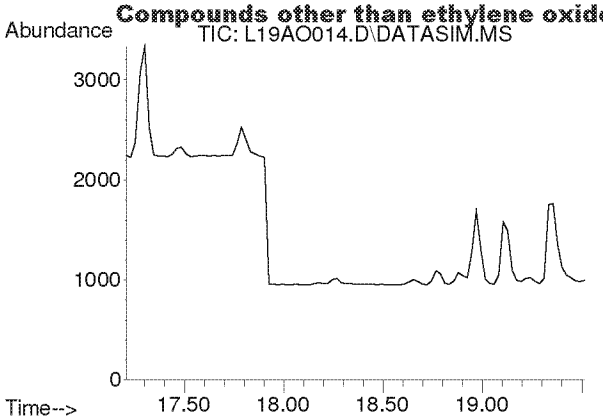
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

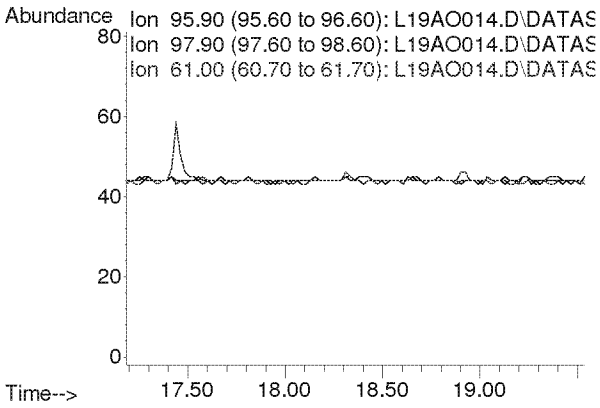


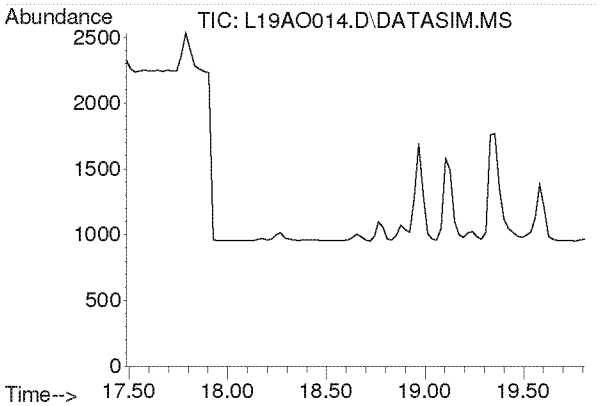
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



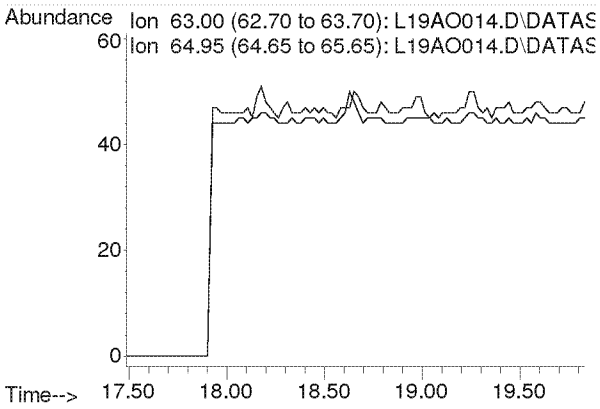


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

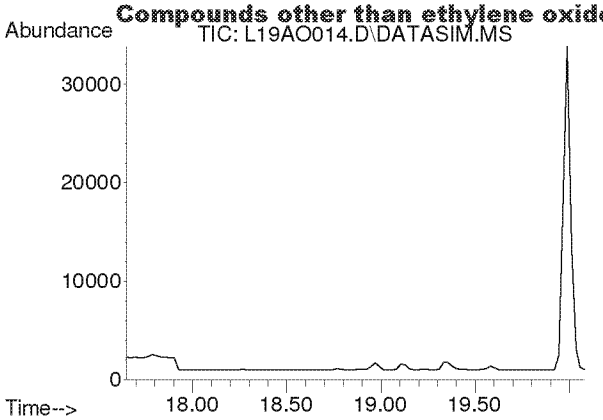
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

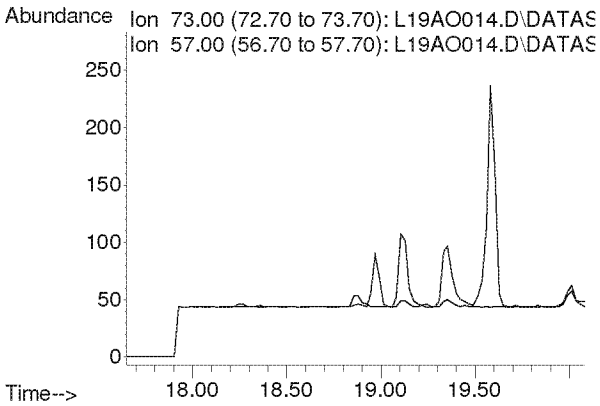


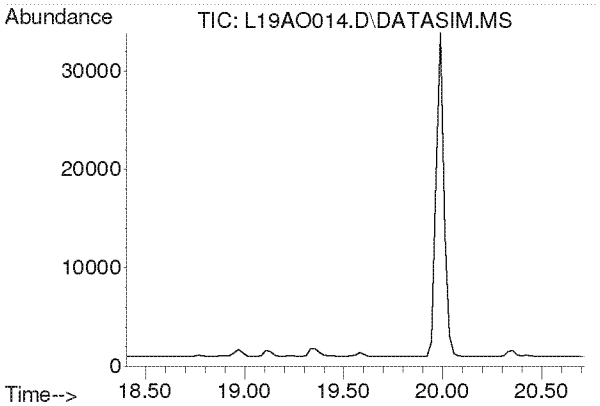
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



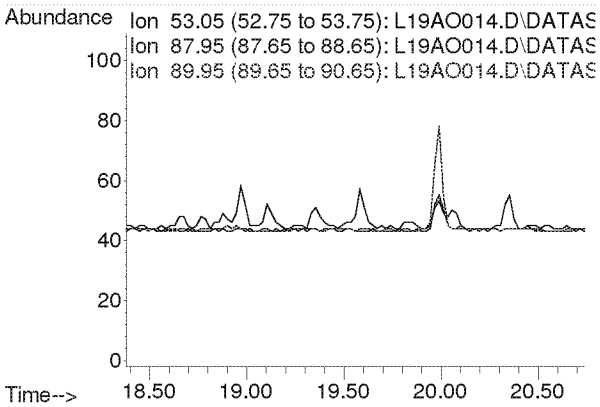


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

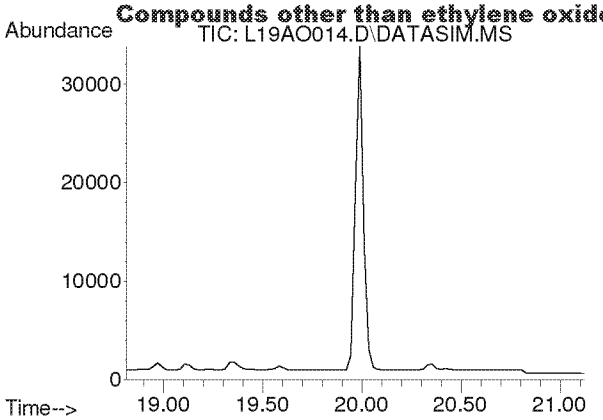
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

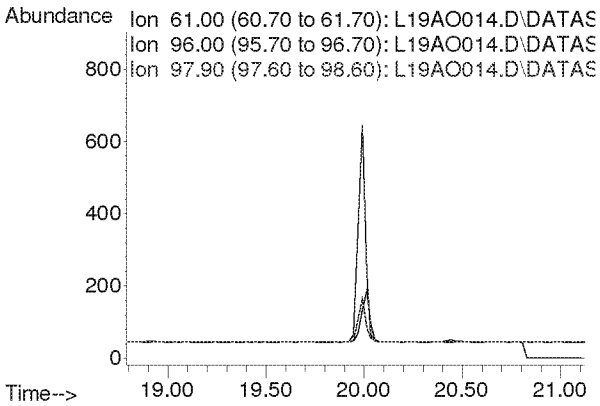


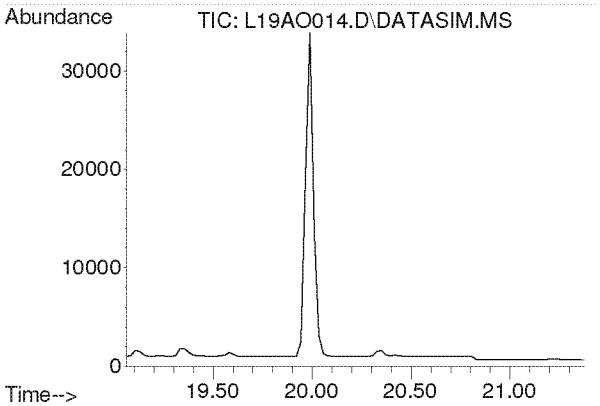
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



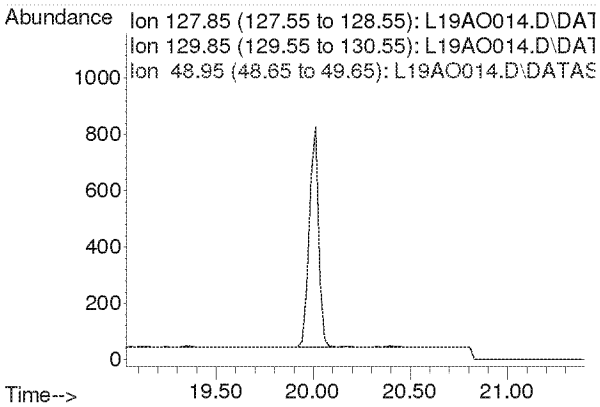


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

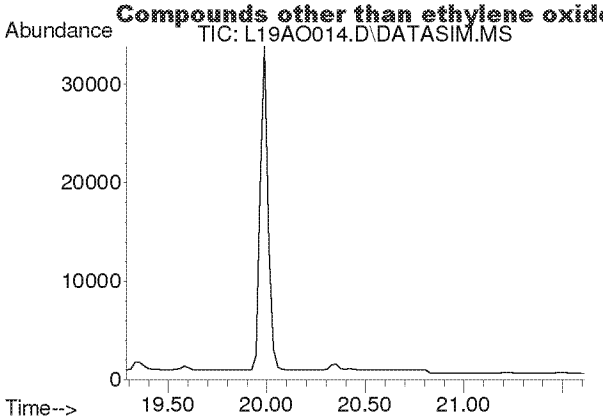
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

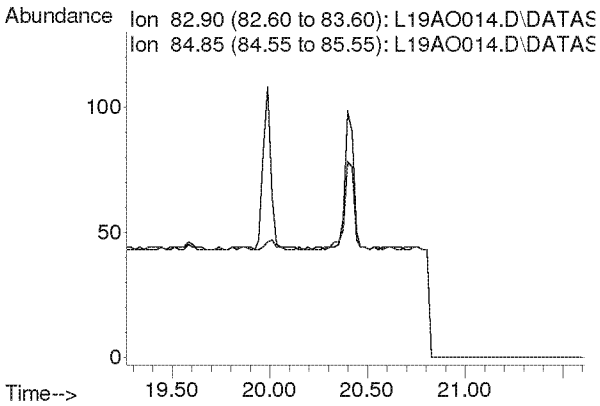


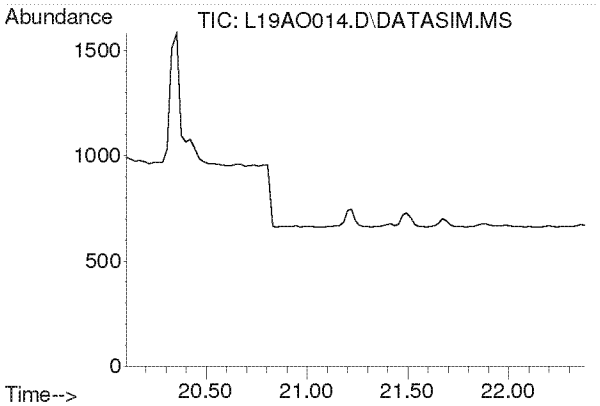
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



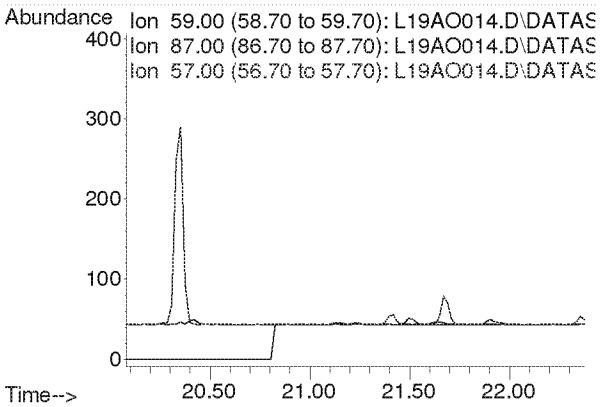


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

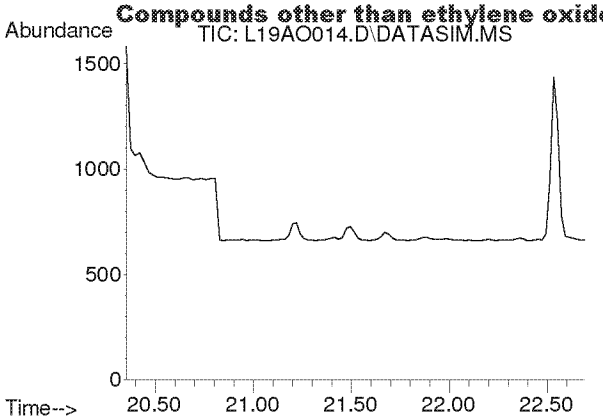
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

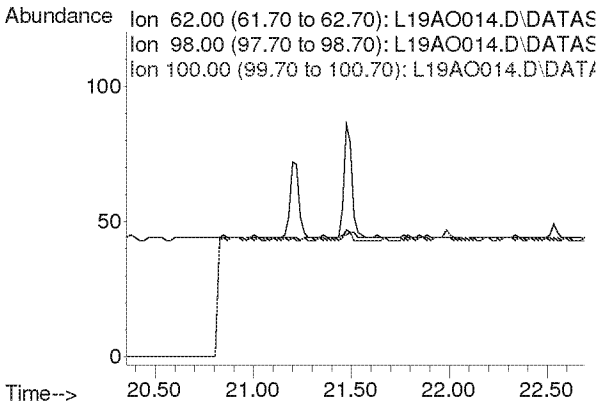


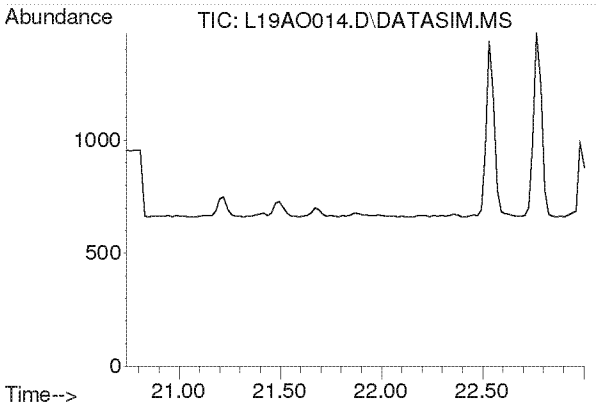
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



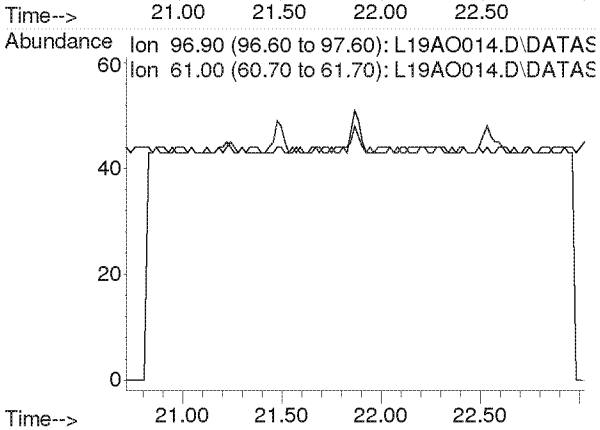


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

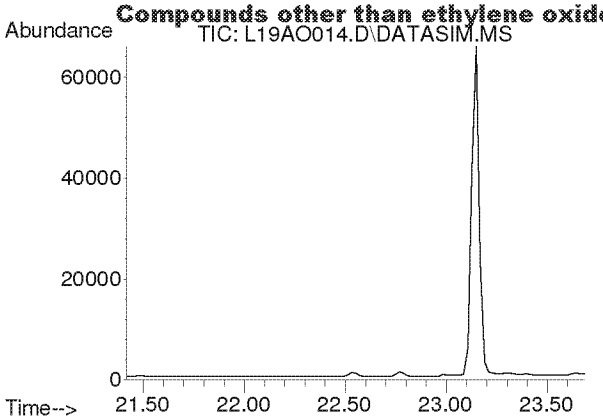
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

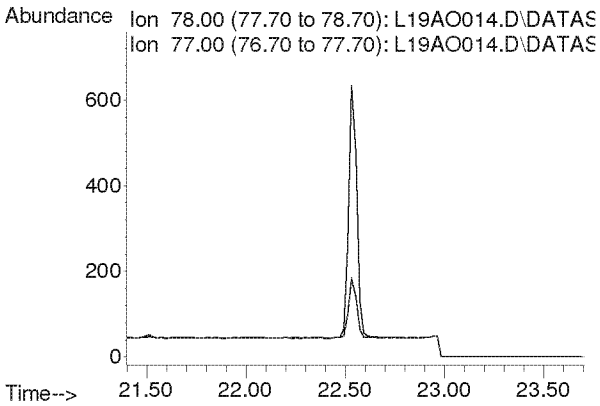


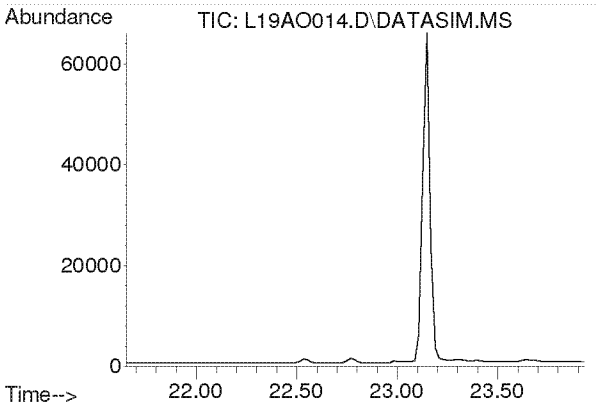
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



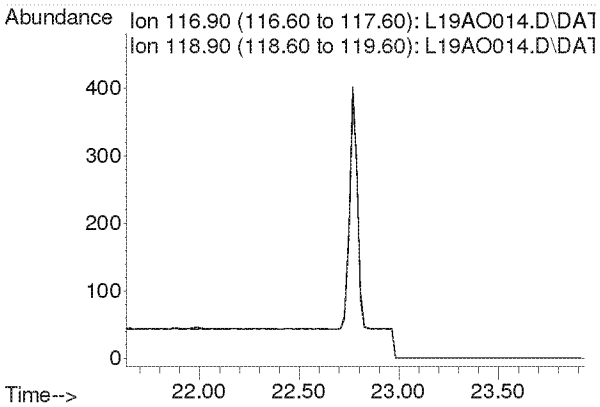


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

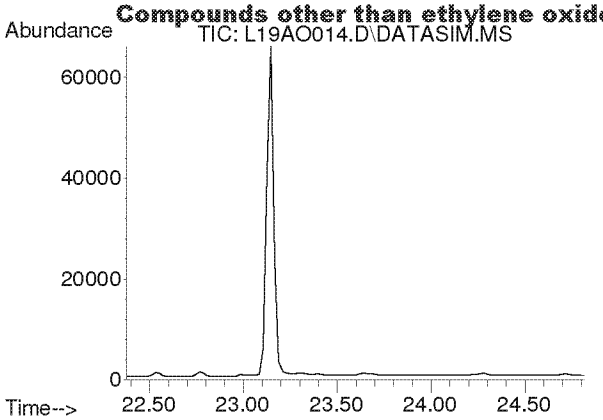
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

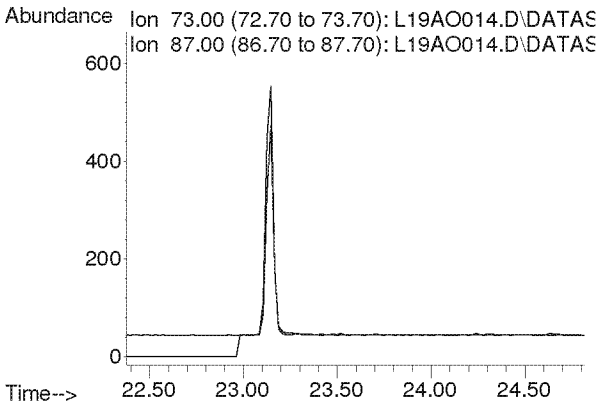


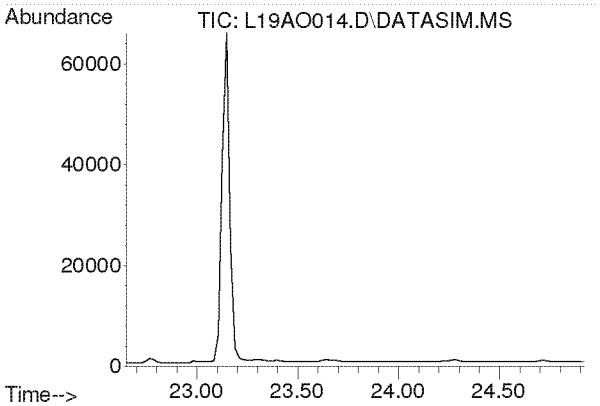
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



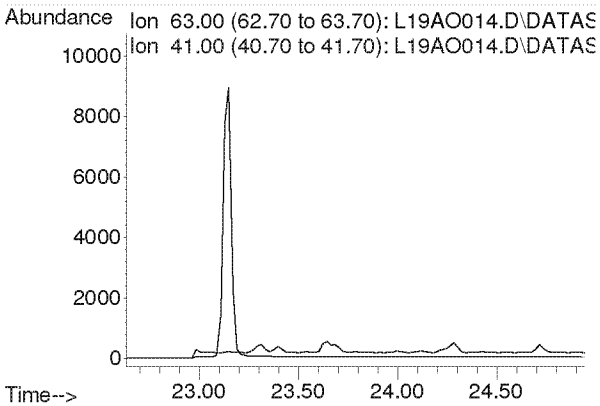


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

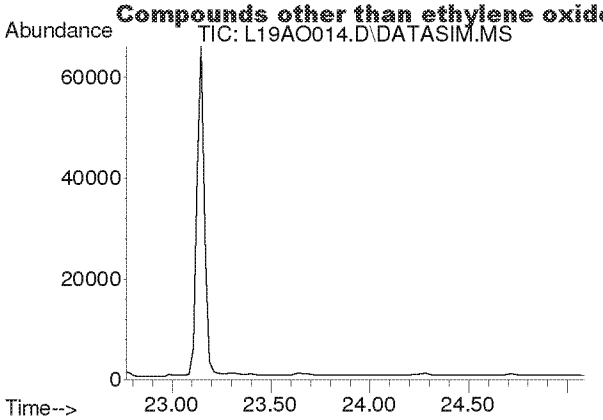
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

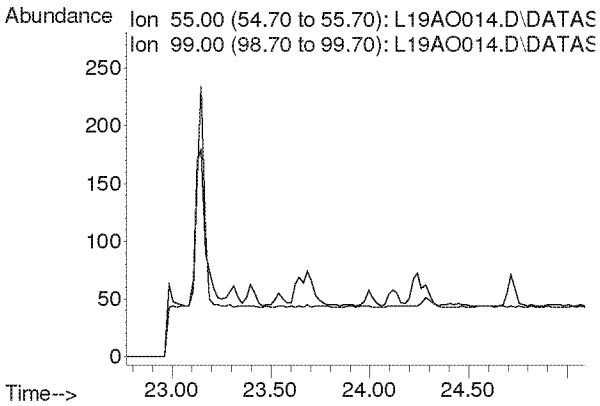


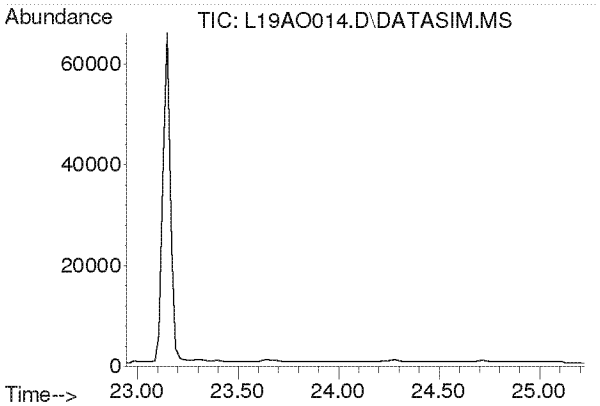
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



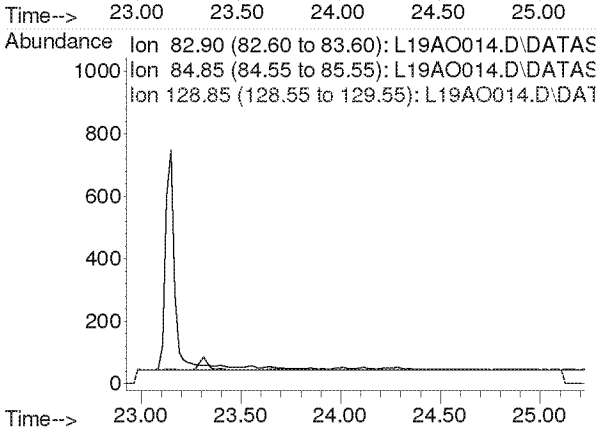


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

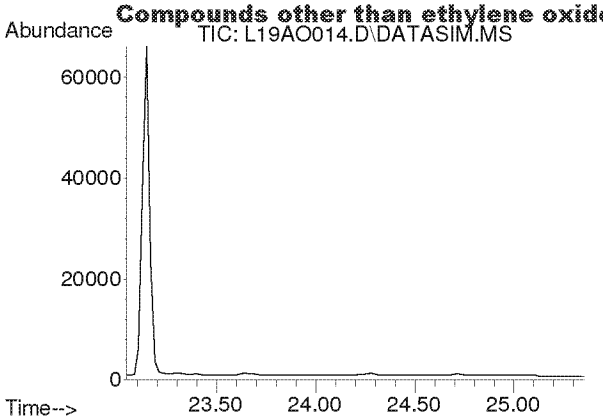
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

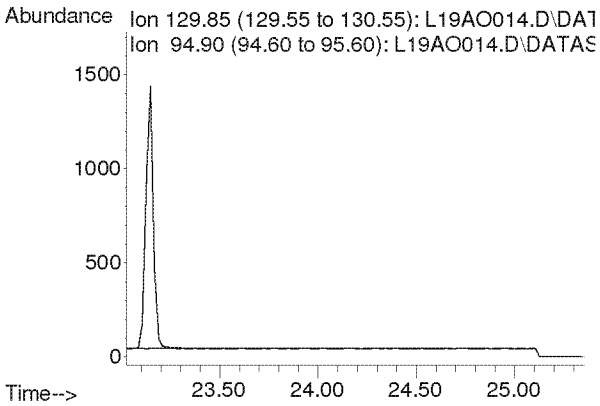


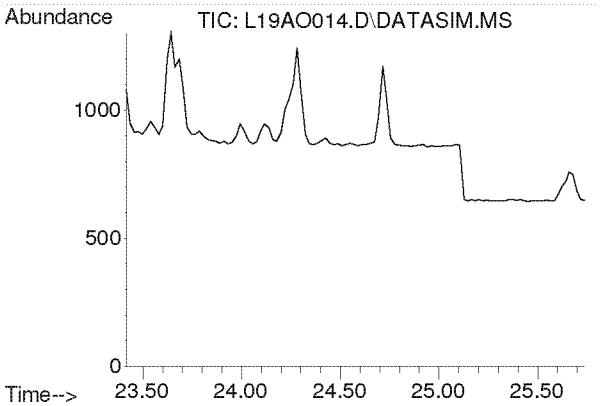
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



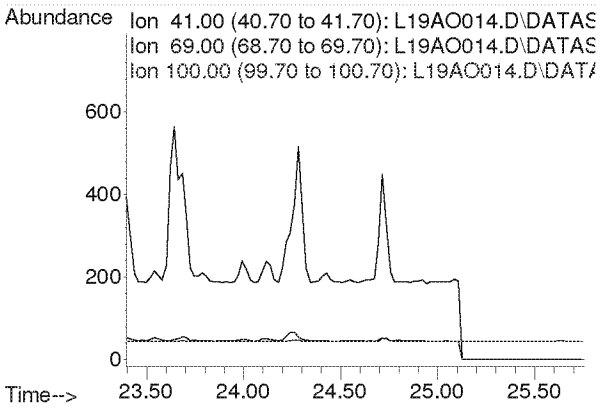


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

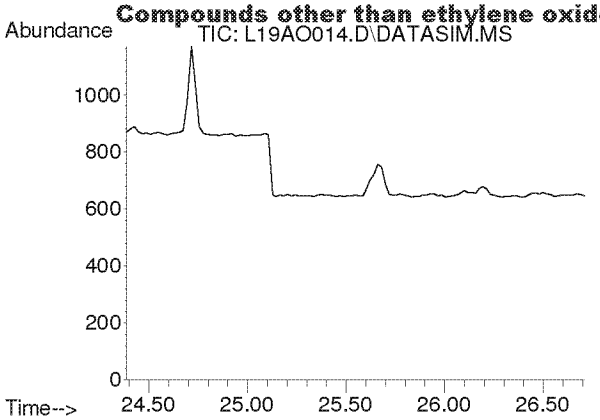
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

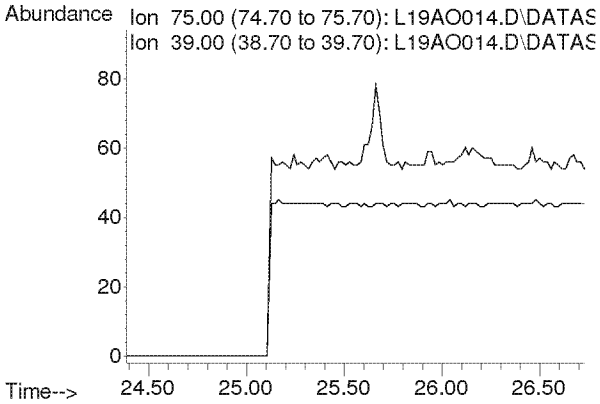


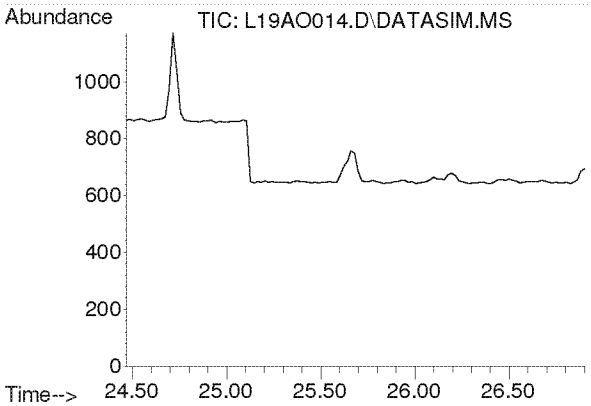
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



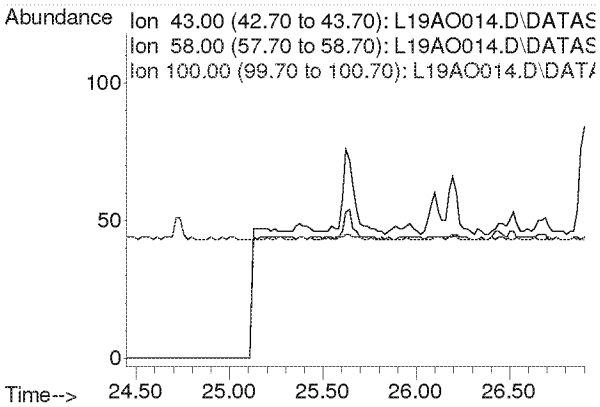


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

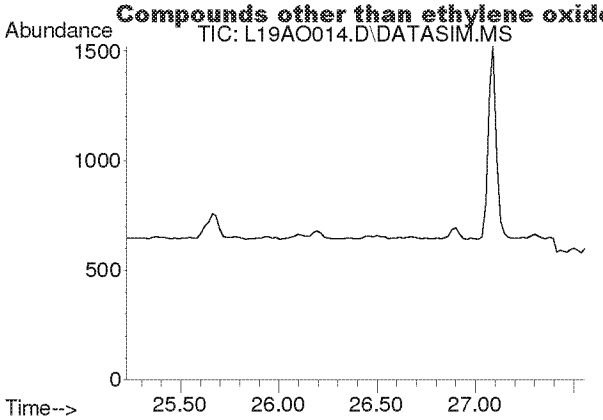
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

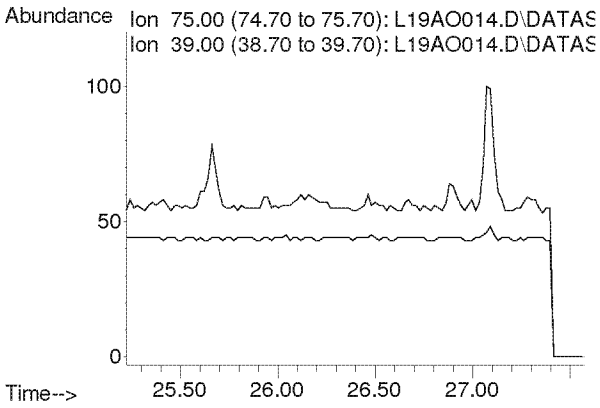


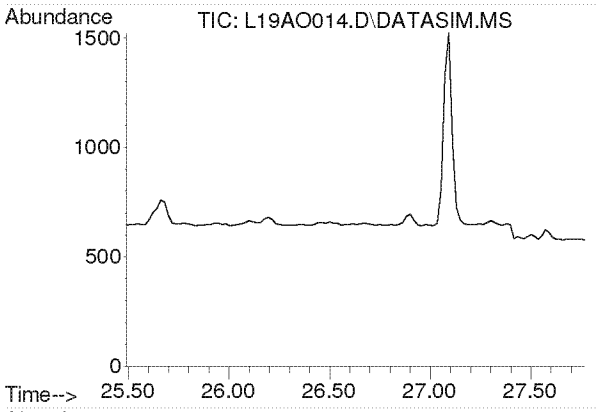
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



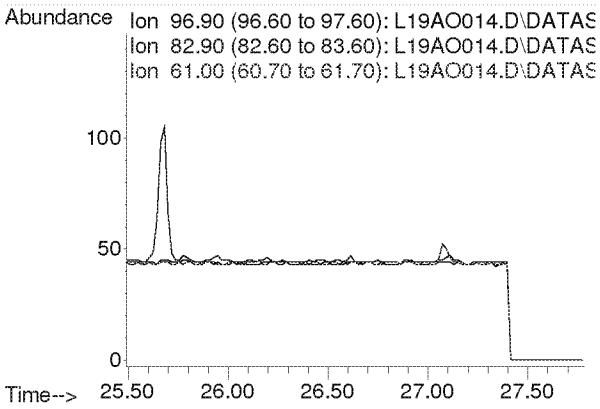


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

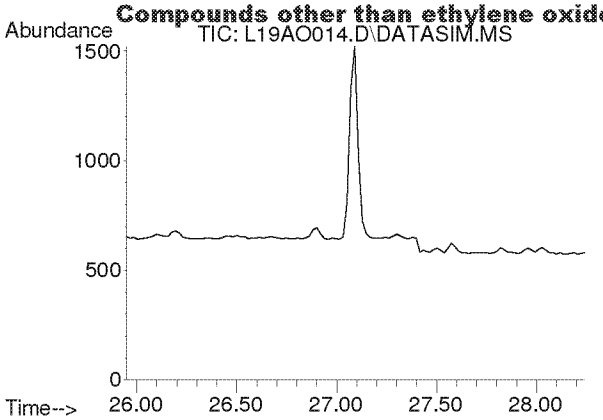
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

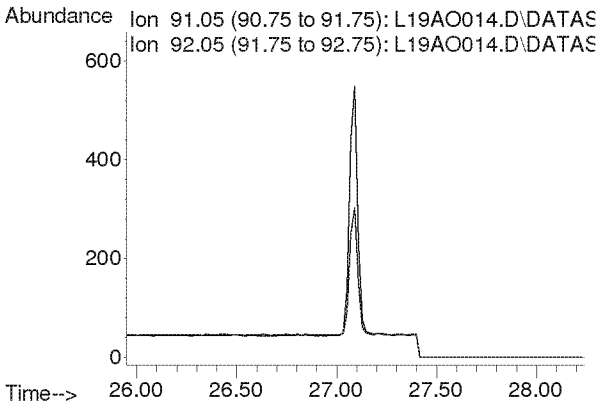


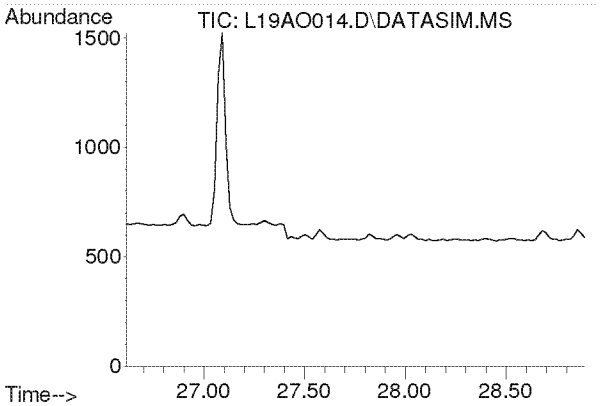
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



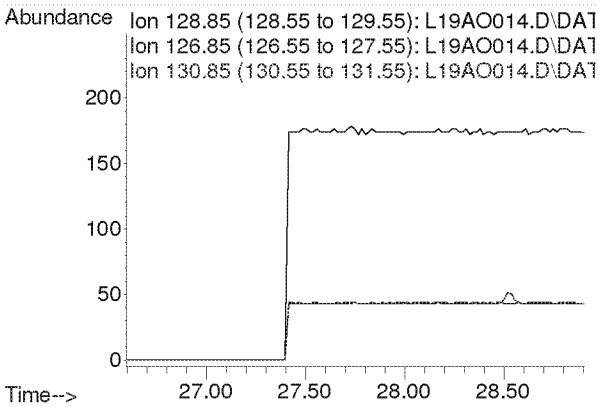


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

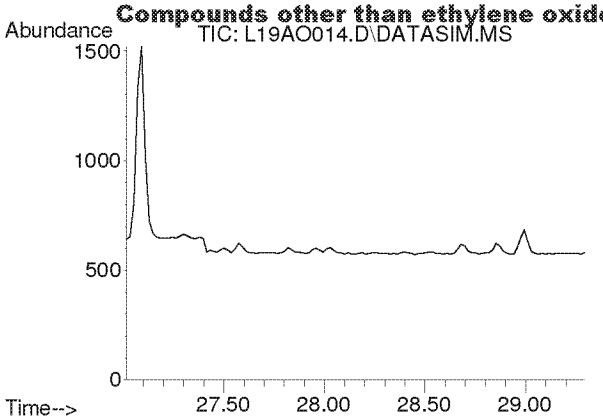
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

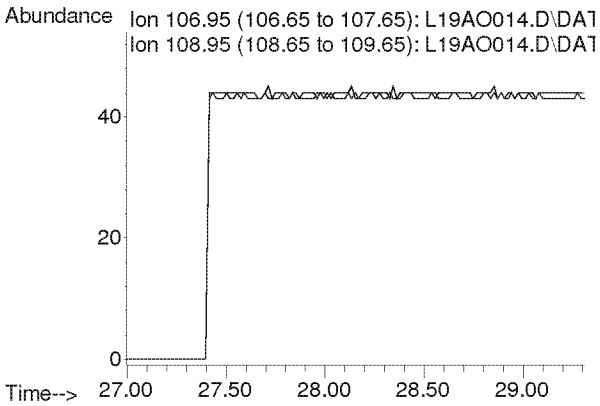


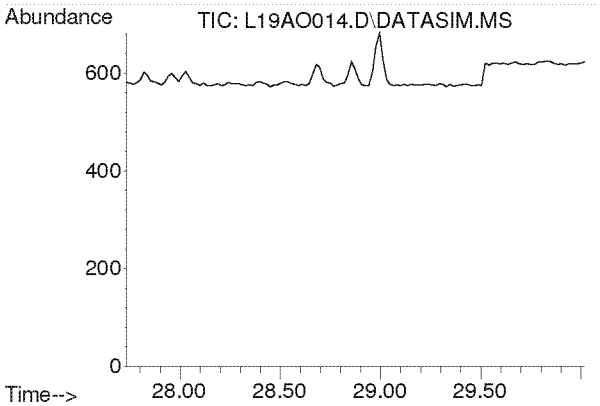
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



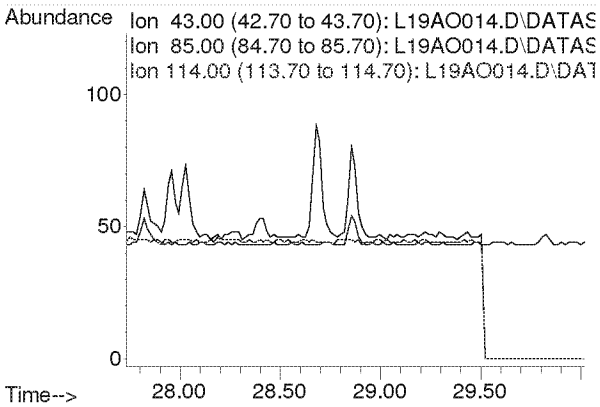


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

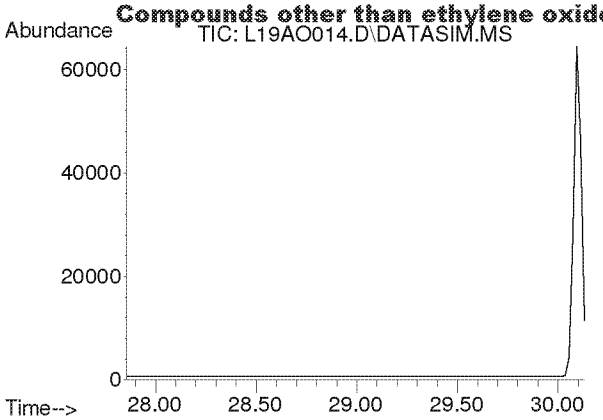
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

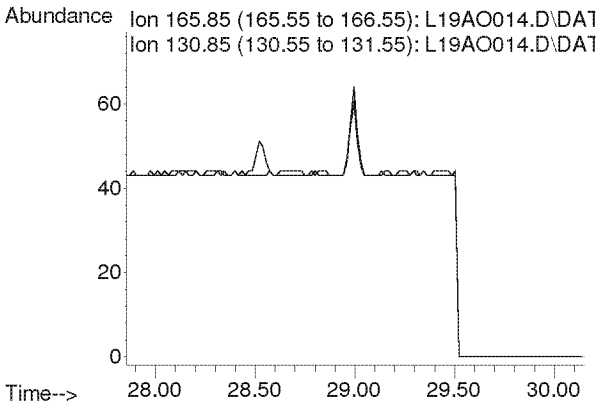


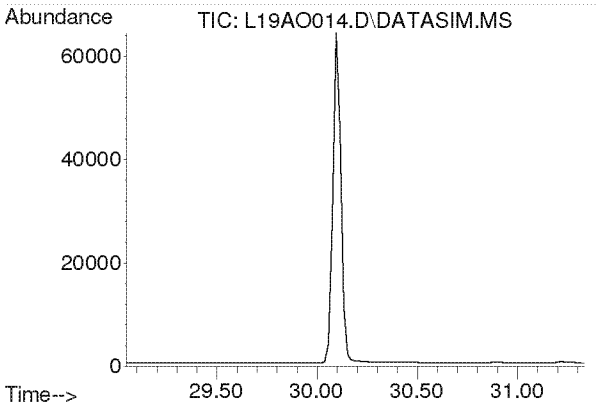
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



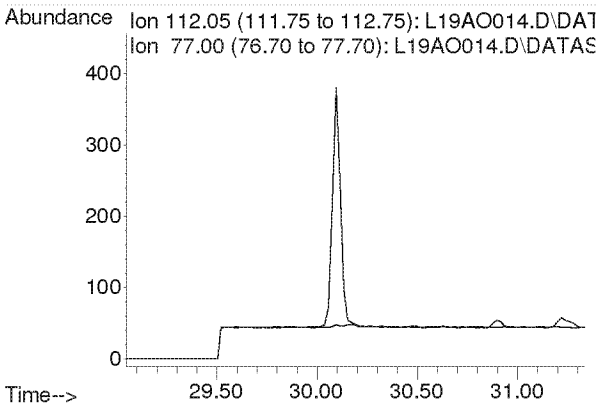


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

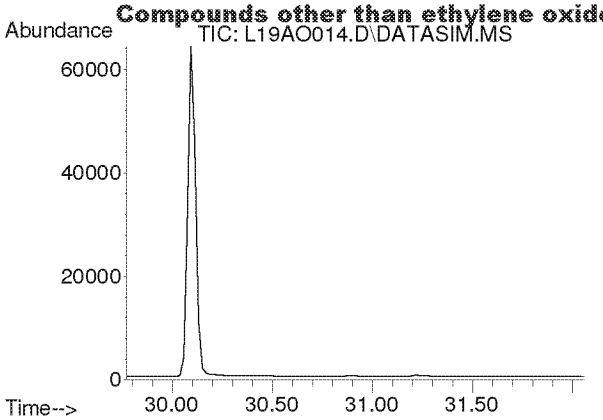
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

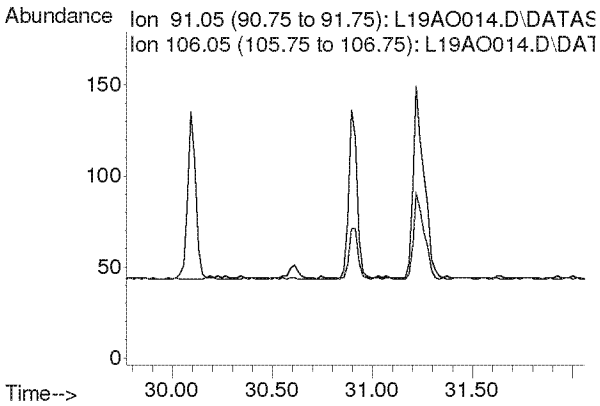


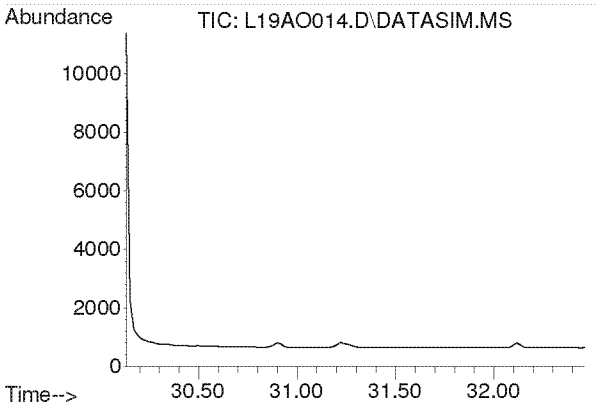
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



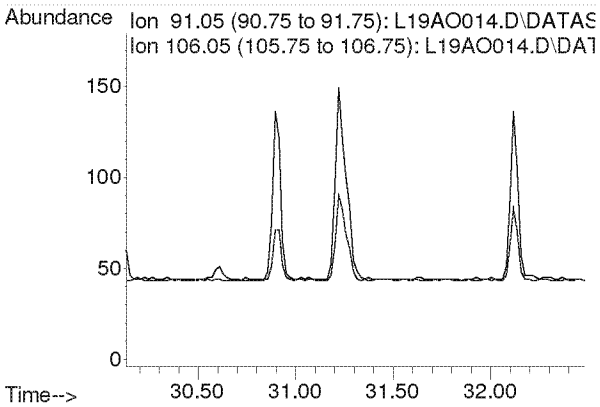


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

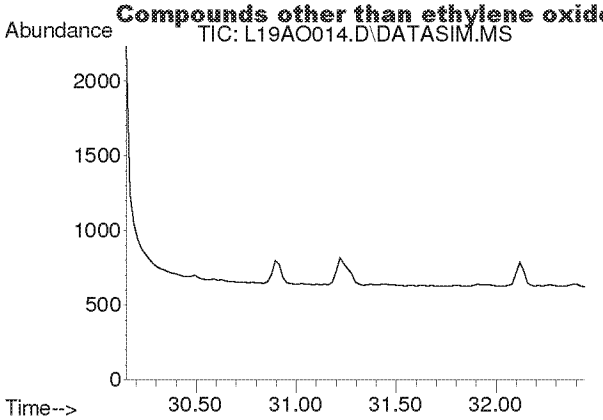
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

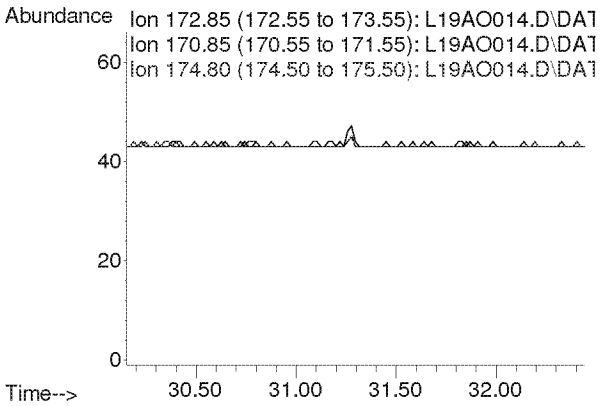


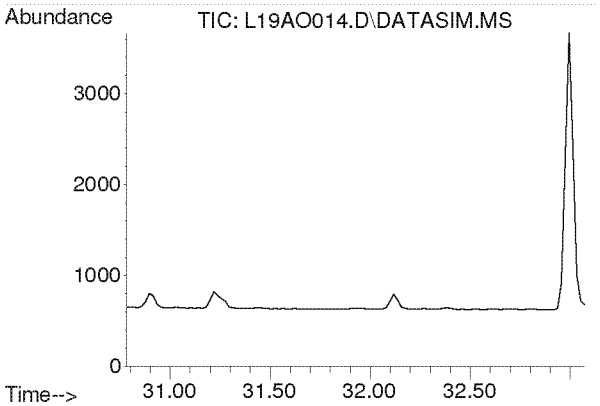
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



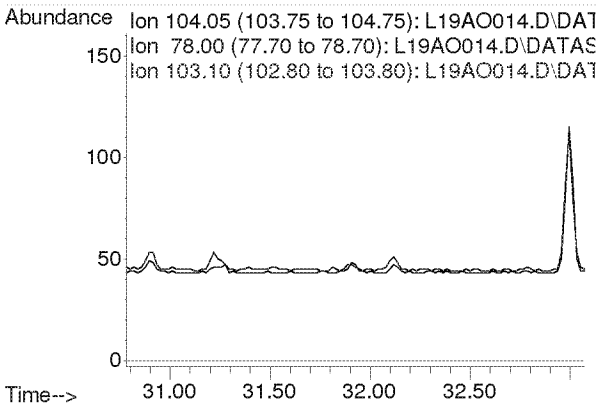


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

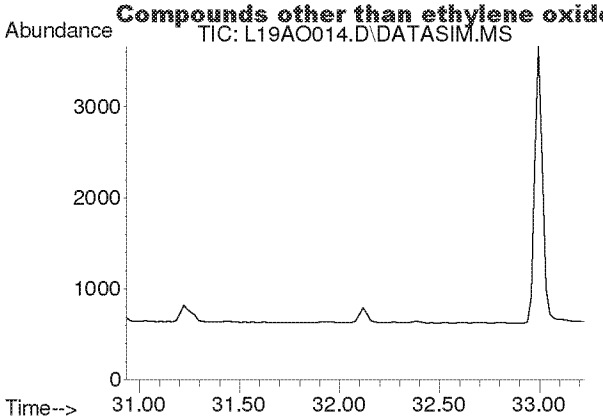
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

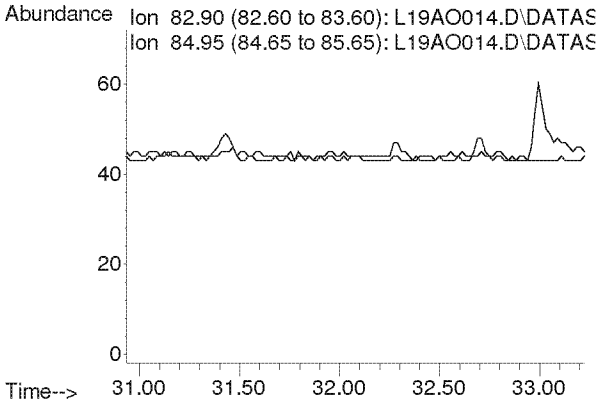


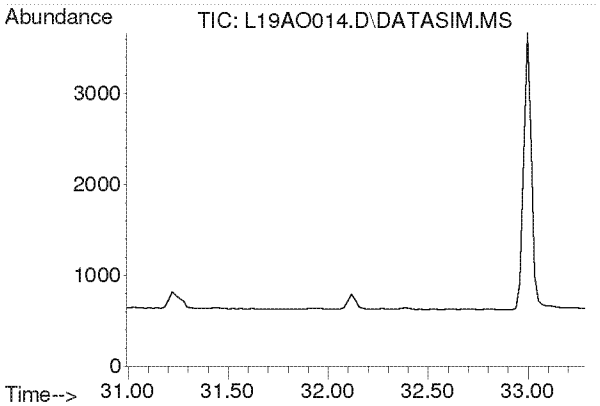
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



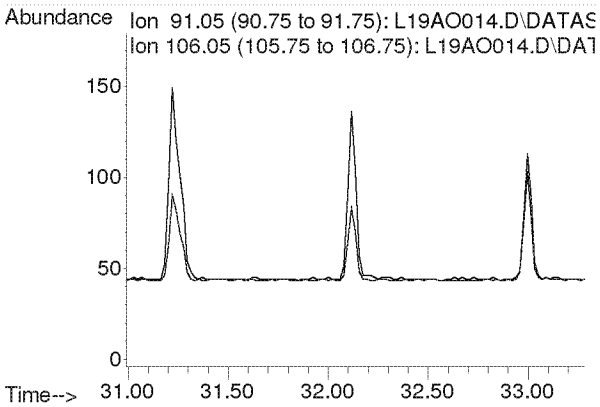


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

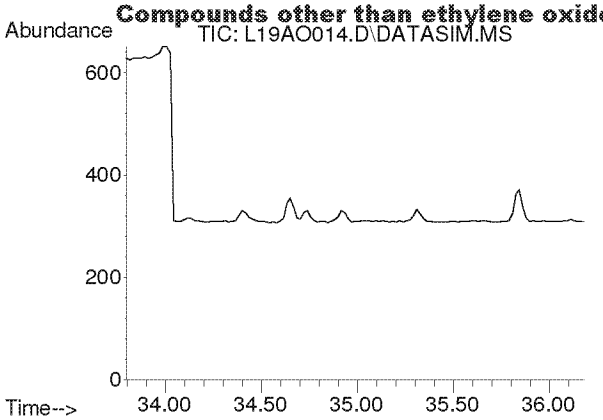
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

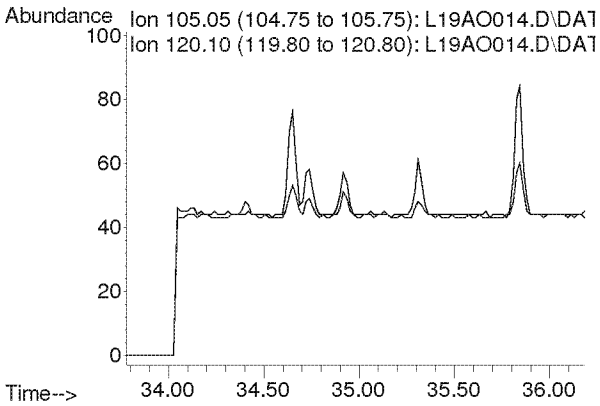


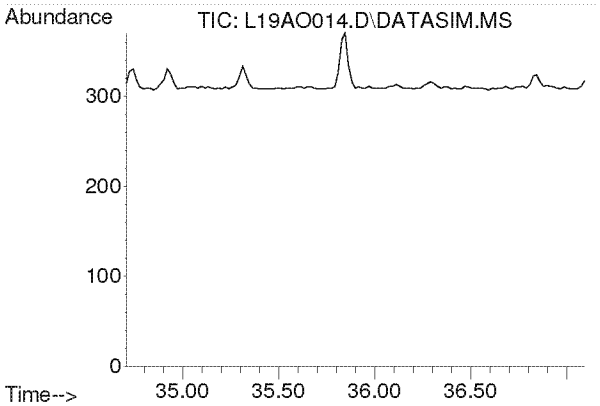
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



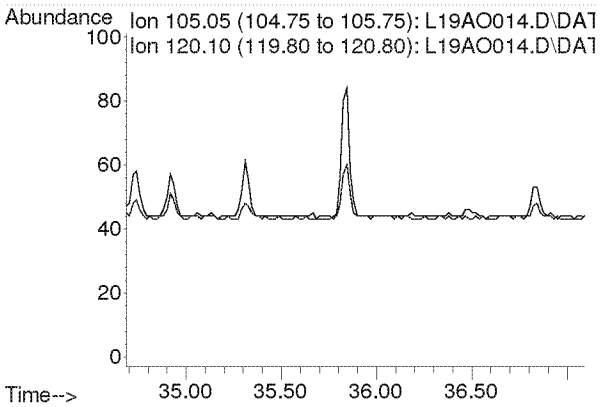


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

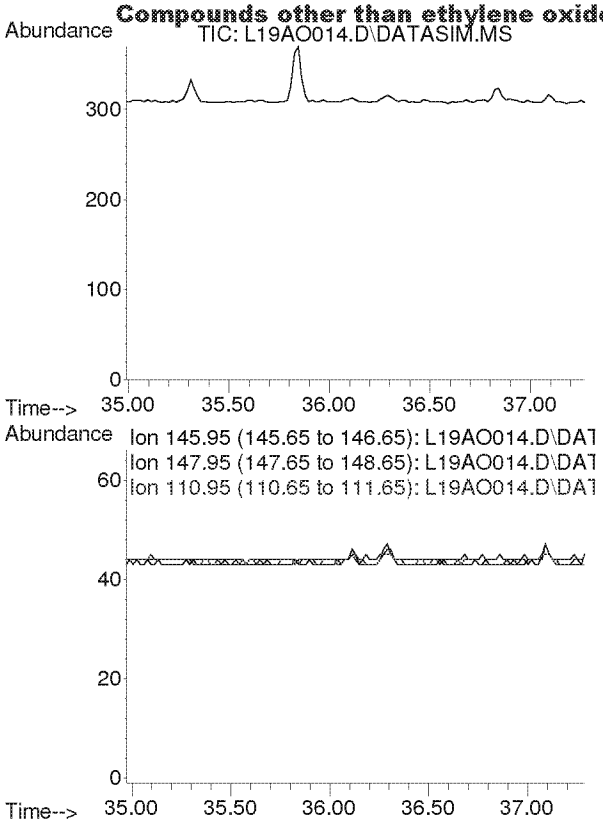
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

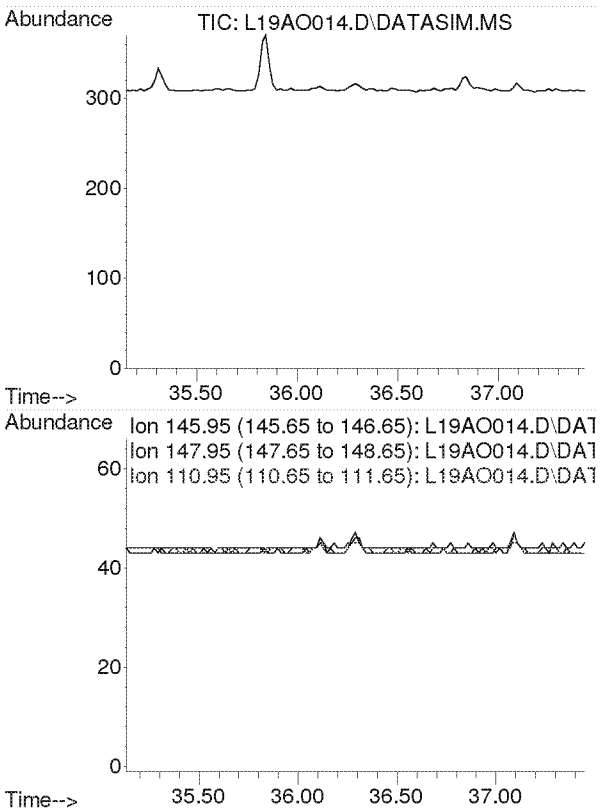


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



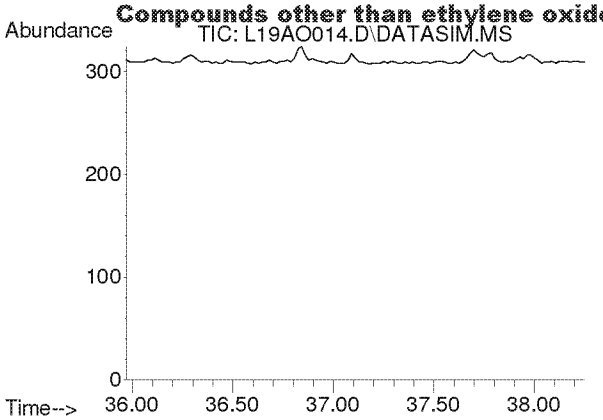
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

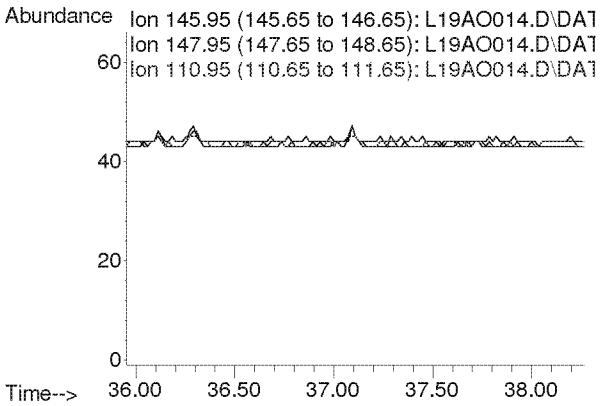


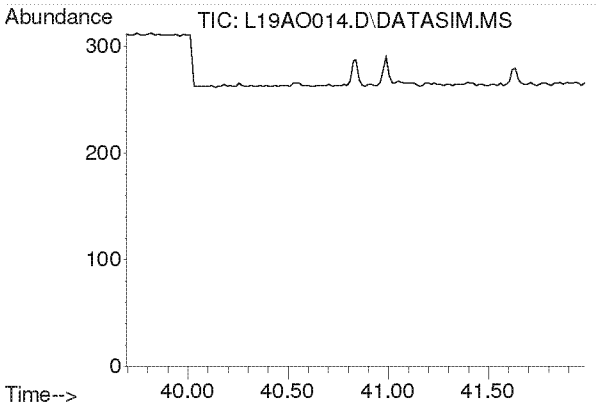
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



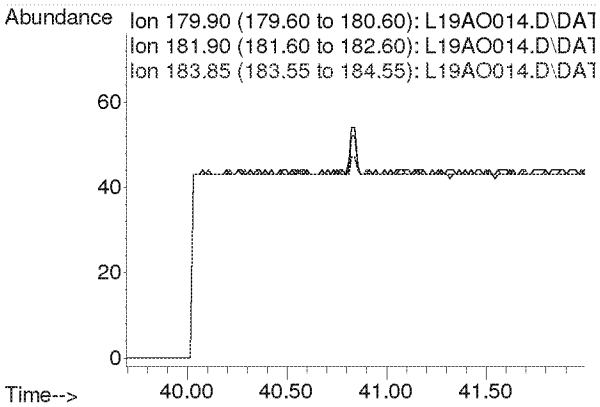


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

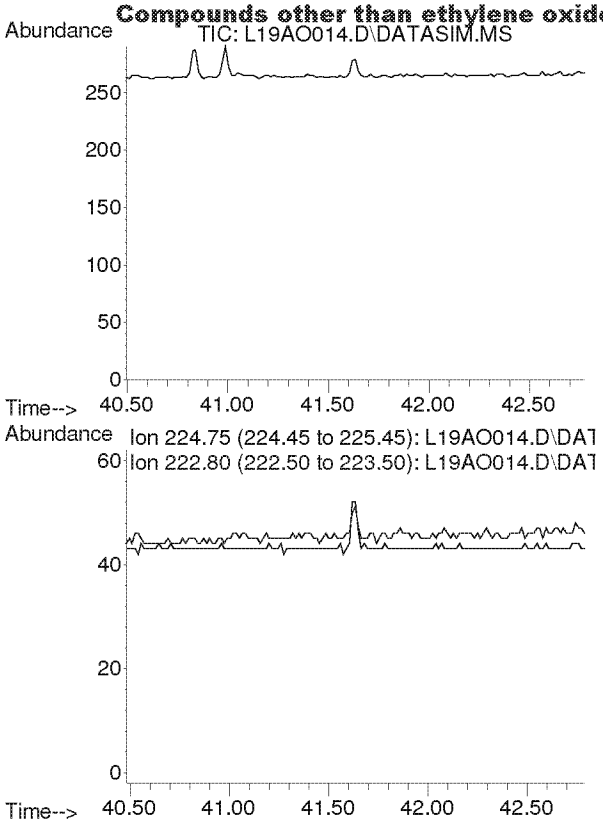
Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19AO014.D
Acq: 15 Jan 2019 10:37 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\L19AO\
Data File : L19AO015.D
Acq On : 15 Jan 2019 11:38 pm
Operator : MAH
Sample : 9010401-07
Misc : WB VILLAGE HALL 1/3/19
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 22 11:44:15 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	54258	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	132047	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	103276	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	12.470	29	389	0.1388 ppbv #	1
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. d	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated (reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO015.D
Acq On : 15 Jan 2019 11:38 pm
Operator : MAH
Sample : 9010401-07
Misc : WB VILLAGE HALL 1/3/19
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 22 11:44:15 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

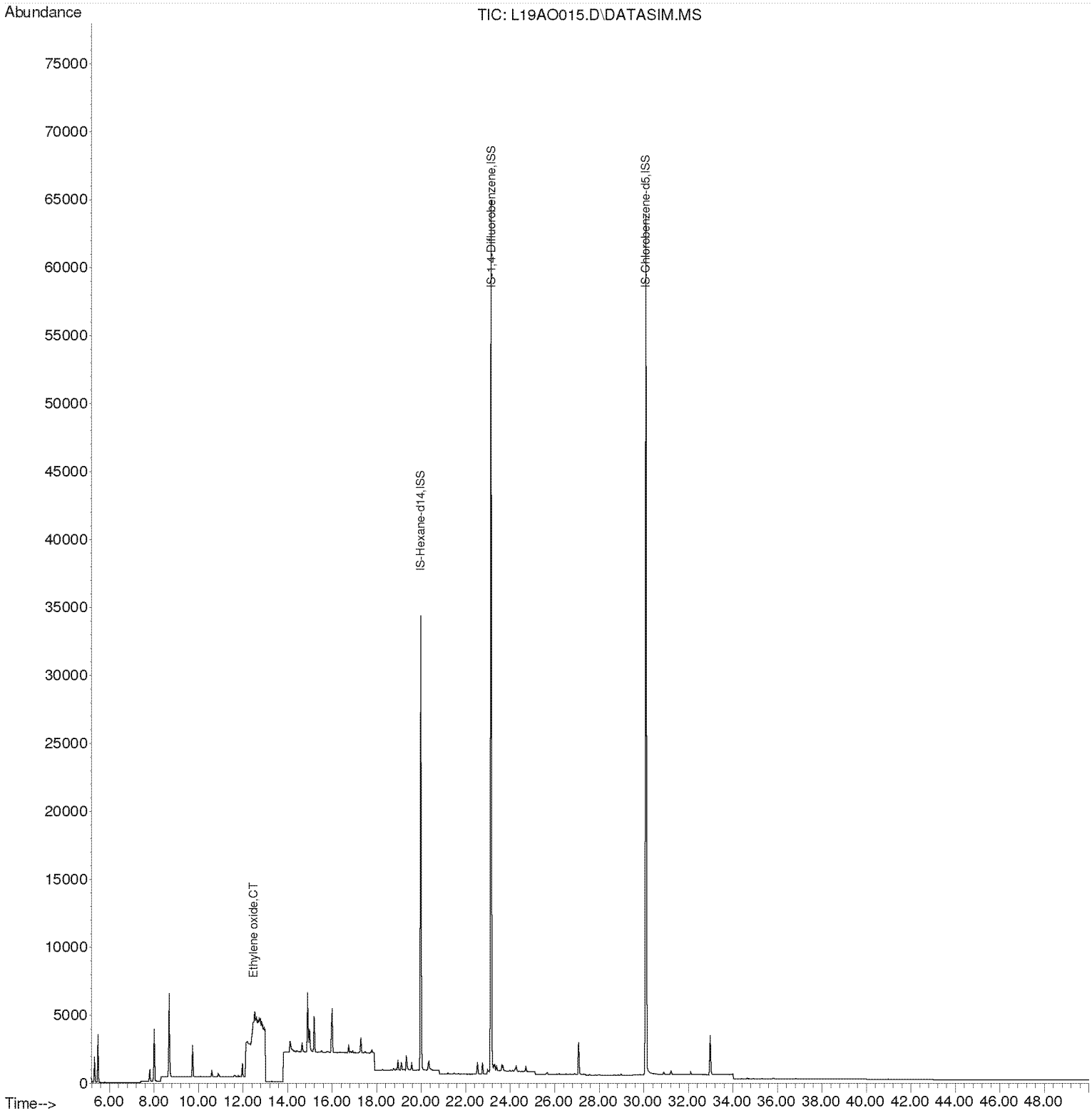
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

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

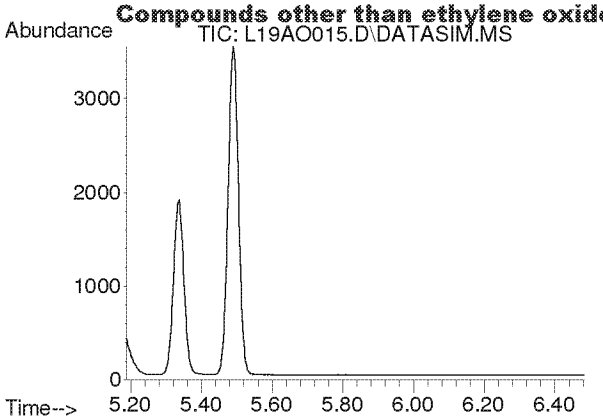
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO015.D
Acq On : 15 Jan 2019 11:38 pm
Operator : MAH
Sample : 9010401-07
Misc : WB VILLAGE HALL 1/3/19
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 22 11:26:23 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



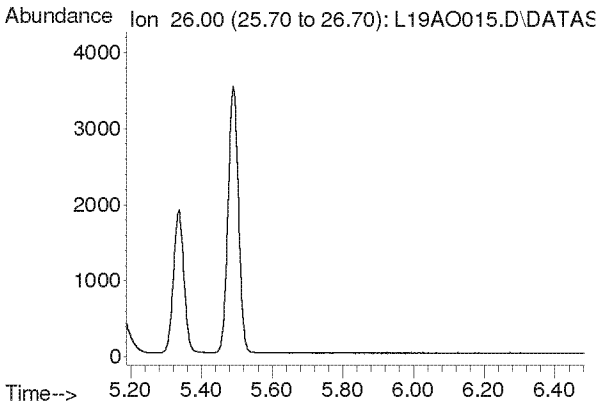
Compounds other than ethylene oxide were not quantitated.

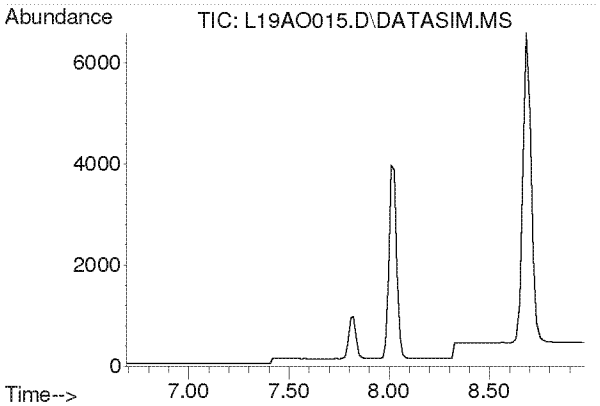


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 26



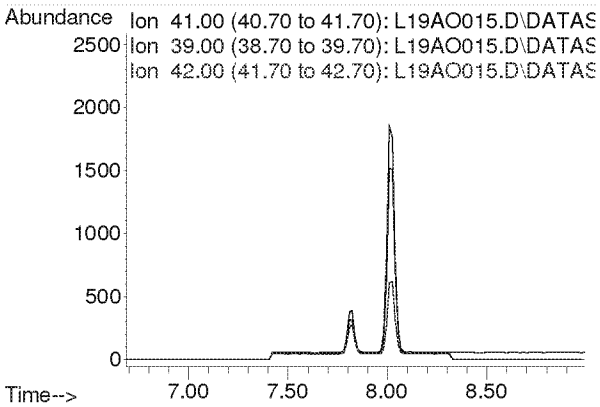


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

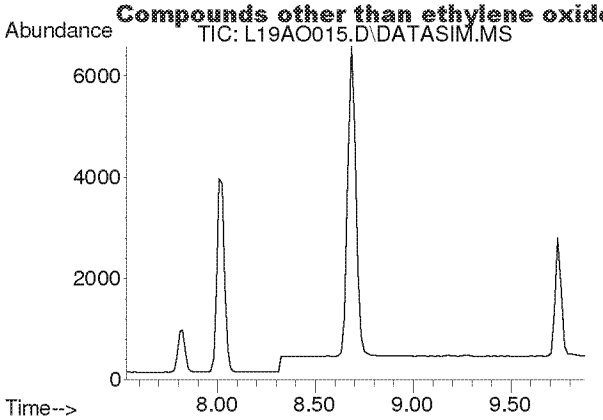
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

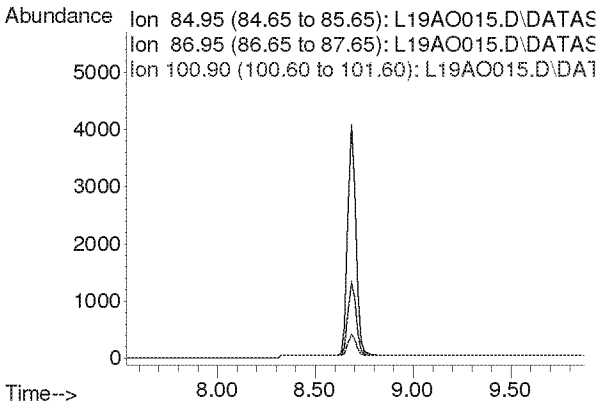


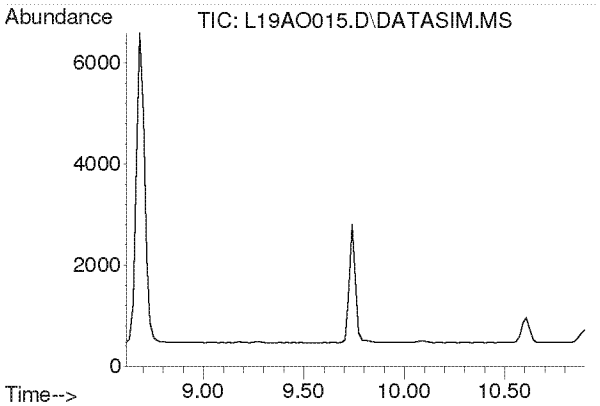
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



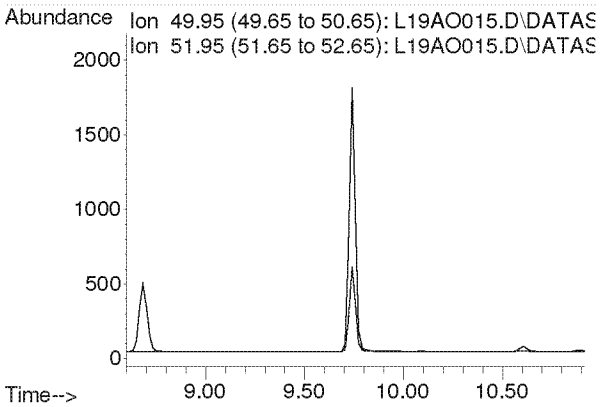


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

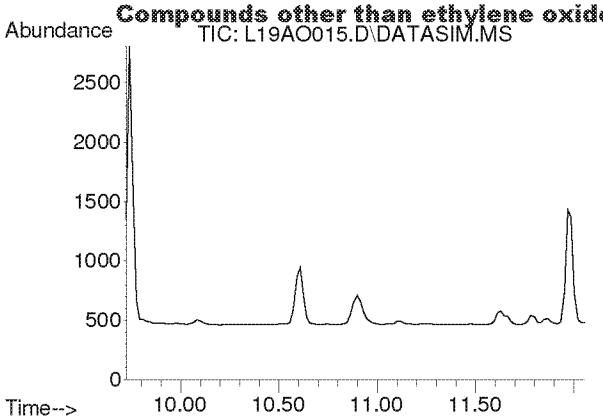
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

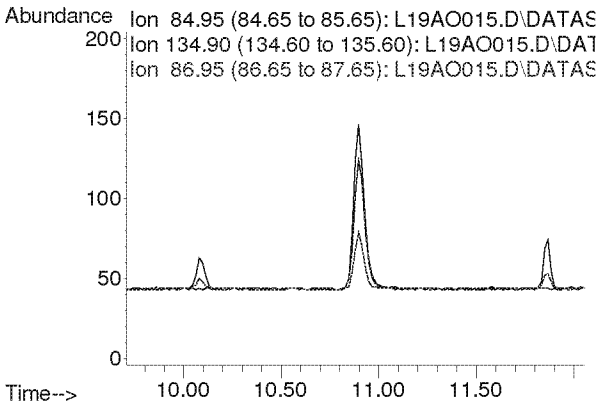


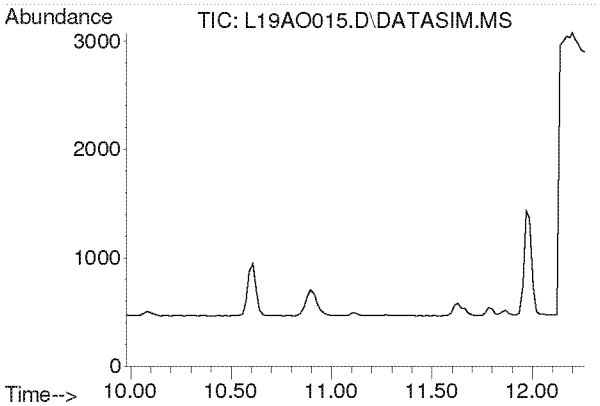
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



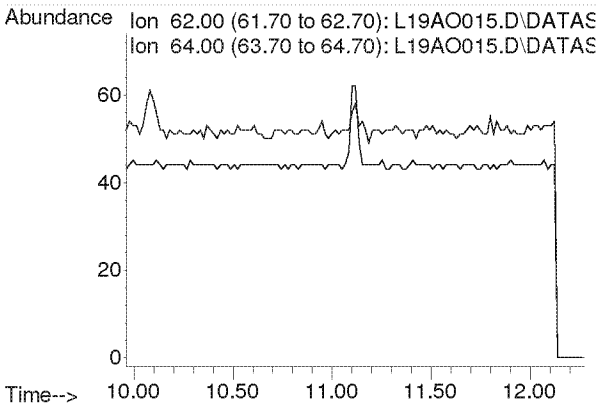


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

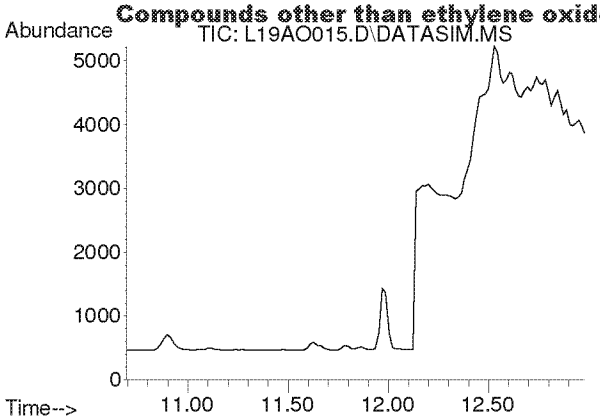
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

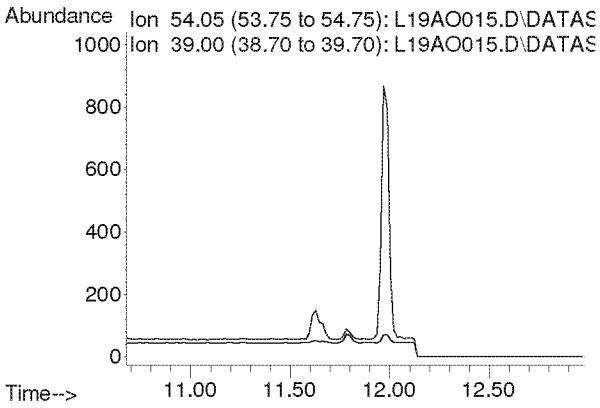


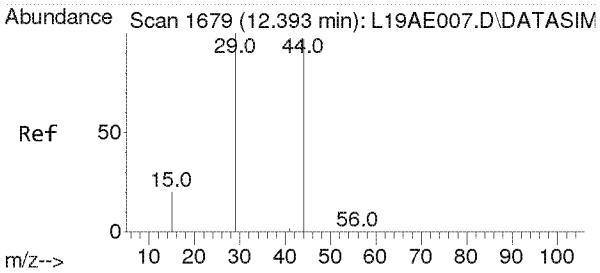
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

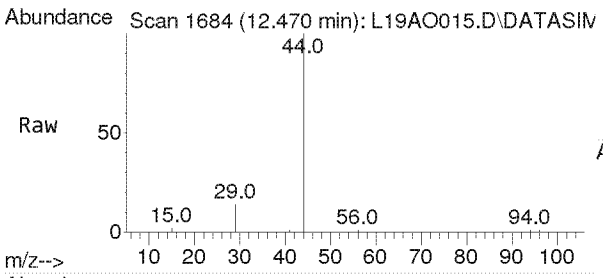


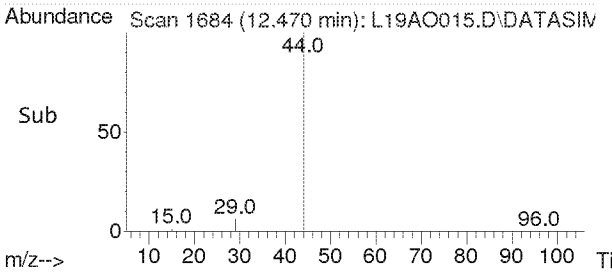


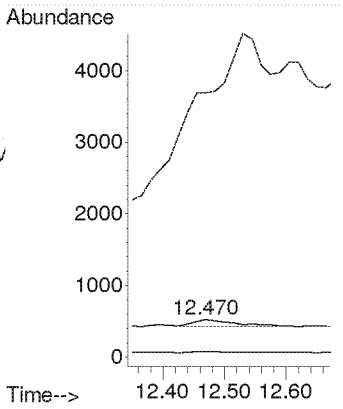
#9
Ethylene oxide
Concen: 0.139 ppbv
RT: 12.470 min Scan# 1684
Delta R.T. 0.077 min
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 29 Resp: 389

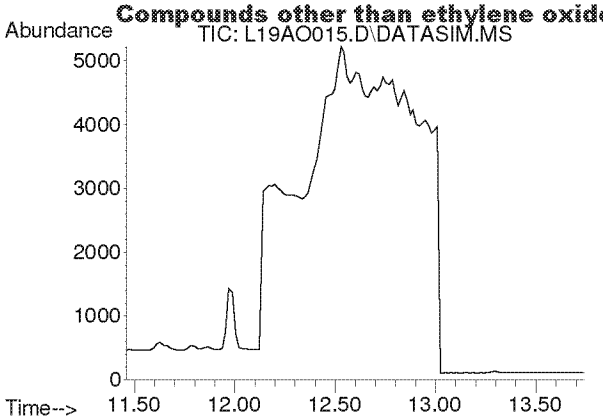
Ion	Ratio	Lower	Upper
29	100		
15	18.5	15.4	23.0
44	4662.2	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

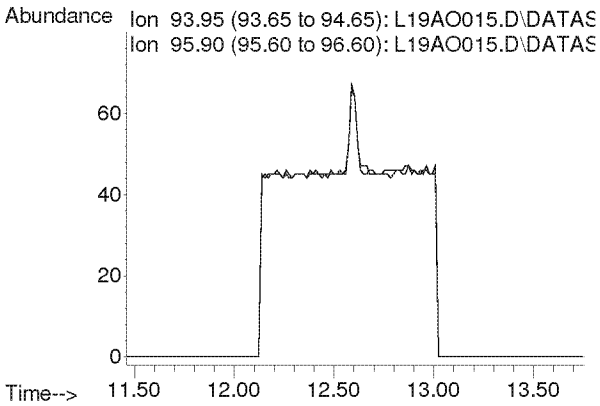


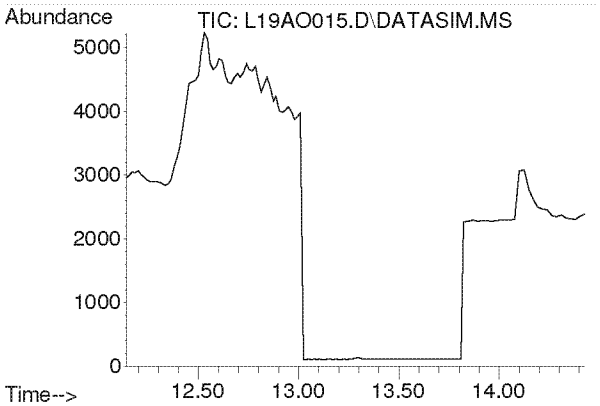
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



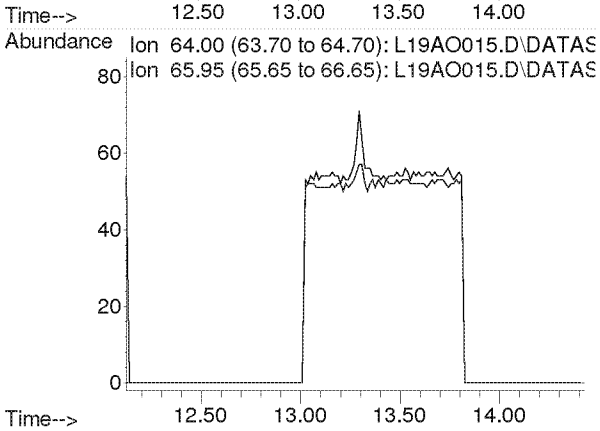


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

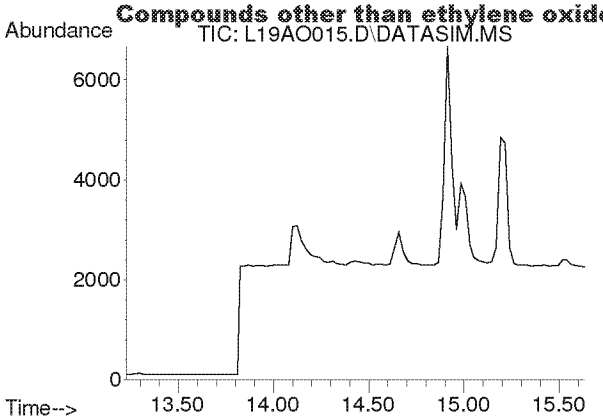
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

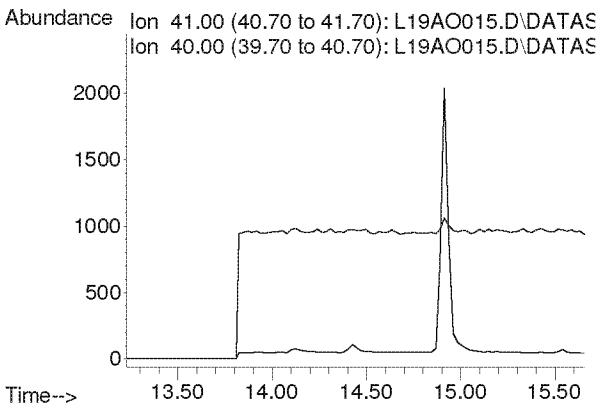


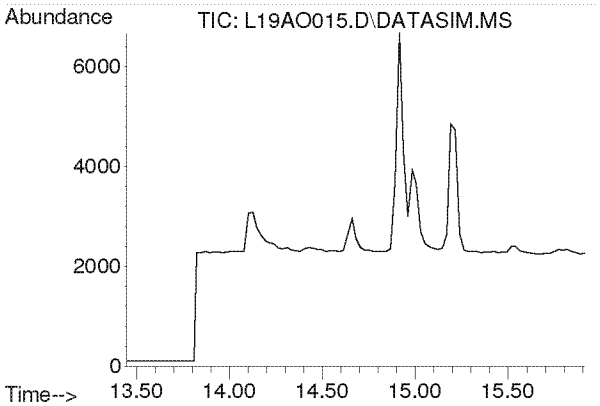
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



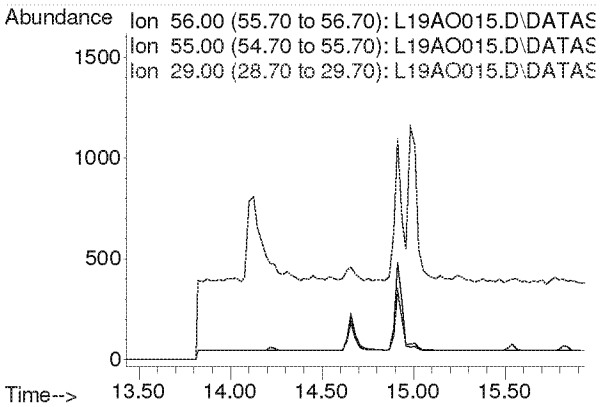


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

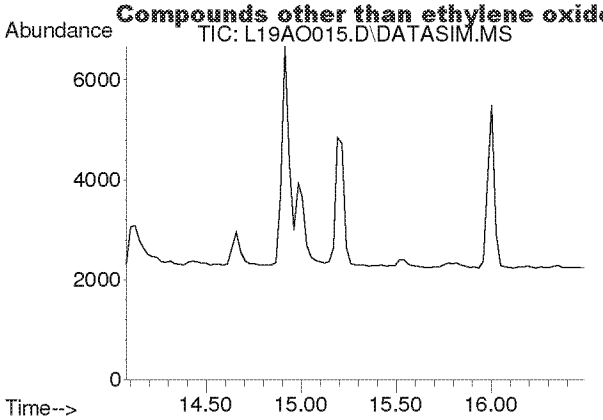
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

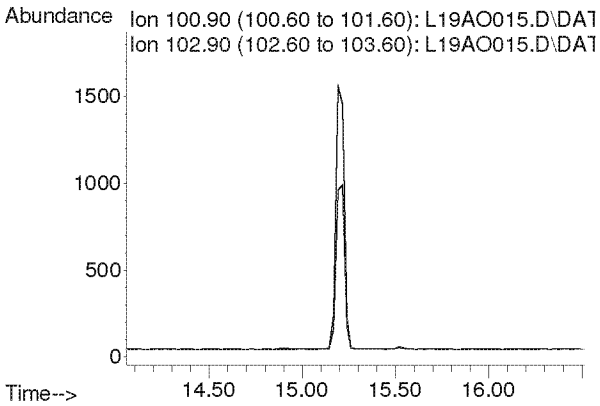


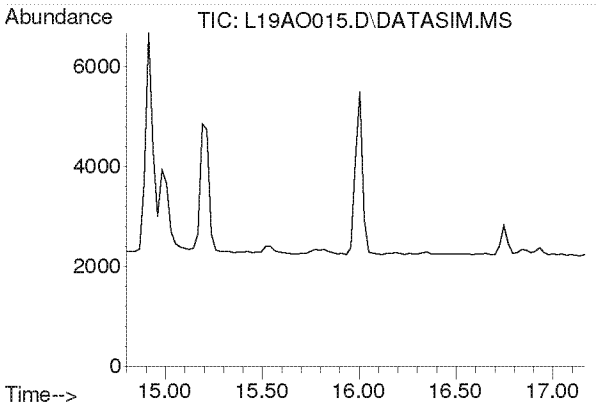
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



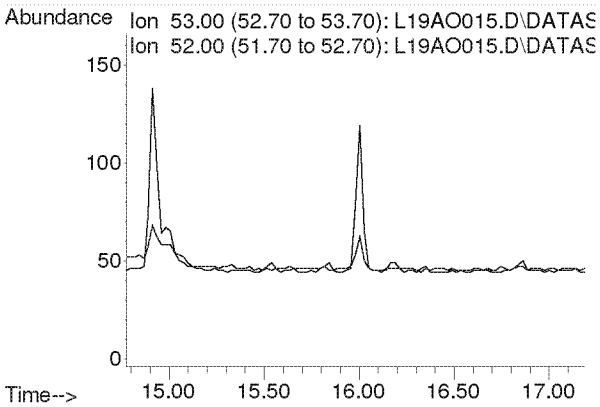


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

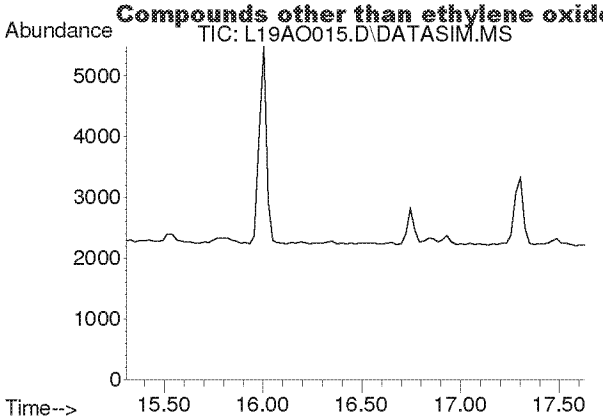
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

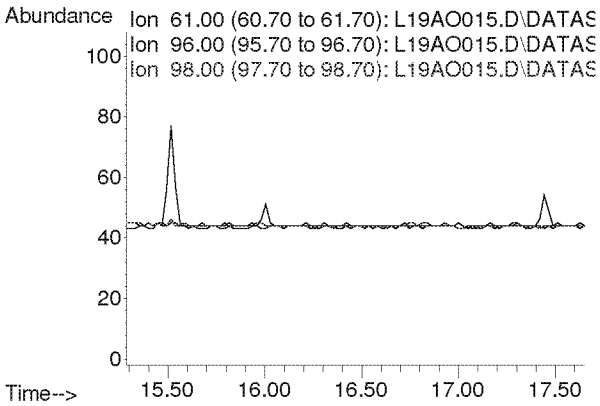


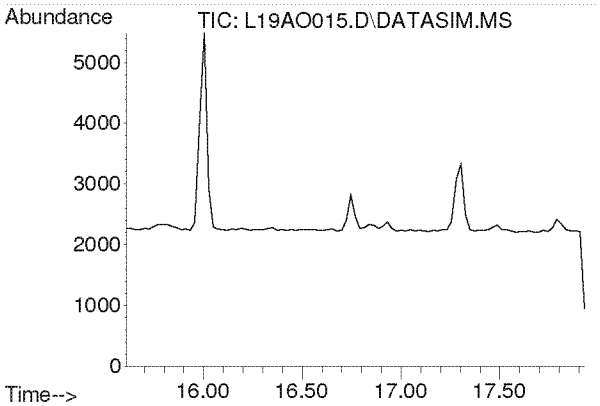
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



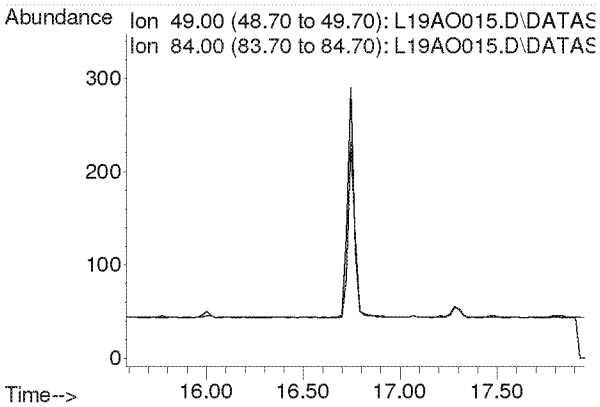


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

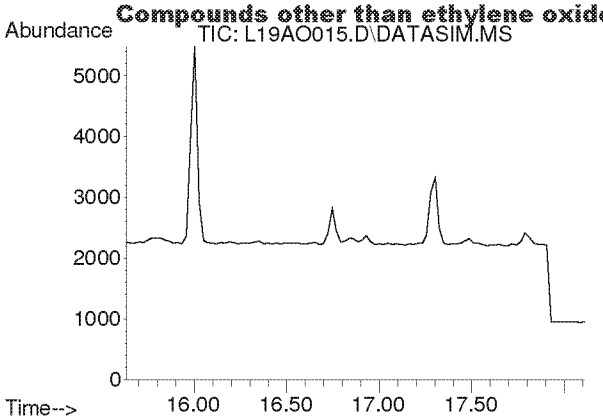
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

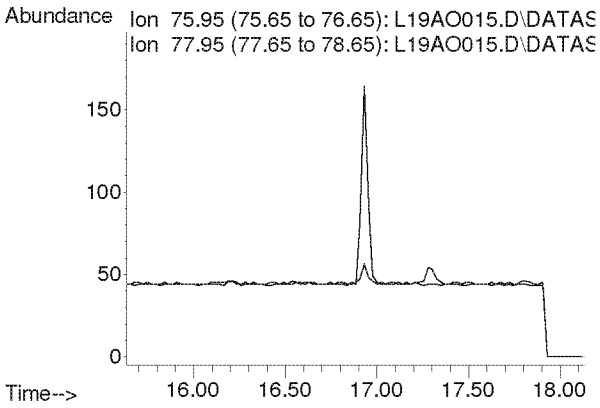


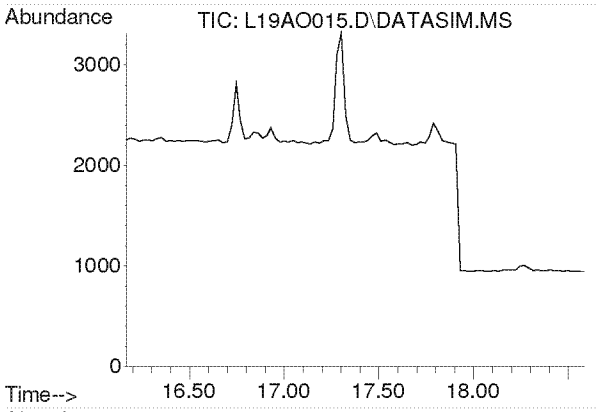
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



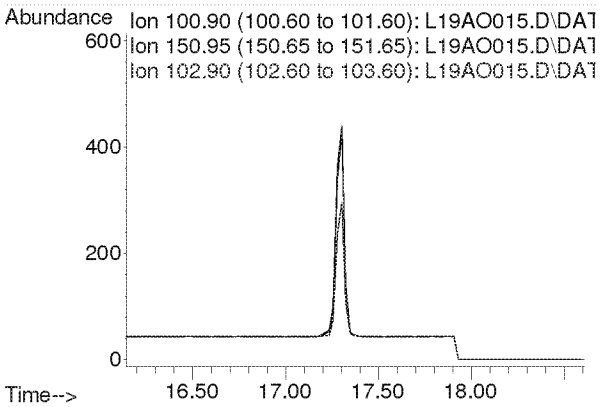


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

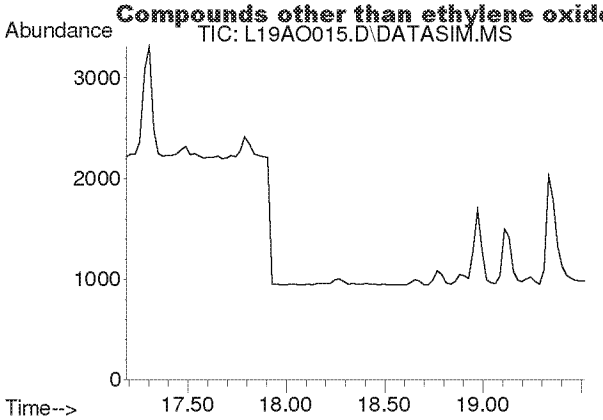
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

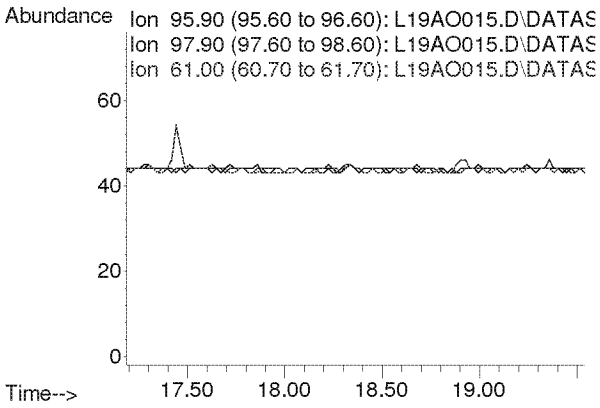


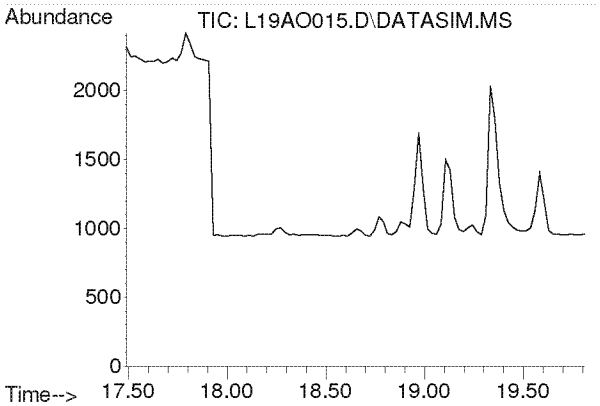
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



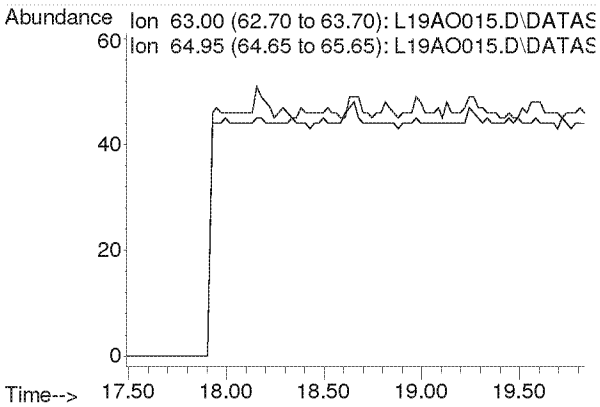


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

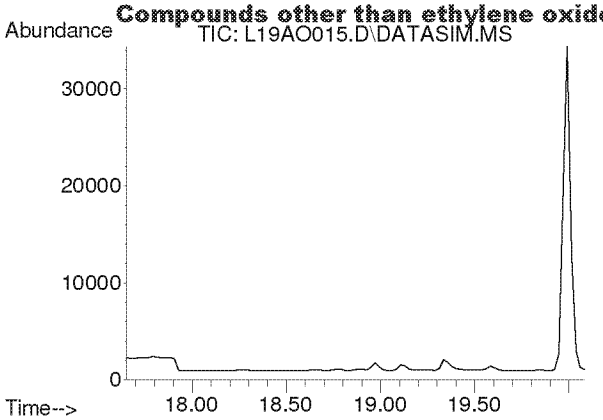
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

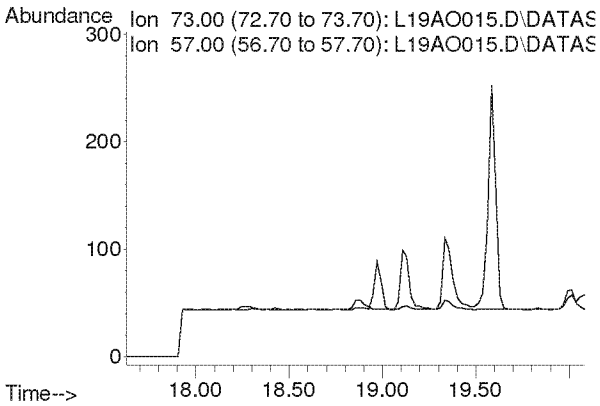


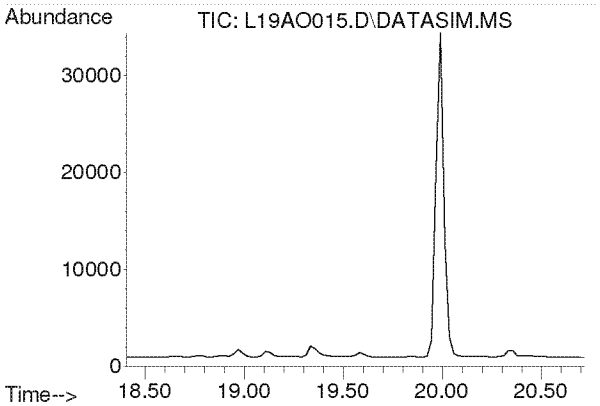
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



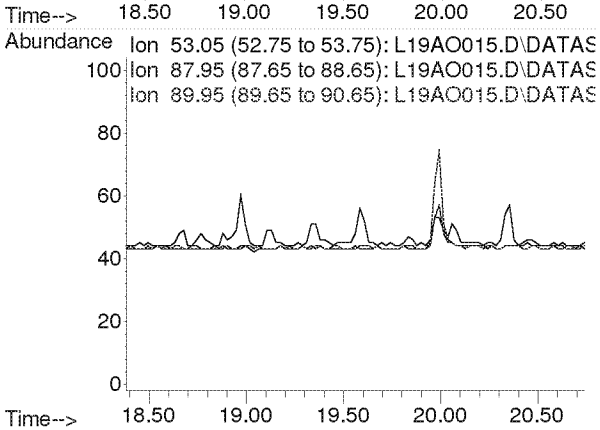


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

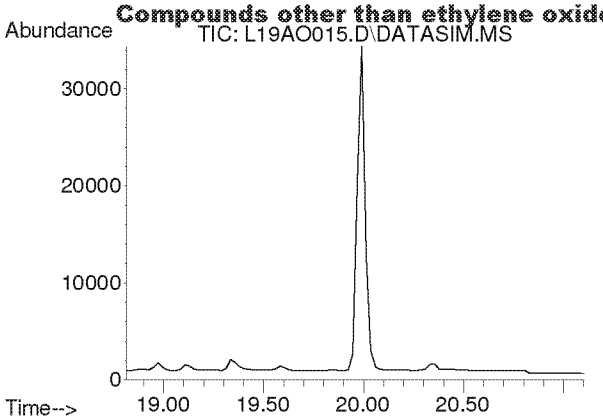
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

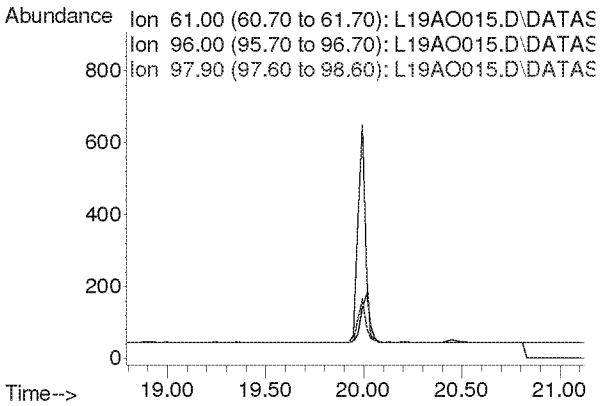


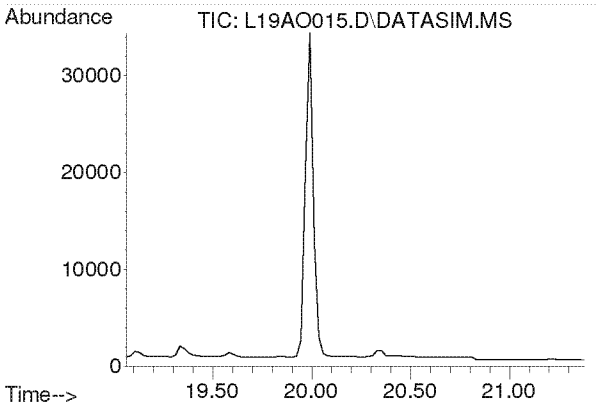
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



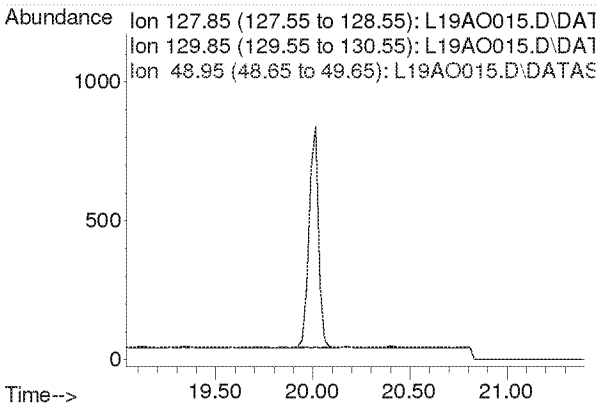


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

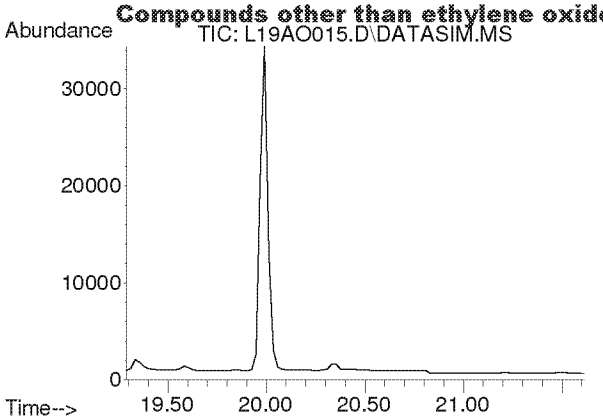
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

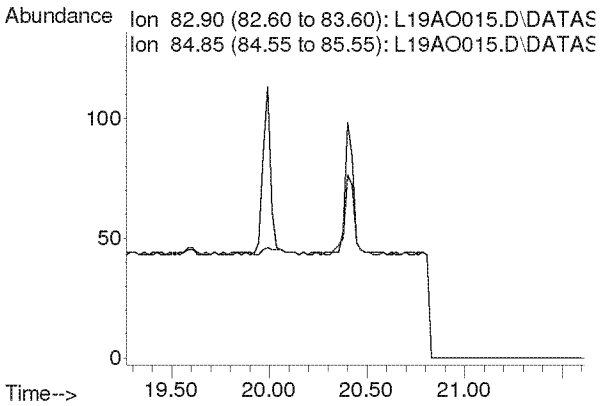


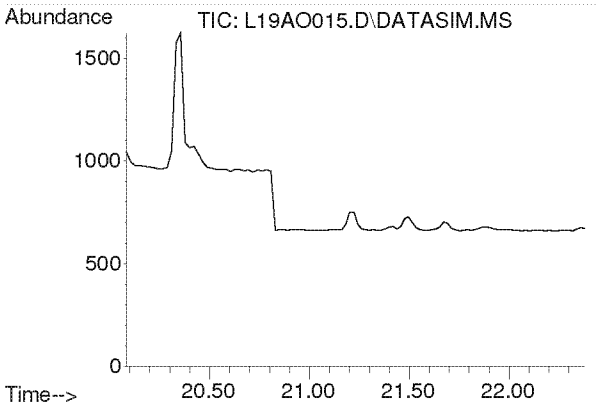
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



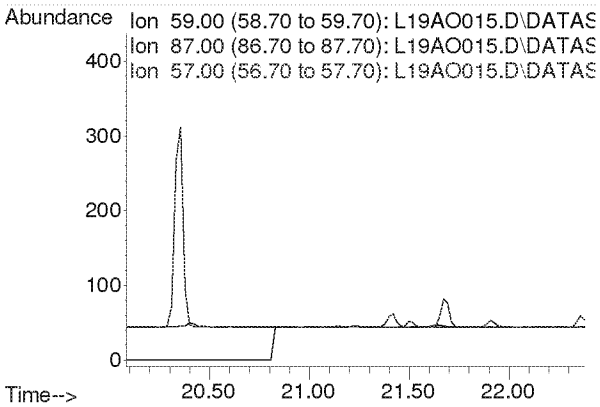


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

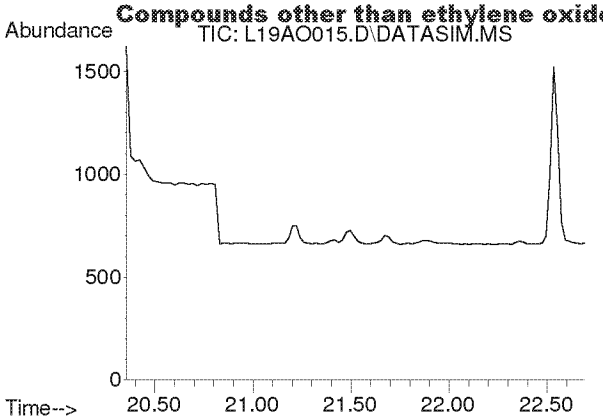
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

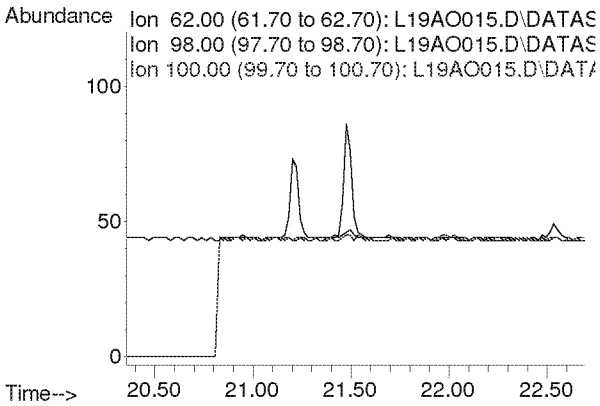


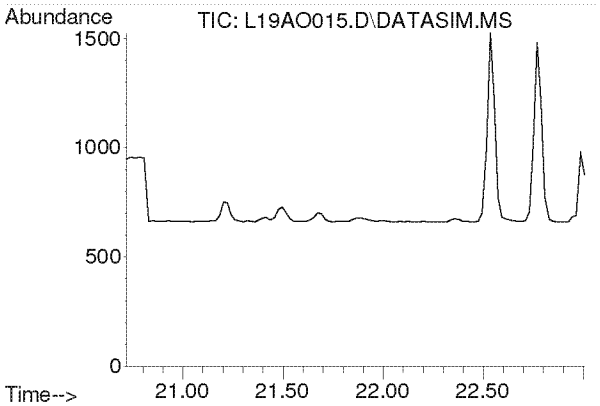
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



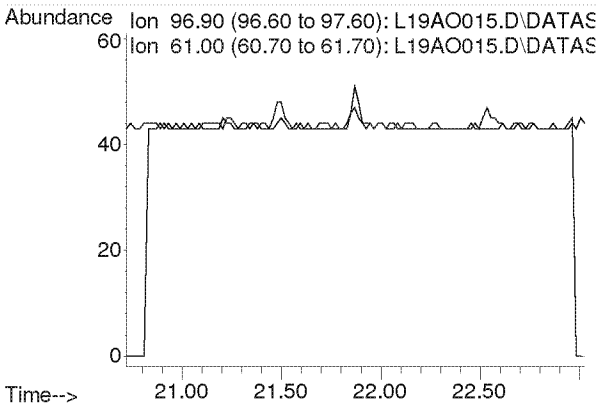


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

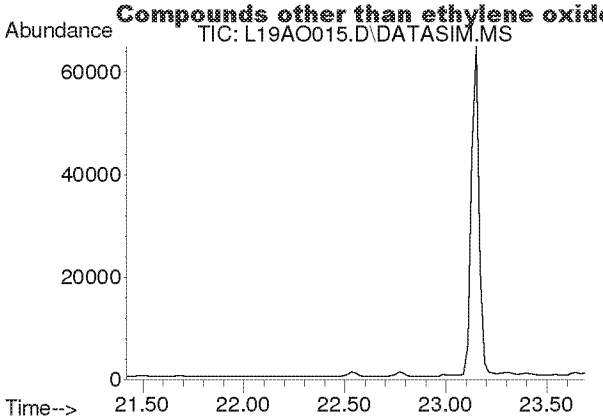
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

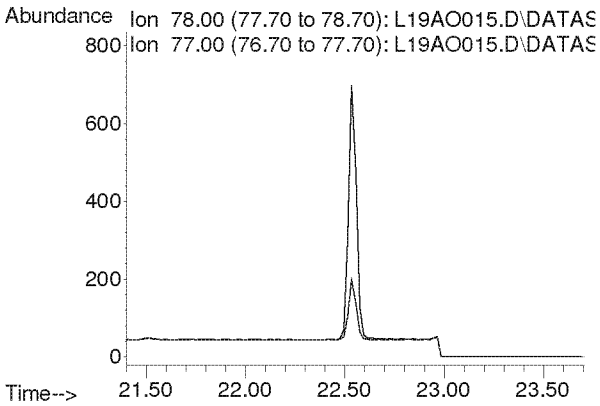


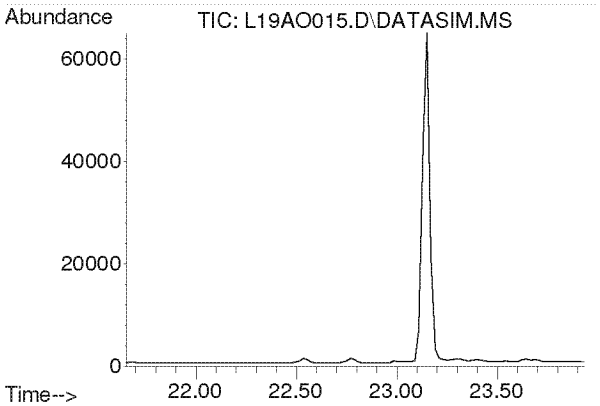
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



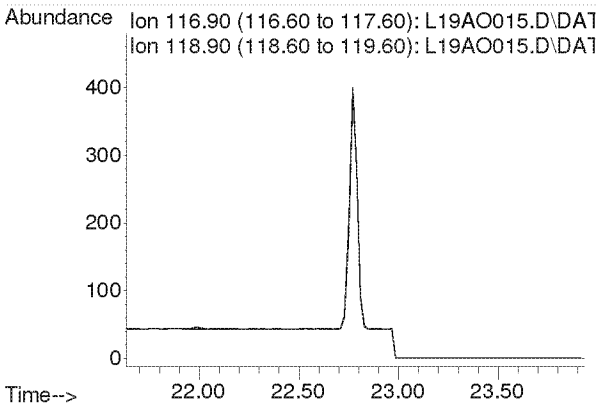


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

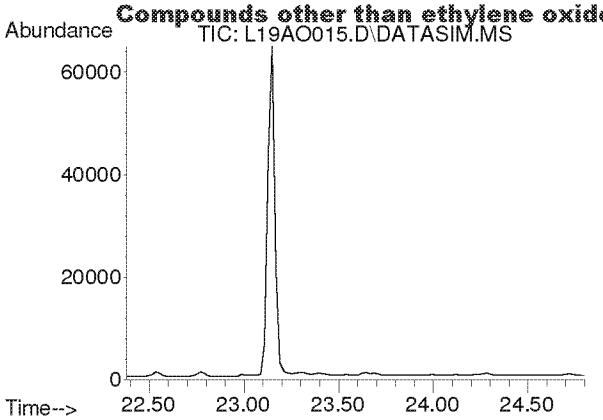
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

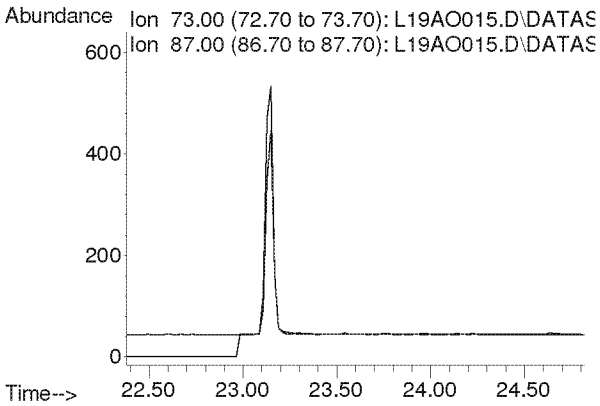


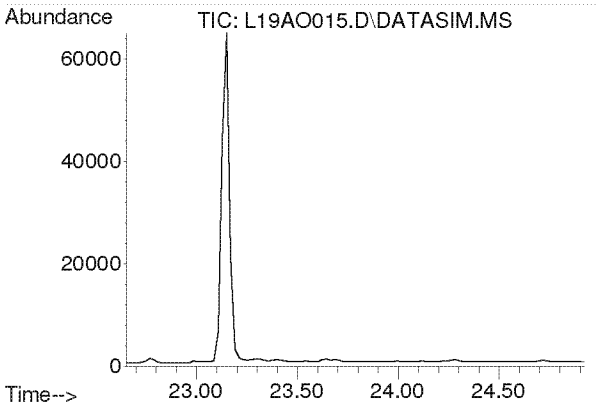
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



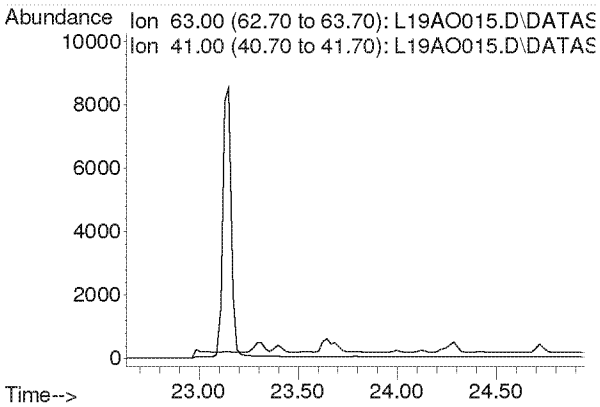


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

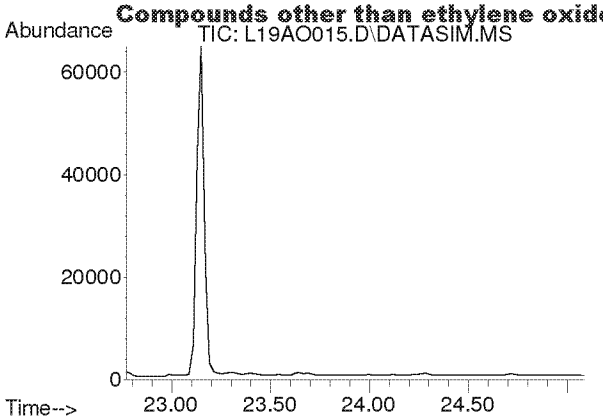
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

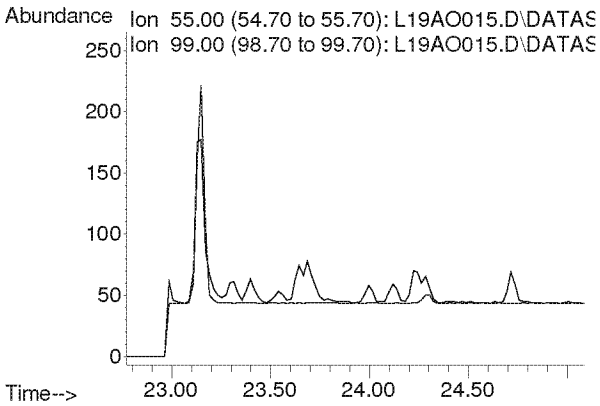


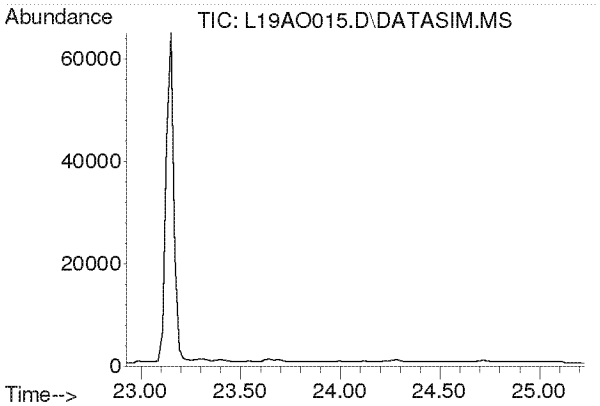
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



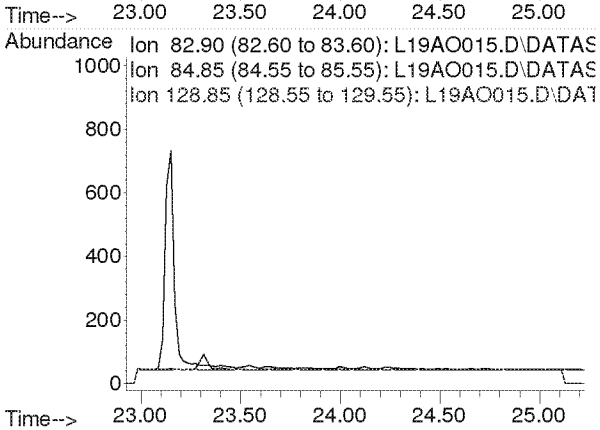


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

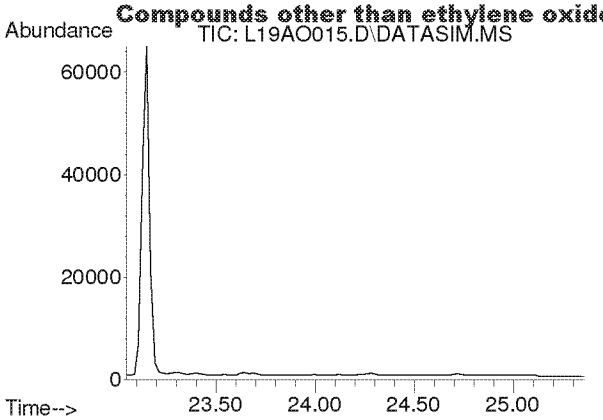
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

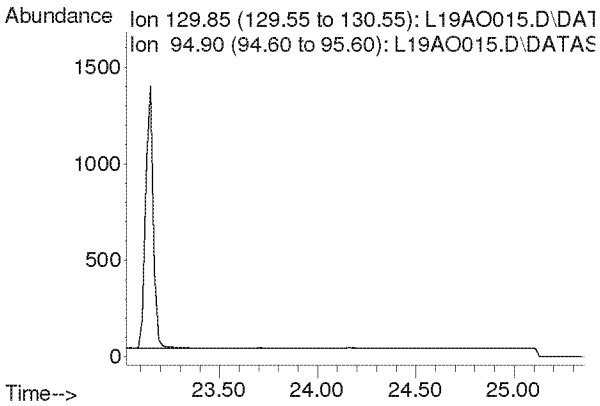


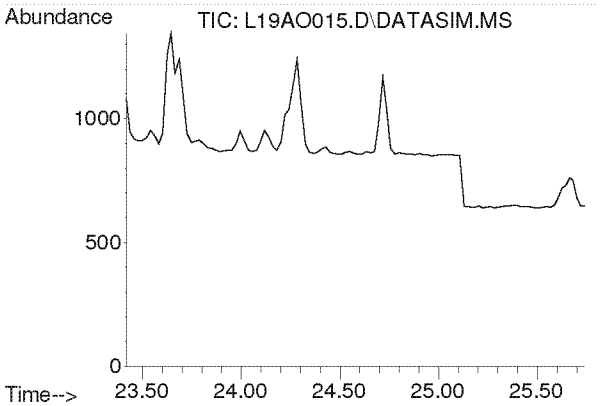
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



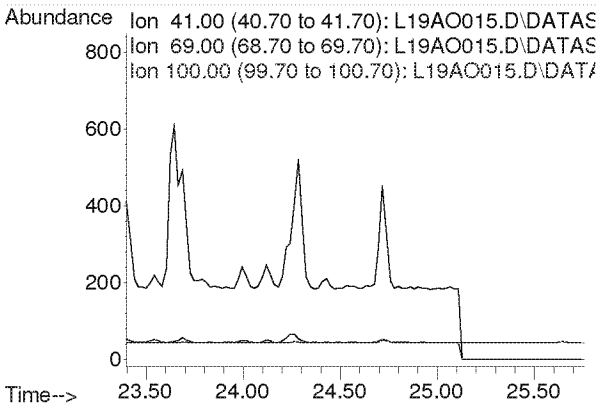


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

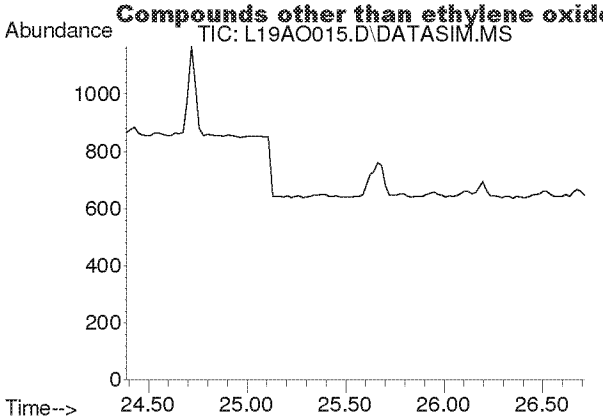
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

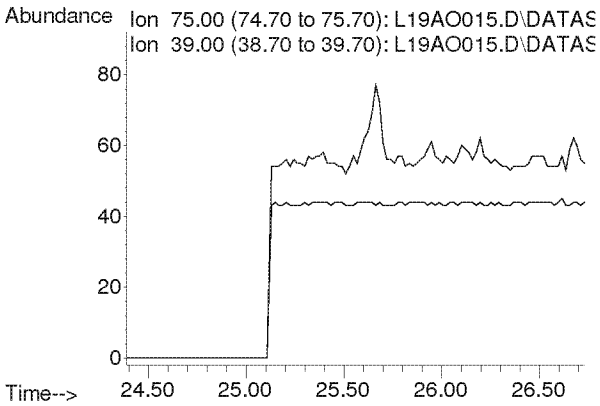


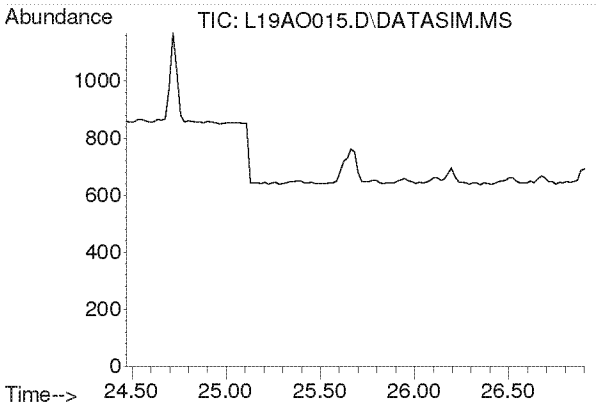
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



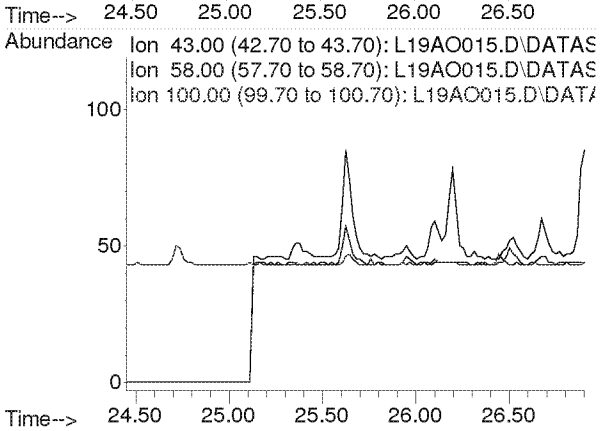


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

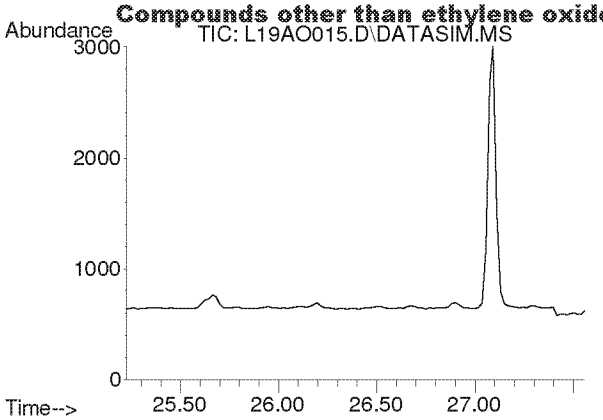
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

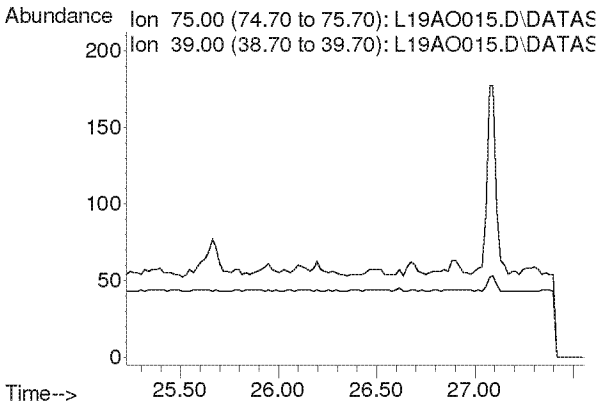


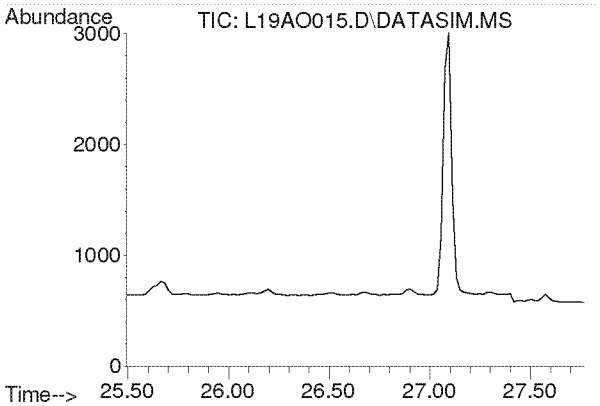
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



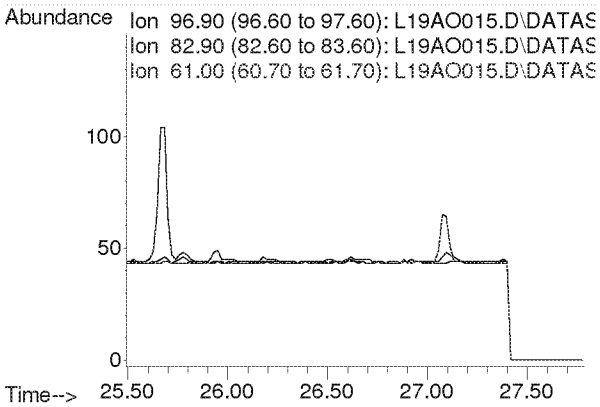


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

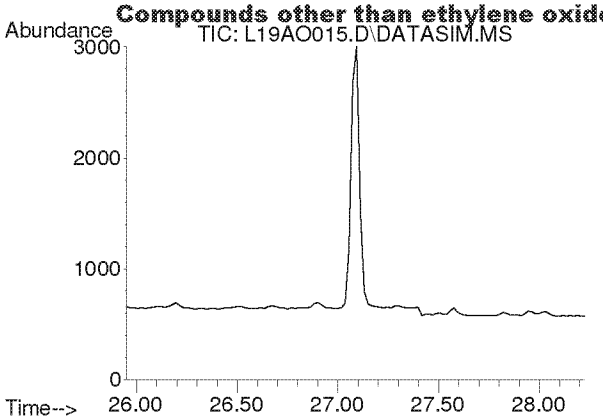
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

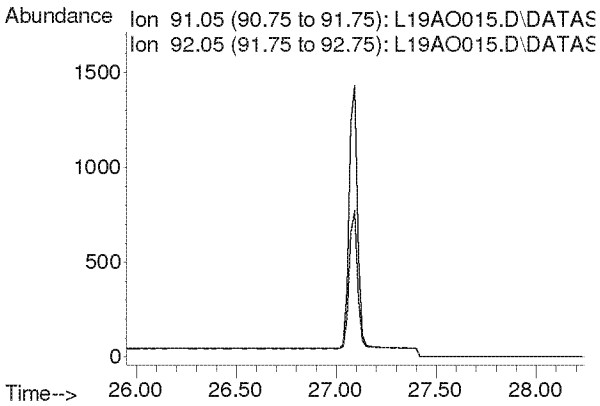


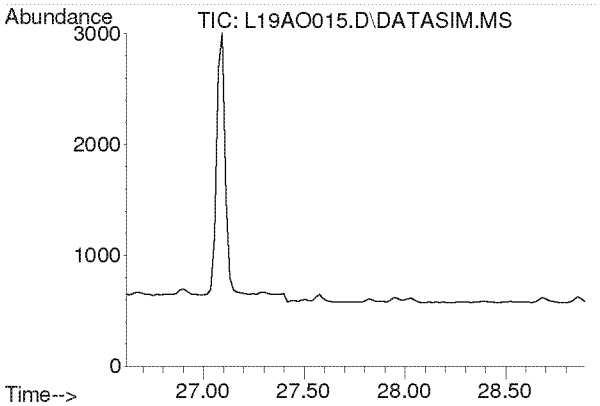
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



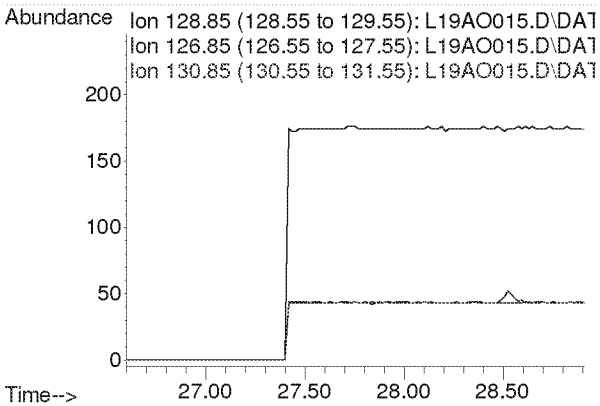


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

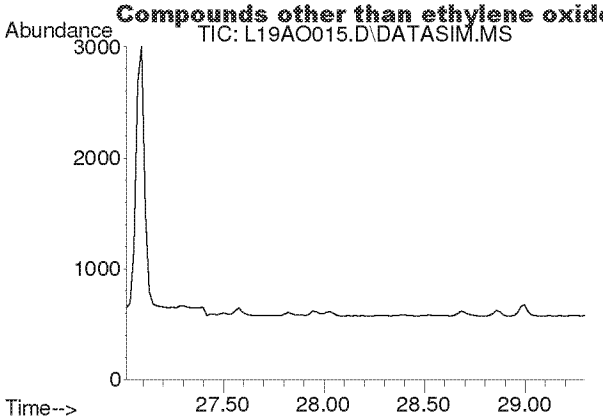
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

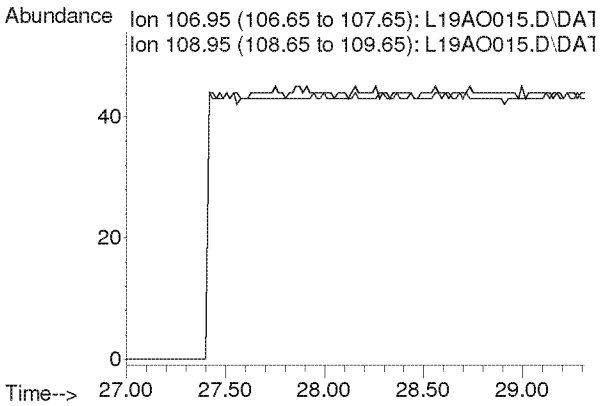


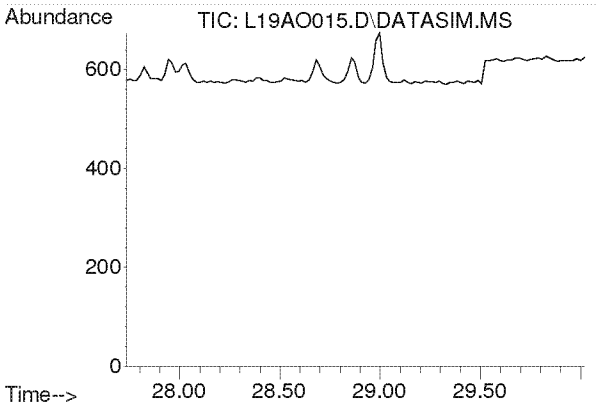
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



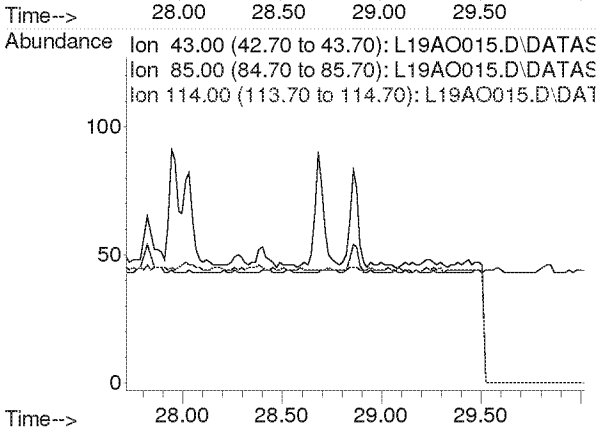


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

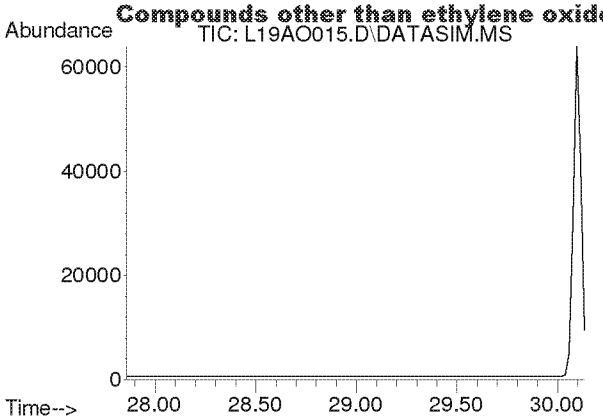
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

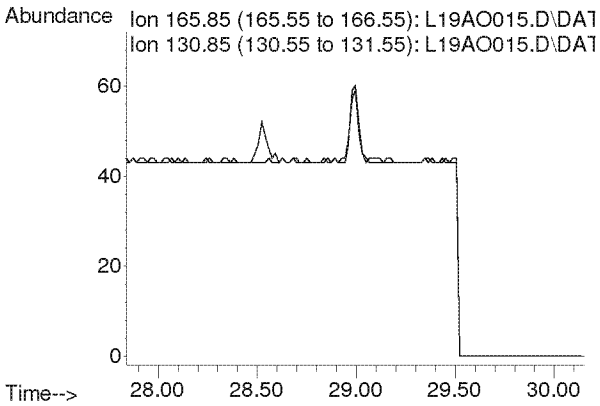


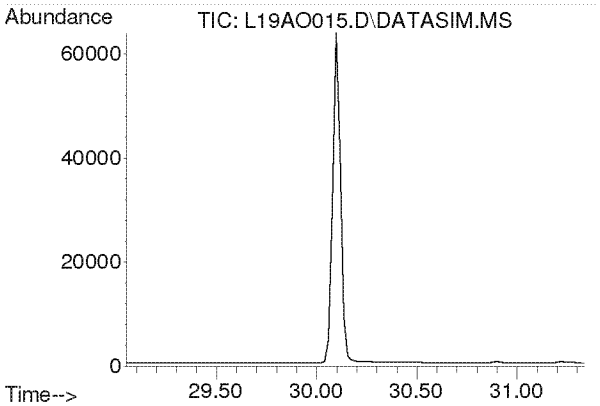
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



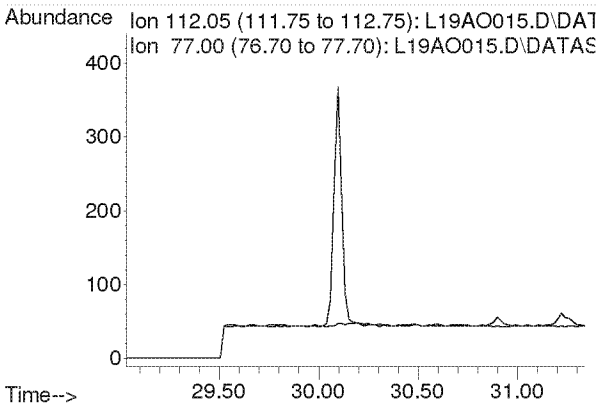


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

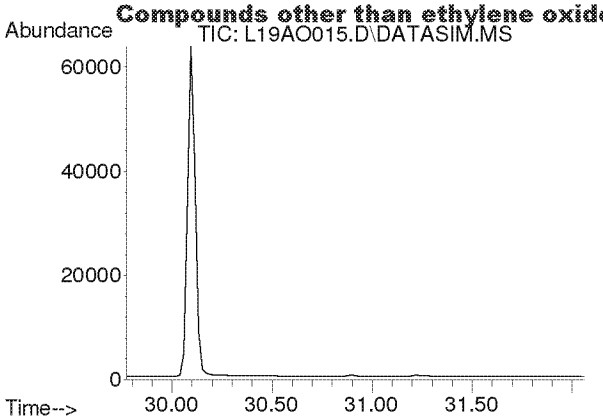
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

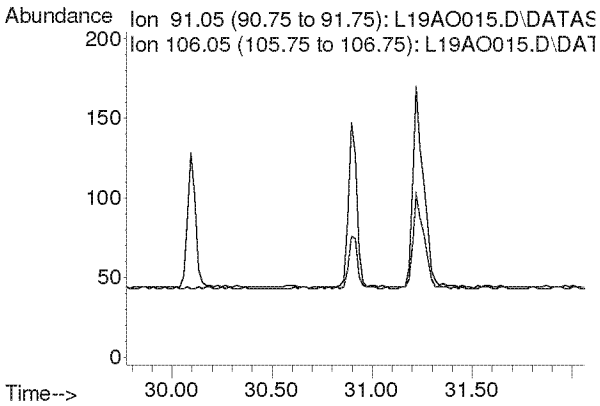


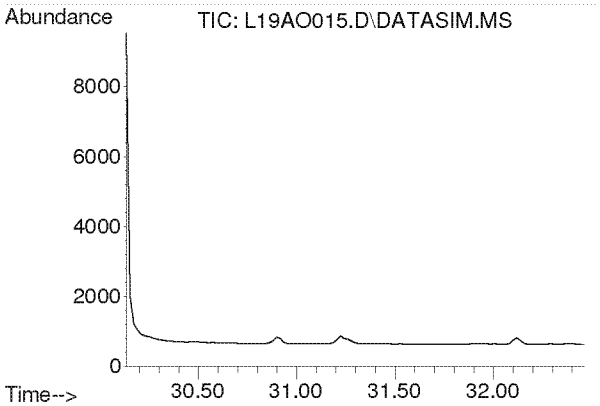
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



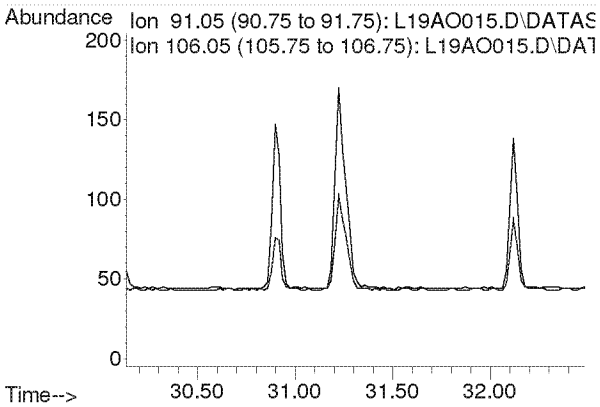


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

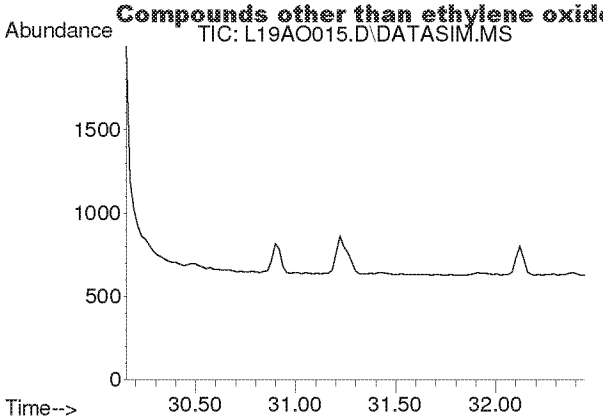
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

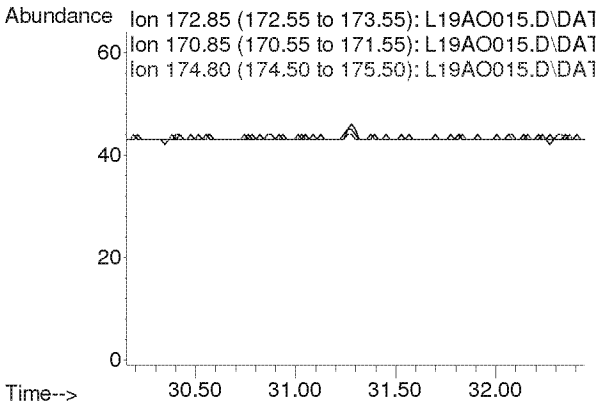


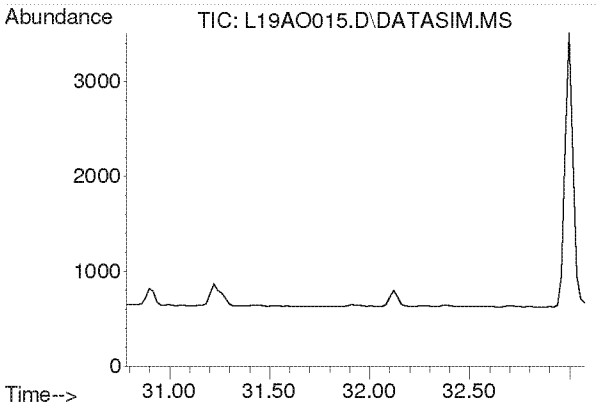
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



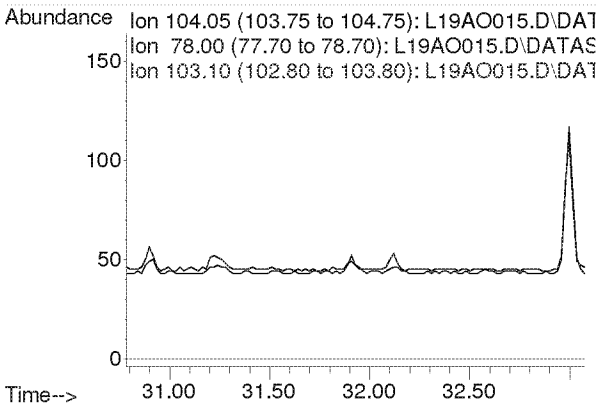


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

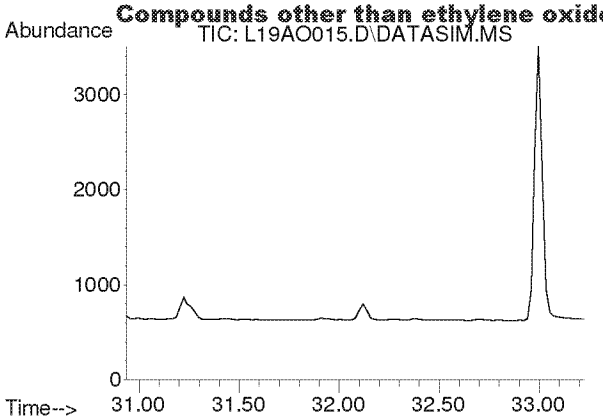
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

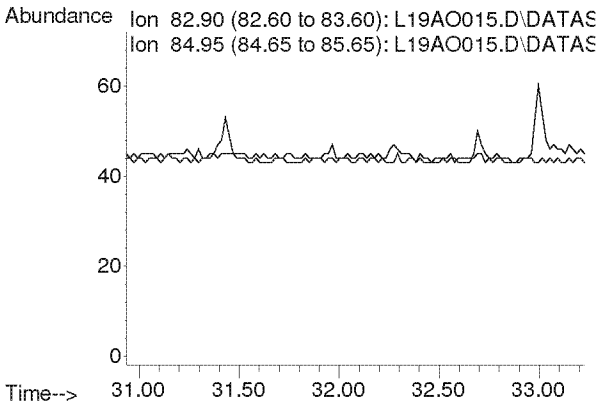


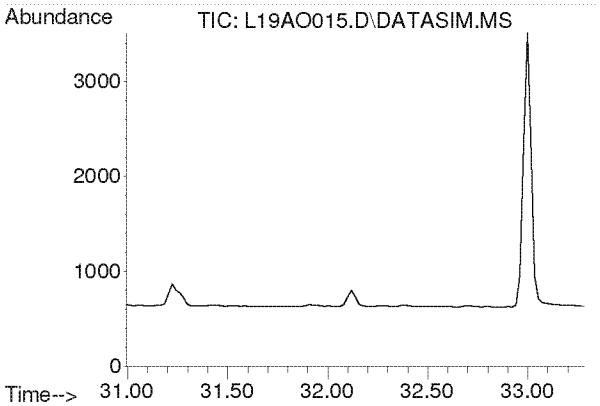
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



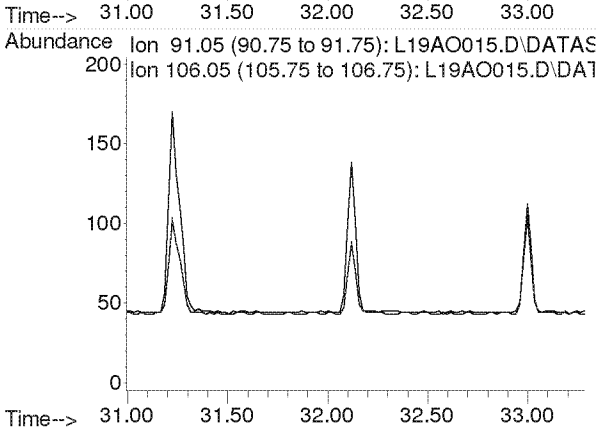


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

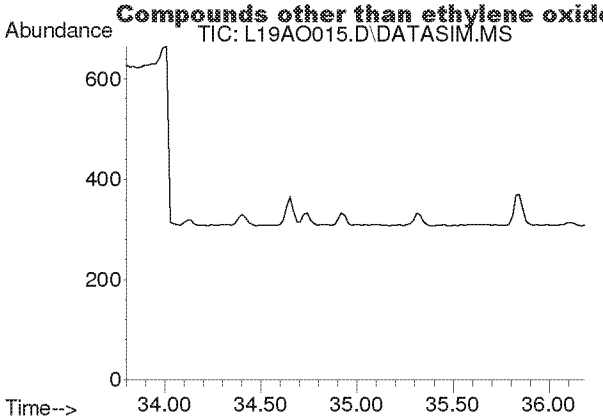
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

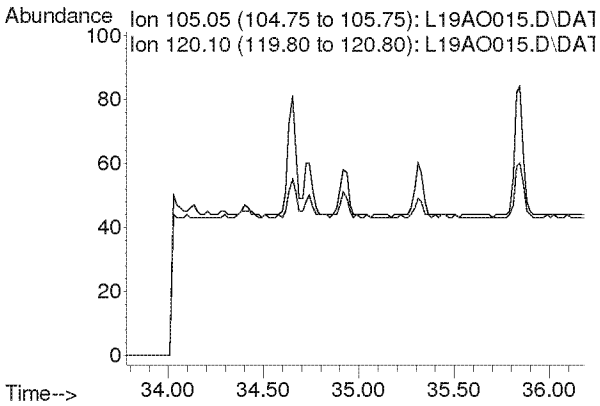


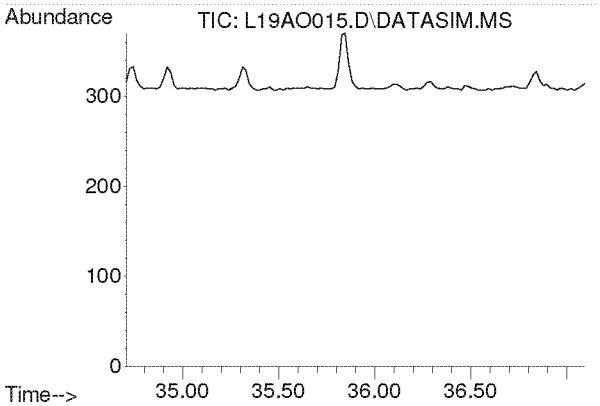
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



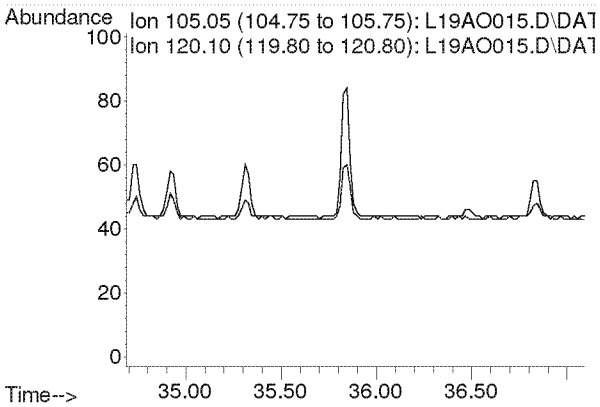


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

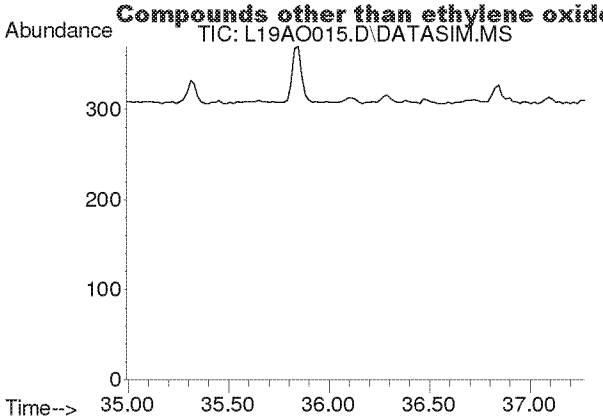
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

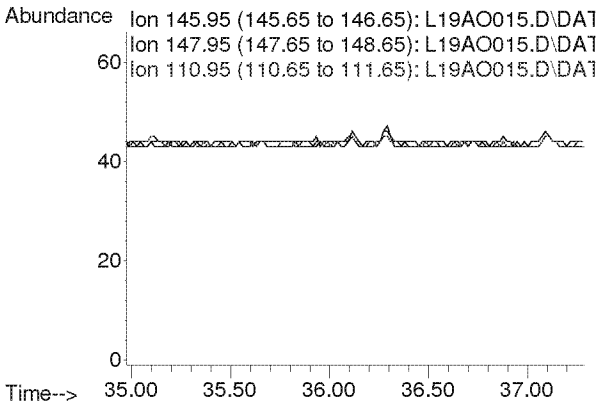


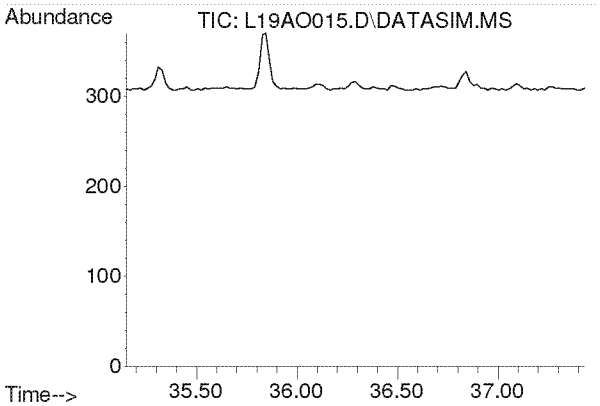
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



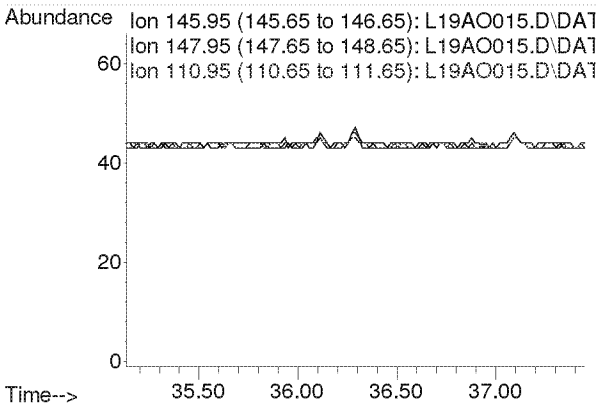


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

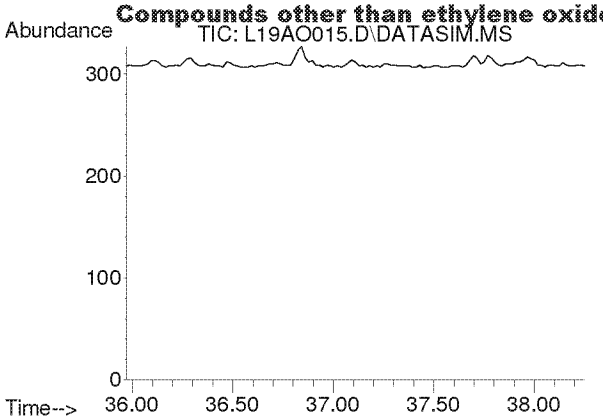
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

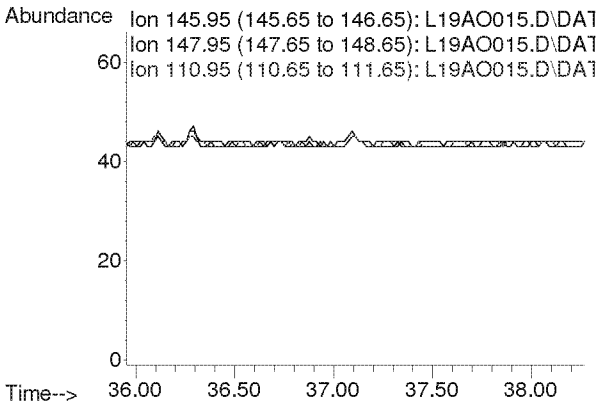


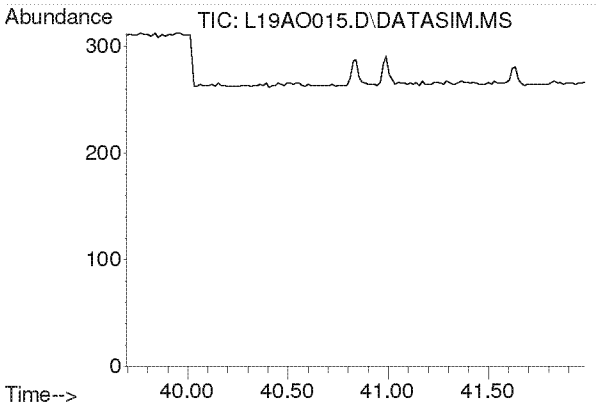
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



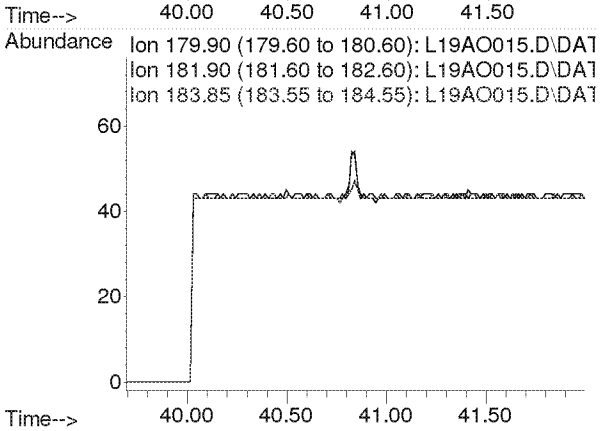


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

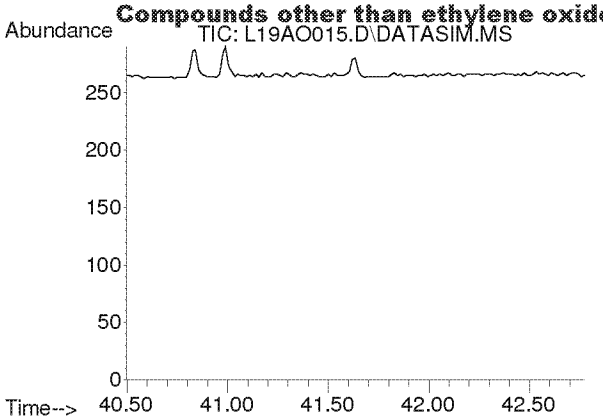
Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

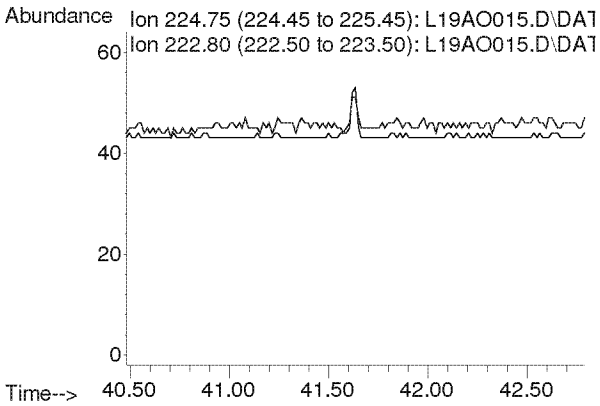


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AO015.D
Acq: 15 Jan 2019 11:38 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\L19AO\
Data File : L19AO016.D
Acq On : 16 Jan 2019 12:39 am
Operator : MAH
Sample : 9010401-08
Misc : HINSDALE S. HS 1/3/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 22 11:46:29 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

ETH only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	55332	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	136275	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	107698	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. d	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AO\
Data File : L19AO016.D
Acq On : 16 Jan 2019 12:39 am
Operator : MAH
Sample : 9010401-08
Misc : HINSDALE S. HS 1/3/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 22 11:46:29 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

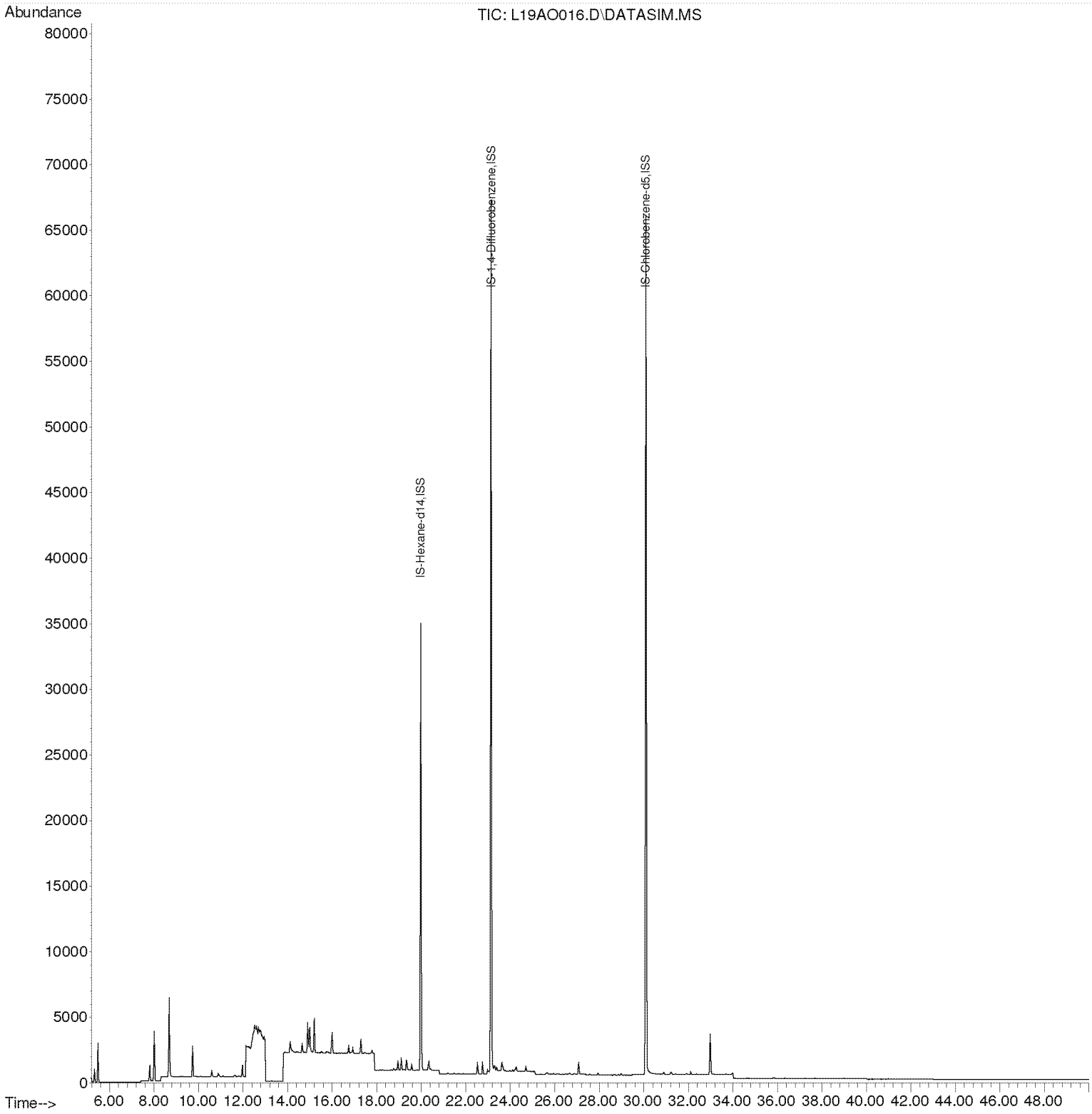
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

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

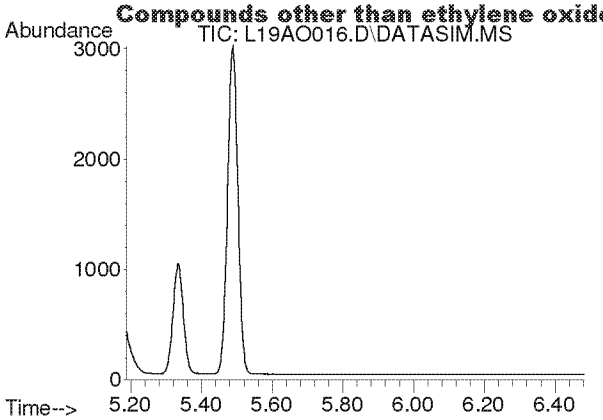
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AO\
Data File : L19AO016.D
Acq On : 16 Jan 2019 12:39 am
Operator : MAH
Sample : 9010401-08
Misc : HINSDALE S. HS 1/3/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 22 11:26:30 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



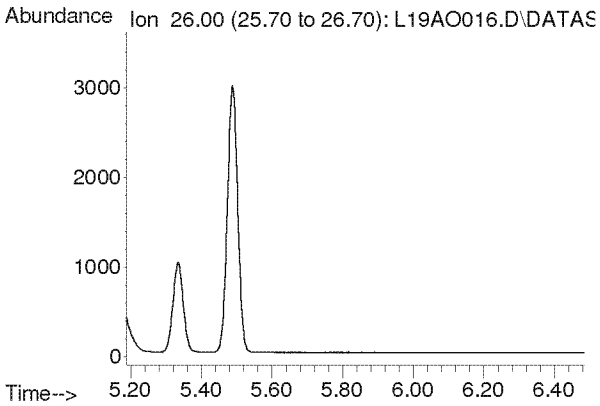
Compounds other than ethylene oxide were not quantitated.

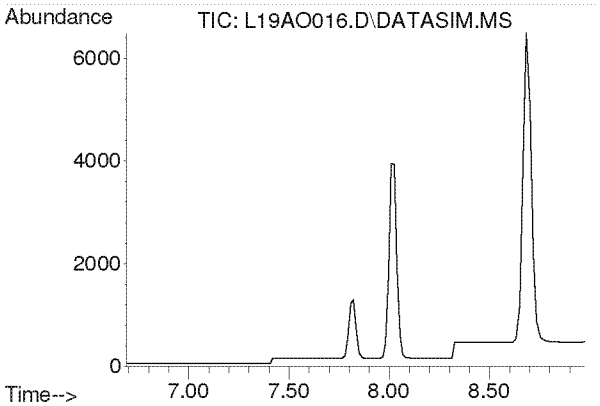


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 26



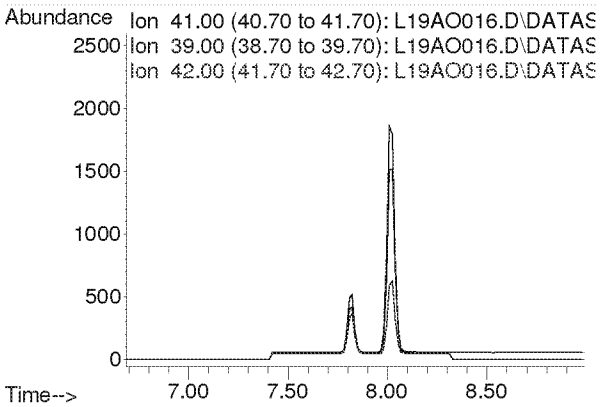


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

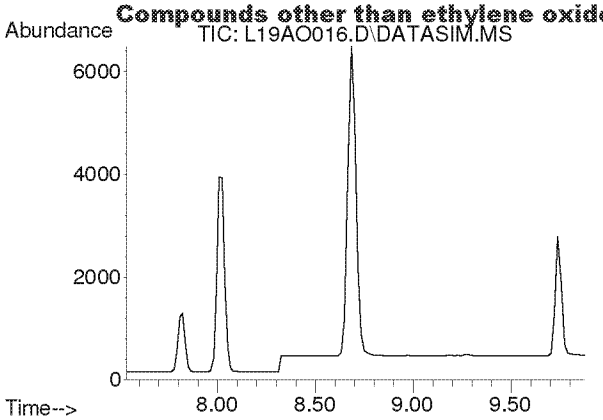
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

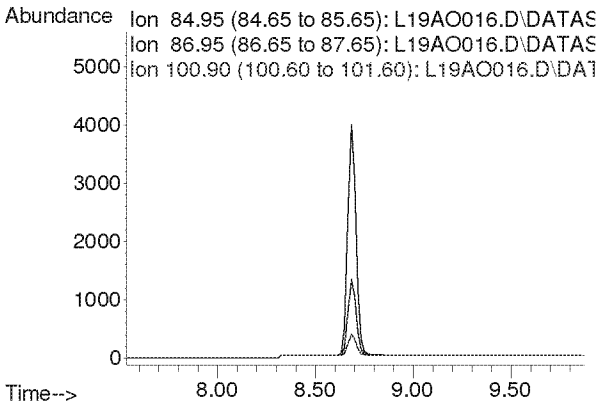


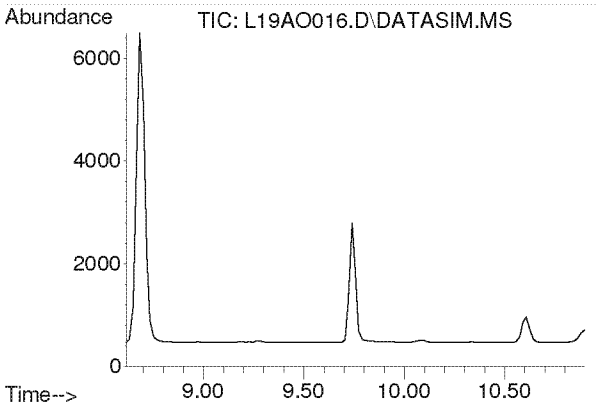
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



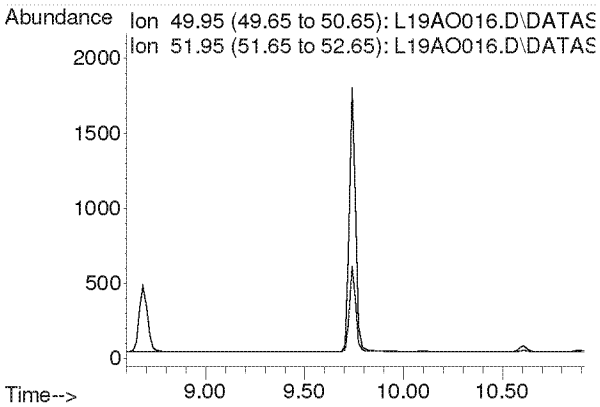


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

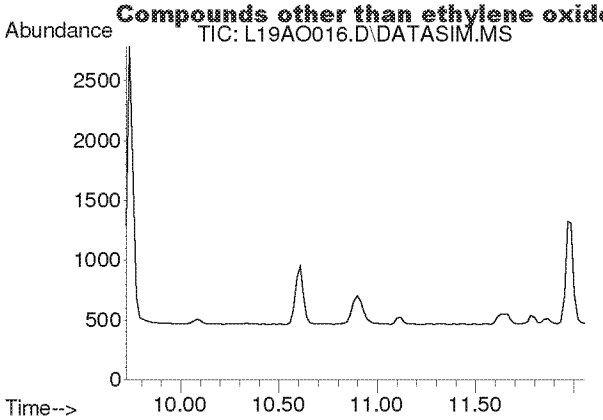
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

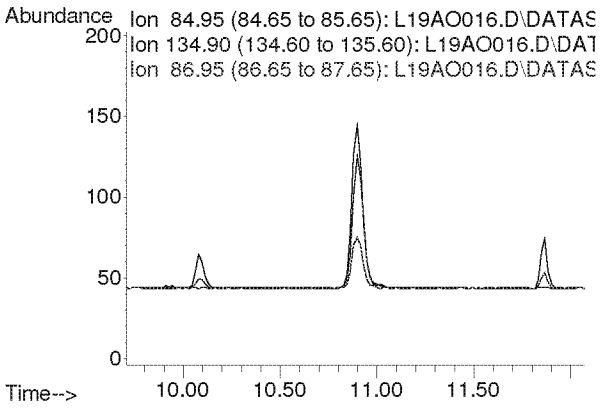


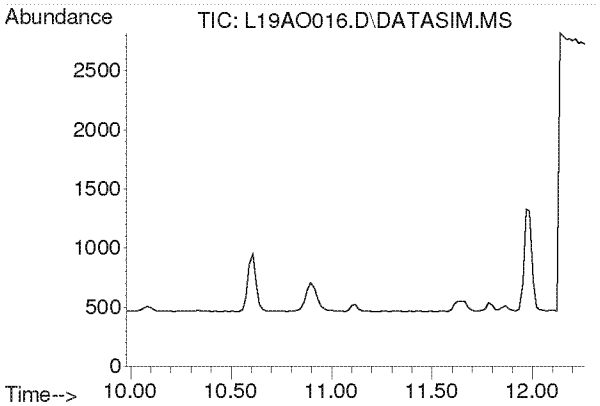
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



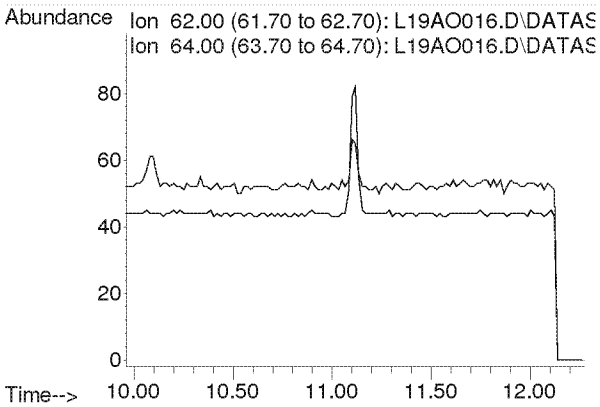


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

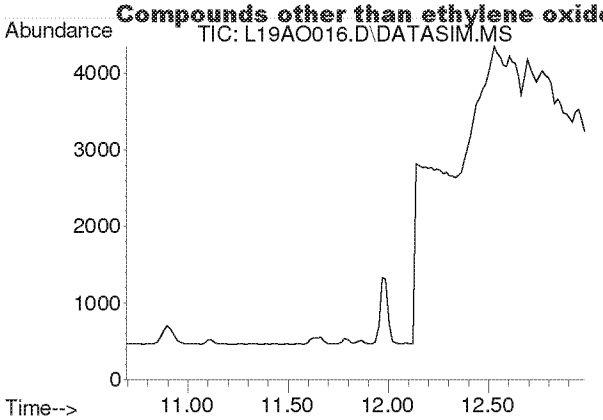
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

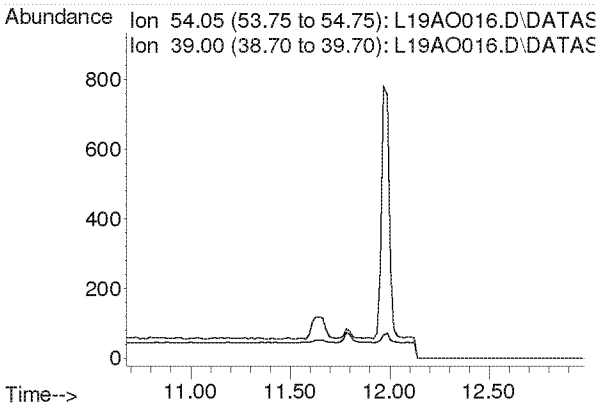


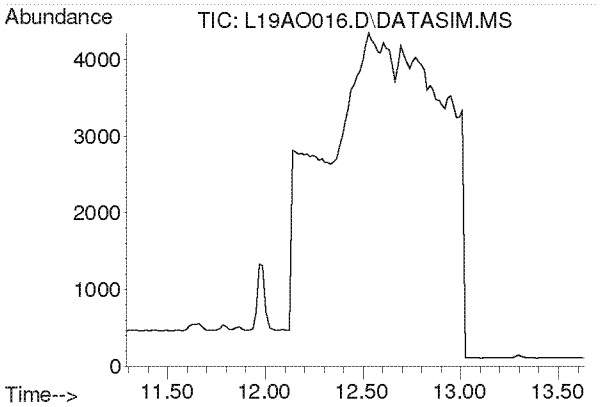
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



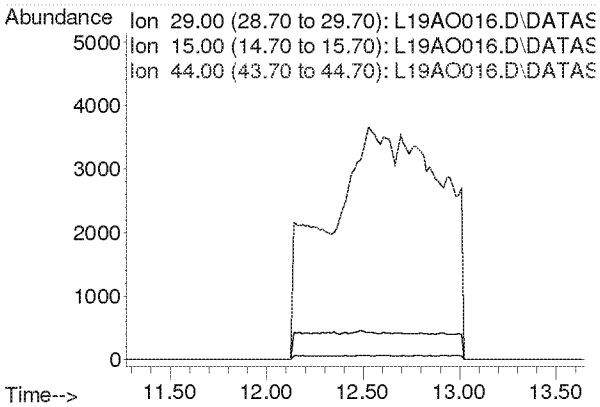


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

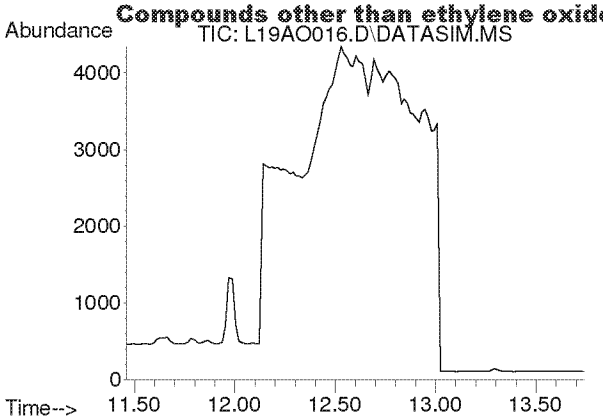
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

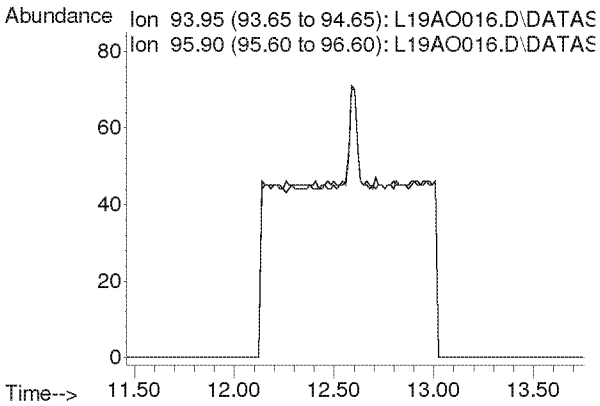


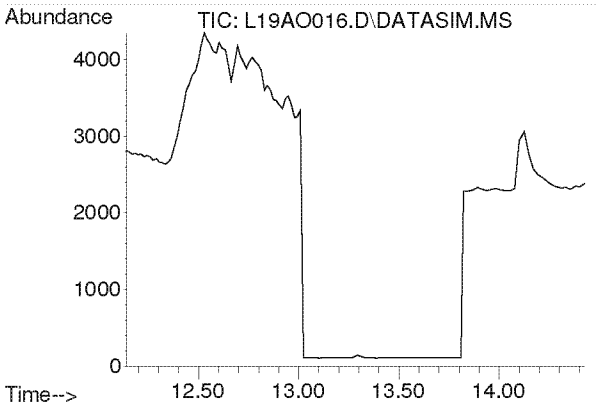
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



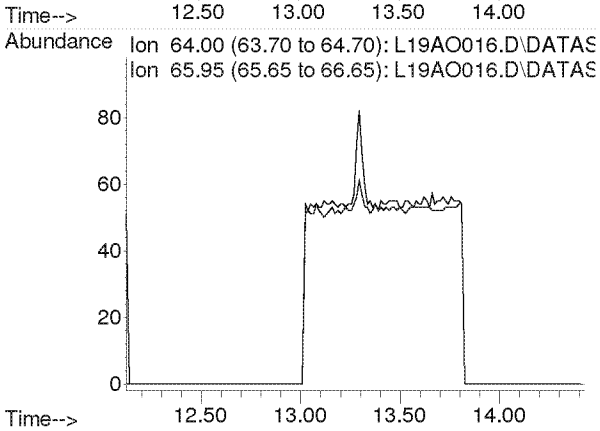


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

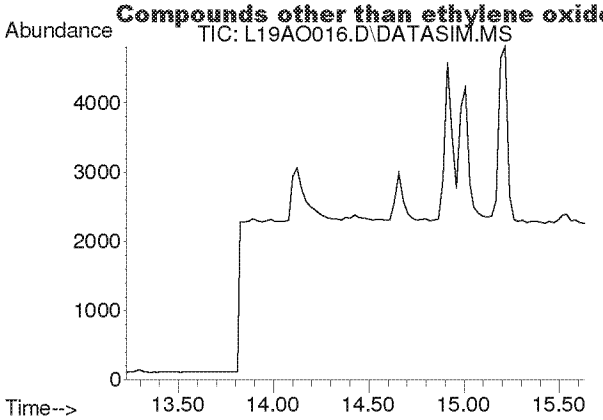
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

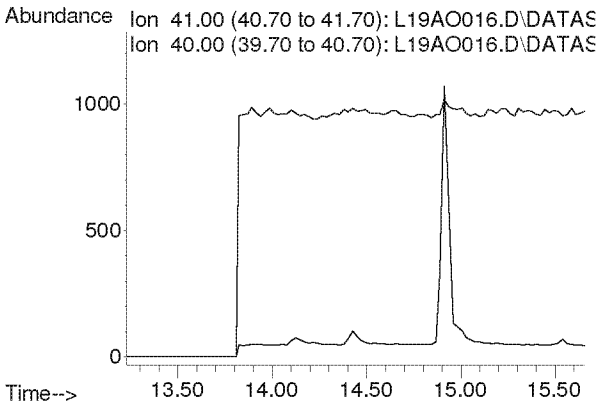


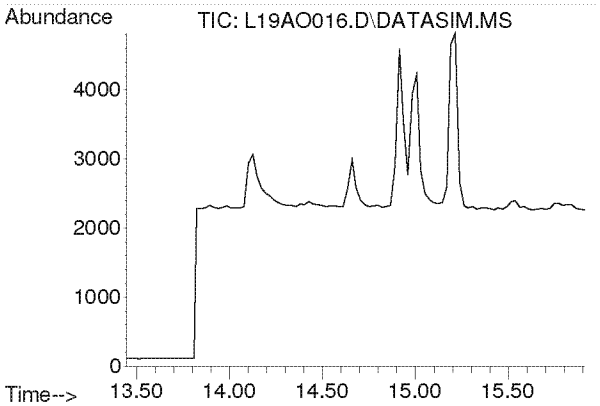
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



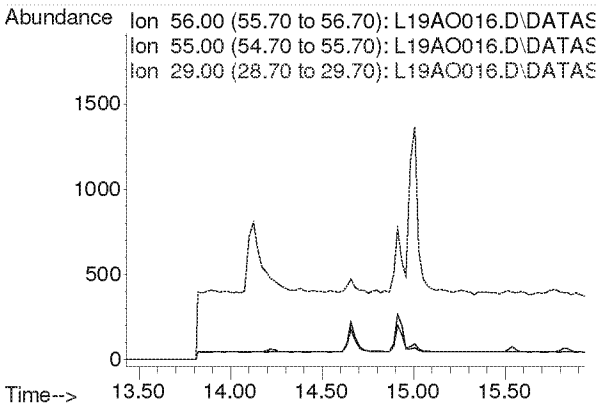


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

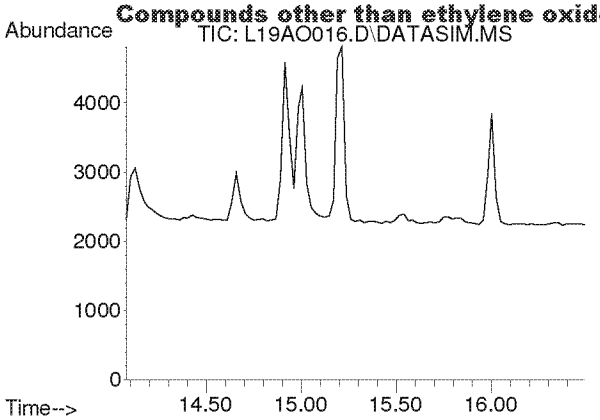
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

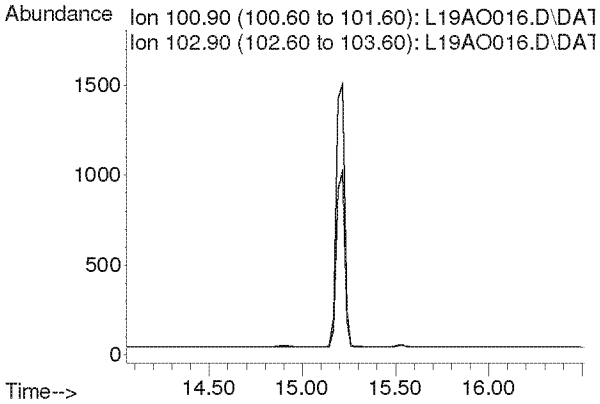


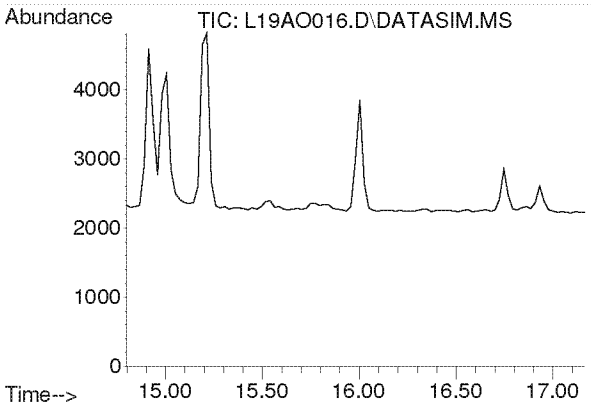
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



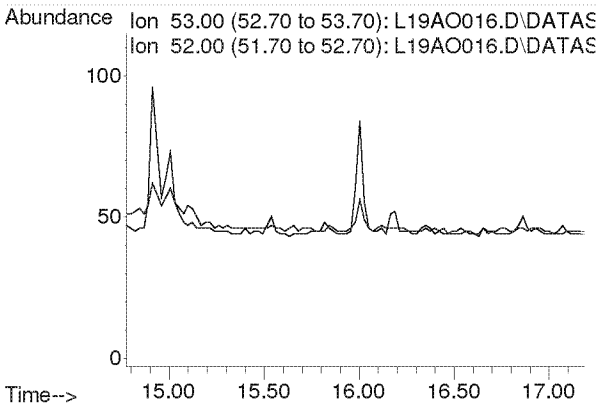


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

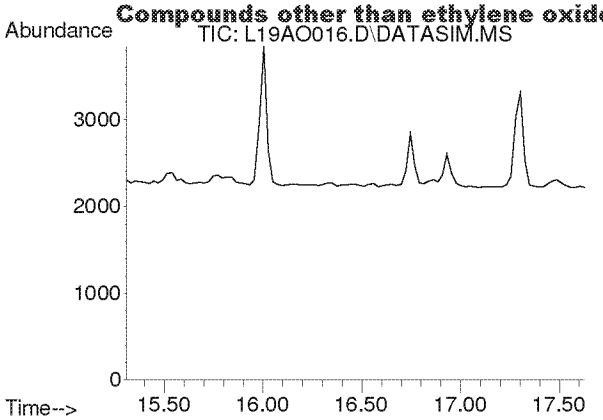
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

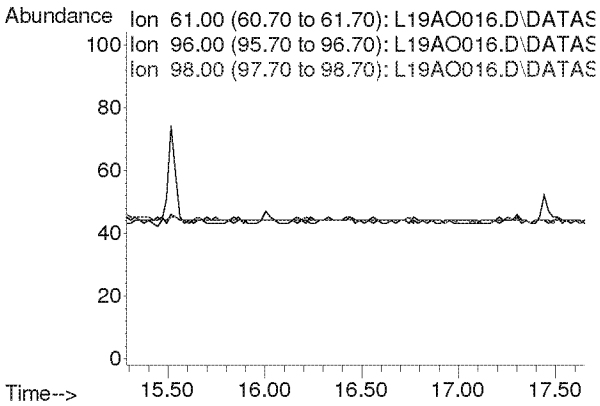


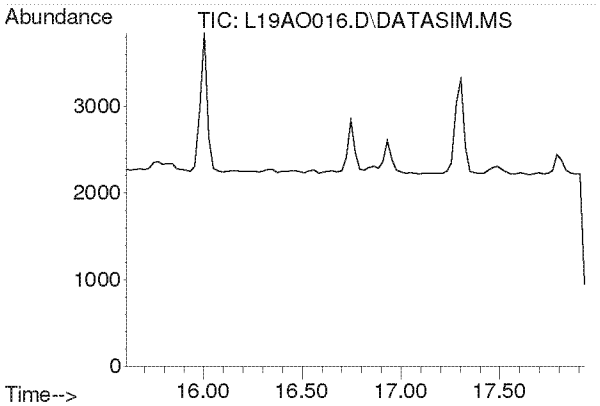
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



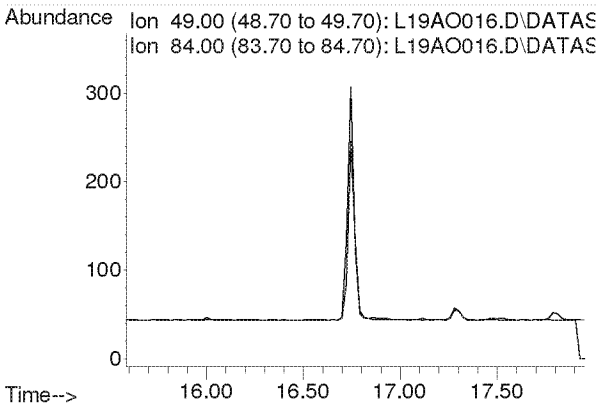


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

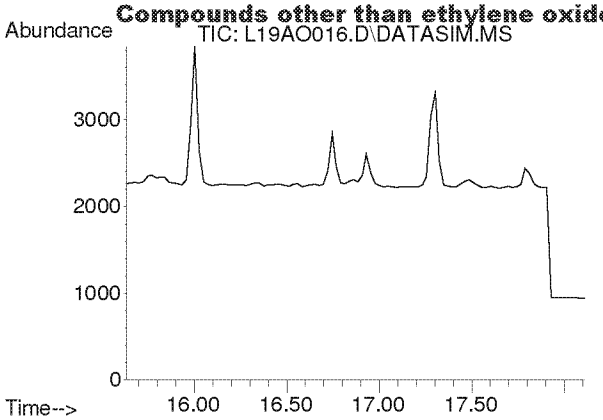
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

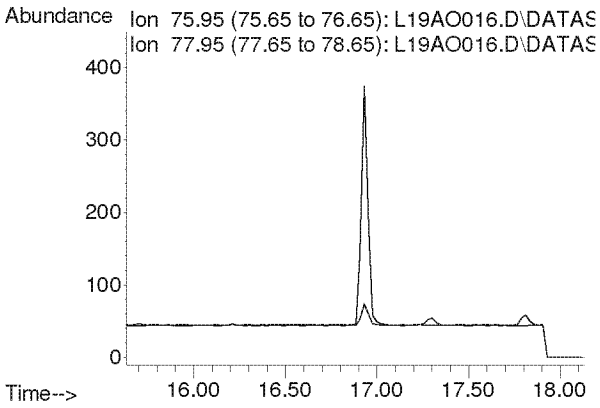


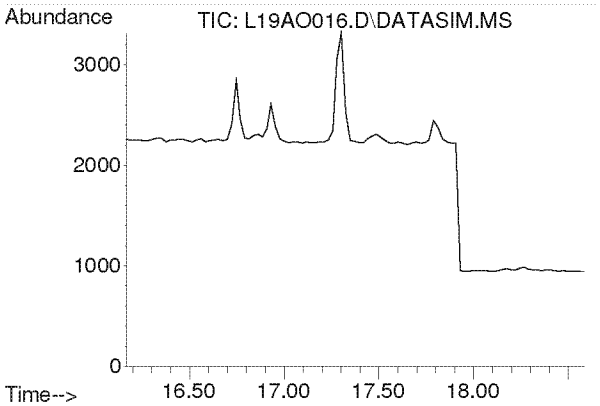
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



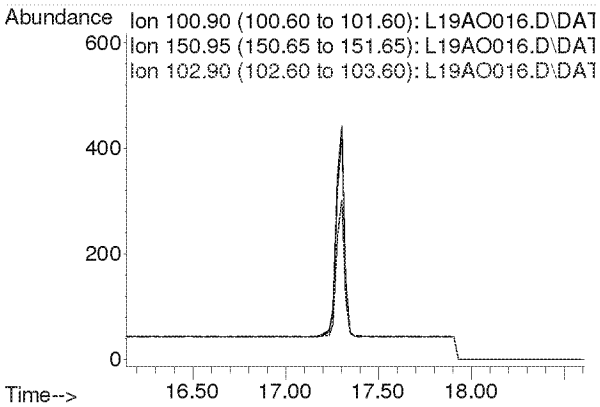


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

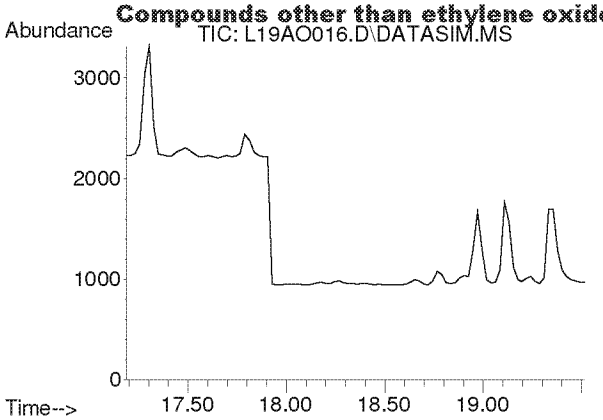
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

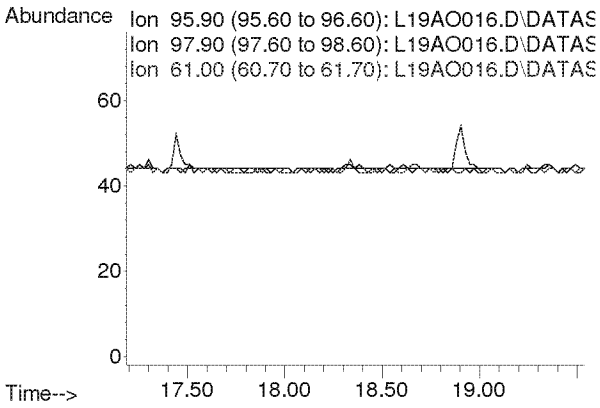


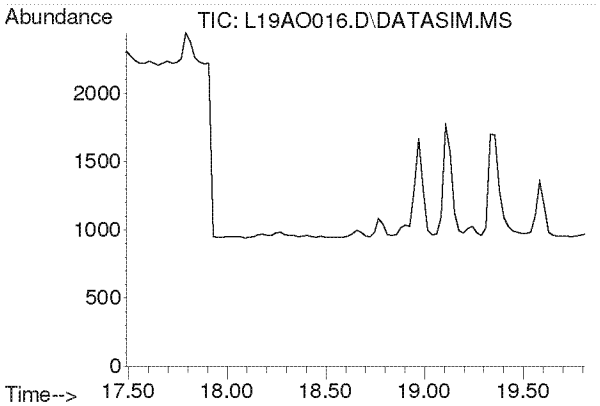
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



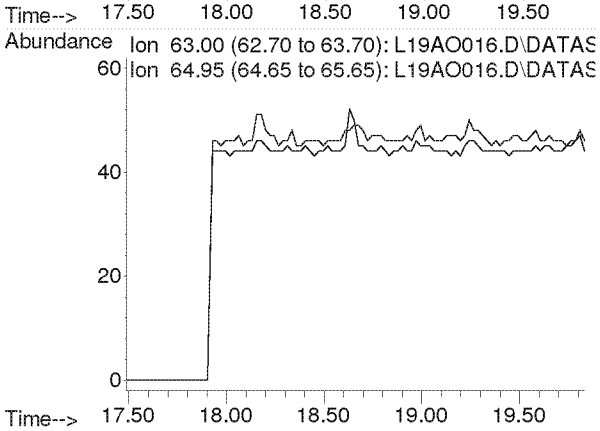


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

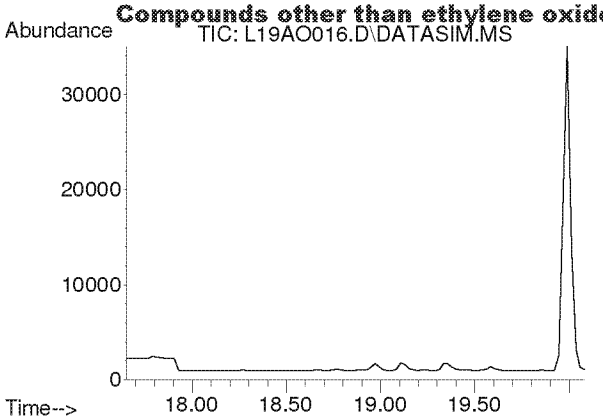
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

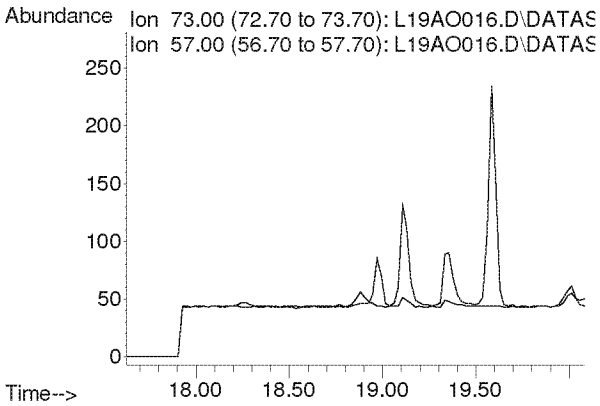


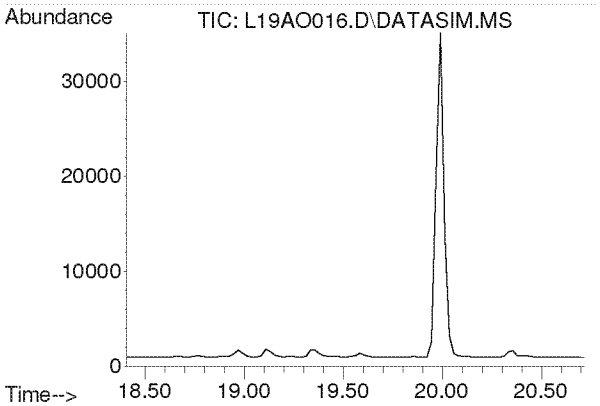
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



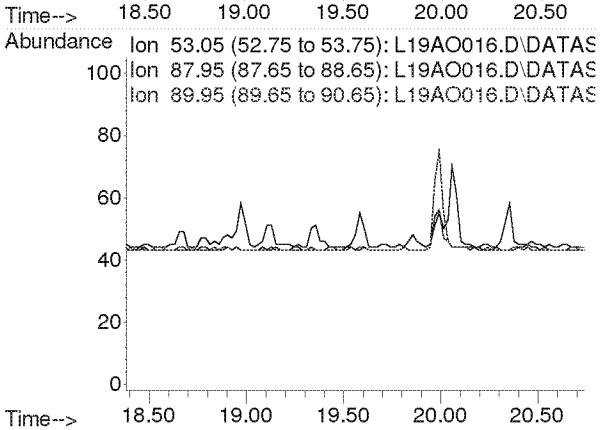


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

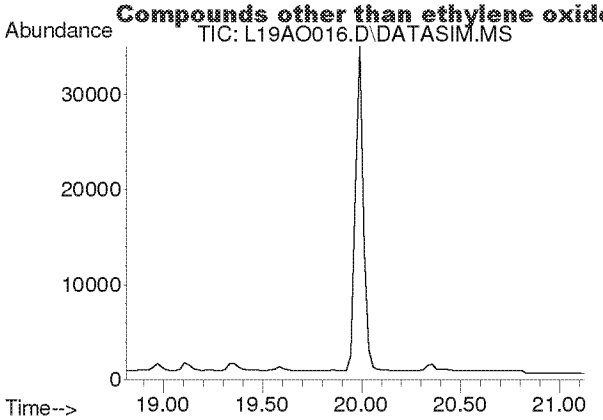
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

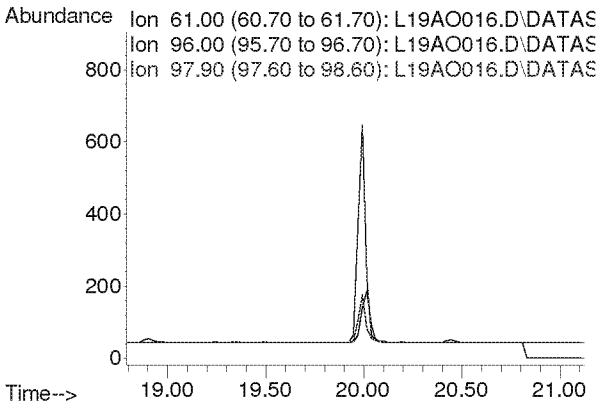


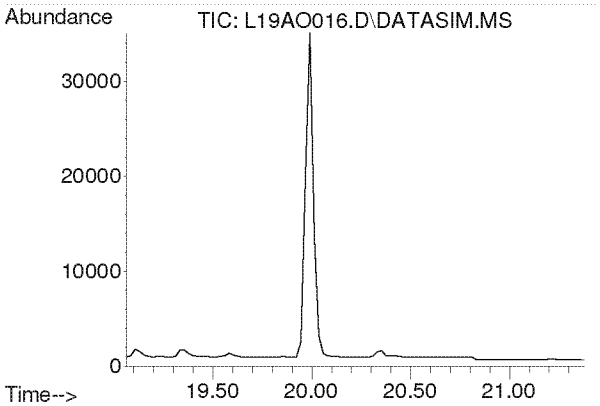
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



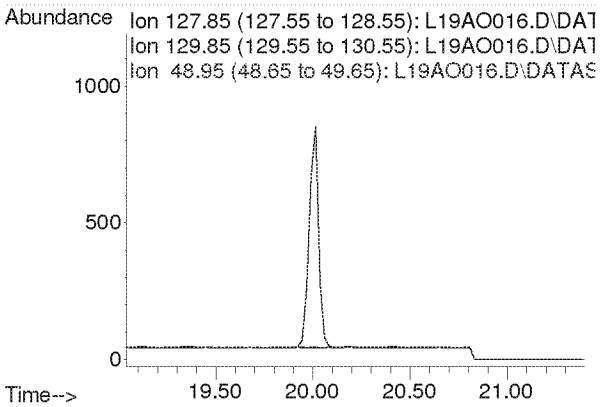


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

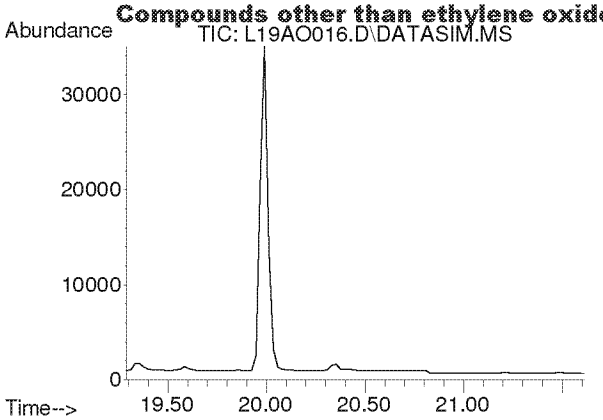
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

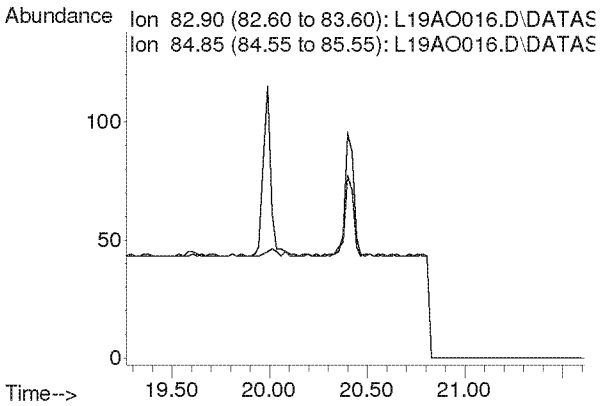


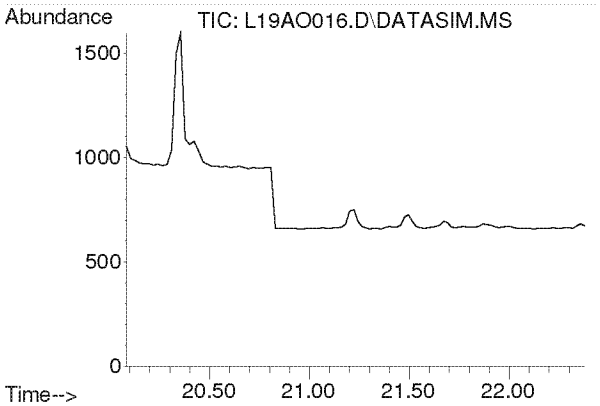
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



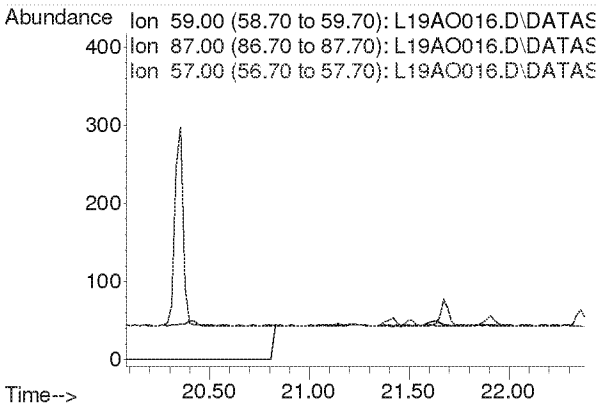


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

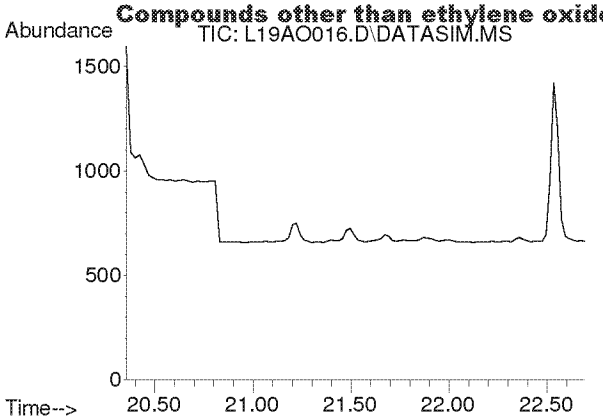
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

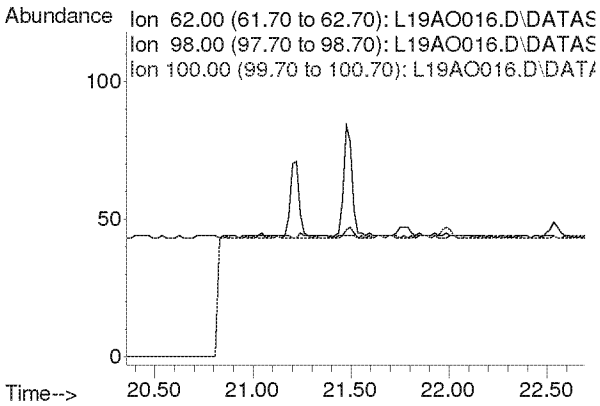


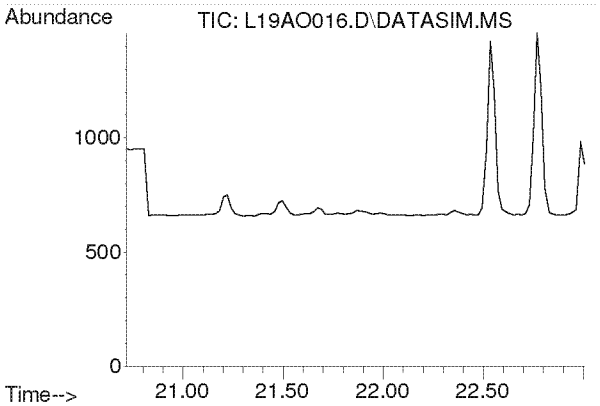
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



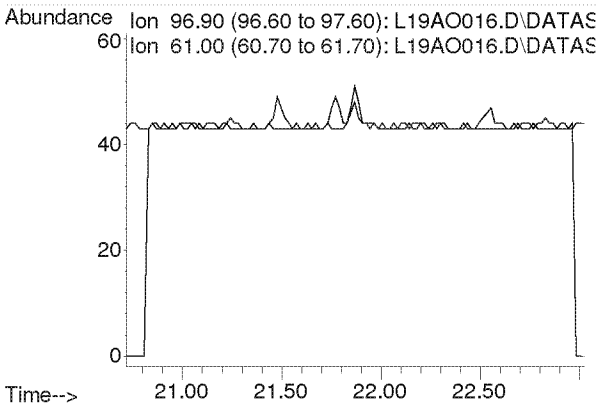


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

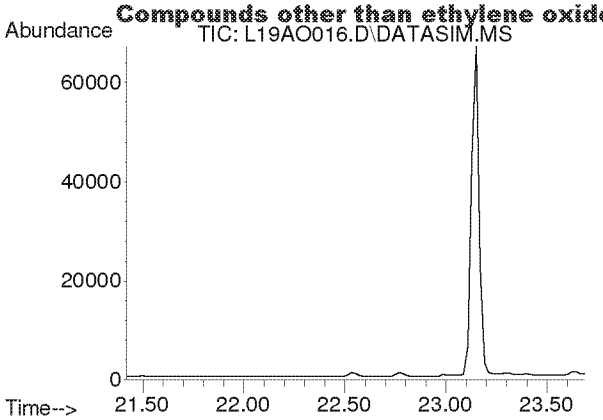
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

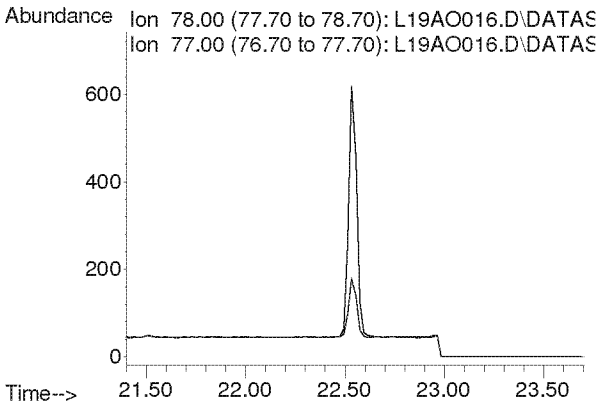


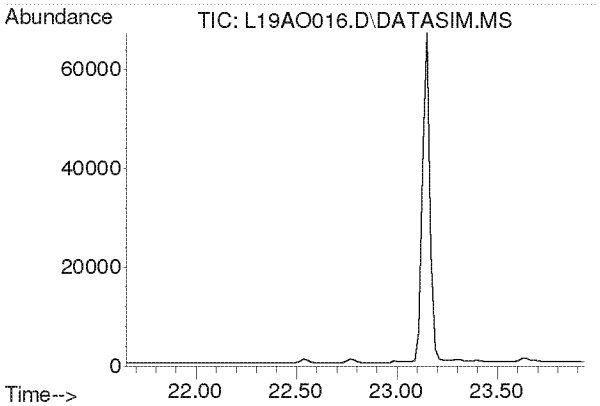
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



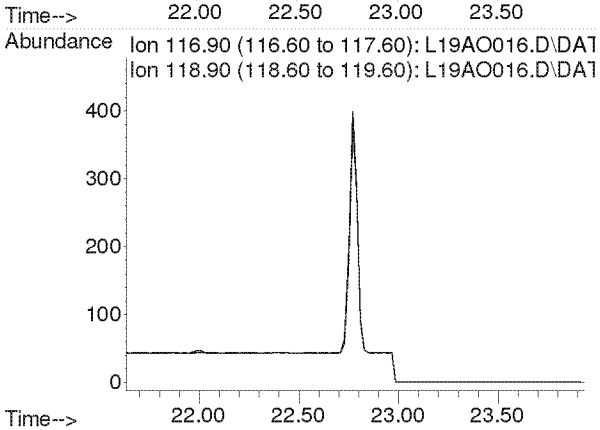


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

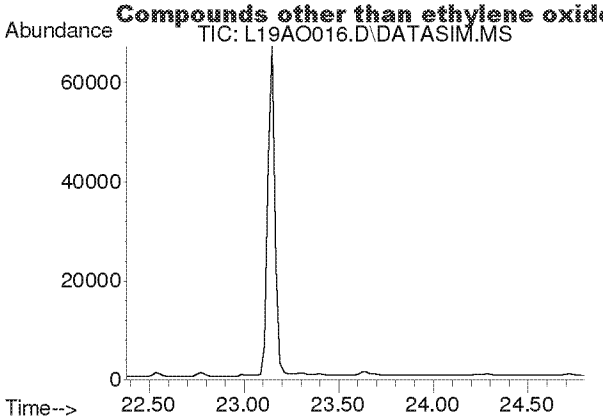
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

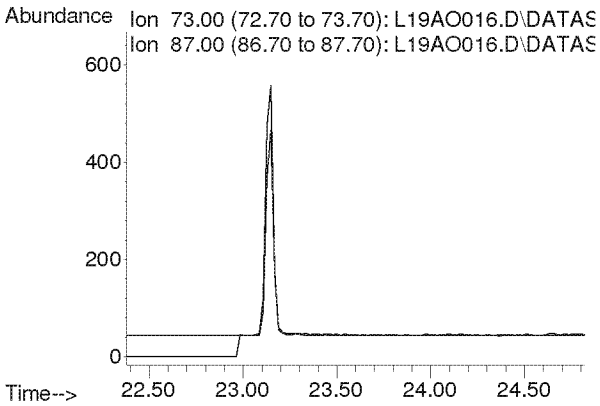


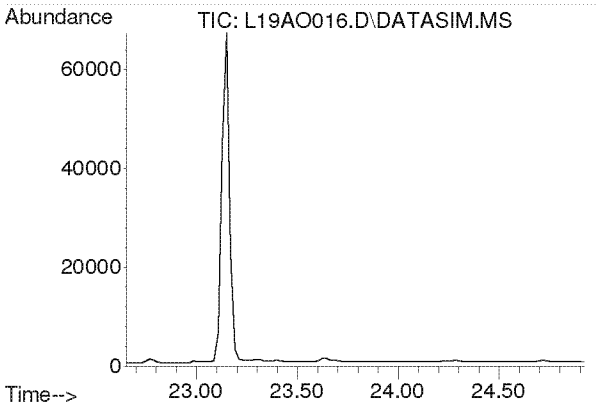
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



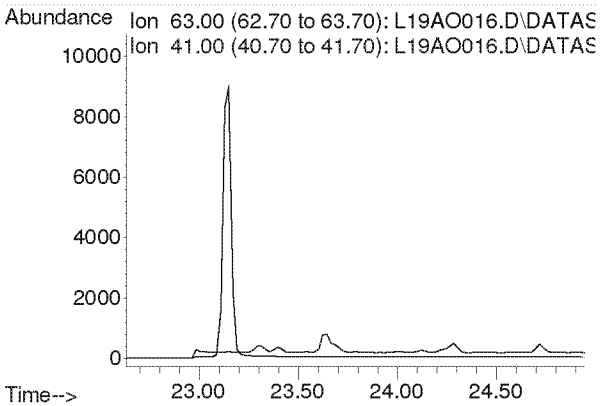


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

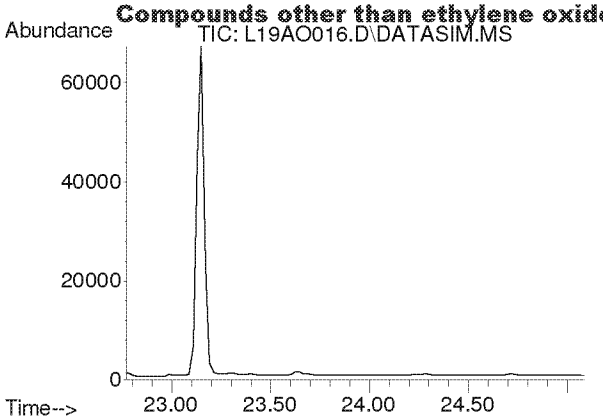
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

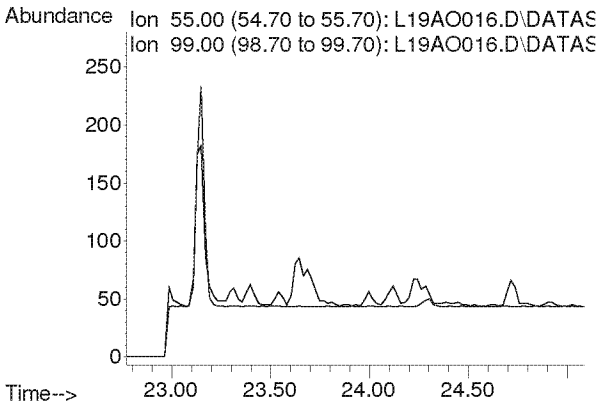


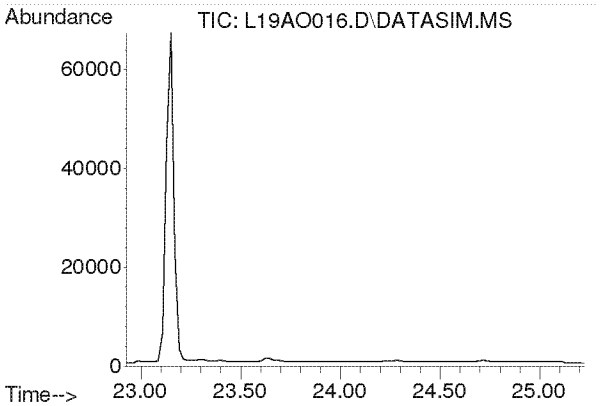
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



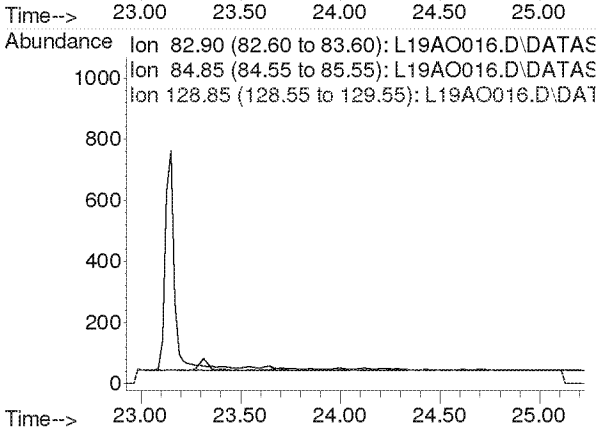


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

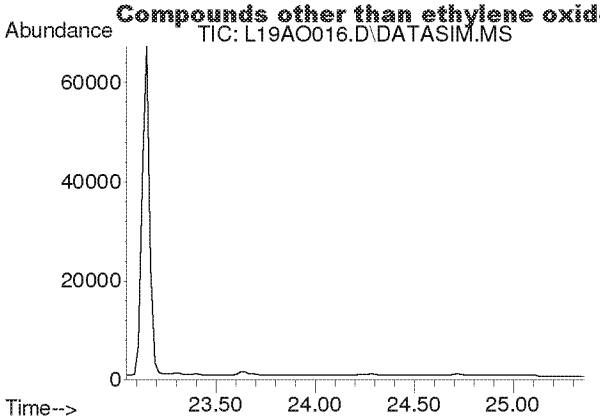
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

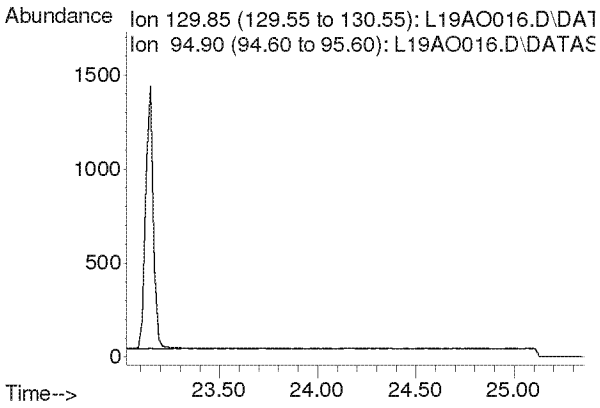


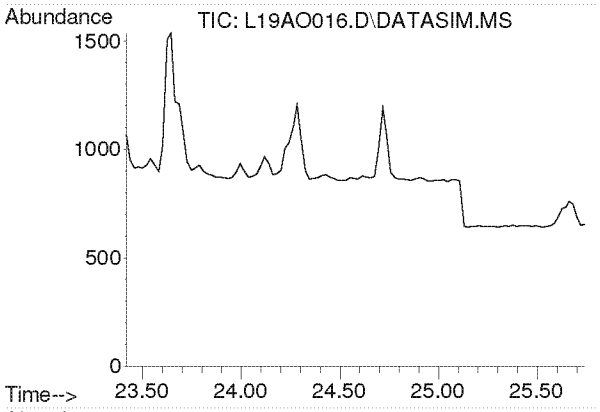
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



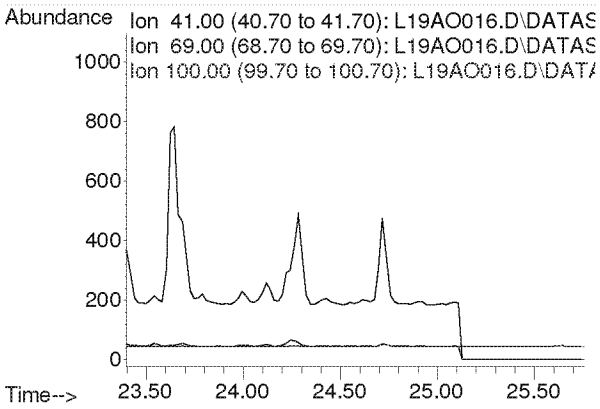


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

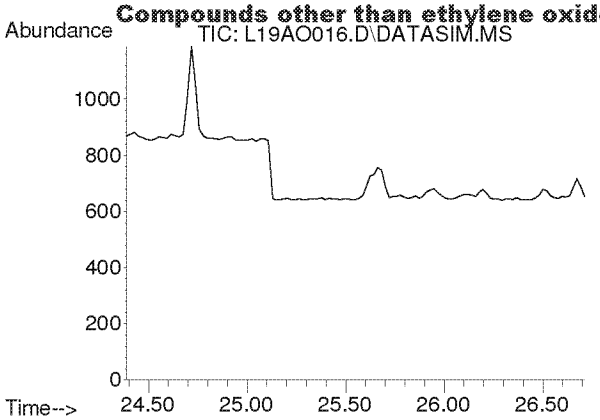
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

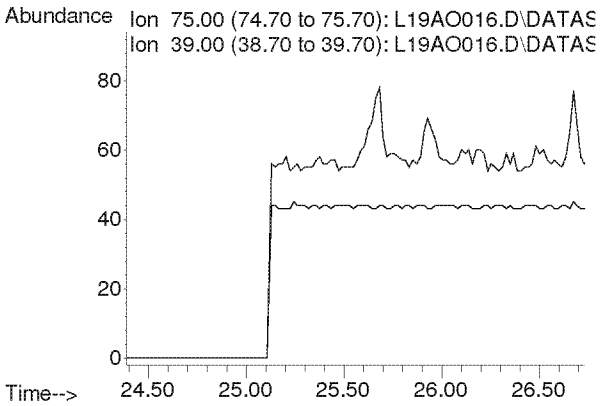


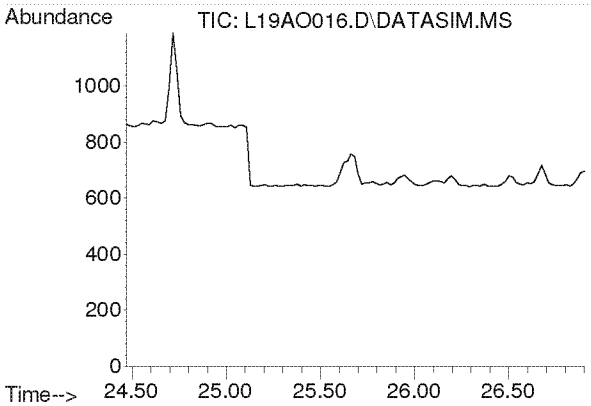
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



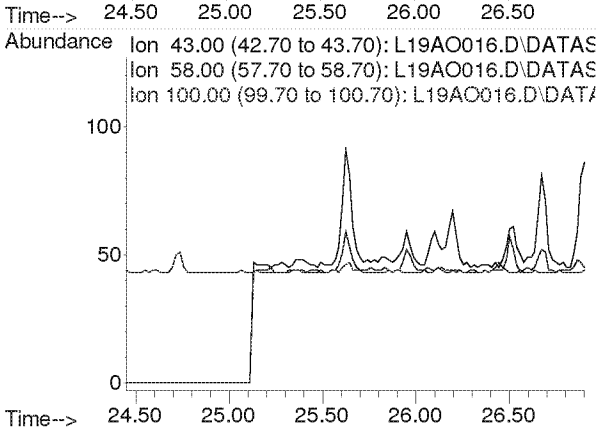


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

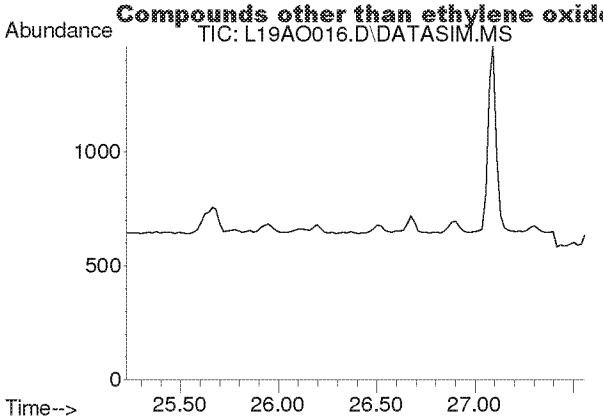
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

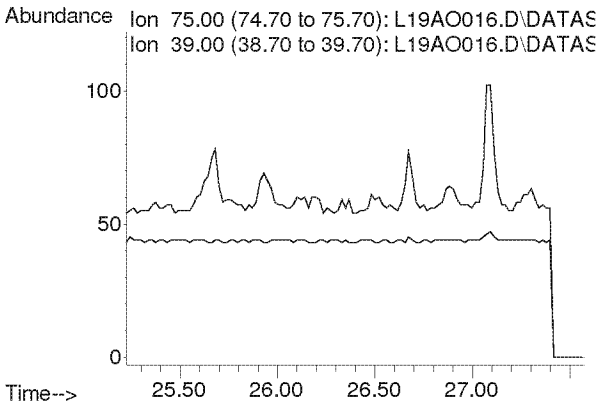


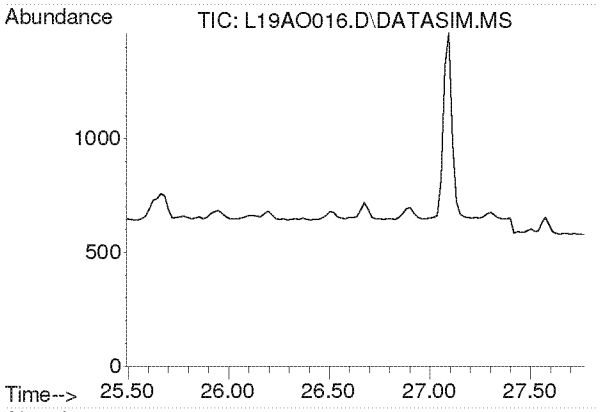
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



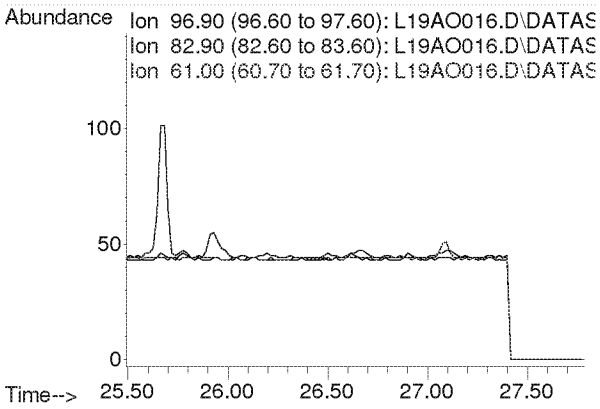


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

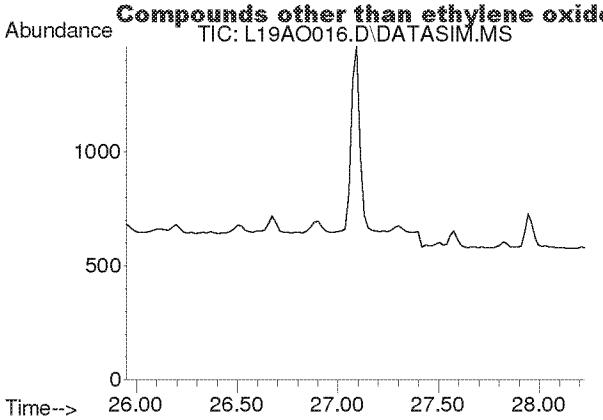
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

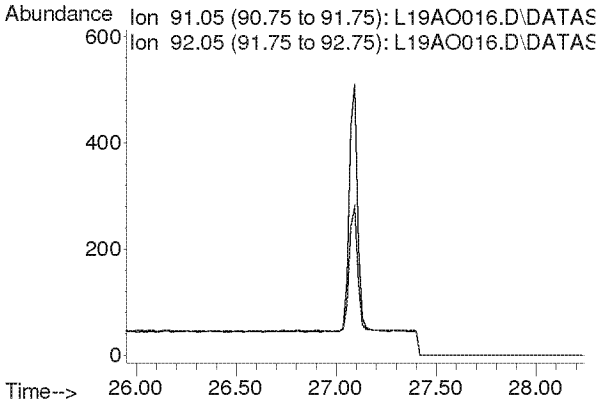


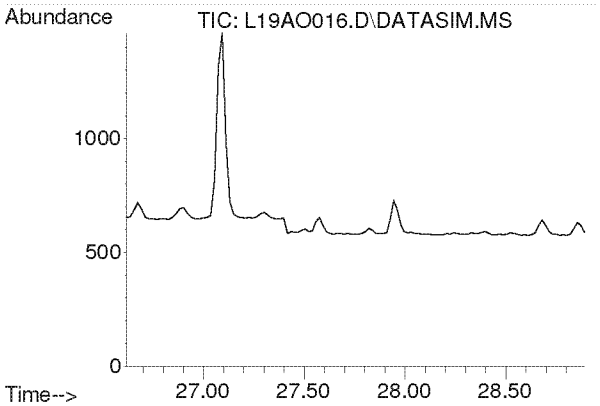
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



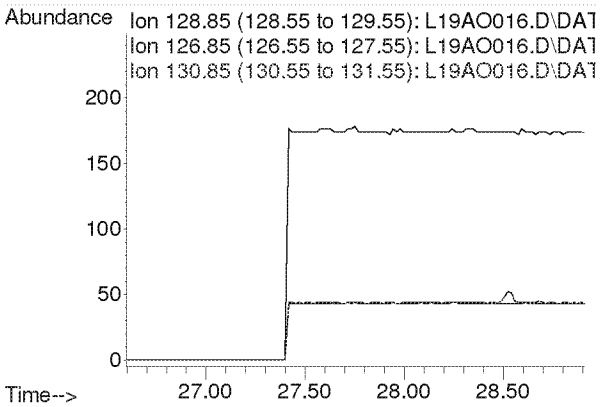


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

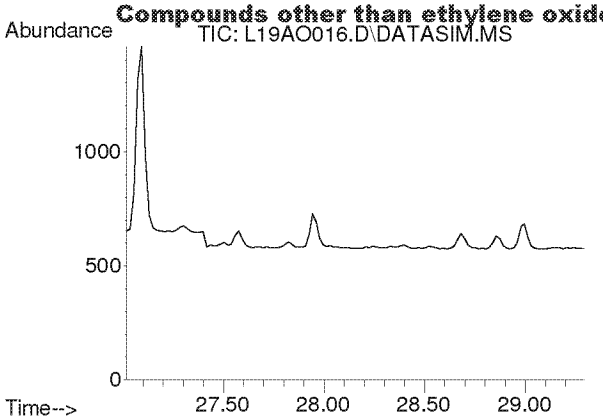
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

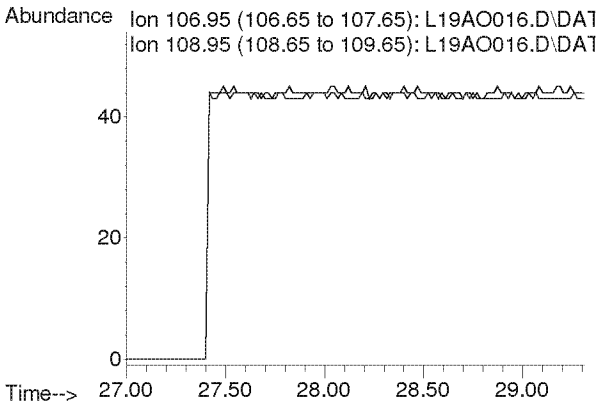


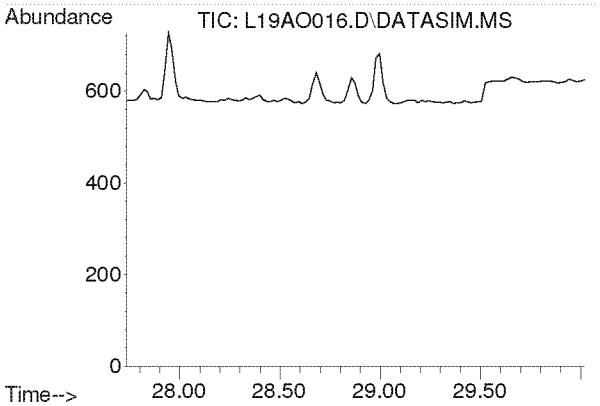
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



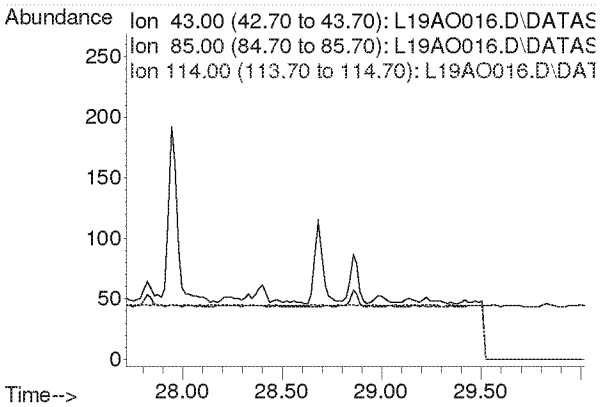


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

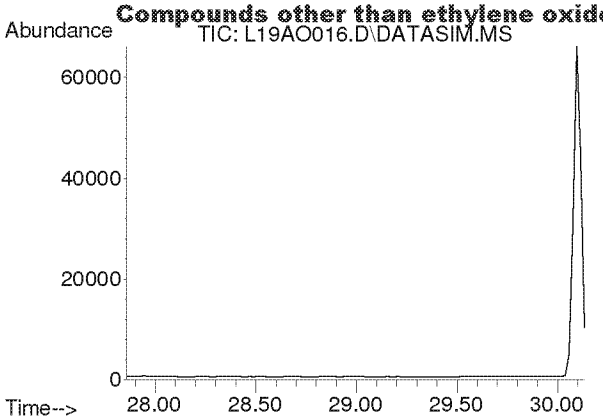
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

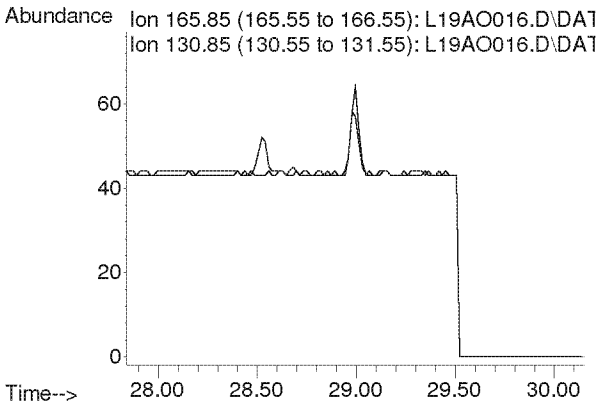


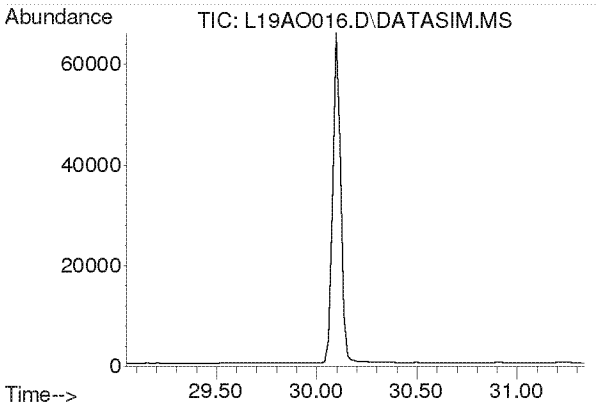
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



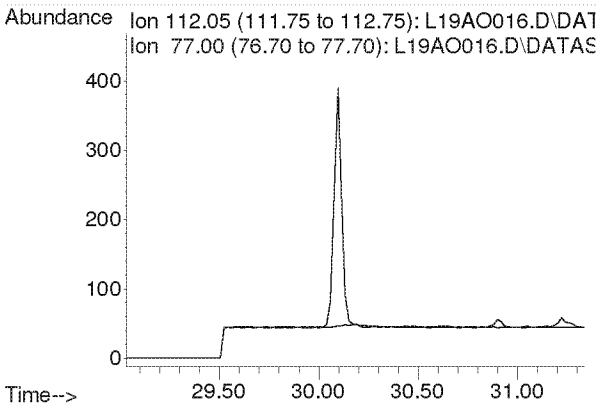


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

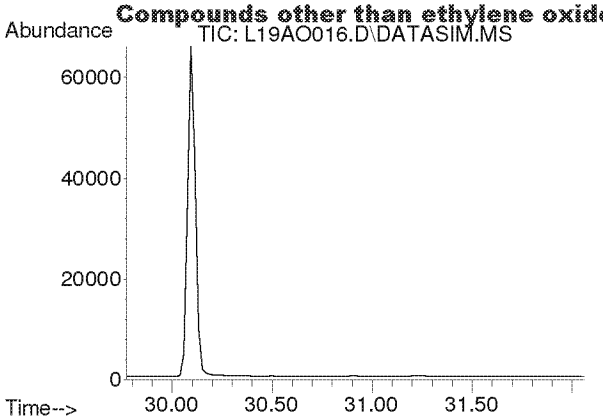
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

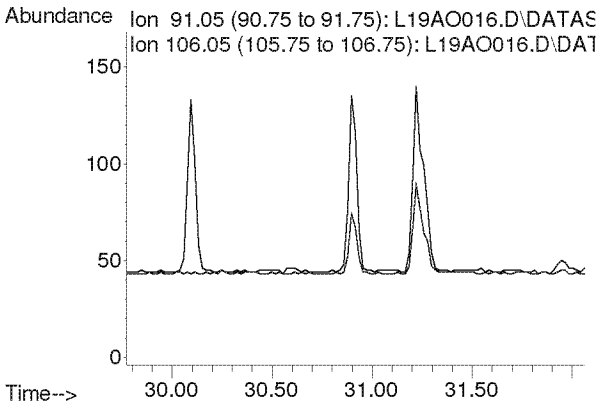


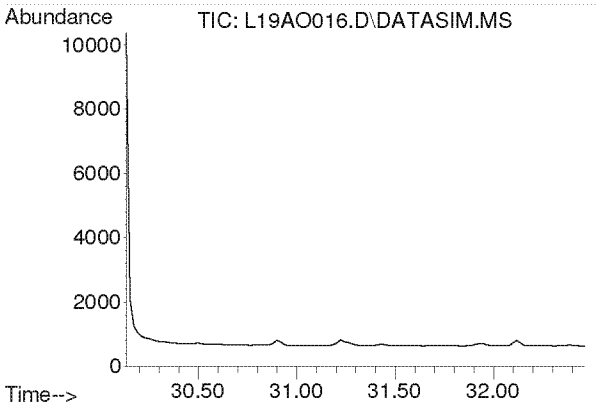
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



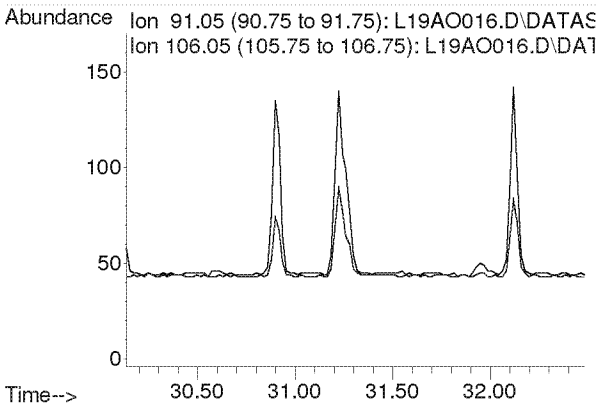


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

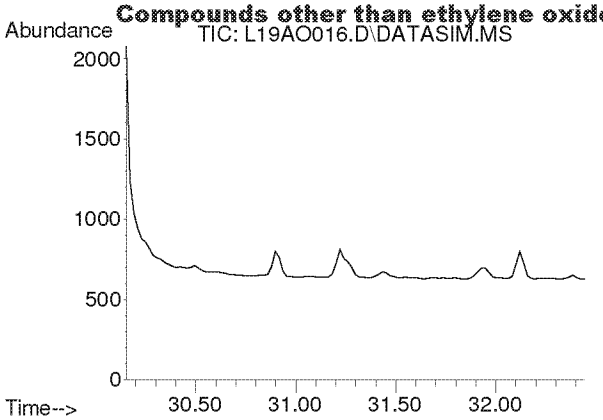
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

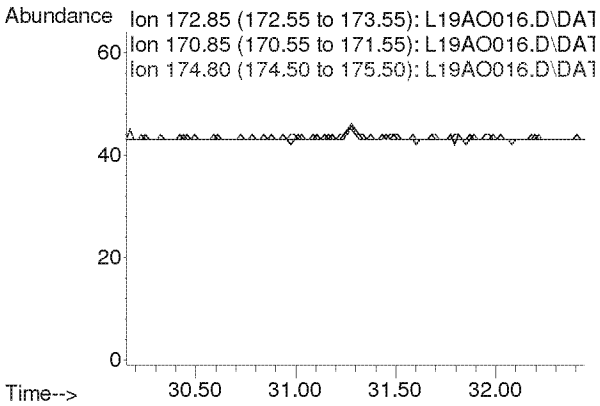


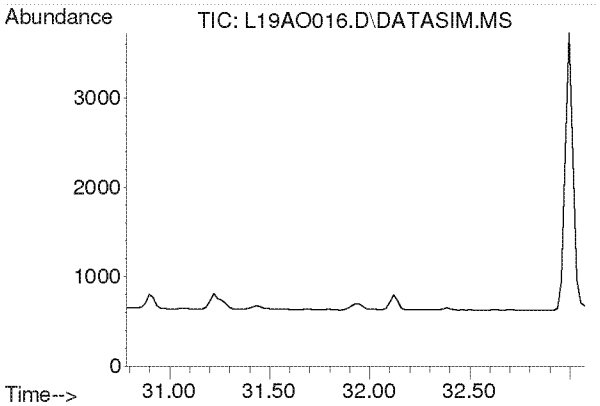
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



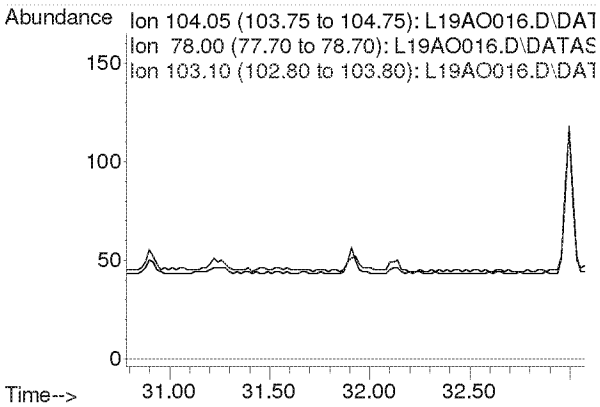


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

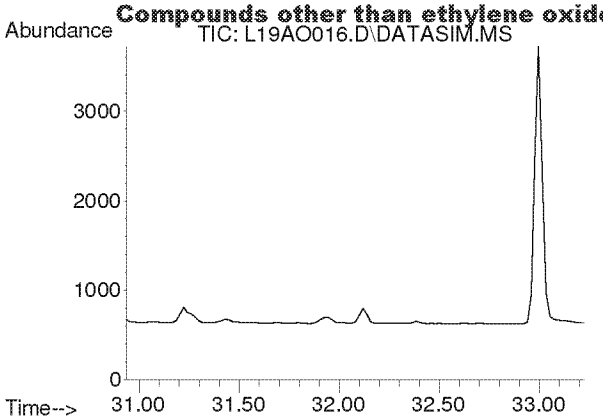
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

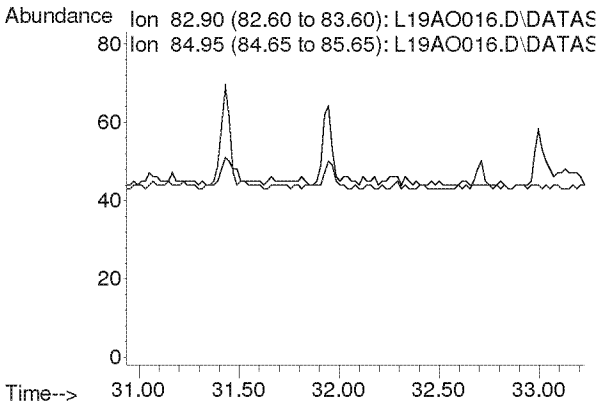


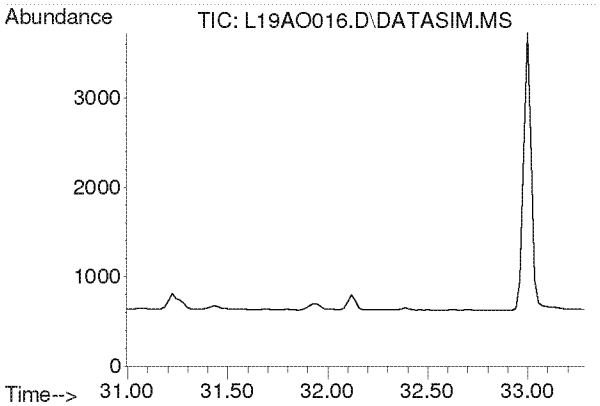
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



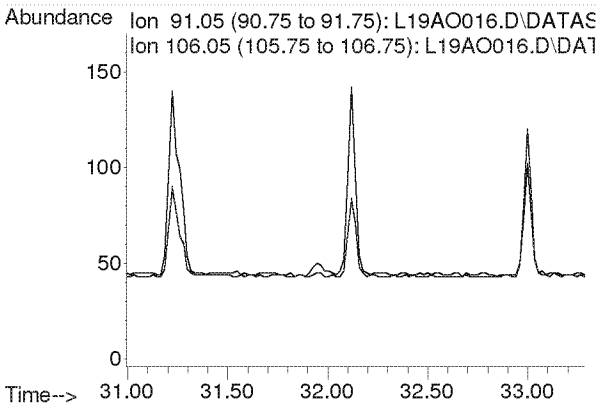


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

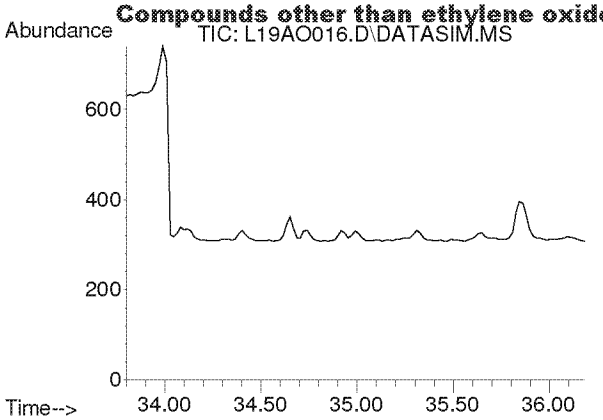
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

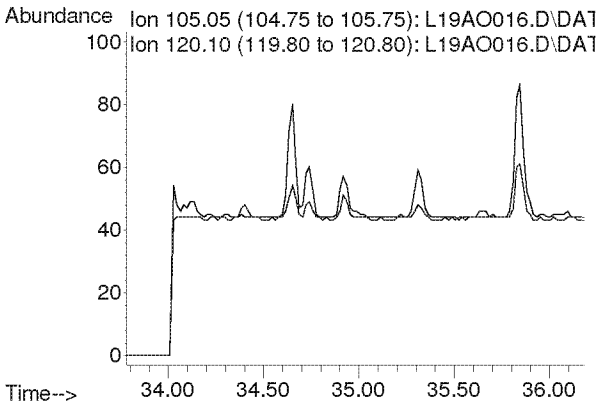


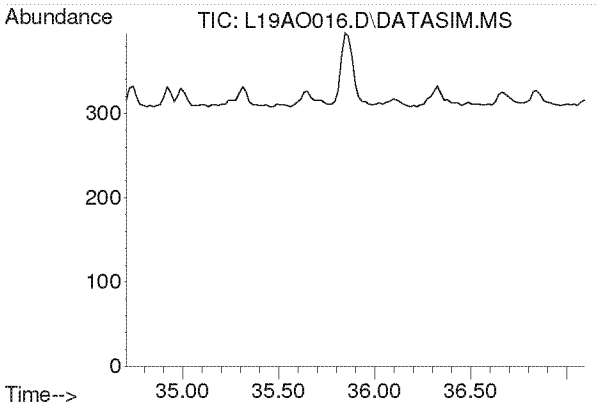
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



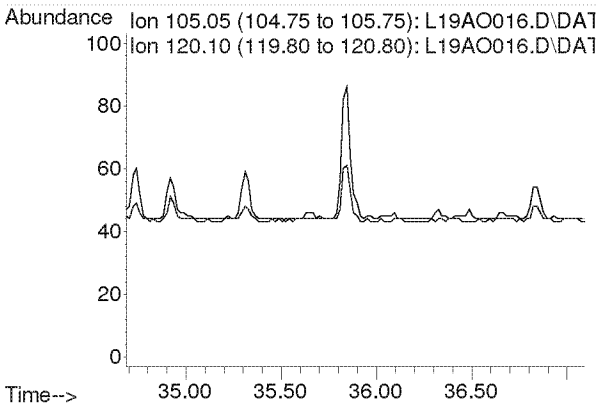


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

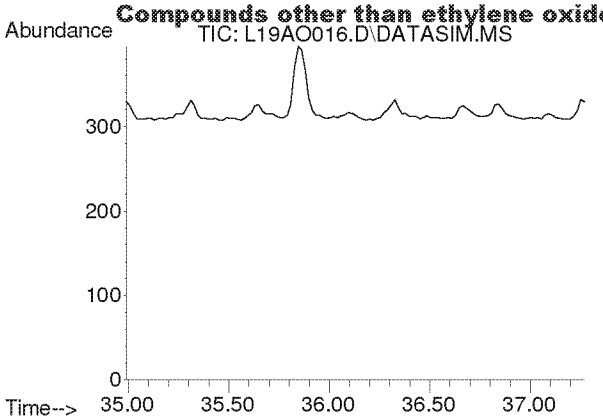
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

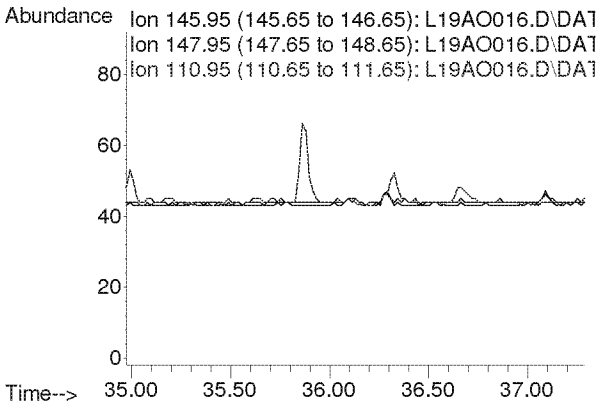


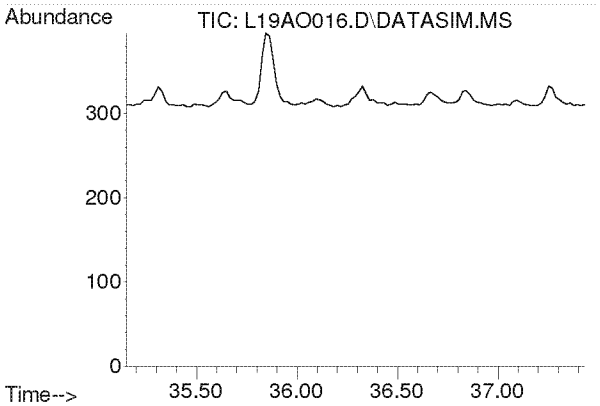
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



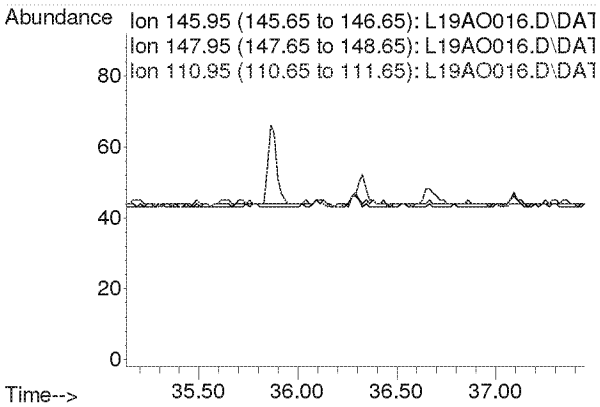


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

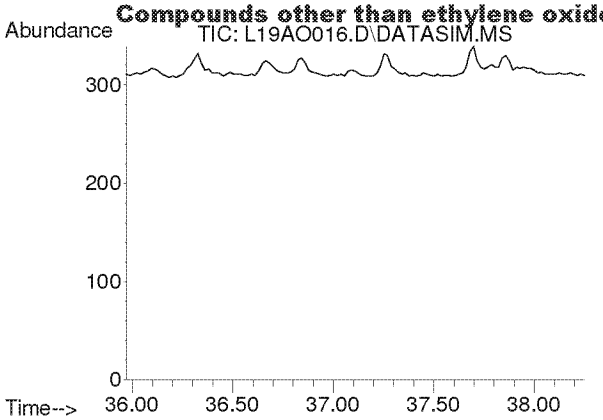
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

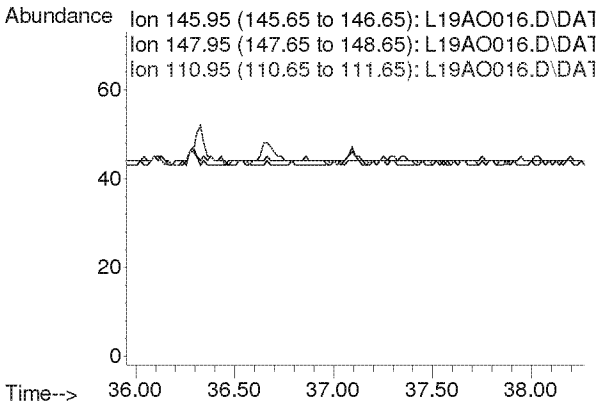


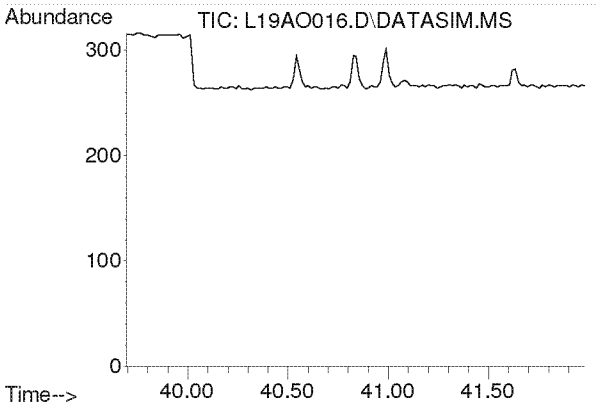
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



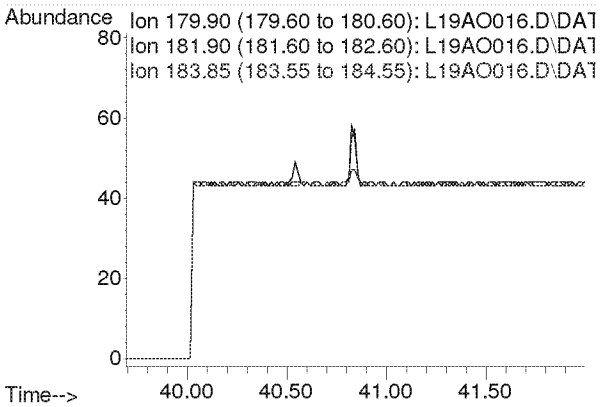


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

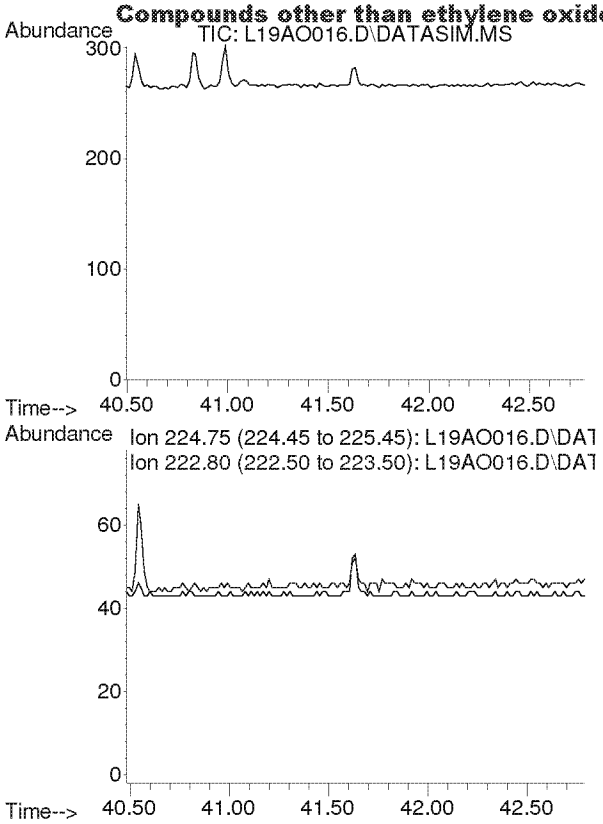
Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19AO016.D
Acq: 16 Jan 2019 12:39 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9A1508

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **'rinted: 1/30/2019 1:35:53PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9010401-01 *TO-15 2019*	01/03/19 11:10	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010401-02 *TO-15 2019*	01/03/19 10:20	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010401-03 *TO-15 2019*	01/03/19 10:02	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010401-04 *TO-15 2019*	01/03/19 09:17	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010401-05 *TO-15 2019*	01/03/19 09:46	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010401-06 *TO-15 2019*	01/03/19 10:56	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010401-07 *TO-15 2019*	01/03/19 09:27	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010401-08 *TO-15 2019*	01/03/19 10:34	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010401-09 *TO-15 2019*	01/03/19 09:17	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010716-01 *TO-15 2019*	01/04/19 10:21	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010716-02 *TO-15 2019*	01/04/19 09:24	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010716-03 *TO-15 2019*	01/04/19 10:52	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010716-04 *TO-15 2019*	01/04/19 09:57	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9010716-06 *TO-15 2019*	01/04/19 11:00	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only

Spiking Witnessed By Date

Randy Bowen 1/30/19
Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9A1508

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **'rinted: 1/30/2019 1:35:53PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9010716-07 *TO-15 2019*	01/04/19 09:46	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
B9A1508-BLK1	01/11/19 08:00	250	250				t-h2-540	
B9A1508-DUP1	01/03/19 09:17	250	250		9010401-04			
B9A1508-DUP2	01/03/19 09:17	250	250		9010401-09			

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

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 # 9010401-01

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: West Neighborhood
Canister Number: A21107
City/State: Willowbrook IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-527
Collection Date: 1/2/2019
Date Can. Cleaned: 12/30/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: LR
Date: 12/26/18

Field Setup

Received by: M. Compher
Date: 1/2/19
Operator: M. Compher
MFC Setting:
System #: 10310
Elapsed Timer Reset (Y/N):
Setup Date: 1/2/19
Canister Valve Opened (Y/N): Y @ 10:53
Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/3/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -3 psig psia "Hg (Circle one)
Status: **VALID** **VOID** (Circle one)
Canister Valve Closed (Y/N): [illegible]
Relinquished by: C. Cummings
Date: 1/3/19

Lab Recovery

Received by: LC
Date: 1/4/19
Lab Final Can. Press.: 2.5 psig "Hg (Circle one)
Converted to psia:
Status: **VALID** **VOID** (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: leak check @ -28.5 @ 10:45, -28.5 @ 10:53
Ambient temperature @ deployment = 31°F
Ambient temperature @ collection = 25°F
MJC

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

3

ERG Lab ID # 9010401-02

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willow Pond Park
Canister Number: A21067
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-526
Collection Date: 1/2/19
Date Can. Cleaned: 12/19/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: KR
Date: 12/26/18

Field Setup

Received by: C. Cummings
Date: 1/2/19
Operator: C. Cummings
MFC Setting:
System #: 10294
Elapsed Timer Reset (Y/N):
Setup Date: 1/2/19
Canister Valve Opened (Y/N): Y @ 10:18
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/3/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: psig psia "Hg (Circle one)
Status: **VALID** **VOID** (Circle one)
Canister Valve Closed (Y/N): Y @ 10:18
Relinquished by: C. Cummings
Date: 1/3/19

Lab Recovery

Received by: BHC
Date: 1-4-19
Lab Final Can. Press.: 2.5 psig "Hg (Circle one)
Converted to psia:
Status: **VALID** **VOID** (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check 10:12 -29 @ 10:19
Field Setup 31°F Field Recovery 25°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9010401-03

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Water Tower
Canister Number: A21097
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-527
Collection Date: 1/2/19
Date Can. Cleaned: 12/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: WR
Date: 12/26/18

Field Setup

Received by: C. Cummings
Date: 1/2/19
Operator: C. Cummings
MFC Setting:
System #: 10312
Elapsed Timer Reset (Y/N):
Setup Date: 1/2/19
Canister Valve Opened (Y/N): Y @ 10:05
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/3/19
Sample Duration (3 or 24 hr): 24 hr
Operator: M. Compher
Elapsed Time:
Field Final Can. Press.: -3 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:02
Relinquished by: M. Compher
Date: 1/3/19

Lab Recovery

Received by: BHC
Date: 1-4-19
Lab Final Can. Press.: 2.0 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check -21 @ 10:00am, -29 @ 10:05am
Field Setup 31°F, Field Recovery 25°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9010401-04

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA WB Warehouse Duplicate

Canister Number: SAT091

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 30

AQS Code:

Cleaning Batch # : H1-527

Collection Date: 1/2/19

Date Can. Cleaned: 12/20/18

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): Y

TOXICS (Y/N): Y

Duplicate Can # : SAT007

METHANE (Y/N):

Relinquished by: KL

Date: 12/26/18

Field Setup

Received by: C Cummings

Date: 1/2/19

Operator: C Cummings

MFC Setting:

System #: 10315

Elapsed Timer Reset (Y/N):

Setup Date: 1/2/19

Canister Valve Opened (Y/N): Y @ 09:21

Field Initial Can. Press.: -29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/3/19

Sample Duration (3 or 24 hr): 24

Operator: M. Cumpher

Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ [illegible]

Relinquished by: M. Cumpher

Date: 1/3/19

Lab Recovery

Received by: BHC

Date: 1-4-19

Lab Final Can. Press.: 3.5 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check -30 @ 09:18, -29 @ 09:23, -29 @ 09:28

Field Setup 31°F, Field Recovery 25° F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9010401-09

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA WB Warehouse

Canister Number: SATCC7

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 30

AQS Code:

Cleaning Batch # : H1527

Collection Date: 1/2/19

Date Can. Cleaned: 12/20/18

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): y

TOXICS (Y/N): y

Duplicate Can # : SAT 071

METHANE (Y/N):

Relinquished by: KR

Date: 12/26/18

Field Setup

Received by: C. Cummings

Date: ~~12~~ 1/2/19

Operator: C. Cummings

MFC Setting:

System #: 10319

Elapsed Timer Reset (Y/N):

Setup Date: 1/2/19

Canister Valve Opened (Y/N): y @ 07:27

Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/3/19

Sample Duration (3 or 24 hr): 24 hr

Operator: M. Compher

Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 07:17

Relinquished by: M. Compher

Date: 1/3/19

Lab Recovery

Received by: BHC

Date: 1-4-19

Lab Final Can. Press.: 2.0 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check -30 @ 09:18, -30 @ 09:28

Field Setup: 51°F Field Recovery 25°C

Field Collection Temp = 25°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Lab ID # 9010401-05

ERG
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601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower MS
Canister Number: A21078
City/State: Bear Ridge, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-527
Collection Date: 1/2/19
Date Can. Cleaned: 12/30/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: WK
Date: 12/26/18

Field Setup

Received by: C. Cummings
Date: 1/2/19
Operator: C. Cummings
MFC Setting:
System #: 10311
Elapsed Timer Reset (Y/N):
Setup Date: 1/2/19
Canister Valve Opened (Y/N): Y @ 09:53
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/3/19
Sample Duration (3 or 24 hr): 24 hr
Operator: M. Compher
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 09:46
Relinquished by: M. Compher
Date: 1/3/19

Lab Recovery

Received by: BHC
Date: 1-4-19
Lab Final Can. Press.: 2.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check -30 @ 09:48 -30 @ 09:53
Field Setup 31°F, Field Recovery 25°C

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated. 1/4/~~18~~ 19 NL 1/4/19 NL

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # ~~8~~ 9010401-06

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower ES
Canister Number: 5059
City/State: Willowbrook IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-527
Collection Date: 1/2/19
Date Can. Cleaned: 12/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: ER
Date: 12/26/18

Field Setup

Received by: M. Compher
Date: 1/2/19
Operator: M. Compher
MFC Setting:
System #: 10293
Elapsed Timer Reset (Y/N):
Setup Date: 1/2/19
Canister Valve Opened (Y/N): Y @ 10:42 am
Field Initial Can. Press.: -28.5 mm psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/3/19
Sample Duration (3 or 24 hr):
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -4 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): y @ 10:56
Relinquished by: C Cummings
Date: 1/3/19

Lab Recovery

Received by: BHc
Date: 1-4-19
Lab Final Can. Press.: 4.0 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: leak check @ -28.5 @ 10:37 am, -28.5 @ 10:42
Ambient temp @ deployment = 31°F
Ambient temp @ collection = 25°F
MSL ✓

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9010401-07

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WB Village Hill
Canister Number: 5072
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : HI-527
Collection Date: 1/2/19
Date Can. Cleaned: 12/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: LR
Date: 12/26/18

Field Setup

Received by: C Cummings
Date: 1/2/19
Operator: C. Cummings
MFC Setting:
System #: 10313
Elapsed Timer Reset (Y/N):
Setup Date: 1/2/19
Canister Valve Opened (Y/N): Y @ 09:40
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: [illegible]
Sample Duration (3 or 24 hr): 24
Operator: [illegible]
Elapsed Time:
Field Final Can. Press.: psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): [illegible]
Relinquished by: [illegible]
Date: [illegible]

Lab Recovery

Received by: BHC
Date: 1-4-19
Lab Final Can. Press.: 3.0 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -29 @ 09:35, -29 @ 09:40
Field Setup 31°F, Field Recovery 25°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9010401-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Hinsdale South HS

Canister Number: SAT 138

City/State: Darien IL

Lab Initial Can. Press. ("Hg): 30

AQS Code:

Cleaning Batch # : HI-526

Collection Date: 1/2/19

Date Can. Cleaned: 12/19/18

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # : —

METHANE (Y/N):

Relinquished by: KR

Date: 12/26/18

Field Setup

Received by: M. Compher

Date: 1/2/18

Operator: M. Compher

MFC Setting:

System #: 10076

Elapsed Timer Reset (Y/N):

Setup Date: 1/2/19

Canister Valve Opened (Y/N): Y @ 10:30

Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/3/19

Sample Duration (3 or 24 hr): 24

Operator: C. Cummings

Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 10:34

Relinquished by: C. Cummings

Date: 1/3/19

Lab Recovery

Received by: BHC

Date: 1-4-19

Lab Final Can. Press.: 4.0 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: leak check @ 10:24 -28.5, -28.5 @ 10:30

Ambient temp at deployment = 31°F

Ambient temp @ collection = 25°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy