Compounds other than ethylene oxide were not quantitated.

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

Sequence ID:	L19CE 1903014	**Instrument:**	MS1	**Batch:**	190507
Cal Curve (Method):	9020023	**Analyst:**	MAH	**Date Analyzed:**	3-5-19
10% Review Sample IDs:		**Reviewer:**		**Date:**	
Optional Additional Review Sample IDs:		**Reviewer:**		**Date:**	

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
BFB Instrument Tune Performance Check – one per analysis sequence	Evaluation criteria presented in Section 16.1.1	3-6-19	RMB 3/18/19			
Initial calibration with a minimum of 5 points - quarterly	1)RSD of response factors < ±30% with two exceptions of up to ±40% (non-Tier I compounds) 2) IS response < ±40% of mean 3) RRTs for target peaks ±0.06 units from mean RRT 4) IS RTs within 20sec of mean 5) Each calibration standard within ±30% of nominal conc (for Tier I compounds)	3-6-19	RMB 3/18/19			L19OL
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	3-6-19	RMB 3/18/19			L19BL
Continuing calibration verification (CCV), approximately mid-point of the calibration curve – one per analysis sequence	The response factor ≤ ±30% DEV from calibration curve average response factor	3-6-19	RMB 3/18/19			2nd source
Method Blank Analysis – one per analysis sequence	1) < 3xMDL or 0.2ppbv, whichever is lower 2) Internal Standard (IS) area response within < ±40% and IS Retention Time (RT) within ±0.33 min. of most recent initial calibration	3-6-19	RMB 3/18/19			

ED_002475_00000355-00001

Compounds other than ethylene oxide were not quantitated.

Air Toxics TO-15 Quality Control Review Checklist 2018-1 (Continued)

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
Replicate Analysis – one per analysis sequence /Duplicate Sample	< 25% RPD for compounds greater than 5 times the MDL	3-6-19	RMB 3/18/19			
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	3-6-19	RMB 3/18/19			scool
Preconcentrator Leak Check	≤ ± 0.2 psi/min	3-6-19	RMB 3/18/19			
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	3-6-19	RMB 3/18/19			
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	3-6-19	RMB 3/18/19			
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	3-6-19	RMB 3/18/19			
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 3/18/19			
Qualifiers Check	Check to make sure LIMS data flags are correct	3-6-19	RMB 3/18/19			

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

L19CE002 ethylene oxide $\frac{5414 \times 4.77}{52830 \times 0.2728} = 1.79$ ppbv

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

1903014

Instrument: ERGMS#1

Calibnration ID: 9020003

Printed: 3/6/2019 11:59:50AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1903014-CCV1	QC		1		9B27007	8L13002		
B9C0507-BLK1	QC		2			8L13002		
9030524-01	TO-15 2019	A	3			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030524-02	TO-15 2019	A	4			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030524-03	TO-15 2019	A	5			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030524-04	TO-15 2019	A	6			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030524-05	TO-15 2019	A	7			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030524-06	TO-15 2019	A	8			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030524-07	TO-15 2019	A	9			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030524-08	TO-15 2019	A	10			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
B9C0507-DUP1	QC		11			8L13002		
B9C0507-DUP2	QC		12			8L13002		
9030524-09	TO-15 2019	A	13			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030431-07	TO-15 2019	A	14			8L13002	ERG Sampler Certs	
9030431-01	TO-15 2019	A	15			8L13002	ERG Sampler Certs	
9030431-02	TO-15 2019	A	16			8L13002	ERG Sampler Certs	
9030431-03	TO-15 2019	A	17			8L13002	ERG Sampler Certs	

Samples Loaded/Approved By 3-5-19 Date

Data Processed By 3-6-19 Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19CE.s
Comment: ANALYZE 3/5/19,9020003 exp 5/13/19, L19CE
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19CE\
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	L19CE001	BFB	BFB
2)	Sample	2	L19CE002	9020003	1903014-CCV1
3)	Sample	3	L19CE003	9020003	SNMOC-CCV1
4)	Sample	4	L19CE004	9020003	FLUSH
5)	Sample	5	L19CE005	9020003	~~B9C05074-BLK1~~ B9C0507-BLK1 RuB 3/18/19
6)	Sample	6	L19CE006	9020003	B-H1-547
7)	Sample	7	L19CE007	9020003	B-H2-547
8)	Sample	8	L19CE008	9020003	9030524-01
9)	Sample	9	L19CE009	9020003	9030524-02
10)	Sample	10	L19CE010	9020003	9030524-03
11)	Sample	11	L19CE011	9020003	9030524-04
12)	Sample	12	L19CE012	9020003	9030524-05
13)	Sample	13	L19CE013	9020003	9030524-06
14)	Sample	14	L19CE014	9020003	9030524-07
15)	Sample	15	L19CE015	9020003	9030524-08
16)	Sample	16	L19CE016	9020003	B9C0507-DUP1
17)	Sample	17	L19CE017	9020003	B9C0507-DUP2
18)	Sample	18	L19CE018	9020003	9030524-09
19)	Sample	19	L19CE019	9020003	9030431-07
20)	Sample	20	L19CE020	9020003	9030431-01
21)	Sample	21	L19CE021	9020003	9030431-02
22)	Sample	22	L19CE022	9020003	9030431-03
23)	Sample	23	L19CE023	9020003	9030431-07 RERUN
24)	Sample	100	OFF	FIDOFF	OFF

r 3-6-19

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19CE001	80 ML 8L13001	1
Sample	2	1903014-CCV1	9020003	L19CE002	80 ML 8L13001,9B27007	1
Sample	3	SNMOC-CCV1	9020003	L19CE003	80 ML 8L13001,9B28003	1
Sample	4	FLUSH	9020003	L19CE004	80 ML 8L13001	1
Sample	5	B9C0507-BLK1	9020003	L19CE005	80 ML 8L13001	1
Sample	6	B-H1-547	9020003	L19CE006	CAN SAT072 BATCH BLANK	1
Sample	7	B-H2-547	9020003	L19CE007	CAN SAT061 BATCH BLANK	1
Sample	8	9030524-01	9020003	L19CE008	HINSDALE S. HS 3/2/19	1
Sample	9	9030524-02	9020003	L19CE009	WILLOW POND PARK 3/2/19	1
Sample	10	9030524-03	9020003	L19CE010	WEST NEIGHBORHOOD 3/2/19	1
Sample	11	9030524-04	9020003	L19CE011	WB VILLAGE HALL 3/2/19	1
Sample	12	9030524-05	9020003	L19CE012	GOWER MS 3/2/19	1
Sample	13	9030524-06	9020003	L19CE013	GOWER ES 3/2/19	1
Sample	14	9030524-07	9020003	L19CE014	EPA WB WAREHOUSE C1 3/2/19	1
Sample	15	9030524-08	9020003	L19CE015	EPA WB WAREHOUSE C2 3/2/19	1
Sample	16	B9C0507-DUP1	9020003	L19CE016	EPA WB WAREHOUSE R1 3/2/19	1
Sample	17	B9C0507-DUP2	9020003	L19CE017	EPA WB WAREHOUSE R2 3/2/19	1
Sample	18	9030524-09	9020003	L19CE018	WATER TOWER 3/2/19	1
Sample	19	9030431-07	9020003	L19CE019	CHALREF 030419	1
Sample	20	9030431-01	9020003	L19CE020	#5A	1
Sample	21	9030431-02	9020003	L19CE021	#5B	1
Sample	22	9030431-03	9020003	L19CE022	#6A	1
Sample	23	9030431-07 RERUN	9020003	L19CE023	CHALREF 030419,RERUN	1

r
3-6-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19CE.SEQ
Date: 03-06-2019
Time: 12:00:44
Int. Std Volume: 80 cc

Sample Name	Inlet #	Auto Pos	Samp Vol.	Cal Std Vol.	Method	Time
BFB	1	1	0	0	C:\Smart\BFB.MPT	12:00
1903014-CCV1	2	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
SNMOC-CCV1	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9C0507-BLK1	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B-H1-574	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B-H2-574	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030524-01	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030524-02	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030524-03	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030524-04	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030524-05	1	8	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030524-06	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030524-07	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030524-08	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9C0507-DUP1	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9C0507-DUP2	1	11	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030524-09	1	12	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030431-07	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030431-01	1	14	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030431-02	1	15	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030431-03	1	16	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9030431-07 RERUN	1	13	250	0	C:\Smart\TO-15A_MS1.MPT	12:00

3-6-19

Compounds other than ethylene oxide were not quantitated.

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

3/6/2019 10:52:01 AM
Leak Check for C:\Smart\L19CE.SEQ
Report File: C:\Smart\L19CE.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	---	---	1.1	1.2	0.10
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.2	1.2	0.00
1	8	---	---	1.1	1.2	0.10
1	9	---	---	1.2	1.2	0.00
1	10	---	---	1.2	1.2	0.00
1	11	---	---	1.2	1.3	0.10
1	12	---	---	1.2	1.2	0.00
1	13	---	---	1.2	1.2	0.00
1	14	---	---	1.2	1.3	0.10
1	15	---	---	1.2	1.3	0.10
1	16	---	---	1.2	1.3	0.10

3/6/19

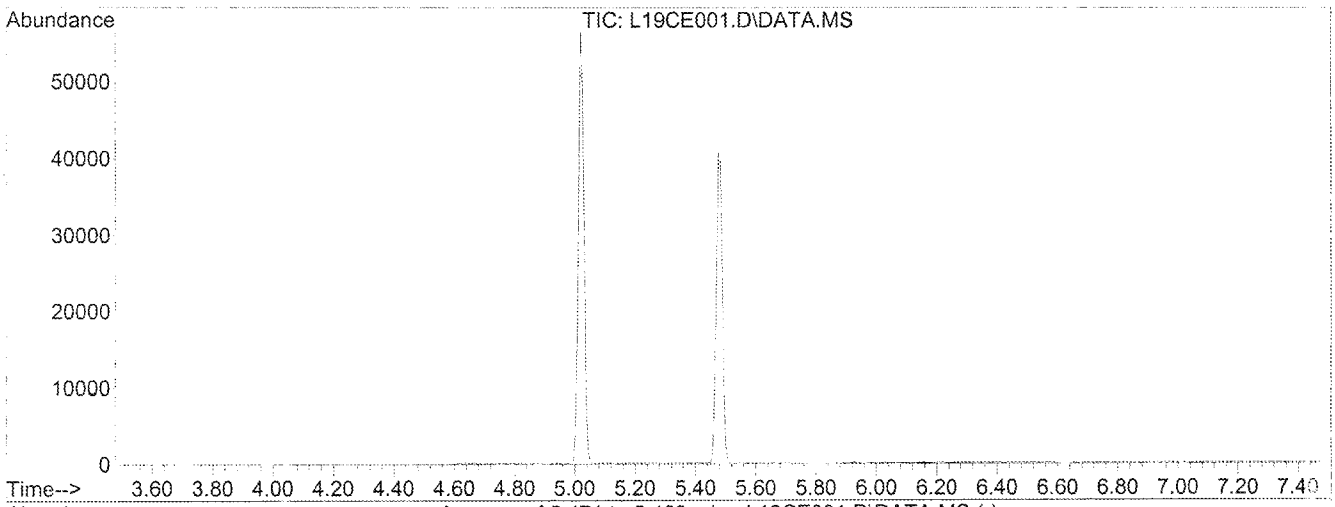
Compounds other than ethylene oxide were not quantitated.

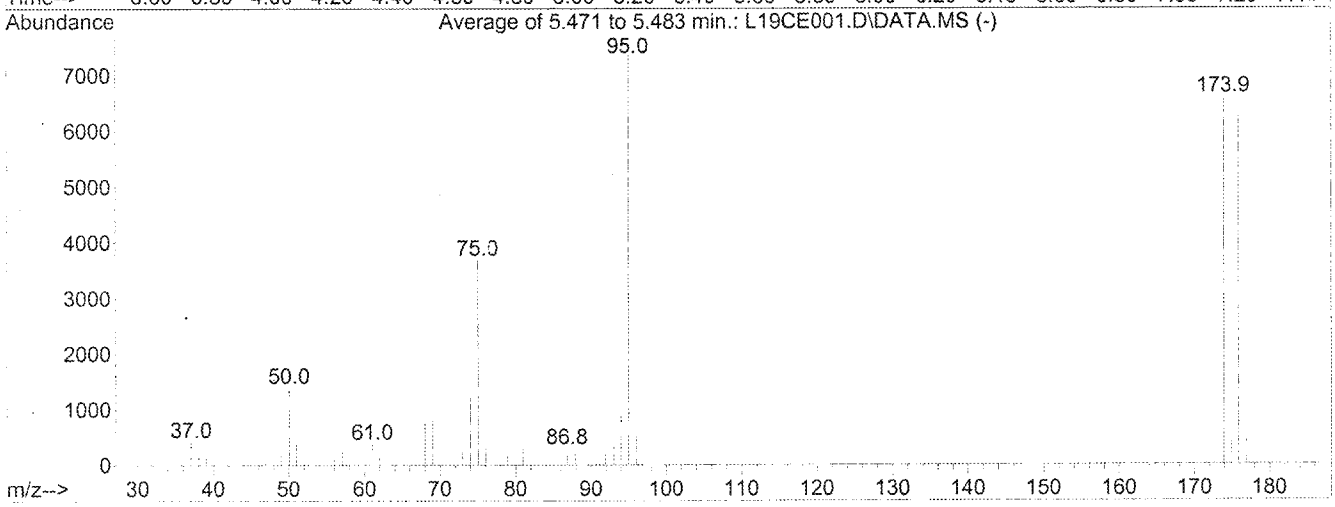
BFB

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE001.D
Acq On : 5 Mar 2019 11:54 am
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\9020003.M
Title : TO-15 by Selective Ion Analysis
Last Update : Wed Feb 13 06:44:42 2019





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

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.8	1387	PASS
75	95	30	66	49.9	3680	PASS
95	95	100	100	100.0	7378	PASS
96	95	5	9	6.9	512	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	89.2	6582	PASS
175	174	4	9	6.5	427	PASS
176	174	93	101	95.0	6251	PASS
177	176	5	9	6.9	432	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19CE\L19CE001.D
Tune Time : 5 Mar 2019 11:54 am

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

File	Sample	Surrogate Recovery %	Internal Standard Responses	
L19CE002.D	1903014-CC	52830	136311	98766
L19CE005.D	B9C0507-BLK1	50345	129844	91799
L19CE006.D	B-H1-5741	49629	128654	92151
L19CE007.D	B-H2-574	49248	125554	89722
L19CE008.D	9030524-01	46899	120582	85252
L19CE009.D	9030524-02	48362	124941	87204
L19CE010.D	9030524-03	47767	122765	88278
L19CE011.D	9030524-04	47529	122044	87294
L19CE012.D	9030524-05	45476	116633	82282
L19CE013.D	9030524-06	43675	109786	80154
L19CE014.D	9030524-07	46863	121314	85456
L19CE015.D	9030524-08	44689	113969	80871
L19CE016.D	B9C0507-DUP1	46199	119406	84244
L19CE017.D	B9C0507-DUP2	46885	121681	85021
L19CE018.D	9030524-09	45034	116992	82627
L19CE019.D	9030431-07	46863	122182	87270
L19CE020.D	9030431-01	48508	125183	89158
L19CE021.D	9030431-02	45173	114387	81634
L19CE022.D	9030431-03	44169	109442	79005
L19CE023.D	9030431-07	47382	121915	88285

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

Created: Wed Mar 06 12:05:32 2019 MS1

3619

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
	3/6/2019 10:25	L19CE023.D	47382	19.99	121915	23.15	88285	30.09
Format 1 (Yes/No)								
Format 1 Title								
Format 2 (Yes/No)			YES	YES	YES	YES	YES	YES
Format 2 Title								
Show X Axis Title			YES	YES	YES	YES	YES	YES
Show Y Axis Title								
Lines To Chart								

Start of Data	Format 1 X-axis	Format 2 X-axis	IS-Hexane-d14	% Rec	RT	DEV (min)	IS-Difluorobenzene	% Rec	RT	DEV (min)	IS-Chlorobenzene-d5	% Rec	RT	DEV (min)
		IS AVG / AVG RT	48611		19.99		118146		23.15		86564		30.11	
	3/5/2019 12:42	L19CE002.D	52830	109	19.99	0	136311	115	23.15	0	98766	114	30.09	-0.02
	3/5/2019 16:29	L19CE005.D	50345	104	19.99	0	129844	110	23.15	0	91799	106	30.12	0.01
	3/5/2019 17:28	L19CE006.D	49629	102	19.99	0	128654	109	23.15	0	92151	106	30.12	0.01
	3/5/2019 18:28	L19CE007.D	49248	101	19.99	0	125554	106	23.15	0	89722	104	30.11	0
	3/5/2019 19:28	L19CE008.D	46899	96	19.99	0	120582	102	23.15	0	85252	98	30.10	-0.01
	3/5/2019 20:28	L19CE009.D	48362	99	19.99	0	124941	106	23.15	0	87204	101	30.10	-0.01
	3/5/2019 21:28	L19CE010.D	47767	98	19.99	0	122765	104	23.15	0	88278	102	30.10	-0.01
	3/5/2019 22:28	L19CE011.D	47529	98	19.99	0	122044	103	23.15	0	87294	101	30.10	-0.01
	3/5/2019 23:28	L19CE012.D	45476	94	19.99	0	116633	99	23.15	0	82282	95	30.09	-0.02
	3/6/2019 12:30	L19CE013.D	43675	90	19.99	0	109786	93	23.15	0	80154	93	30.10	-0.01
	3/6/2019 1:30	L19CE014.D	46863	96	19.99	0	121314	103	23.15	0	85456	99	30.09	-0.02
	3/6/2019 2:30	L19CE015.D	44689	92	19.99	0	113969	96	23.15	0	80871	93	30.10	-0.01
	3/6/2019 3:30	L19CE016.D	46199	95	19.99	0	119406	101	23.15	0	84244	97	30.10	-0.01
	3/6/2019 4:30	L19CE017.D	46885	96	19.99	0	121681	103	23.15	0	85021	98	30.10	-0.01
	3/6/2019 5:30	L19CE018.D	45034	93	19.99	0	116992	99	23.15	0	82627	95	30.09	-0.02
	3/6/2019 6:30	L19CE019.D	46853	96	19.99	0	122182	103	23.15	0	87270	101	30.10	-0.01
	3/6/2019 7:30	L19CE020.D	48508	100	19.99	0	125183	106	23.15	0	89158	103	30.10	-0.01
	3/6/2019 8:32	L19CE021.D	45173	93	19.99	0	114387	97	23.15	0	81634	94	30.10	-0.01
	3/6/2019 9:34	L19CE022.D	44169	91	19.99	0	109442	93	23.15	0	79005	91	30.09	-0.02
	3/6/2019 10:25	L19CE023.D	47382	97	19.99	0	121915	103	23.15	0	88285	102	30.09	-0.02

3-6-19

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B27007

Description:	2.50 ppbv ICV/CCV	Expires:	03/29/19
Standard Type:	Calibration Stan	Prepared:	02/27/19
Solvent:	Scientific Air	Prepared By:	Kameron Singer
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	02/27/19 09:15 by KSS

canister# SAT028

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

Reviewed By 3-6-19 Date

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B27007

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

Parent Standards used in this standard:

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

6 7-6-19

Reviewed By Date

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19CE\
Data File : L19CE002.D
Acq On : 5 Mar 2019 12:42 pm
Operator : MAH
Sample : 1903014-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

3-6-19

Quant Time: Mar 05 14:53:23 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISS	IS-Hexane-d14	1.000	1.000	0.0	100	0.00
2	CT	Acetylene	0.391	0.362	7.4	100	0.00
3	CT	Propylene	0.487	0.477	2.1	100	0.00
4	CT	Dichlorodifluoromethane	2.300	2.259	1.8	100	0.00
5	CT	Chloromethane	0.592	0.533	10.0	100	0.00
6	CT	Dichlorotetrafluoroethane	2.013	2.153	-7.0	100	0.00
7	CT	Vinyl Chloride	0.662	0.613	7.4	100	0.00
8	CT	1,3-Butadiene	0.450	0.402	10.7	100	0.00
9	CT	Ethylene oxide	0.273	0.196	28.2	100	0.00
10	CT	Bromomethane	0.627	0.592	5.6	100	0.00
11	CT	Chloroethane	0.263	0.234	11.0	100	0.00
12	CT	Acetonitrile	0.414	0.333	19.6	100	0.00
13	CT	Acrolein	0.209	0.170	18.7	100	0.00
14	CT	Trichlorofluoromethane	1.944	1.587	18.4	100	0.00
15	CT	Acrylonitrile	0.330	0.276	16.4	100	0.00
16	CT	1,1-Dichloroethene	0.843	0.809	4.0	100	0.00
17	CT	Methylene Chloride	0.557	0.507	9.0	100	0.00
18	CT	Carbon Disulfide	1.716	1.603	6.6	100	0.00
19	CT	Trichlorotrifluoroethane	1.307	1.277	2.3	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.467	0.426	8.8	100	0.00
21	CT	1,1-Dichloroethane	0.786	0.730	7.1	100	0.00
22	CT	Methyl tert-Butyl Ether	1.318	1.174	10.9	100	0.00
23	CT	Chloroprene	0.639	0.580	9.2	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.620	0.548	11.6	100	0.00
25	CT	Bromochloromethane	0.335	0.301	10.1	100	0.00
26	CT	Chloroform	0.912	0.881	3.4	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.260	1.126	10.6	100	0.00
28	CT	1,2-Dichloroethane	0.560	0.531	5.2	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.370	0.328	11.4	100	0.00
31	CT	Benzene	0.529	0.492	7.0	100	0.00
32	CT	Carbon Tetrachloride	0.396	0.397	-0.3	100	0.00
33	CT	tert-Amyl Methyl Ether	0.449	0.385	14.3	100	0.00
34	CT	1,2-Dichloropropane	0.201	0.178	11.4	100	0.00
35	CT	Ethyl Acrylate	0.171	0.201	-17.5	100	0.00
36	CT	Bromodichloromethane	0.356	0.297	16.6	100	0.00
37	CT	Trichloroethylene	0.252	0.211	16.3	100	0.00
38	CT	Methyl Methacrylate	0.513	0.543	-5.8	100	0.00
39	CT	cis-1,3-Dichloropropene	0.175	0.181	-3.4	100	0.00
40	CT	Methyl Isobutyl Ketone	0.377	0.328	13.0	100	0.00
41	CT	trans-1,3-Dichloropropene	0.117	0.127	-8.5	100	0.00
42	CT	1,1,2-Trichloroethane	0.184	0.165	10.3	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.779	0.723	7.2	100	0.00
45	CT	Dibromochloromethane	1.529	1.440	5.8	100	0.00
46	CT	1,2-Dibromoethane	0.292	0.294	-0.7	100	0.00
47	CT	n-Octane	0.469	0.396	15.6	100	0.00
48	CT	Tetrachloroethylene	0.375	0.339	9.6	100	0.00

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19CE\
Data File : L19CE002.D
AcqTOn : 5 Mar 2019 12:42 pm
Operator : MAH
Sample : 1903014-CCV1
Misc : 80 ML 8L13001,9B27007
ALSVial : 2 Sample Multiplier: 1

Quant Time: Mar 05 14:53:23 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	CT	Chlorobenzene	0.497	0.459	7.6	100	0.00
50	CT	Ethylbenzene	0.819	0.756	7.7	100	0.00
51	CT	m,p-Xylene	0.691	0.627	9.3	100	0.00
52	CT	Bromoform	0.296	0.288	2.7	100	0.00
53	CT	Styrene	0.392	0.346	11.7	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.446	0.396	11.2	100	0.00
55	CT	o-Xylene	0.682	0.631	7.5	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.732	0.601	17.9	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.633	0.529	16.4	100	0.00
58	CT	m-Dichlorobenzene	0.333	0.269	19.2	100	0.00
59	CT	p-Dichlorobenzene	0.271	0.241	11.1	100	0.00
60	CT	o-Dichlorobenzene	0.305	0.260	14.8	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.103	0.087	15.5	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.264	0.208	21.2	100	0.00

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19CE\
Data File : L19CE002.D
Acq On : 5 Mar 2019 12:42 pm
Operator : MAH
Sample : 1903014-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 14:53:23 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

5-6-19

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	52830	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	136311	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	98766	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.414	26	9611	2.2215	ppbv	100
3) Propylene	7.823	41	12937	2.3972	ppbv	100
4) Dichlorodifluoromethane	8.685	85	59548	2.3373	ppbv	100
5) Chloromethane	9.741	50	14629	2.2301	ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	58190	2.6094	ppbv	99
7) Vinyl Chloride	11.119	62	16960	2.3115	ppbv	100
8) 1,3-Butadiene	11.783	54	10988	2.2030	ppbv	98
9) Ethylene oxide	12.393	29	5414	1.7917	ppbv	99
10) Bromomethane	12.588	94	16392	2.3609	ppbv	99
11) Chloroethane	13.280	64	6486	2.2251	ppbv	100
12) Acetonitrile	14.356	41	9317	2.0320	ppbv	100
13) Acrolein	14.634	56	4548	1.9685	ppbv	99
14) Trichlorofluoromethane	15.214	101	43936	2.0409	ppbv	100
15) Acrylonitrile	15.933	53	7630	2.0856	ppbv	100
16) 1,1-Dichloroethene	16.443	61	21864	2.3410	ppbv	100
17) Methylene Chloride	16.745	49	13915	2.2550	ppbv	100
18) Carbon Disulfide	16.930	76	44019	2.3162	ppbv	100
19) Trichlorotrifluoroethane	17.278	101	34518	2.3841	ppbv	100
20) trans-1,2-Dichloroethy...	18.336	96	11598	2.2403	ppbv	98
21) 1,1-Dichloroethane	18.630	63	19657	2.2589	ppbv	100
22) Methyl tert-Butyl Ether	18.789	73	33021	2.2625	ppbv	99
23) Chloroprene	19.537	53	15932	2.2508	ppbv	98
24) cis-1,2-Dichloroethylene	19.945	61	15165	2.2073	ppbv	98
25) Bromochloromethane	20.172	128	8230	2.2160	ppbv	97
26) Chloroform	20.399	83	24401	2.4167	ppbv	99
27) Ethyl tert-Butyl Ether	21.182	59	32062	2.2970	ppbv	99
28) 1,2-Dichloroethane	21.476	62	14638	2.3620	ppbv	100
30) 1,1,1-Trichloroethane	21.867	97	22132	2.1903	ppbv	96
31) Benzene	22.533	78	33751	2.3358	ppbv	100
32) Carbon Tetrachloride	22.768	117	27356	2.5277	ppbv	100
33) tert-Amyl Methyl Ether	23.499	73	27345	2.2284	ppbv	100
34) 1,2-Dichloropropane	23.788	63	12286	2.2365	ppbv	97
35) Ethyl Acrylate	23.870	55	13966	2.9924	ppbv	99
36) Bromodichloromethane	24.076	83	20800	2.1395	ppbv	100
37) Trichloroethylene	24.180	130	14557	2.1148	ppbv	100
38) Methyl Methacrylate	24.530	41	37652	2.6880	ppbv	99
39) cis-1,3-Dichloropropene	25.528	75	12566	2.6342	ppbv	99
40) Methyl Isobutyl Ketone	25.605	43	22664	2.2009	ppbv	100
41) trans-1,3-Dichloropropene	26.368	75	8501	2.6599	ppbv	100
42) 1,1,2-Trichloroethane	26.615	97	11176	2.2235	ppbv	100
44) Toluene	27.092	91	36740	2.2638	ppbv	100
45) Dibromochloromethane	27.732	129	76223	2.3925	ppbv	100
46) 1,2-Dibromoethane	28.153	107	15315	2.5166	ppbv	99
47) n-Octane	28.873	43	20800	2.1278	ppbv	98
48) Tetrachloroethylene	28.996	166	17566	2.2488	ppbv	99
49) Chlorobenzene	30.171	112	23529	2.2715	ppbv	98
50) Ethylbenzene	30.915	91	39392	2.3085	ppbv	100

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19CE\
Data File : L19CE002.D
Acq On : 5 Mar 2019 12:42 pm
Operator : MAH
Sample : 1903014-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 14:53:23 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

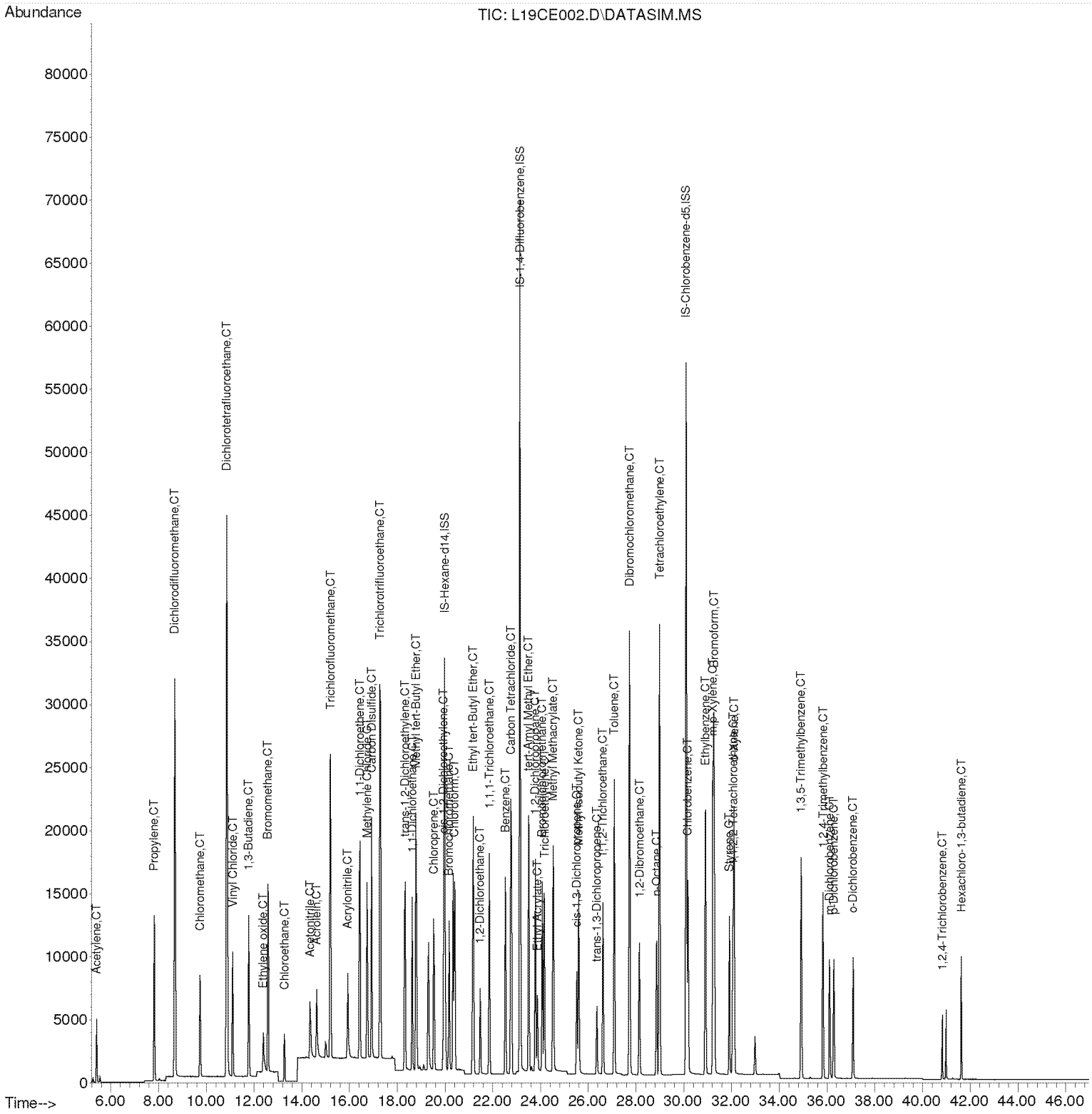
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) m,p-Xylene	31.221	91	65025	4.5182	ppbv		99
52) Bromoform	31.278	173	15264	2.4779	ppbv		100
53) Styrene	31.908	104	18023	2.2089	ppbv	#	99
54) 1,1,2,2-Tetrachloroethane	32.080	83	20884	2.2484	ppbv		100
55) o-Xylene	32.118	91	32102	2.2602	ppbv		100
56) 1,3,5-Trimethylbenzene	34.919	105	31559	2.0682	ppbv		99
57) 1,2,4-Trimethylbenzene	35.845	105	26240	1.9883	ppbv		99
58) m-Dichlorobenzene	36.112	146	13466	1.9408	ppbv		99
59) p-Dichlorobenzene	36.291	146	13129	2.3228	ppbv		99
60) o-Dichlorobenzene	37.092	146	13522	2.1307	ppbv		100
61) 1,2,4-Trichlorobenzene	40.841	180	4488	2.0852	ppbv		99
62) Hexachloro-1,3-butadiene	41.635	225	10843	1.9726	ppbv		100

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

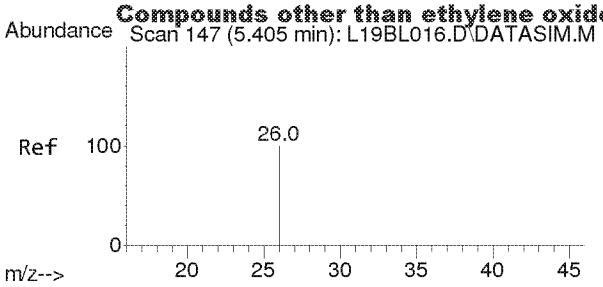
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE002.D
Acq On : 5 Mar 2019 12:42 pm
Operator : MAH
Sample : 1903014-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 14:53:23 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

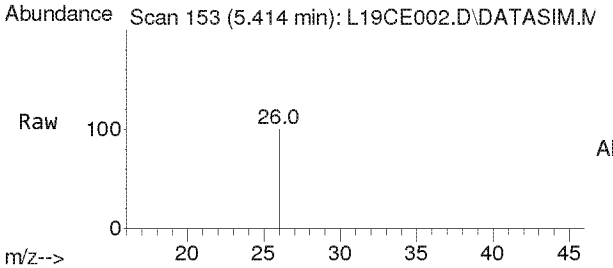


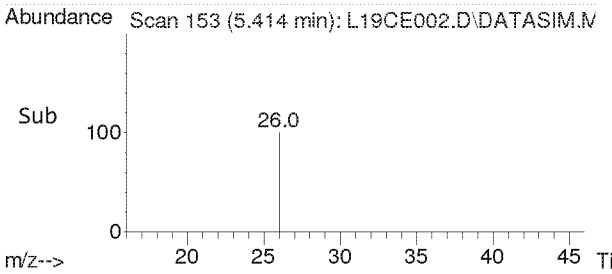
Compounds other than ethylene oxide were not quantitated.

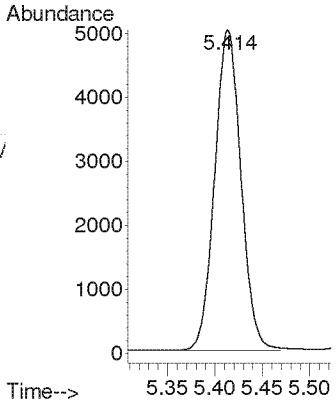


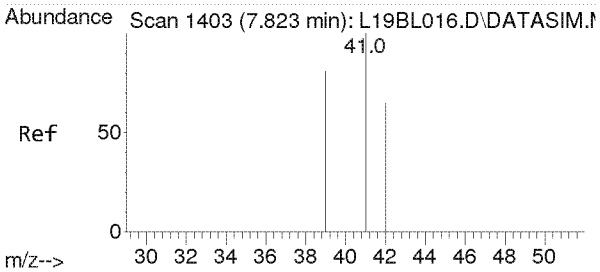
#2
Acetylene
Concen: 2.222 ppbv
RT: 5.414 min Scan# 153
Delta R.T. 0.009 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 26 Resp: 9611





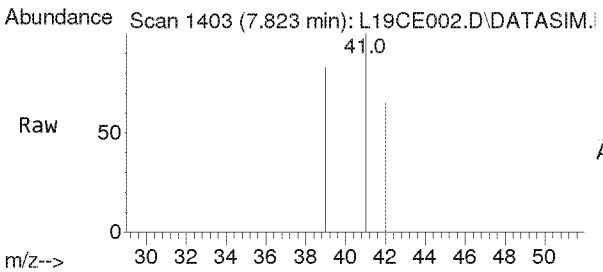


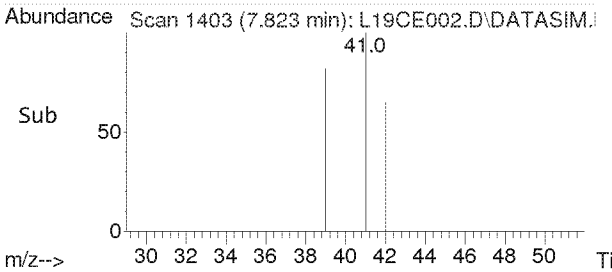


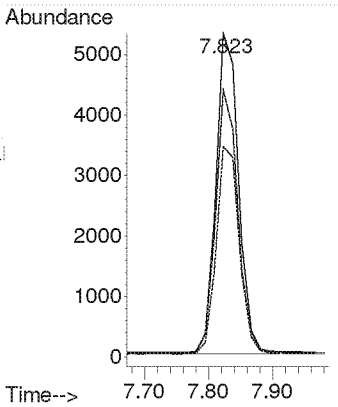
#3
Propylene
Concen: 2.397 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 41 Resp: 12937

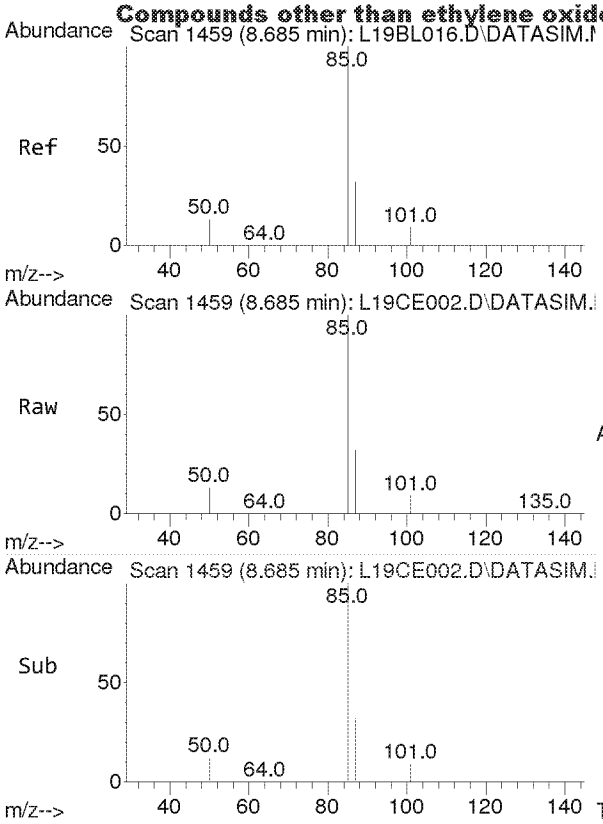
Ion	Ratio	Lower	Upper
41	100		
39	80.0	64.2	96.2
42	66.1	52.6	79.0







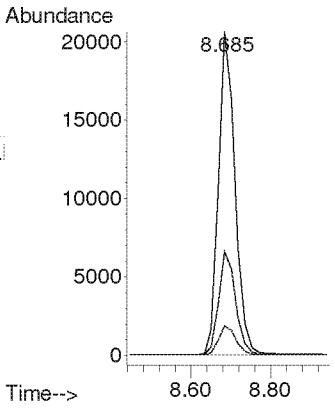
Compounds other than ethylene oxide were not quantitated.

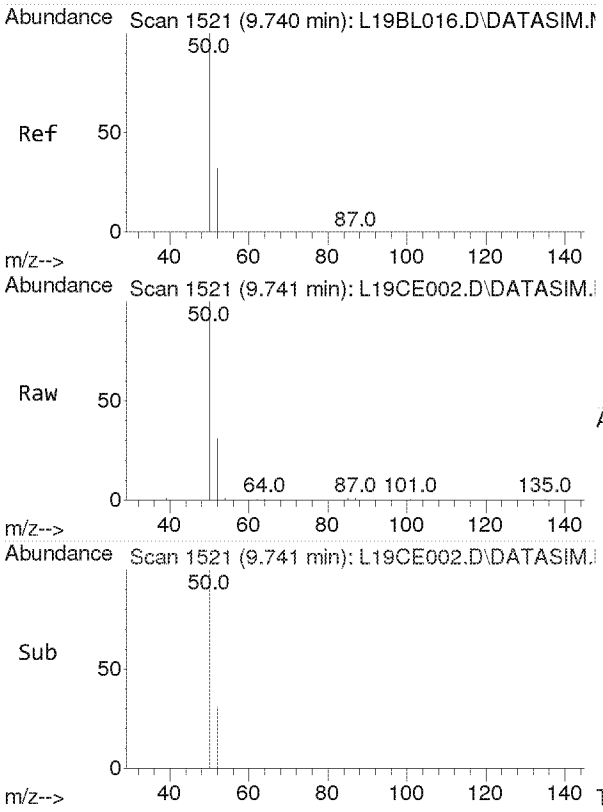


#4
Dichlorodifluoromethane
Concen: 2.337 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 85 Resp: 59548

Ion	Ratio	Lower	Upper
85	100		
87	32.5	26.0	39.0
101	9.2	7.3	10.9

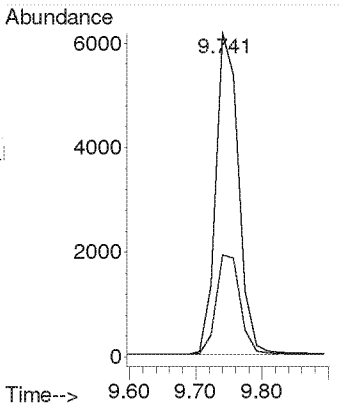




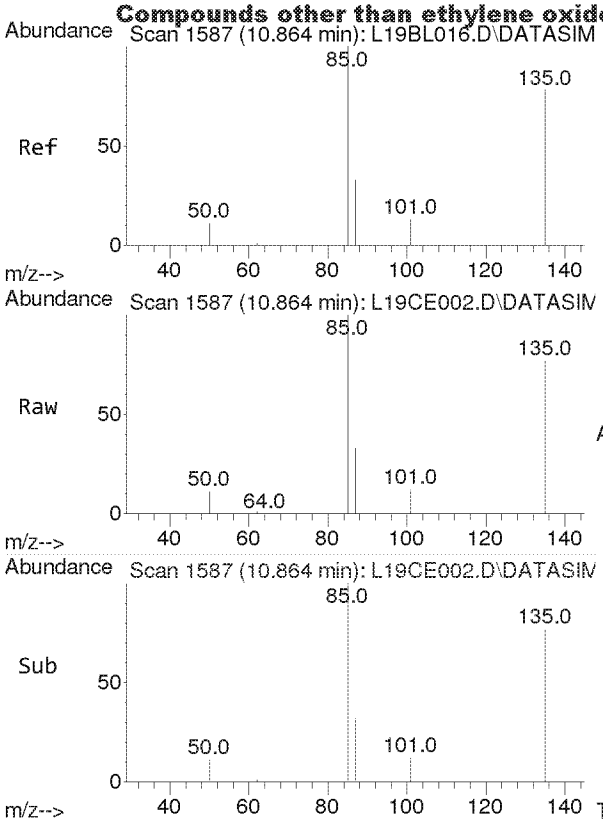
#5
Chloromethane
Concen: 2.230 ppbv
RT: 9.741 min Scan# 1521
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 50 Resp: 14629

Ion	Ratio	Lower	Upper
50	100		
52	32.8	26.1	39.1



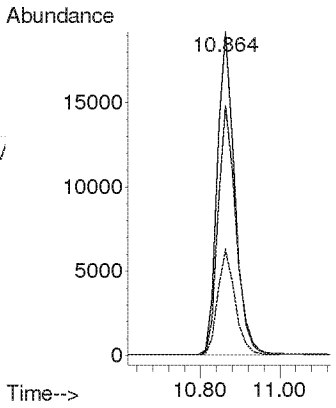
Compounds other than ethylene oxide were not quantitated.

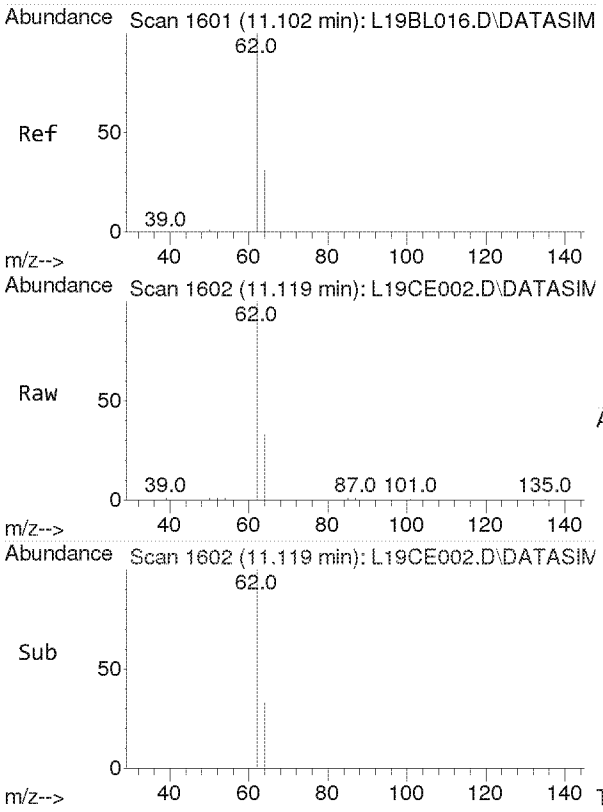


#6
Dichlorotetrafluoroethane
Concen: 2.609 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 85 Resp: 58190

Ion	Ratio	Lower	Upper
85	100		
135	79.7	63.2	94.8
87	32.3	25.9	38.9

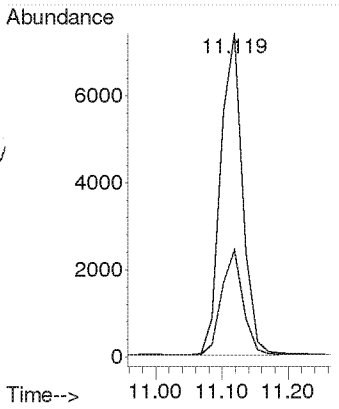




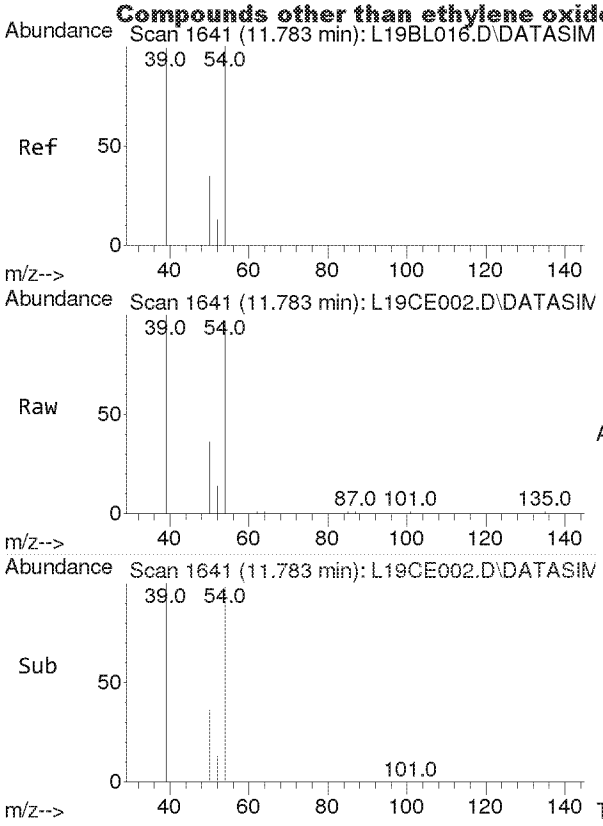
#7
Vinyl Chloride
Concen: 2.312 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. 0.017 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 62 Resp: 16960

Ion	Ratio	Lower	Upper
62	100		
64	31.7	25.4	38.0



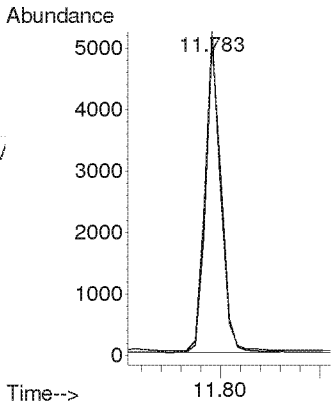
Compounds other than ethylene oxide were not quantitated.

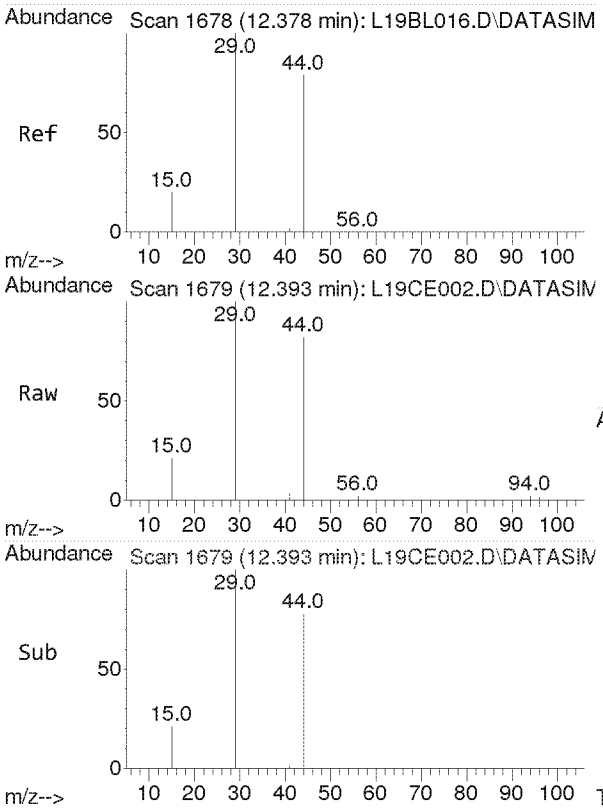


#8
1,3-Butadiene
Concen: 2.203 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 54 Resp: 10988

Ion	Ratio	Lower	Upper
54	100		
39	100.4	81.6	122.4

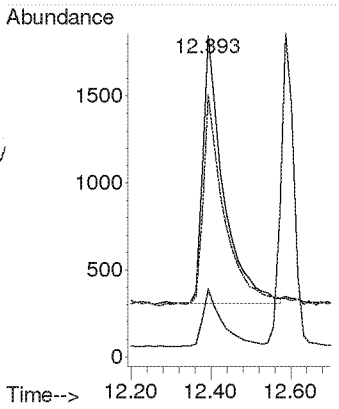




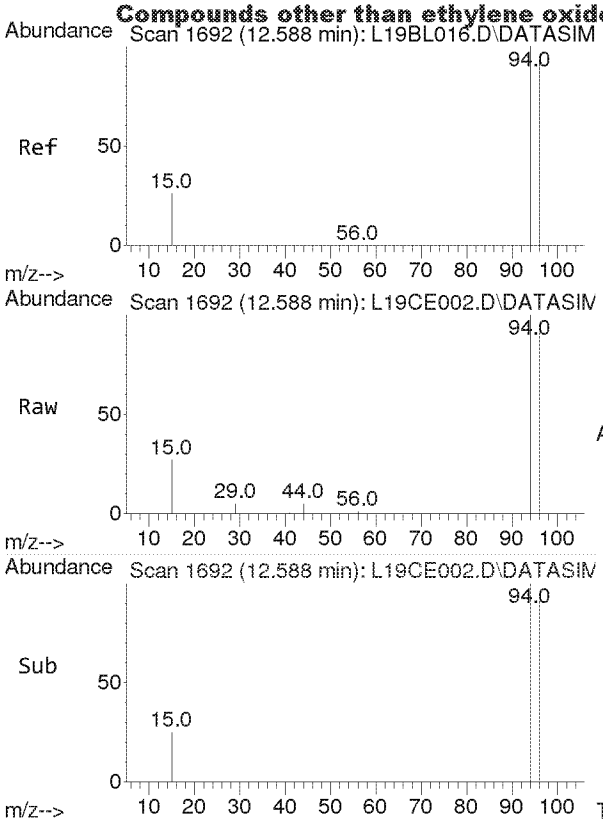
#9
Ethylene oxide
Concen: 1.792 ppbv
RT: 12.393 min Scan# 1679
Delta R.T. 0.015 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 29 Resp: 5414

Ion	Ratio	Lower	Upper
29	100		
15	20.5	16.0	24.0
44	81.1	65.4	98.2



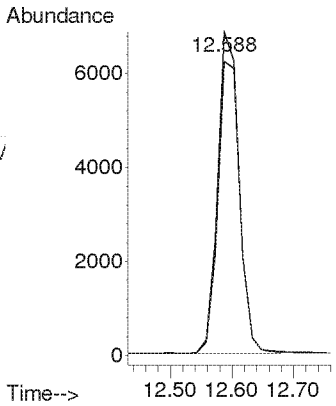
Compounds other than ethylene oxide were not quantitated.

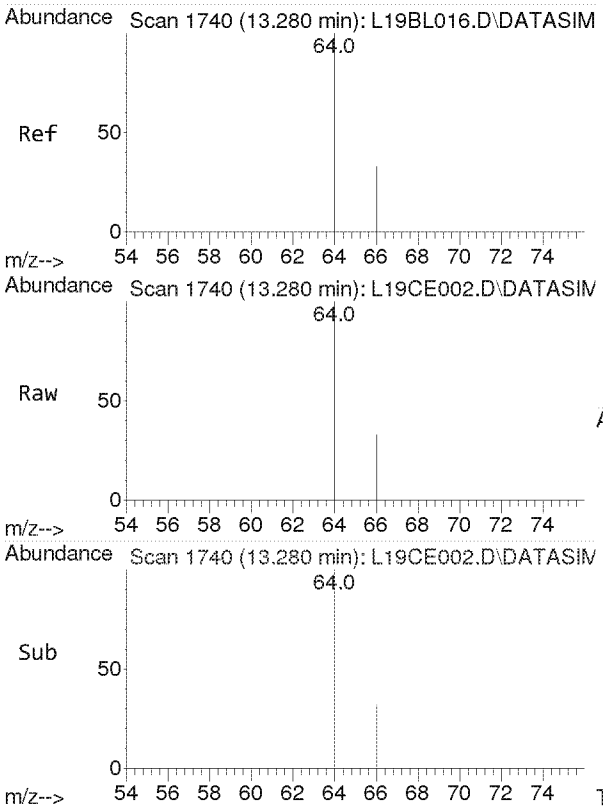


#10
Bromomethane
Concen: 2.361 ppbv
RT: 12.588 min Scan# 1692
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 94 Resp: 16392

Ion	Ratio	Lower	Upper
94	100		
96	93.8	75.5	113.3

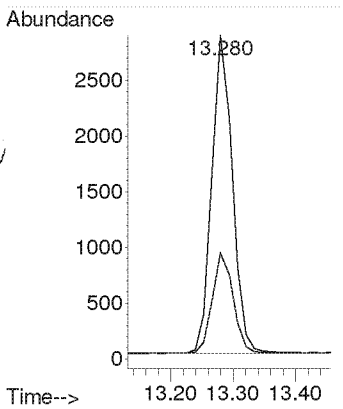




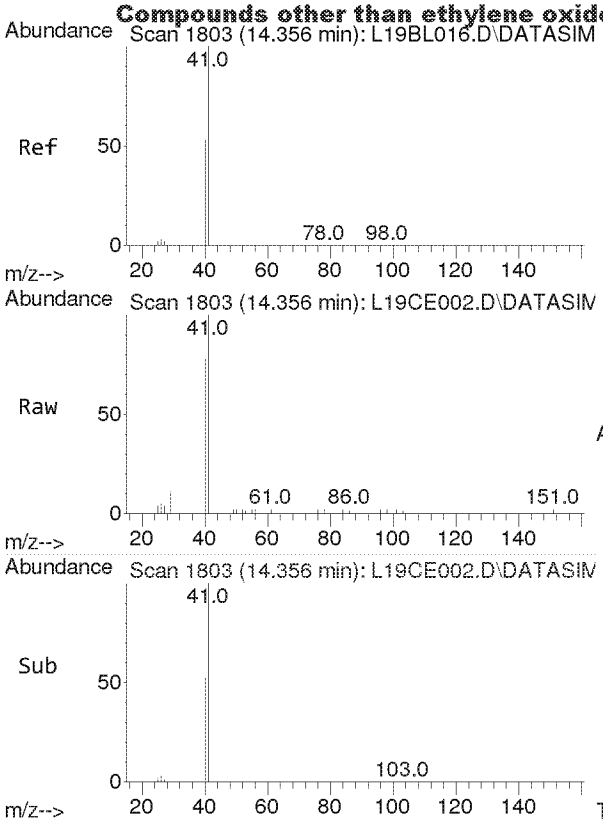
#11
Chloroethane
Concen: 2.225 ppbv
RT: 13.280 min Scan# 1740
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 64 Resp: 6486

Ion	Ratio	Lower	Upper
64	100		
66	31.9	25.8	38.6



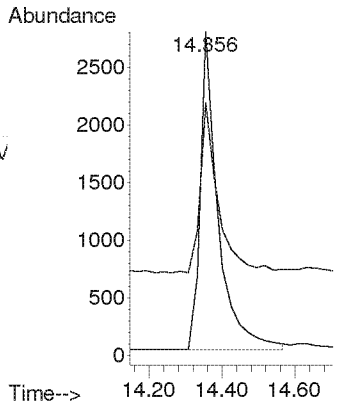
Compounds other than ethylene oxide were not quantitated.

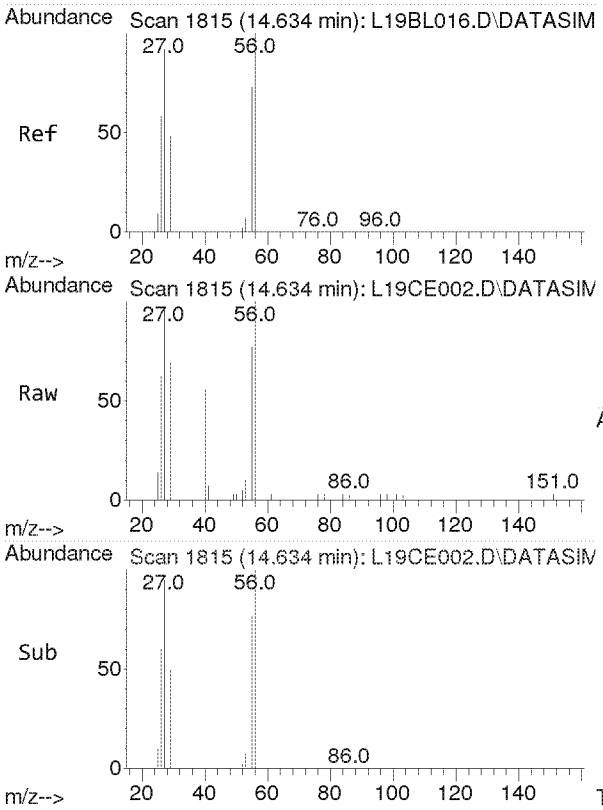


#12
Acetonitrile
Concen: 2.032 ppbv
RT: 14.356 min Scan# 1803
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 41 Resp: 9317

Ion	Ratio	Lower	Upper
41	100		
40	52.9	42.2	63.4

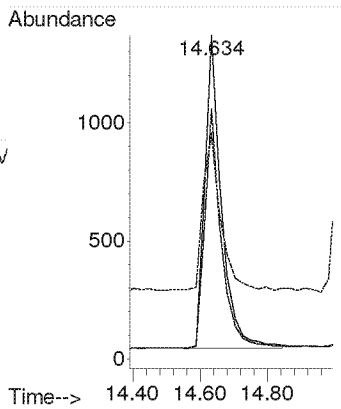




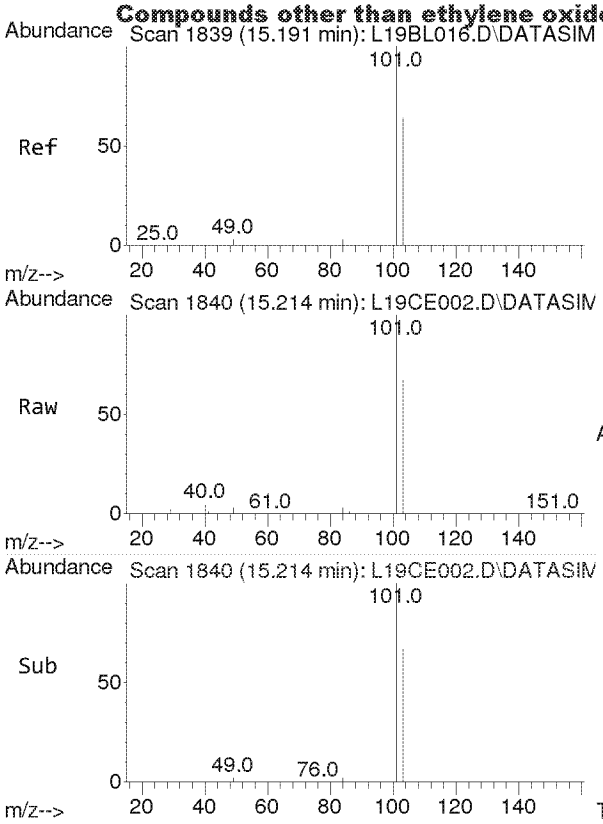
#13
Acrolein
Concen: 1.969 ppbv
RT: 14.634 min Scan# 1815
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 56 Resp: 4548

Ion	Ratio	Lower	Upper
56	100		
55	75.8	60.8	91.2
29	53.5	43.8	65.6



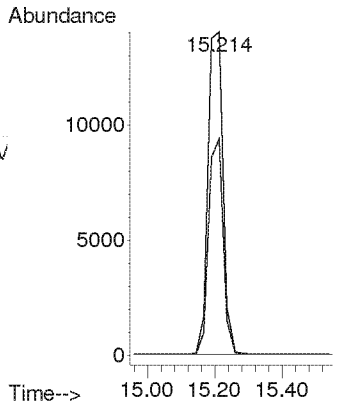
Compounds other than ethylene oxide were not quantitated.

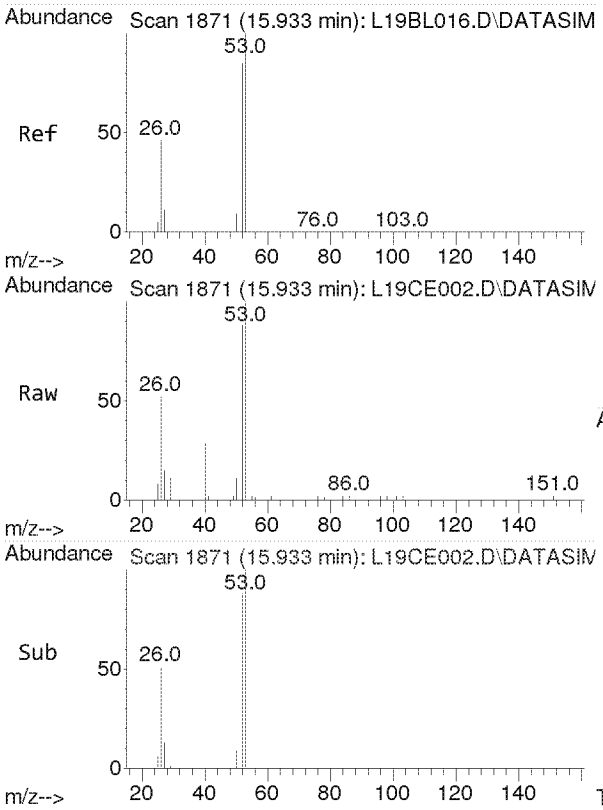


#14
Trichlorofluoromethane
Concen: 2.041 ppbv
RT: 15.214 min Scan# 1840
Delta R.T. 0.023 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:101 Resp: 43936

Ion	Ratio	Lower	Upper
101	100		
103	64.6	51.7	77.5

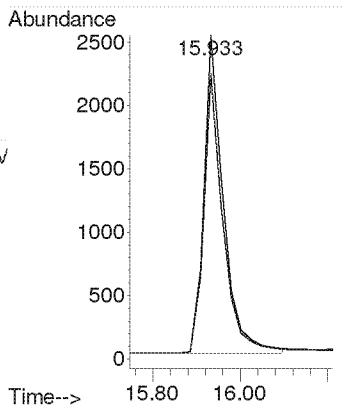




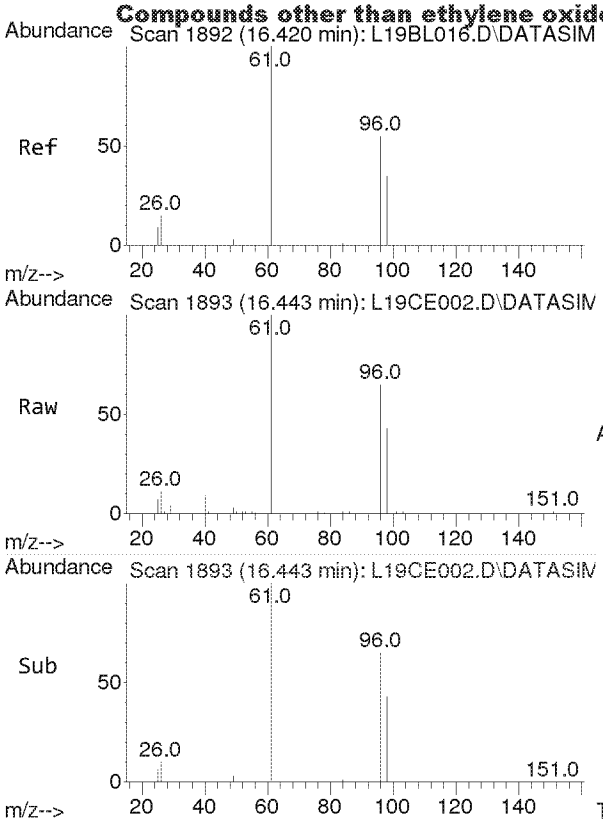
#15
Acrylonitrile
Concen: 2.086 ppbv
RT: 15.933 min Scan# 1871
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 53 Resp: 7630

Ion	Ratio	Lower	Upper
53	100		
52	86.9	69.5	104.3



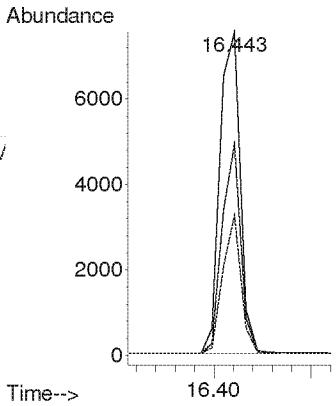
Compounds other than ethylene oxide were not quantitated.

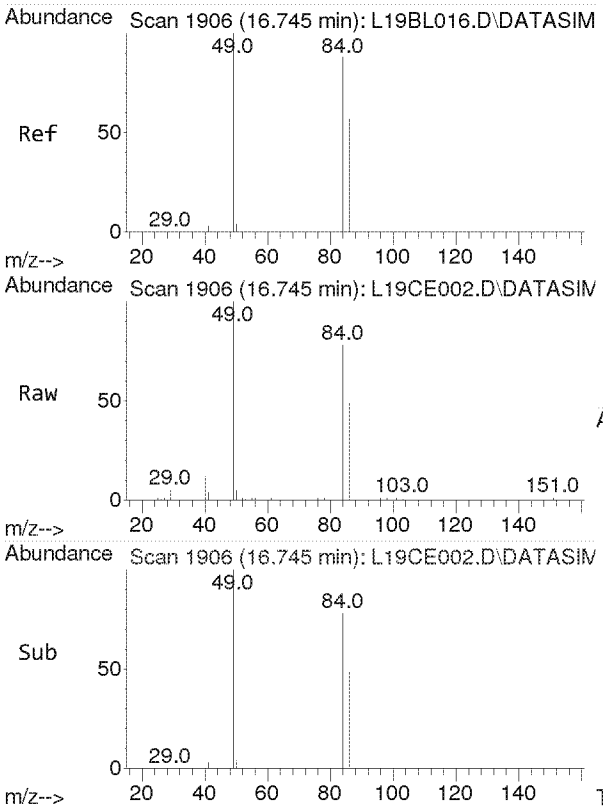


#16
1,1-Dichloroethene
Concen: 2.341 ppbv
RT: 16.443 min Scan# 1893
Delta R.T. 0.023 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 61 Resp: 21864

Ion	Ratio	Lower	Upper
61	100		
96	59.7	47.3	70.9
98	38.5	30.6	45.8

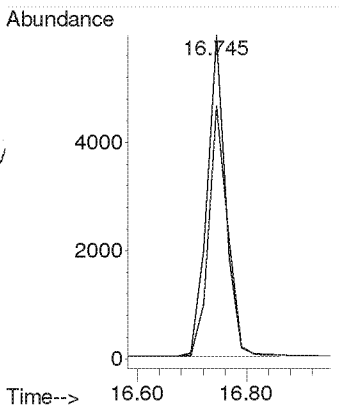




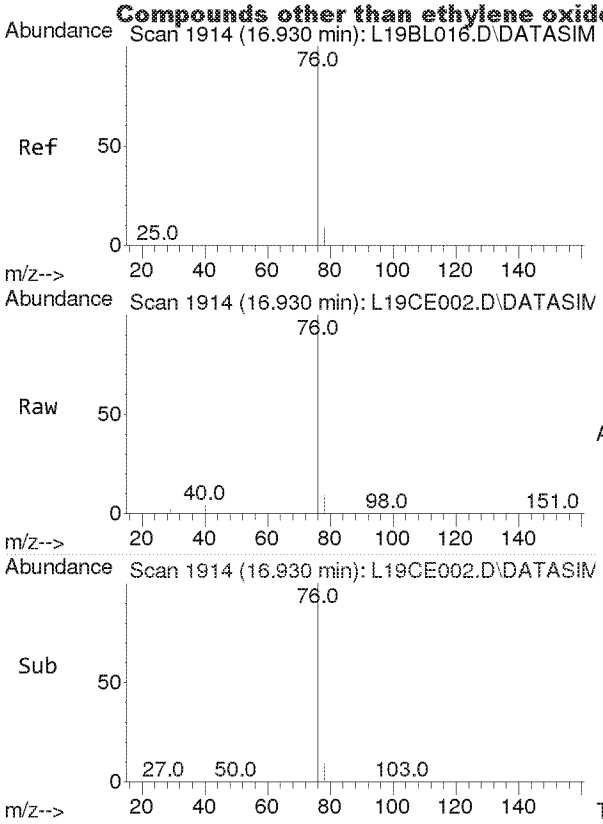
#17
Methylene Chloride
Concen: 2.255 ppbv
RT: 16.745 min Scan# 1906
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 49 Resp: 13915

Ion	Ratio	Lower	Upper
49	100		
84	79.8	54.0	100.4



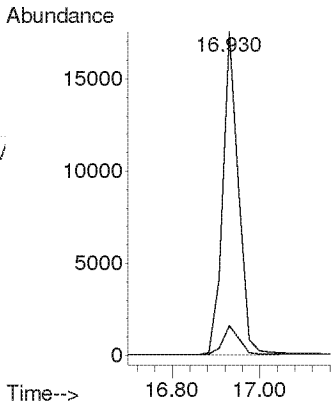
Compounds other than ethylene oxide were not quantitated.

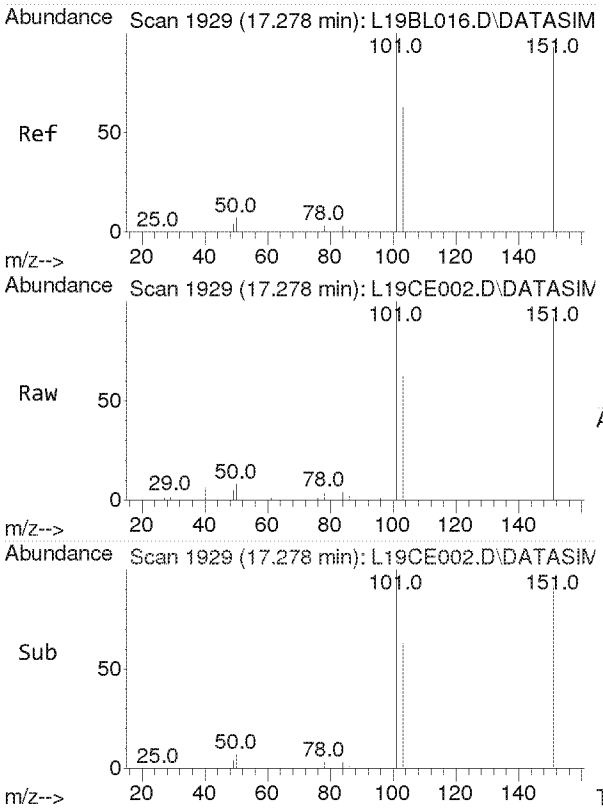


#18
Carbon Disulfide
Concen: 2.316 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 76 Resp: 44019

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.4	11.0

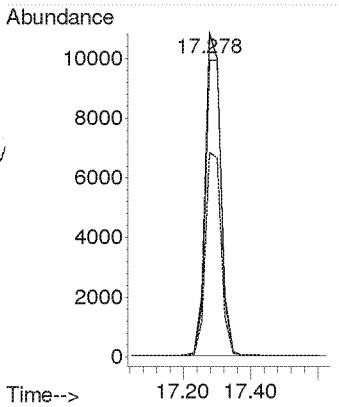




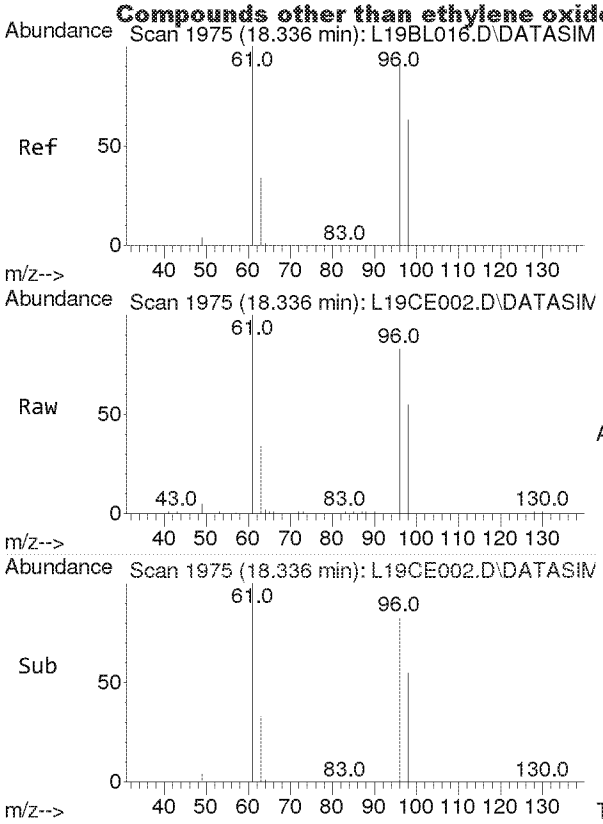
#19
Trichlorotrifluoroethane
Concen: 2.384 ppbv
RT: 17.278 min Scan# 1929
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:101 Resp: 34518

Ion	Ratio	Lower	Upper
101	100		
151	95.1	75.8	113.8
103	64.4	51.1	76.7



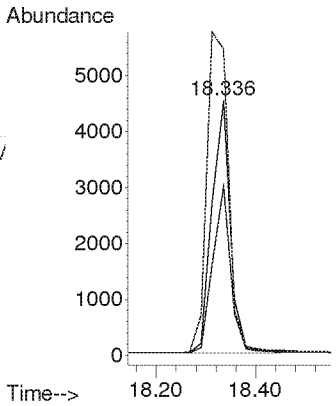
Compounds other than ethylene oxide were not quantitated.

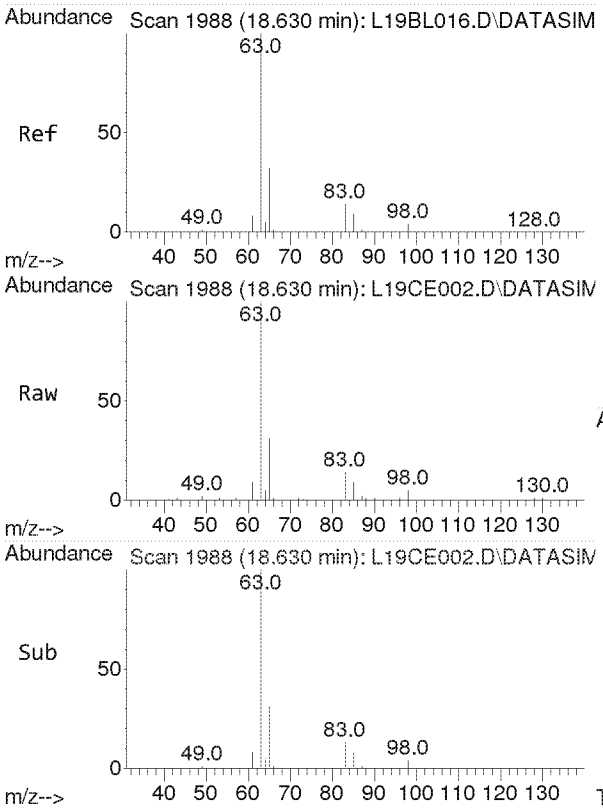


#20
trans-1,2-Dichloroethylene
Concen: 2.240 ppbv
RT: 18.336 min Scan# 1975
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 96 Resp: 11598

Ion	Ratio	Lower	Upper
96	100		
98	64.0	51.5	77.3
61	150.7	122.9	184.3

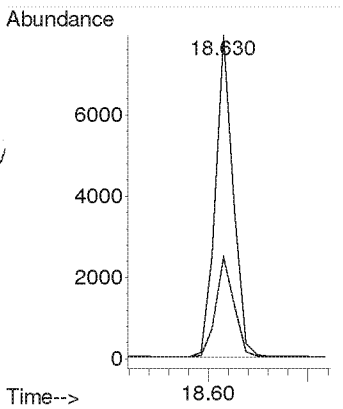




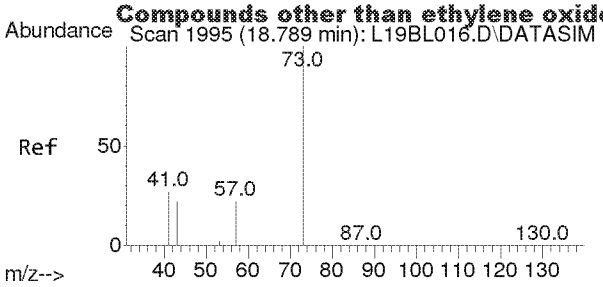
#21
1,1-Dichloroethane
Concen: 2.259 ppbv
RT: 18.630 min Scan# 1988
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 63 Resp: 19657

Ion	Ratio	Lower	Upper
63	100		
65	31.6	25.4	38.0



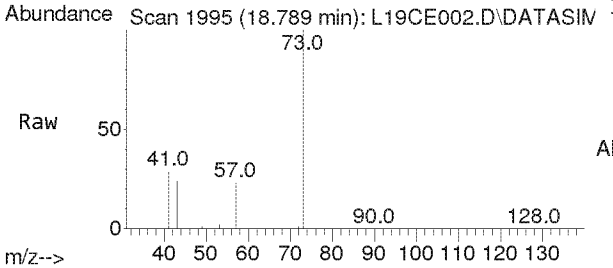
Compounds other than ethylene oxide were not quantitated.

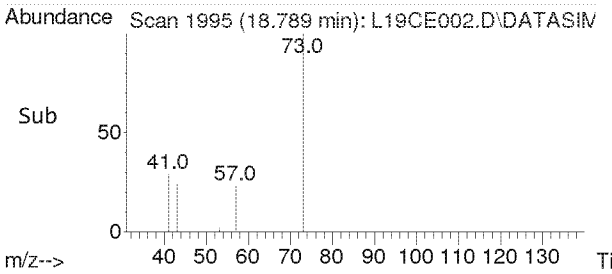


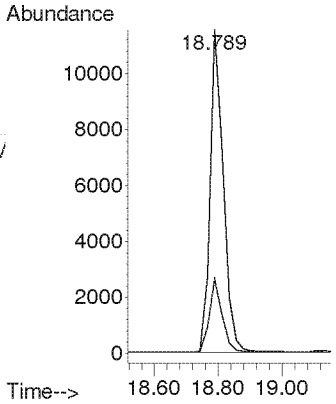
#22
Methyl tert-Butyl Ether
Concen: 2.263 ppbv
RT: 18.789 min Scan# 1995
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

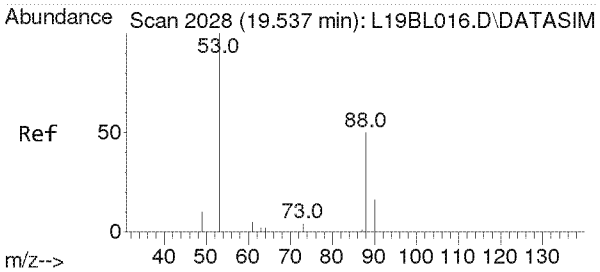
Tgt Ion: 73 Resp: 33021

Ion	Ratio	Lower	Upper
73	100		
57	22.1	18.0	27.0





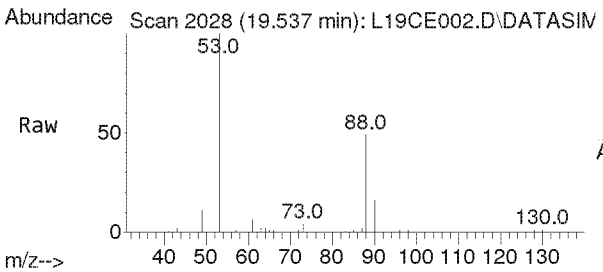


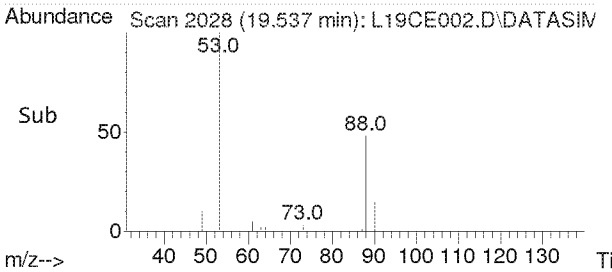


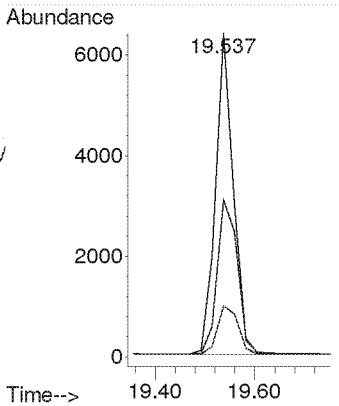
#23
Chloroprene
Concen: 2.251 ppbv
RT: 19.537 min Scan# 2028
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 53 Resp: 15932

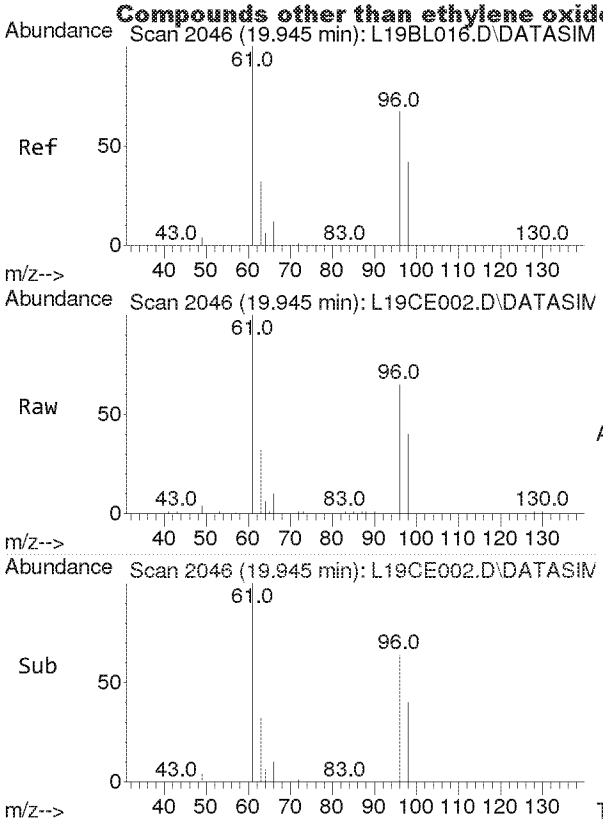
Ion	Ratio	Lower	Upper
53	100		
88	55.0	42.6	64.0
90	17.7	13.9	20.9







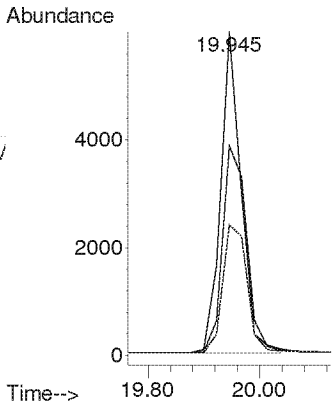
Compounds other than ethylene oxide were not quantitated.

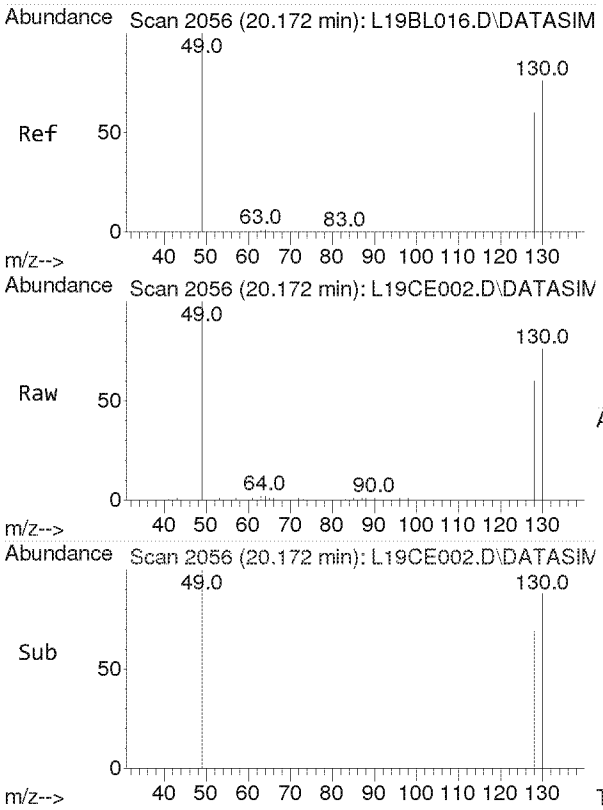


#24
cis-1,2-Dichloroethylene
Concen: 2.207 ppbv
RT: 19.945 min Scan# 2046
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 61 Resp: 15165

Ion	Ratio	Lower	Upper
61	100		
96	76.2	59.0	88.6
98	47.8	37.6	56.4

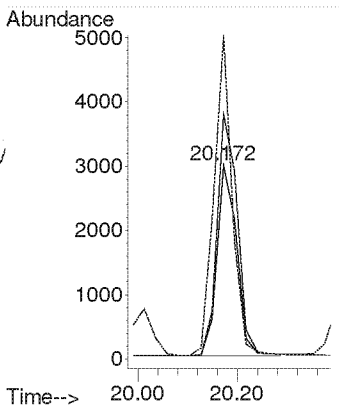




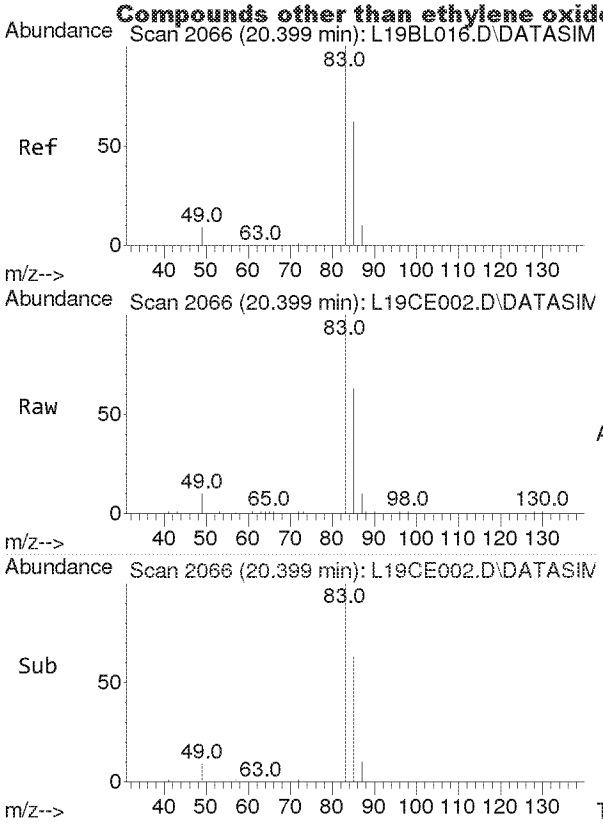
#25
Bromochloromethane
Concen: 2.216 ppbv
RT: 20.172 min Scan# 2056
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:128 Resp: 8230

Ion	Ratio	Lower	Upper
128	100		
130	129.9	103.3	154.9
49	153.1	128.3	192.5



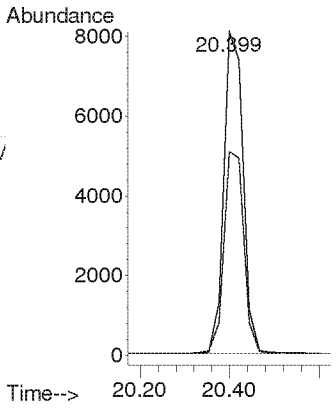
Compounds other than ethylene oxide were not quantitated.

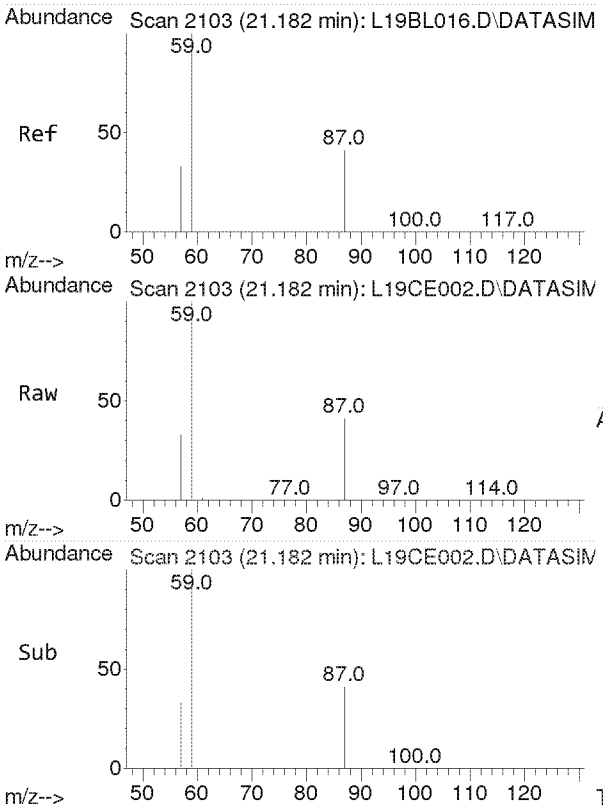


#26
Chloroform
Concen: 2.417 ppbv
RT: 20.399 min Scan# 2066
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 83 Resp: 24401

Ion	Ratio	Lower	Upper
83	100		
85	65.0	51.5	77.3

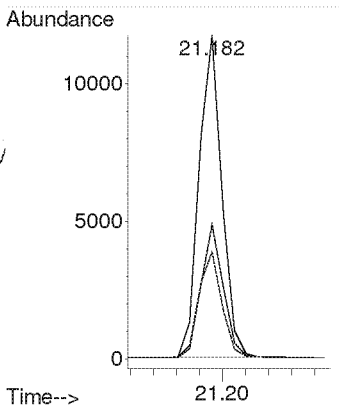




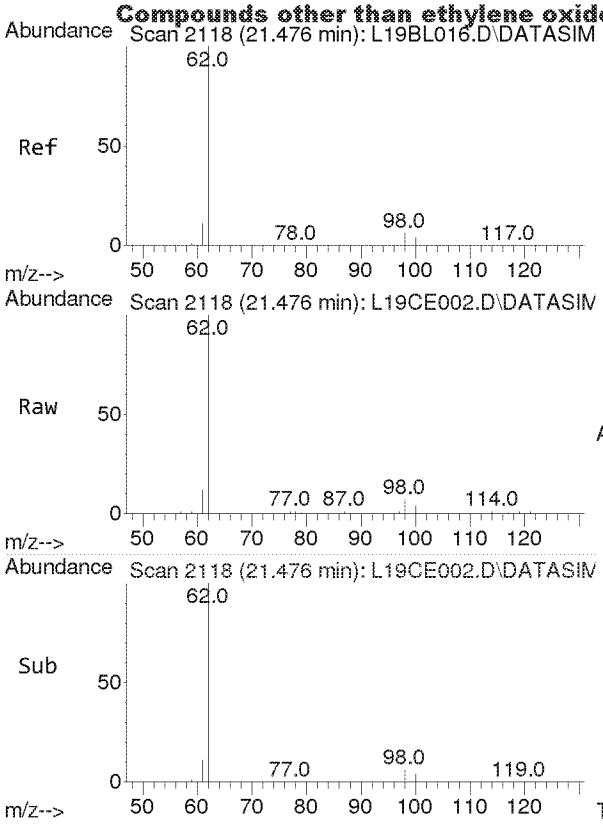
#27
Ethyl tert-Butyl Ether
Concen: 2.297 ppbv
RT: 21.182 min Scan# 2103
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 59 Resp: 32062

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



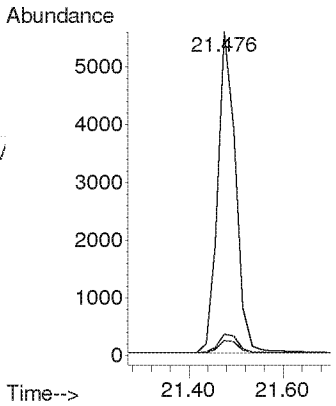
Compounds other than ethylene oxide were not quantitated.

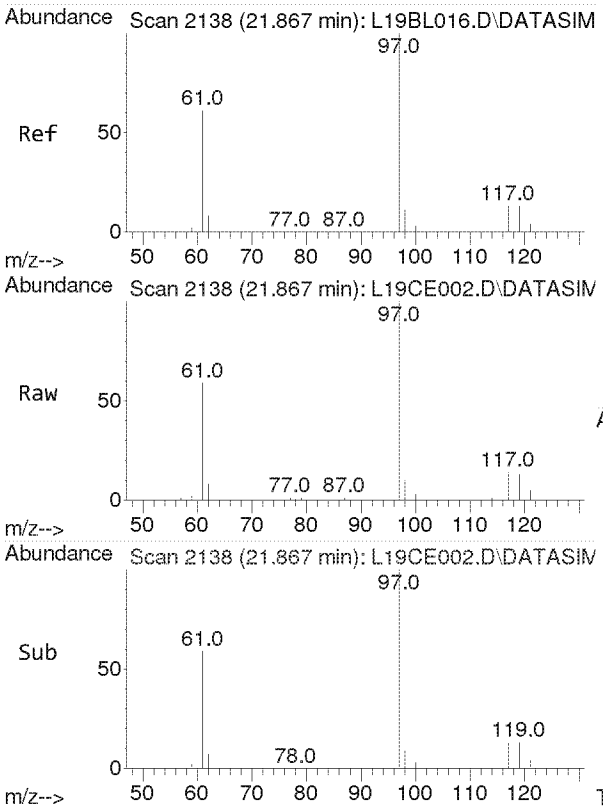


#28
1,2-Dichloroethane
Concen: 2.362 ppbv
RT: 21.476 min Scan# 2118
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 62 Resp: 14638

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

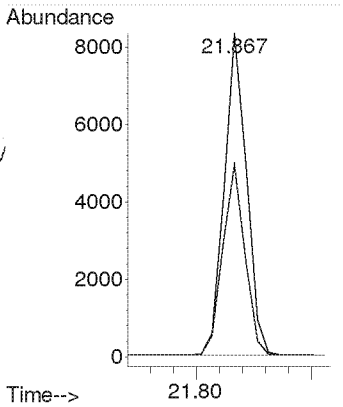




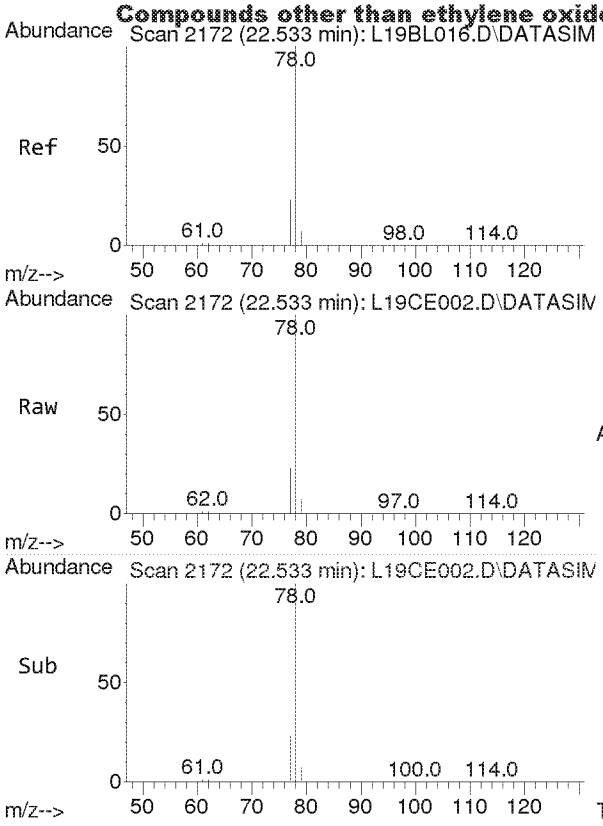
#30
1,1,1-Trichloroethane
Concen: 2.190 ppbv
RT: 21.867 min Scan# 2138
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 97 Resp: 22132

Ion	Ratio	Lower	Upper
97	100		
61	59.3	49.7	74.5



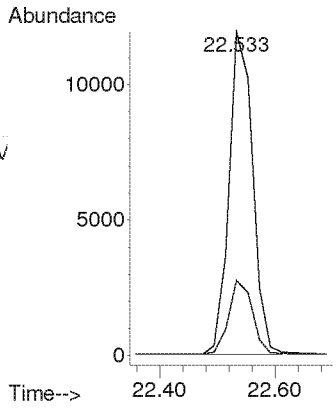
Compounds other than ethylene oxide were not quantitated.

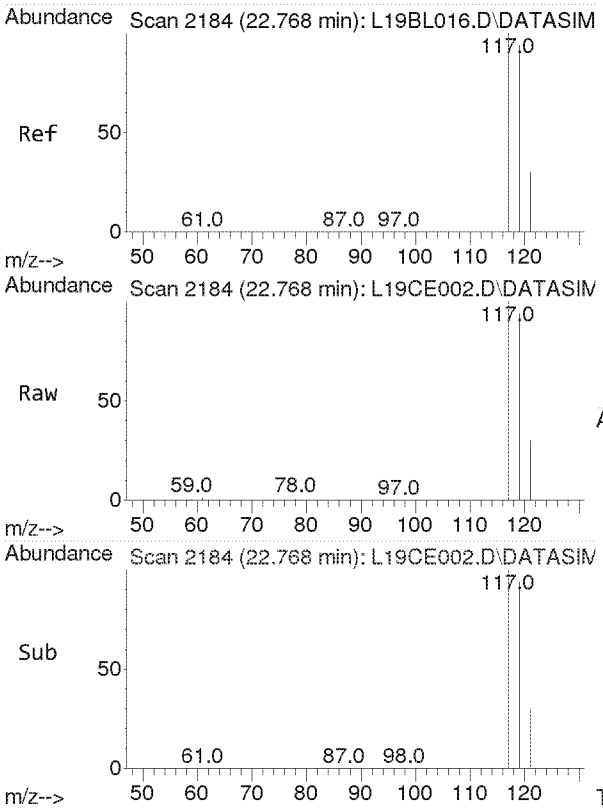


#31
Benzene
Concen: 2.336 ppbv
RT: 22.533 min Scan# 2172
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 78 Resp: 33751

Ion	Ratio	Lower	Upper
78	100		
77	22.8	18.2	27.4

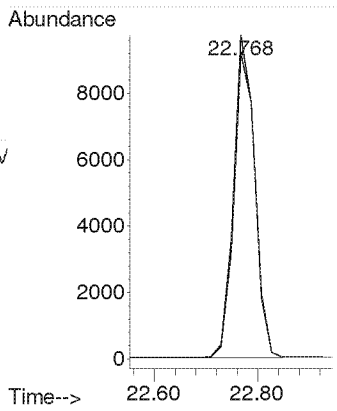




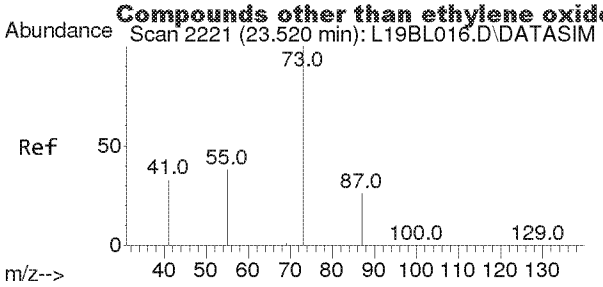
#32
Carbon Tetrachloride
Concen: 2.528 ppbv
RT: 22.768 min Scan# 2184
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:117 Resp: 27356

Ion	Ratio	Lower	Upper
117	100		
119	96.4	77.0	115.6



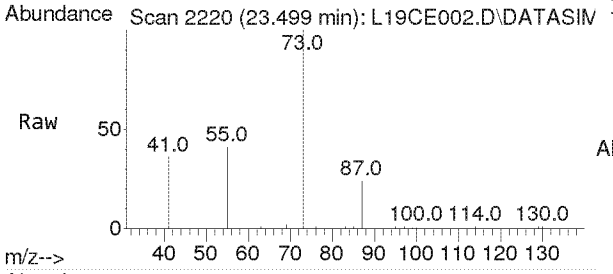
Compounds other than ethylene oxide were not quantitated.

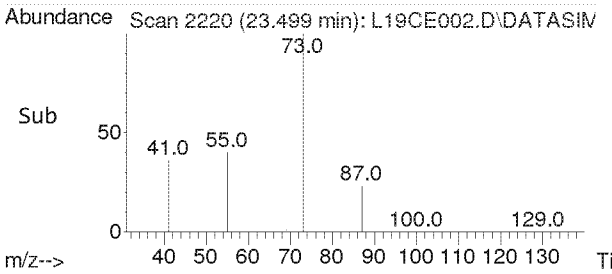


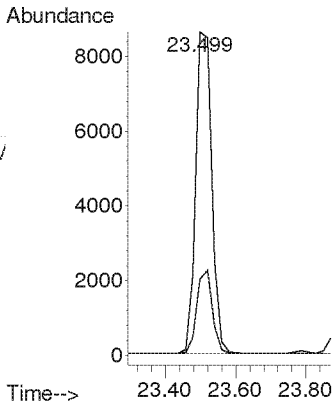
#33
tert-Amyl Methyl Ether
Concen: 2.228 ppbv
RT: 23.499 min Scan# 2220
Delta R.T. -0.021 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

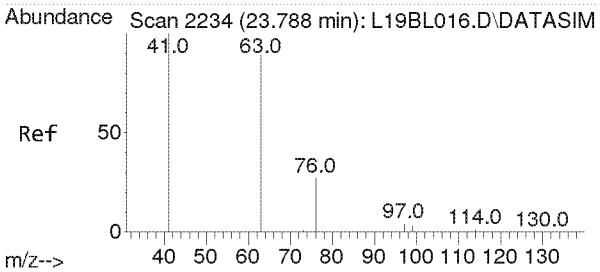
Tgt Ion: 73 Resp: 27345

Ion	Ratio	Lower	Upper
73	100		
87	25.1	20.1	30.1





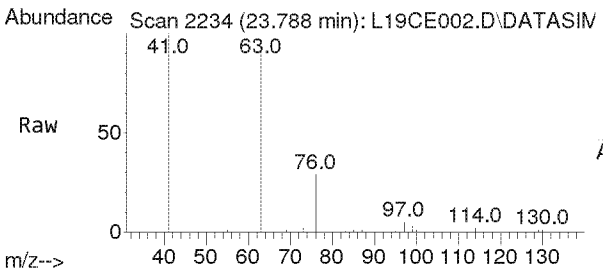


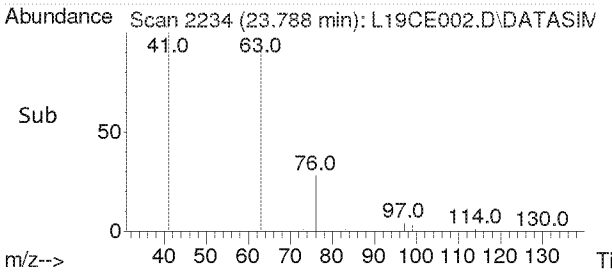


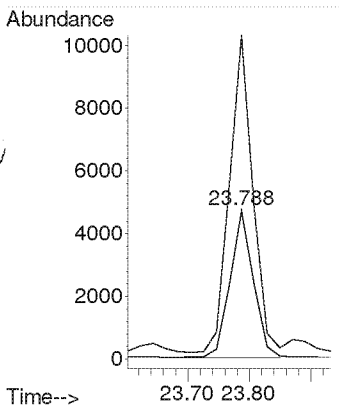
#34
1,2-Dichloropropane
Concen: 2.236 ppbv
RT: 23.788 min Scan# 2234
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 63 Resp: 12286

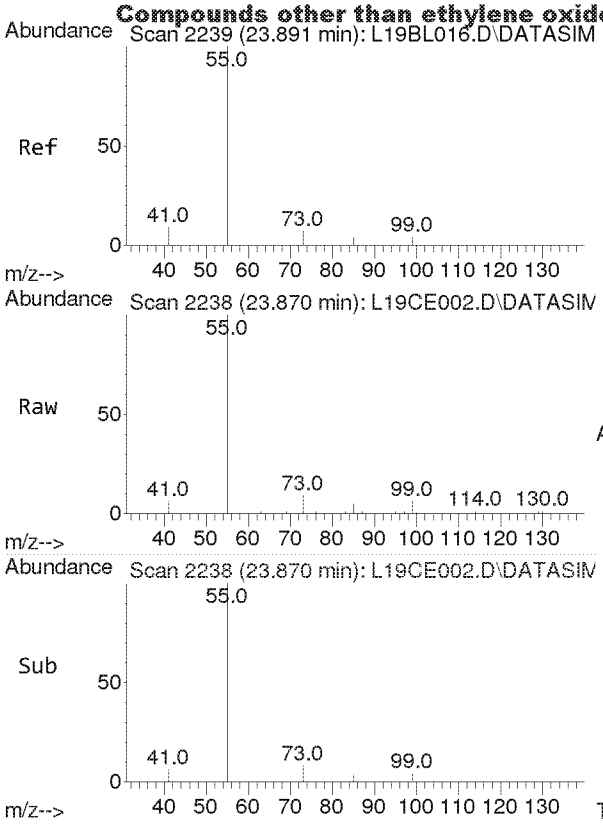
Ion	Ratio	Lower	Upper
63	100		
41	215.5	175.9	263.9







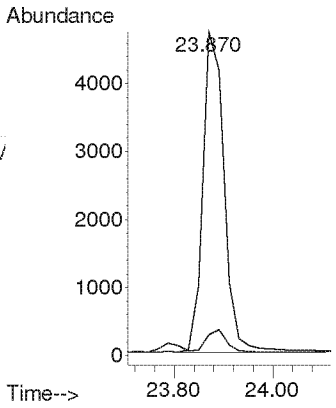
Compounds other than ethylene oxide were not quantitated.

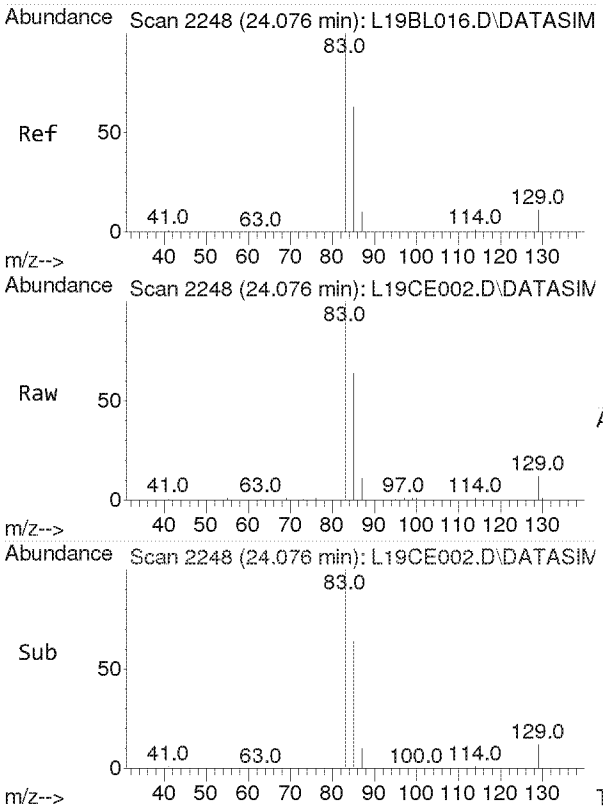


#35
Ethyl Acrylate
Concen: 2.992 ppbv
RT: 23.870 min Scan# 2238
Delta R.T. -0.020 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 55 Resp: 13966

Ion	Ratio	Lower	Upper
55	100		
99	6.5	5.0	7.6

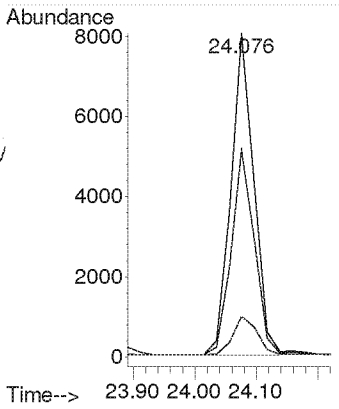




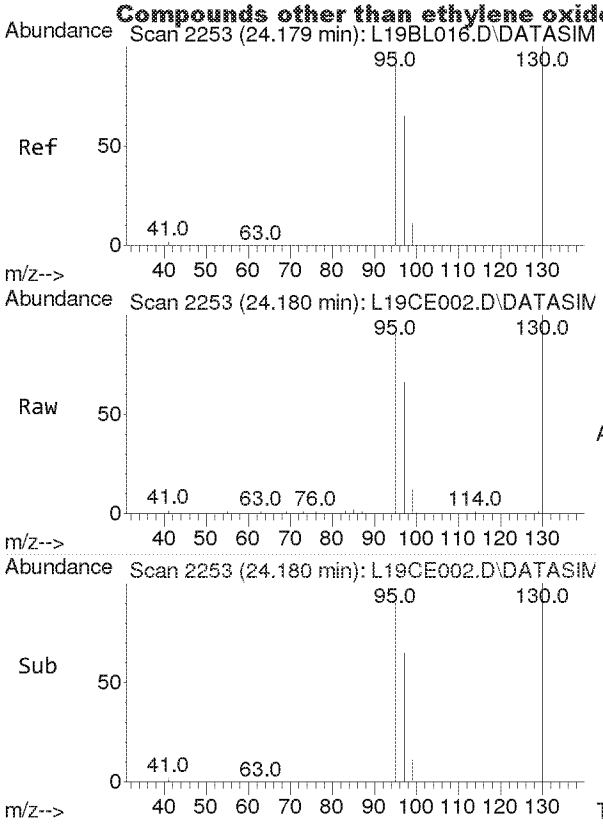
#36
Bromodichloromethane
Concen: 2.140 ppbv
RT: 24.076 min Scan# 2248
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 83 Resp: 20800

Ion	Ratio	Lower	Upper
83	100		
85	64.2	51.0	76.4
129	12.6	9.9	14.9



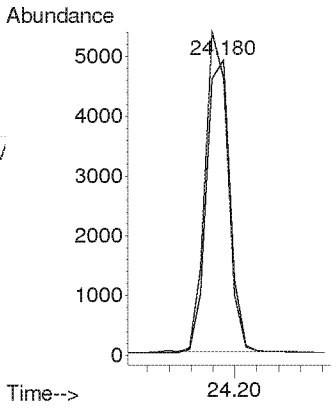
Compounds other than ethylene oxide were not quantitated.

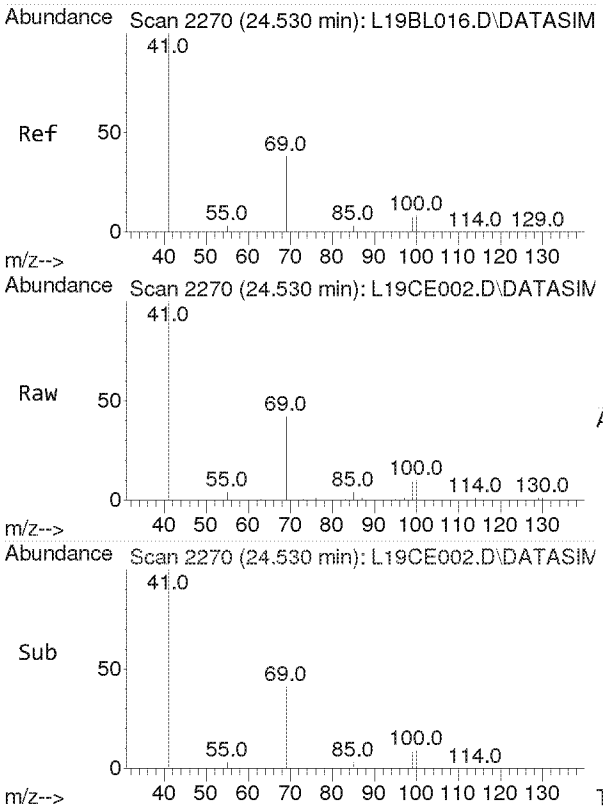


#37
Trichloroethylene
Concen: 2.115 ppbv
RT: 24.180 min Scan# 2253
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:130 Resp: 14557

Ion	Ratio	Lower	Upper
130	100		
95	106.9	84.9	127.3

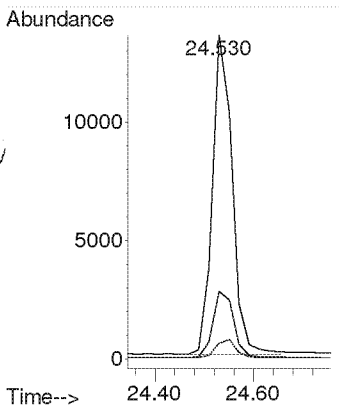




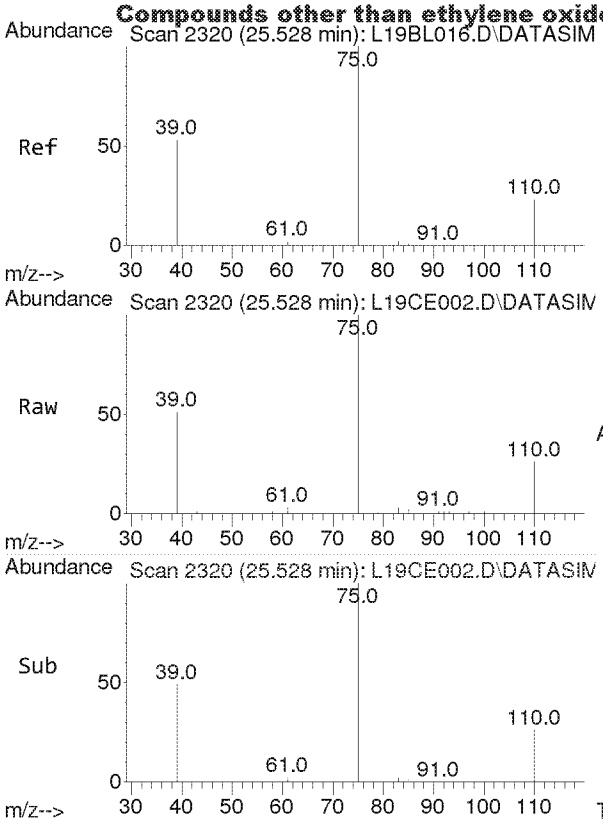
#38
Methyl Methacrylate
Concen: 2.688 ppbv
RT: 24.530 min Scan# 2270
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 41 Resp: 37652

Ion	Ratio	Lower	Upper
41	100		
69	21.8	16.8	25.2
100	5.8	4.5	6.7



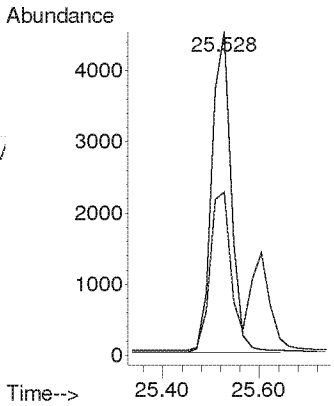
Compounds other than ethylene oxide were not quantitated.

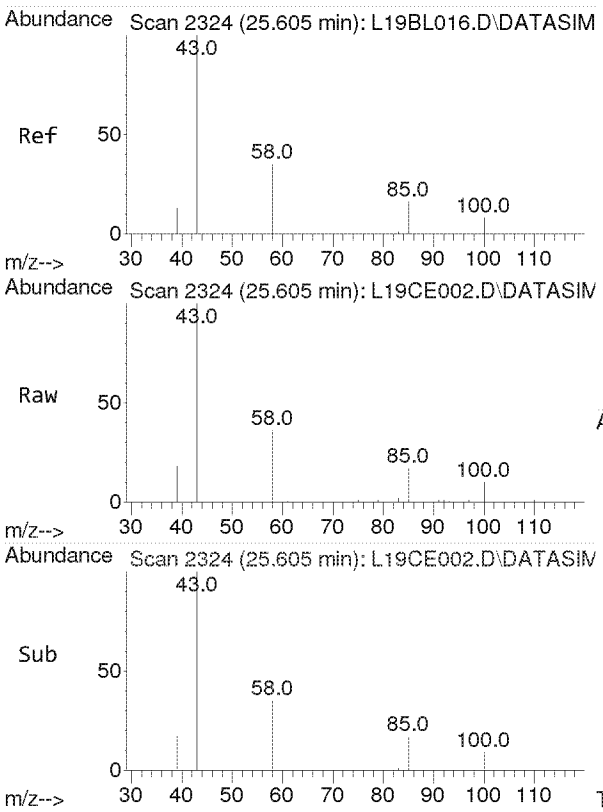


#39
cis-1,3-Dichloropropene
Concen: 2.634 ppbv
RT: 25.528 min Scan# 2320
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 75 Resp: 12566

Ion	Ratio	Lower	Upper
75	100		
39	53.5	43.4	65.0

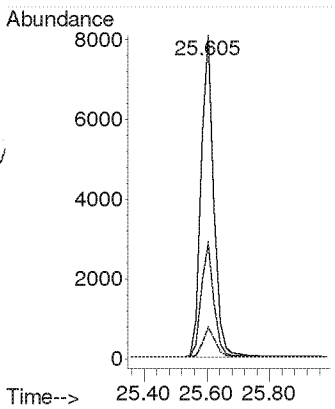




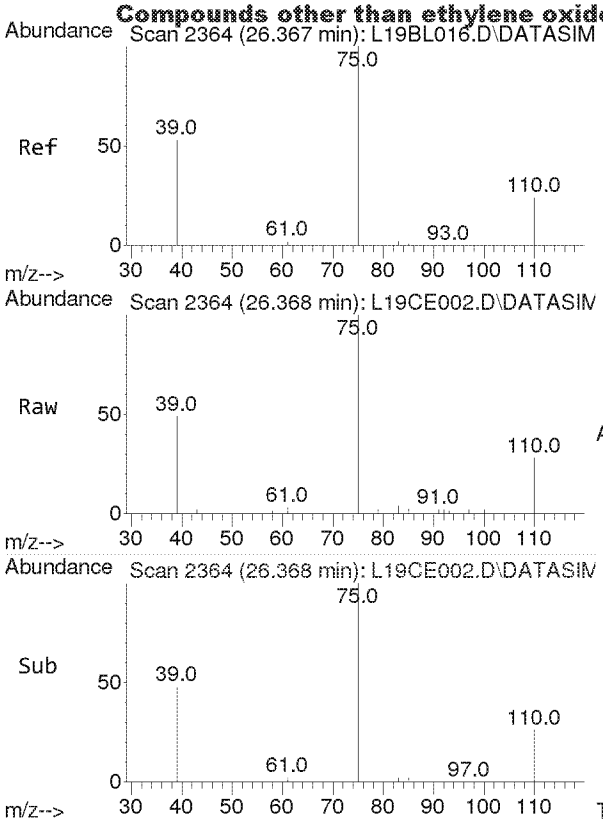
#40
Methyl Isobutyl Ketone
Concen: 2.201 ppbv
RT: 25.605 min Scan# 2324
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 43 Resp: 22664

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



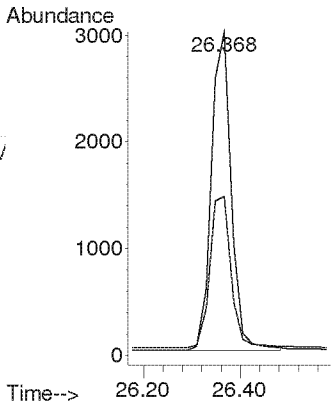
Compounds other than ethylene oxide were not quantitated.

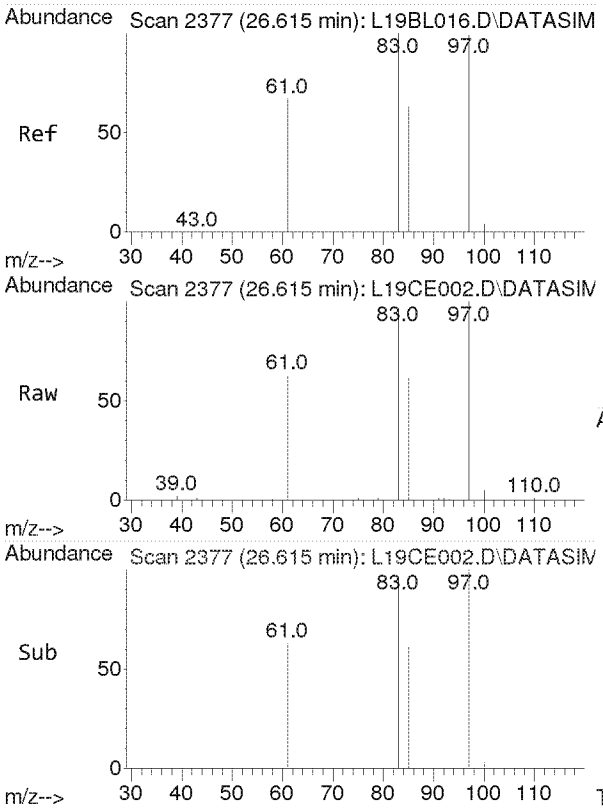


#41
trans-1,3-Dichloropropene
Concen: 2.660 ppbv
RT: 26.368 min Scan# 2364
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 75 Resp: 8501

Ion	Ratio	Lower	Upper
75	100		
39	51.1	42.9	64.3

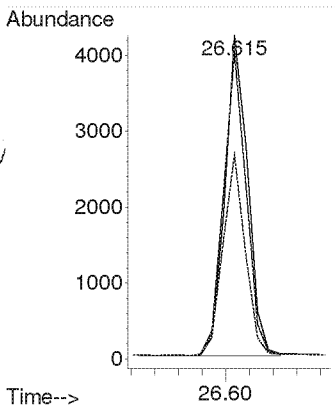




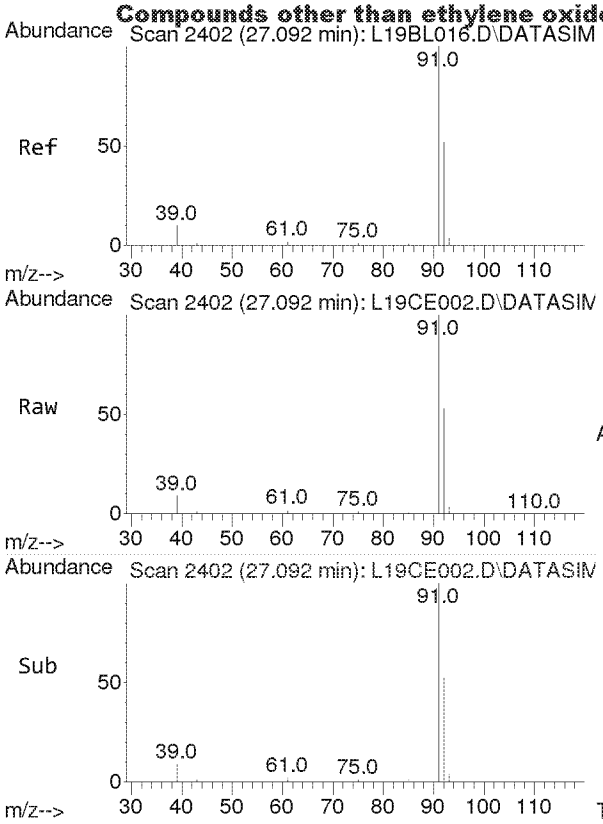
#42
1,1,2-Trichloroethane
Concen: 2.224 ppbv
RT: 26.615 min Scan# 2377
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 97 Resp: 11176

Ion	Ratio	Lower	Upper
97	100		
83	94.3	75.4	113.0
61	61.8	49.8	74.6



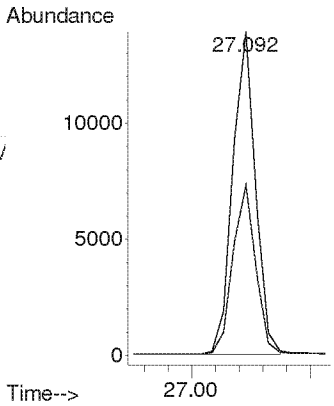
Compounds other than ethylene oxide were not quantitated.

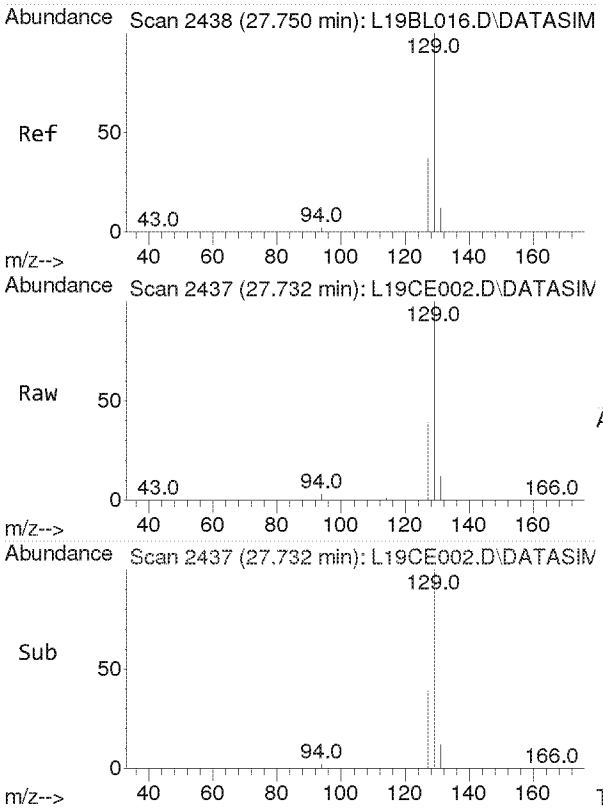


#44
Toluene
Concen: 2.264 ppbv
RT: 27.092 min Scan# 2402
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 91 Resp: 36740

Ion	Ratio	Lower	Upper
91	100		
92	52.7	42.0	63.0

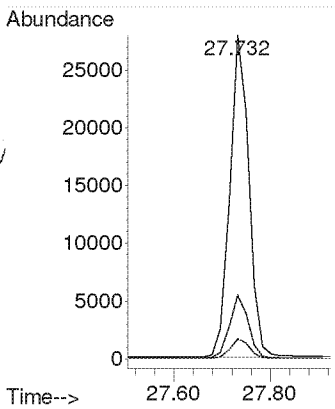




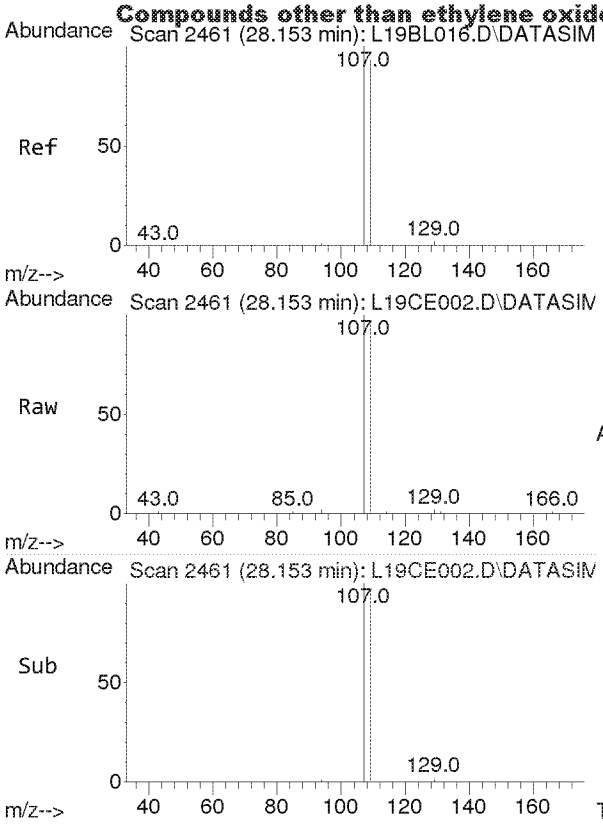
#45
Dibromochloromethane
Concen: 2.392 ppbv
RT: 27.732 min Scan# 2437
Delta R.T. -0.017 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:129 Resp: 76223

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



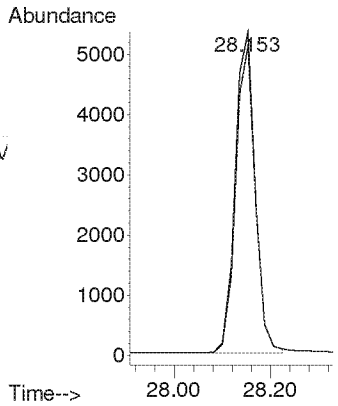
Compounds other than ethylene oxide were not quantitated.

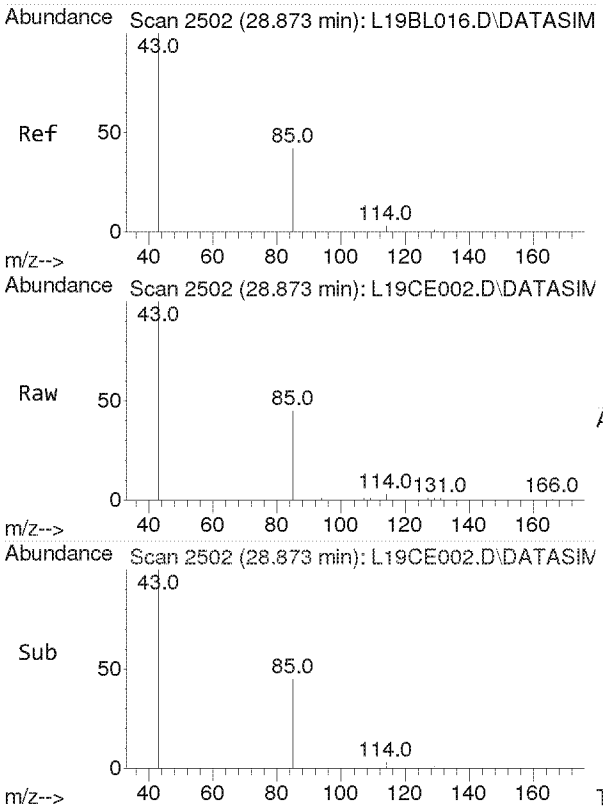


#46
1,2-Dibromoethane
Concen: 2.517 ppbv
RT: 28.153 min Scan# 2461
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:107 Resp: 15315

Ion	Ratio	Lower	Upper
107	100		
109	94.7	75.4	113.0

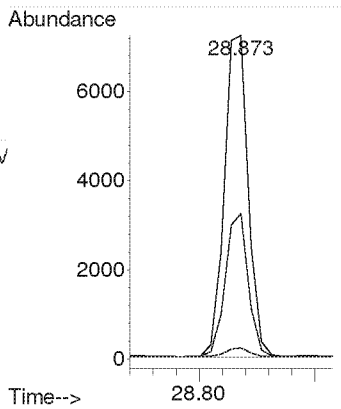




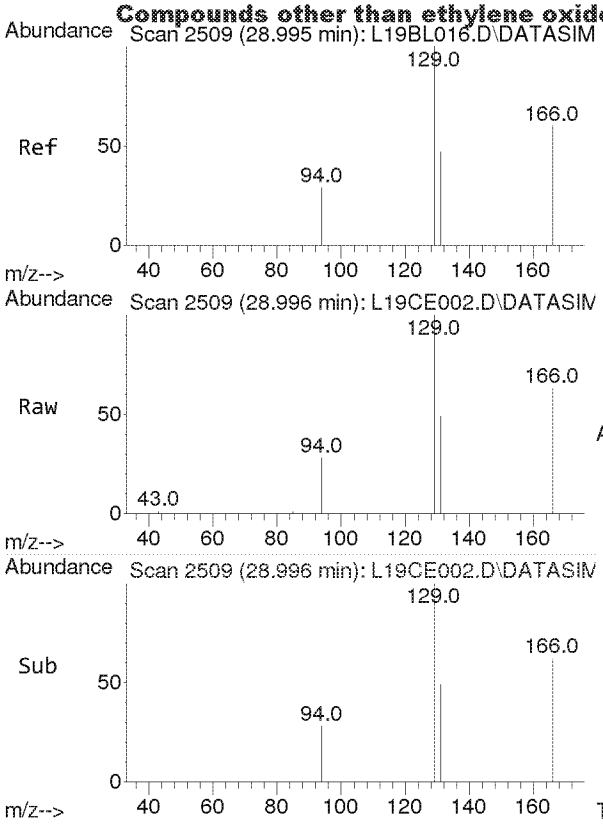
#47
n-Octane
Concen: 2.128 ppbv
RT: 28.873 min Scan# 2502
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 43 Resp: 20800

Ion	Ratio	Lower	Upper
43	100		
85	42.9	33.0	49.6
114	2.7	2.2	3.4



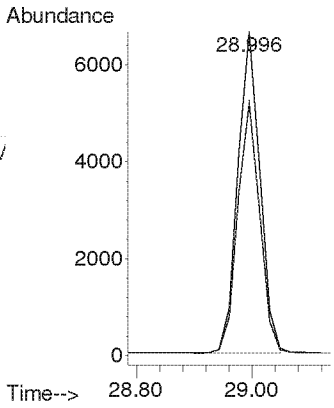
Compounds other than ethylene oxide were not quantitated.

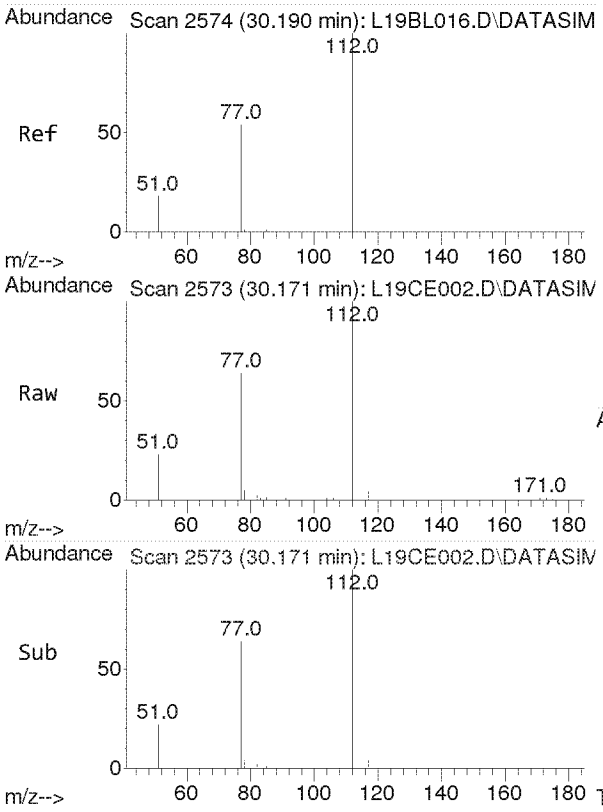


#48
Tetrachloroethylene
Concen: 2.249 ppbv
RT: 28.996 min Scan# 2509
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:166 Resp: 17566

Ion	Ratio	Lower	Upper
166	100		
131	78.0	61.5	92.3

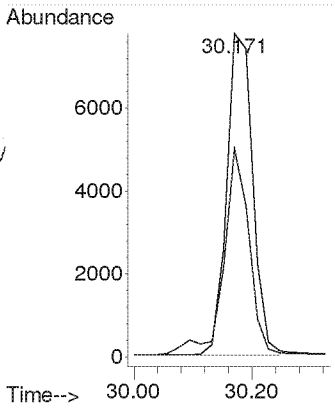




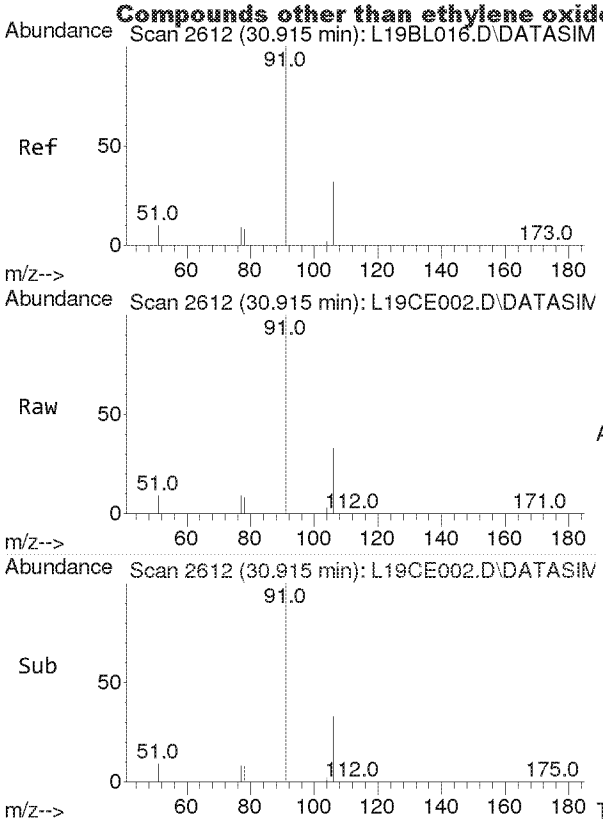
#49
Chlorobenzene
Concen: 2.272 ppbv
RT: 30.171 min Scan# 2573
Delta R.T. -0.019 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:112 Resp: 23529

Ion	Ratio	Lower	Upper
112	100		
77	61.1	47.8	71.6



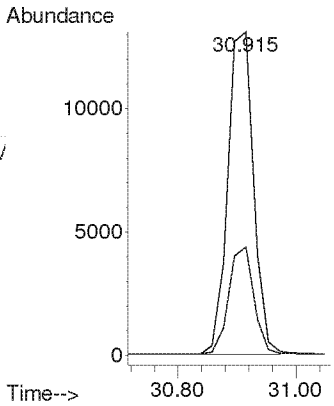
Compounds other than ethylene oxide were not quantitated.

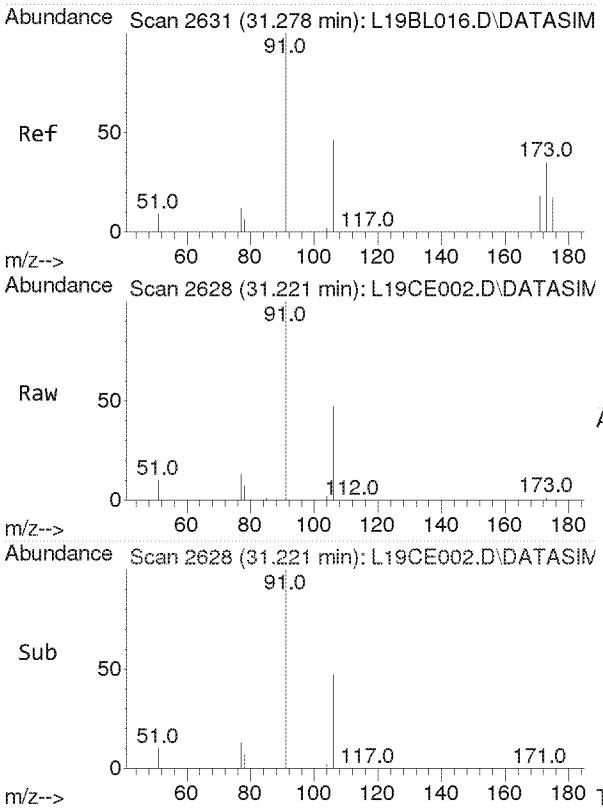


#50
Ethylbenzene
Concen: 2.309 ppbv
RT: 30.915 min Scan# 2612
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 91 Resp: 39392

Ion	Ratio	Lower	Upper
91	100		
106	32.3	26.0	39.0

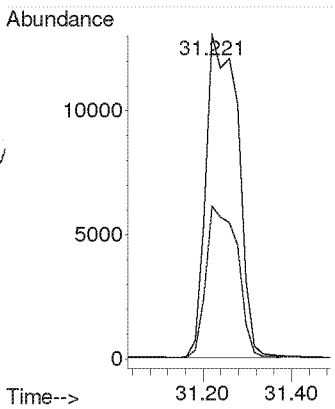




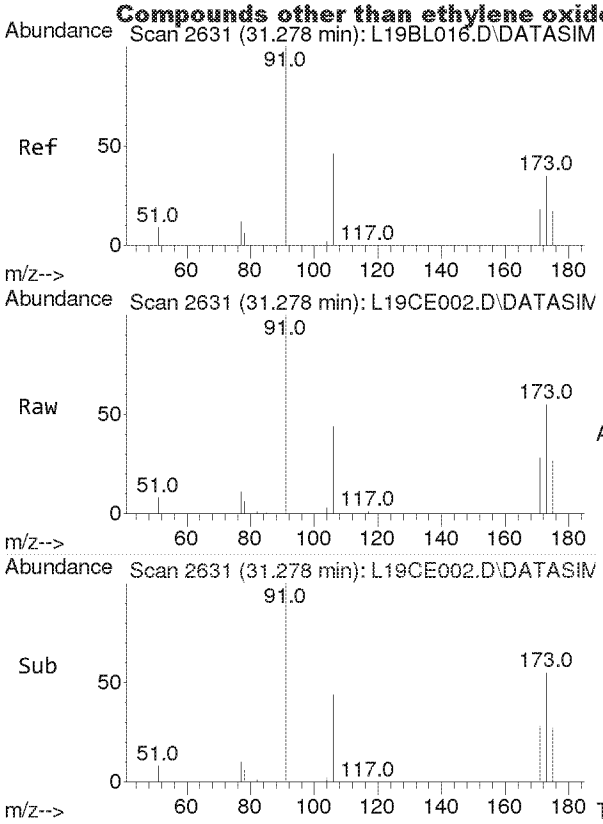
#51
m,p-Xylene
Concen: 4.518 ppbv
RT: 31.221 min Scan# 2628
Delta R.T. -0.057 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 91 Resp: 65025

Ion	Ratio	Lower	Upper
91	100		
106	45.9	37.3	55.9



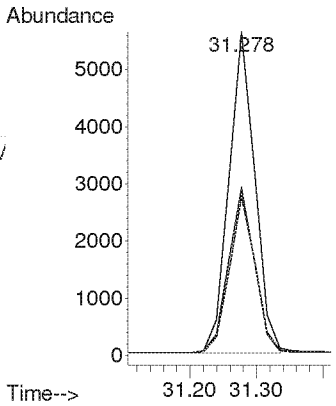
Compounds other than ethylene oxide were not quantitated.

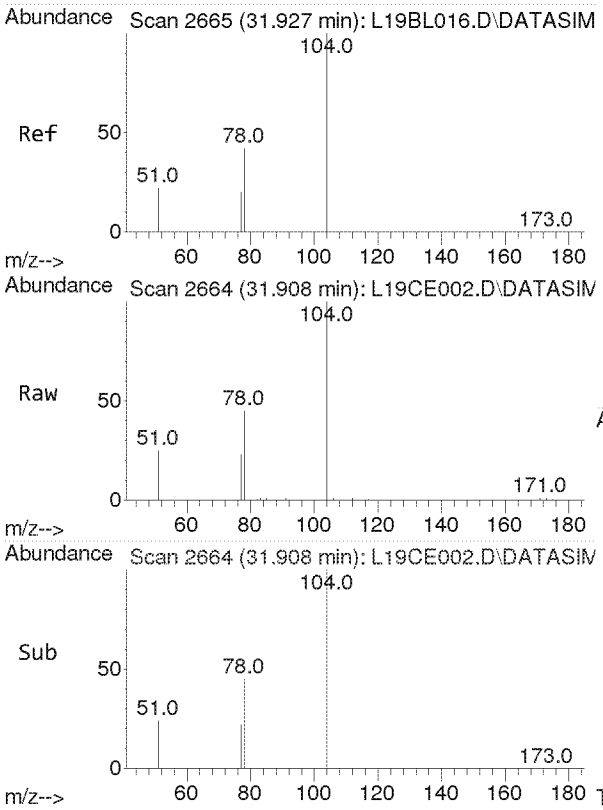


#52
Bromoform
Concen: 2.478 ppbv
RT: 31.278 min Scan# 2631
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:173 Resp: 15264

Ion	Ratio	Lower	Upper
173	100		
171	51.4	41.0	61.6
175	48.8	39.1	58.7

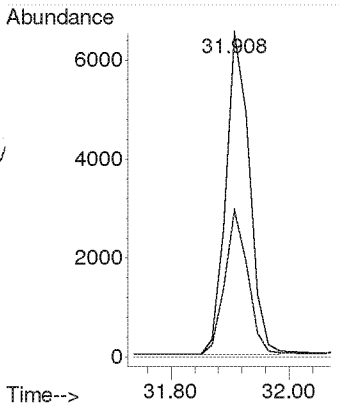




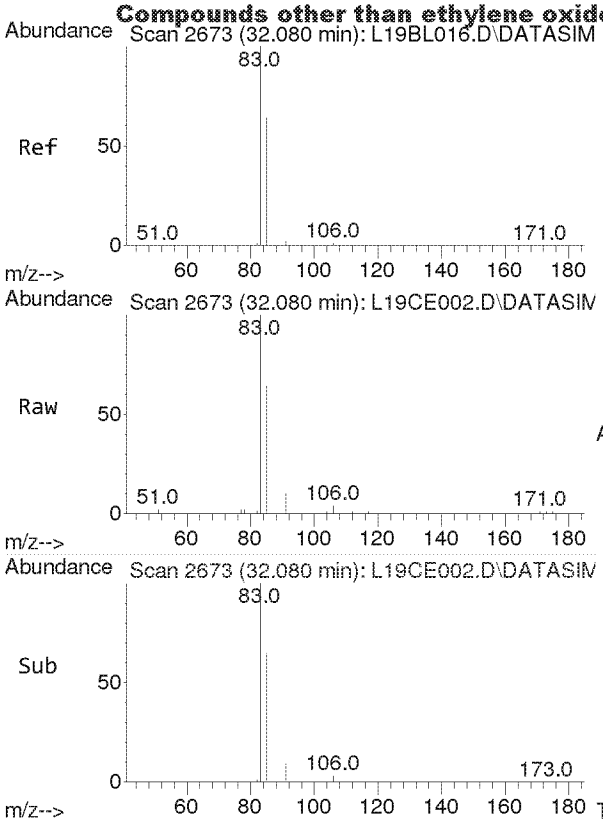
#53
Styrene
Concen: 2.209 ppbv
RT: 31.908 min Scan# 2664
Delta R.T. -0.019 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:104 Resp: 18023

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



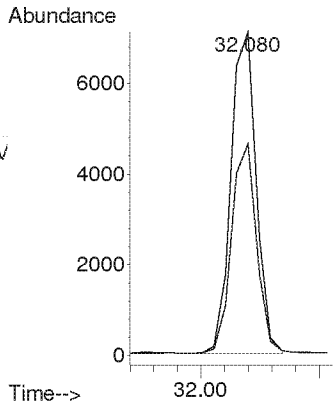
Compounds other than ethylene oxide were not quantitated.

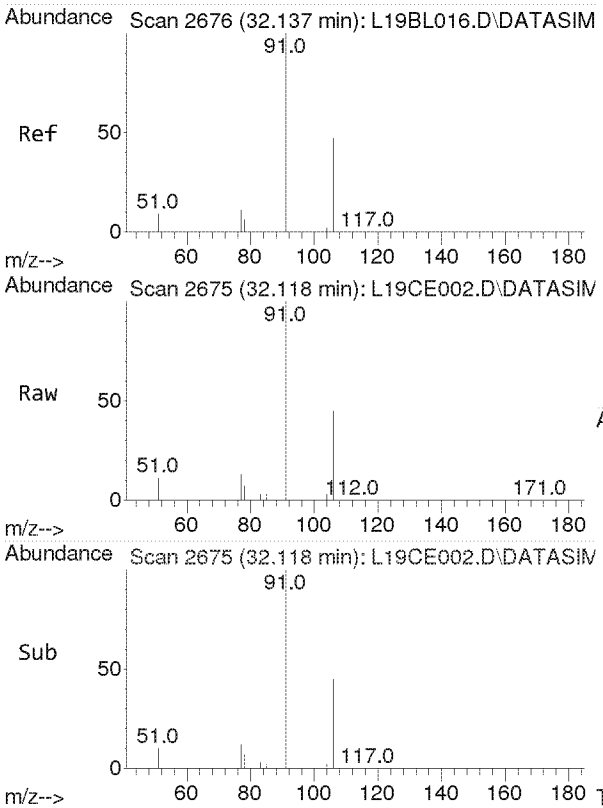


#54
1,1,2,2-Tetrachloroethane
Concen: 2.248 ppbv
RT: 32.080 min Scan# 2673
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 83 Resp: 20884

Ion	Ratio	Lower	Upper
83	100		
85	64.7	51.6	77.4

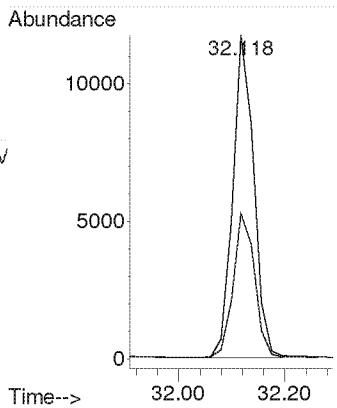




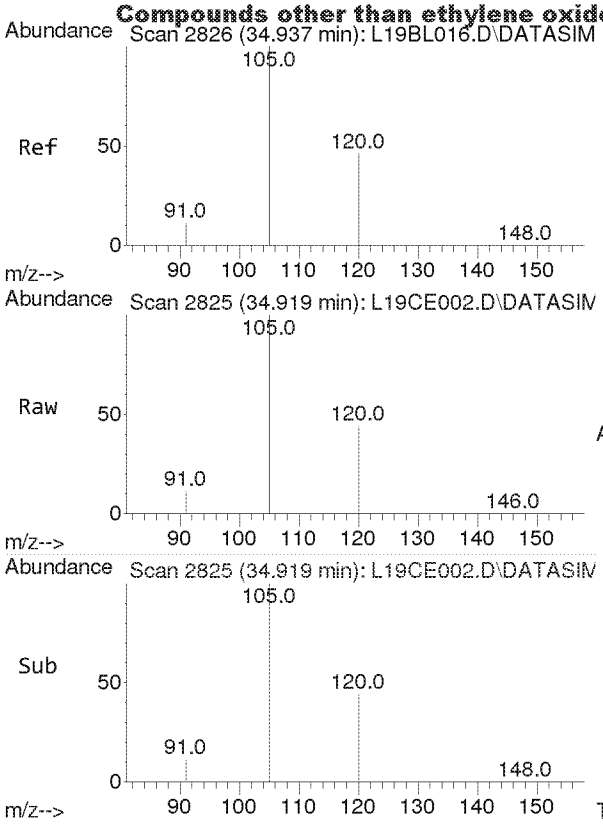
#55
o-Xylene
Concen: 2.260 ppbv
RT: 32.118 min Scan# 2675
Delta R.T. -0.019 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion: 91 Resp: 32102

Ion	Ratio	Lower	Upper
91	100		
106	45.5	36.6	55.0



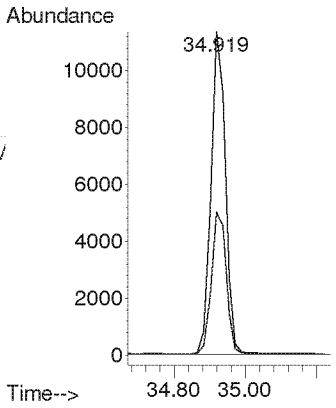
Compounds other than ethylene oxide were not quantitated.

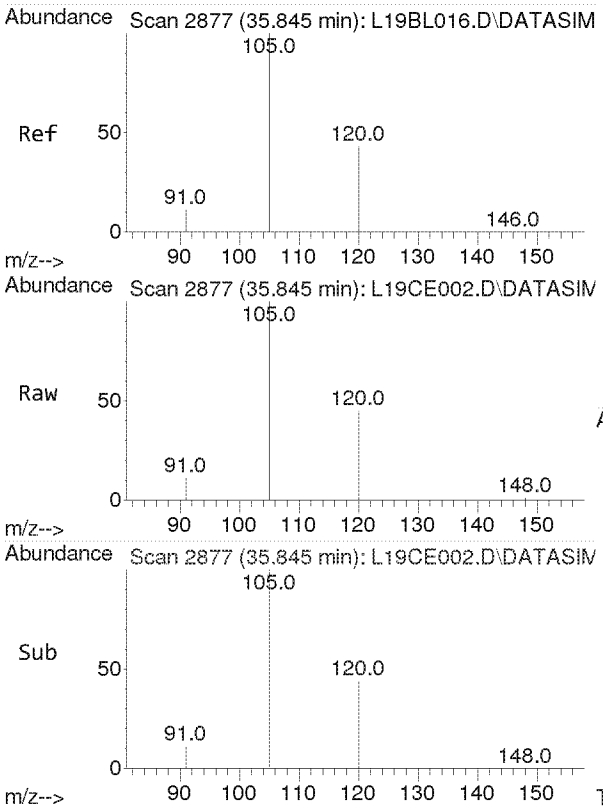


#56
1,3,5-Trimethylbenzene
Concen: 2.068 ppbv
RT: 34.919 min Scan# 2825
Delta R.T. -0.018 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:105 Resp: 31559

Ion	Ratio	Lower	Upper
105	100		
120	45.6	36.8	55.2

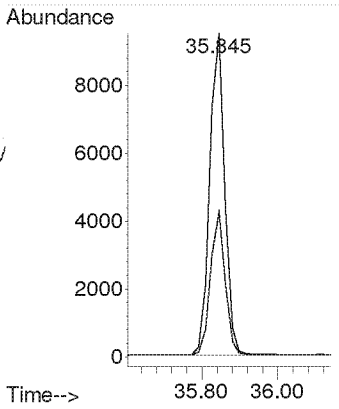




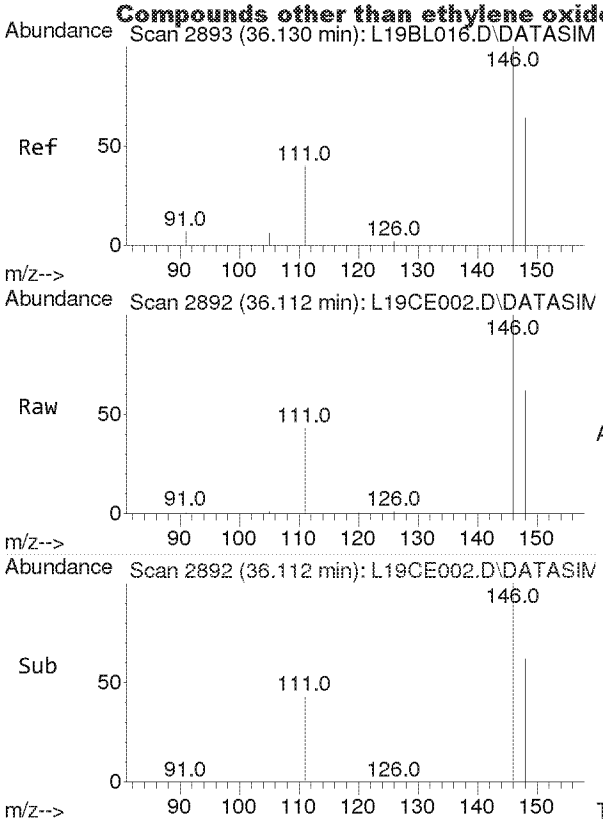
#57
1,2,4-Trimethylbenzene
Concen: 1.988 ppbv
RT: 35.845 min Scan# 2877
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:105 Resp: 26240

Ion	Ratio	Lower	Upper
105	100		
120	43.4	35.2	52.8



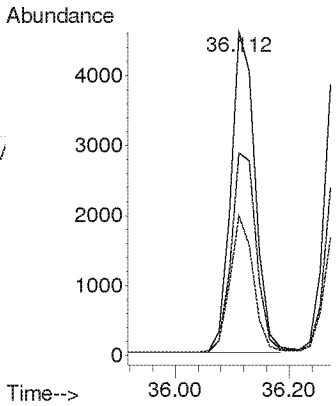
Compounds other than ethylene oxide were not quantitated.

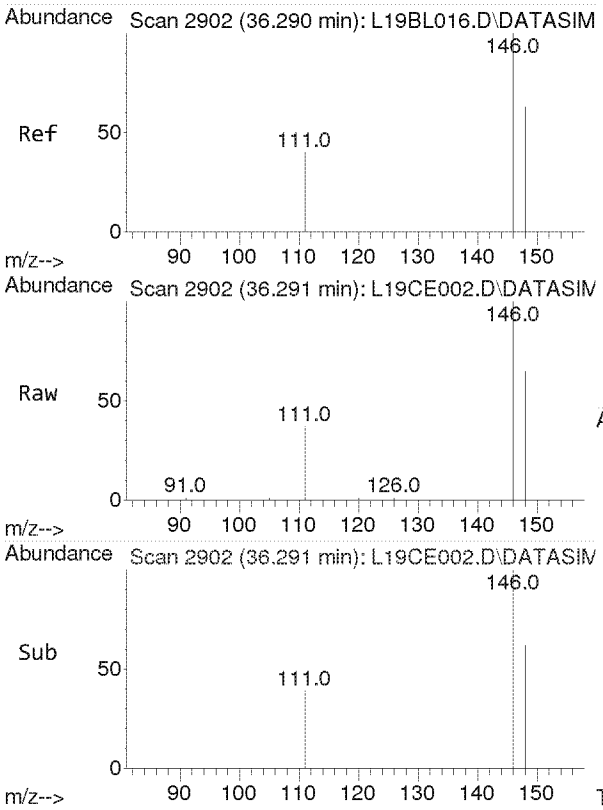


#58
m-Dichlorobenzene
Concen: 1.941 ppbv
RT: 36.112 min Scan# 2892
Delta R.T. -0.018 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:146 Resp: 13466

Ion	Ratio	Lower	Upper
146	100		
148	64.4	51.3	76.9
111	41.2	32.1	48.1

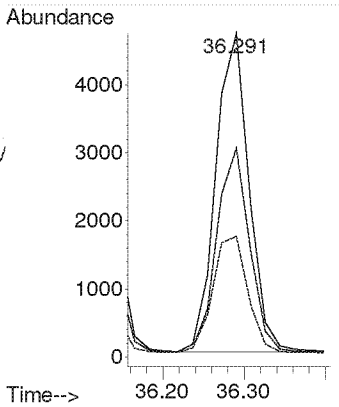




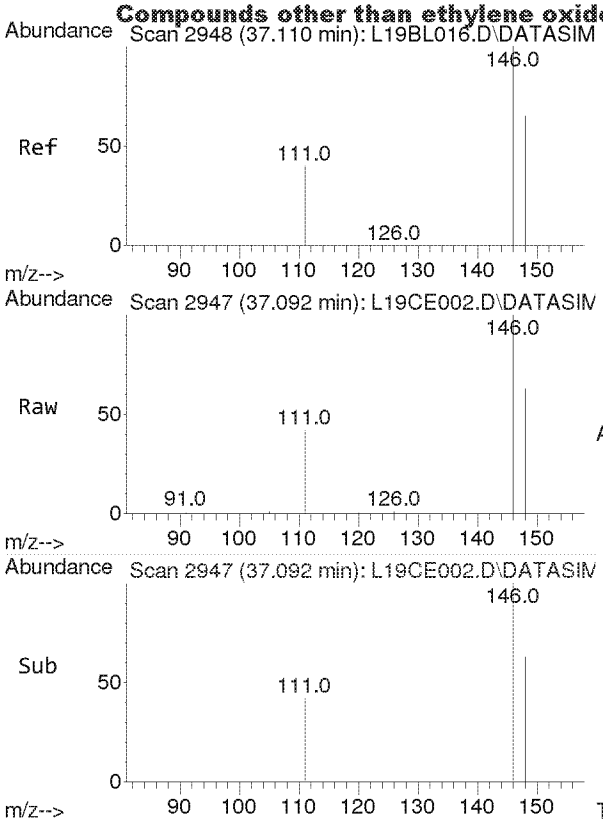
#59
p-Dichlorobenzene
Concen: 2.323 ppbv
RT: 36.291 min Scan# 2902
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:146 Resp: 13129

Ion	Ratio	Lower	Upper
146	100		
148	63.6	51.4	77.2
111	38.8	31.0	46.4



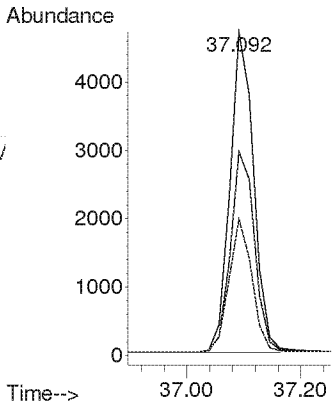
Compounds other than ethylene oxide were not quantitated.

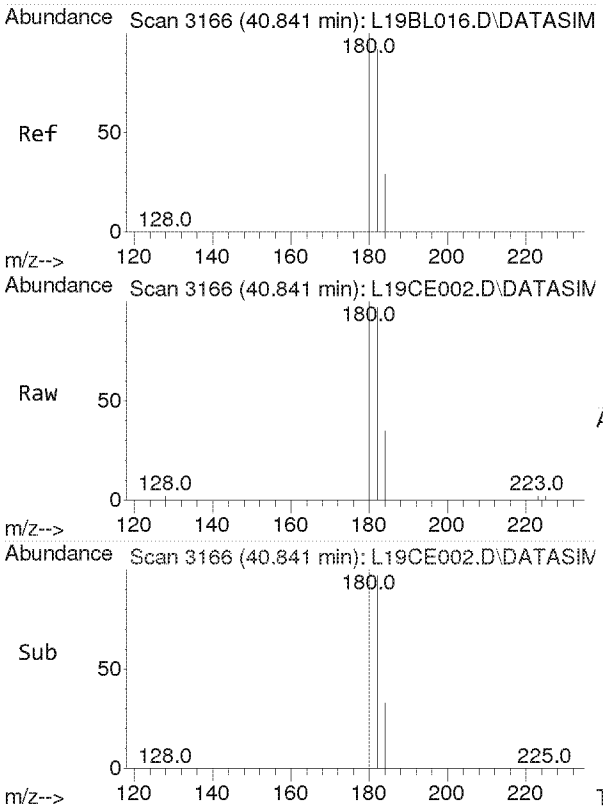


#60
o-Dichlorobenzene
Concen: 2.131 ppbv
RT: 37.092 min Scan# 2947
Delta R.T. -0.018 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:146 Resp: 13522

Ion	Ratio	Lower	Upper
146	100		
148	63.8	51.2	76.8
111	40.7	32.6	49.0

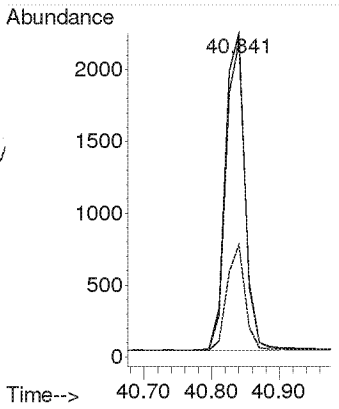




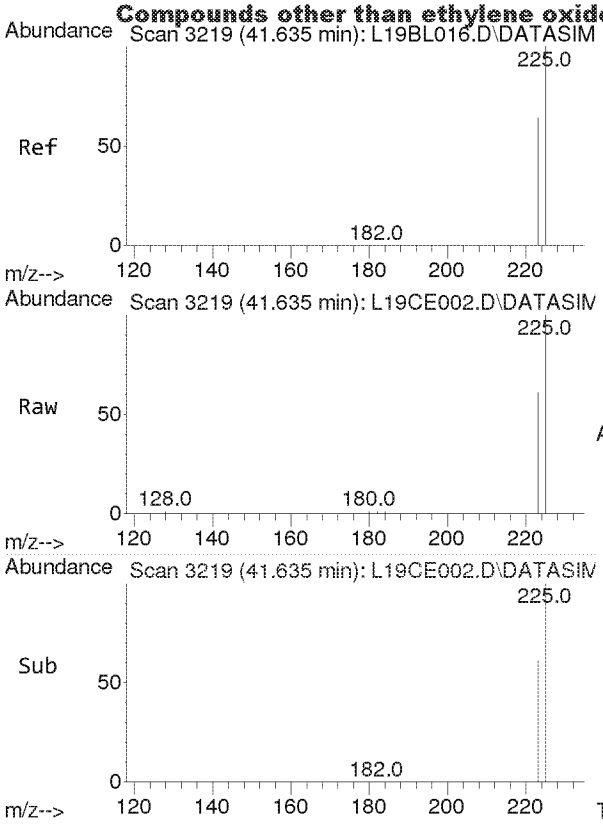
#61
1,2,4-Trichlorobenzene
Concen: 2.085 ppbv
RT: 40.841 min Scan# 3166
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:180 Resp: 4488

Ion	Ratio	Lower	Upper
180	100		
182	95.3	75.7	113.5
184	30.8	24.2	36.2



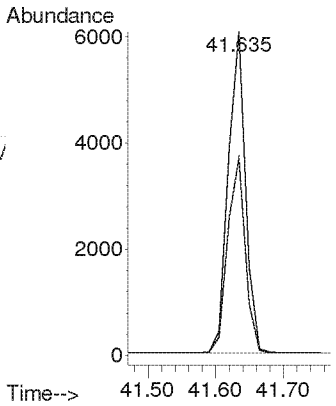
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 1.973 ppbv
RT: 41.635 min Scan# 3219
Delta R.T. 0.000 min
Lab File: L19CE002.D
Acq: 5 Mar 2019 12:42 pm

Tgt Ion:225 Resp: 10843

Ion	Ratio	Lower	Upper
225	100		
223	62.2	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: ✓ Date: 3-1-19	Data File Name	L19CE005.D	
	Operator	MAH	
	Acq. Method File	9020003.M	
Reviewer: RMB Date: 3/18/19	Sample Name	B9C0507-BLK1	
	Misc Info	80 ML 8L13001	

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	50345		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	64	0.012	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	0	0.000	Y		0.139
6)	Dichlorotetrafluoroethane	0	0.000	Y		0.040
7)	Vinyl Chloride	0	0.000	Y		0.038
8)	1,3-Butadiene	0	0.000	Y		0.058
	Ethylene oxide	0	0.000	Y		0.136
9)	Bromomethane	0	0.000	Y		0.035
10)	Chloroethane	0	0.000	Y		0.075
11)	Acetonitrile	0	0.000	Y		0.049
12)	Acrolein	43	0.020	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	71	0.004	Y		0.200
18)	Trichlorotrifluoroethane	0	0.000	Y		0.029
19)	trans-1,2-Dichloroethylene	0	0.000	Y		0.040
20)	1,1-Dichloroethane	0	0.000	Y		0.043
21)	Methyl tert-Butyl Ether	0	0.000	Y		0.031
22)	Chloroprene	0	0.000	Y		0.039
23)	cis-1,2-Dichloroethylene	0	0.000	Y		0.056
24)	Bromochloromethane	0	0.000	Y		0.040
25)	Chloroform	0	0.000	Y		0.039
26)	Ethyl tert-Butyl Ether	0	0.000	Y		0.033
27)	1,2-Dichloroethane	0	0.000	Y		0.042
28)	IS-1,4-Difluorobenzene	129844		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	42	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	433	0.032	Y	MAX	0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	46	0.005	Y		0.071
40)	trans-1,3-Dichloropropene	0	0.000	Y		0.059
41)	1,1,2-Trichloroethane	0	0.000	Y		0.057
42)	IS-Chlorobenzene-d5	91799		NA		NA
43)	Toluene	0	0.000	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	0	0.000	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	88	0.006	Y		0.077
50)	m,p-Xylene	52	0.004	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	0	0.000	Y		0.109
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y		0.063
54)	o-Xylene	104	0.008	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	0	0.000	Y		0.080
57)	m-Dichlorobenzene	0	0.000	Y		0.055
58)	p-Dichlorobenzene	0	0.000	Y		0.060
59)	o-Dichlorobenzene	0	0.000	Y		0.062
60)	1,2,4-Trichlorobenzene	0	0.000	Y		0.200
61)	Hexachloro-1,3-butadiene	0	0.000	Y		0.082

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

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE005.D
Acq On : 5 Mar 2019 4:29 pm
Operator : MAH
Sample : B9C0507-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 06 12:17:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	50345	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	129844	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	91799	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.838	41	64	0.0124 ppbv	97
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	0.000	50	0	N.D.	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	14.752	56	43m	0.0195 ppbv	
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	71	0.0039 ppbv #	75
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	22.555	78	42	0.0031 ppbv #	53
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	24.553	41	433	0.0325 ppbv #	93
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	25.645	43	46	0.0047 ppbv #	47
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	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	30.918	91	88	0.0055 ppbv #	42

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE005.D
Acq On : 5 Mar 2019 4:29 pm
Operator : MAH
Sample : B9C0507-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 06 12:17:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

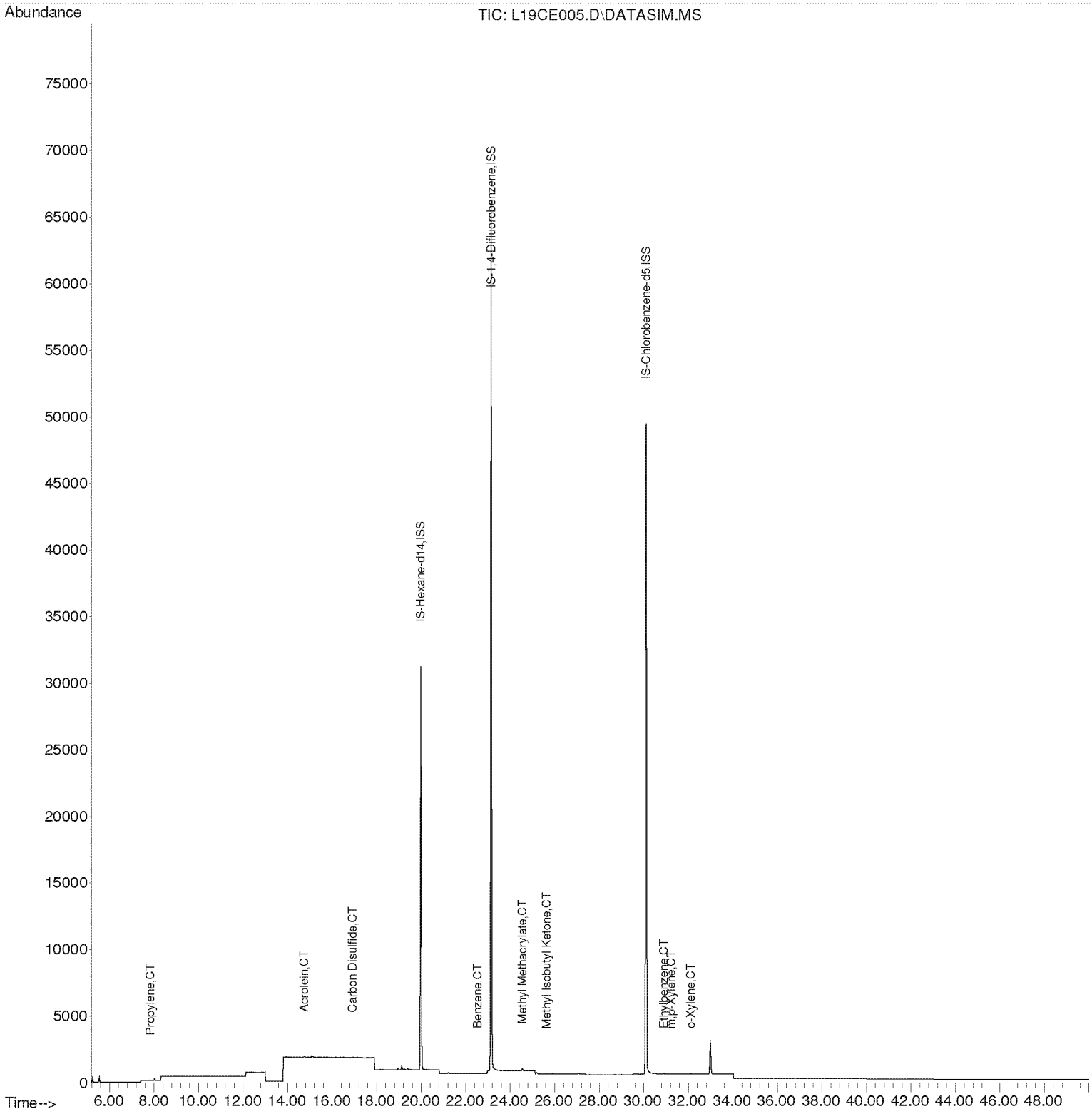
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.242	91	52	0.0039 ppbv #	30
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.120	91	104	0.0079 ppbv	89
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

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

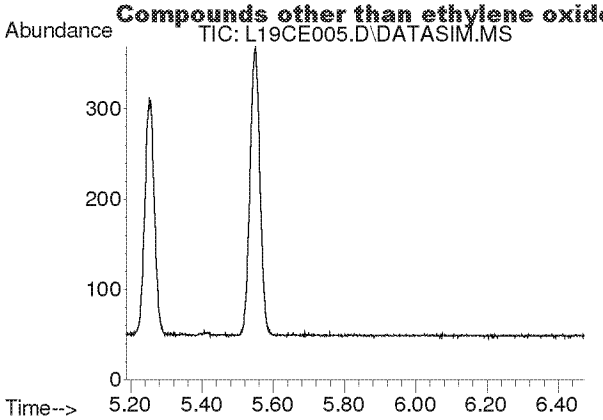
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE005.D
Acq On : 5 Mar 2019 4:29 pm
Operator : MAH
Sample : B9C0507-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 06 12:02:24 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



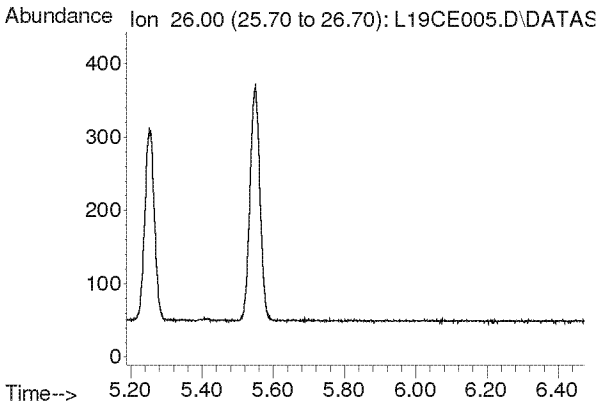
Compounds other than ethylene oxide were not quantitated.

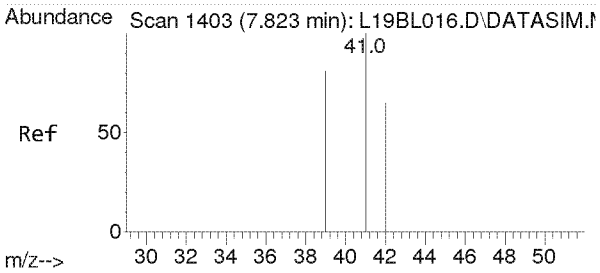


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 26

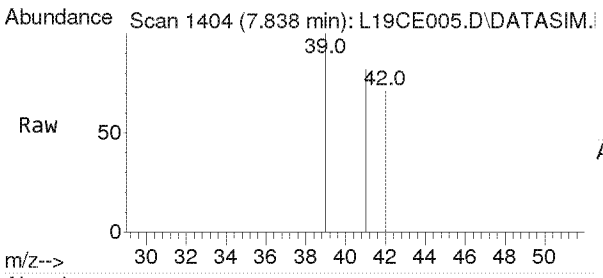


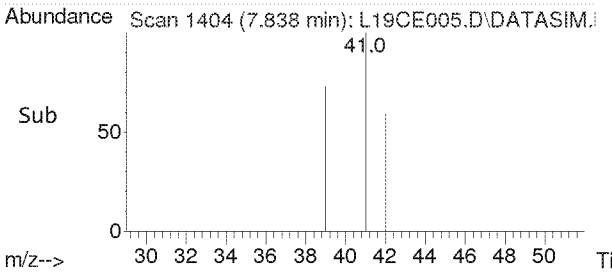


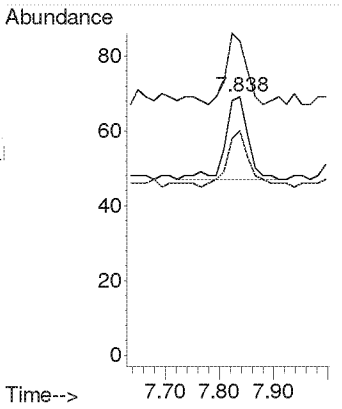
#3
Propylene
Concen: 0.012 ppbv
RT: 7.838 min Scan# 1404
Delta R.T. 0.015 min
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 41 Resp: 64

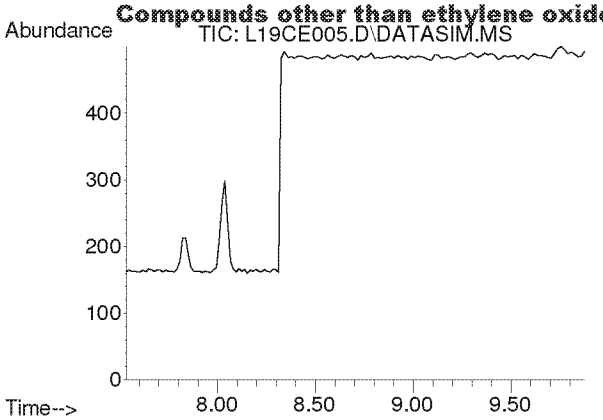
Ion	Ratio	Lower	Upper
41	100		
39	75.0	64.2	96.2
42	65.6	52.6	79.0







Compounds other than ethylene oxide were not quantitated.

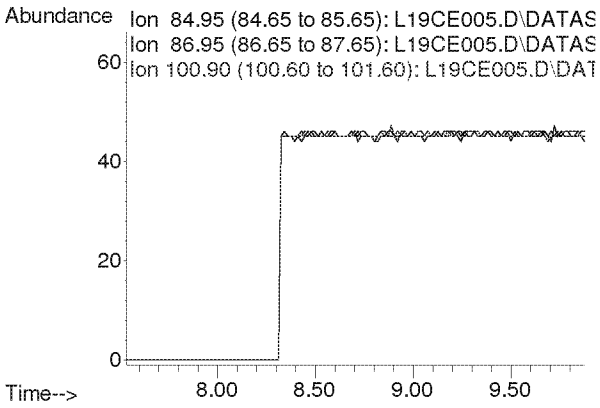


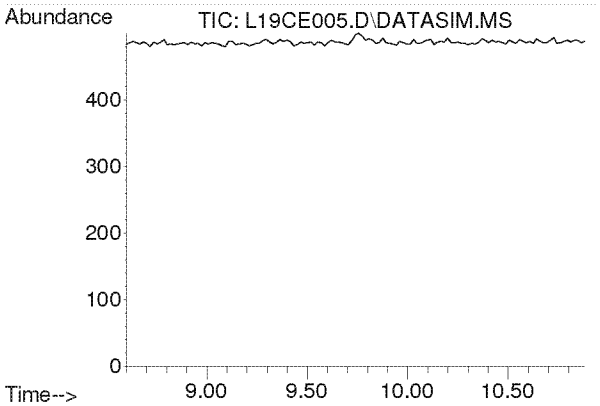
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



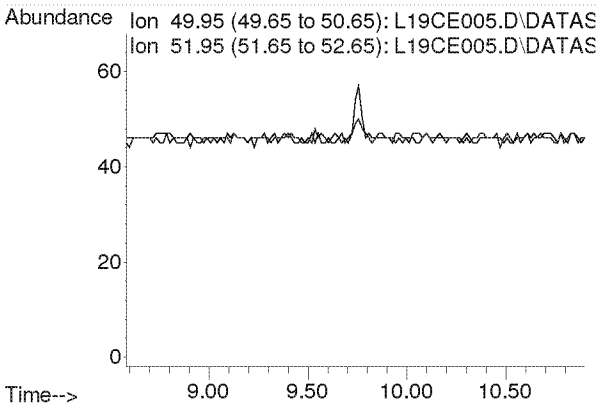


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

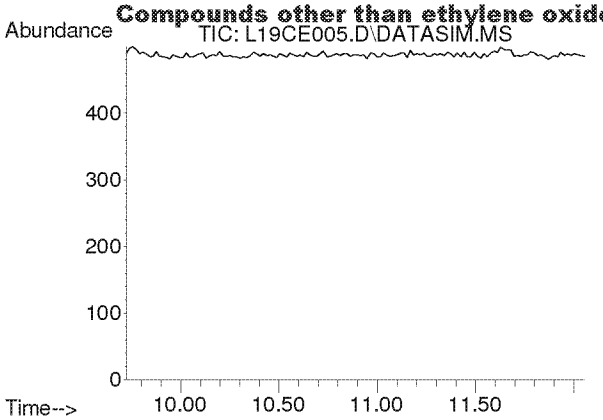
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

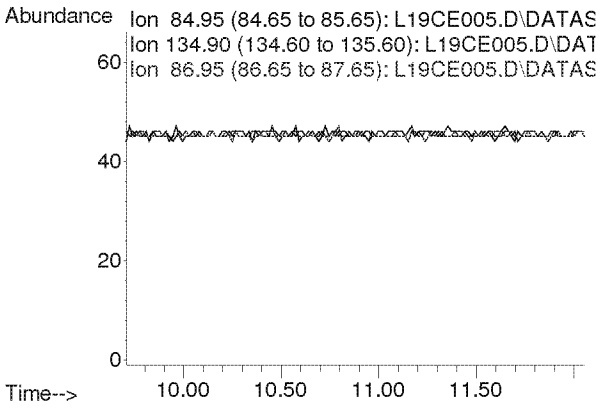


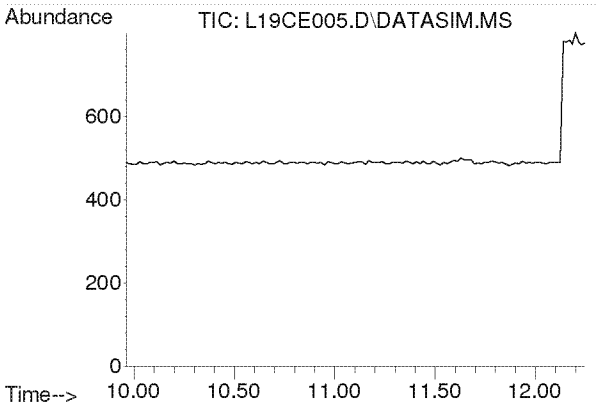
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



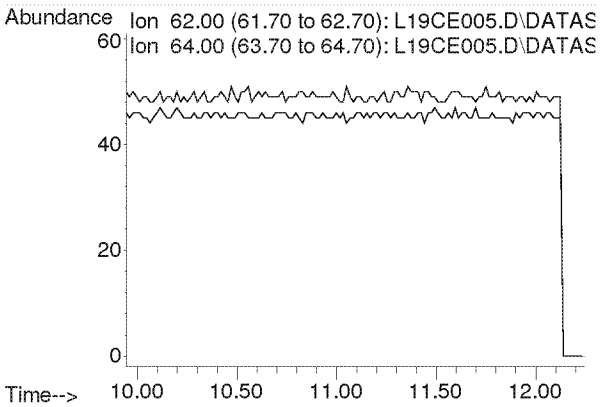


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

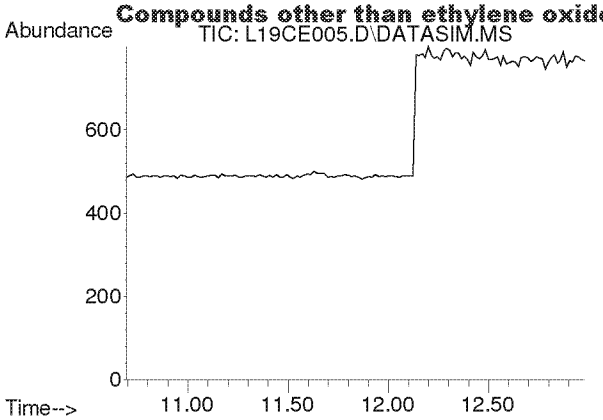
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

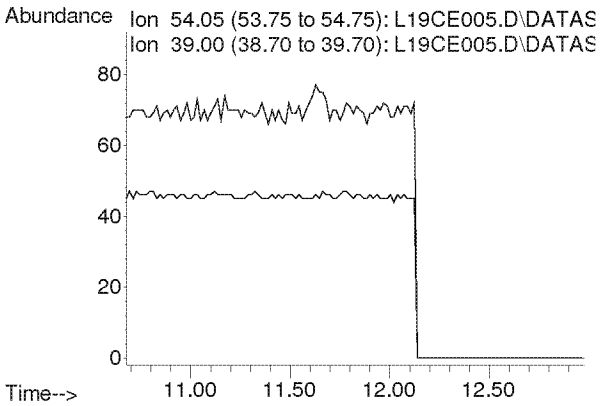


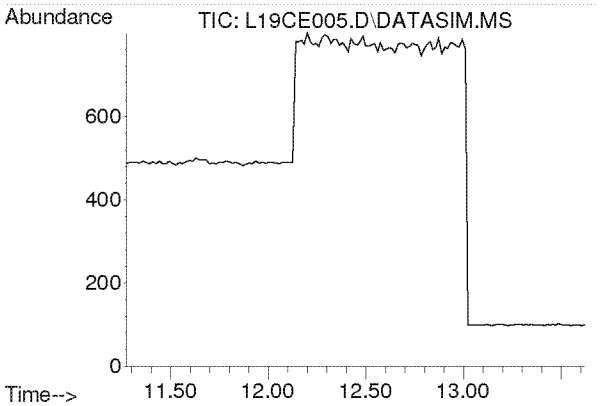
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



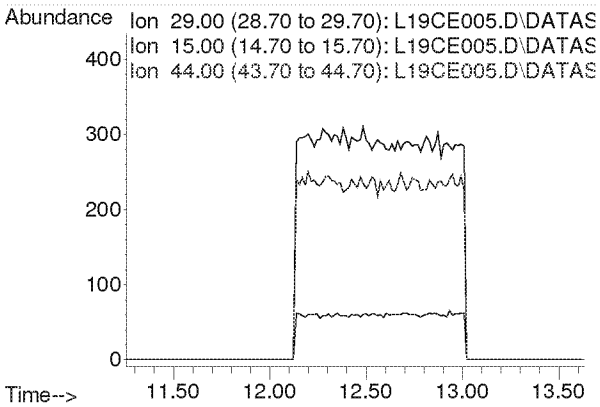


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

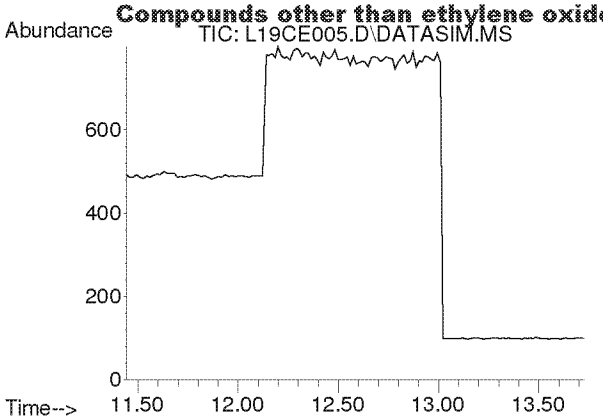
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

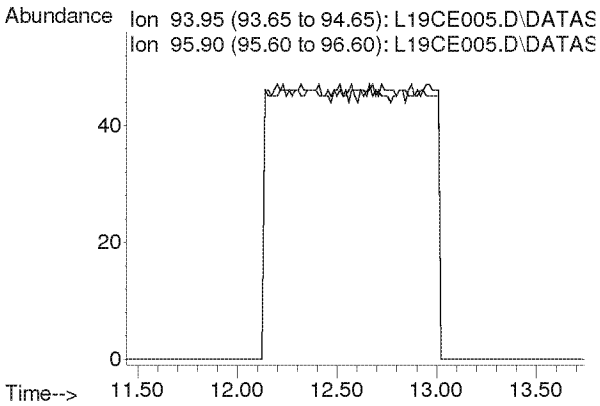


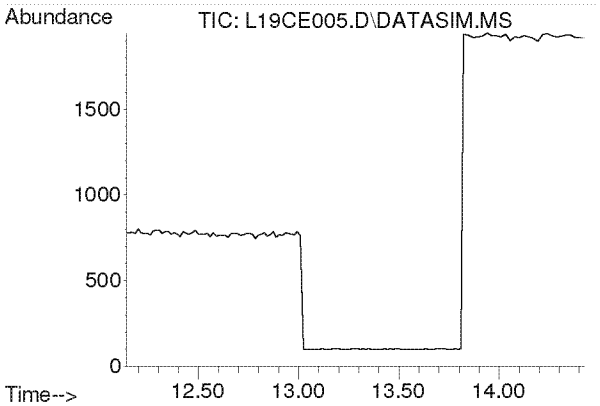
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



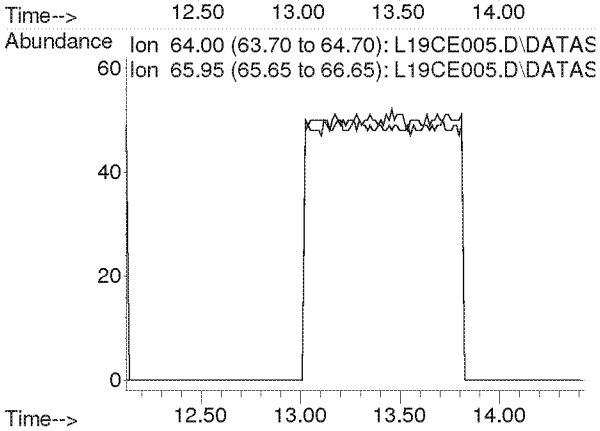


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

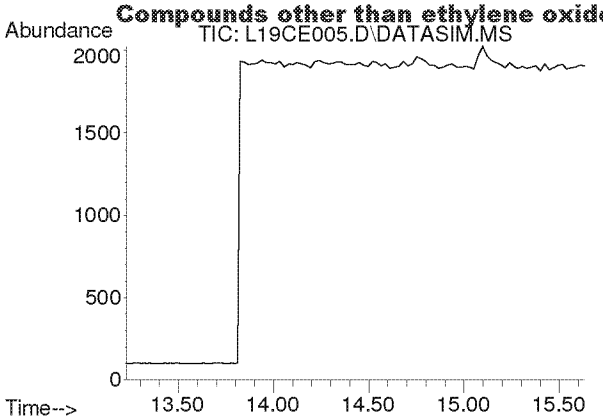
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

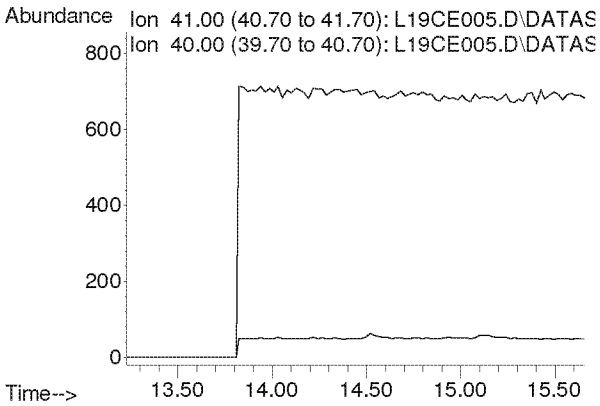


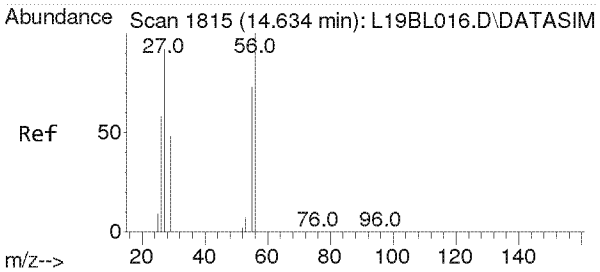
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8

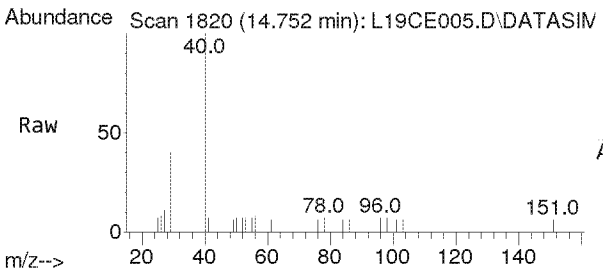


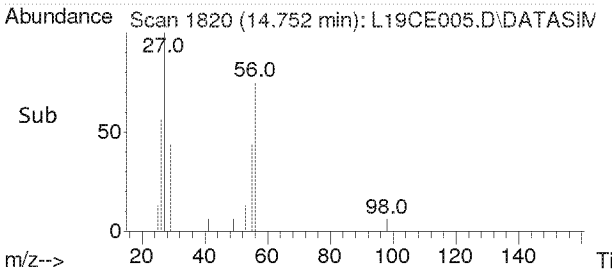


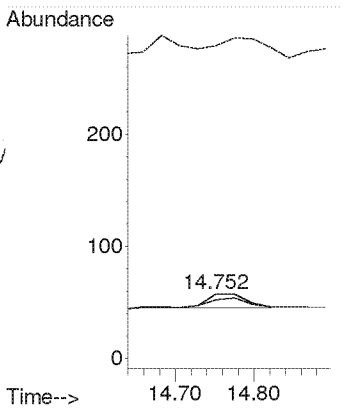
#13
Acrolein
Concen: 0.020 ppbv m
RT: 14.752 min Scan# 1820
Delta R.T. 0.118 min
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 56 Resp: 43

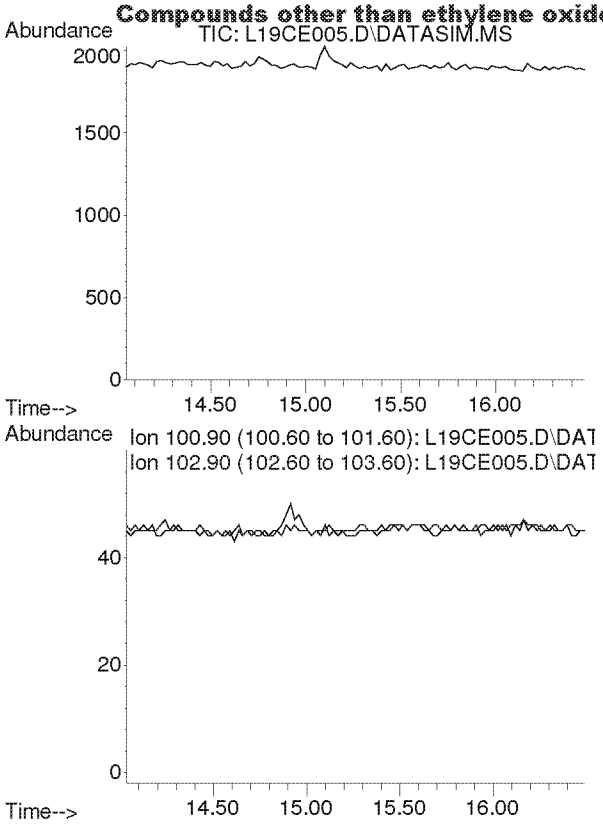
Ion	Ratio	Lower	Upper
56	100		
55	0.0	60.8	91.2#
29	374.4	43.8	65.6#







Compounds other than ethylene oxide were not quantitated.

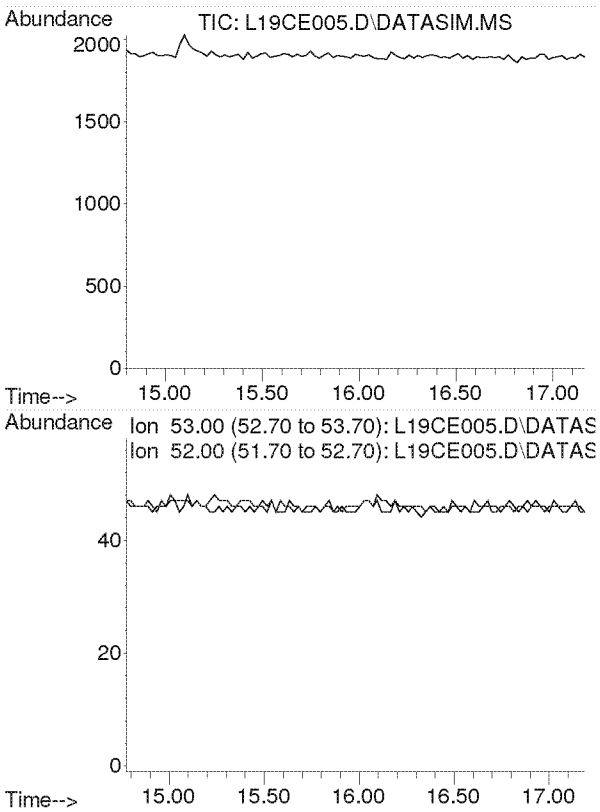


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



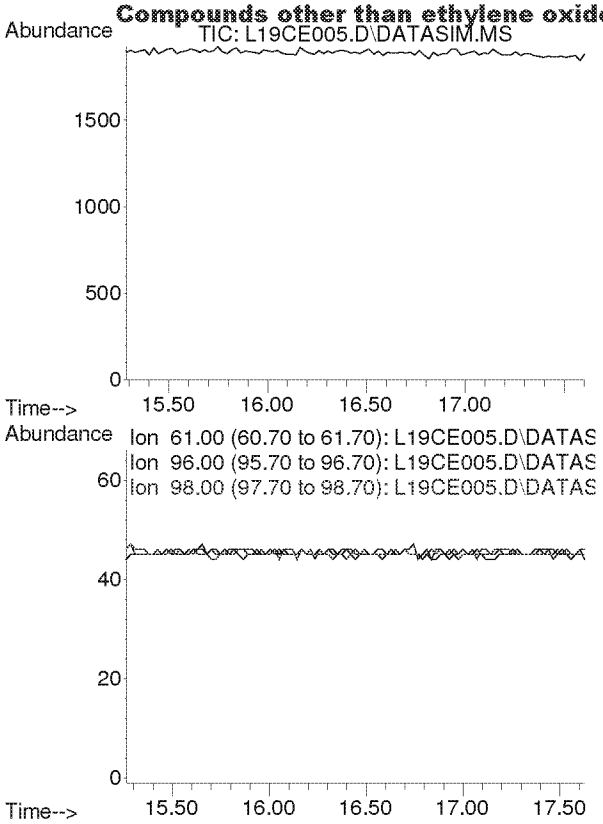
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9

Compounds other than ethylene oxide were not quantitated.

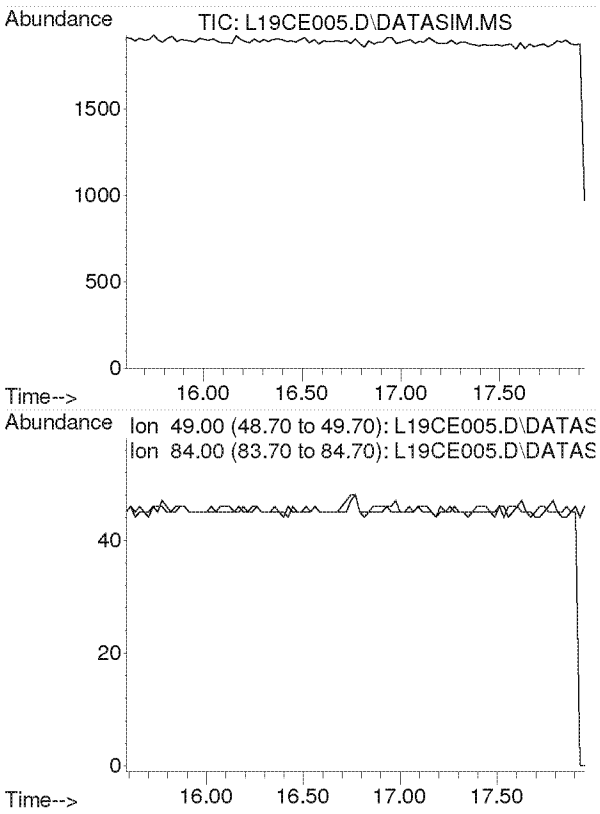


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



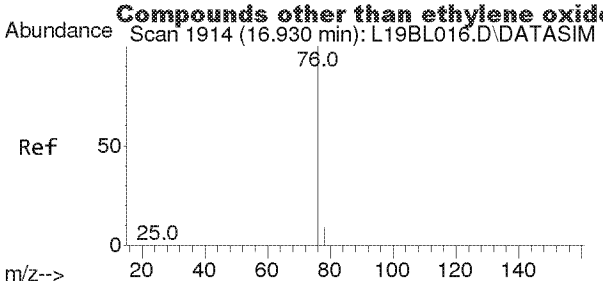
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2

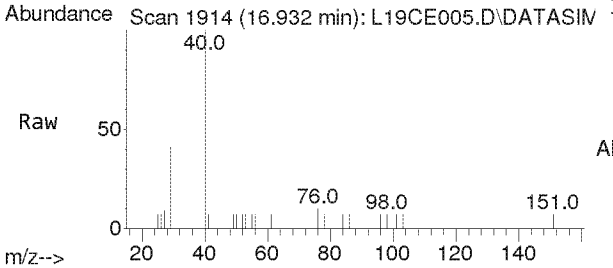
Compounds other than ethylene oxide were not quantitated.

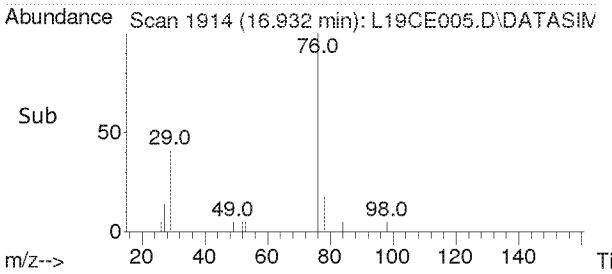


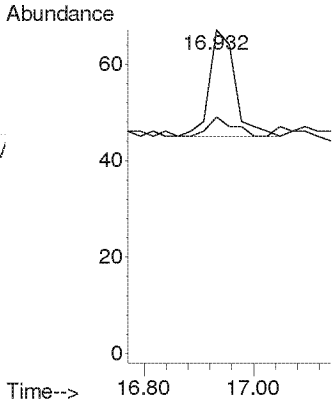
#18
Carbon Disulfide
Concen: 0.004 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

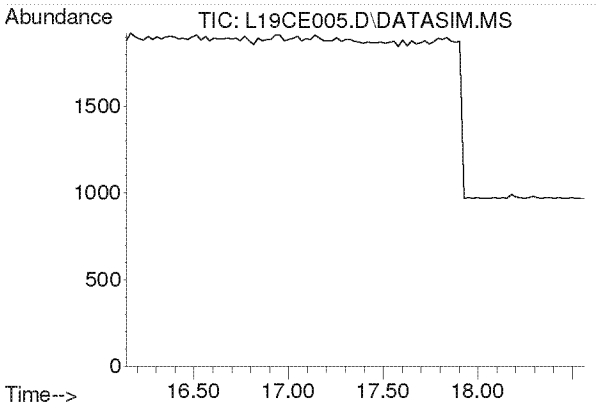
Tgt Ion: 76 Resp: 71

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.4	11.0#







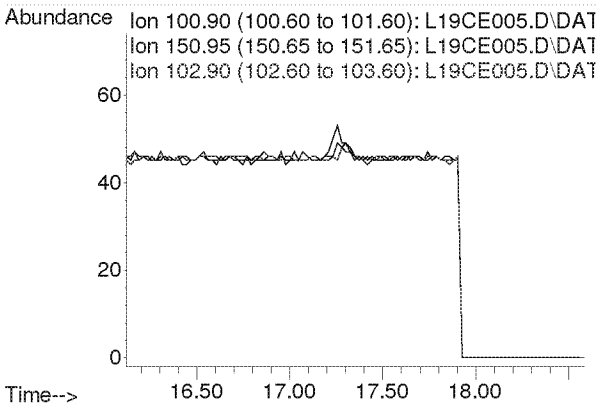


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

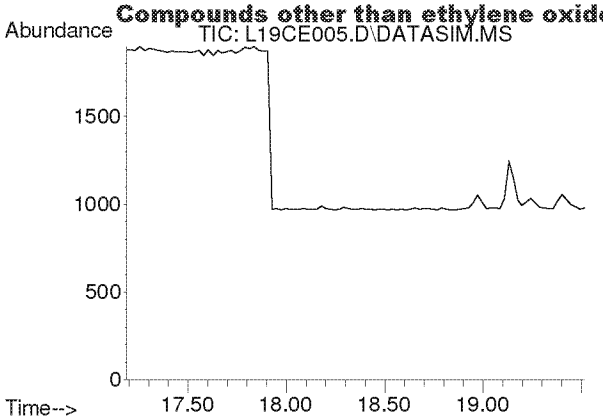
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

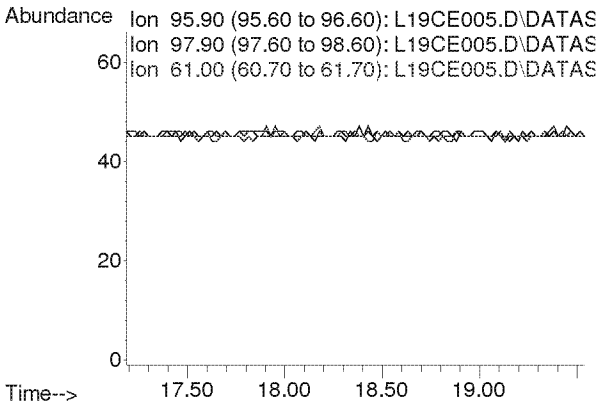


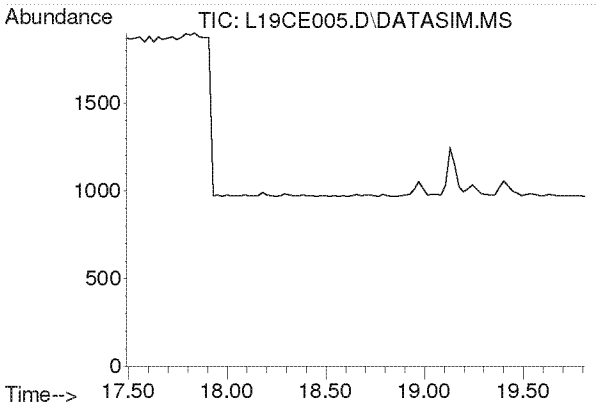
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



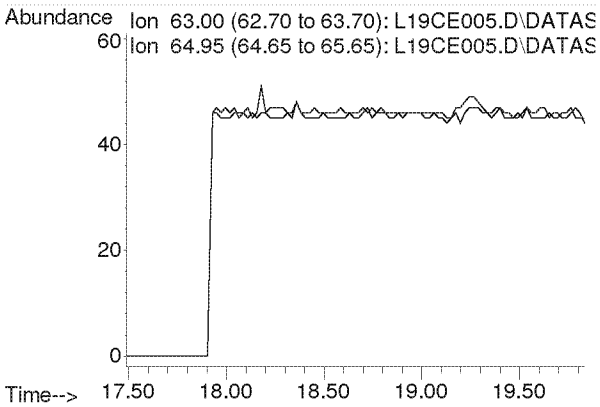


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

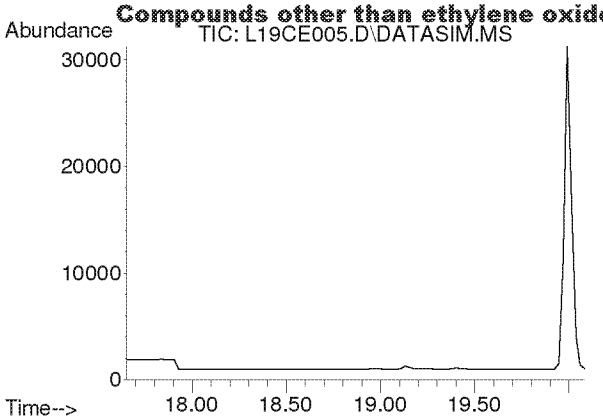
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

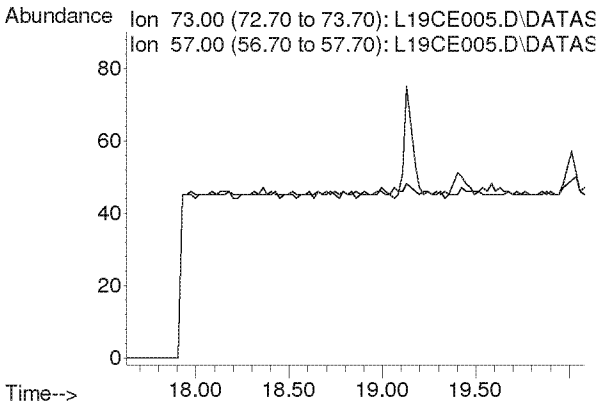


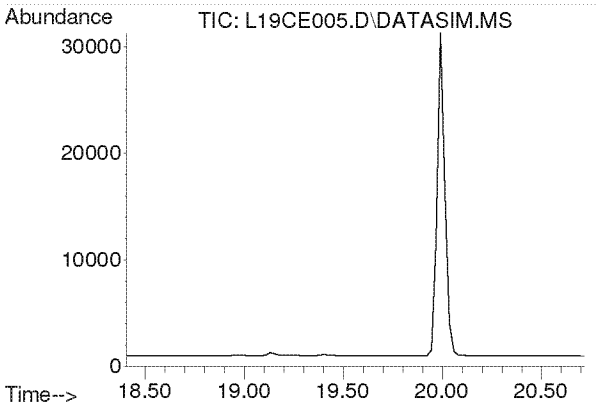
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



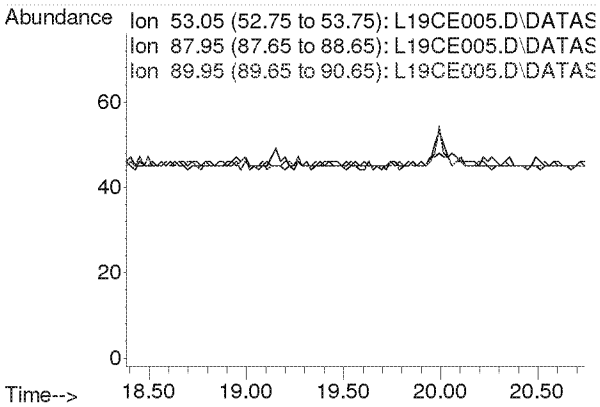


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

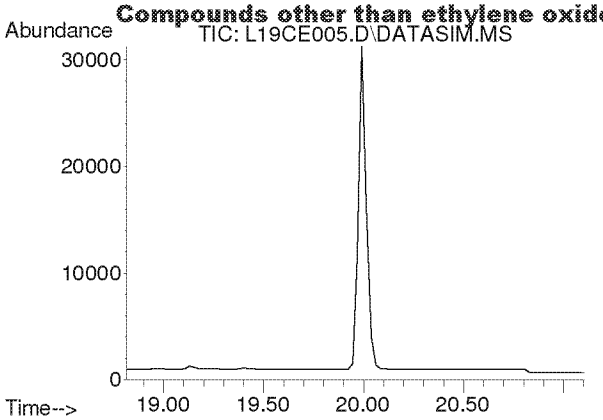
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

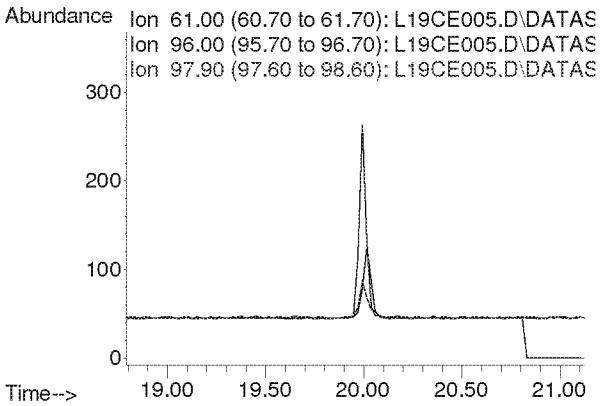


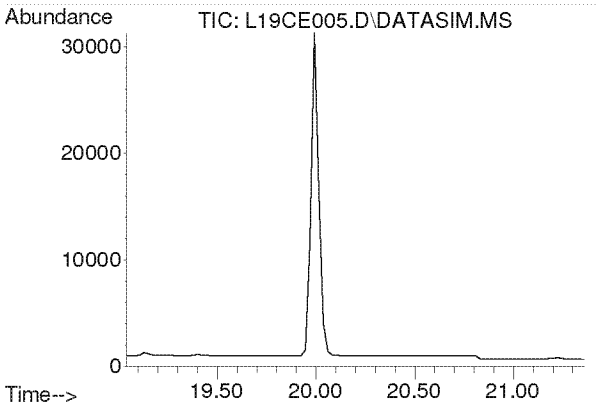
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



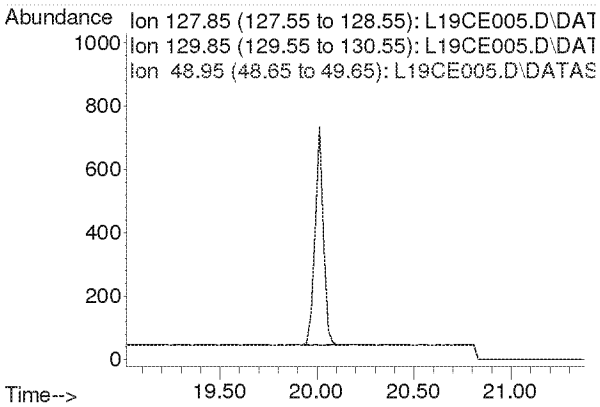


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

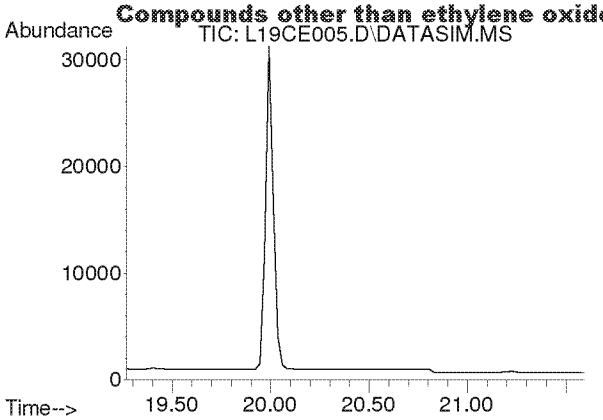
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

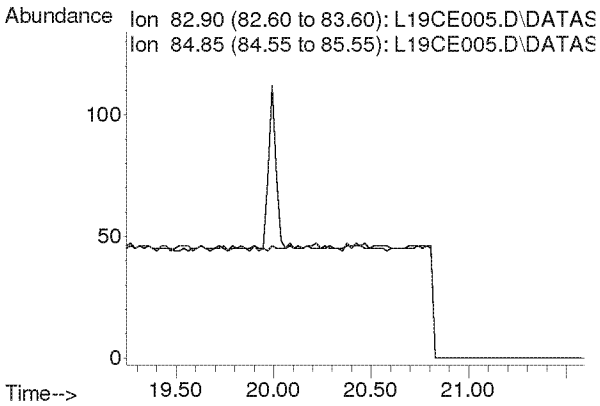


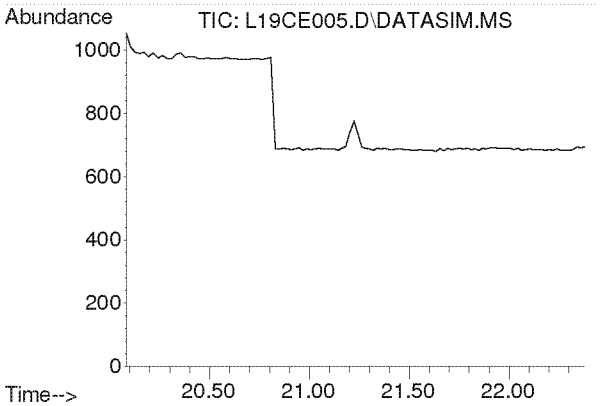
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



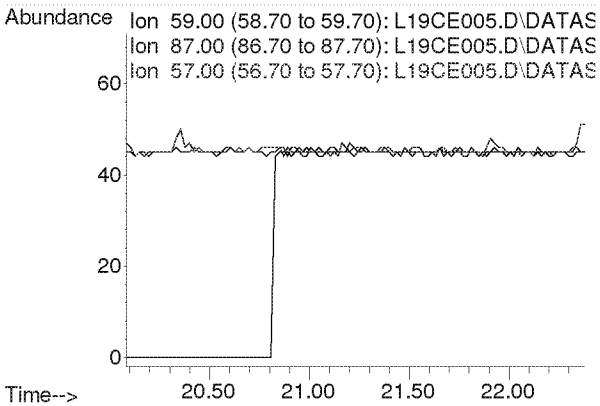


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

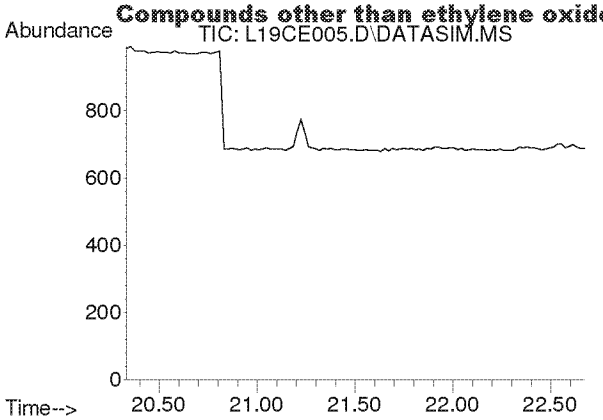
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

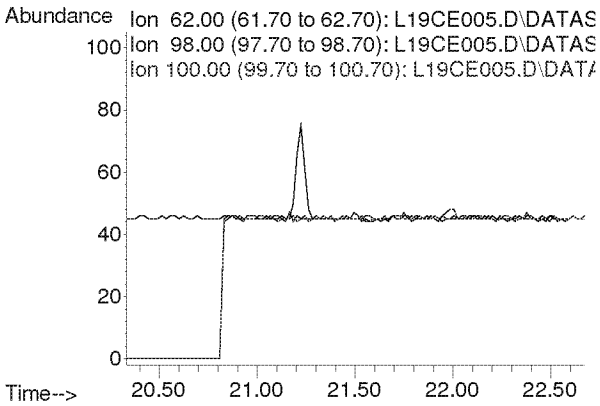


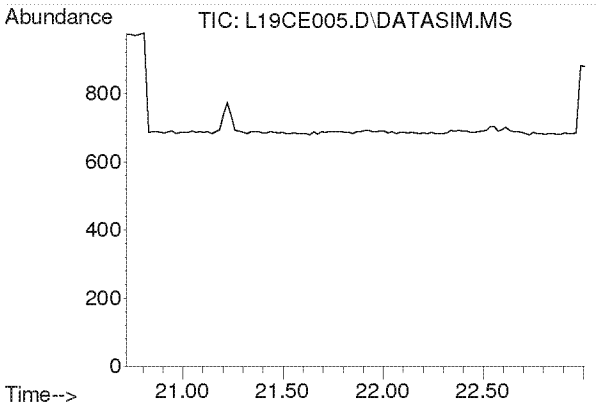
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



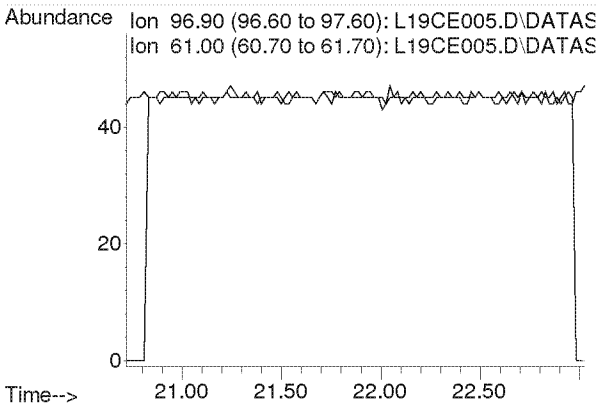


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

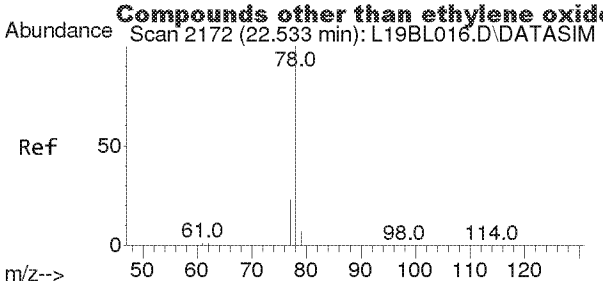
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



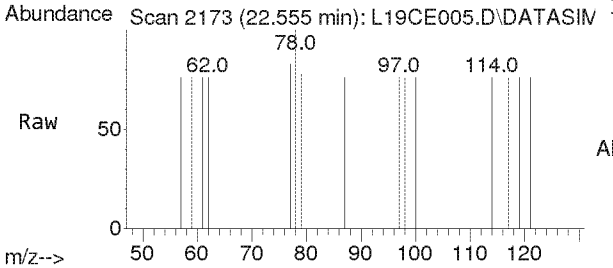
Compounds other than ethylene oxide were not quantitated.

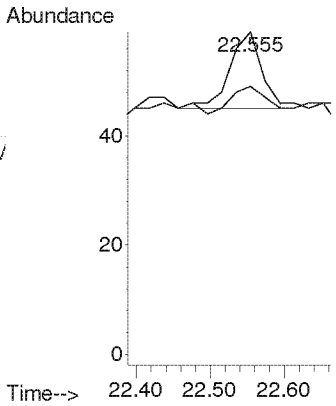


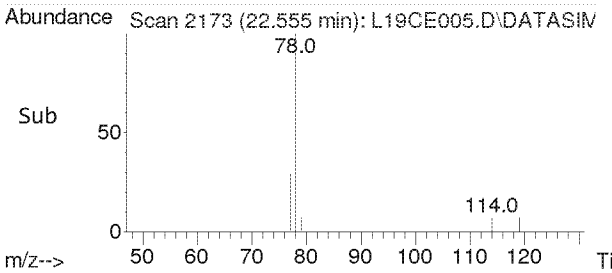
#31
Benzene
Concen: 0.003 ppbv
RT: 22.555 min Scan# 2173
Delta R.T. 0.022 min
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

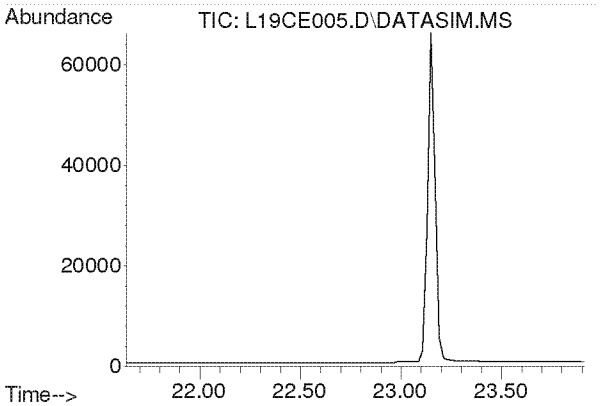
Tgt Ion: 78 Resp: 42

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.4#







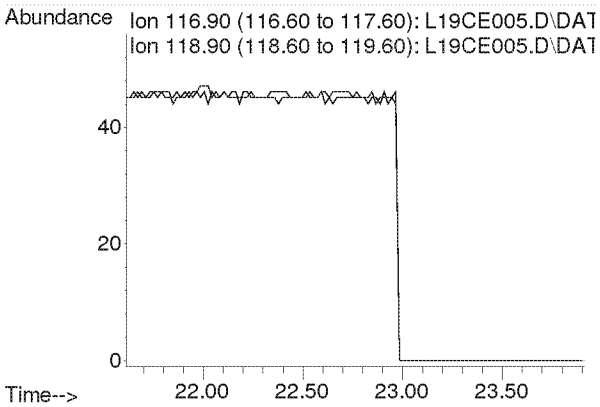


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

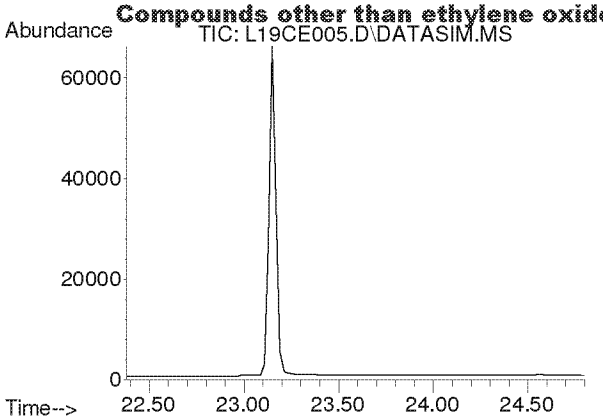
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

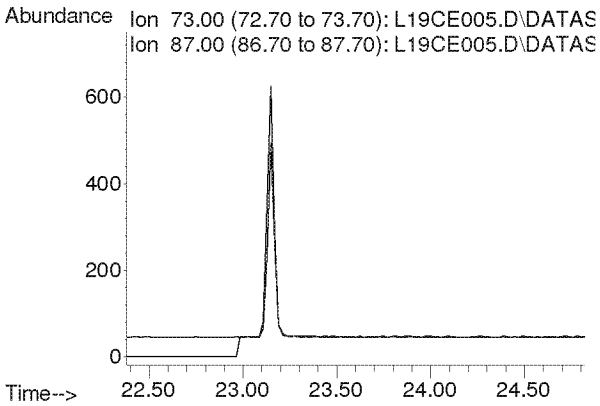


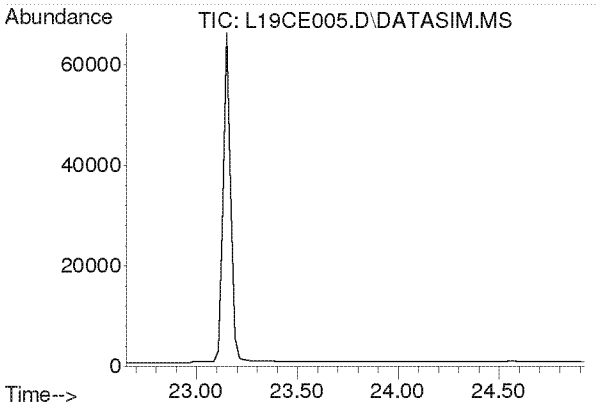
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



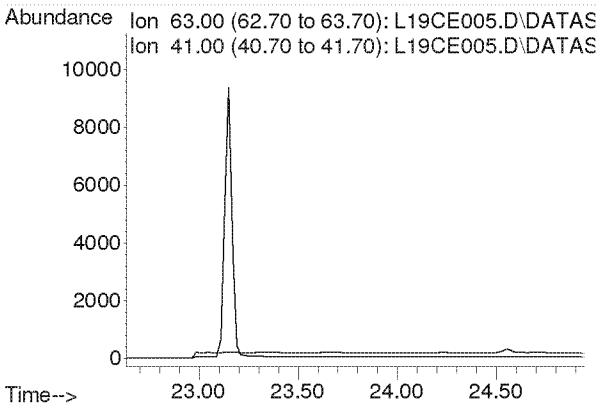


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

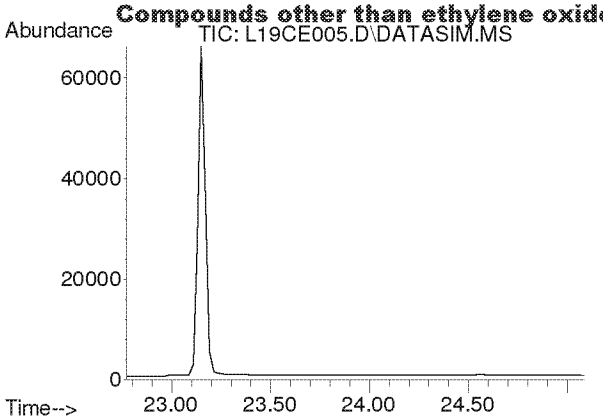
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

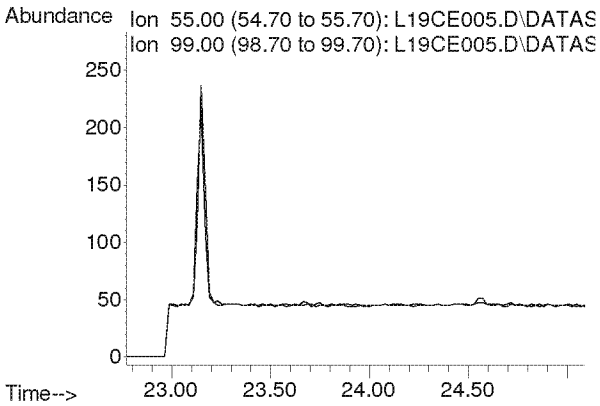


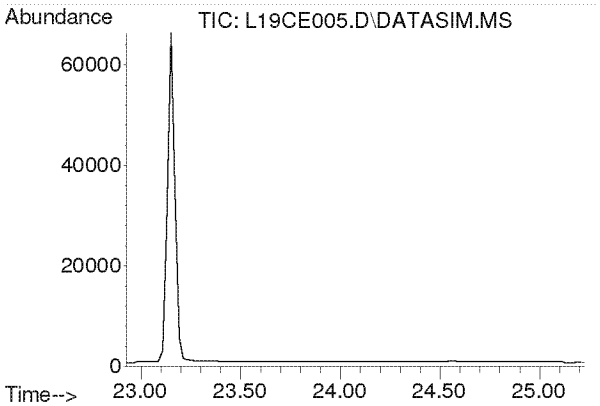
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



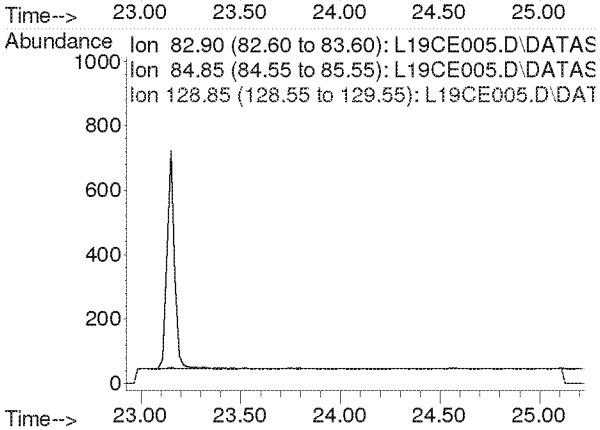


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

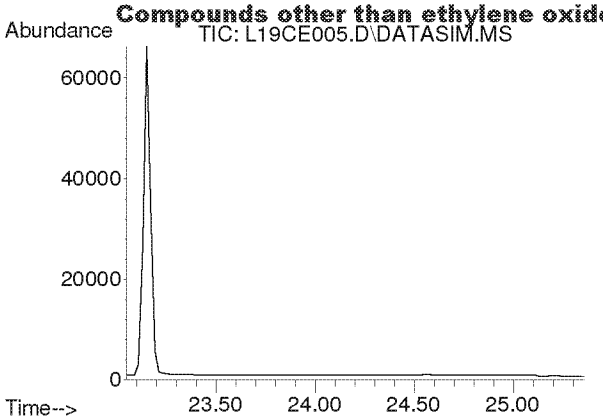
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

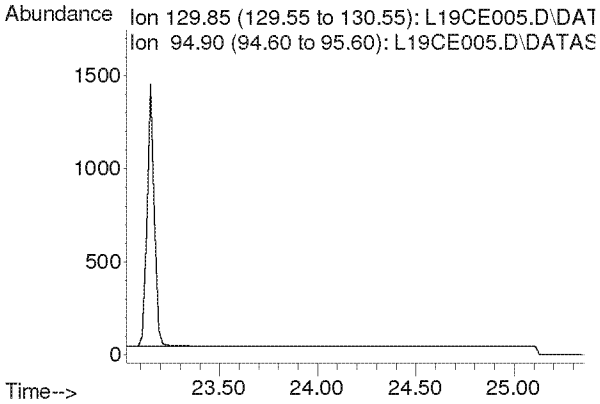


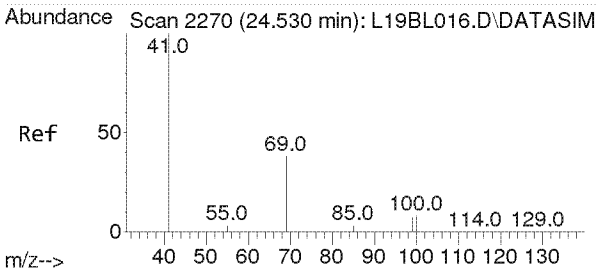
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1

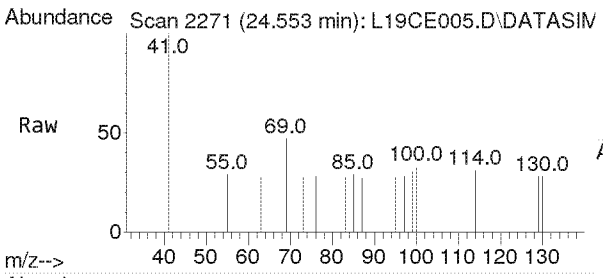


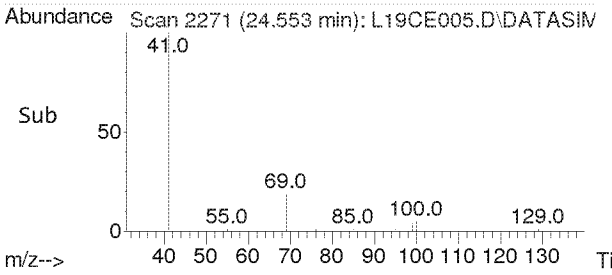


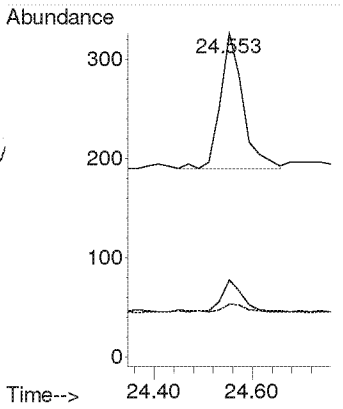
#38
Methyl Methacrylate
Concen: 0.032 ppbv
RT: 24.553 min Scan# 2271
Delta R.T. 0.023 min
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 41 Resp: 433

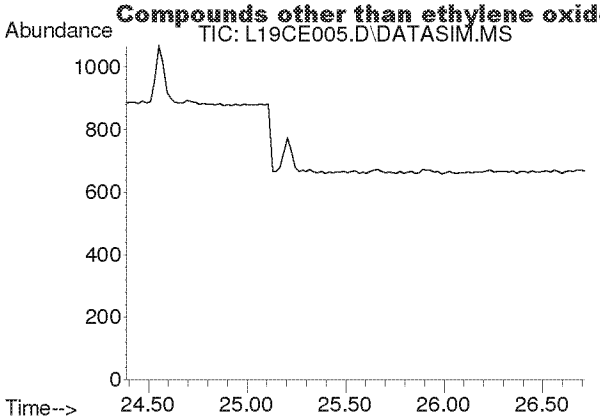
Ion	Ratio	Lower	Upper
41	100		
69	19.2	16.8	25.2
100	0.0	4.5	6.7#







Compounds other than ethylene oxide were not quantitated.

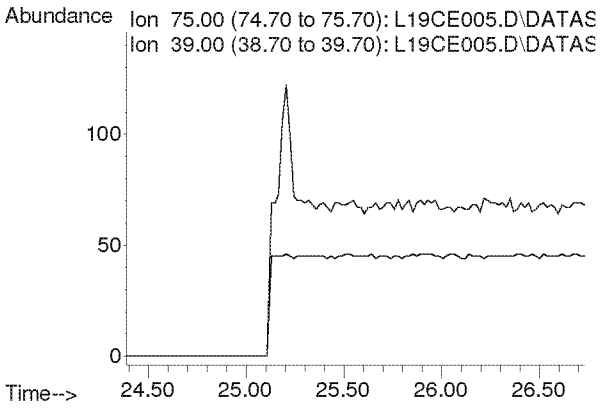


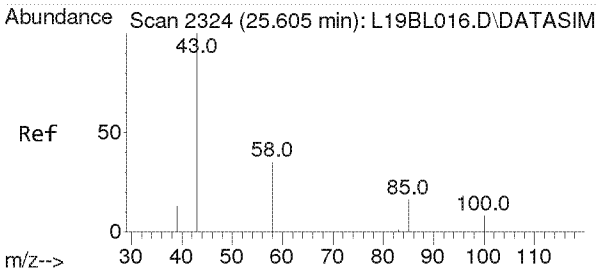
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2

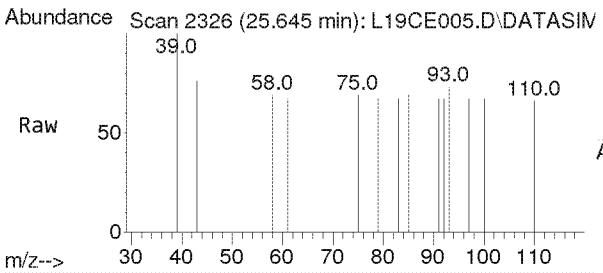


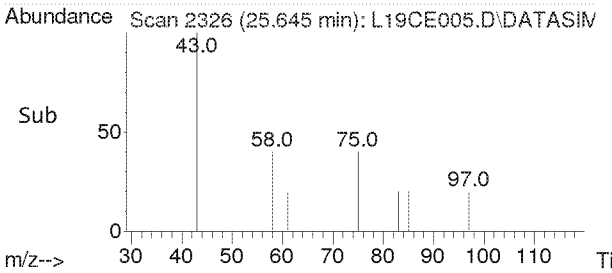


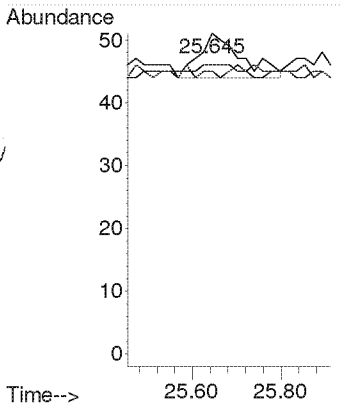
#40
Methyl Isobutyl Ketone
Concen: 0.005 ppbv
RT: 25.645 min Scan# 2326
Delta R.T. 0.040 min
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 43 Resp: 46

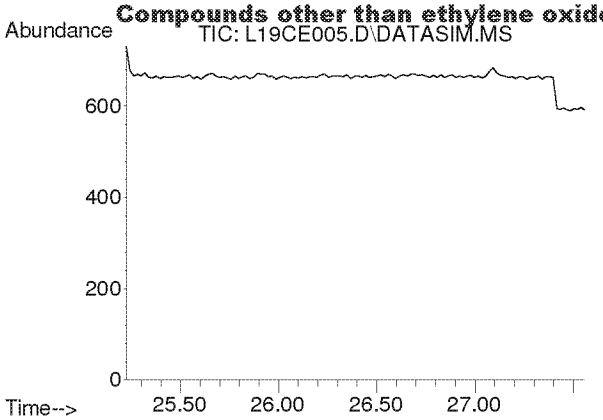
Ion	Ratio	Lower	Upper
43	100		
58	0.0	28.0	42.0#
100	0.0	7.0	10.4#







Compounds other than ethylene oxide were not quantitated.

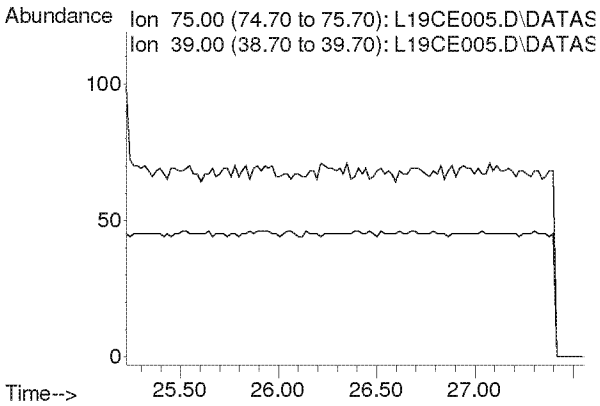


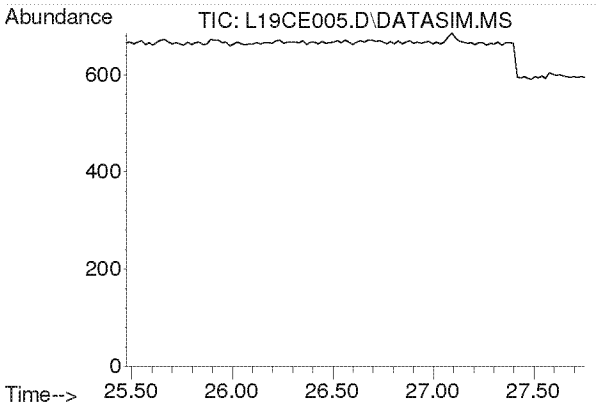
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



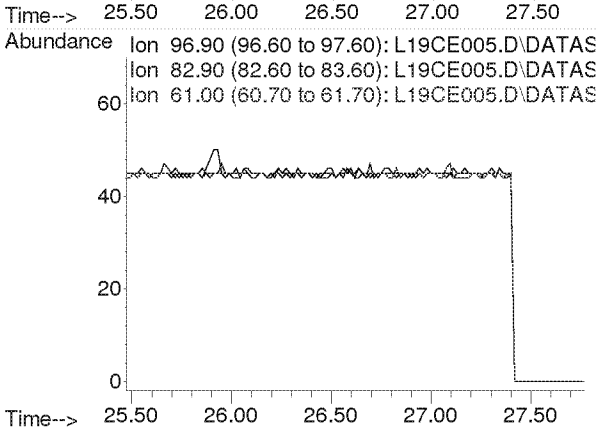


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

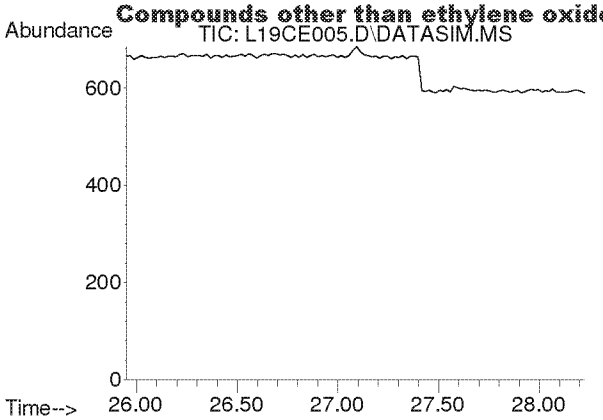
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

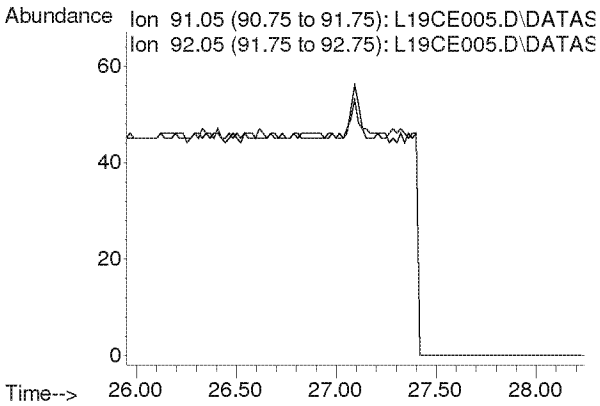


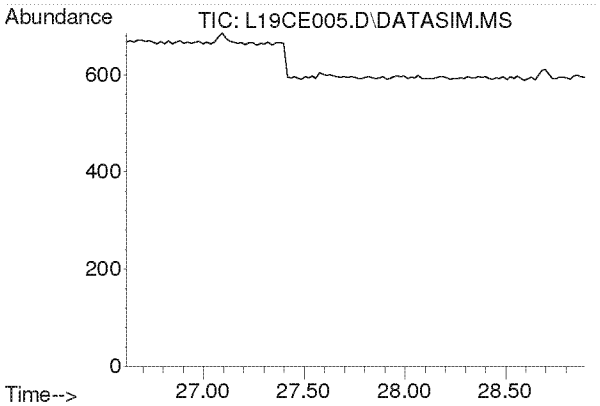
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



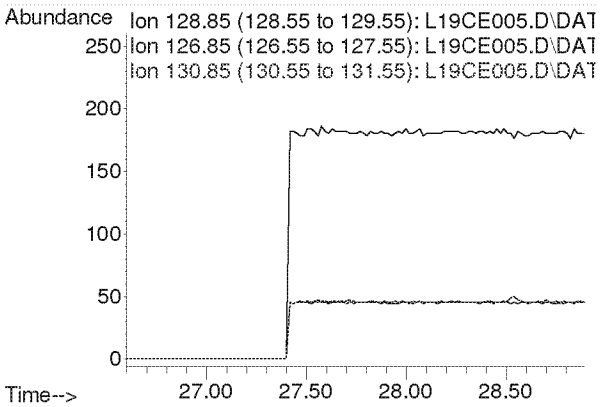


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

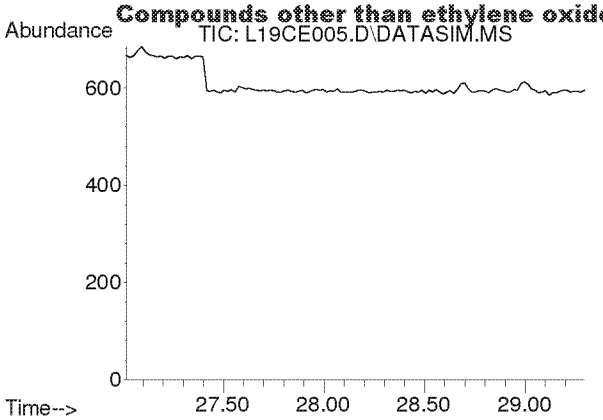
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

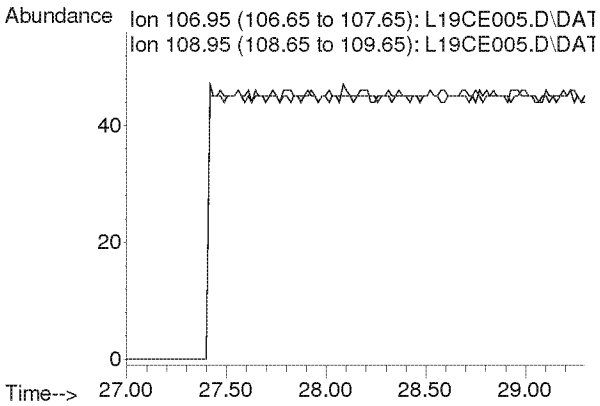


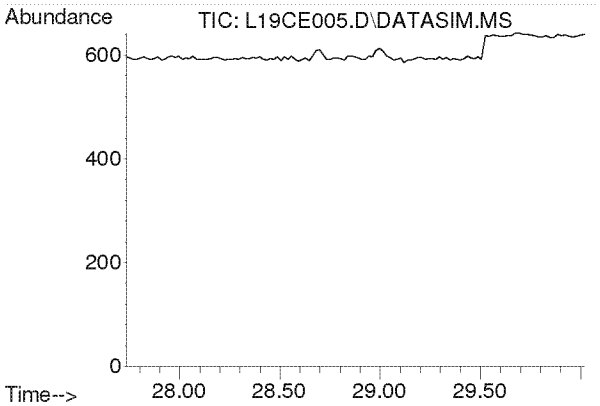
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



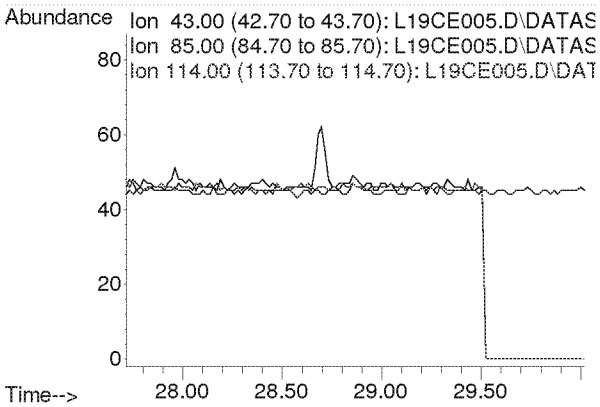


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

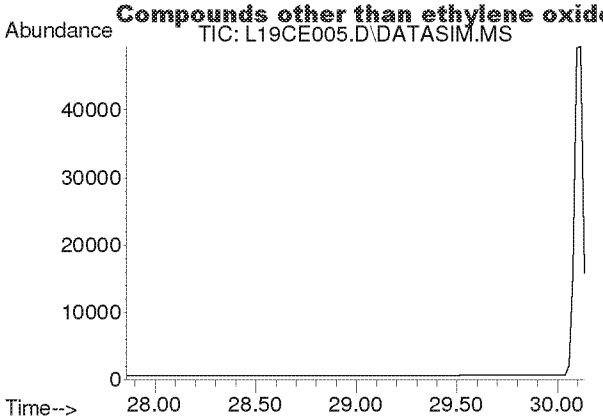
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

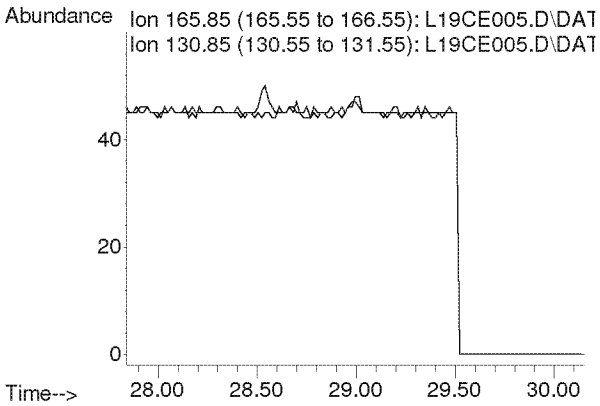


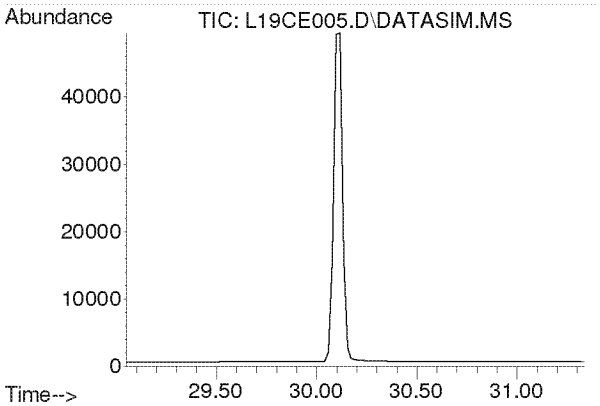
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



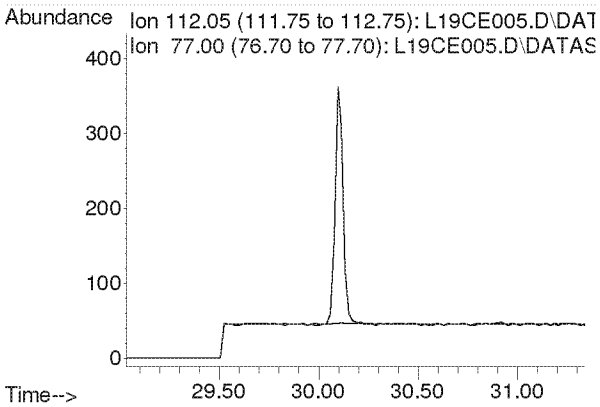


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

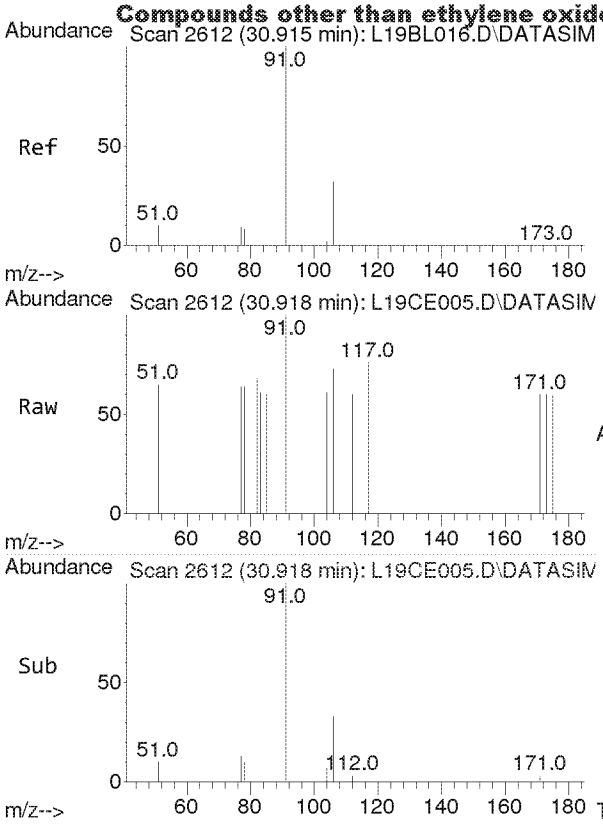
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



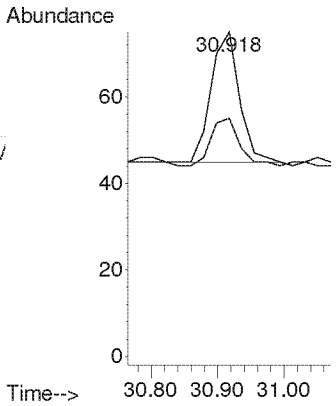
Compounds other than ethylene oxide were not quantitated.

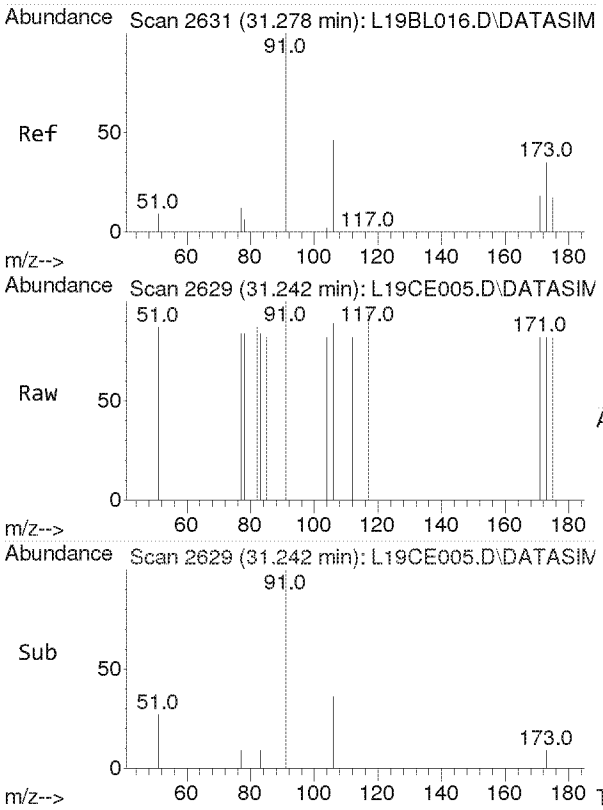


#50
Ethylbenzene
Concen: 0.006 ppbv
RT: 30.918 min Scan# 2612
Delta R.T. 0.002 min
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 91 Resp: 88

Ion	Ratio	Lower	Upper
91	100		
106	0.0	26.0	39.0#

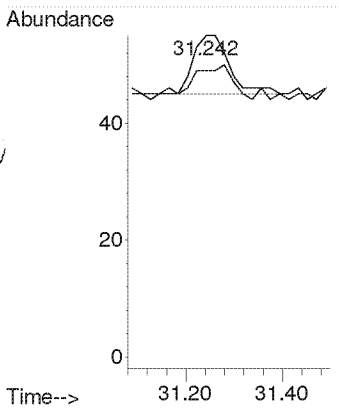




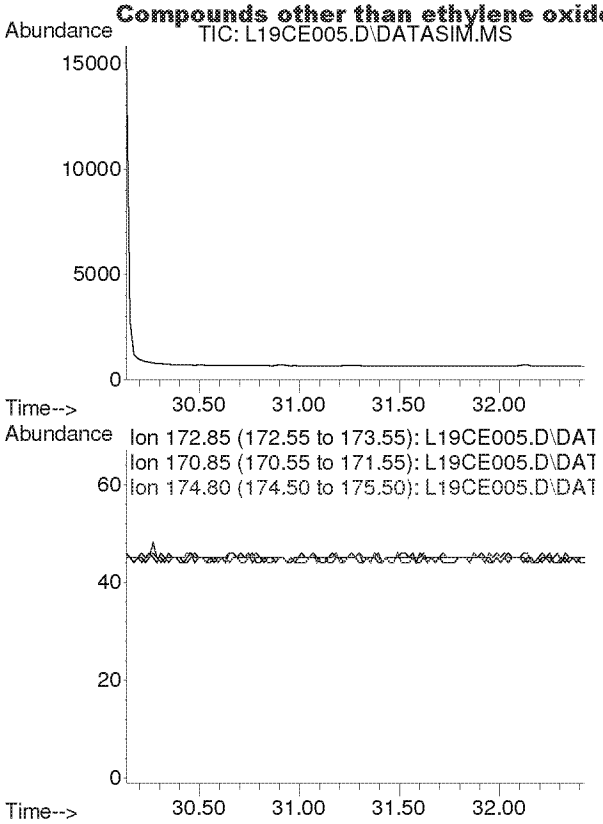
#51
m,p-Xylene
Concen: 0.004 ppbv
RT: 31.242 min Scan# 2629
Delta R.T. -0.036 min
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 91 Resp: 52

Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.3	55.9#



Compounds other than ethylene oxide were not quantitated.

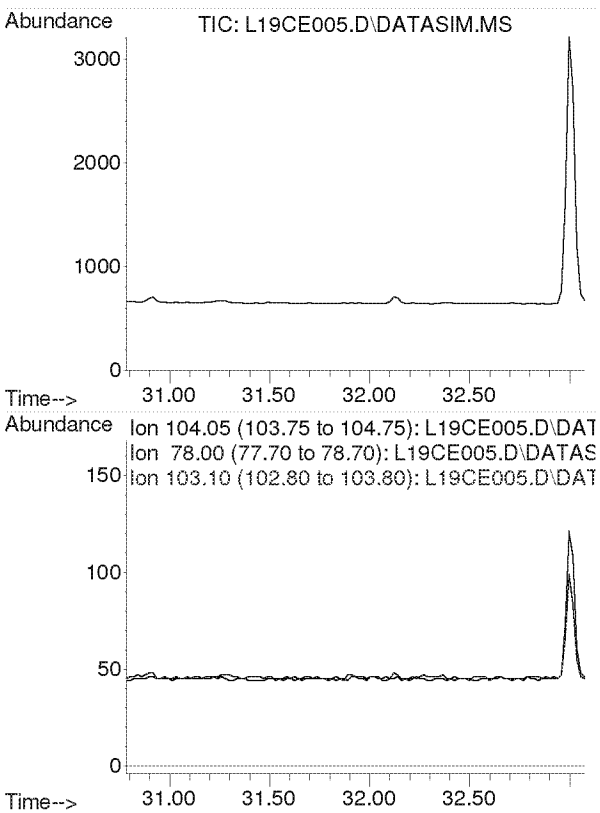


#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



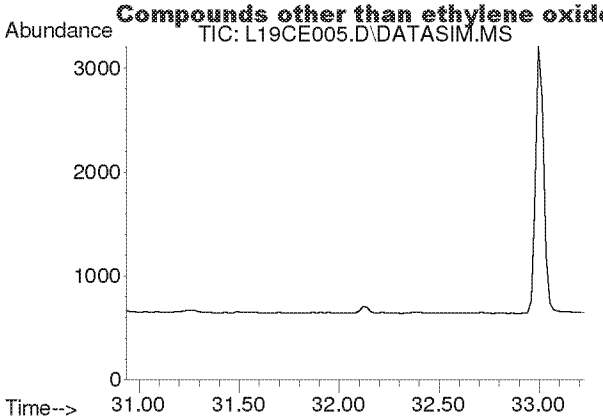
#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0

Compounds other than ethylene oxide were not quantitated.

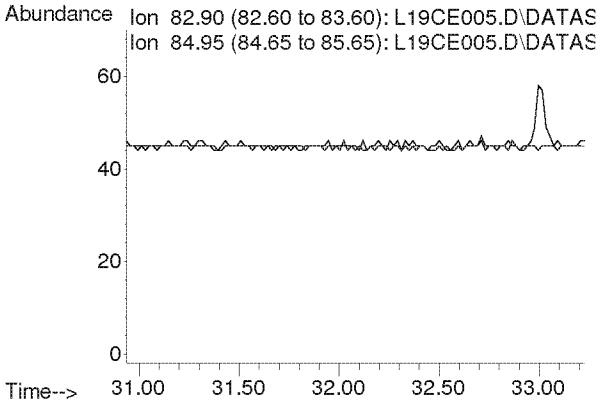


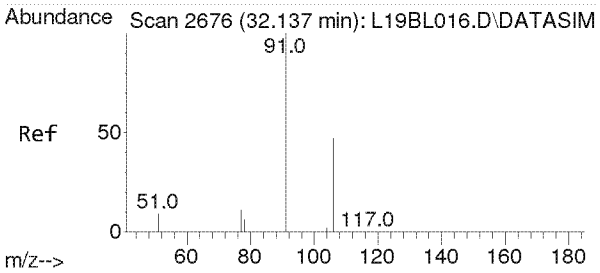
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

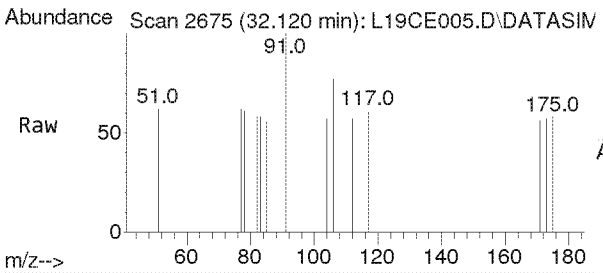


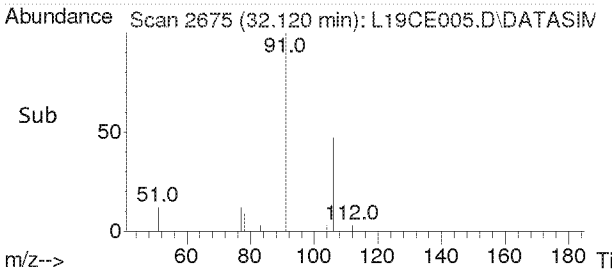


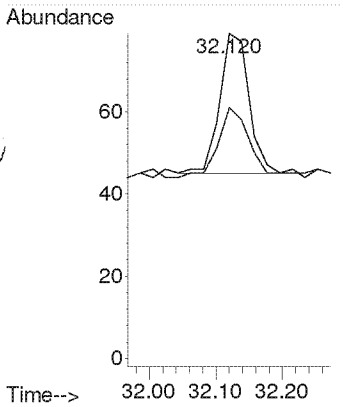
#55
o-Xylene
Concen: 0.008 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 91 Resp: 104

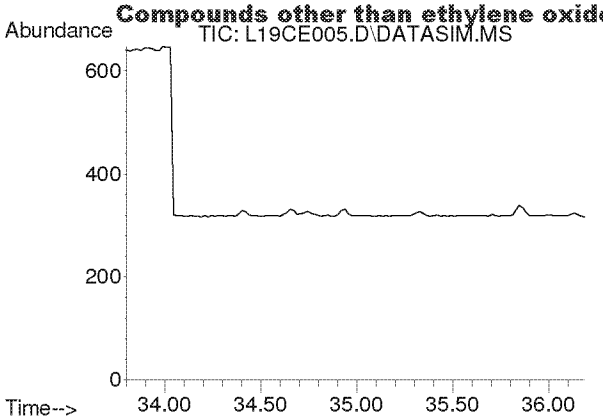
Ion	Ratio	Lower	Upper
91	100		
106	52.9	36.6	55.0







Compounds other than ethylene oxide were not quantitated.

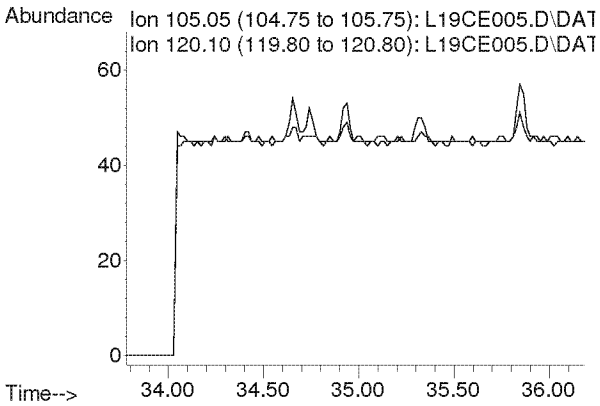


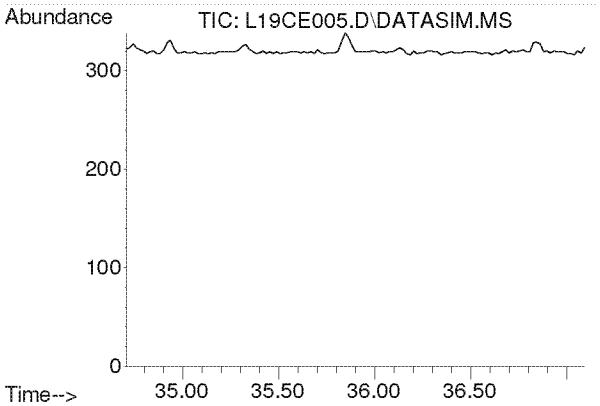
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



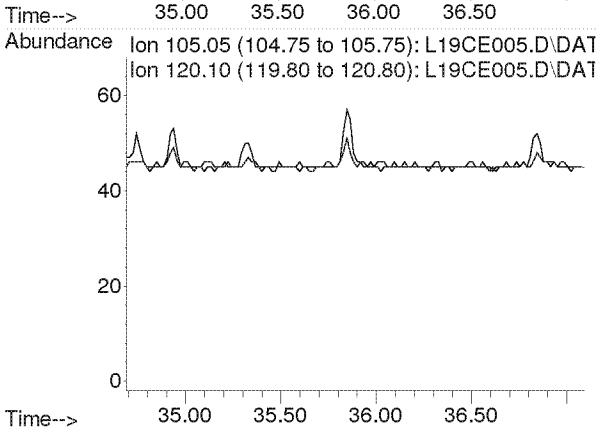


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

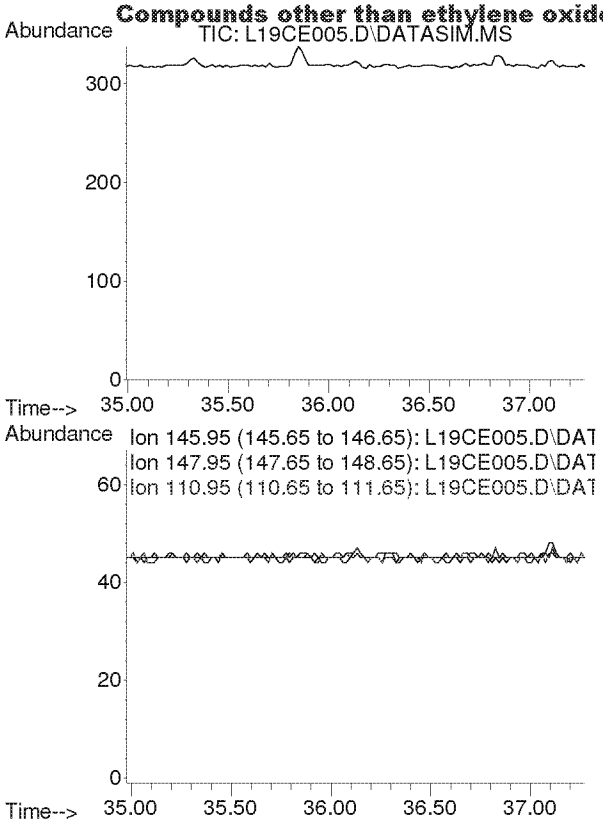
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

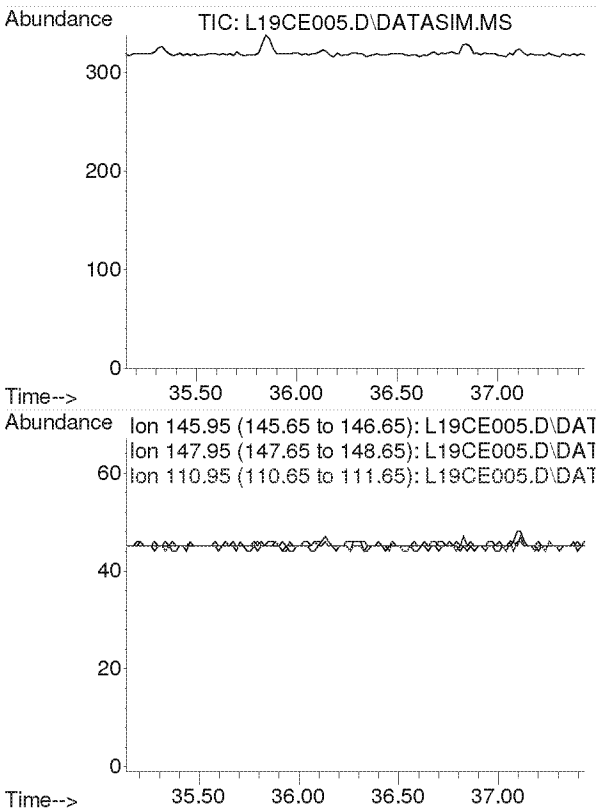


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



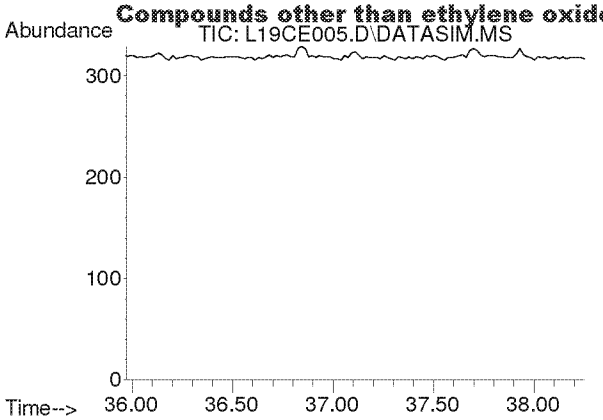
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

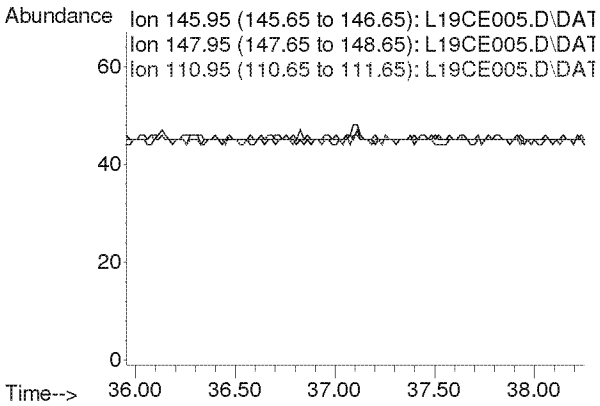


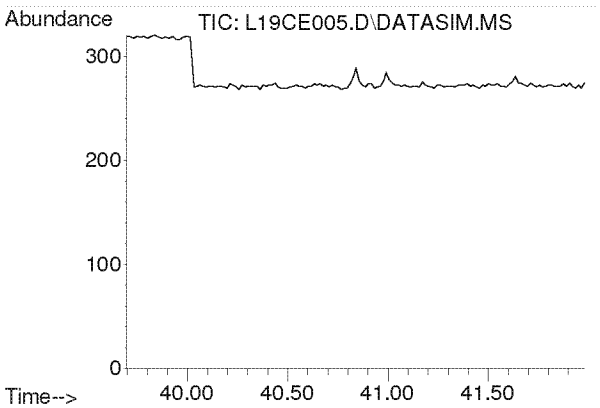
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



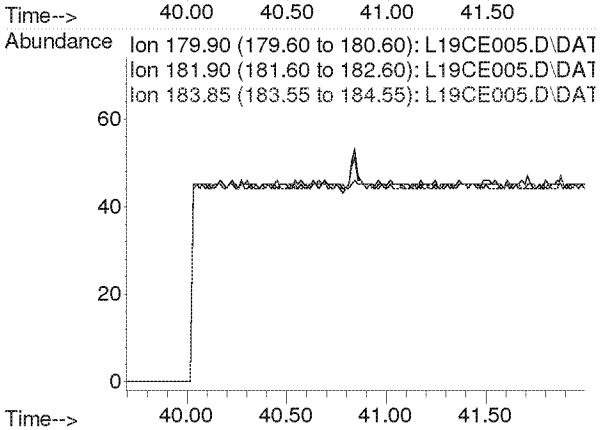


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

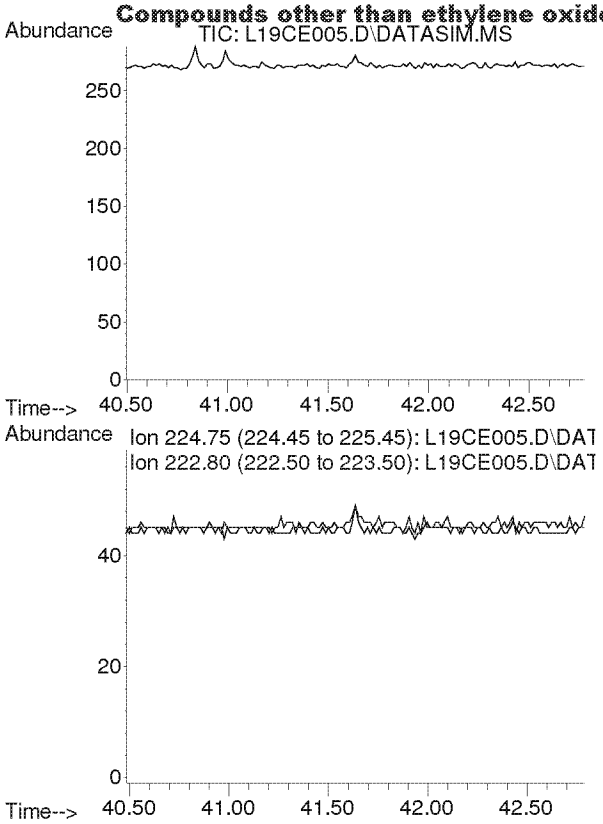
Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE005.D
Acq: 5 Mar 2019 4:29 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE008.D
Acq On : 5 Mar 2019 7:28 pm
Operator : MAH
Sample : 9030524-01
Misc : HINSDALE S. HS 3/2/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 06 12:02:45 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

RHB 3/18/19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46899	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	120582	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	85252	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.485	29	186m	0.0693 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. 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\L19CE\
Data File : L19CE008.D
Acq On : 5 Mar 2019 7:28 pm
Operator : MAH
Sample : 9030524-01
Misc : HINSDALE S. HS 3/2/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 06 12:02:45 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

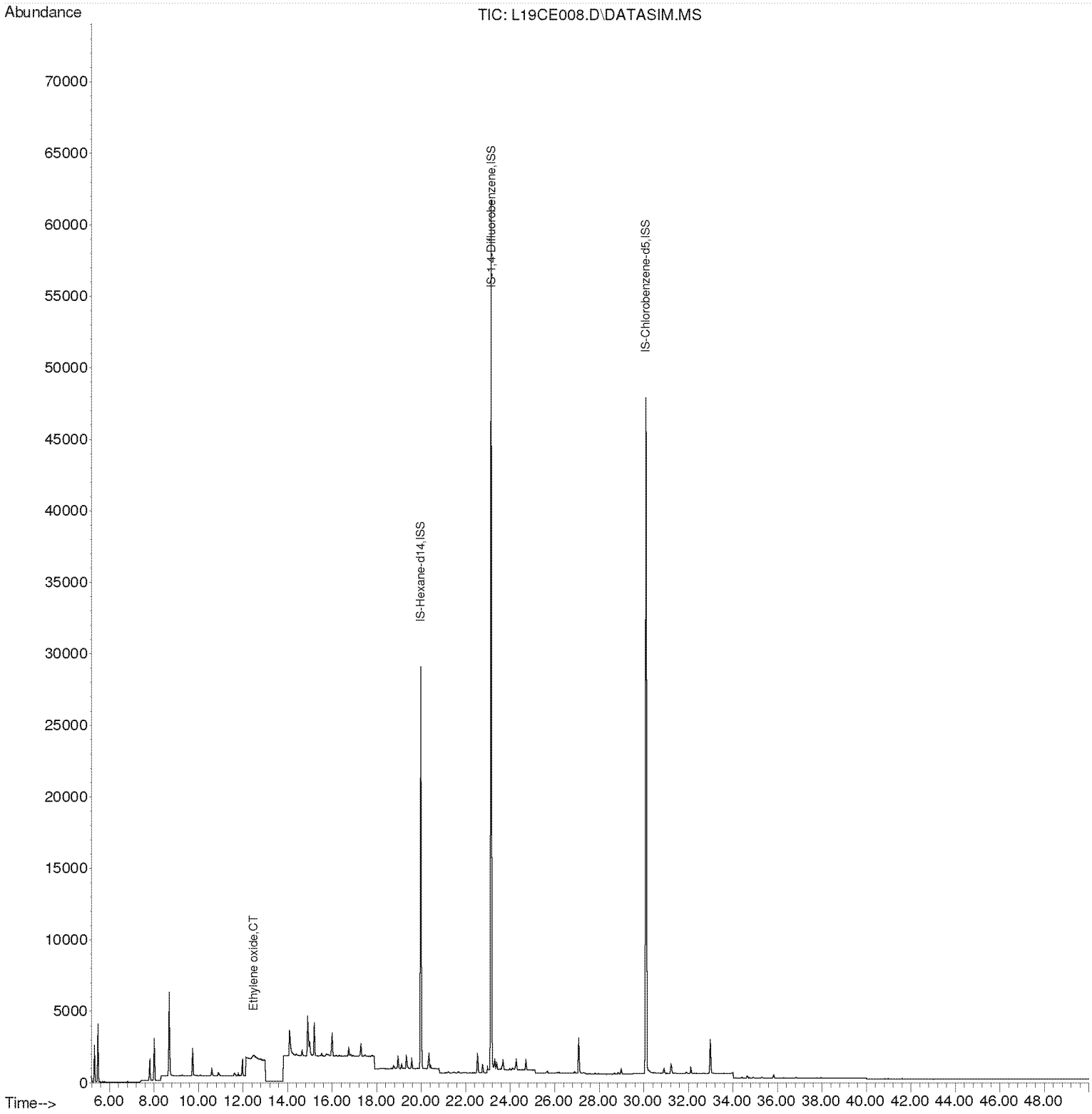
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

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

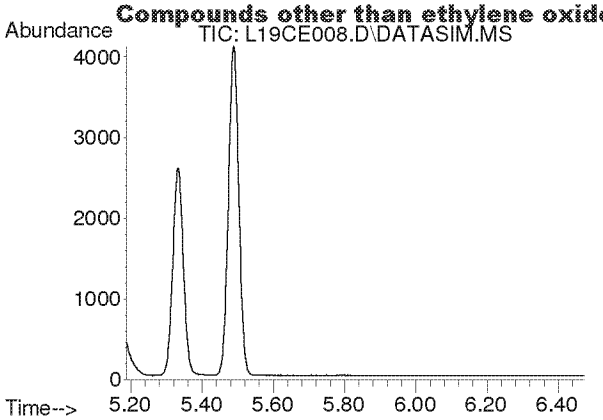
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE008.D
Acq On : 5 Mar 2019 7:28 pm
Operator : MAH
Sample : 9030524-01
Misc : HINSDALE S. HS 3/2/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 06 12:02:45 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



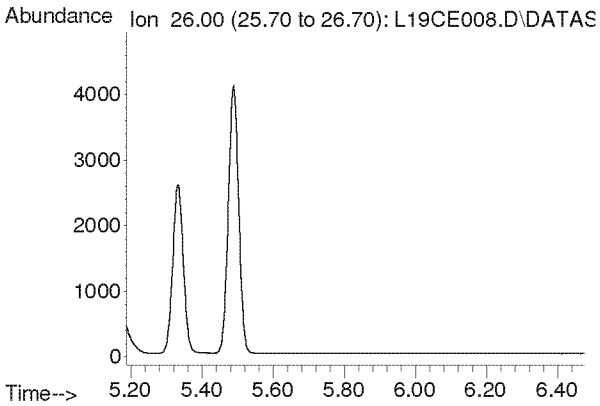
Compounds other than ethylene oxide were not quantitated.

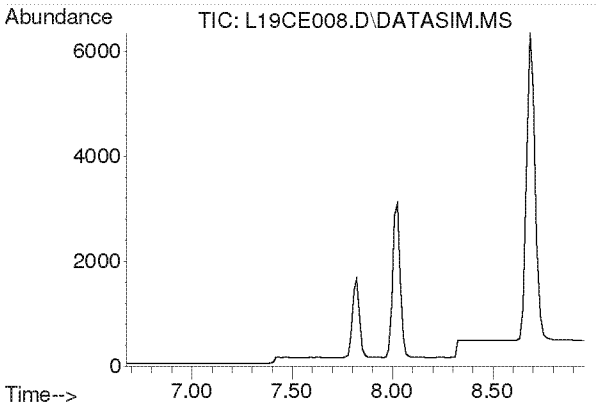


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 26



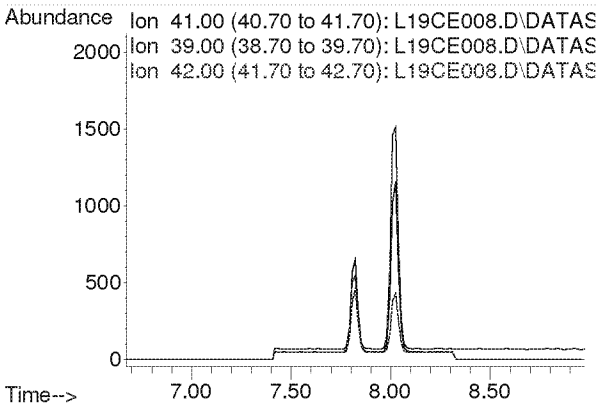


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

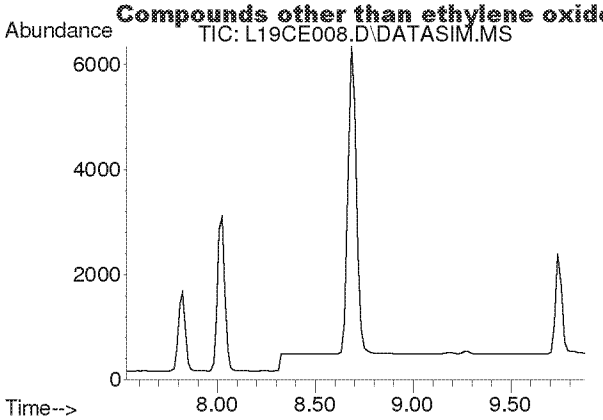
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

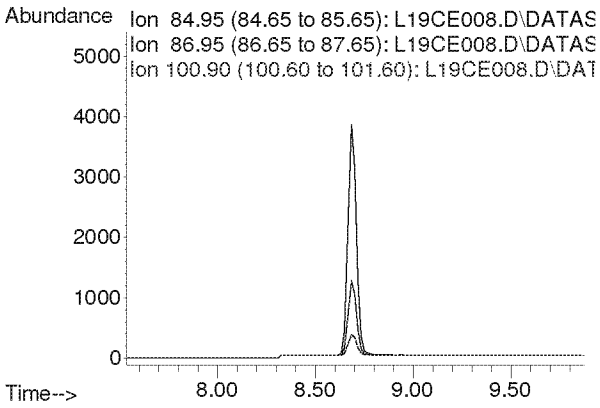


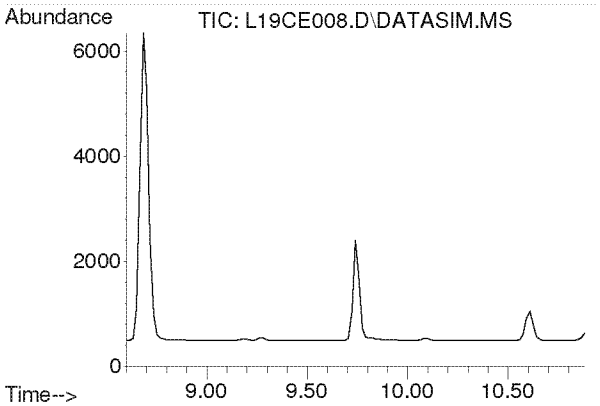
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



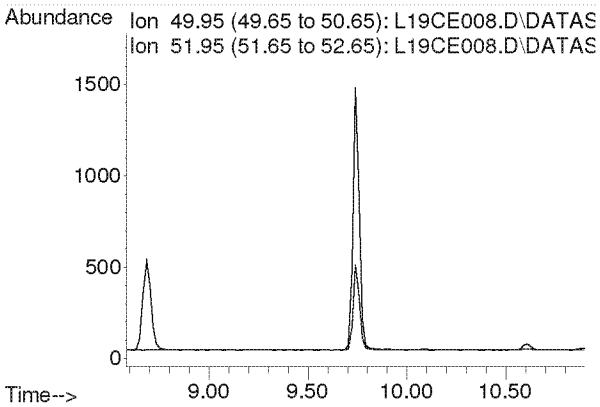


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

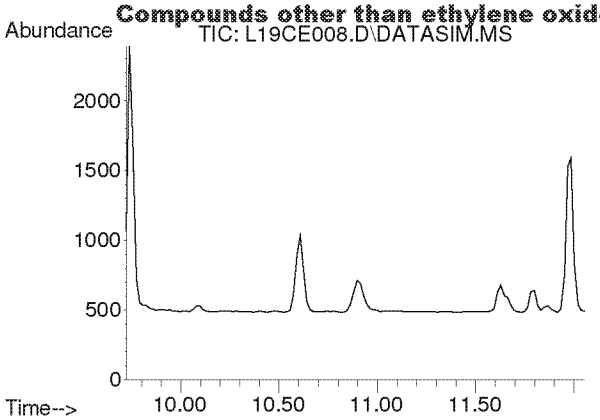
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

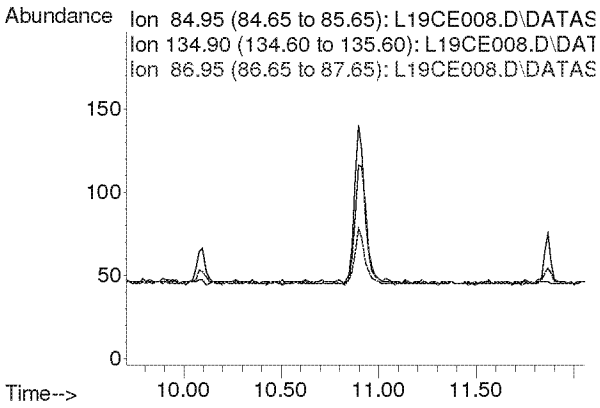


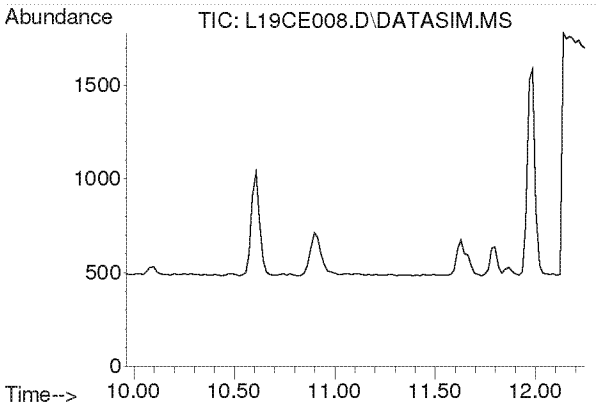
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



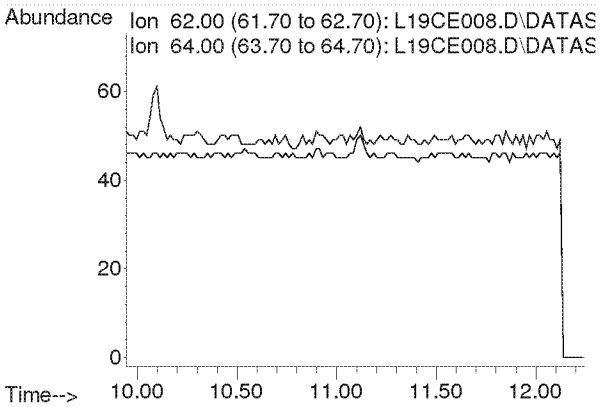


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

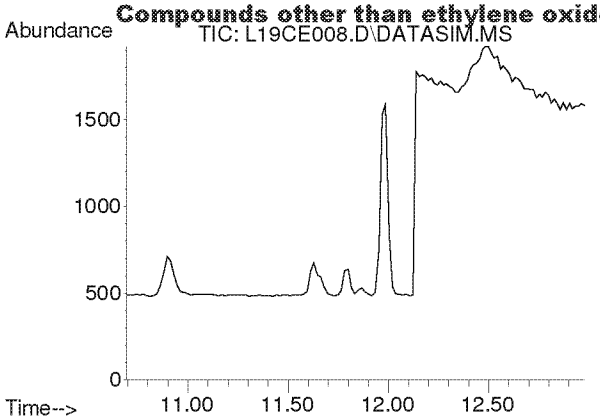
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

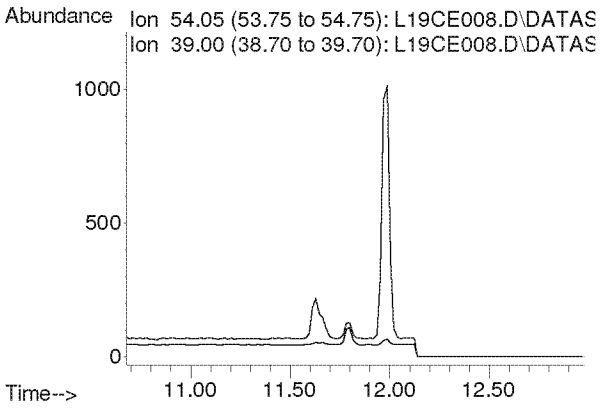


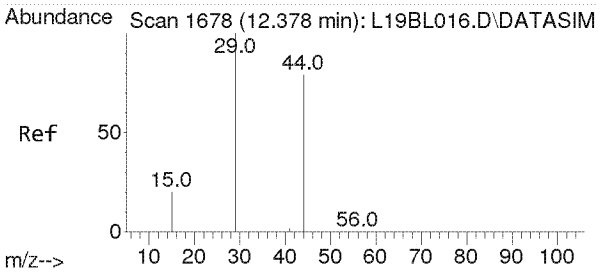
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

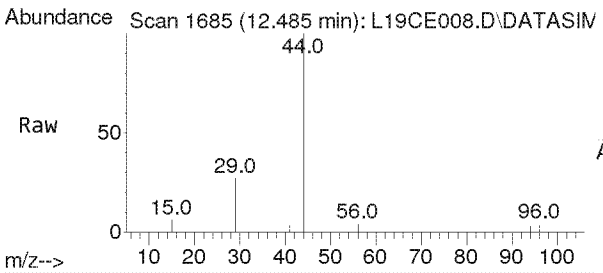


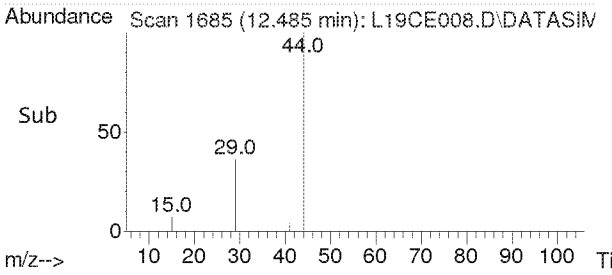


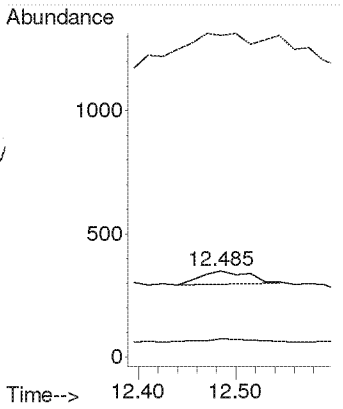
#9
Ethylene oxide
Concen: 0.069 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 29 Resp: 186

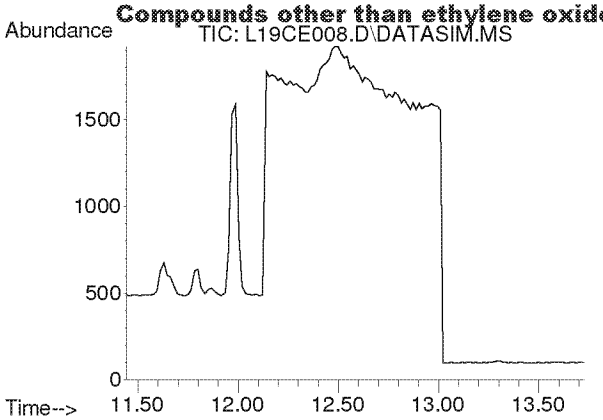
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

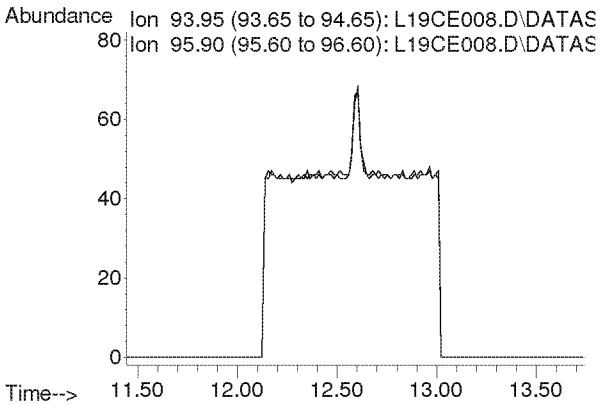


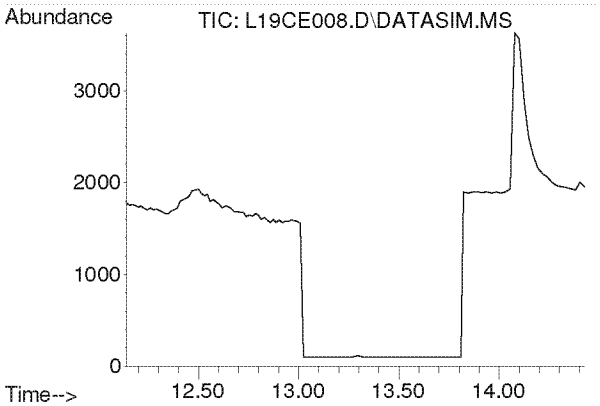
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



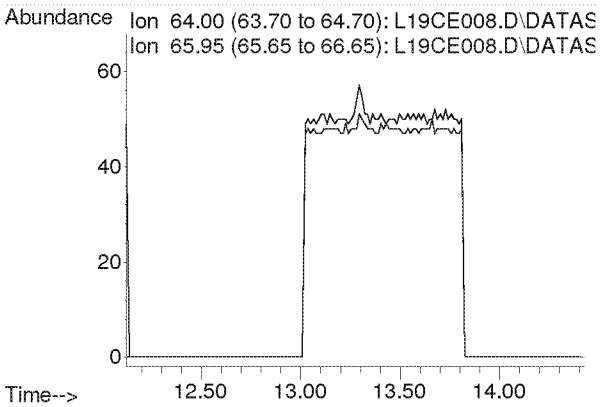


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

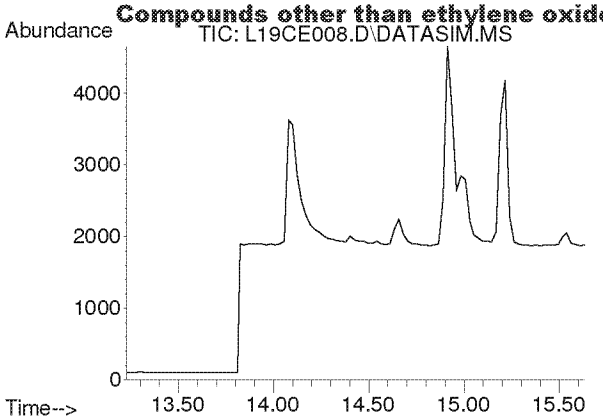
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

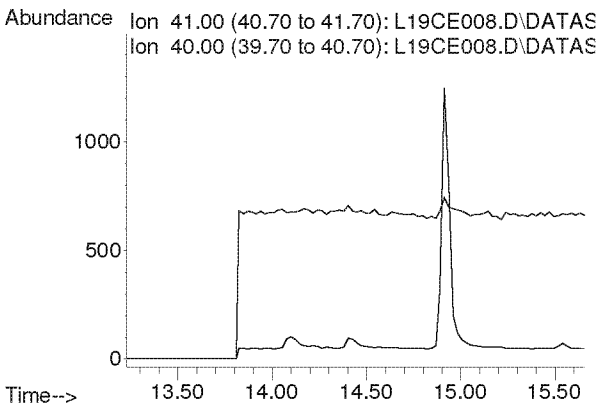


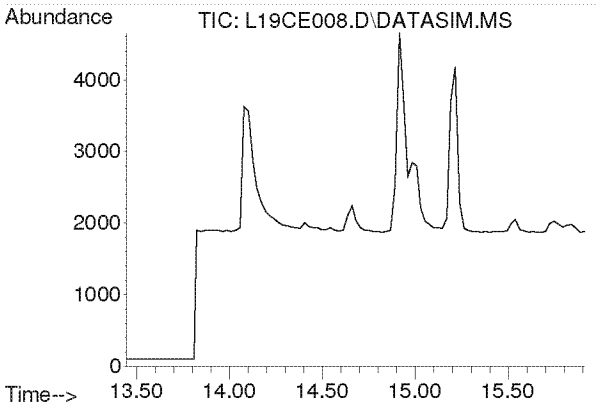
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



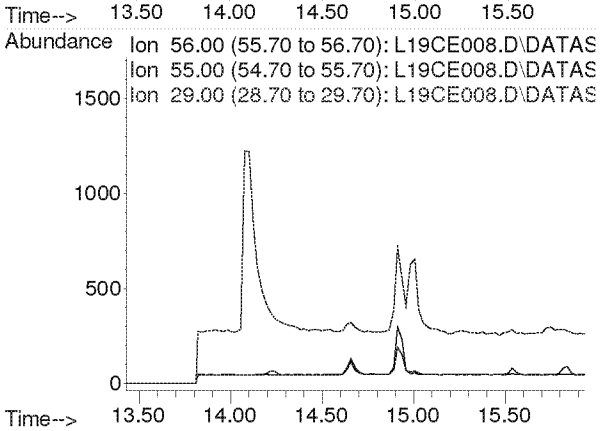


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

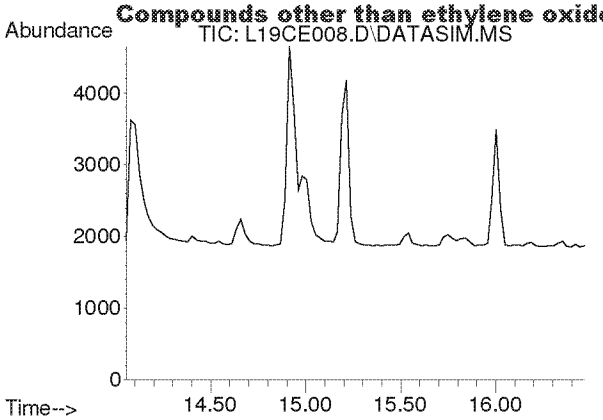
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

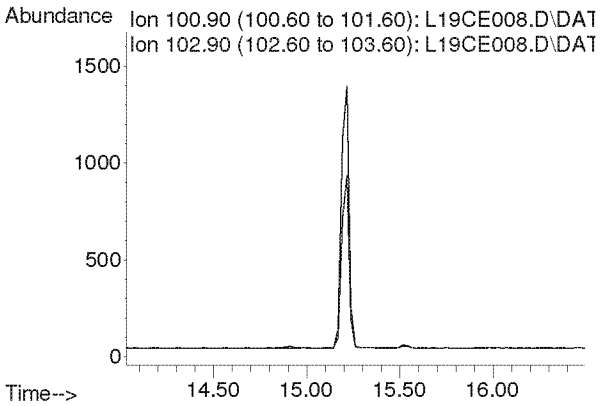


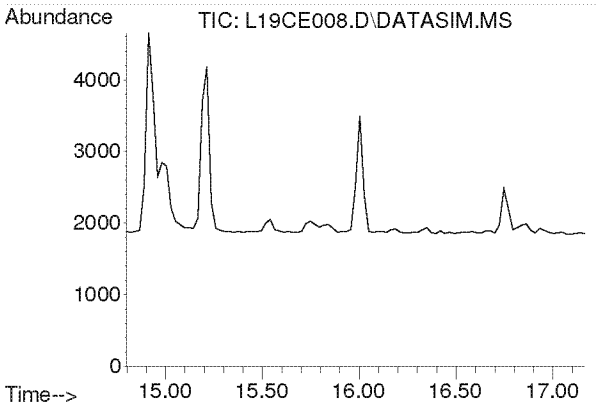
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



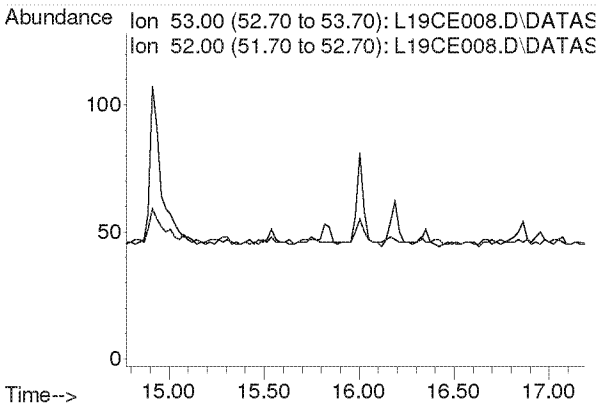


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

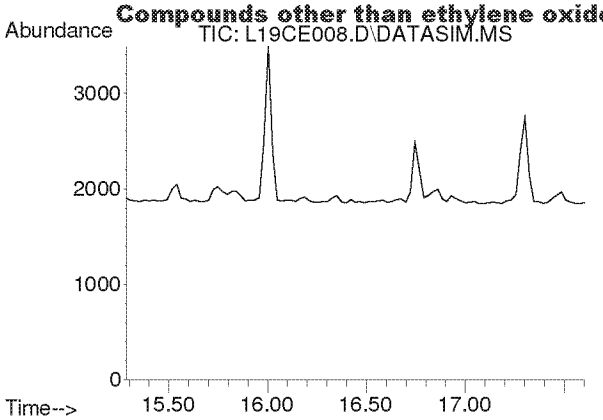
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

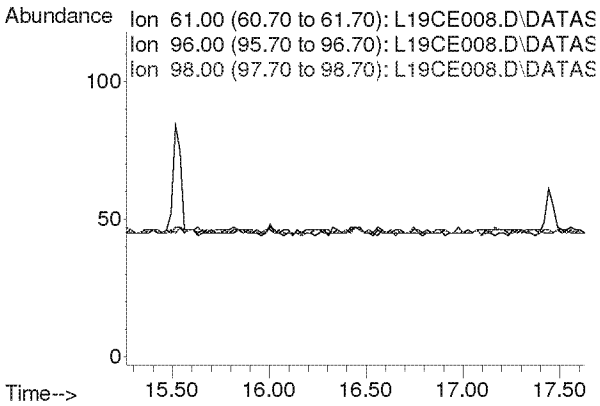


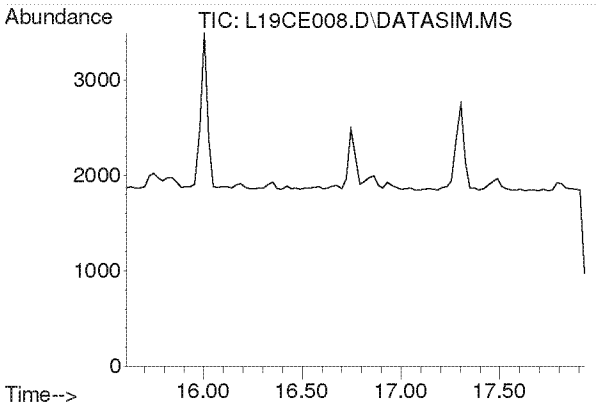
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



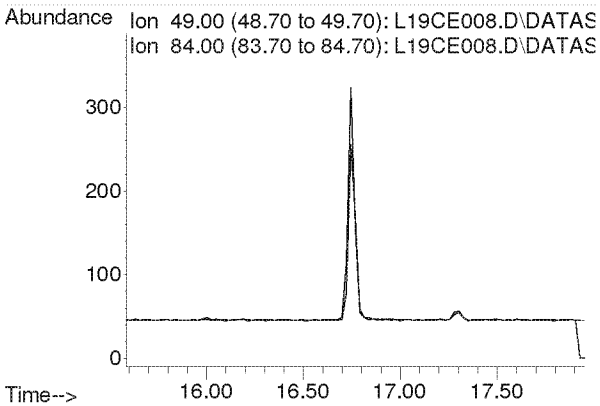


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

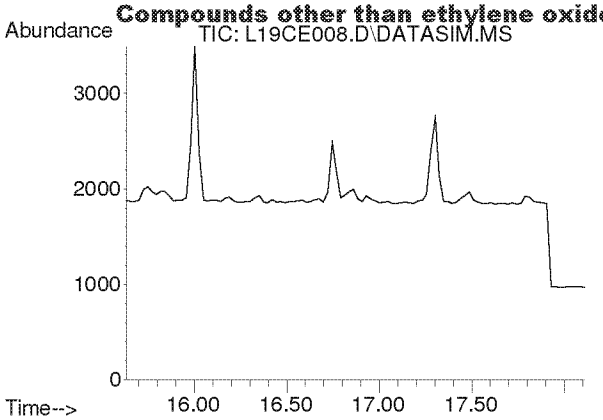
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

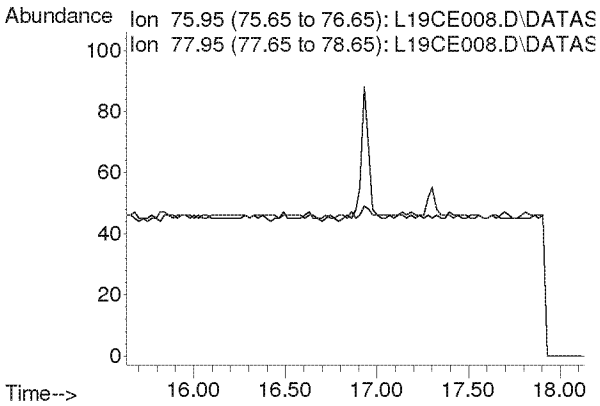


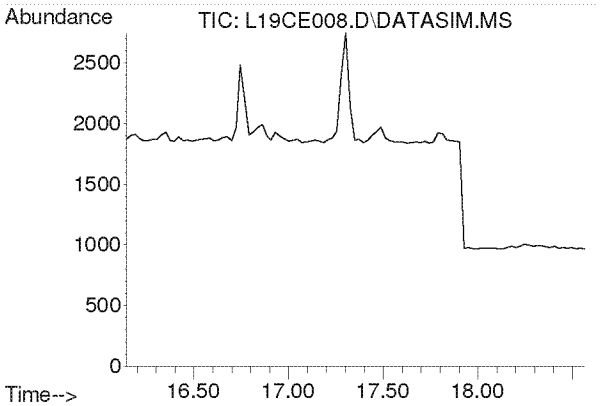
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



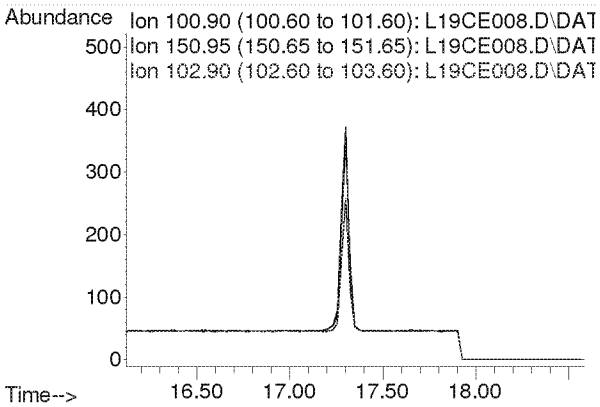


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

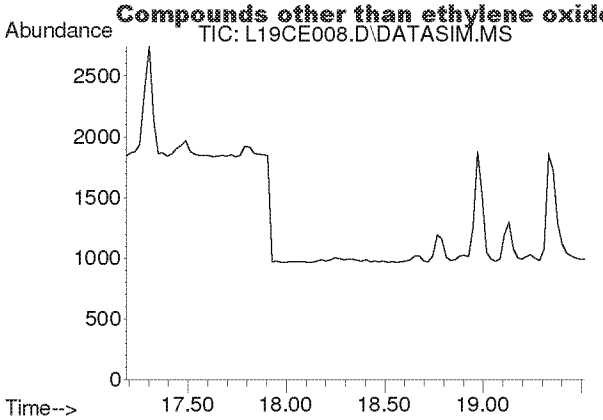
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

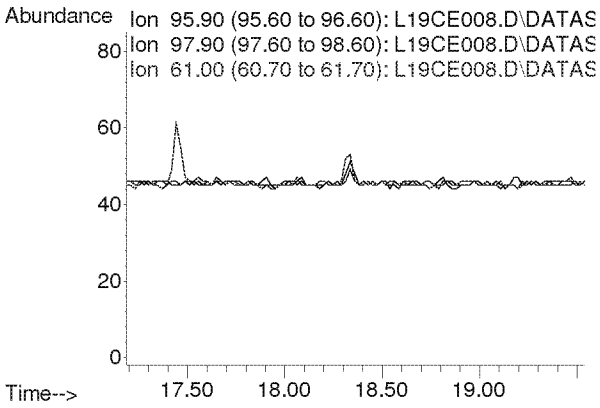


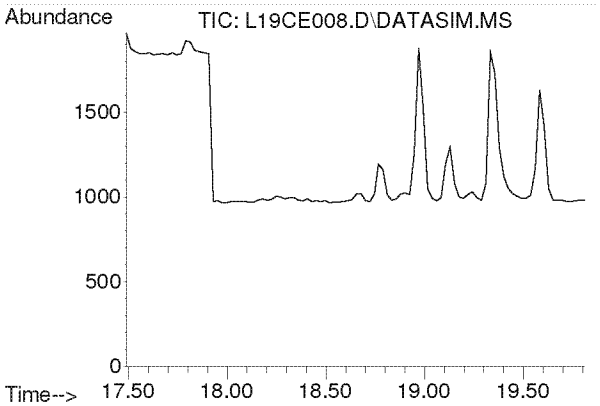
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



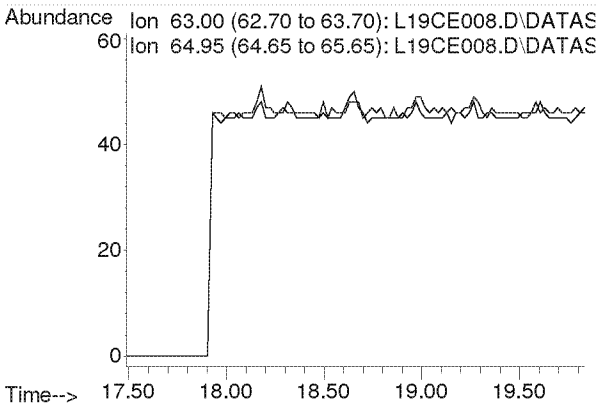


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

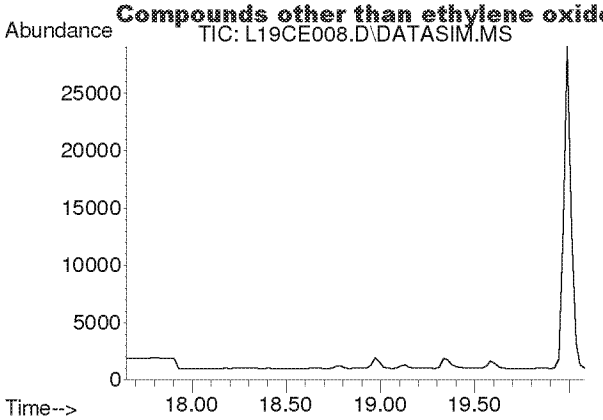
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

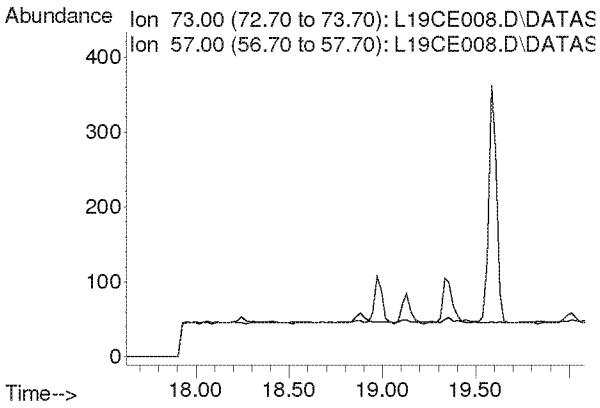


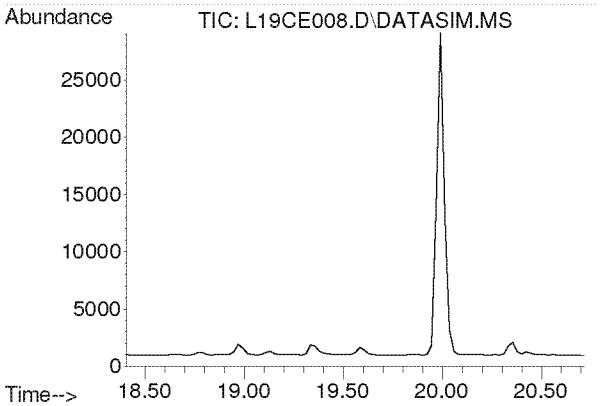
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



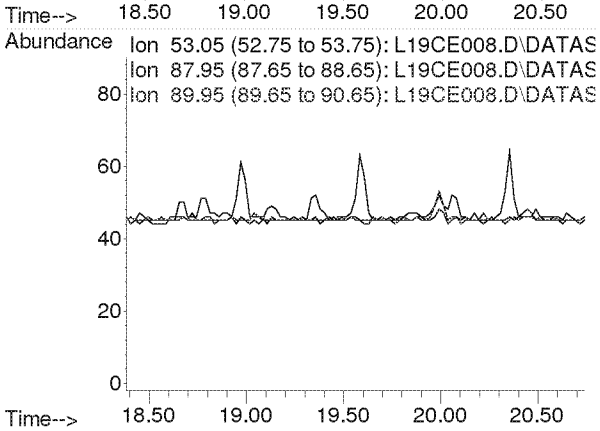


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

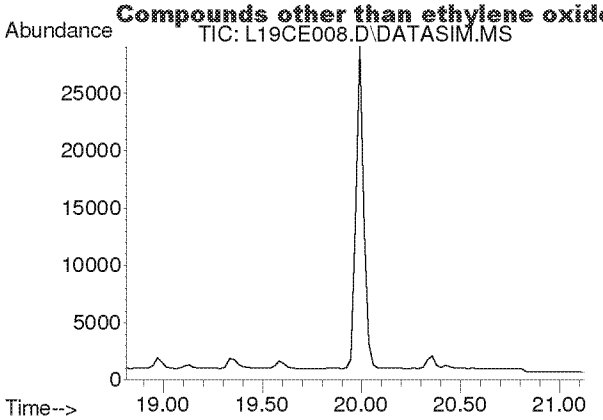
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

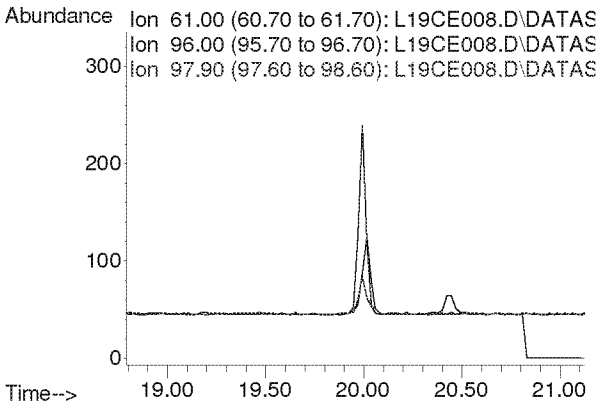


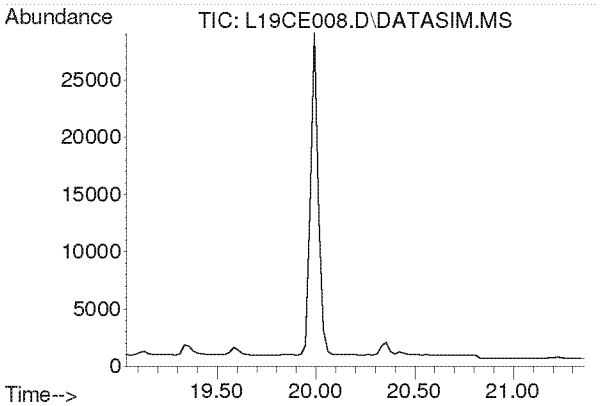
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



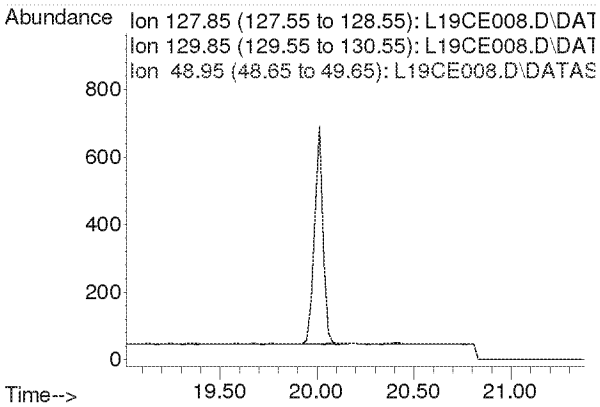


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

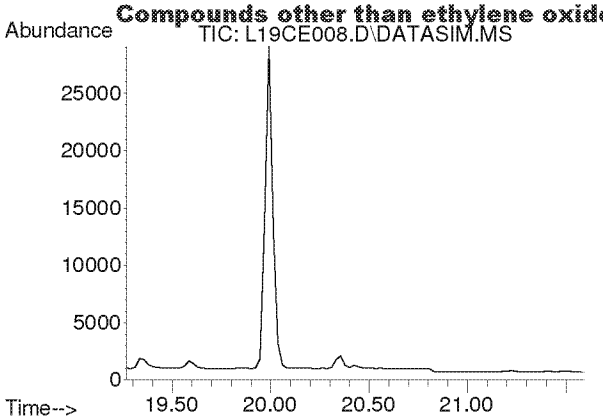
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

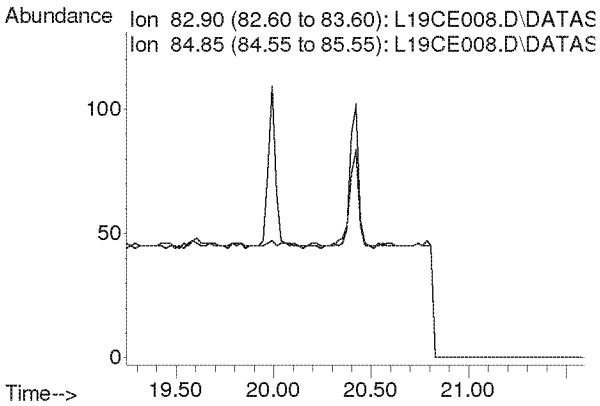


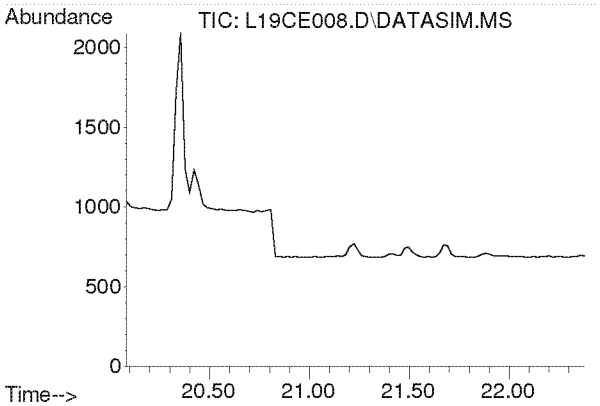
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



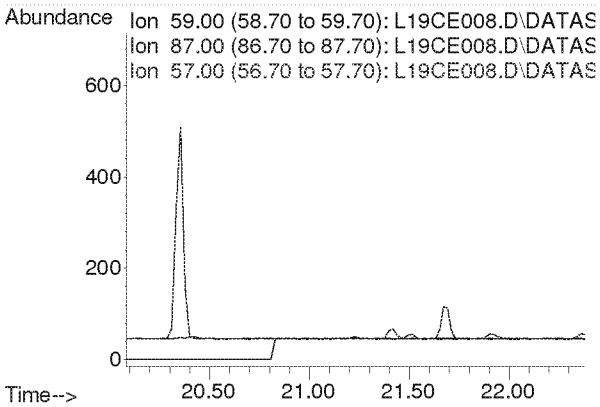


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

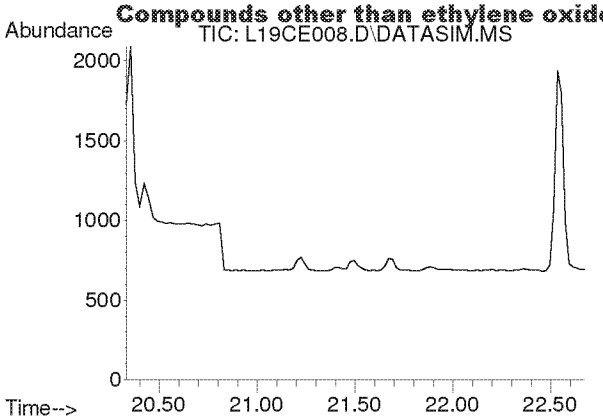
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

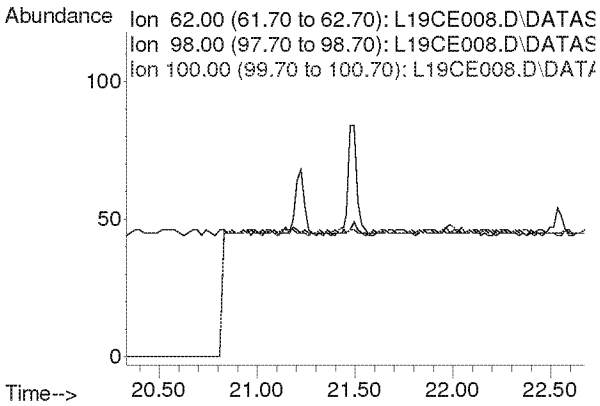


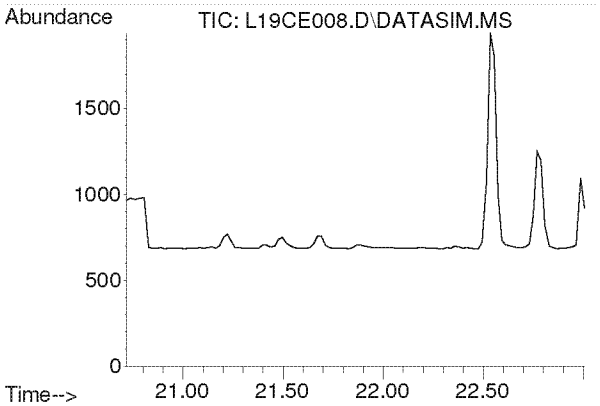
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



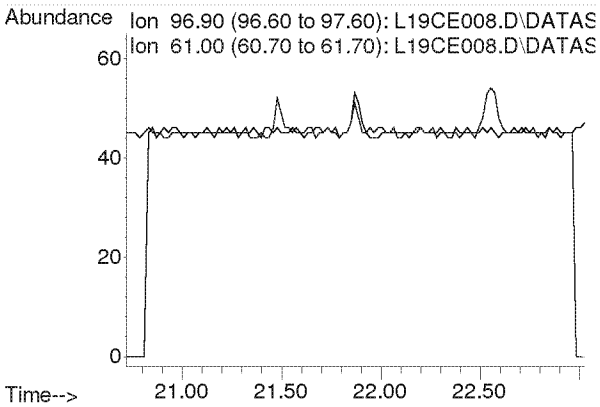


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

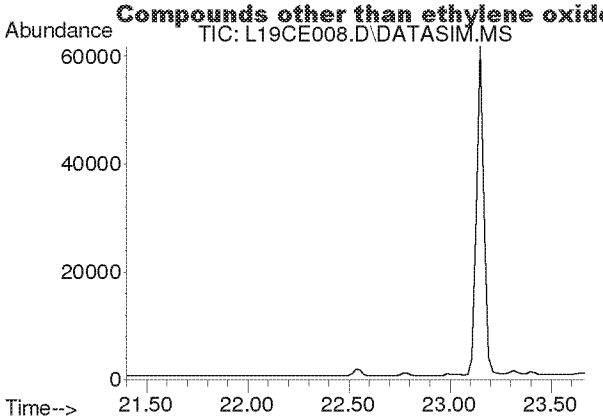
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

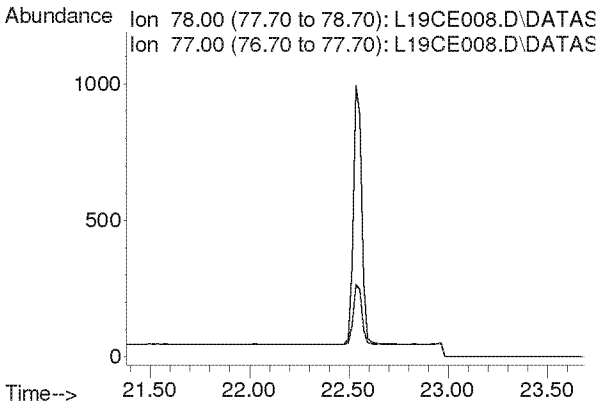


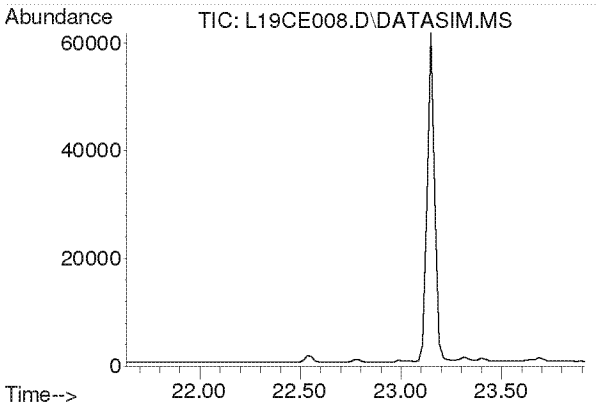
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



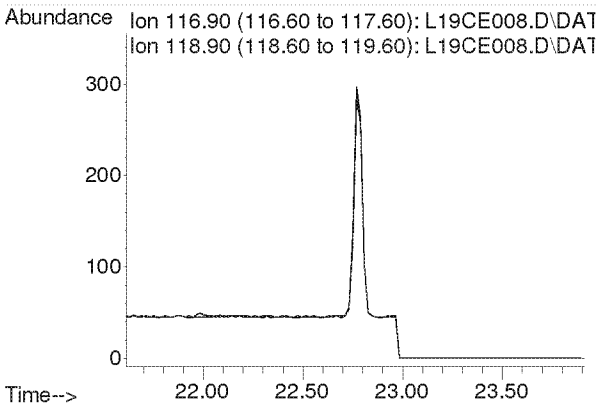


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

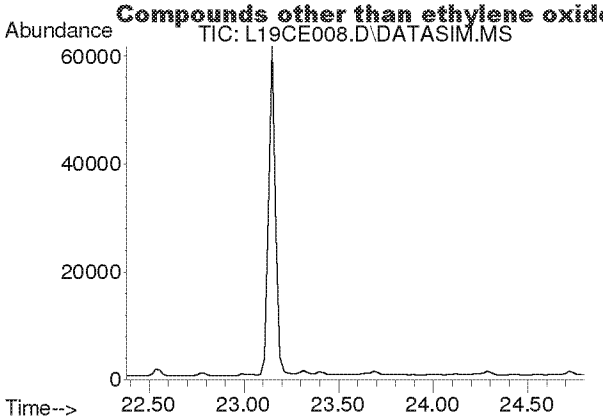
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

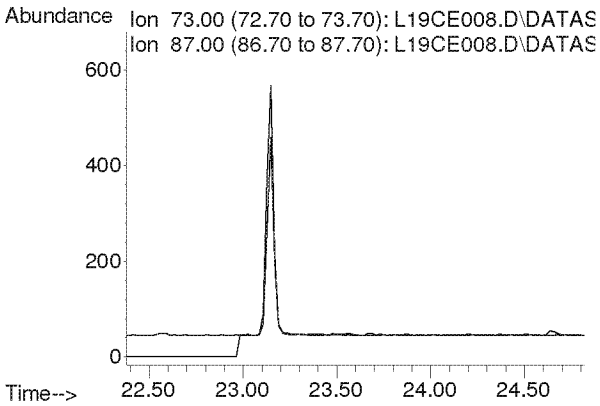


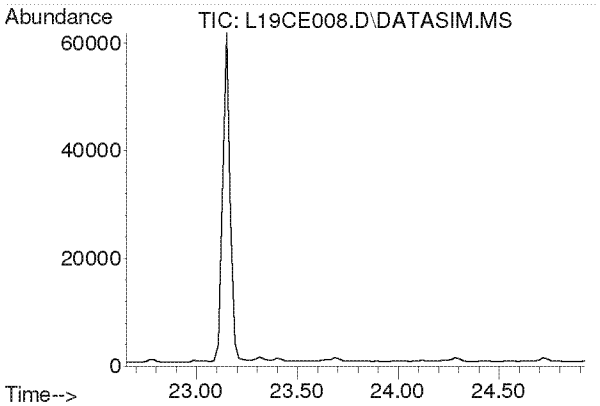
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



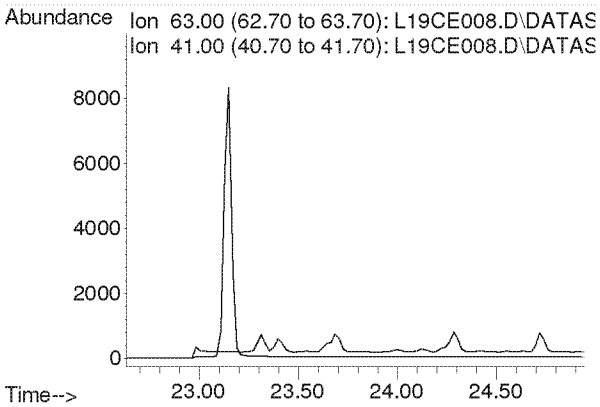


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

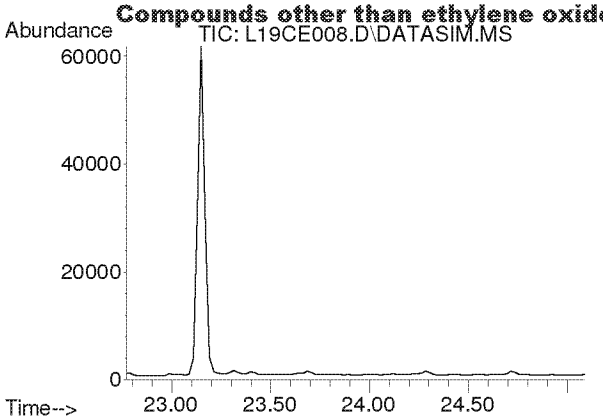
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

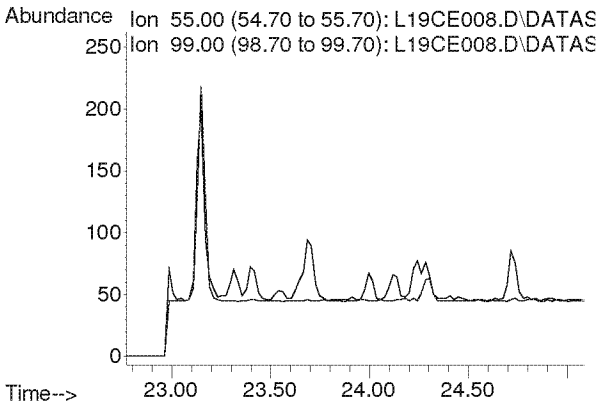


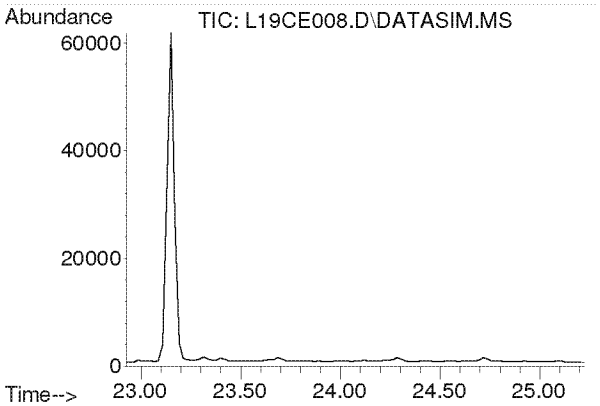
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



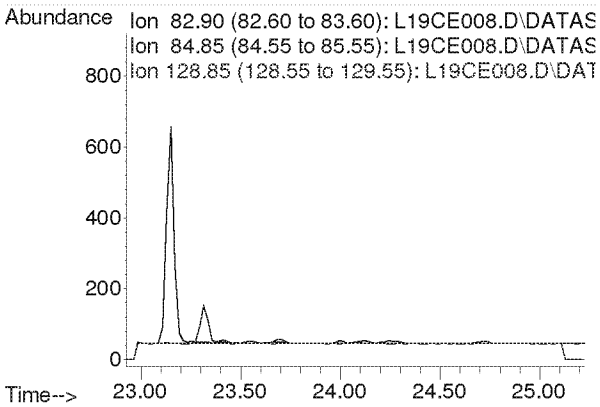


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

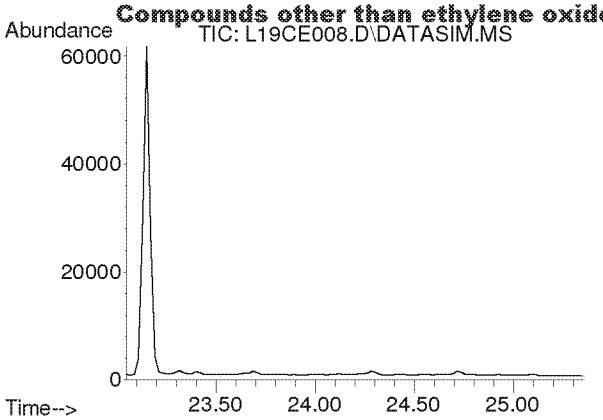
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

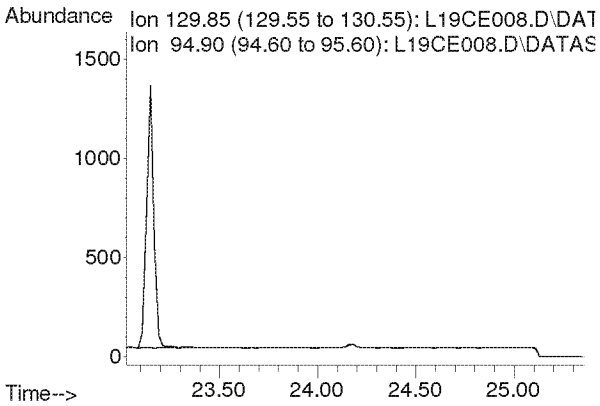


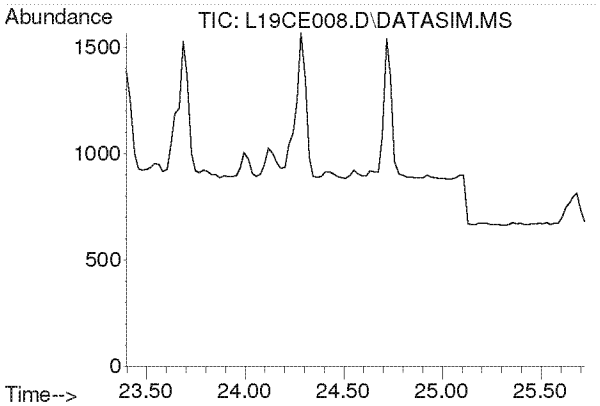
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



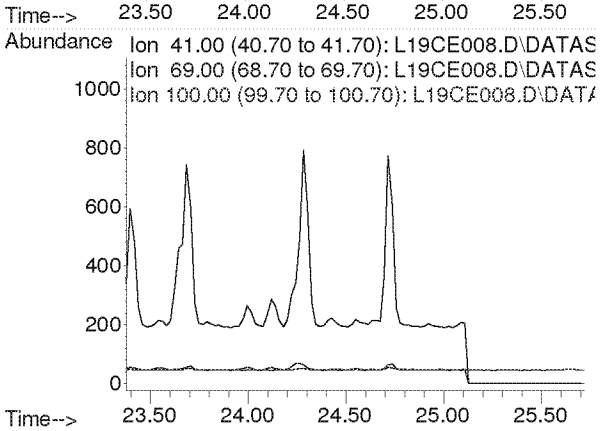


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

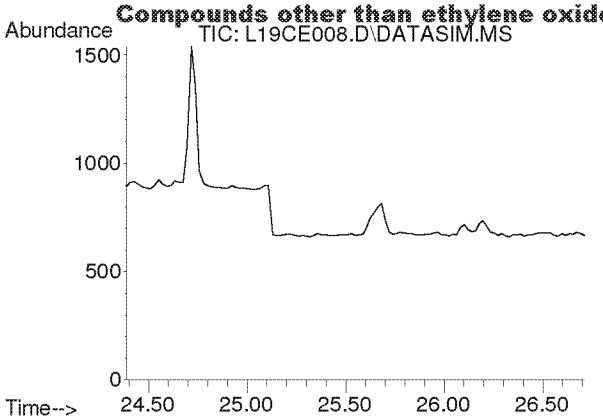
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

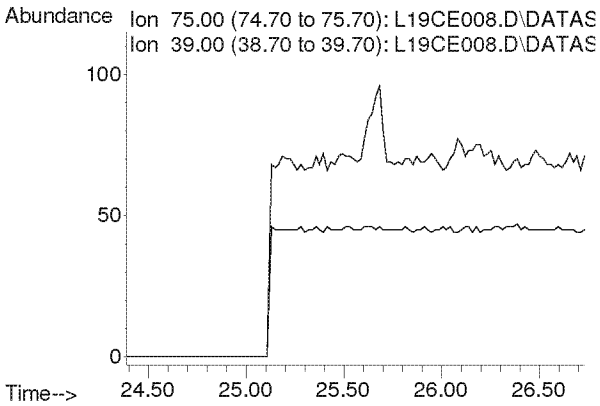


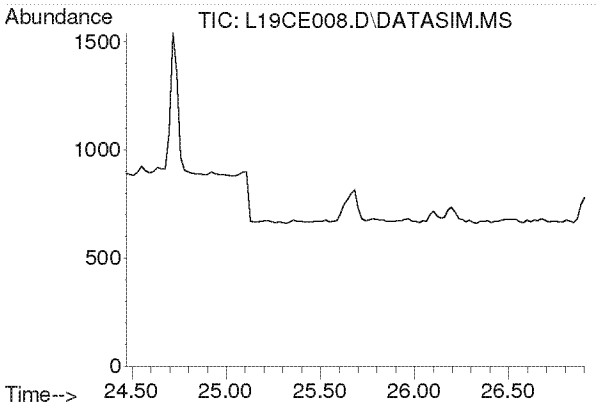
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



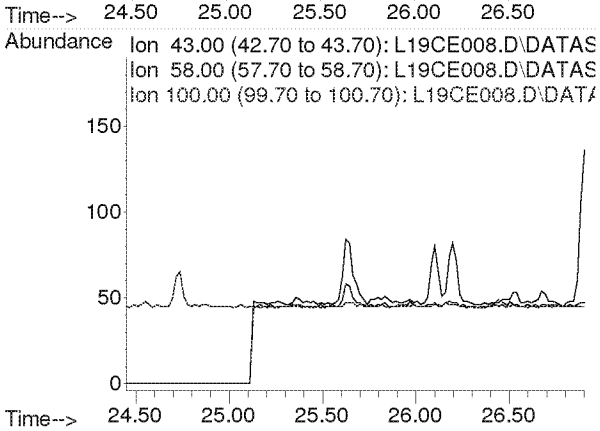


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

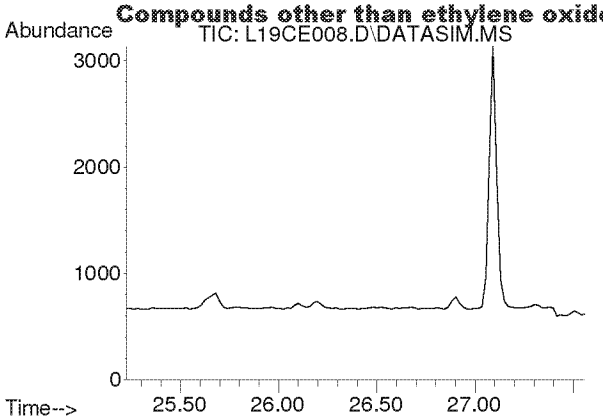
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

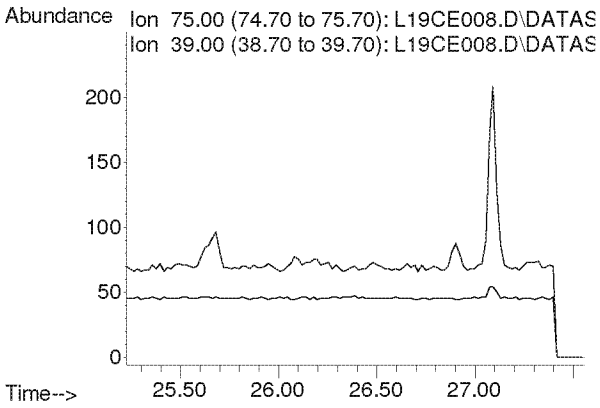


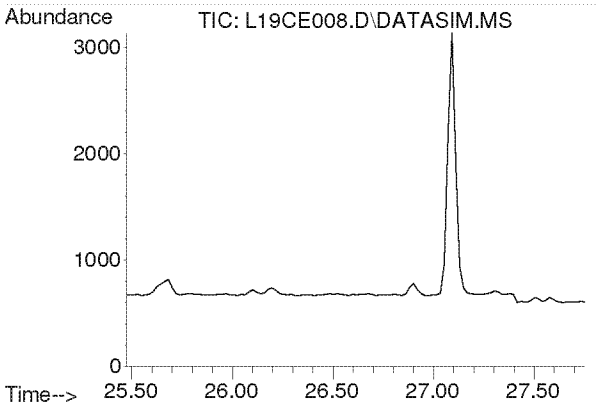
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



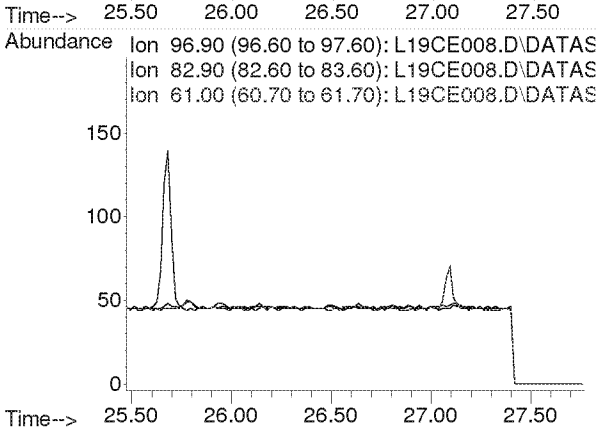


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

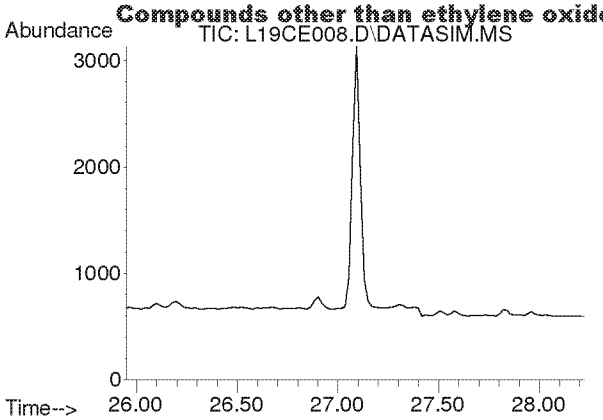
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

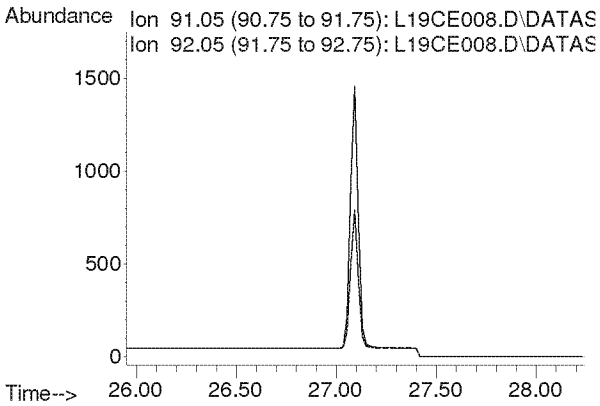


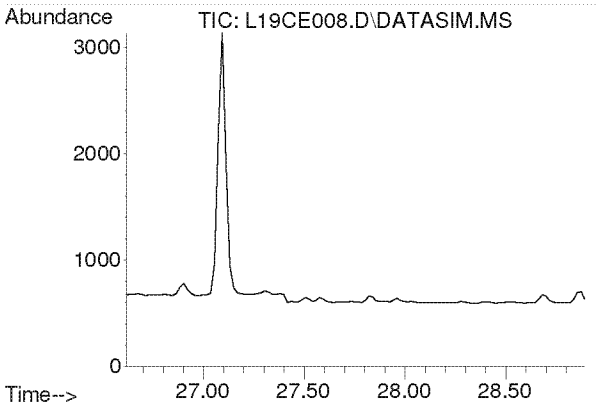
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



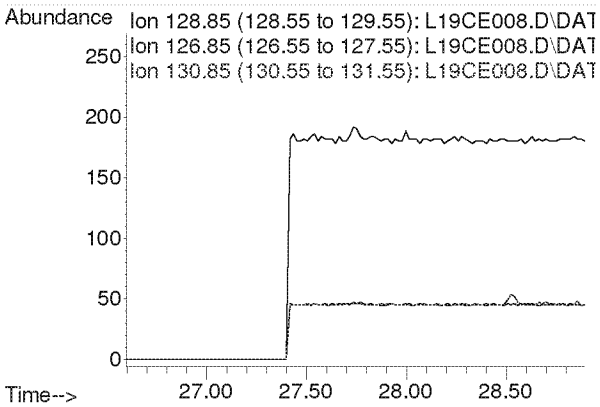


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

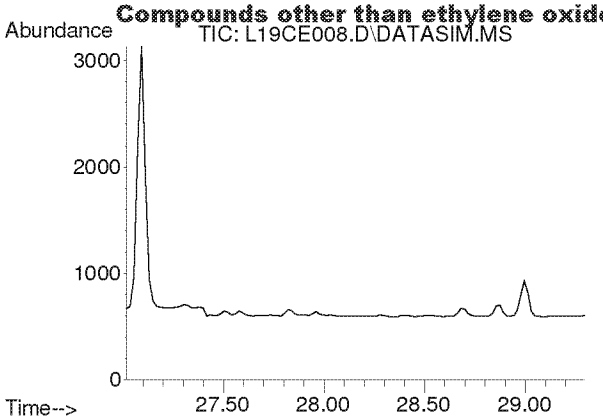
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

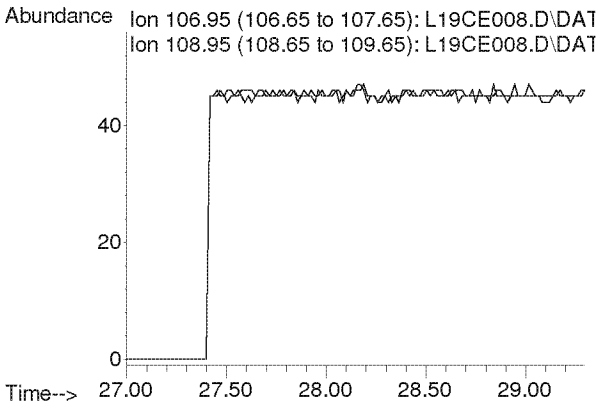


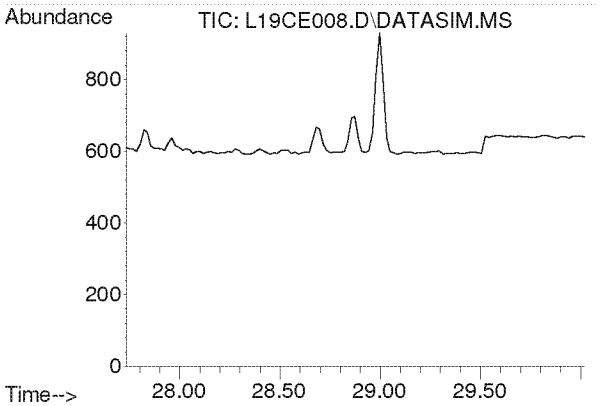
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



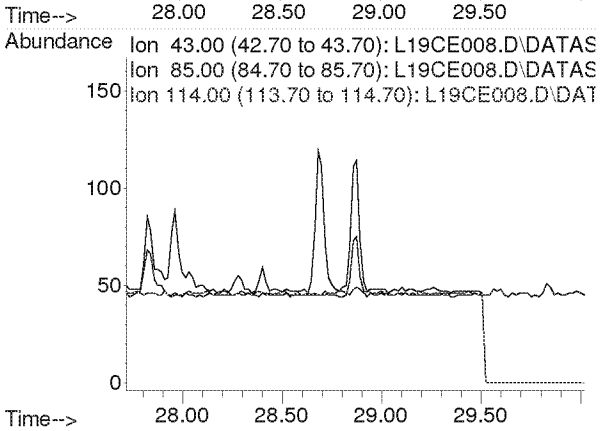


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

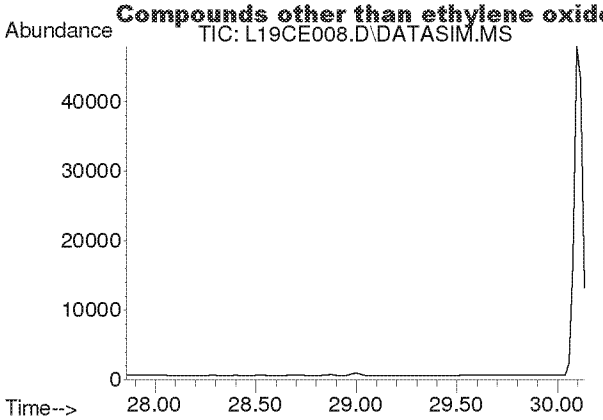
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

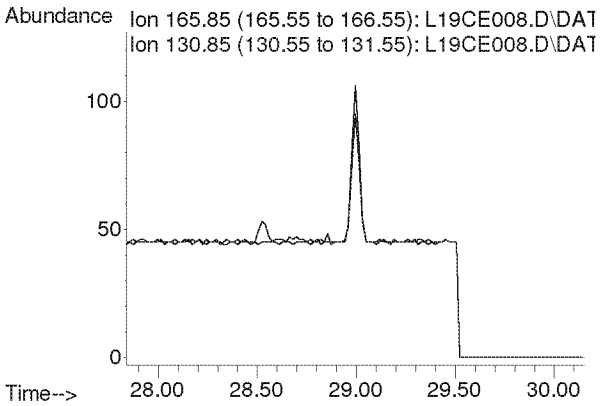


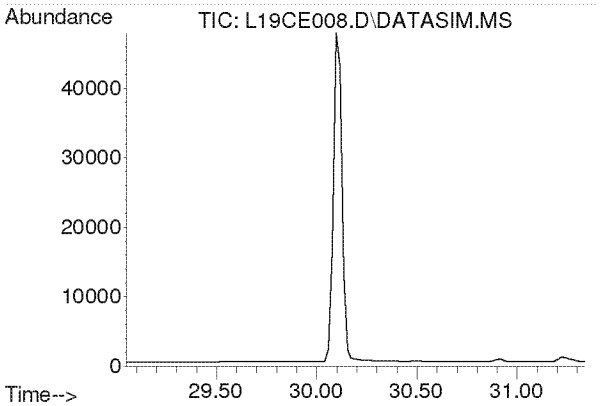
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



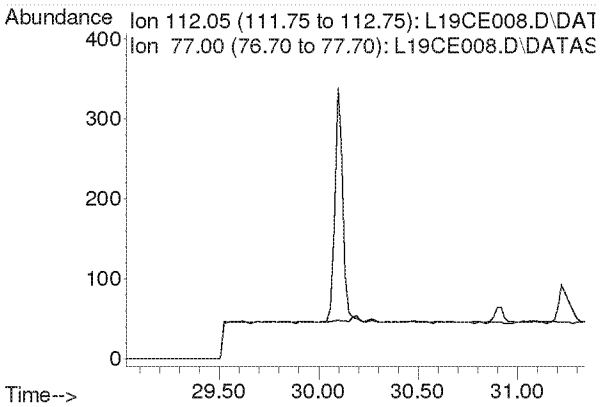


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

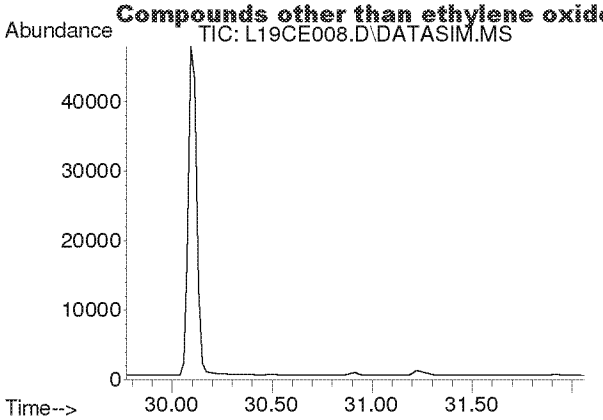
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

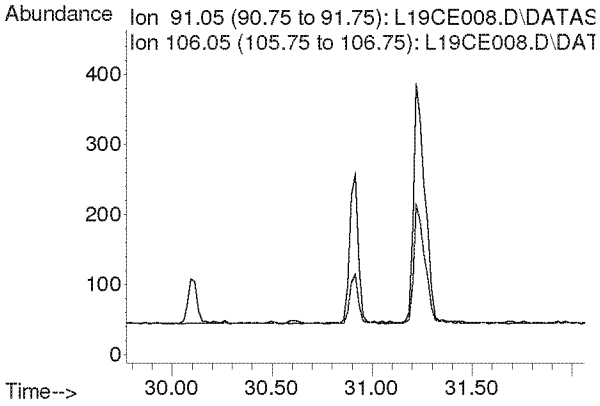


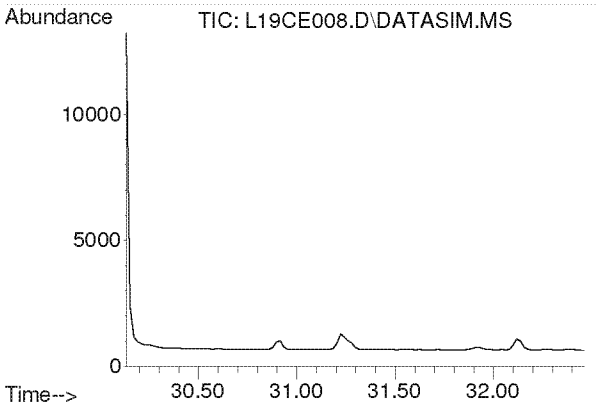
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



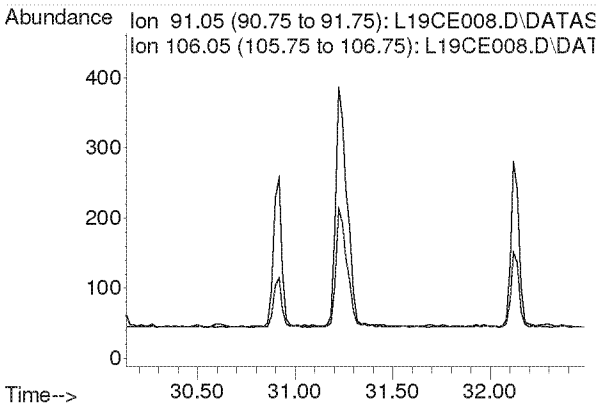


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

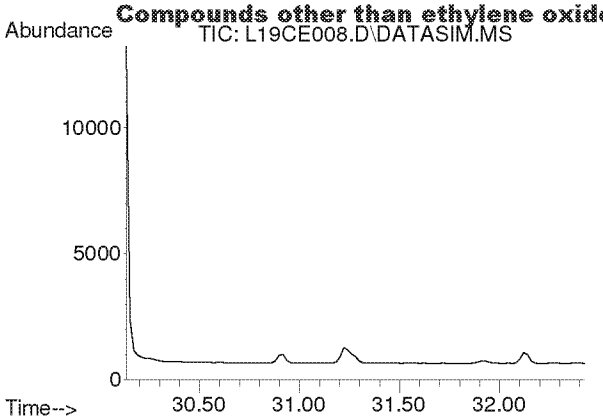
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

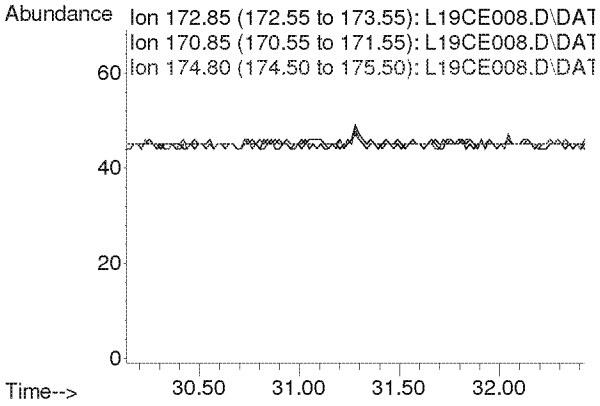


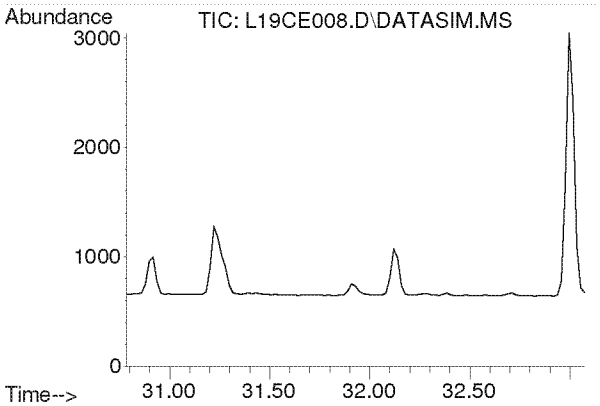
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



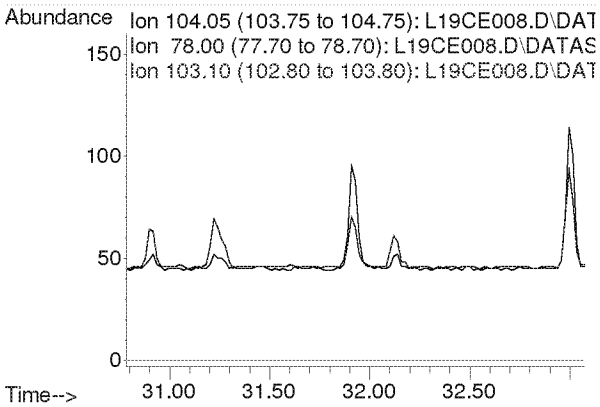


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

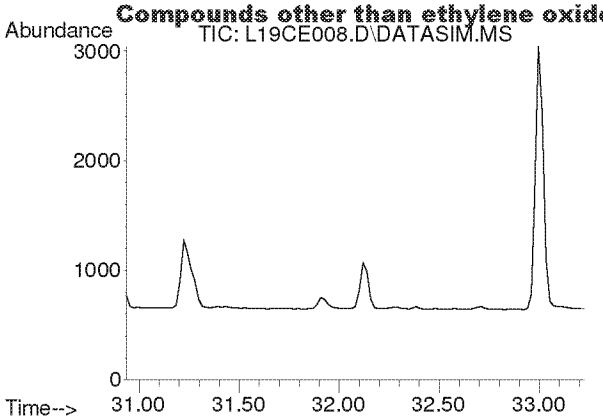
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

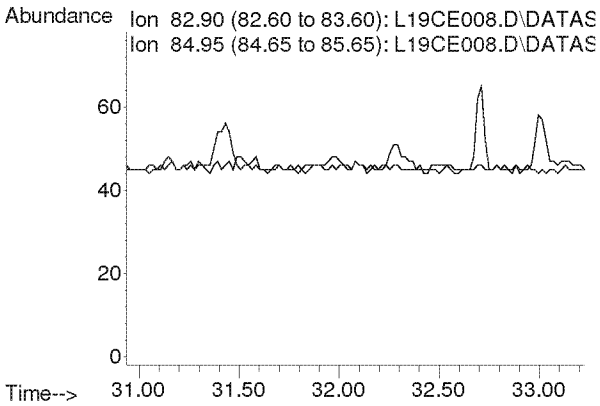


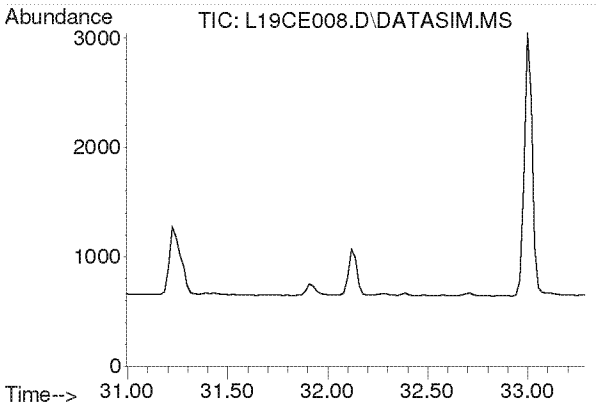
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



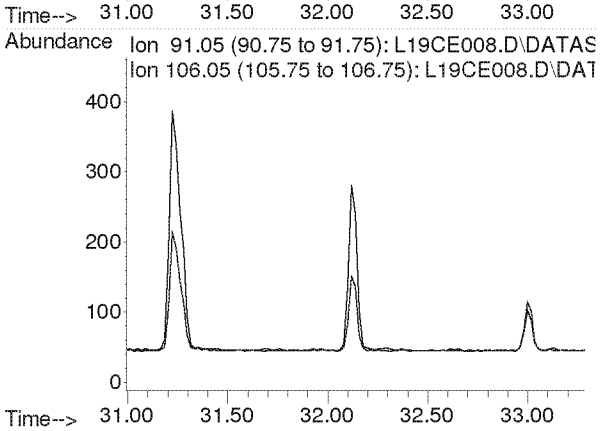


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

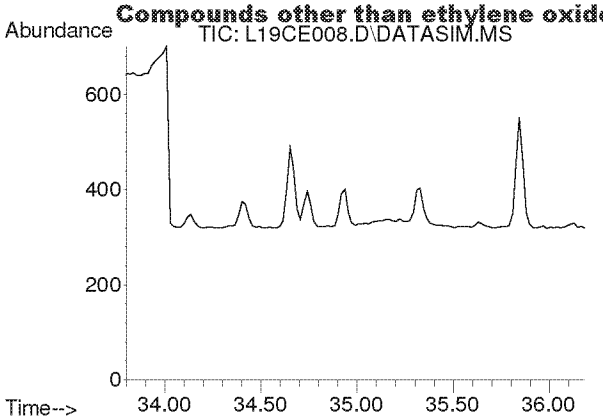
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

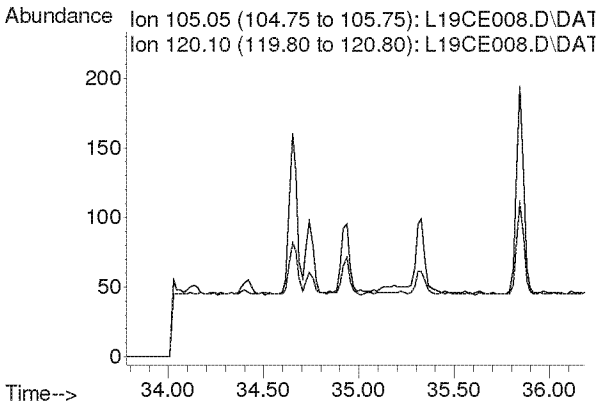


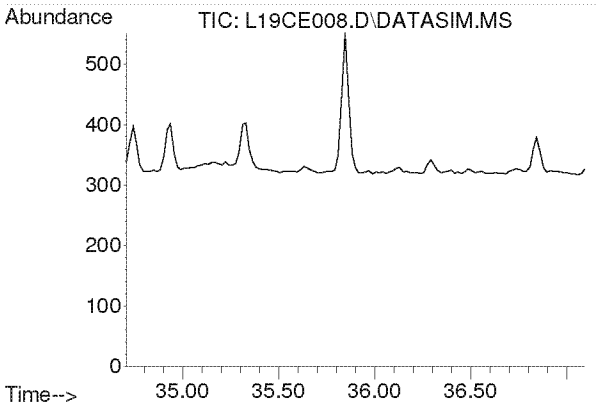
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



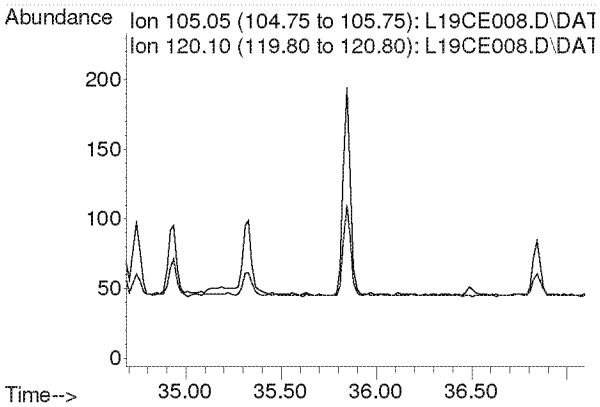


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

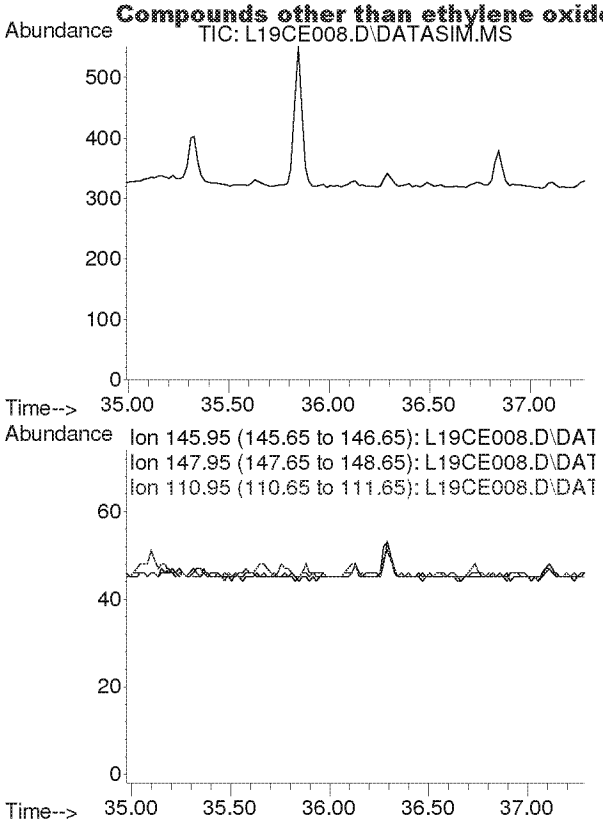
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

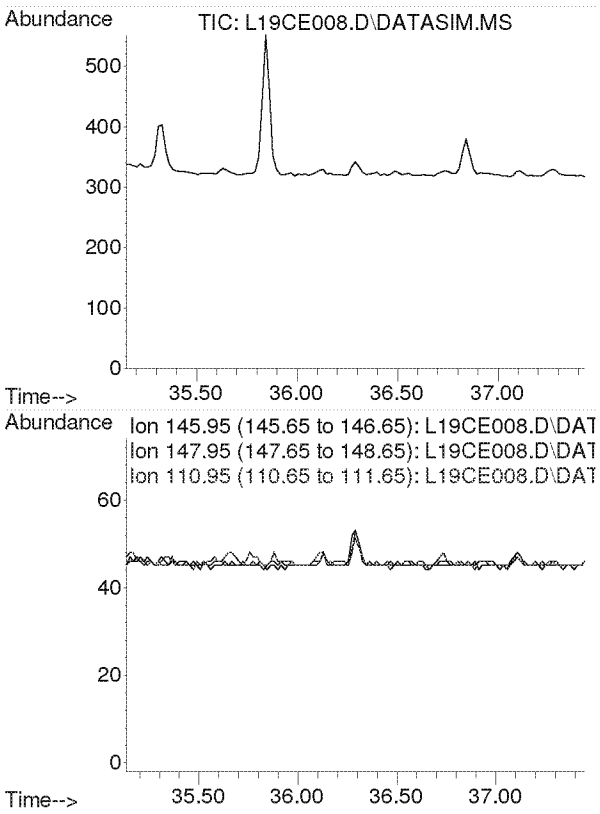


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



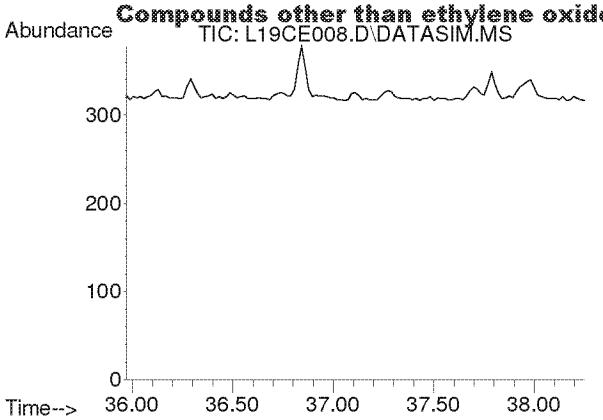
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

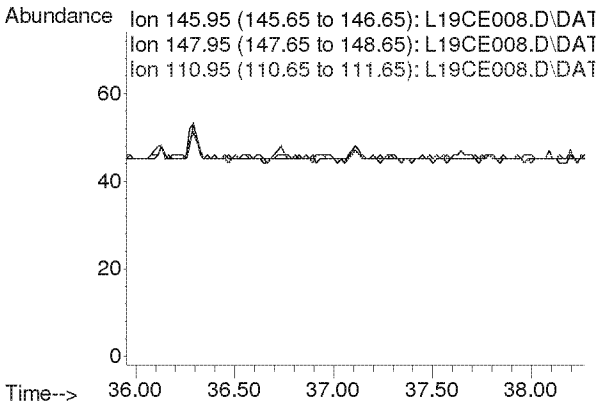


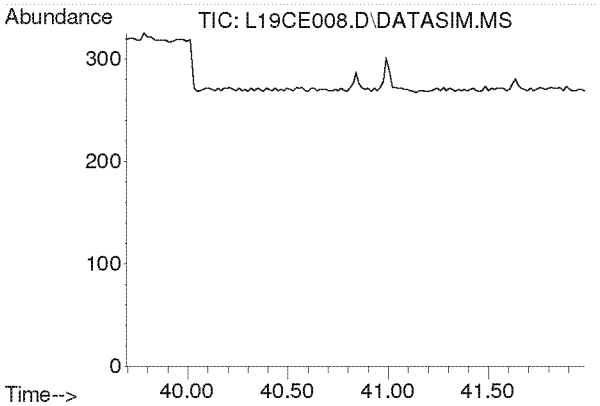
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



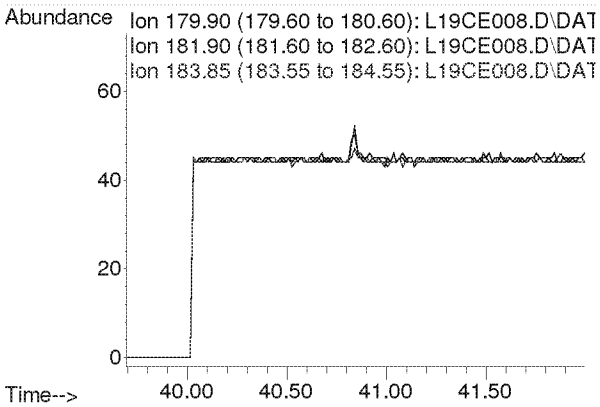


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

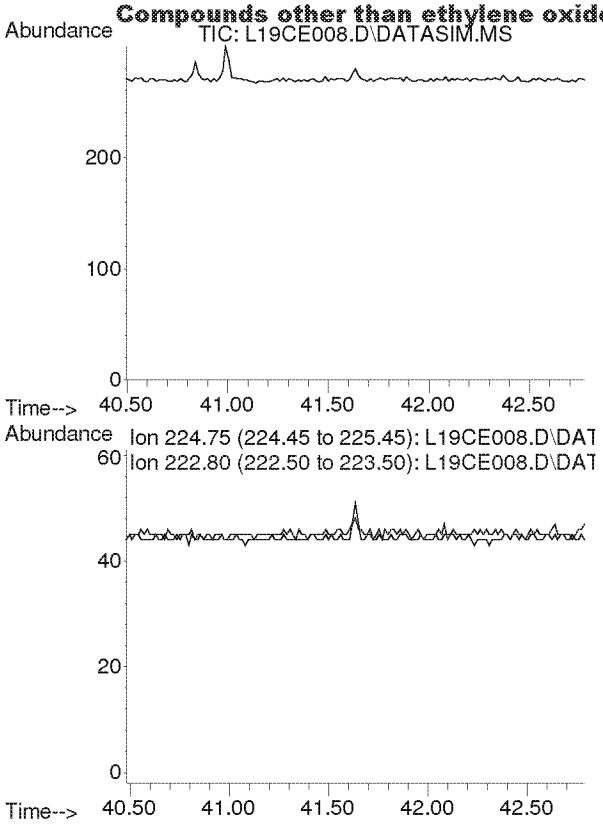
Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE008.D
Acq: 5 Mar 2019 7:28 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\L19CE\
Data File : L19CE009.D
Acq On : 5 Mar 2019 8:28 pm
Operator : MAH
Sample : 9030524-02
Misc : WILLOW POND PARK 3/2/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 06 12:22:19 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d=MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	48362	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	124941	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	87204	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	226m 3-6-19	0.0817 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. 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\L19CE\
Data File : L19CE009.D
Acq On : 5 Mar 2019 8:28 pm
Operator : MAH
Sample : 9030524-02
Misc : WILLOW POND PARK 3/2/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 06 12:22:19 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

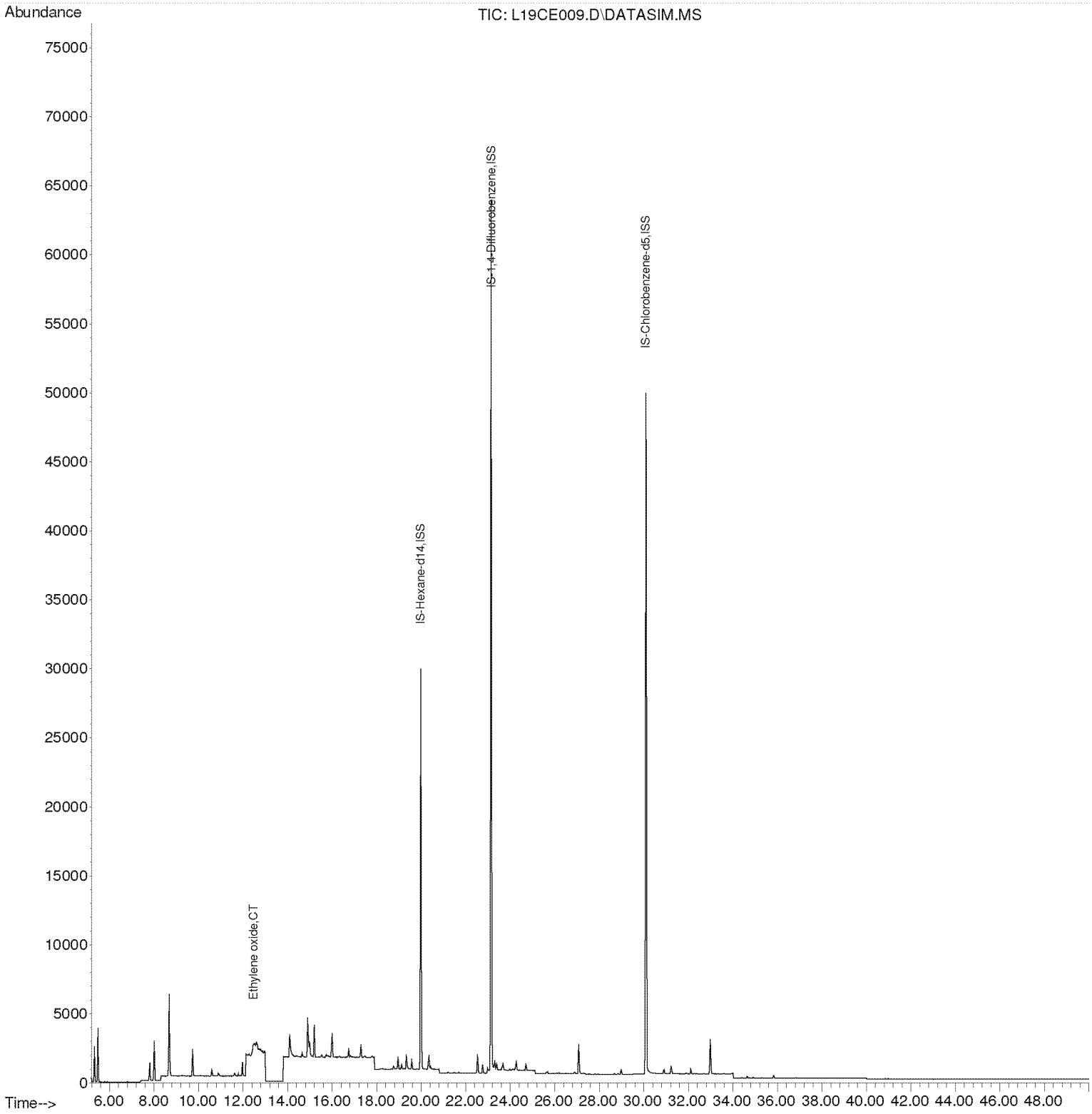
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

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

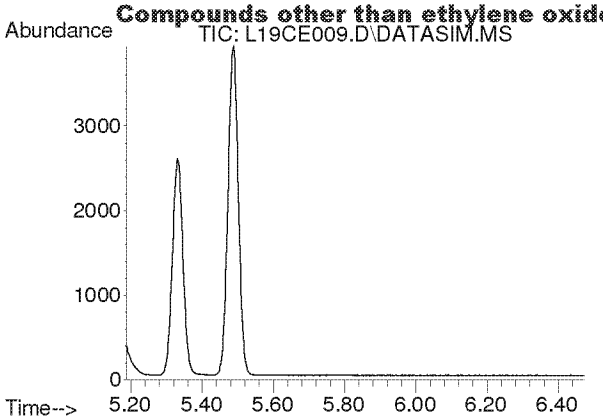
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE009.D
Acq On : 5 Mar 2019 8:28 pm
Operator : MAH
Sample : 9030524-02
Misc : WILLOW POND PARK 3/2/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 06 12:02:53 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



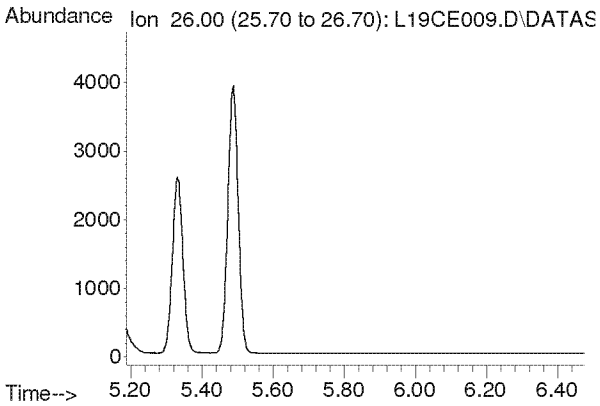
Compounds other than ethylene oxide were not quantitated.

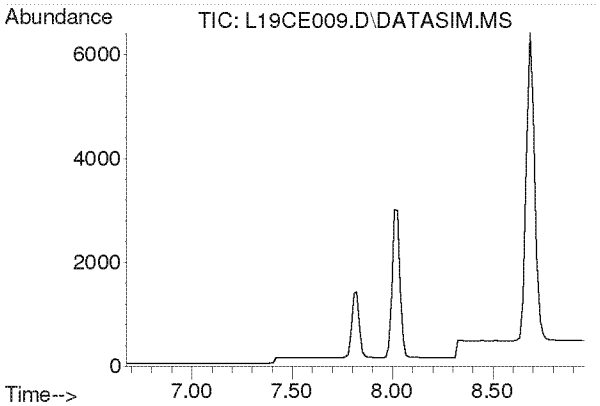


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 26



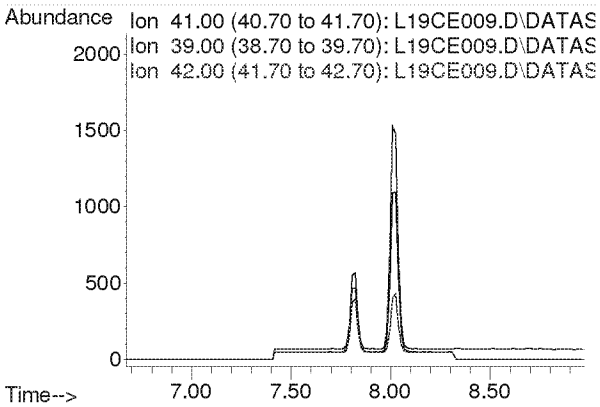


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

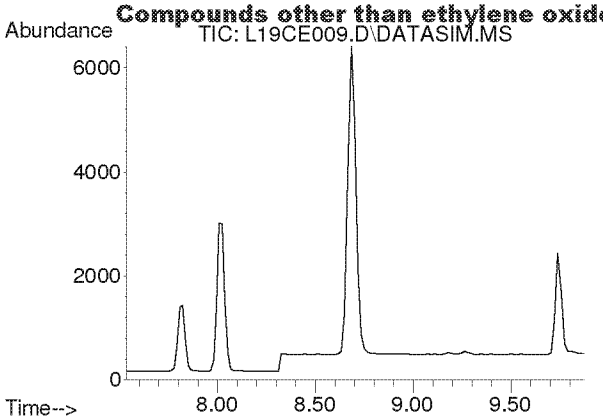
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

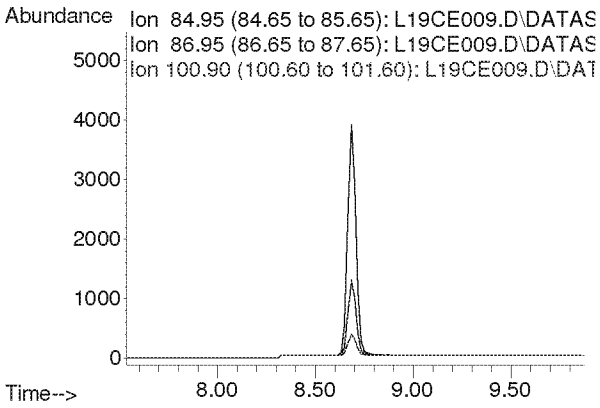


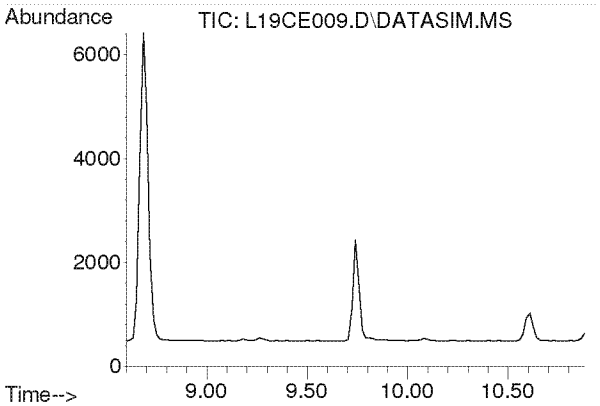
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



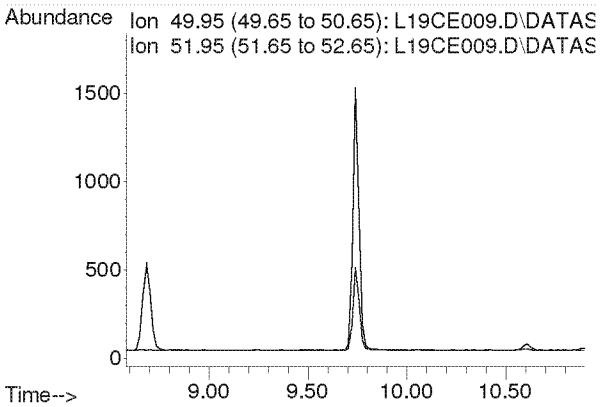


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

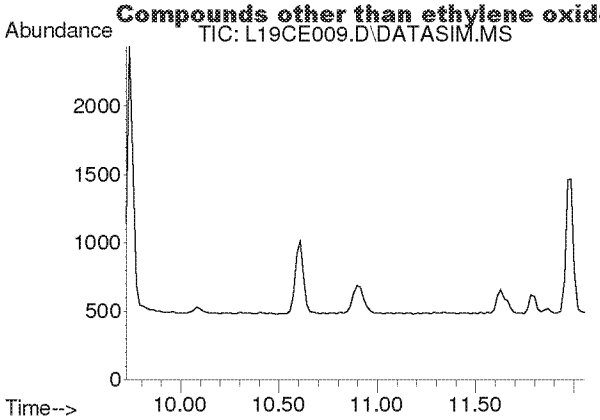
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

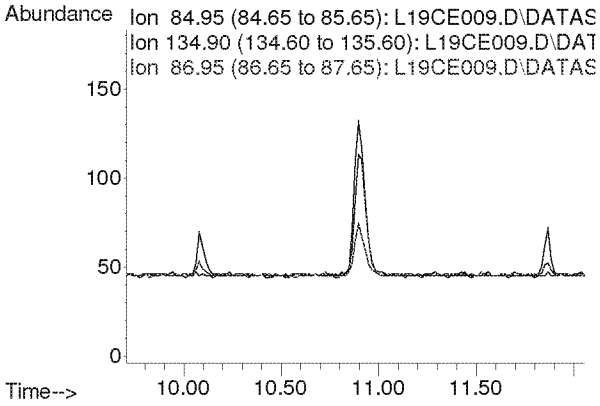


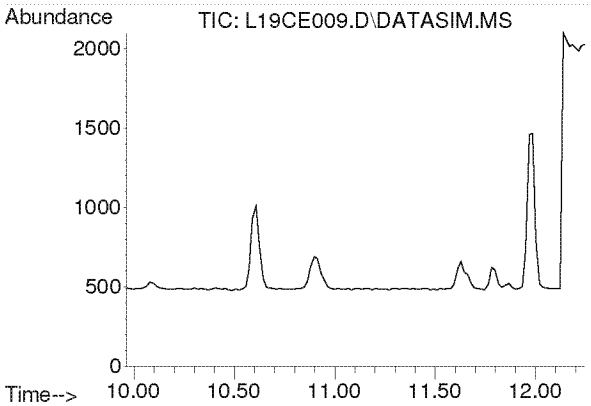
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



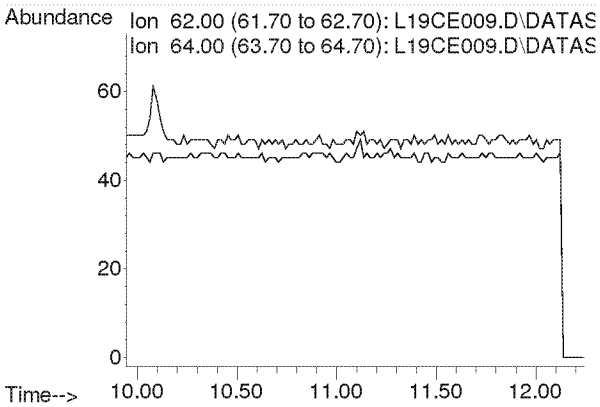


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

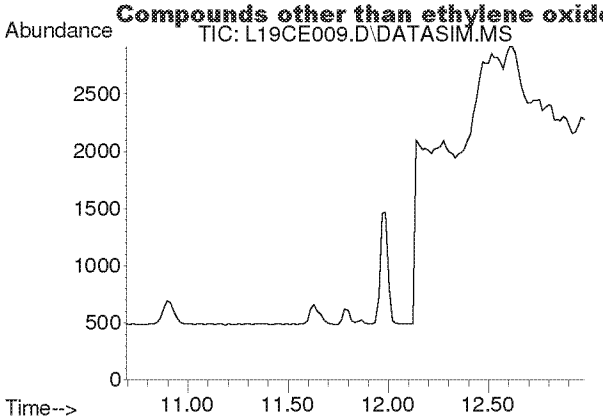
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

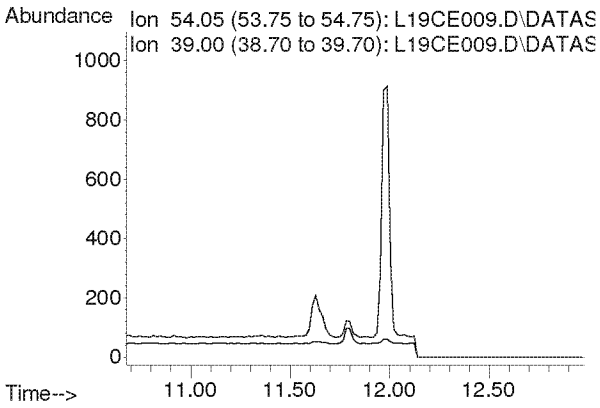


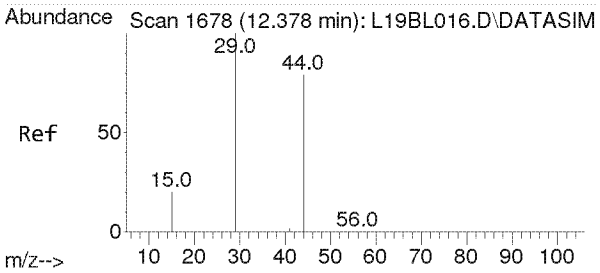
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

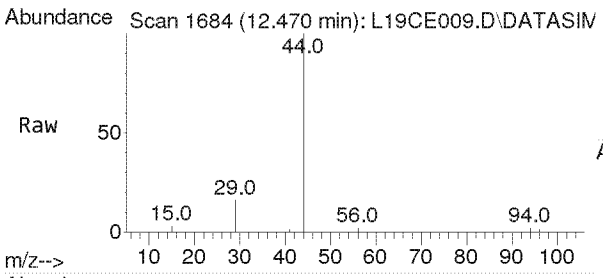


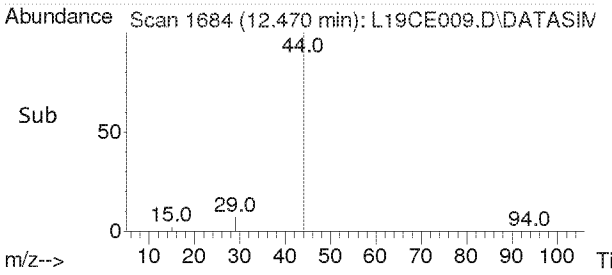


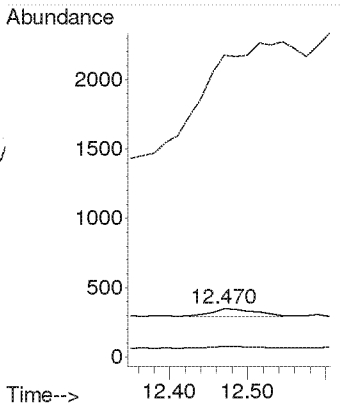
#9
Ethylene oxide
Concen: 0.082 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.020 min
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 29 Resp: 226

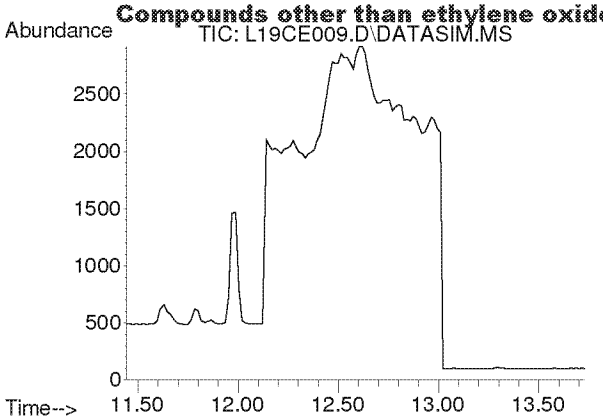
Ion	Ratio	Lower	Upper
29	100		
15	29.6	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

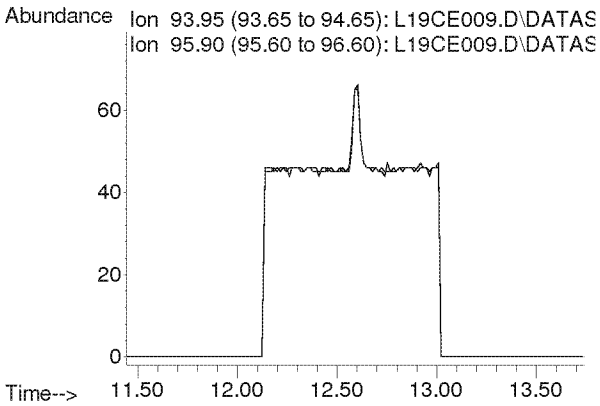


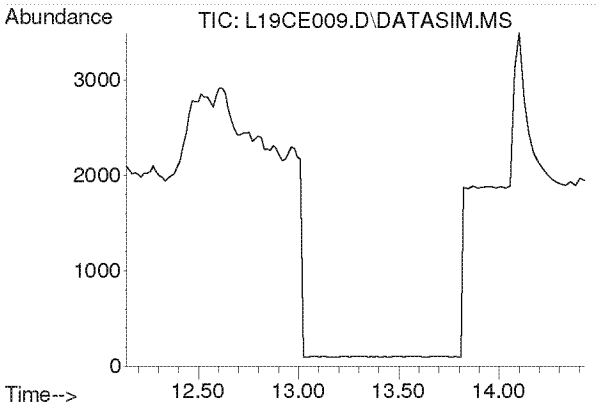
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



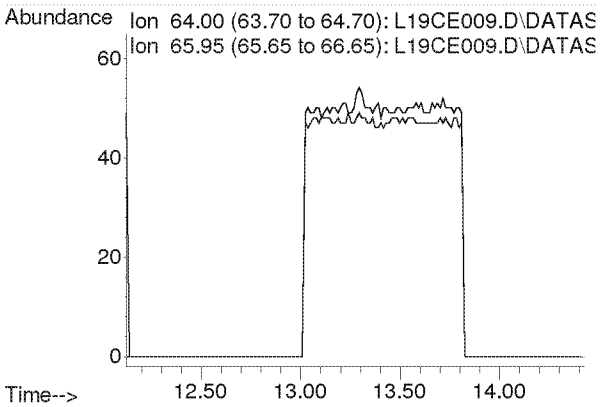


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

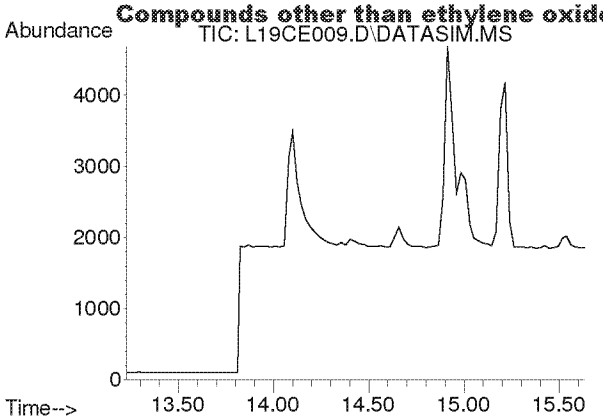
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

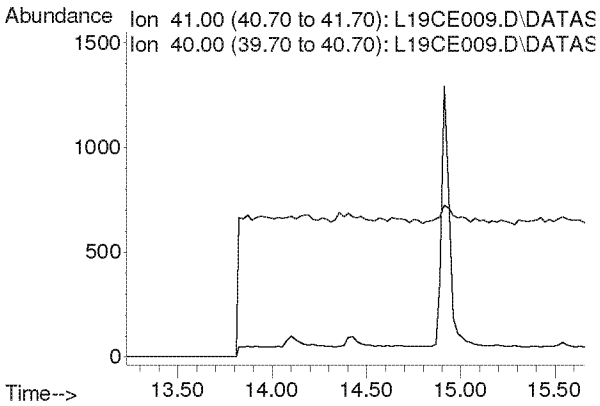


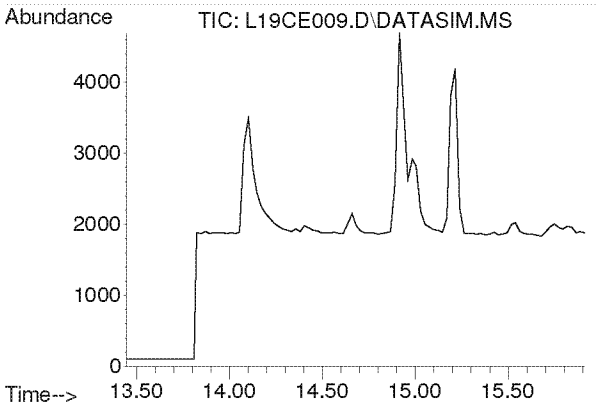
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



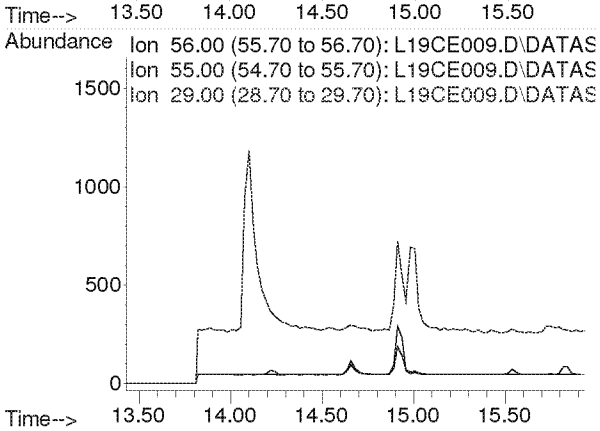


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

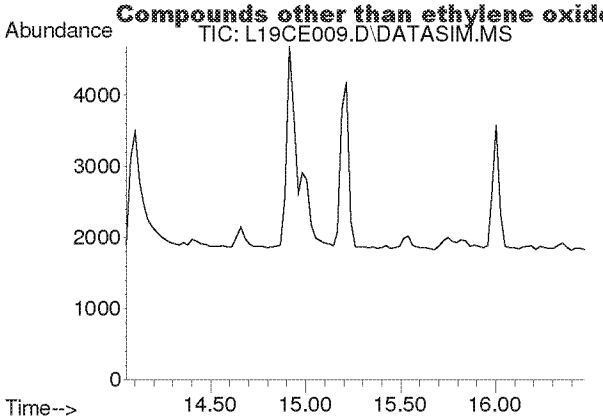
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

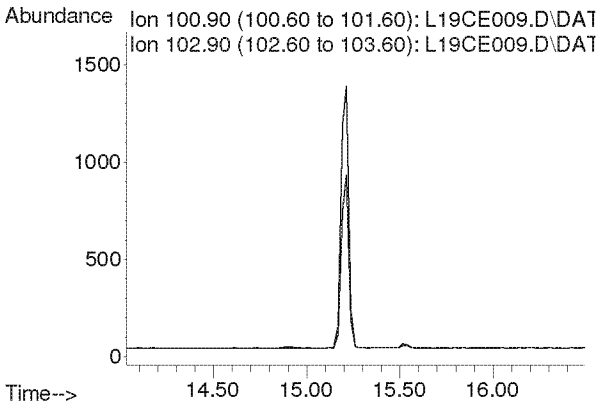


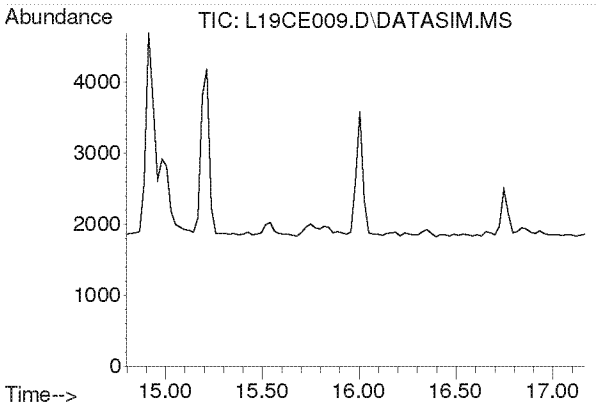
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



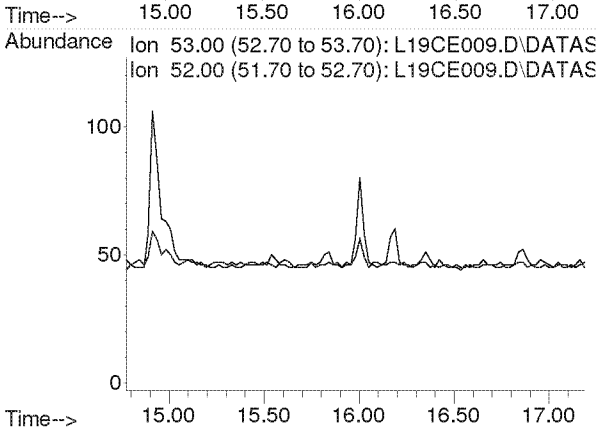


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

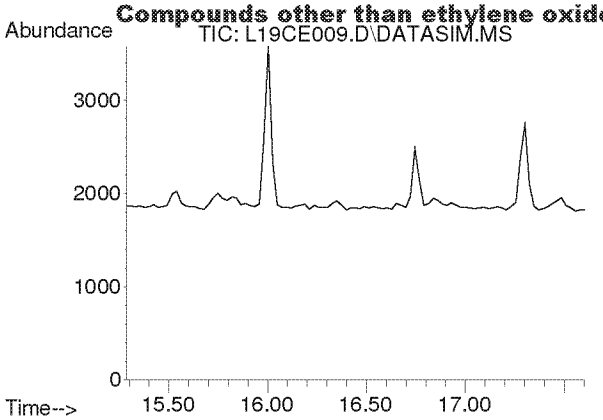
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

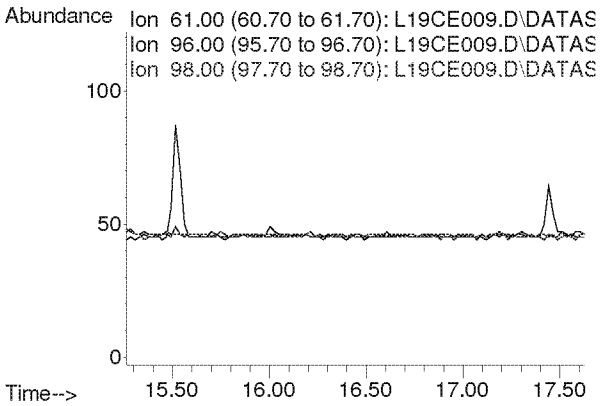


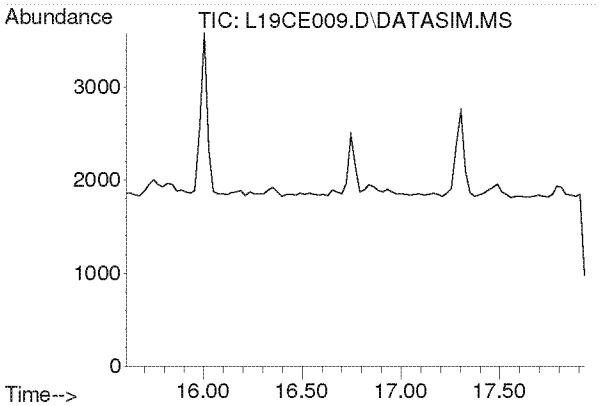
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



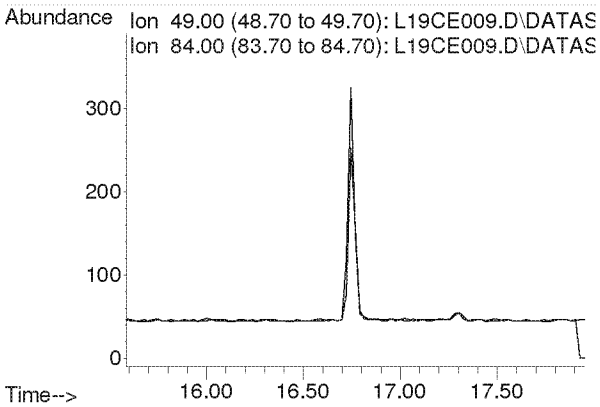


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

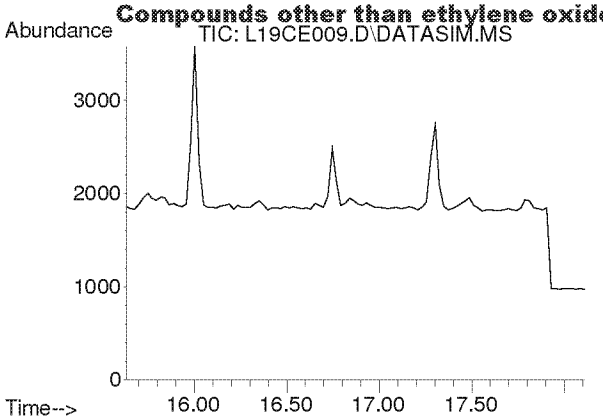
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

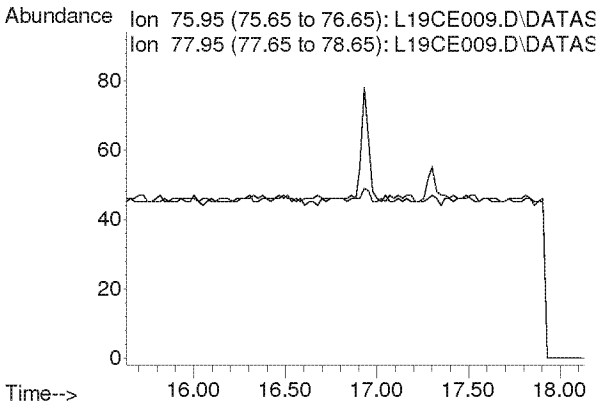


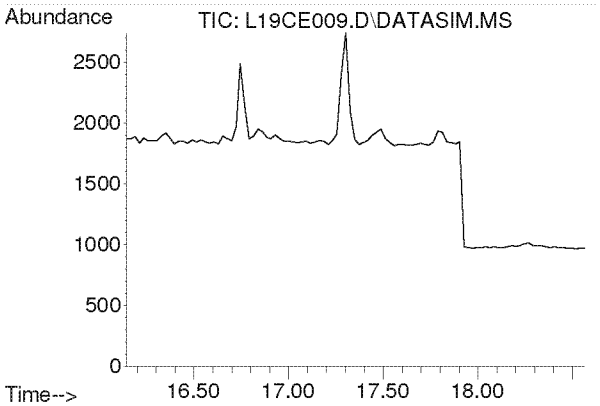
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



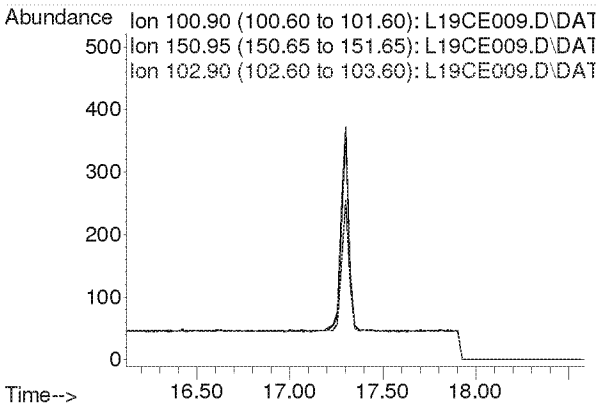


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

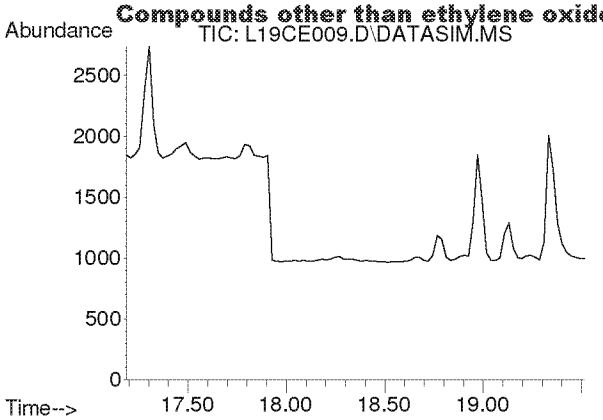
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

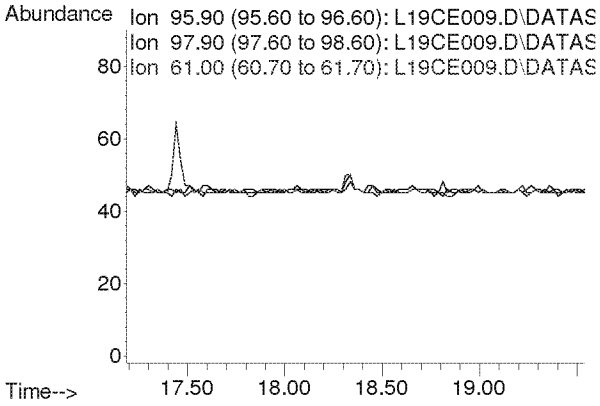


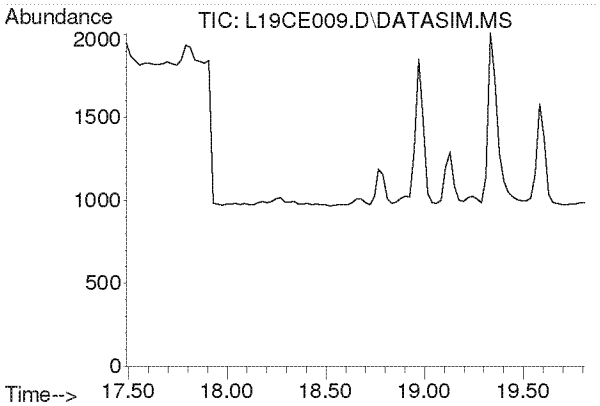
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



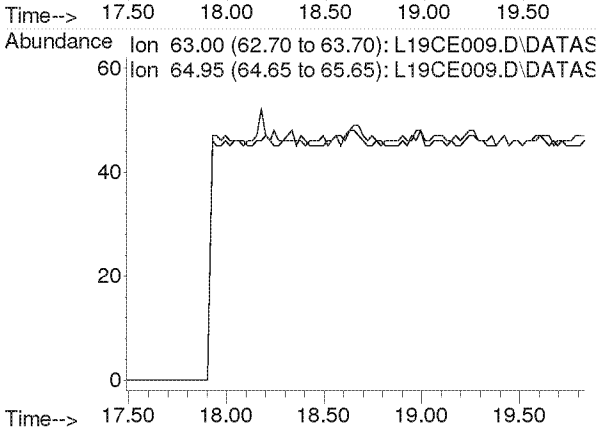


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

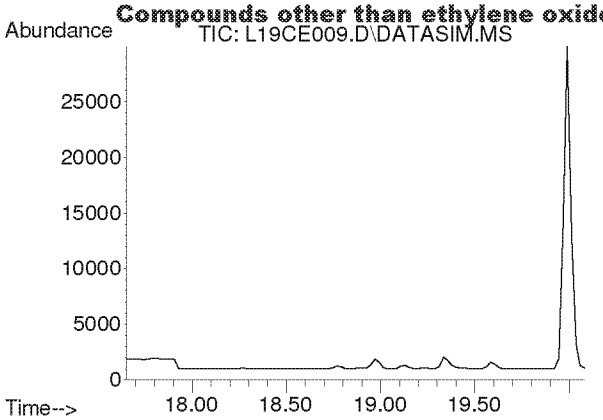
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

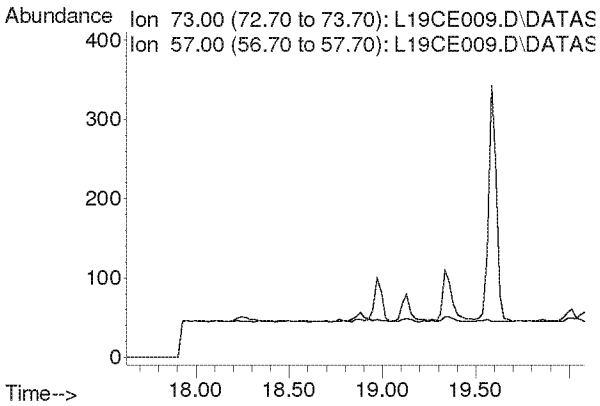


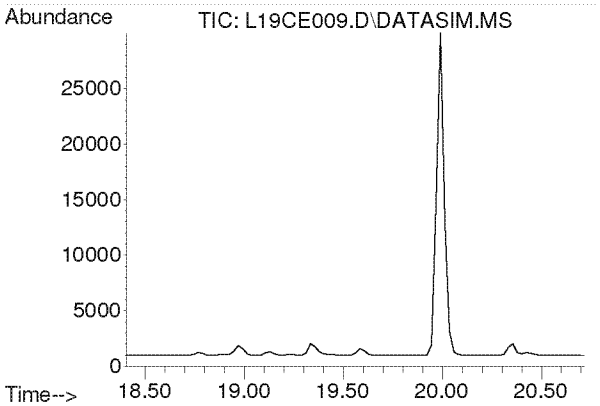
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



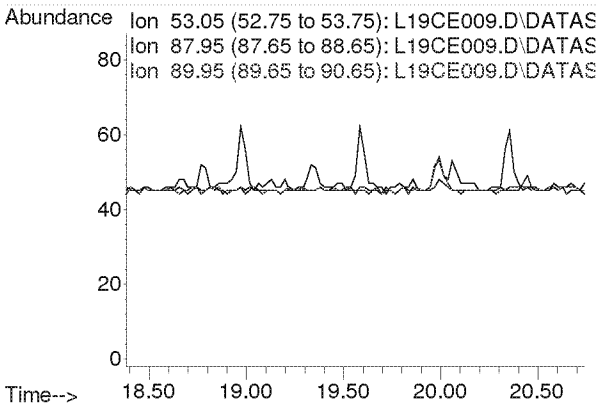


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

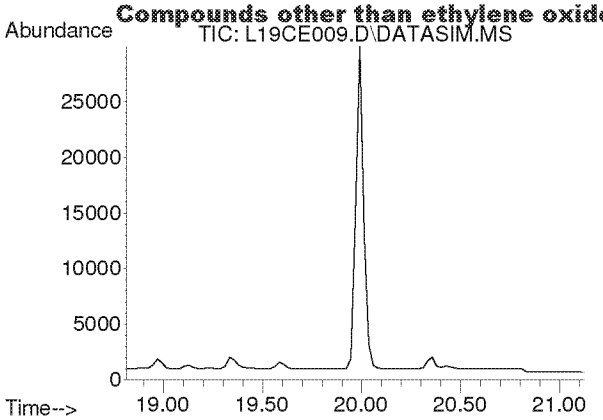
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

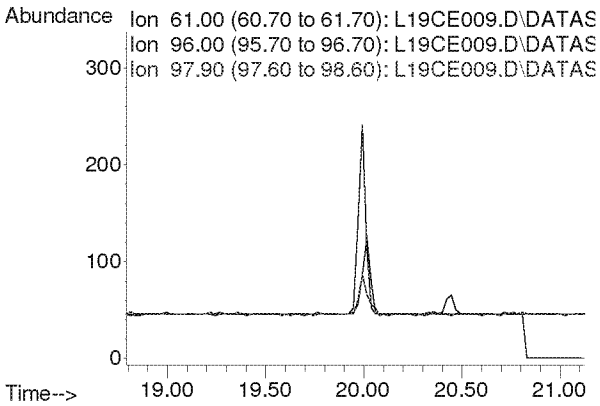


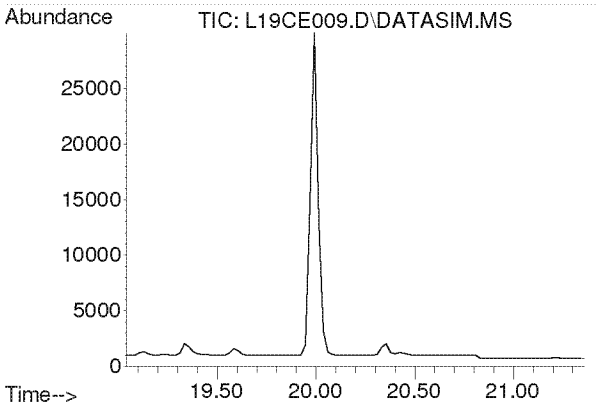
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



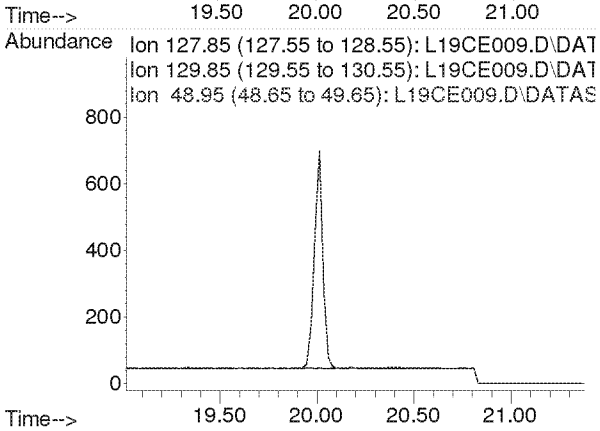


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

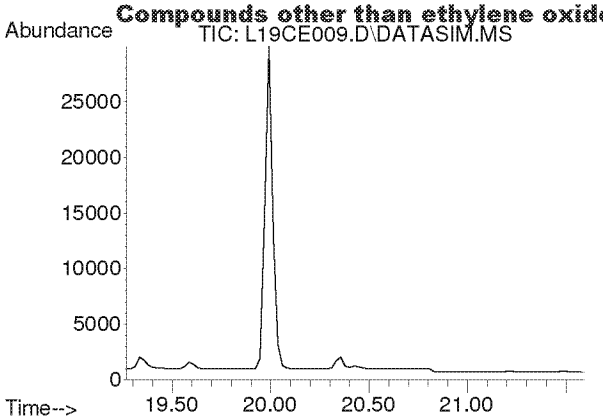
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

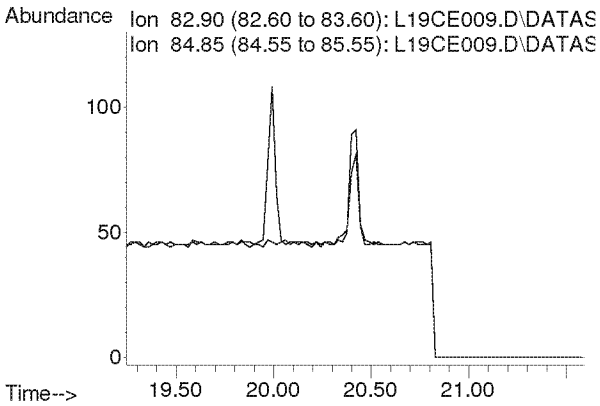


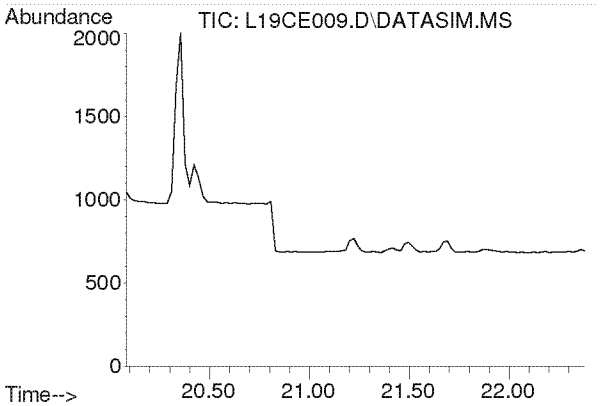
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



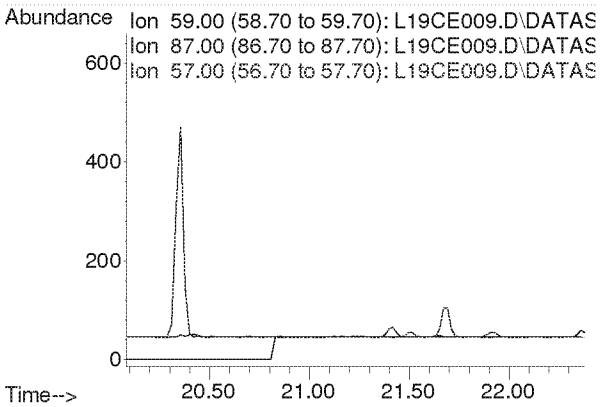


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

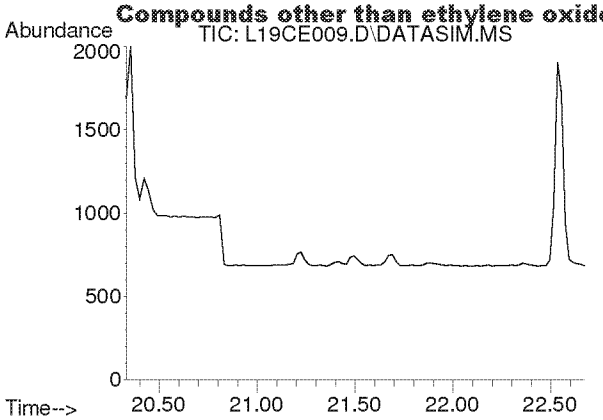
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

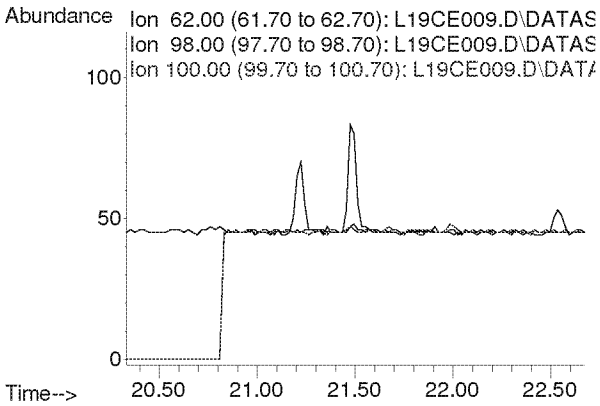


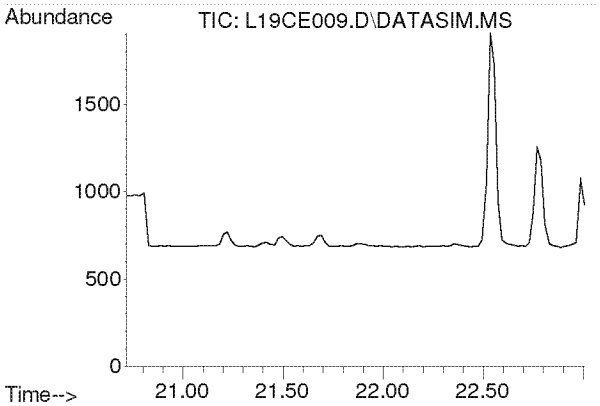
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



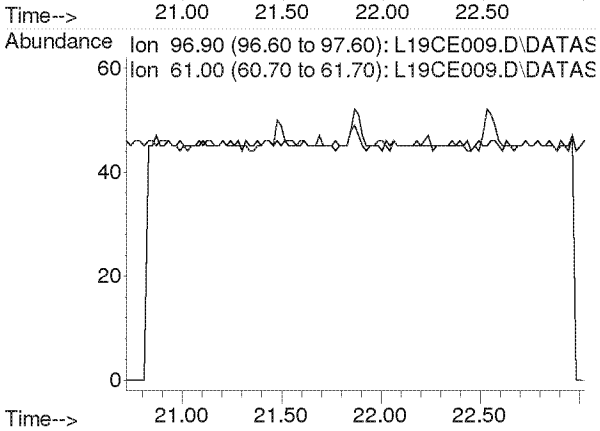


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

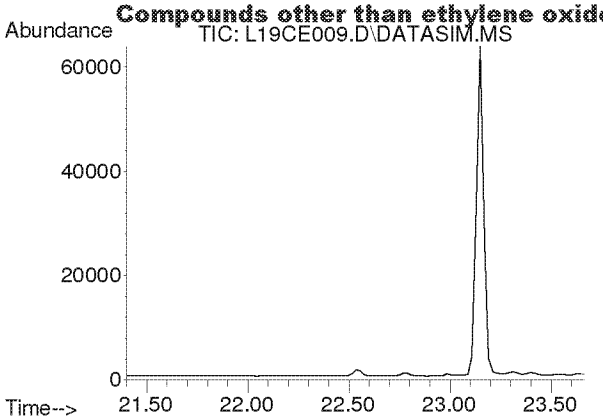
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

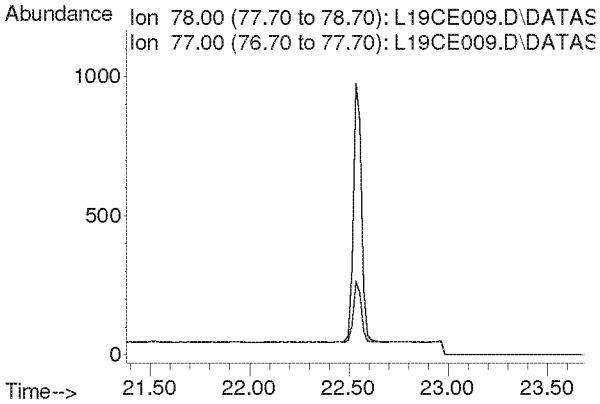


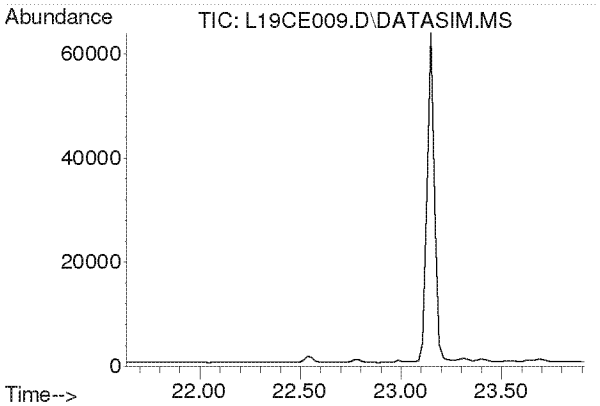
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



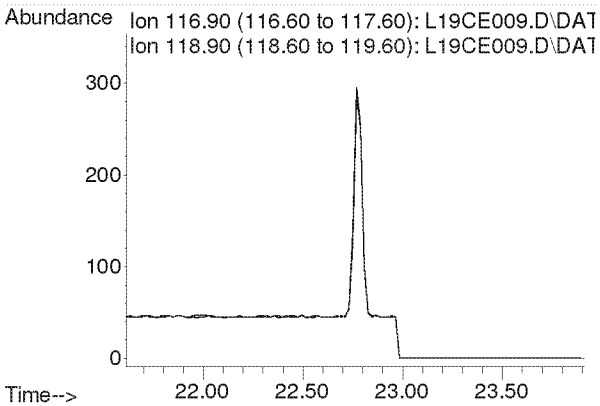


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

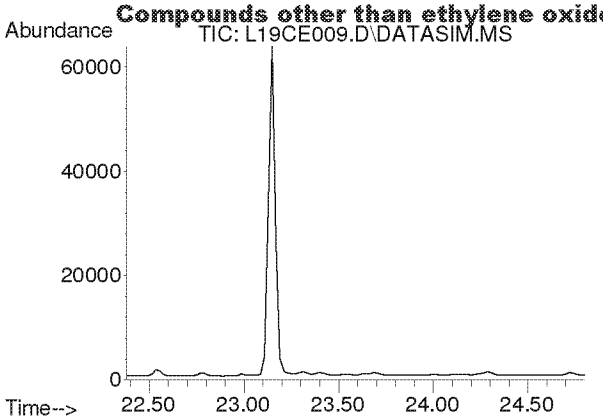
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

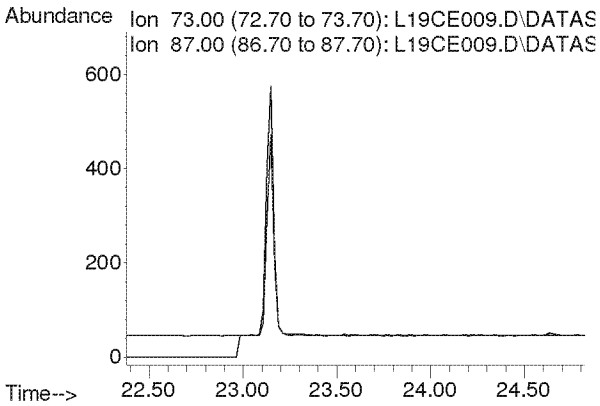


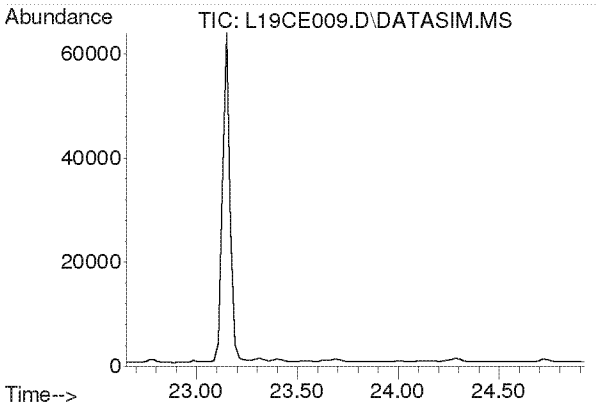
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



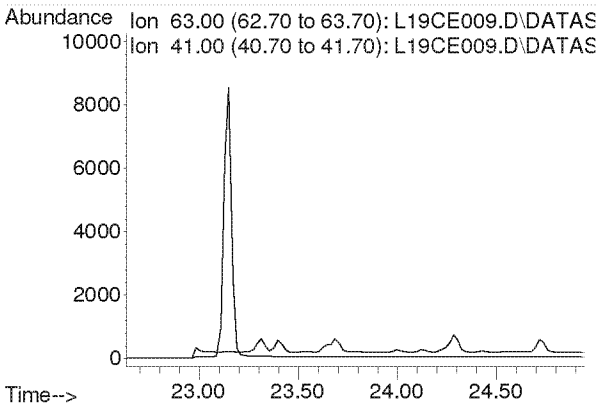


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

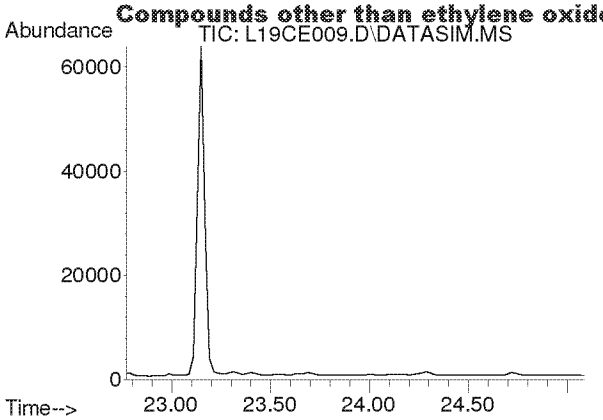
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

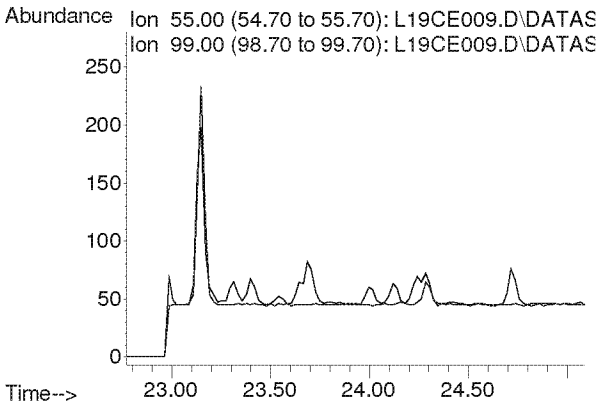


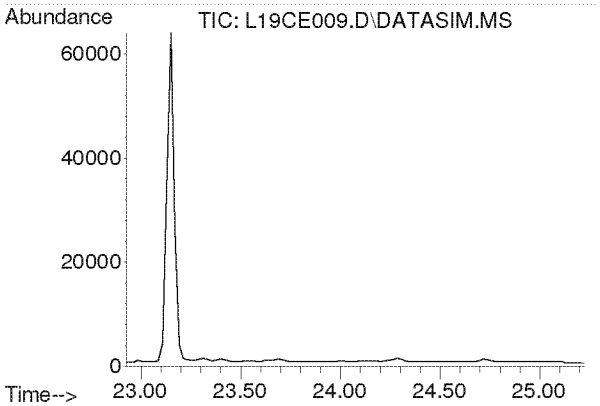
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



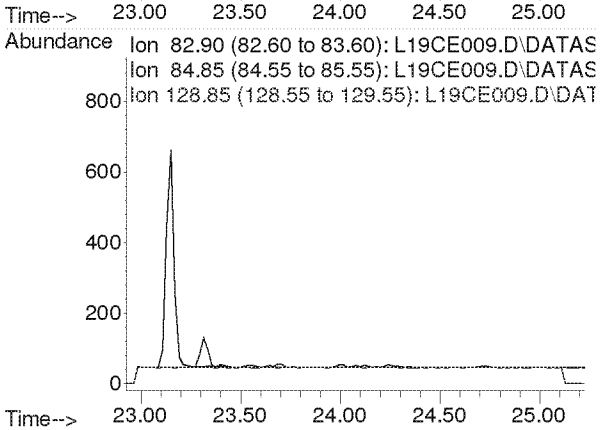


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

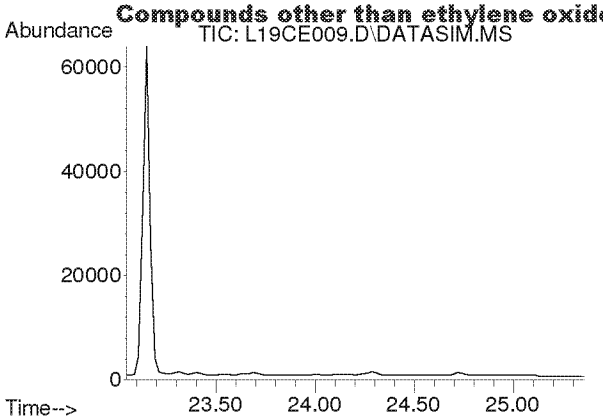
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

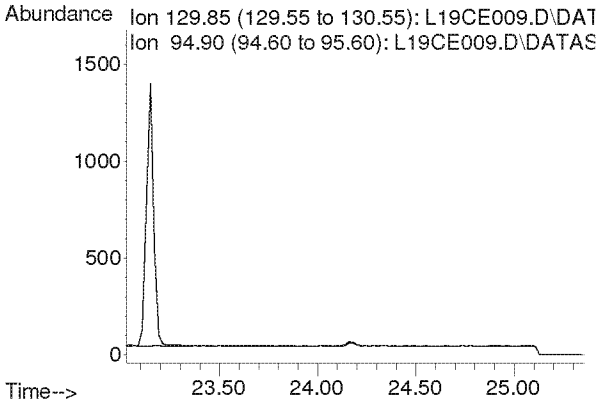


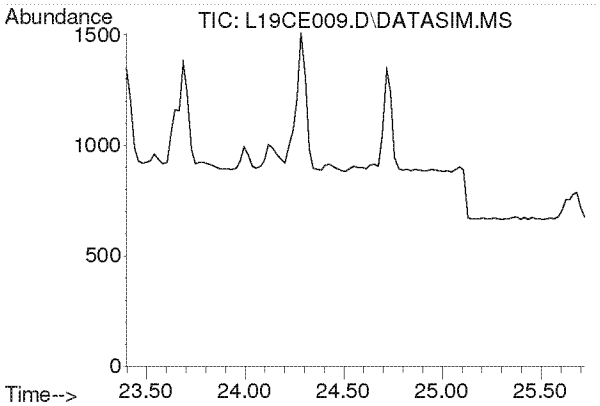
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



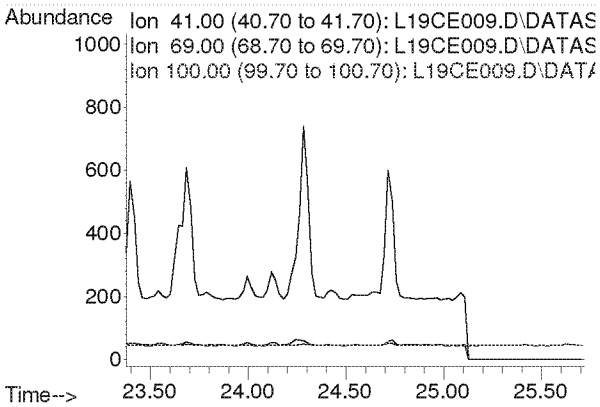


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

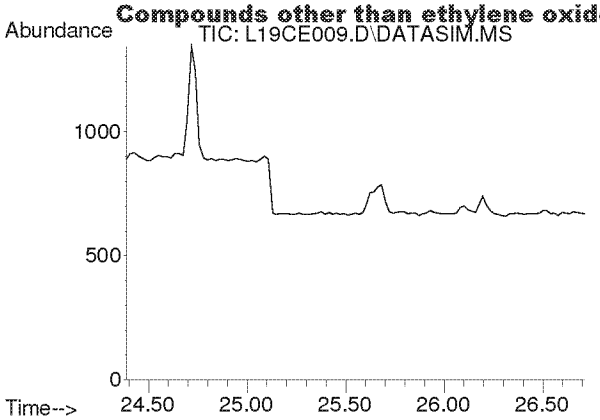
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

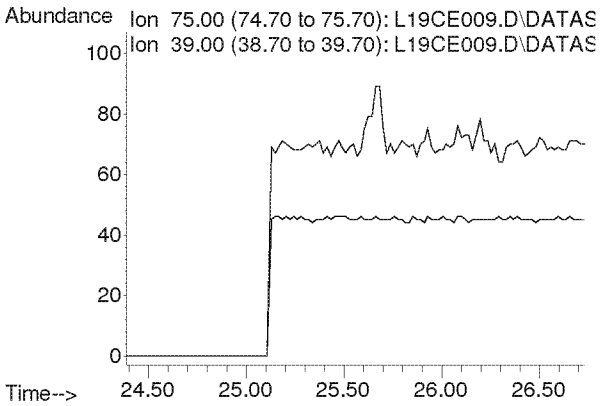


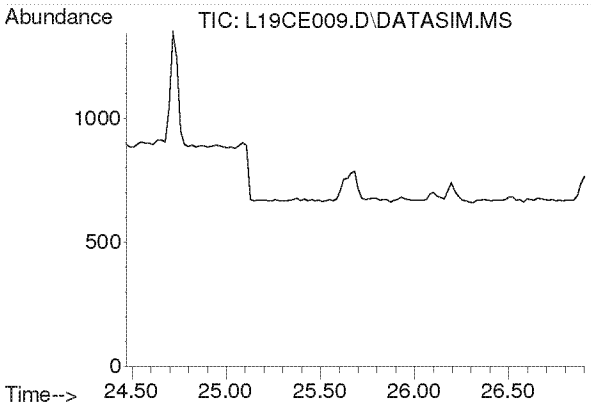
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



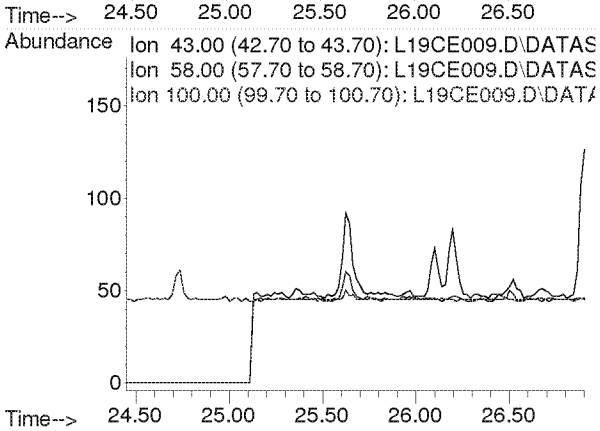


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

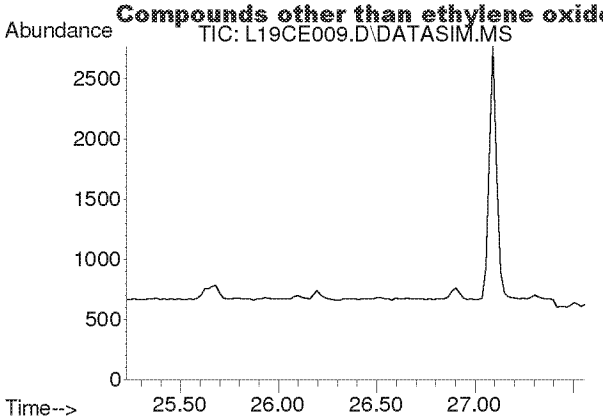
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

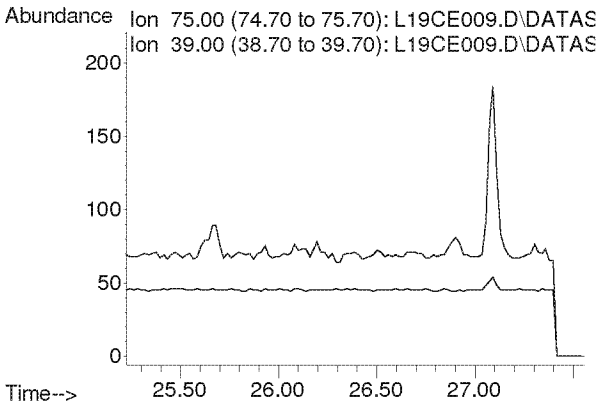


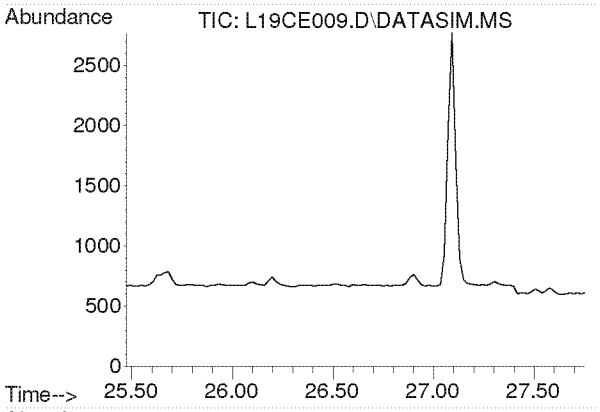
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



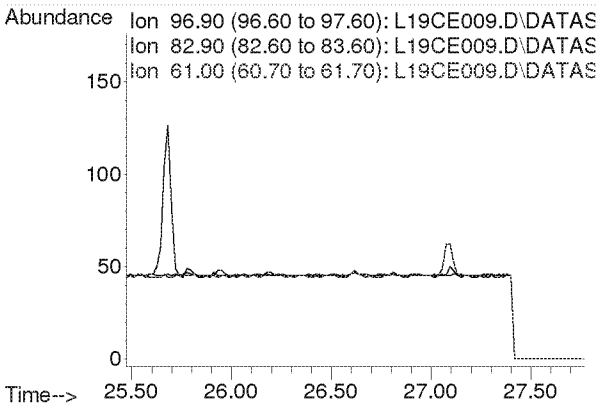


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

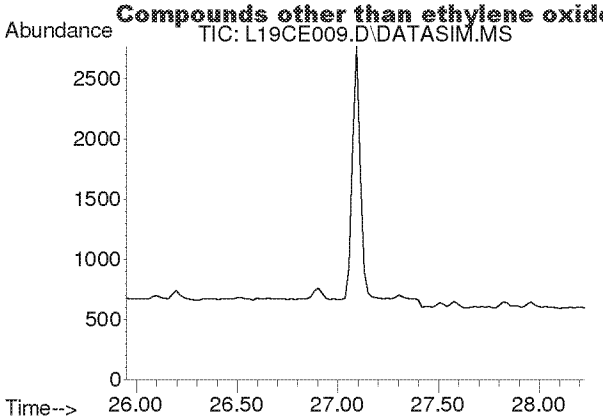
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

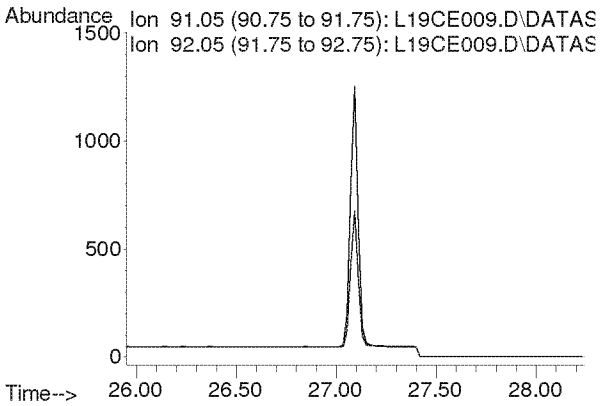


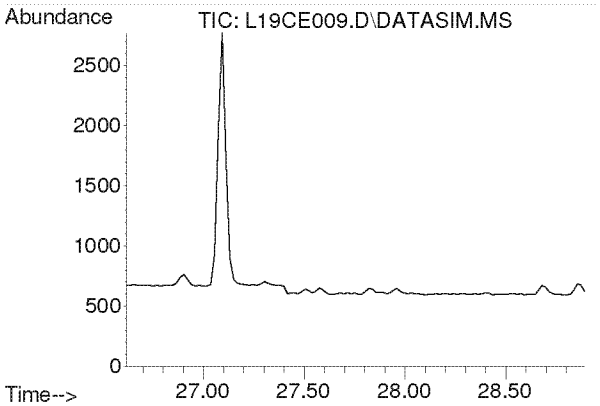
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



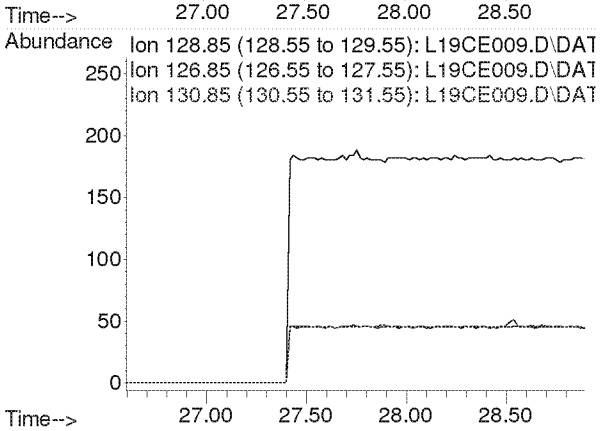


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

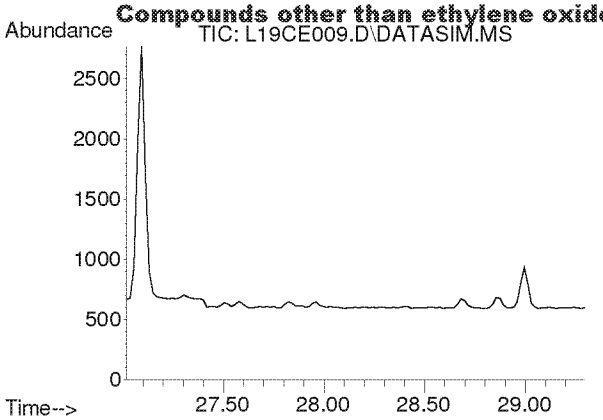
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

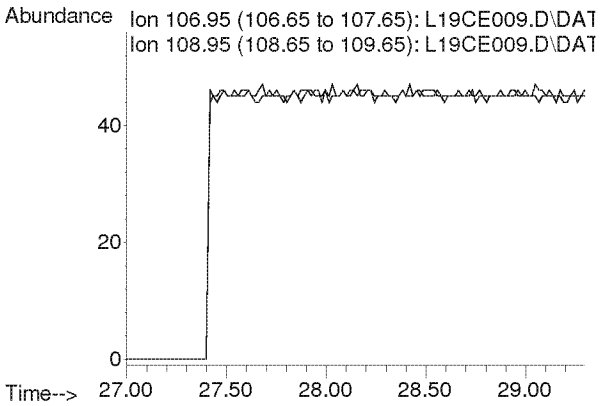


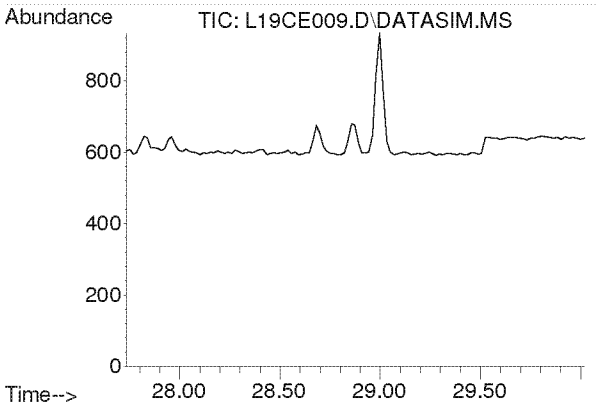
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



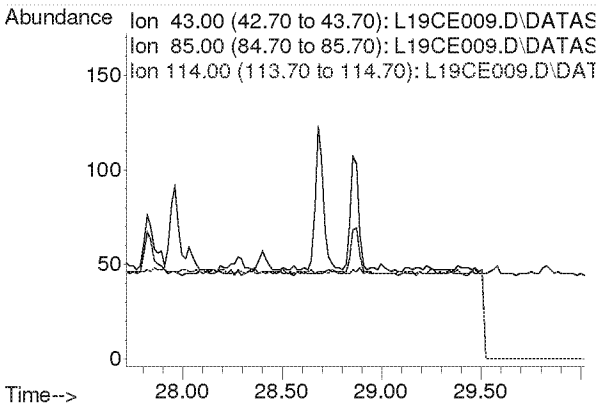


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

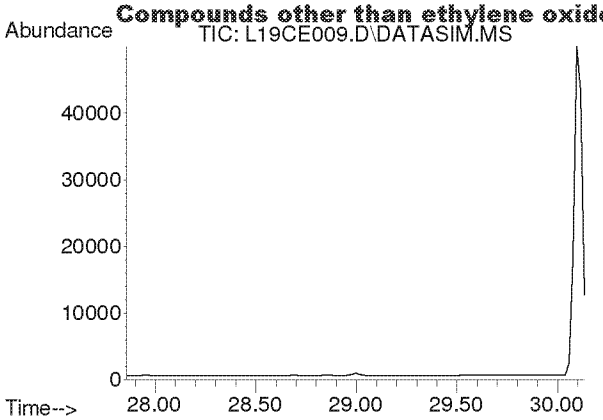
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

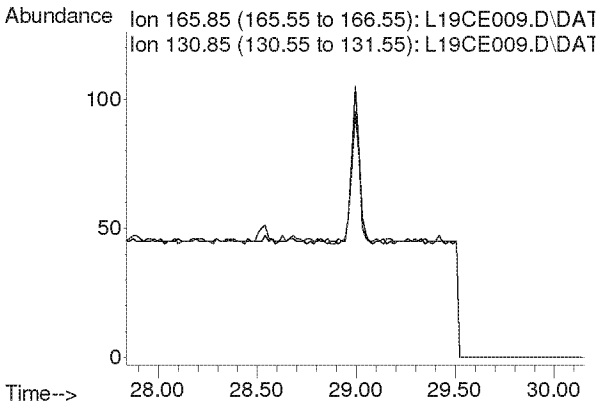


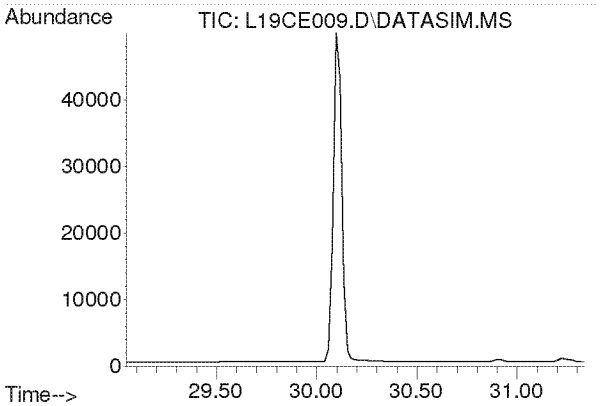
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



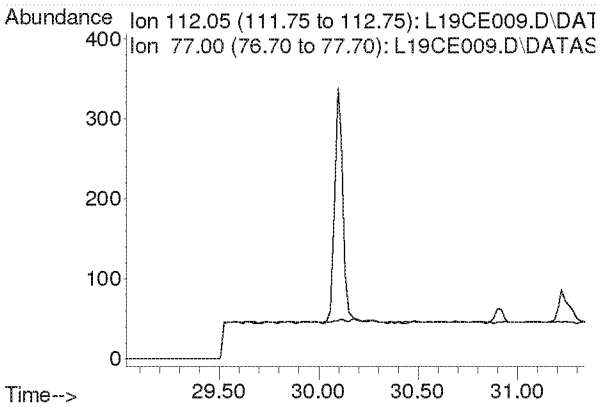


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

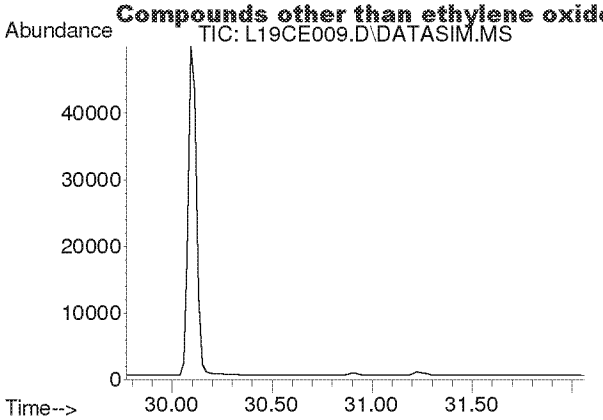
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

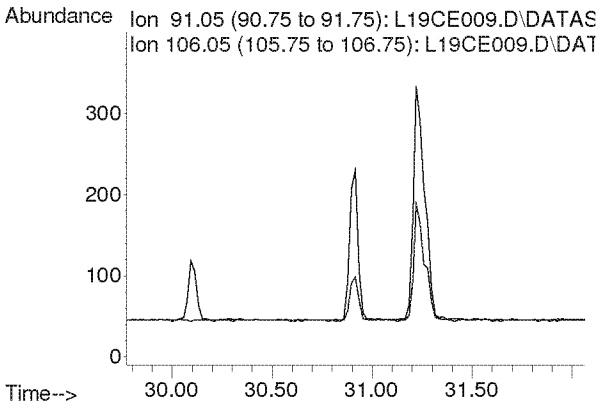


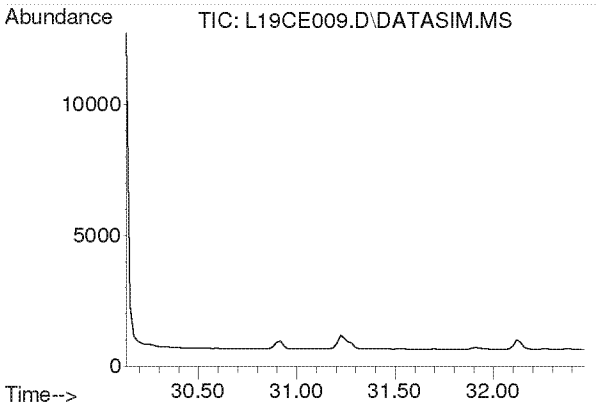
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



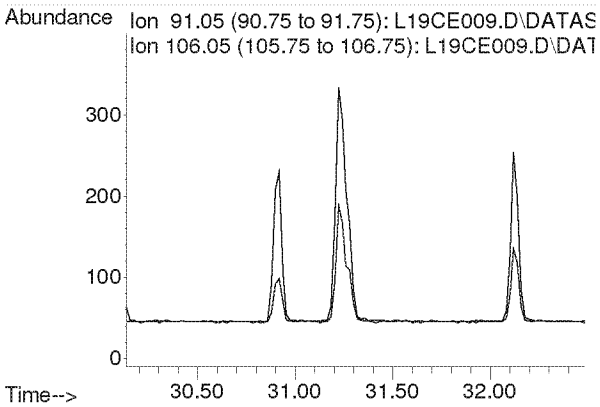


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

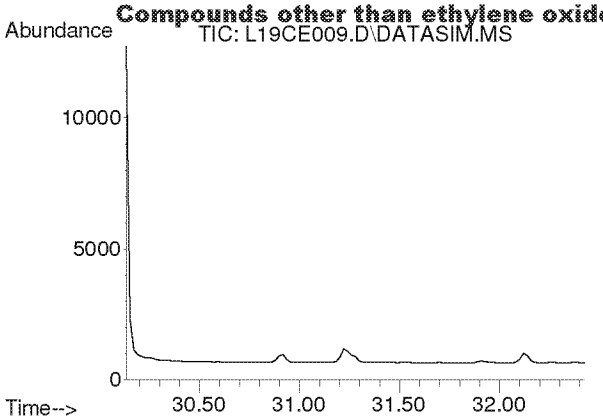
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

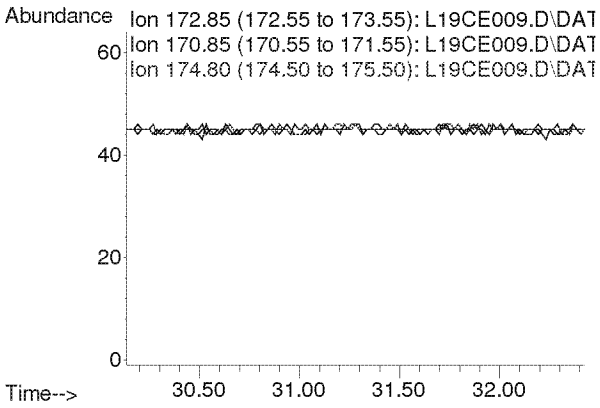


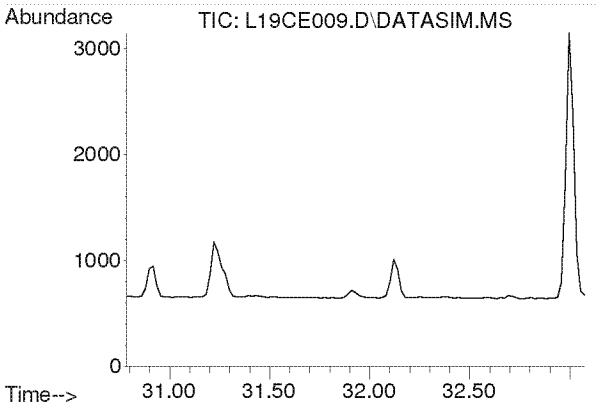
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



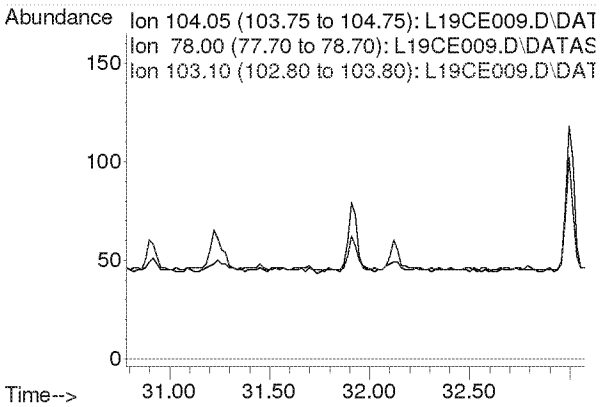


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

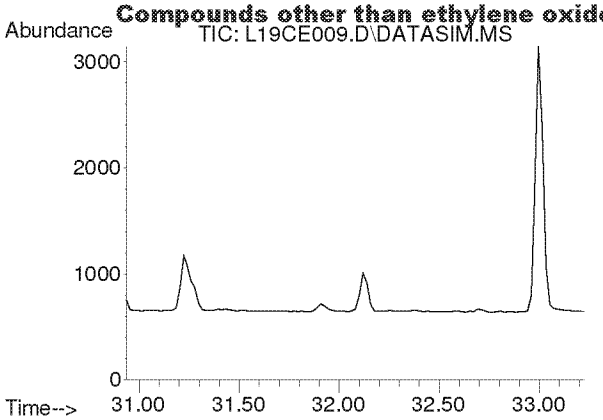
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

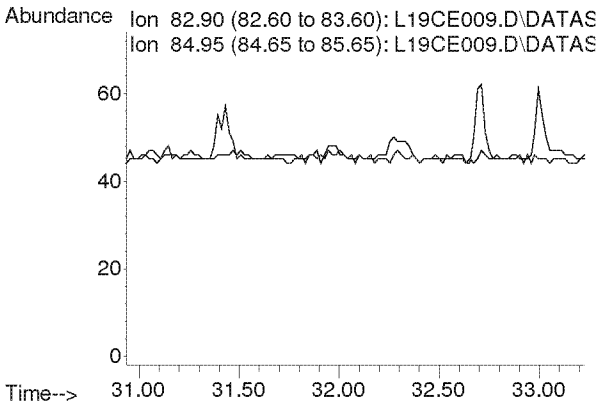


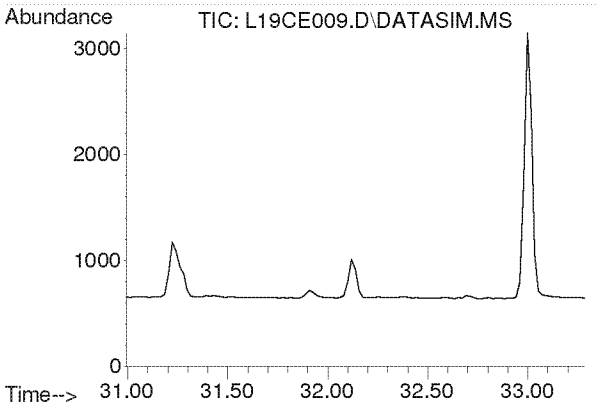
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



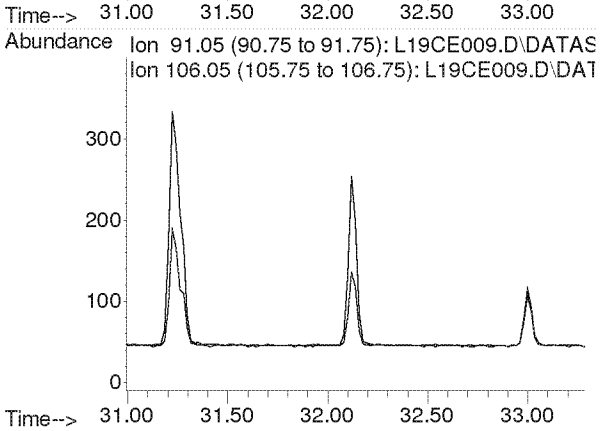


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

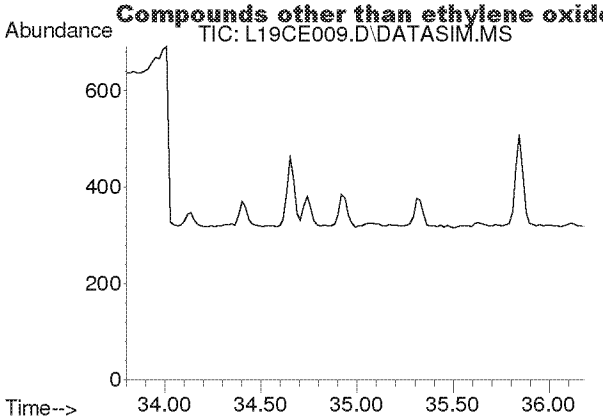
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

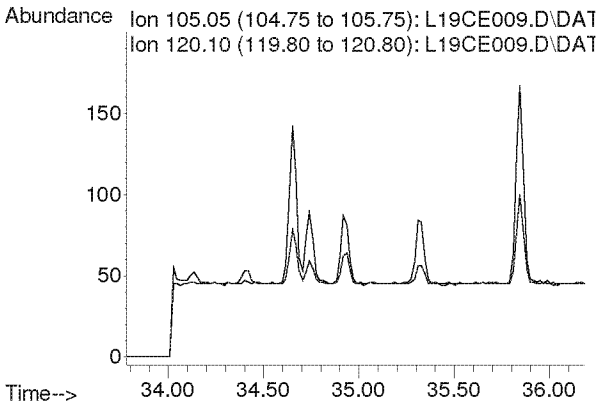


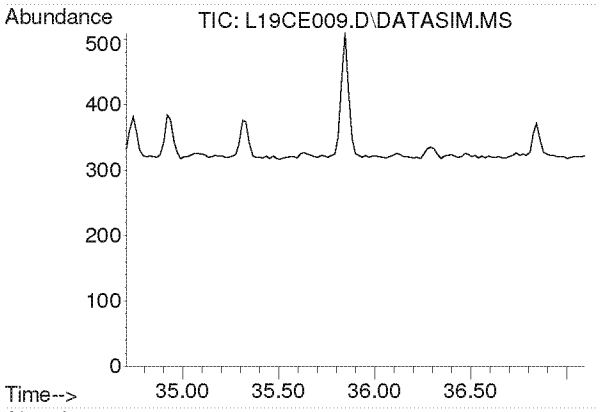
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



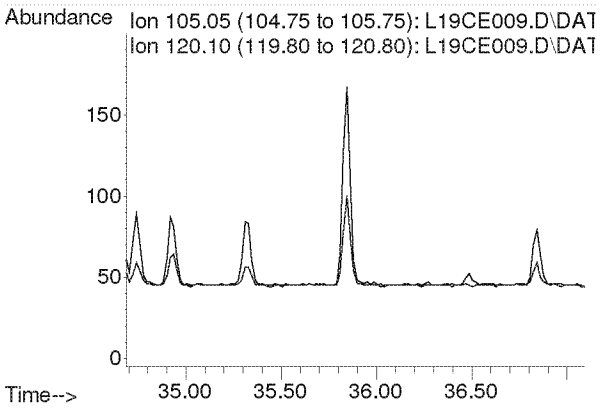


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

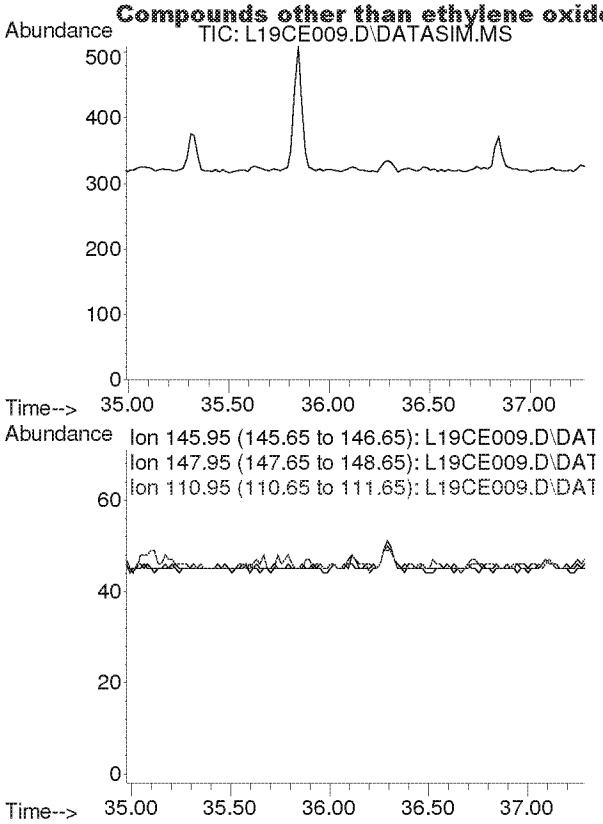
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

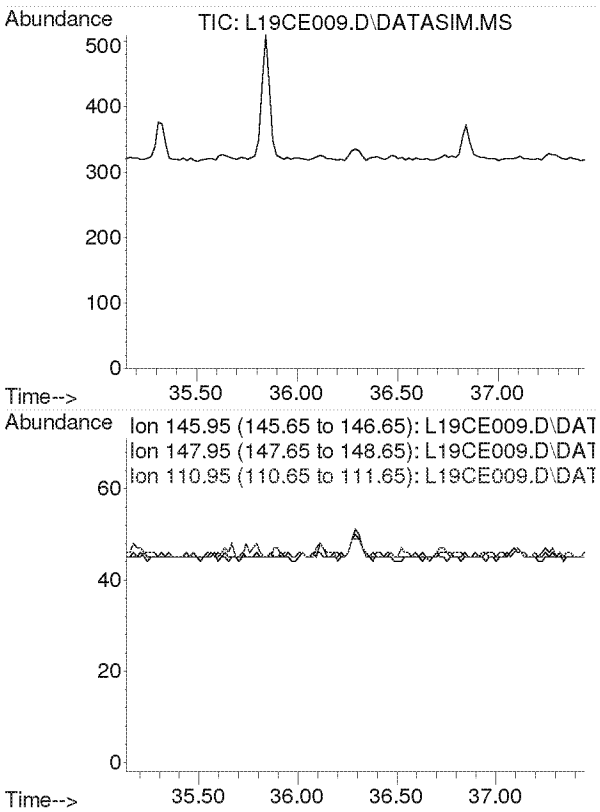


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



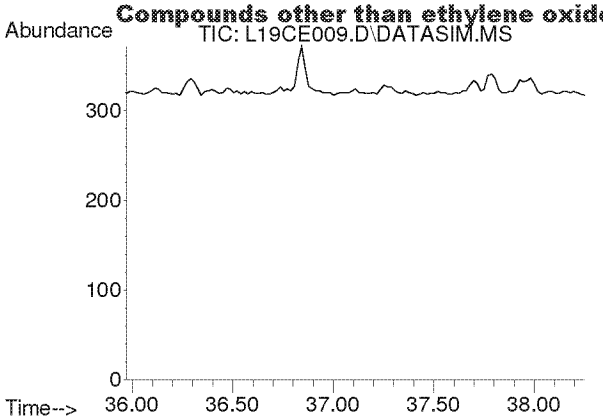
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

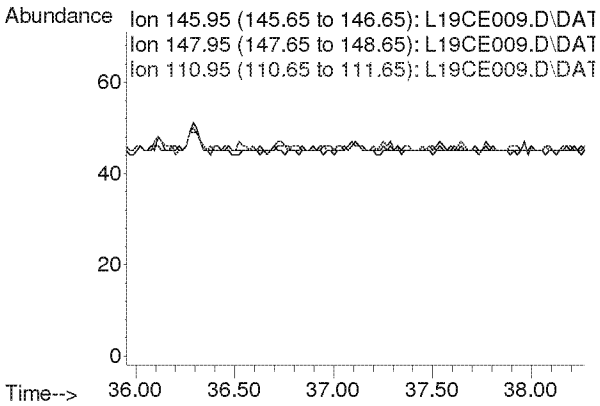


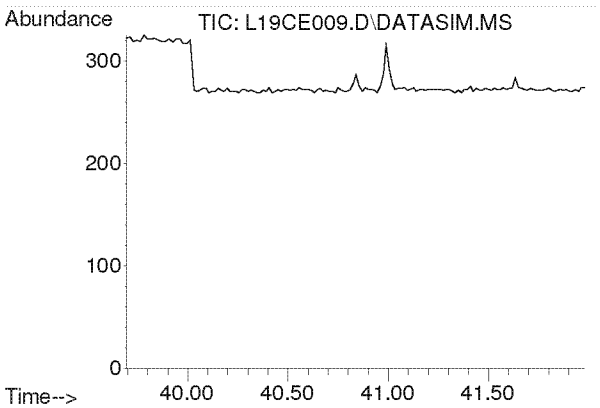
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



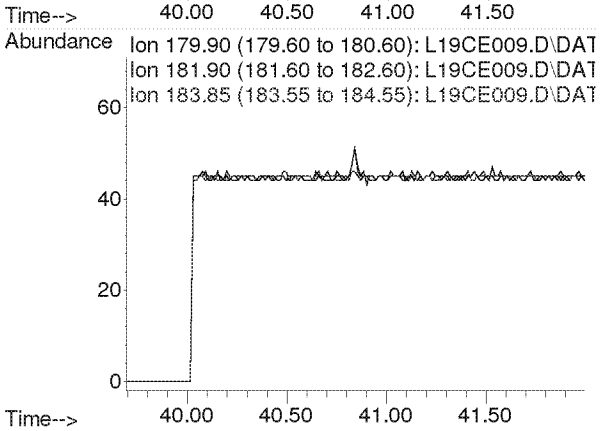


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

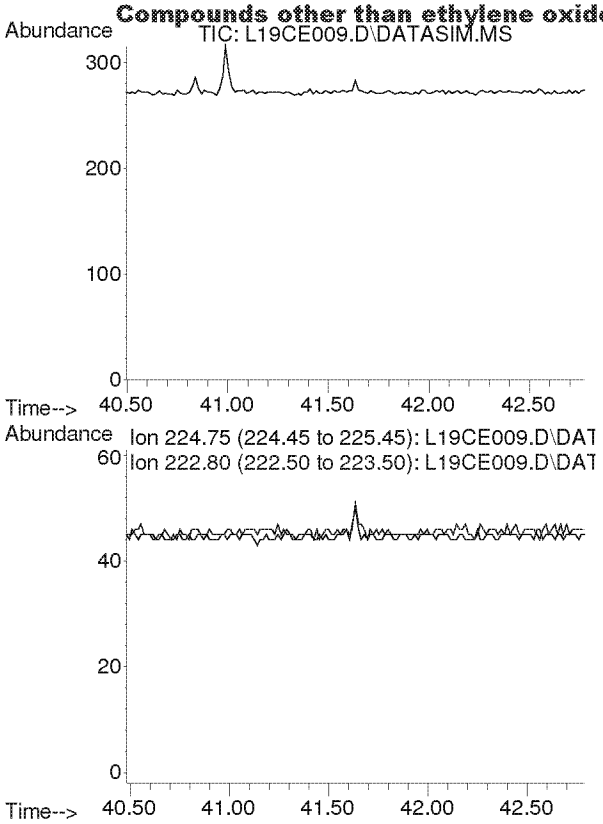
Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE009.D
Acq: 5 Mar 2019 8:28 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\L19CE\
Data File : L19CE010.D
Acq On : 5 Mar 2019 9:28 pm
Operator : MAH
Sample : 9030524-03
Misc : WEST NEIGHBORHOOD 3/2/19
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 06 12:23:15 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

EtOH only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	47767	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	122765	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	88278	4.7400 ppbv	-0.02

System Monitoring Compounds

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE010.D
Acq On : 5 Mar 2019 9:28 pm
Operator : MAH
Sample : 9030524-03
Misc : WEST NEIGHBORHOOD 3/2/19
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 06 12:23:15 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

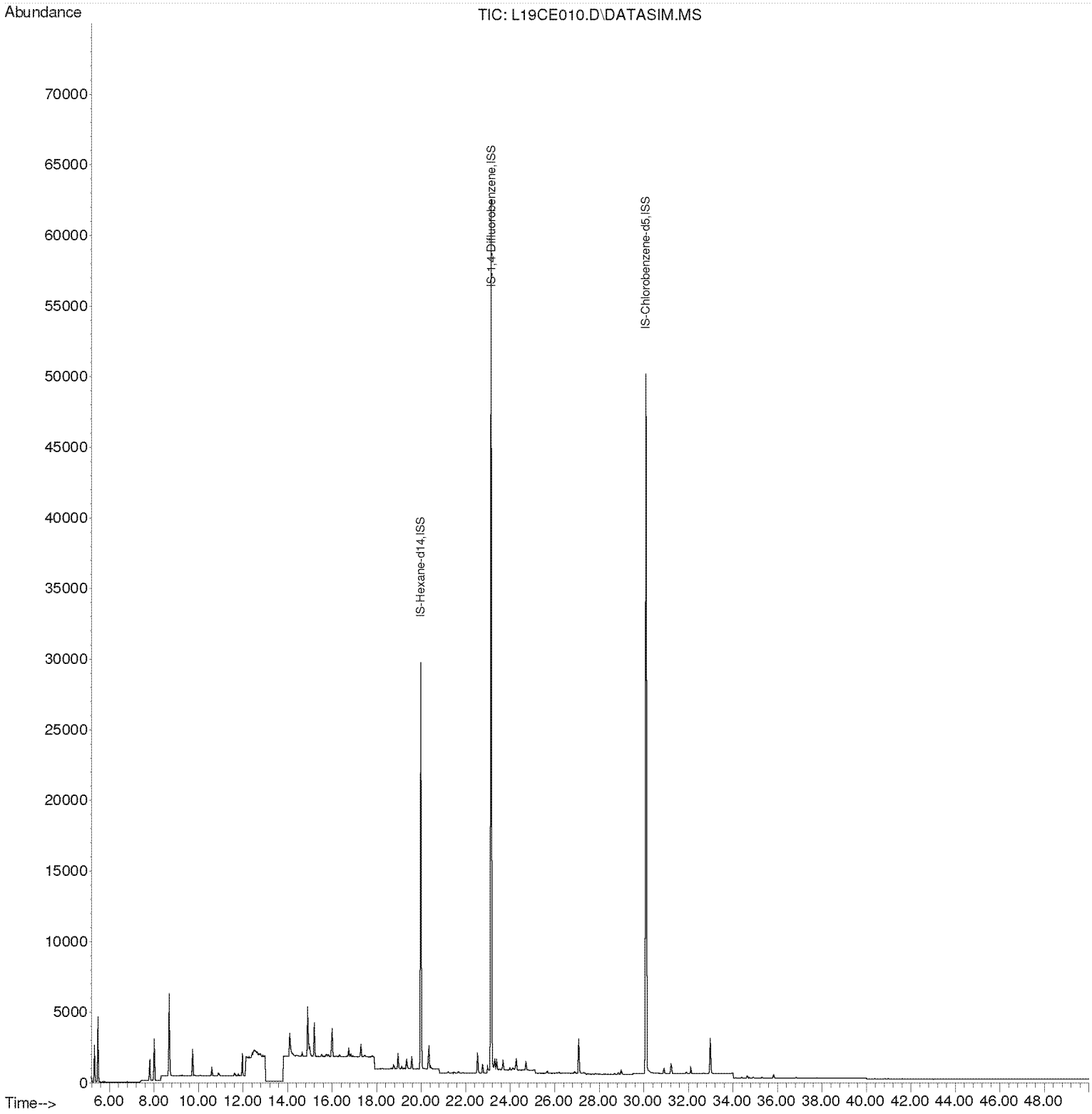
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

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

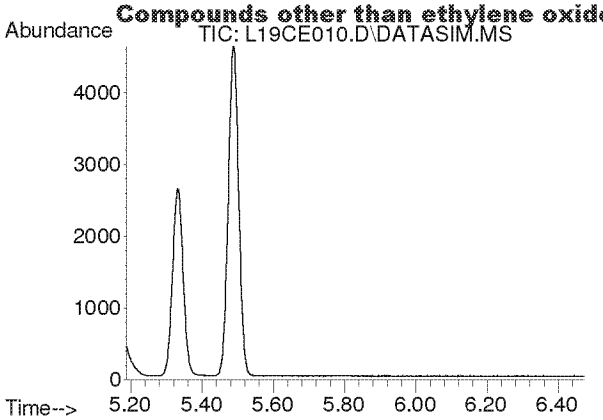
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE010.D
Acq On : 5 Mar 2019 9:28 pm
Operator : MAH
Sample : 9030524-03
Misc : WEST NEIGHBORHOOD 3/2/19
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 06 12:02:57 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



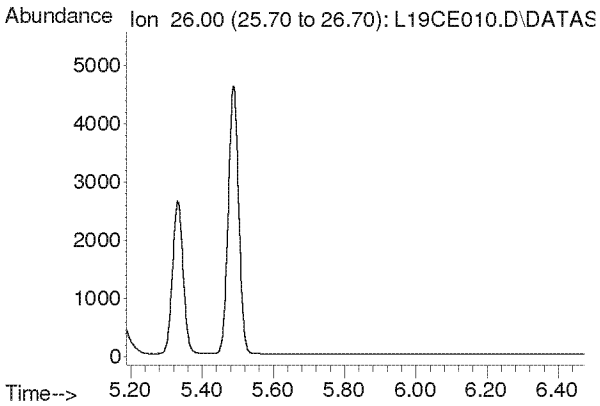
Compounds other than ethylene oxide were not quantitated.

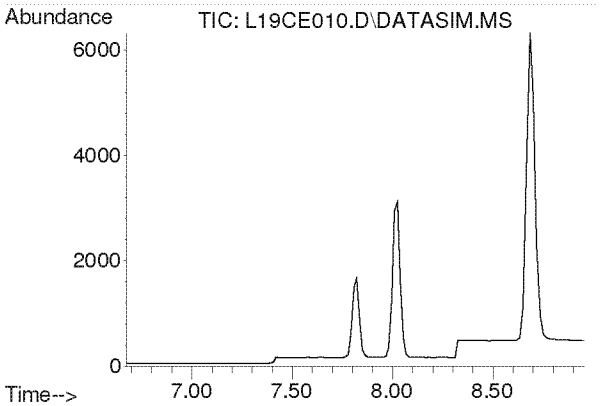


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 26



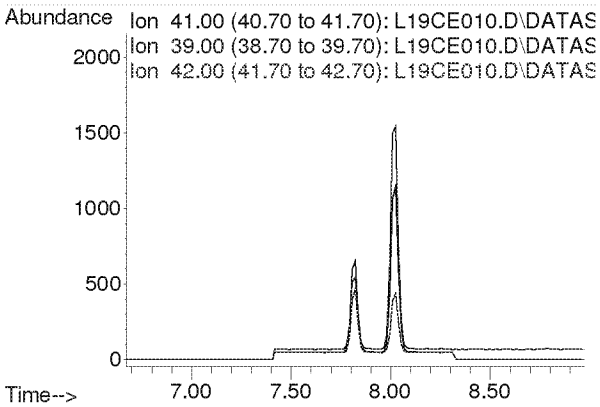


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

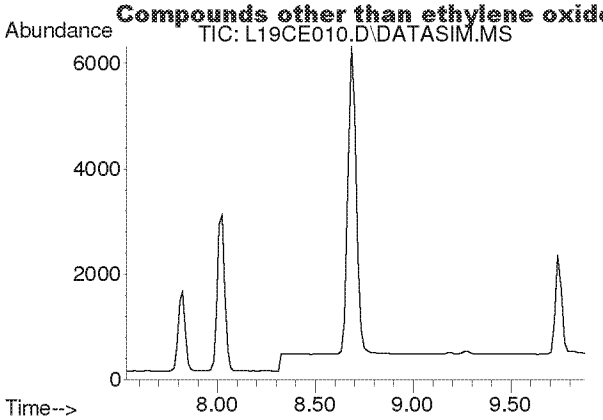
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

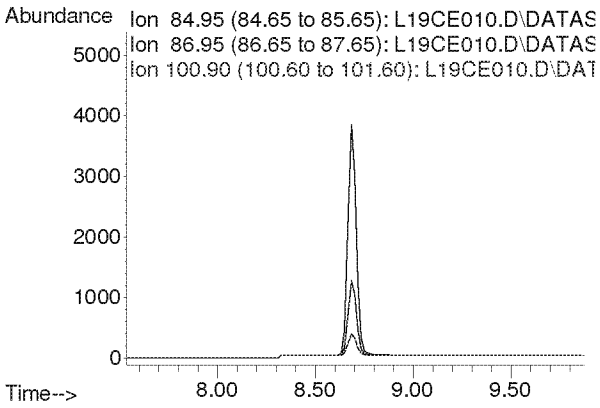


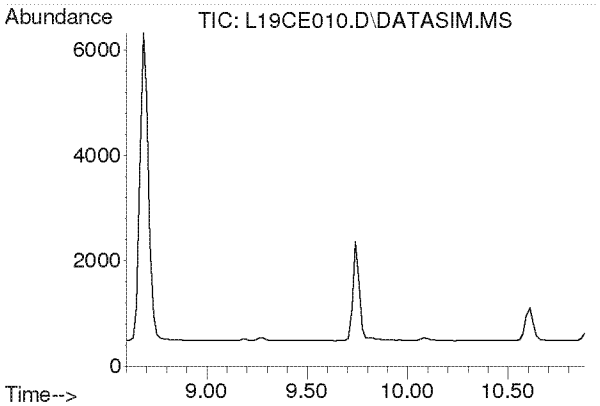
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



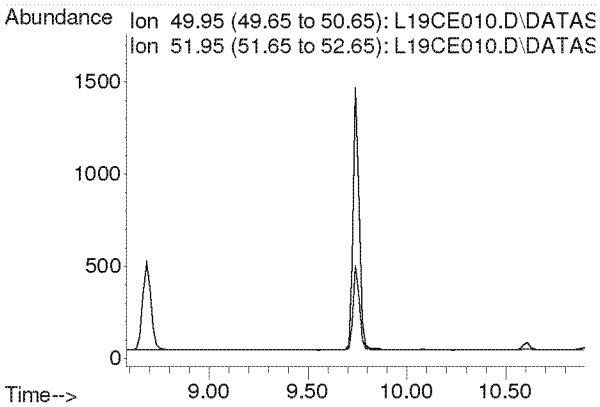


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

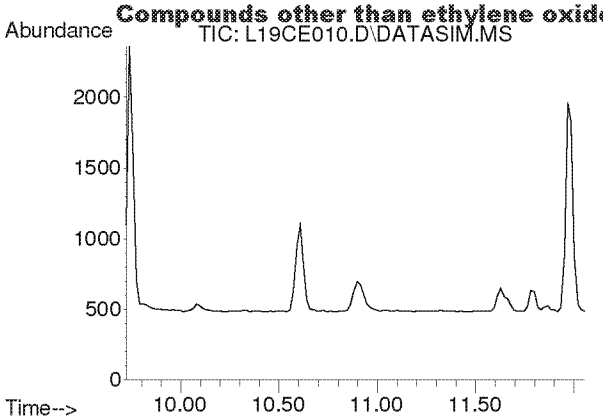
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

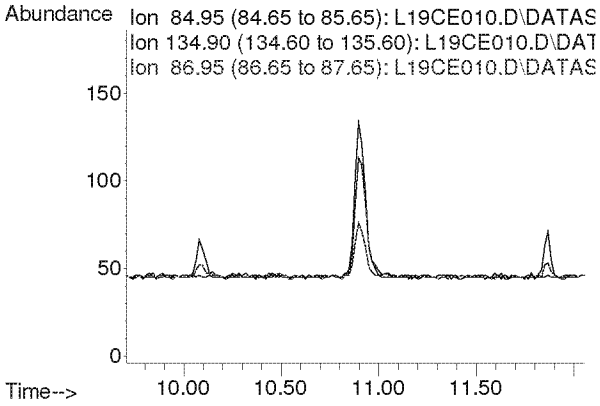


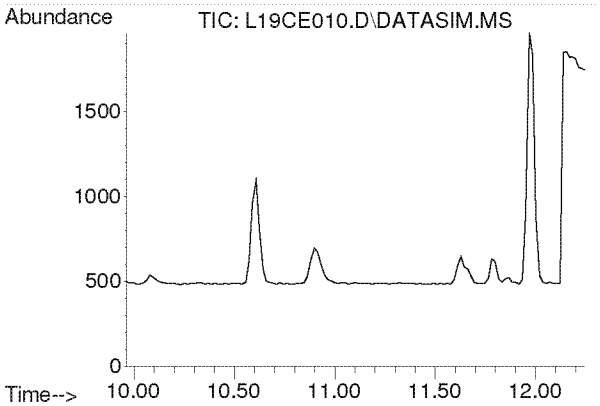
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



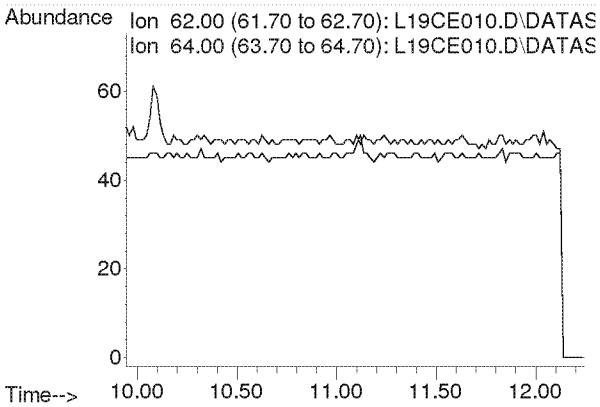


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

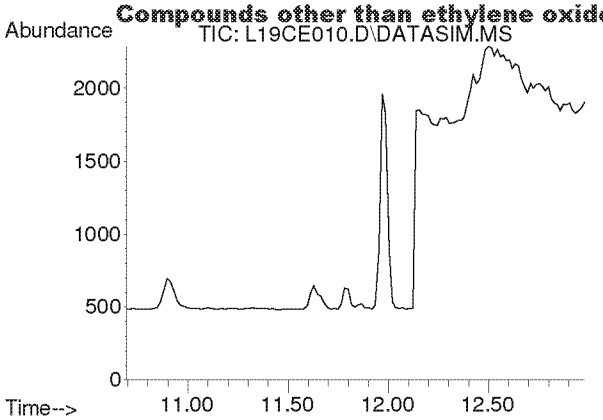
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

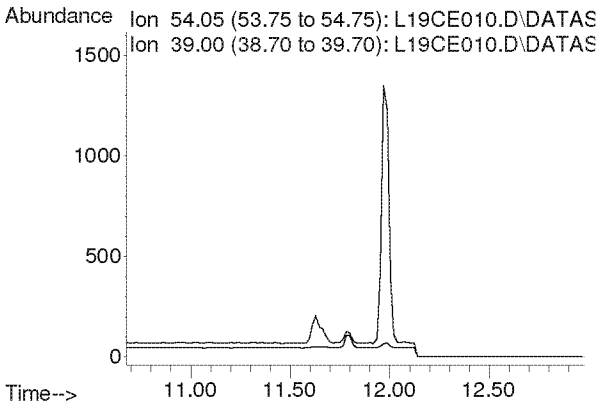


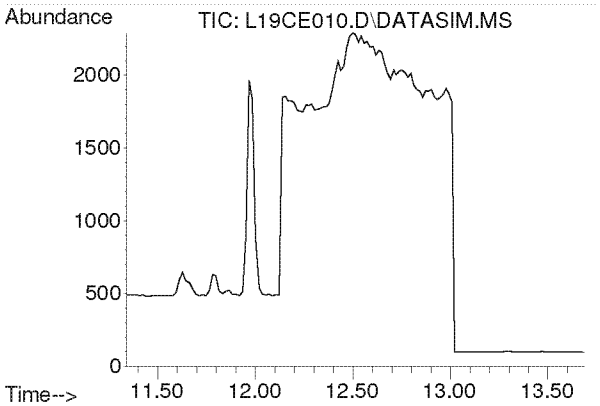
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



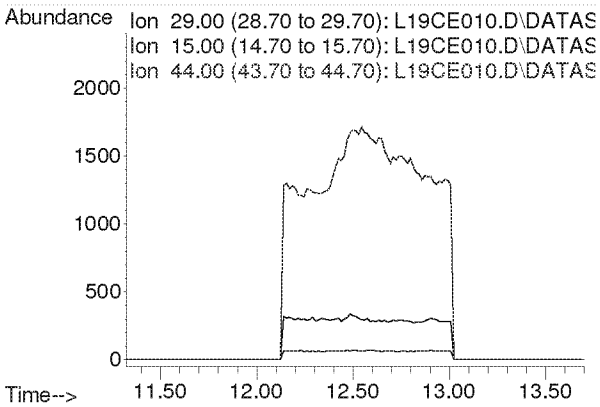


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

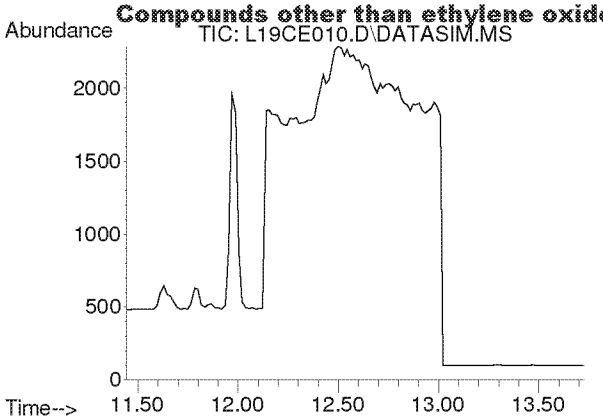
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

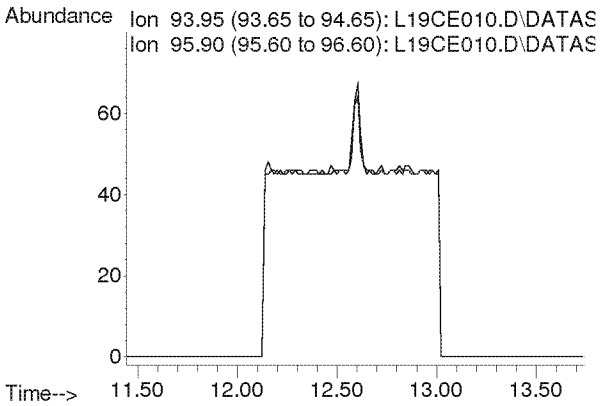


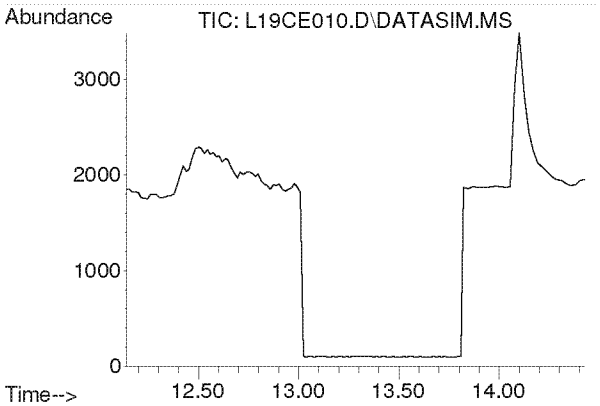
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



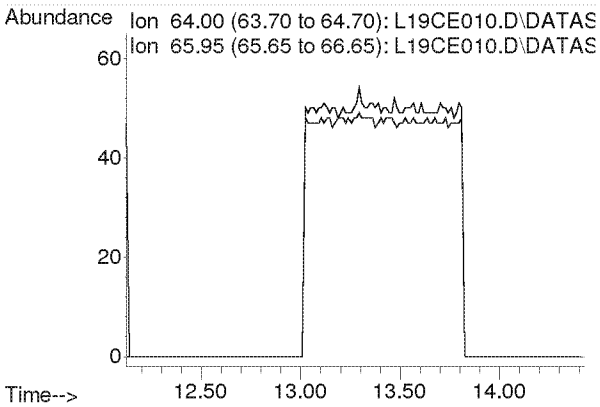


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

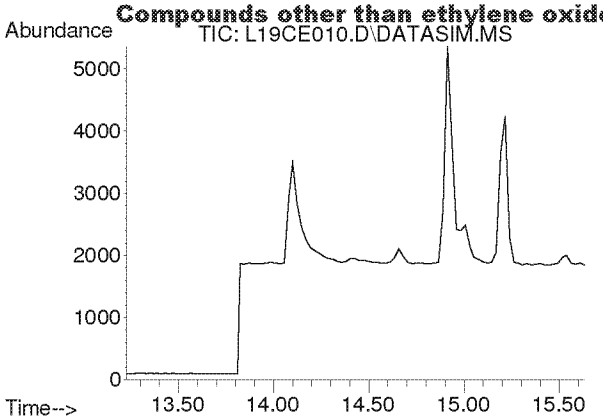
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

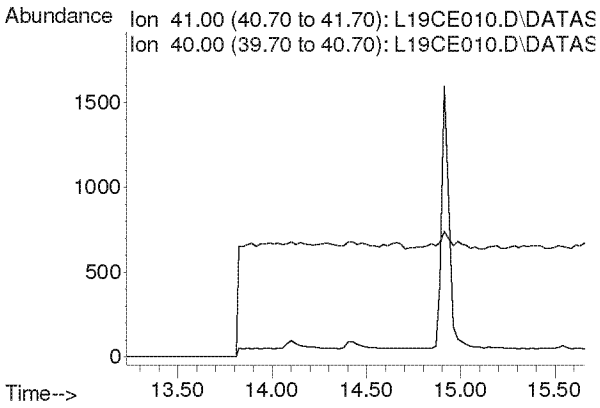


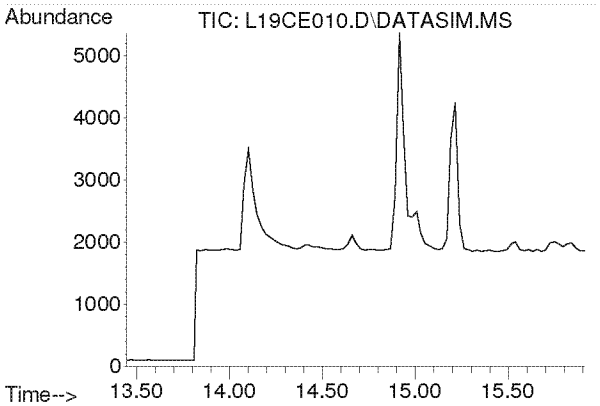
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



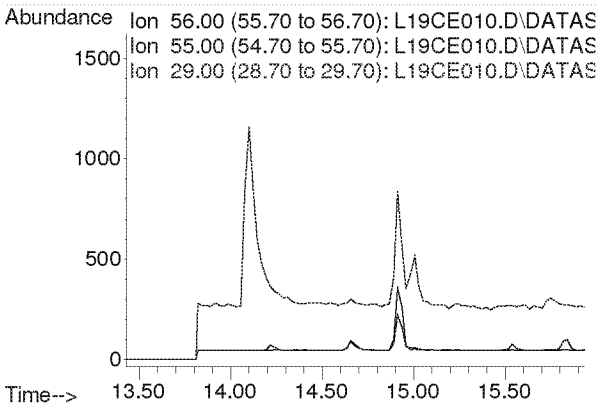


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

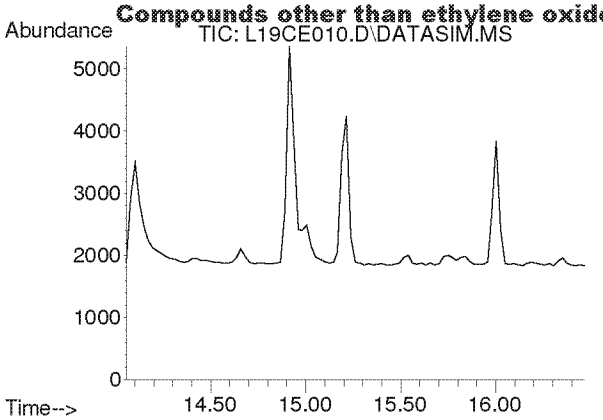
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

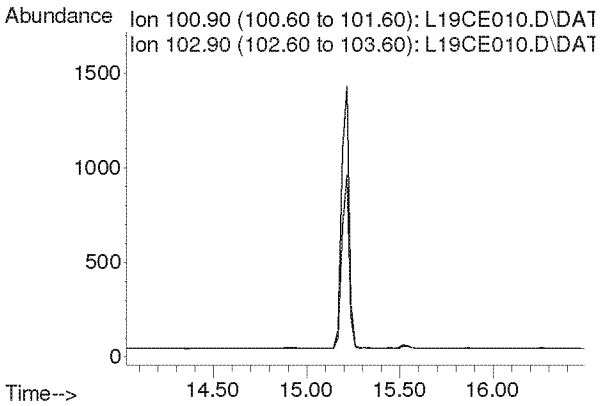


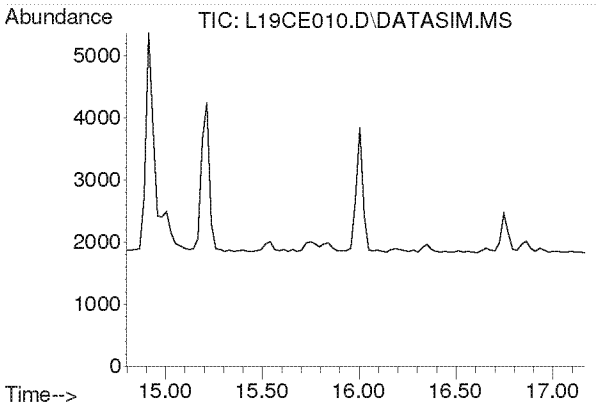
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



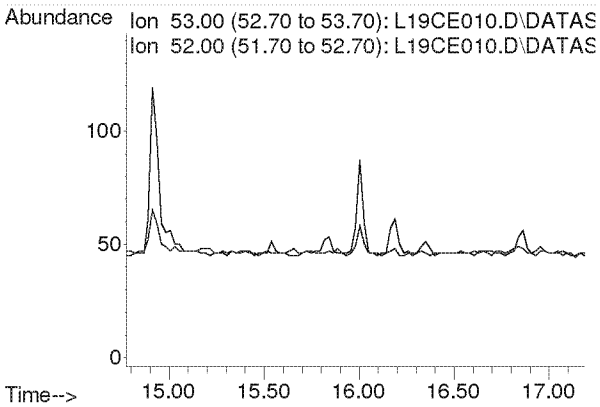


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

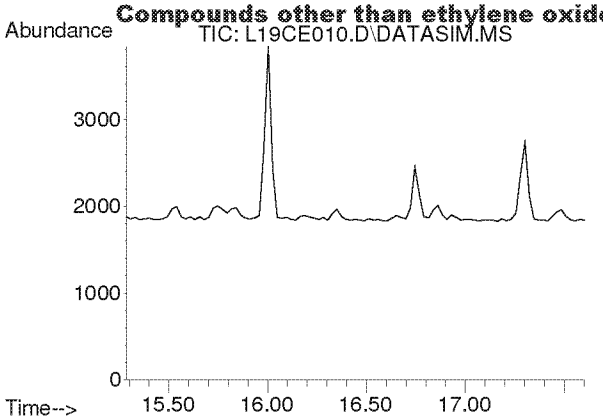
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

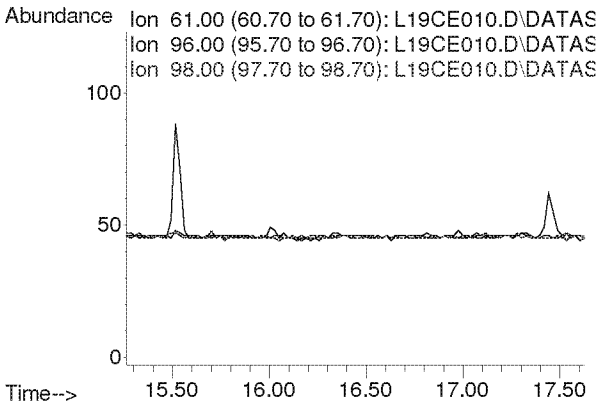


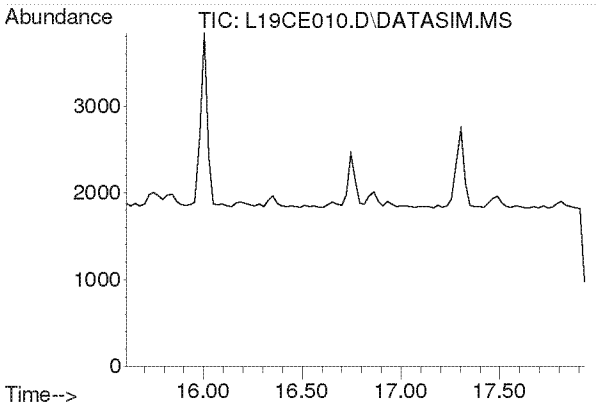
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



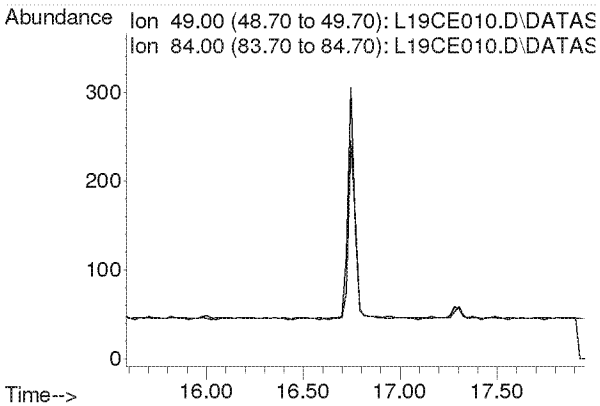


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

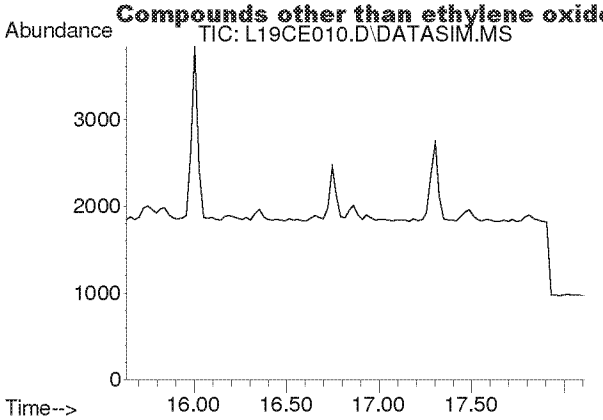
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

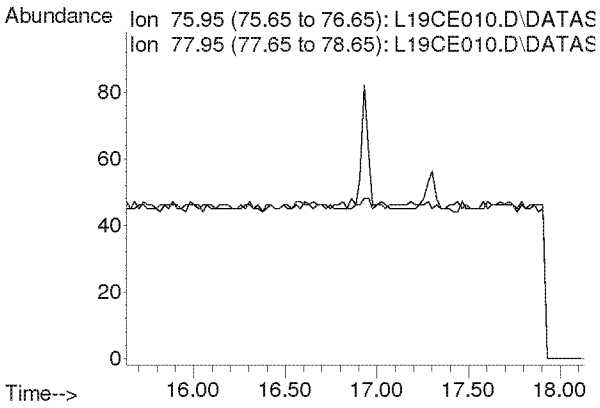


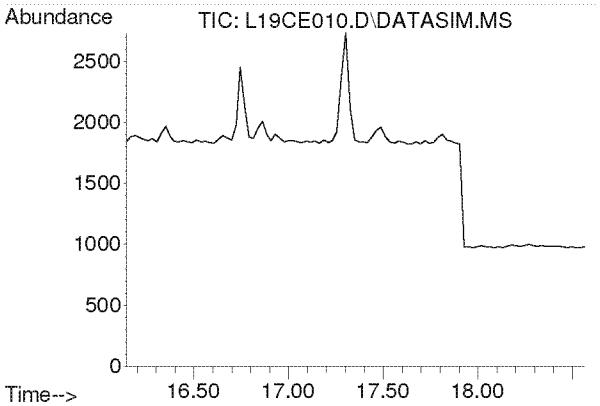
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



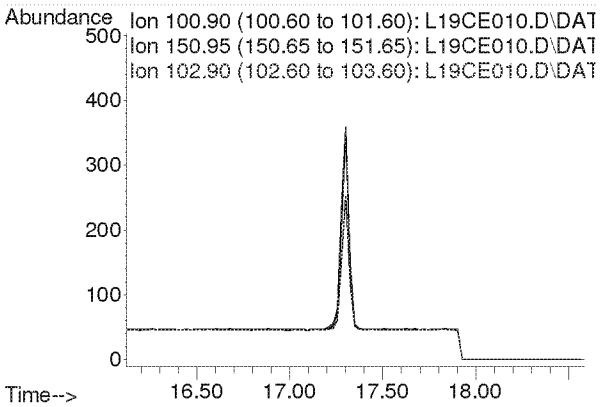


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

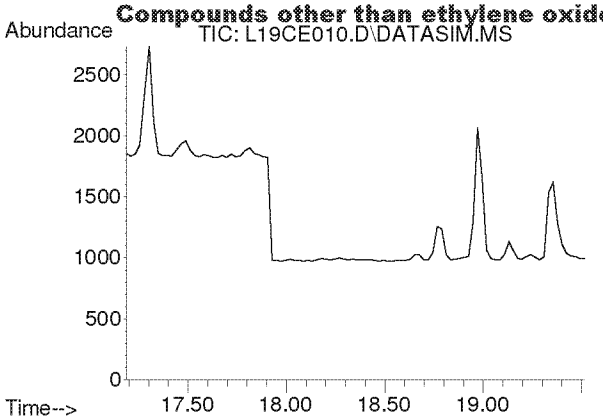
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

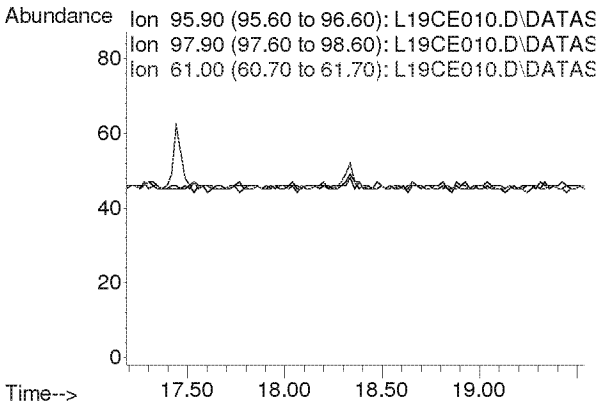


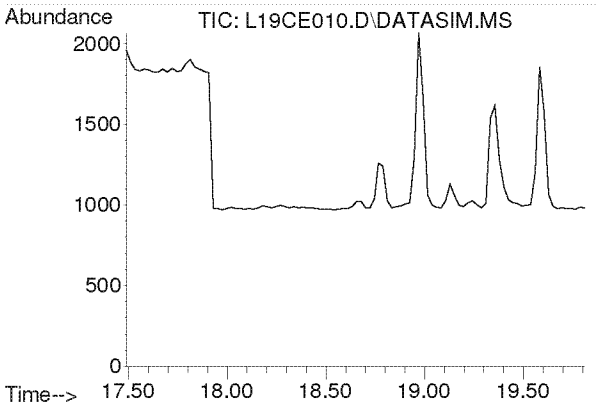
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



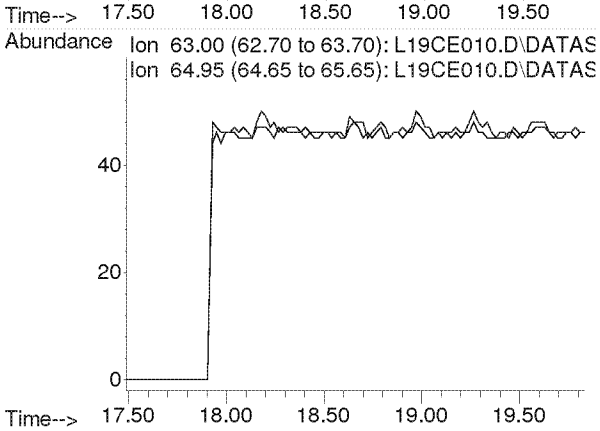


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

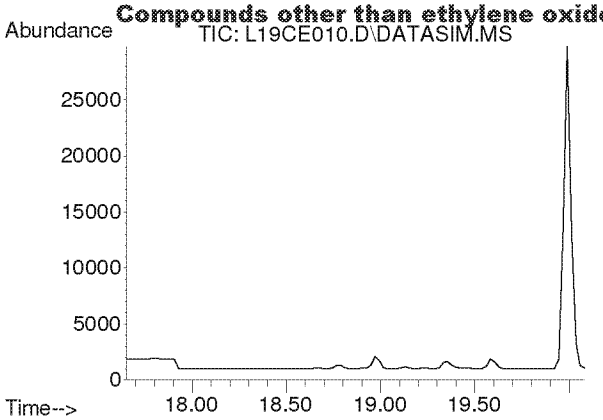
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

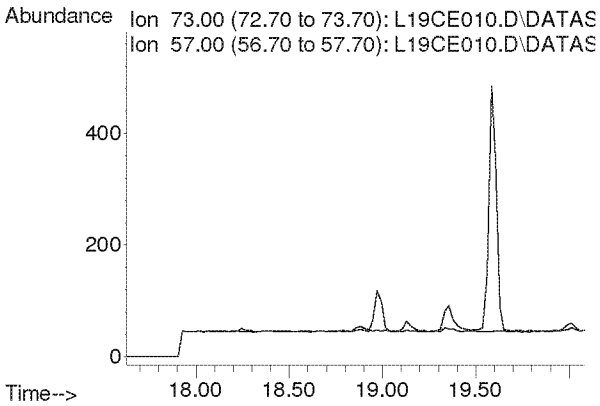


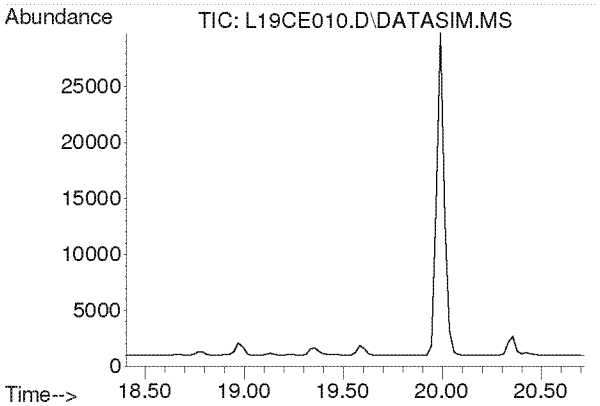
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



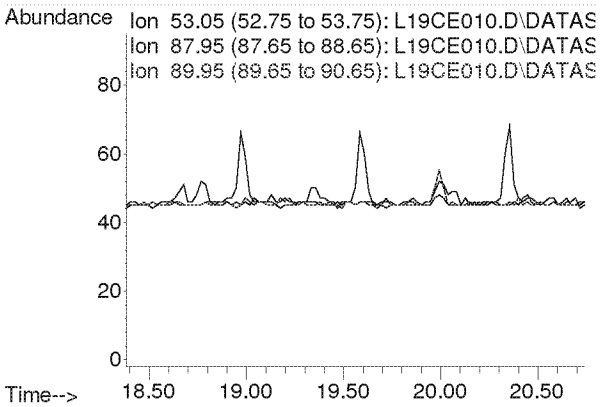


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

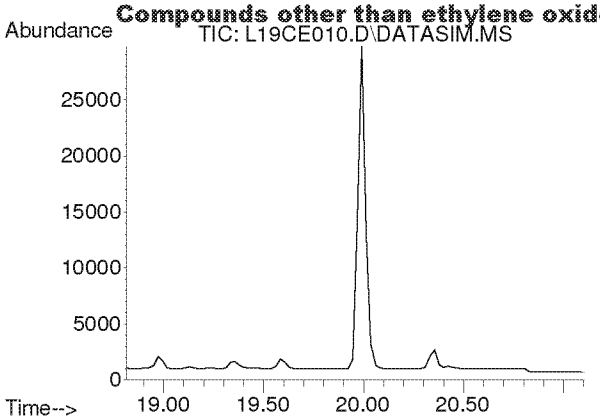
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

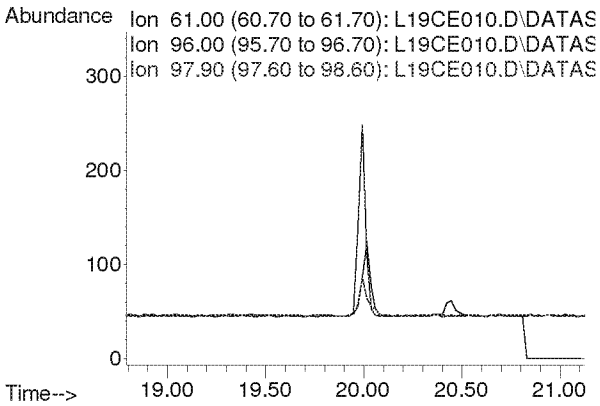


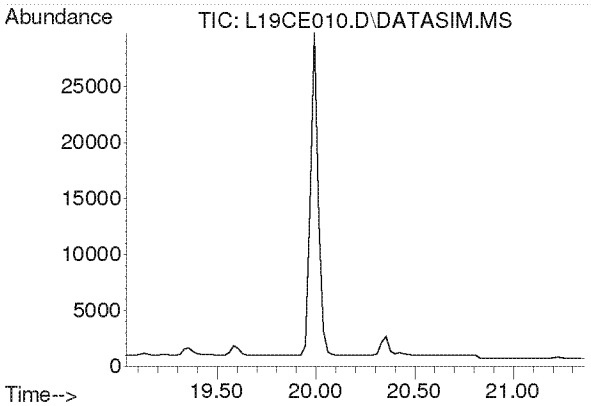
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



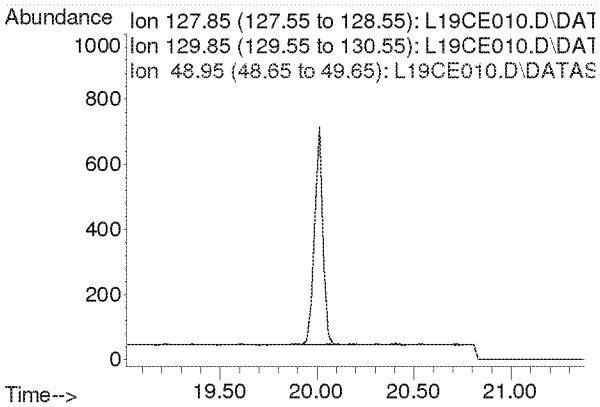


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

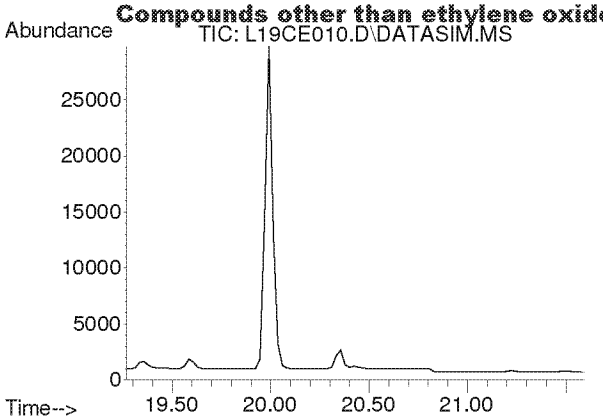
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

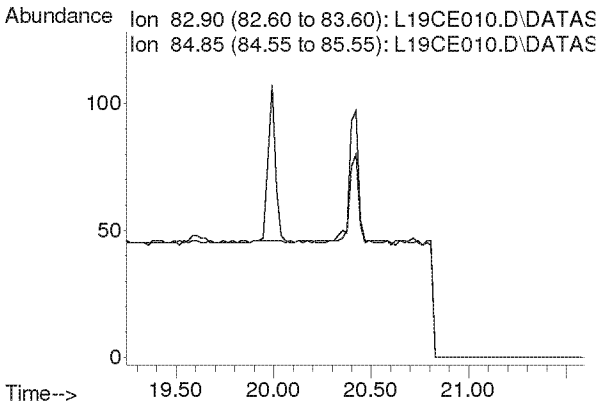


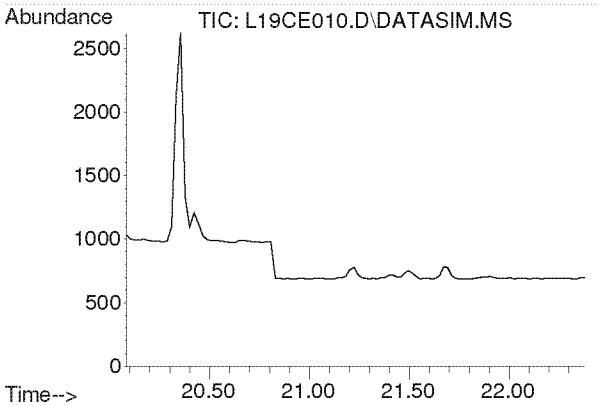
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



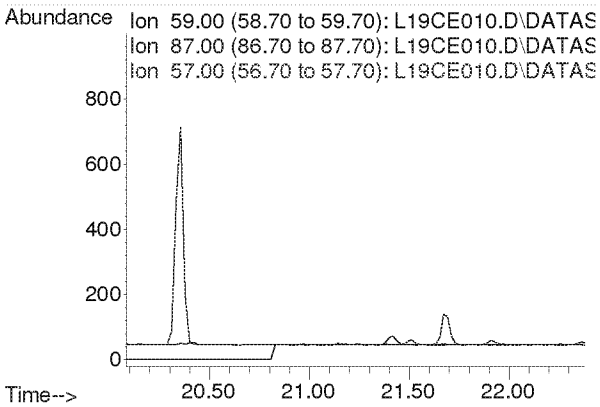


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

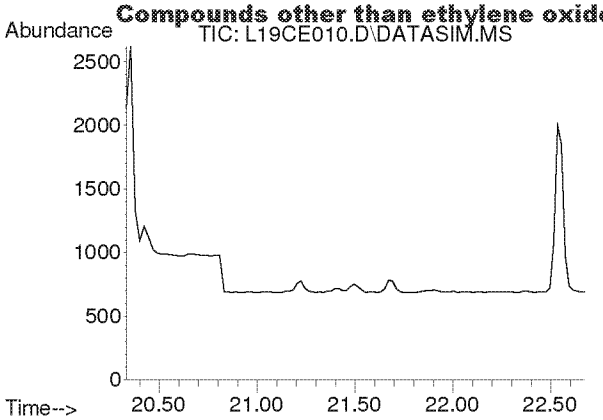
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

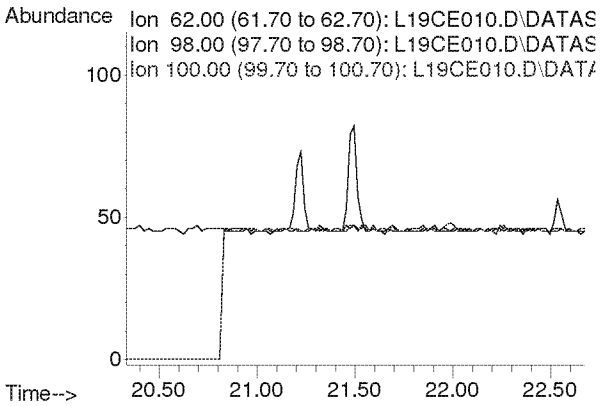


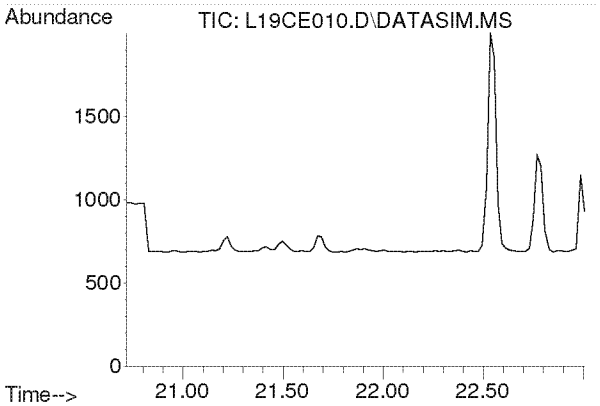
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



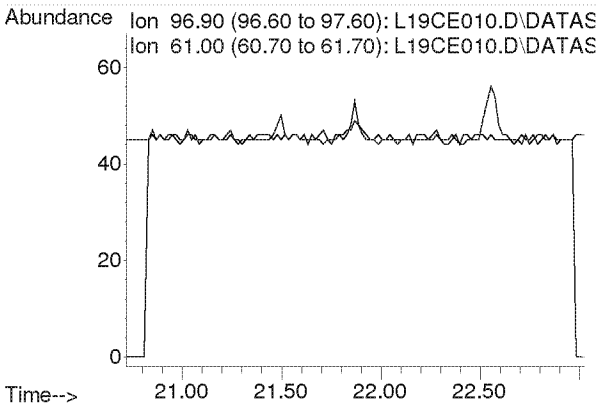


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

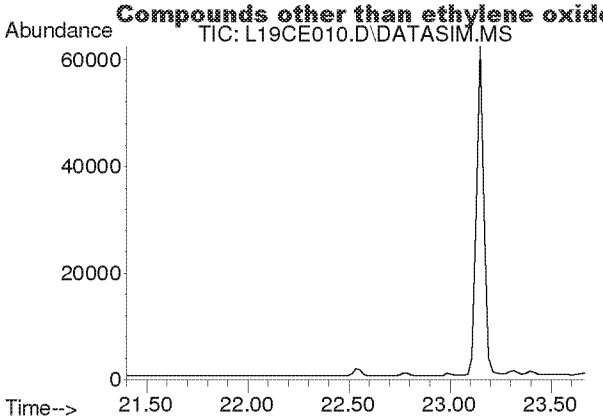
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

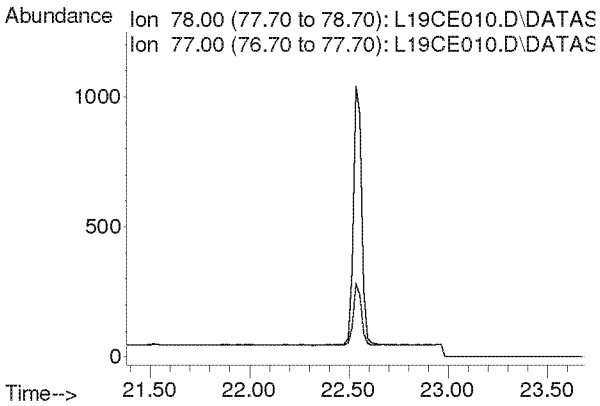


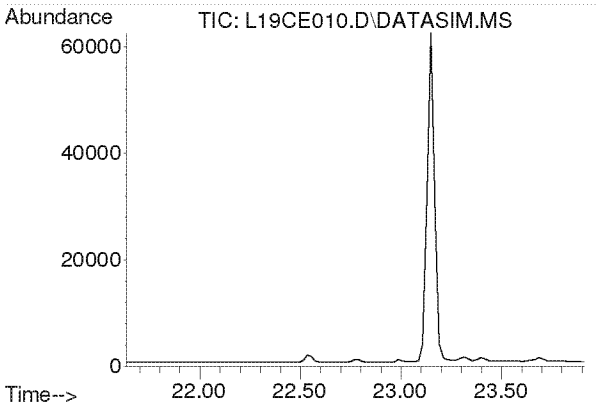
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



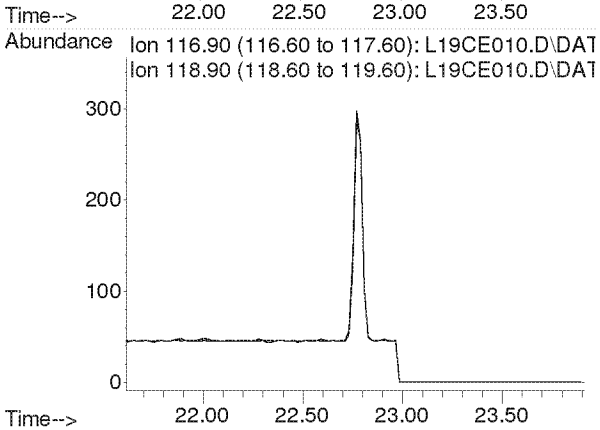


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

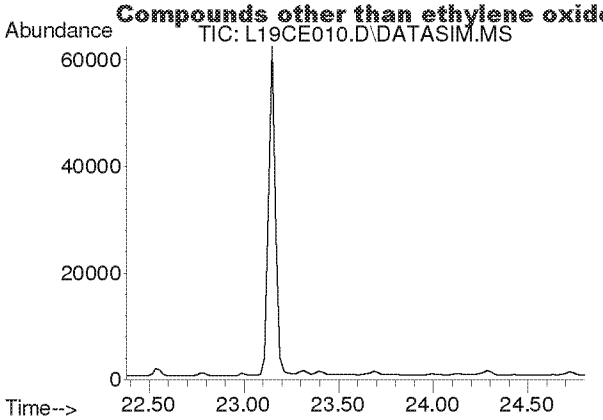
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

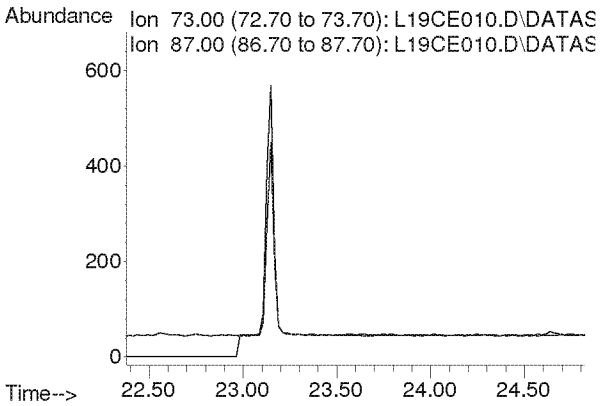


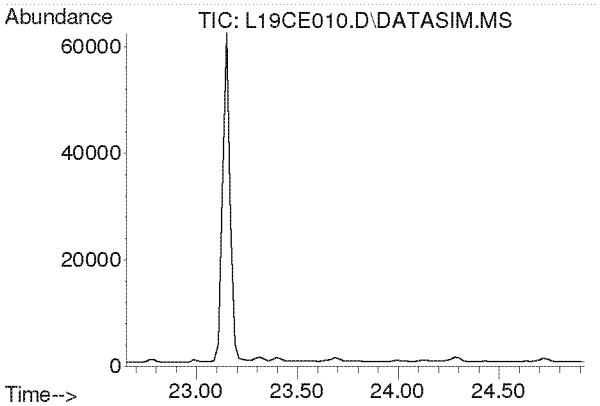
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



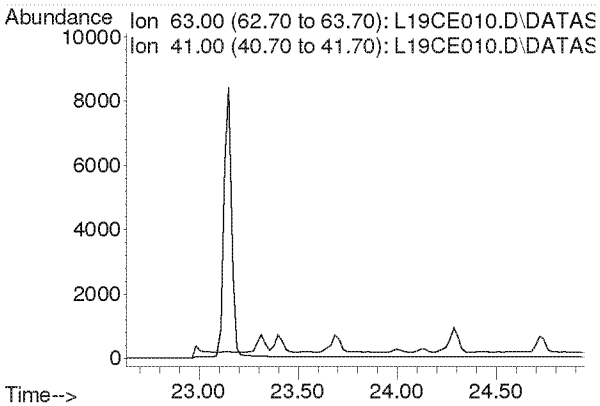


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

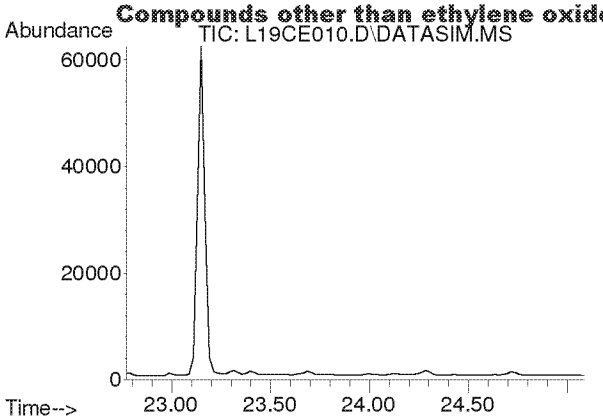
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

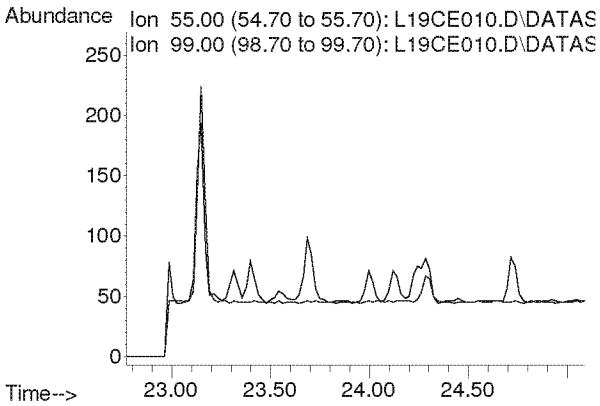


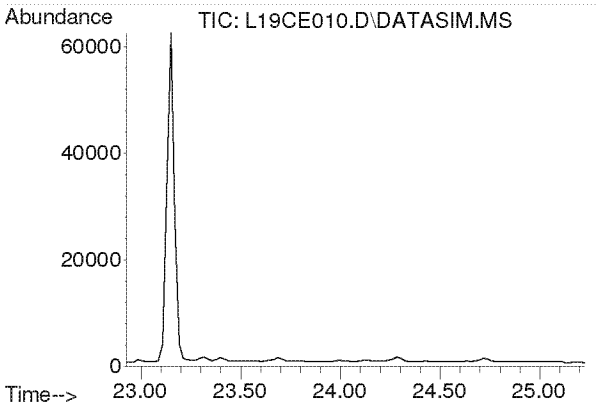
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



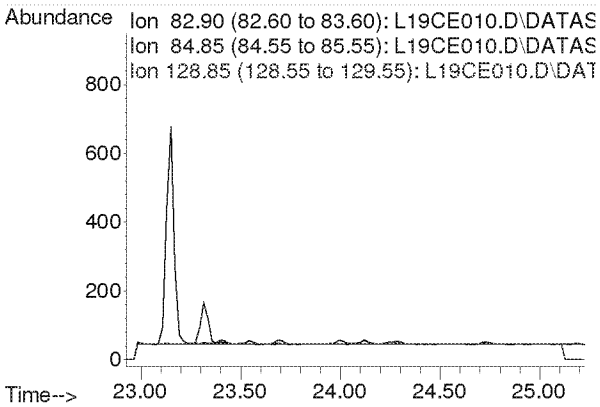


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

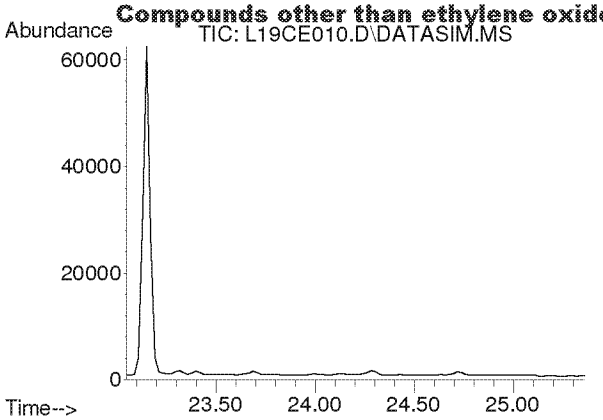
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

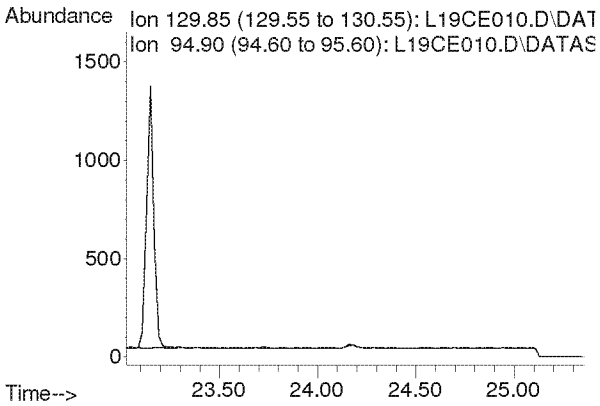


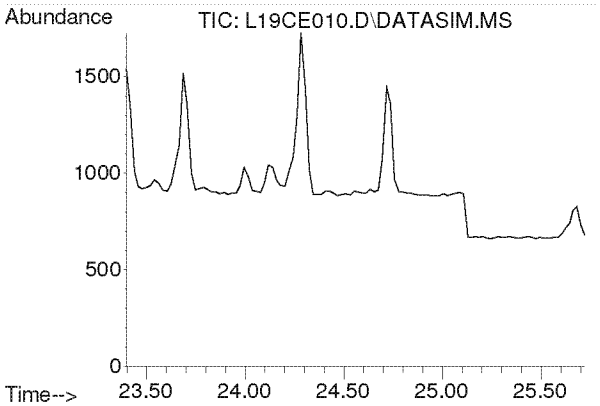
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



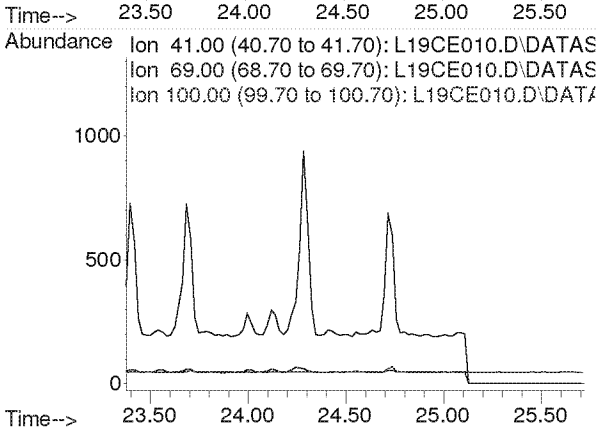


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

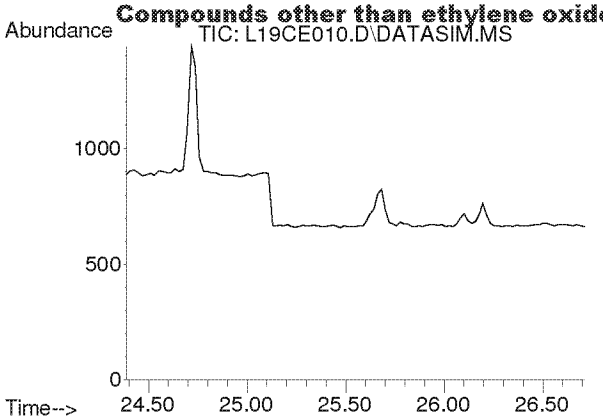
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

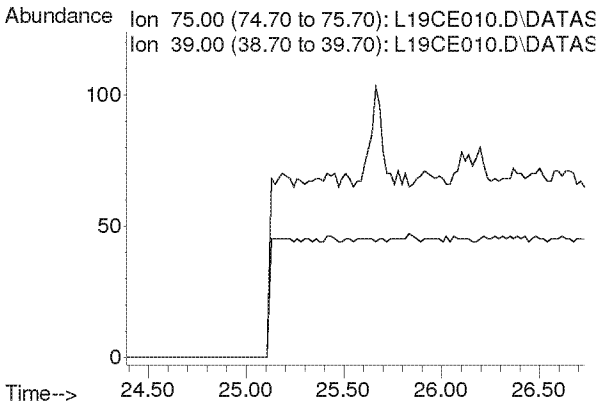


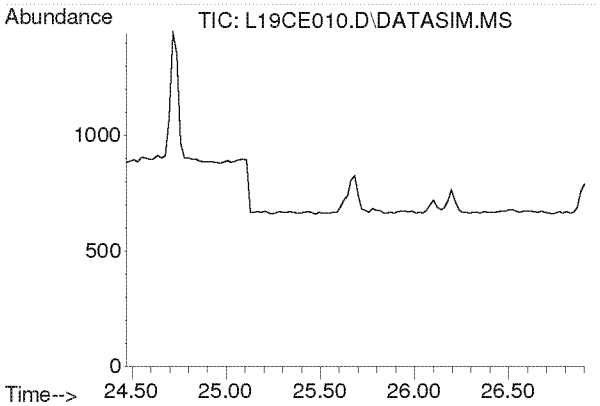
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



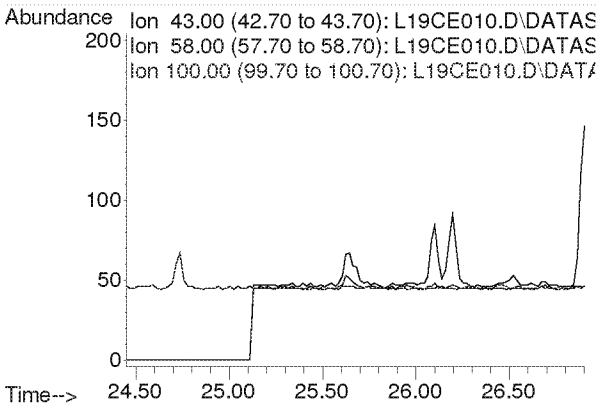


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

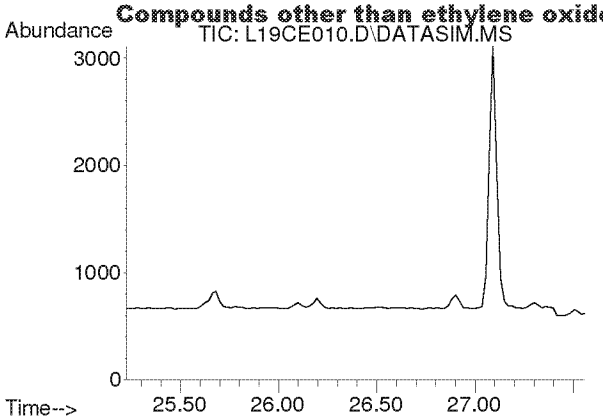
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

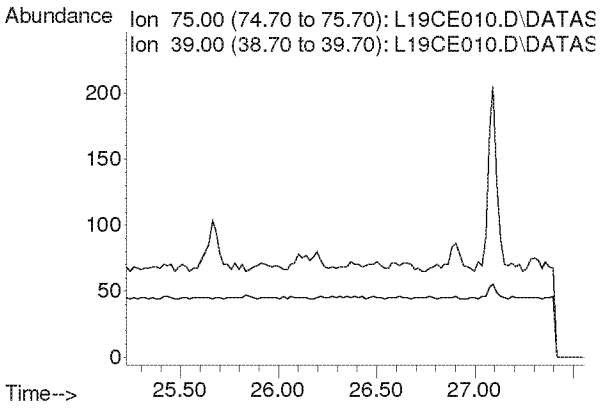


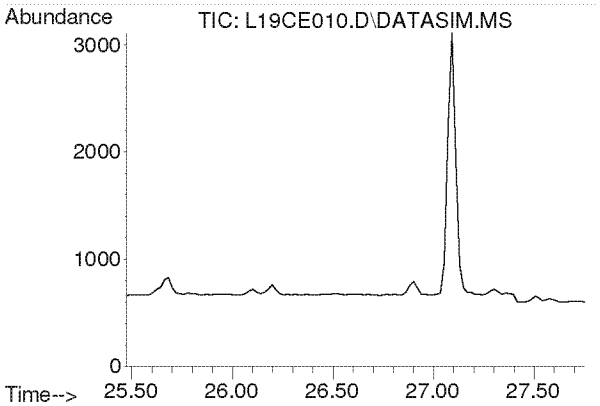
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



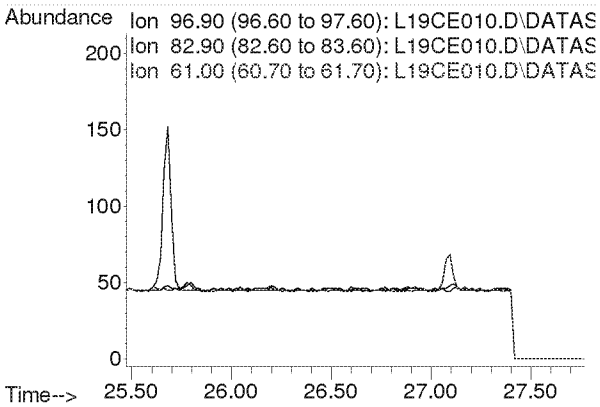


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

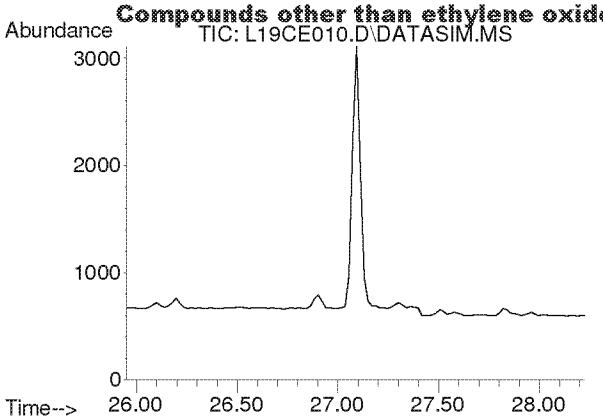
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

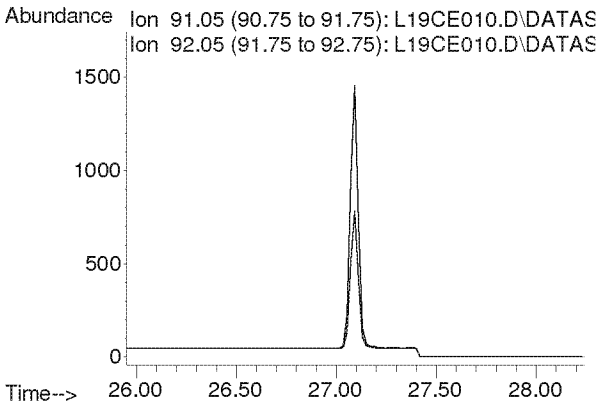


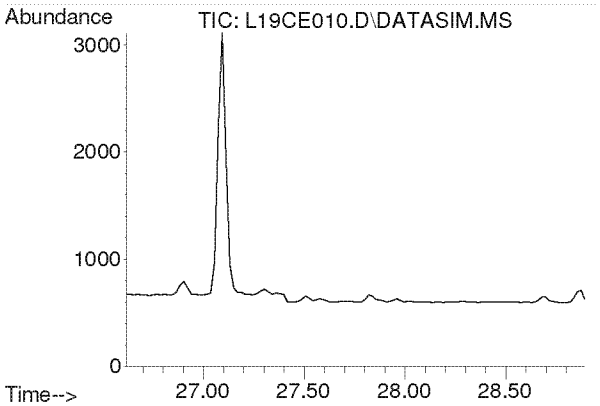
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



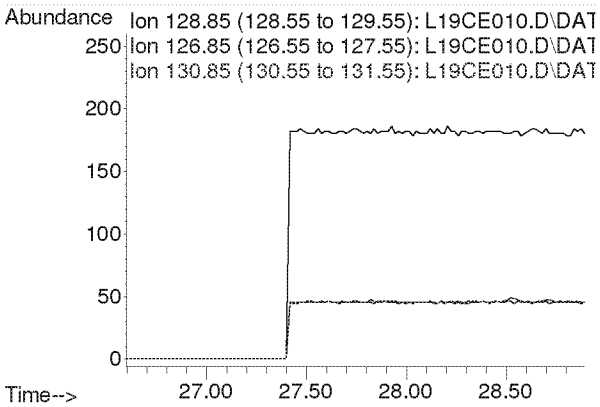


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

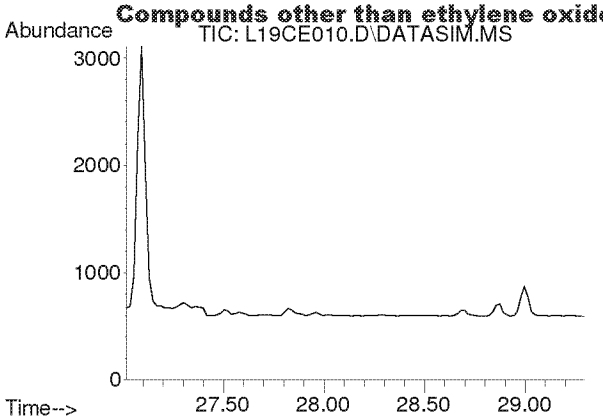
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

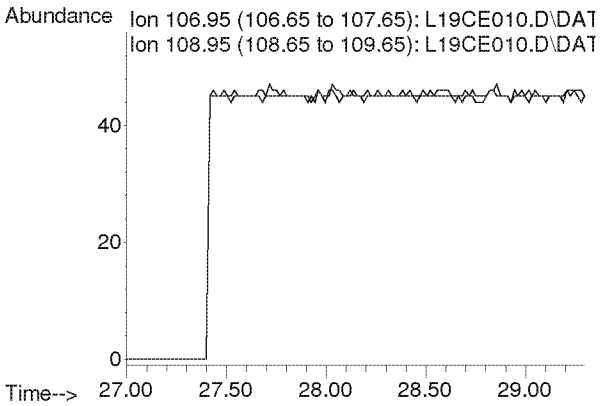


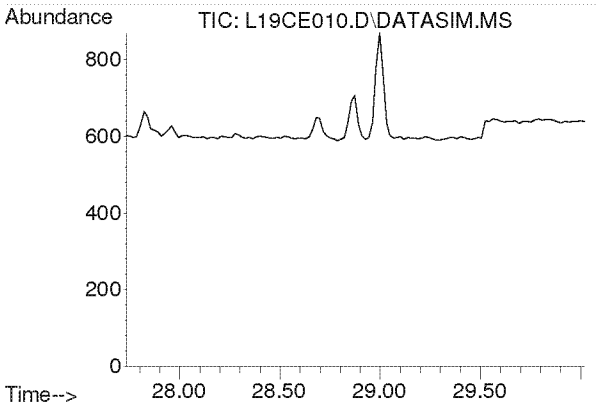
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



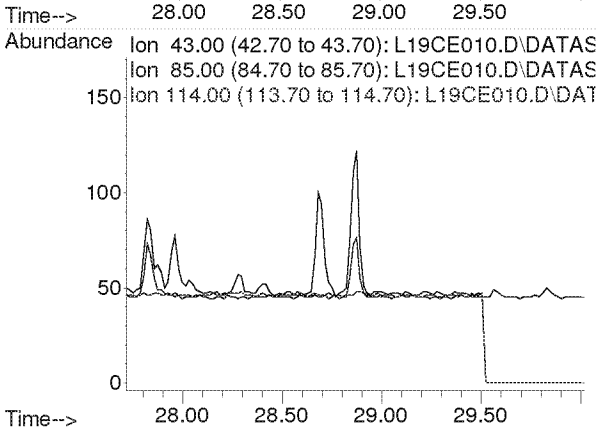


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

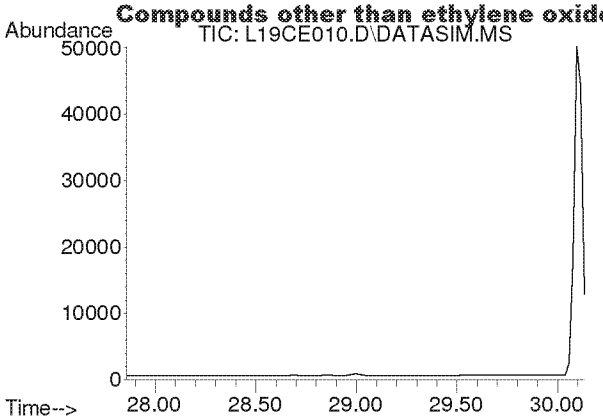
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

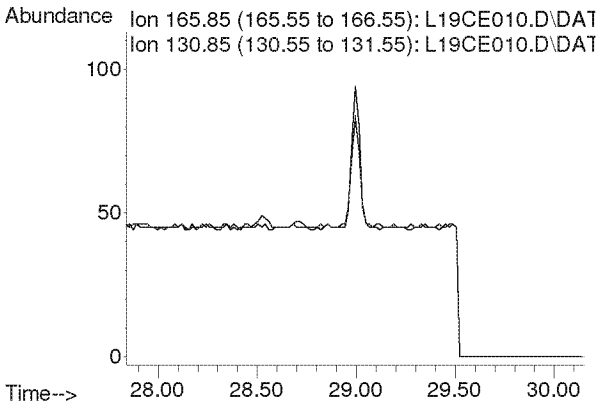


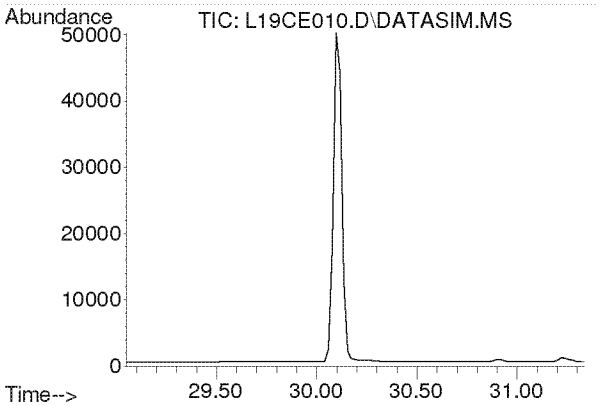
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



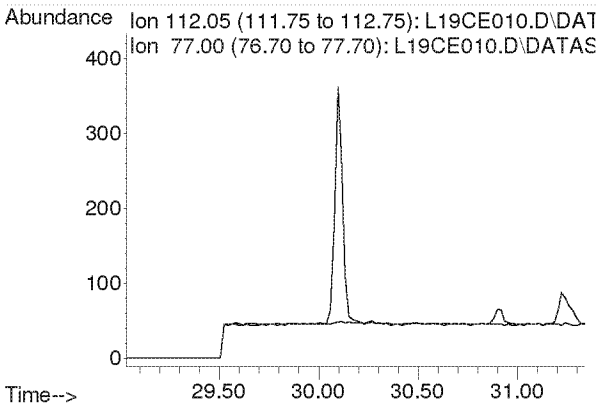


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

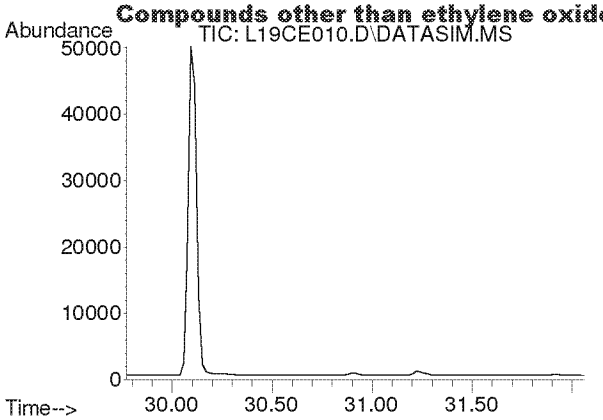
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

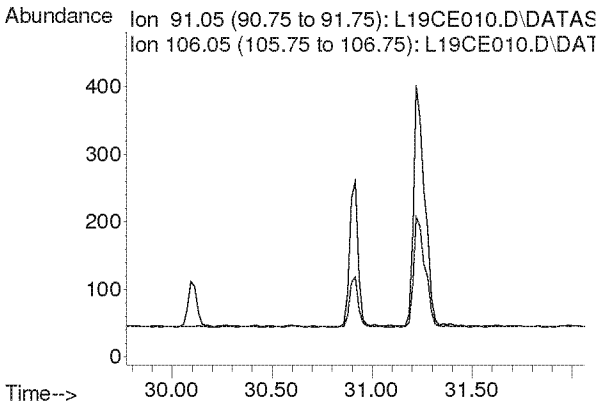


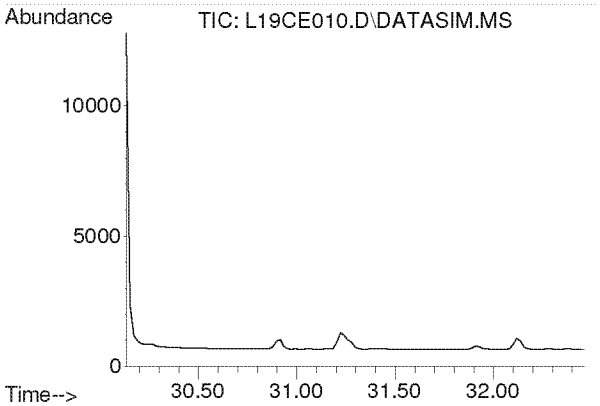
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



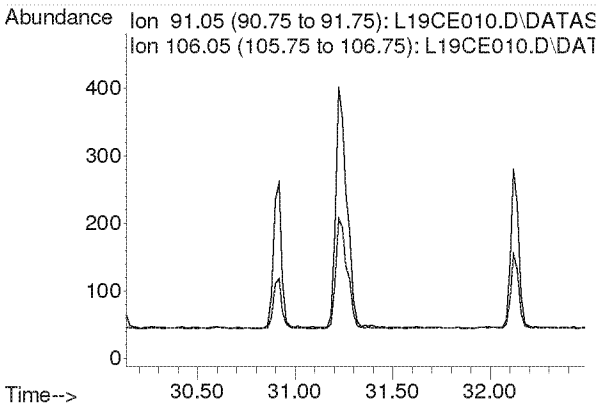


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

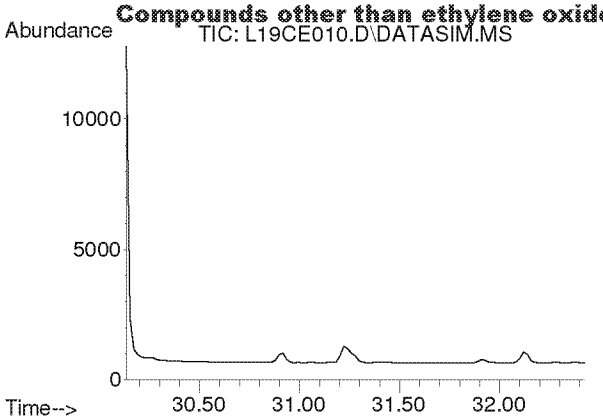
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

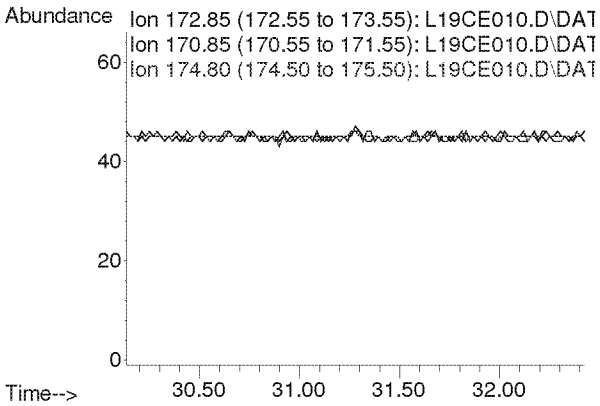


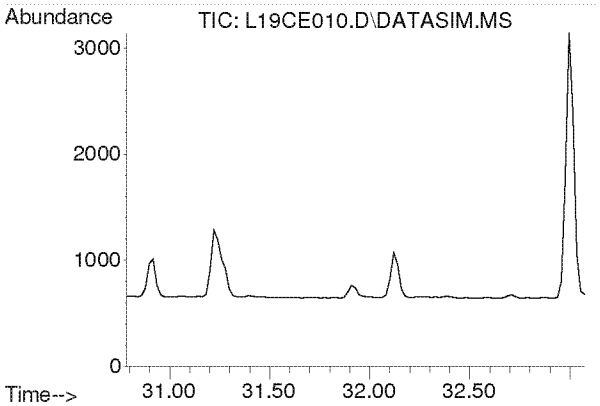
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



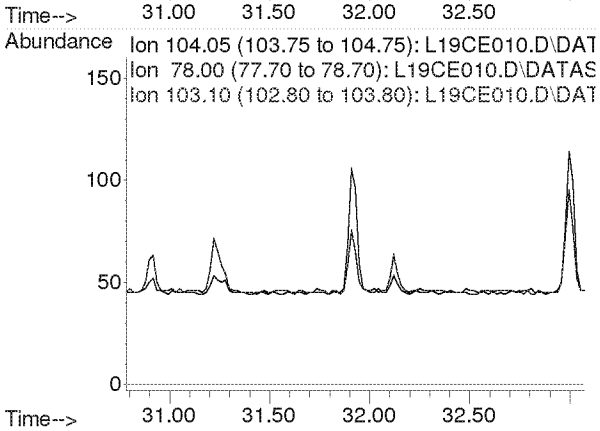


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

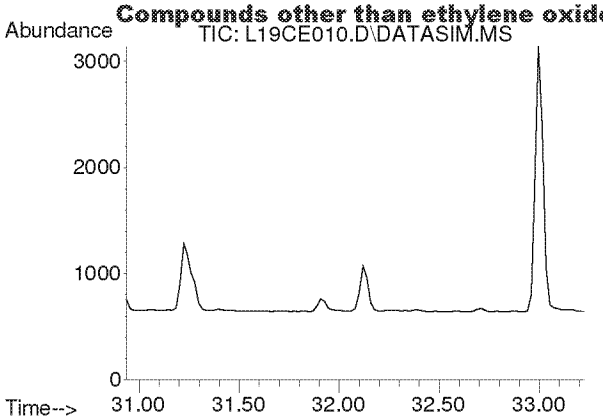
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

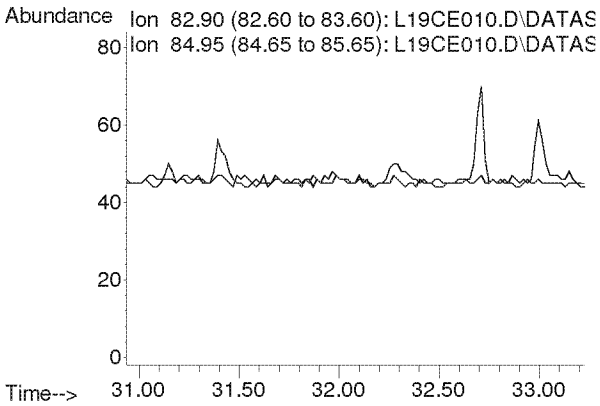


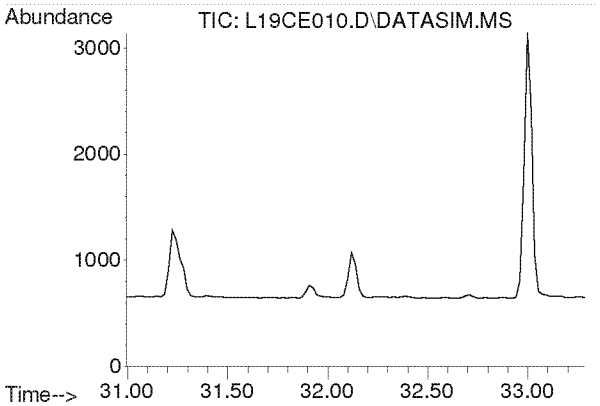
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



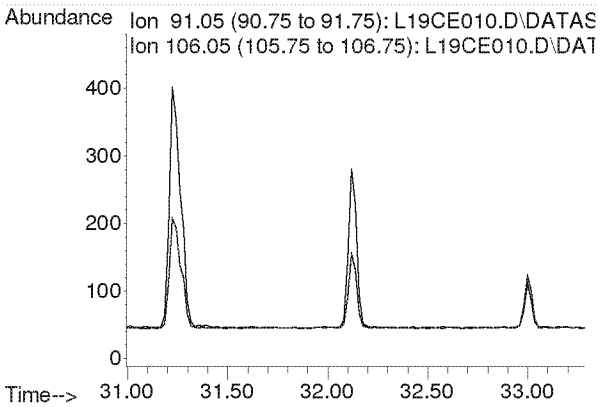


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

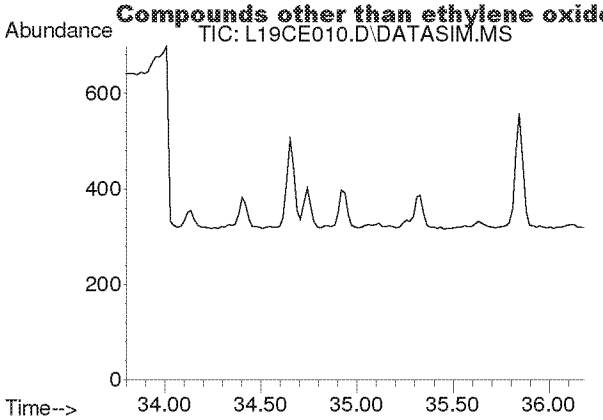
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

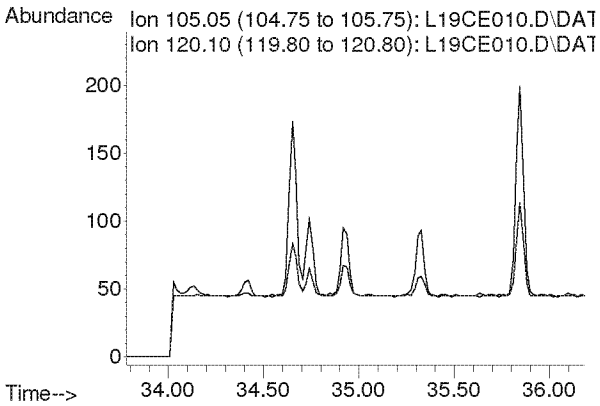


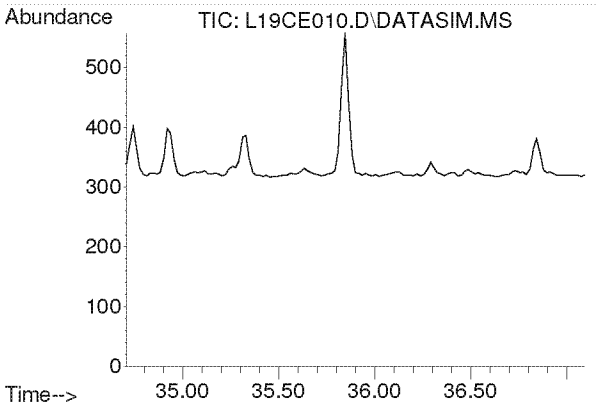
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



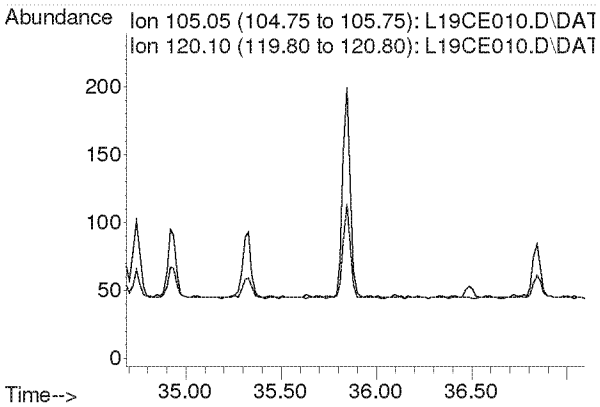


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

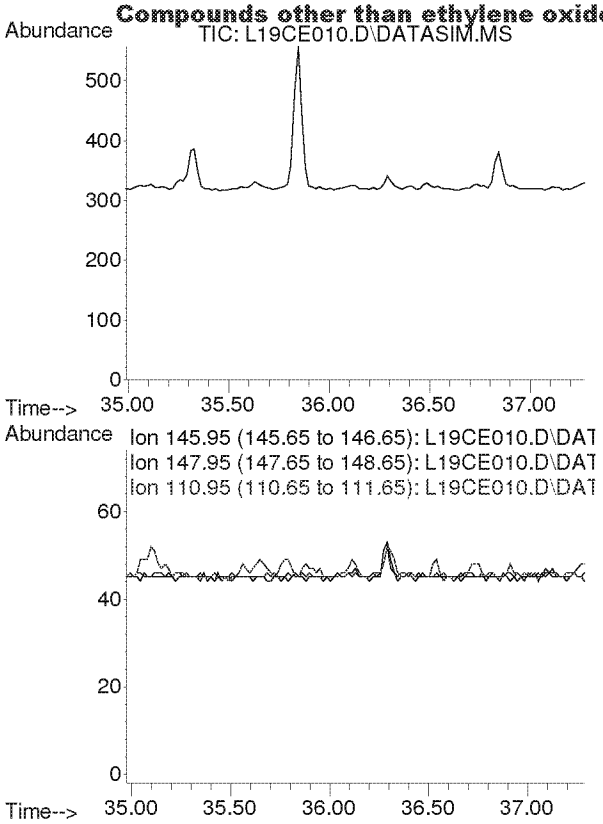
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

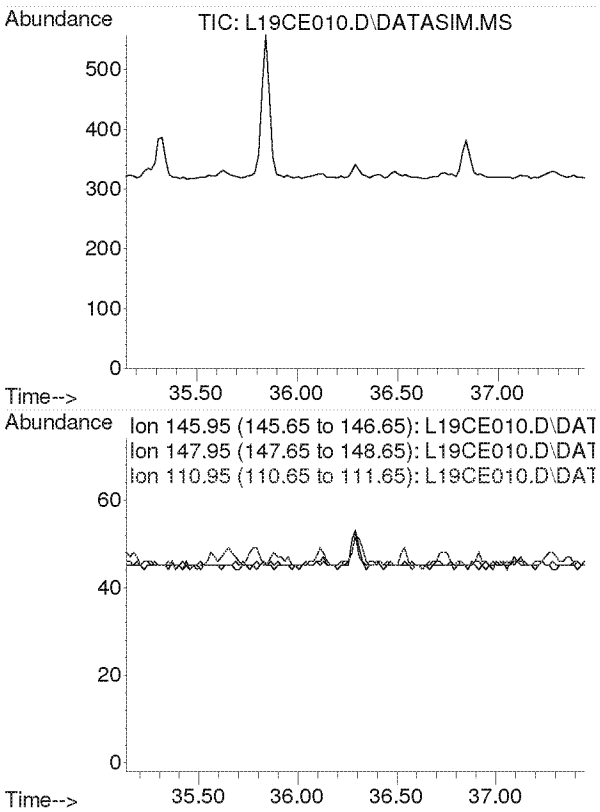


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



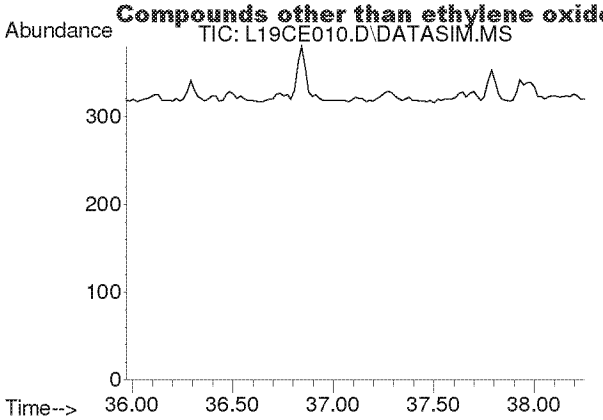
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

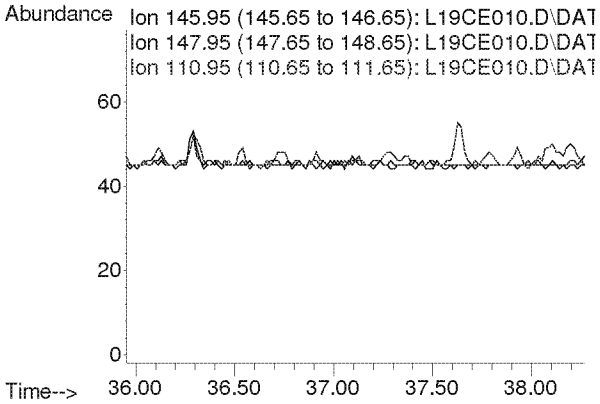


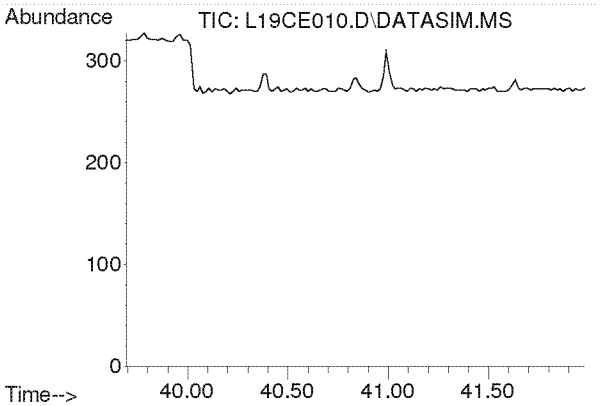
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



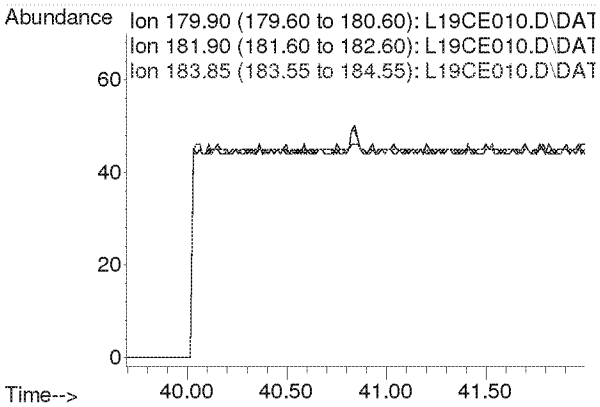


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

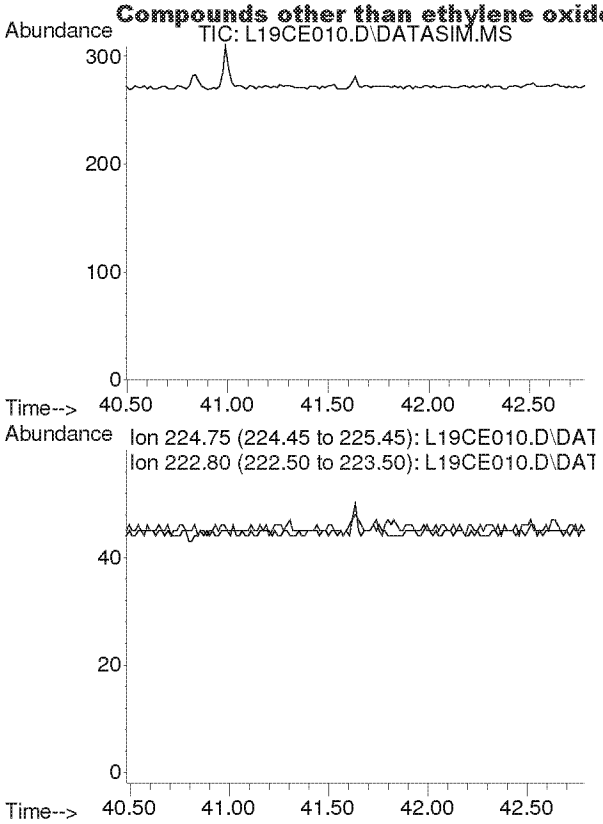
Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE010.D
Acq: 5 Mar 2019 9:28 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\L19CE\
Data File : L19CE011.D
Acq On : 5 Mar 2019 10:28 pm
Operator : MAH
Sample : 9030524-04
Misc : WB VILLAGE HALL 3/2/19
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 06 12:23:46 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

ETOH only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	47529	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	122044	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	87294	4.7400 ppbv	-0.02

System Monitoring Compounds

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE011.D
Acq On : 5 Mar 2019 10:28 pm
Operator : MAH
Sample : 9030524-04
Misc : WB VILLAGE HALL 3/2/19
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 06 12:23:46 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

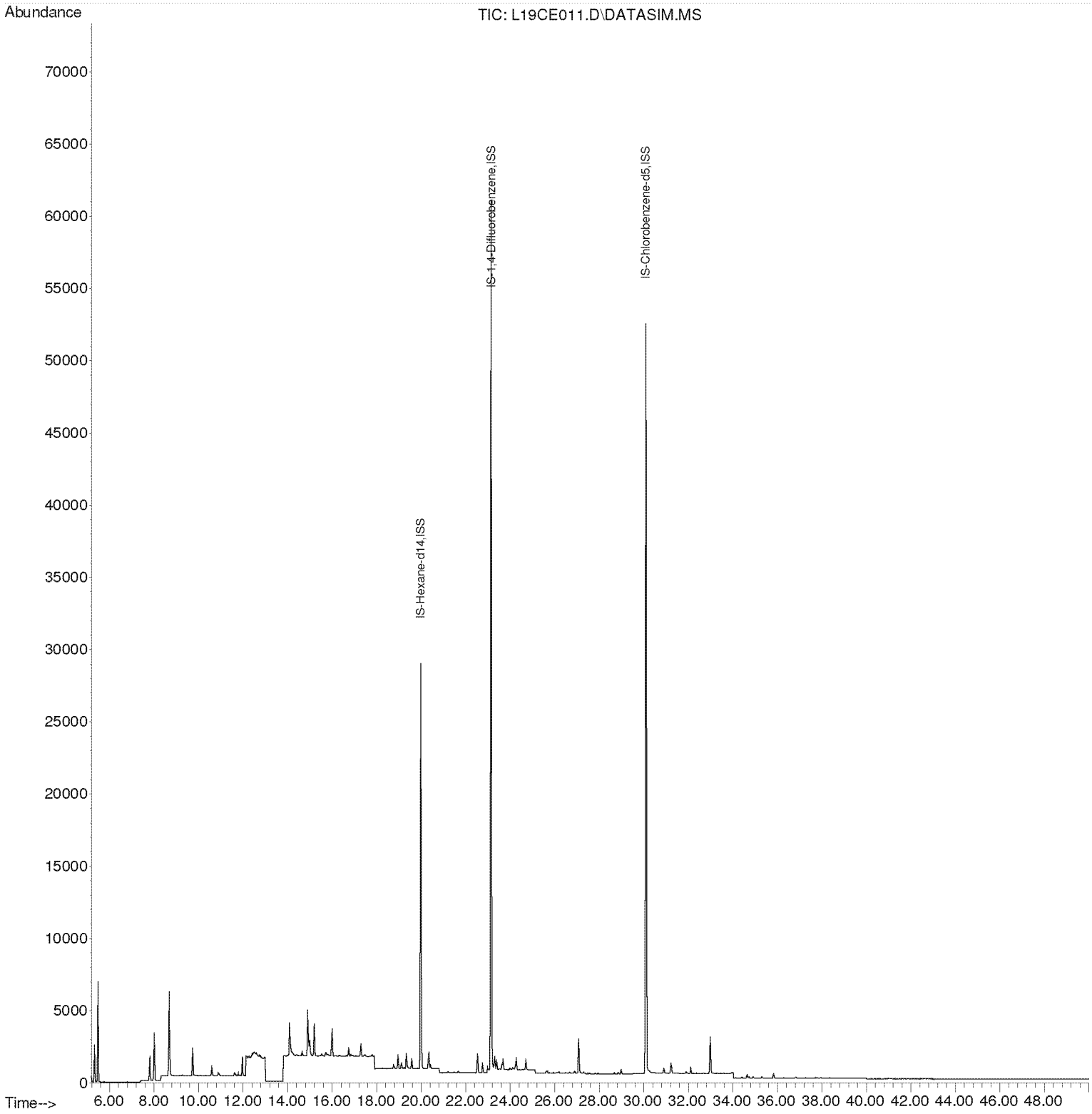
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

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

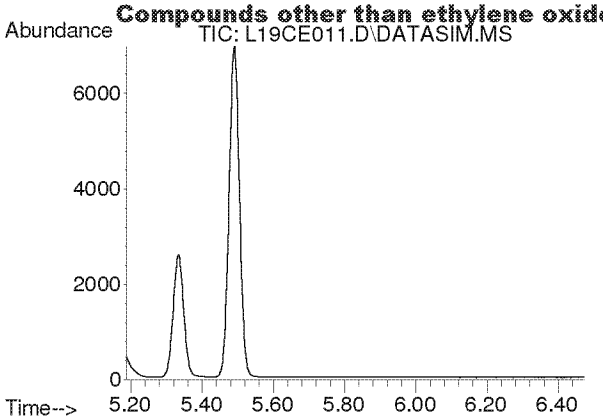
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE011.D
Acq On : 5 Mar 2019 10:28 pm
Operator : MAH
Sample : 9030524-04
Misc : WB VILLAGE HALL 3/2/19
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 06 12:03:00 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



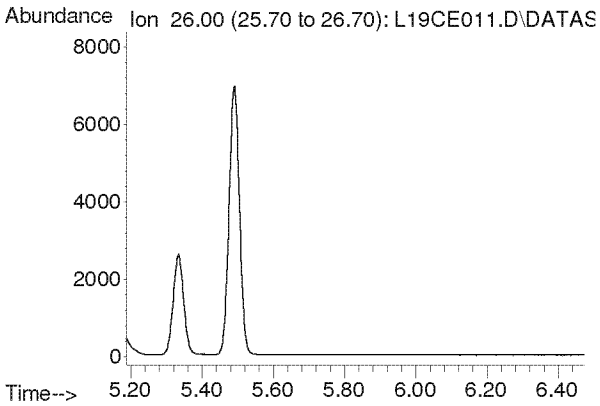
Compounds other than ethylene oxide were not quantitated.

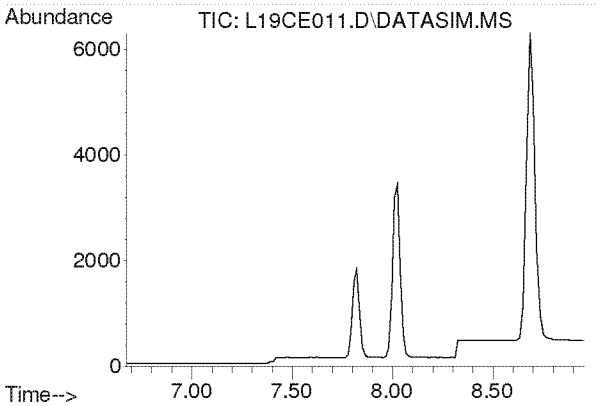


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 26



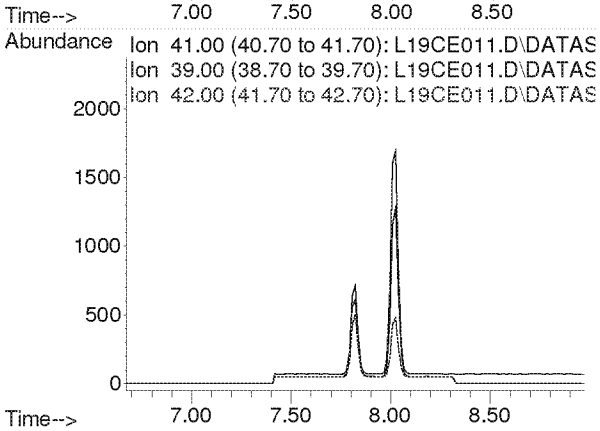


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

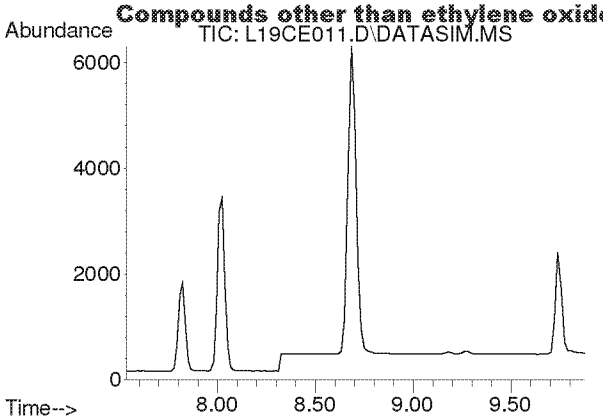
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

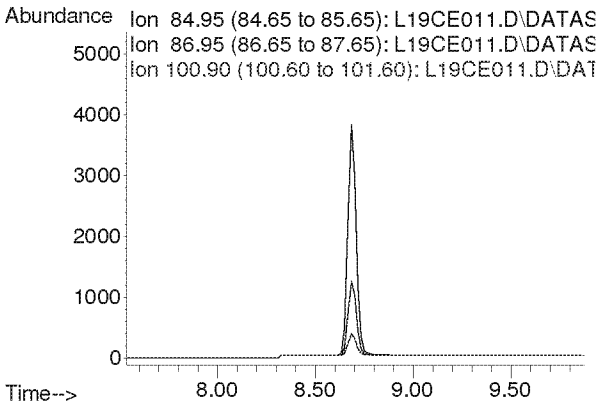


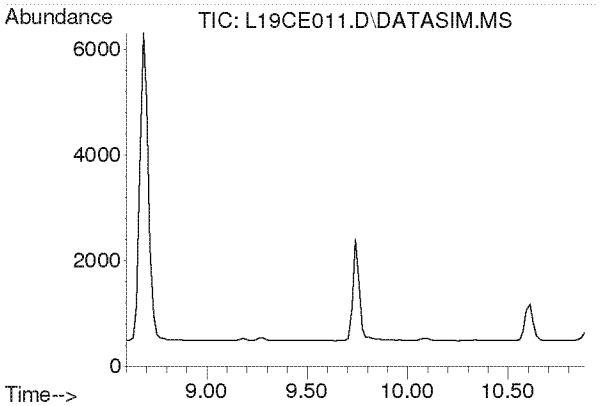
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



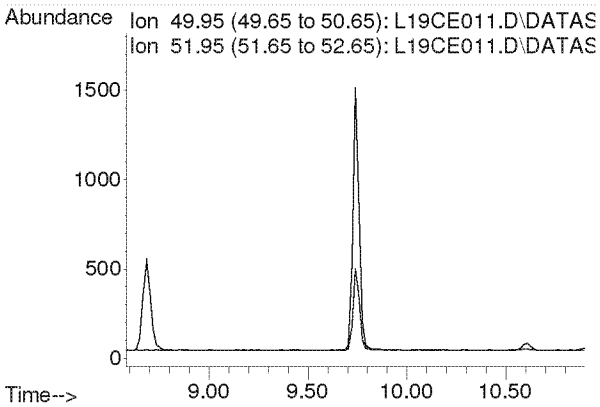


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

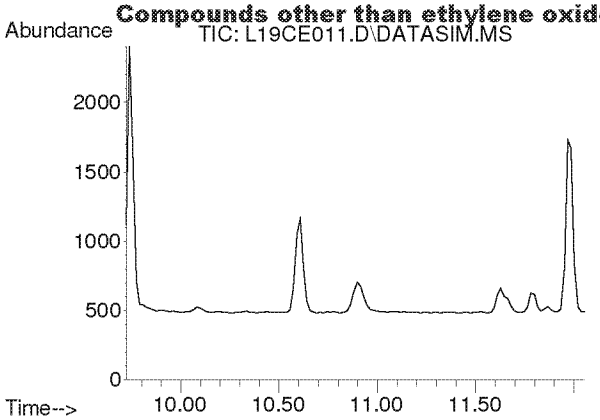
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

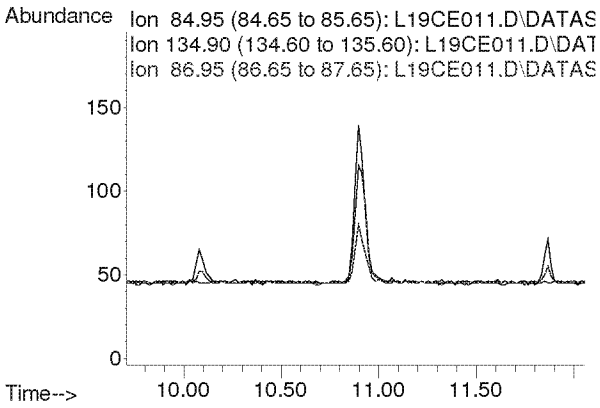


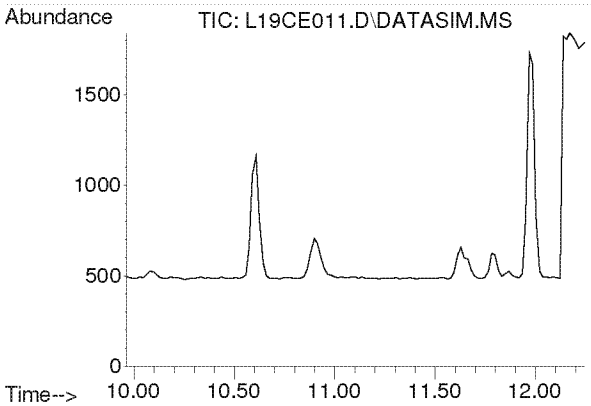
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



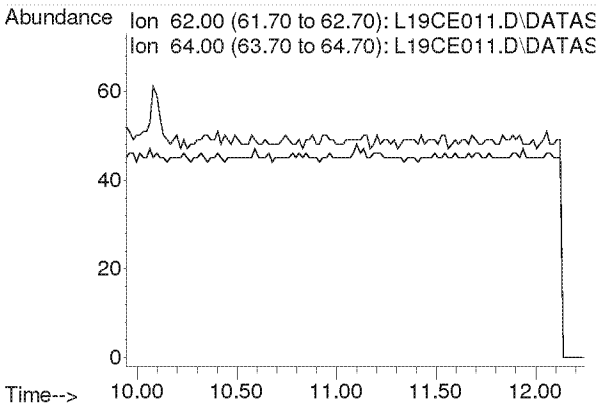


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

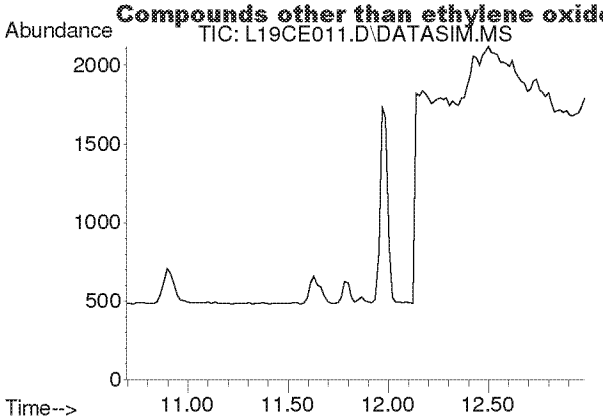
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

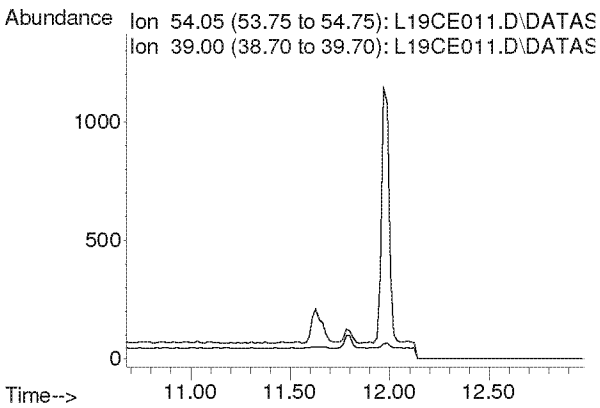


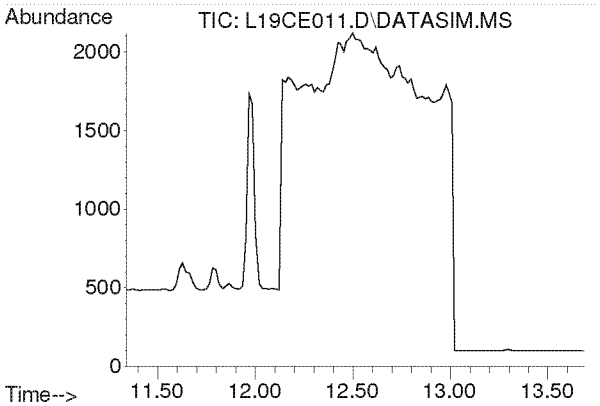
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



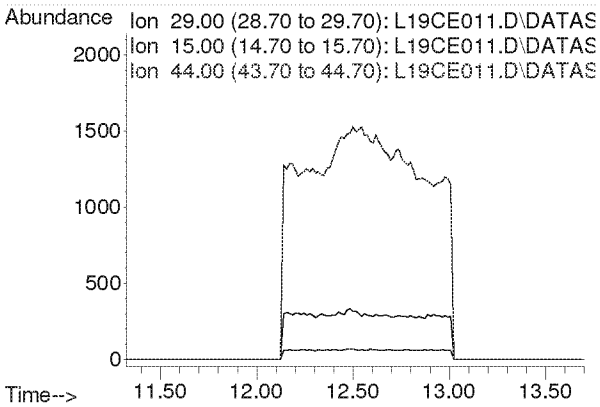


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

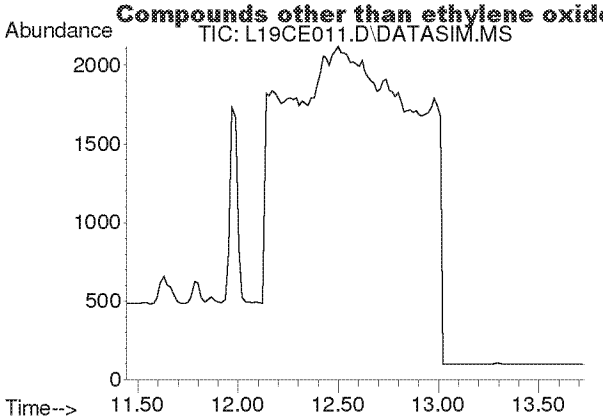
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

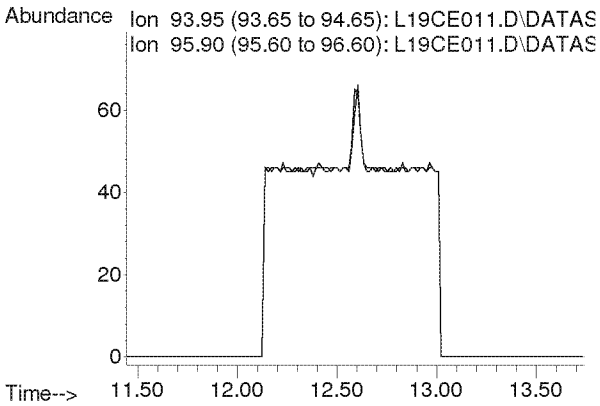


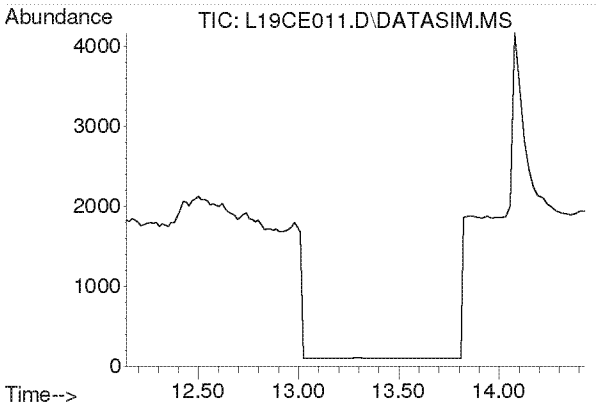
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



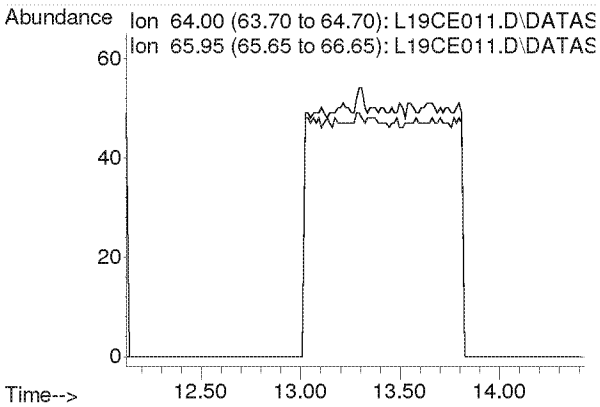


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

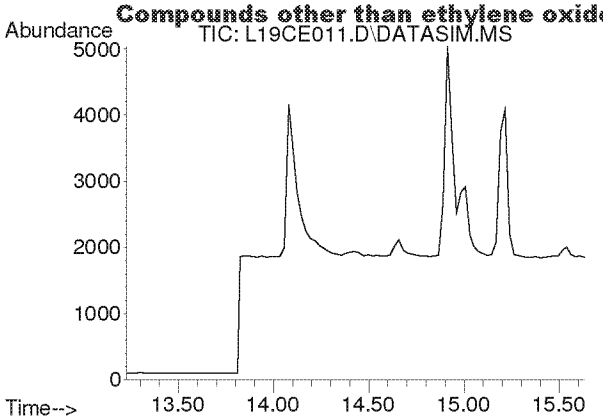
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

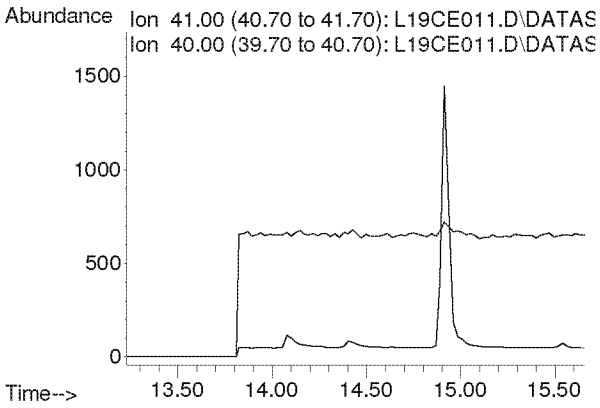


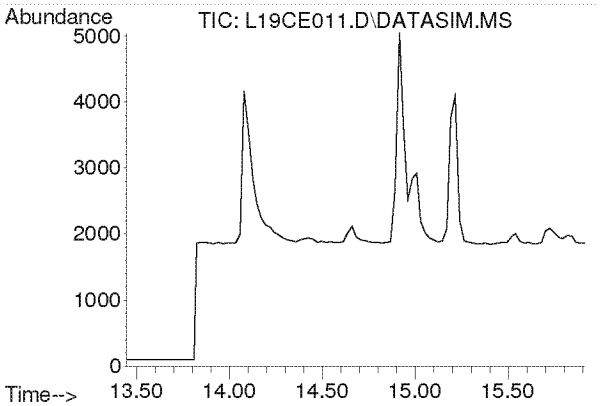
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



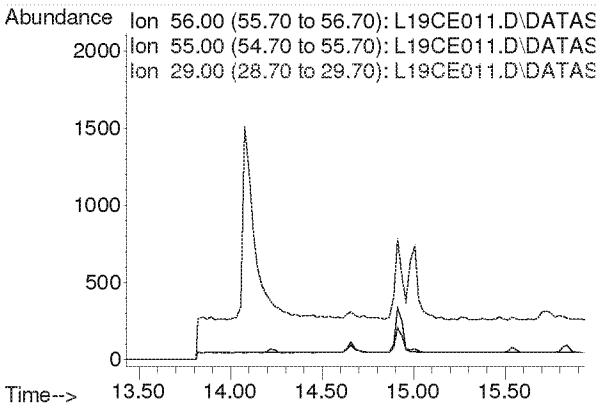


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

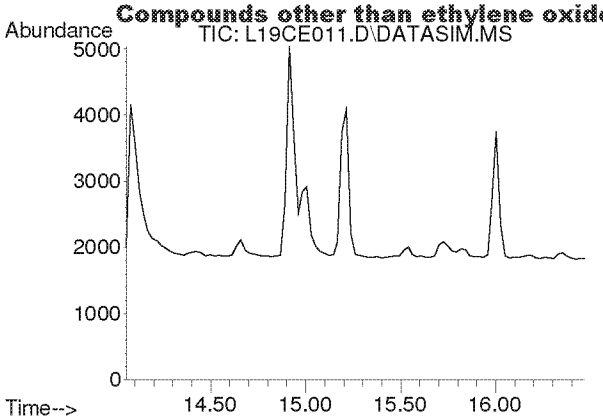
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

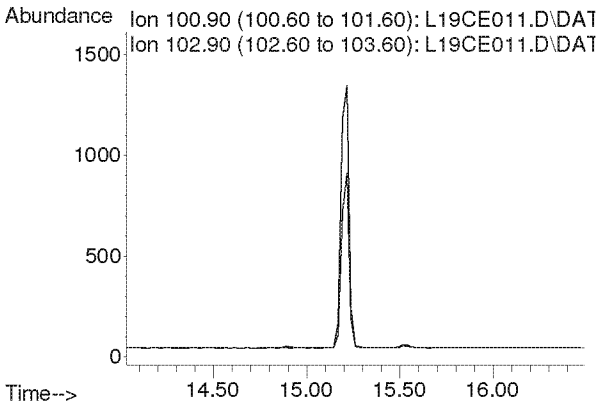


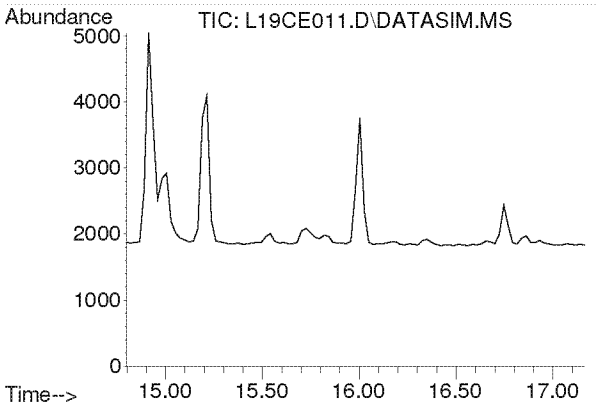
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



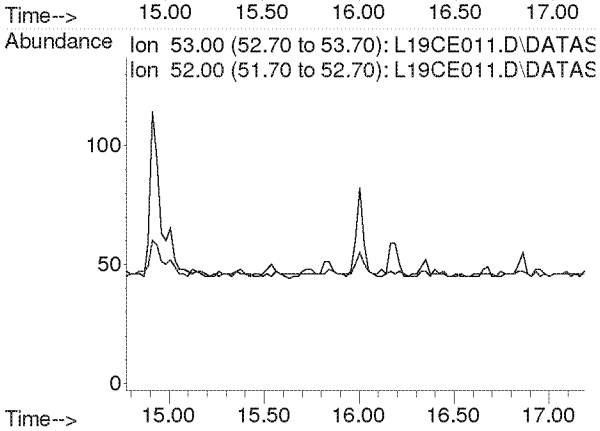


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

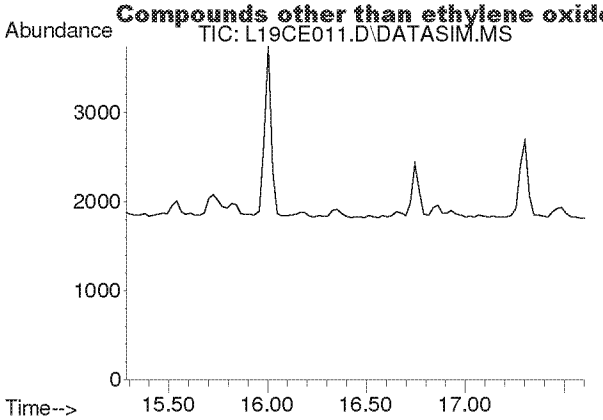
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

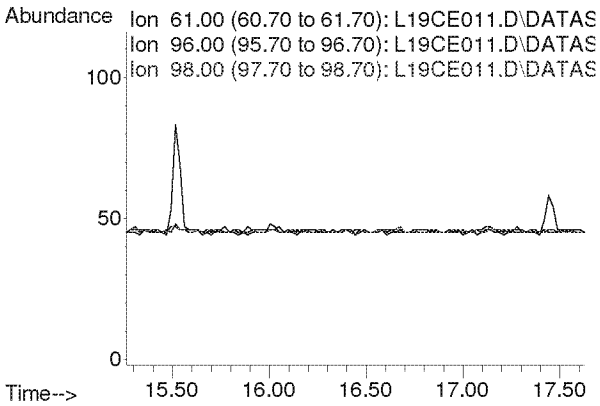


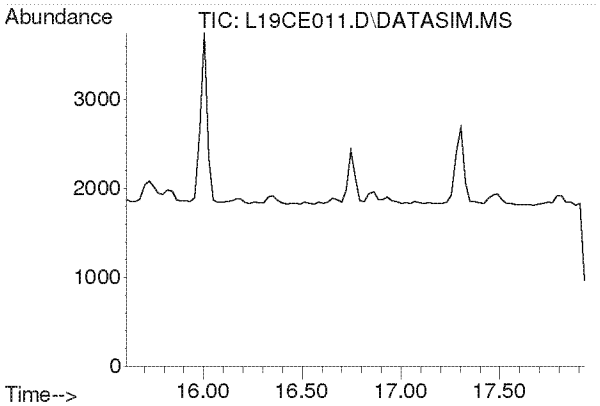
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



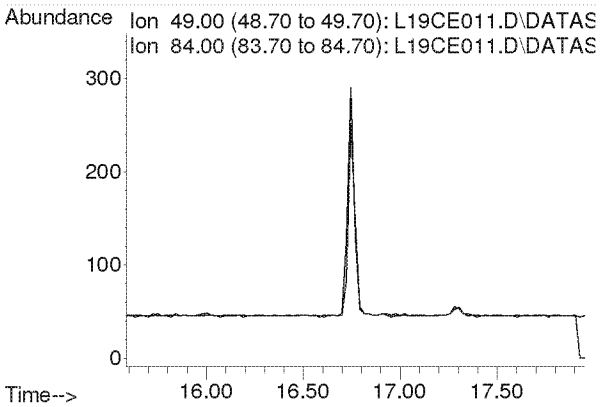


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

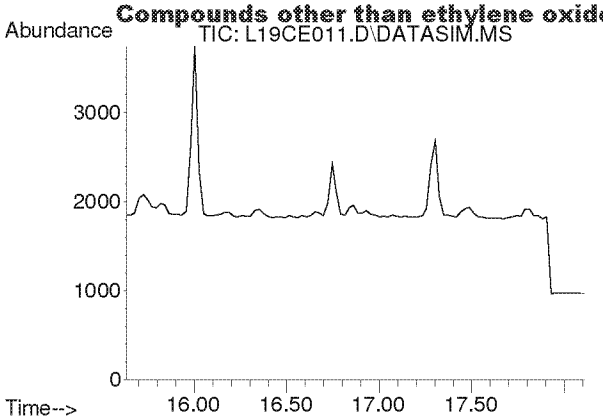
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

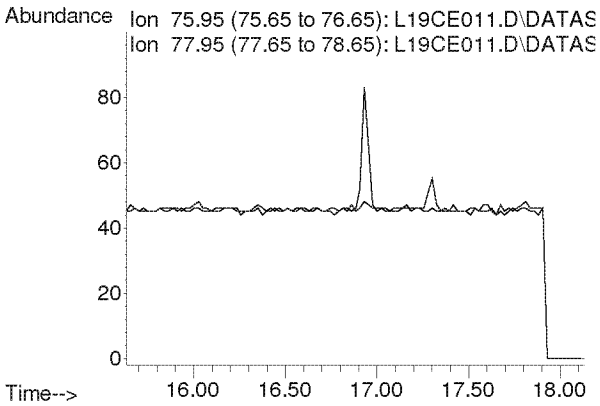


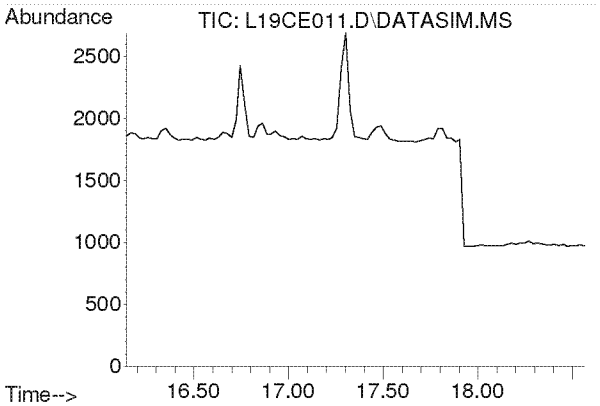
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



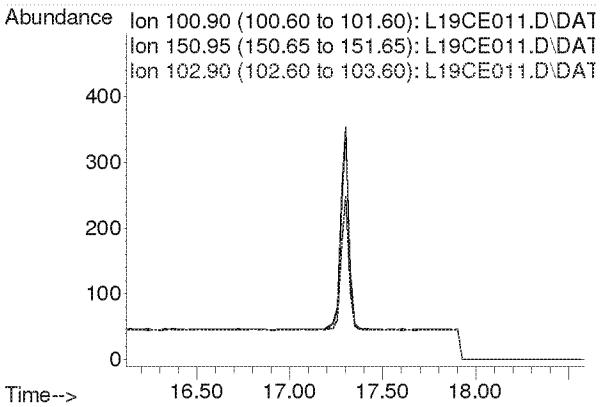


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

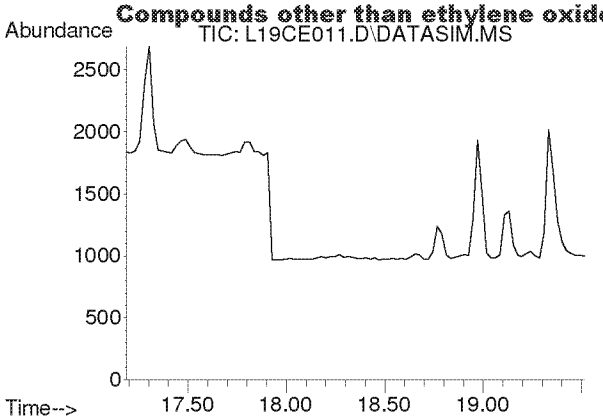
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

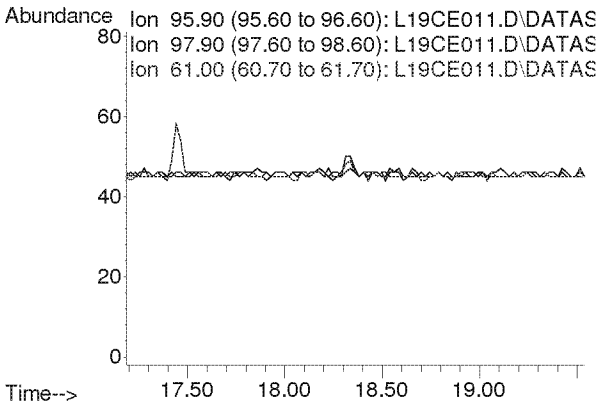


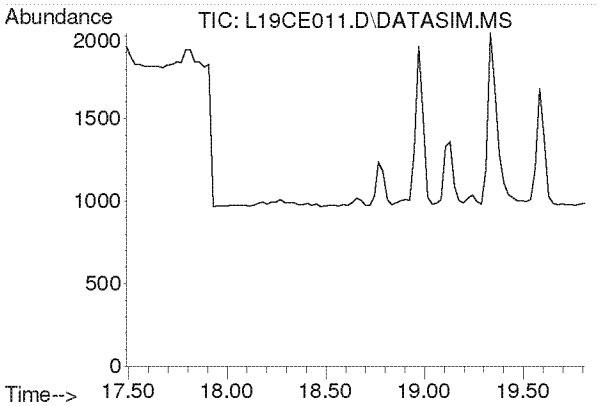
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



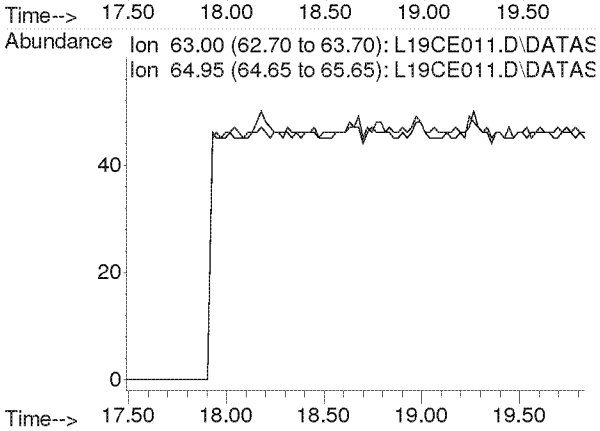


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

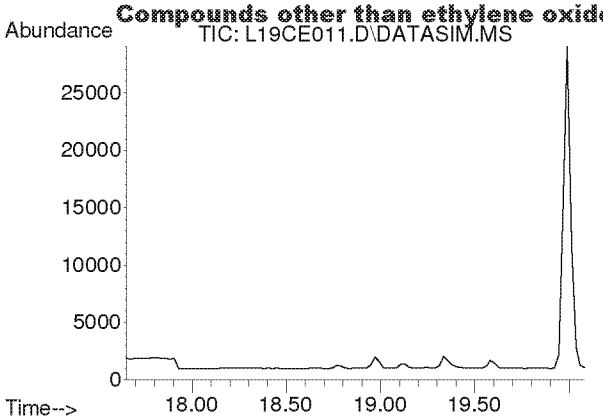
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

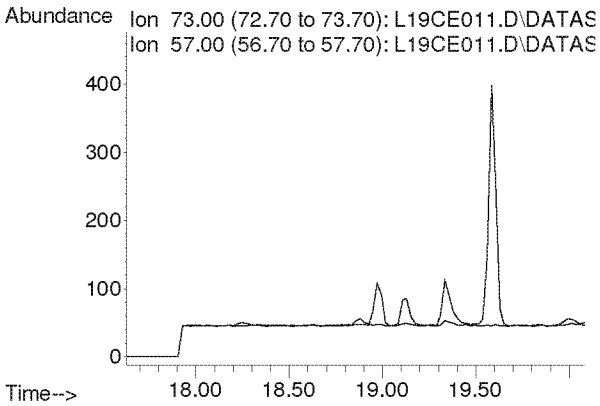


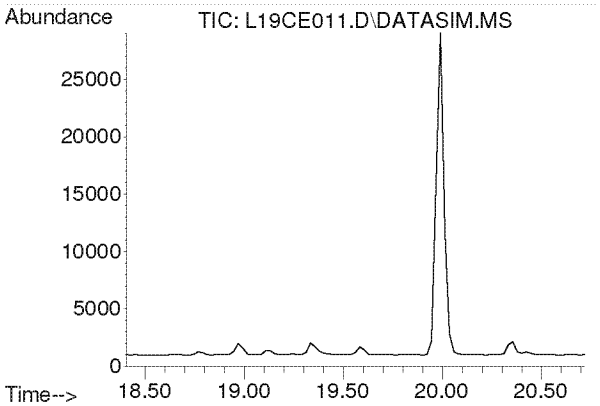
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



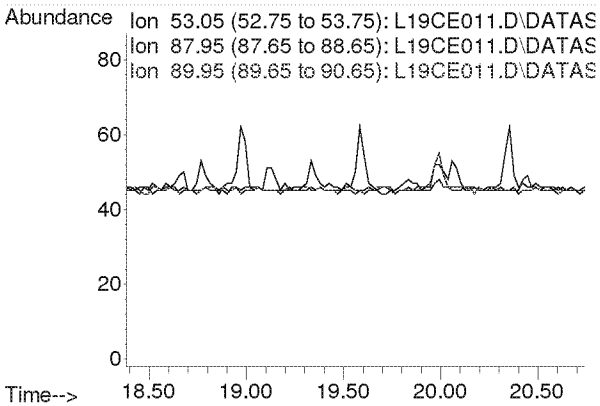


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

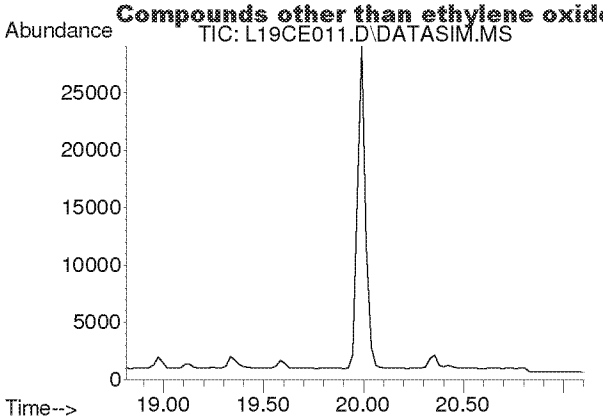
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

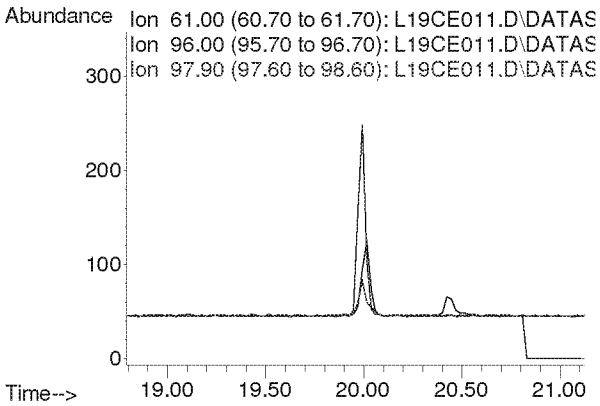


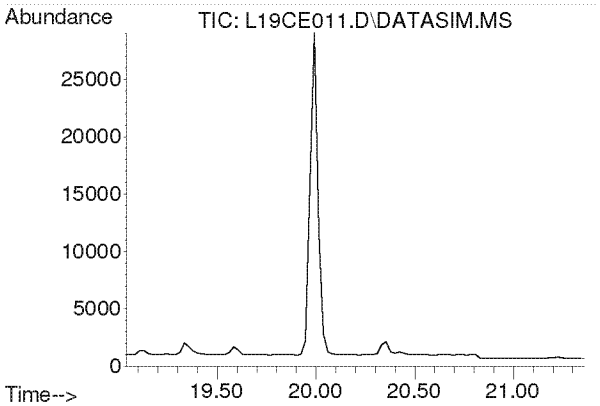
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



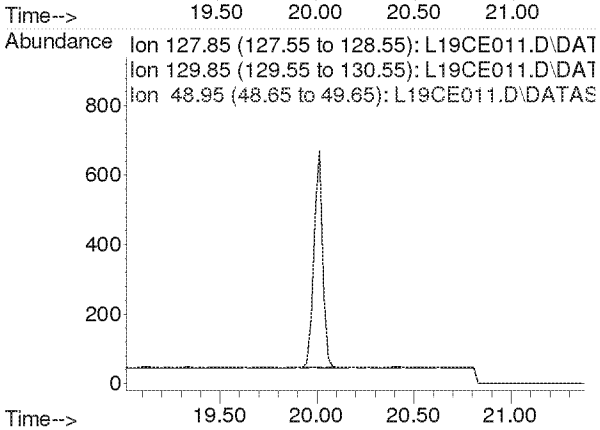


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

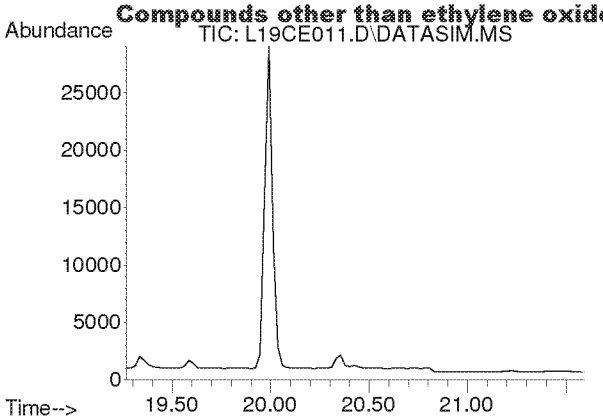
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

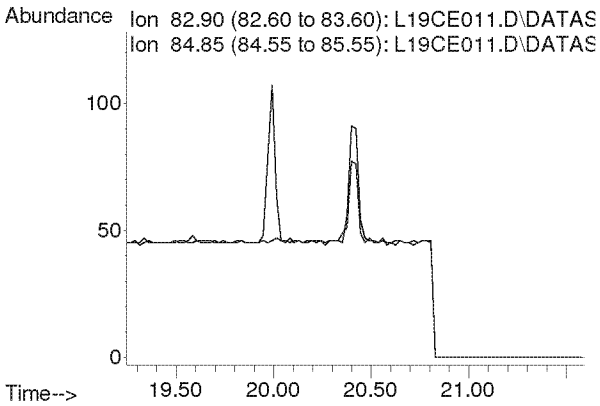


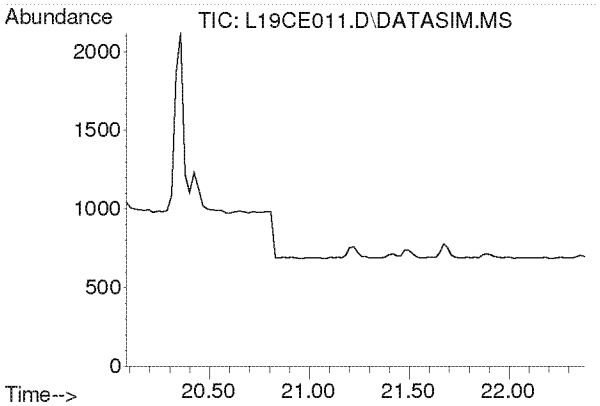
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



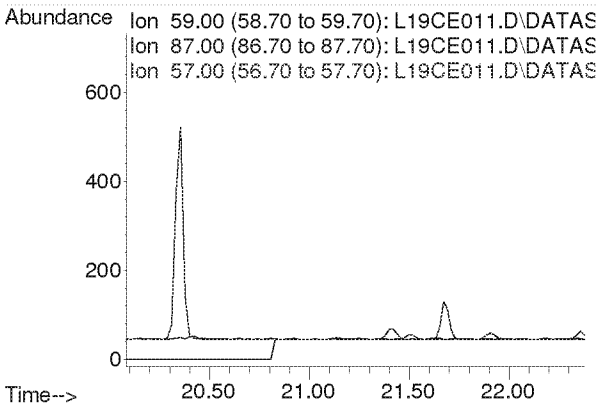


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

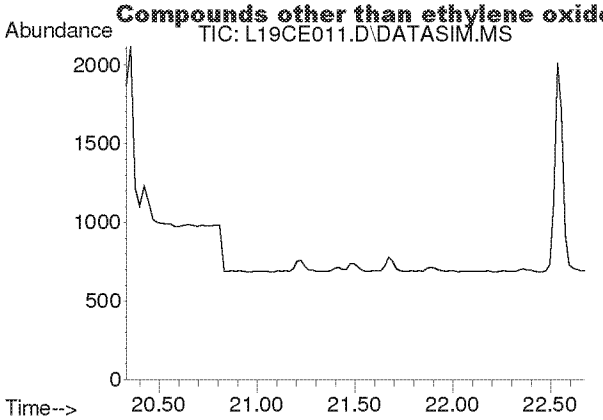
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

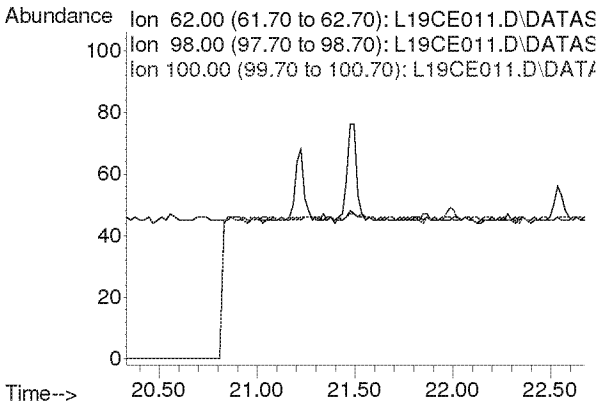


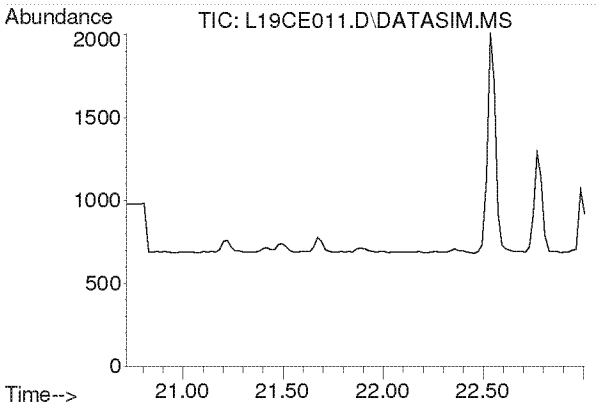
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



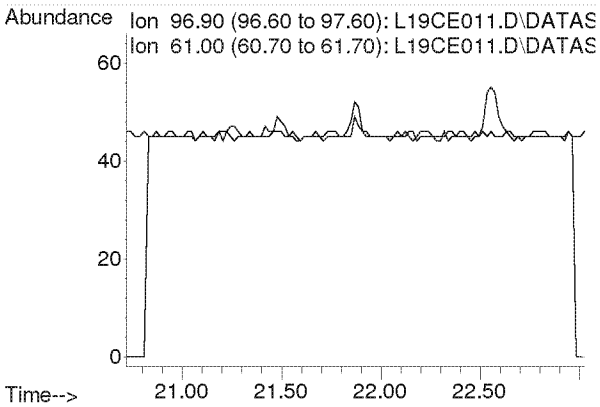


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

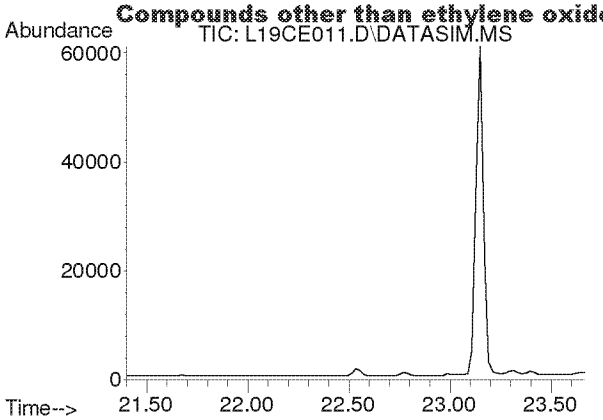
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

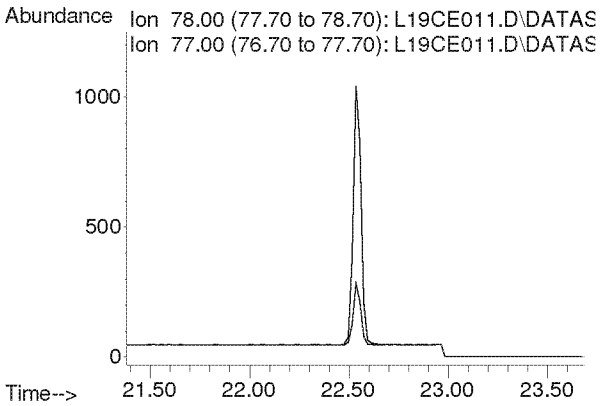


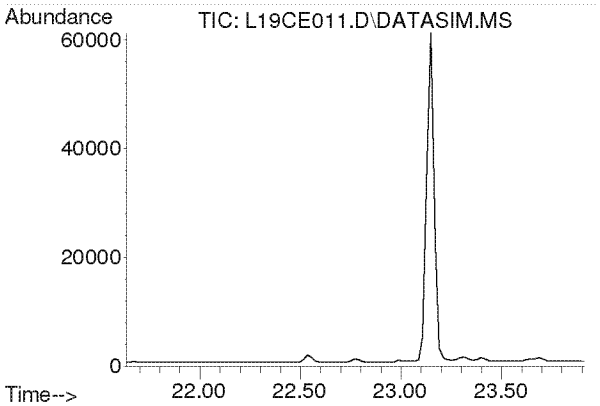
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



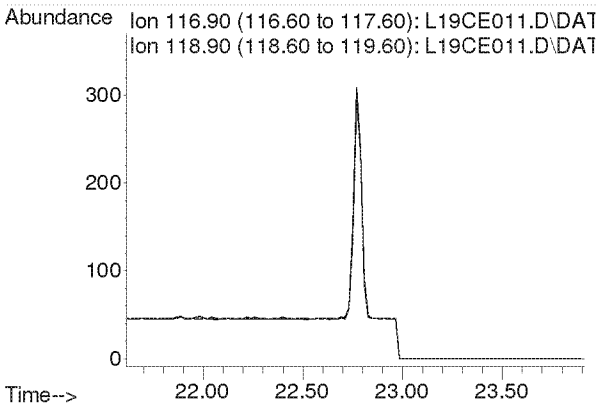


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

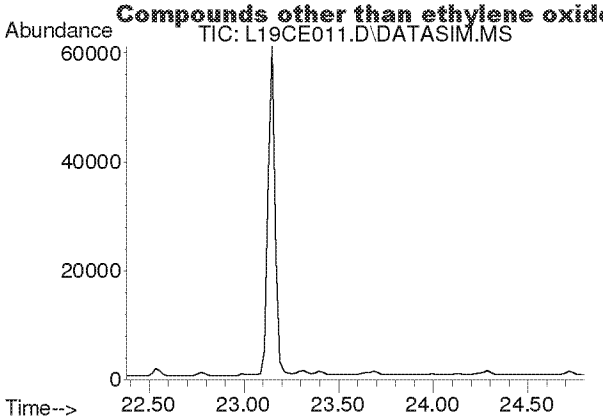
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

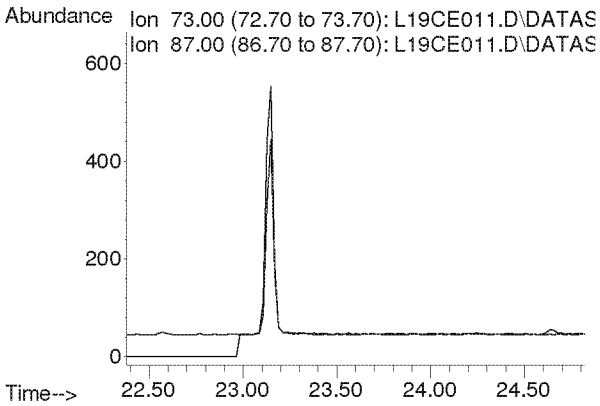


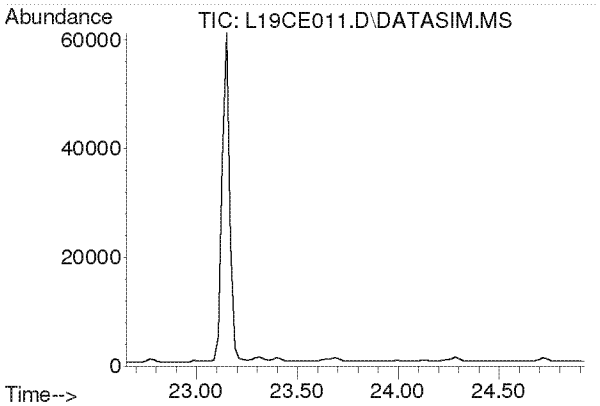
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



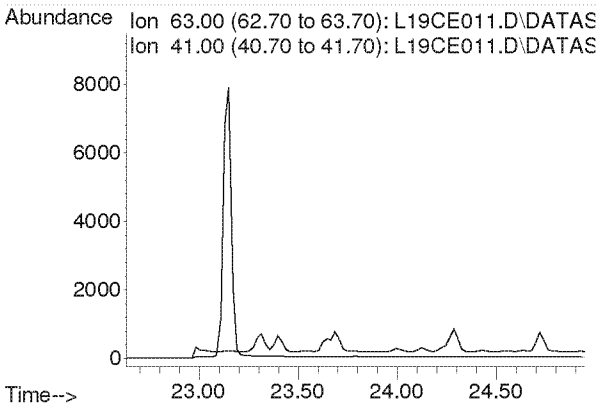


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

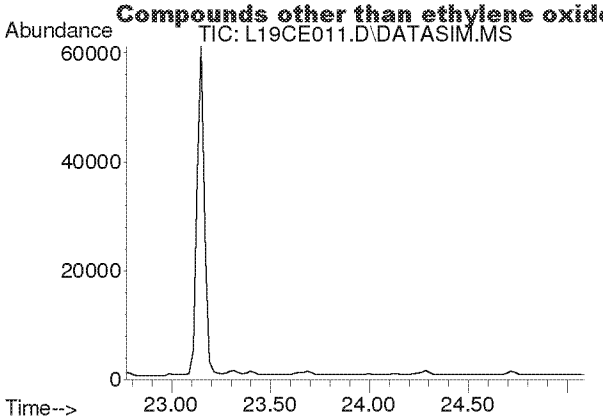
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

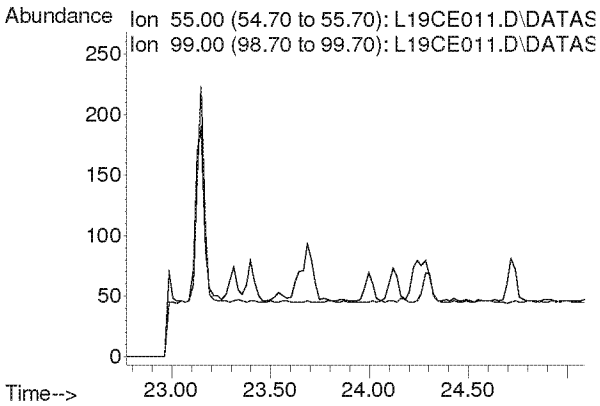


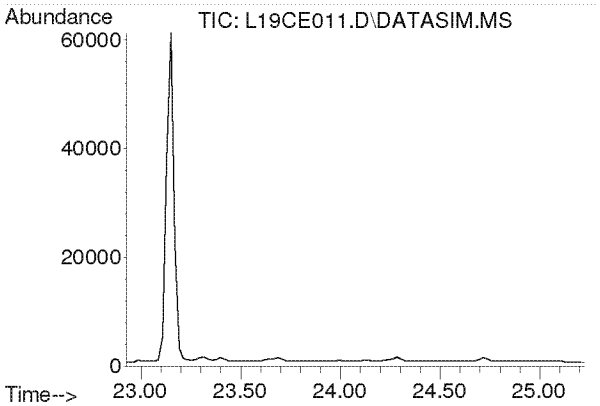
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



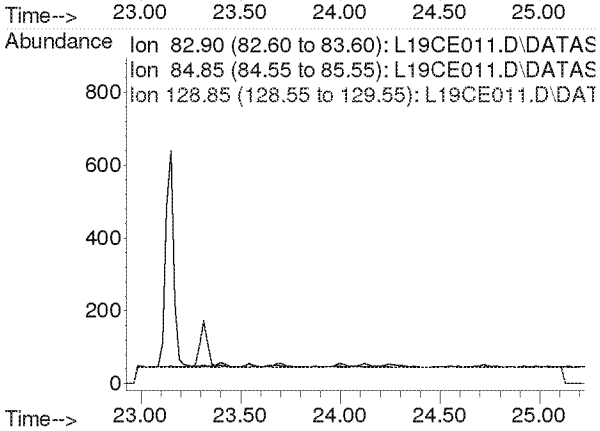


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

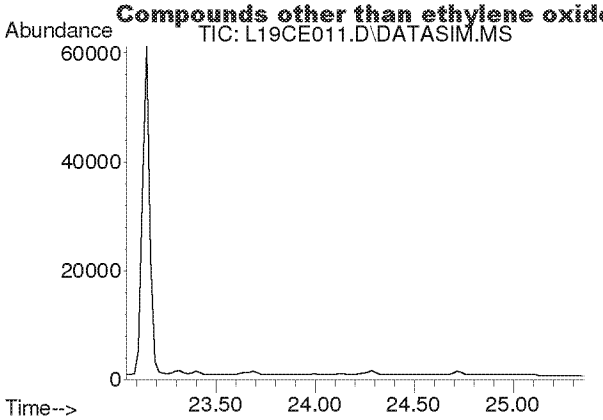
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

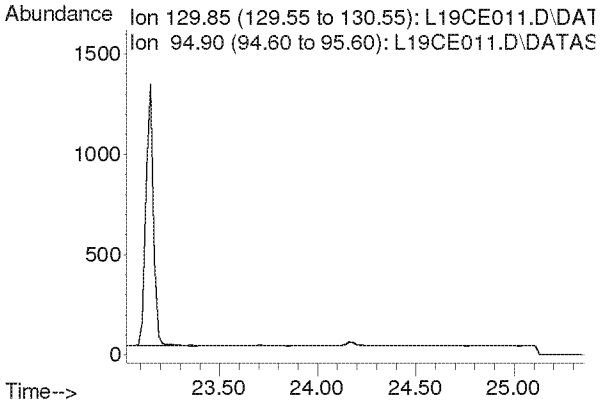


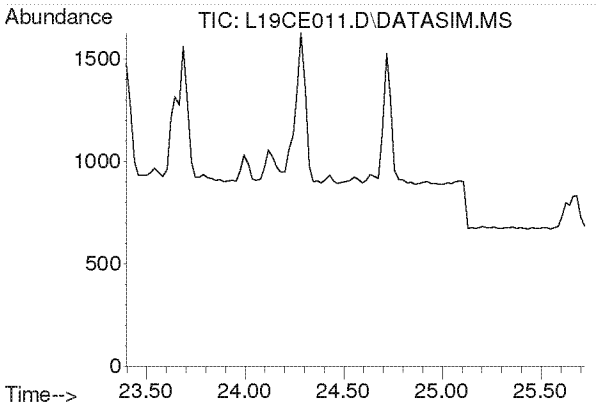
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



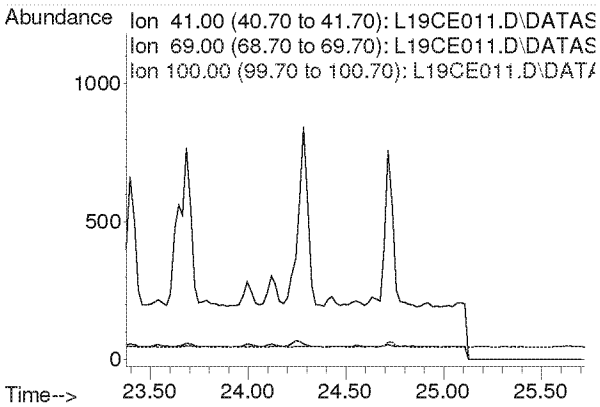


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

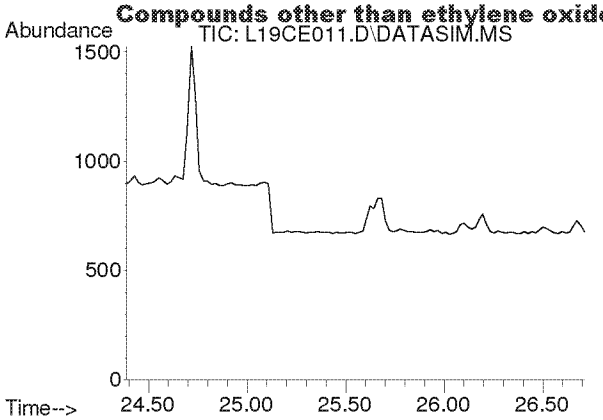
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

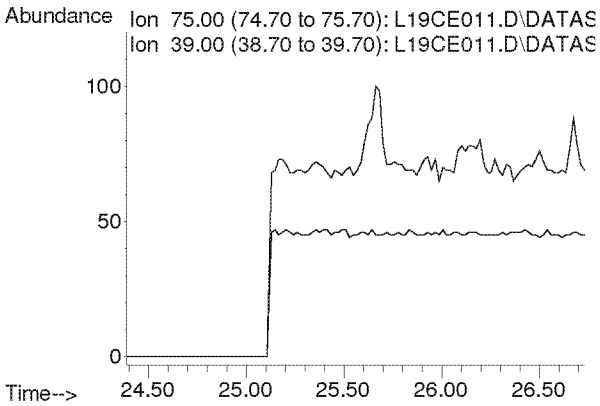


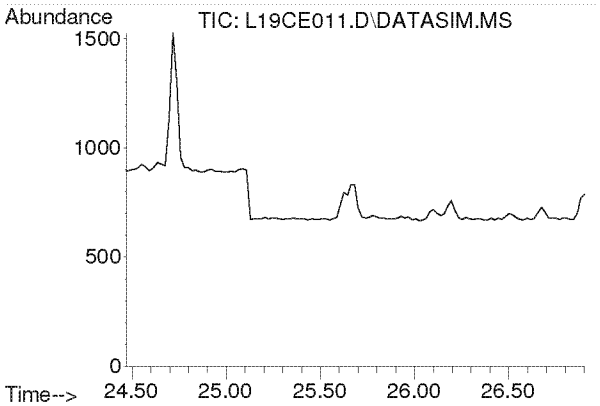
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



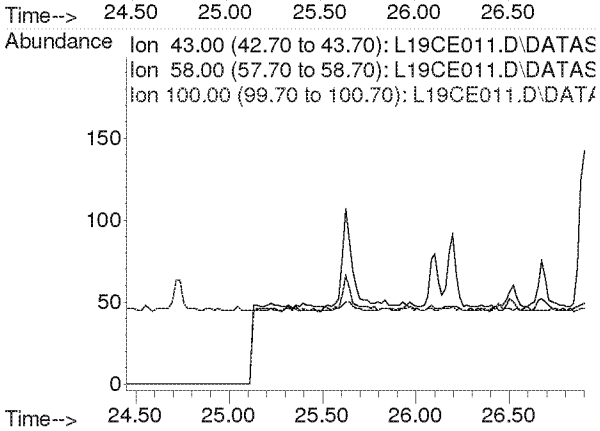


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

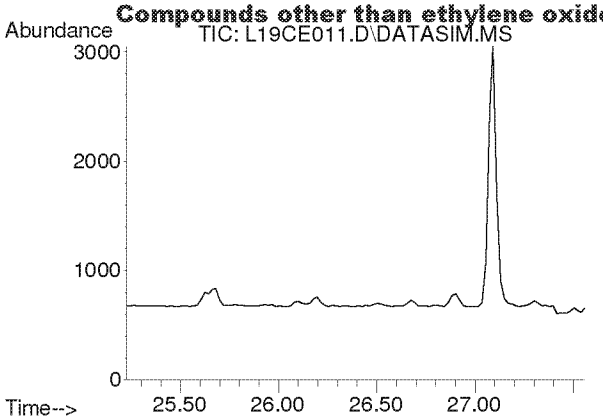
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

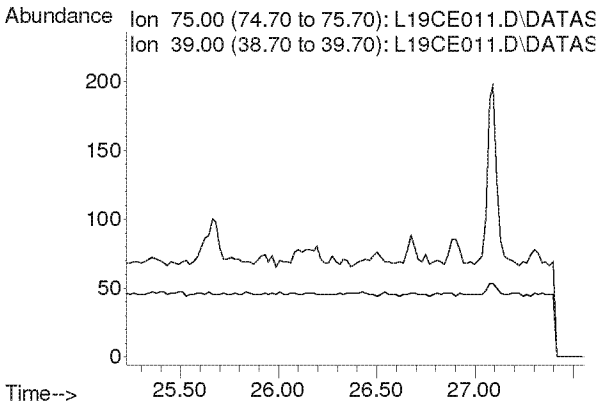


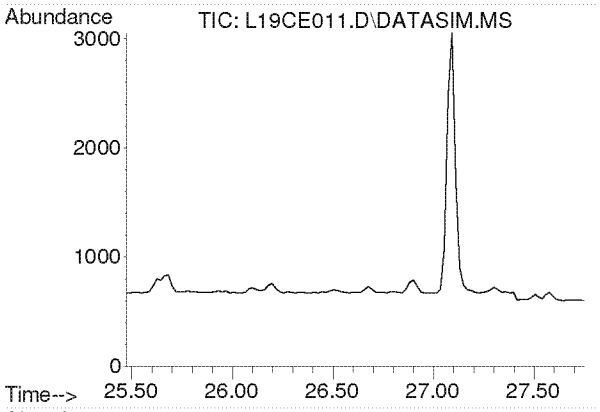
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



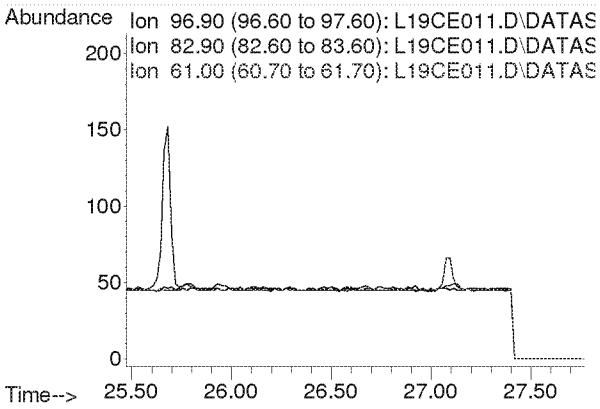


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

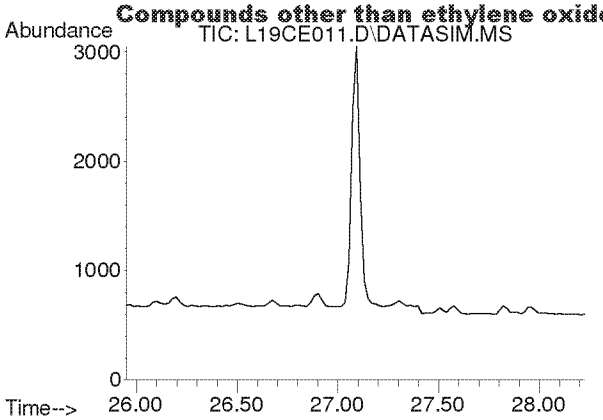
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

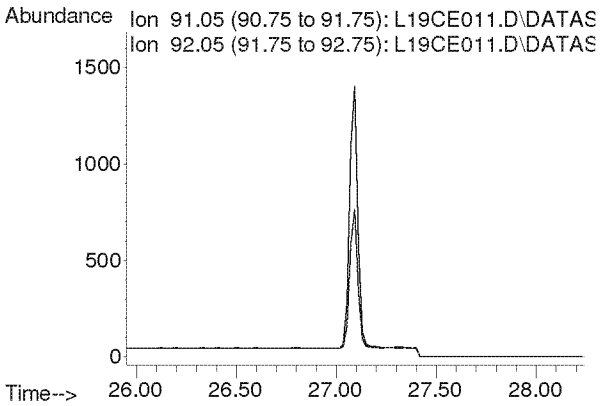


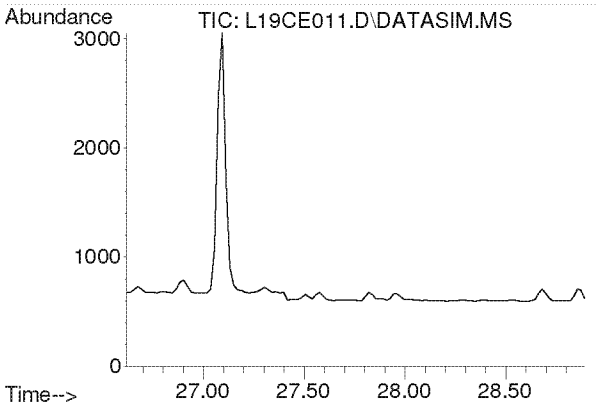
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



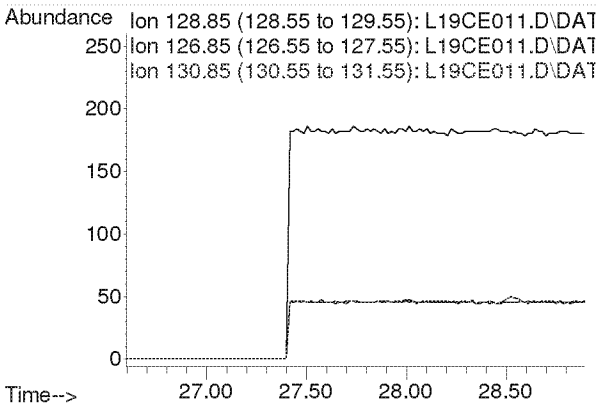


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

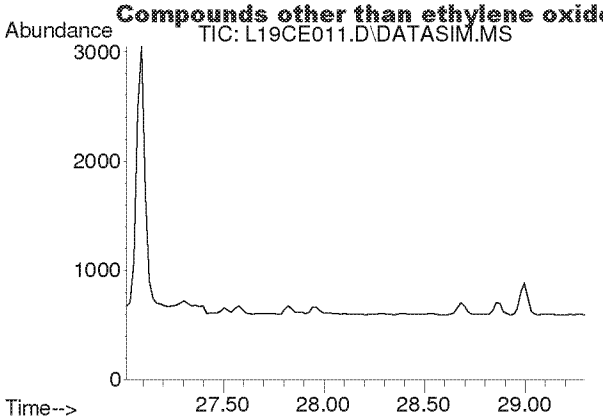
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

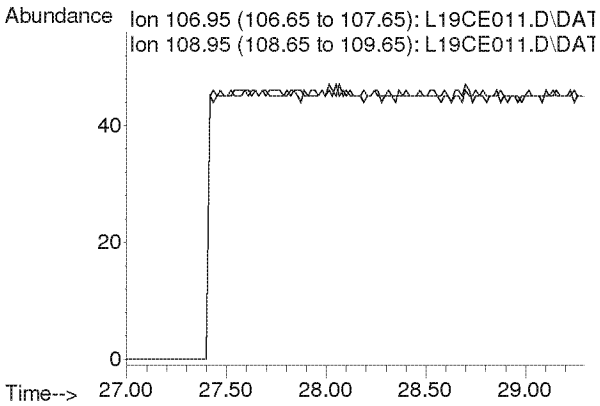


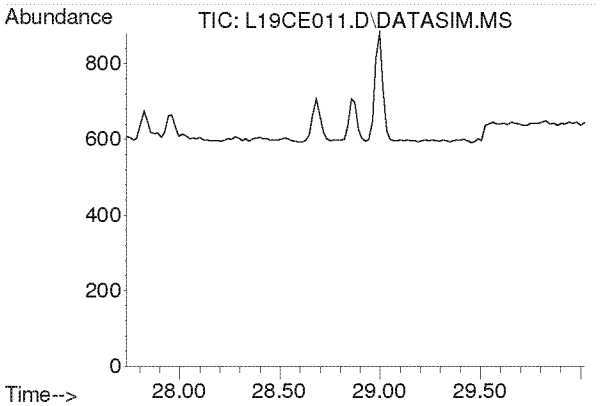
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



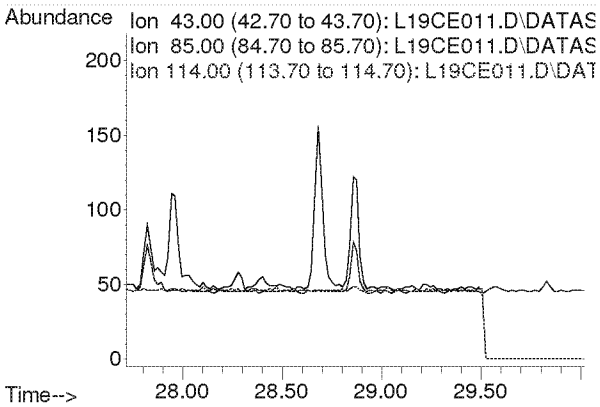


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

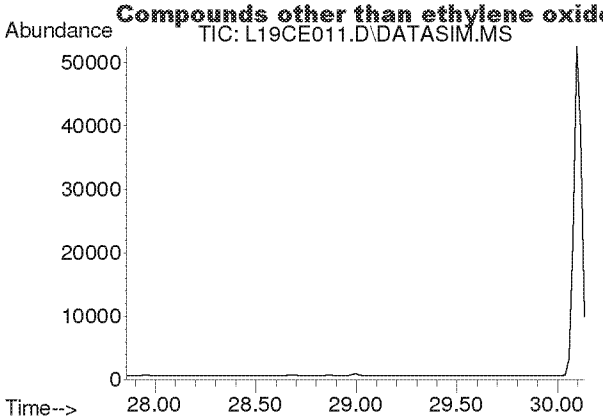
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

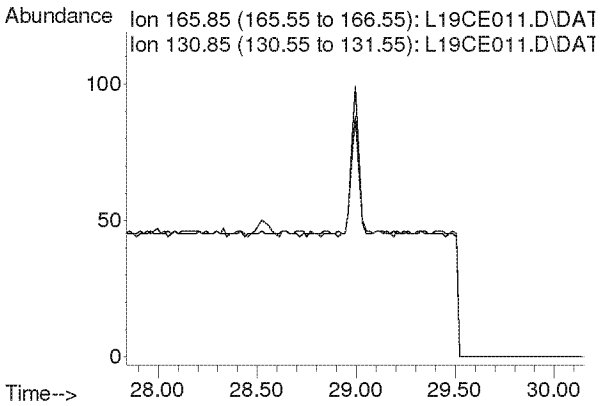


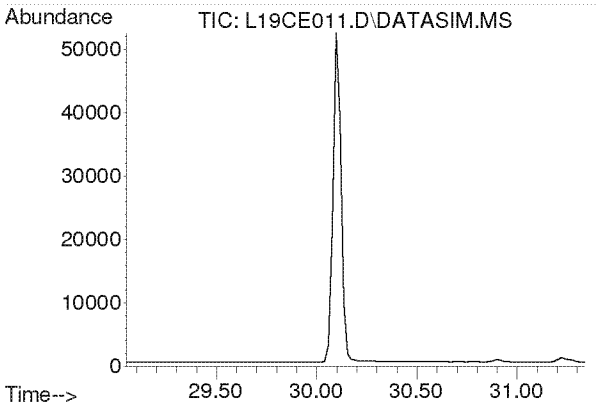
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



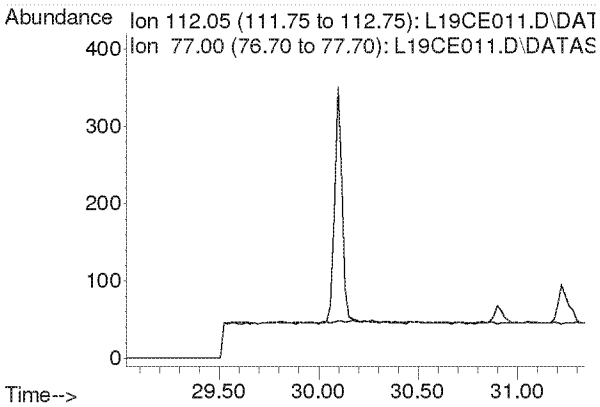


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

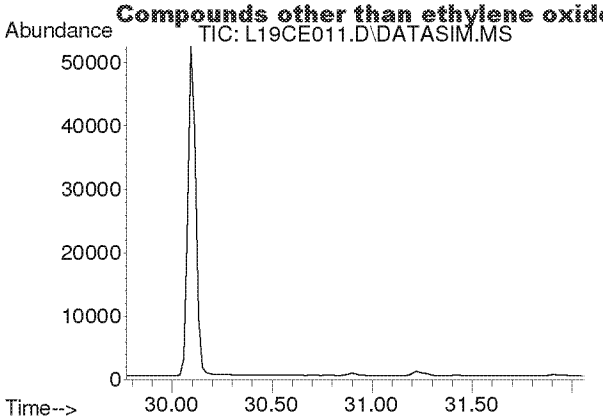
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

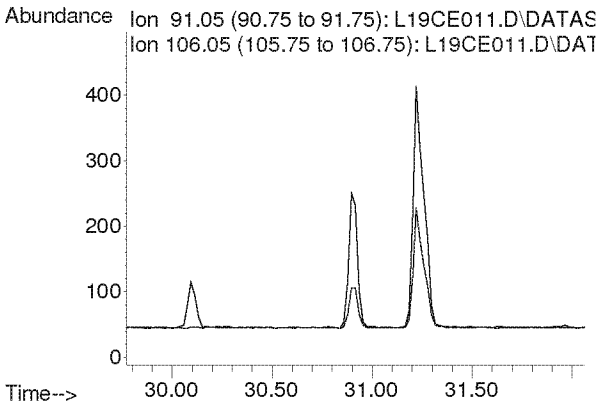


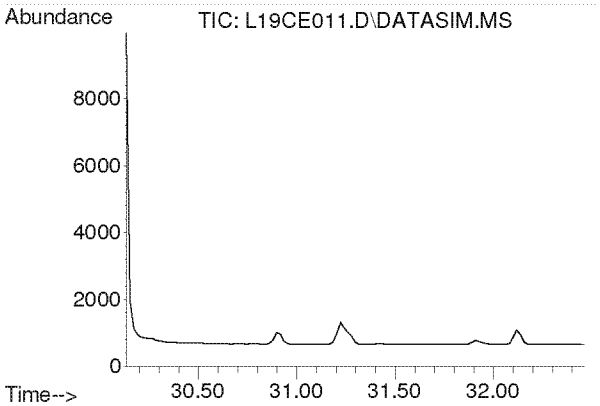
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



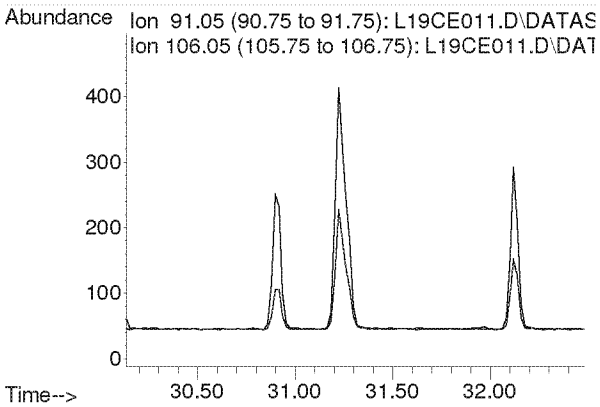


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

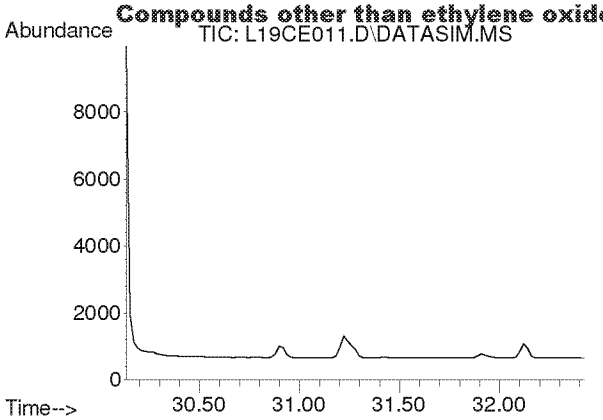
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

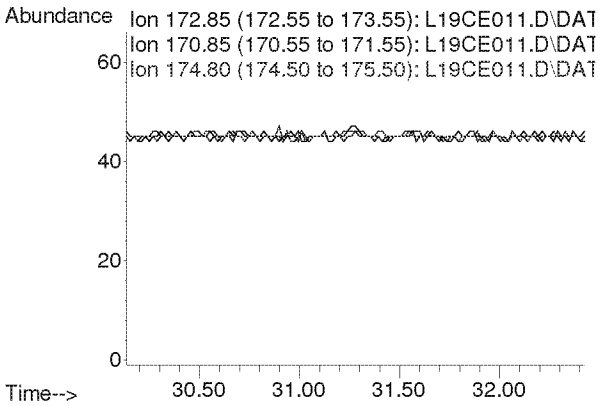


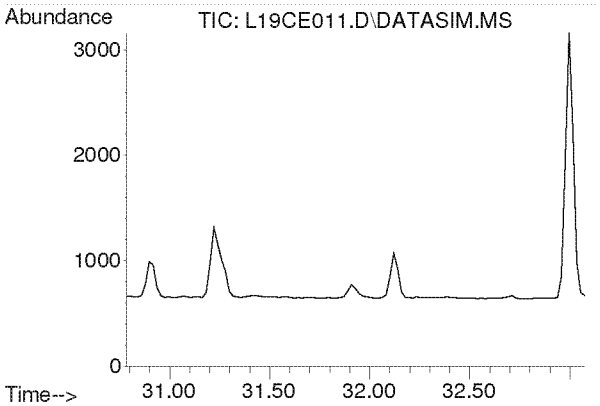
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



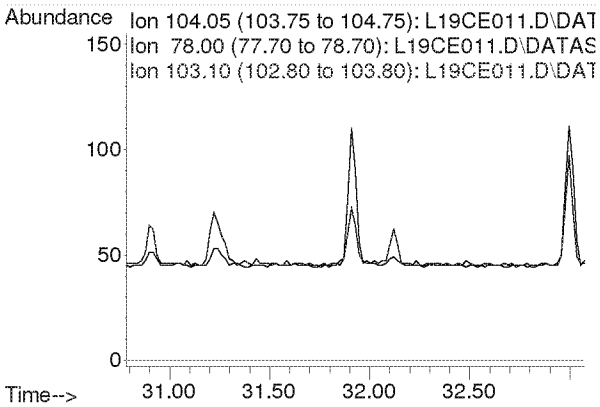


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

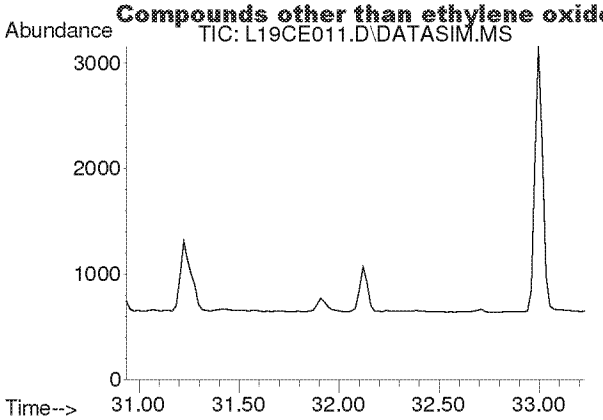
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

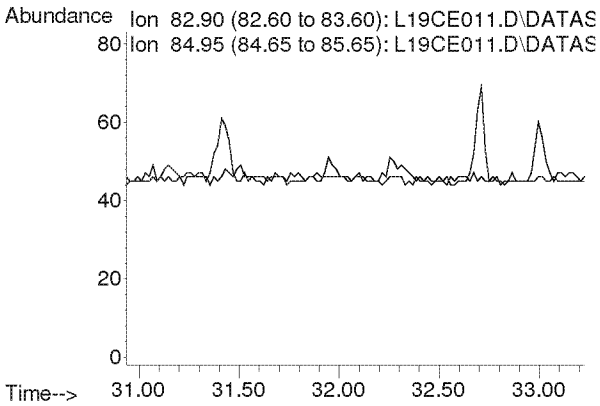


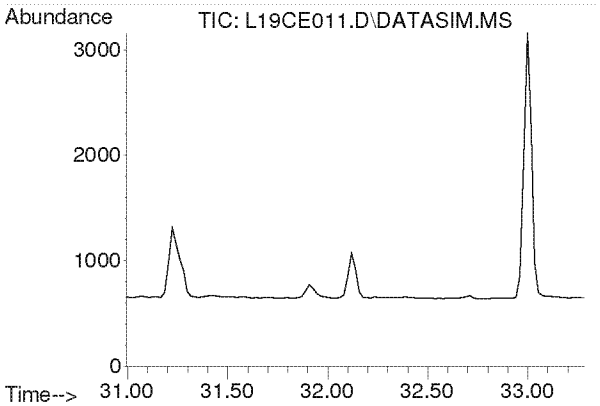
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



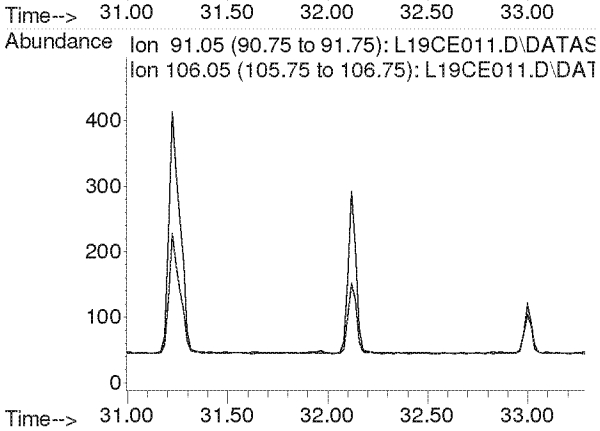


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

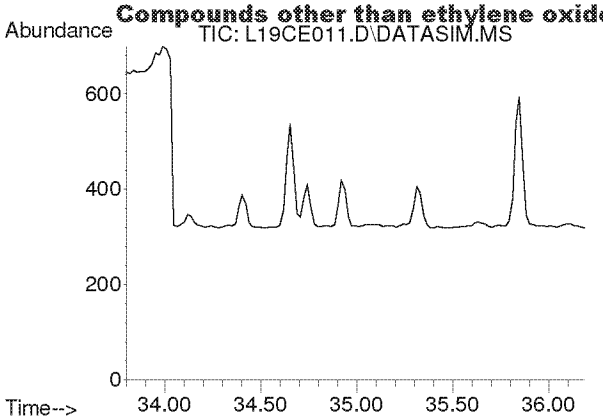
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

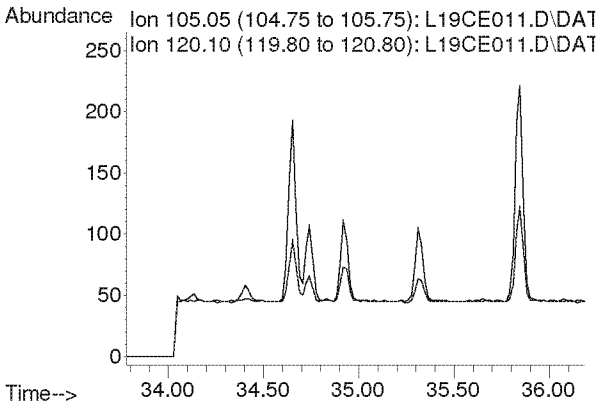


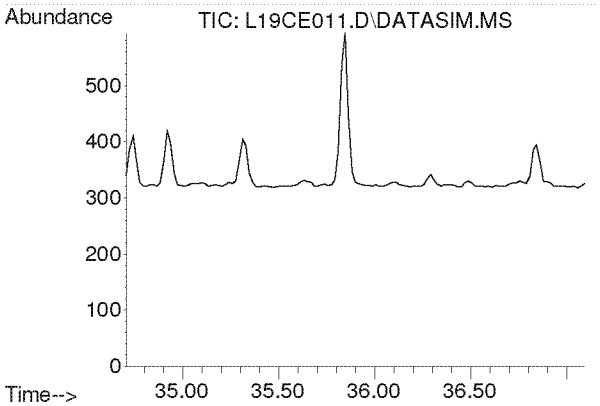
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



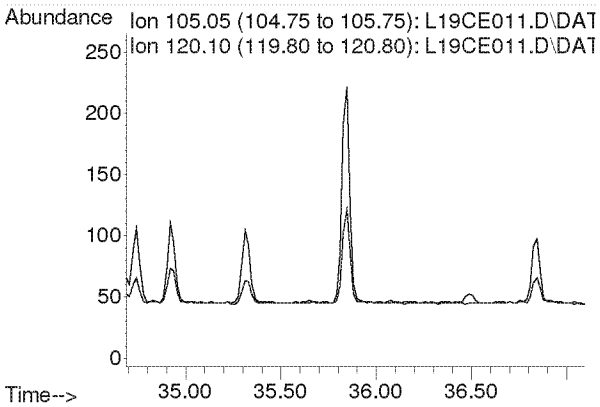


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

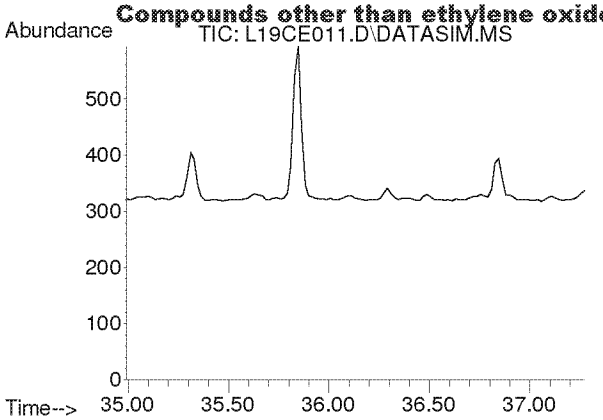
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

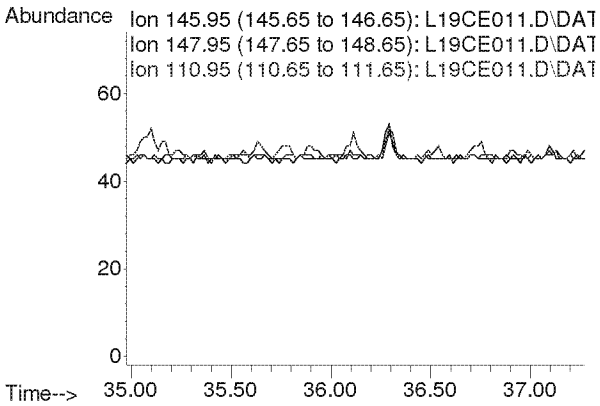


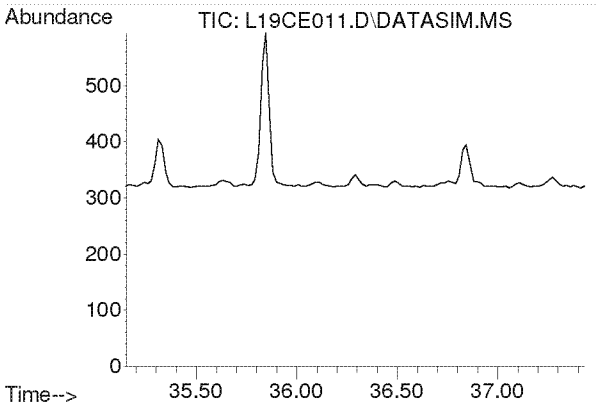
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



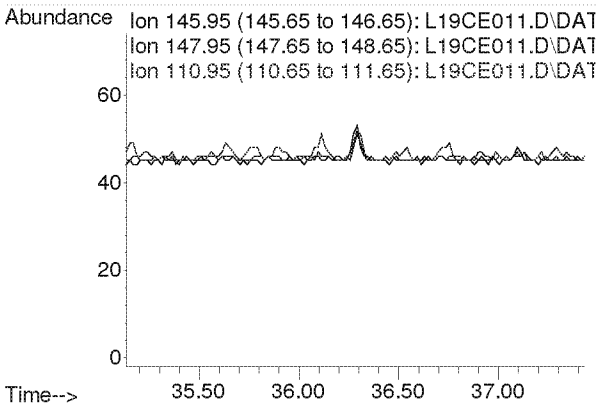


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

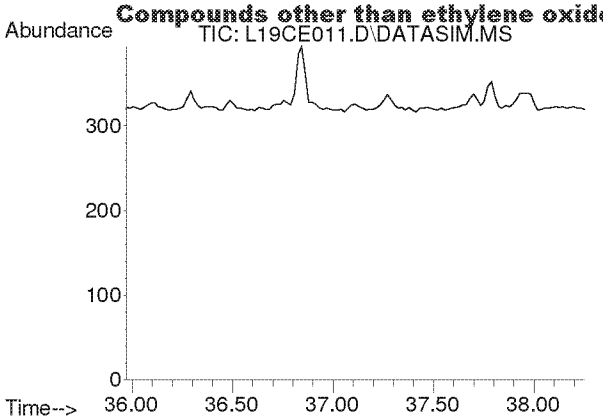
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

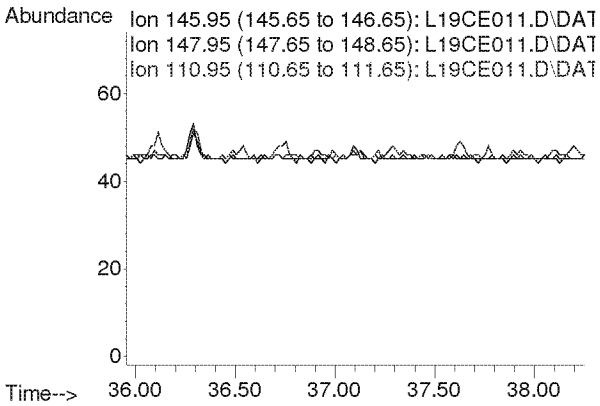


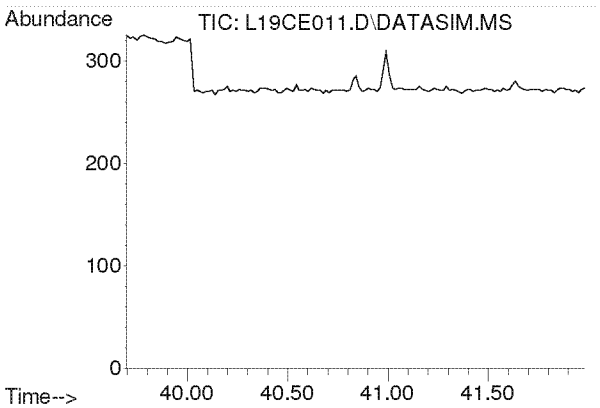
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



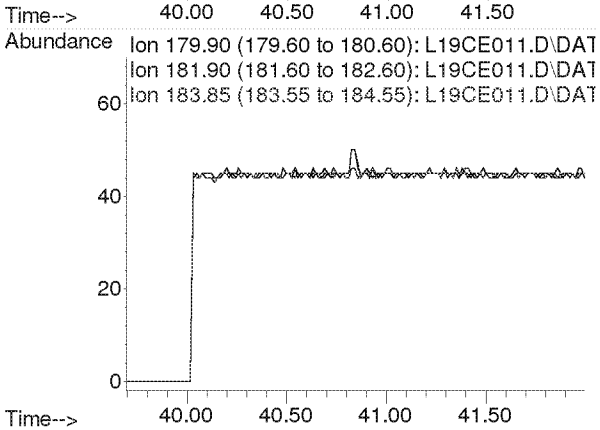


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

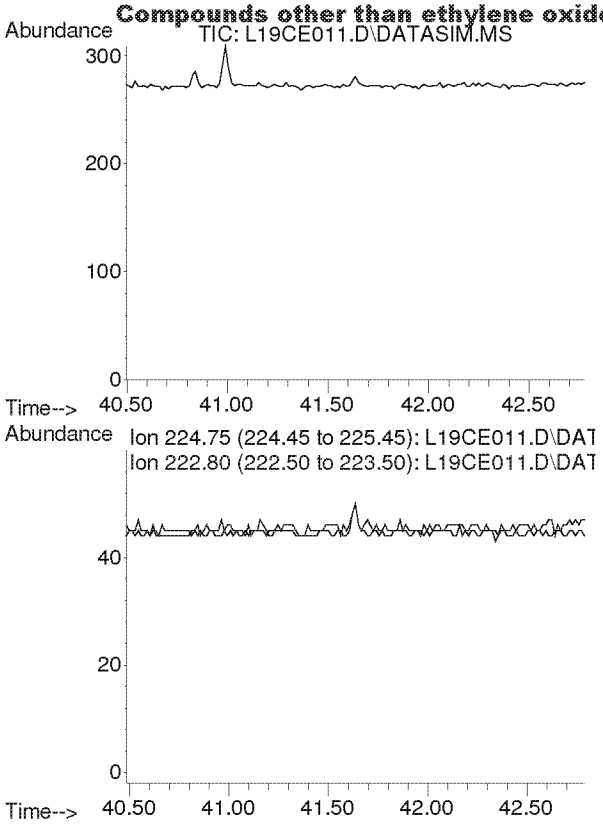
Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE011.D
Acq: 5 Mar 2019 10:28 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\L19CE\
Data File : L19CE012.D
Acq On : 5 Mar 2019 11:28 pm
Operator : MAH
Sample : 9030524-05
Misc : GOWER MS 3/2/19
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 06 12:24:25 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

ETOH only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	45476	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	116633	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	82282	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	d
3) Propylene	0.000	41	0	N.D.	d
4) Dichlorodifluoromethane	0.000	85	0	N.D.	d
5) Chloromethane	0.000	50	0	N.D.	d
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	d
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	d
9) Ethylene oxide	0.000	29	0	N.D.	d SV
10) Bromomethane	0.000	94	0	N.D.	d
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	d
13) Acrolein	0.000	56	0	N.D.	d
14) Trichlorofluoromethane	0.000	101	0	N.D.	d
15) Acrylonitrile	0.000	53	0	N.D.	d
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	d
18) Carbon Disulfide	0.000	76	0	N.D.	d
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	d
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	d
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D.	d
32) Carbon Tetrachloride	0.000	117	0	N.D.	d
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	d
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	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\L19CE\
Data File : L19CE012.D
Acq On : 5 Mar 2019 11:28 pm
Operator : MAH
Sample : 9030524-05
Misc : GOWER MS 3/2/19
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 06 12:24:25 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

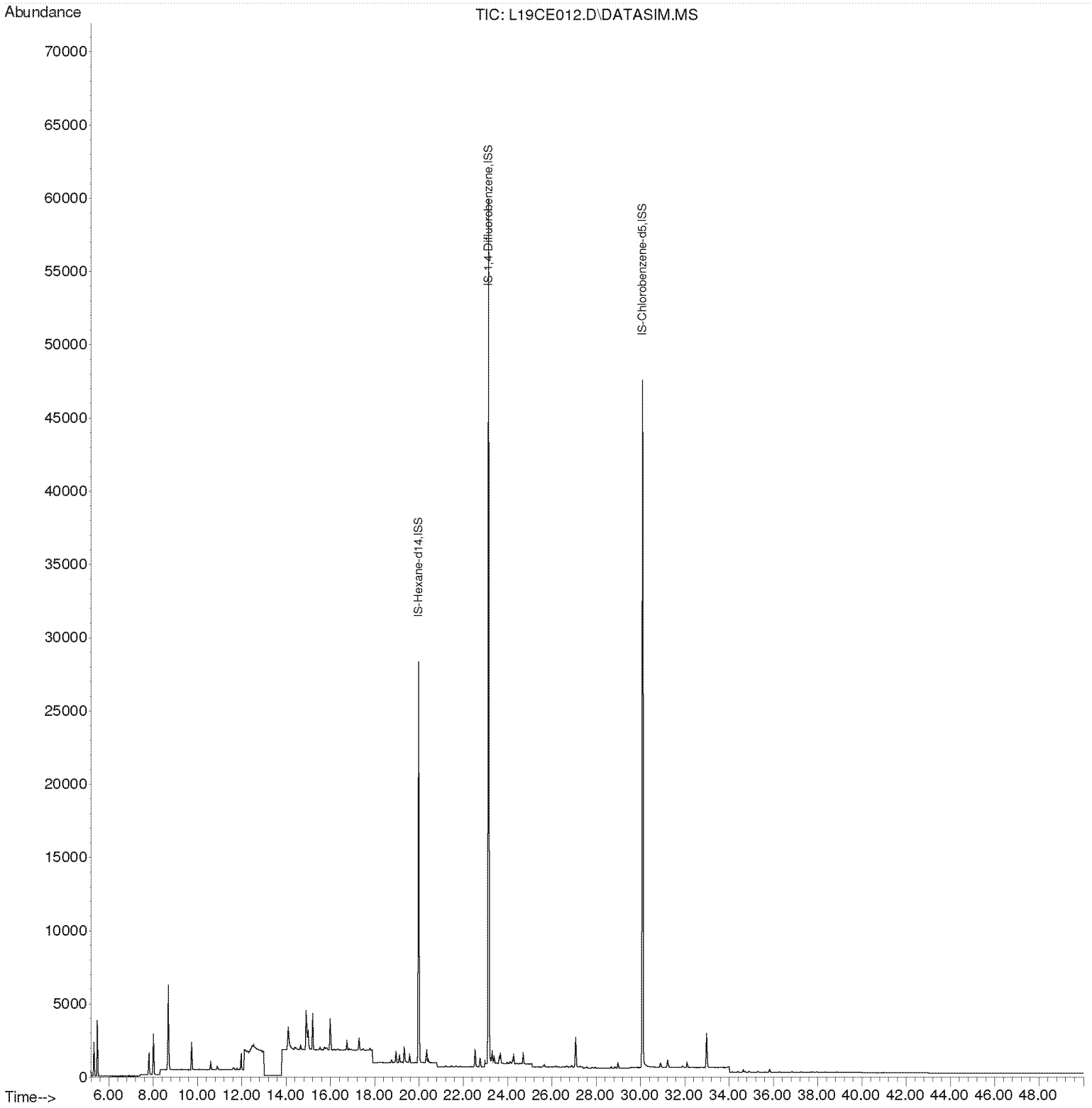
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

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

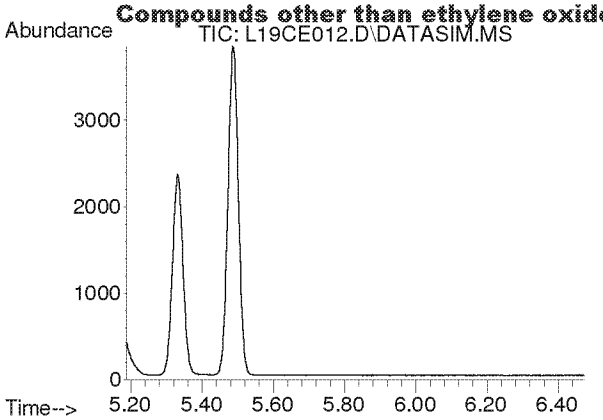
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE012.D
Acq On : 5 Mar 2019 11:28 pm
Operator : MAH
Sample : 9030524-05
Misc : GOWER MS 3/2/19
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 06 12:03:03 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



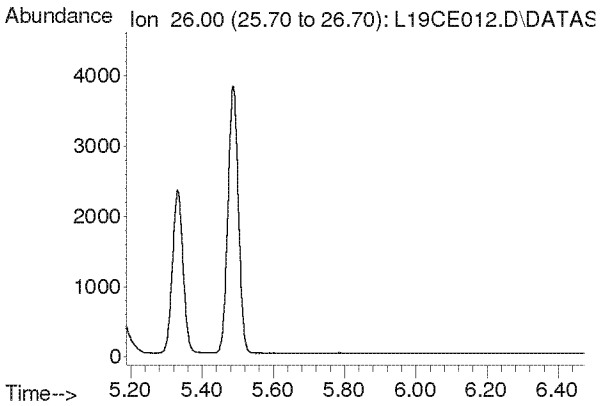
Compounds other than ethylene oxide were not quantitated.

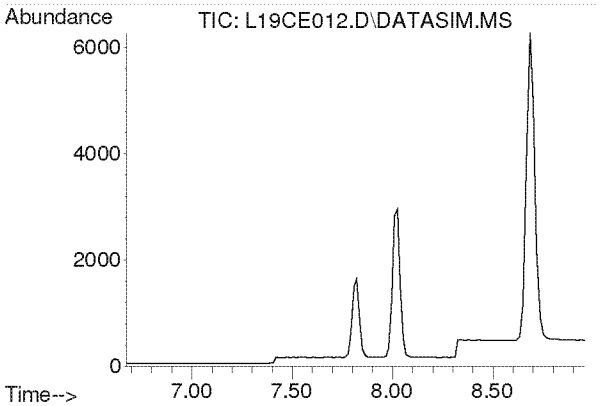


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 26



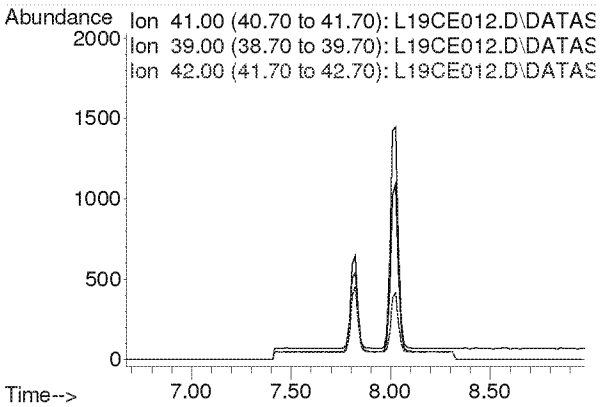


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

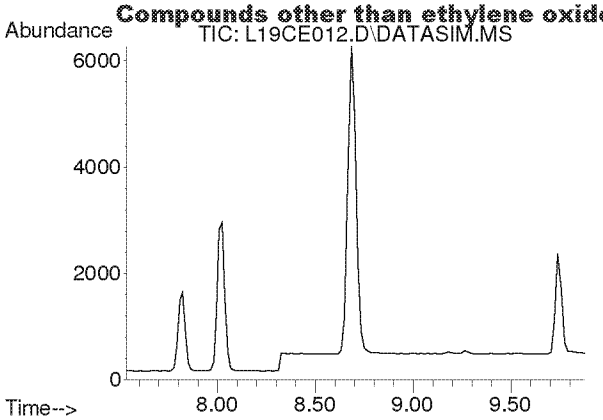
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

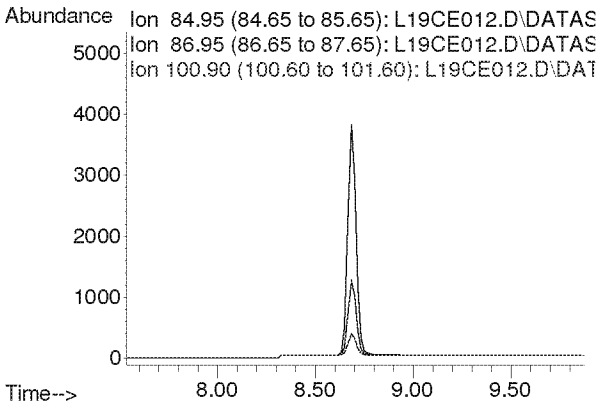


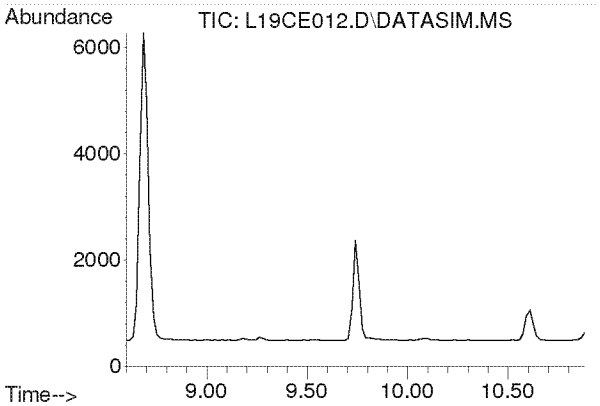
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



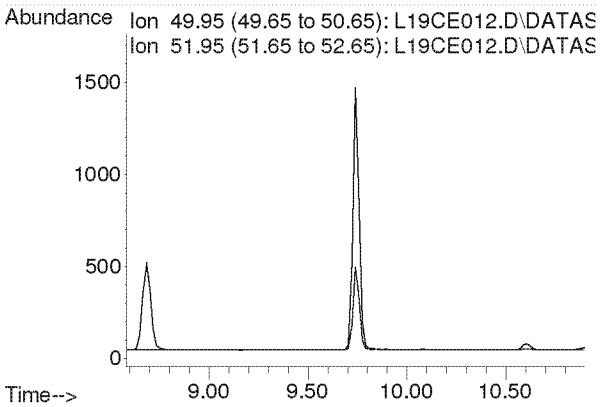


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

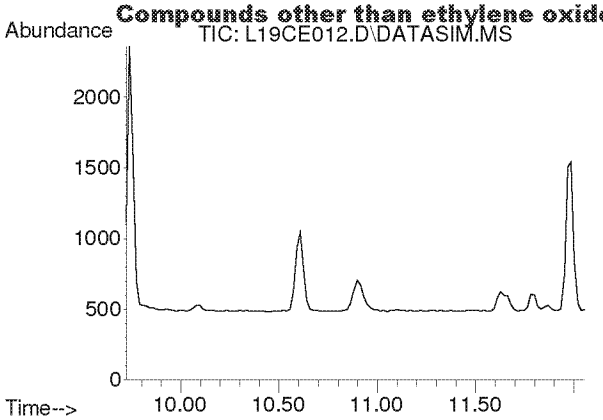
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

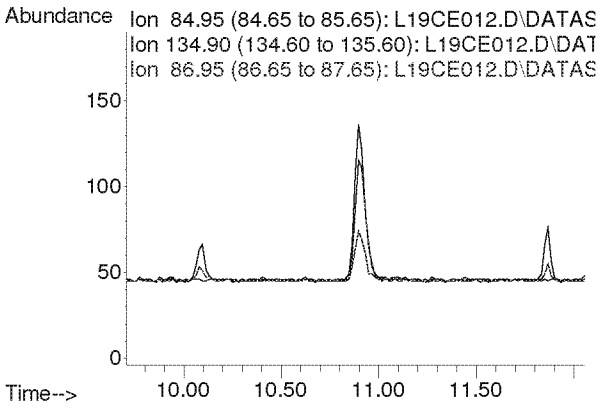


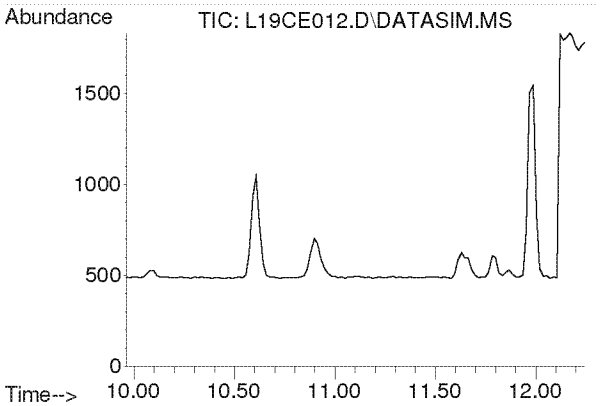
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



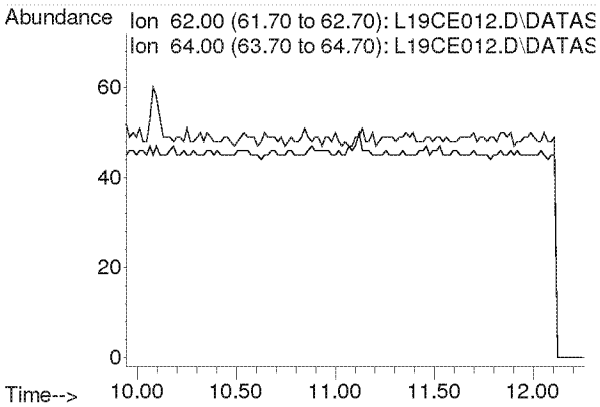


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

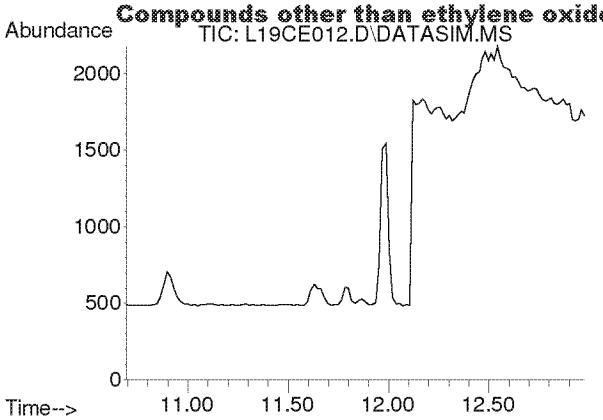
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

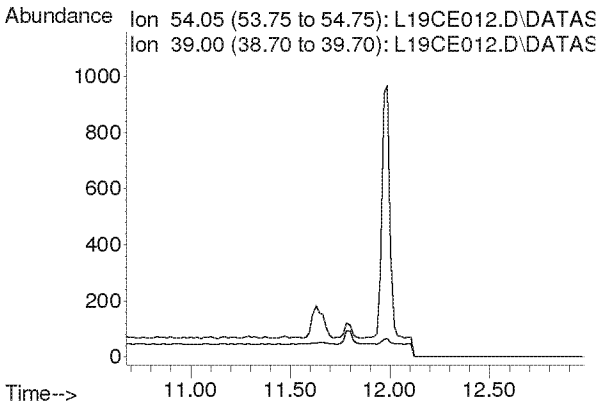


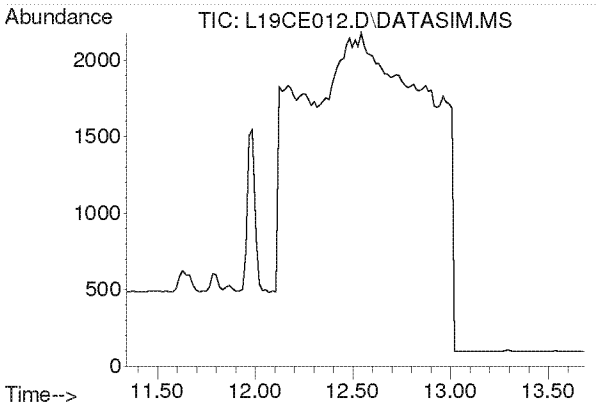
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



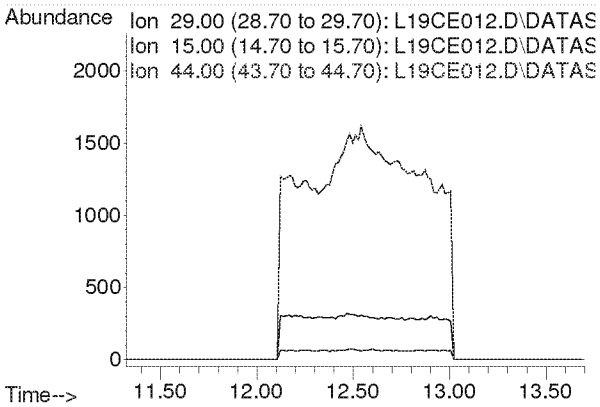


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

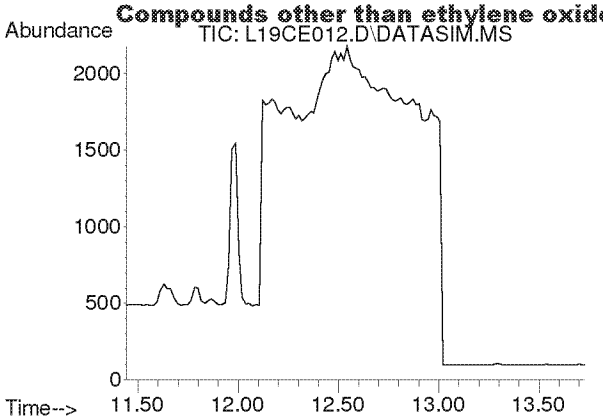
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

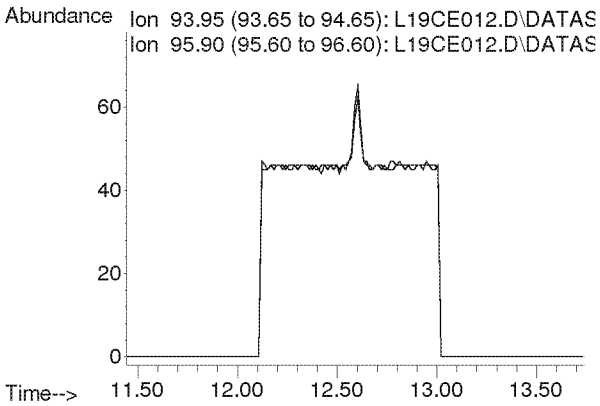


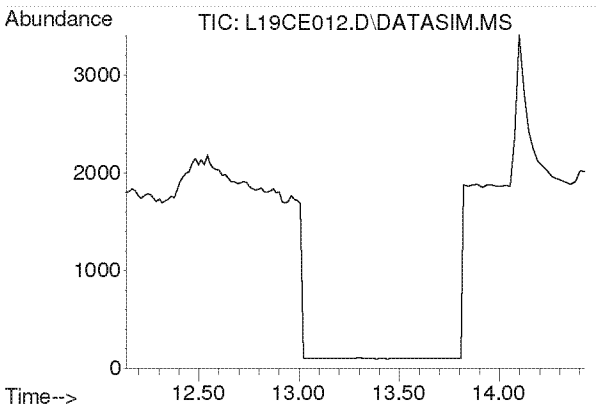
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



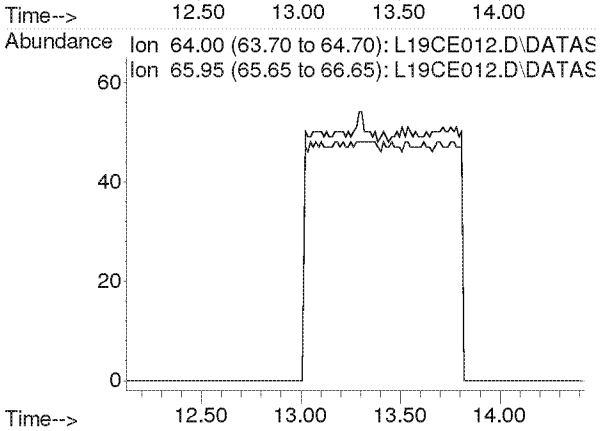


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

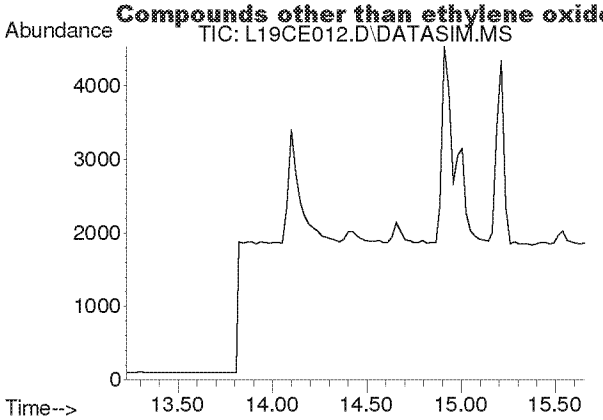
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

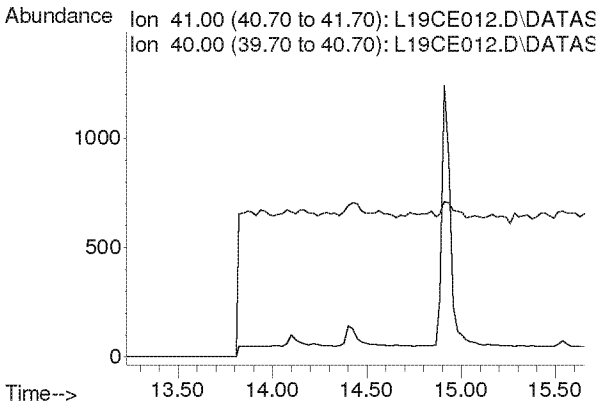


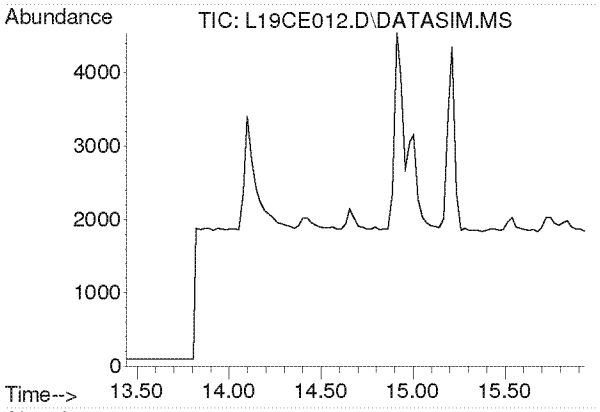
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



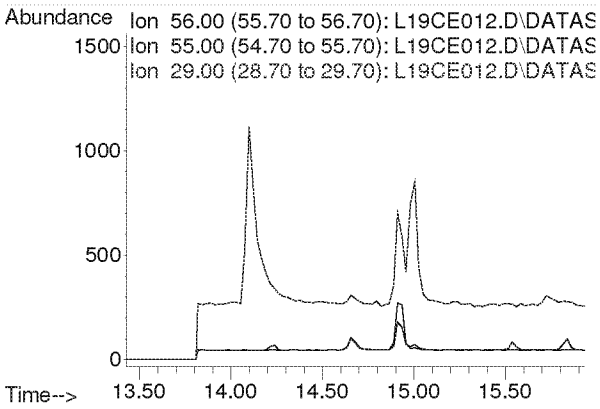


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

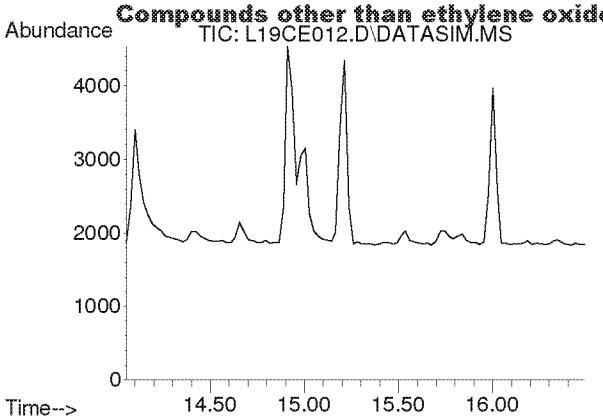
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

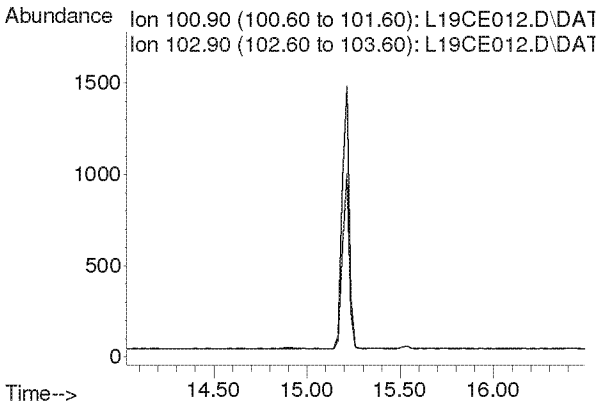


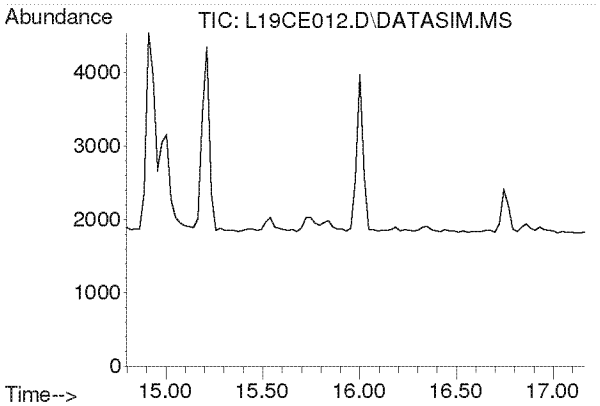
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



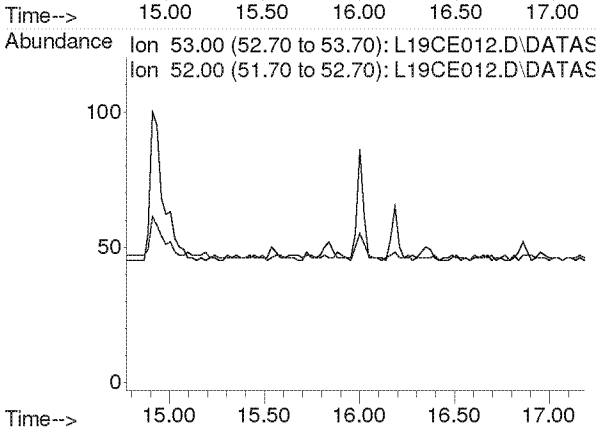


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

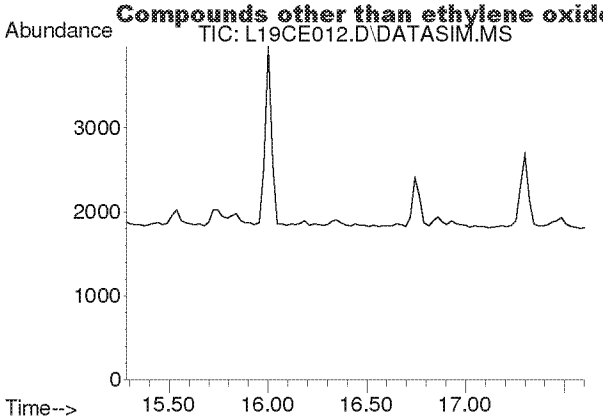
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

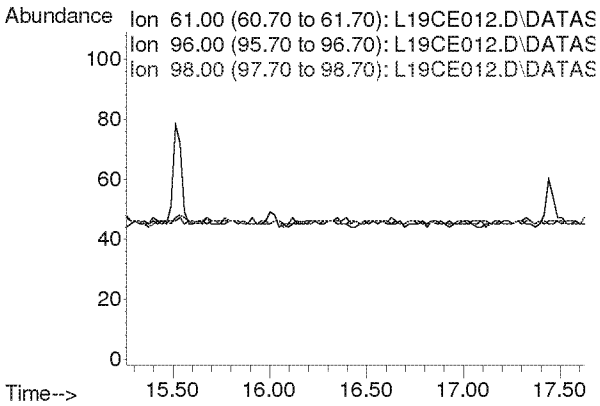


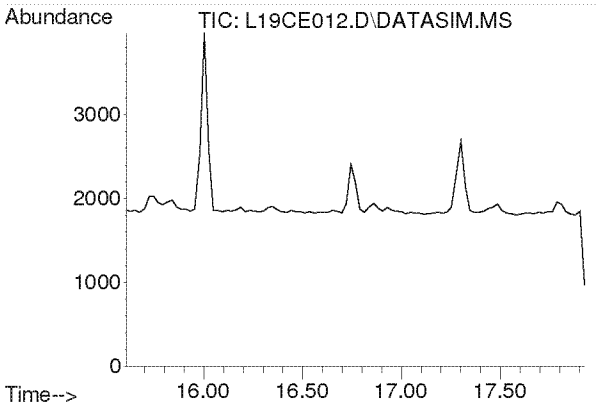
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



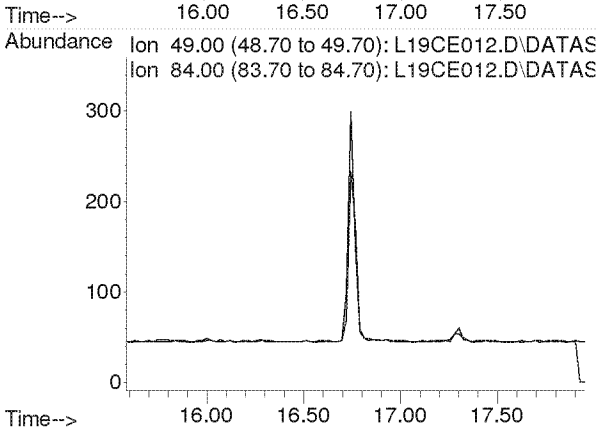


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

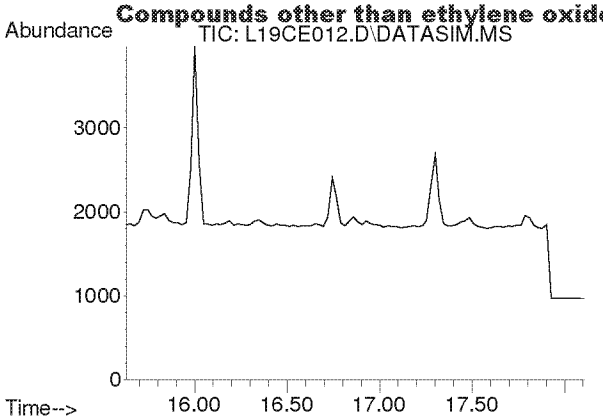
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

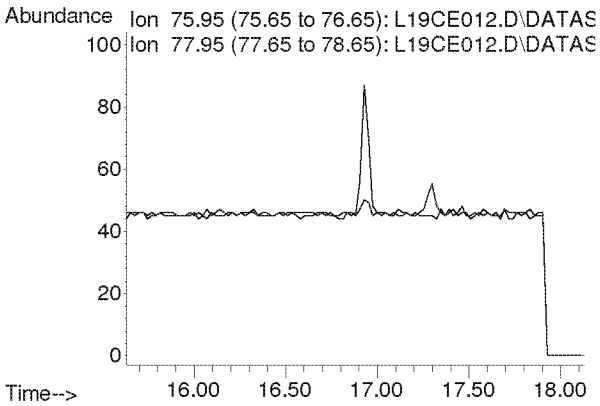


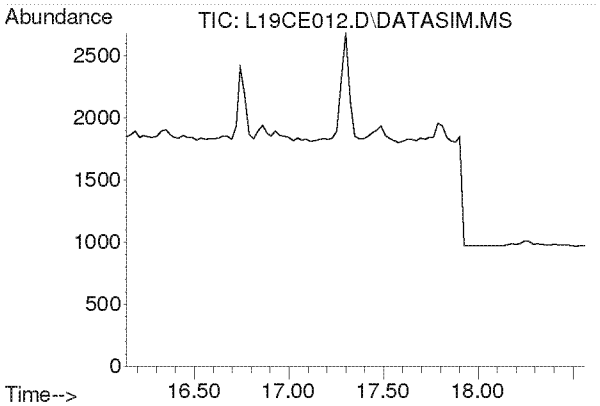
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



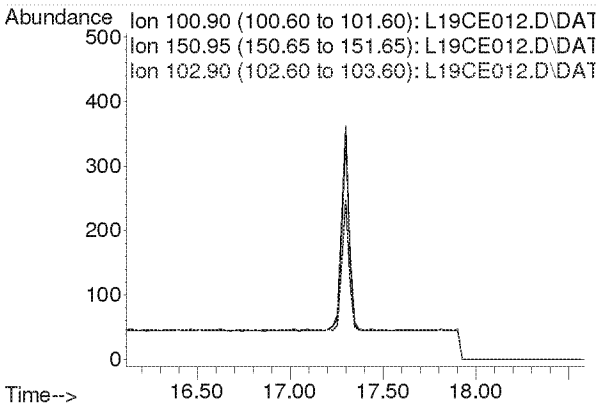


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

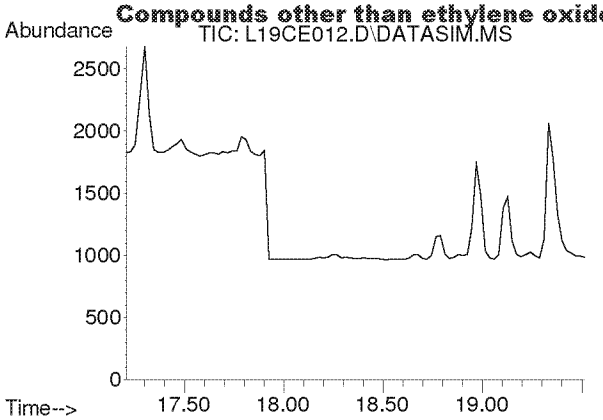
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

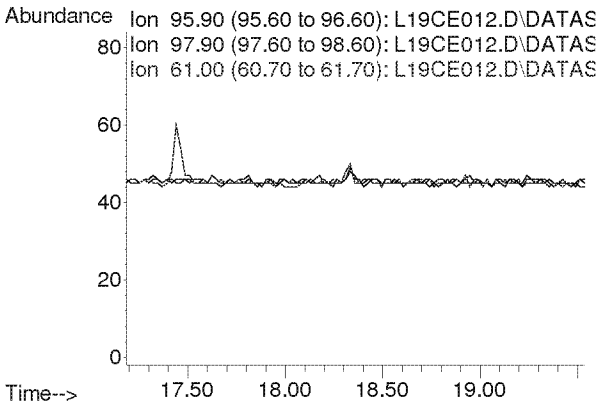


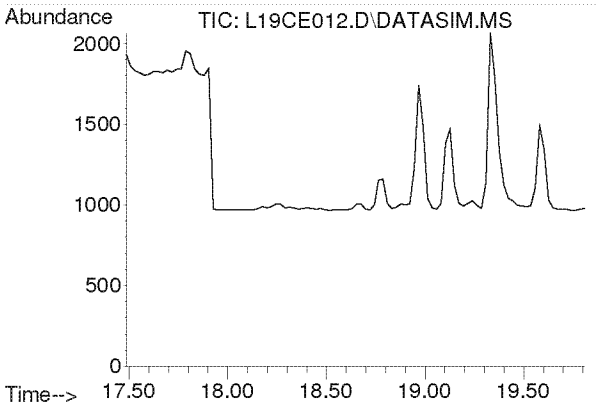
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



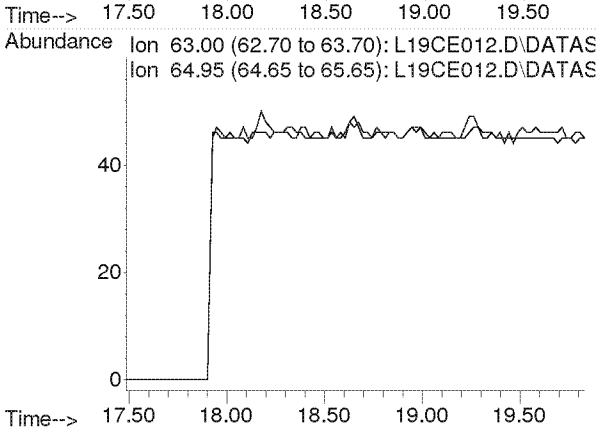


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

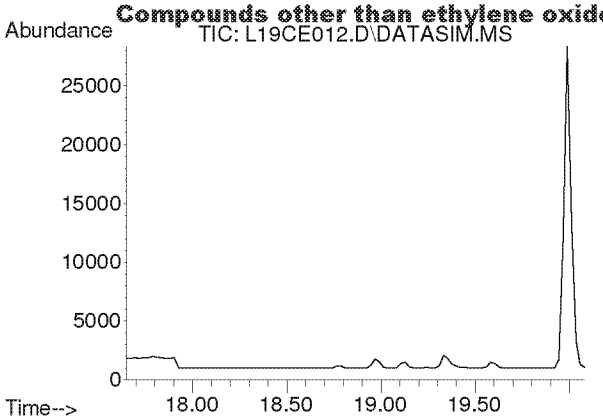
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

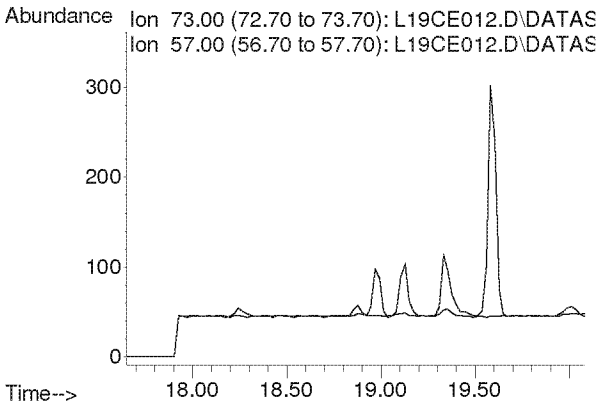


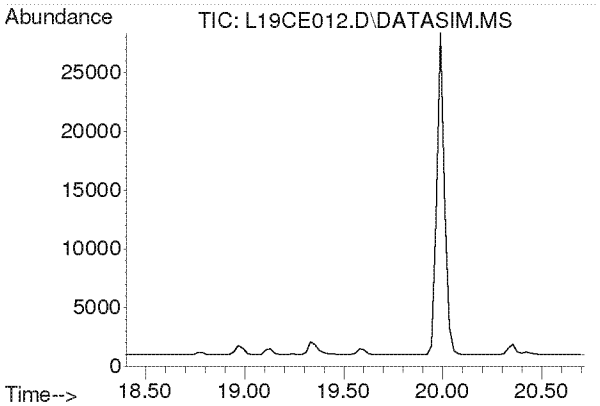
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



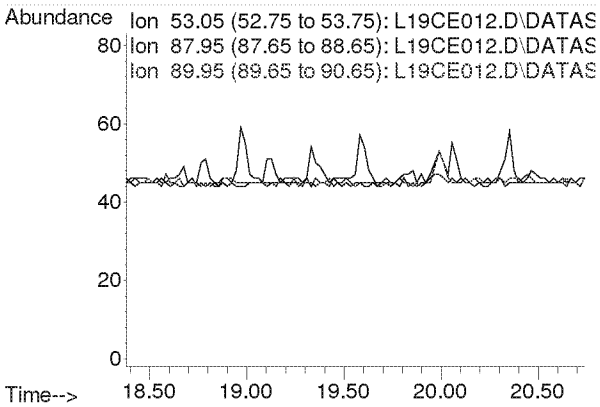


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

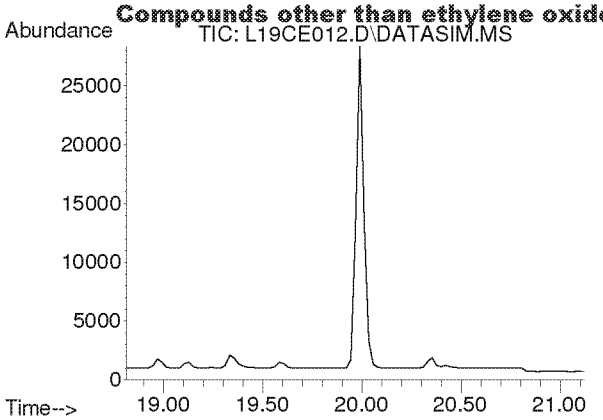
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

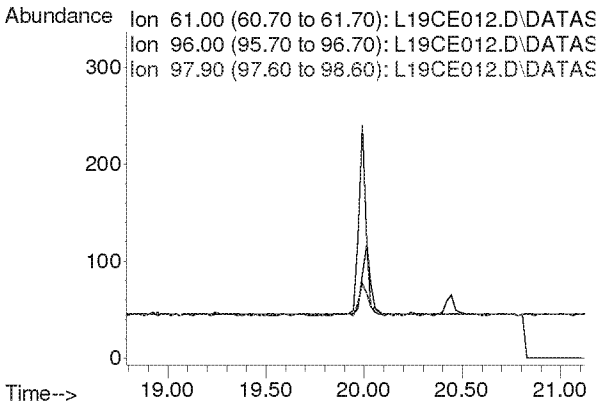


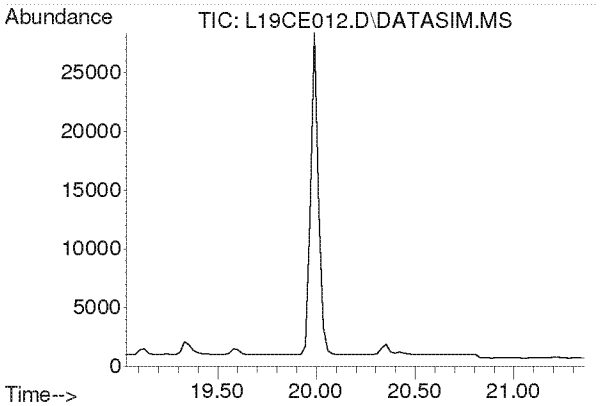
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



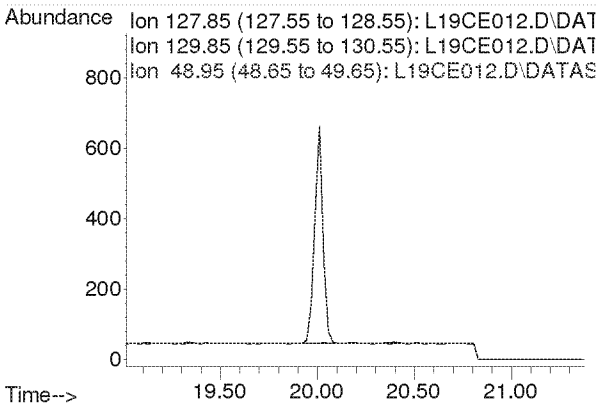


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

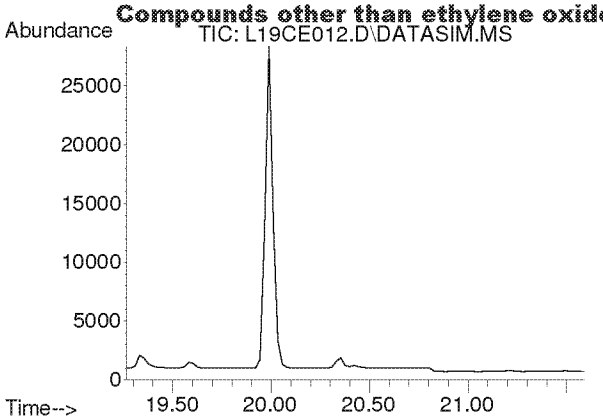
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

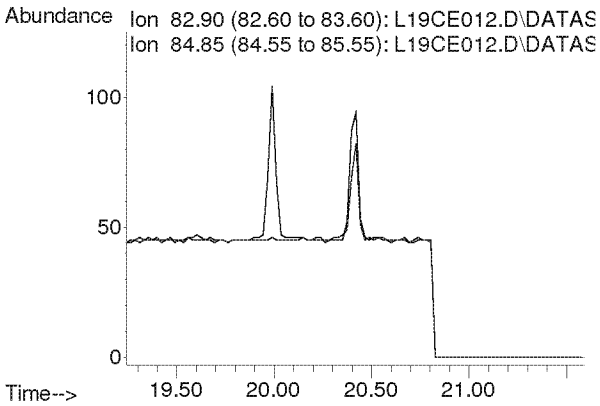


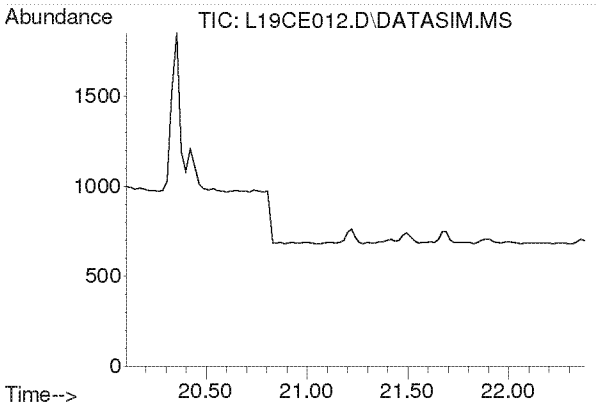
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



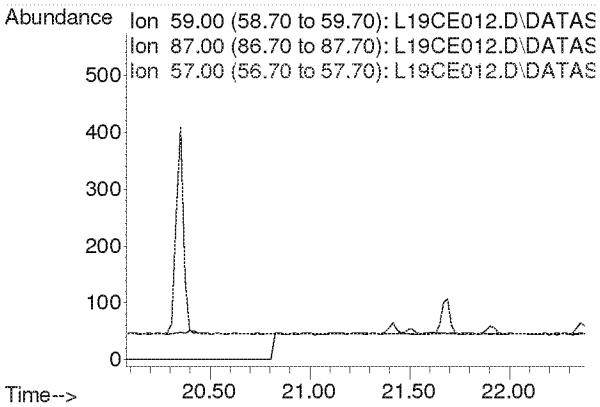


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

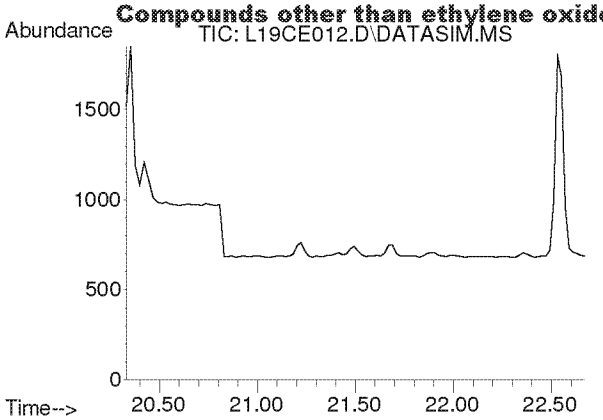
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

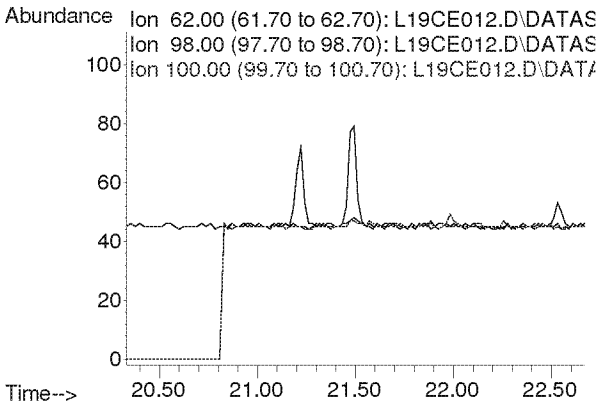


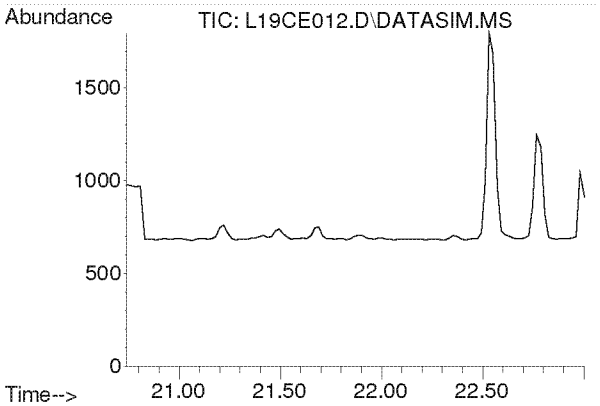
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



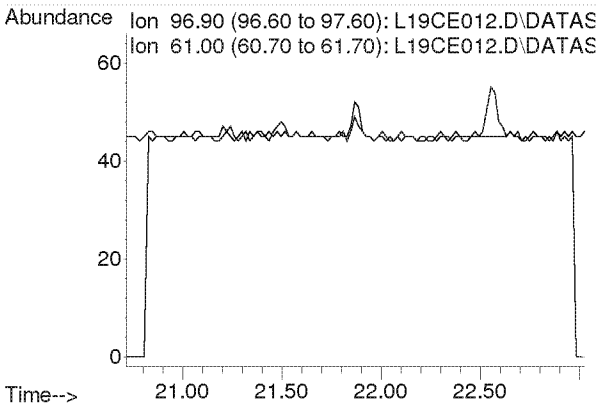


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

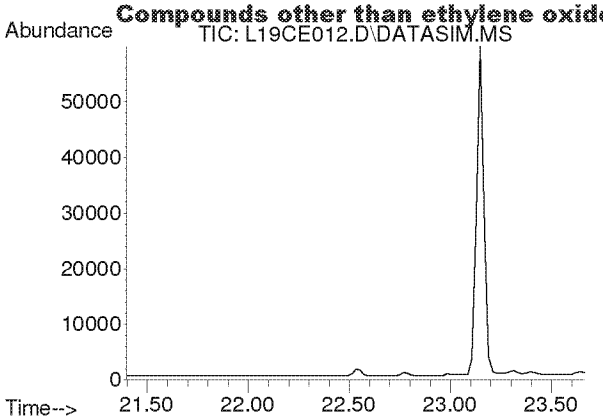
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

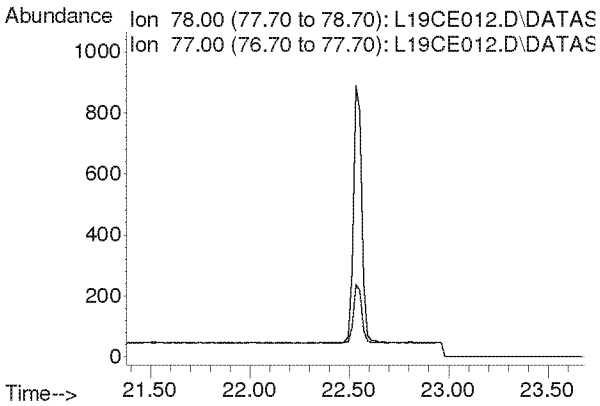


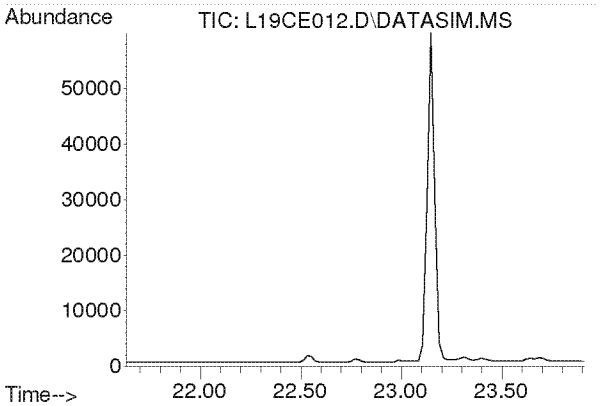
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



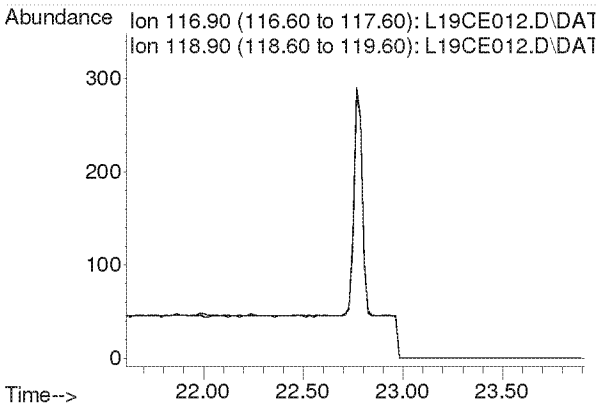


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

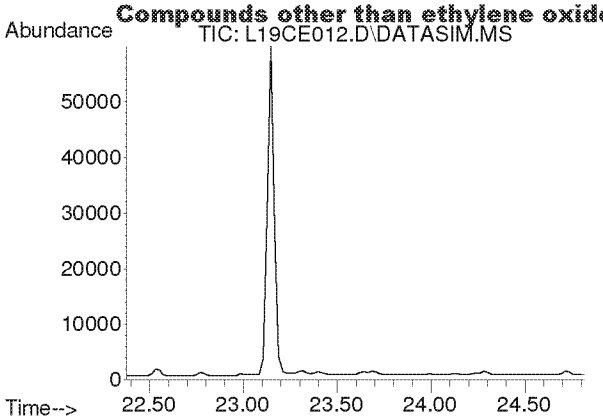
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

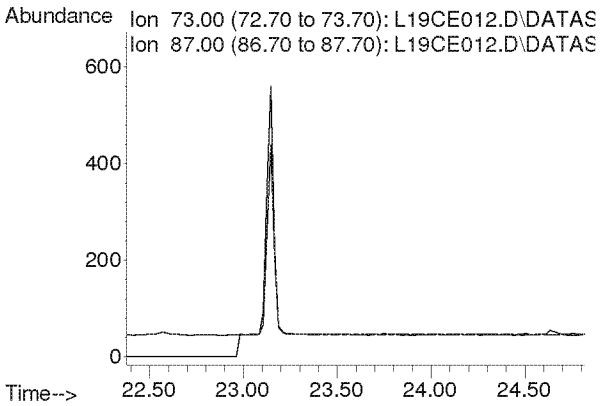


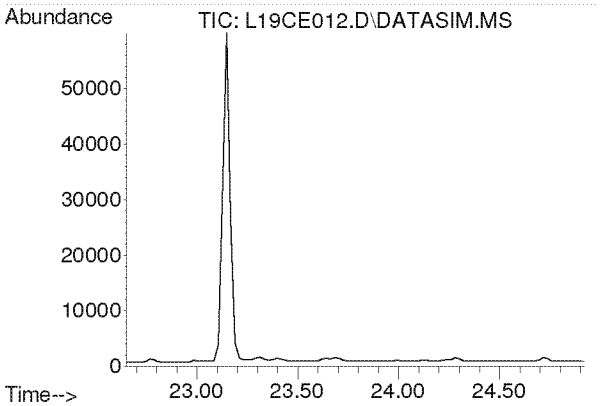
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



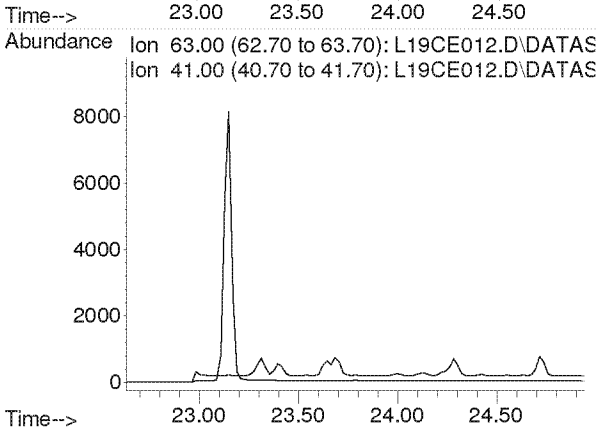


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

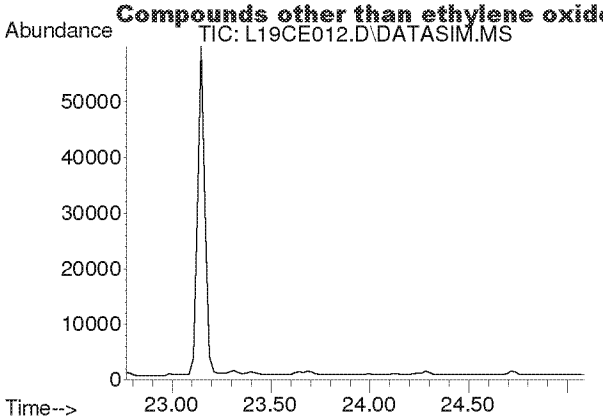
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

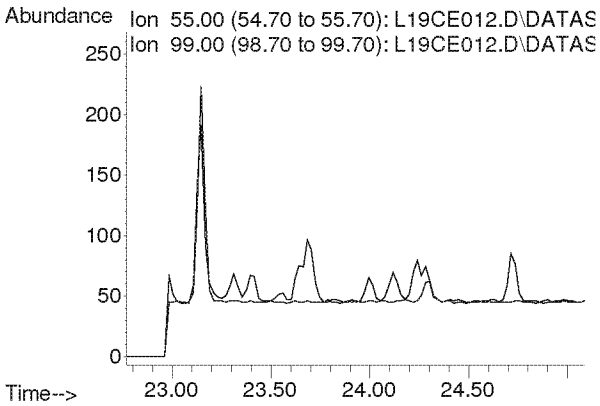


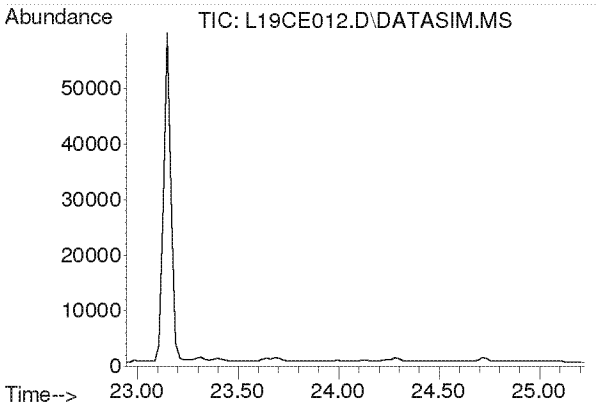
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



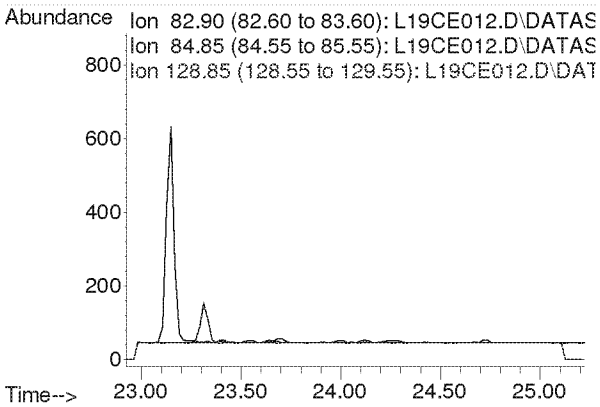


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

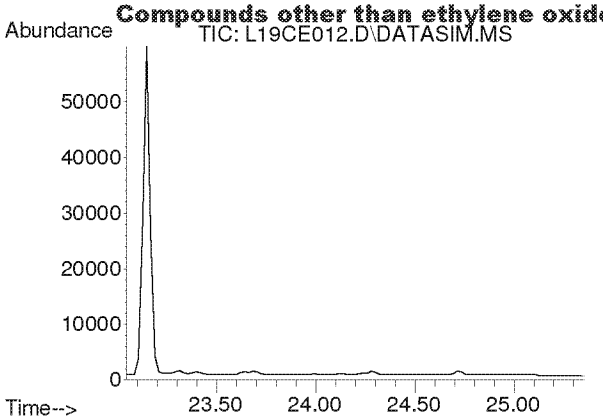
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

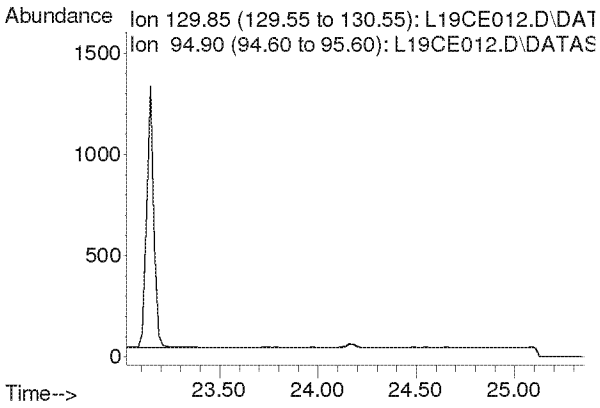


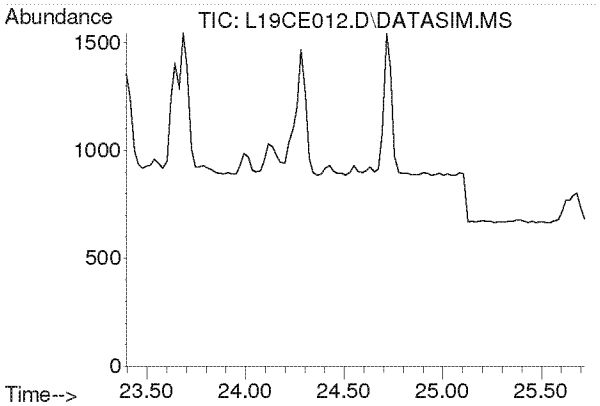
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



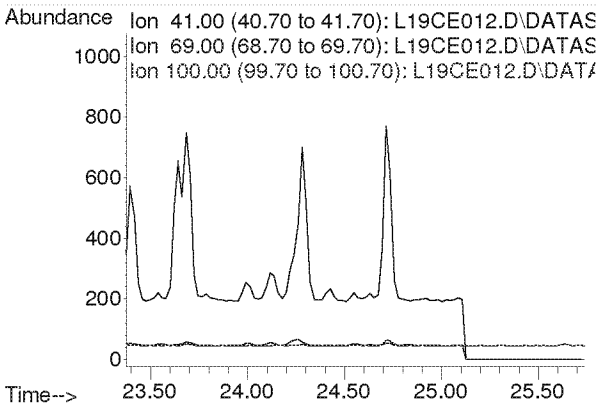


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

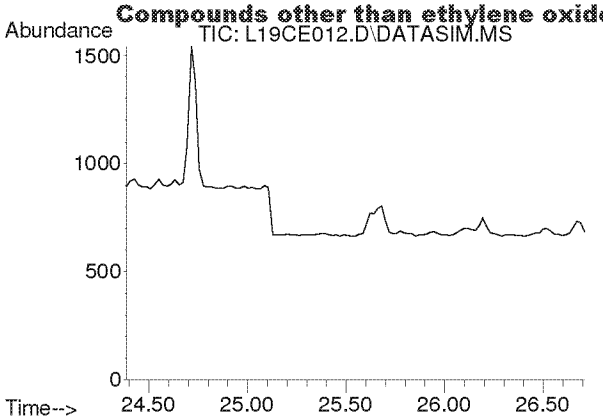
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

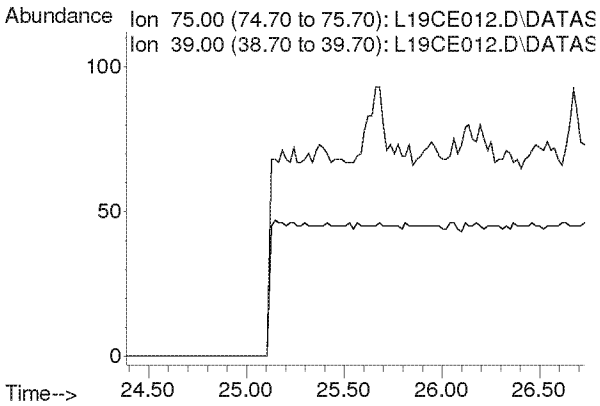


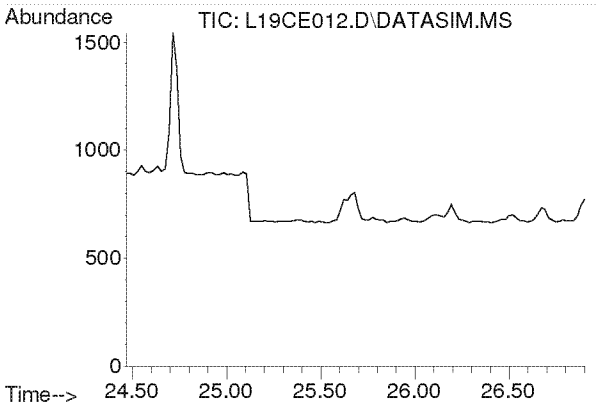
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



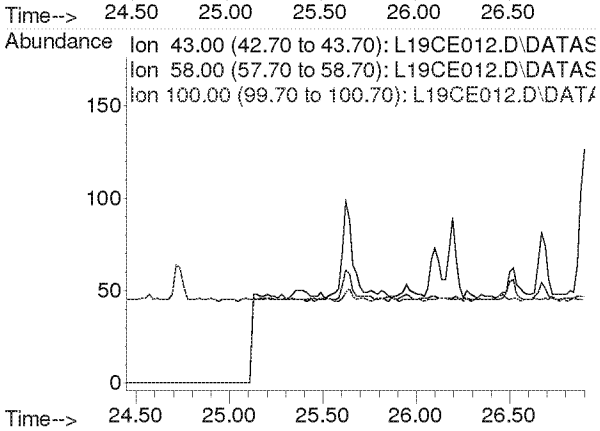


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

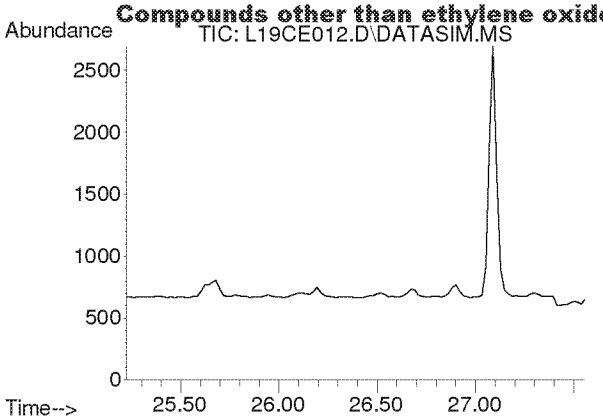
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

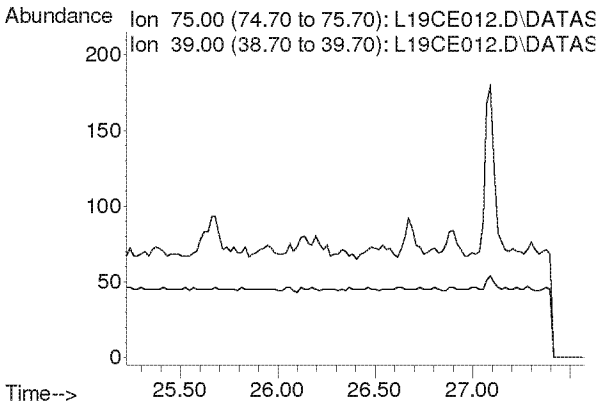


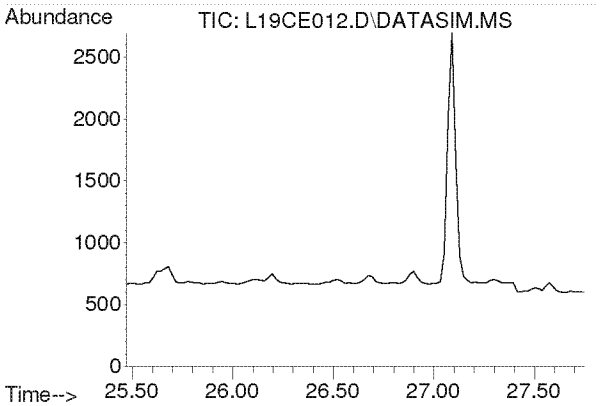
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



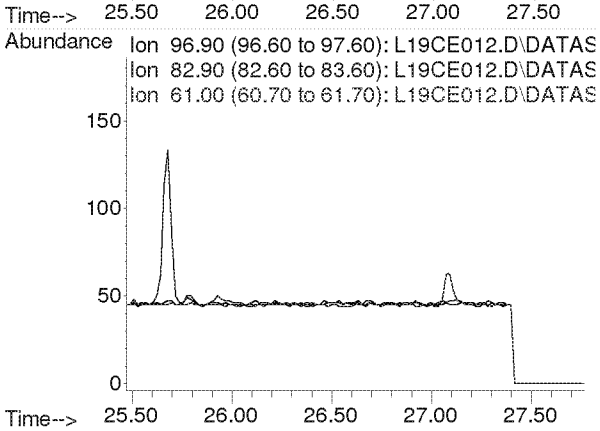


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

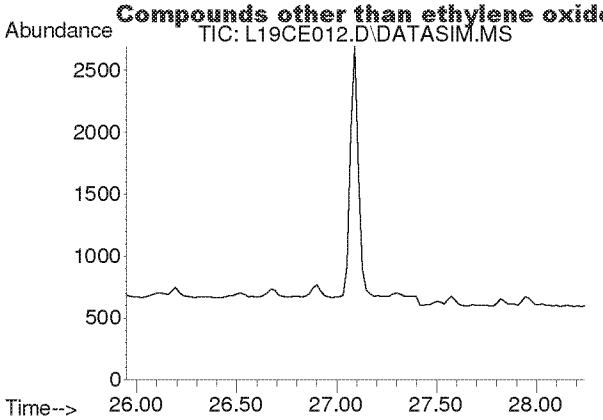
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

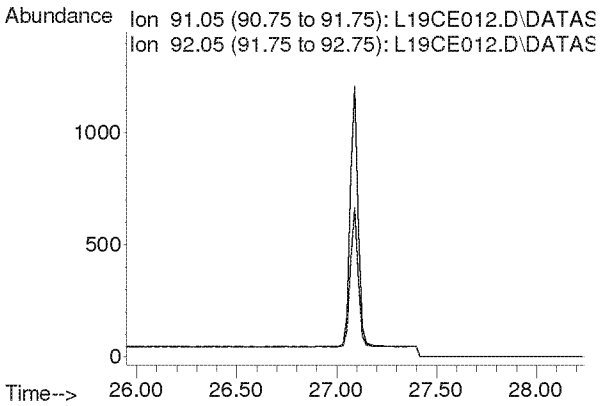


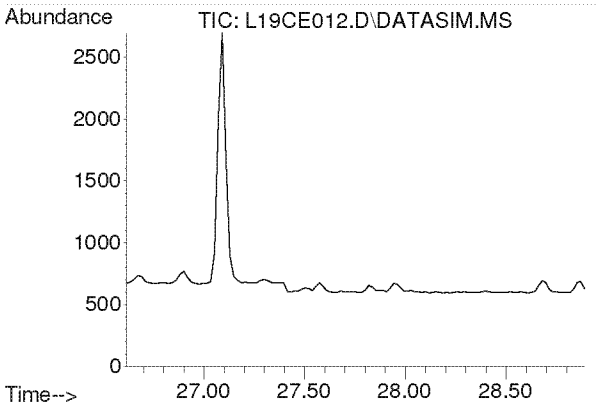
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



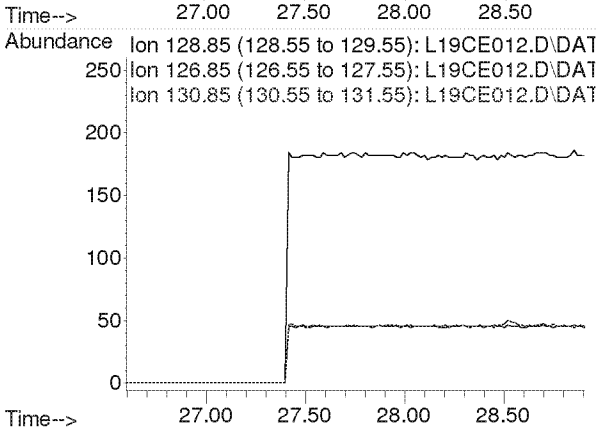


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

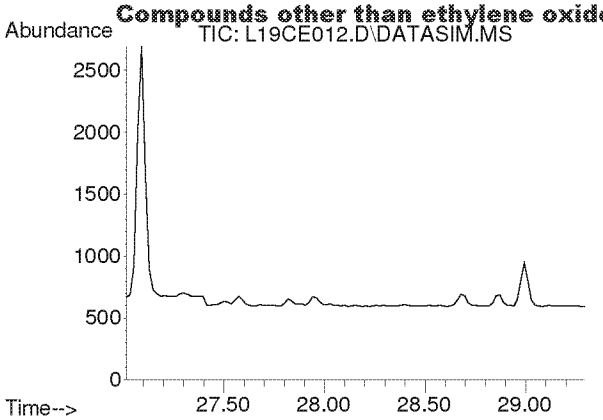
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

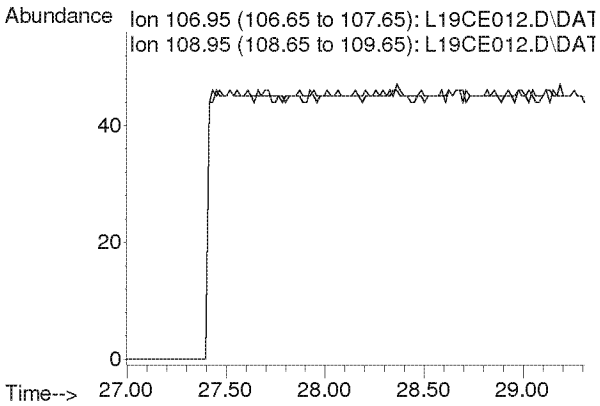


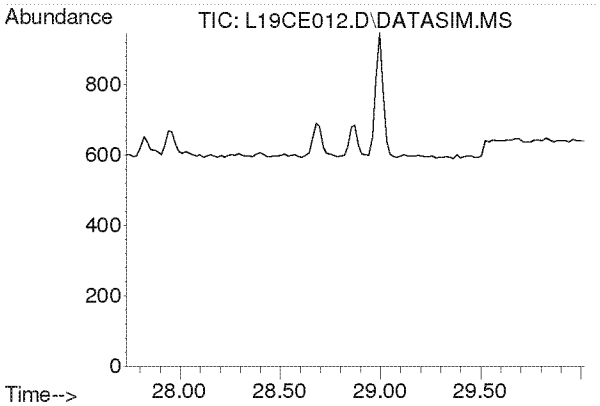
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



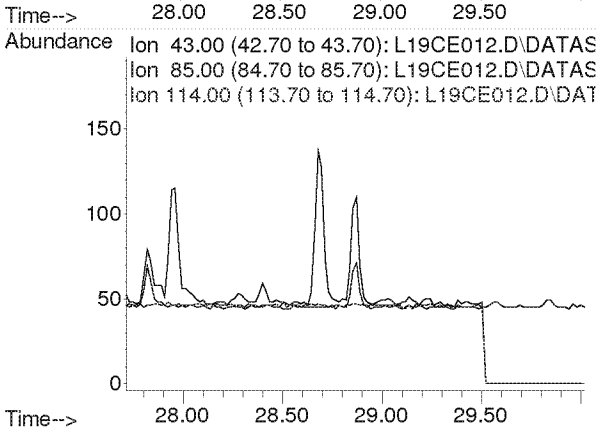


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

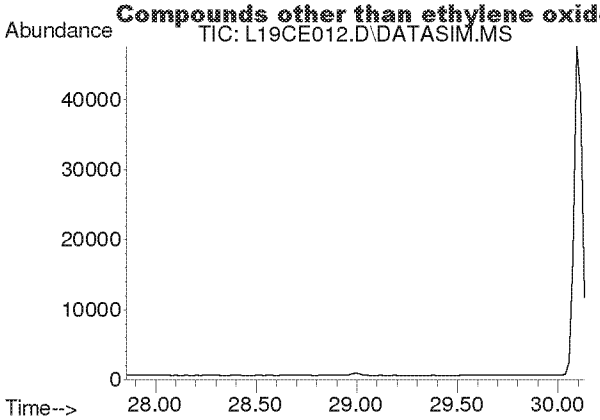
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

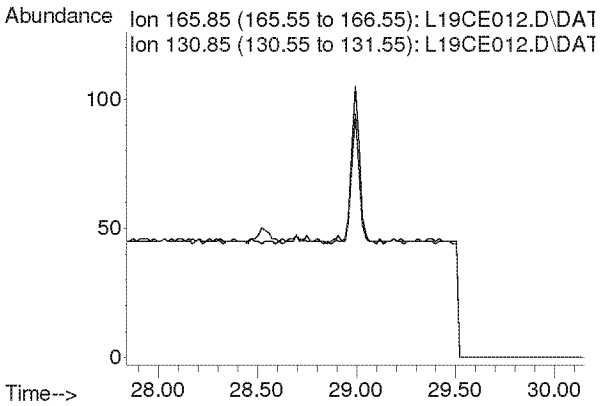


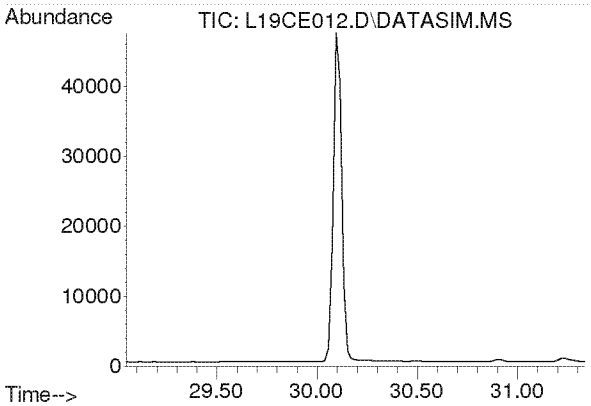
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



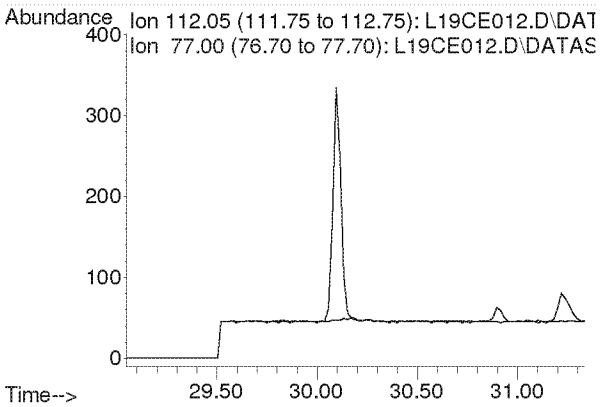


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

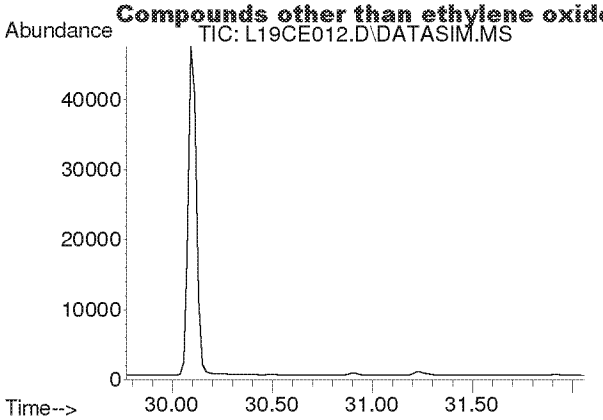
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

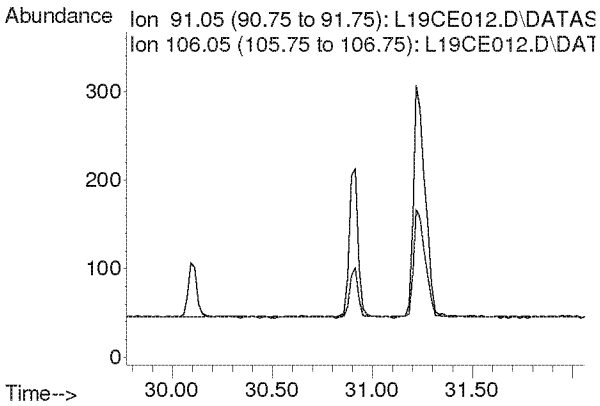


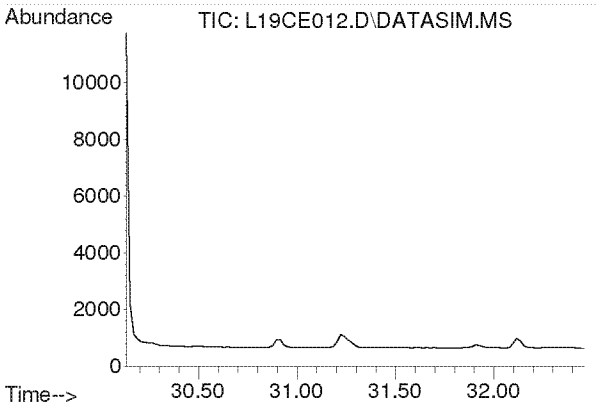
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



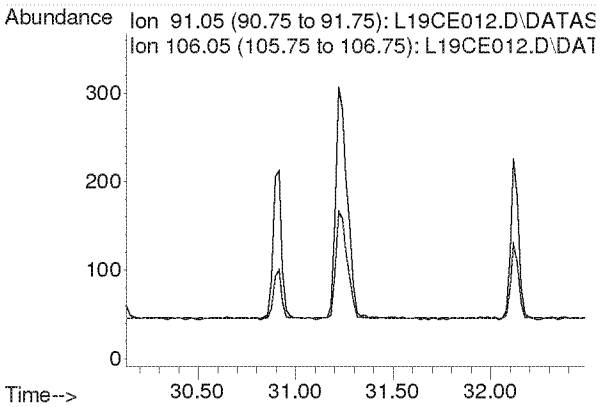


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

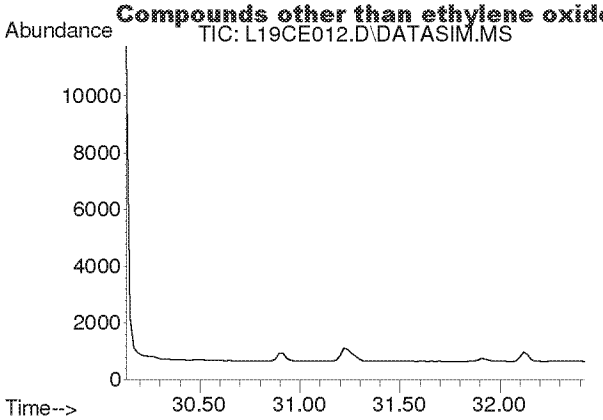
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

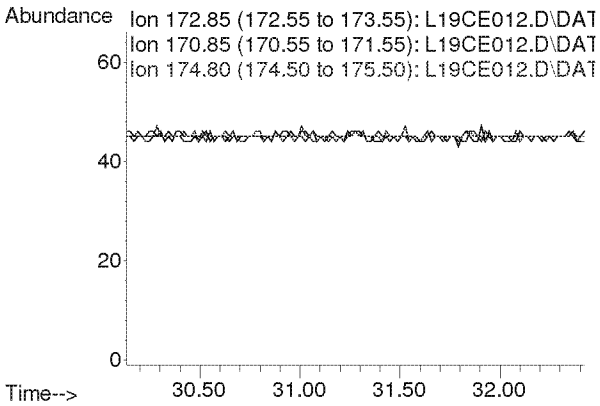


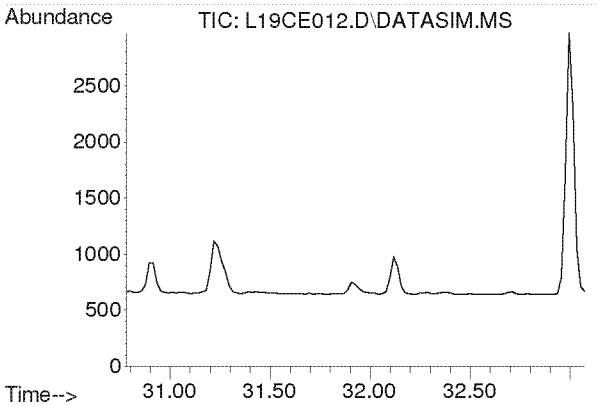
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



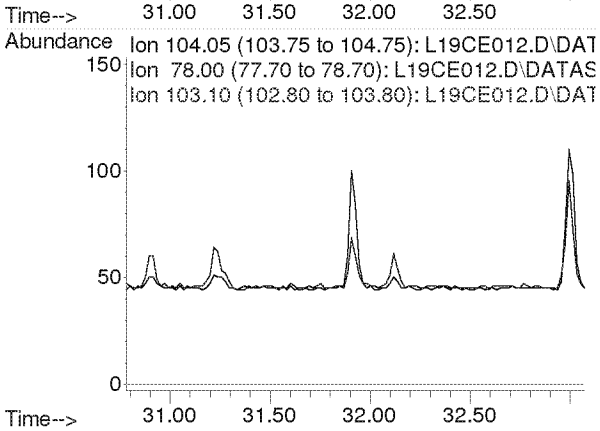


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

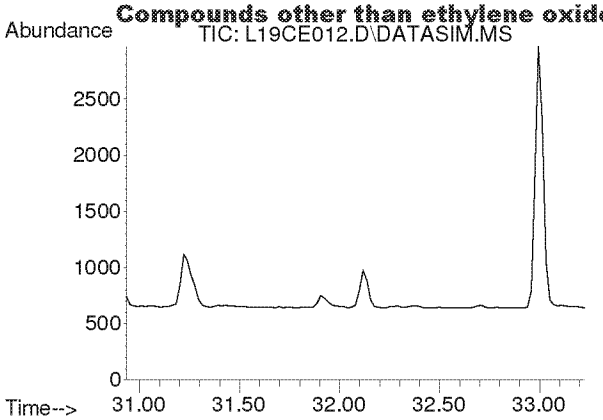
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

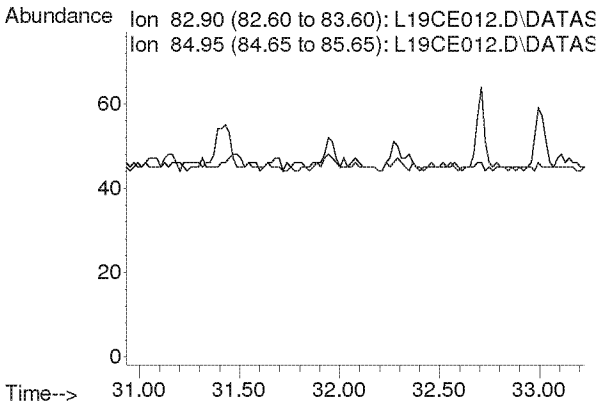


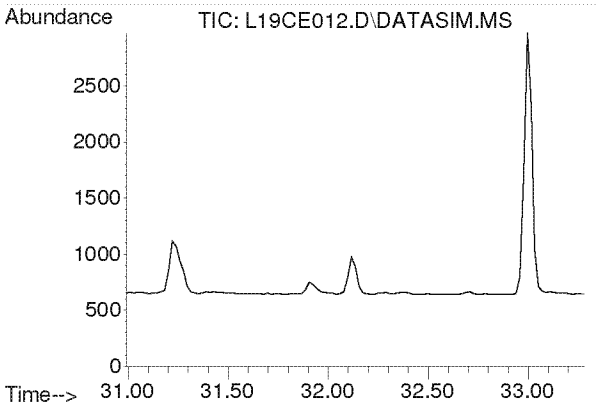
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



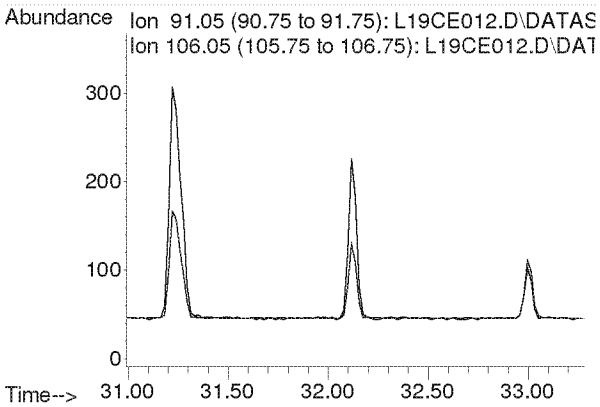


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

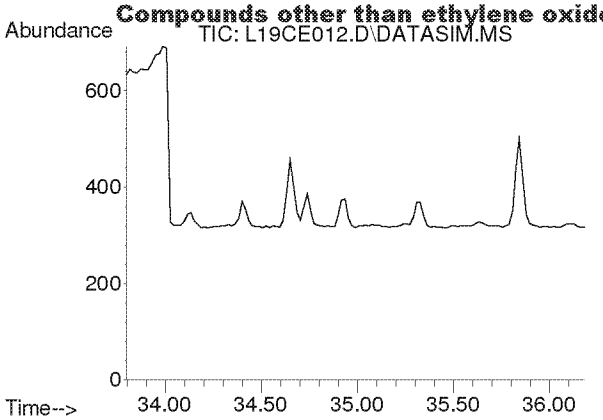
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

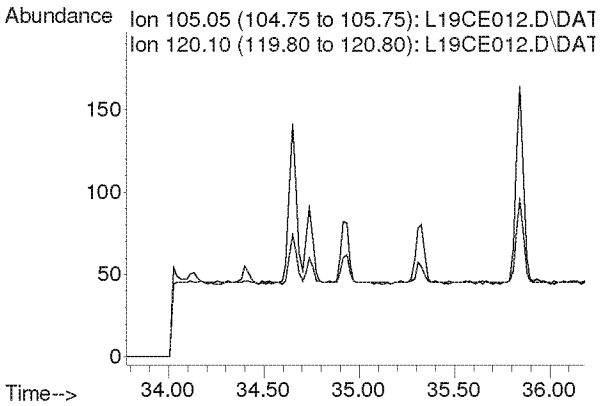


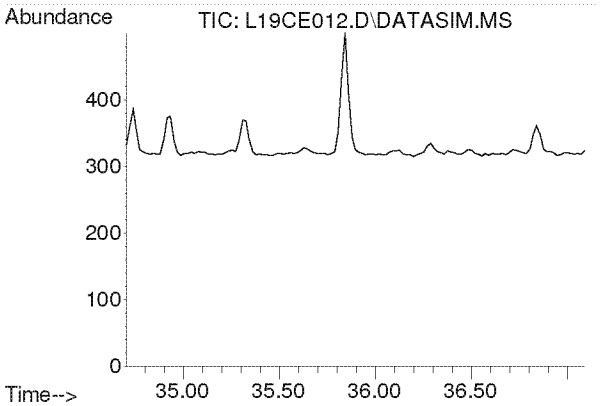
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



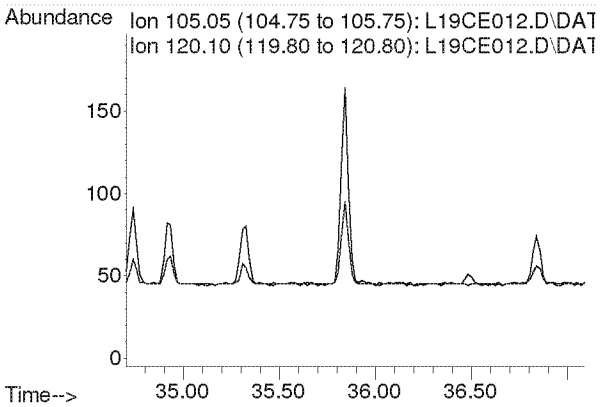


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

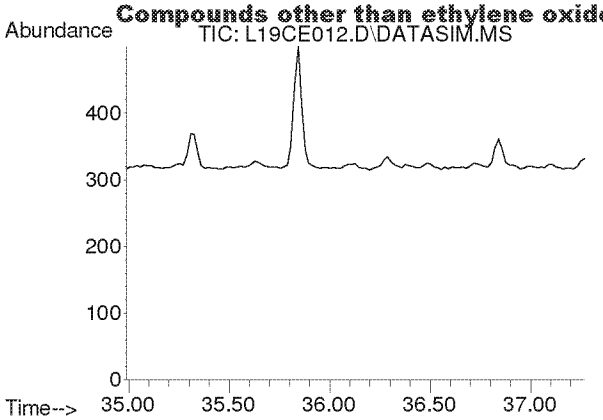
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

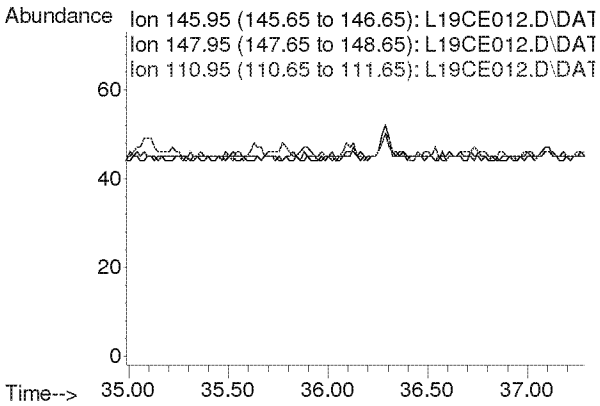


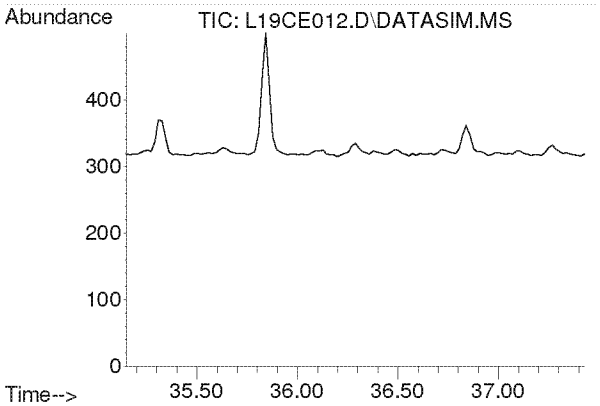
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



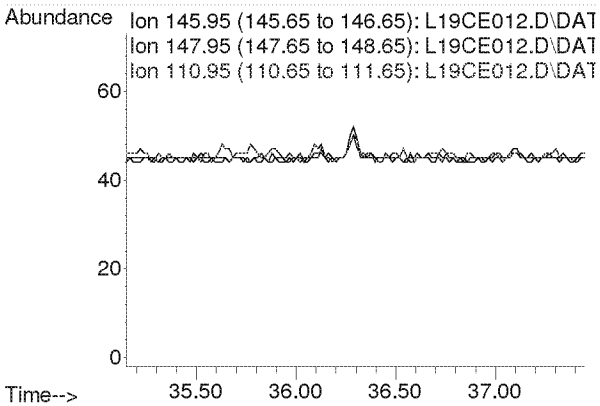


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

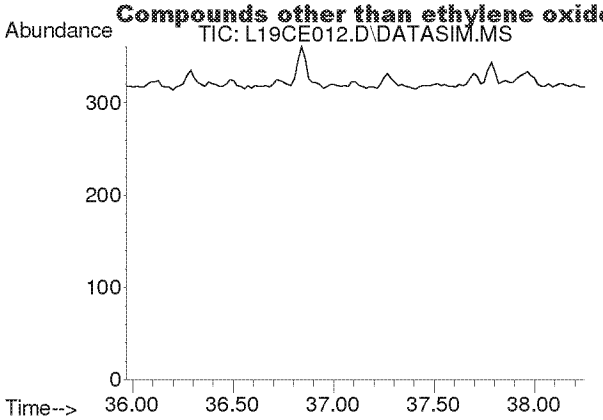
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

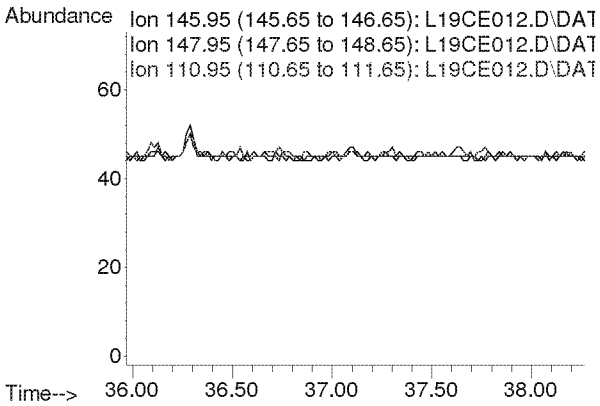


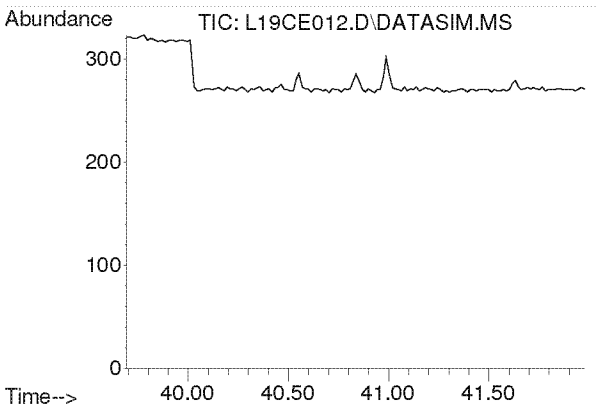
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



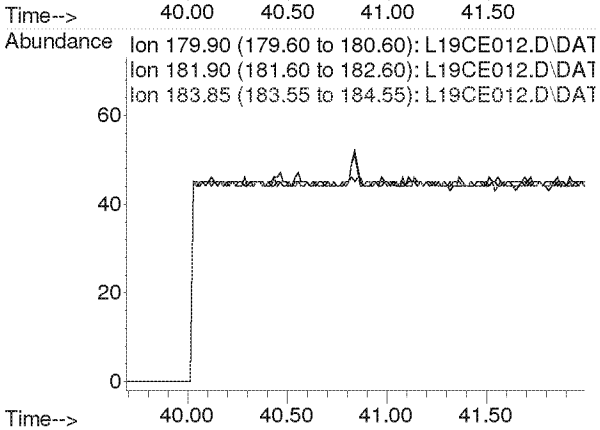


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

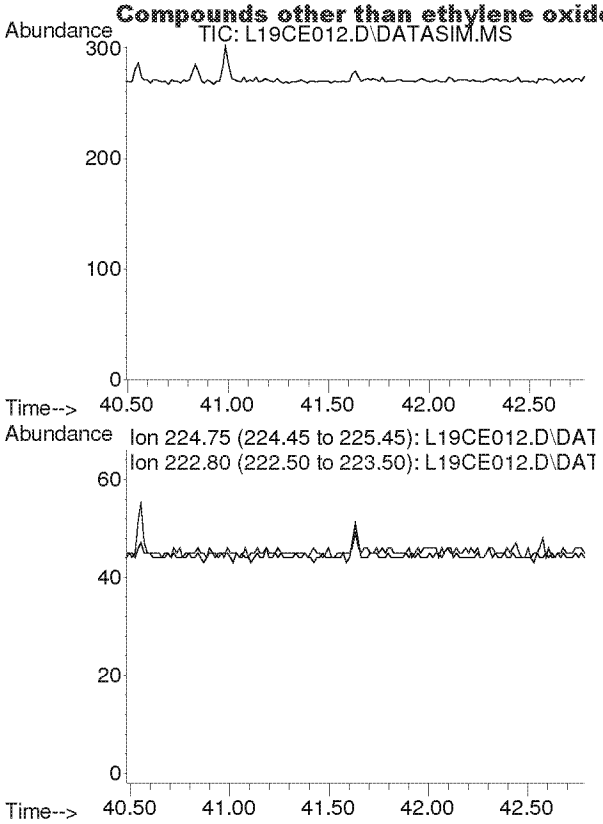
Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE012.D
Acq: 5 Mar 2019 11:28 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\L19CE\
Data File : L19CE013.D
Acq On : 6 Mar 2019 12:30 am
Operator : MAH
Sample : 9030524-06
Misc : GOWER ES 3/2/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 06 12:25:03 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d=ak

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	43675	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	109786	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	80154	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.485	29	201m 3-6-19	0.0805 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. 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\L19CE\
Data File : L19CE013.D
Acq On : 6 Mar 2019 12:30 am
Operator : MAH
Sample : 9030524-06
Misc : GOWER ES 3/2/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 06 12:25:03 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

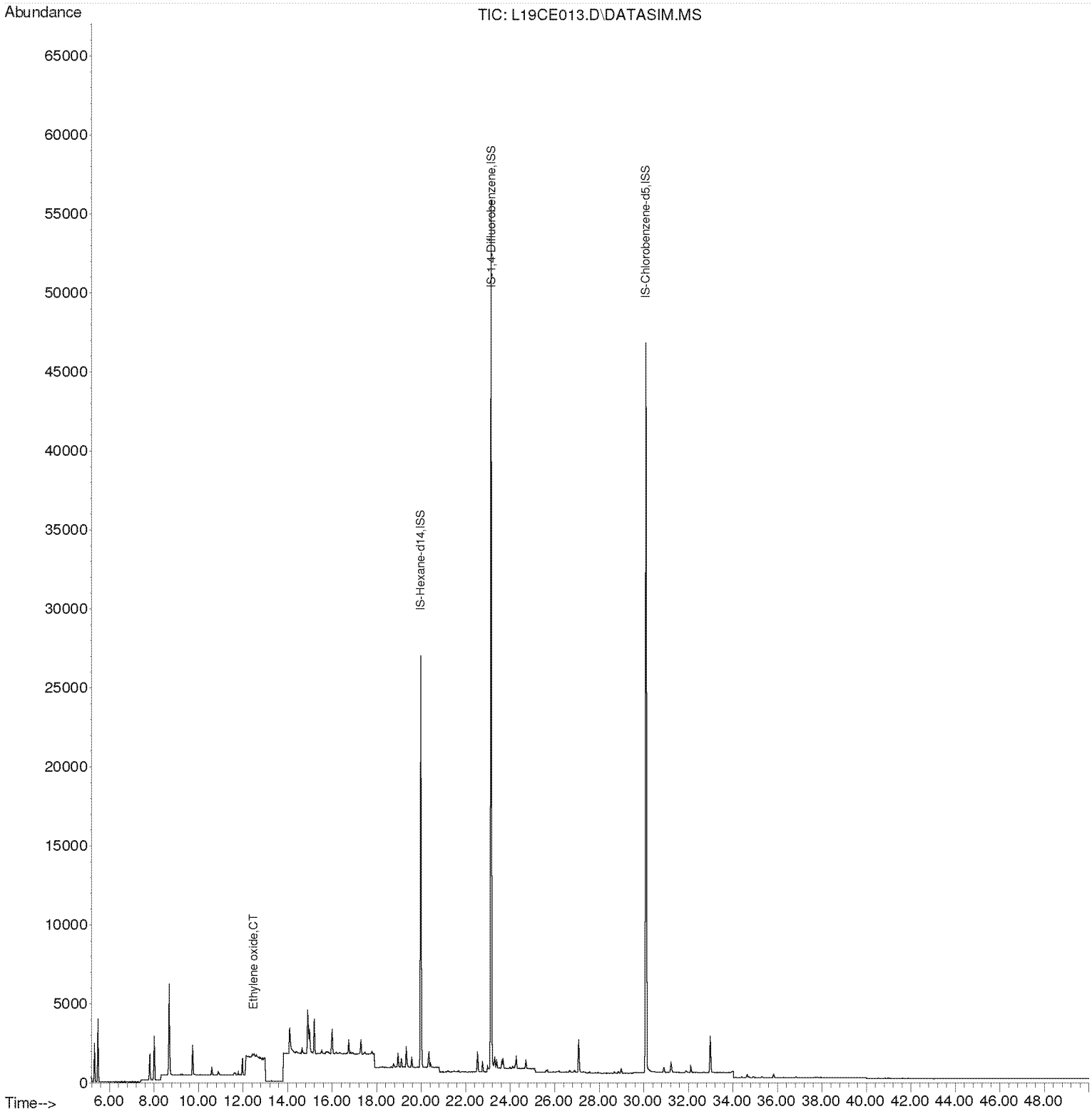
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

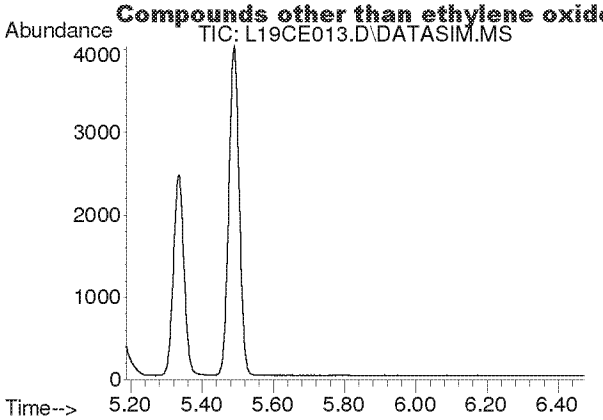
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE013.D
Acq On : 6 Mar 2019 12:30 am
Operator : MAH
Sample : 9030524-06
Misc : GOWER ES 3/2/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 06 12:03:16 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



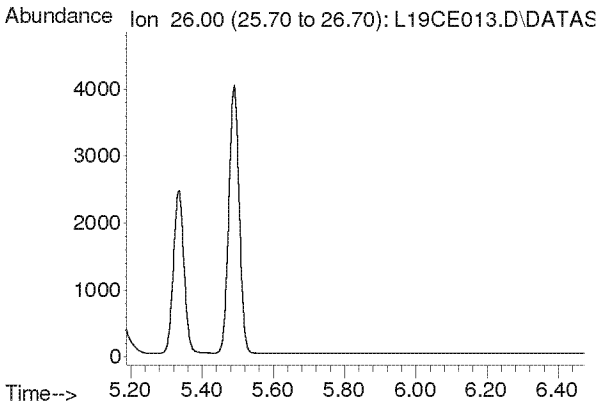
Compounds other than ethylene oxide were not quantitated.

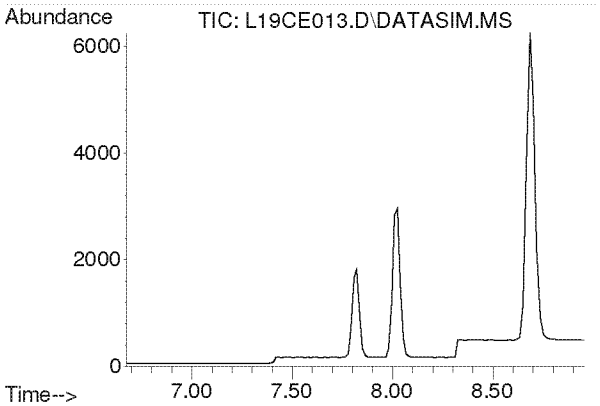


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 26



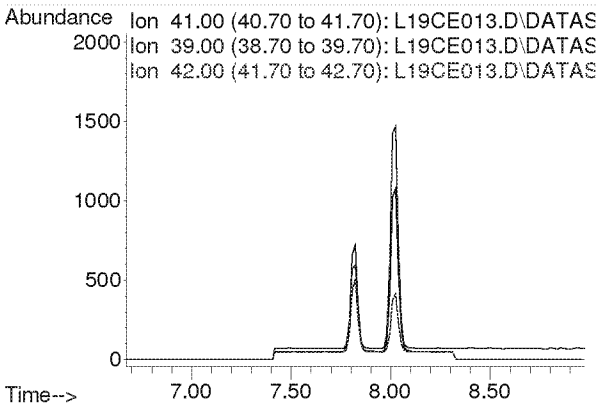


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

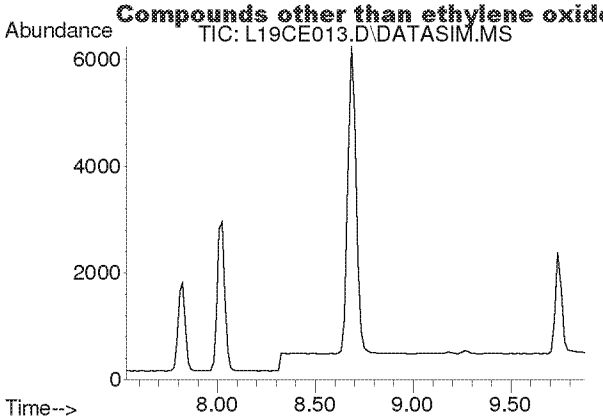
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

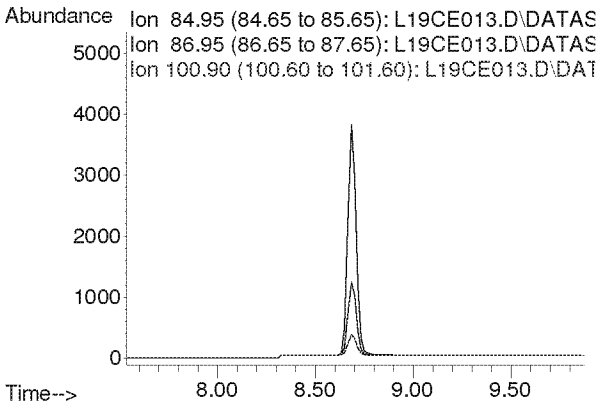


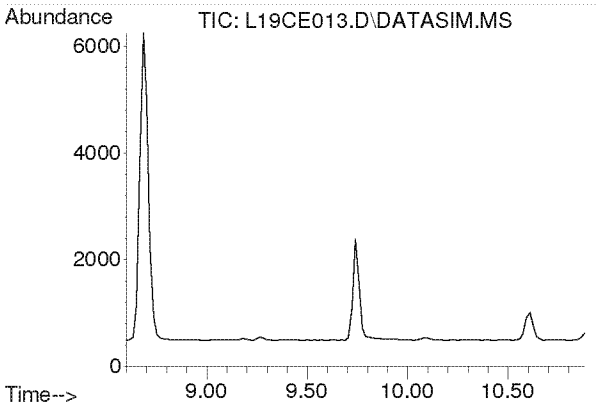
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



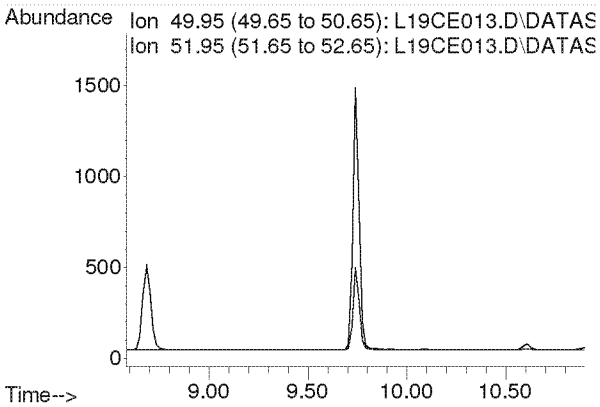


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

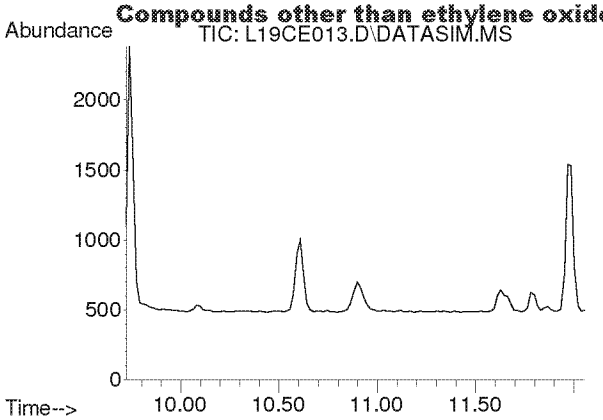
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

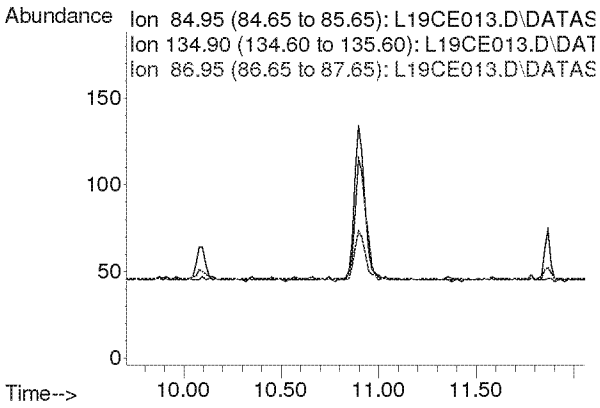


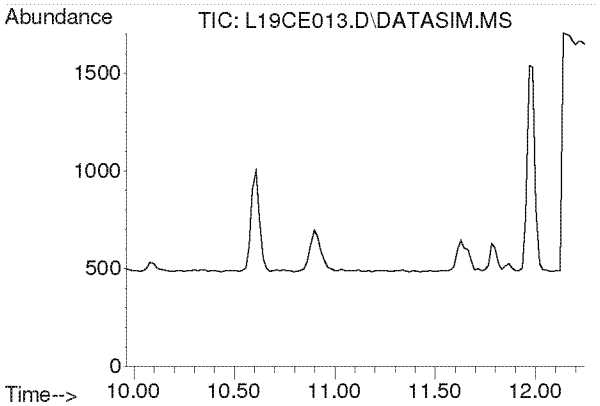
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



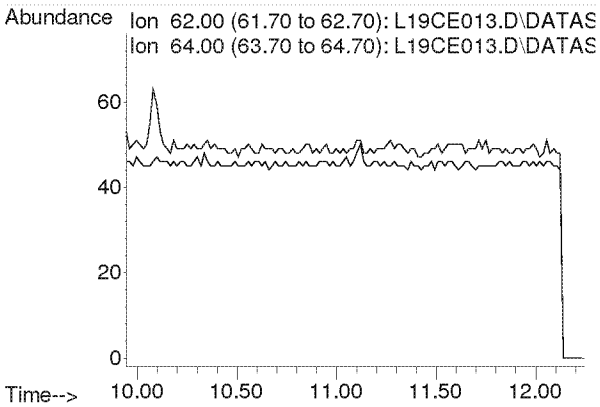


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

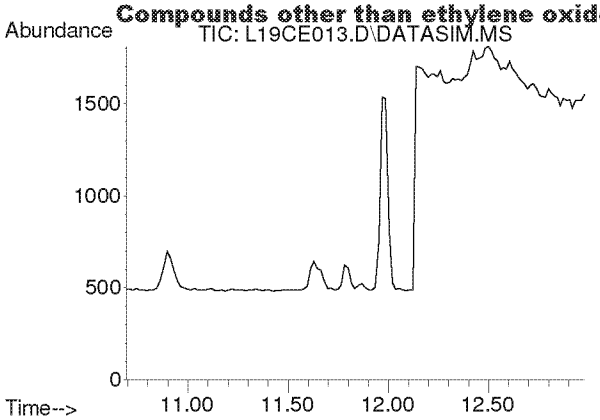
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

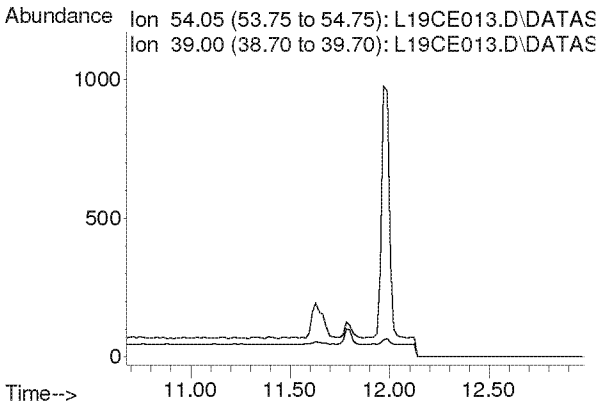


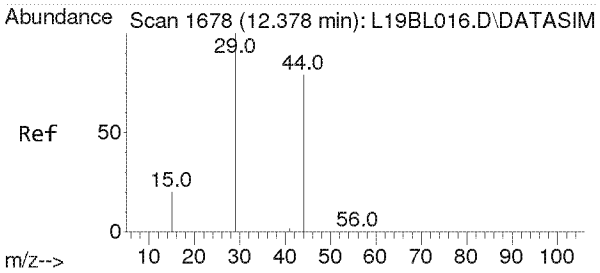
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

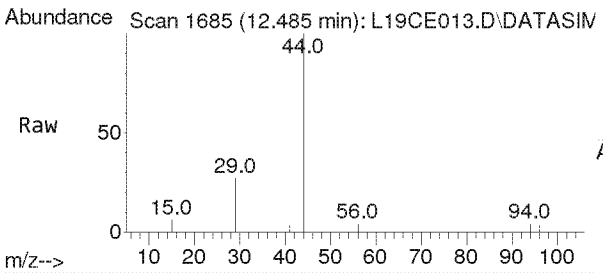


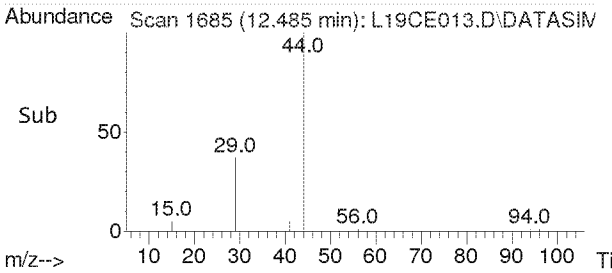


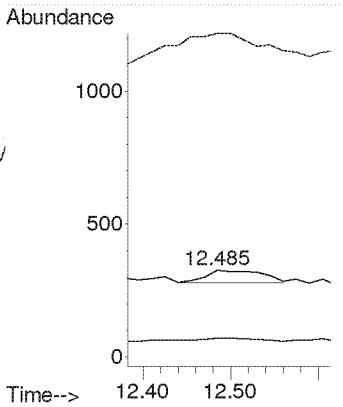
#9
Ethylene oxide
Concen: 0.080 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 29 Resp: 201

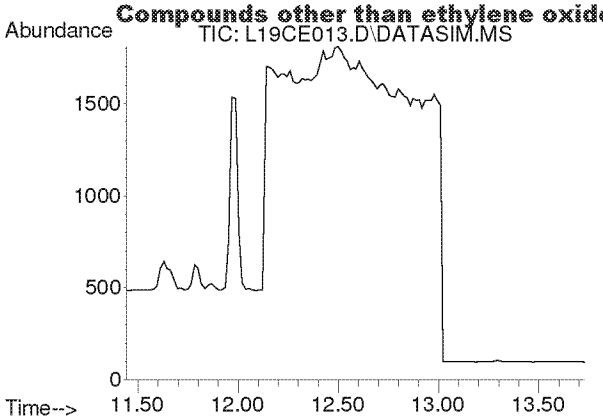
Ion	Ratio	Lower	Upper
29	100		
15	19.9	16.0	24.0
44	693.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

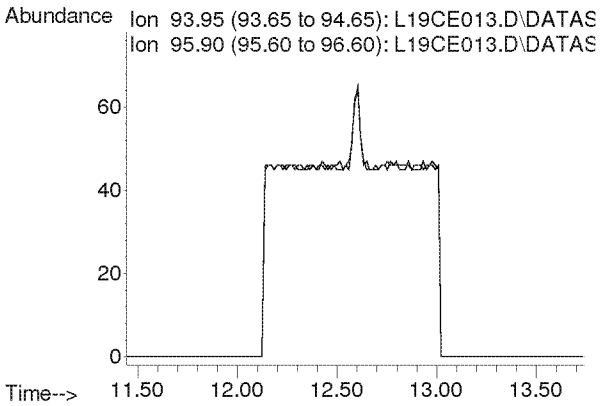


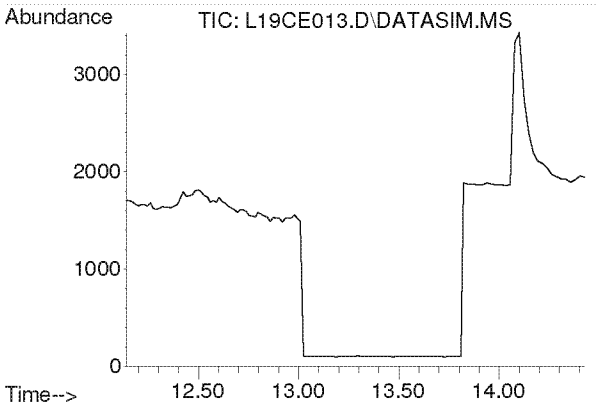
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



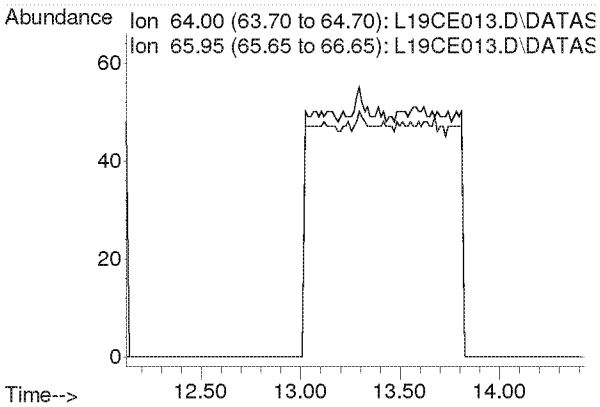


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

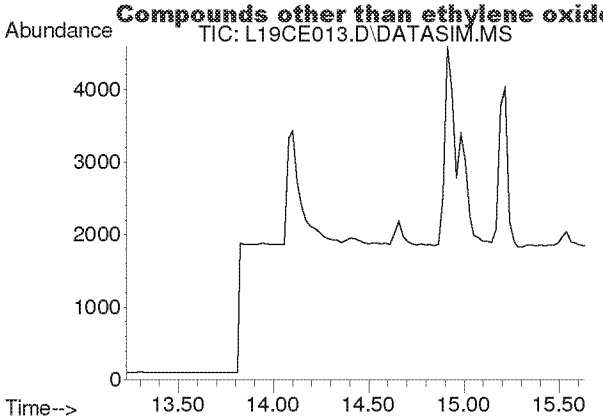
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

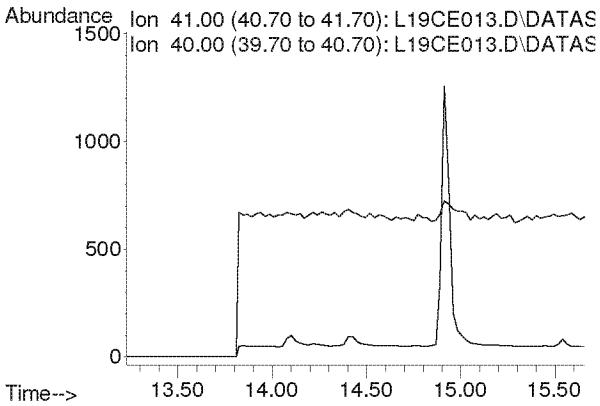


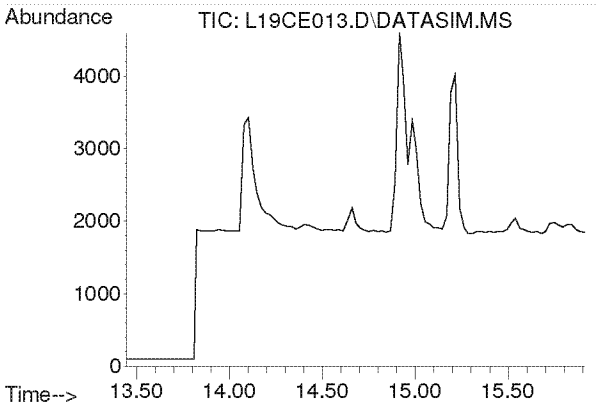
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



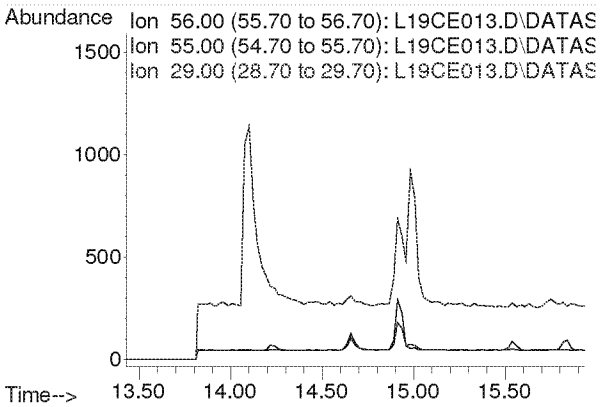


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

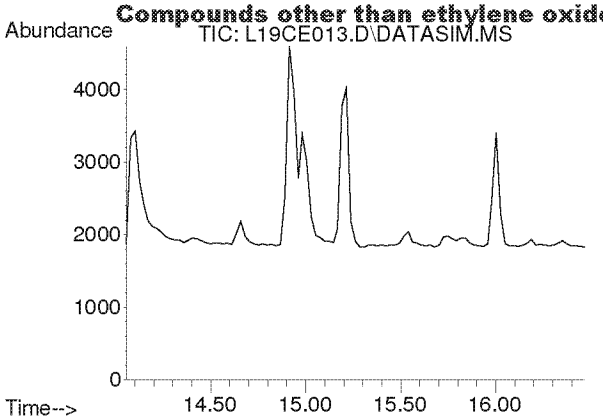
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

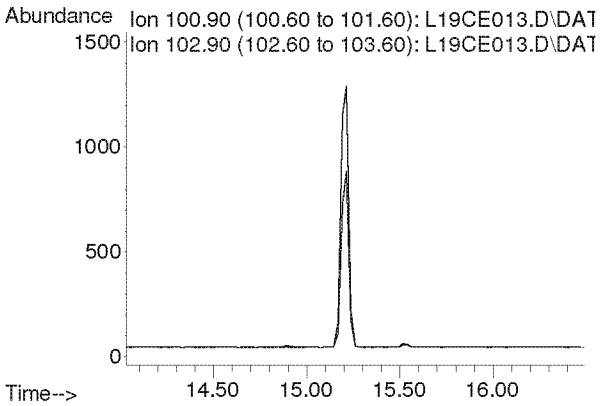


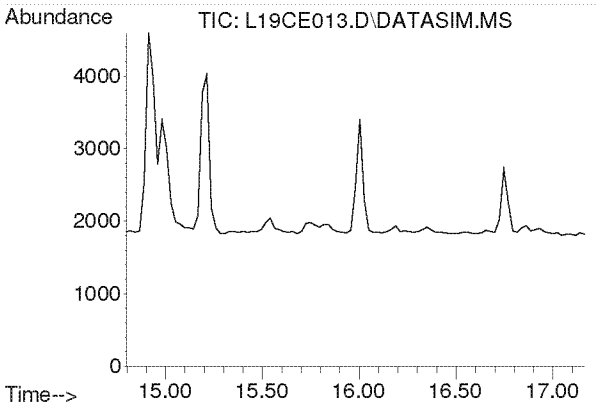
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



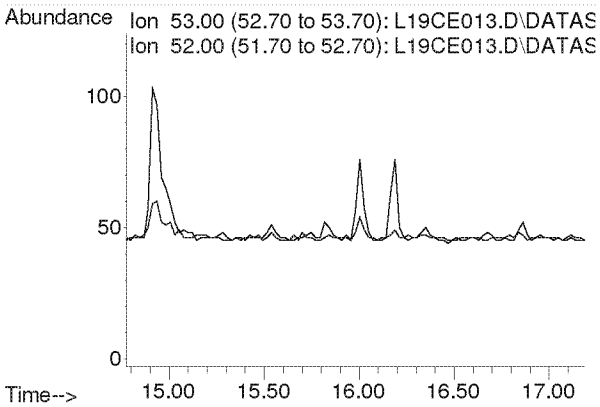


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

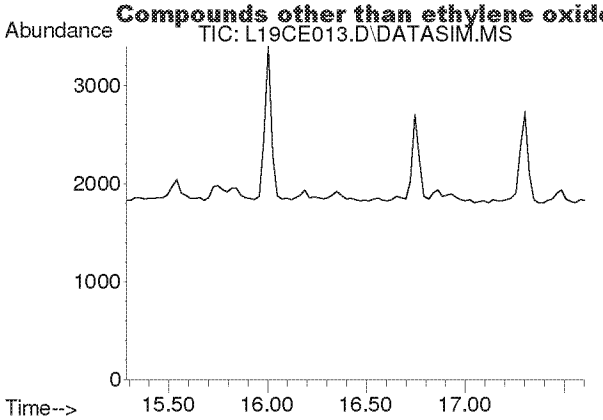
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

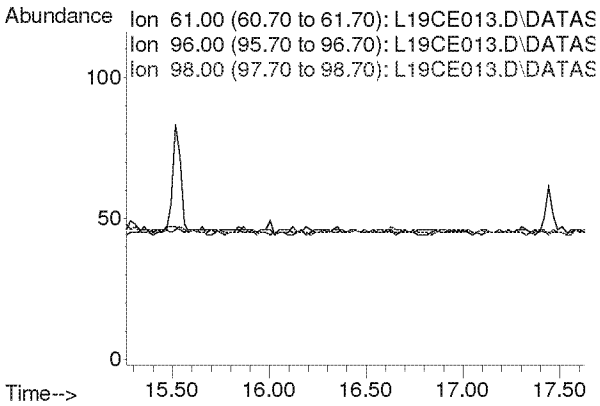


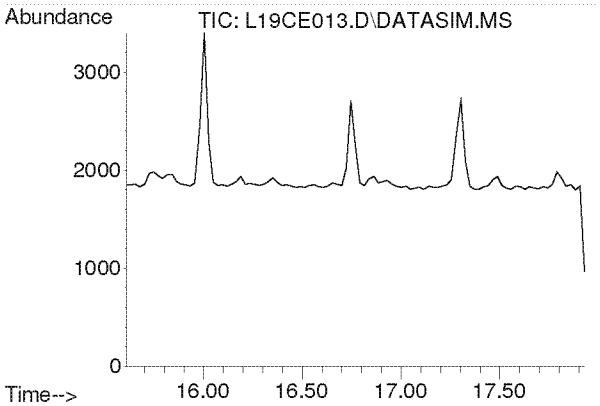
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



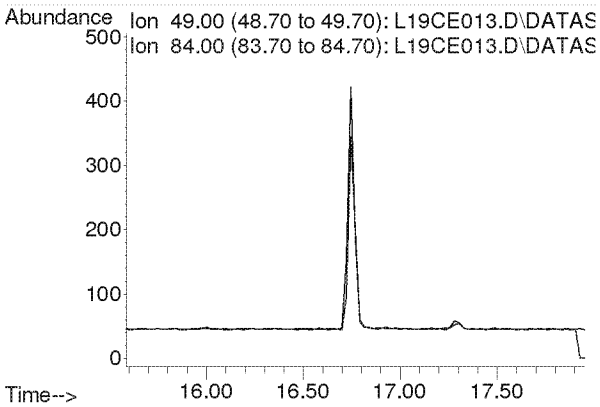


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

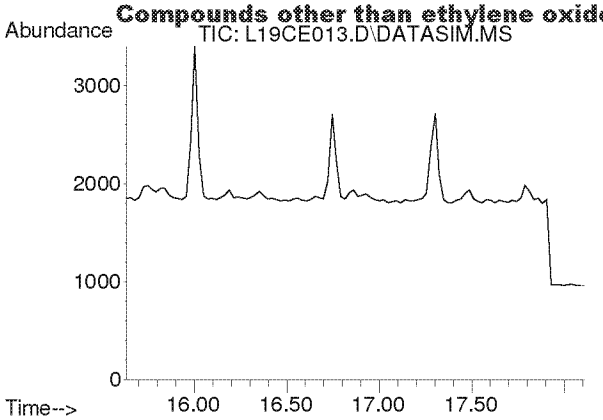
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

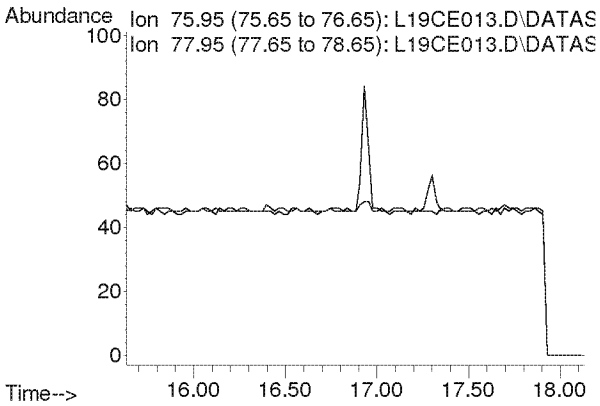


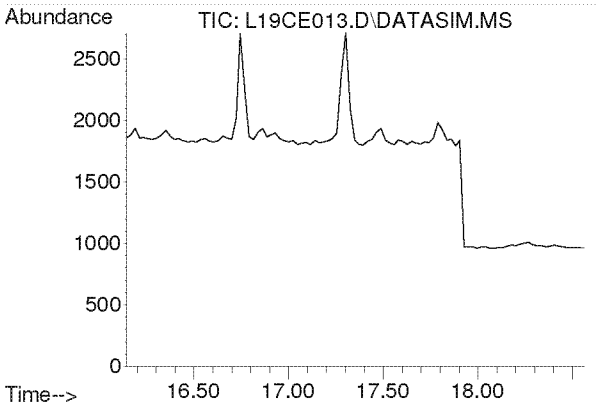
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



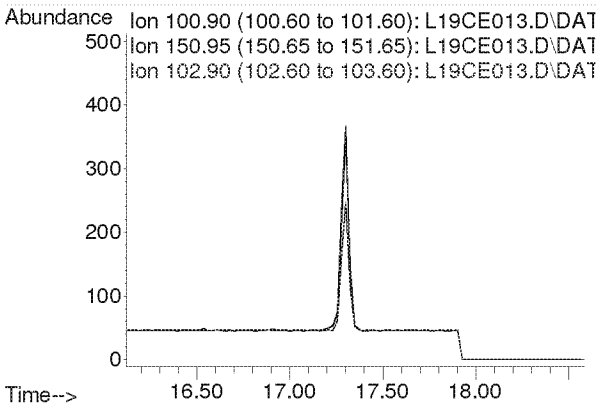


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

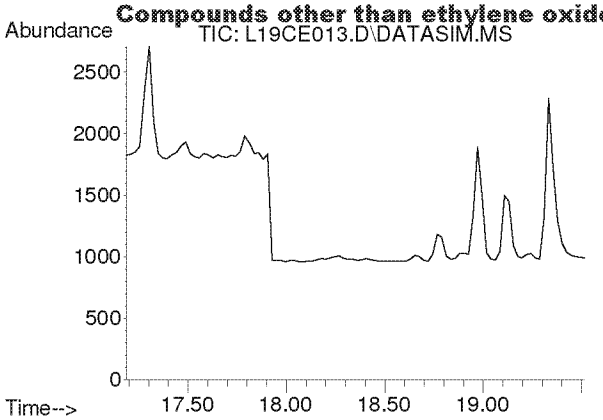
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

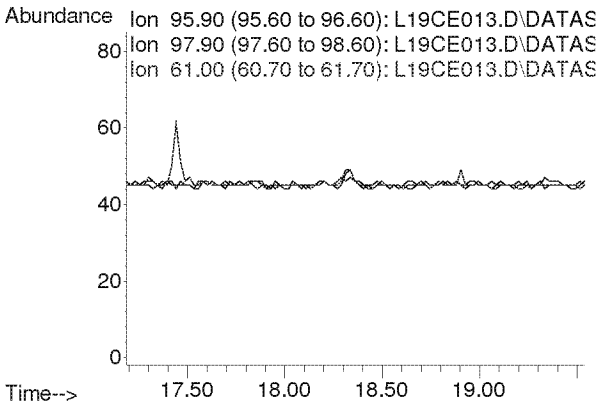


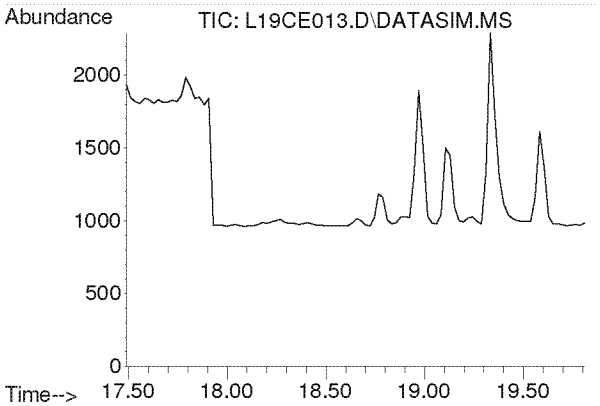
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



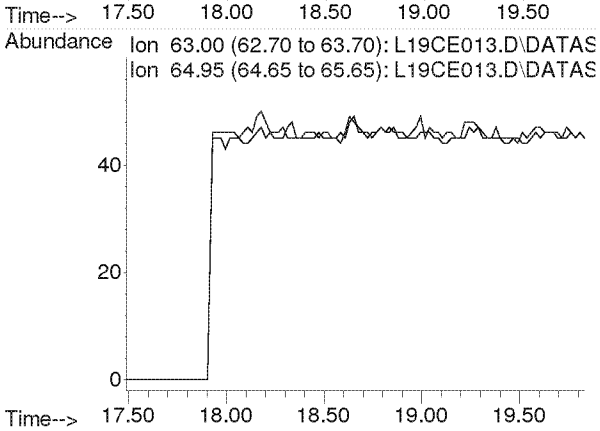


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

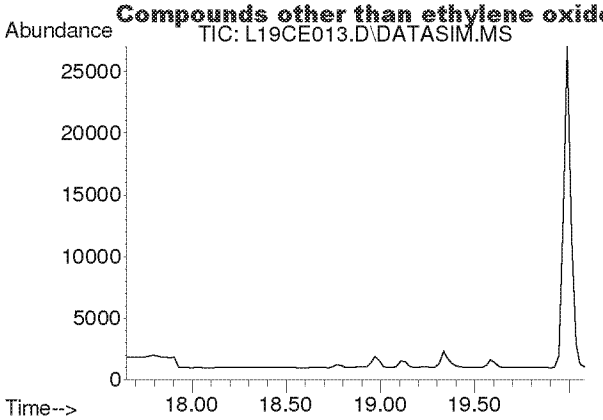
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

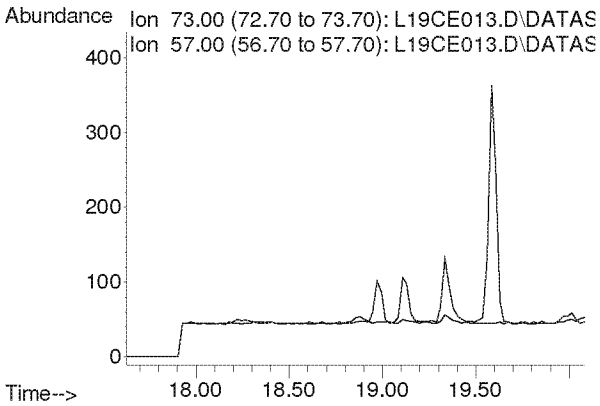


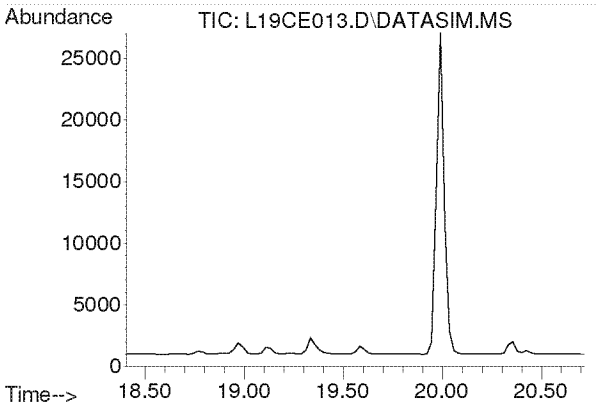
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



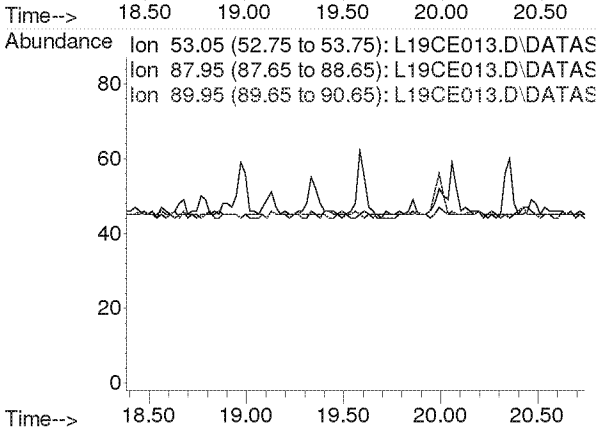


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

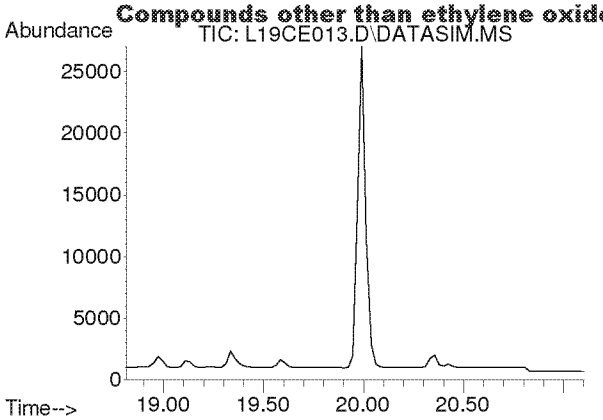
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

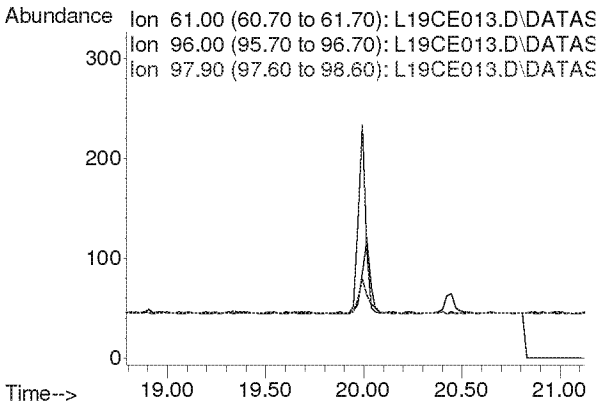


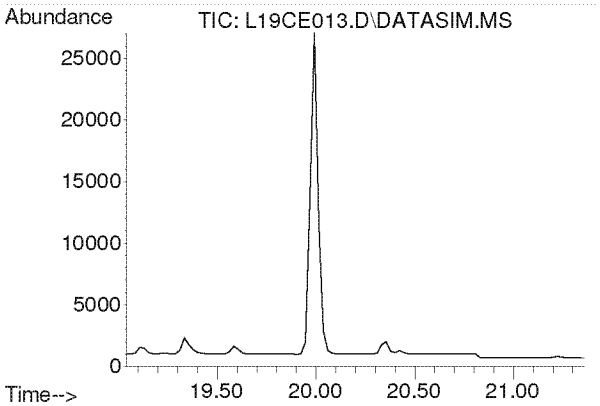
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



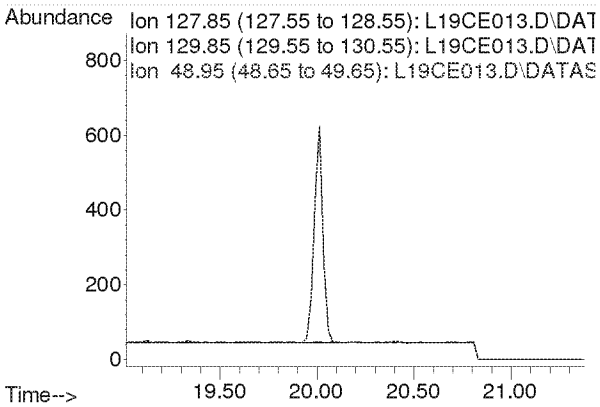


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

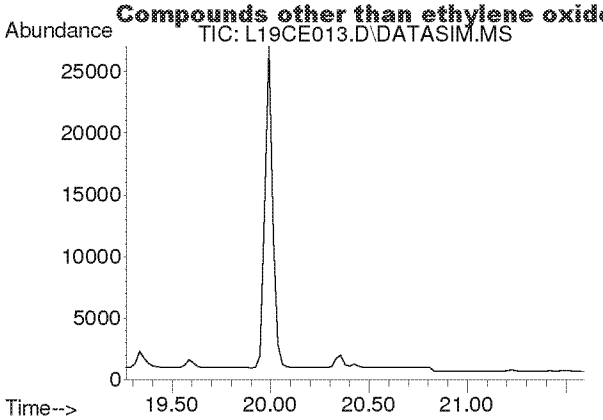
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

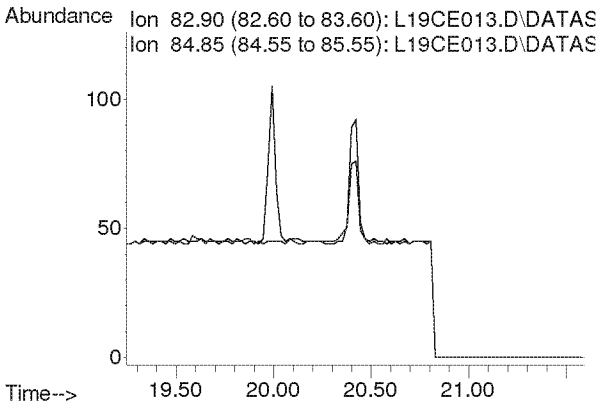


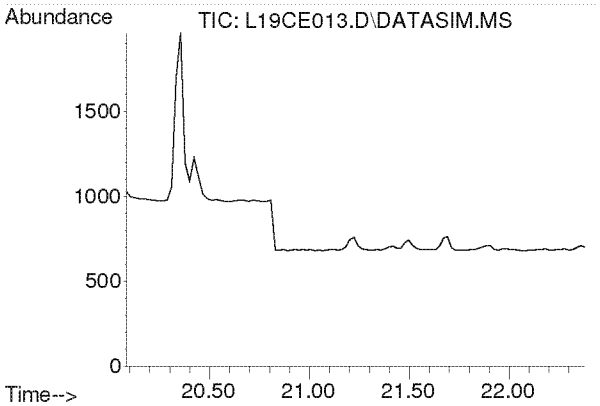
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



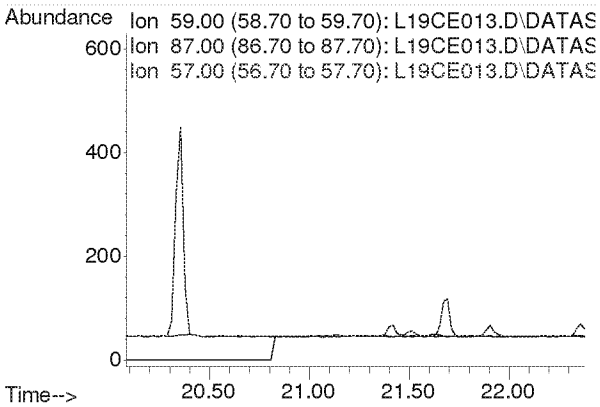


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

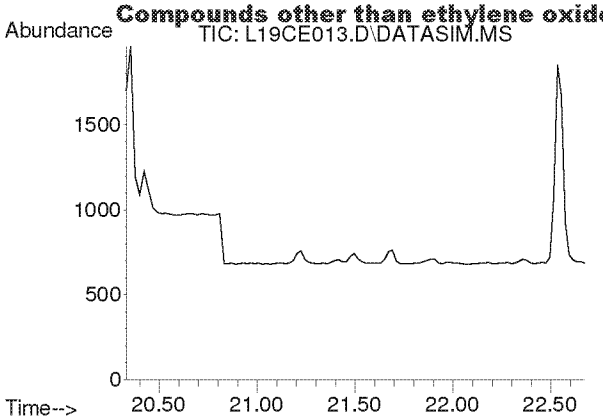
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

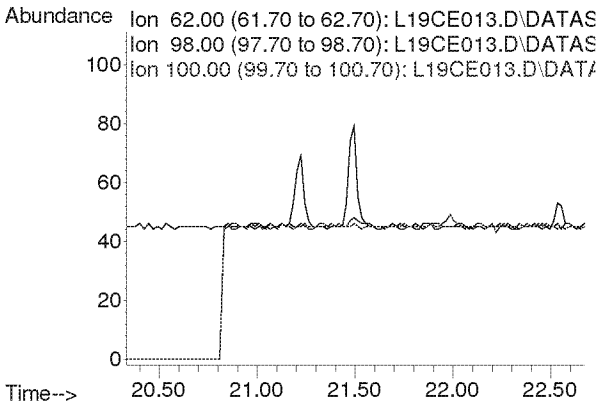


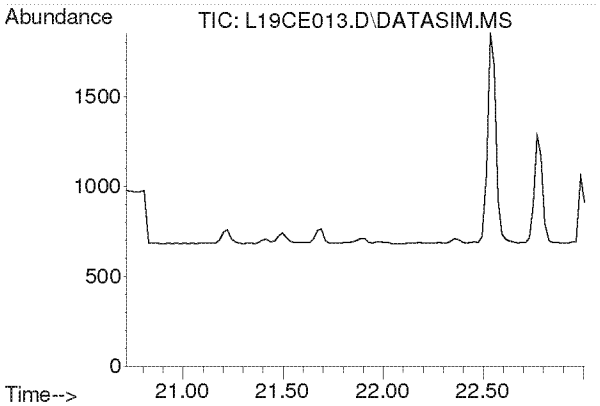
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



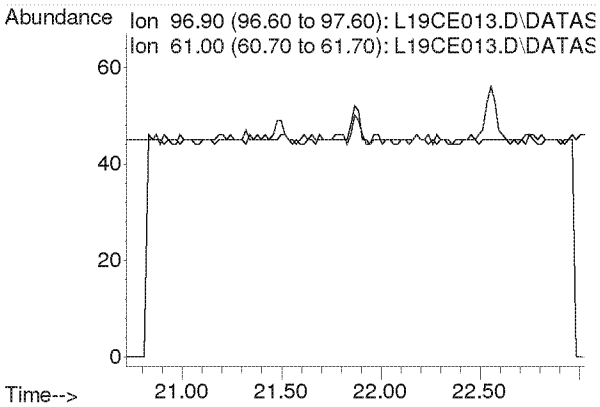


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

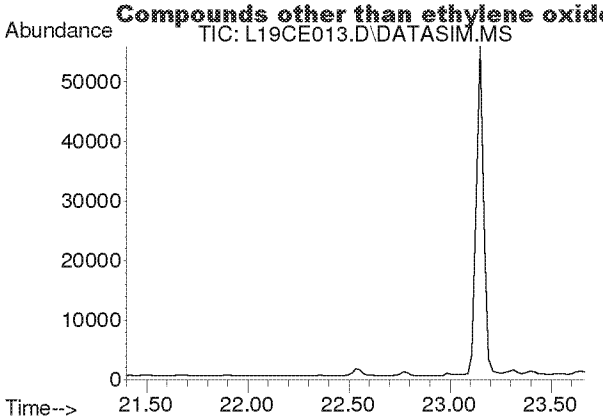
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

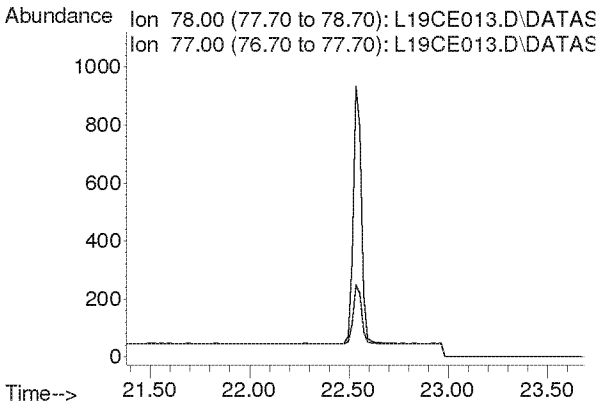


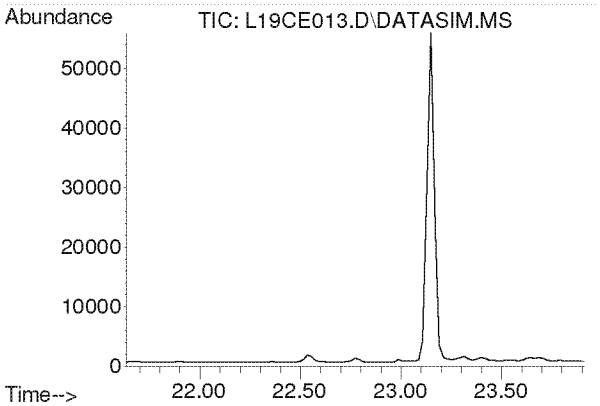
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



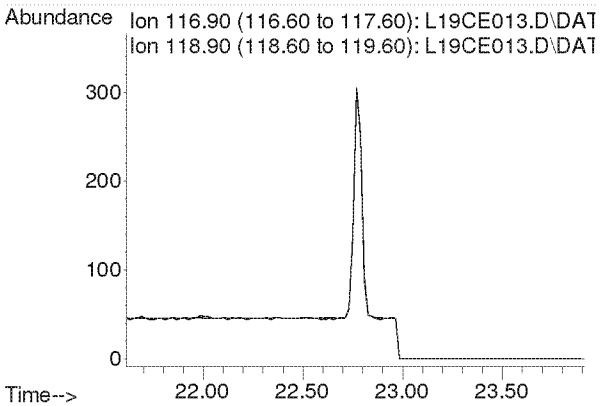


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

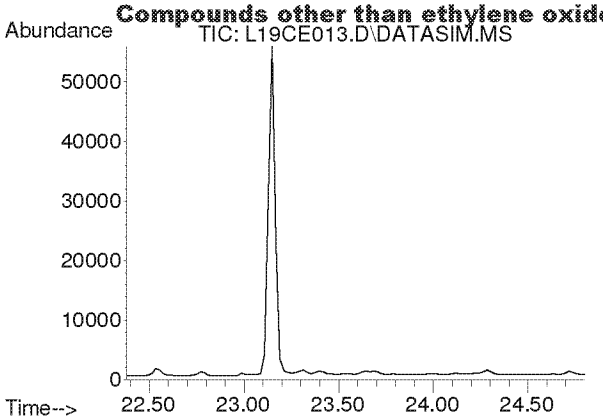
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

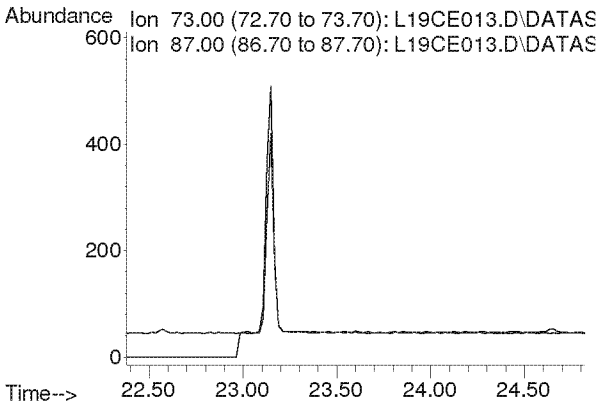


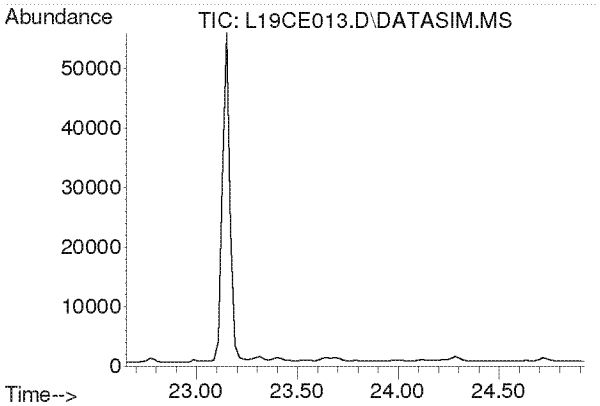
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



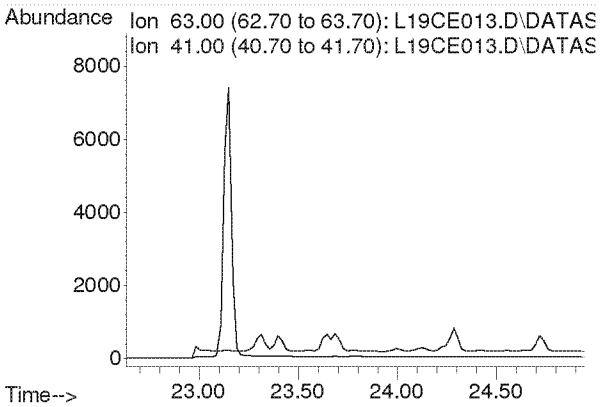


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

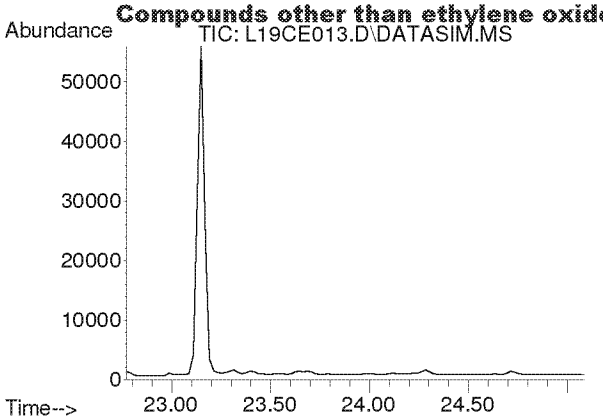
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

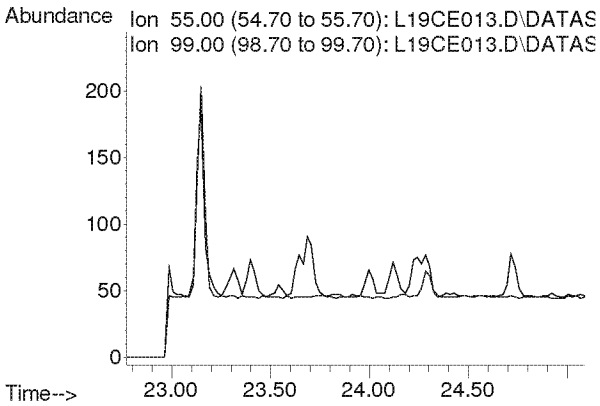


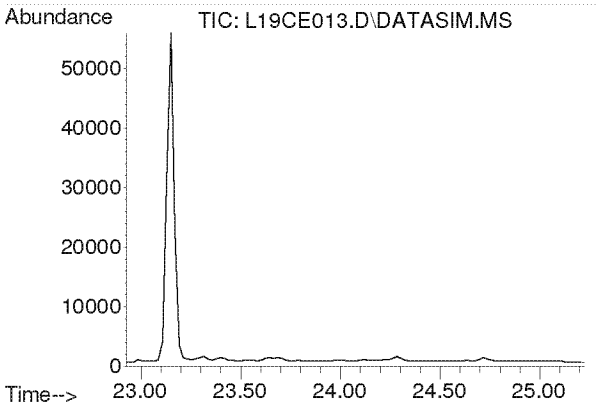
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



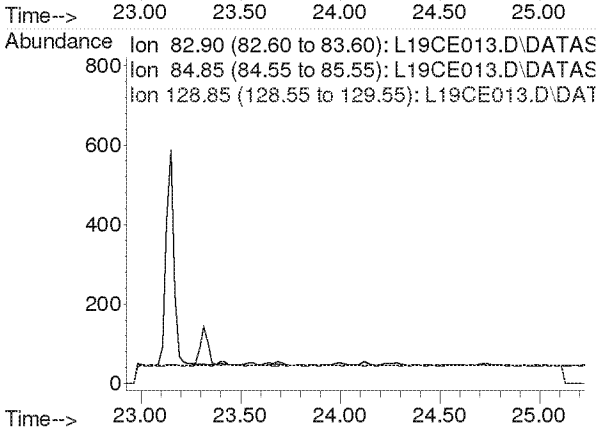


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

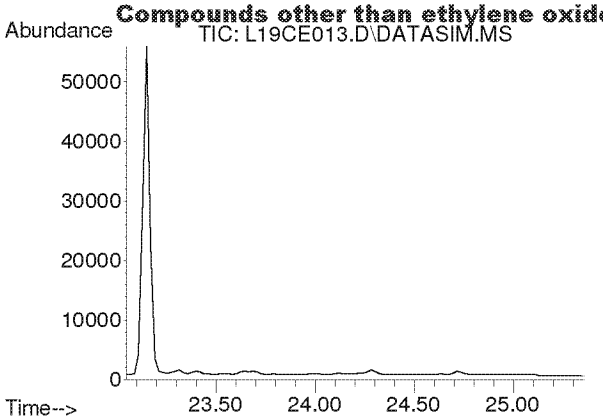
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

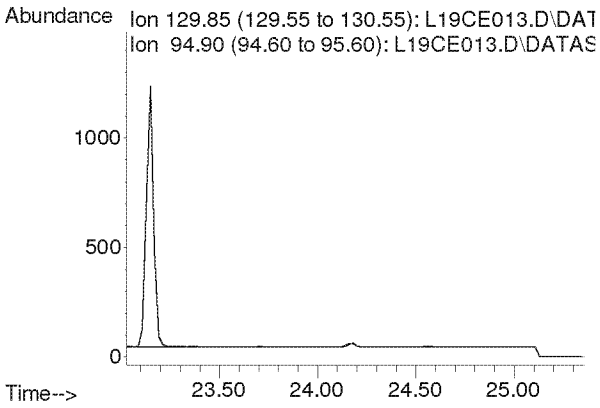


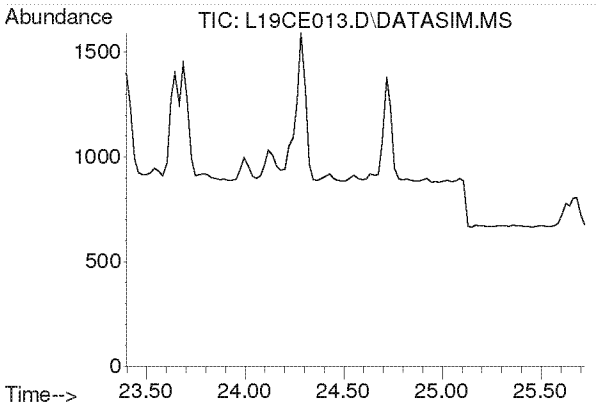
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



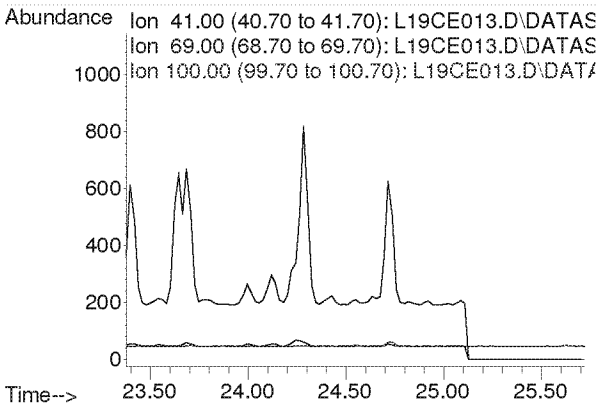


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

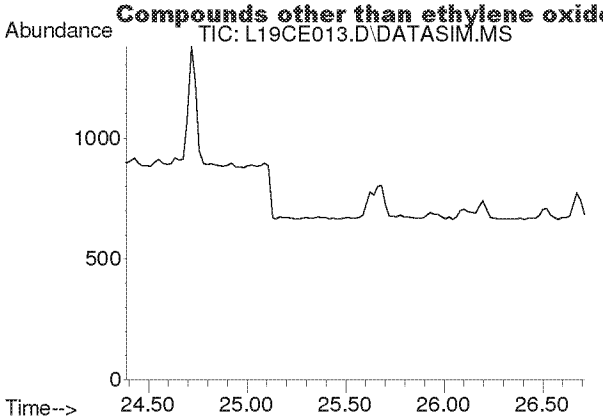
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

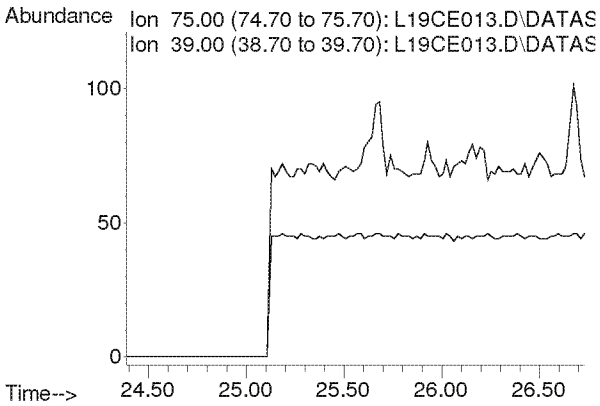


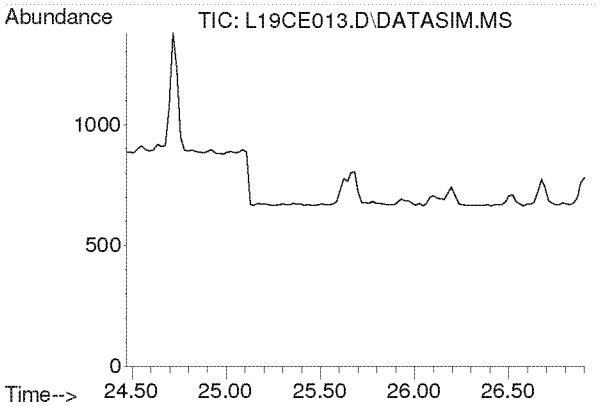
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



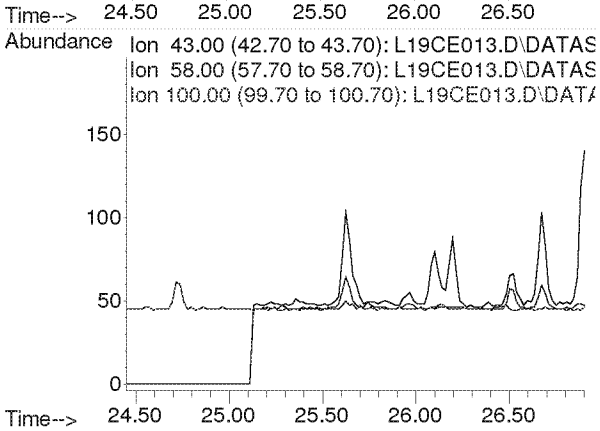


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

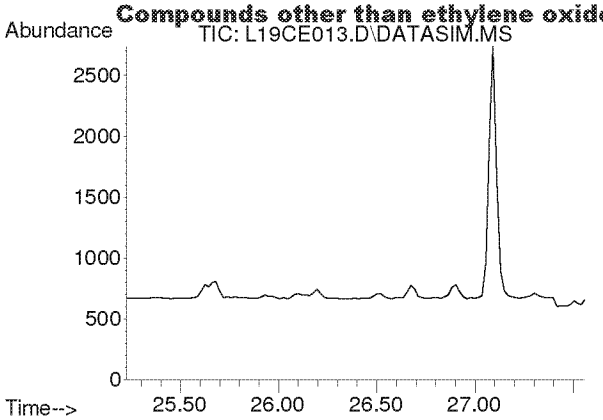
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

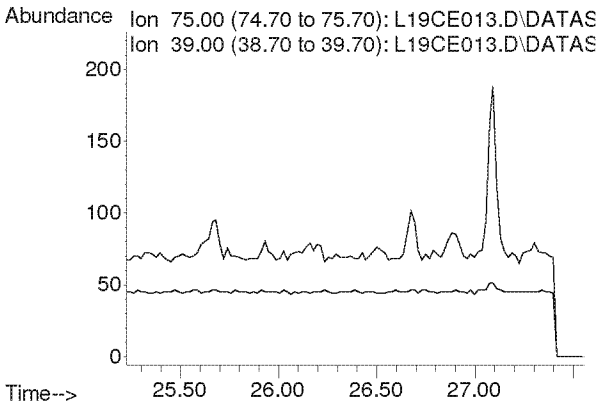


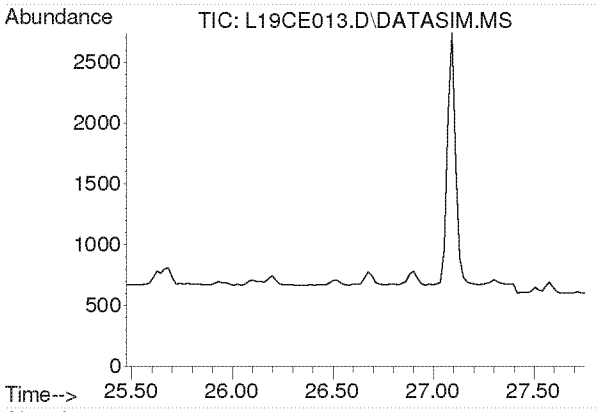
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



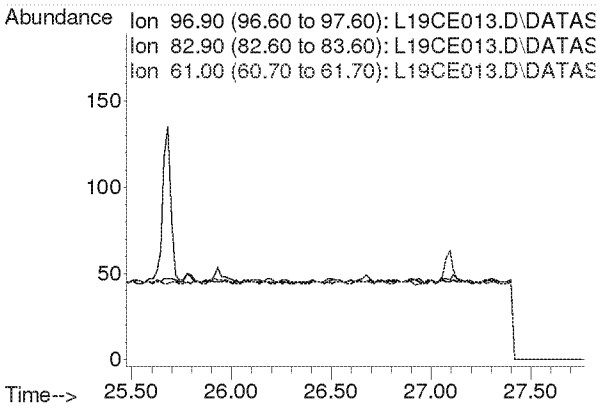


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

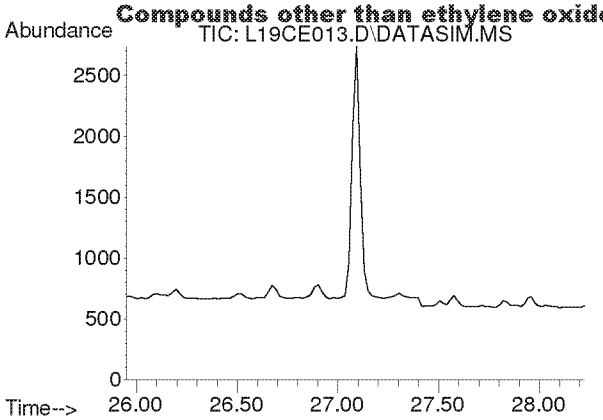
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

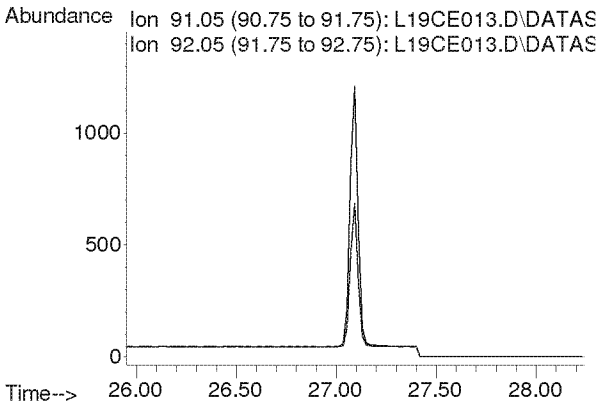


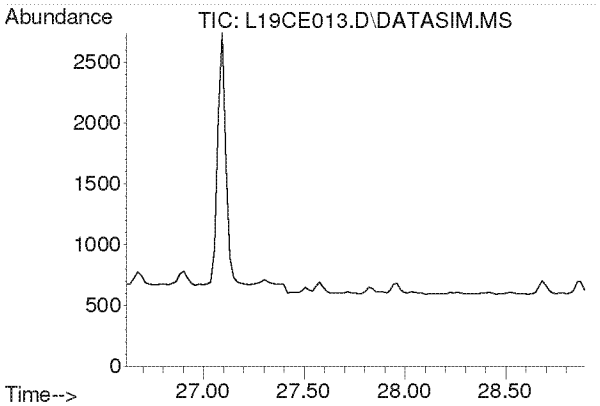
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



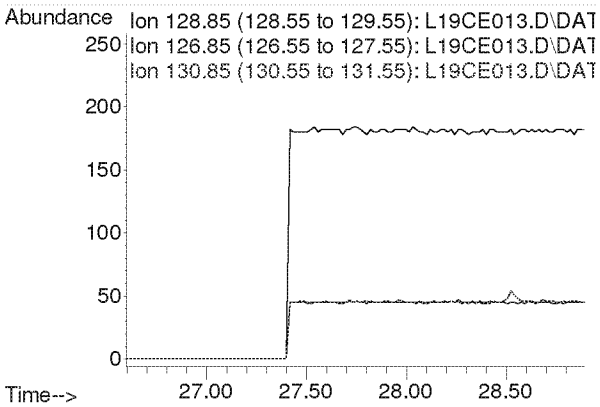


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

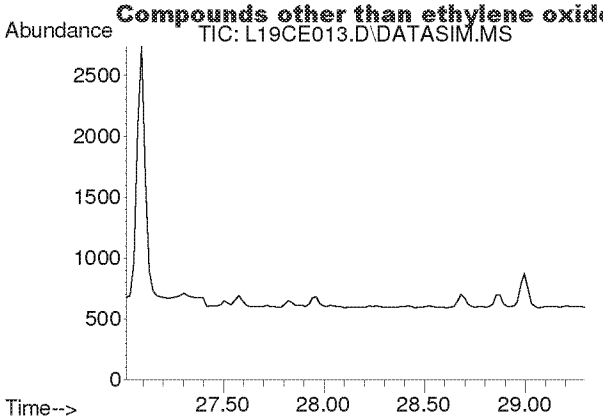
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

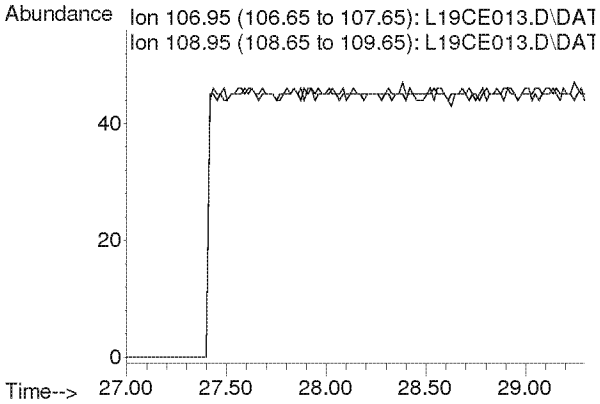


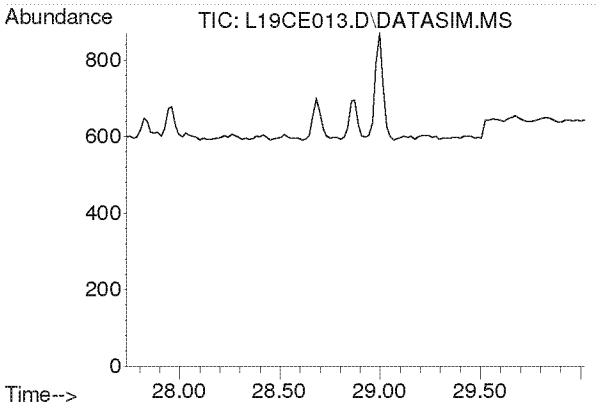
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



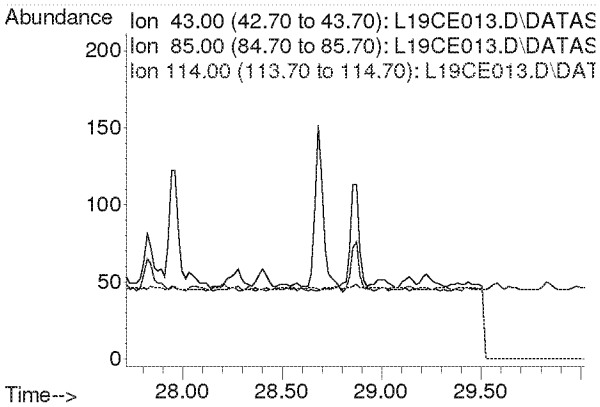


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

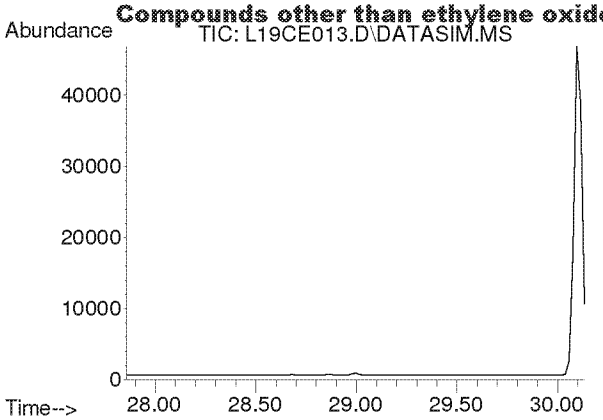
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

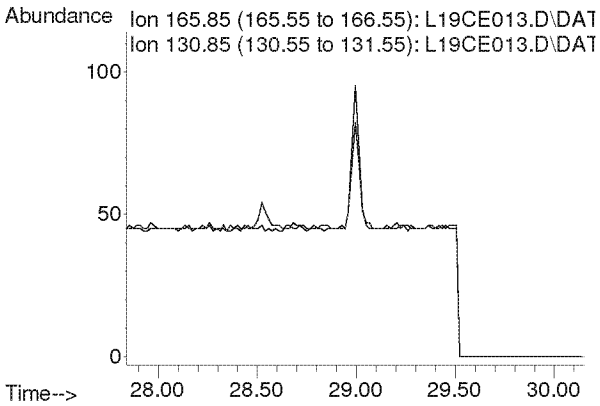


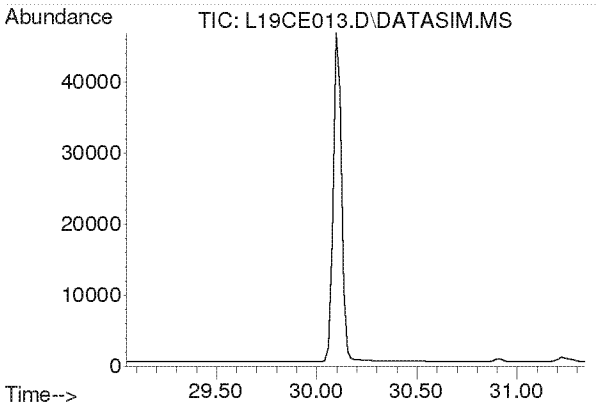
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



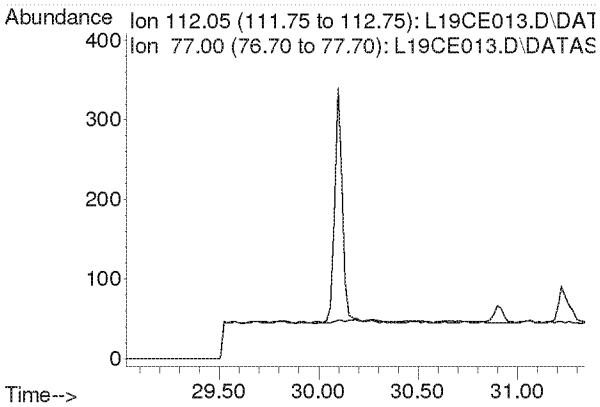


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

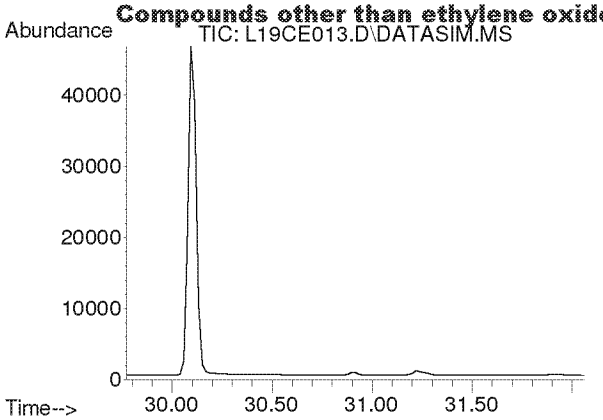
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

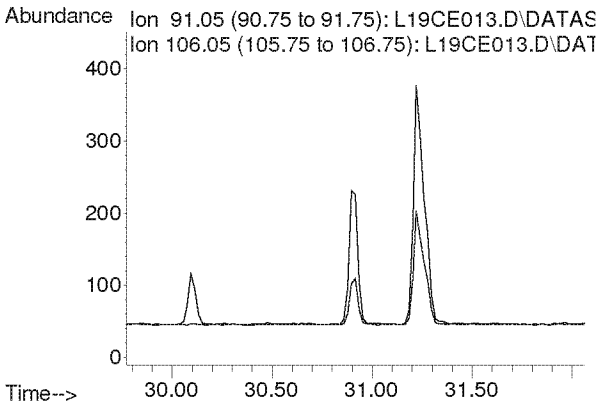


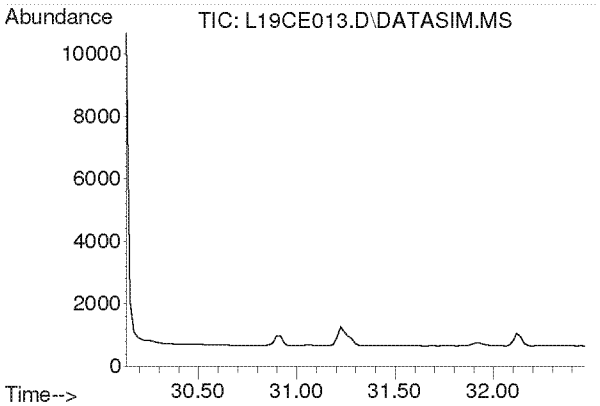
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



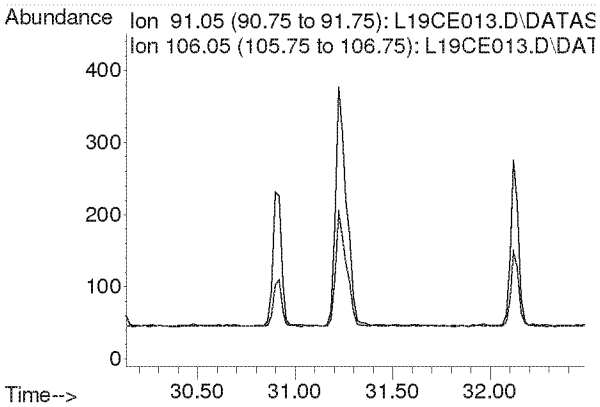


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

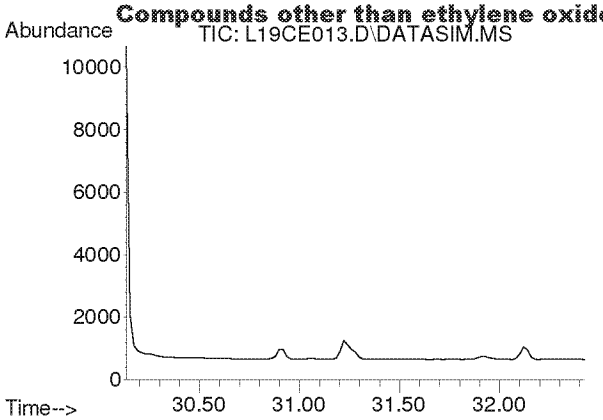
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

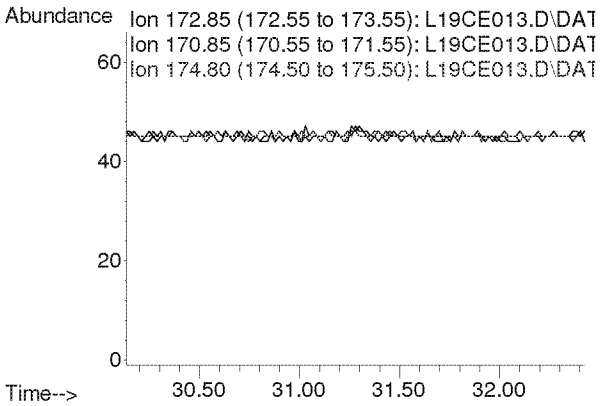


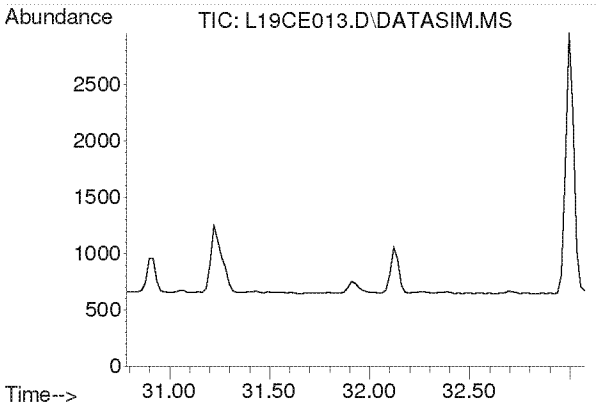
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



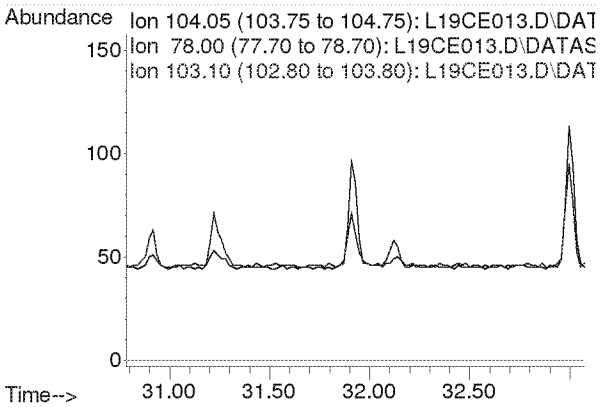


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

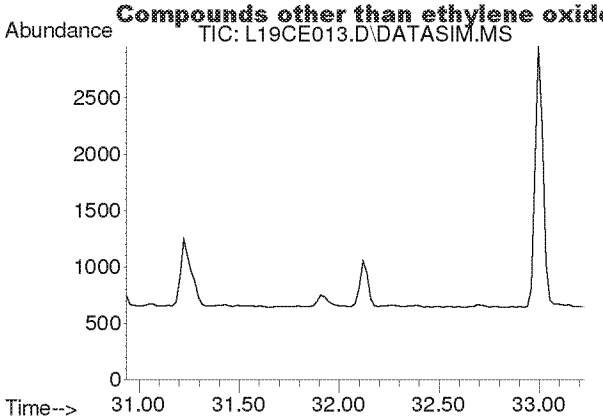
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

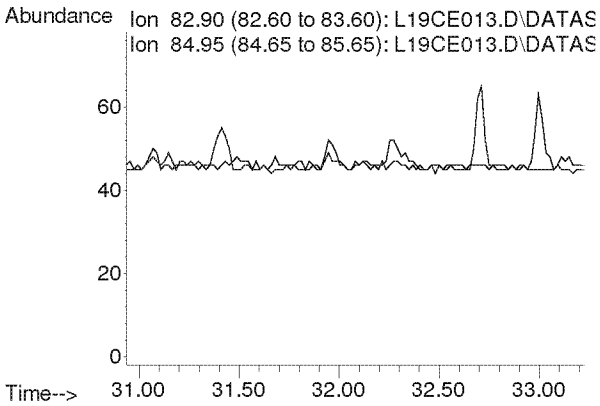


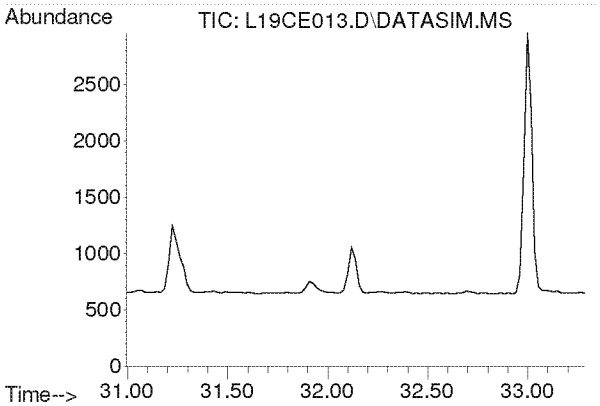
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



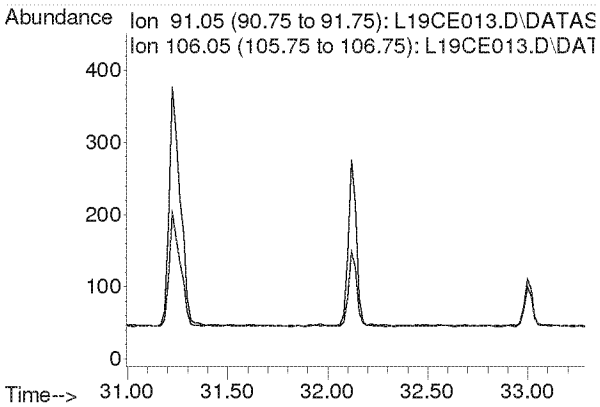


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

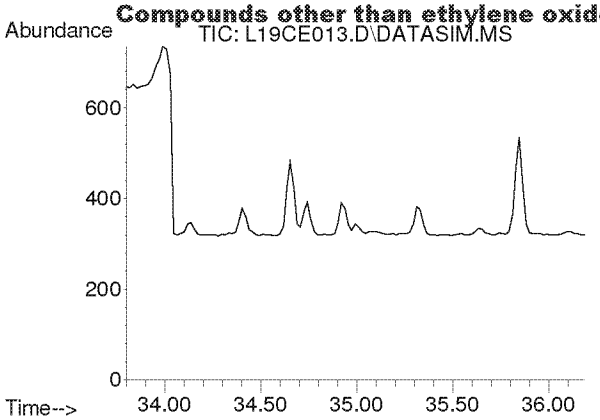
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

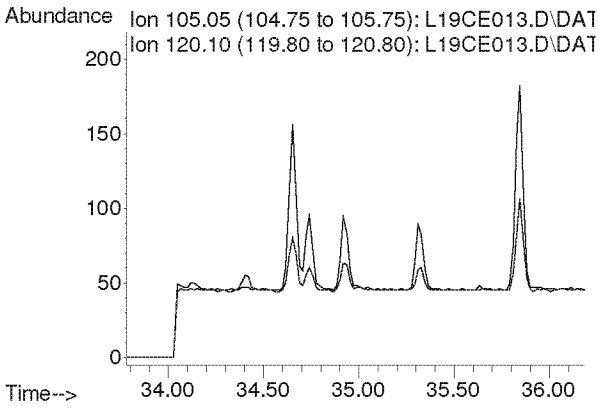


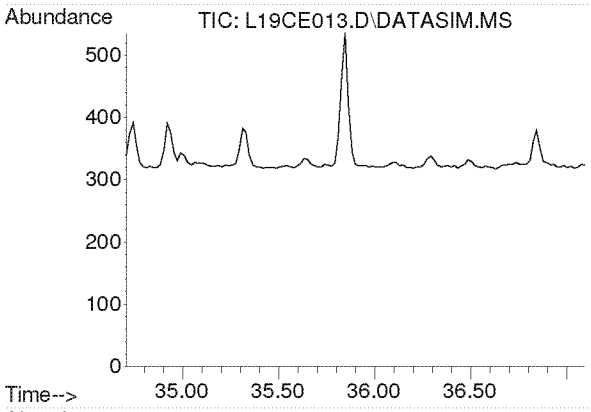
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



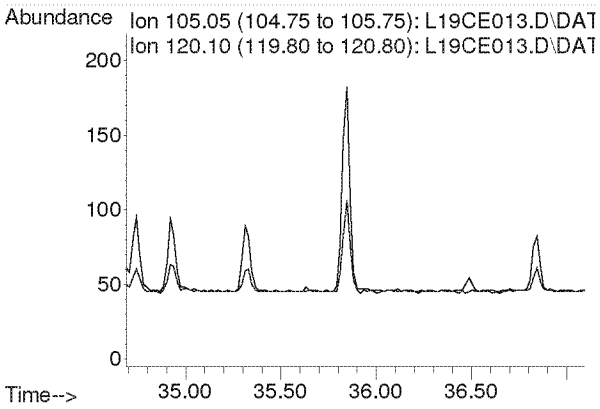


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

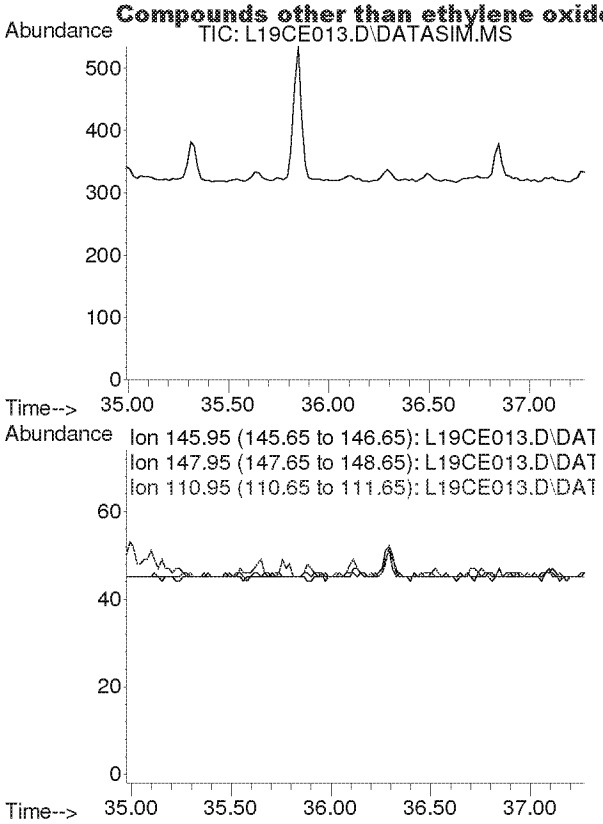
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

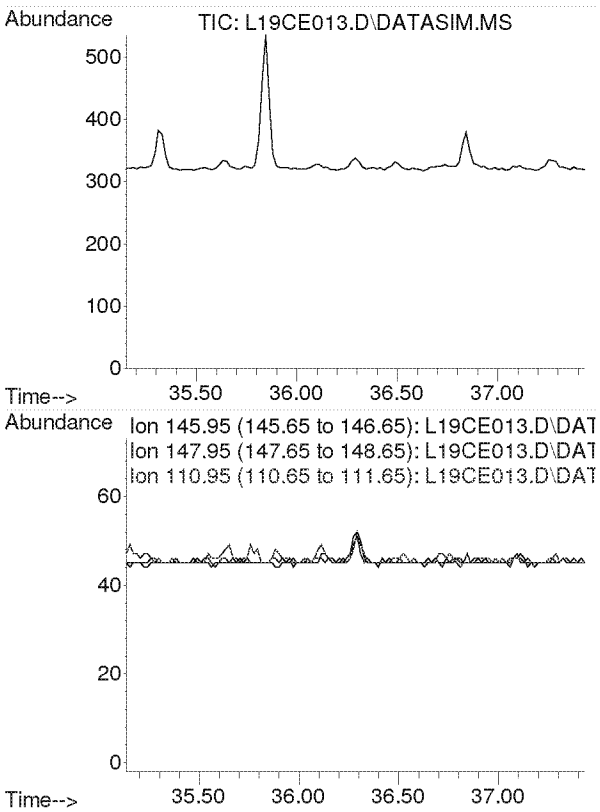


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



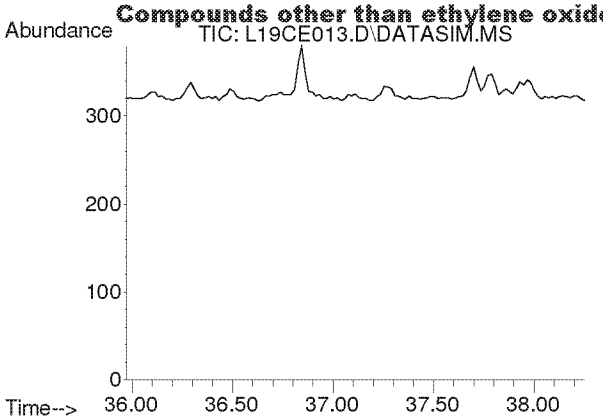
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

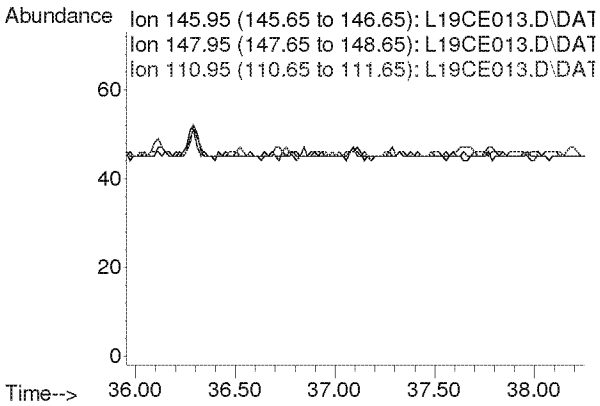


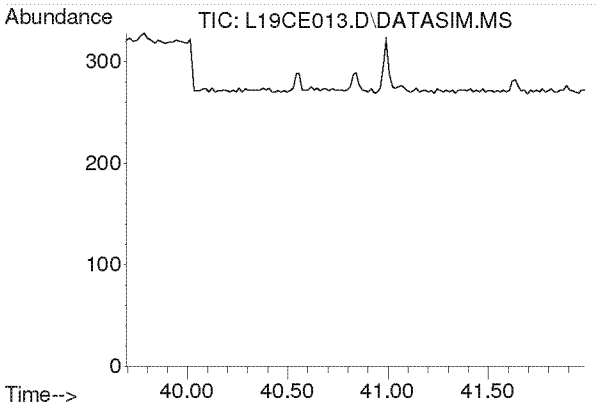
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



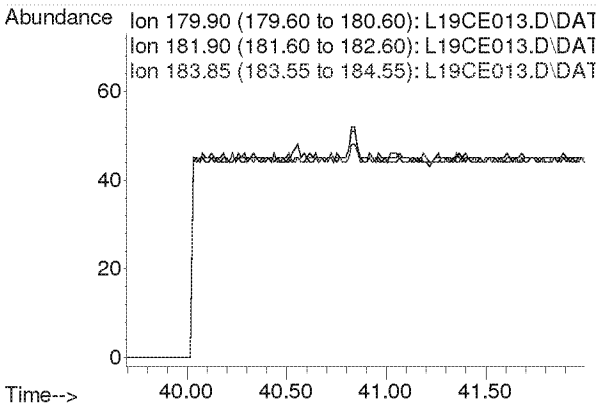


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

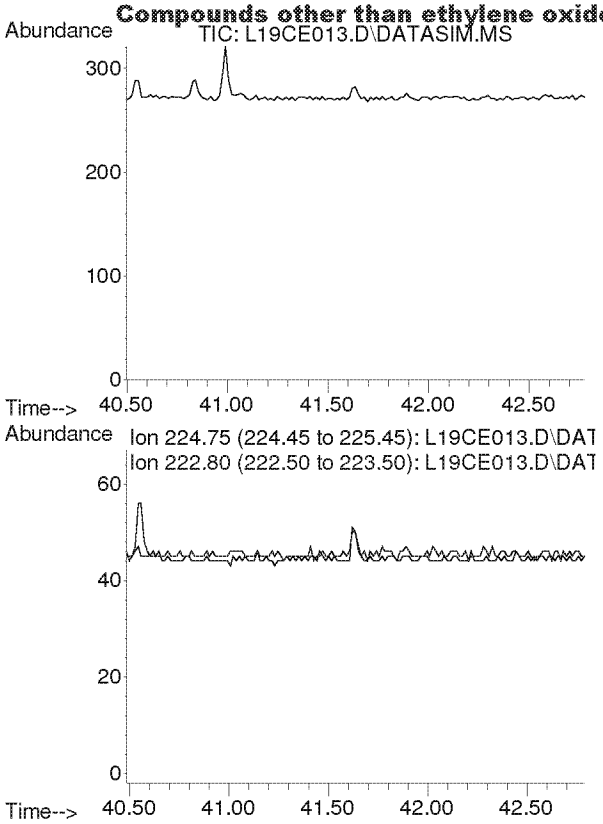
Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE013.D
Acq: 6 Mar 2019 12:30 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Duplicate Samples					
		D1	D2		
File ID		L19CE014.D	L19CE015.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9030524-07	9030524-08		
Mics Comments		EPA WB WAREHC	EPA WB WAREHOUSE C2 3/2/19		
Compound	MDL	Amount (ppbv)	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.057	0.08	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

3-6-19

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

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Replicate Analyses

		D1	R1		
File ID		L19CE014.D	L19CE016.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9030524-07	B9C0507-DUP1		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R1 3/2/19		
Compound	MDL	Amount/ppbv	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.057	0.069	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		L19CE015.D	L19CE017.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9030524-08	B9C0507-DUP2		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R2 3/2/19		
Compound	MDL	Amount/ppbv	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.08	0.099	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE014.D
Acq On : 6 Mar 2019 1:30 am
Operator : MAH
Sample : 9030524-07
Misc : EPA WB WAREHOUSE C1 3/2/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 12:25:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d=MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	46863	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	121314	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	85456	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.483	29	153m	0.0571 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. 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\L19CE\
Data File : L19CE014.D
Acq On : 6 Mar 2019 1:30 am
Operator : MAH
Sample : 9030524-07
Misc : EPA WB WAREHOUSE C1 3/2/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 12:25:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

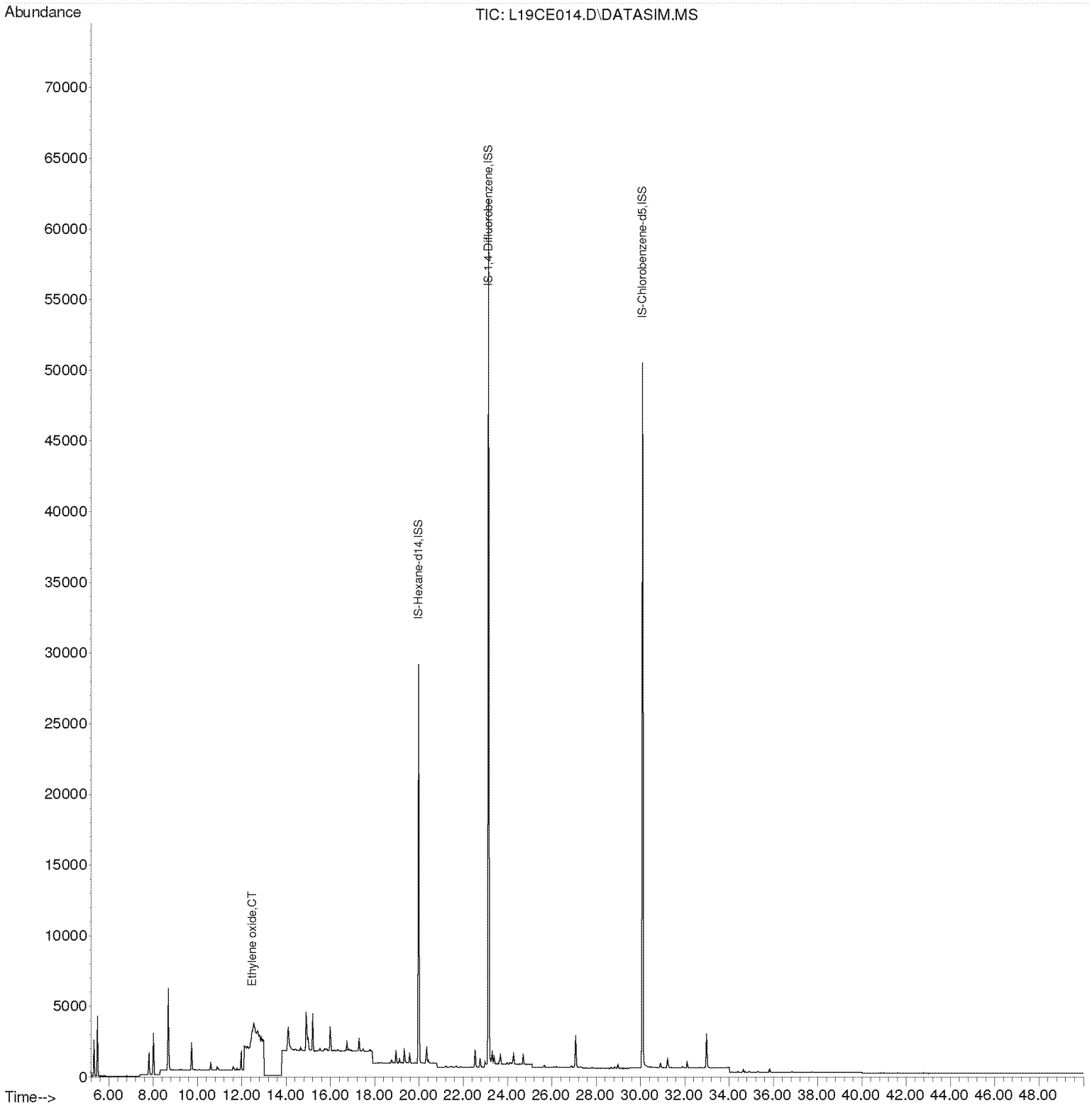
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

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

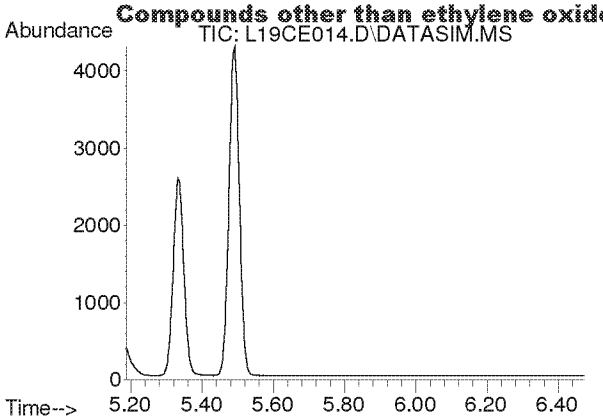
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE014.D
Acq On : 6 Mar 2019 1:30 am
Operator : MAH
Sample : 9030524-07
Misc : EPA WB WAREHOUSE C1 3/2/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 06 12:03:19 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



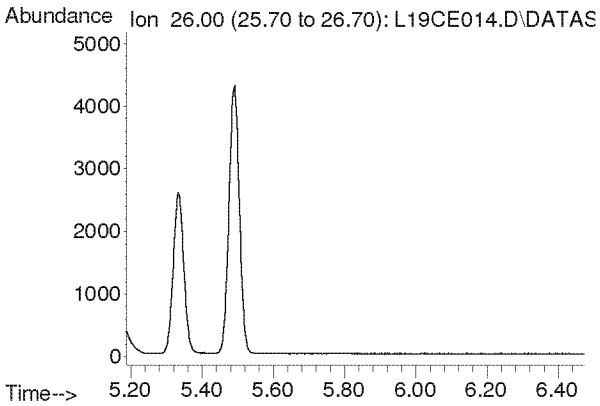
Compounds other than ethylene oxide were not quantitated.

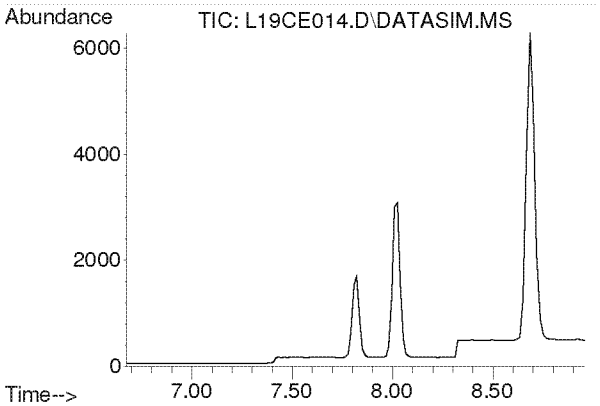


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 26



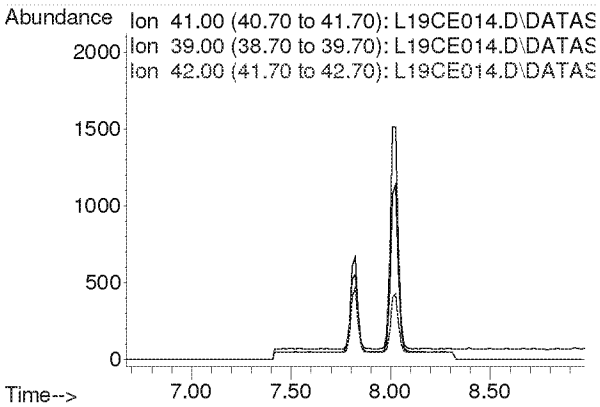


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

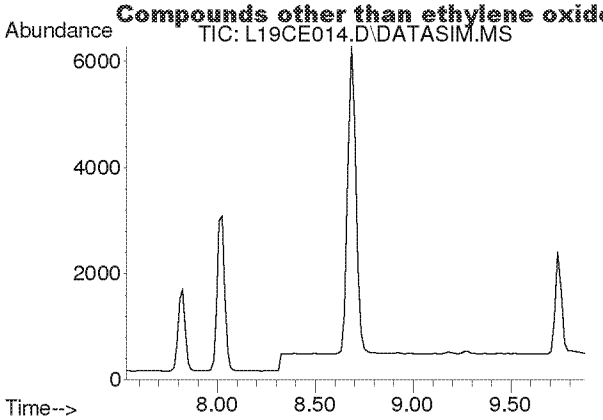
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

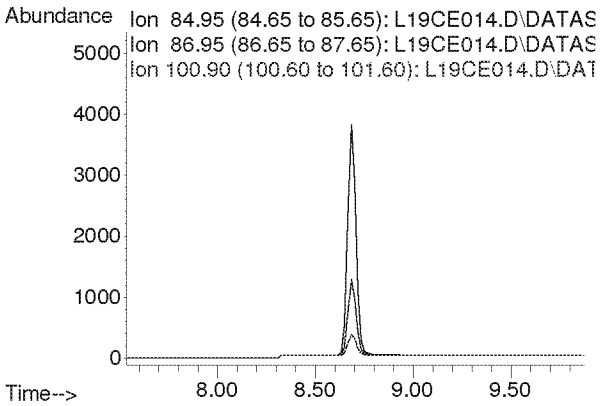


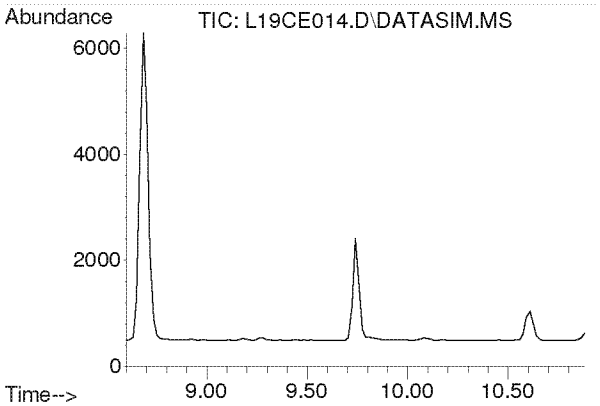
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



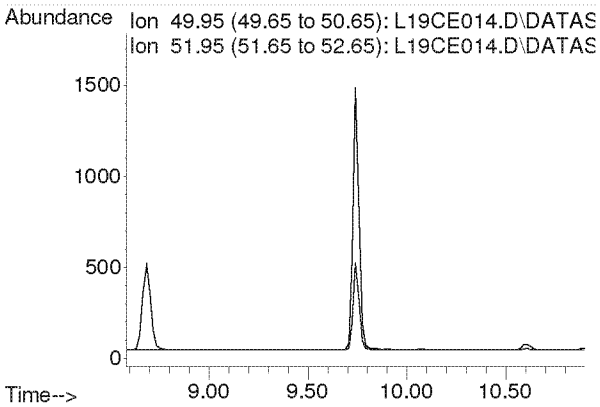


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

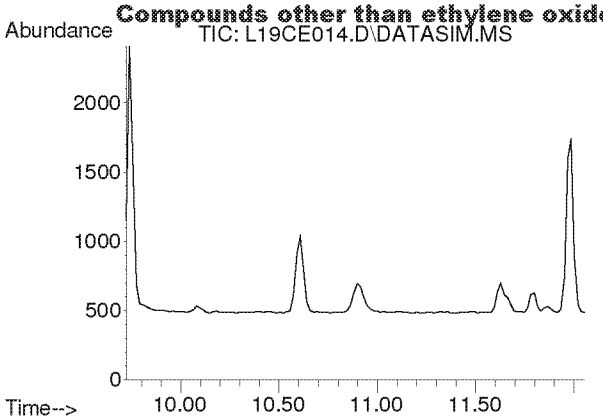
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

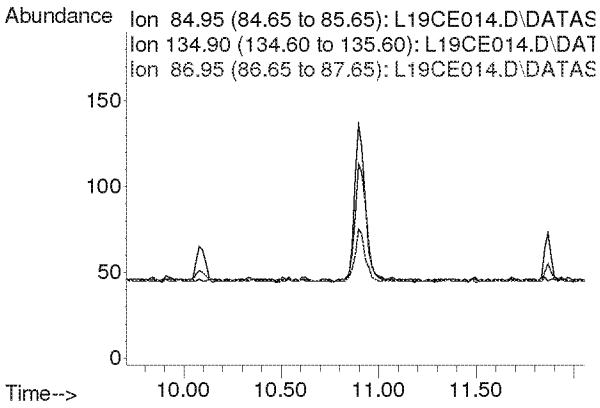


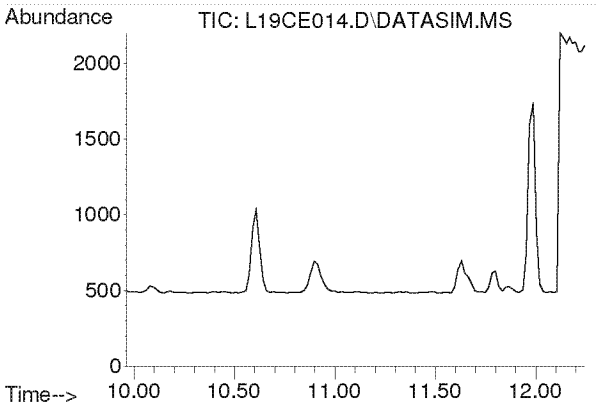
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



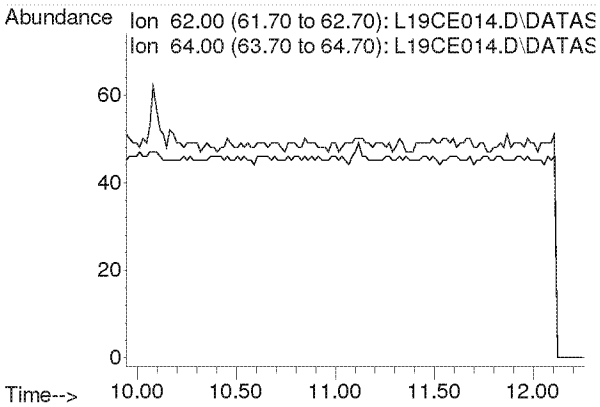


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

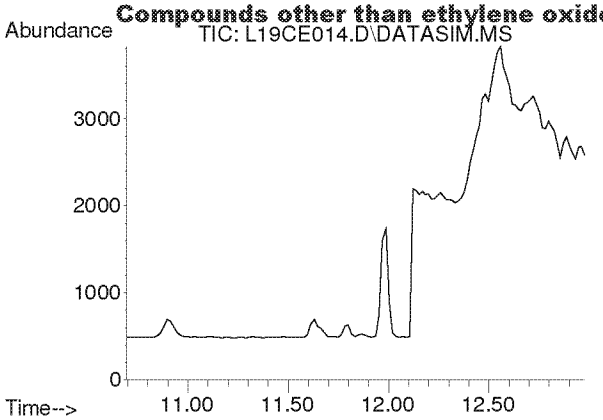
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

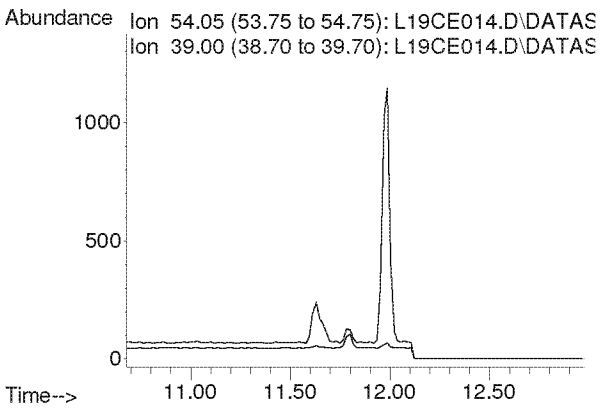


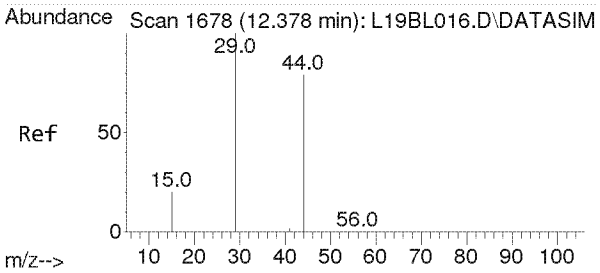
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

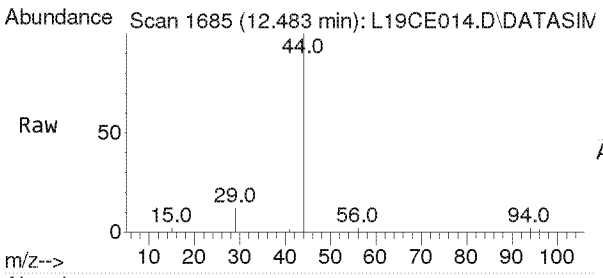


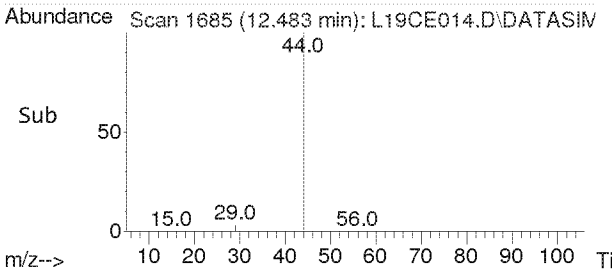


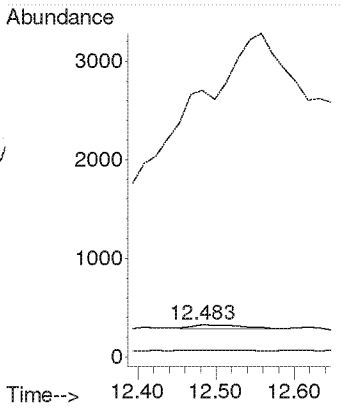
#9
Ethylene oxide
Concen: 0.057 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.033 min
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 29 Resp: 153

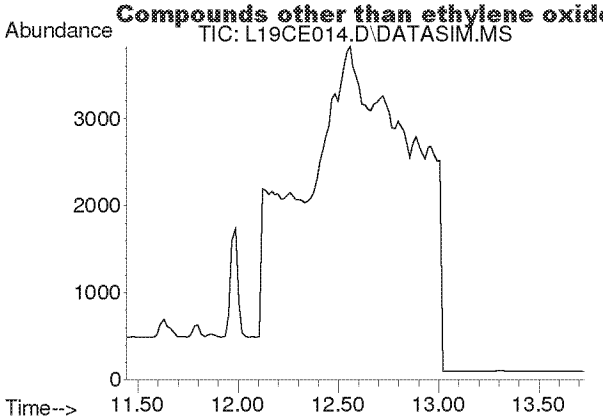
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

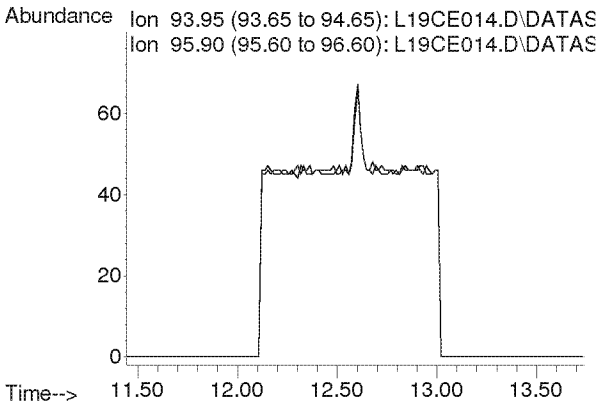


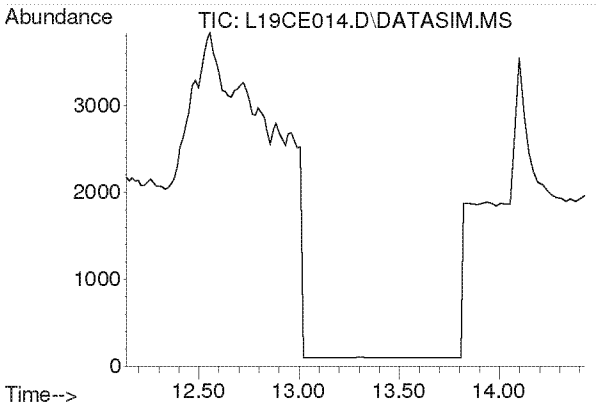
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



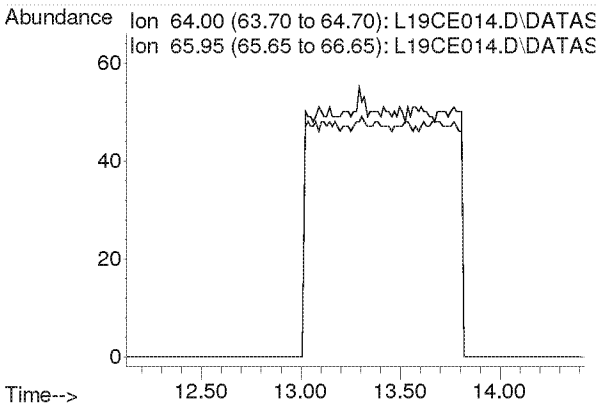


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

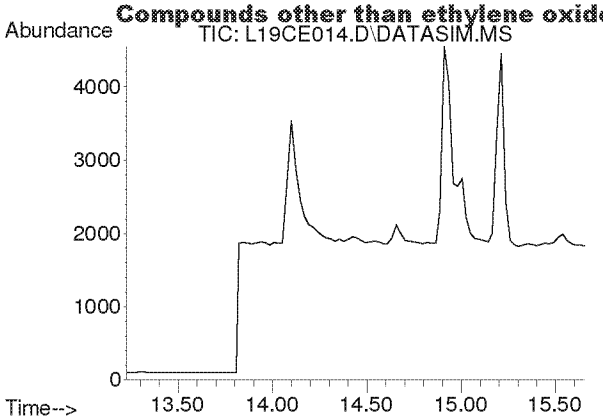
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

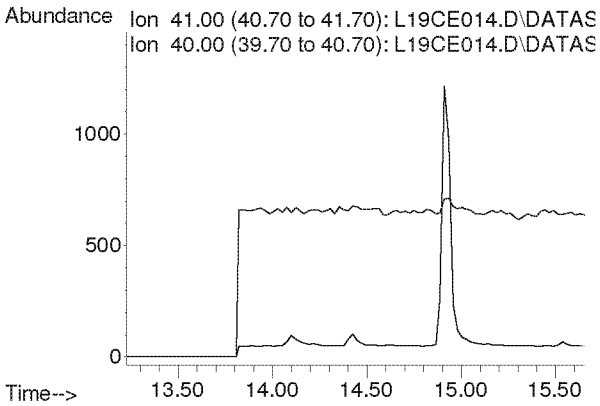


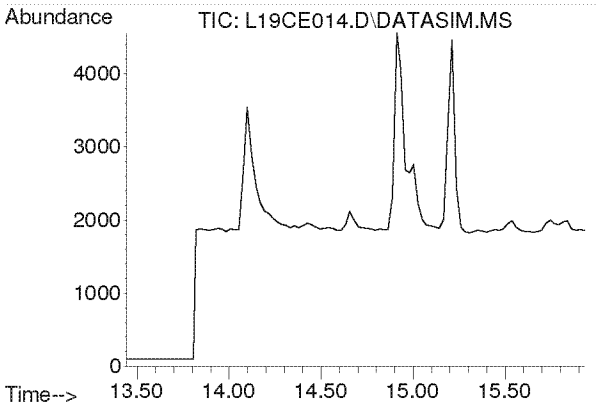
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



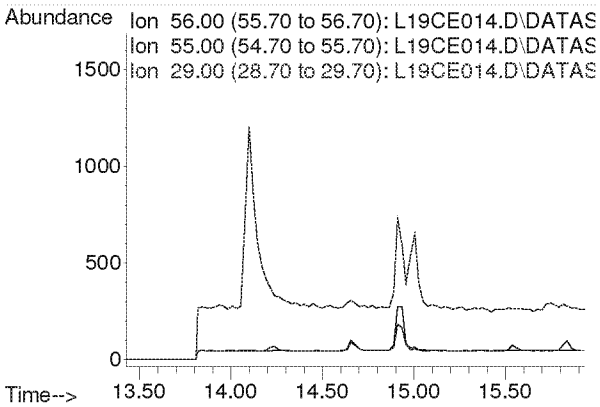


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

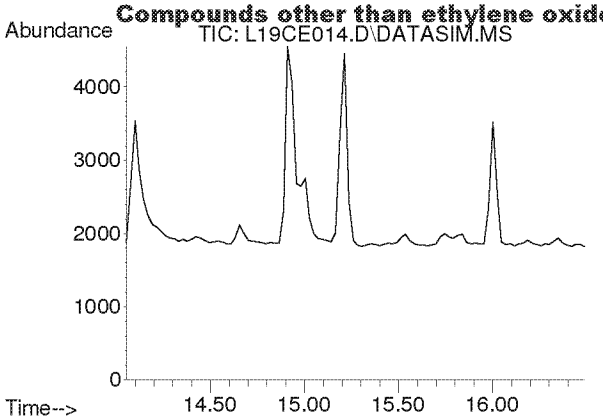
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

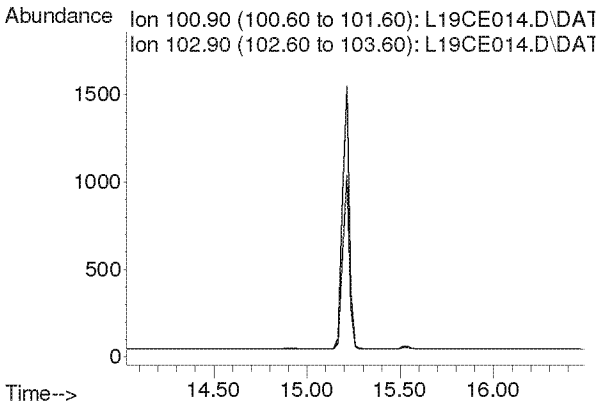


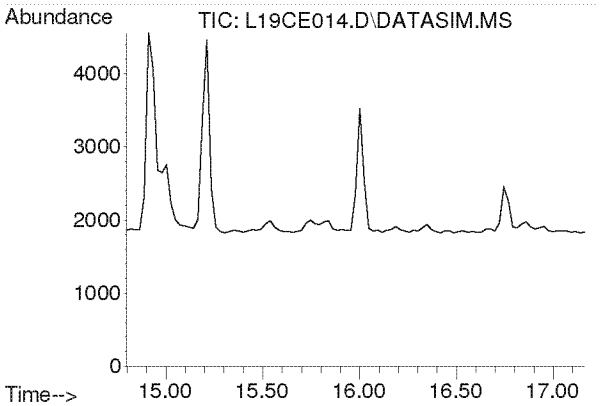
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



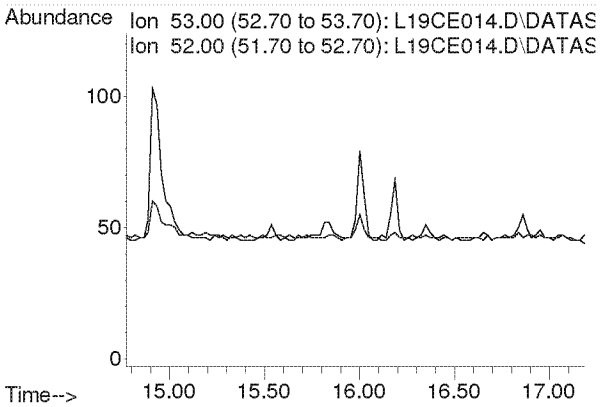


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

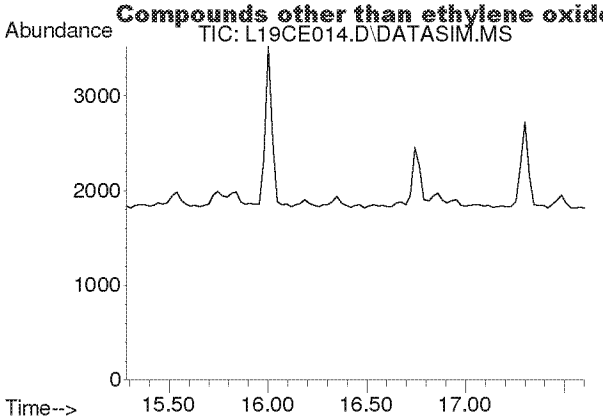
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

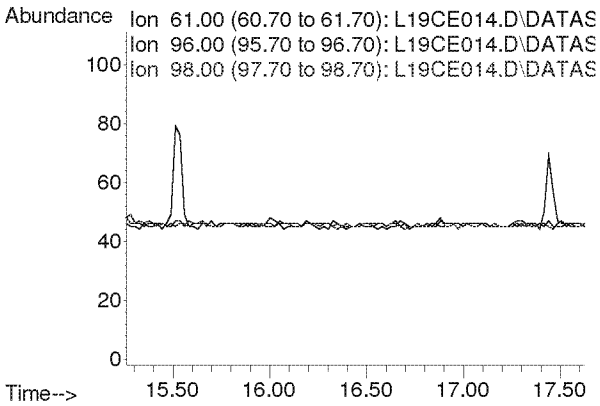


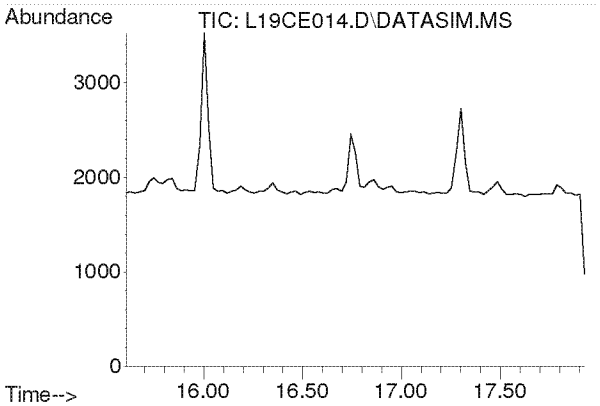
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



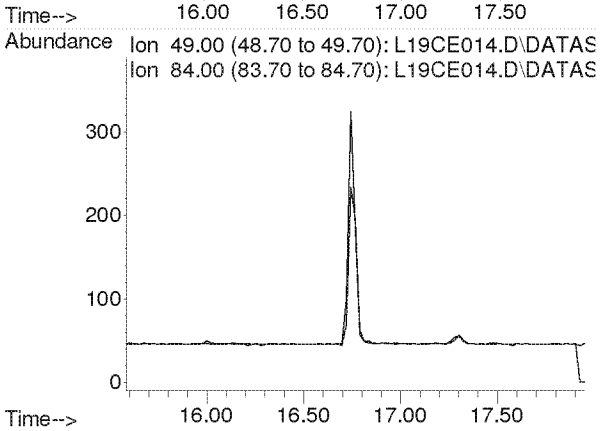


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

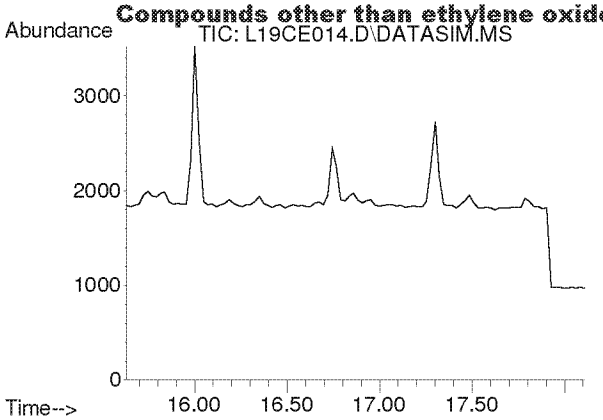
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

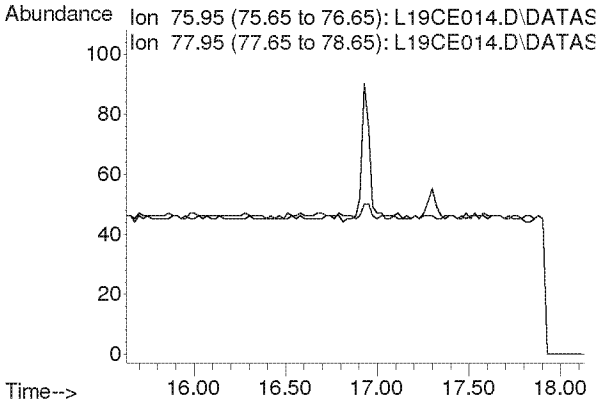


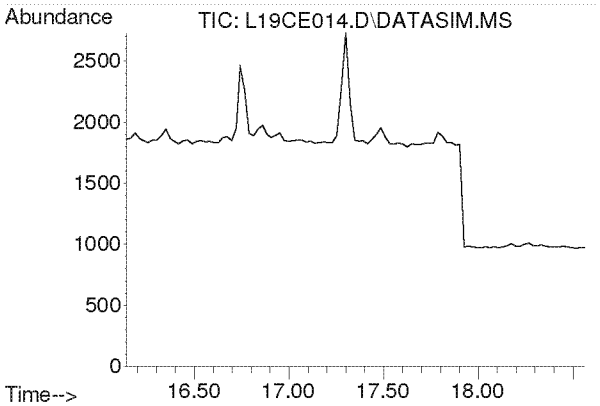
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



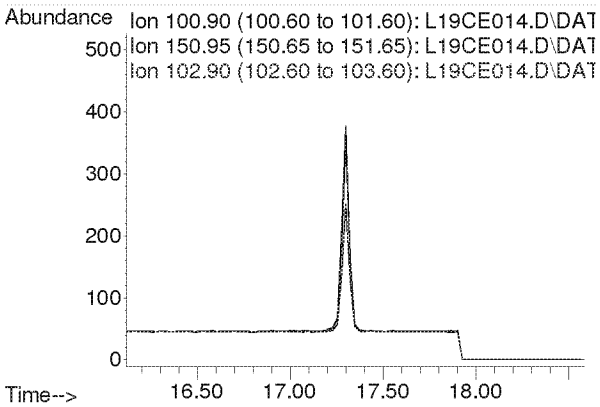


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

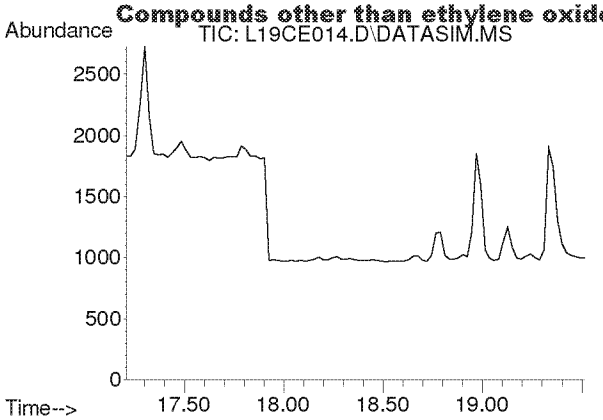
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

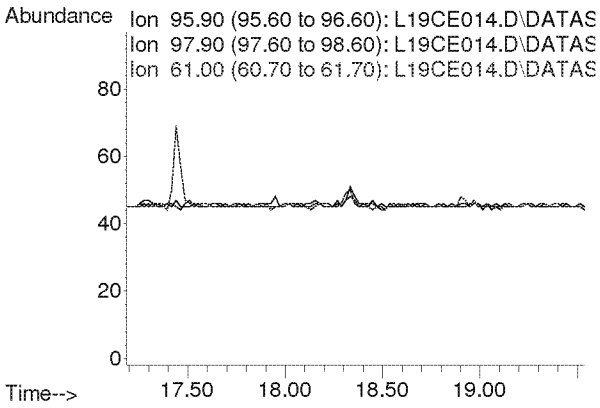


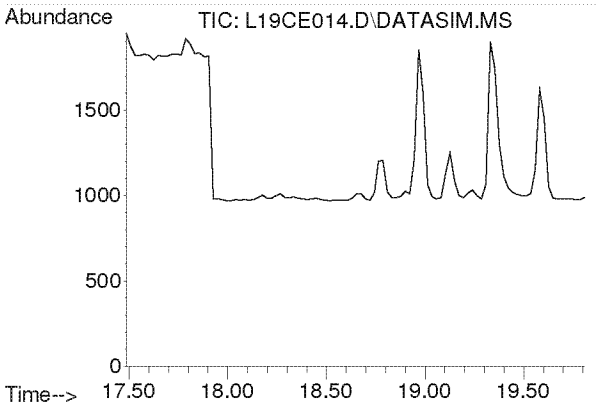
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



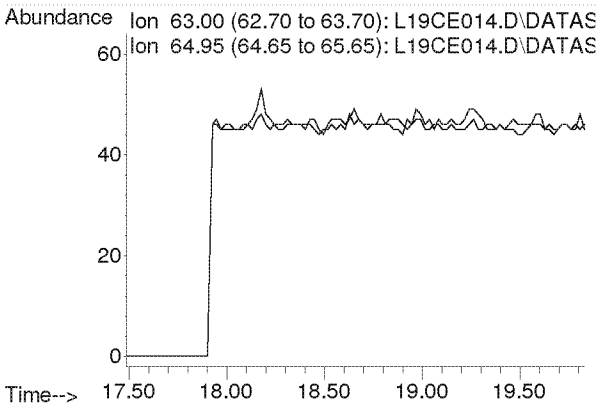


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

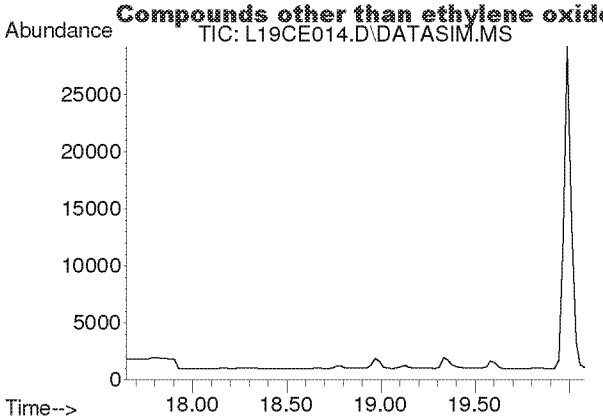
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

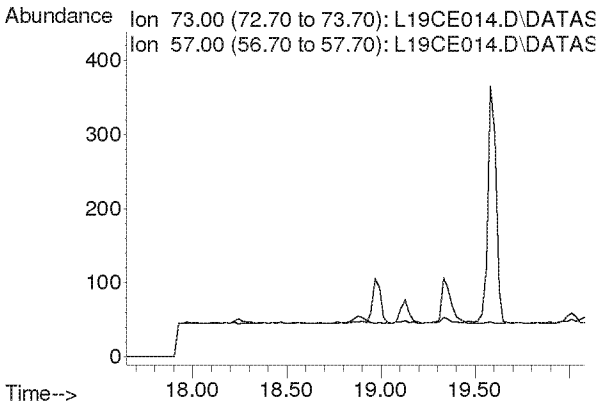


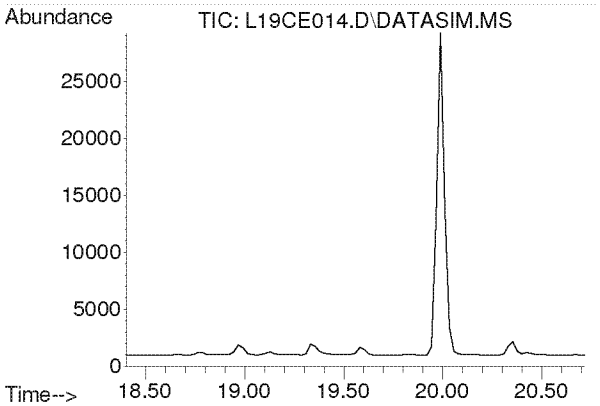
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



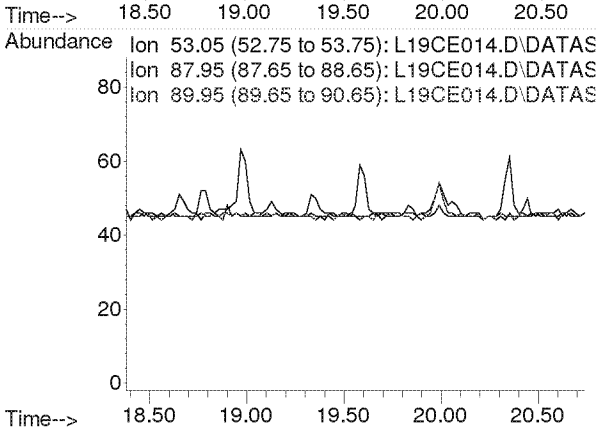


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

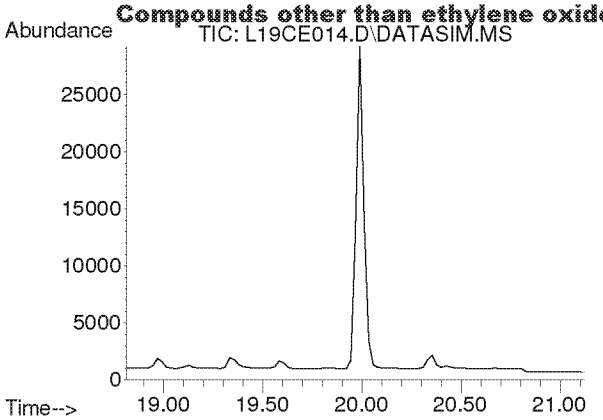
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

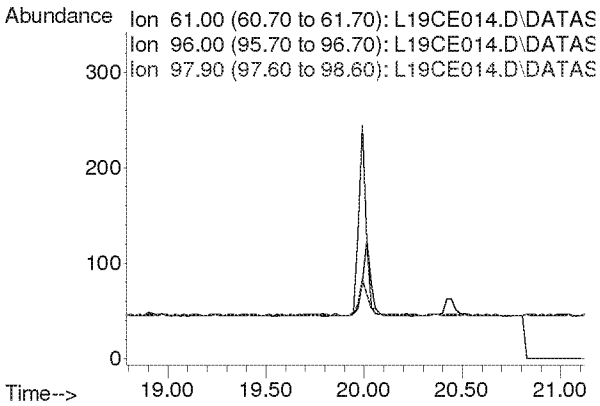


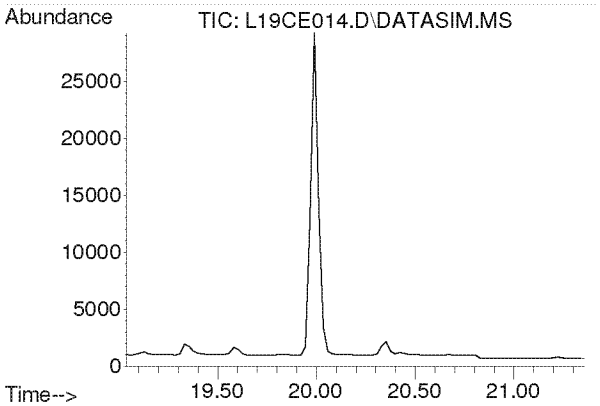
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



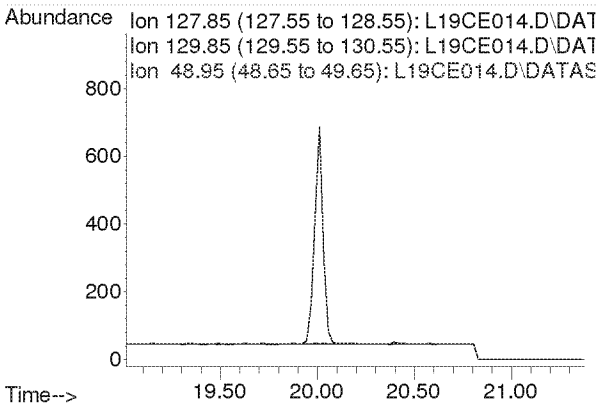


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

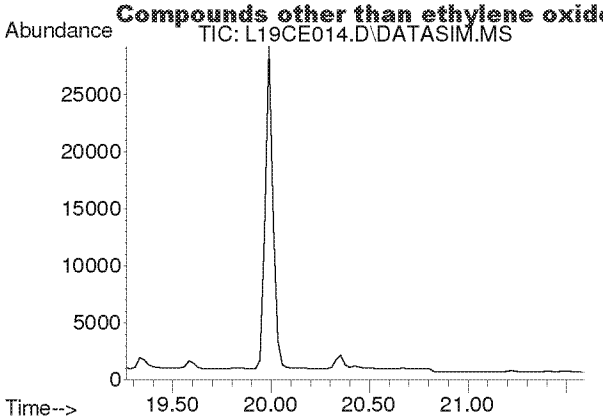
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

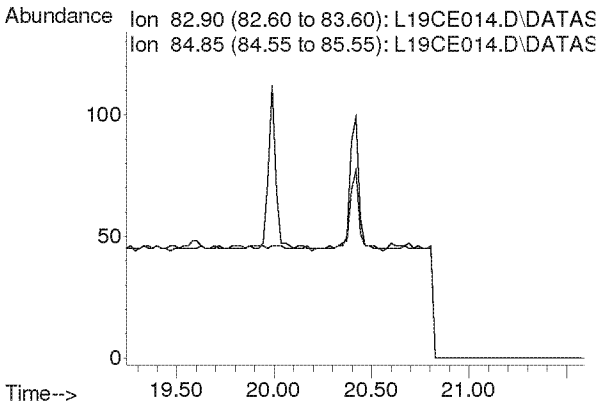


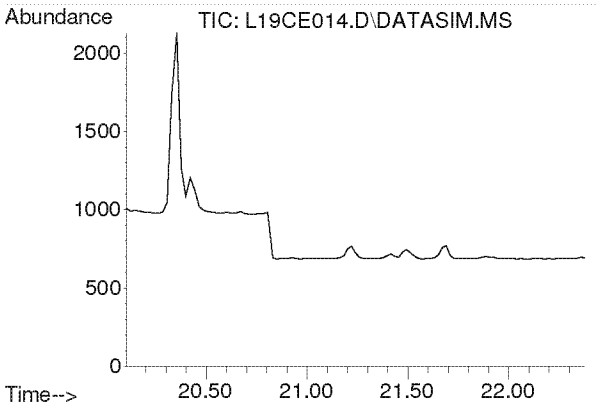
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



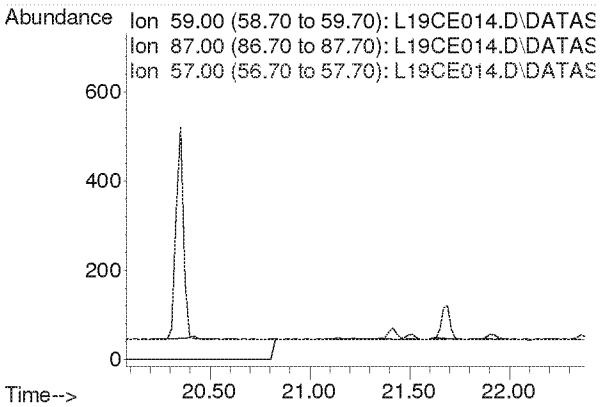


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

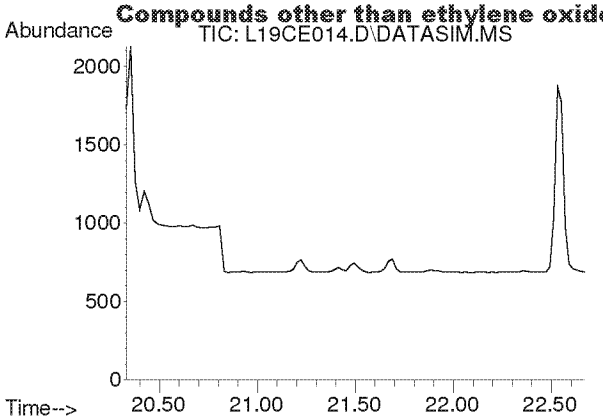
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

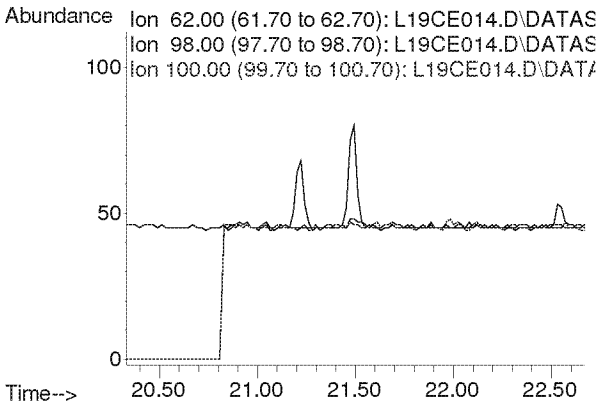


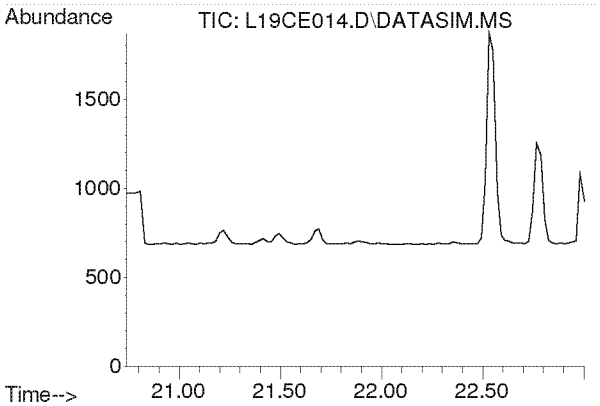
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



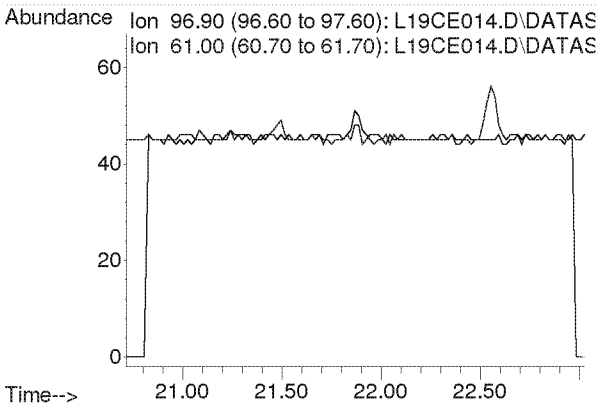


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

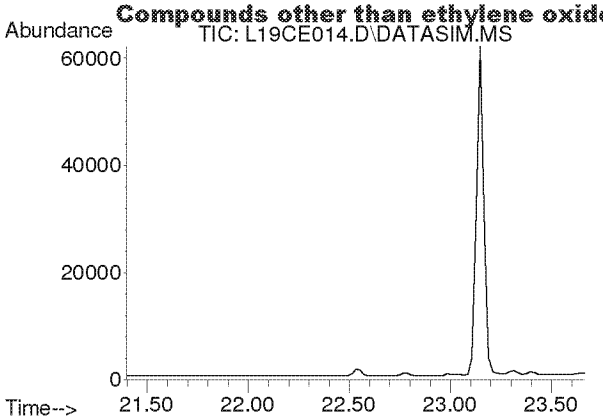
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

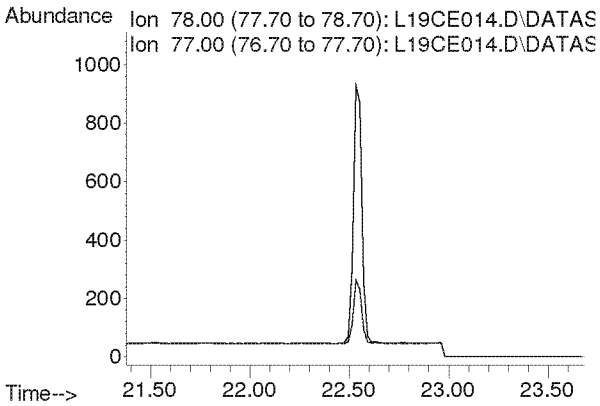


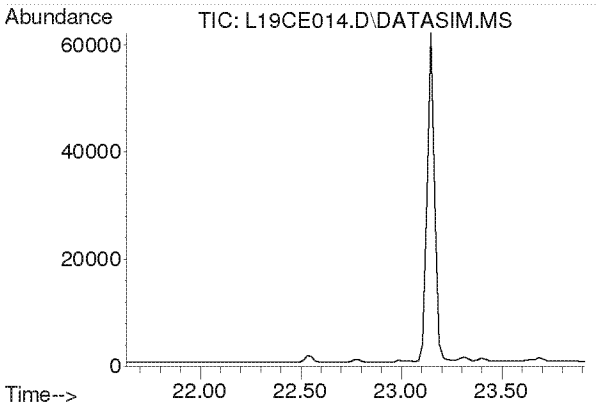
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



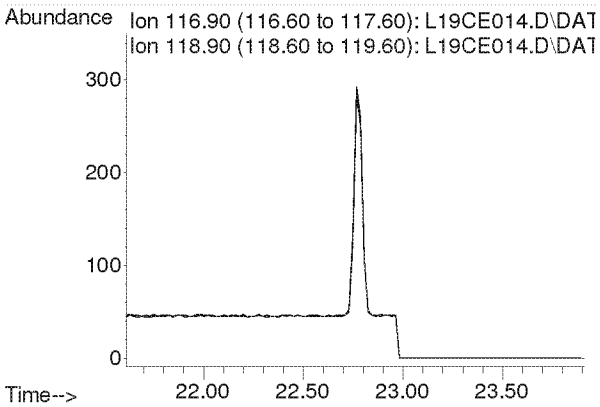


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

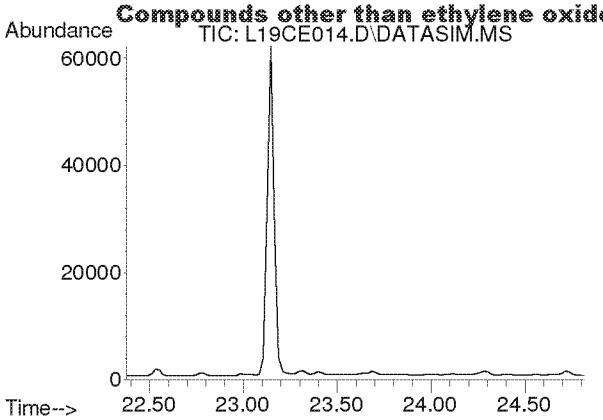
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

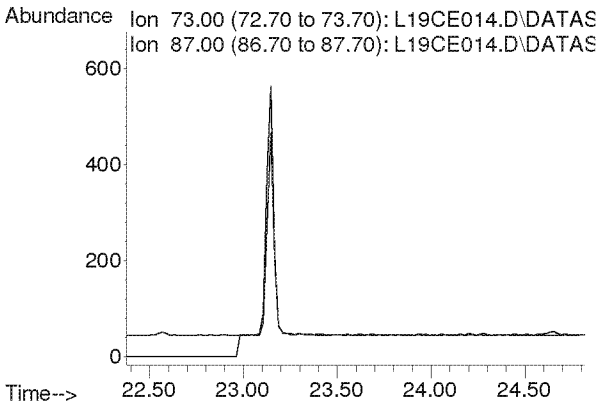


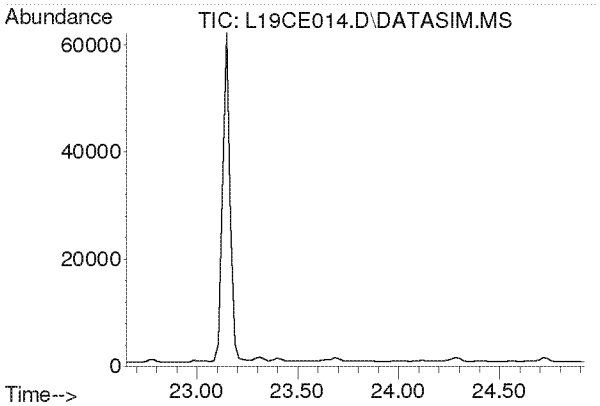
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



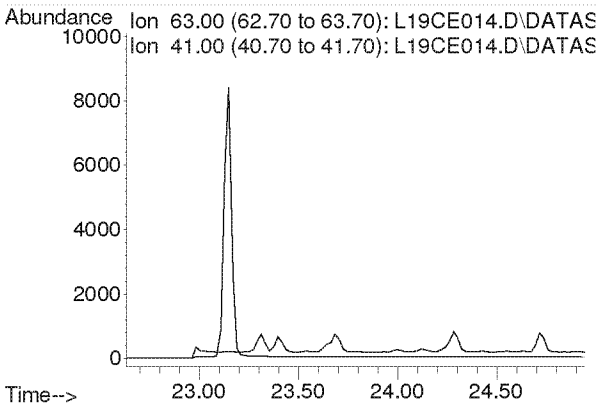


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

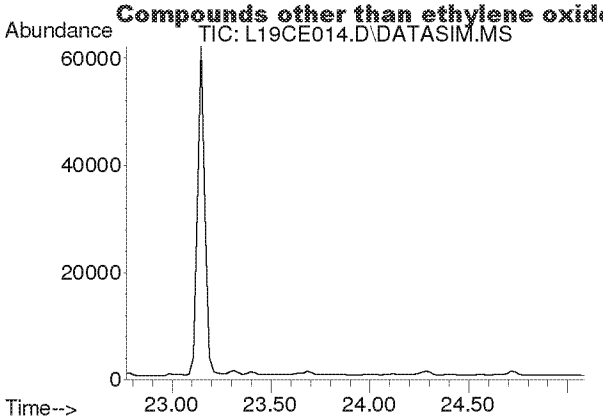
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

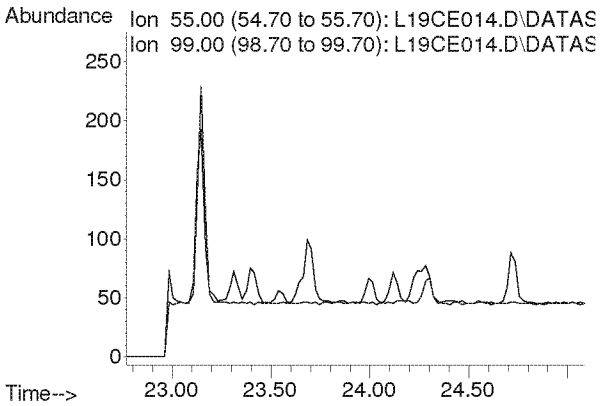


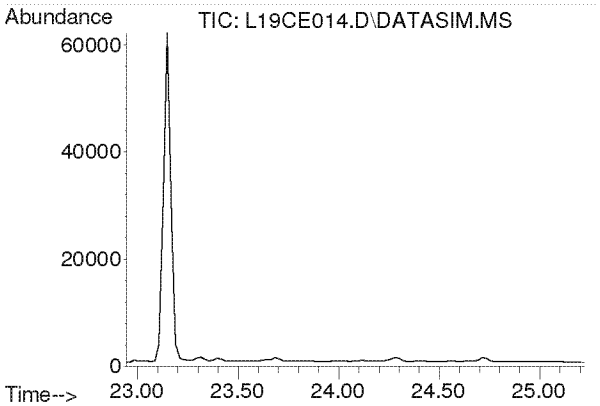
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



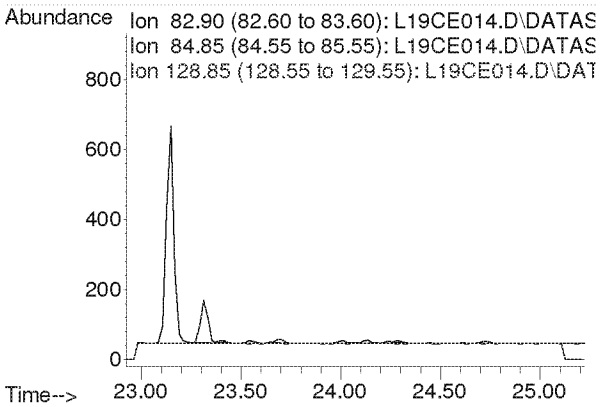


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

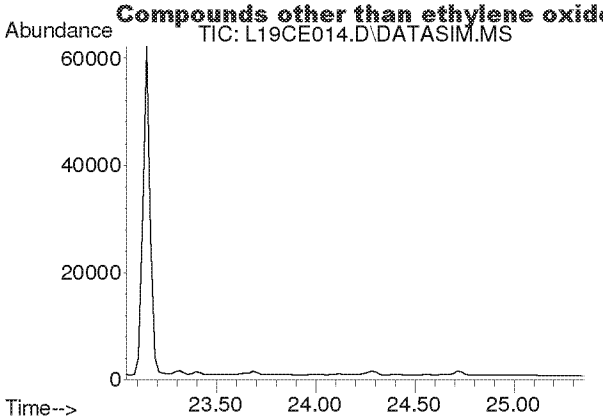
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

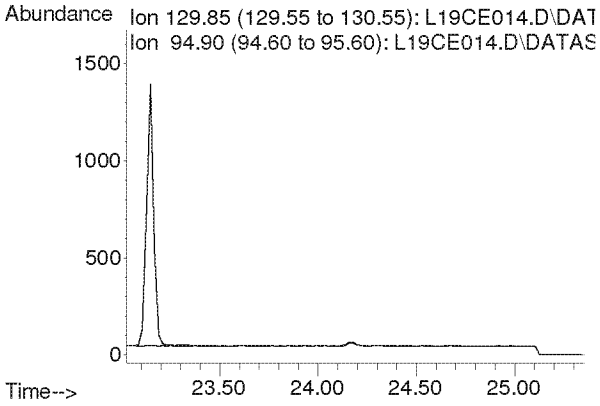


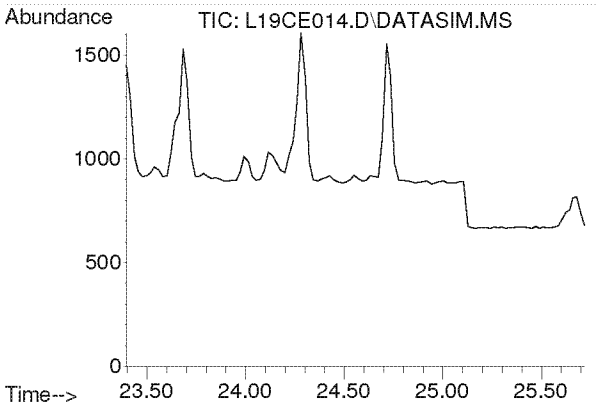
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



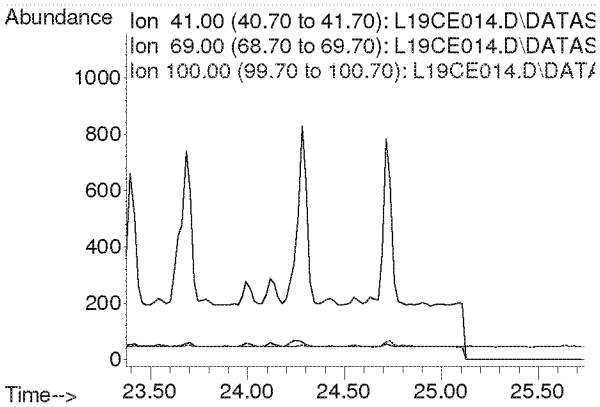


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

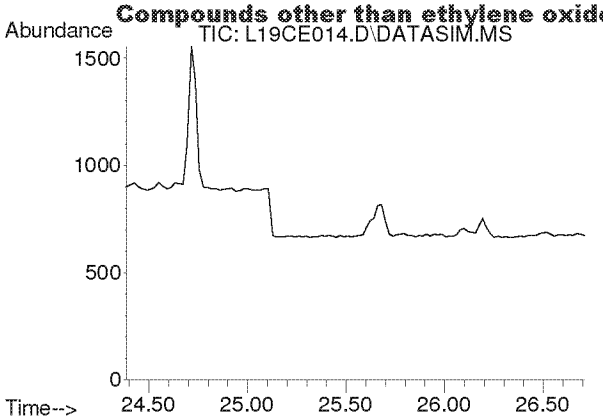
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

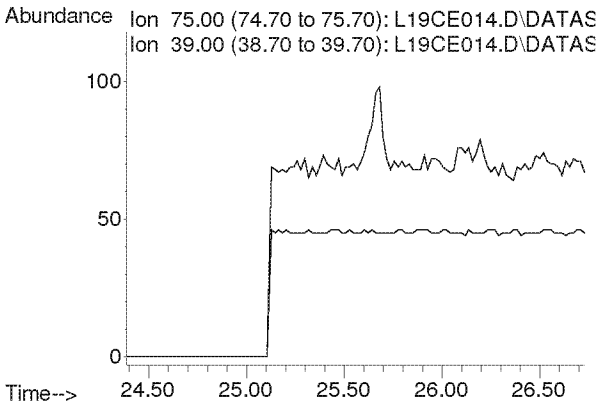


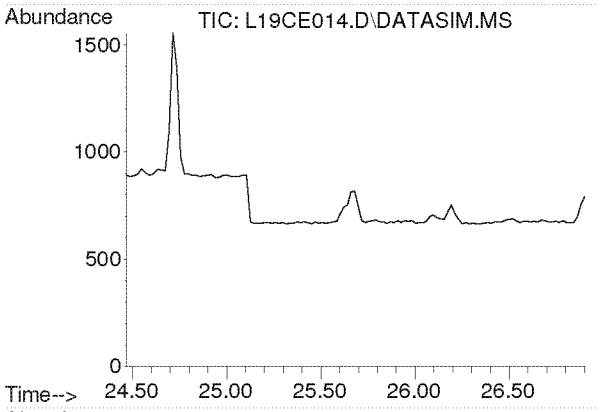
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



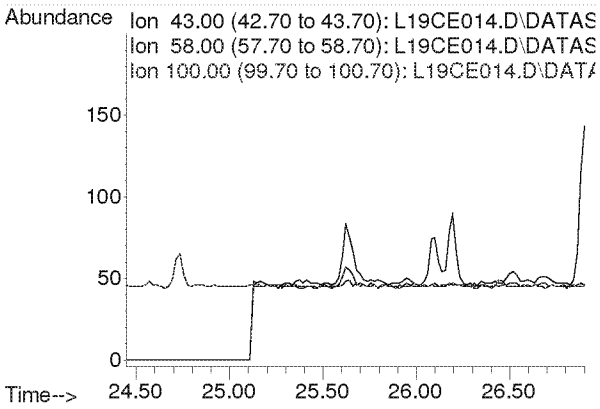


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

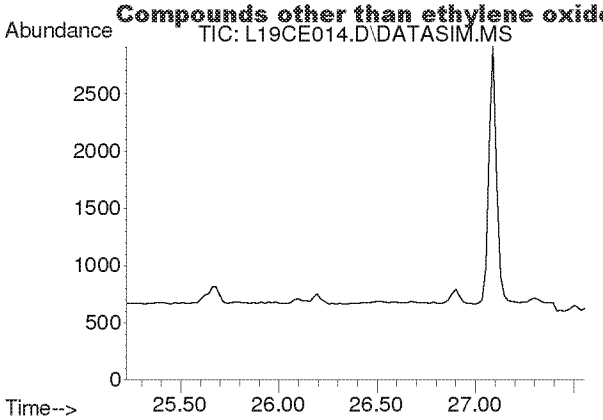
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

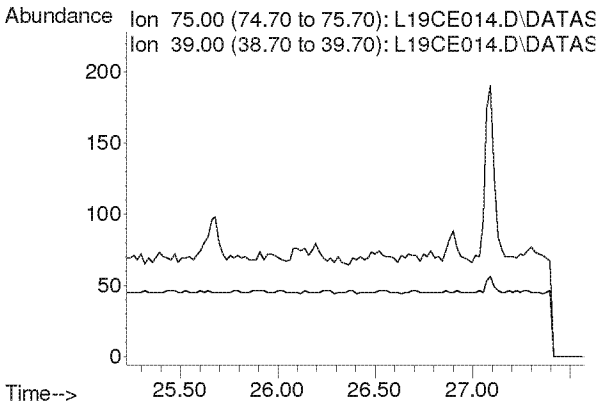


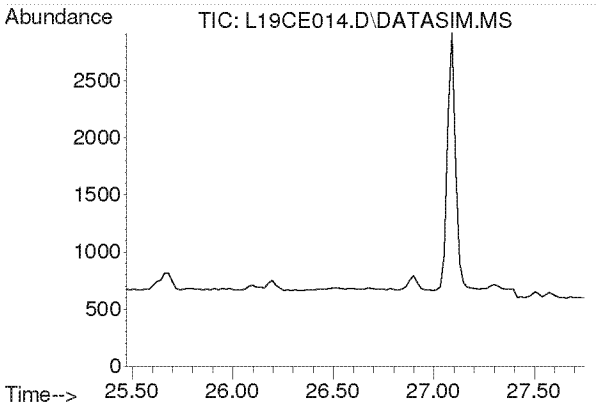
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



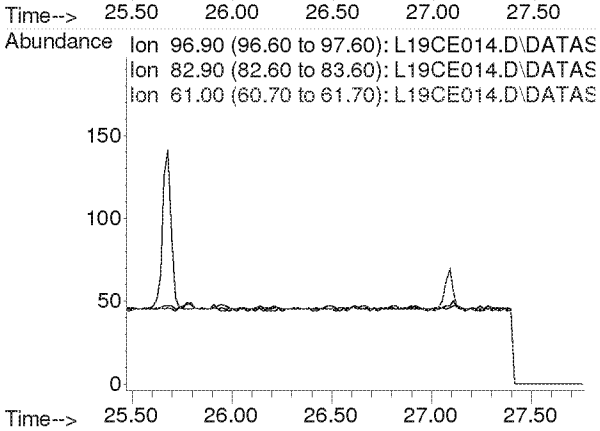


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

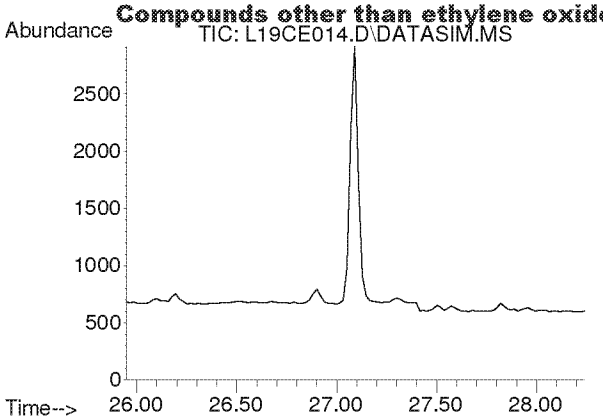
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

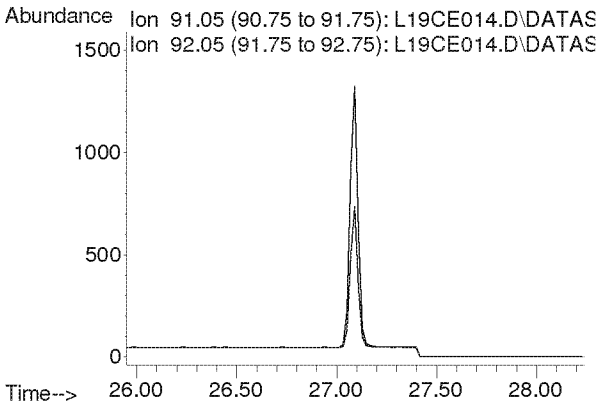


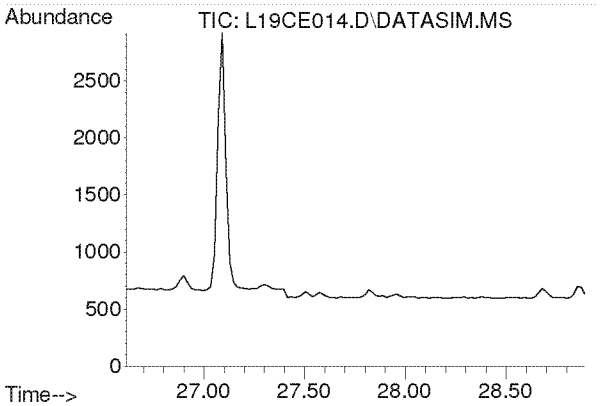
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



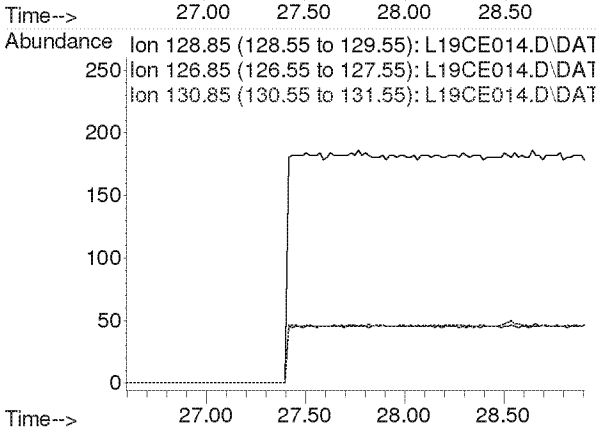


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

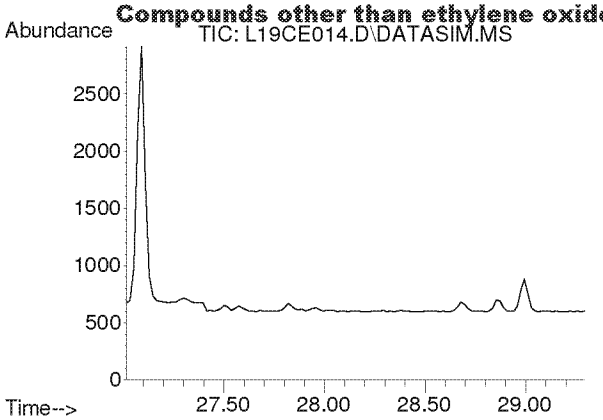
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

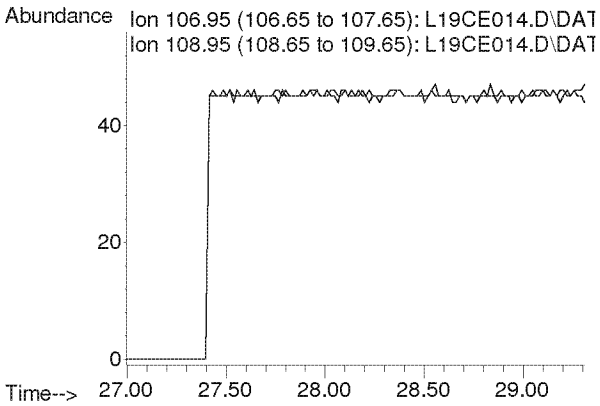


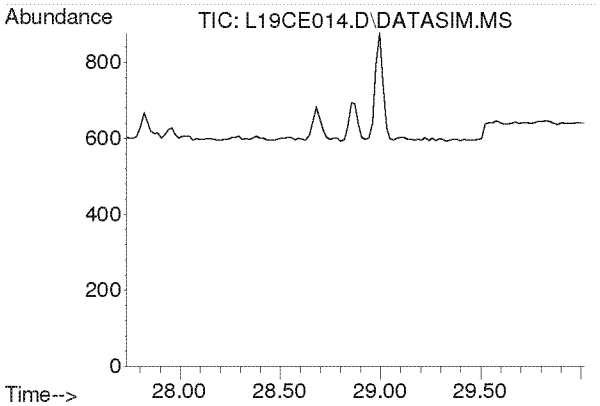
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



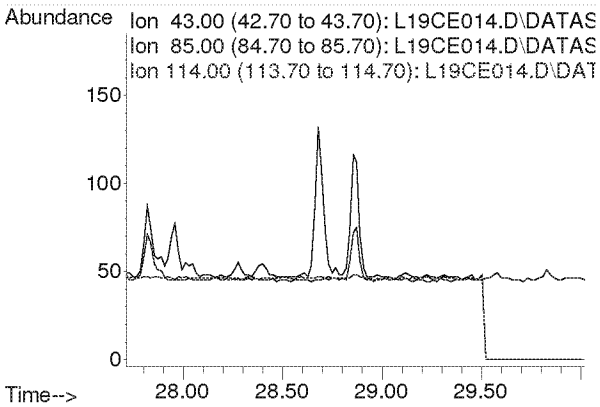


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

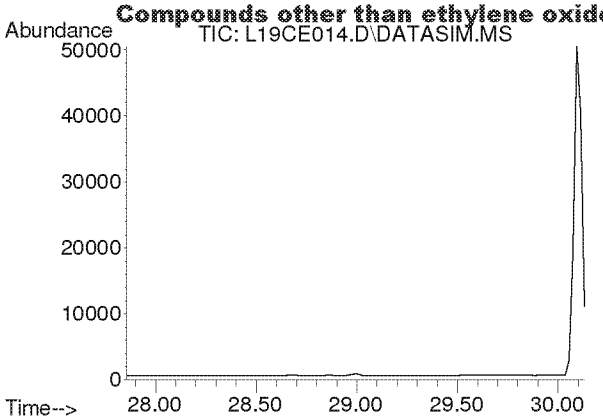
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

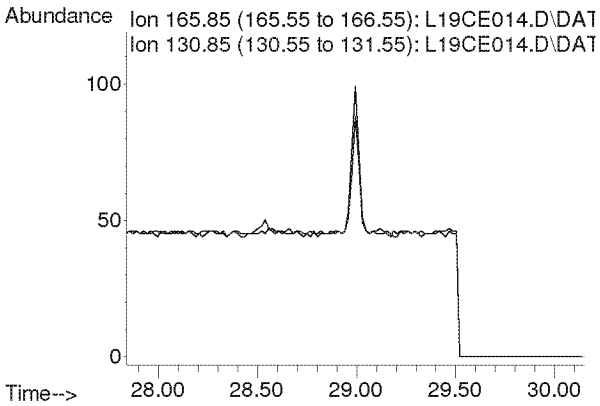


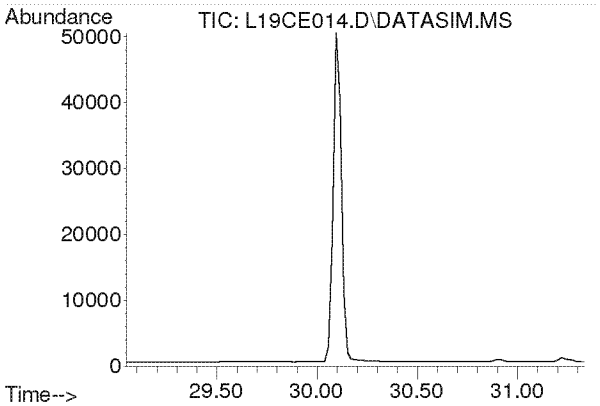
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



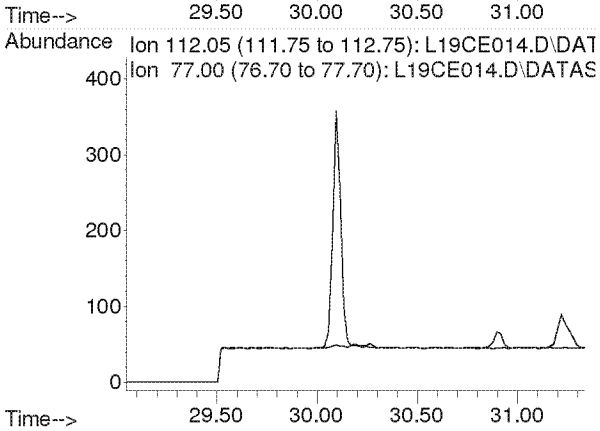


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

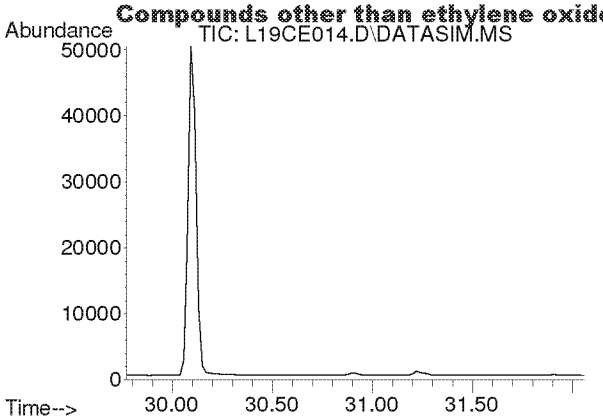
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

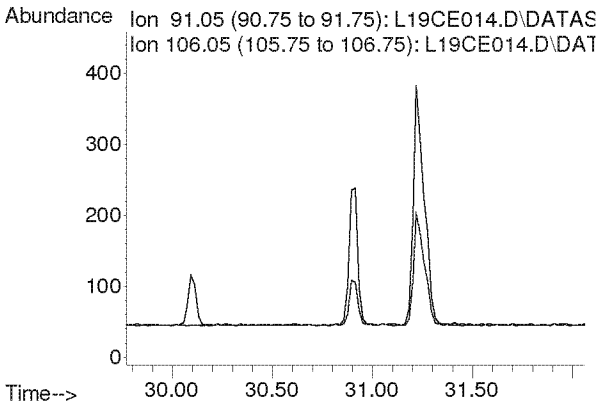


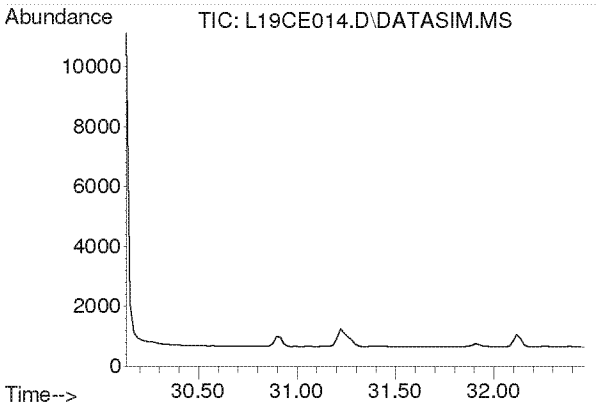
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



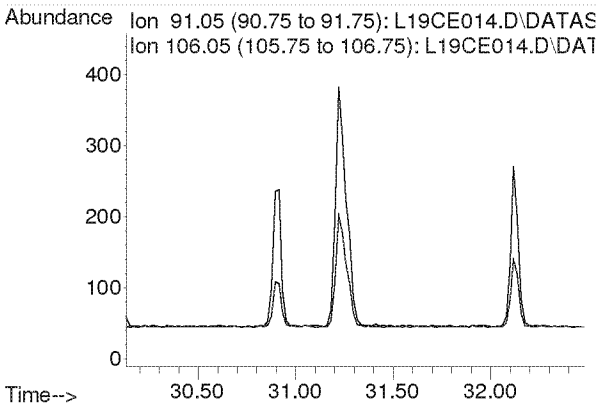


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

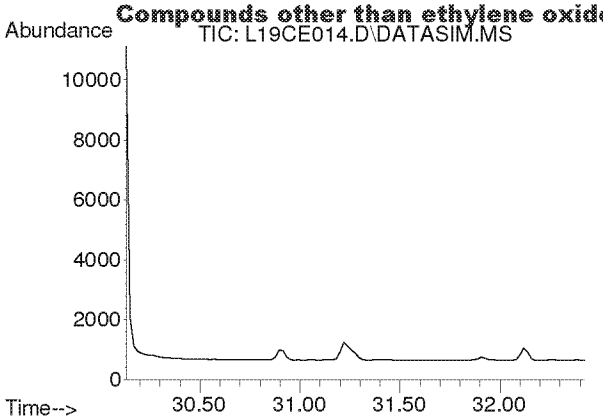
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

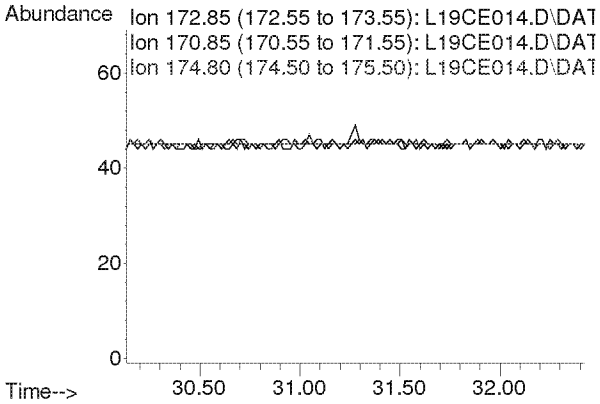


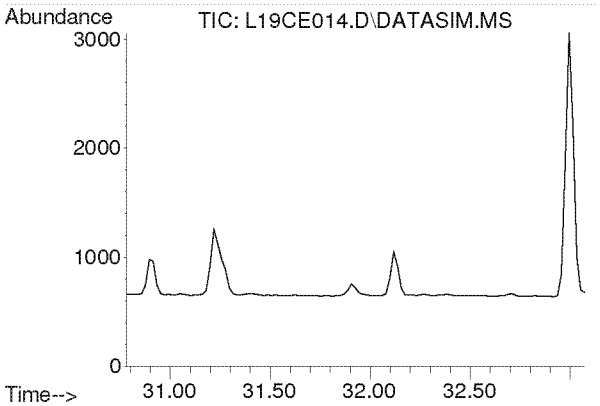
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



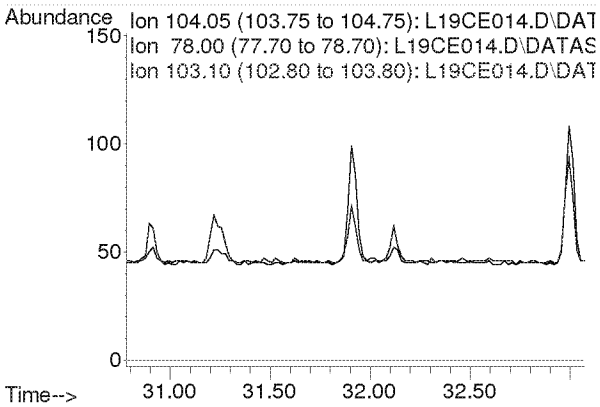


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

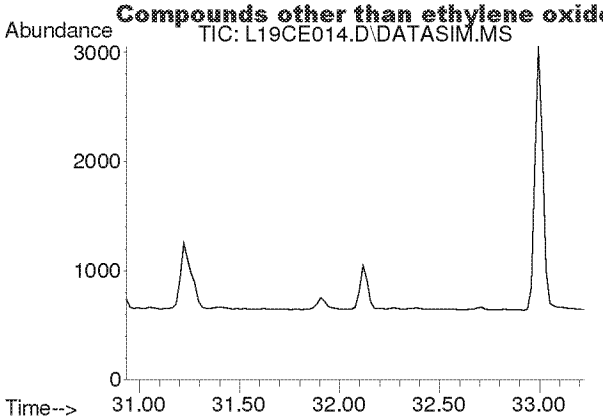
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

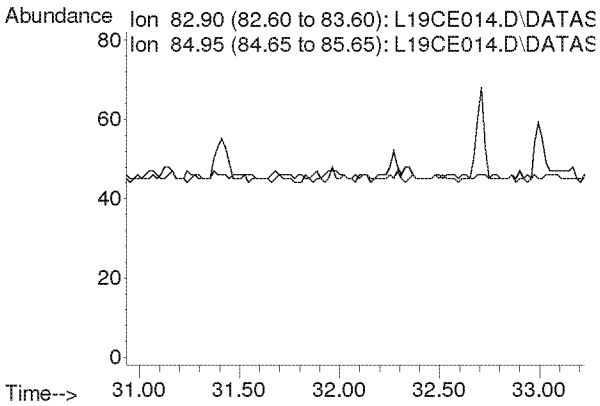


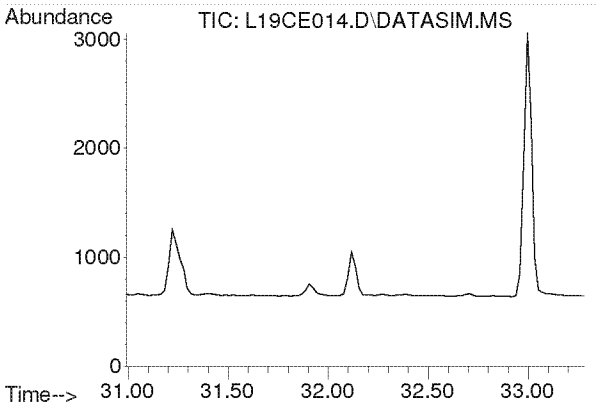
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



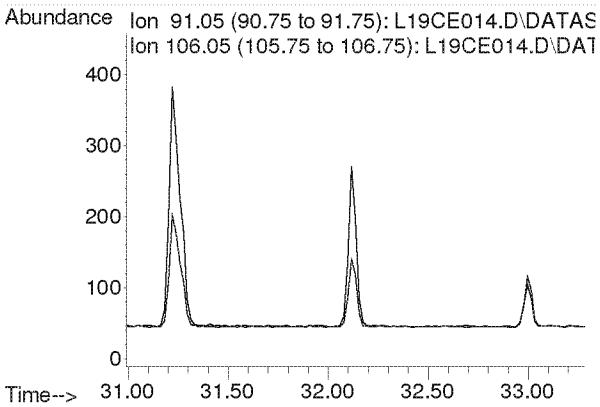


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

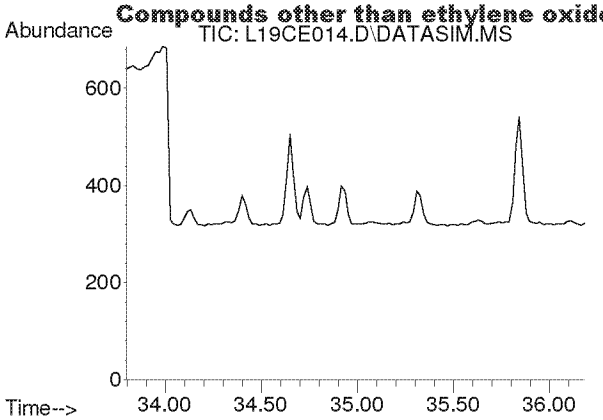
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

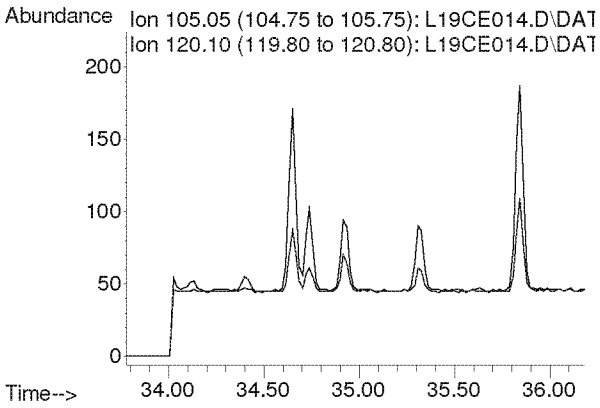


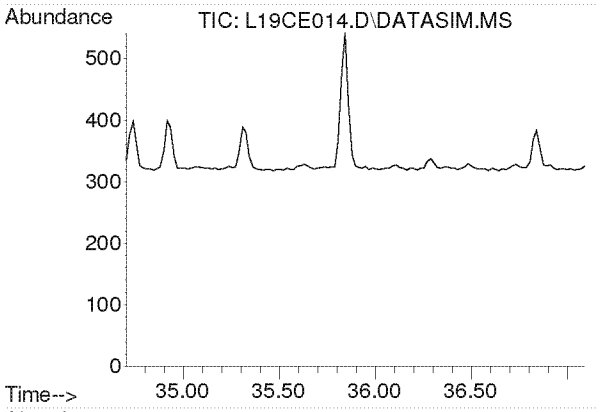
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



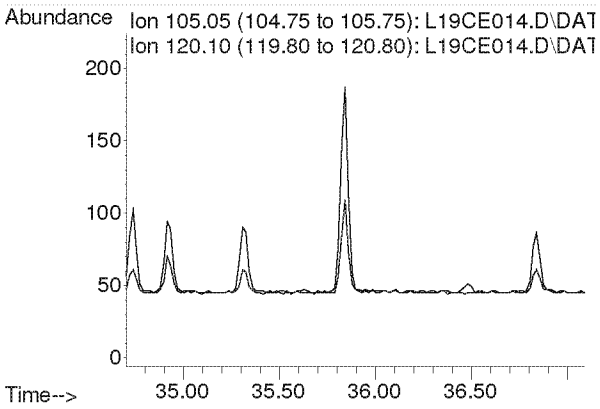


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

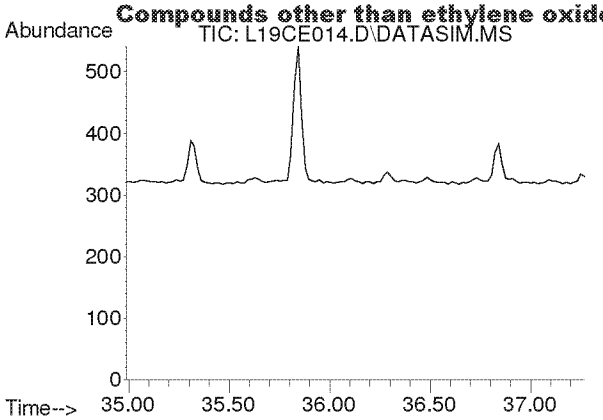
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

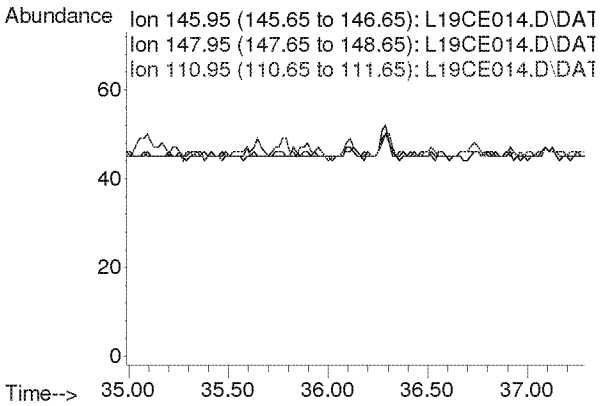


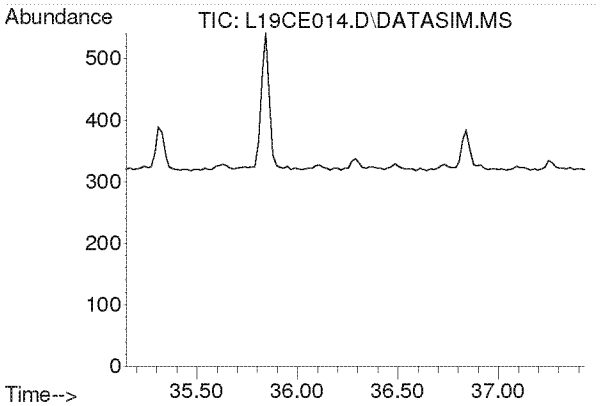
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



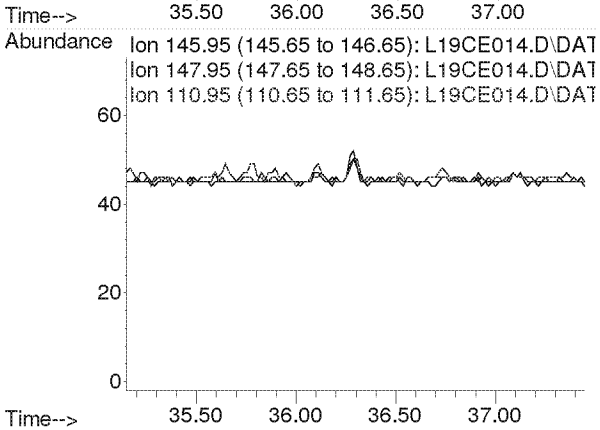


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

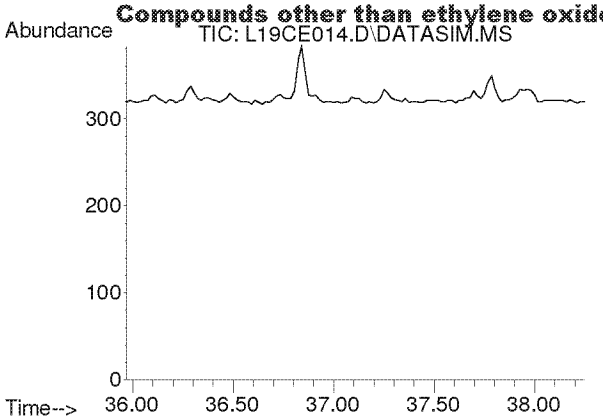
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

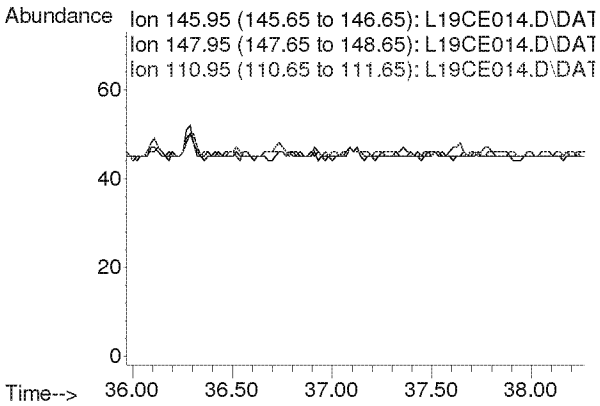


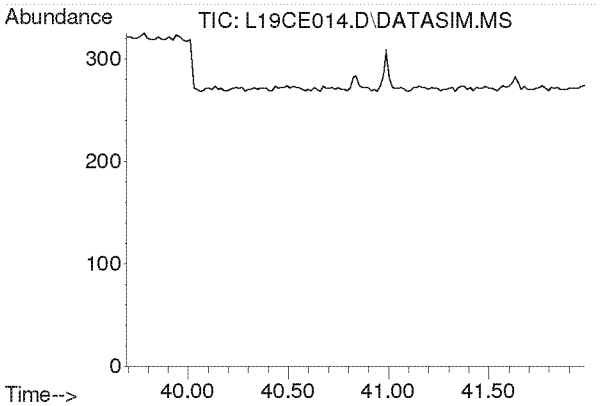
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



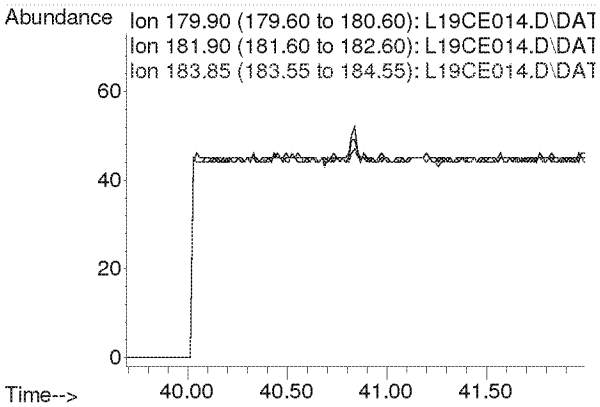


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

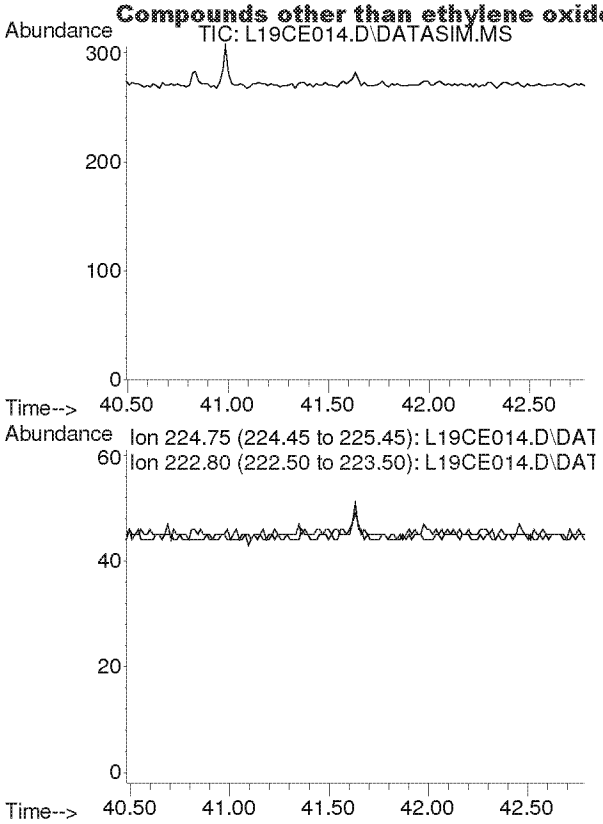
Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE014.D
Acq: 6 Mar 2019 1:30 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE015.D
Acq On : 6 Mar 2019 2:30 am (#1); 06-Mar-19, 02:25:22 (#2)
Operator : MAH
Sample : 9030524-08
Misc : EPA WB WAREHOUSE C2 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 06 12:26:35 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d:MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	44689	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	113969	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	80871	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	d
3) Propylene	0.000	41	0	N.D.	d
4) Dichlorodifluoromethane	0.000	85	0	N.D.	d
5) Chloromethane	0.000	50	0	N.D.	d
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	d
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	d
9) Ethylene oxide	12.498	29	204m	0.0798 ppbv	
10) Bromomethane	0.000	94	0	N.D.	d
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	d
13) Acrolein	0.000	56	0	N.D.	d
14) Trichlorofluoromethane	0.000	101	0	N.D.	d
15) Acrylonitrile	0.000	53	0	N.D.	d
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	d
18) Carbon Disulfide	0.000	76	0	N.D.	d
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	d
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	d
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	d
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D.	d
32) Carbon Tetrachloride	0.000	117	0	N.D.	d
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	d
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	d
38) Methyl Methacrylate	0.000	41	0	N.D.	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\L19CE\
Data File : L19CE015.D
Acq On : 6 Mar 2019 2:30 am (#1); 06-Mar-19, 02:25:22 (#2)
Operator : MAH
Sample : 9030524-08
Misc : EPA WB WAREHOUSE C2 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 06 12:26:35 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

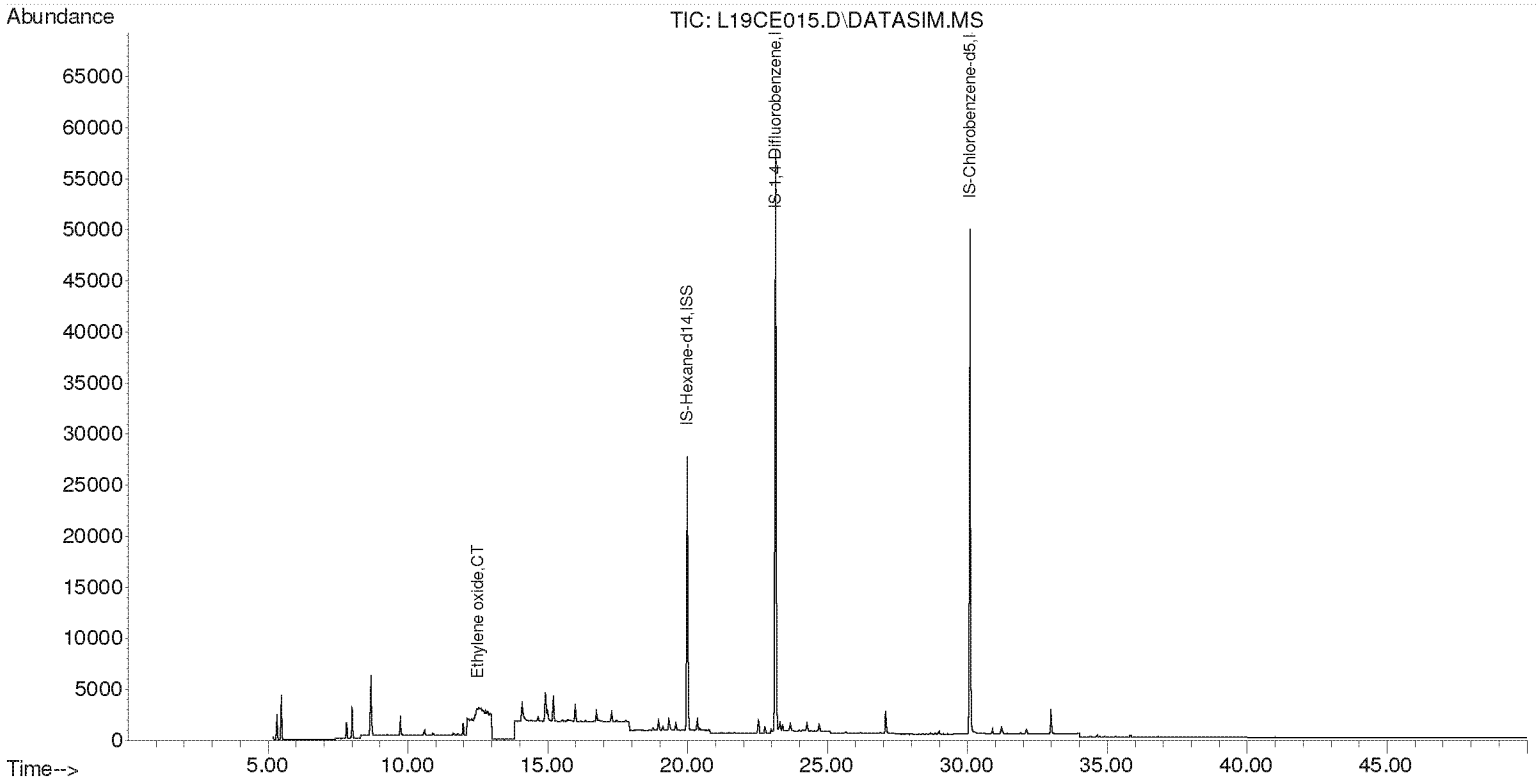
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

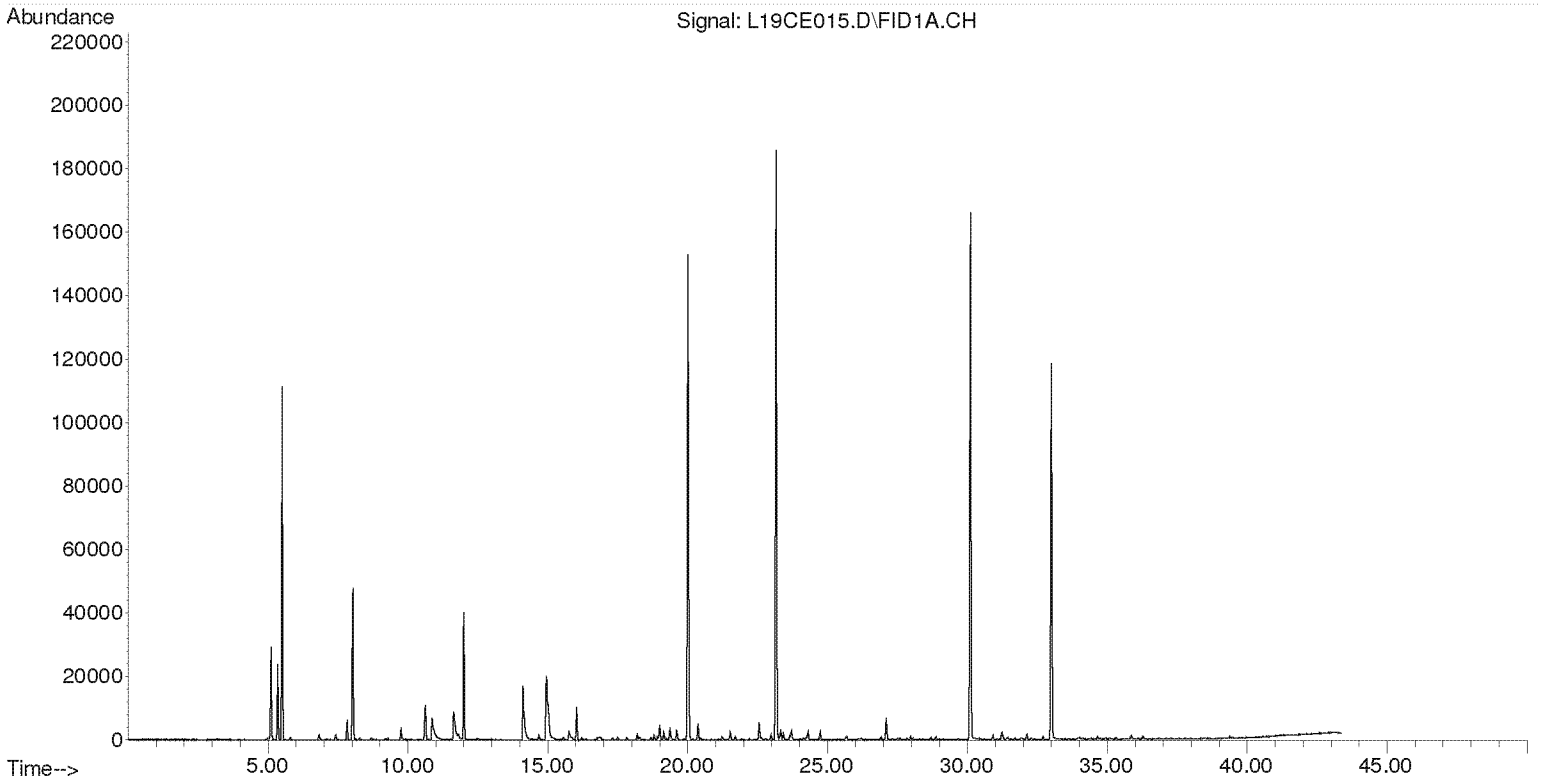
(d) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

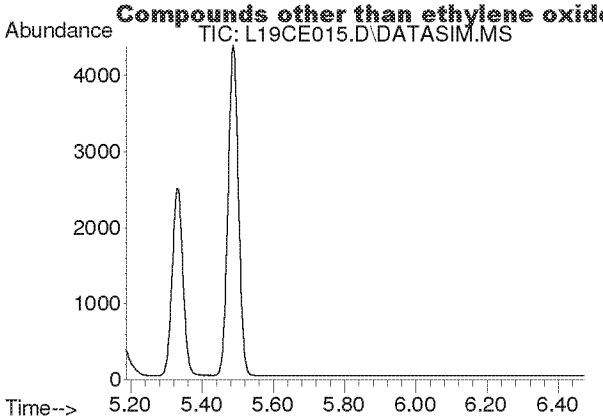
Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE015.D
Acq On : 6 Mar 2019 2:30 am (#1); 06 Mar 2019 2:25 am (#2)
Operator : MAH
Sample : 9030524-08
Misc : EPA WB WAREHOUSE C2 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 06 12:03:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





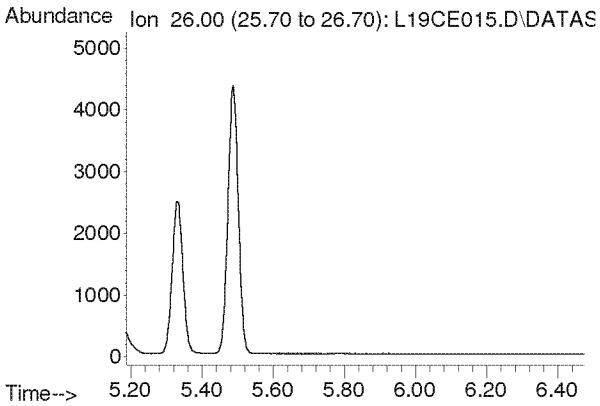
Compounds other than ethylene oxide were not quantitated.

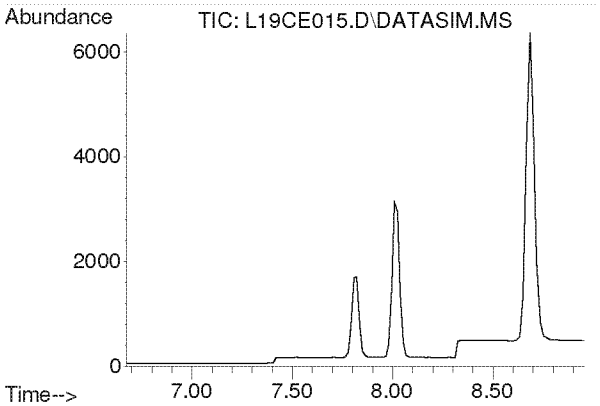


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 26



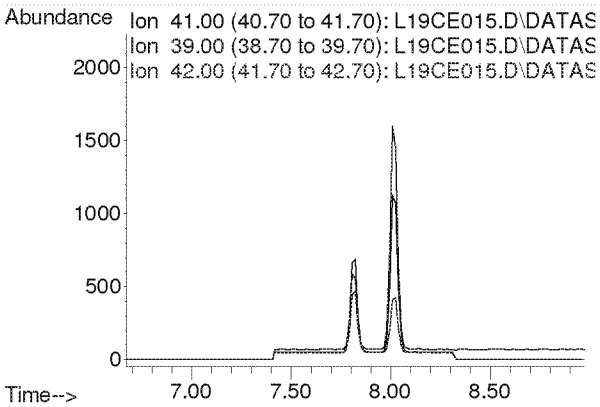


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

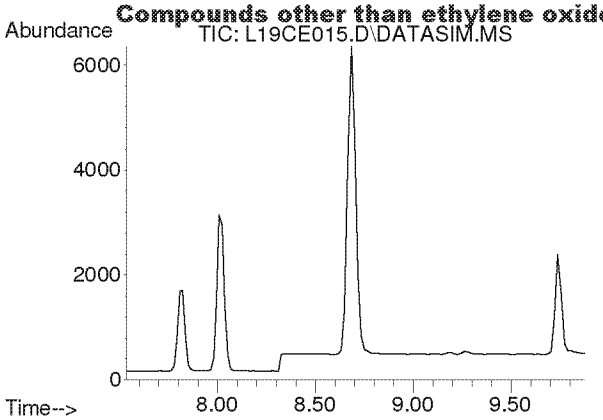
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

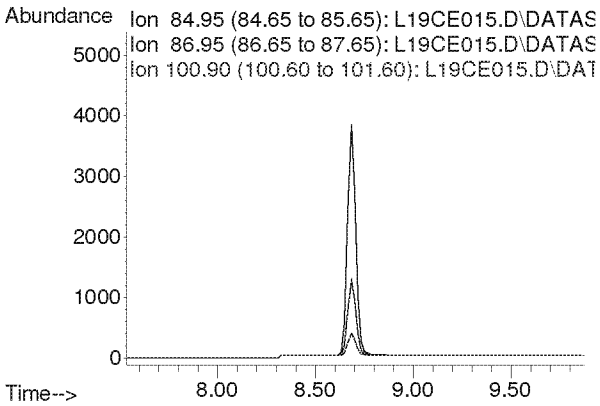


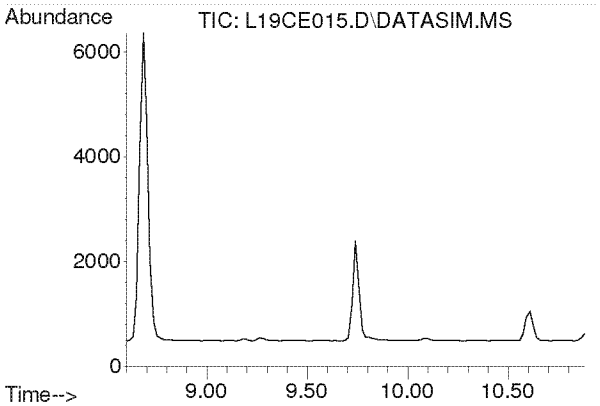
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



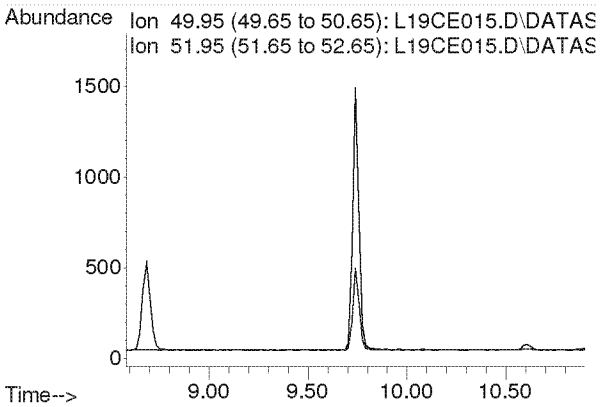


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

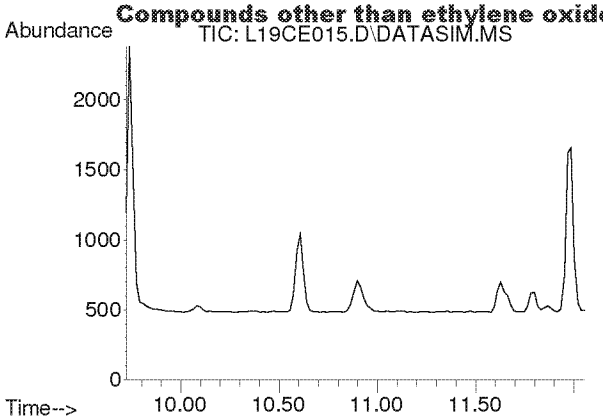
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

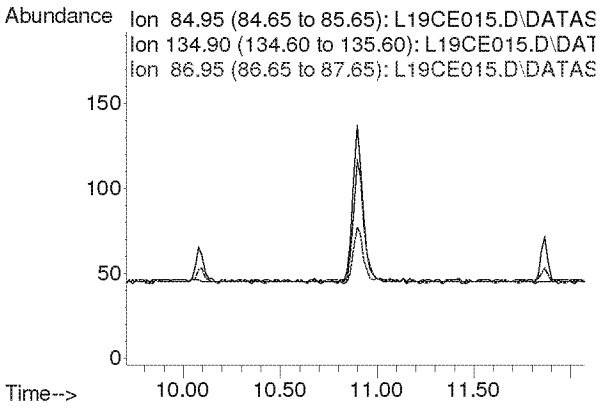


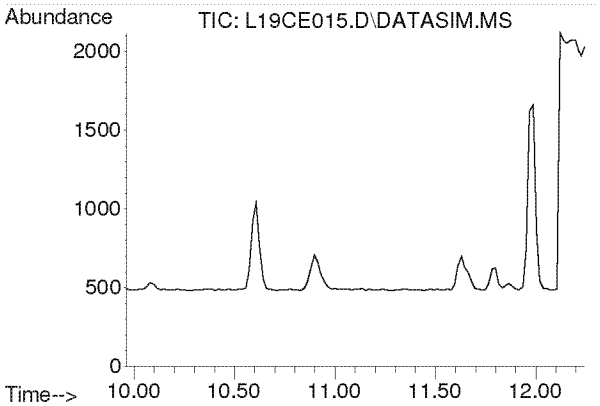
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



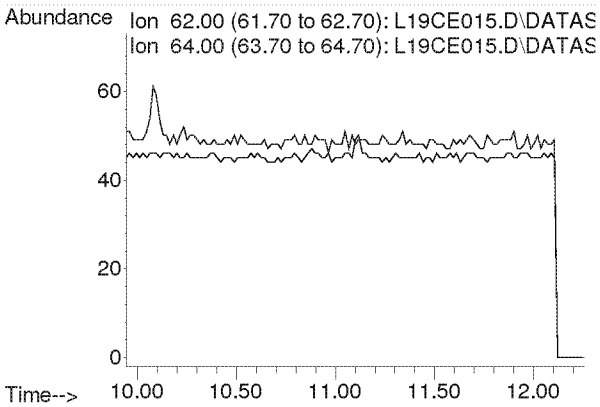


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

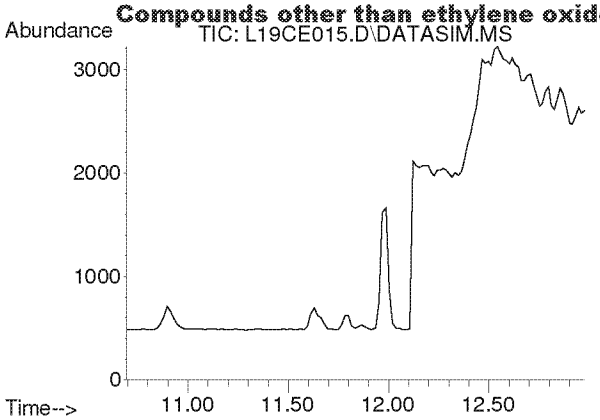
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

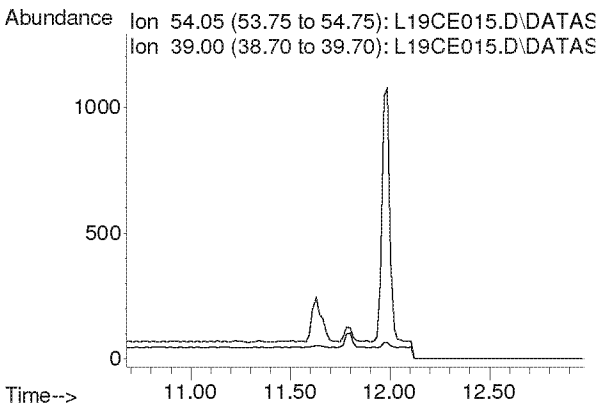


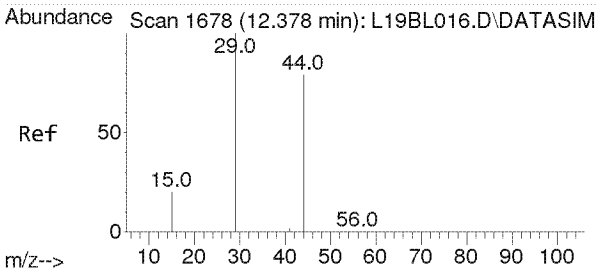
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

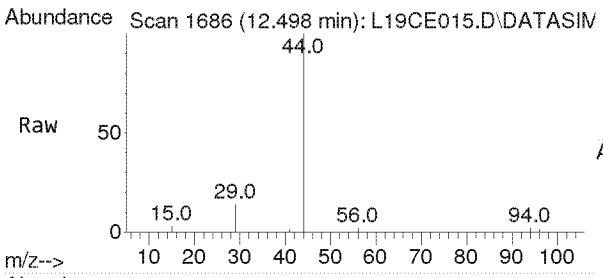


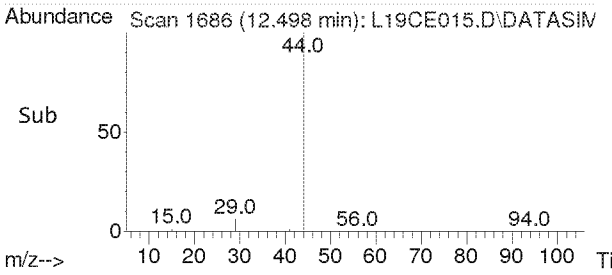


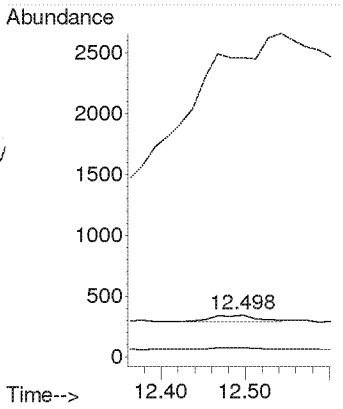
#9
Ethylene oxide
Concen: 0.080 ppbv m
RT: 12.498 min Scan# 1686
Delta R.T. 0.048 min
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 29 Resp: 204

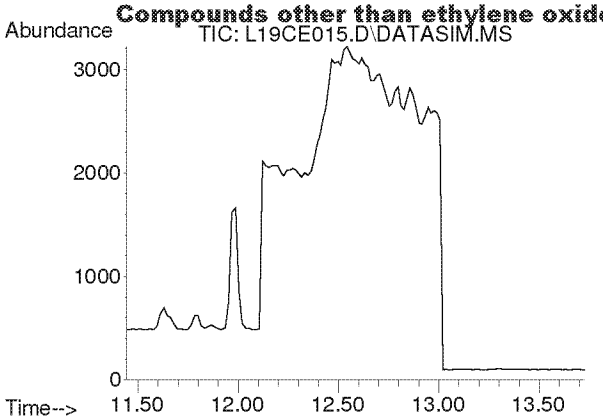
Ion	Ratio	Lower	Upper
29	100		
15	50.0	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

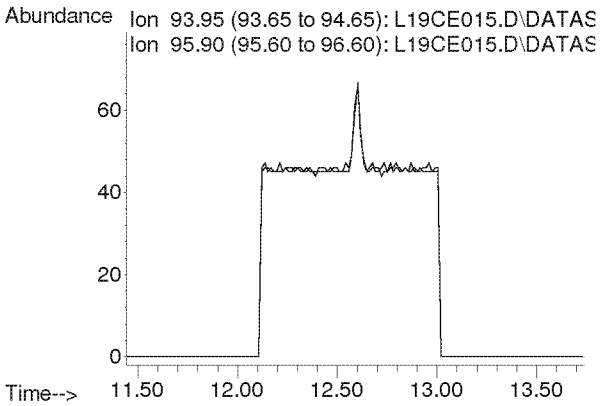


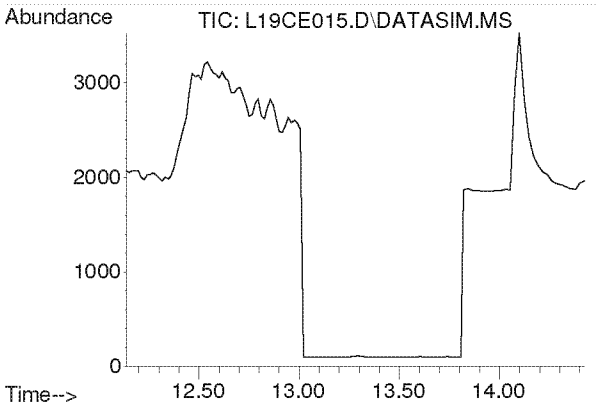
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



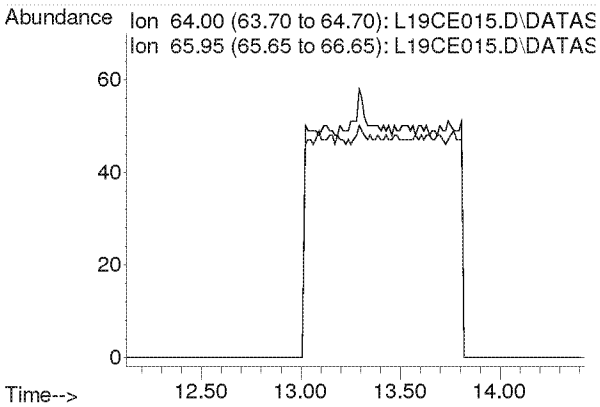


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

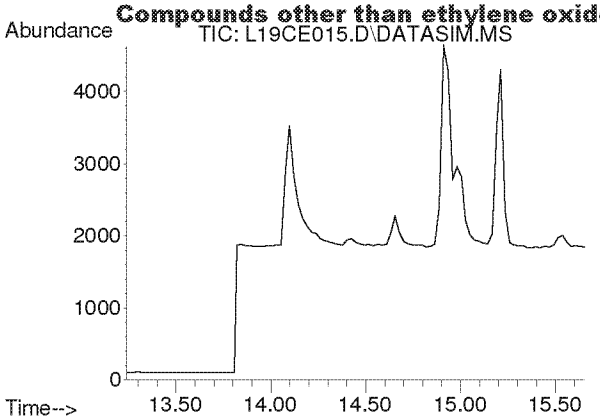
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

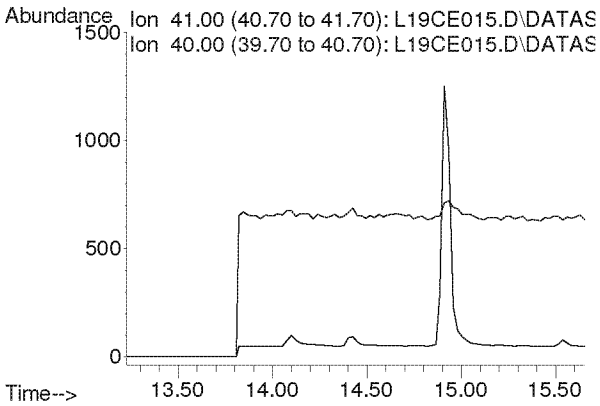


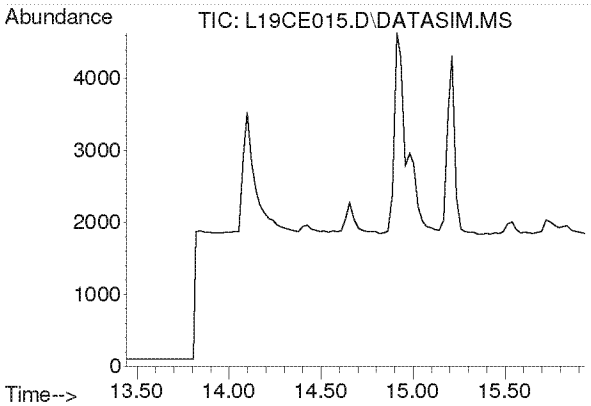
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



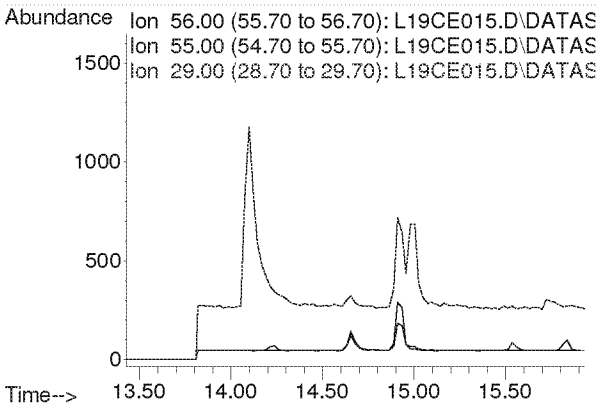


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

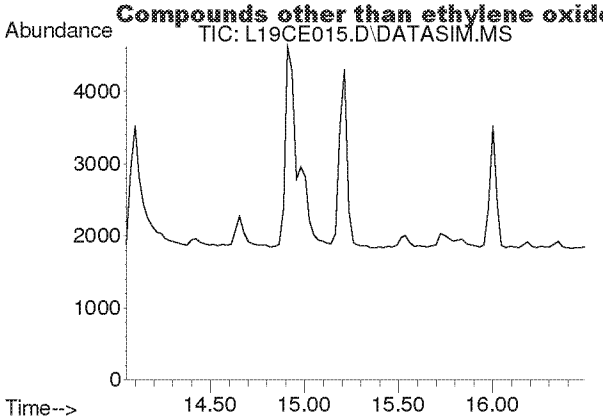
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

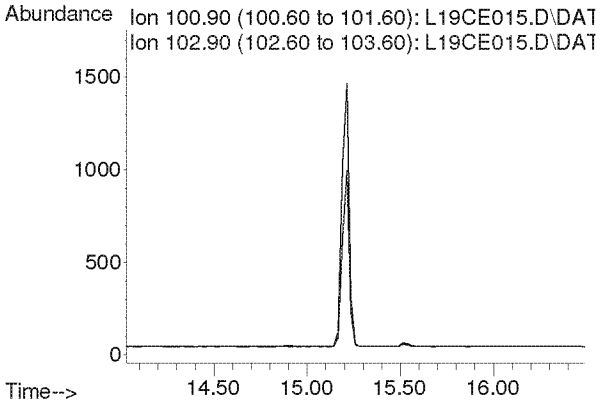


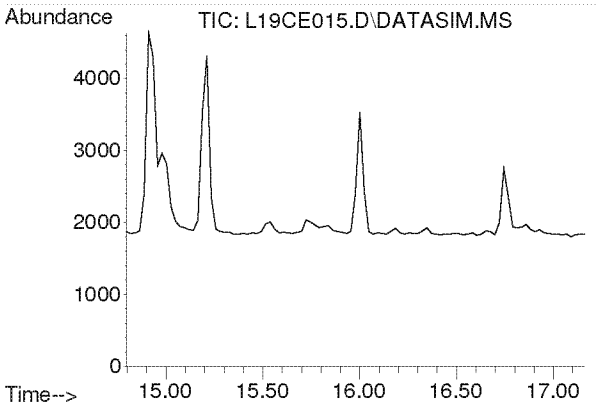
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



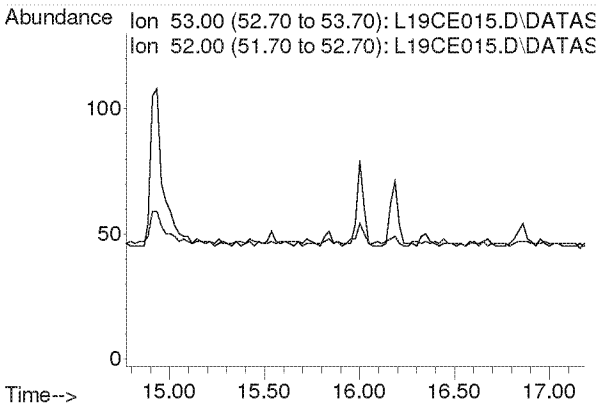


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

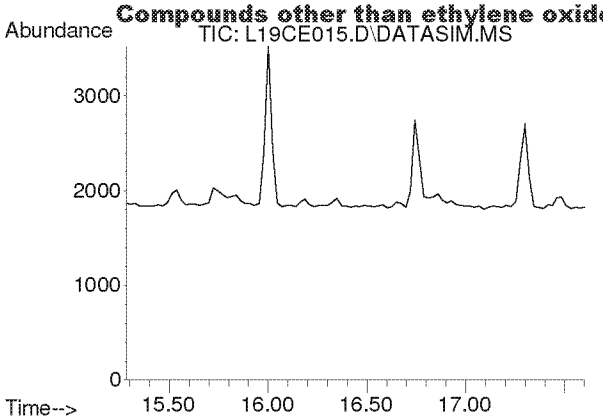
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

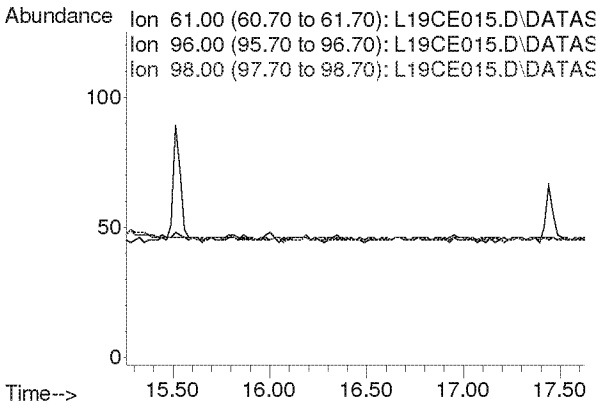


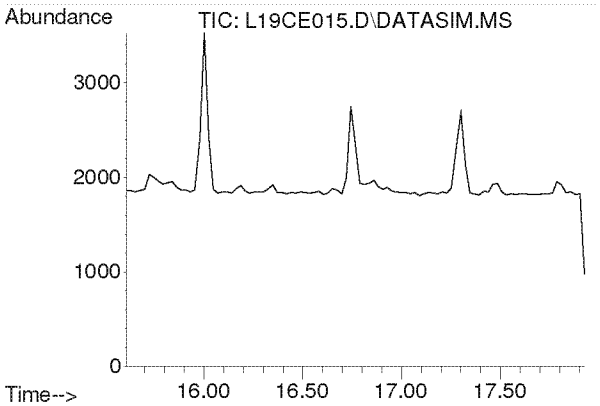
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



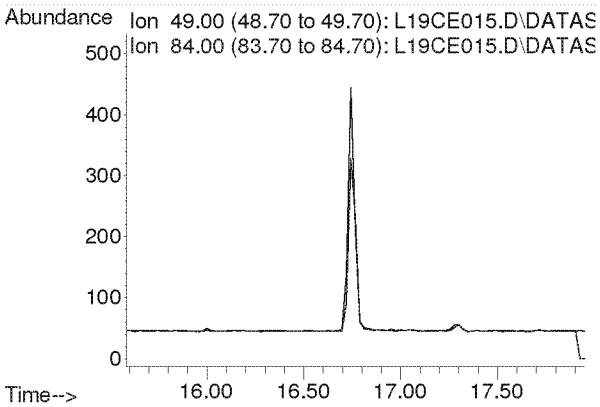


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

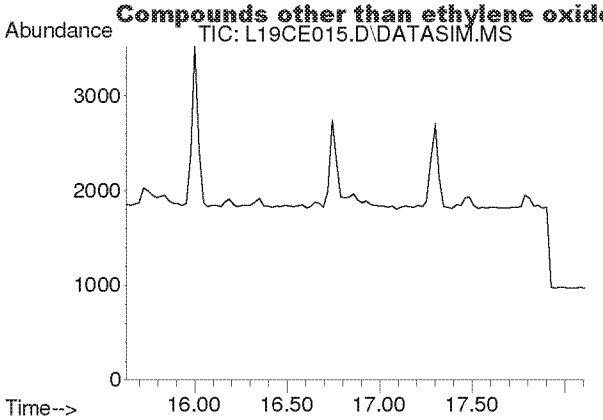
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

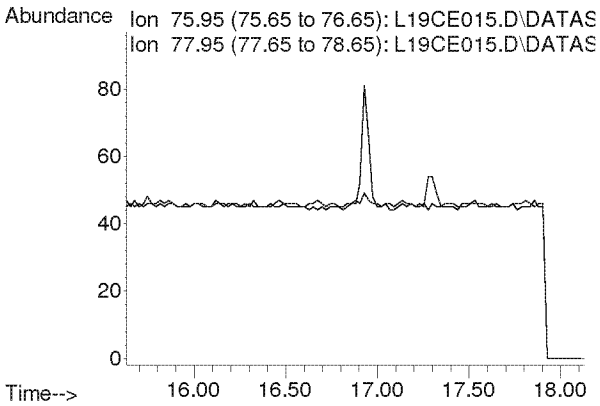


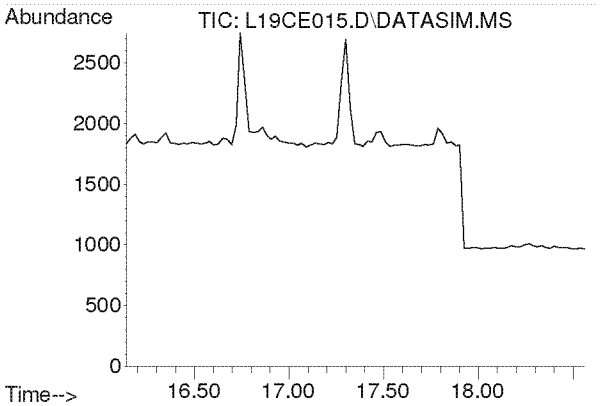
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



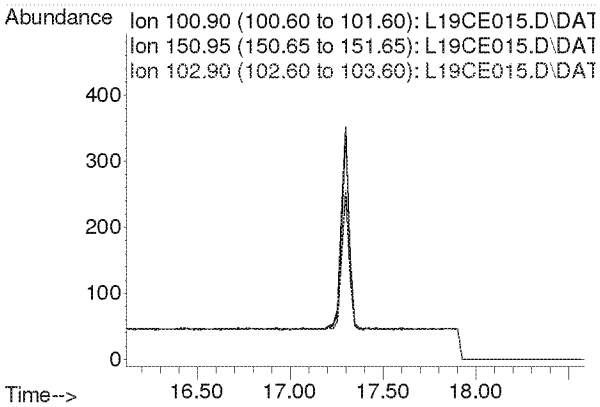


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

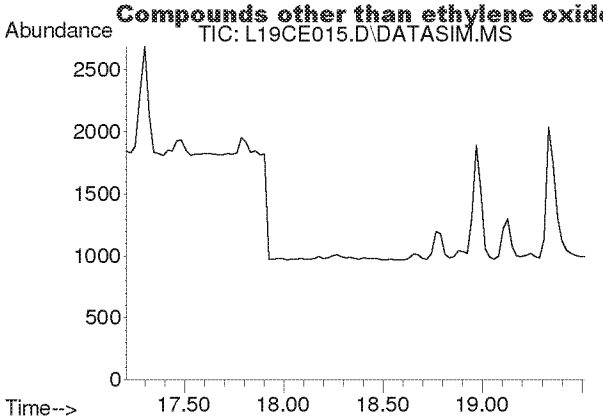
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

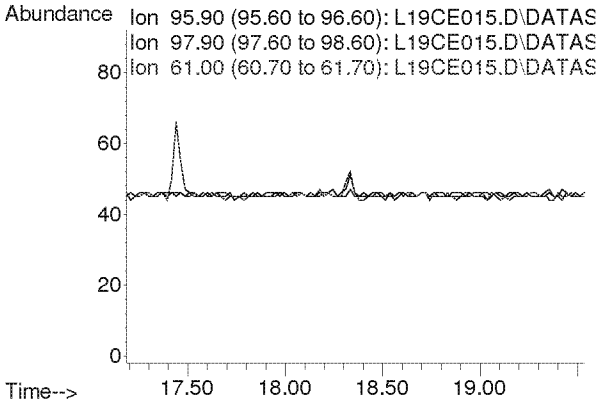


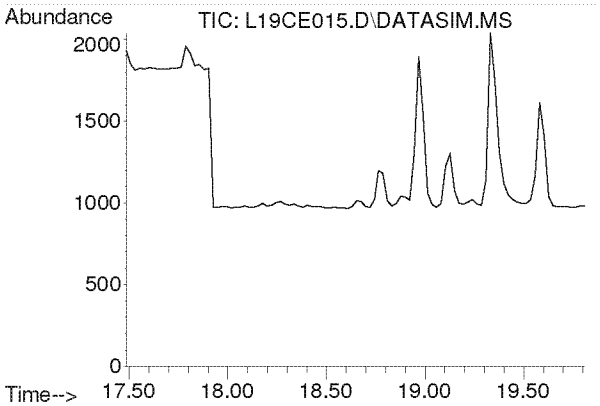
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



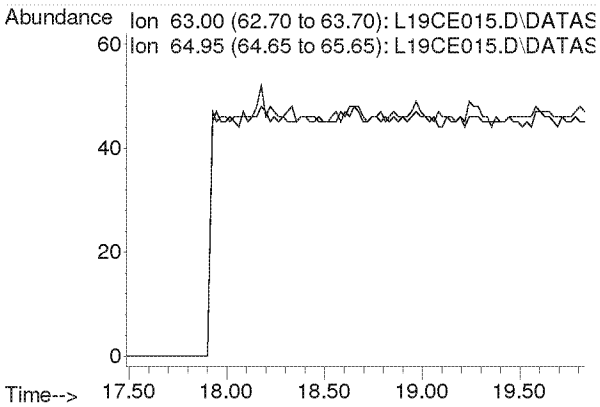


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

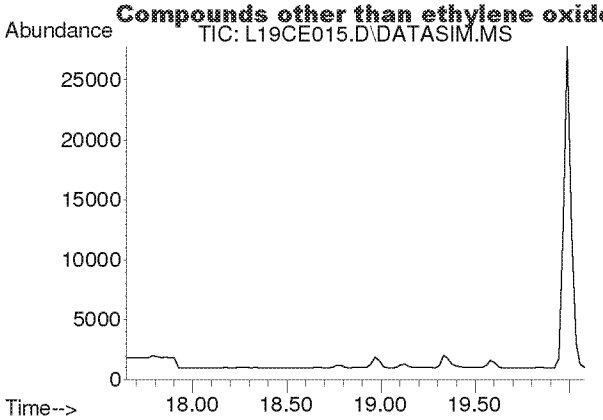
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

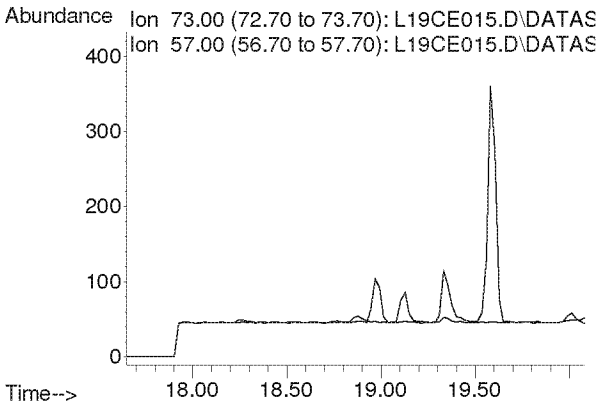


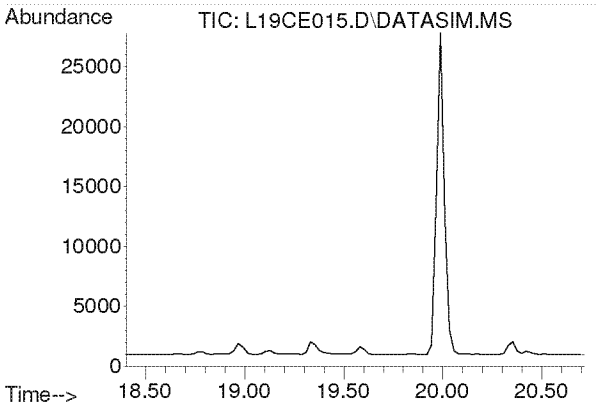
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



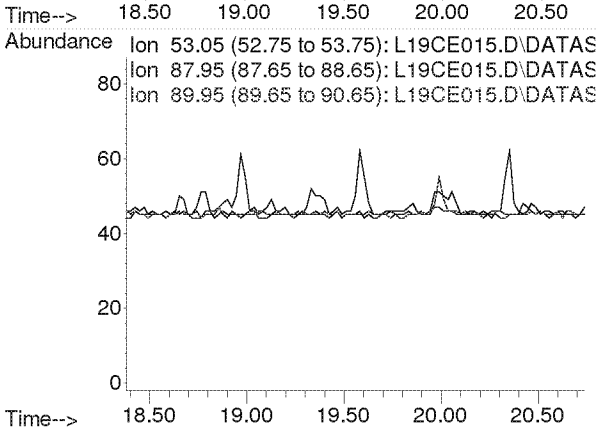


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

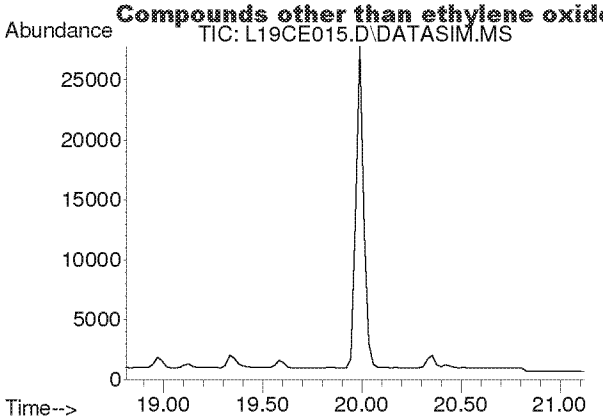
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

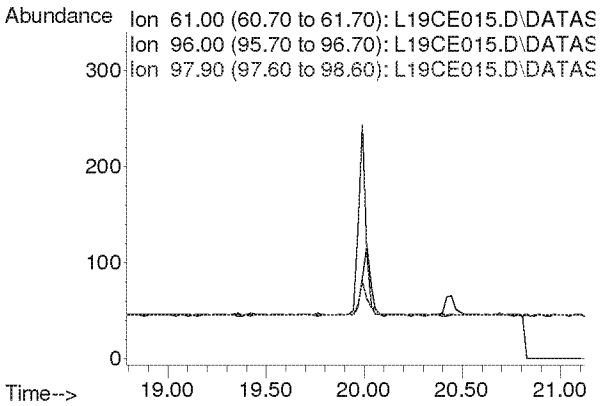


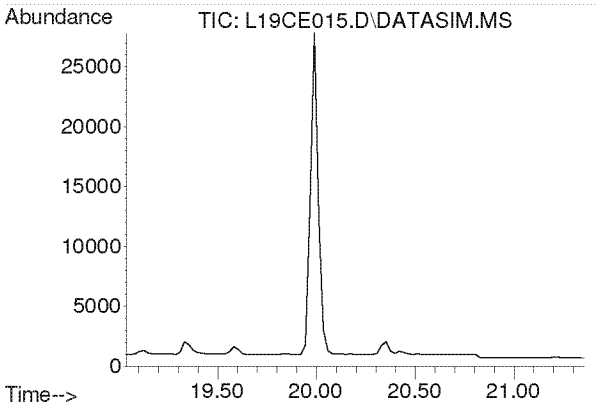
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



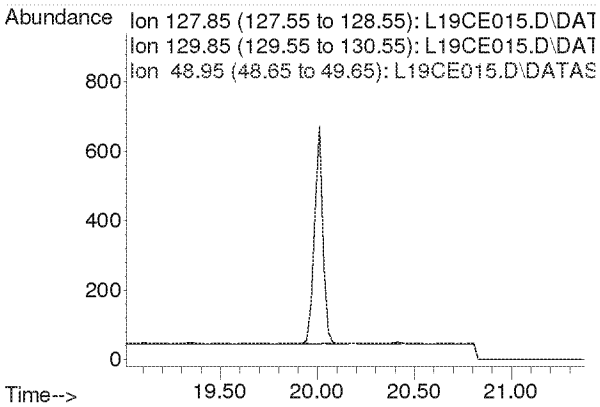


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

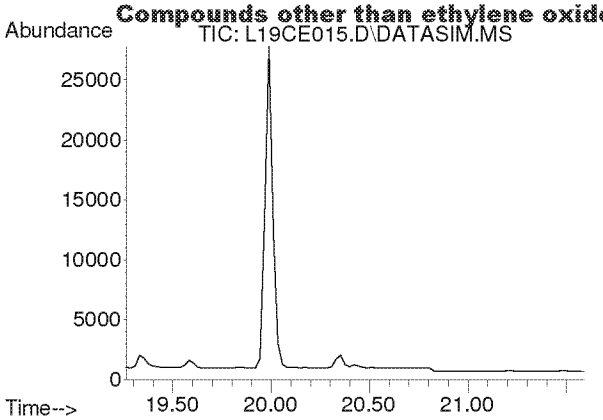
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

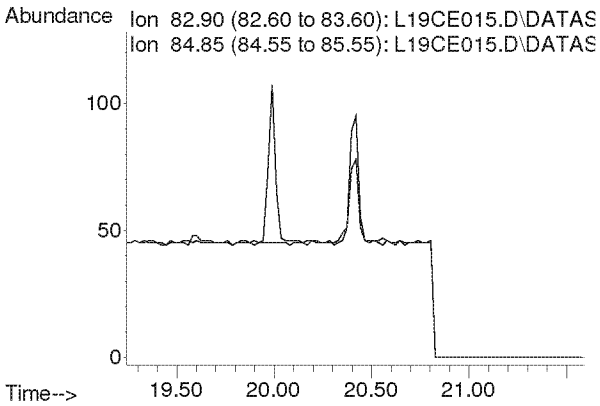


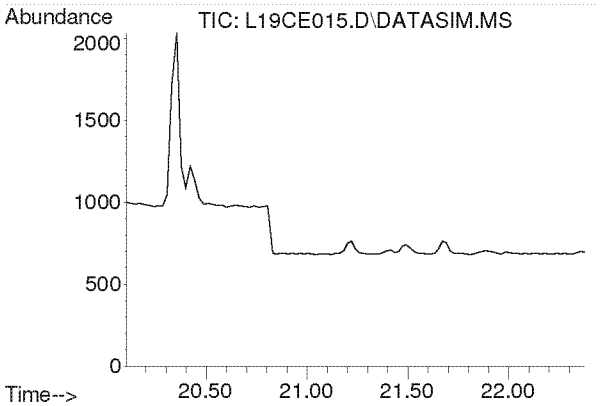
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



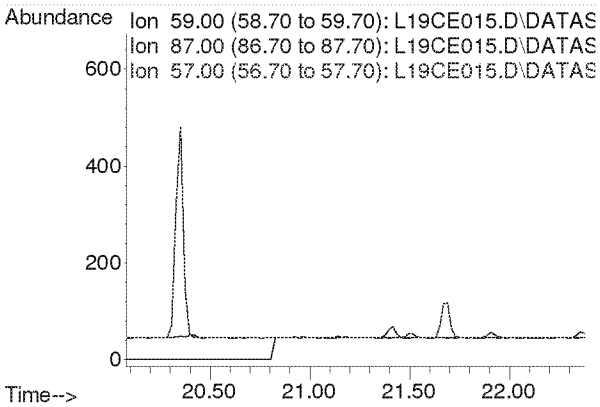


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

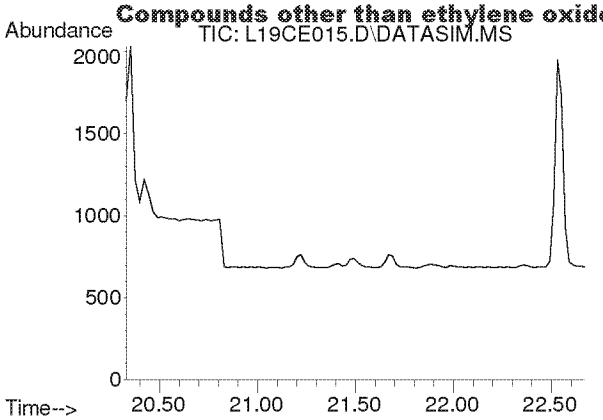
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

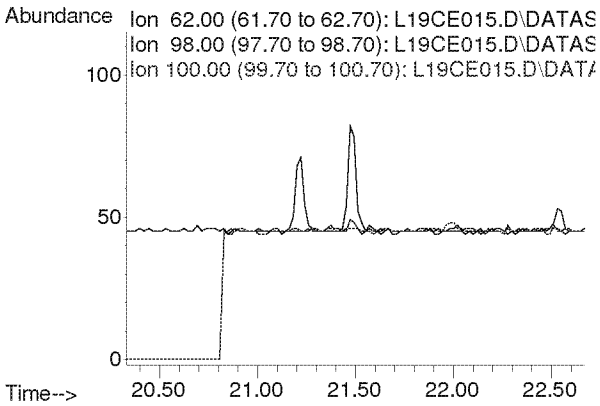


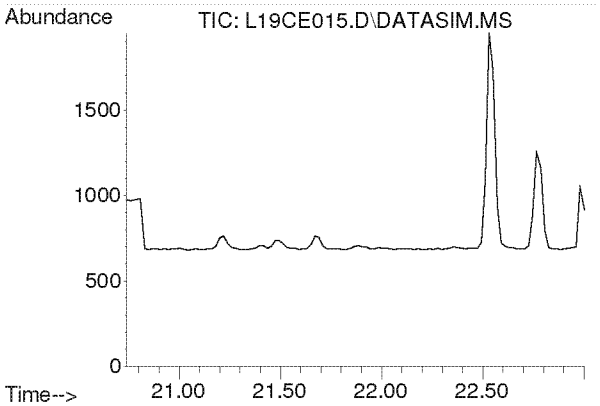
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



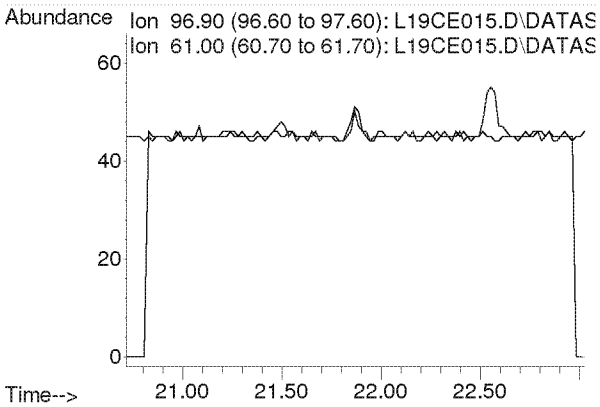


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

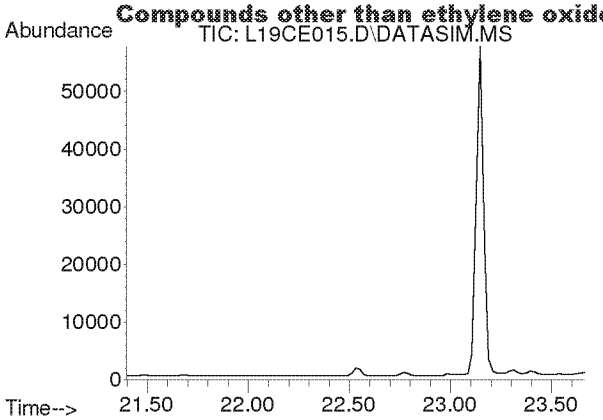
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

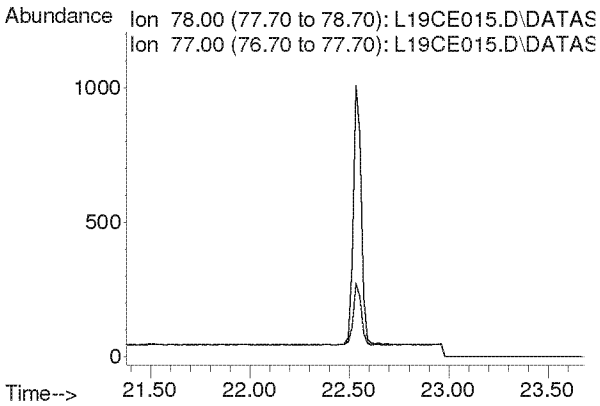


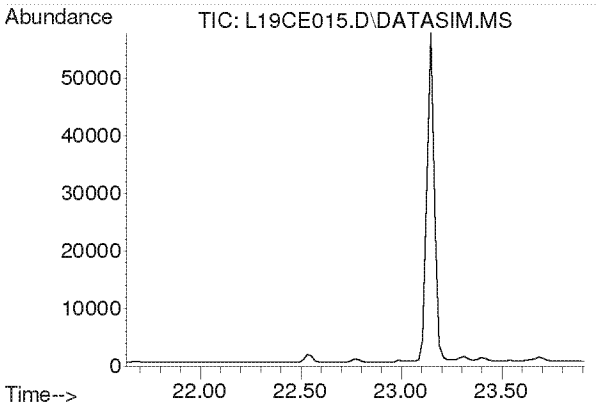
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



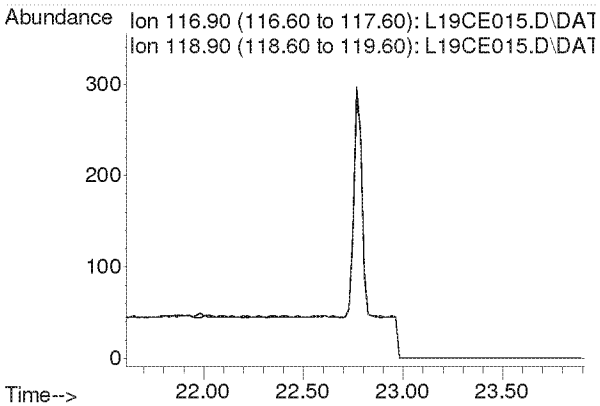


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

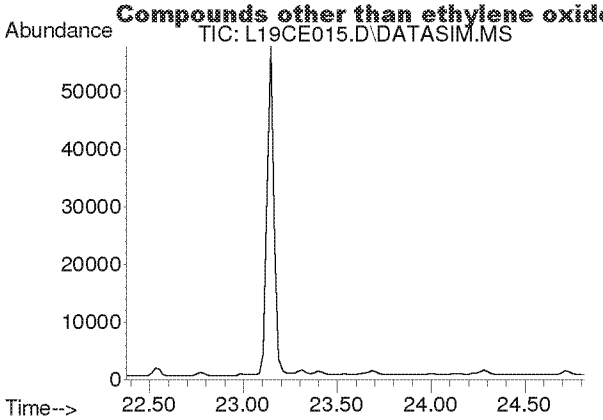
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

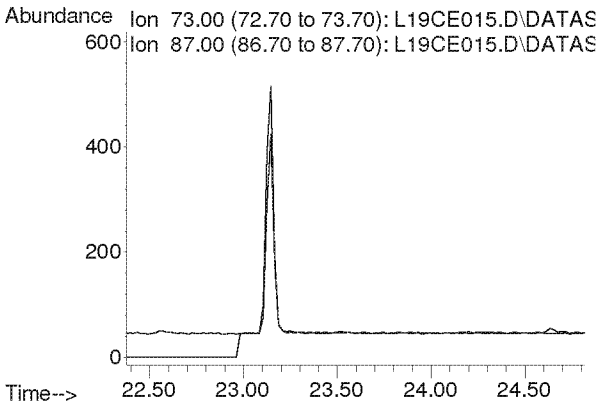


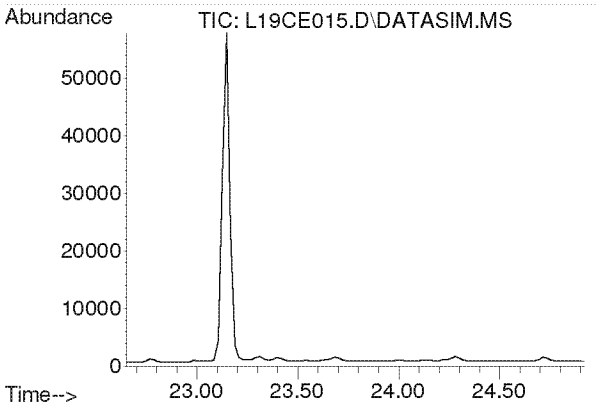
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



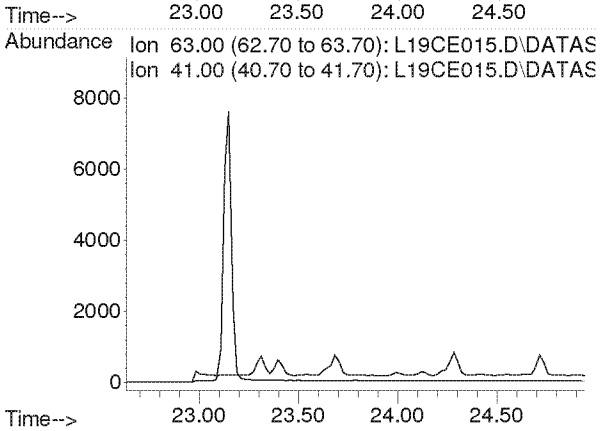


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

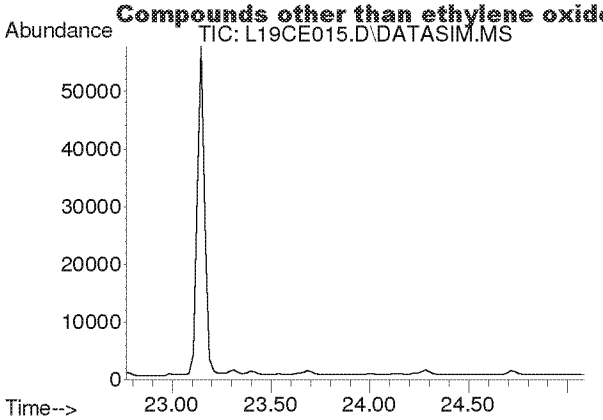
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

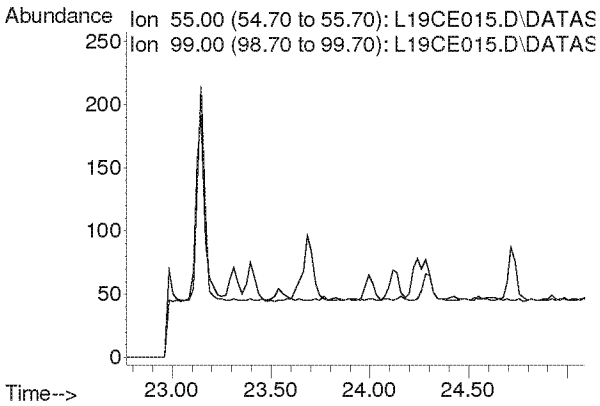


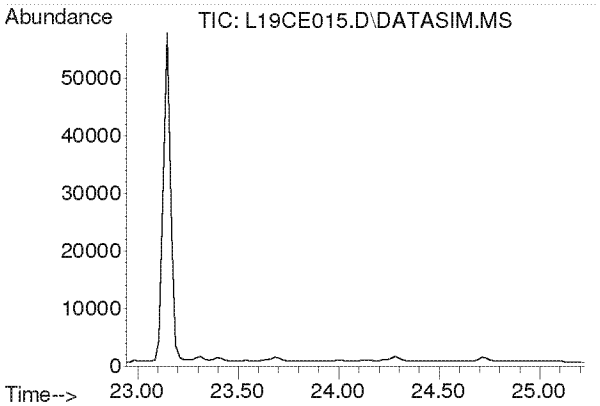
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



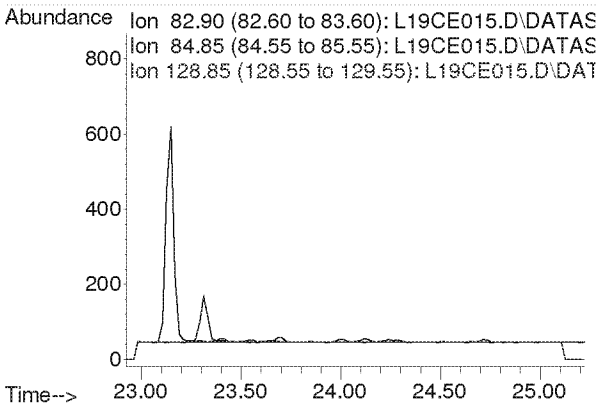


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

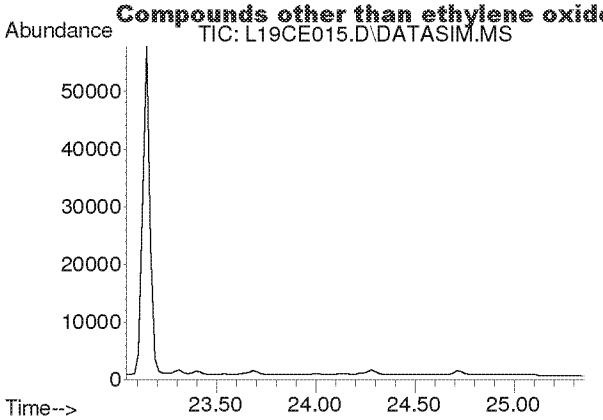
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

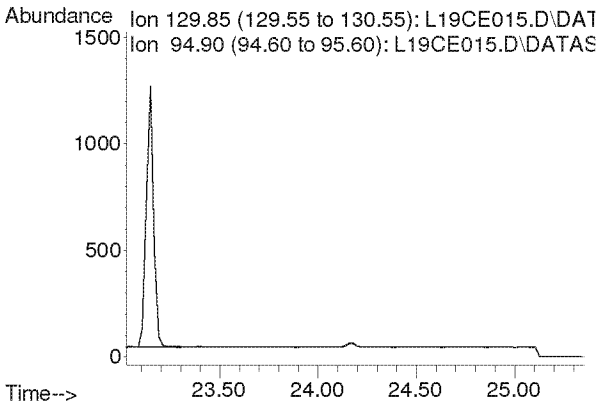


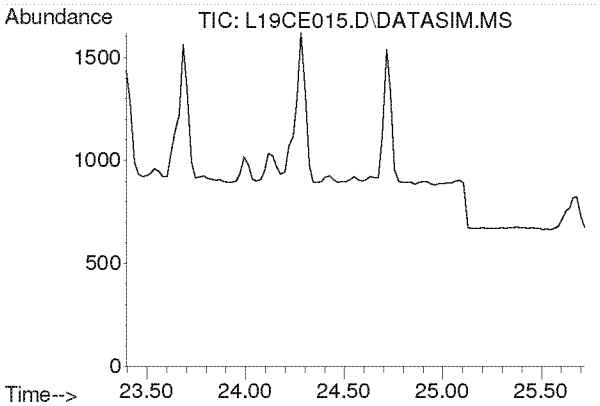
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



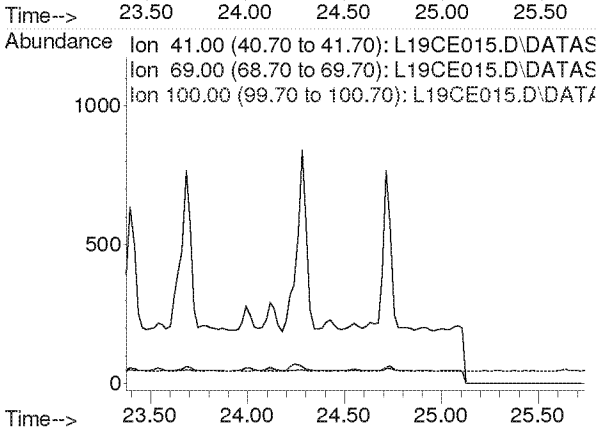


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

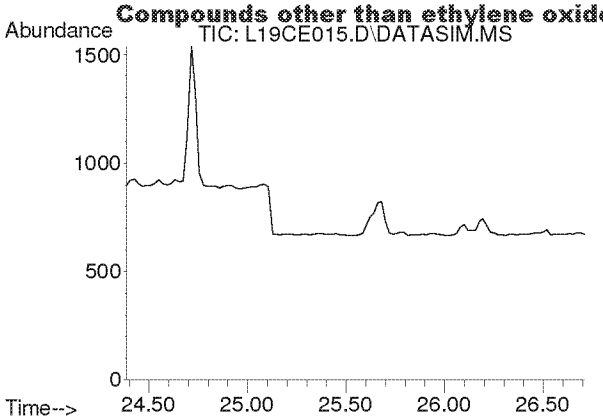
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

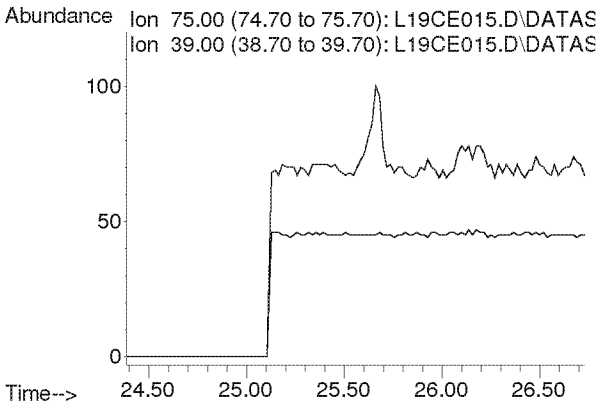


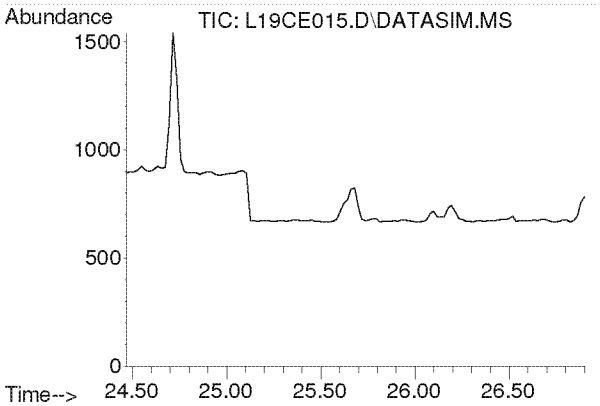
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



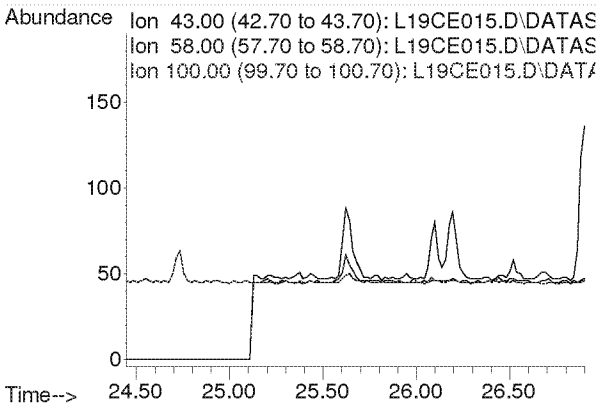


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

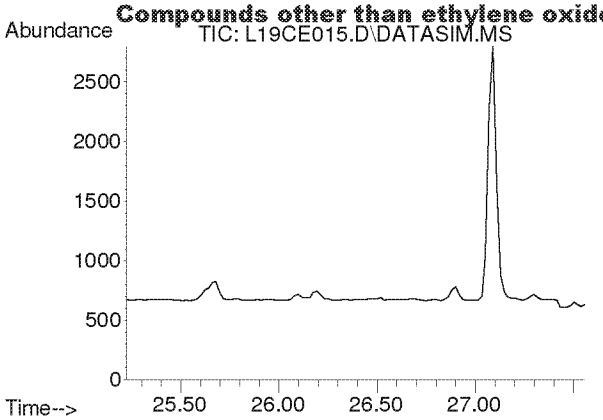
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

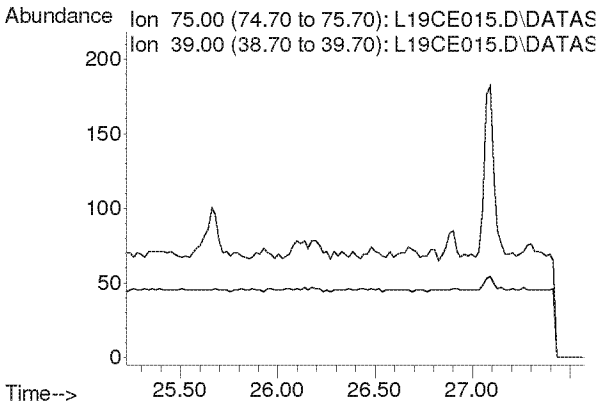


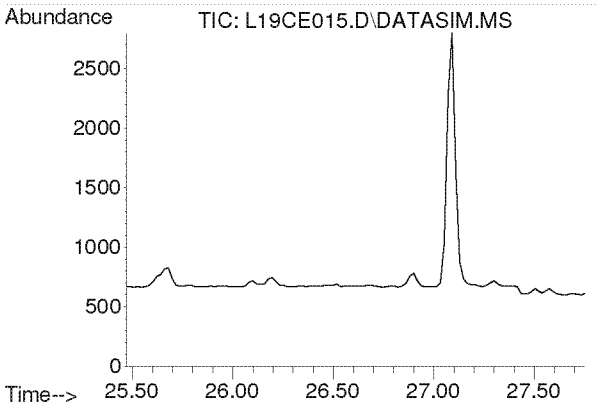
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



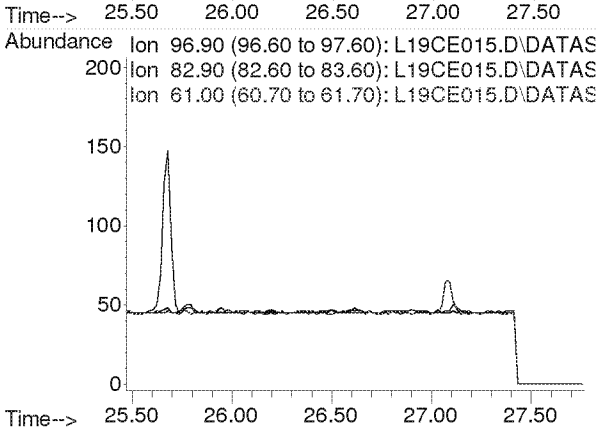


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

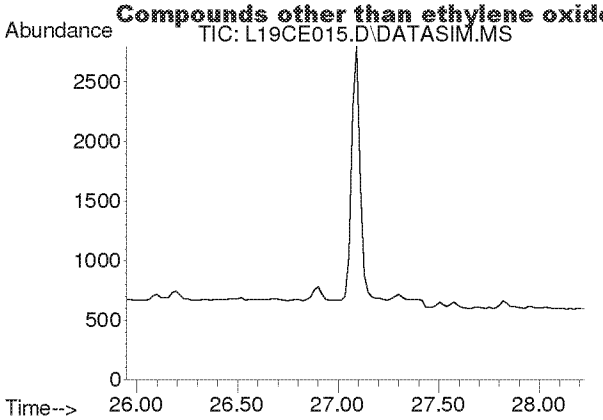
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

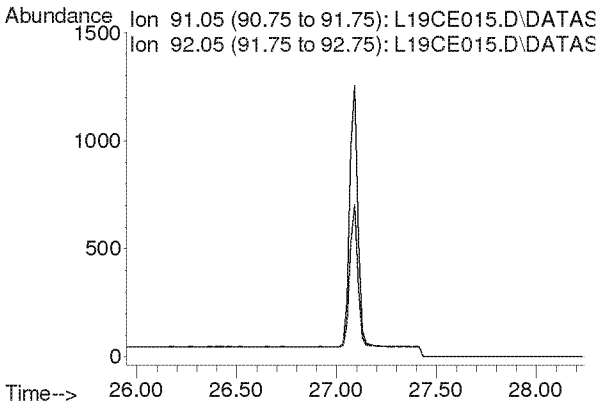


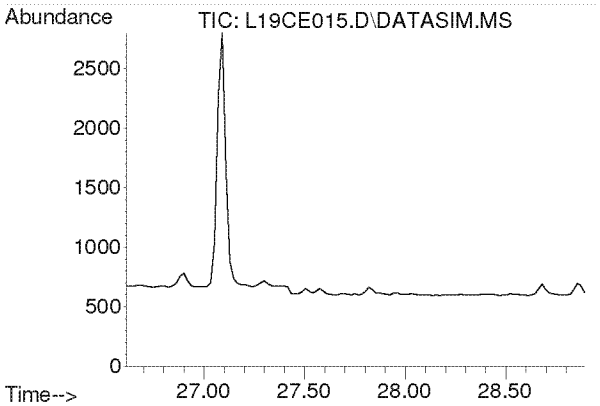
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



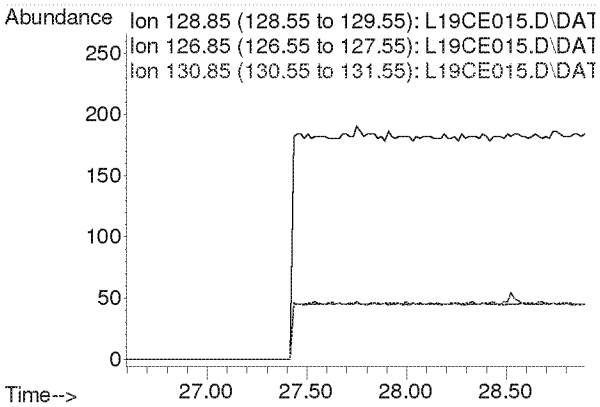


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

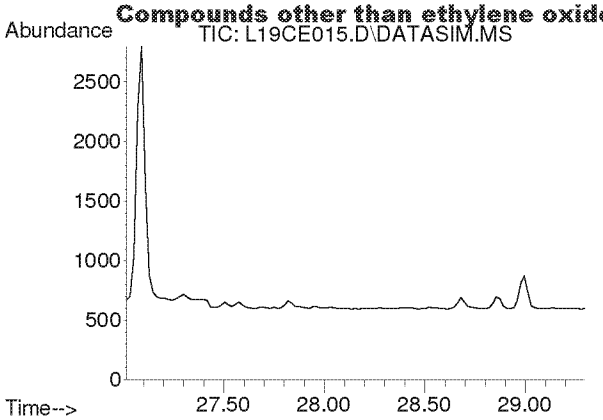
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

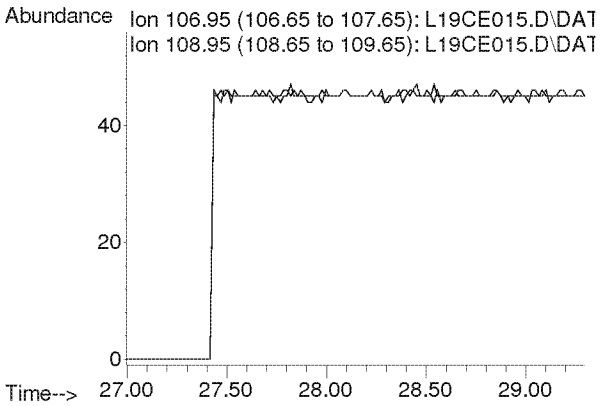


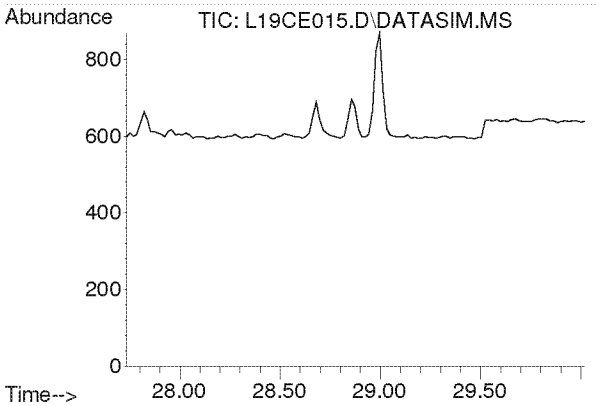
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



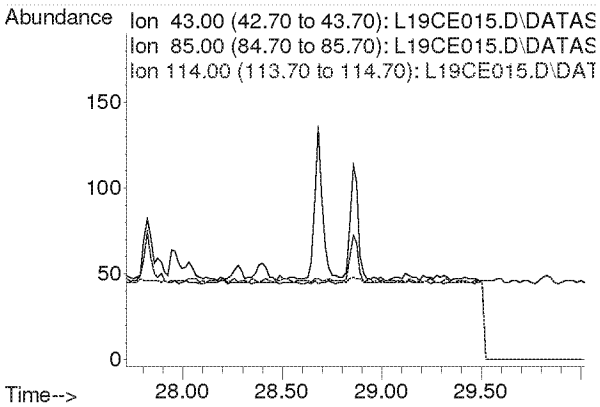


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

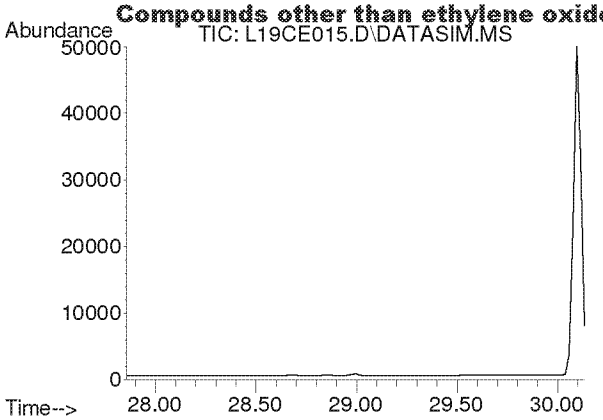
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

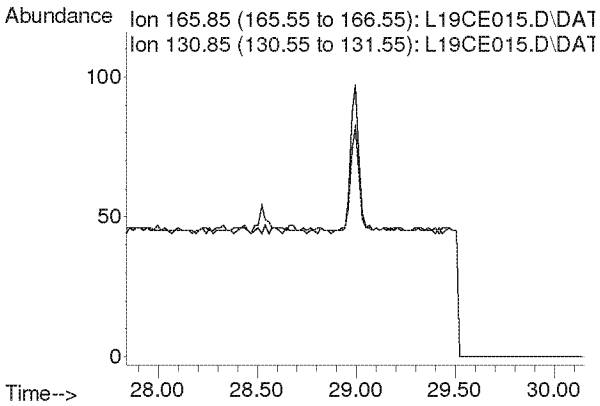


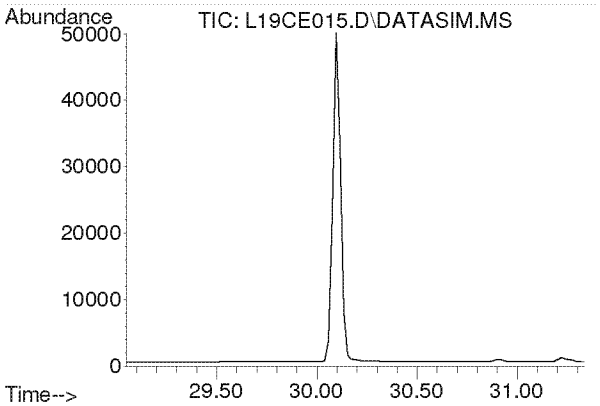
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



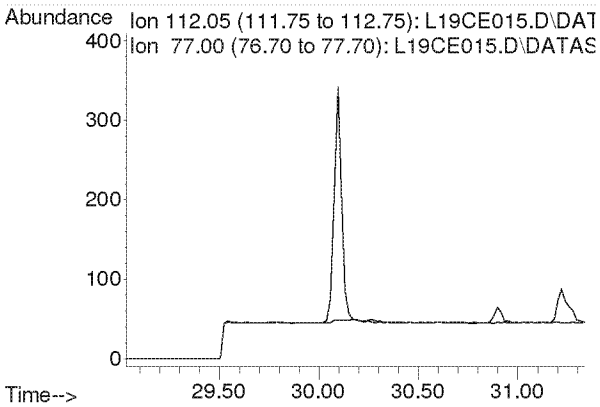


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

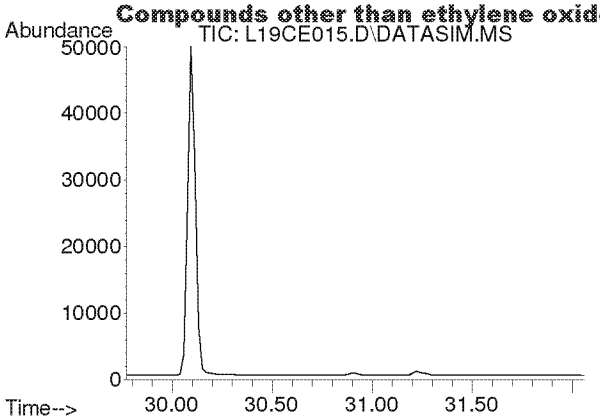
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

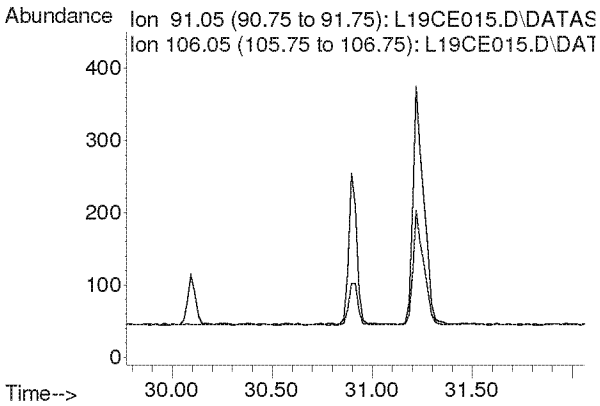


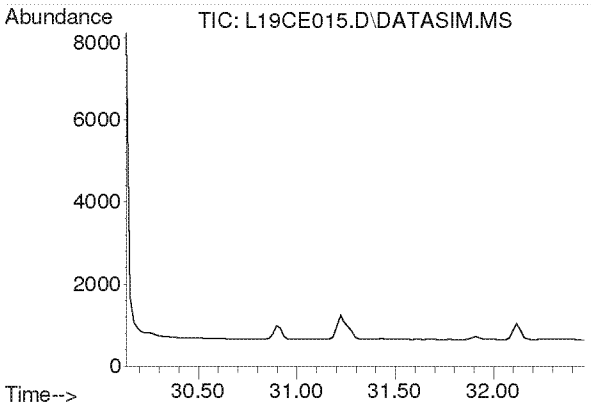
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



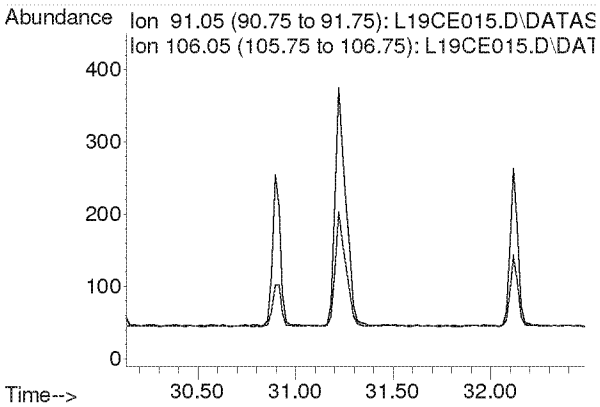


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

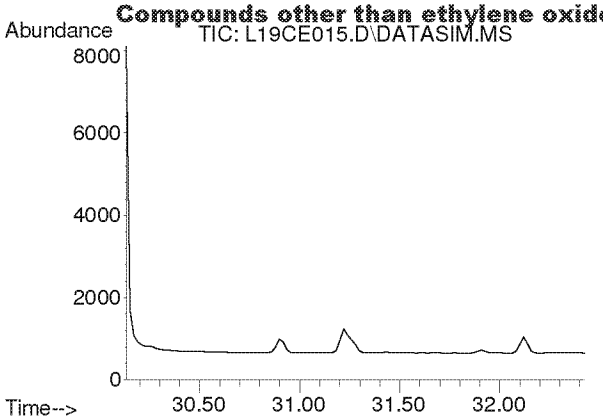
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

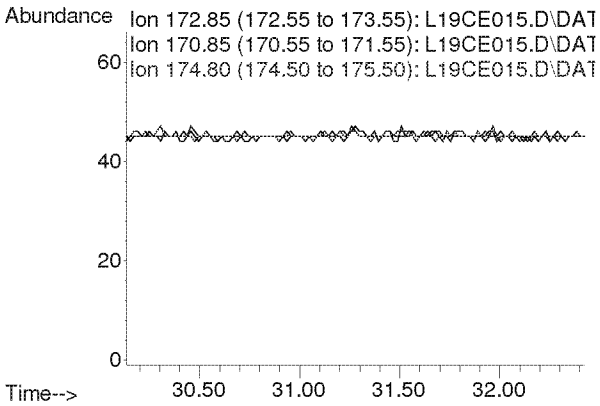


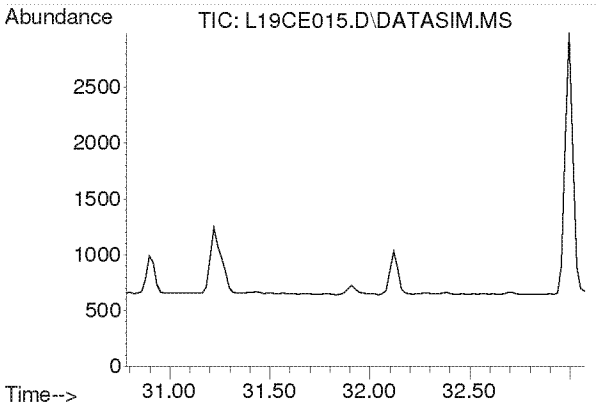
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



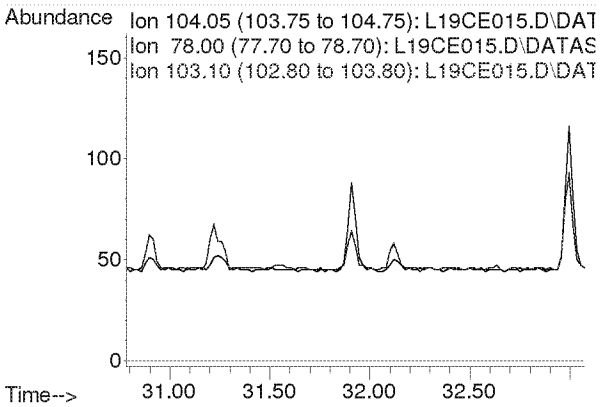


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

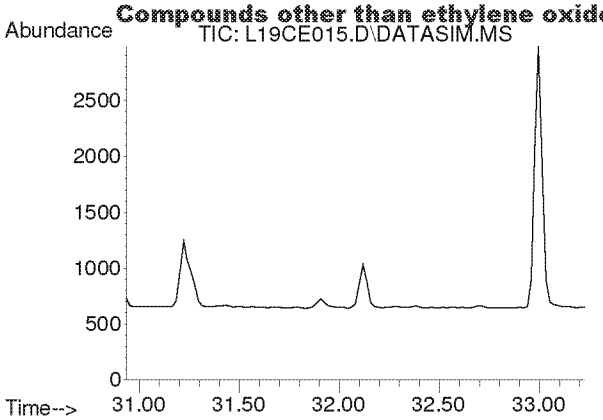
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

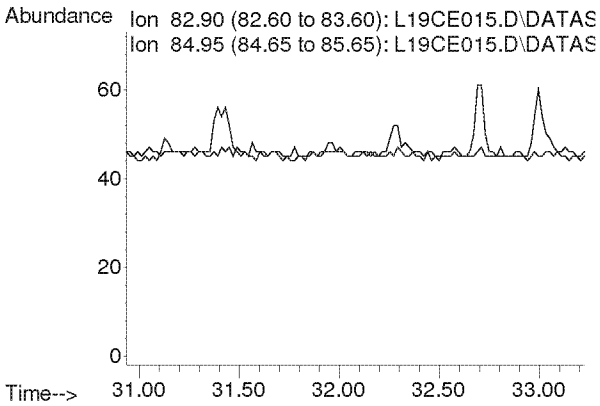


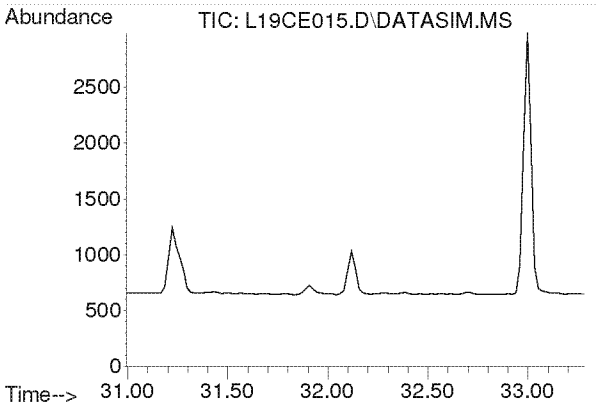
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



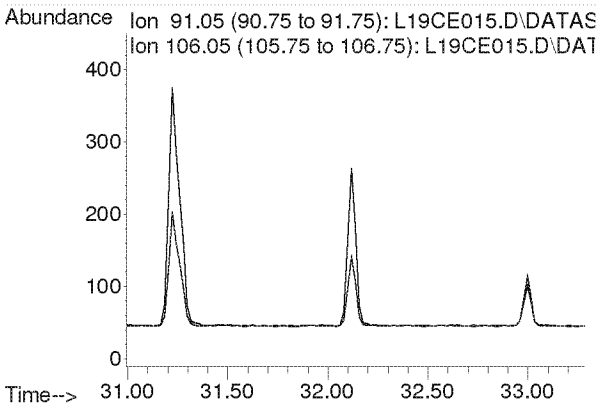


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

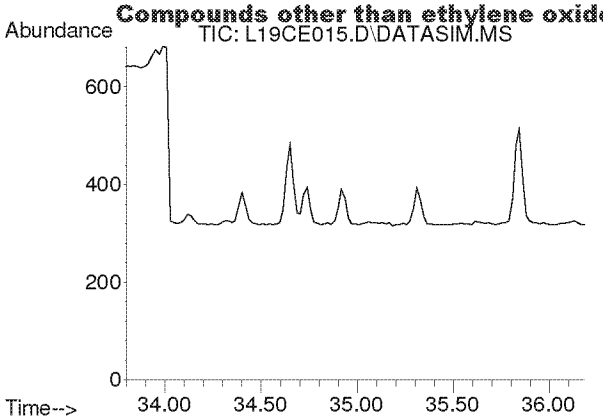
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

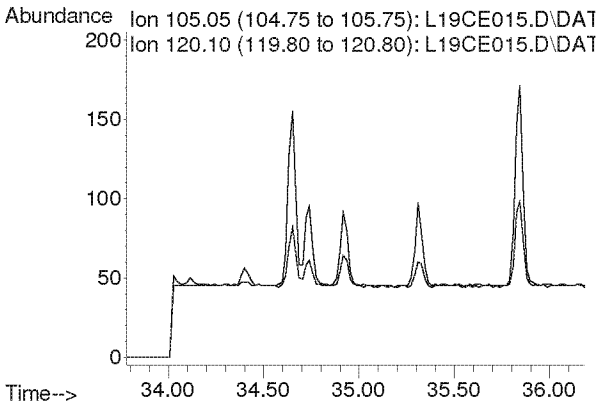


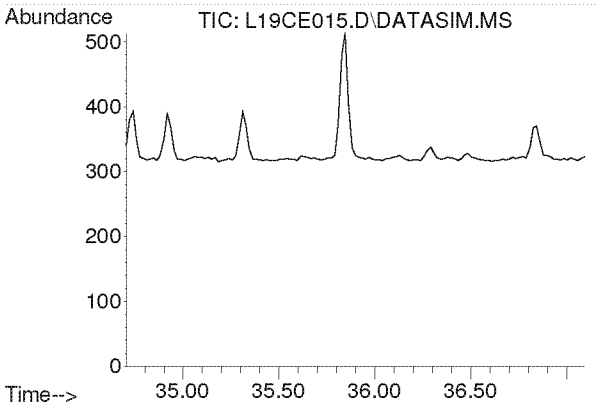
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



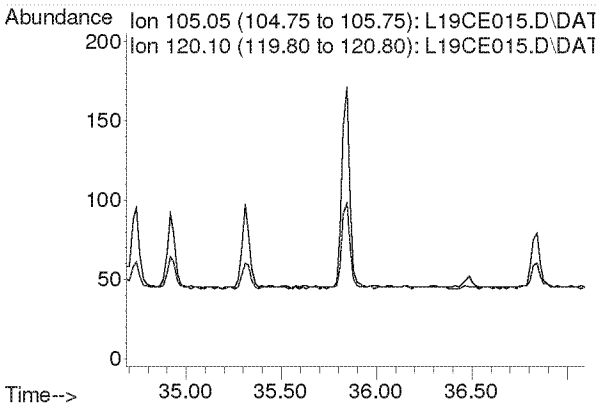


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

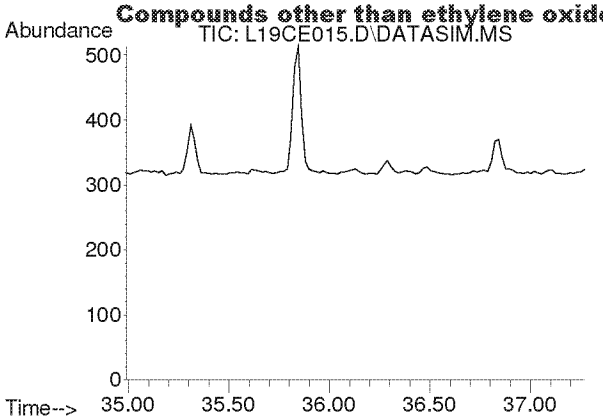
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

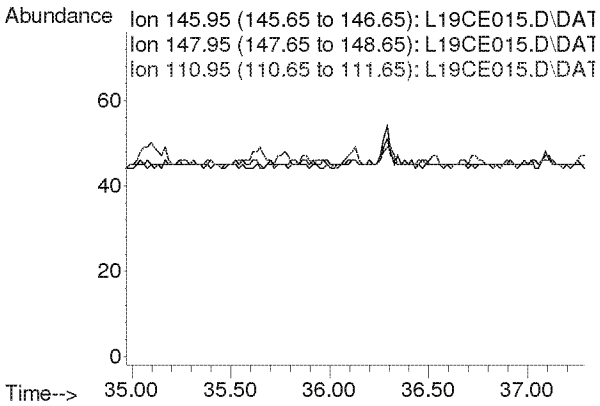


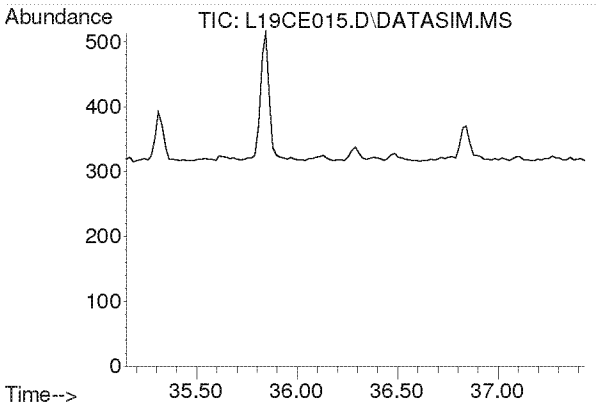
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



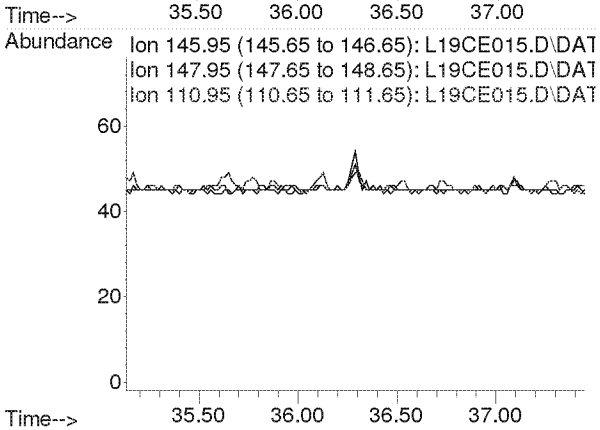


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

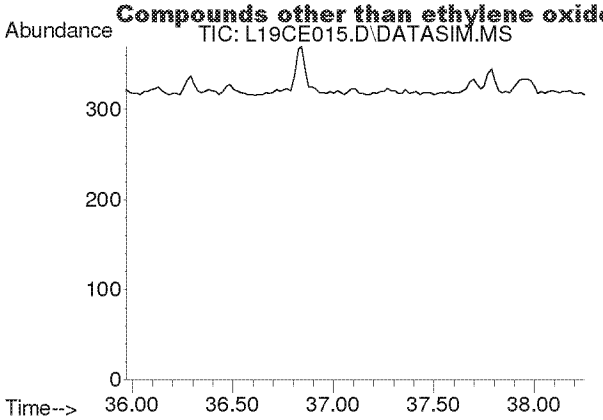
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

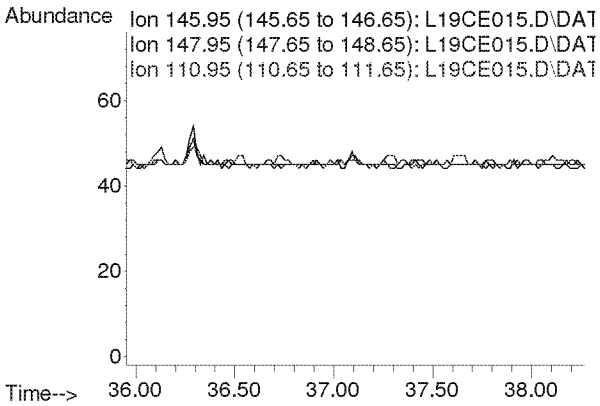


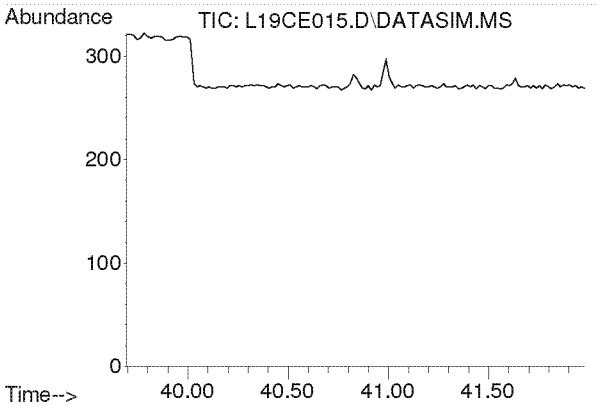
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



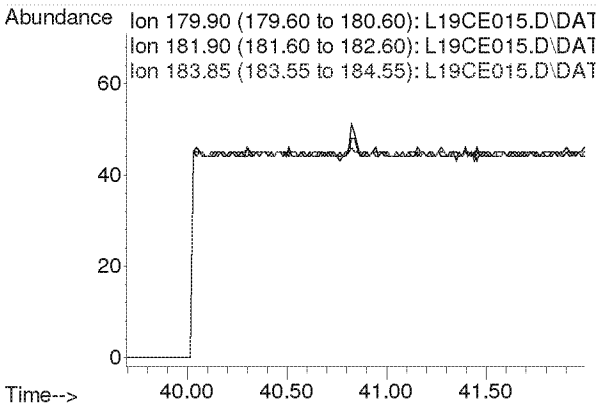


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

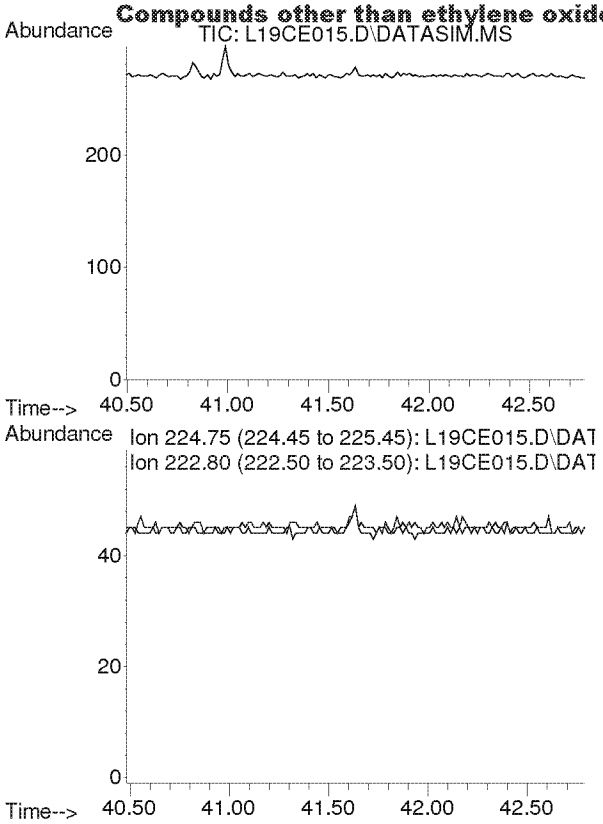
Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE015.D
Acq: 6 Mar 2019 2:30 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE016.D
Acq On : 6 Mar 2019 3:30 am (#1); 06-Mar-19, 03:25:21 (#2)
Operator : MAH
Sample : B9C0507-DUP1
Misc : EPA WB WAREHOUSE R1 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 06 12:30:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d-MA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	46199	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	119406	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	84244	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	d
3) Propylene	0.000	41	0	N.D.	d
4) Dichlorodifluoromethane	0.000	85	0	N.D.	d
5) Chloromethane	0.000	50	0	N.D.	d
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	d
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	d
9) Ethylene oxide	12.500	29	183m 3-6-19	0.0693 ppbv	
10) Bromomethane	0.000	94	0	N.D.	d
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	d
13) Acrolein	0.000	56	0	N.D.	d
14) Trichlorofluoromethane	0.000	101	0	N.D.	d
15) Acrylonitrile	0.000	53	0	N.D.	d
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	d
18) Carbon Disulfide	0.000	76	0	N.D.	d
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	d
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	d
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	d
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D.	d
32) Carbon Tetrachloride	0.000	117	0	N.D.	d
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	d
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	d
38) Methyl Methacrylate	0.000	41	0	N.D.	d
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	d
45) Dibromochloromethane	0.000	129	0	N.D.	d
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	d
48) Tetrachloroethylene	0.000	166	0	N.D.	d
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE016.D
Acq On : 6 Mar 2019 3:30 am (#1); 06-Mar-19, 03:25:21 (#2)
Operator : MAH
Sample : B9C0507-DUP1
Misc : EPA WB WAREHOUSE R1 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 06 12:30:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
Quant Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

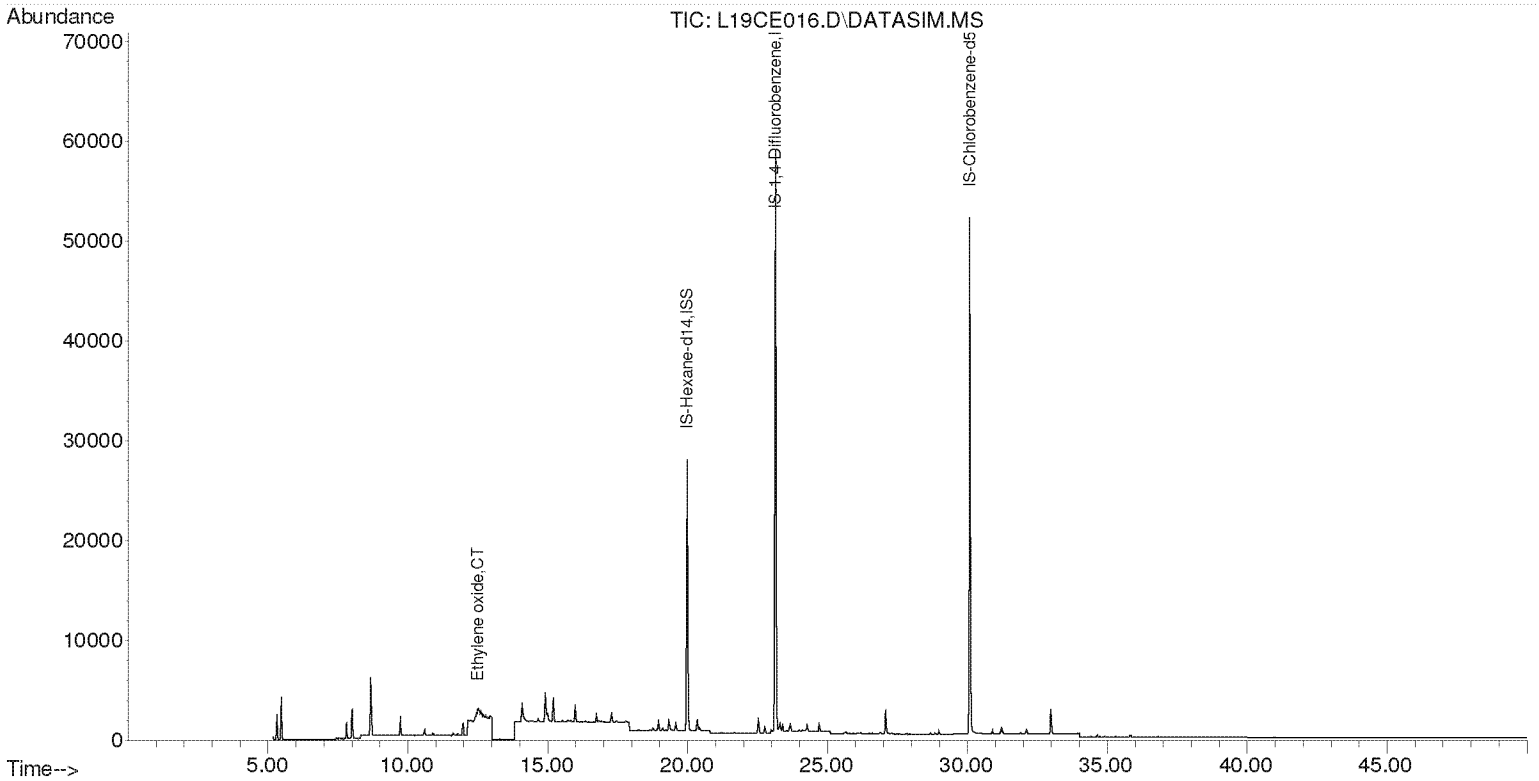
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
31) m,p-Xylene	0.000	91	0	N.D.	d
32) Bromoform	0.000	173	0	N.D.	
33) Styrene	0.000	104	0	N.D.	d
34) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
35) o-Xylene	0.000	91	0	N.D.	d
36) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
37) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
38) m-Dichlorobenzene	0.000	146	0	N.D.	
39) p-Dichlorobenzene	0.000	146	0	N.D.	
40) o-Dichlorobenzene	0.000	146	0	N.D.	
41) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
42) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

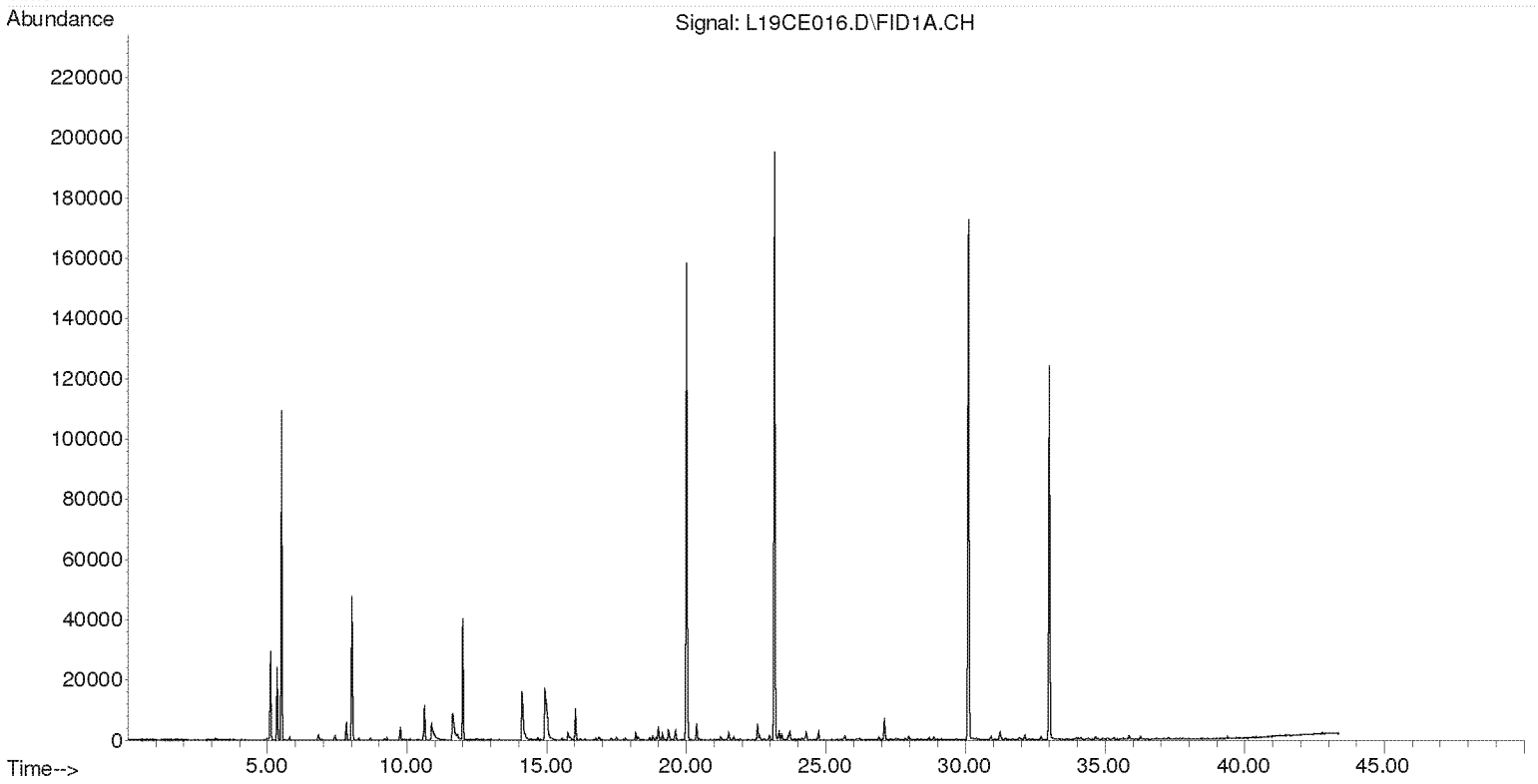
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

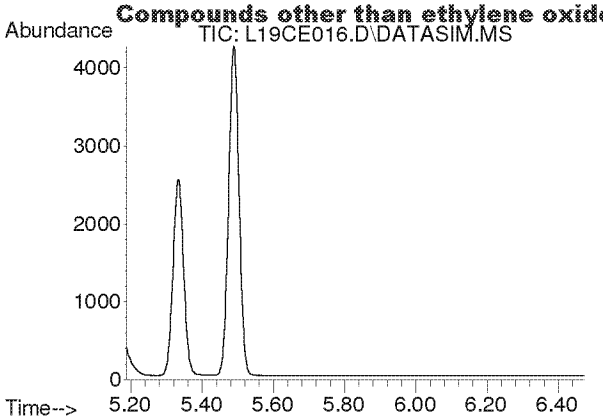
Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE016.D
Acq On : 6 Mar 2019 3:30 am (#1); 06 Mar 2019 3:25 am (#2)
Operator : MAH
Sample : B9C0507-DUP1
Misc : EPA WB WAREHOUSE R1 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 06 12:03:33 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





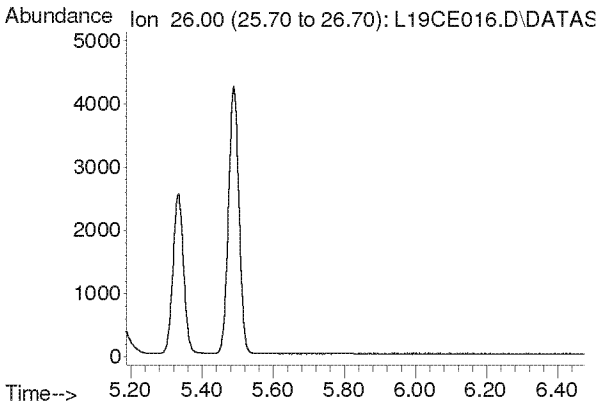
Compounds other than ethylene oxide were not quantitated.

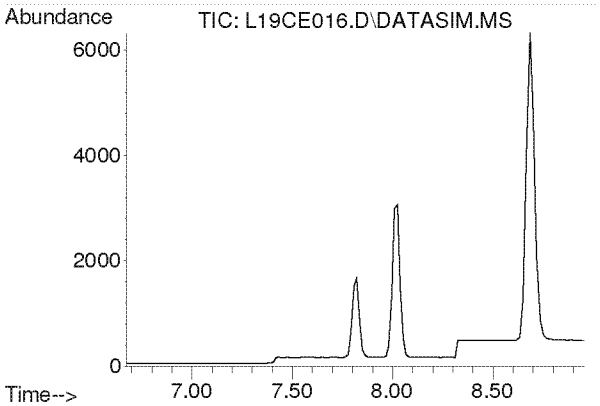


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 26



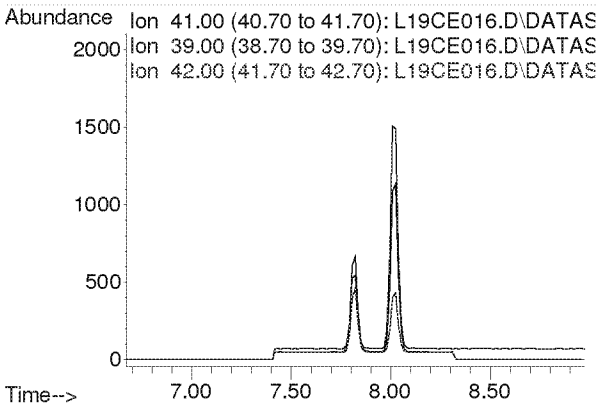


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

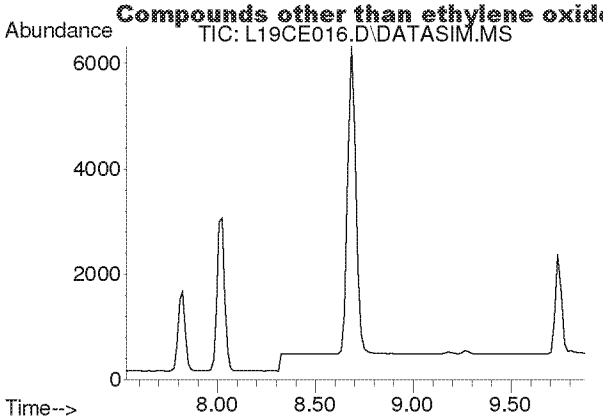
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

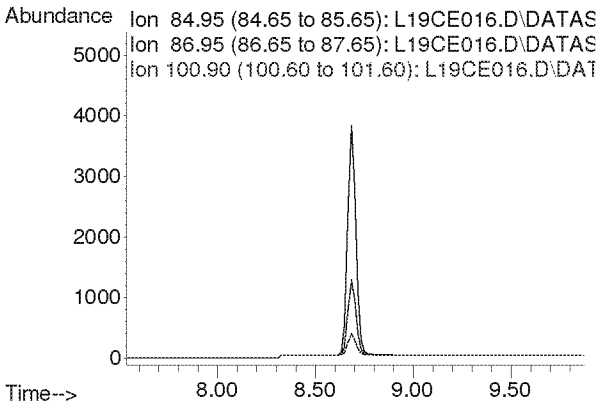


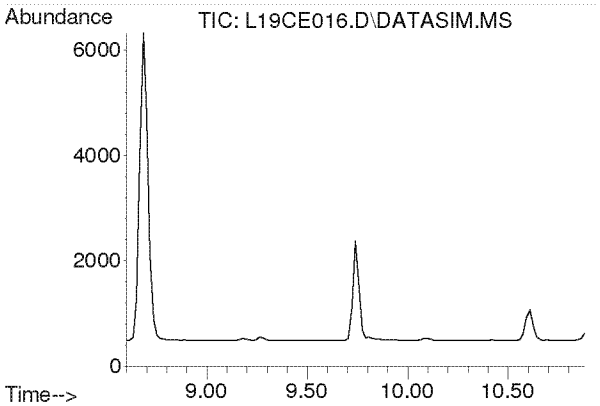
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



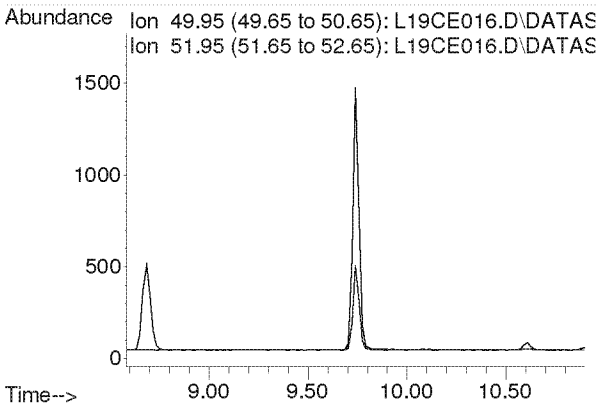


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

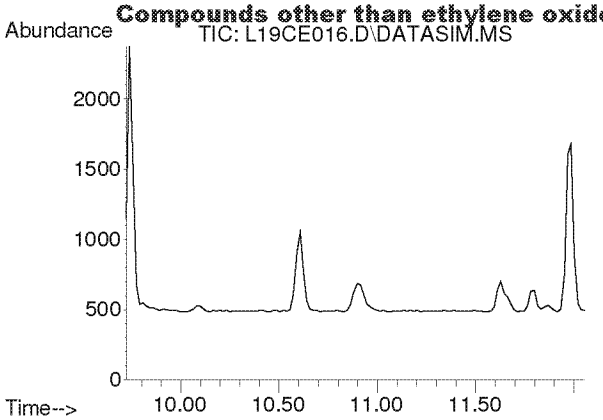
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

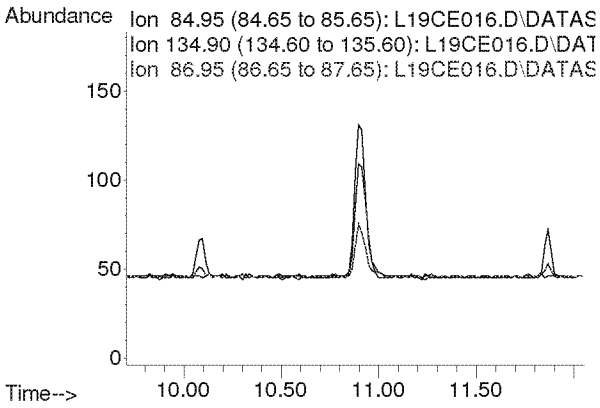


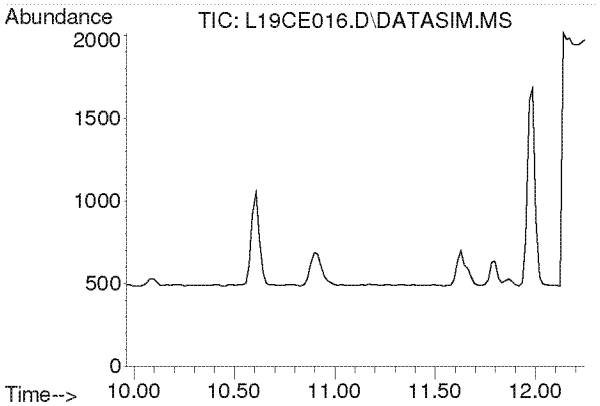
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



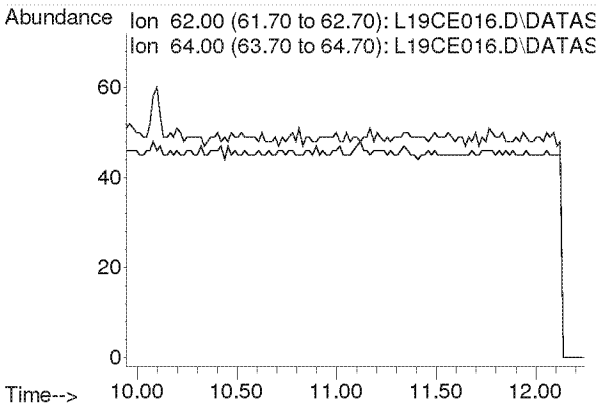


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

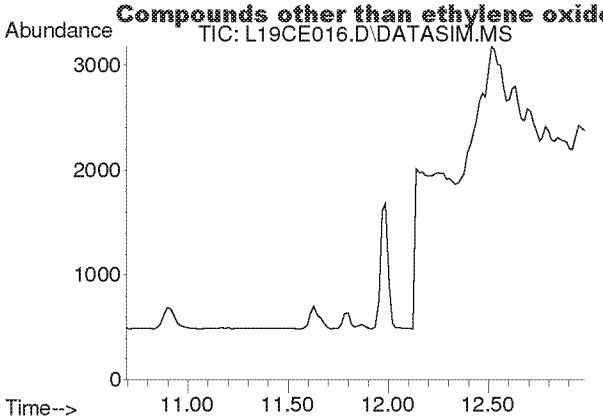
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

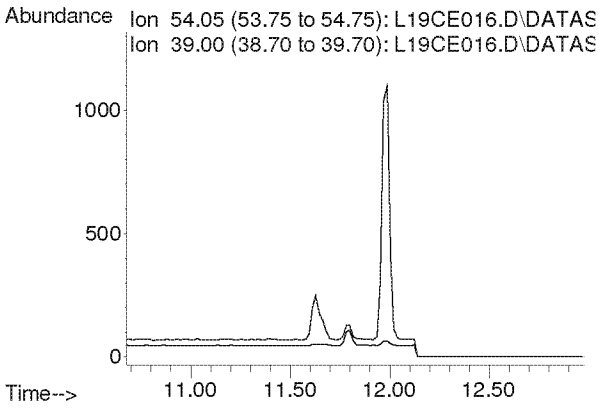


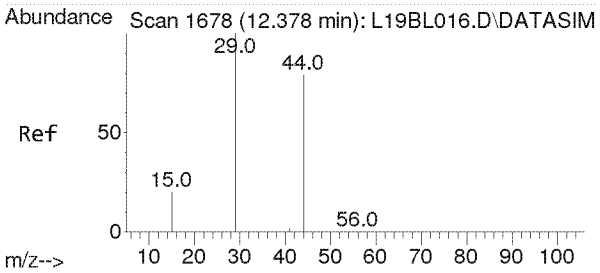
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

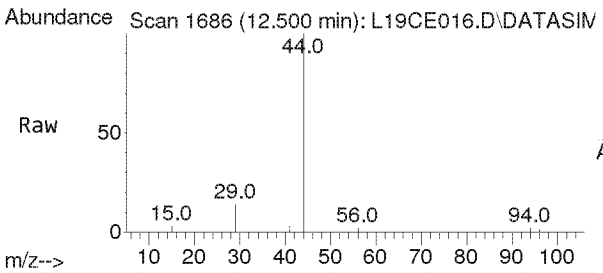


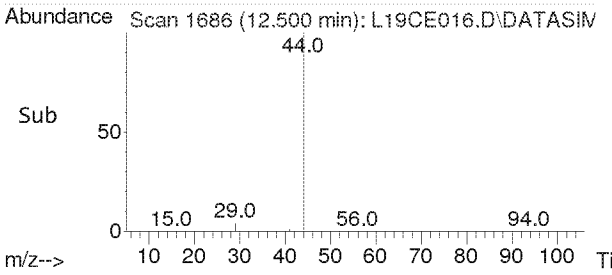


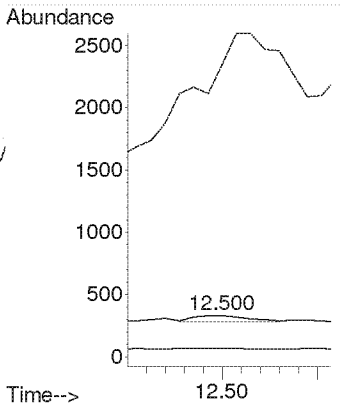
#9
Ethylene oxide
Concen: 0.069 ppbv m
RT: 12.500 min Scan# 1686
Delta R.T. 0.050 min
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 29 Resp: 183

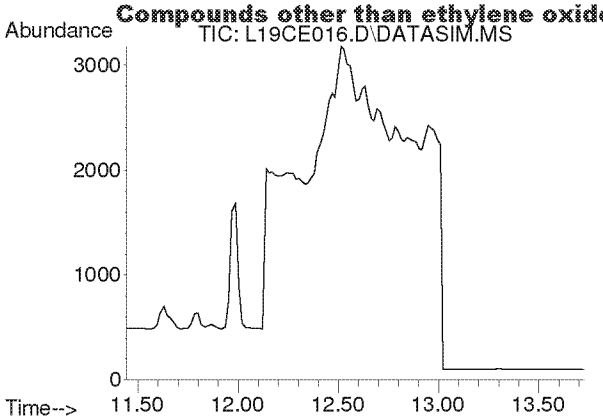
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

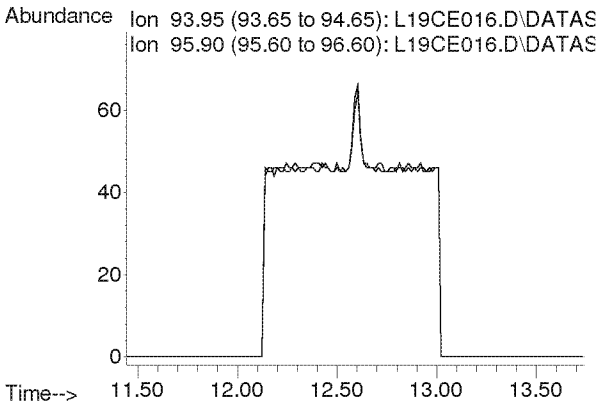


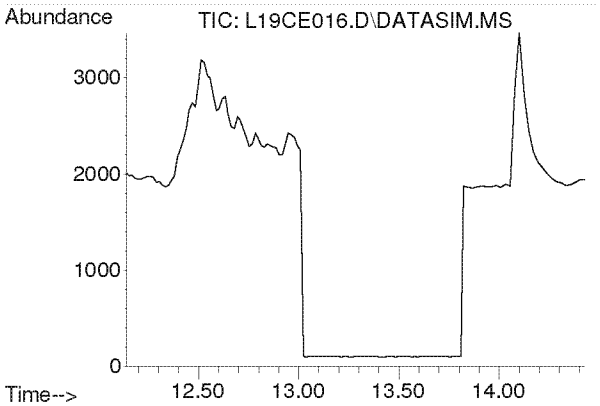
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



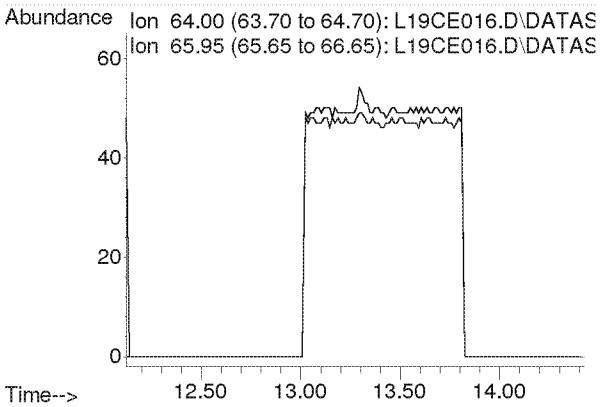


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

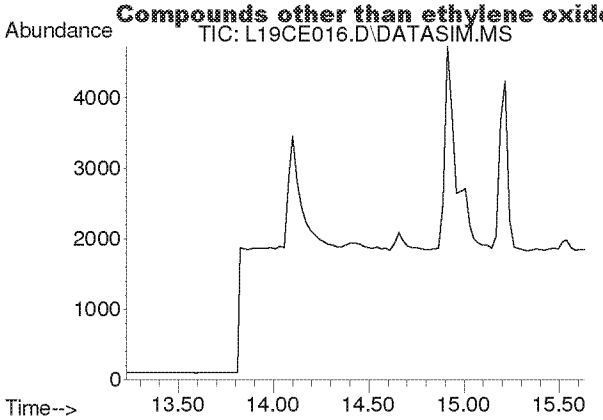
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

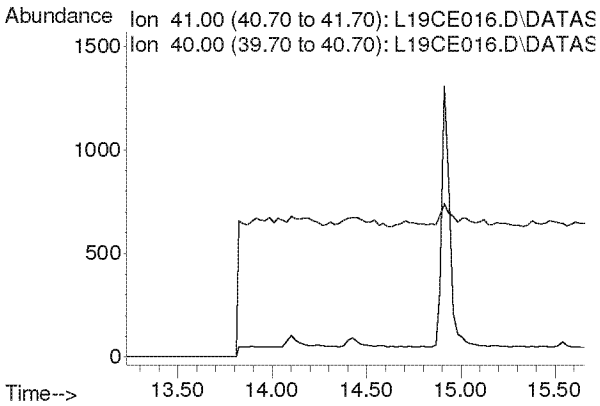


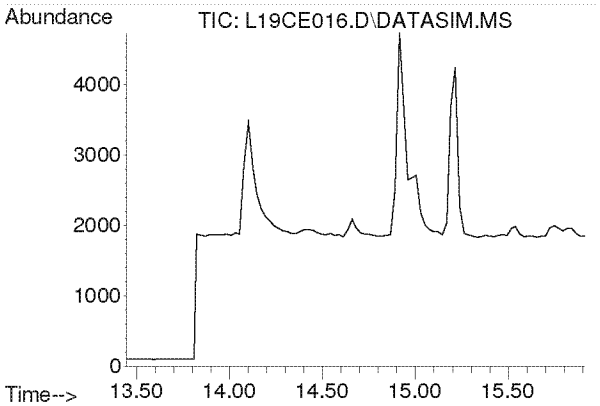
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



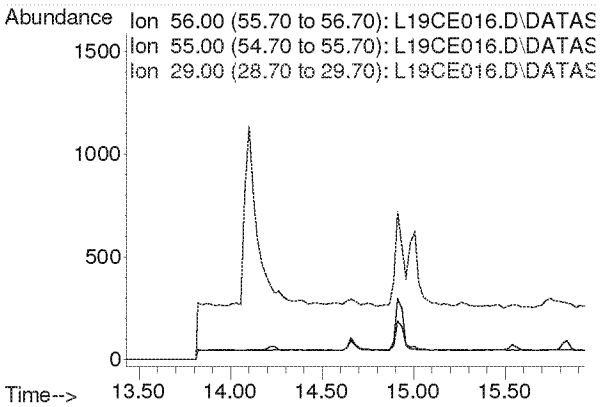


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

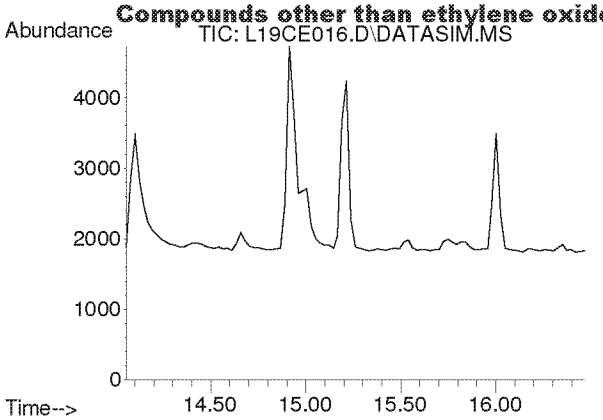
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

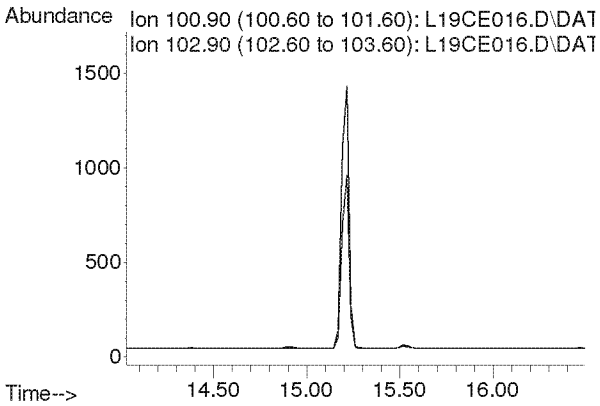


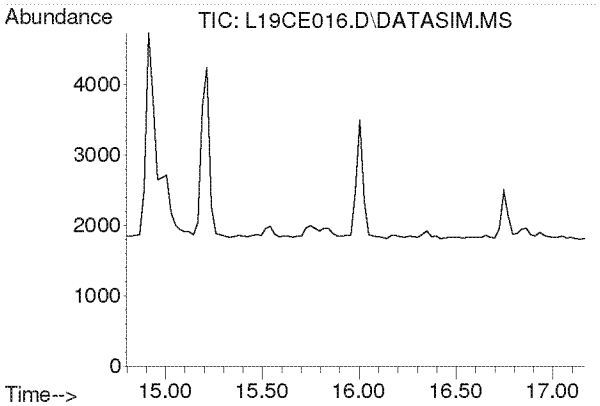
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



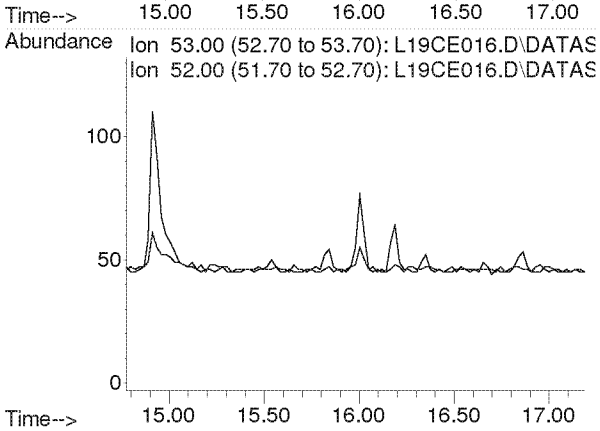


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

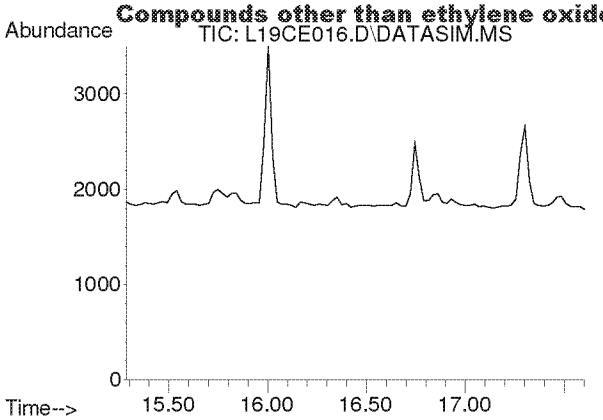
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

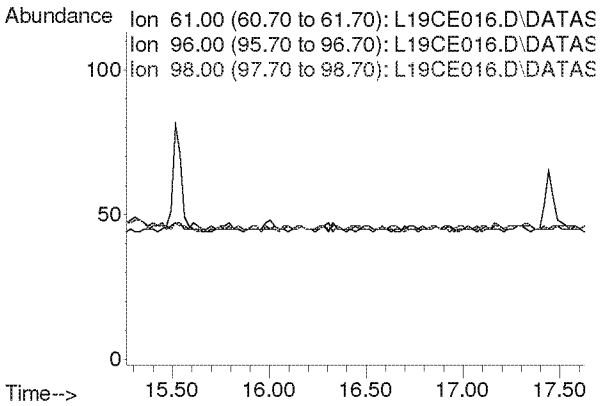


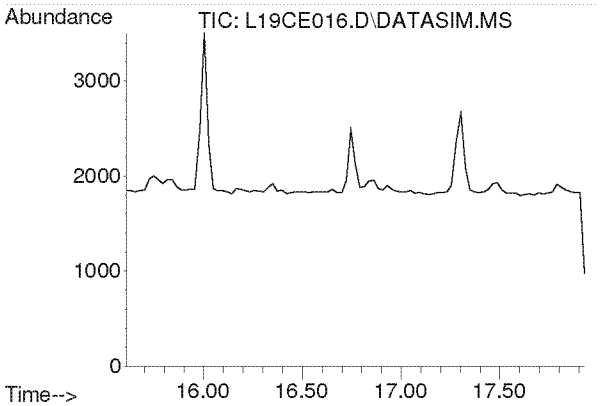
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



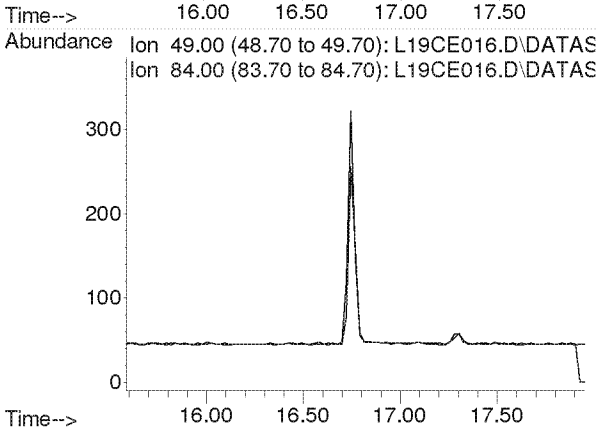


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

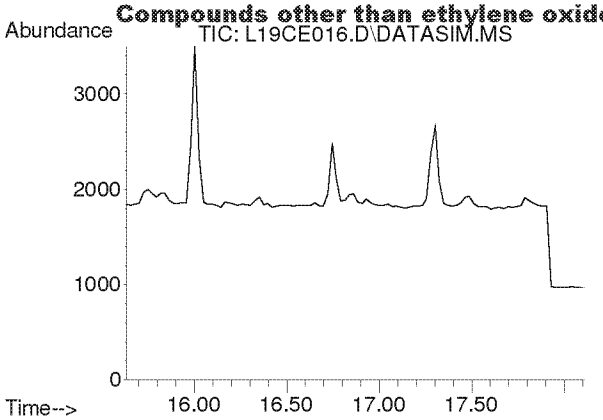
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

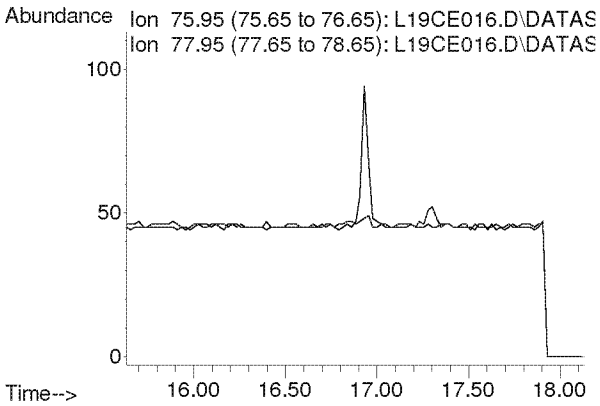


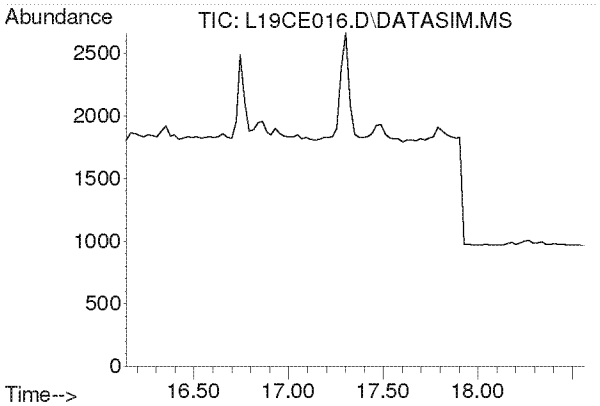
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



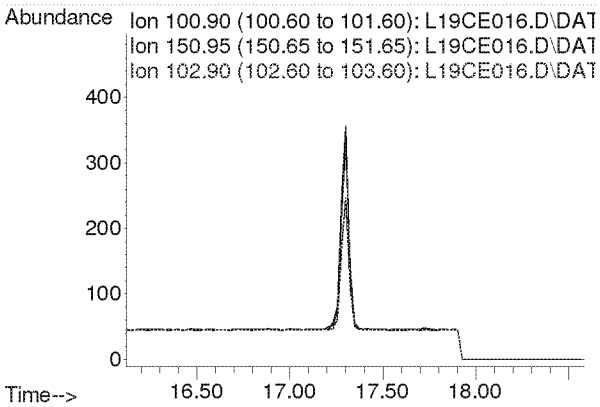


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

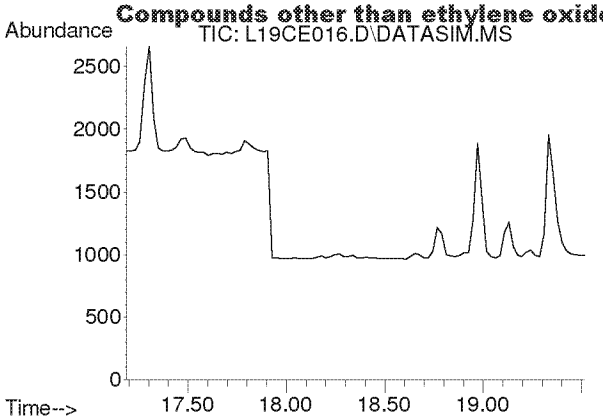
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

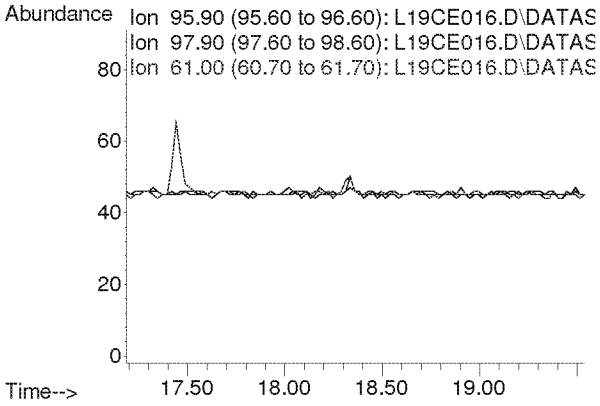


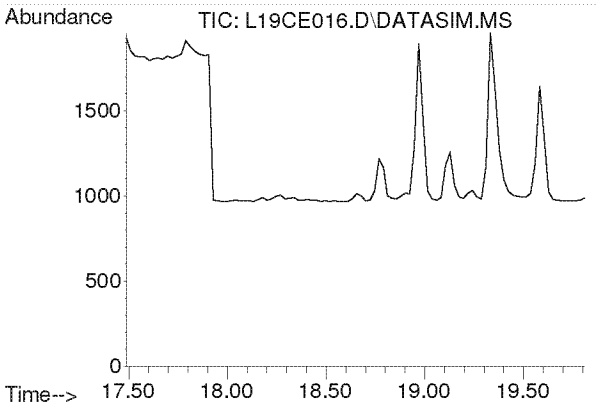
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



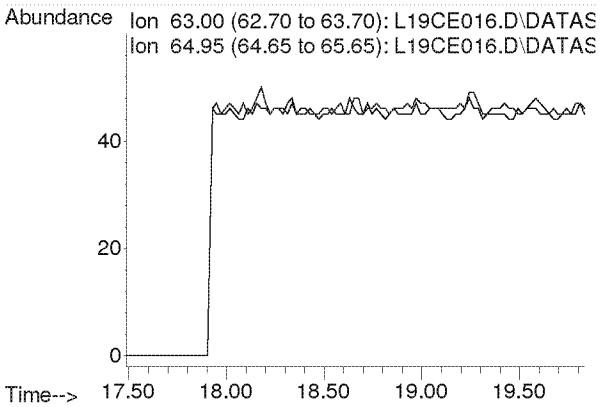


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

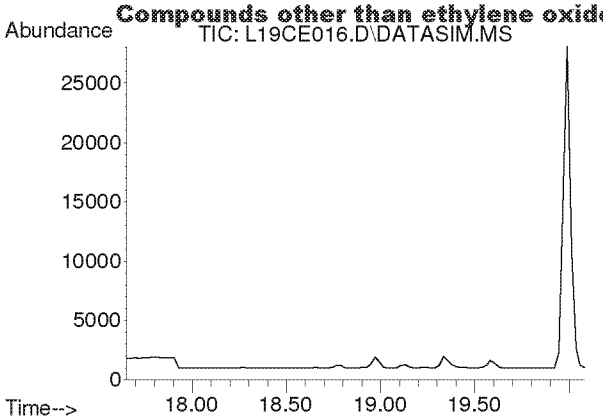
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

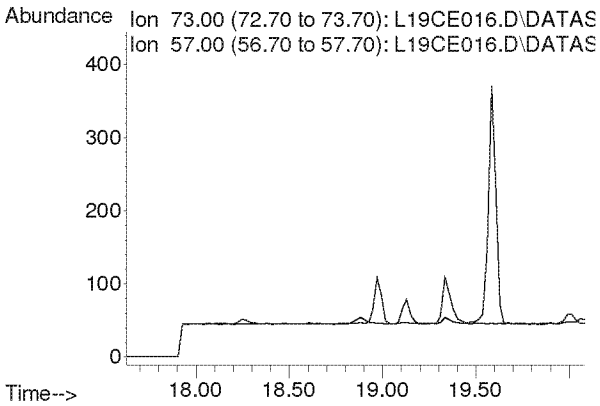


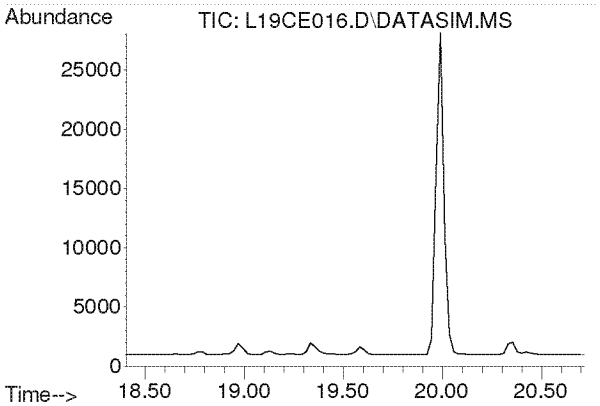
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



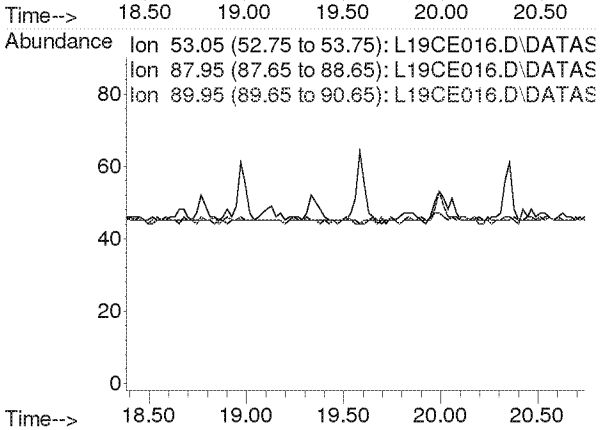


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

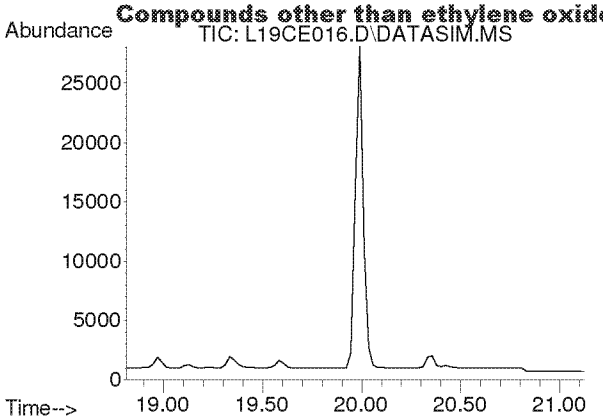
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

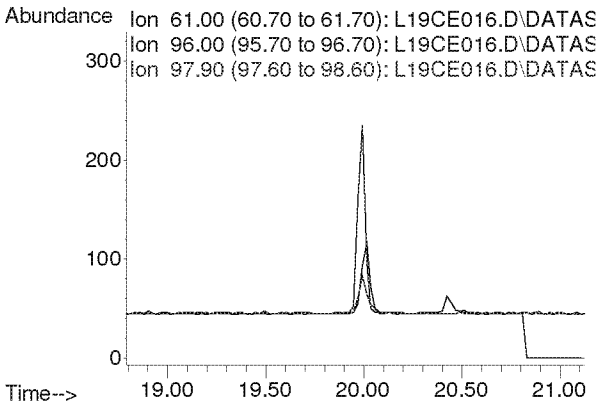


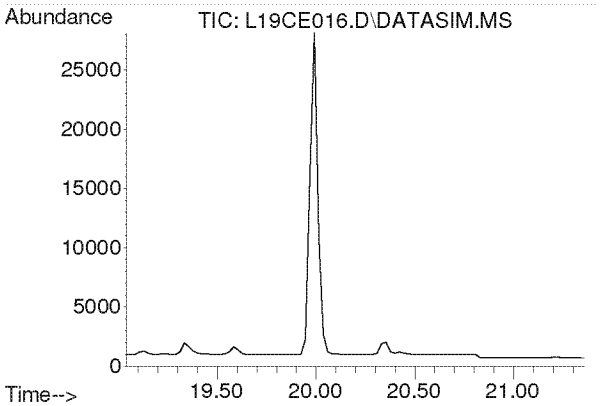
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



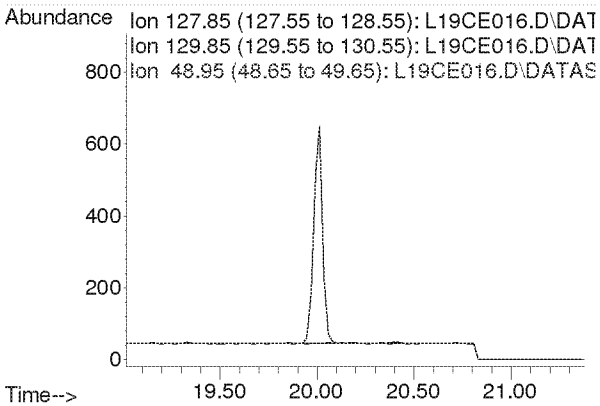


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

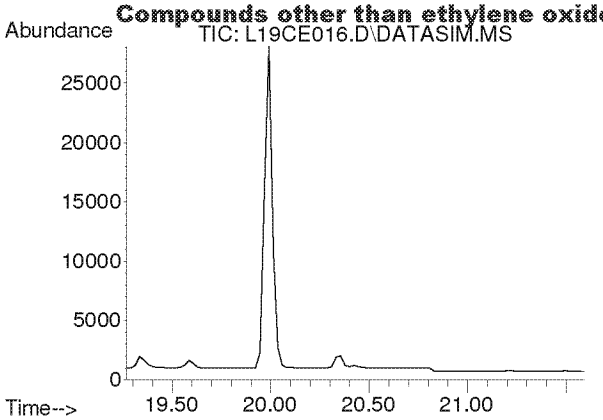
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

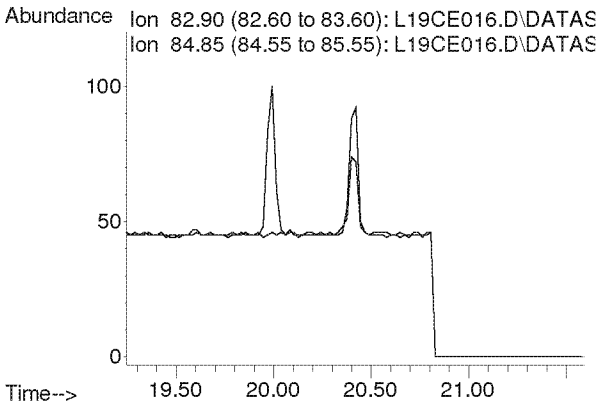


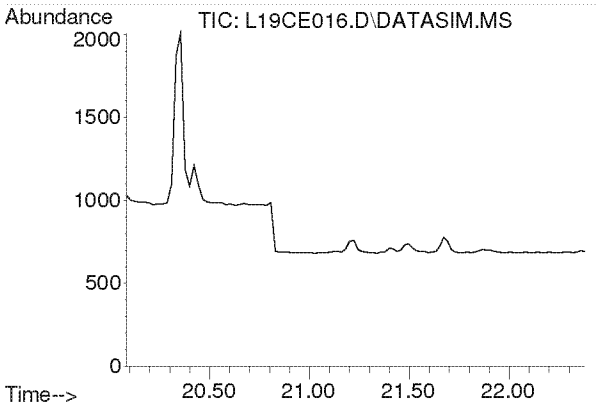
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



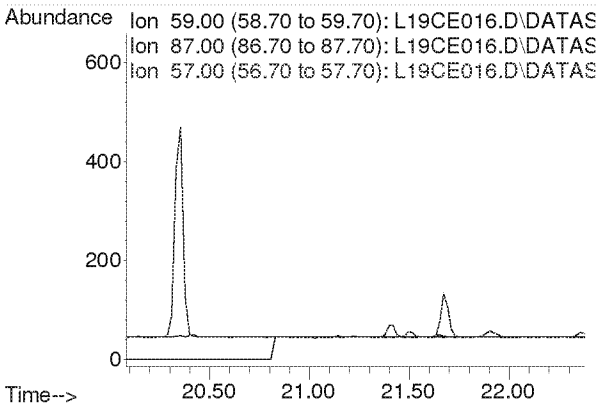


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

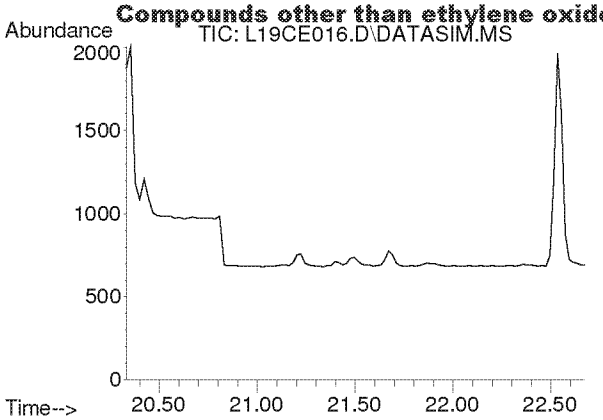
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

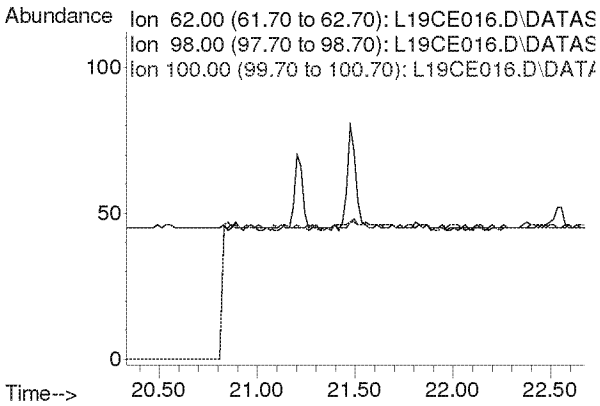


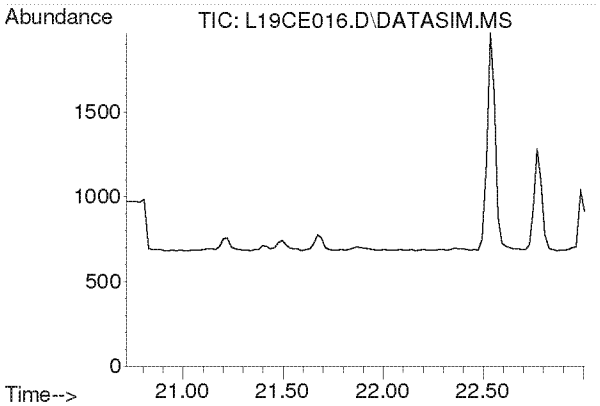
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



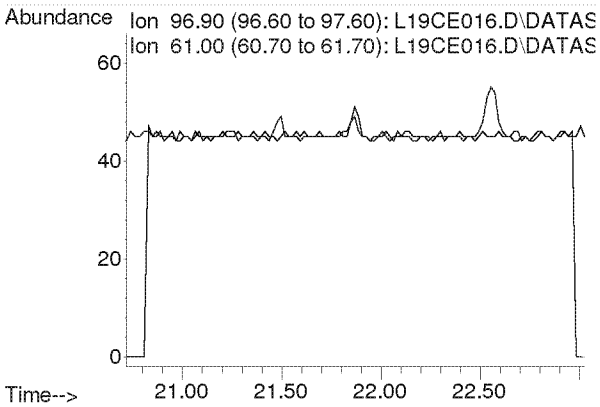


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

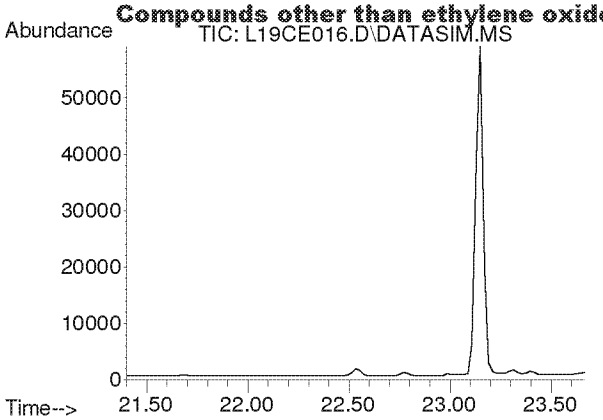
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

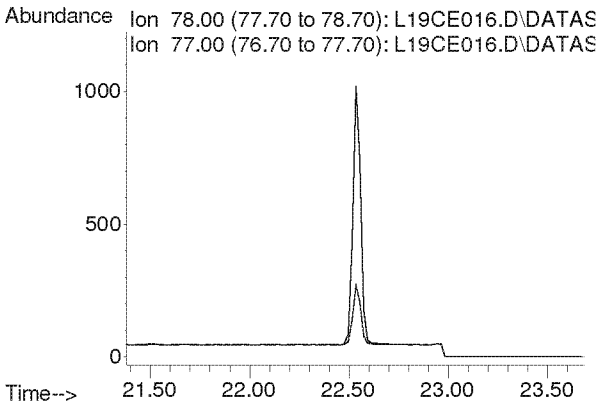


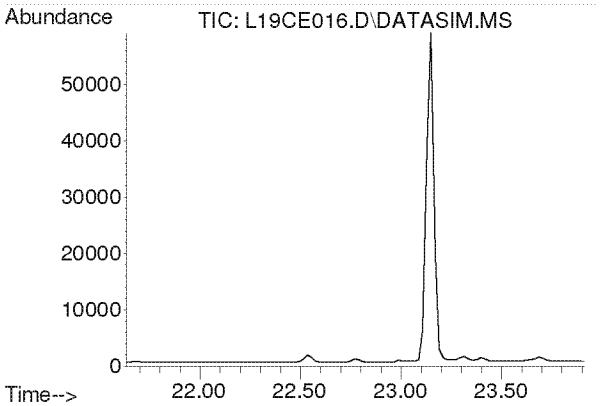
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



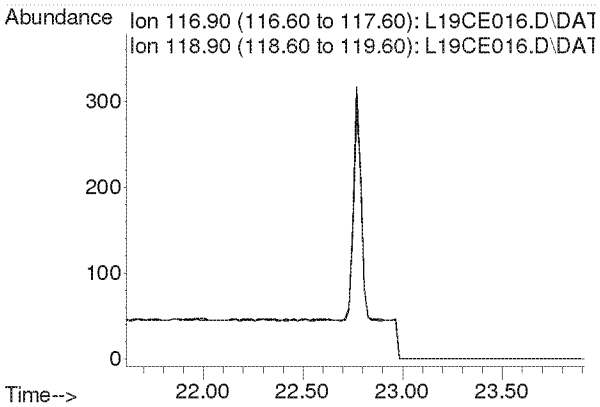


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

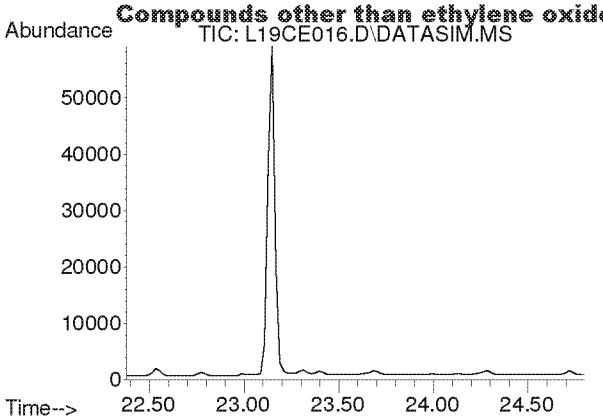
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

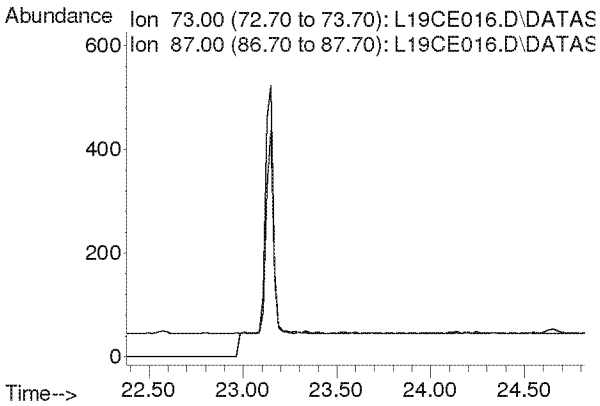


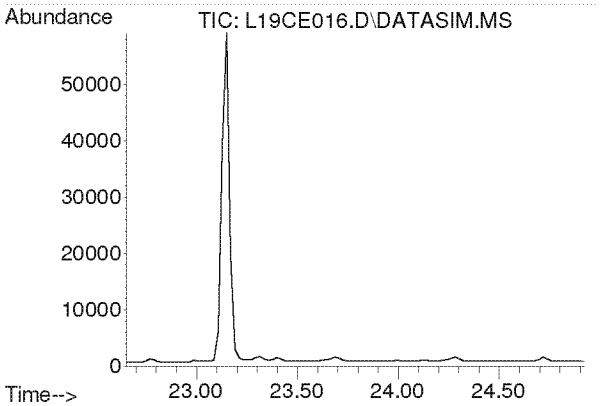
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



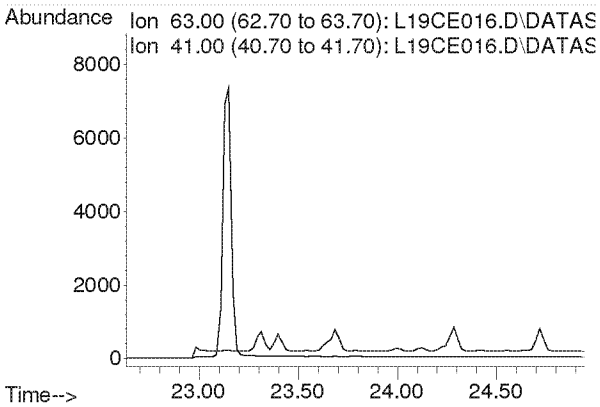


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

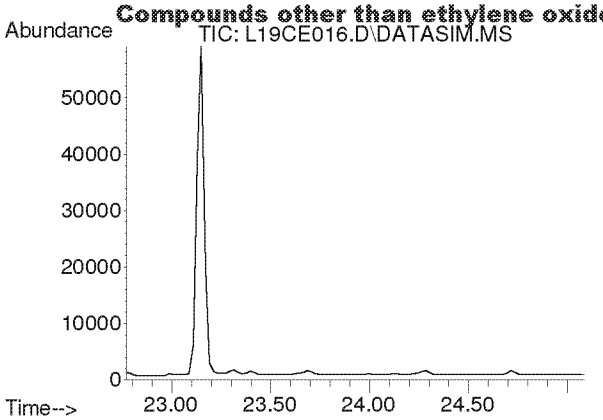
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

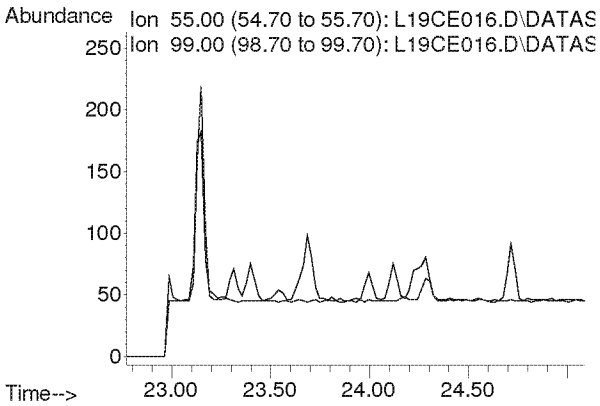


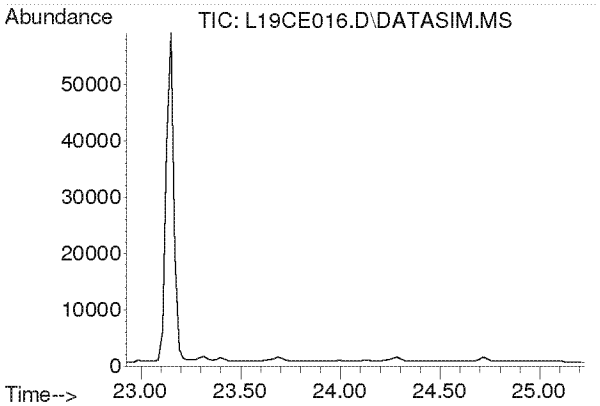
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



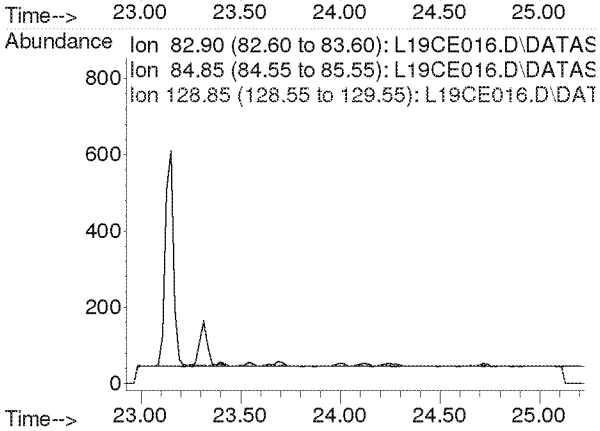


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

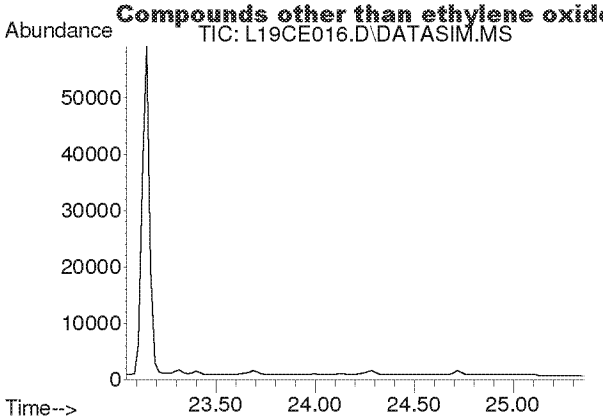
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

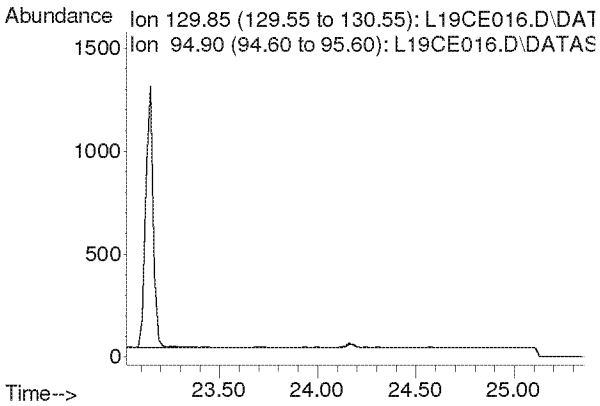


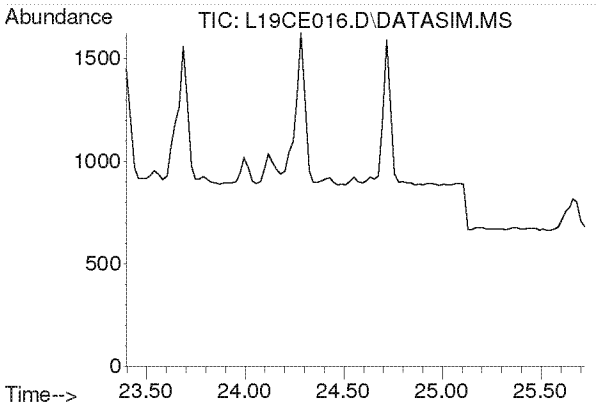
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



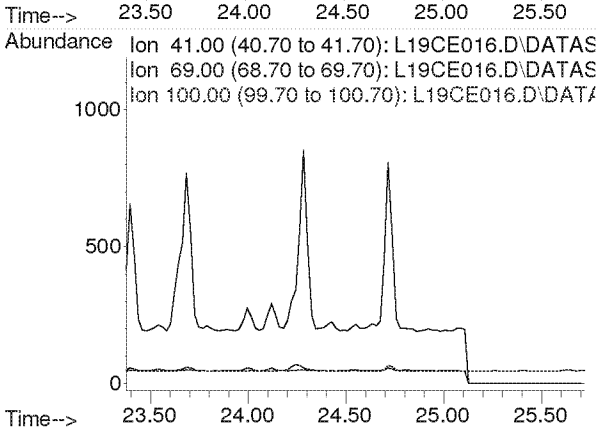


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

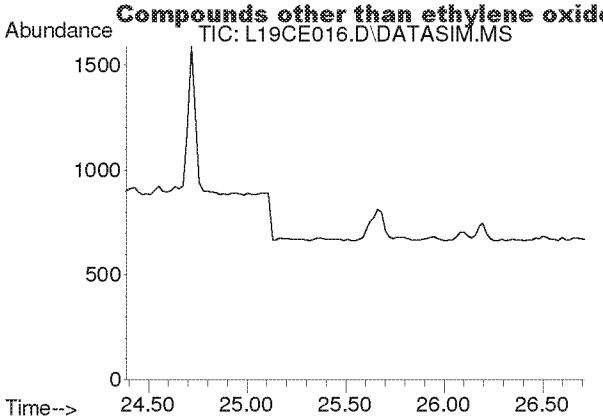
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

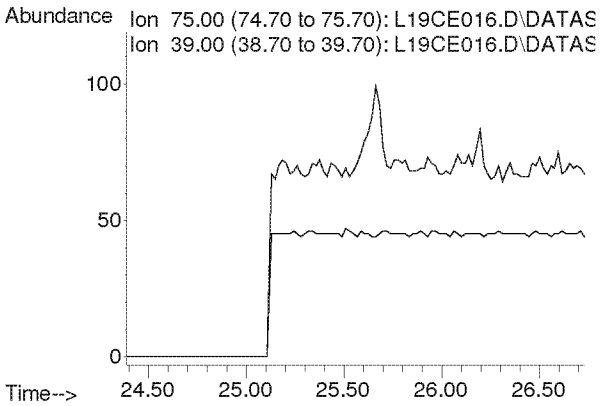


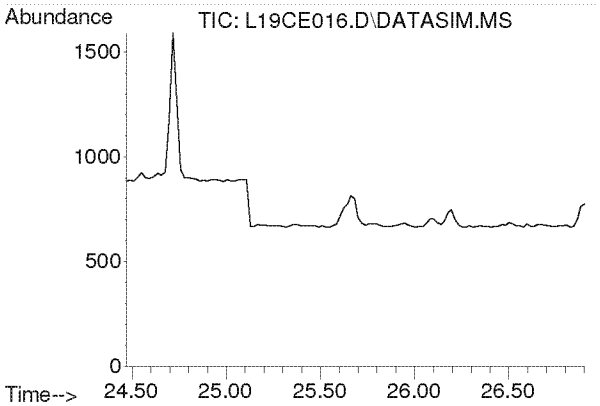
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



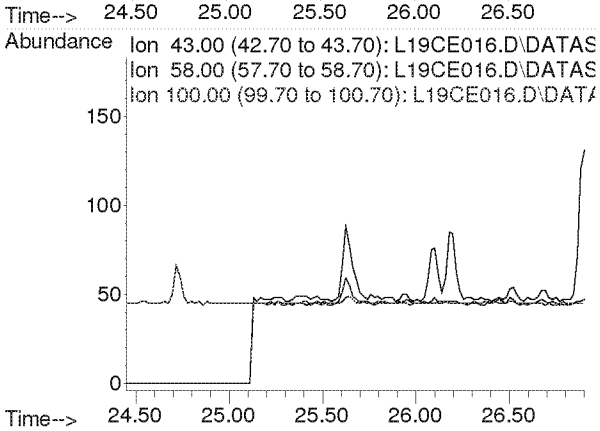


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

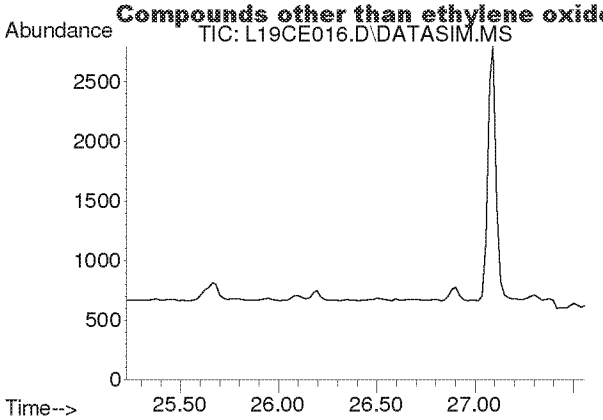
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

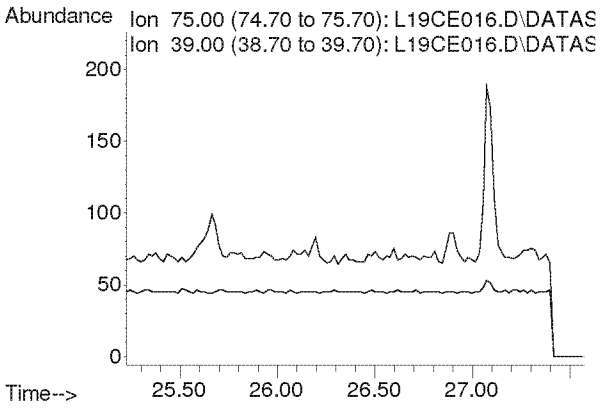


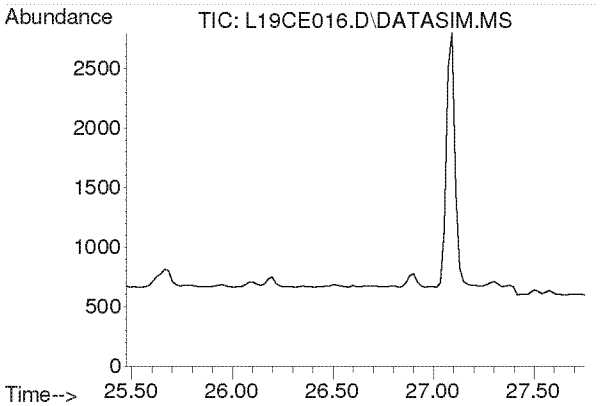
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



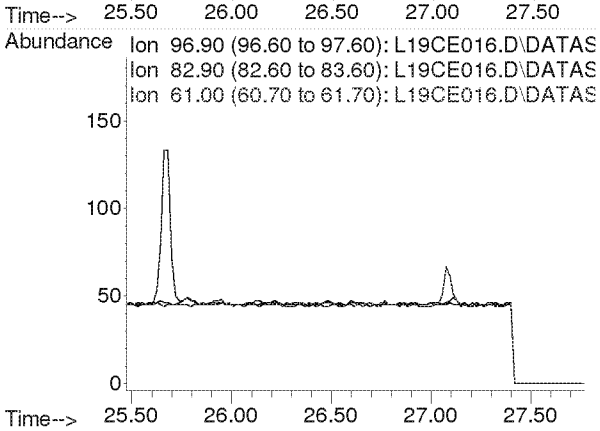


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

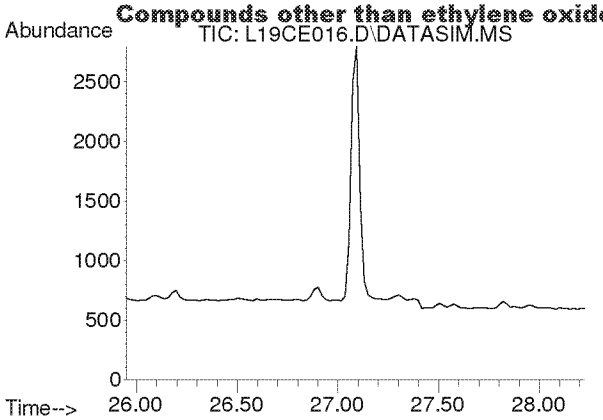
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

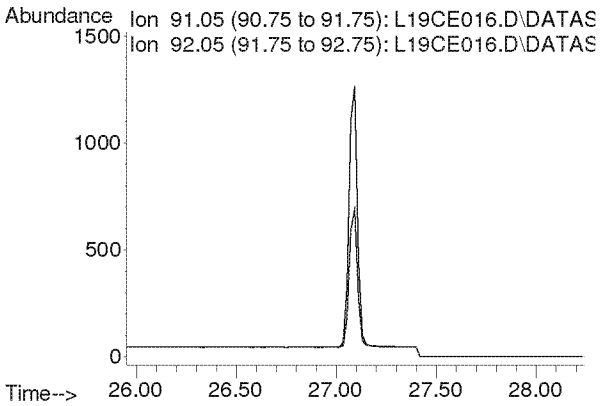


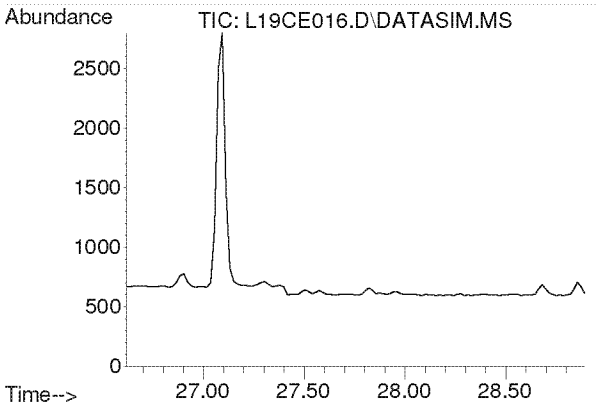
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



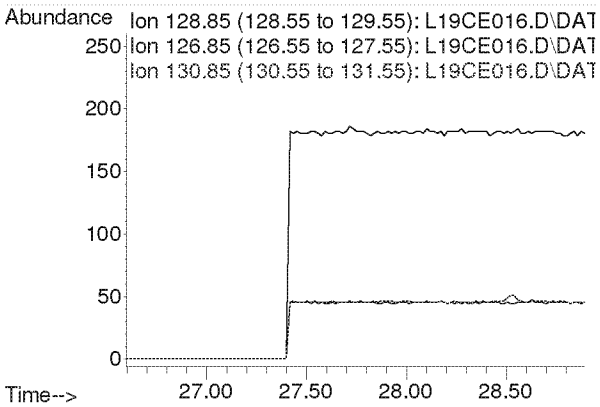


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

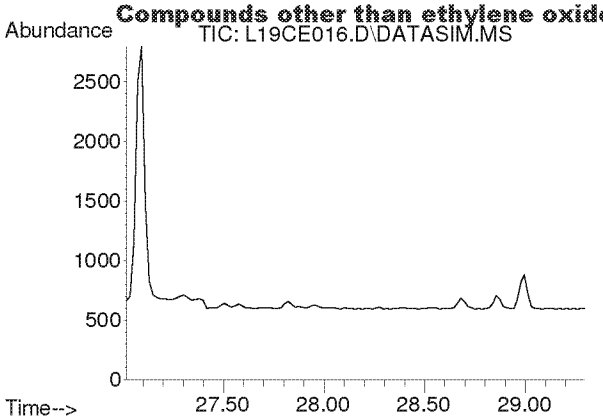
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

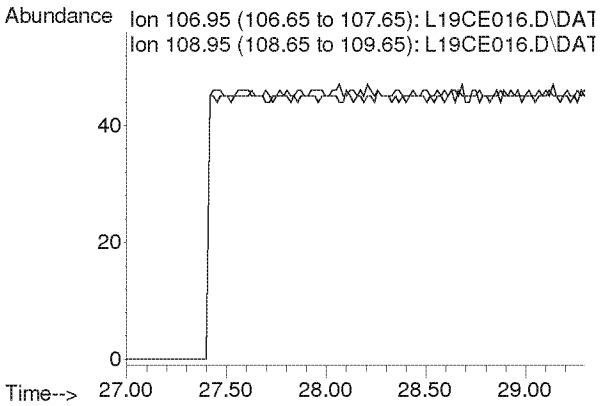


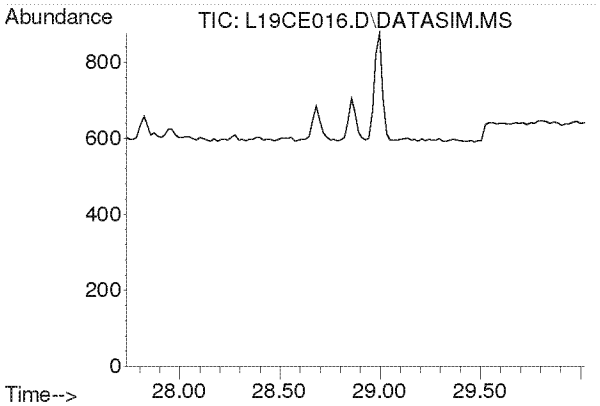
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



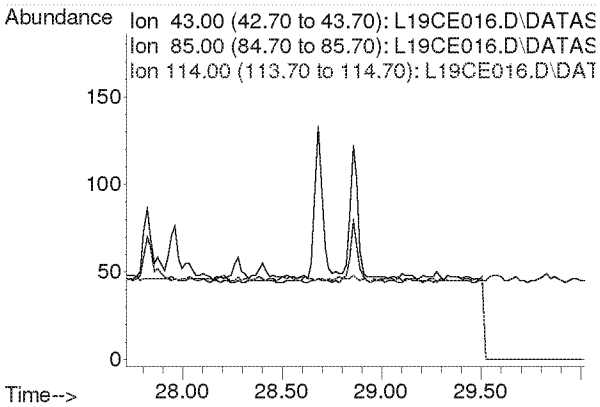


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

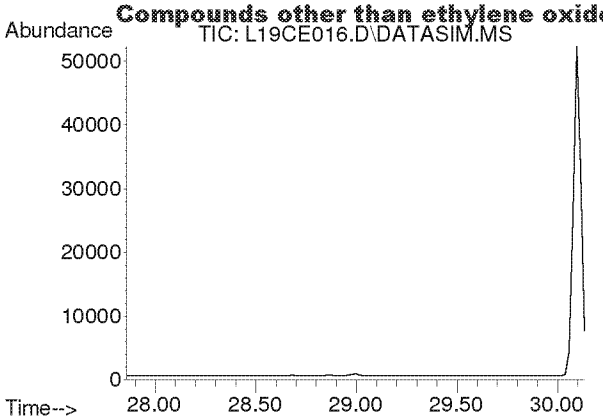
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

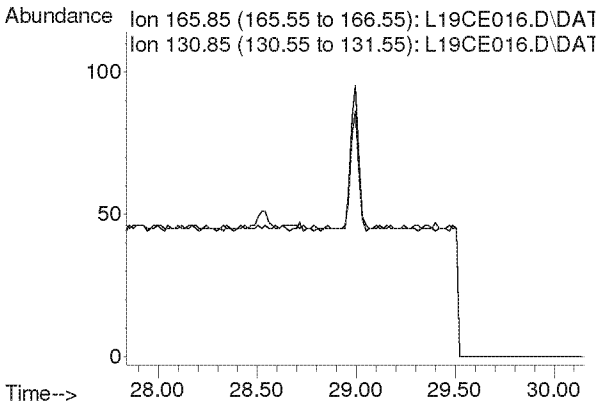


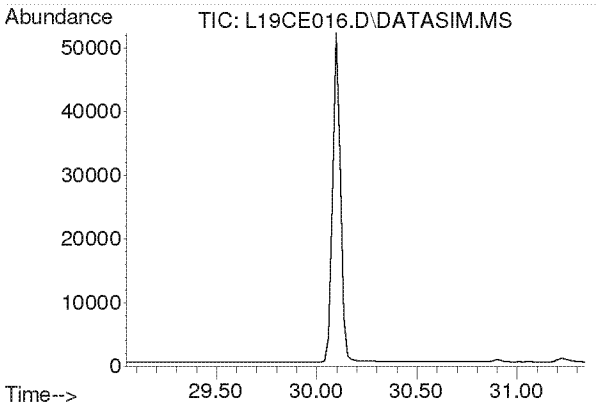
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



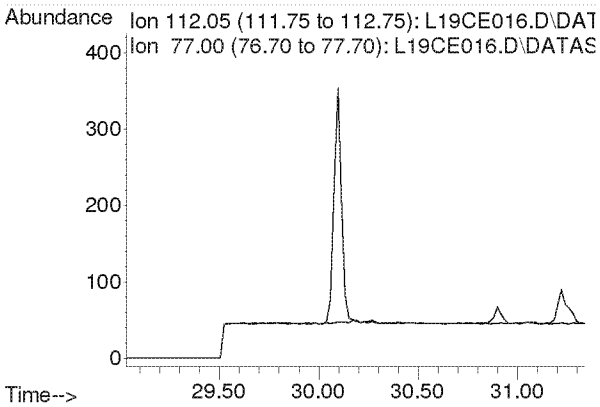


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

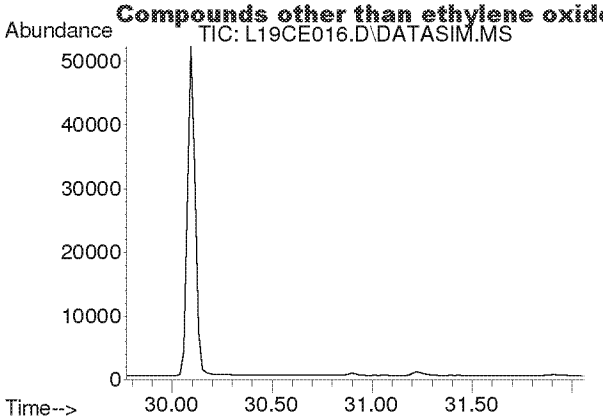
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

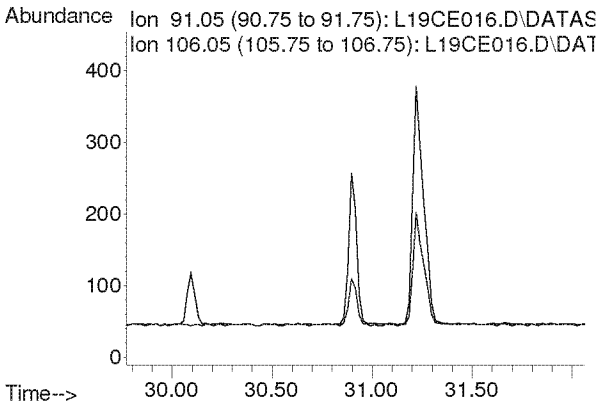


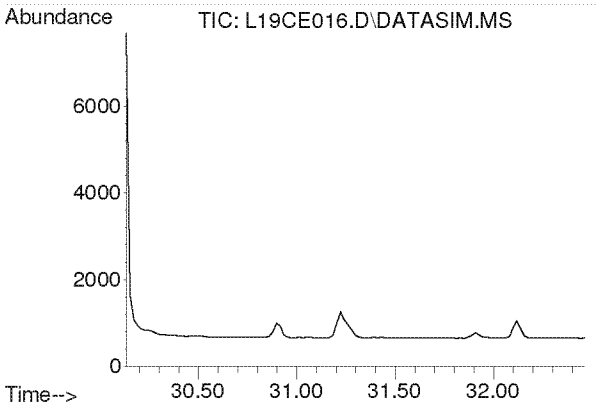
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



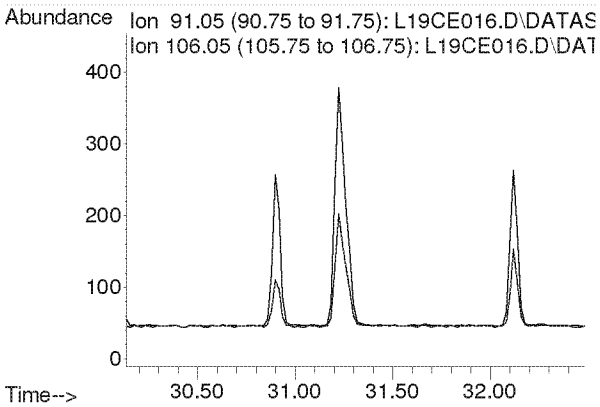


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

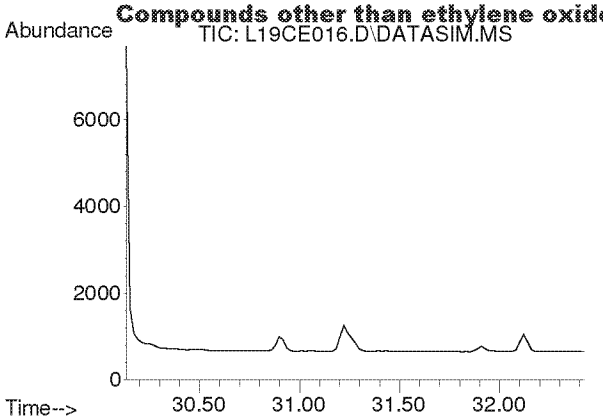
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

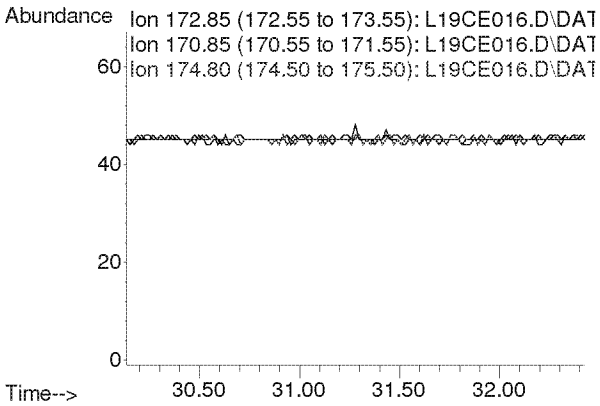


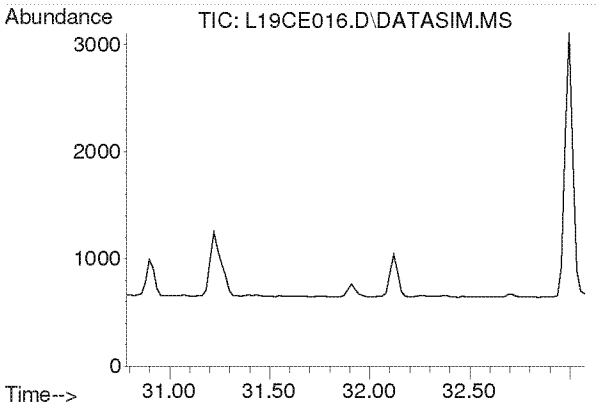
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



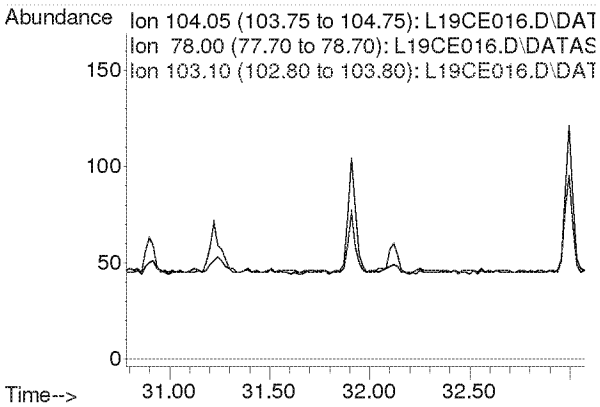


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

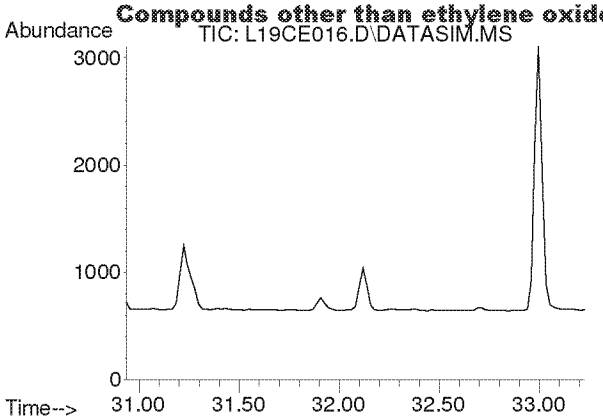
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

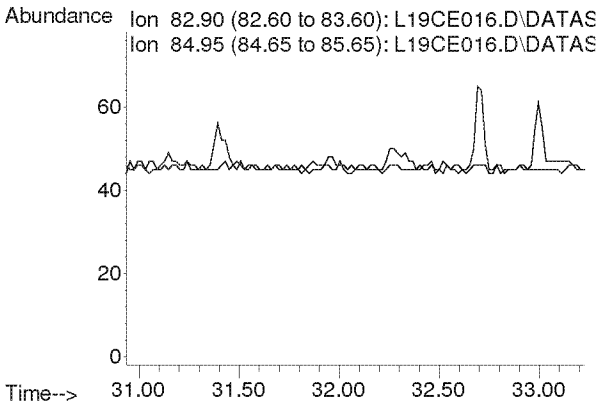


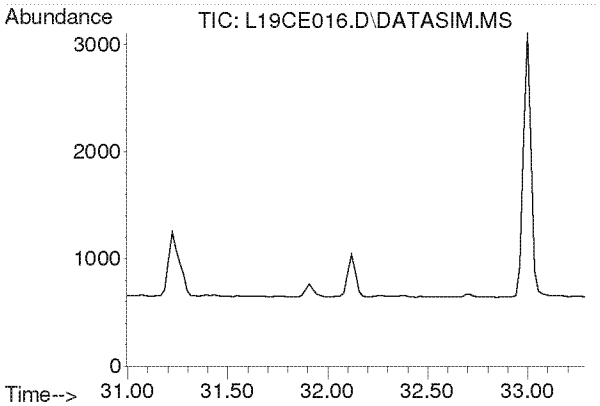
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



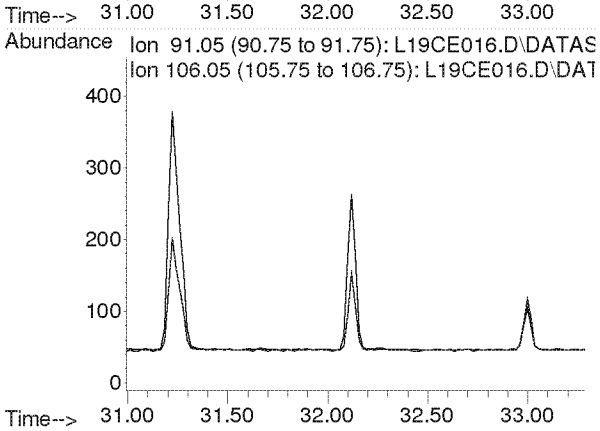


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

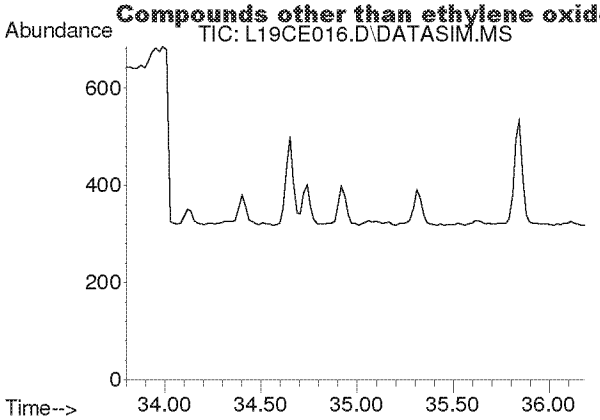
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

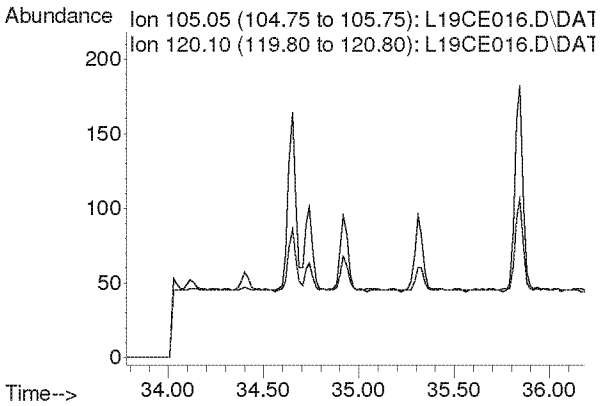


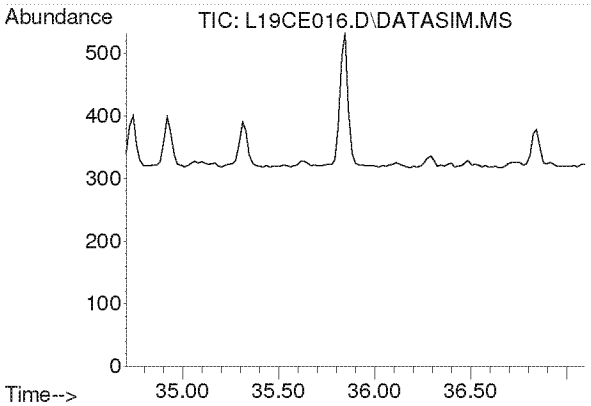
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



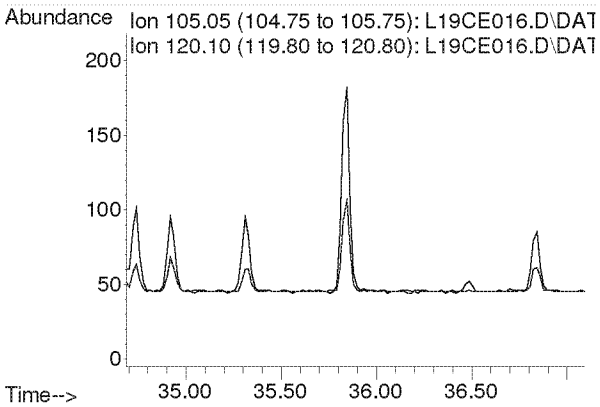


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

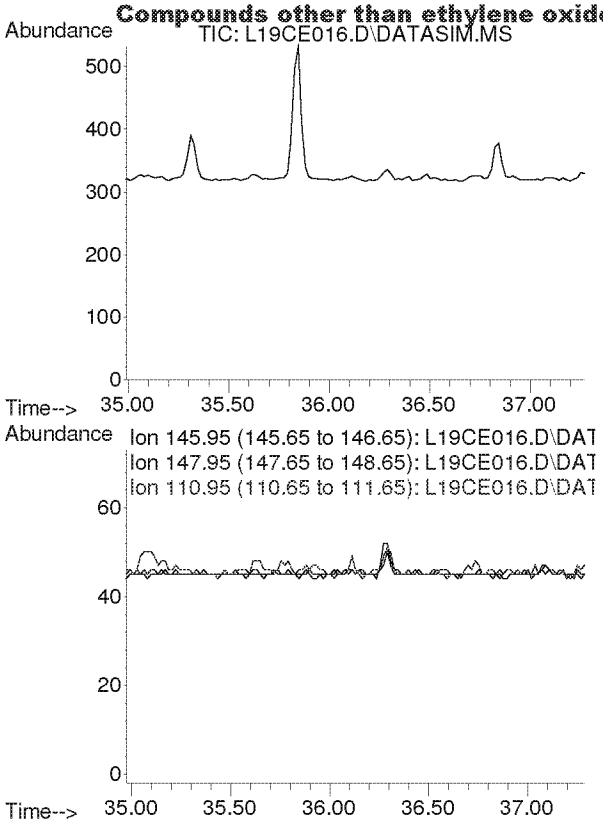
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

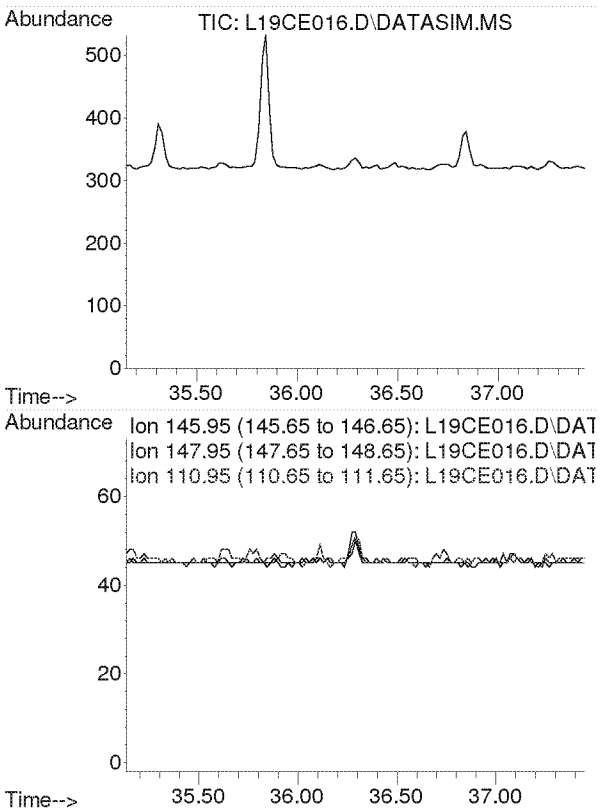


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



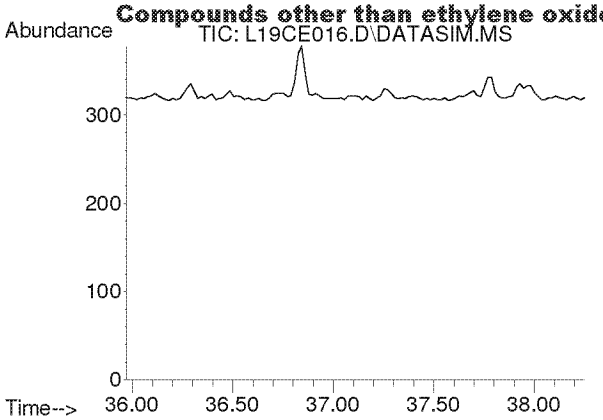
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

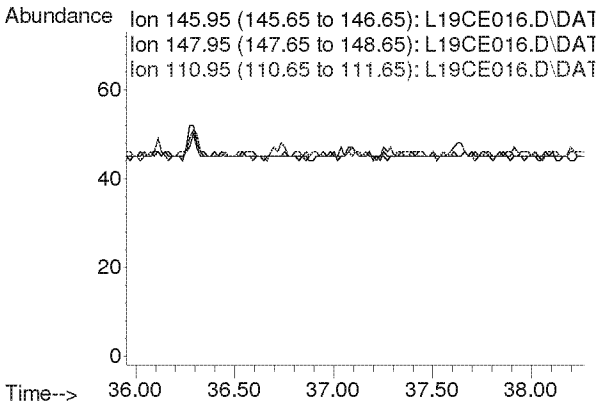


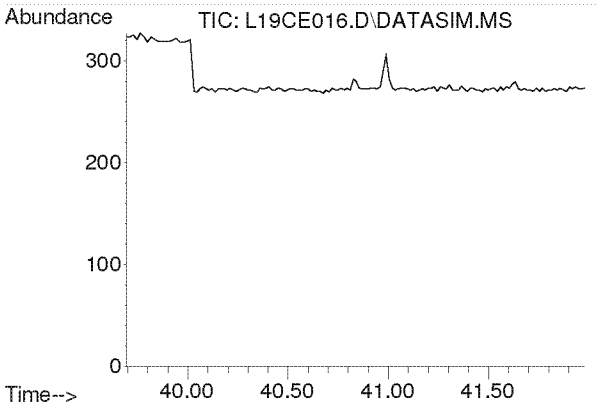
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



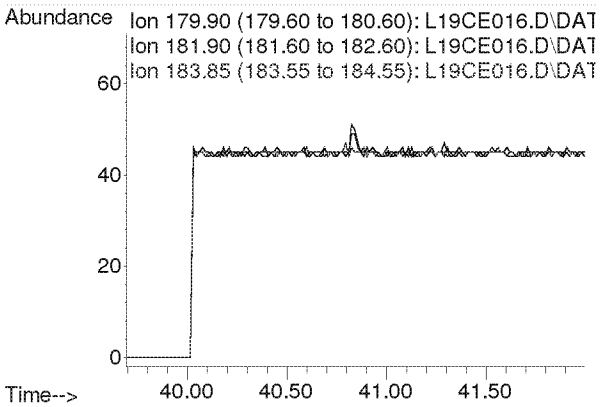


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

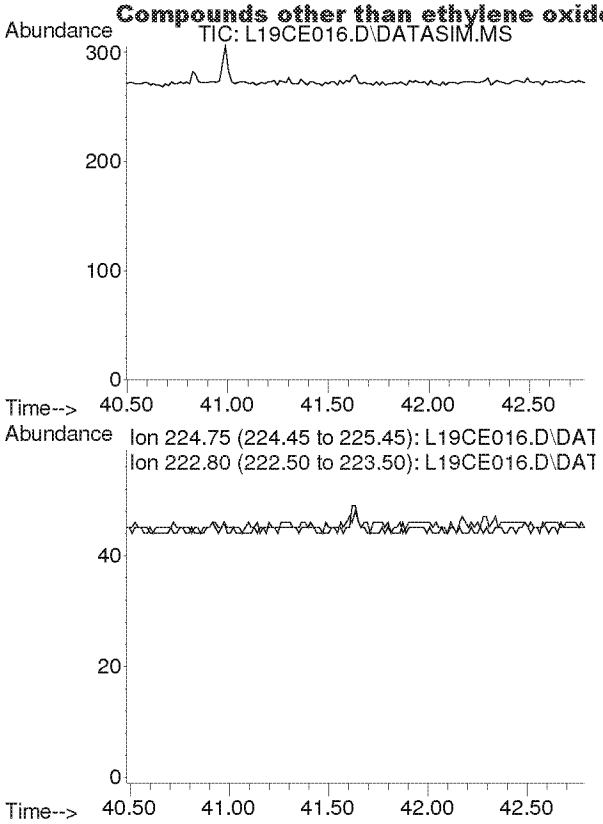
Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE016.D
Acq: 6 Mar 2019 3:30 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE017.D
Acq On : 6 Mar 2019 4:30 am (#1); 06-Mar-19, 04:25:21 (#2)
Operator : MAH
Sample : B9C0507-DUP2
Misc : EPA WB WAREHOUSE R2 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 06 12:28:04 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

EMR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	46885	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	121681	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	85021	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.485	29	266m 3-6-19	0.0992 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. 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	

ED_002475_00000355-00381

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE017.D
Acq On : 6 Mar 2019 4:30 am (#1); 06-Mar-19, 04:25:21 (#2)
Operator : MAH
Sample : B9C0507-DUP2
Misc : EPA WB WAREHOUSE R2 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 06 12:28:04 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
Quant Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

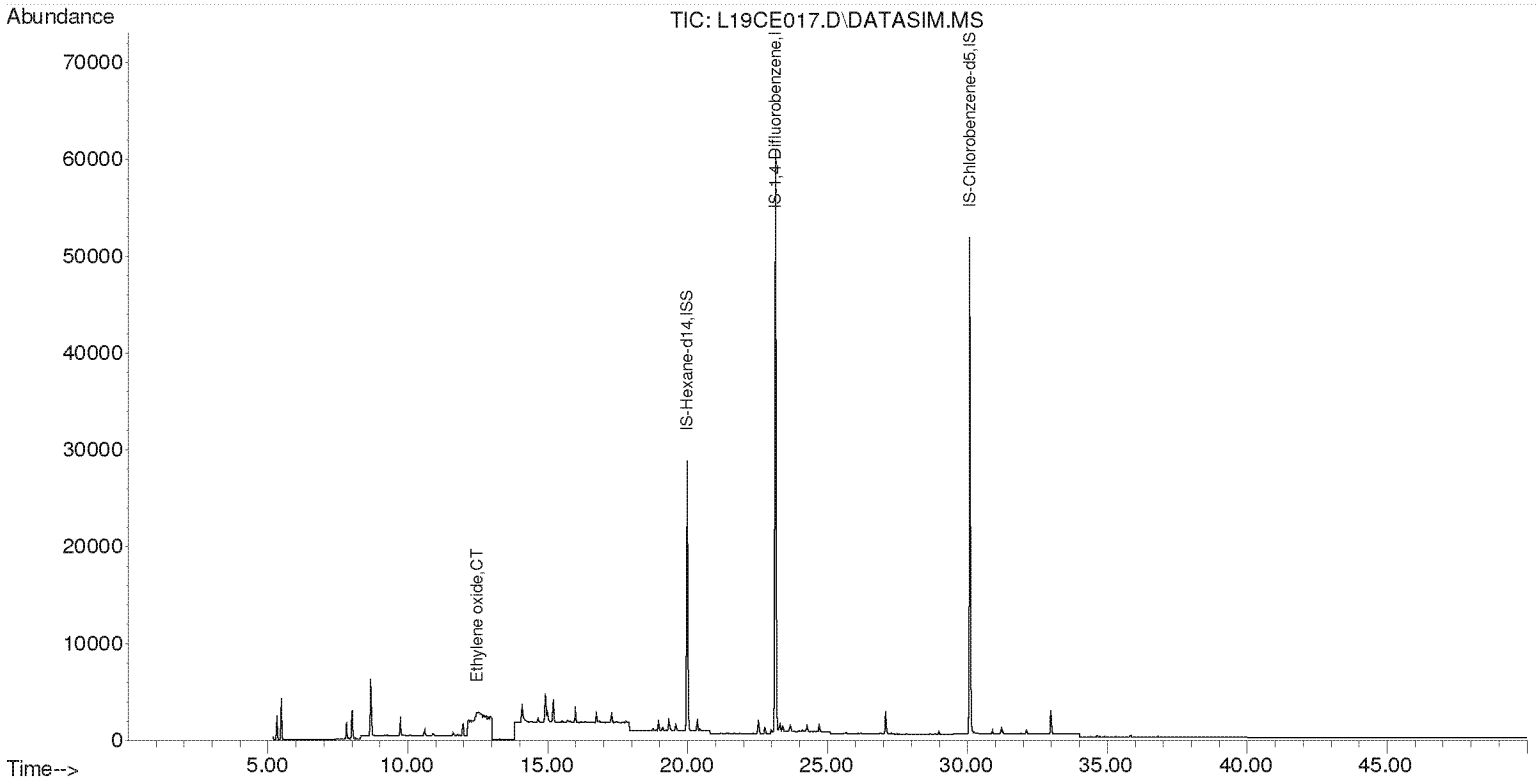
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

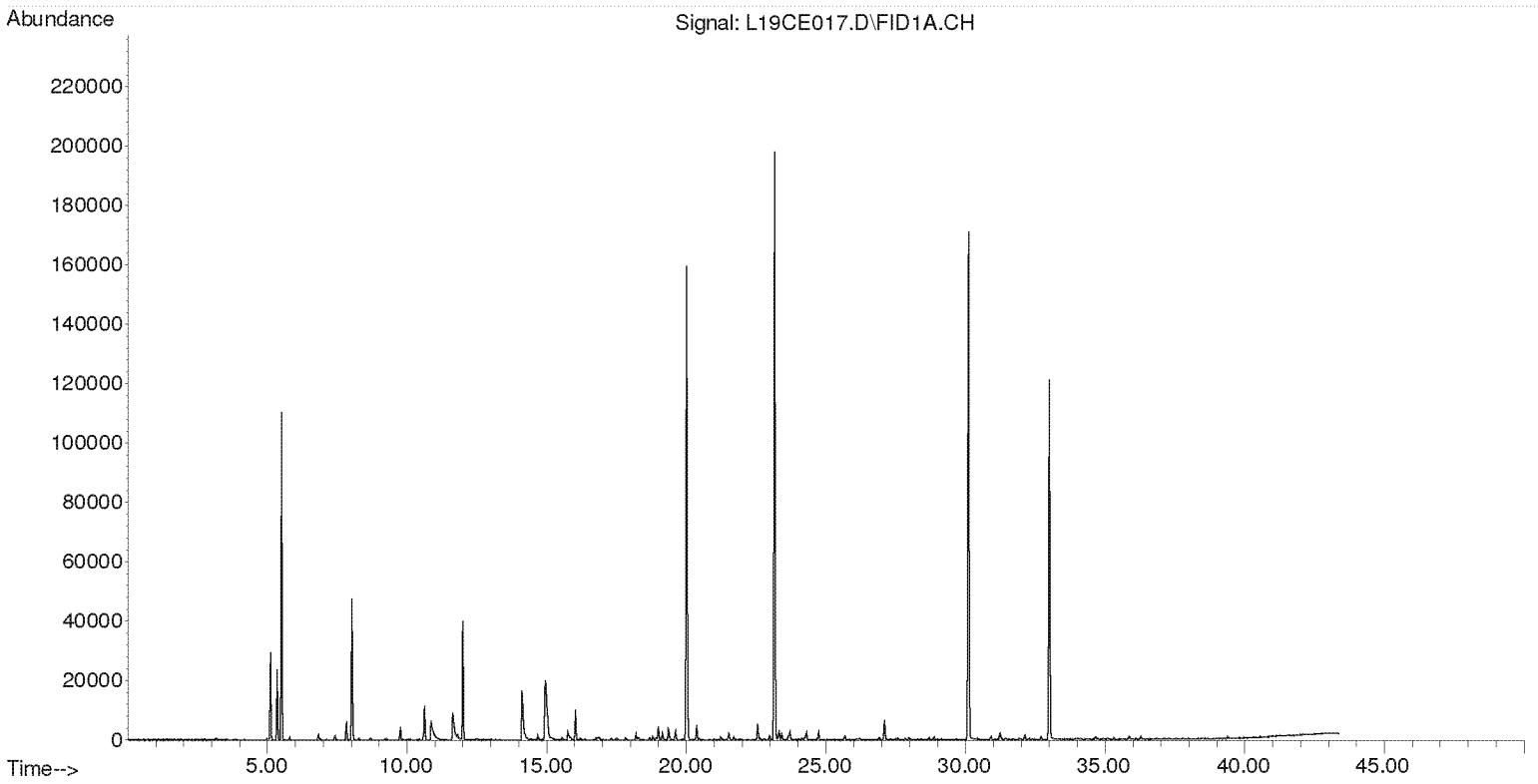
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

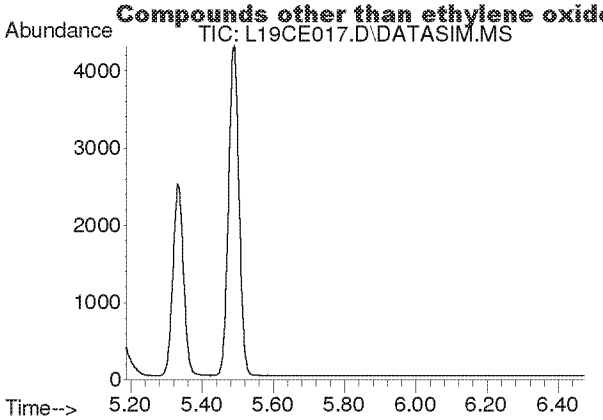
Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE017.D
Acq On : 6 Mar 2019 4:30 am (#1); 06 Mar 2019 4:25 am (#2)
Operator : MAH
Sample : B9C0507-DUP2
Misc : EPA WB WAREHOUSE R2 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 06 12:03:39 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





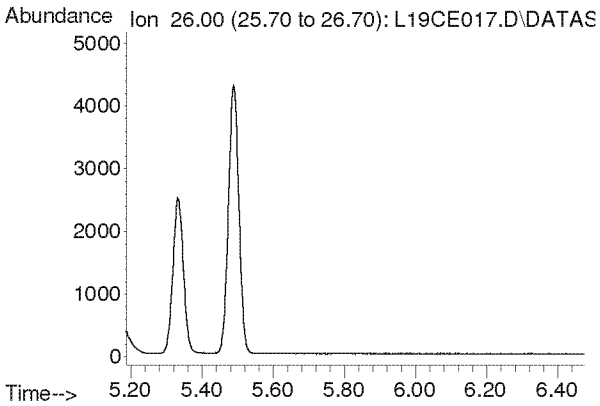
Compounds other than ethylene oxide were not quantitated.

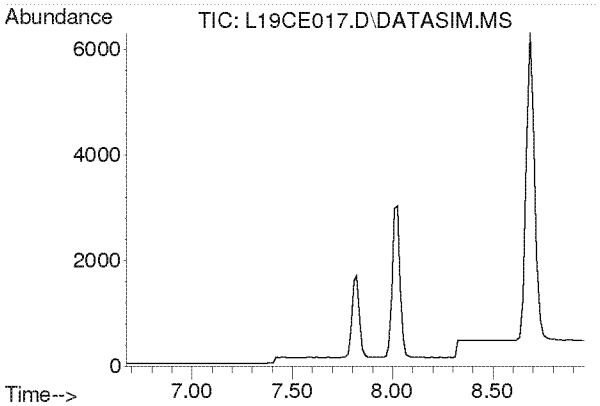


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 26



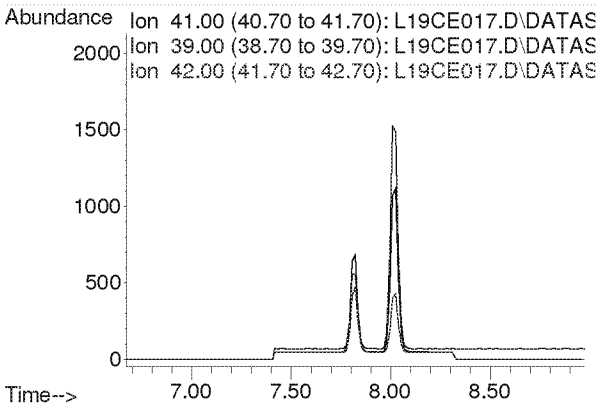


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

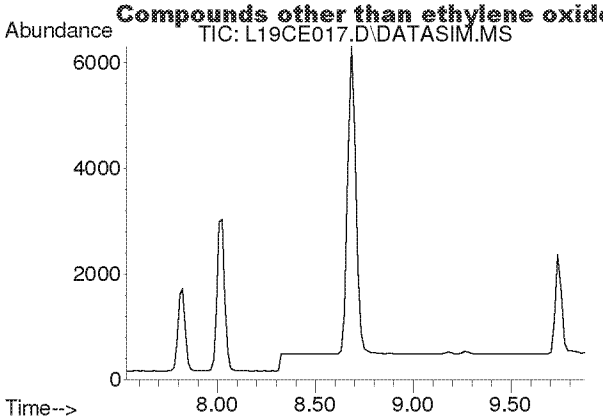
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

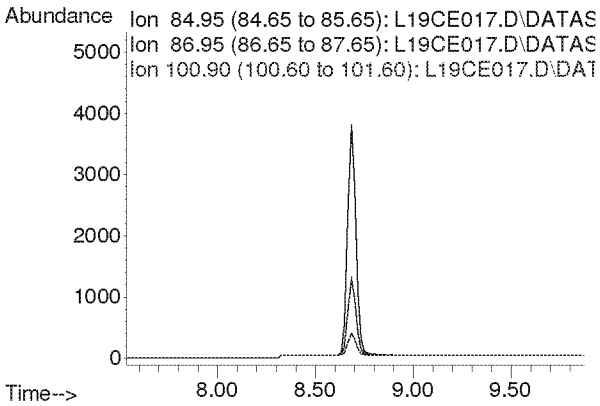


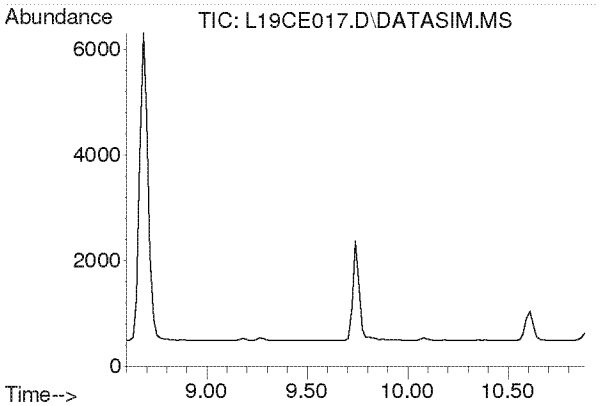
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



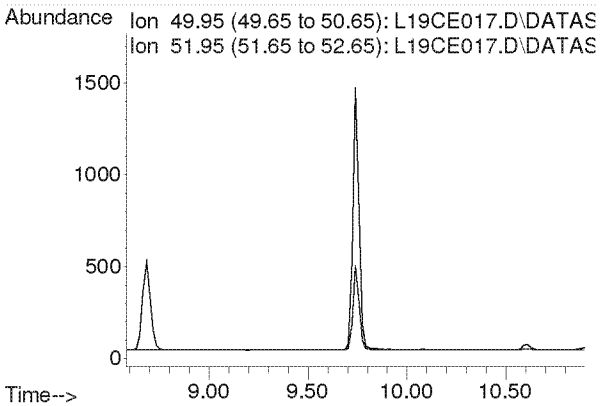


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

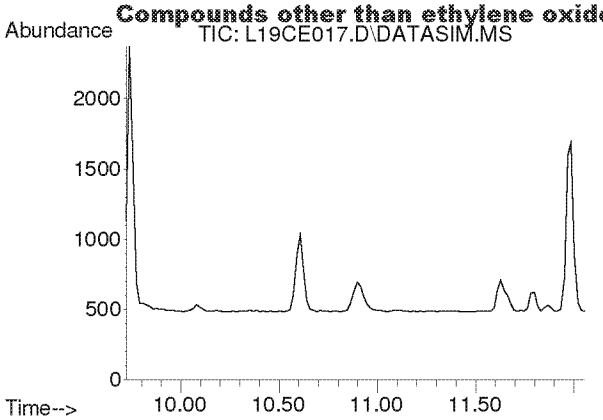
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

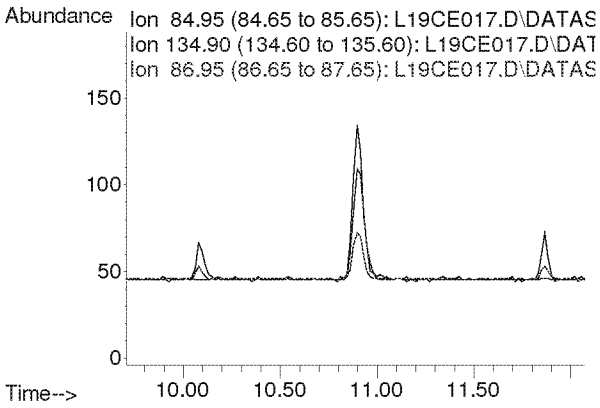


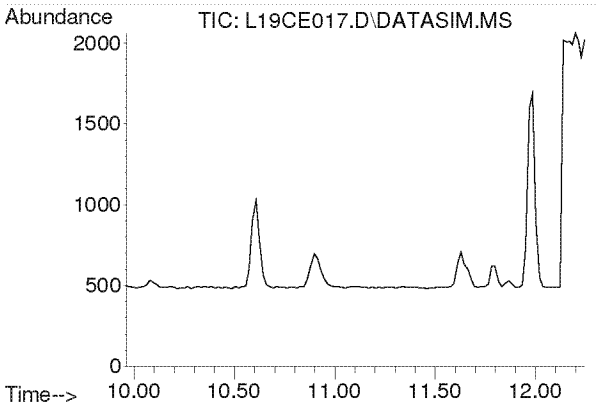
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



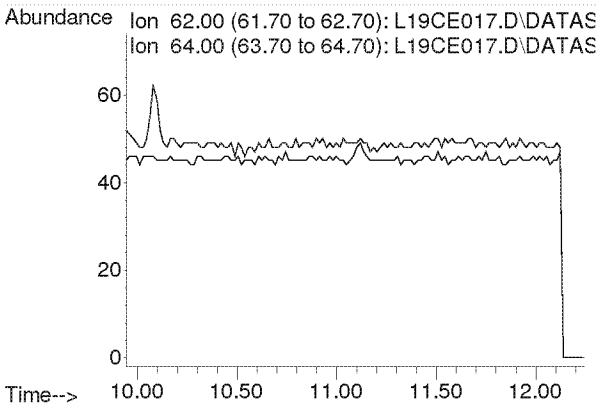


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

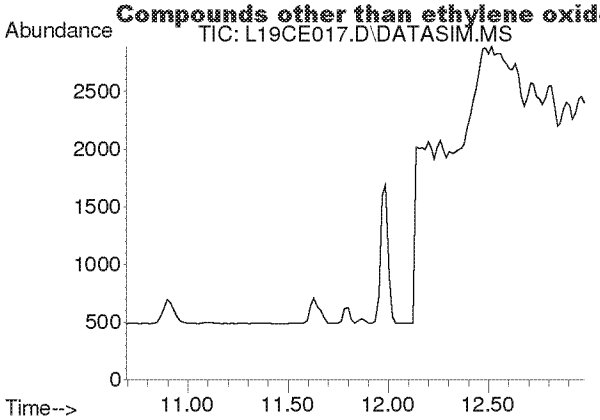
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

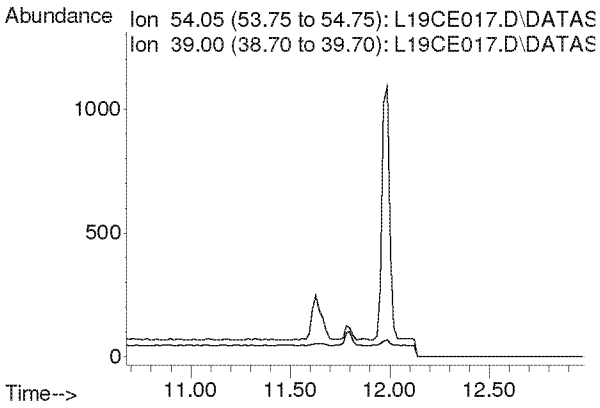


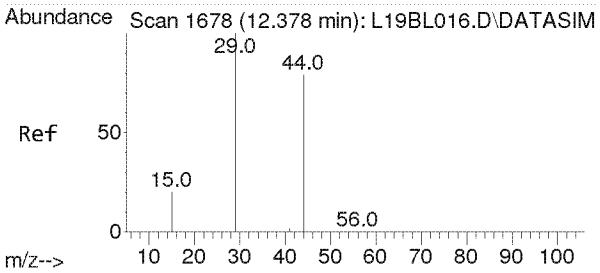
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

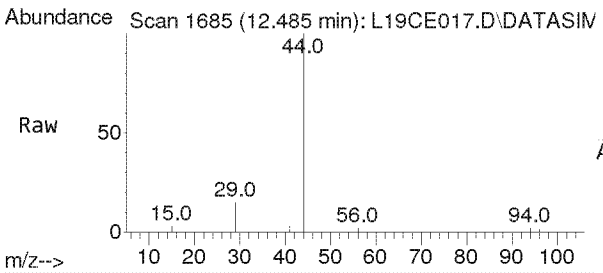


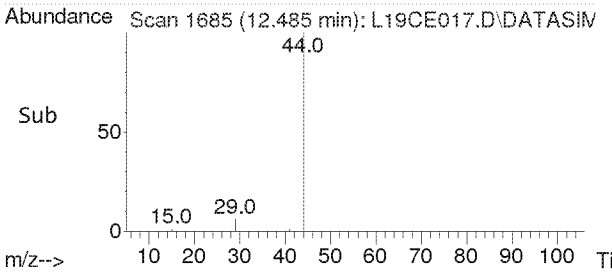


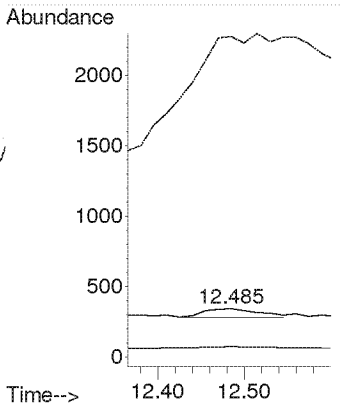
#9
Ethylene oxide
Concen: 0.099 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 29 Resp: 266

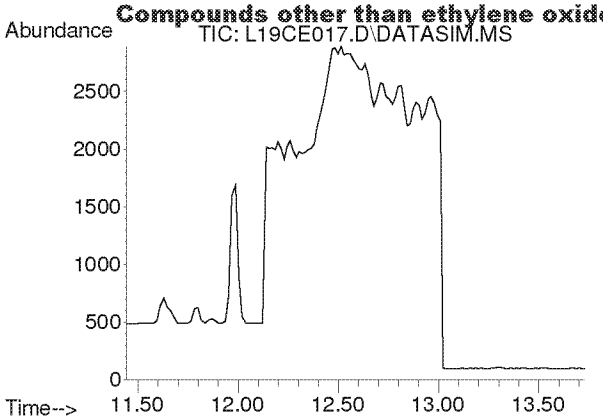
Ion	Ratio	Lower	Upper
29	100		
15	43.6	16.0	24.0#
44	3478.2	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

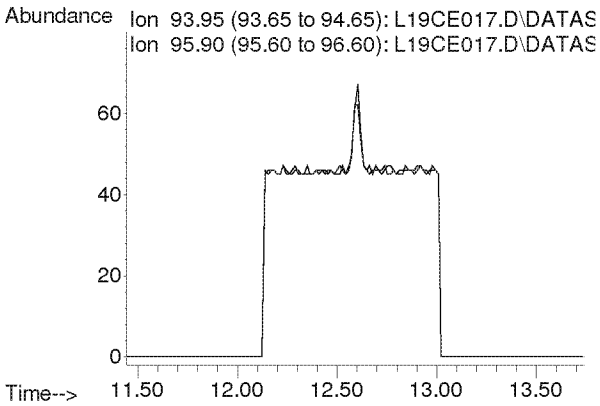


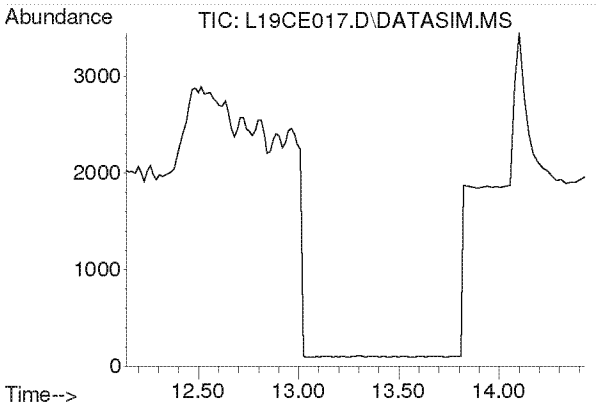
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



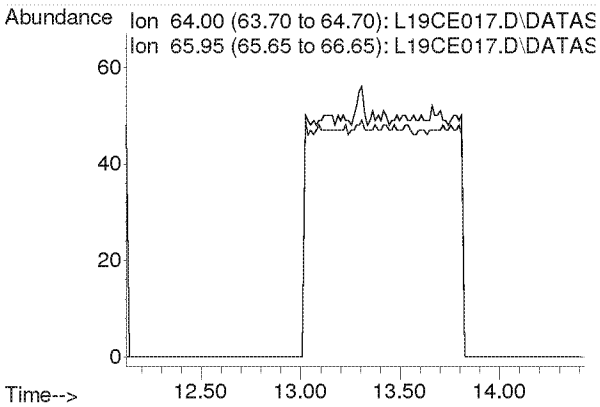


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

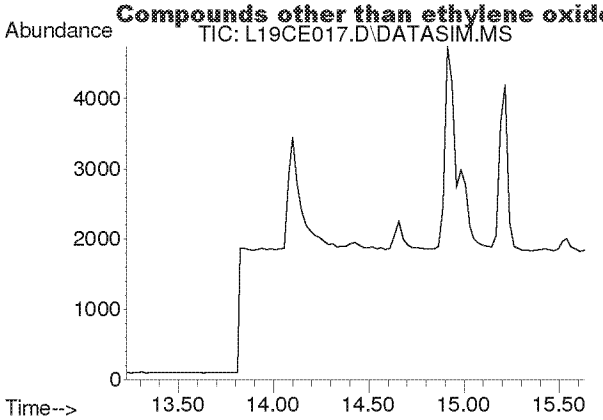
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

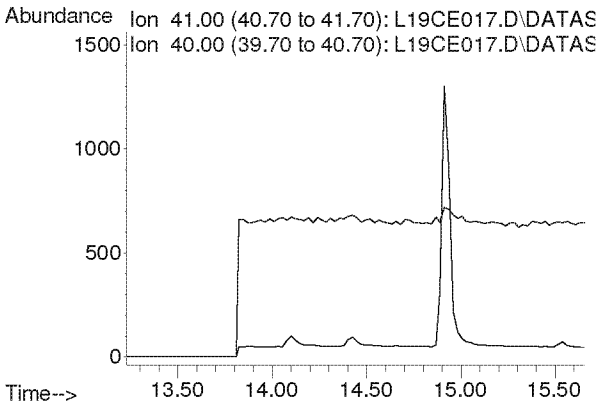


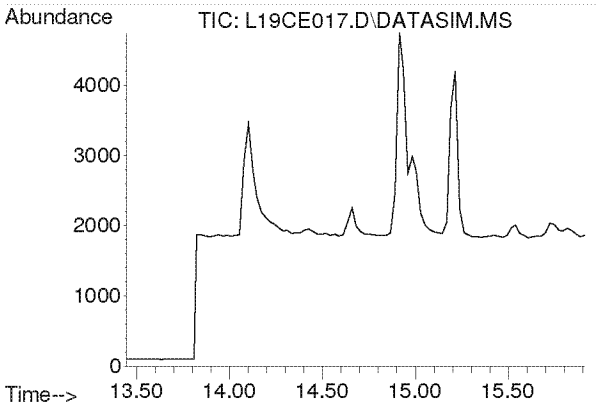
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



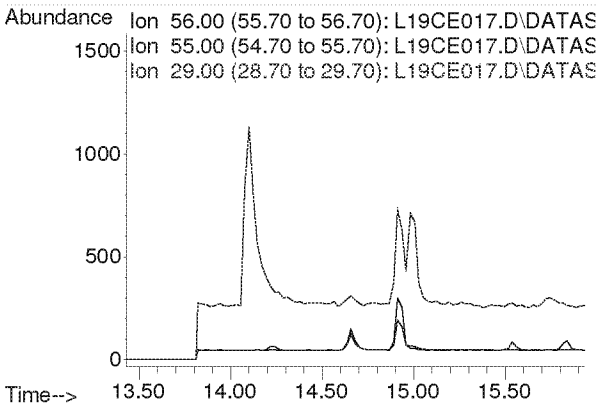


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

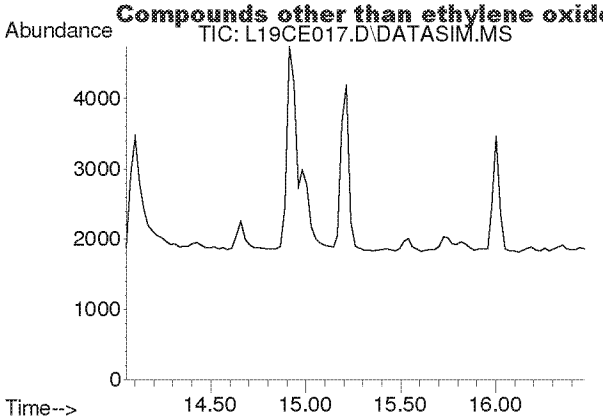
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

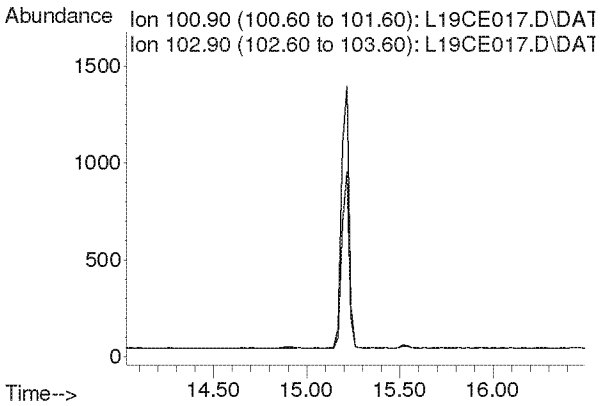


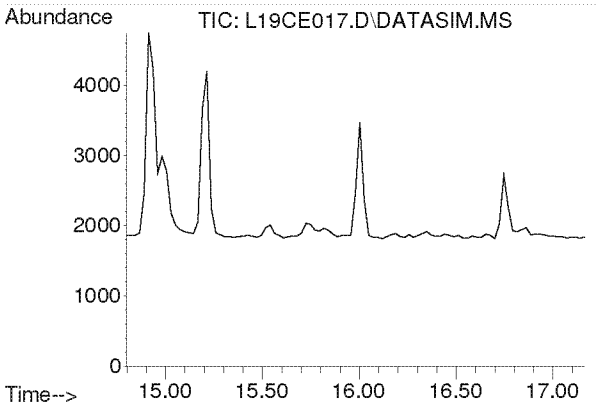
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



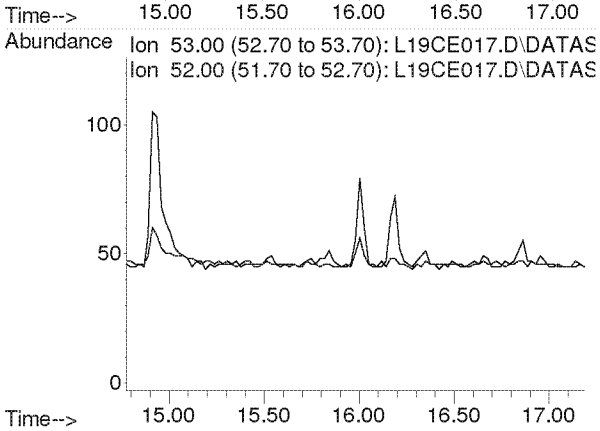


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

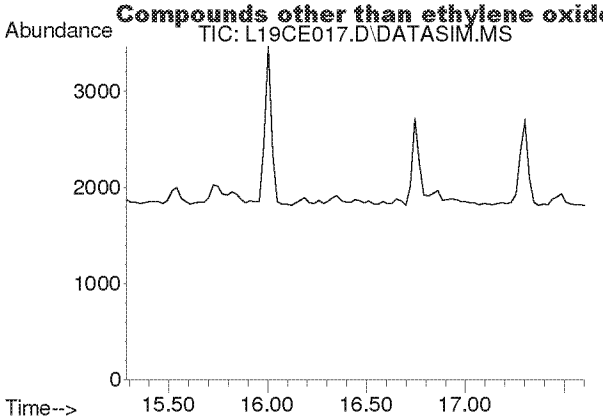
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

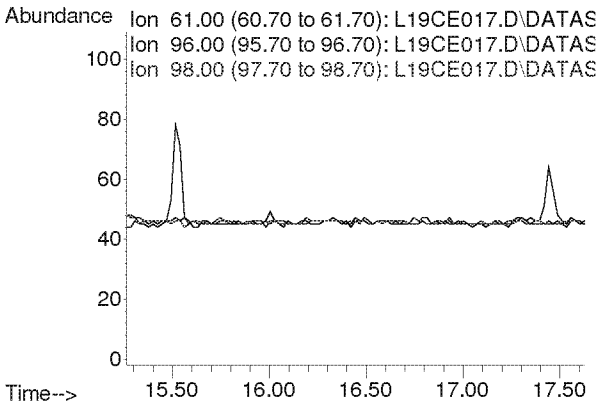


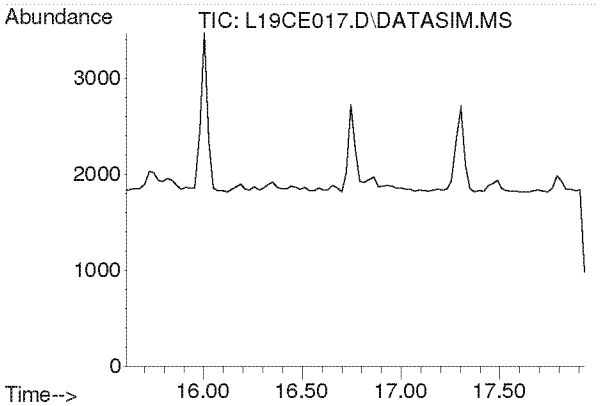
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



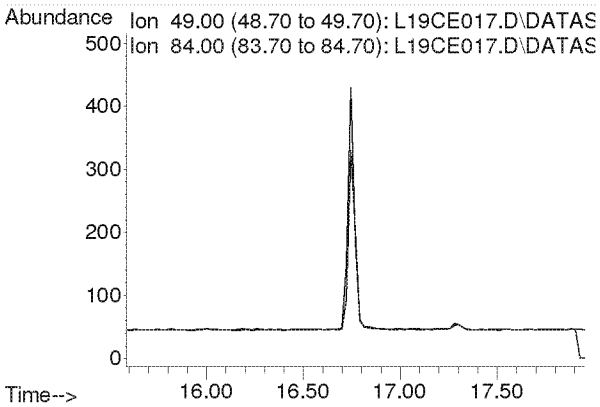


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

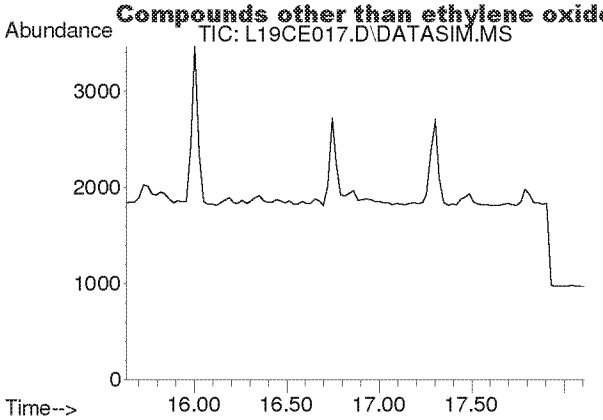
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

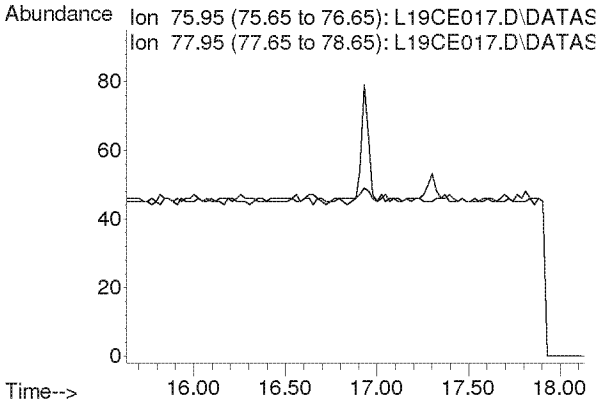


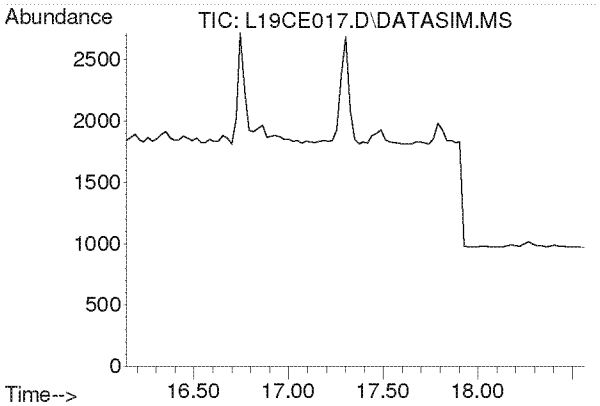
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



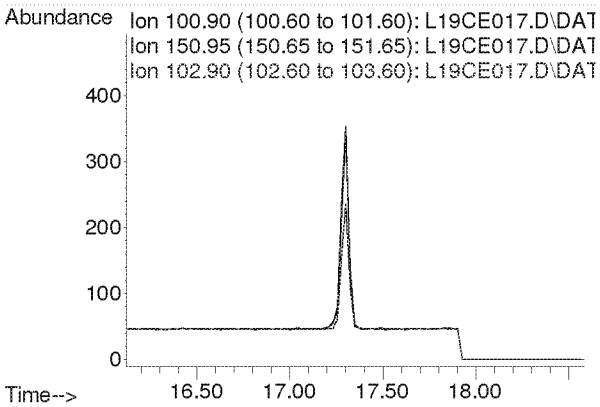


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

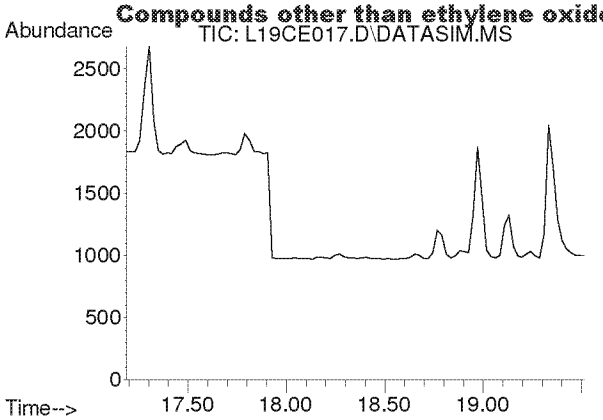
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

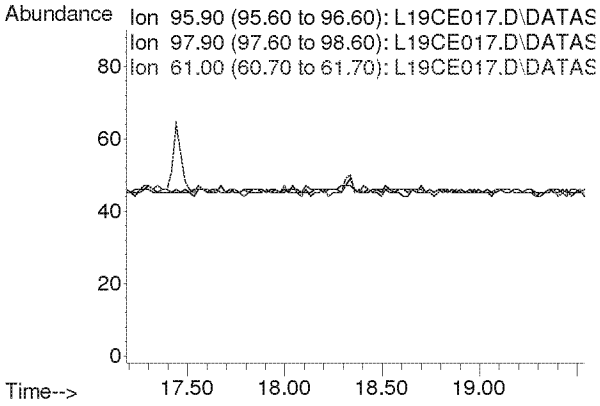


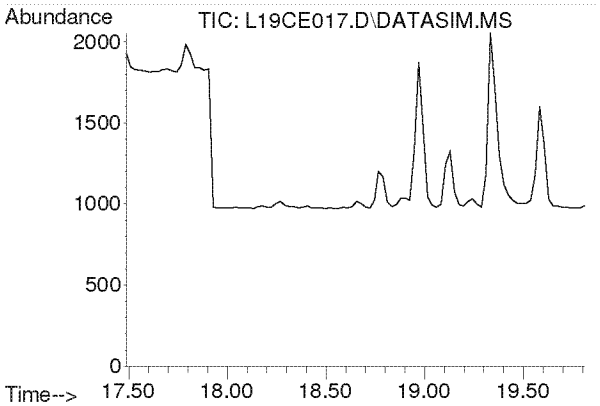
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



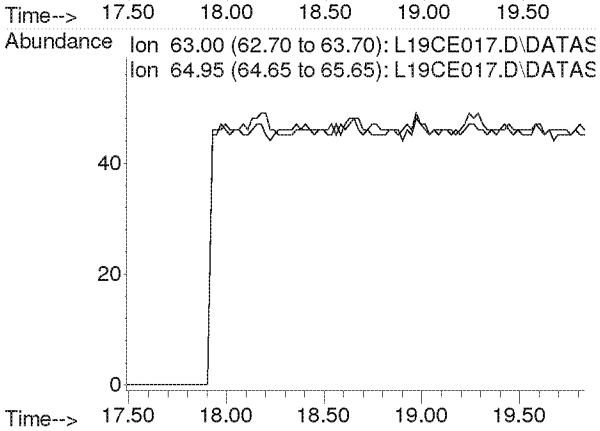


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

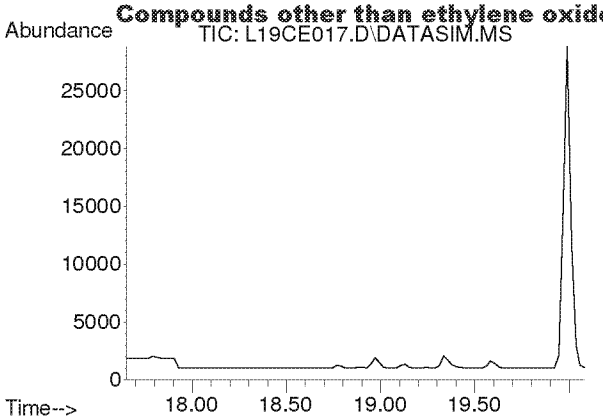
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

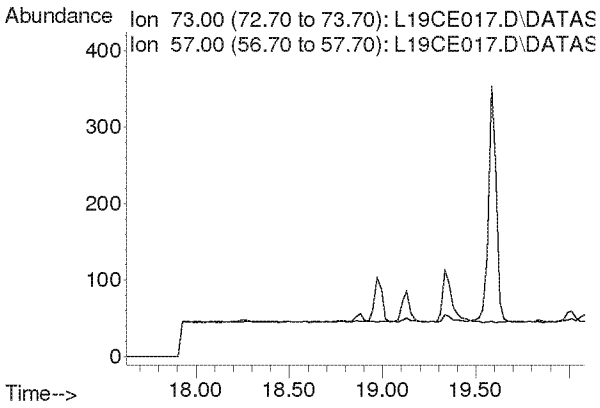


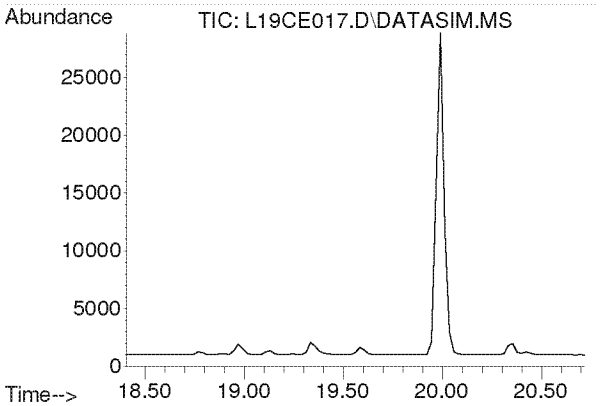
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



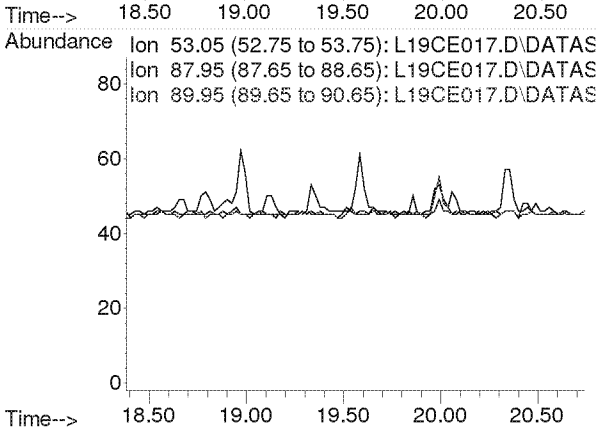


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

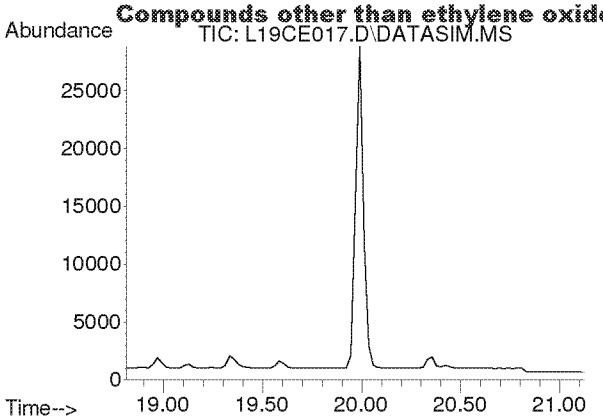
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

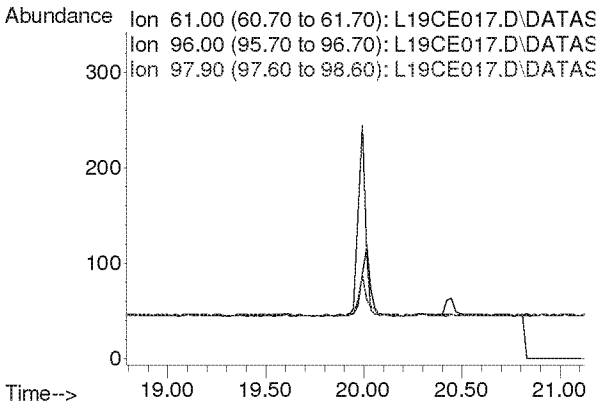


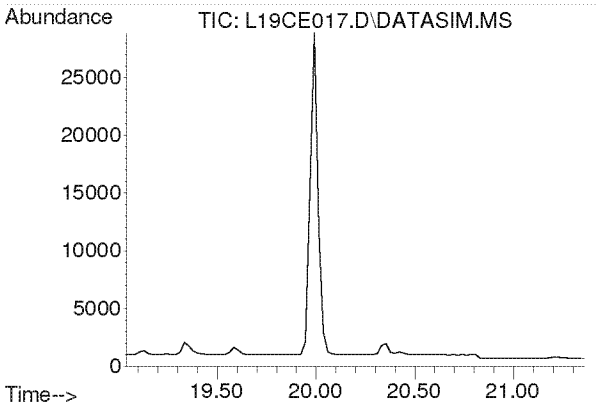
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



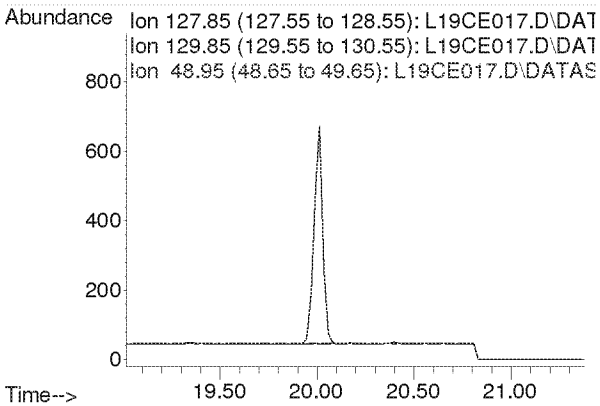


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

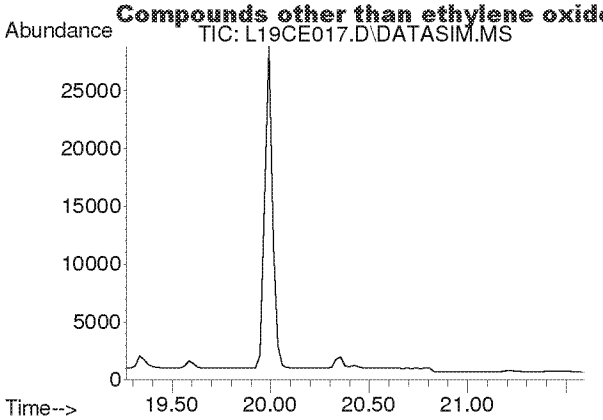
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

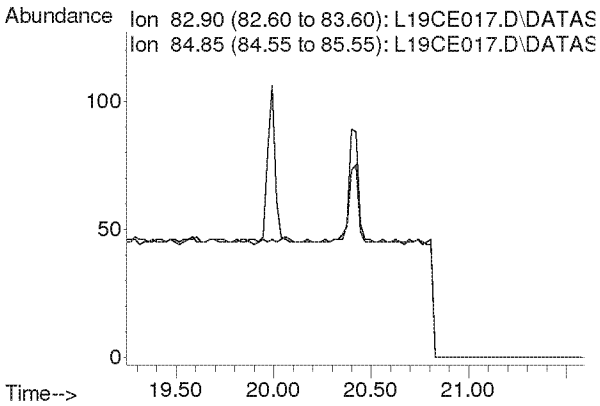


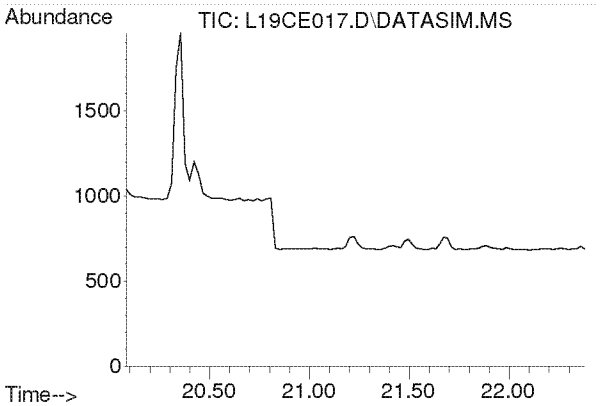
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



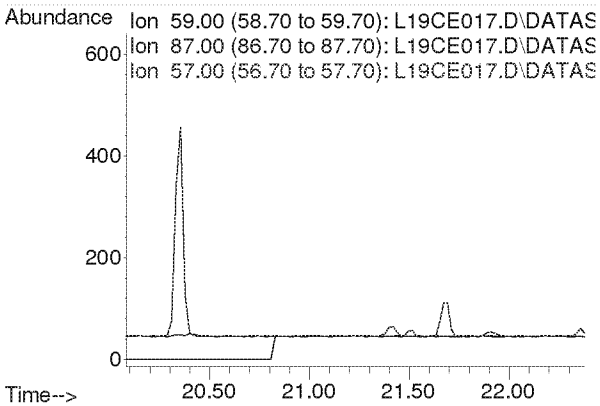


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

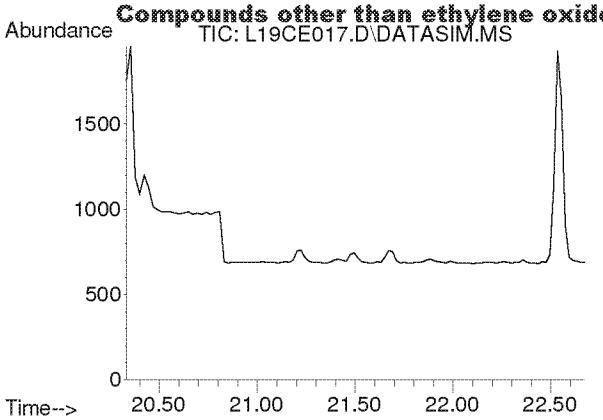
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

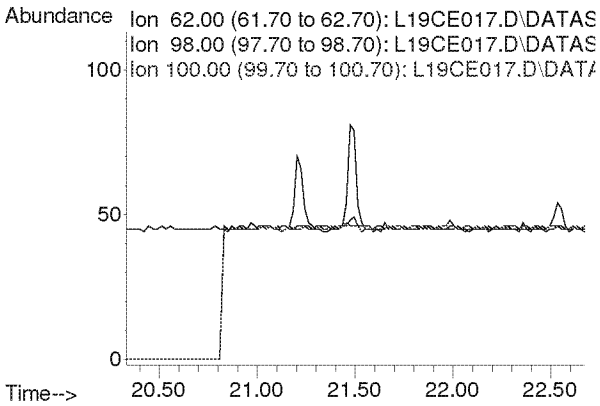


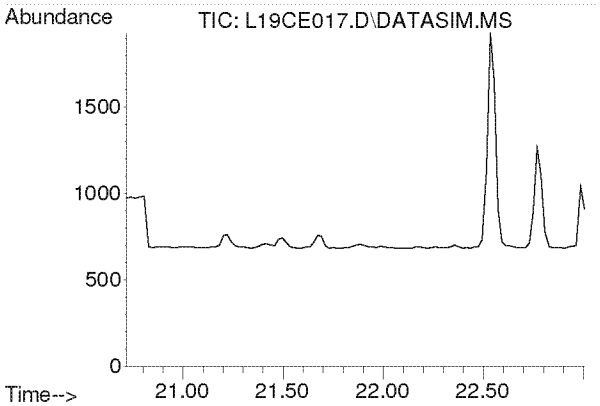
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



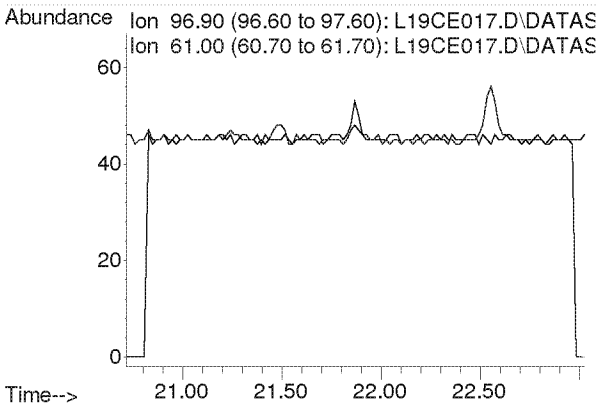


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

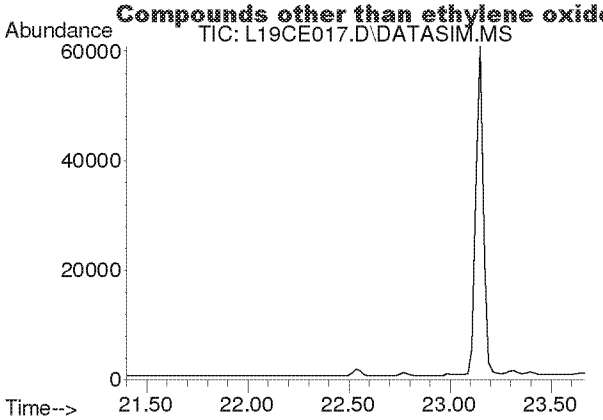
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

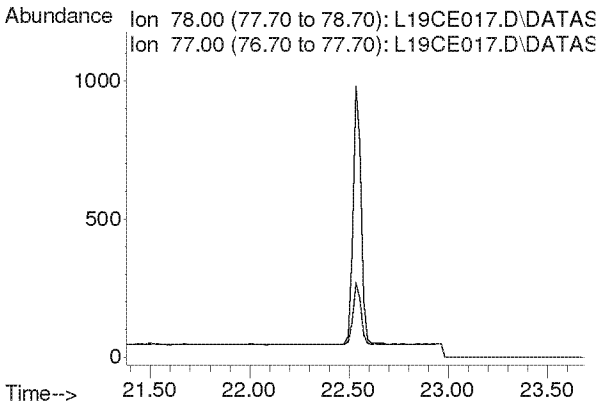


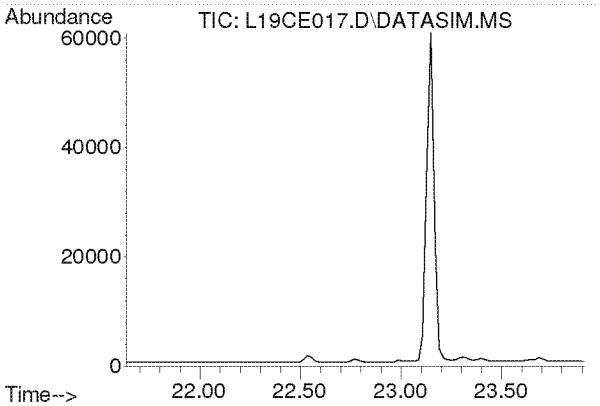
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



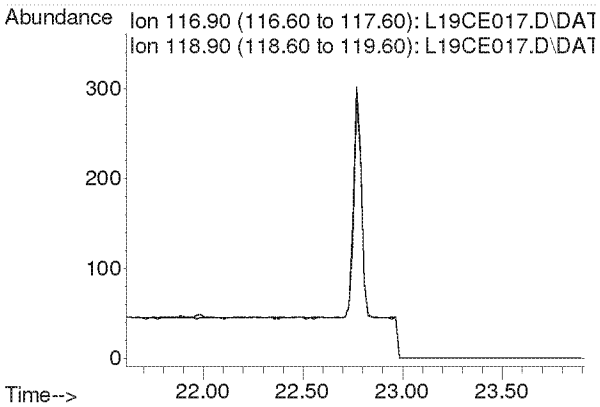


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

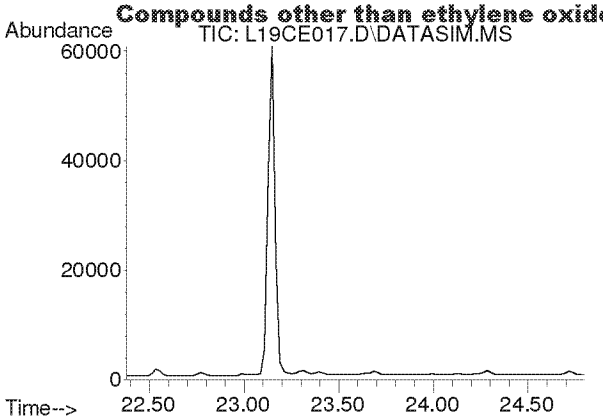
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

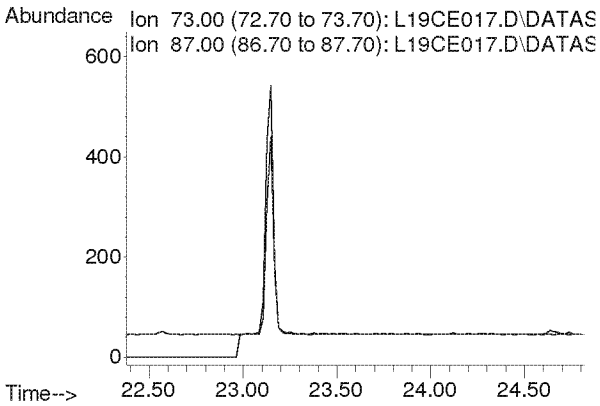


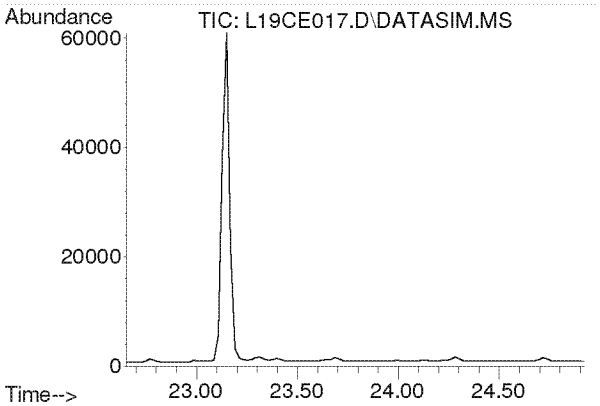
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



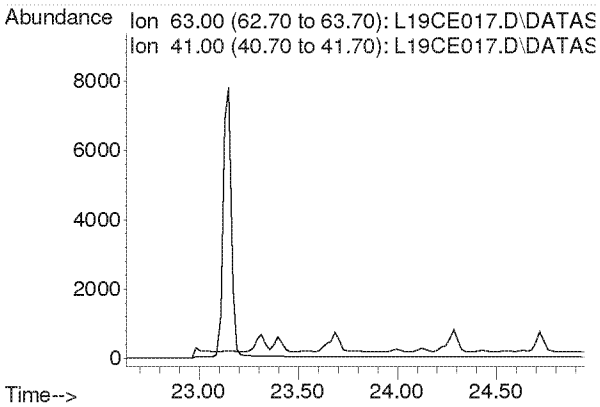


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

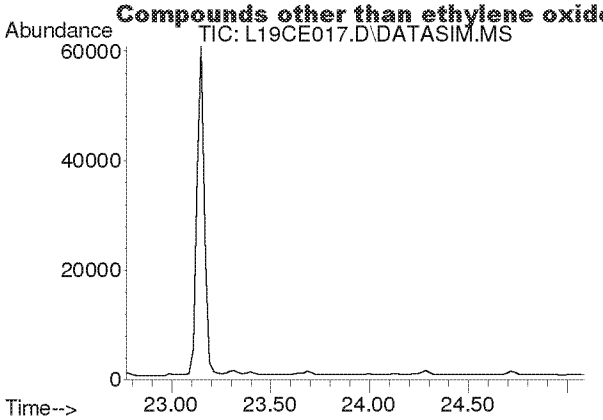
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

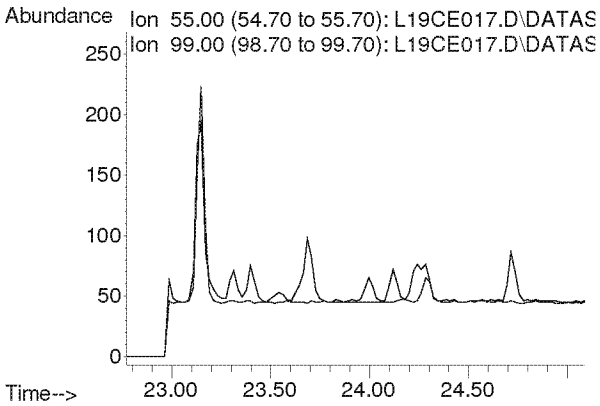


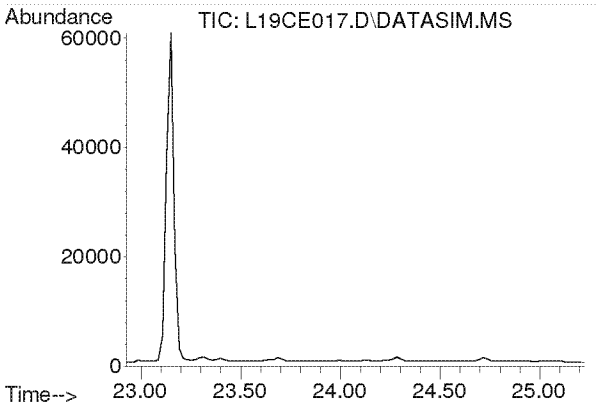
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



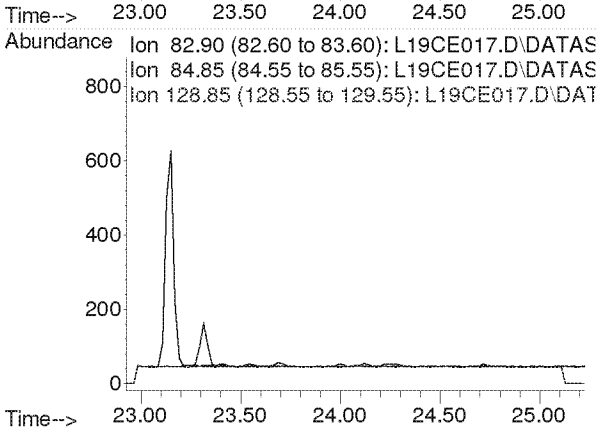


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

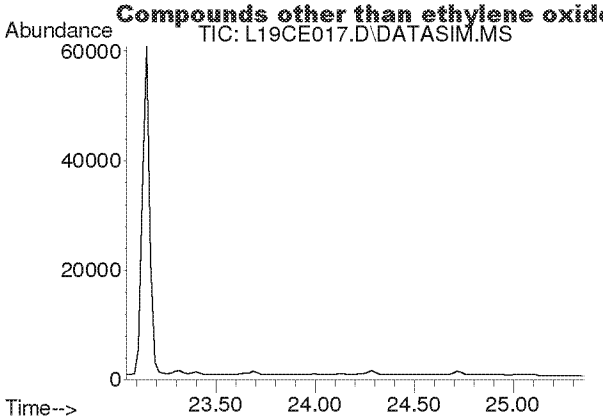
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

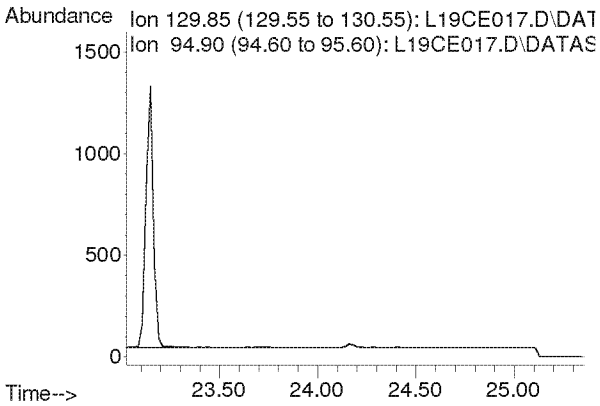


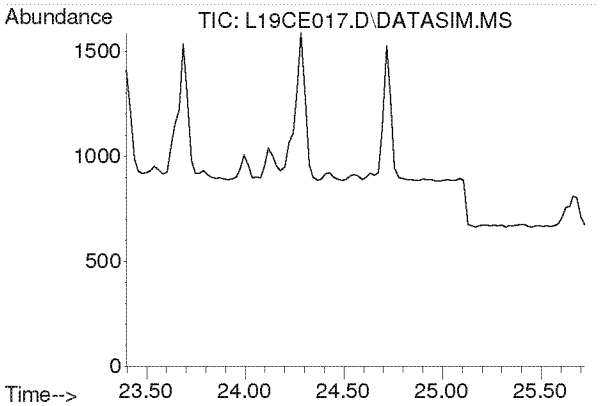
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



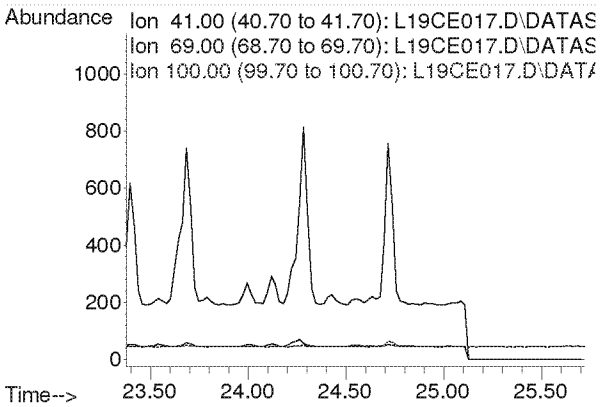


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

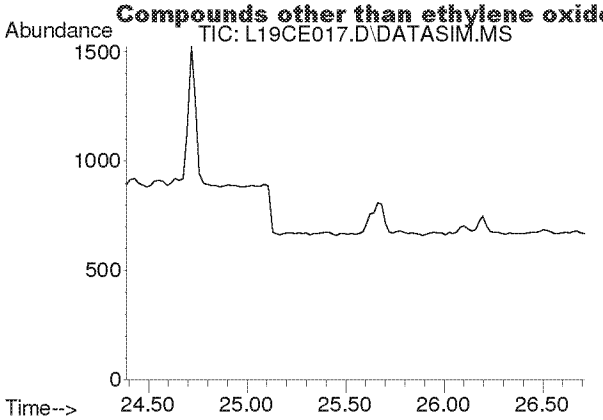
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

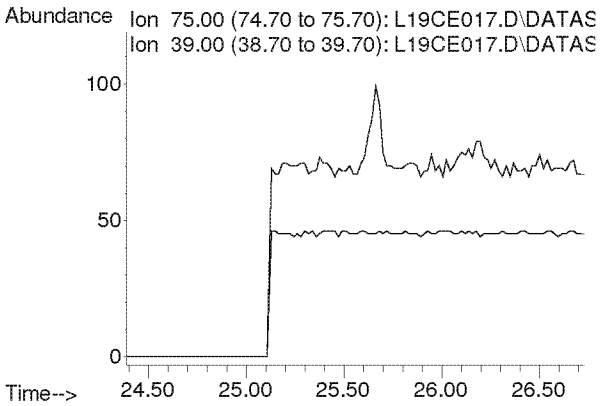


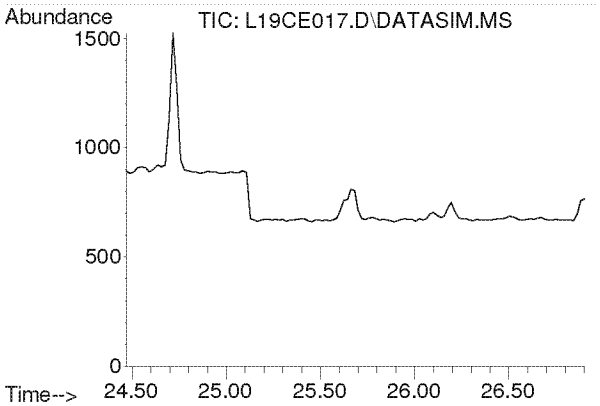
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



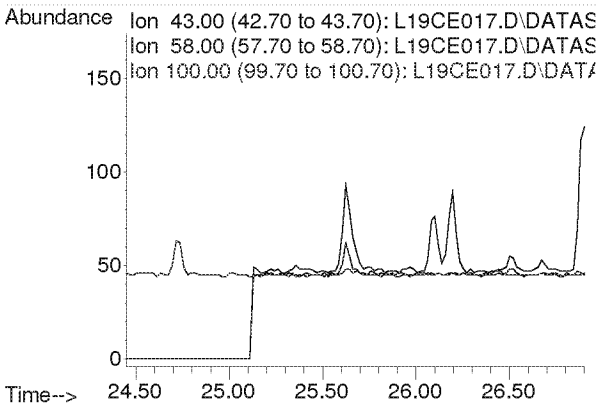


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

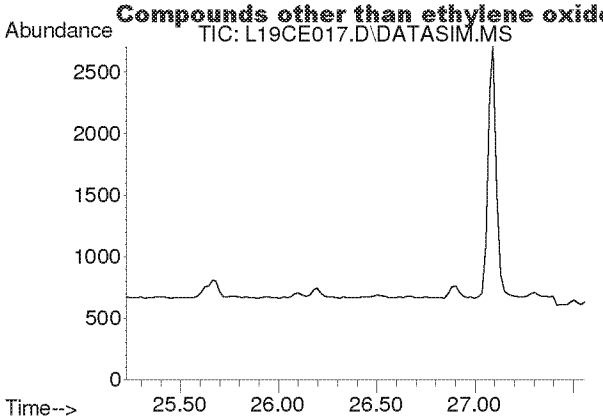
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

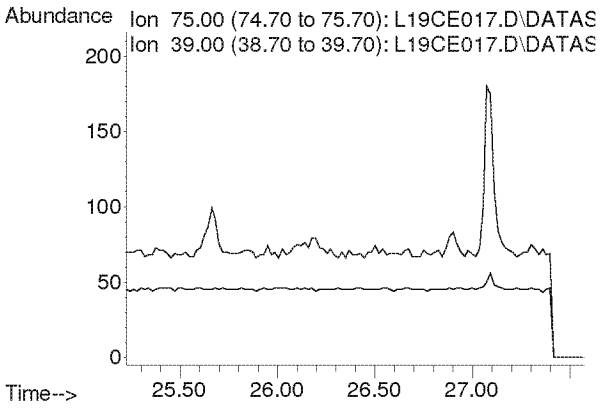


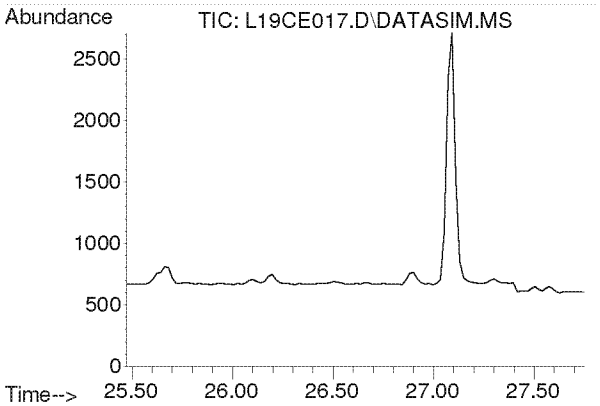
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



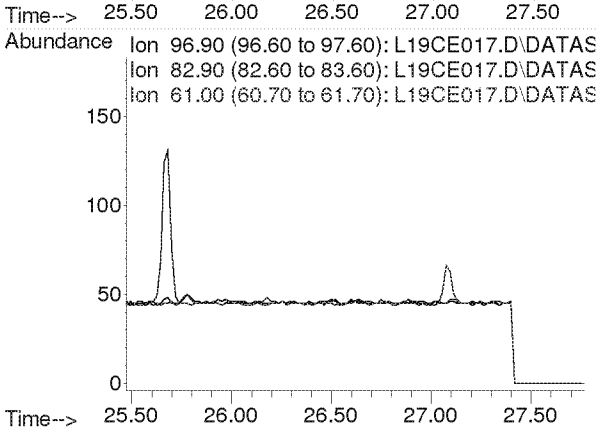


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

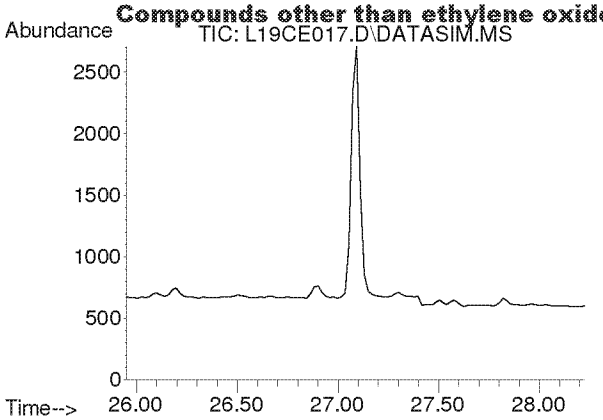
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

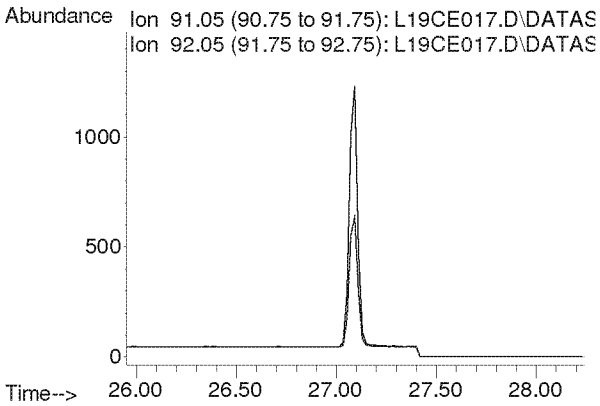


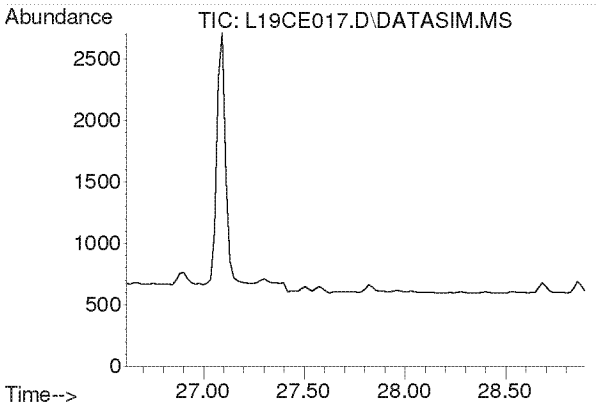
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



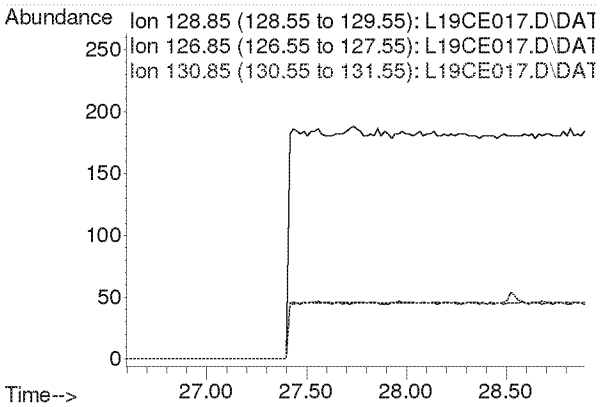


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

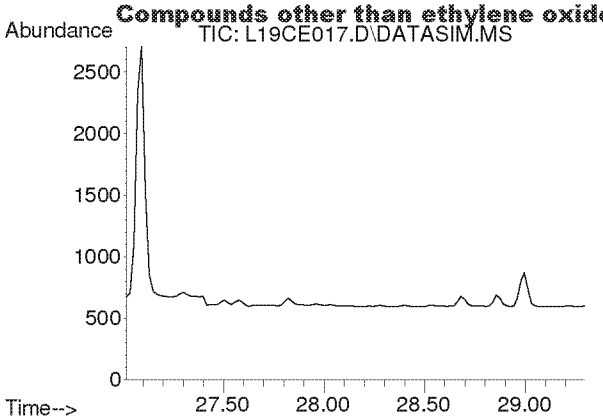
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

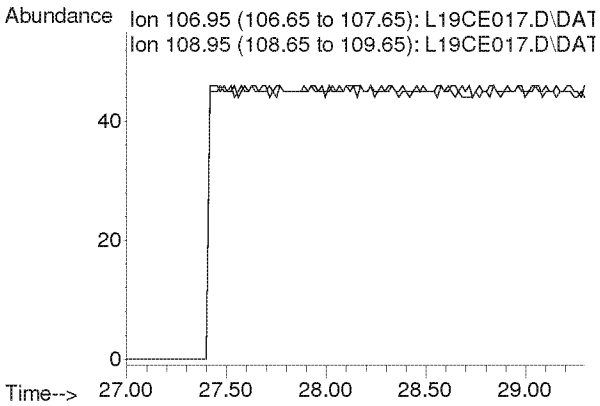


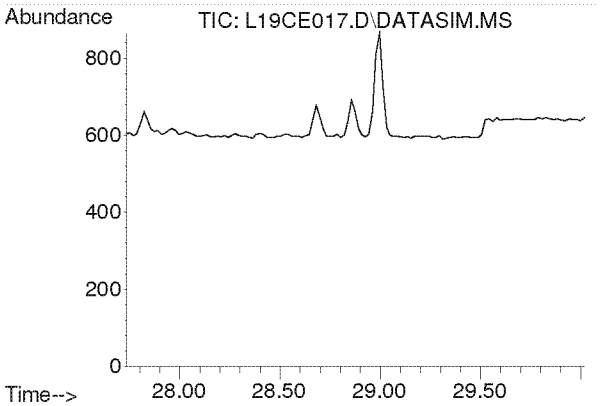
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



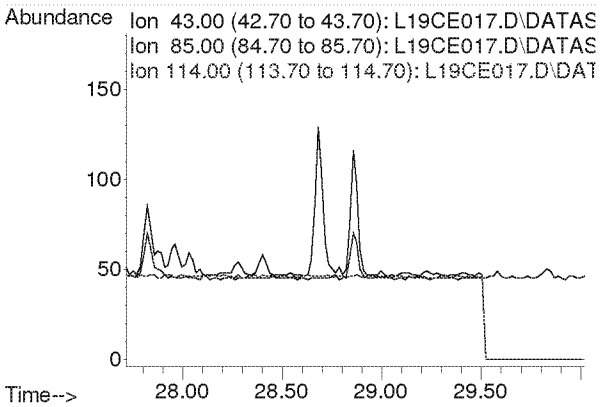


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

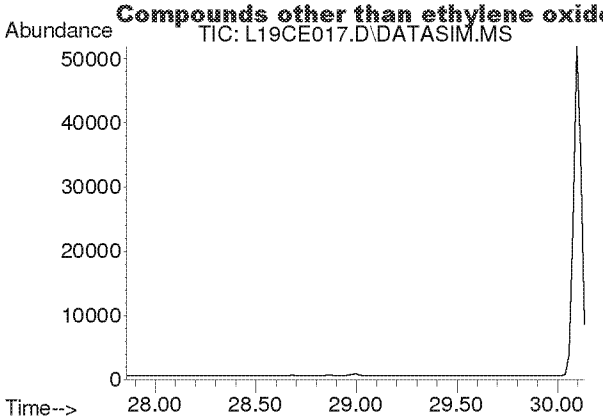
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

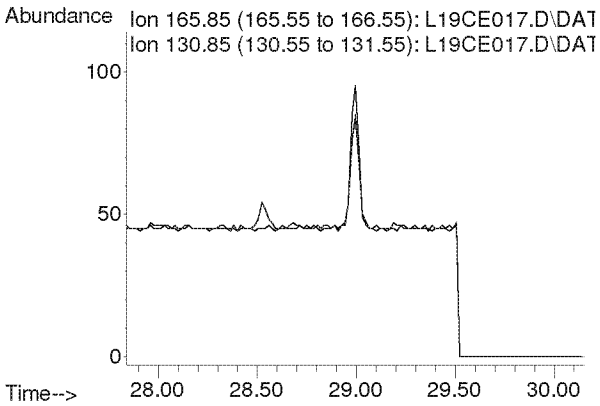


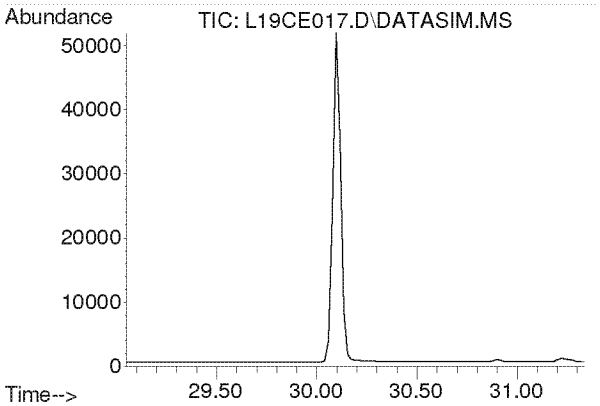
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



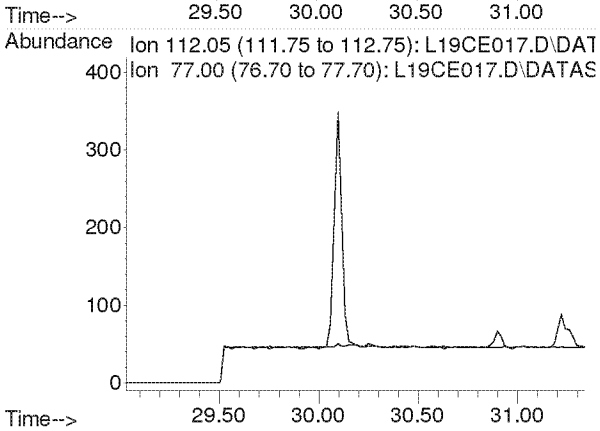


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

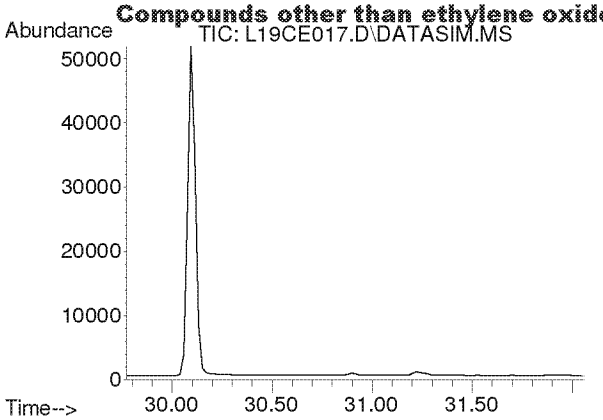
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

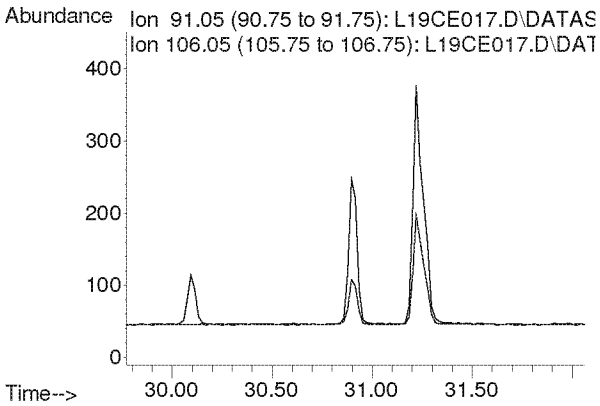


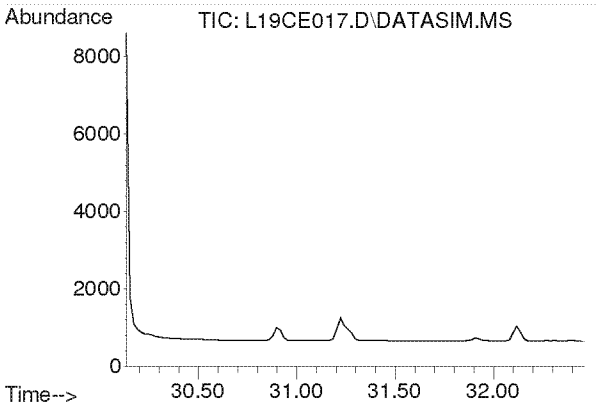
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



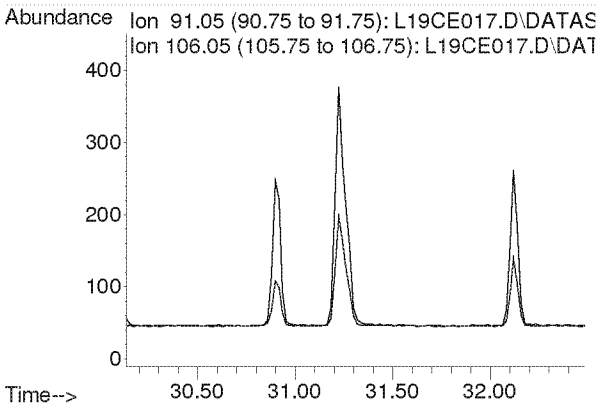


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

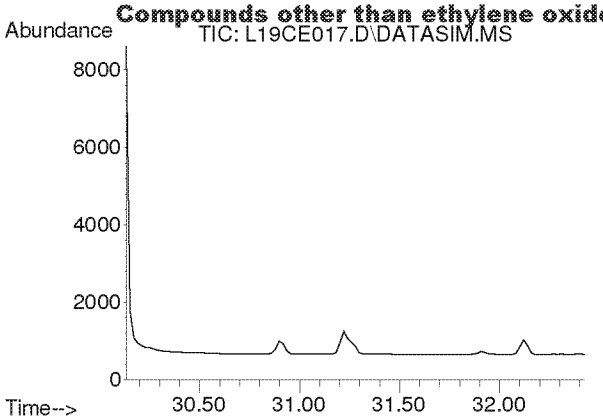
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

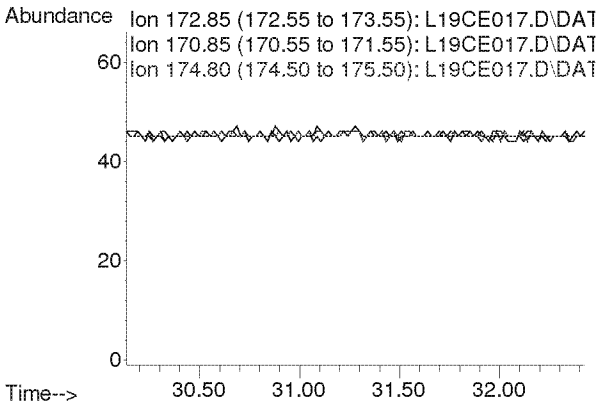


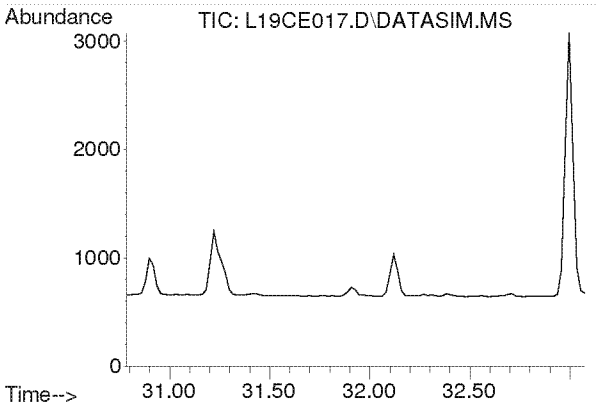
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



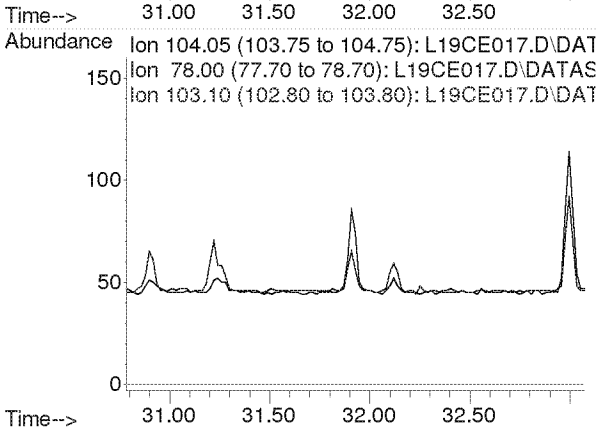


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

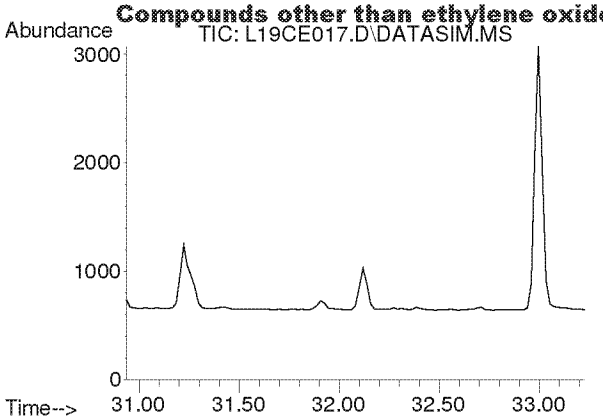
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

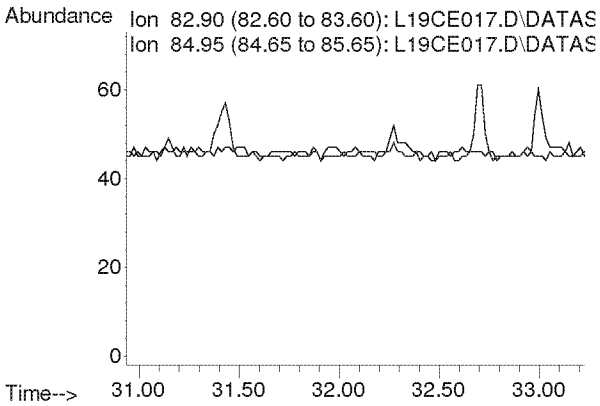


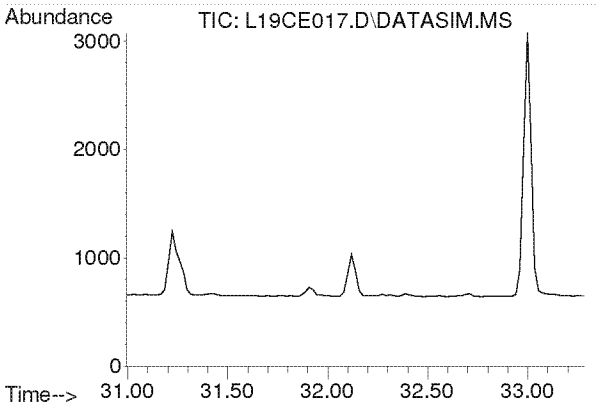
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



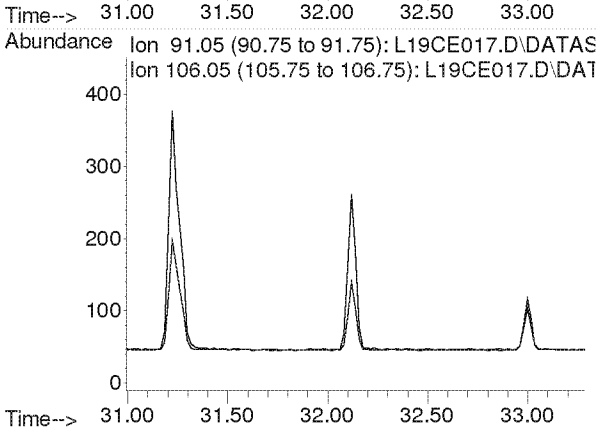


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

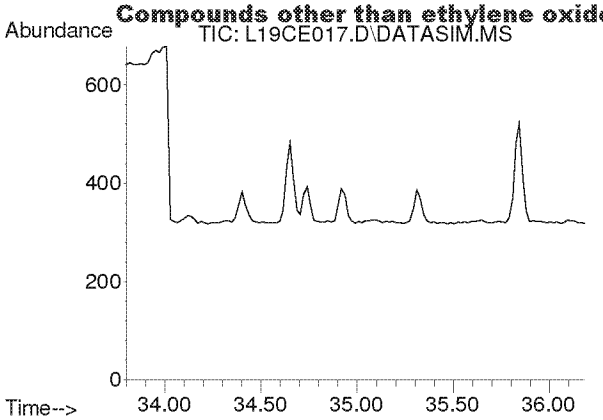
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

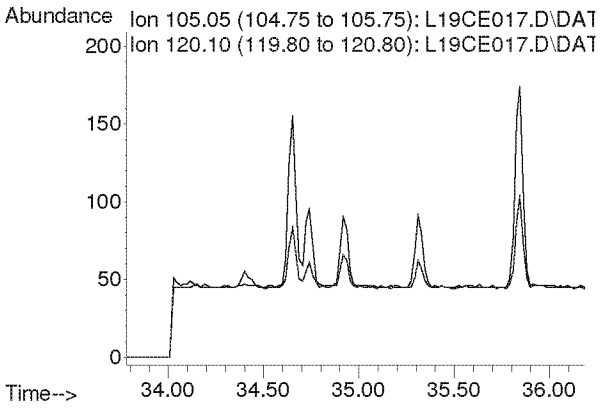


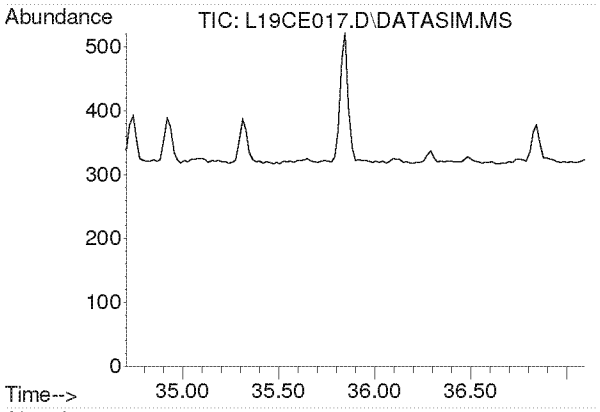
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



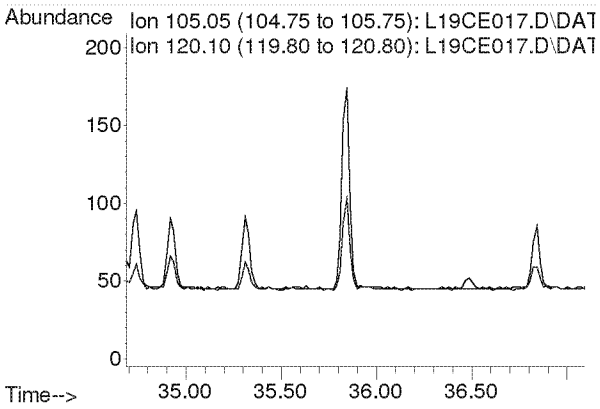


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

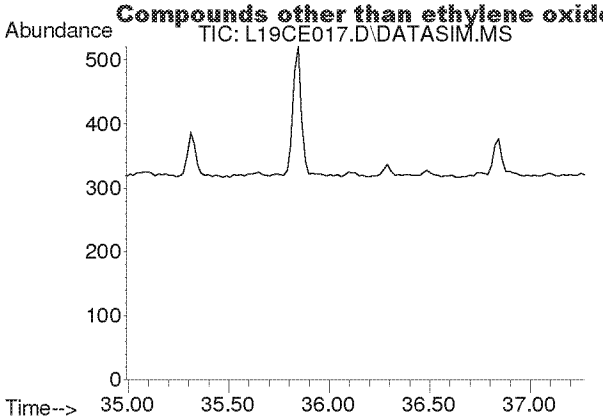
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

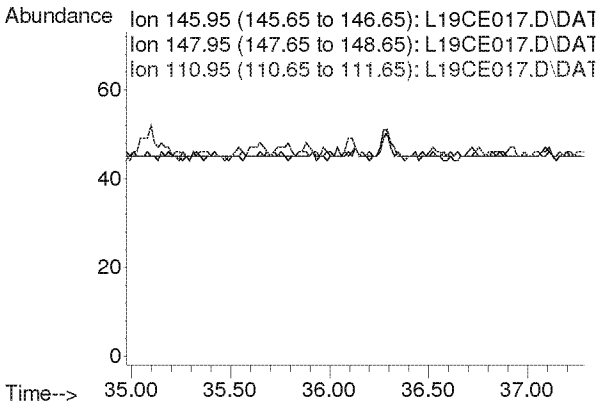


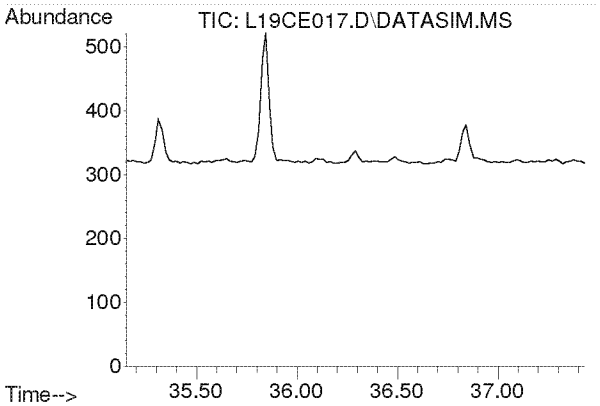
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



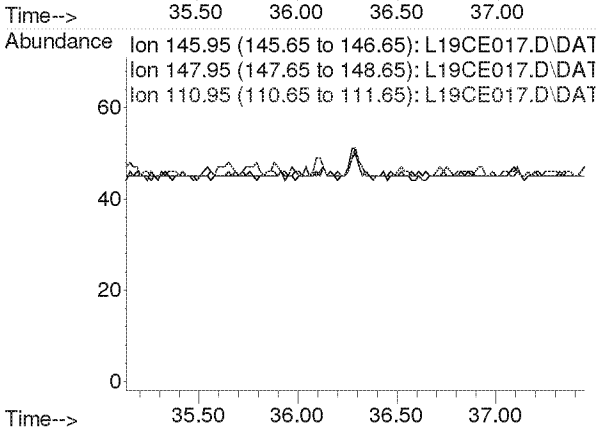


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

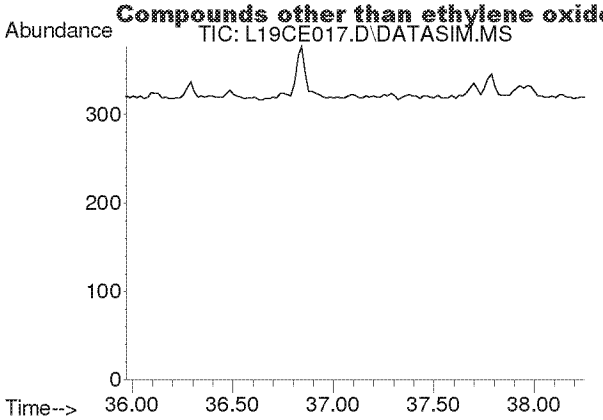
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

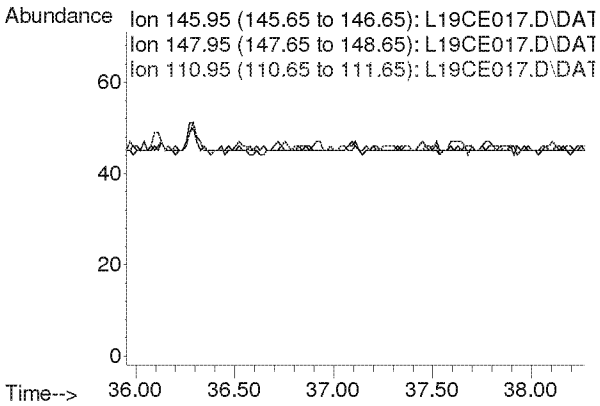


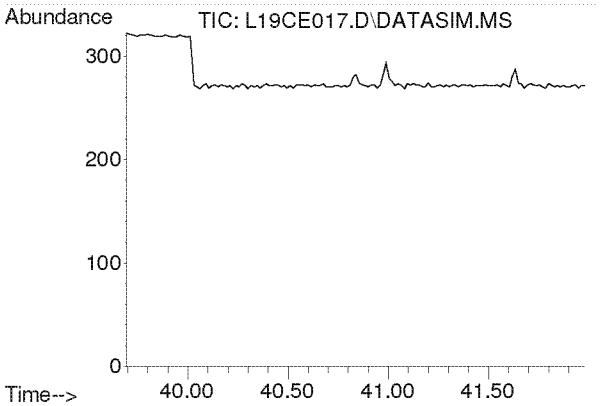
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



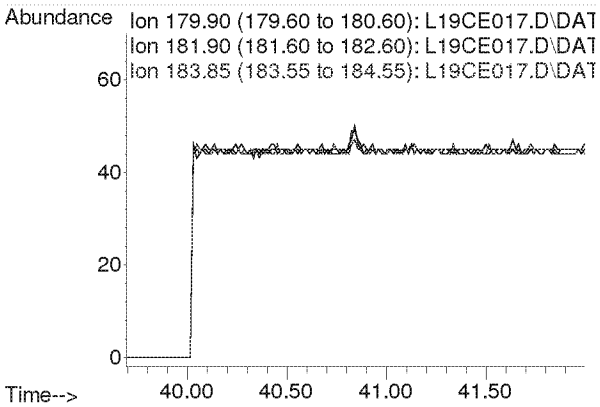


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

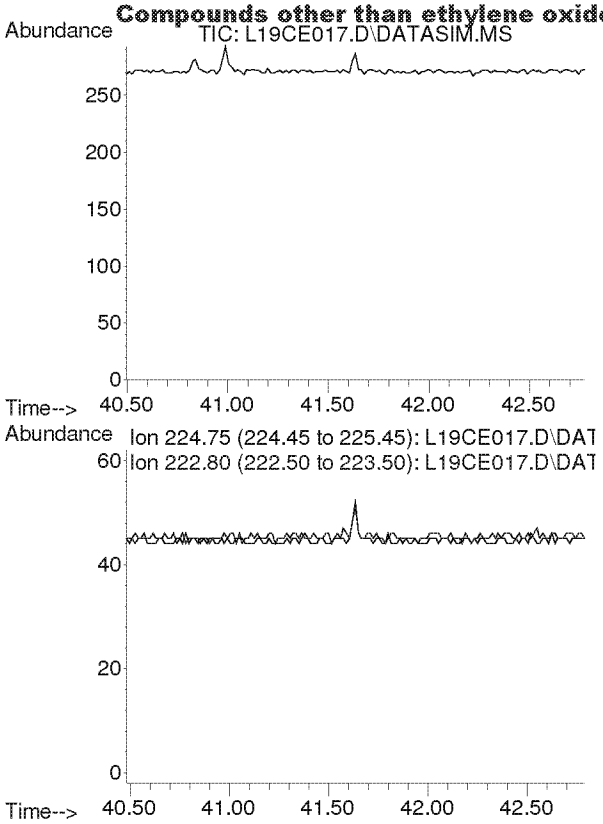
Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE017.D
Acq: 6 Mar 2019 4:30 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE018.D
Acq On : 6 Mar 2019 5:30 am (#1); 06-Mar-19, 05:25:21 (#2)
Operator : MAH
Sample : 9030524-09
Misc : WATER TOWER 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 06 12:32:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d: MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	45034	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	116992	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	82627	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.498	29	203m 3-6-19	0.0788 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CE\
Data File : L19CE018.D
Acq On : 6 Mar 2019 5:30 am (#1); 06-Mar-19, 05:25:21 (#2)
Operator : MAH
Sample : 9030524-09
Misc : WATER TOWER 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 06 12:32:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

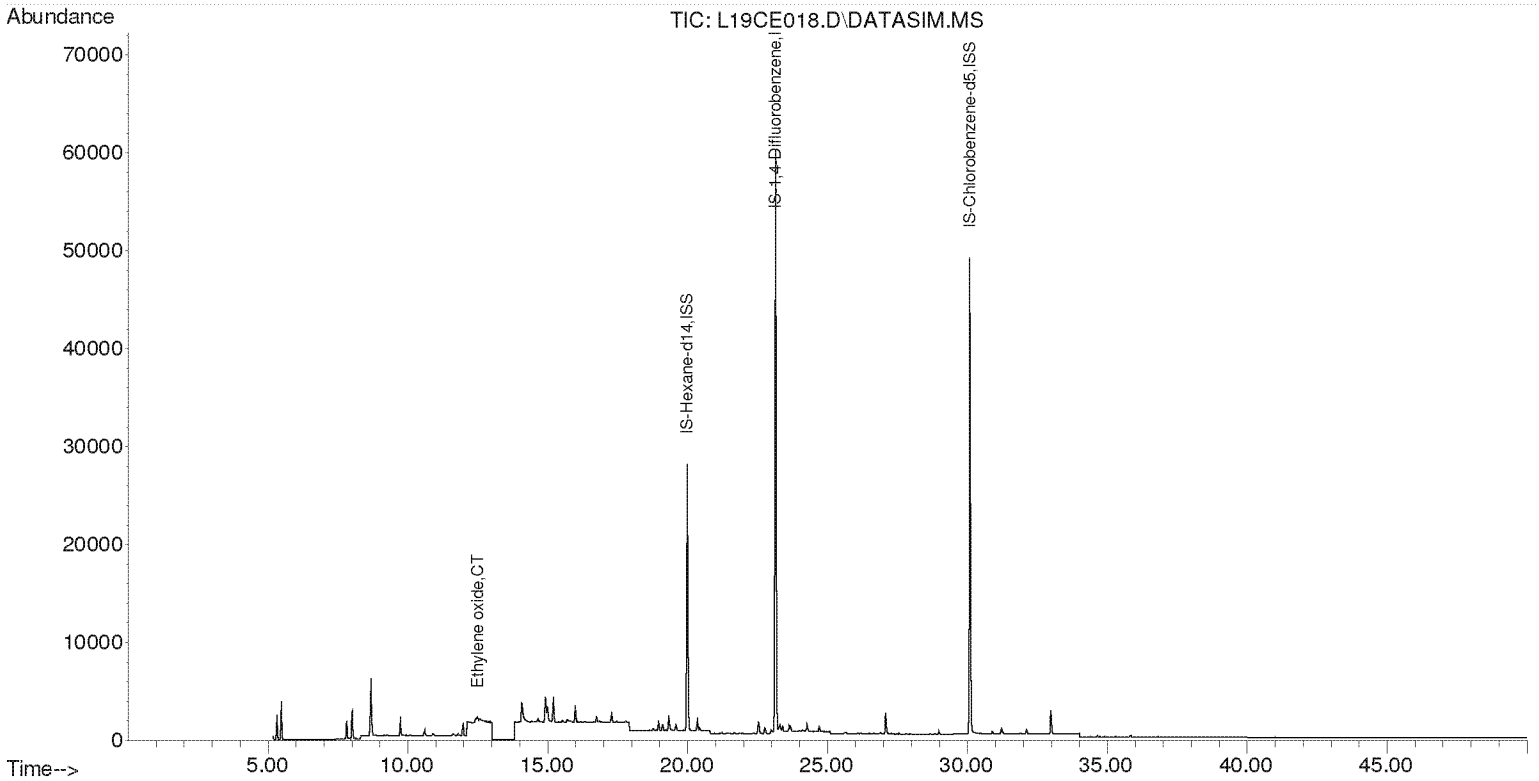
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

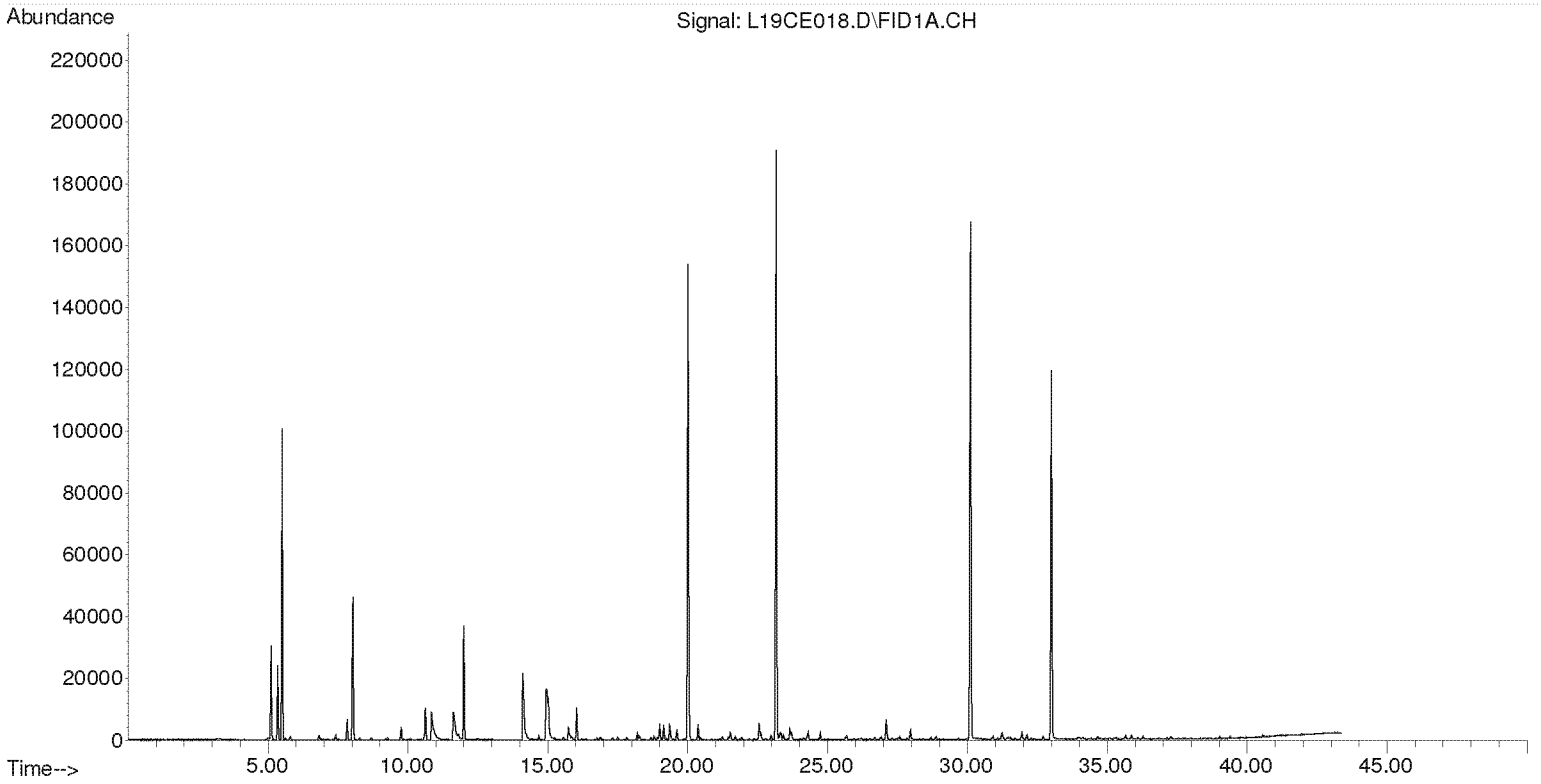
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

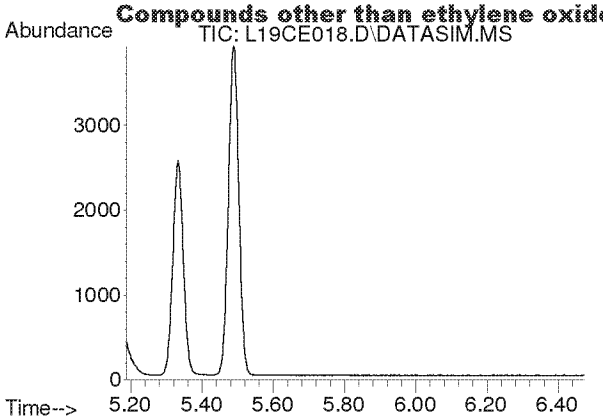
Data Path : Y:\MASS SPEC 1 DATA\L19CE\
Data File : L19CE018.D
Acq On : 6 Mar 2019 5:30 am (#1); 06 Mar 2019 5:25 am (#2)
Operator : MAH
Sample : 9030524-09
Misc : WATER TOWER 3/2/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 06 12:03:46 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





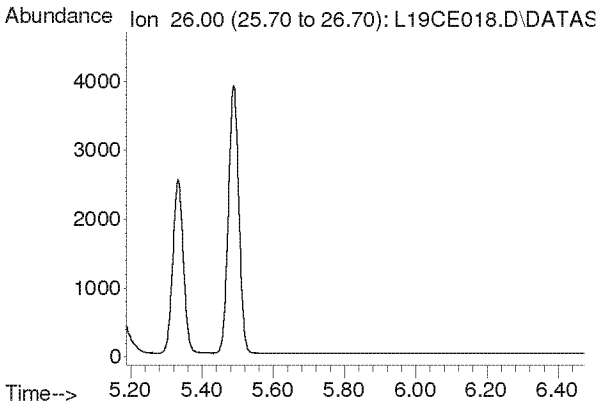
Compounds other than ethylene oxide were not quantitated.

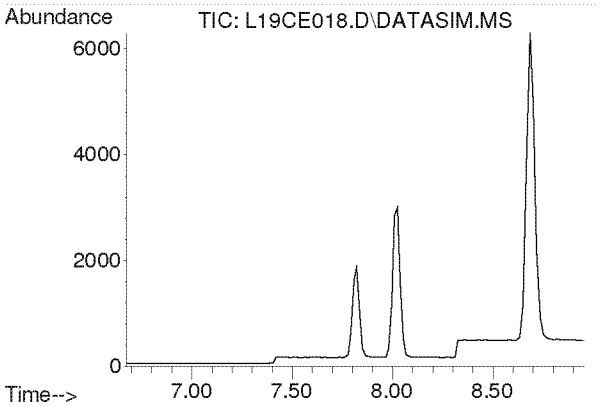


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 26



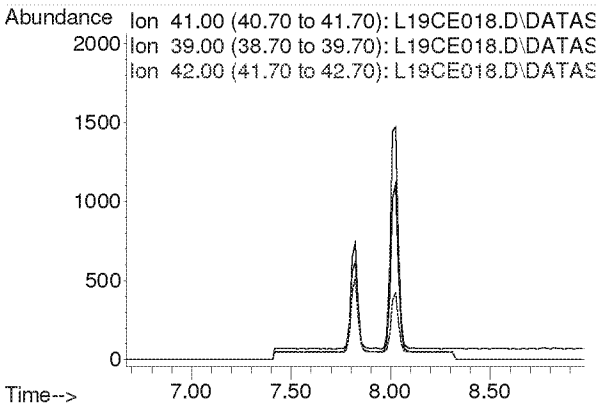


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

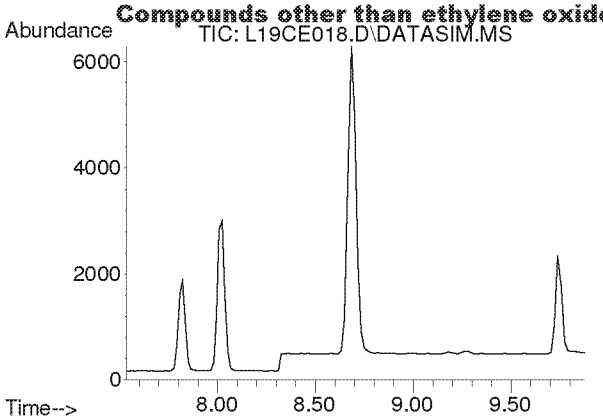
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

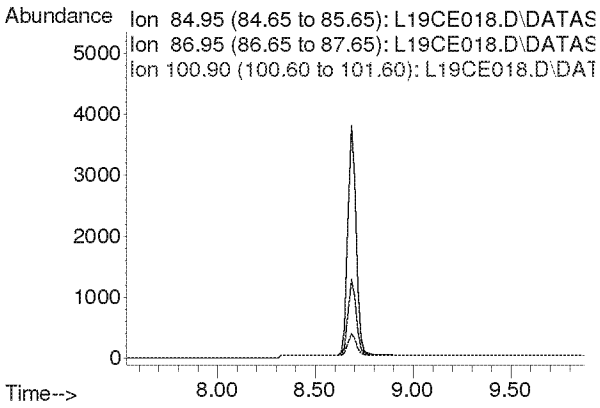


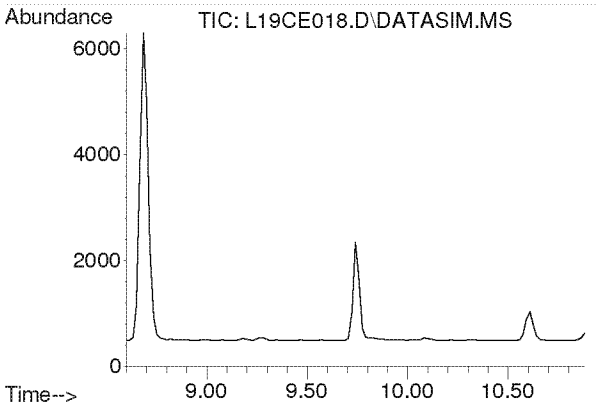
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



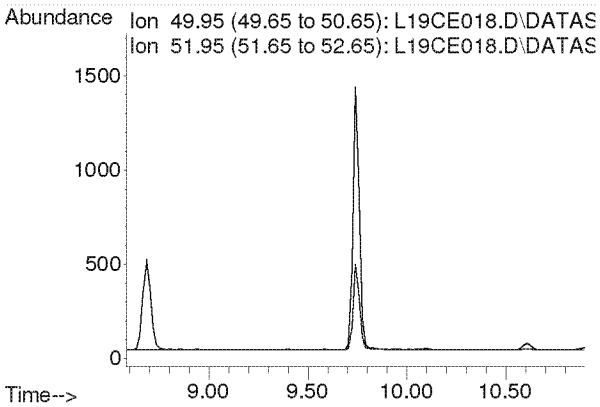


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

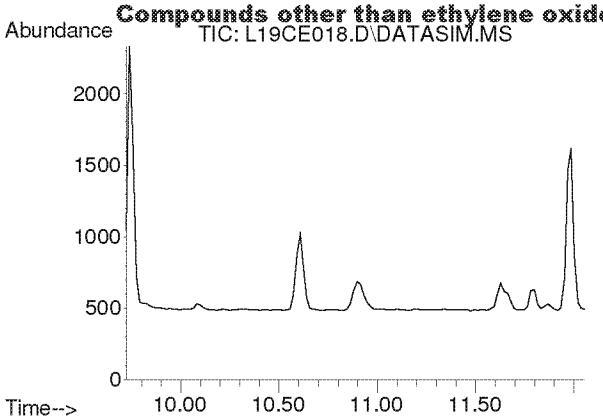
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

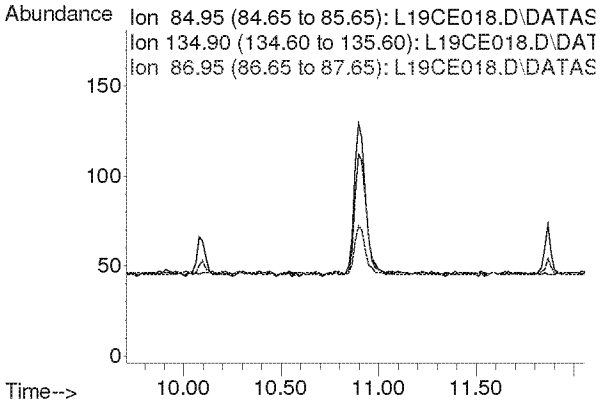


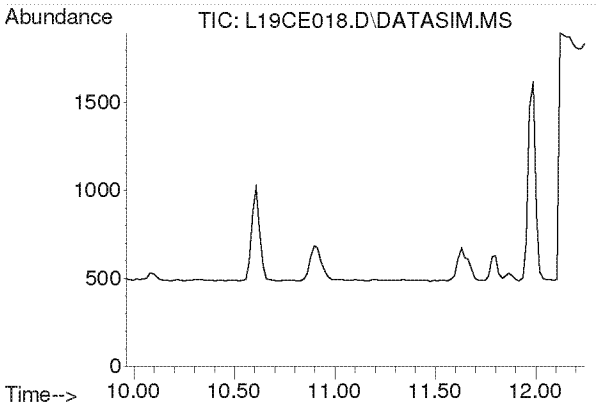
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



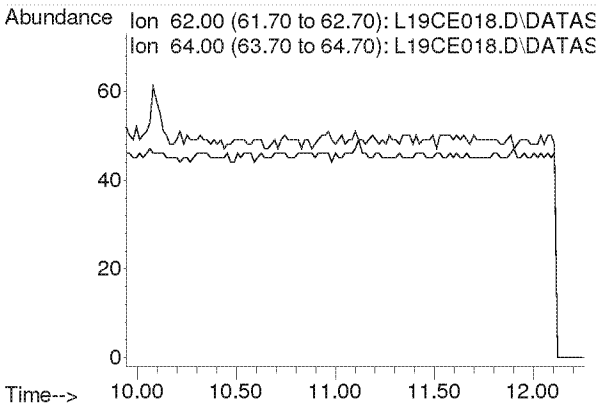


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

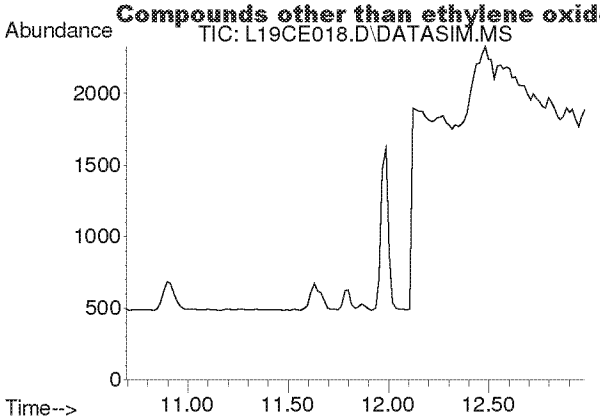
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

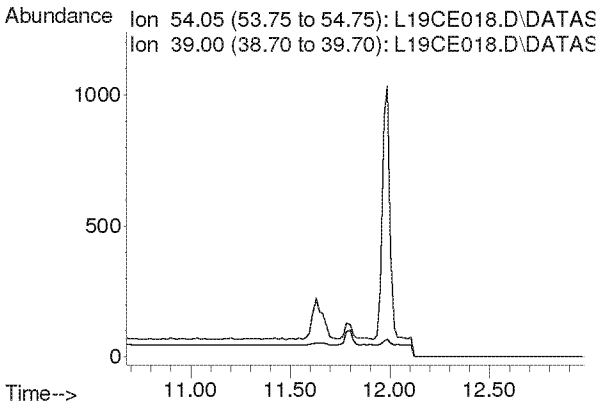


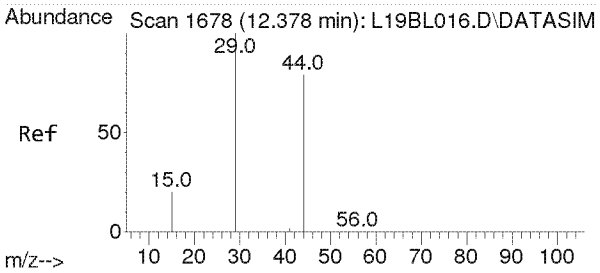
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

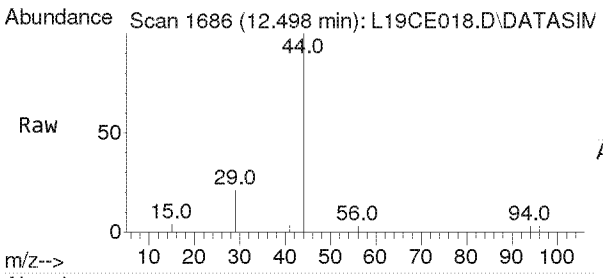


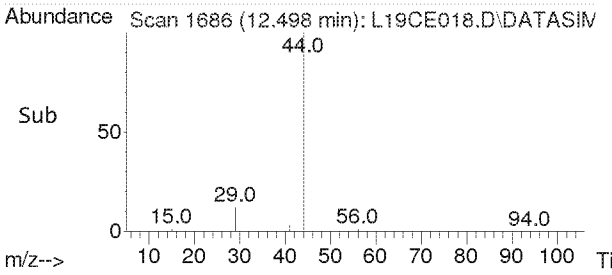


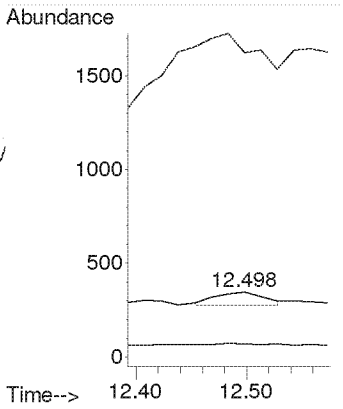
#9
Ethylene oxide
Concen: 0.079 ppbv m
RT: 12.498 min Scan# 1686
Delta R.T. 0.048 min
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 29 Resp: 203

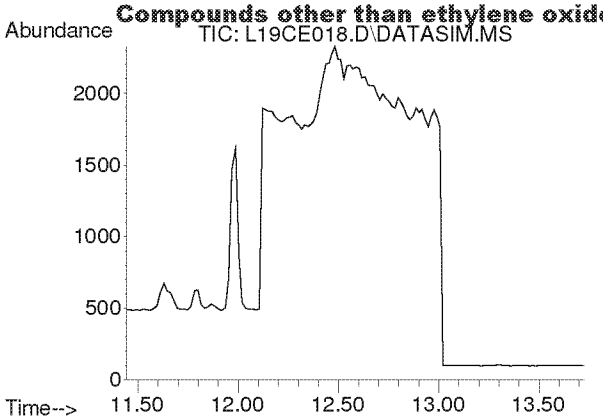
Ion	Ratio	Lower	Upper
29	100		
15	36.5	16.0	24.0#
44	2500.5	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

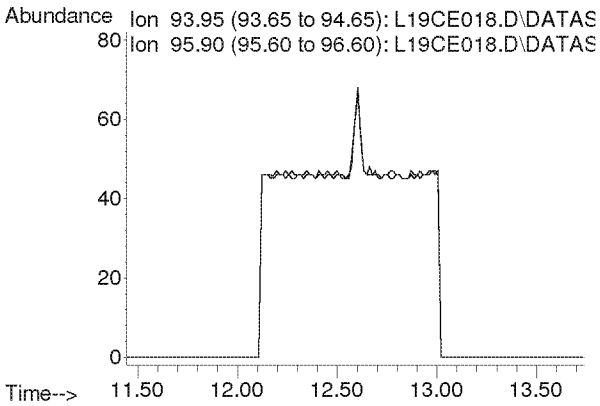


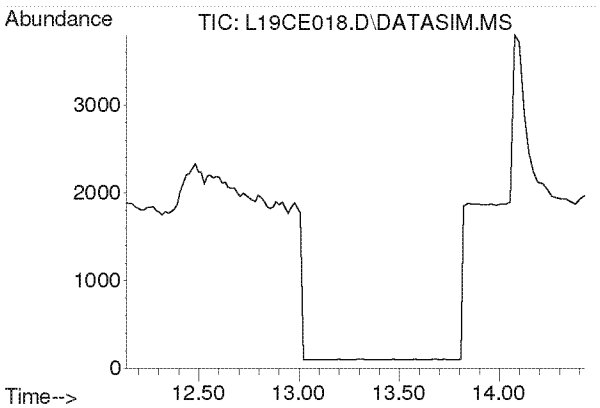
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



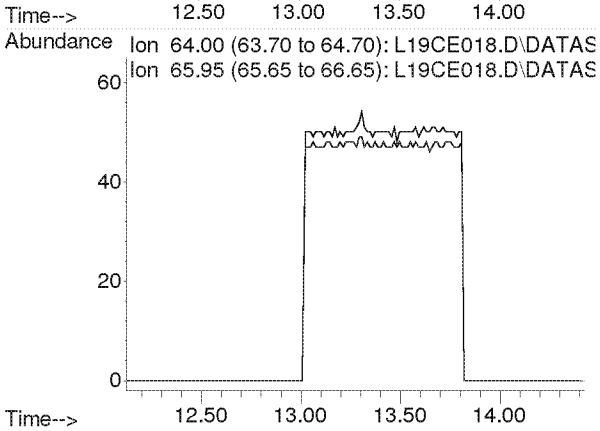


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

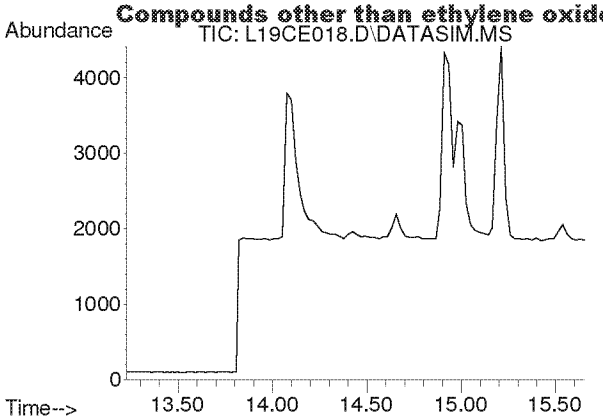
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

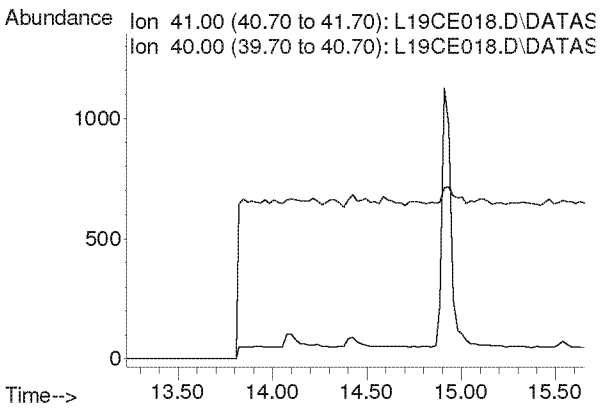


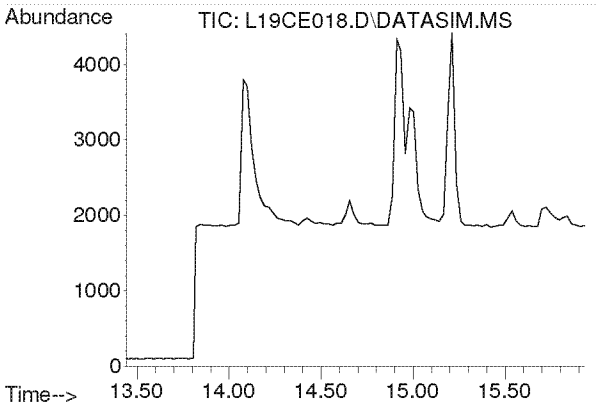
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



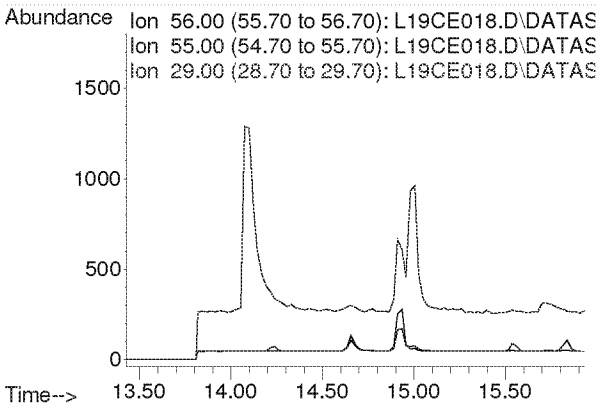


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

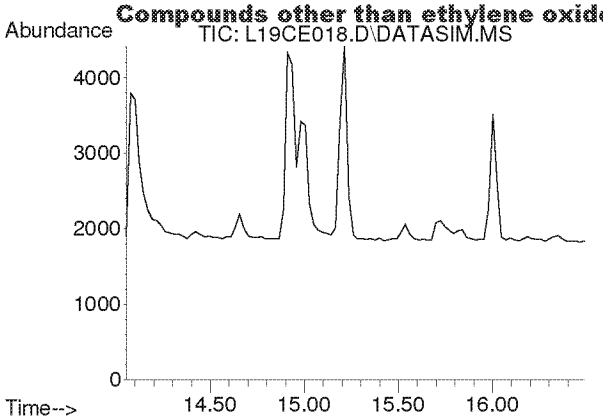
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

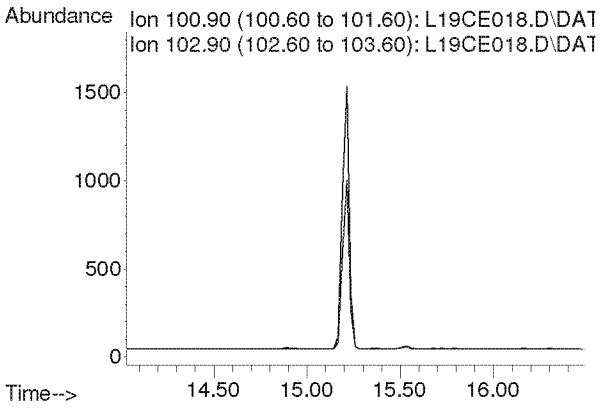


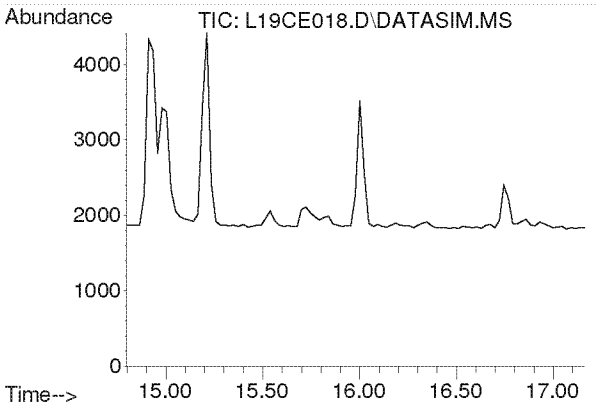
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



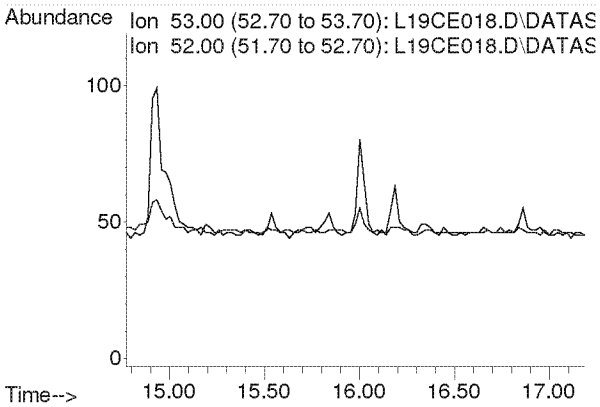


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

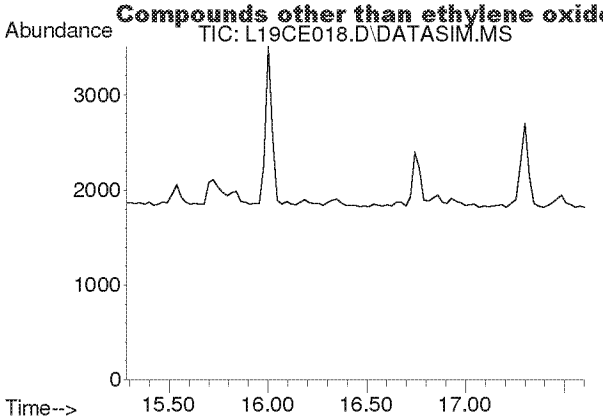
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

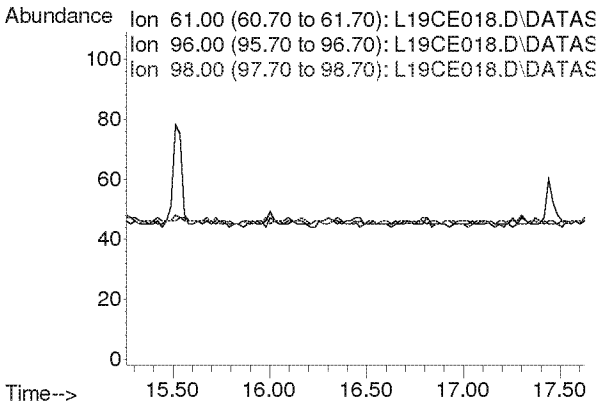


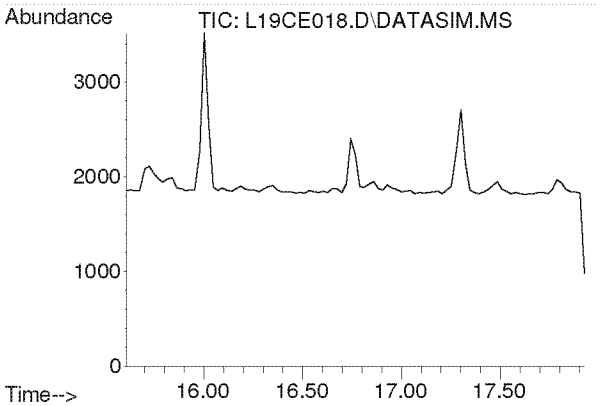
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



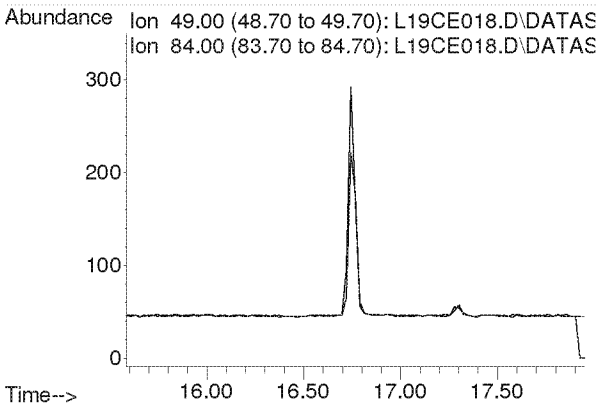


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

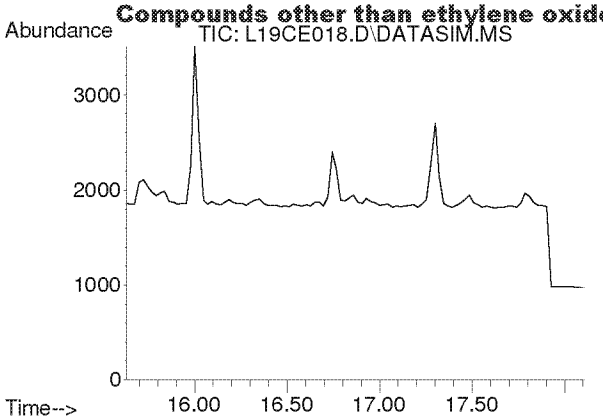
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

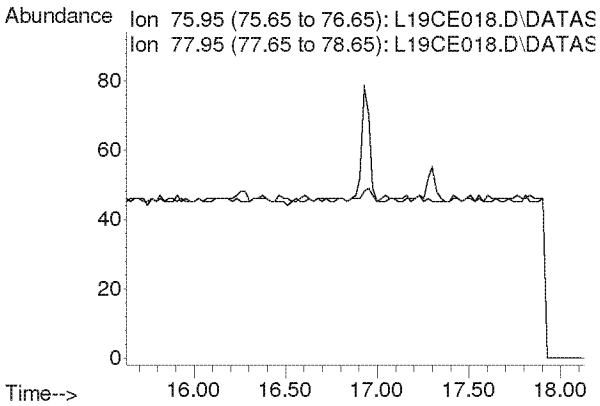


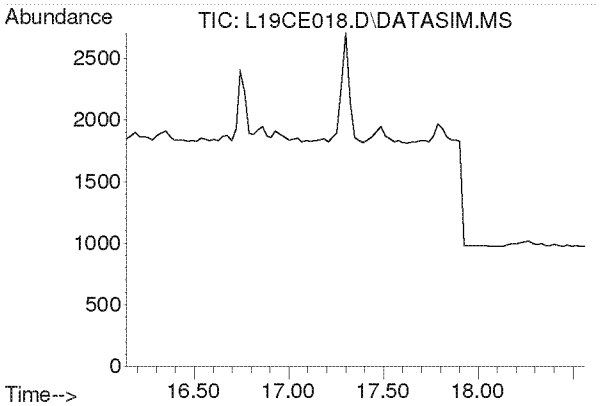
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



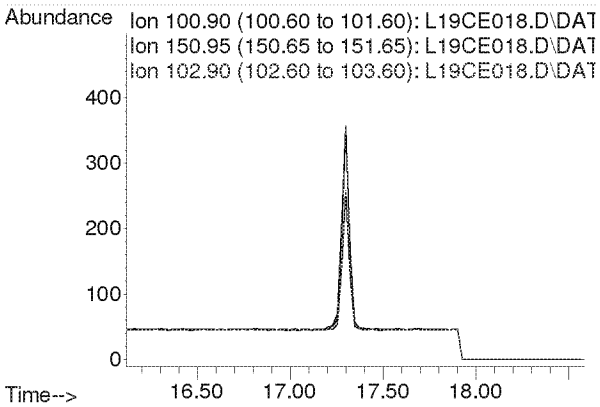


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

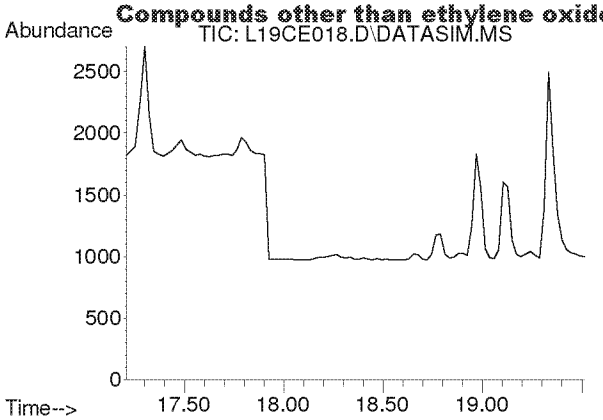
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

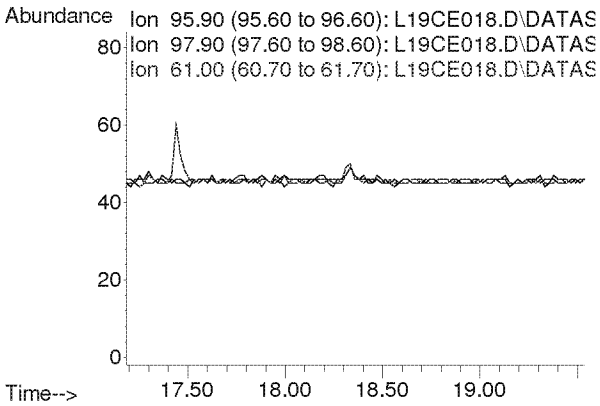


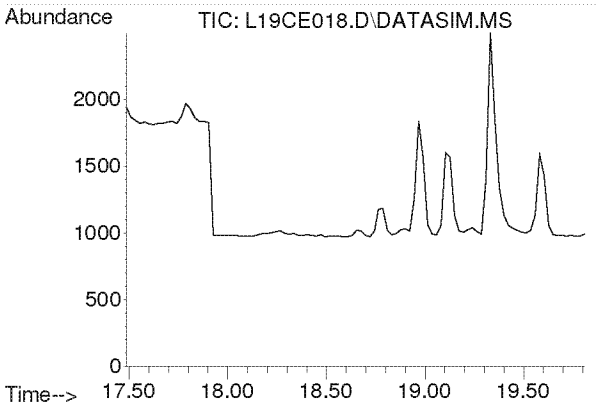
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



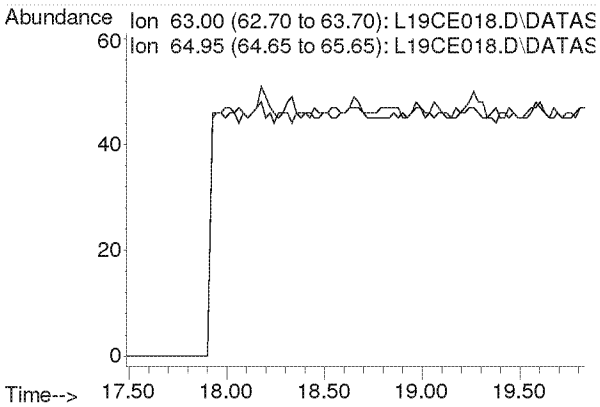


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

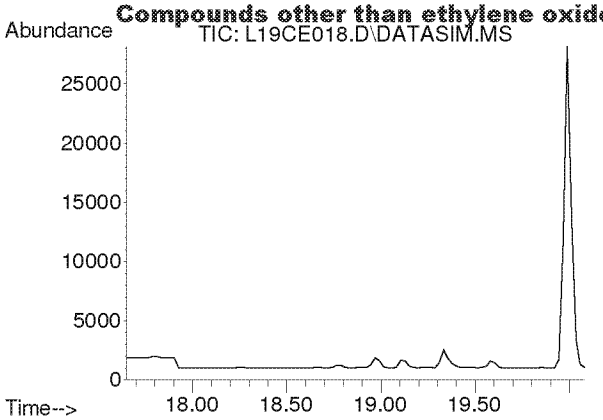
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

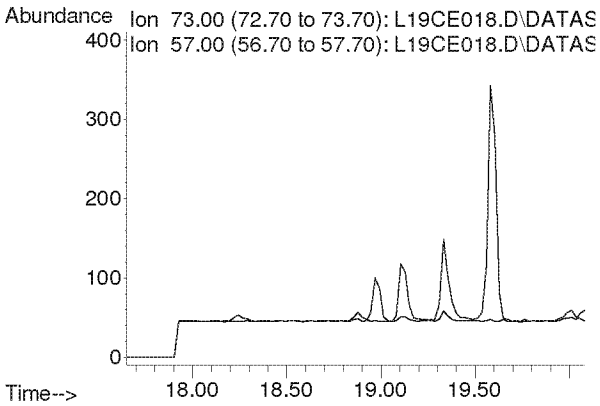


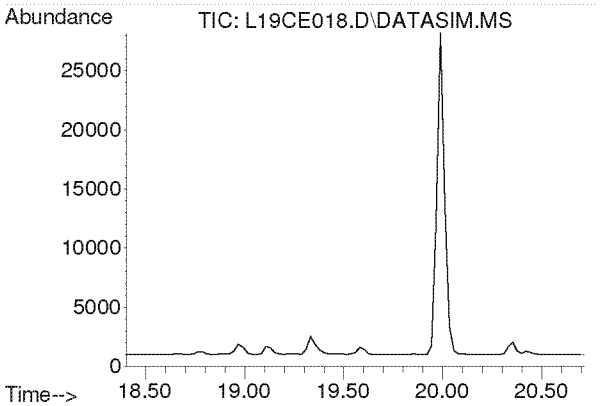
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



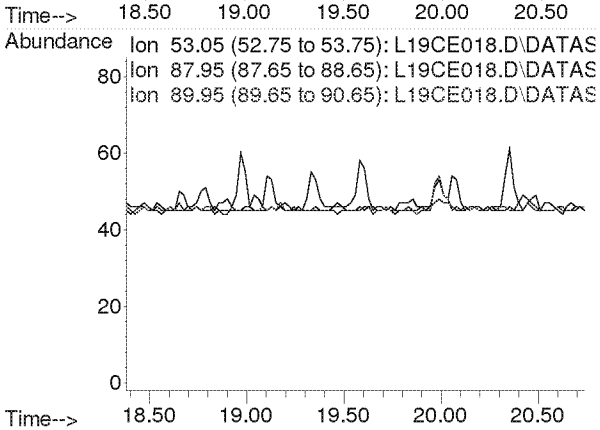


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

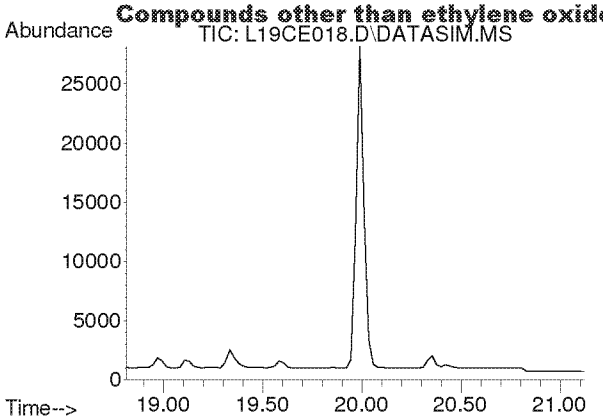
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

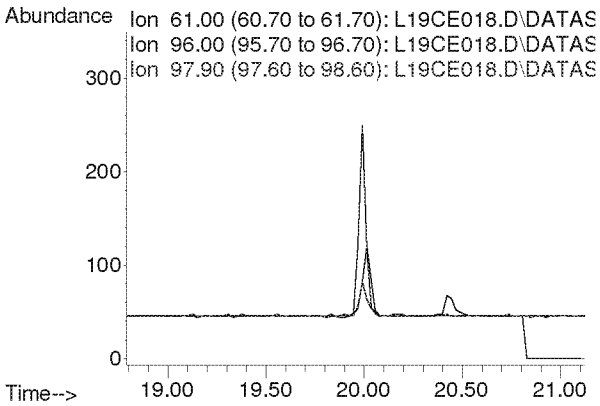


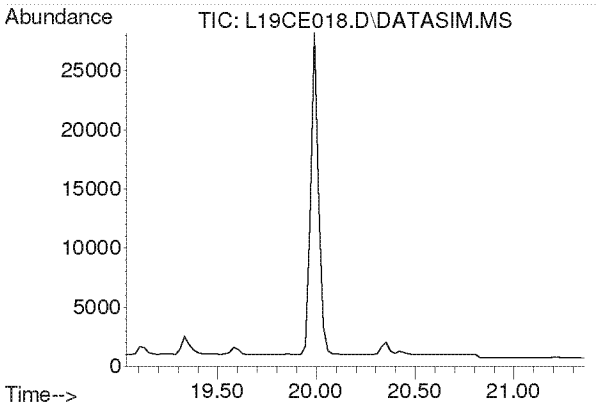
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



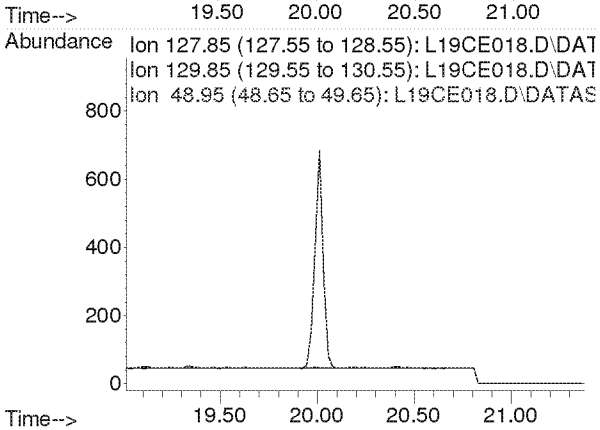


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

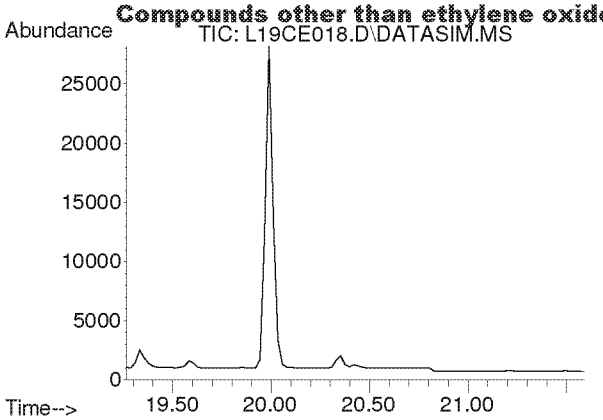
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

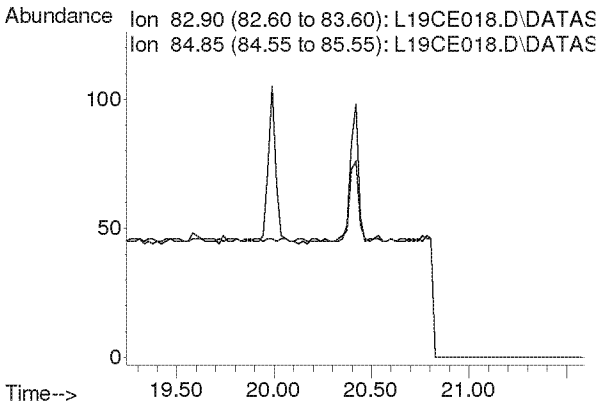


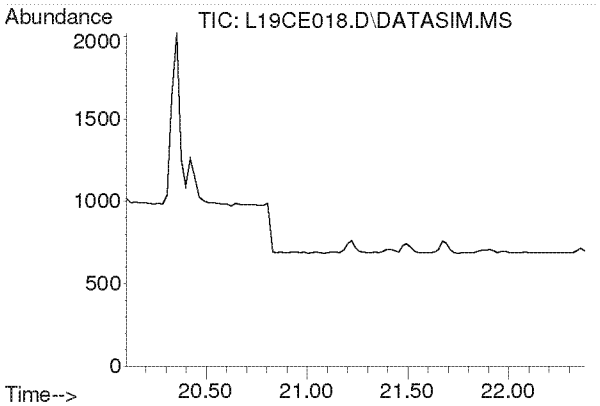
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



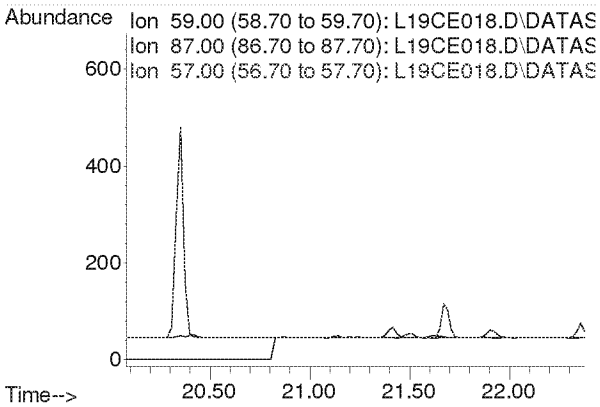


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

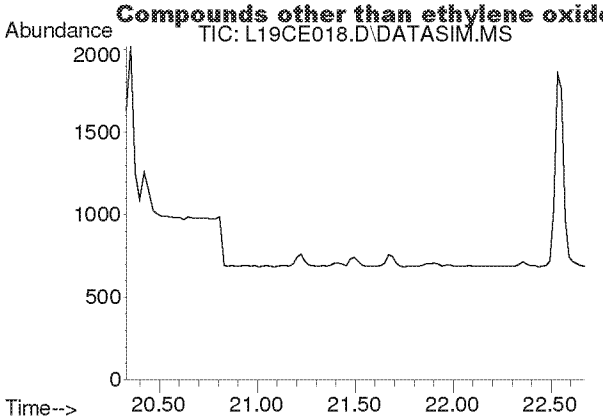
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

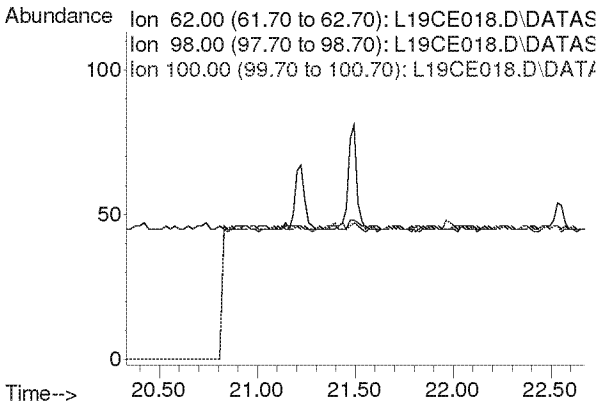


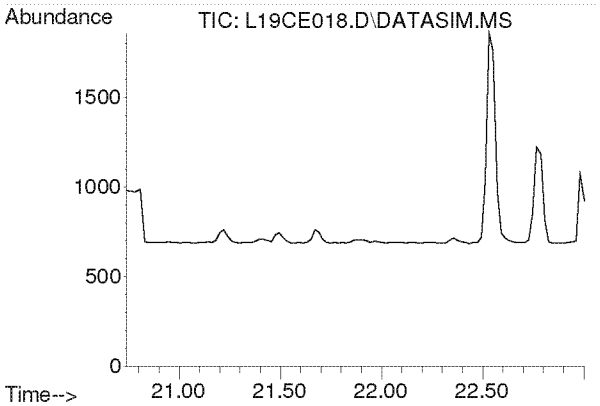
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



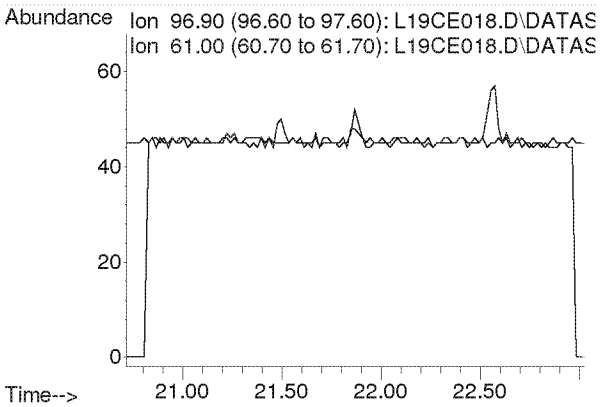


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

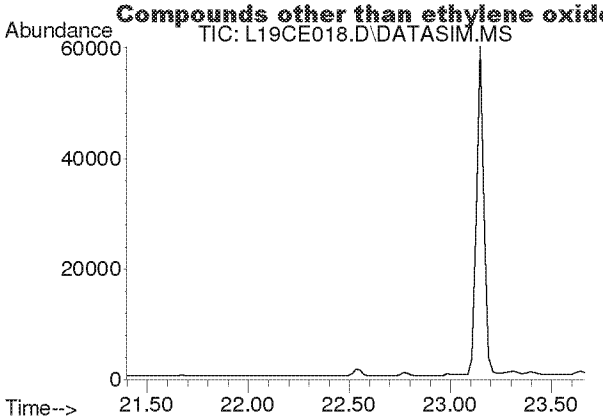
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

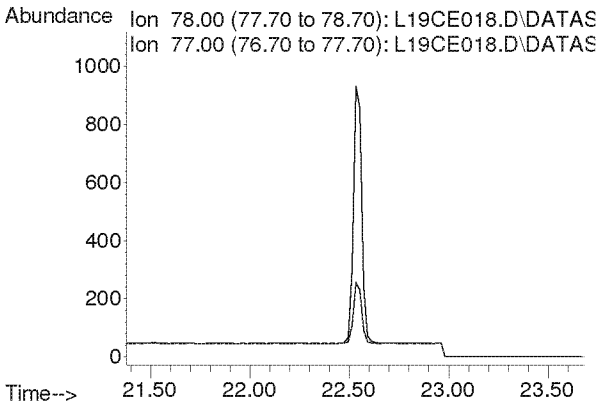


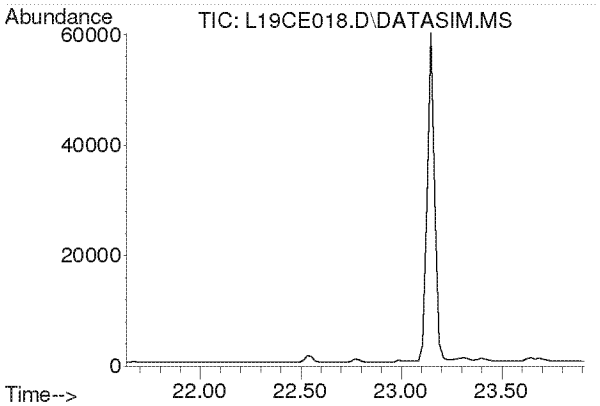
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



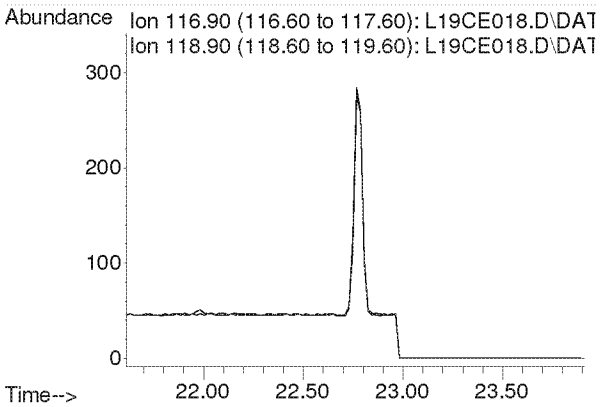


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

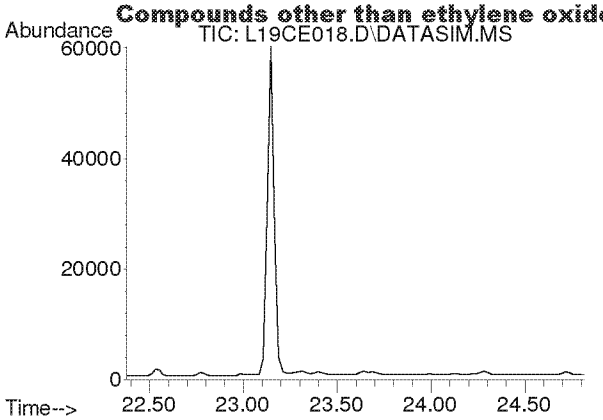
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

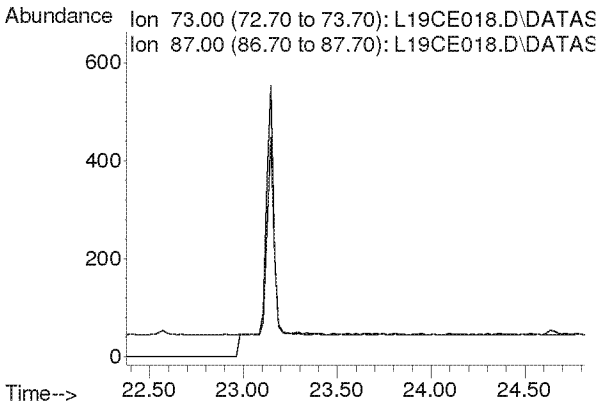


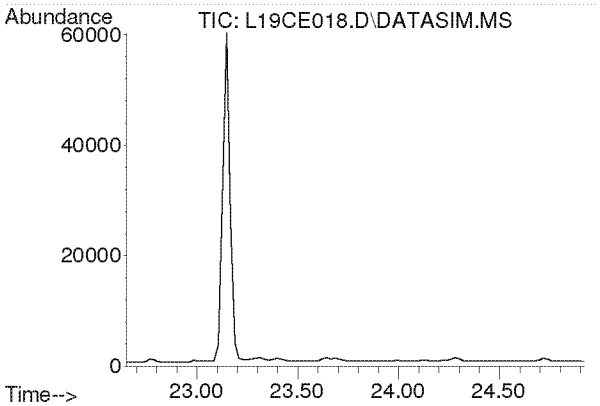
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



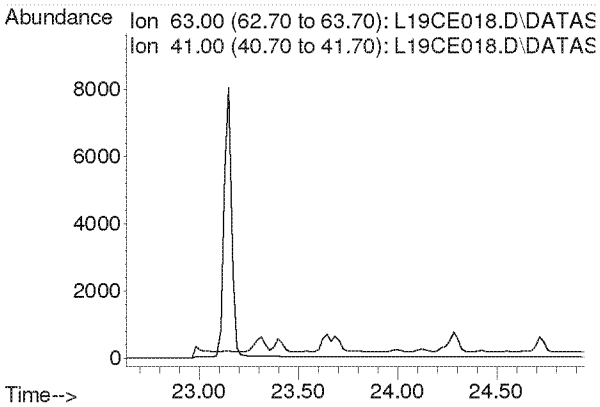


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

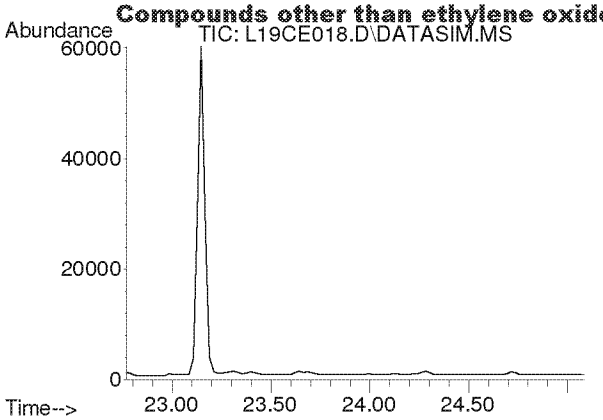
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

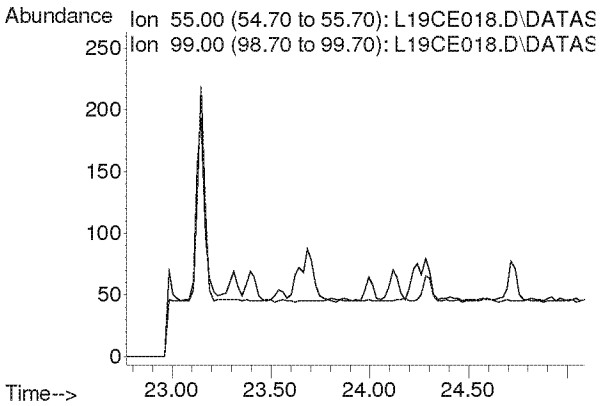


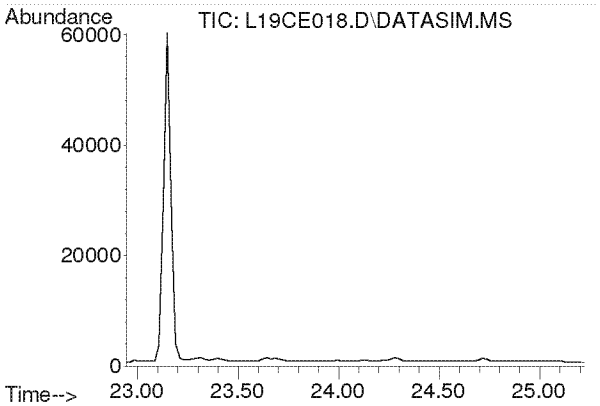
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



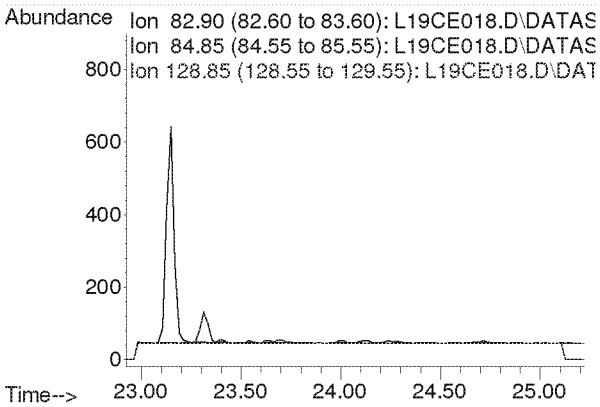


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

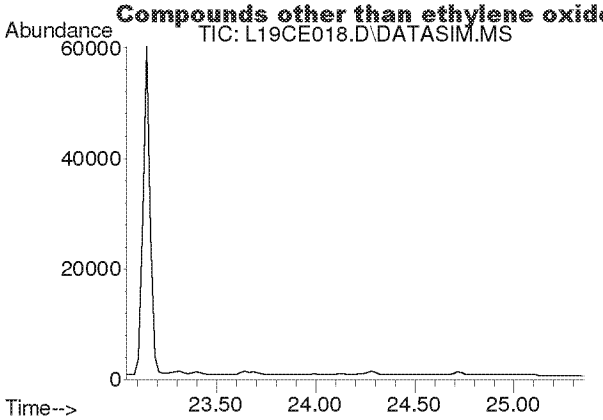
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

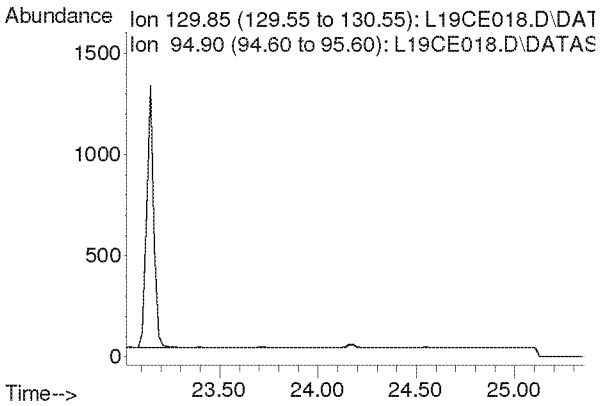


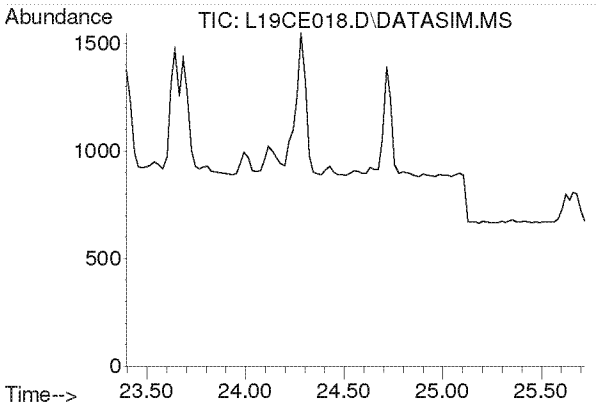
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



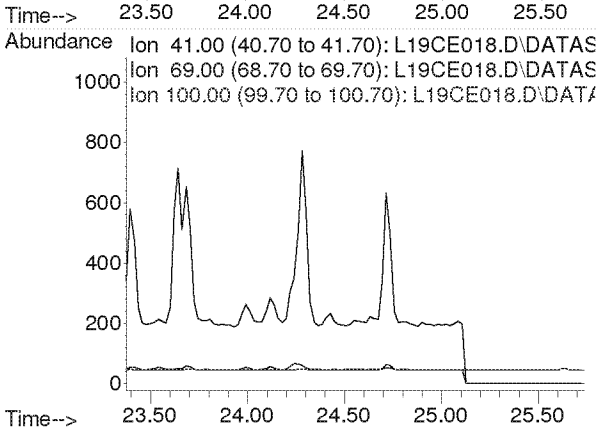


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

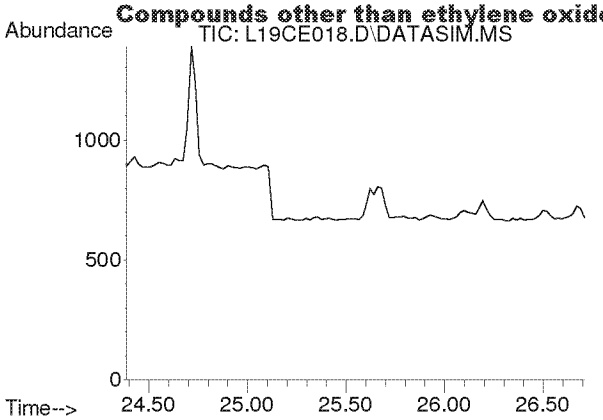
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

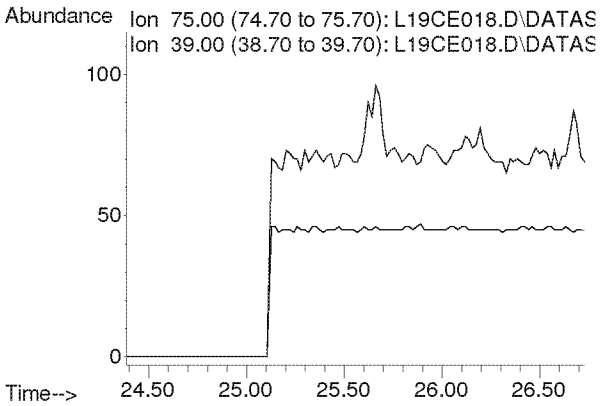


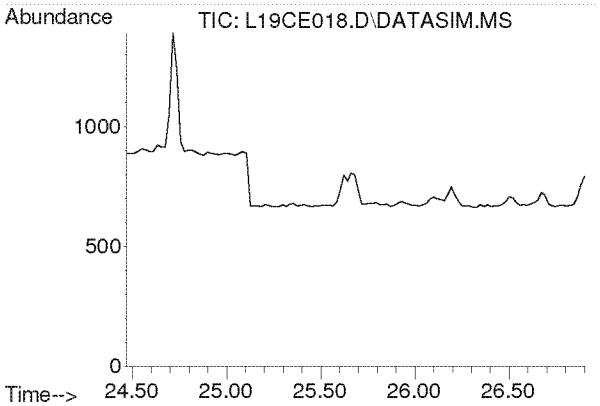
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



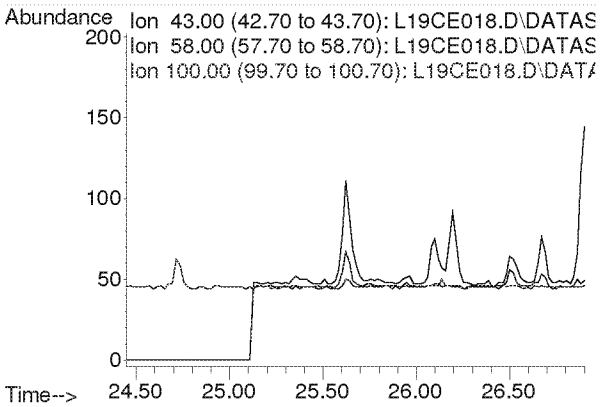


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

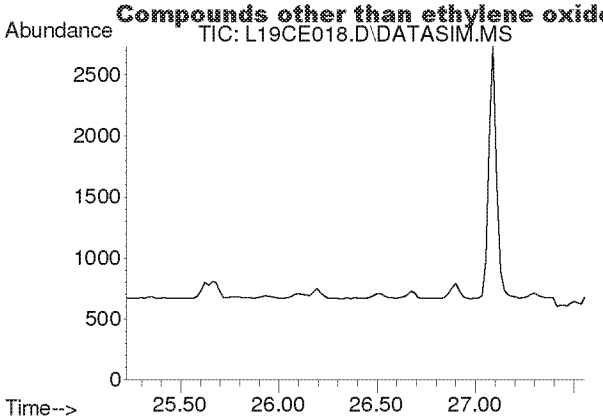
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

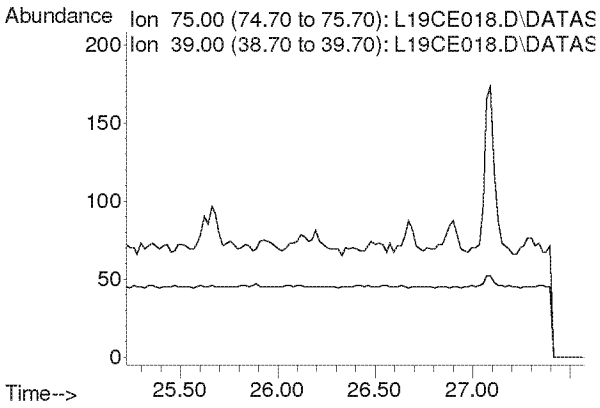


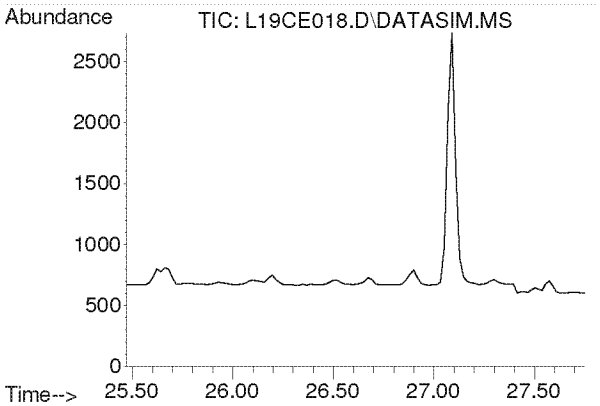
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



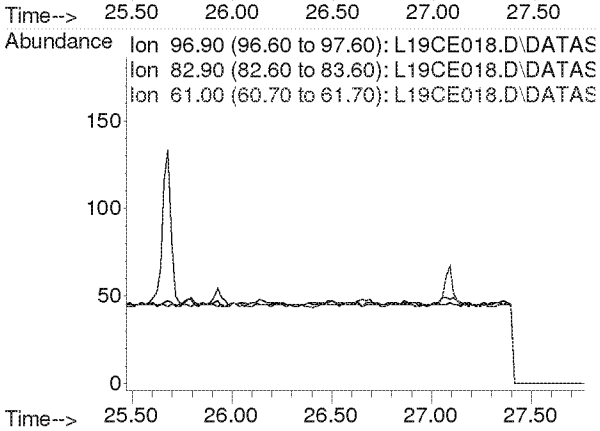


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

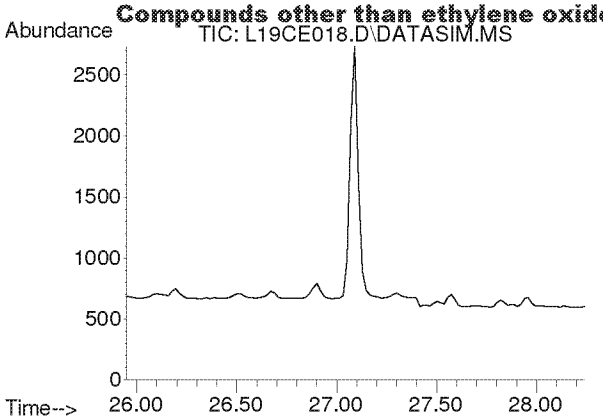
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

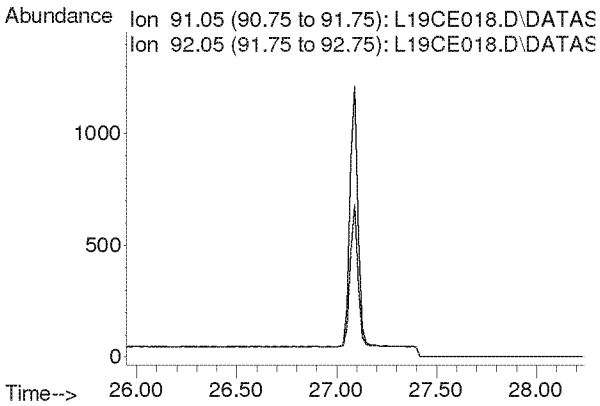


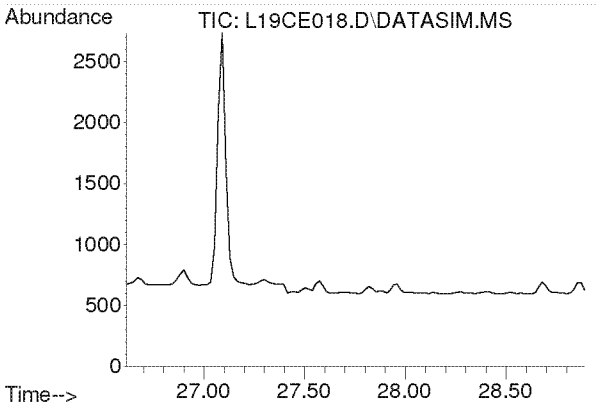
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



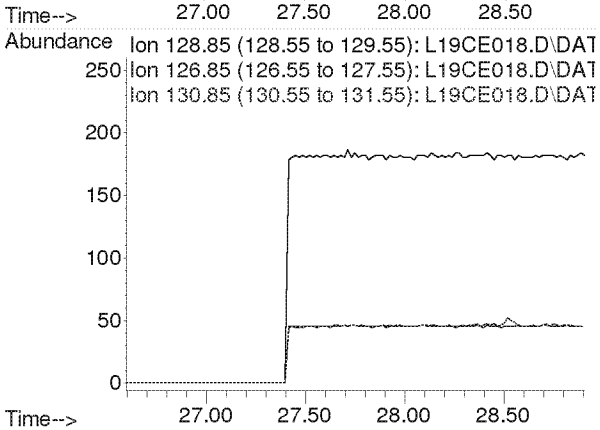


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

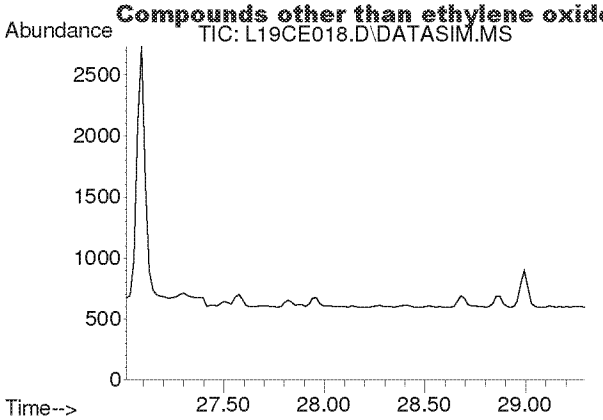
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

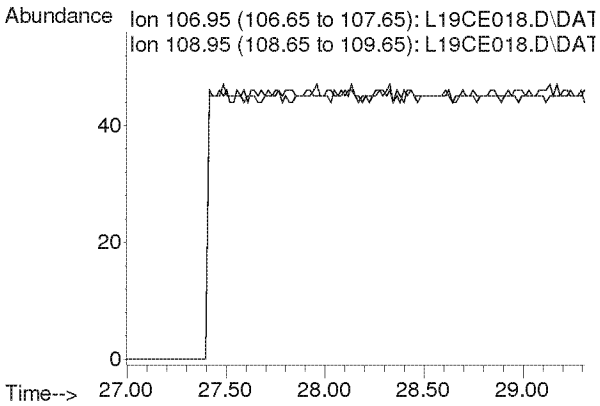


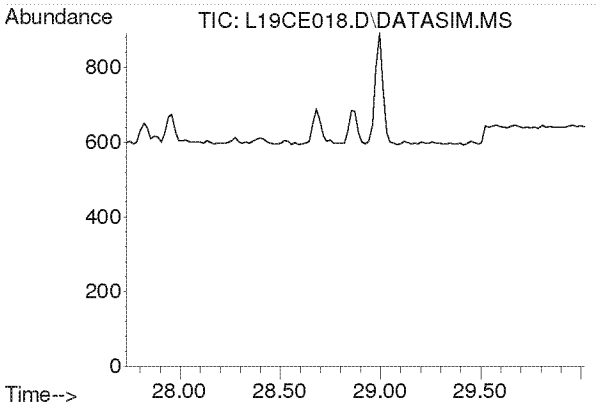
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



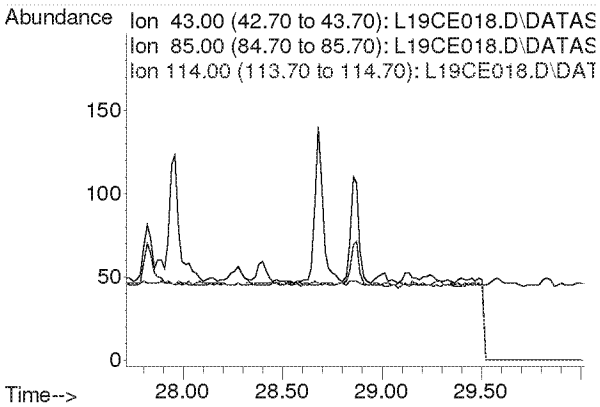


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

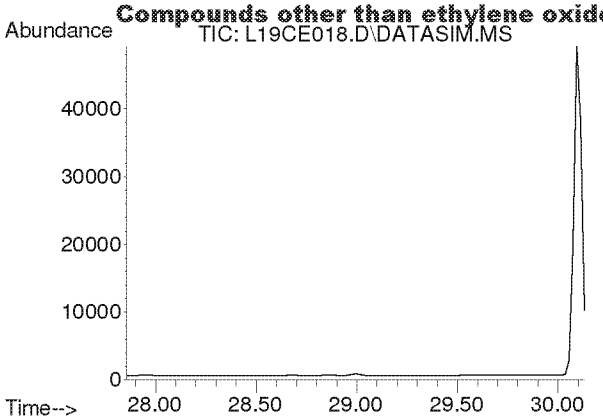
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

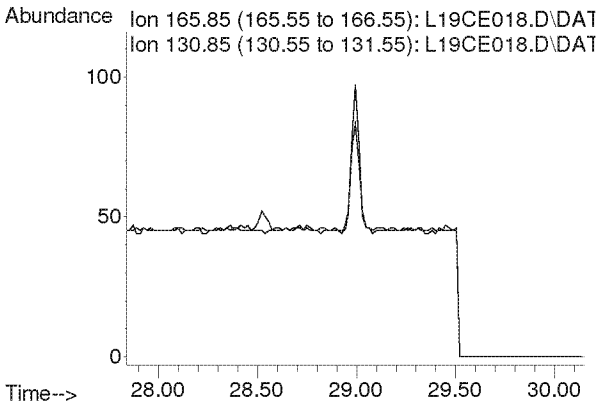


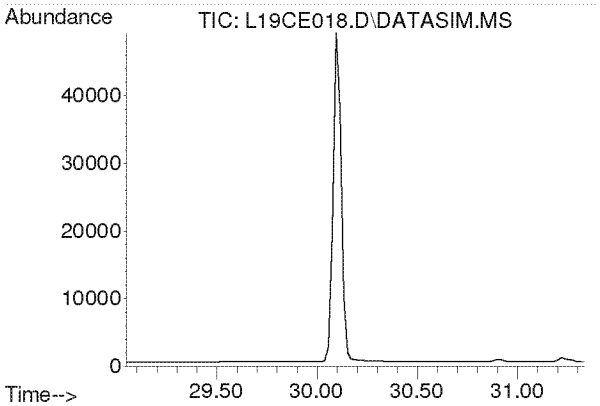
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



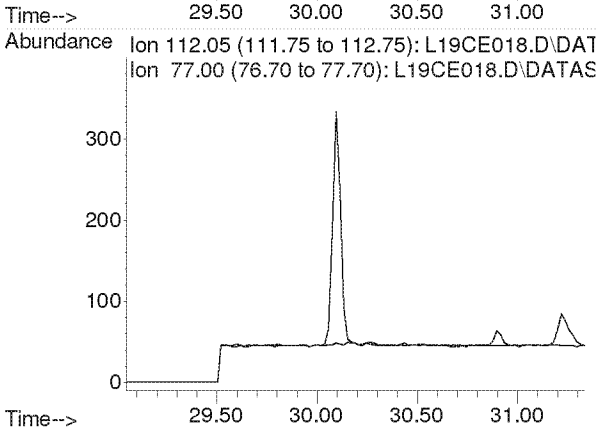


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

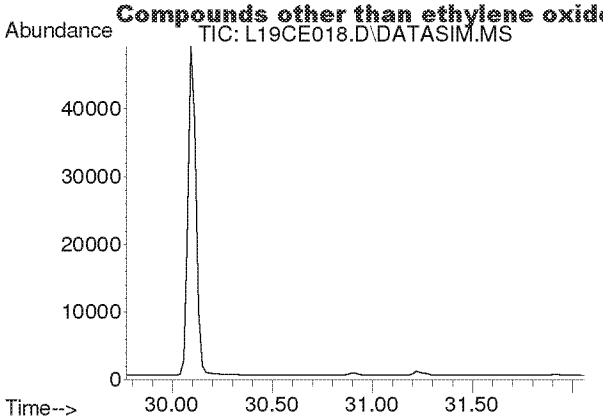
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

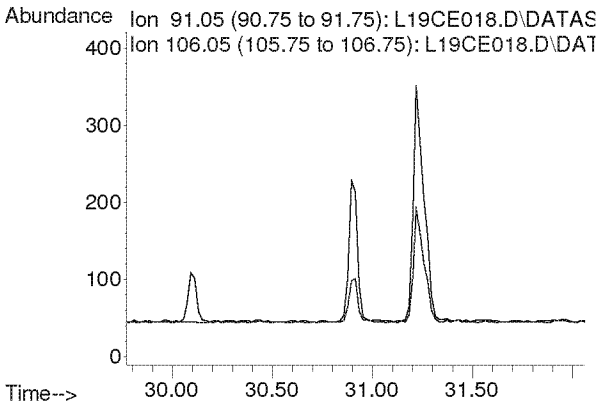


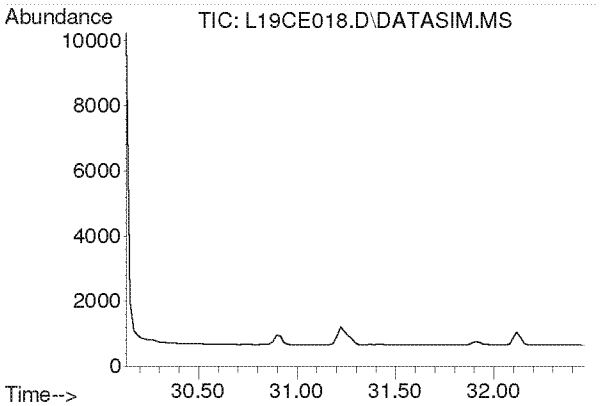
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



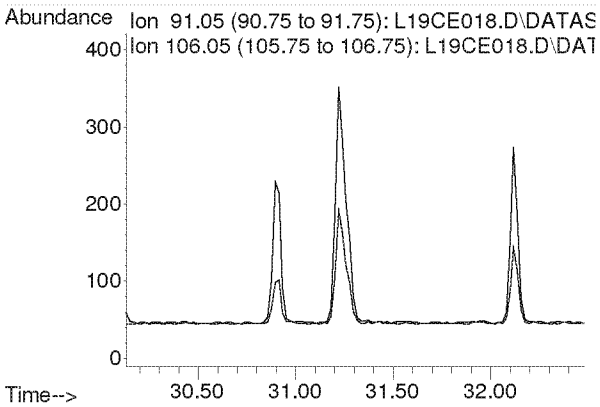


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

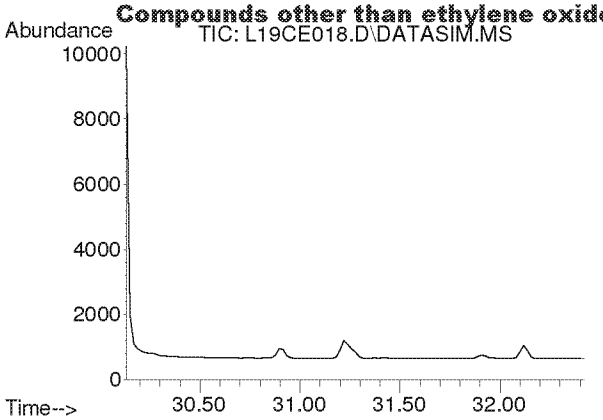
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

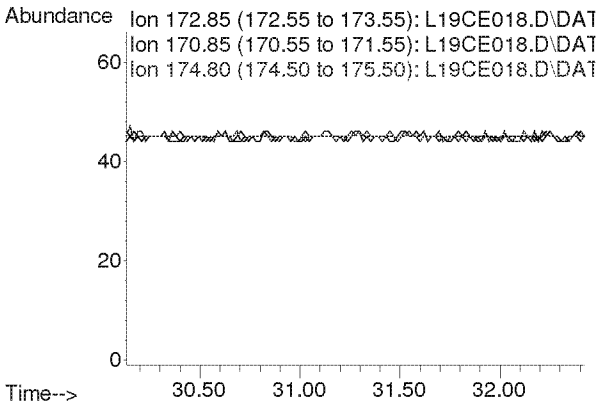


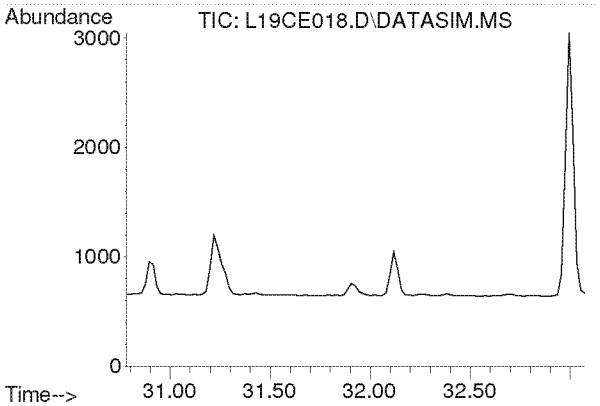
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



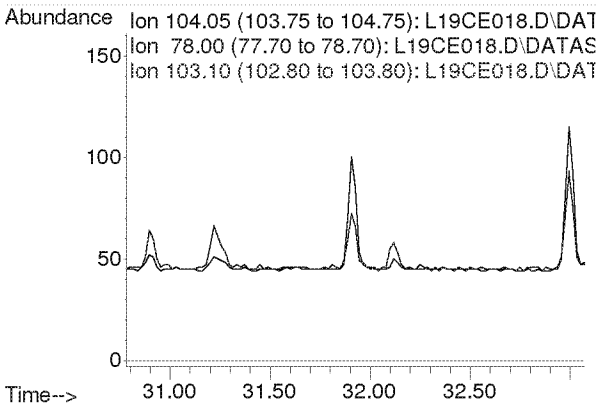


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

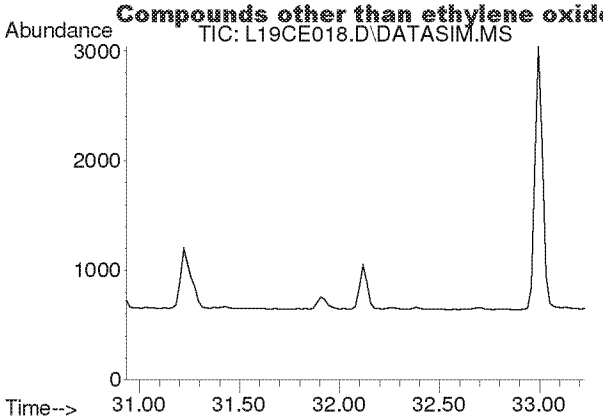
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

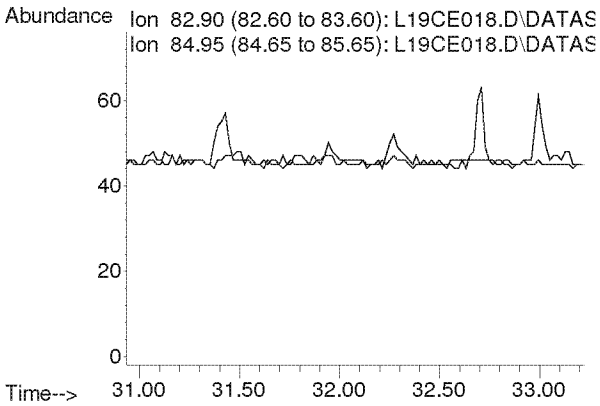


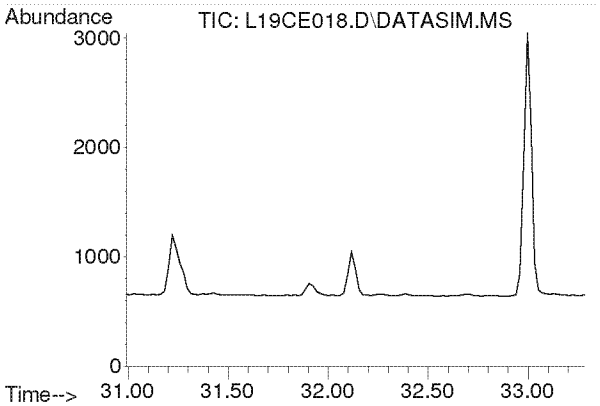
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



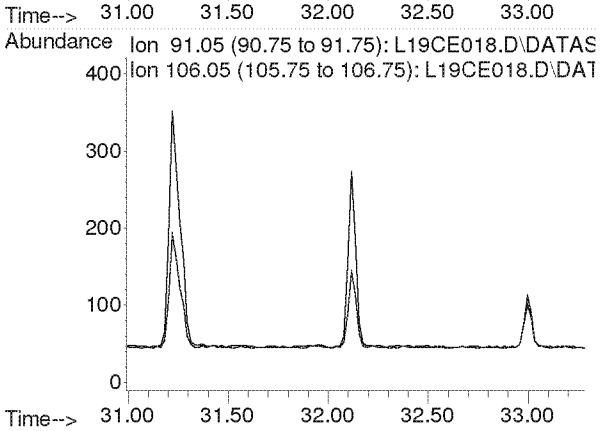


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

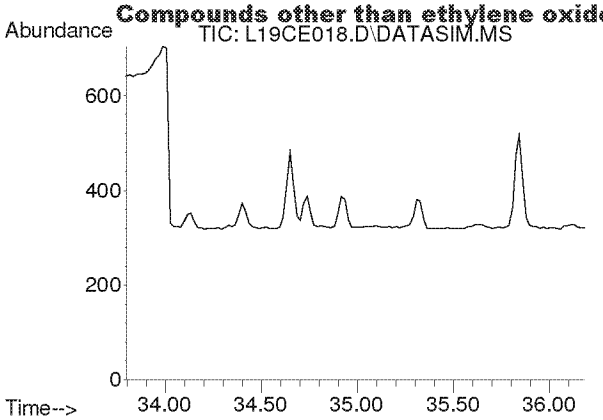
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

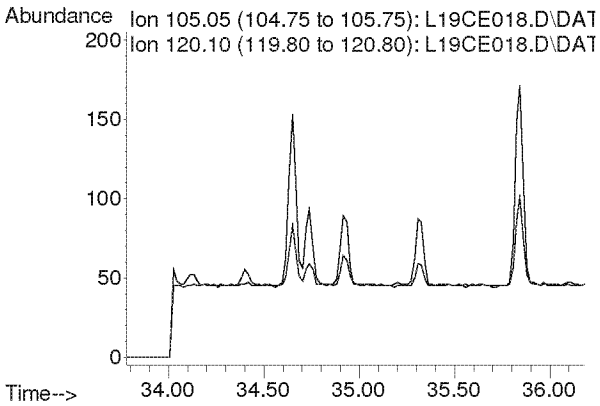


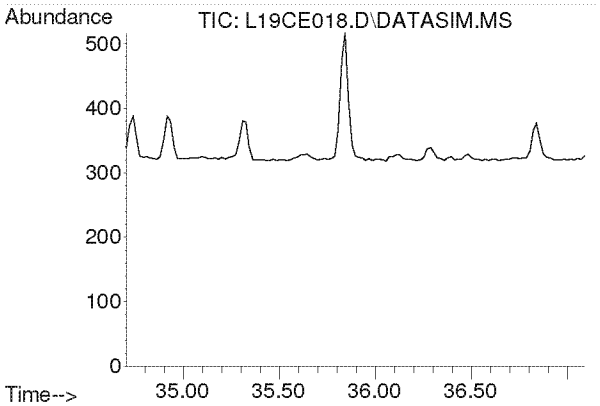
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



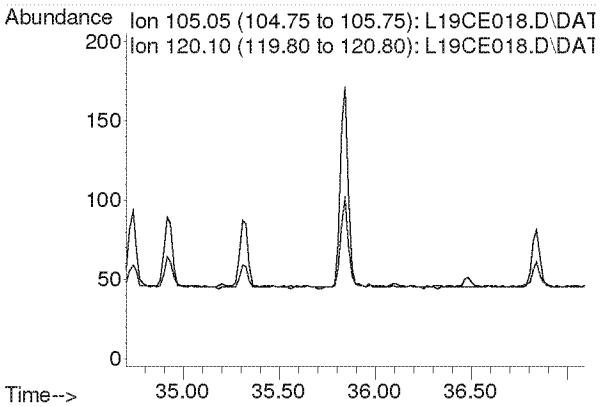


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

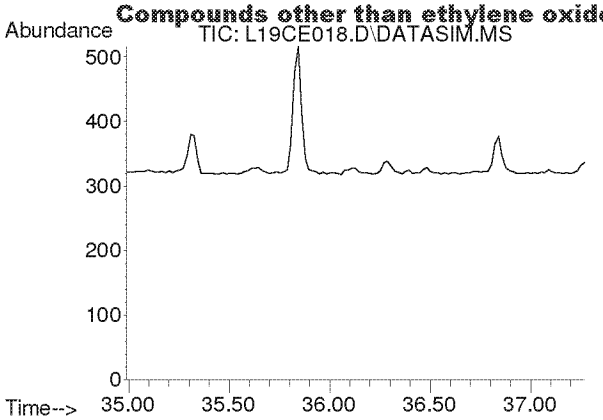
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

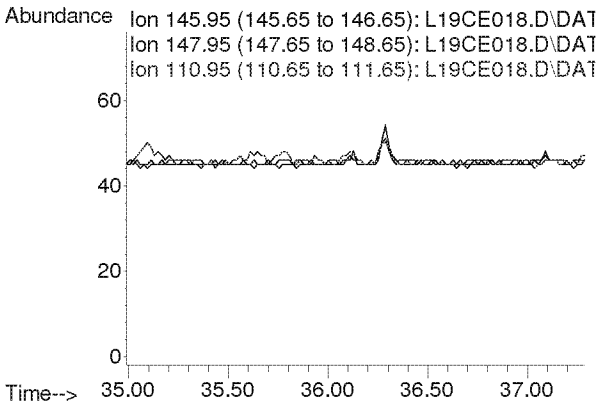


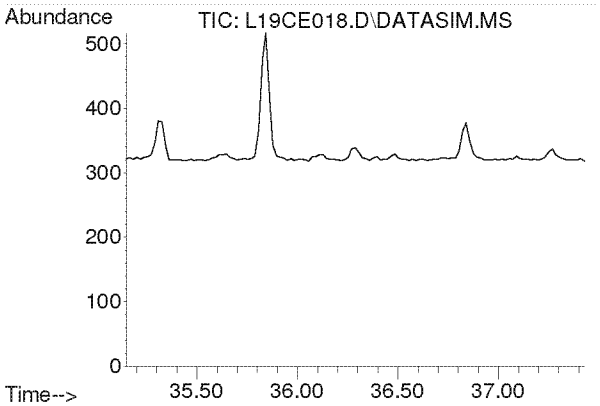
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



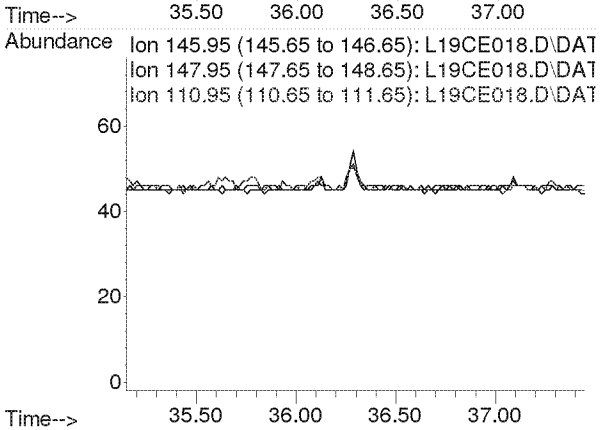


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

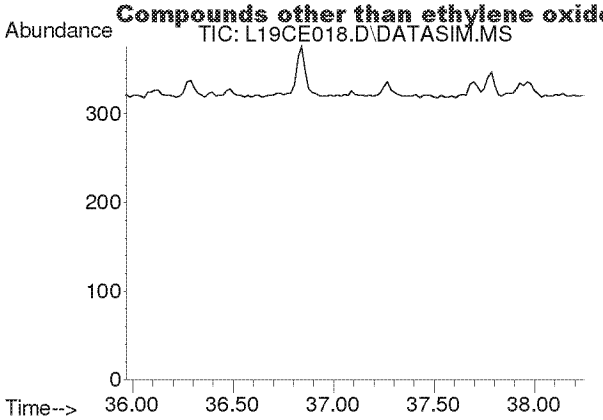
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

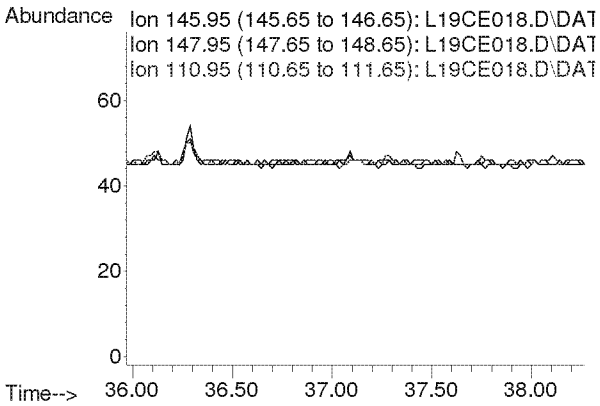


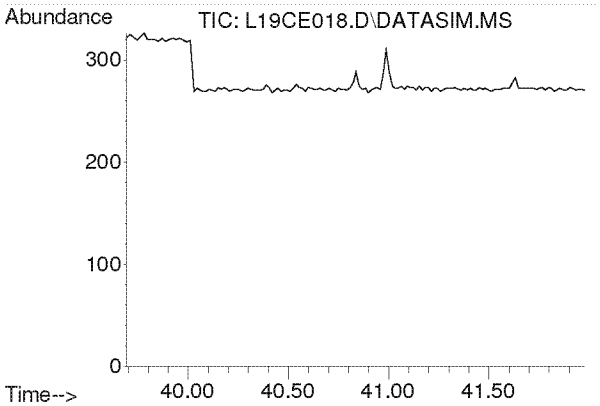
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



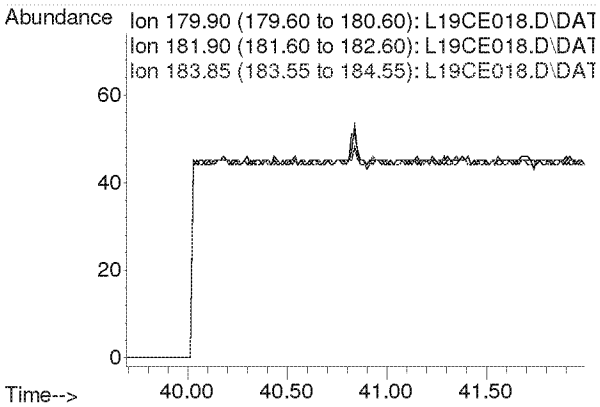


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

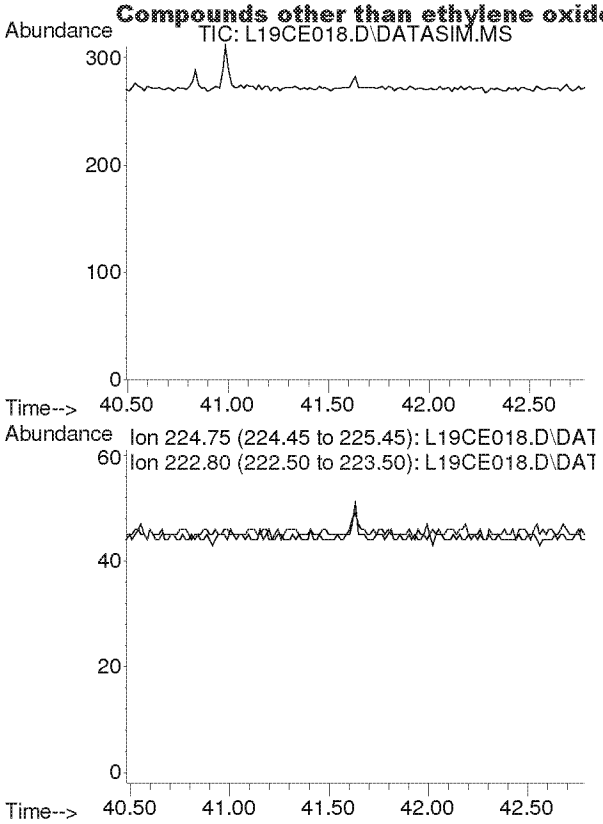
Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CE018.D
Acq: 6 Mar 2019 5:30 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

PREPARATION

PREPARATION BENCH SHEET

B9C0507

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **Printed: 3/5/2019 2:34:30PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
9030431-01 *TO-15 2019*	03/04/19 11:30	250	250	ERG Sampler Certs			
9030431-02 *TO-15 2019*	03/04/19 11:50	250	250	ERG Sampler Certs			
9030431-03 *TO-15 2019*	03/04/19 11:55	250	250	ERG Sampler Certs			
9030431-07 *TO-15 2019*	03/04/19 12:20	250	250	ERG Sampler Certs			
9030524-01 *TO-15 2019*	03/02/19 09:59	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only		Ethylene Oxide only
9030524-02 *TO-15 2019*	03/02/19 09:55	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only		Ethylene Oxide only
9030524-03 *TO-15 2019*	03/02/19 10:07	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only		Ethylene Oxide only
9030524-04 *TO-15 2019*	03/02/19 09:42	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only		Ethylene Oxide only
9030524-05 *TO-15 2019*	03/02/19 09:46	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only		Ethylene Oxide only
9030524-06 *TO-15 2019*	03/02/19 10:04	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only		Ethylene Oxide only
9030524-07 *TO-15 2019*	03/02/19 09:38	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only		Ethylene Oxide only
9030524-08 *TO-15 2019*	03/02/19 09:38	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only		Ethylene Oxide only
9030524-09 *TO-15 2019*	03/02/19 09:50	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only		Ethylene Oxide only
B9C0507-BLK1	03/04/19 08:00	250	250				

Spiking Witnessed By: Date

Preparation Reviewed By: Date 3-6-19

Extracts Received By: Date

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9C0507

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **Printed: 3/5/2019 2:34:30PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
B9C0507-DUP1	03/02/19 09:38	250	250		9030524-07		
B9C0507-DUP2	03/02/19 09:38	250	250		9030524-08		

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9030524-01

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Hinsdale South HS
Canister Number: 5143
City/State: Denver, IL
Lab Initial Can. Press. ("Hg): 29.9
AQS Code: —
Cleaning Batch # : H2-562
Collection Date: 3/1/19
Date Can. Cleaned: 2/14/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): —
TOXICS (Y/N): y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: RMB
Date: 2/21/19

Field Setup

Received by: J. Coughlin
Date: 3/1/19
Operator: J. Coughlin
MFC Setting: —
System #: 10076
Elapsed Timer Reset (Y/N): —
Setup Date: 3/1/19
Canister Valve Opened (Y/N): y @ 10:27
Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 03/02/19
Sample Duration (3 or 24 hr): 24 H
Operator: Coughlin
Elapsed Time:
Field Final Can. Press.: -8 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 0959
Relinquished by: Coughlin
Date: 03/02/19

Lab Recovery

Received by: M
Date: 3/5/19
Lab Final Can. Press.: 6.5 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 "Hg @ 10:22 / -8 "Hg @ 10:27
Deploy Temp: -2°C
Recovery Temp: -1°C

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

5

ERG Eastern Research Group, Inc.

ERG Lab ID # 903524-02

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Pond Park

Canister Number: SAT129

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.9

AQS Code:

Cleaning Batch # : H2-563

Collection Date: 03/01/19 - 03/02/19

Date Can. Cleaned: 2/14/19

Options:

SNMOC (Y/N): —

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 2/24/19

Field Setup

Received by: M Fluo

Date: 03/01/19

Operator: Fluo

MFC Setting:

System #: 10294

Elapsed Timer Reset (Y/N):

Setup Date: 03/01/19

Canister Valve Opened (Y/N): Y @ 1011

Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 03/02/19

Sample Duration (3 or 24 hr): 24 H

Operator: Fluo

Elapsed Time:

Field Final Can. Press.: -6 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 0955

Relinquished by: Fluo

Date: 03/02/19

Lab Recovery

Received by: M

Date: 3/5/19

Lab Final Can. Press.: 5.0 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: 03/01/19: cloudy, -2°C
Leak check: -9 @ 11:06 AM 1011: -28.5
03/02/19: cloudy, -1°C

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

6

ERG Eastern Research Group, Inc.

ERG Lab ID # 9030524-03

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: West Neighborhood

Canister Number: 18884

City/State: Willowbrook IL

Lab Initial Can. Press. ("Hg): 29.9

AQS Code:

Cleaning Batch # : H2-558

Collection Date: 03/01/19 - 03/02/19

Date Can. Cleaned: 2/7/19

Options:

SNMOC (Y/N): –

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # : –

METHANE (Y/N):

Relinquished by: RMB

Date: 2/21/19

Field Setup

Received by: M Fuzo

Date: 03/01/19

Operator: Fuzo

MFC Setting:

System #: 10310

Elapsed Timer Reset (Y/N): –

Setup Date: 03/01/19

Canister Valve Opened (Y/N): Y @ 10:47

Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 03/02/19

Sample Duration (3 or 24 hr): 24H

Operator: Fuzo

Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 1007

Relinquished by: Fuzo

Date: 03/02/19

Lab Recovery

Received by: M

Date: 3/5/19

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: 03/01/19: cloudy, -2°C
leak check -29 @ 10:42 AM / -28.5 @ 10:47 AM
03/02/19: -1°C

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

7

ERG Lab ID # 9030524-04

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Village Hall
Canister Number: 5005
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code: —
Cleaning Batch # : H2-565
Collection Date: 3/1/19
Date Can. Cleaned: 2/18/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: RMB
Date: 2/25/19

Field Setup

Received by: J. Coughlin
Date: 3/1/19
Operator: J. Coughlin
MFC Setting: —
System #: 1C313
Elapsed Timer Reset (Y/N): —
Setup Date: 3/1/19
Canister Valve Opened (Y/N): Y @ 09:40
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 03/02/19
Sample Duration (3 or 24 hr): 24H
Operator: Coughlin
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 09:42
Relinquished by: J. Coughlin
Date: 3/2/19

Lab Recovery

Received by: NC
Date: 3/5/19
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 "Hg @ 9:35 / -29 "Hg @ 09:40
Deploy Temp: -2°C
Recovery Temp: -1°C

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

8

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9030524-05

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Clower MS
Canister Number: SAT106
City/State: Bluff Ridge, IL
Lab Initial Can. Press. ("Hg): 29.9
AQS Code:
Cleaning Batch # : H2-562
Collection Date: 03/01/19 - 03/02/19
Date Can. Cleaned: 2/14/19
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N): —
Relinquished by: RMB
Date: 2/21/19

Field Setup

Received by: M Fluco
Date: 03/01/19
Operator: Fluco
MFC Setting:
System #: 10311
Elapsed Timer Reset (Y/N): X
Setup Date: 03/01/19
Canister Valve Opened (Y/N): Y @ 0951
Field Initial Can. Press.: -26 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 03/02/19
Sample Duration (3 or 24 hr): 24H
Operator: Fluco
Elapsed Time:
Field Final Can. Press.: -6 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 0946
Relinquished by: Fluco
Date: 03/02/19

Lab Recovery

Received by: NL
Date: 3/5/19
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: 03/01/19: cloudy, -2°C
Leak check -30 "Hg @ 0946 AM -29.5
03/02/19: cloudy, -1°C

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

9

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 903524-06

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower ES
Canister Number: SAT171
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code: N/A
Cleaning Batch # : H1-562
Collection Date: ~~2/26/19~~ 2/27/19 JAC → 3/1/19
Date Can. Cleaned: 2/14/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): —
TOXICS (Y/N): y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: KR
Date: 2/20/19

Field Setup

Received by: J. Coughlin
Date: ~~2/26/19~~ 3/1/19 3/1/19 JAC
Operator: J. Coughlin
MFC Setting: -
System #: ~~10293~~ 3/1/19 JAC 10077
Elapsed Timer Reset (Y/N): -
Setup Date: ~~2/26/19~~ 3/1/19 3/1/19 JAC
Canister Valve Opened (Y/N): y @ 10:38
Field Initial Can. Press.: -28 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 03/02/19
Sample Duration (3 or 24 hr): 24 H
Operator: Coughlin
Elapsed Time: ~~24~~ MF
Field Final Can. Press.: -7.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 1004
Relinquished by: Coughlin 3/1/19 JAC
Date: 03/02/19

Lab Recovery

Received by: NL
Date: 3/5/19
Lab Final Can. Press.: 6.5 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: ~~-7 "Hg @ 11:20~~ -28.5 "Hg @ 10:33 / -28 "Hg @ 10:38
Deploy Temp: ~~22°F~~ JAC 3/1/19 -2°C 3/1/19 JAC
Recovery Temp: -1°C
~~VOID, Lk Ck pressure above -28~~ 3/1/19 JAC
- Bad regulator caused pressure to be > -28, using different regulator on 3/1/19 deployment (10077)

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

10

ERG Eastern Research Group, Inc
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9030524-07

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WB D Warehouse
Canister Number: SAT117
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-565
Collection Date: 03/01 - 03/02/19
Date Can. Cleaned: 2/18/19
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : Y-5076
METHANE (Y/N): —
Relinquished by: RMB
Date: 2/25/19 RMB 2/25/19

Field Setup

Received by: M Fuco
Date: 03/01/19
Operator: Fuco
MFC Setting:
System #: 10314
Elapsed Timer Reset (Y/N):
Setup Date: 03/01/19
Canister Valve Opened (Y/N): Y @ 0931
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/2/19
Sample Duration (3 or 24 hr): 24 hr
Operator: M. Fuco
Elapsed Time:
Field Final Can. Press.: -6 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 0913
Relinquished by: M. Fuco
Date: 3/3/19

Lab Recovery

Received by: NL
Date: 3/5/19
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: 03/01/19: cloudy, -2°C 3/2/19: -1°C
Leak check -30"Hg @ 0925AM -3.5

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

ED_002475_00000355-00455

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9030524-08

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: NB Warehouse - Duplicate
Canister Number: 5076
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H2-565
Collection Date: 03/01/19
Date Can. Cleaned: 2/18/19
Options:
SNMOC (Y/N): –
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : SAT 117
METHANE (Y/N): –
Relinquished by: RMB
Date: 2/25/19

Field Setup

Received by: M Fuco
Date: 03/01/19
Operator: Fuco
MFC Setting:
System #: 10315
Elapsed Timer Reset (Y/N):
Setup Date: 03/01/19
Canister Valve Opened (Y/N): Y @ 0931
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/2/19
Sample Duration (3 or 24 hr): 24 hr
Operator: M. Fuco
Elapsed Time: –
Field Final Can. Press.: -7.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 0935
Relinquished by: M. Fuco
Date: 3/2/19

Lab Recovery

Received by: NC
Date: 3/5/19
Lab Final Can. Press.: 5.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: 03/01/19 : Cloudy, -2°C
Leak check -29 "Hg @ 0925 am -28.5 MZ

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9030524-09

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: ~~Grover ES~~ 3/1/19 JAC Water Tower
Canister Number: SAT059
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.9
AQS Code: N/A
Cleaning Batch # : HZ-563
Collection Date: ~~2/26/19~~ 3/1/19 3/1/19 JAC
Date Can. Cleaned: 2/14/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): —
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: RMB
Date: 2/21/19

Field Setup

Received by: J. Coughlin
Date: 3/1/19
Operator: J. Coughlin
MFC Setting: —
System #: ~~10293~~ 3/1/19 JAC 10312
Elapsed Timer Reset (Y/N): —
Setup Date: 3/1/19
Canister Valve Opened (Y/N): Y @ 10:01
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 03/02/19
Sample Duration (3 or 24 hr): 24H
Operator: Coughlin
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one) 3/1/19 JAC
Canister Valve Closed (Y/N): Y @ 0950
Relinquished by: Coughlin
Date: 03/02/19

Lab Recovery

Received by: NC
Date: 3/5/19
Lab Final Can. Press.: 3.0 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one) 3/1/19 JAC
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: ~~VOID, Pressure above -28~~ 3/1/19 JAC
Bad regulator caused pressure above -28, new regulator was used and showed < -28
Being used on 3/1/19 now at the Water Tower
Leak check: -29 "Hg @ 09:56 / -28.5 "Hg @ 10:01
Deploy Temp: -2°C Recovery Temp: 7°C

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy