Compounds other than ethylene oxide were not quantitated.

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

Sequence ID: N19CM 1903031	**Instrument:** MS4	**Batch:** 1390/1305
Cal Curve (Method): 9010001	**Analyst:** KSS	**Date Analyzed:** 3/13/19
10% Review Sample IDs: 9031220-09	**Reviewer:** DST	**Date:** 3/25/19
Optional Additional Review Sample IDs:	**Reviewer:**	**Date:**

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
BFB Instrument Tune Performance Check – one per analysis sequence	Evaluation criteria presented in Section 16.1.1	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		
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)	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		
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	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		
Method Blank Analysis – one per analysis sequence	1) < 3xMDL or 0.2ppbv, whichever is lower 2) Internal Standard (IS) area response within < ±40% and IS Retention Time (RT) within ±0.33 min. of most recent initial calibration	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		

Checked 9031220-09 spectra for t-2-butene. None found DST 3/25/19

Compounds other than ethylene oxide were not quantitated.

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

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
Replicate Analysis – one per analysis sequence /Duplicate Sample	< 25% RPD for compounds greater than 5 times the MDL	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	KSS 3/18/19	RMB 3/22/19	NA		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 3/22/19	DST 3/25/19		9031220-09 126 (4.77ppbv) / 30628(0.2079) = 0.0944 ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	KSS 3/18/19	RMB 3/22/19	DST 3/25/19		

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

N19CM002 ethylene oxide $\frac{3199 \times 4.77}{31166 \times 0.2079} = 2.36$ ppbv

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

1903031

Instrument: ERGMS#4

Calibnration ID: 9010001

Printed: 3/13/2019 2:32:47PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1903031-CCV1	QC		1		9C05010	8L13002		
B9C1305-BLK1	QC		2			8L13002		
9031220-01	TO-15 2019 Ethylene Oxide	A	3			8L13002	U.S. Environmental Protection Agency - OAQ	
9031220-02	TO-15 2019 Ethylene Oxide	A	4			8L13002	U.S. Environmental Protection Agency - OAQ	
B9C1305-DUP1	QC		5			8L13002		
9031220-03	TO-15 2019 Ethylene Oxide	A	6			8L13002	U.S. Environmental Protection Agency - OAQ	
B9C1305-DUP2	QC		7			8L13002		
9031220-04	TO-15 2019 Ethylene Oxide	A	8			8L13002	U.S. Environmental Protection Agency - OAQ	
9031220-05	TO-15 2019 Ethylene Oxide	A	9			8L13002	U.S. Environmental Protection Agency - OAQ	
9031220-06	TO-15 2019 Ethylene Oxide	A	10			8L13002	U.S. Environmental Protection Agency - OAQ	
9031220-07	TO-15 2019 Ethylene Oxide	A	11			8L13002	U.S. Environmental Protection Agency - OAQ	
9031220-08	TO-15 2019 Ethylene Oxide	A	12			8L13002	U.S. Environmental Protection Agency - OAQ	
9031220-09	TO-15 2019 Ethylene Oxide	A	13			8L13002	U.S. Environmental Protection Agency - OAQ	

Samples Loaded By — Date: 3/13/19

Data Processed By — Date: 3/18/19

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\N19CM.s
Comment: Analyzed 03-13-19,9010001 exp 04-04-19, N19CM
Operator: KSS
Data Path: C:\MSDCHEM\1\DATA\N19CM\

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	N19CM001	BFB	BFB
2)	Sample	2	N19CM002	9010001	1903031-CCV1
3)	Sample	3	N19CM003	9010001	B9C1305-BLK1
4)	Sample	4	N19CM004	9010001	9031220-01
5)	Sample	5	N19CM005	9010001	9031220-02
6)	Sample	6	N19CM006	9010001	B9C1305-DUP1
7)	Sample	7	N19CM007	9010001	9031220-03
8)	Sample	8	N19CM008	9010001	B9C1305-DUP2
9)	Sample	9	N19CM009	9010001	9031220-04
10)	Sample	10	N19CM010	9010001	9031220-05
11)	Sample	11	N19CM011	9010001	9031220-06
12)	Sample	12	N19CM012	9010001	9031220-07
13)	Sample	13	N19CM013	9010001	9031220-08
14)	Sample	14	N19CM014	9010001	9031220-09
15)	Sample	100	OFF	FIDOFF	OFF

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	N19CM001	80ML 8L13001,	1
Sample	2	1903031-CCV1	9010001	N19CM002	80ML 8L13001,9C05010	1
Sample	3	B9C1305-BLK1	9010001	N19CM003	80ML 8L13001,T-H2-572	1
Sample	4	9031220-01	9010001	N19CM004	HINSDALE SOUTH 3/10/19	1
Sample	5	9031220-02	9010001	N19CM005	VILLAGE HALL C1 3/10/19	1
Sample	6	B9C1305-DUP1	9010001	N19CM006	VILLAGE HALL R1 3/10/19	1
Sample	7	9031220-03	9010001	N19CM007	VILLAGE HALL C2 3/10/19	1
Sample	8	B9C1305-DUP2	9010001	N19CM008	VILLAGE HALL R2 3/10/19	1
Sample	9	9031220-04	9010001	N19CM009	WATERTOWER 3/10/19	1
Sample	10	9031220-05	9010001	N19CM010	GOWER E.S. 3/10/19	1
Sample	11	9031220-06	9010001	N19CM011	W. NEIGHBORHOOD 3/10/19	1
Sample	12	9031220-07	9010001	N19CM012	WILLOW POND 3/10/19	1
Sample	13	9031220-08	9010001	N19CM013	WILLOWBROOK 3/10/19	1
Sample	14	9031220-09	9010001	N19CM014	GOWER M.S. 3/10/19	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\N19CM.SEQ
Date: 03-14-2019
Time: 08:14:30
Int. Std Volume: 80 cc

Sample Name	Inlet #	Auto Samp Pos	Cal Vol.	Std Vol.	Method	Time
BFB	1	1	0	0	C:\Smart\BFB.MPT	12:00
1903031-CCV1	3	1	250	0	C:\Smart\TO-15_MS4.MPT	12:00
B9C1305-BLK1	4	1	250	0	C:\Smart\TO-15_MS4.MPT	12:00
9031220-01	1	1	250	0	C:\Smart\TO-15_MS4.MPT	12:00
9031220-02	1	2	250	0	C:\Smart\TO-15_MS4.MPT	12:00
B9C1305-DUP1	1	2	250	0	C:\Smart\TO-15_MS4.MPT	12:00
9031220-03	1	3	250	0	C:\Smart\TO-15_MS4.MPT	12:00
B9C1305-DUP2	1	3	250	0	C:\Smart\TO-15_MS4.MPT	12:00
9031220-04	1	4	250	0	C:\Smart\TO-15_MS4.MPT	12:00
9031220-05	1	5	250	0	C:\Smart\TO-15_MS4.MPT	12:00
9031220-06	1	6	250	0	C:\Smart\TO-15_MS4.MPT	12:00
9031220-07	1	7	250	0	C:\Smart\TO-15_MS4.MPT	12:00
9031220-08	1	8	250	0	C:\Smart\TO-15_MS4.MPT	12:00
9031220-09	1	9	250	0	C:\Smart\TO-15_MS4.MPT	12:00

Compounds other than ethylene oxide were not quantitated.

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

3/13/2019 12:54:57 PM
Leak Check for C:\Smart\N19CM.SEQ
Report File: C:\Smart\N19CM.LCR
Leak Check Method: Evacuation
Pressurize/Evacuate time(sec) 15
Equilibration time(sec) 30
Maintanance time(sec) 60

Sample Inlet	Auto1	Auto2	Auto3	Start	End	Rate(psi/min)
1	1	---	---	3.3	3.4	0.10
1	2	---	---	3.1	3.2	0.10
1	3	---	---	3.1	3.2	0.10
1	4	---	---	3.0	3.1	0.10
1	5	---	---	3.0	3.1	0.10
1	6	---	---	3.0	3.1	0.10
1	7	---	---	3.0	3.1	0.10
1	8	---	---	3.0	3.1	0.10
1	9	---	---	3.0	3.1	0.10

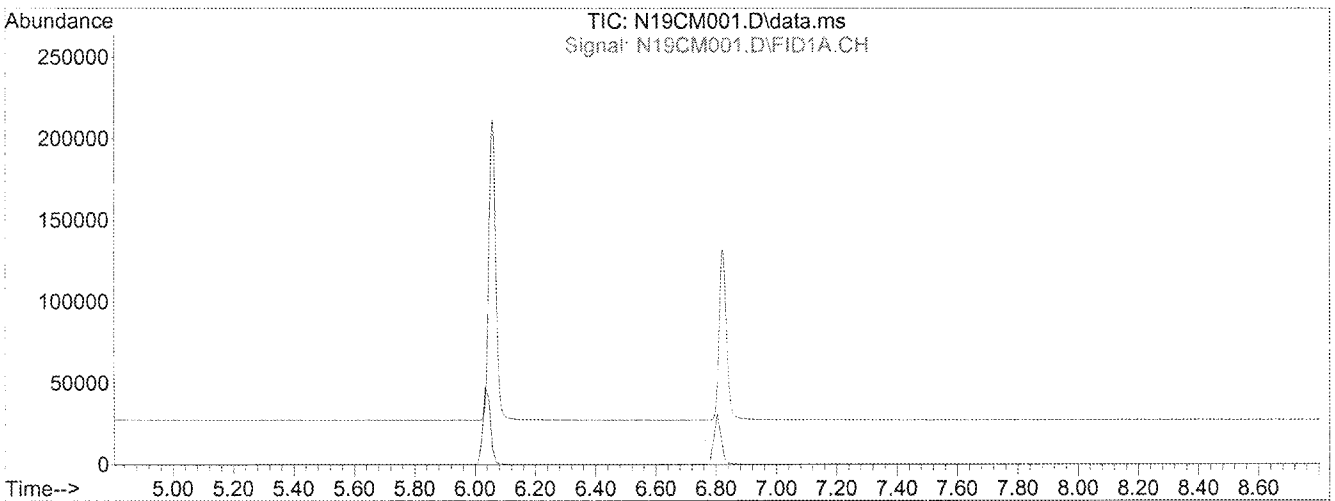
Compounds other than ethylene oxide were not quantitated.

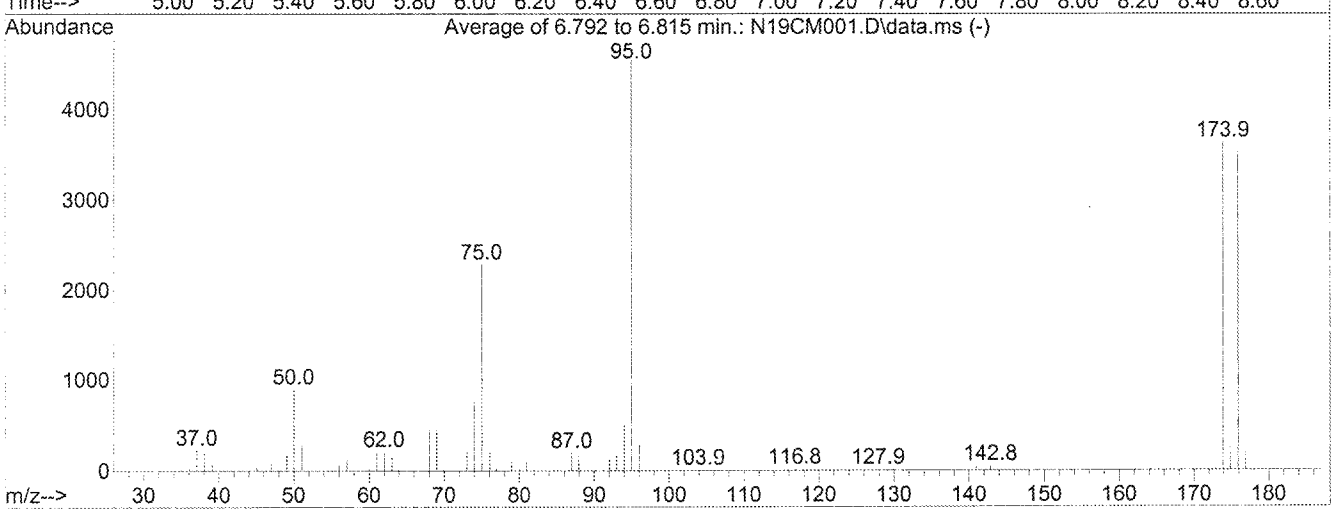
BFB

```
Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM001.D
Acq On    : 13 Mar 2019   9:33 am (#1); 13-Mar-19, 09:28:51 (#2)
Operator  : KSS
Sample    : BFB
Misc      : 80ML 8L13001, (Sig #1);  (Sig #2)
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: RTEINT.P
Integration File signal 2: rteint2.p

Method    : C:\msdchem\1\METHODS\9010001.M
Title     : TO-15 by Selective Ion Analysis
Last Update  : Sat Jan 05 11:26:00 2019
```





AutoFind: Scans 208, 209, 210; Background Corrected with Scan 204

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.8	898	PASS
75	95	30	66	50.4	2288	PASS
95	95	100	100	100.0	4544	PASS
96	95	5	9	6.2	282	PASS
173	174	0.00	2	0.6	20	PASS
174	95	50	120	79.9	3631	PASS
175	174	4	9	7.1	256	PASS
176	174	93	101	97.2	3530	PASS
177	176	5	9	6.4	227	PASS

Compounds other than ethylene oxide were not quantitated.

istdrpt

KSS
3/18/19

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\N19CM\N19CM001.D
Tune Time : 13 Mar 2019 9:33 am

9010001	Avg Area	42092	90188	72589
	+40%	58928	126263	101625
	-40%	25255	54113	43554

File	Sample	Internal Standard Responses		
N19CM002.D	1903031-CCV1	31166	68566	59060
N19CM003.D	B9C1305-BLK1	29886	69573	56454
N19CM004.D	9031220-01	32204	70051	57728
N19CM005.D	9031220-02	30088	62830	52753
N19CM006.D	B9C1305-DUP1	30473	67025	53840
N19CM007.D	9031220-03	29139	61088	51580
N19CM008.D	B9C1305-DUP2	28663	59790	50665
N19CM009.D	9031220-04	30290	65288	53242
N19CM010.D	9031220-05	29814	62904	52525
N19CM011.D	9031220-06	29274	61600	51832
N19CM012.D	9031220-07	29546	62194	50979
N19CM013.D	9031220-08	30799	66422	53848
N19CM014.D	9031220-09	30628	63259	52900

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

Created: Thu Mar 14 08:20:41 2019 MSD_4

Compounds other than ethylene oxide were not quantitated.

KSS 3/18/19

C:\MSDCHEM\1\DATA\N19CM\N19CM011.D

Compound Name			IS-Hexane-d14	IS-Hexane-d14	IS-1,4-Difluorobenzene	IS-1,4-Difluorobenzene	IS-Chlorobenzene-d5	IS-Chlorobenzene-d5
Labels	Date Acquired	Data File Name	(# 1) Target Response	(# 1) Ret Time	(# 29) Target Response	(# 29) Ret Time	(# 43) Target Response	(# 43) Ret Time
	3/14/2019 12:31	N19CM014.D	30628	20.03	63259	23.20	52900	30.14
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	**42092**		**20.04**		**90188**		**23.22**		**72589**		**30.16**	
	3/13/2019 10:13	N19CM002.D	31166	74	20.03	-0.01	68566	76	23.20	-0.02	59060	81	30.14	-0.02
	3/13/2019 11:14	N19CM003.D	29886	71	20.03	-0.01	69573	77	23.20	-0.02	56454	78	30.14	-0.02
	3/13/2019 14:16	N19CM004.D	32204	77	20.03	-0.01	70051	78	23.20	-0.02	57728	80	30.14	-0.02
	3/13/2019 15:17	N19CM005.D	30088	71	20.03	-0.01	62830	70	23.20	-0.02	52753	73	30.14	-0.02
	3/13/2019 16:19	N19CM006.D	30473	72	20.04	0	67025	74	23.20	-0.02	53840	74	30.14	-0.02
	3/13/2019 17:20	N19CM007.D	29139	69	20.03	-0.01	61088	68	23.20	-0.02	51580	71	30.14	-0.02
	3/13/2019 18:22	N19CM008.D	28663	68	20.04	0	59790	66	23.20	-0.02	50665	70	30.14	-0.02
	3/13/2019 19:24	N19CM009.D	30290	72	20.03	-0.01	65288	72	23.20	-0.02	53242	73	30.14	-0.02
	3/13/2019 20:25	N19CM010.D	29814	71	20.03	-0.01	62904	70	23.20	-0.02	52525	72	30.14	-0.02
	3/13/2019 21:26	N19CM011.D	29274	70	20.03	-0.01	61600	68	23.20	-0.02	51832	71	30.14	-0.02
	3/13/2019 22:28	N19CM012.D	29546	70	20.03	-0.01	62194	69	23.20	-0.02	50979	70	30.14	-0.02
	3/13/2019 23:29	N19CM013.D	30799	73	20.03	-0.01	66422	74	23.19	-0.03	53848	74	30.14	-0.02
	3/14/2019 12:31	N19CM014.D	30628	73	20.03	-0.01	63259	70	23.20	-0.02	52900	73	30.14	-0.02

DST 3/25/19

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9C05010

Description:	2.50 ppbv ICV/CCV	Expires:	04/04/19
Standard Type:	Calibration Stan	Prepared:	03/05/19
Solvent:	Scientific Air	Prepared By:	Kameron Singer
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	03/05/19 12:04 by KSS

canister# 3218

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

Randy Bowen — Reviewed By

3/22/19 — Date

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9C05010

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

Parent Standards used in this standard:

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

Reviewed By _____ Date _____

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

LSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM002.D
Acq On : 13 Mar 2019 10:13 am (#1); 13-Mar-19, 10:07:39 (#2)
Operator : KSS
Sample : 1903031-CCV1
Misc : 80ML 8L13001,9C05010
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 18 12:47:13 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IS	IS-Hexane-d14	1.000	1.000	0.0	100	0.00
2	CT	Acetylene	0.330	0.323	2.1	100	0.00
3	CT	Propylene	0.480	0.497	-3.5	100	0.00
4	CT	Dichlorodifluoromethane	1.649	1.894	-14.9	100	0.00
5	CT	Chloromethane	0.560	0.586	-4.6	100	0.00
6	CT	Dichlorotetrafluoroethane	1.568	1.940	-23.7	100	0.00
7	CT	Vinyl Chloride	0.601	0.610	-1.5	100	0.00
8	CT	1,3-Butadiene	0.448	0.432	3.6	100	0.00
9	CT	Ethylene Oxide	0.208	0.196	5.8	100	0.00
10	CT	Bromomethane	0.492	0.532	-8.1	100	0.00
11	CT	Chloroethane	0.312	0.333	-6.7	100	0.00
12	CT	Acetonitrile	0.450	0.474	-5.3	100	0.00
13	CT	Acrolein	0.226	0.217	4.0	100	0.00
14	CT	Trichlorofluoromethane	1.625	1.714	-5.5	100	0.00
15	CT	Acrylonitrile	0.384	0.374	2.6	100	0.00
16	CT	1,1-Dichloroethene	0.894	1.052	-17.7	100	0.00
17	CT	Methylene Chloride	0.641	0.724	-12.9	100	0.00
18	CT	Carbon Disulfide	1.577	1.679	-6.5	100	0.00
19	CT	Trichlorotrifluoroethane	1.114	1.286	-15.4	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.493	0.488	1.0	100	0.00
21	CT	1,1-Dichloroethane	0.889	0.966	-8.7	100	0.00
22	CT	Methyl tert-Butyl Ether	1.266	1.290	-1.9	100	0.00
23	CT	Chloroprene	0.697	0.700	-0.4	100	0.00
24	CT	cis-1,2-Dichloroethylene	2.656	2.742	-3.2	100	0.00
25	CT	Bromochloromethane	0.287	0.293	-2.1	100	0.00
26	CT	Chloroform	0.893	1.041	-16.6	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.405	1.435	-2.1	100	0.00
28	CT	1,2-Dichloroethane	0.506	0.602	-19.0	100	0.00
29	IS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.473	0.524	-10.8	100	0.00
31	CT	Benzene	0.593	0.620	-4.6	100	0.00
32	CT	Carbon Tetrachloride	0.457	0.571	-24.9	100	0.00
33	CT	tert-Amyl Methyl Ether	0.564	0.558	1.1	100	0.00
34	CT	1,2-Dichloropropane	0.217	0.232	-6.9	100	0.00
35	CT	Ethyl Acrylate	0.318	0.346	-8.8	100	0.00
36	CT	Bromodichloromethane	0.405	0.406	-0.2	100	0.00
37	CT	Trichloroethylene	0.250	0.242	3.2	100	0.00
38	CT	Methyl Methacrylate	0.870	0.913	-4.9	100	0.00
39	CT	cis-1,3-dichloropropene	0.210	0.235	-11.9	100	0.00
40	CT	Methyl Isobutyl Ketone	0.509	0.525	-3.1	100	0.00
41	CT	trans-1,3-Dichloropropene	0.165	0.181	-9.7	100	0.00
42	CT	1,1,2-Trichloroethane	0.173	0.189	-9.2	100	0.00
43	IS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.674	0.638	5.3	100	0.00
45	CT	Dibromochloromethane	1.336	1.318	1.3	100	0.00
46	CT	1,2-Dibromoethane	0.249	0.252	-1.2	100	0.00
47	CT	n-Octane	0.569	0.520	8.6	100	0.00
48	CT	Tetrachloroethylene	0.310	0.326	-5.2	100	0.00

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM002.D
Acq On : 13 Mar 2019 10:13 am (#1); 13-Mar-19, 10:07:39 (#2)
Operator : KSS
Sample : 1903031-CCV1
Misc : 80ML 8L13001,9C05010
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 18 12:47:13 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 500%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 CT	Chlorobenzene	0.449	0.463	-3.1	100	0.00
50 CT	Ethylbenzene	0.749	0.707	5.6	100	0.00
51 CT	m,p-Xylene	0.632	0.624	1.3	100	0.00
52 CT	Bromoform	0.254	0.257	-1.2	100	0.00
53 CT	Styrene	0.364	0.322	11.5	100	0.00
54 CT	1,1,2,2-Tetrachloroethane	0.451	0.462	-2.4	100	0.00
55 CT	o-Xylene	0.642	0.666	-3.7	100	0.00
56 CT	1,3,5-Trimethylbenzene	0.676	0.598	11.5	100	0.00
57 CT	1,2,4-Trimethylbenzene	0.581	0.527	9.3	100	0.00
58 CT	m-Dichlorobenzene	0.343	0.302	12.0	100	0.00
59 CT	p-Dichlorobenzene	0.284	0.258	9.2	100	0.00
60 CT	o-Dichlorobenzene	0.302	0.284	6.0	100	0.00
61 CT	1,2,4-Trichlorobenzene	0.136	0.124	8.8	100	0.00
62 CT	Hexachloro-1,3-butadiene	0.253	0.276	-9.1	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)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM002.D
Acq On : 13 Mar 2019 10:13 am (#1); 13-Mar-19, 10:07:39 (#2)
Operator : KSS
Sample : 1903031-CCV1
Misc : 80ML 8L13001,9C05010
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 18 12:47:13 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	20.031	66	31166	4.7700	ppbv	-0.01
29) IS-1,4-Difluorobenzene	23.196	114	68566	4.9900	ppbv	-0.01
43) IS-Chlorobenzene-d5	30.143	117	59060	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.569	26	5065	2.3521	ppbv	100
3) Propylene	7.932	41	7958	2.5354	ppbv	97
4) Dichlorodifluoromethane	8.778	85	30191	2.8018	ppbv	100
5) Chloromethane	9.829	50	9489	2.5938	ppbv	100
6) Dichlorotetrafluoroethane	10.928	85	30922	3.0183	ppbv	100
7) Vinyl Chloride	11.180	62	9970	2.5375	ppbv	100
8) 1,3-Butadiene	11.853	54	6971	2.3834	ppbv	95
9) Ethylene Oxide	12.460	29	3199	2.3551	ppbv	94
10) Bromomethane	12.654	94	8682	2.7014	ppbv	100
11) Chloroethane	13.339	64	5444	2.6670	ppbv	99
12) Acetonitrile	14.411	41	7836	2.6629	ppbv	99
13) Acrolein	14.679	56	3425	2.3170	ppbv	90
14) Trichlorofluoromethane	15.261	101	27993	2.6373	ppbv	100
15) Acrylonitrile	15.982	53	6110	2.4342	ppbv	95
16) 1,1-Dichloroethene	16.483	61	16778	2.8713	ppbv	97
17) Methylene Chloride	16.797	49	11724	2.8005	ppbv	98
18) Carbon Disulfide	16.995	76	27208	2.6399	ppbv	100
19) Trichlorotrifluoroethane	17.332	101	20501	2.8169	ppbv	99
20) trans-1,2-Dichloroethy...	18.380	96	7838	2.4313	ppbv	94
21) 1,1-Dichloroethane	18.682	63	15333	2.6409	ppbv	100
22) Methyl tert-Butyl Ether	18.856	73	21414	2.5882	ppbv	99
23) Chloroprene	19.589	53	11343	2.4925	ppbv	97
24) cis-1,2-Dichloroethylene	19.996	61	44791	2.5809	ppbv	99
25) Bromochloromethane	20.229	128	4729	2.5245	ppbv	100
26) Chloroform	20.450	83	17010	2.9167	ppbv	99
27) Ethyl tert-Butyl Ether	21.228	59	24103	2.6256	ppbv	100
28) 1,2-Dichloroethane	21.526	62	9788	2.9584	ppbv	100
30) 1,1,1-Trichloroethane	21.911	97	17768	2.7345	ppbv	99
31) Benzene	22.586	78	21379	2.6251	ppbv	100
32) Carbon Tetrachloride	22.819	117	19781	3.1480	ppbv	100
33) tert-Amyl Methyl Ether	23.559	73	19941	2.5730	ppbv	100
34) 1,2-Dichloropropane	23.831	63	8050	2.6966	ppbv	88
35) Ethyl Acrylate	23.921	55	12081	2.7670	ppbv	100
36) Bromodichloromethane	24.121	83	14288	2.5670	ppbv	99
37) Trichloroethylene	24.211	130	8378	2.4415	ppbv	100
38) Methyl Methacrylate	24.574	41	31880	2.6663	ppbv	98
39) cis-1,3-dichloropropene	25.560	75	8197	2.8417	ppbv	95
40) Methyl Isobutyl Ketone	25.643	43	18234	2.6079	ppbv	97
41) trans-1,3-Dichloropropene	26.395	75	6105	2.6893	ppbv	97
42) 1,1,2-Trichloroethane	26.651	97	6433	2.7111	ppbv	97
44) Toluene	27.124	91	19390	2.3082	ppbv	100
45) Dibromochloromethane	27.771	129	41708	2.5055	ppbv	100
46) 1,2-Dibromoethane	28.185	107	7855	2.5348	ppbv	100
47) n-Octane	28.897	43	16336	2.3041	ppbv	98
48) Tetrachloroethylene	29.029	166	10117	2.6178	ppbv	99
49) Chlorobenzene	30.216	112	14201	2.5395	ppbv	99
50) Ethylbenzene	30.948	91	22029	2.3601	ppbv	100

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM002.D
Acq On : 13 Mar 2019 10:13 am (#1); 13-Mar-19, 10:07:39 (#2)
Operator : KSS
Sample : 1903031-CCV1
Misc : 80ML 8L13001,9C05010
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 18 12:47:13 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

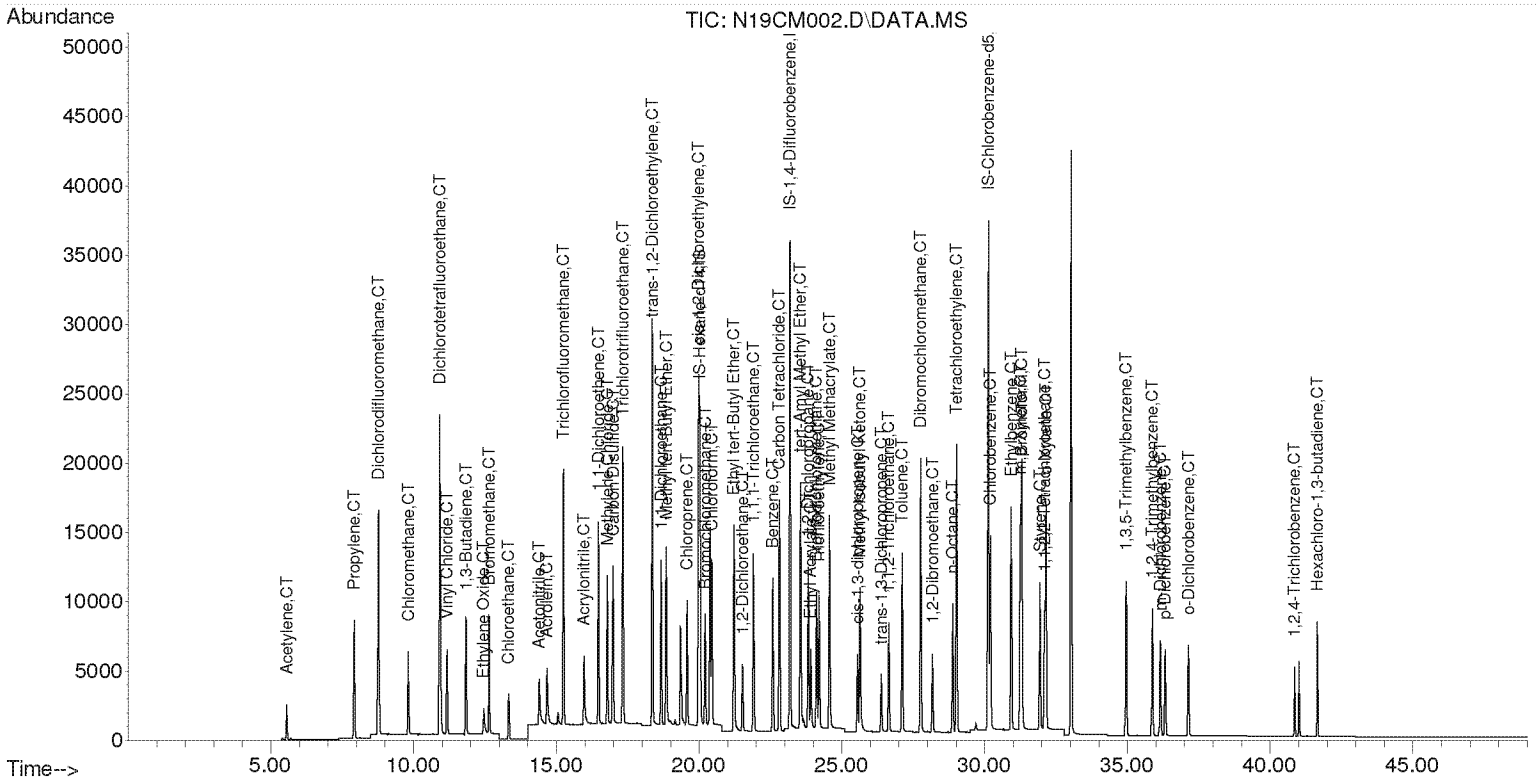
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.269	91	38715m	4.9170 ppbv	
52) Bromoform	31.317	173	8134	2.5676 ppbv	100
53) Styrene	31.953	104	10039	2.2106 ppbv	98
54) 1,1,2,2-Tetrachloroethane	32.114	83	14579	2.5941 ppbv	100
55) o-Xylene	32.162	91	20251	2.5309 ppbv	99
56) 1,3,5-Trimethylbenzene	34.972	105	18777	2.2290 ppbv	99
57) 1,2,4-Trimethylbenzene	35.886	105	15627	2.1584 ppbv	100
58) m-Dichlorobenzene	36.167	146	9022	2.1121 ppbv	99
59) p-Dichlorobenzene	36.336	146	8378	2.3661 ppbv	100
60) o-Dichlorobenzene	37.150	146	8860	2.3511 ppbv	100
61) 1,2,4-Trichlorobenzene	40.863	180	3828	2.2535 ppbv	100
62) Hexachloro-1,3-butadiene	41.663	225	8591	2.7247 ppbv	100

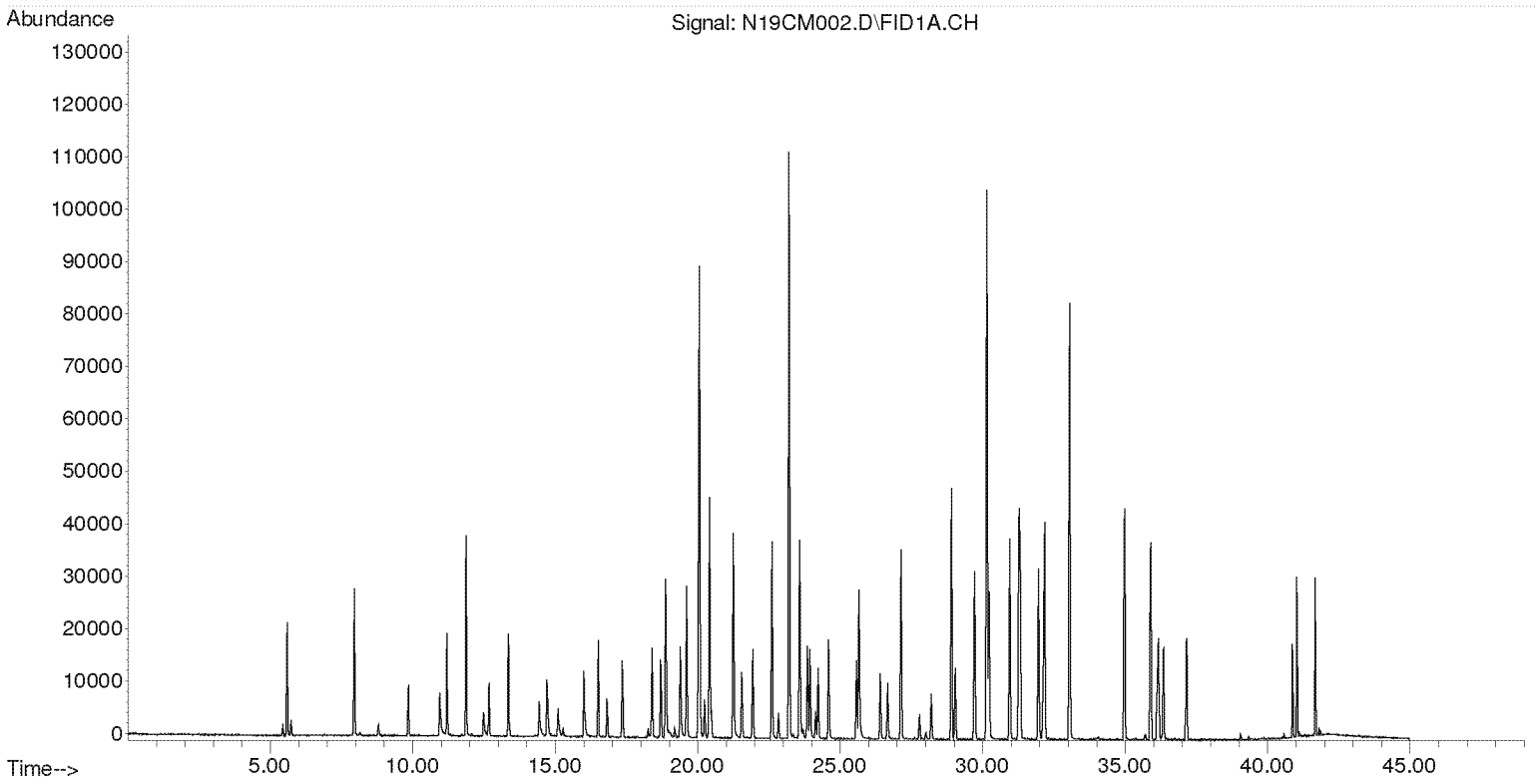
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

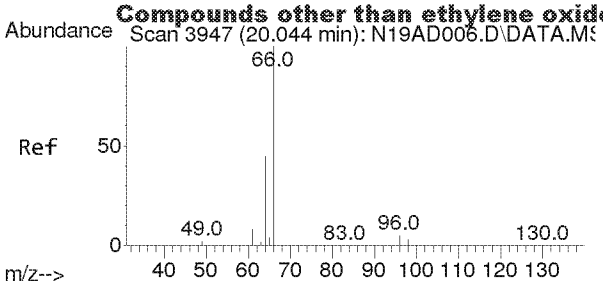
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM002.D
Acq On : 13 Mar 2019 10:13 am (#1); 13 Mar 2019 10:07 am (#2)
Operator : KSS
Sample : 1903031-CCV1
Misc : 80ML 8L13001,9C05010
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 18 12:46:36 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





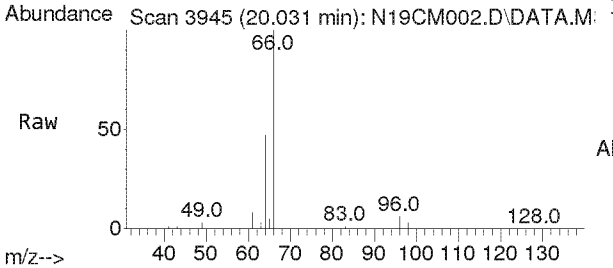
Compounds other than ethylene oxide were not quantitated.

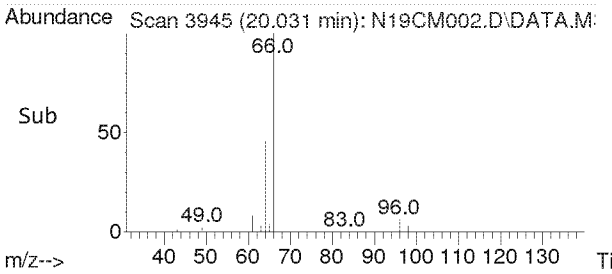


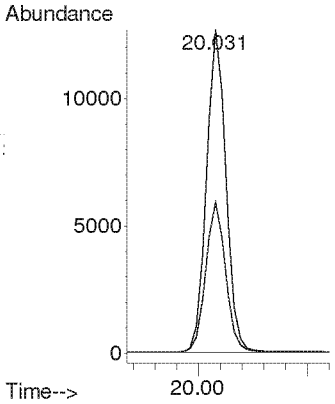
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.031 min Scan# 3945
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

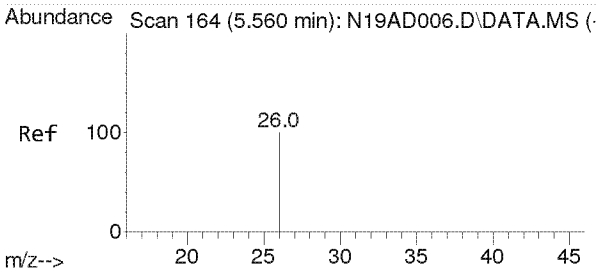
Tgt Ion: 66 Resp: 31166

Ion	Ratio	Lower	Upper
66	100		
64	47.7	32.1	59.5



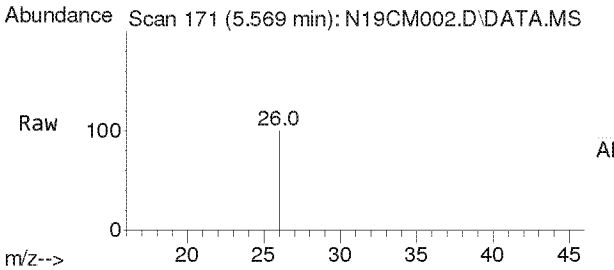


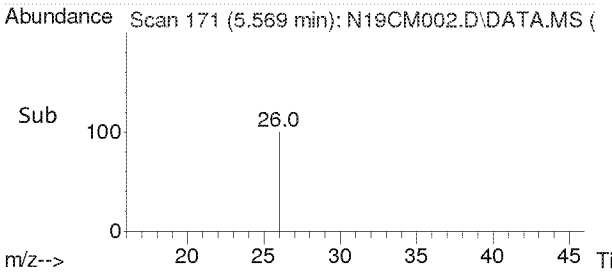


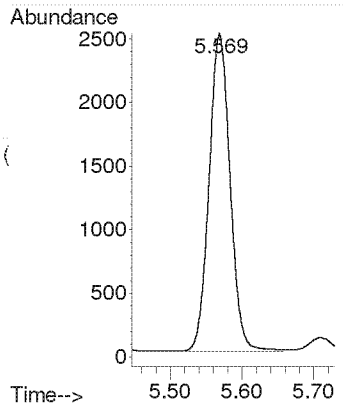


#2
Acetylene
Concen: 2.352 ppbv
RT: 5.569 min Scan# 171
Delta R.T. 0.008 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

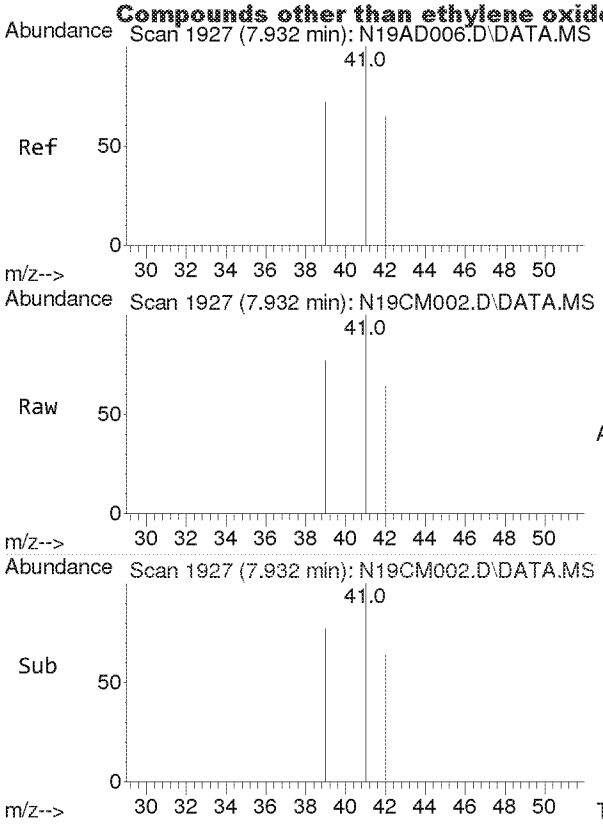
Tgt Ion: 26 Resp: 5065







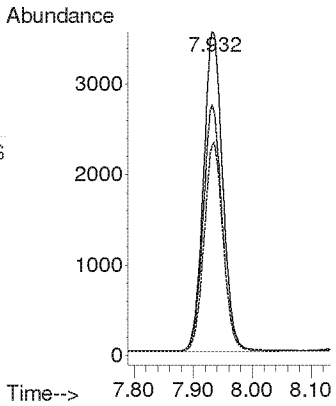
Compounds other than ethylene oxide were not quantitated.

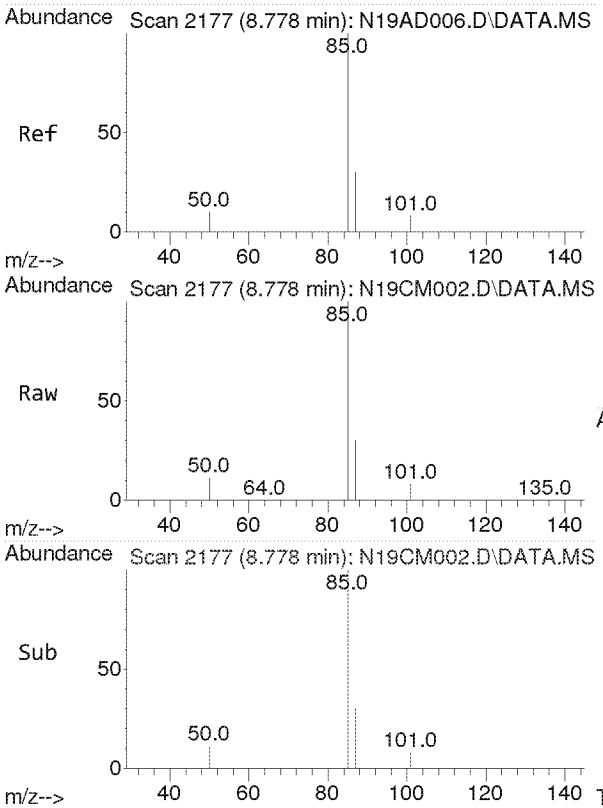


#3
Propylene
Concen: 2.535 ppbv
RT: 7.932 min Scan# 1927
Delta R.T. 0.000 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 41 Resp: 7958

Ion	Ratio	Lower	Upper
41	100		
39	76.4	57.4	86.2
42	65.1	52.3	78.5

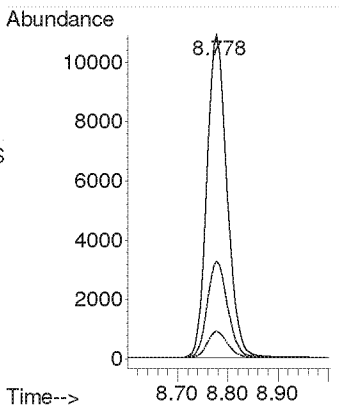




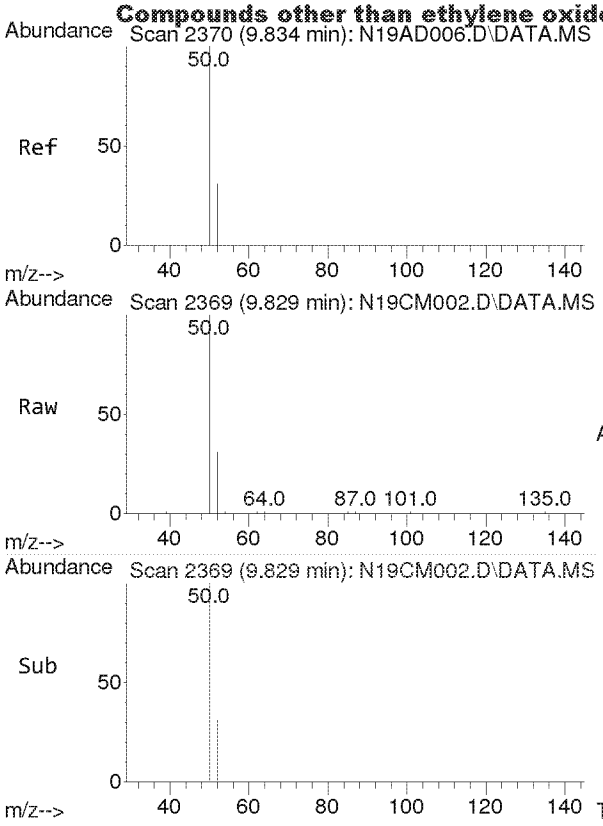
#4
Dichlorodifluoromethane
Concen: 2.802 ppbv
RT: 8.778 min Scan# 2177
Delta R.T. 0.000 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 85 Resp: 30191

Ion	Ratio	Lower	Upper
85	100		
87	30.3	24.3	36.5
101	8.2	6.5	9.7



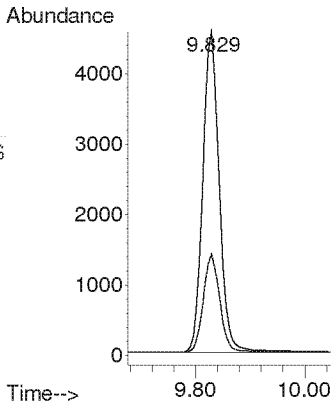
Compounds other than ethylene oxide were not quantitated.

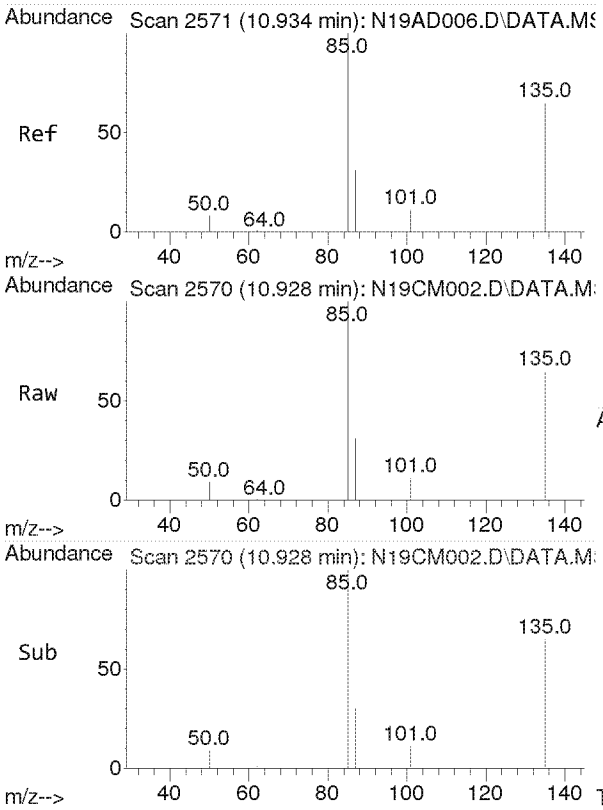


#5
Chloromethane
Concen: 2.594 ppbv
RT: 9.829 min Scan# 2369
Delta R.T. -0.005 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 50 Resp: 9489

Ion	Ratio	Lower	Upper
50	100		
52	30.7	24.6	36.8

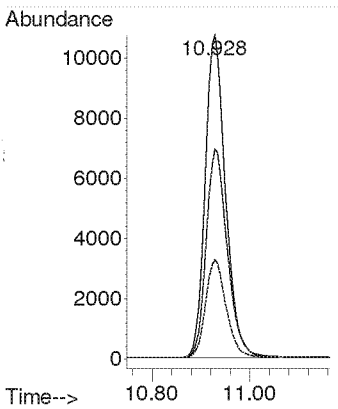




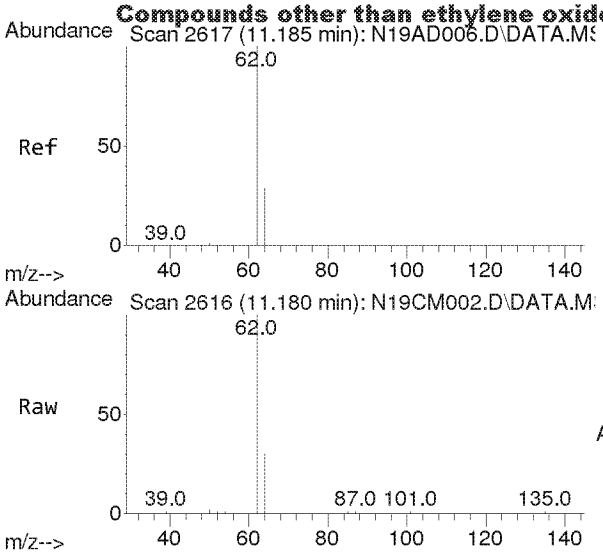
#6
Dichlorotetrafluoroethane
Concen: 3.018 ppbv
RT: 10.928 min Scan# 2570
Delta R.T. -0.005 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 85 Resp: 30922

Ion	Ratio	Lower	Upper
85	100		
135	67.5	54.2	81.2
87	30.7	24.6	36.8



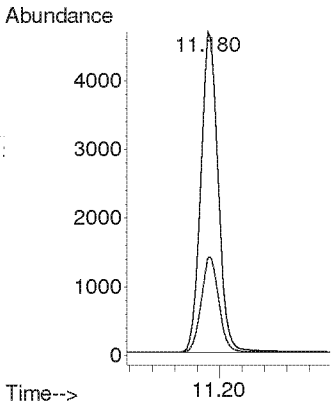
Compounds other than ethylene oxide were not quantitated.

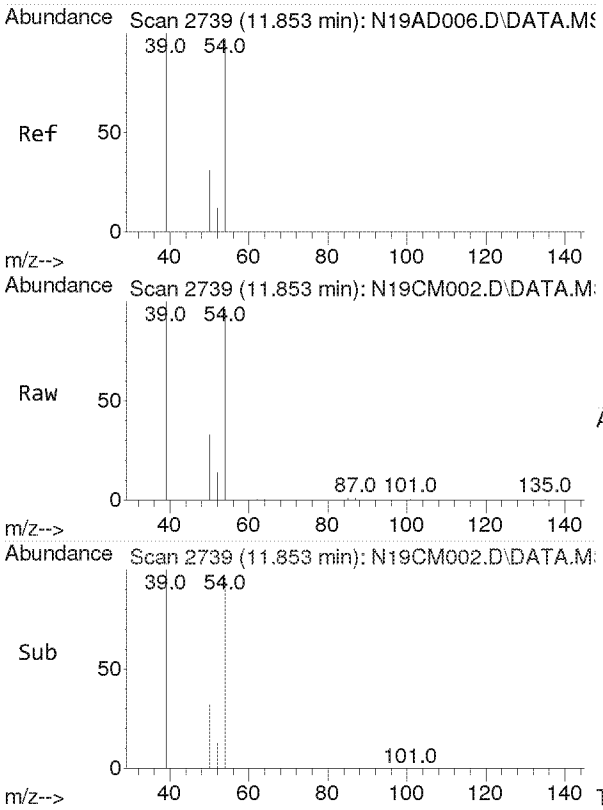


#7
Vinyl Chloride
Concen: 2.538 ppbv
RT: 11.180 min Scan# 2616
Delta R.T. -0.005 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 62 Resp: 9970

Ion	Ratio	Lower	Upper
62	100		
64	30.1	24.0	36.0

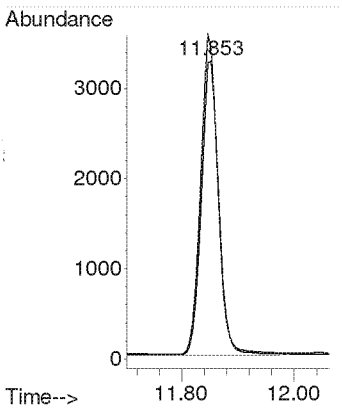




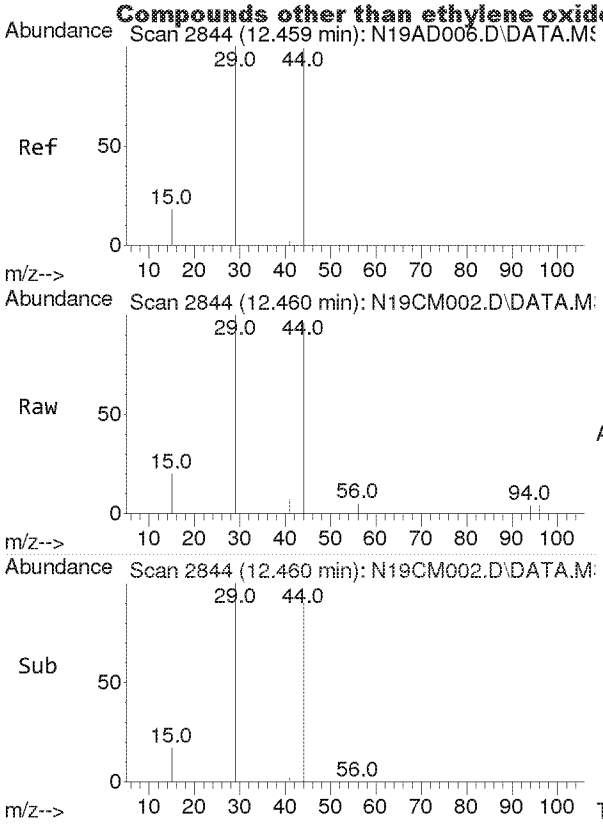
#8
1,3-Butadiene
Concen: 2.383 ppbv
RT: 11.853 min Scan# 2739
Delta R.T. 0.000 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 54 Resp: 6971

Ion	Ratio	Lower	Upper
54	100		
39	108.0	82.4	123.6



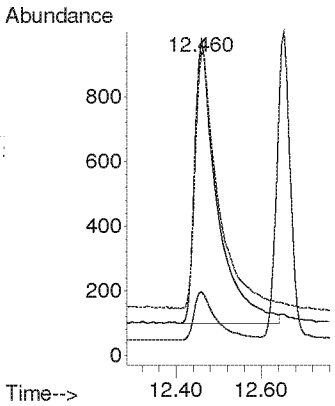
Compounds other than ethylene oxide were not quantitated.

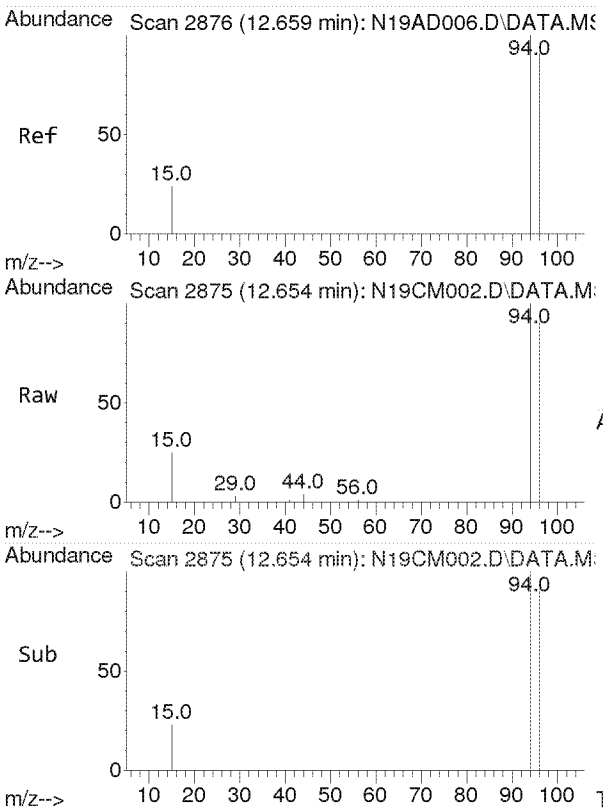


#9
Ethylene Oxide
Concen: 2.355 ppbv
RT: 12.460 min Scan# 2844
Delta R.T. 0.001 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 29 Resp: 3199

Ion	Ratio	Lower	Upper
29	100		
15	16.6	14.0	21.0
44	91.9	79.2	118.8

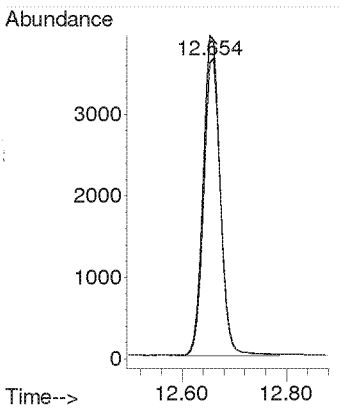




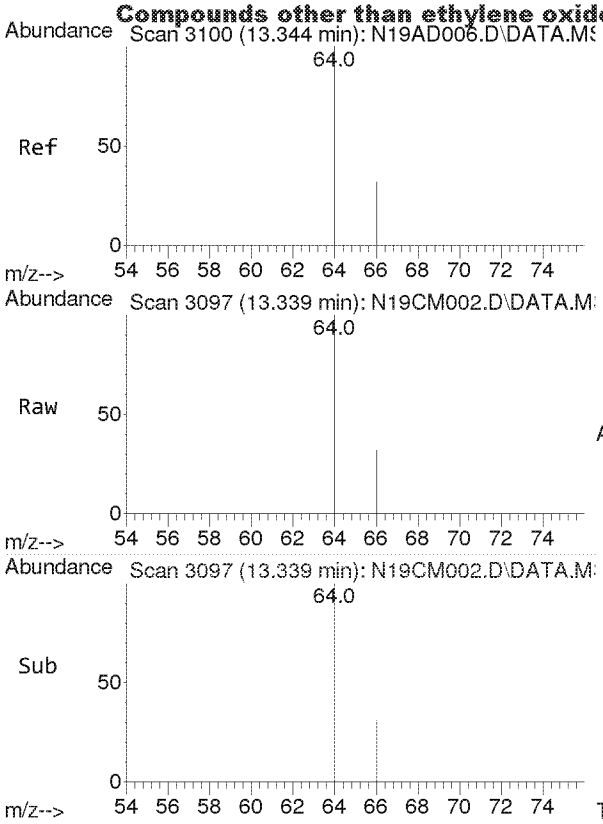
#10
Bromomethane
Concen: 2.701 ppbv
RT: 12.654 min Scan# 2875
Delta R.T. -0.005 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 94 Resp: 8682

Ion	Ratio	Lower	Upper
94	100		
96	92.5	74.3	111.5



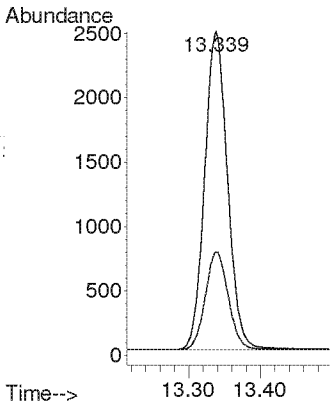
Compounds other than ethylene oxide were not quantitated.

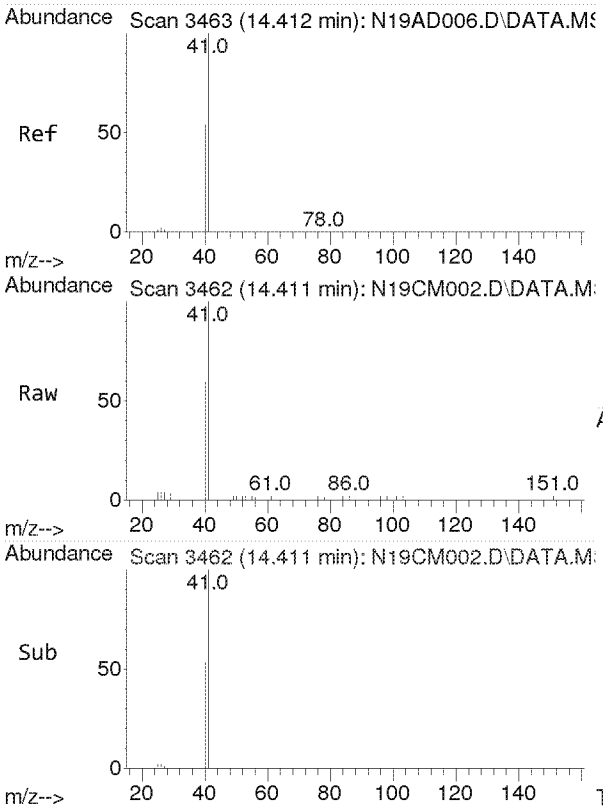


#11
Chloroethane
Concen: 2.667 ppbv
RT: 13.339 min Scan# 3097
Delta R.T. -0.005 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 64 Resp: 5444

Ion	Ratio	Lower	Upper
64	100		
66	31.0	25.0	37.6

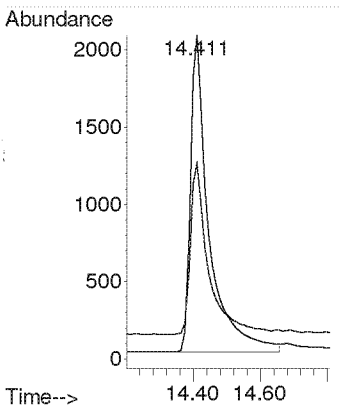




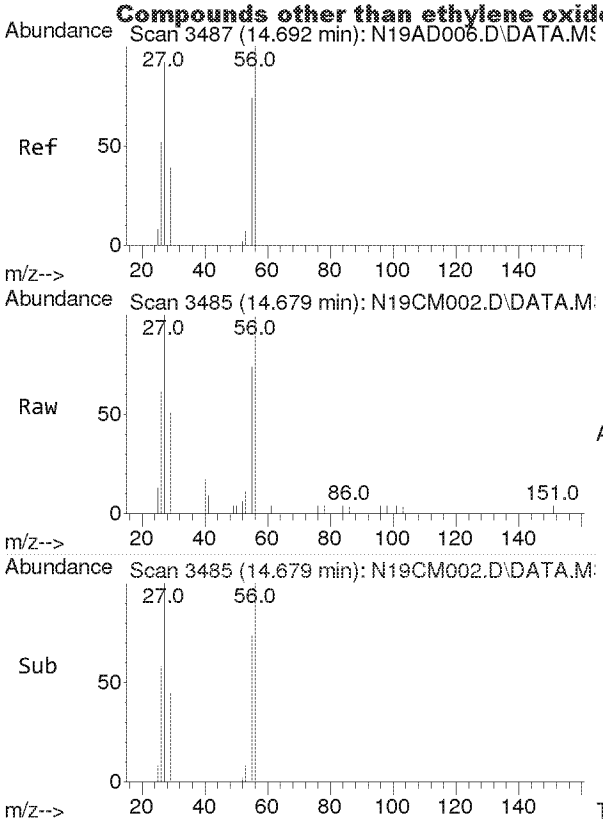
#12
Acetonitrile
Concen: 2.663 ppbv
RT: 14.411 min Scan# 3462
Delta R.T. -0.001 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 41 Resp: 7836

Ion	Ratio	Lower	Upper
41	100		
40	52.2	41.2	61.8



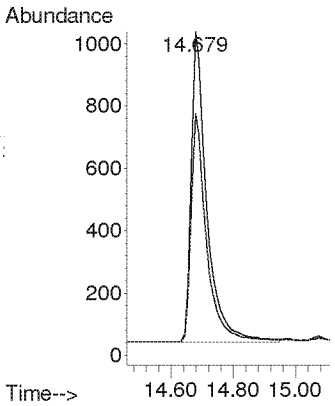
Compounds other than ethylene oxide were not quantitated.

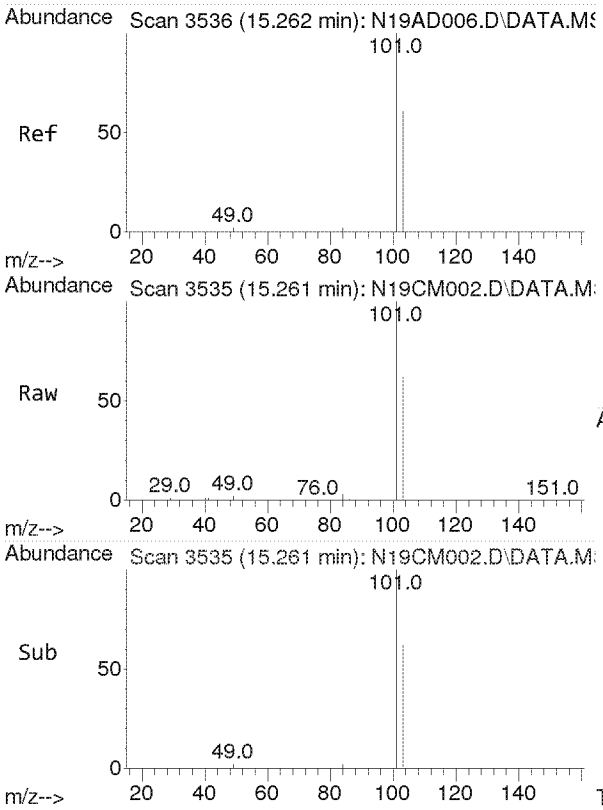


#13
Acrolein
Concen: 2.317 ppbv
RT: 14.679 min Scan# 3485
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 56 Resp: 3425

Ion	Ratio	Lower	Upper
56	100		
55	73.7	58.3	87.5

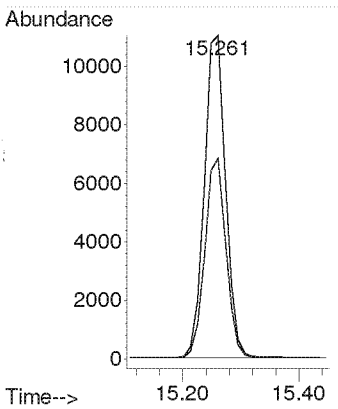




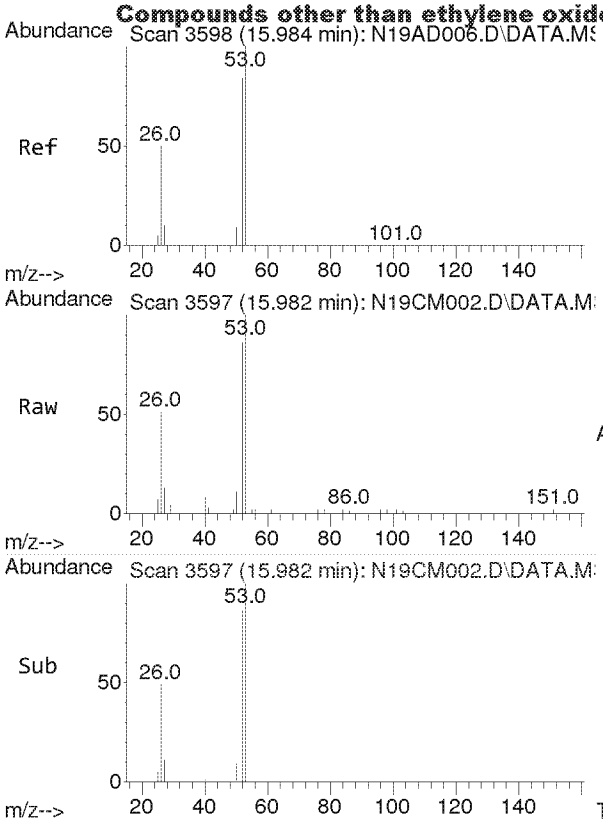
#14
Trichlorofluoromethane
Concen: 2.637 ppbv
RT: 15.261 min Scan# 3535
Delta R.T. -0.001 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:101 Resp: 27993

Ion	Ratio	Lower	Upper
101	100		
103	61.6	49.3	73.9



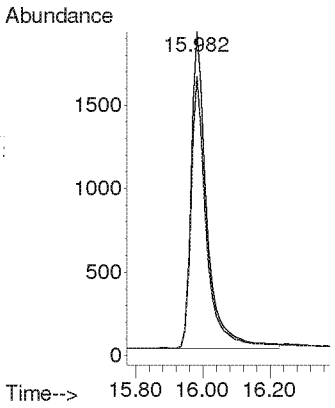
Compounds other than ethylene oxide were not quantitated.

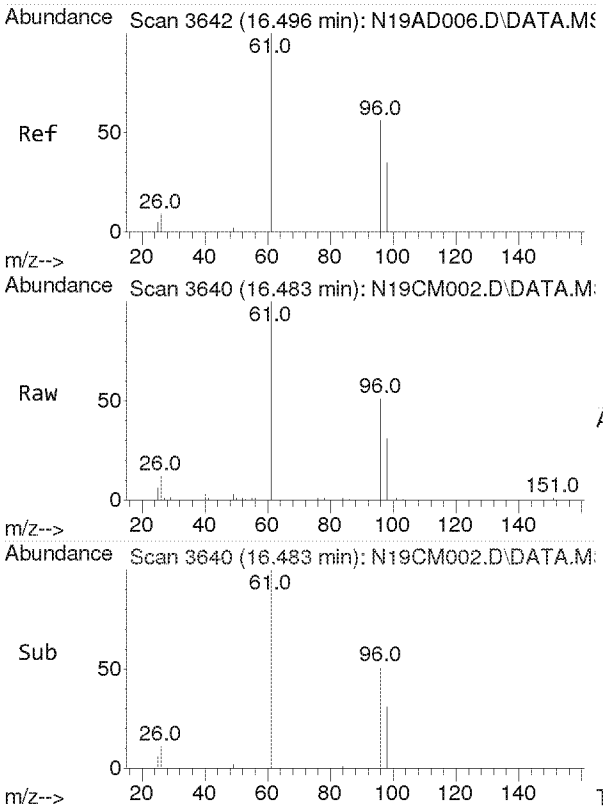


#15
Acrylonitrile
Concen: 2.434 ppbv
RT: 15.982 min Scan# 3597
Delta R.T. -0.001 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 53 Resp: 6110

Ion	Ratio	Lower	Upper
53	100		
52	85.1	67.0	100.6

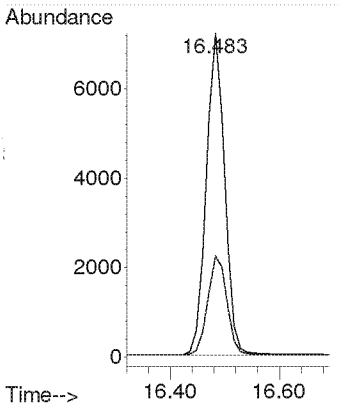




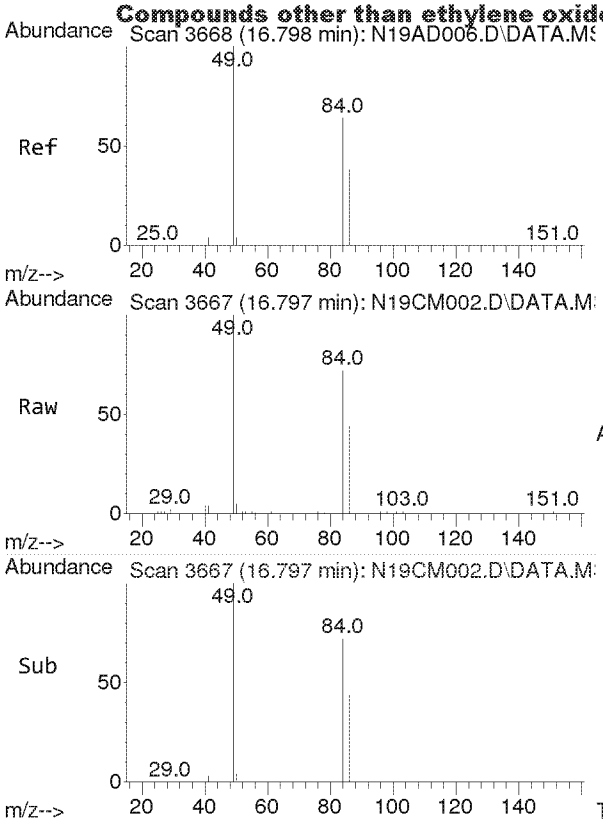
#16
1,1-Dichloroethene
Concen: 2.871 ppbv
RT: 16.483 min Scan# 3640
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 61 Resp: 16778

Ion	Ratio	Lower	Upper
61	100		
98	31.9	27.0	40.4



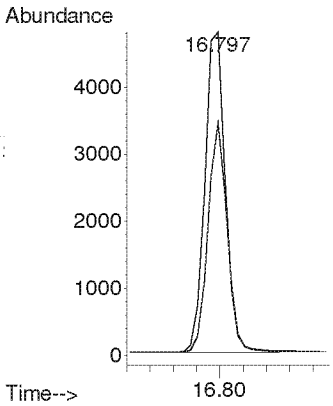
Compounds other than ethylene oxide were not quantitated.

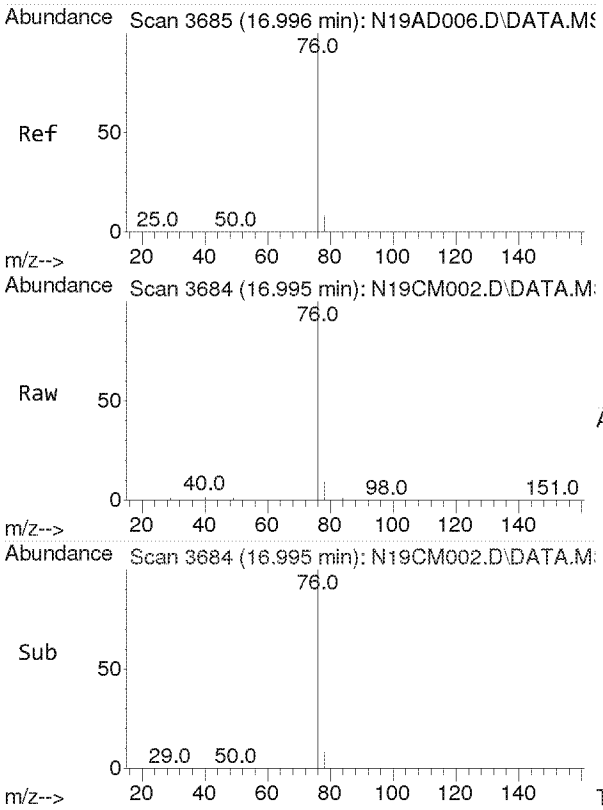


#17
Methylene Chloride
Concen: 2.800 ppbv
RT: 16.797 min Scan# 3667
Delta R.T. -0.001 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 49 Resp: 11724

Ion	Ratio	Lower	Upper
49	100		
84	67.5	55.3	82.9

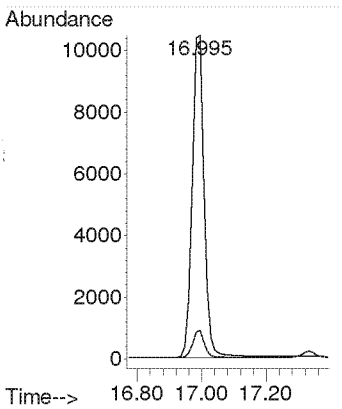




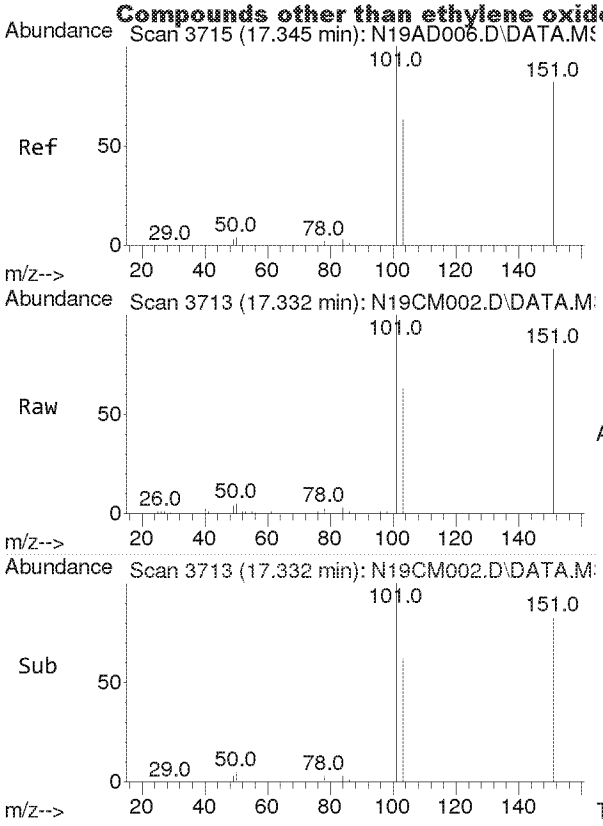
#18
Carbon Disulfide
Concen: 2.640 ppbv
RT: 16.995 min Scan# 3684
Delta R.T. -0.001 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 76 Resp: 27208

Ion	Ratio	Lower	Upper
76	100		
78	8.3	6.6	9.8



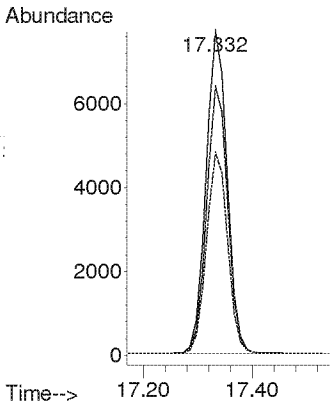
Compounds other than ethylene oxide were not quantitated.

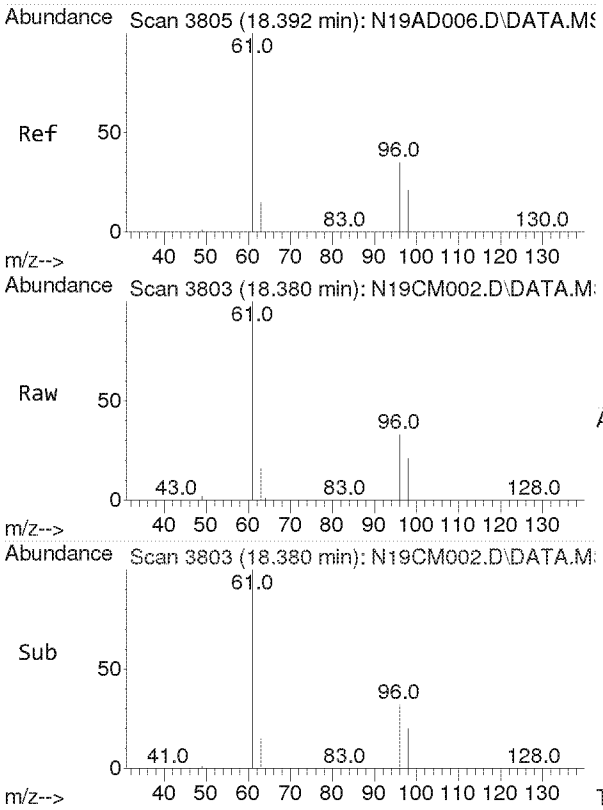


#19
Trichlorotrifluoroethane
Concen: 2.817 ppbv
RT: 17.332 min Scan# 3713
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:101 Resp: 20501

Ion	Ratio	Lower	Upper
101	100		
151	83.2	65.2	97.8
103	63.1	50.4	75.6

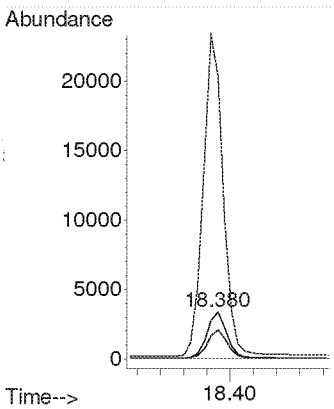




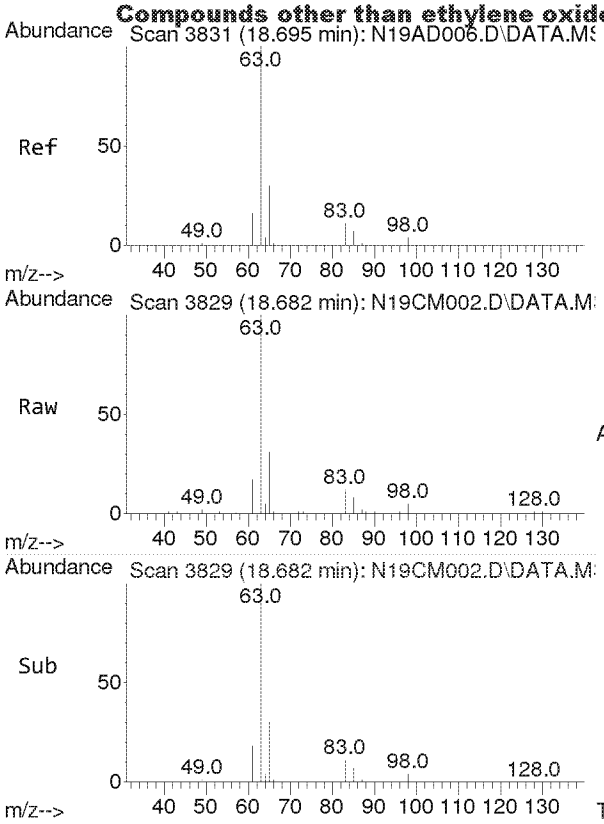
#20
trans-1,2-Dichloroethylene
Concen: 2.431 ppbv
RT: 18.380 min Scan# 3803
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 96 Resp: 7838

Ion	Ratio	Lower	Upper
96	100		
98	61.6	48.9	73.3
61	703.2	546.2	819.2



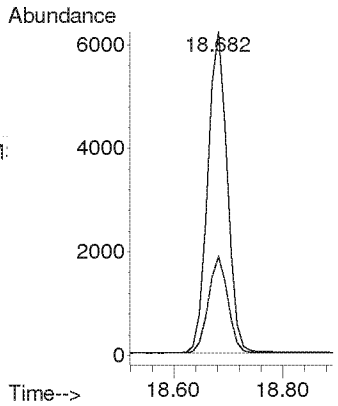
Compounds other than ethylene oxide were not quantitated.

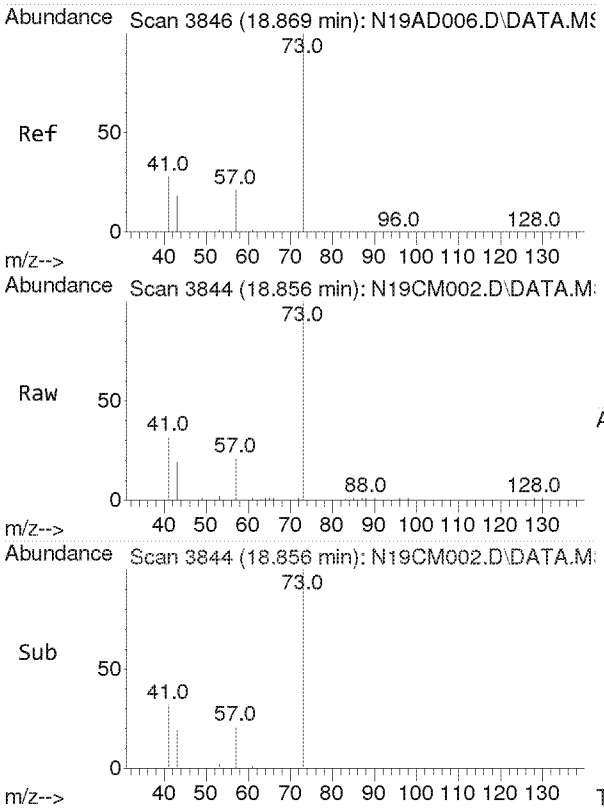


#21
1,1-Dichloroethane
Concen: 2.641 ppbv
RT: 18.682 min Scan# 3829
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 63 Resp: 15333

Ion	Ratio	Lower	Upper
63	100		
65	30.0	24.1	36.1

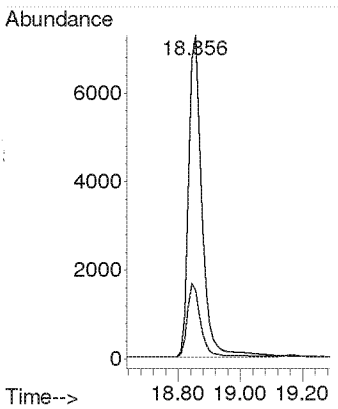




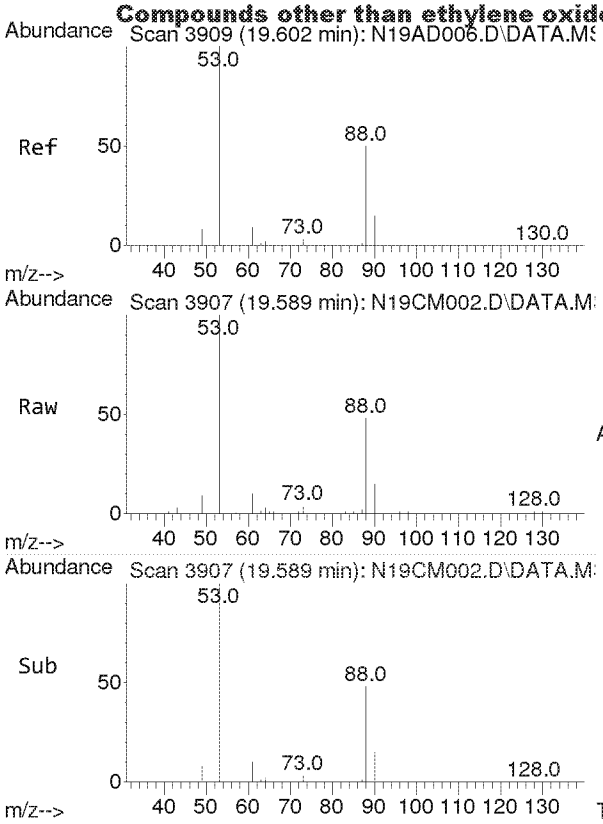
#22
Methyl tert-Butyl Ether
Concen: 2.588 ppbv
RT: 18.856 min Scan# 3844
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 73 Resp: 21414

Ion	Ratio	Lower	Upper
73	100		
57	23.0	18.7	28.1



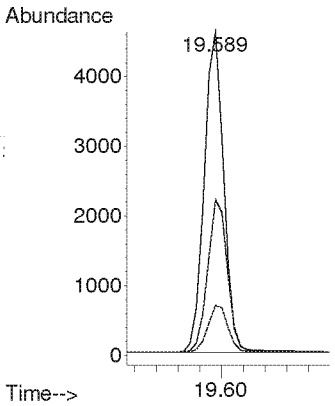
Compounds other than ethylene oxide were not quantitated.

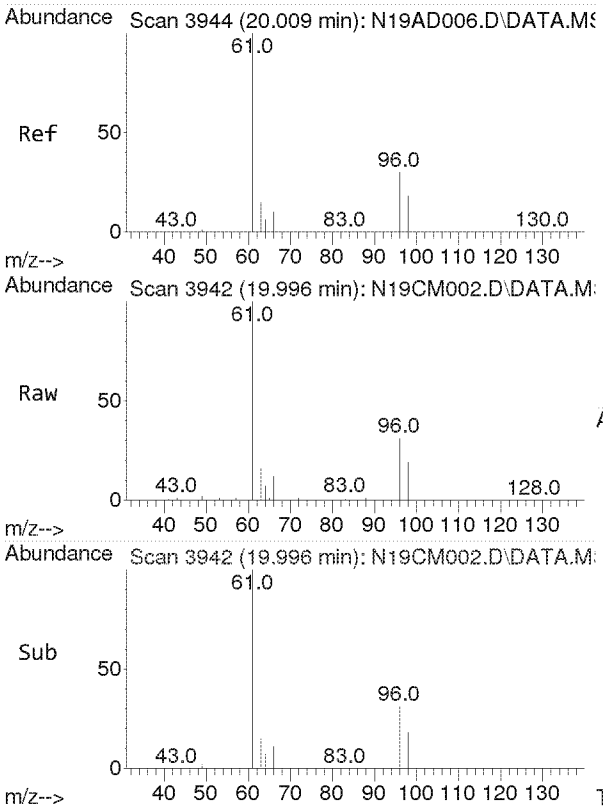


#23
Chloroprene
Concen: 2.493 ppbv
RT: 19.589 min Scan# 3907
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 53 Resp: 11343

Ion	Ratio	Lower	Upper
53	100		
88	48.6	41.0	61.4
90	15.0	12.6	18.8

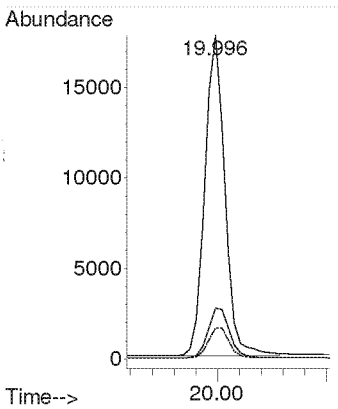




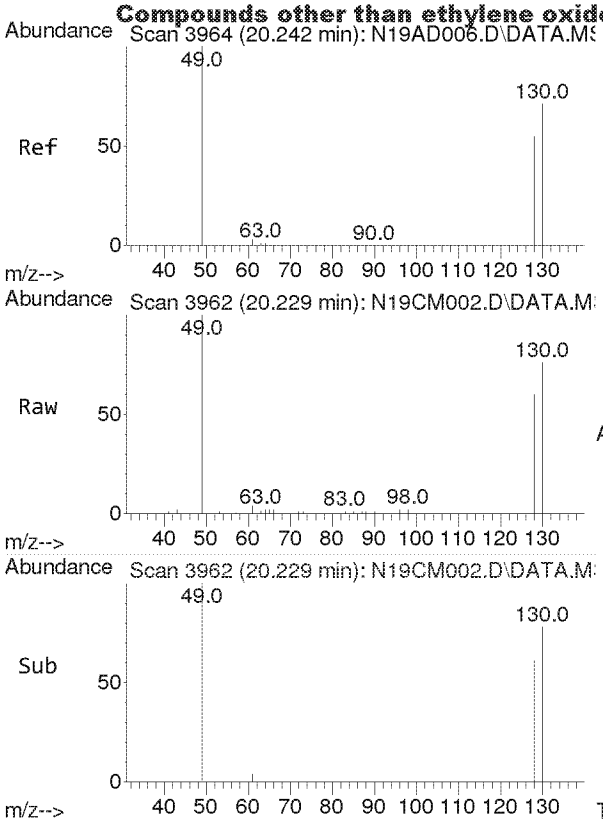
#24
cis-1,2-Dichloroethylene
Concen: 2.581 ppbv
RT: 19.996 min Scan# 3942
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 61 Resp: 44791

Ion	Ratio	Lower	Upper
61	100		
96	16.9	13.3	19.9
98	9.9	8.1	12.1



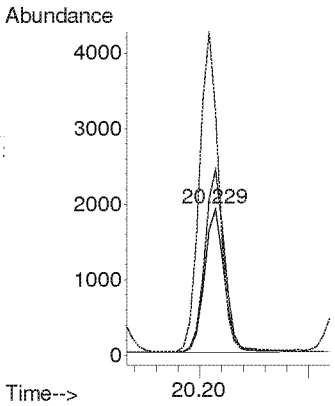
Compounds other than ethylene oxide were not quantitated.

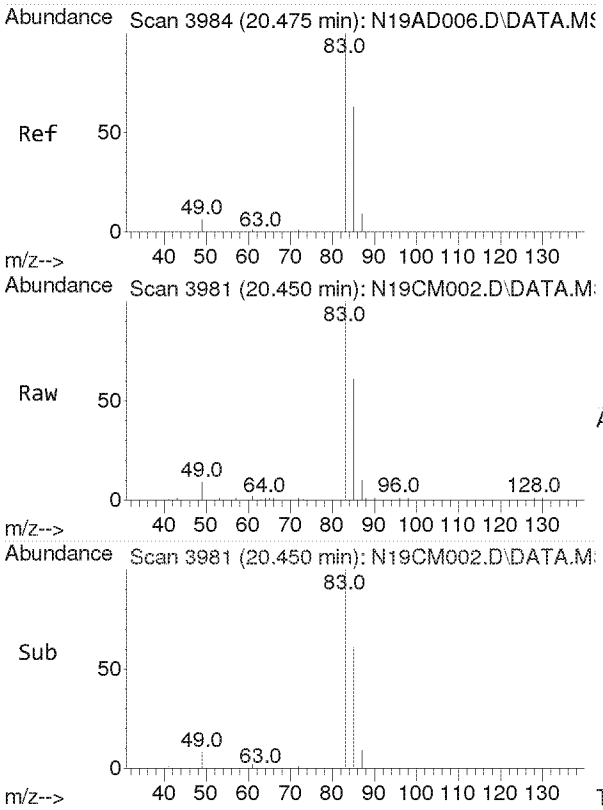


#25
Bromochloromethane
Concen: 2.524 ppbv
RT: 20.229 min Scan# 3962
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:128 Resp: 4729

Ion	Ratio	Lower	Upper
128	100		
130	127.4	102.2	153.4
49	221.9	177.7	266.5

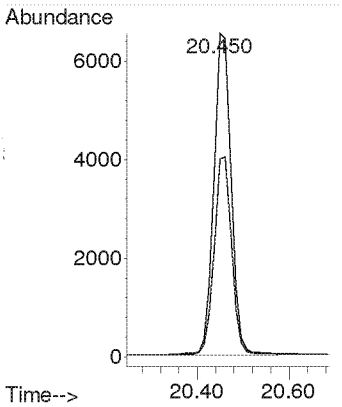




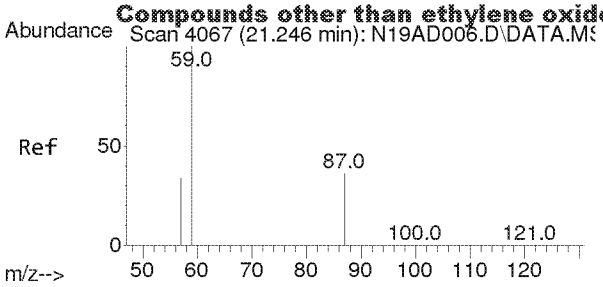
#26
Chloroform
Concen: 2.917 ppbv
RT: 20.450 min Scan# 3981
Delta R.T. -0.024 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 83 Resp: 17010

Ion	Ratio	Lower	Upper
83	100		
85	61.3	49.8	74.8



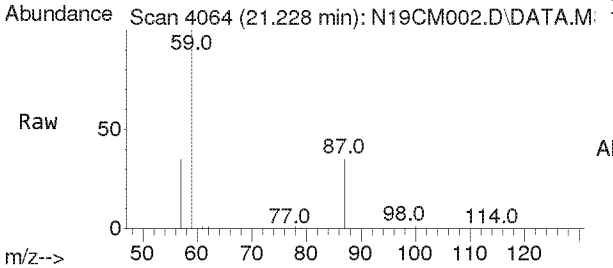
Compounds other than ethylene oxide were not quantitated.

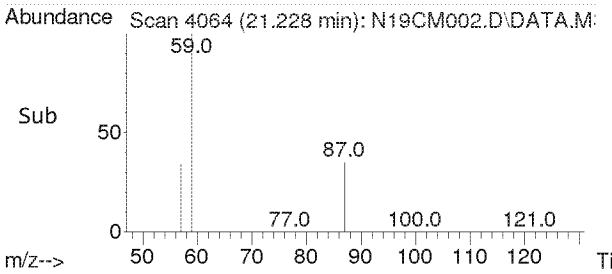


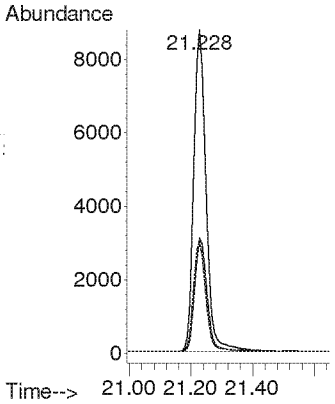
#27
Ethyl tert-Butyl Ether
Concen: 2.626 ppbv
RT: 21.228 min Scan# 4064
Delta R.T. -0.017 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

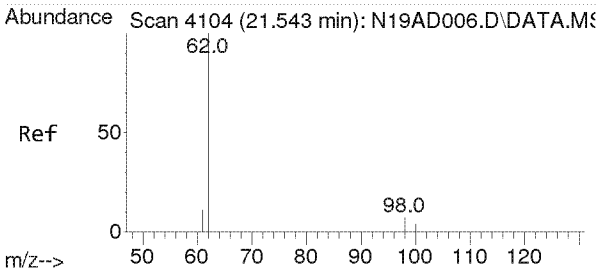
Tgt Ion: 59 Resp: 24103

Ion	Ratio	Lower	Upper
59	100		
87	35.7	28.7	43.1
57	34.4	27.5	41.3





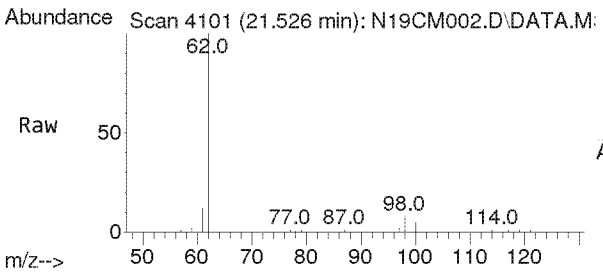


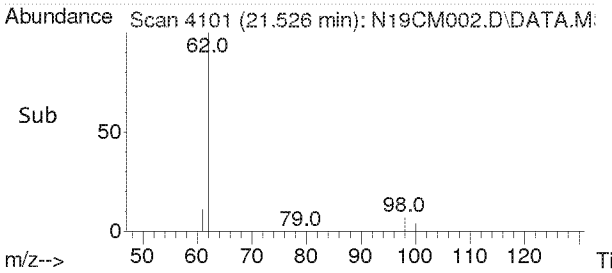


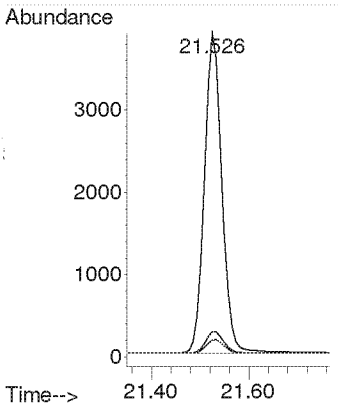
#28
1,2-Dichloroethane
Concen: 2.958 ppbv
RT: 21.526 min Scan# 4101
Delta R.T. -0.017 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 62 Resp: 9788

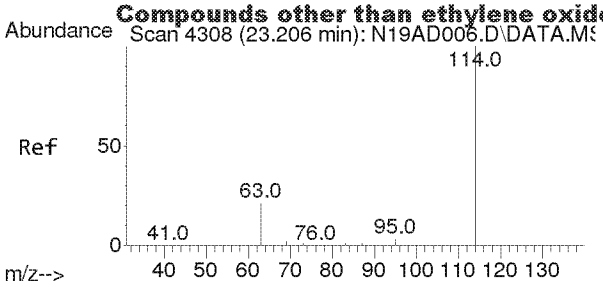
Ion	Ratio	Lower	Upper
62	100		
98	6.9	6.0	9.0
100	4.3	3.8	5.6







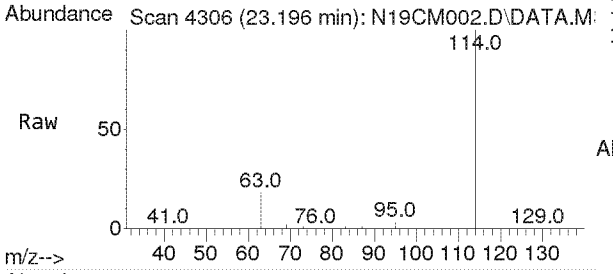
Compounds other than ethylene oxide were not quantitated.

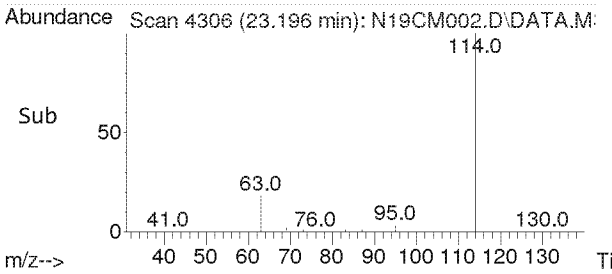


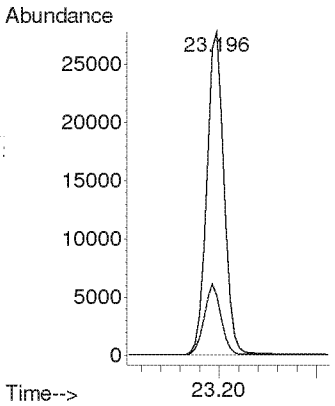
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.196 min Scan# 4306
Delta R.T. -0.010 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

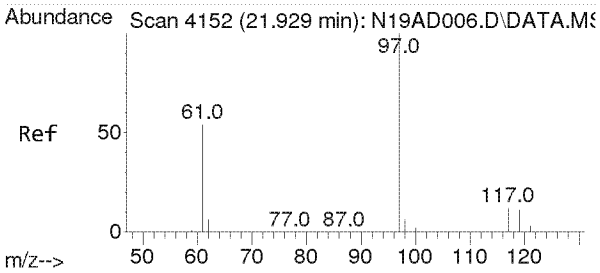
Tgt Ion:114 Resp: 68566

Ion	Ratio	Lower	Upper
114	100		
63	21.4	16.7	25.1





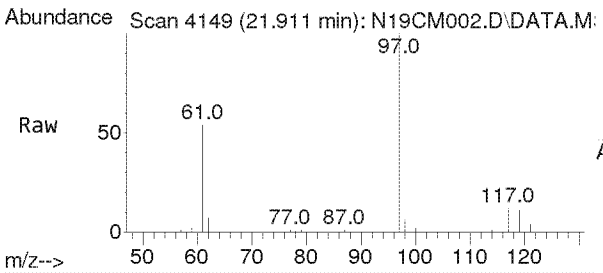


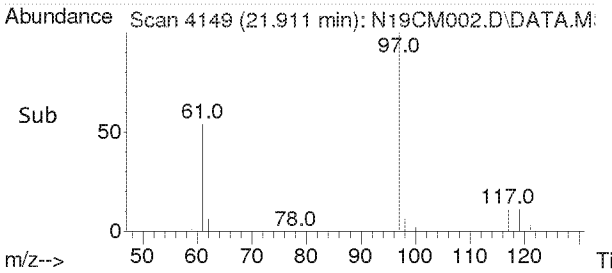


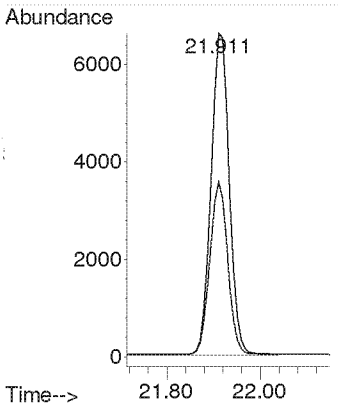
#30
1,1,1-Trichloroethane
Concen: 2.735 ppbv
RT: 21.911 min Scan# 4149
Delta R.T. -0.017 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 97 Resp: 17768

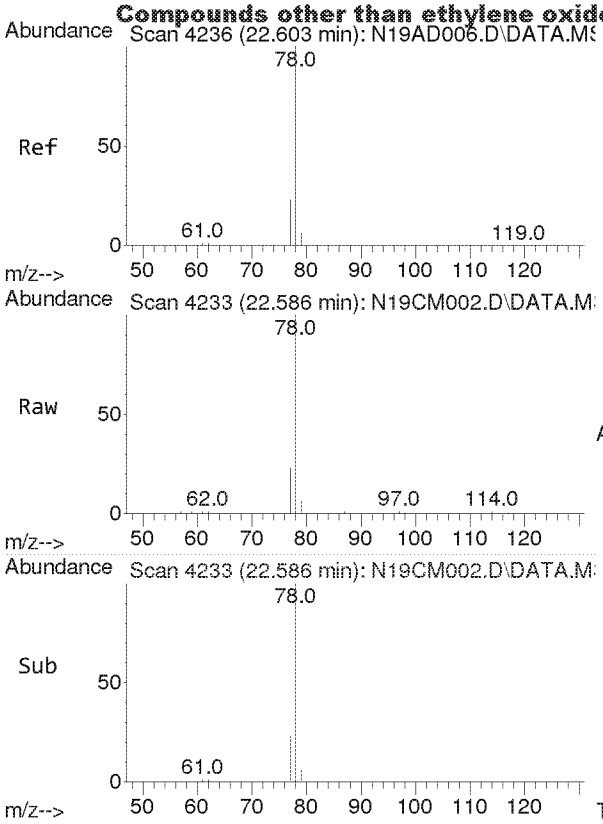
Ion	Ratio	Lower	Upper
97	100		
61	52.8	42.7	64.1







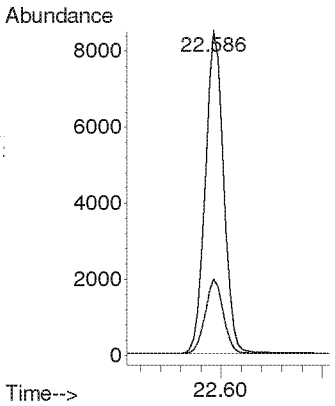
Compounds other than ethylene oxide were not quantitated.

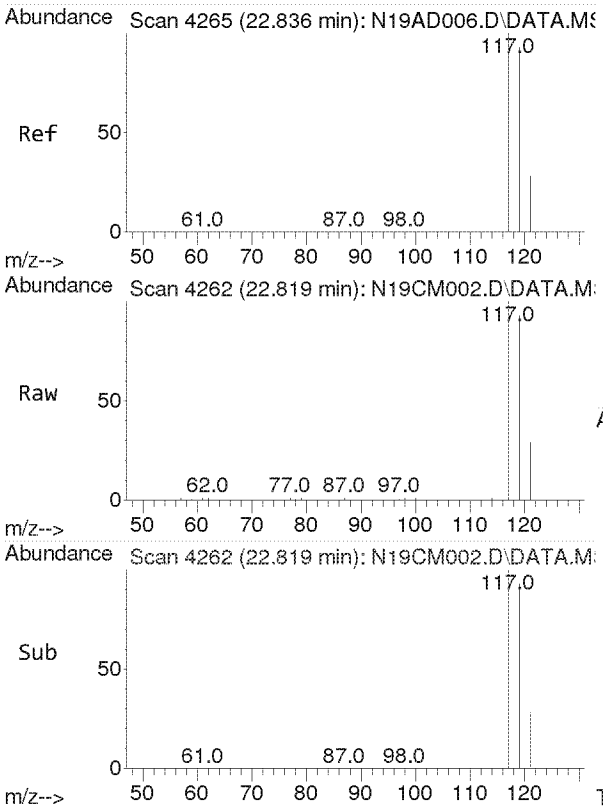


#31
Benzene
Concen: 2.625 ppbv
RT: 22.586 min Scan# 4233
Delta R.T. -0.017 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 78 Resp: 21379

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.2	27.4

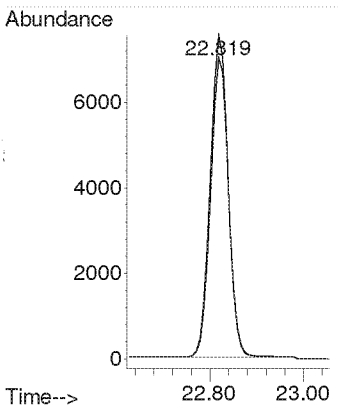




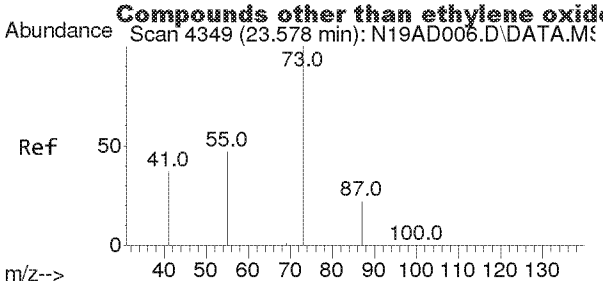
#32
Carbon Tetrachloride
Concen: 3.148 ppbv
RT: 22.819 min Scan# 4262
Delta R.T. -0.017 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:117 Resp: 19781

Ion	Ratio	Lower	Upper
117	100		
119	94.0	75.5	113.3



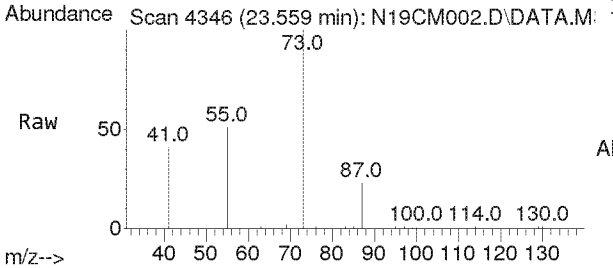
Compounds other than ethylene oxide were not quantitated.

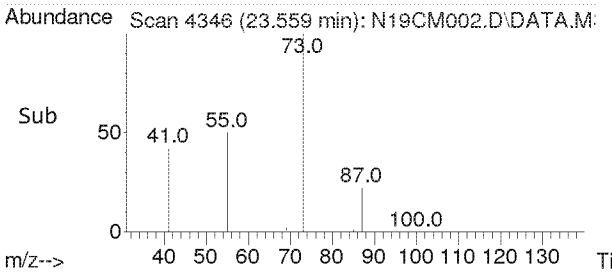


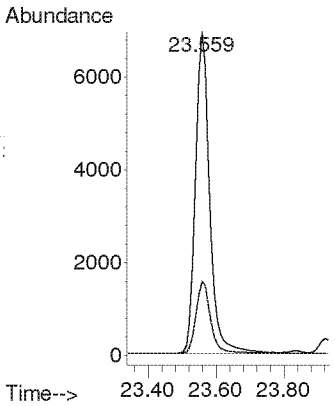
#33
tert-Amyl Methyl Ether
Concen: 2.573 ppbv
RT: 23.559 min Scan# 4346
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

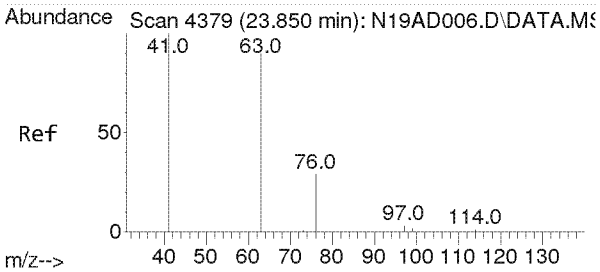
Tgt Ion: 73 Resp: 19941

Ion	Ratio	Lower	Upper
73	100		
87	22.8	18.1	27.1





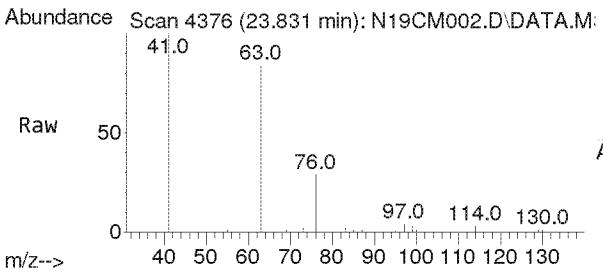


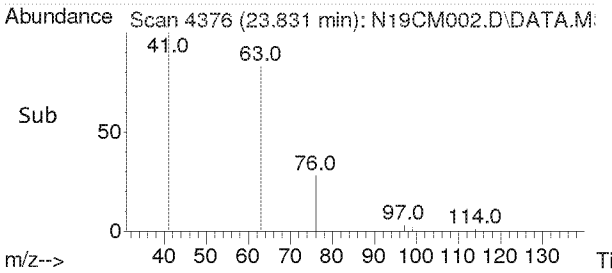


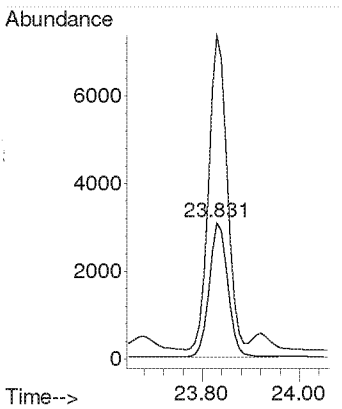
#34
1,2-Dichloropropane
Concen: 2.697 ppbv
RT: 23.831 min Scan# 4376
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 63 Resp: 8050

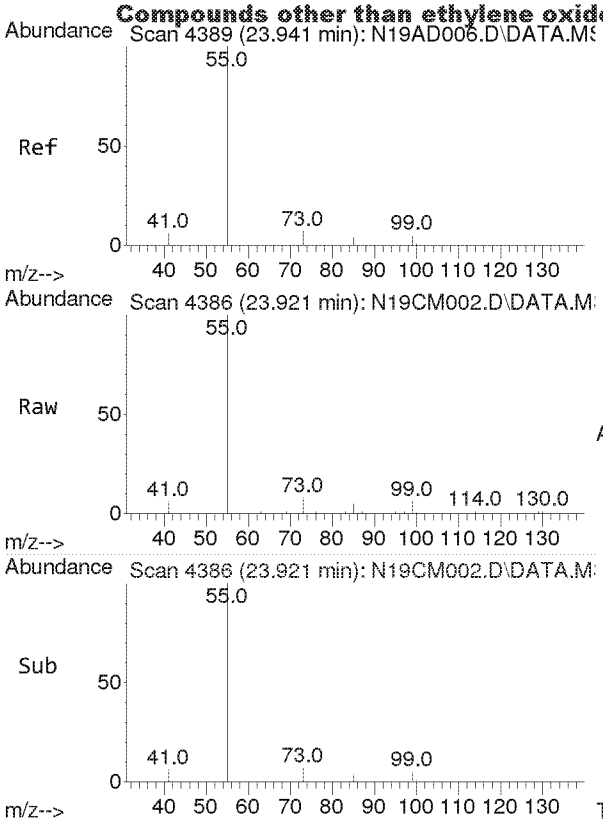
Ion	Ratio	Lower	Upper
63	100		
41	234.2	171.8	257.6







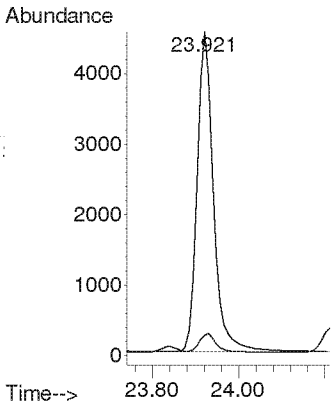
Compounds other than ethylene oxide were not quantitated.

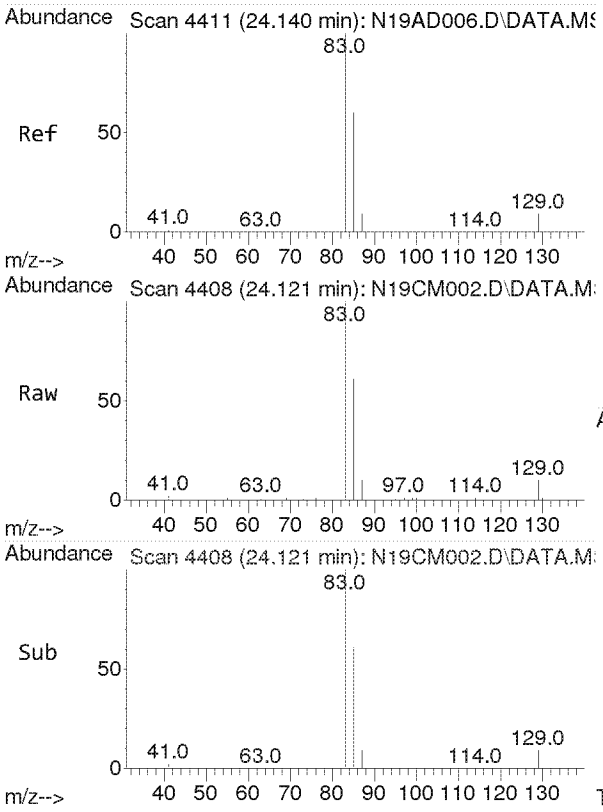


#35
Ethyl Acrylate
Concen: 2.767 ppbv
RT: 23.921 min Scan# 4386
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 55 Resp: 12081

Ion	Ratio	Lower	Upper
55	100		
99	5.8	4.7	7.1

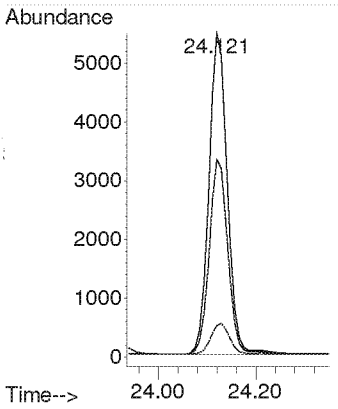




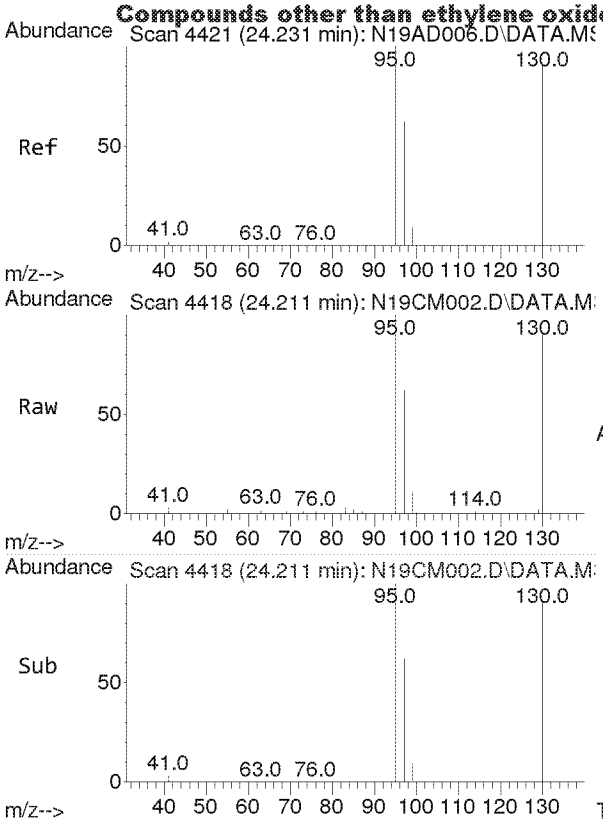
#36
Bromodichloromethane
Concen: 2.567 ppbv
RT: 24.121 min Scan# 4408
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 83 Resp: 14288

Ion	Ratio	Lower	Upper
83	100		
85	60.6	49.0	73.6
129	9.6	7.6	11.4



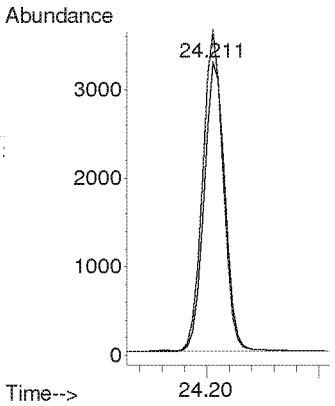
Compounds other than ethylene oxide were not quantitated.

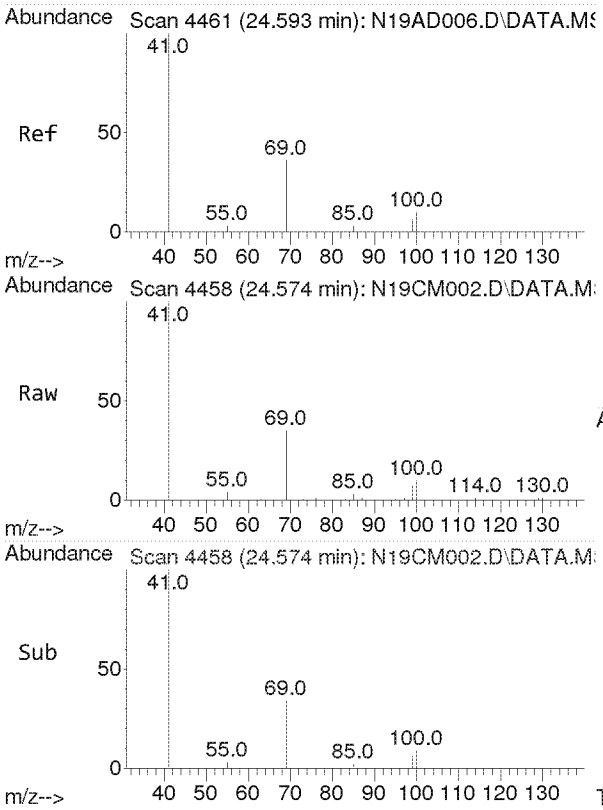


#37
Trichloroethylene
Concen: 2.442 ppbv
RT: 24.211 min Scan# 4418
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:130 Resp: 8378

Ion	Ratio	Lower	Upper
130	100		
95	109.3	87.8	131.6

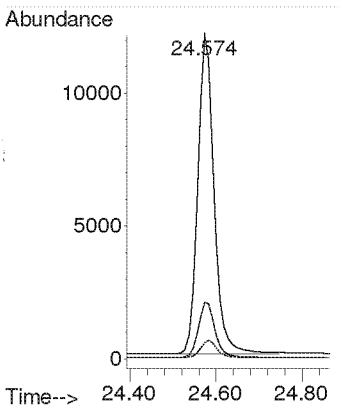




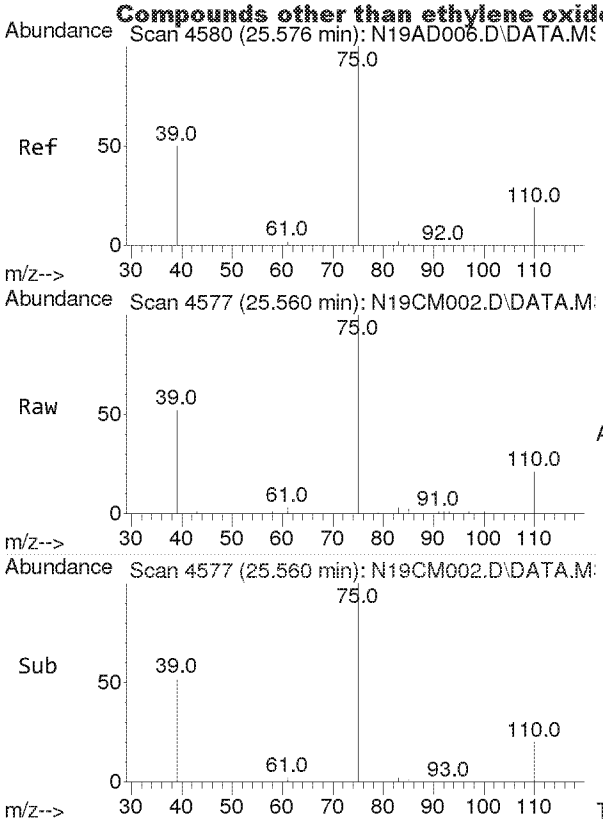
#38
Methyl Methacrylate
Concen: 2.666 ppbv
RT: 24.574 min Scan# 4458
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 41 Resp: 31880

Ion	Ratio	Lower	Upper
41	100		
69	17.8	15.0	22.4
100	5.5	4.5	6.7



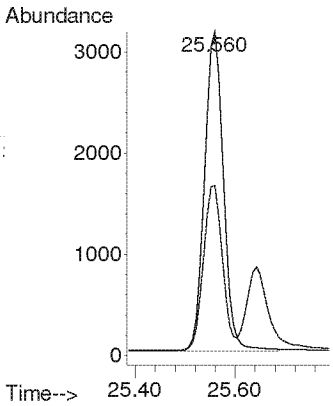
Compounds other than ethylene oxide were not quantitated.

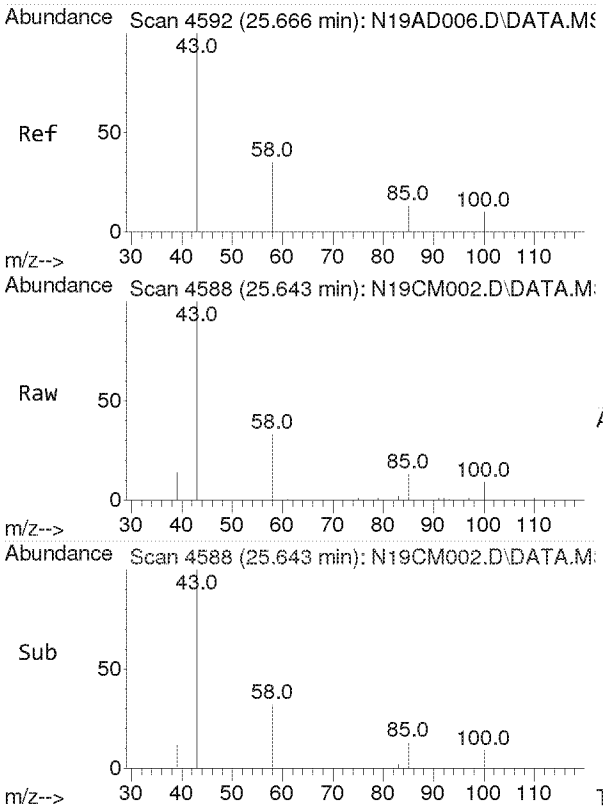


#39
cis-1,3-dichloropropene
Concen: 2.842 ppbv
RT: 25.560 min Scan# 4577
Delta R.T. -0.016 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 75 Resp: 8197

Ion	Ratio	Lower	Upper
75	100		
39	52.3	39.2	58.8

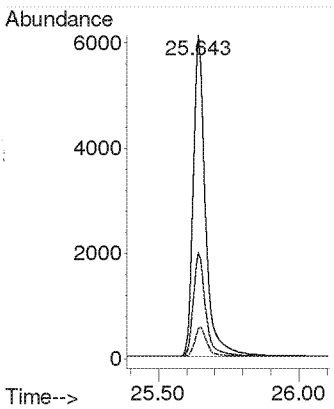




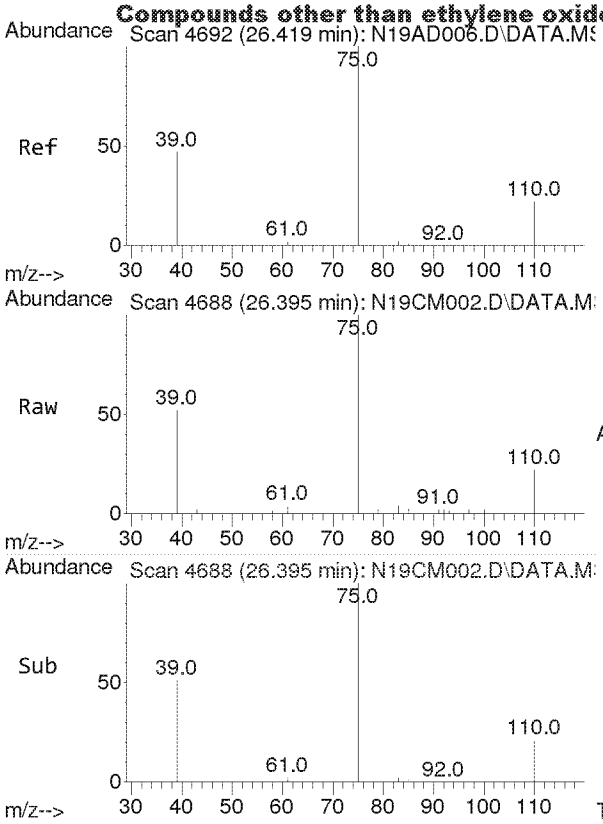
#40
Methyl Isobutyl Ketone
Concen: 2.608 ppbv
RT: 25.643 min Scan# 4588
Delta R.T. -0.024 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 43 Resp: 18234

Ion	Ratio	Lower	Upper
43	100		
58	32.8	27.7	41.5
100	9.3	7.8	11.8



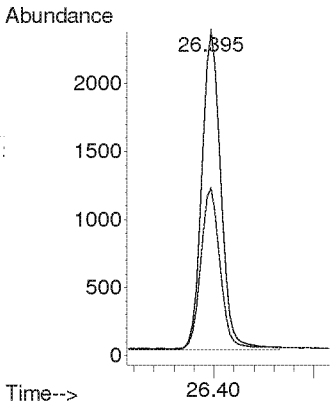
Compounds other than ethylene oxide were not quantitated.

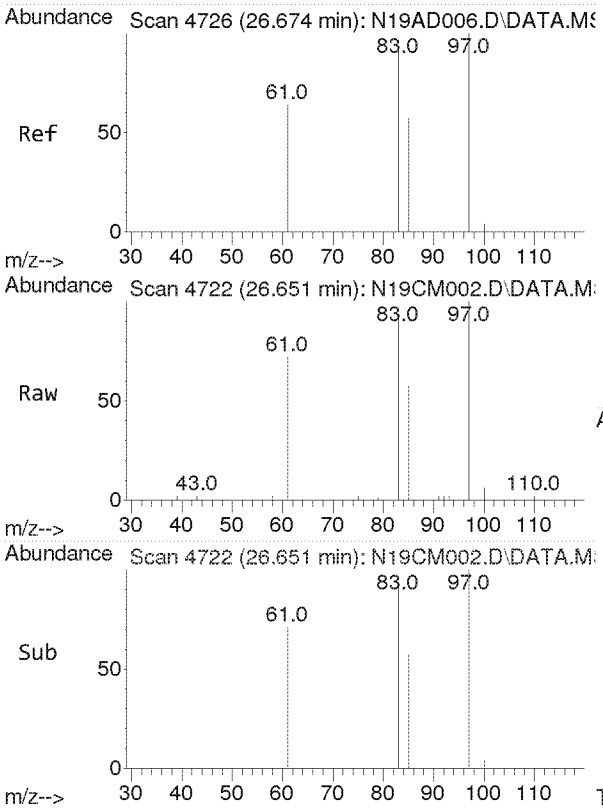


#41
trans-1,3-Dichloropropene
Concen: 2.689 ppbv
RT: 26.395 min Scan# 4688
Delta R.T. -0.024 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 75 Resp: 6105

Ion	Ratio	Lower	Upper
75	100		
39	51.0	39.1	58.7

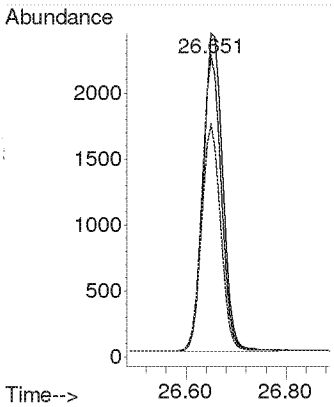




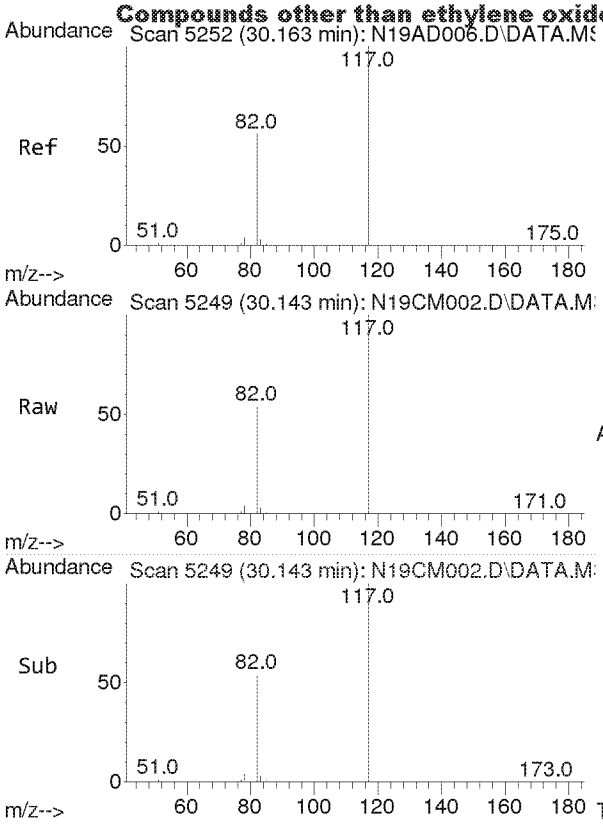
#42
1,1,2-Trichloroethane
Concen: 2.711 ppbv
RT: 26.651 min Scan# 4722
Delta R.T. -0.024 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 97 Resp: 6433

Ion	Ratio	Lower	Upper
97	100		
83	91.2	73.0	109.6
61	70.4	52.5	78.7



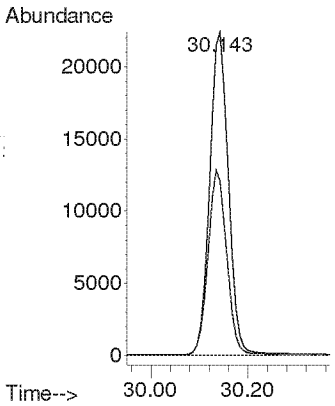
Compounds other than ethylene oxide were not quantitated.

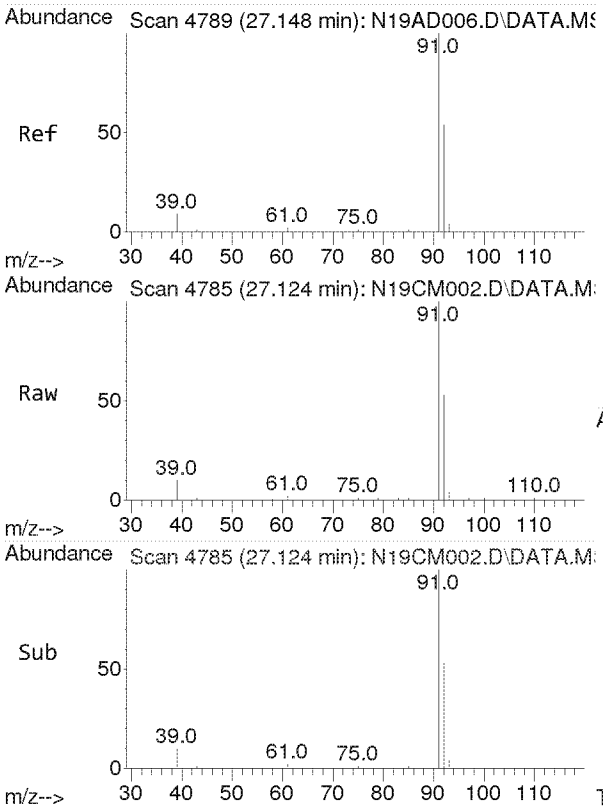


#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.143 min Scan# 5249
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:117 Resp: 59060

Ion	Ratio	Lower	Upper
117	100		
82	57.4	40.1	74.5
54	0.0	0.0	0.0

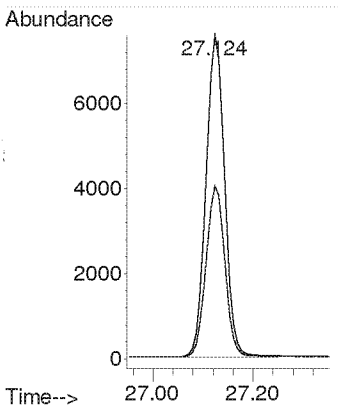




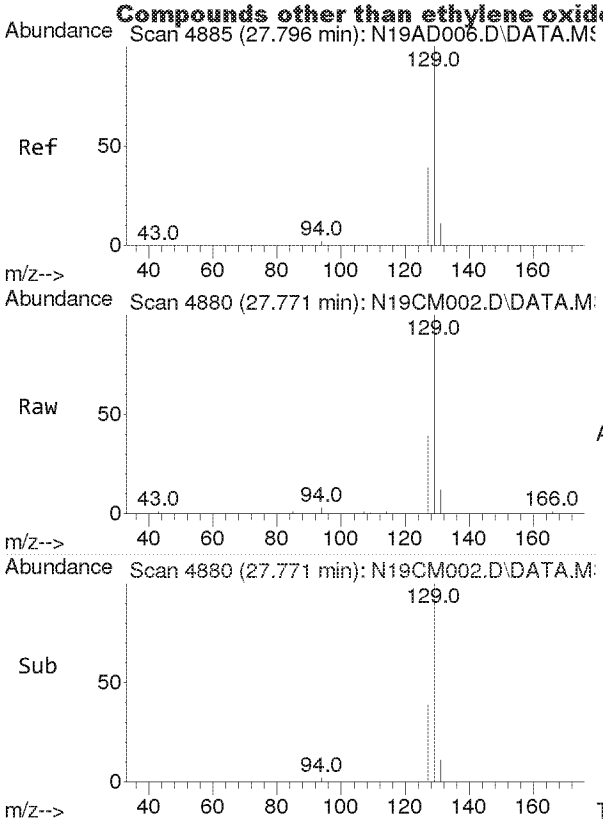
#44
Toluene
Concen: 2.308 ppbv
RT: 27.124 min Scan# 4785
Delta R.T. -0.024 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 91 Resp: 19390

Ion	Ratio	Lower	Upper
91	100		
92	53.9	43.2	64.8



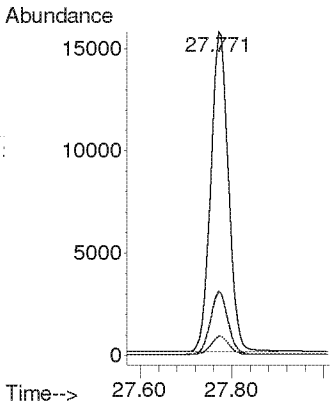
Compounds other than ethylene oxide were not quantitated.

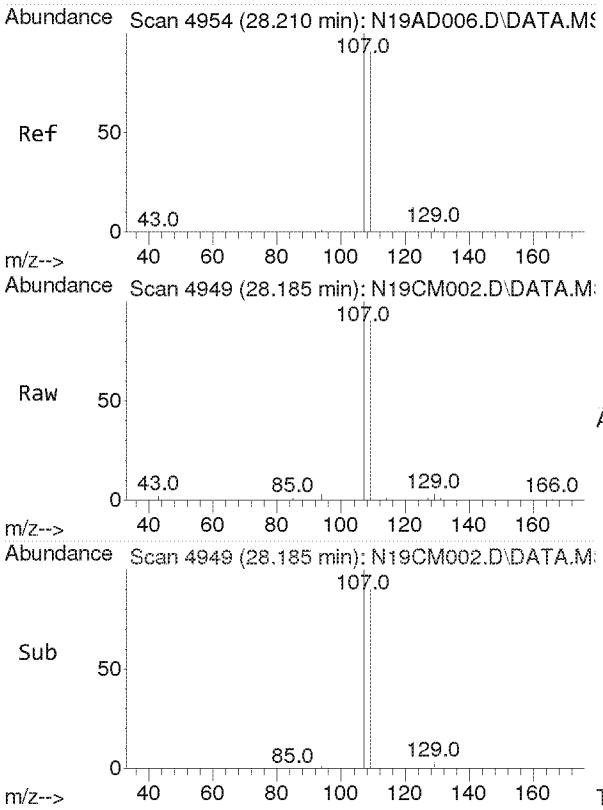


#45
Dibromochloromethane
Concen: 2.506 ppbv
RT: 27.771 min Scan# 4880
Delta R.T. -0.025 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:129 Resp: 41708

Ion	Ratio	Lower	Upper
129	100		
127	19.5	15.6	23.4
131	5.7	4.6	6.8

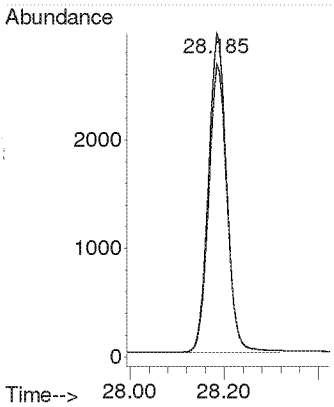




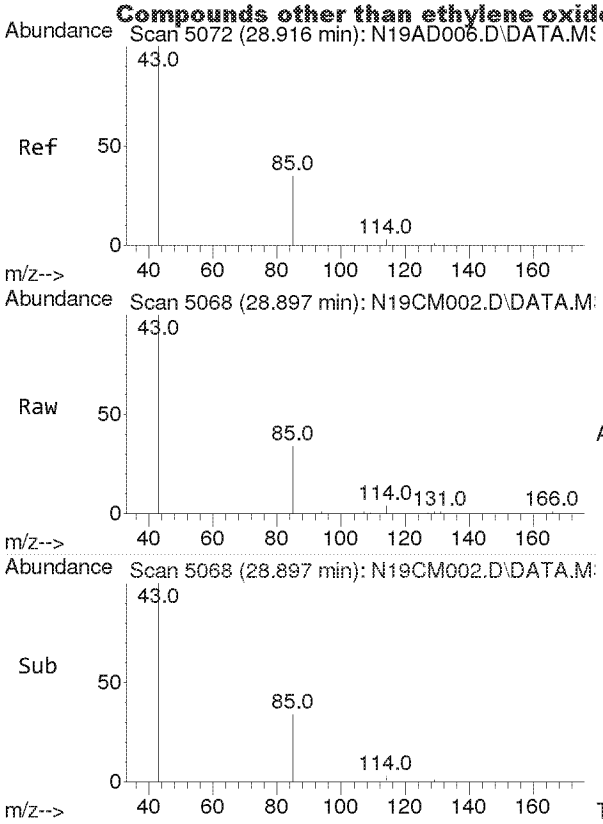
#46
1,2-Dibromoethane
Concen: 2.535 ppbv
RT: 28.185 min Scan# 4949
Delta R.T. -0.025 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:107 Resp: 7855

Ion	Ratio	Lower	Upper
107	100		
109	91.4	73.4	110.0



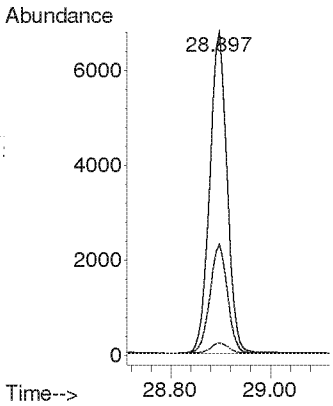
Compounds other than ethylene oxide were not quantitated.

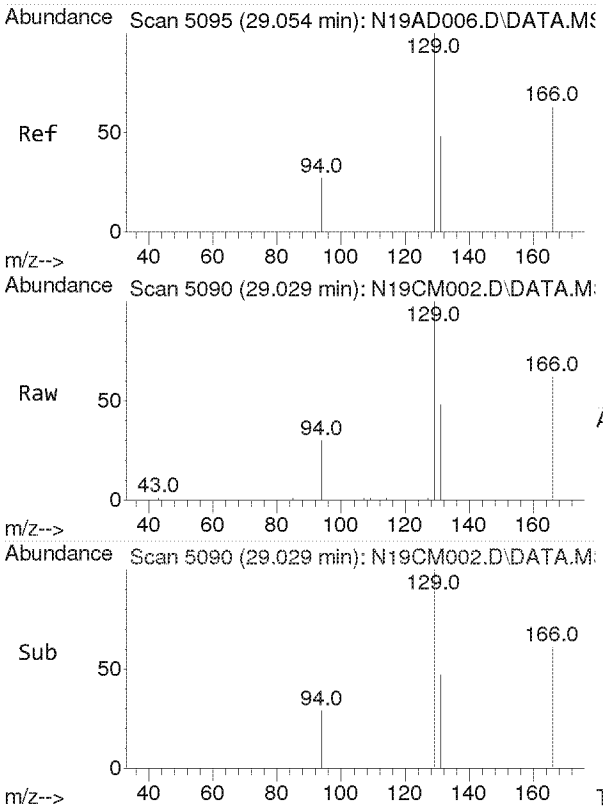


#47
n-Octane
Concen: 2.304 ppbv
RT: 28.897 min Scan# 5068
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 43 Resp: 16336

Ion	Ratio	Lower	Upper
43	100		
85	34.1	28.4	42.6
114	3.2	2.7	4.1

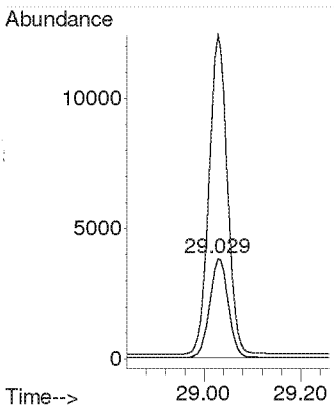




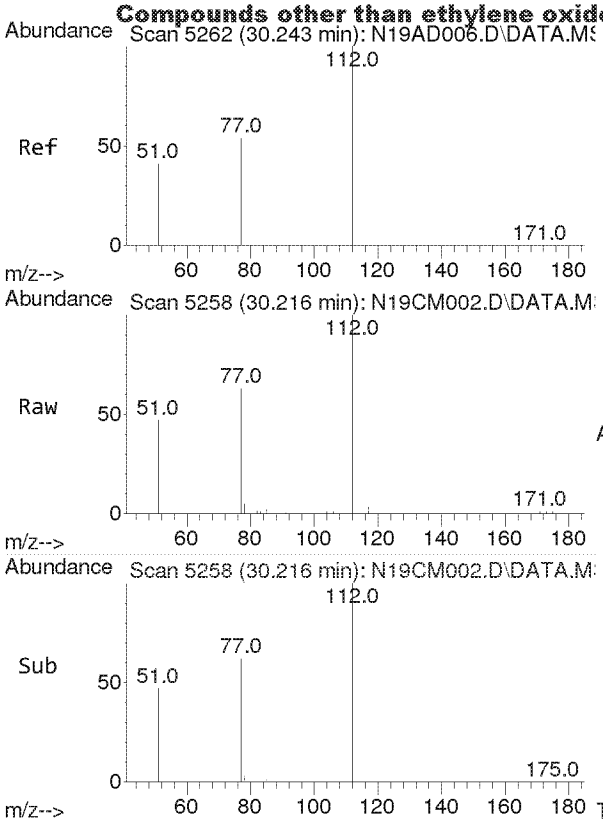
#48
Tetrachloroethylene
Concen: 2.618 ppbv
RT: 29.029 min Scan# 5090
Delta R.T. -0.025 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:166 Resp: 10117

Ion	Ratio	Lower	Upper
166	100		
129	318.7	256.5	384.7



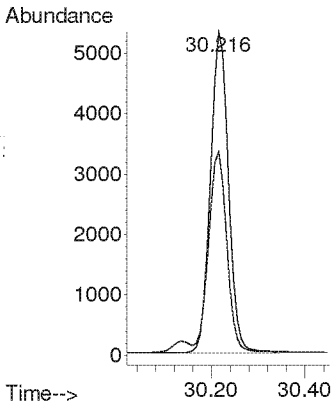
Compounds other than ethylene oxide were not quantitated.

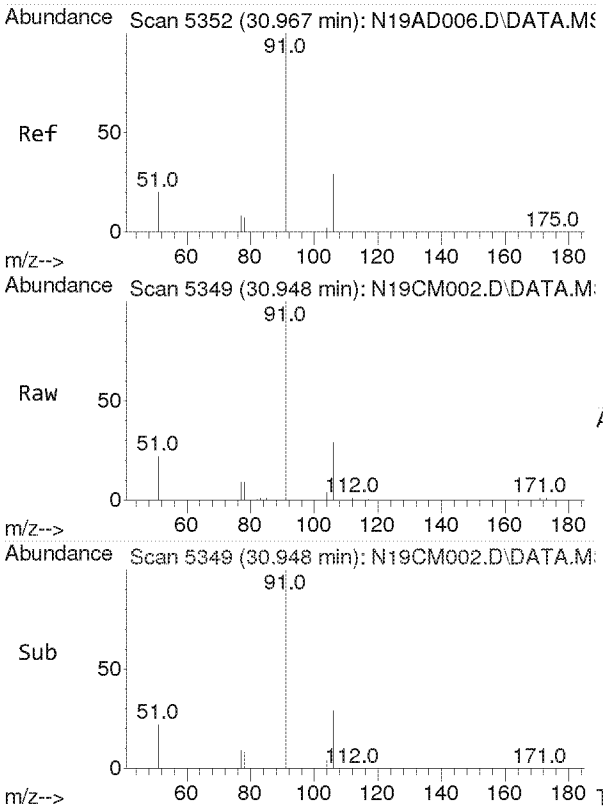


#49
Chlorobenzene
Concen: 2.539 ppbv
RT: 30.216 min Scan# 5258
Delta R.T. -0.027 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:112 Resp: 14201

Ion	Ratio	Lower	Upper
112	100		
77	62.5	49.4	74.0

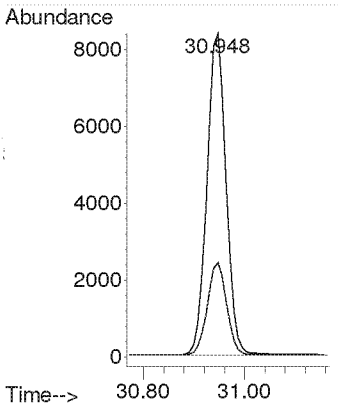




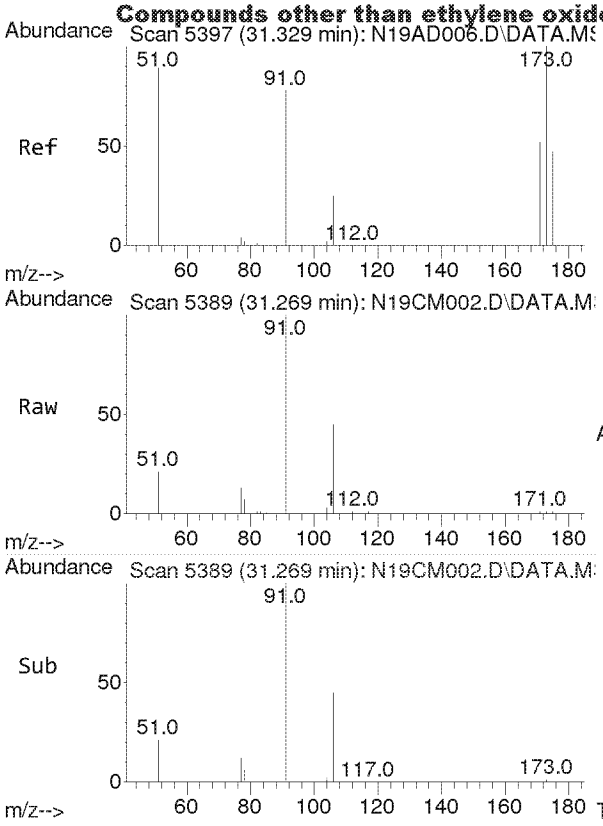
#50
Ethylbenzene
Concen: 2.360 ppbv
RT: 30.948 min Scan# 5349
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 91 Resp: 22029

Ion	Ratio	Lower	Upper
91	100		
106	29.1	23.3	34.9



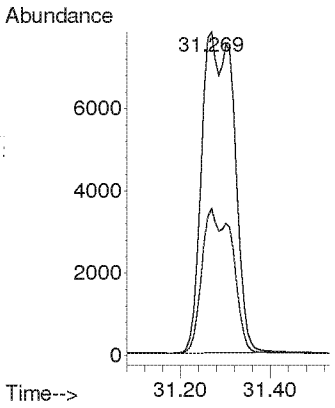
Compounds other than ethylene oxide were not quantitated.

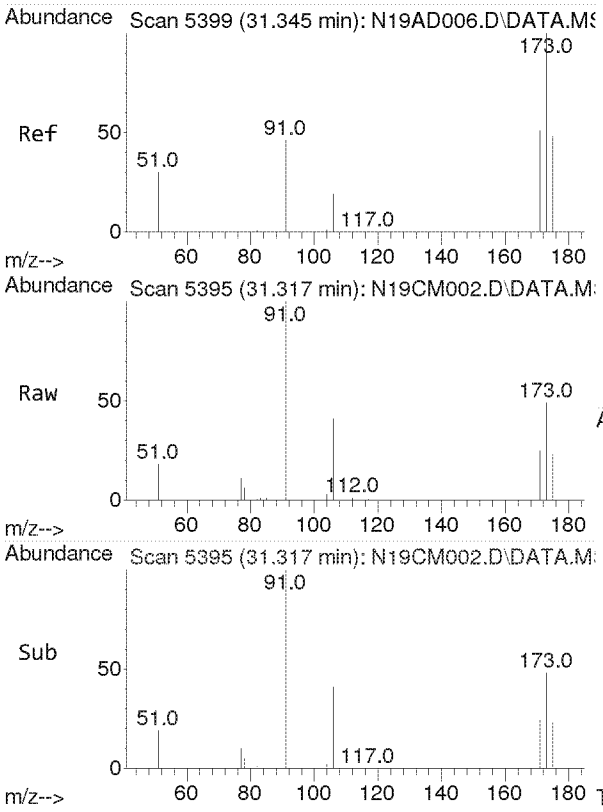


#51
m,p-Xylene
Concen: 4.917 ppbv m
RT: 31.269 min Scan# 5389
Delta R.T. -0.060 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 91 Resp: 38715

Ion	Ratio	Lower	Upper
91	100		
106	0.0	17.0	25.4#

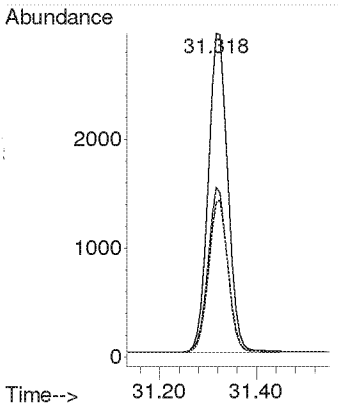




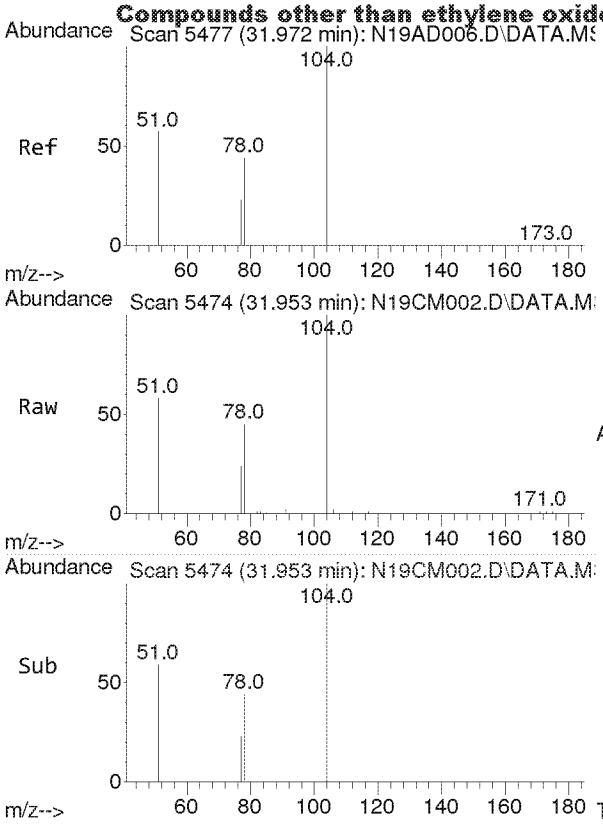
#52
Bromoform
Concen: 2.568 ppbv
RT: 31.317 min Scan# 5395
Delta R.T. -0.027 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:173 Resp: 8134

Ion	Ratio	Lower	Upper
173	100		
171	51.0	40.9	61.3
175	48.0	38.2	57.4



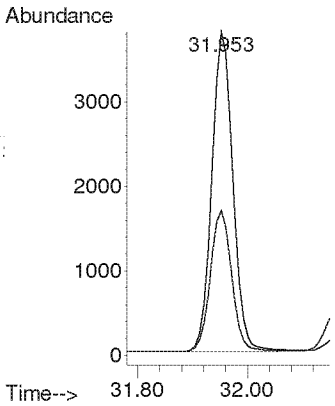
Compounds other than ethylene oxide were not quantitated.

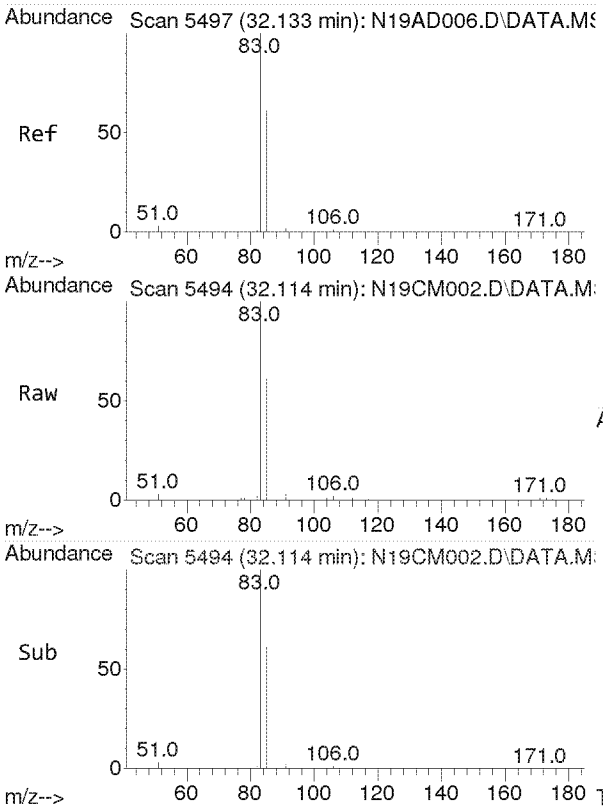


#53
Styrene
Concen: 2.211 ppbv
RT: 31.953 min Scan# 5474
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:104 Resp: 10039

Ion	Ratio	Lower	Upper
104	100		
78	44.8	34.9	52.3

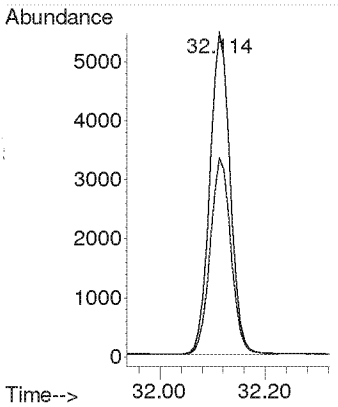




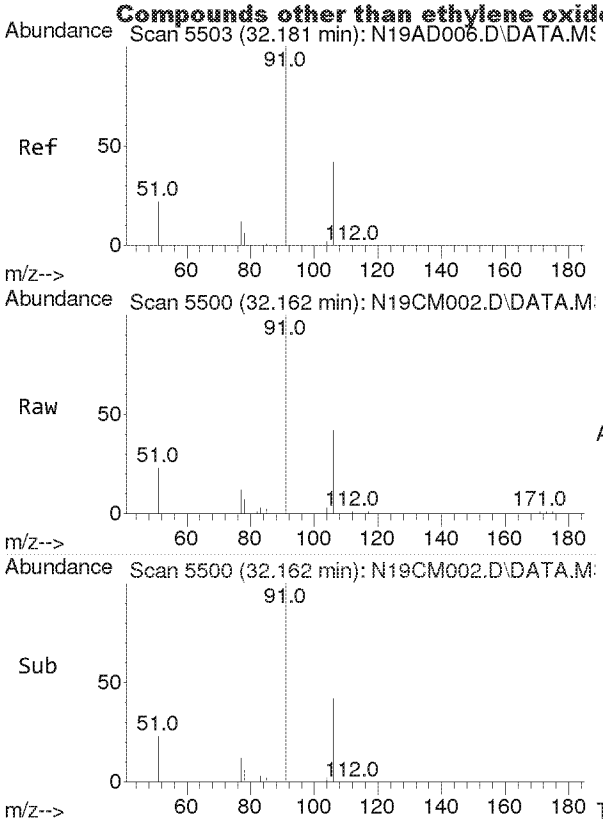
#54
1,1,2,2-Tetrachloroethane
Concen: 2.594 ppbv
RT: 32.114 min Scan# 5494
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 83 Resp: 14579

Ion	Ratio	Lower	Upper
83	100		
85	62.1	49.6	74.4



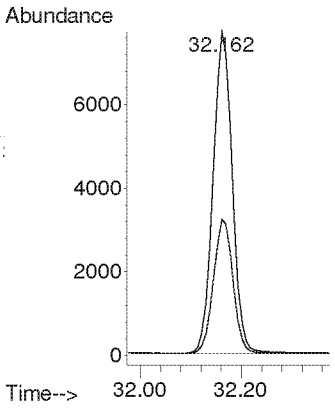
Compounds other than ethylene oxide were not quantitated.

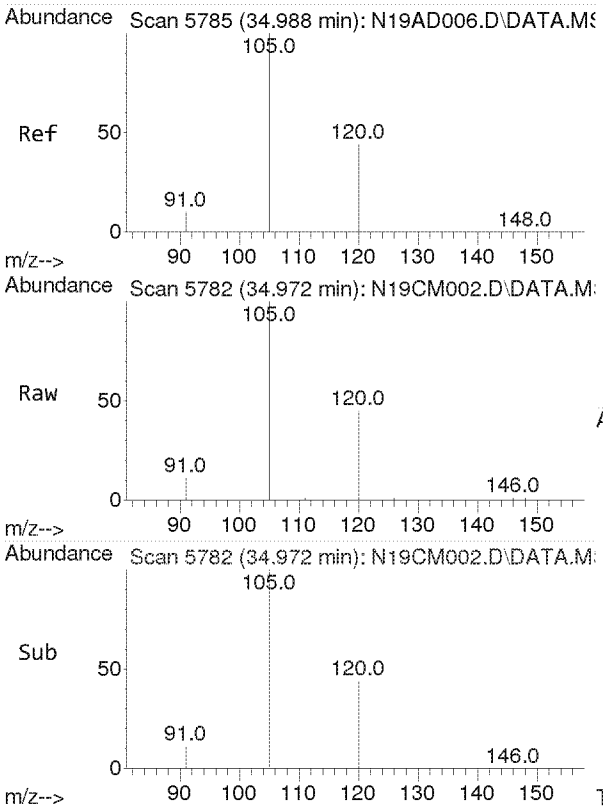


#55
o-Xylene
Concen: 2.531 ppbv
RT: 32.162 min Scan# 5500
Delta R.T. -0.019 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion: 91 Resp: 20251

Ion	Ratio	Lower	Upper
91	100		
106	42.3	34.5	51.7

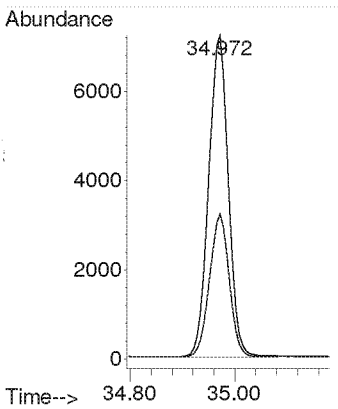




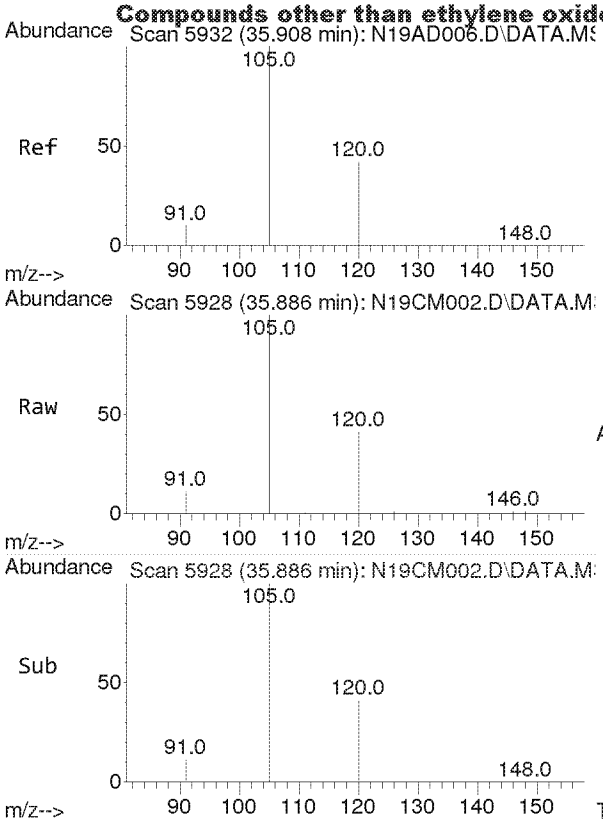
#56
1,3,5-Trimethylbenzene
Concen: 2.229 ppbv
RT: 34.972 min Scan# 5782
Delta R.T. -0.016 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:105 Resp: 18777

Ion	Ratio	Lower	Upper
105	100		
120	44.4	35.9	53.9



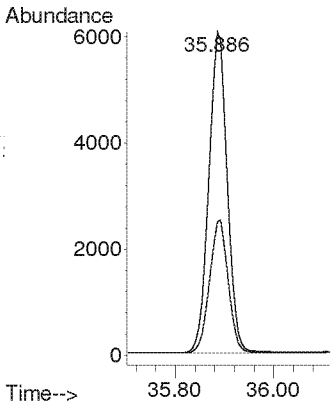
Compounds other than ethylene oxide were not quantitated.

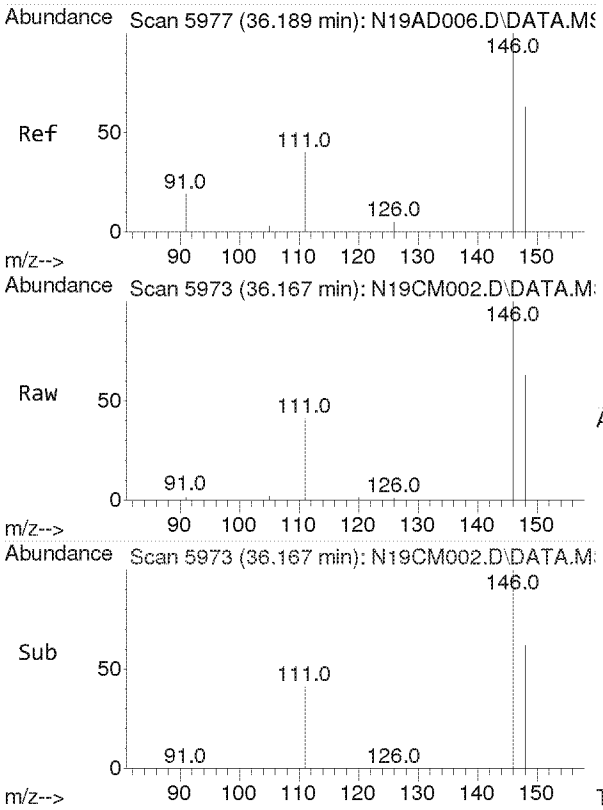


#57
1,2,4-Trimethylbenzene
Concen: 2.158 ppbv
RT: 35.886 min Scan# 5928
Delta R.T. -0.022 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:105 Resp: 15627

Ion	Ratio	Lower	Upper
105	100		
120	41.9	33.8	50.6

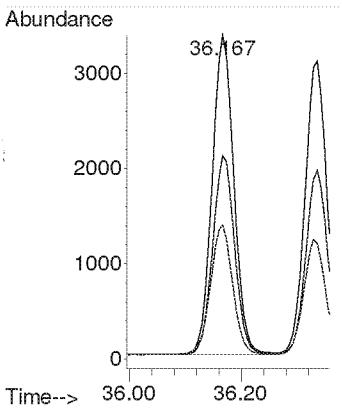




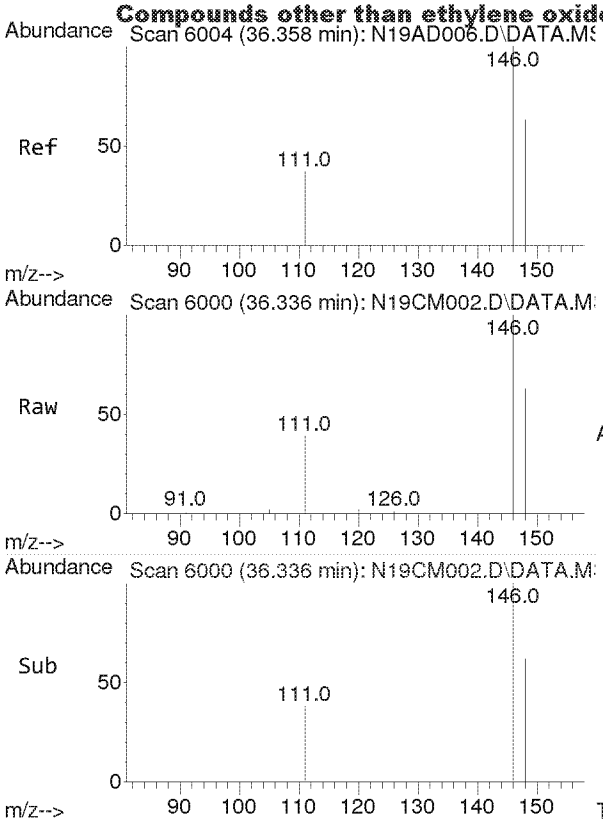
#58
m-Dichlorobenzene
Concen: 2.112 ppbv
RT: 36.167 min Scan# 5973
Delta R.T. -0.022 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:146 Resp: 9022

Ion	Ratio	Lower	Upper
146	100		
148	63.0	50.2	75.4
111	41.6	32.2	48.2



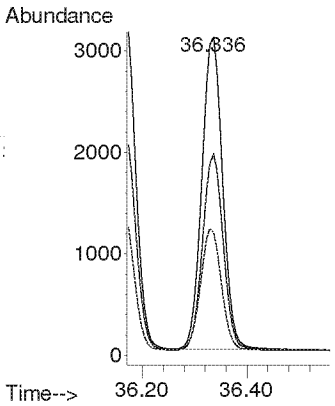
Compounds other than ethylene oxide were not quantitated.

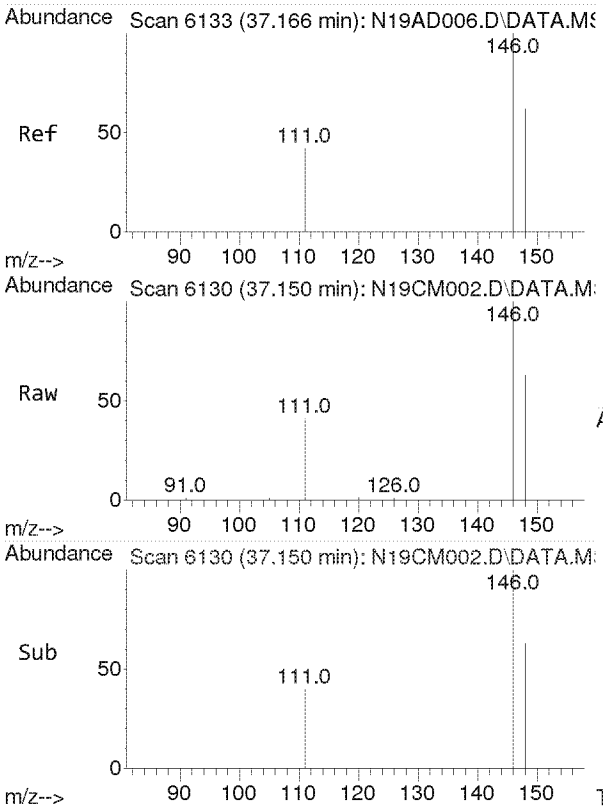


#59
p-Dichlorobenzene
Concen: 2.366 ppbv
RT: 36.336 min Scan# 6000
Delta R.T. -0.022 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:146 Resp: 8378

Ion	Ratio	Lower	Upper
146	100		
148	62.5	49.8	74.8
111	39.4	31.1	46.7

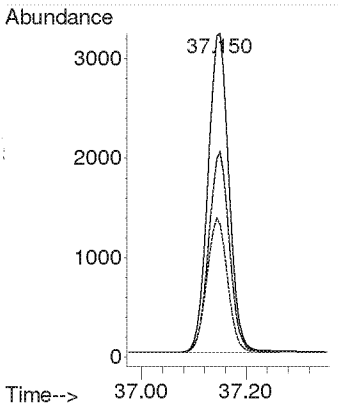




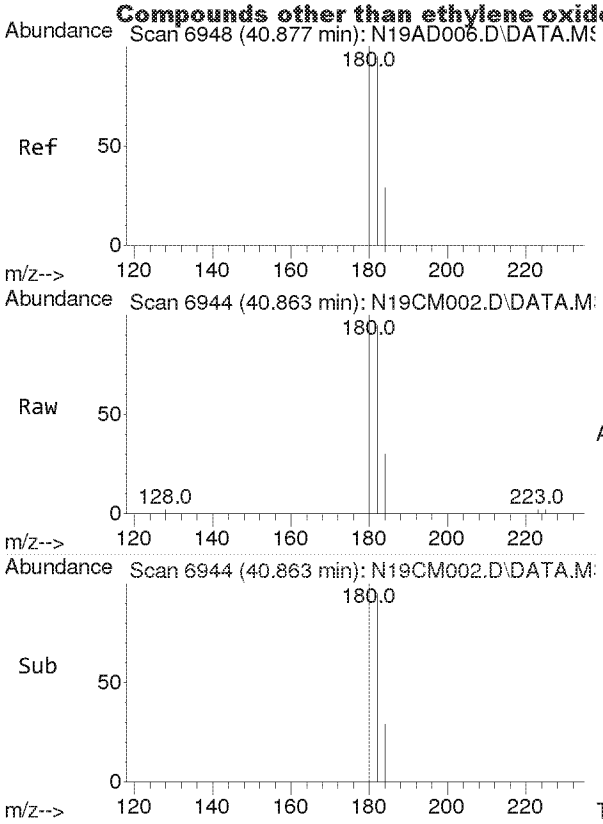
#60
o-Dichlorobenzene
Concen: 2.351 ppbv
RT: 37.150 min Scan# 6130
Delta R.T. -0.016 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:146 Resp: 8860

Ion	Ratio	Lower	Upper
146	100		
148	62.4	50.0	75.0
111	41.9	33.3	49.9



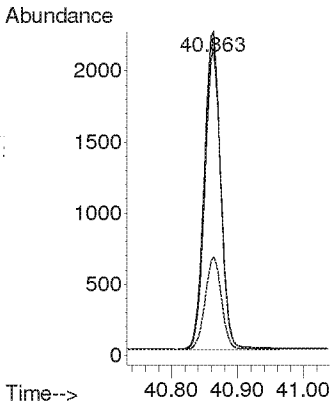
Compounds other than ethylene oxide were not quantitated.

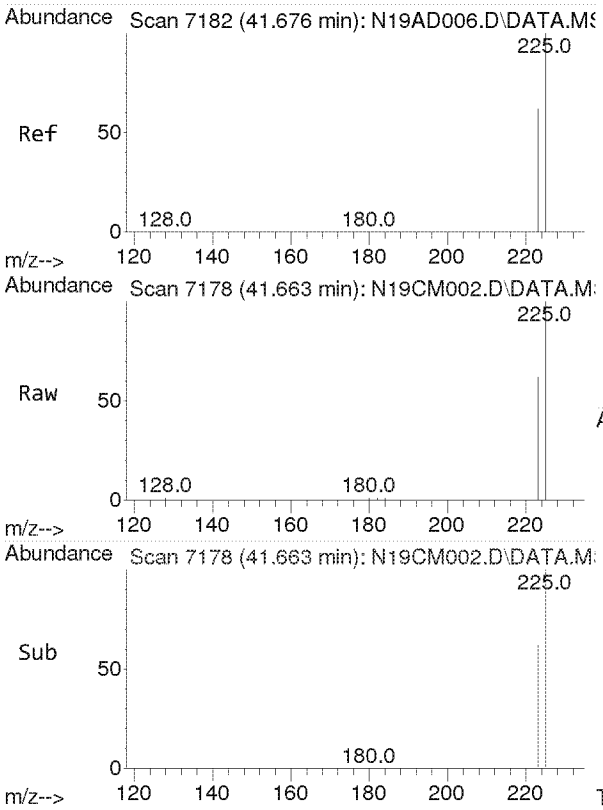


#61
1,2,4-Trichlorobenzene
Concen: 2.253 ppbv
RT: 40.863 min Scan# 6944
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:180 Resp: 3828

Ion	Ratio	Lower	Upper
180	100		
182	94.6	75.5	113.3
184	29.0	23.2	34.8

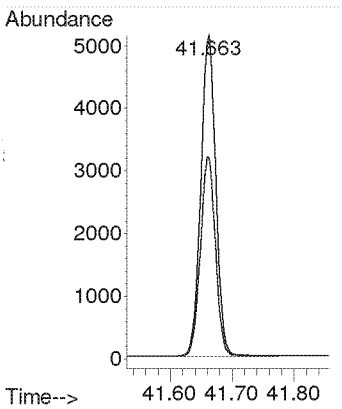




#62
Hexachloro-1,3-butadiene
Concen: 2.725 ppbv
RT: 41.663 min Scan# 7178
Delta R.T. -0.013 min
Lab File: N19CM002.D
Acq: 13 Mar 2019 10:13 am

Tgt Ion:225 Resp: 8591

Ion	Ratio	Lower	Upper
225	100		
223	62.5	49.8	74.8



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: KSS Date: 3/18/19

Reviewer: MMB Date: 3/22/19

Data File Name	N19CM003.D
Operator	KSS
Acq. Method File	9010001.M
Sample Name	B9C1305-BLK1
Misc Info	80ML 8L13001,T-H2-572

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	29886		NA		NA
2)	Acetylene	0	0.000	Y	MAX	0.142
3)	Propylene	0	0.000	Y	MAX	0.119
4)	Dichlorodifluoromethane	0	0.000	Y	MAX	0.111
5)	Chloromethane	0	0.000	Y	MAX	0.074
6)	Dichlorotetrafluoroethane	0	0.000	Y	MAX	0.031
7)	Vinyl Chloride	0	0.000	Y	MAX	0.029
8)	1,3-Butadiene	0	0.000	Y	MAX	0.031
	Ethylene oxide	0	0.000	Y	MAX	0.110
9)	Bromomethane	0	0.000	Y	MAX	0.028
10)	Chloroethane	0	0.000	Y	MAX	0.046
11)	Acetonitrile	0	0.000	Y	MAX	0.136
12)	Acrolein	0	0.000	Y	MAX	0.200
13)	Trichlorofluoromethane	0	0.000	Y	MAX	0.018
14)	Acrylonitrile	0	0.000	Y	MAX	0.062
15)	1,1-Dichloroethene	0	0.000	Y	MAX	0.034
16)	Methylene Chloride	0	0.000	Y	MAX	0.123
17)	Carbon Disulfide	0	0.000	Y	MAX	0.126
18)	Trichlorotrifluoroethane	0	0.000	Y	MAX	0.029
19)	trans-1,2-Dichloroethylene	0	0.000	Y	MAX	0.030
20)	1,1-Dichloroethane	0	0.000	Y	MAX	0.022
21)	Methyl tert-Butyl Ether	0	0.000	Y	MAX	0.029
22)	Chloroprene	0	0.000	Y	MAX	0.022
23)	cis-1,2-Dichloroethylene	0	0.000	Y	MAX	0.089
24)	Bromochloromethane	0	0.000	Y	MAX	0.027
25)	Chloroform	0	0.000	Y	MAX	0.023
26)	Ethyl tert-Butyl Ether	0	0.000	Y	MAX	0.022
27)	1,2-Dichloroethane	0	0.000	Y	MAX	0.026
28)	IS-1,4-Difluorobenzene	69573		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y	MAX	0.039
30)	Benzene	0	0.000	Y	MAX	0.029
31)	Carbon Tetrachloride	0	0.000	Y	MAX	0.029
32)	tert-Amyl Methyl Ether	0	0.000	Y	MAX	0.027
33)	1,2-Dichloropropane	0	0.000	Y	MAX	0.031
34)	Ethyl Acrylate	0	0.000	Y	MAX	0.061
35)	Bromodichloromethane	0	0.000	Y	MAX	0.032
36)	Trichloroethylene	0	0.000	Y	MAX	0.032
37)	Methyl Methacrylate	0	0.000	Y	MAX	0.156
38)	cis-1,3-dichloropropene	0	0.000	Y	MAX	0.028
39)	Methyl Isobutyl Ketone	0	0.000	Y	MAX	0.031
40)	trans-1,3-Dichloropropene	0	0.000	Y	MAX	0.036
41)	1,1,2-Trichloroethane	0	0.000	Y	MAX	0.030
42)	IS-Chlorobenzene-d5	56454		NA		NA
43)	Toluene	0	0.000	Y	MAX	0.055
44)	Dibromochloromethane	0	0.000	Y	MAX	0.027
45)	1,2-Dibromoethane	0	0.000	Y	MAX	0.037
46)	n-Octane	0	0.000	Y	MAX	0.070
47)	Tetrachloroethylene	0	0.000	Y	MAX	0.026
48)	Chlorobenzene	0	0.000	Y	MAX	0.026
49)	Ethylbenzene	0	0.000	Y	MAX	0.047
50)	m,p-Xylene	0	0.000	Y	MAX	0.071
51)	Bromoform	0	0.000	Y	MAX	0.029
52)	Styrene	0	0.000	Y	MAX	0.045
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y	MAX	0.045
54)	o-Xylene	0	0.000	Y	MAX	0.047
55)	1,3,5-Trimethylbenzene	0	0.000	Y	MAX	0.031
56)	1,2,4-Trimethylbenzene	0	0.000	Y	MAX	0.046
57)	m-Dichlorobenzene	0	0.000	Y	MAX	0.082
58)	p-Dichlorobenzene	0	0.000	Y	MAX	0.099
59)	o-Dichlorobenzene	0	0.000	Y	MAX	0.093
60)	1,2,4-Trichlorobenzene	0	0.000	Y	MAX	0.200
61)	Hexachloro-1,3-butadiene	0	0.000	Y	MAX	0.145

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

TO-15_BLANK_TEMPLATES_3-19-18
2019 BLANK
Y:\Forms\TO-15\TO-15_BLANK_TEMPLATES 031319 MS4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM003.D
Acq On : 13 Mar 2019 11:14 am (#1); 13-Mar-19, 11:09:28 (#2)
Operator : KSS
Sample : B9C1305-BLK1
Misc : 80ML 8L13001,T-H2-572
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 14 08:28:22 2019 ✓
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.031	66	29886	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.196	114	69573	4.9900 ppbv	-0.01
43) IS-Chlorobenzene-d5	30.135	117	56454	4.7400 ppbv	-0.03

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
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.	✓
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D.	
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	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	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\N19CM\
Data File : N19CM003.D
Acq On : 13 Mar 2019 11:14 am (#1); 13-Mar-19, 11:09:28 (#2)
Operator : KSS
Sample : B9C1305-BLK1
Misc : 80ML 8L13001,T-H2-572
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 14 08:28:22 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

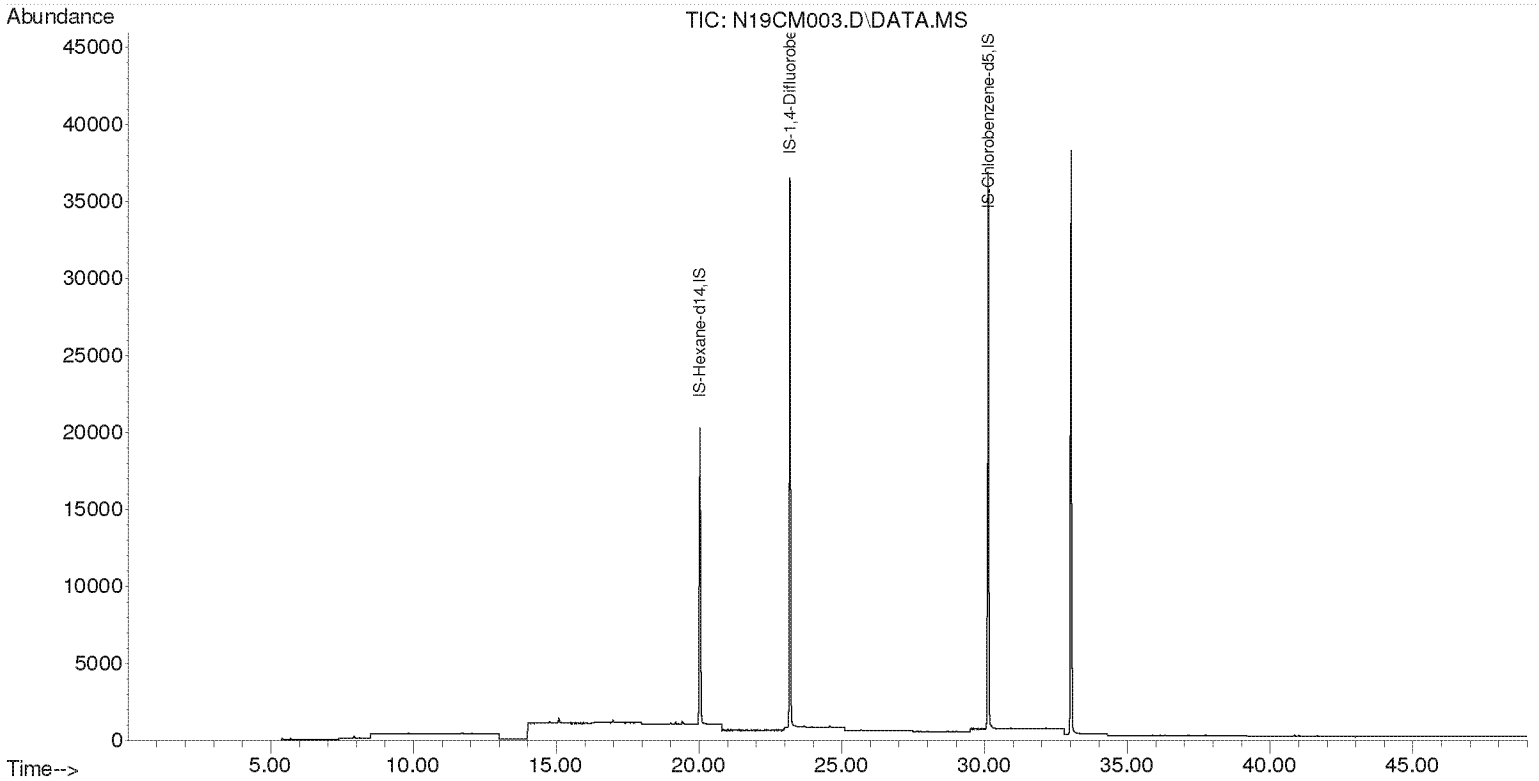
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

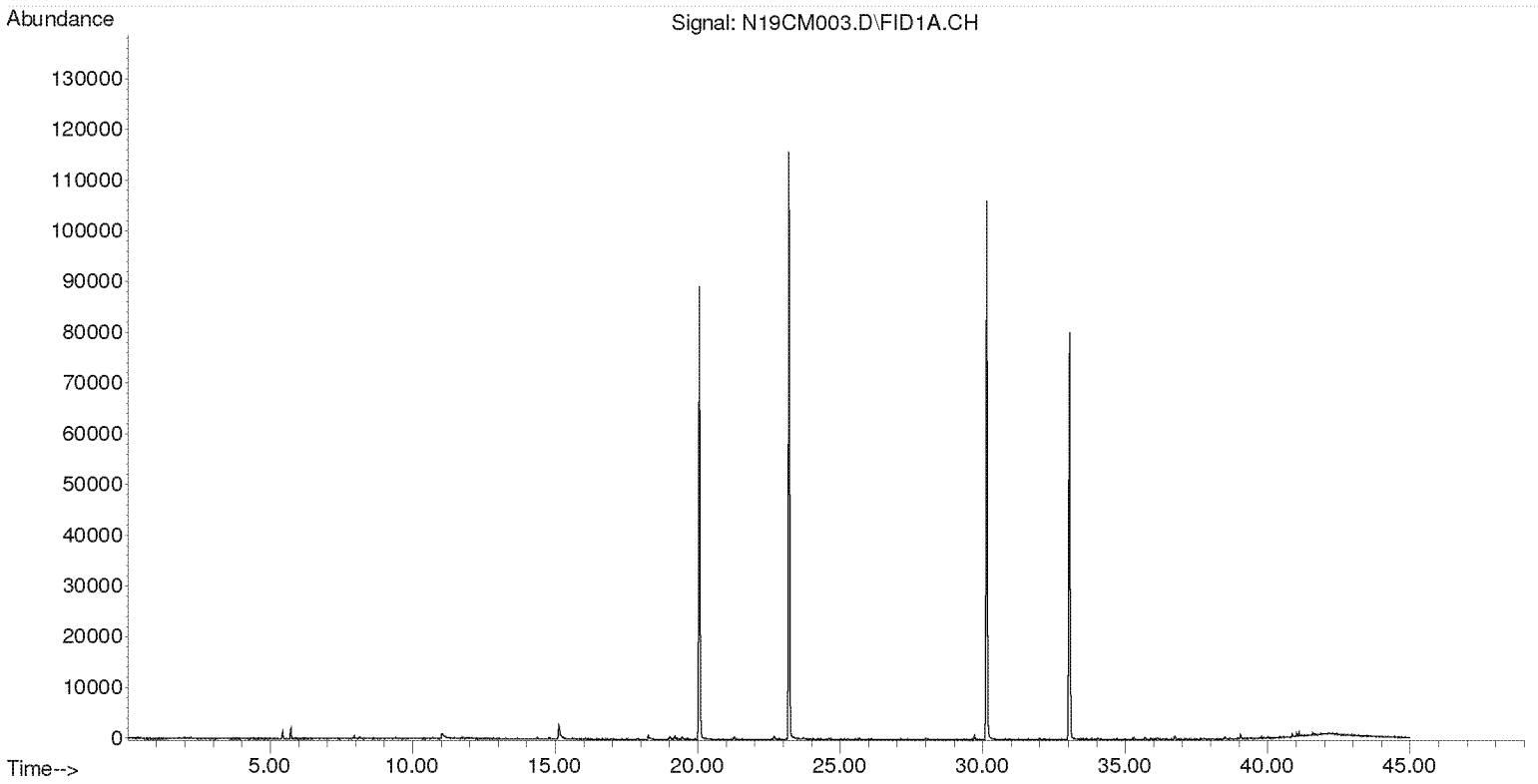
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

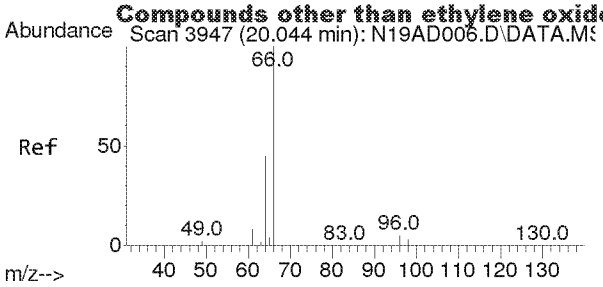
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM003.D
Acq On : 13 Mar 2019 11:14 am (#1); 13 Mar 2019 11:09 am (#2)
Operator : KSS
Sample : B9C1305-BLK1
Misc : 80ML 8L13001,T-H2-572
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 14 08:18:56 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





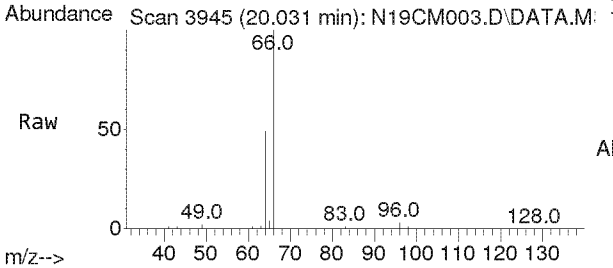
Compounds other than ethylene oxide were not quantitated.

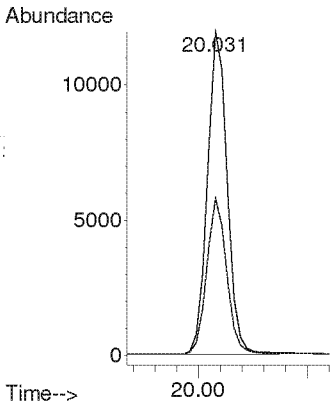


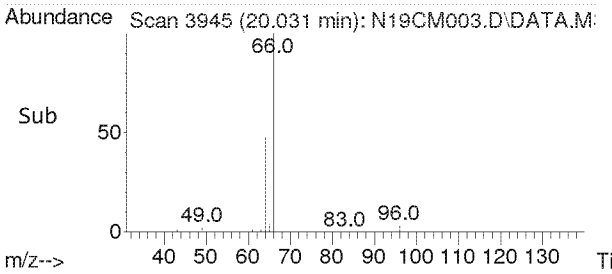
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.031 min Scan# 3945
Delta R.T. -0.013 min
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

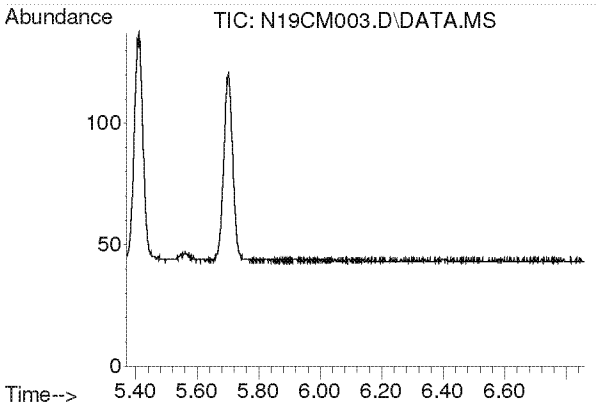
Tgt Ion: 66 Resp: 29886

Ion	Ratio	Lower	Upper
66	100		
64	48.7	32.1	59.5





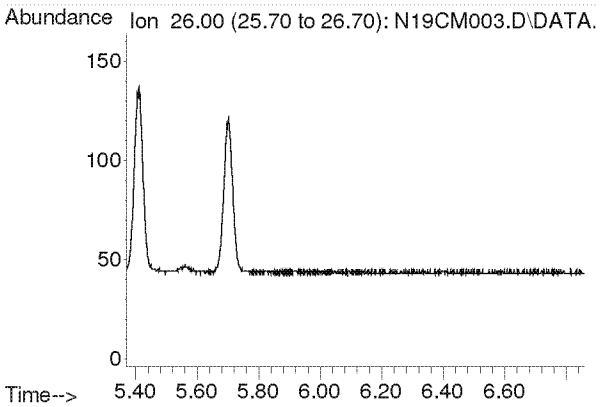




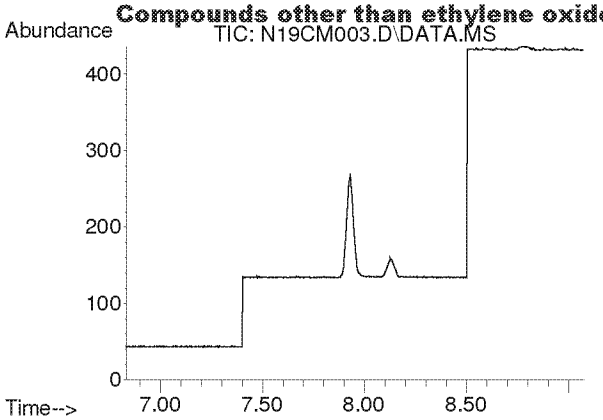
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

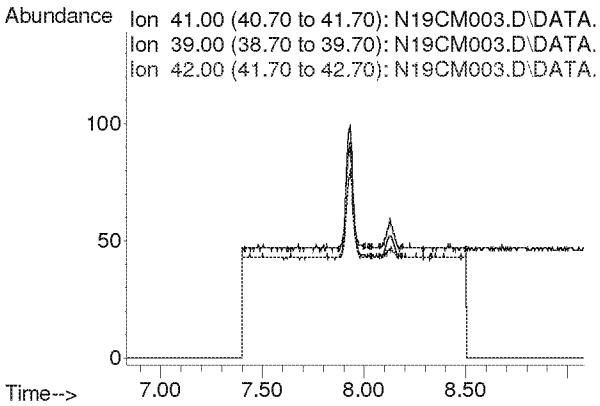


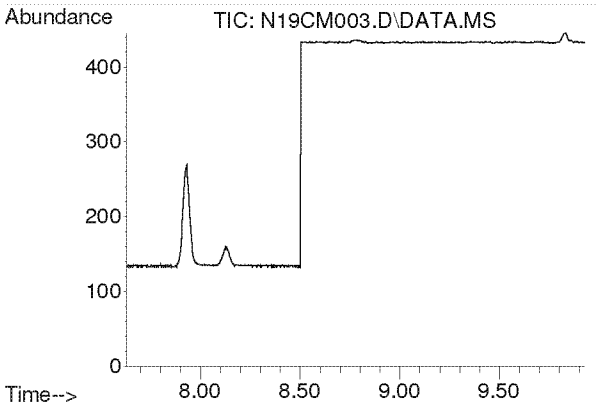
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



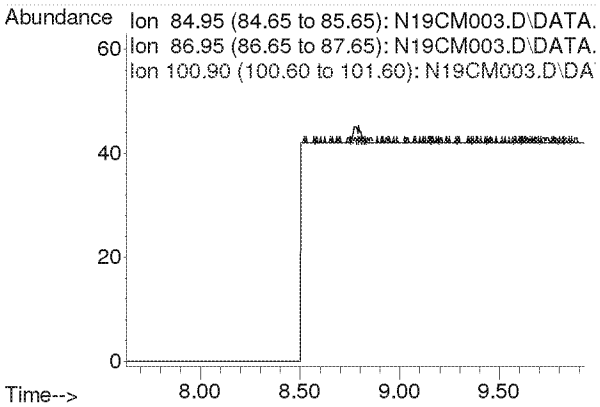


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

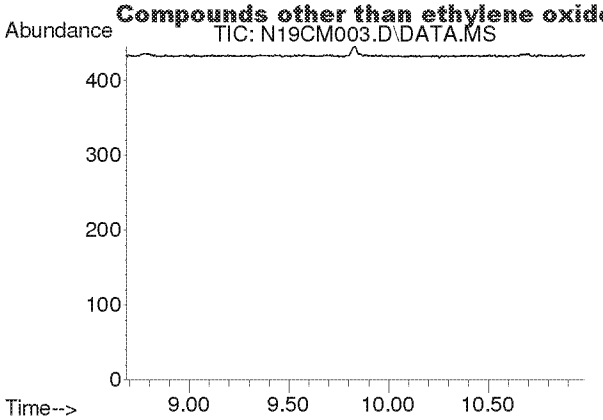
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

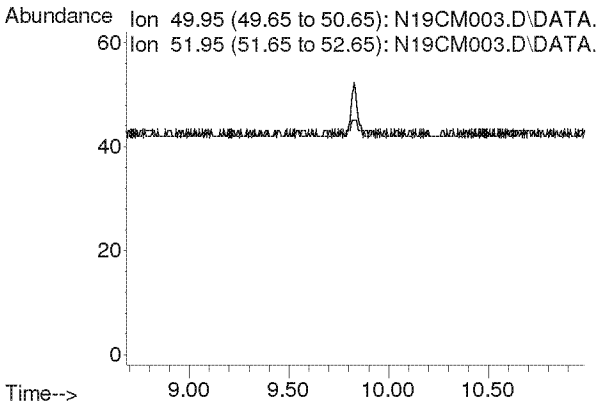


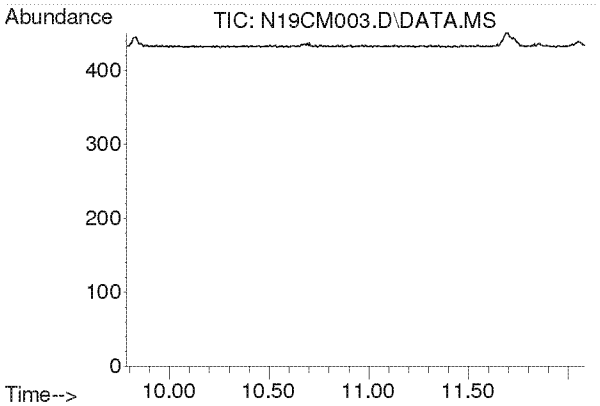
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



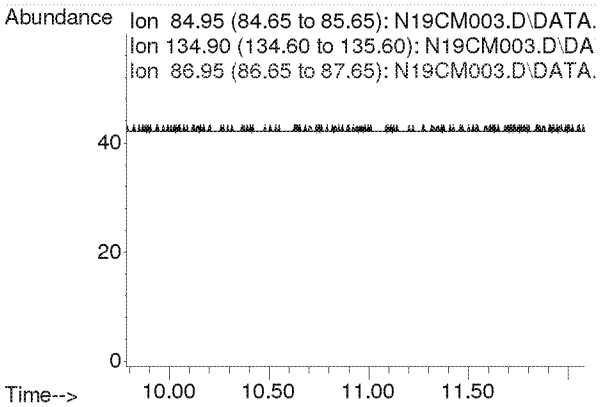


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

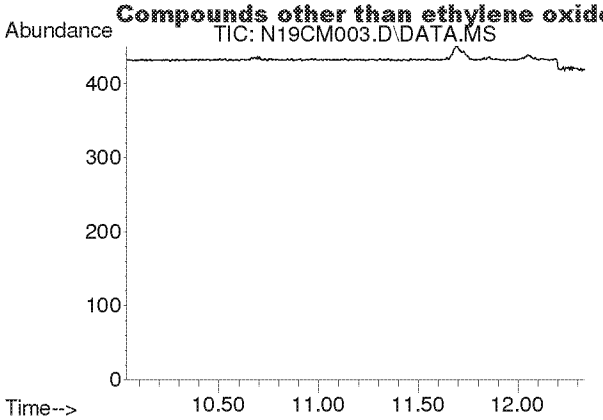
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

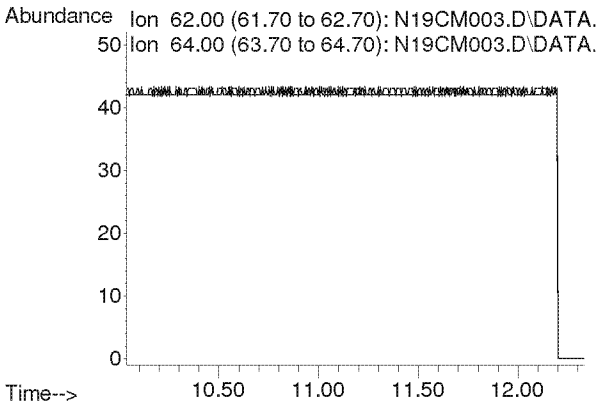


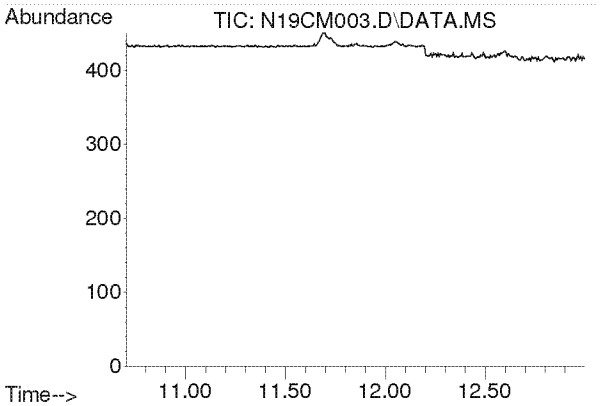
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



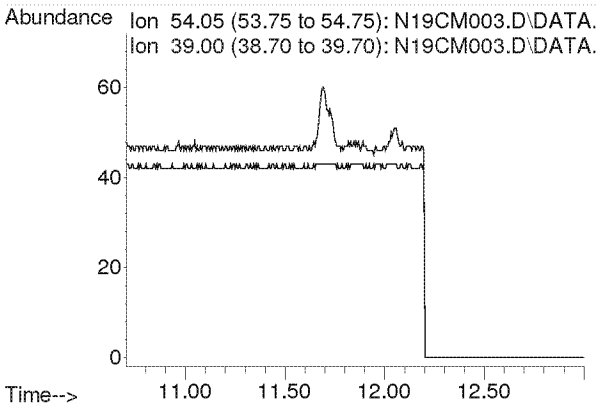


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

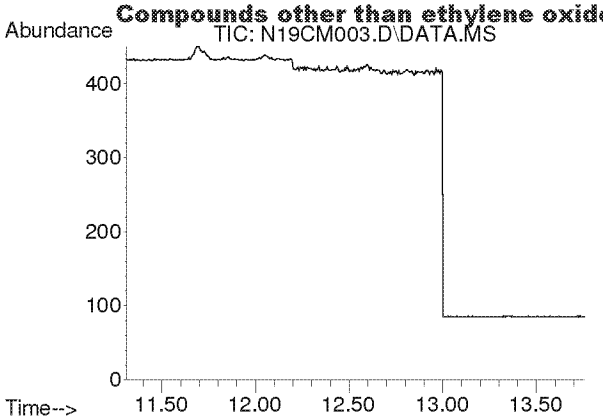
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



Compounds other than ethylene oxide were not quantitated.

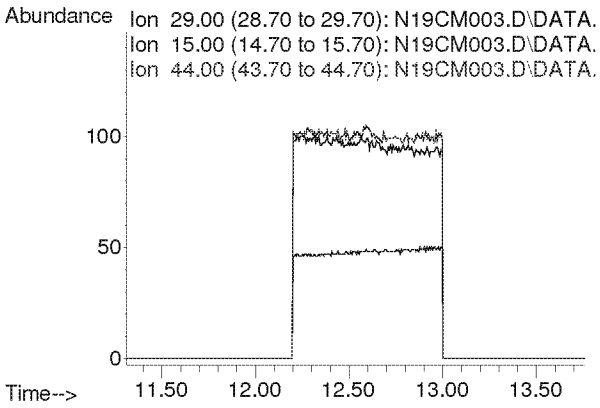


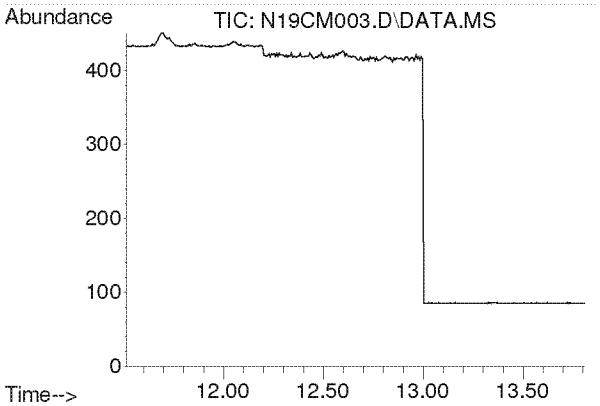
#9
Ethylene Oxide
Concen: N.D.
Expected RT: 12.46 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	17.5
44	99.0



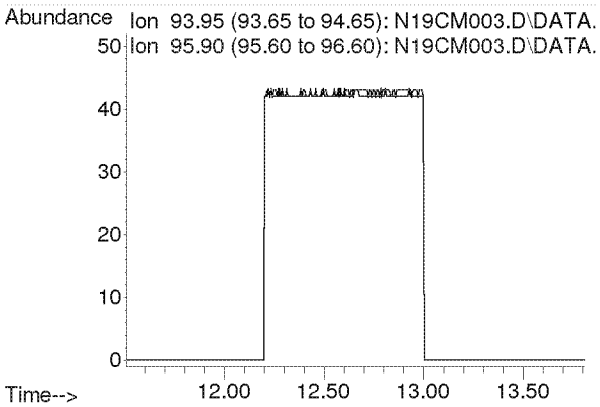


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

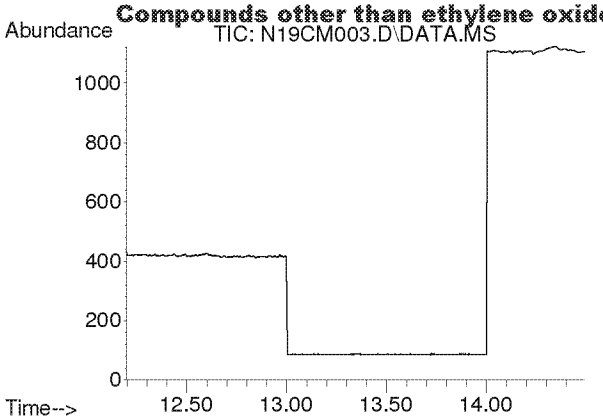
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

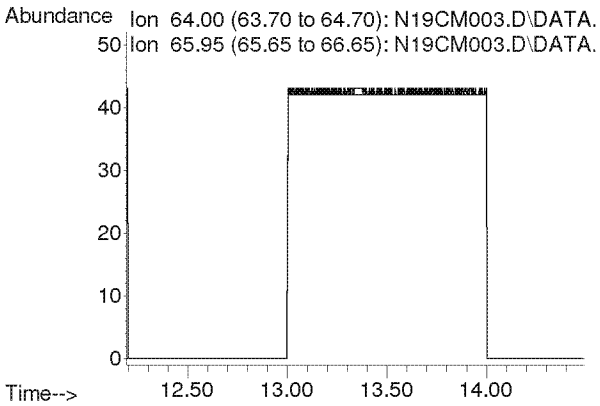


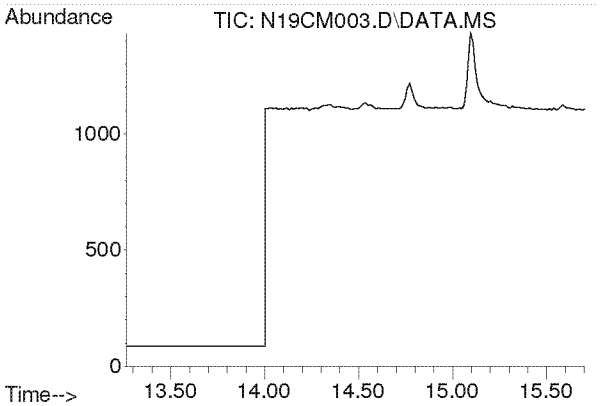
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



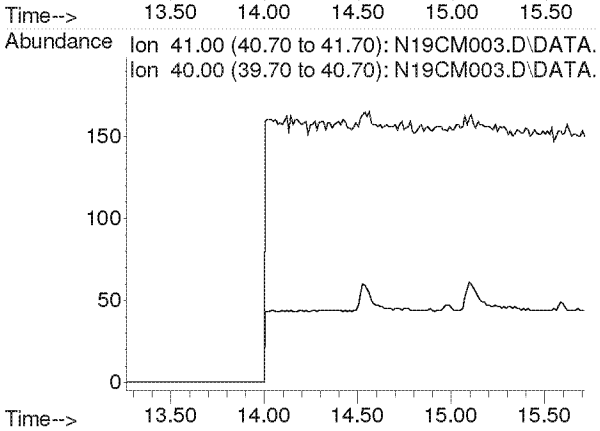


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

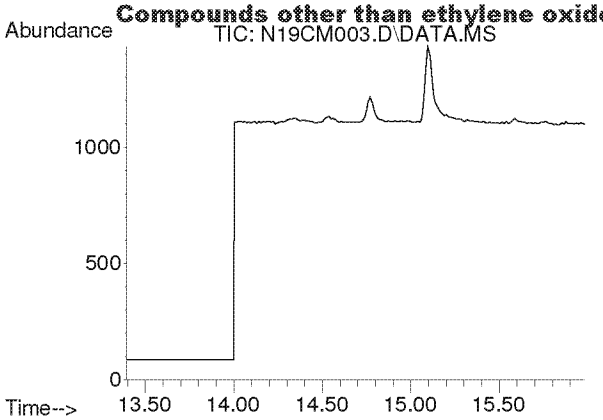
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

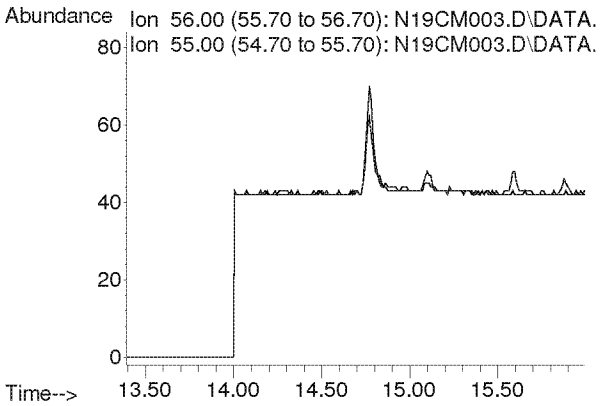


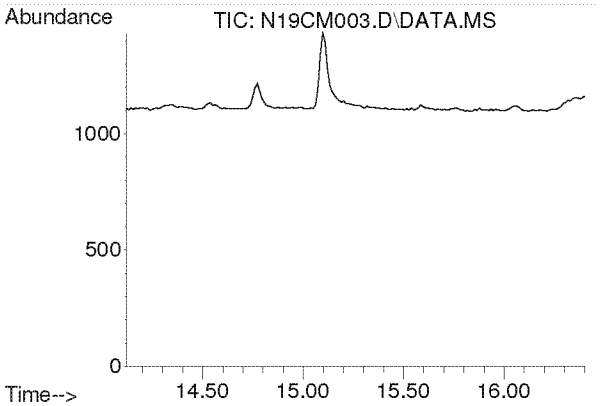
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



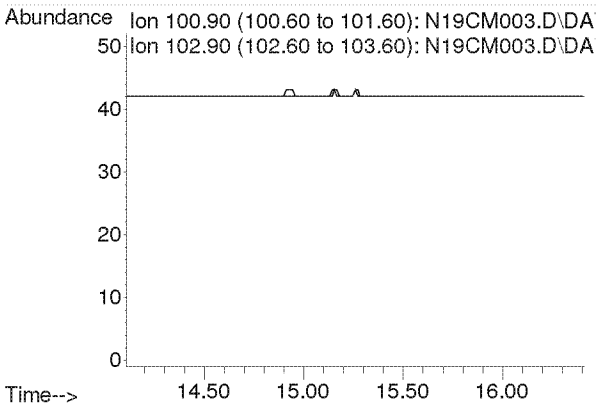


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

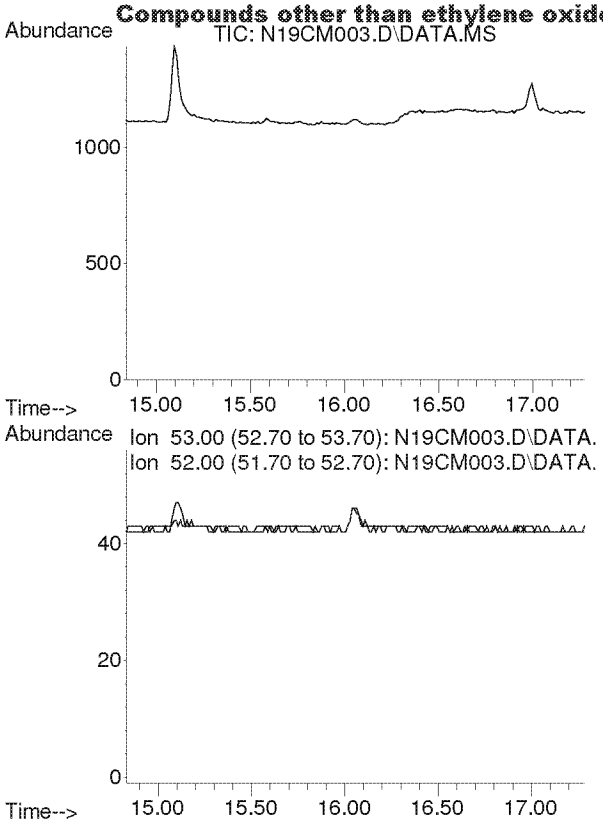
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

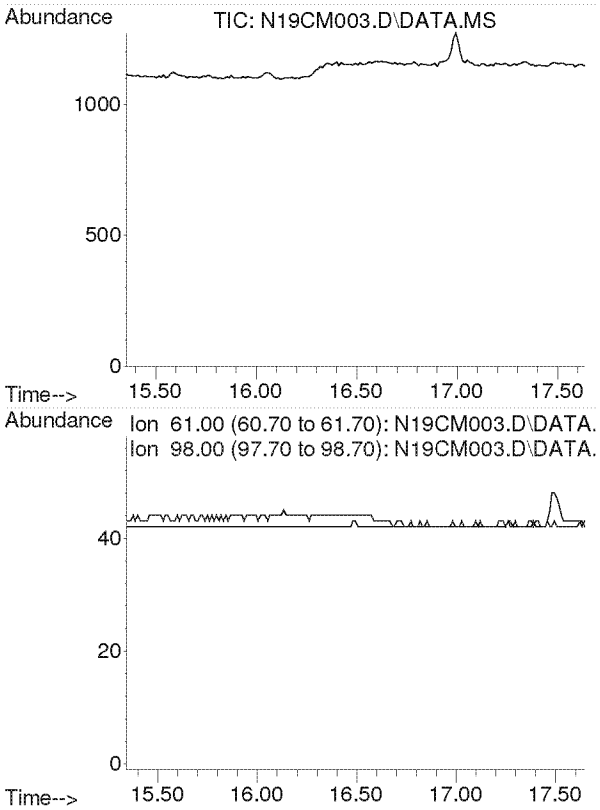


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



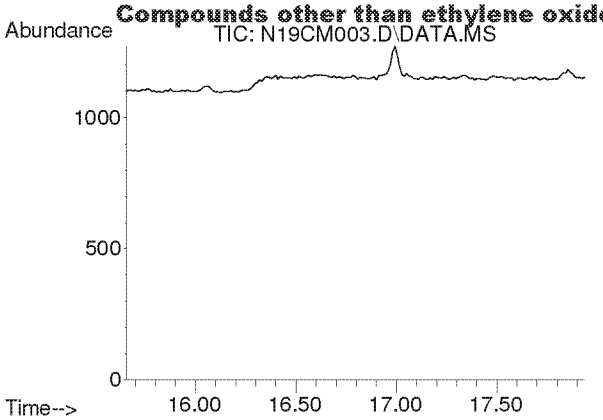
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7

Compounds other than ethylene oxide were not quantitated.

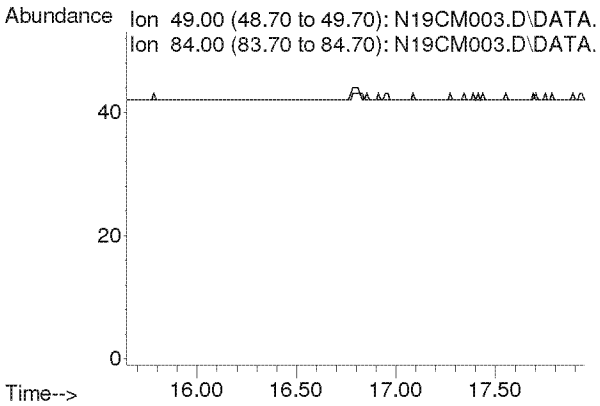


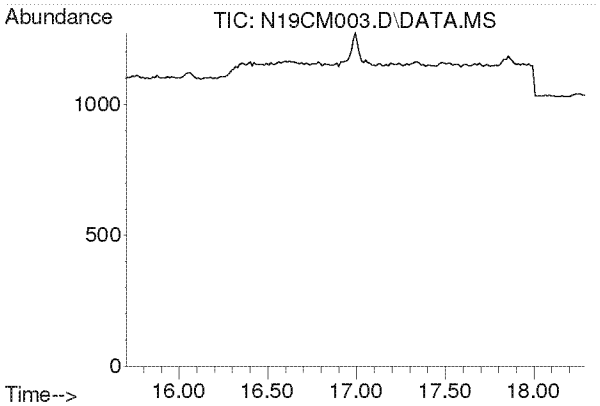
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



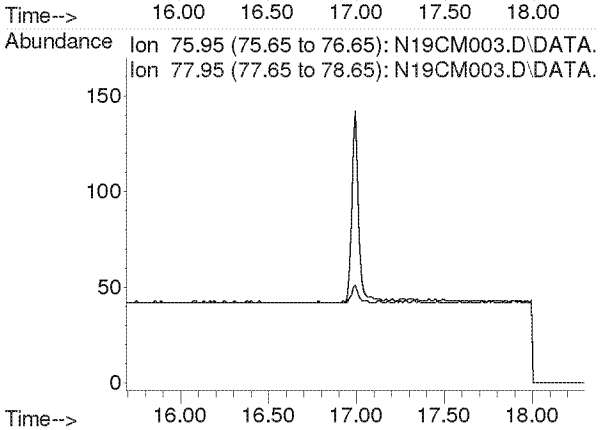


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

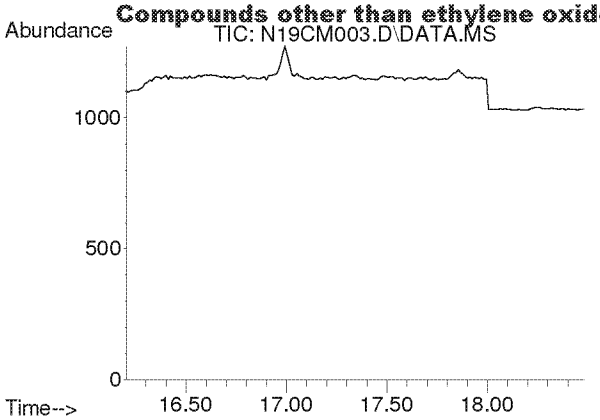
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

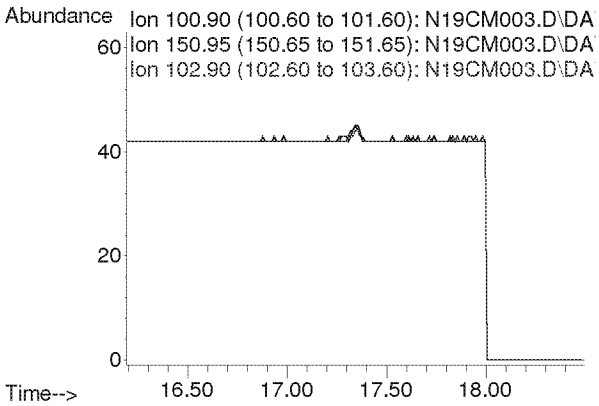


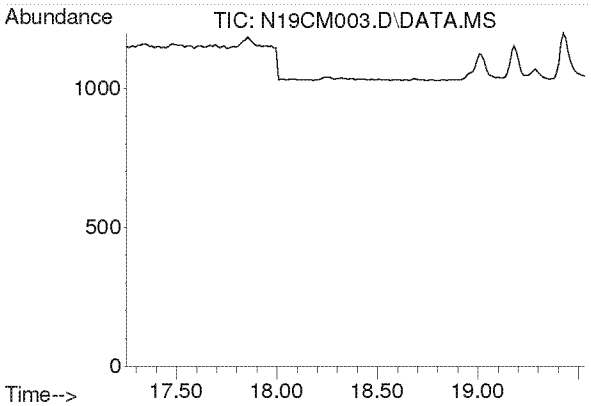
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



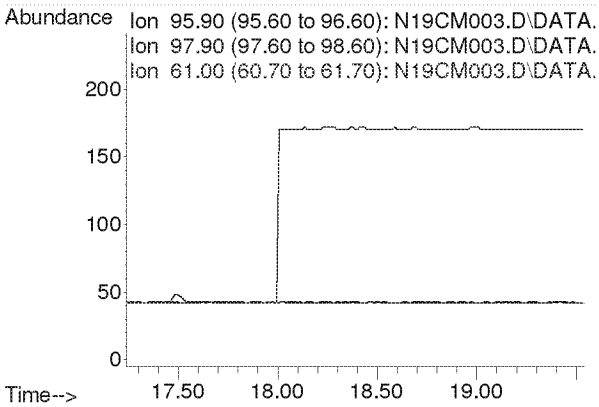


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

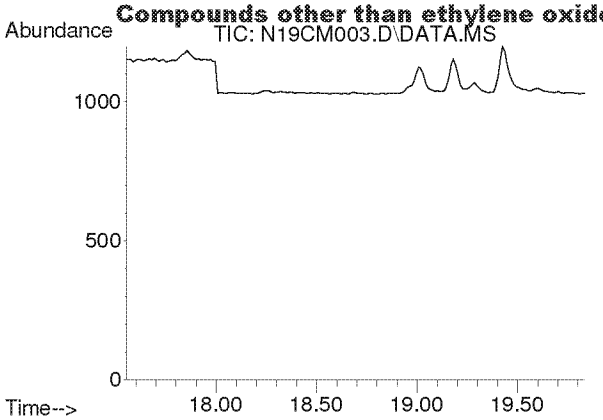
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

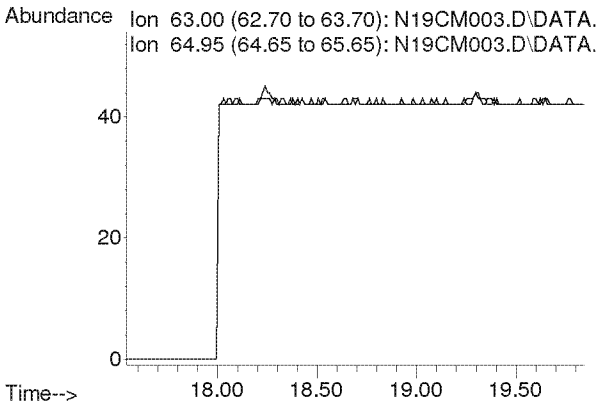


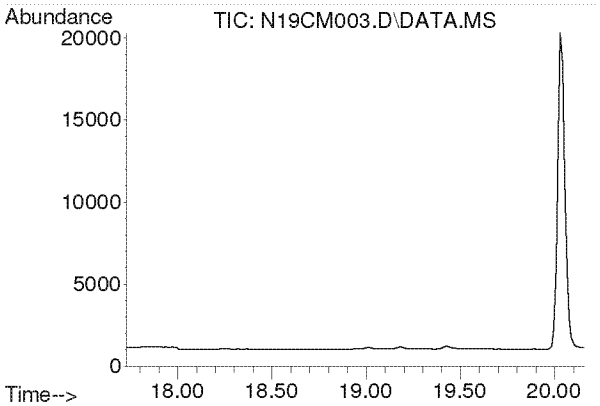
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



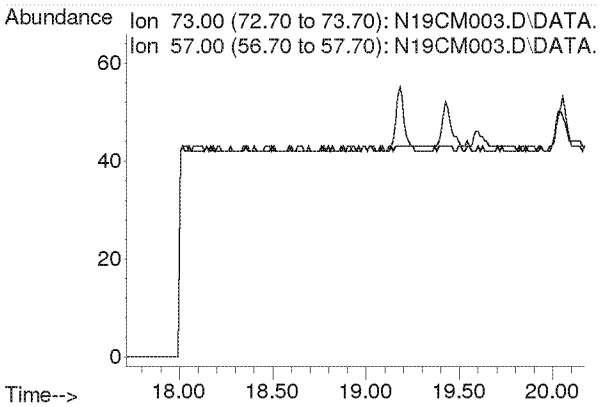


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

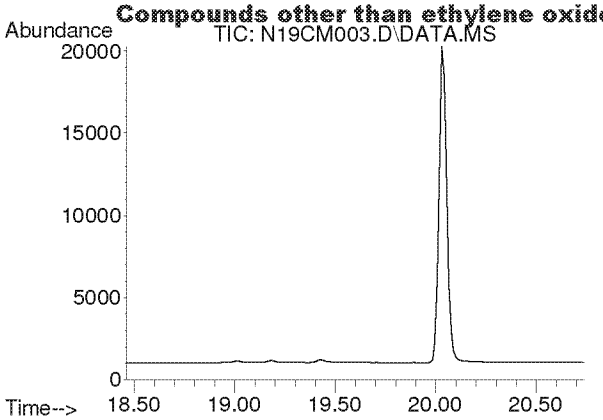
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

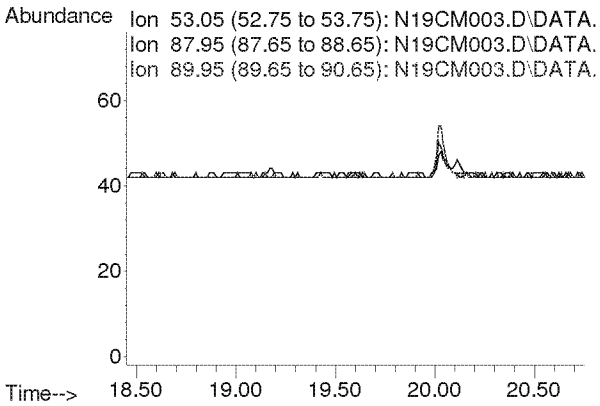


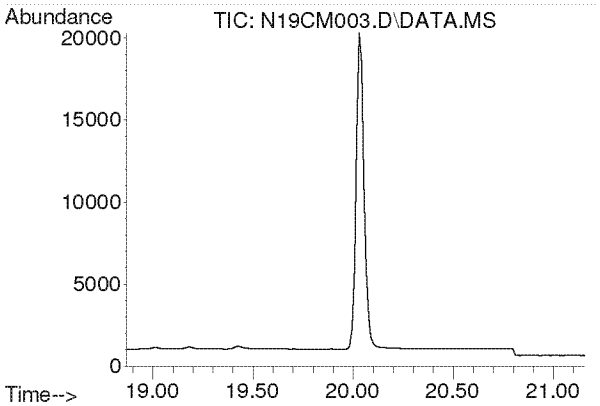
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



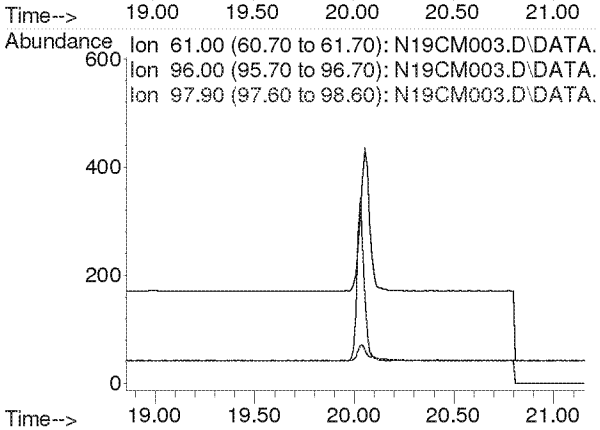


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

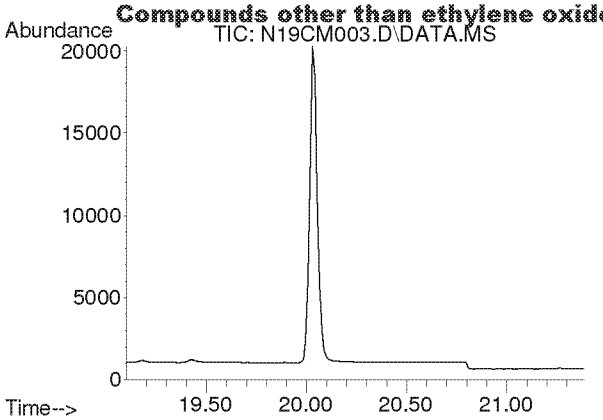
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

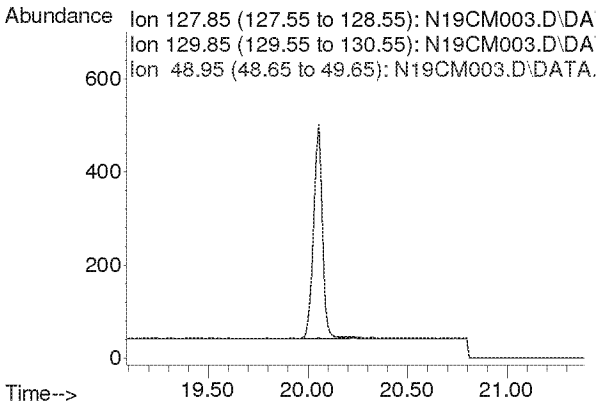


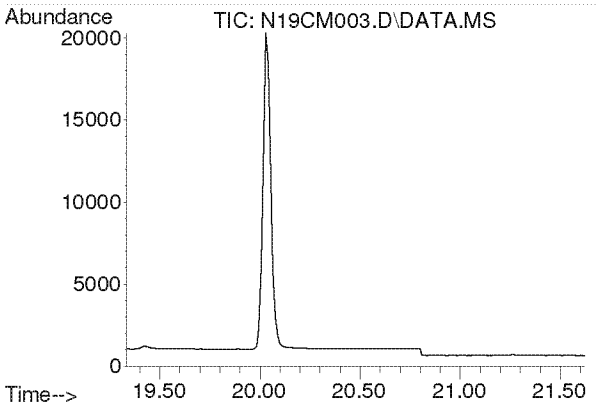
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



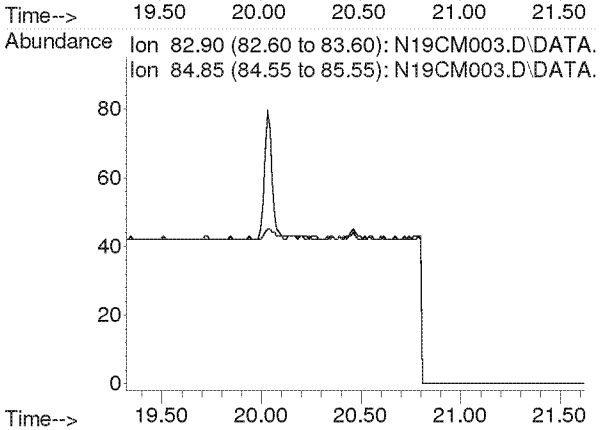


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

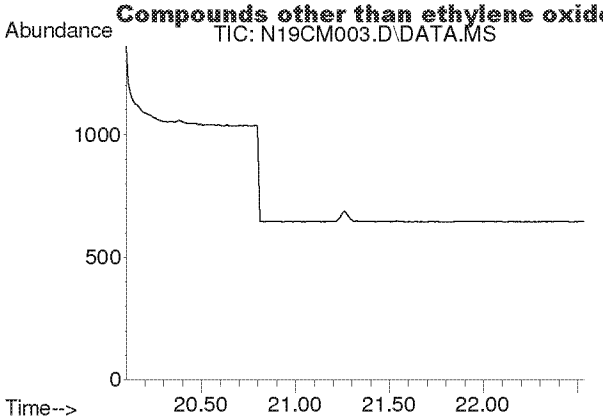
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

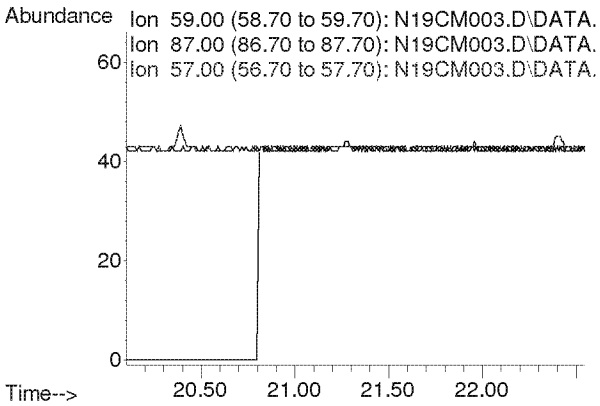


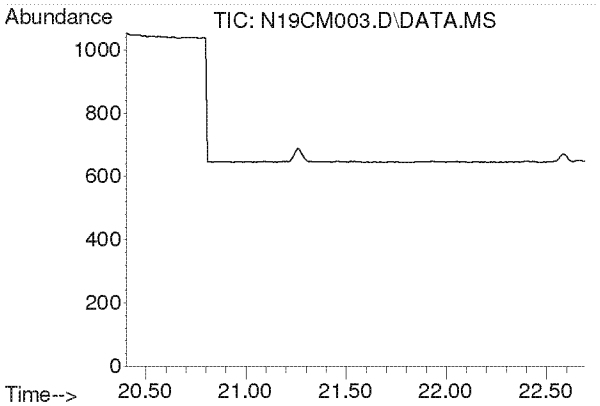
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



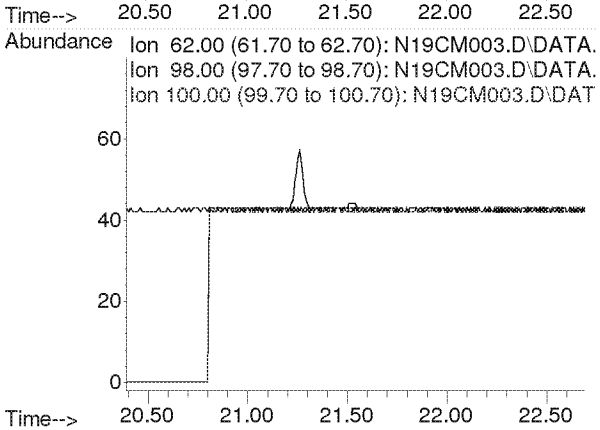


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

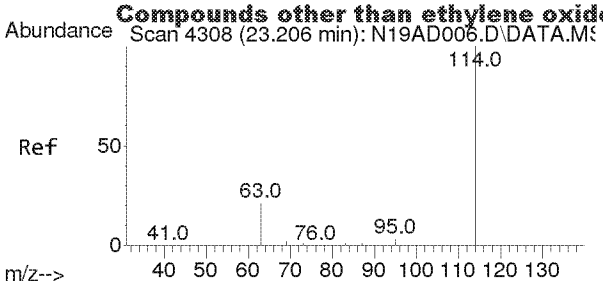
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



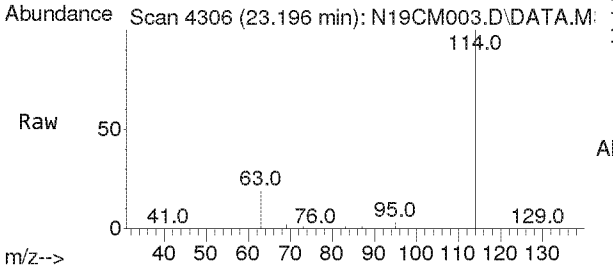
Compounds other than ethylene oxide were not quantitated.

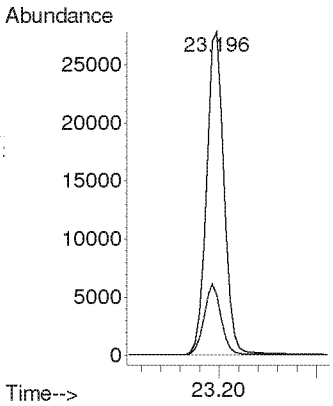


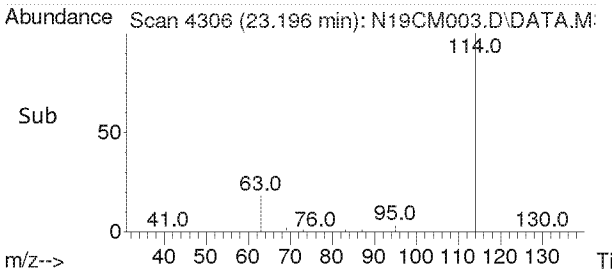
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.196 min Scan# 4306
Delta R.T. -0.010 min
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

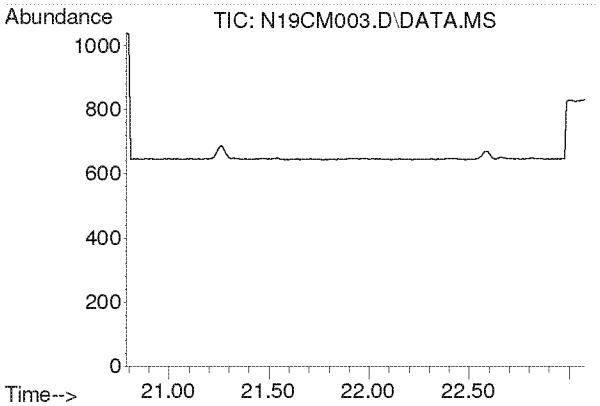
Tgt Ion:114 Resp: 69573

Ion	Ratio	Lower	Upper
114	100		
63	21.4	16.7	25.1







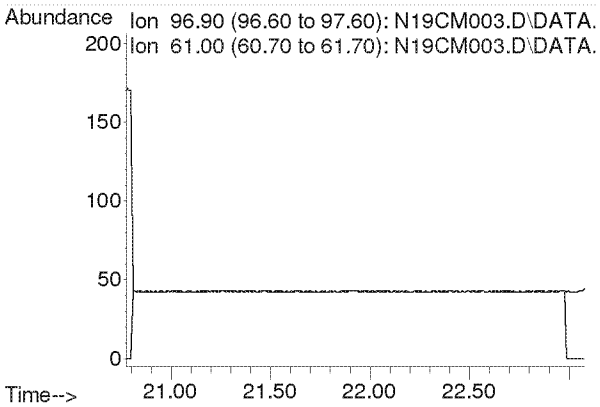


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

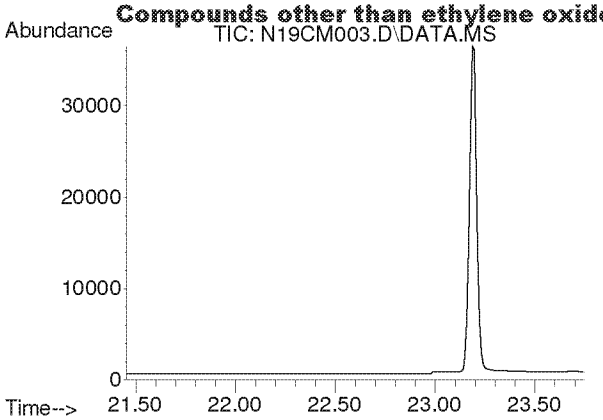
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

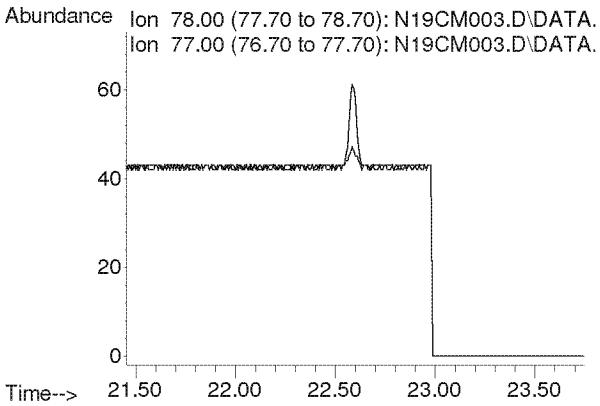


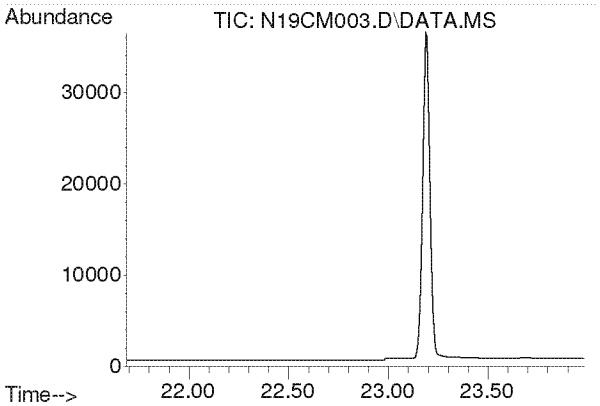
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



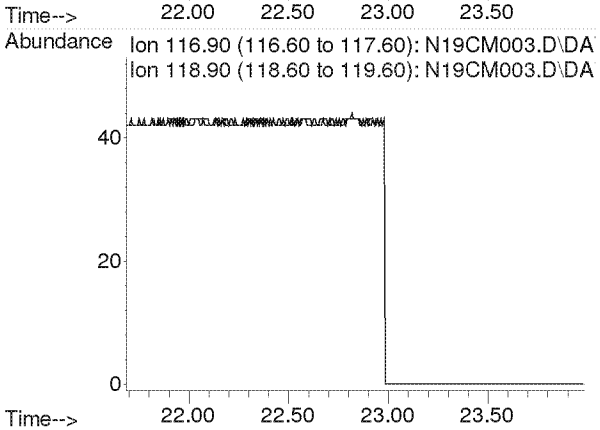


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

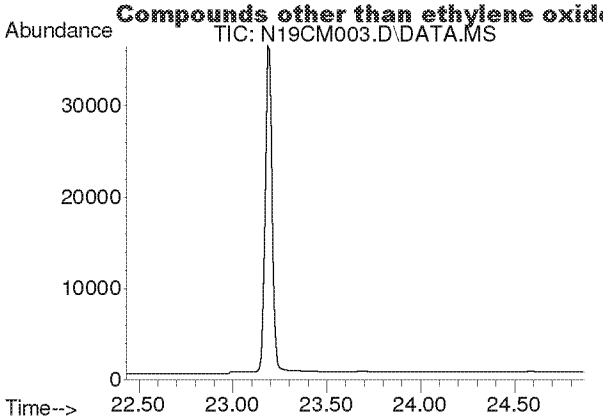
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

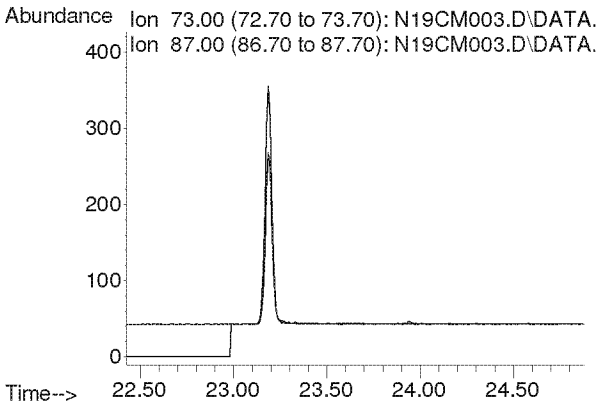


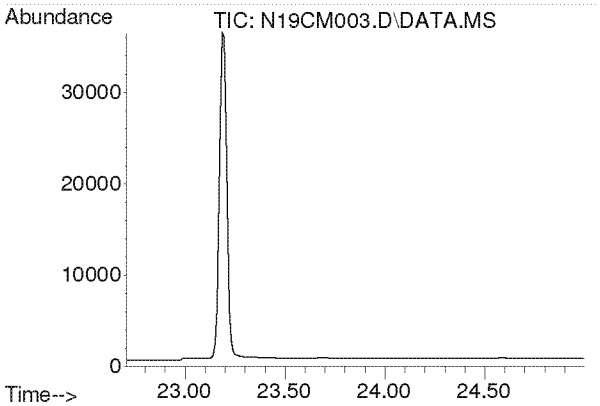
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



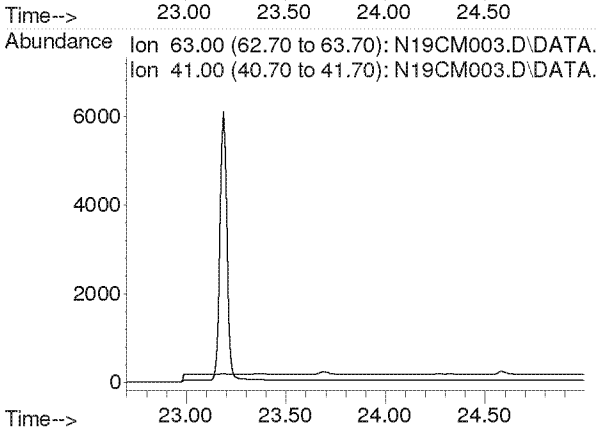


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

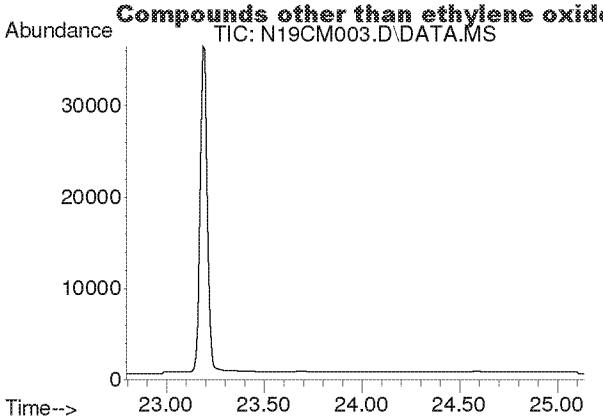
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

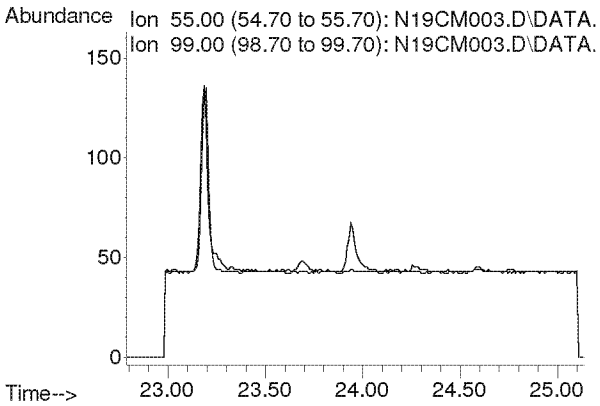


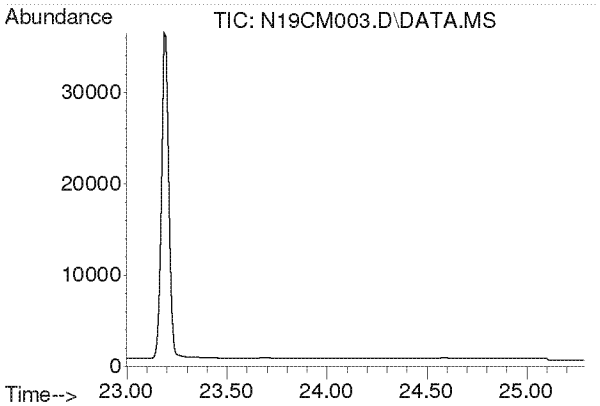
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



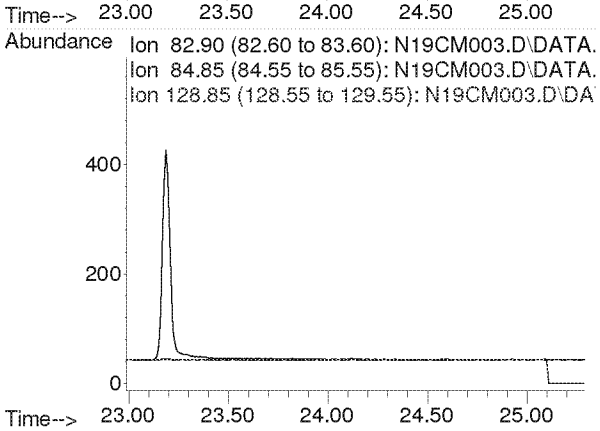


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

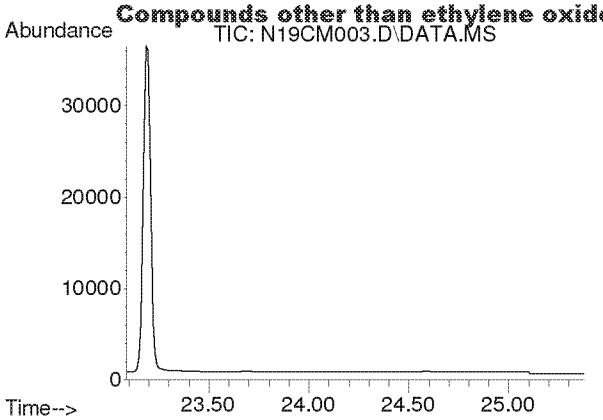
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

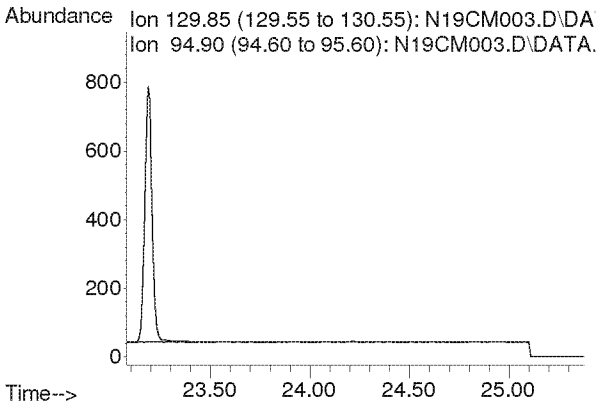


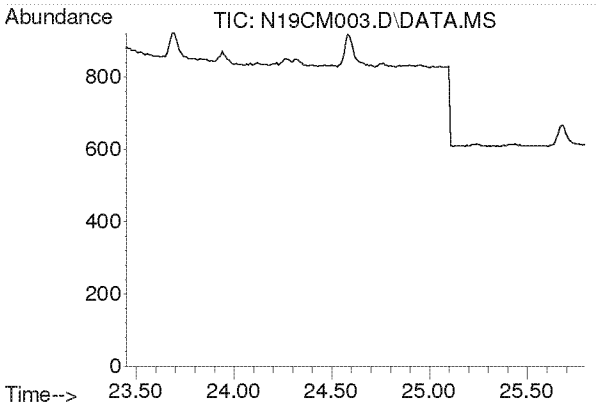
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



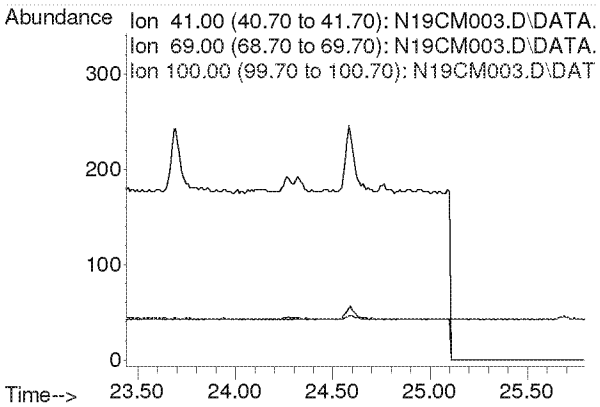


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

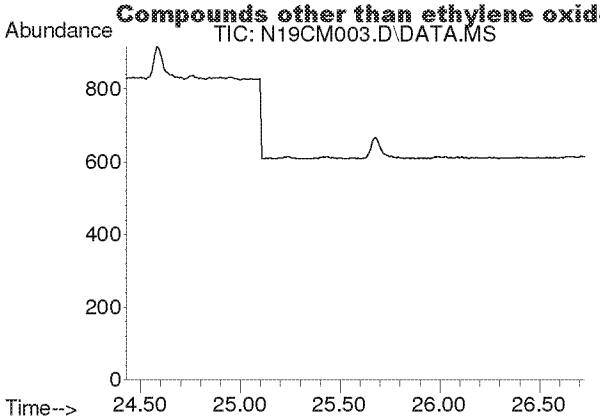
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

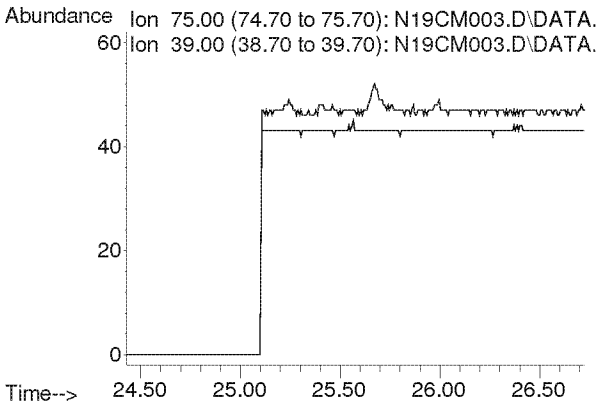


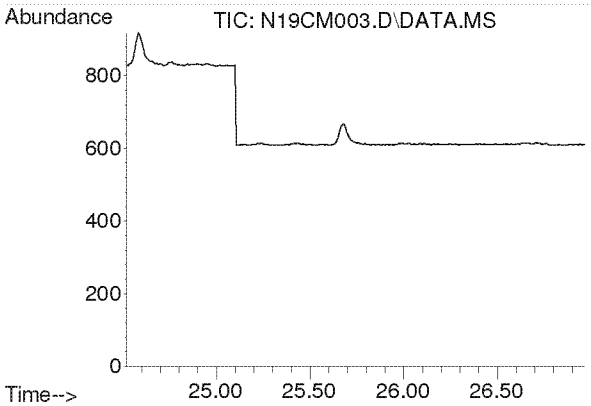
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



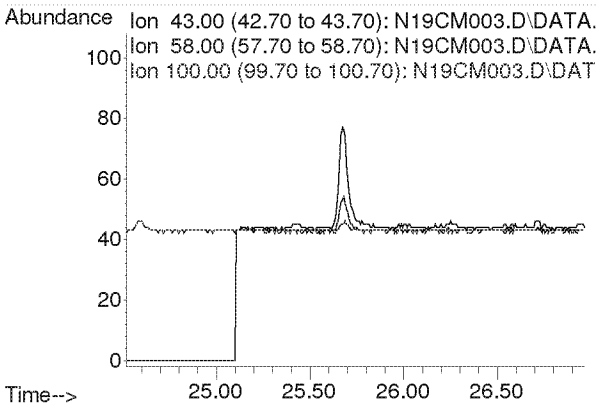


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

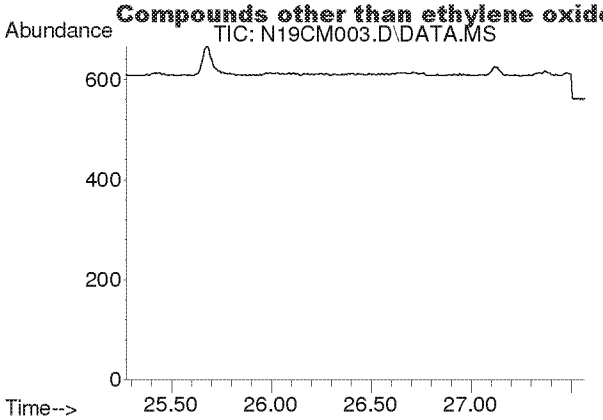
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

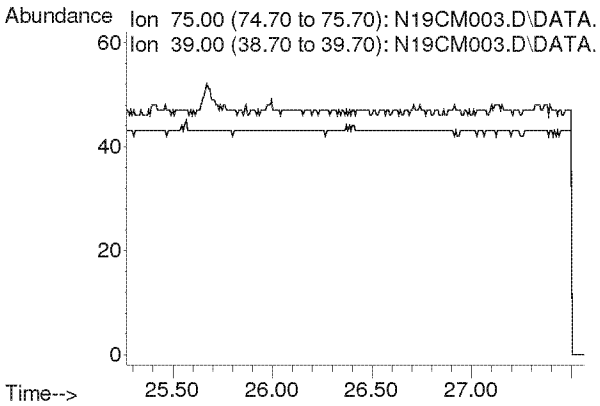


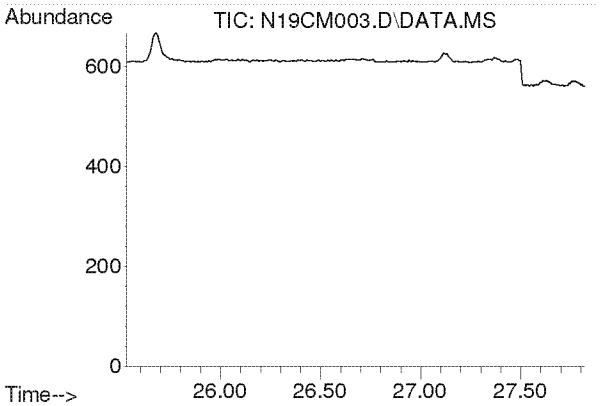
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



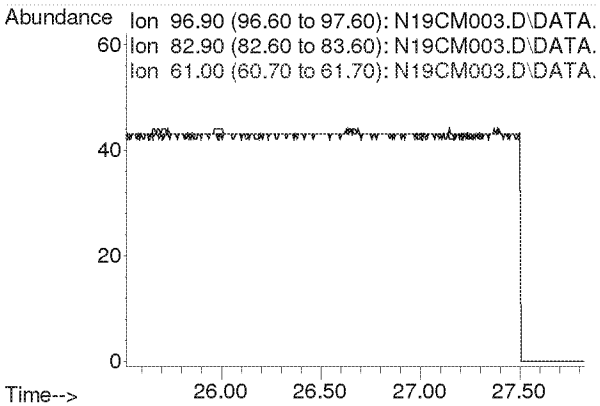


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

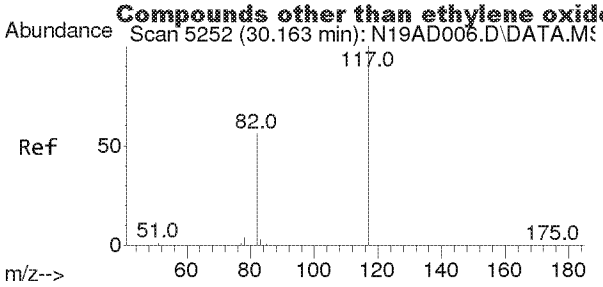
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



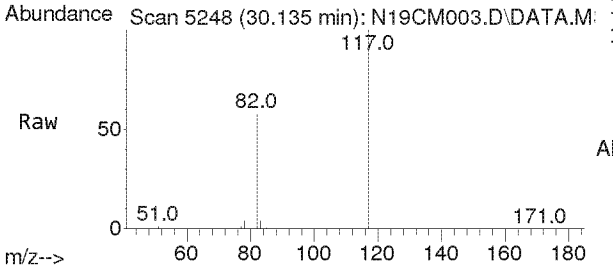
Compounds other than ethylene oxide were not quantitated.

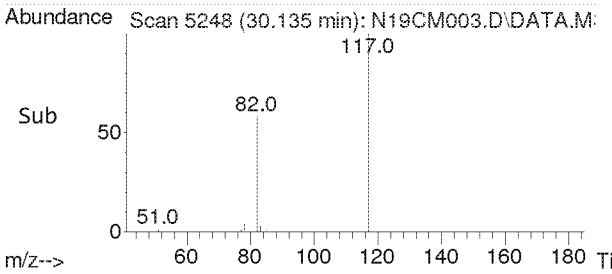


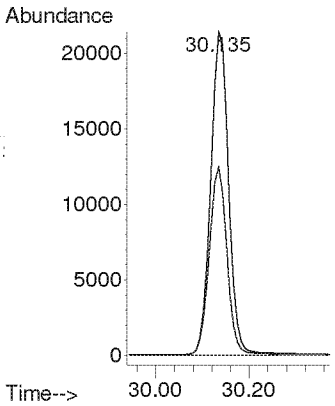
#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.135 min Scan# 5248
Delta R.T. -0.027 min
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

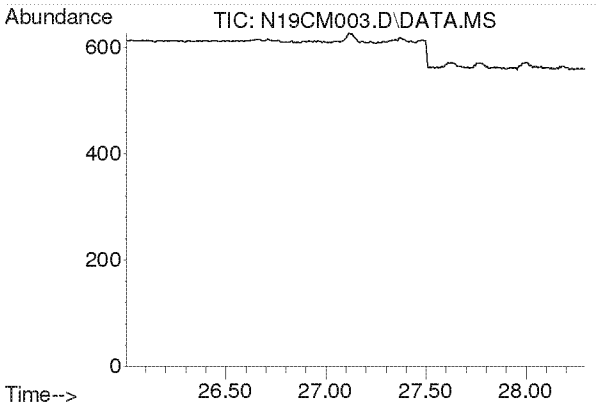
Tgt Ion:117 Resp: 56454

Ion	Ratio	Lower	Upper
117	100		
82	57.6	40.1	74.5
54	0.0	0.0	0.0







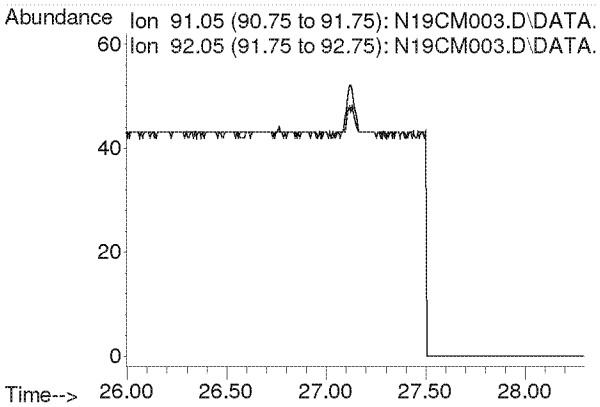


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

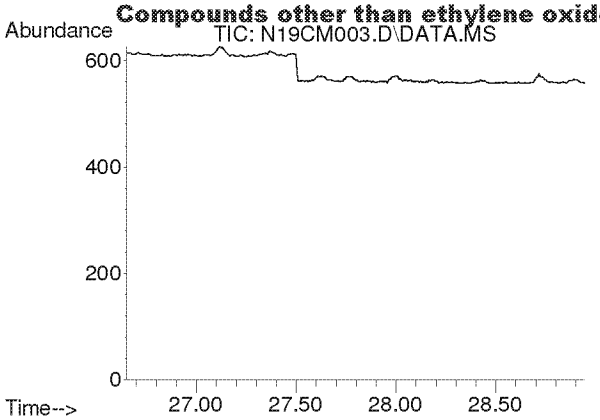
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

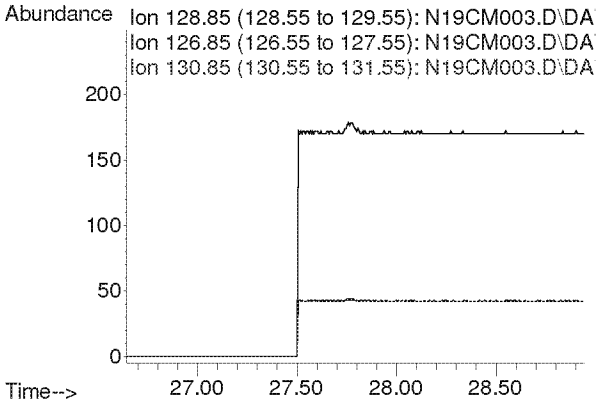


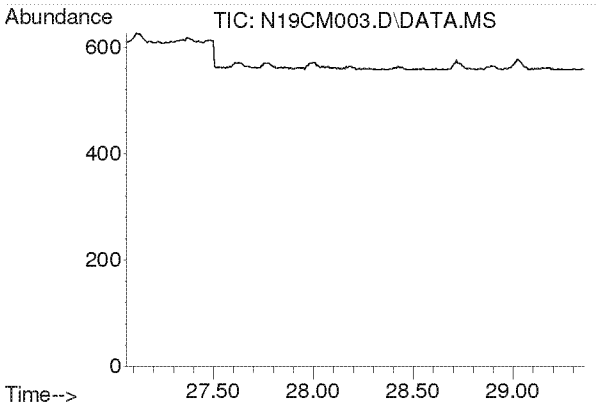
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



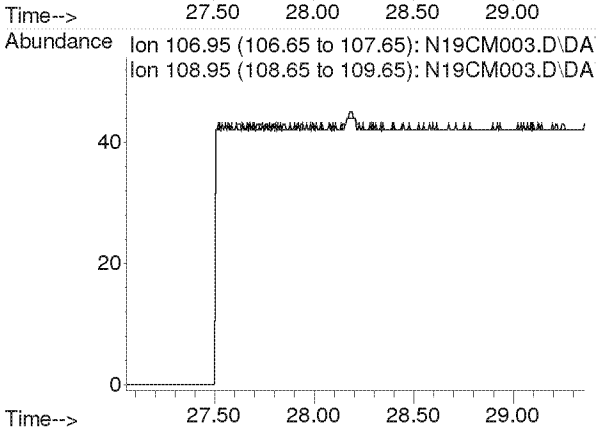


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

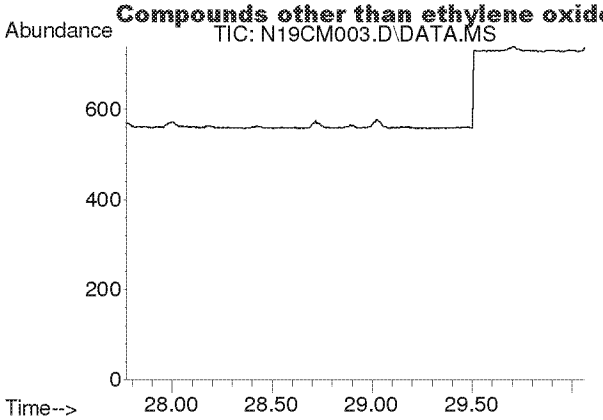
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

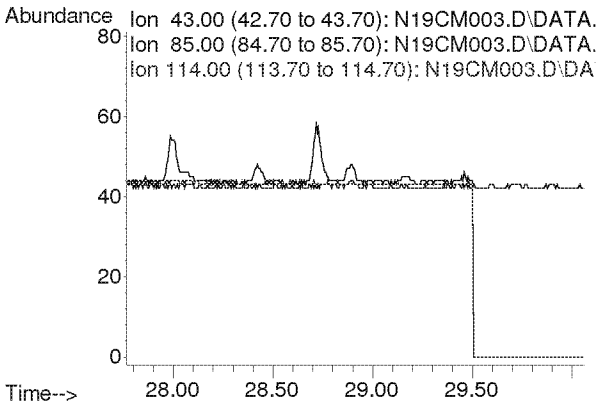


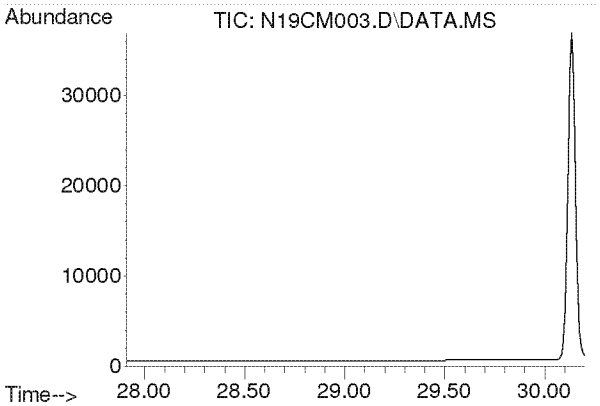
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



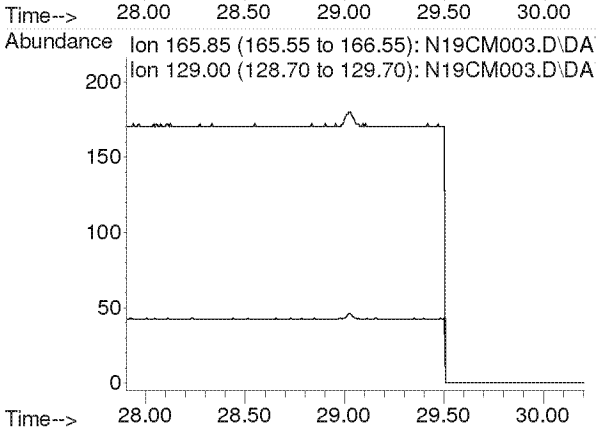


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

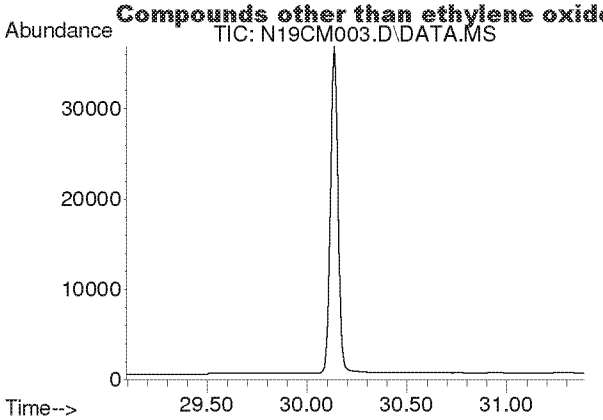
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

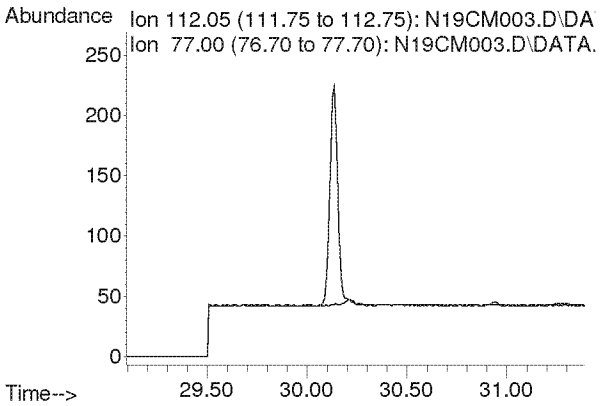


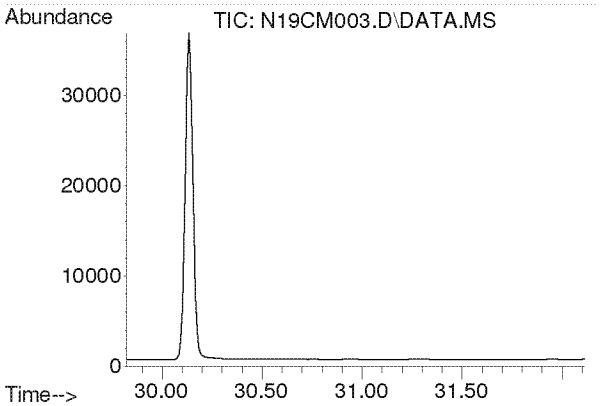
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



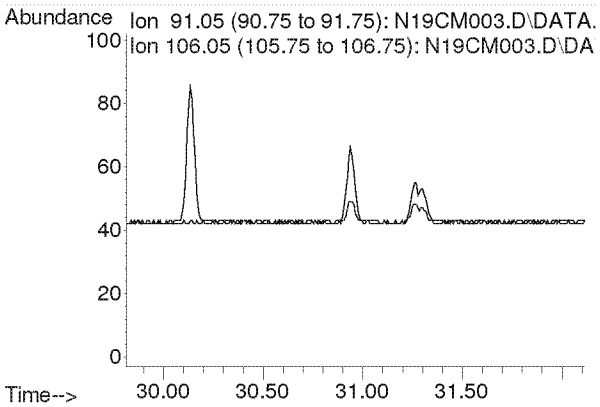


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

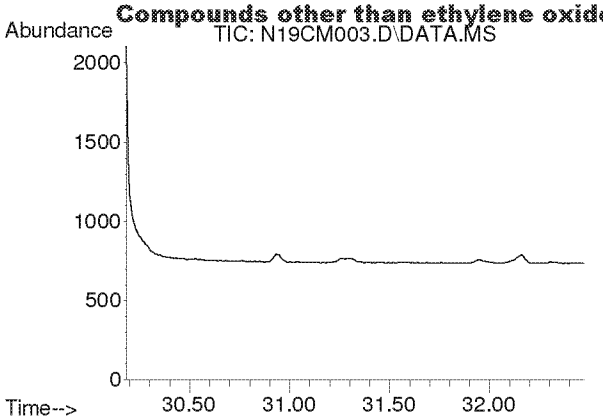
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

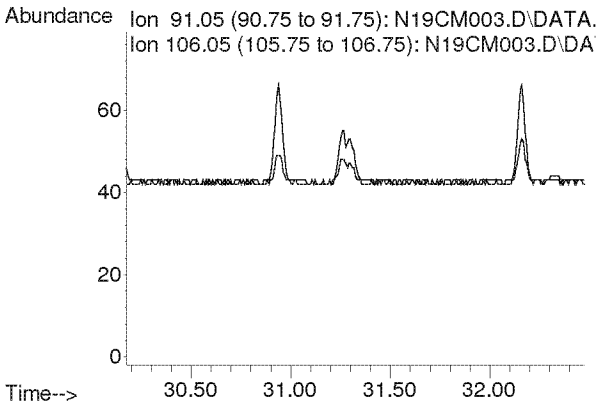


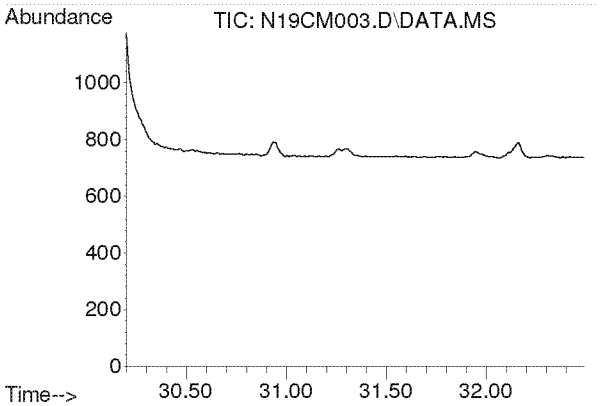
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



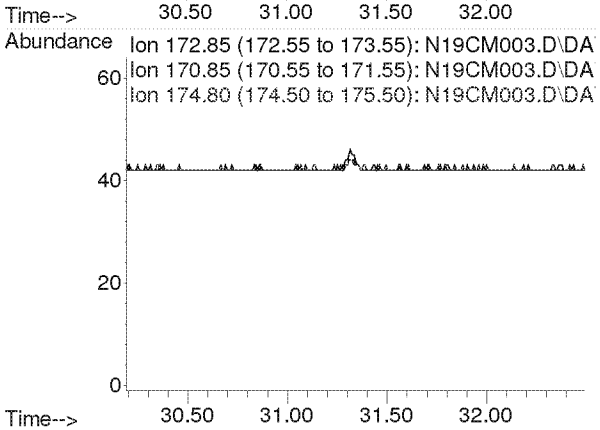


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

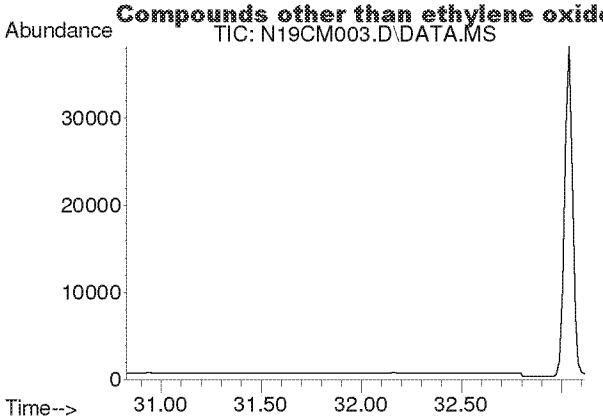
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

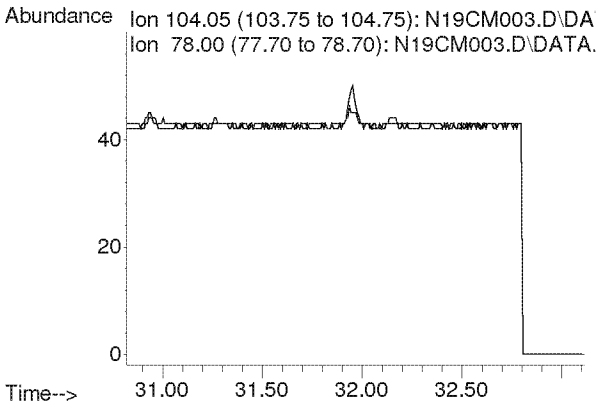


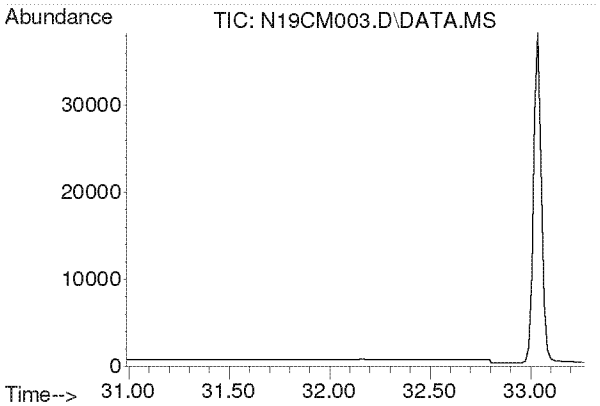
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



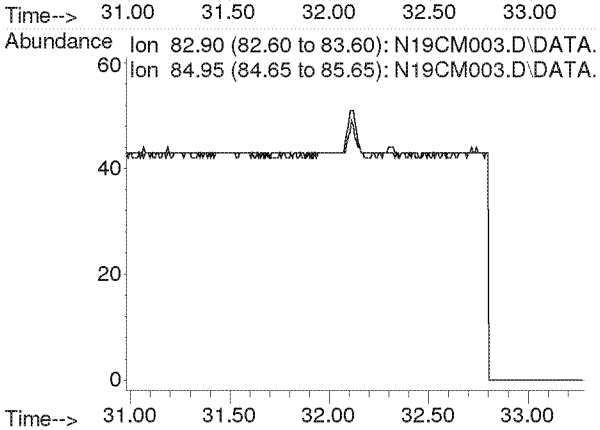


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

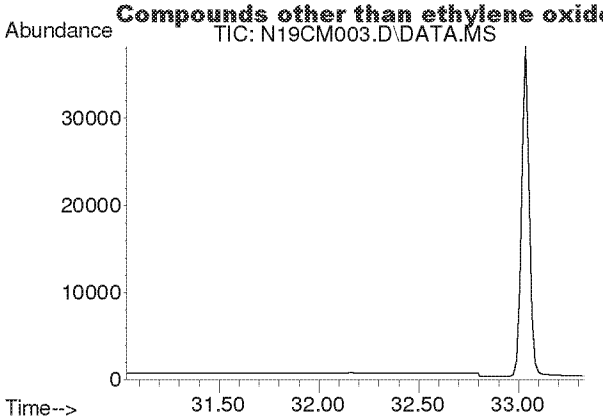
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

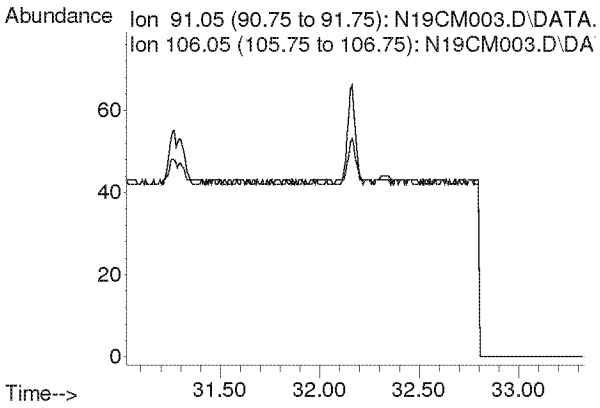


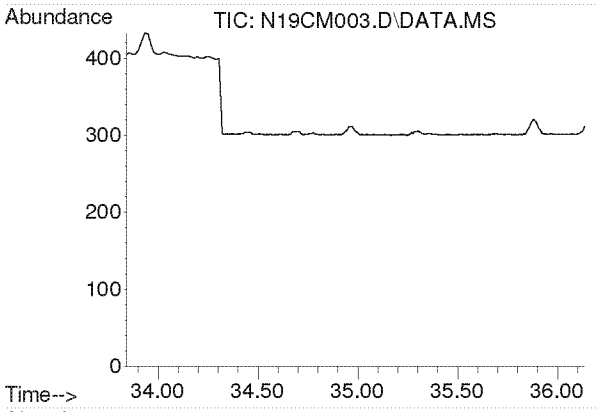
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



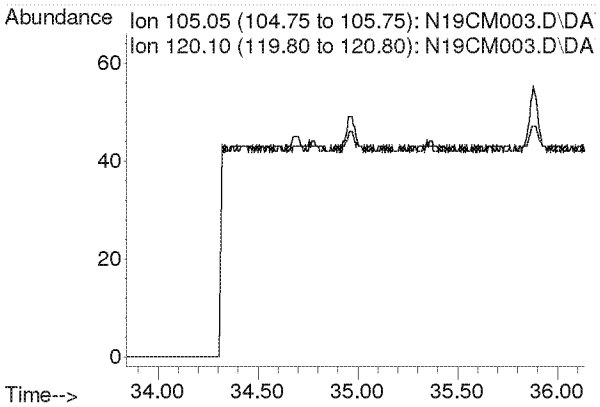


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

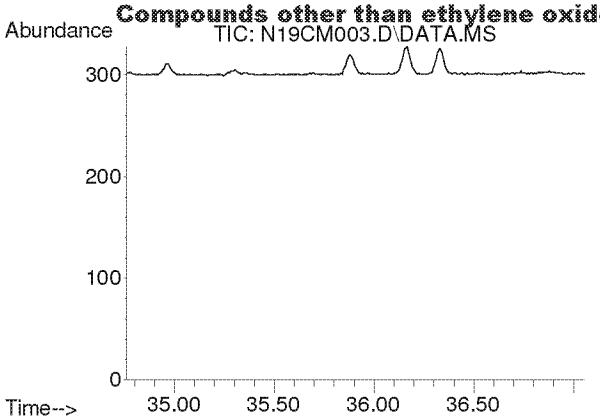
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

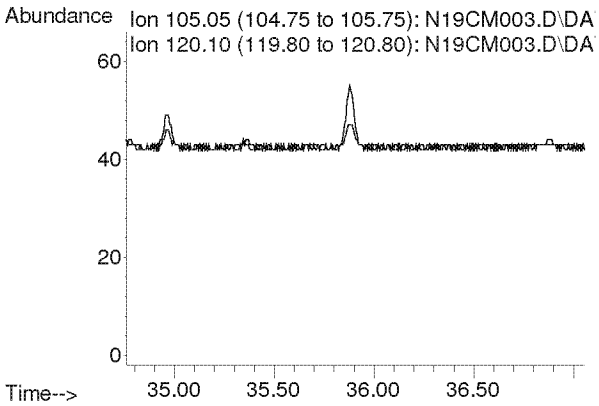


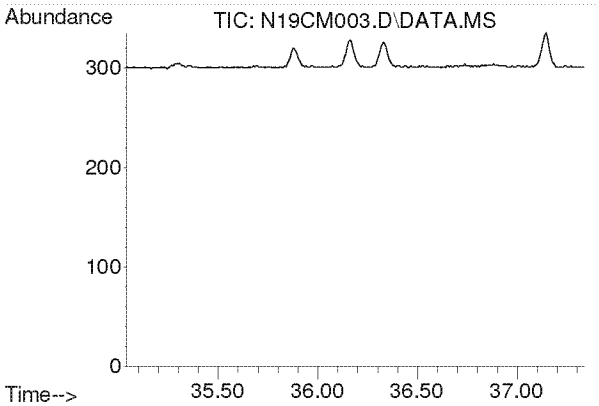
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



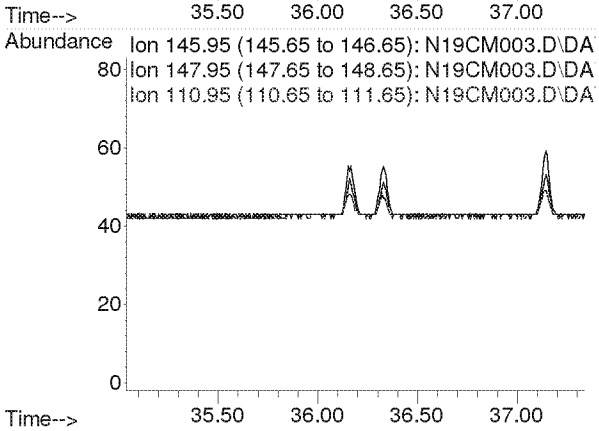


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

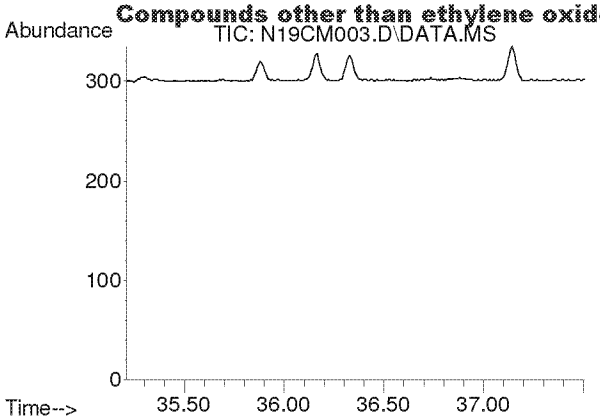
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

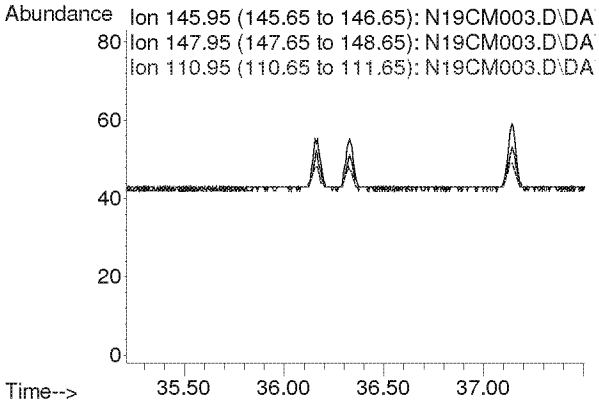


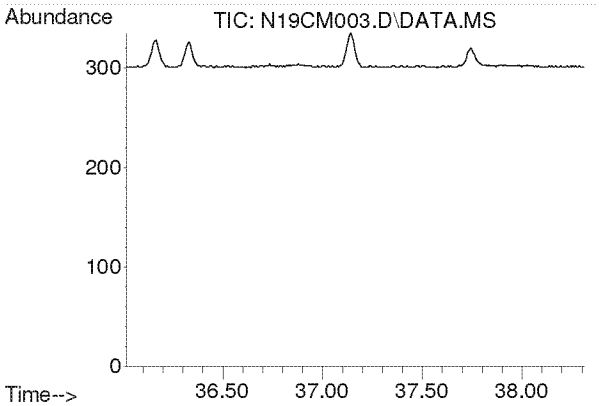
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



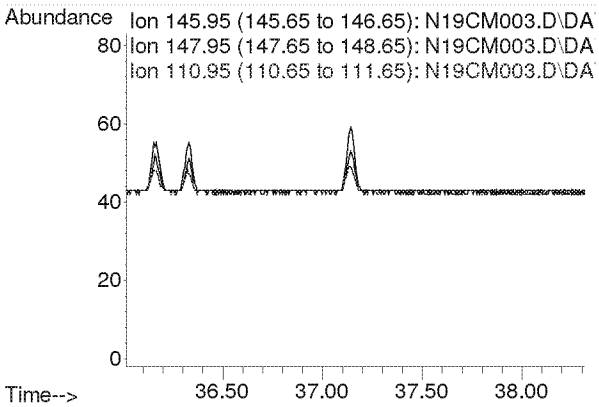


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

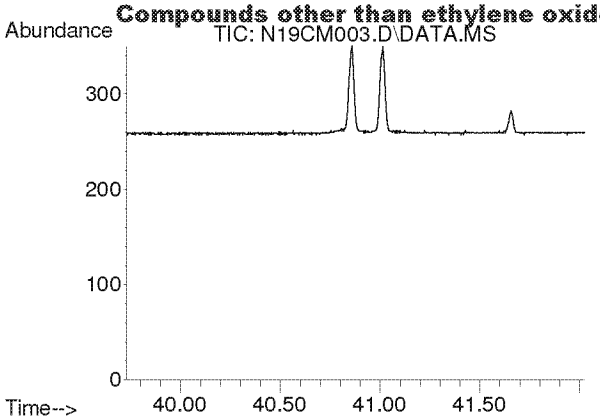
Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

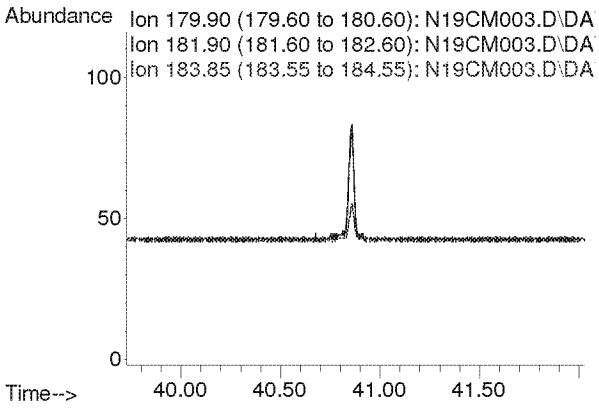


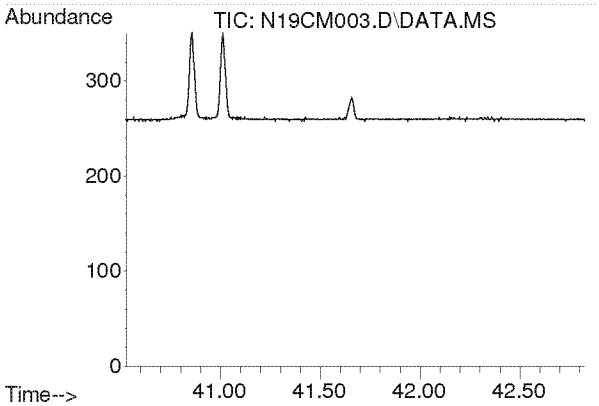
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



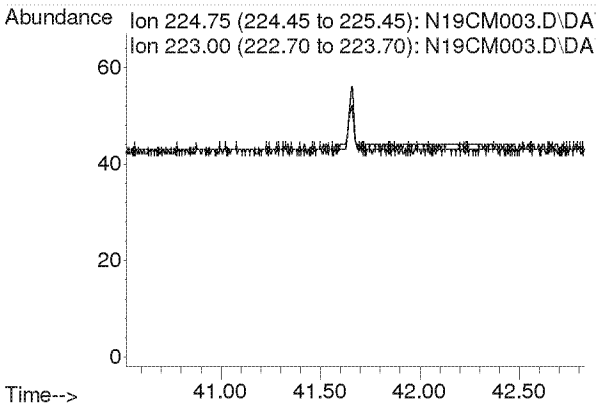


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM003.D
Acq: 13 Mar 2019 11:14 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM004.D
Acq On : 13 Mar 2019 2:16 pm (#1); 13-Mar-19, 14:11:15 (#2)
Operator : KSS
Sample : 9031220-01
Misc : HINSDALE SOUTH 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 14 08:29:01 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.031	66	32204	4.7700 ppbv	-0.01
29) IS-1,4-Difluorobenzene	23.196	114	70051	4.9900 ppbv	-0.01
43) IS-Chlorobenzene-d5	30.143	117	57728	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.	
9) Ethylene Oxide	12.535	29	79	0.0563 ppbv #	52
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	52
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM004.D
Acq On : 13 Mar 2019 2:16 pm (#1); 13-Mar-19, 14:11:15 (#2)
Operator : KSS
Sample : 9031220-01
Misc : HINSDALE SOUTH 3/10/19 (Sig #1); ^ (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 14 08:29:01 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
Quant Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

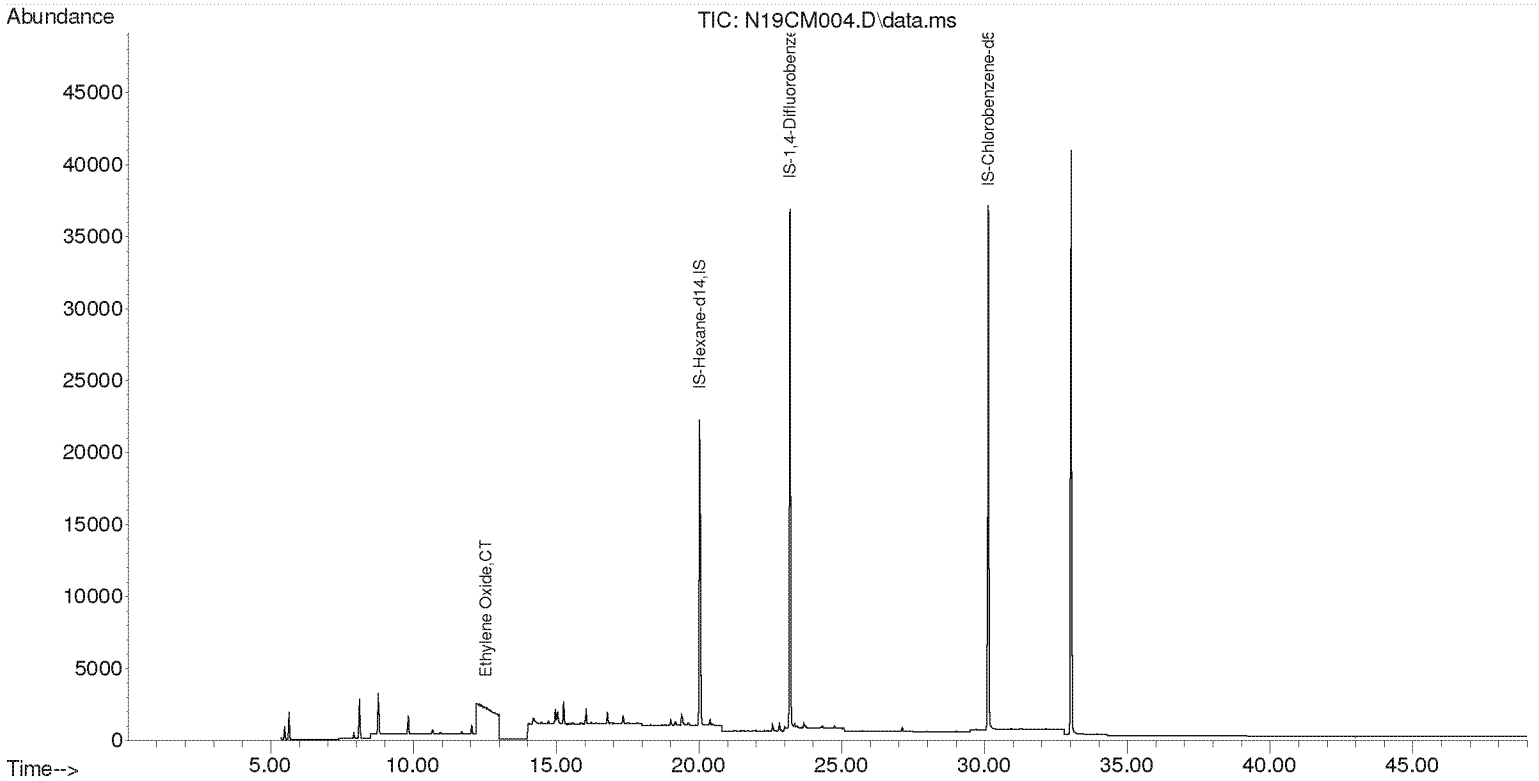
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

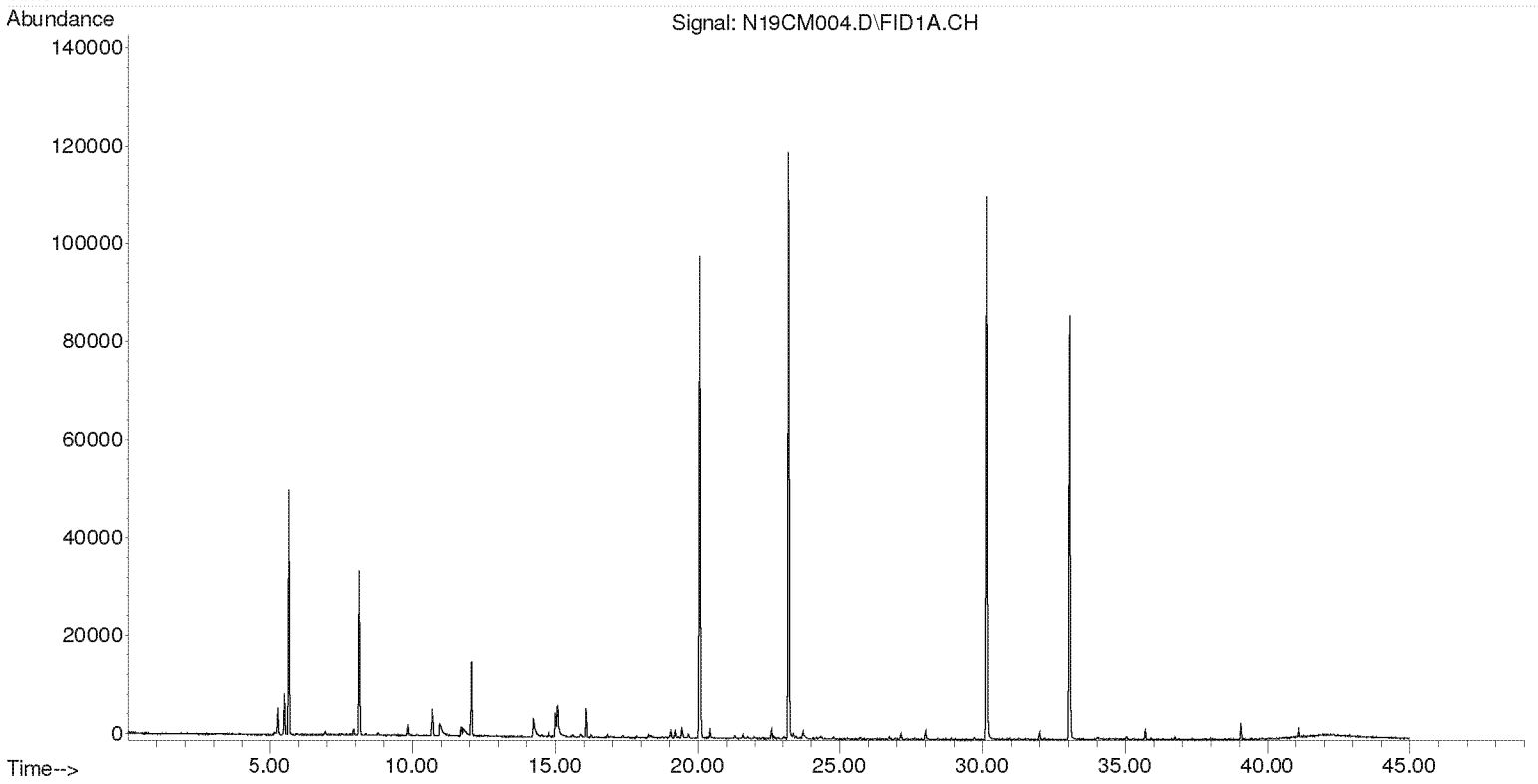
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

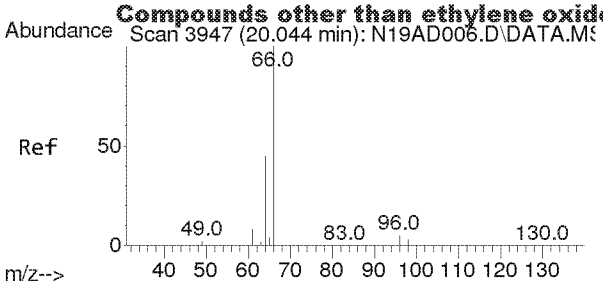
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM004.D
Acq On : 13 Mar 2019 2:16 pm (#1); 13 Mar 2019 2:11 pm (#2)
Operator : KSS
Sample : 9031220-01
Misc : HINSDALE SOUTH 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 14 08:18:58 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





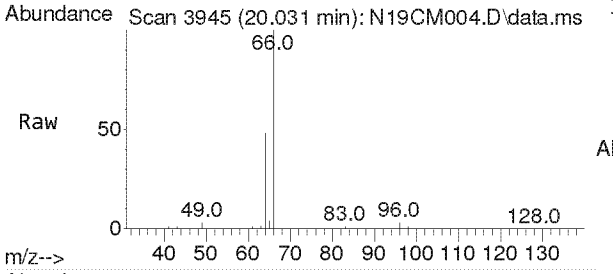
Compounds other than ethylene oxide were not quantitated.

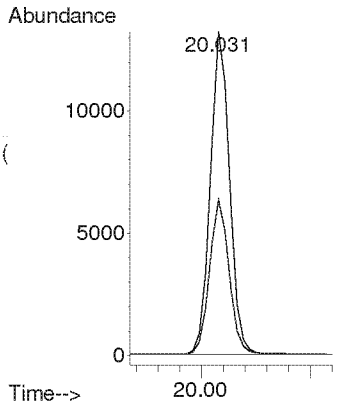


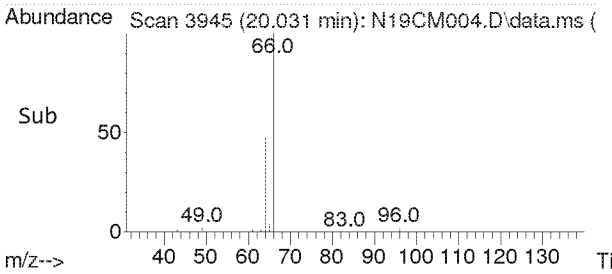
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.031 min Scan# 3945
Delta R.T. -0.013 min
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

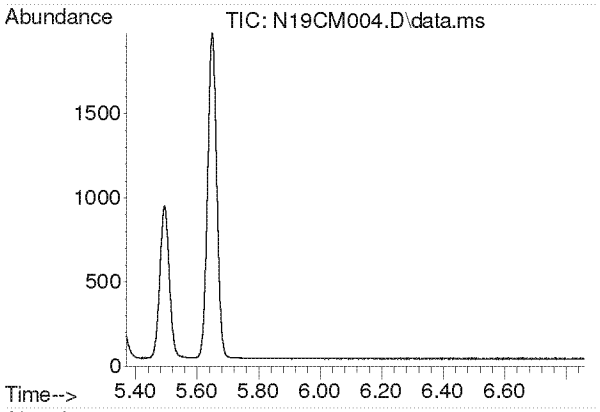
Tgt Ion: 66 Resp: 32204

Ion	Ratio	Lower	Upper
66	100		
64	48.7	32.1	59.5





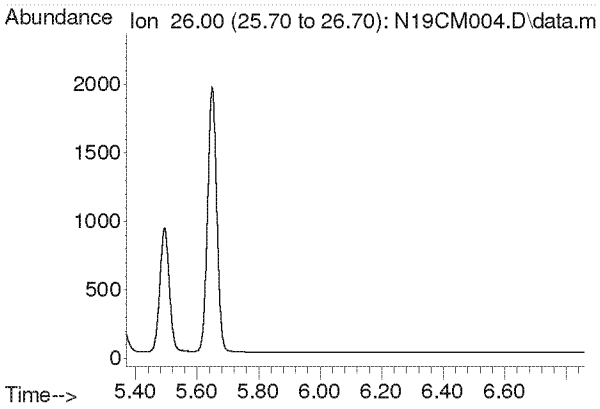




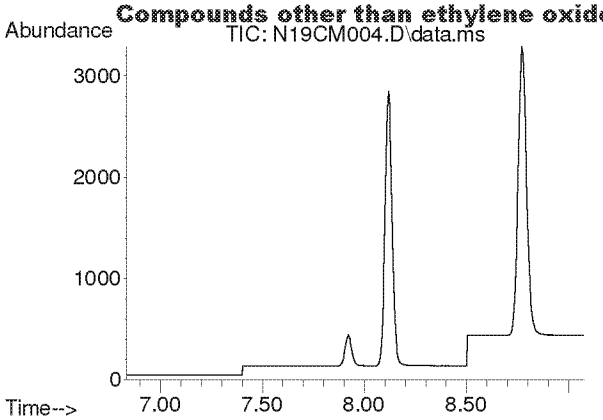
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

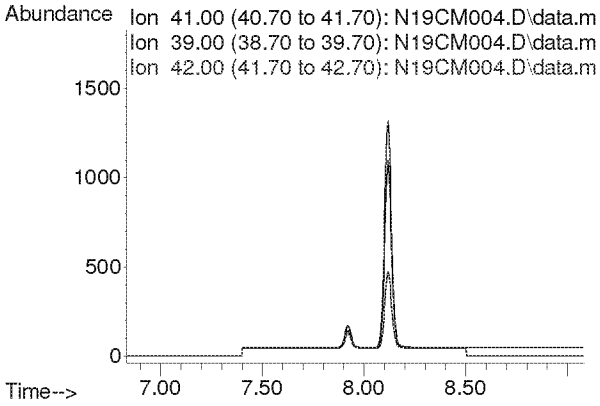


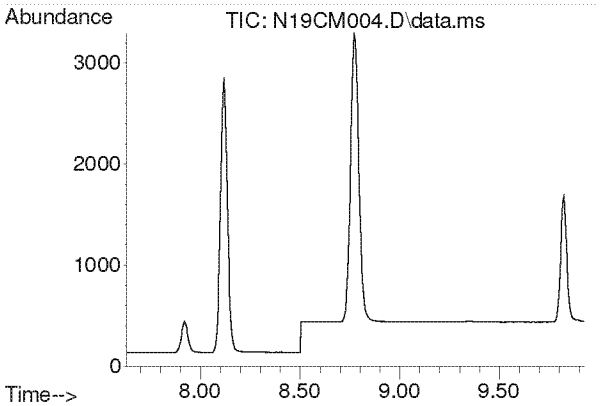
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



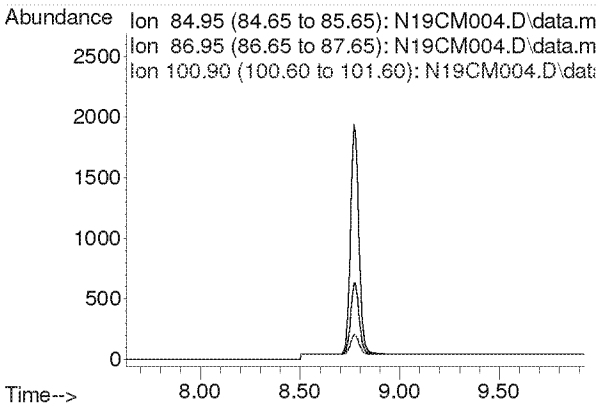


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

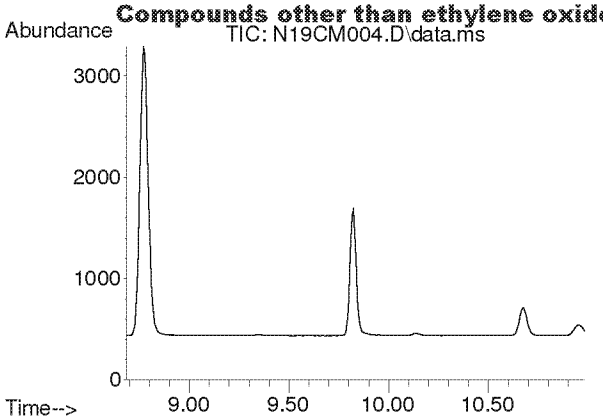
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

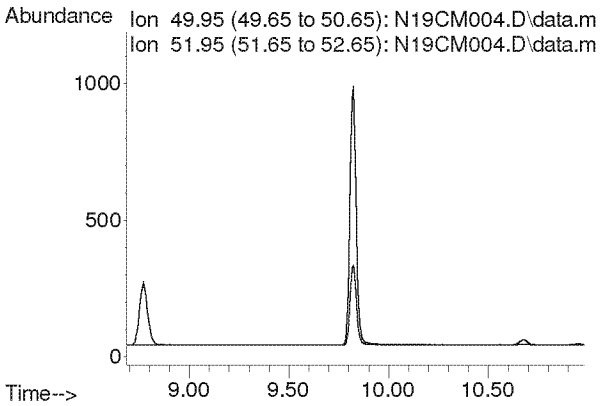


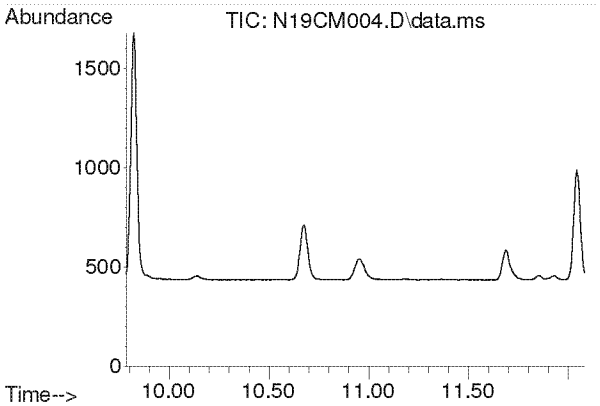
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



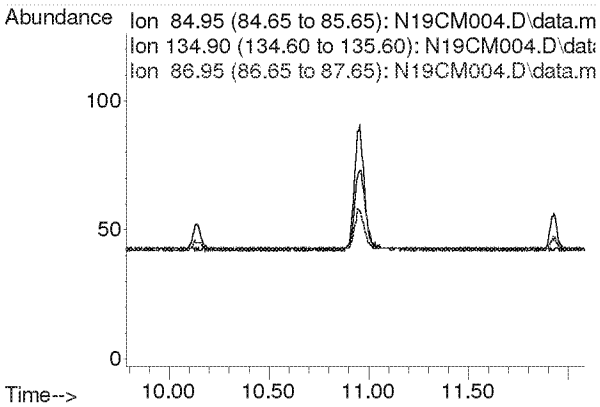


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

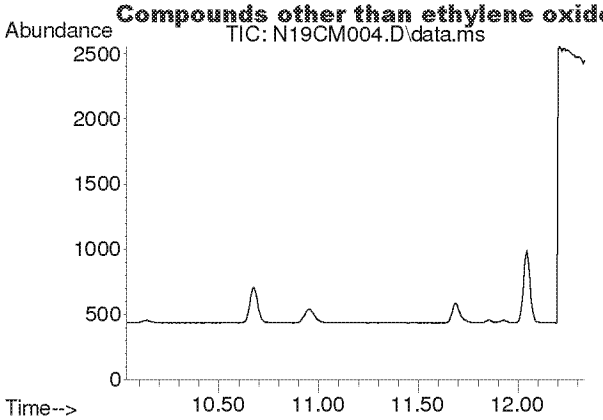
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

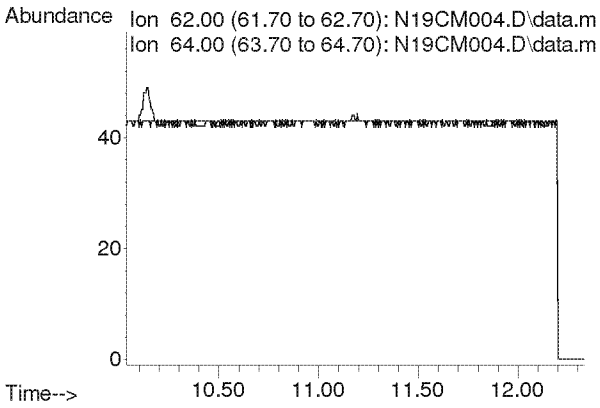


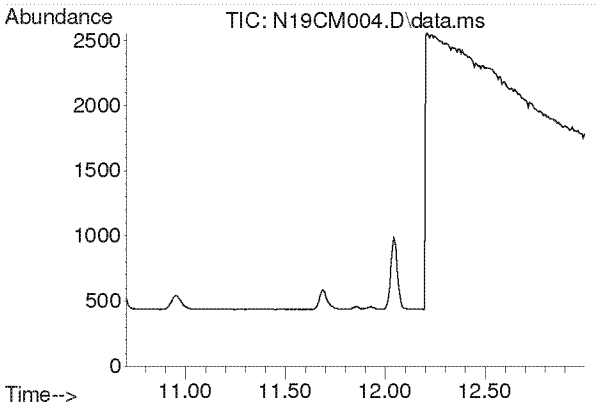
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



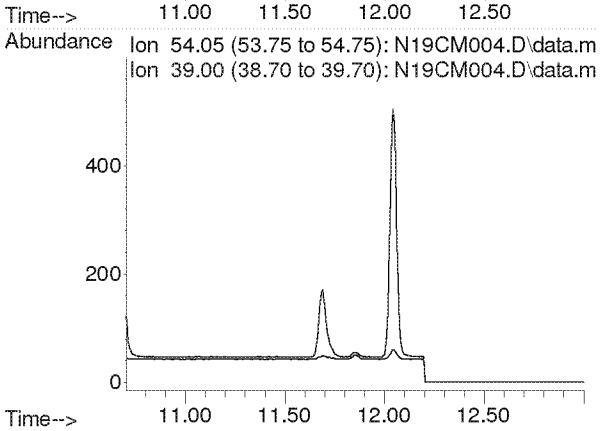


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

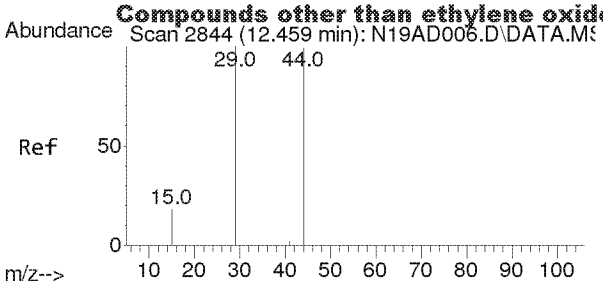
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



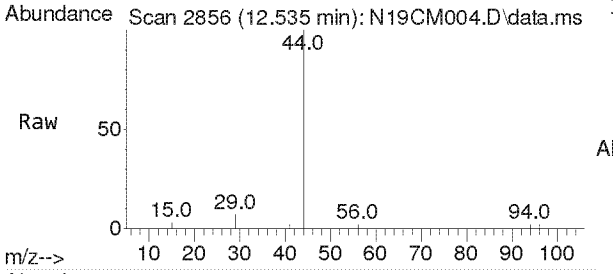
Compounds other than ethylene oxide were not quantitated.

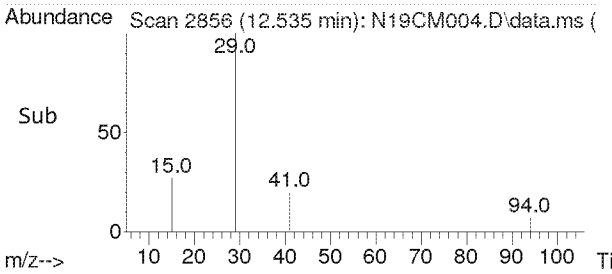


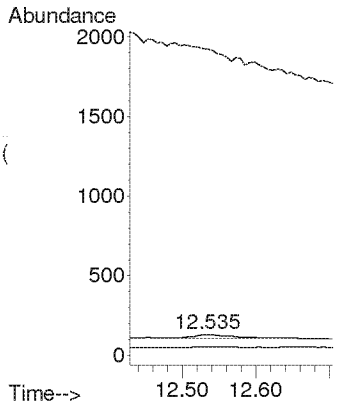
#9
Ethylene Oxide
Concen: 0.056 ppbv
RT: 12.535 min Scan# 2856
Delta R.T. 0.076 min
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

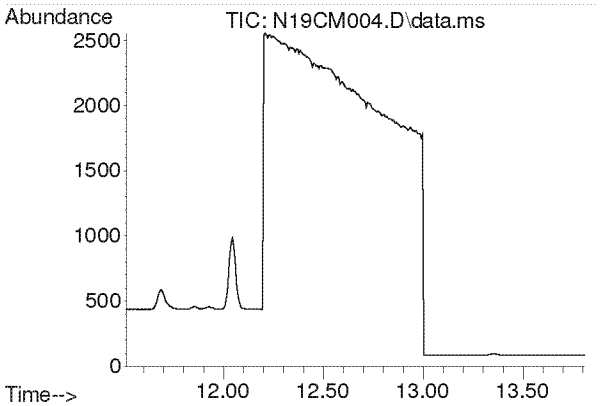
Tgt Ion: 29 Resp: 79

Ion	Ratio	Lower	Upper
29	100		
15	0.0	14.0	21.0#
44	148.1	79.2	118.8#







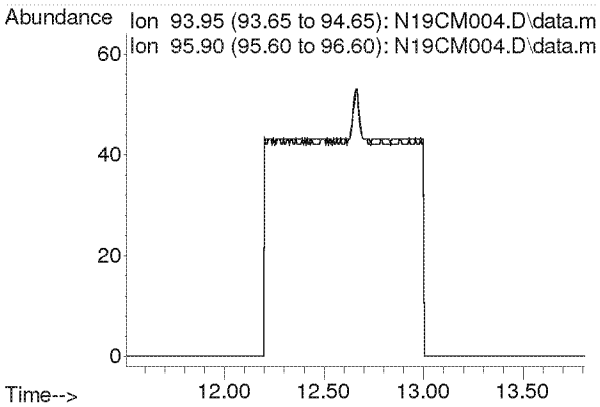


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

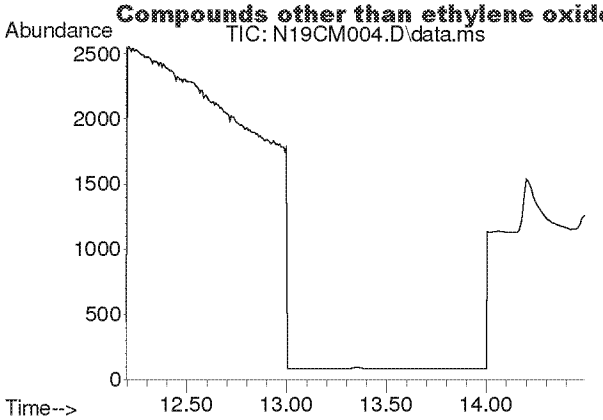
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

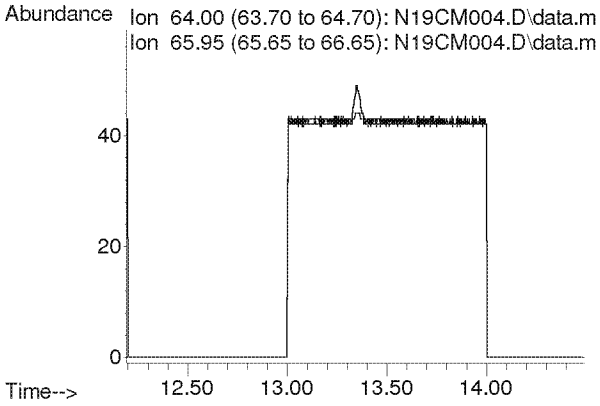


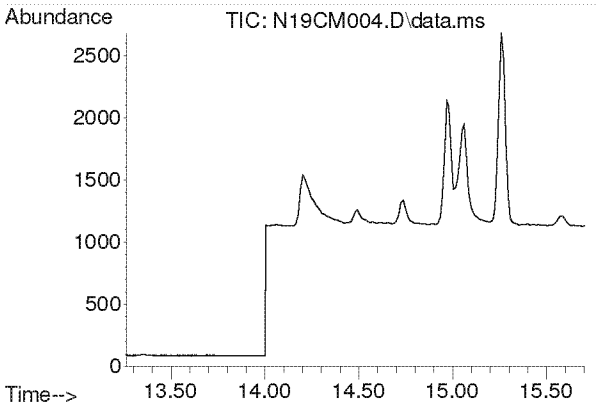
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



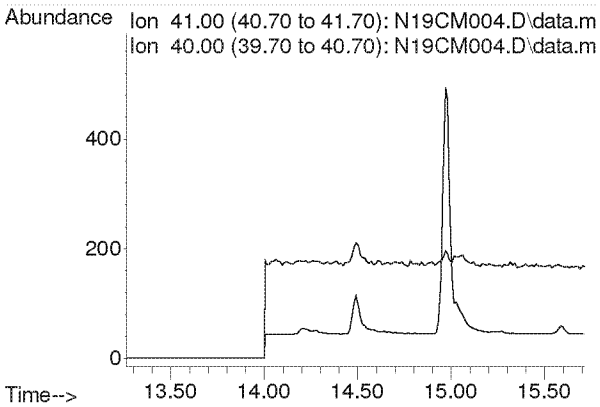


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

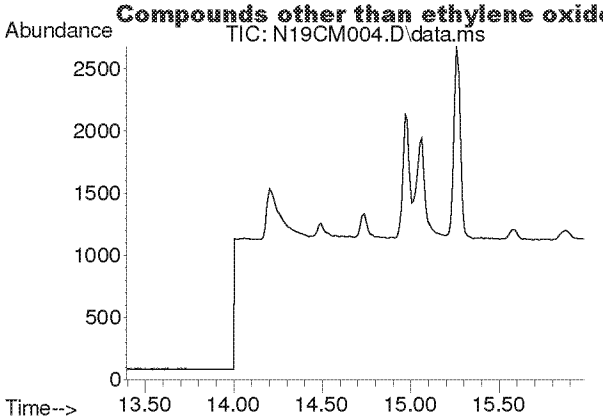
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

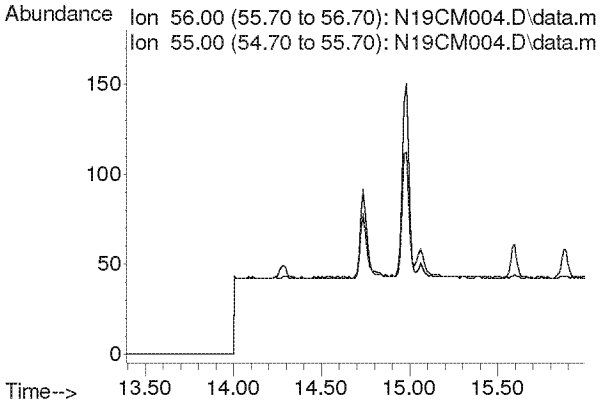


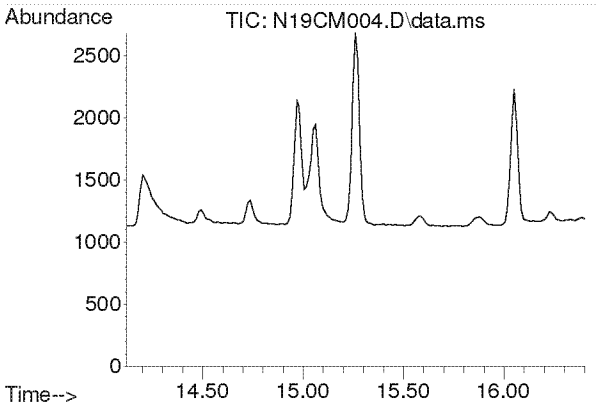
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



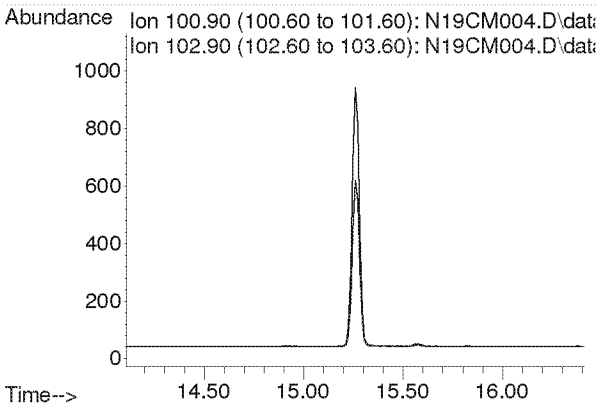


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

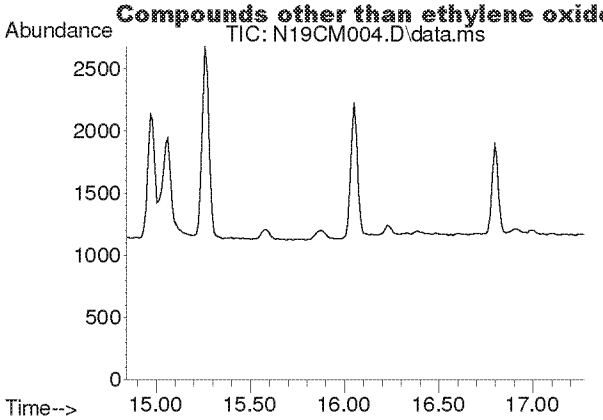
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

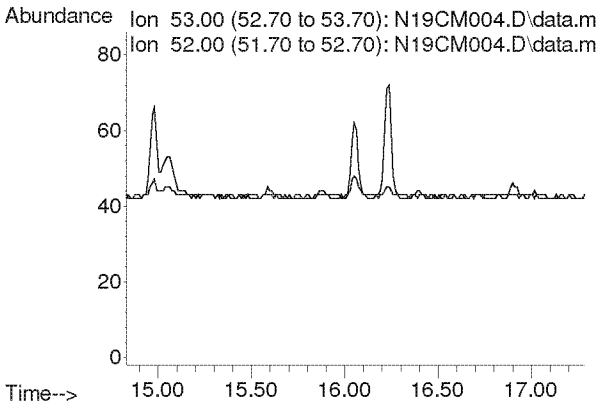


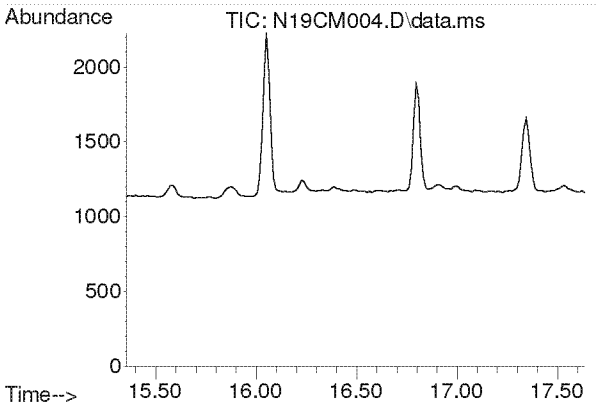
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



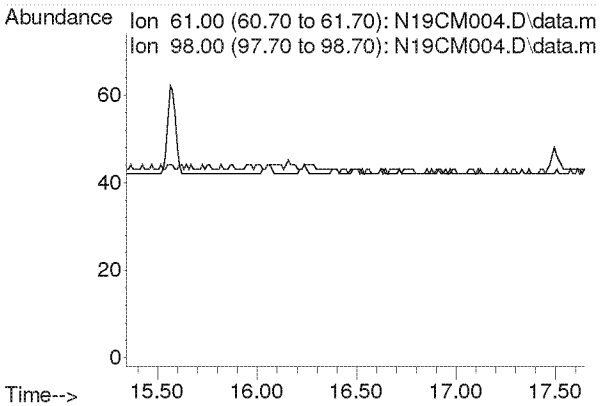


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

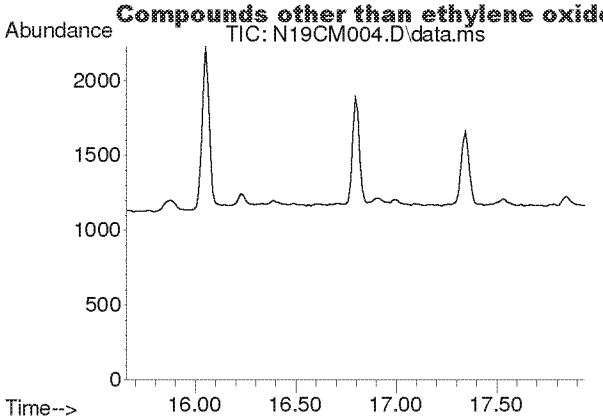
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

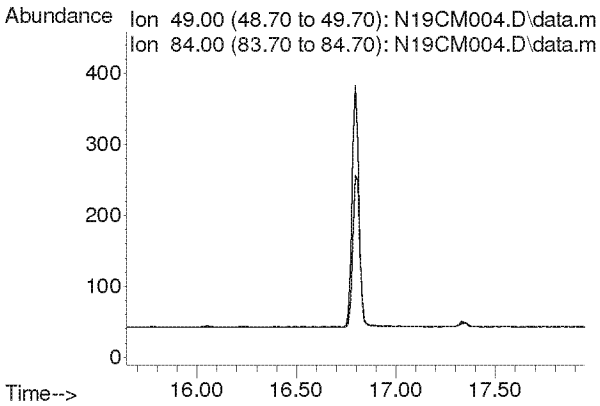


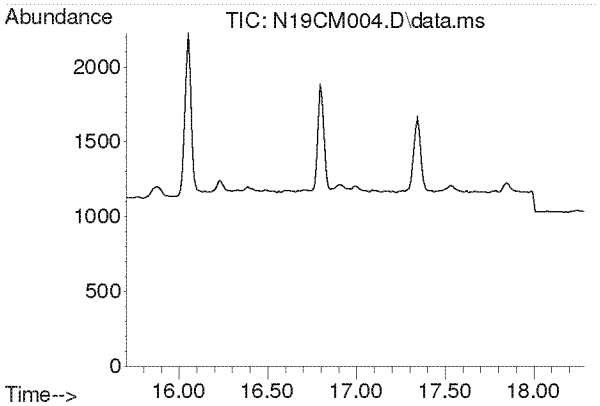
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



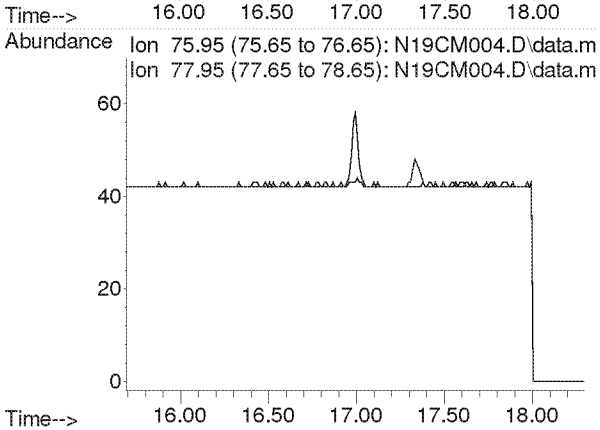


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

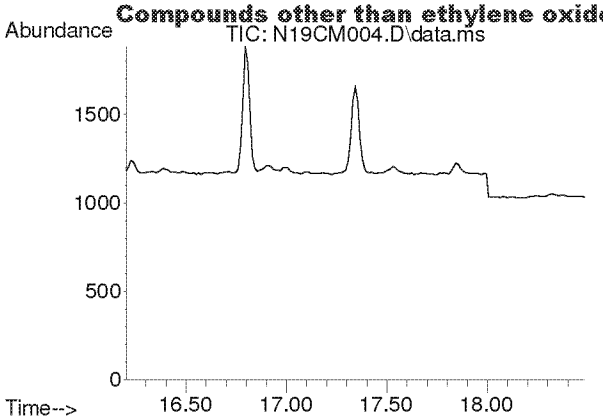
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

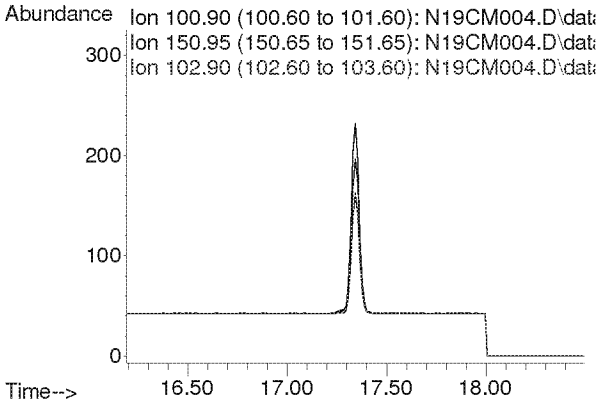


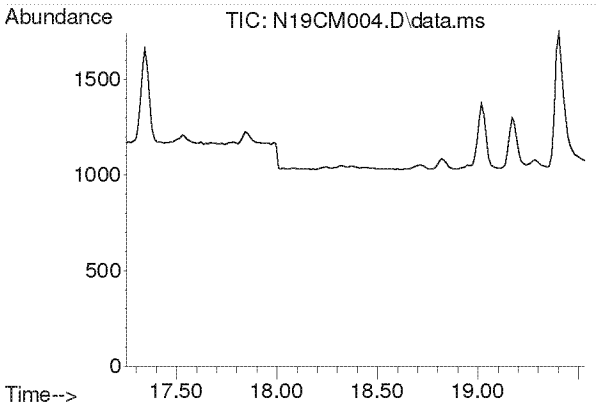
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



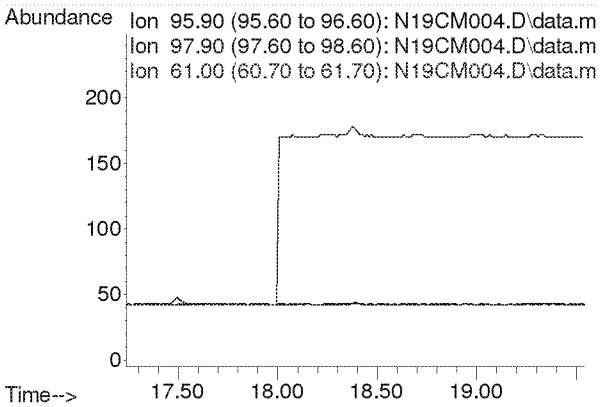


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

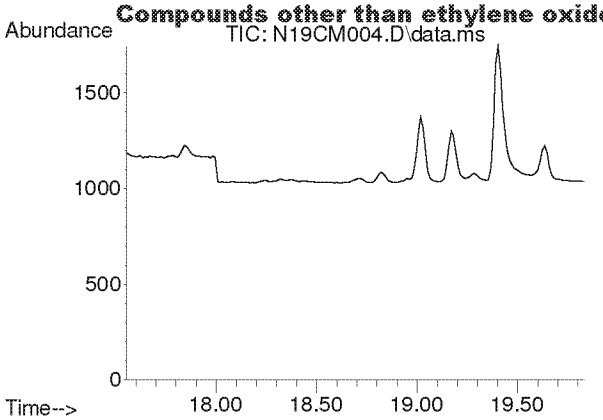
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

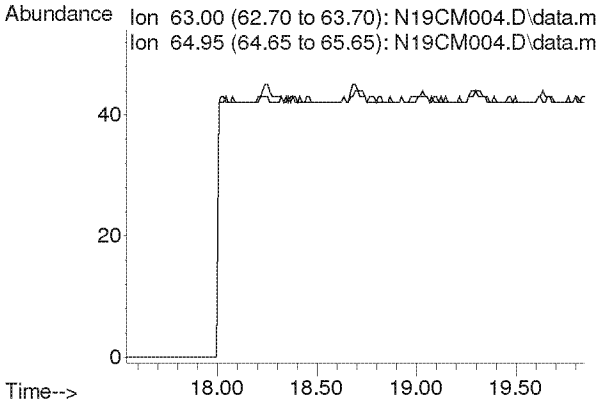


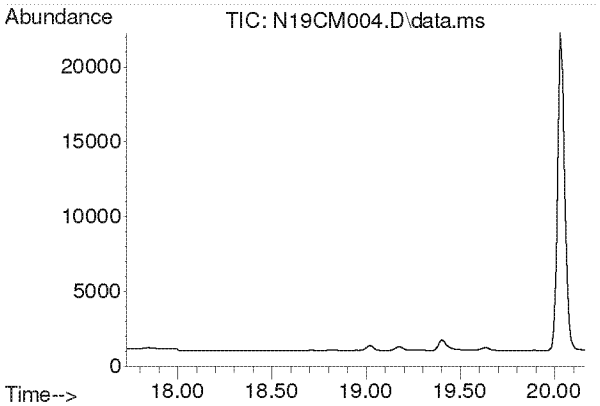
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



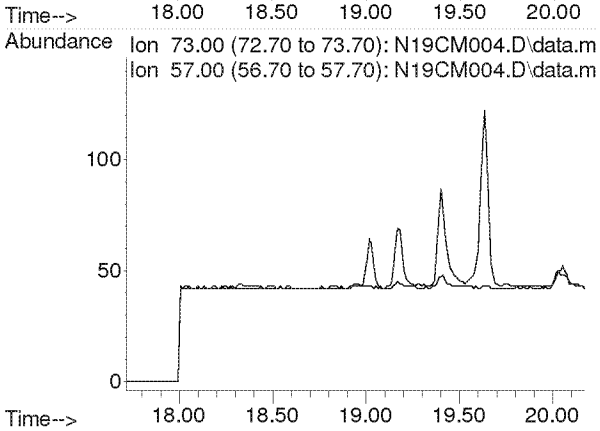


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

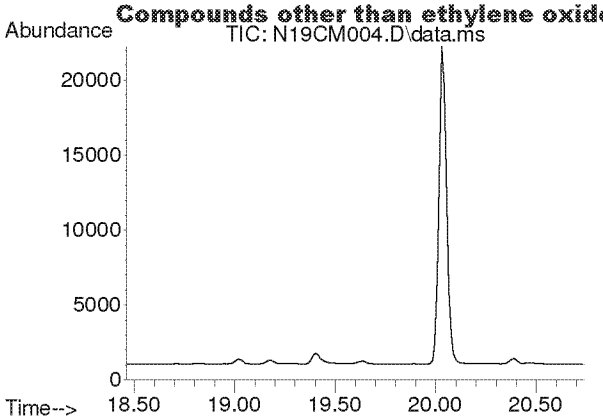
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

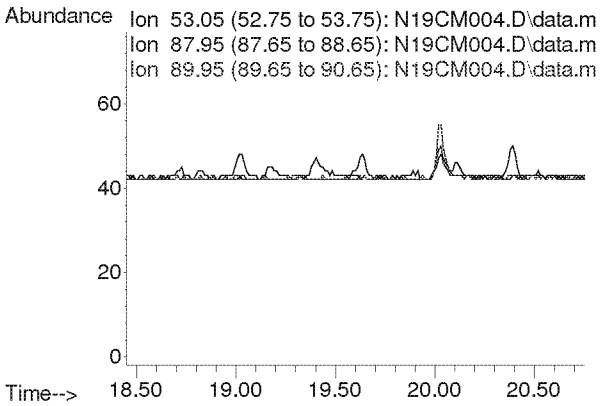


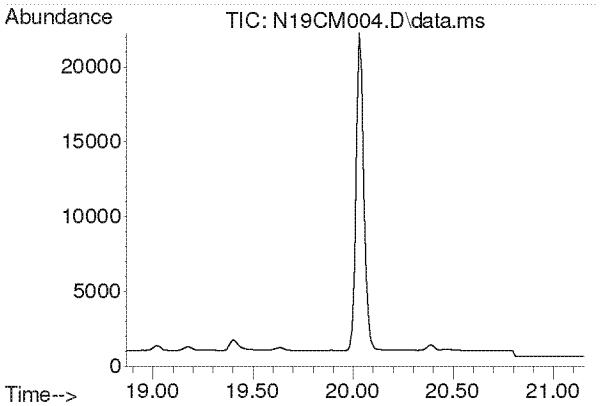
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



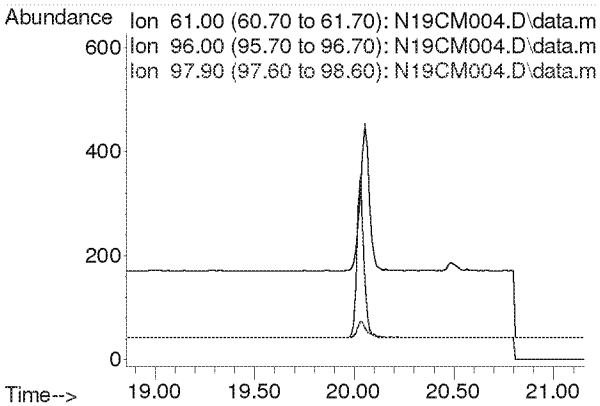


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

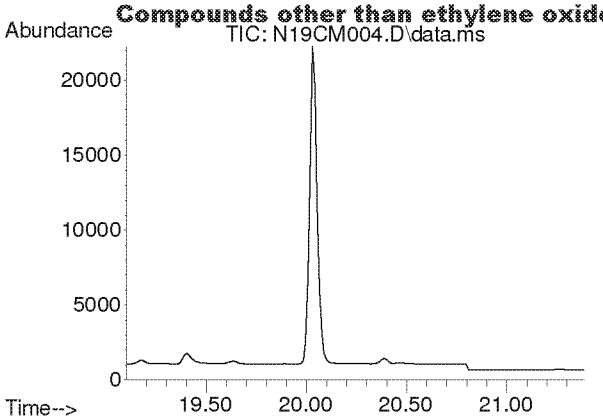
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

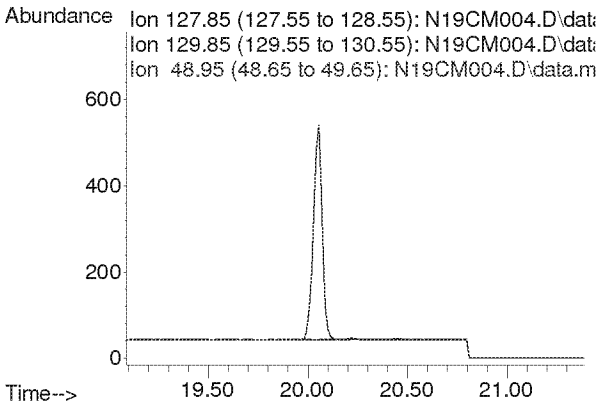


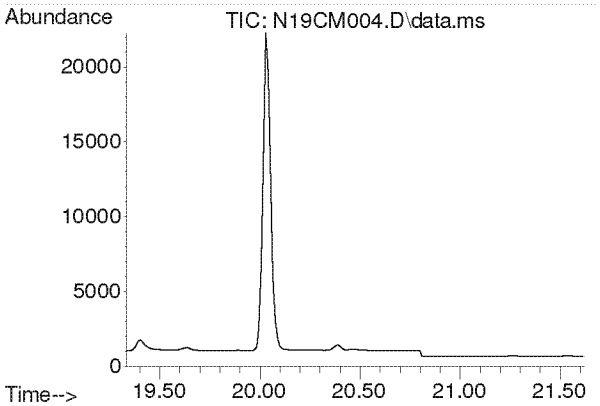
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



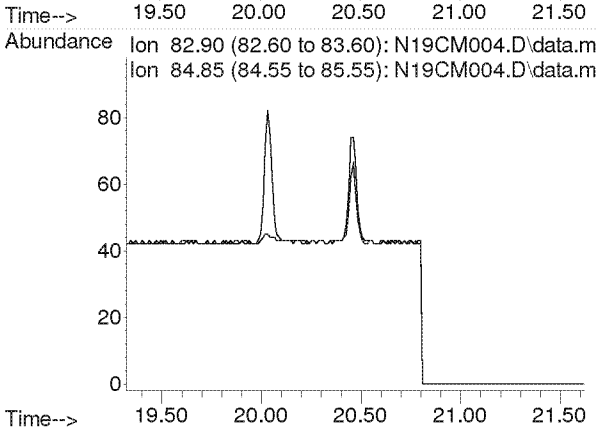


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

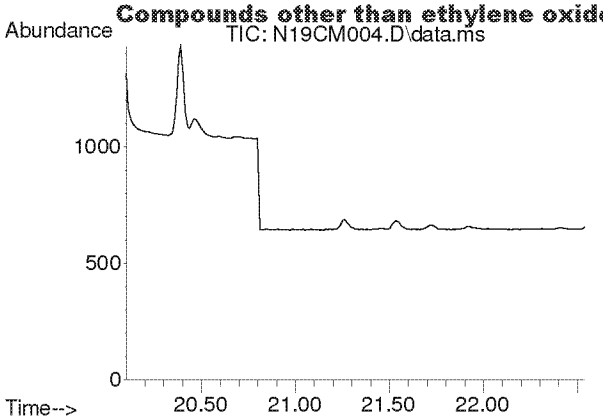
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

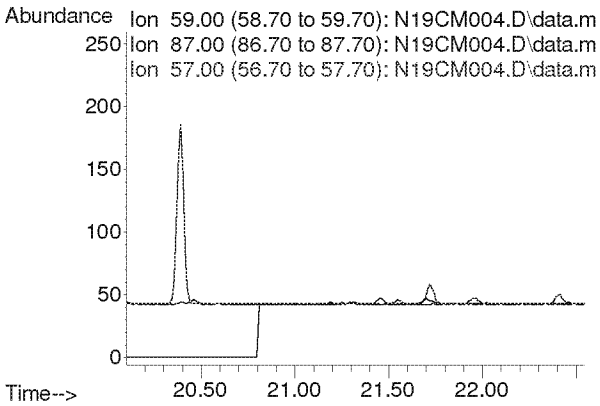


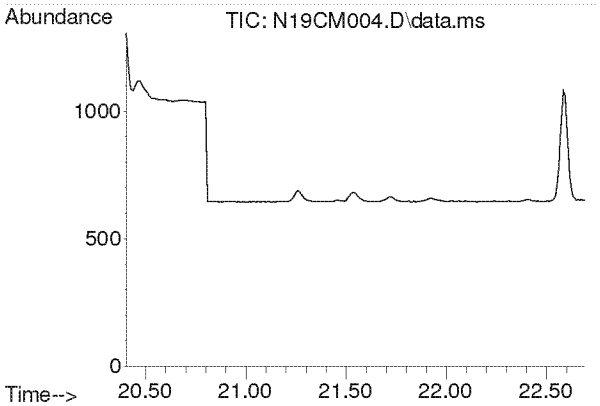
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



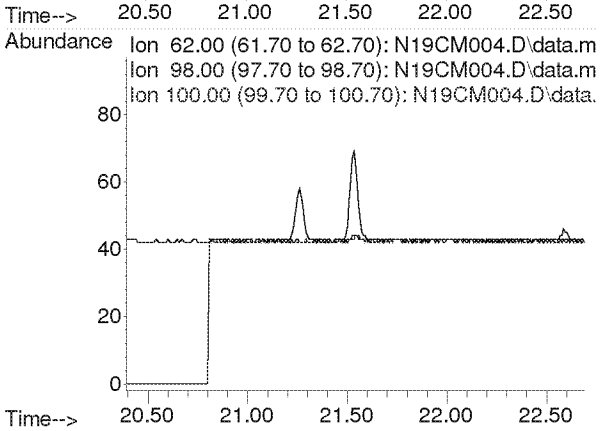


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

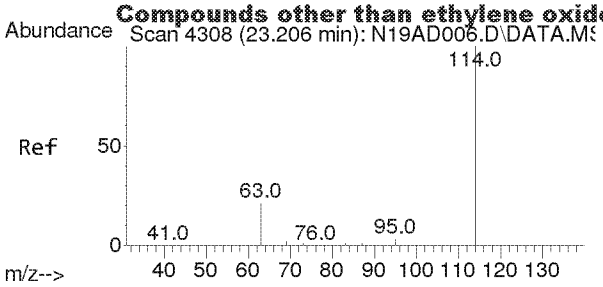
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



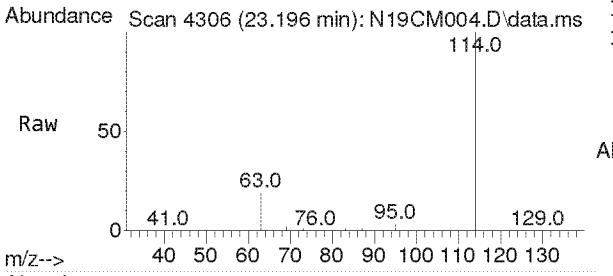
Compounds other than ethylene oxide were not quantitated.

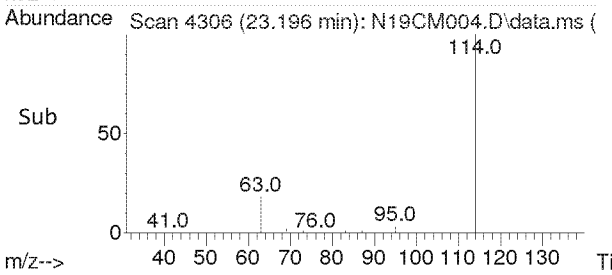


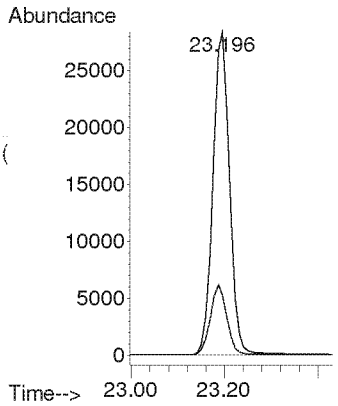
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.196 min Scan# 4306
Delta R.T. -0.010 min
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

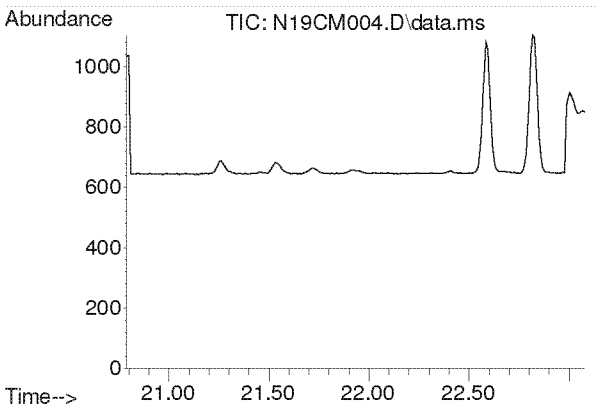
Tgt Ion:114 Resp: 70051

Ion	Ratio	Lower	Upper
114	100		
63	21.6	16.7	25.1







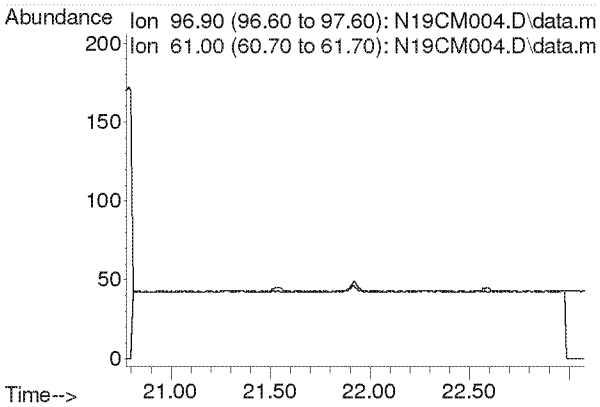


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

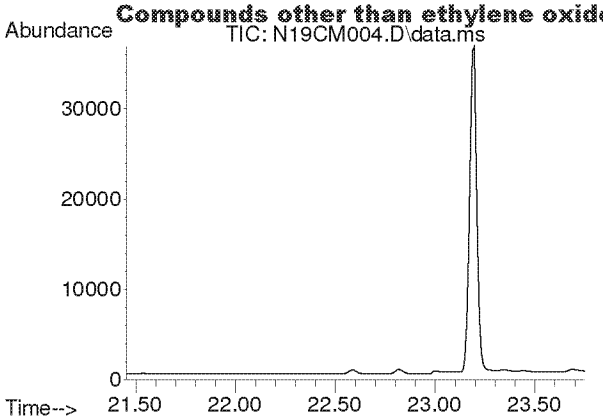
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

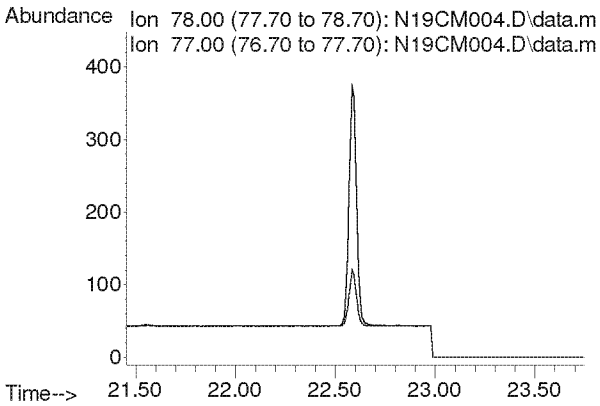


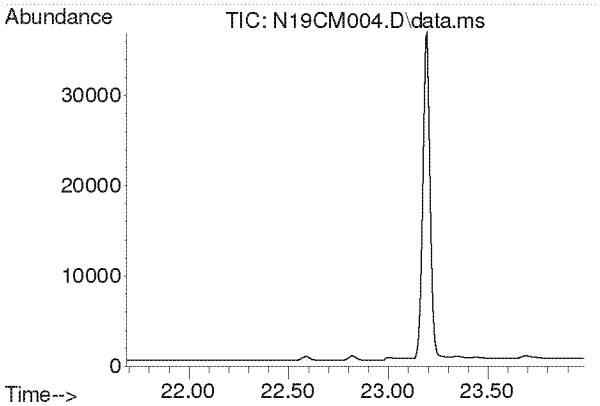
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



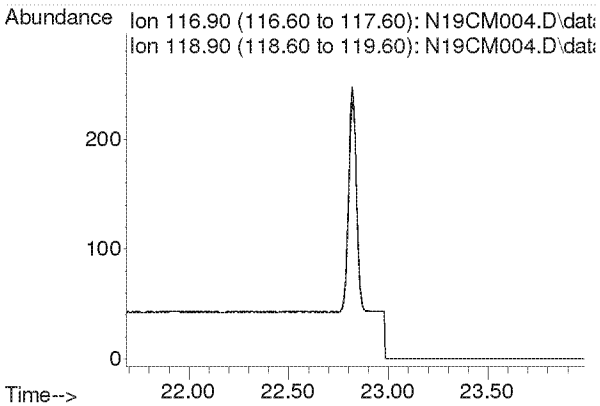


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

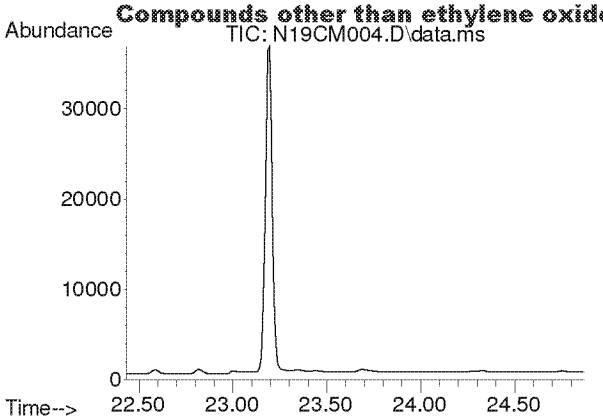
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

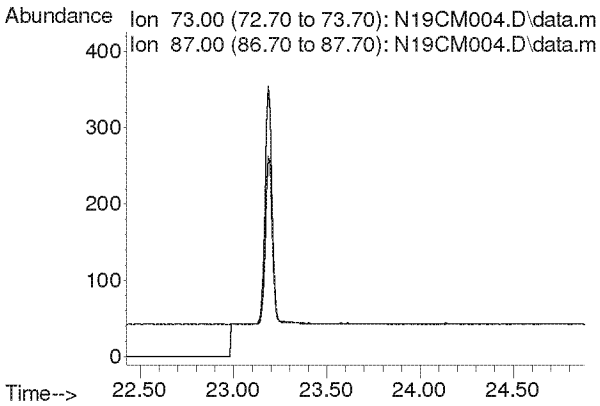


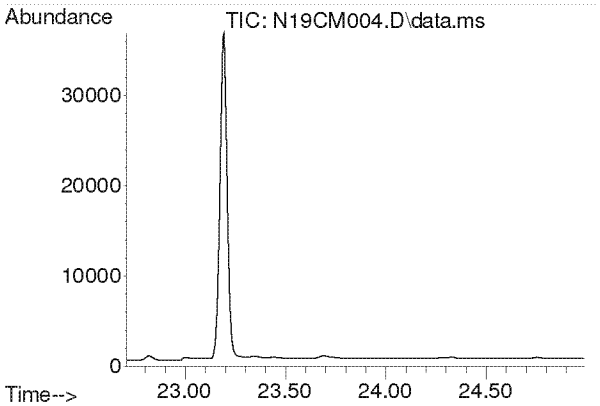
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



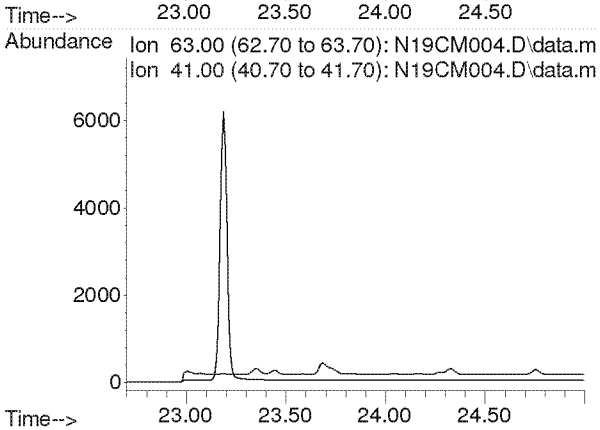


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

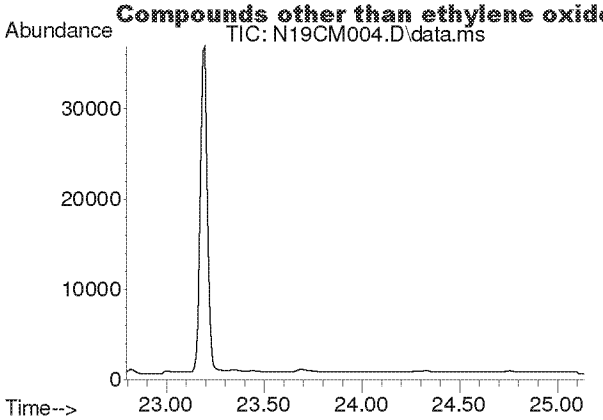
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

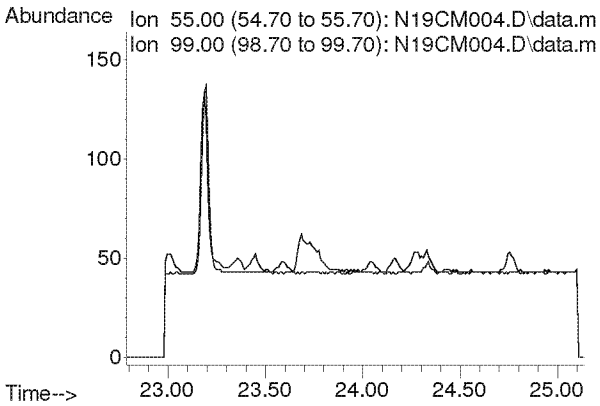


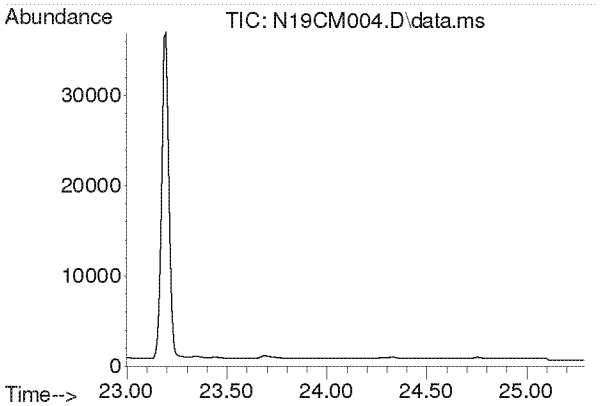
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



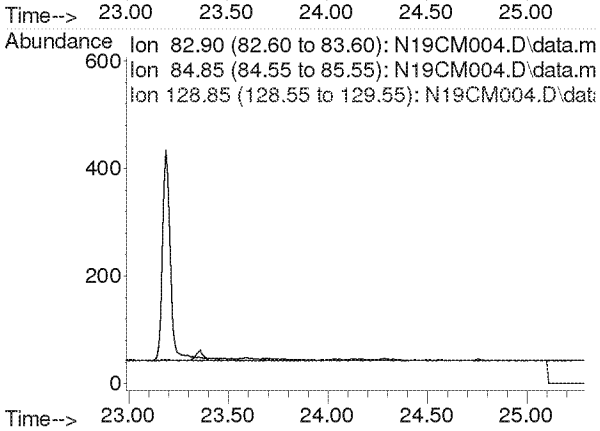


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

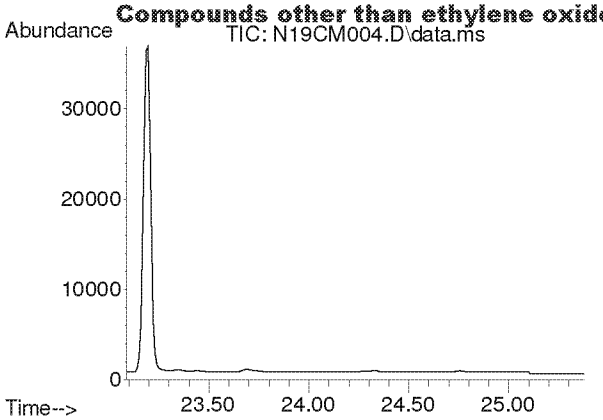
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

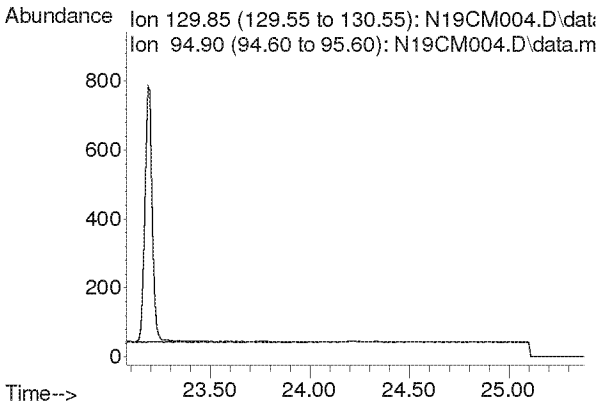


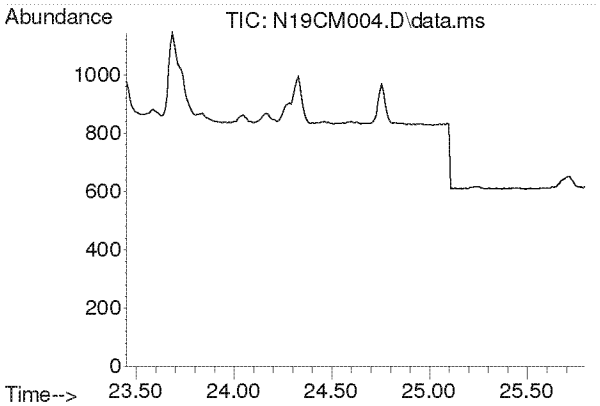
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



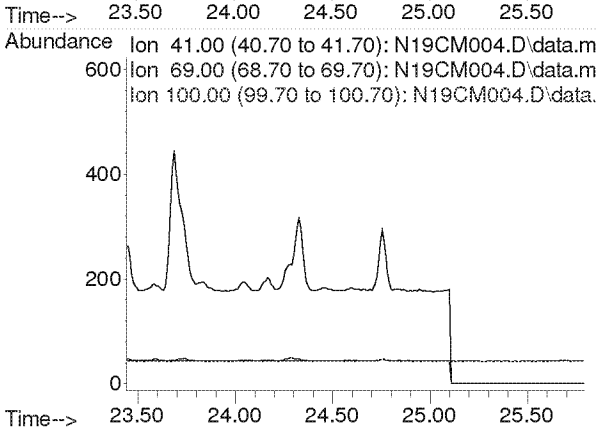


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

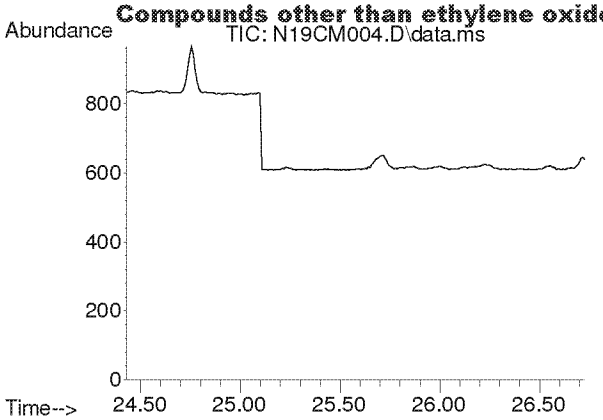
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

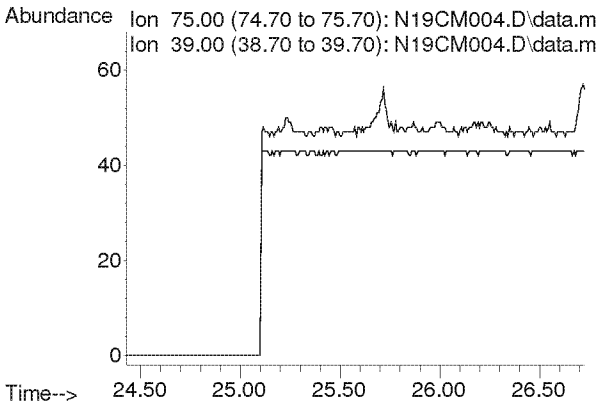


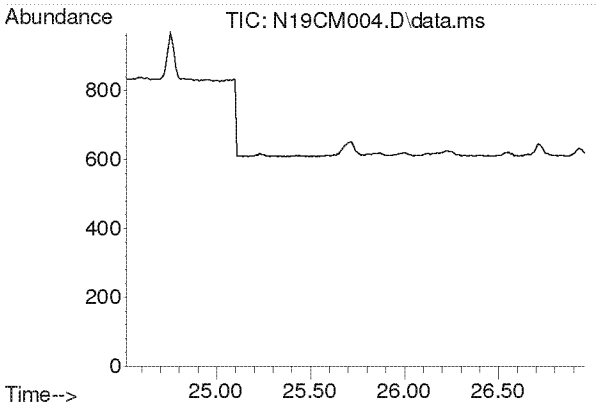
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



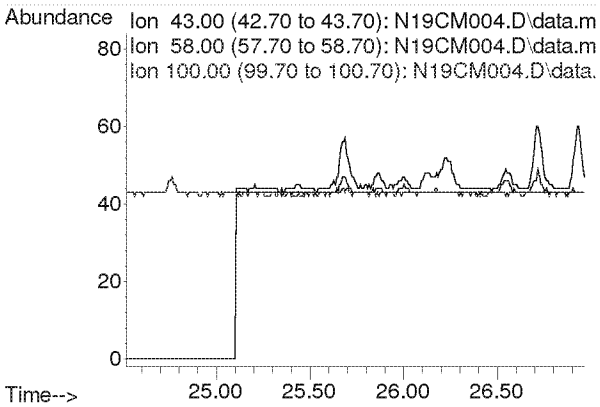


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

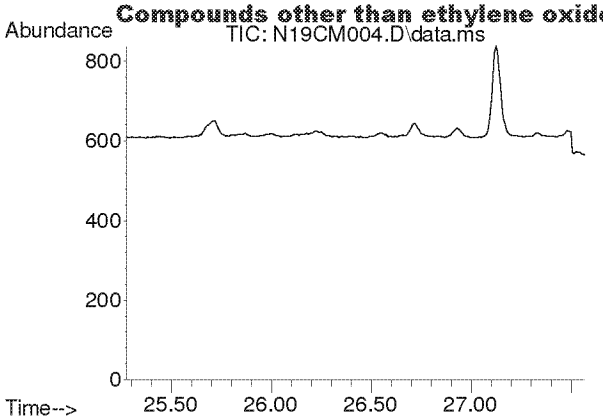
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

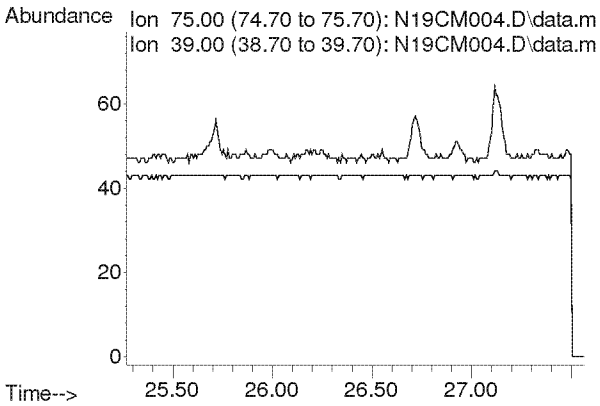


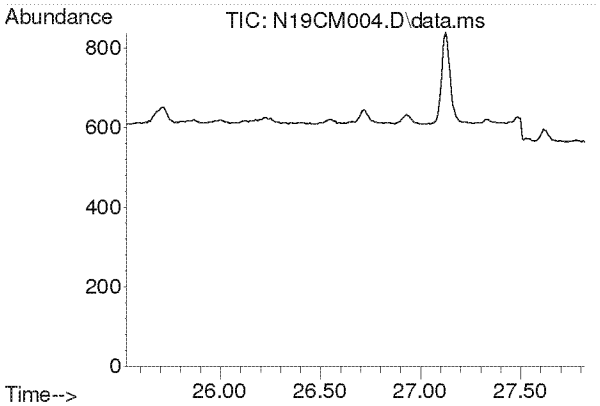
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



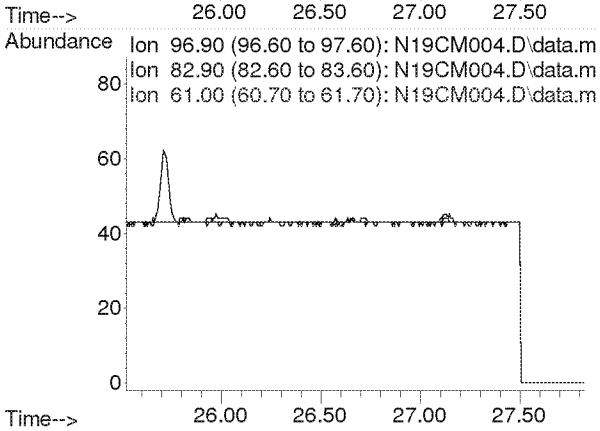


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

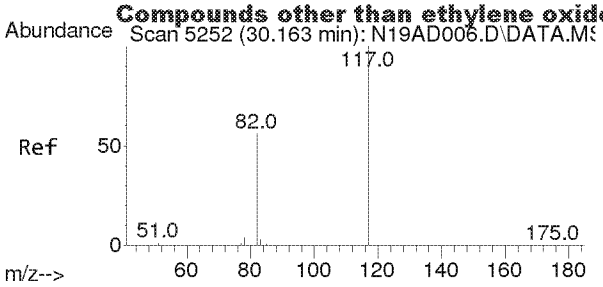
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



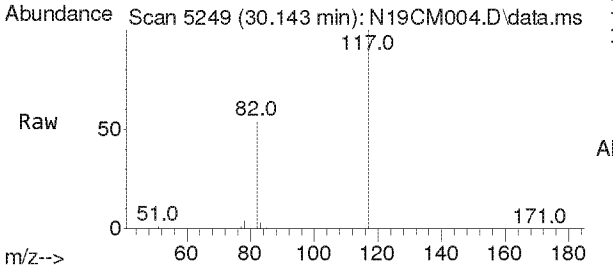
Compounds other than ethylene oxide were not quantitated.

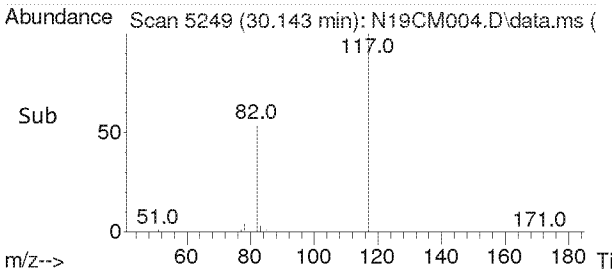


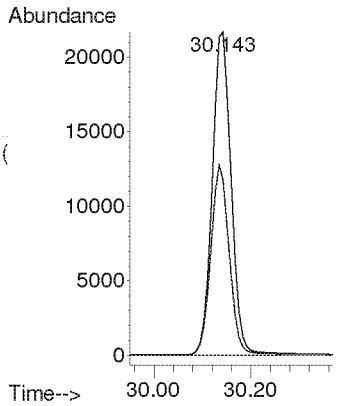
#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.143 min Scan# 5249
Delta R.T. -0.019 min
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

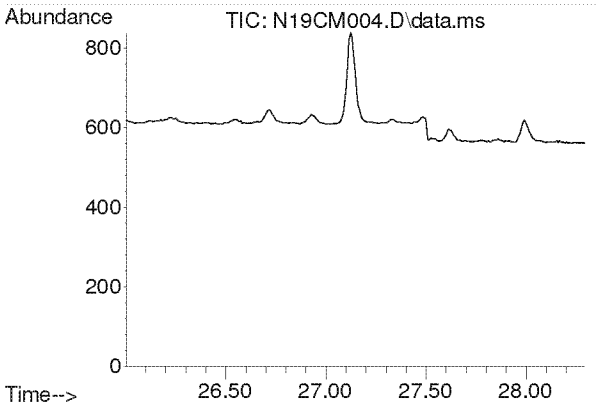
Tgt Ion:117 Resp: 57728

Ion	Ratio	Lower	Upper
117	100		
82	57.8	40.1	74.5
54	0.0	0.0	0.0







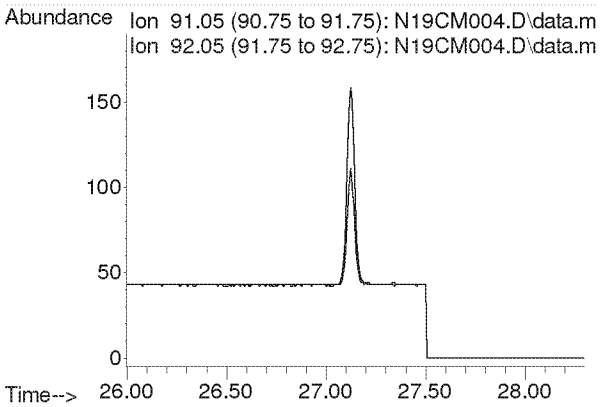


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

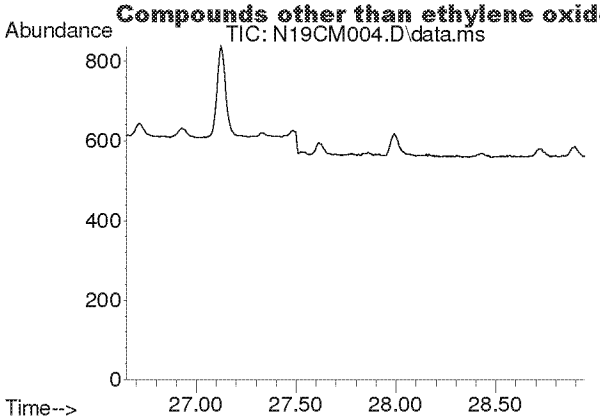
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

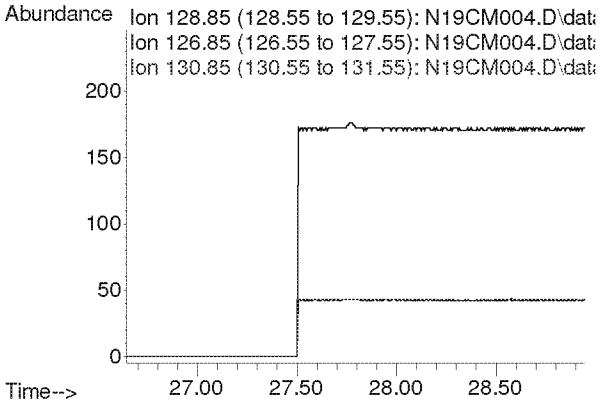


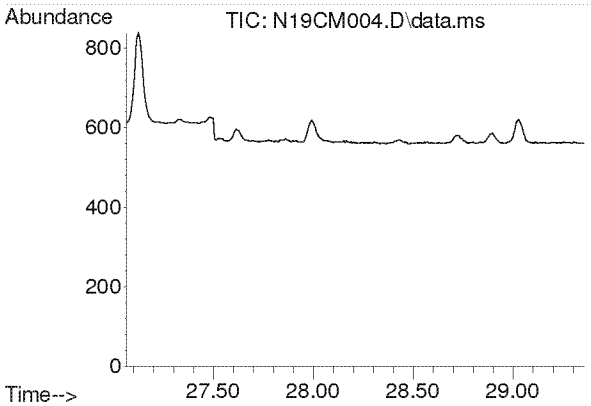
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



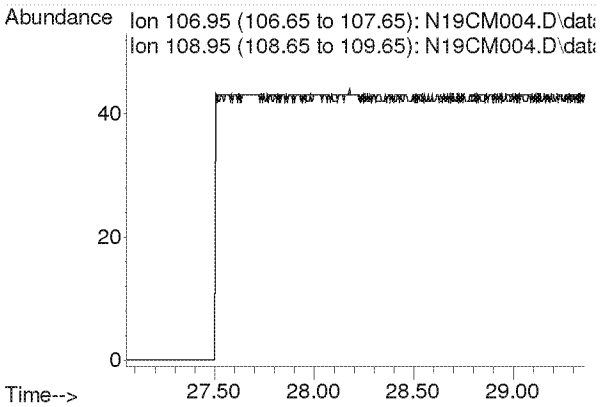


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

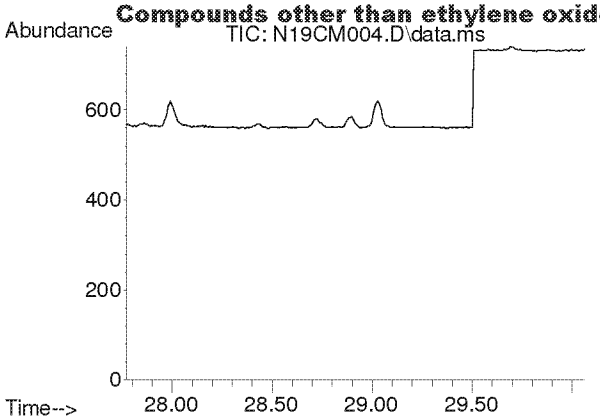
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

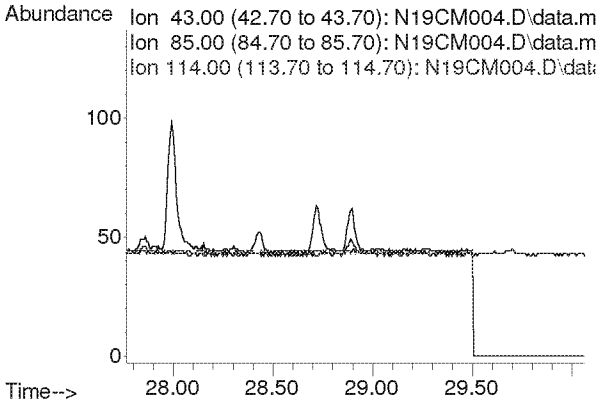


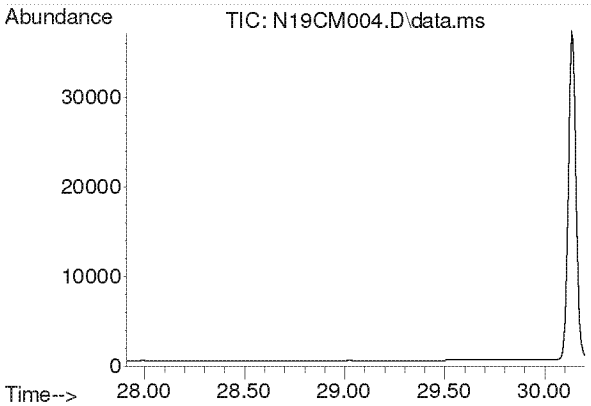
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



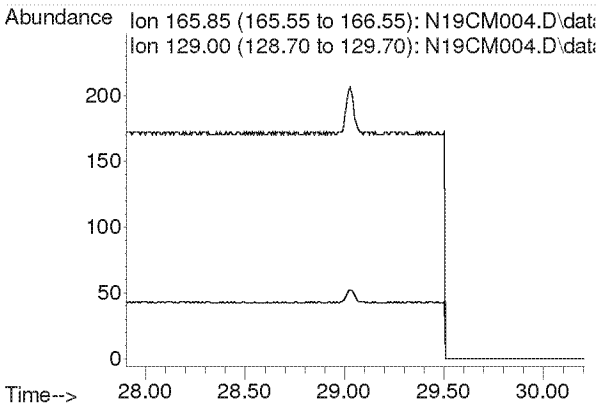


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

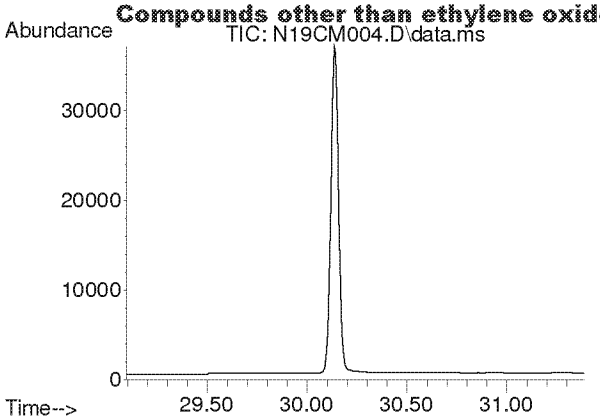
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

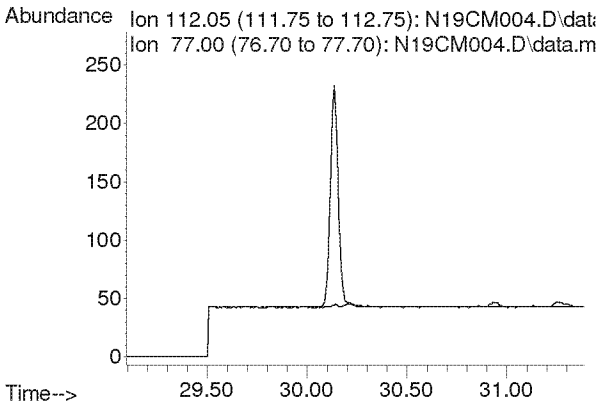


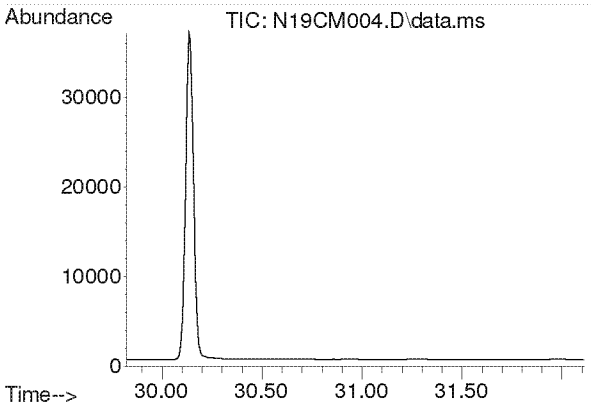
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



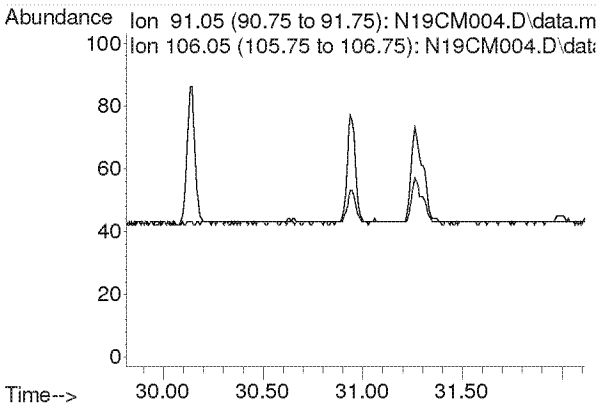


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

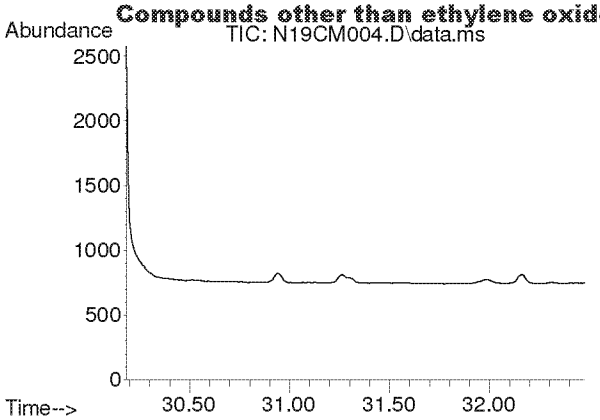
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

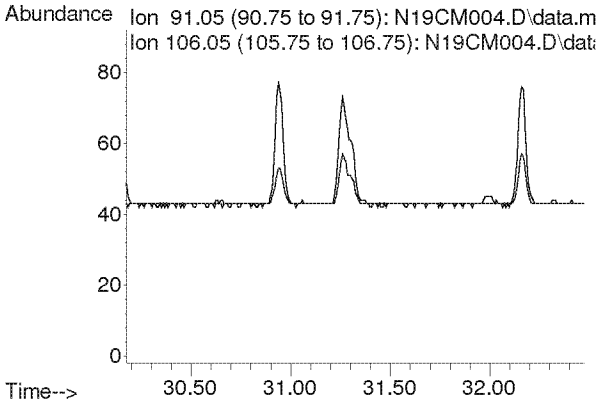


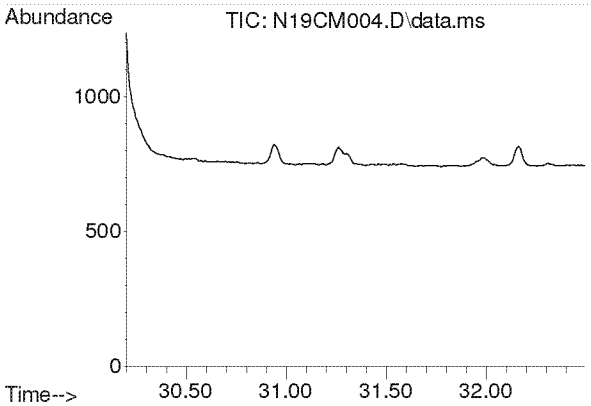
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



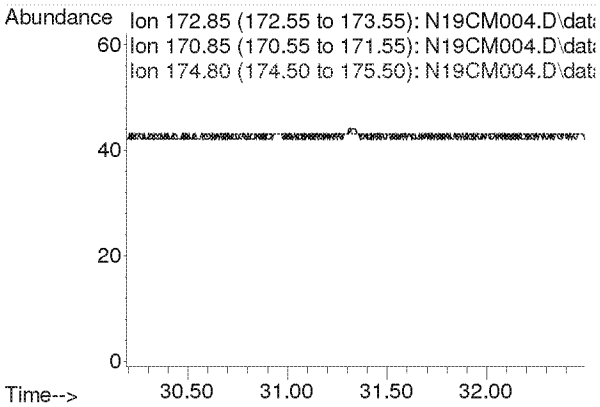


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

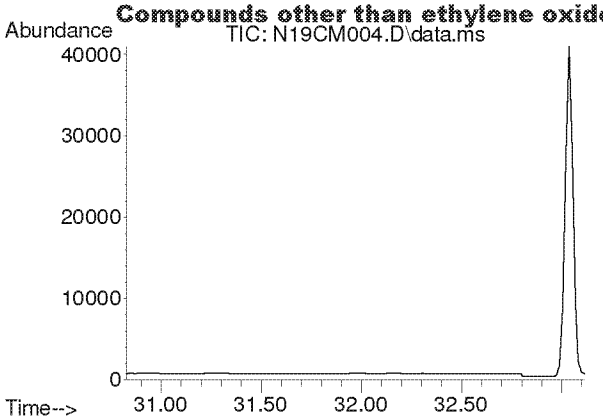
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

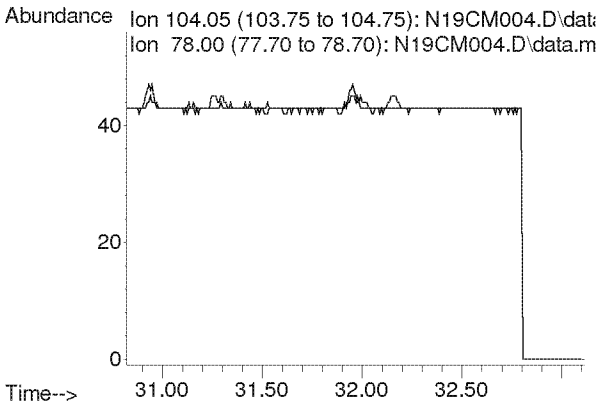


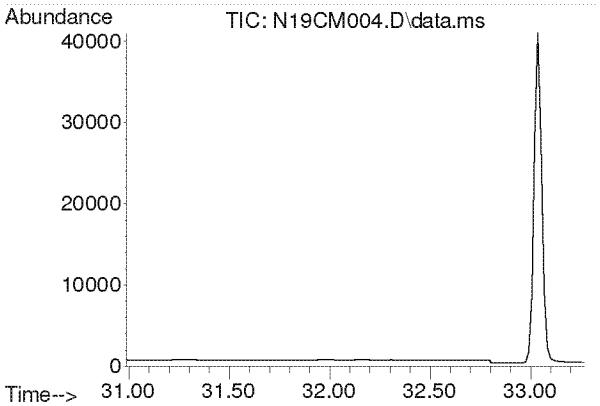
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



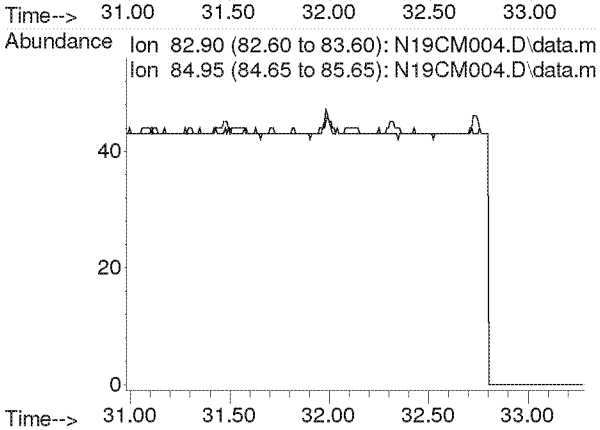


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

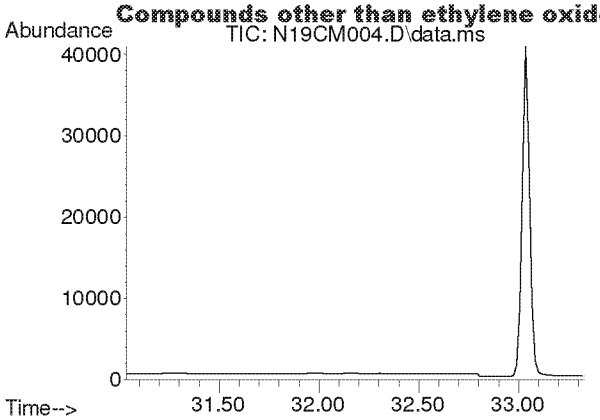
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

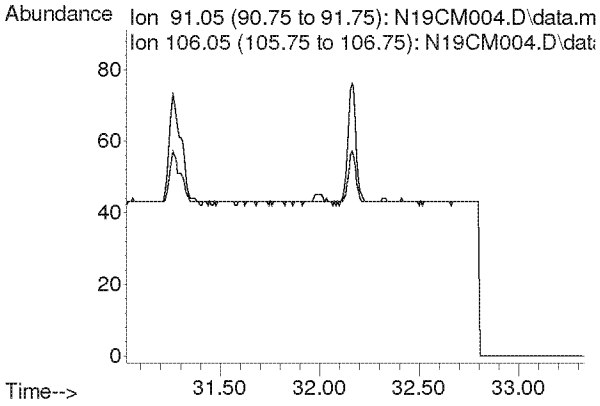


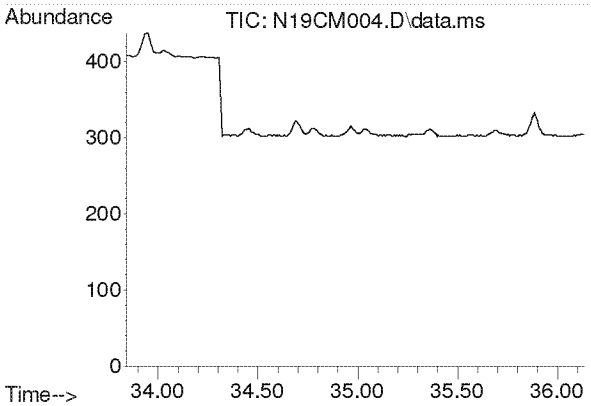
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



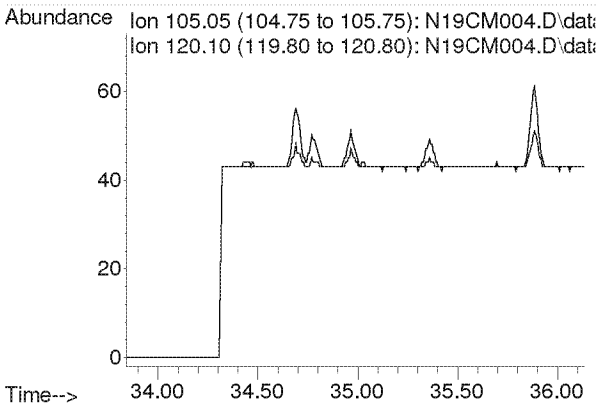


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

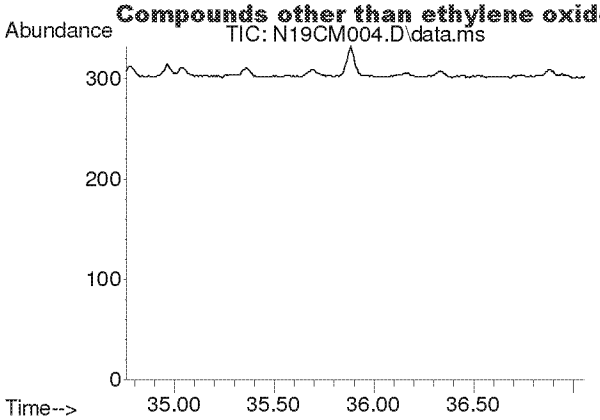
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

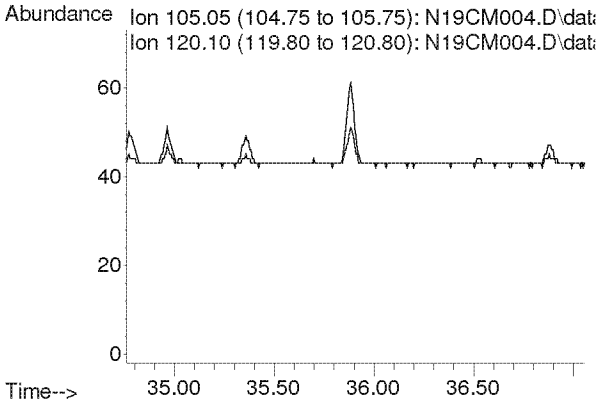


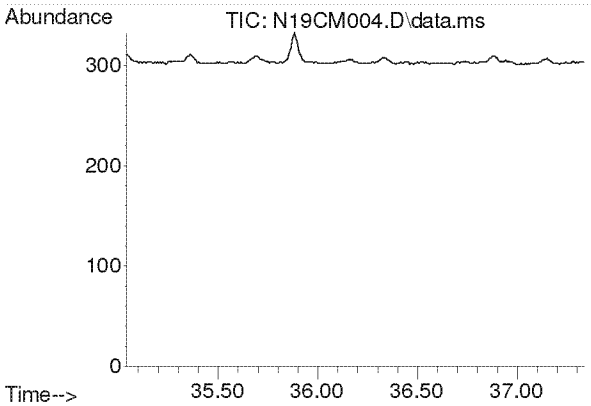
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



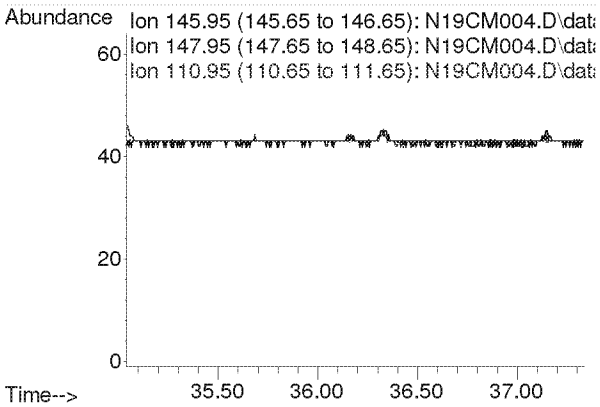


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

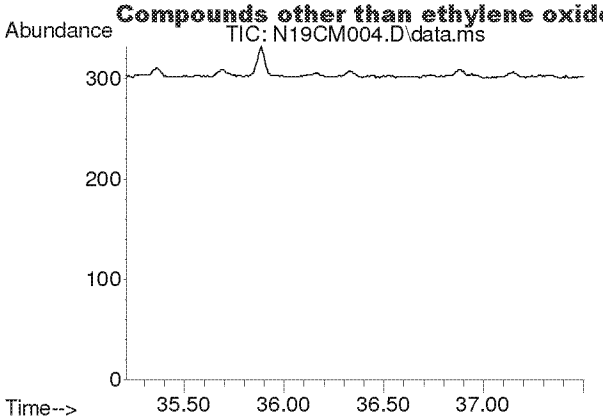
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

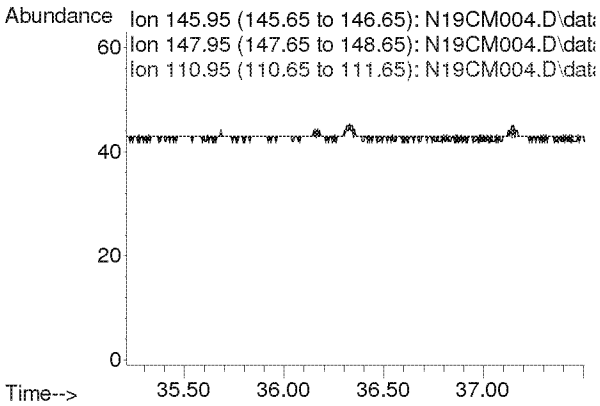


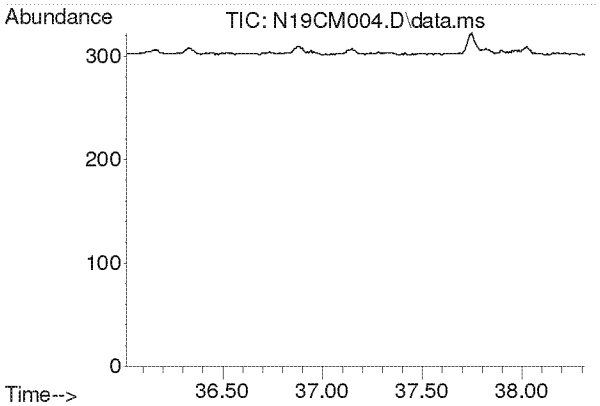
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



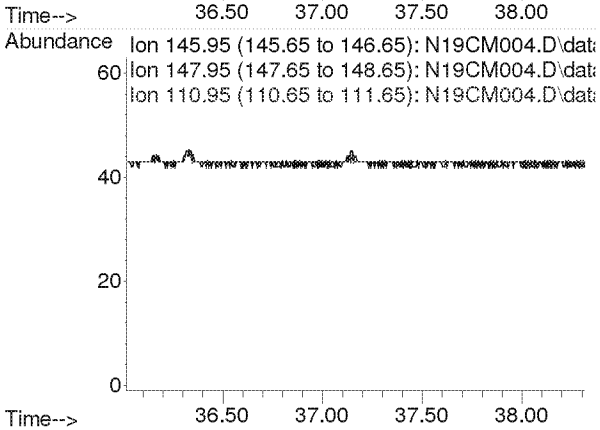


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

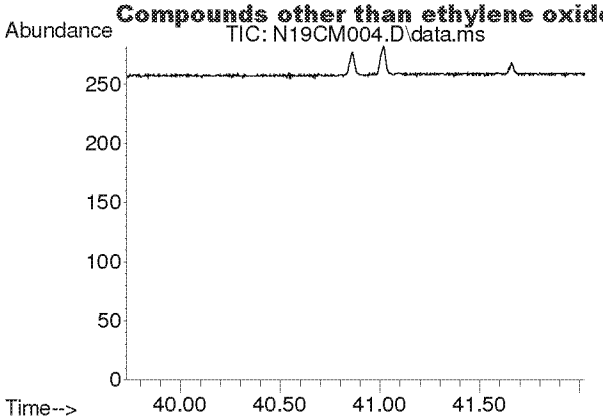
Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

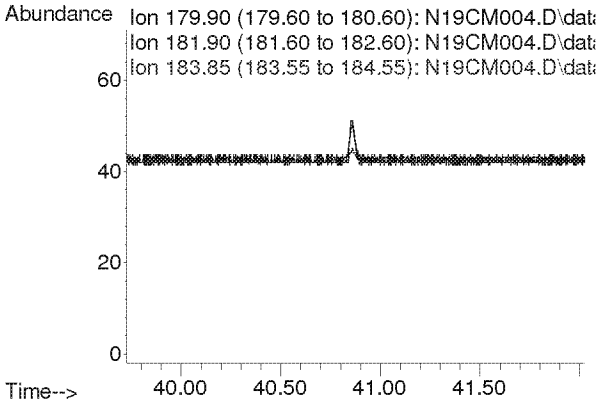


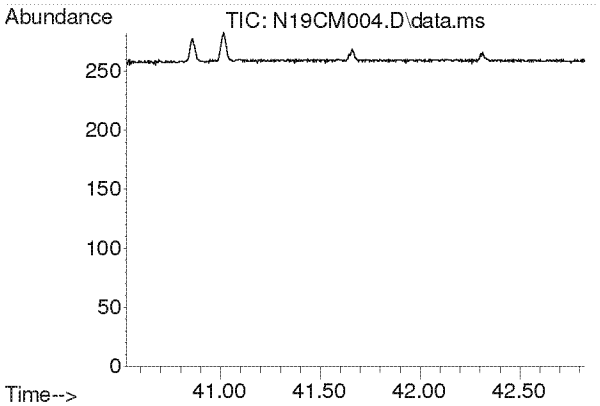
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



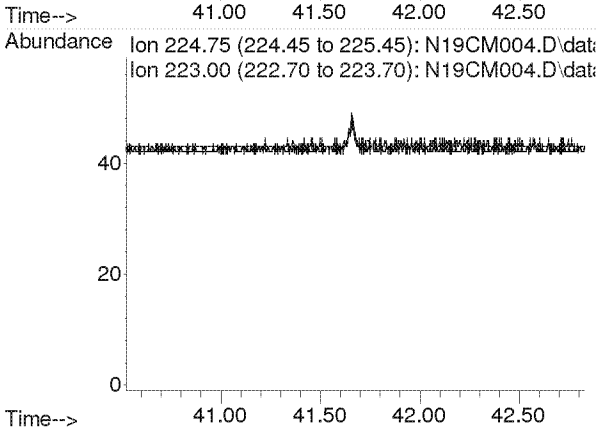


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM004.D
Acq: 13 Mar 2019 2:16 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Duplicate Samples

		D1	D2		
File ID		N19CM005.D	N19CM007.D		
Analyst		KSS	KSS		
Method		9010001.M	9010001.M		
Sample ID		9031220-02	9031220-03		
Mics Comments		VILLAGE HALL C1	VILLAGE HALL C2 3/10/19		
Compound	MDL	Amount (ppbv)	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Ethylene Oxide	0.0366	0.131	0.113	NA	
IS-1,4-Difluorobenzene	NA			NA	
IS-Chlorobenzene-d5	NA			NA	

Comparison of Replicate Analyses

		D1	R1		
File ID		N19CM005.D	N19CM006.D		
Analyst		KSS	KSS		
Method		9010001.M	9010001.M		
Sample ID		9031220-02	B9C1305-DUP1		
Mics Comments		VILLAGE HALL C1	VILLAGE HALL R1 3/10/19		
Compound	MDL	Amount/ppbv	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Ethylene Oxide	0.0366	0.131	0.117	NA	
IS-1,4-Difluorobenzene	NA			NA	
IS-Chlorobenzene-d5	NA			NA	

Comparison of Replicate Analyses

		D2	R2		
File ID		N19CM007.D	N19CM008.D		
Analyst		KSS	KSS		
Method		9010001.M	9010001.M		
Sample ID		9031220-03	B9C1305-DUP2		
Mics Comments		VILLAGE HALL C2	VILLAGE HALL R2 3/10/19		
Compound	MDL	Amount/ppbv	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Ethylene Oxide	0.0366	0.113	0.097	NA	
IS-1,4-Difluorobenzene	NA			NA	
IS-Chlorobenzene-d5	NA			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)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM005.D
Acq On : 13 Mar 2019 3:17 pm (#1); 13-Mar-19, 15:12:27 (#2)
Operator : KSS
Sample : 9031220-02
Misc : VILLAGE HALL C1 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 14 08:29:49 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.031	66	30088	4.7700 ppbv	-0.01
29) IS-1,4-Difluorobenzene	23.196	114	62830	4.9900 ppbv	-0.01
43) IS-Chlorobenzene-d5	30.135	117	52753	4.7400 ppbv	-0.03

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene Oxide	12.516	29	172	0.1312 ppbv #	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM005.D
Acq On : 13 Mar 2019 3:17 pm (#1); 13-Mar-19, 15:12:27 (#2)
Operator : KSS
Sample : 9031220-02
Misc : VILLAGE HALL C1 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 14 08:29:49 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

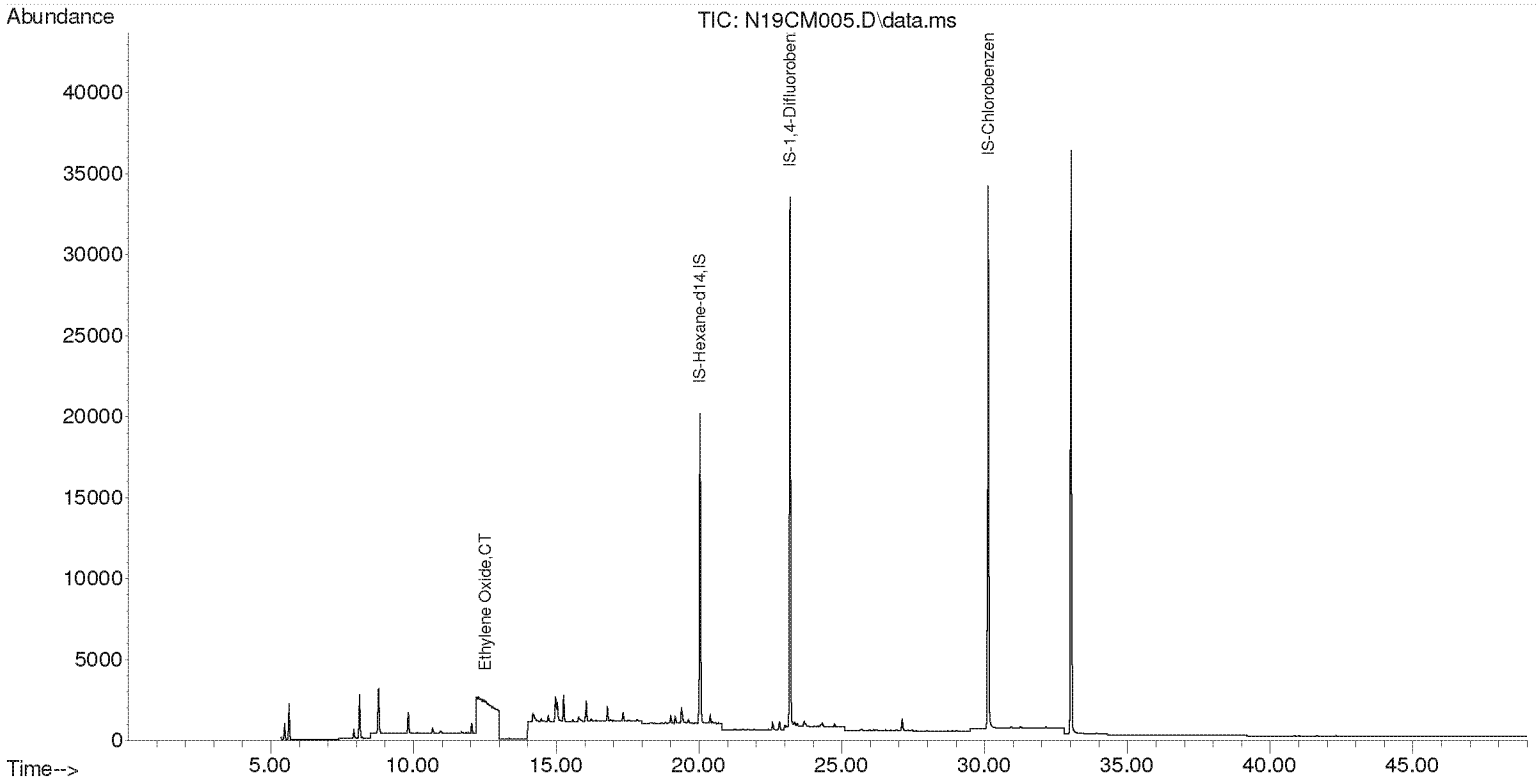
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

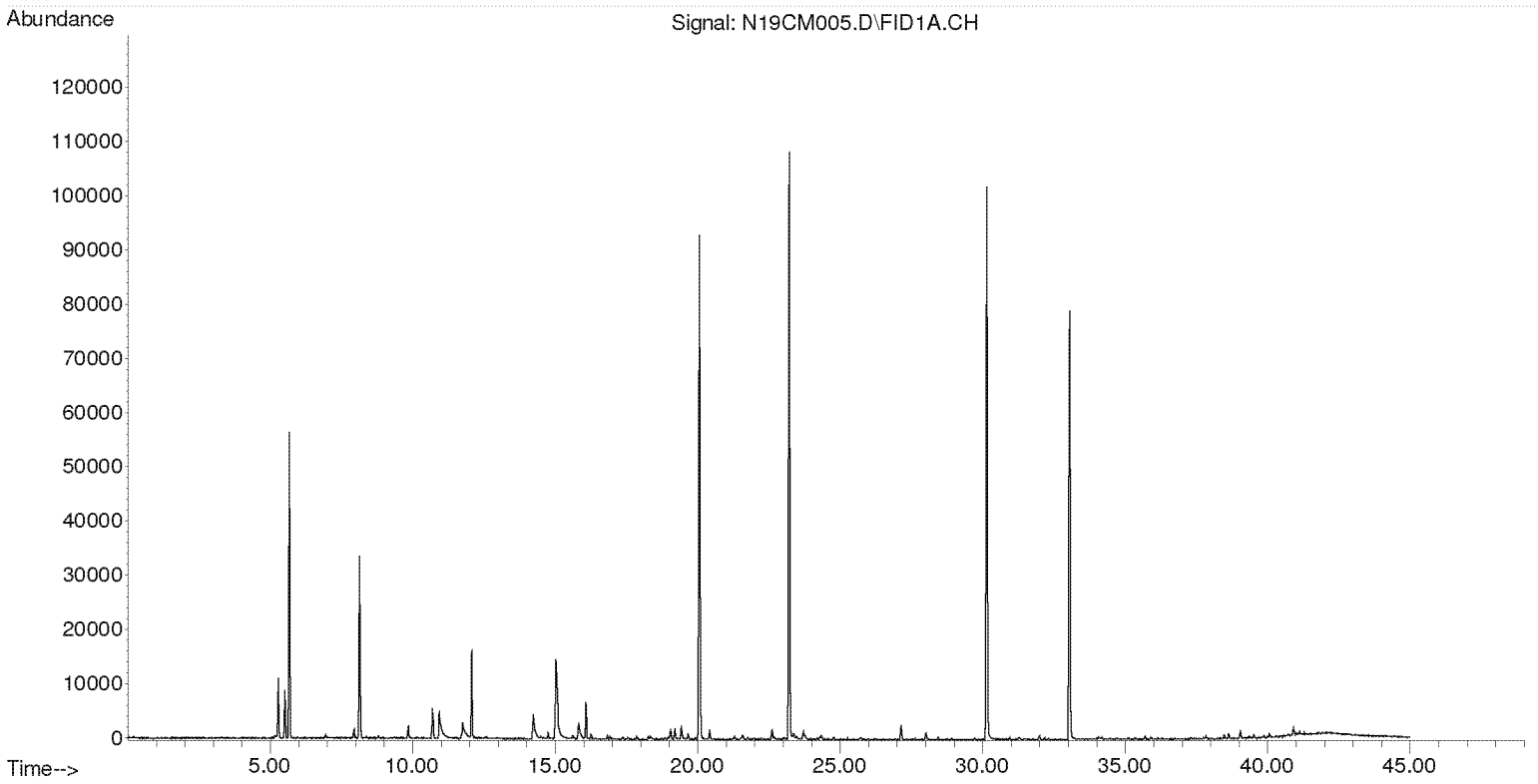
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

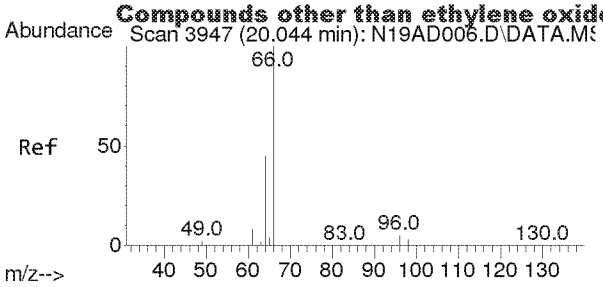
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM005.D
Acq On : 13 Mar 2019 3:17 pm (#1); 13 Mar 2019 3:12 pm (#2)
Operator : KSS
Sample : 9031220-02
Misc : VILLAGE HALL C1 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 14 08:19:01 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





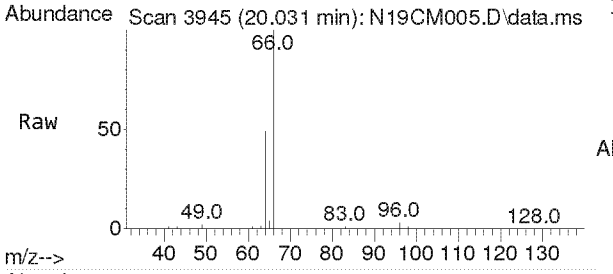
Compounds other than ethylene oxide were not quantitated.

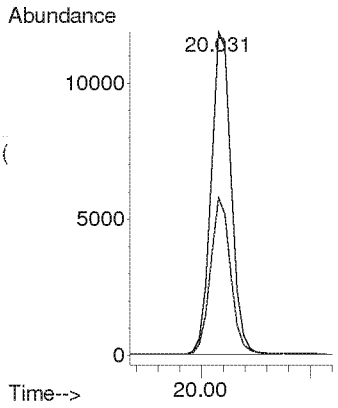


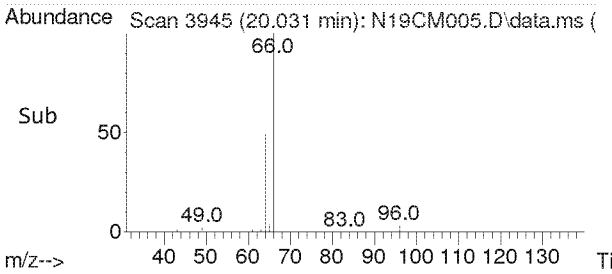
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.031 min Scan# 3945
Delta R.T. -0.013 min
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

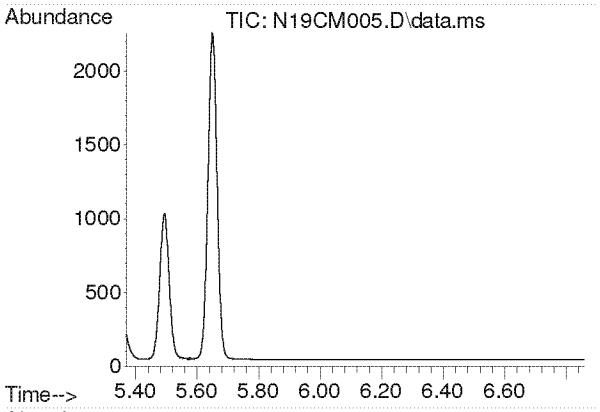
Tgt Ion: 66 Resp: 30088

Ion	Ratio	Lower	Upper
66	100		
64	48.6	32.1	59.5





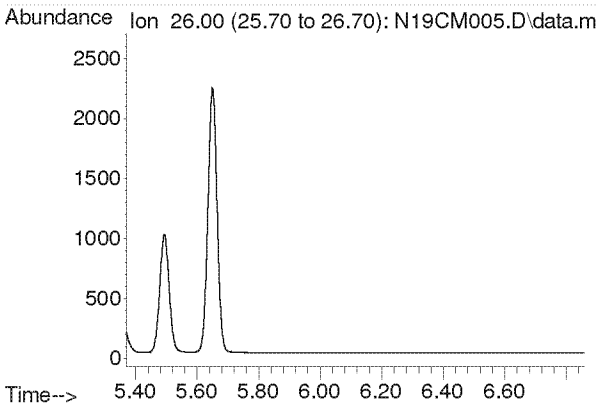




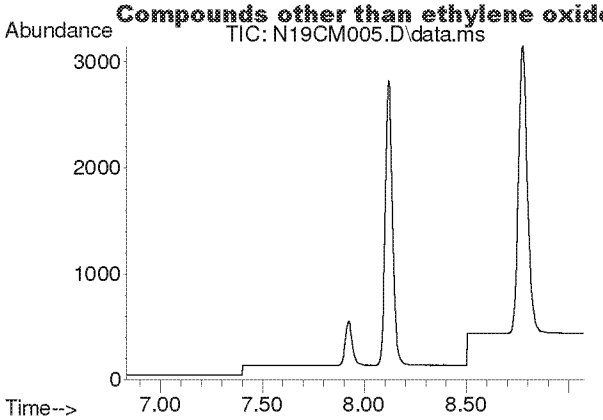
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

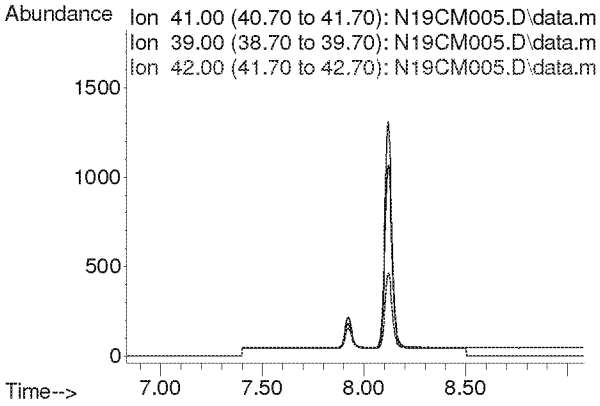


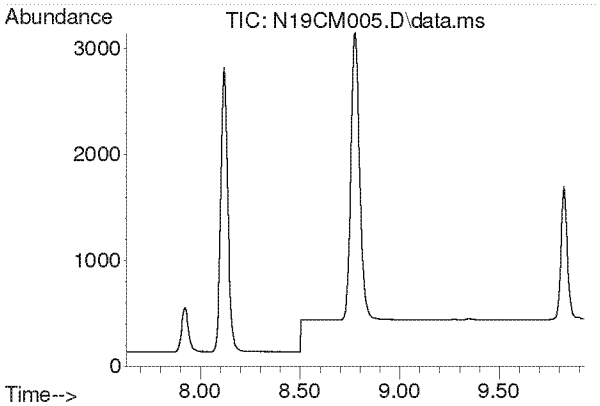
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



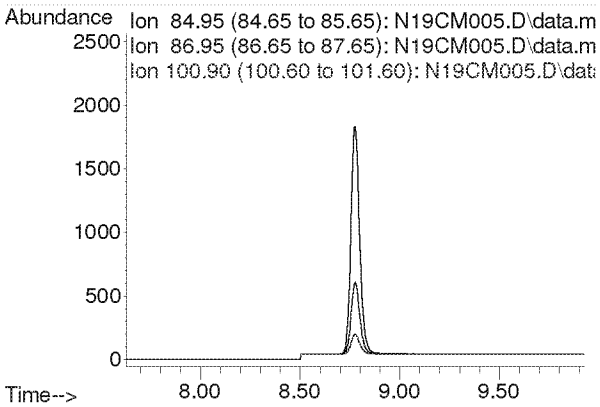


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

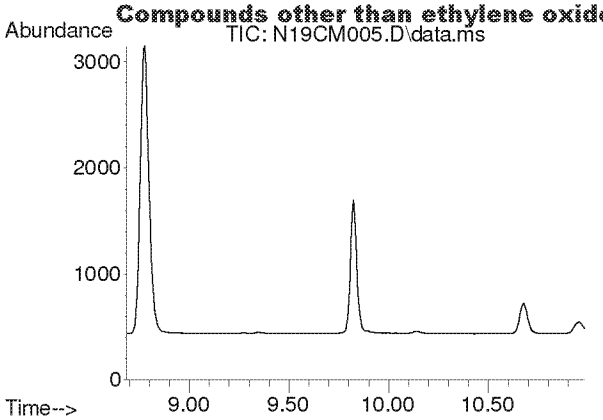
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

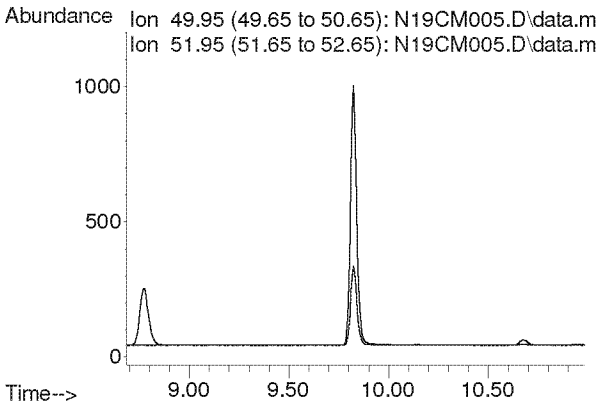


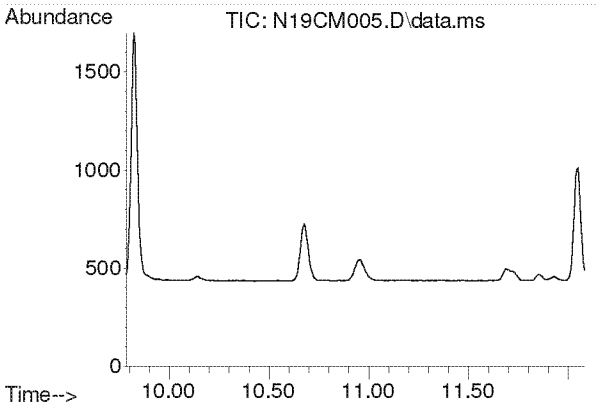
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



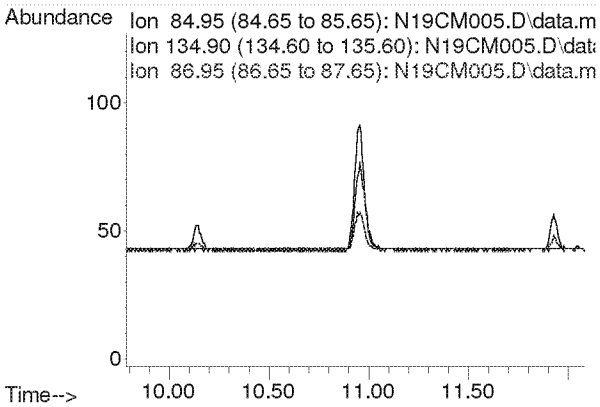


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

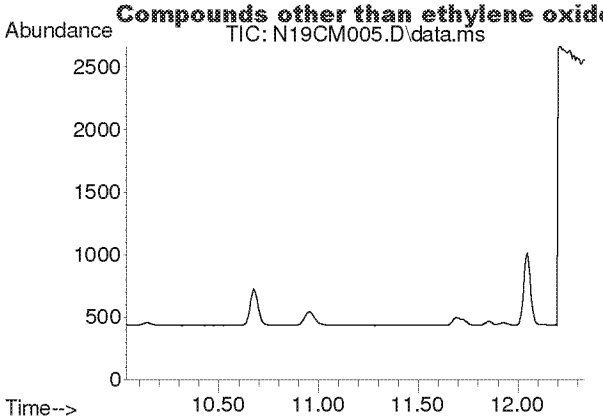
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

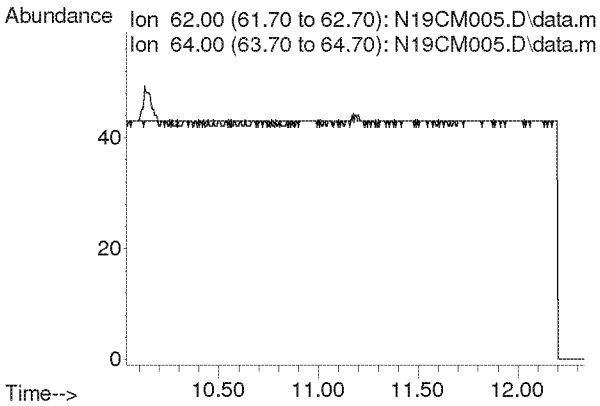


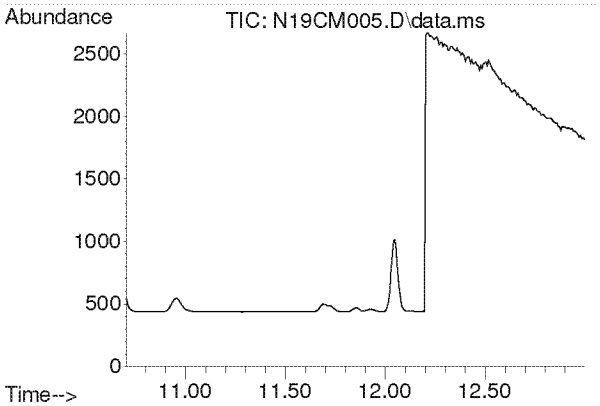
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



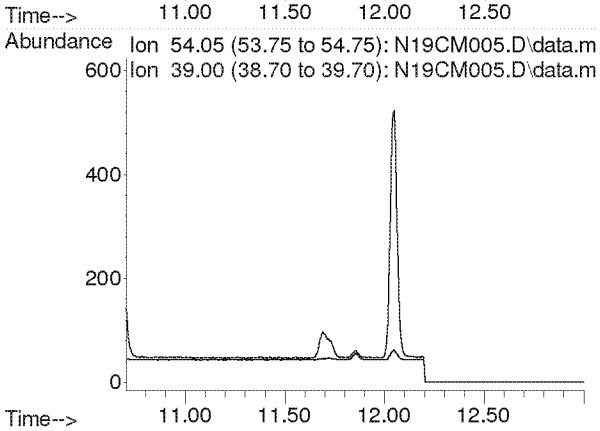


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

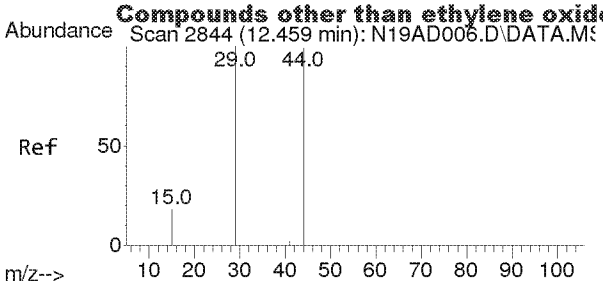
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



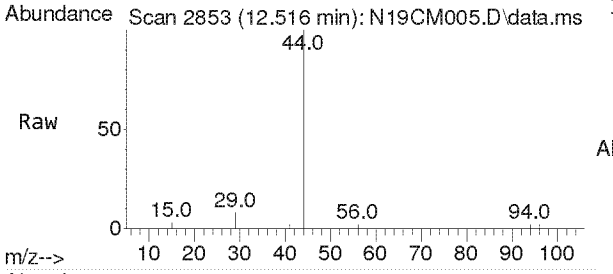
Compounds other than ethylene oxide were not quantitated.

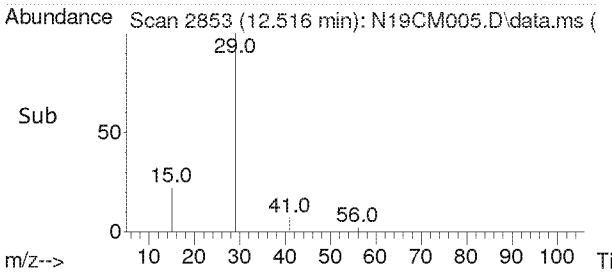


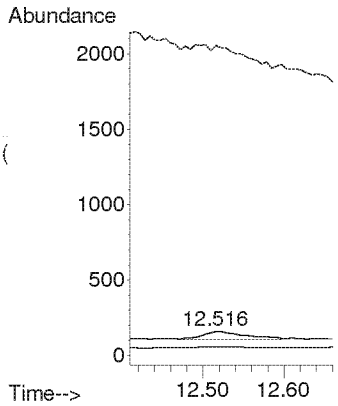
#9
Ethylene Oxide
Concen: 0.131 ppbv
RT: 12.516 min Scan# 2853
Delta R.T. 0.057 min
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

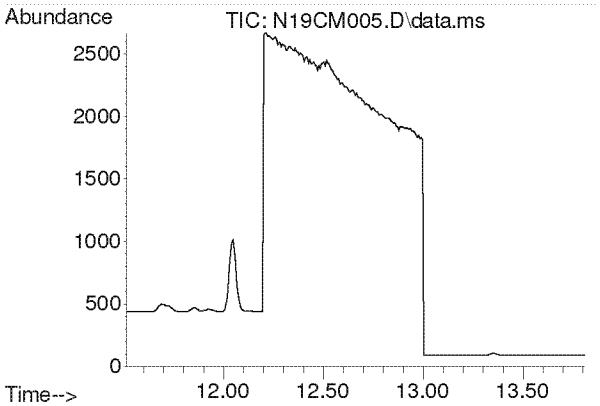
Tgt Ion: 29 Resp: 172

Ion	Ratio	Lower	Upper
29	100		
15	0.0	14.0	21.0#
44	0.0	79.2	118.8#







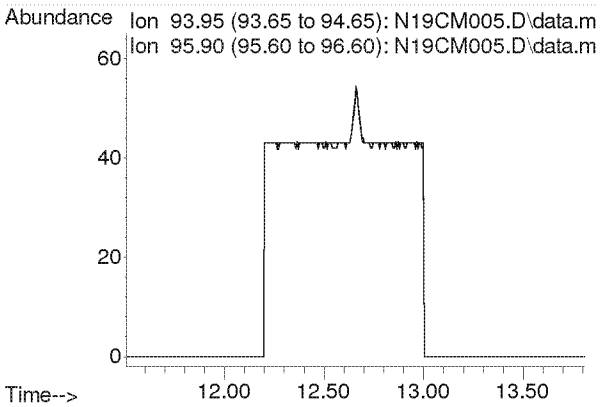


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

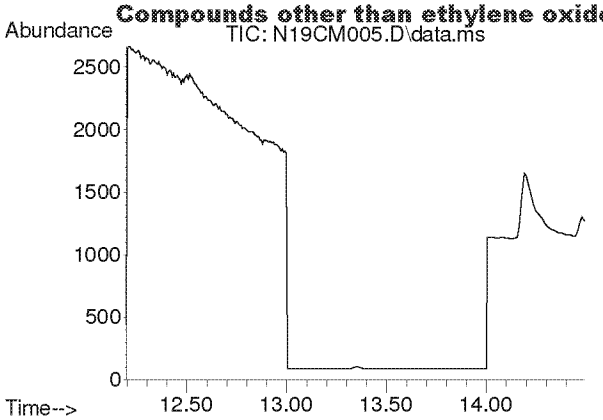
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

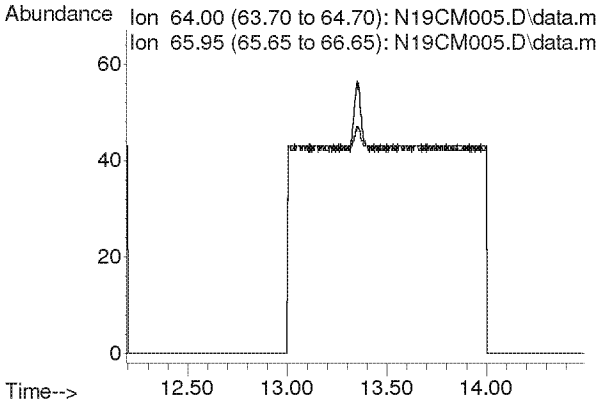


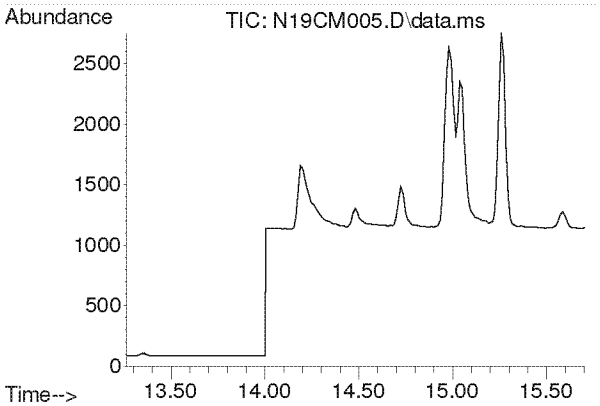
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



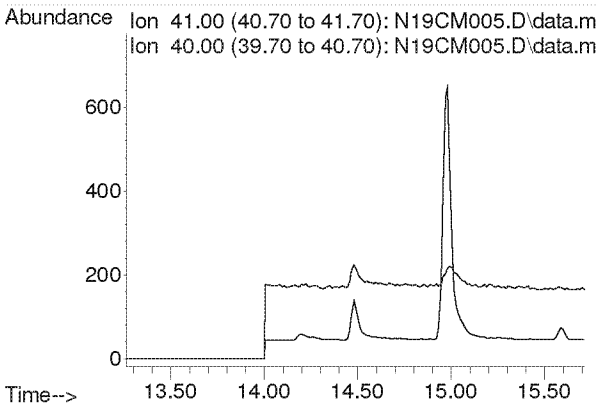


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

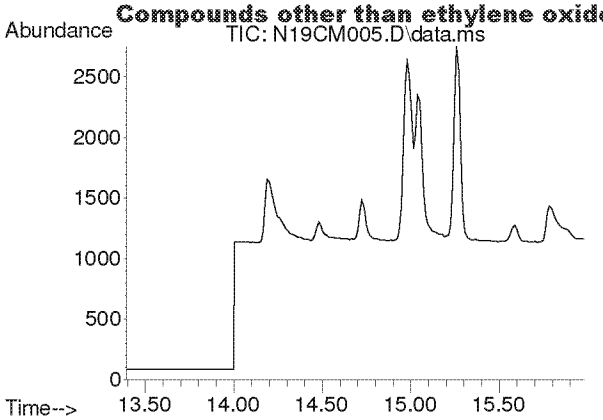
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

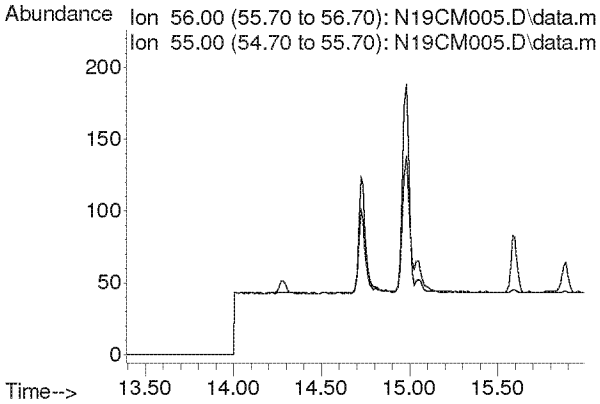


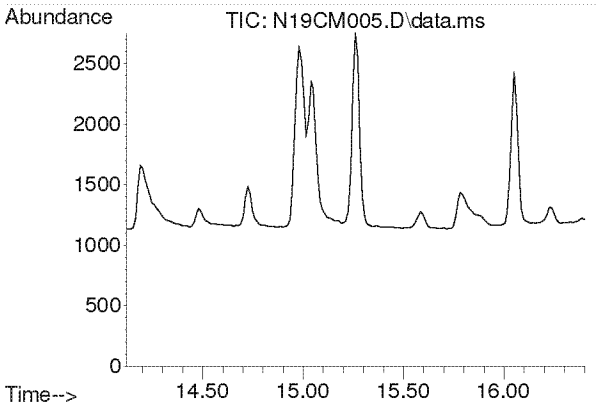
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



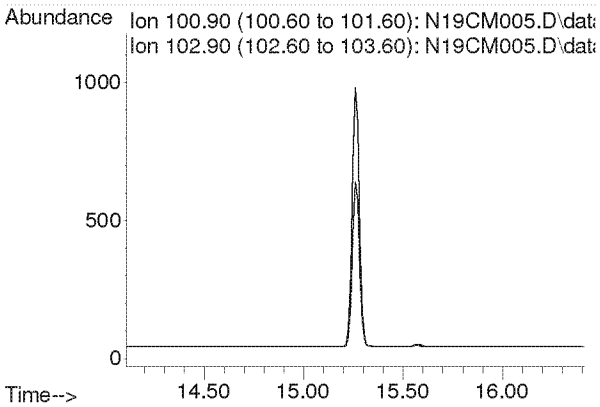


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

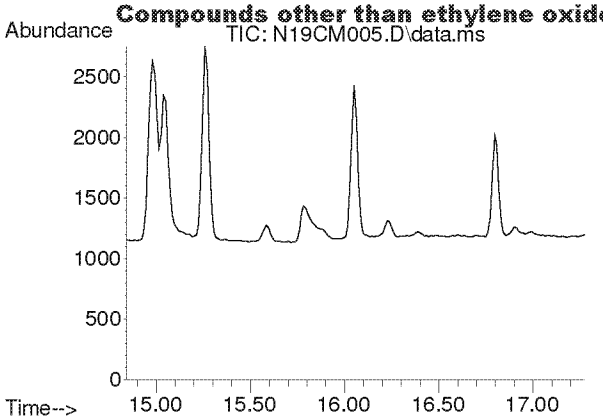
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

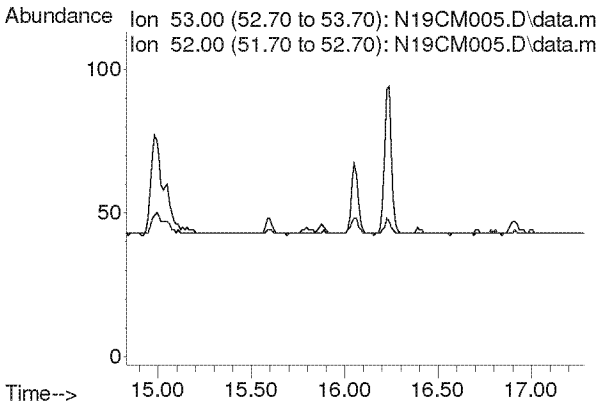


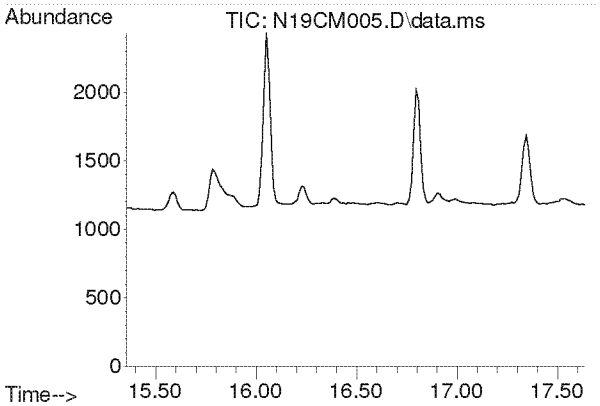
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



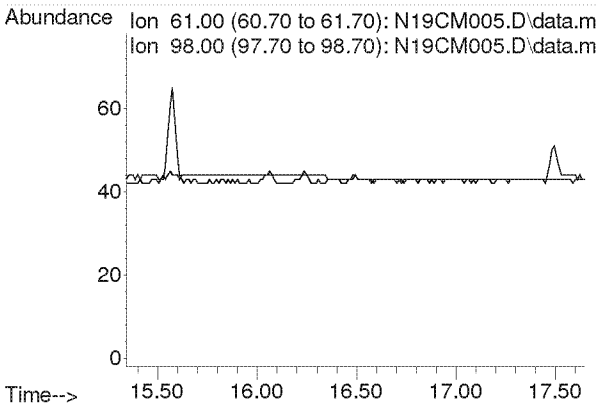


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

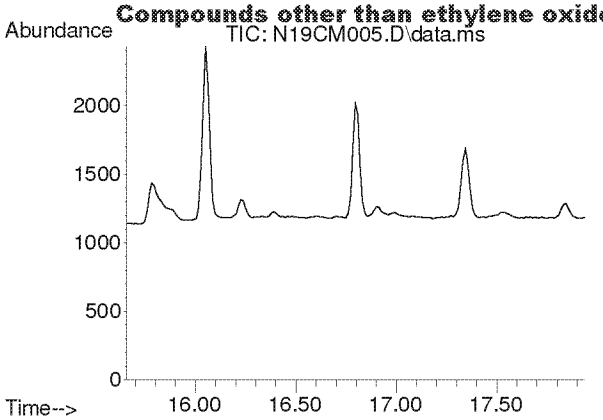
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

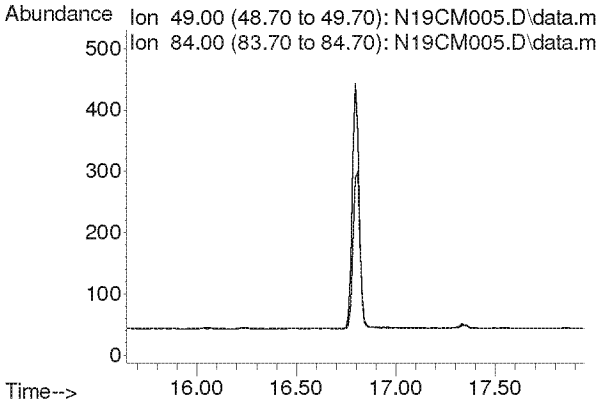


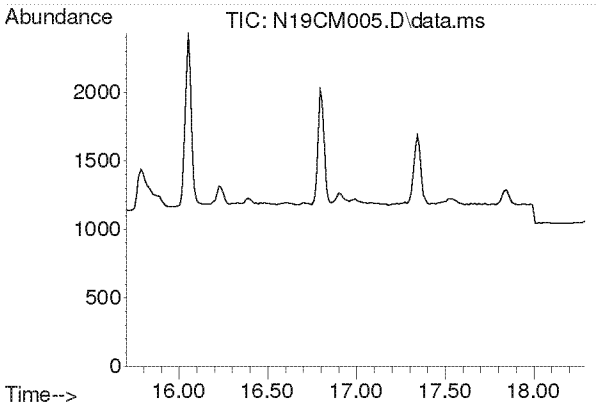
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



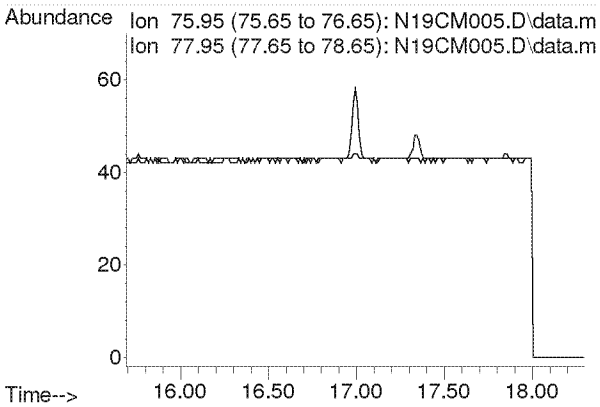


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

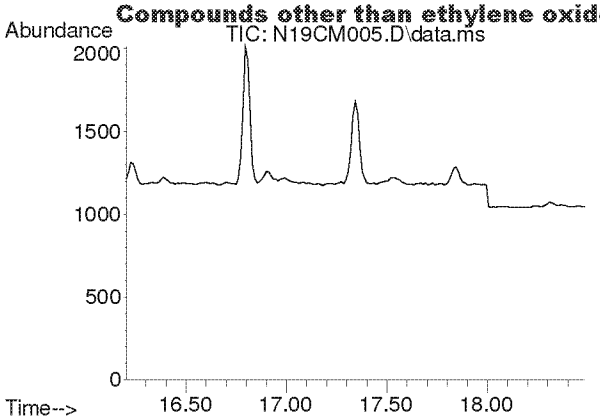
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

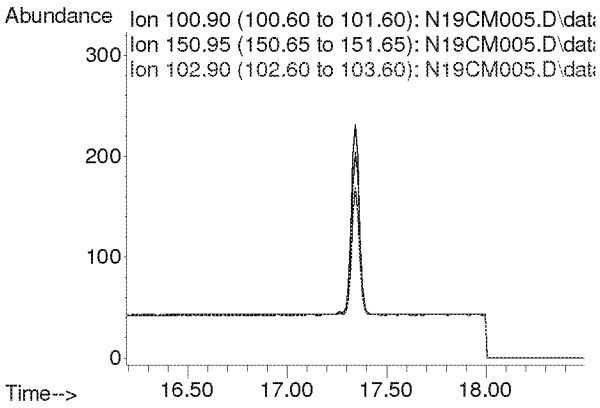


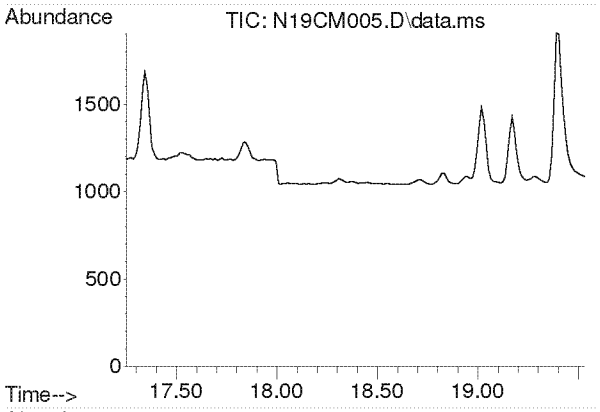
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



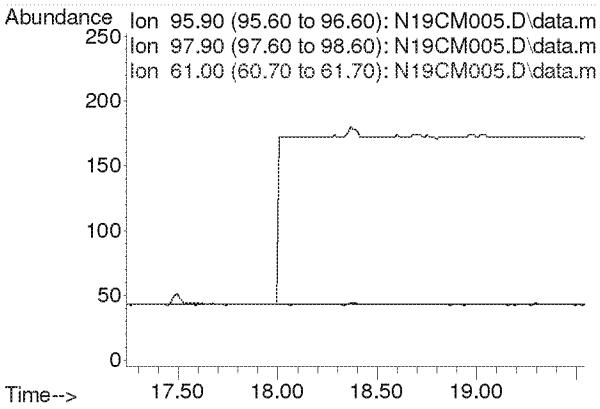


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

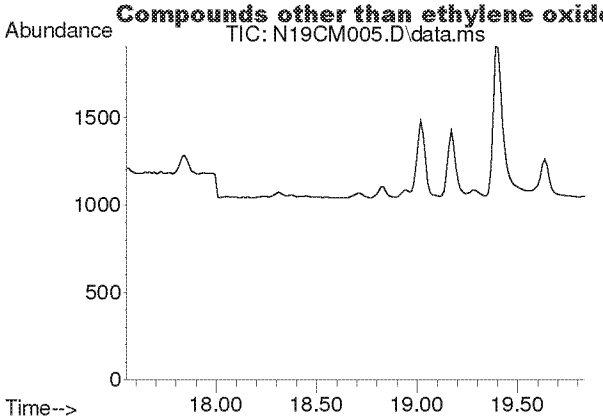
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

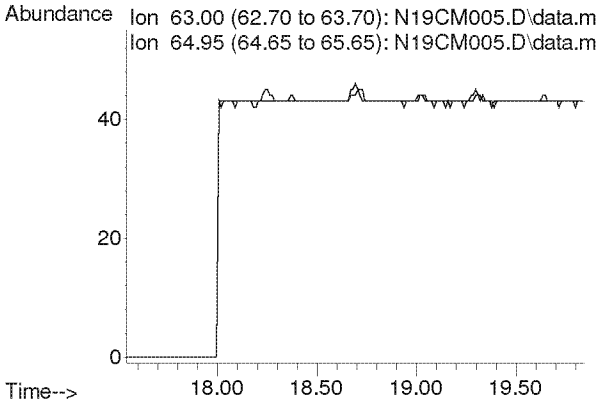


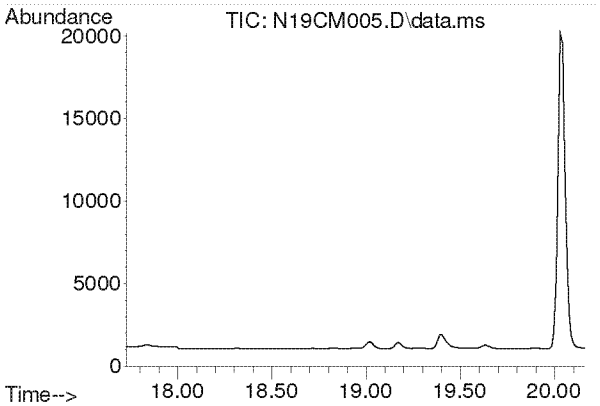
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



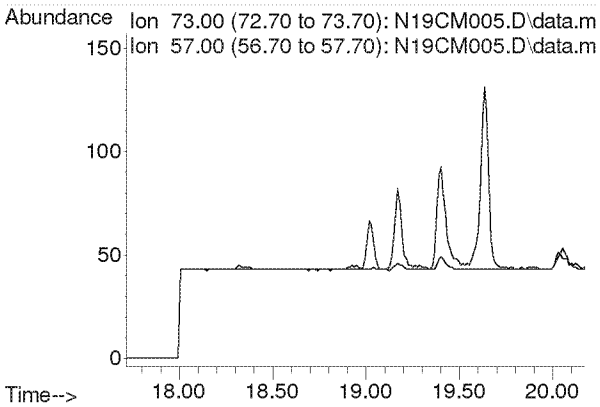


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

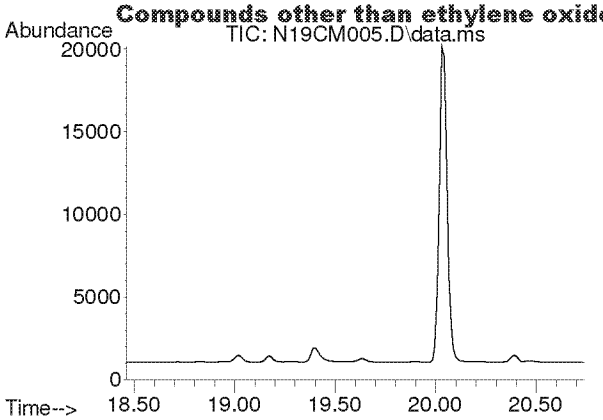
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

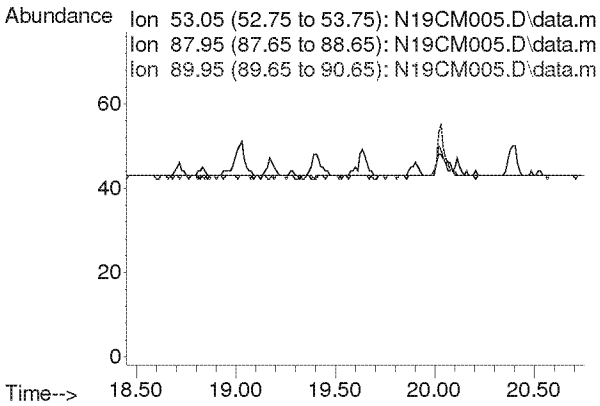


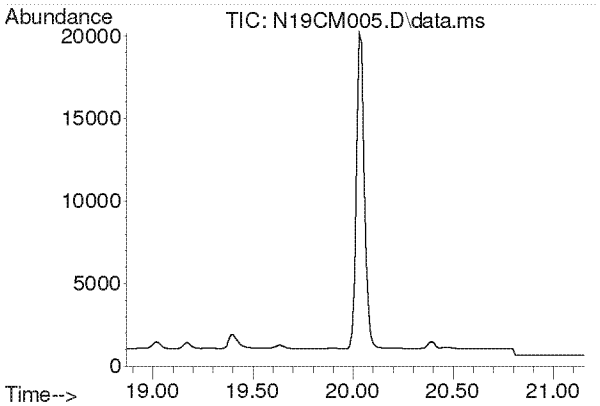
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



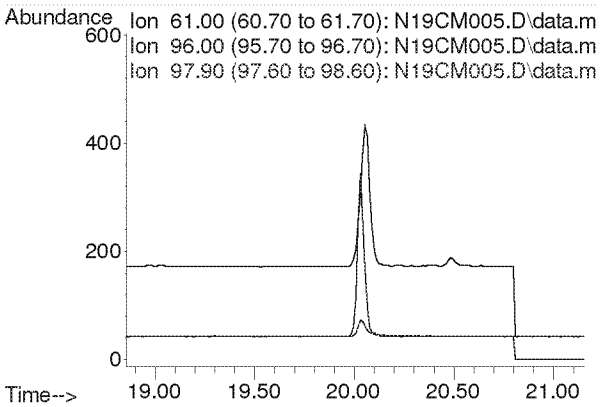


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

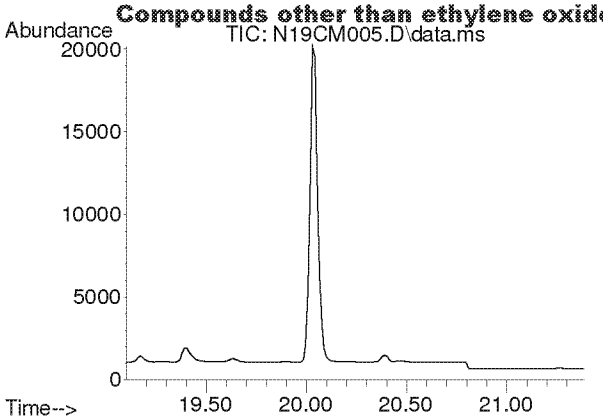
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

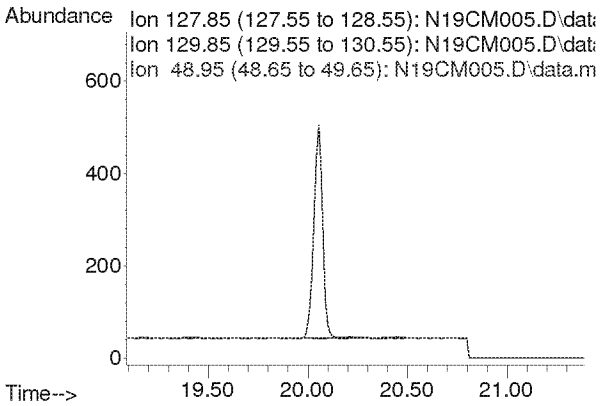


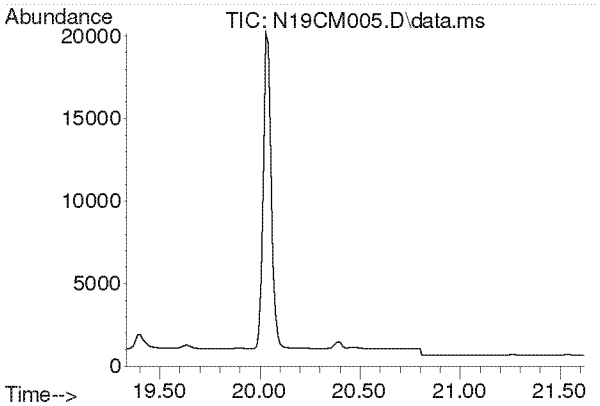
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



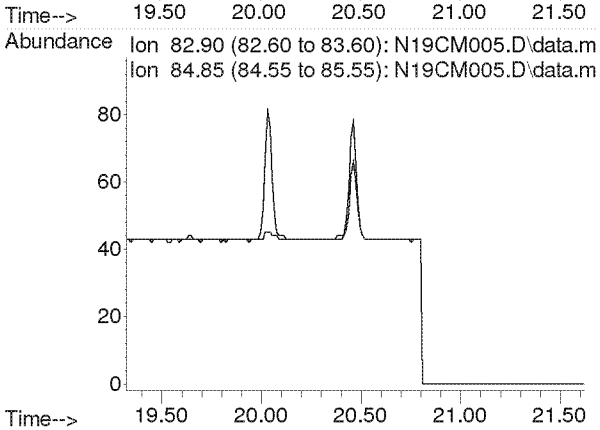


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

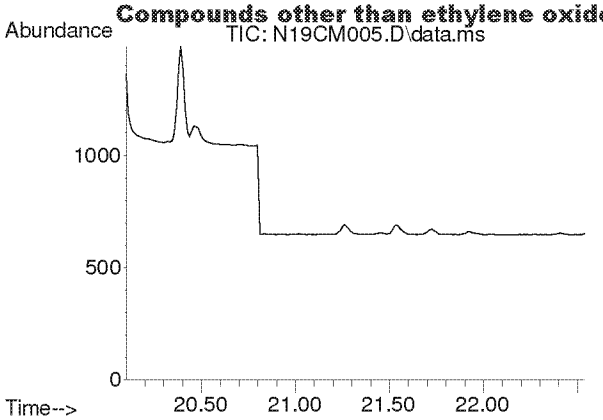
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

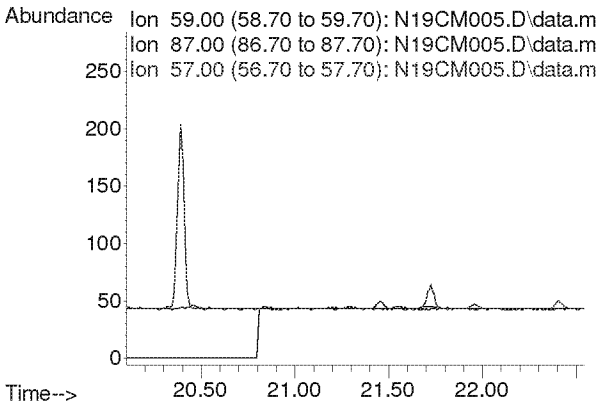


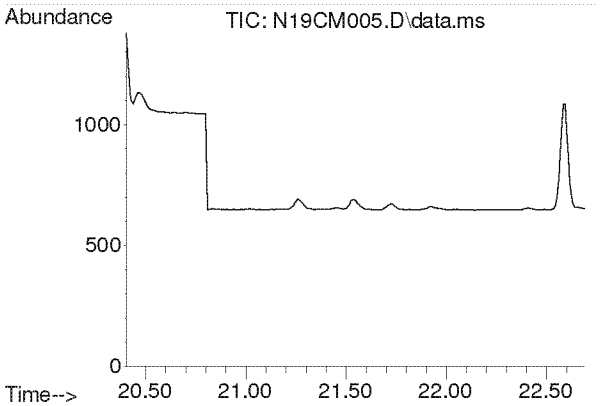
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



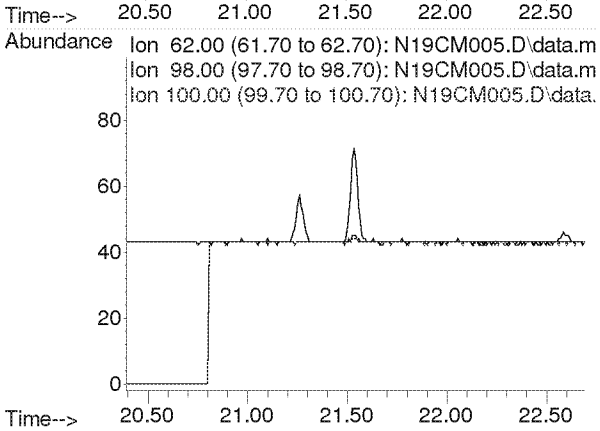


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

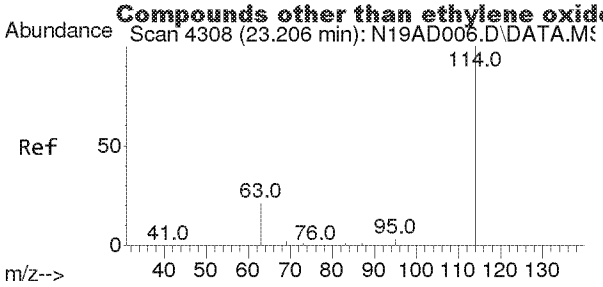
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



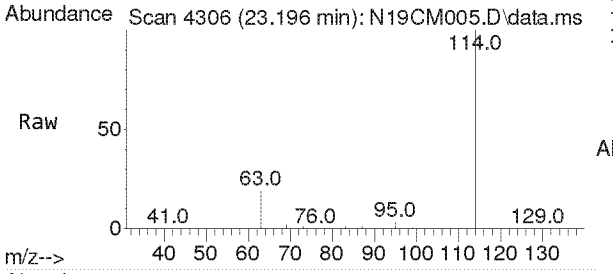
Compounds other than ethylene oxide were not quantitated.

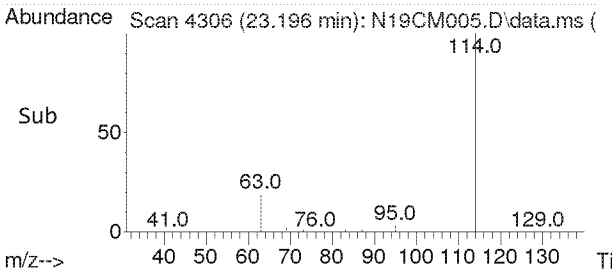


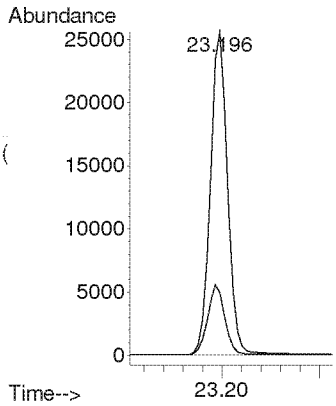
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.196 min Scan# 4306
Delta R.T. -0.010 min
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

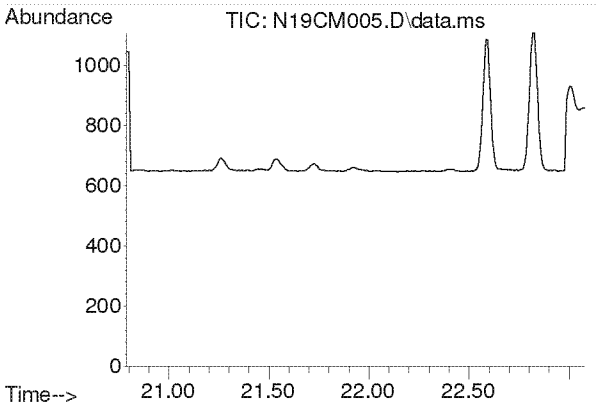
Tgt Ion:114 Resp: 62830

Ion	Ratio	Lower	Upper
114	100		
63	21.6	16.7	25.1







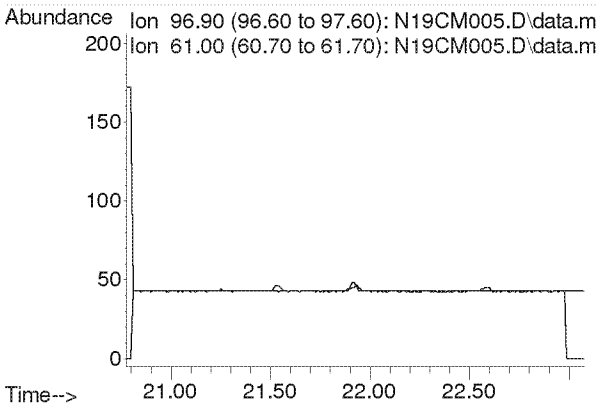


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

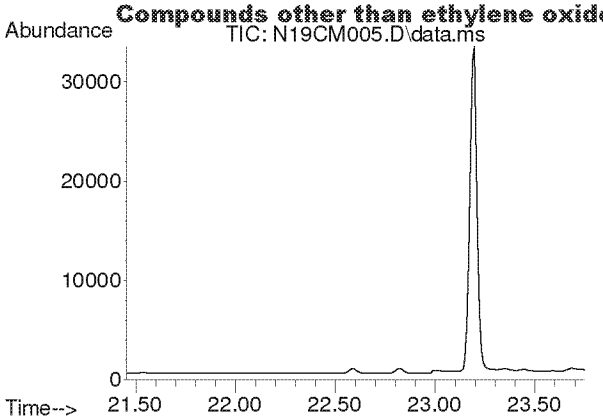
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

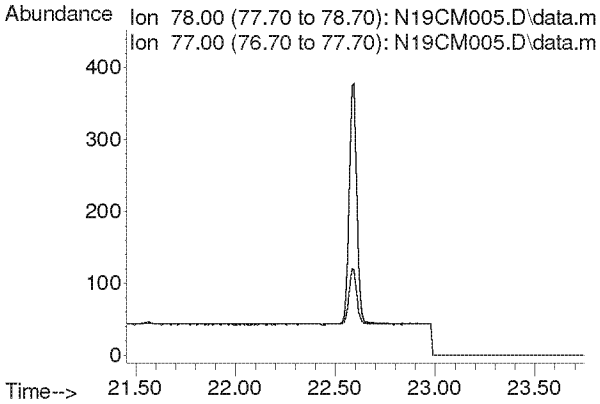


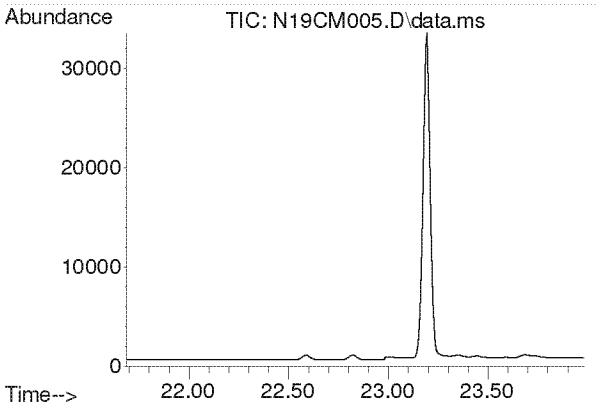
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



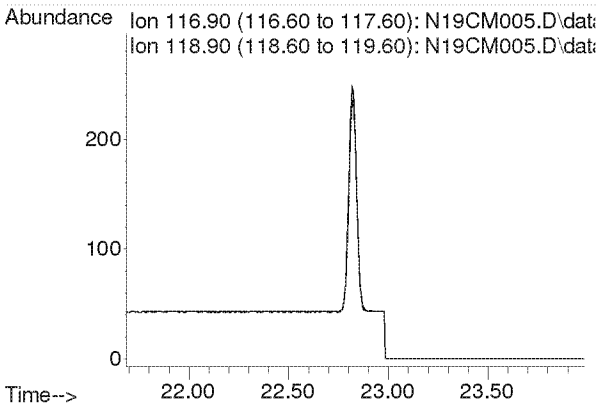


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

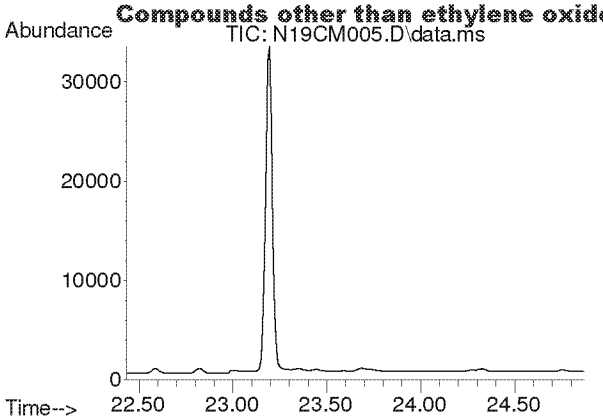
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

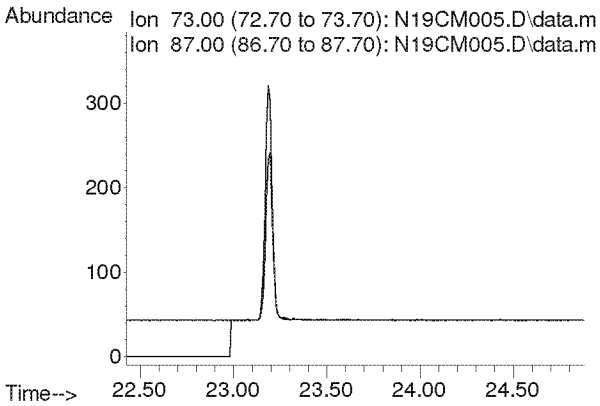


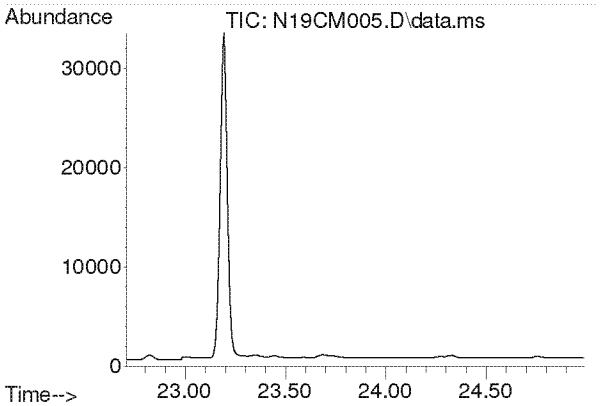
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



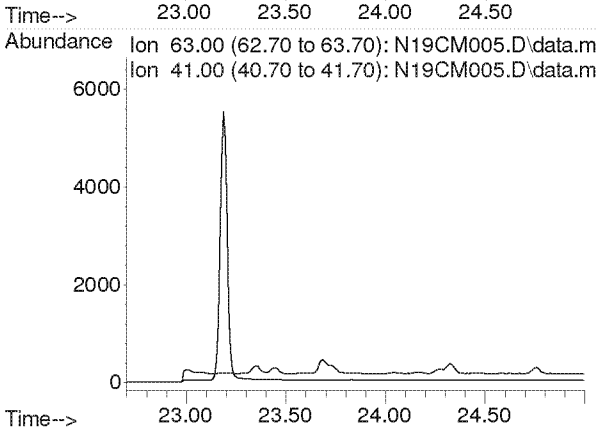


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

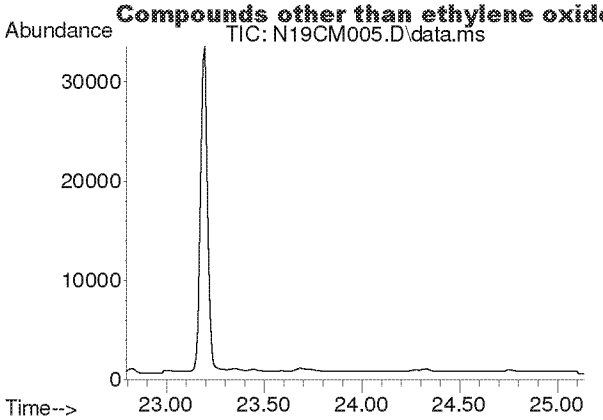
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

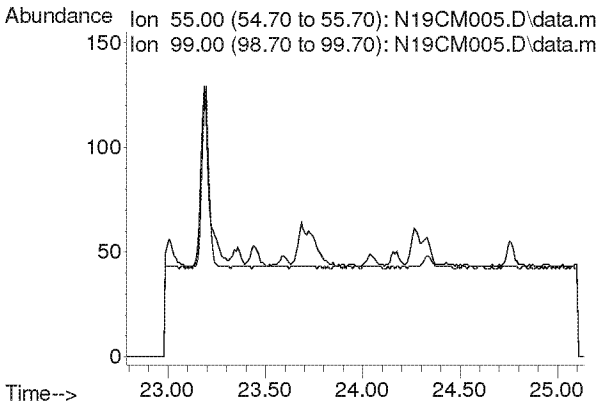


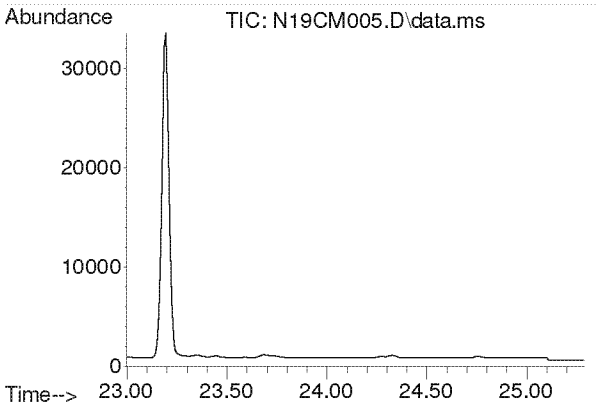
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



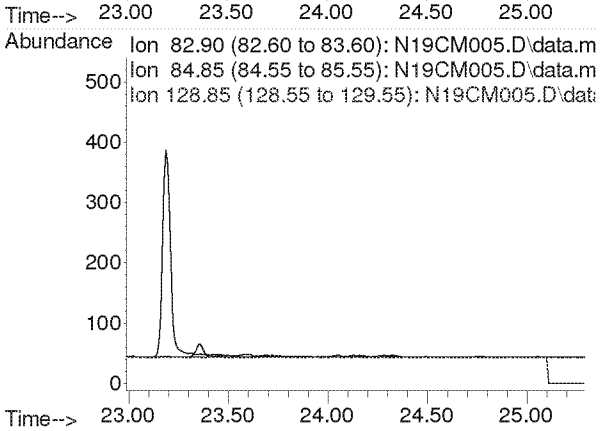


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

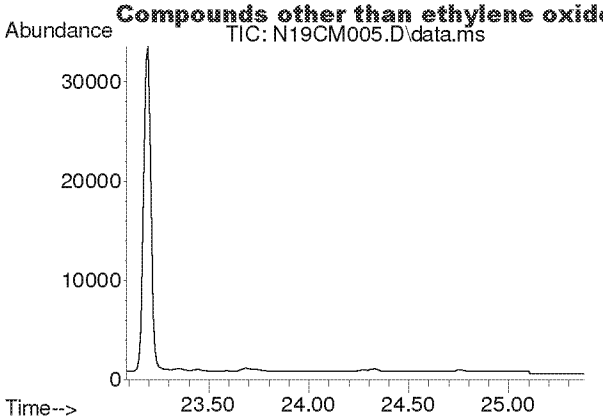
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

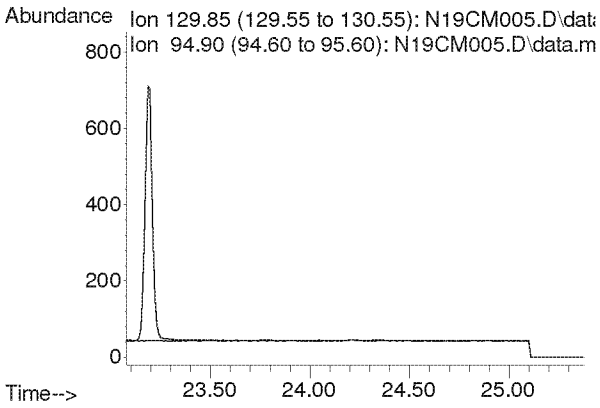


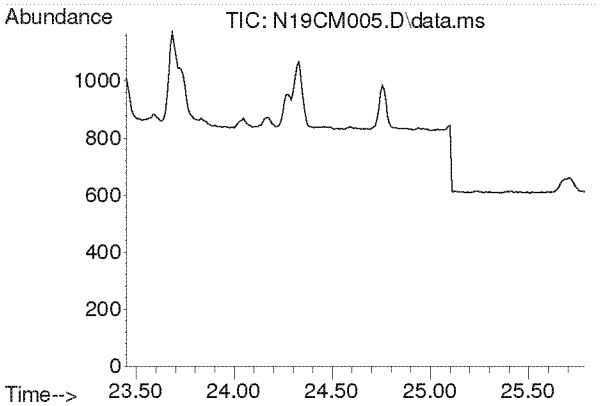
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



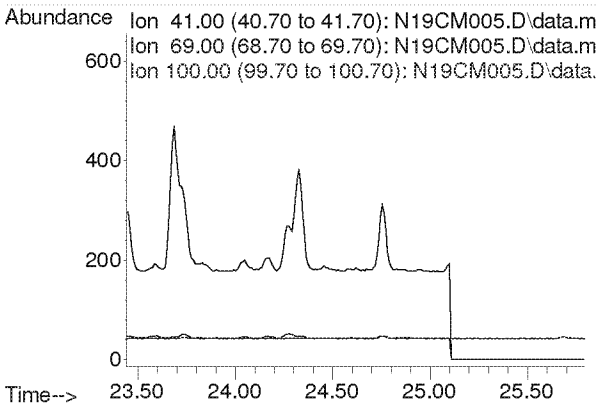


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

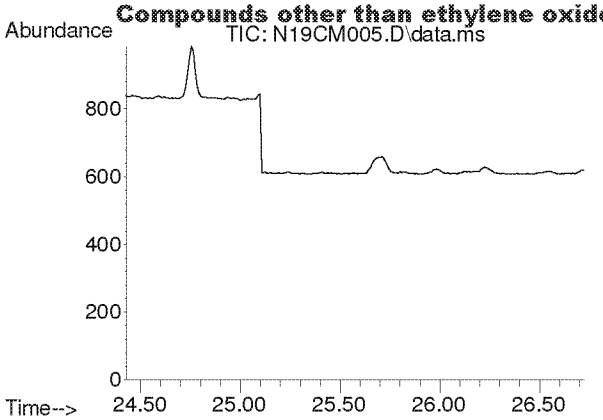
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

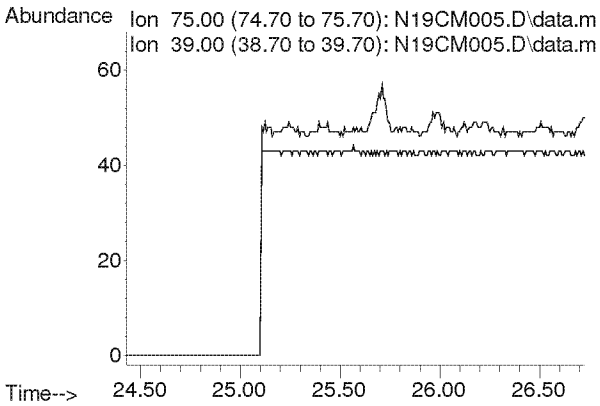


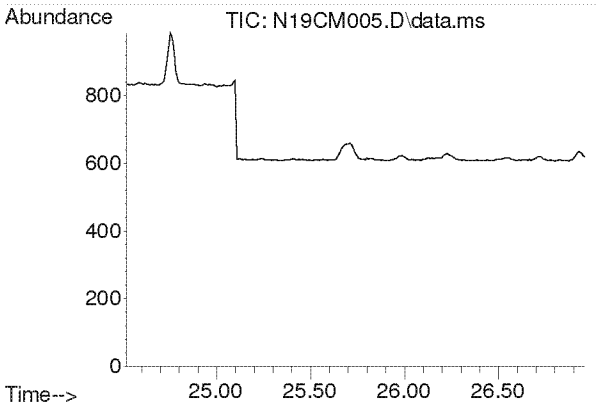
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



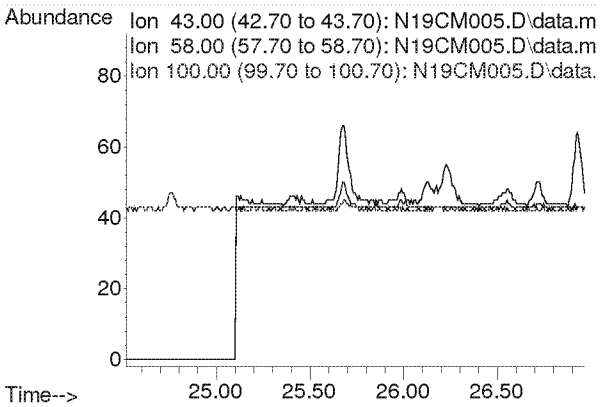


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

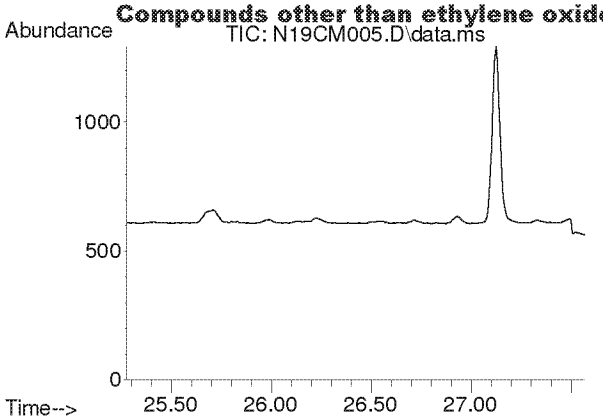
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

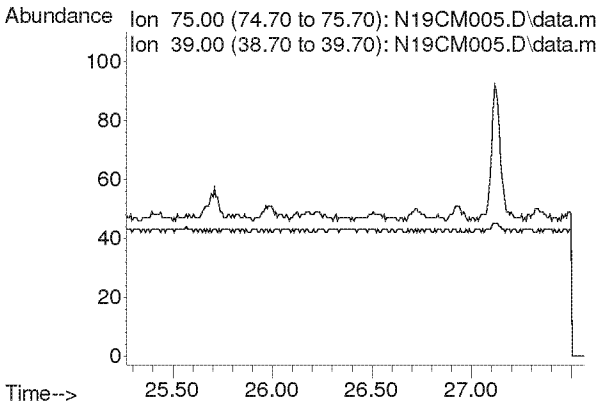


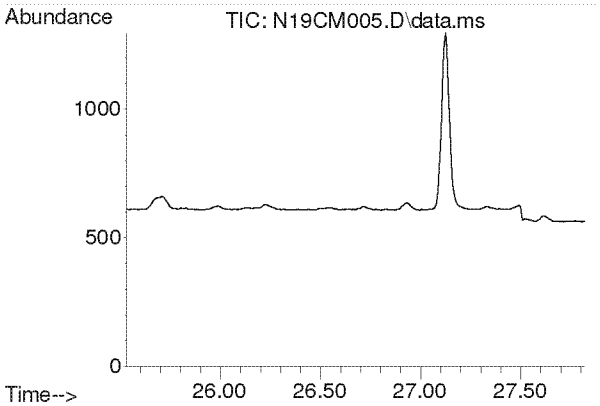
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



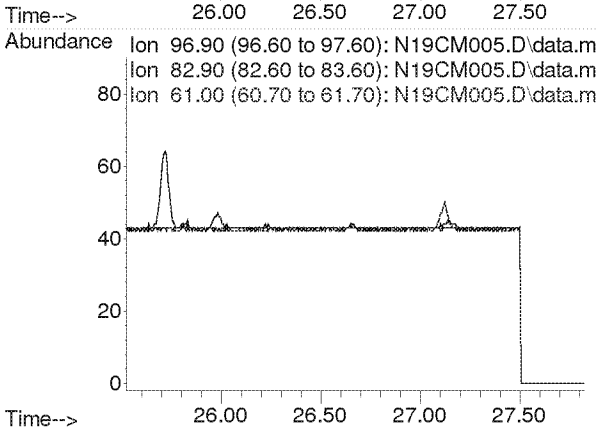


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

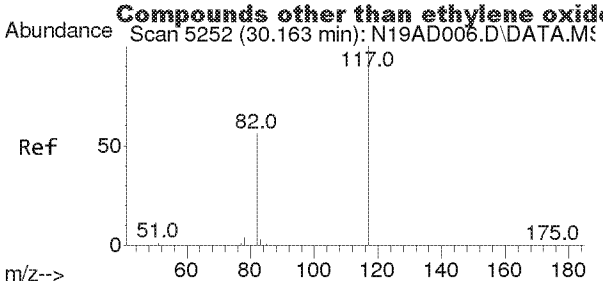
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



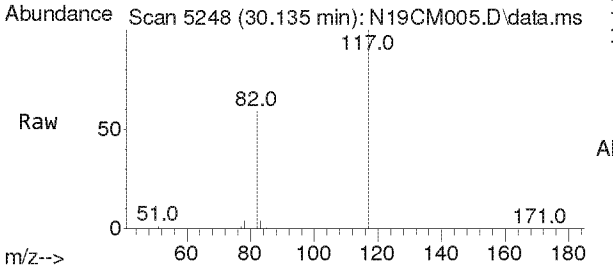
Compounds other than ethylene oxide were not quantitated.

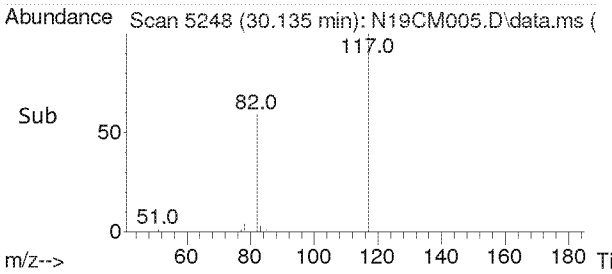


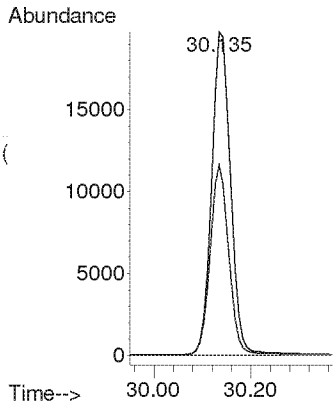
#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.135 min Scan# 5248
Delta R.T. -0.027 min
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

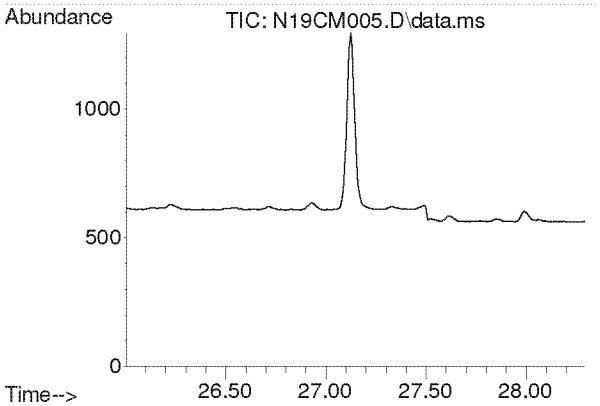
Tgt Ion:117 Resp: 52753

Ion	Ratio	Lower	Upper
117	100		
82	57.9	40.1	74.5
54	0.0	0.0	0.0







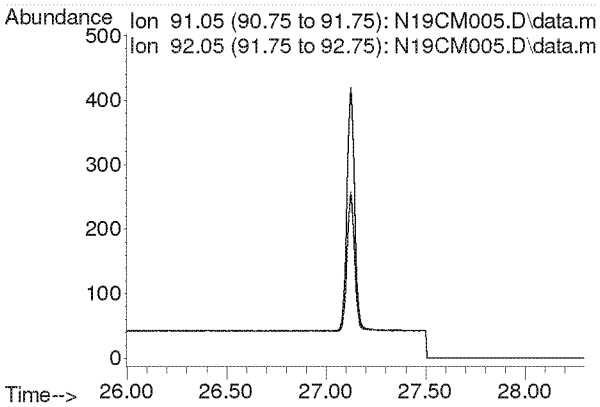


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

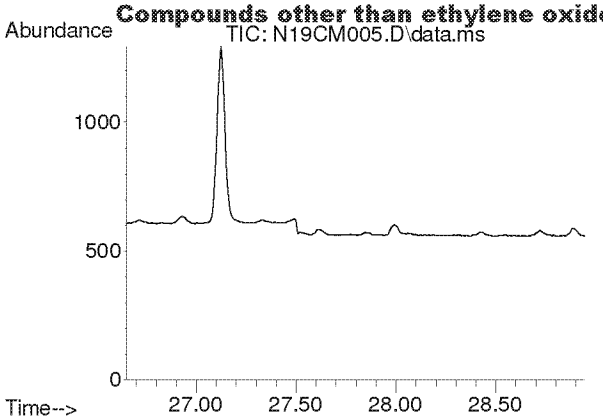
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

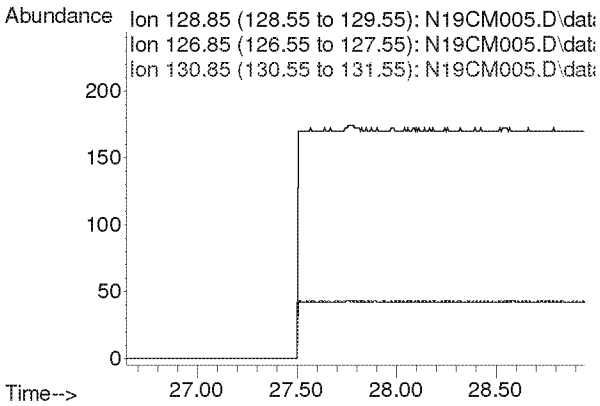


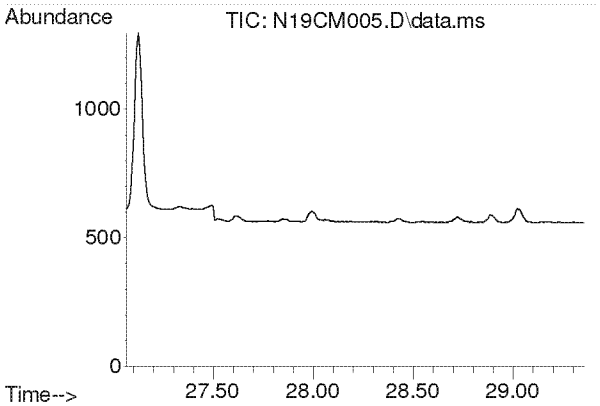
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



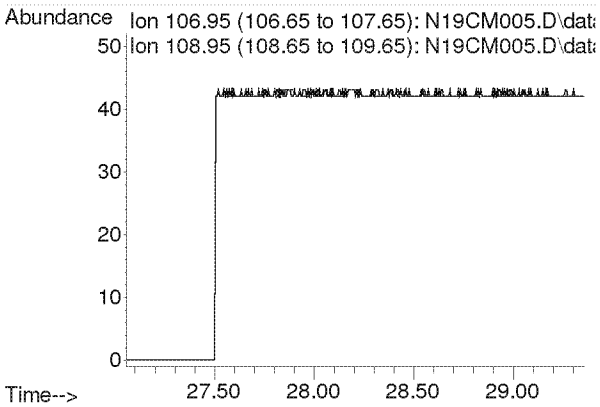


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

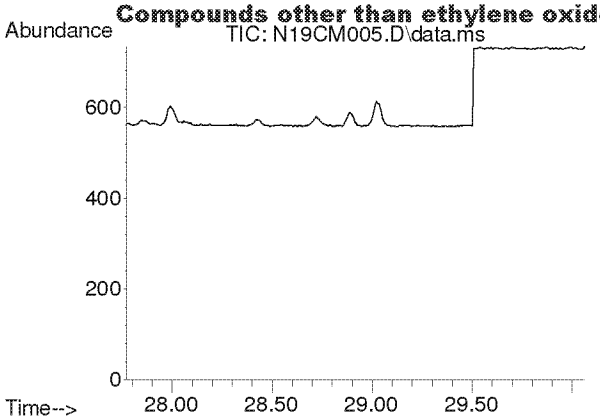
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

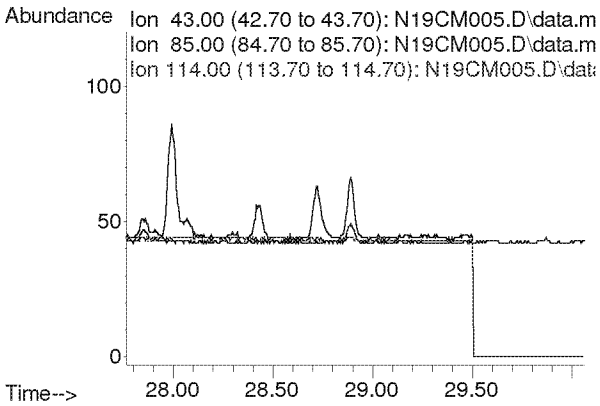


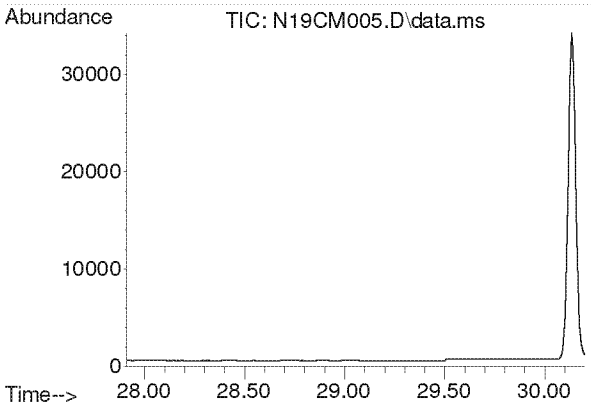
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



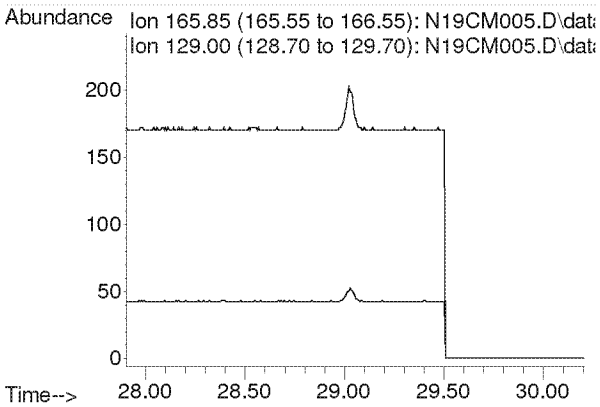


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

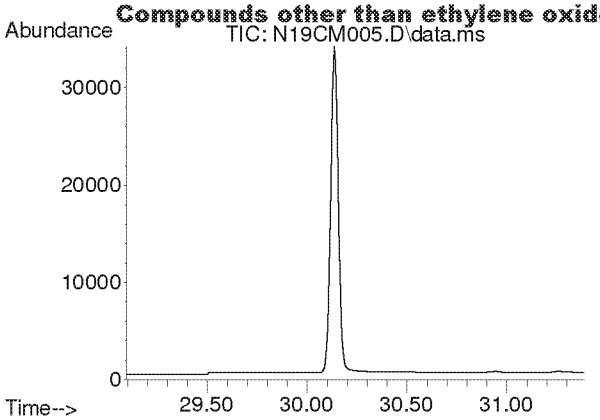
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

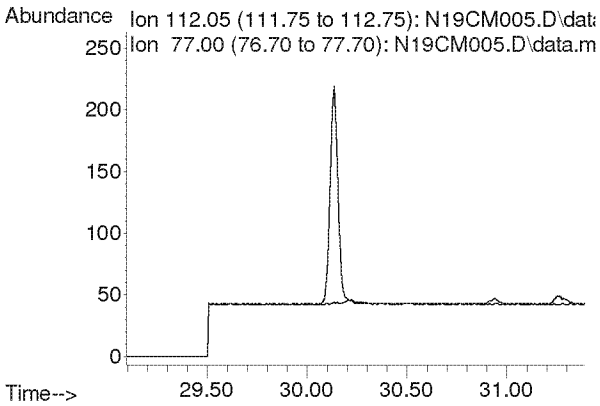


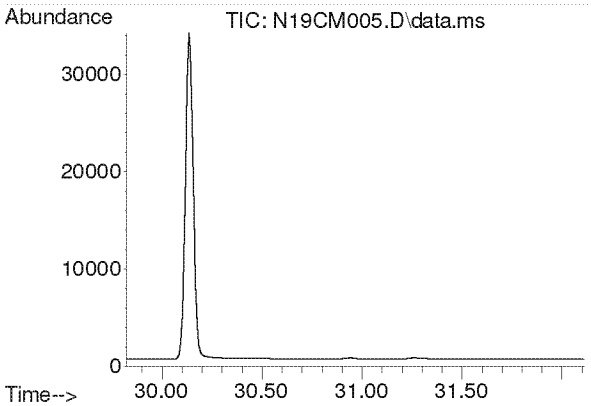
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



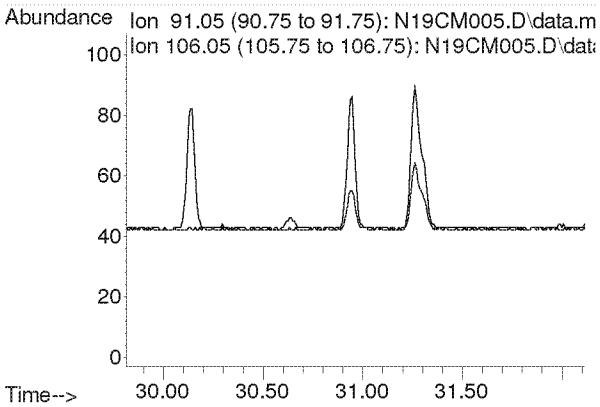


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

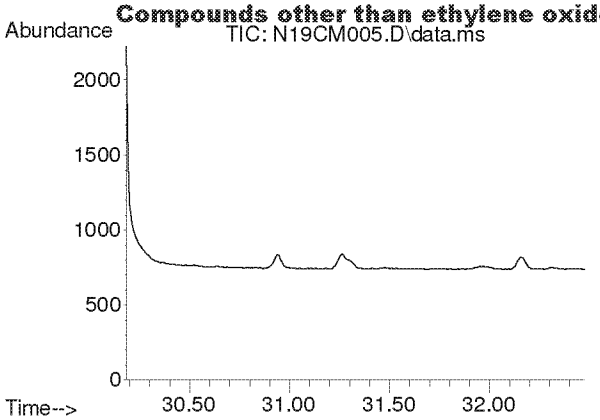
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

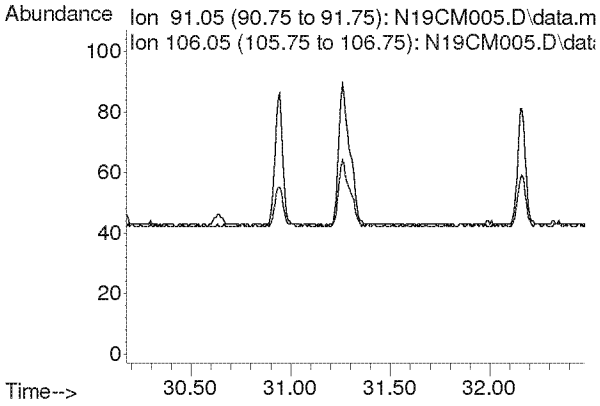


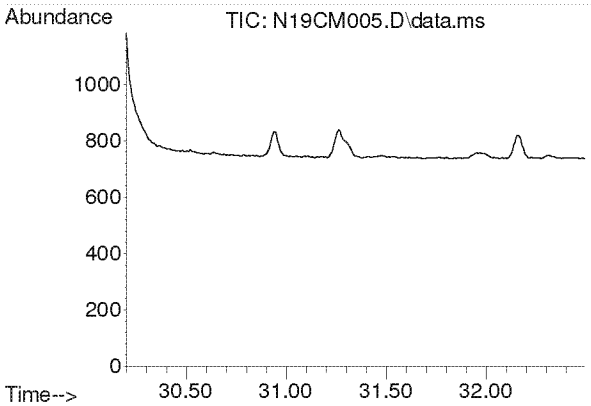
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



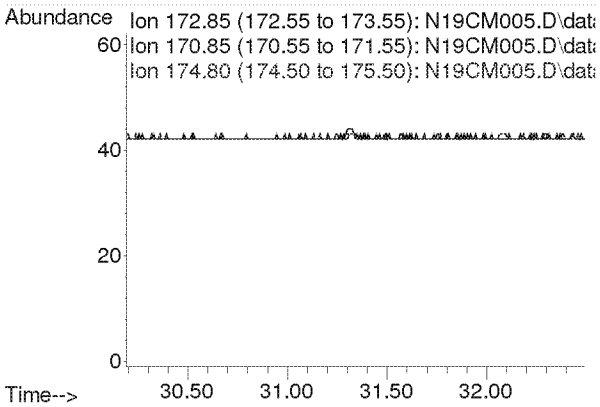


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

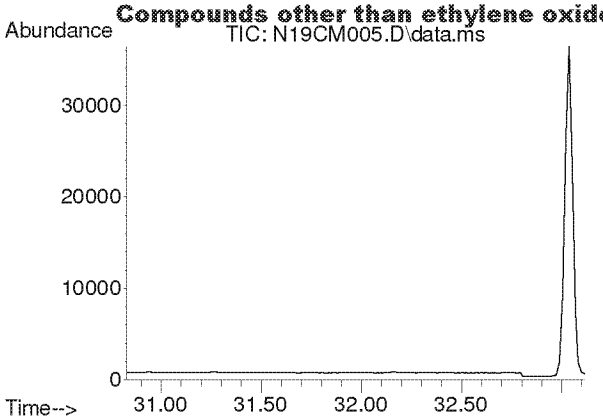
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

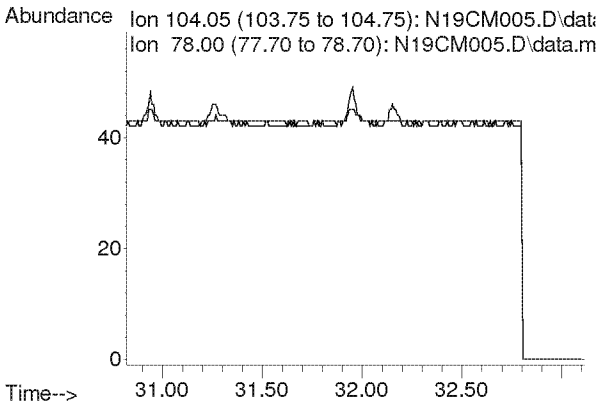


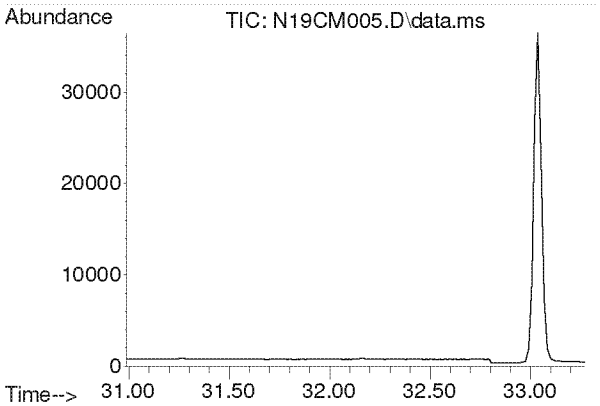
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



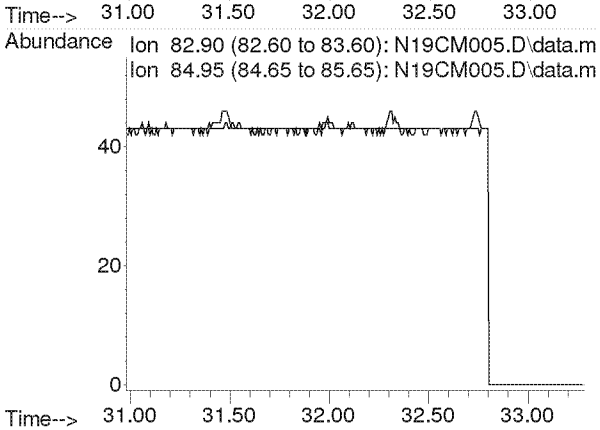


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

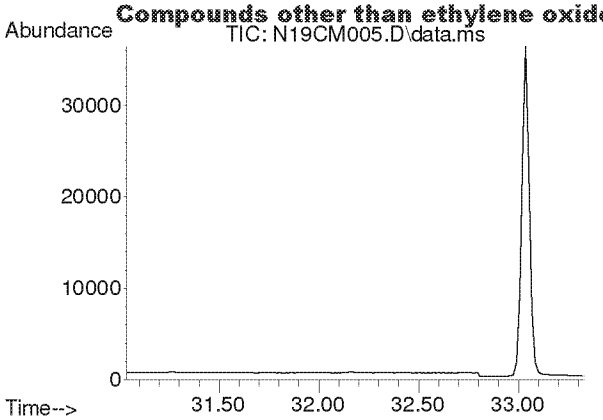
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

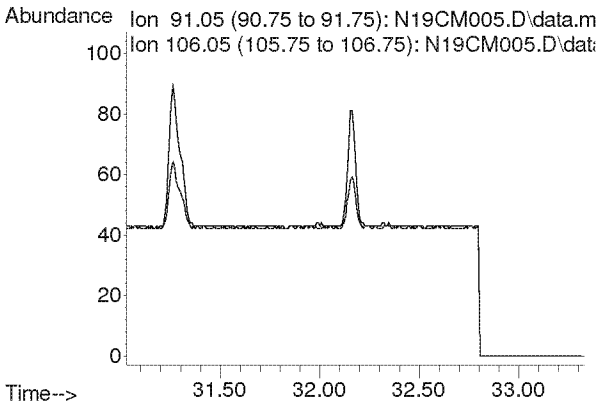


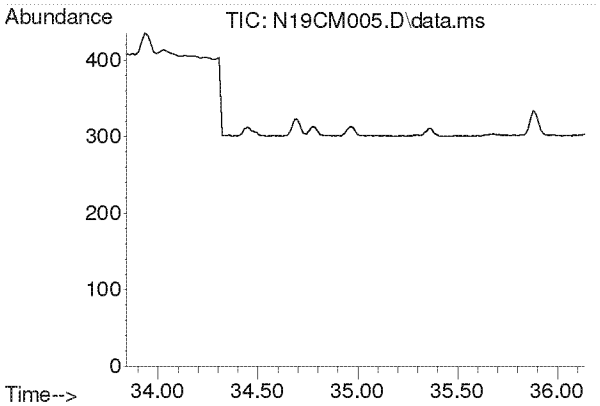
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



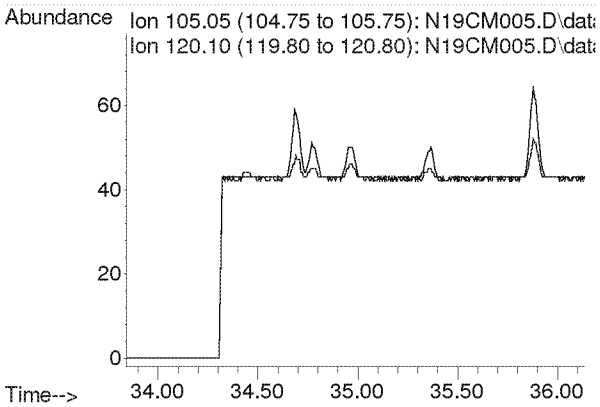


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

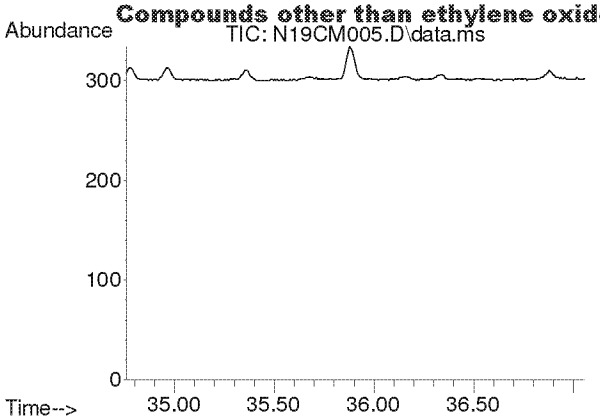
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

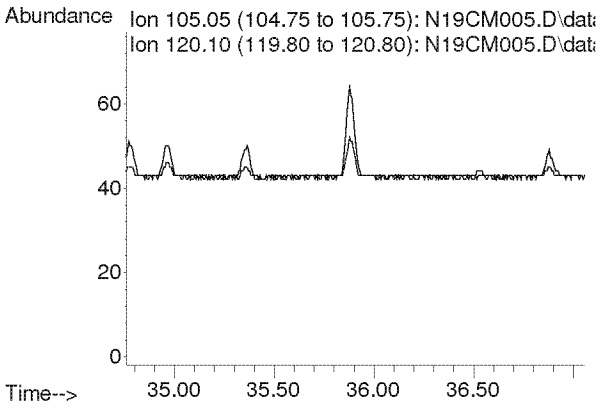


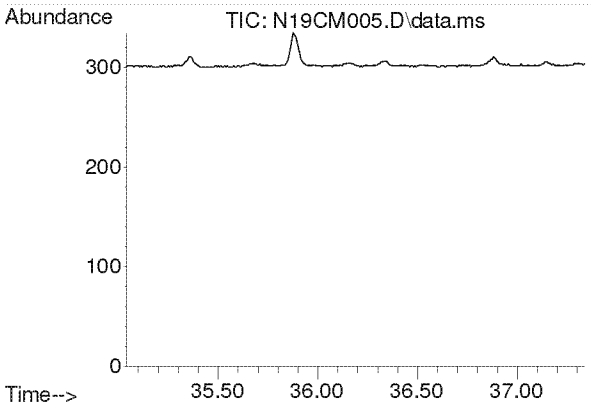
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



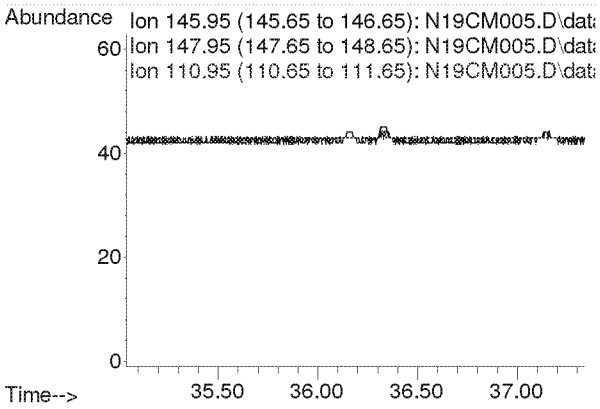


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

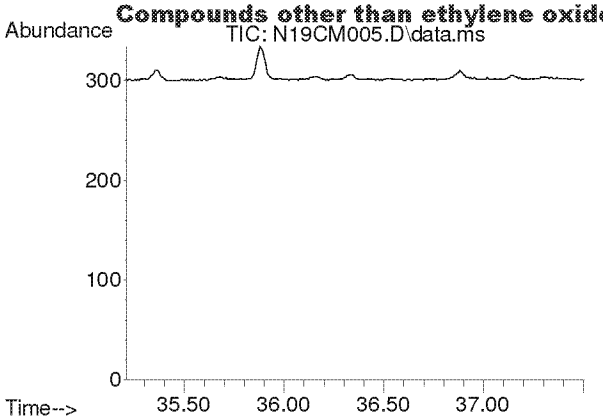
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

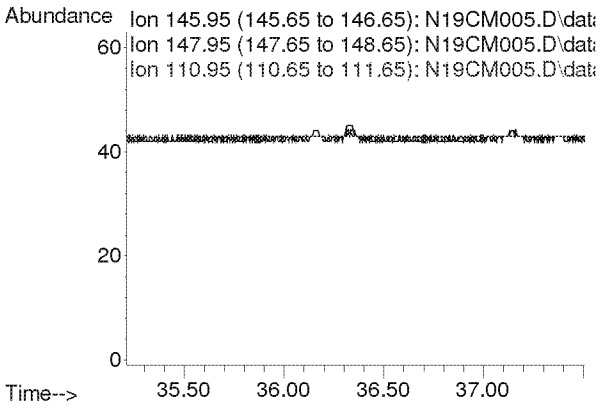


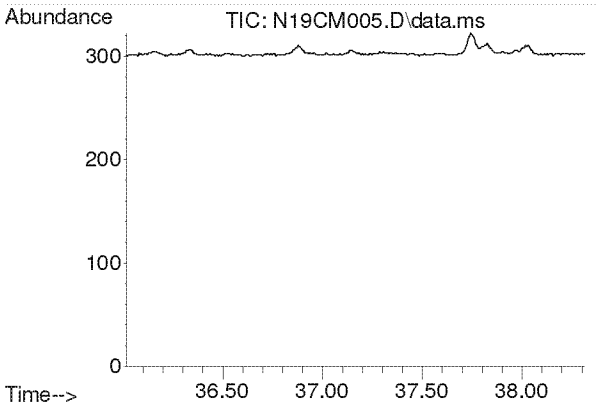
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



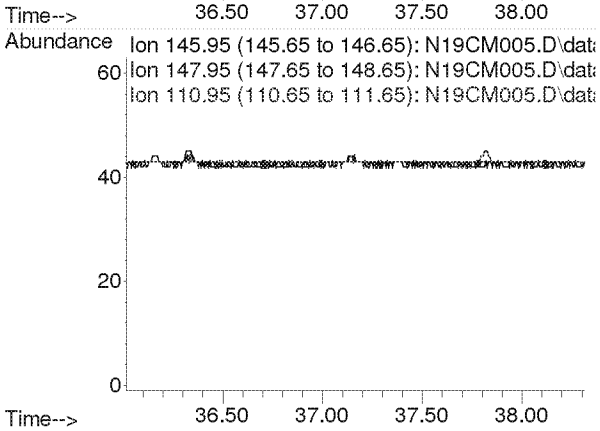


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

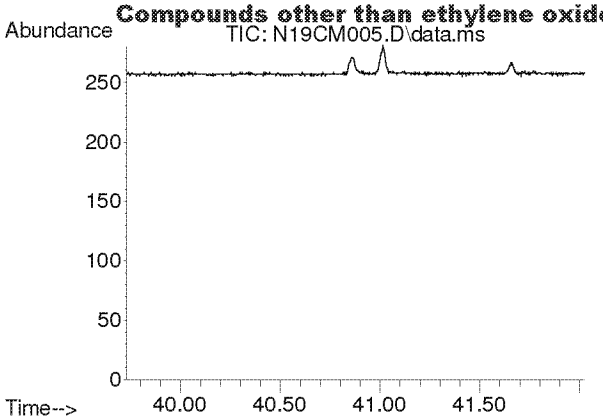
Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

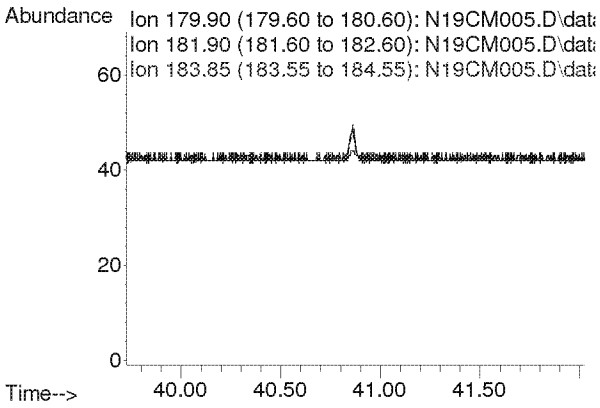


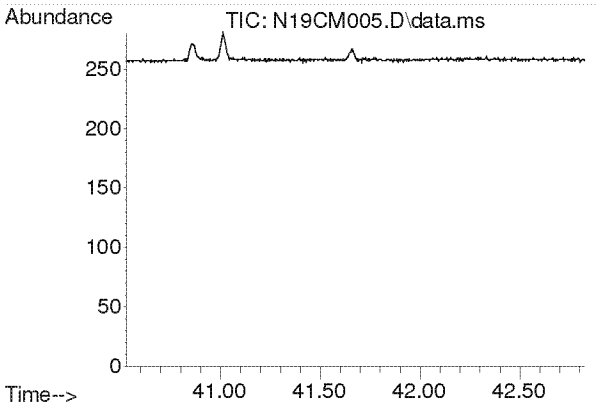
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



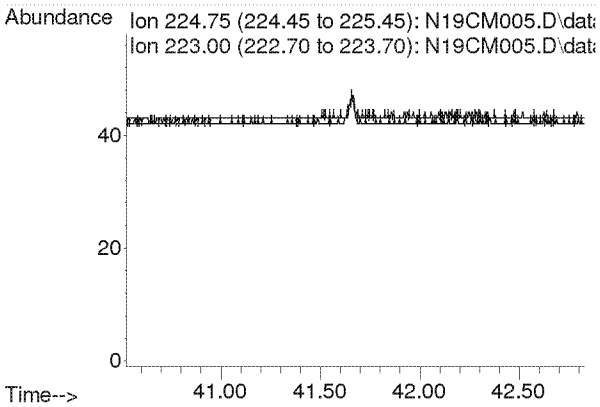


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM005.D
Acq: 13 Mar 2019 3:17 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM006.D
Acq On : 13 Mar 2019 4:19 pm (#1); 13-Mar-19, 16:14:21 (#2)
Operator : KSS
Sample : B9C1305-DUP1
Misc : VILLAGE HALL R1 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 14 08:30:23 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.043	66	30473	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.196	114	67025	4.9900 ppbv	-0.01
43) IS-Chlorobenzene-d5	30.143	117	53840	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.	
9) Ethylene Oxide	12.522	29	156	0.1175 ppbv #	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM006.D
Acq On : 13 Mar 2019 4:19 pm (#1); 13-Mar-19, 16:14:21 (#2)
Operator : KSS
Sample : B9C1305-DUP1
Misc : VILLAGE HALL R1 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 14 08:30:23 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

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

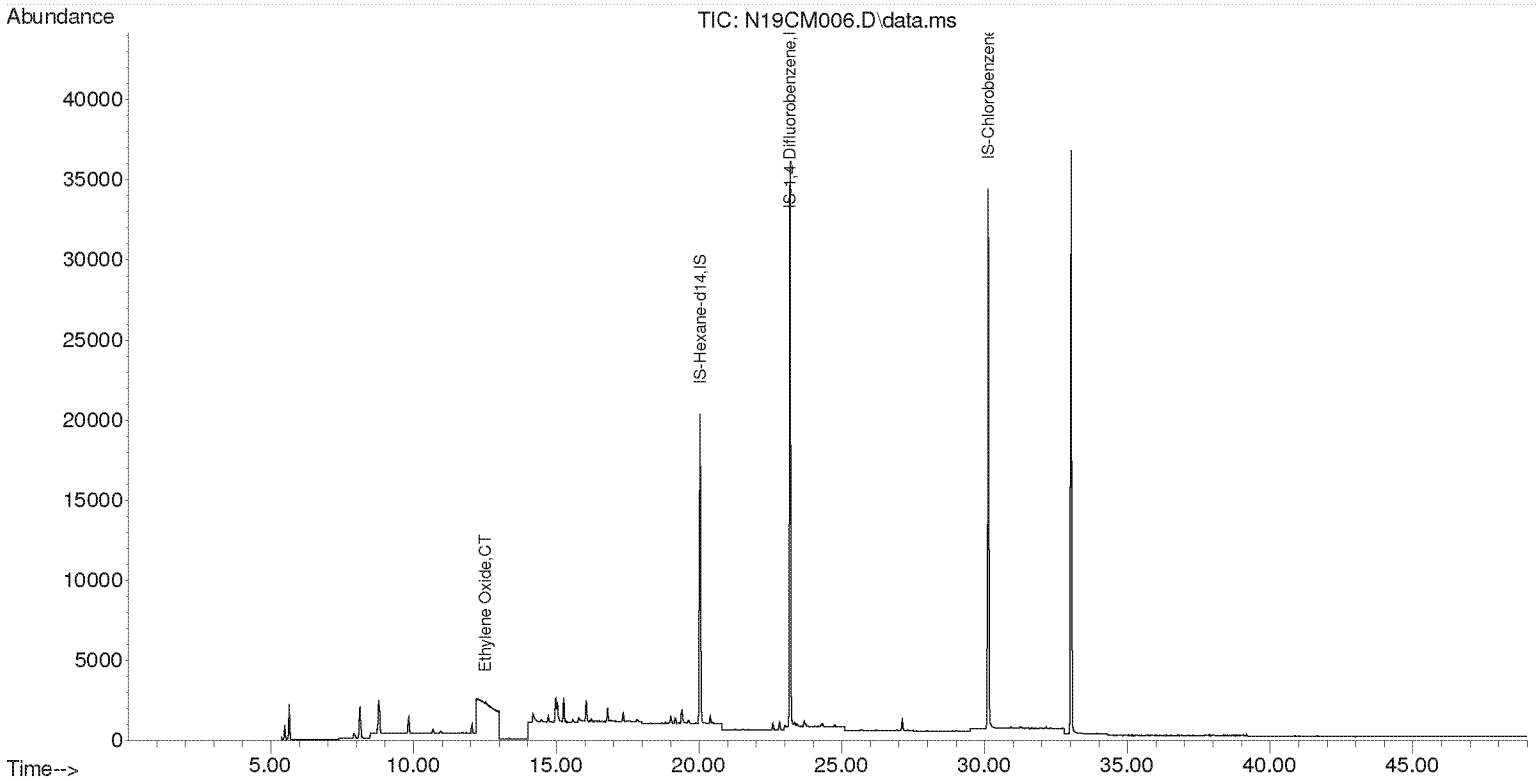
(#) = qualifier out of range (m) = manual integration (+) = signals summed

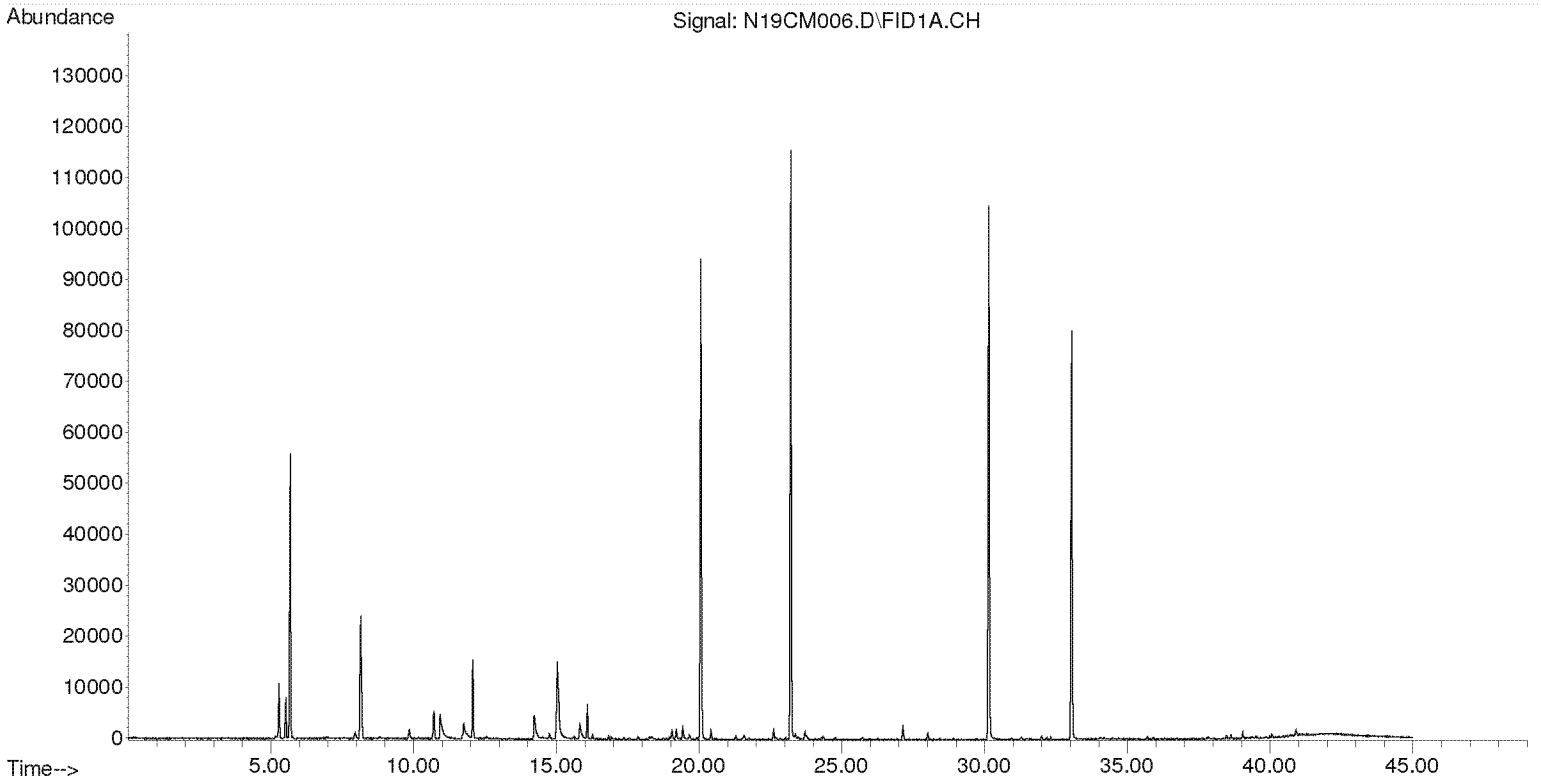
ED_002475_00000348-00154

Compounds other than ethylene oxide were not quantitated.

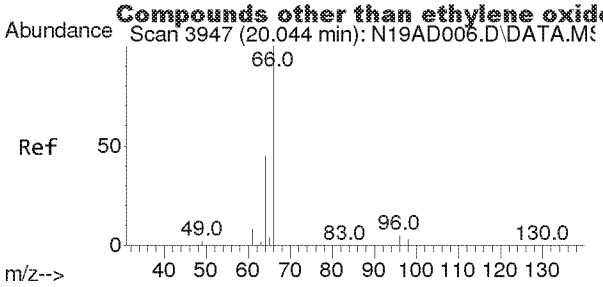
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM006.D
Acq On : 13 Mar 2019 4:19 pm (#1); 13 Mar 2019 4:14 pm (#2)
Operator : KSS
Sample : B9C1305-DUP1
Misc : VILLAGE HALL R1 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 14 08:19:03 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





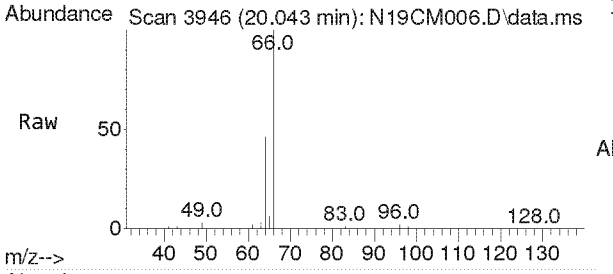
Compounds other than ethylene oxide were not quantitated.

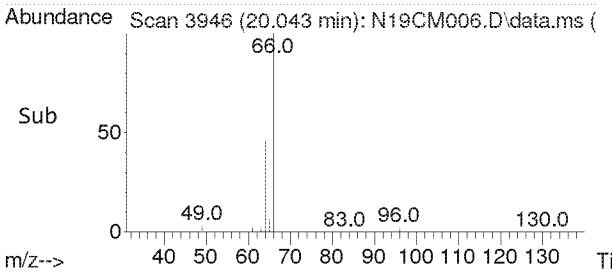


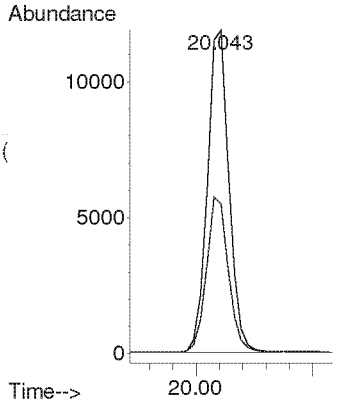
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.043 min Scan# 3946
Delta R.T. -0.001 min
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

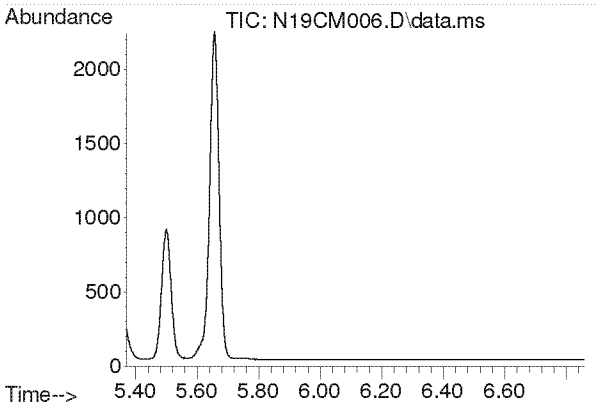
Tgt Ion: 66 Resp: 30473

Ion	Ratio	Lower	Upper
66	100		
64	48.9	32.1	59.5





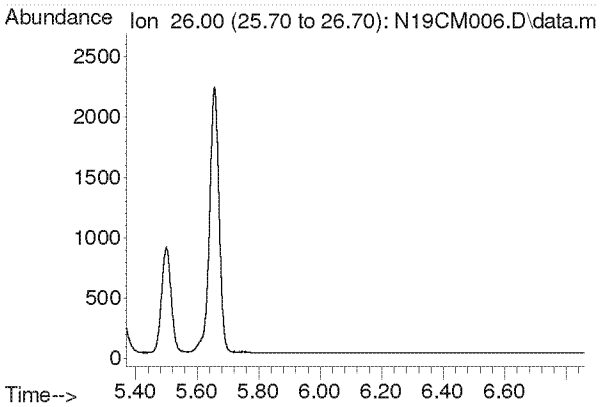




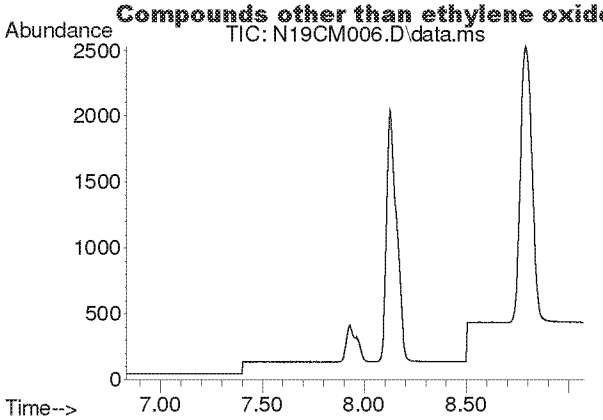
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

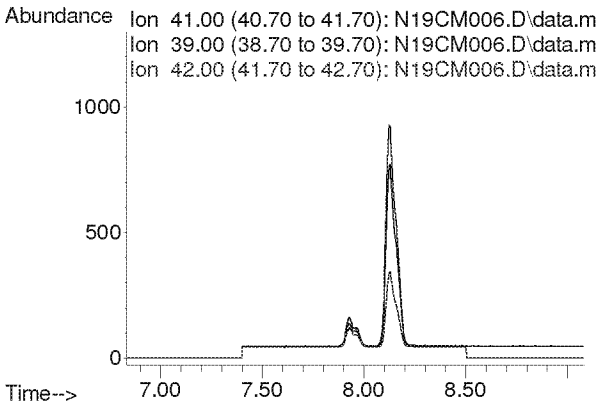


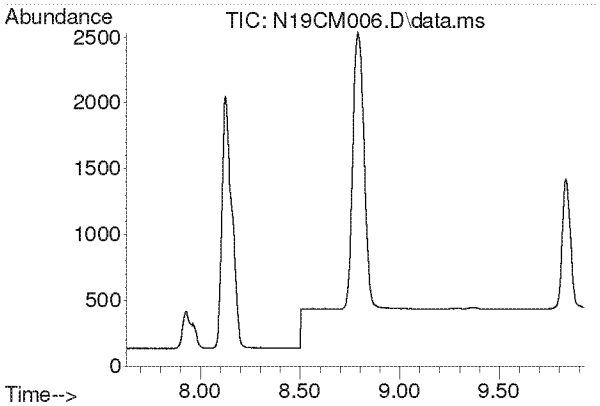
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



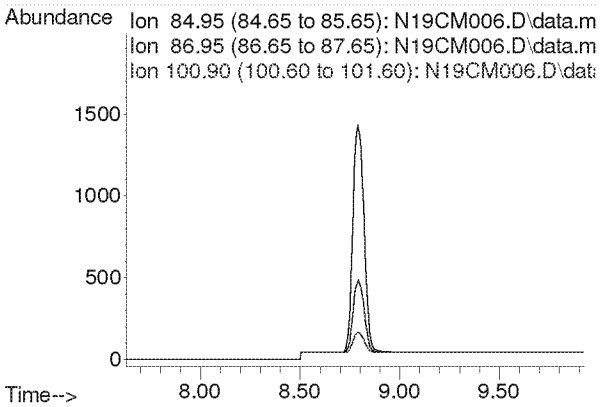


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

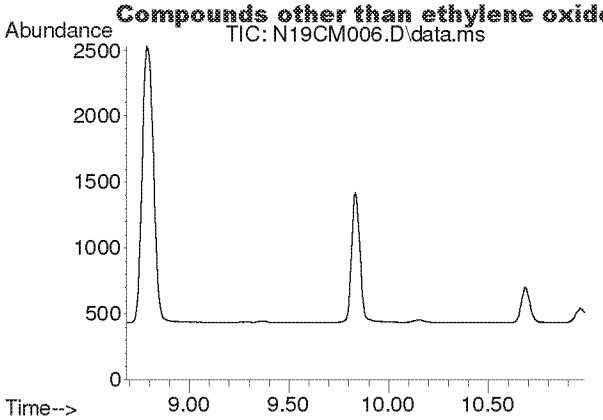
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

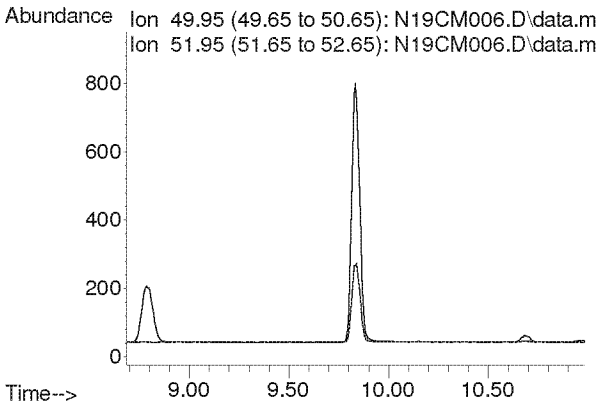


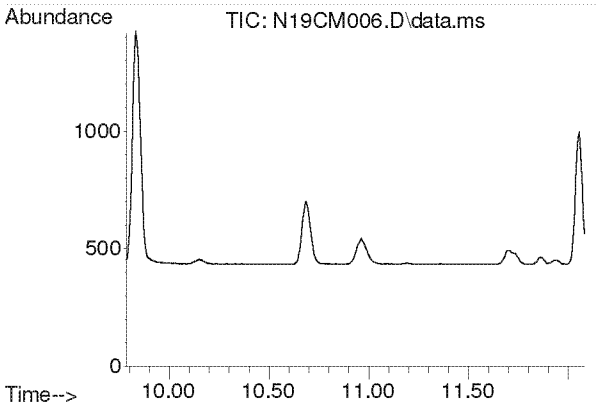
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



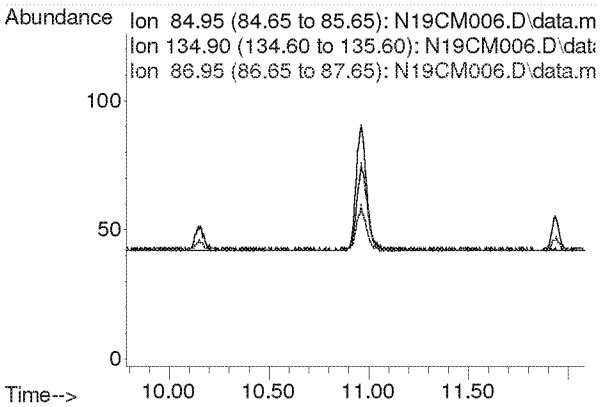


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

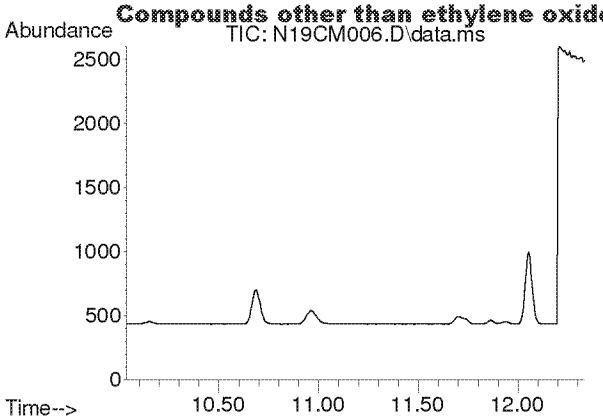
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

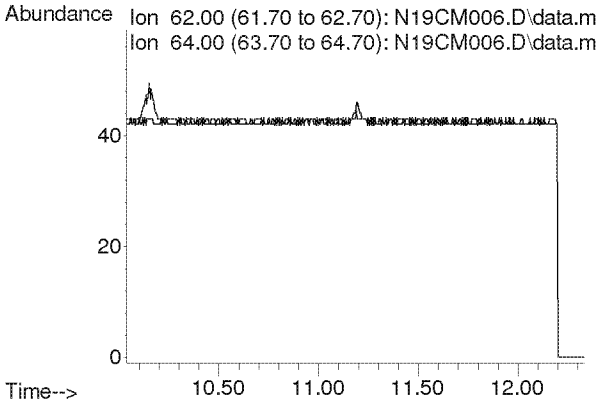


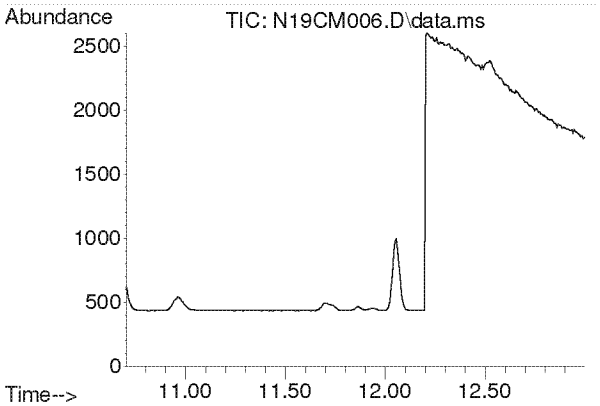
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



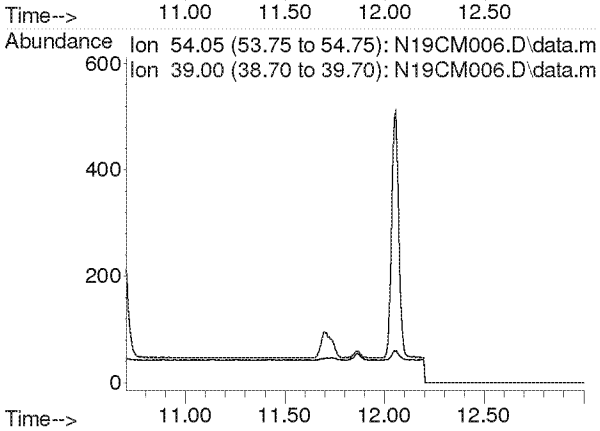


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

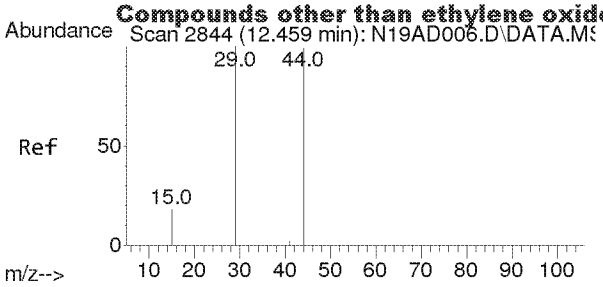
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



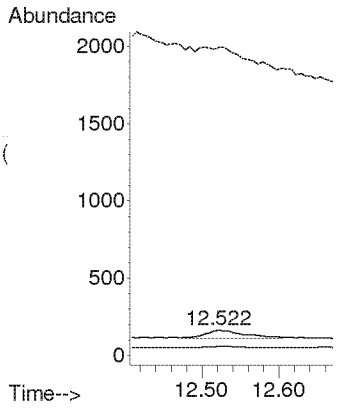
Compounds other than ethylene oxide were not quantitated.

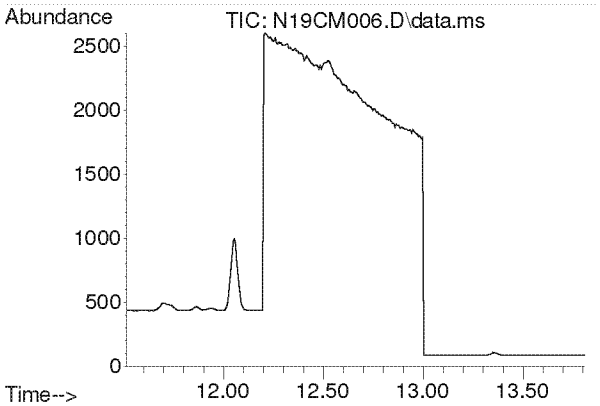


#9
Ethylene Oxide
Concen: 0.117 ppbv
RT: 12.522 min Scan# 2854
Delta R.T. 0.064 min
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 29 Resp: 156

Ion	Ratio	Lower	Upper
29	100		
15	0.0	14.0	21.0#
44	1376.3	79.2	118.8#



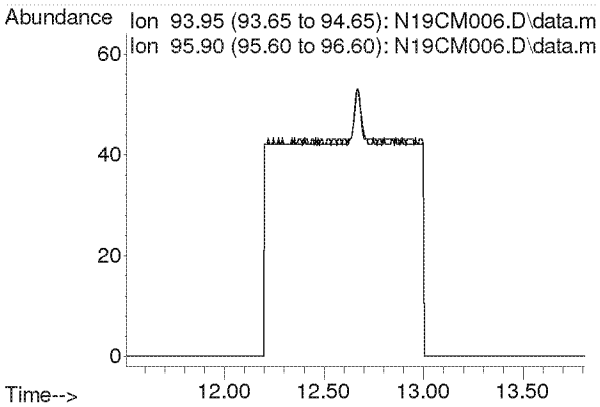


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

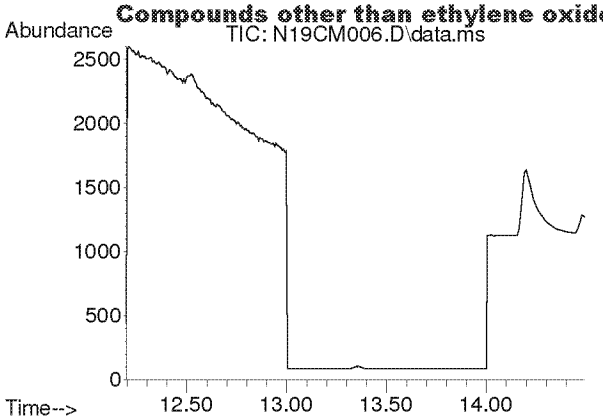
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

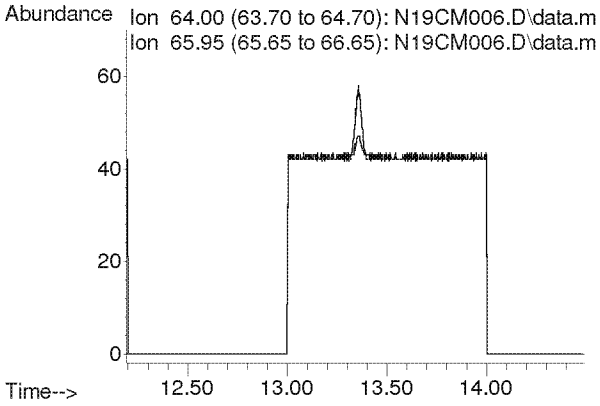


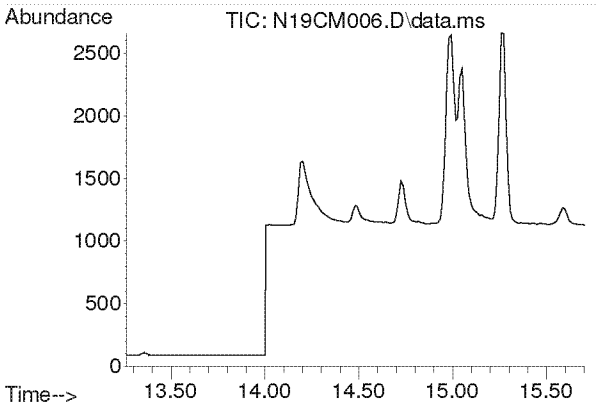
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



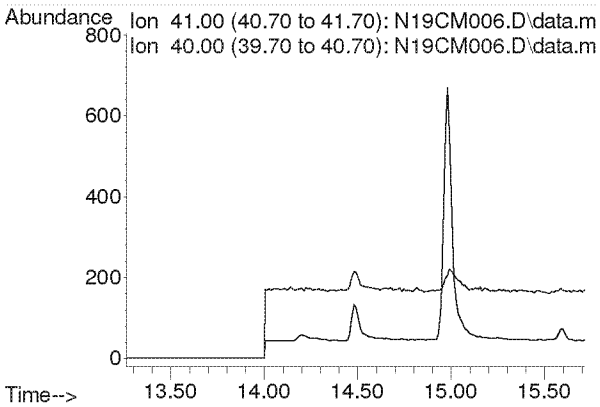


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

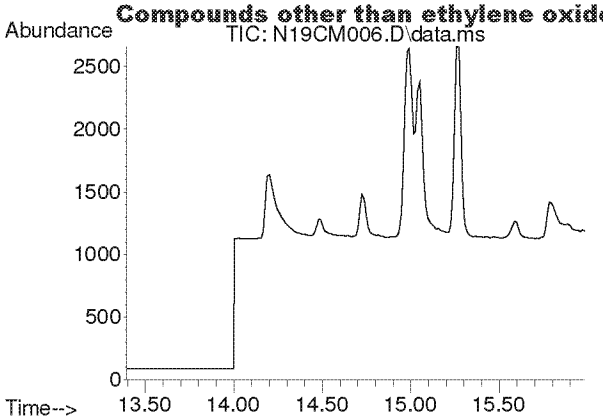
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

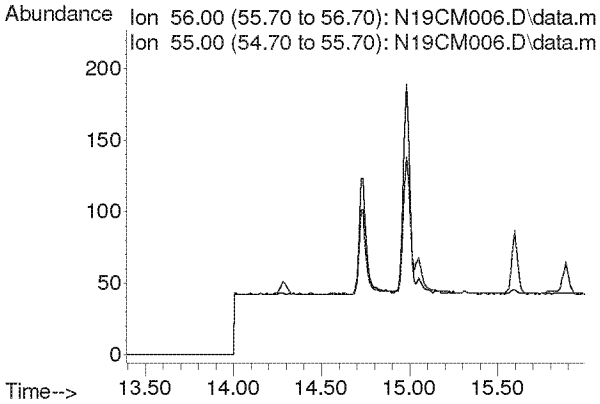


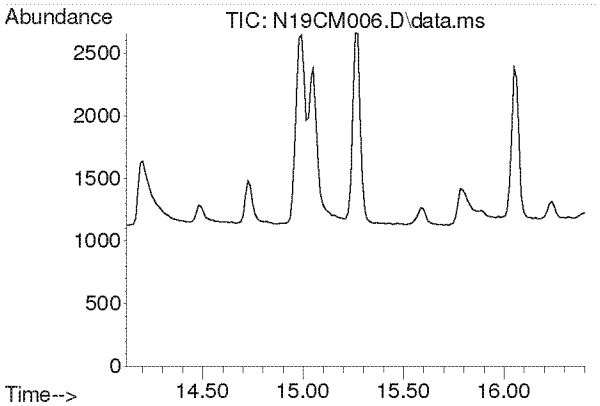
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



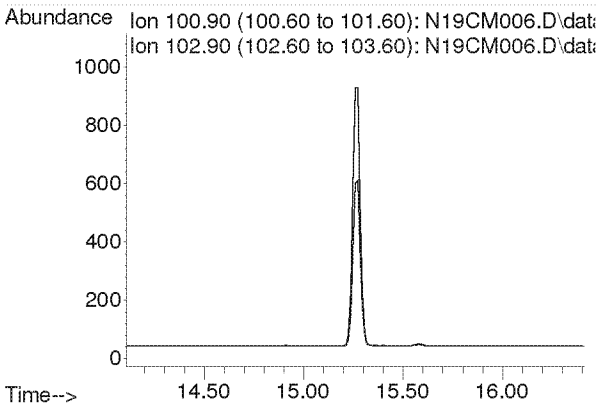


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

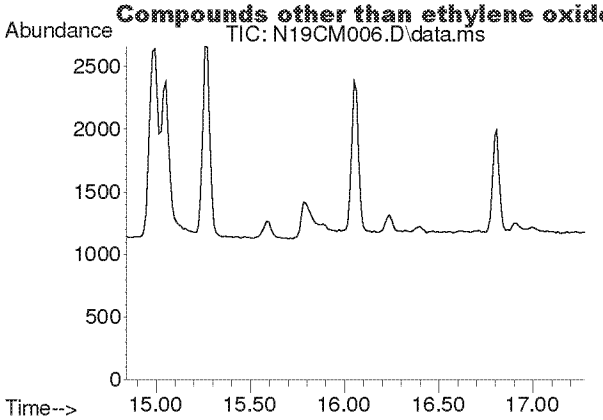
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

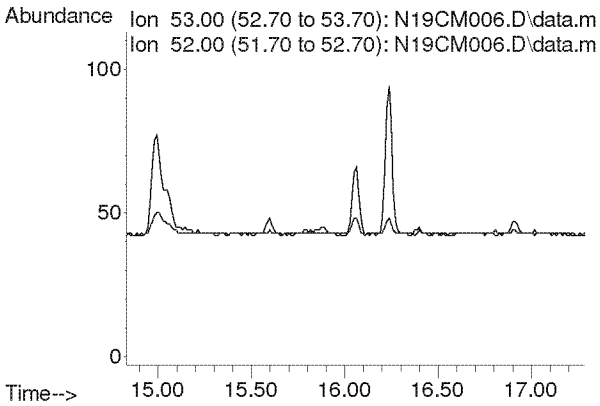


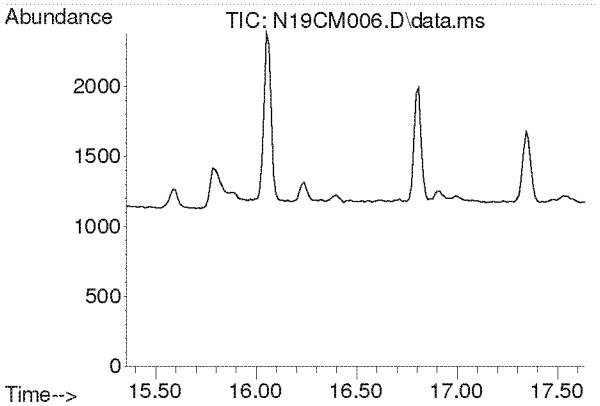
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



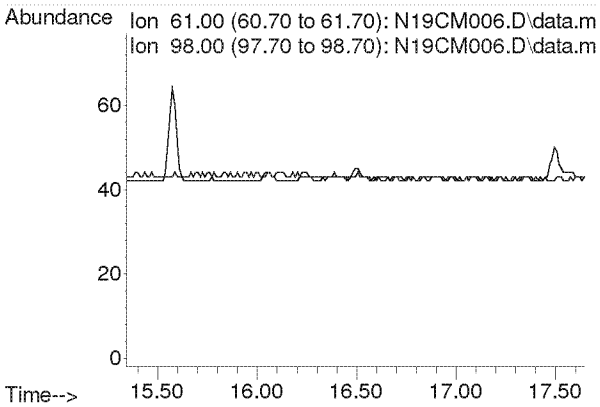


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

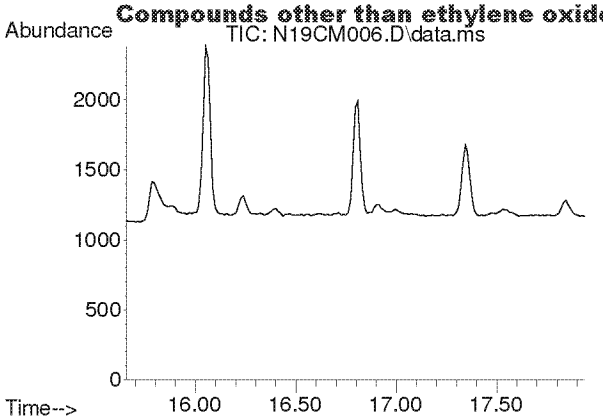
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

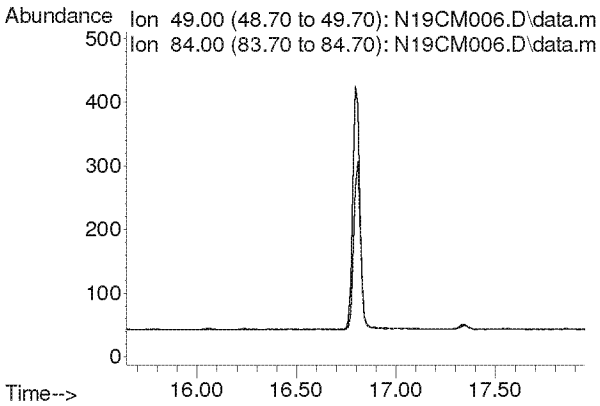


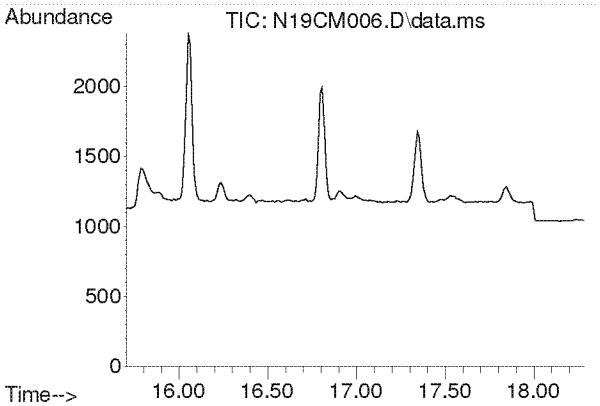
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



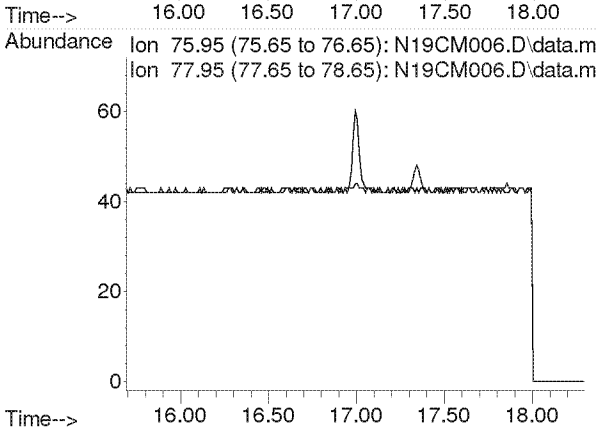


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

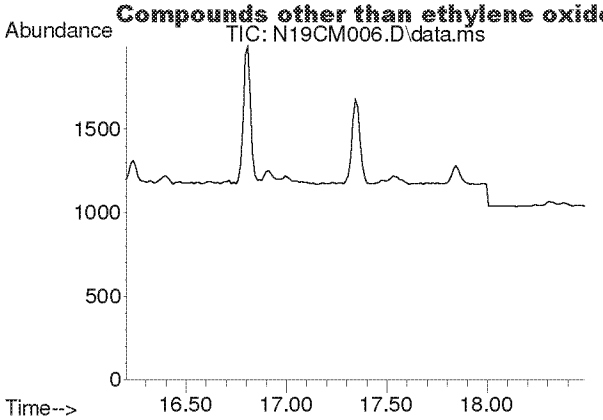
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

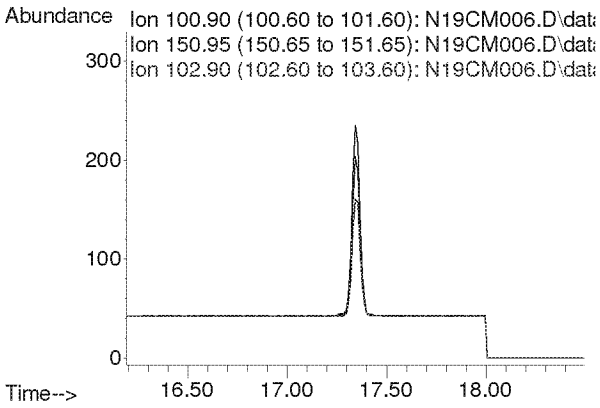


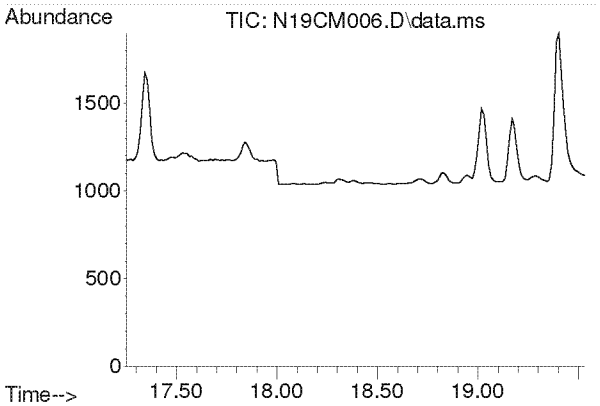
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



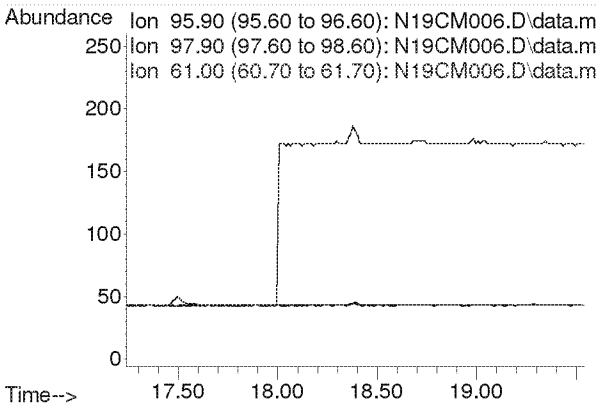


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

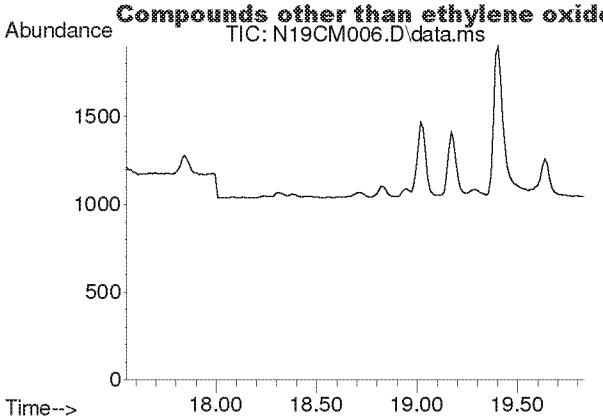
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

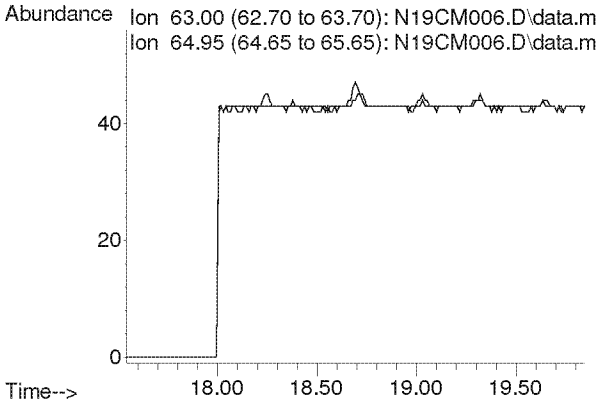


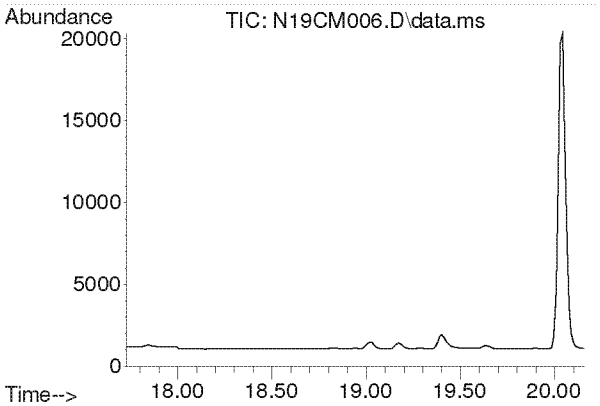
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



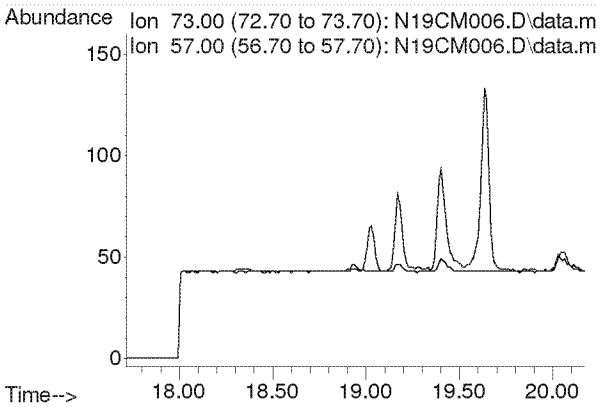


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

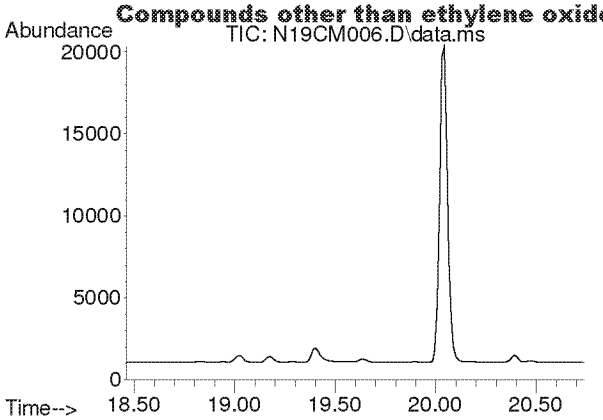
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

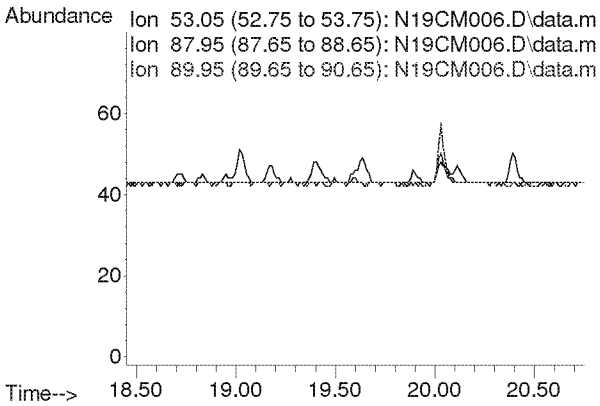


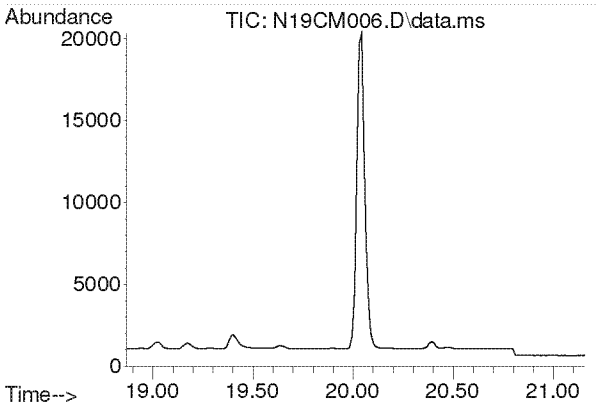
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



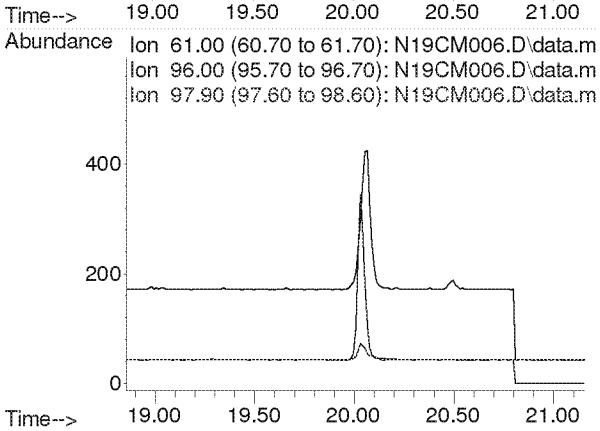


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

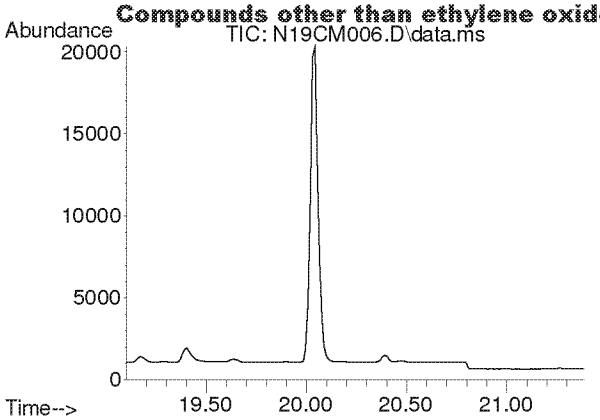
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

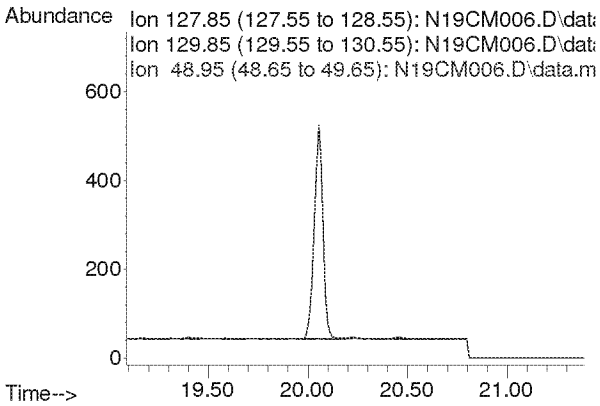


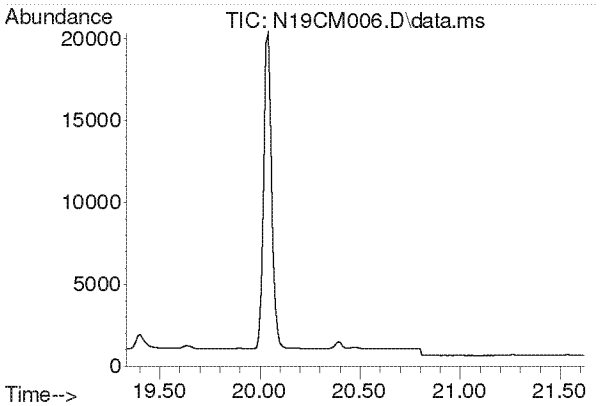
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



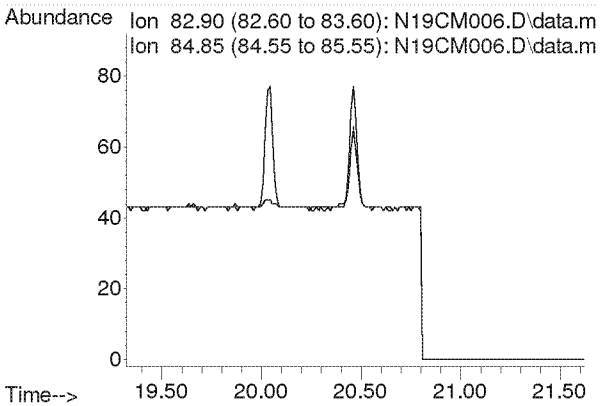


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

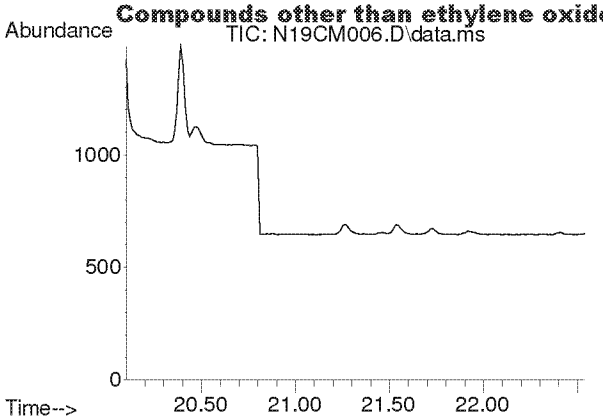
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

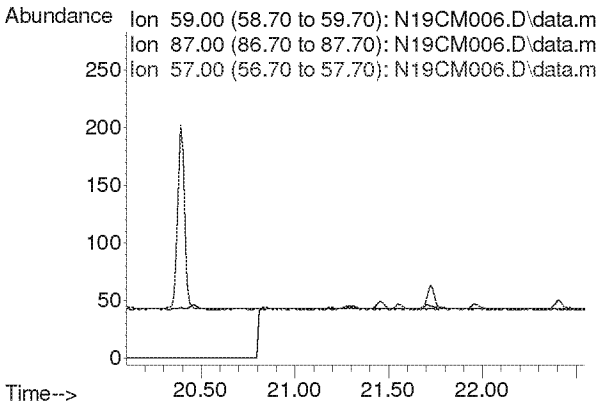


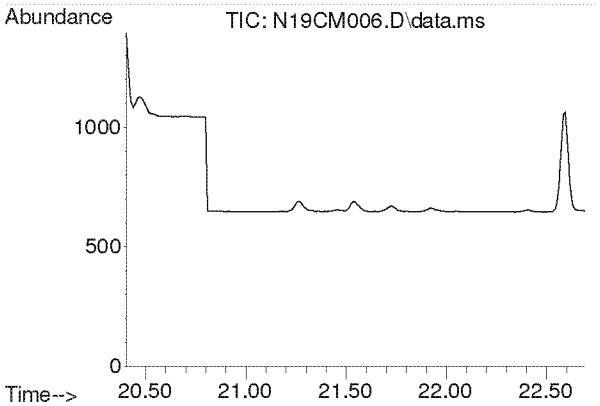
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



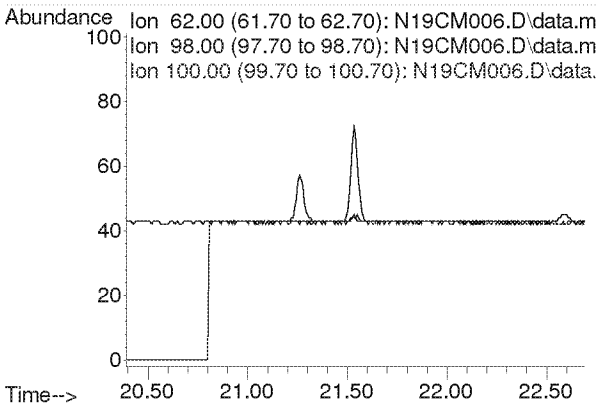


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

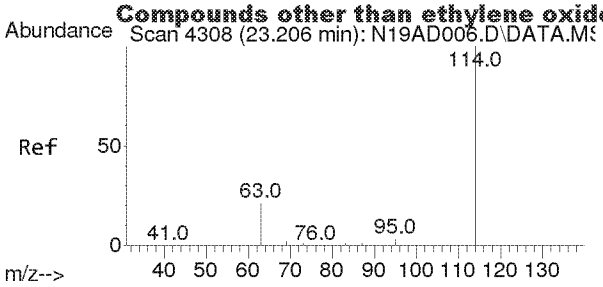
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



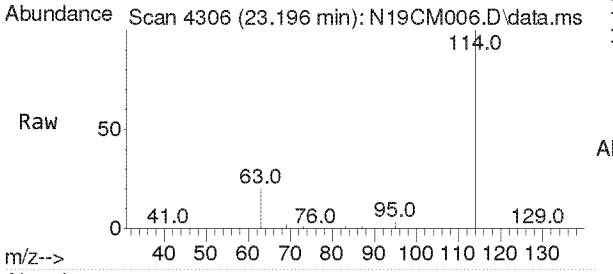
Compounds other than ethylene oxide were not quantitated.

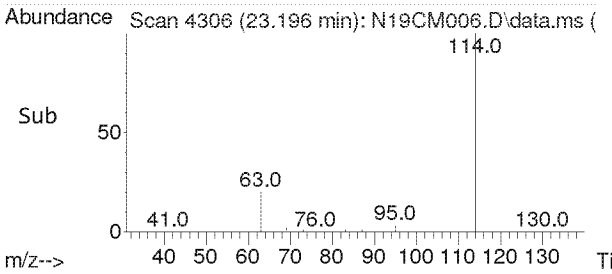


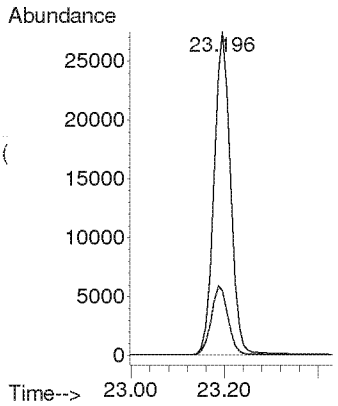
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.196 min Scan# 4306
Delta R.T. -0.010 min
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

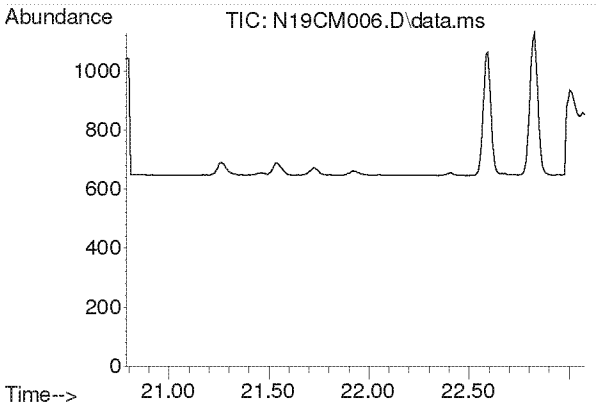
Tgt Ion:114 Resp: 67025

Ion	Ratio	Lower	Upper
114	100		
63	21.7	16.7	25.1







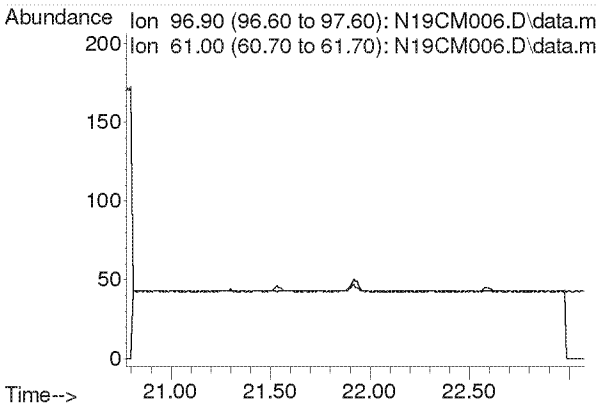


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

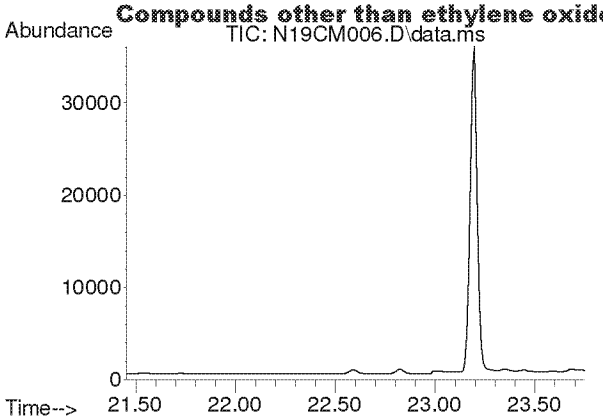
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

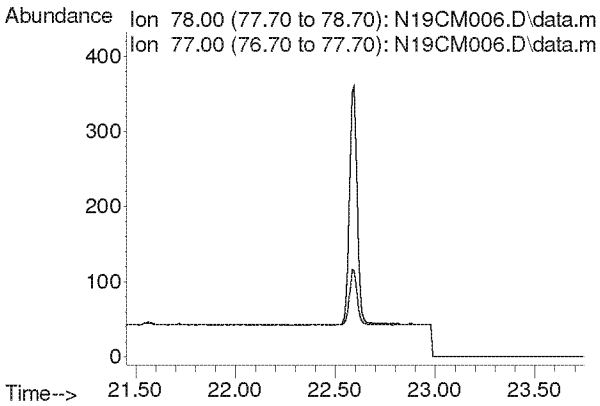


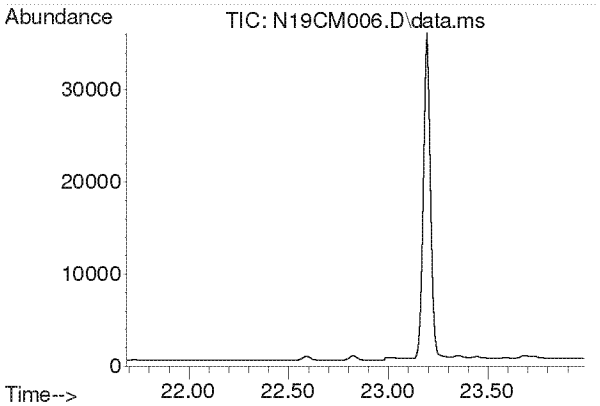
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



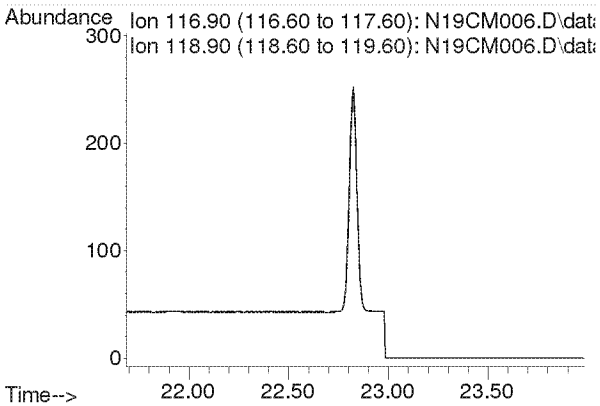


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

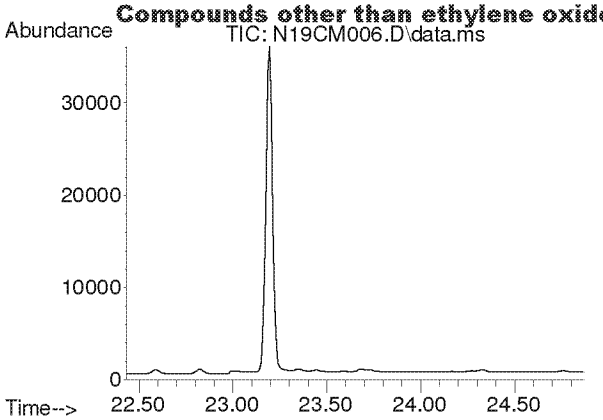
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

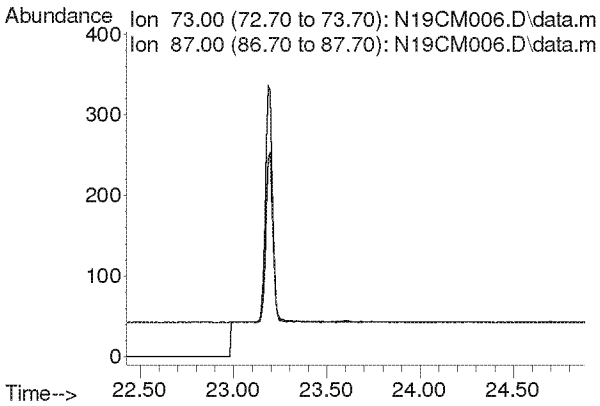


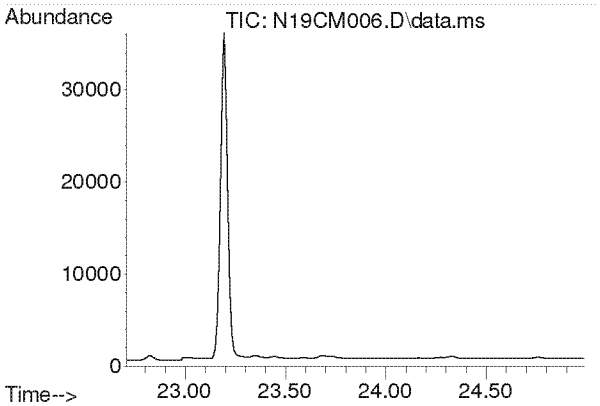
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



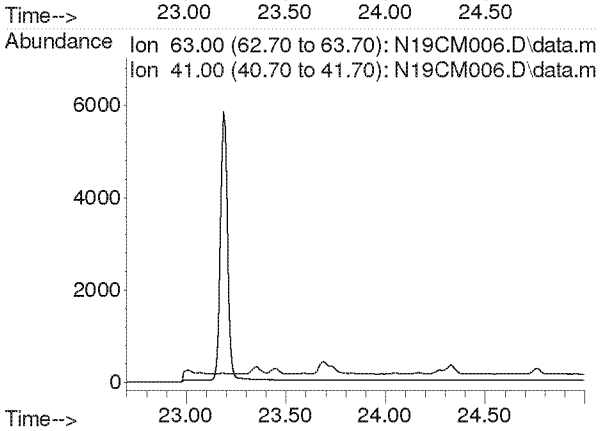


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

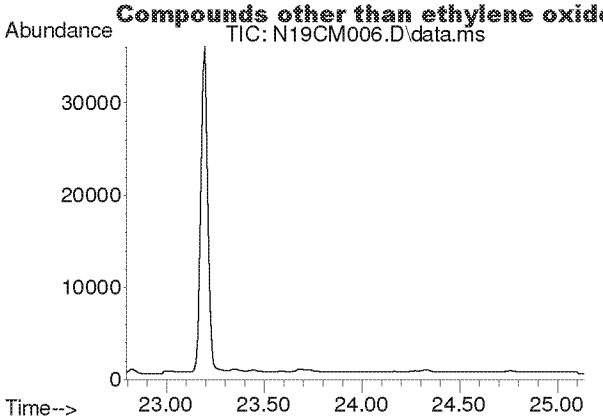
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

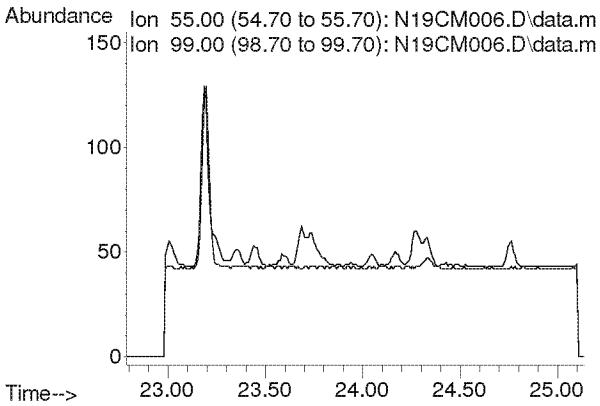


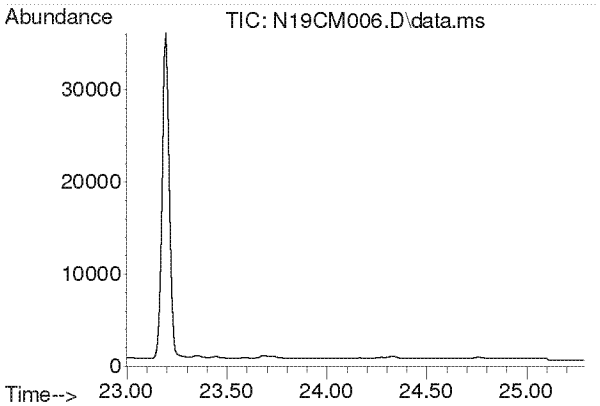
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



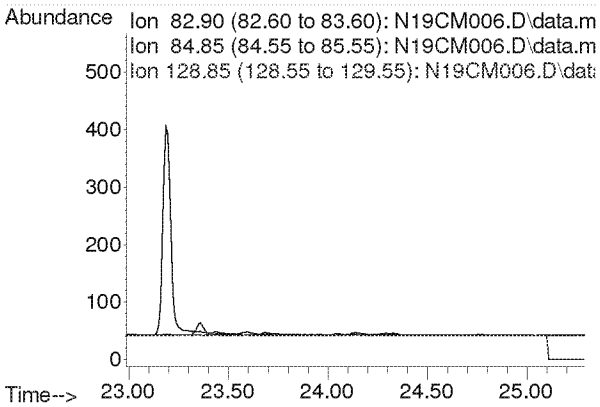


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

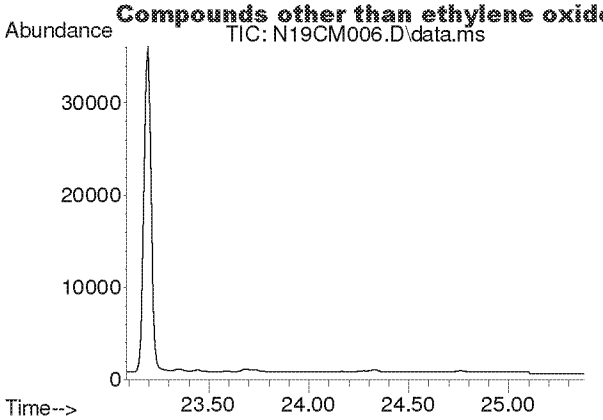
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

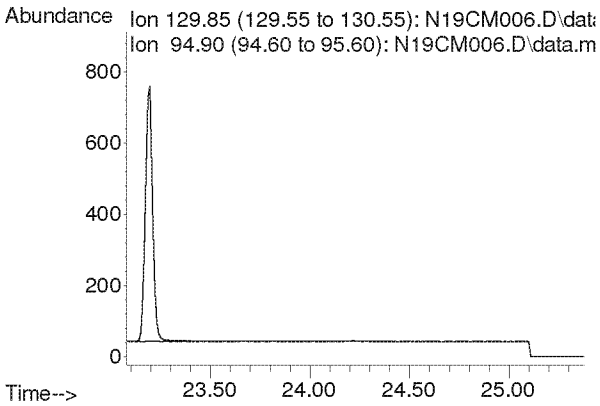


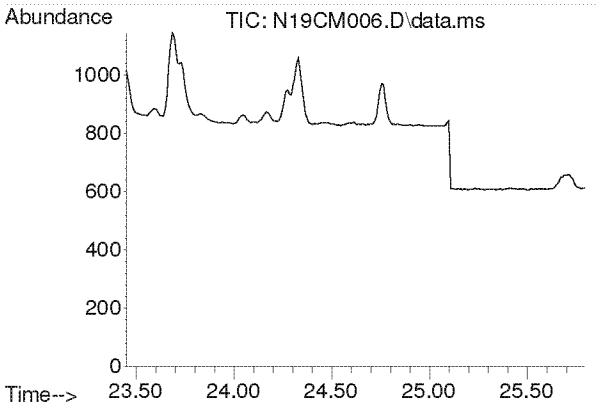
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



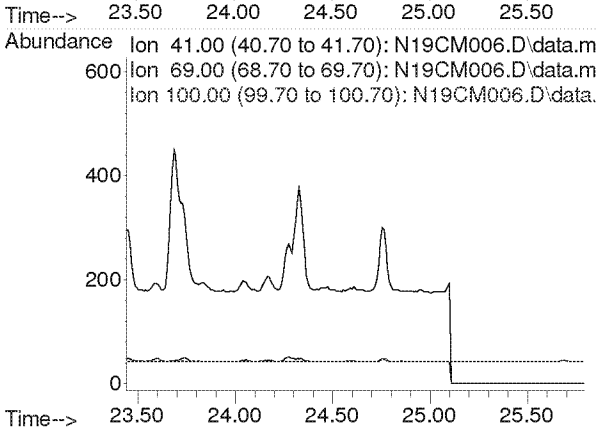


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

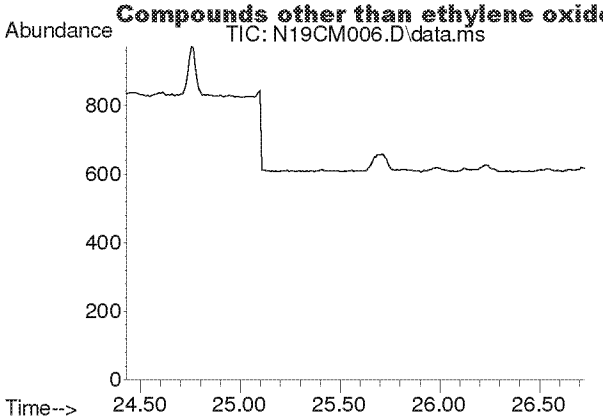
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

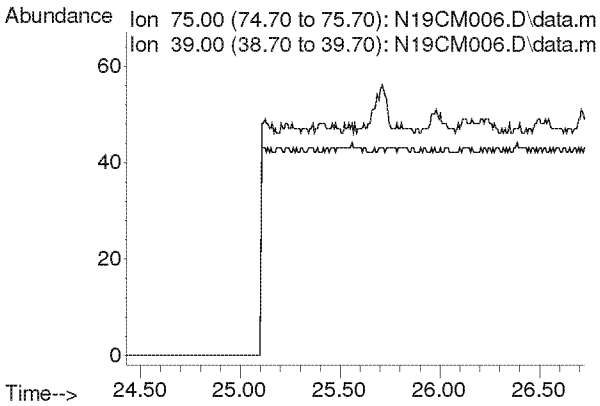


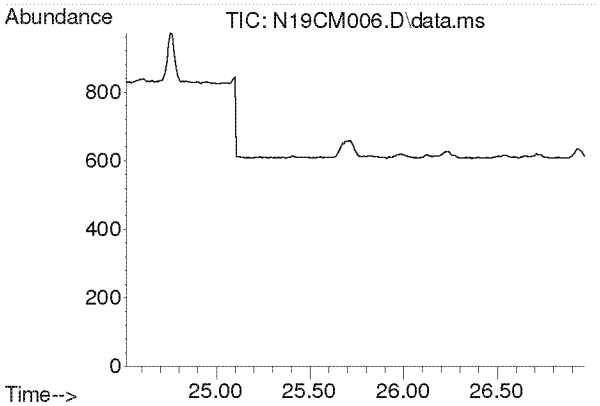
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



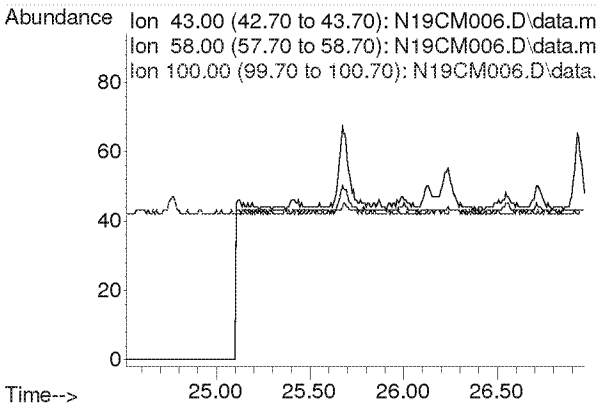


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

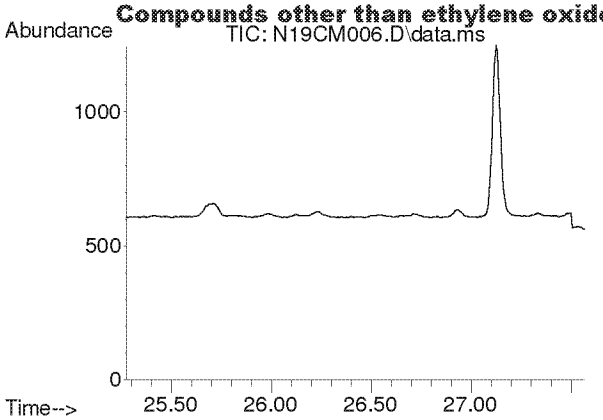
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

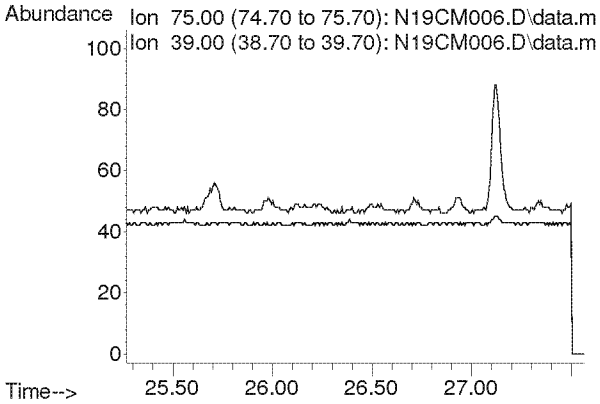


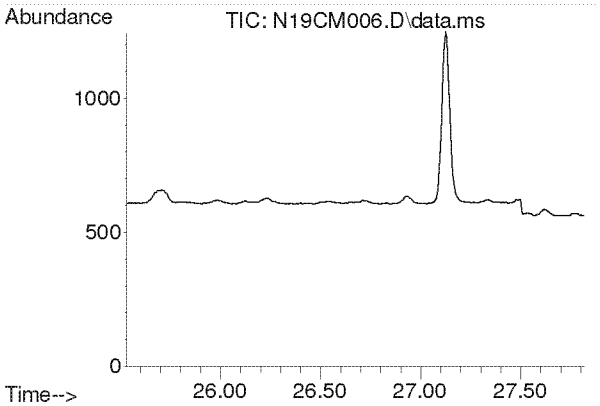
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



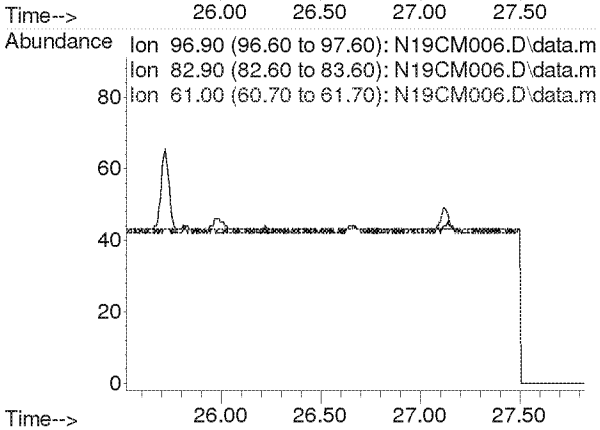


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

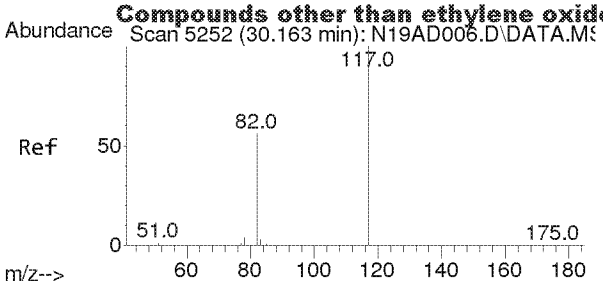
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



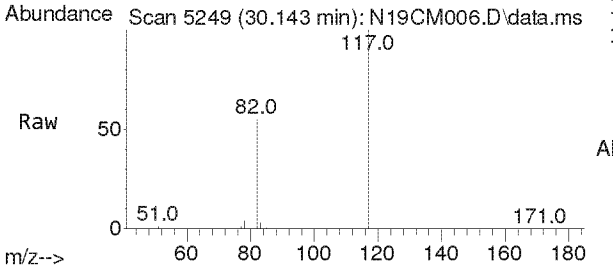
Compounds other than ethylene oxide were not quantitated.

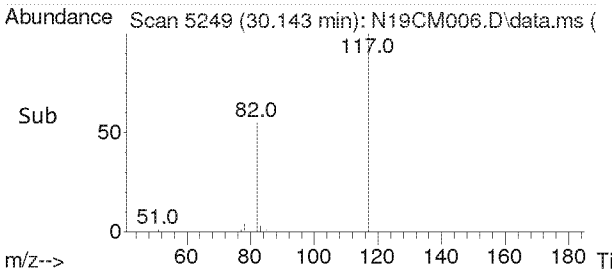


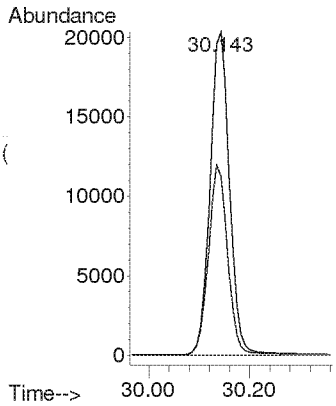
#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.143 min Scan# 5249
Delta R.T. -0.019 min
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

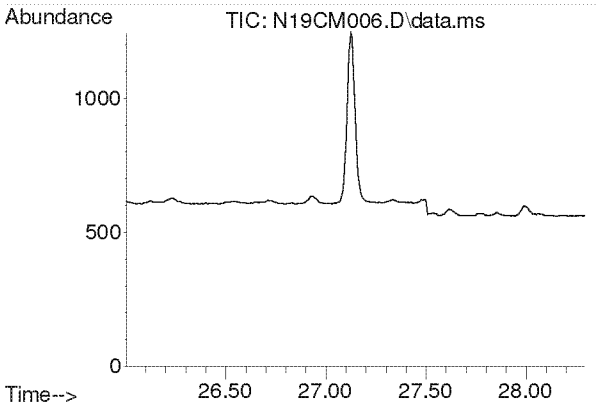
Tgt Ion:117 Resp: 53840

Ion	Ratio	Lower	Upper
117	100		
82	58.1	40.1	74.5
54	0.0	0.0	0.0







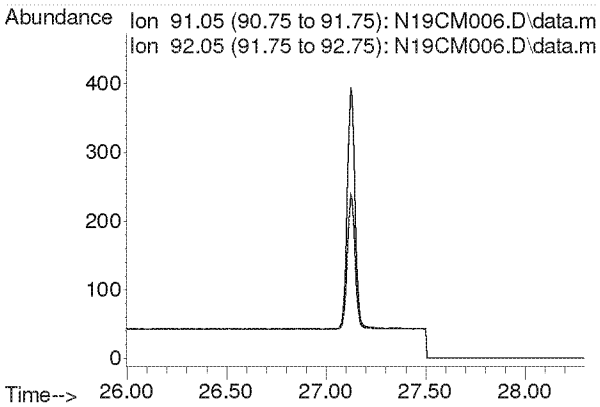


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

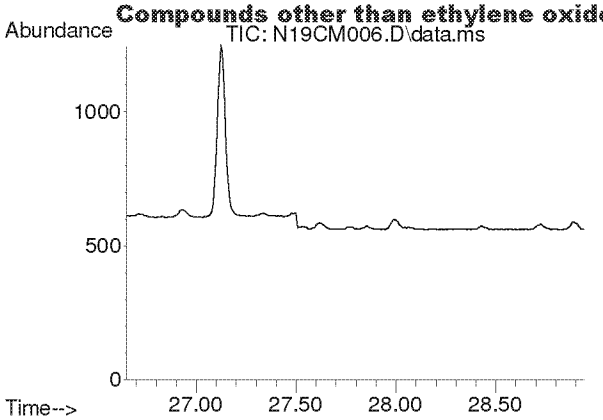
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

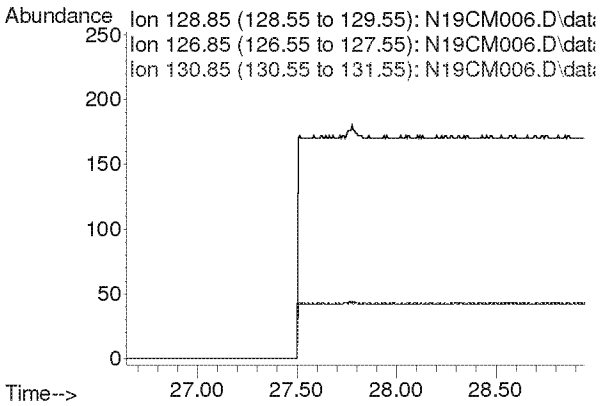


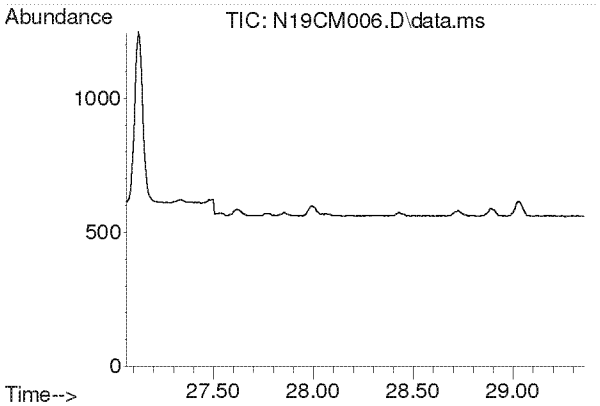
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



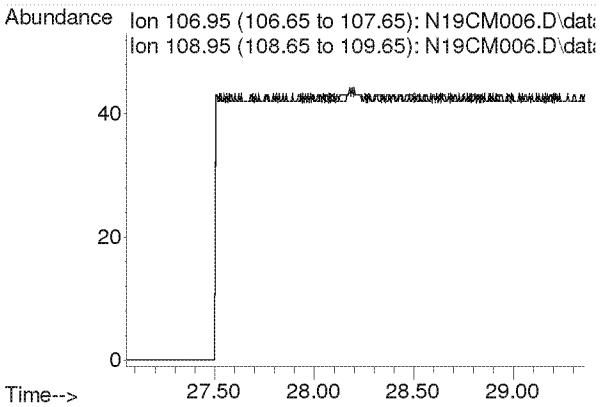


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

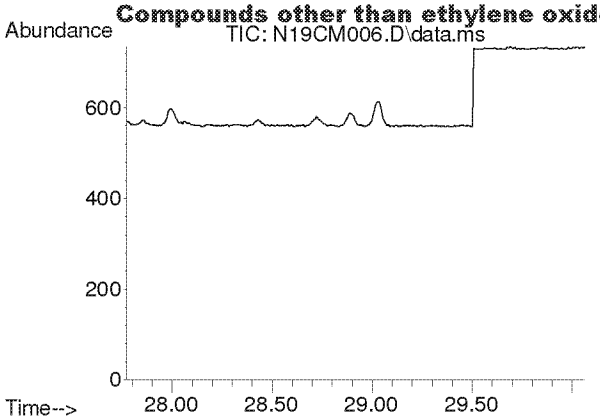
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

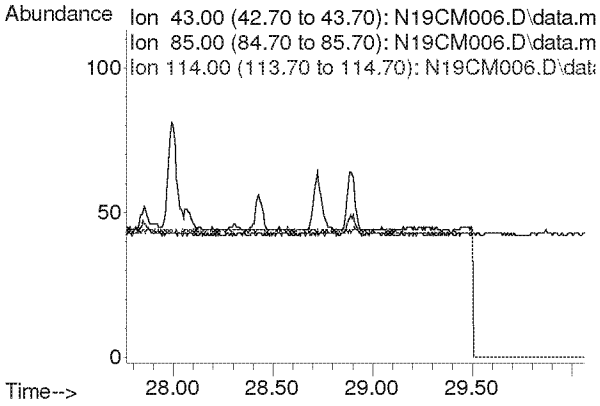


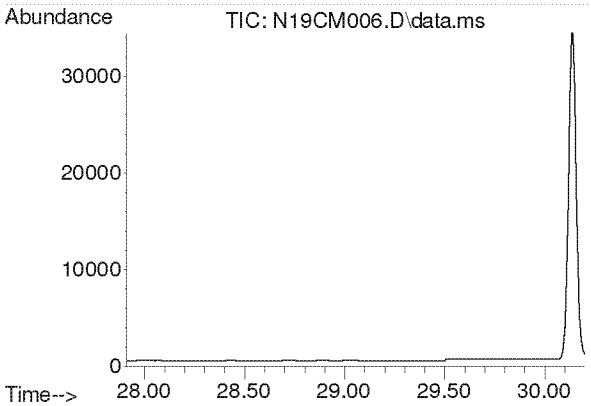
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



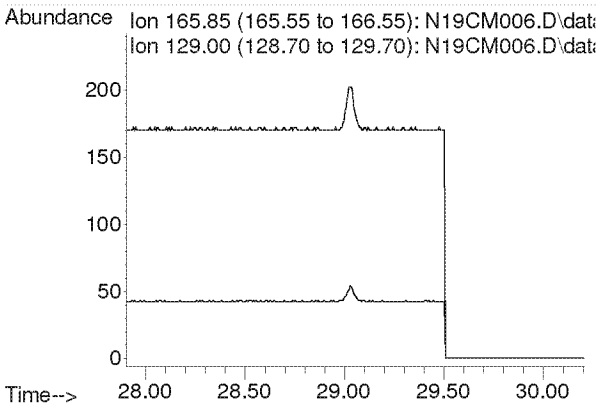


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

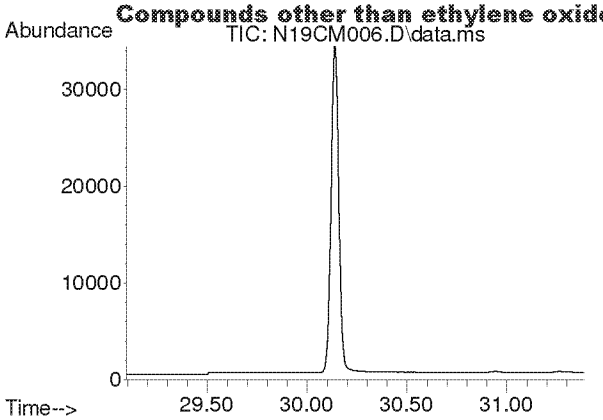
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

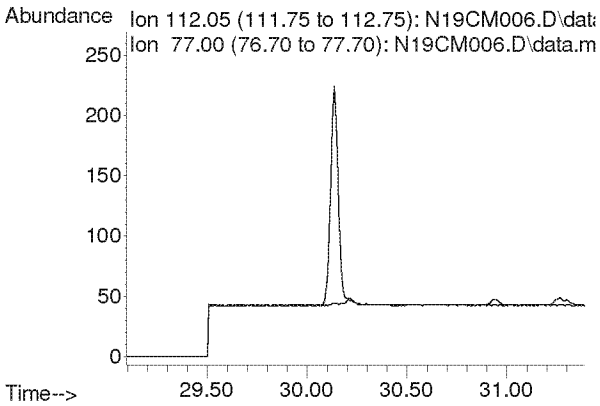


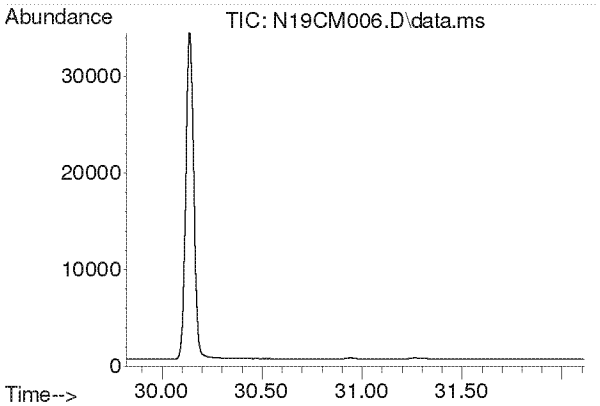
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



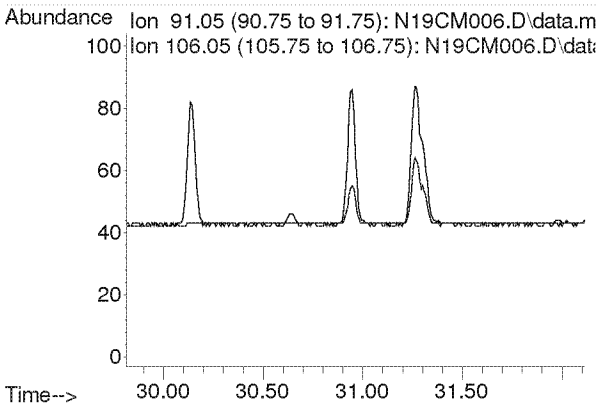


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

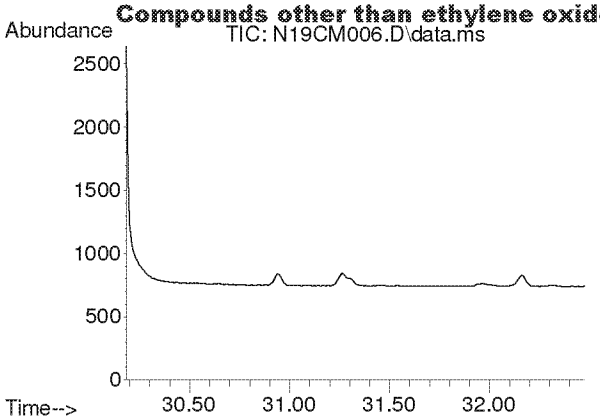
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

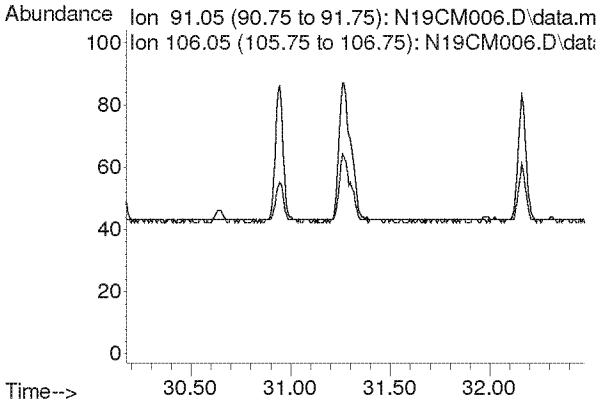


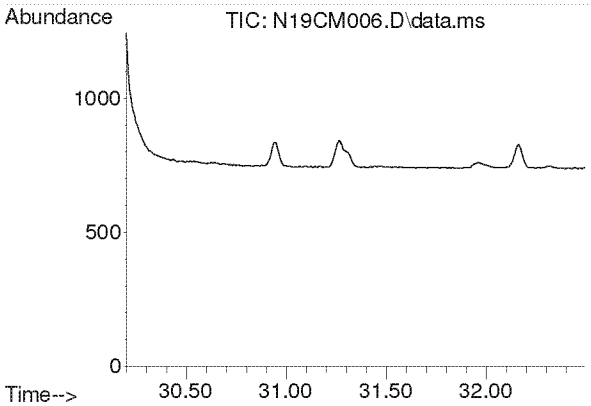
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



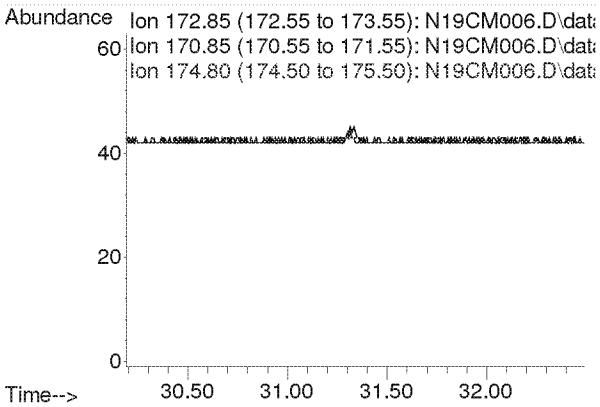


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

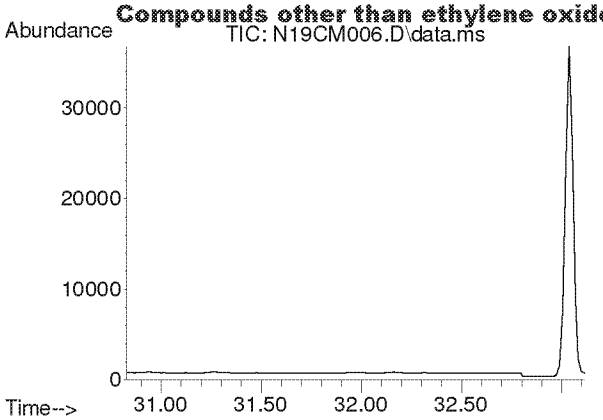
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

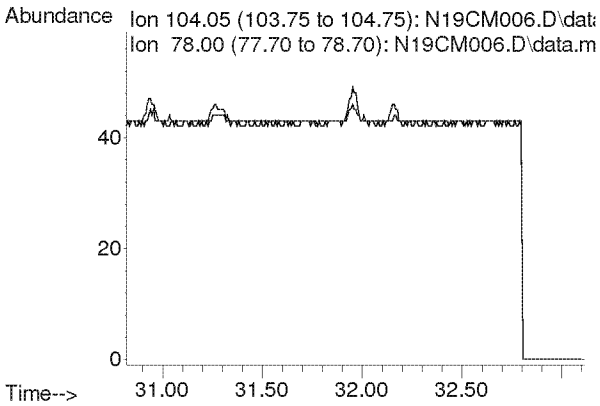


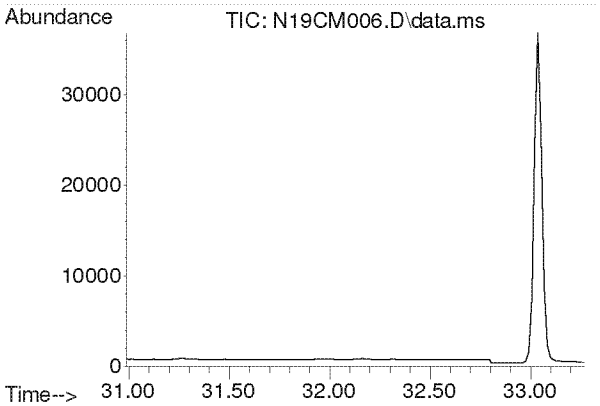
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



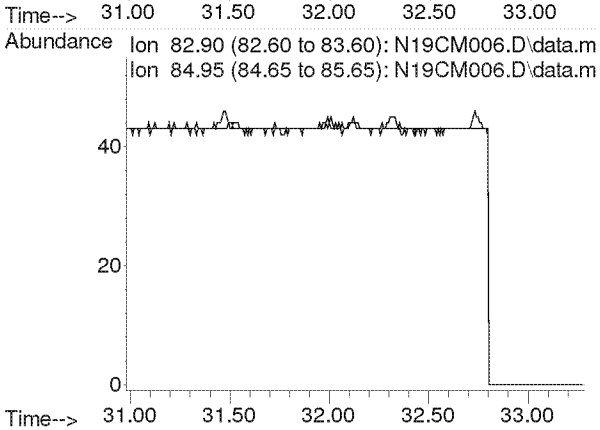


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

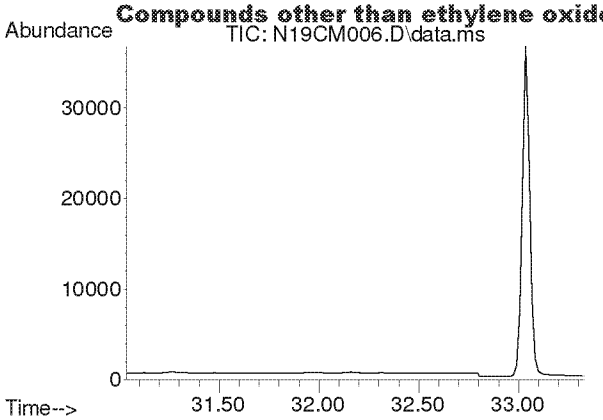
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

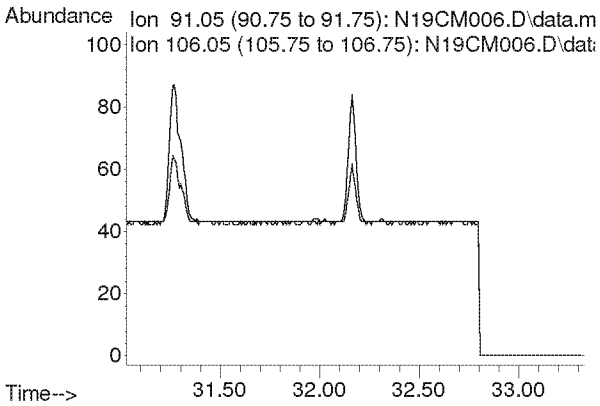


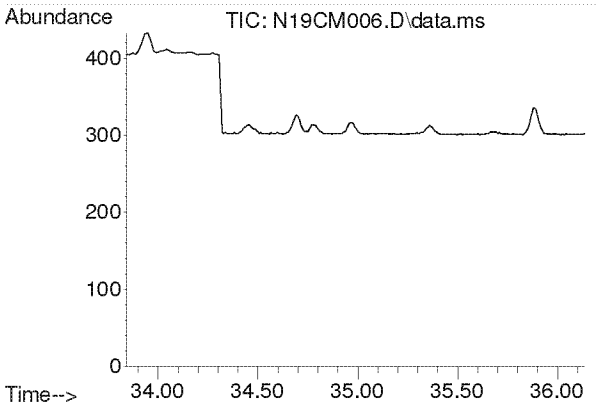
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



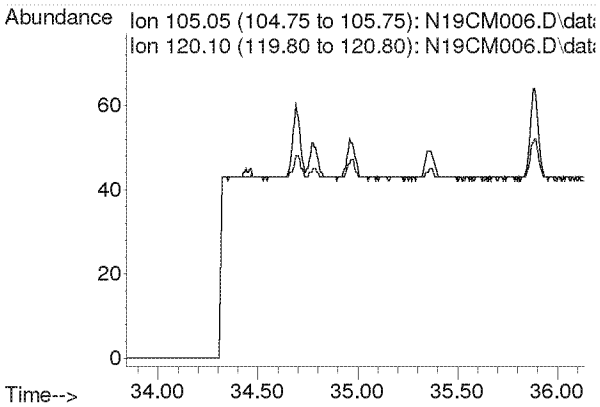


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

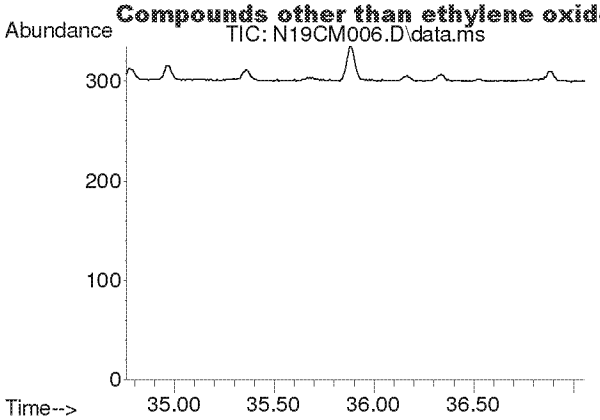
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

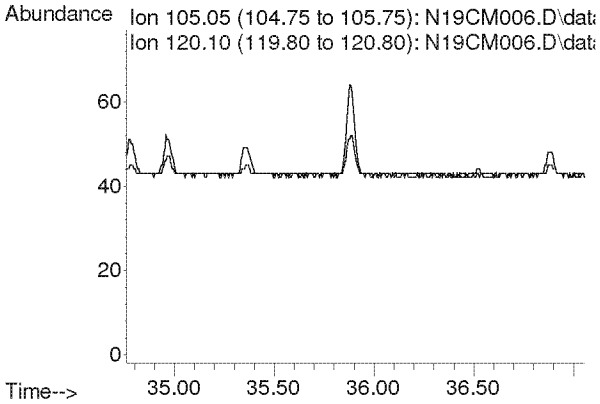


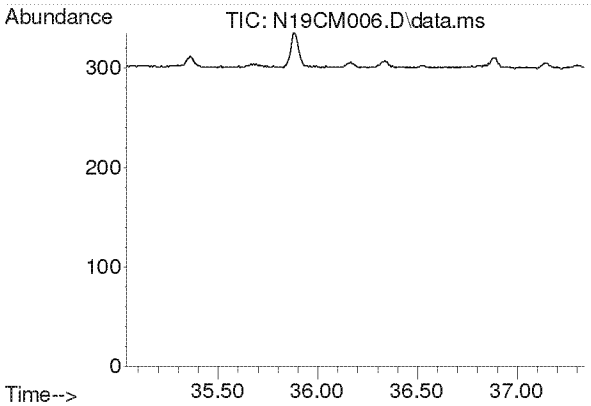
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



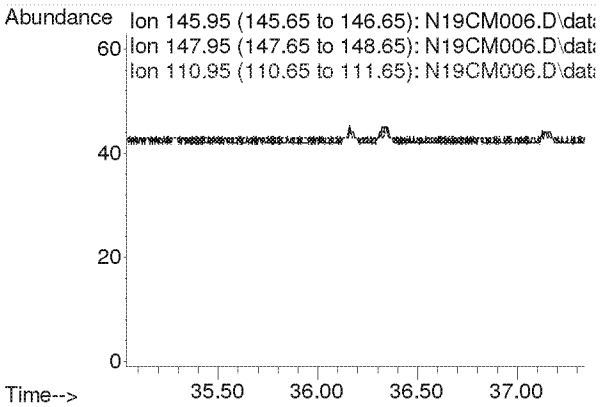


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

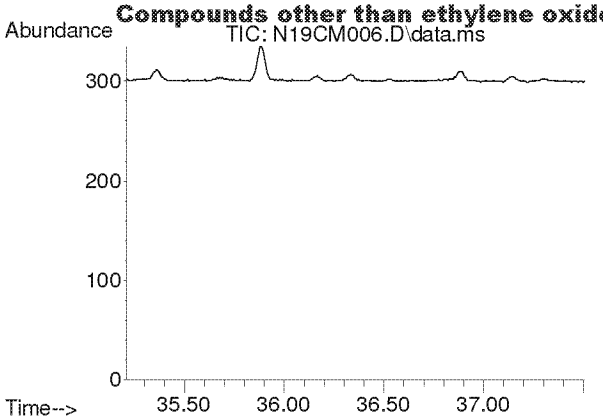
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

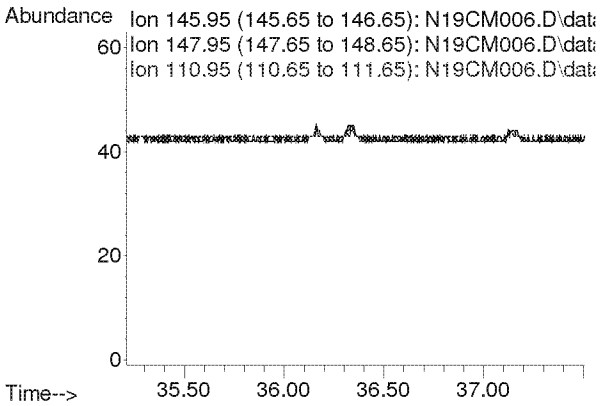


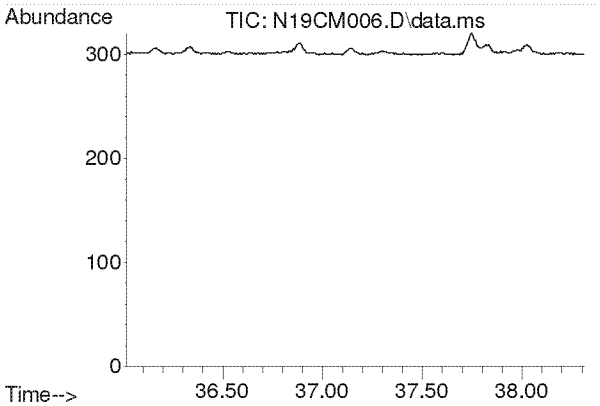
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



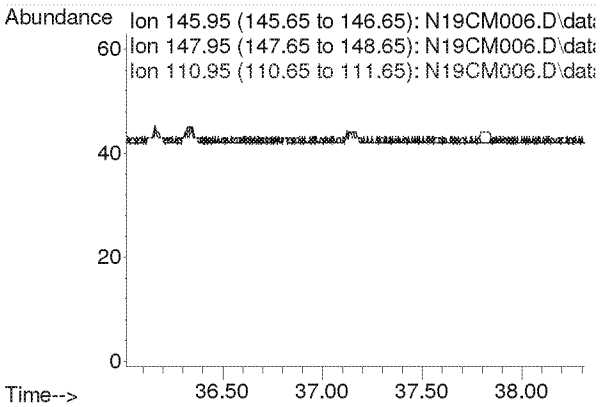


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

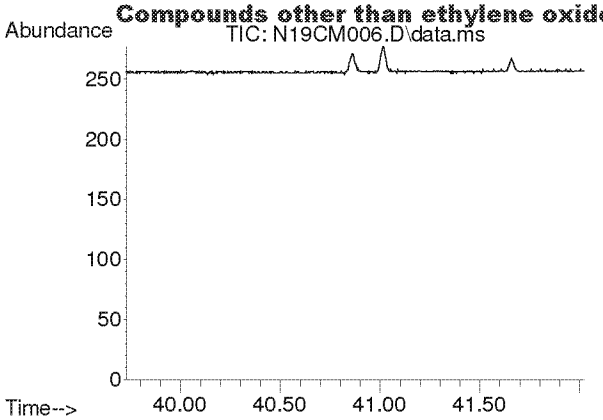
Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

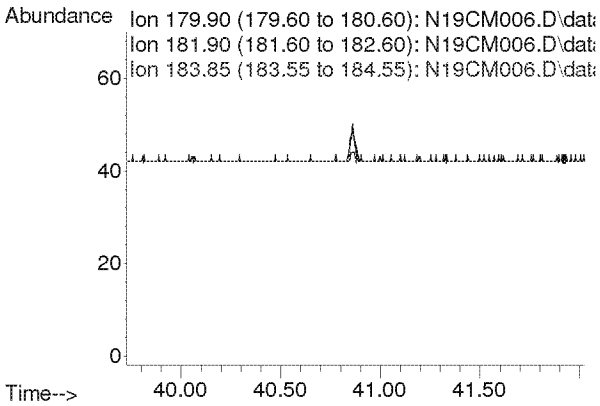


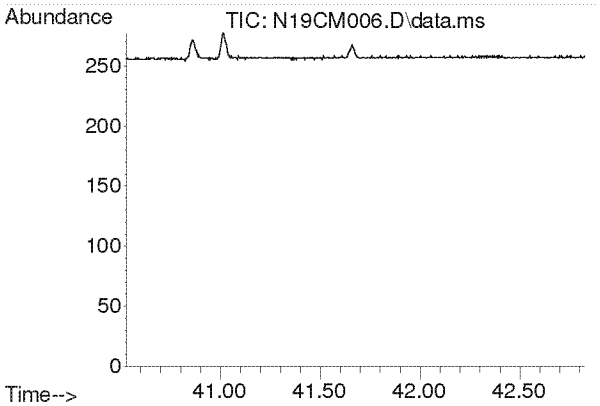
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



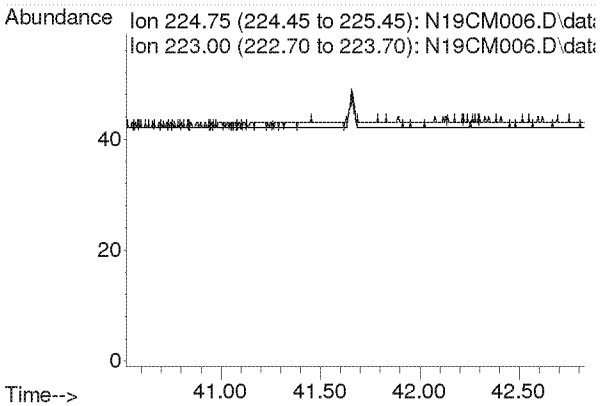


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM006.D
Acq: 13 Mar 2019 4:19 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM007.D
Acq On : 13 Mar 2019 5:20 pm (#1); 13-Mar-19, 17:15:36 (#2)
Operator : KSS
Sample : 9031220-03
Misc : VILLAGE HALL C2 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 14 08:31:17 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.033	66	29139	4.7700 ppbv	-0.01
29) IS-1,4-Difluorobenzene	23.198	114	61088	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.139	117	51580	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.	
9) Ethylene Oxide	12.534	29	144	0.1134 ppbv #	9
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	9
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D.	
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\N19CM\
Data File : N19CM007.D
Acq On : 13 Mar 2019 5:20 pm (#1); 13-Mar-19, 17:15:36 (#2)
Operator : KSS
Sample : 9031220-03
Misc : VILLAGE HALL C2 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 14 08:31:17 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

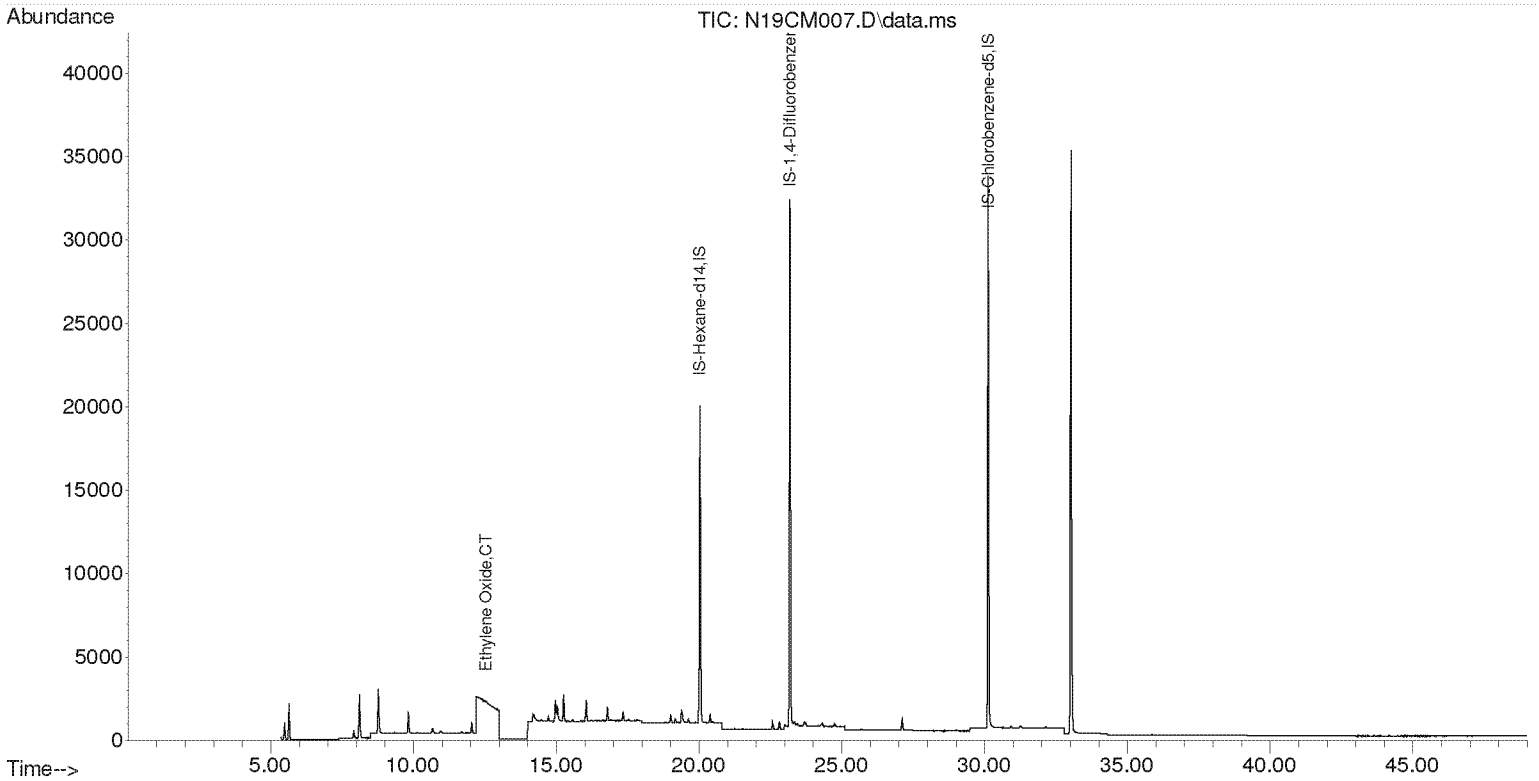
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

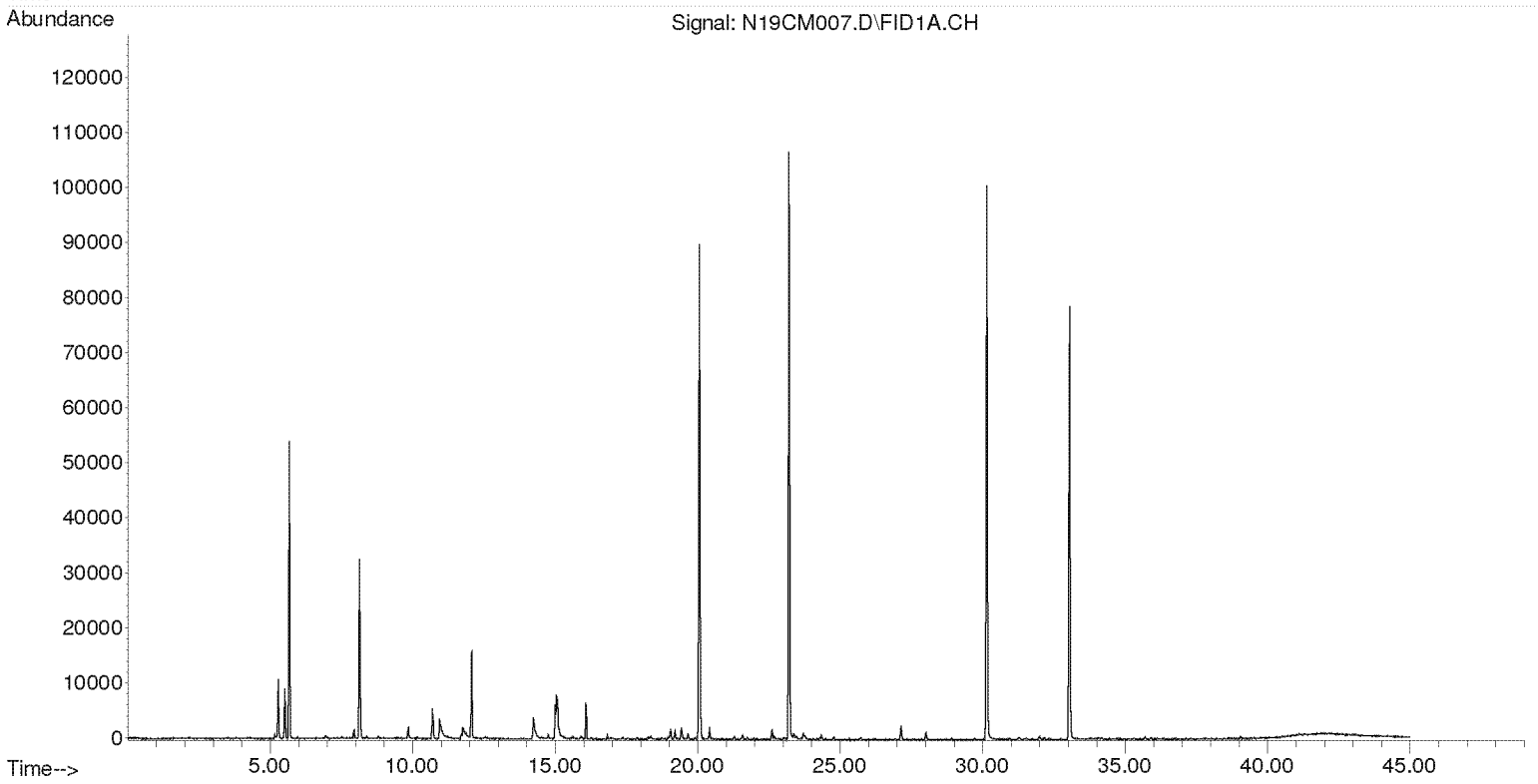
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

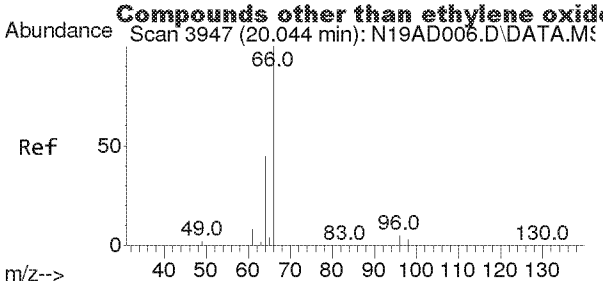
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM007.D
Acq On : 13 Mar 2019 5:20 pm (#1); 13 Mar 2019 5:15 pm (#2)
Operator : KSS
Sample : 9031220-03
Misc : VILLAGE HALL C2 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 14 08:19:05 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





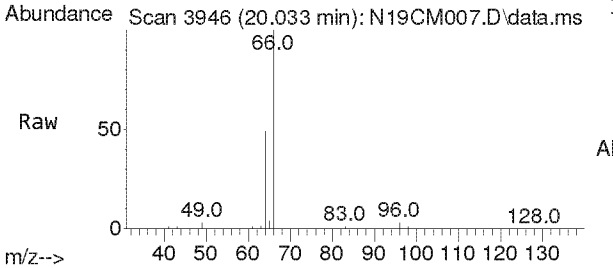
Compounds other than ethylene oxide were not quantitated.

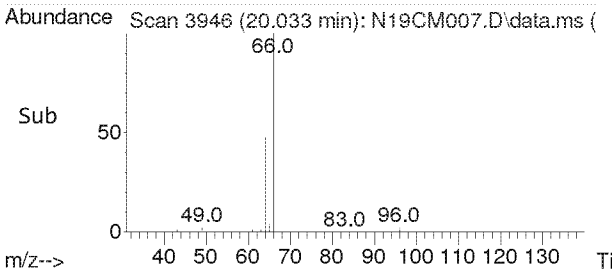


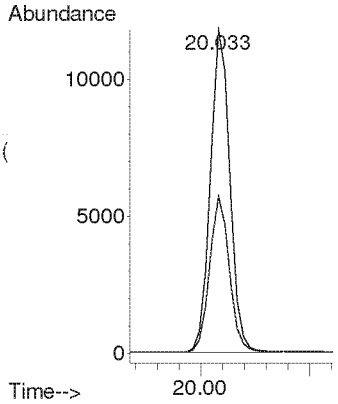
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.033 min Scan# 3946
Delta R.T. -0.011 min
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

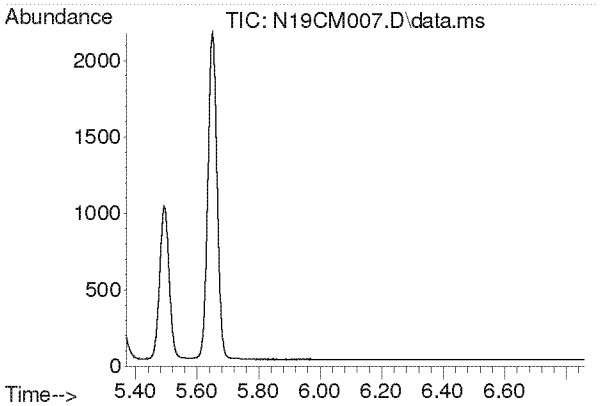
Tgt Ion: 66 Resp: 29139

Ion	Ratio	Lower	Upper
66	100		
64	48.8	32.1	59.5





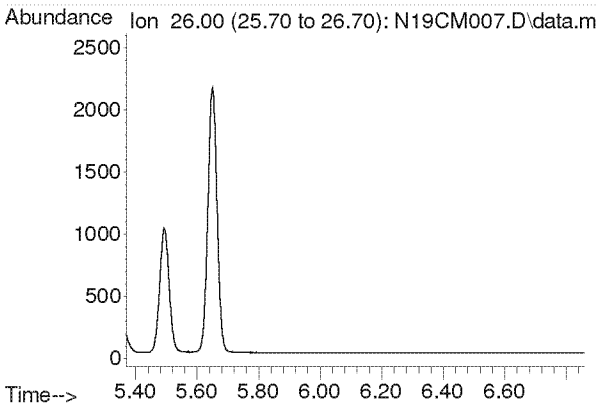




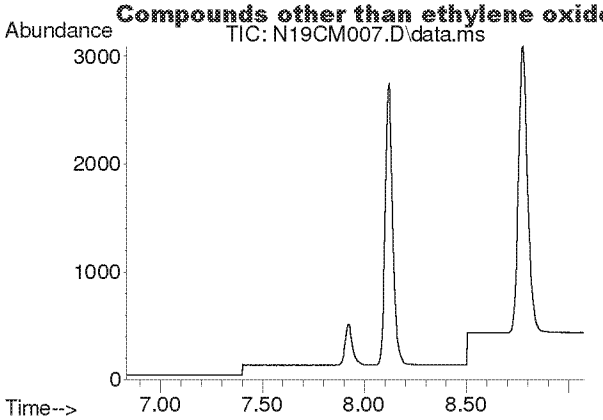
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

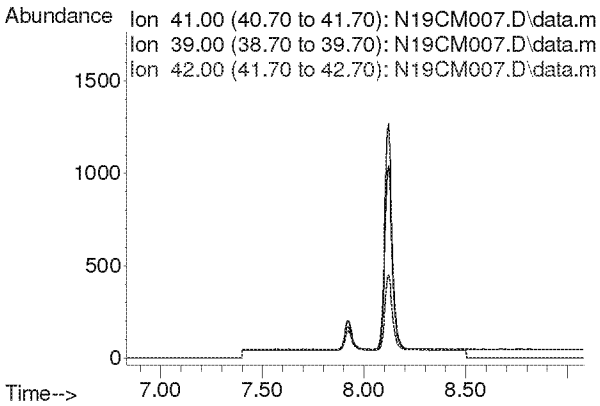


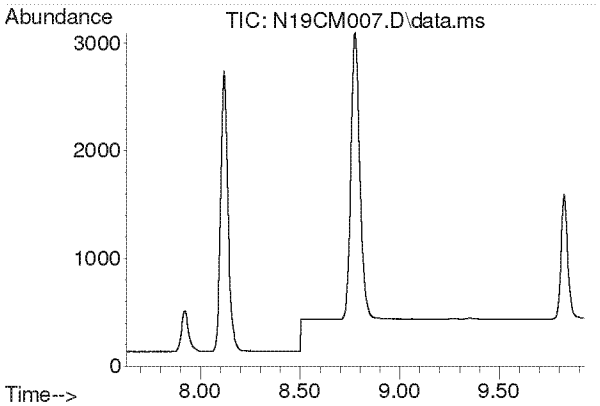
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



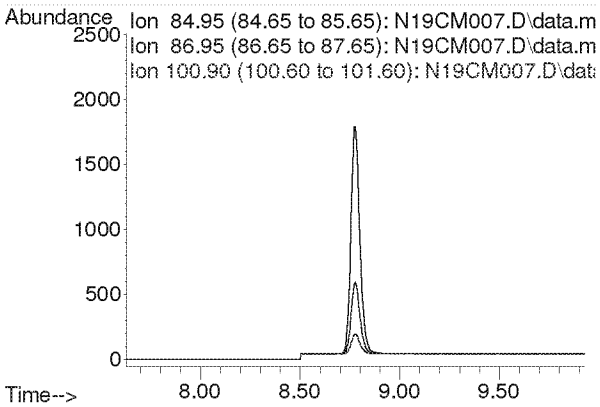


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

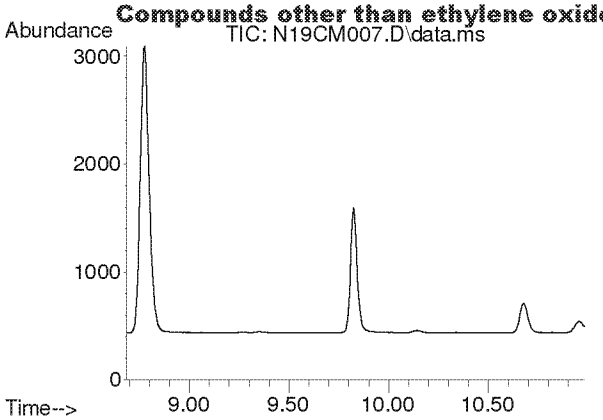
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

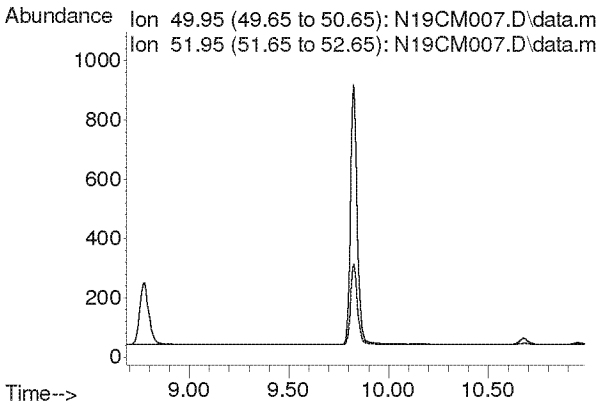


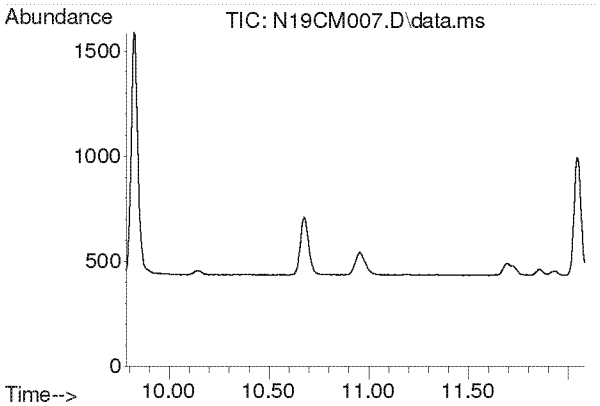
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



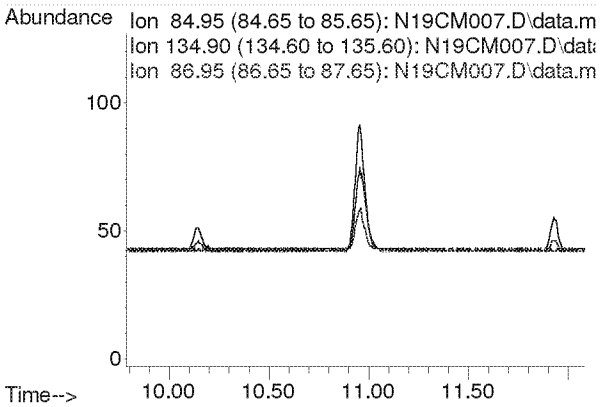


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

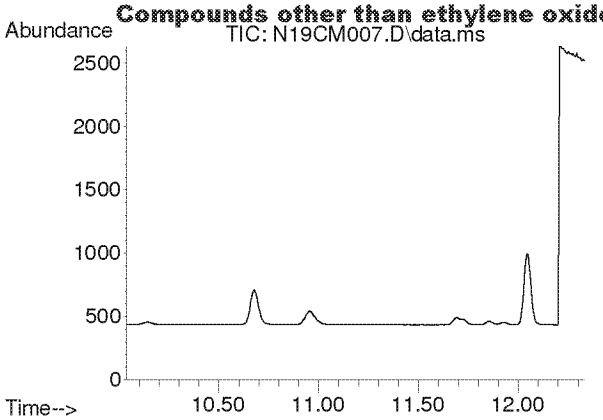
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

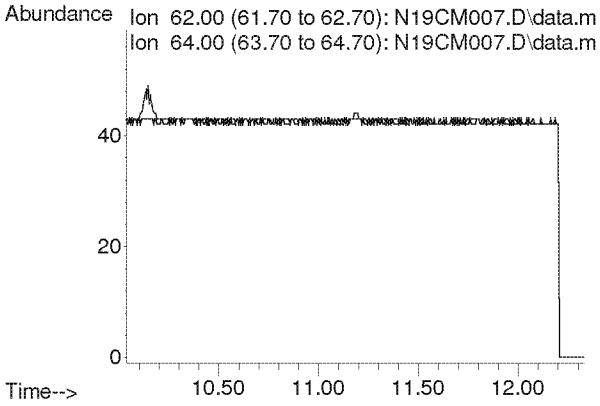


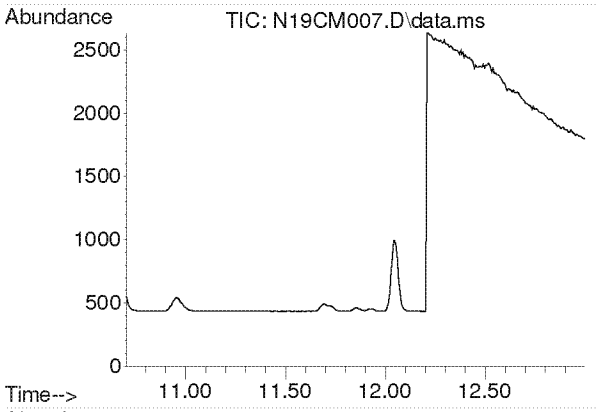
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



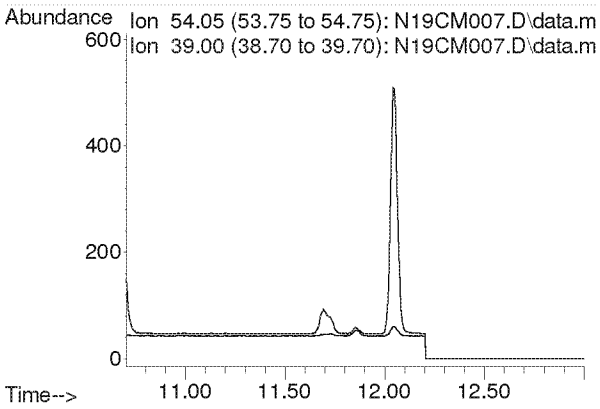


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

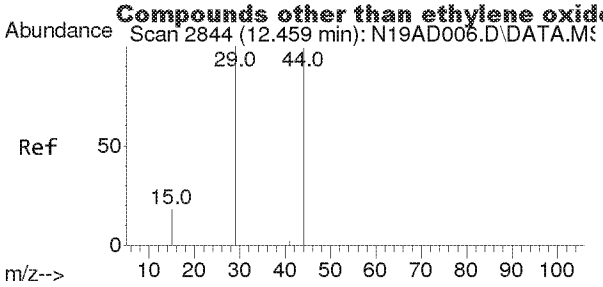
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



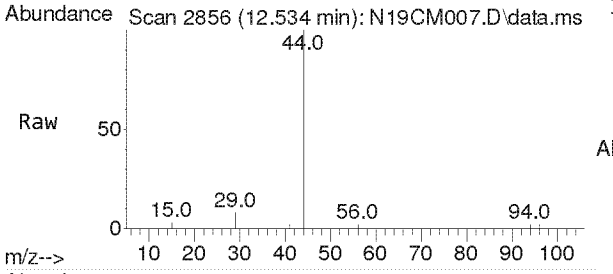
Compounds other than ethylene oxide were not quantitated.

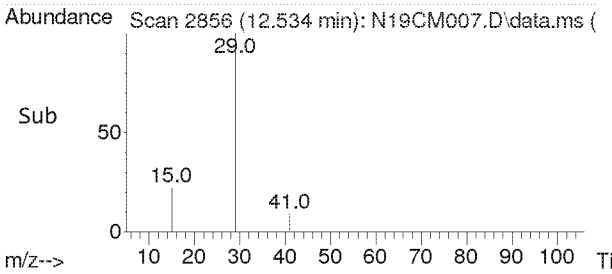


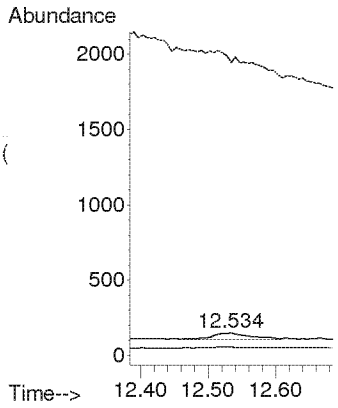
#9
Ethylene Oxide
Concen: 0.113 ppbv
RT: 12.534 min Scan# 2856
Delta R.T. 0.075 min
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

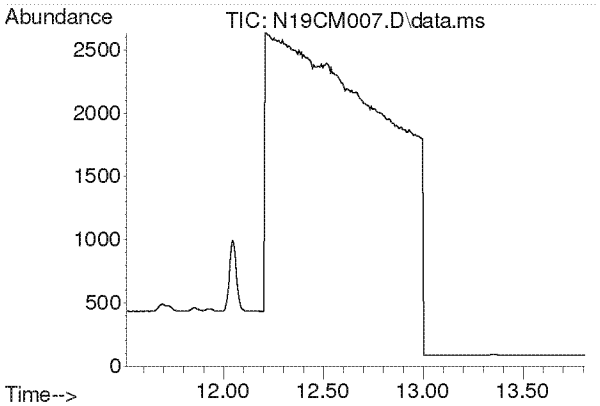
Tgt Ion: 29 Resp: 144

Ion	Ratio	Lower	Upper
29	100		
15	0.0	14.0	21.0#
44	0.0	79.2	118.8#







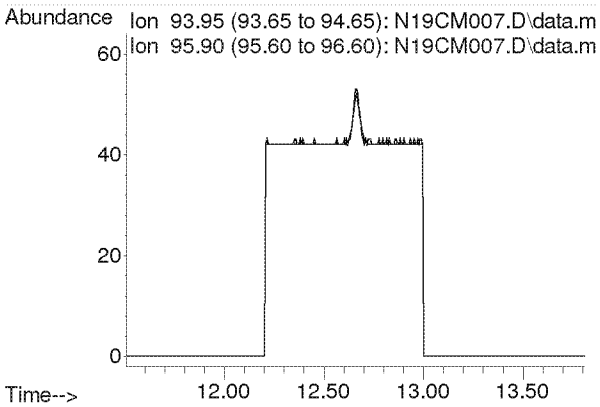


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

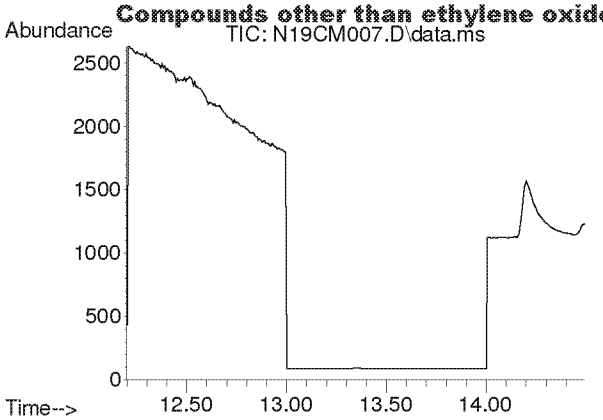
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

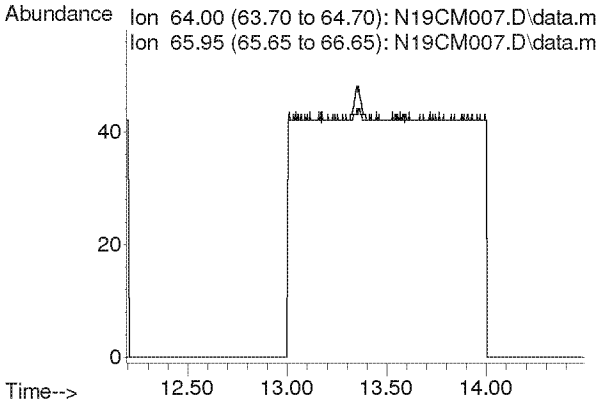


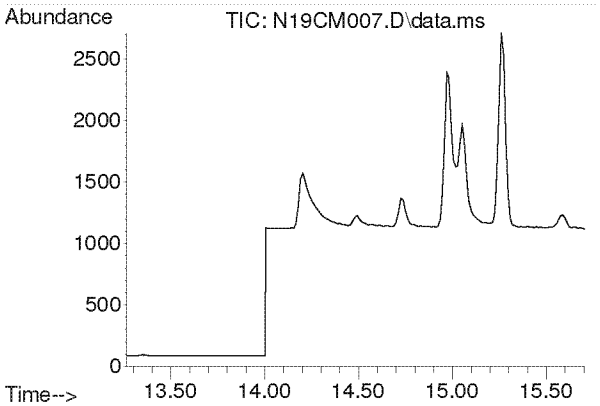
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



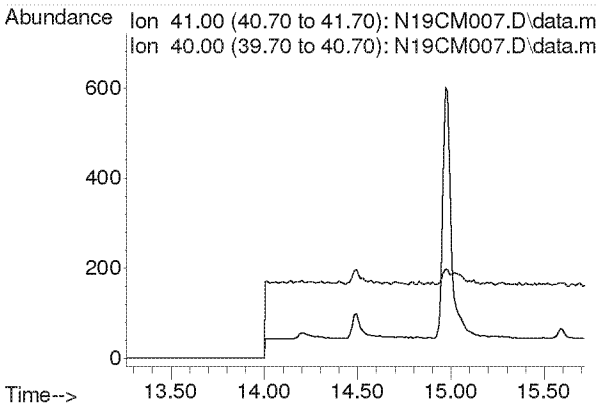


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

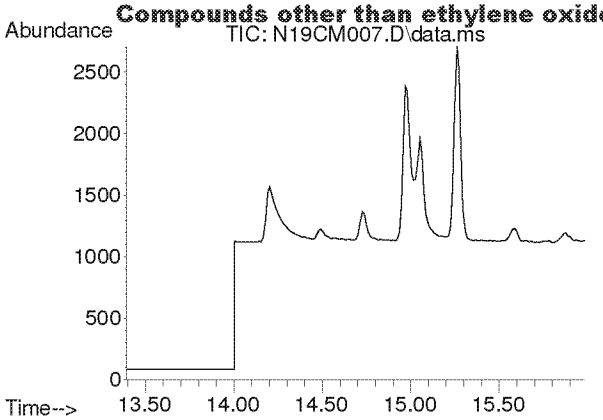
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

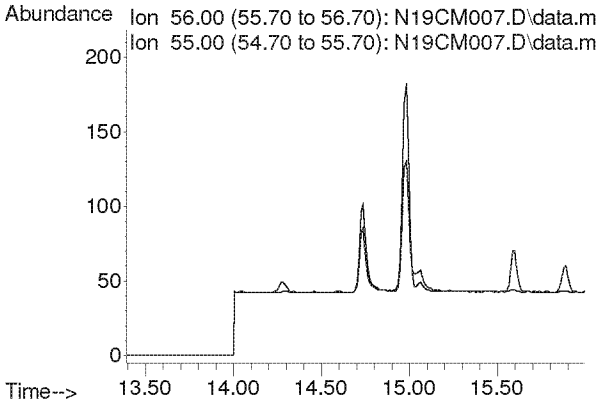


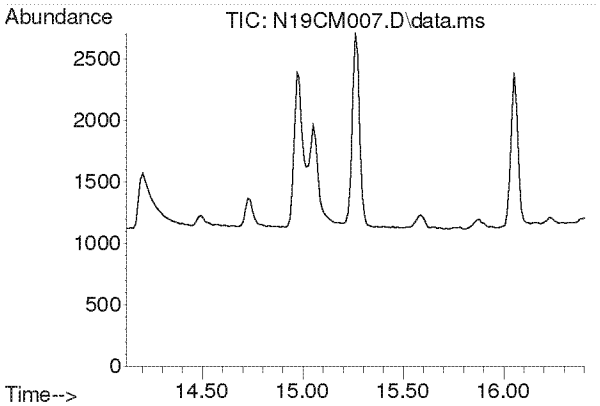
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



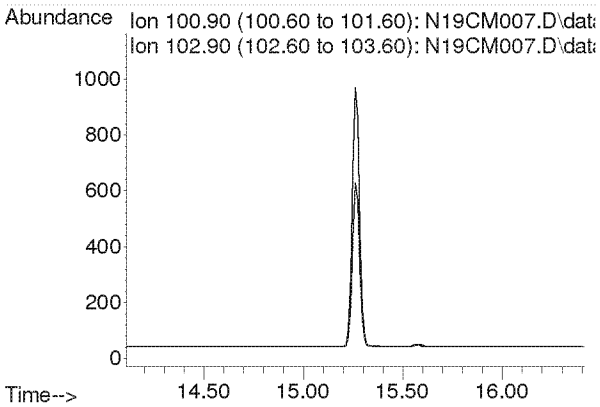


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

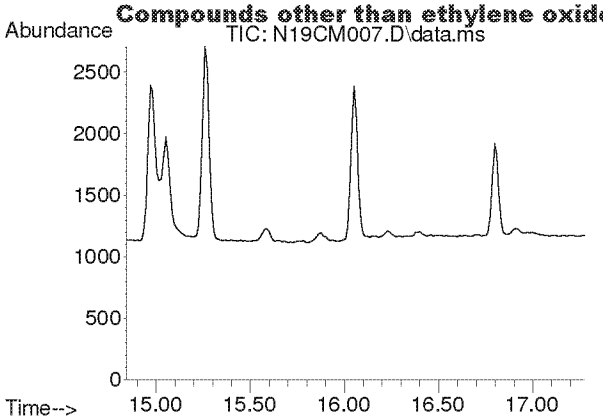
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

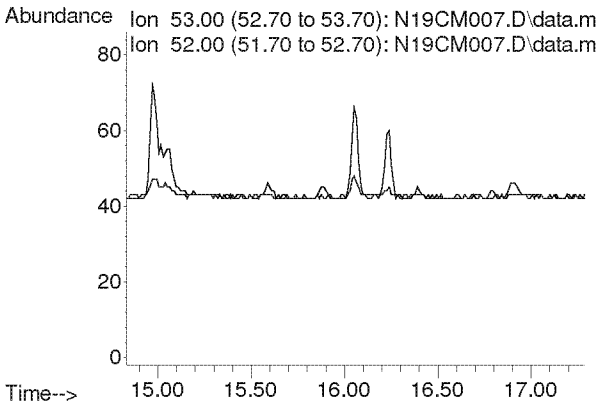


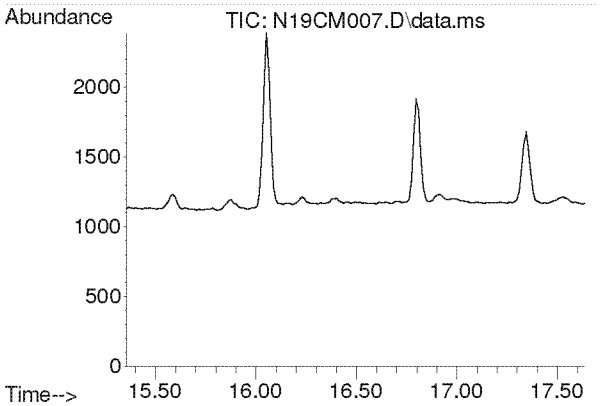
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



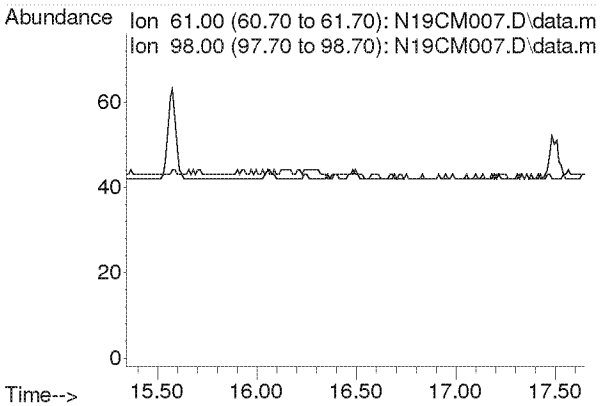


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

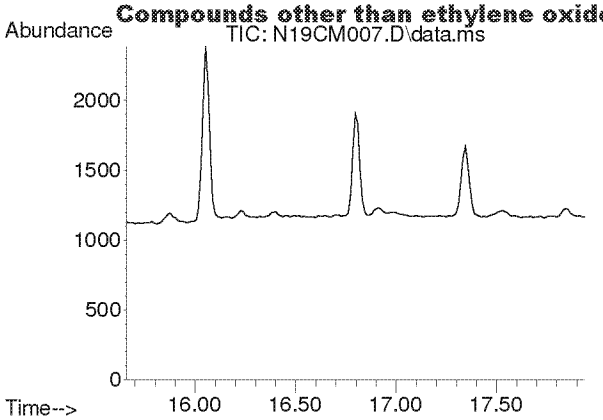
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

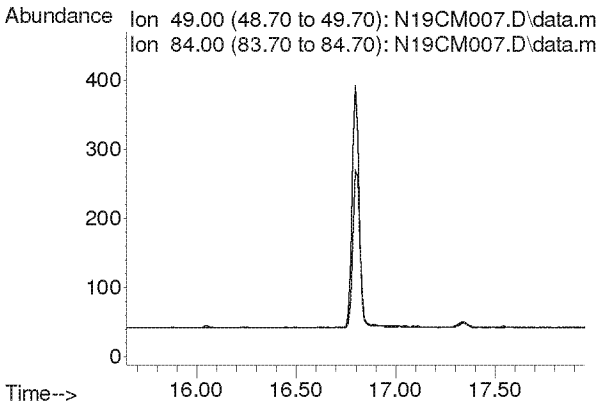


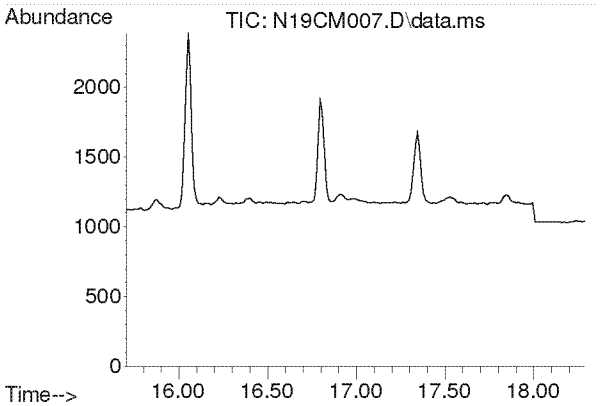
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



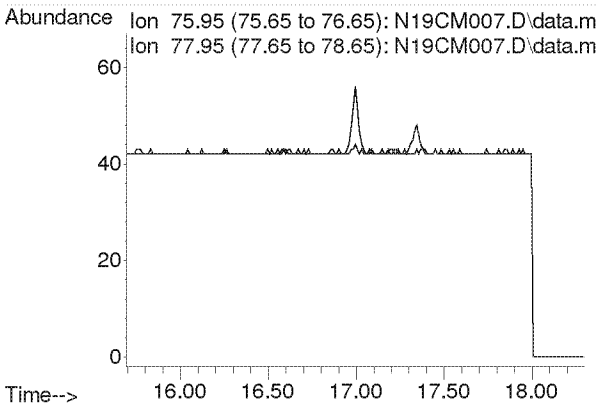


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

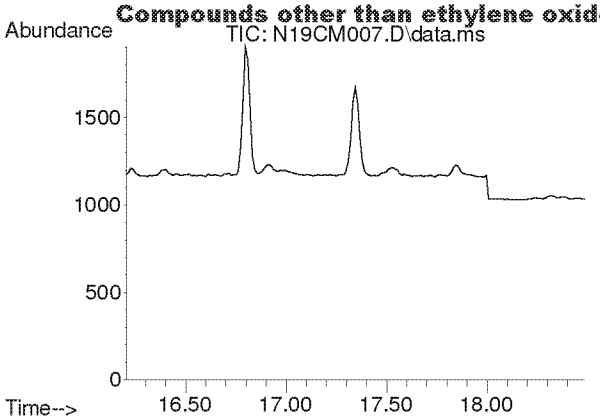
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

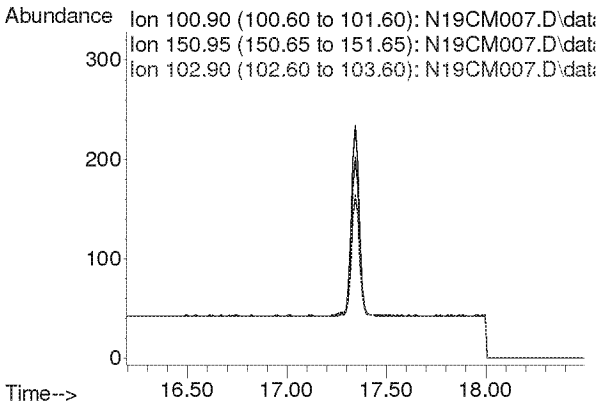


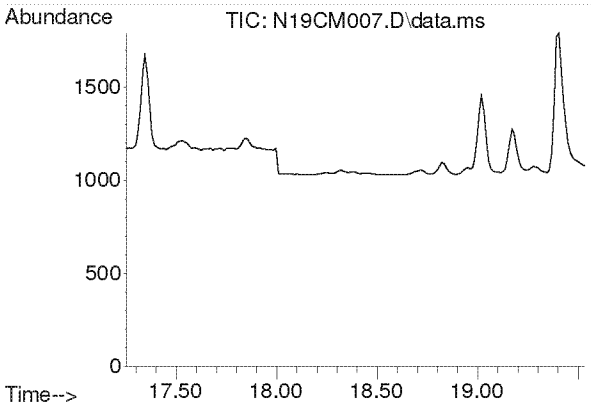
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



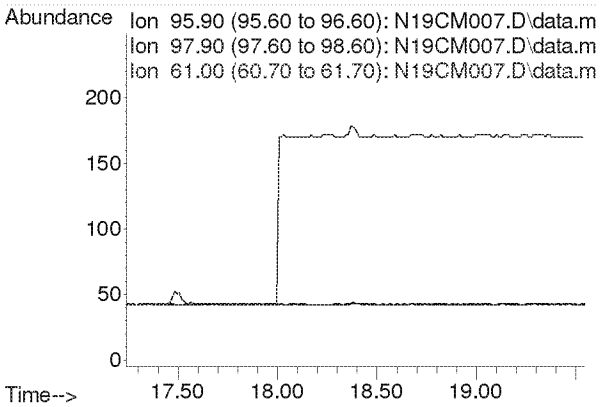


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

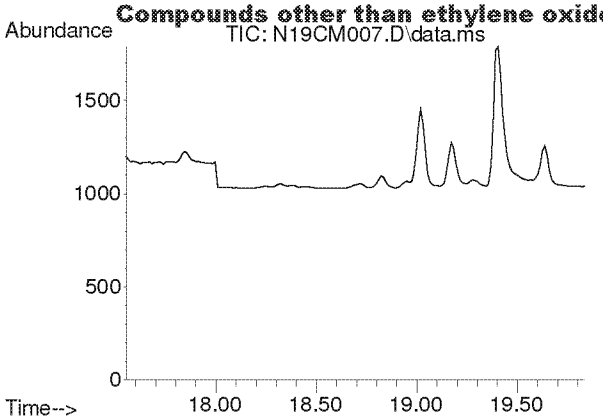
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

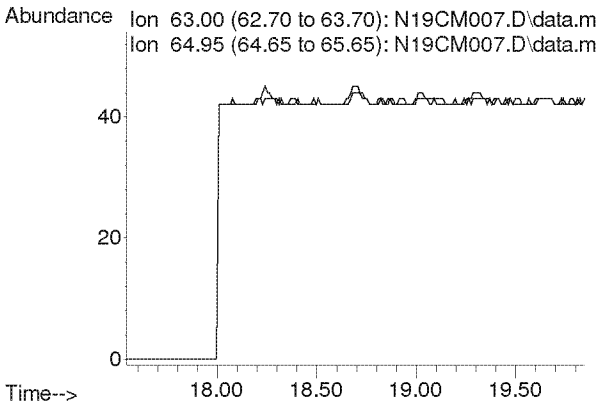


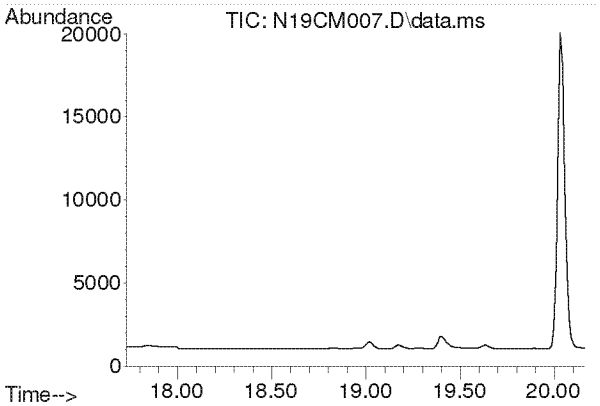
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



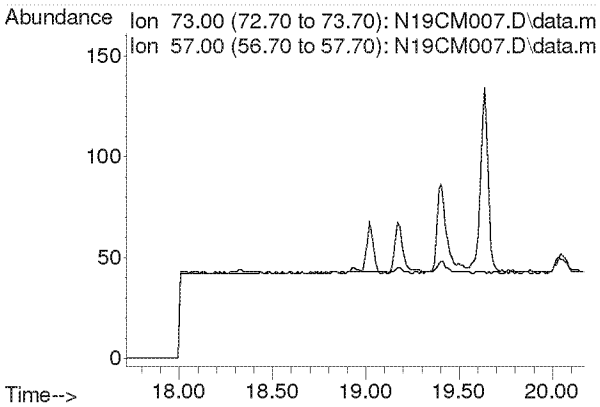


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

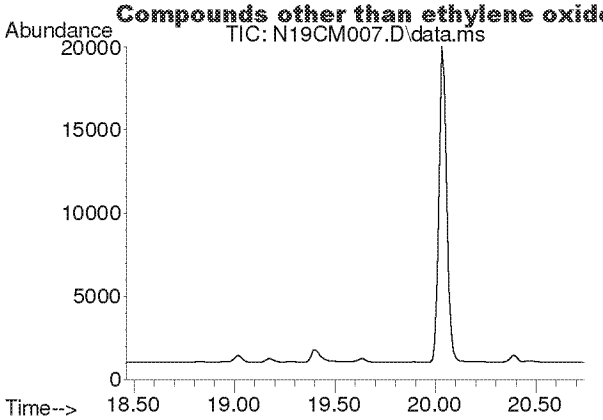
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

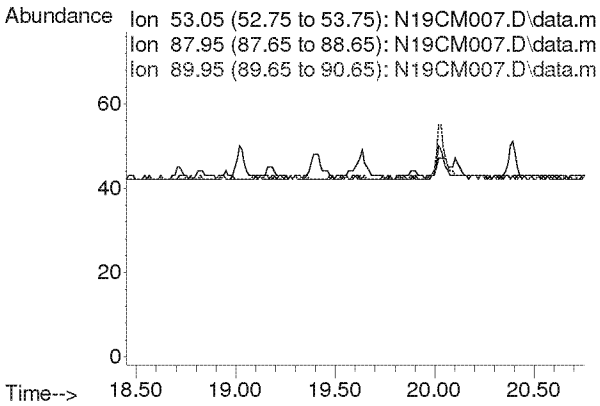


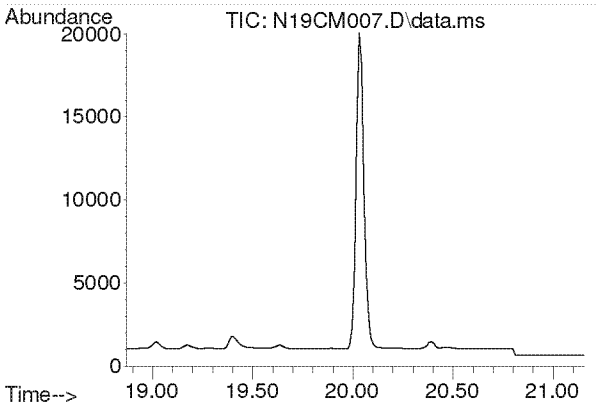
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



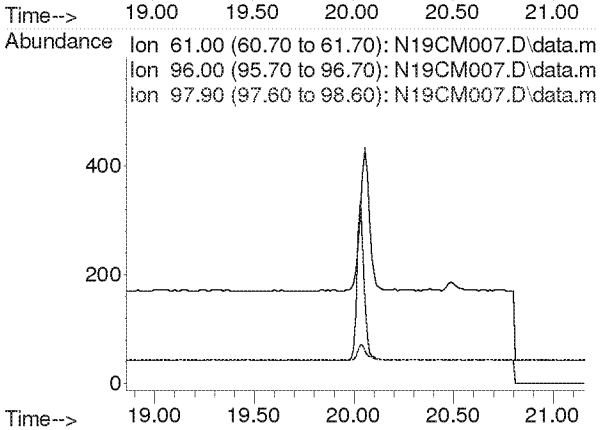


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

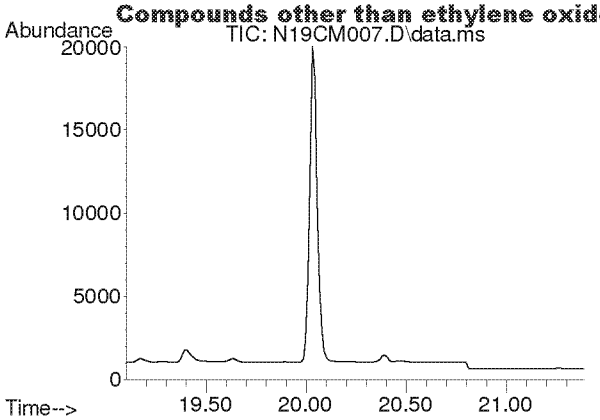
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

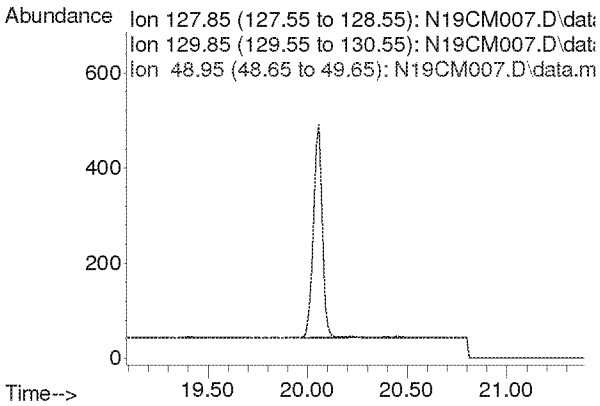


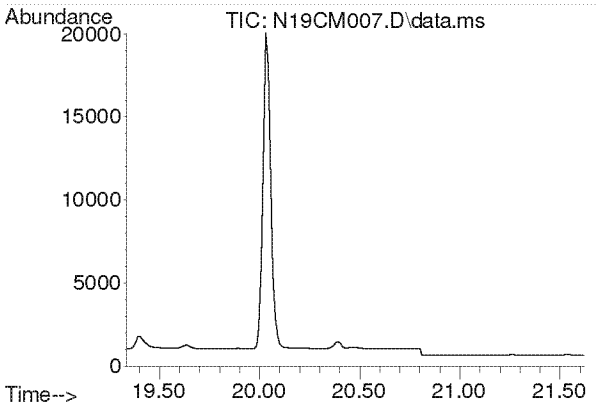
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



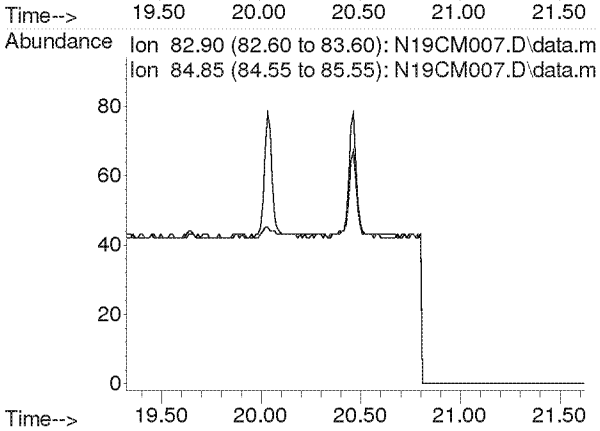


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

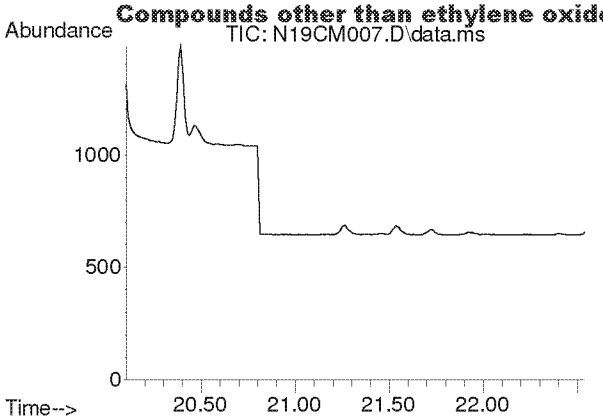
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

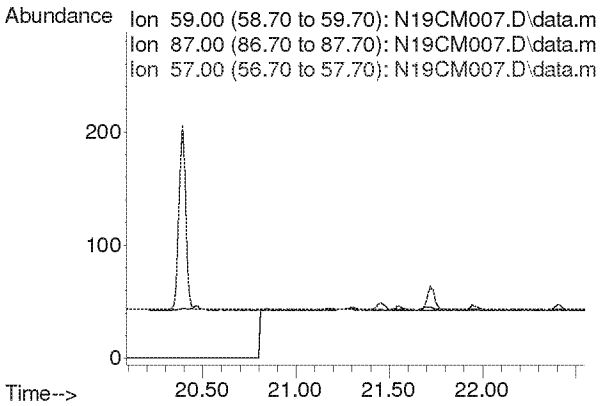


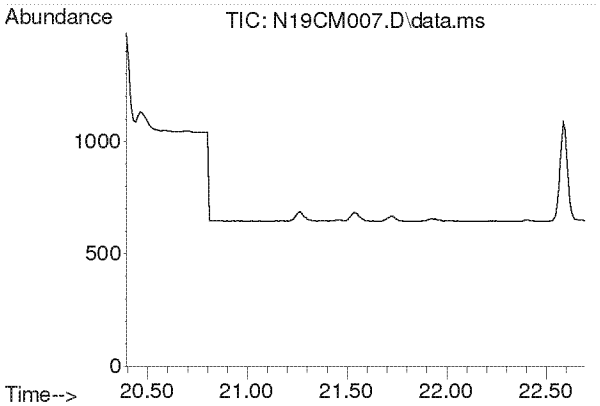
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



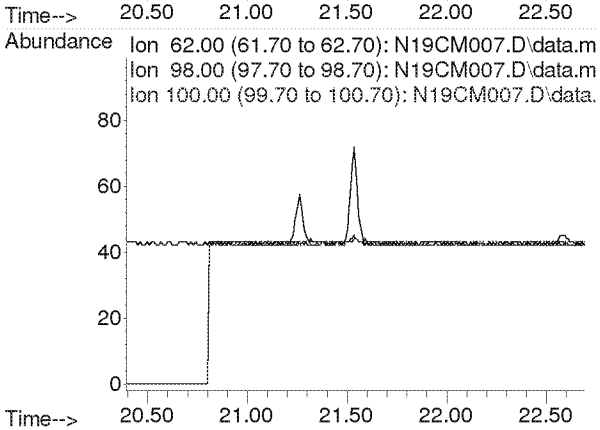


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

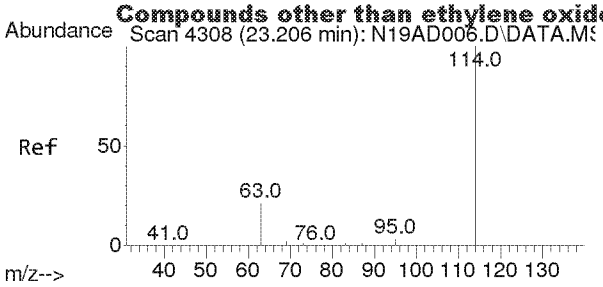
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



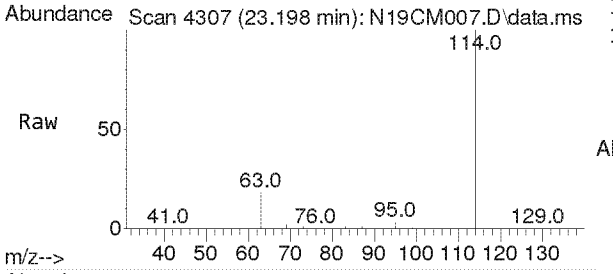
Compounds other than ethylene oxide were not quantitated.

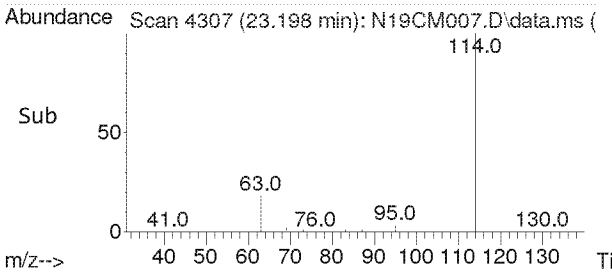


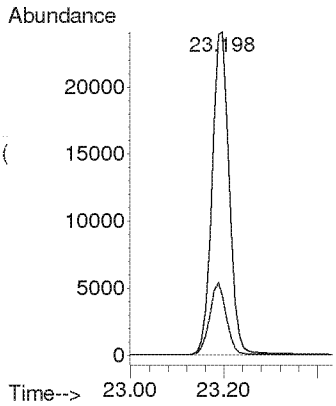
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.198 min Scan# 4307
Delta R.T. -0.009 min
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

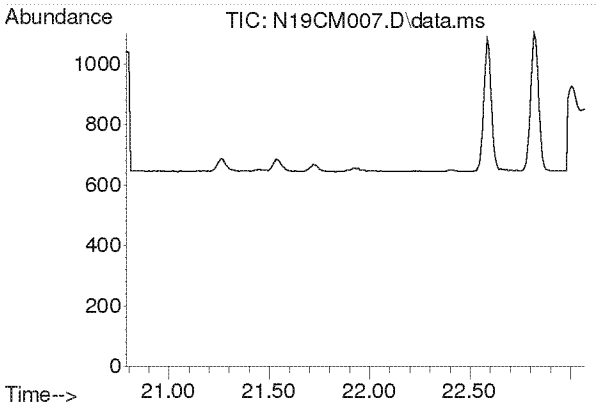
Tgt Ion:114 Resp: 61088

Ion	Ratio	Lower	Upper
114	100		
63	21.7	16.7	25.1







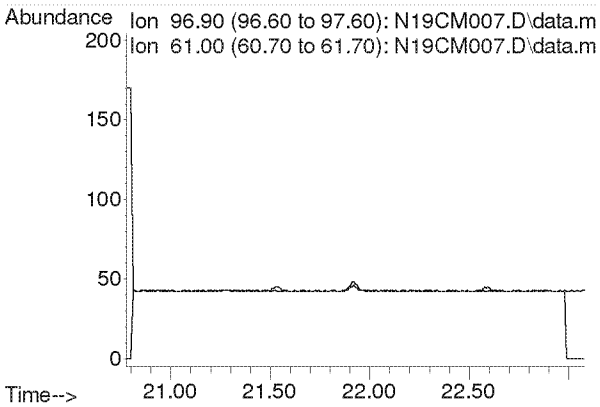


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

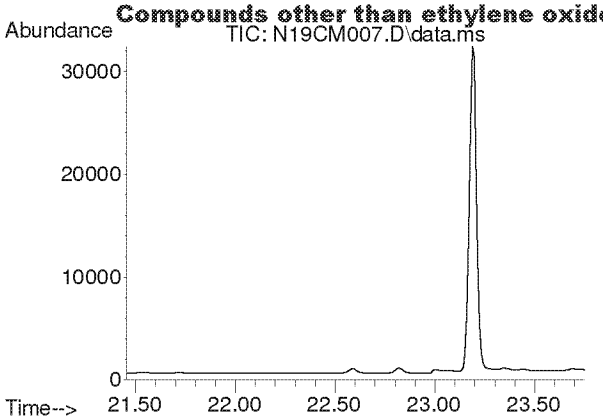
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

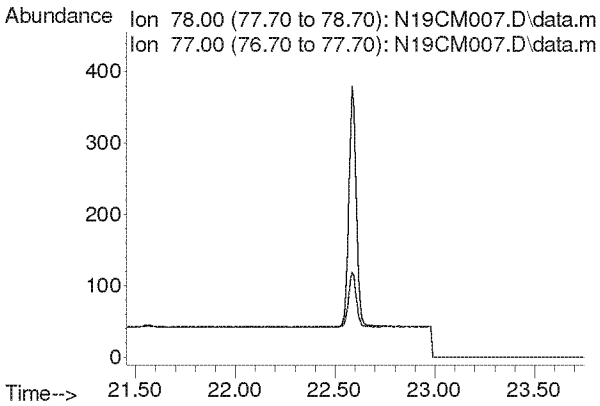


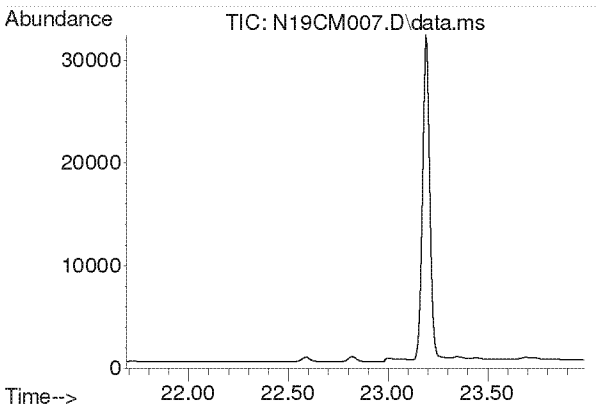
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



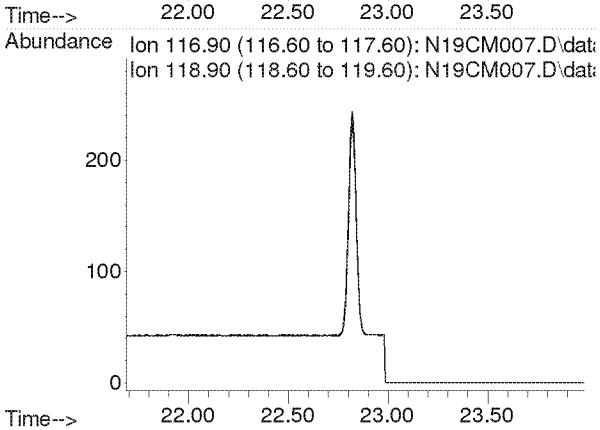


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

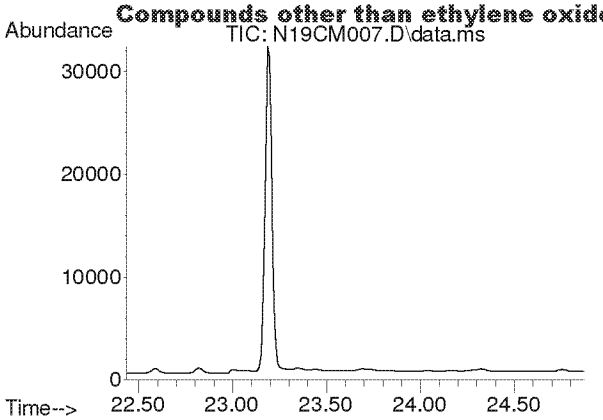
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

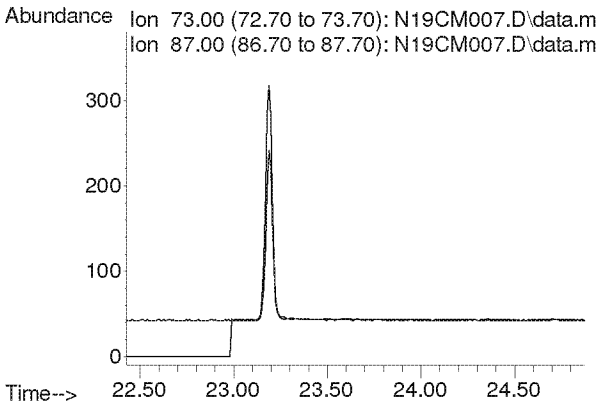


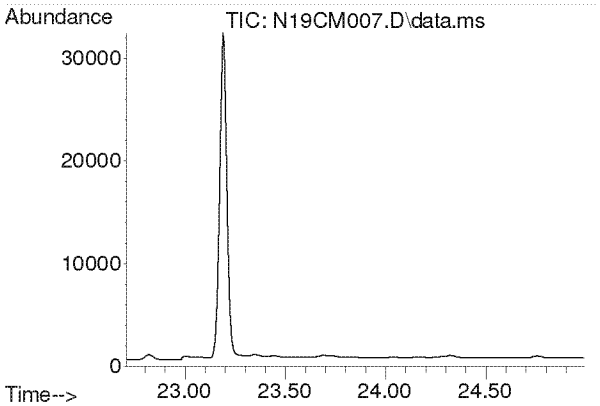
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



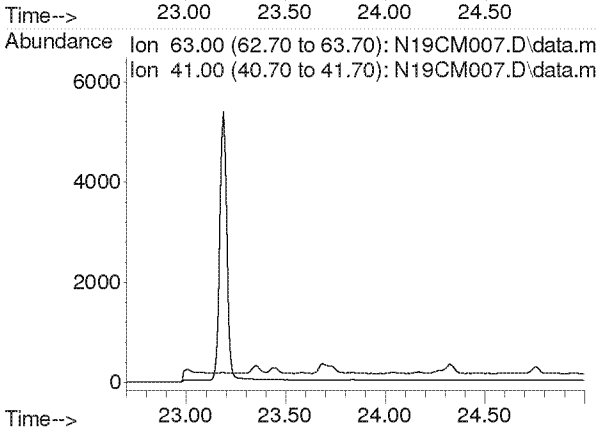


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

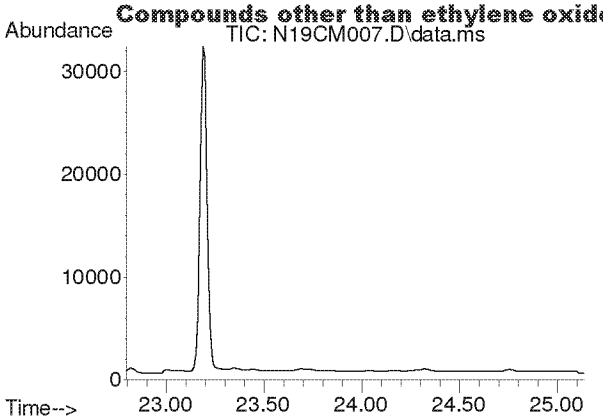
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

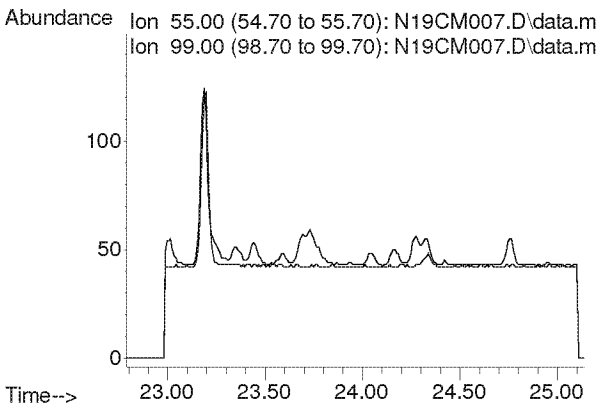


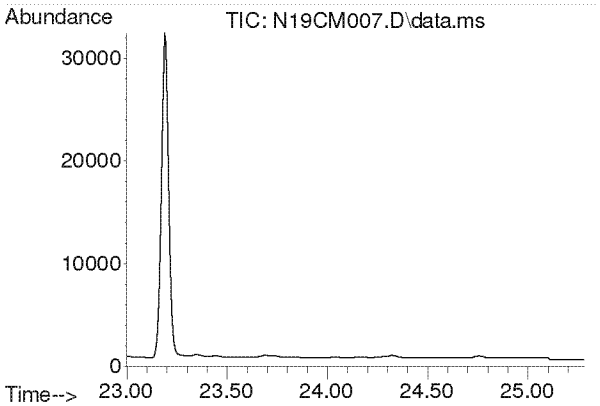
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



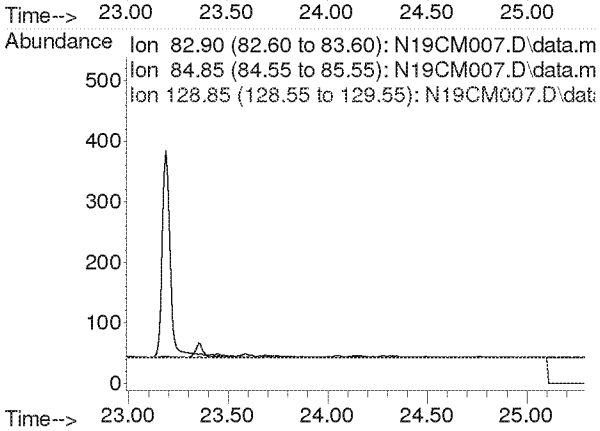


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

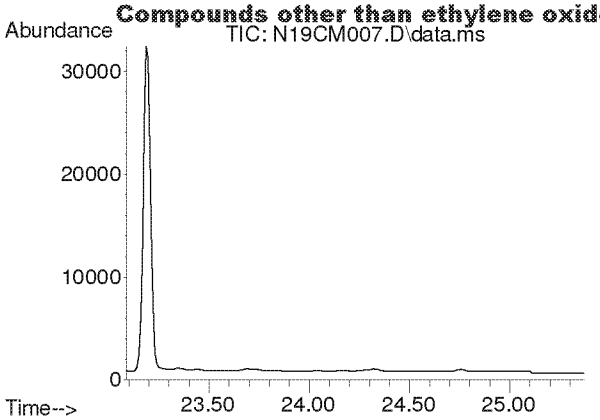
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

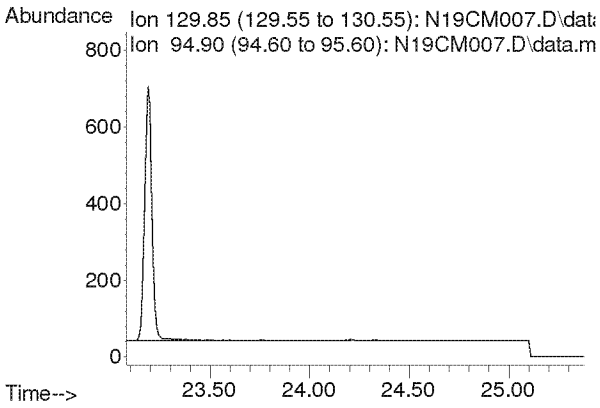


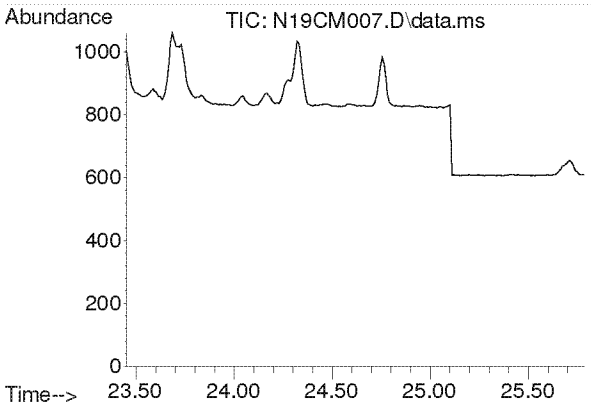
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



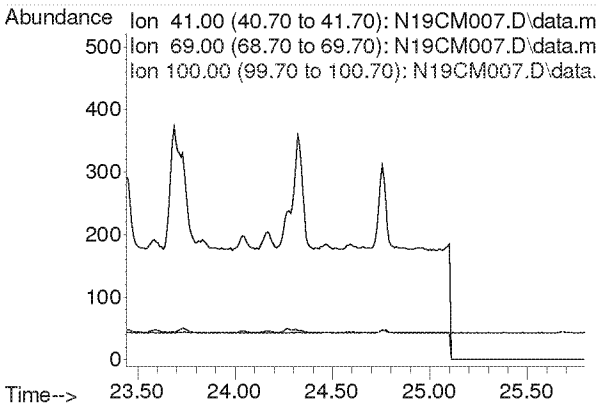


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

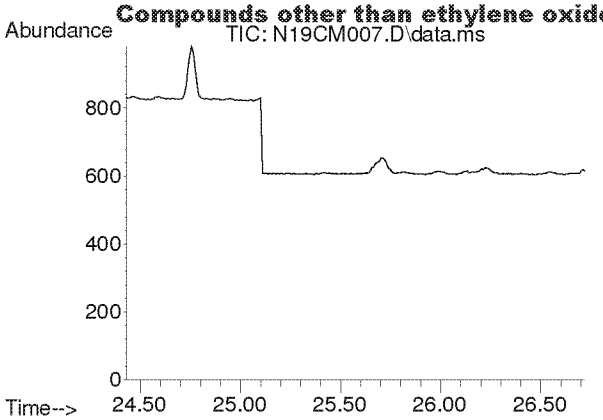
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

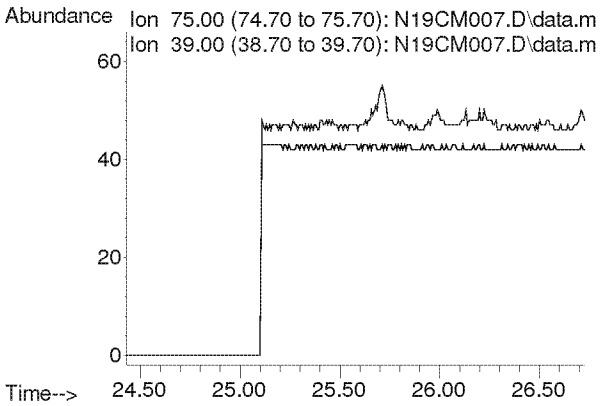


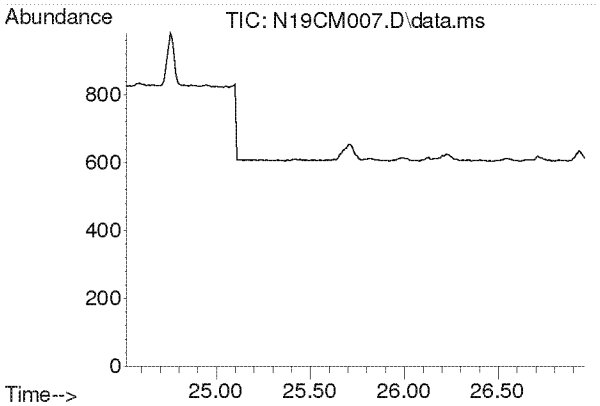
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



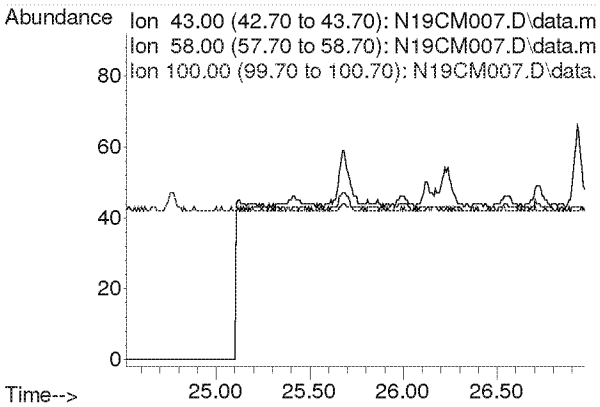


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

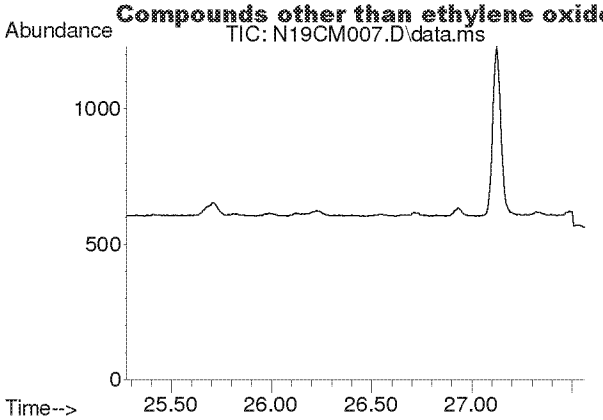
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

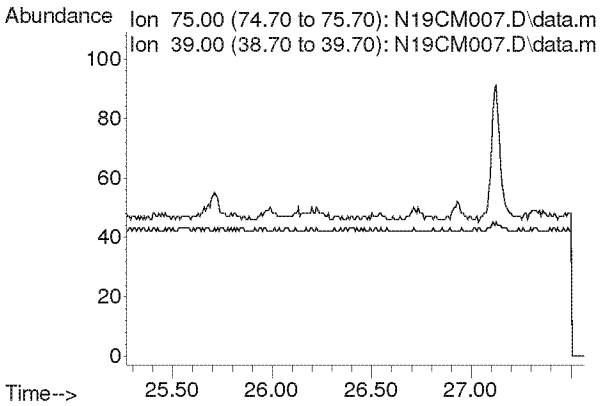


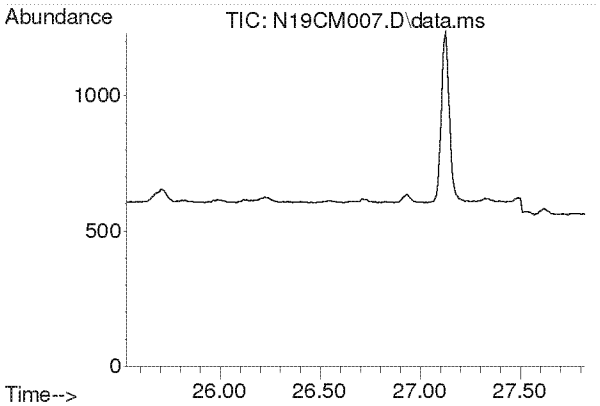
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



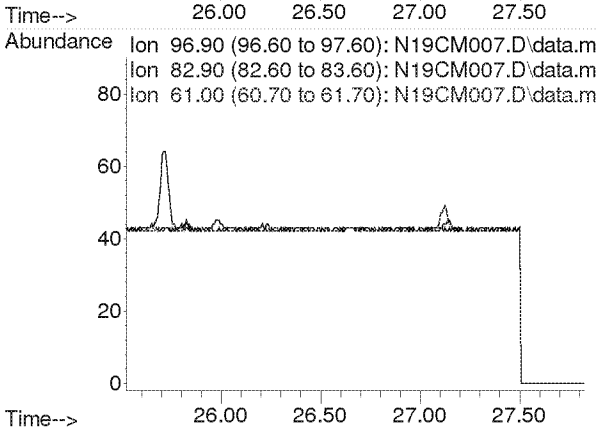


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

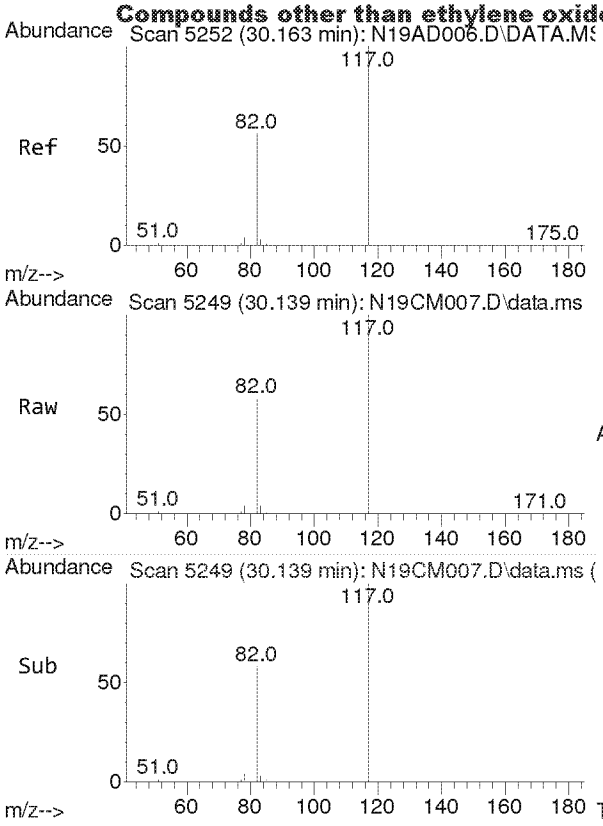
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



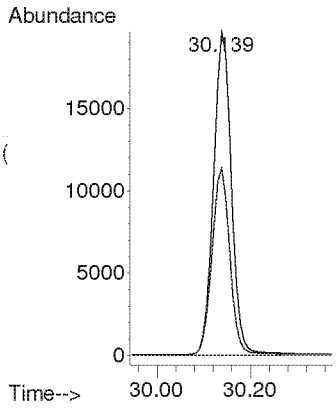
Compounds other than ethylene oxide were not quantitated.

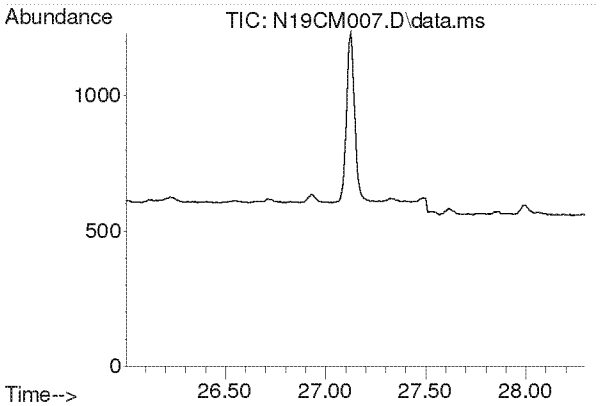


#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.139 min Scan# 5249
Delta R.T. -0.024 min
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion:117 Resp: 51580

Ion	Ratio	Lower	Upper
117	100		
82	57.8	40.1	74.5
54	0.0	0.0	0.0



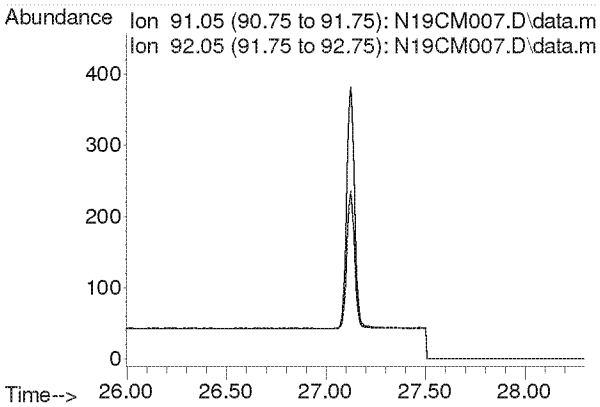


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

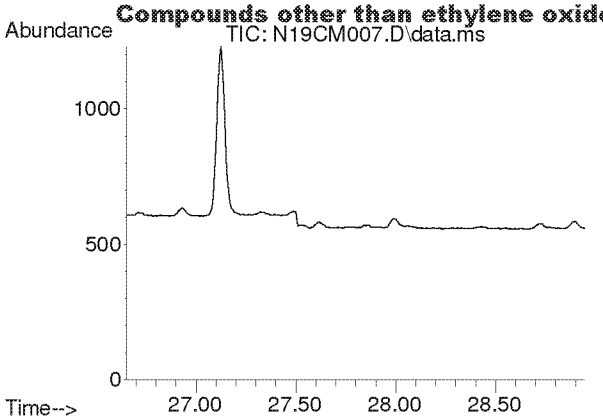
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

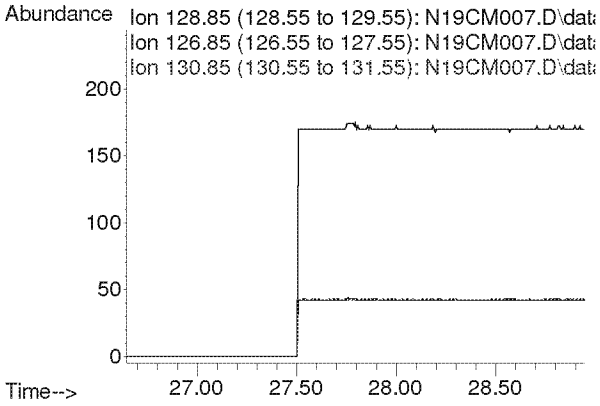


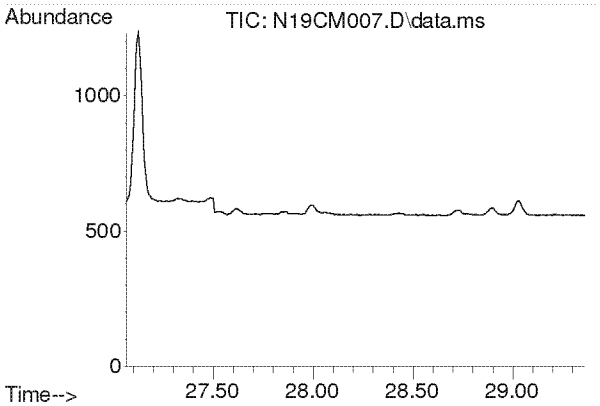
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



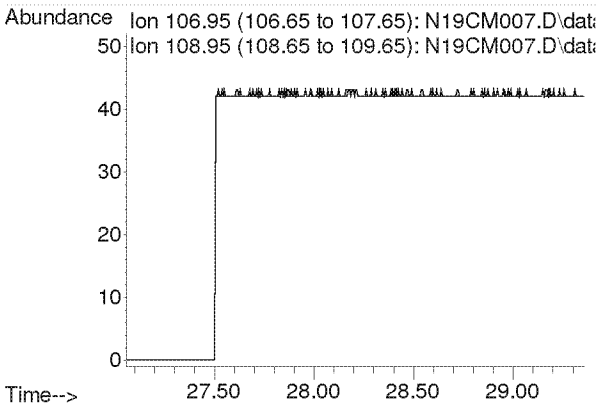


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

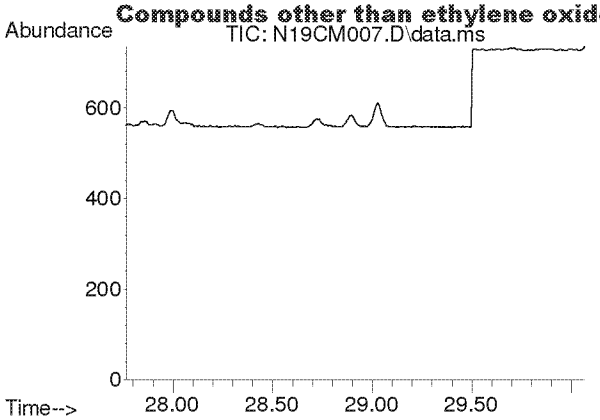
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

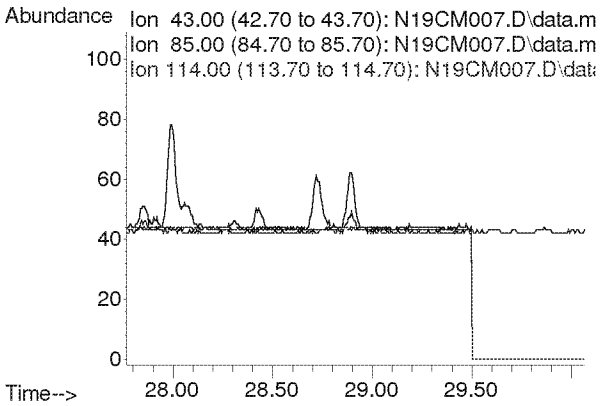


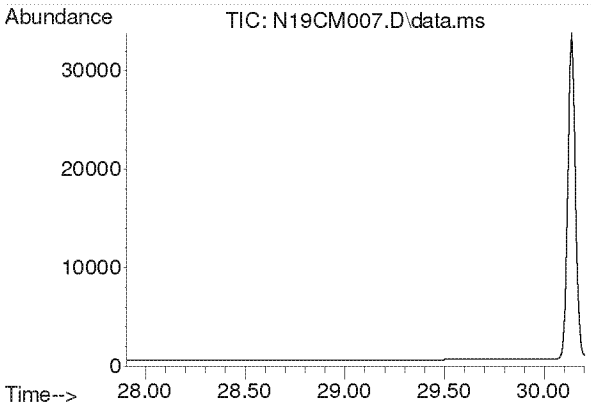
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



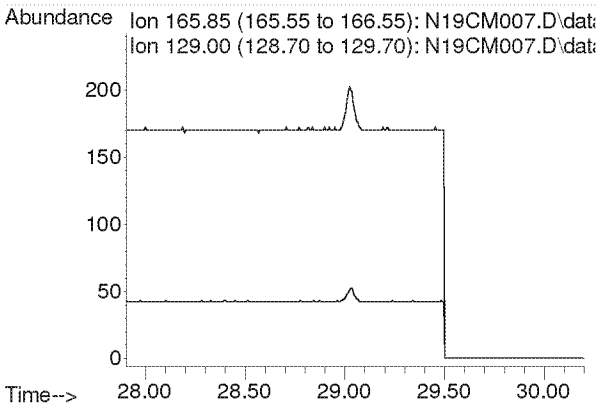


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

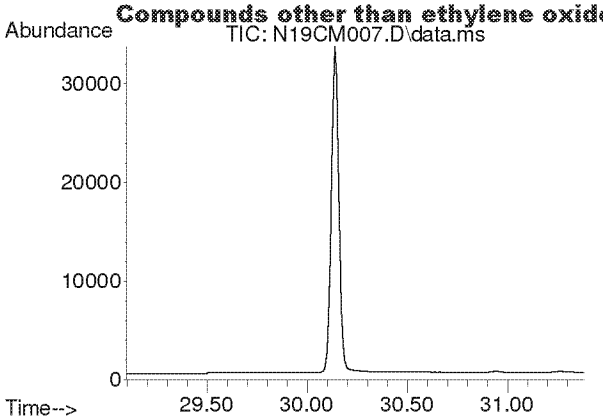
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

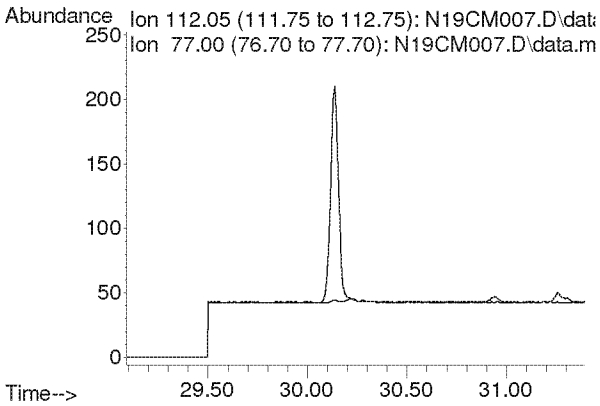


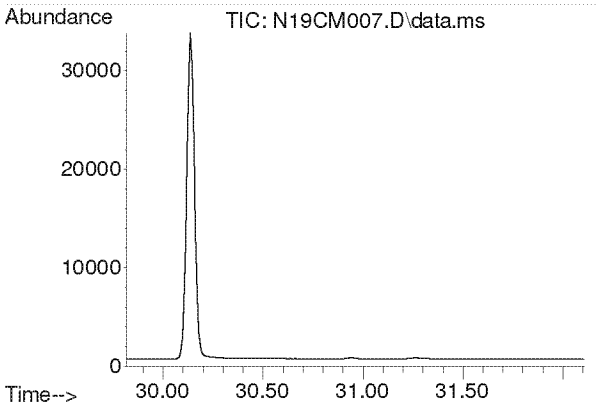
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



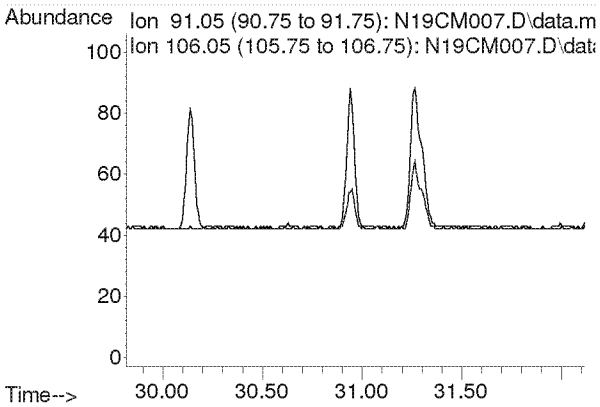


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

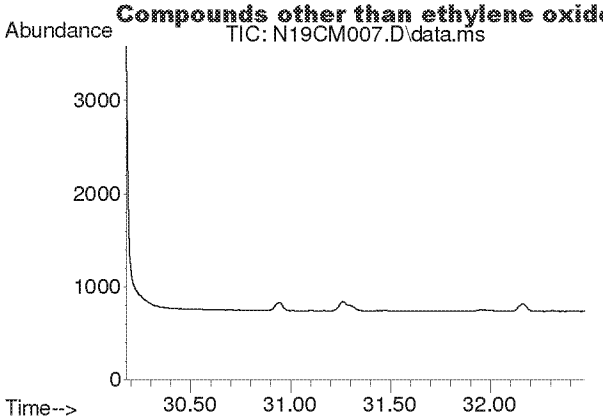
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

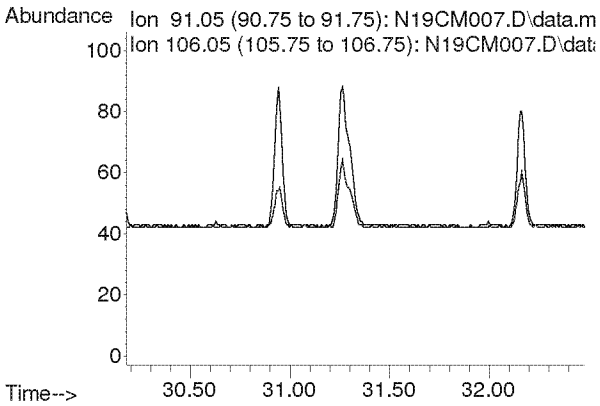


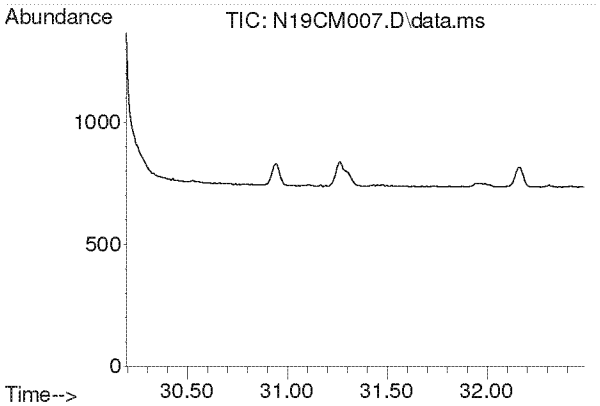
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



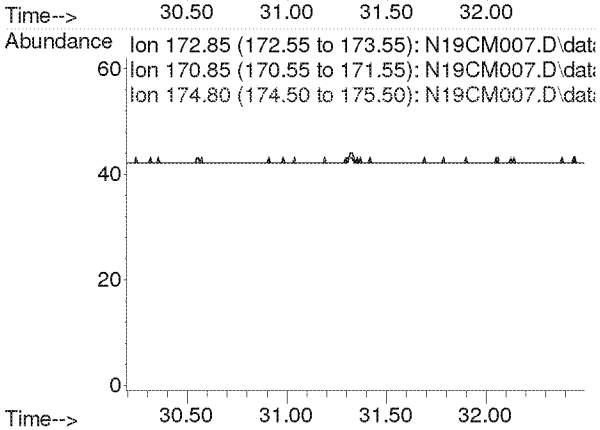


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

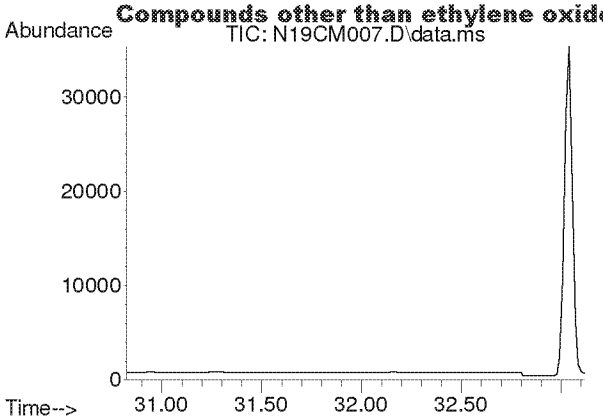
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

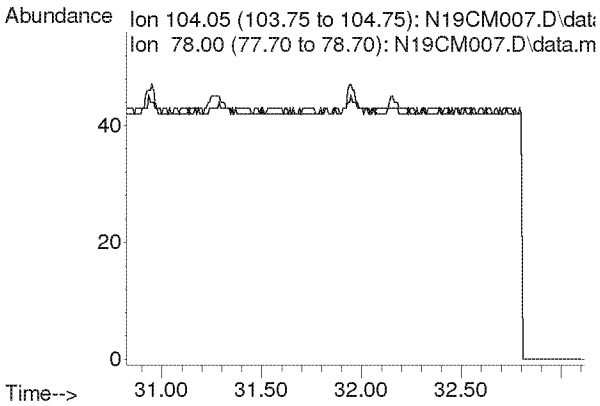


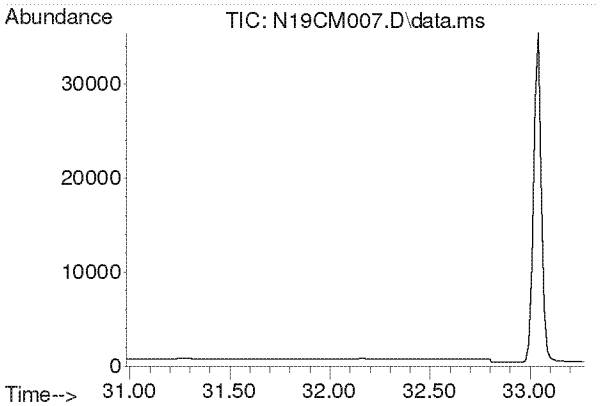
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



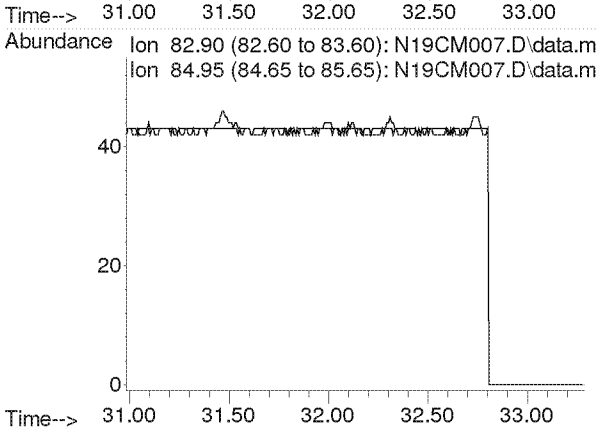


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

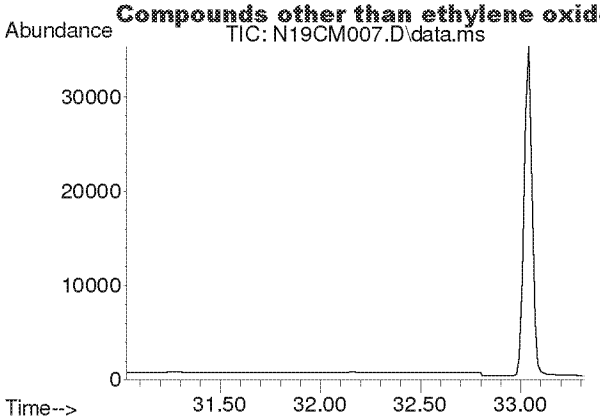
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

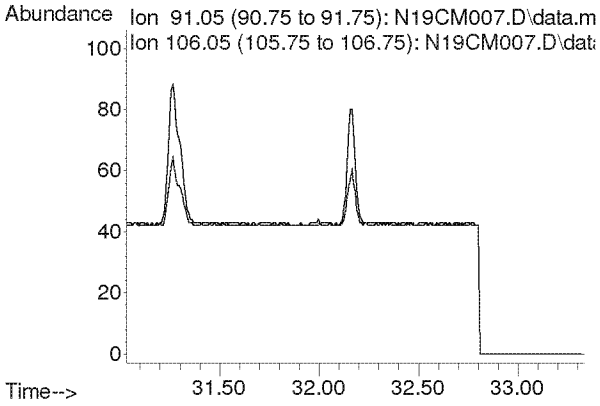


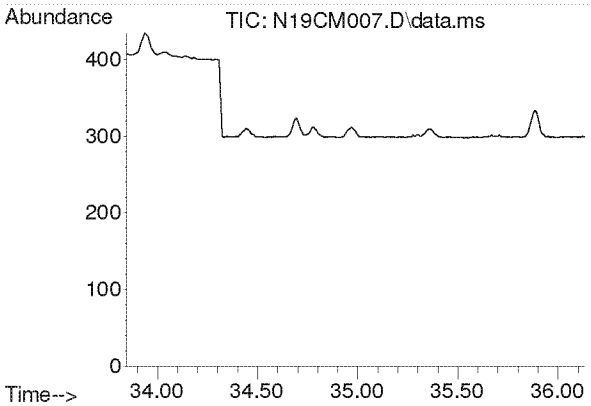
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



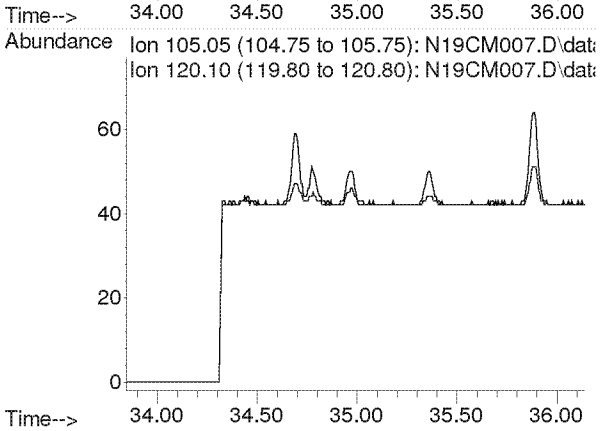


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

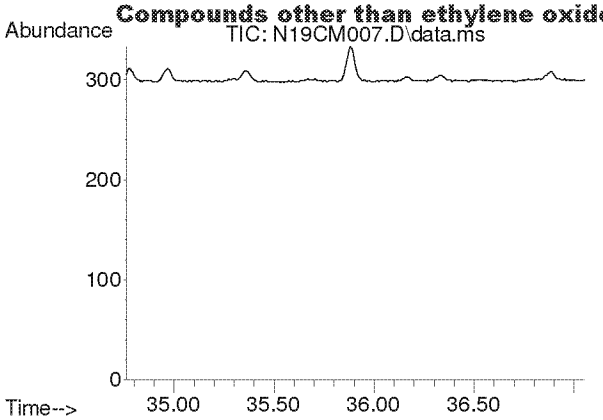
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

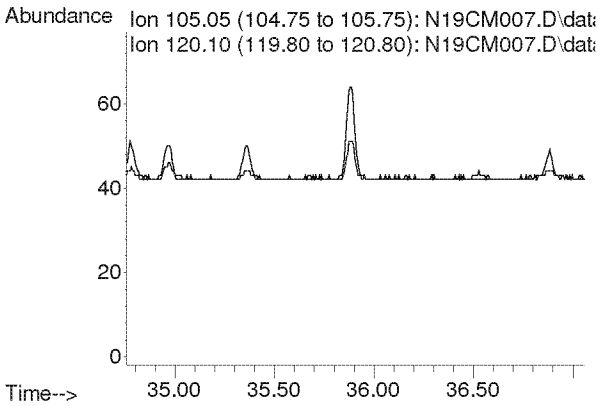


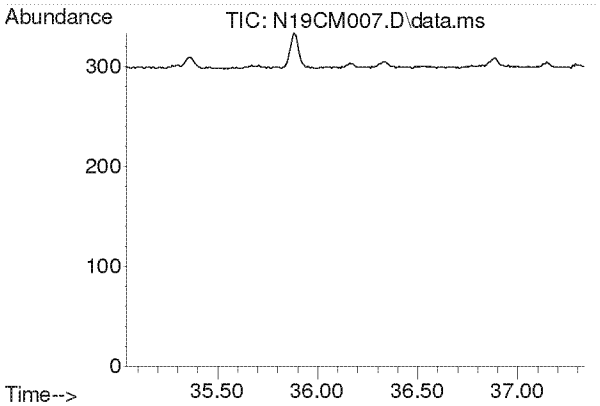
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



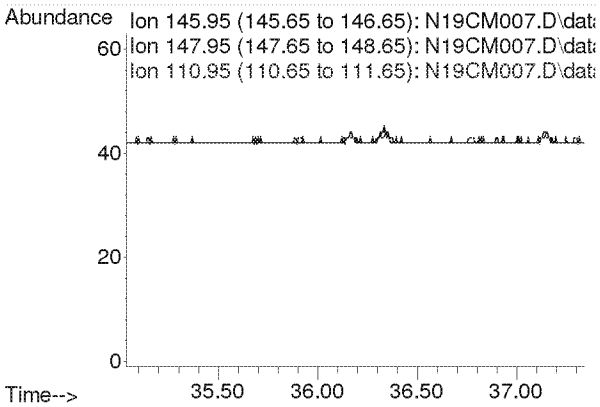


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

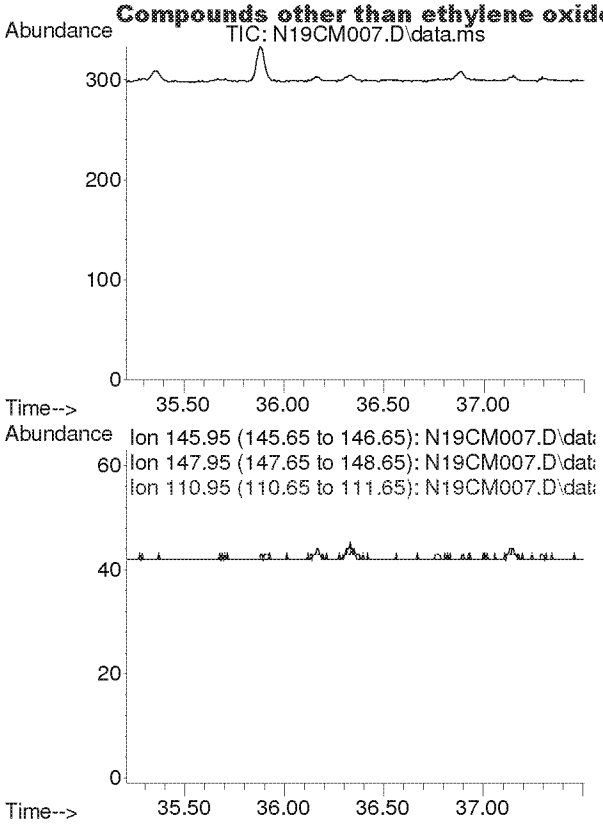
Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

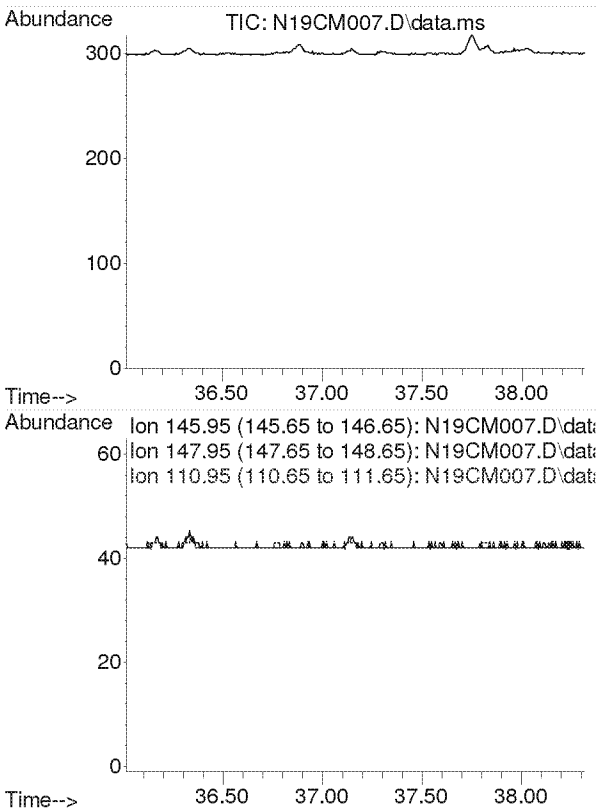


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



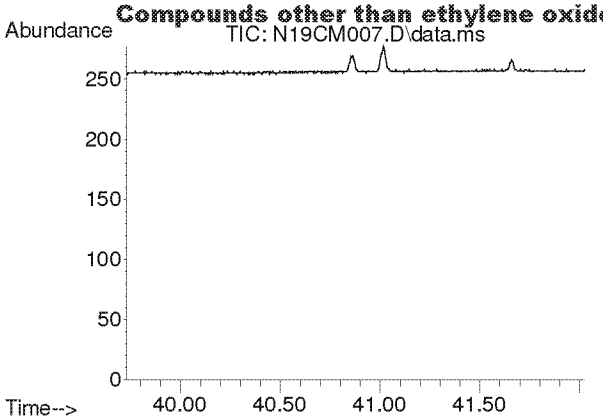
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6

Compounds other than ethylene oxide were not quantitated.

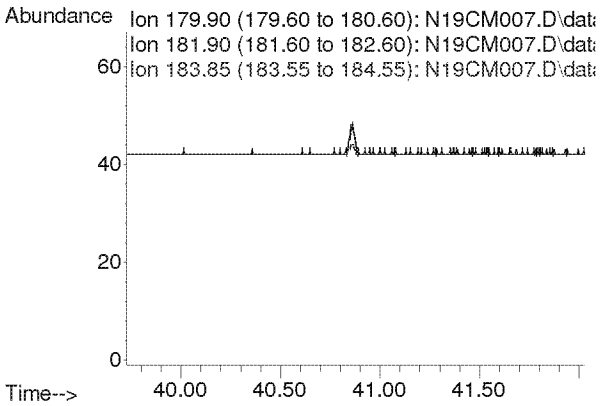


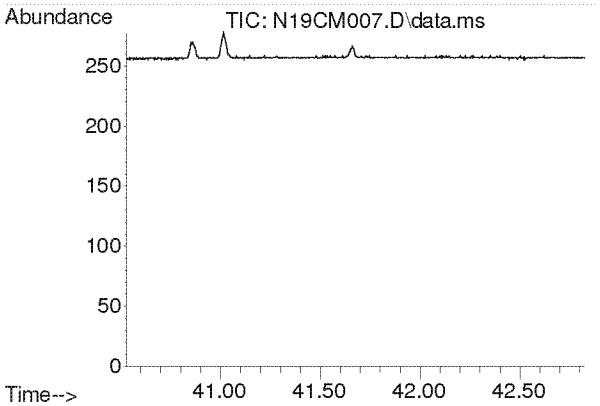
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



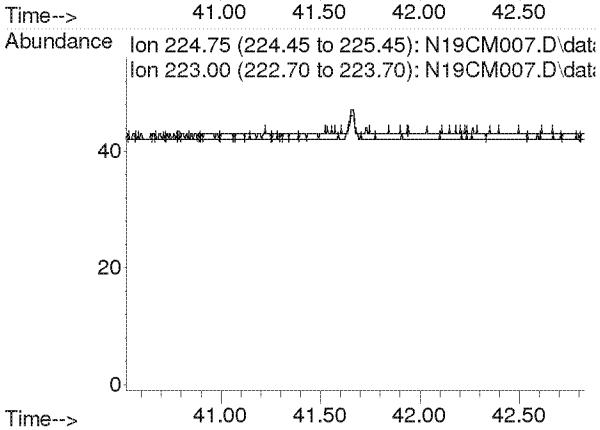


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM007.D
Acq: 13 Mar 2019 5:20 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

KSS 5/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM008.D
Acq On : 13 Mar 2019 6:22 pm (#1); 13-Mar-19, 18:17:03 (#2)
Operator : KSS
Sample : B9C1305-DUP2
Misc : VILLAGE HALL R2 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 14 08:31:51 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.043	66	28663	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.196	114	59790	4.9900 ppbv	-0.01
43) IS-Chlorobenzene-d5	30.143	117	50665	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.	
9) Ethylene Oxide	12.535	29	121	0.0969 ppbv #	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D.	
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\N19CM\
Data File : N19CM008.D
Acq On : 13 Mar 2019 6:22 pm (#1); 13-Mar-19, 18:17:03 (#2)
Operator : KSS
Sample : B9C1305-DUP2
Misc : VILLAGE HALL R2 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 14 08:31:51 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

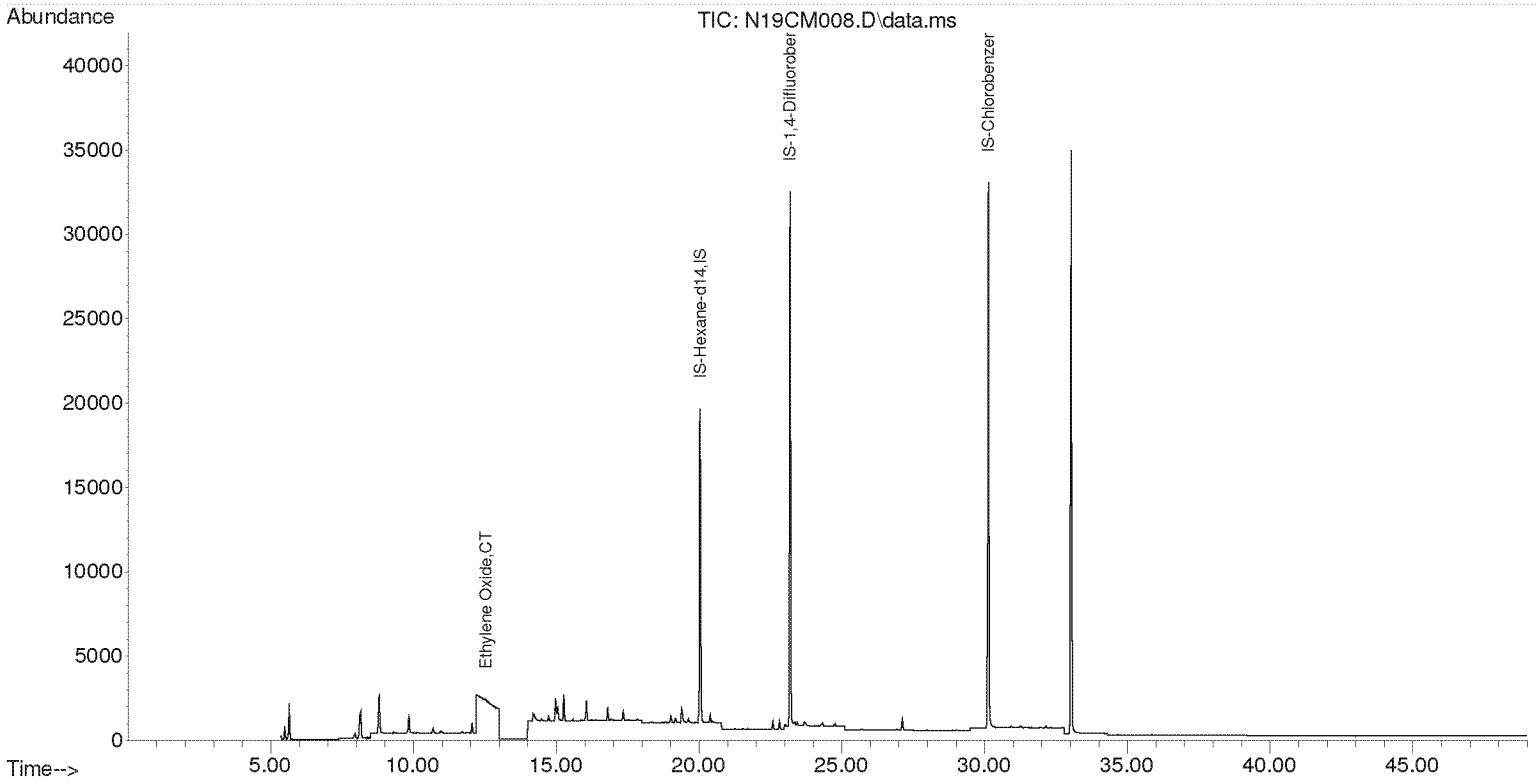
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

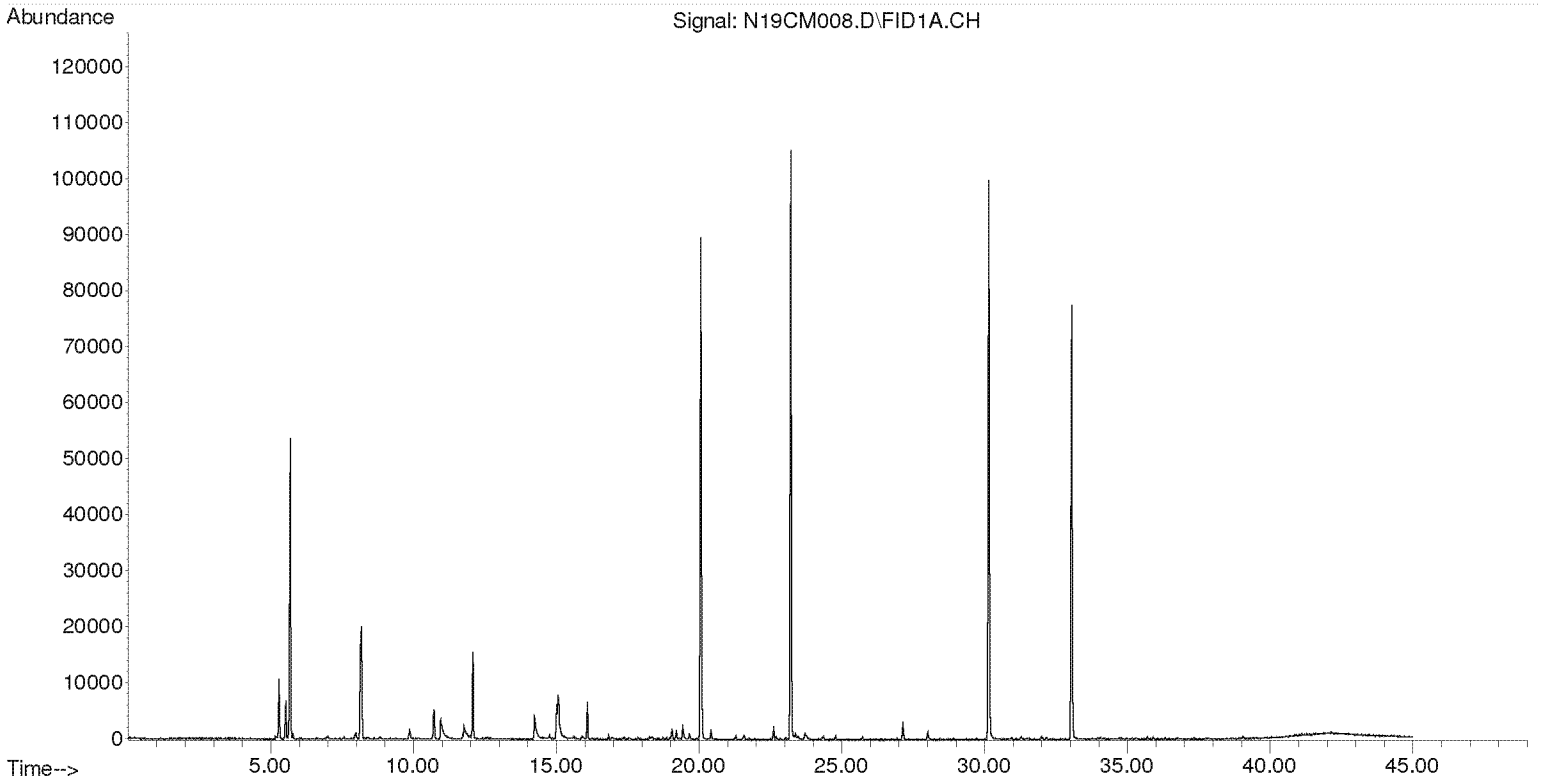
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

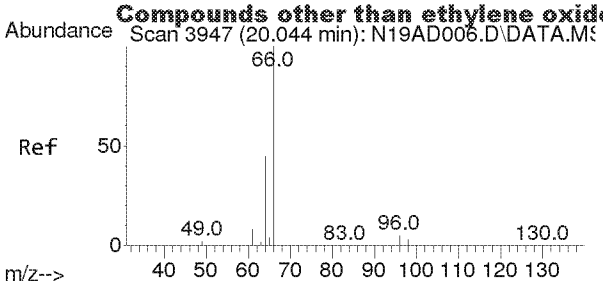
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM008.D
Acq On : 13 Mar 2019 6:22 pm (#1); 13 Mar 2019 6:17 pm (#2)
Operator : KSS
Sample : B9C1305-DUP2
Misc : VILLAGE HALL R2 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 14 08:19:08 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





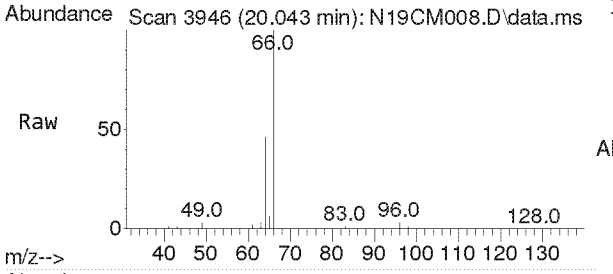
Compounds other than ethylene oxide were not quantitated.

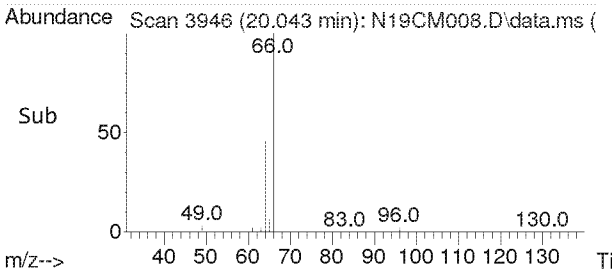


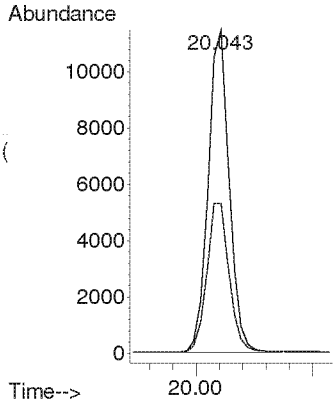
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.043 min Scan# 3946
Delta R.T. -0.001 min
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

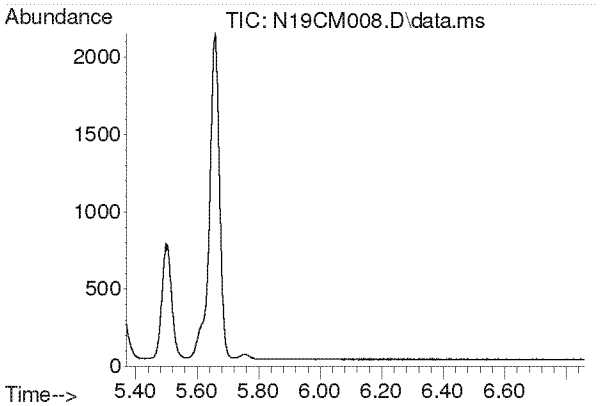
Tgt Ion: 66 Resp: 28663

Ion	Ratio	Lower	Upper
66	100		
64	49.1	32.1	59.5





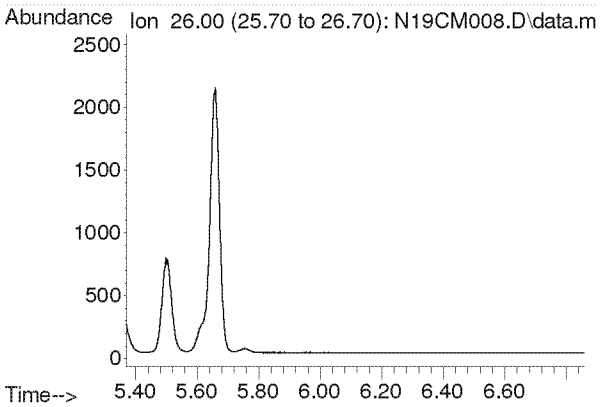




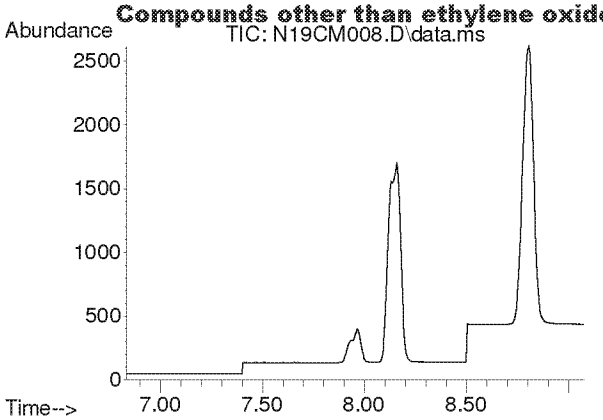
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

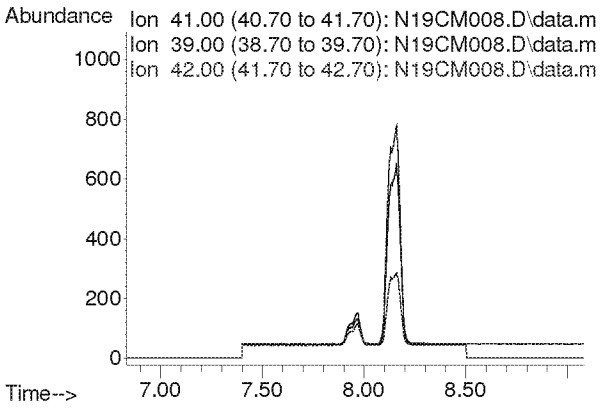


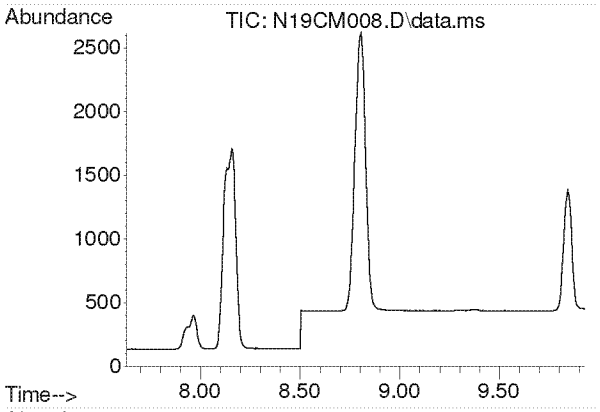
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



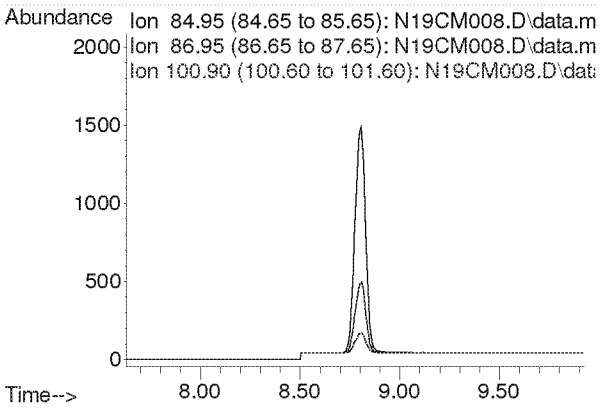


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

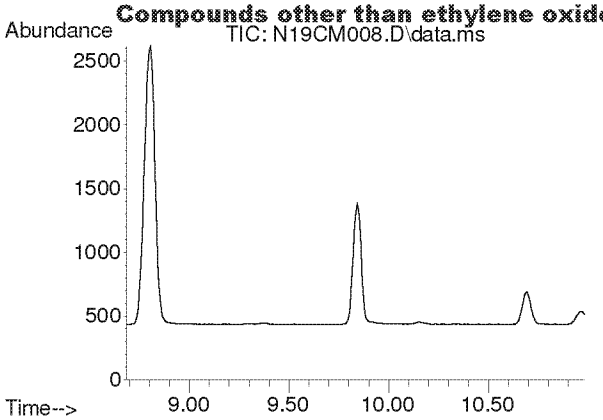
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

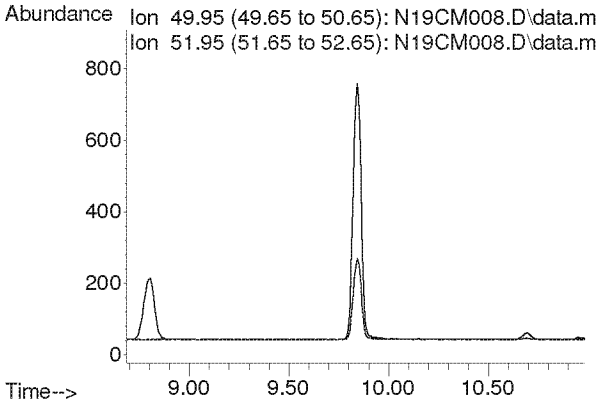


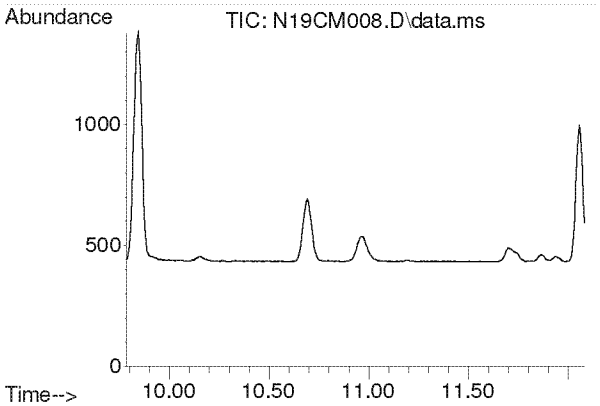
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



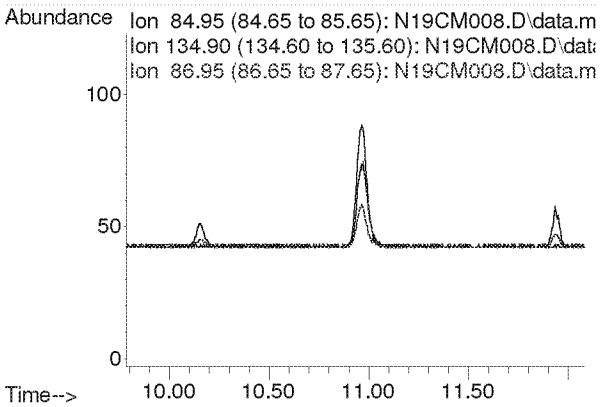


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

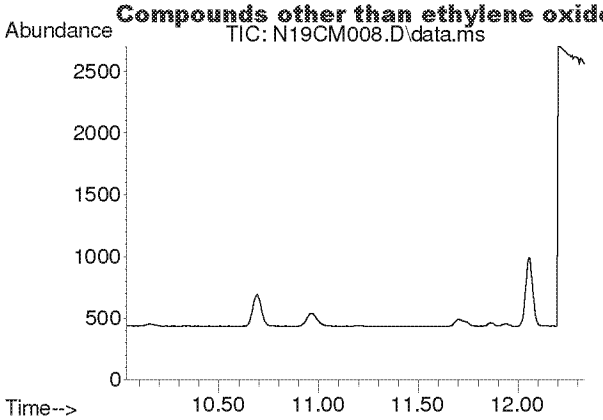
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

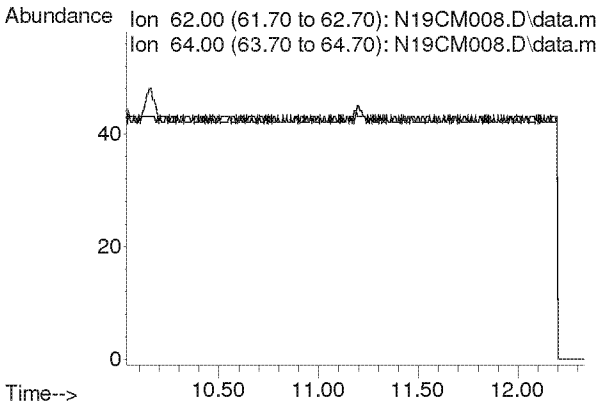


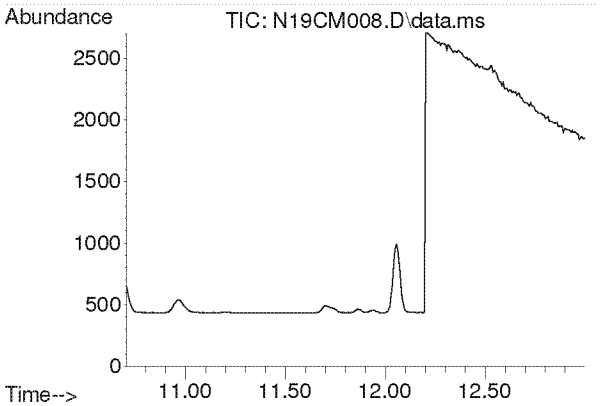
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



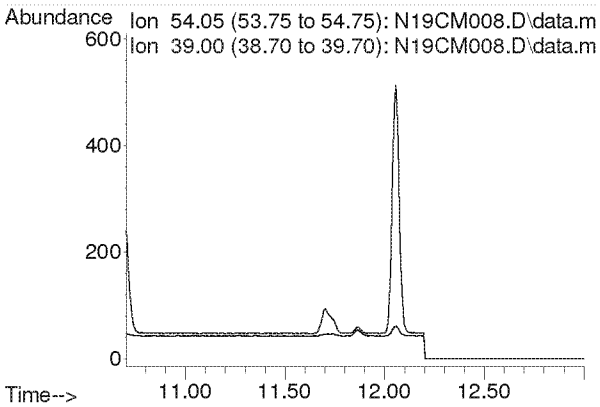


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

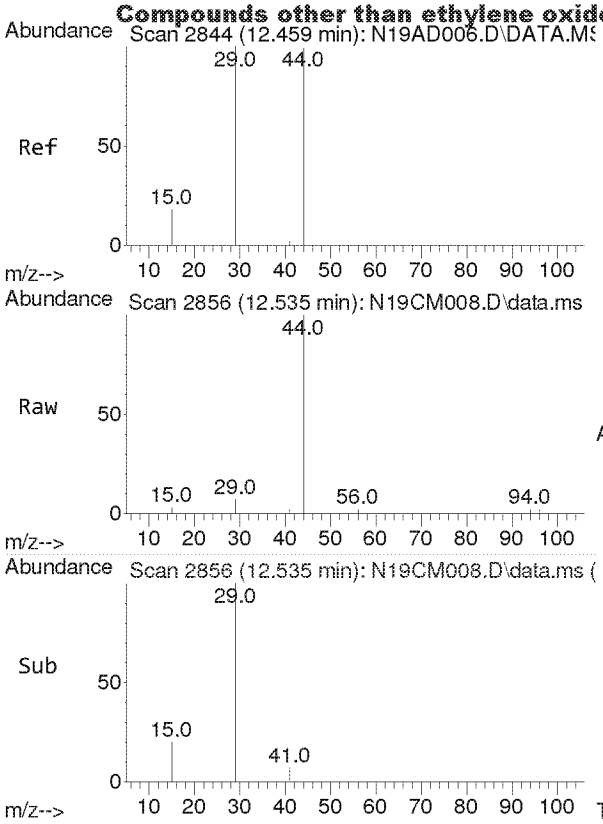
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



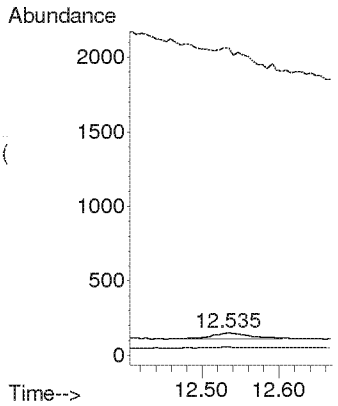
Compounds other than ethylene oxide were not quantitated.

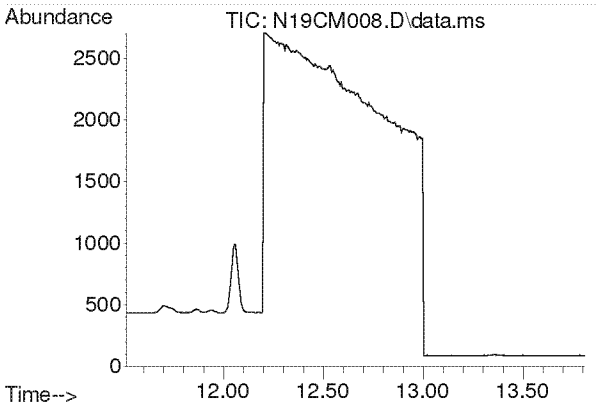


#9
Ethylene Oxide
Concen: 0.097 ppbv
RT: 12.535 min Scan# 2856
Delta R.T. 0.076 min
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 29 Resp: 121

Ion	Ratio	Lower	Upper
29	100		
15	0.0	14.0	21.0#
44	0.0	79.2	118.8#



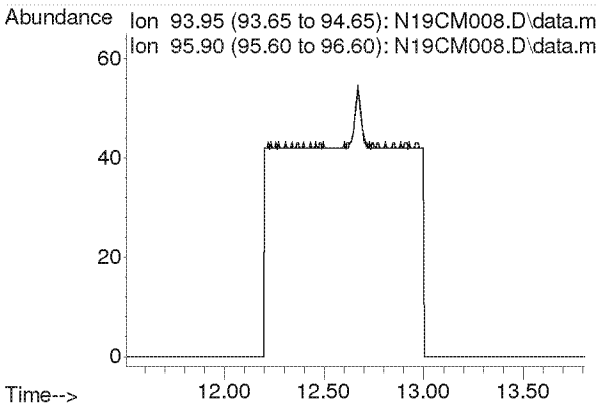


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

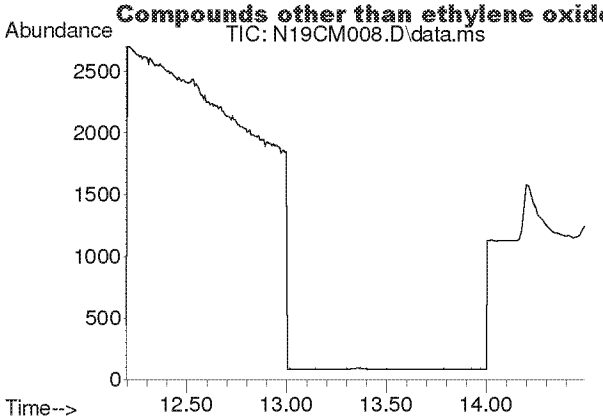
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

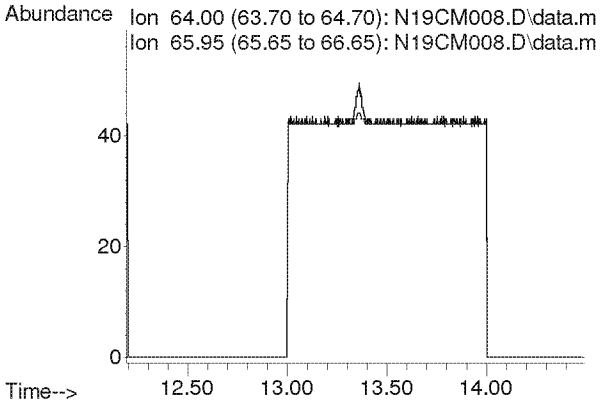


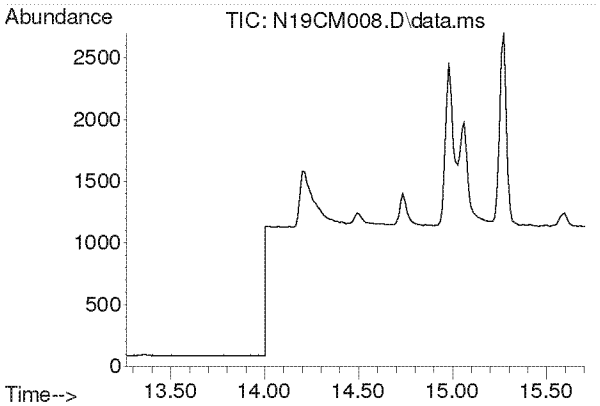
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



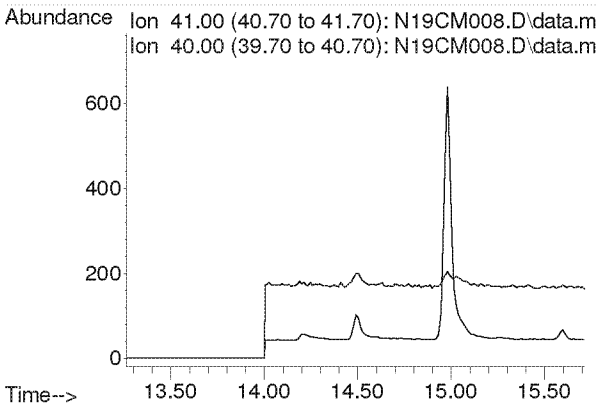


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

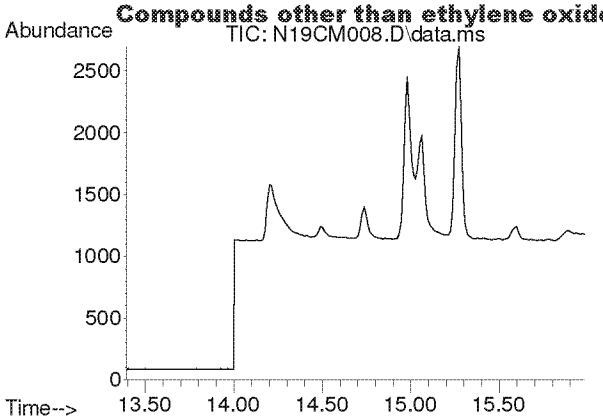
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

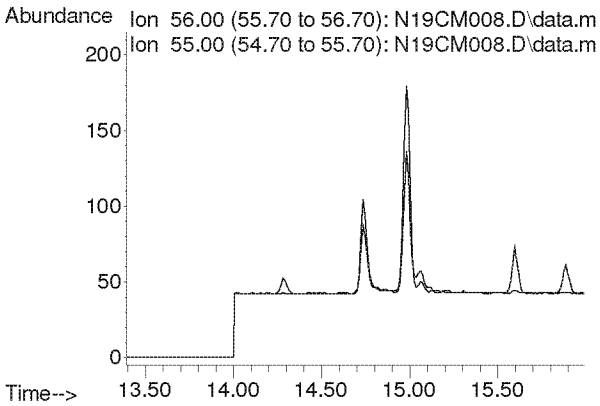


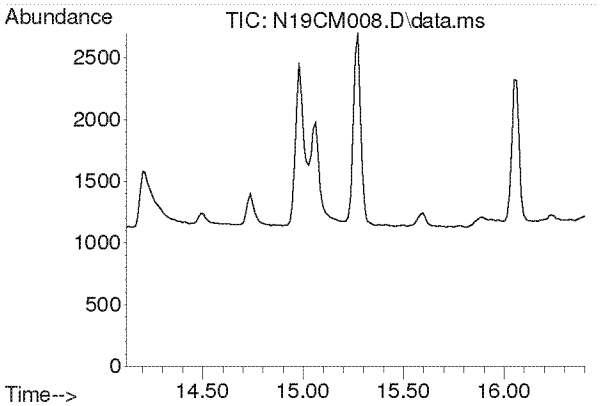
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



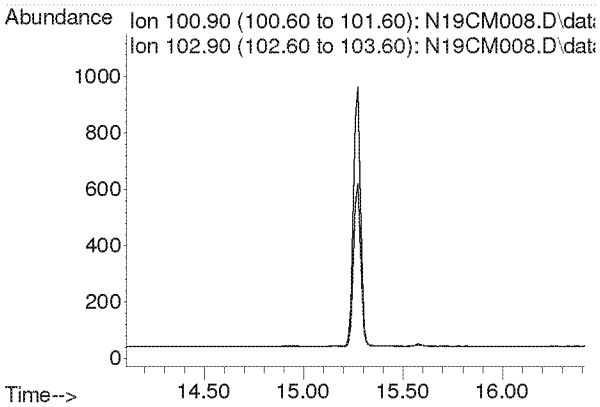


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

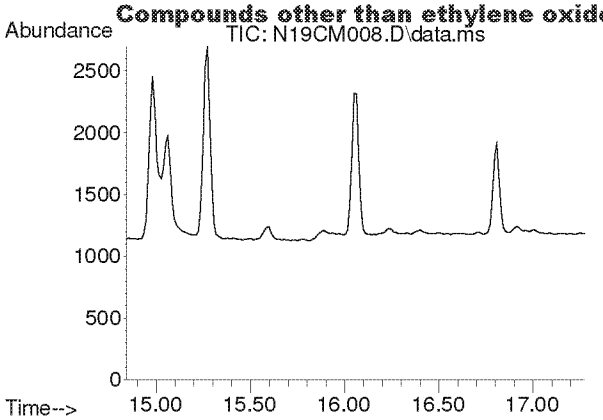
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

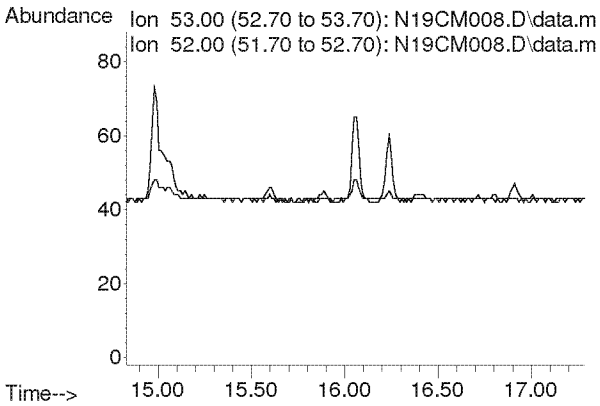


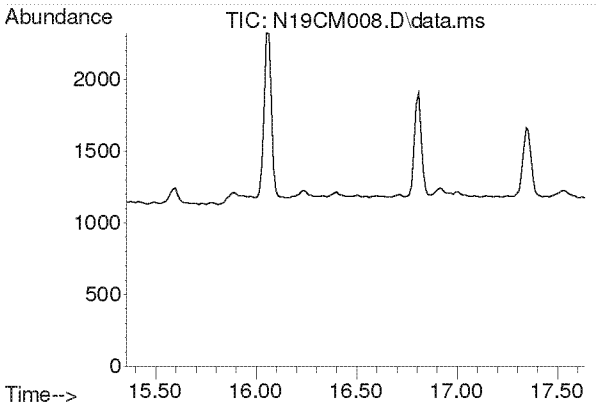
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



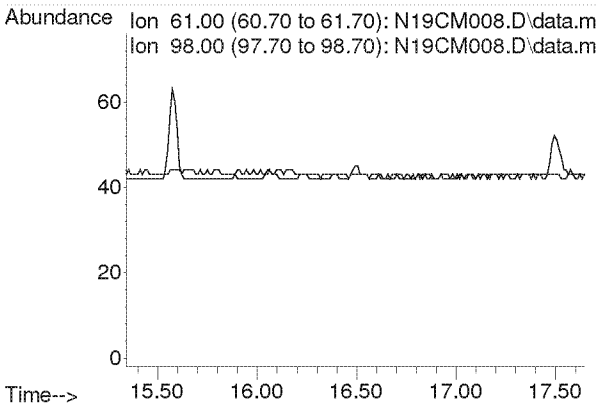


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

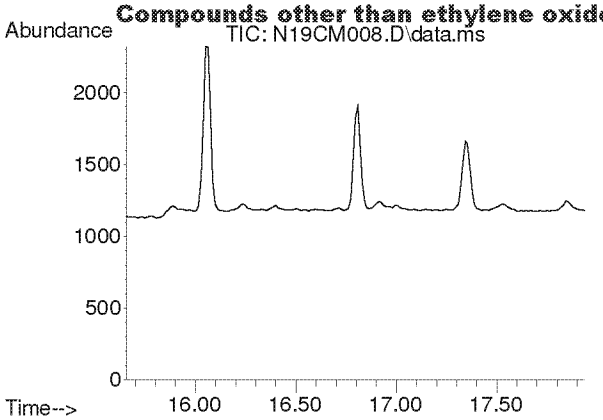
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

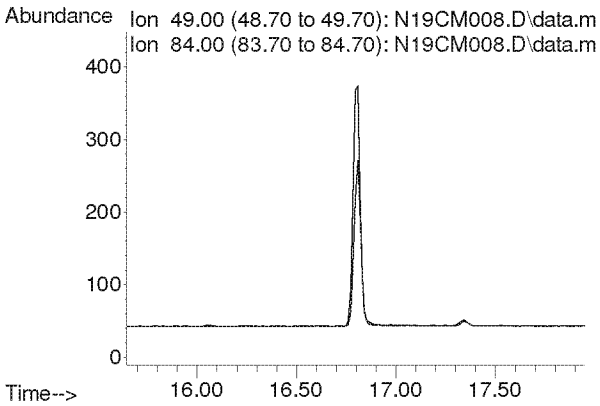


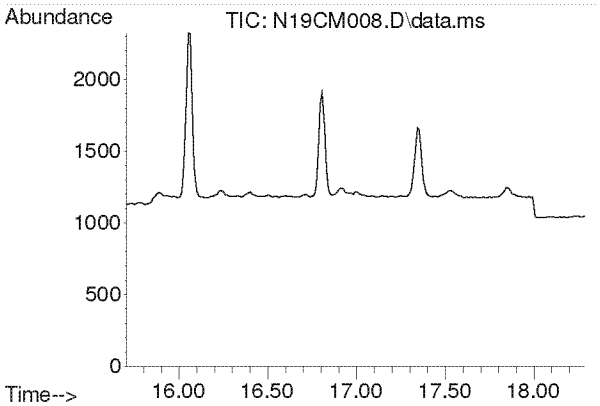
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



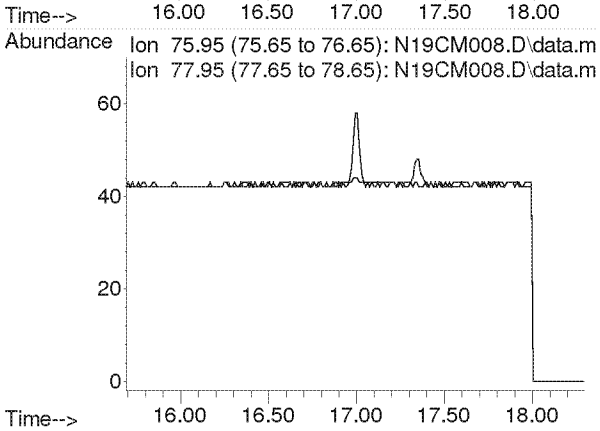


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

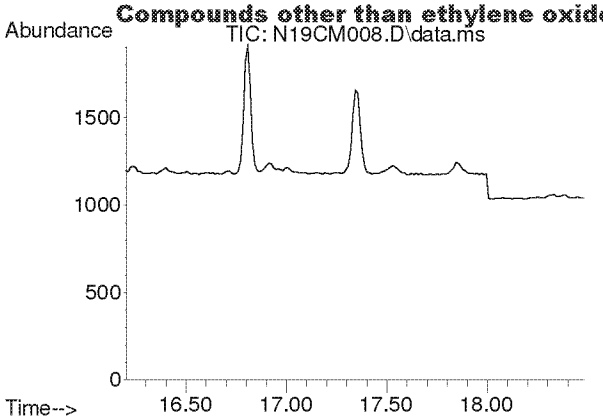
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

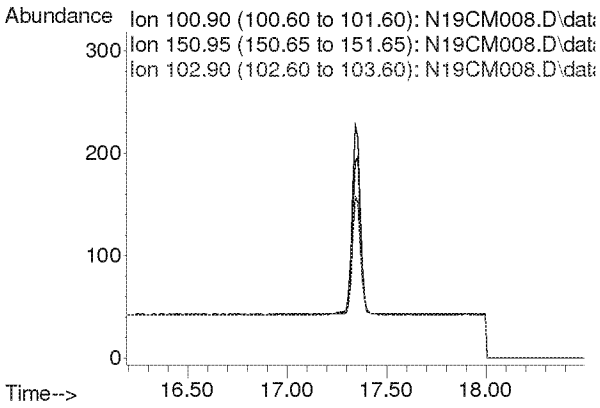


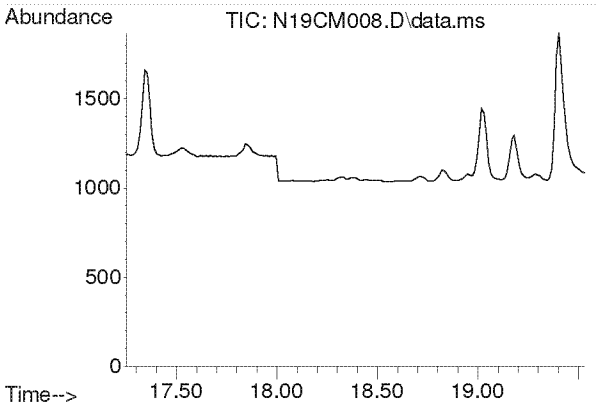
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



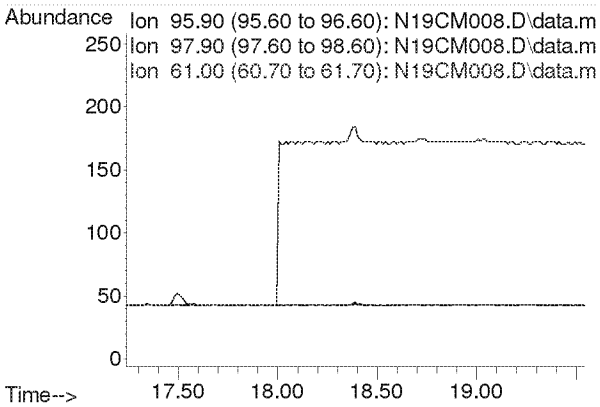


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

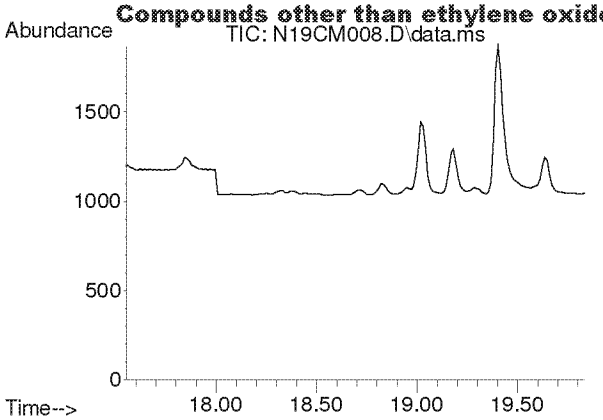
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

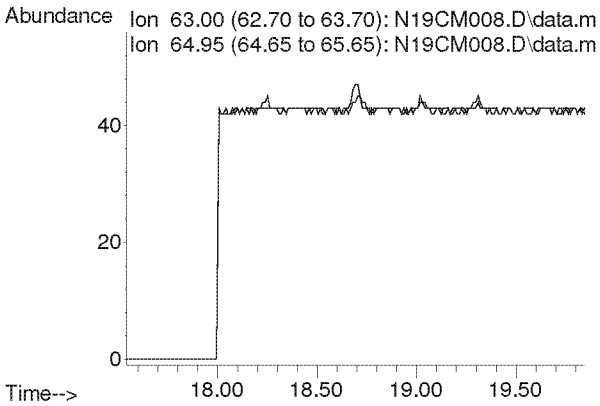


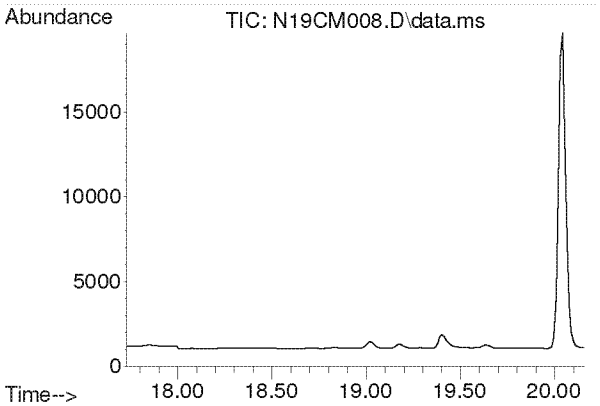
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



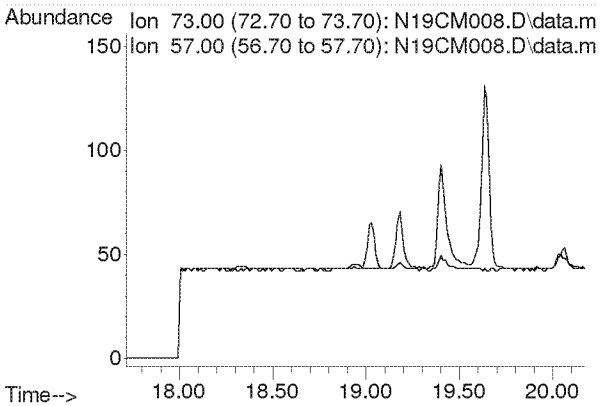


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

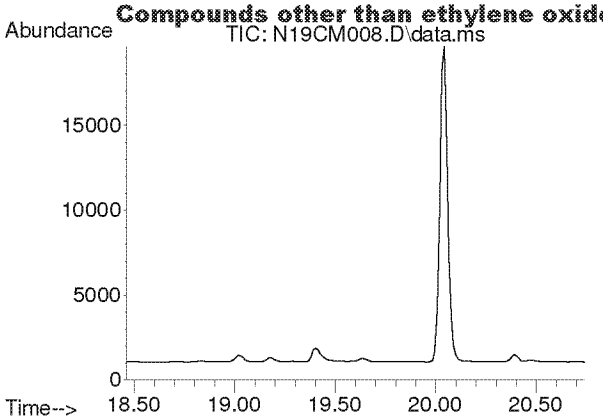
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

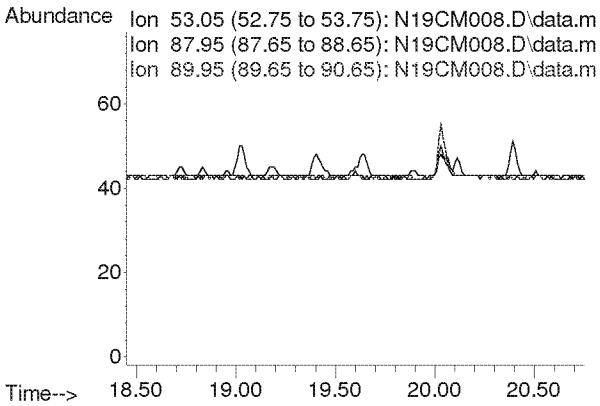


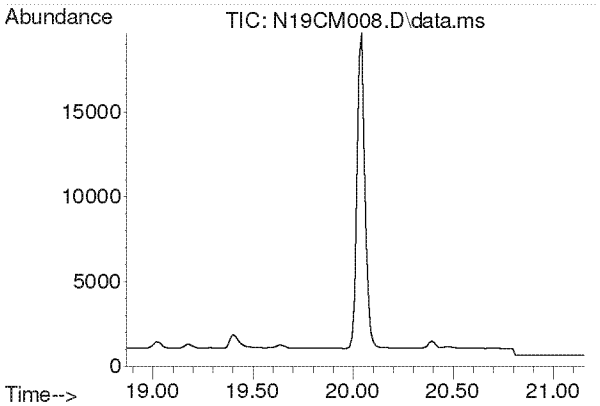
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



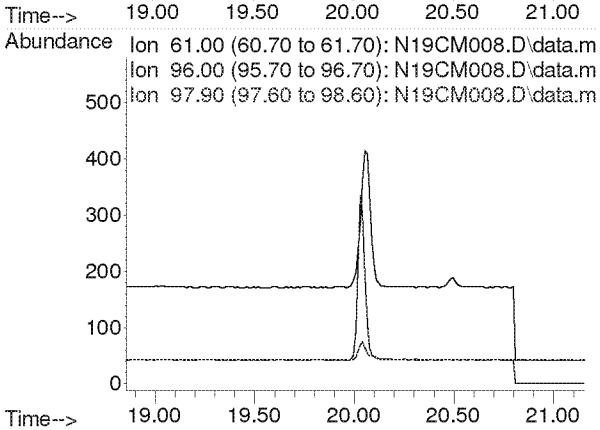


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

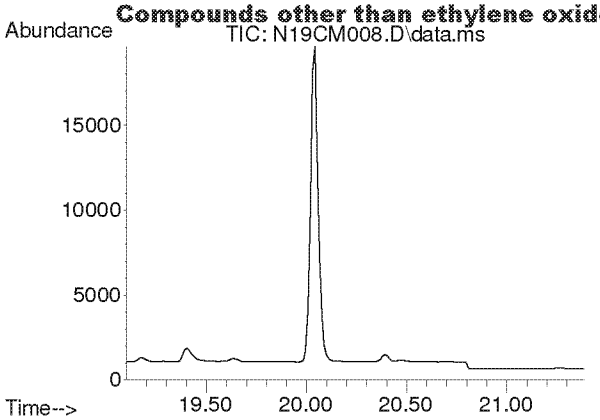
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

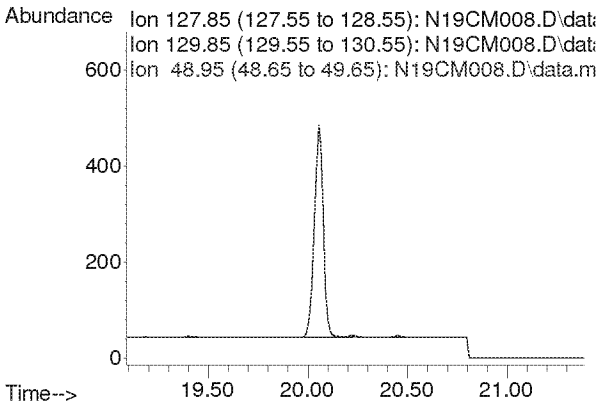


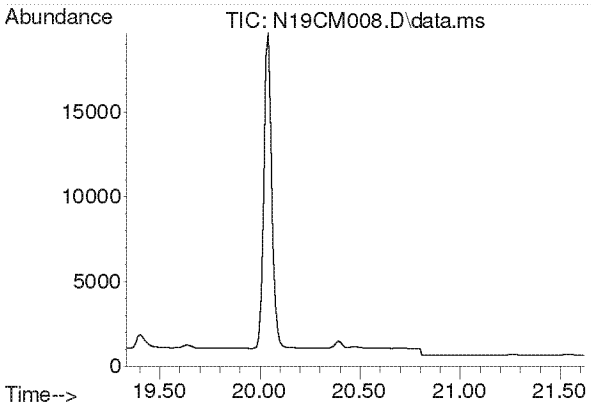
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



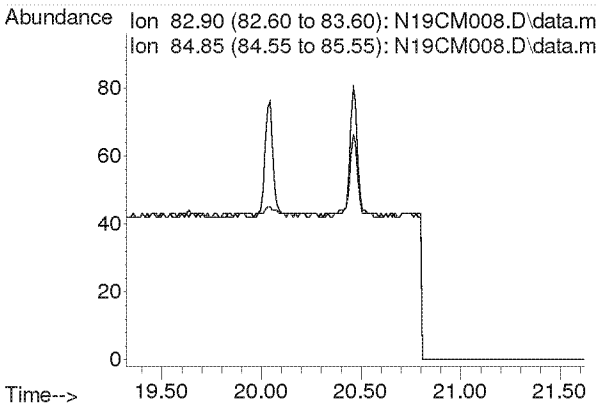


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

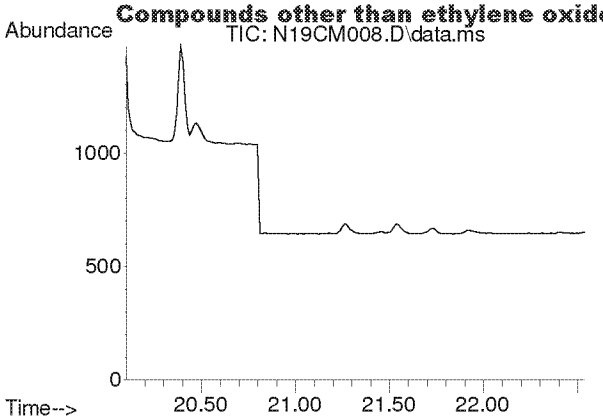
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

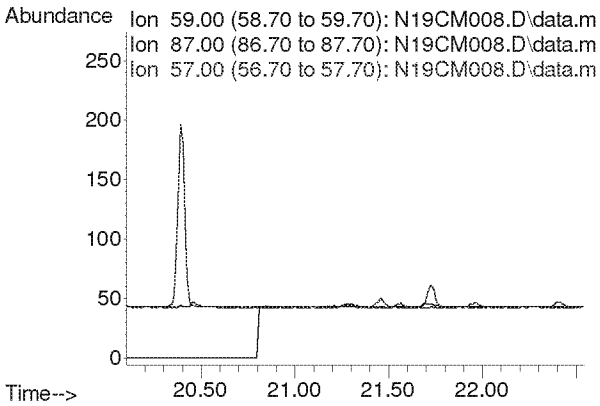


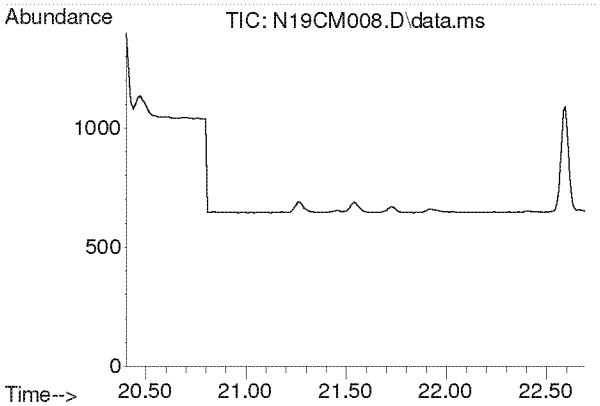
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



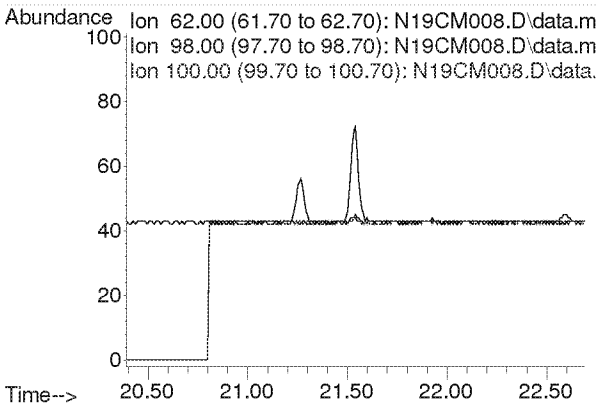


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

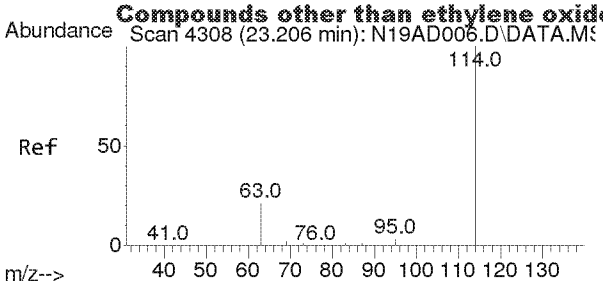
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



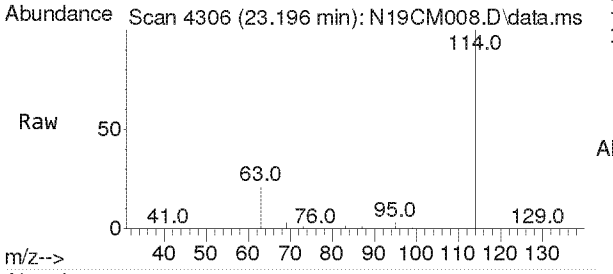
Compounds other than ethylene oxide were not quantitated.

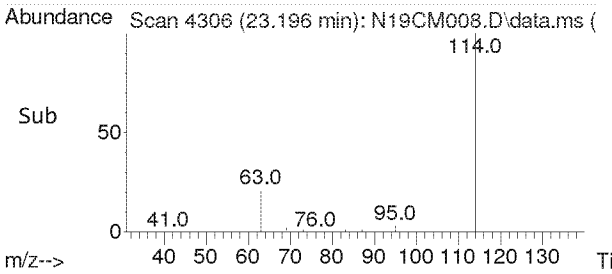


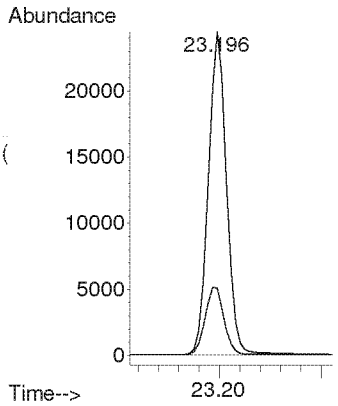
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.196 min Scan# 4306
Delta R.T. -0.010 min
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

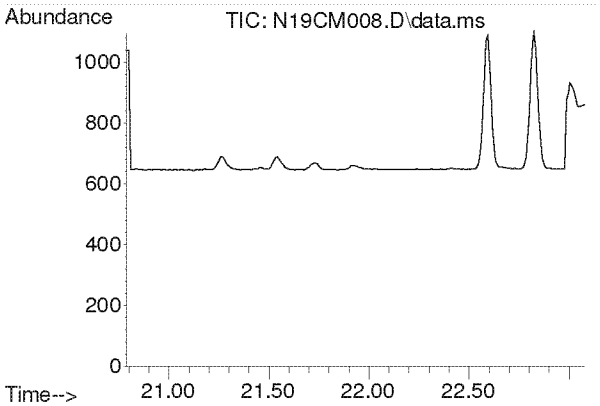
Tgt Ion:114 Resp: 59790

Ion	Ratio	Lower	Upper
114	100		
63	21.8	16.7	25.1







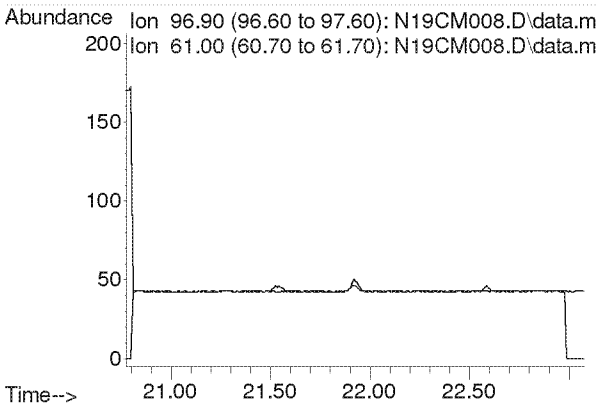


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

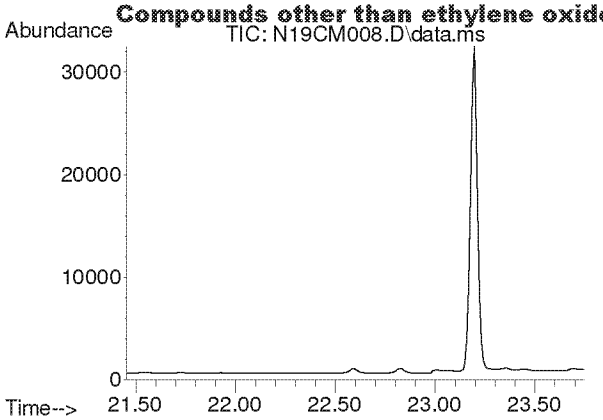
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

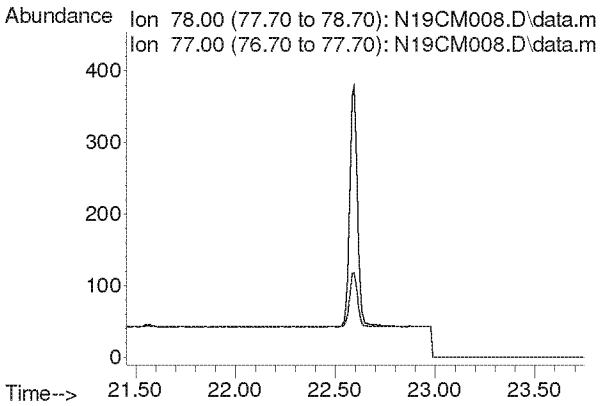


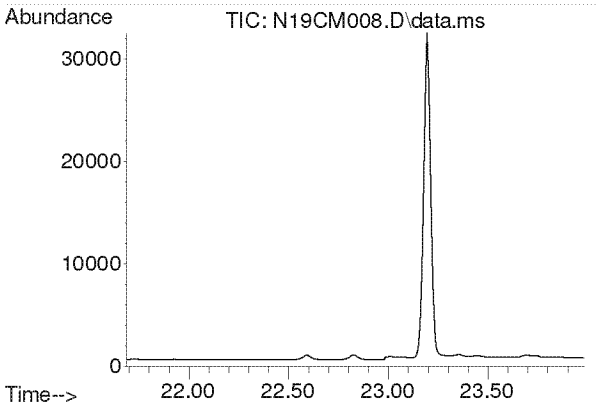
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



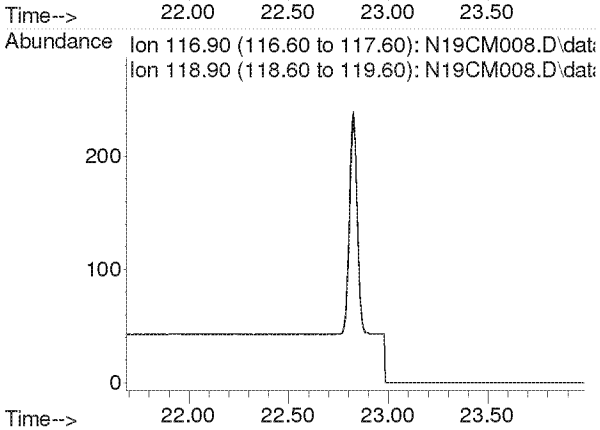


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

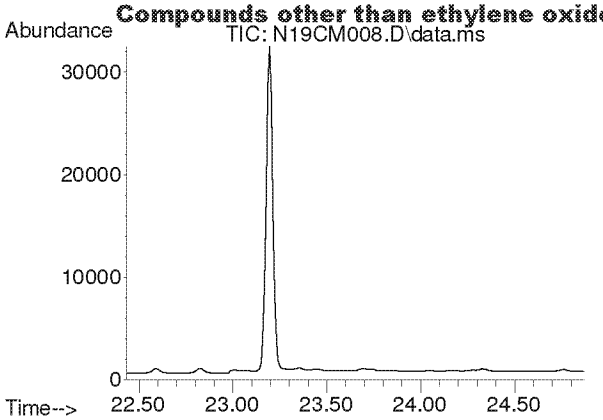
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

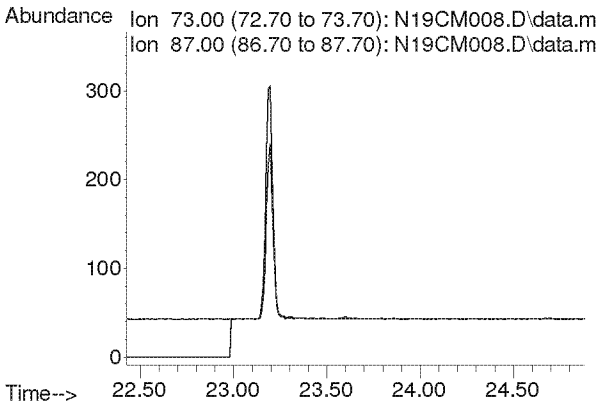


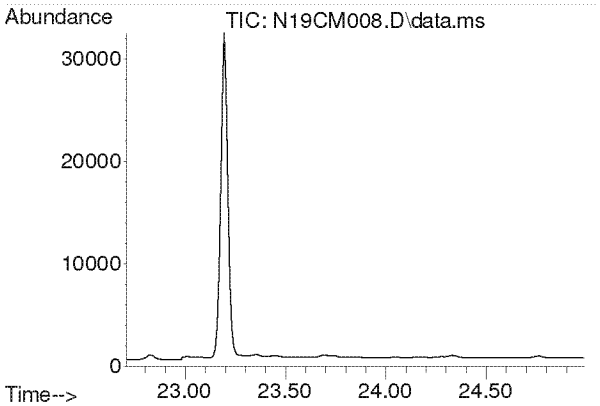
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



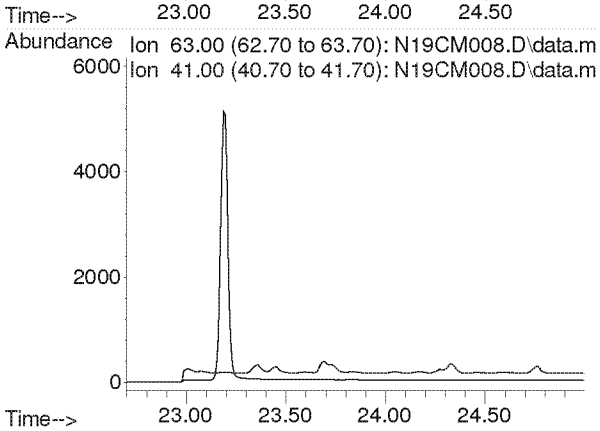


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

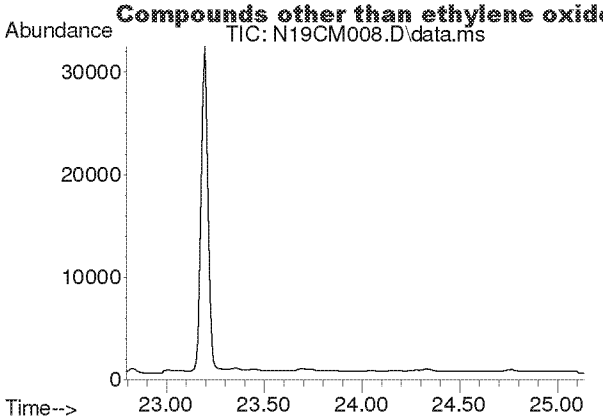
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

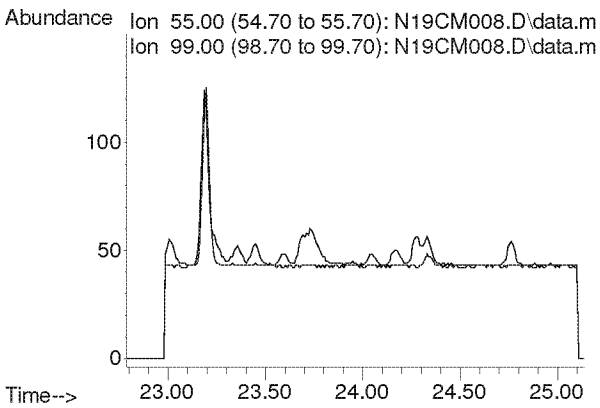


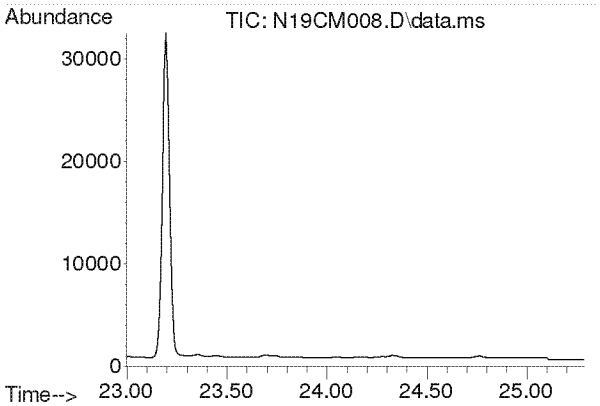
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



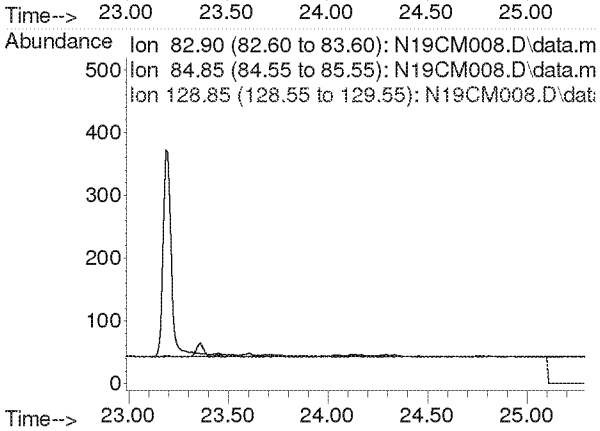


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

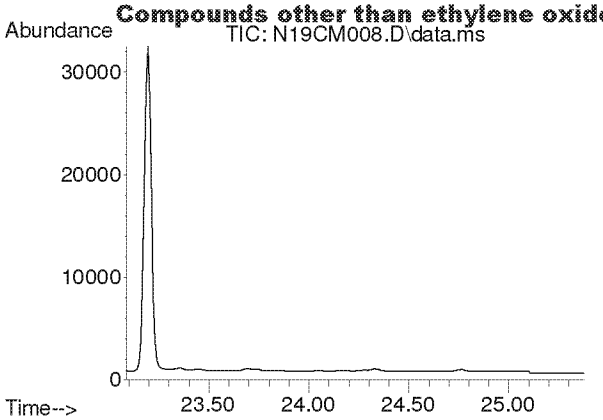
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

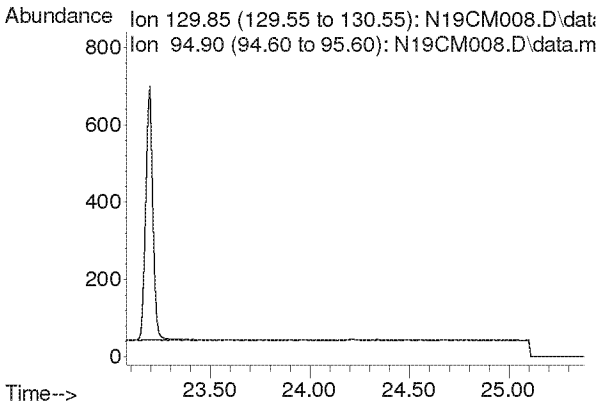


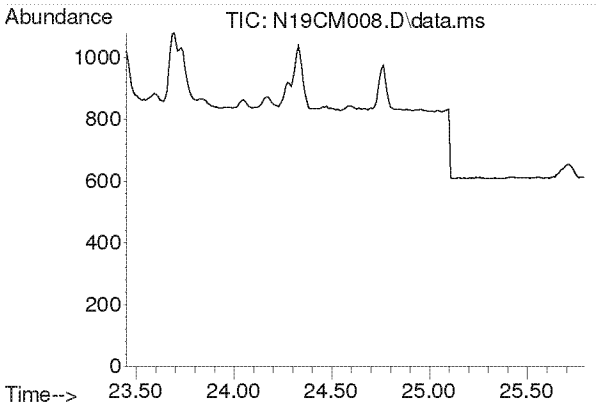
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



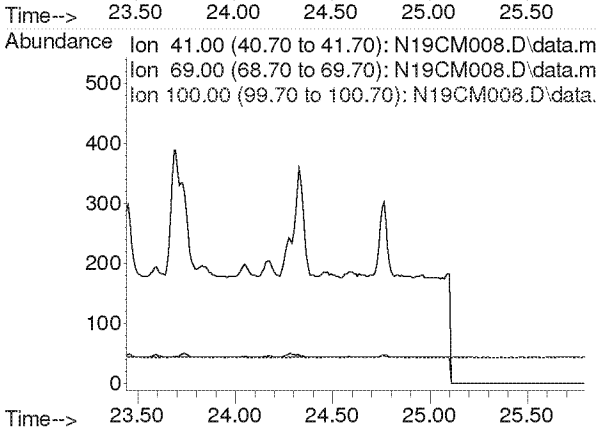


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

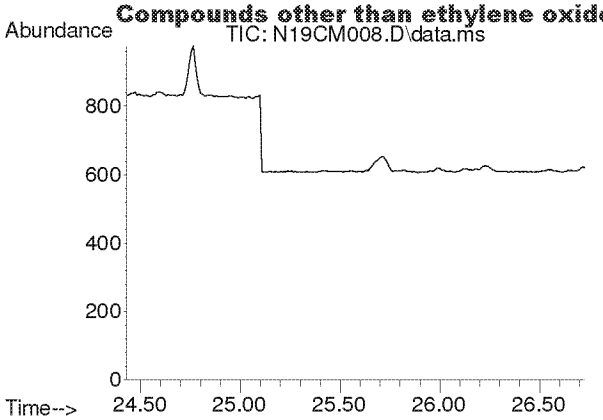
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

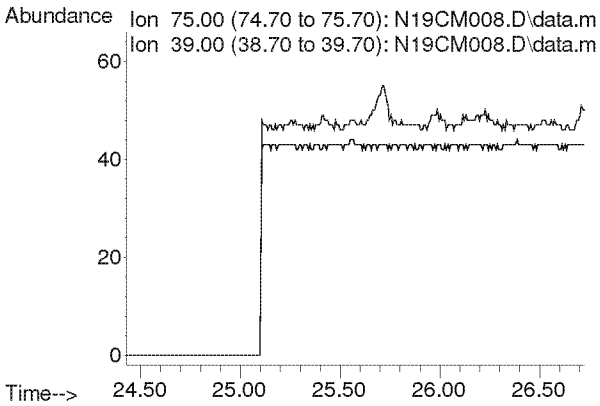


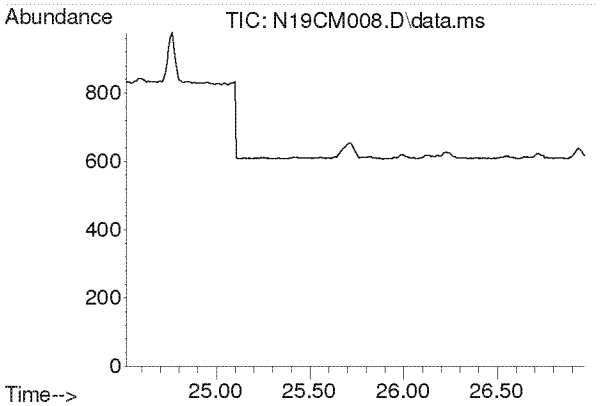
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



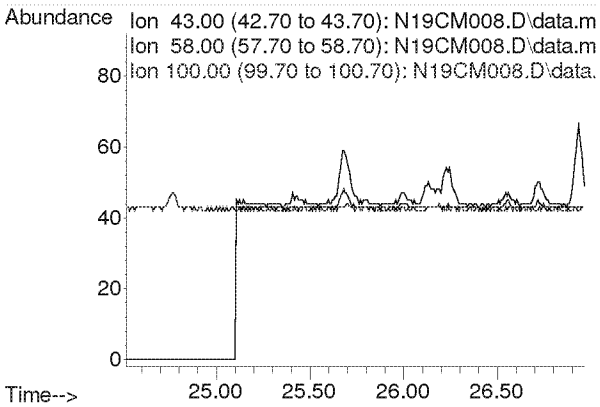


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

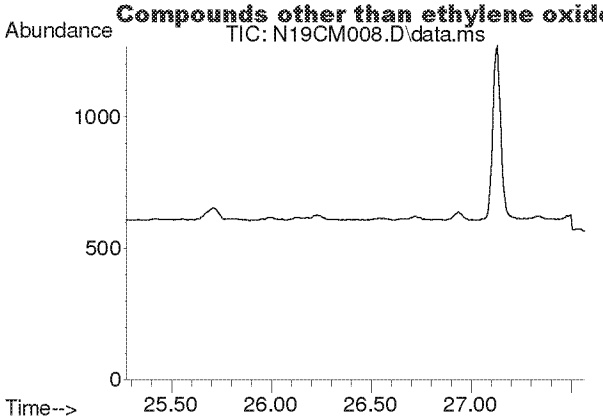
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

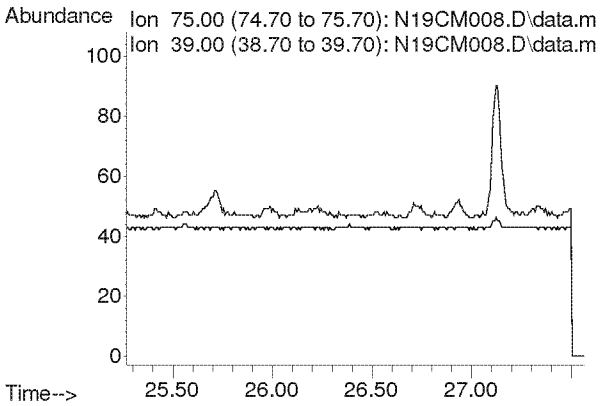


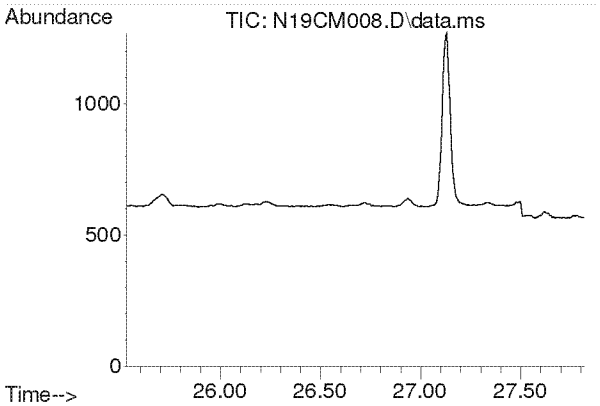
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



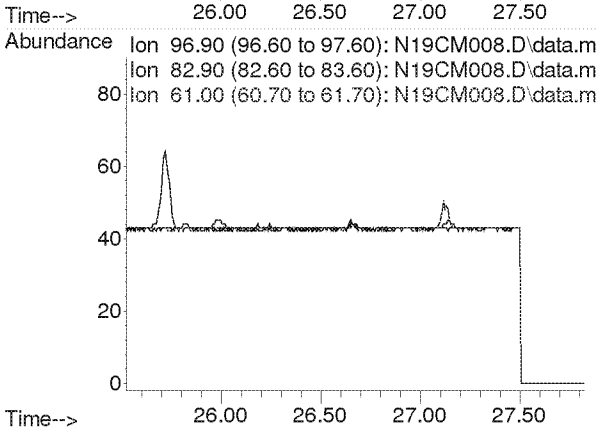


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

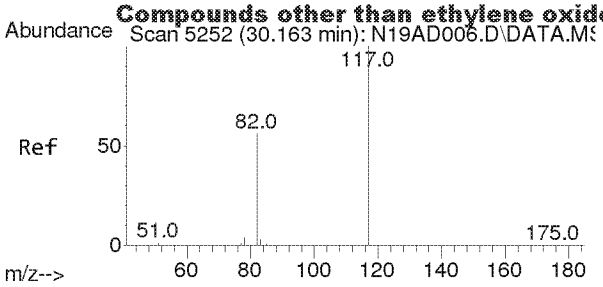
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



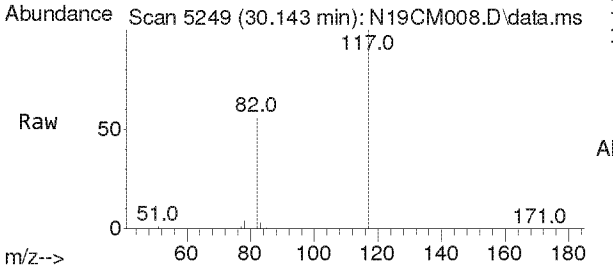
Compounds other than ethylene oxide were not quantitated.

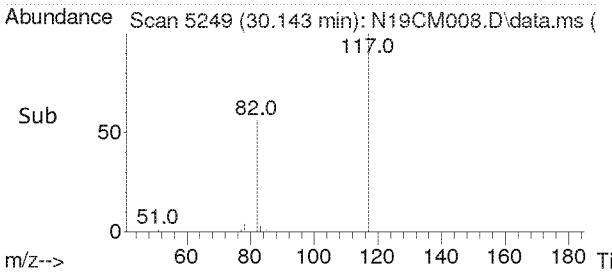


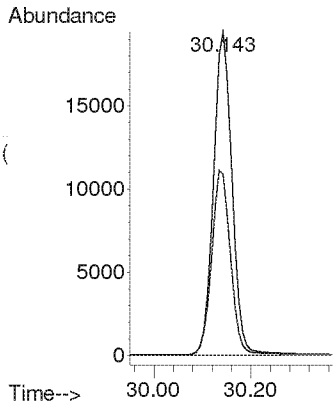
#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.143 min Scan# 5249
Delta R.T. -0.019 min
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

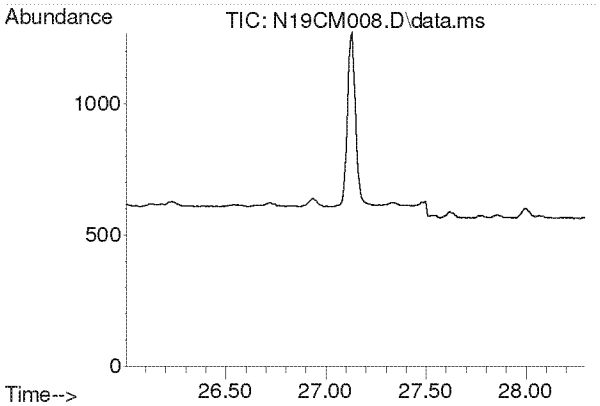
Tgt Ion:117 Resp: 50665

Ion	Ratio	Lower	Upper
117	100		
82	58.0	40.1	74.5
54	0.0	0.0	0.0







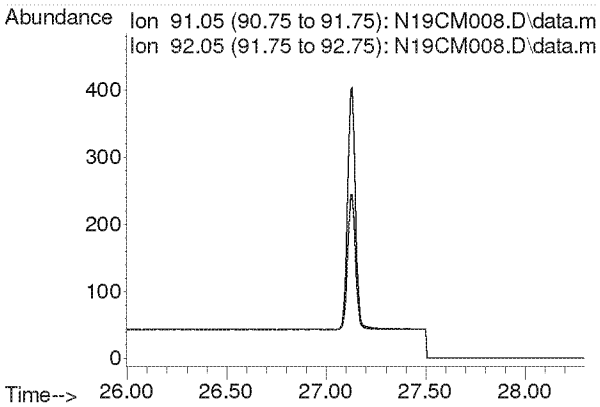


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

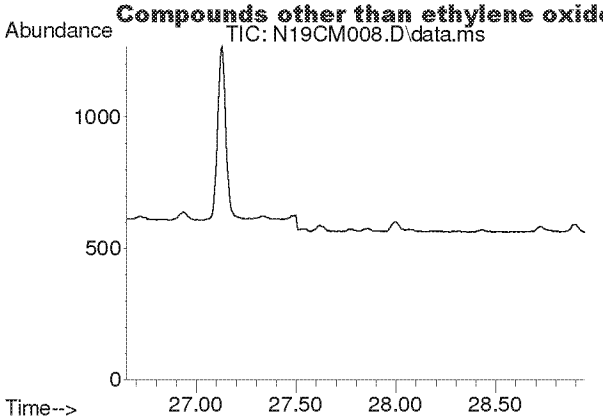
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

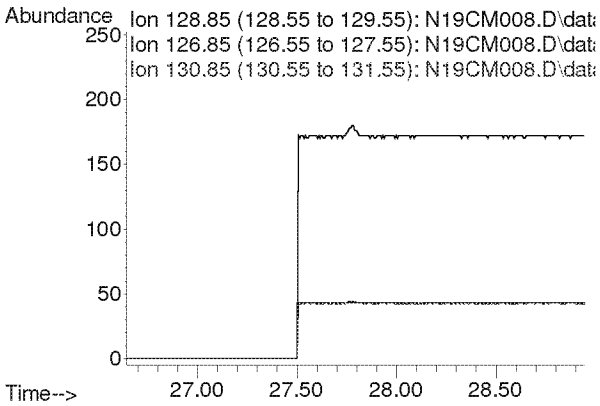


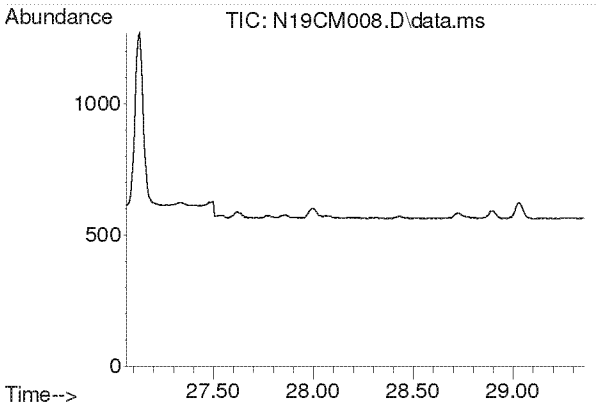
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



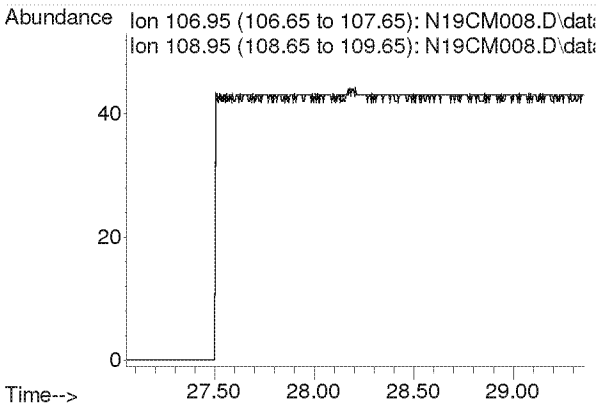


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

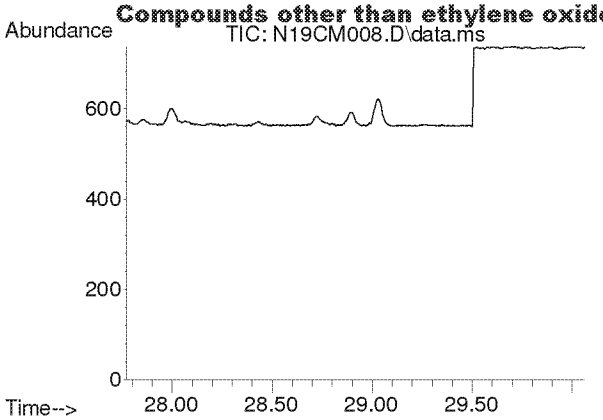
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

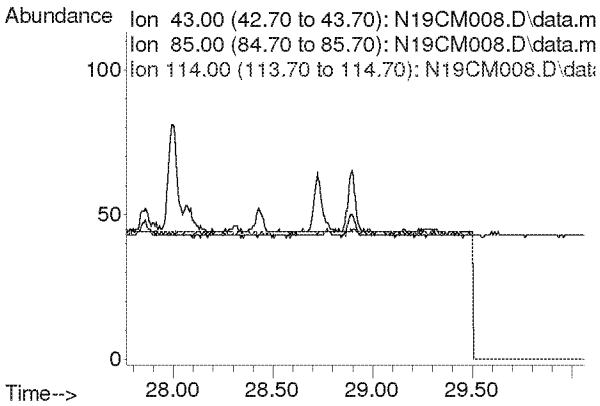


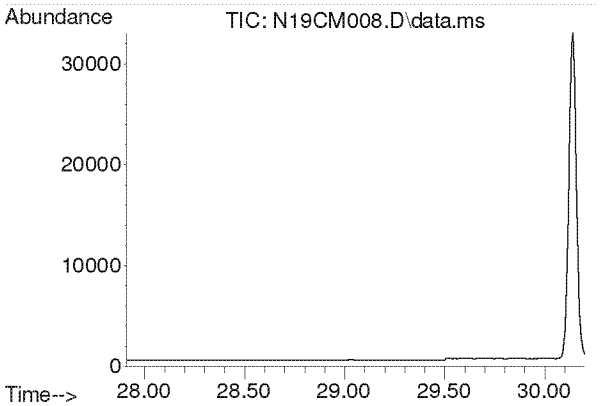
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



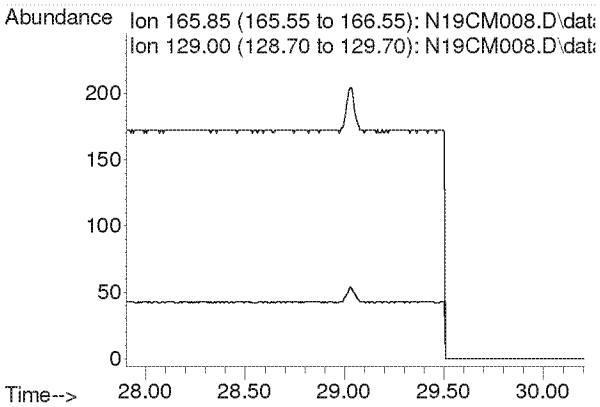


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

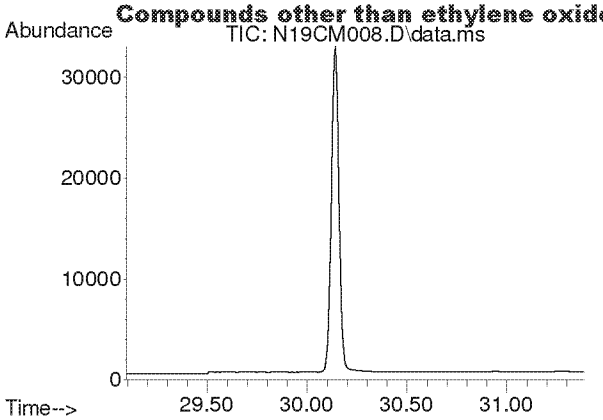
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

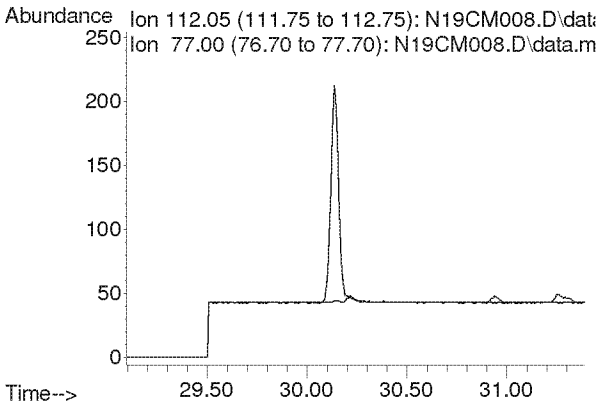


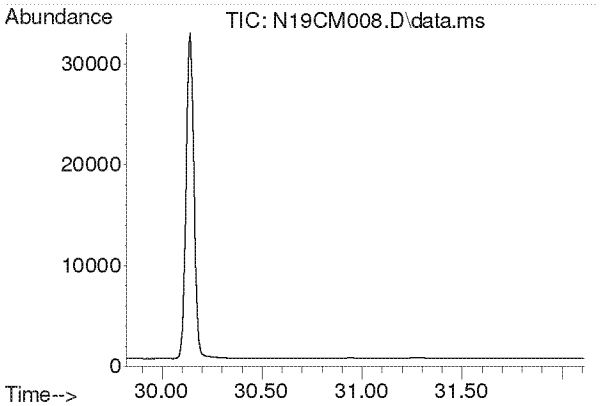
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



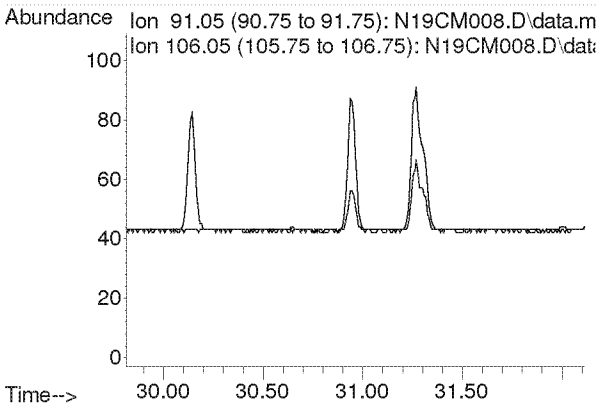


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

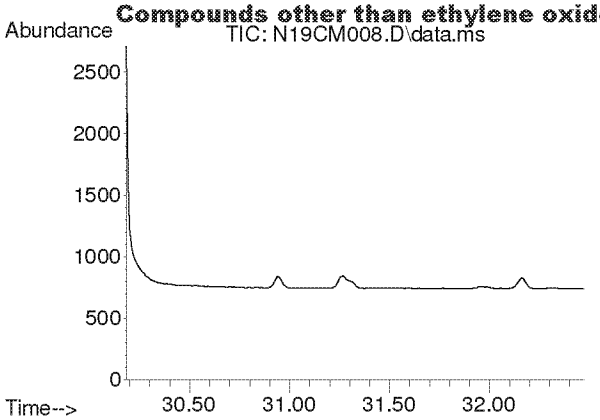
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

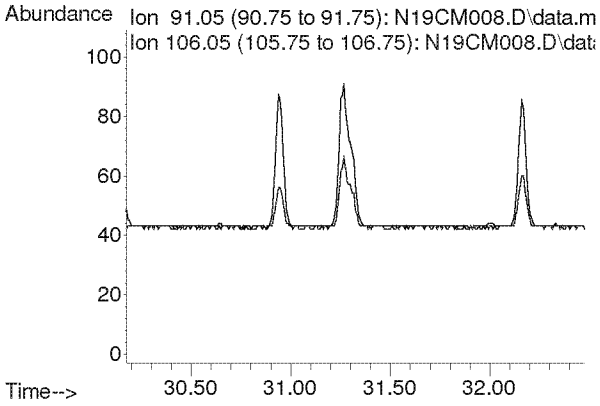


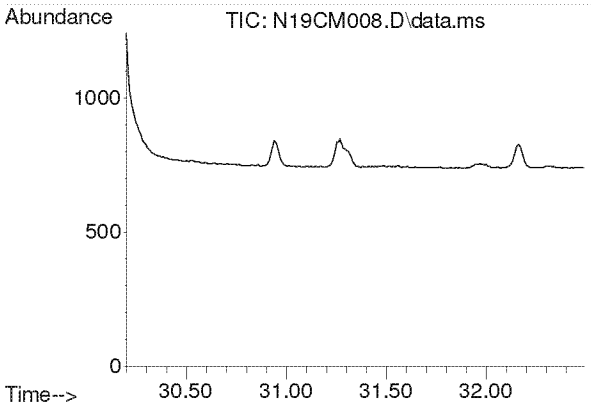
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



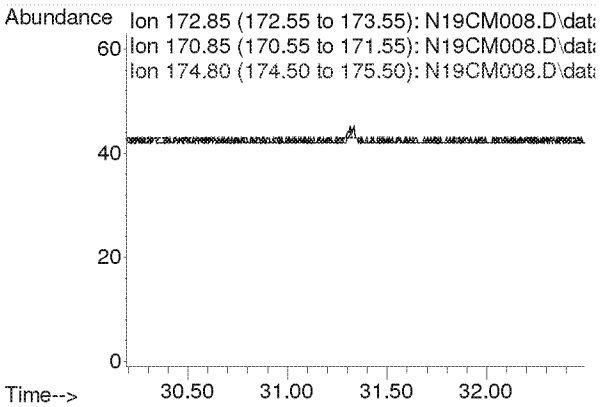


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

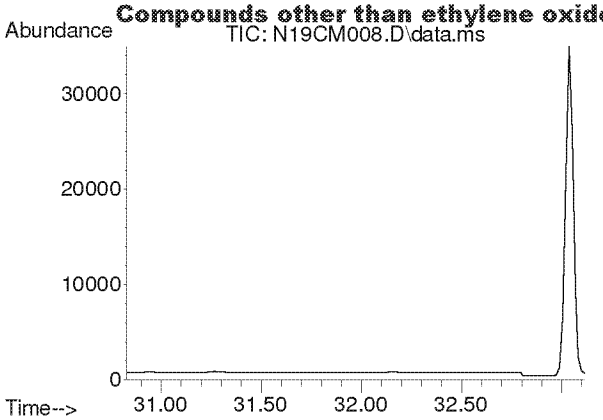
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

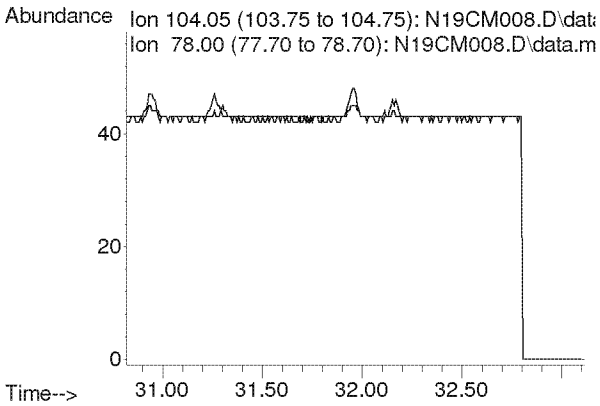


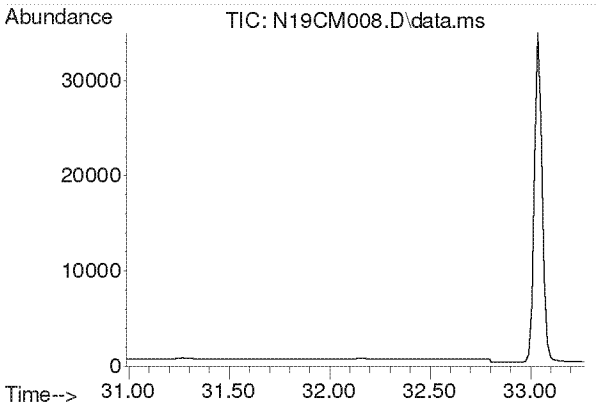
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



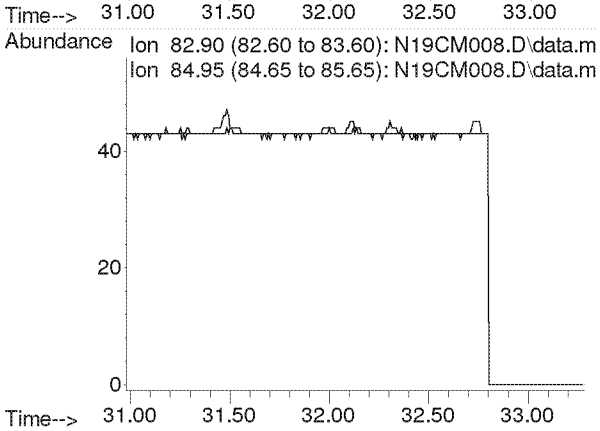


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

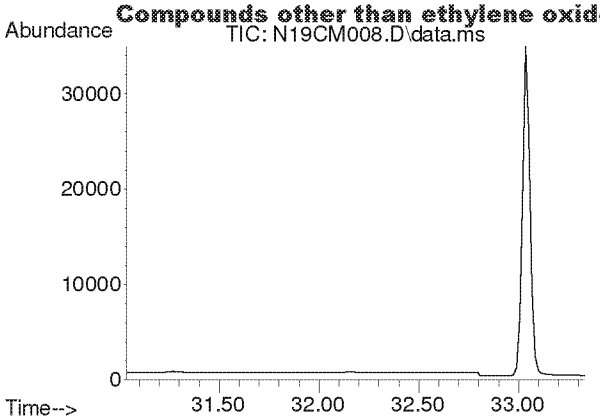
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

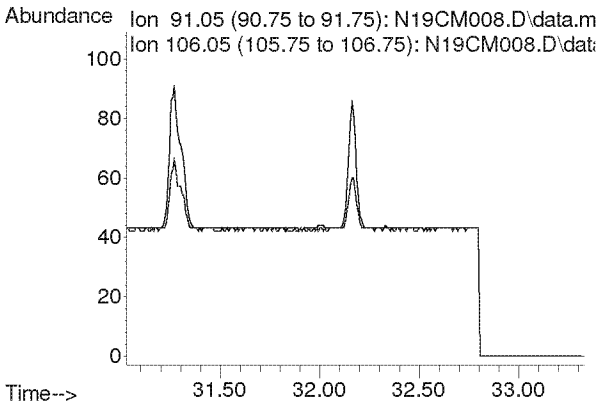


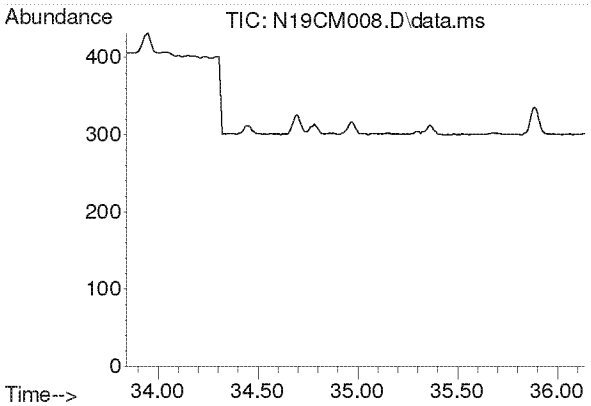
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



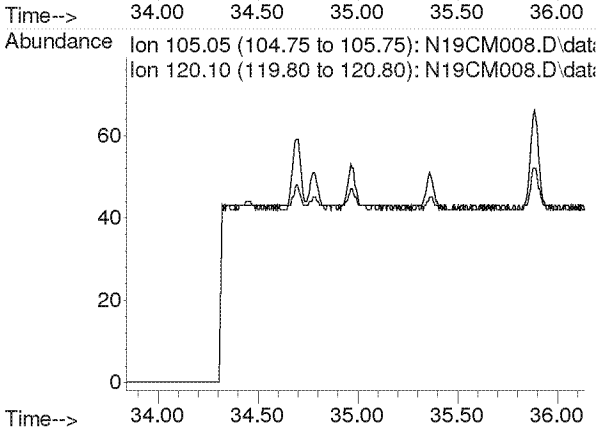


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

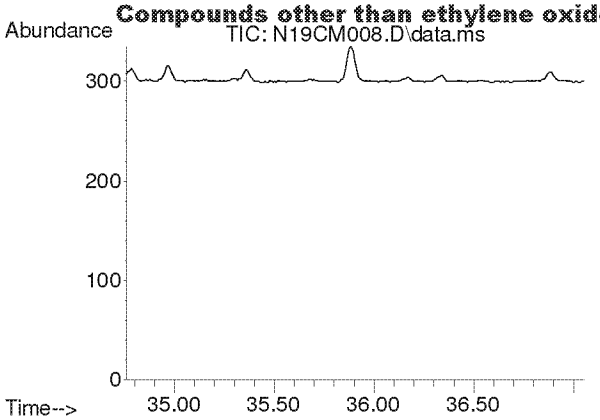
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

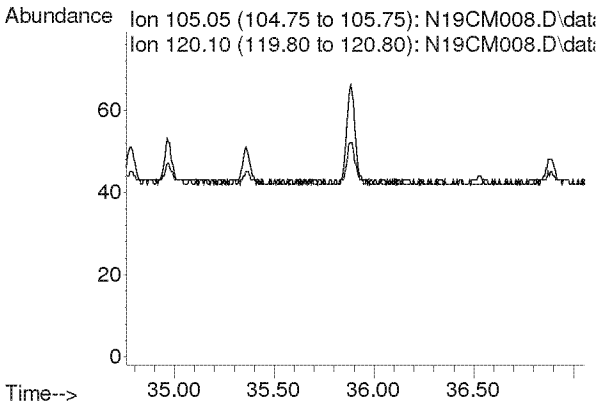


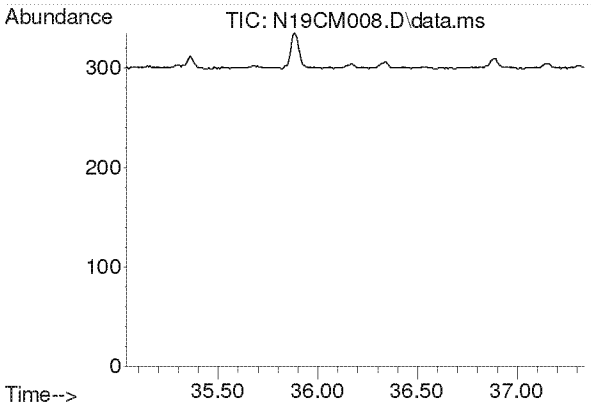
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



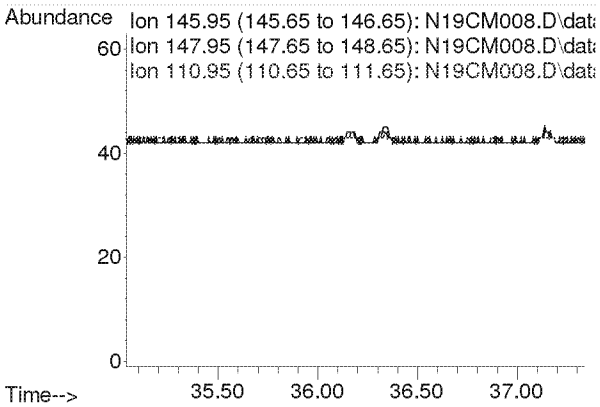


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

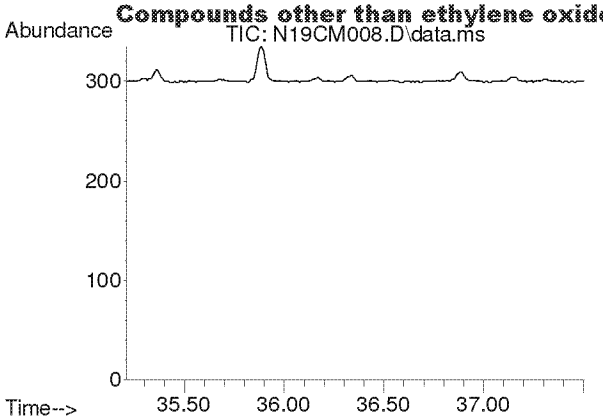
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

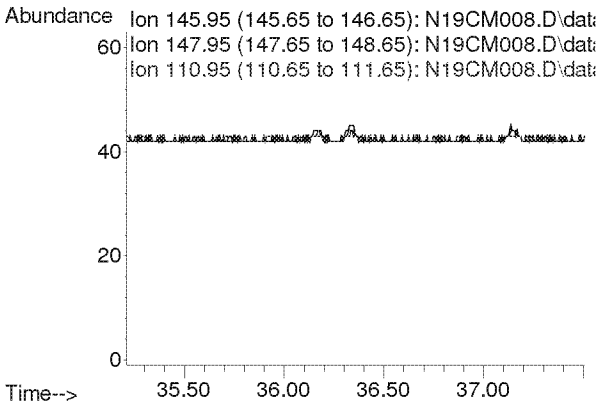


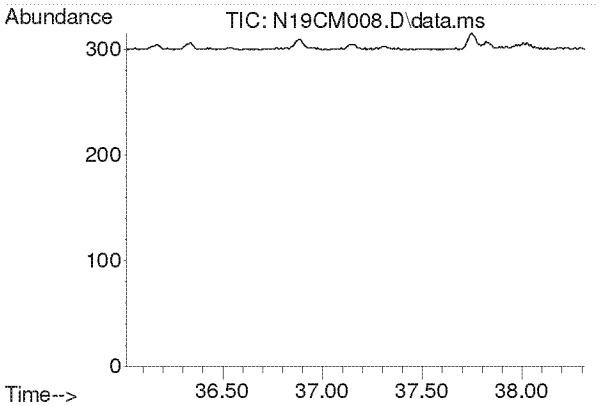
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



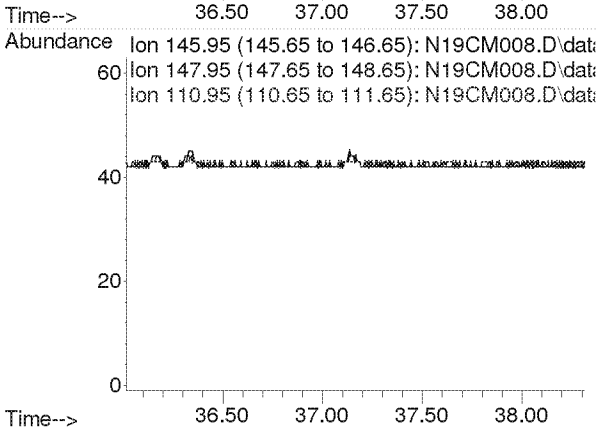


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

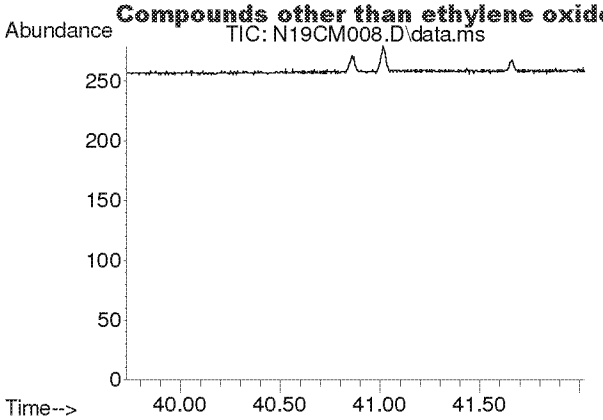
Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

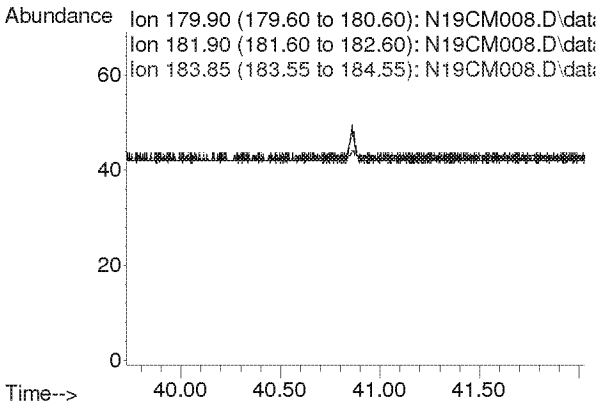


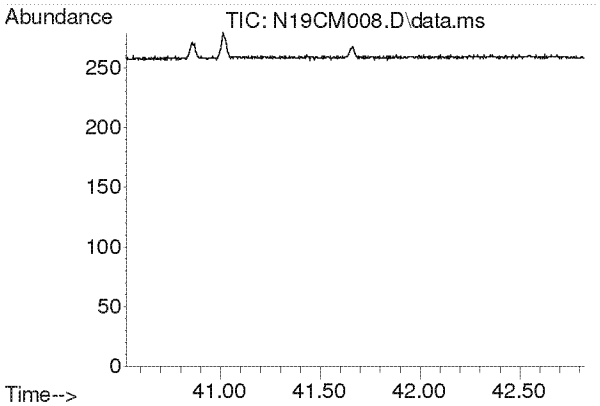
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



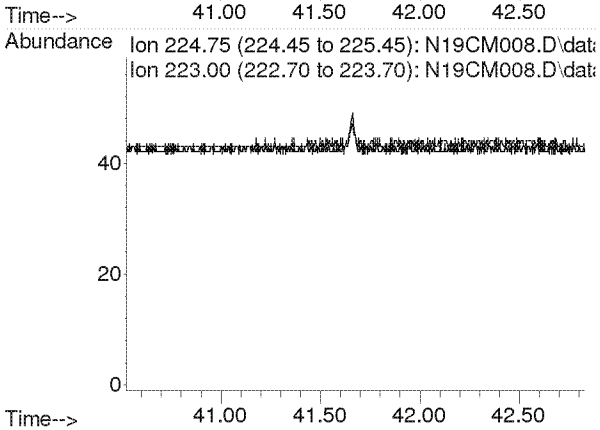


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM008.D
Acq: 13 Mar 2019 6:22 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM009.D
Acq On : 13 Mar 2019 7:24 pm (#1); 13-Mar-19, 19:18:38 (#2)
Operator : KSS
Sample : 9031220-04
Misc : WATERTOWER 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 14 08:32:26 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.031	66	30290	4.7700 ppbv	-0.01
29) IS-1,4-Difluorobenzene	23.196	114	65288	4.9900 ppbv	-0.01
43) IS-Chlorobenzene-d5	30.143	117	53242	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.	
9) Ethylene Oxide	12.529	29	59	0.0447 ppbv #	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM009.D
Acq On : 13 Mar 2019 7:24 pm (#1); 13-Mar-19, 19:18:38 (#2)
Operator : KSS
Sample : 9031220-04
Misc : WATERTOWER 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 14 08:32:26 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

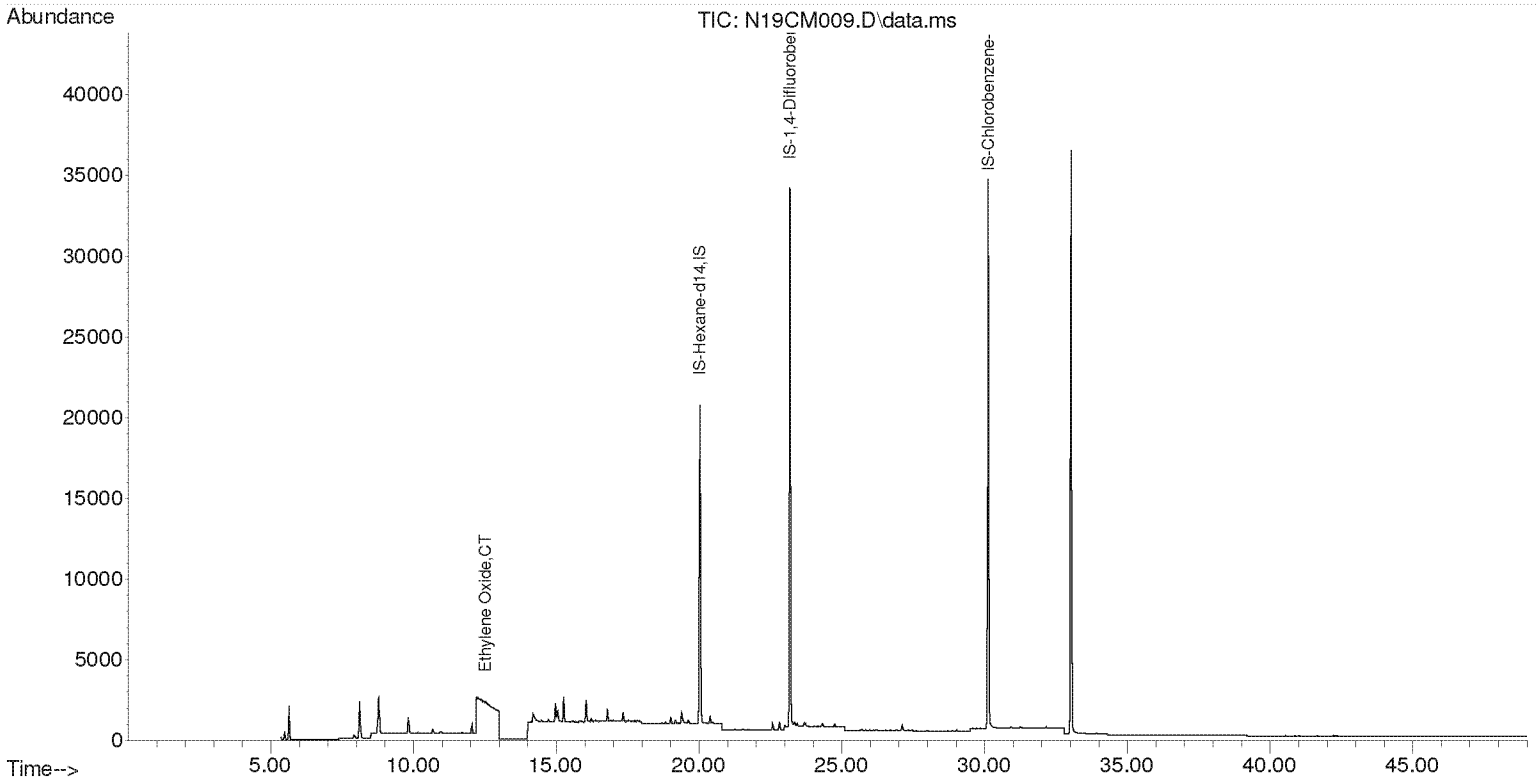
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

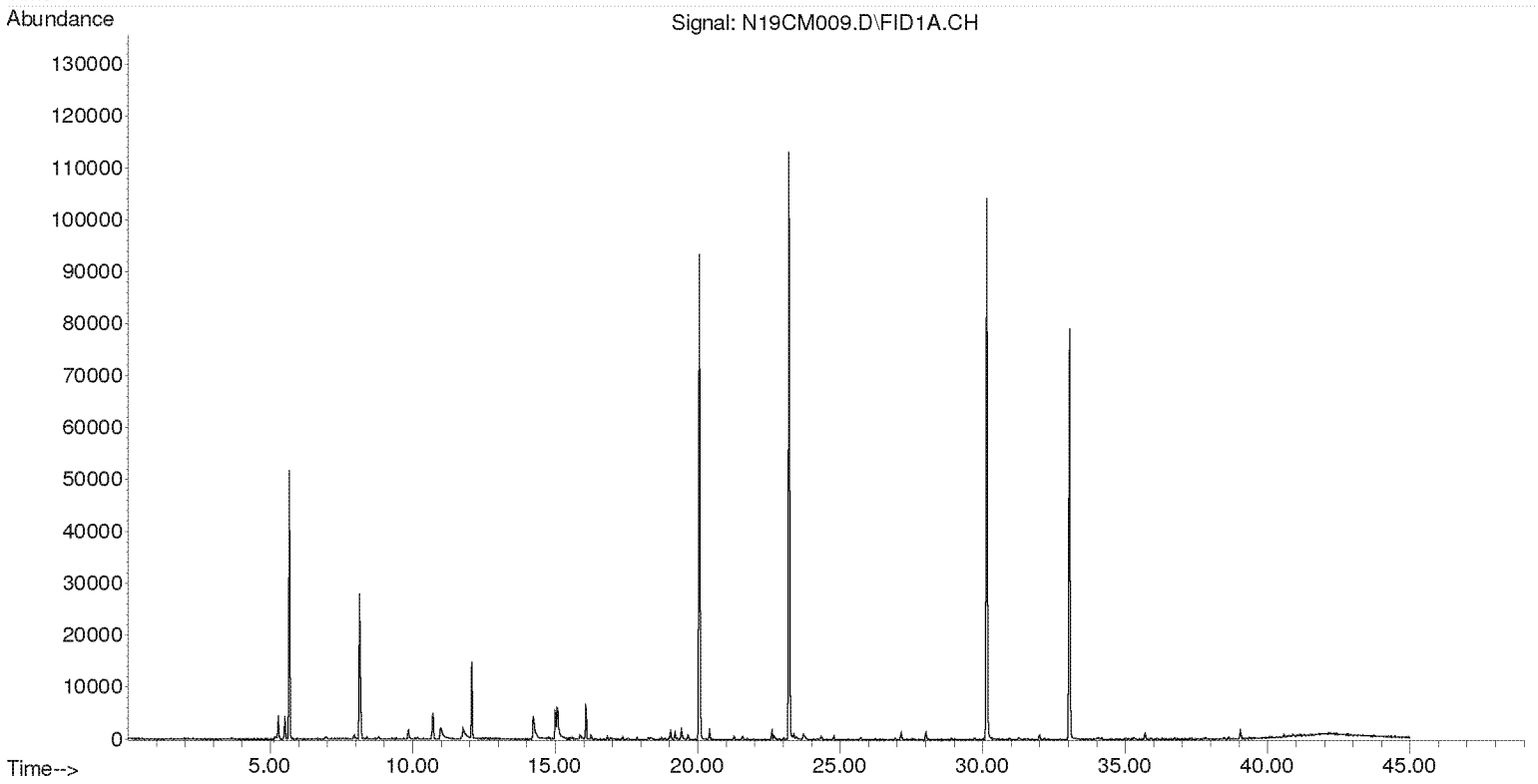
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

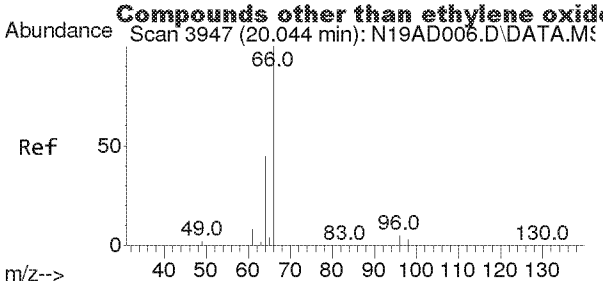
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM009.D
Acq On : 13 Mar 2019 7:24 pm (#1); 13 Mar 2019 7:18 pm (#2)
Operator : KSS
Sample : 9031220-04
Misc : WATERTOWER 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 14 08:19:11 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





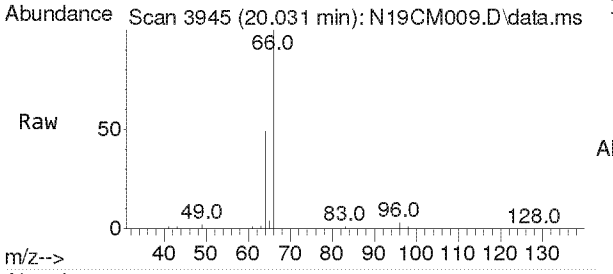
Compounds other than ethylene oxide were not quantitated.

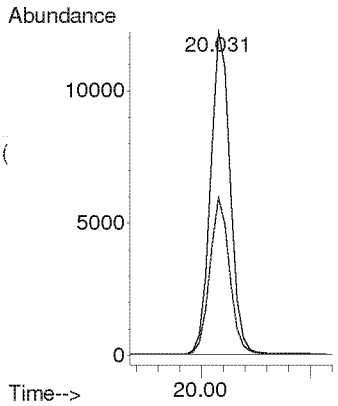


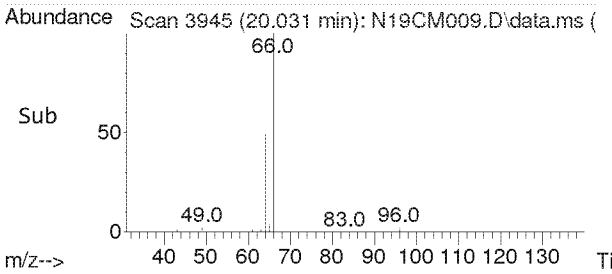
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.031 min Scan# 3945
Delta R.T. -0.013 min
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

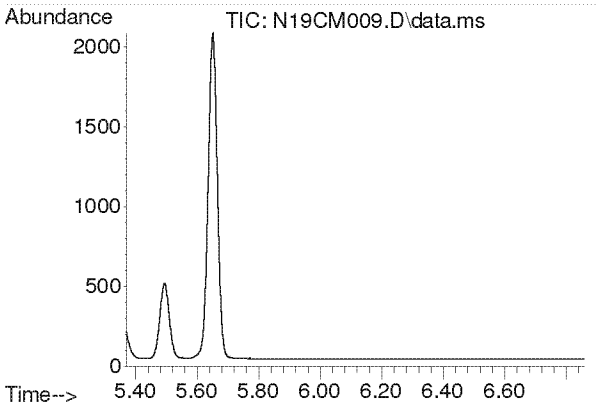
Tgt Ion: 66 Resp: 30290

Ion	Ratio	Lower	Upper
66	100		
64	48.9	32.1	59.5





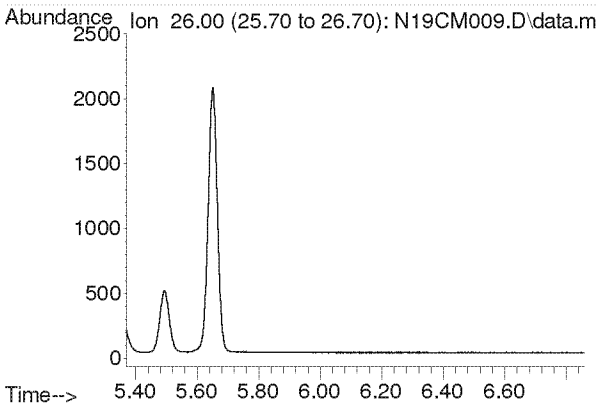




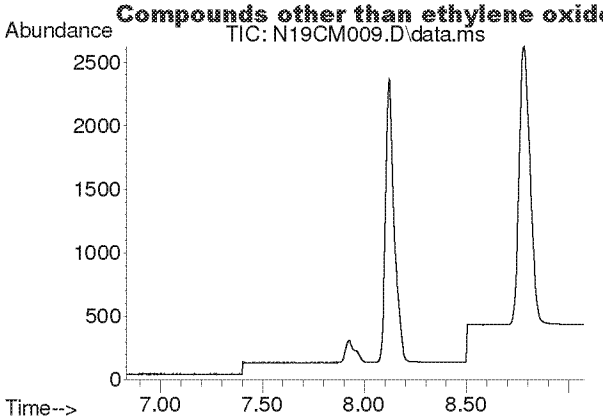
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

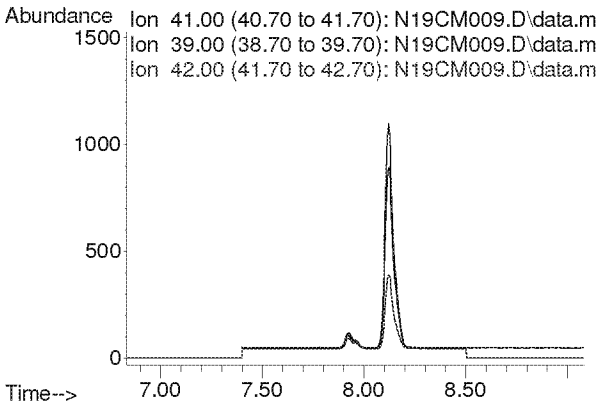


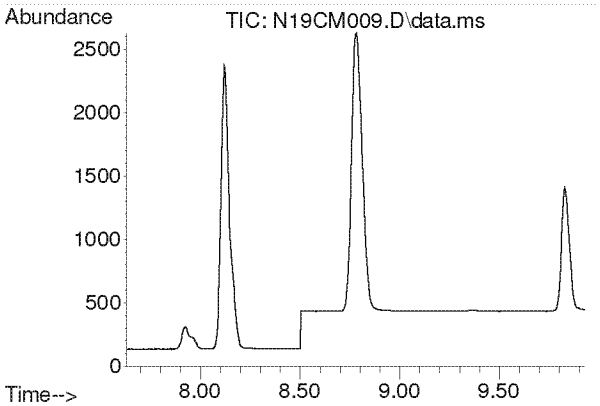
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



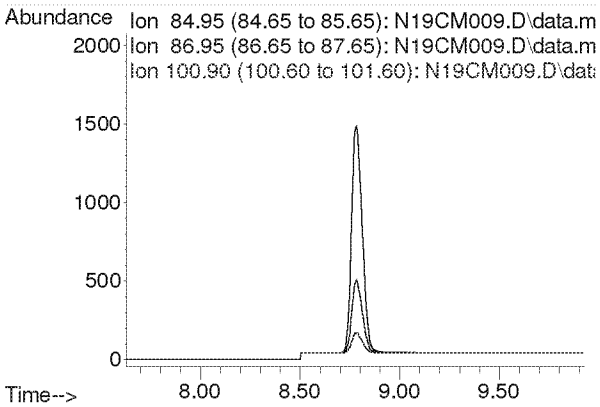


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

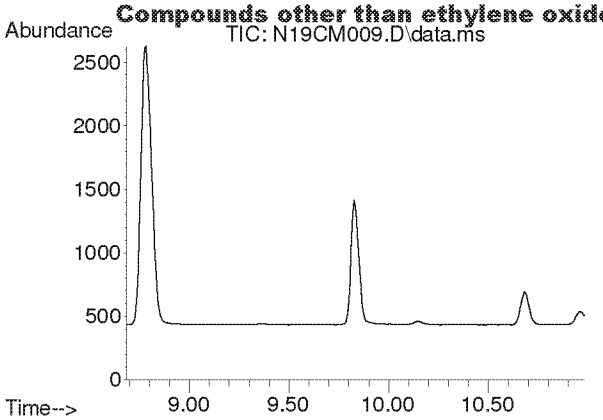
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

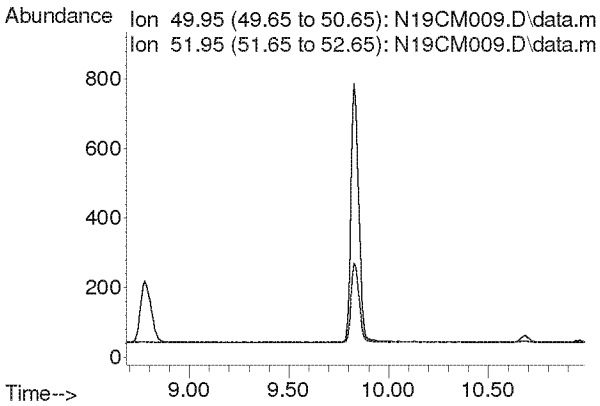


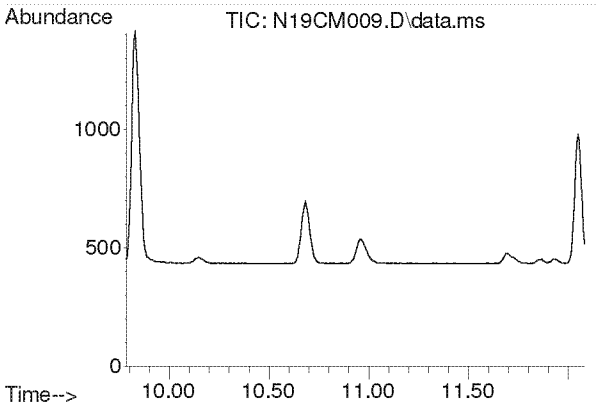
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



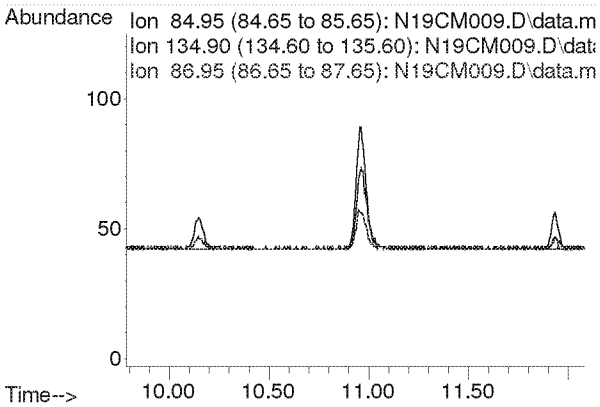


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

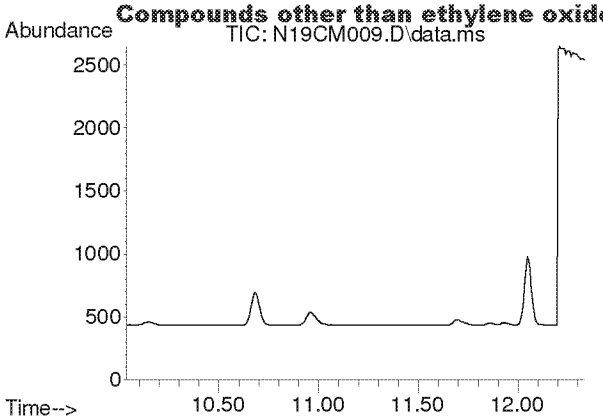
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

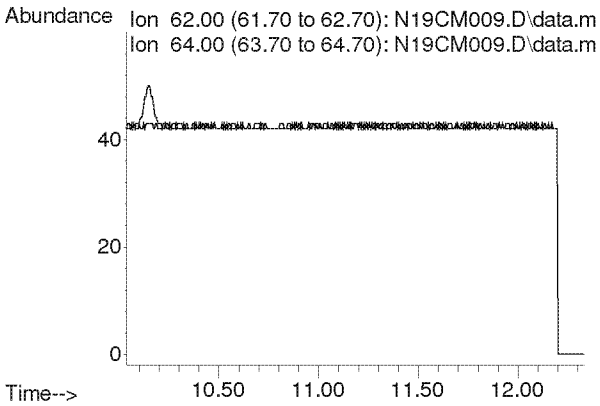


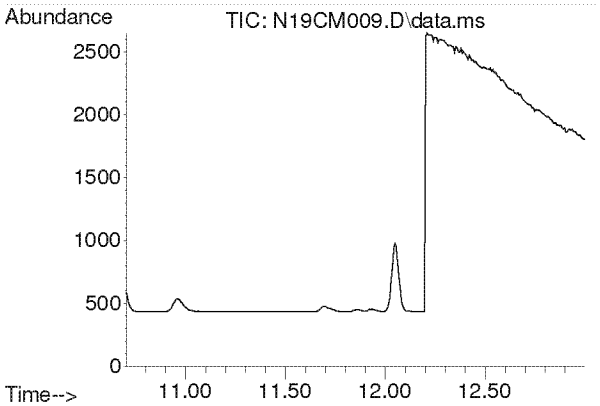
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



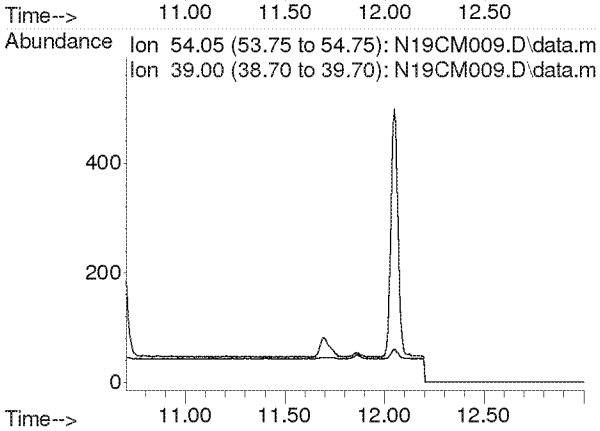


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

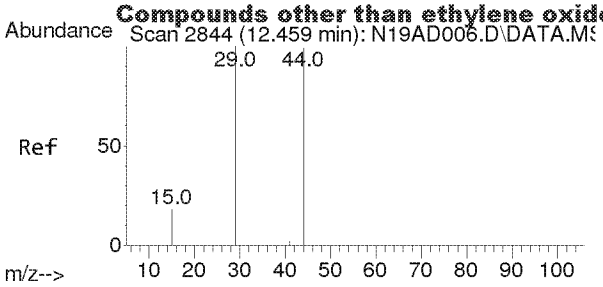
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



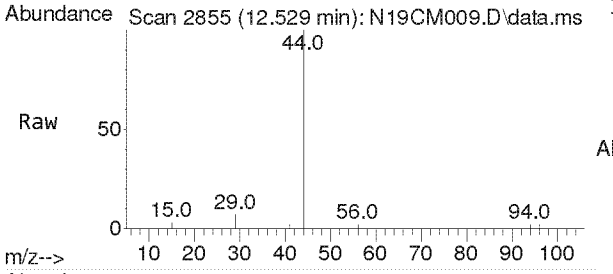
Compounds other than ethylene oxide were not quantitated.

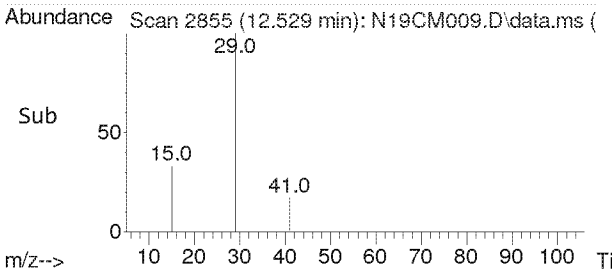


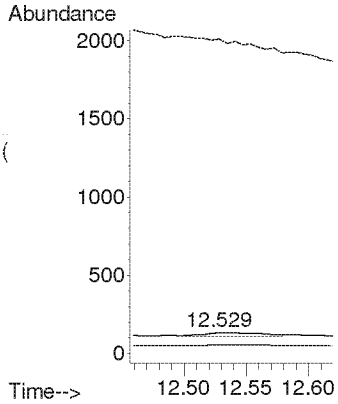
#9
Ethylene Oxide
Concen: 0.045 ppbv
RT: 12.529 min Scan# 2855
Delta R.T. 0.070 min
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

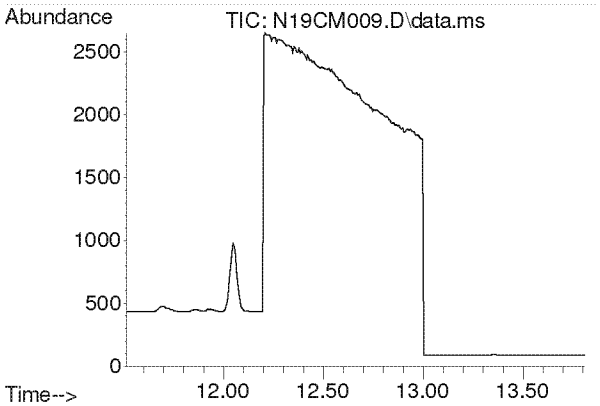
Tgt Ion: 29 Resp: 59

Ion	Ratio	Lower	Upper
29	100		
15	0.0	14.0	21.0#
44	0.0	79.2	118.8#







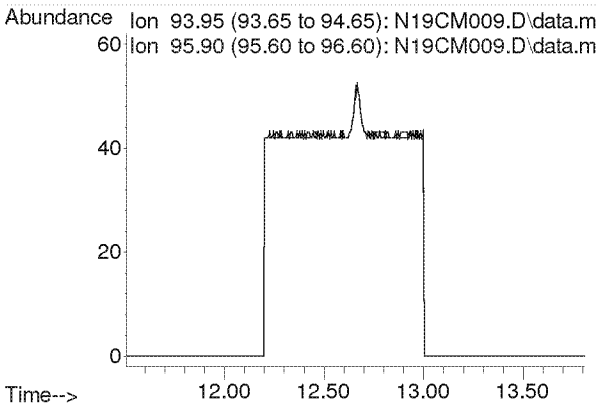


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

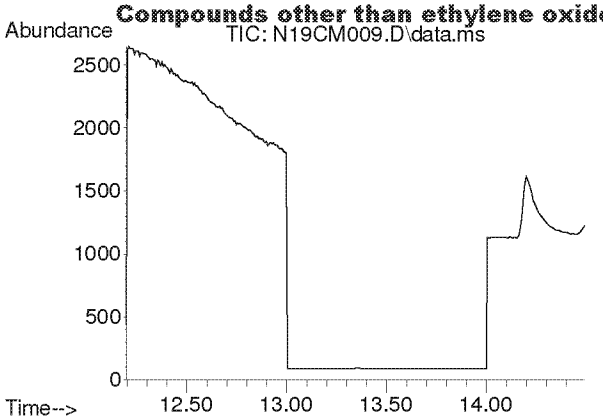
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

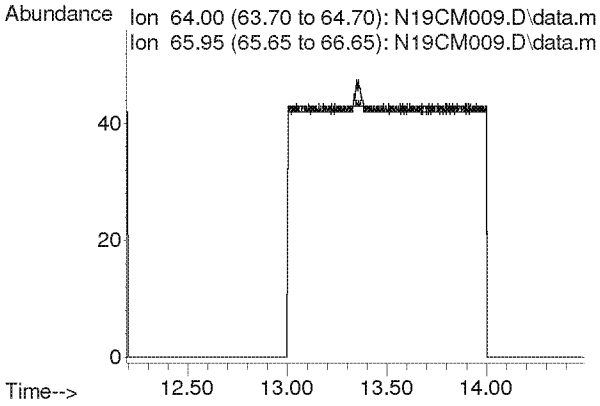


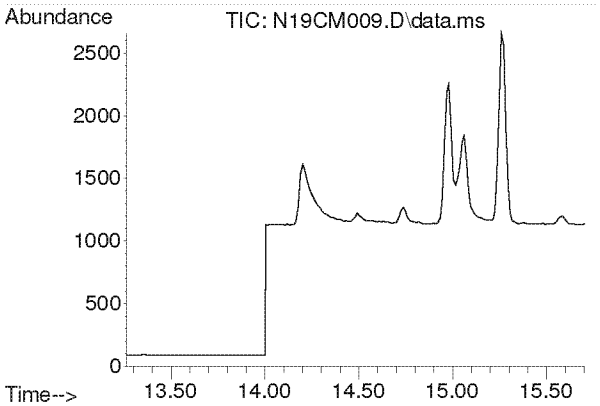
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



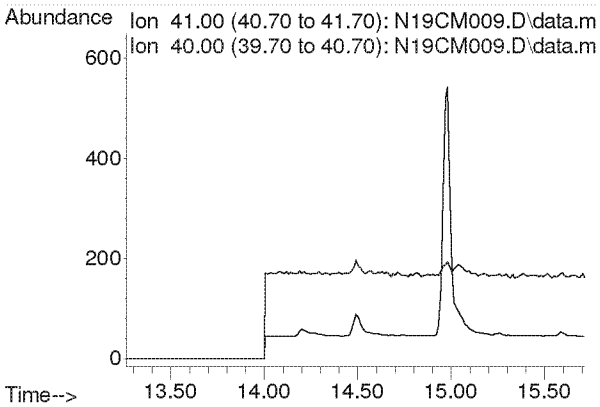


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

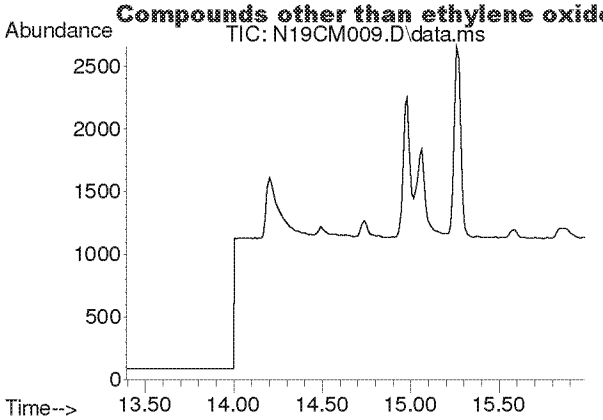
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

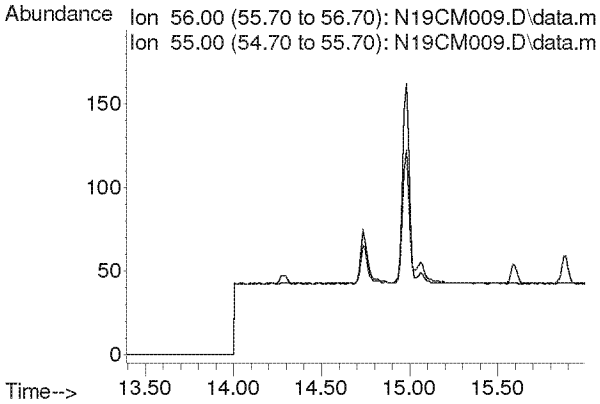


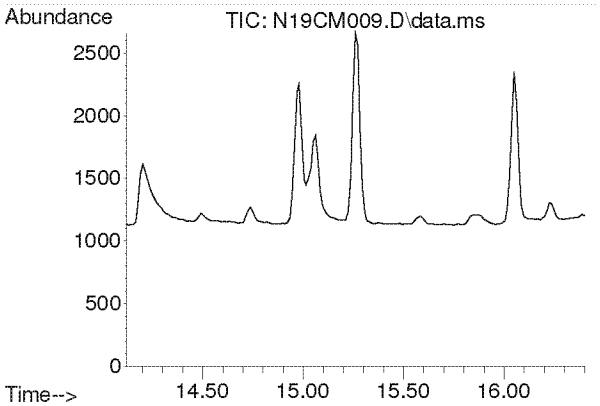
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



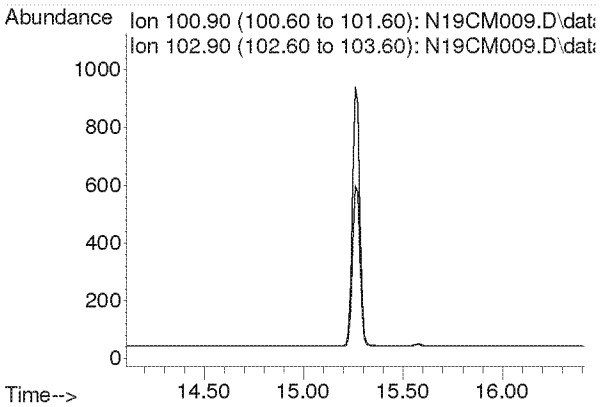


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

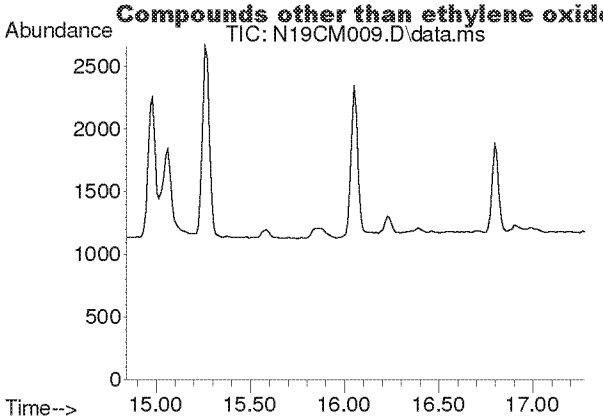
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

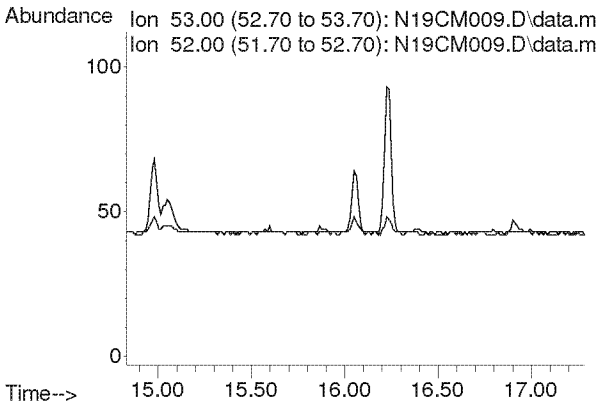


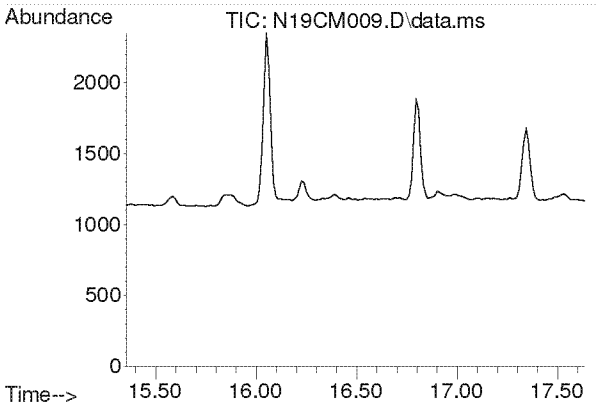
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



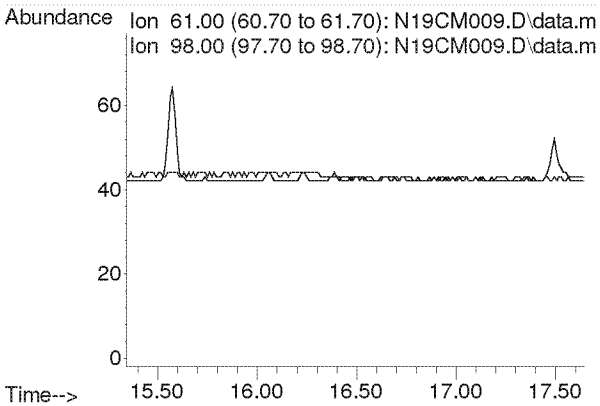


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

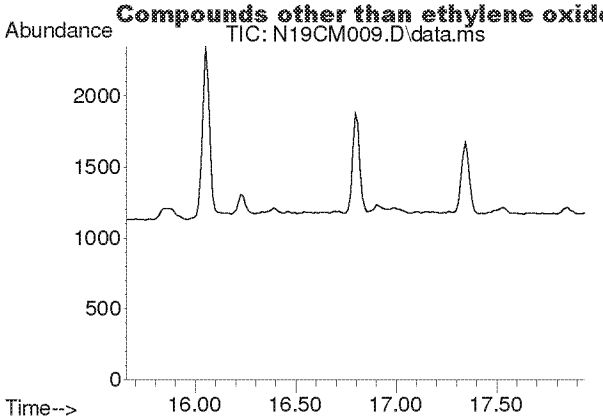
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

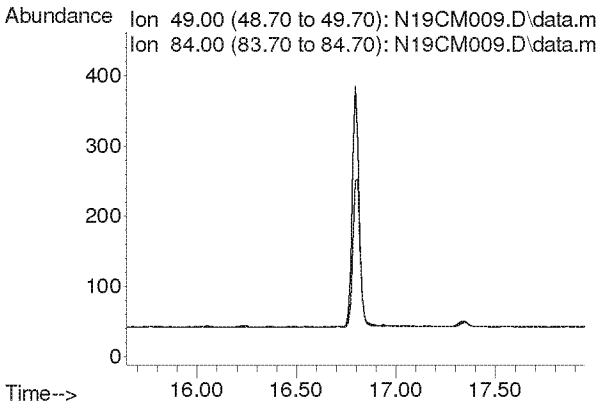


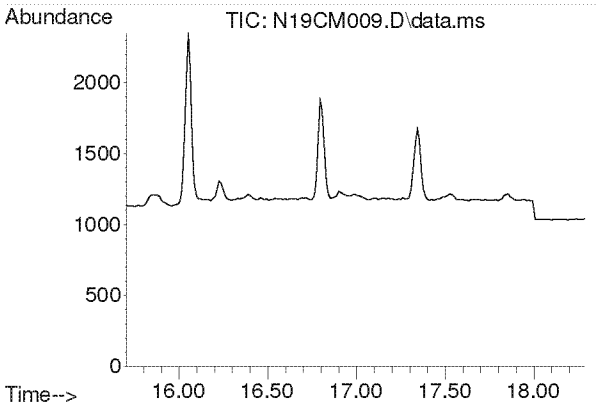
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



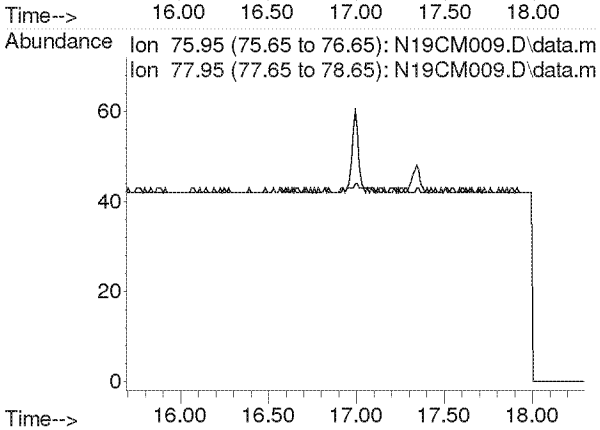


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

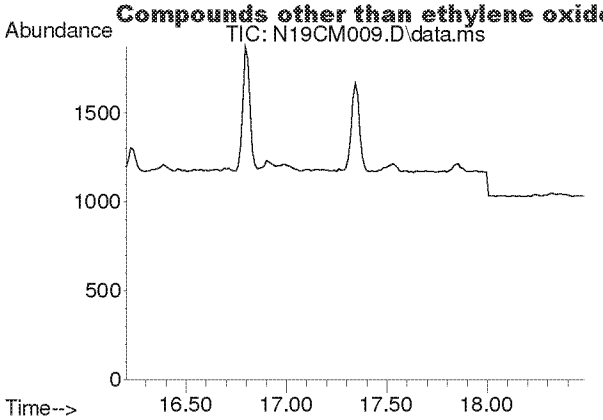
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

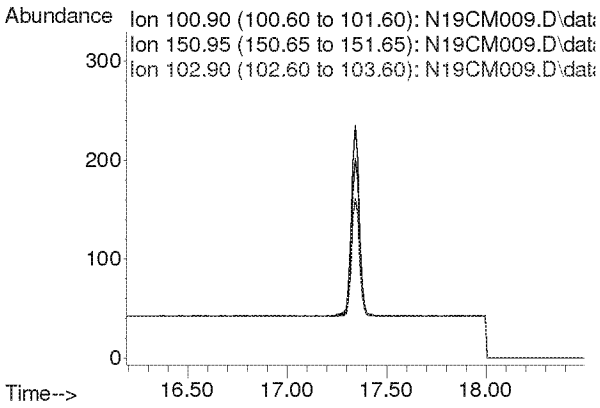


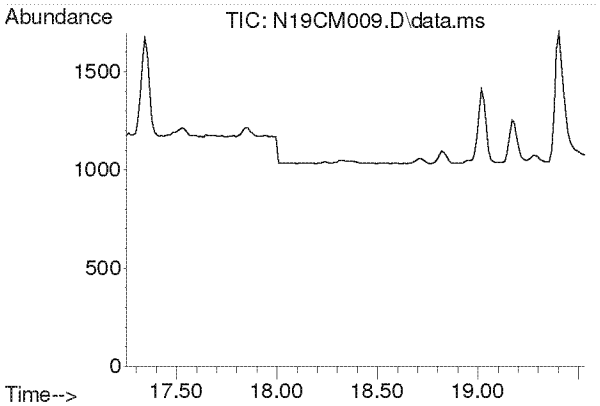
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



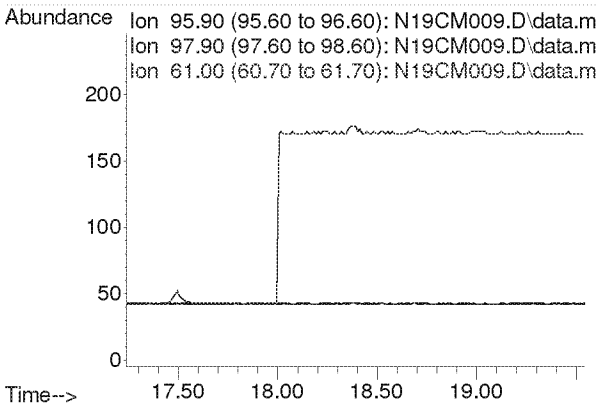


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

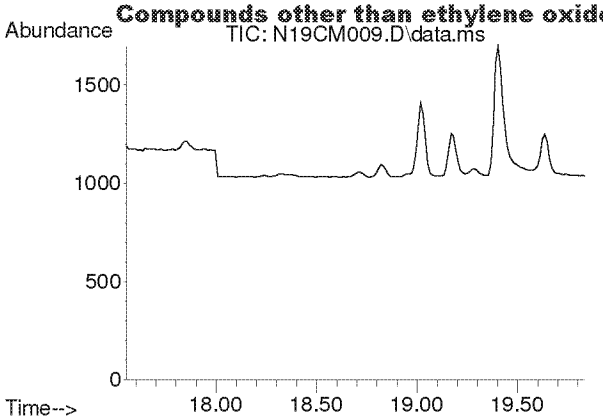
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

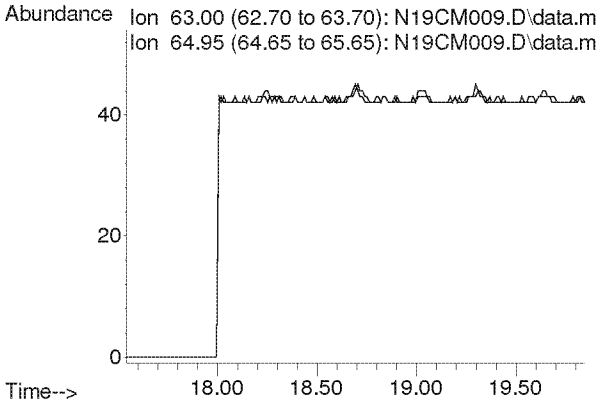


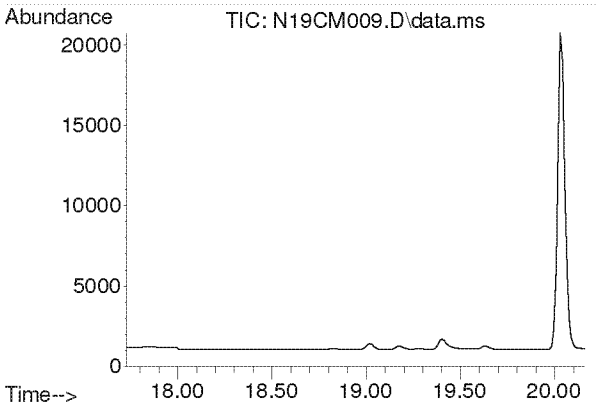
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



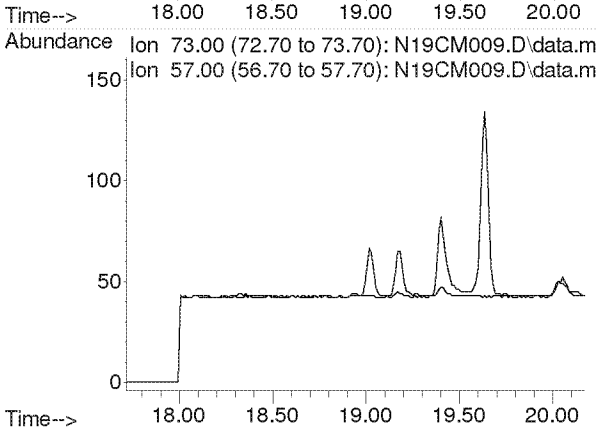


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

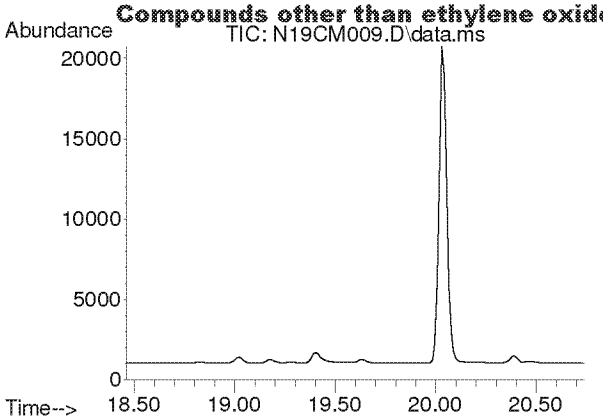
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

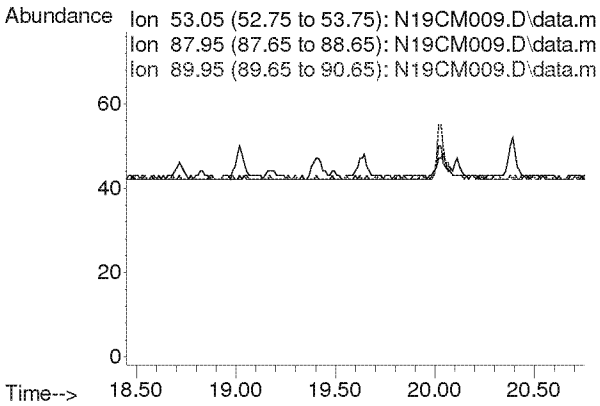


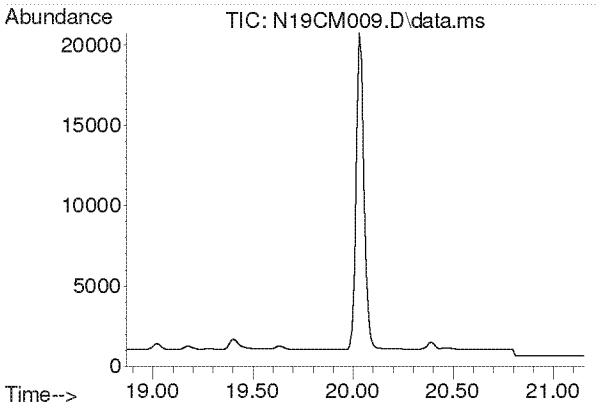
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



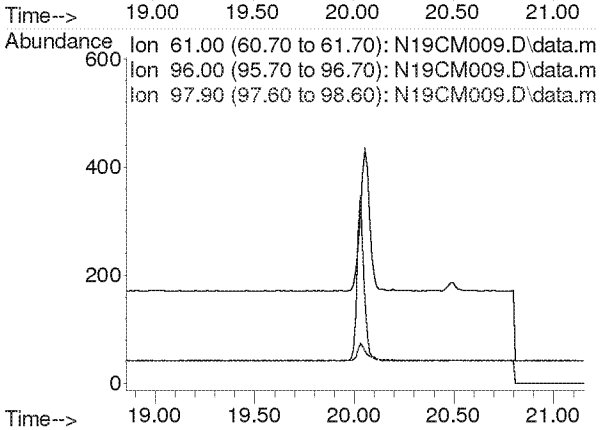


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

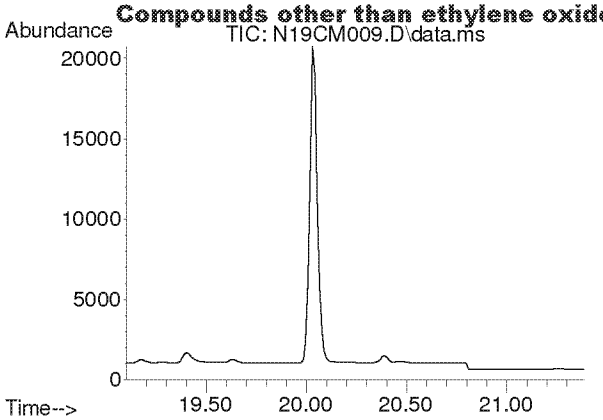
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

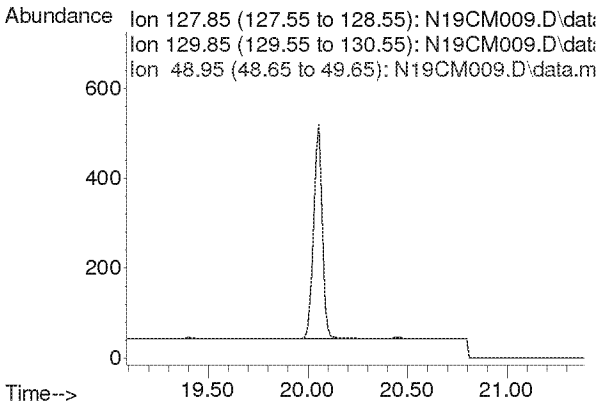


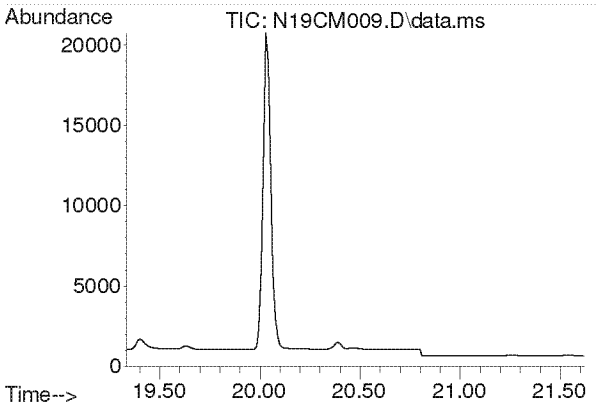
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



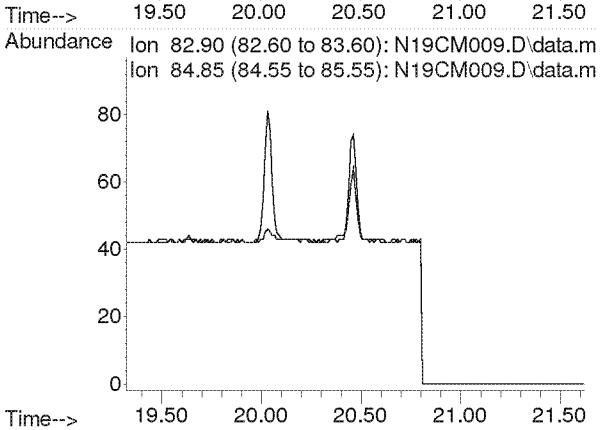


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

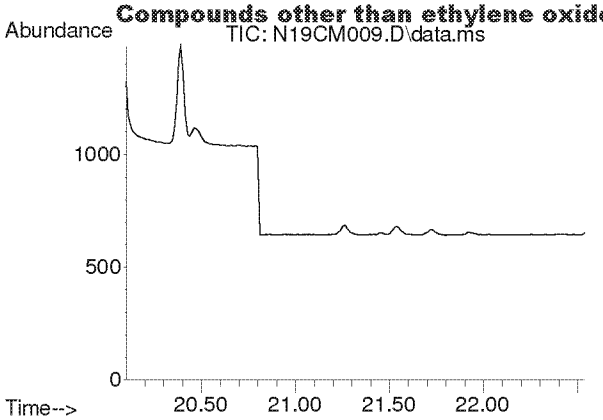
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

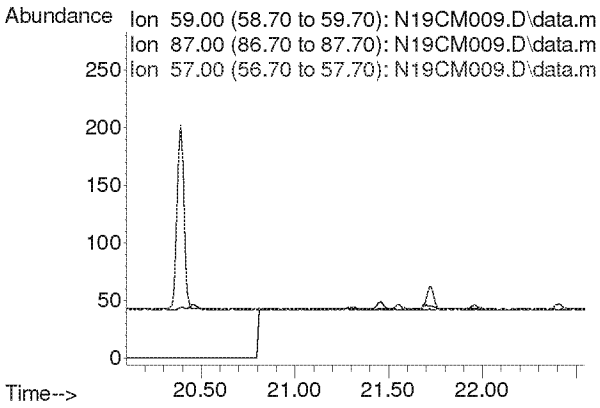


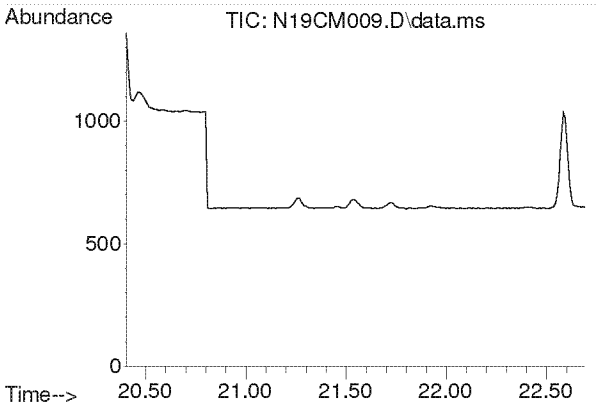
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



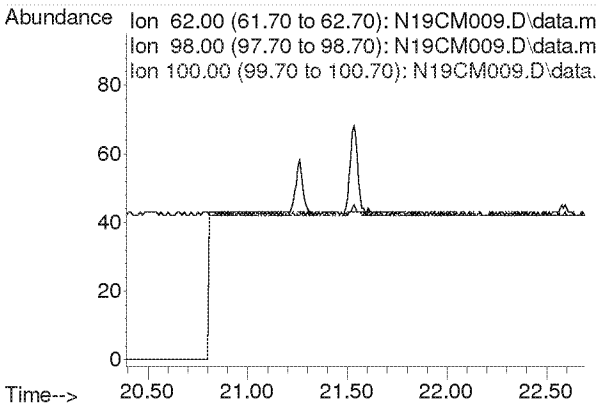


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

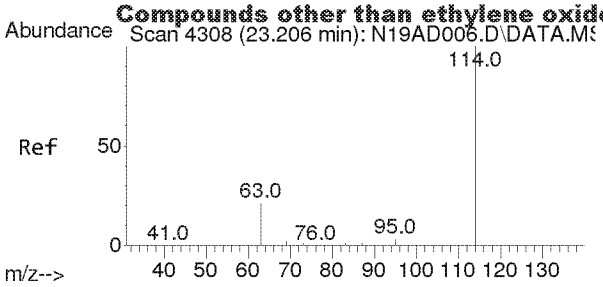
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



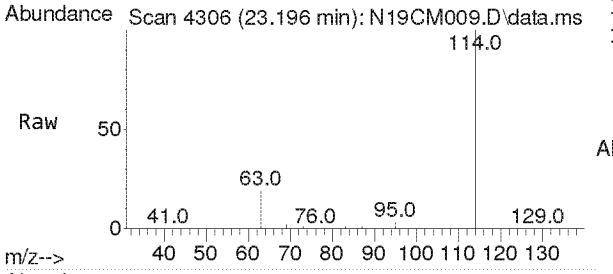
Compounds other than ethylene oxide were not quantitated.

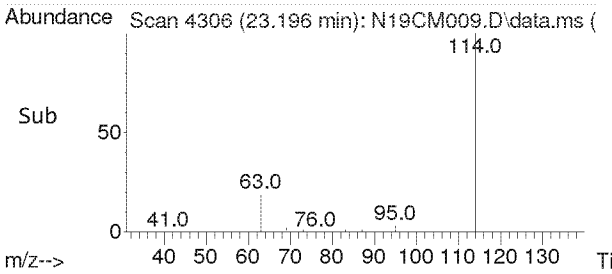


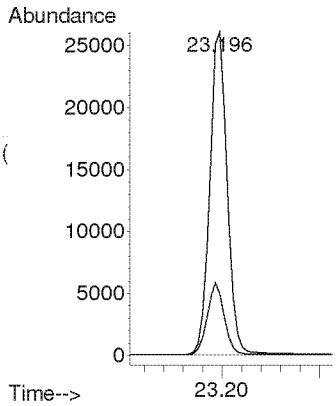
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.196 min Scan# 4306
Delta R.T. -0.010 min
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

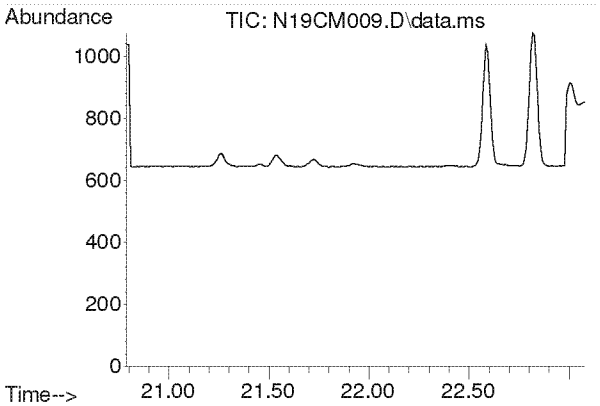
Tgt Ion:114 Resp: 65288

Ion	Ratio	Lower	Upper
114	100		
63	21.8	16.7	25.1







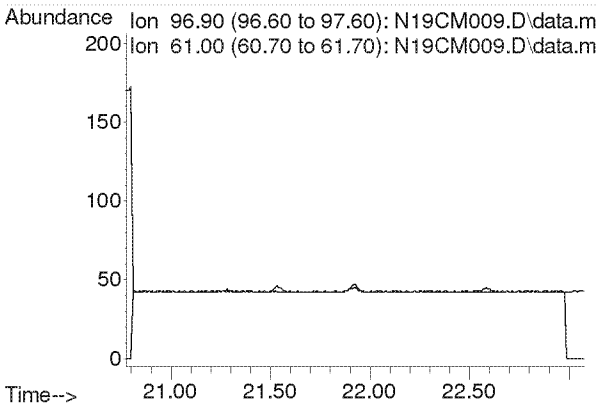


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

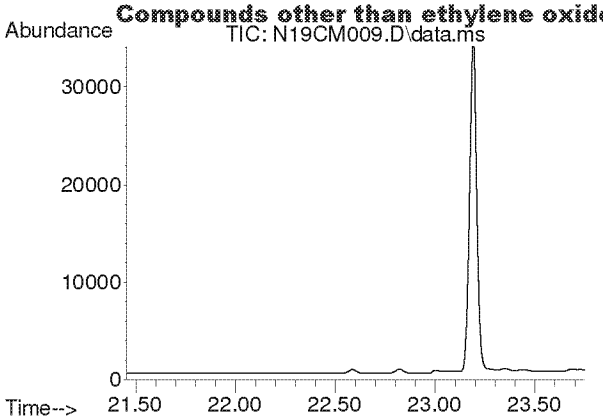
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

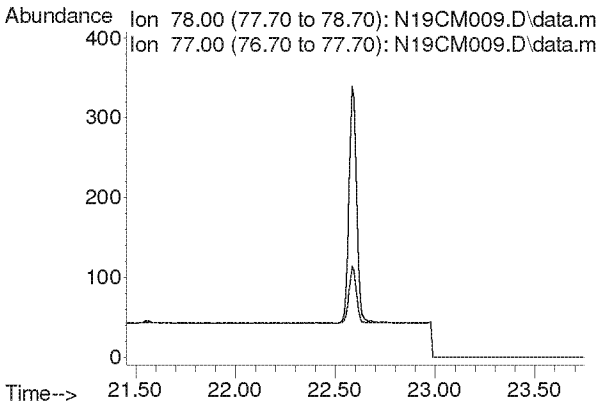


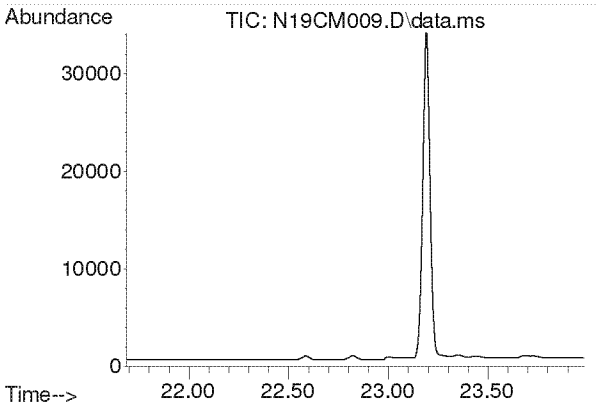
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



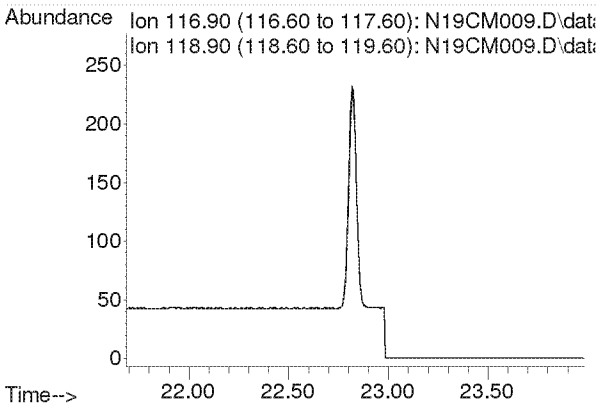


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

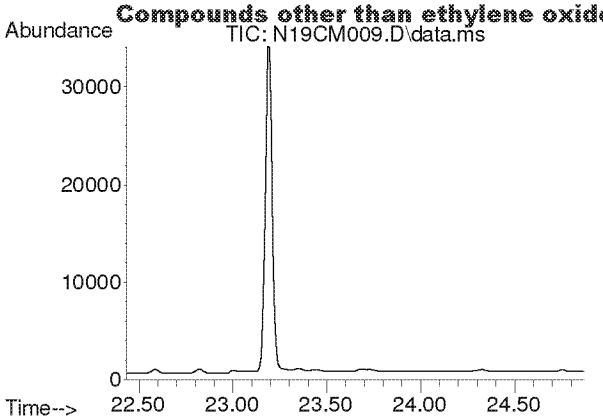
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

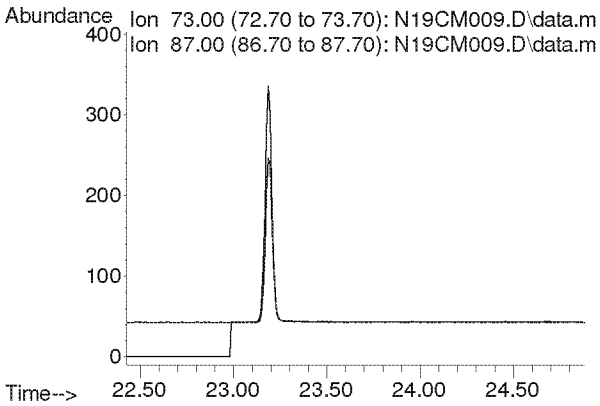


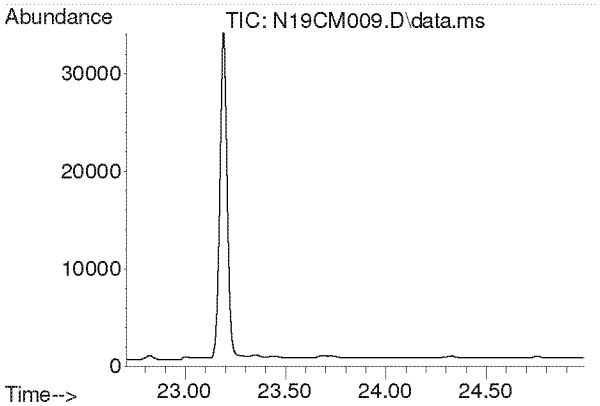
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



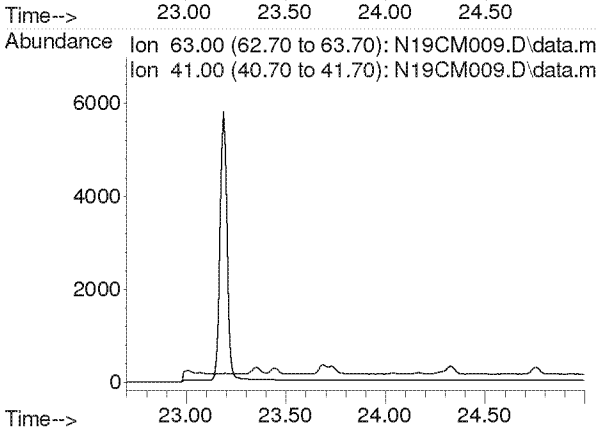


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

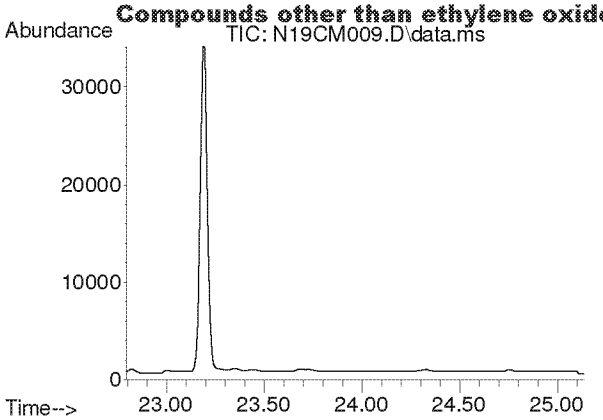
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

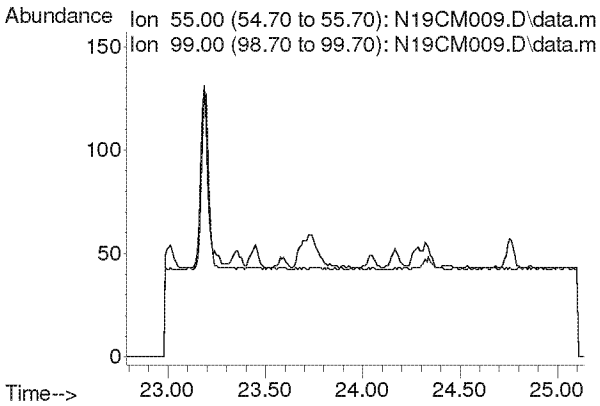


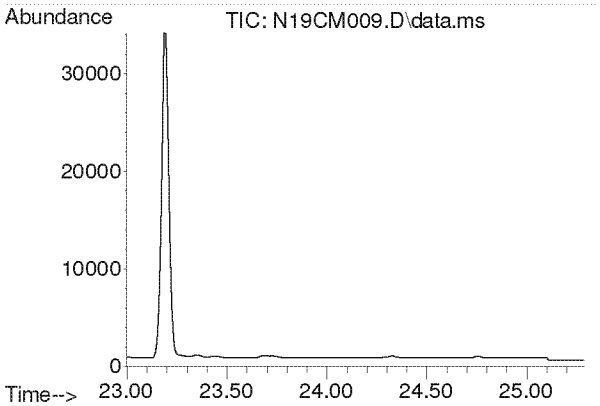
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



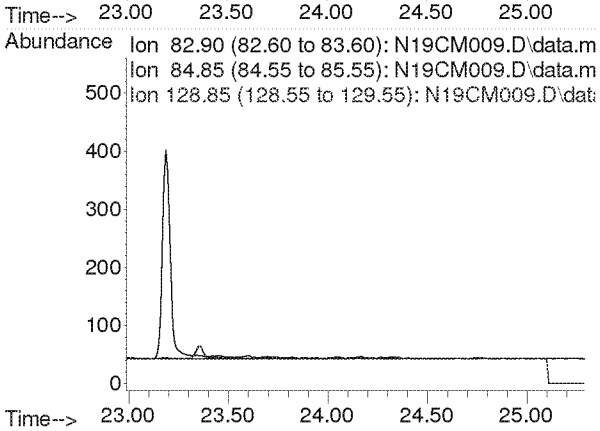


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

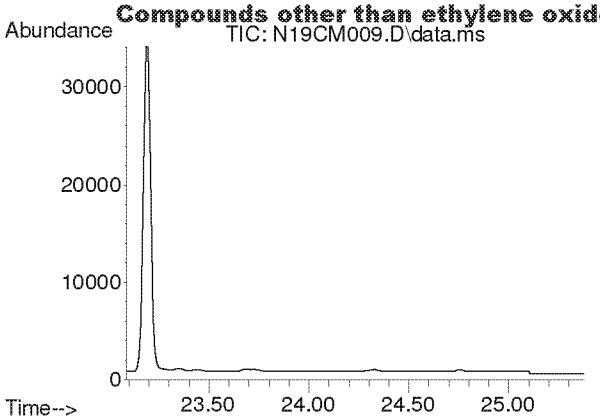
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

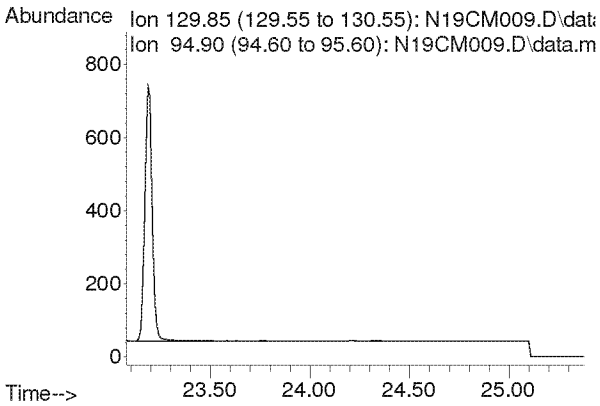


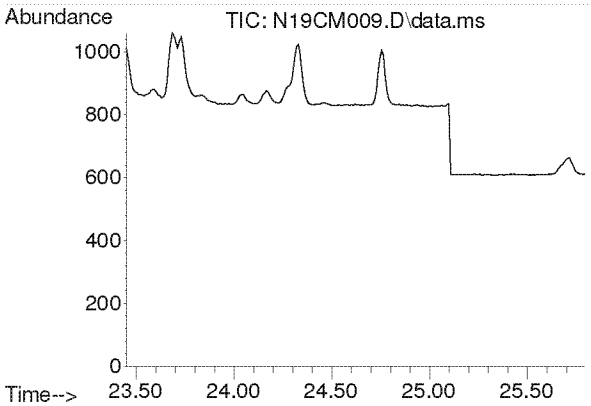
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



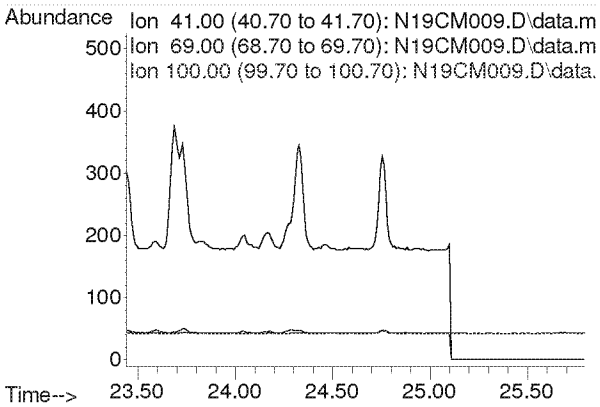


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

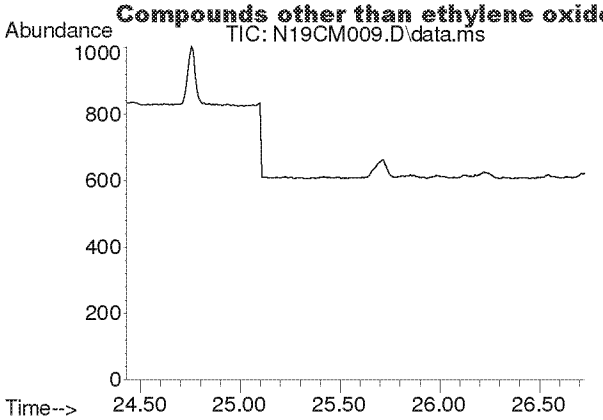
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

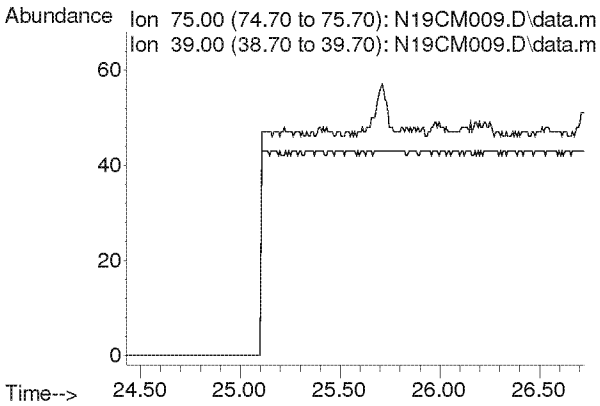


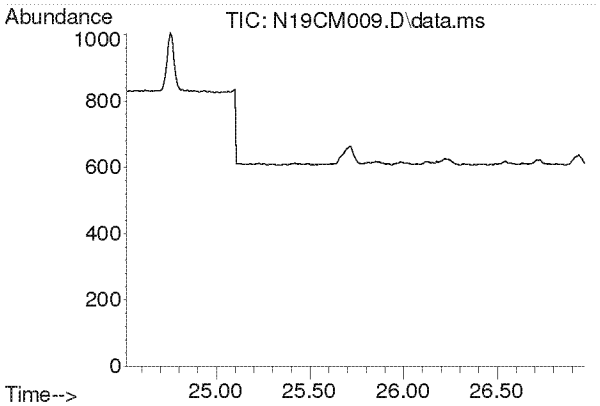
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



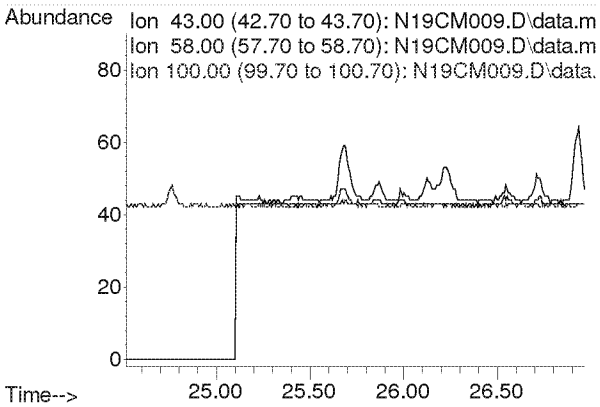


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

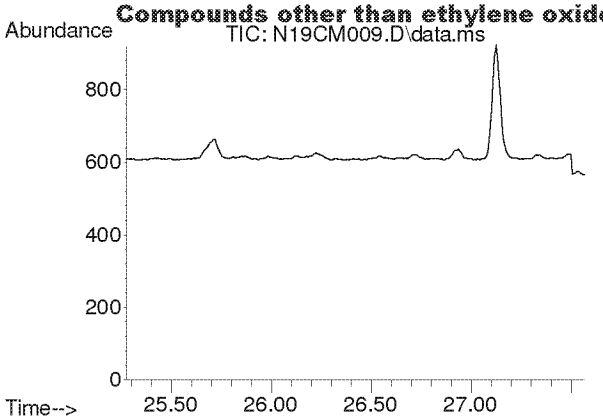
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

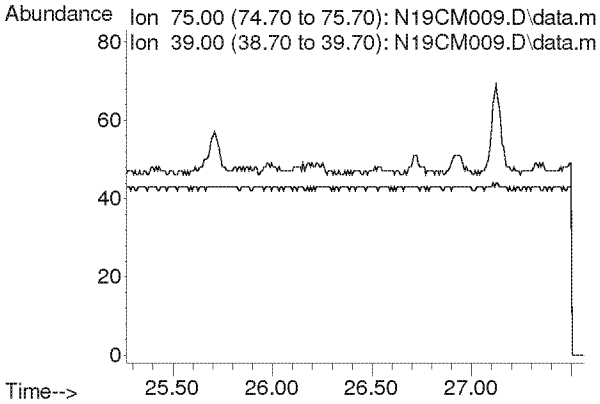


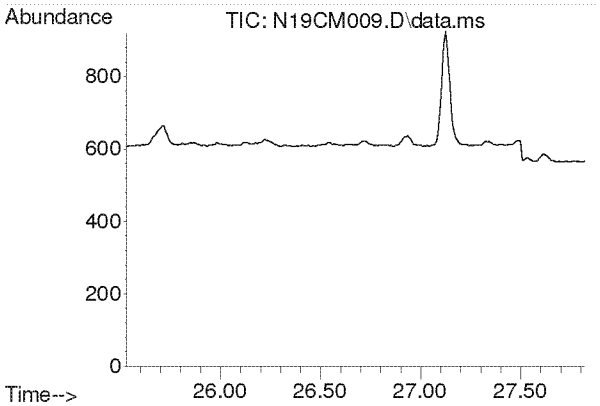
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



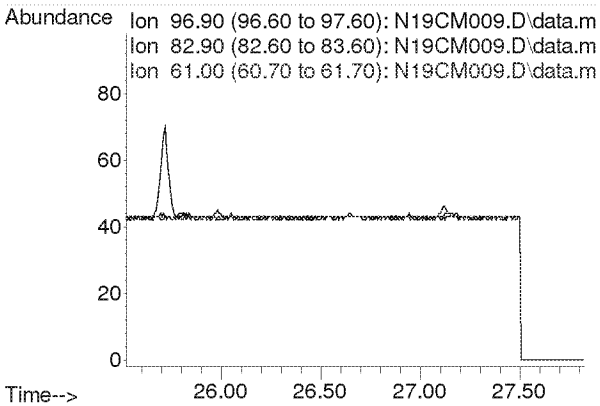


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

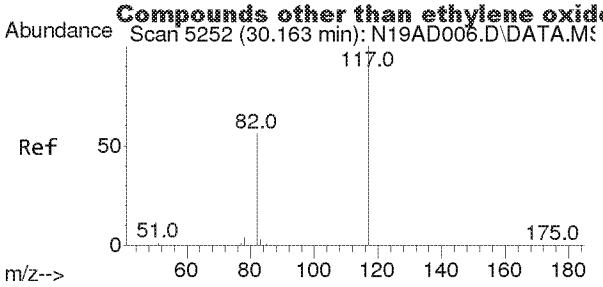
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



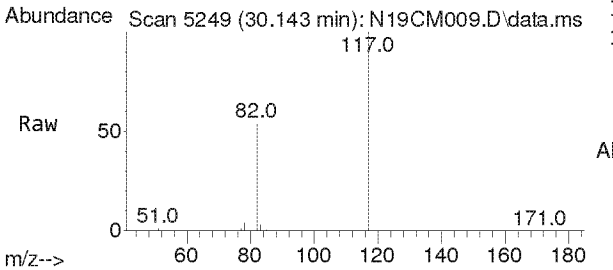
Compounds other than ethylene oxide were not quantitated.

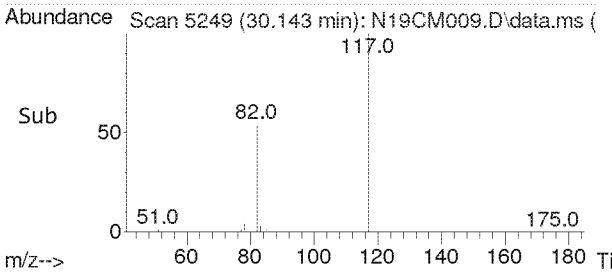


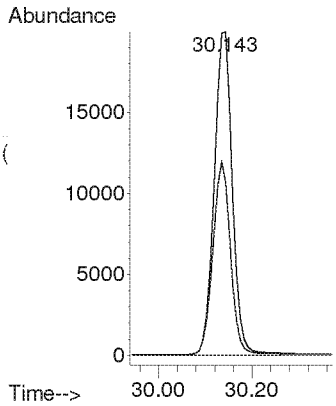
#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.143 min Scan# 5249
Delta R.T. -0.019 min
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

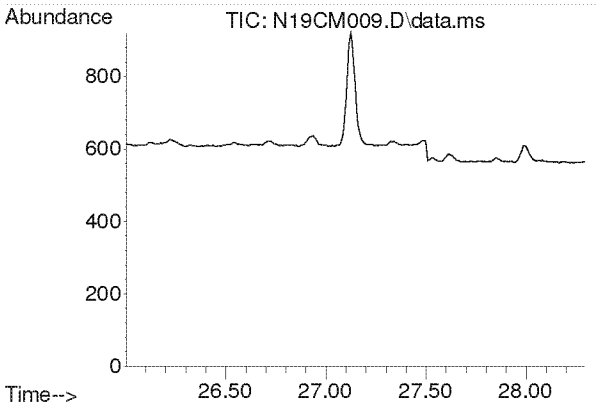
Tgt Ion:117 Resp: 53242

Ion	Ratio	Lower	Upper
117	100		
82	58.1	40.1	74.5
54	0.0	0.0	0.0







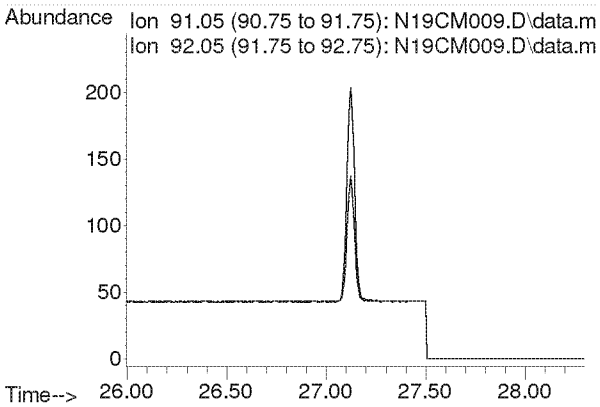


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

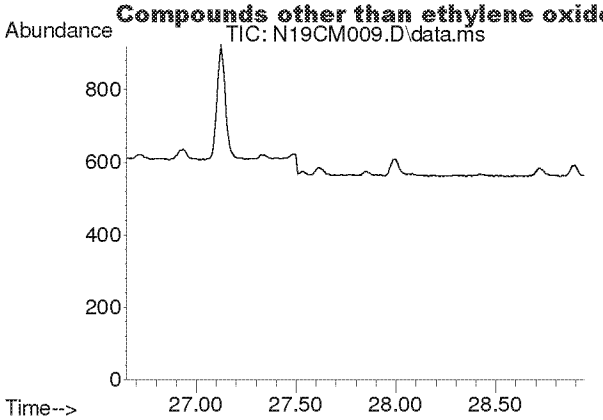
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

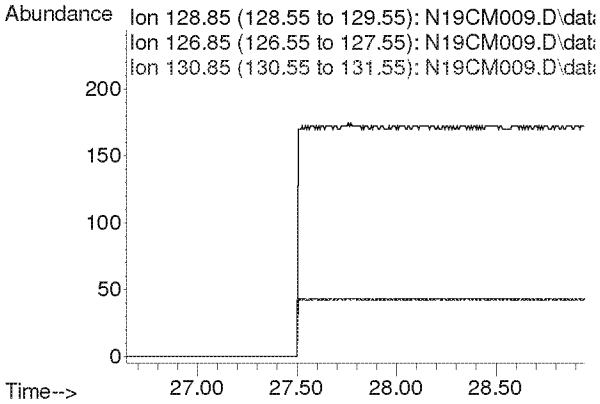


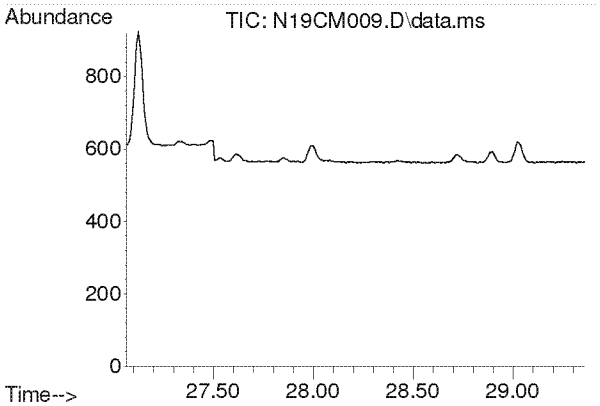
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



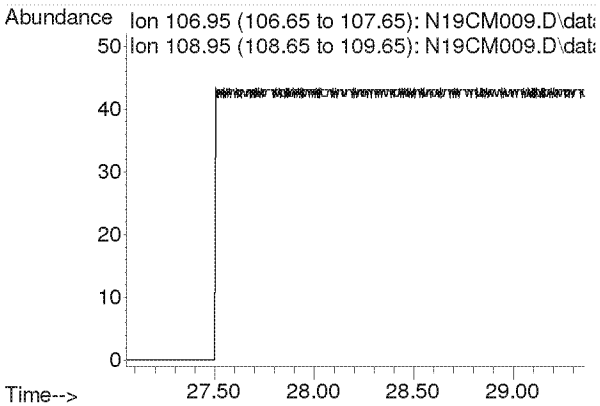


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

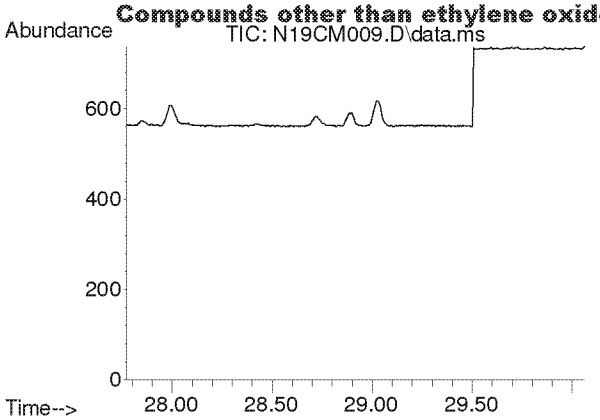
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

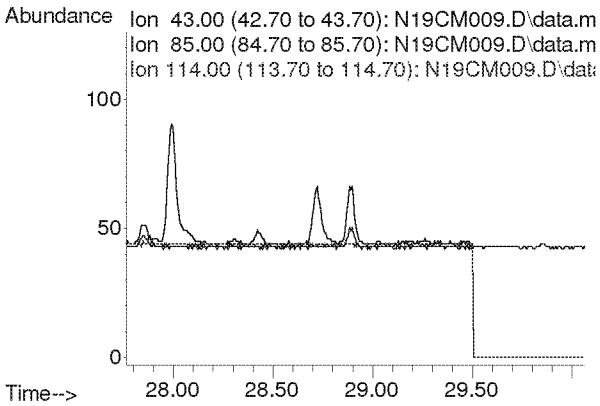


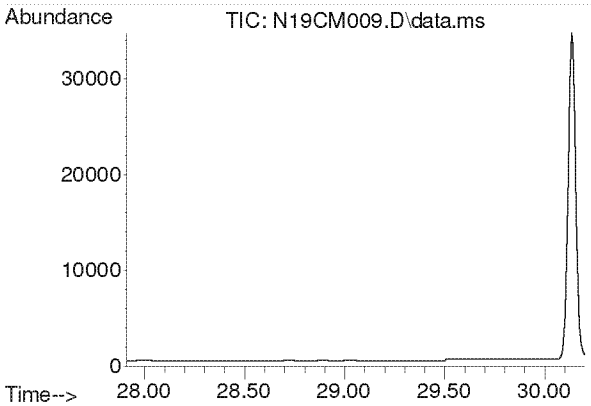
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



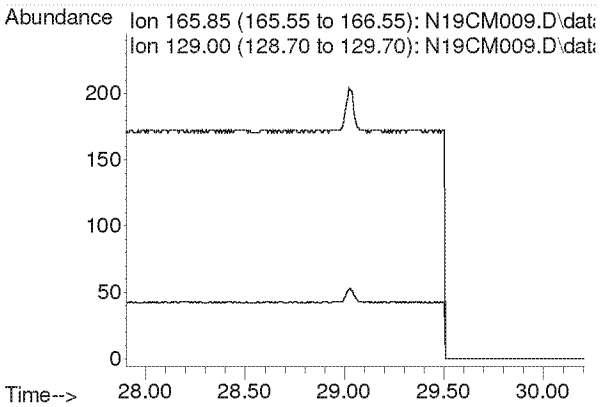


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

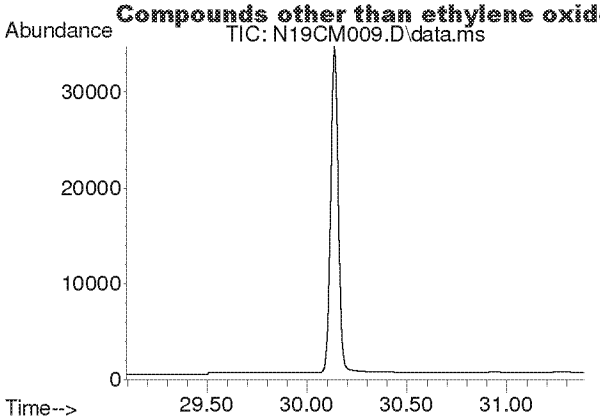
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

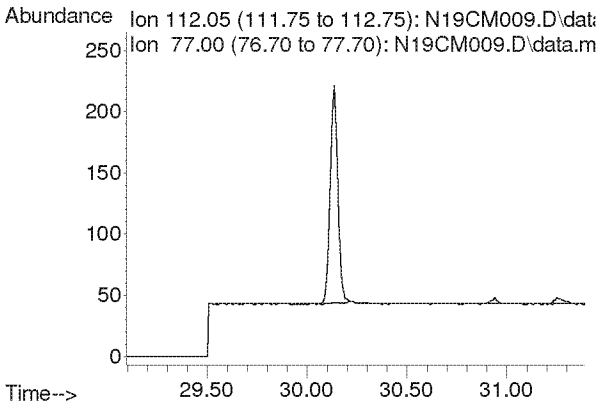


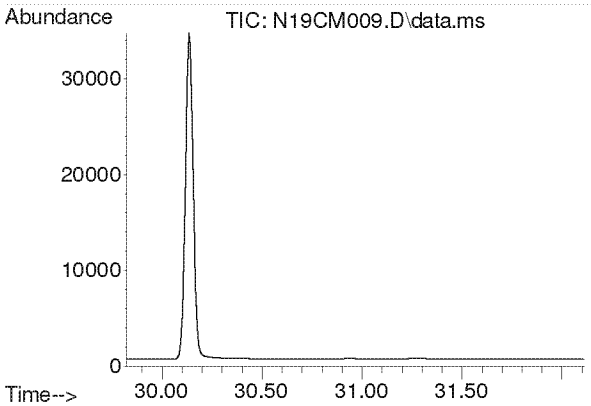
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



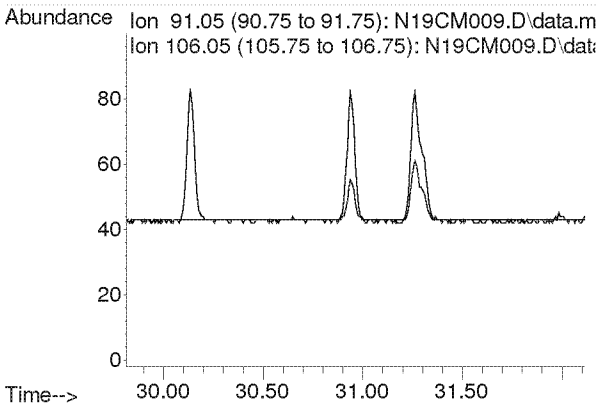


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

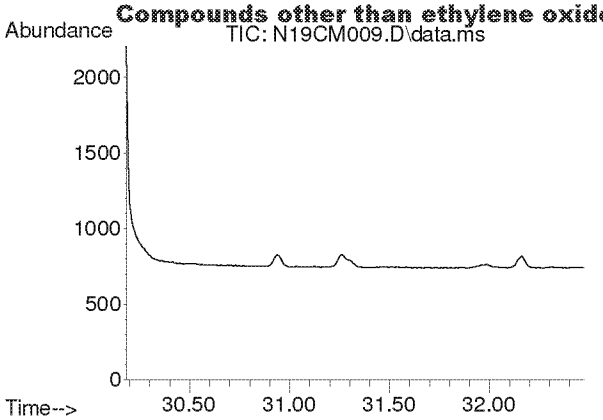
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

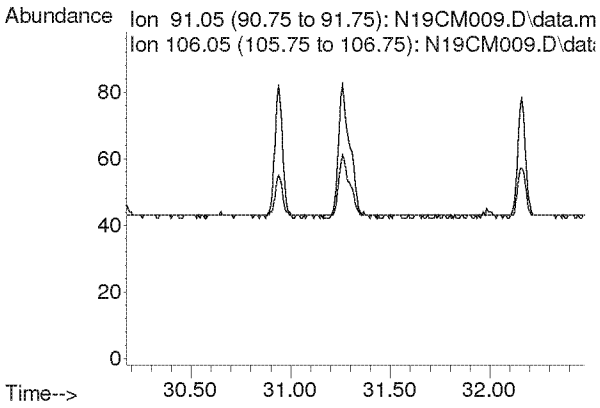


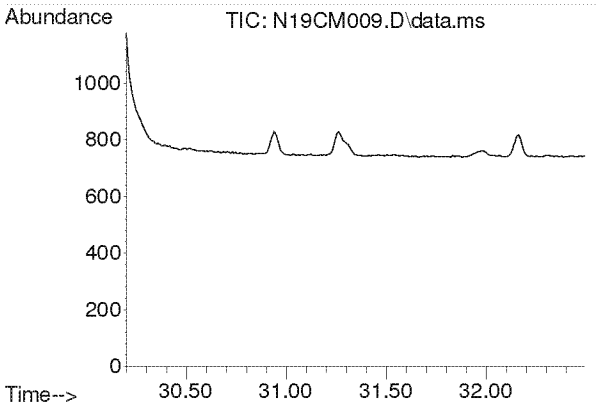
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



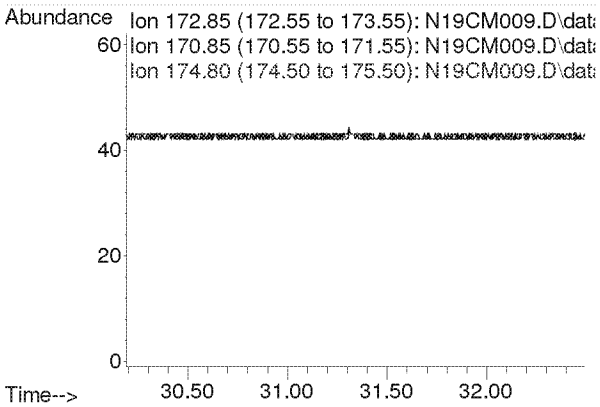


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

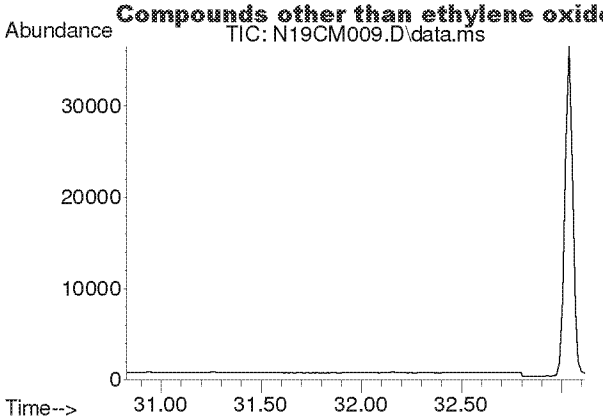
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

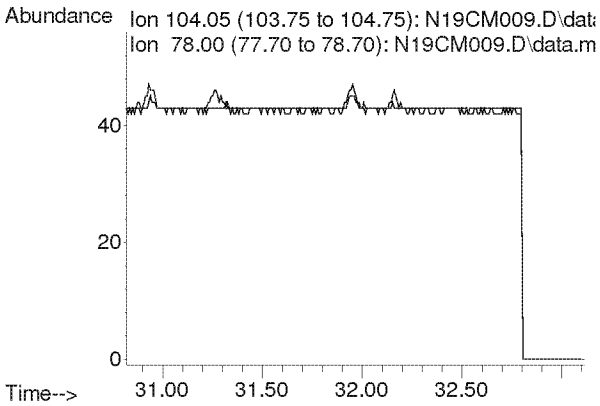


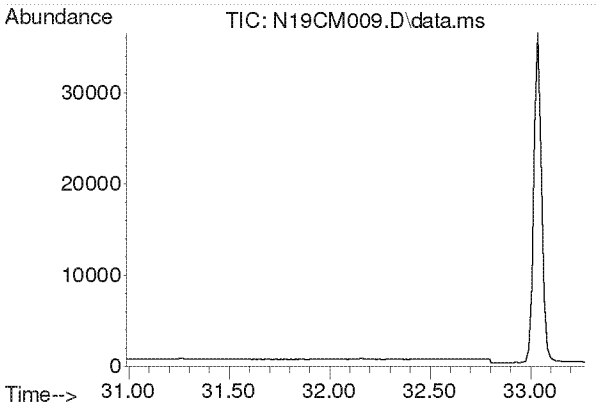
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



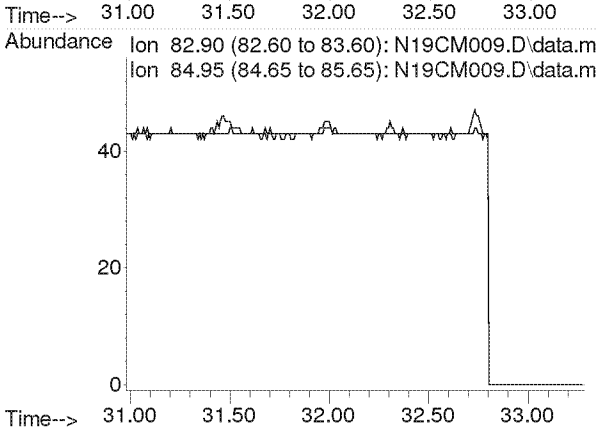


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

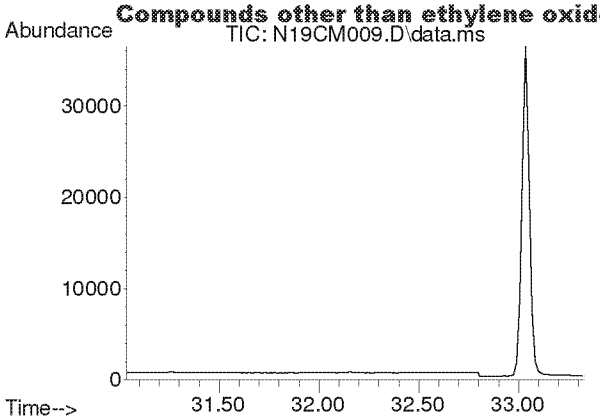
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

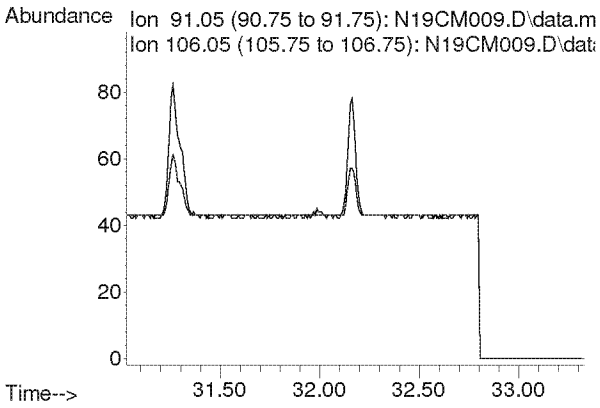


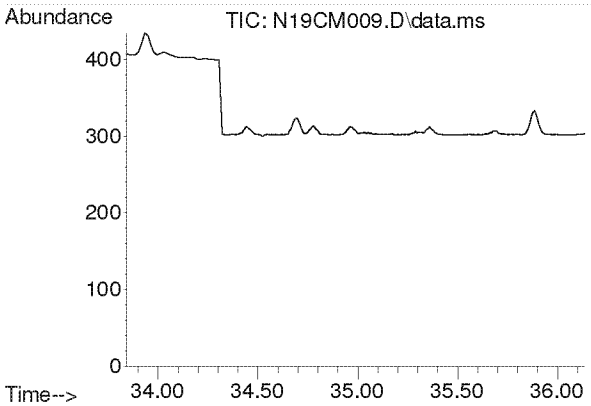
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



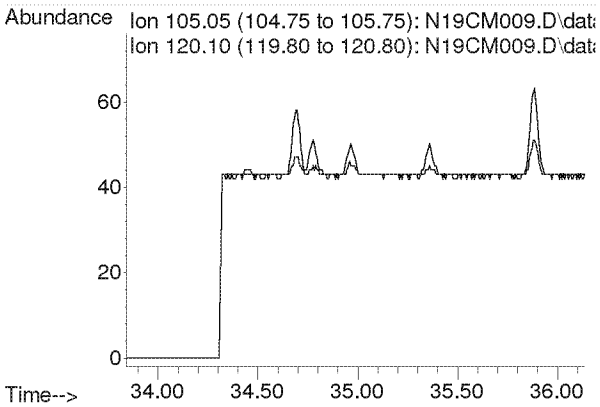


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

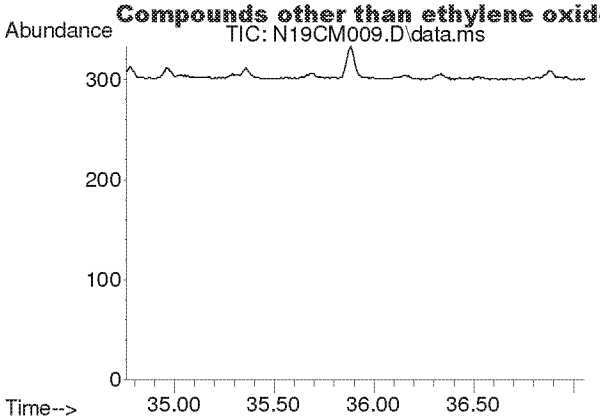
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

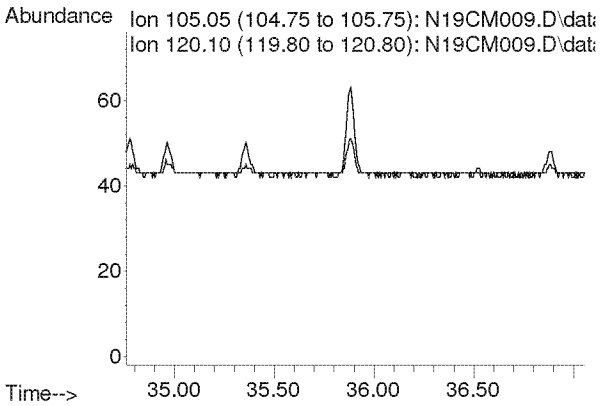


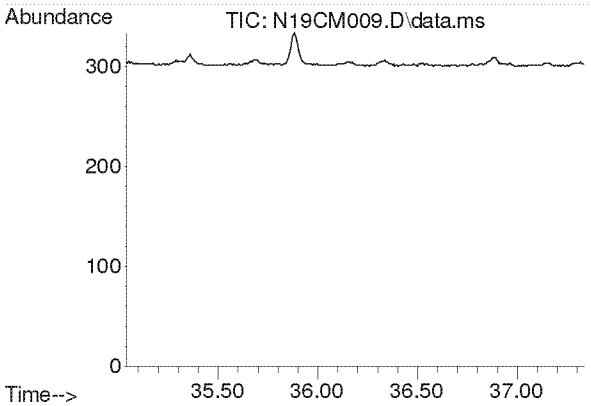
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



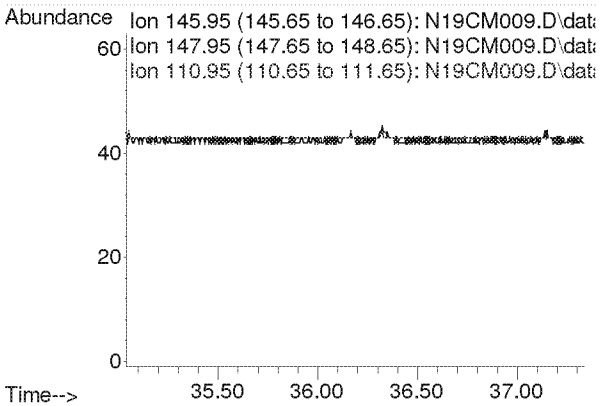


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

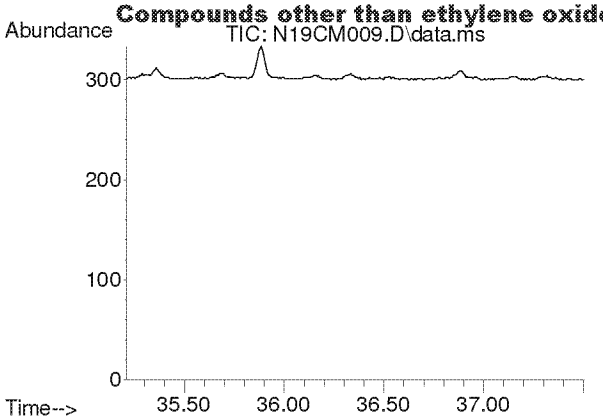
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

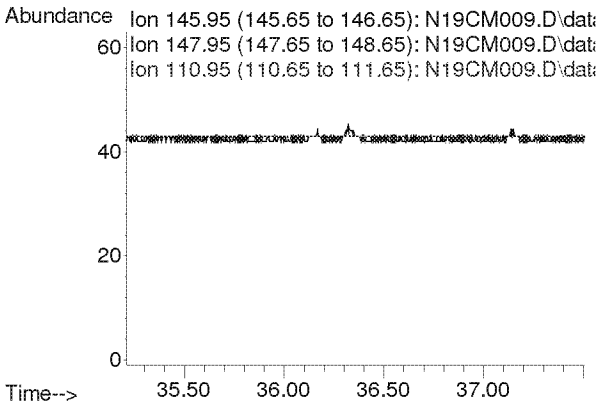


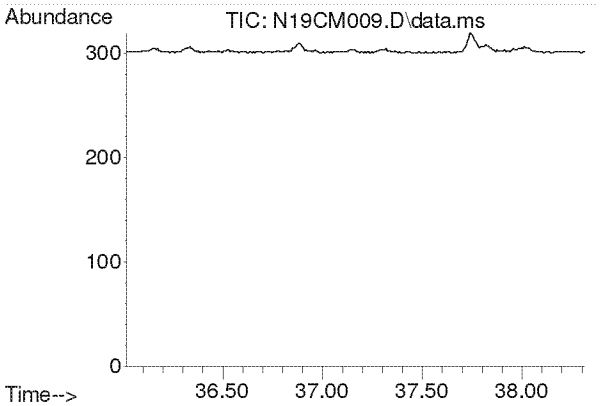
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



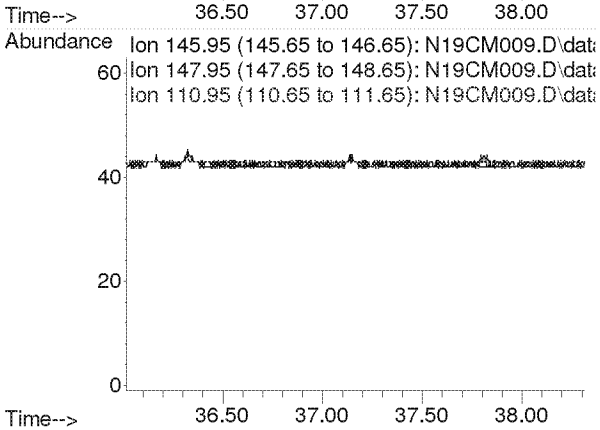


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

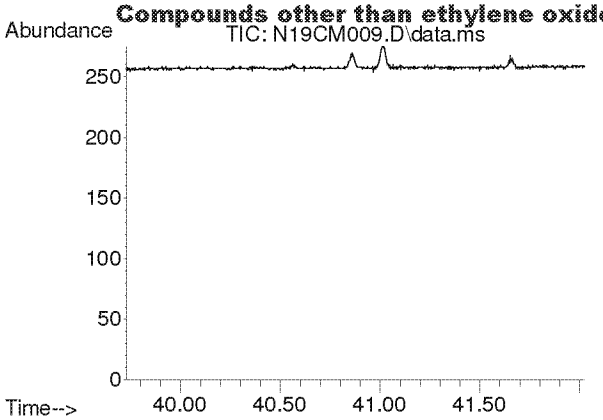
Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

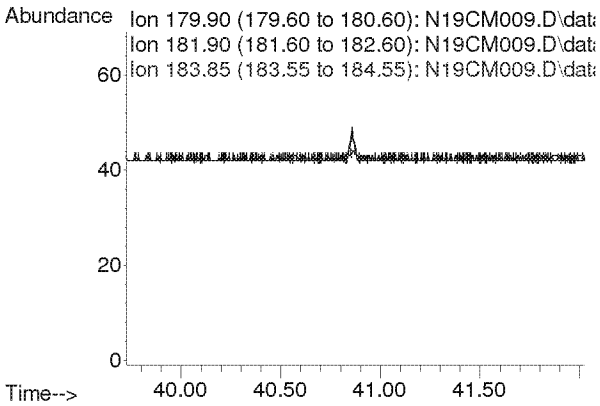


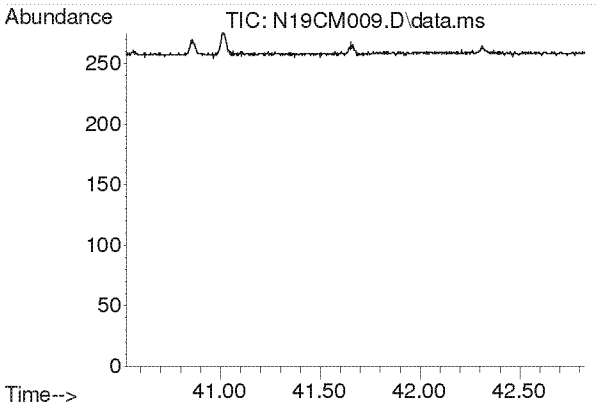
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



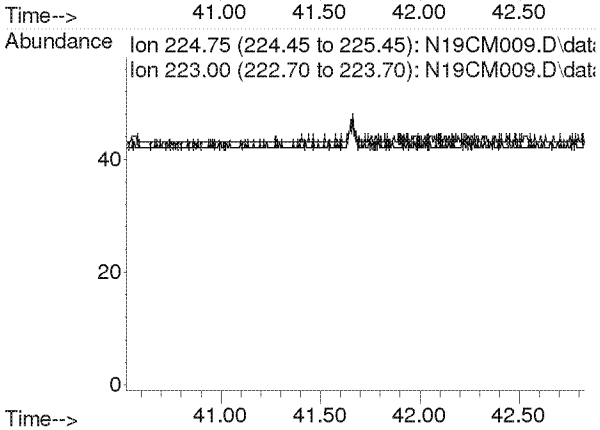


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM009.D
Acq: 13 Mar 2019 7:24 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM010.D
Acq On : 13 Mar 2019 8:25 pm (#1); 13 Mar 2019 8:19 pm (#2)
Operator : KSS
Sample : 9031220-05
Misc : GOWER E.S. 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 14 08:19:15 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.031	66	29814	4.7700 ppbv	-0.01
29) IS-1,4-Difluorobenzene	23.196	114	62904	4.9900 ppbv	-0.01
43) IS-Chlorobenzene-d5	30.135	117	52525	4.7400 ppbv	-0.03

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene Oxide	12.541	29	70m	0.0539 ppbv	AB 3/22/19
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
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.	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM010.D
Acq On : 13 Mar 2019 8:25 pm (#1); 13 Mar 2019 8:19 pm (#2)
Operator : KSS
Sample : 9031220-05
Misc : GOWER E.S. 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 14 08:19:15 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

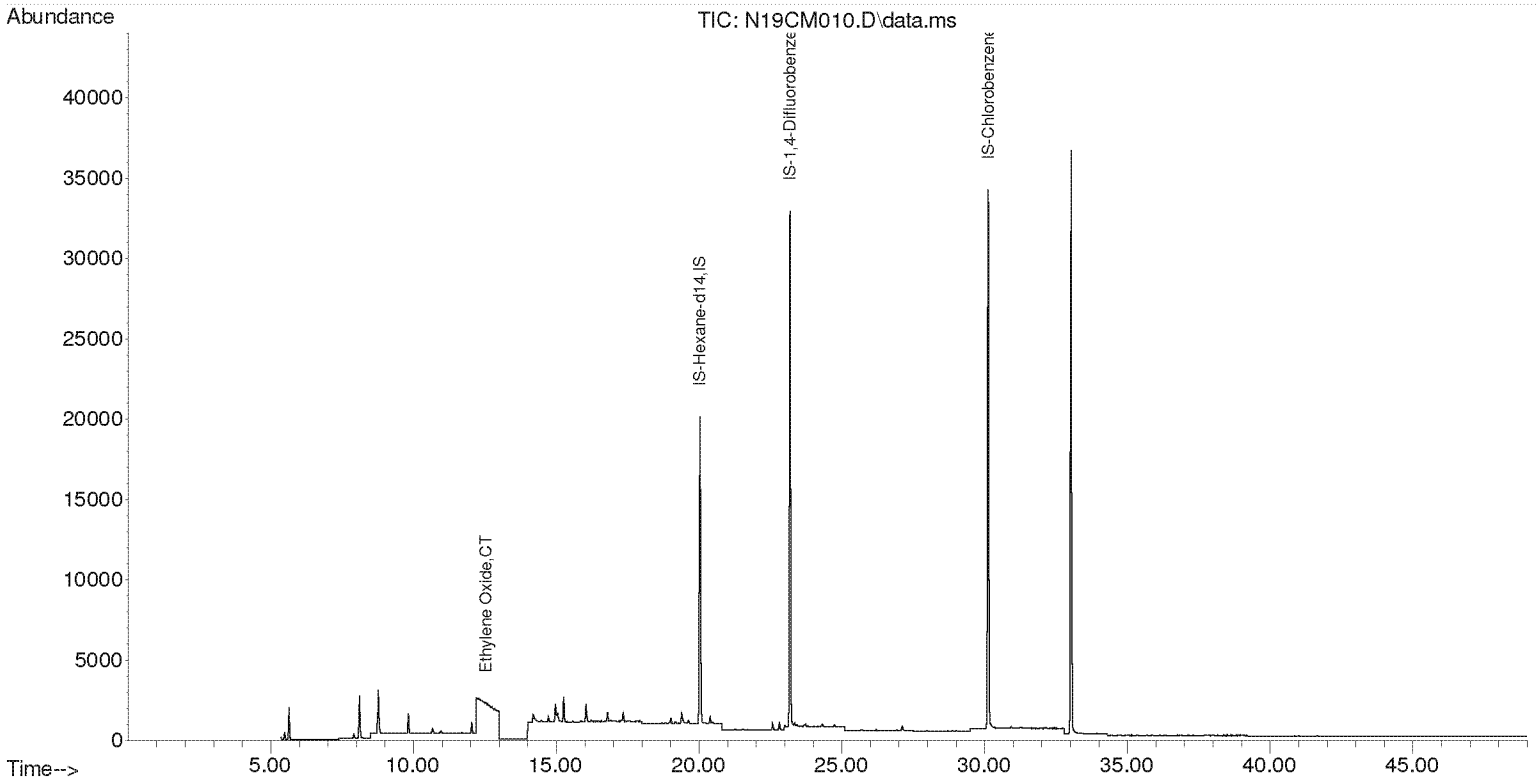
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.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

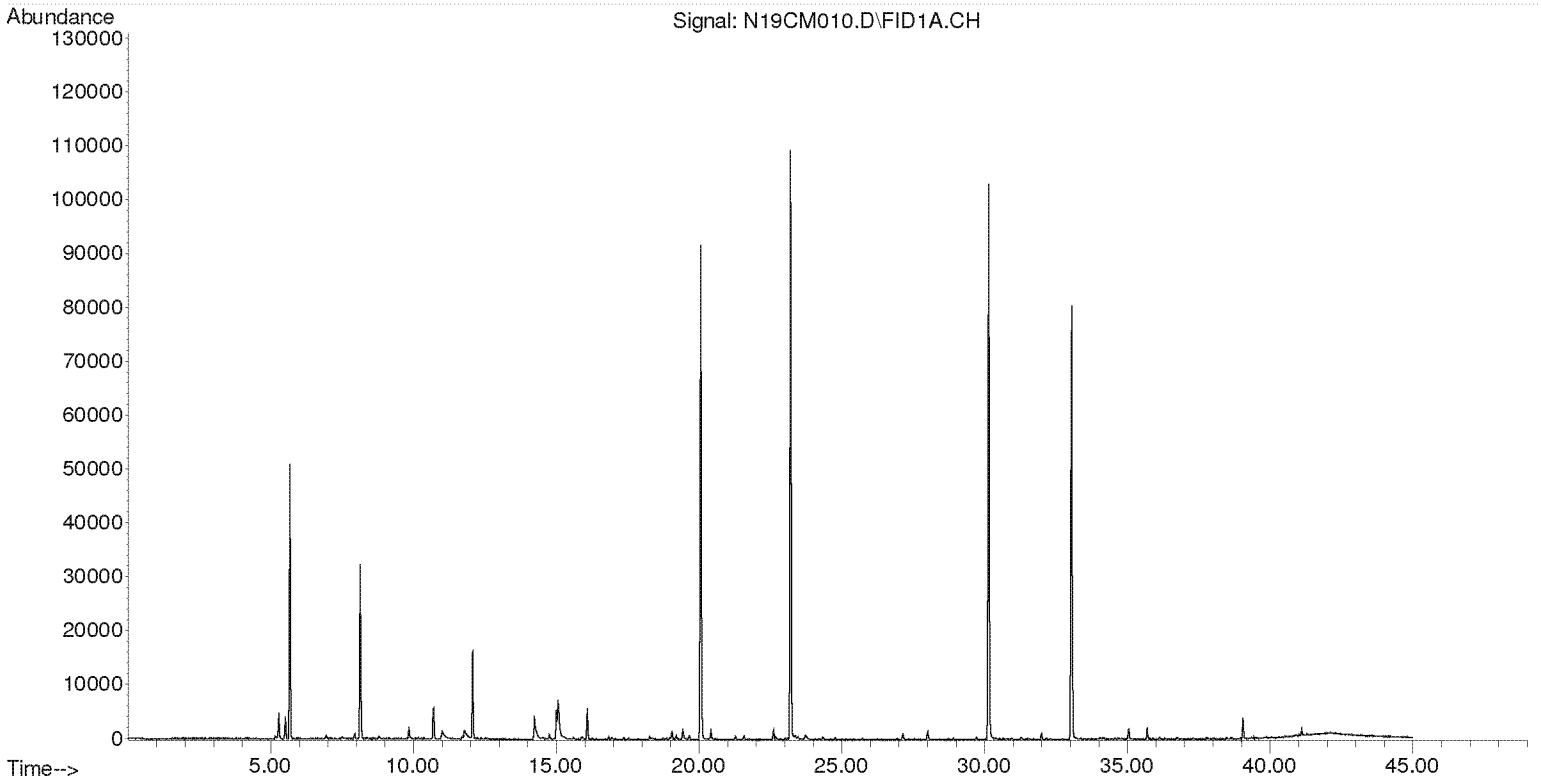
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

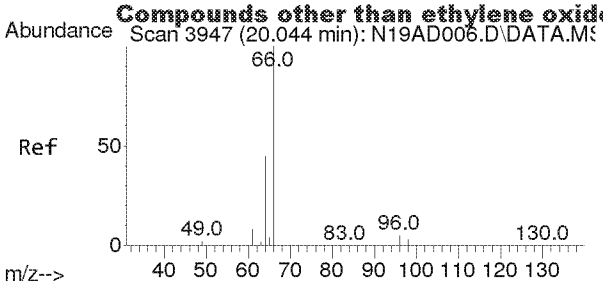
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM010.D
Acq On : 13 Mar 2019 8:25 pm (#1); 13 Mar 2019 8:19 pm (#2)
Operator : KSS
Sample : 9031220-05
Misc : GOWER E.S. 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 14 08:19:15 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





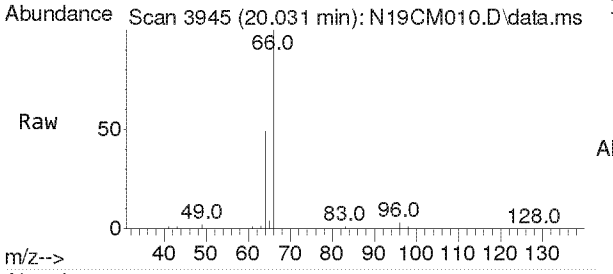
Compounds other than ethylene oxide were not quantitated.

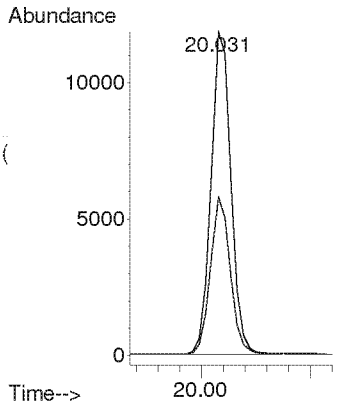


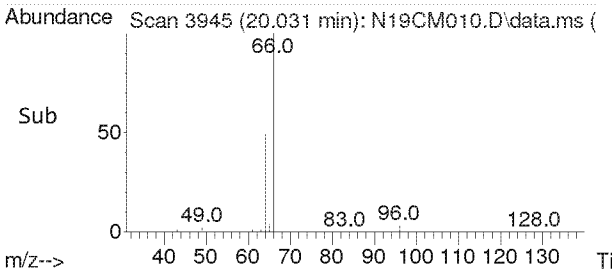
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.031 min Scan# 3945
Delta R.T. -0.013 min
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

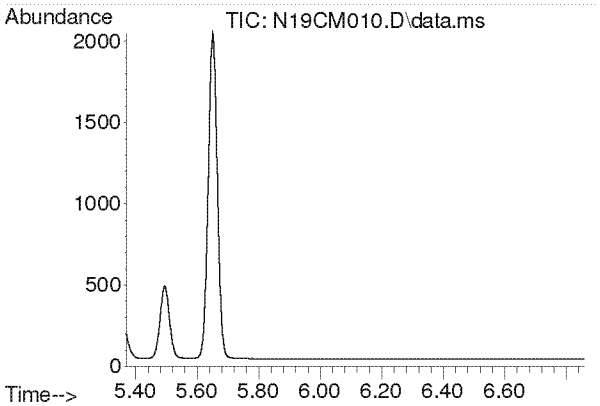
Tgt Ion: 66 Resp: 29814

Ion	Ratio	Lower	Upper
66	100		
64	48.7	32.1	59.5





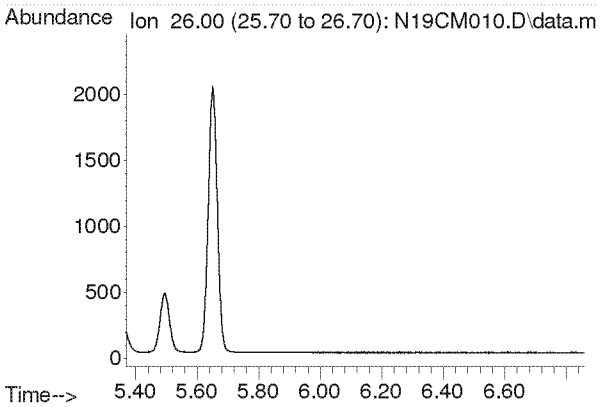




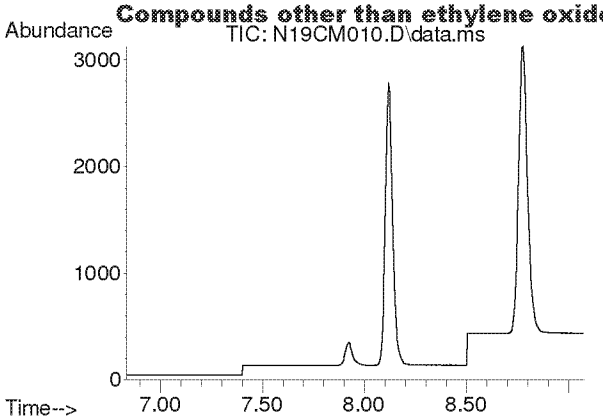
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

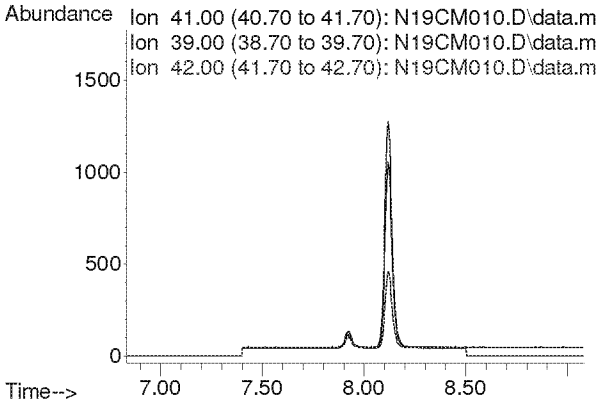


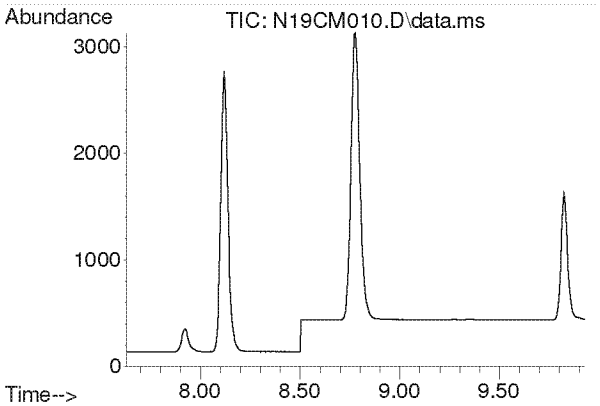
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



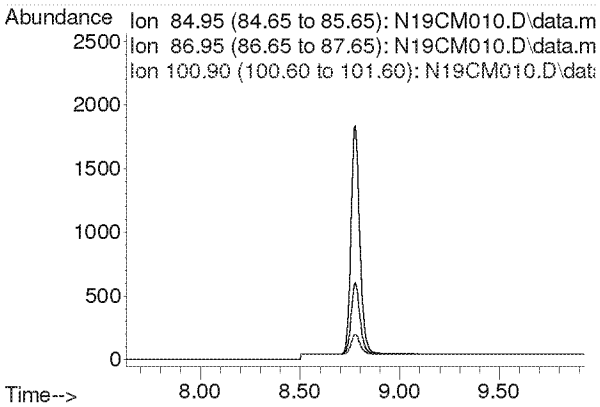


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

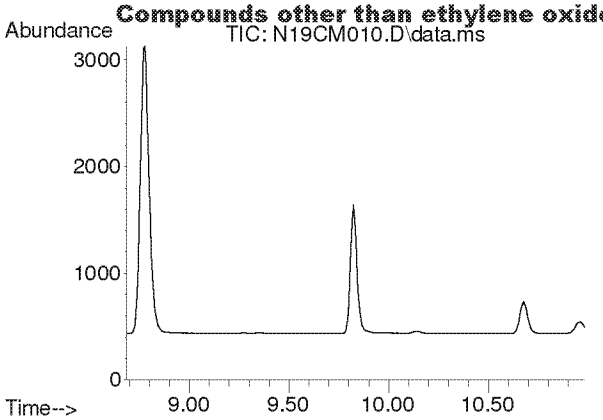
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

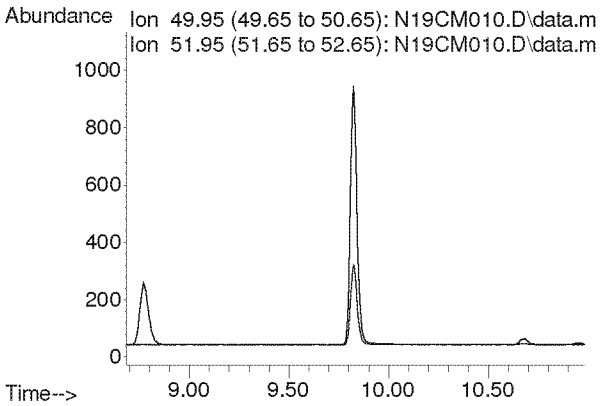


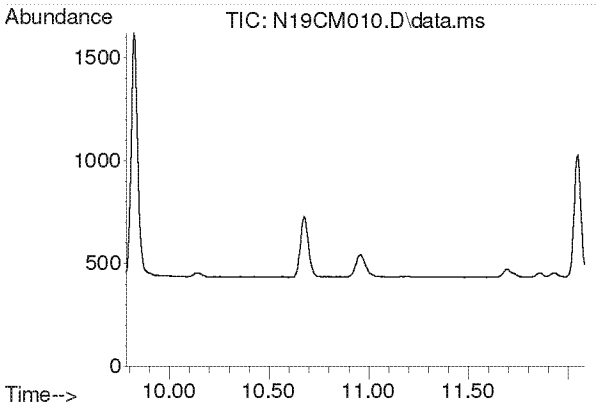
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



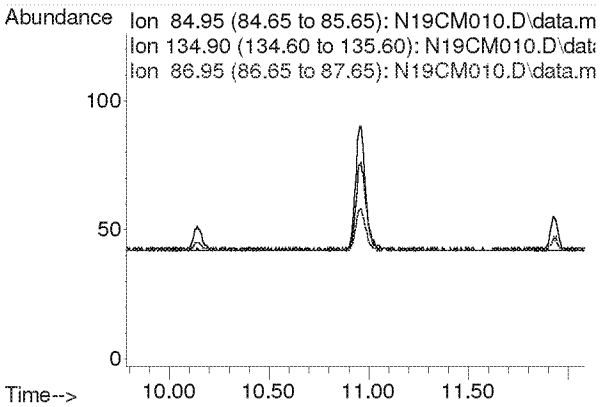


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

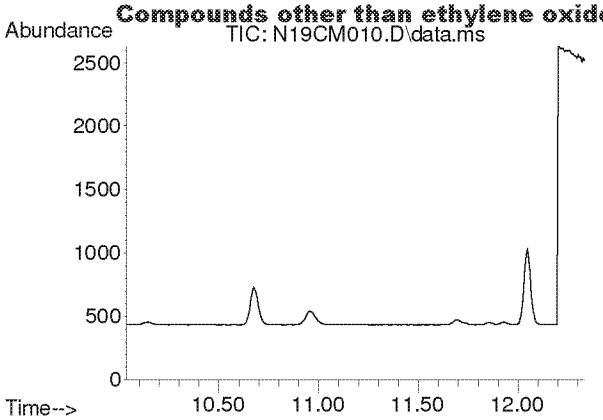
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

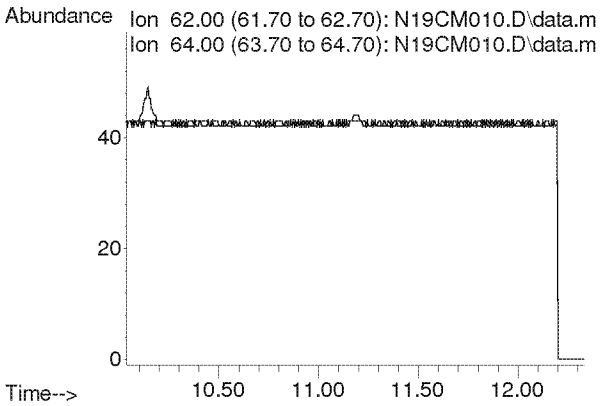


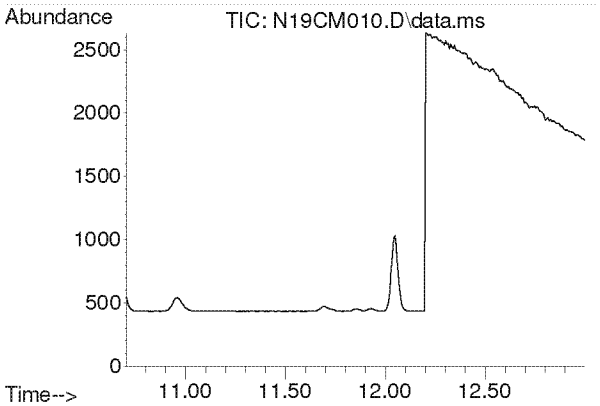
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



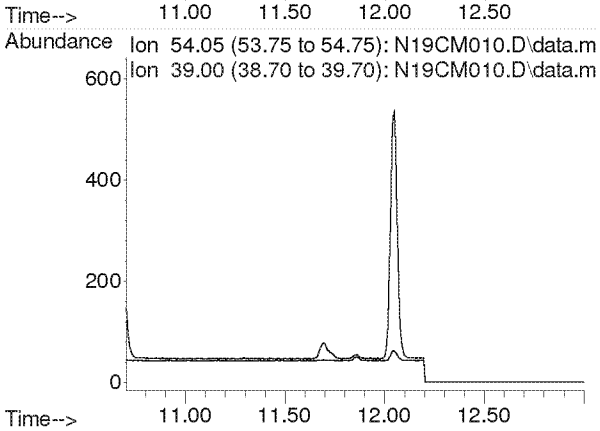


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

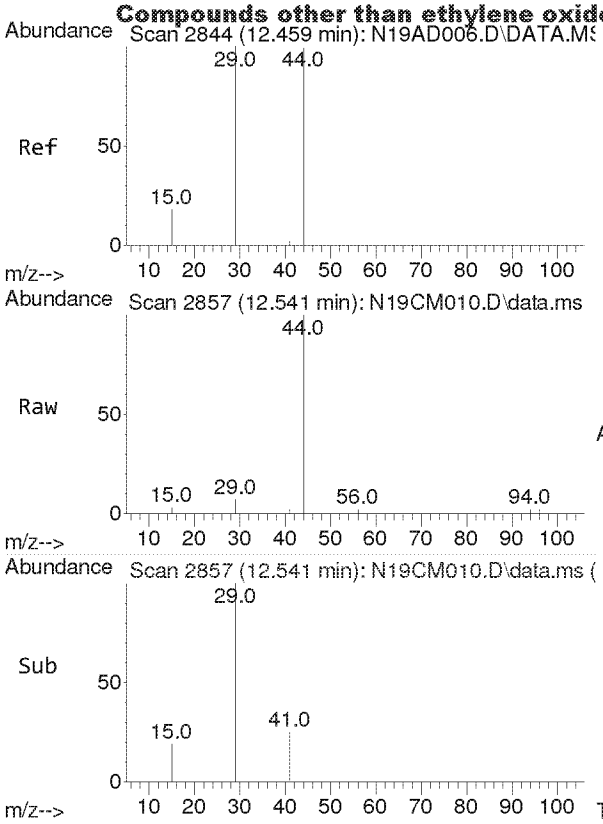
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



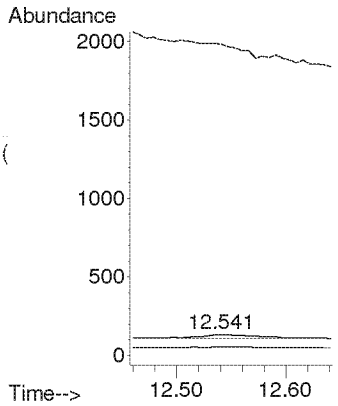
Compounds other than ethylene oxide were not quantitated.

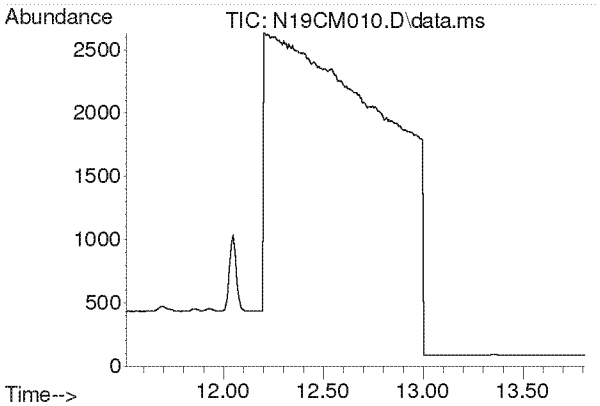


#9
Ethylene Oxide
Concen: 0.054 ppbv m
RT: 12.541 min Scan# 2857
Delta R.T. 0.082 min
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 29 Resp: 70

Ion	Ratio	Lower	Upper
29	100		
15	0.0	14.0	21.0#
44	0.0	79.2	118.8#



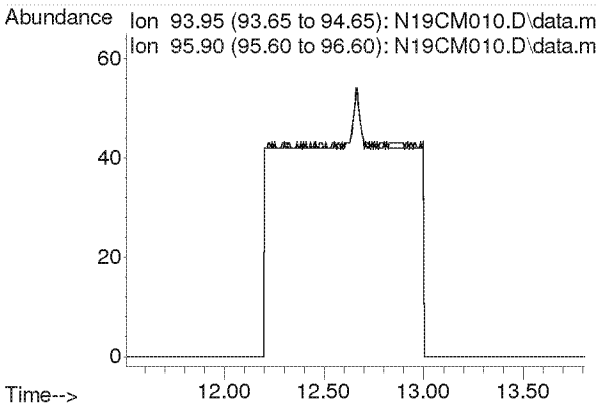


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

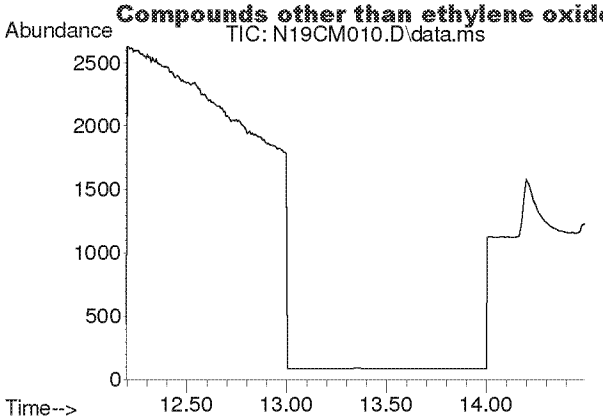
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

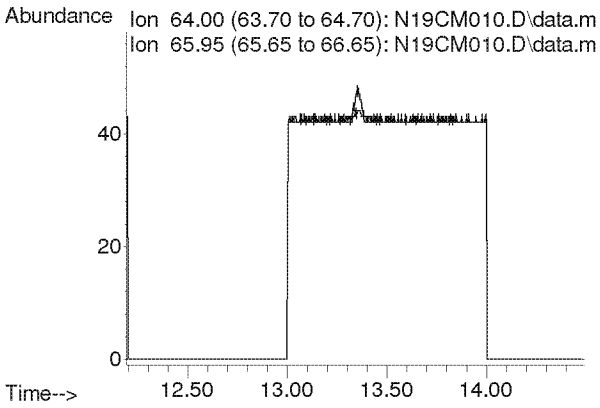


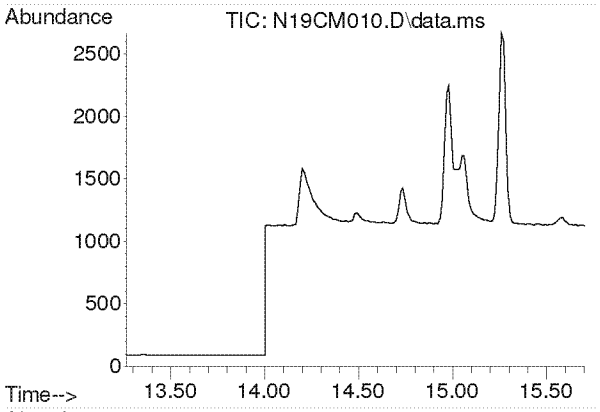
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



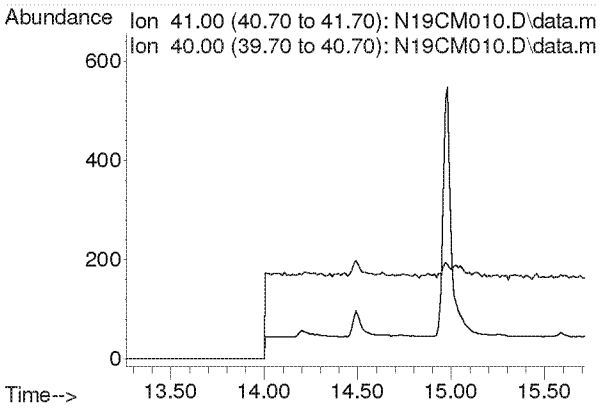


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

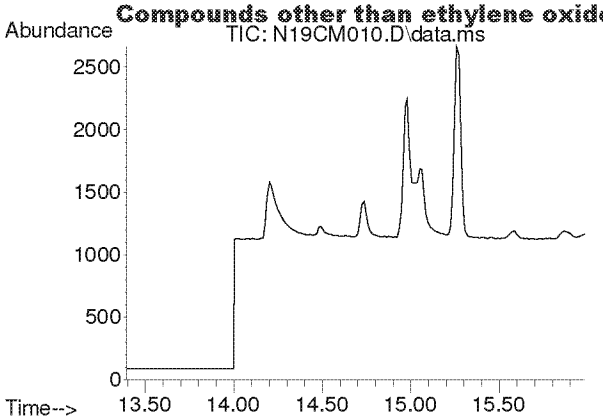
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

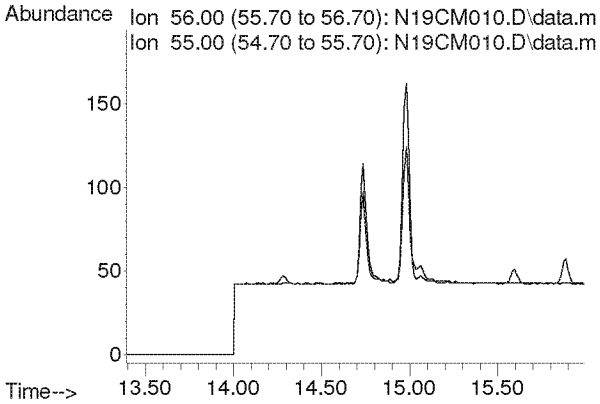


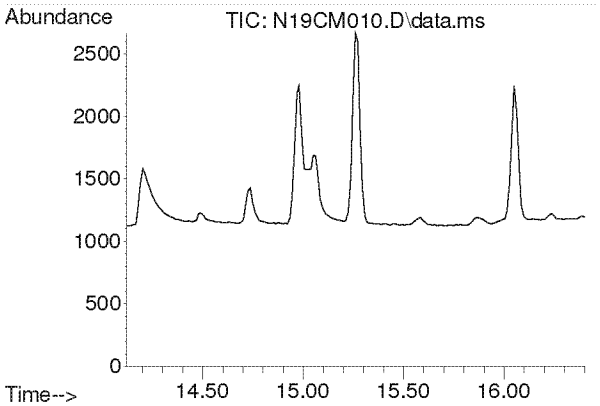
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



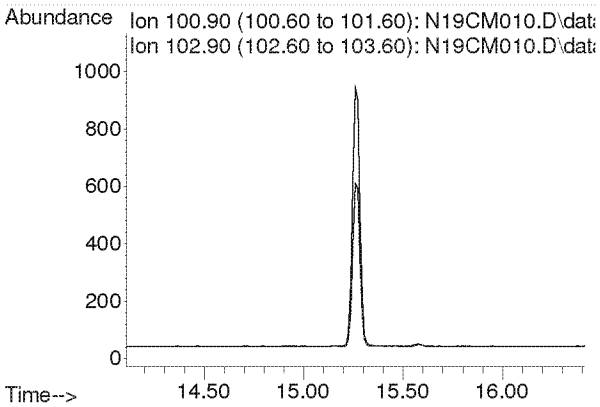


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

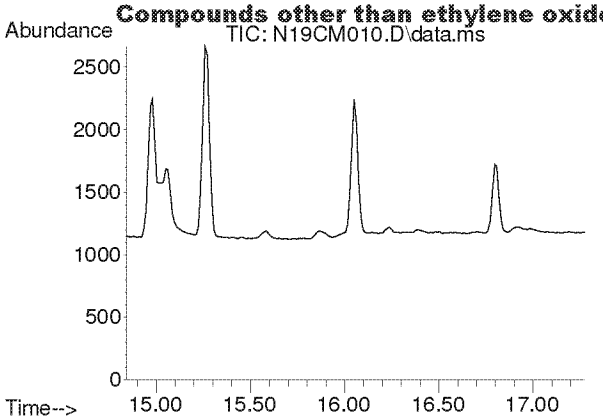
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

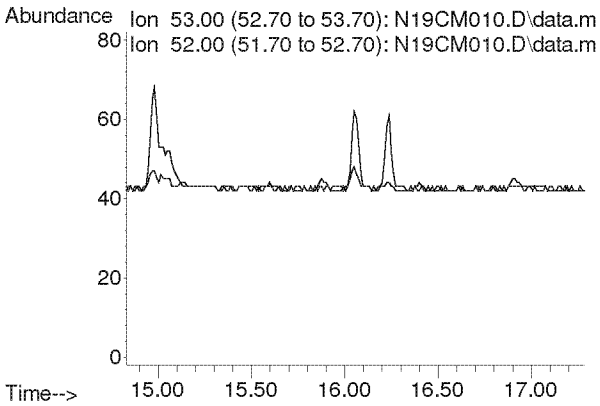


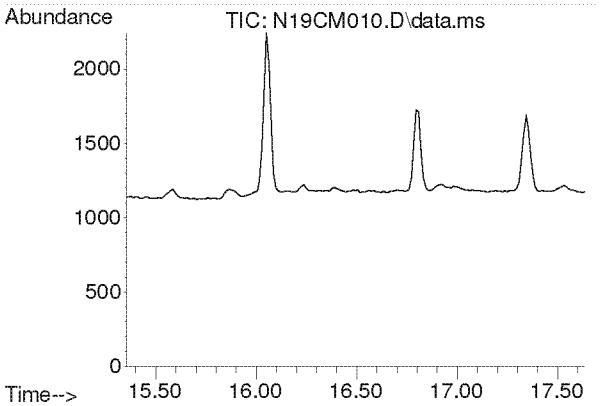
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



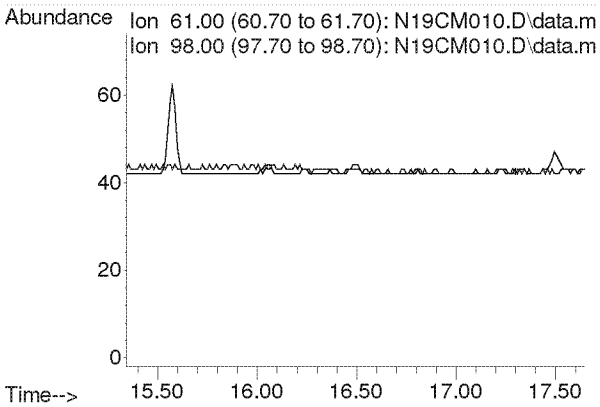


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

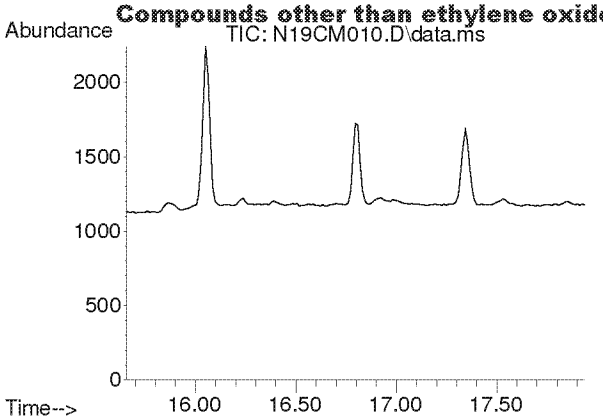
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

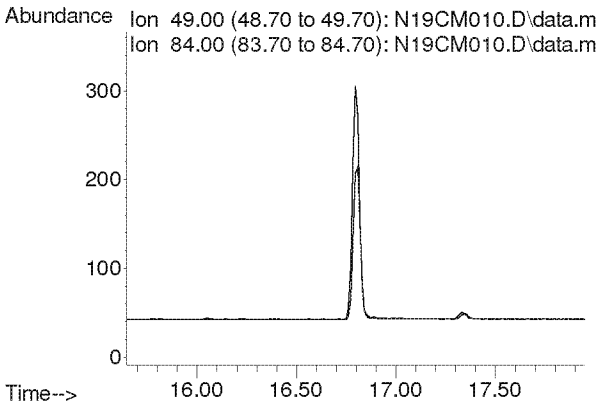


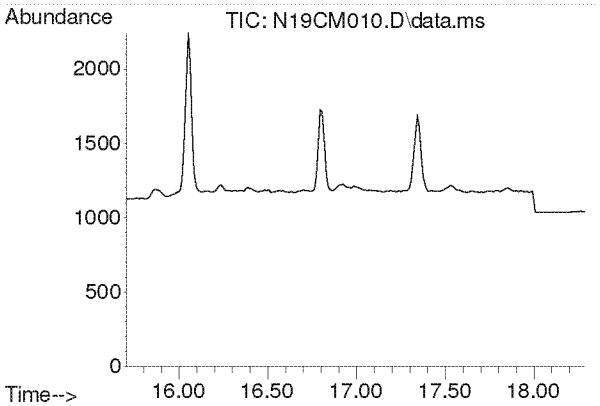
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



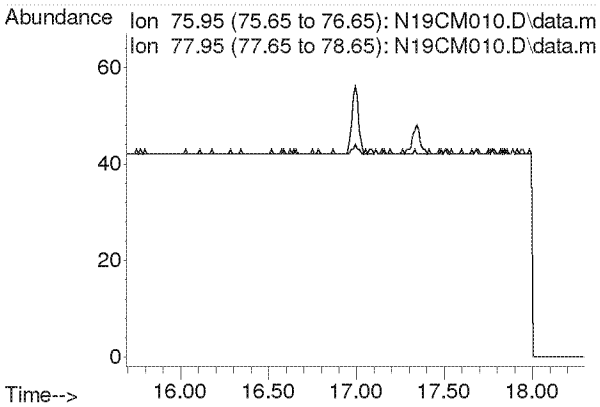


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

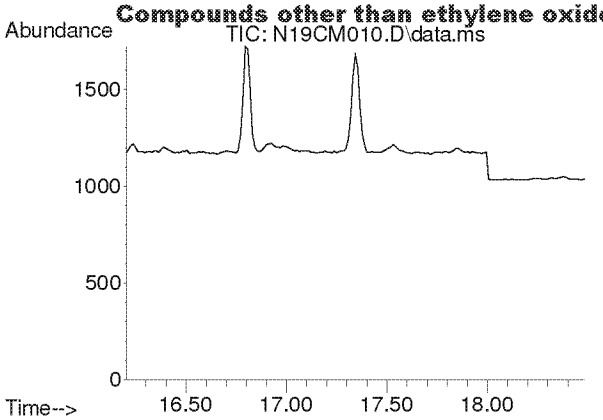
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

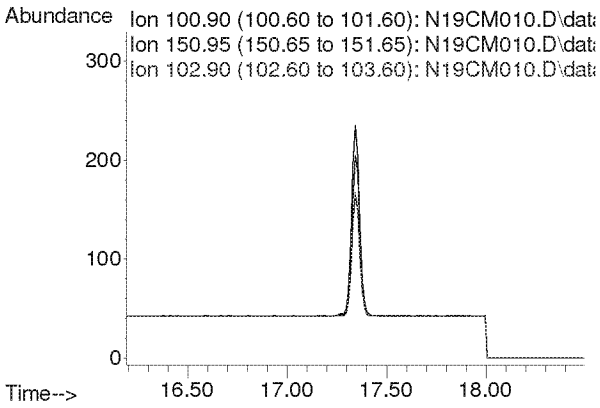


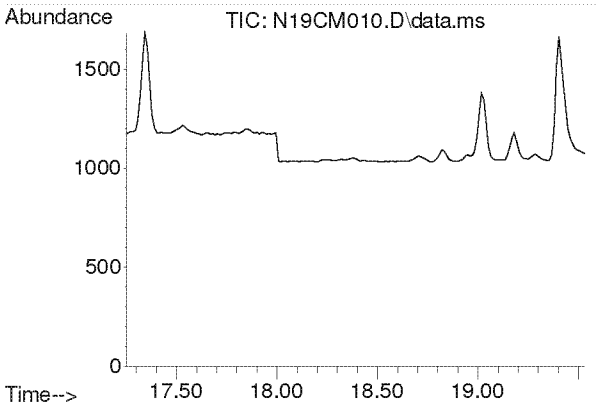
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



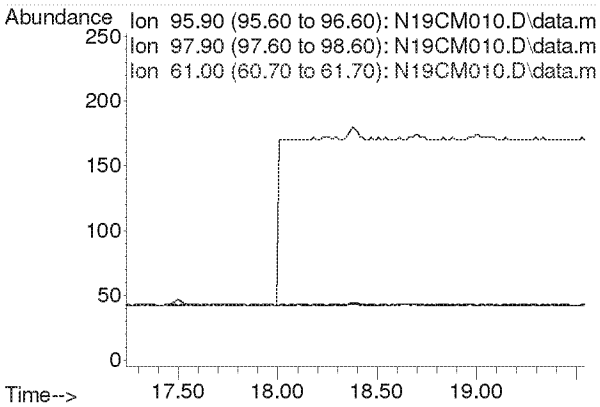


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

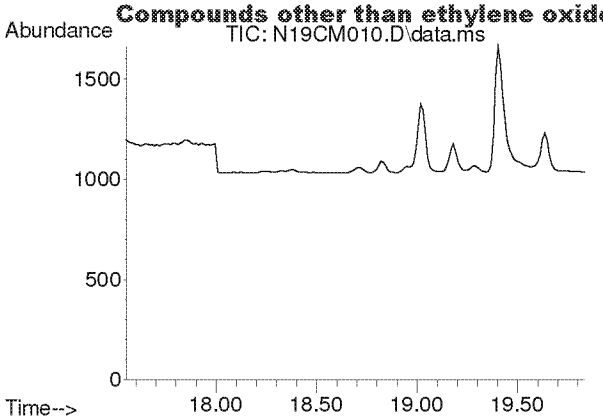
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

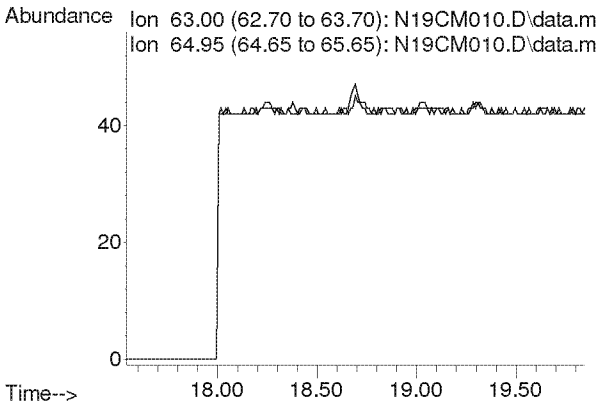


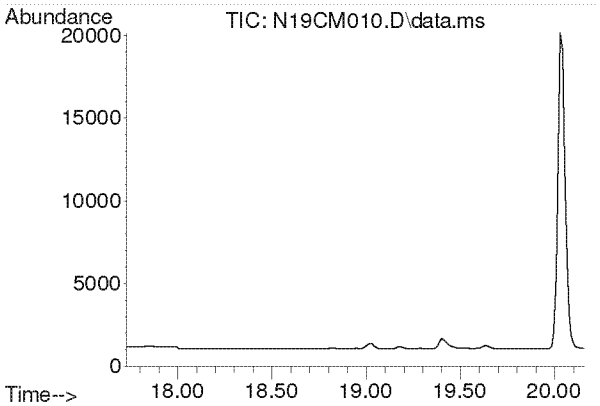
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



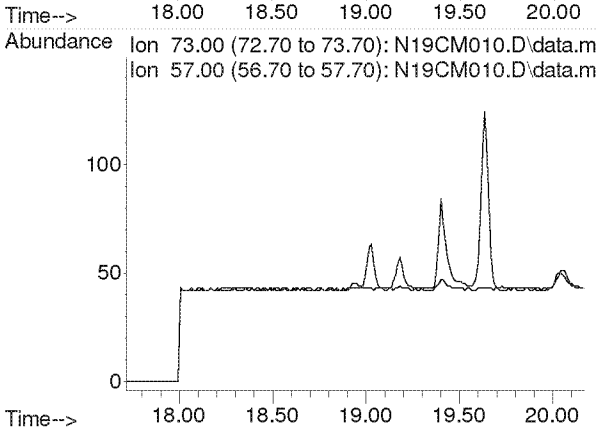


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

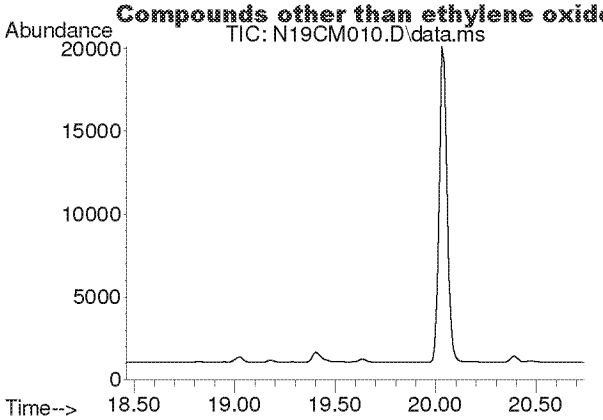
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

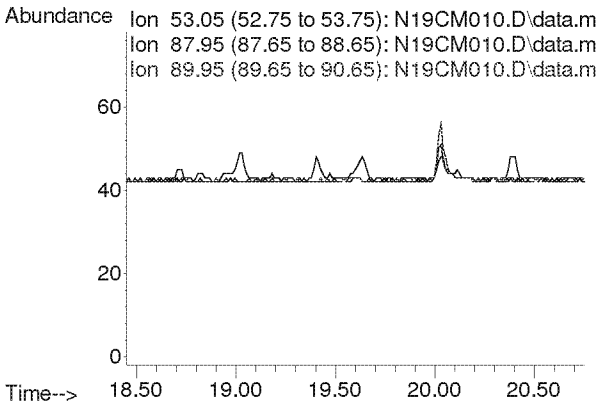


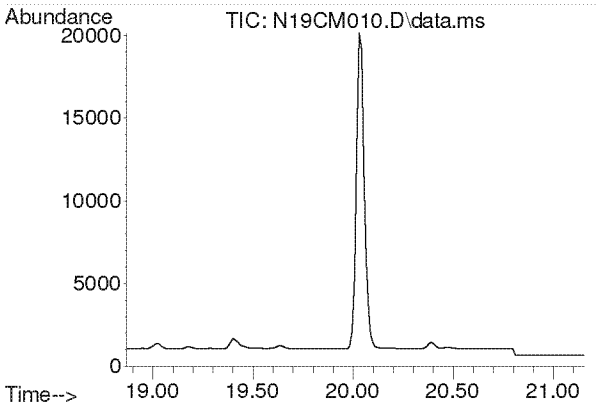
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



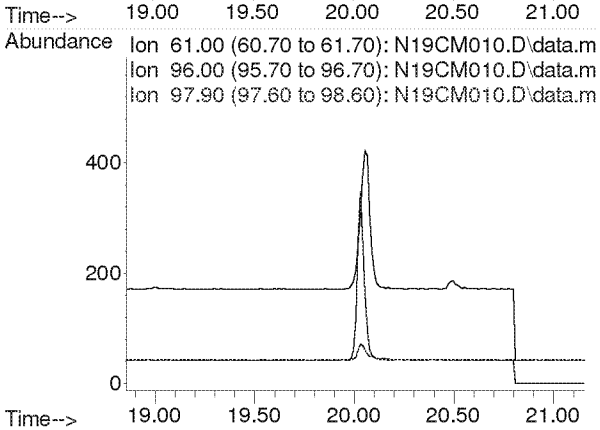


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

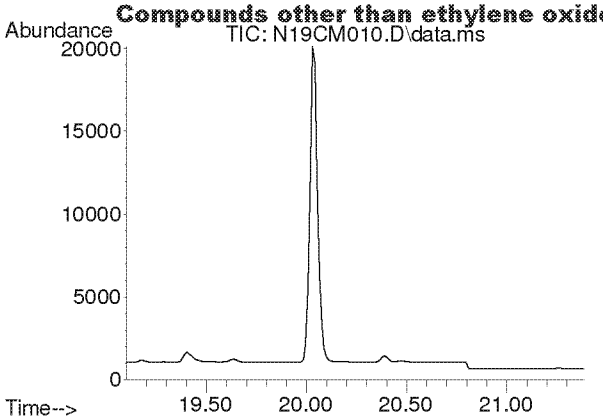
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

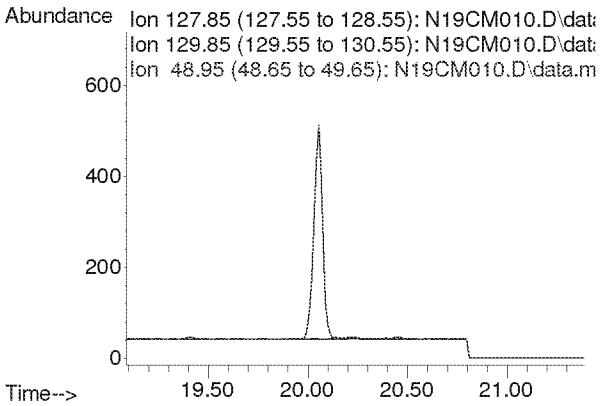


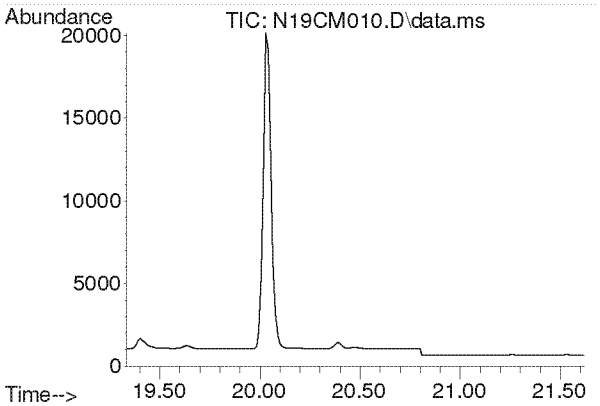
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



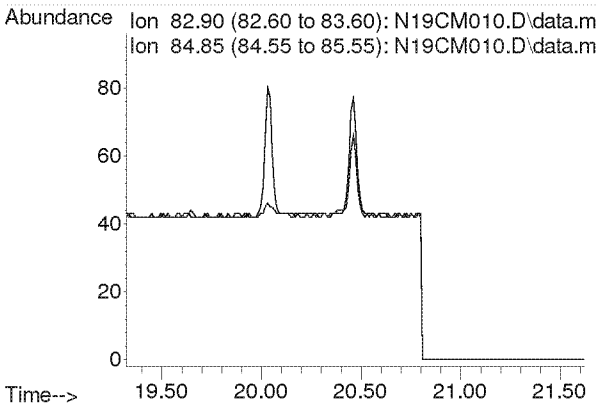


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

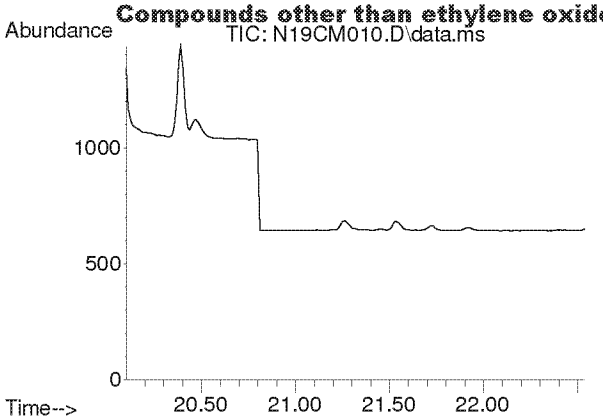
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

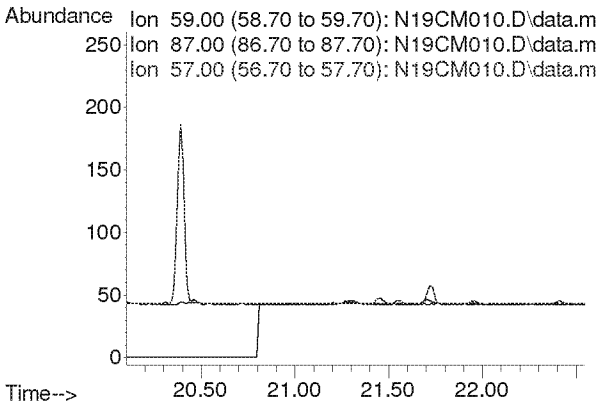


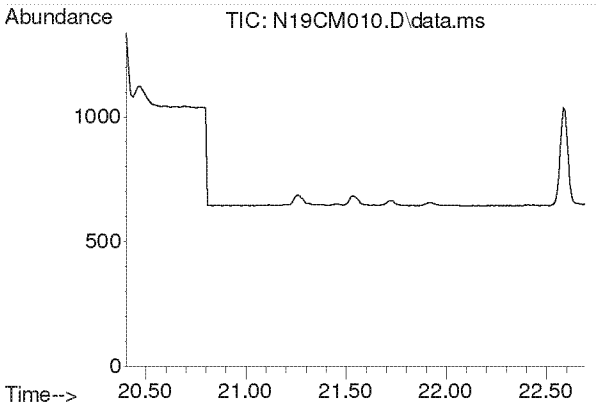
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



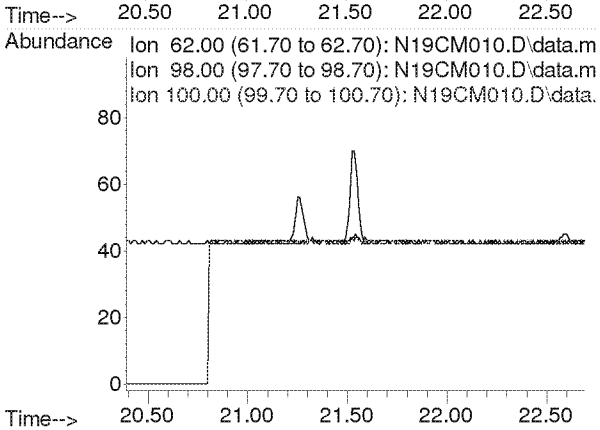


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

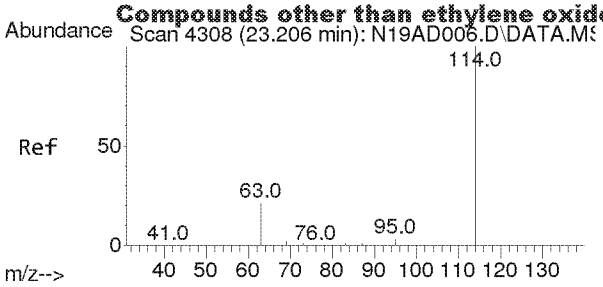
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



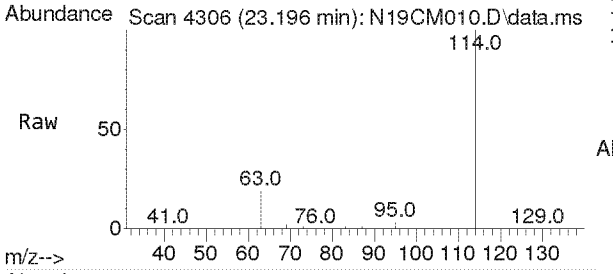
Compounds other than ethylene oxide were not quantitated.

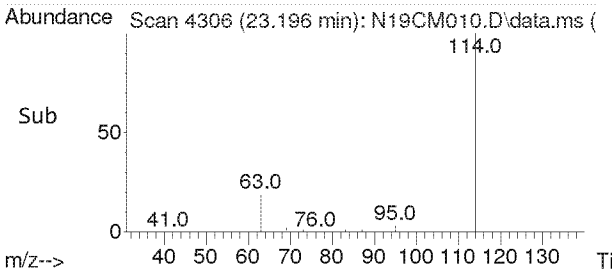


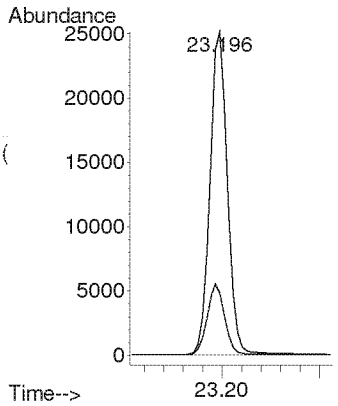
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.196 min Scan# 4306
Delta R.T. -0.010 min
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

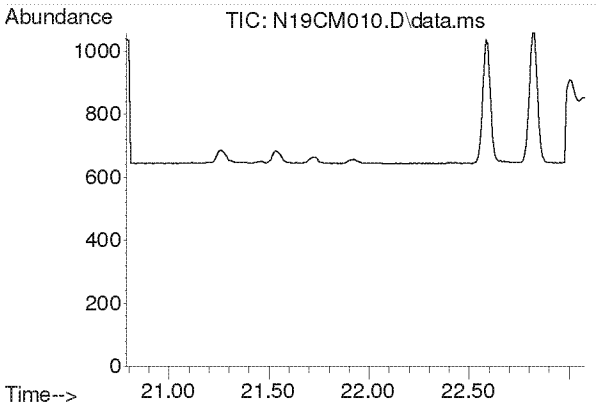
Tgt Ion:114 Resp: 62904

Ion	Ratio	Lower	Upper
114	100		
63	21.8	16.7	25.1







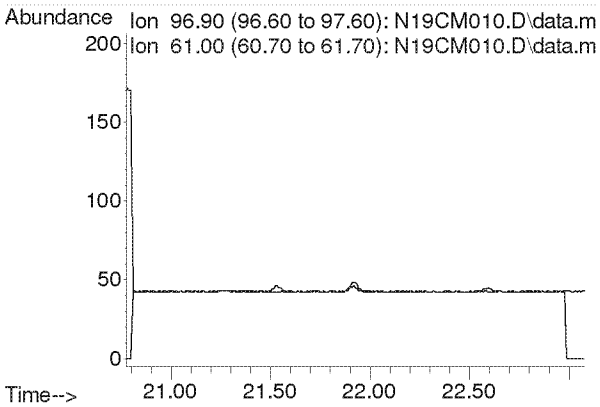


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

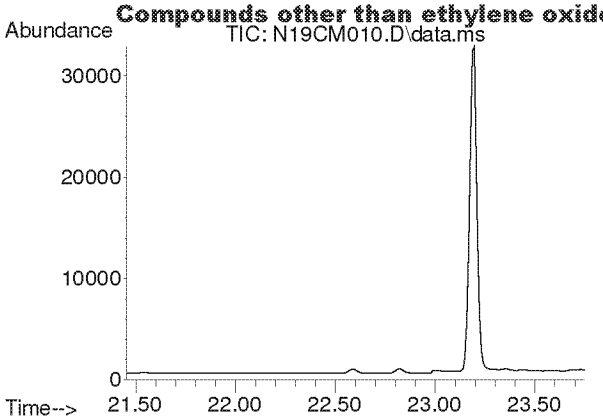
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

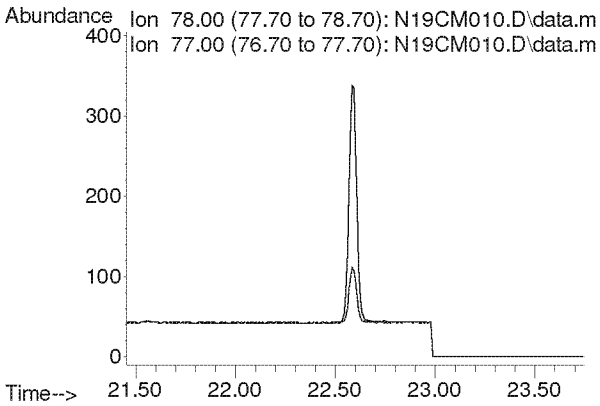


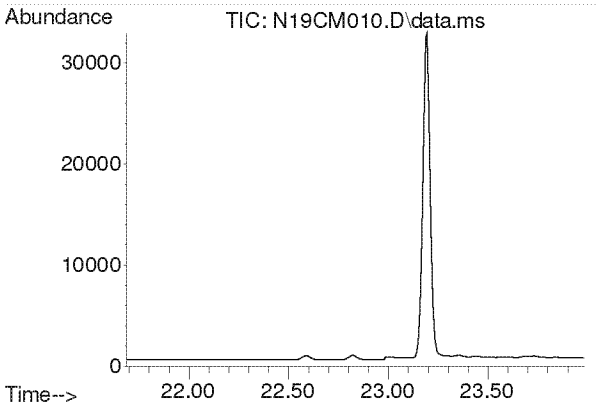
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



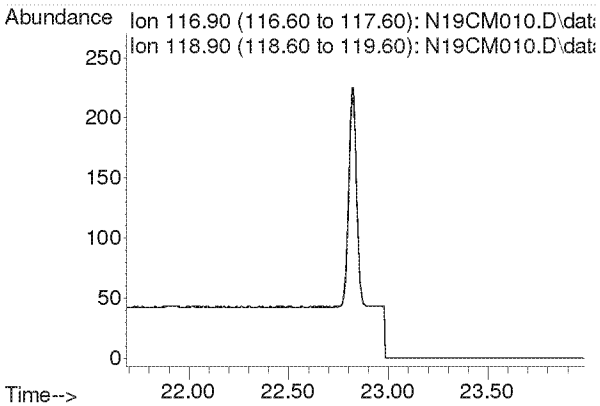


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

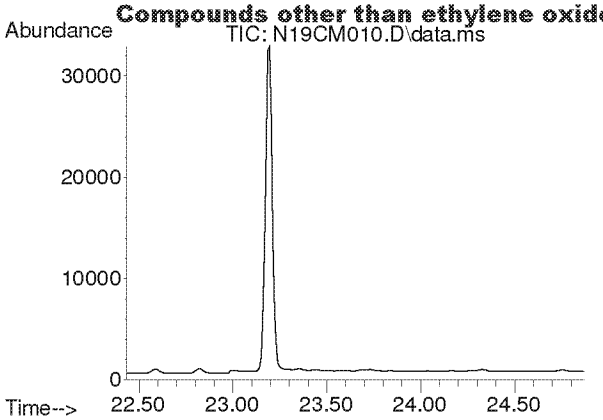
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

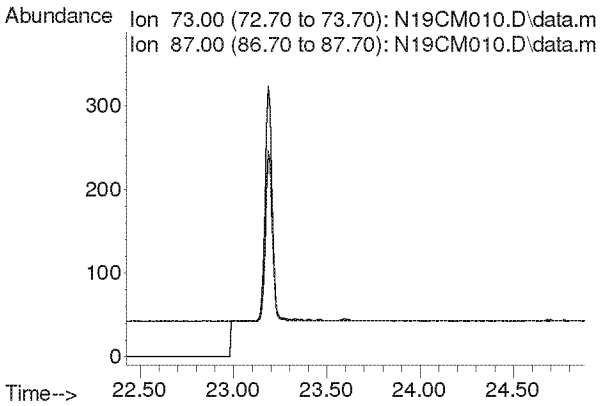


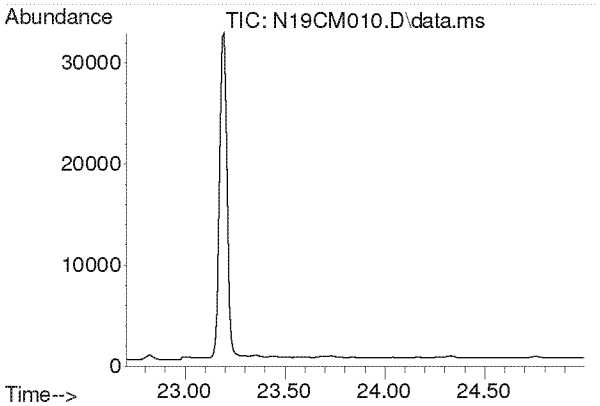
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



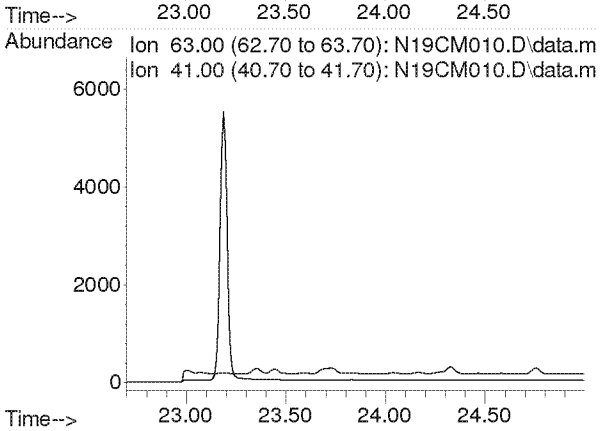


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

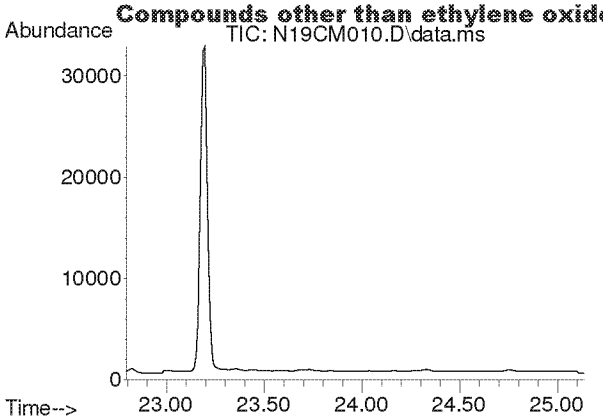
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

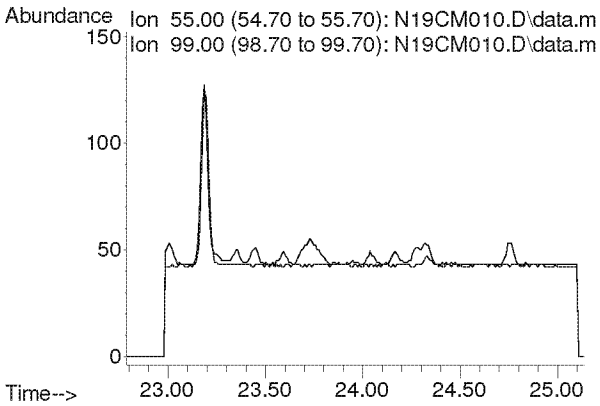


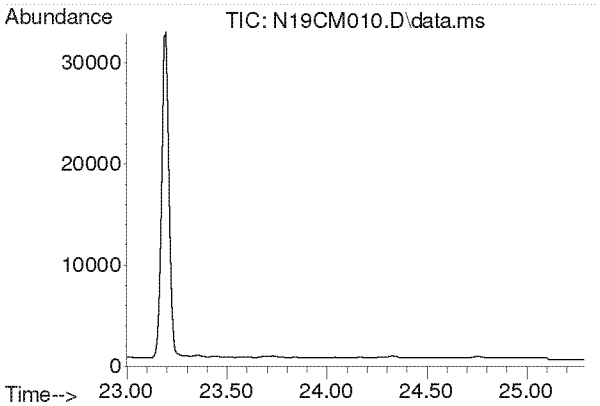
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



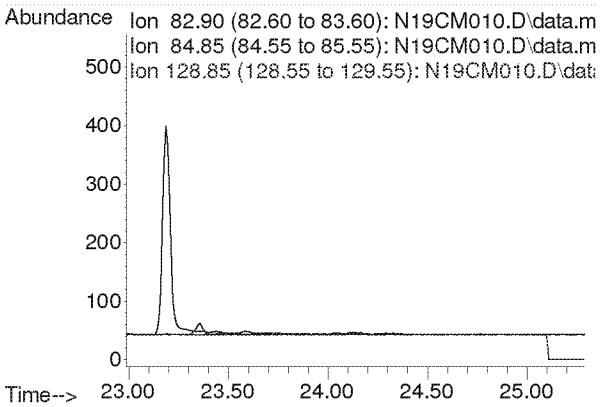


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

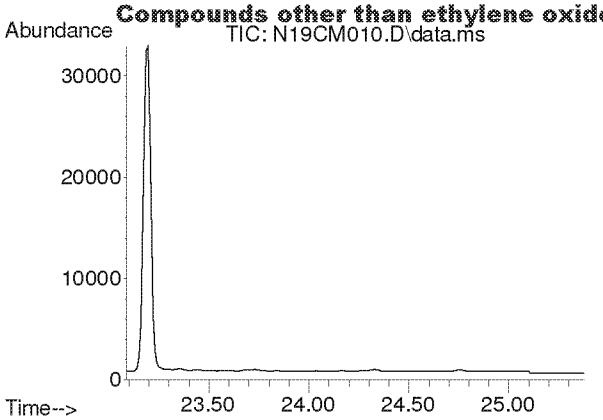
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

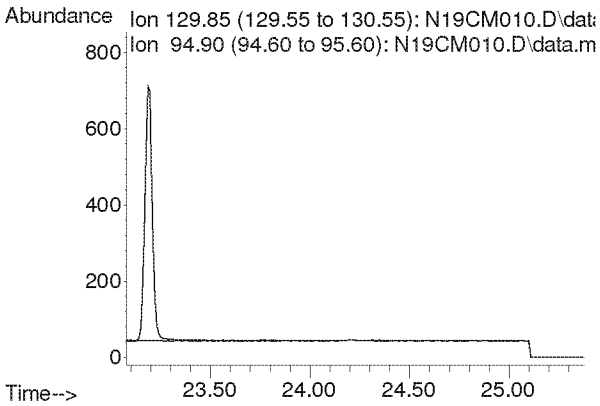


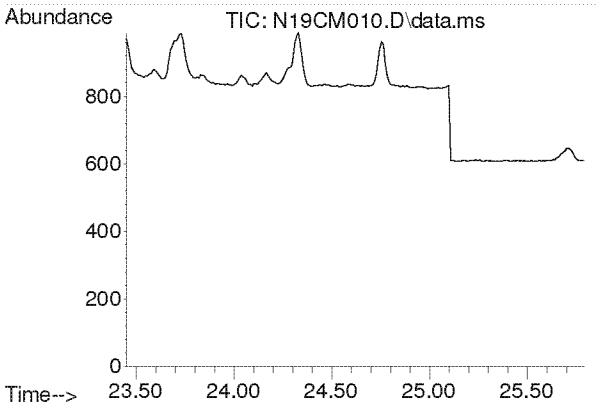
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



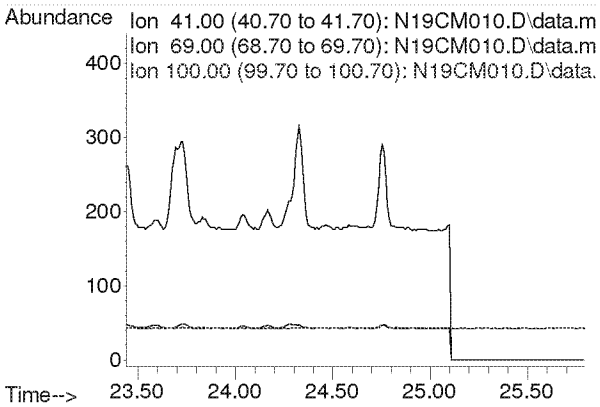


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

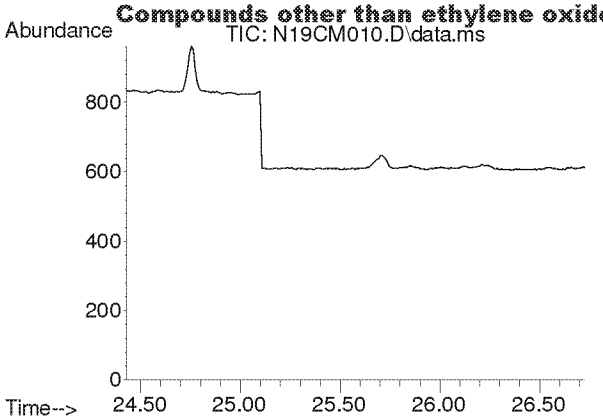
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

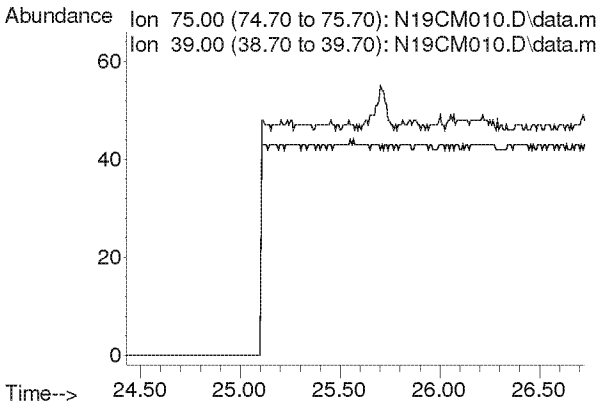


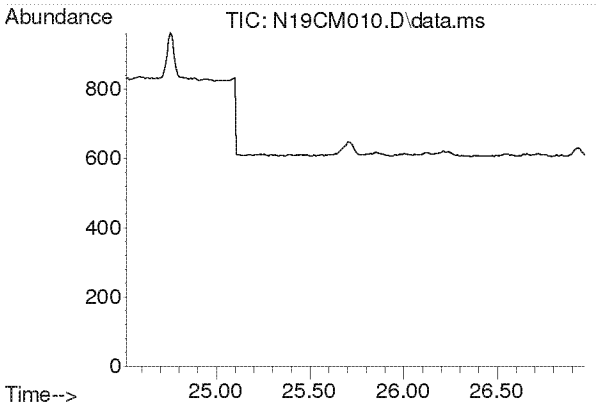
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



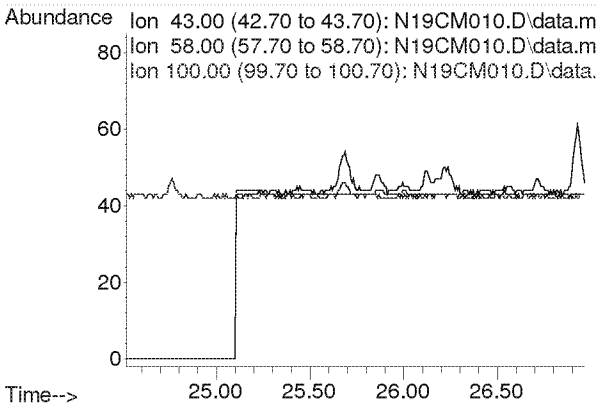


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

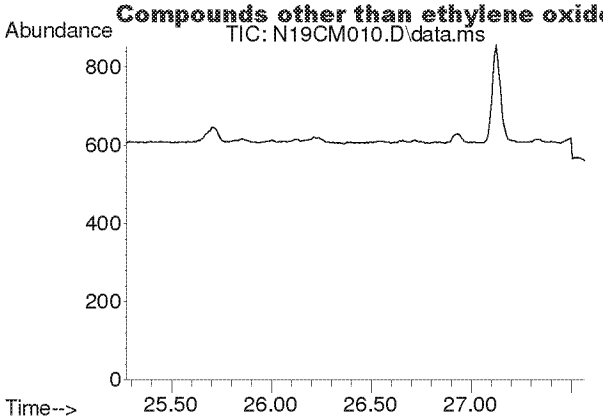
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

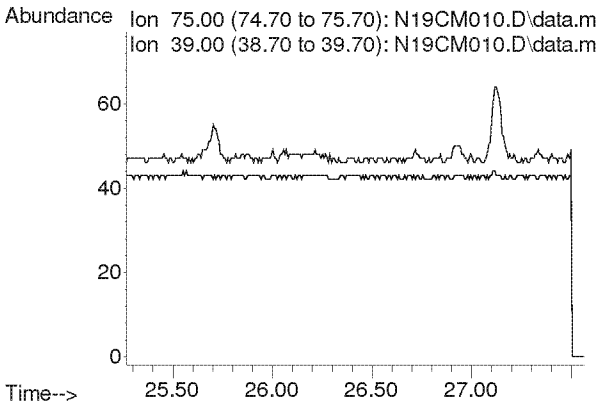


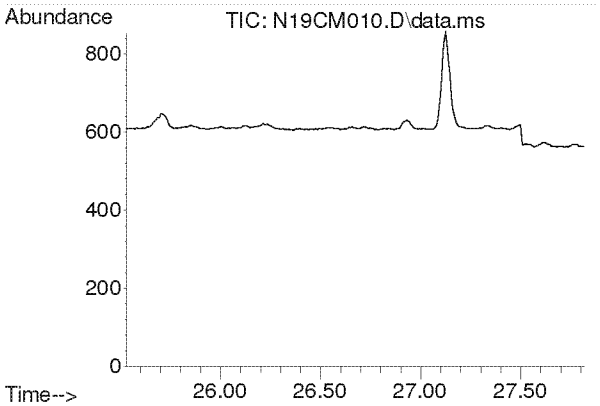
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



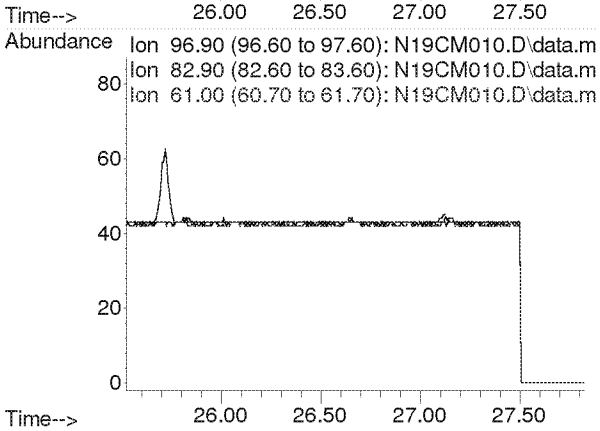


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

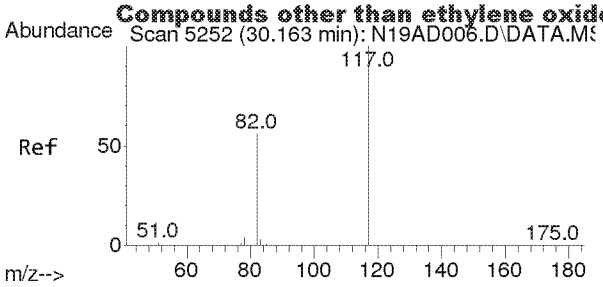
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



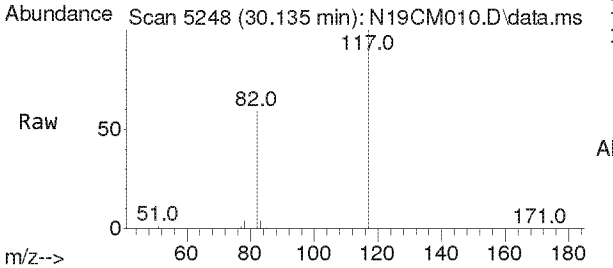
Compounds other than ethylene oxide were not quantitated.

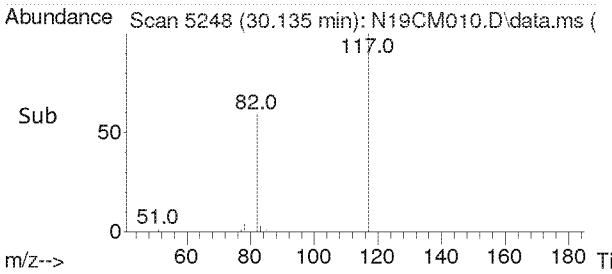


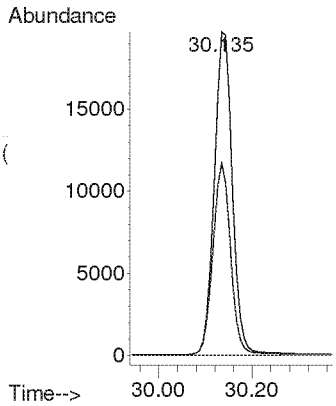
#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.135 min Scan# 5248
Delta R.T. -0.027 min
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

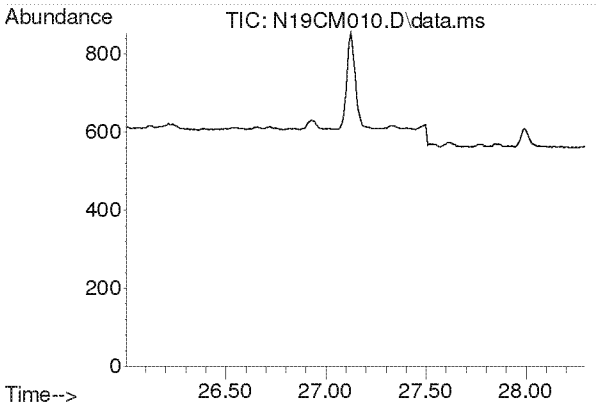
Tgt Ion:117 Resp: 52525

Ion	Ratio	Lower	Upper
117	100		
82	58.0	40.1	74.5
54	0.0	0.0	0.0







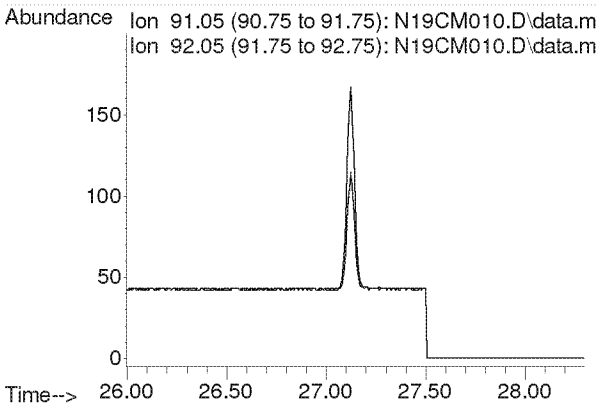


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

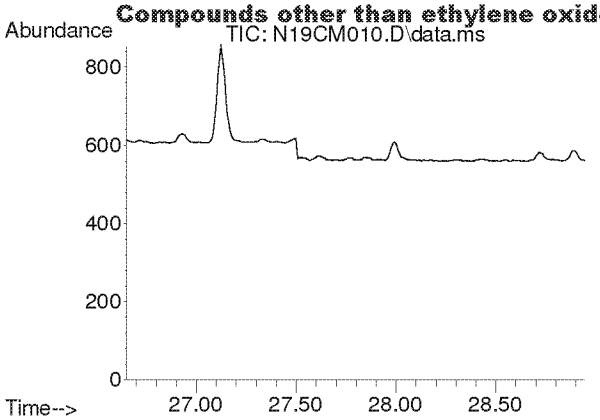
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

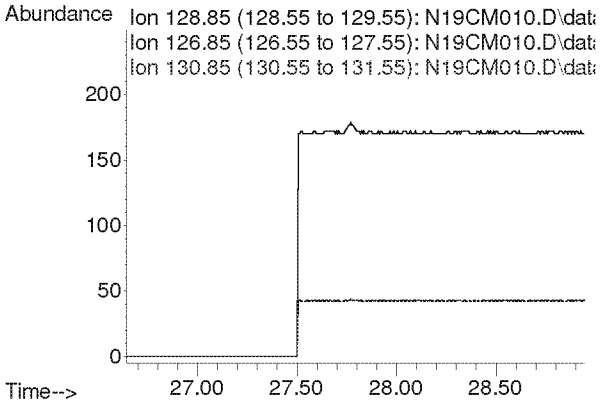


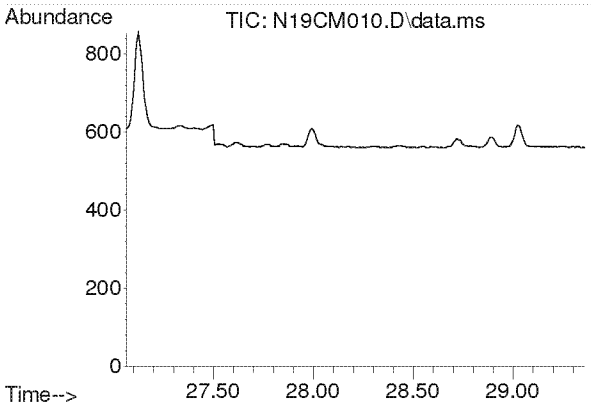
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



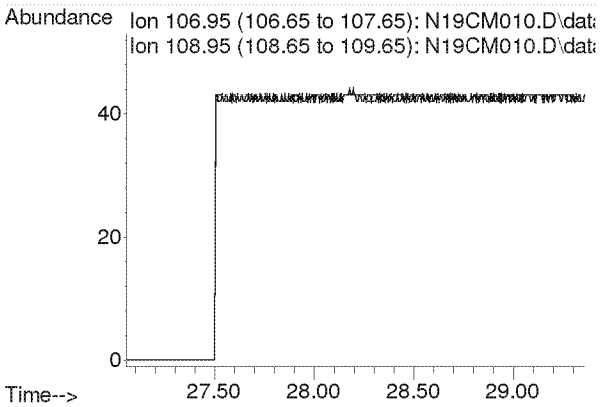


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

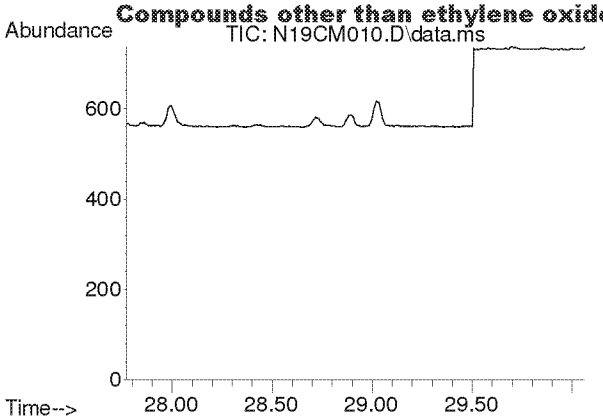
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

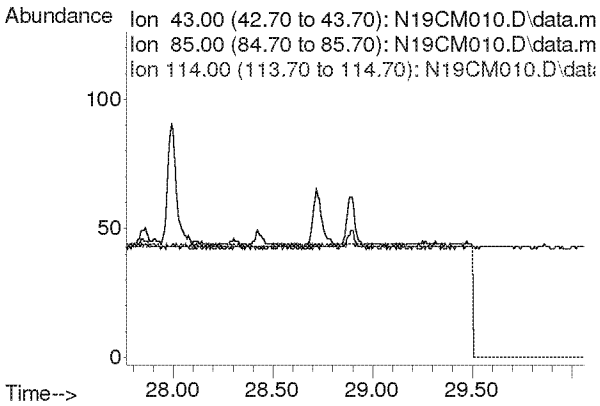


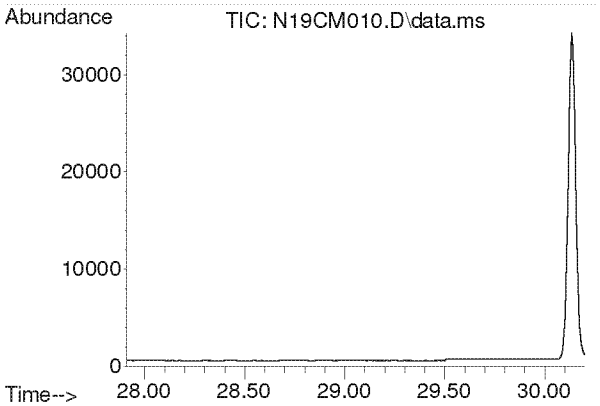
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



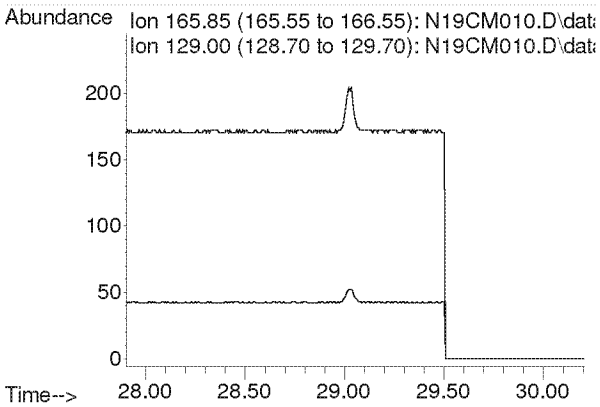


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

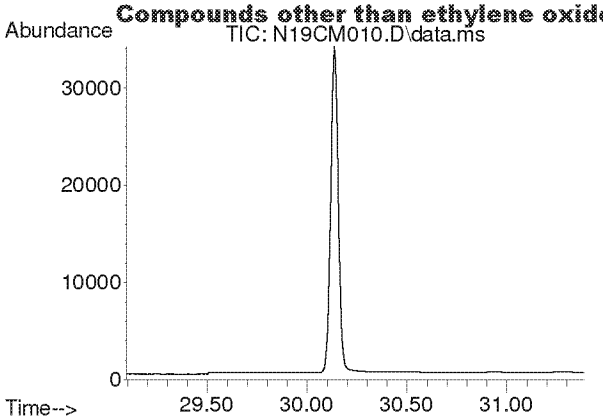
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

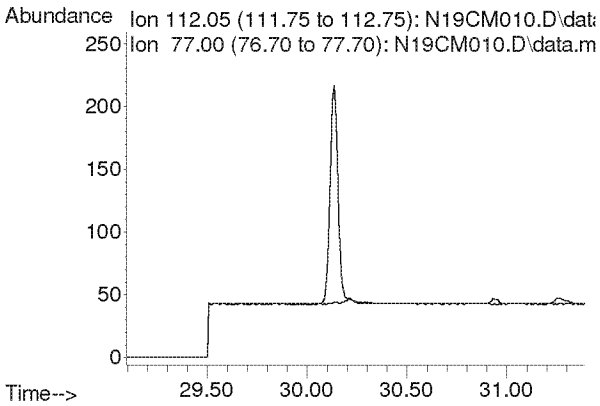


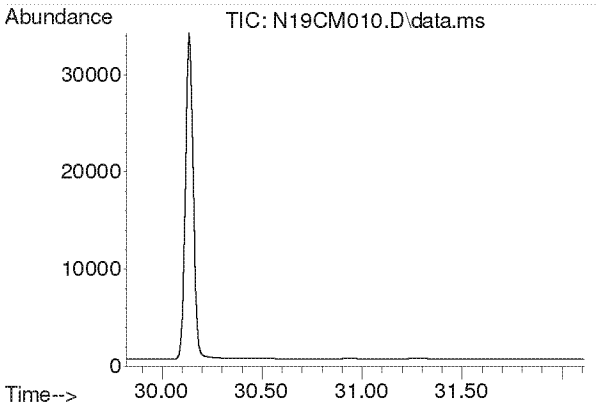
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



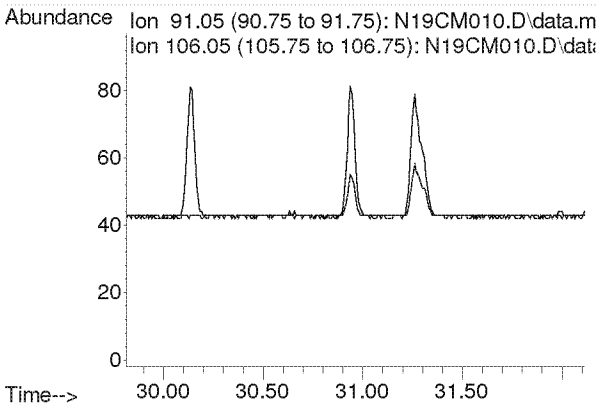


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

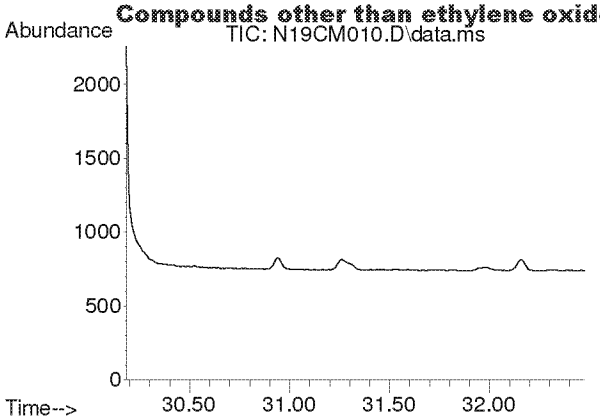
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

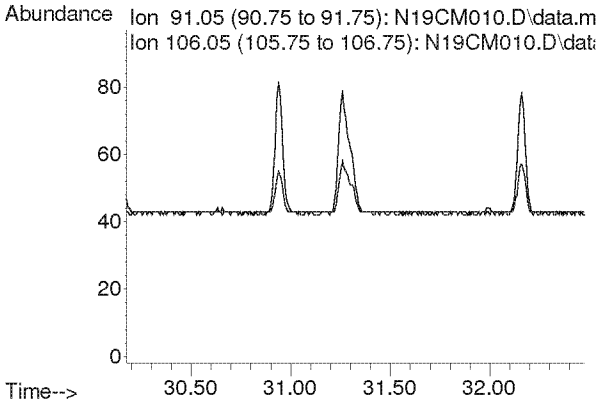


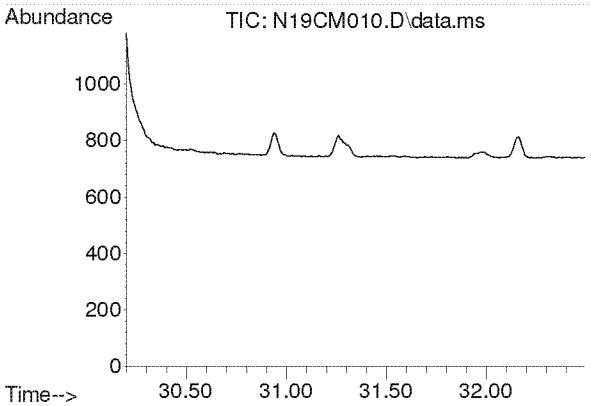
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



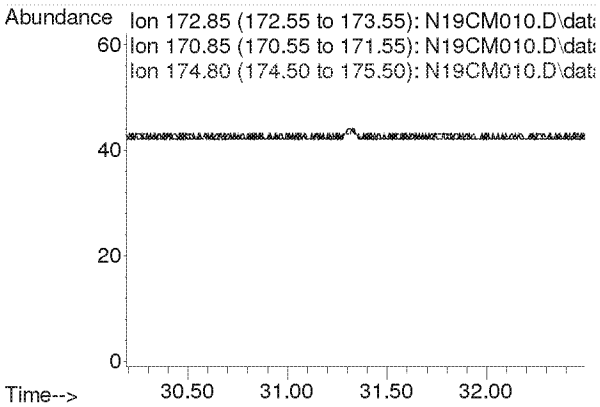


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

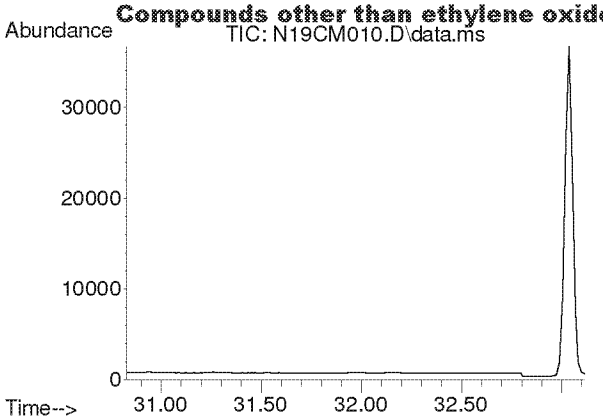
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

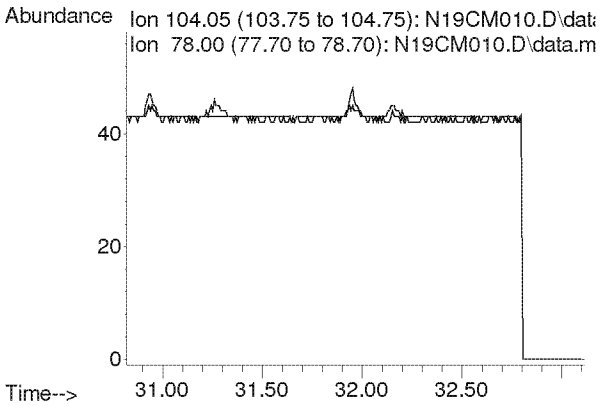


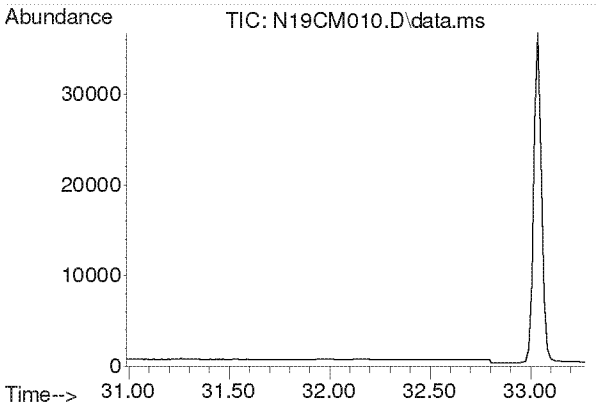
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



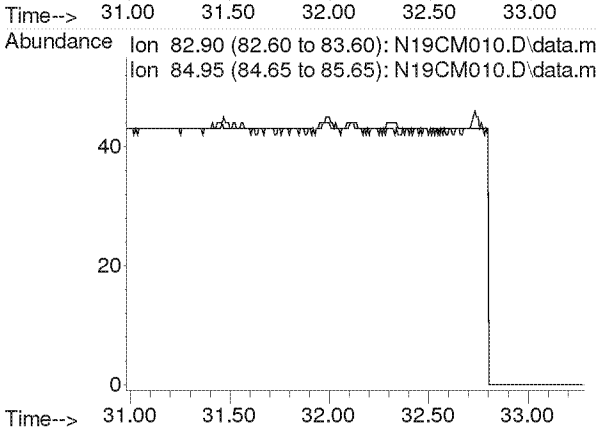


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

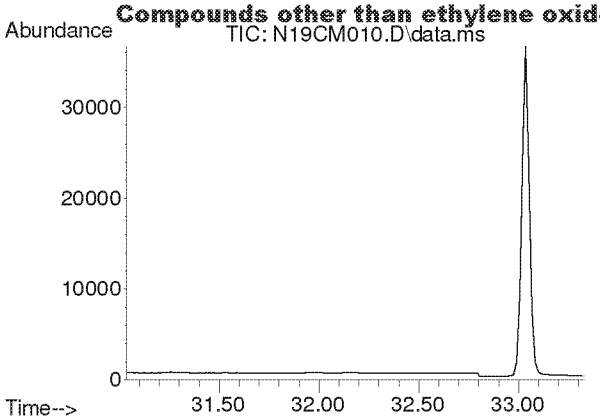
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

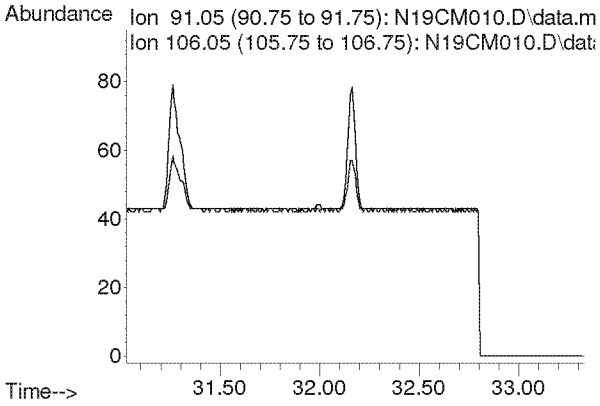


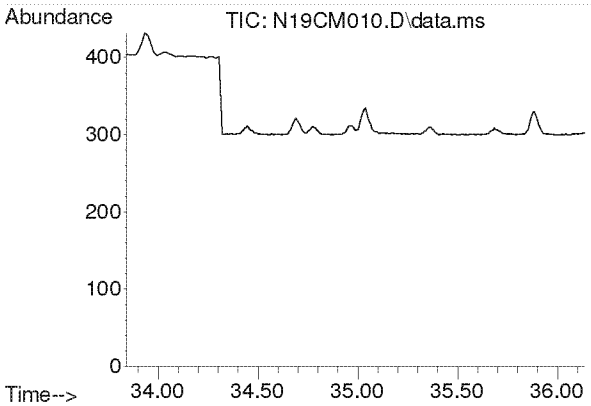
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



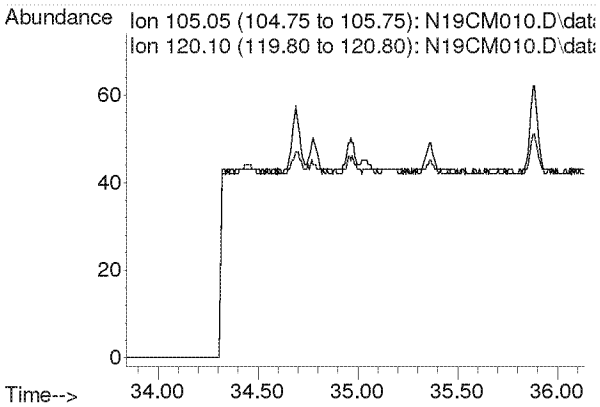


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

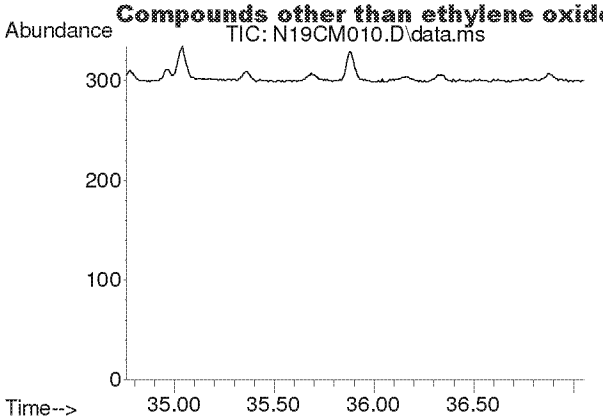
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

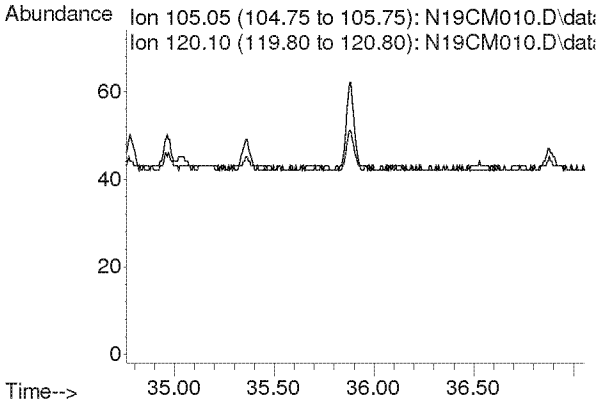


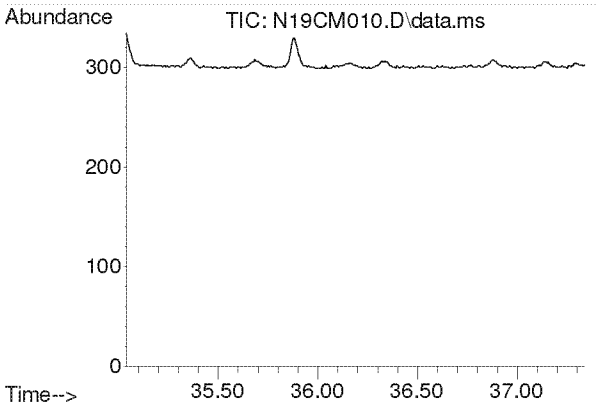
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



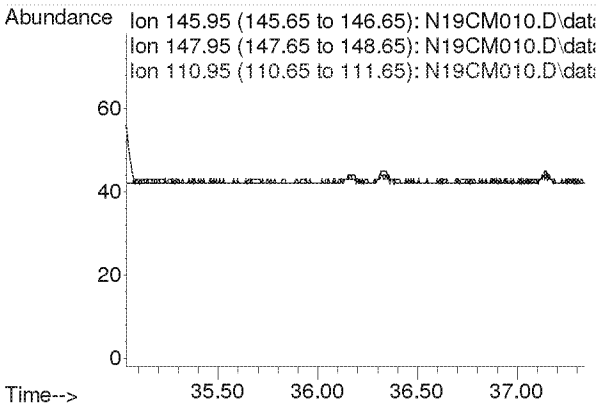


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

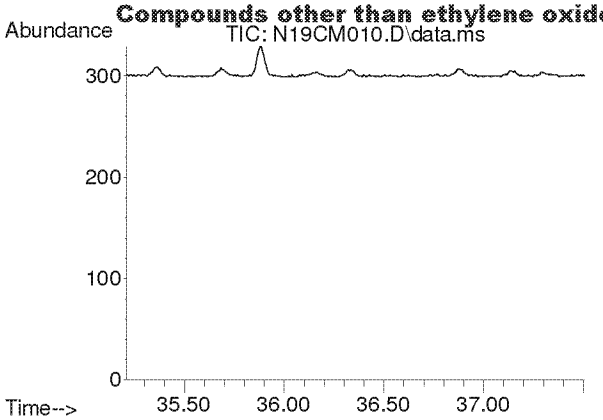
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

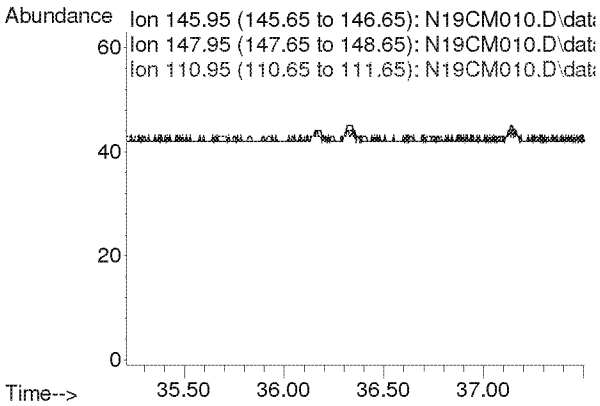


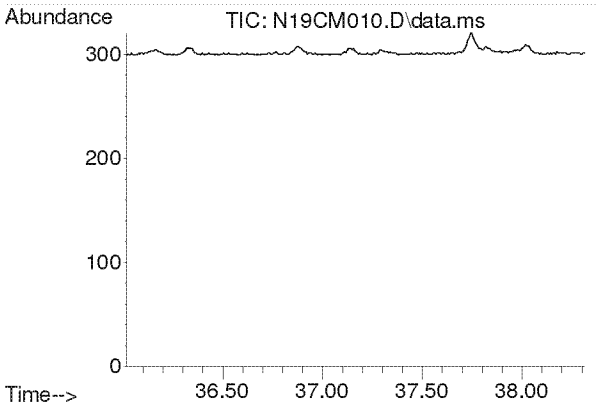
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



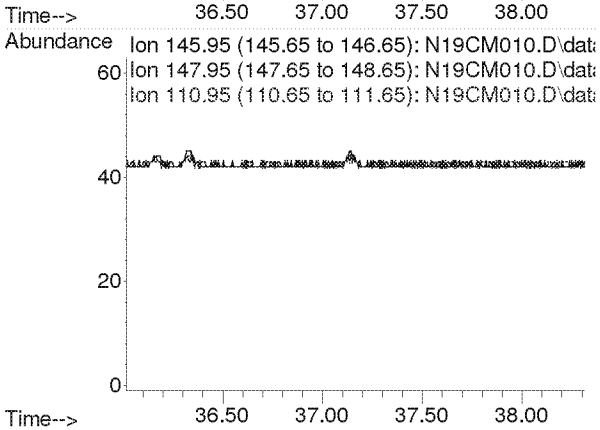


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

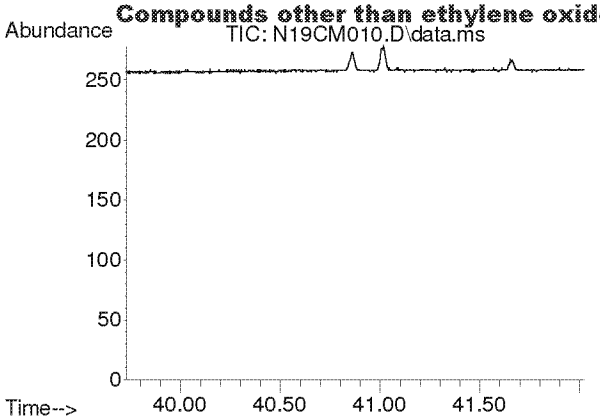
Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

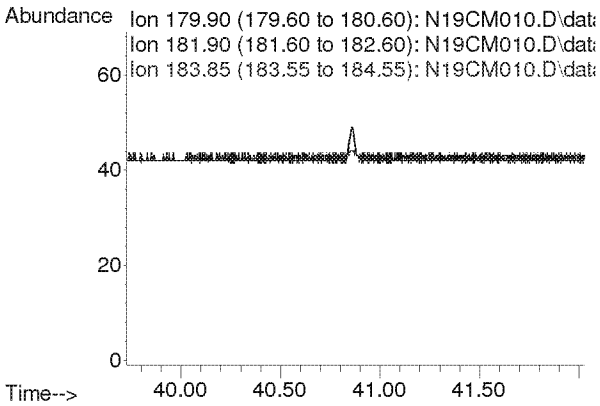


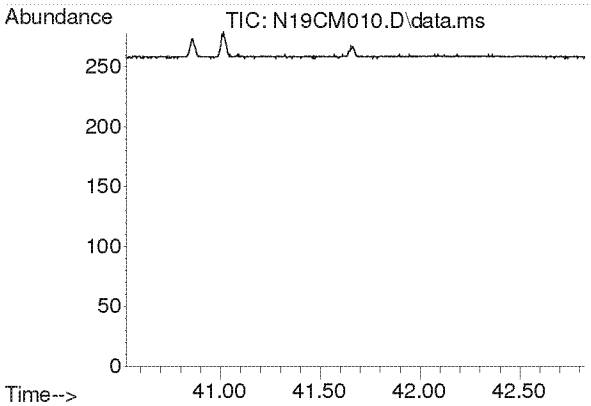
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



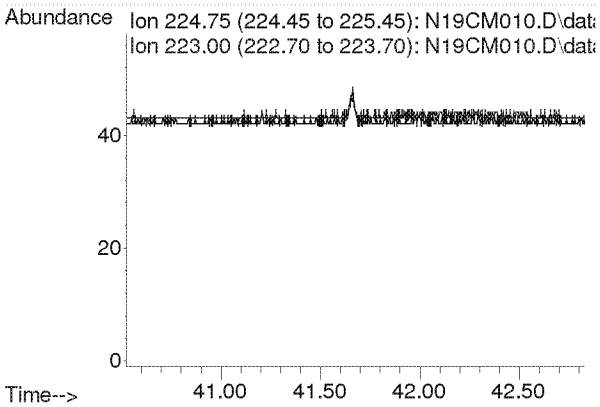


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM010.D
Acq: 13 Mar 2019 8:25 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM011.D
Acq On : 13 Mar 2019 9:26 pm (#1); 13-Mar-19, 21:21:17 (#2)
Operator : KSS
Sample : 9031220-06
Misc : W. NEIGHBORHOOD 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 14 08:33:35 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.031	66	29274	4.7700 ppbv	-0.01
29) IS-1,4-Difluorobenzene	23.196	114	61600	4.9900 ppbv	-0.01
43) IS-Chlorobenzene-d5	30.135	117	51832	4.7400 ppbv	-0.03

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene Oxide	12.522	29	142	0.1113 ppbv #	9
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D.	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D.	
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\N19CM\
Data File : N19CM011.D
Acq On : 13 Mar 2019 9:26 pm (#1); 13-Mar-19, 21:21:17 (#2)
Operator : KSS
Sample : 9031220-06
Misc : W. NEIGHBORHOOD 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 14 08:33:35 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

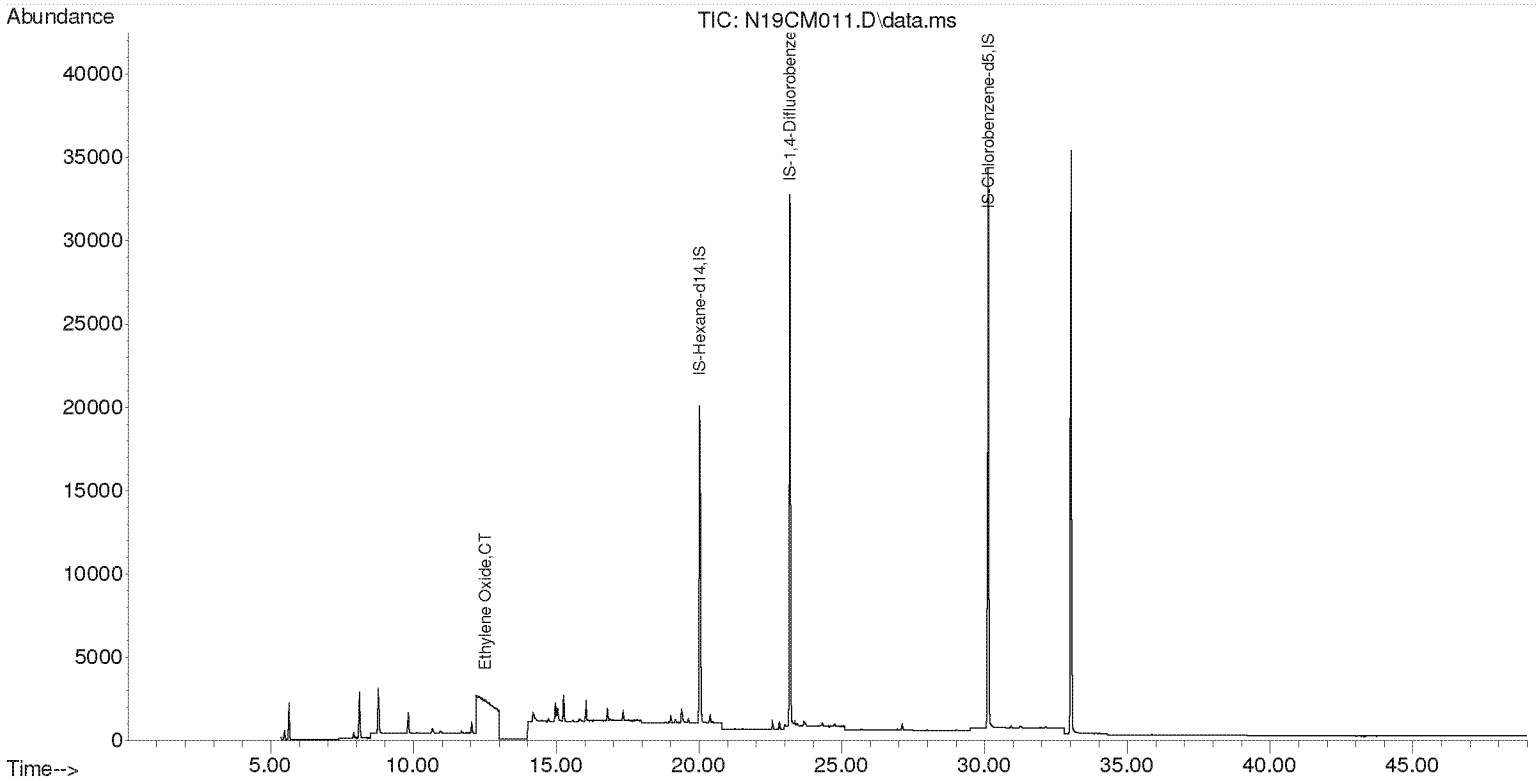
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

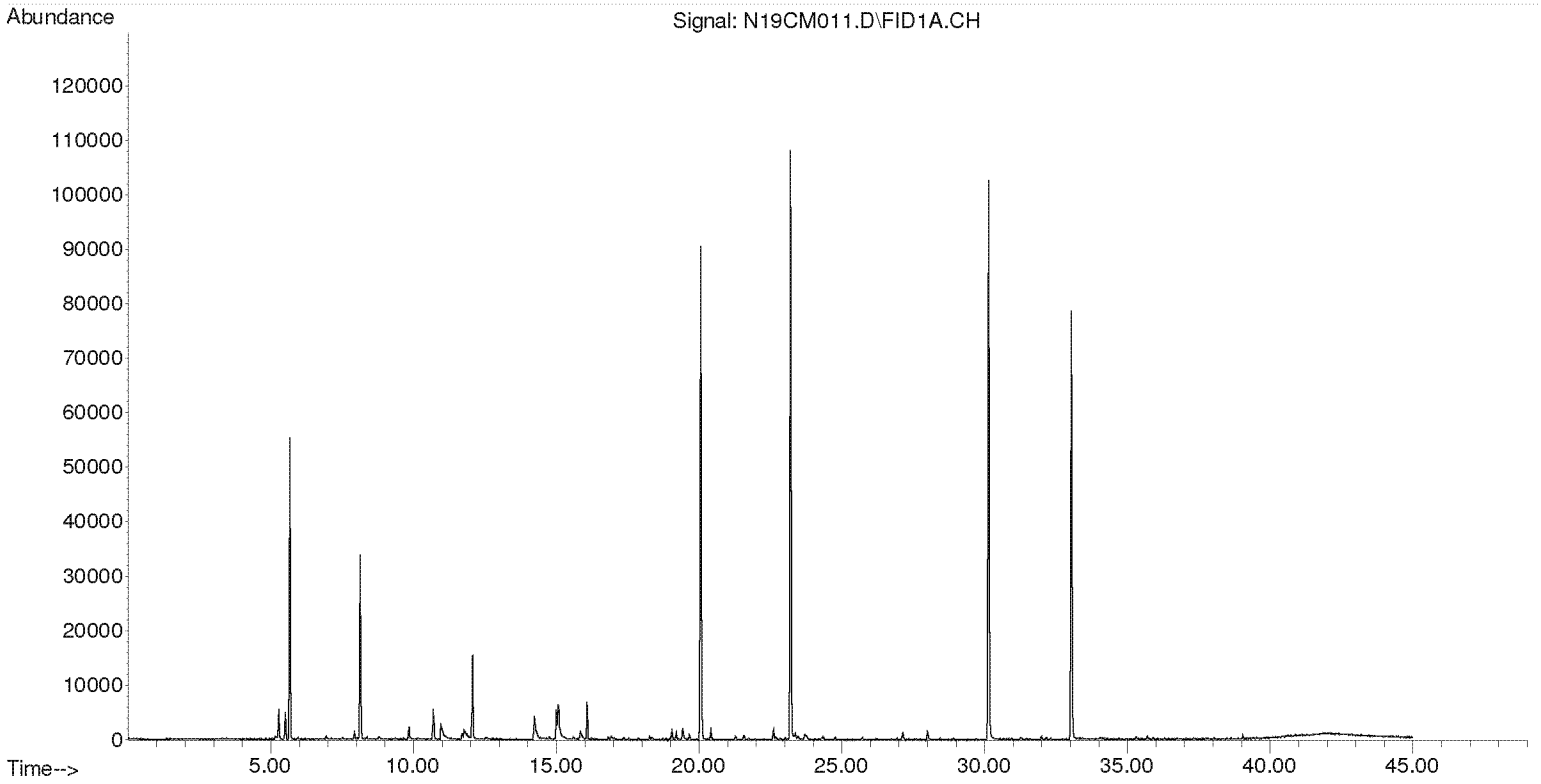
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

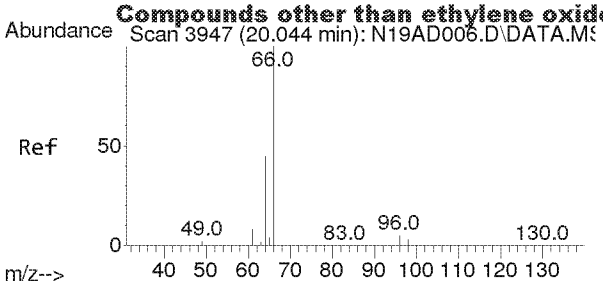
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM011.D
Acq On : 13 Mar 2019 9:26 pm (#1); 13 Mar 2019 9:21 pm (#2)
Operator : KSS
Sample : 9031220-06
Misc : W. NEIGHBORHOOD 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 14 08:19:20 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





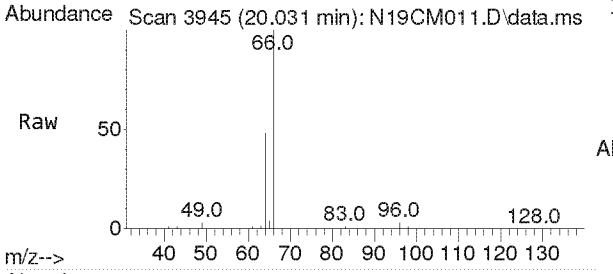
Compounds other than ethylene oxide were not quantitated.

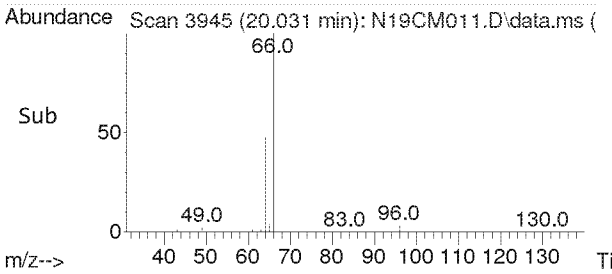


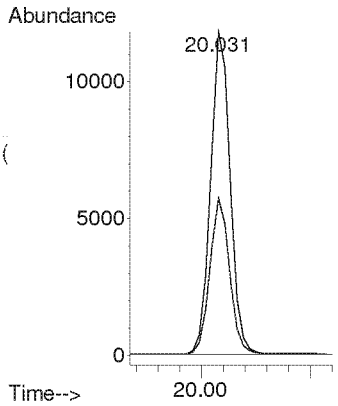
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.031 min Scan# 3945
Delta R.T. -0.013 min
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

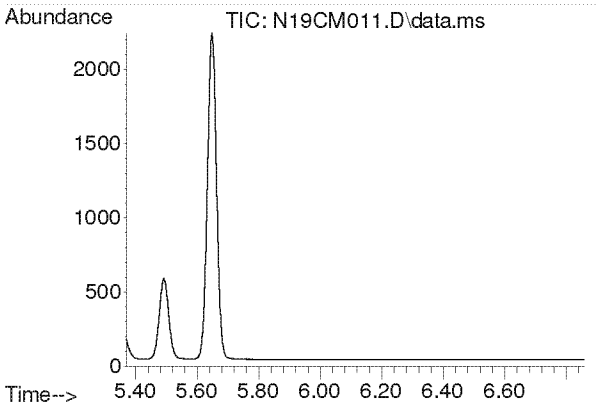
Tgt Ion: 66 Resp: 29274

Ion	Ratio	Lower	Upper
66	100		
64	48.8	32.1	59.5





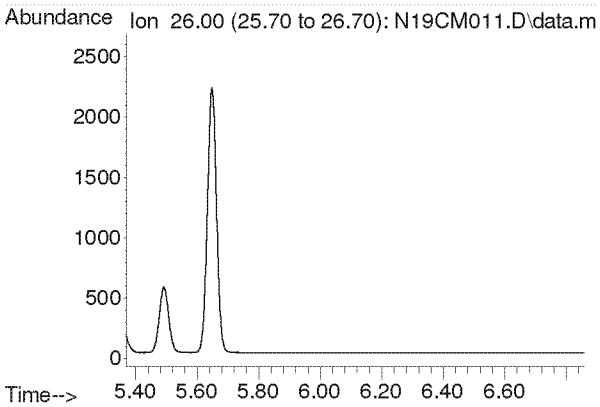




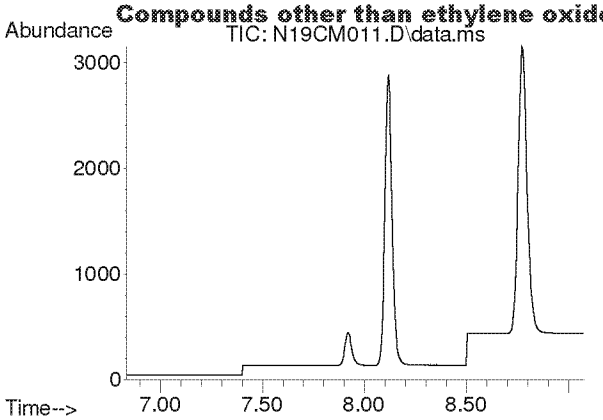
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

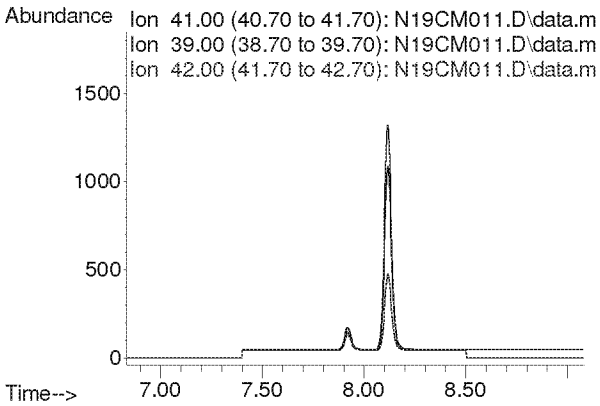


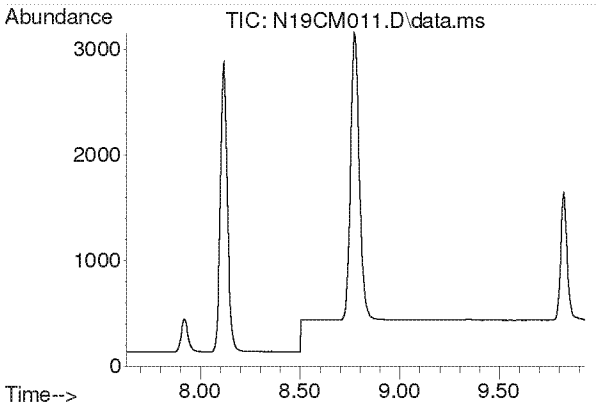
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



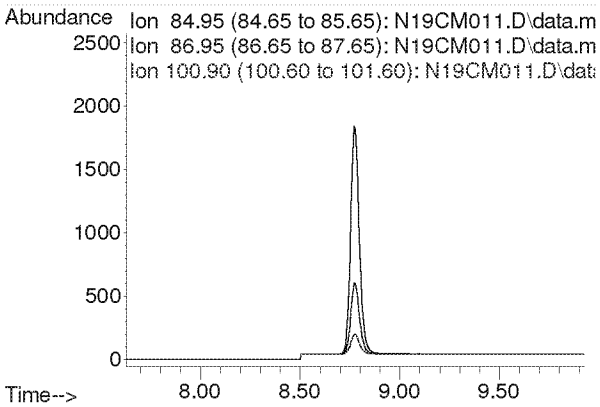


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

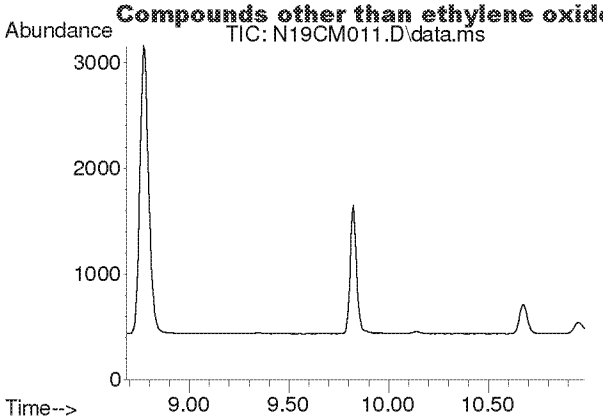
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

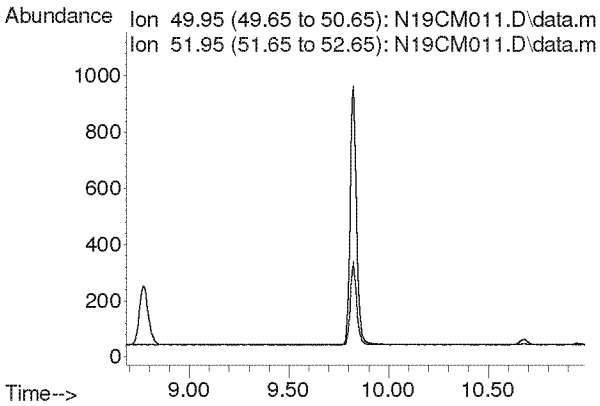


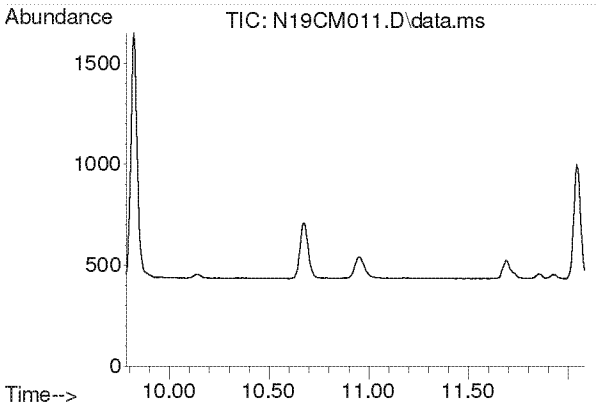
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



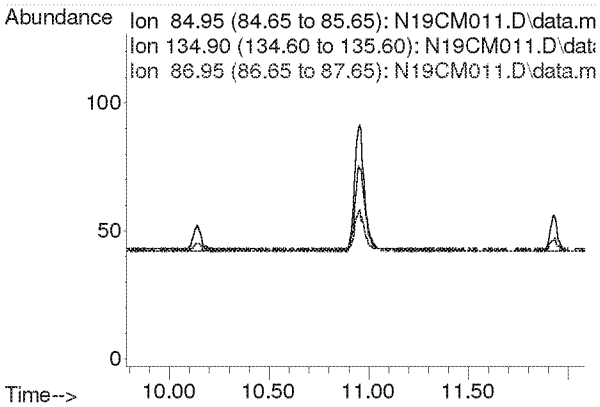


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

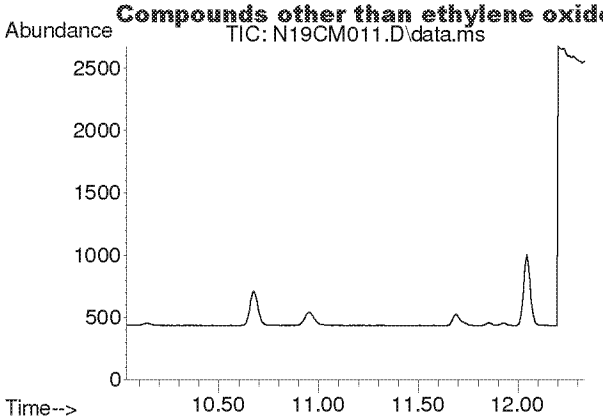
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

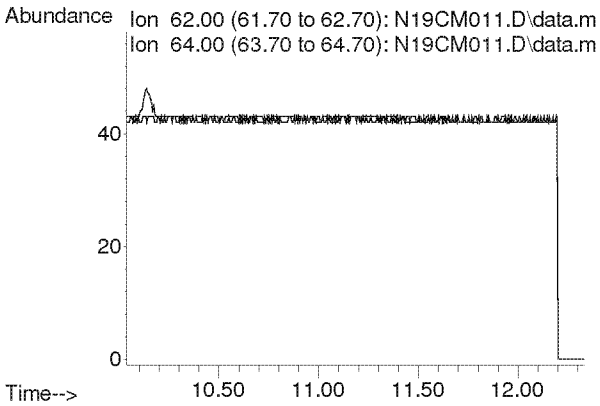


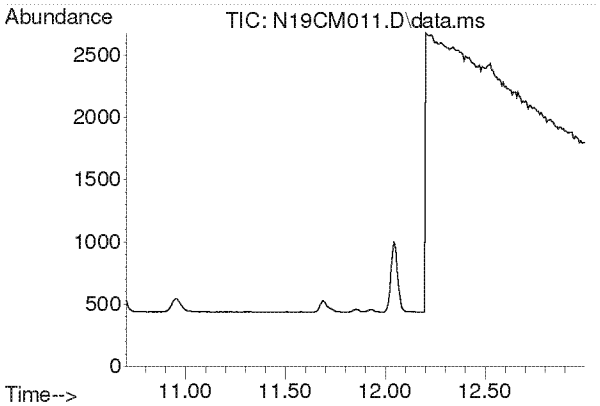
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



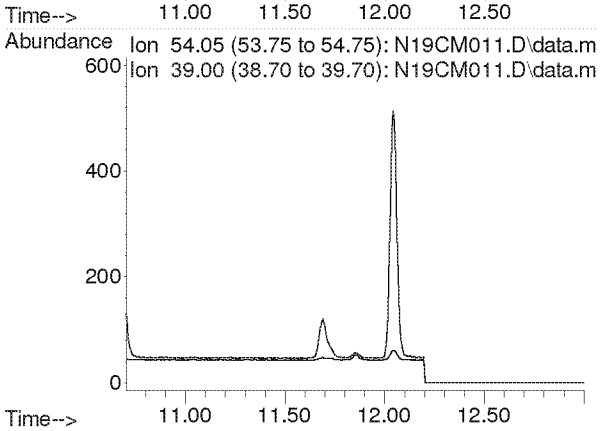


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

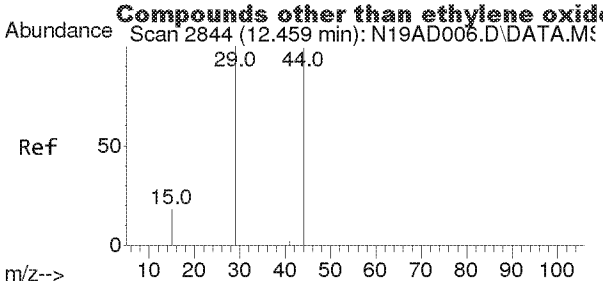
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



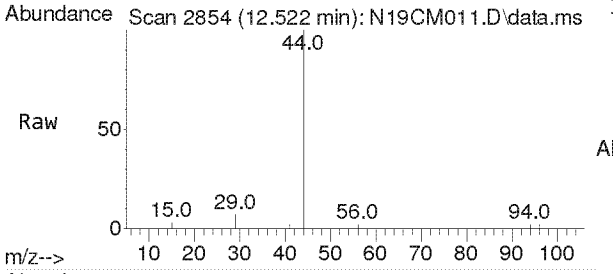
Compounds other than ethylene oxide were not quantitated.

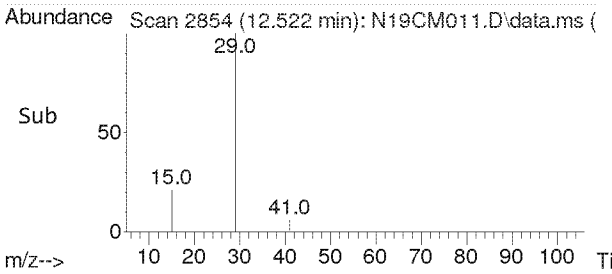


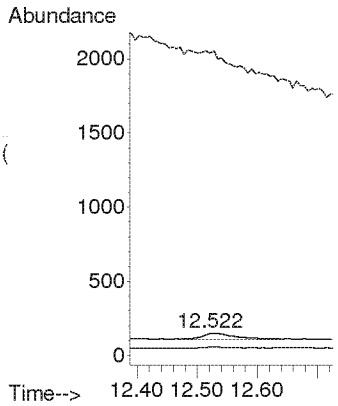
#9
Ethylene Oxide
Concen: 0.111 ppbv
RT: 12.522 min Scan# 2854
Delta R.T. 0.063 min
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

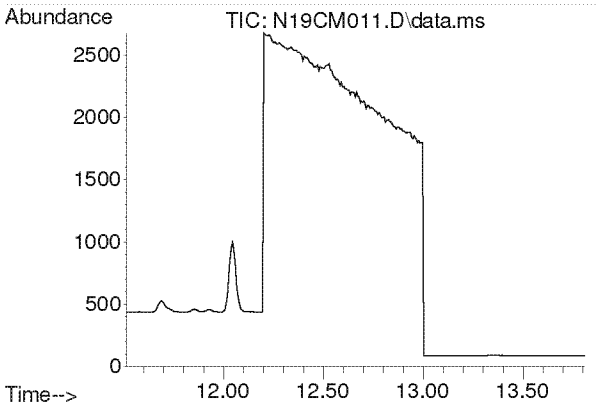
Tgt Ion: 29 Resp: 142

Ion	Ratio	Lower	Upper
29	100		
15	0.0	14.0	21.0#
44	0.0	79.2	118.8#







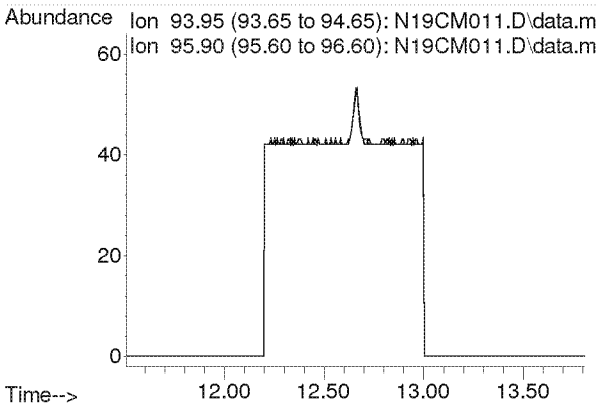


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

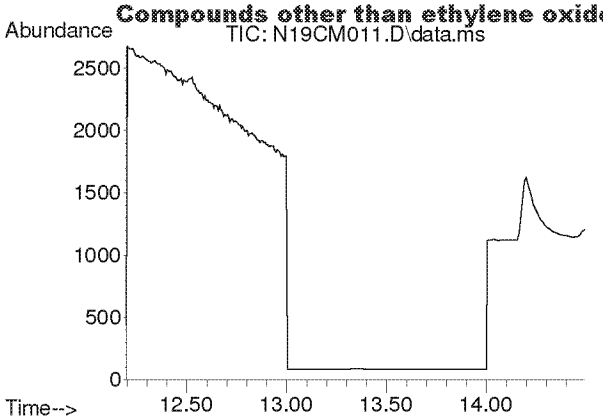
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

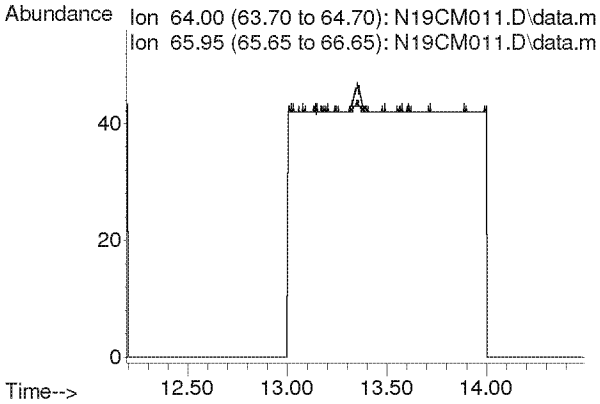


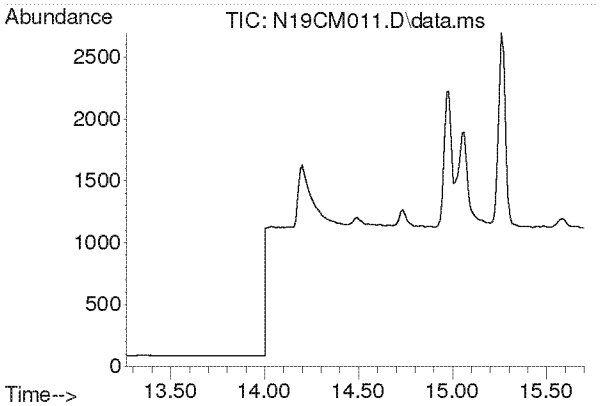
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



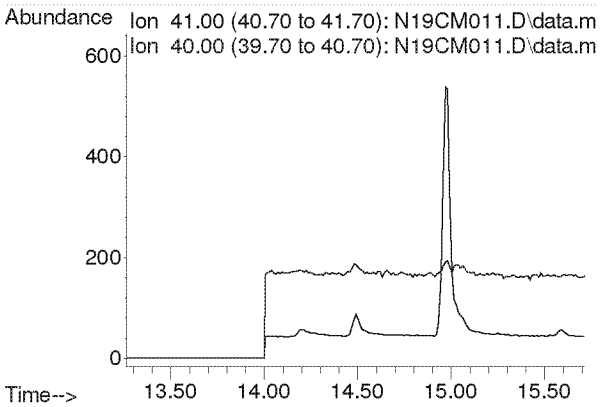


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

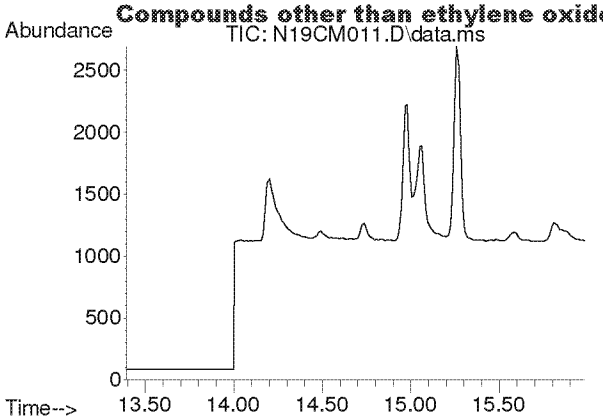
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

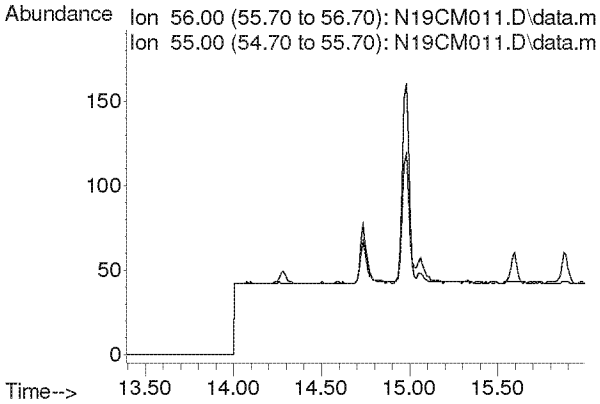


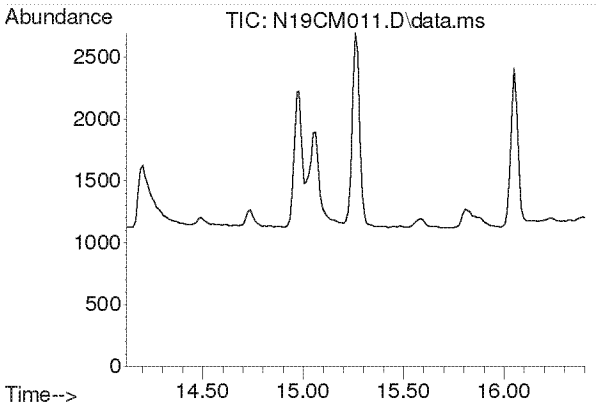
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



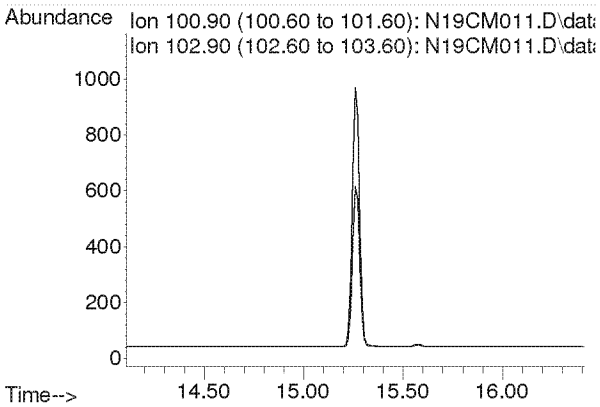


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

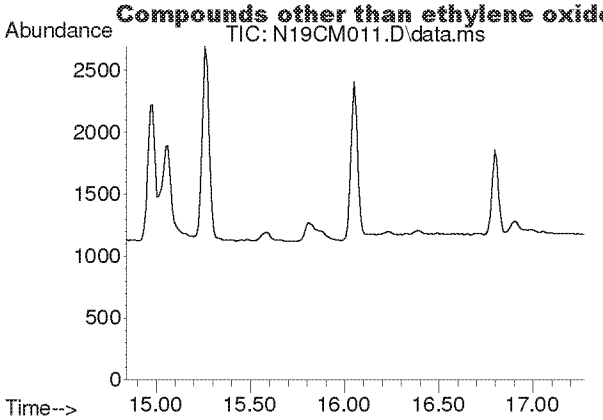
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

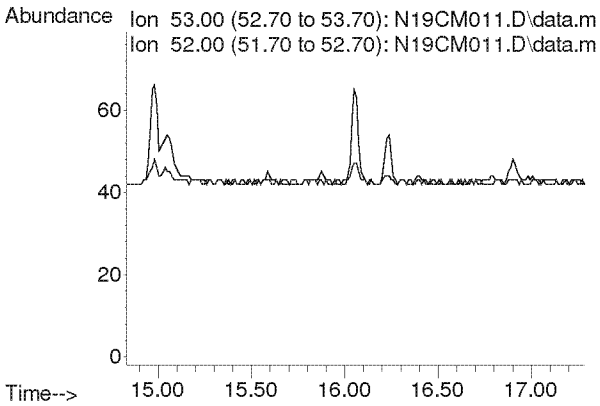


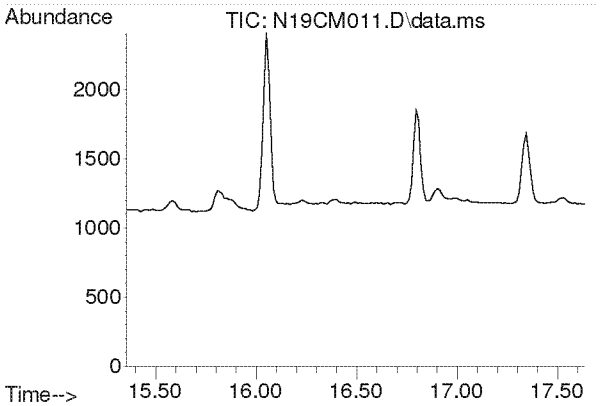
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



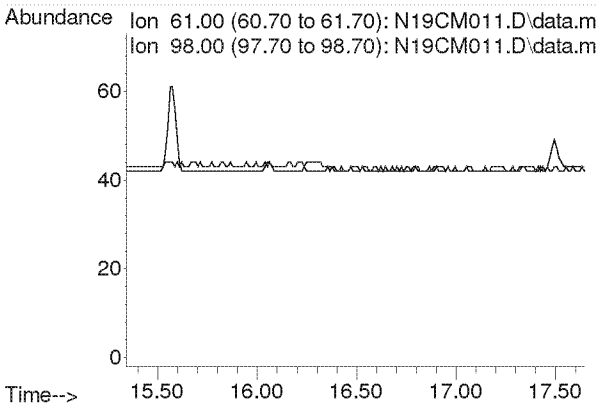


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

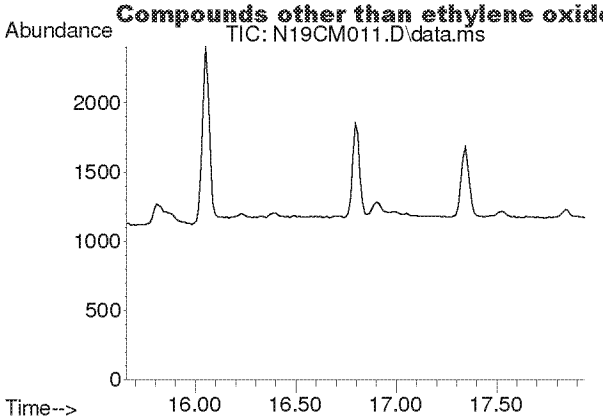
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

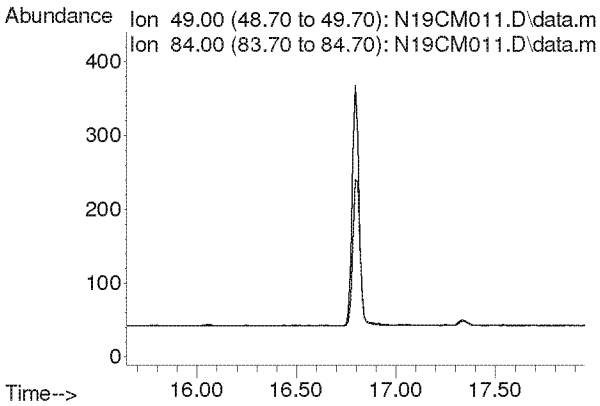


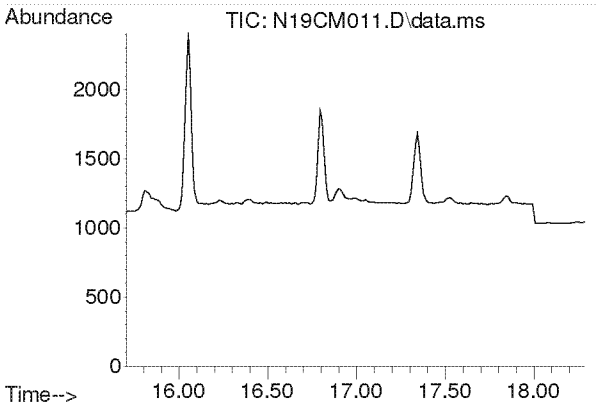
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



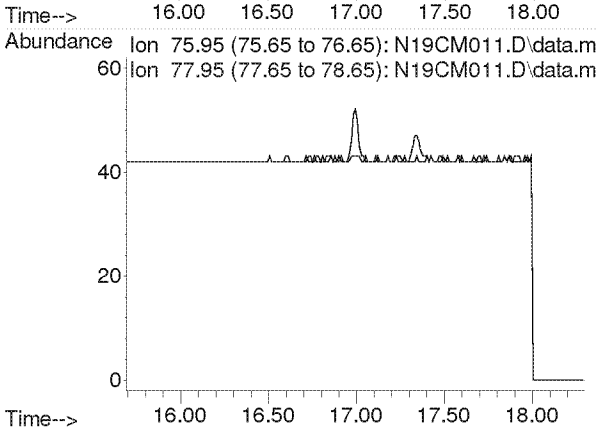


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

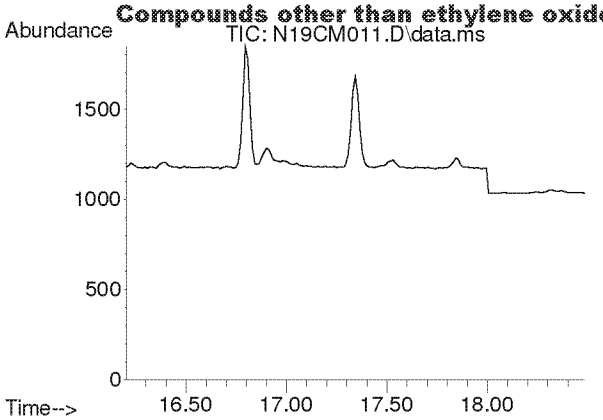
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

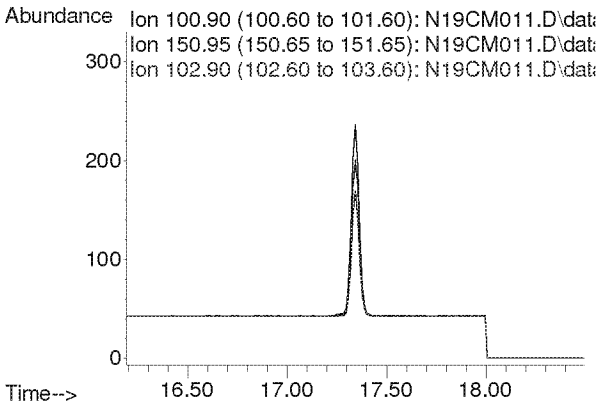


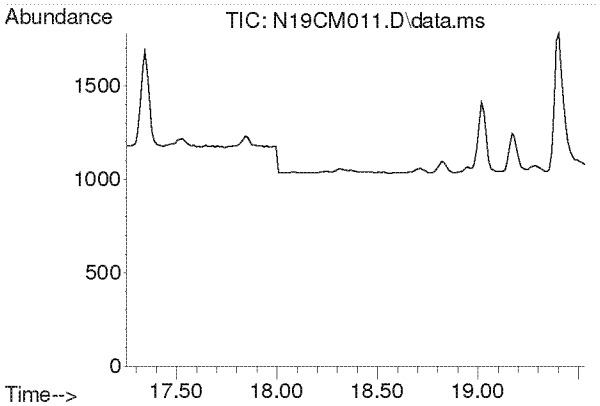
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



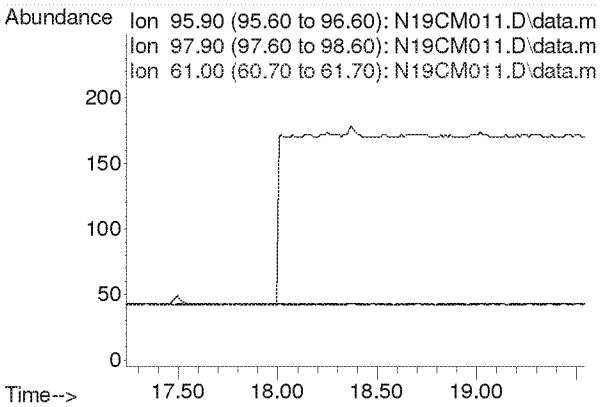


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

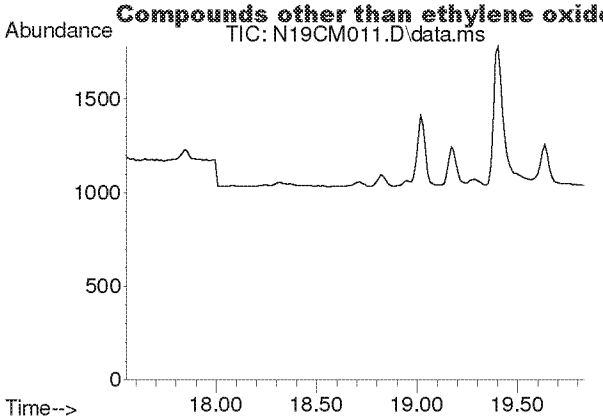
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

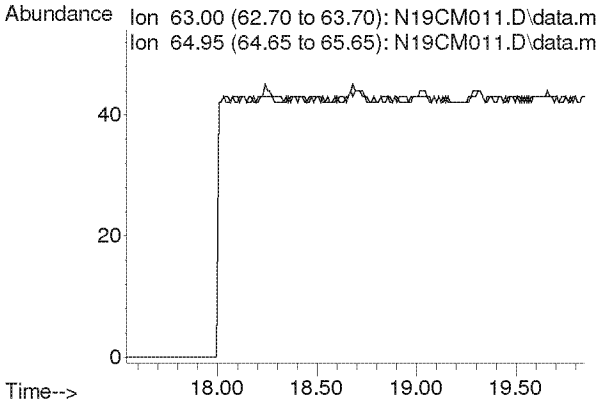


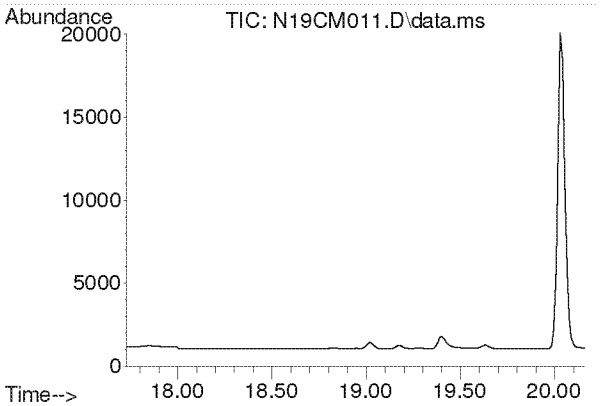
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



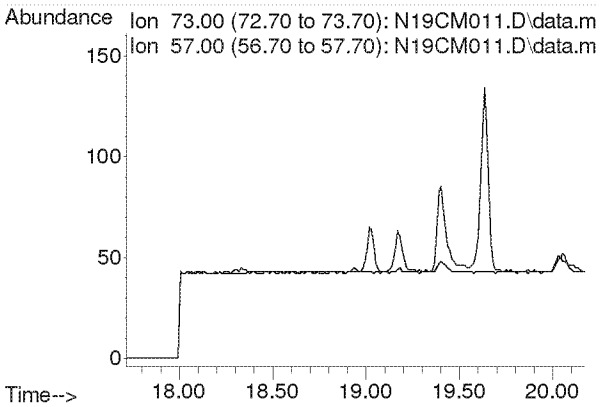


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

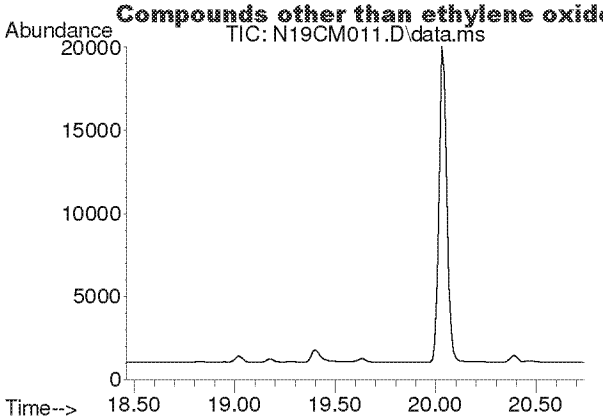
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

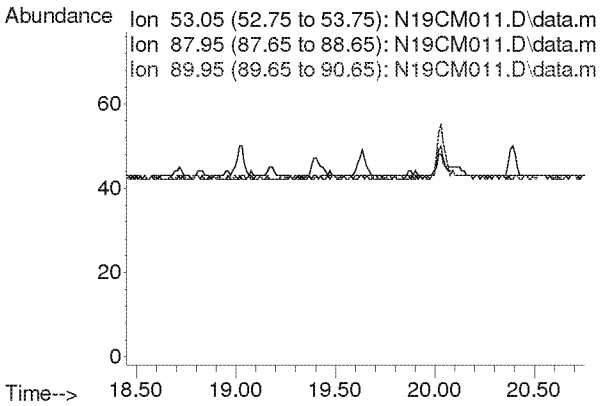


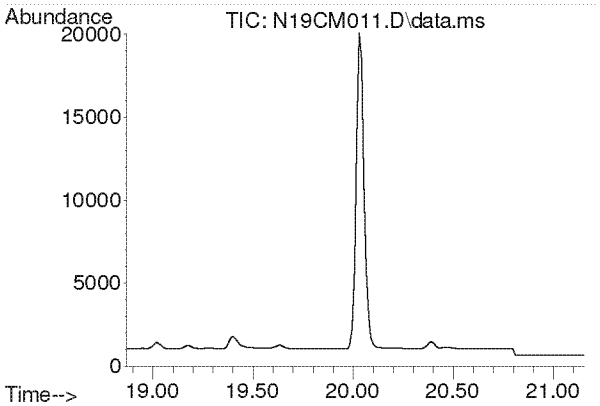
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



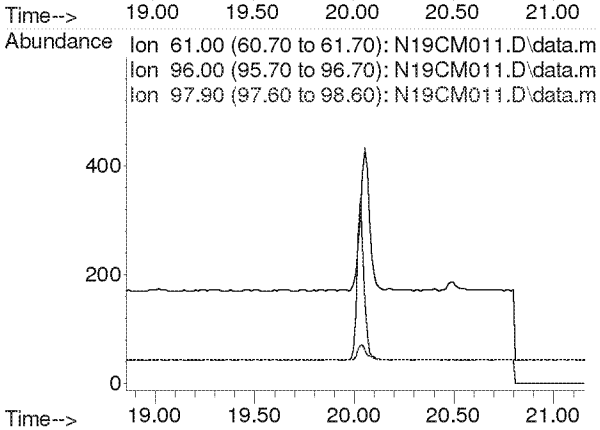


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

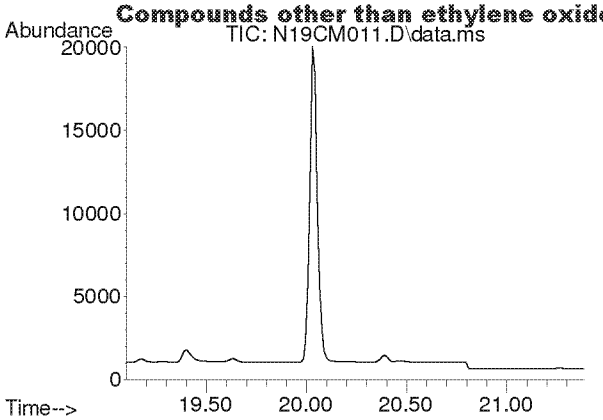
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

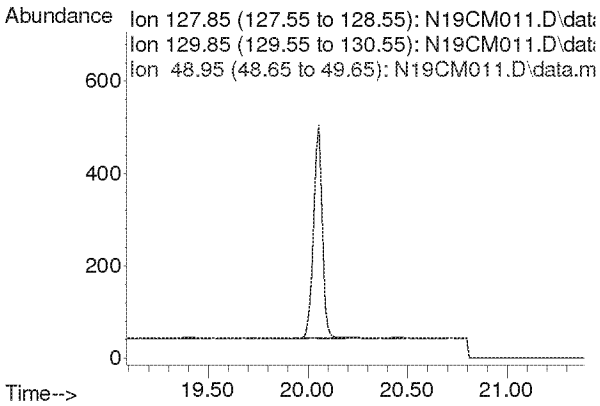


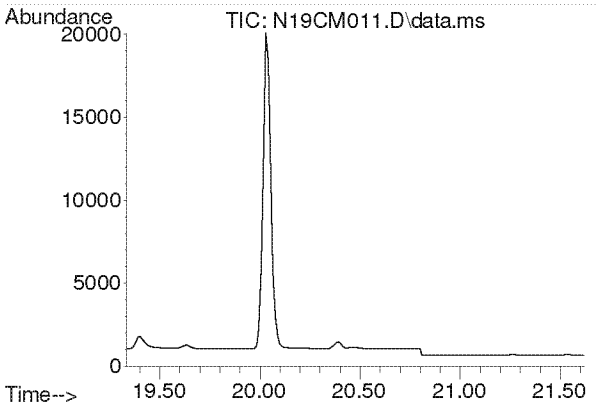
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



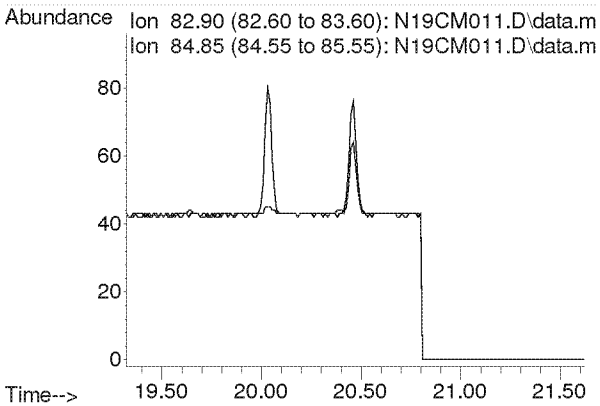


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

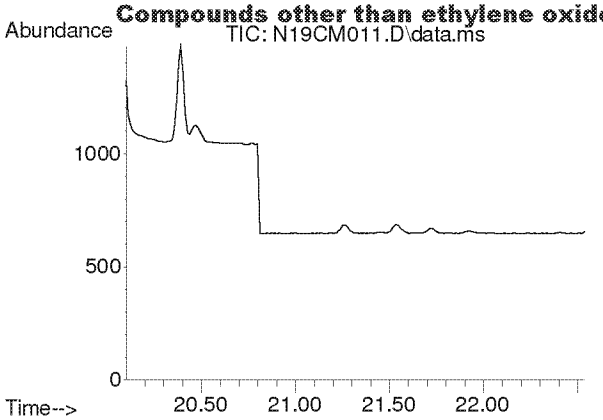
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

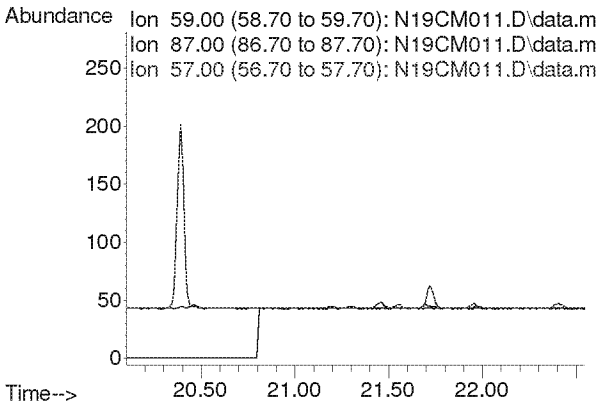


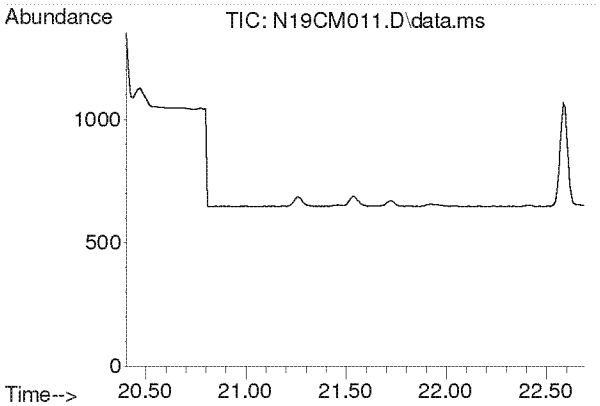
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



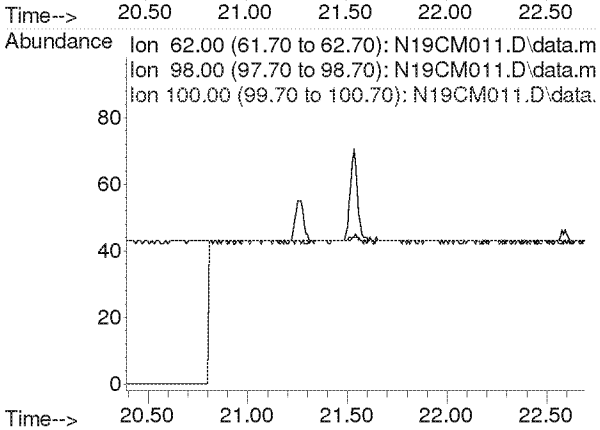


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

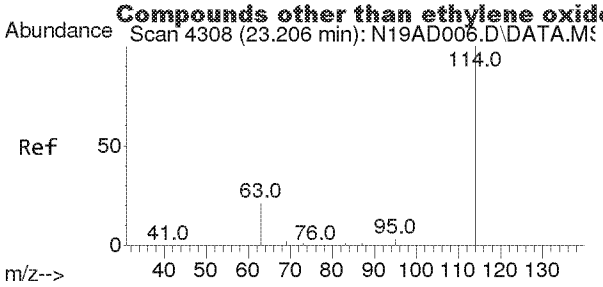
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



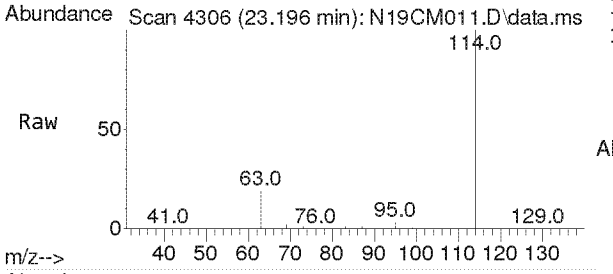
Compounds other than ethylene oxide were not quantitated.

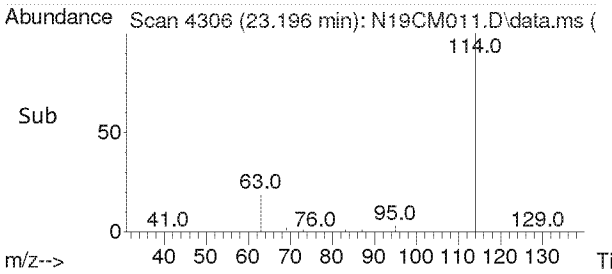


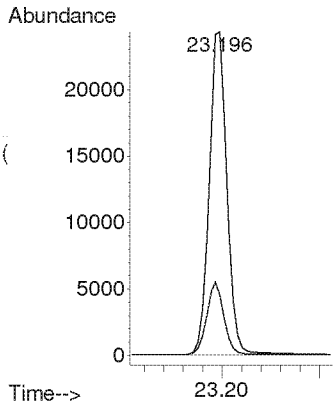
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.196 min Scan# 4306
Delta R.T. -0.010 min
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

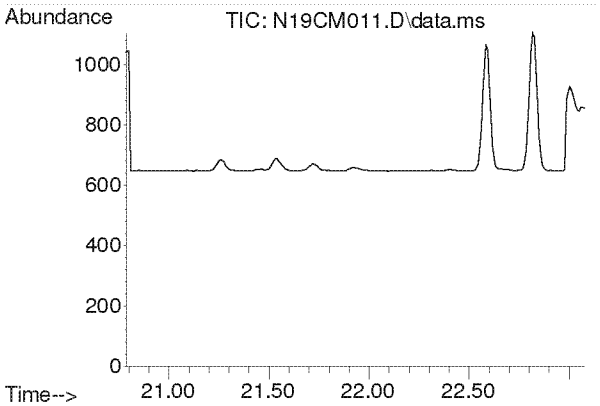
Tgt Ion:114 Resp: 61600

Ion	Ratio	Lower	Upper
114	100		
63	21.8	16.7	25.1







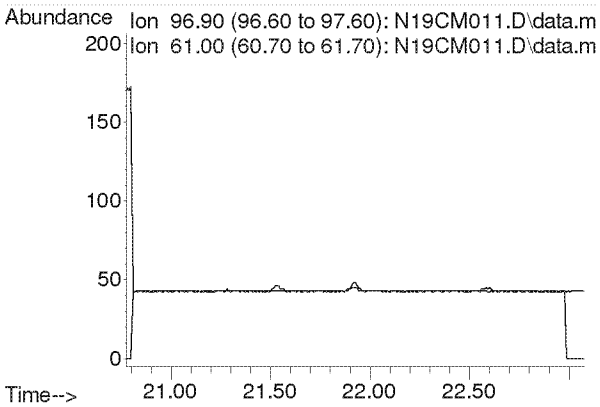


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

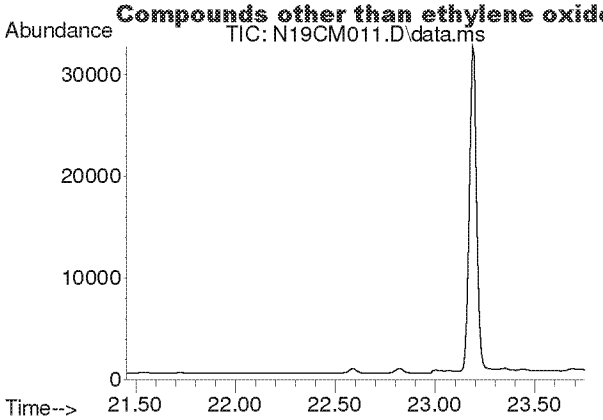
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

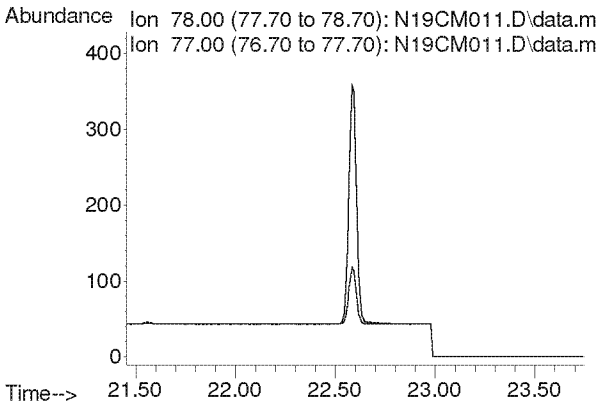


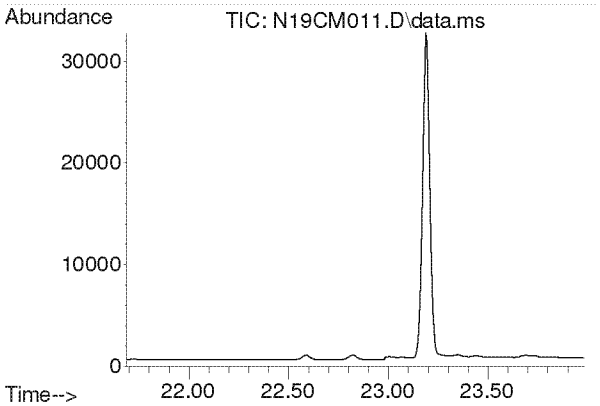
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



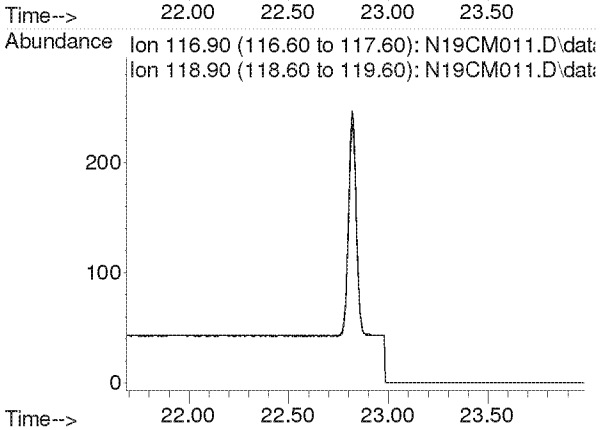


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

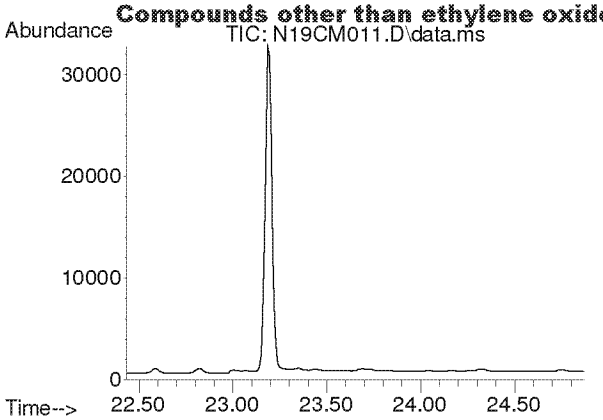
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

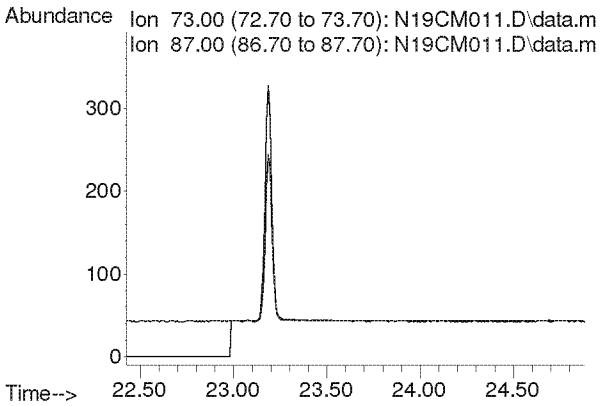


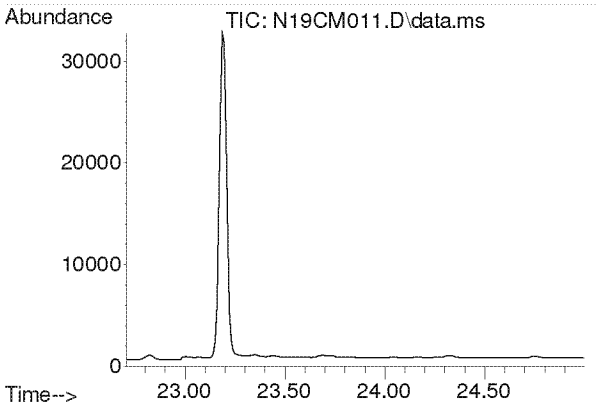
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



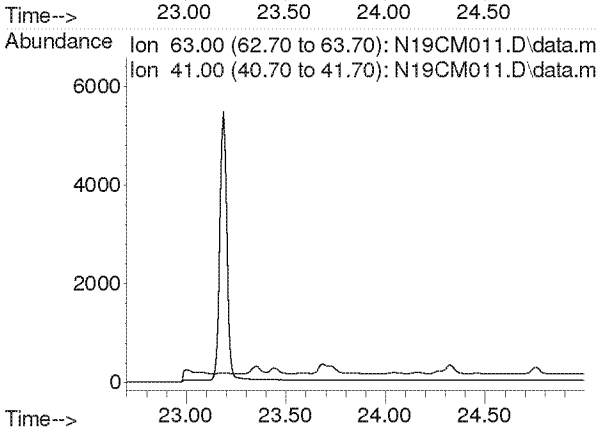


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

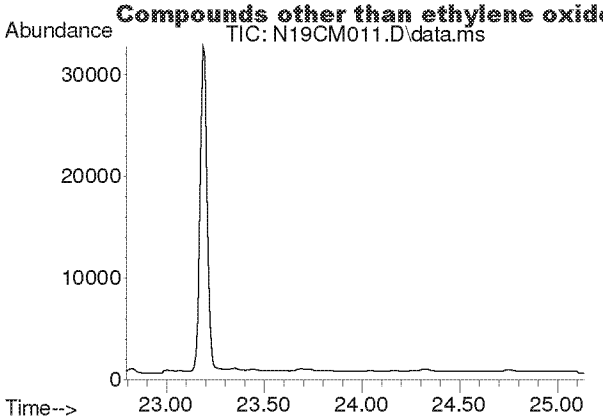
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

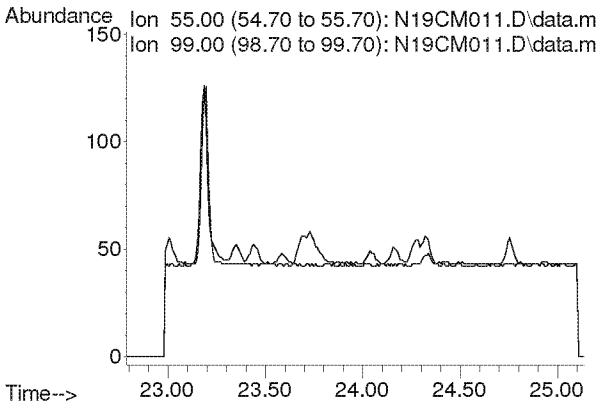


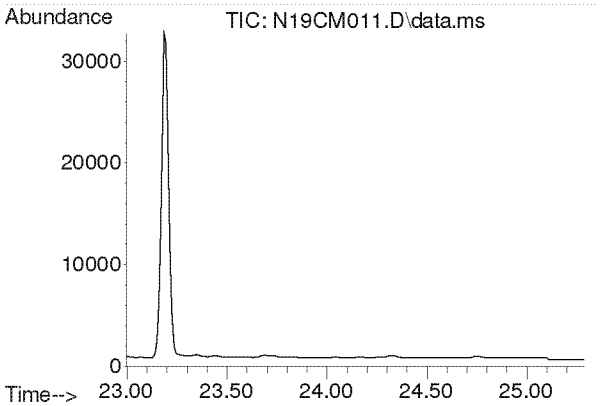
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



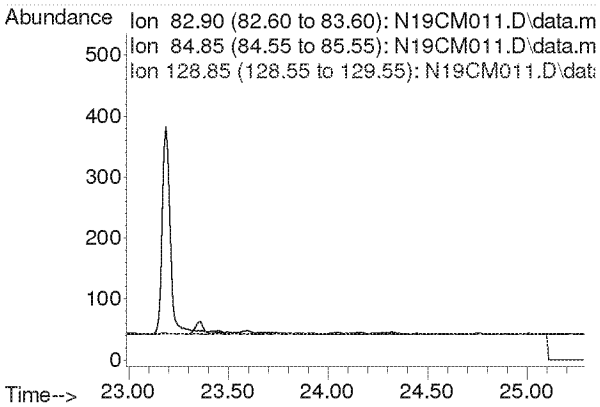


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

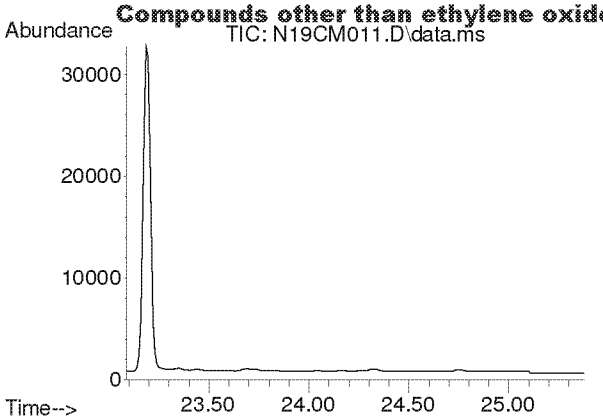
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

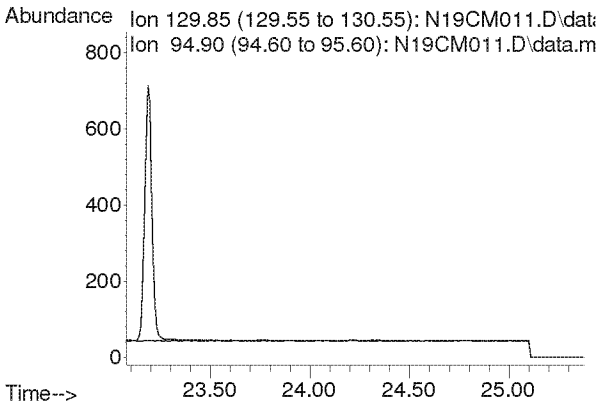


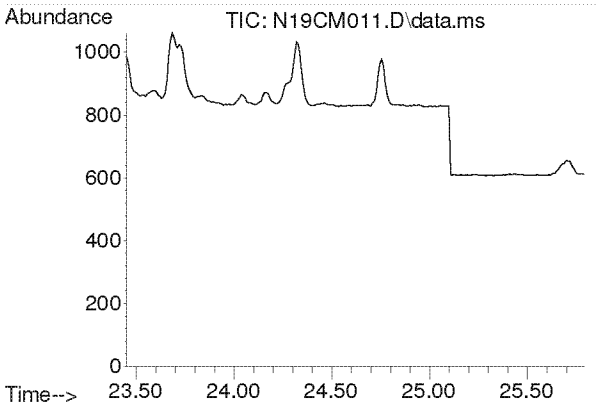
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



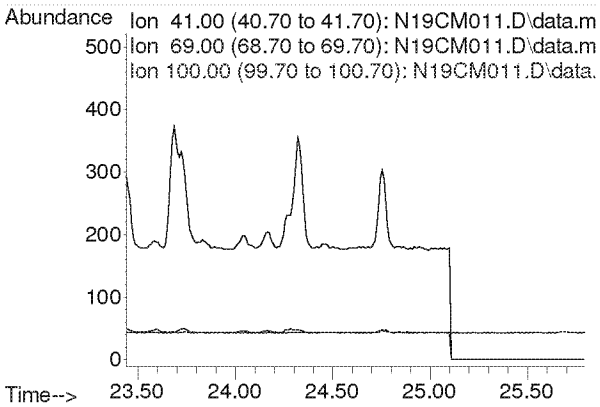


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

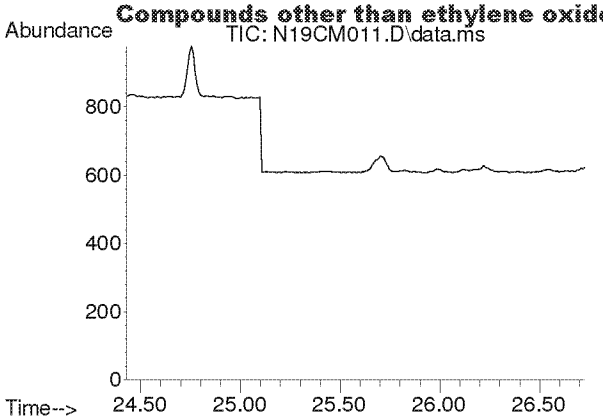
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

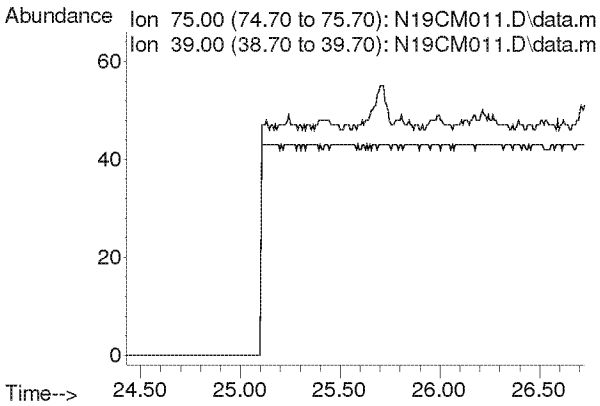


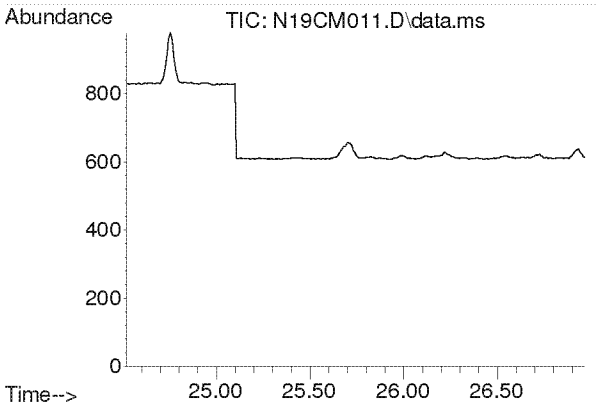
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



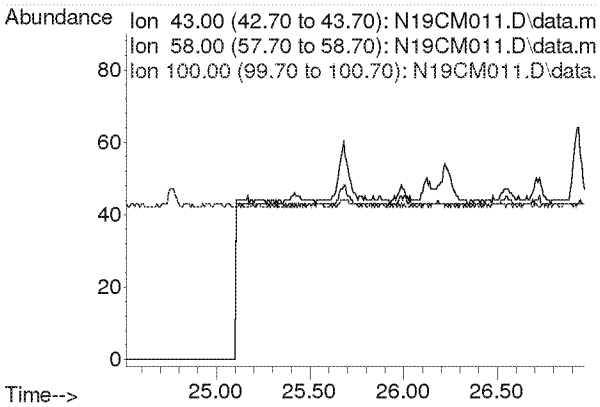


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

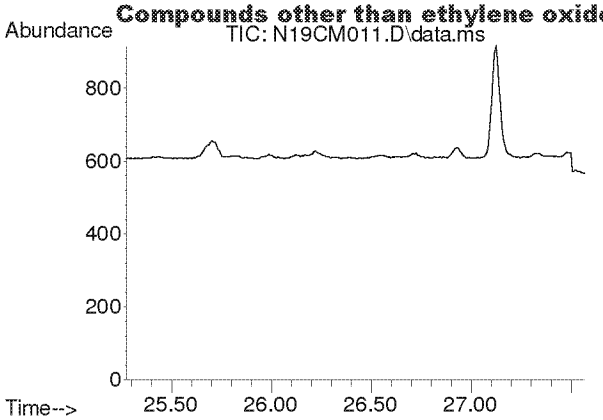
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

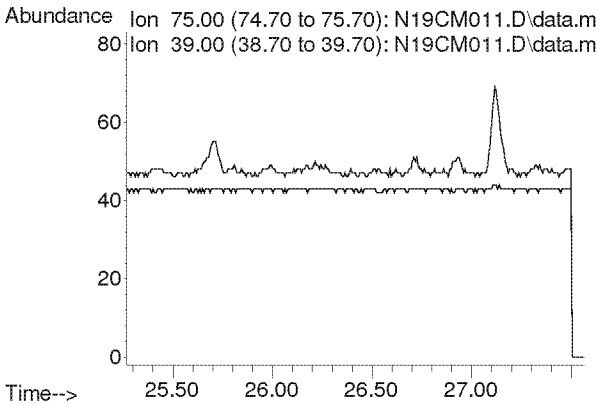


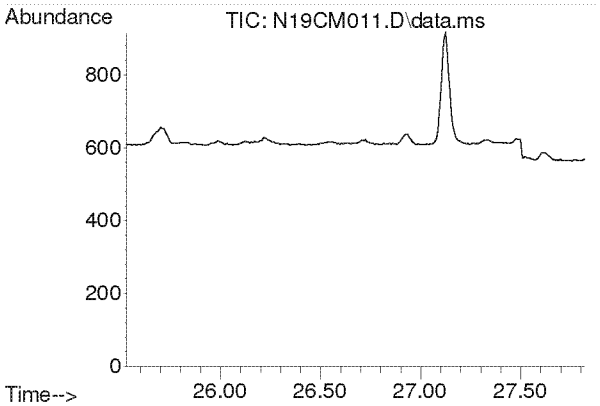
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



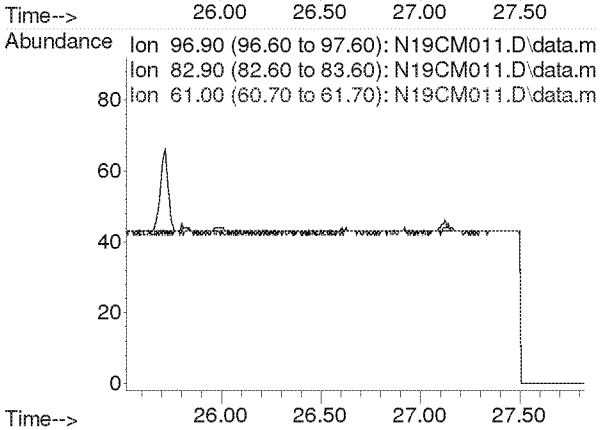


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

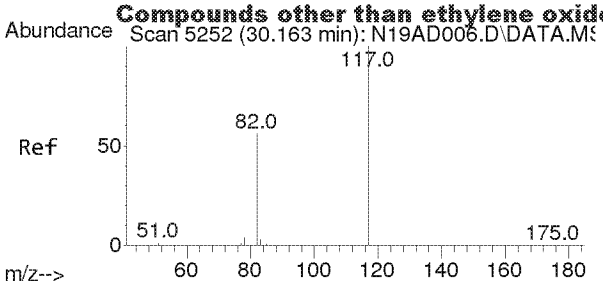
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



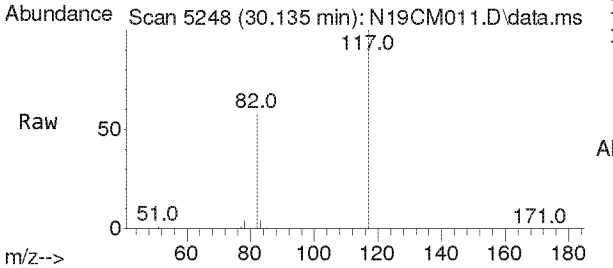
Compounds other than ethylene oxide were not quantitated.

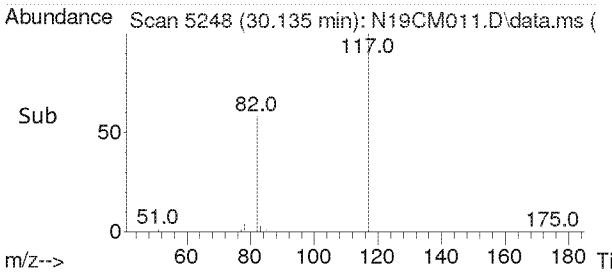


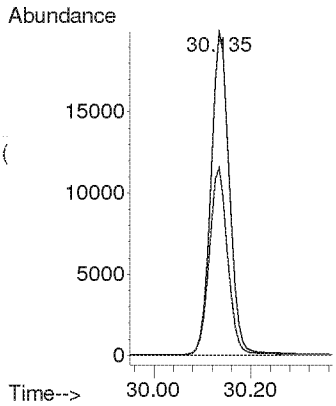
#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.135 min Scan# 5248
Delta R.T. -0.027 min
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

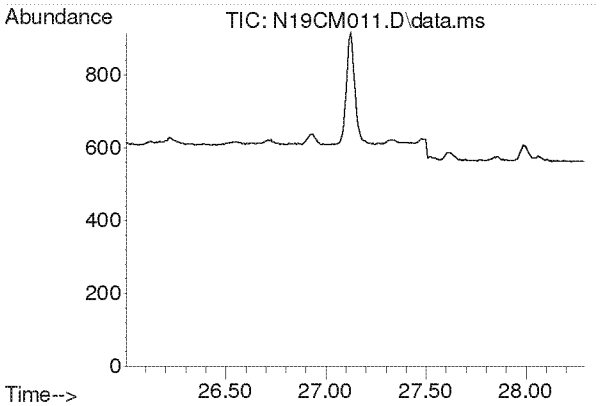
Tgt Ion:117 Resp: 51832

Ion	Ratio	Lower	Upper
117	100		
82	58.2	40.1	74.5
54	0.0	0.0	0.0







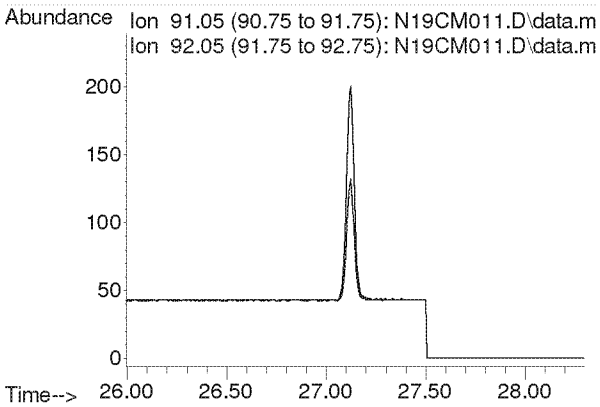


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

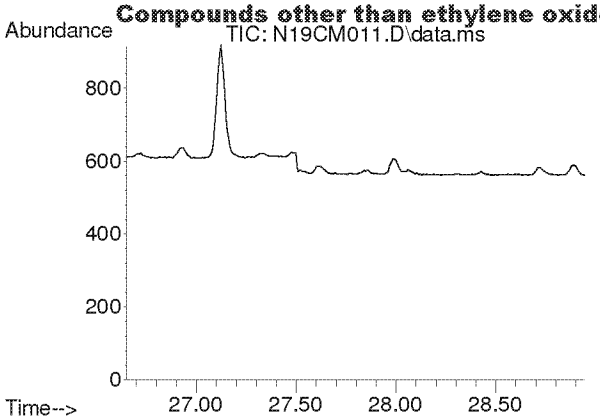
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

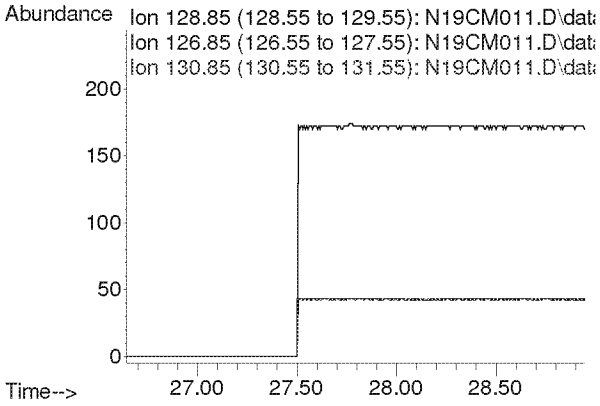


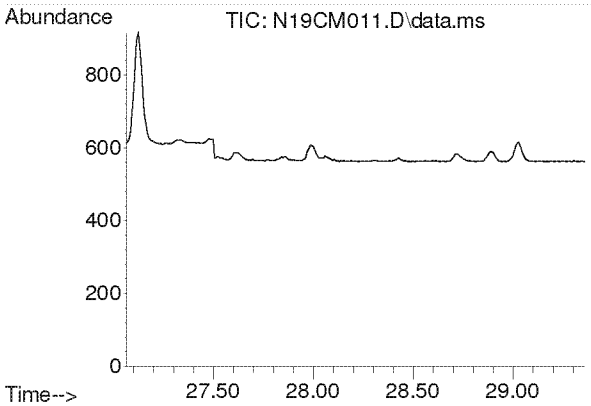
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



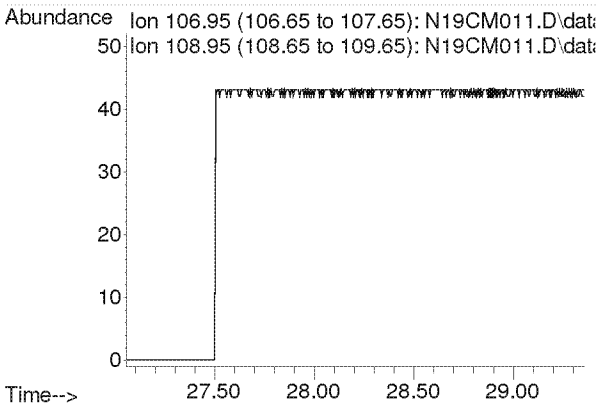


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

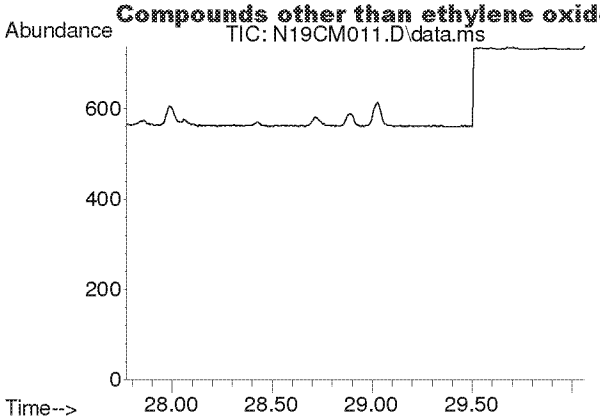
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

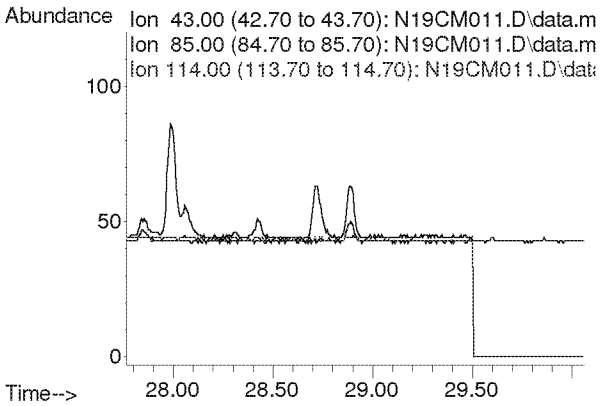


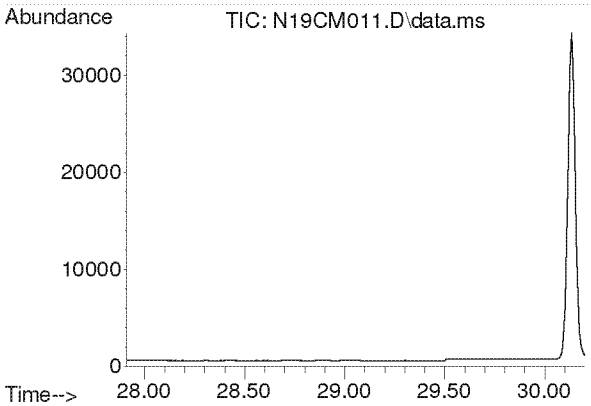
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



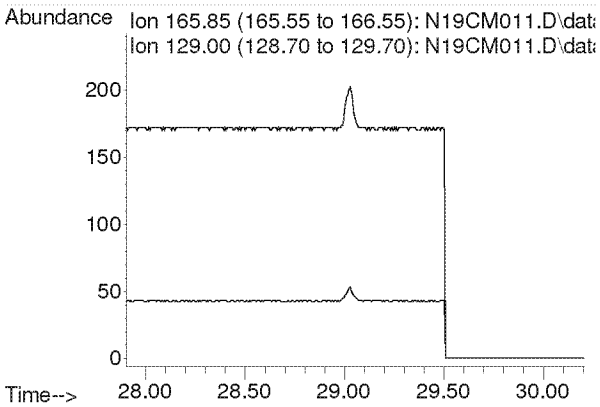


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

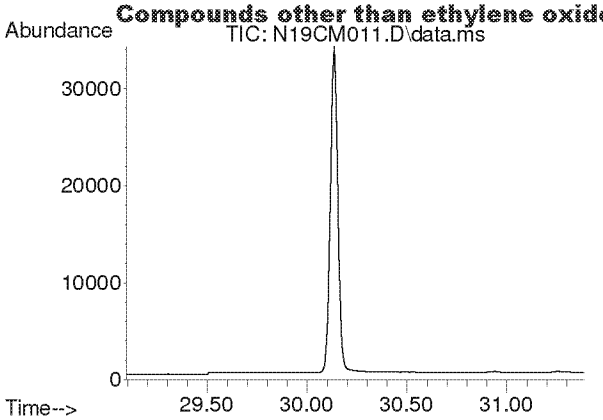
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

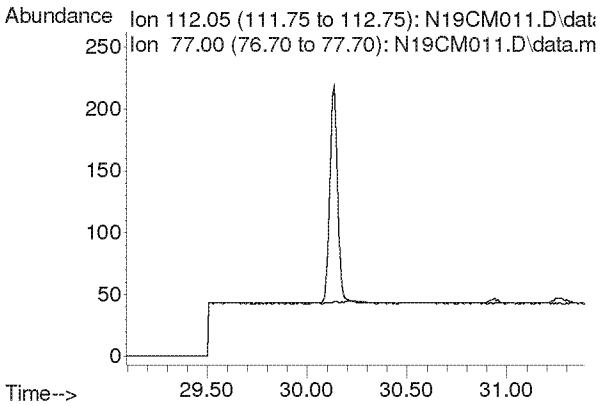


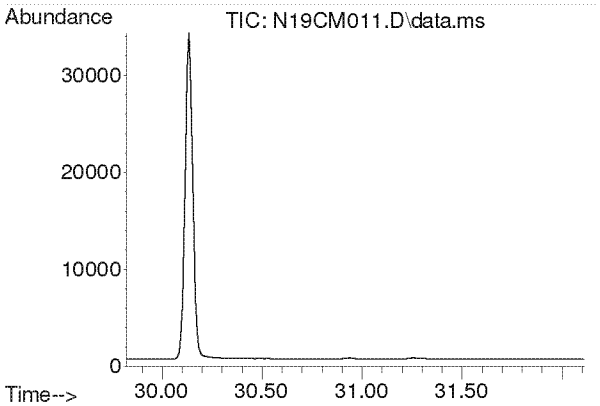
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



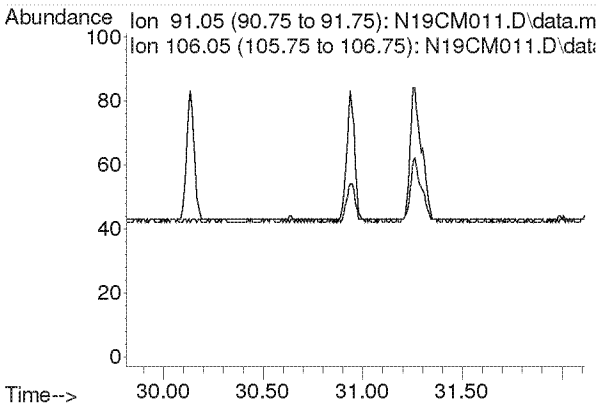


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

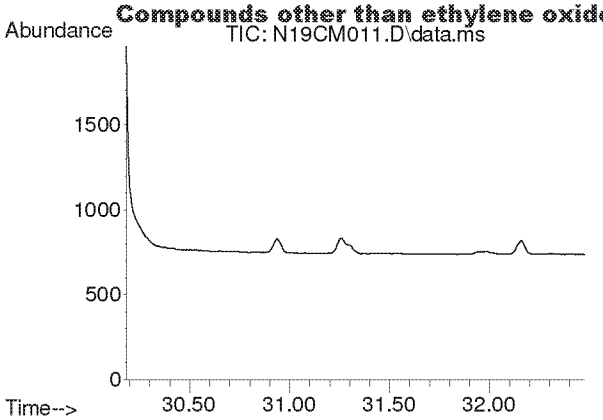
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

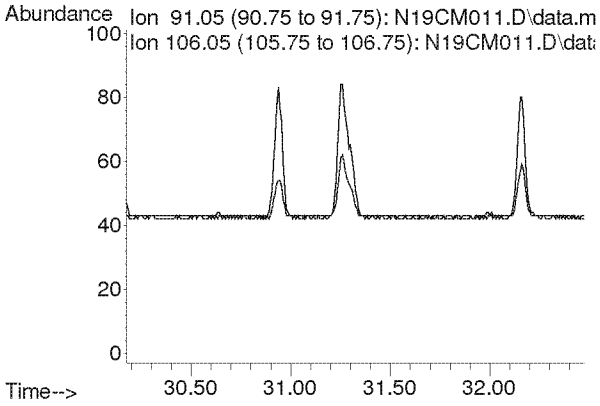


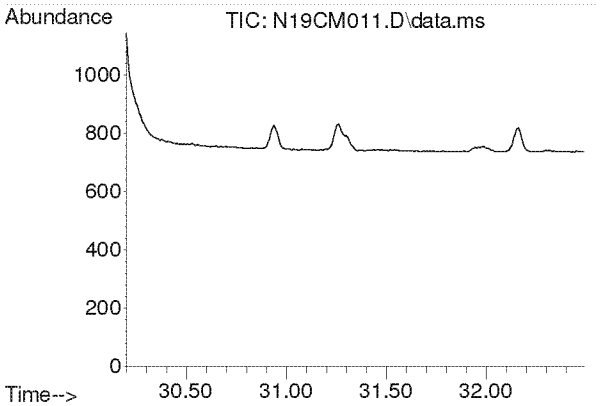
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



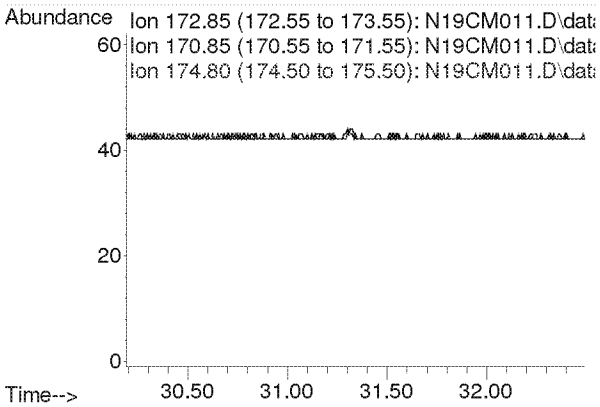


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

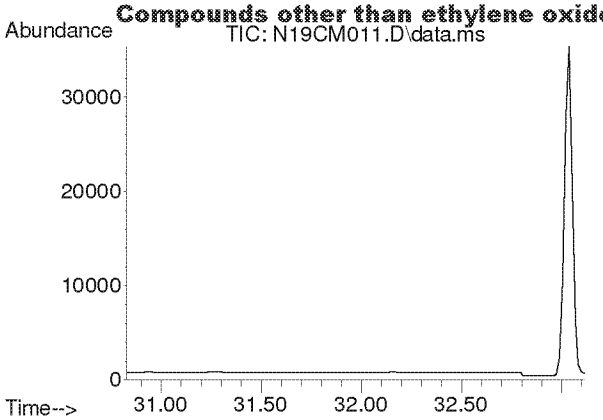
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

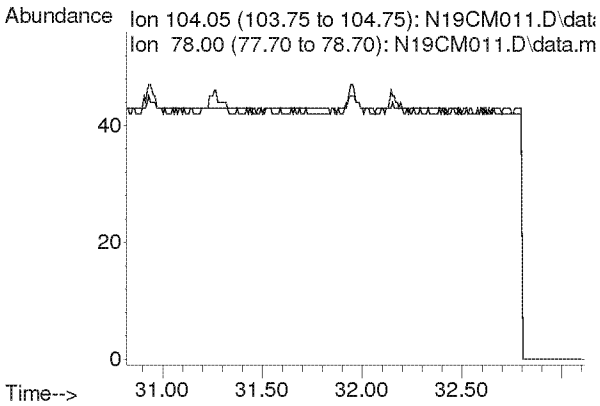


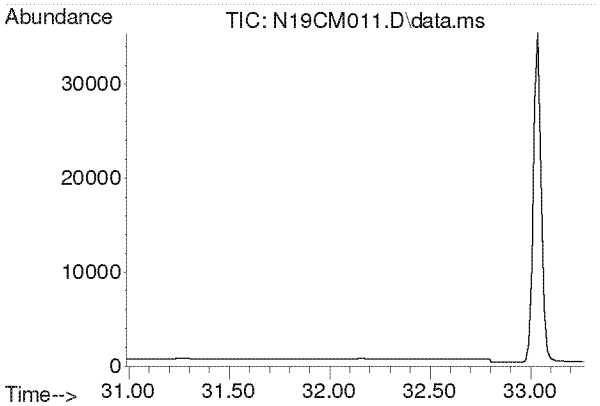
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



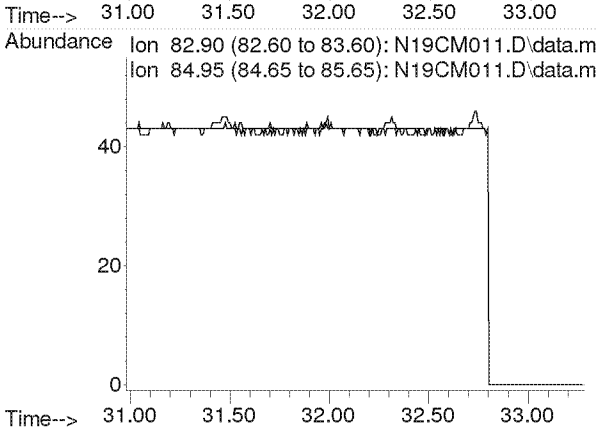


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

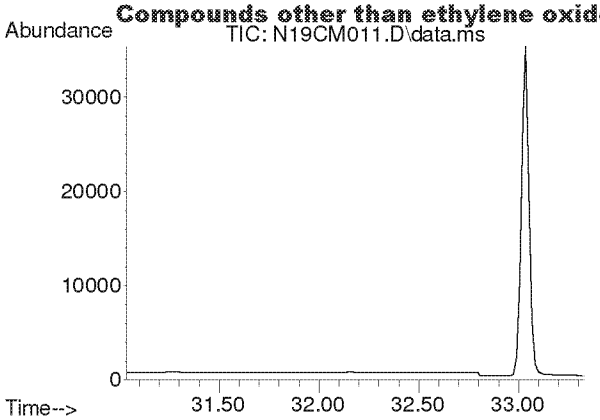
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

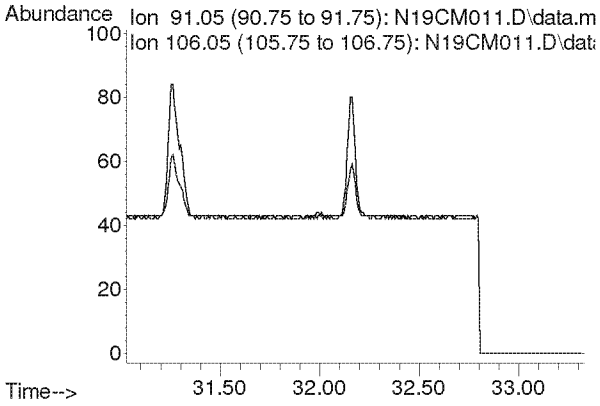


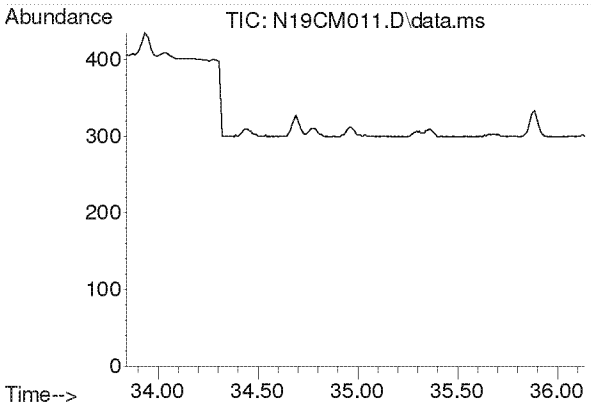
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



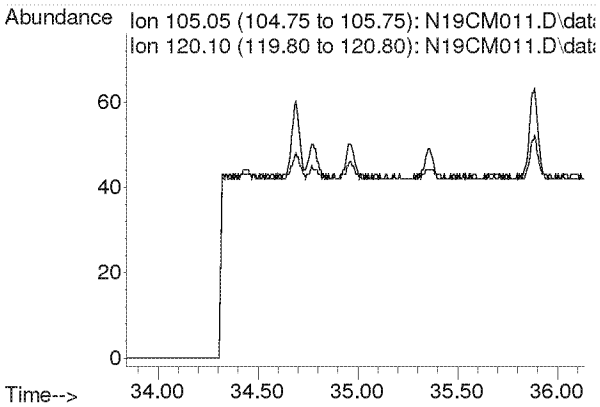


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

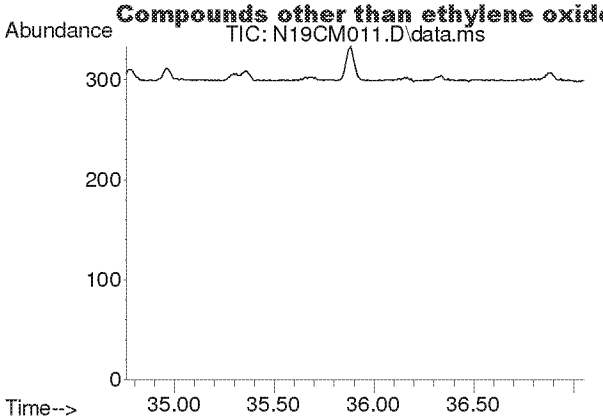
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

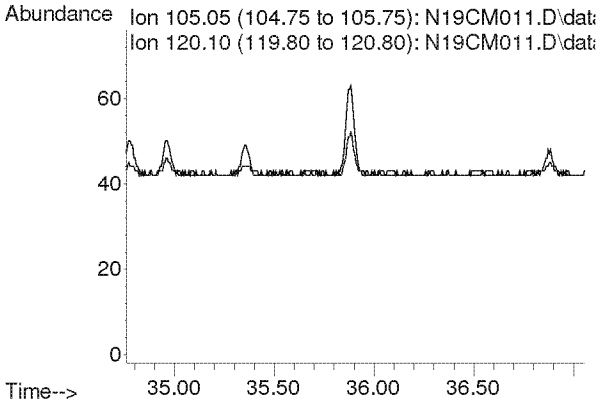


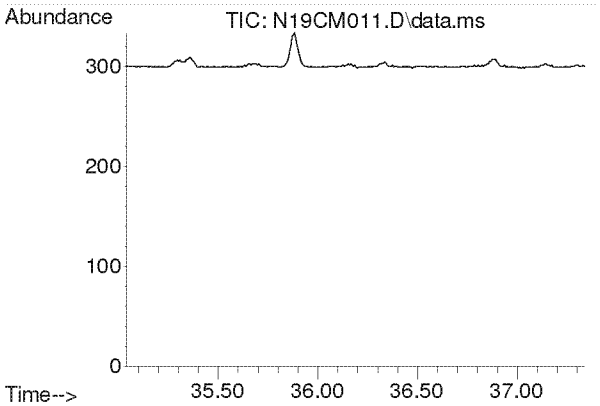
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



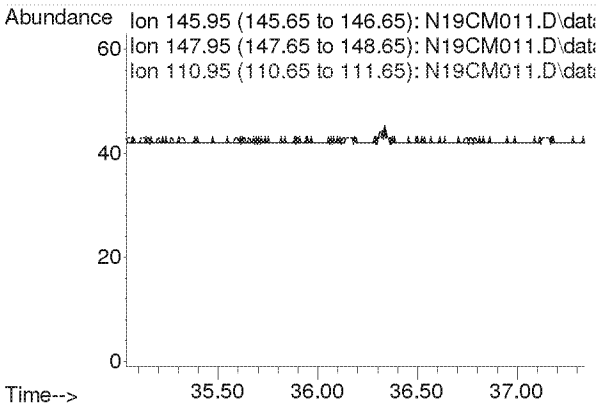


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

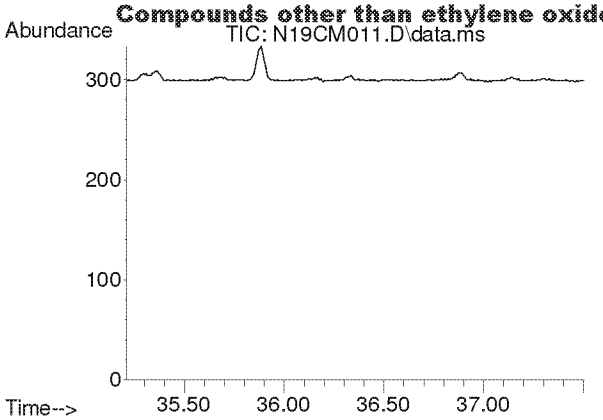
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

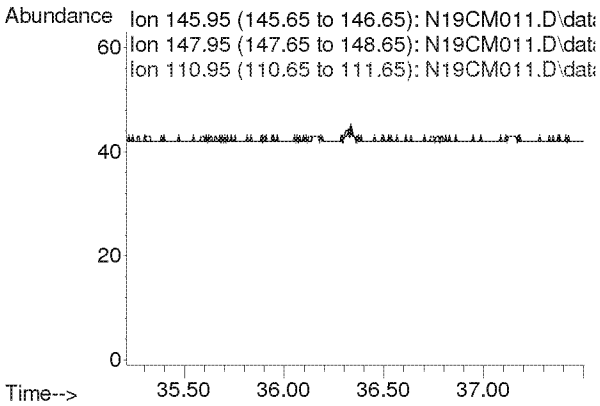


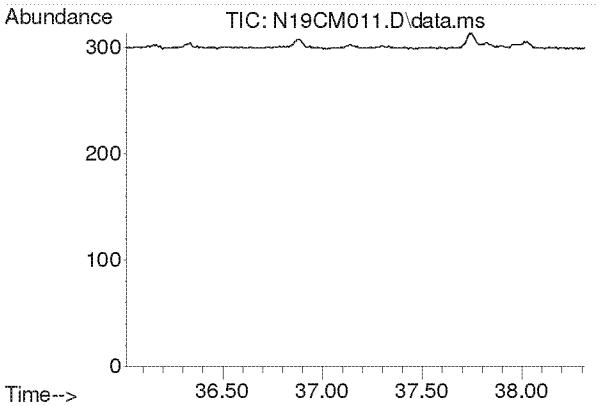
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



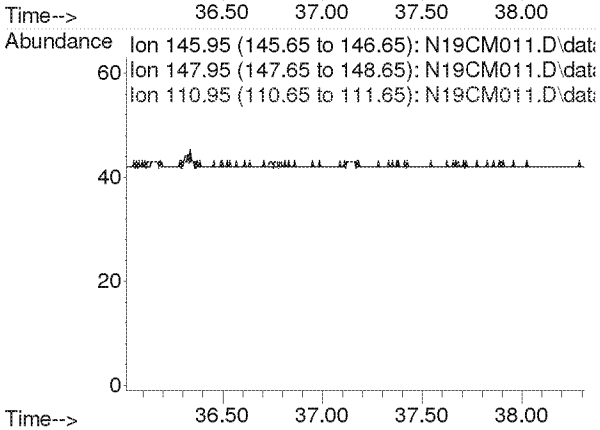


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

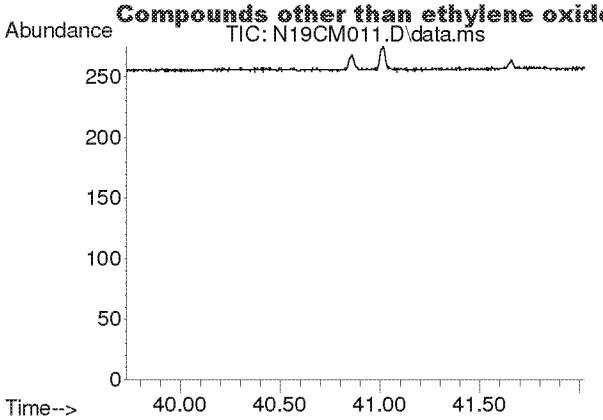
Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

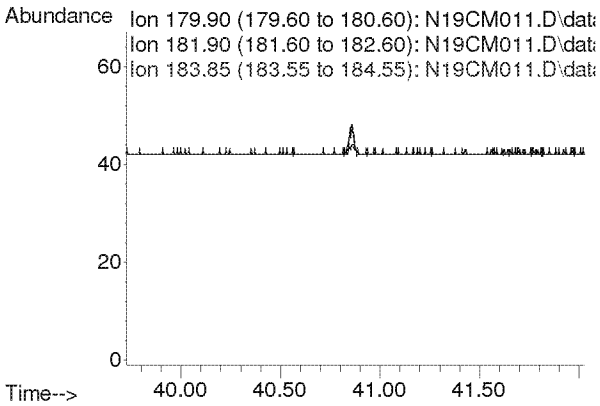


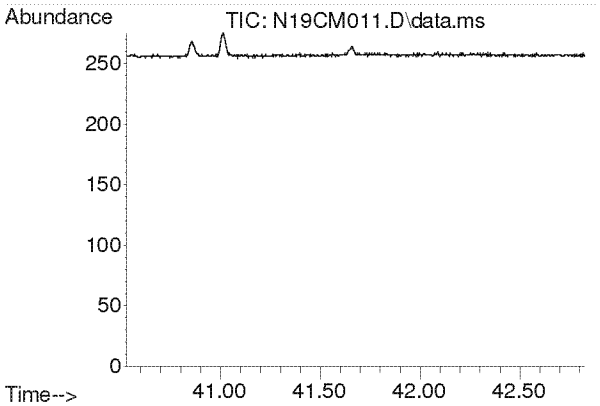
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



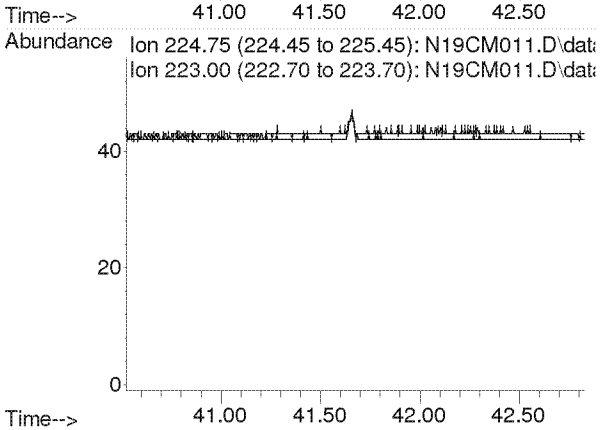


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM011.D
Acq: 13 Mar 2019 9:26 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM012.D
Acq On : 13 Mar 2019 10:28 pm (#1); 13-Mar-19, 22:22:48 (#2)
Operator : KSS
Sample : 9031220-07
Misc : WILLOW POND 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 14 08:34:08 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.032	66	29546	4.7700 ppbv	-0.01
29) IS-1,4-Difluorobenzene	23.197	114	62194	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.138	117	50979	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.	
9) Ethylene Oxide	12.521	29	174	0.1351 ppbv #	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
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 (QT Reviewed)

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM012.D
Acq On : 13 Mar 2019 10:28 pm (#1); 13-Mar-19, 22:22:48 (#2)
Operator : KSS
Sample : 9031220-07
Misc : WILLOW POND 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 14 08:34:08 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

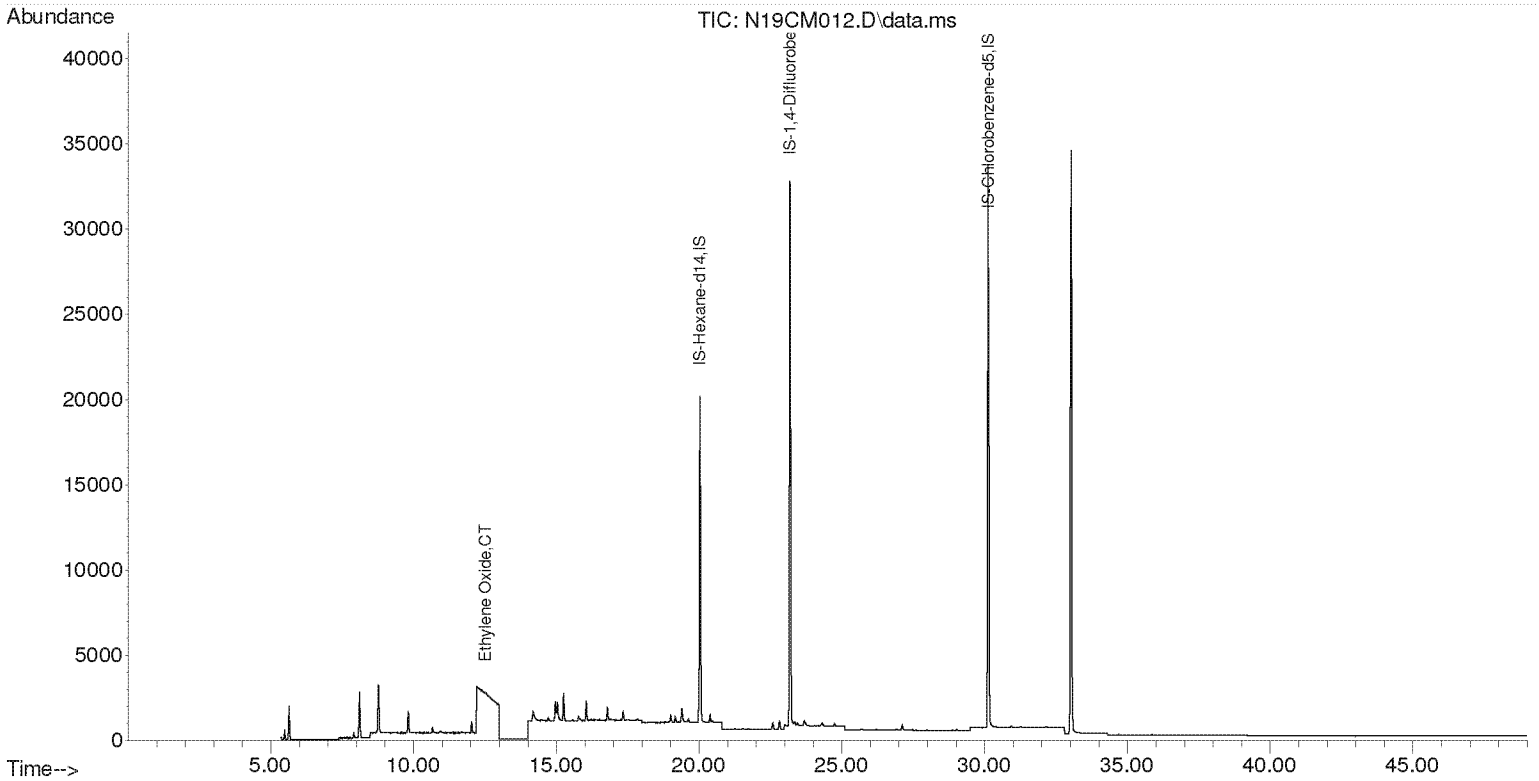
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

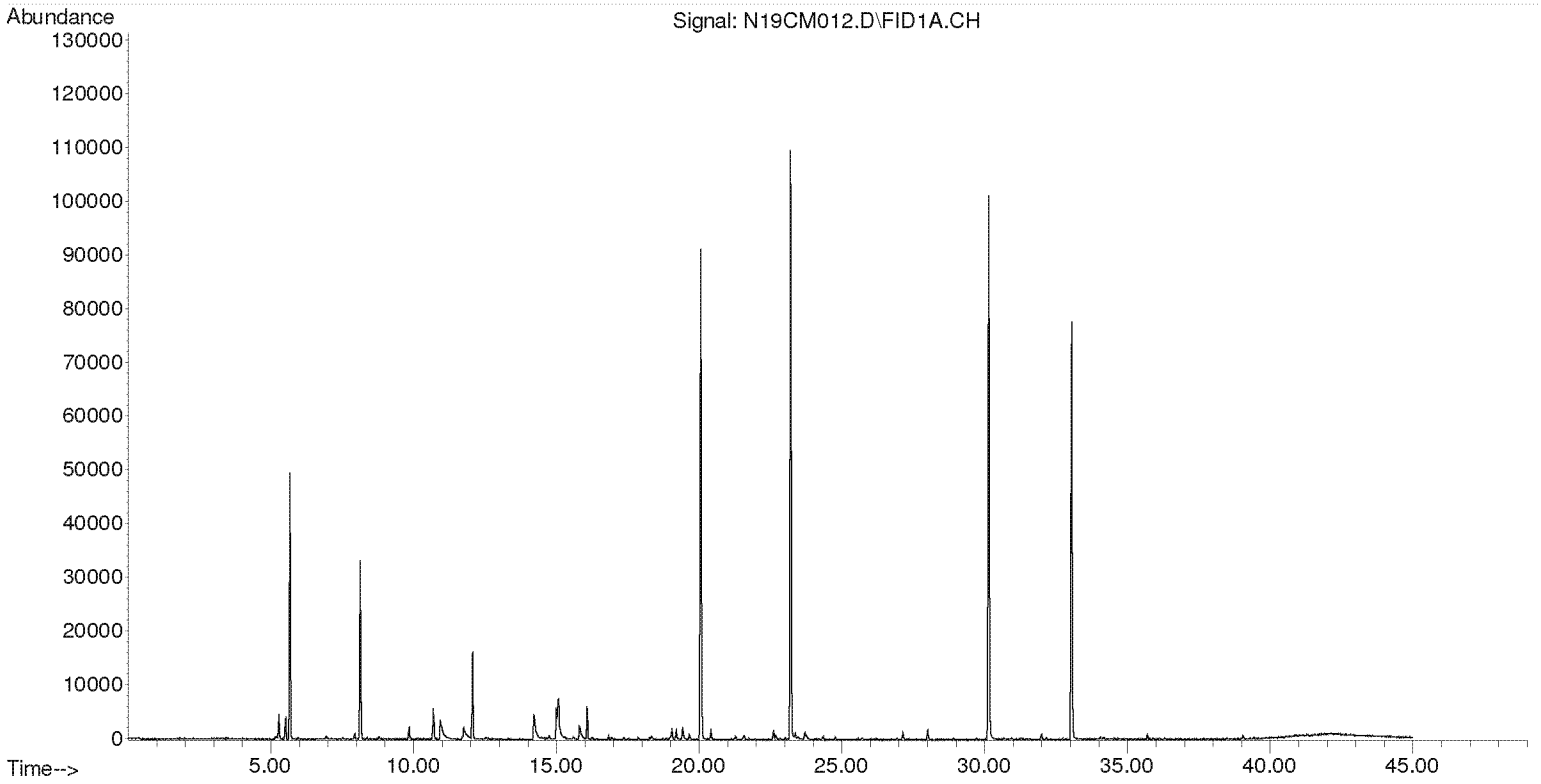
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

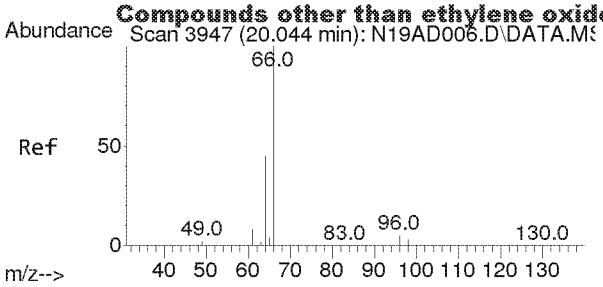
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM012.D
Acq On : 13 Mar 2019 10:28 pm (#1); 13 Mar 2019 10:22 pm (#2)
Operator : KSS
Sample : 9031220-07
Misc : WILLOW POND 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 14 08:19:23 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





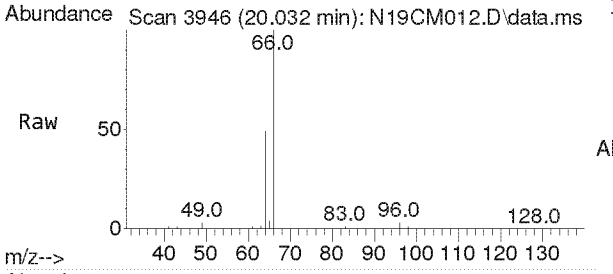
Compounds other than ethylene oxide were not quantitated.

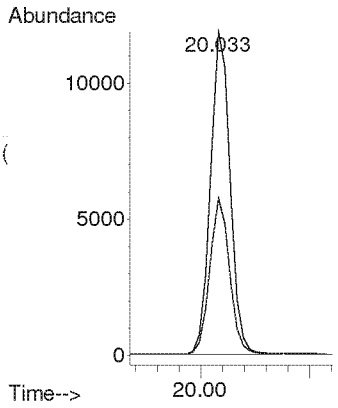


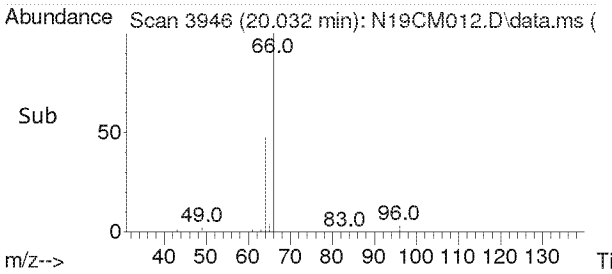
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.032 min Scan# 3946
Delta R.T. -0.012 min
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

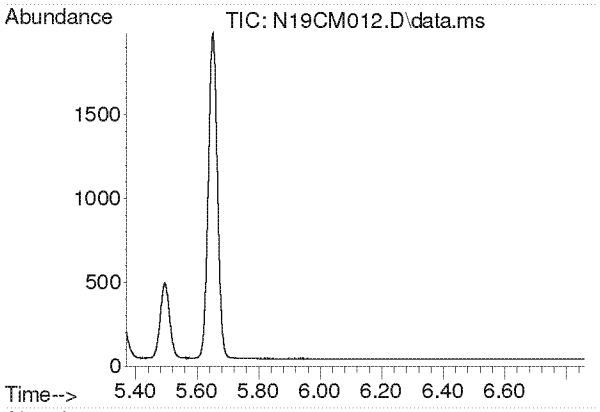
Tgt Ion: 66 Resp: 29546

Ion	Ratio	Lower	Upper
66	100		
64	48.8	32.1	59.5





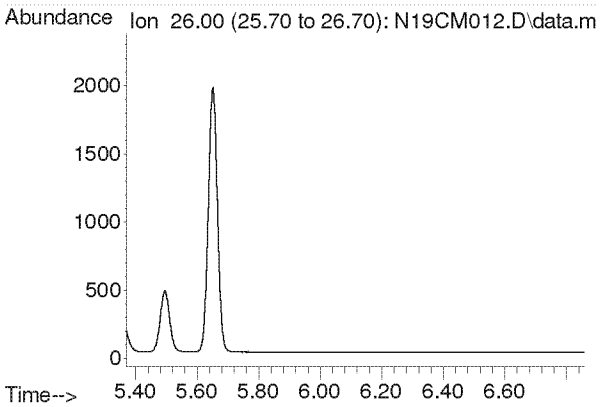




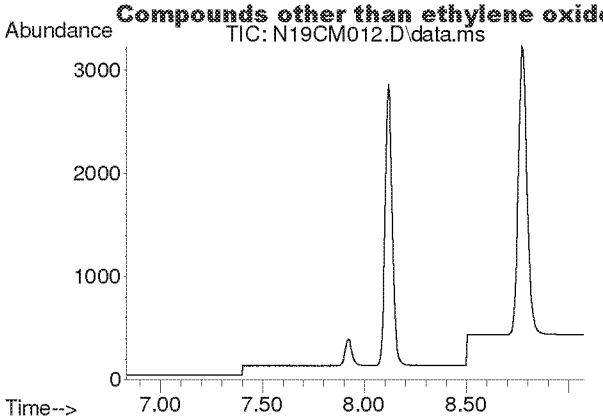
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

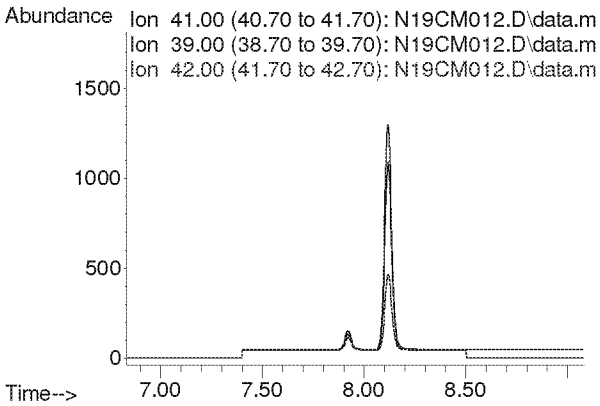


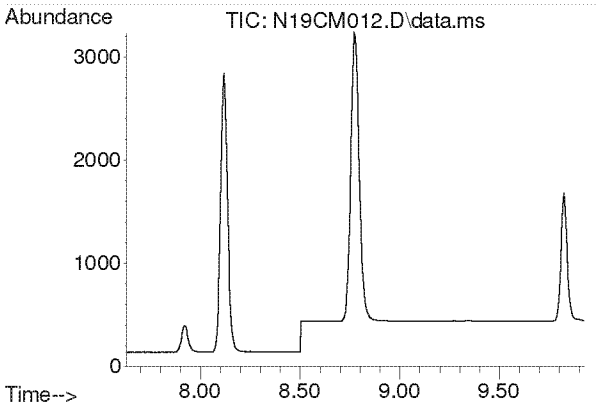
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



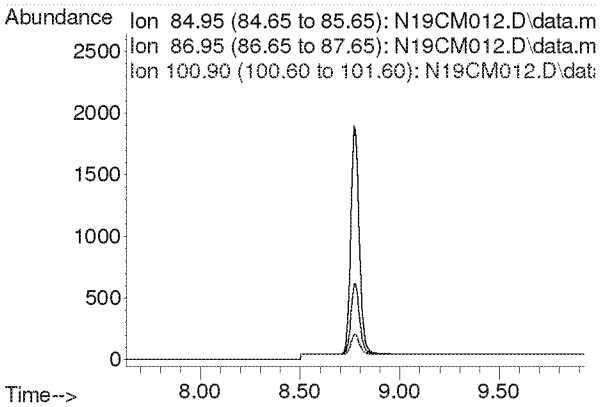


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

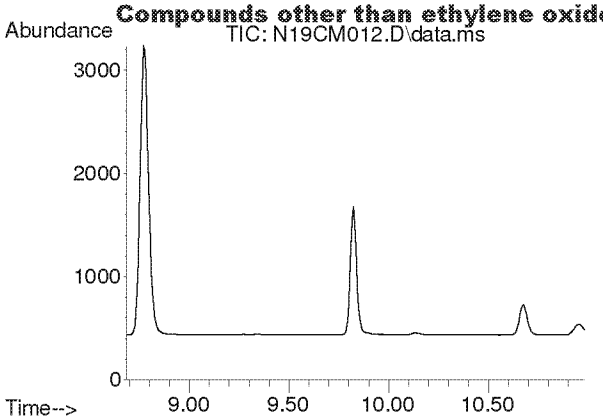
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

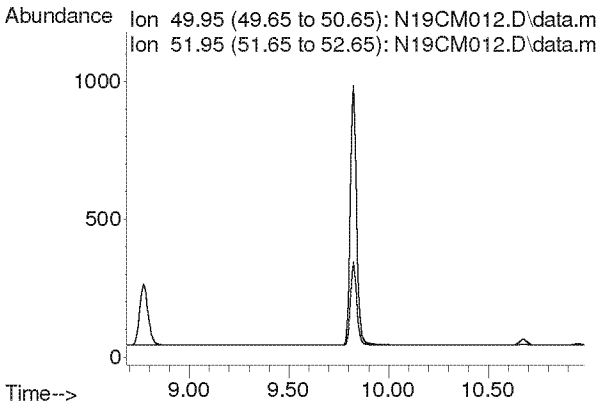


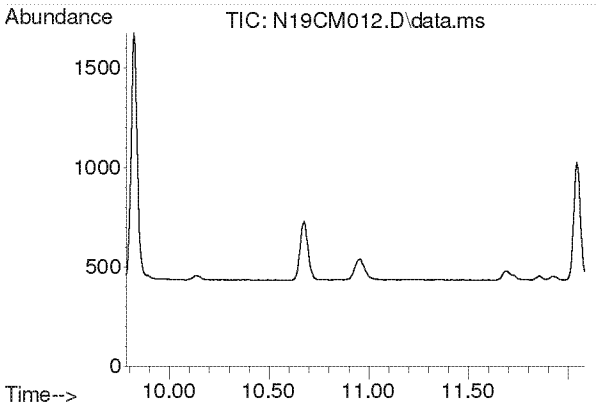
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



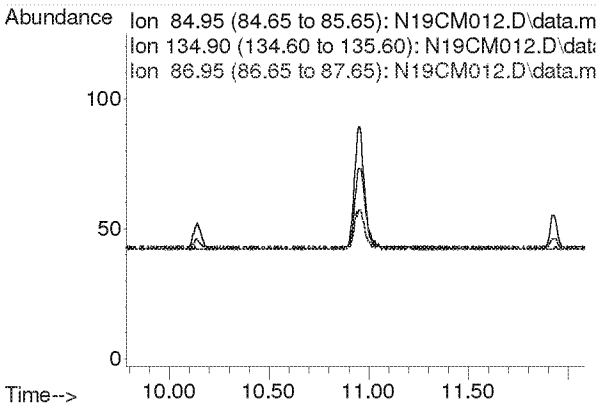


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

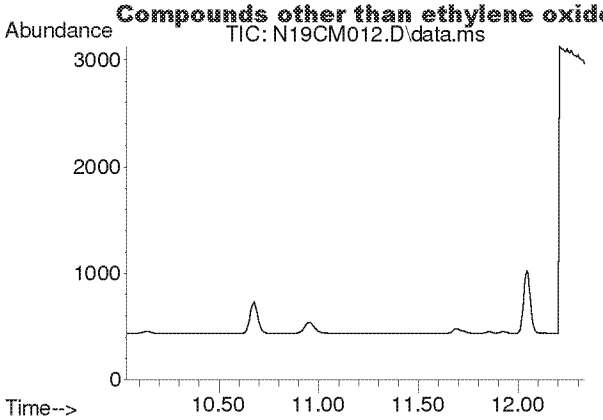
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

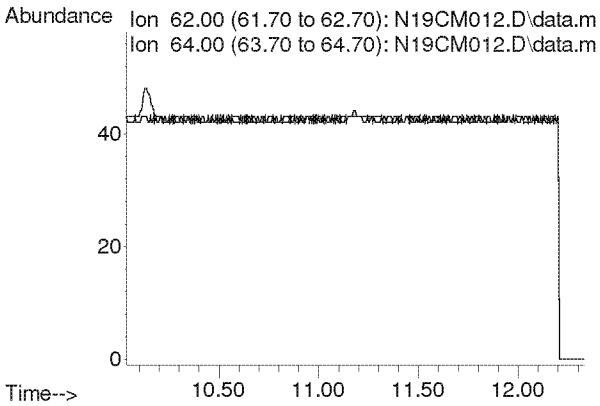


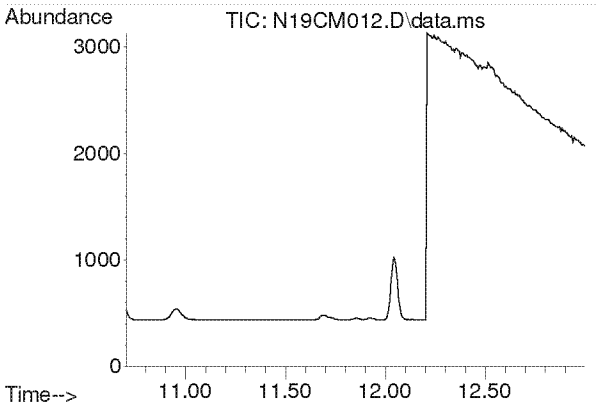
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



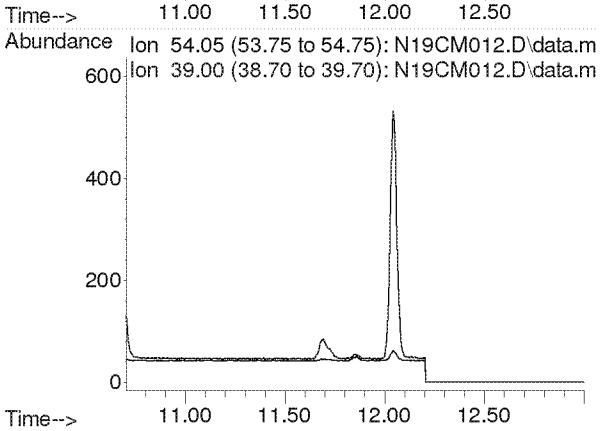


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

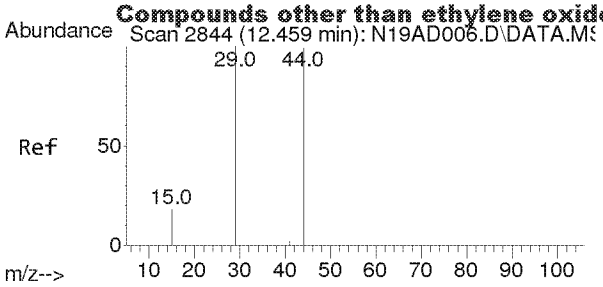
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



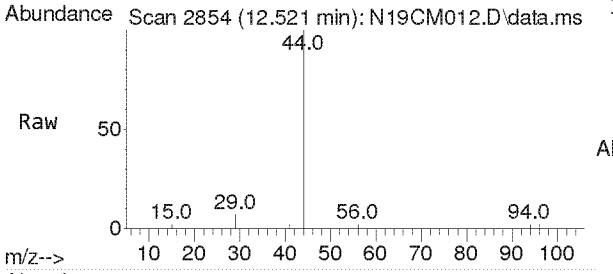
Compounds other than ethylene oxide were not quantitated.

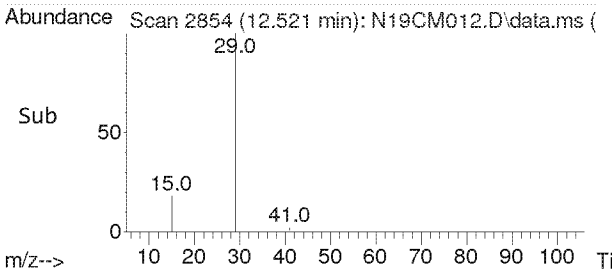


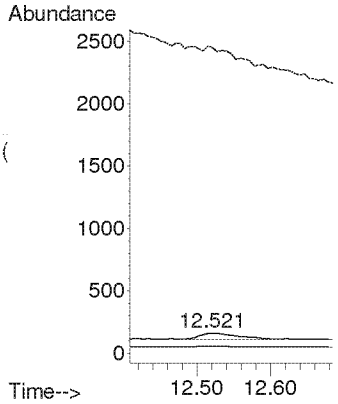
#9
Ethylene Oxide
Concen: 0.135 ppbv
RT: 12.521 min Scan# 2854
Delta R.T. 0.063 min
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

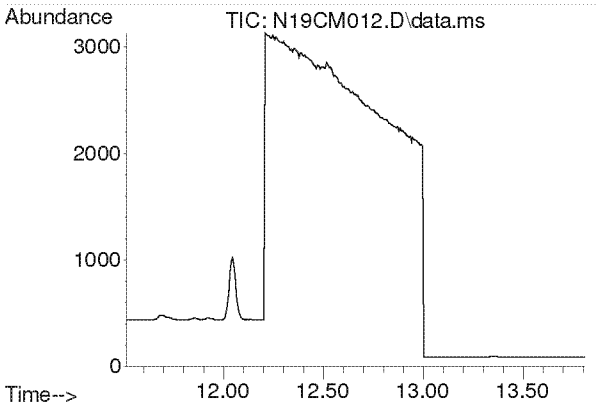
Tgt Ion: 29 Resp: 174

Ion	Ratio	Lower	Upper
29	100		
15	18.4	14.0	21.0
44	0.0	79.2	118.8#







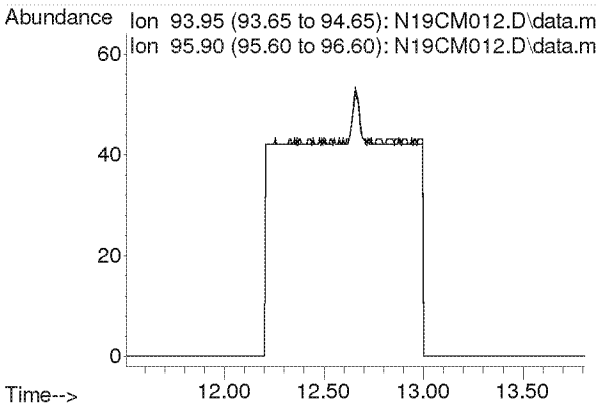


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

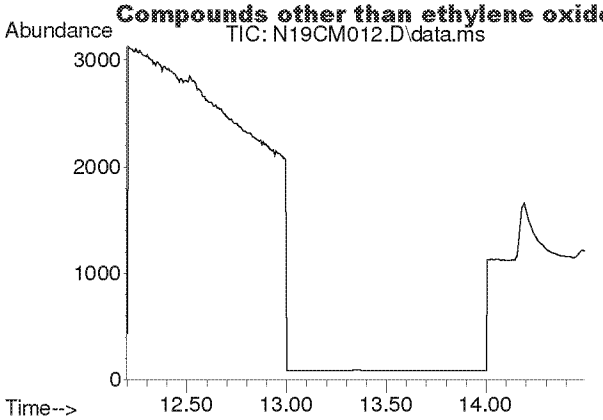
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

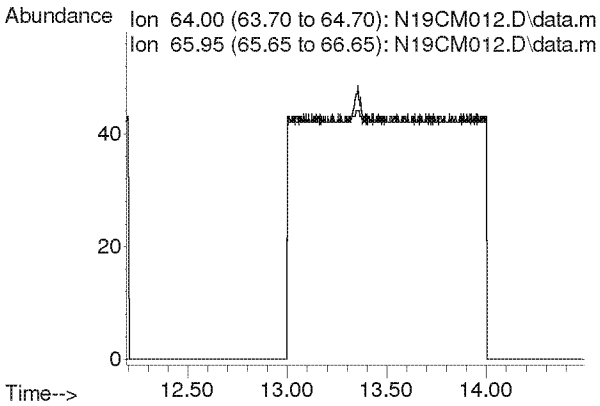


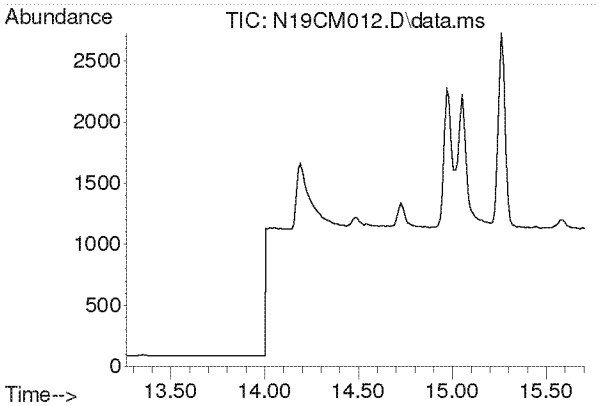
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



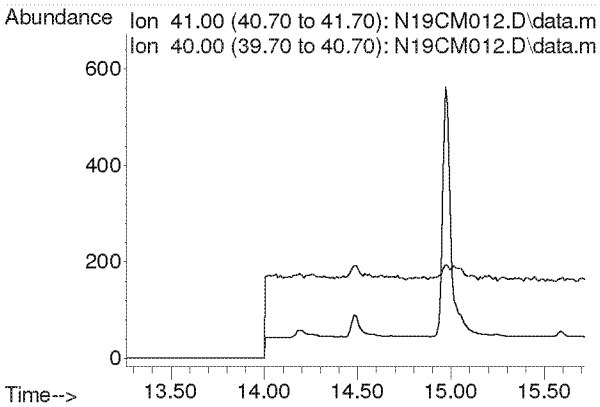


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

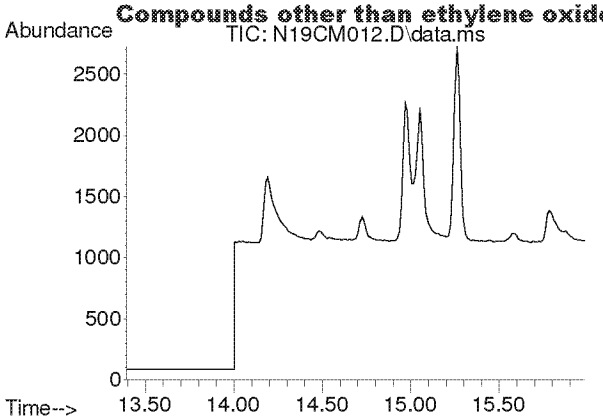
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

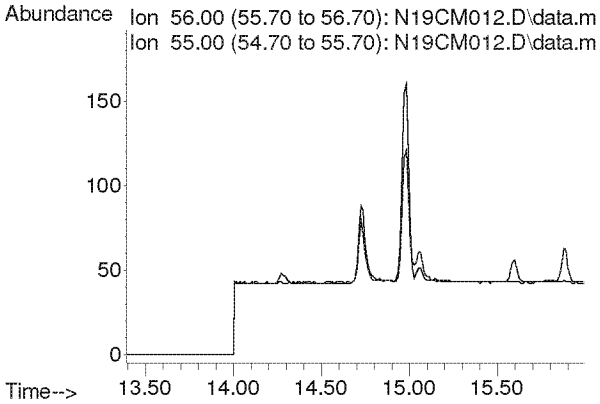


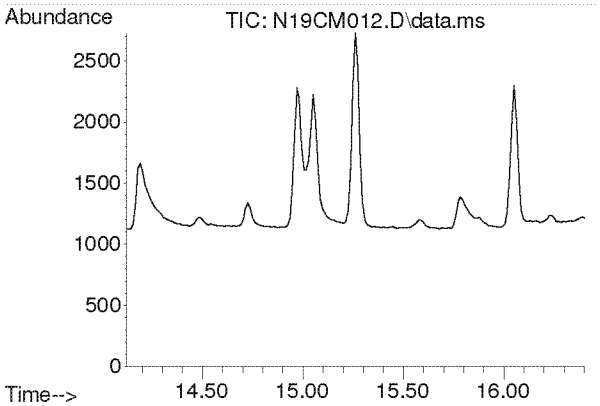
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



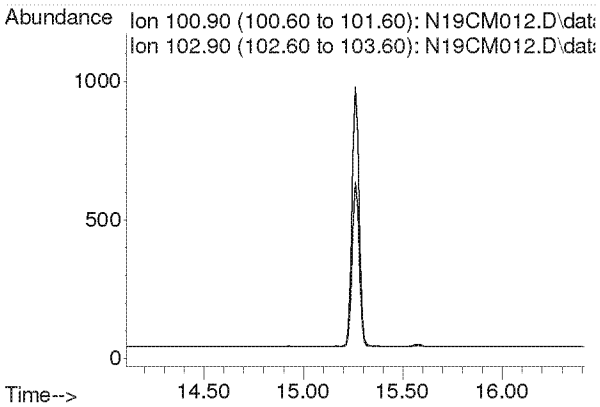


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

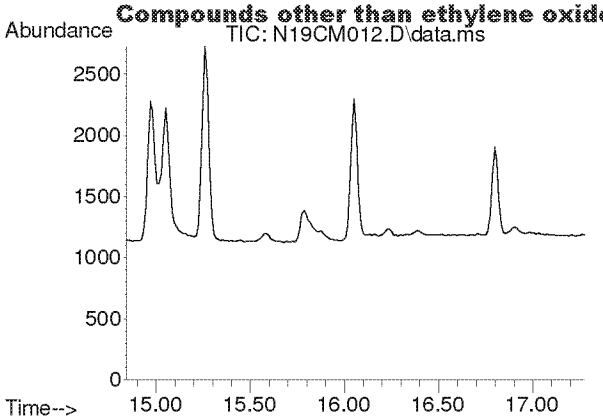
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

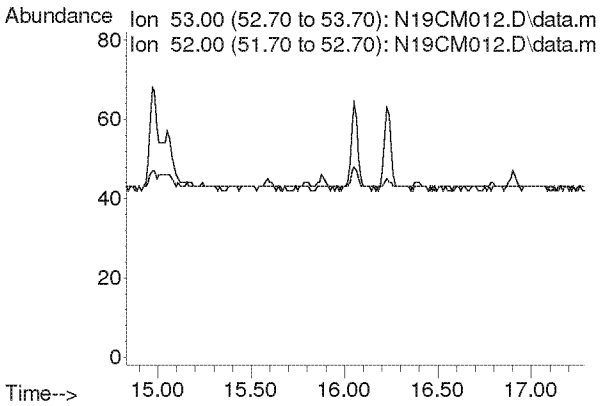


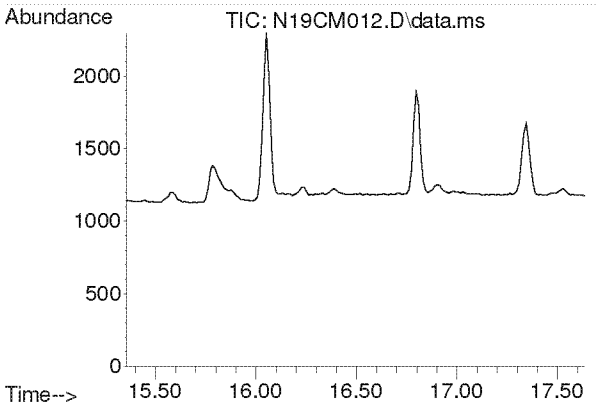
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



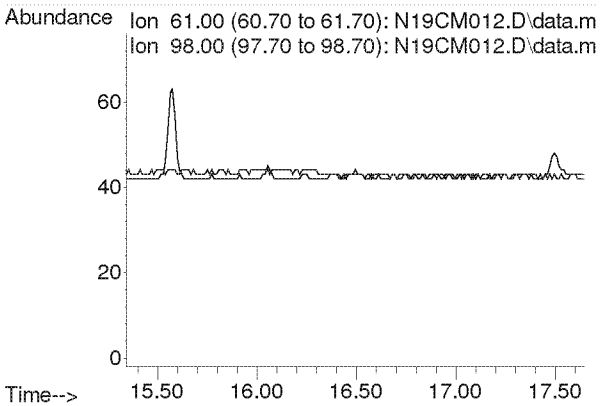


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

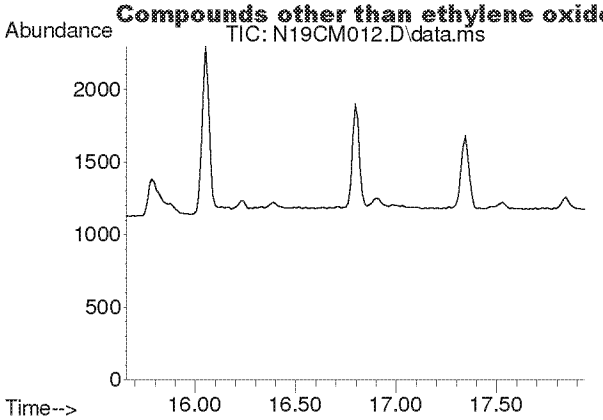
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

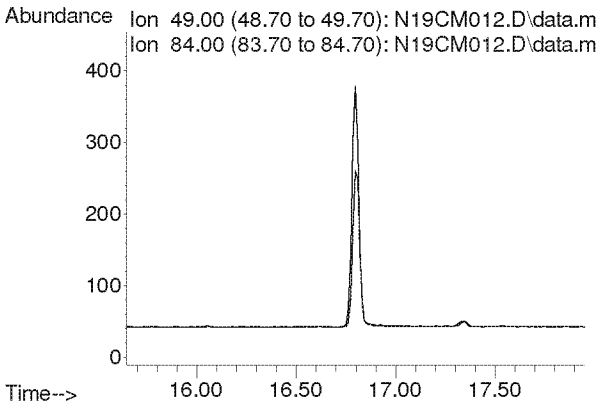


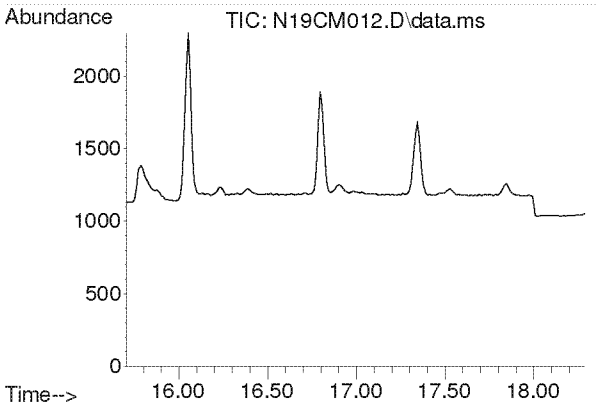
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



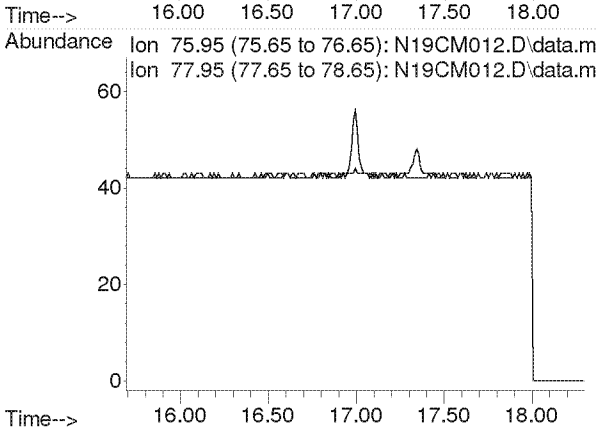


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

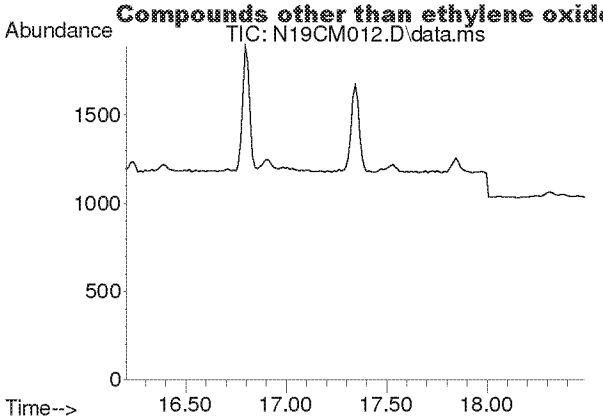
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

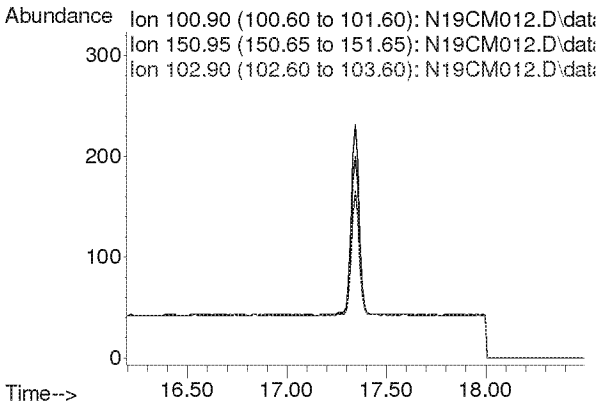


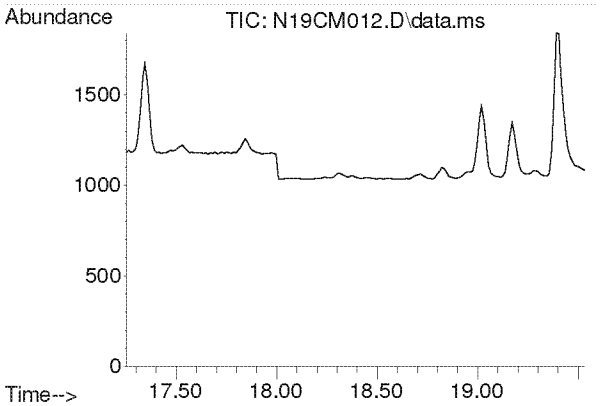
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



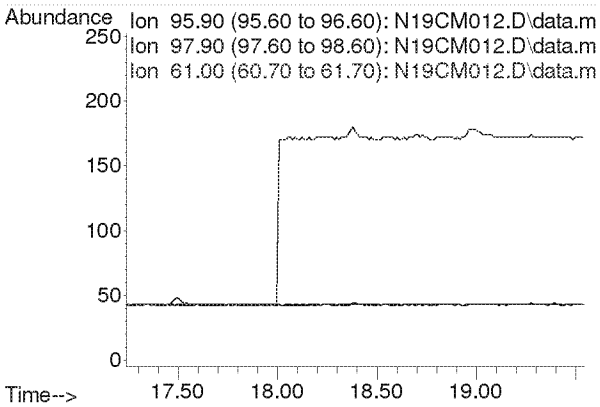


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

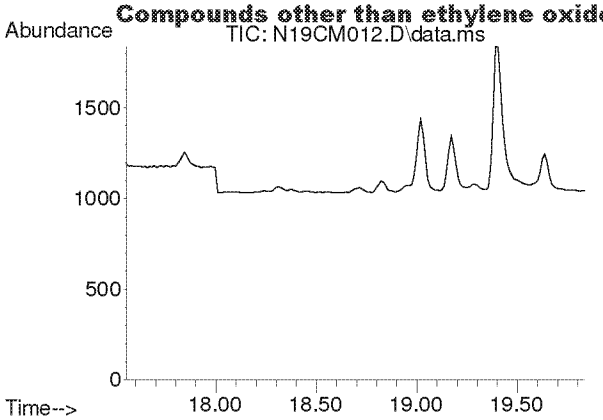
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

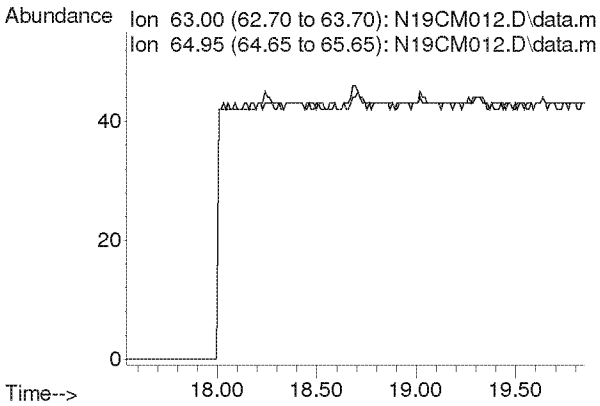


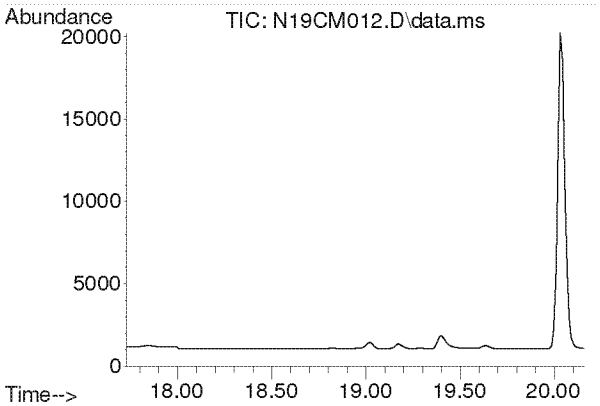
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



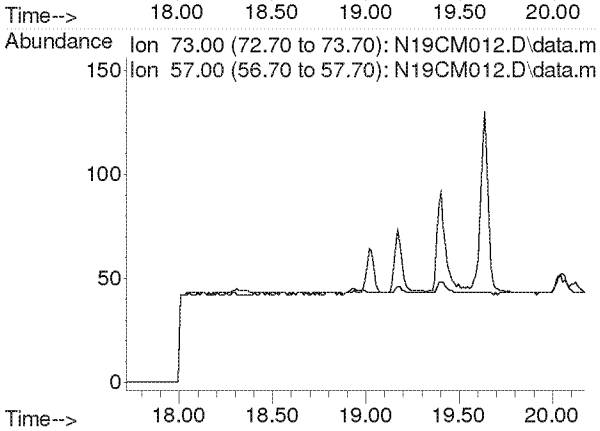


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

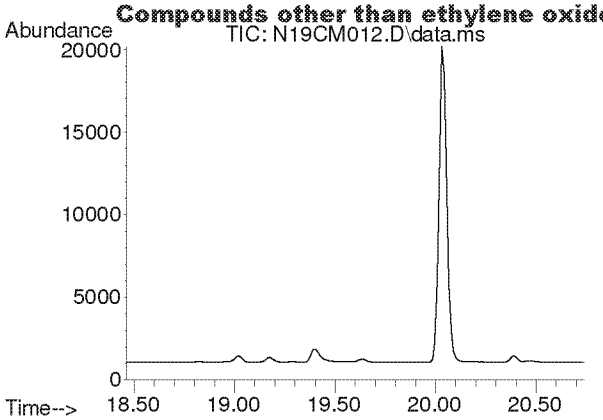
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

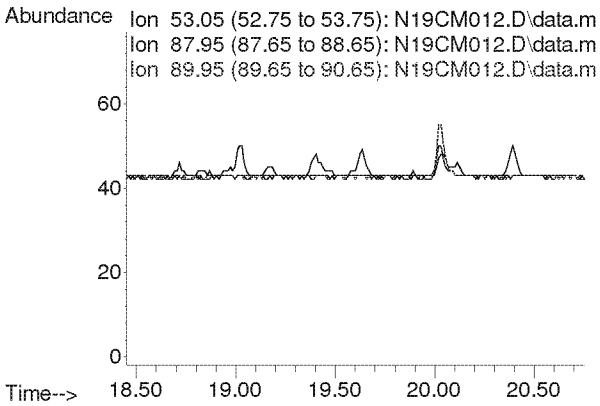


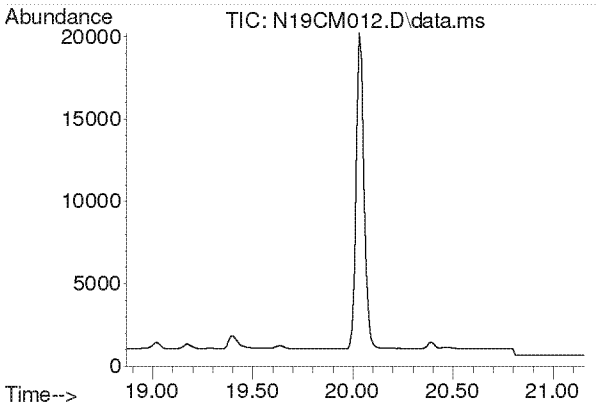
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



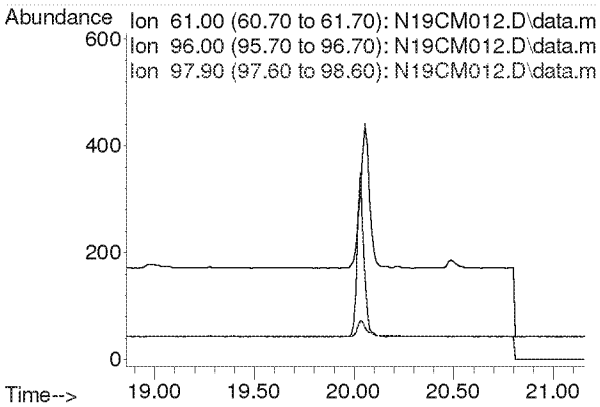


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

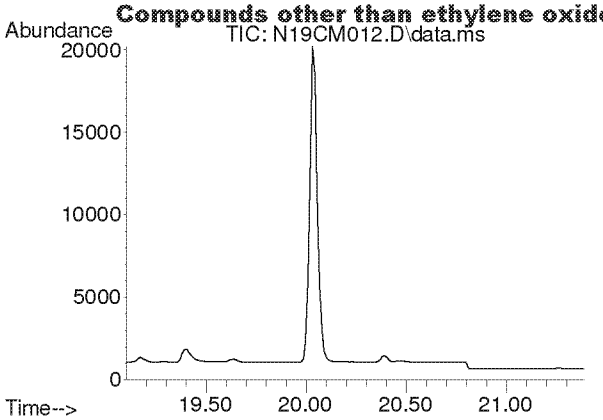
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

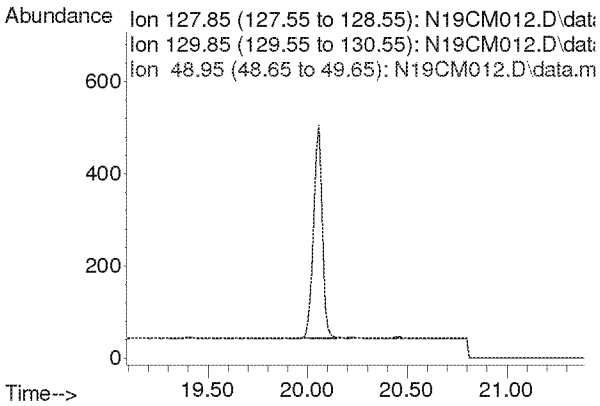


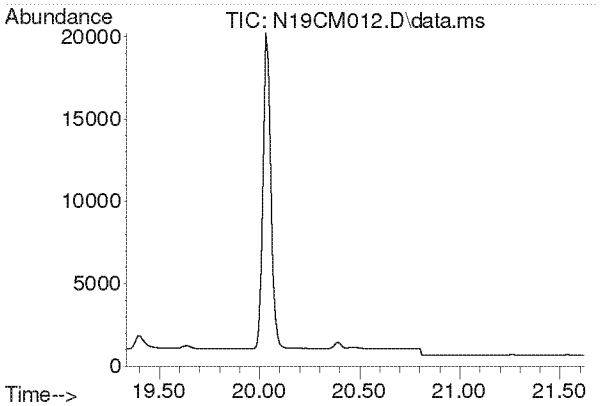
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



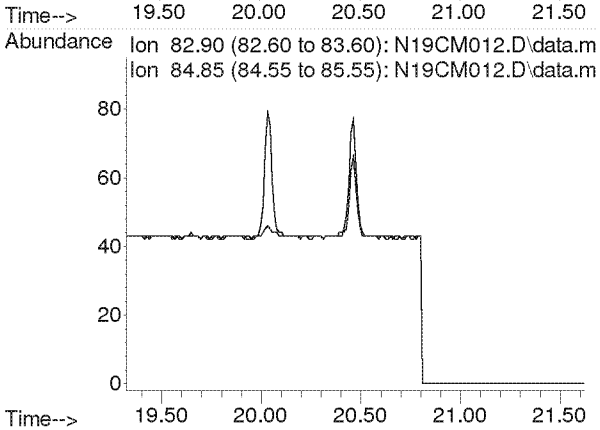


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

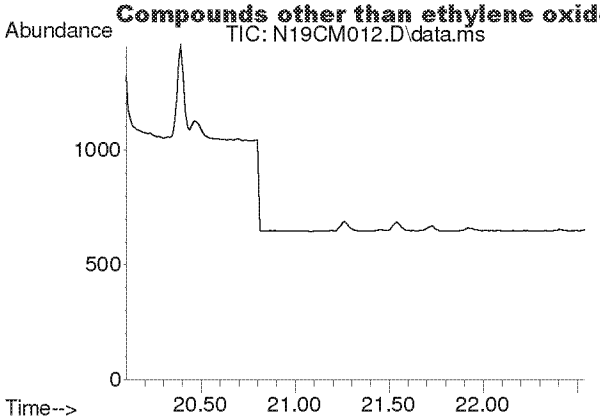
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

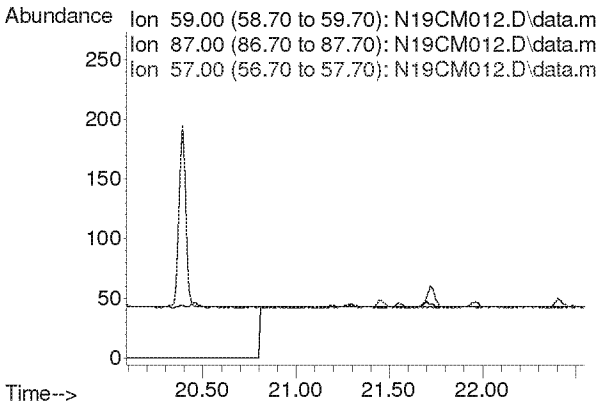


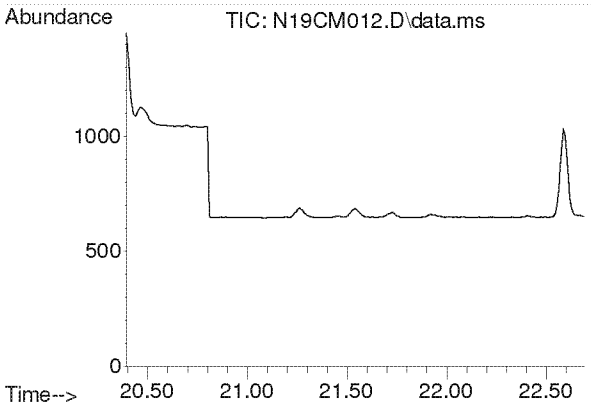
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



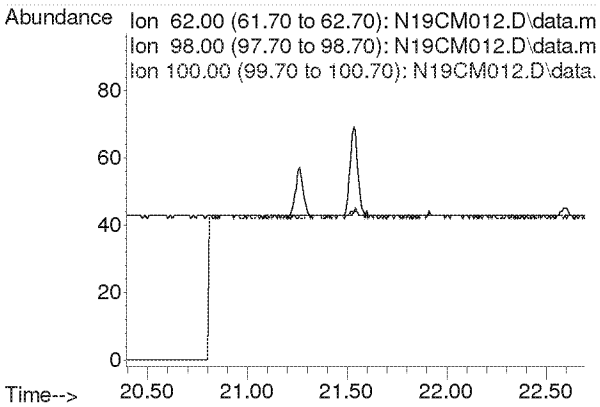


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

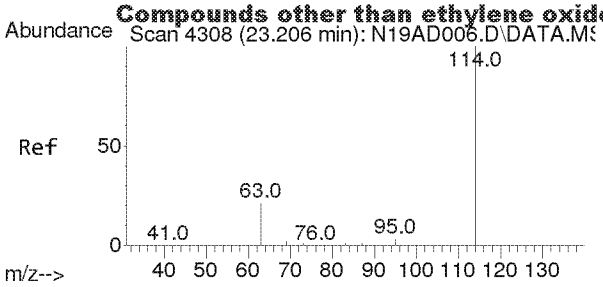
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



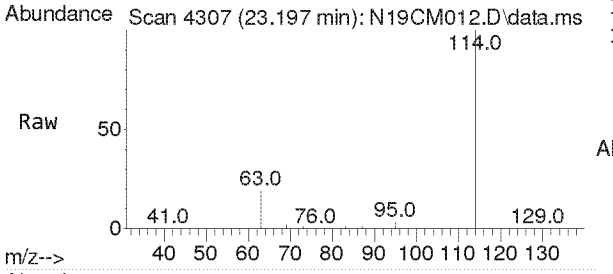
Compounds other than ethylene oxide were not quantitated.

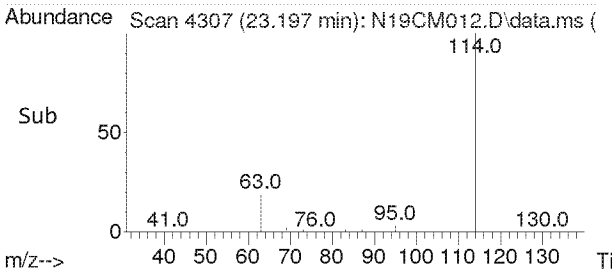


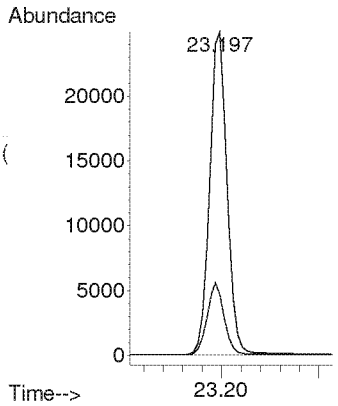
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.197 min Scan# 4307
Delta R.T. -0.009 min
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

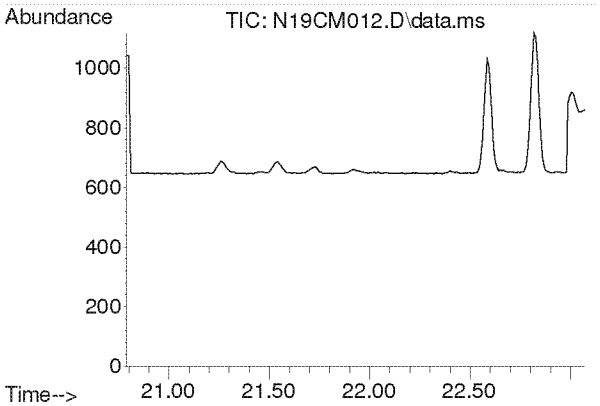
Tgt Ion:114 Resp: 62194

Ion	Ratio	Lower	Upper
114	100		
63	21.8	16.7	25.1







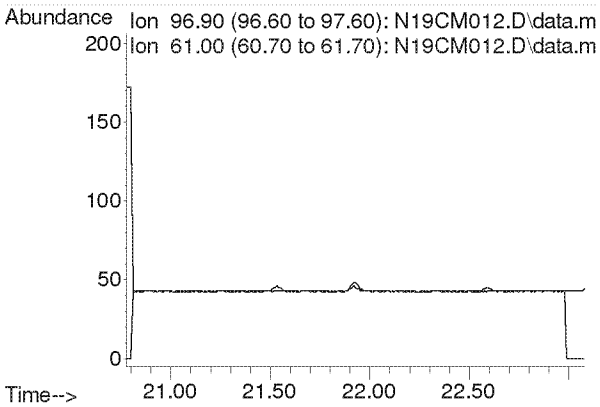


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

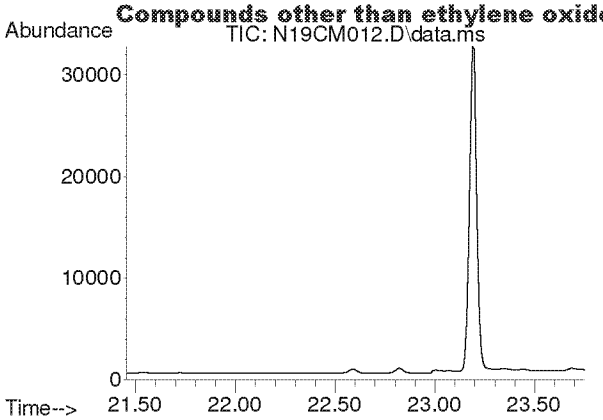
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

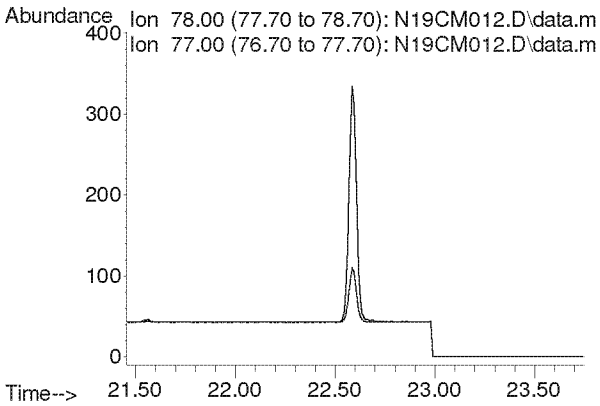


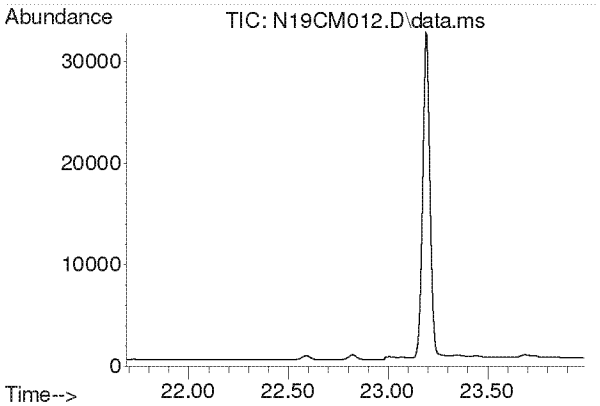
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



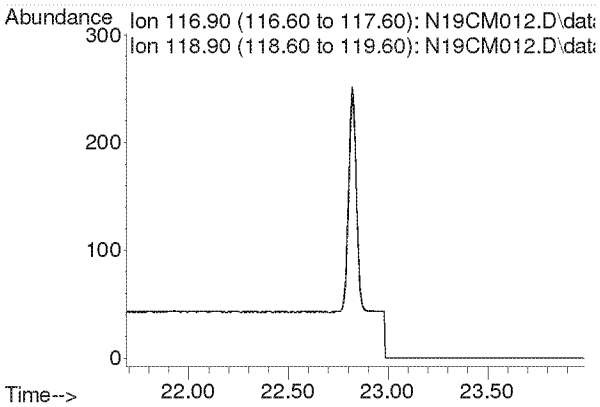


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

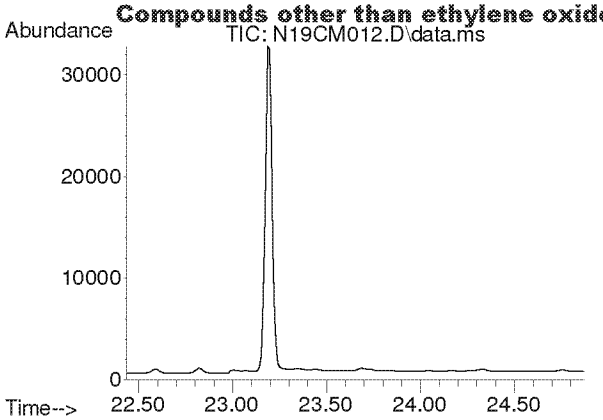
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

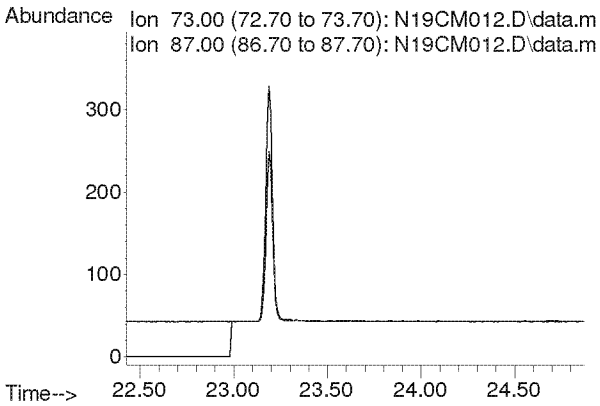


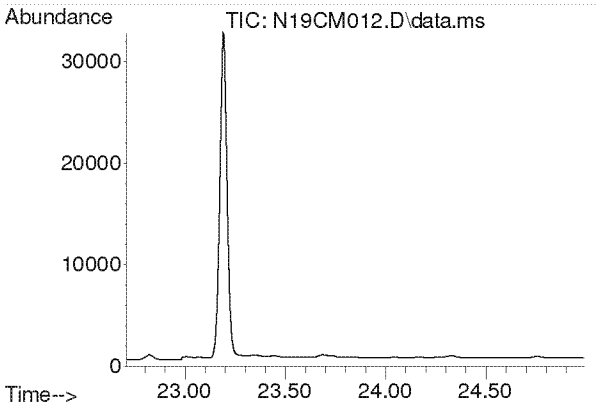
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



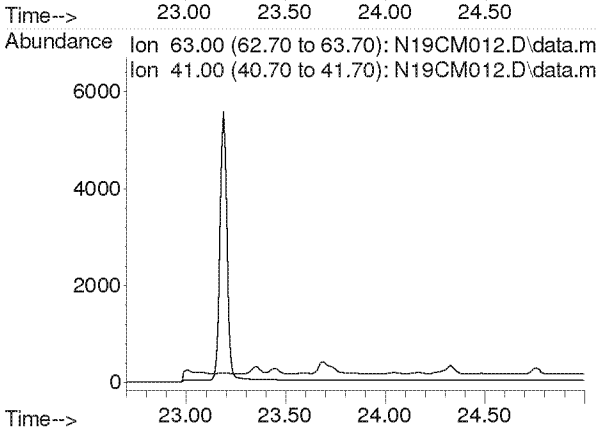


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

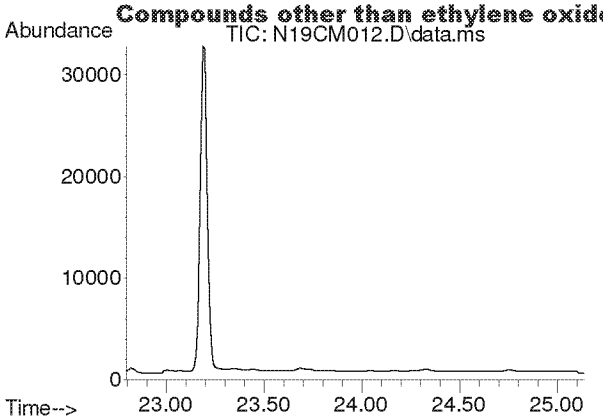
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

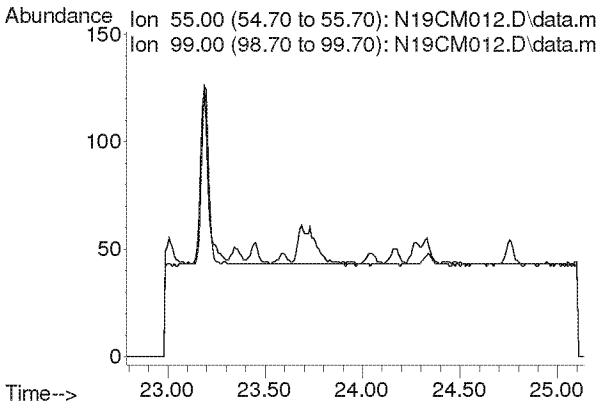


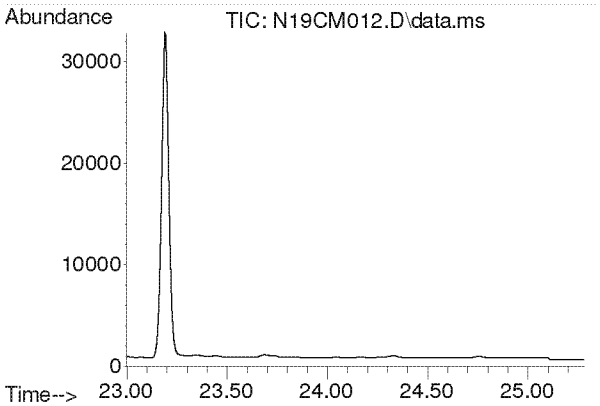
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



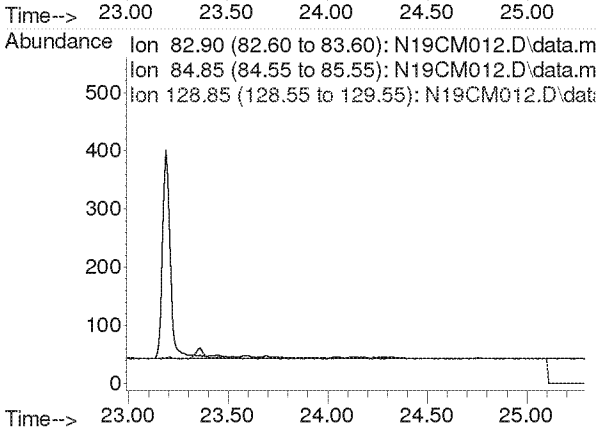


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

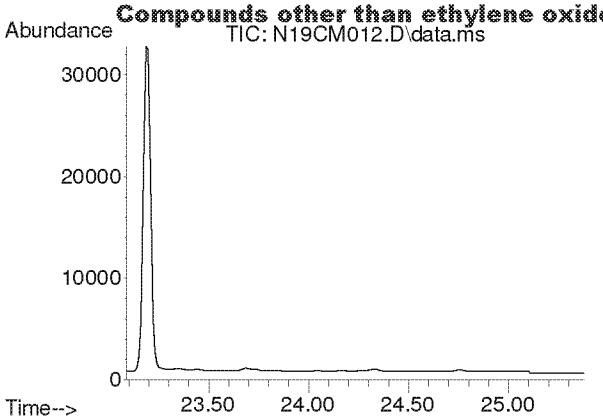
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

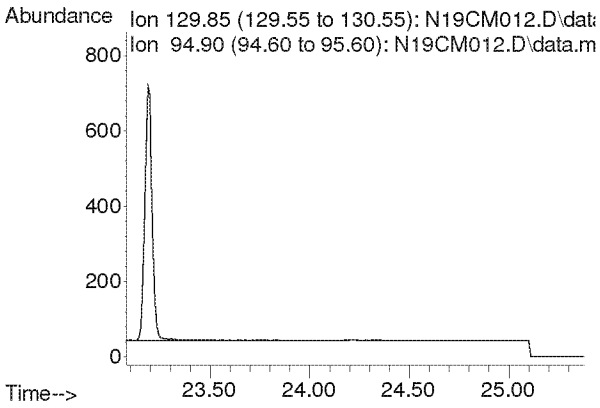


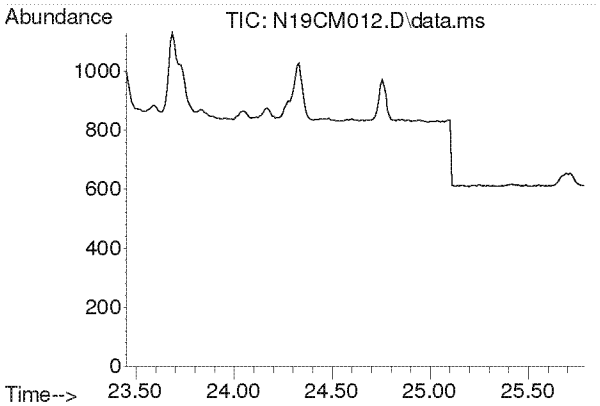
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



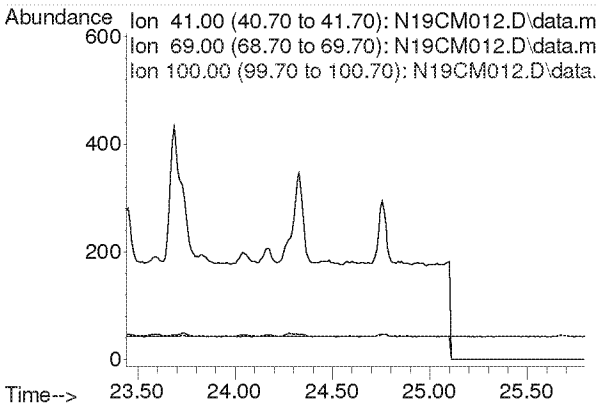


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

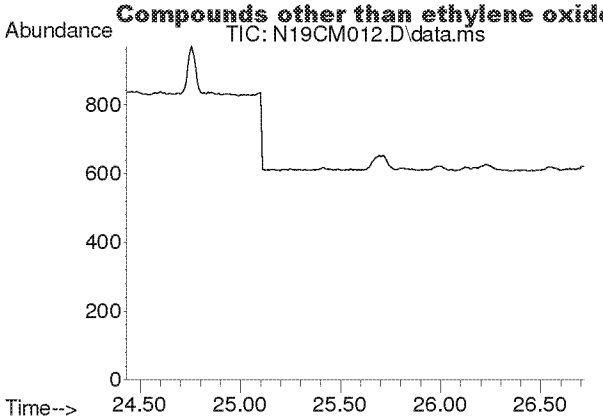
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

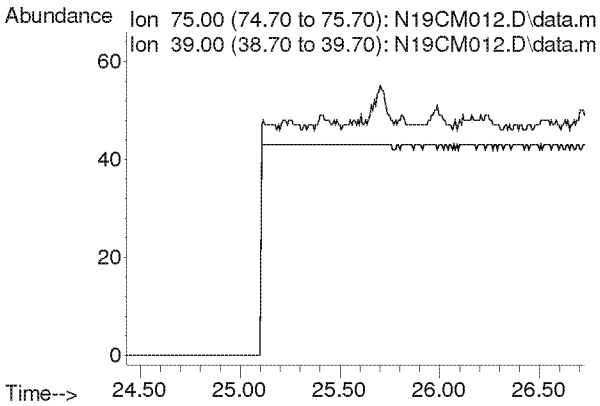


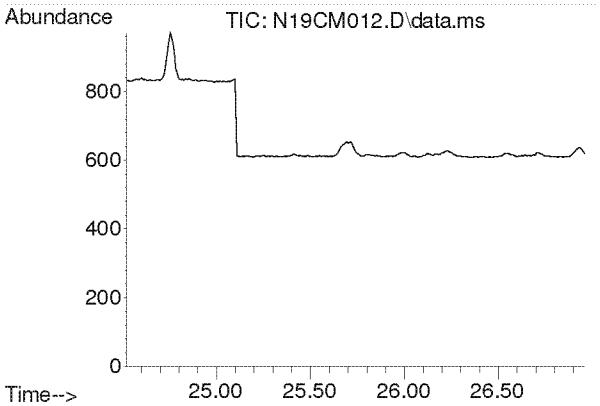
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



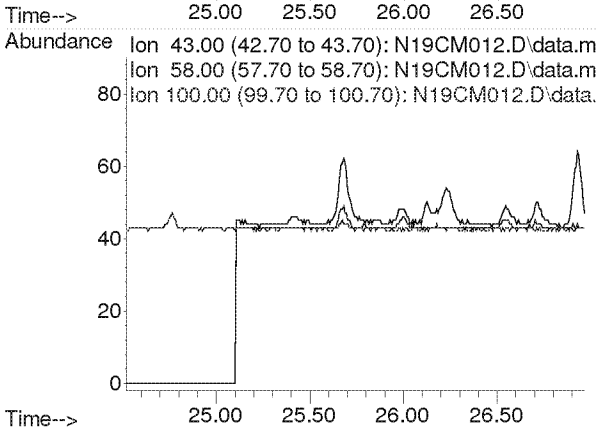


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

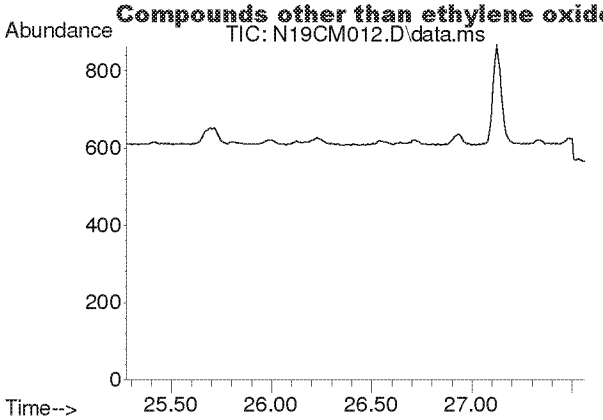
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

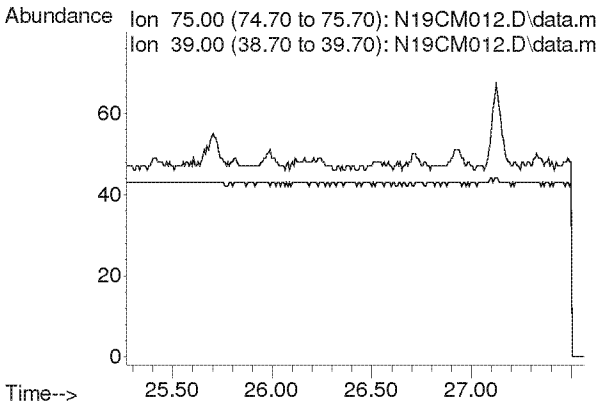


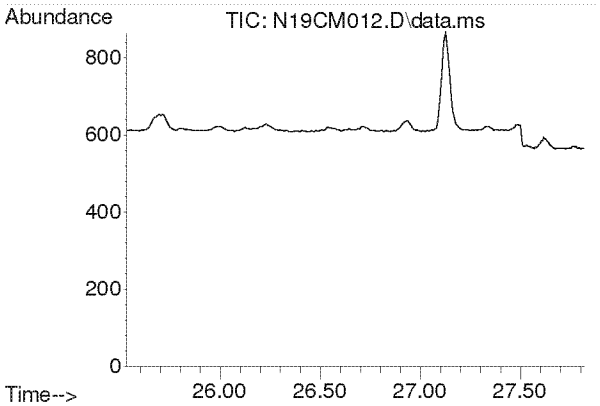
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



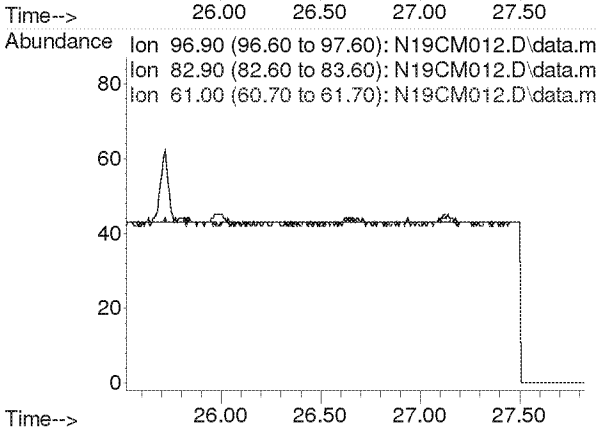


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

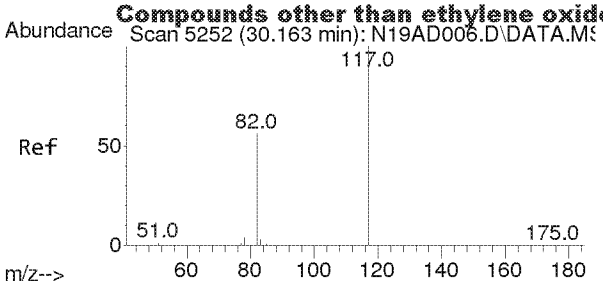
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



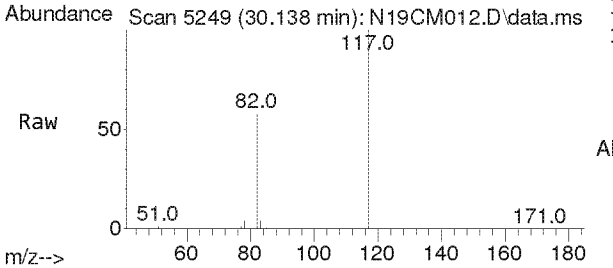
Compounds other than ethylene oxide were not quantitated.

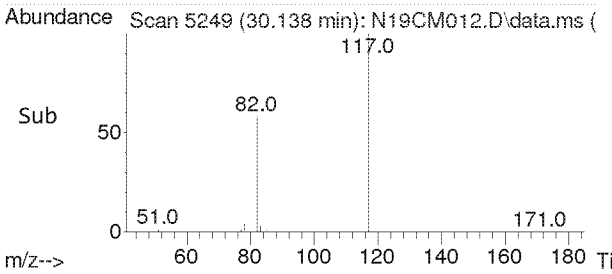


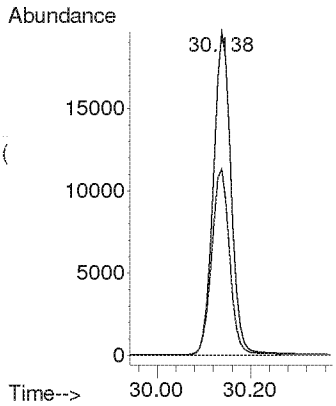
#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.138 min Scan# 5249
Delta R.T. -0.024 min
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

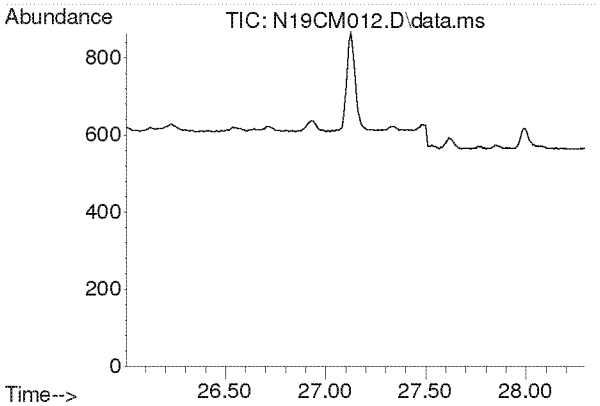
Tgt Ion:117 Resp: 50979

Ion	Ratio	Lower	Upper
117	100		
82	58.1	40.1	74.5
54	0.0	0.0	0.0







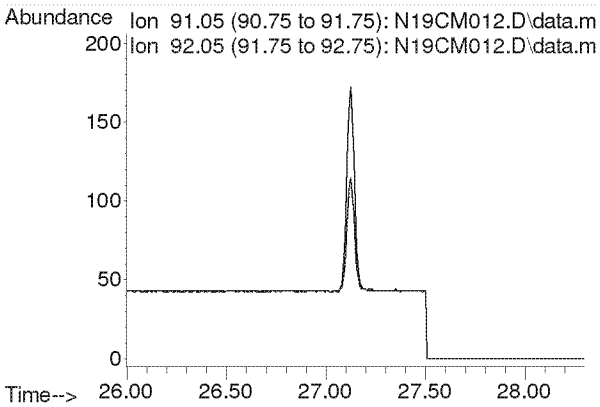


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

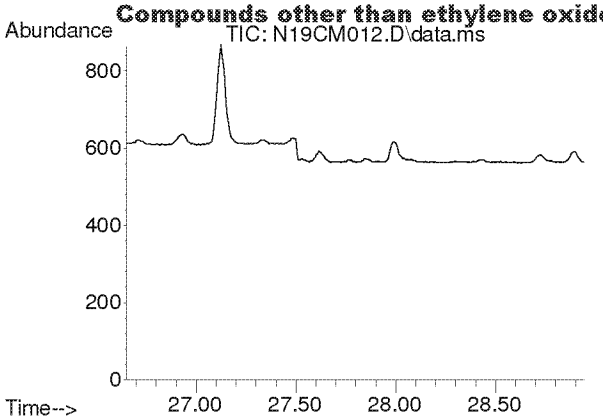
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

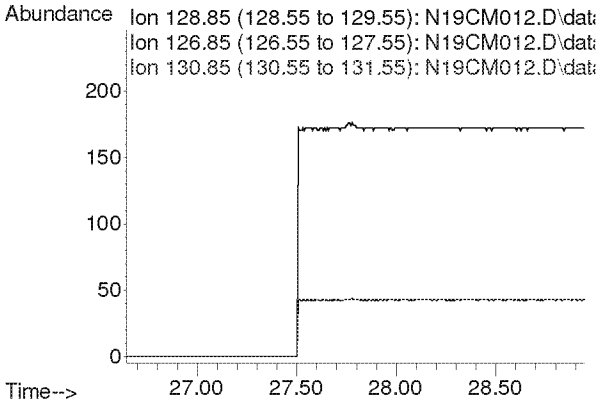


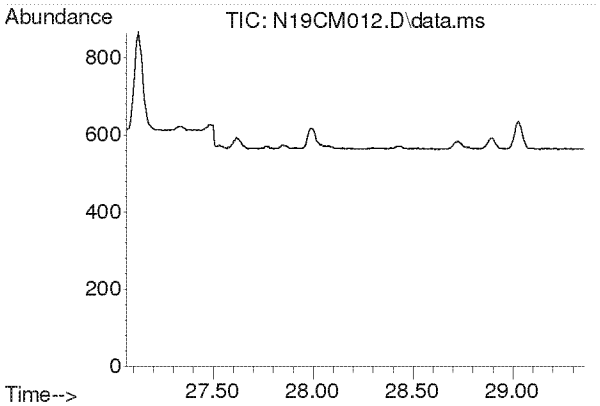
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



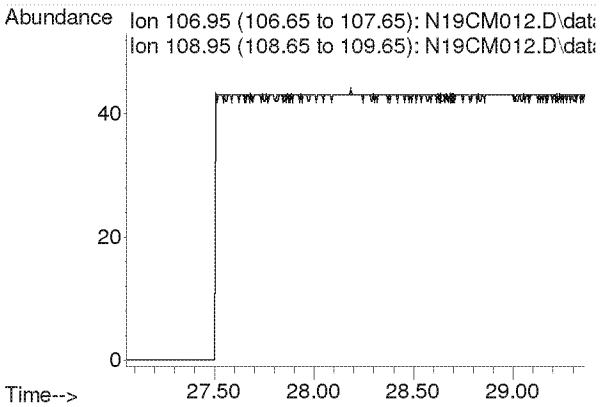


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

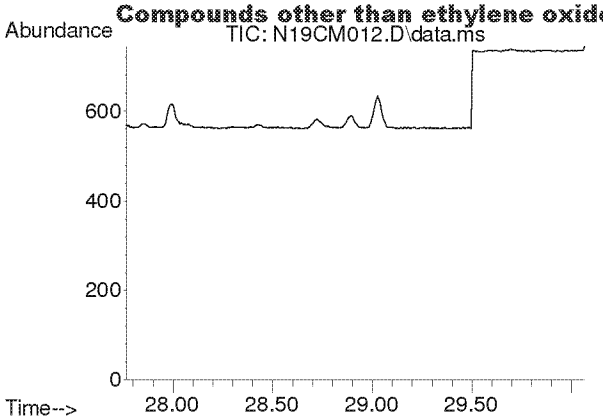
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

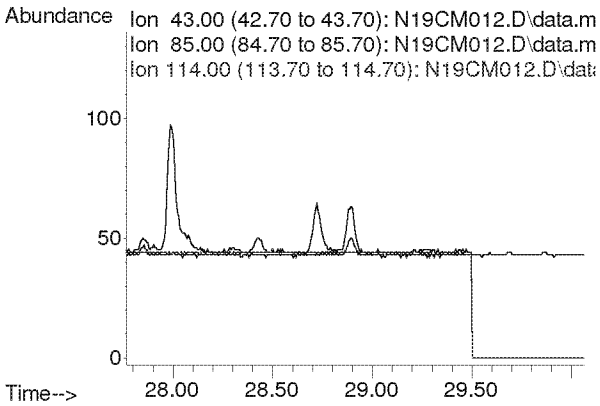


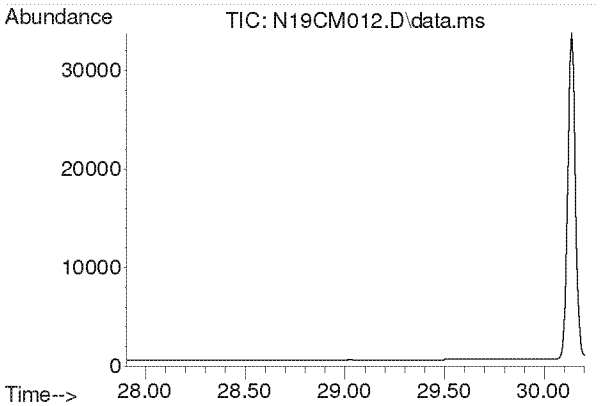
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



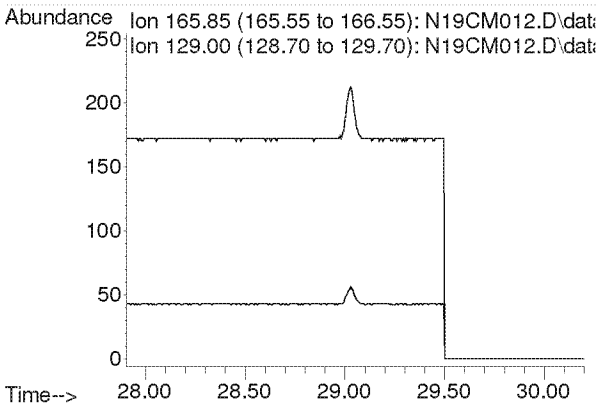


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

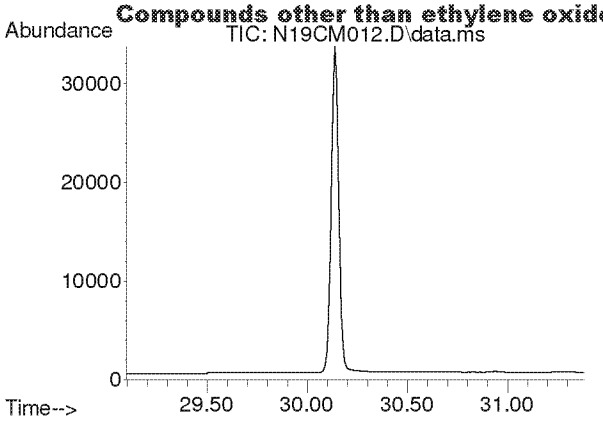
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

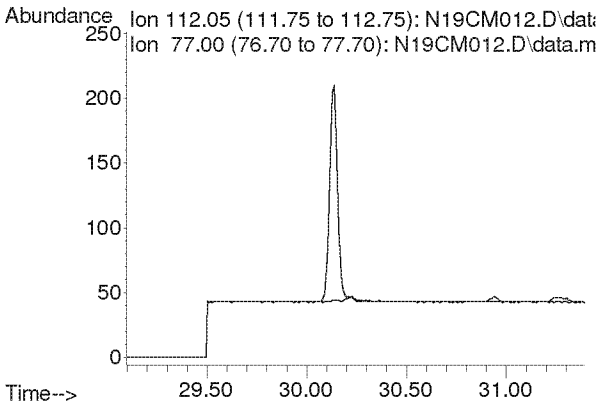


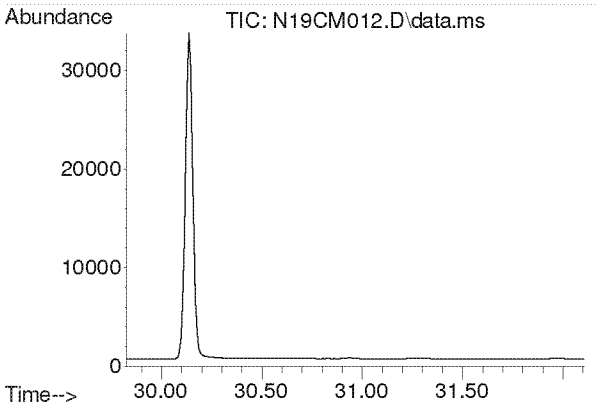
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



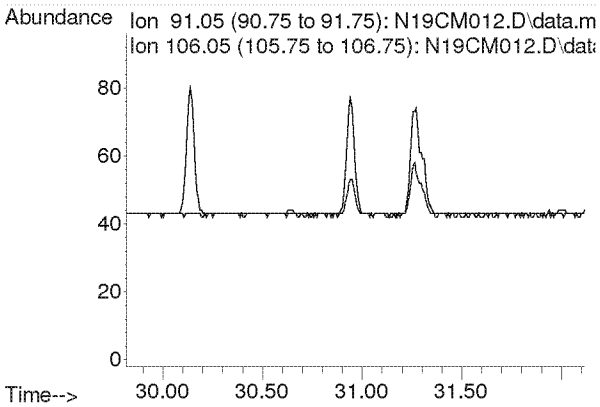


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

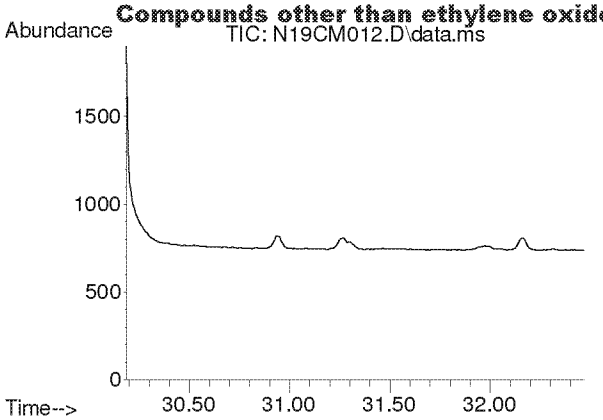
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

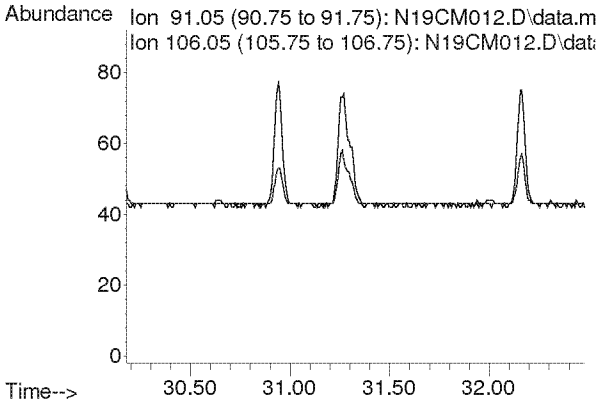


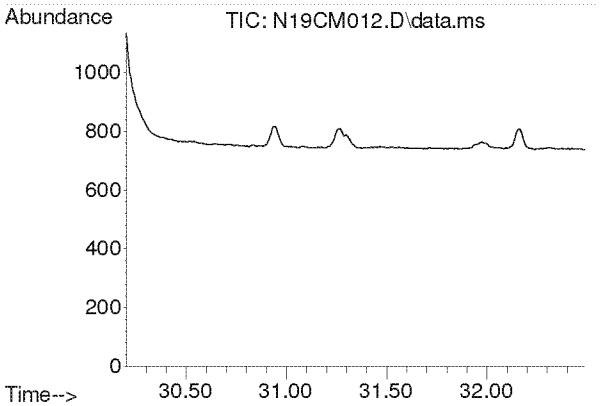
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



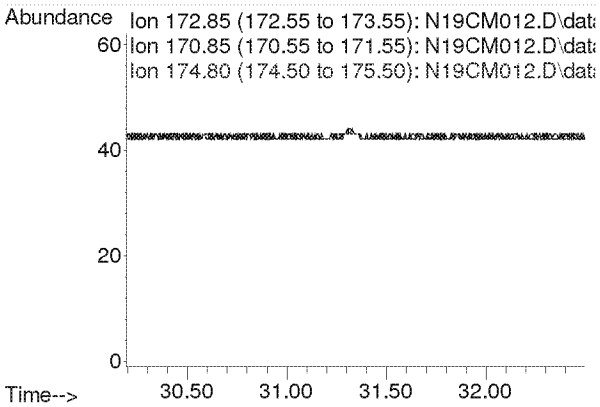


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

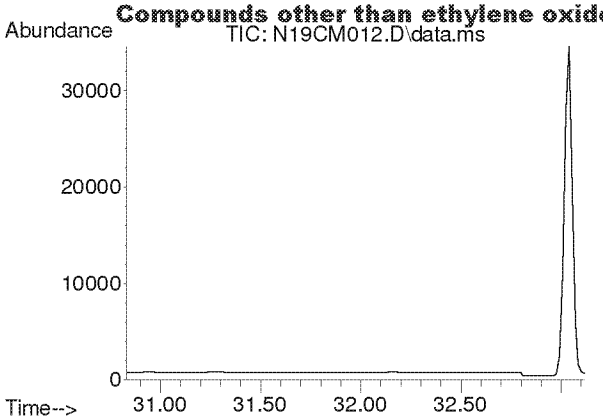
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

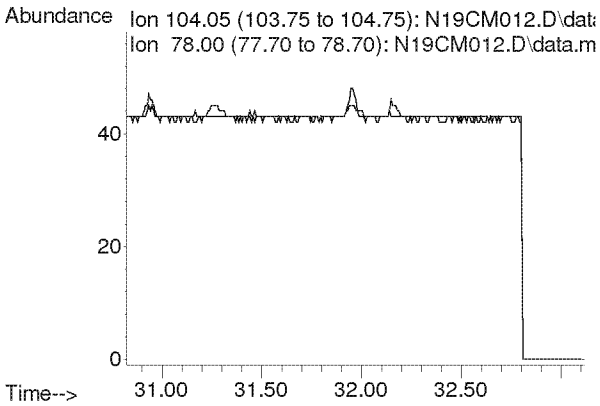


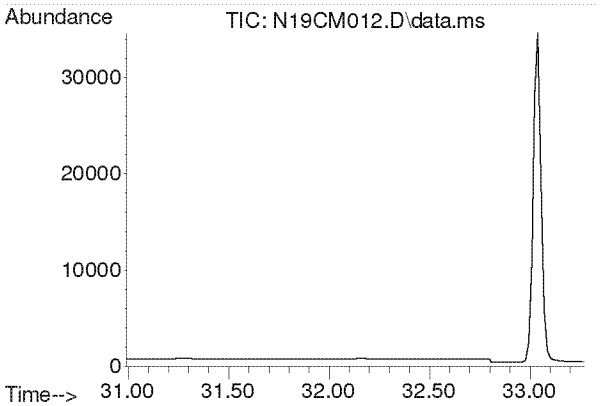
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



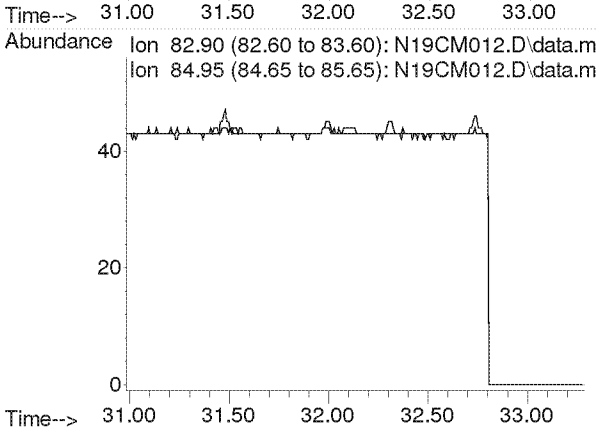


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

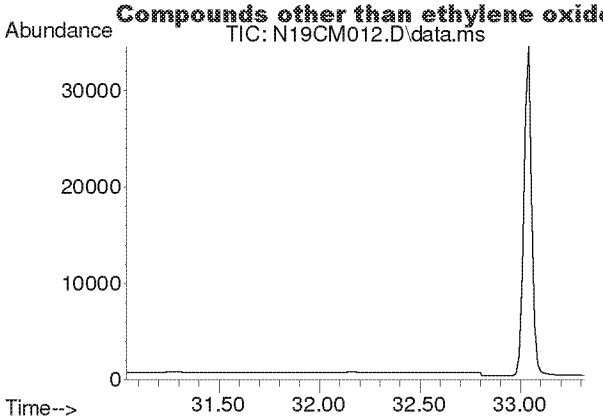
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

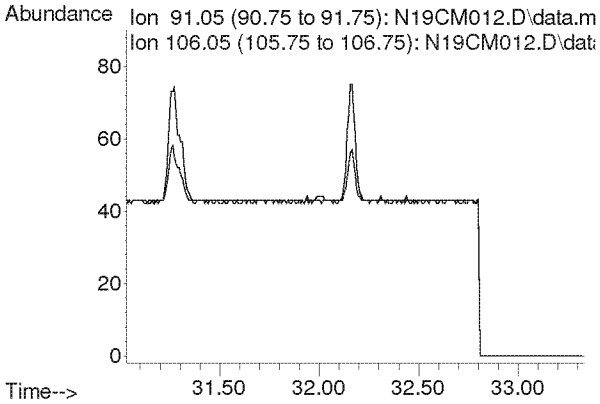


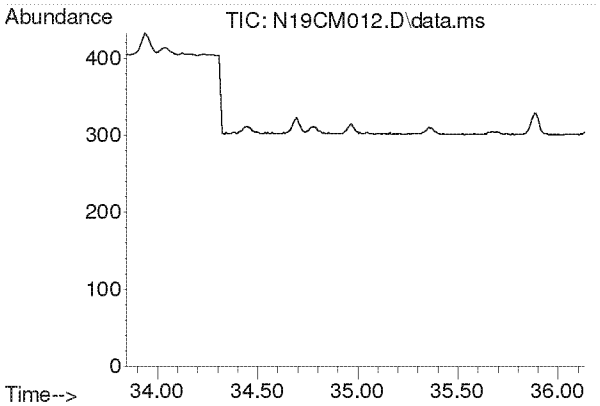
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



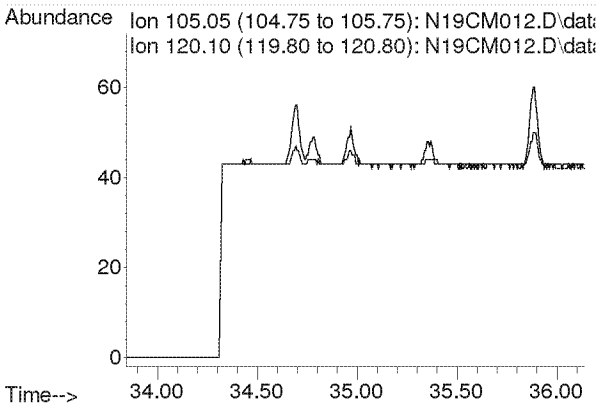


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

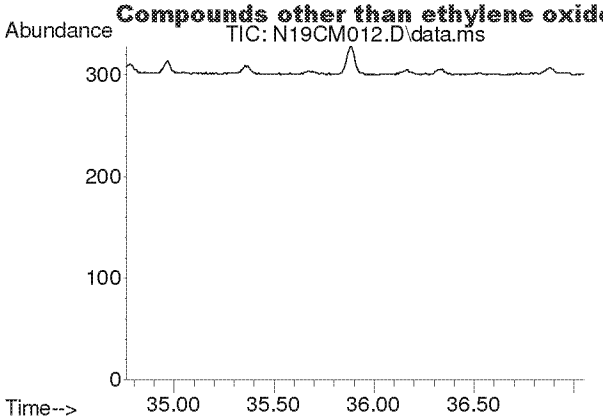
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

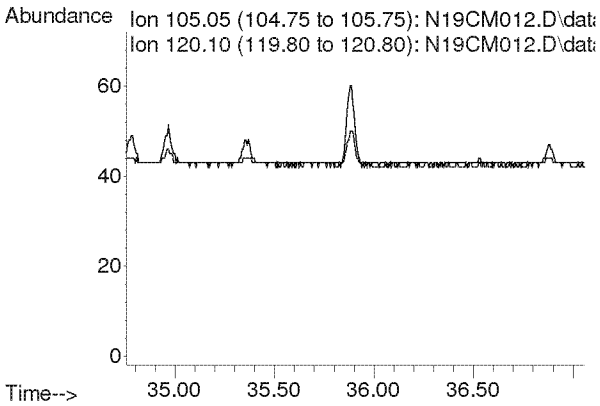


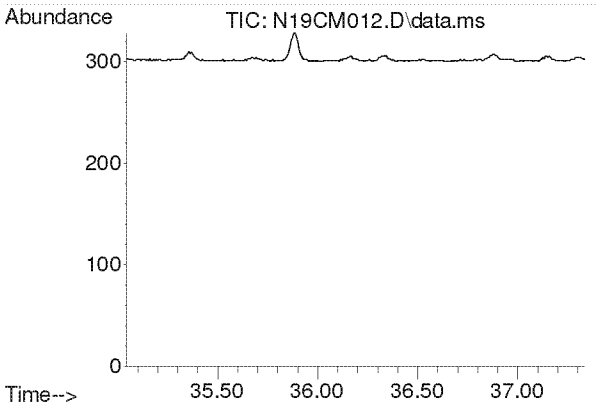
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



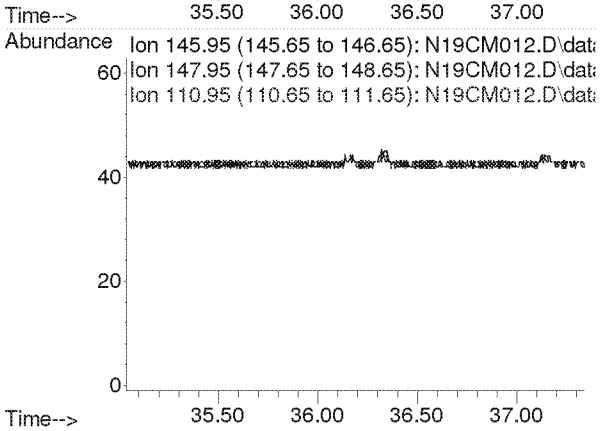


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

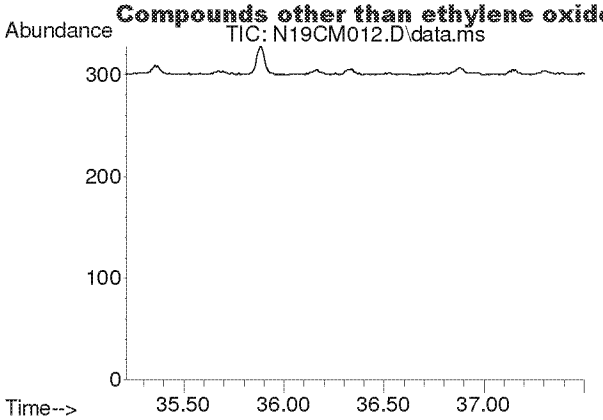
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

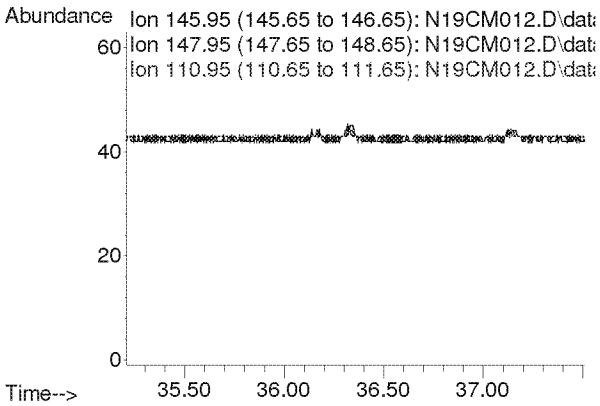


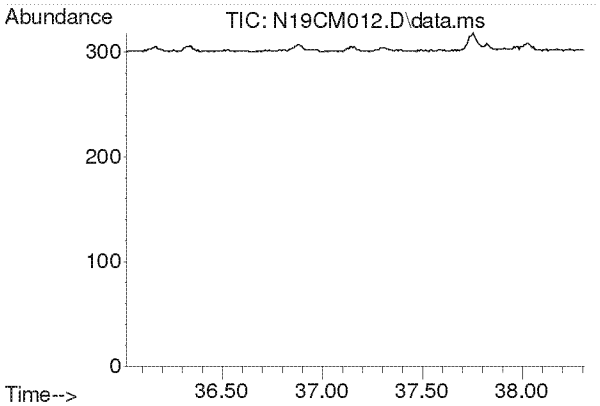
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



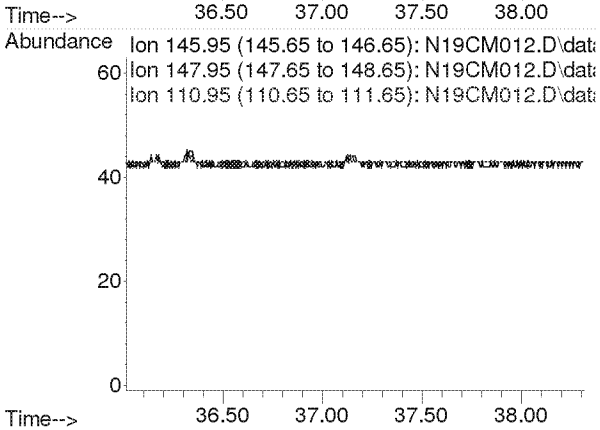


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

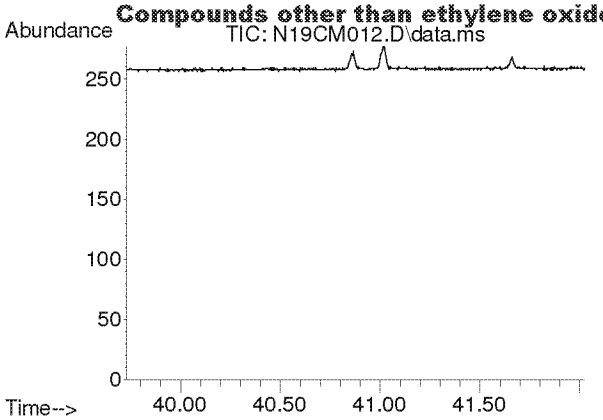
Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

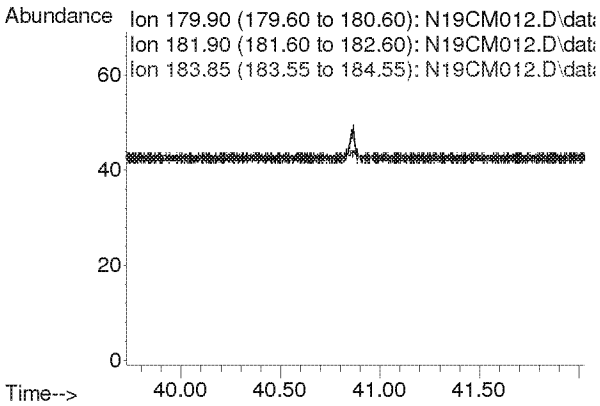


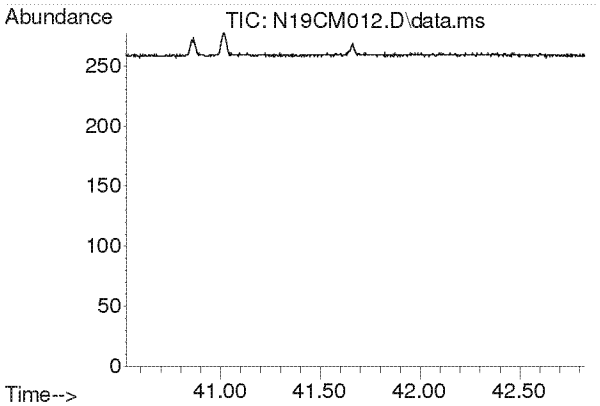
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



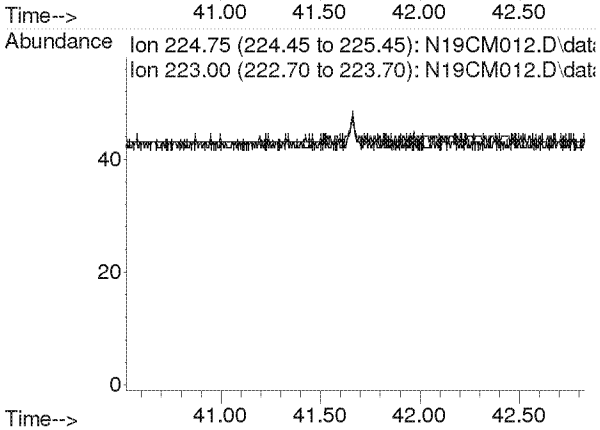


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM012.D
Acq: 13 Mar 2019 10:28 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM013.D
Acq On : 13 Mar 2019 11:29 pm (#1); 13-Mar-19, 23:24:18 (#2)
Operator : KSS
Sample : 9031220-08
Misc : WILLOWBROOK 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 14 08:34:48 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.031	66	30799	4.7700 ppbv	-0.01
29) IS-1,4-Difluorobenzene	23.187	114	66422	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.135	117	53848	4.7400 ppbv	-0.03

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene Oxide	12.541	29	56	0.0417 ppbv #	9
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

ED_002475_00000348-00391

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM013.D
Acq On : 13 Mar 2019 11:29 pm (#1); 13-Mar-19, 23:24:18 (#2)
Operator : KSS
Sample : 9031220-08
Misc : WILLOWBROOK 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 14 08:34:48 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

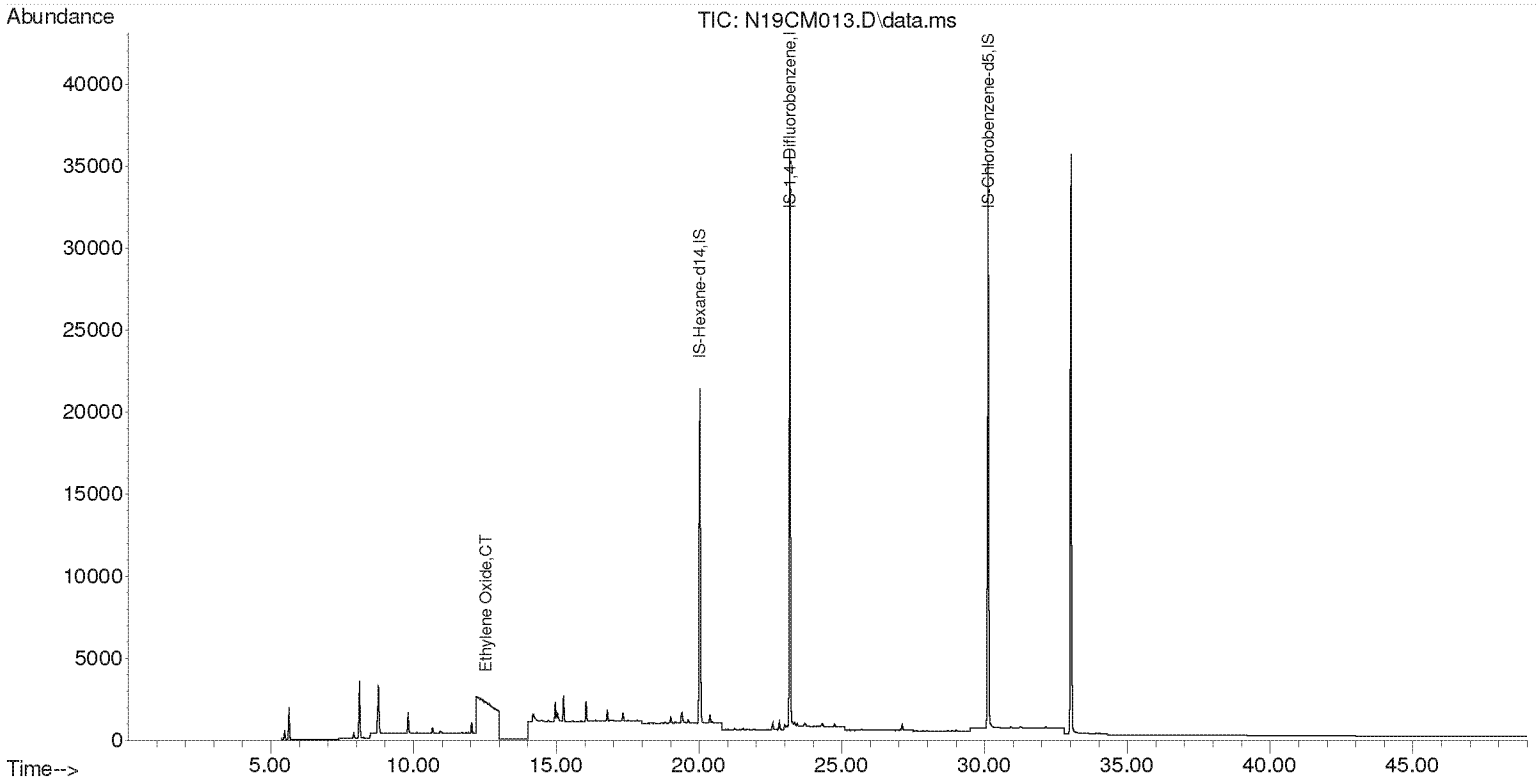
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

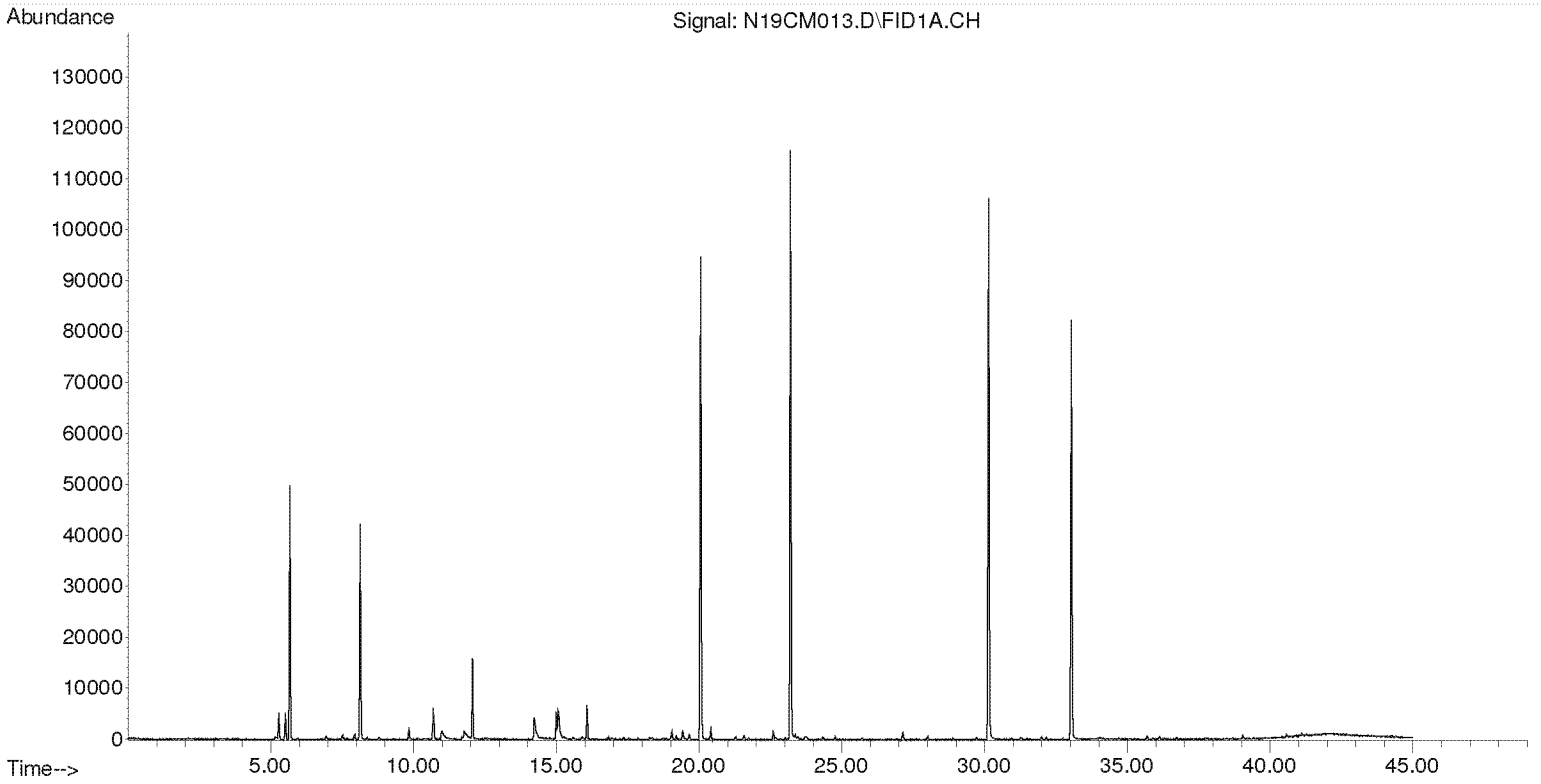
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

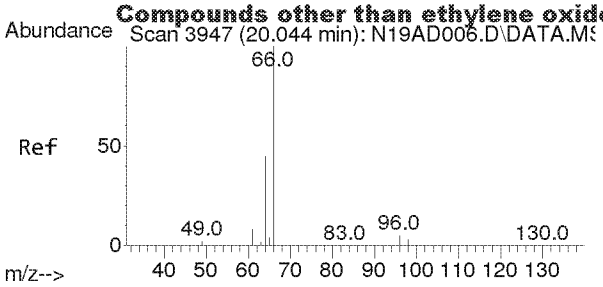
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM013.D
Acq On : 13 Mar 2019 11:29 pm (#1); 13 Mar 2019 11:24 pm (#2)
Operator : KSS
Sample : 9031220-08
Misc : WILLOWBROOK 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 14 08:19:26 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





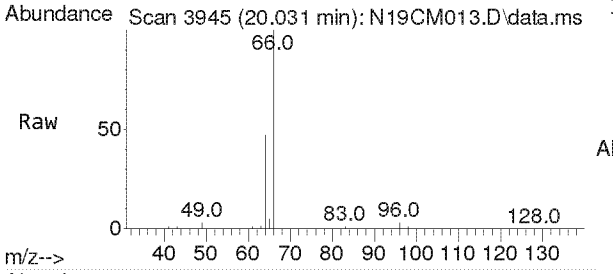
Compounds other than ethylene oxide were not quantitated.

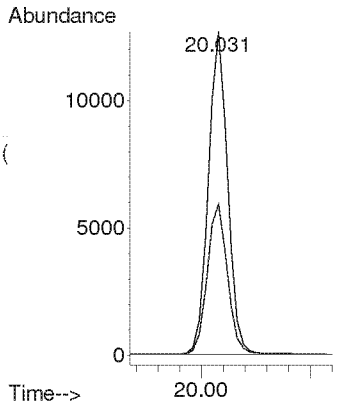


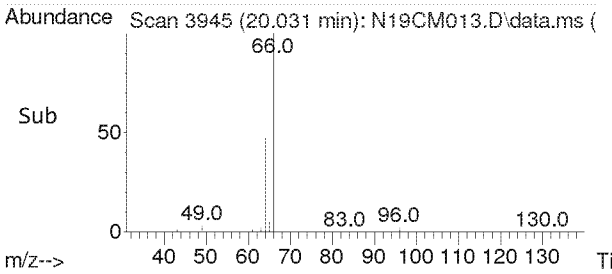
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.031 min Scan# 3945
Delta R.T. -0.013 min
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

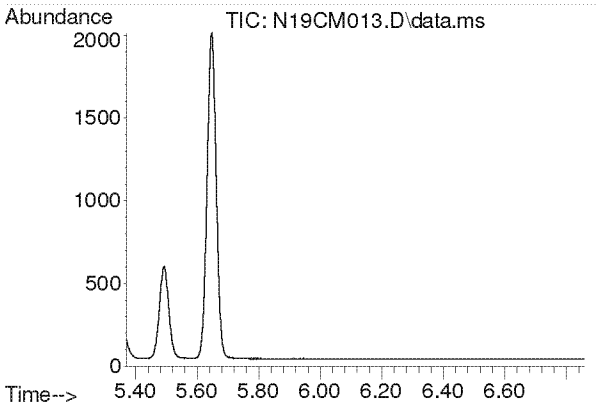
Tgt Ion: 66 Resp: 30799

Ion	Ratio	Lower	Upper
66	100		
64	48.7	32.1	59.5





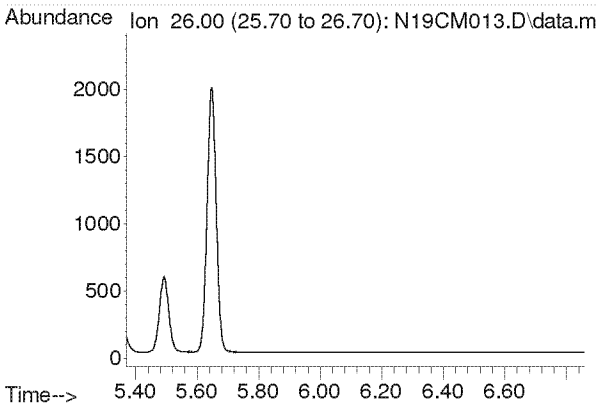




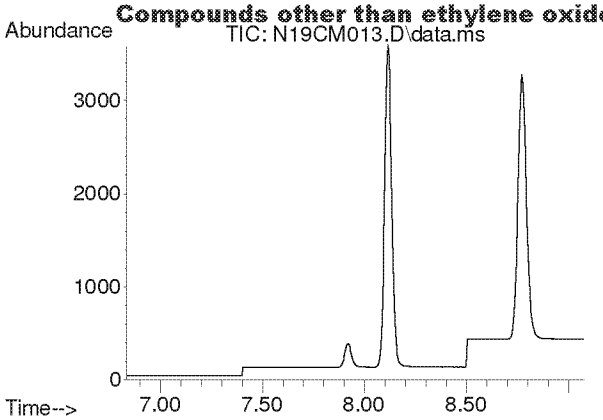
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

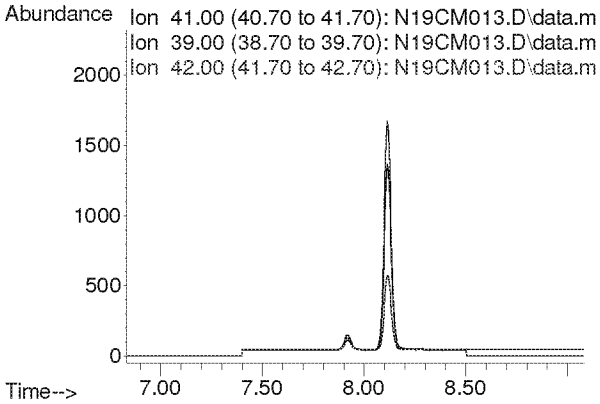


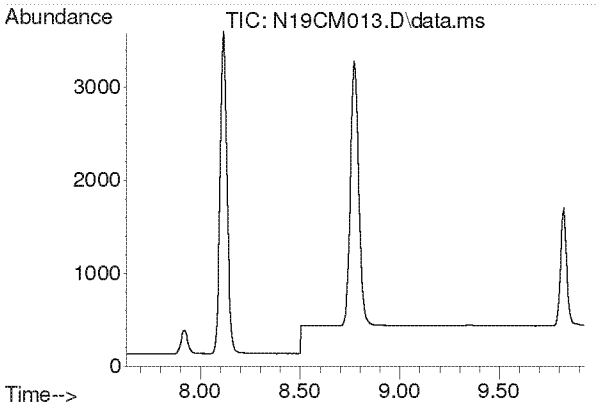
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



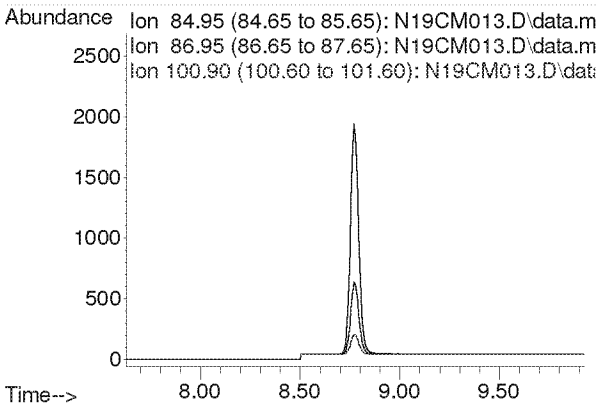


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

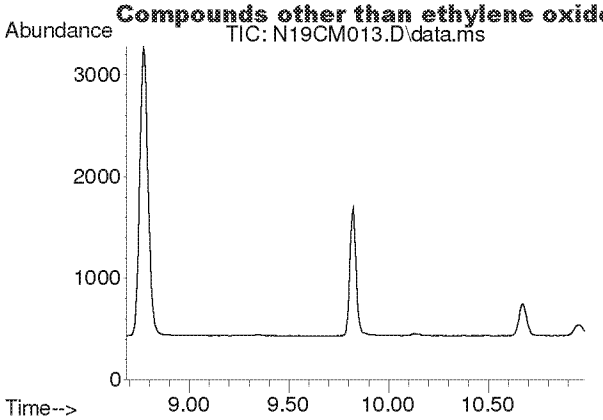
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

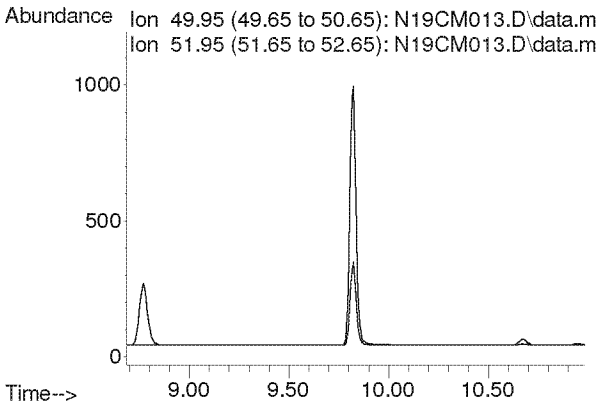


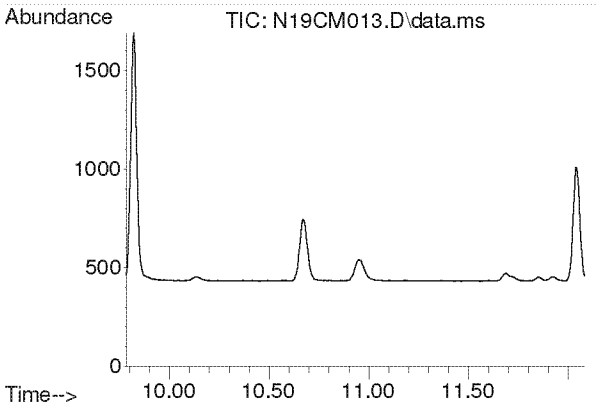
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



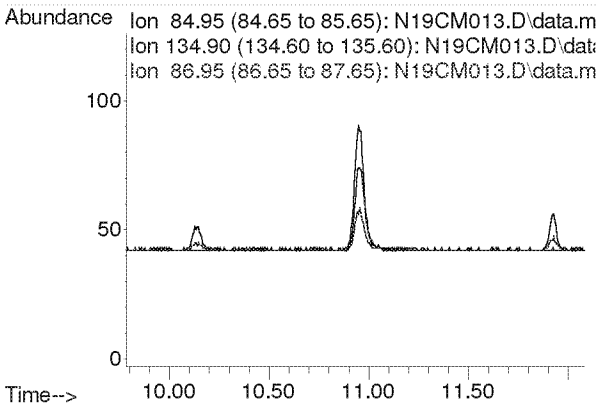


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

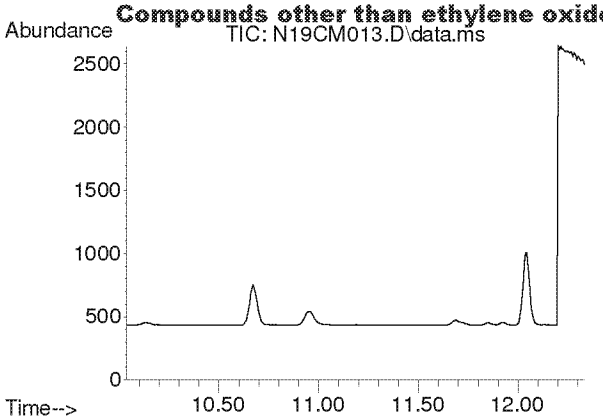
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

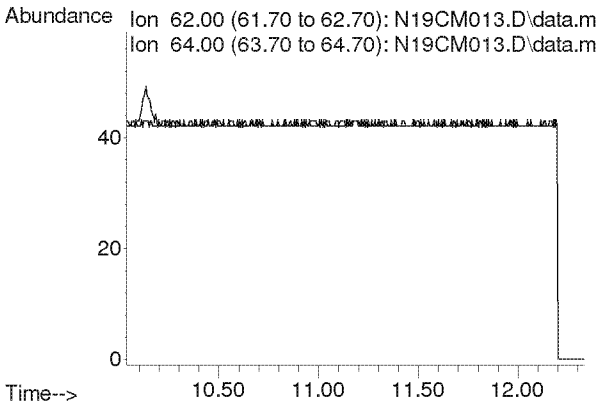


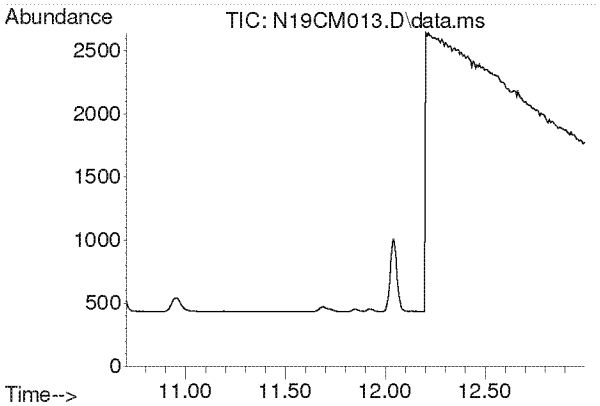
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



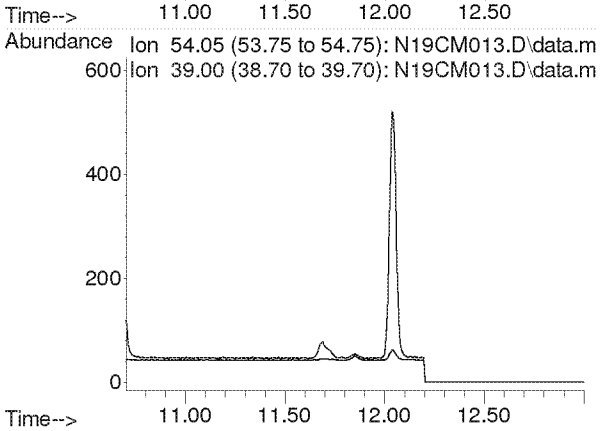


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

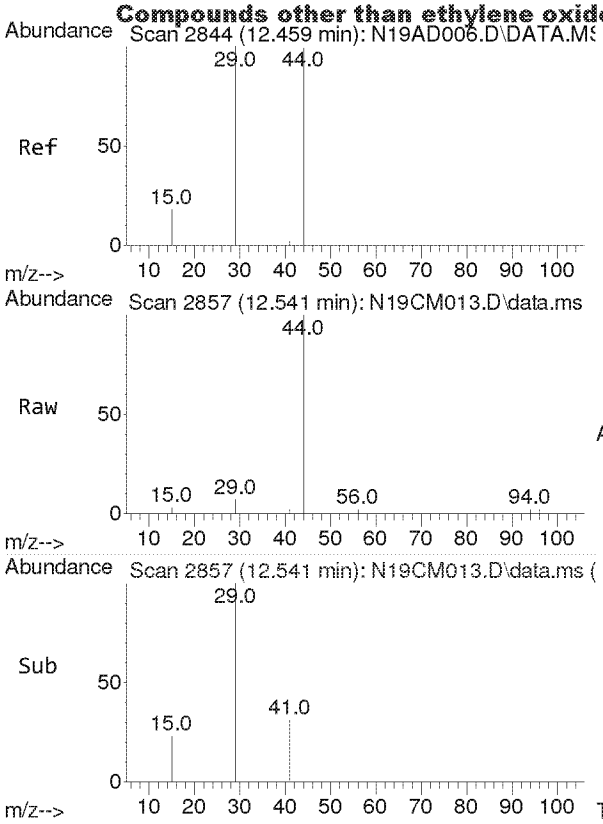
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



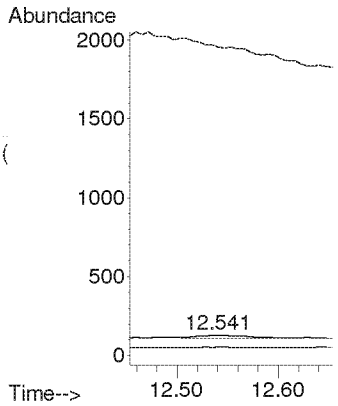
Compounds other than ethylene oxide were not quantitated.

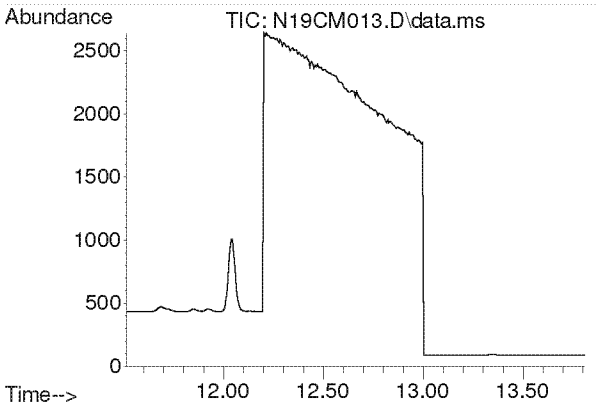


#9
Ethylene Oxide
Concen: 0.042 ppbv
RT: 12.541 min Scan# 2857
Delta R.T. 0.082 min
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 29 Resp: 56

Ion	Ratio	Lower	Upper
29	100		
15	0.0	14.0	21.0#
44	0.0	79.2	118.8#



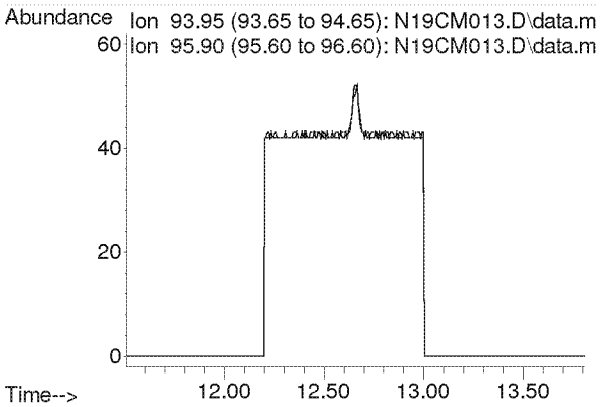


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

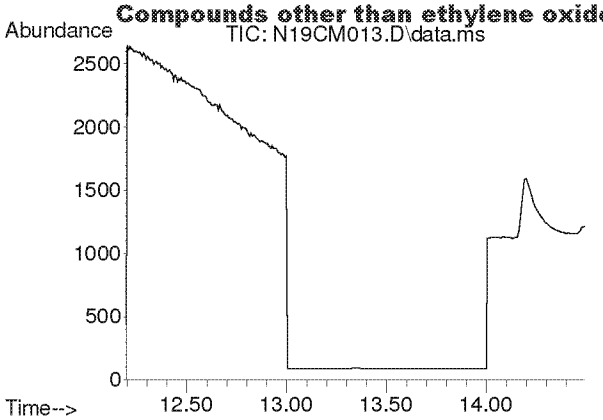
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

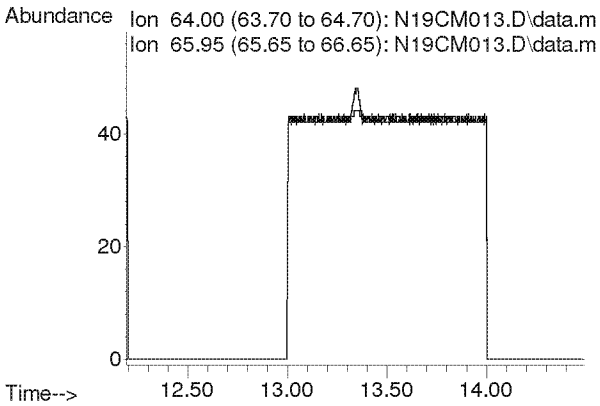


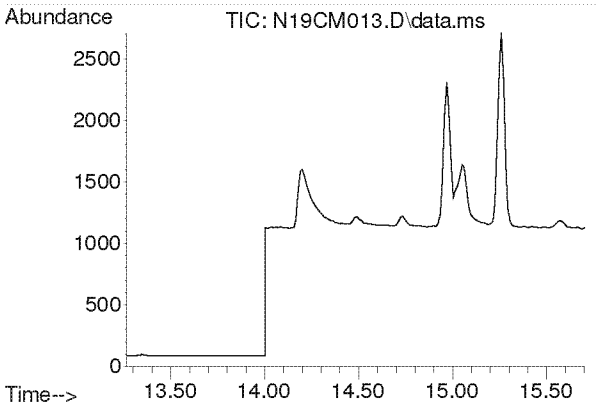
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



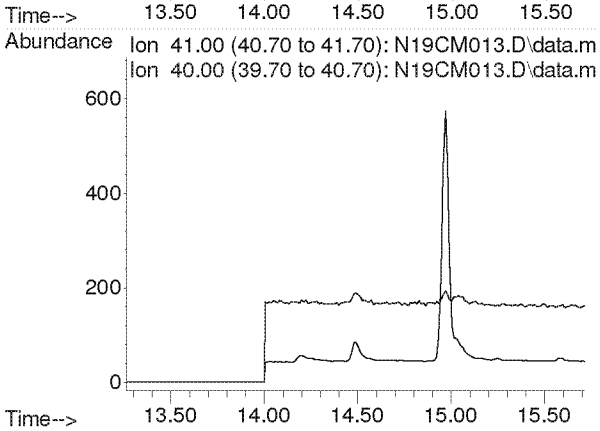


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

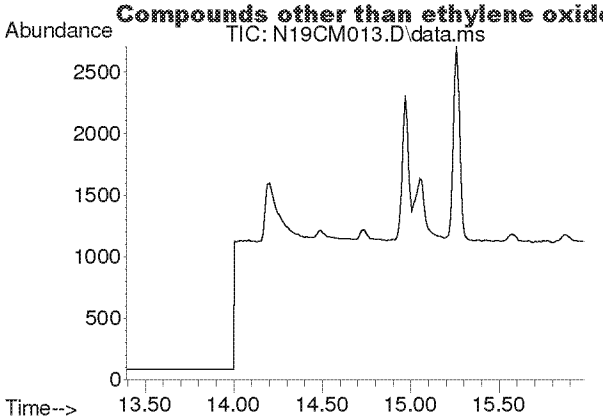
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

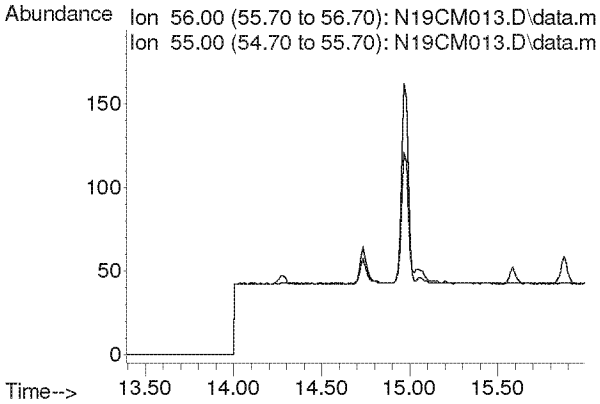


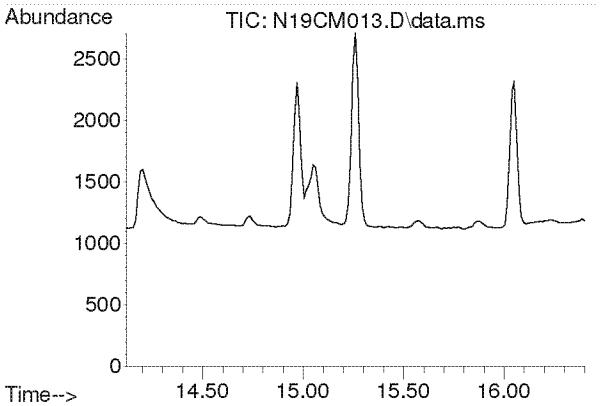
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



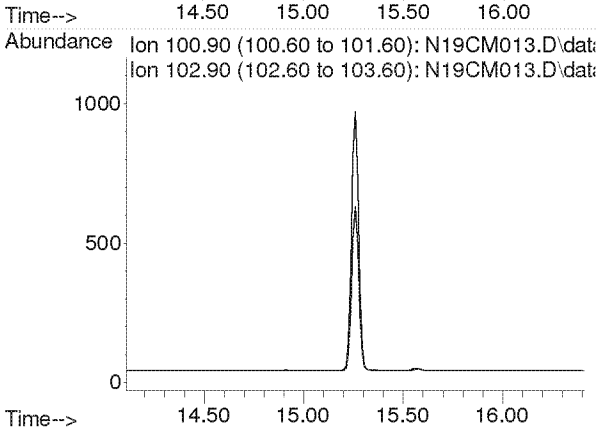


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

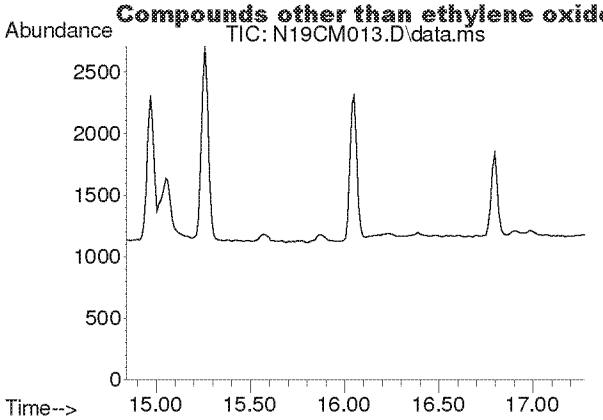
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

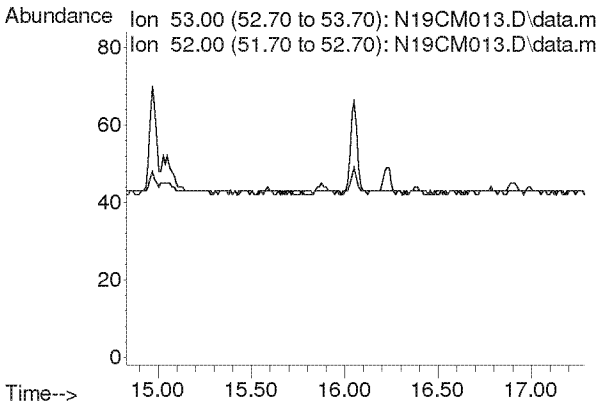


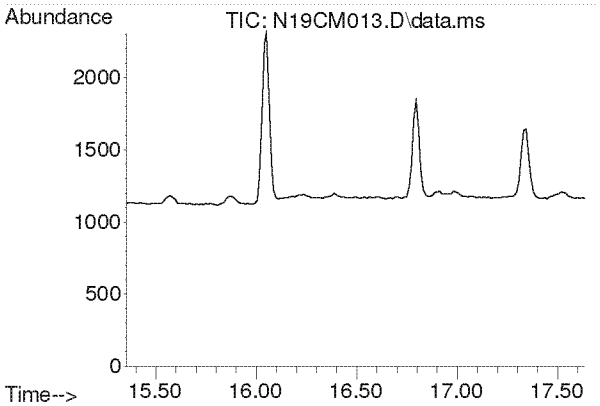
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



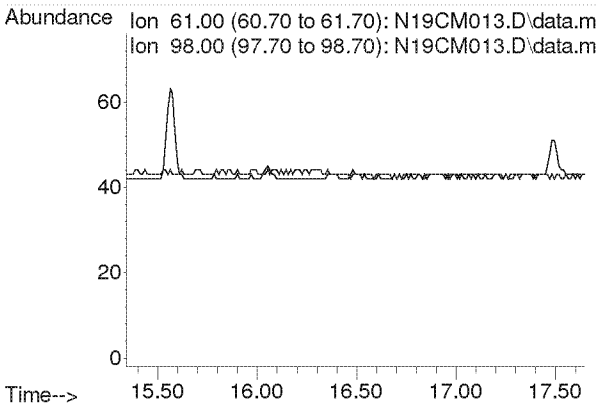


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

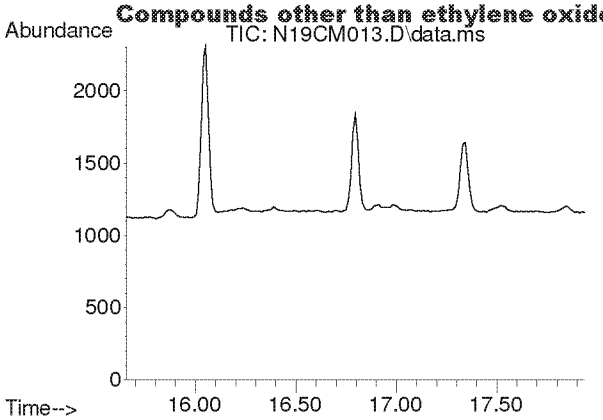
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

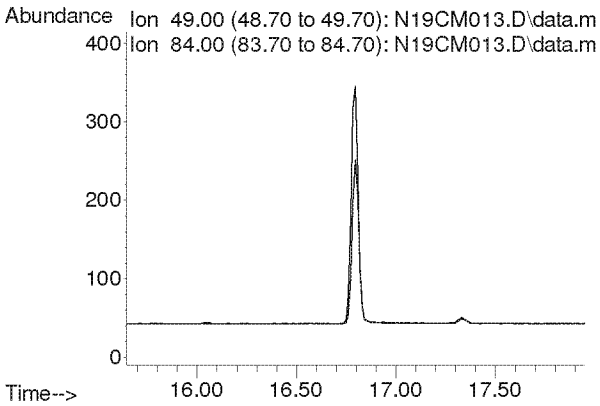


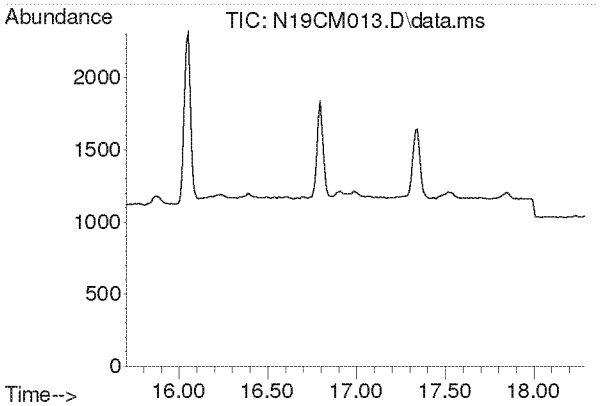
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



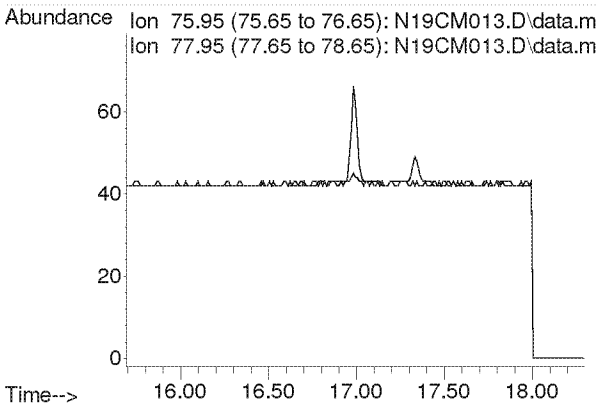


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

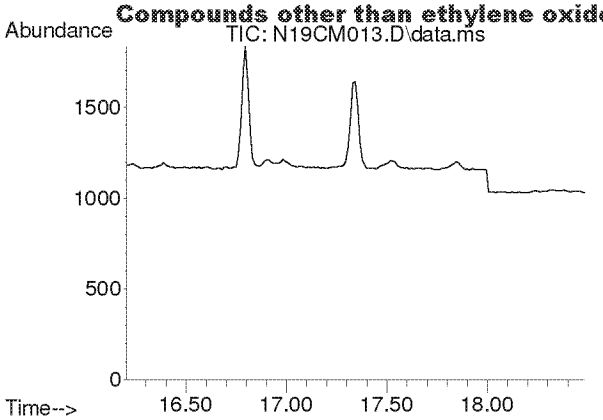
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

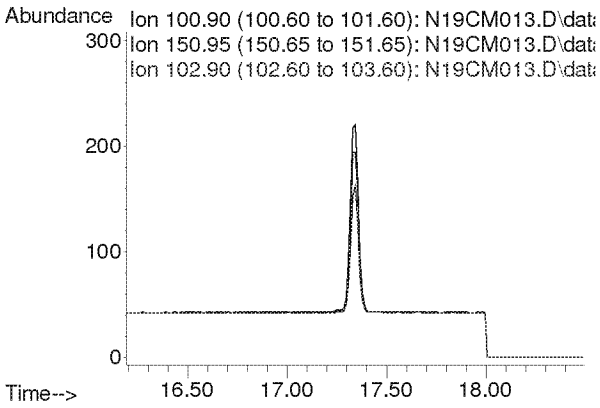


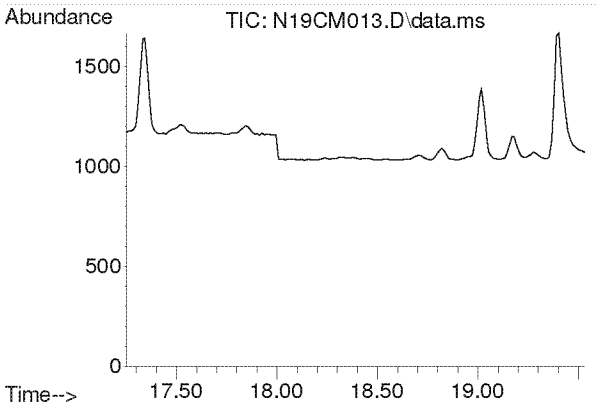
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



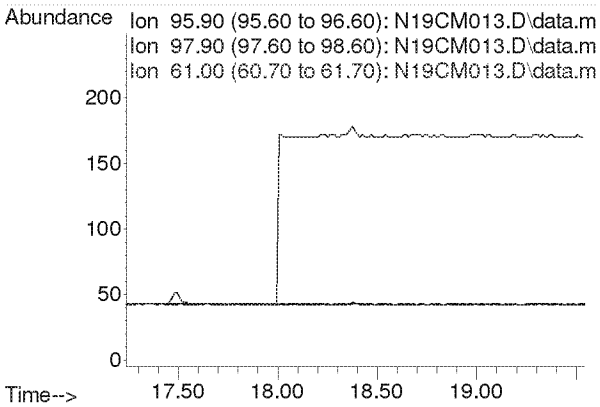


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

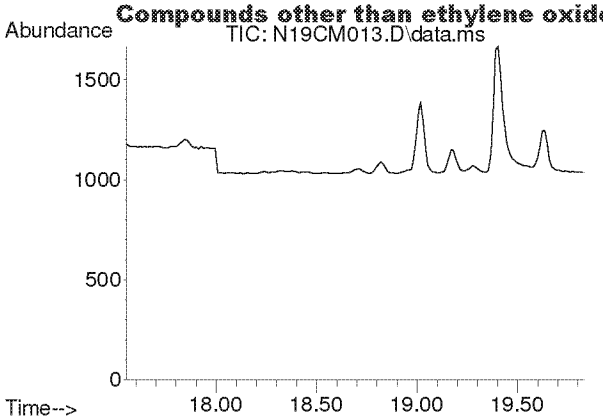
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

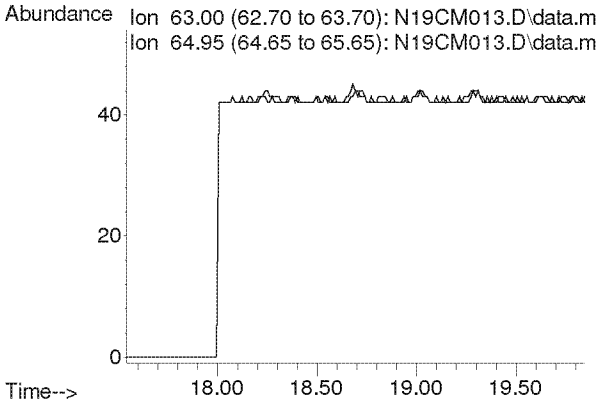


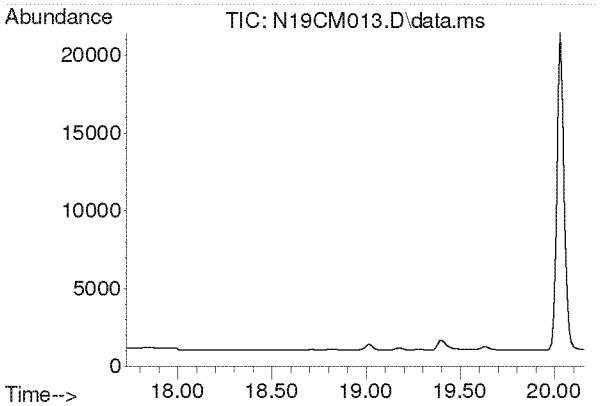
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



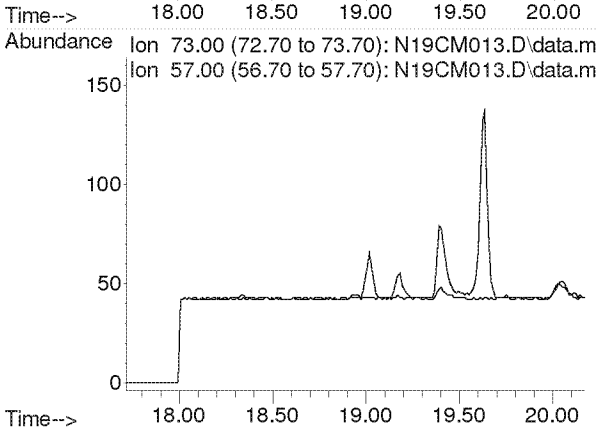


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

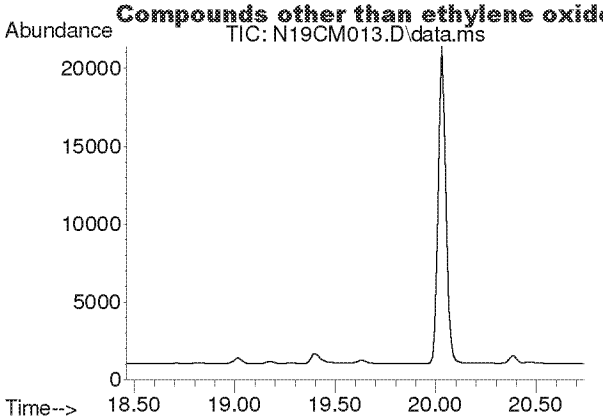
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

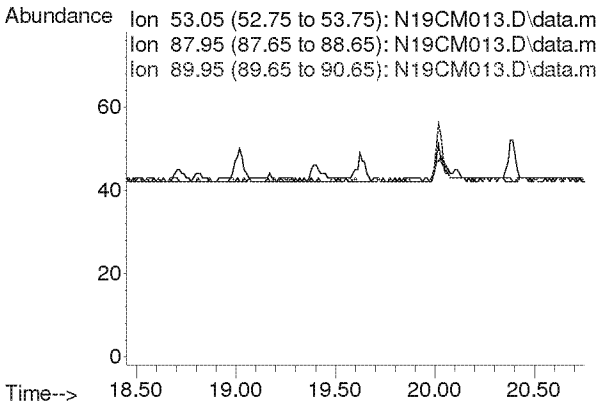


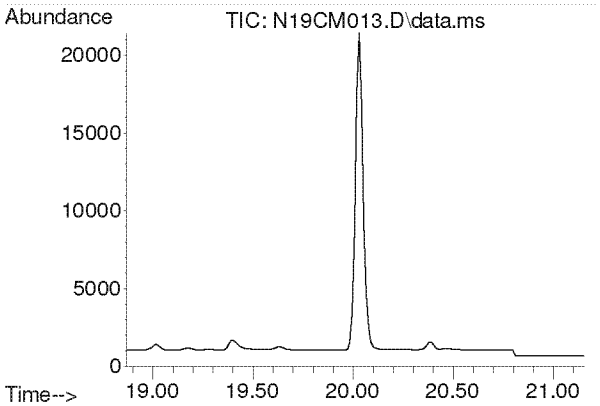
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



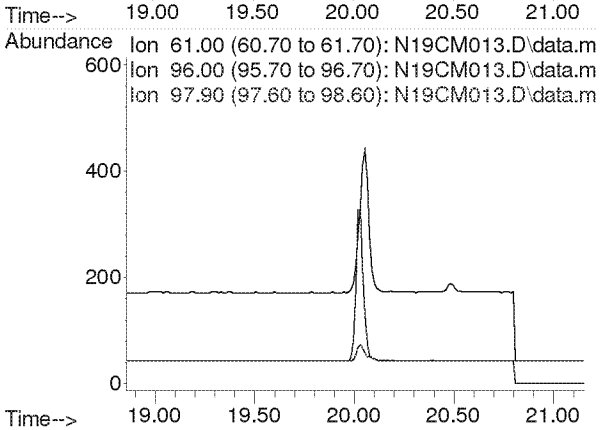


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

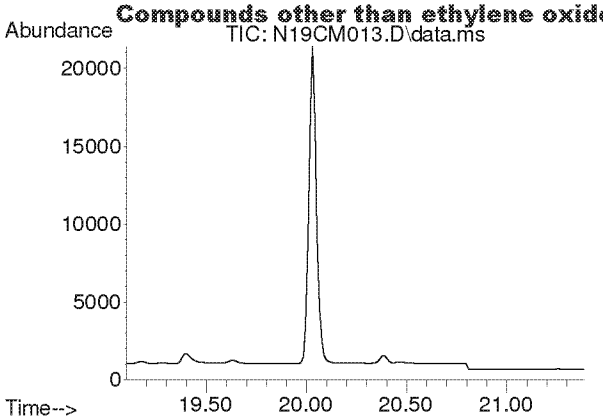
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

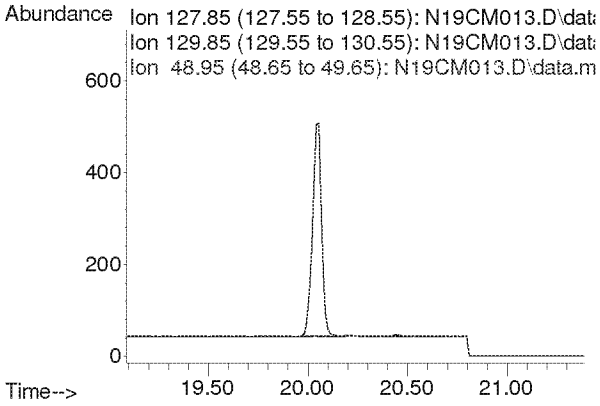


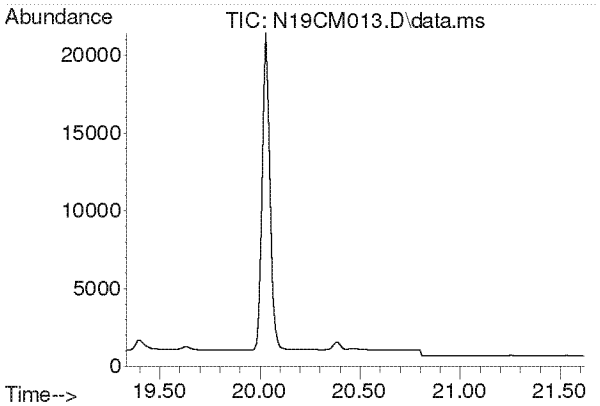
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



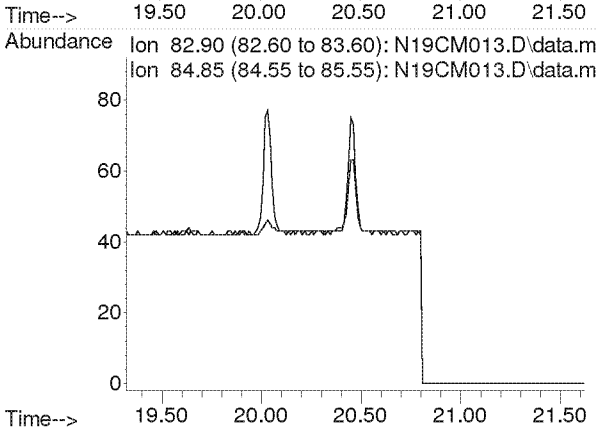


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

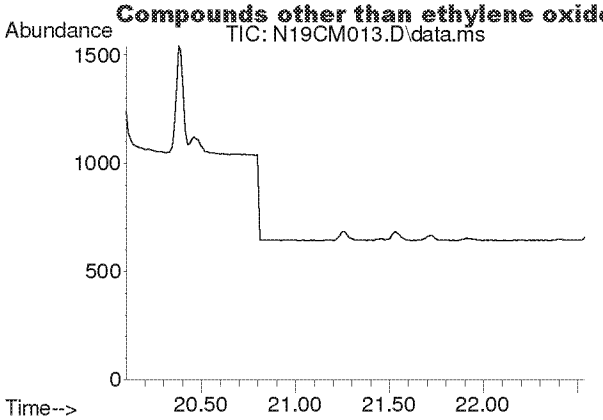
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

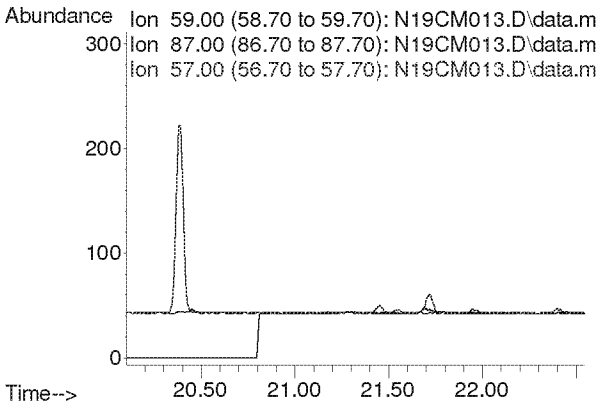


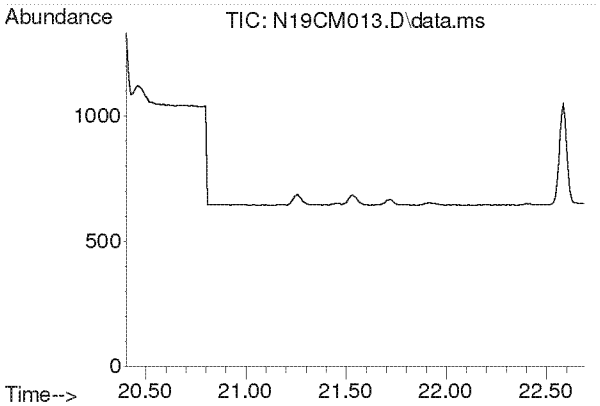
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



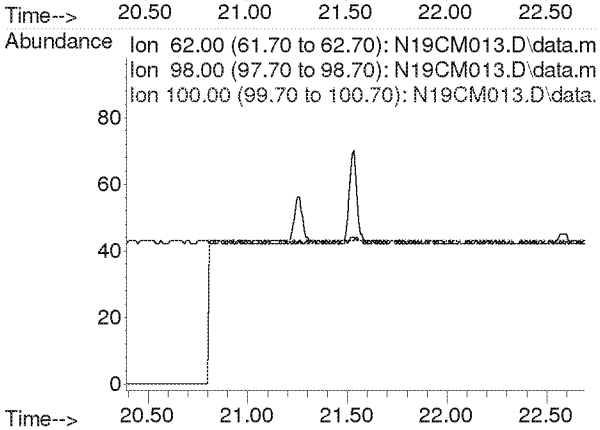


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

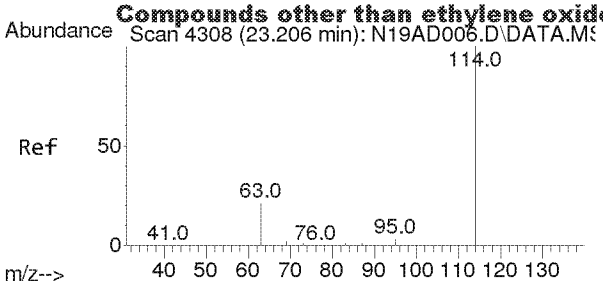
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



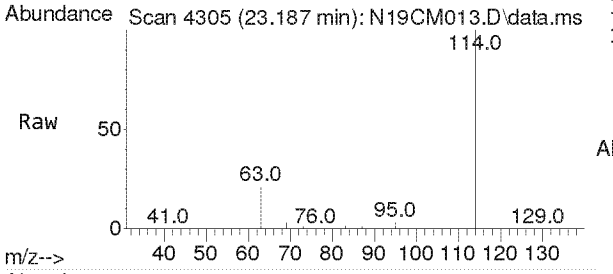
Compounds other than ethylene oxide were not quantitated.

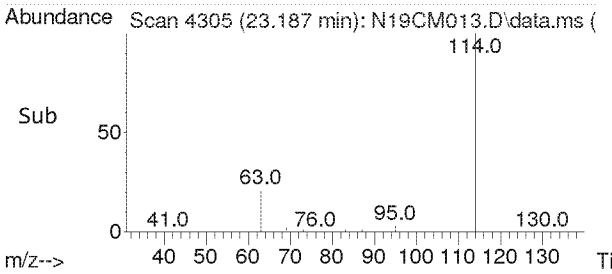


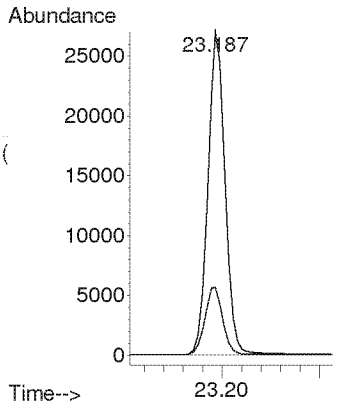
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.187 min Scan# 4305
Delta R.T. -0.019 min
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

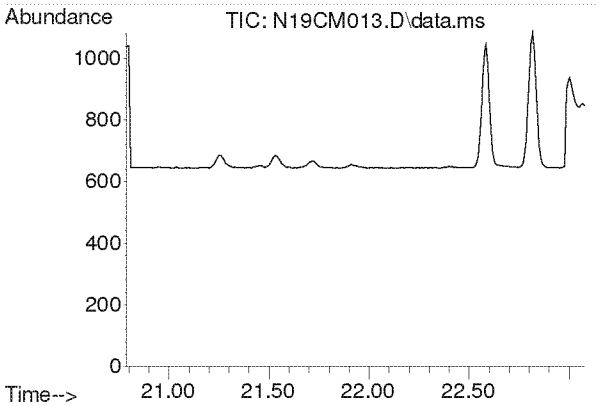
Tgt Ion:114 Resp: 66422

Ion	Ratio	Lower	Upper
114	100		
63	21.8	16.7	25.1







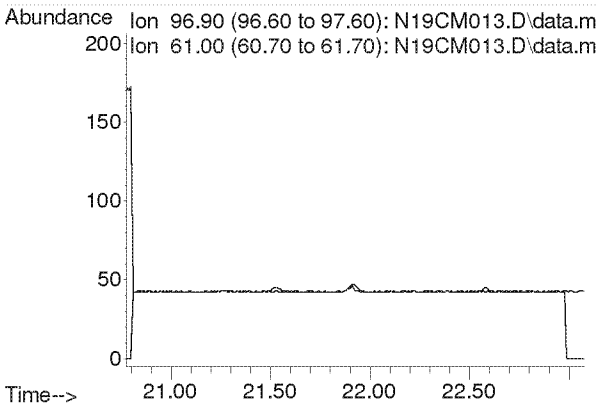


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

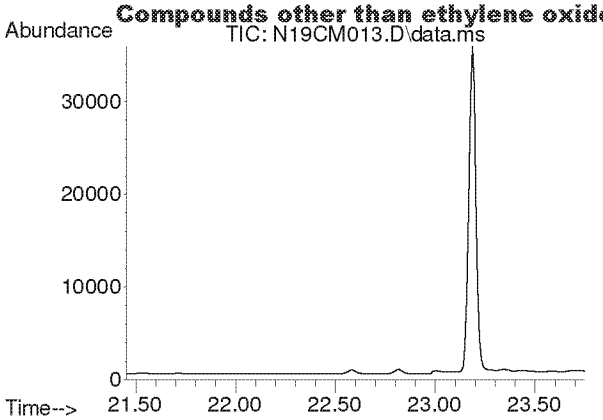
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

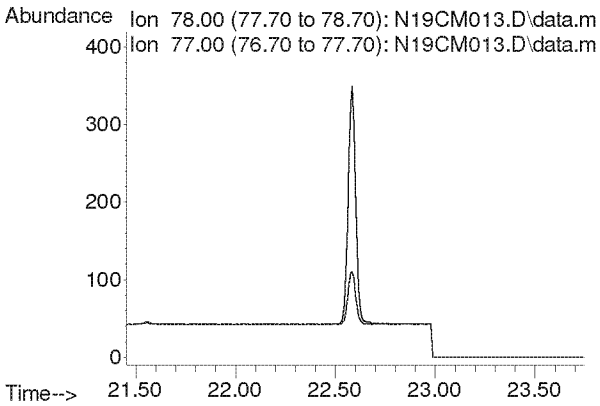


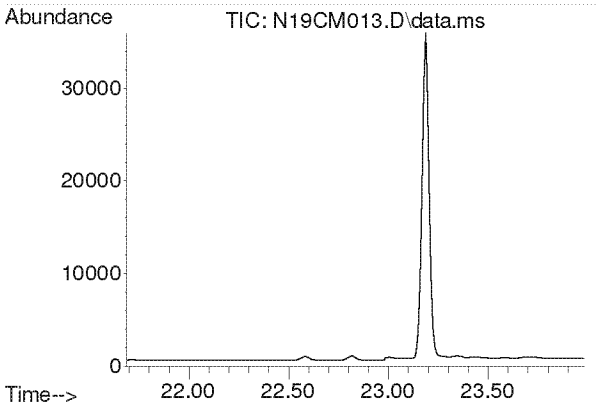
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



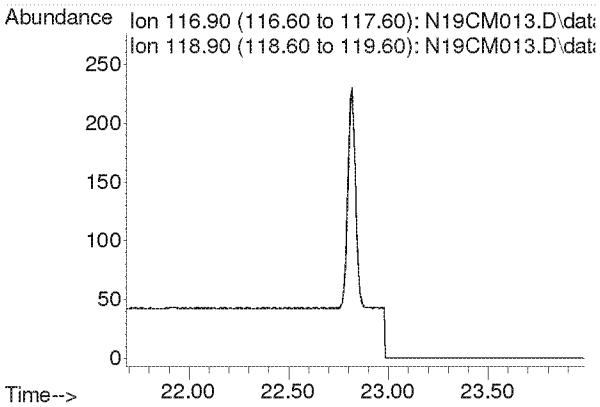


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

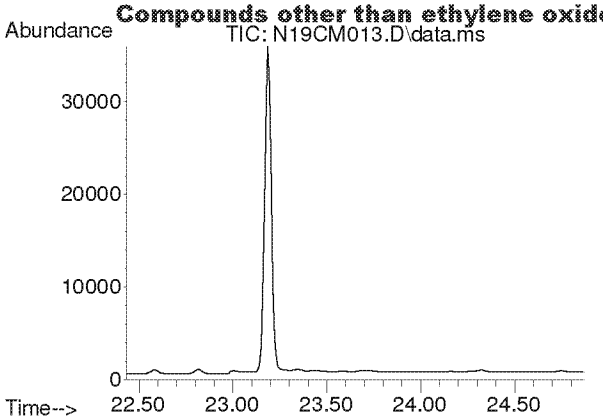
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

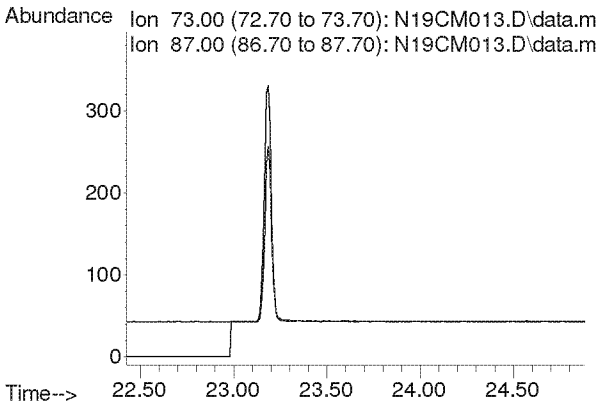


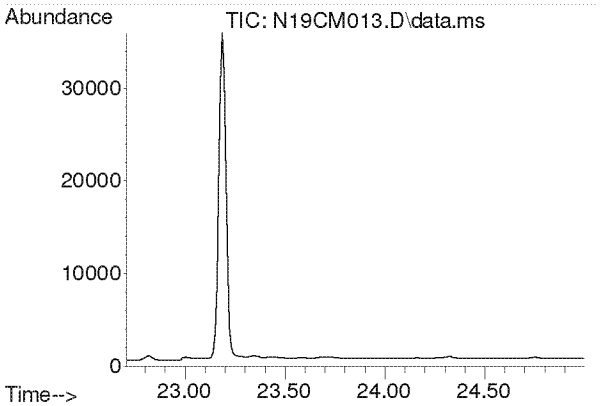
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



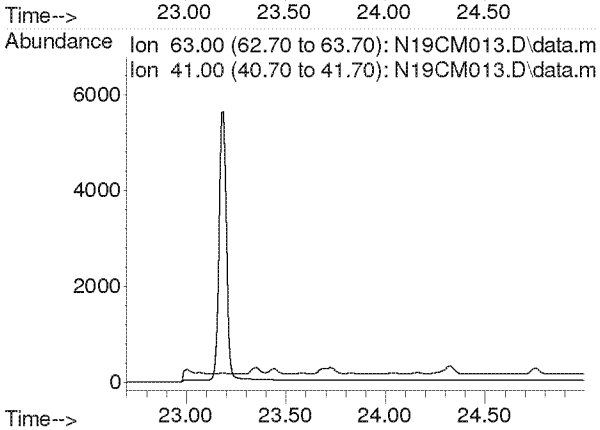


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

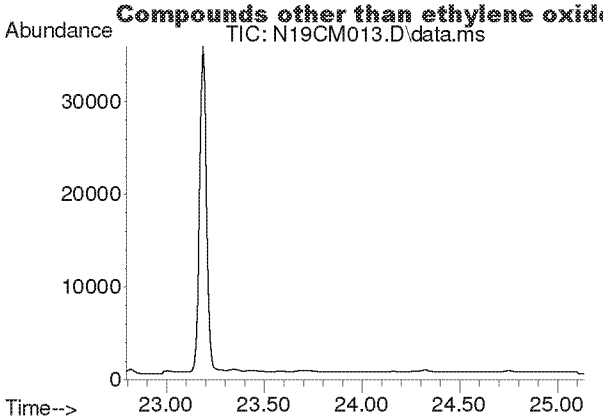
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

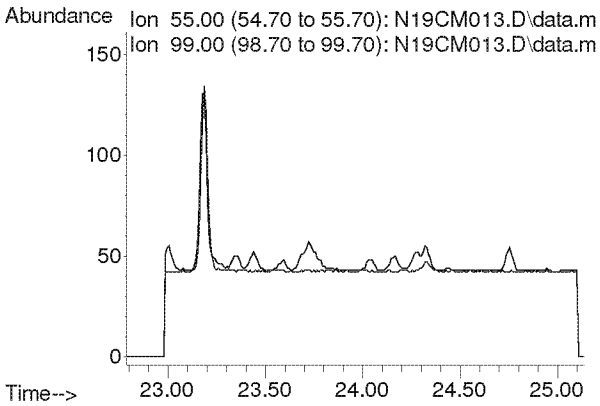


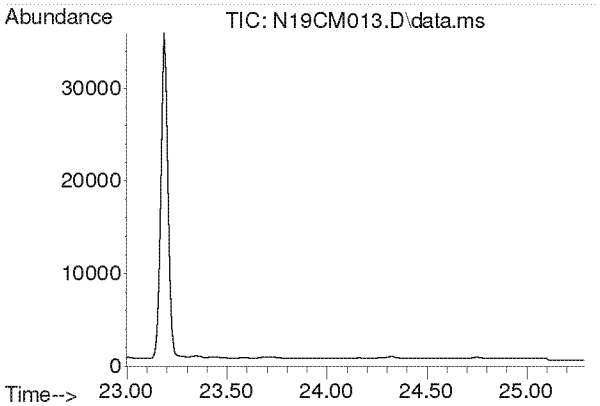
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



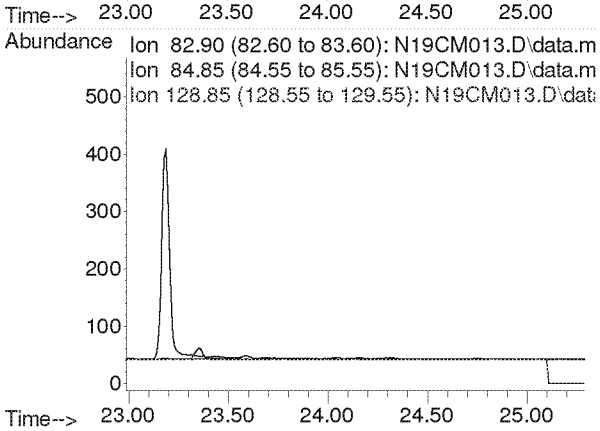


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

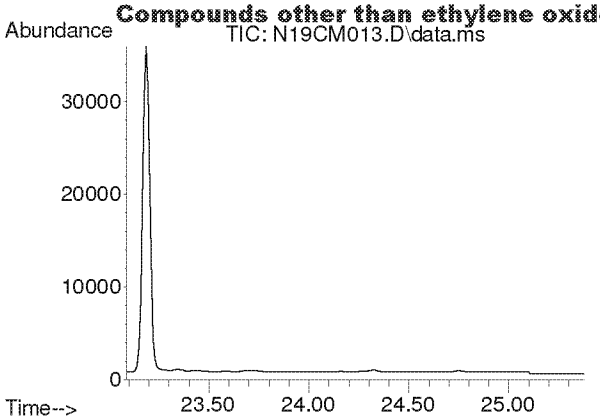
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

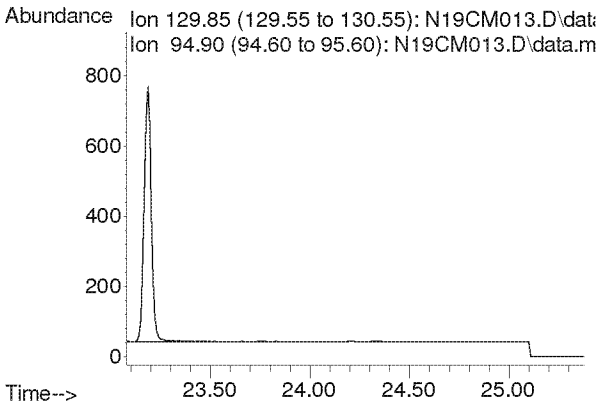


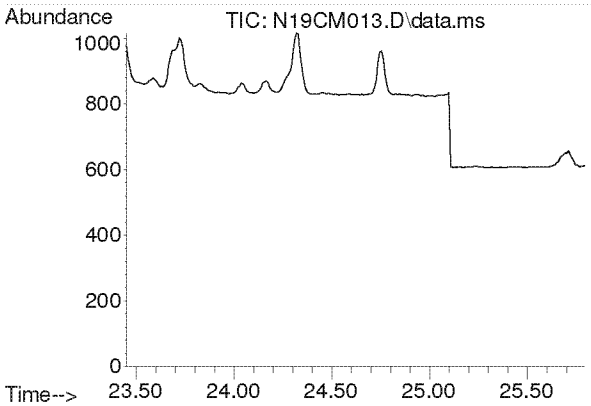
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



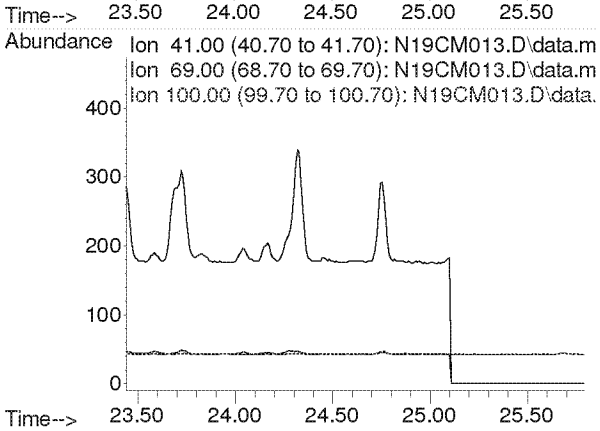


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

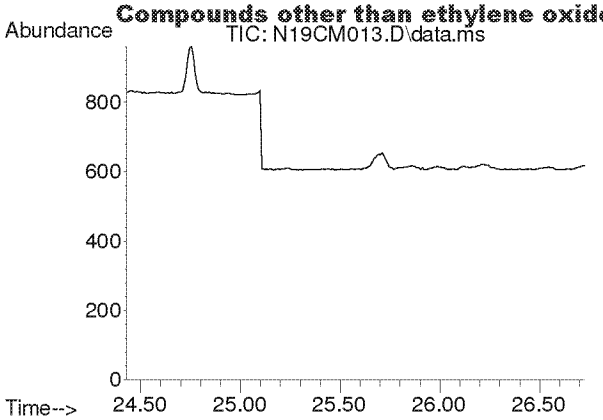
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

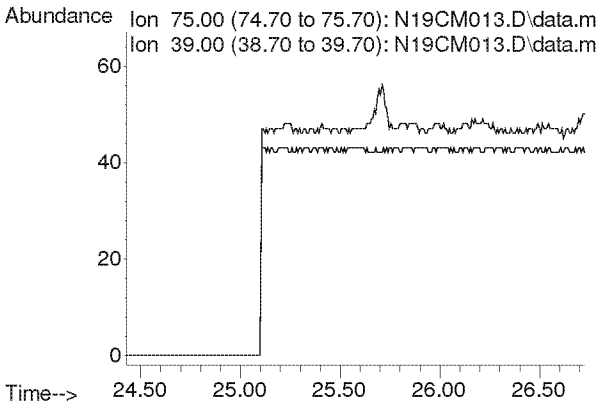


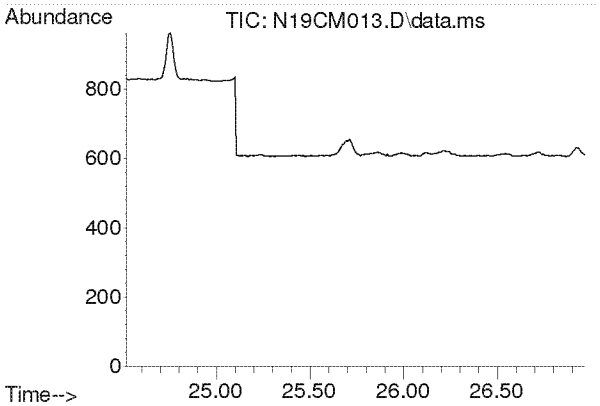
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



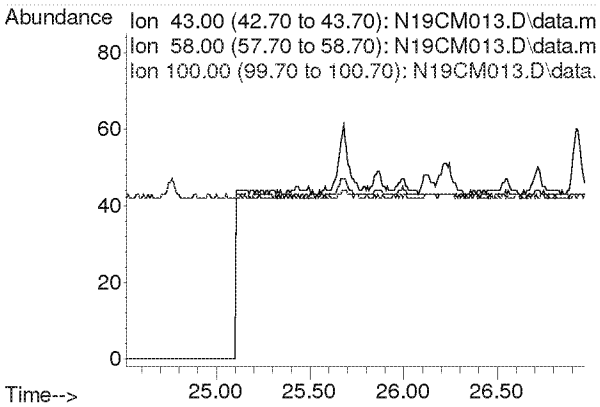


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

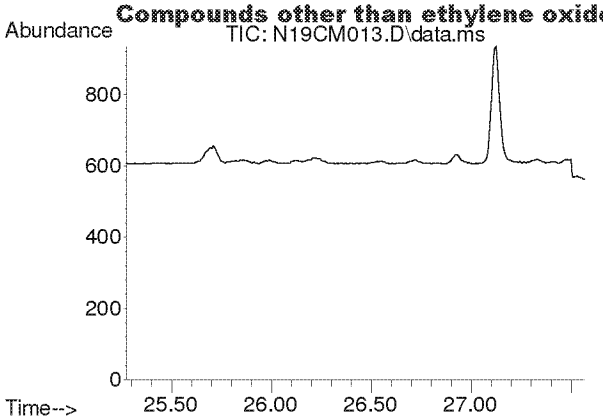
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

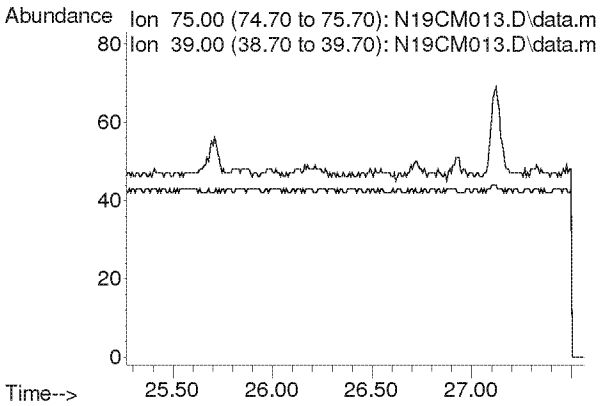


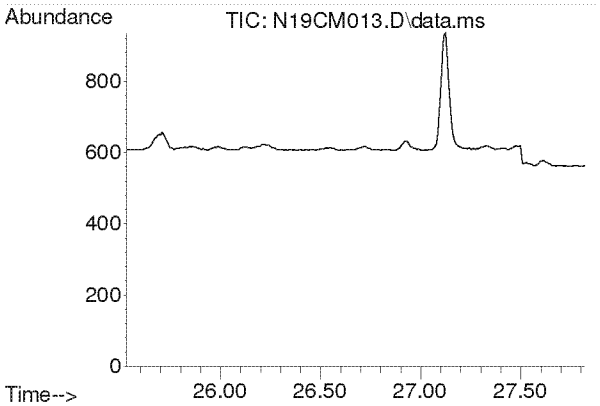
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



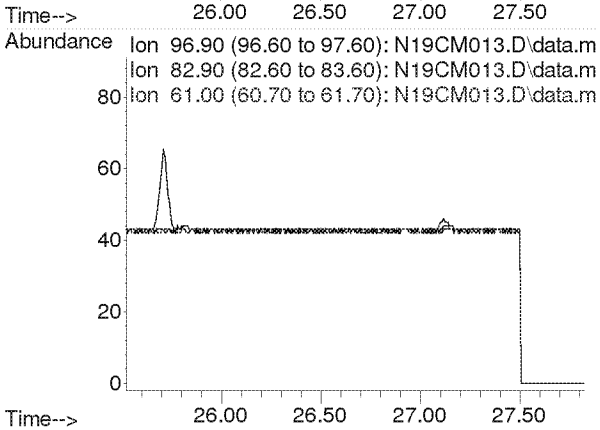


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

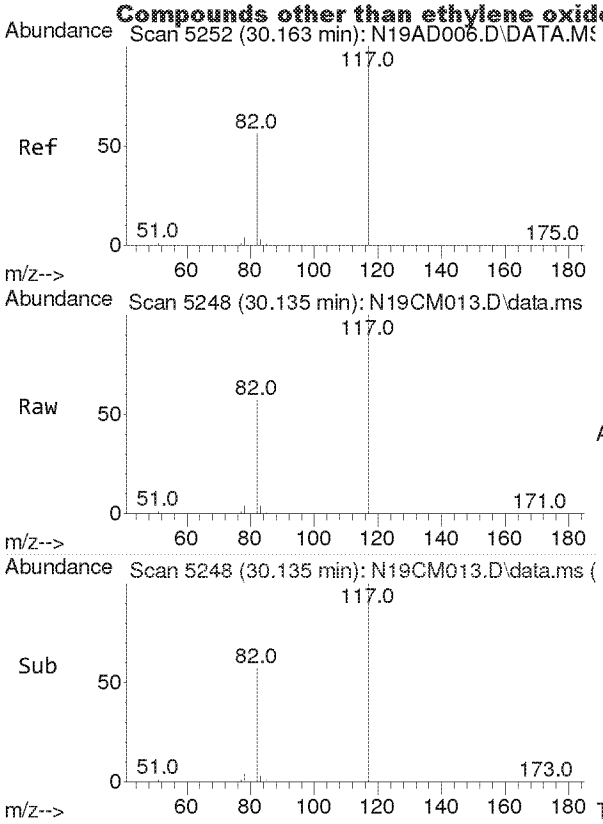
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



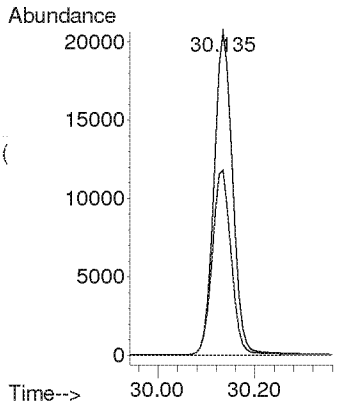
Compounds other than ethylene oxide were not quantitated.

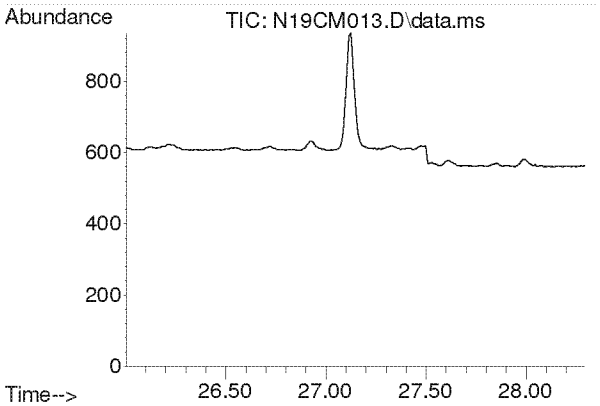


#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.135 min Scan# 5248
Delta R.T. -0.027 min
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion:117 Resp: 53848

Ion	Ratio	Lower	Upper
117	100		
82	58.3	40.1	74.5
54	0.0	0.0	0.0



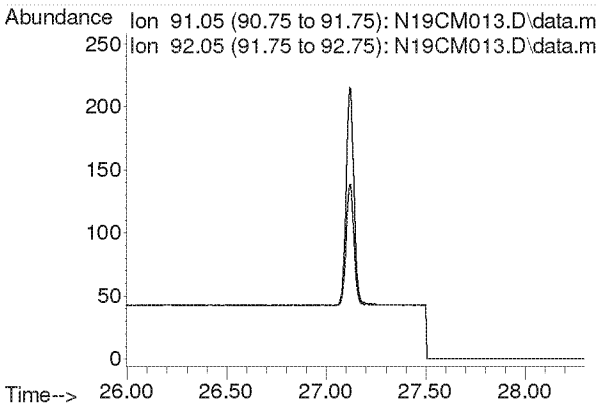


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

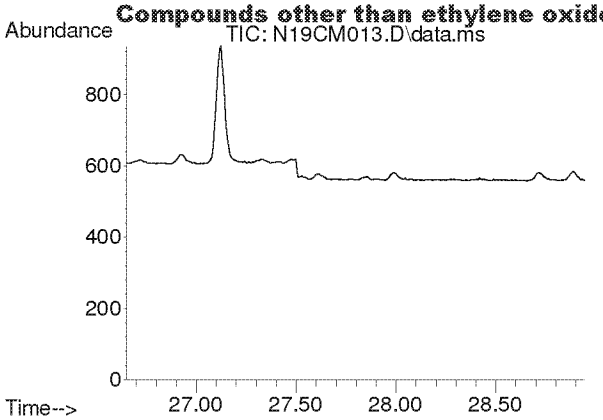
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

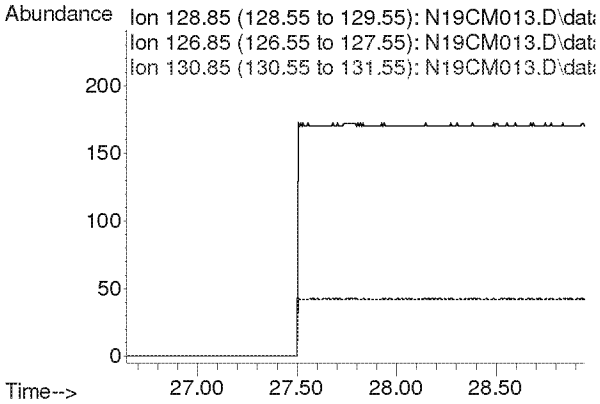


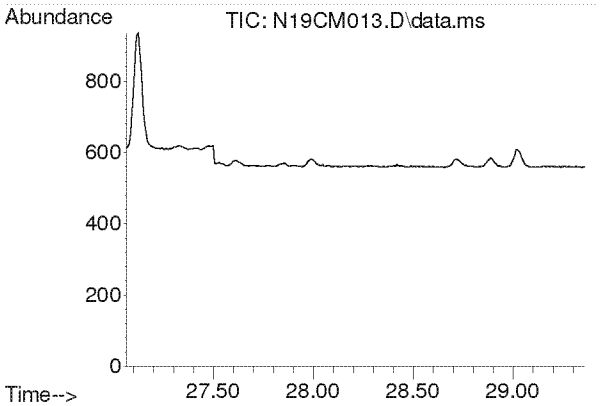
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



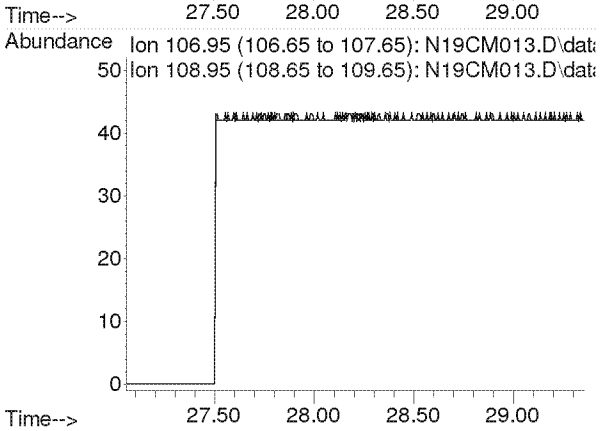


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

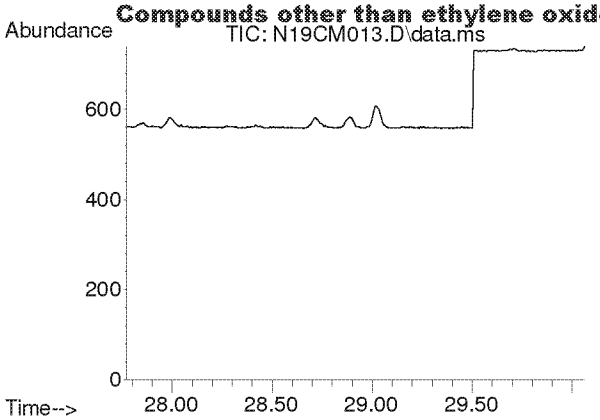
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

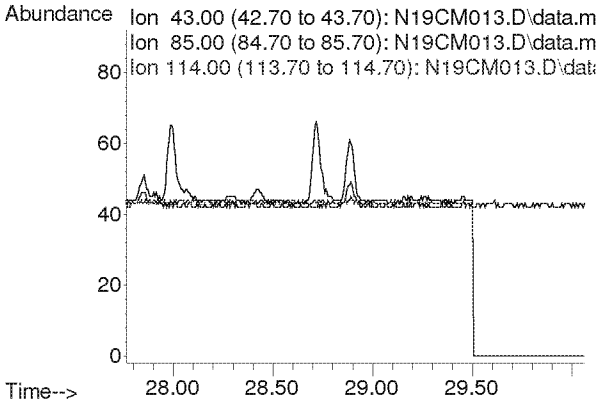


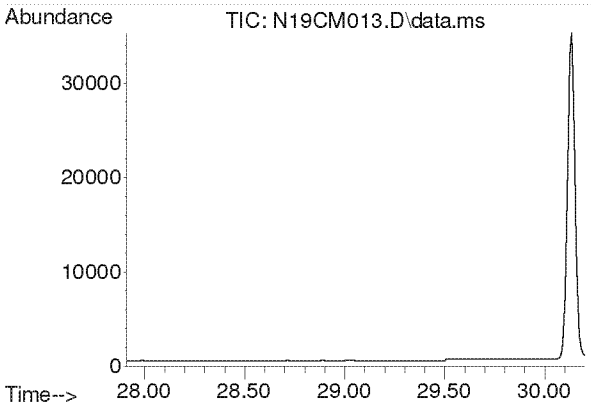
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



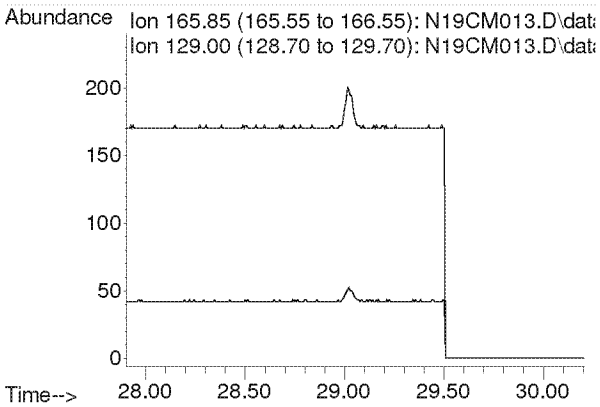


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

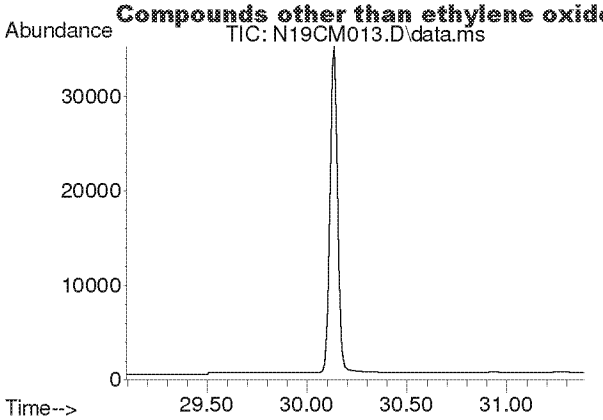
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

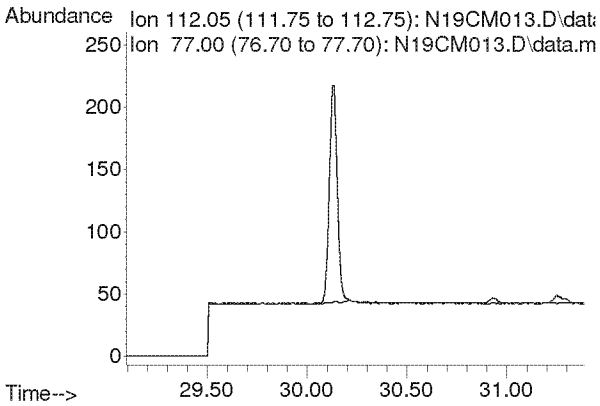


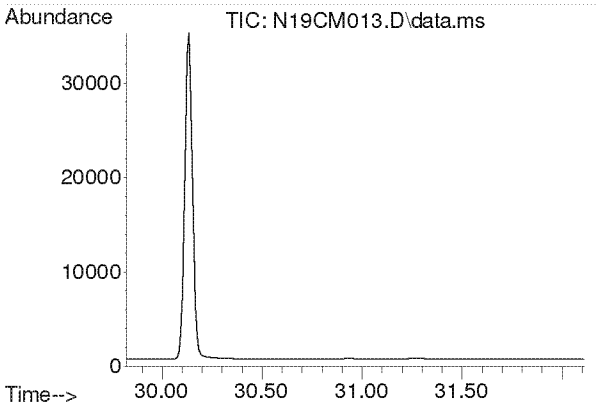
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



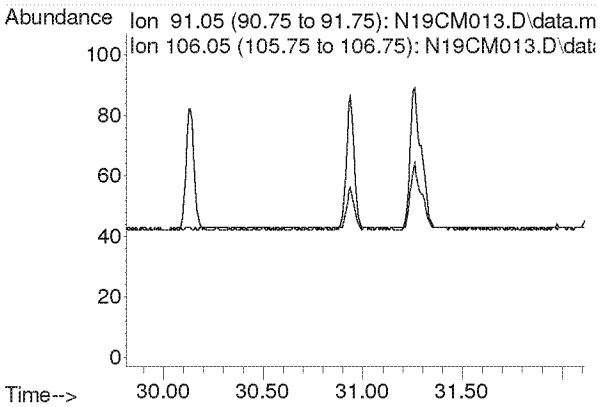


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

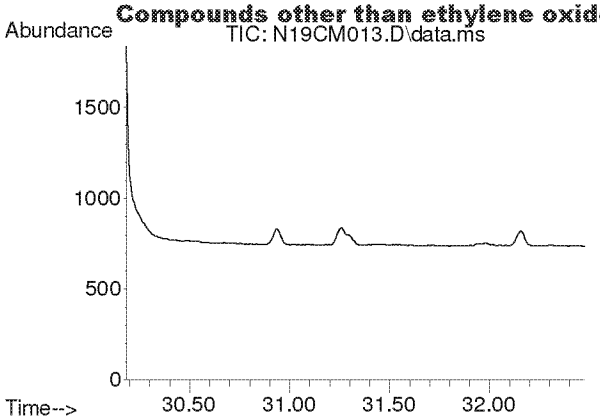
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

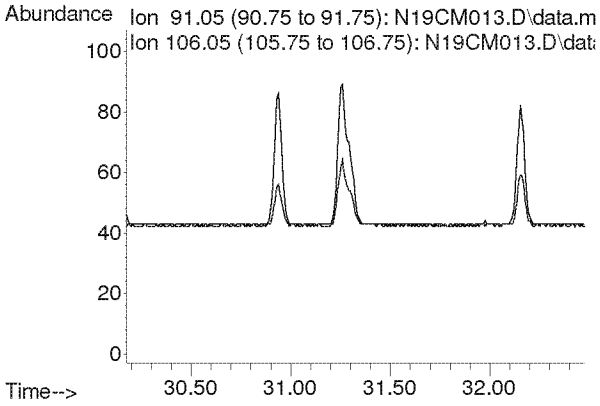


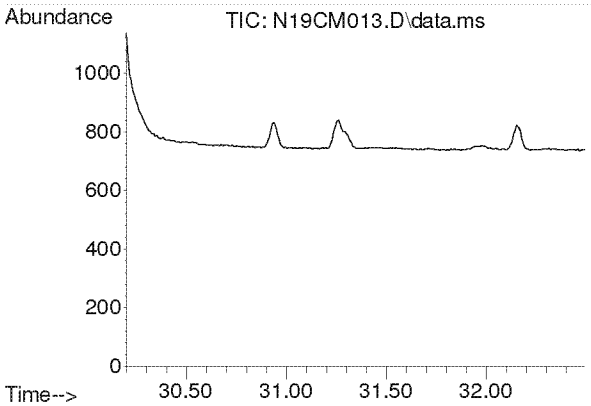
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



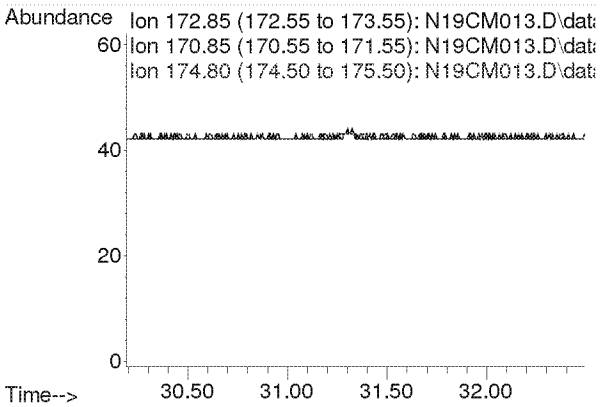


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

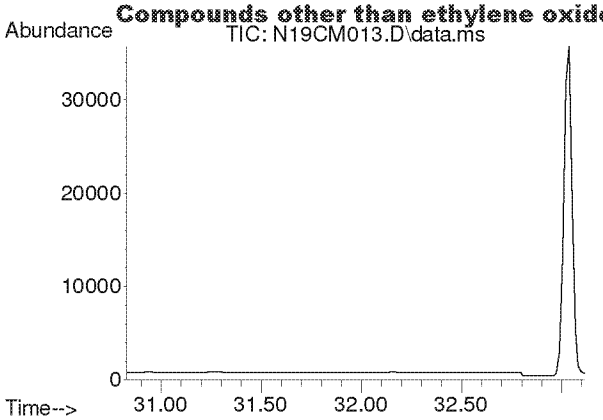
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

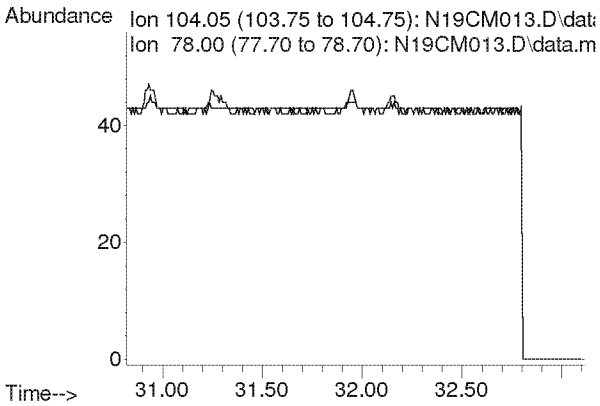


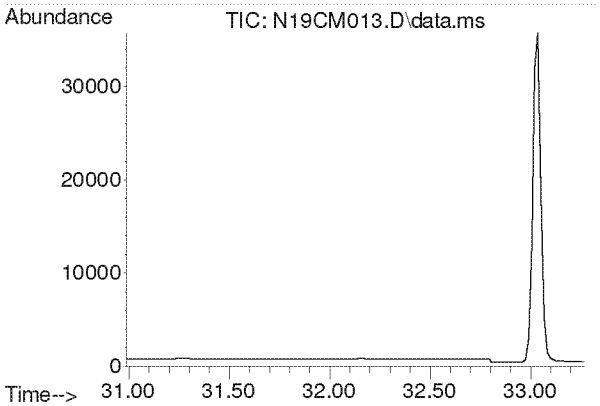
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



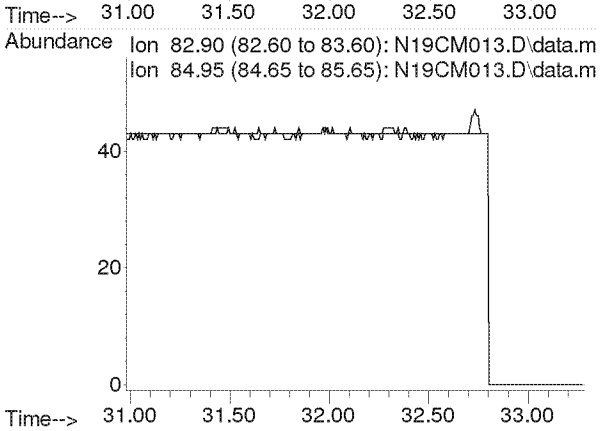


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

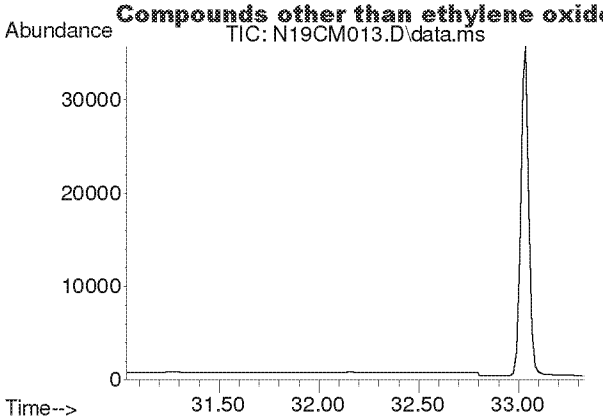
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

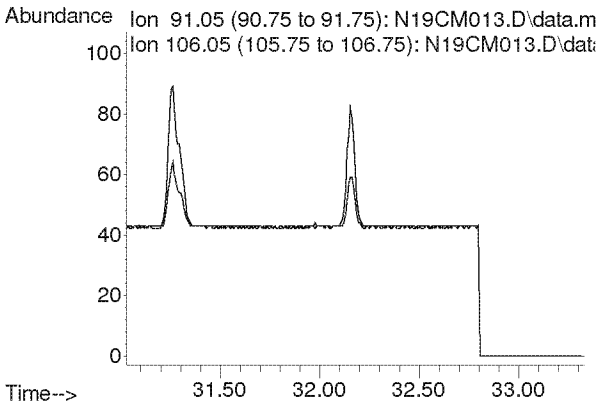


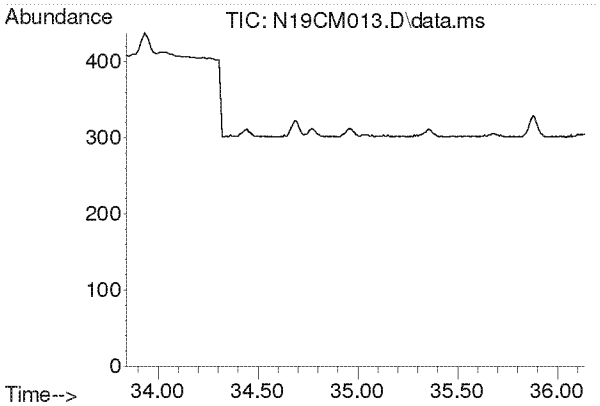
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



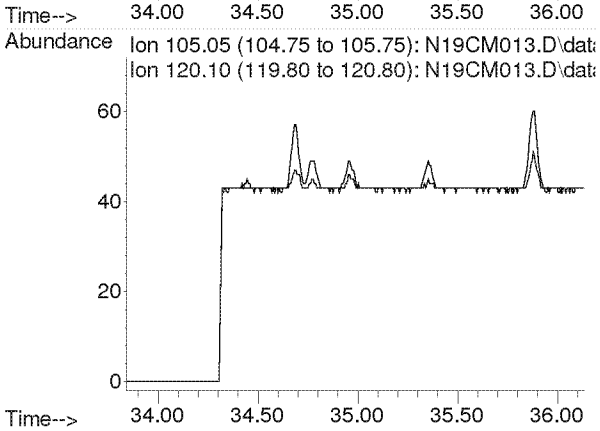


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

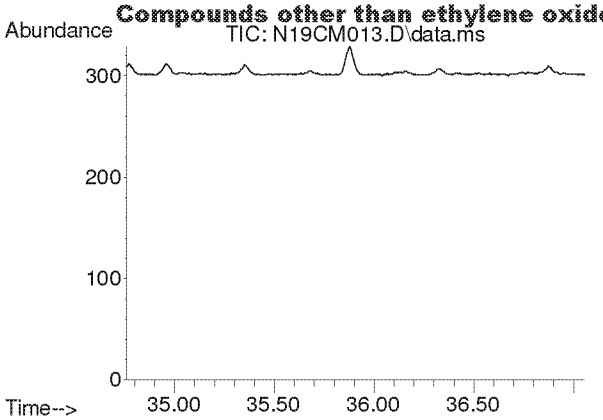
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

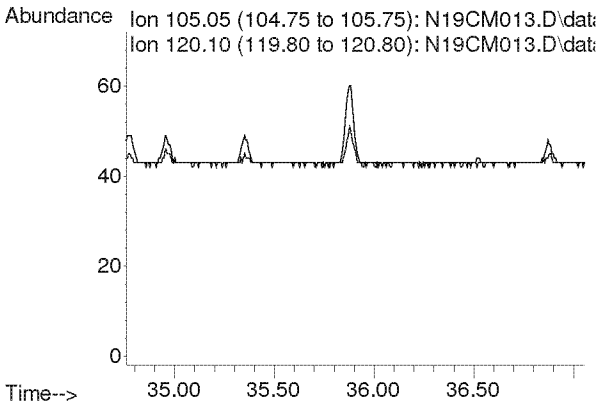


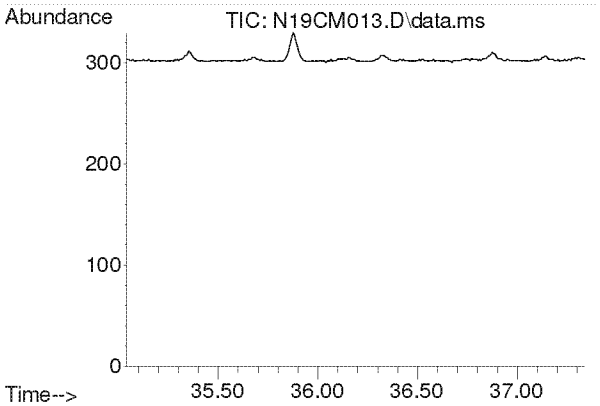
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



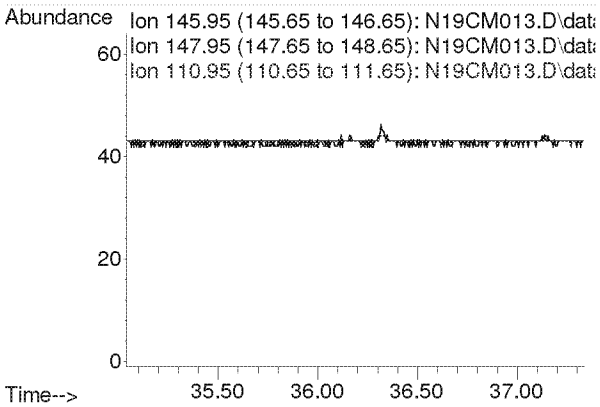


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

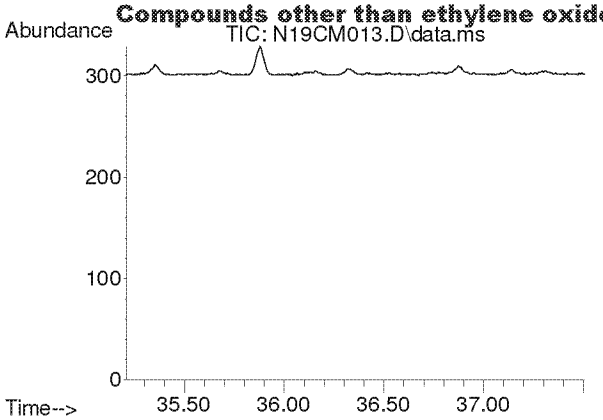
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

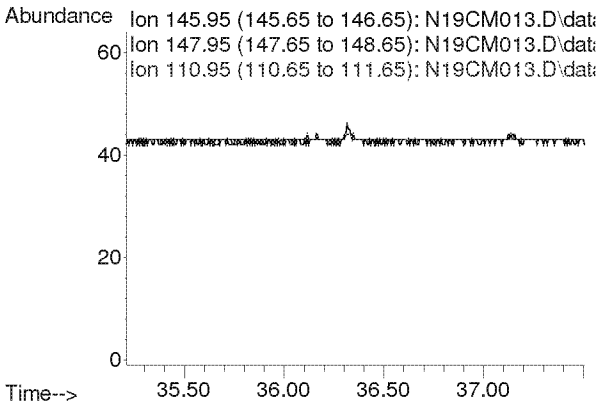


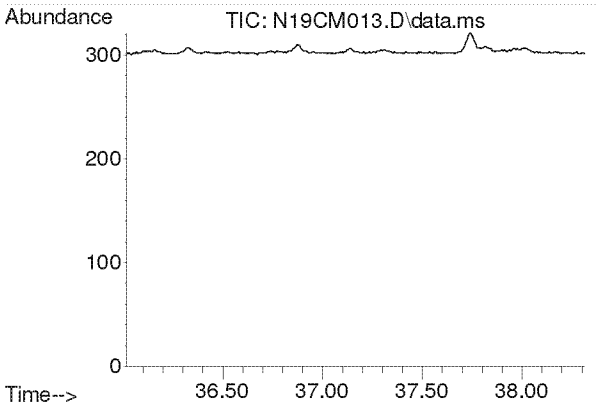
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



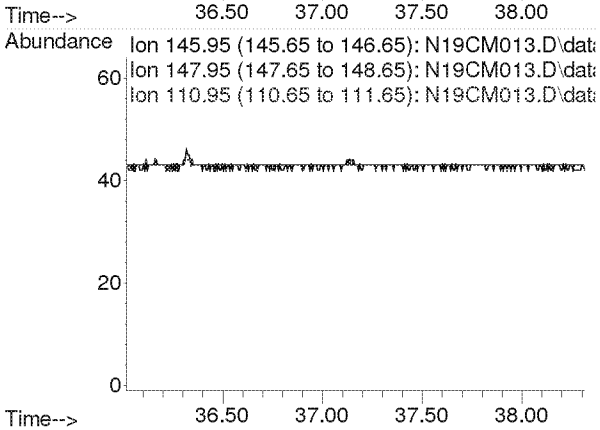


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

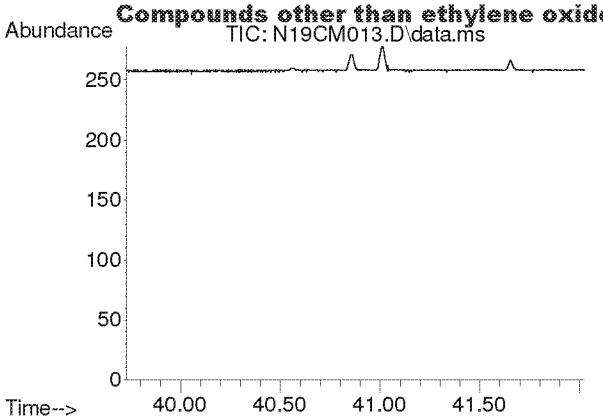
Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

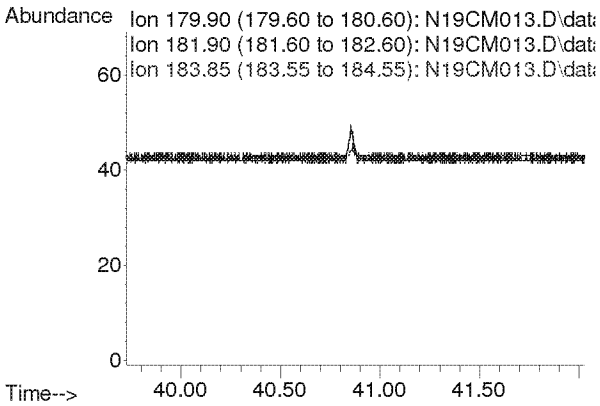


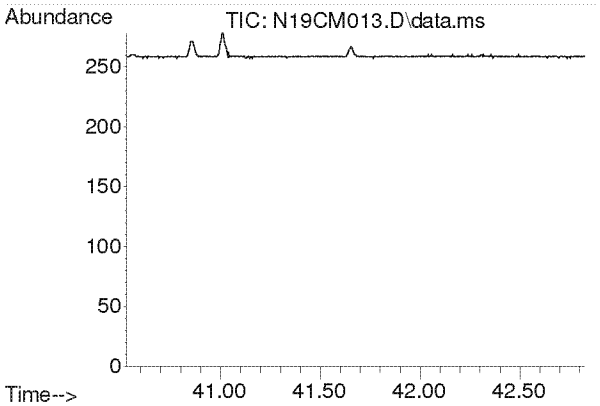
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



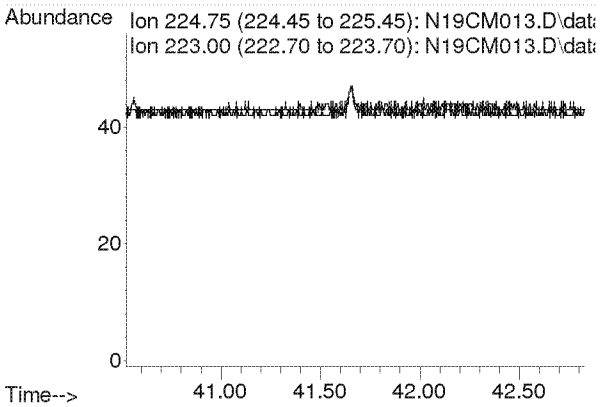


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM013.D
Acq: 13 Mar 2019 11:29 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

KSS 3/18/19

Data Path : C:\msdchem\1\DATA\N19CM\
Data File : N19CM014.D
Acq On : 14 Mar 2019 12:31 am (#1); 14-Mar-19, 00:25:44 (#2)
Operator : KSS
Sample : 9031220-09
Misc : GOWER M.S. 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 14 08:36:00 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.033	66	30628	4.7700 ppbv	-0.01
29) IS-1,4-Difluorobenzene	23.198	114	63259	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.139	117	52900	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. ✓	
9) Ethylene Oxide	12.522	29	126	0.0944 ppbv #	1
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D.	
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\N19CM\
Data File : N19CM014.D
Acq On : 14 Mar 2019 12:31 am (#1); 14-Mar-19, 00:25:44 (#2)
Operator : KSS
Sample : 9031220-09
Misc : GOWER M.S. 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 14 08:36:00 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration

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

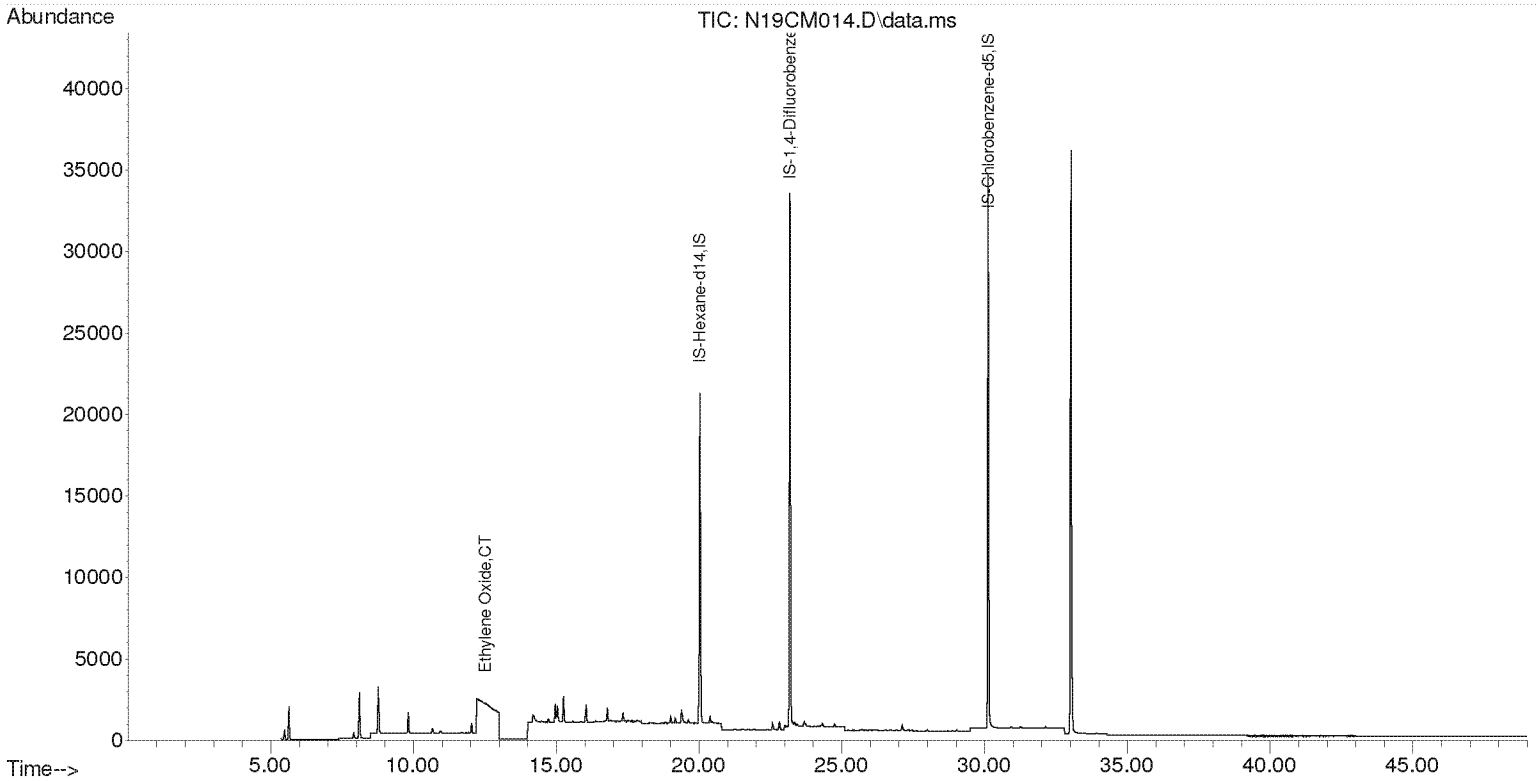
(#) = qualifier out of range (m) = manual integration (+) = signals summed

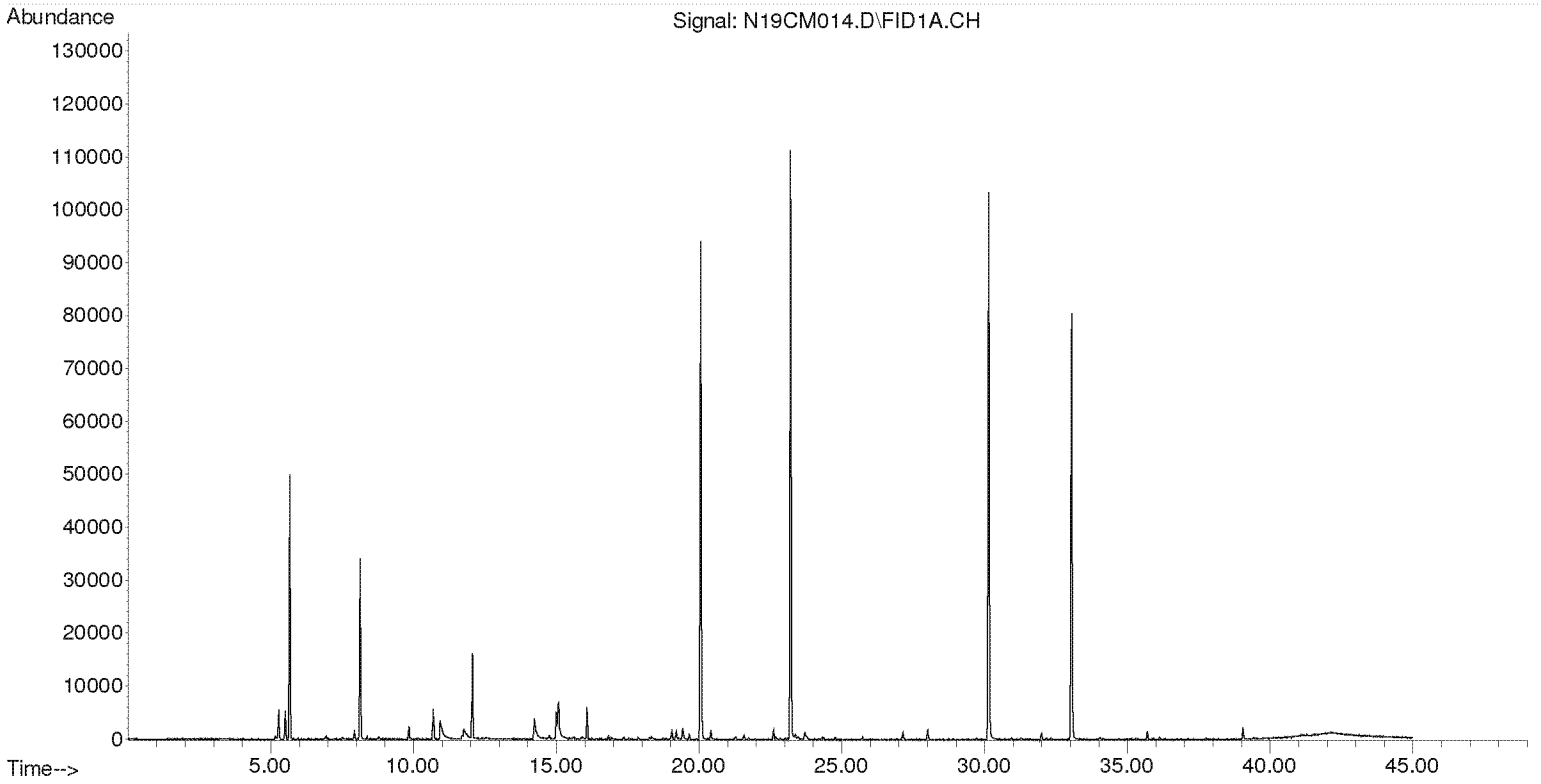
ED_002475_00000348-00426

Compounds other than ethylene oxide were not quantitated.

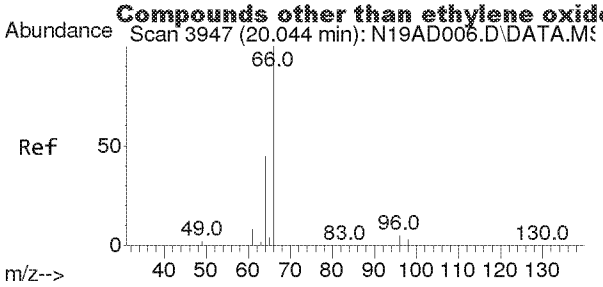
Data Path : Y:\MASS SPEC 4 DATA\N19CM\
Data File : N19CM014.D
Acq On : 14 Mar 2019 12:31 am (#1); 14 Mar 2019 0:25 am (#2)
Operator : KSS
Sample : 9031220-09
Misc : GOWER M.S. 3/10/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 14 08:19:28 2019
Quant Method : C:\msdchem\1\METHODS\9010001.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Sat Jan 05 11:26:00 2019
Response via : Initial Calibration





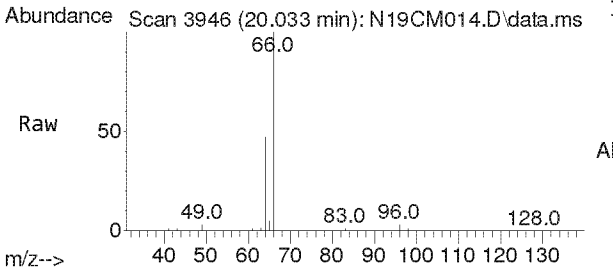
Compounds other than ethylene oxide were not quantitated.

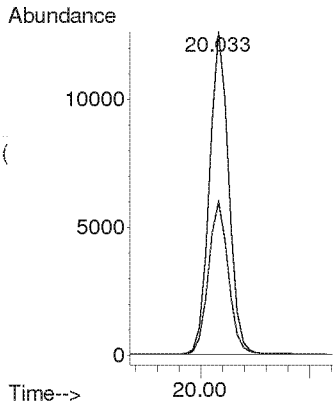


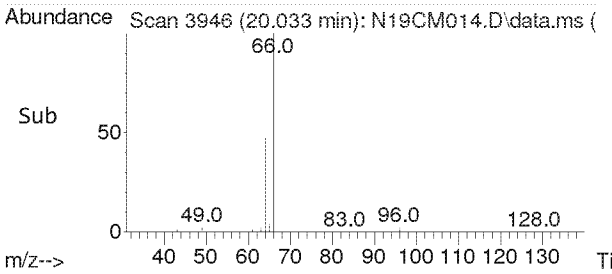
#1
IS-Hexane-d14
Concen: 4.7700 ppbv
RT: 20.033 min Scan# 3946
Delta R.T. -0.011 min
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

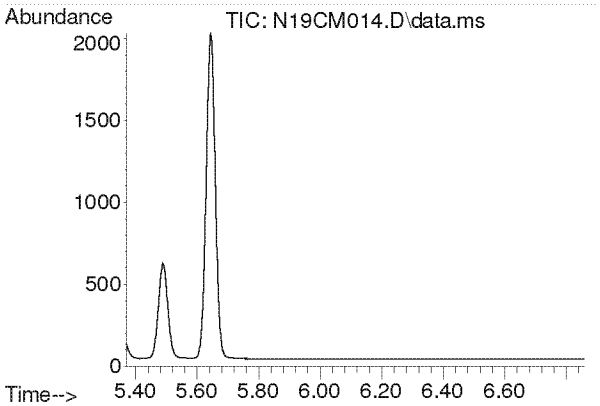
Tgt Ion: 66 Resp: 30628

Ion	Ratio	Lower	Upper
66	100		
64	48.8	32.1	59.5





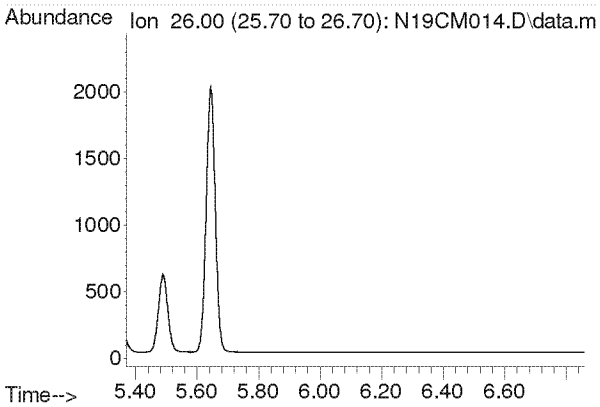




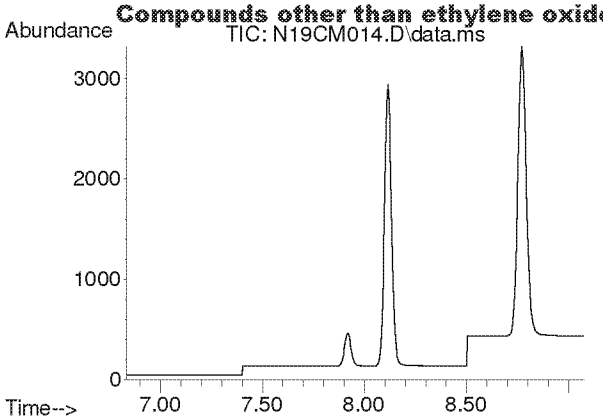
#2
Acetylene
Concen: N.D.
Expected RT: 5.56 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 26



Compounds other than ethylene oxide were not quantitated.

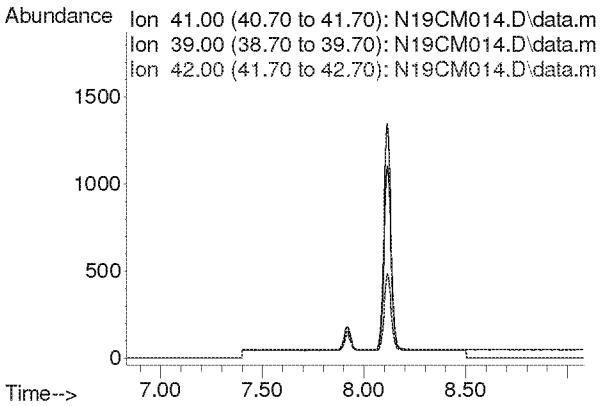


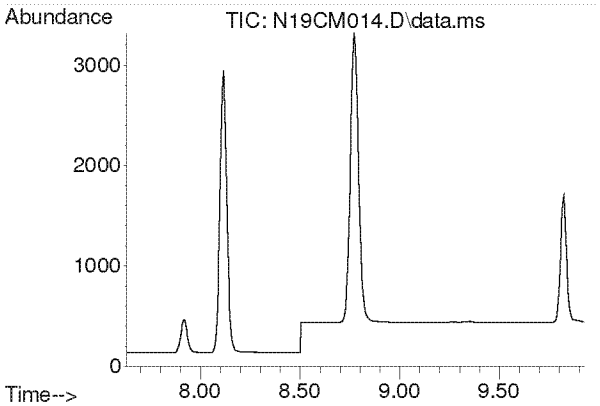
#3
Propylene
Concen: N.D.
Expected RT: 7.93 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	71.8
42	65.4



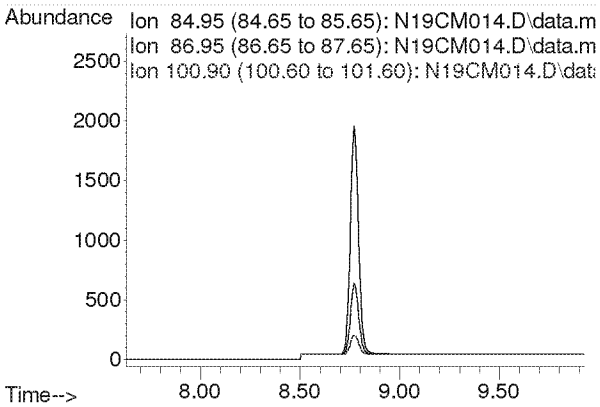


#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.78 min

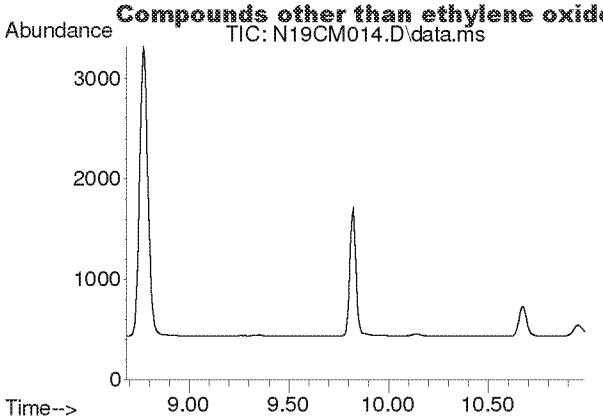
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	30.4
101	8.1



Compounds other than ethylene oxide were not quantitated.

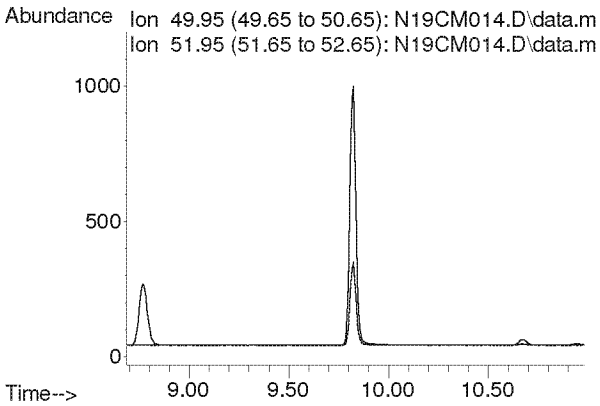


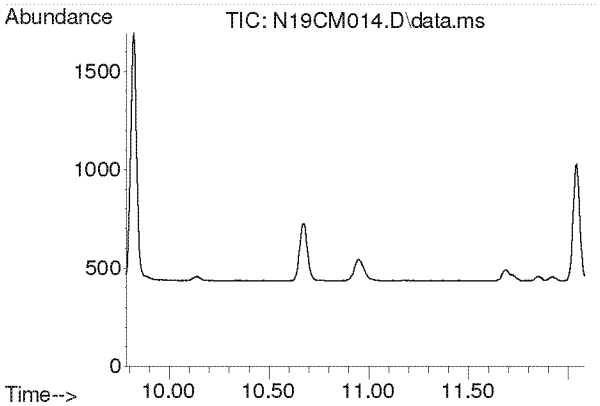
#5
Chloromethane
Concen: N.D.
Expected RT: 9.83 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	30.7



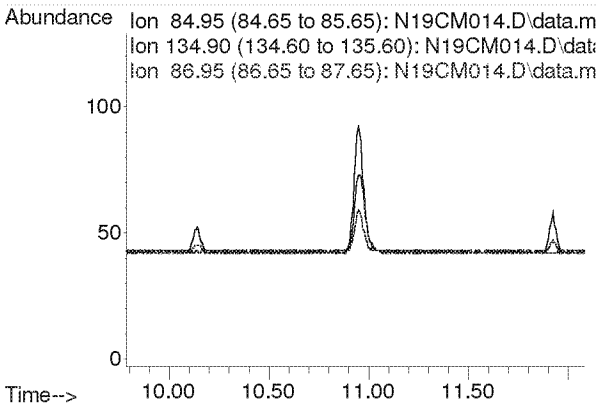


#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.93 min

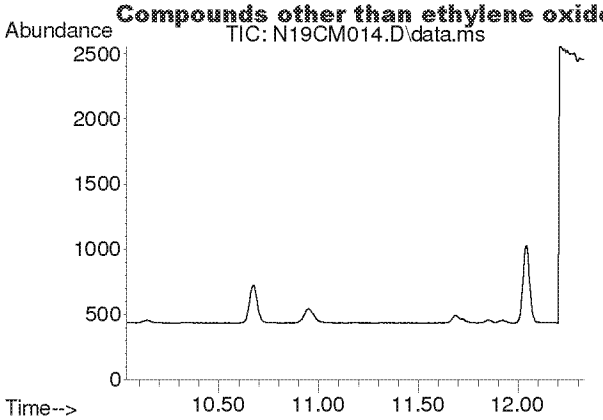
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	67.7
87	30.7



Compounds other than ethylene oxide were not quantitated.

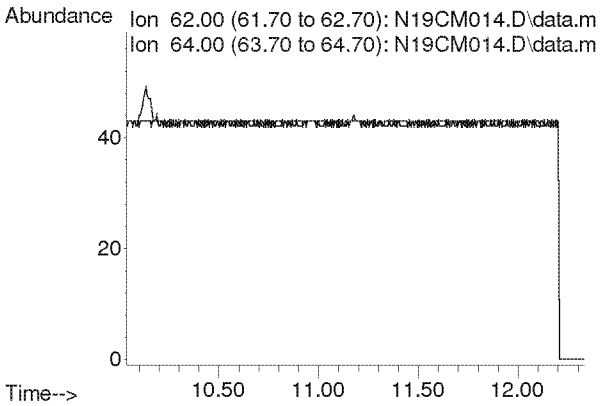


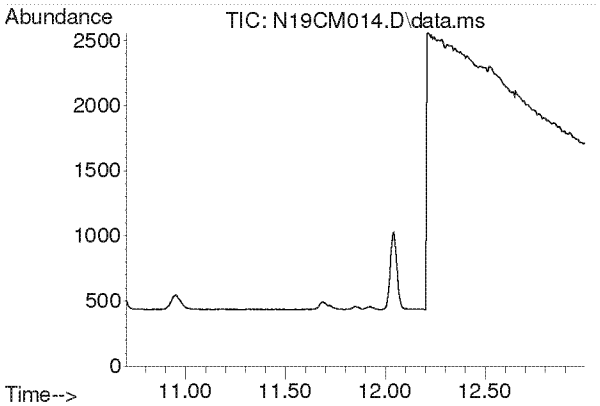
#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.19 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	30.0



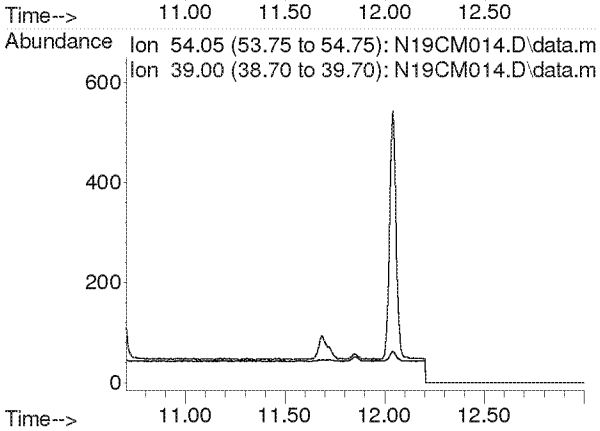


#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.85 min

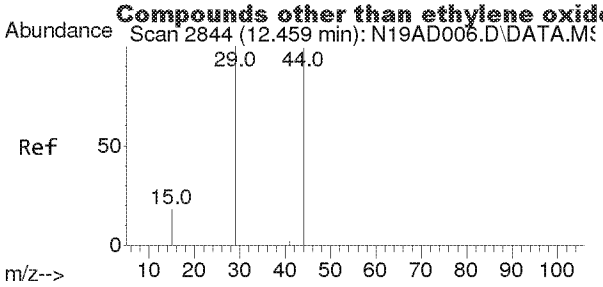
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.0



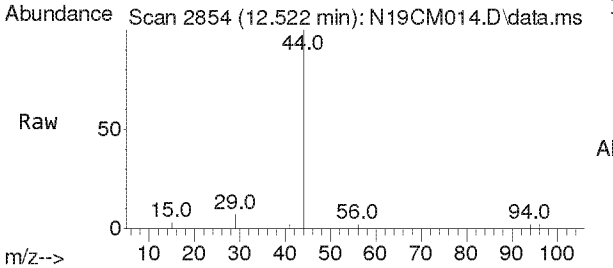
Compounds other than ethylene oxide were not quantitated.

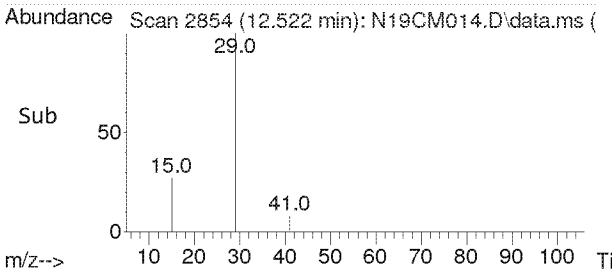


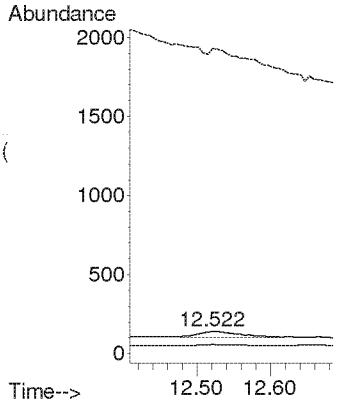
#9
Ethylene Oxide
Concen: 0.094 ppbv
RT: 12.522 min Scan# 2854
Delta R.T. 0.063 min
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

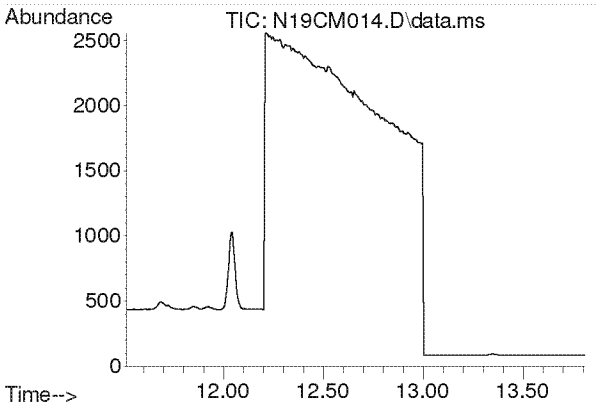
Tgt Ion: 29 Resp: 126

Ion	Ratio	Lower	Upper
29	100		
15	0.0	14.0	21.0#
44	738.1	79.2	118.8#







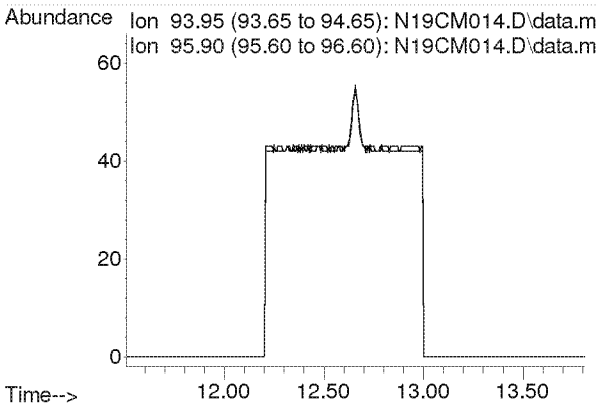


#10
Bromomethane
Concen: N.D.
Expected RT: 12.66 min

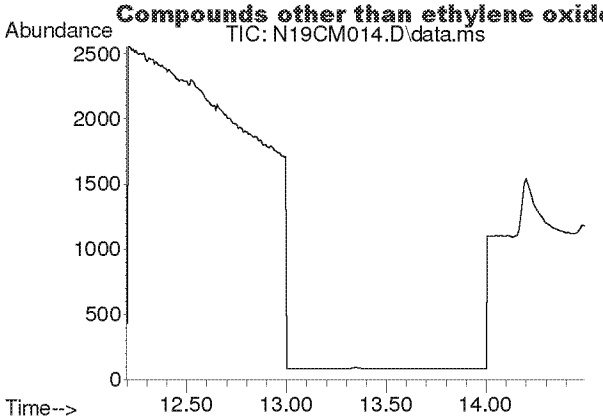
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	92.9



Compounds other than ethylene oxide were not quantitated.

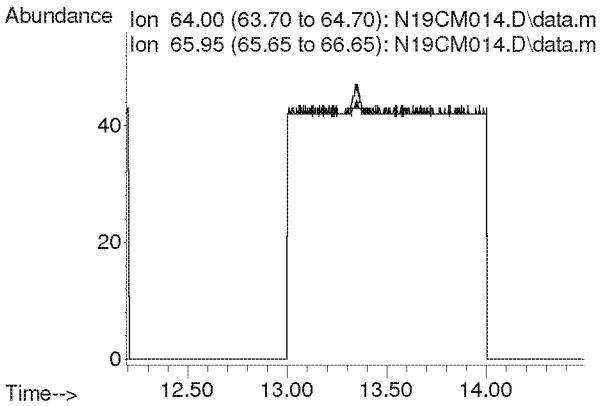


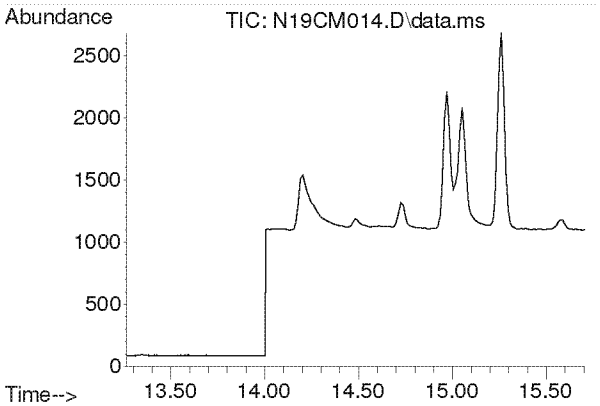
#11
Chloroethane
Concen: N.D.
Expected RT: 13.34 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	31.3



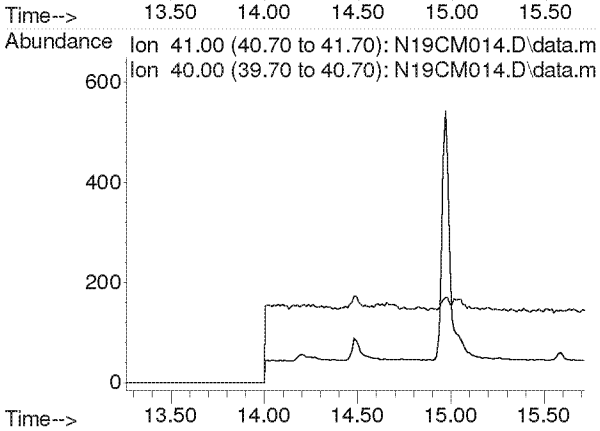


#12
Acetonitrile
Concen: N.D.
Expected RT: 14.41 min

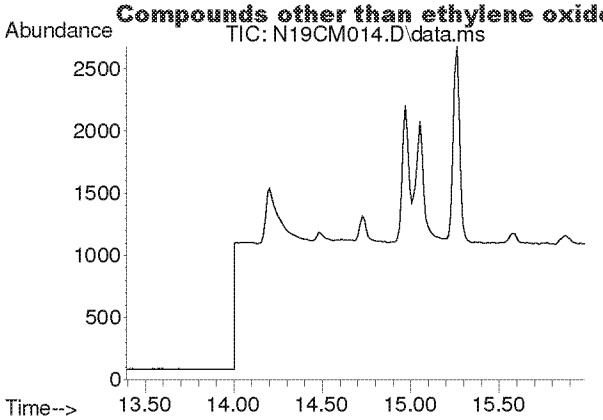
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	51.5



Compounds other than ethylene oxide were not quantitated.

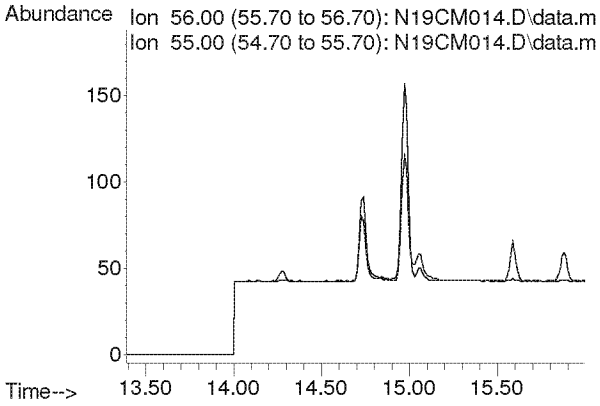


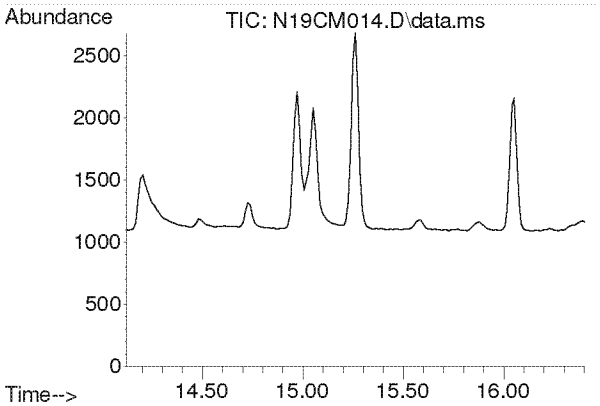
#13
Acrolein
Concen: N.D.
Expected RT: 14.69 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	72.9



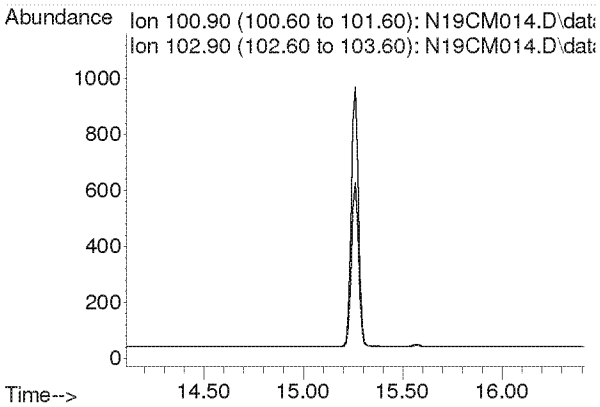


#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.26 min

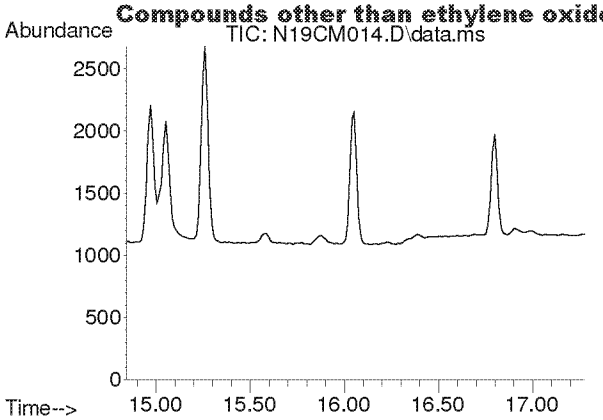
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	61.6



Compounds other than ethylene oxide were not quantitated.

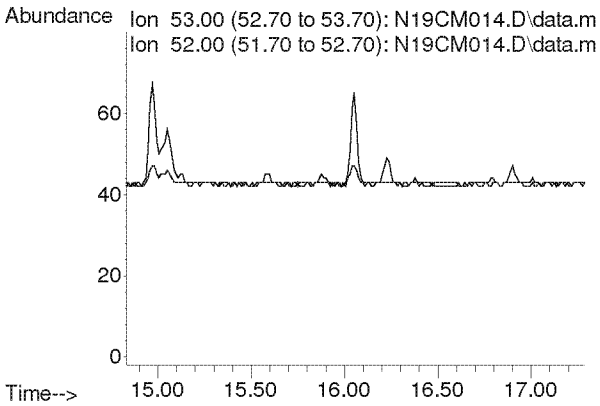


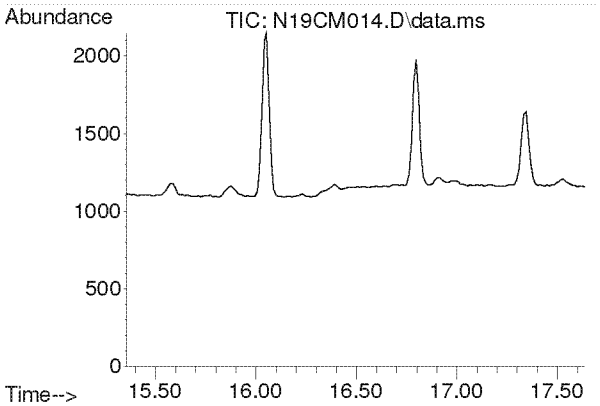
#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.98 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	83.8



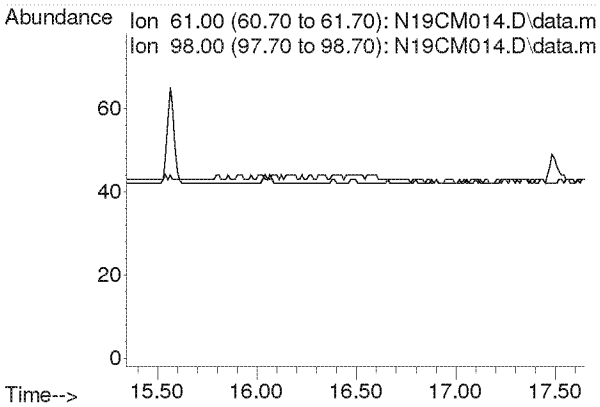


#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.50 min

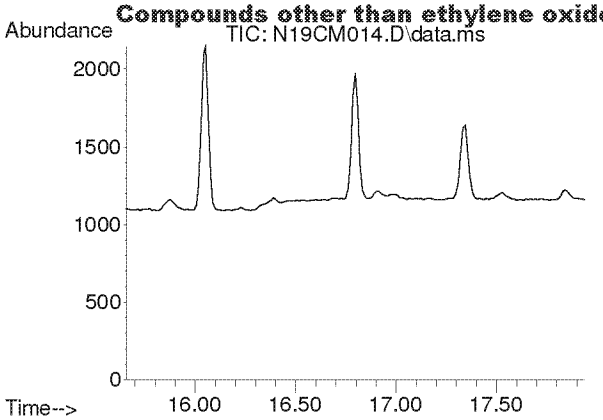
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
98	33.7



Compounds other than ethylene oxide were not quantitated.

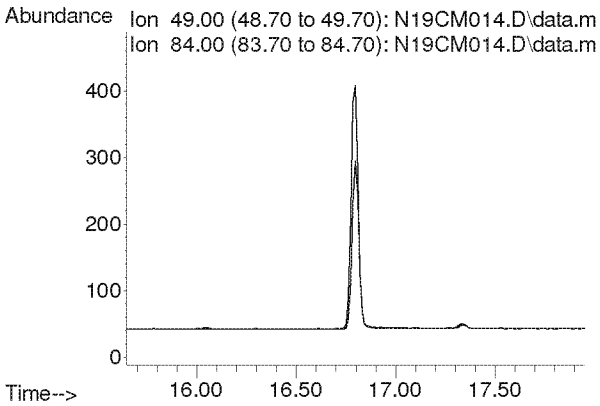


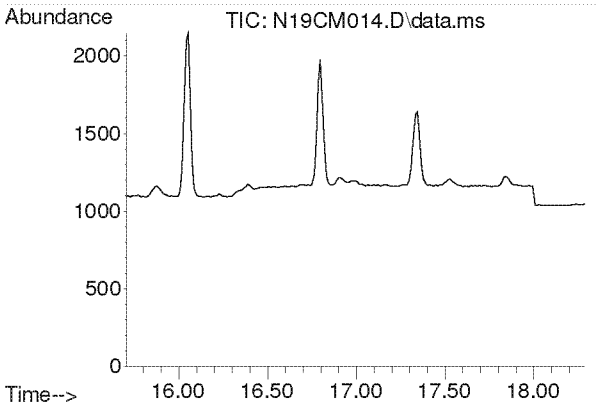
#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.80 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	69.1



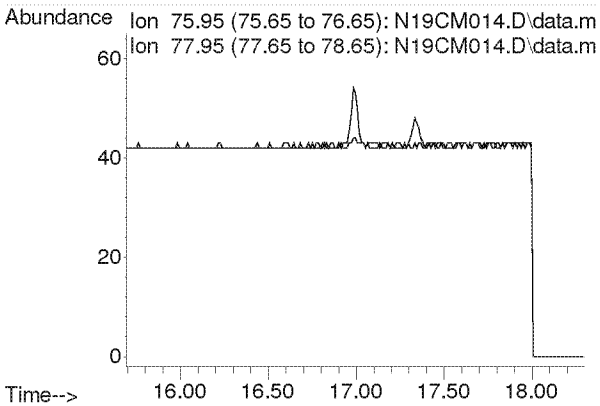


#18
Carbon Disulfide
Concen: N.D.
Expected RT: 17.00 min

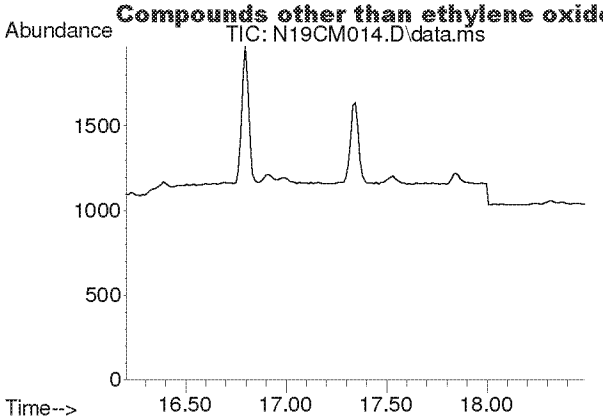
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	8.2



Compounds other than ethylene oxide were not quantitated.

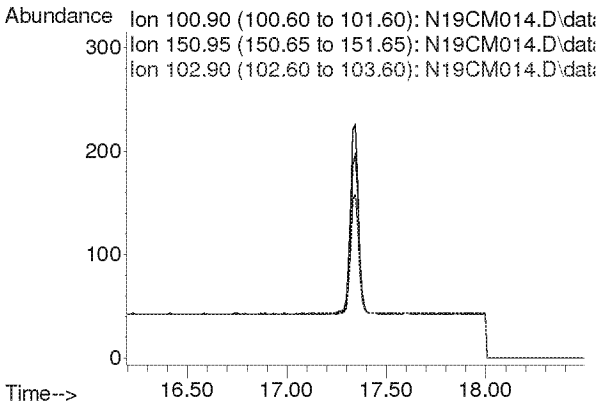


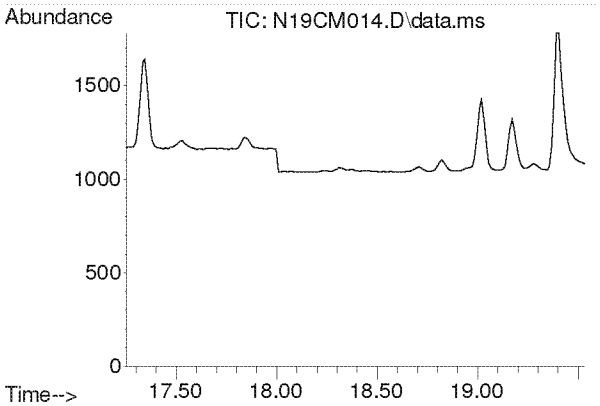
#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.35 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	81.5
103	63.0



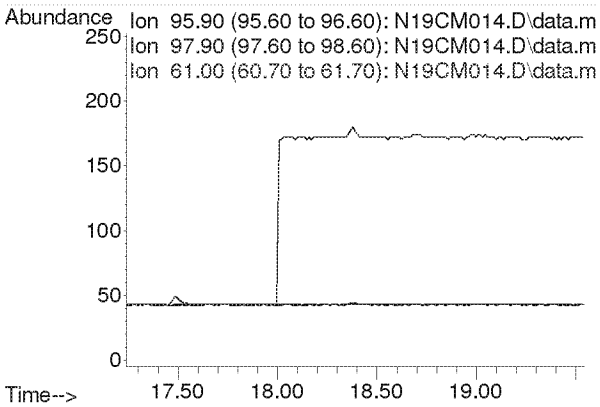


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.39 min

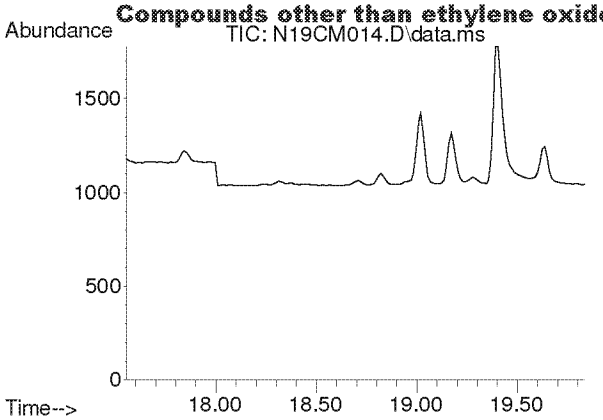
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	61.1
61	682.7



Compounds other than ethylene oxide were not quantitated.

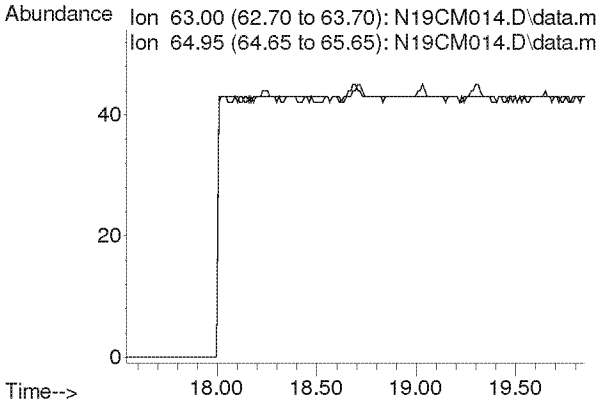


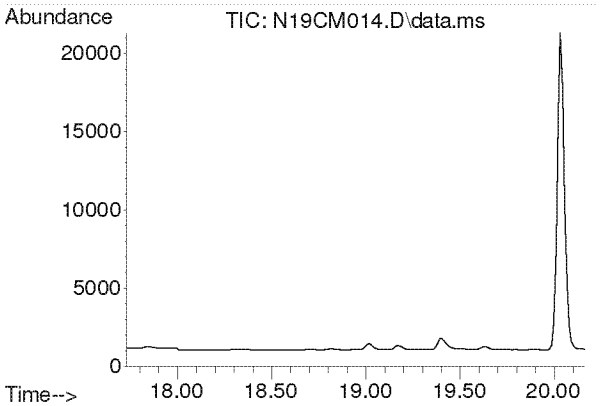
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.69 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	30.1



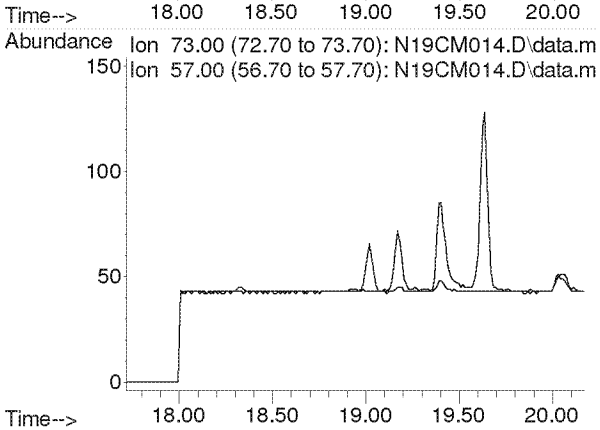


#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.87 min

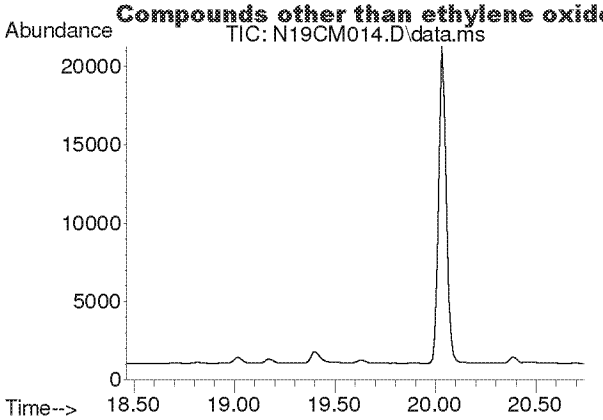
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



Compounds other than ethylene oxide were not quantitated.

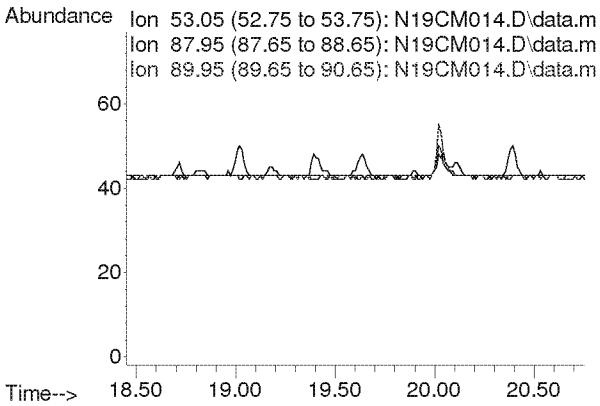


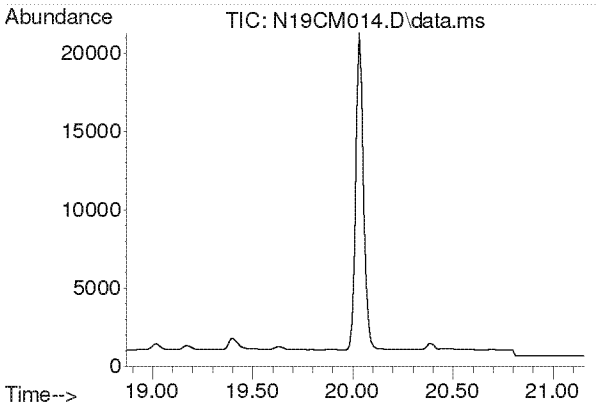
#23
Chloroprene
Concen: N.D.
Expected RT: 19.60 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.2
90	15.7



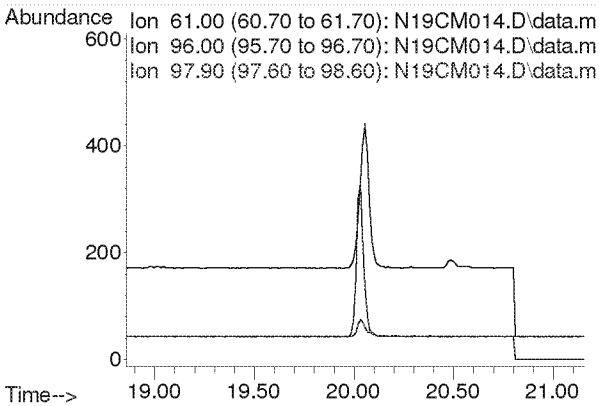


#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 20.01 min

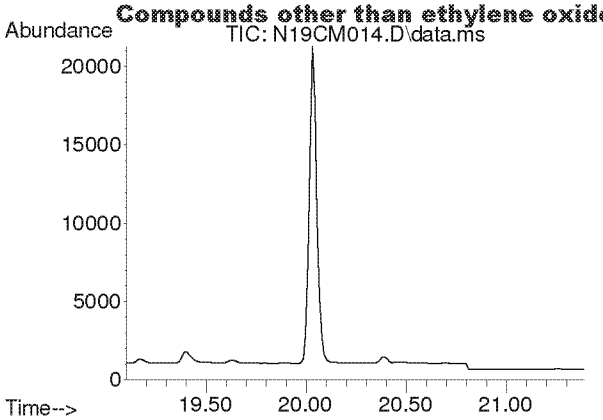
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	16.6
98	10.1



Compounds other than ethylene oxide were not quantitated.

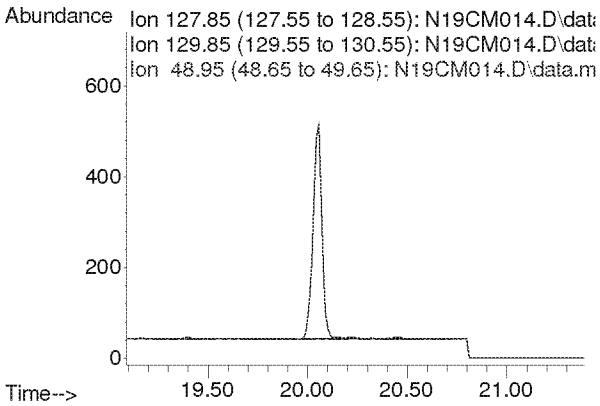


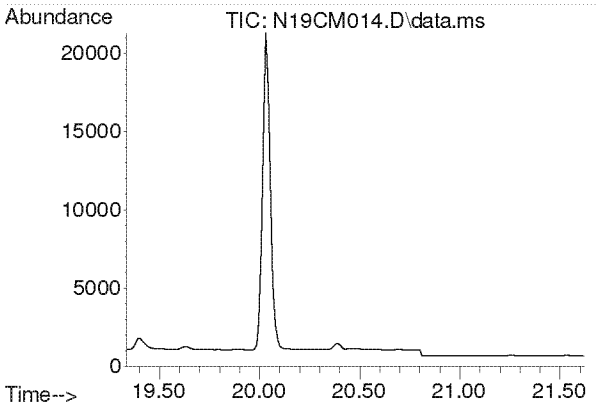
#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.24 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	127.8
49	222.1



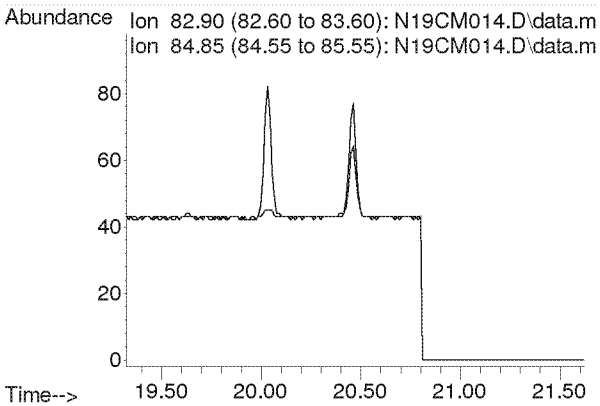


#26
Chloroform
Concen: N.D.
Expected RT: 20.47 min

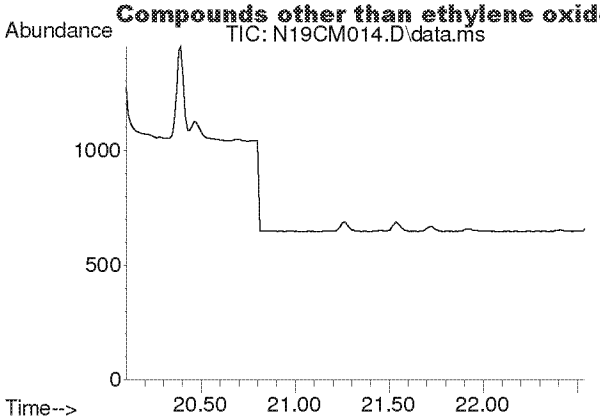
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.3



Compounds other than ethylene oxide were not quantitated.

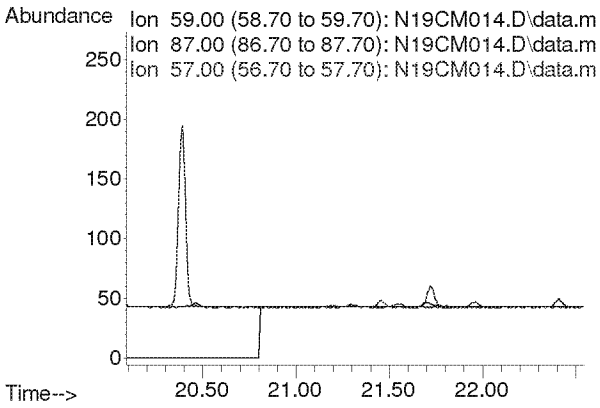


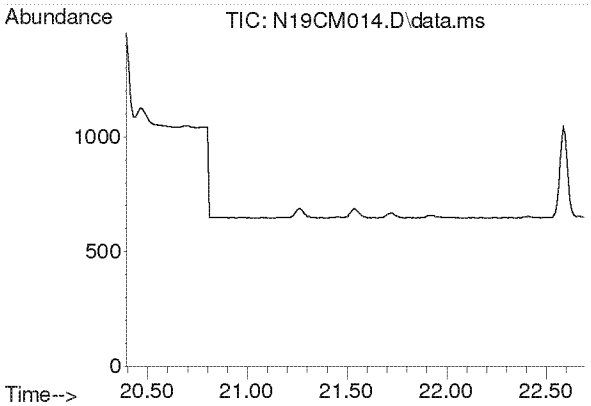
#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.25 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	35.9
57	34.4



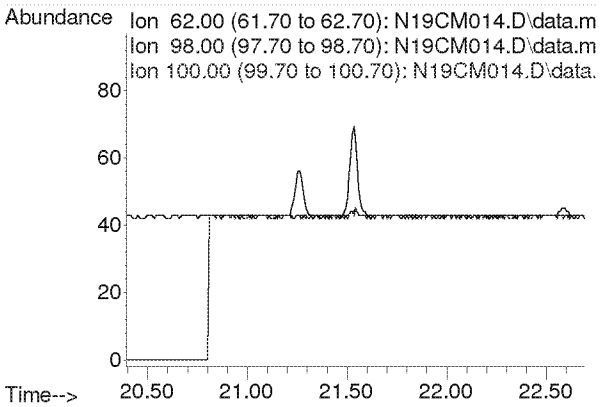


#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.54 min

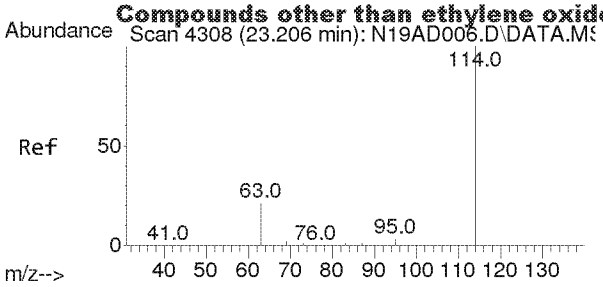
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	7.5
100	4.7



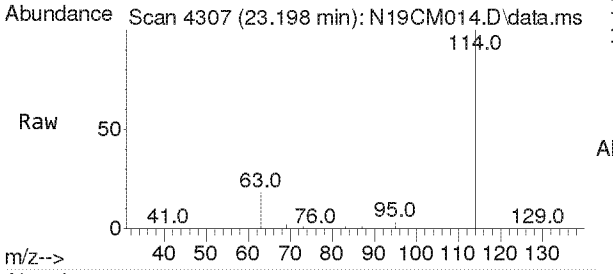
Compounds other than ethylene oxide were not quantitated.

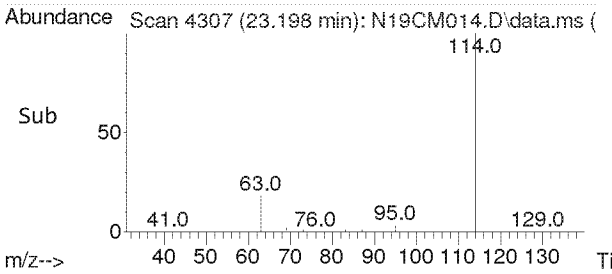


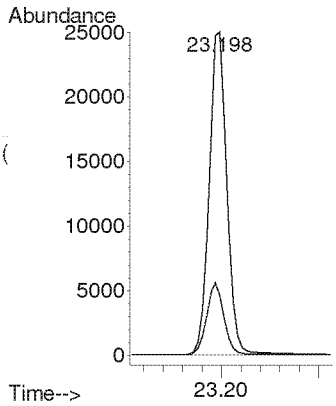
#29
IS-1,4-Difluorobenzene
Concen: 4.9900 ppbv
RT: 23.198 min Scan# 4307
Delta R.T. -0.009 min
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

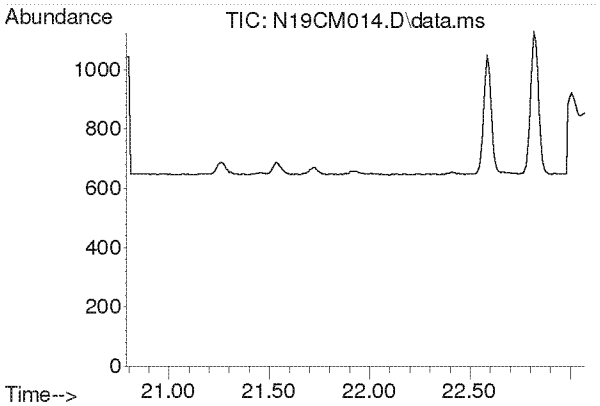
Tgt Ion:114 Resp: 63259

Ion	Ratio	Lower	Upper
114	100		
63	21.9	16.7	25.1







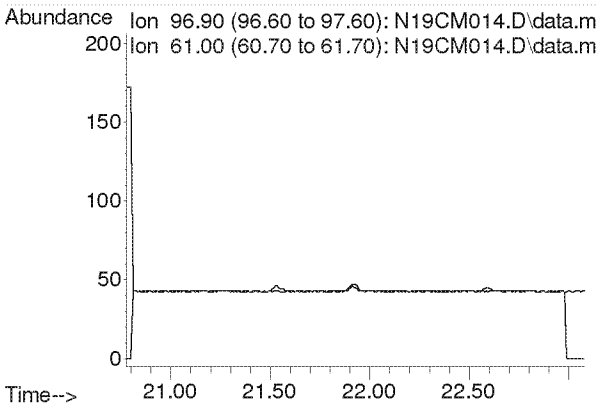


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.93 min

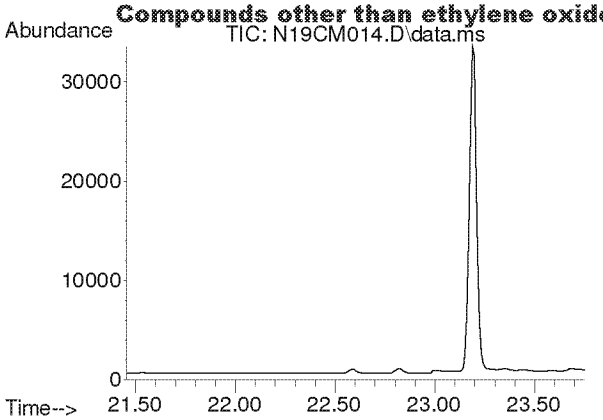
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	53.4



Compounds other than ethylene oxide were not quantitated.

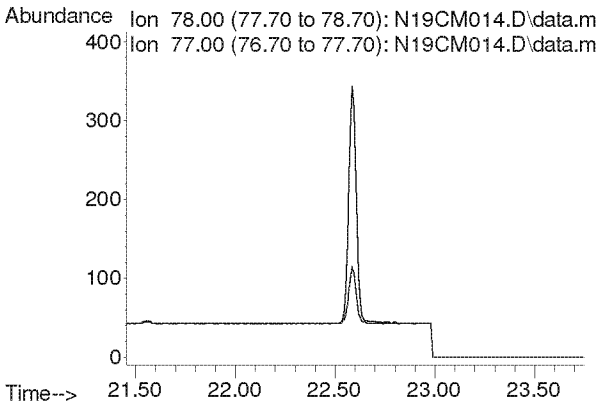


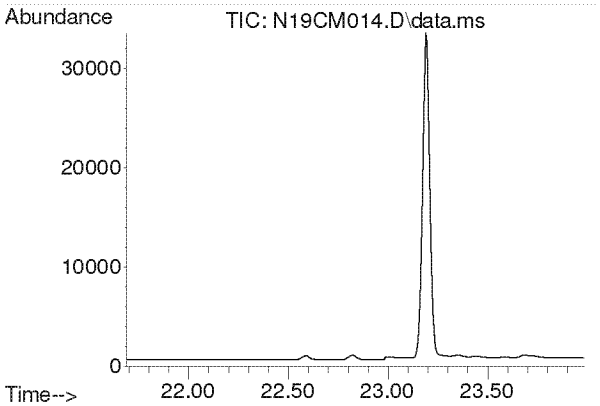
#31
Benzene
Concen: N.D.
Expected RT: 22.60 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



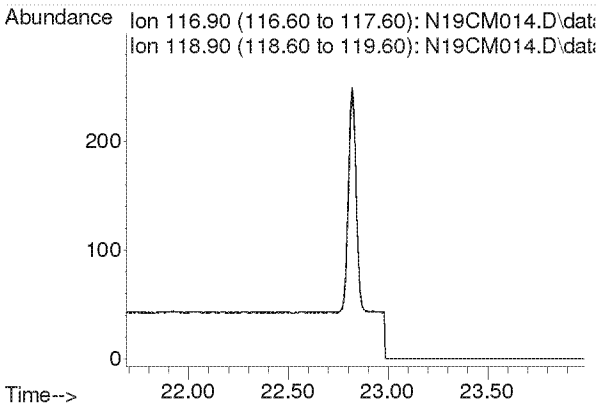


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.84 min

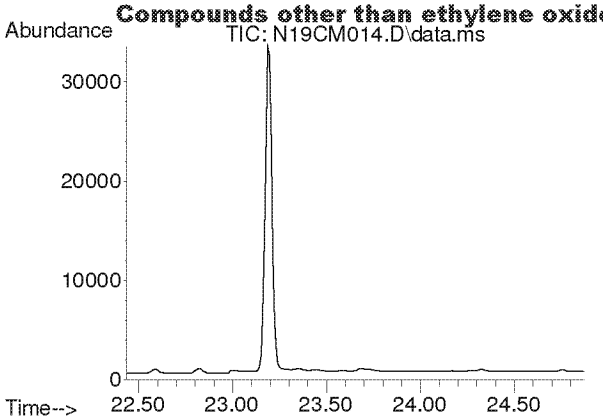
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	94.4



Compounds other than ethylene oxide were not quantitated.

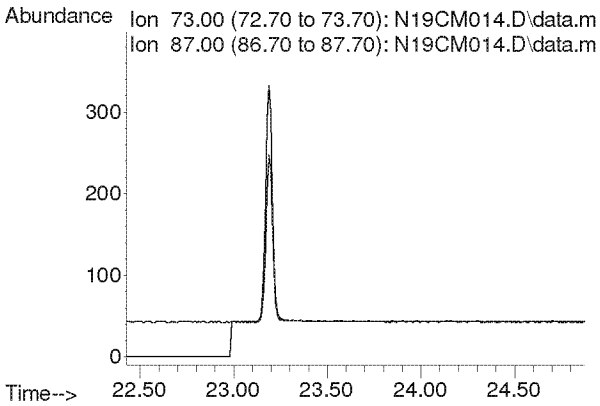


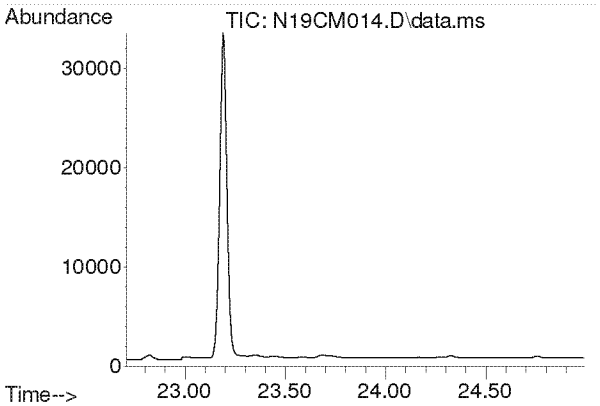
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.58 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	22.6



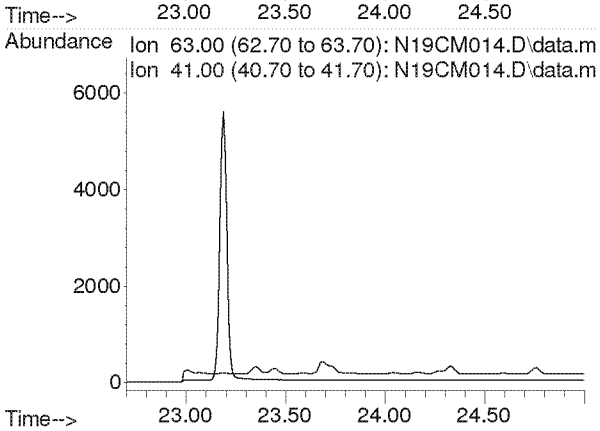


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.85 min

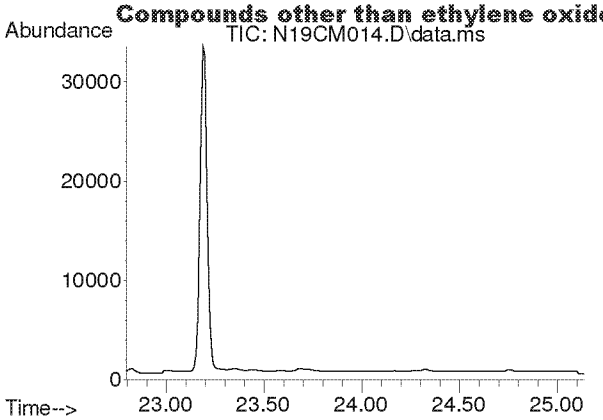
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	214.7



Compounds other than ethylene oxide were not quantitated.

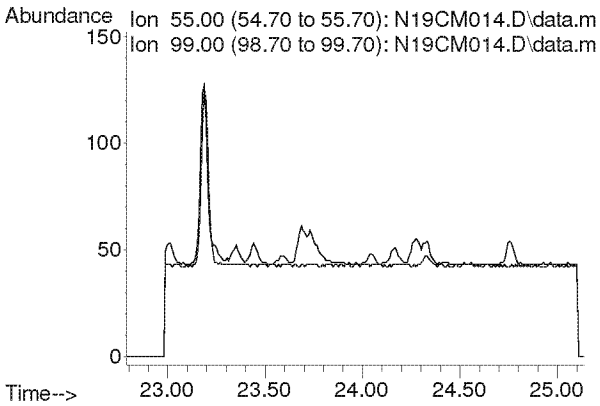


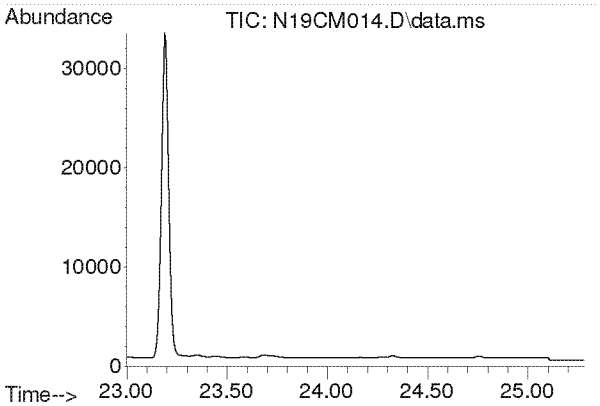
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.94 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	5.9



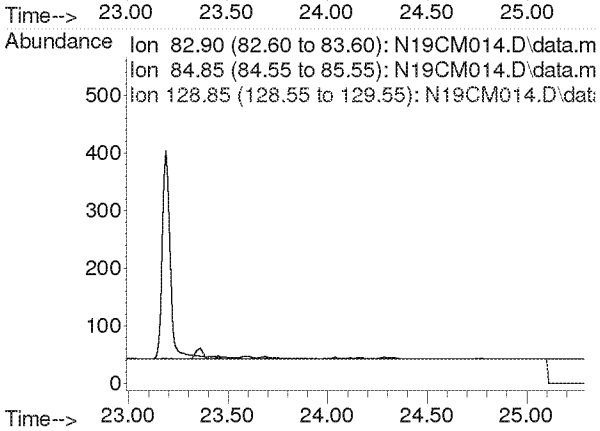


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.14 min

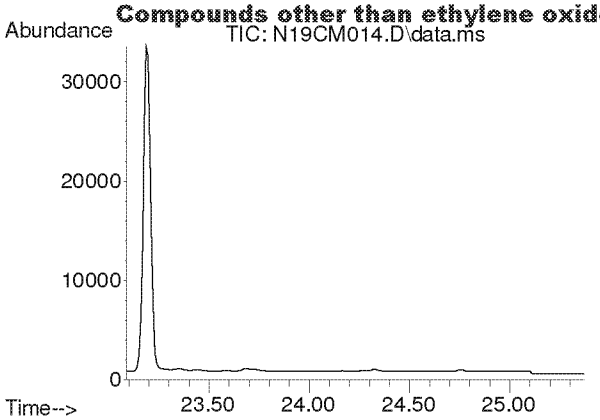
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	61.3
129	9.5



Compounds other than ethylene oxide were not quantitated.

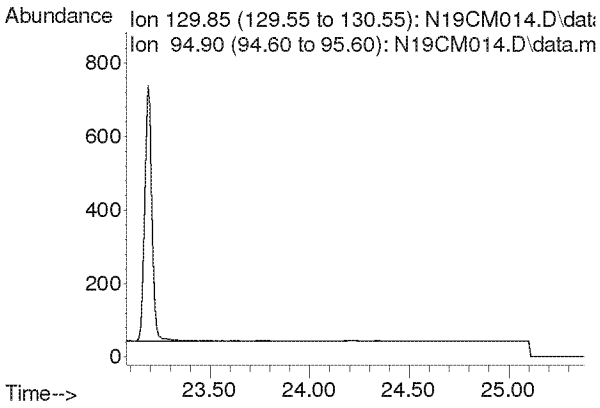


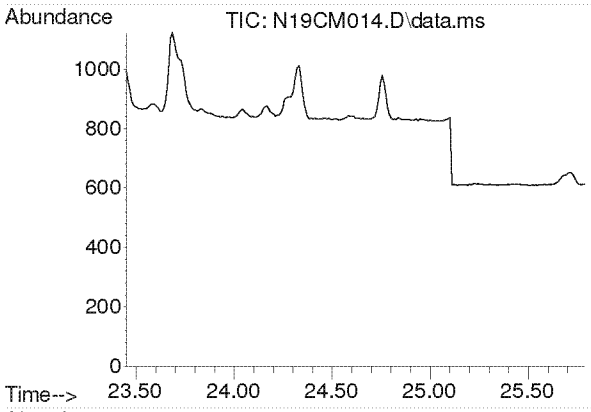
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.23 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	109.7



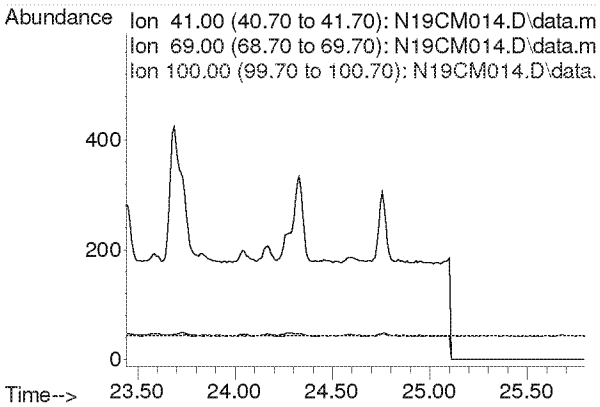


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.59 min

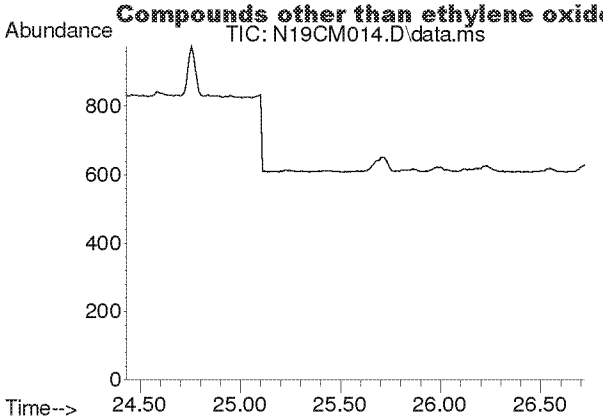
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	18.7
100	5.6



Compounds other than ethylene oxide were not quantitated.

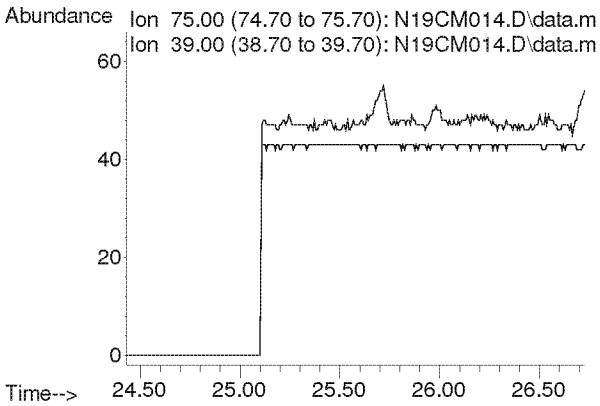


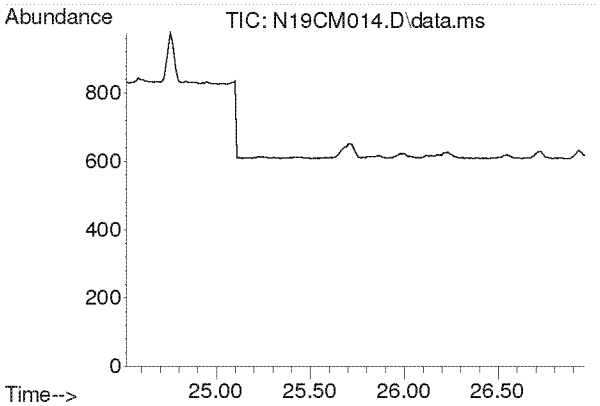
#39
cis-1,3-dichloropropene
Concen: N.D.
Expected RT: 25.58 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	49.0



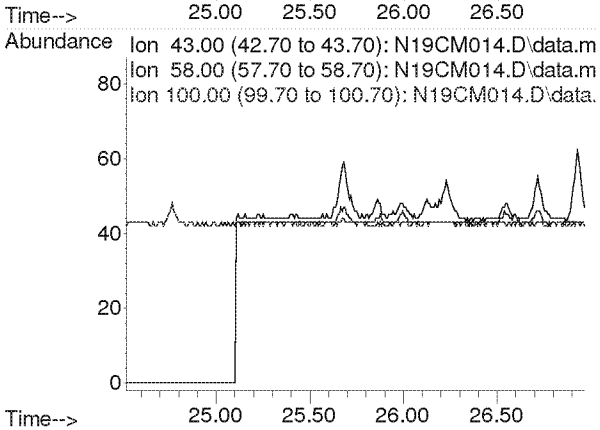


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.67 min

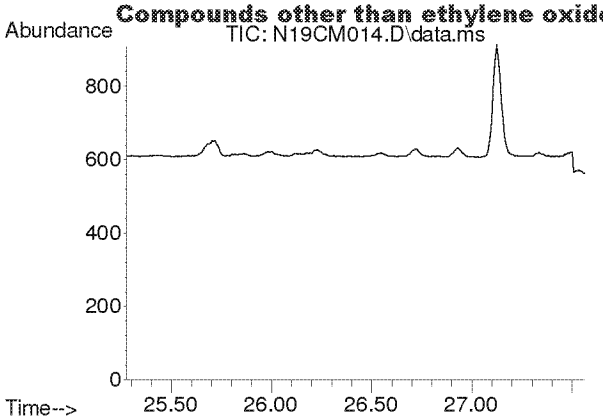
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.6
100	9.8



Compounds other than ethylene oxide were not quantitated.

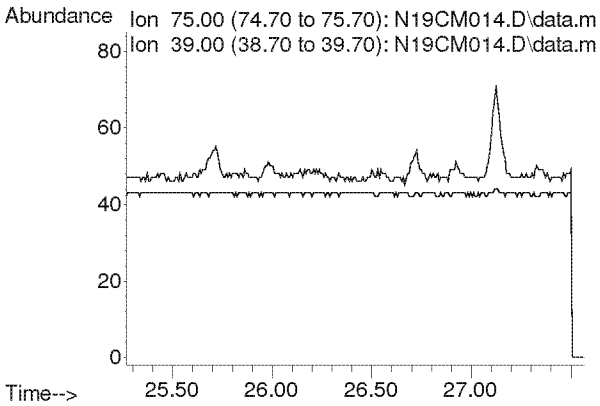


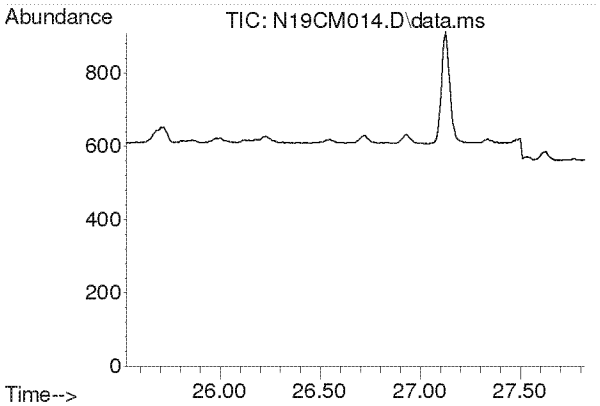
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.42 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.9



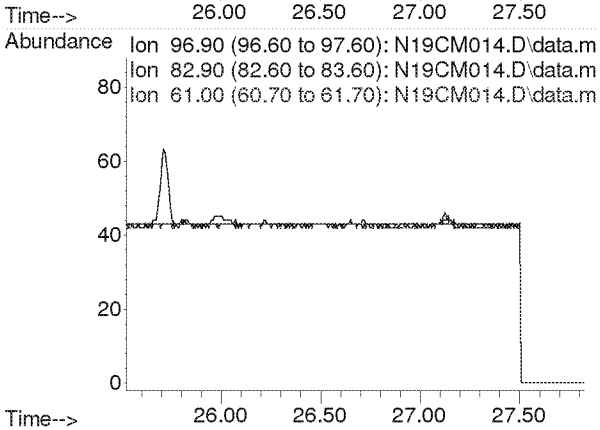


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.67 min

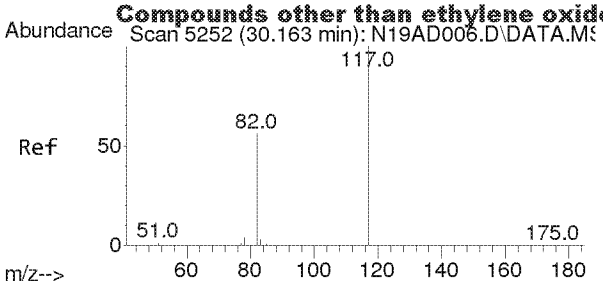
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	91.3
61	65.6



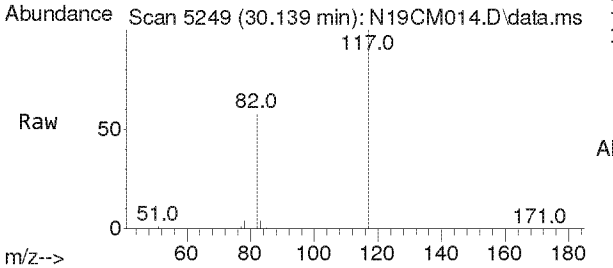
Compounds other than ethylene oxide were not quantitated.

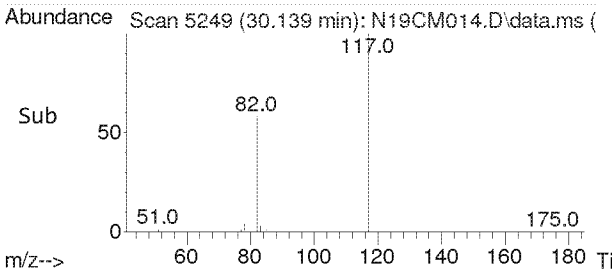


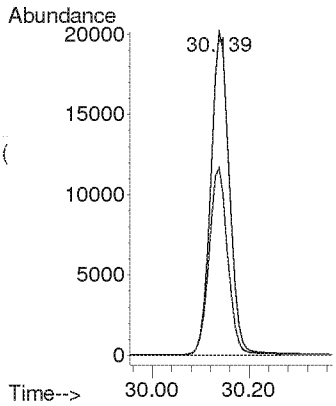
#43
IS-Chlorobenzene-d5
Concen: 4.7400 ppbv
RT: 30.139 min Scan# 5249
Delta R.T. -0.024 min
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

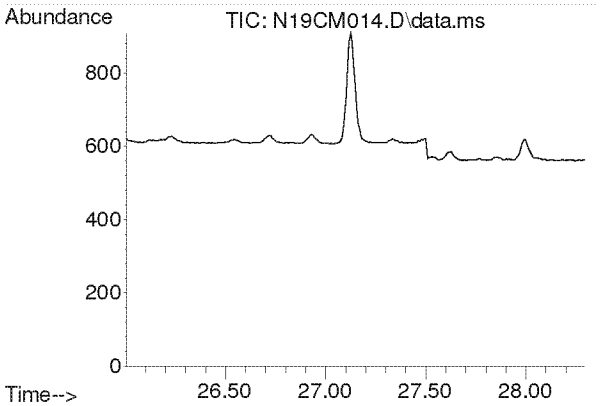
Tgt Ion:117 Resp: 52900

Ion	Ratio	Lower	Upper
117	100		
82	58.4	40.1	74.5
54	0.0	0.0	0.0







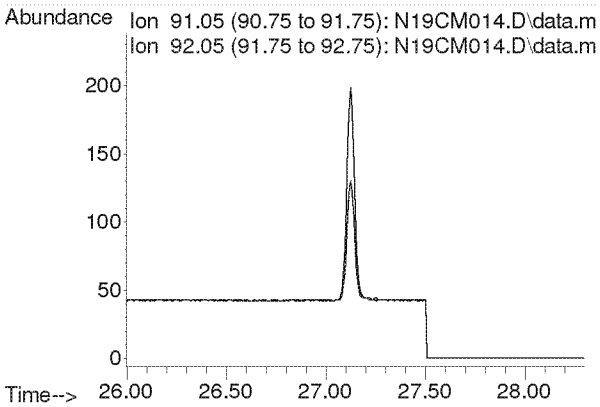


#44
Toluene
Concen: N.D.
Expected RT: 27.15 min

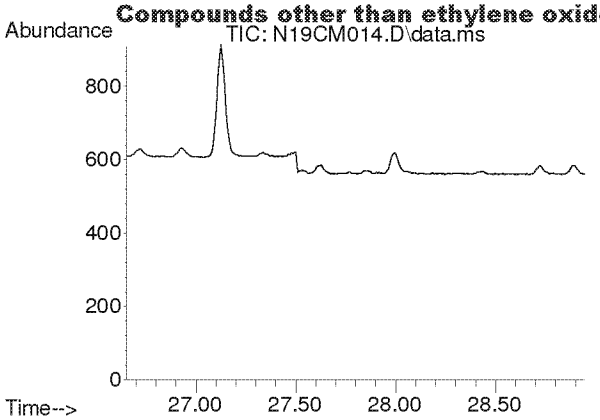
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	54.0



Compounds other than ethylene oxide were not quantitated.

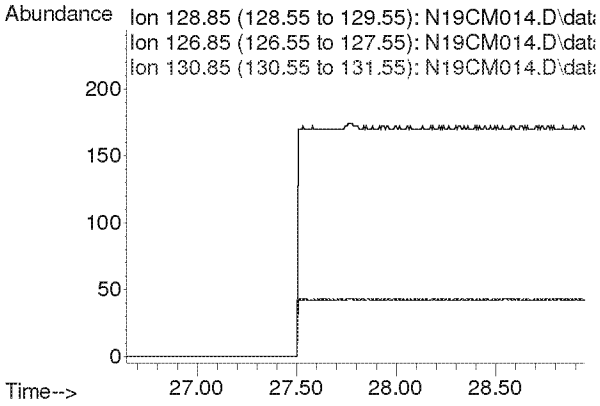


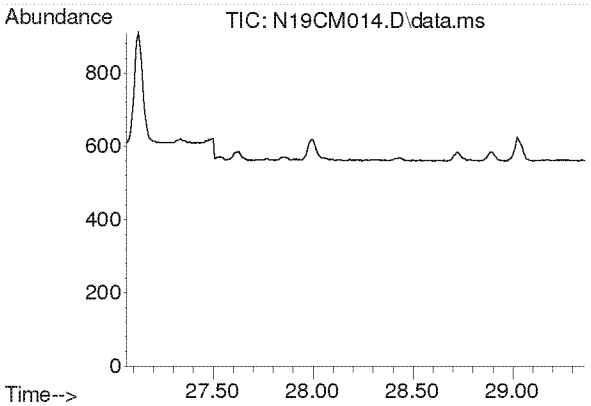
#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.80 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.5
131	5.7



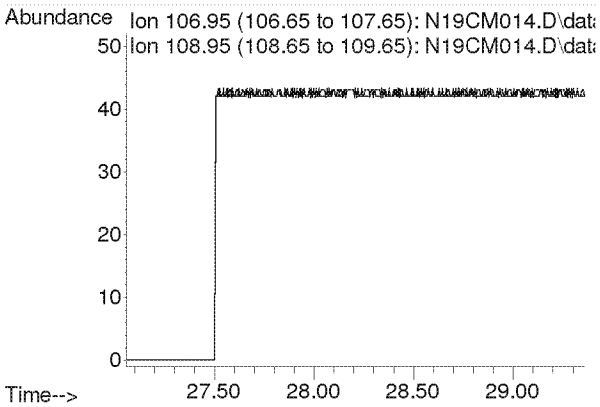


#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.21 min

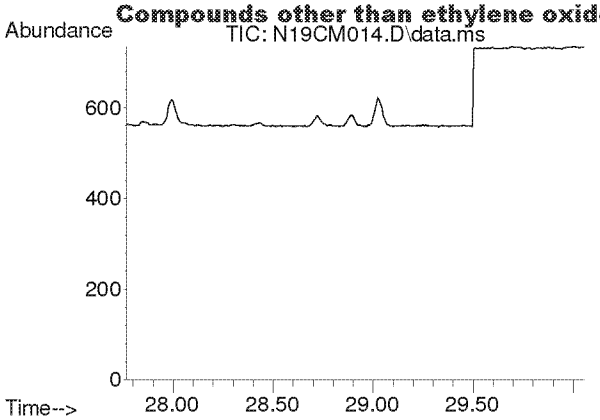
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	91.7



Compounds other than ethylene oxide were not quantitated.

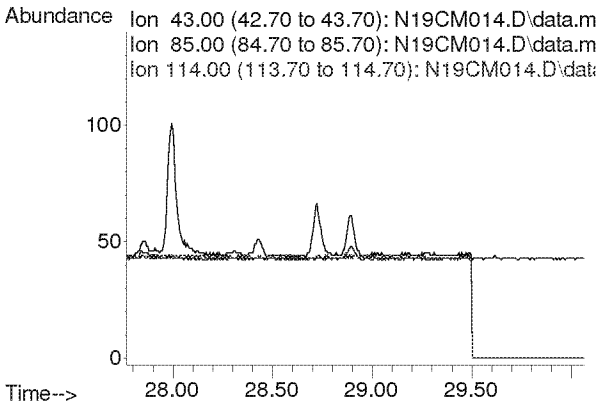


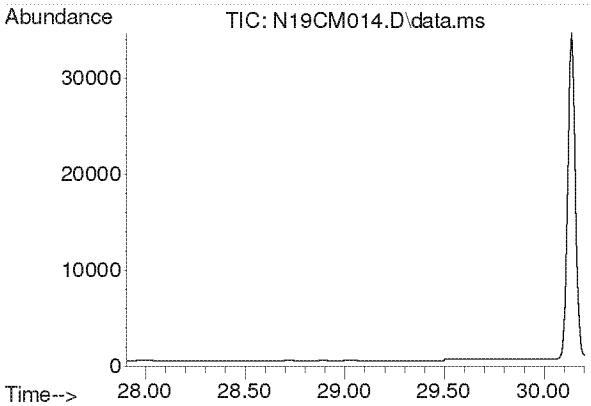
#47
n-Octane
Concen: N.D.
Expected RT: 28.92 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	35.5
114	3.4



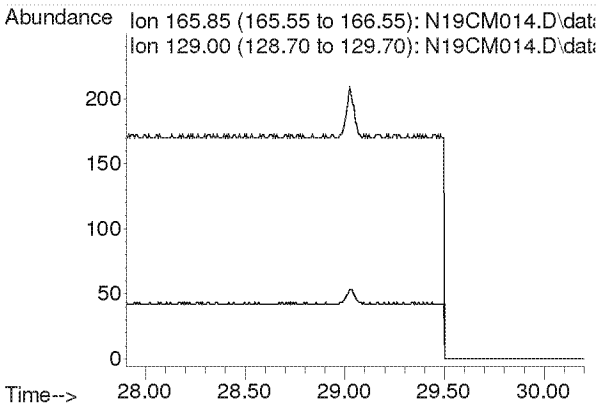


#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.05 min

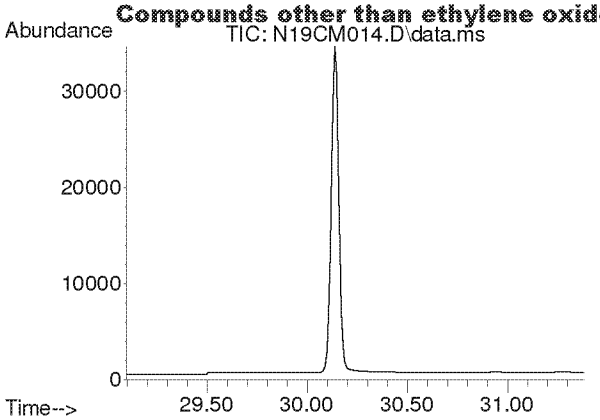
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
129	320.6



Compounds other than ethylene oxide were not quantitated.

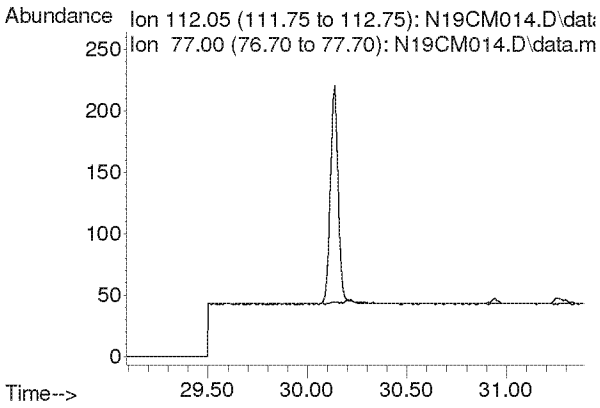


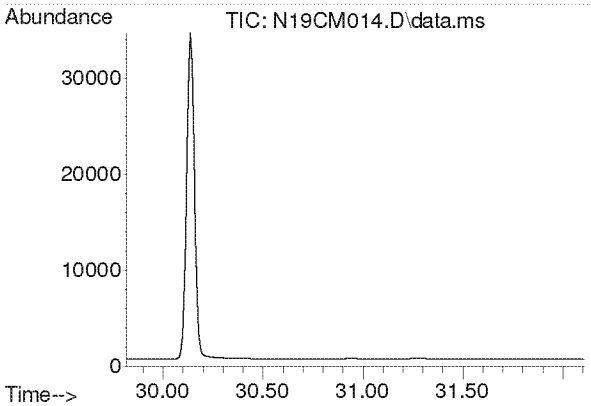
#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.24 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.7



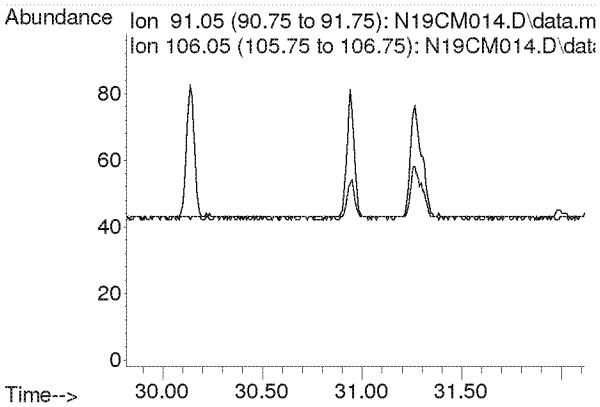


#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.97 min

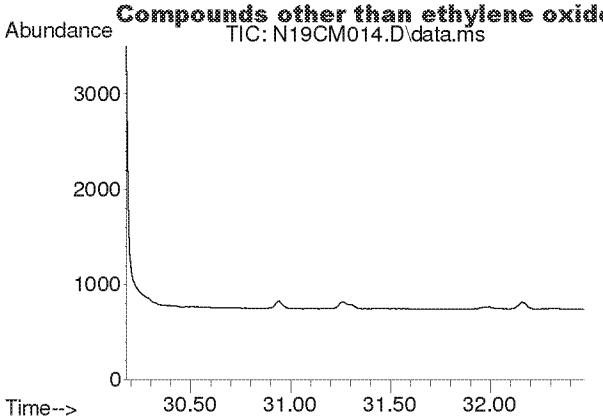
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	29.1



Compounds other than ethylene oxide were not quantitated.

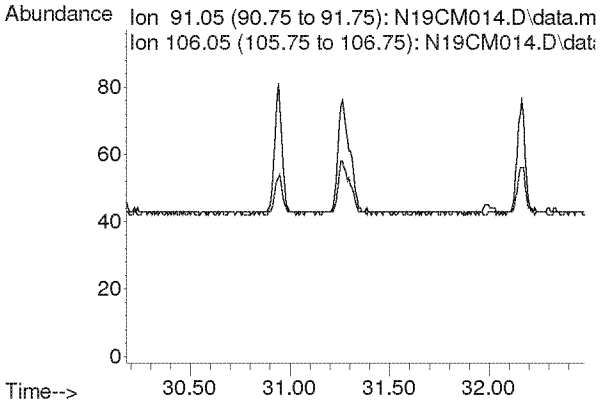


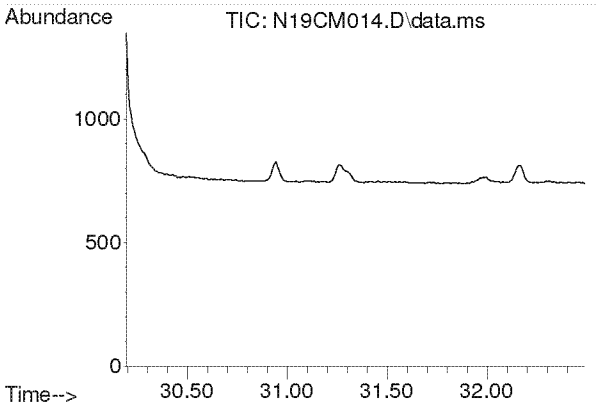
#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.33 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	21.2



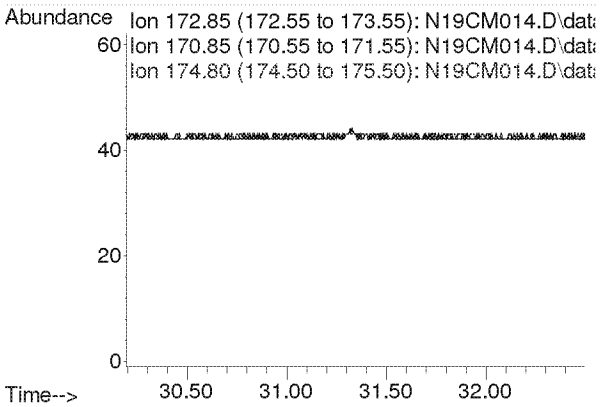


#52
Bromoform
Concen: N.D.
Expected RT: 31.34 min

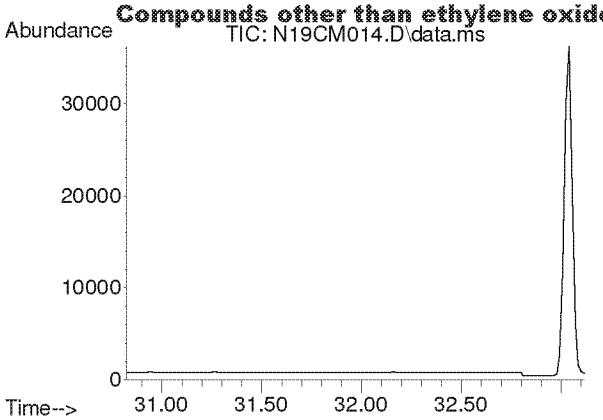
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.1
175	47.8



Compounds other than ethylene oxide were not quantitated.

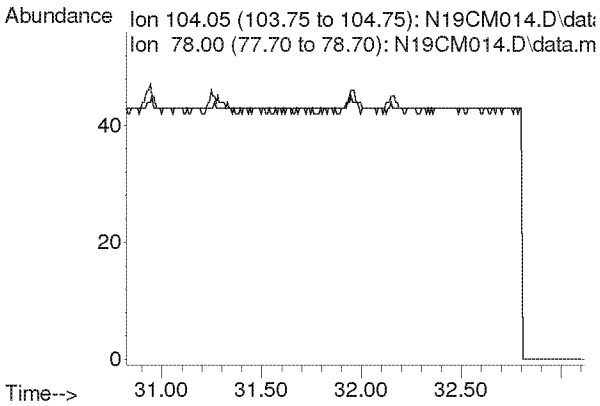


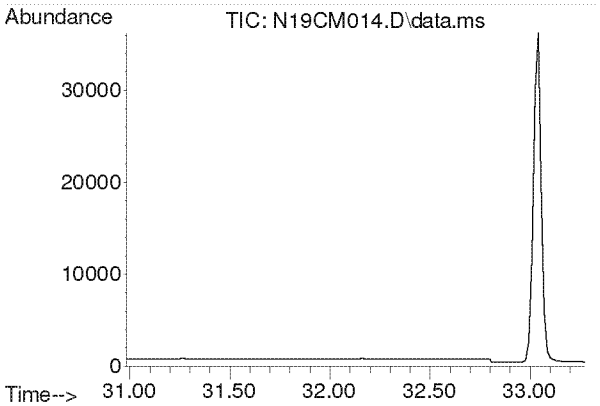
#53
Styrene
Concen: N.D.
Expected RT: 31.97 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	43.6



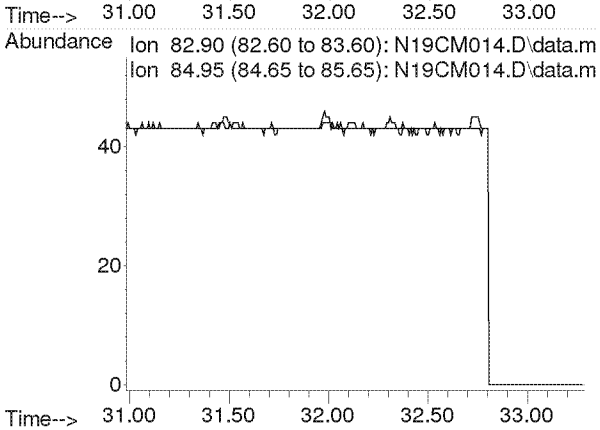


#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.13 min

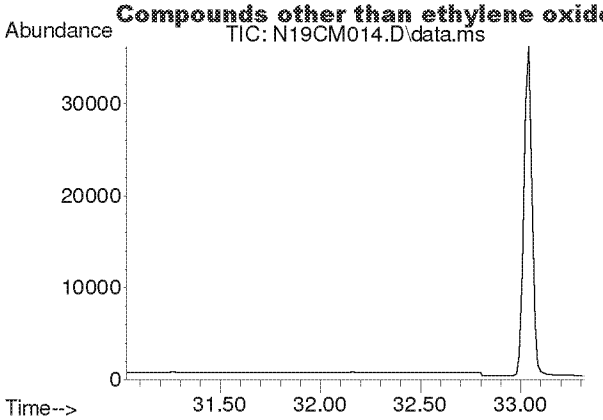
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	62.0



Compounds other than ethylene oxide were not quantitated.

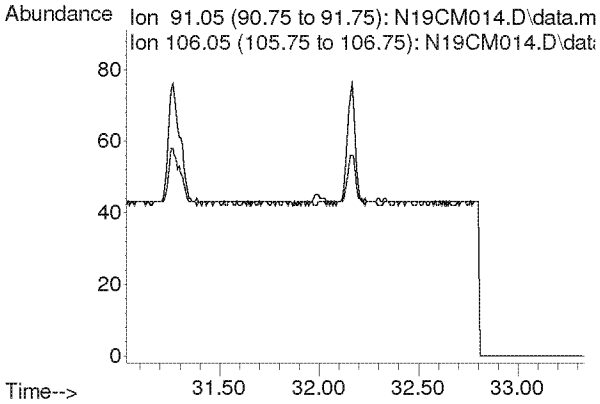


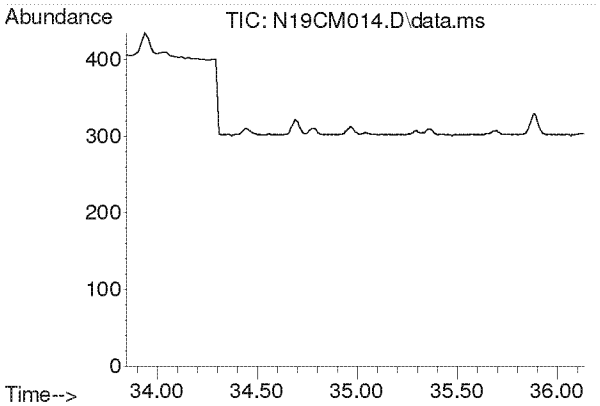
#55
o-Xylene
Concen: N.D.
Expected RT: 32.18 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	43.1



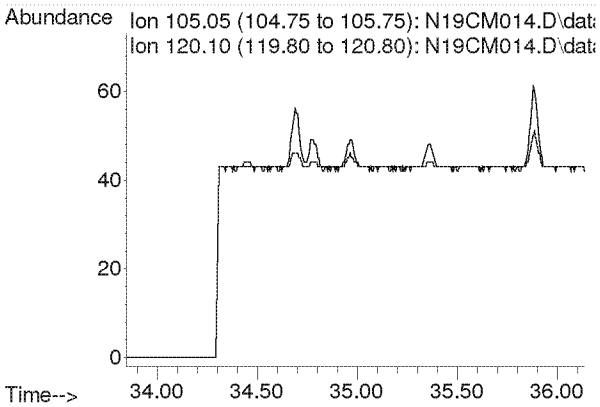


#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.99 min

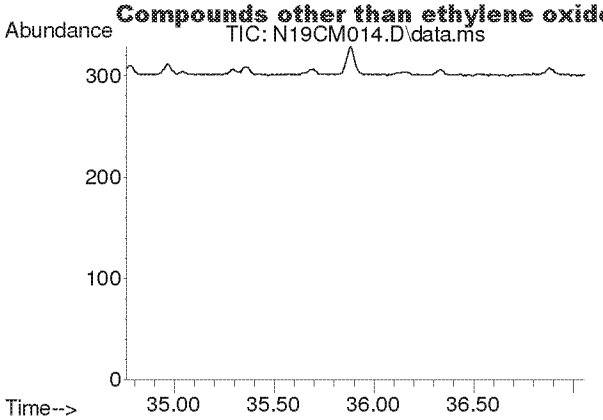
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.9



Compounds other than ethylene oxide were not quantitated.

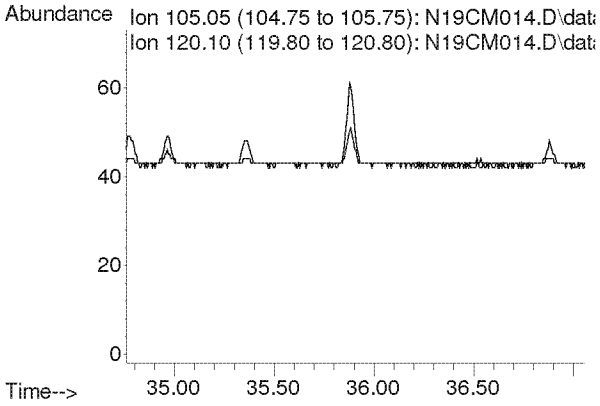


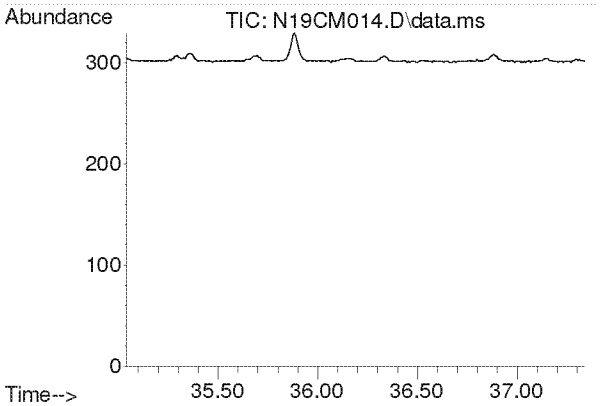
#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.91 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.2



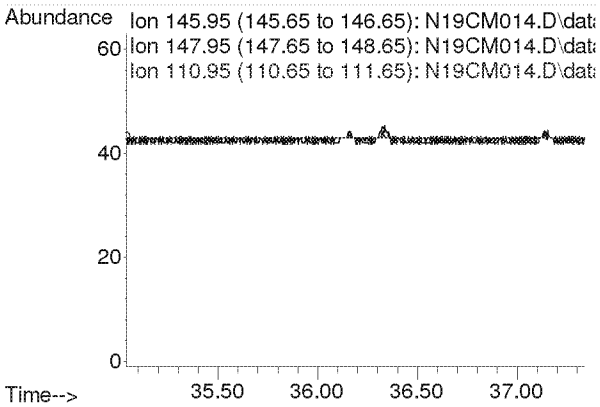


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.19 min

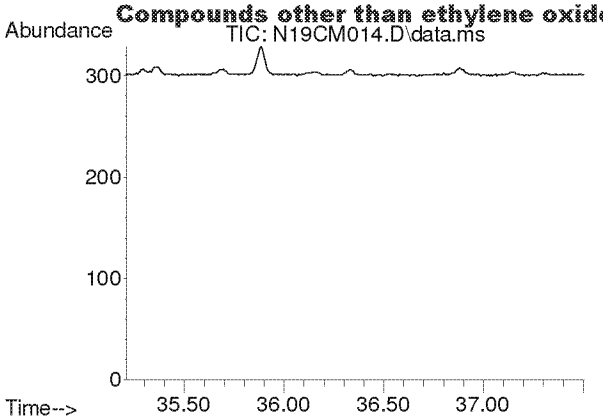
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.8
111	40.2



Compounds other than ethylene oxide were not quantitated.

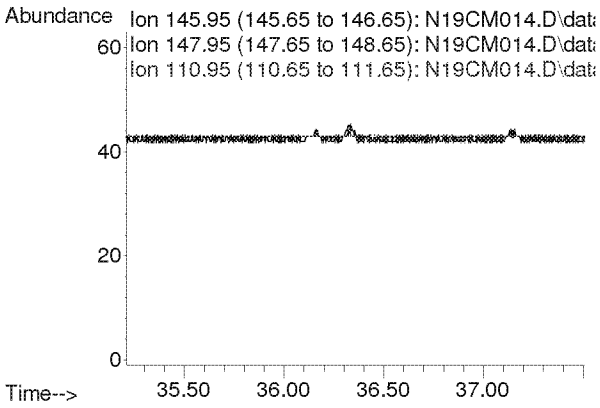


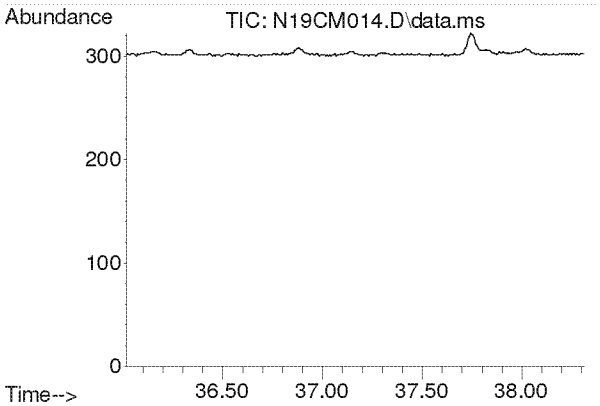
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.36 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.3
111	38.9



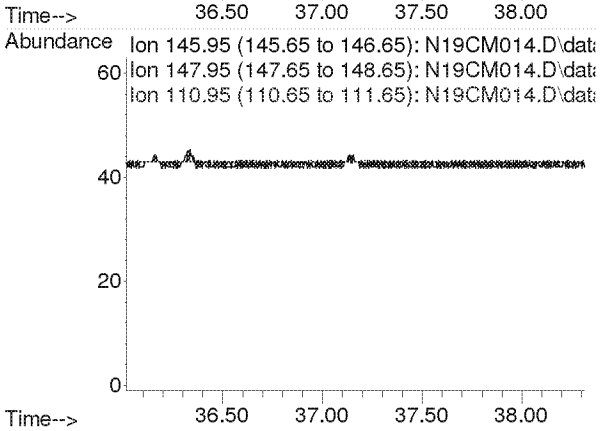


#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.17 min

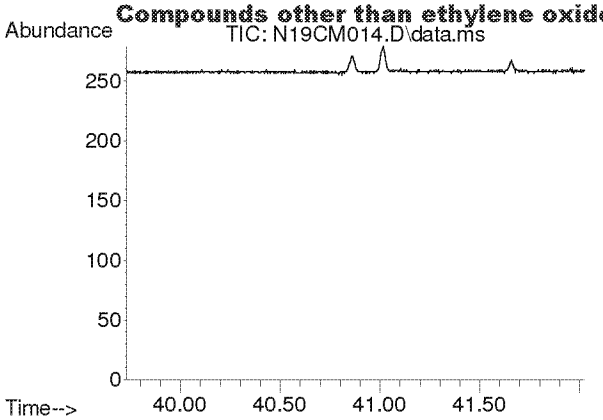
Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	62.5
111	41.6



Compounds other than ethylene oxide were not quantitated.

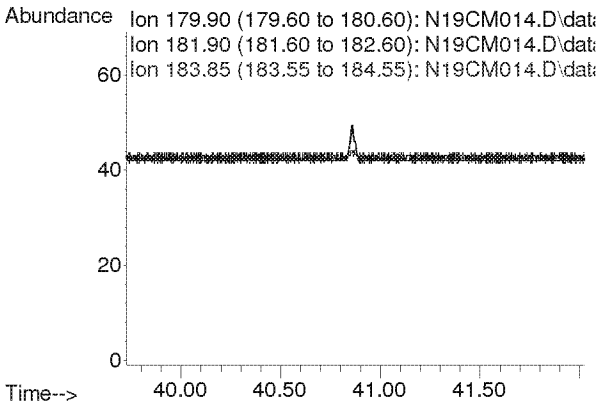


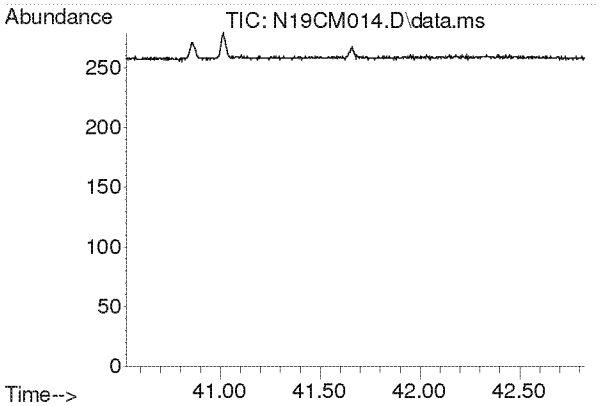
#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.88 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.4
184	29.0



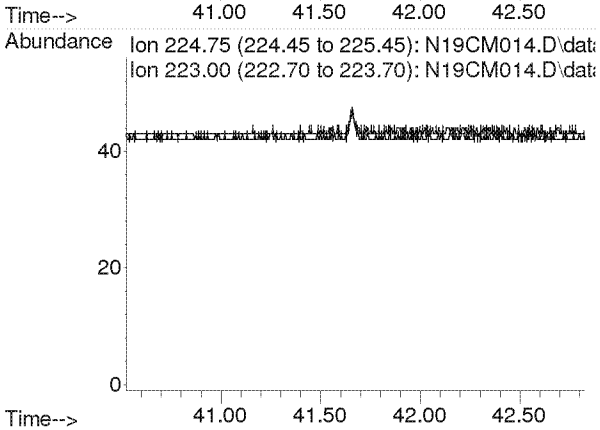


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.68 min

Lab File: N19CM014.D
Acq: 14 Mar 2019 12:31 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.3



Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9C1305

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **rinted: 3/22/2019 11:28:58AM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
9031220-01 *TO-15 2019 Ethylene Ox*	03/11/19 09:56	250	250	U.S. Environmental Protection Agency - OAQPS			
9031220-02 *TO-15 2019 Ethylene Ox*	03/11/19 09:12	250	250	U.S. Environmental Protection Agency - OAQPS			
9031220-03 *TO-15 2019 Ethylene Ox*	03/11/19 09:12	250	250	U.S. Environmental Protection Agency - OAQPS			
9031220-04 *TO-15 2019 Ethylene Ox*	03/11/19 09:28	250	250	U.S. Environmental Protection Agency - OAQPS			
9031220-05 *TO-15 2019 Ethylene Ox*	03/11/19 10:05	250	250	U.S. Environmental Protection Agency - OAQPS			
9031220-06 *TO-15 2019 Ethylene Ox*	03/11/19 10:11	250	250	U.S. Environmental Protection Agency - OAQPS			
9031220-07 *TO-15 2019 Ethylene Ox*	03/11/19 09:36	250	250	U.S. Environmental Protection Agency - OAQPS			
9031220-08 *TO-15 2019 Ethylene Ox*	03/11/19 09:07	250	250	U.S. Environmental Protection Agency - OAQPS			
9031220-09 *TO-15 2019 Ethylene Ox*	03/11/19 09:22	250	250	U.S. Environmental Protection Agency - OAQPS			
B9C1305-BLK1	03/13/19 09:15	250	250				
B9C1305-DUP1	03/11/19 09:12	250	250		9031220-02		
B9C1305-DUP2	03/11/19 09:12	250	250		9031220-03		

Spiking Witnessed By Date

Randy Bower 3/22/19

Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

1

ERG Eastern Research Group, Inc.

ERG Lab ID # 903220-01

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Linda Le South H.S. | Canister Number: 629

City/State: Darien, IL | Lab Initial Can. Press. ("Hg): 29.7

AQS Code: | Cleaning Batch # : H2-570

Collection Date: 3-10-19 | Date Can. Cleaned: 2/25/19

Options:

SNMOC (Y/N): | Duplicate Event (Y/N): N

TOXICS (Y/N): Y | Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB | Date: 3/4/19

Field Setup

Received by: Qazzaz | Date: 3/10/19

Operator: Qazzaz | MFC Setting: —

System #: 10076 | Elapsed Timer Reset (Y/N): —

Setup Date: 3/10/19 | Canister Valve Opened (Y/N): 10:25

Field Initial Can. Press.: -27.2 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/11/19 | Sample Duration (3 or 24 hr): 24

Operator: Qazzaz | Elapsed Time:

Field Final Can. Press.: -2.0 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one) | Canister Valve Closed (Y/N): 9:56

Relinquished by: Qazzaz | Date: 3/11/19

Lab Recovery

Received by: [illegible] | Date: 3/12/19

Lab Final Can. Press.: 4.0 psig "Hg (Circle one) | Converted to psia:

Status: VALID VOID (Circle one) | Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -27.8 @ 10:19, -27.2 @ 10:24
Temp @ deployment: 36°F
Temp @ collection: 31°F

White: Sample Traveler | Canary: Lab Copy | Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

2

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 903122002

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Village Hall

Canister Number: 5019

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.7

AQS Code: N/A

Cleaning Batch # : H1-570

Collection Date: 3/10/19

Date Can. Cleaned: 2/25/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): Y

TOXICS (Y/N): Y

Duplicate Can # : A22304

METHANE (Y/N):

Relinquished by: RMB

Date: 3/4/19

Field Setup

Received by: S. Hamilton

Date: 3/10/19

Operator: S. Hamilton

MFC Setting:

System #: 10313

Elapsed Timer Reset (Y/N):

Setup Date: 3/10/19

Canister Valve Opened (Y/N): Y @ 0940

Field Initial Can. Press.: -29.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/11/19

Sample Duration (3 or 24 hr): 24

Operator: S. Hamilton

Elapsed Time:

Field Final Can. Press.: -7.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 0912

Relinquished by: S. Hamilton

Date: 3/11/19

Lab Recovery

Received by: M

Date: 3/12/19

Lab Final Can. Press.: 3.5 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why: 3/12/19 M

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Deploy T = 36° F
Recover T = 31° F

LK Check -29.0" Hg @ 0934 / -28.5" Hg @ 0939
pressure difference > 3" Hg
3/12/19 M

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

3

ERG Eastern Research Group, Inc.

ERG Lab ID # 903122003

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Village Hall

Canister Number: A22304

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.7

AQS Code: N/A

Cleaning Batch # : H1-570

Collection Date: 3/10/19

Date Can. Cleaned: 2/25/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): Y

TOXICS (Y/N): Y

Duplicate Can # : 090560

METHANE (Y/N):

Relinquished by: RWB

Date: 3/4/19

Field Setup

Received by: S Hamilton

Date: 3/10/19

Operator: S Hamilton

MFC Setting:

System #: 10315

Elapsed Timer Reset (Y/N):

Setup Date: 3/10/19

Canister Valve Opened (Y/N): Y @ 0940

Field Initial Can. Press.: -29.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/11/19

Sample Duration (3 or 24 hr): 24

Operator: S Hamilton

Elapsed Time:

Field Final Can. Press.: -5.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 0912

Relinquished by: S. Hamilton

Date: 3/11/19

Lab Recovery

Received by: NL

Date: 3/12/19

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: Deploy T = 36°F
Recover T = 31°F

Lk check -28.8 "Hg @ 0934 / -28.5 "Hg @ 0939

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

4

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 903220-04

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Water tower
Canister Number: 711
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code: N/A
Cleaning Batch # : H2-570
Collection Date: 3/10/19
Date Can. Cleaned: 2/25/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 3/4/19

Field Setup

Received by: S. Hamilton
Date: 3/10/19
Operator: S. Hamilton
MFC Setting:
System #: 1032
Elapsed Timer Reset (Y/N):
Setup Date: 3/10/19
Canister Valve Opened (Y/N): Y @ 10:02
Field Initial Can. Press.: -28.9 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/11/19
Sample Duration (3 or 24 hr): 24
Operator: S. Hamilton
Elapsed Time:
Field Final Can. Press.: -5.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 0928
Relinquished by: S. Hamilton
Date: 3/11/19

Lab Recovery

Received by: NL
Date: 3/12/19
Lab Final Can. Press.: 7.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Deploy T = 36°F
Recover T = 31°F

Leak check -29.0 "Hg @ 0957 / -28.9 "Hg @ 10:02

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

5

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9031220-05

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower E.S.

City/State: Willowbrook, IL

AQS Code: —

Collection Date: 3/10/19

Options:

SNMOC (Y/N):

TOXICS (Y/N): Y

METHANE (Y/N):

Relinquished by: RMB

Canister Number: 061

Lab Initial Can. Press. ("Hg): 29.7

Cleaning Batch # : H2-570

Date Can. Cleaned: 2/25/19

Duplicate Event (Y/N): N

Duplicate Can # :

Date: 3/4/19

Field Setup

Received by: Qazzar

Date: 3/10/19

Operator: Qazzar

System #: 10077

Setup Date: 3/10/19

Field Initial Can. Press.: -27.2 psig psia "Hg (Circle one)

MFC Setting: —

Elapsed Timer Reset (Y/N): —

Canister Valve Opened (Y/N): 10:37

Field Recovery

Recovery Date: 3/11/19

Operator: Qazzar

Field Final Can. Press.: -8.0 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Relinquished by: Qazzar

Sample Duration (3 or 24 hr): 24

Elapsed Time:

Canister Valve Closed (Y/N): Y

Date: 3/11/19

Lab Recovery

Received by: NL

Date: 3/12/19

Lab Final Can. Press.: 7.0 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -28.0 @ 10:31, -27.2 @ 10:36
Temp @ deployment: 36 °F
Temp @ collection: 31 °F

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

6

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 903122O-06

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: West Neighborhood
Canister Number: SAT029
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code: N/A
Cleaning Batch # : H2-570
Collection Date: 3/10/19
Date Can. Cleaned: 2/25/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 3/4/19

Field Setup

Received by: S. Hamilton
Date: 3/10/19
Operator: S. Hamilton
MFC Setting:
System #: 10310
Elapsed Timer Reset (Y/N):
Setup Date: 3/10/19
Canister Valve Opened (Y/N): Y @ 1046
Field Initial Can. Press.: -28.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/11/19
Sample Duration (3 or 24 hr): 24
Operator: S. Hamilton
Elapsed Time:
Field Final Can. Press.: -5.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:11
Relinquished by: S. Hamilton
Date: 3/11/19

Lab Recovery

Received by: NL
Date: 3/12/19
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: Deploy T = 36°F
Recover T = 31°F

LK check -28.0 "Hg @ 1041 / -28.0 "Hg @ 1046

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9031220-07

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willow Pond Park
Canister Number: SAT088
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code: —
Cleaning Batch # : H1-570
Collection Date: 3/10/19
Date Can. Cleaned: 2/25/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 3/4/19

Field Setup

Received by: Qazzar
Date: 3/10/19
Operator: Qazzar
MFC Setting:
System #: 10294
Elapsed Timer Reset (Y/N): —
Setup Date: 3/10/19
Canister Valve Opened (Y/N): 10:14
Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/11/19
Sample Duration (3 or 24 hr): 24
Operator: Qazzar
Elapsed Time:
Field Final Can. Press.: -6.8 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): 9:36
Relinquished by: Qazzar
Date: 3/11/19

Lab Recovery

Received by: M
Date: 3/12/19
Lab Final Can. Press.: 4.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -28.5 @ 10:08, -28.2 @ 10:13
Temp @ deployment: 36°F
Temp @ collection: 31°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

8

ERG Lab ID # 903122008

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 Warehouse
Canister Number: 171
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code: N/A
Cleaning Batch # : H2-570
Collection Date: 3/10/19
Date Can. Cleaned: 2/25/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: MB
Date: 3/4/19

Field Setup

Received by: S. Hamilton
Date: 3/10/19
Operator: S. Hamilton
MFC Setting:
System #: 10314
Elapsed Timer Reset (Y/N):
Setup Date: 3/10/19
Canister Valve Opened (Y/N): Y @ 0931
Field Initial Can. Press.: -30.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/11/19
Sample Duration (3 or 24 hr): 24
Operator: S. Hamilton
Elapsed Time:
Field Final Can. Press.: -6.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 09.07
Relinquished by: S. Hamilton
Date: 3/11/19

Lab Recovery

Received by: M
Date: 3/12/19
Lab Final Can. Press.: 3.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Ambient T deploy = 36°F
Ambient T recover = 31°F

LK check Start -30.0 "Hg @ 9.21 / End -29 "Hg @ 0931
Second attempt -30.0 "Hg @ 0926

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 # 9031220-09

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower M.S.

City/State: Burr Ridge, IL

AQS Code: —

Collection Date: 3/10/19

Options:

SNMOC (Y/N):

TOXICS (Y/N): Y

METHANE (Y/N):

Relinquished by: RMB

Canister Number: A21119

Lab Initial Can. Press. ("Hg): 29.7

Cleaning Batch # : H2-570

Date Can. Cleaned: 2/25/19

Duplicate Event (Y/N): N

Duplicate Can # :

Date: 3/4/19

Field Setup

Received by: Qazzaz

Date: 3/10/19

Operator: Qazzaz

MFC Setting:

System #: 10311

Elapsed Timer Reset (Y/N):

Setup Date: 3/10/19

Canister Valve Opened (Y/N): 10:51

Field Initial Can. Press.: -28.8 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/11/19

Sample Duration (3 or 24 hr): 24 hr

Operator: Qazzaz

Elapsed Time:

Field Final Can. Press.: -6.2 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): 9:22

Relinquished by: Qazzaz

Date: 3/11/19

Lab Recovery

Received by: M

Date: 3/12/19

Lab Final Can. Press.: 3.50 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check = -29.0 @ 9:46, -28.0 @ 9:51

Temp @ deployment = 36 °F

Temp @ collection = 3[illegible] °F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy