Compounds other than ethylene oxide were not quantitated.

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

Sequence ID: U19Y, 1902065 **Instrument:** PSI **Batch:** 3902507
Cal Curve (Method): **Analyst:** MAA **Date Analyzed:** 2-25-19
10% Review Sample IDs: 9022202-05, -15 **Reviewer:** QWoon **Date:** 3/5/19
Optional Additional Review Sample IDs: **Reviewer:** **Date:**

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
BFB Instrument Tune Performance Check -- one per analysis sequence	Evaluation criteria presented in Section 16.1.1	2-26-19	RMB 3/5/19	QW 3/5/19		
Initial calibration with a minimum of 5 points - quarterly	1)RSD of response factors < ±30% with two exceptions of up to ±40% (non-Tier I compounds) 2) IS response < ±40% of mean 3) RRTs for target peaks ±0.06 units from mean RRT 4) IS RTs within 20sec of mean 5) Each calibration standard within ±30% of nominal conc (for Tier I compounds)	2-26-19	RMB 3/5/19	QW 3/5/19		U19L
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	2-26-19	RMB 3/5/19	QW 3/5/19		U19L
Continuing calibration verification (CCV), approximately mid-point of the calibration curve -- one per analysis sequence	The response factor ≤ ±30% DEV from calibration curve average response factor	2-26-19	RMB 3/5/19	QW 3/5/19		2nd Source
Method Blank Analysis -- one per analysis sequence	1) < 3xMDL or 0.2ppbv, whichever is lower 2) Internal Standard (IS) area response within < ±40% and IS Retention Time (RT) within ±0.33 min. of most recent initial calibration	2-26-19	RMB 3/5/19	QW 3/5/19		

ED_002475_00000298-00001

Compounds other than ethylene oxide were not quantitated.

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

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
Replicate Analysis – one per analysis sequence /Duplicate Sample	< 25% RPD for compounds greater than 5 times the MDL	✓ 2-26-19	RMB 3/5/19	QCW 3/5/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	—	RMB 3/5/19	N/A		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	✓ 2-26-19	RMB 3/5/19	QCW 3/5/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	✓ 2-26-19	RMB 3/5/19	QCW 3/5/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	✓ 2-26-19	RMB 3/5/19	QCW 3/5/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	✓ 2-26-19	RMB 3/5/19	QCW 3/5/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 3/5/19	QCW 3/5/19		9002200-15, ETO $\frac{132(4.77)}{37660(0.2728)} = 0.0613$ ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	✓ 2-26-19	RMB 3/5/19	QCW 3/5/19		

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

L19B4002 ethylene oxide $\frac{5446 \times 4.77}{45792 \times 0.2728} = 2.08$ ppbv

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

1902065

Instrument: ERGMS#1

Calibnration ID: 9020003

Printed: 2/25/2019 2:01:35PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1902065-CCV1	QC		1		9B20006	8L13002		
B9B2507-BLK1	QC		2			8L13002		
9022202-01	TO-15 2019	A	3			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-02	TO-15 2019	A	4			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-03	TO-15 2019	A	5			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
B9B2507-DUP1	QC		6			8L13002		
B9B2507-DUP2	QC		7			8L13002		
9022202-04	TO-15 2019	A	8			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-05	TO-15 2019	A	9			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-06	TO-15 2019	A	10			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-07	TO-15 2019	A	11			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-08	TO-15 2019	A	12			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-09	TO-15 2019	A	13			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-10	TO-15 2019	A	14			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-11	TO-15 2019	A	15			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-12	TO-15 2019	A	16			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-13	TO-15 2019	A	17			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-14	TO-15 2019	A	18			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-15	TO-15 2019	A	19			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-16	TO-15 2019	A	20			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9022202-17	TO-15 2019	A	21			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only

2-25-19

Data Samples Loaded By Date

2-27-19

Data Processed By Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19BY.s
Comment: ANALYZE 2/25/19,9020003 exp 5/13/19, L19BY
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19BY\
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	L19BY001	BFB	BFB
2)	Sample	2	L19BY002	9020003	1902065-CCV1
3)	Sample	3	L19BY003	9020003	SNMOC-CCV1
4)	Sample	4	L19BY004	9020003	FLUSH
5)	Sample	5	L19BY005	9020003	B9B2507-BLK1
6)	Sample	6	L19BY006	9020003	9022202-01
7)	Sample	7	L19BY007	9020003	9022202-02
8)	Sample	8	L19BY008	9020003	9022202-03
9)	Sample	9	L19BY009	9020003	B9B2507-DUP1
10)	Sample	10	L19BY010	9020003	B9B2507-DUP2
11)	Sample	11	L19BY011	9020003	9022202-04
12)	Sample	12	L19BY012	9020003	9022202-05
13)	Sample	13	L19BY013	9020003	9022202-06
14)	Sample	14	L19BY014	9020003	9022202-07
15)	Sample	15	L19BY015	9020003	9022202-08
16)	Sample	16	L19BY016	9020003	9022202-09
17)	Sample	17	L19BY017	9020003	9022202-11
18)	Sample	18	L19BY018	9020003	9022202-12
19)	Sample	19	L19BY019	9020003	9022202-13
20)	Sample	20	L19BY020	9020003	9022202-14
21)	Sample	21	L19BY021	9020003	9022202-15
22)	Sample	22	L19BY022	9020003	9022202-16
23)	Sample	23	L19BY023	9020003	9022202-17
24)	Sample	100	OFF	FIDOFF	OFF

2-27-19

ED_002475_00000298-00004

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19BY001	80 ML 8L13001	1
Sample	2	1902065-CCV1	9020003	L19BY002	80 ML 8L13001,9B20006	1
Sample	3	SNMOC-CCV1	9020003	L19BY003	80 ML 8L13001,9B13007	1
Sample	4	FLUSH	9020003	L19BY004	80 ML 8L13001,	1
Sample	5	B9B2507-BLK1	9020003	L19BY005	80 ML 8L13001	1
Sample	6	9022202-01	9020003	L19BY006	GROWER MS 2/20/19	1
Sample	7	9022202-02	9020003	L19BY007	WB VILLAGE HALL C1 2/20/19	1
Sample	8	9022202-03	9020003	L19BY008	WB VILLAGE HALL C2 2/20/19	1
Sample	9	B9B2507-DUP1	9020003	L19BY009	WB VILLAGE HALL R1 2/20/19	1
Sample	10	B9B2507-DUP2	9020003	L19BY010	WB VILLAGE HALL R2 2/20/19	1
Sample	11	9022202-04	9020003	L19BY011	WILLOW POND PARK 2/20/19	1
Sample	12	9022202-05	9020003	L19BY012	WATER TOWER 2/20/19	1
Sample	13	9022202-06	9020003	L19BY013	HINSDALE S. HS 2/20/19	1
Sample	14	9022202-07	9020003	L19BY014	GOWER ES 2/20/19	1
Sample	15	9022202-08	9020003	L19BY015	EOA WB WAREHOUSE 2/20/19	1
Sample	16	9022202-09	9020003	L19BY016	WEST NEIGHBORHOOD 2/20/19	1
Sample	17	9022202-11	9020003	L19BY017	GOWER MS 2/21/09	1
Sample	18	9022202-12	9020003	L19BY018	GOWER 2/21/19 ES	1
Sample	19	9022202-13	9020003	L19BY019	HINSDALE S. HS 2/21/19	1
Sample	20	9022202-14	9020003	L19BY020	WEST NEIGHBORHOOD 2/21/19	1
Sample	21	9022202-15	9020003	L19BY021	WILLOW POND PARK 2/21/19	1
Sample	22	9022202-16	9020003	L19BY022	WATER TOWER 2/21/19	1
Sample	23	9022202-17	9020003	L19BY023	WB VILLAGE HALL 2/21/19	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

2-17-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19BY.SEQ
Date: 02-26-2019
Time: 10:17:52
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
1902065-CCV1	2	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
SNMOC-CCV1	1	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	3	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2507-BLK1	1	3	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-01	1	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-02	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-03	1	3	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2507-DUP1	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2507-DUP2	1	3	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-04	1	4	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-05	1	5	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-06	1	6	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-07	1	7	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-08	1	8	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-09	1	9	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-11	1	10	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-12	1	11	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-13	1	12	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-14	1	13	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-15	1	14	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-16	1	15	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-17	1	16	250		0	C:\Smart\TO-15A_MS1.MPT	12:00

2-27-19

Compounds other than ethylene oxide were not quantitated.

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

2/26/2019 9:13:34 AM
Leak Check for C:\Smart\L19BY.SEQ
Report File: C:\Smart\L19BY.LCR
Leak Check Method: Evacuation
Pressurize/Evacuate time(sec) 20
Equilibration time(sec) 20
Maintanance time(sec) 60

Sample Inlet	Auto1	Auto2	Auto3	Start	End	Rate(psi/min)
1	1	---	---	1.2	1.3	0.10
1	2	---	---	1.2	1.3	0.10
1	3	---	---	1.2	1.2	0.00
1	4	---	---	1.2	1.2	0.00
1	5	---	---	1.1	1.2	0.10
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.2	1.3	0.10
1	8	---	---	1.2	1.2	0.00
1	9	---	---	1.1	1.2	0.10
1	10	---	---	1.1	1.2	0.10
1	11	---	---	1.2	1.3	0.10
1	12	---	---	1.2	1.2	0.00
1	13	---	---	1.2	1.2	0.00
1	14	---	---	1.2	1.3	0.10
1	15	---	---	1.2	1.3	0.10
1	16	---	---	1.2	1.3	0.10

2-27-19

Compounds other than ethylene oxide were not quantitated.

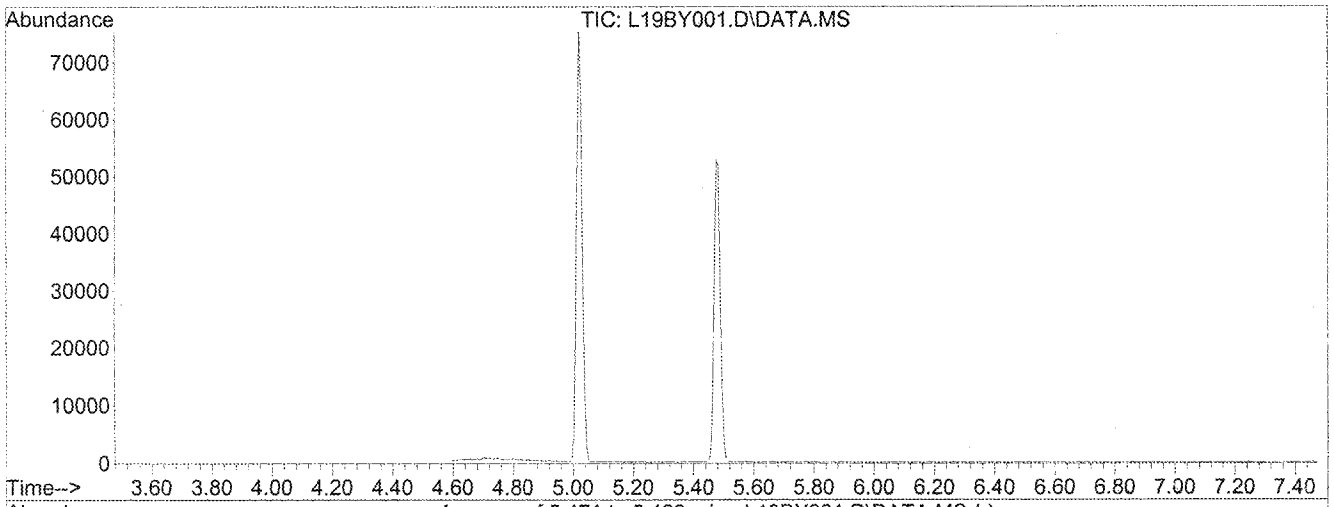
BFB

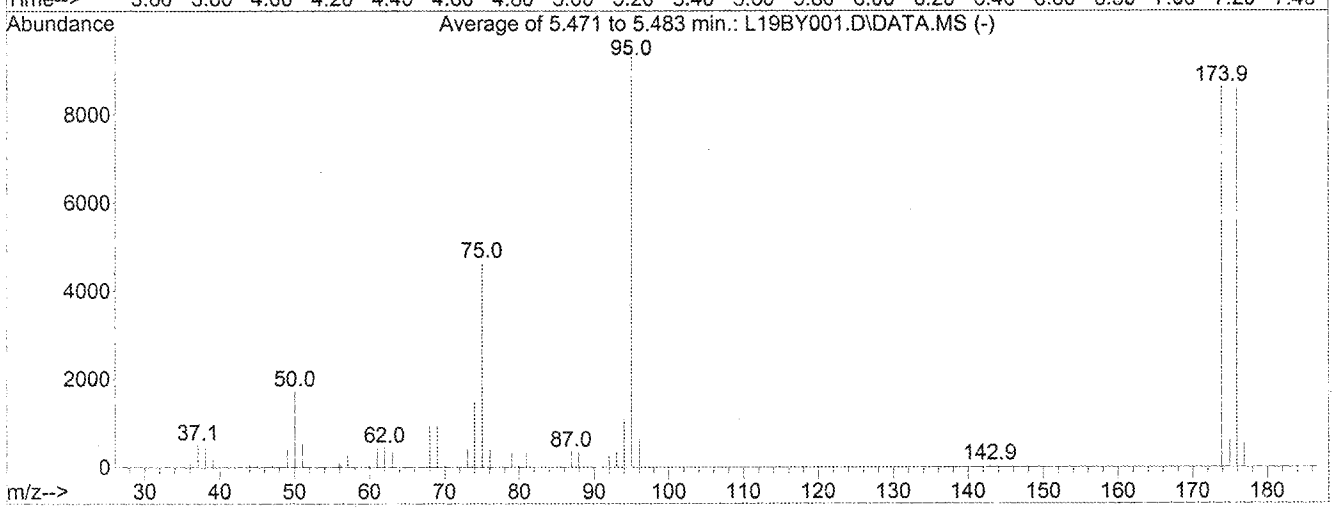
Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY001.D
Acq On : 25 Feb 2019 6:56 am
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

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

2-26-19





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

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.5	1727	PASS
75	95	30	66	49.8	4646	PASS
95	95	100	100	100.0	9335	PASS
96	95	5	9	6.9	644	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	92.5	8634	PASS
175	174	4	9	7.2	624	PASS
176	174	93	101	99.5	8587	PASS
177	176	5	9	6.3	541	PASS

Compounds other than ethylene oxide were not quantitated.

C:\MSDCHE

Compound Name			IS-Hexane-d14	IS-Hexane-d14	IS-Difluorobenzene	IS-Difluorobenzene	IS-Chlorobenzene-d5	IS-Chlorobenzene-d5
Labels	Date Acquired	Data File Name	(# 1) Target Response	(# 1) Ret Time	(# 28) Target Response	(# 28) Ret Time	(# 42) Target Response	(# 42) Ret Time
	2/26/2019 5:31	L19BY023.D	38850	19.99	98260	23.15	66621	30.09
Format 1 (Yes/No)								
Format 1 Title								
Format 2 (Yes/No)			YES	YES	YES	YES	YES	YES
Format 2 Title								
Show X Axis Title			YES	YES	YES	YES	YES	YES
Show Y Axis Title								
Lines To Chart								

Start of Data	Format 1 X-axis	Format 2 X-axis	IS-Hexane-d14	% Rec	RT	DEV (min)	IS-Difluorobenzene	% Rec	RT	DEV (min)	IS-Chlorobenzene-d5	% Rec	RT	DEV (min)
		IS AVG / AVG RT	48611		19.99		118146		23.15		86564		30.11	
	2/25/2019 7:39	L19BY002.D	45792	94	19.99	0	114127	97	23.15	0	83503	96	30.10	-0.01
	2/25/2019 11:22	L19BY005.D	45044	93	19.99	0	113570	96	23.15	0	79743	92	30.10	-0.01
	2/25/2019 12:24	L19BY006.D	40813	84	19.99	0	101611	86	23.15	0	72782	84	30.10	-0.01
	2/25/2019 13:26	L19BY007.D	36956	76	19.99	0	90253	76	23.15	0	66591	77	30.09	-0.02
	2/25/2019 14:26	L19BY008.D	40097	82	19.99	0	101449	86	23.15	0	70597	82	30.10	-0.01
	2/25/2019 15:26	L19BY009.D	39427	81	19.99	0	99284	84	23.15	0	69914	81	30.10	-0.01
	2/25/2019 16:27	L19BY010.D	40727	84	19.99	0	103787	88	23.15	0	72769	84	30.10	-0.01
	2/25/2019 17:27	L19BY011.D	41604	86	19.99	0	106790	90	23.15	0	73769	85	30.09	-0.02
	2/25/2019 18:27	L19BY012.D	38349	79	19.99	0	95271	81	23.15	0	67995	79	30.10	-0.01
	2/25/2019 19:29	L19BY013.D	38915	80	19.99	0	96977	82	23.15	0	67850	78	30.09	-0.02
	2/25/2019 20:29	L19BY014.D	39157	81	19.99	0	99165	84	23.15	0	69692	81	30.10	-0.01
	2/25/2019 21:30	L19BY015.D	39229	81	19.99	0	99831	84	23.15	0	70271	81	30.10	-0.01
	2/25/2019 22:30	L19BY016.D	38971	80	19.99	0	98674	84	23.15	0	67322	78	30.10	-0.01
	2/25/2019 23:30	L19BY017.D	40361	83	19.99	0	102229	87	23.15	0	70130	81	30.10	-0.01
	2/26/2019 12:30	L19BY018.D	38197	79	19.99	0	94765	80	23.15	0	69173	80	30.09	-0.02
	2/26/2019 1:31	L19BY019.D	38298	79	19.99	0	97088	82	23.15	0	69109	80	30.10	-0.01
	2/26/2019 2:31	L19BY020.D	37900	78	19.99	0	94883	80	23.15	0	66068	76	30.10	-0.01
	2/26/2019 3:31	L19BY021.D	37660	77	19.97	-0.02	94964	80	23.13	-0.02	66079	76	30.10	-0.01
	2/26/2019 4:31	L19BY022.D	34599	71	19.99	0	85237	72	23.15	0	60079	69	30.10	-0.01
	2/26/2019 5:31	L19BY023.D	38850	80	19.99	0	98260	83	23.15	0	66621	77	30.09	-0.02

2-27-19

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19BY\L19BY001.D
Tune Time : 25 Feb 2019 6:56 am

0020003 IS Avg Area	48611	118146	86564
+40%	68055	165404	121190
-40%	29167	70888	51939

File	Sample	Internal Standard Responses		
L19BY002.D	1902065-CCV1	45792	114127	83503
L19BY005.D	B9B2507-BLK1	45044	113570	79743
L19BY006.D	9022202-01	40813	101611	72782
L19BY007.D	9022202-02	36956	90253	66591
L19BY008.D	9022202-03	40097	101449	70597
L19BY009.D	B9B2507-DUP1	39427	99284	69914
L19BY010.D	B9B2507-DUP2	40727	103787	72769
L19BY011.D	9022202-04	41604	106790	73769
L19BY012.D	9022202-05	38349	95271	67995
L19BY013.D	9022202-06	38915	96977	67850
L19BY014.D	9022202-07	39157	99165	69692
L19BY015.D	9022202-08	39229	99831	70271
L19BY016.D	9022202-09	38971	98674	67322
L19BY017.D	9022202-11	40361	102229	70130
L19BY018.D	9022202-12	38197	94765	69173
L19BY019.D	9022202-13	38298	97088	69109
L19BY020.D	9022202-14	37900	94883	66068
L19BY021.D	9022202-15	37660	94964	66079
L19BY022.D	9022202-16	34599	85237	60079
L19BY023.D	9022202-17	38850	98260	66621

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

Created: Tue Feb 26 09:57:24 2019 MS1

2-27-19

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B20006

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

canister# 3224

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

2-27-19

Reviewed By Date

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B20006

Bromochloromethane	124-48-1	0.00254	ppmv
Chlorodifluoromethane	75-71-8	0.00238	ppmv
Chloromethane	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 St	11/12/18	** Vendor **	11/12/19	11/20/18 12:14 by MH	15

Reviewed By — Date: 1-22-19

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19BY\
Data File : L19BY002.D
Acq On : 25 Feb 2019 7:39 am
Operator : MAH
Sample : 1902065-CCV1
Misc : 80 ML 8L13001,9B20006
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 09:52:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

2-27-19

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	ISS	IS-Hexane-d14	1.000	1.000	0.0	100	0.00
2	CT	Acetylene	0.391	0.457	-16.9	100	0.00
3	CT	Propylene	0.487	0.568	-16.6	100	0.00
4	CT	Dichlorodifluoromethane	2.300	2.600	-13.0	100	0.00
5	CT	Chloromethane	0.592	0.617	-4.2	100	0.00
6	CT	Dichlorotetrafluoroethane	2.013	2.438	-21.1	100	0.00
7	CT	Vinyl Chloride	0.662	0.704	-6.3	100	0.00
8	CT	1,3-Butadiene	0.450	0.457	-1.6	100	0.00
9	CT	Ethylene oxide	0.273	0.227	16.8	100	0.00
10	CT	Bromomethane	0.627	0.663	-5.7	100	0.00
11	CT	Chloroethane	0.263	0.258	1.9	100	0.00
12	CT	Acetonitrile	0.414	0.386	6.8	100	0.00
13	CT	Acrolein	0.209	0.191	8.6	100	0.00
14	CT	Trichlorofluoromethane	1.944	1.822	6.3	100	0.00
15	CT	Acrylonitrile	0.330	0.314	4.8	100	0.00
16	CT	1,1-Dichloroethene	0.843	0.911	-8.1	100	0.00
17	CT	Methylene Chloride	0.557	0.565	-1.4	100	0.00
18	CT	Carbon Disulfide	1.716	1.809	-5.4	100	0.00
19	CT	Trichlorotrifluoroethane	1.307	1.434	-9.7	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.467	0.474	-1.5	100	0.00
21	CT	1,1-Dichloroethane	0.786	0.806	-2.5	100	0.00
22	CT	Methyl tert-Butyl Ether	1.318	1.363	-3.4	100	0.00
23	CT	Chloroprene	0.639	0.657	-2.8	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.620	0.607	2.1	100	0.00
25	CT	Bromochloromethane	0.335	0.331	1.2	100	0.00
26	CT	Chloroform	0.912	0.969	-6.2	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.260	1.310	-4.0	100	0.00
28	CT	1,2-Dichloroethane	0.560	0.580	-3.6	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.370	0.369	0.3	100	0.00
31	CT	Benzene	0.529	0.565	-6.8	100	0.00
32	CT	Carbon Tetrachloride	0.396	0.442	-11.6	100	0.00
33	CT	tert-Amyl Methyl Ether	0.449	0.459	-2.2	100	0.00
34	CT	1,2-Dichloropropane	0.201	0.201	0.0	100	0.00
35	CT	Ethyl Acrylate	0.171	0.199	-16.4	100	0.00
36	CT	Bromodichloromethane	0.356	0.325	8.7	100	0.00
37	CT	Trichloroethylene	0.252	0.239	5.2	100	0.00
38	CT	Methyl Methacrylate	0.513	0.563	-9.7	100	0.00
39	CT	cis-1,3-Dichloropropene	0.175	0.198	-13.1	100	0.00
40	CT	Methyl Isobutyl Ketone	0.377	0.395	-4.8	100	0.00
41	CT	trans-1,3-Dichloropropene	0.117	0.131	-12.0	100	0.00
42	CT	1,1,2-Trichloroethane	0.184	0.189	-2.7	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.779	0.814	-4.5	100	0.00
45	CT	Dibromochloromethane	1.529	1.566	-2.4	100	0.00
46	CT	1,2-Dibromoethane	0.292	0.321	-9.9	100	0.00
47	CT	n-Octane	0.469	0.457	2.6	100	0.00
48	CT	Tetrachloroethylene	0.375	0.391	-4.3	100	0.00

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19BY\
Data File : L19BY002.D
Acq On : 25 Feb 2019 7:39 am
Operator : MAH
Sample : 1902065-CCV1
Misc : 80 ML 8L13001,9B20006
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 09:52:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	CT	Chlorobenzene	0.497	0.513	-3.2	100	0.00
50	CT	Ethylbenzene	0.819	0.848	-3.5	100	0.00
51	CT	m,p-Xylene	0.691	0.701	-1.4	100	0.00
52	CT	Bromoform	0.296	0.311	-5.1	100	0.00
53	CT	Styrene	0.392	0.398	-1.5	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.446	0.441	1.1	100	0.00
55	CT	o-Xylene	0.682	0.709	-4.0	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.732	0.685	6.4	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.633	0.597	5.7	100	0.00
58	CT	m-Dichlorobenzene	0.333	0.313	6.0	100	0.00
59	CT	p-Dichlorobenzene	0.271	0.283	-4.4	100	0.00
60	CT	o-Dichlorobenzene	0.305	0.299	2.0	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.103	0.101	1.9	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.264	0.241	8.7	100	0.00

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

ED_002475_00000298-00014

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19BY\
Data File : L19BY002.D
Acq On : 25 Feb 2019 7:39 am
Operator : MAH
Sample : 1902065-CCV1
Misc : 80 ML 8L13001,9B20006
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 09:52:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	45792	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	114127	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	83503	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.407	26	10527	2.8072	ppbv	100
3) Propylene	7.823	41	13369	2.8580	ppbv	100
4) Dichlorodifluoromethane	8.685	85	59398	2.6897	ppbv	100
5) Chloromethane	9.740	50	14694	2.5842	ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	57105	2.9543	ppbv	99
7) Vinyl Chloride	11.119	62	16888	2.6555	ppbv	100
8) 1,3-Butadiene	11.783	54	10837	2.5066	ppbv	100
9) Ethylene oxide	12.395	29	5446	2.0793	ppbv	100
10) Bromomethane	12.605	94	15921	2.6455	ppbv	99
11) Chloroethane	13.282	64	6196	2.4523	ppbv	100
12) Acetonitrile	14.358	41	9385	2.3615	ppbv	98
13) Acrolein	14.636	56	4434	2.2142	ppbv	99
14) Trichlorofluoromethane	15.216	101	43718	2.3429	ppbv	100
15) Acrylonitrile	15.935	53	7530	2.3747	ppbv	99
16) 1,1-Dichloroethene	16.445	61	21338	2.6358	ppbv	100
17) Methylene Chloride	16.747	49	13444	2.5135	ppbv	97
18) Carbon Disulfide	16.932	76	43057	2.6138	ppbv	100
19) Trichlorotrifluoroethane	17.303	101	33598	2.6772	ppbv	99
20) trans-1,2-Dichloroethy...	18.337	96	11193	2.4944	ppbv	99
21) 1,1-Dichloroethane	18.632	63	18805	2.4931	ppbv	100
22) Methyl tert-Butyl Ether	18.791	73	33243	2.6278	ppbv	99
23) Chloroprene	19.539	53	15630	2.5475	ppbv	100
24) cis-1,2-Dichloroethylene	19.947	61	14579	2.4481	ppbv	100
25) Bromochloromethane	20.174	128	7846	2.4373	ppbv	100
26) Chloroform	20.401	83	23266	2.6584	ppbv	100
27) Ethyl tert-Butyl Ether	21.184	59	32310	2.6705	ppbv	100
28) 1,2-Dichloroethane	21.478	62	13854	2.5791	ppbv	100
30) 1,1,1-Trichloroethane	21.869	97	20862	2.4660	ppbv	97
31) Benzene	22.535	78	32408	2.6788	ppbv	100
32) Carbon Tetrachloride	22.770	117	25462	2.8100	ppbv	99
33) tert-Amyl Methyl Ether	23.501	73	27267	2.6539	ppbv	100
34) 1,2-Dichloropropane	23.790	63	11645	2.5319	ppbv	100
35) Ethyl Acrylate	23.872	55	11556	2.9573	ppbv	99
36) Bromodichloromethane	24.078	83	19055	2.3410	ppbv	100
37) Trichloroethylene	24.161	130	13785	2.3920	ppbv	100
38) Methyl Methacrylate	24.532	41	32709	2.7890	ppbv	100
39) cis-1,3-Dichloropropene	25.530	75	11527	2.8861	ppbv	99
40) Methyl Isobutyl Ketone	25.607	43	22861	2.6516	ppbv	100
41) trans-1,3-Dichloropropene	26.369	75	7384	2.7595	ppbv	99
42) 1,1,2-Trichloroethane	26.617	97	10701	2.5428	ppbv	100
44) Toluene	27.094	91	34989	2.5500	ppbv	100
45) Dibromochloromethane	27.734	129	70053	2.6007	ppbv	100
46) 1,2-Dibromoethane	28.155	107	14118	2.7439	ppbv	100
47) n-Octane	28.857	43	20287	2.4546	ppbv	99
48) Tetrachloroethylene	28.997	166	17157	2.5979	ppbv	100
49) Chlorobenzene	30.173	112	22244	2.5400	ppbv	100
50) Ethylbenzene	30.898	91	37336	2.5880	ppbv	100

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19BY\
Data File : L19BY002.D
Acq On : 25 Feb 2019 7:39 am
Operator : MAH
Sample : 1902065-CCV1
Misc : 80 ML 8L13001,9B20006
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 09:52:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

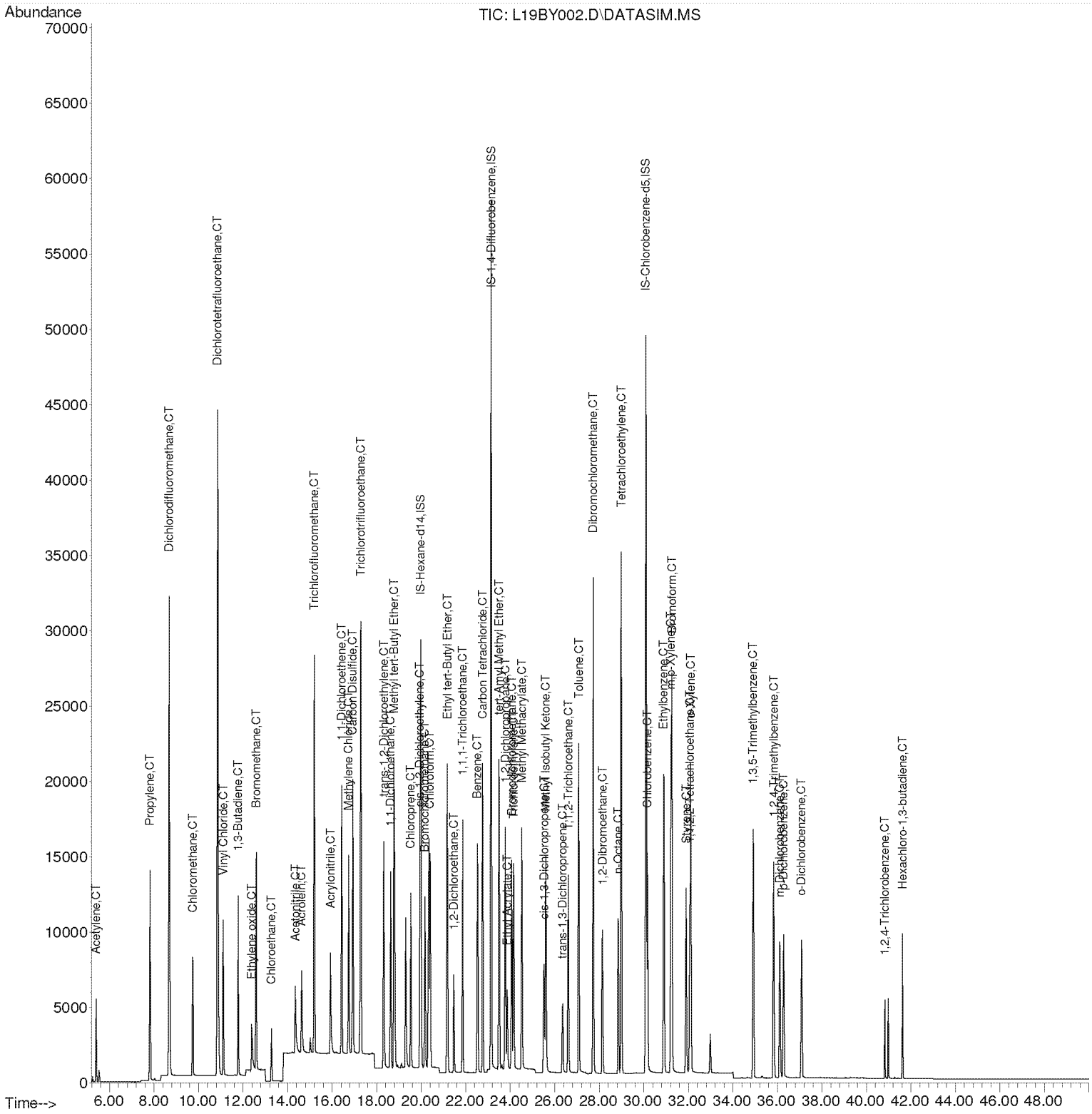
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.223	91	61501	5.0545 ppbv	100
52) Bromoform	31.280	173	13921	2.6730 ppbv	100
53) Styrene	31.910	104	17519	2.5396 ppbv #	100
54) 1,1,2,2-Tetrachloroethane	32.082	83	19662	2.5037 ppbv	99
55) o-Xylene	32.120	91	30490	2.5391 ppbv	100
56) 1,3,5-Trimethylbenzene	34.919	105	30430	2.3587 ppbv	100
57) 1,2,4-Trimethylbenzene	35.846	105	25051	2.2452 ppbv	100
58) m-Dichlorobenzene	36.113	146	13242	2.2573 ppbv	99
59) p-Dichlorobenzene	36.291	146	12999	2.7202 ppbv	100
60) o-Dichlorobenzene	37.093	146	13151	2.4511 ppbv	100
61) 1,2,4-Trichlorobenzene	40.841	180	4399	2.4174 ppbv	99
62) Hexachloro-1,3-butadiene	41.636	225	10634	2.2882 ppbv	100

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

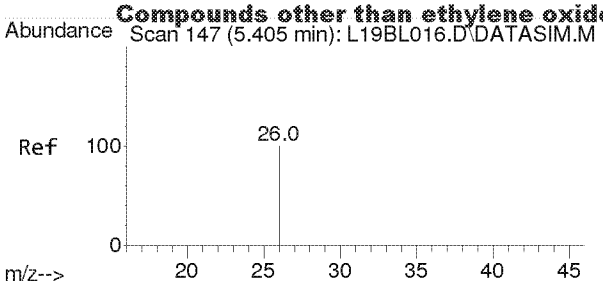
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY002.D
Acq On : 25 Feb 2019 7:39 am
Operator : MAH
Sample : 1902065-CCV1
Misc : 80 ML 8L13001,9B20006
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 09:52:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

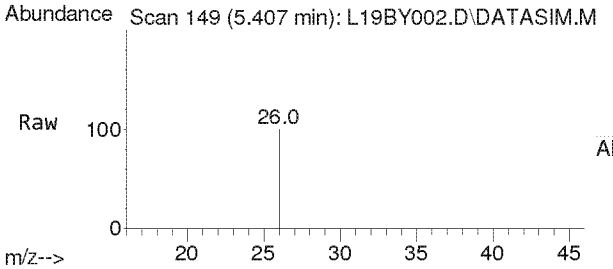


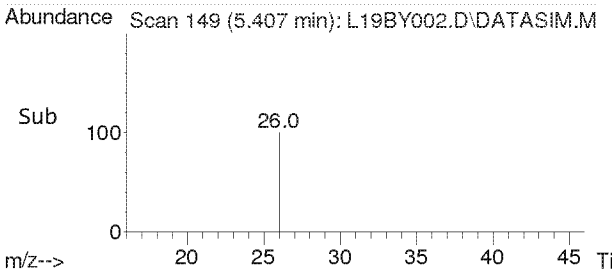
Compounds other than ethylene oxide were not quantitated.

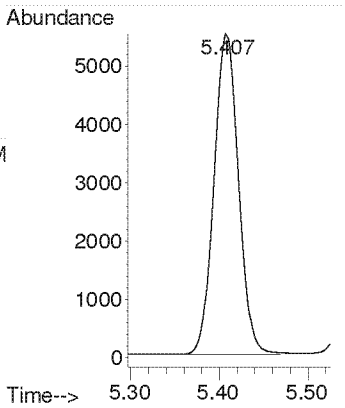


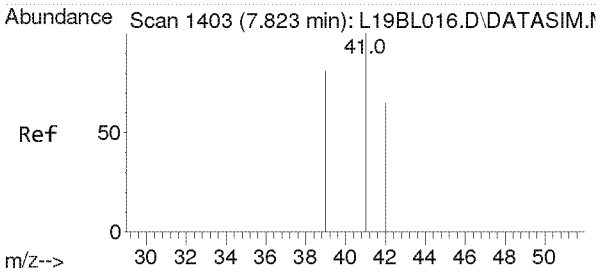
#2
Acetylene
Concen: 2.807 ppbv
RT: 5.407 min Scan# 149
Delta R.T. 0.003 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 26 Resp: 10527





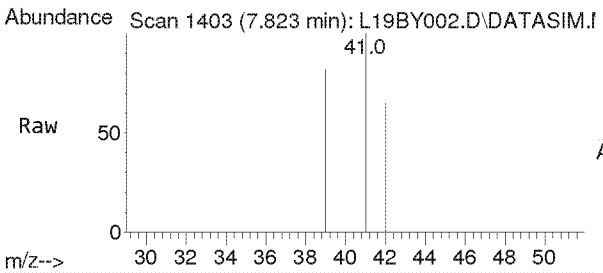


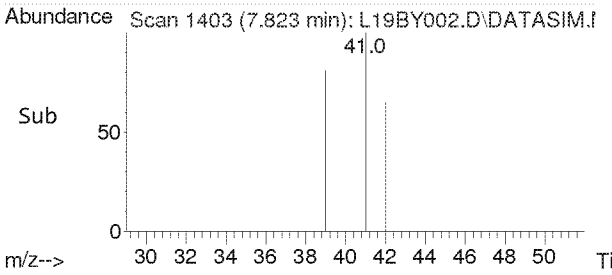


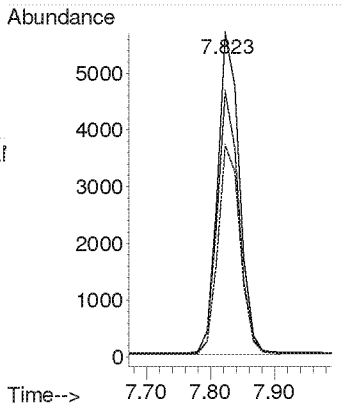
#3
Propylene
Concen: 2.858 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.000 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 41 Resp: 13369

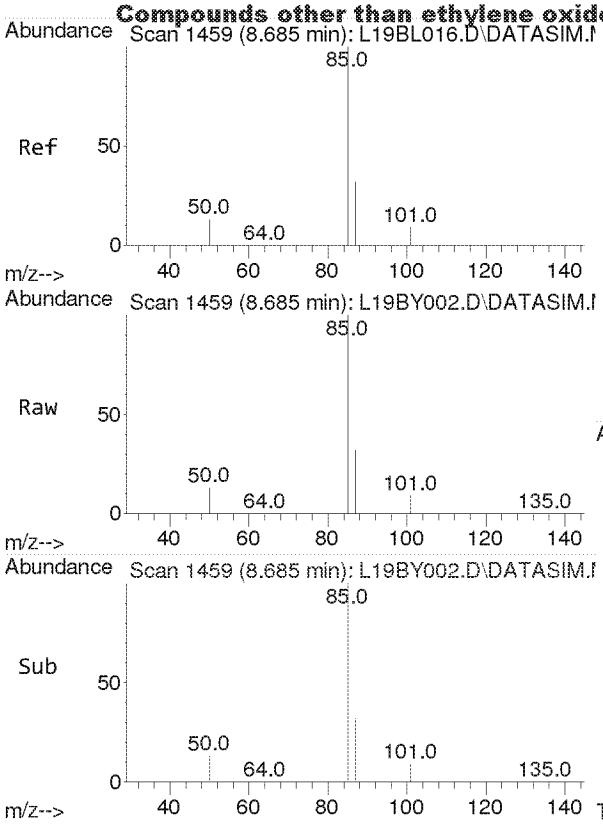
Ion	Ratio	Lower	Upper
41	100		
39	80.4	64.2	96.2
42	66.3	52.6	79.0







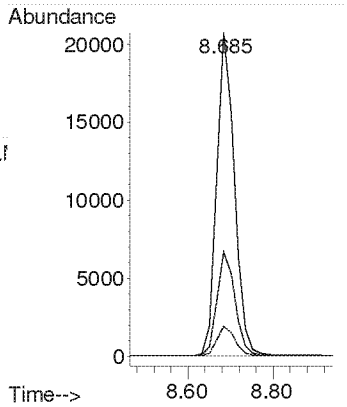
Compounds other than ethylene oxide were not quantitated.

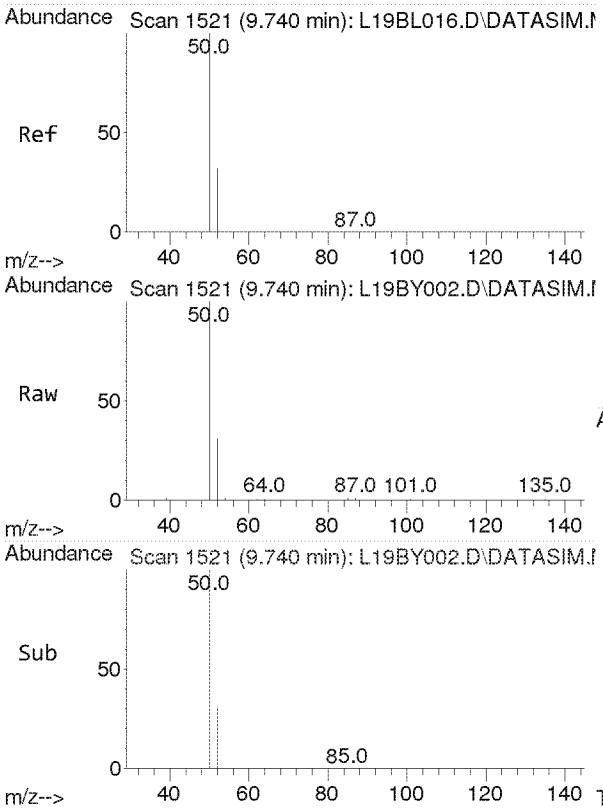


#4
Dichlorodifluoromethane
Concen: 2.690 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. -0.000 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 85 Resp: 59398

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

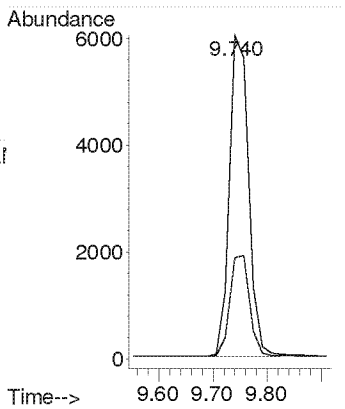




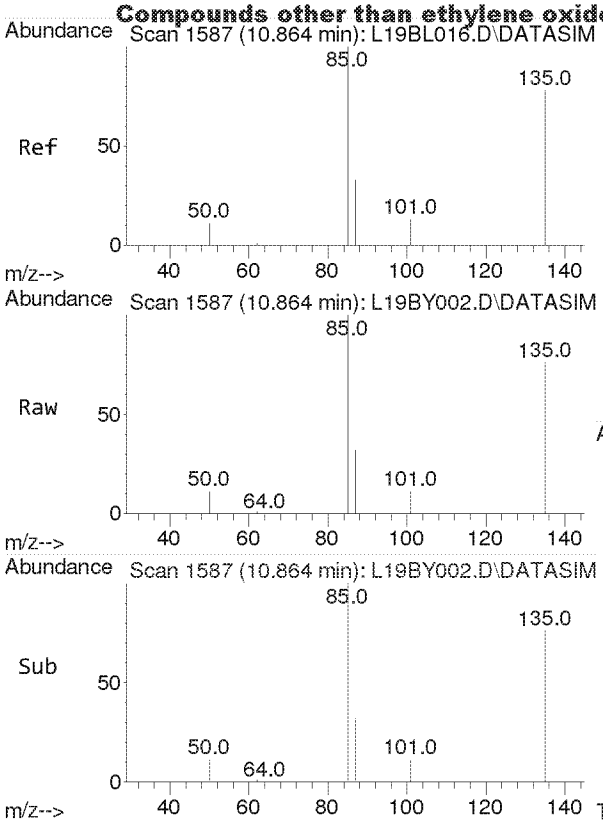
#5
Chloromethane
Concen: 2.584 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. -0.000 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 50 Resp: 14694

Ion	Ratio	Lower	Upper
50	100		
52	32.5	26.1	39.1



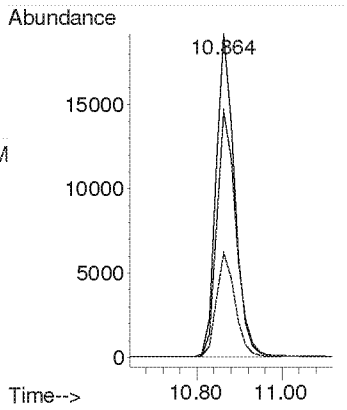
Compounds other than ethylene oxide were not quantitated.

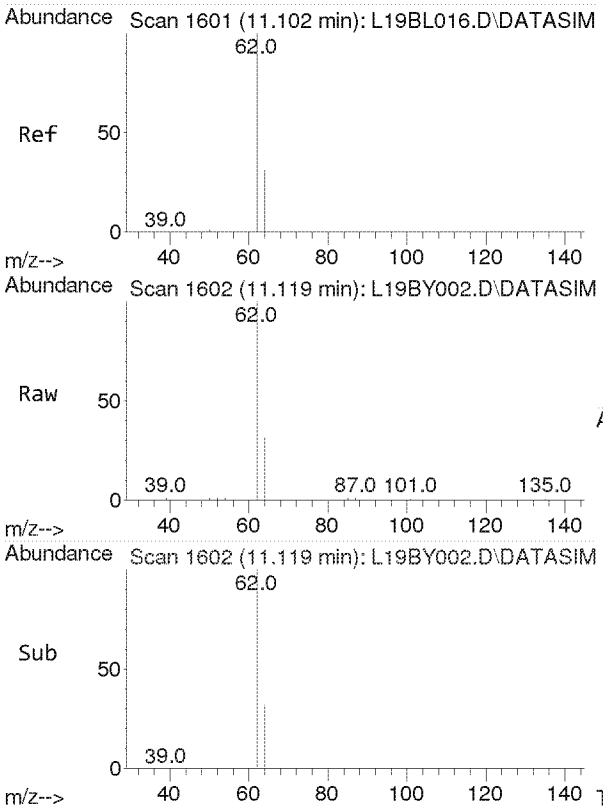


#6
Dichlorotetrafluoroethane
Concen: 2.954 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. -0.000 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 85 Resp: 57105

Ion	Ratio	Lower	Upper
85	100		
135	79.8	63.2	94.8
87	32.4	25.9	38.9

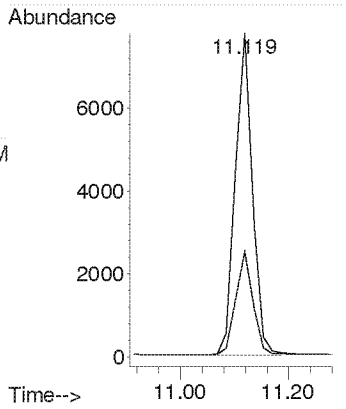




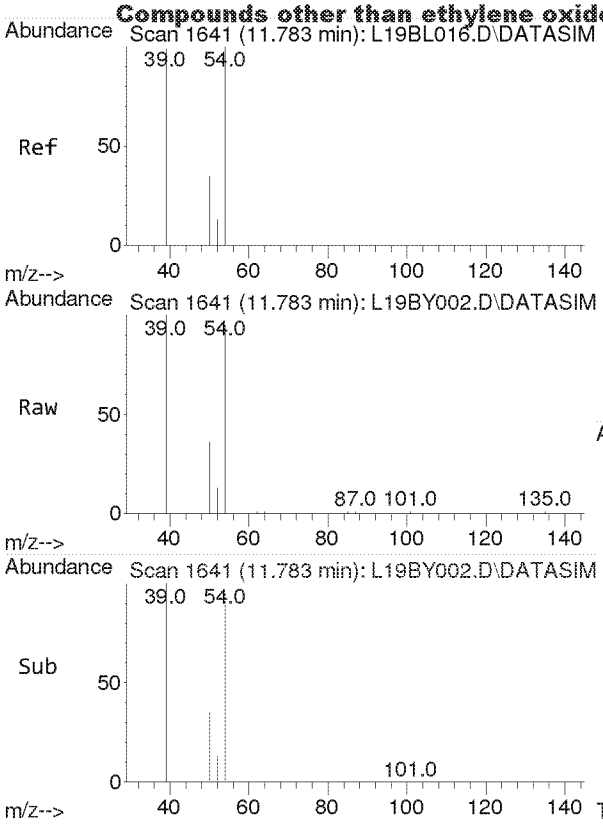
#7
Vinyl Chloride
Concen: 2.655 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. 0.017 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 62 Resp: 16888

Ion	Ratio	Lower	Upper
62	100		
64	31.9	25.4	38.0



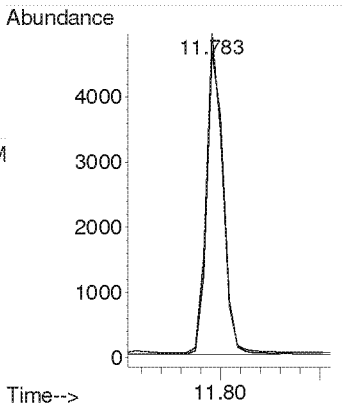
Compounds other than ethylene oxide were not quantitated.

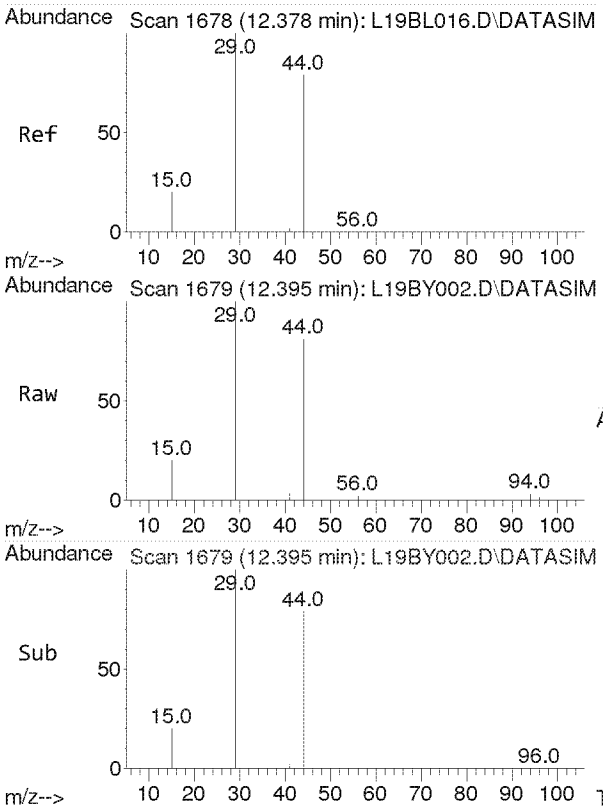


#8
1,3-Butadiene
Concen: 2.507 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. -0.000 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 54 Resp: 10837

Ion	Ratio	Lower	Upper
54	100		
39	102.2	81.6	122.4

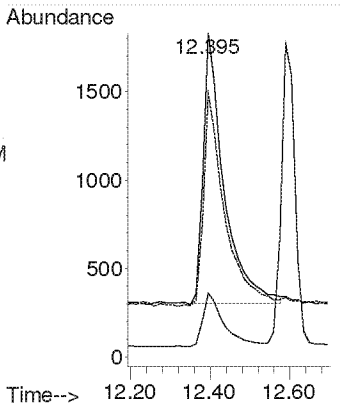




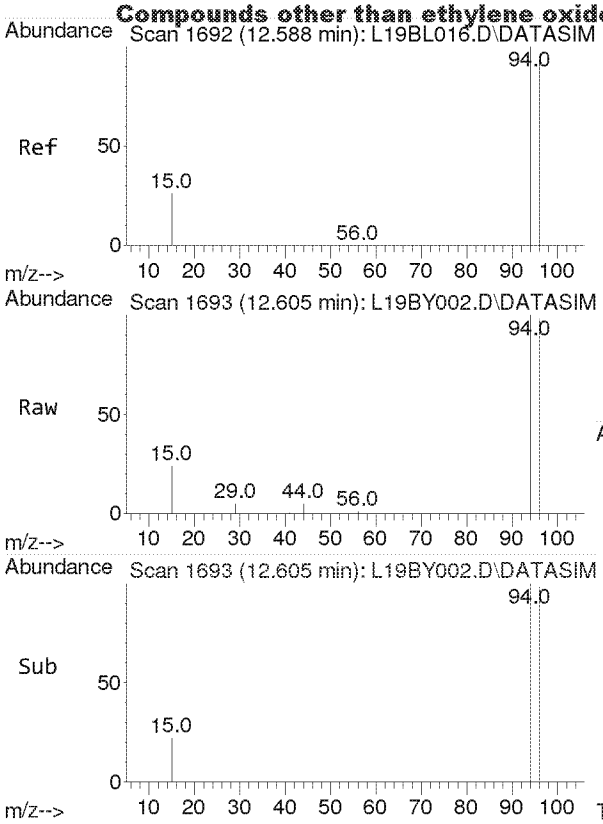
#9
Ethylene oxide
Concen: 2.079 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.017 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 29 Resp: 5446

Ion	Ratio	Lower	Upper
29	100		
15	20.0	16.0	24.0
44	81.7	65.4	98.2



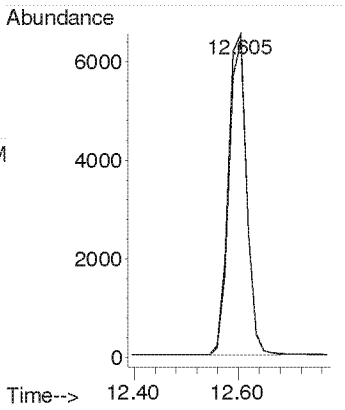
Compounds other than ethylene oxide were not quantitated.

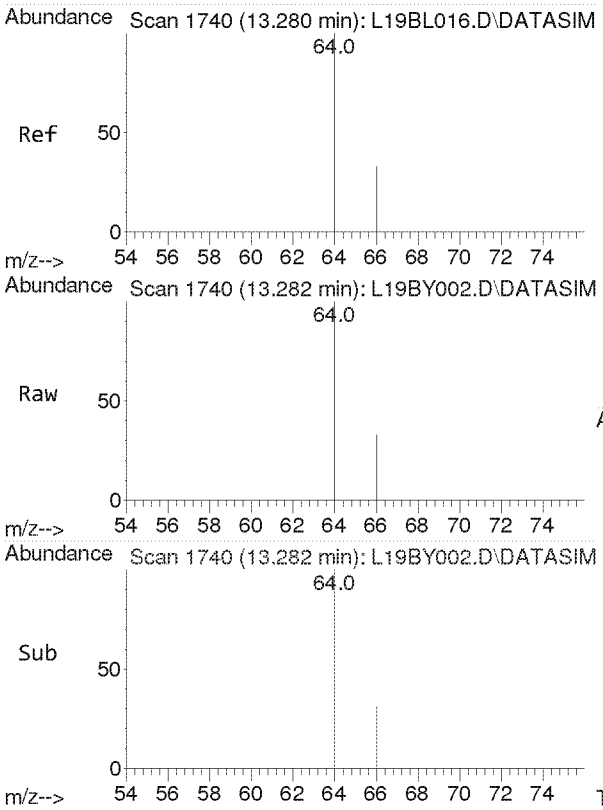


#10
Bromomethane
Concen: 2.645 ppbv
RT: 12.605 min Scan# 1693
Delta R.T. 0.017 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 94 Resp: 15921

Ion	Ratio	Lower	Upper
94	100		
96	95.0	75.5	113.3

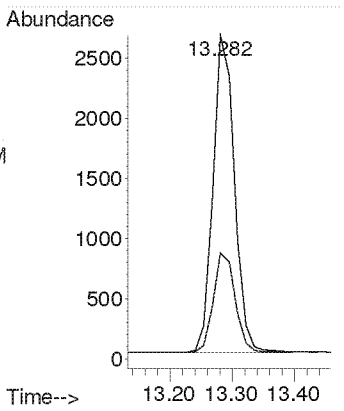




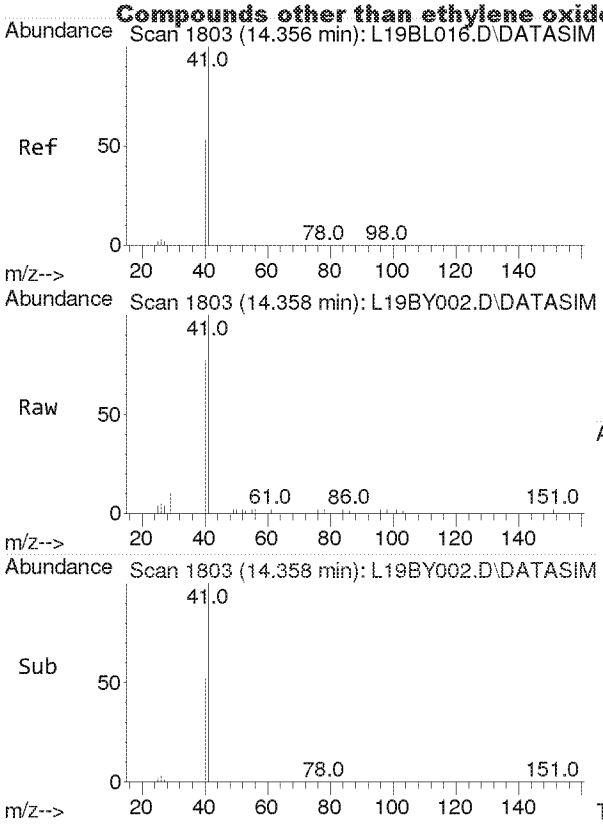
#11
Chloroethane
Concen: 2.452 ppbv
RT: 13.282 min Scan# 1740
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 64 Resp: 6196

Ion	Ratio	Lower	Upper
64	100		
66	32.3	25.8	38.6



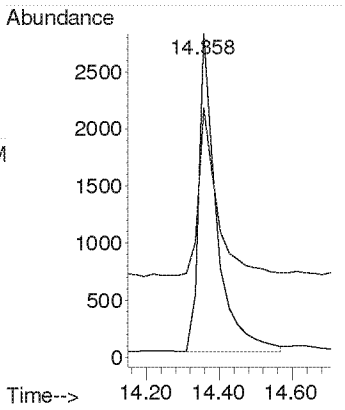
Compounds other than ethylene oxide were not quantitated.

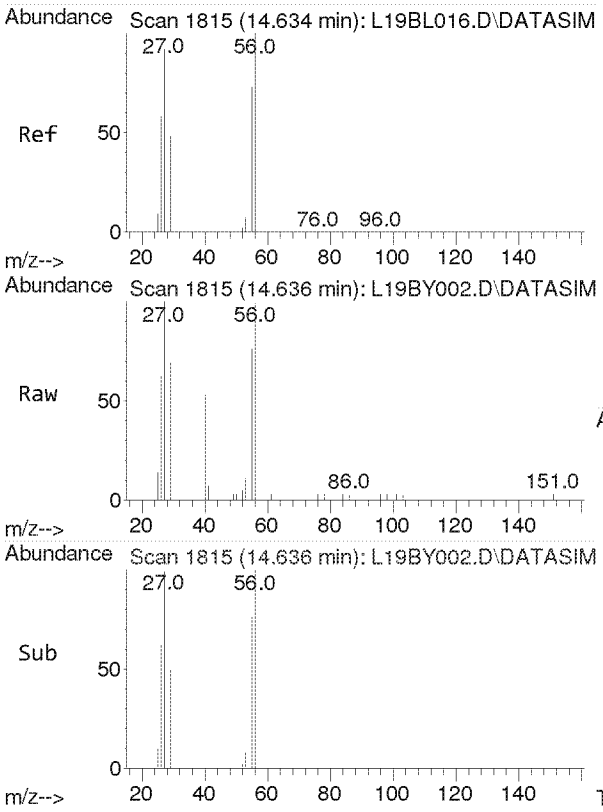


#12
Acetonitrile
Concen: 2.361 ppbv
RT: 14.358 min Scan# 1803
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 41 Resp: 9385

Ion	Ratio	Lower	Upper
41	100		
40	54.2	42.2	63.4

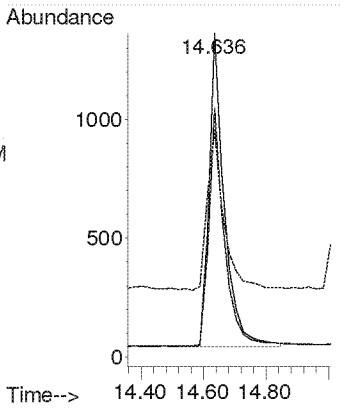




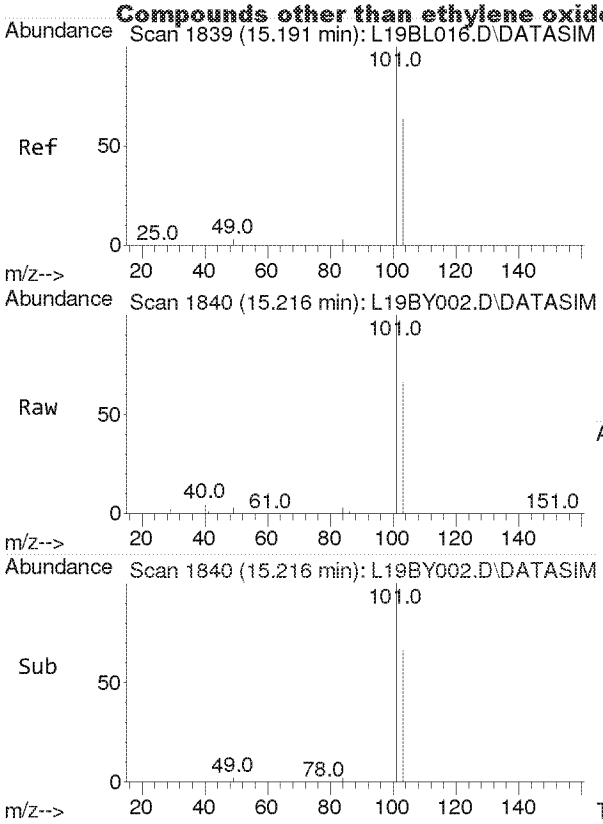
#13
Acrolein
Concen: 2.214 ppbv
RT: 14.636 min Scan# 1815
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 56 Resp: 4434

Ion	Ratio	Lower	Upper
56	100		
55	77.2	60.8	91.2
29	55.7	43.8	65.6



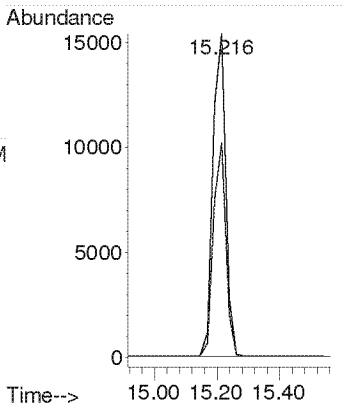
Compounds other than ethylene oxide were not quantitated.

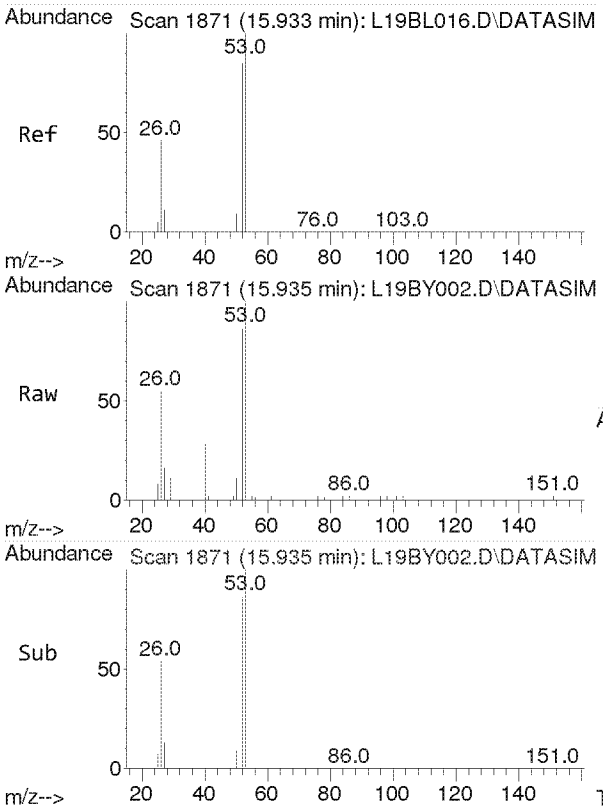


#14
Trichlorofluoromethane
Concen: 2.343 ppbv
RT: 15.216 min Scan# 1840
Delta R.T. 0.025 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:101 Resp: 43718

Ion	Ratio	Lower	Upper
101	100		
103	64.8	51.7	77.5

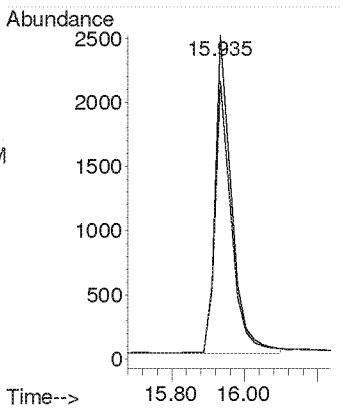




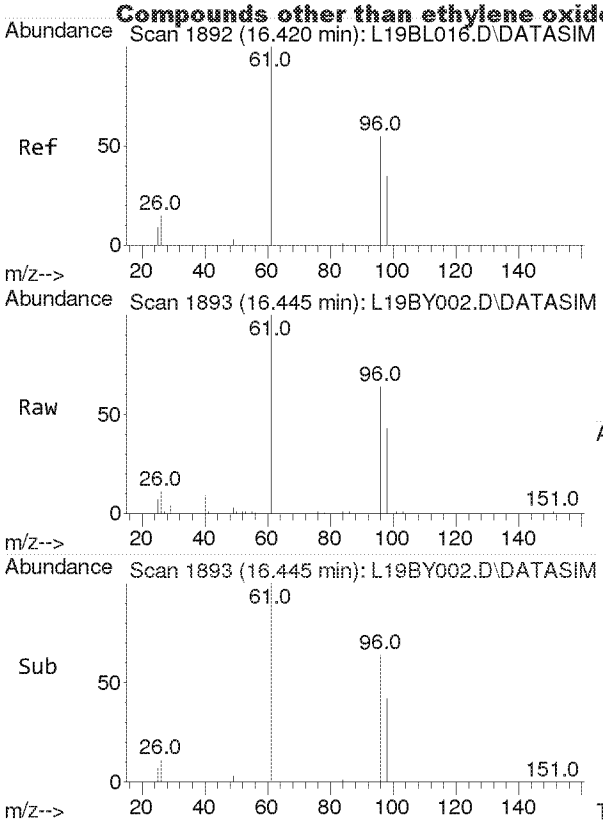
#15
Acrylonitrile
Concen: 2.375 ppbv
RT: 15.935 min Scan# 1871
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 53 Resp: 7530

Ion	Ratio	Lower	Upper
53	100		
52	85.8	69.5	104.3



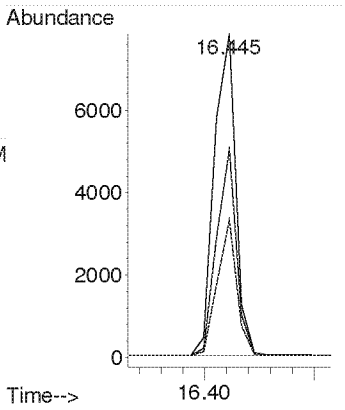
Compounds other than ethylene oxide were not quantitated.

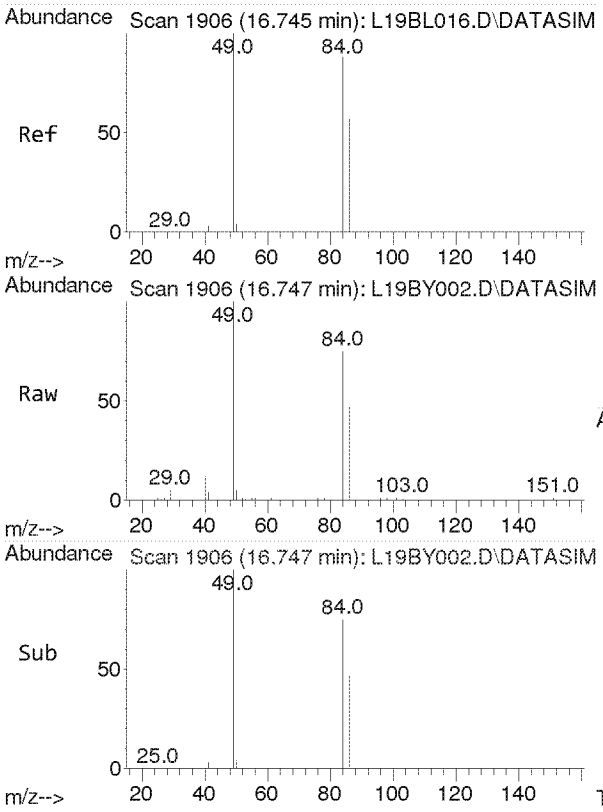


#16
1,1-Dichloroethene
Concen: 2.636 ppbv
RT: 16.445 min Scan# 1893
Delta R.T. 0.025 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 61 Resp: 21338

Ion	Ratio	Lower	Upper
61	100		
96	59.2	47.3	70.9
98	38.2	30.6	45.8

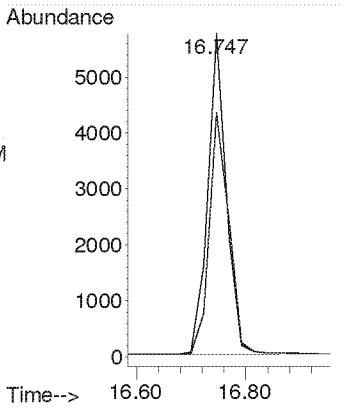




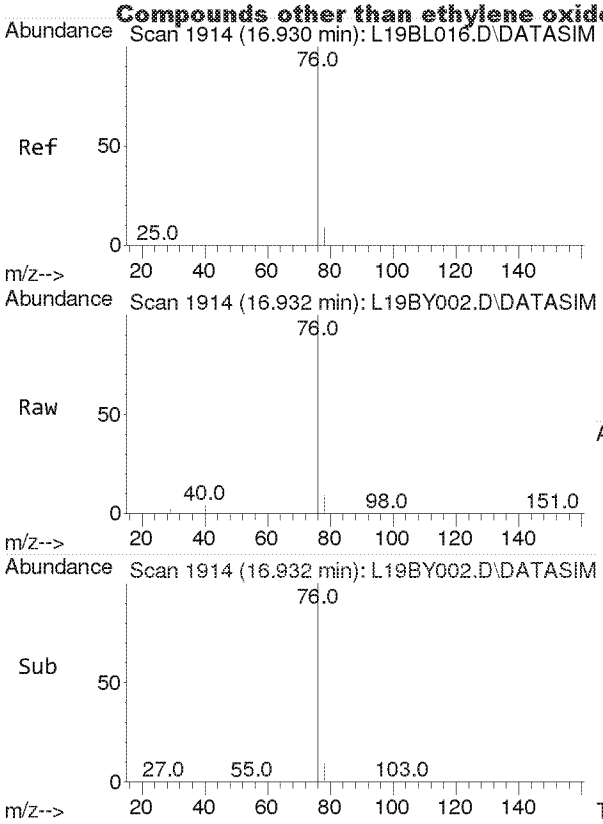
#17
Methylene Chloride
Concen: 2.514 ppbv
RT: 16.747 min Scan# 1906
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 49 Resp: 13444

Ion	Ratio	Lower	Upper
49	100		
84	79.5	54.0	100.4



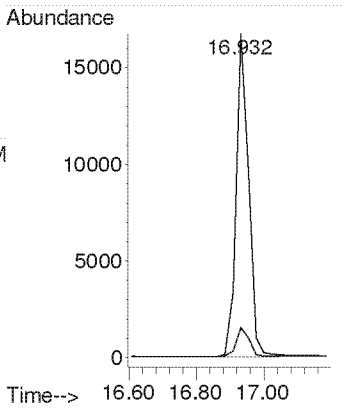
Compounds other than ethylene oxide were not quantitated.

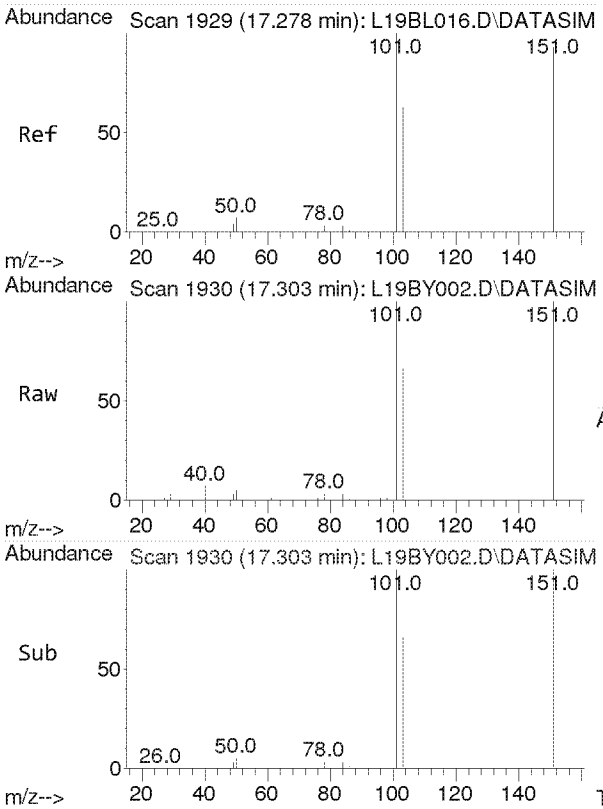


#18
Carbon Disulfide
Concen: 2.614 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 76 Resp: 43057

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.4	11.0

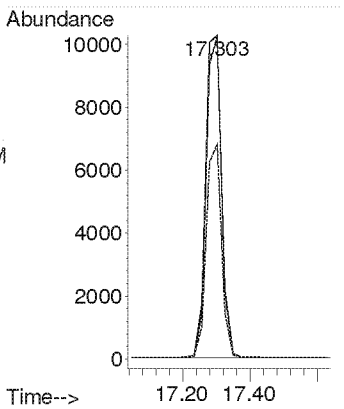




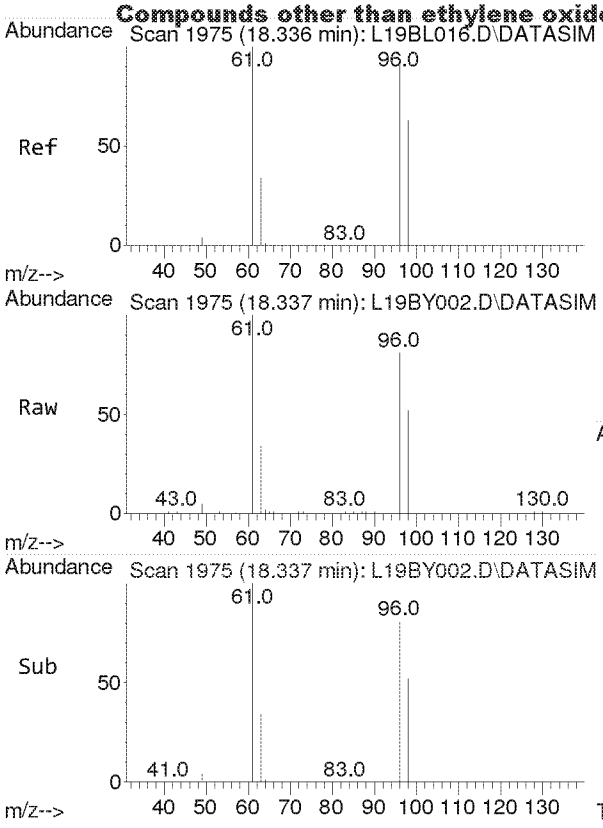
#19
Trichlorotrifluoroethane
Concen: 2.677 ppbv
RT: 17.303 min Scan# 1930
Delta R.T. 0.025 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:101 Resp: 33598

Ion	Ratio	Lower	Upper
101	100		
151	96.5	75.8	113.8
103	64.2	51.1	76.7



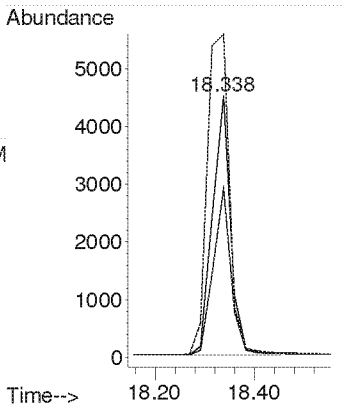
Compounds other than ethylene oxide were not quantitated.

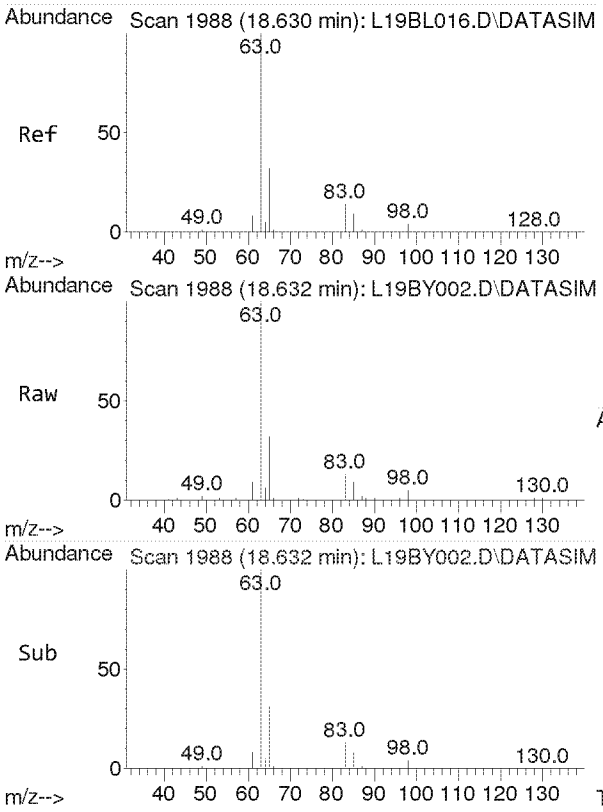


#20
trans-1,2-Dichloroethylene
Concen: 2.494 ppbv
RT: 18.337 min Scan# 1975
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 96 Resp: 11193

Ion	Ratio	Lower	Upper
96	100		
98	63.8	51.5	77.3
61	152.4	122.9	184.3

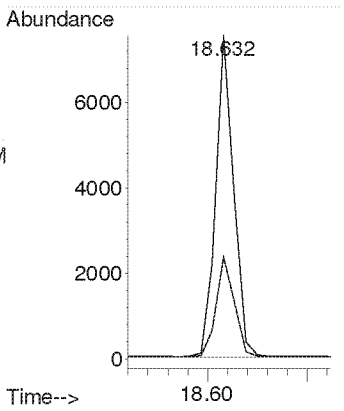




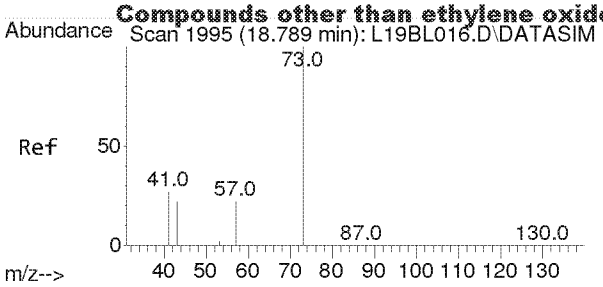
#21
1,1-Dichloroethane
Concen: 2.493 ppbv
RT: 18.632 min Scan# 1988
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 63 Resp: 18805

Ion	Ratio	Lower	Upper
63	100		
65	31.7	25.4	38.0



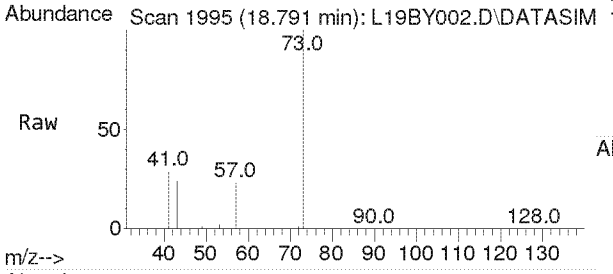
Compounds other than ethylene oxide were not quantitated.

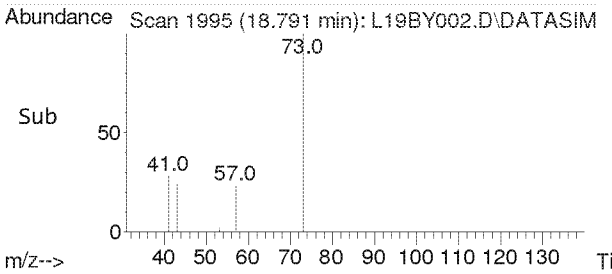


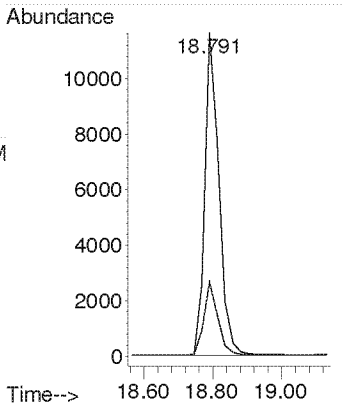
#22
Methyl tert-Butyl Ether
Concen: 2.628 ppbv
RT: 18.791 min Scan# 1995
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

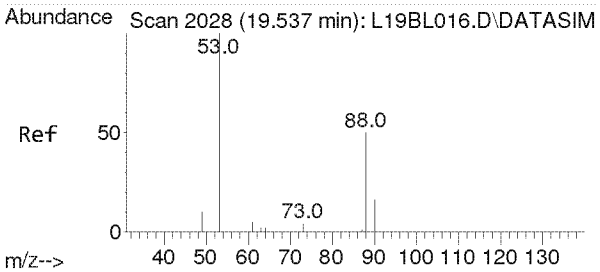
Tgt Ion: 73 Resp: 33243

Ion	Ratio	Lower	Upper
73	100		
57	22.2	18.0	27.0





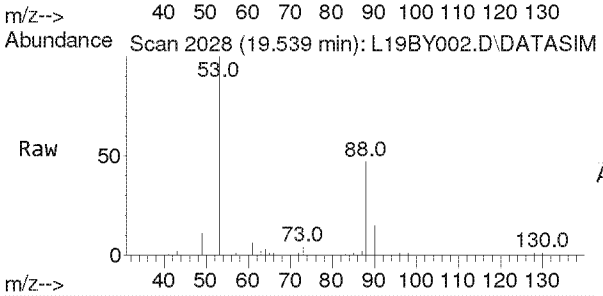


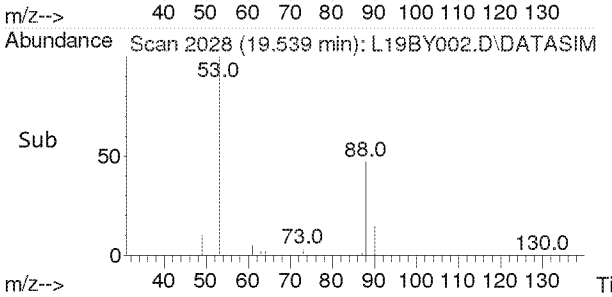


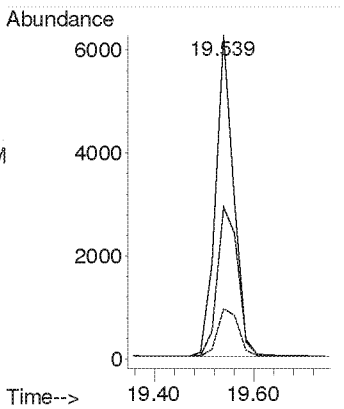
#23
Chloroprene
Concen: 2.547 ppbv
RT: 19.539 min Scan# 2028
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 53 Resp: 15630

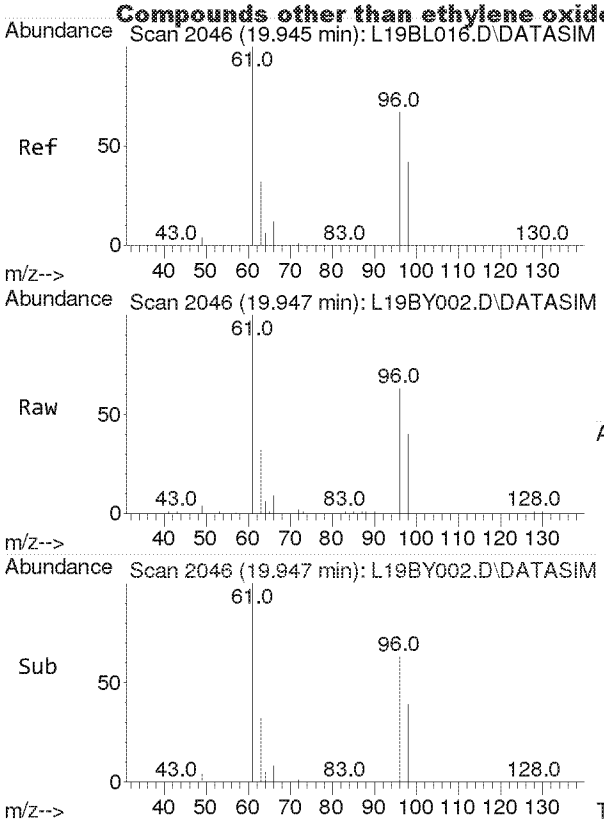
Ion	Ratio	Lower	Upper
53	100		
88	53.9	42.6	64.0
90	17.4	13.9	20.9







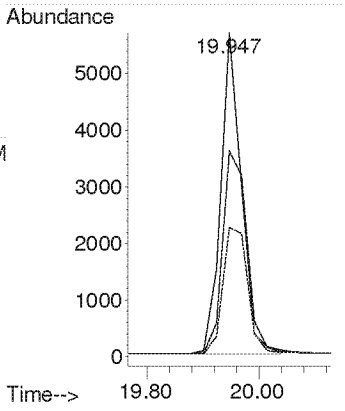
Compounds other than ethylene oxide were not quantitated.

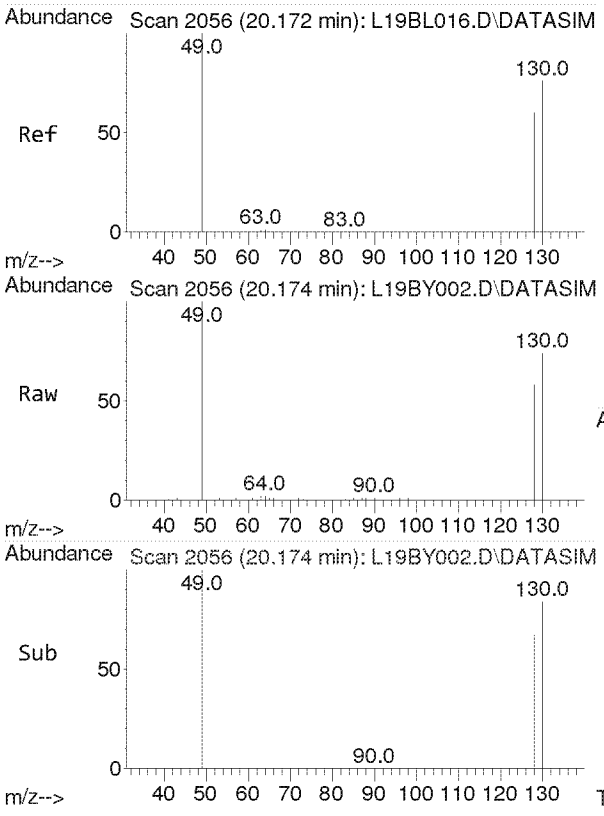


#24
cis-1,2-Dichloroethylene
Concen: 2.448 ppbv
RT: 19.947 min Scan# 2046
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 61 Resp: 14579

Ion	Ratio	Lower	Upper
61	100		
96	74.9	59.0	88.6
98	47.7	37.6	56.4

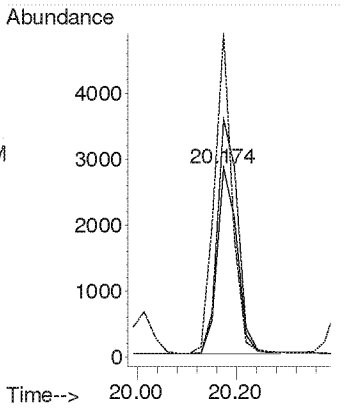




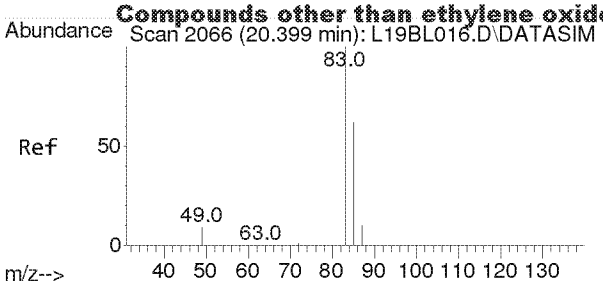
#25
Bromochloromethane
Concen: 2.437 ppbv
RT: 20.174 min Scan# 2056
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:128 Resp: 7846

Ion	Ratio	Lower	Upper
128	100		
130	130.5	103.3	154.9
49	154.3	128.3	192.5



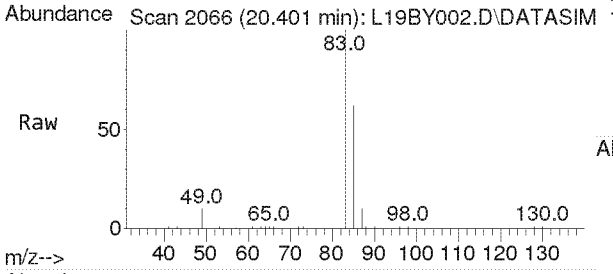
Compounds other than ethylene oxide were not quantitated.

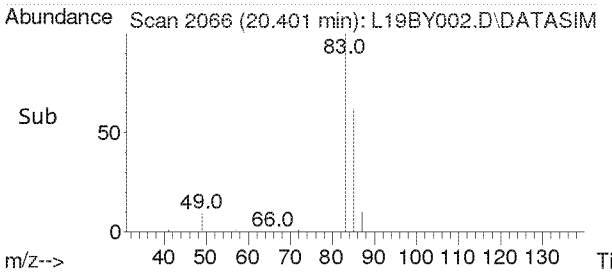


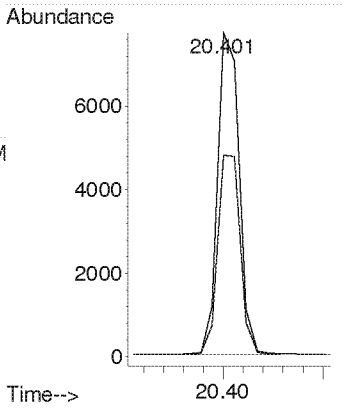
#26
Chloroform
Concen: 2.658 ppbv
RT: 20.401 min Scan# 2066
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

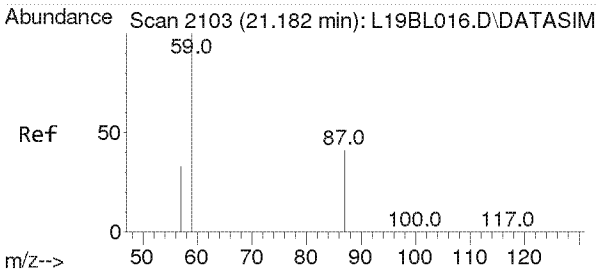
Tgt Ion: 83 Resp: 23266

Ion	Ratio	Lower	Upper
83	100		
85	65.1	51.5	77.3





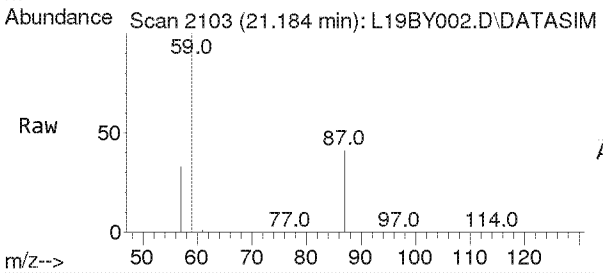


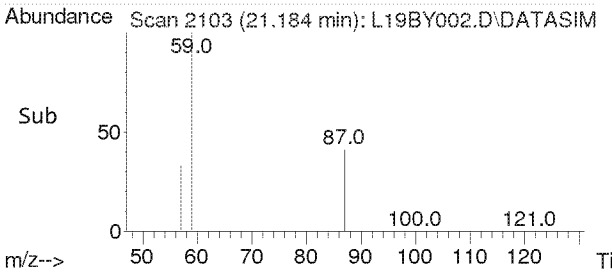


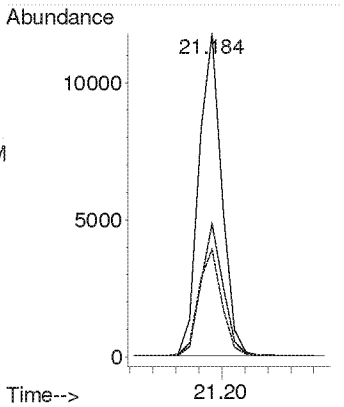
#27
Ethyl tert-Butyl Ether
Concen: 2.670 ppbv
RT: 21.184 min Scan# 2103
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 59 Resp: 32310

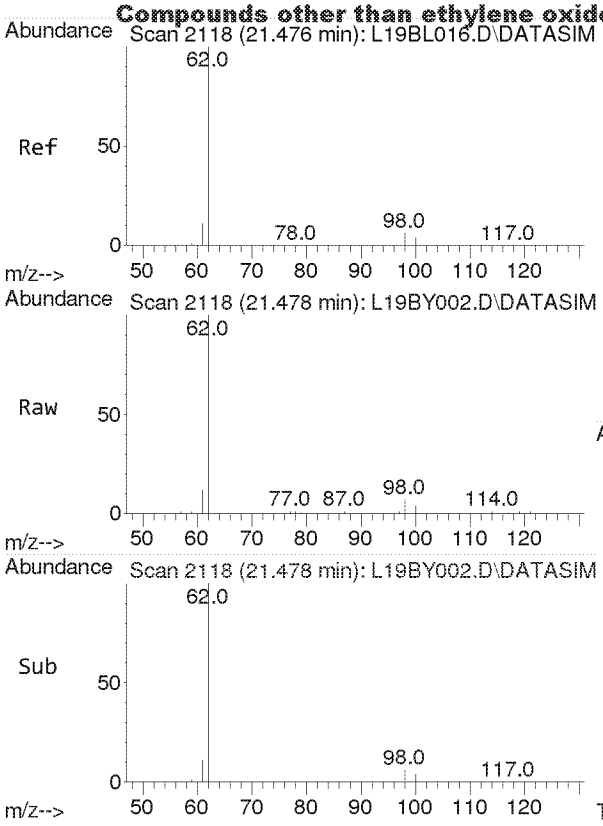
Ion	Ratio	Lower	Upper
59	100		
87	39.4	31.5	47.3
57	33.2	26.6	39.8







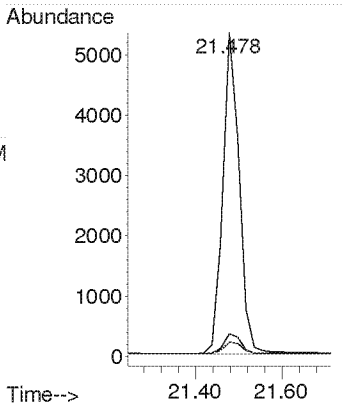
Compounds other than ethylene oxide were not quantitated.

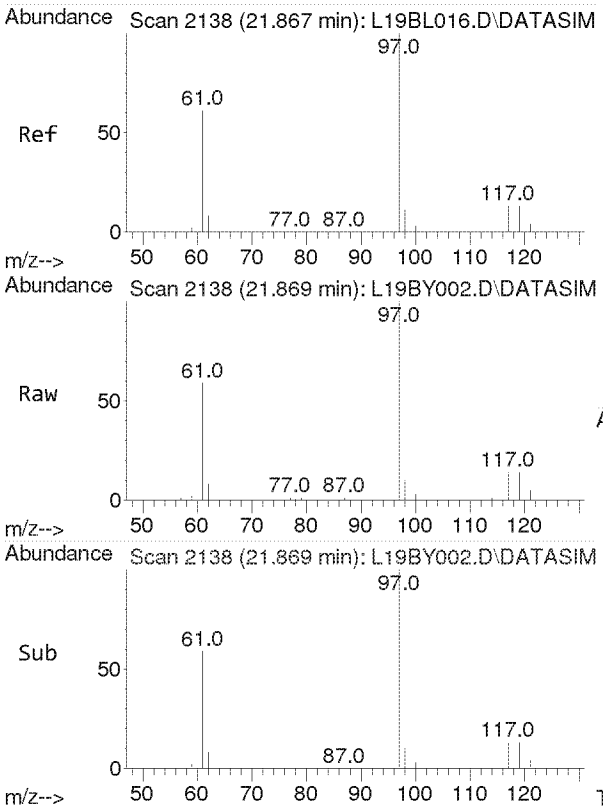


#28
1,2-Dichloroethane
Concen: 2.579 ppbv
RT: 21.478 min Scan# 2118
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 62 Resp: 13854

Ion	Ratio	Lower	Upper
62	100		
98	6.5	5.0	7.6
100	4.0	3.2	4.8

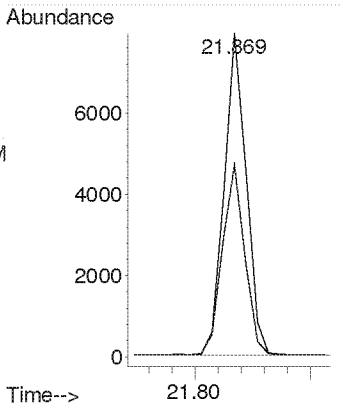




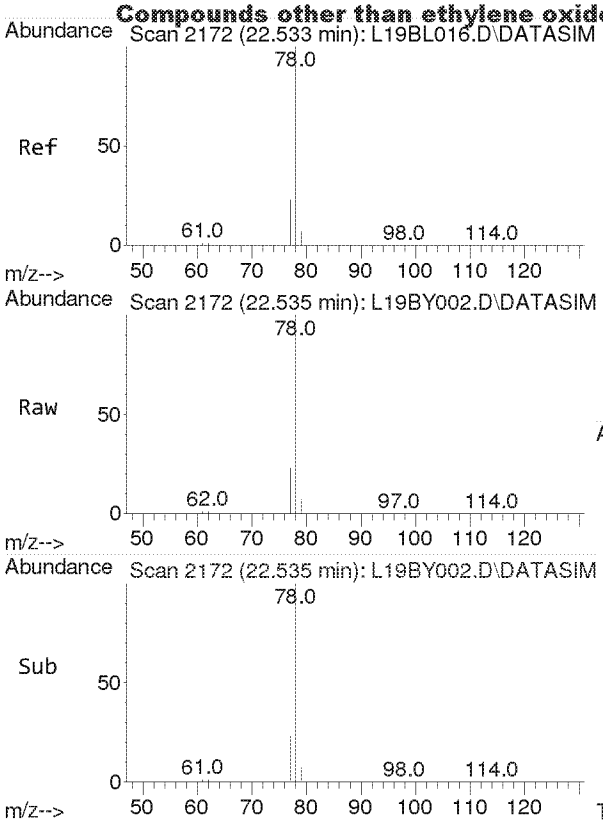
#30
1,1,1-Trichloroethane
Concen: 2.466 ppbv
RT: 21.869 min Scan# 2138
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 97 Resp: 20862

Ion	Ratio	Lower	Upper
97	100		
61	60.0	49.7	74.5



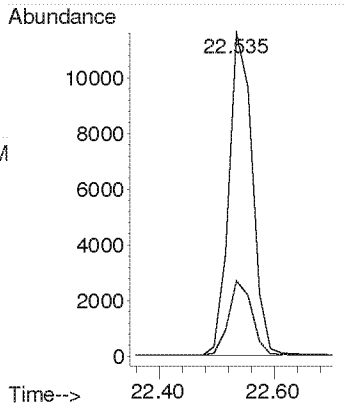
Compounds other than ethylene oxide were not quantitated.

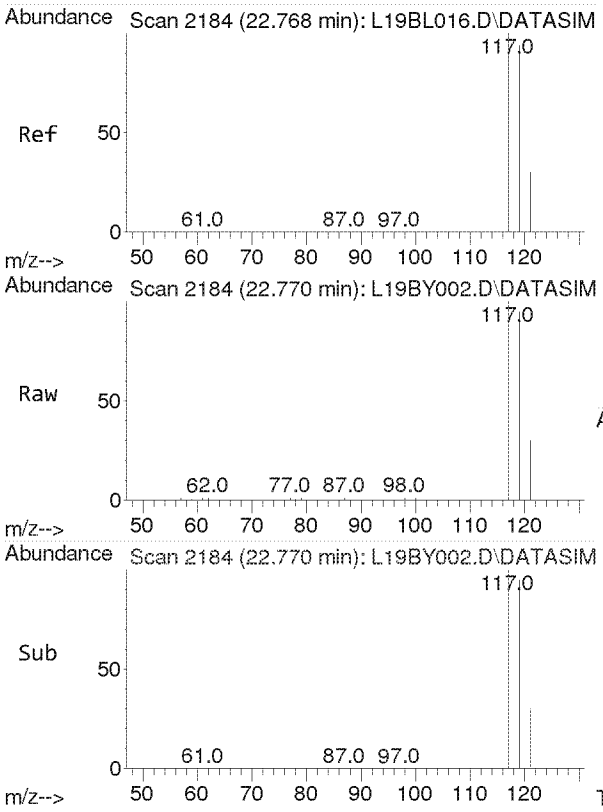


#31
Benzene
Concen: 2.679 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 78 Resp: 32408

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.2	27.4

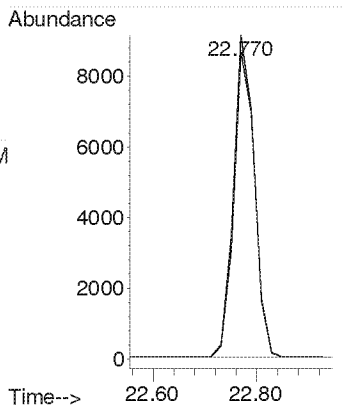




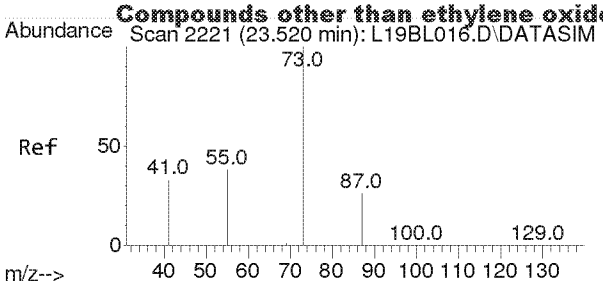
#32
Carbon Tetrachloride
Concen: 2.810 ppbv
RT: 22.770 min Scan# 2184
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:117 Resp: 25462

Ion	Ratio	Lower	Upper
117	100		
119	95.7	77.0	115.6



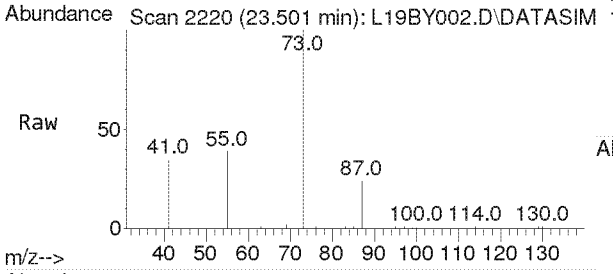
Compounds other than ethylene oxide were not quantitated.

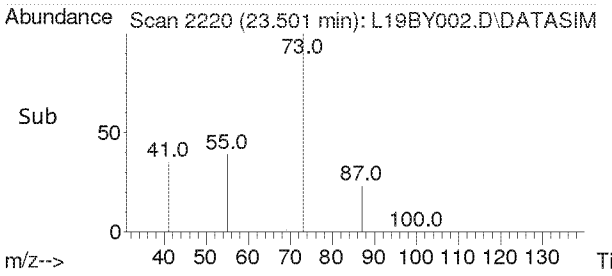


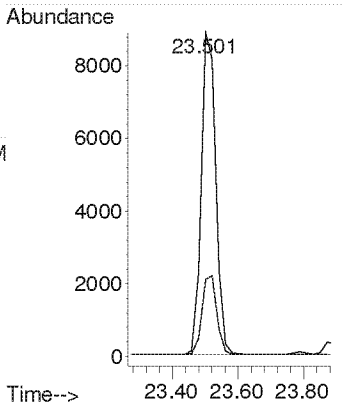
#33
tert-Amyl Methyl Ether
Concen: 2.654 ppbv
RT: 23.501 min Scan# 2220
Delta R.T. -0.019 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

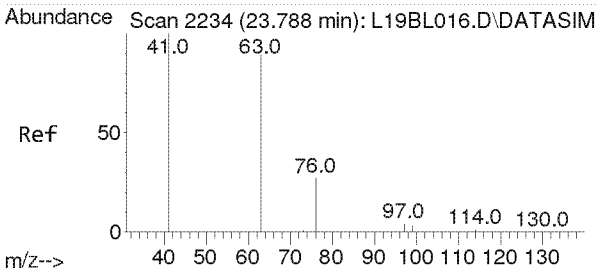
Tgt Ion: 73 Resp: 27267

Ion	Ratio	Lower	Upper
73	100		
87	25.0	20.1	30.1





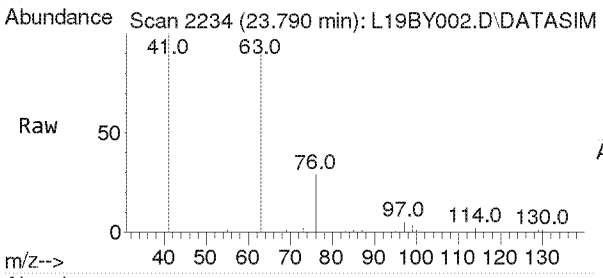


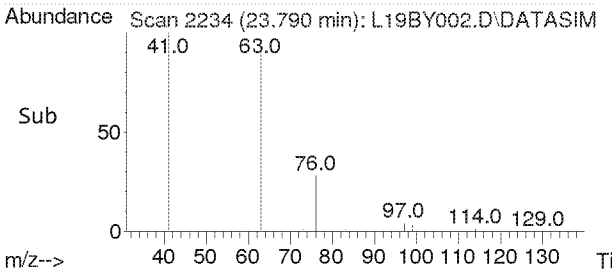


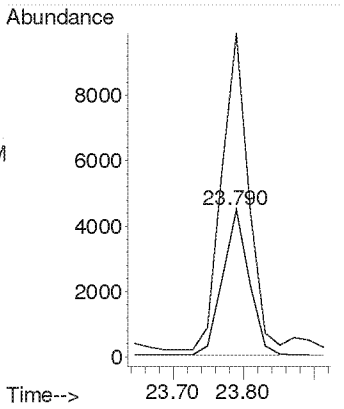
#34
1,2-Dichloropropane
Concen: 2.532 ppbv
RT: 23.790 min Scan# 2234
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 63 Resp: 11645

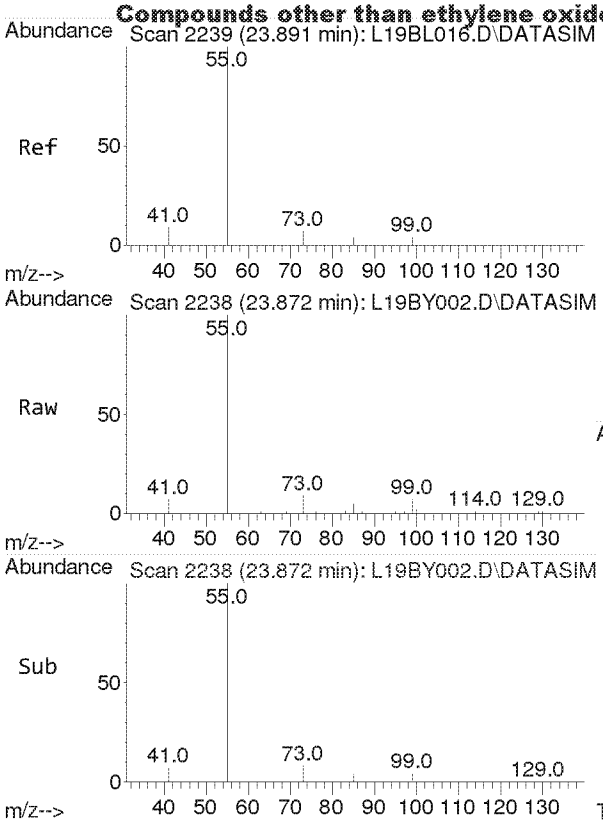
Ion	Ratio	Lower	Upper
63	100		
41	219.3	175.9	263.9







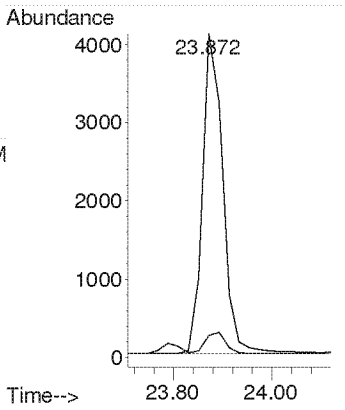
Compounds other than ethylene oxide were not quantitated.

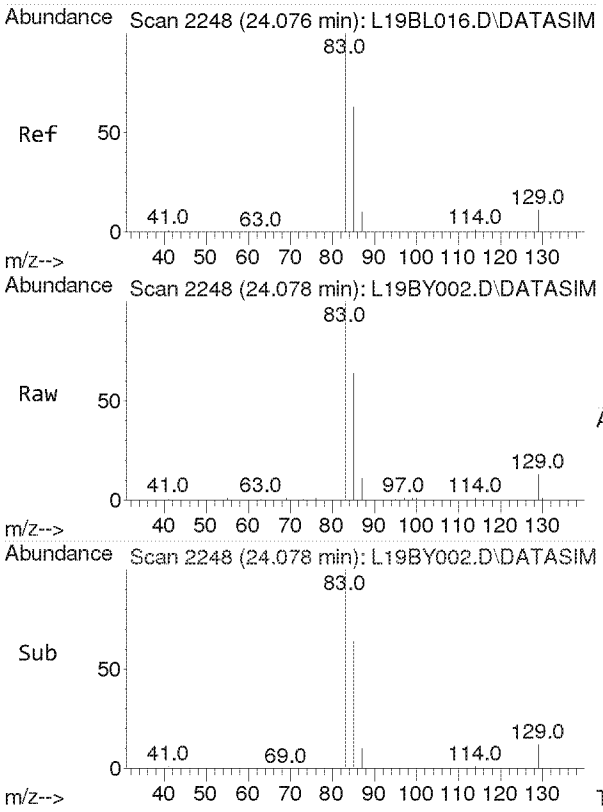


#35
Ethyl Acrylate
Concen: 2.957 ppbv
RT: 23.872 min Scan# 2238
Delta R.T. -0.019 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 55 Resp: 11556

Ion	Ratio	Lower	Upper
55	100		
99	6.7	5.0	7.6

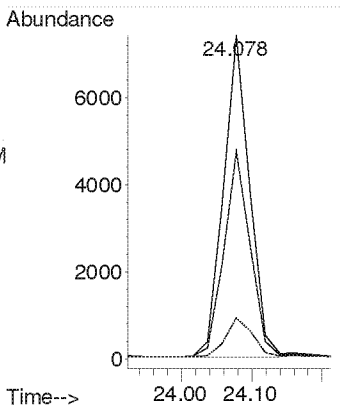




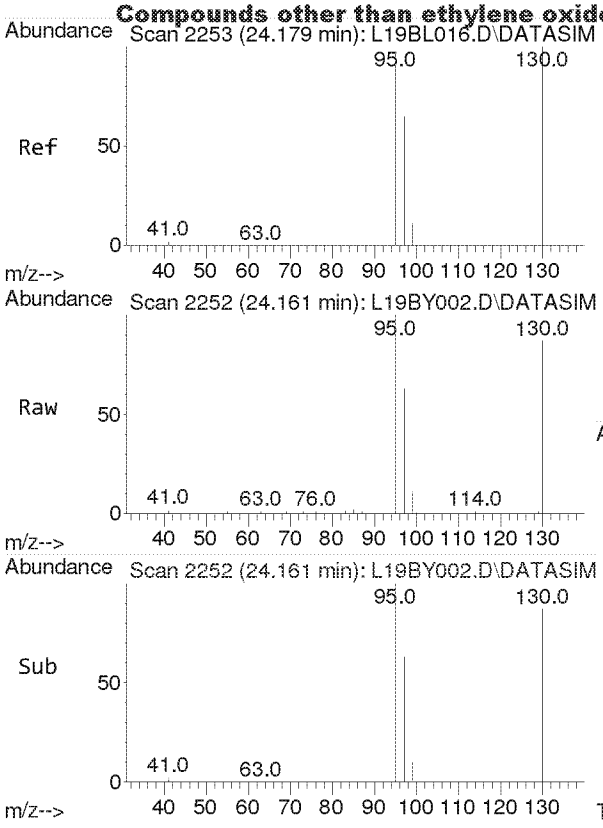
#36
Bromodichloromethane
Concen: 2.341 ppbv
RT: 24.078 min Scan# 2248
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 83 Resp: 19055

Ion	Ratio	Lower	Upper
83	100		
85	64.0	51.0	76.4
129	12.5	9.9	14.9



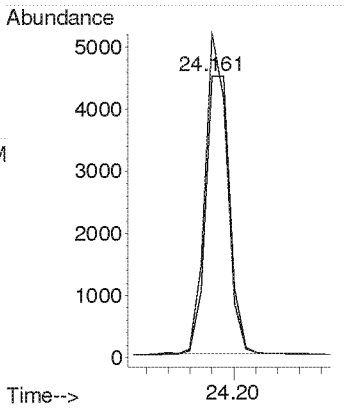
Compounds other than ethylene oxide were not quantitated.

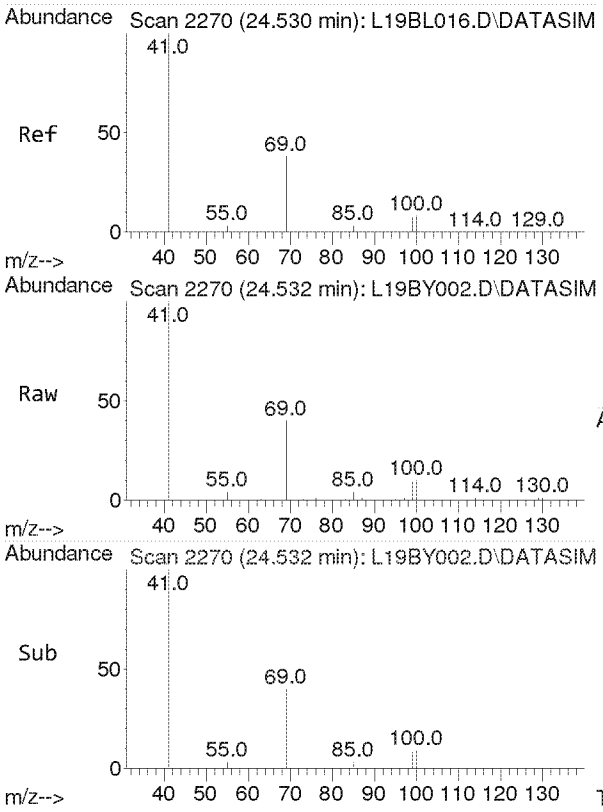


#37
Trichloroethylene
Concen: 2.392 ppbv
RT: 24.161 min Scan# 2252
Delta R.T. -0.019 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:130 Resp: 13785

Ion	Ratio	Lower	Upper
130	100		
95	105.7	84.9	127.3

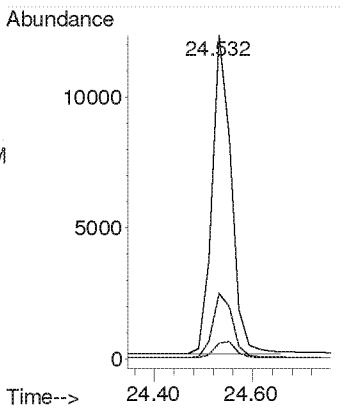




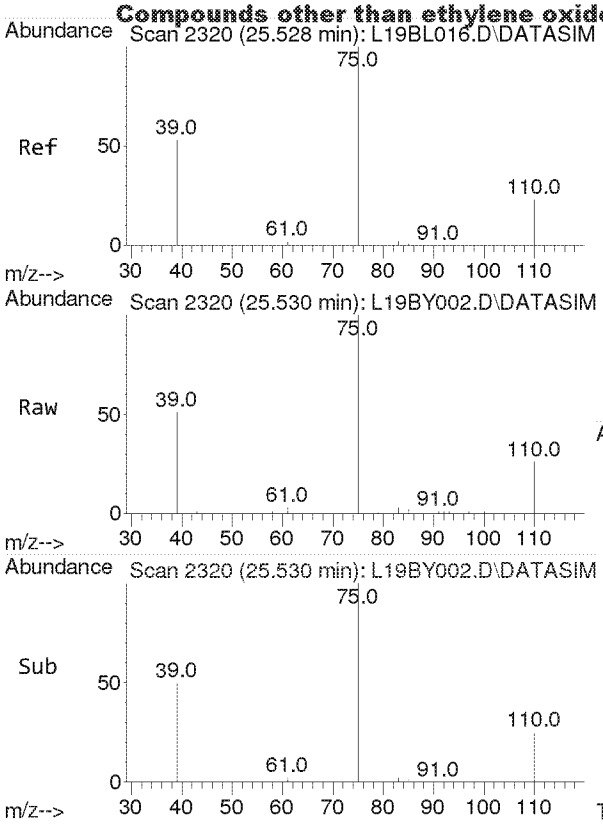
#38
Methyl Methacrylate
Concen: 2.789 ppbv
RT: 24.532 min Scan# 2270
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 41 Resp: 32709

Ion	Ratio	Lower	Upper
41	100		
69	21.1	16.8	25.2
100	5.6	4.5	6.7



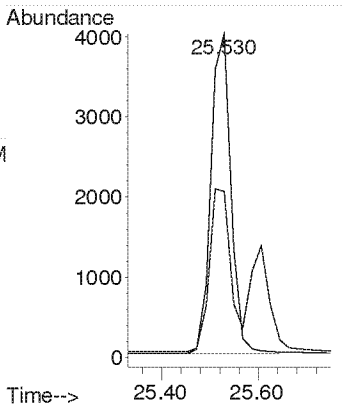
Compounds other than ethylene oxide were not quantitated.

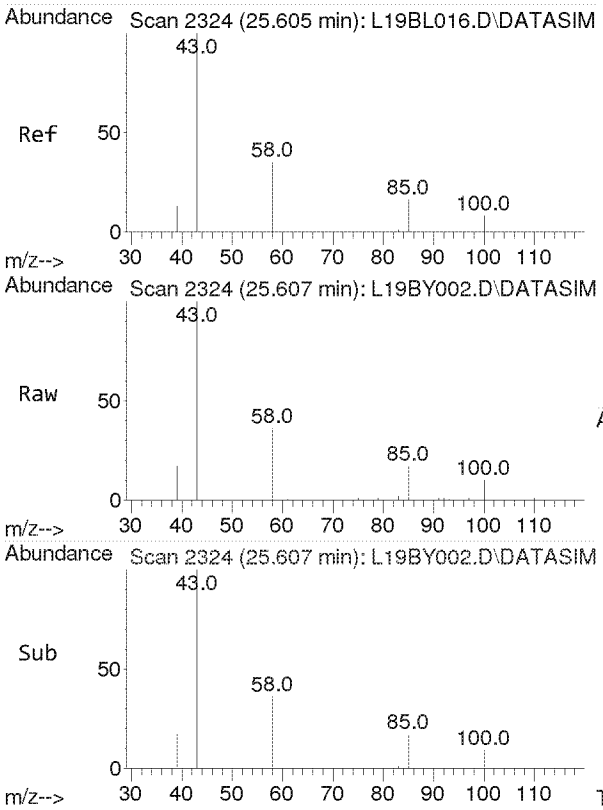


#39
cis-1,3-Dichloropropene
Concen: 2.886 ppbv
RT: 25.530 min Scan# 2320
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 75 Resp: 11527

Ion	Ratio	Lower	Upper
75	100		
39	55.0	43.4	65.0

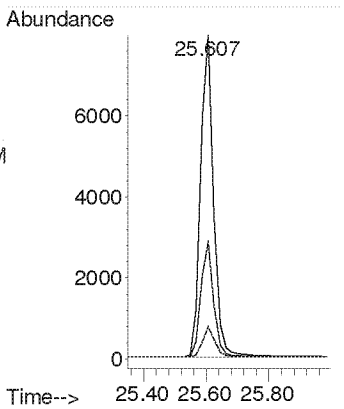




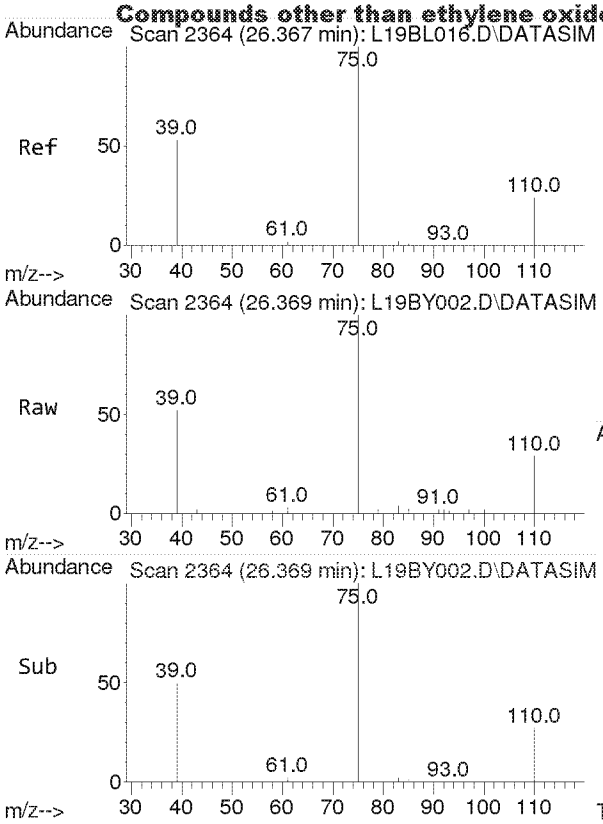
#40
Methyl Isobutyl Ketone
Concen: 2.652 ppbv
RT: 25.607 min Scan# 2324
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 43 Resp: 22861

Ion	Ratio	Lower	Upper
43	100		
58	35.2	28.0	42.0
100	8.9	7.0	10.4



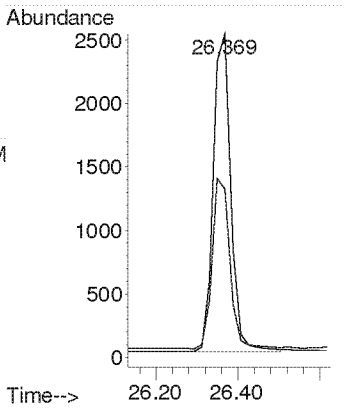
Compounds other than ethylene oxide were not quantitated.

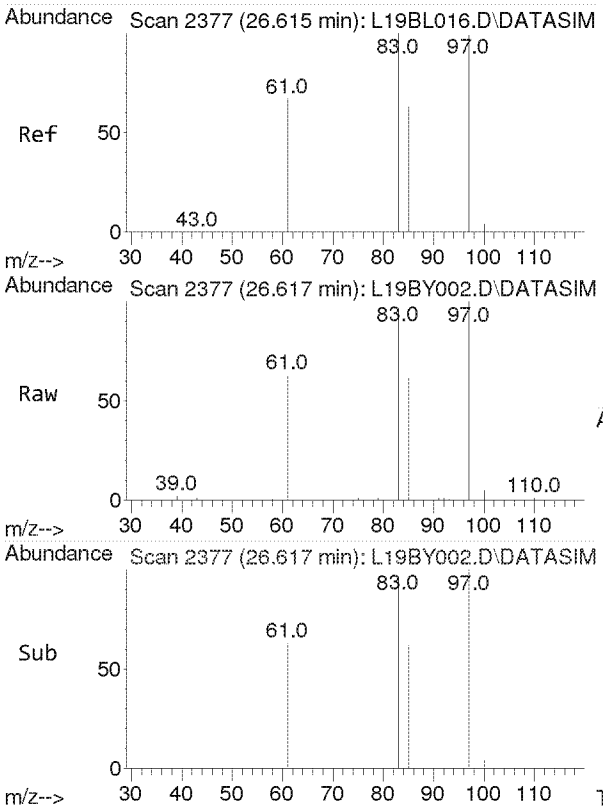


#41
trans-1,3-Dichloropropene
Concen: 2.760 ppbv
RT: 26.369 min Scan# 2364
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 75 Resp: 7384

Ion	Ratio	Lower	Upper
75	100		
39	54.2	42.9	64.3

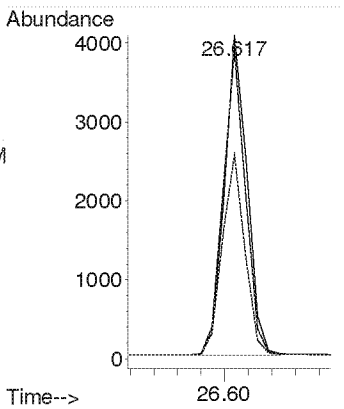




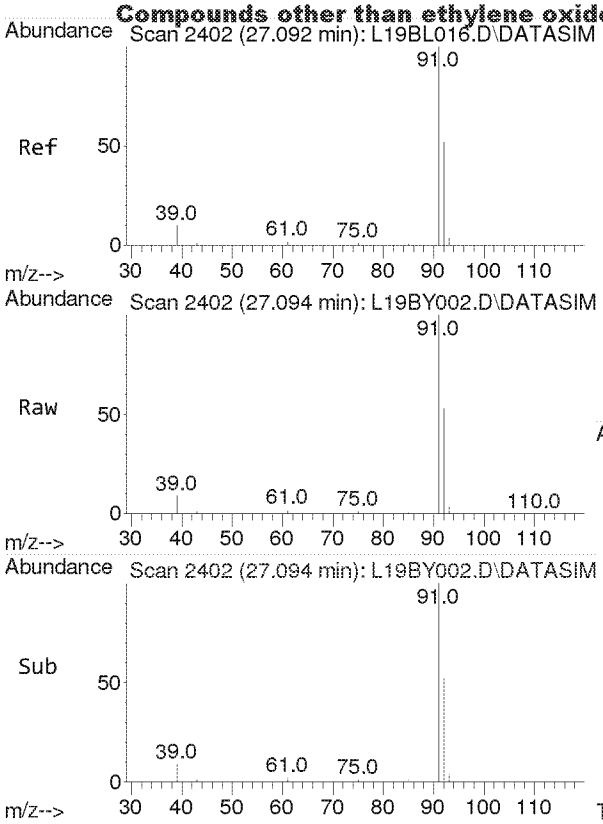
#42
1,1,2-Trichloroethane
Concen: 2.543 ppbv
RT: 26.617 min Scan# 2377
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 97 Resp: 10701

Ion	Ratio	Lower	Upper
97	100		
83	94.1	75.4	113.0
61	62.8	49.8	74.6



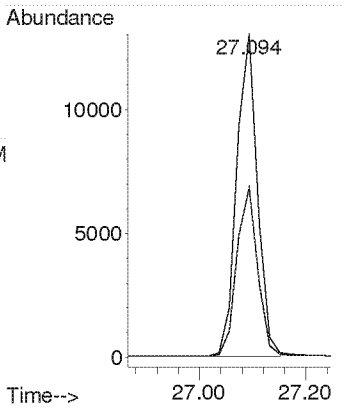
Compounds other than ethylene oxide were not quantitated.

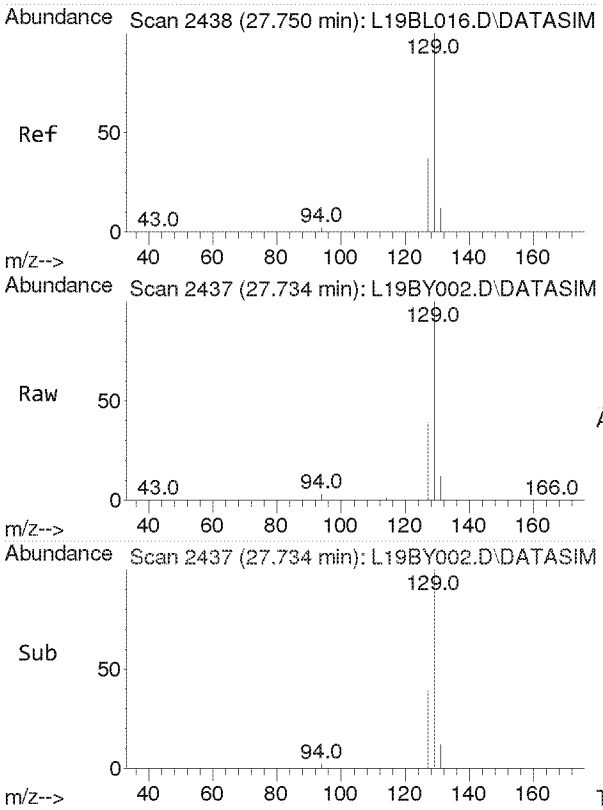


#44
Toluene
Concen: 2.550 ppbv
RT: 27.094 min Scan# 2402
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 91 Resp: 34989

Ion	Ratio	Lower	Upper
91	100		
92	52.8	42.0	63.0

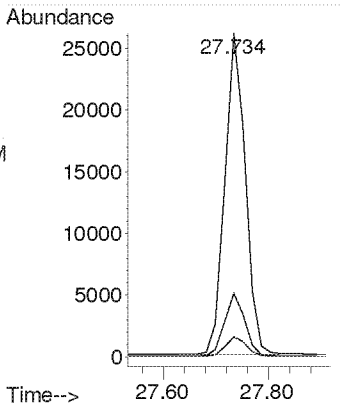




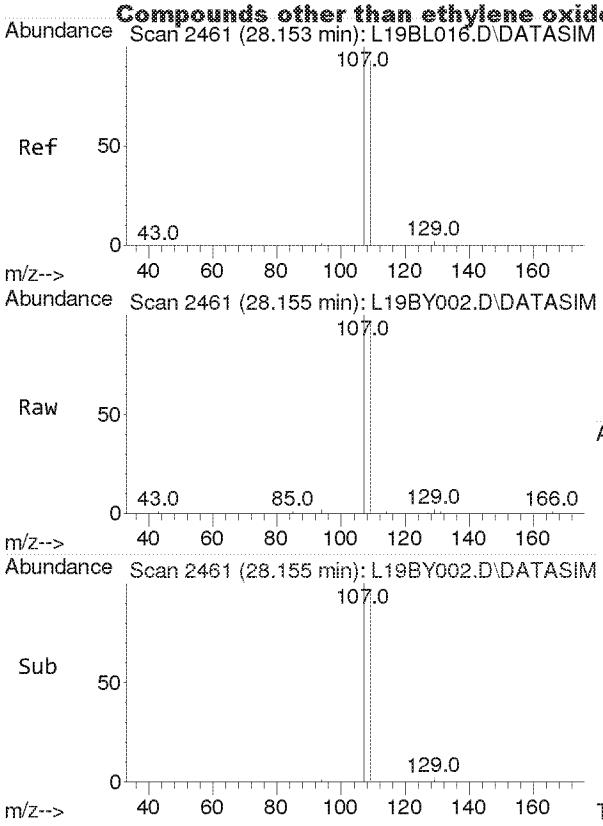
#45
Dibromochloromethane
Concen: 2.601 ppbv
RT: 27.734 min Scan# 2437
Delta R.T. -0.016 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:129 Resp: 70053

Ion	Ratio	Lower	Upper
129	100		
127	19.2	15.4	23.2
131	6.0	4.8	7.2



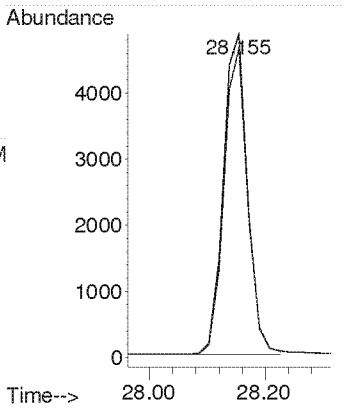
Compounds other than ethylene oxide were not quantitated.

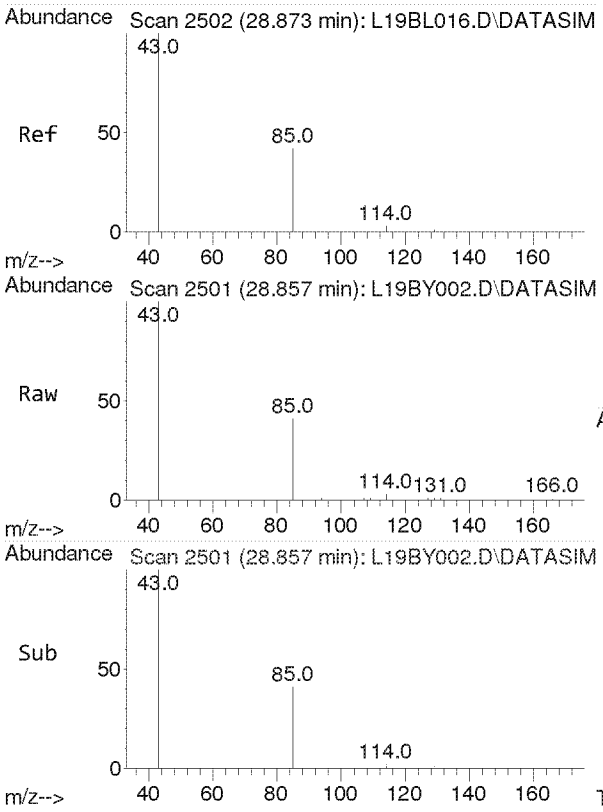


#46
1,2-Dibromoethane
Concen: 2.744 ppbv
RT: 28.155 min Scan# 2461
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:107 Resp: 14118

Ion	Ratio	Lower	Upper
107	100		
109	93.9	75.4	113.0

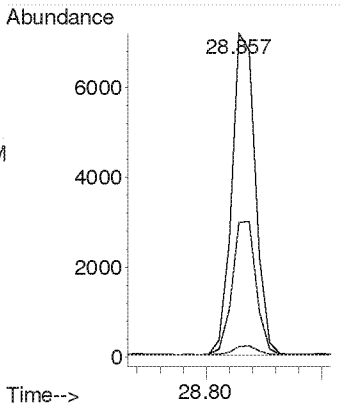




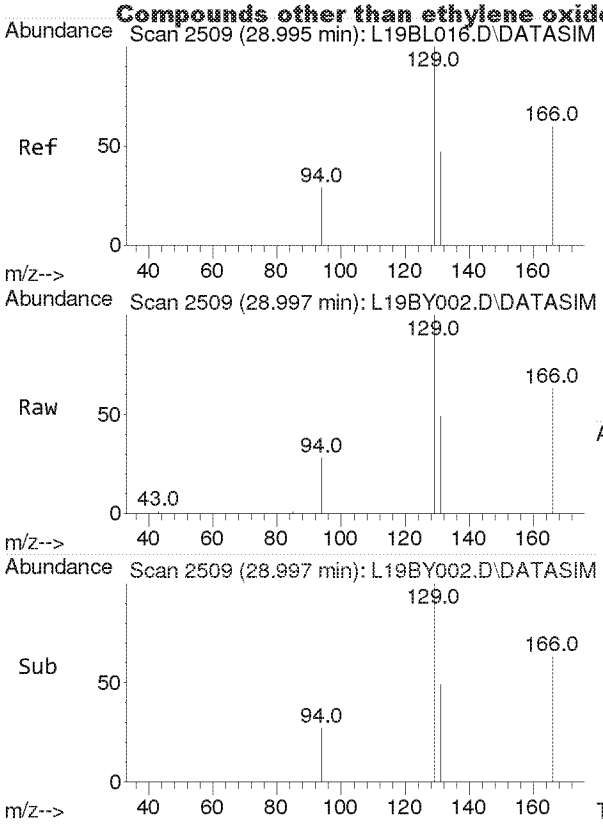
#47
n-Octane
Concen: 2.455 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. -0.016 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 43 Resp: 20287

Ion	Ratio	Lower	Upper
43	100		
85	42.2	33.0	49.6
114	2.8	2.2	3.4



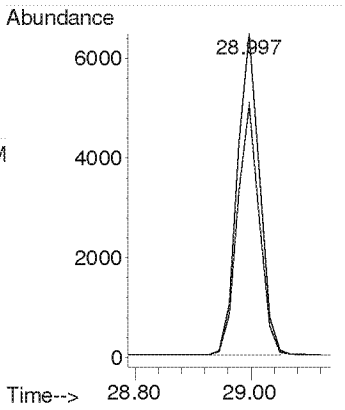
Compounds other than ethylene oxide were not quantitated.

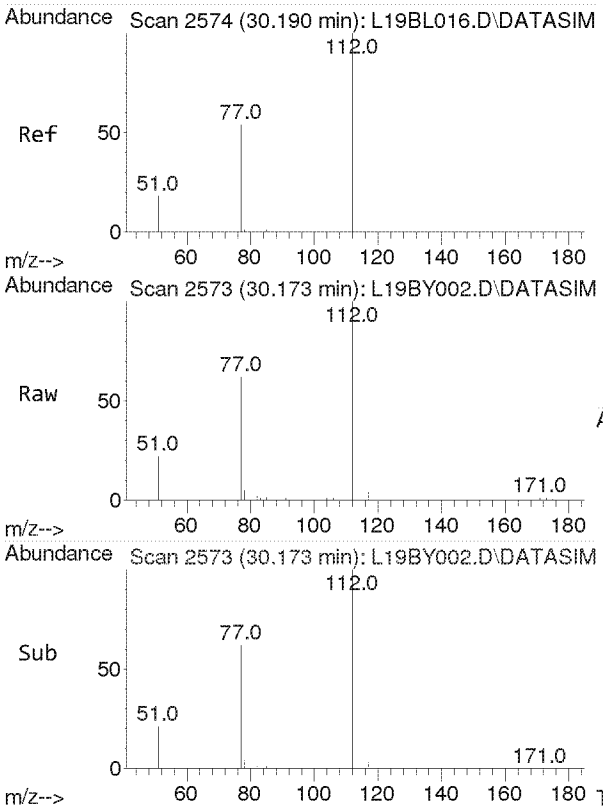


#48
Tetrachloroethylene
Concen: 2.598 ppbv
RT: 28.997 min Scan# 2509
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:166 Resp: 17157

Ion	Ratio	Lower	Upper
166	100		
131	77.0	61.5	92.3

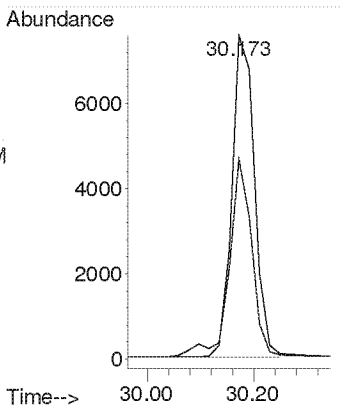




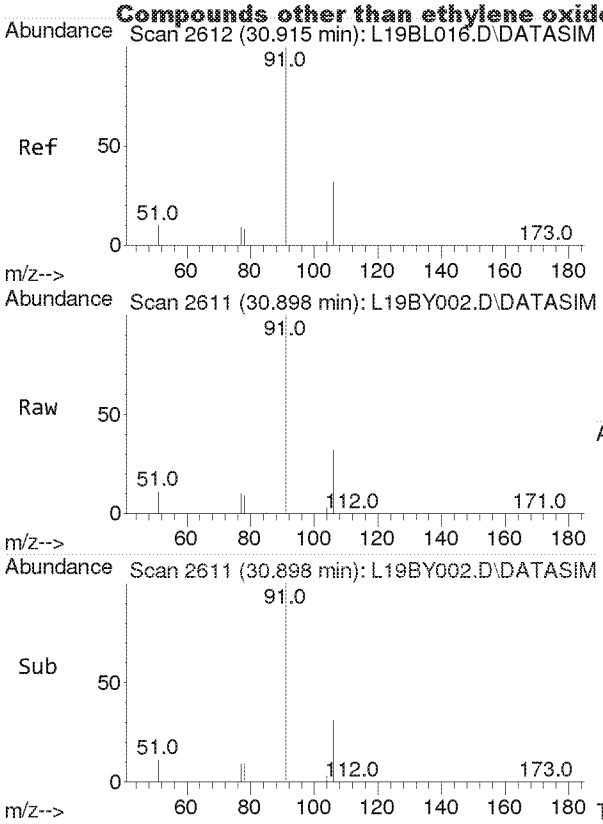
#49
Chlorobenzene
Concen: 2.540 ppbv
RT: 30.173 min Scan# 2573
Delta R.T. -0.017 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:112 Resp: 22244

Ion	Ratio	Lower	Upper
112	100		
77	60.1	47.8	71.6



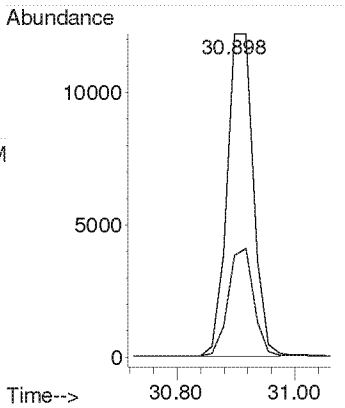
Compounds other than ethylene oxide were not quantitated.

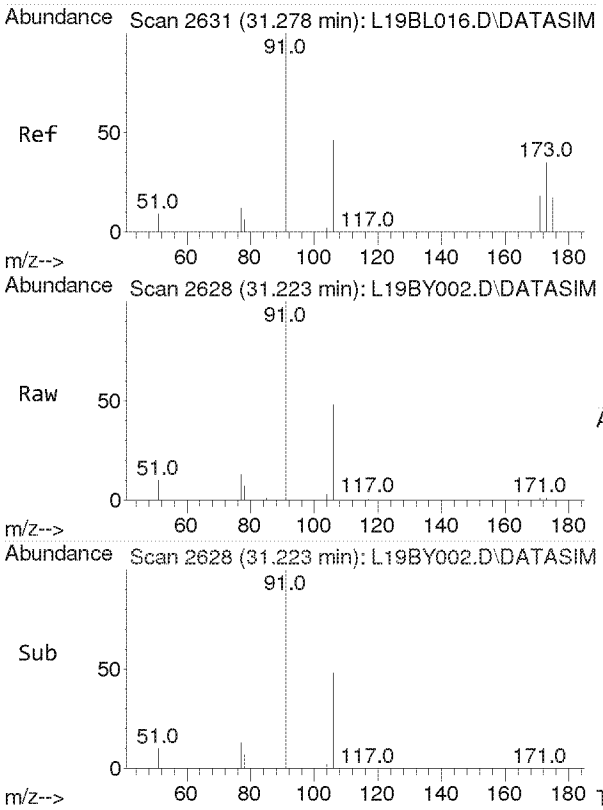


#50
Ethylbenzene
Concen: 2.588 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 91 Resp: 37336

Ion	Ratio	Lower	Upper
91	100		
106	32.4	26.0	39.0

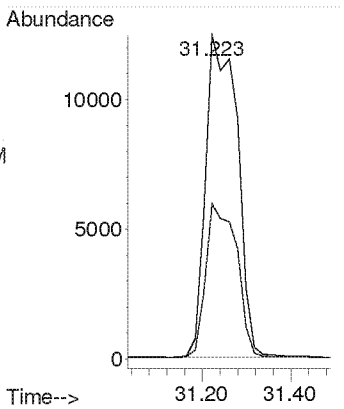




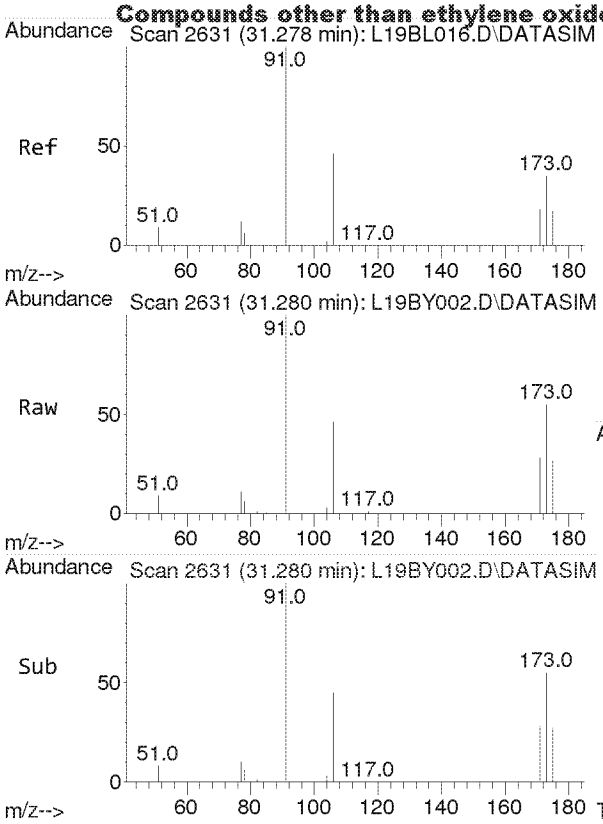
#51
m,p-Xylene
Concen: 5.054 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 91 Resp: 61501

Ion	Ratio	Lower	Upper
91	100		
106	46.5	37.3	55.9



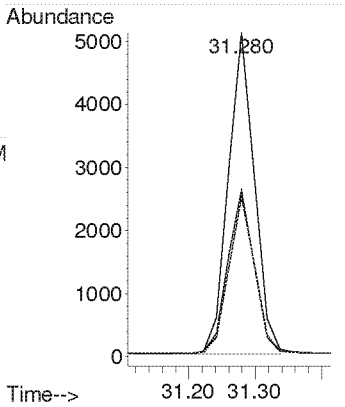
Compounds other than ethylene oxide were not quantitated.

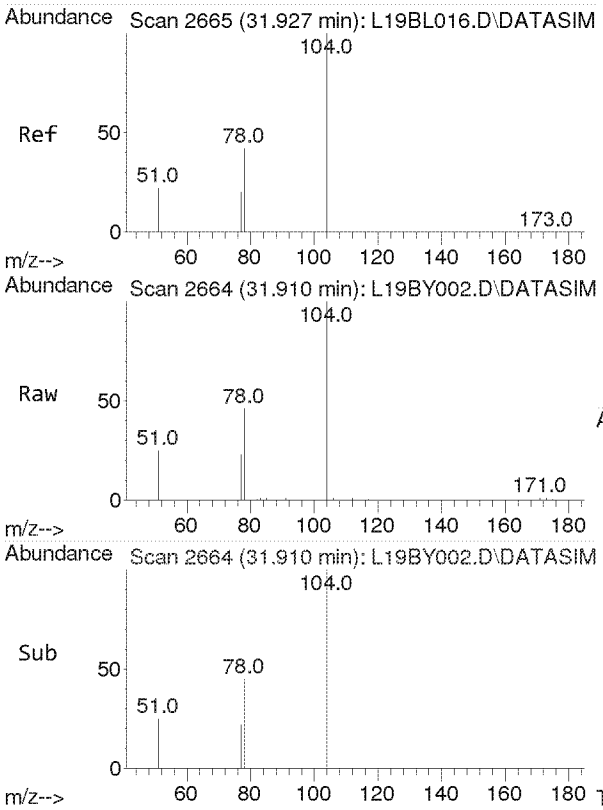


#52
Bromoform
Concen: 2.673 ppbv
RT: 31.280 min Scan# 2631
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:173 Resp: 13921

Ion	Ratio	Lower	Upper
173	100		
171	51.4	41.0	61.6
175	48.7	39.1	58.7

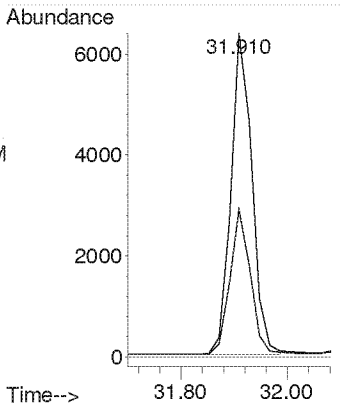




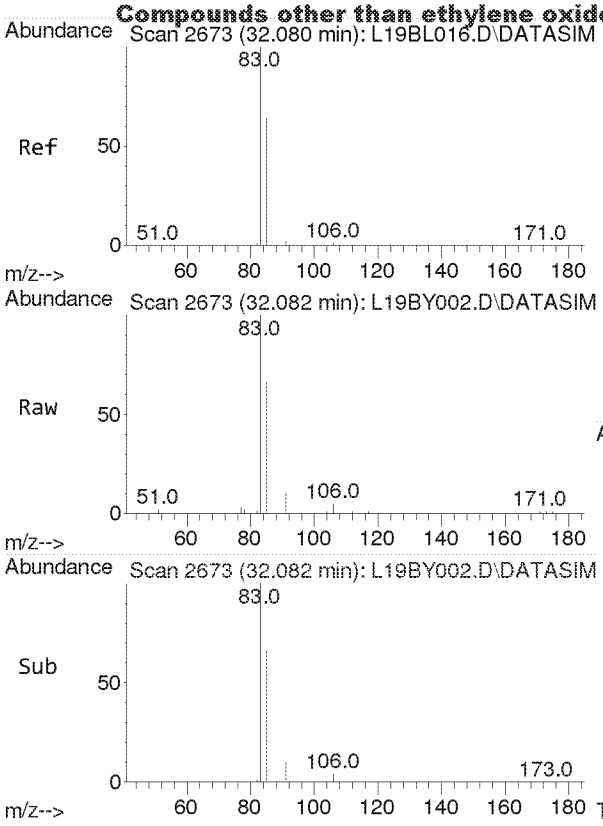
#53
Styrene
Concen: 2.540 ppbv
RT: 31.910 min Scan# 2664
Delta R.T. -0.017 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:104 Resp: 17519

Ion	Ratio	Lower	Upper
104	100		
78	44.0	35.4	53.2
103	0.0	0.0	0.0



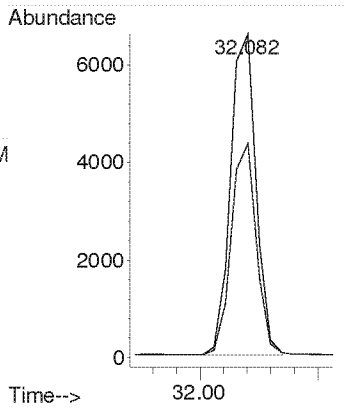
Compounds other than ethylene oxide were not quantitated.

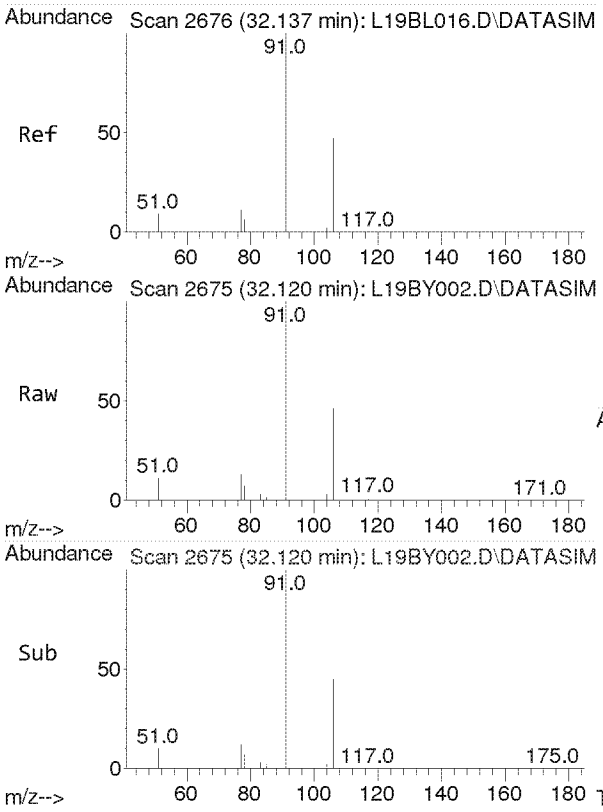


#54
1,1,2,2-Tetrachloroethane
Concen: 2.504 ppbv
RT: 32.082 min Scan# 2673
Delta R.T. 0.002 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 83 Resp: 19662

Ion	Ratio	Lower	Upper
83	100		
85	65.0	51.6	77.4

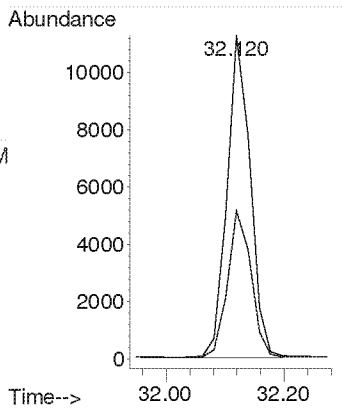




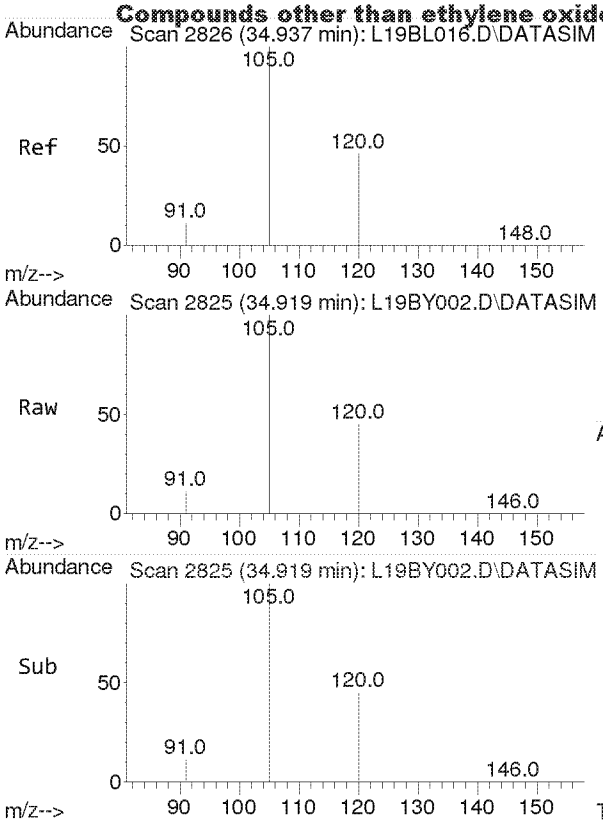
#55
o-Xylene
Concen: 2.539 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion: 91 Resp: 30490

Ion	Ratio	Lower	Upper
91	100		
106	45.9	36.6	55.0



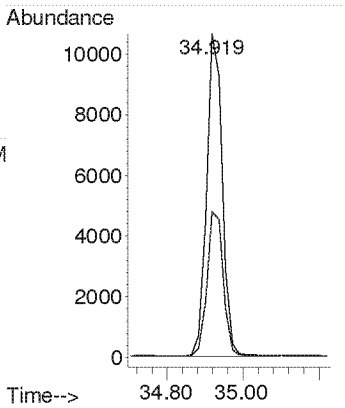
Compounds other than ethylene oxide were not quantitated.

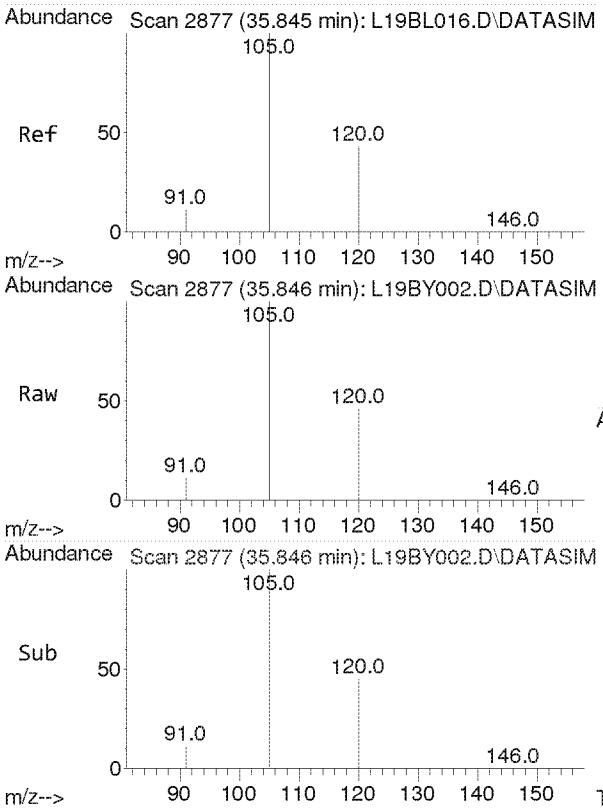


#56
1,3,5-Trimethylbenzene
Concen: 2.359 ppbv
RT: 34.919 min Scan# 2825
Delta R.T. -0.017 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:105 Resp: 30430

Ion	Ratio	Lower	Upper
105	100		
120	46.2	36.8	55.2

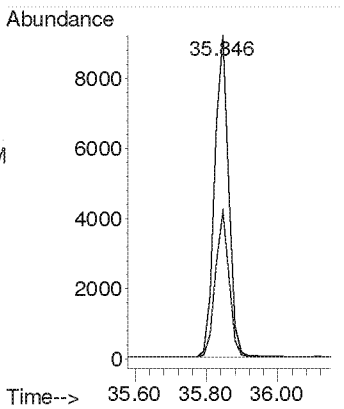




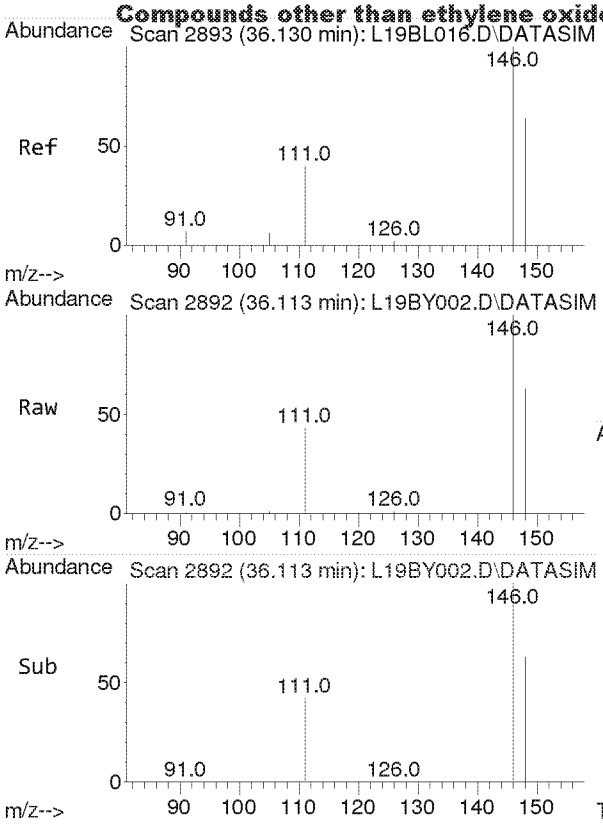
#57
1,2,4-Trimethylbenzene
Concen: 2.245 ppbv
RT: 35.846 min Scan# 2877
Delta R.T. 0.001 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:105 Resp: 25051

Ion	Ratio	Lower	Upper
105	100		
120	44.2	35.2	52.8



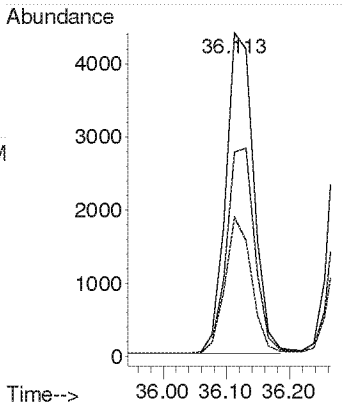
Compounds other than ethylene oxide were not quantitated.

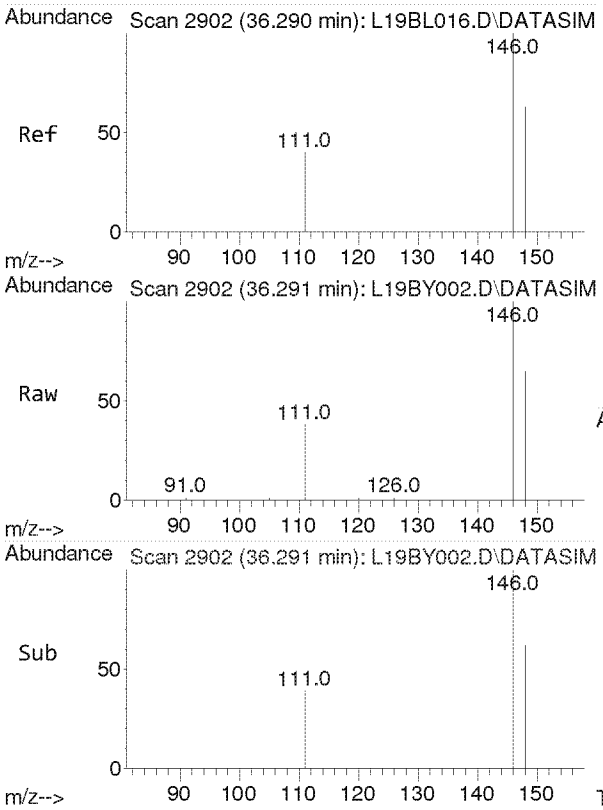


#58
m-Dichlorobenzene
Concen: 2.257 ppbv
RT: 36.113 min Scan# 2892
Delta R.T. -0.017 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:146 Resp: 13242

Ion	Ratio	Lower	Upper
146	100		
148	64.7	51.3	76.9
111	40.4	32.1	48.1

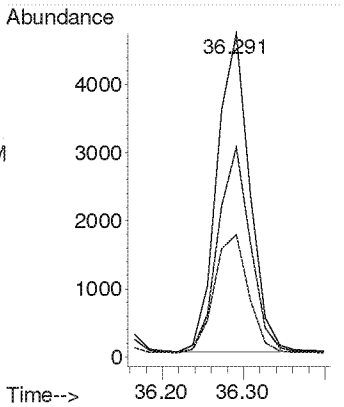




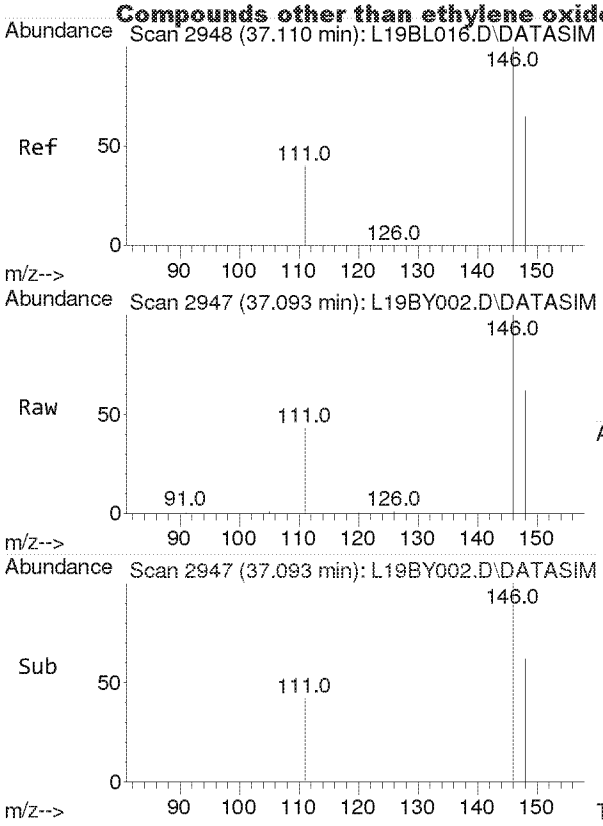
#59
p-Dichlorobenzene
Concen: 2.720 ppbv
RT: 36.291 min Scan# 2902
Delta R.T. 0.001 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:146 Resp: 12999

Ion	Ratio	Lower	Upper
146	100		
148	63.9	51.4	77.2
111	38.9	31.0	46.4



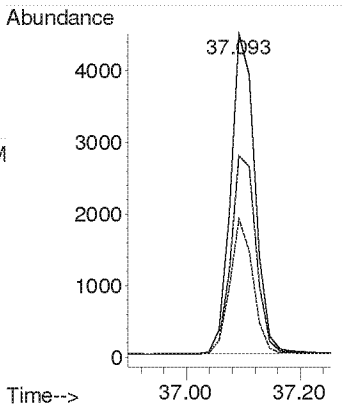
Compounds other than ethylene oxide were not quantitated.

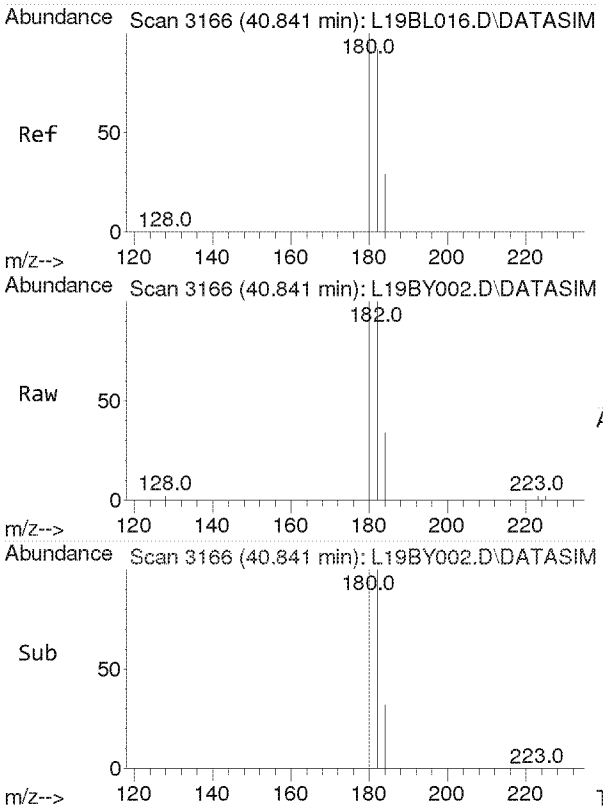


#60
o-Dichlorobenzene
Concen: 2.451 ppbv
RT: 37.093 min Scan# 2947
Delta R.T. -0.017 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:146 Resp: 13151

Ion	Ratio	Lower	Upper
146	100		
148	64.2	51.2	76.8
111	40.5	32.6	49.0

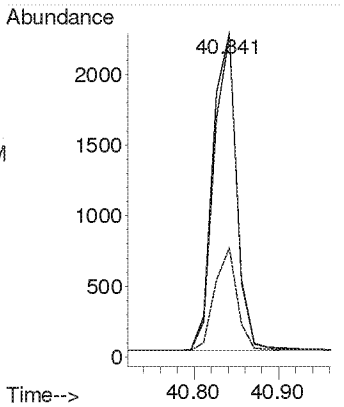




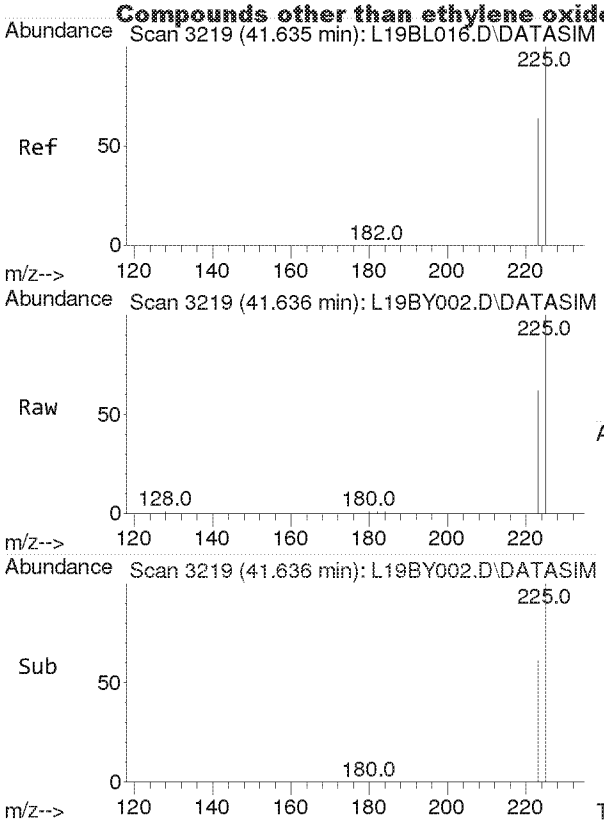
#61
1,2,4-Trichlorobenzene
Concen: 2.417 ppbv
RT: 40.841 min Scan# 3166
Delta R.T. 0.001 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:180 Resp: 4399

Ion	Ratio	Lower	Upper
180	100		
182	95.7	75.7	113.5
184	30.6	24.2	36.2



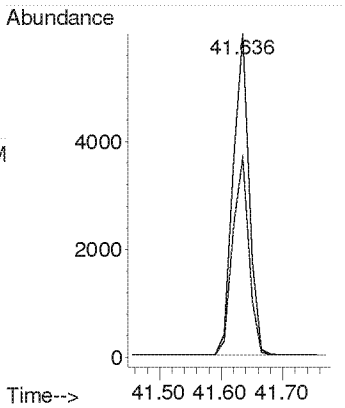
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.288 ppbv
RT: 41.636 min Scan# 3219
Delta R.T. 0.001 min
Lab File: L19BY002.D
Acq: 25 Feb 2019 7:39 am

Tgt Ion:225 Resp: 10634

Ion	Ratio	Lower	Upper
225	100		
223	62.7	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: [illegible] Date: 2/27/19

Reviewer: [illegible] Date: 3/5/19

Data File Name	L19BY005.D
Operator	MAH
Acq. Method File	9020003.M
Sample Name	B9B2507-BLK1
Misc Info	80 ML 8L13001

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	45044		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	0	0.000	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	40	0.007	Y		0.139
6)	Dichlorotetrafluoroethane	0	0.000	Y		0.040
7)	Vinyl Chloride	0	0.000	Y		0.038
8)	1,3-Butadiene	0	0.000	Y		0.058
	Ethylene oxide	0	0.000	Y		0.136
9)	Bromomethane	0	0.000	Y		0.035
10)	Chloroethane	0	0.000	Y		0.075
11)	Acetonitrile	39	0.010	Y		0.049
12)	Acrolein	46	0.023	Y	MAX	0.200
13)	Trichlorofluoromethane	0	0.000	Y		0.035
14)	Acrylonitrile	0	0.000	Y		0.032
15)	1,1-Dichloroethene	0	0.000	Y		0.036
16)	Methylene Chloride	0	0.000	Y		0.043
17)	Carbon Disulfide	320	0.020	Y		0.200
18)	Trichlorotrifluoroethane	0	0.000	Y		0.029
19)	trans-1,2-Dichloroethylene	0	0.000	Y		0.040
20)	1,1-Dichloroethane	0	0.000	Y		0.043
21)	Methyl tert-Butyl Ether	0	0.000	Y		0.031
22)	Chloroprene	0	0.000	Y		0.039
23)	cis-1,2-Dichloroethylene	0	0.000	Y		0.056
24)	Bromochloromethane	0	0.000	Y		0.040
25)	Chloroform	0	0.000	Y		0.039
26)	Ethyl tert-Butyl Ether	0	0.000	Y		0.033
27)	1,2-Dichloroethane	0	0.000	Y		0.042
28)	IS-1,4-Difluorobenzene	113570		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	51	0.004	Y		0.043
31)	Carbon Tetrachloride	0	0.000	Y		0.040
32)	tert-Amyl Methyl Ether	0	0.000	Y		0.037
33)	1,2-Dichloropropane	0	0.000	Y		0.061
34)	Ethyl Acrylate	0	0.000	Y		0.070
35)	Bromodichloromethane	0	0.000	Y		0.049
36)	Trichloroethylene	0	0.000	Y		0.045
37)	Methyl Methacrylate	0	0.000	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	0	0.000	Y		0.071
40)	trans-1,3-Dichloropropene	0	0.000	Y		0.059
41)	1,1,2-Trichloroethane	0	0.000	Y		0.057
42)	IS-Chlorobenzene-d5	79743		NA		NA
43)	Toluene	0	0.000	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	0	0.000	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	79	0.006	Y		0.077
50)	m,p-Xylene	53	0.005	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	0	0.000	Y		0.109
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y		0.063
54)	o-Xylene	104	0.009	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	47	0.004	Y		0.080
57)	m-Dichlorobenzene	0	0.000	Y		0.055
58)	p-Dichlorobenzene	0	0.000	Y		0.060
59)	o-Dichlorobenzene	0	0.000	Y		0.062
60)	1,2,4-Trichlorobenzene	0	0.000	Y		0.200
61)	Hexachloro-1,3-butadiene	0	0.000	Y		0.082

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

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY005.D
Acq On : 25 Feb 2019 11:22 am
Operator : MAH
Sample : B9B2507-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 10:03:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	45044	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	113570	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	79743	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	0.000	41	0	N.D.	
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	9.740	50	40	0.0072 ppbv #	42
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	14.520	41	39m	0.0100 ppbv	
13) Acrolein	14.752	56	46	0.0234 ppbv #	1
14) Trichlorofluoromethane	0.000	101	0	N.D.	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.932	76	320	0.0197 ppbv #	75
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	22.535	78	51	0.0042 ppbv #	53
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.898	91	79	0.0057 ppbv #	42

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY005.D
Acq On : 25 Feb 2019 11:22 am
Operator : MAH
Sample : B9B2507-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 10:03:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.223	91	53	0.0046 ppbv #	30
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.120	91	104	0.0091 ppbv	92
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.828	105	47	0.0044 ppbv #	32
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

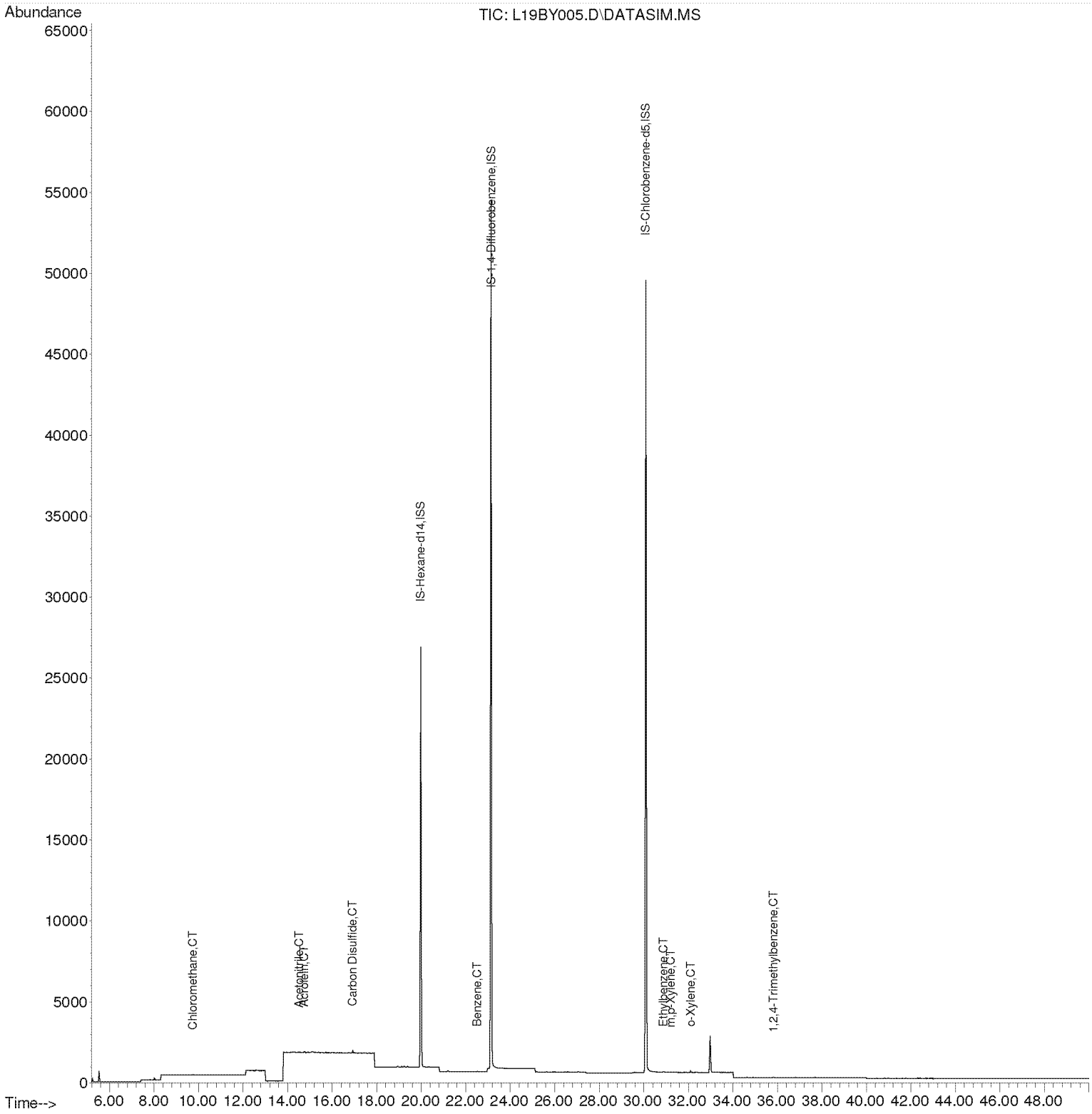
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000298-00050

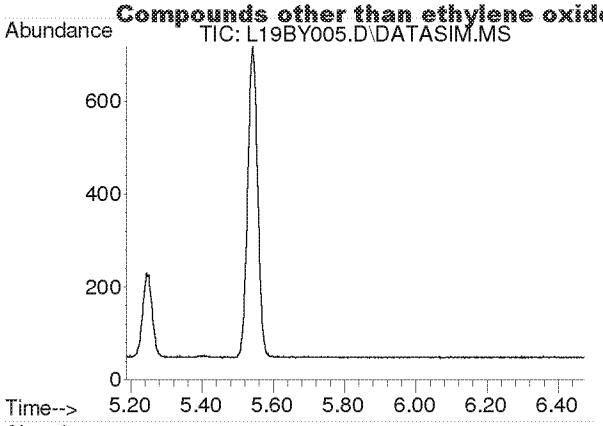
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY005.D
Acq On : 25 Feb 2019 11:22 am
Operator : MAH
Sample : B9B2507-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 09:53:06 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



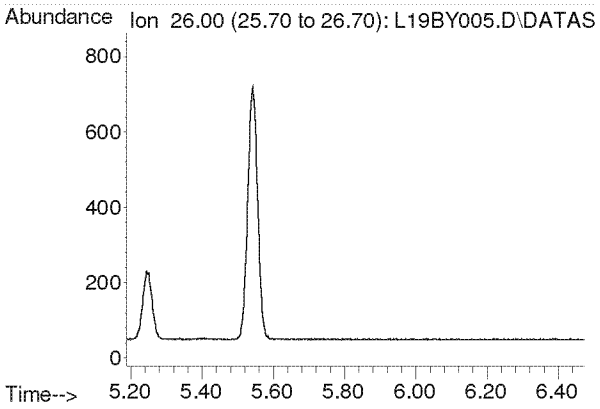
Compounds other than ethylene oxide were not quantitated.

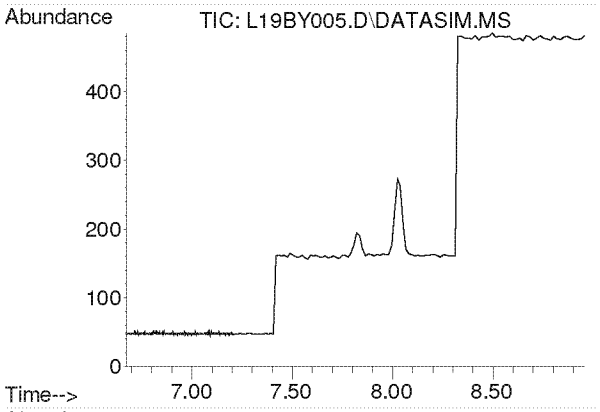


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 26



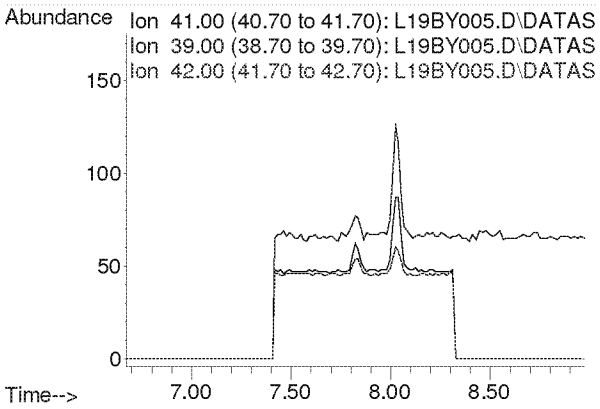


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

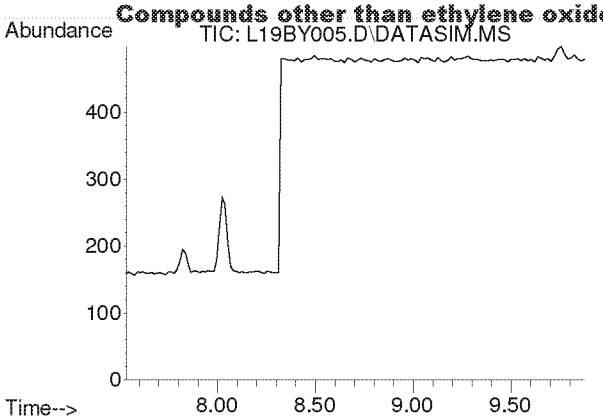
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

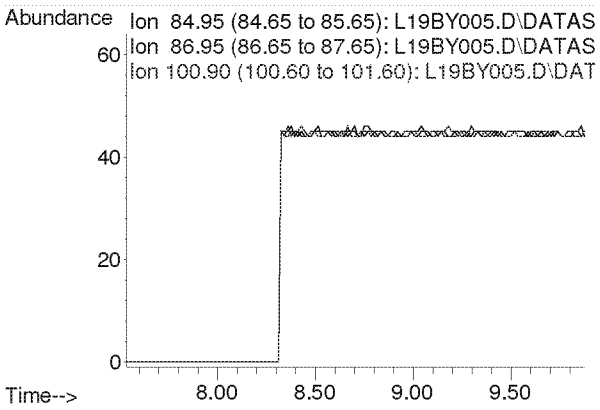


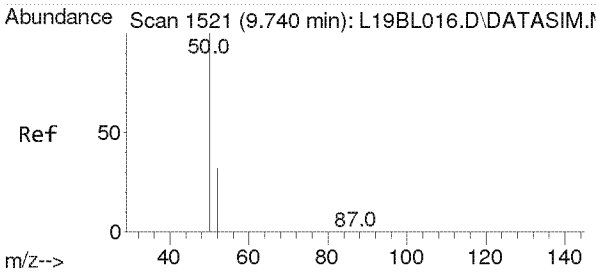
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1

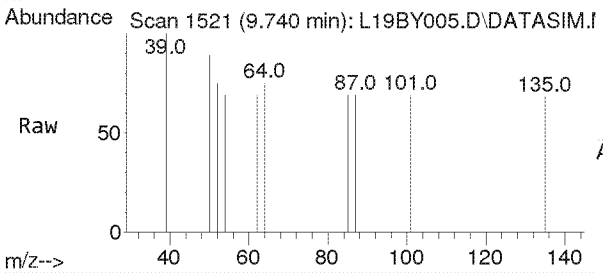


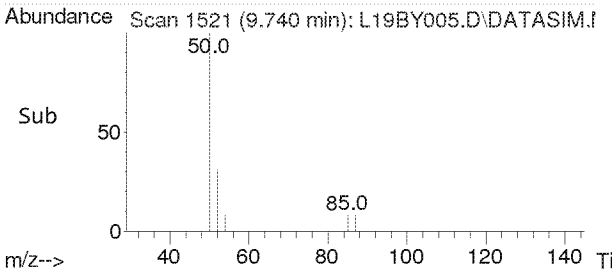


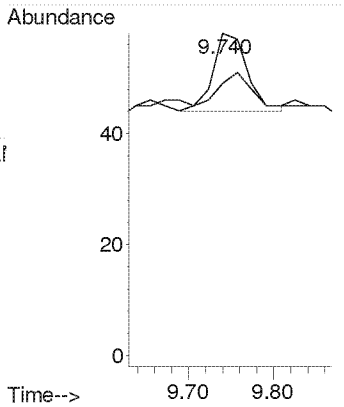
#5
Chloromethane
Concen: 0.007 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. 0.000 min
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 50 Resp: 40

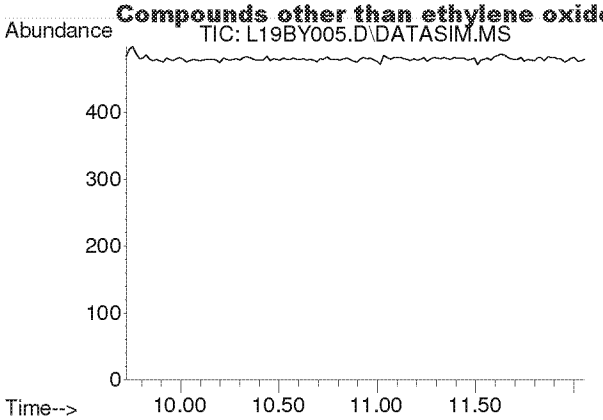
Ion	Ratio	Lower	Upper
50	100		
52	0.0	26.1	39.1#







Compounds other than ethylene oxide were not quantitated.

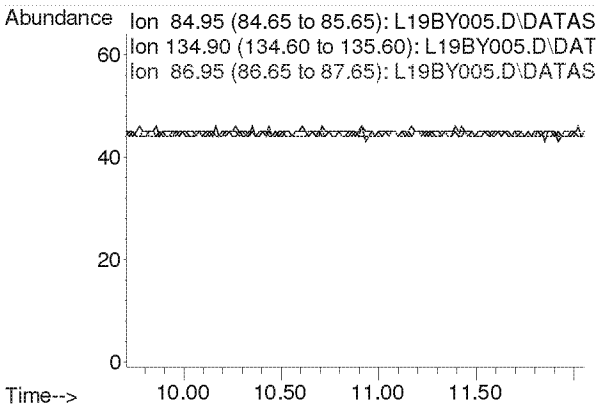


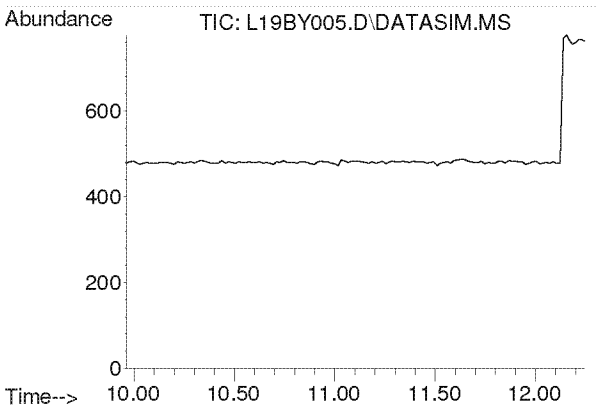
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



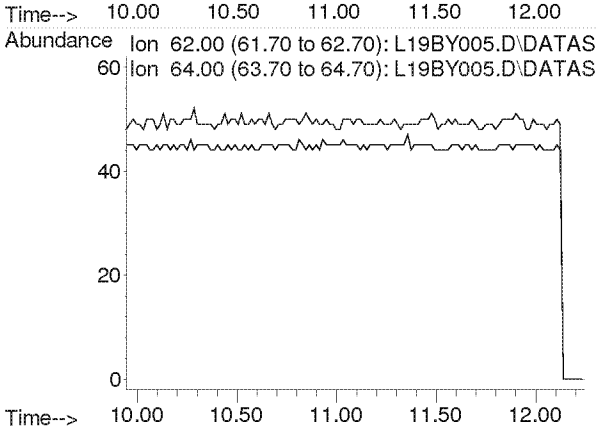


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

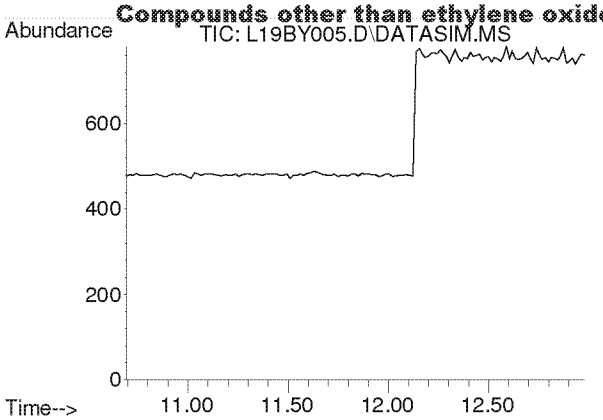
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

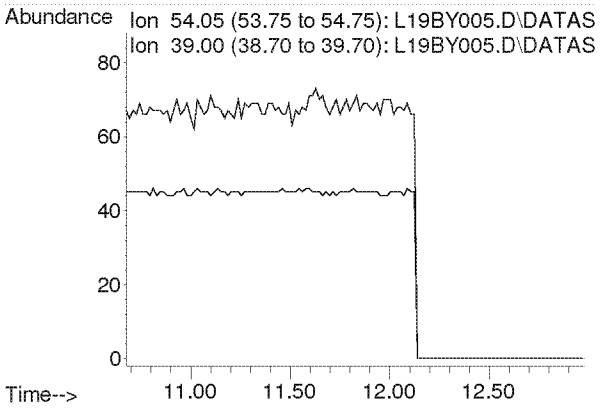


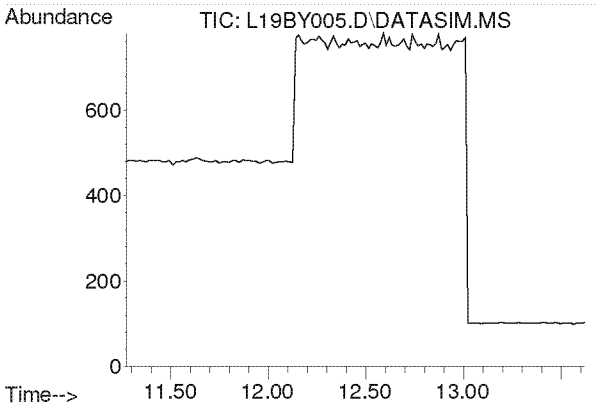
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



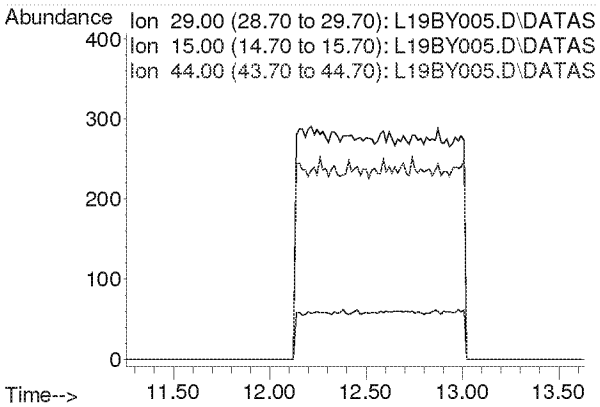


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

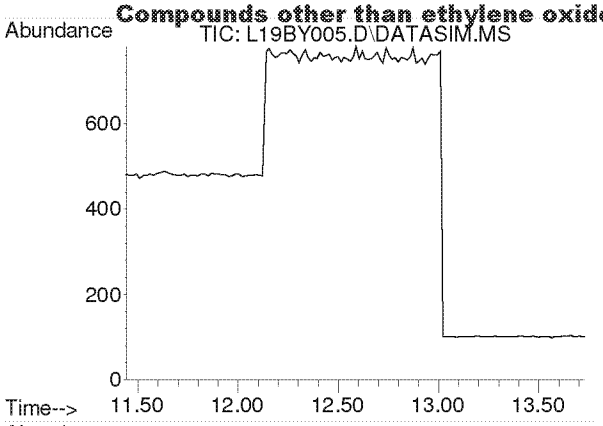
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

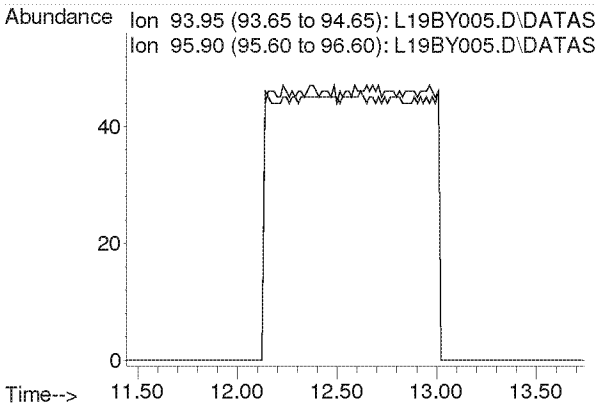


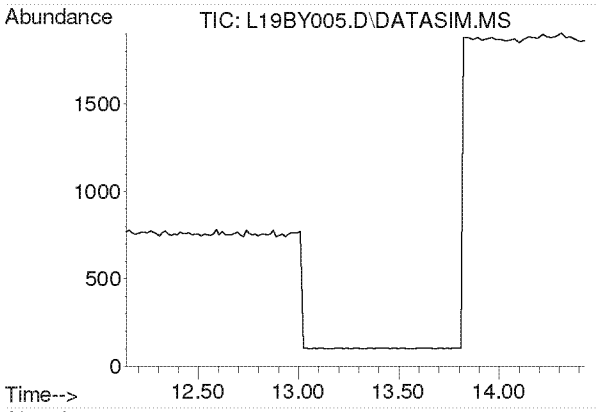
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



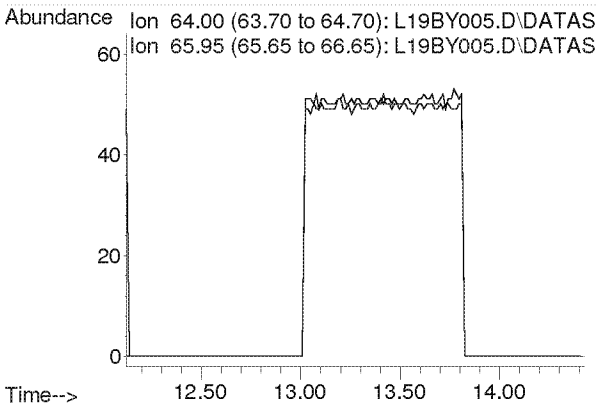


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

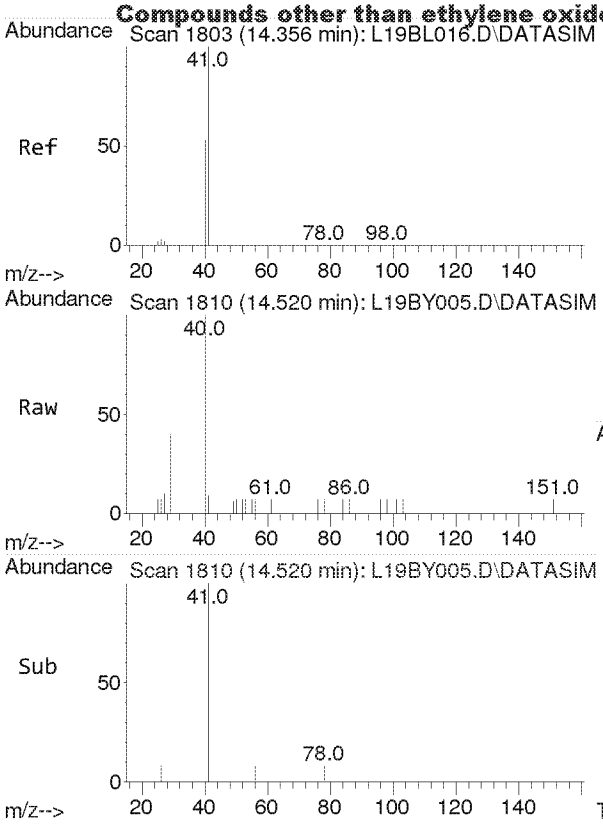
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



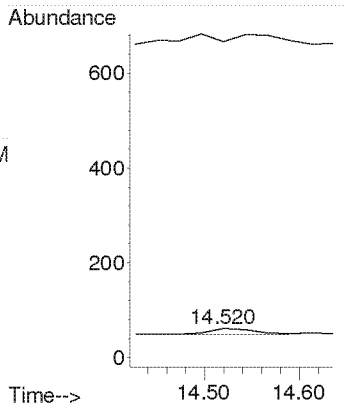
Compounds other than ethylene oxide were not quantitated.

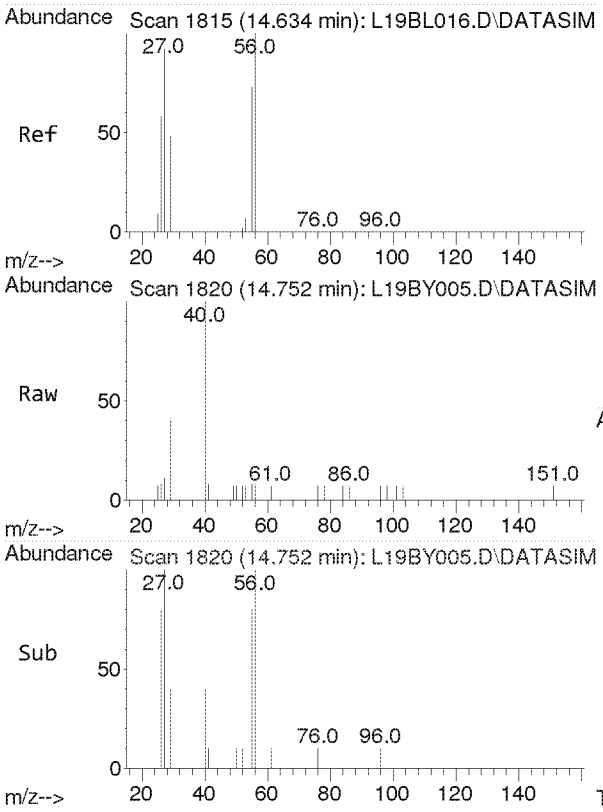


#12
Acetonitrile
Concen: 0.010 ppbv m
RT: 14.520 min Scan# 1810
Delta R.T. 0.164 min
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 41 Resp: 39

Ion	Ratio	Lower	Upper
41	100		
40	394.9	42.2	63.4#

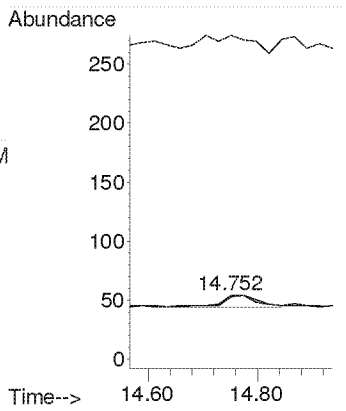




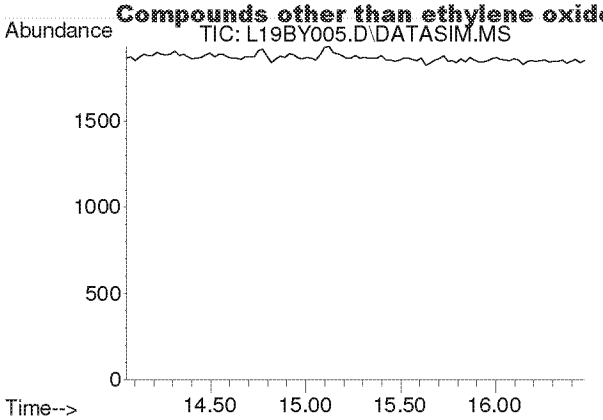
#13
Acrolein
Concen: 0.023 ppbv
RT: 14.752 min Scan# 1820
Delta R.T. 0.118 min
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 56 Resp: 46

Ion	Ratio	Lower	Upper
56	100		
55	91.3	60.8	91.2#
29	206.5	43.8	65.6#



Compounds other than ethylene oxide were not quantitated.

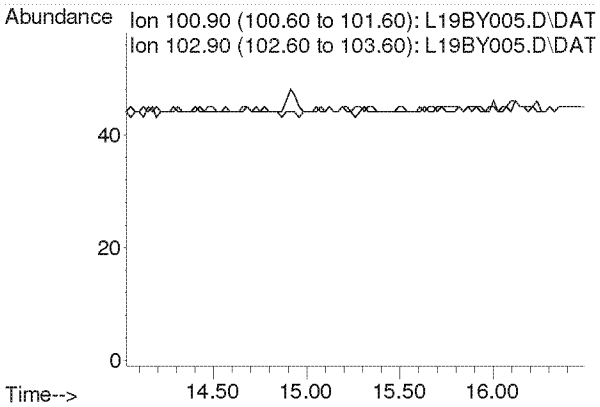


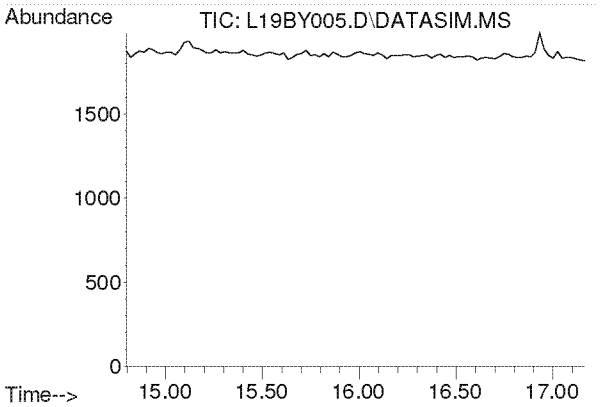
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



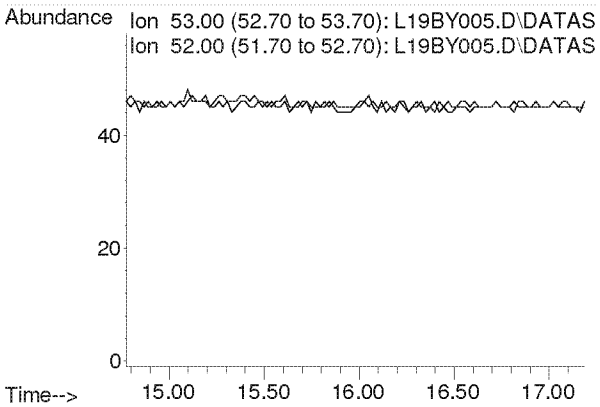


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

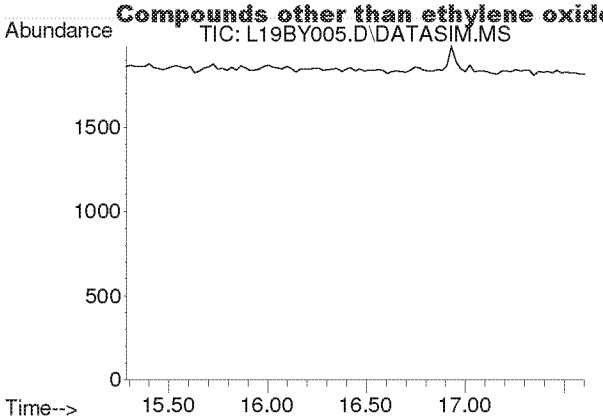
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

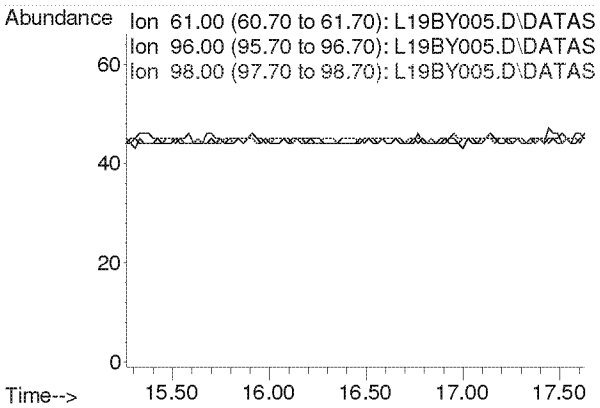


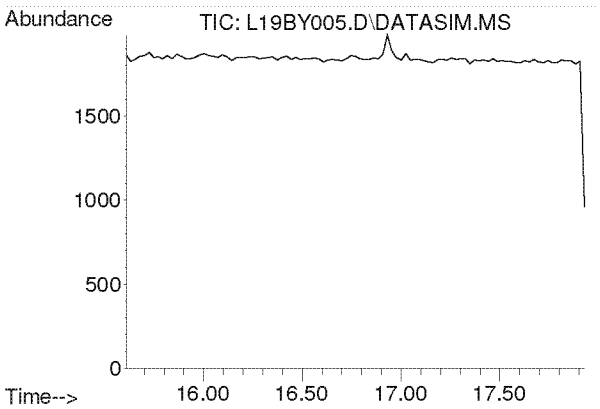
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



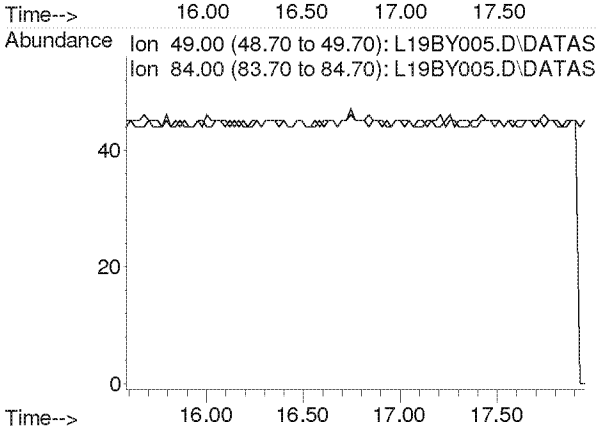


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

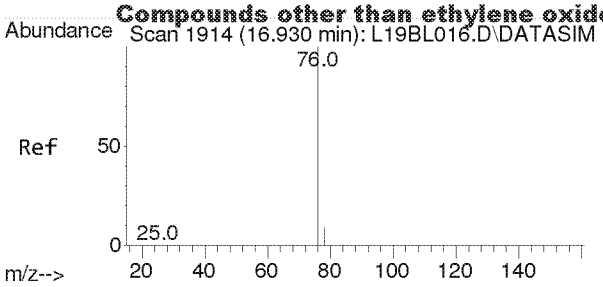
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



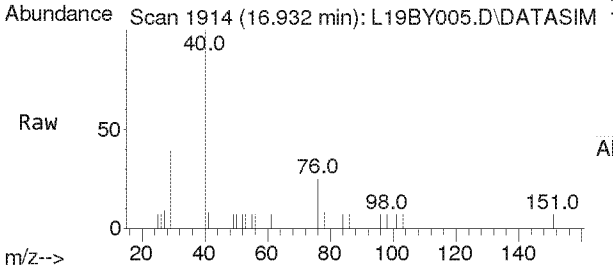
Compounds other than ethylene oxide were not quantitated.

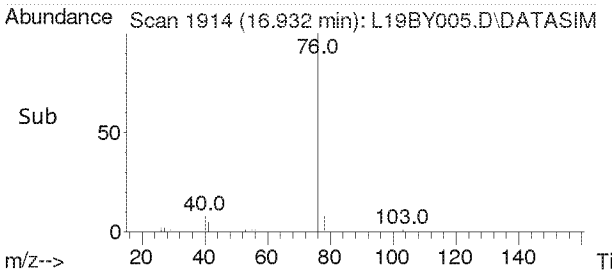


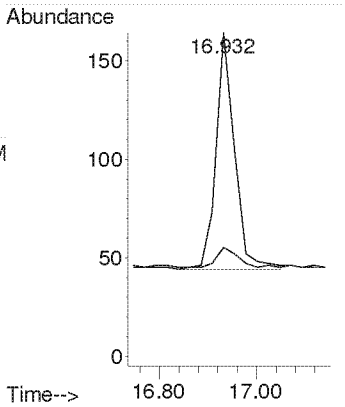
#18
Carbon Disulfide
Concen: 0.020 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

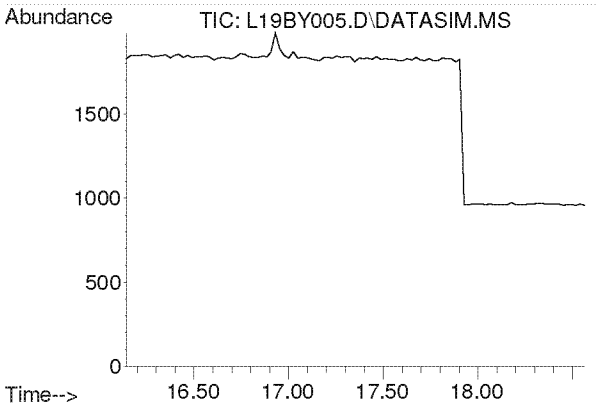
Tgt Ion: 76 Resp: 320

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.4	11.0#







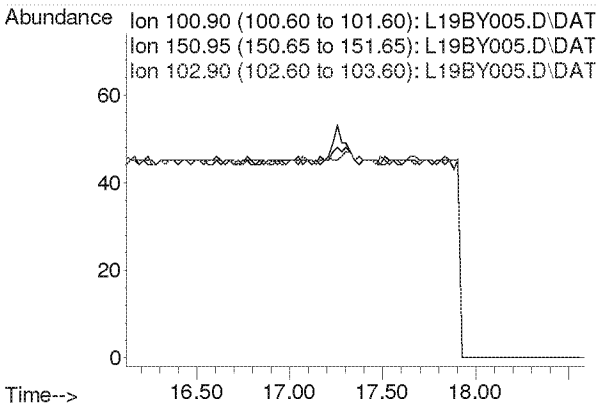


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

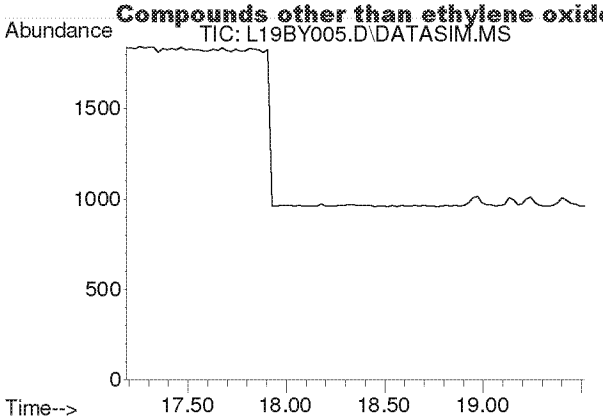
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

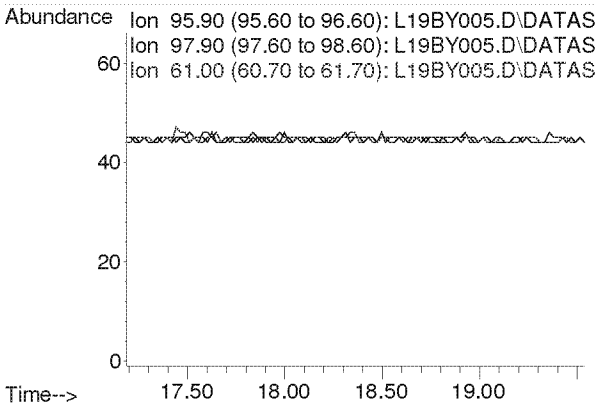


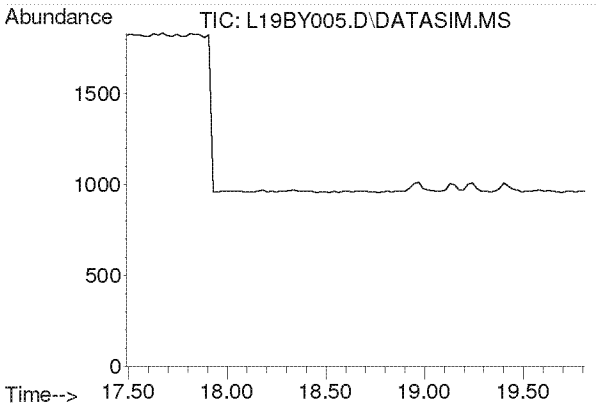
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



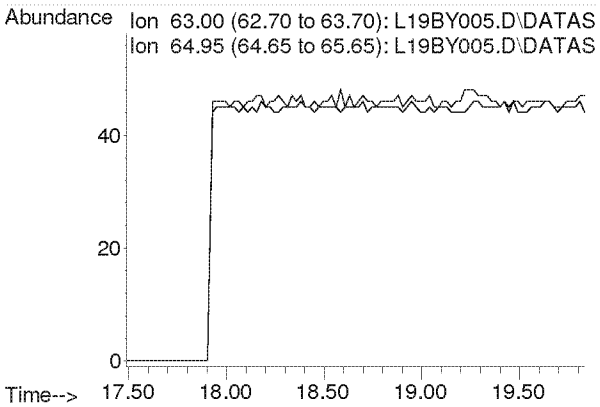


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

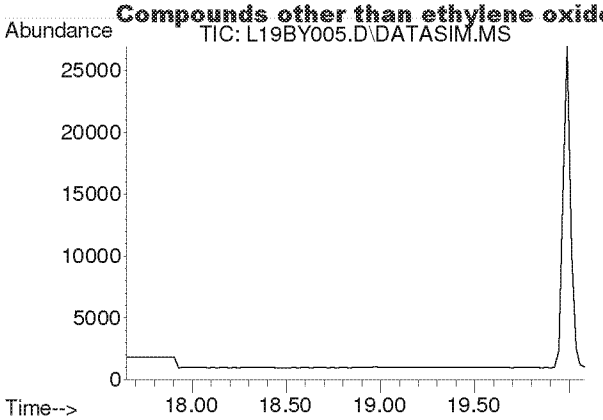
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

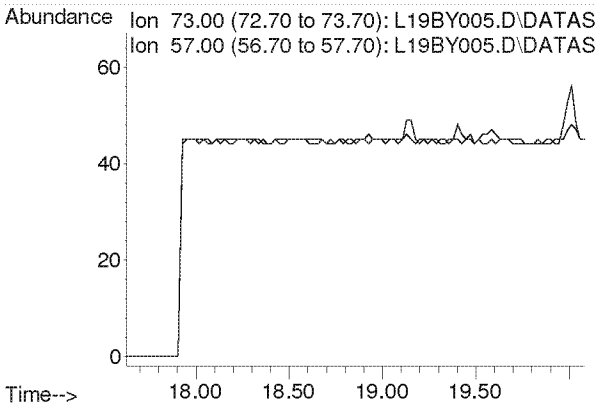


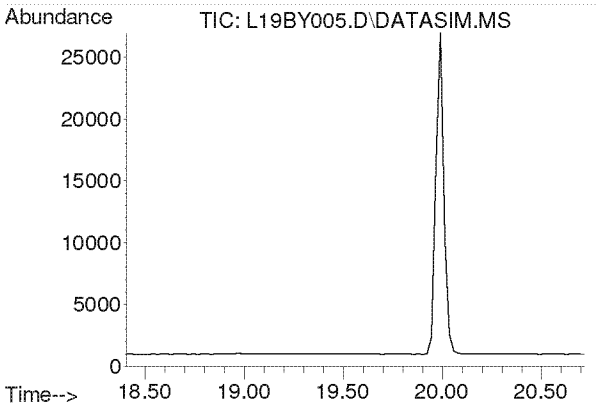
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



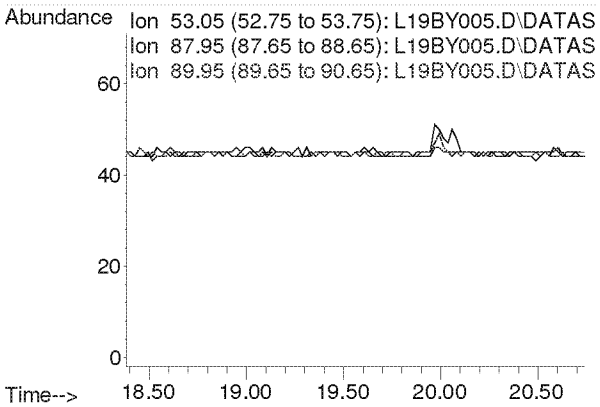


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

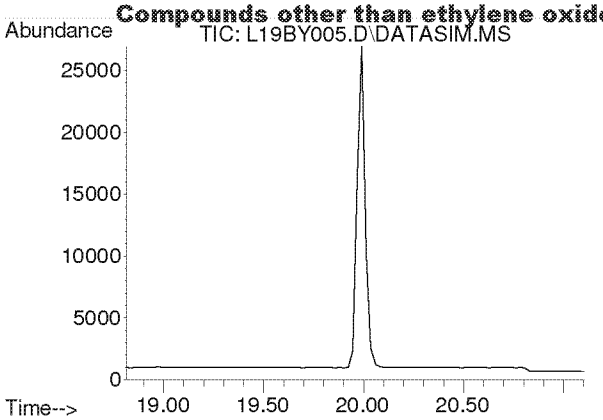
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

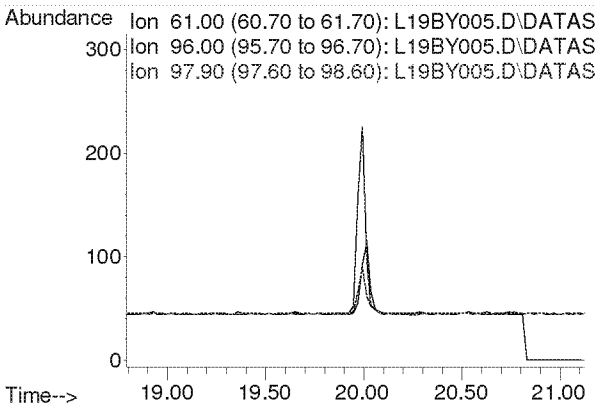


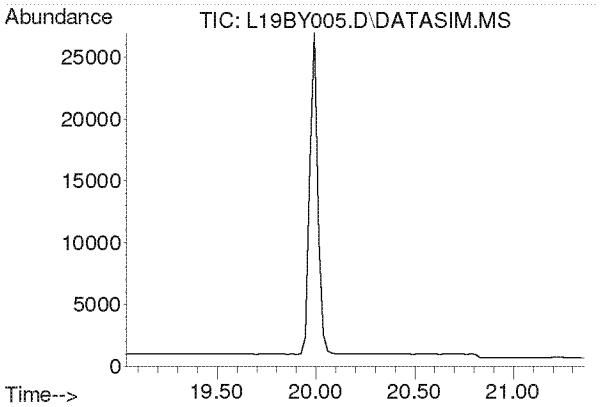
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



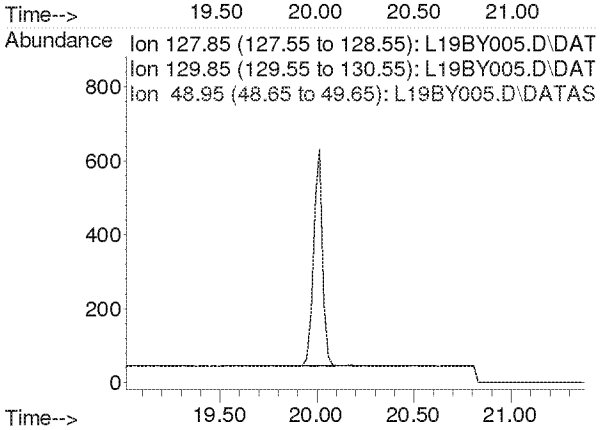


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

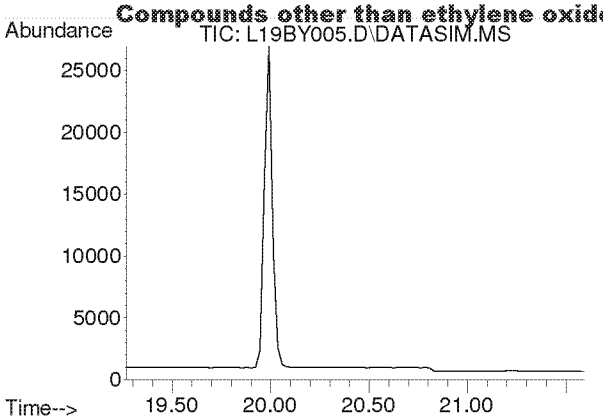
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

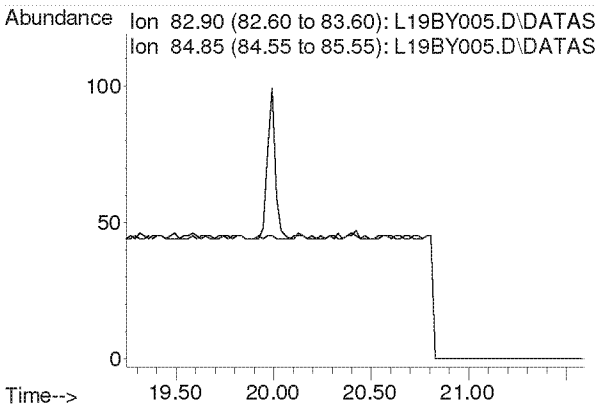


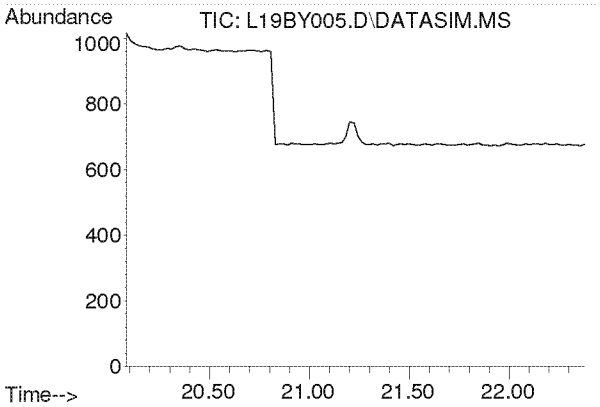
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



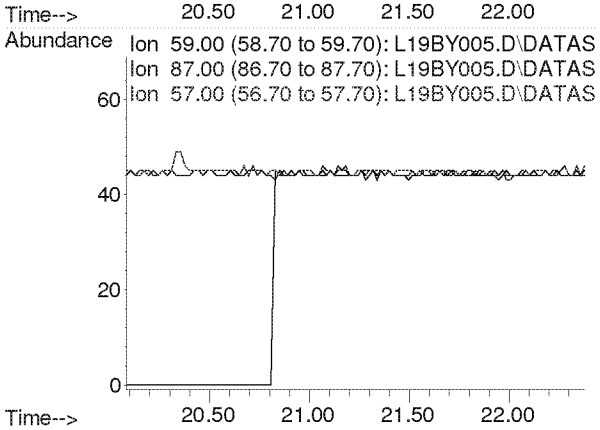


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

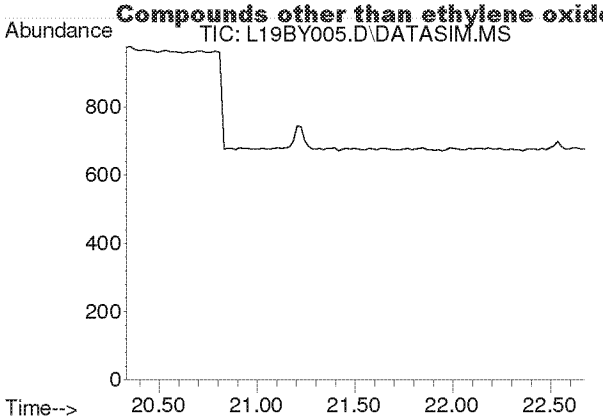
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

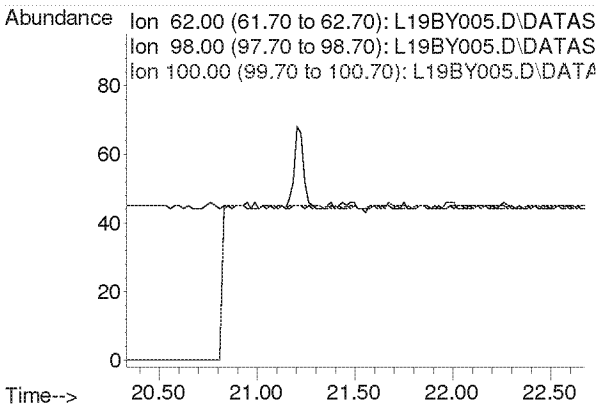


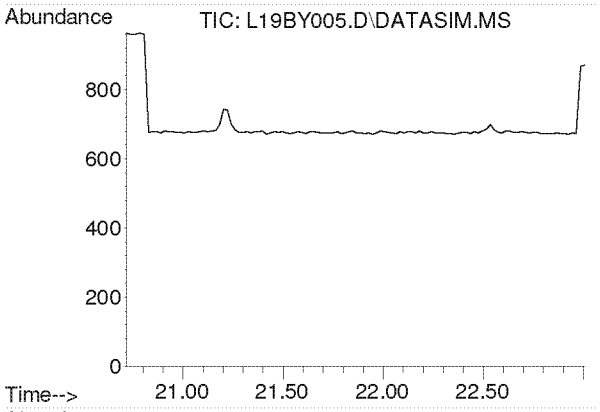
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



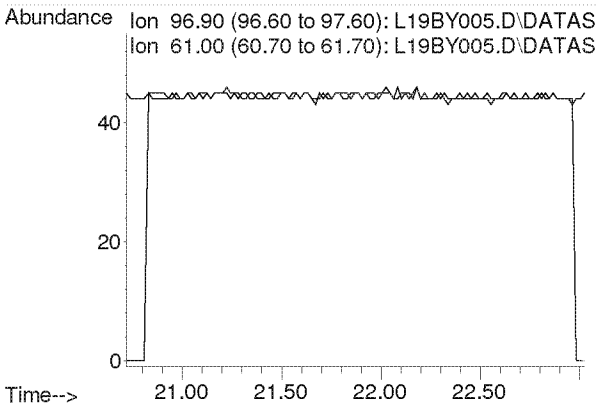


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

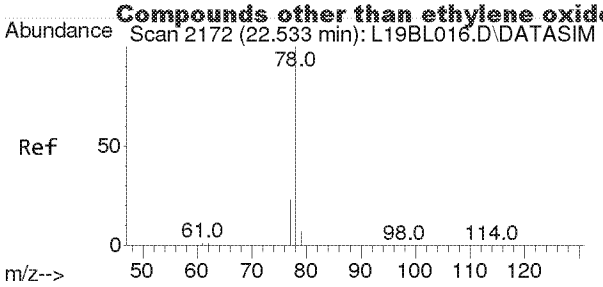
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



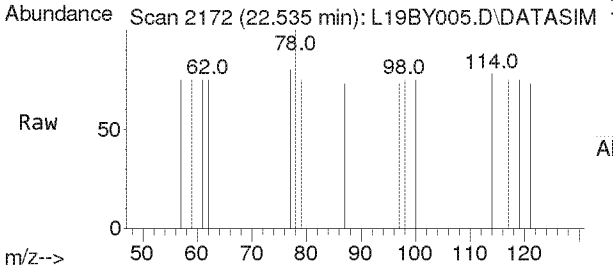
Compounds other than ethylene oxide were not quantitated.

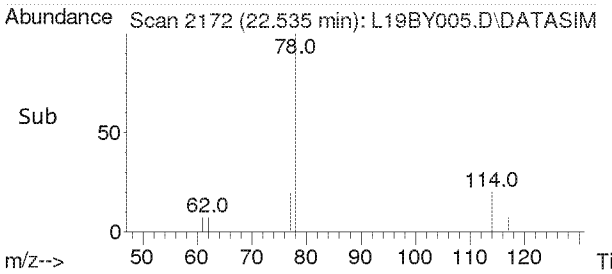


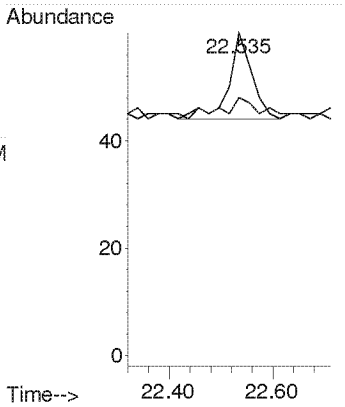
#31
Benzene
Concen: 0.004 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.002 min
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

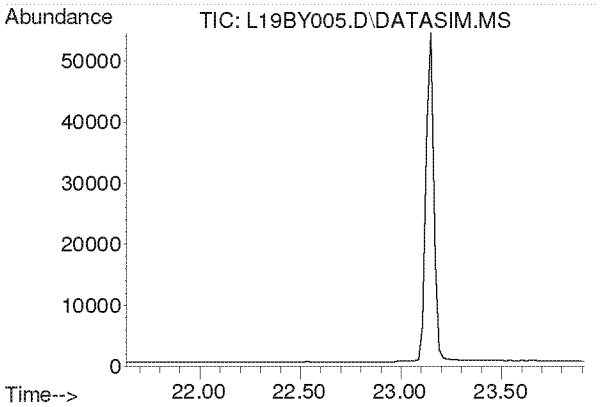
Tgt Ion: 78 Resp: 51

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.4#







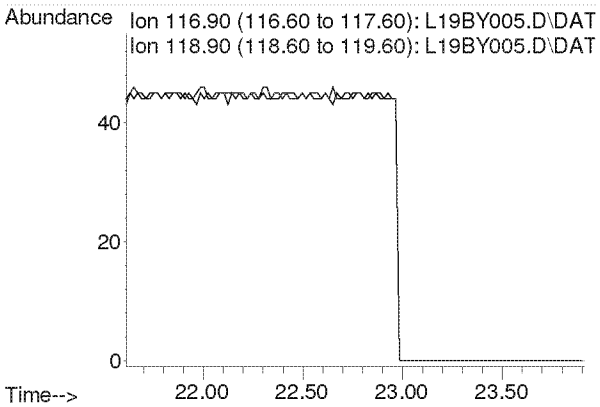


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

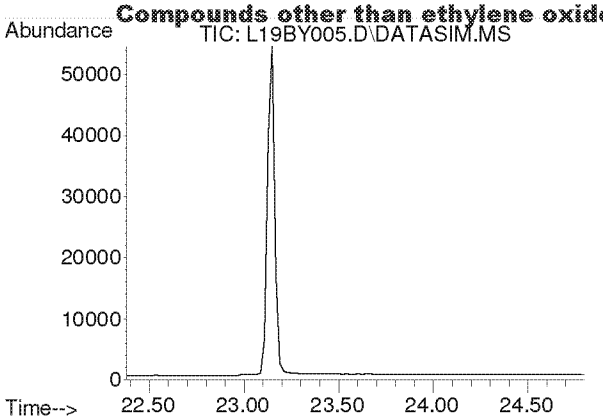
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

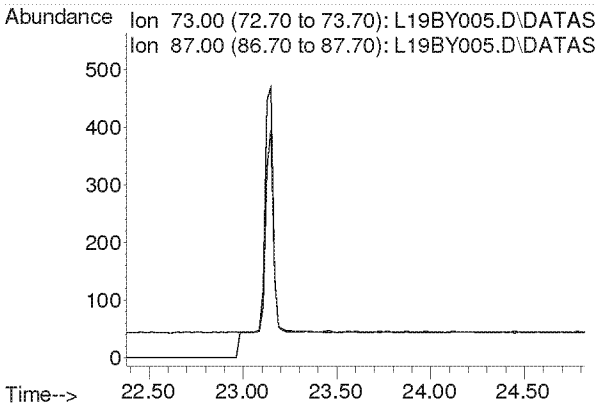


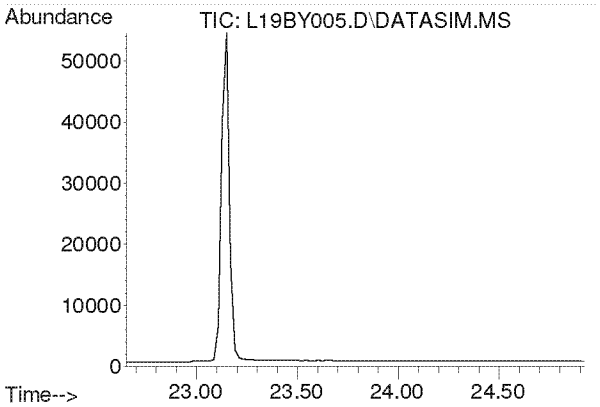
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



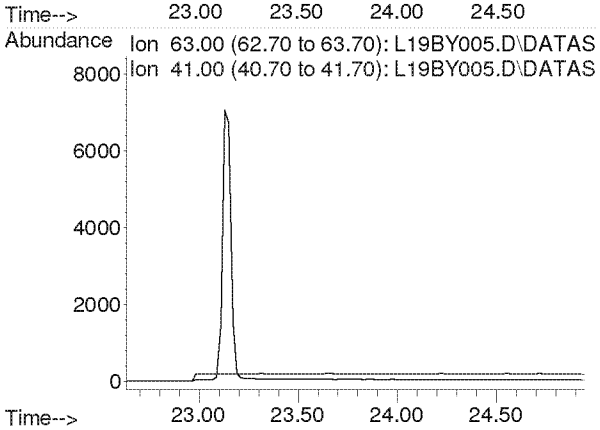


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

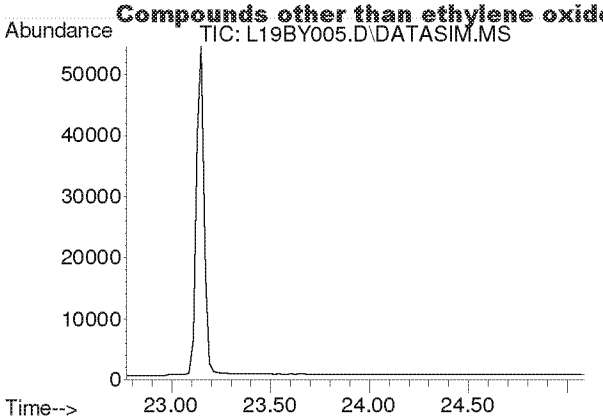
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

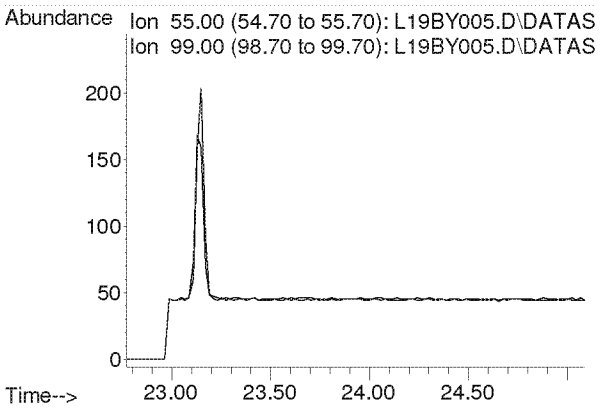


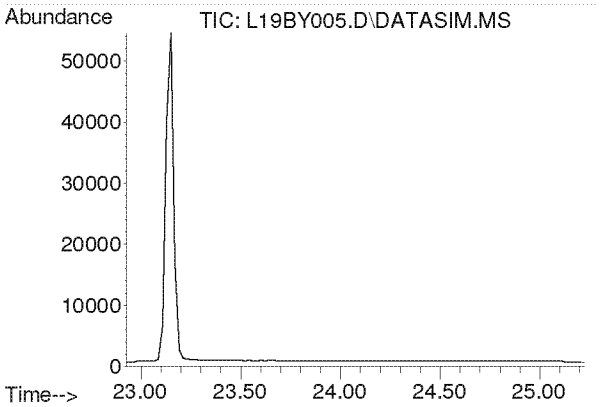
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



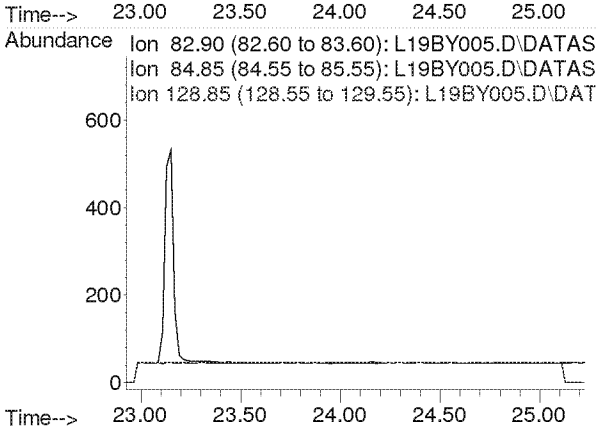


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

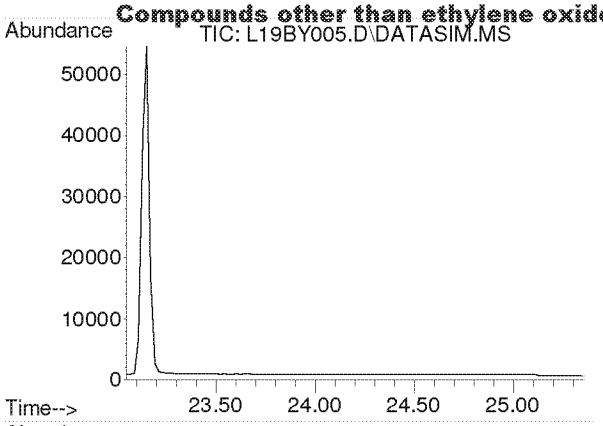
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

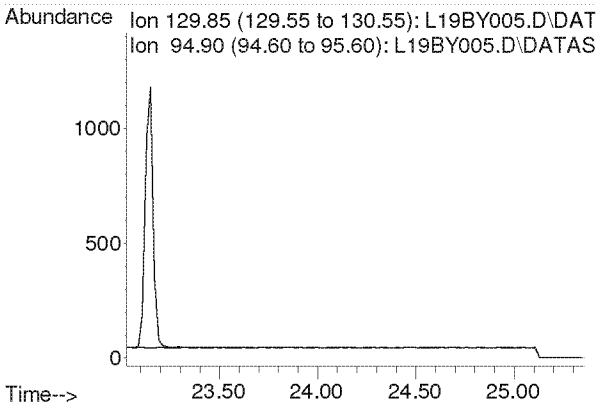


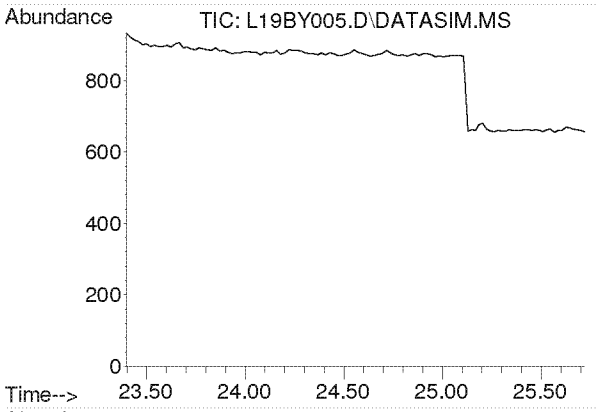
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



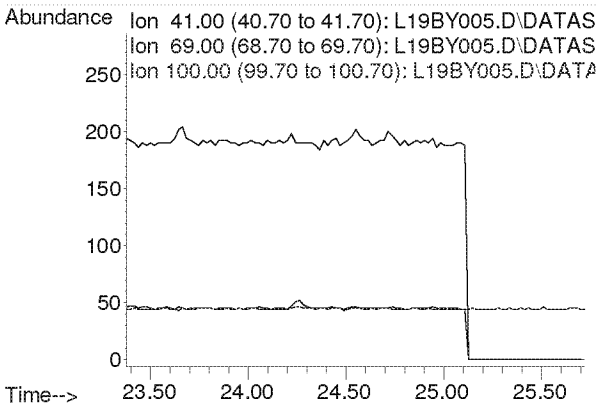


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

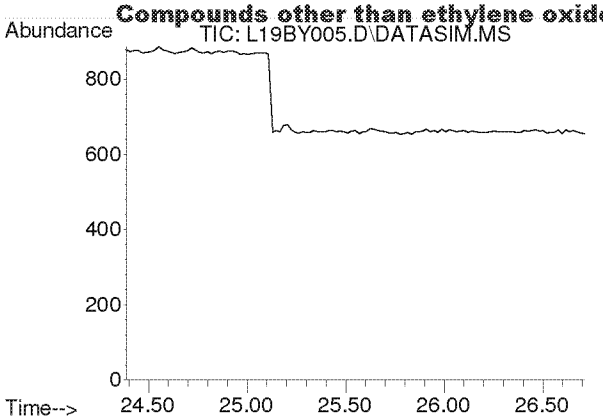
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

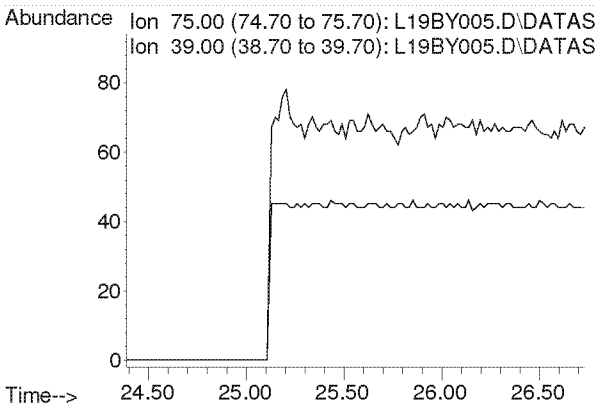


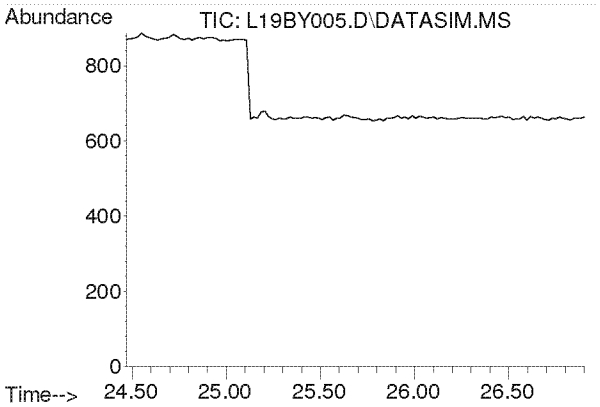
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



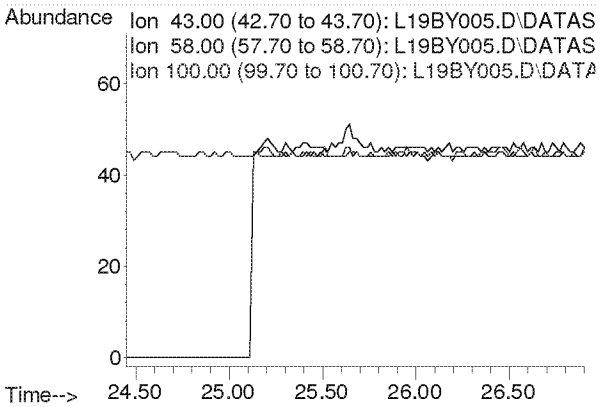


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

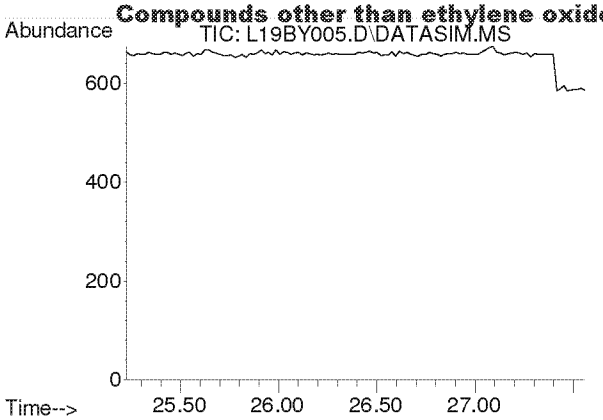
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

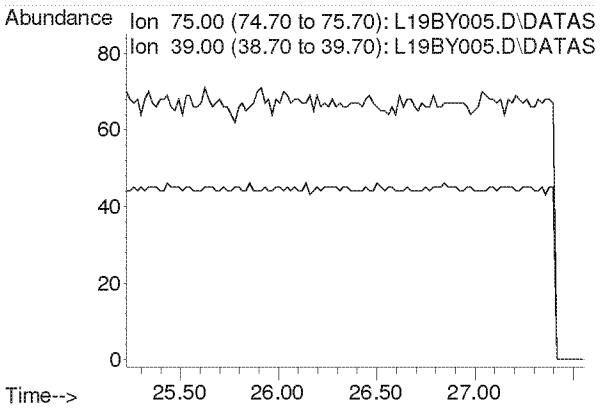


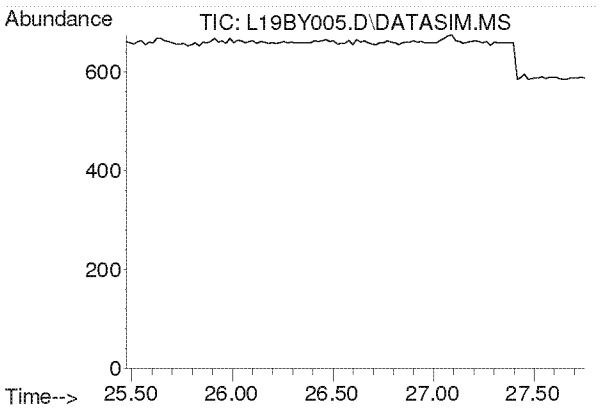
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



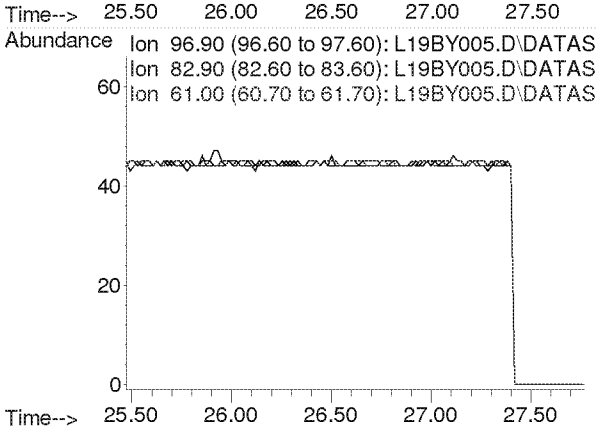


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

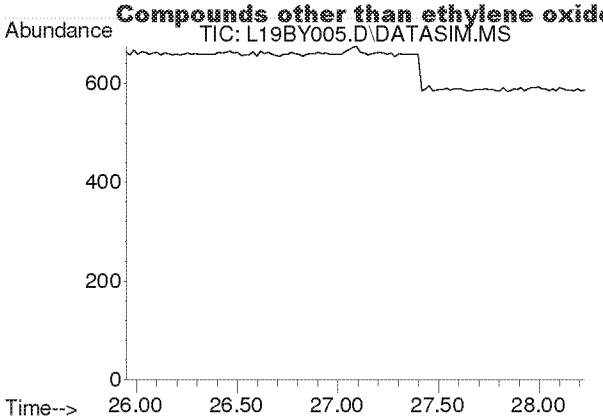
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

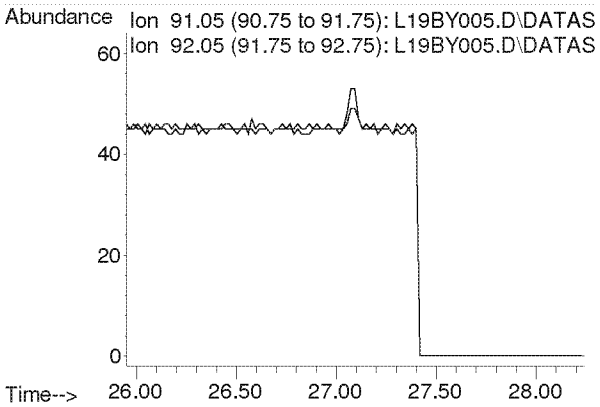


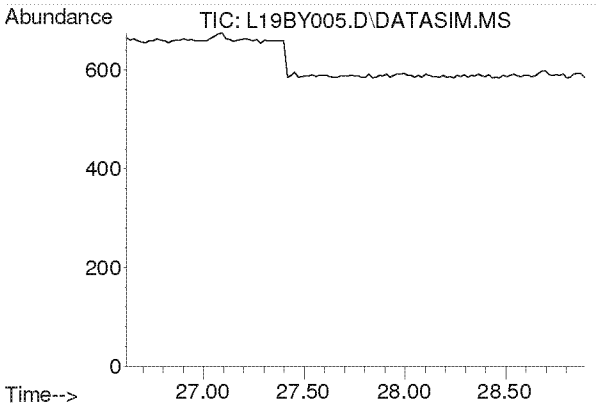
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



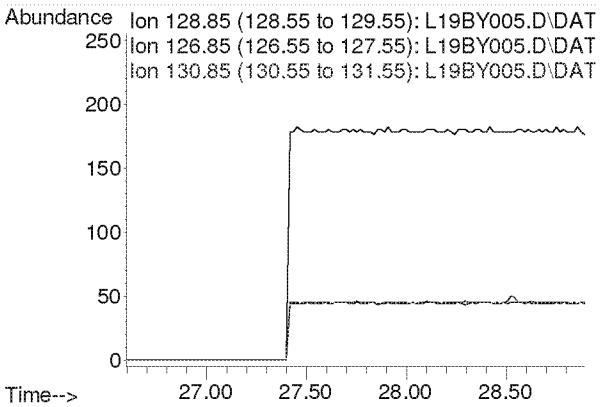


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

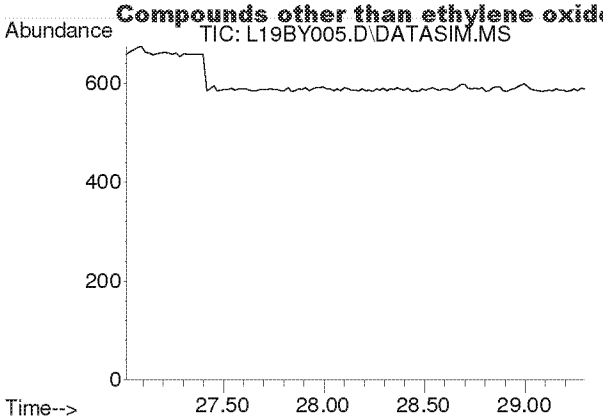
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

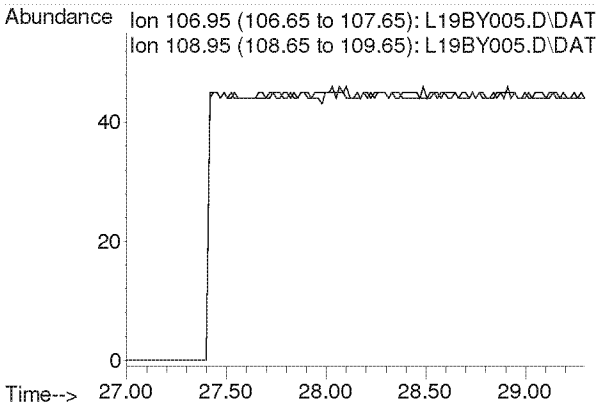


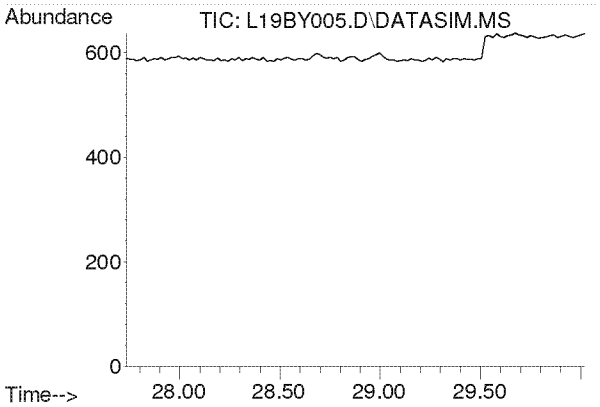
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



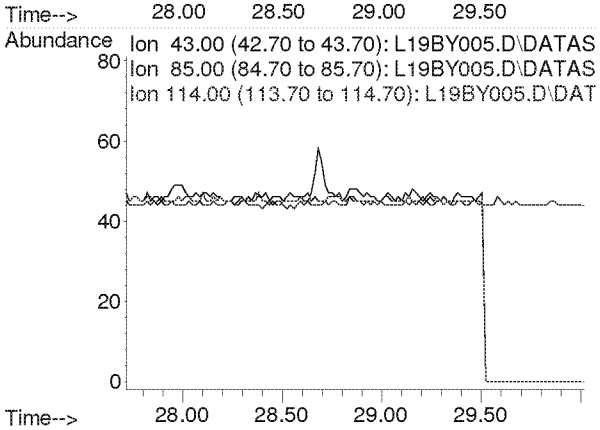


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

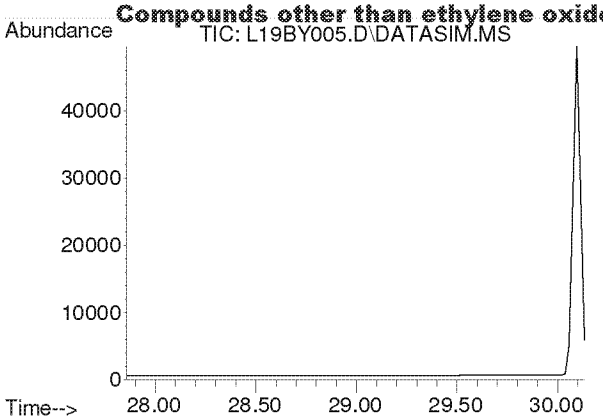
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

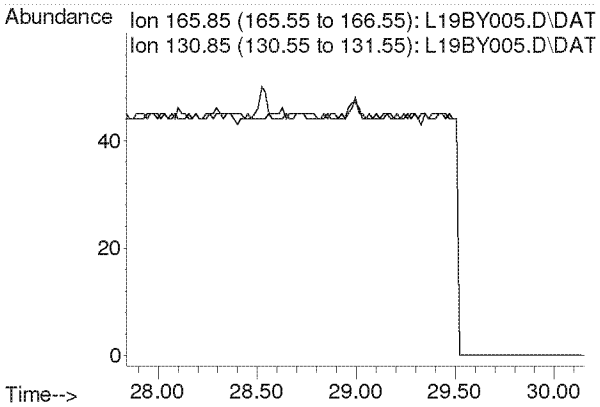


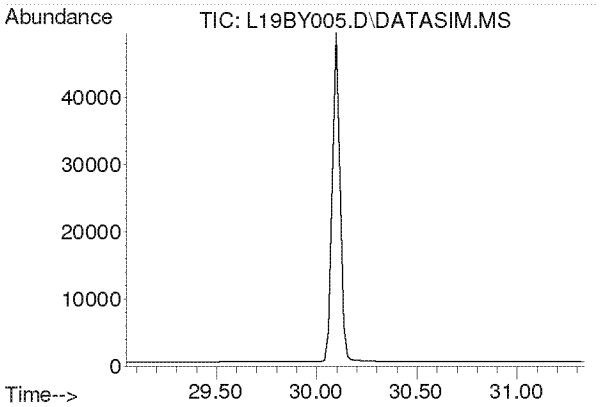
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



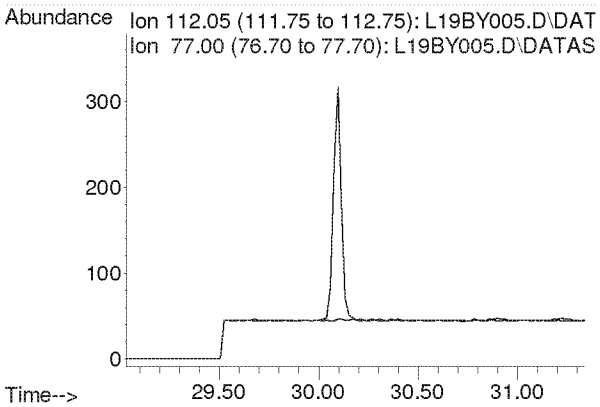


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

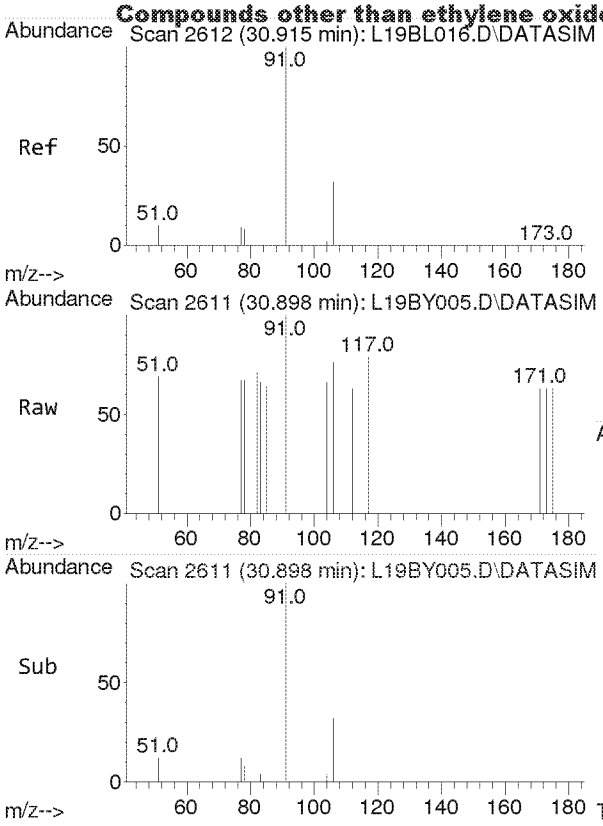
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



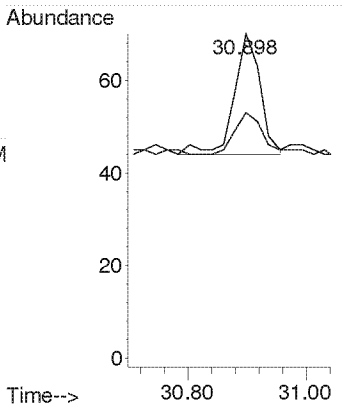
Compounds other than ethylene oxide were not quantitated.

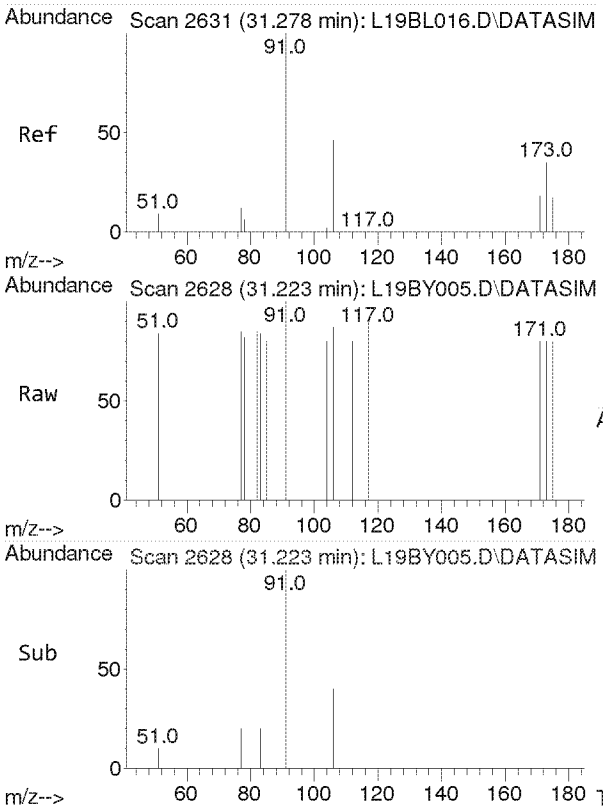


#50
Ethylbenzene
Concen: 0.006 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 91 Resp: 79

Ion	Ratio	Lower	Upper
91	100		
106	0.0	26.0	39.0#

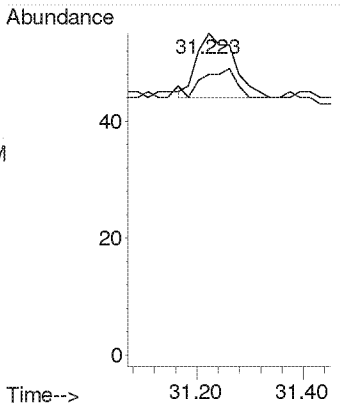




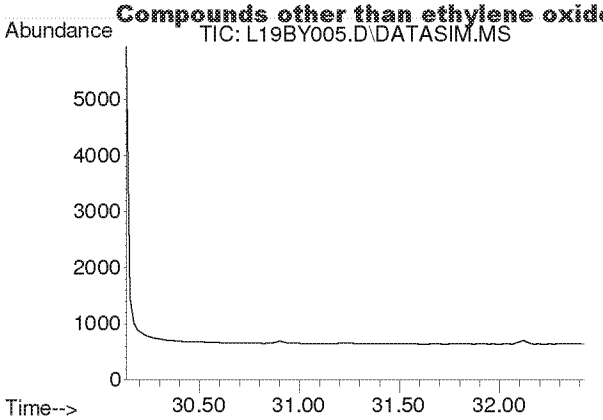
#51
m,p-Xylene
Concen: 0.005 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 91 Resp: 53

Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.3	55.9#



Compounds other than ethylene oxide were not quantitated.

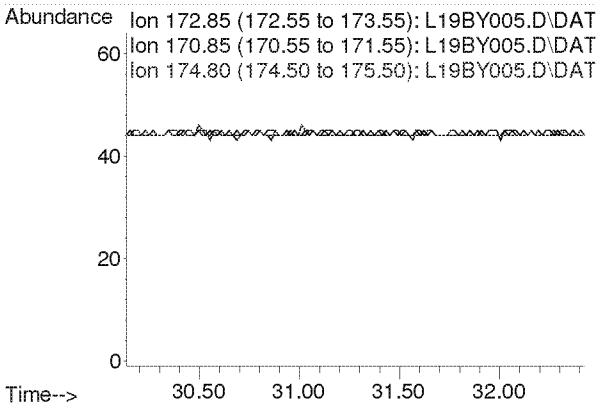


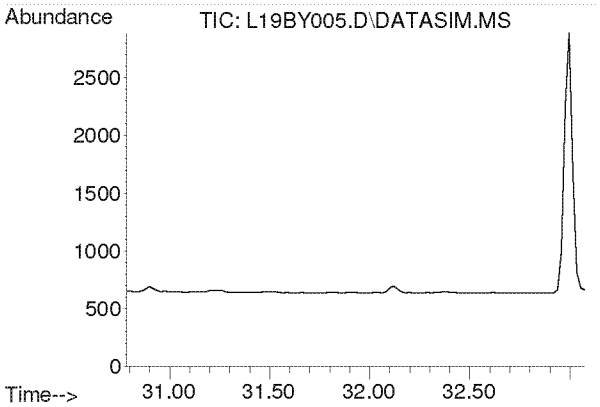
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



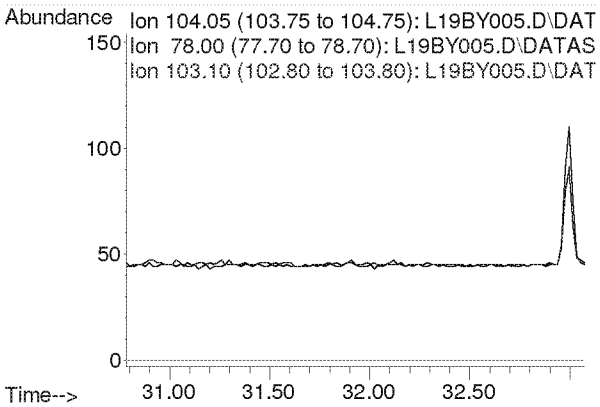


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

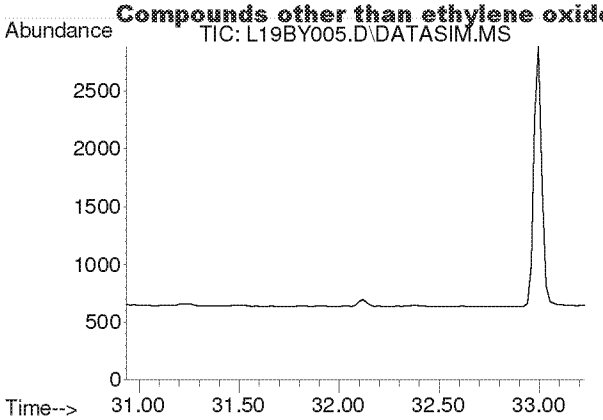
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

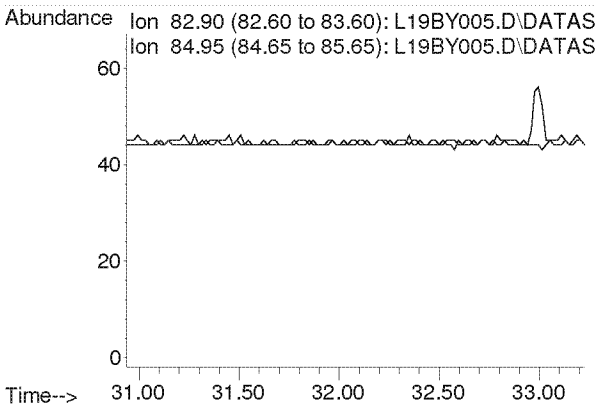


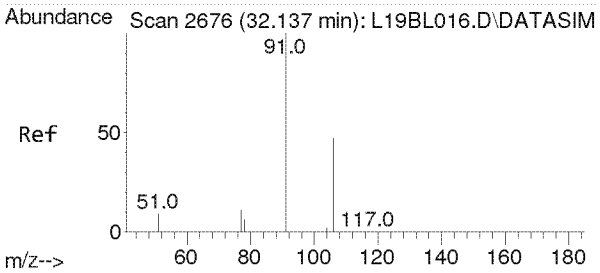
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

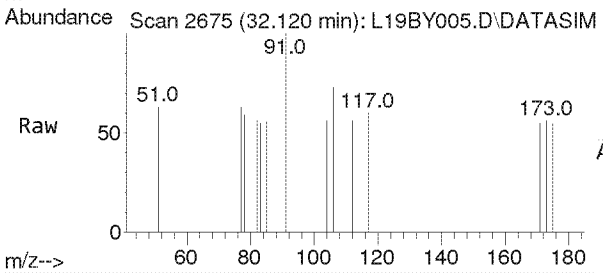


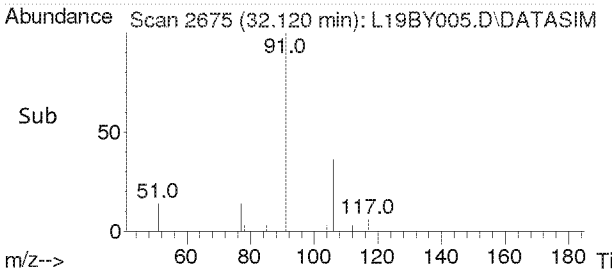


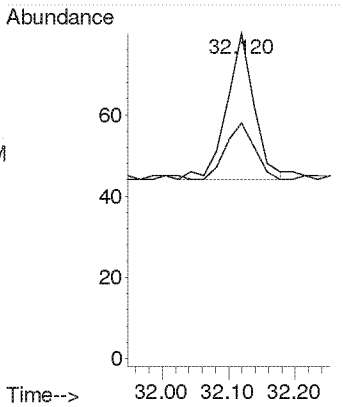
#55
o-Xylene
Concen: 0.009 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 91 Resp: 104

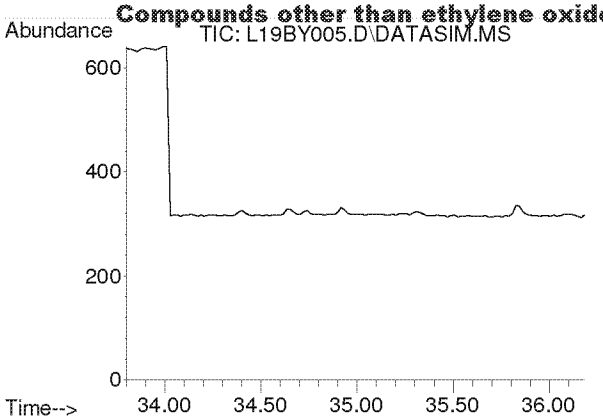
Ion	Ratio	Lower	Upper
91	100		
106	40.4	36.6	55.0







Compounds other than ethylene oxide were not quantitated.

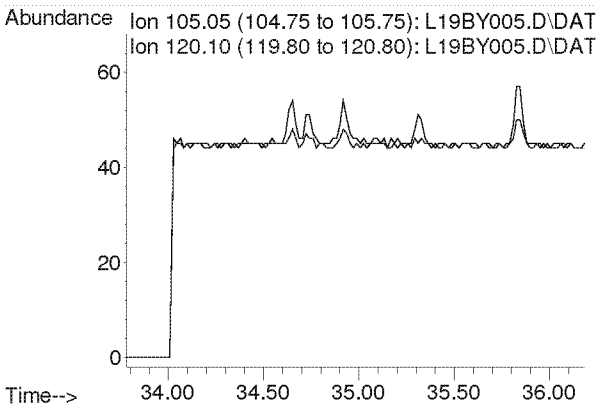


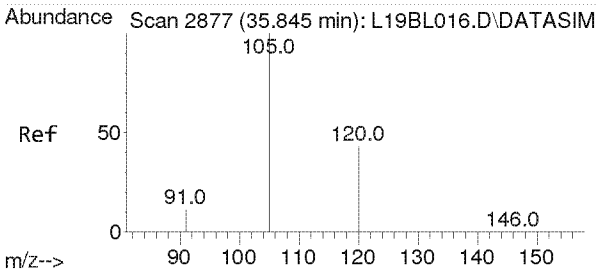
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0

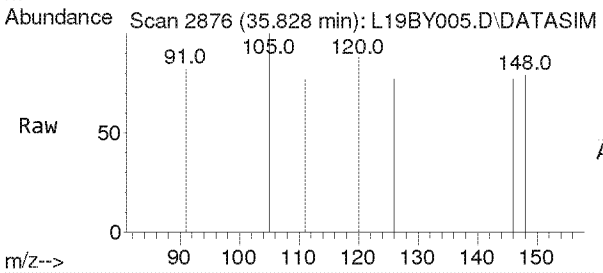


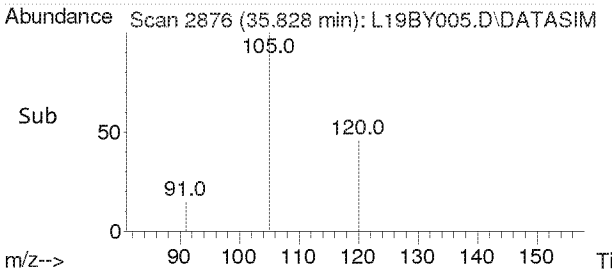


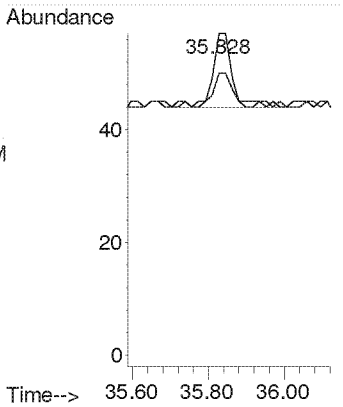
#57
1,2,4-Trimethylbenzene
Concen: 0.004 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.017 min
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion:105 Resp: 47

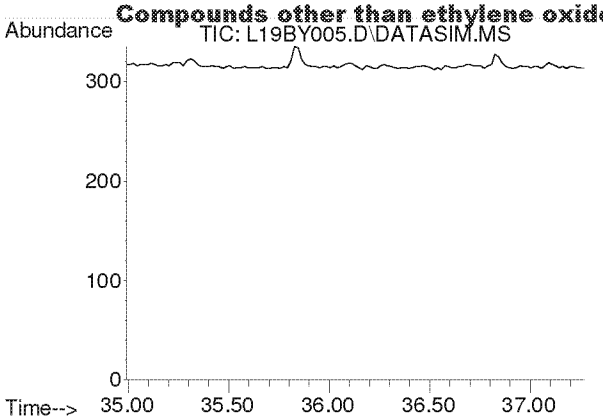
Ion	Ratio	Lower	Upper
105	100		
120	0.0	35.2	52.8#







Compounds other than ethylene oxide were not quantitated.

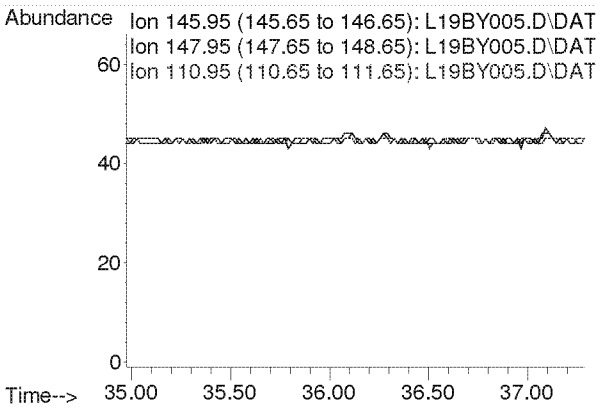


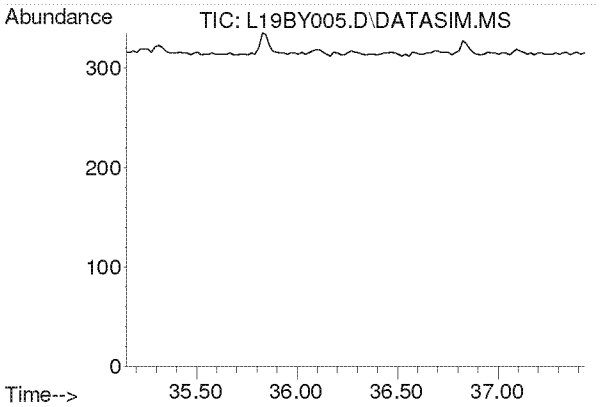
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



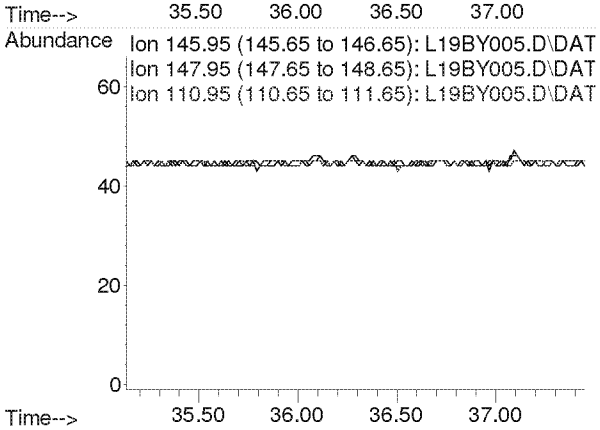


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

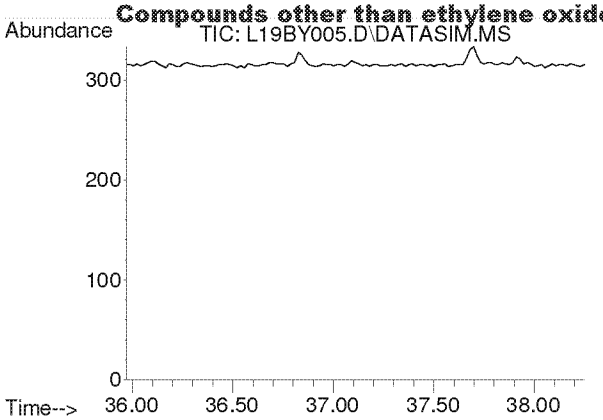
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

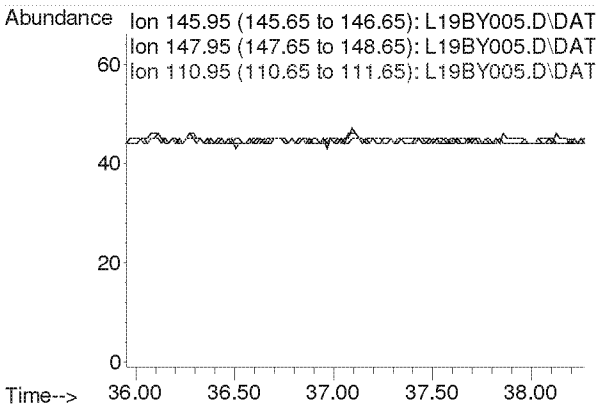


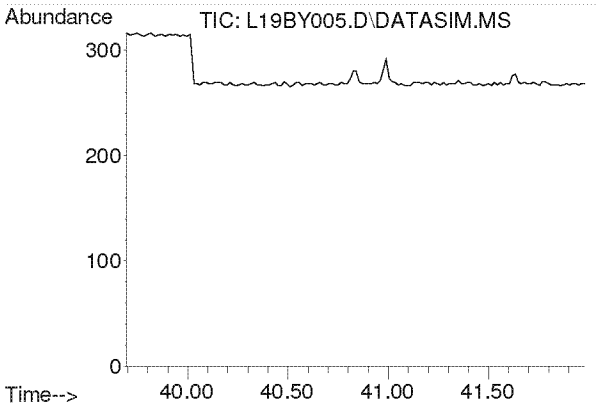
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



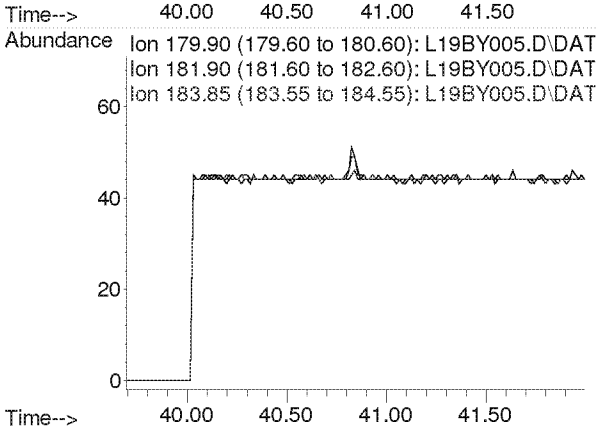


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

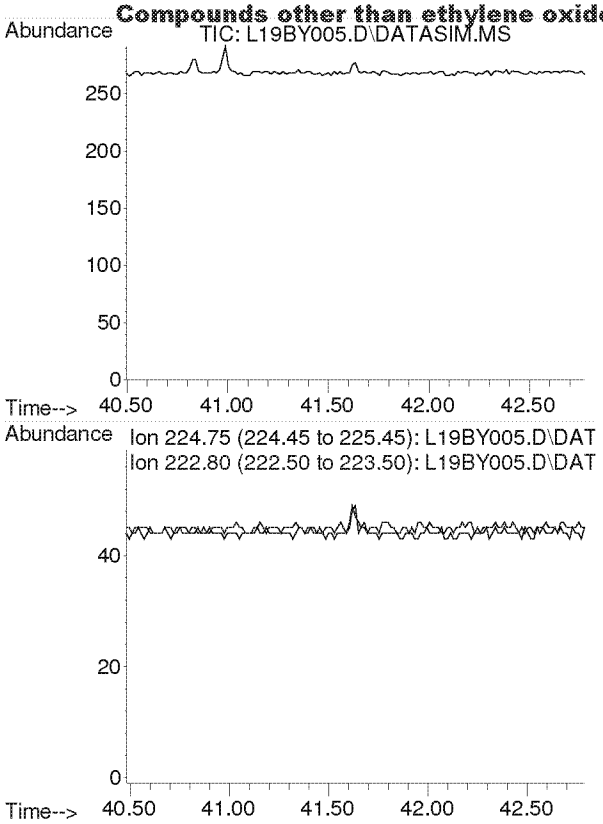
Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19BY005.D
Acq: 25 Feb 2019 11:22 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY006.D
Acq On : 25 Feb 2019 12:24 pm
Operator : MAH
Sample : 9022202-01
Misc : GROWER MS 2/20/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 26 10:04:25 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	40813	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	101611	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	72782	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	d
3) Propylene	0.000	41	0	N.D.	d
4) Dichlorodifluoromethane	0.000	85	0	N.D.	d
5) Chloromethane	0.000	50	0	N.D.	d
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	d
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	d
9) Ethylene oxide	12.485	29	261m	0.1118 ppbv	
10) Bromomethane	0.000	94	0	N.D.	d
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	d
13) Acrolein	0.000	56	0	N.D.	d
14) Trichlorofluoromethane	0.000	101	0	N.D.	d
15) Acrylonitrile	0.000	53	0	N.D.	d
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	d
18) Carbon Disulfide	0.000	76	0	N.D.	d
19) Trichlorotrifluoroethane	0.000	101	0	N.D.	d
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	d
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	d
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D.	d
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D.	d
32) Carbon Tetrachloride	0.000	117	0	N.D.	d
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	d
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D.	d
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D.	d
45) Dibromochloromethane	0.000	129	0	N.D.	d
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	d
48) Tetrachloroethylene	0.000	166	0	N.D.	d
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY006.D
Acq On : 25 Feb 2019 12:24 pm
Operator : MAH
Sample : 9022202-01
Misc : GROWER MS 2/20/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 26 10:04:25 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

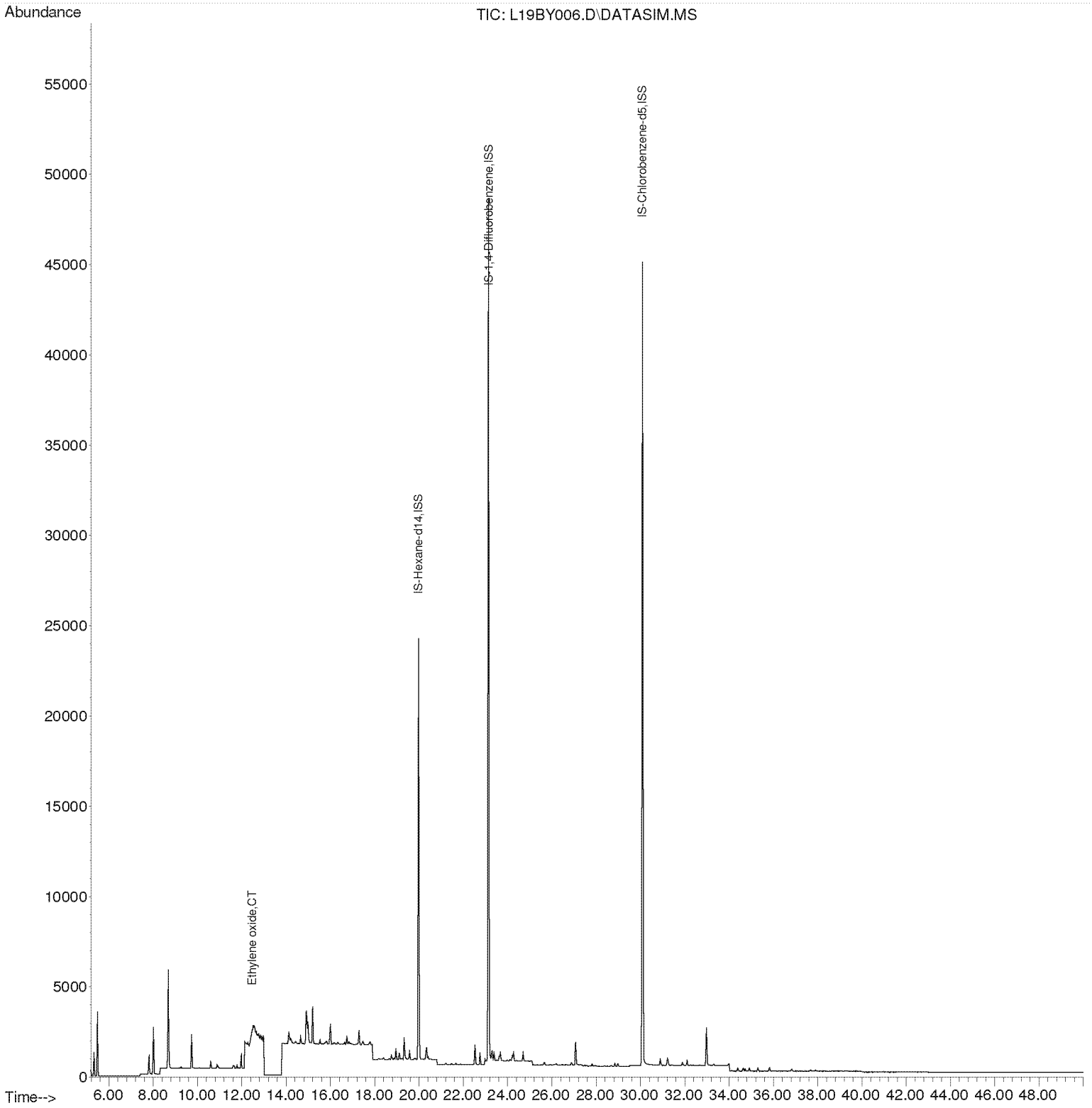
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

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

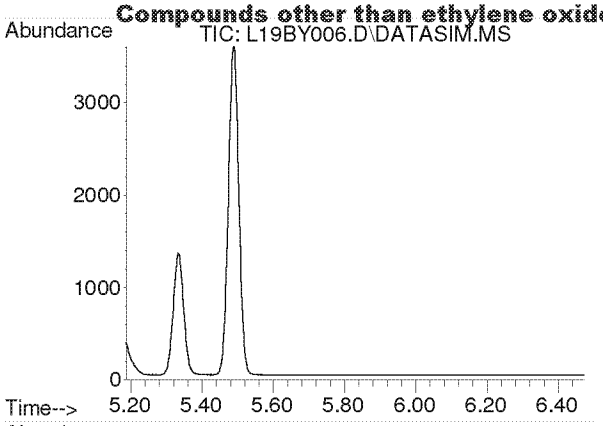
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY006.D
Acq On : 25 Feb 2019 12:24 pm
Operator : MAH
Sample : 9022202-01
Misc : GROWER MS 2/20/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 26 09:53:17 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



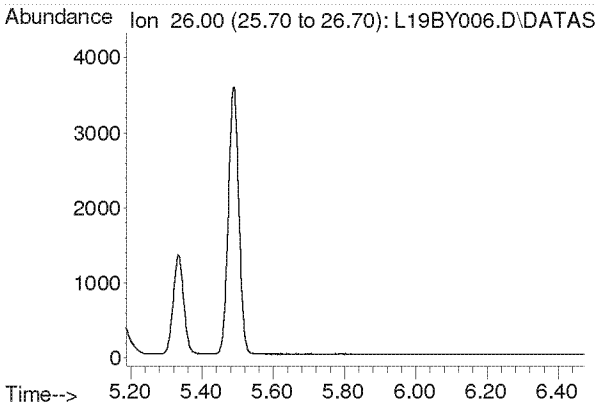
Compounds other than ethylene oxide were not quantitated.

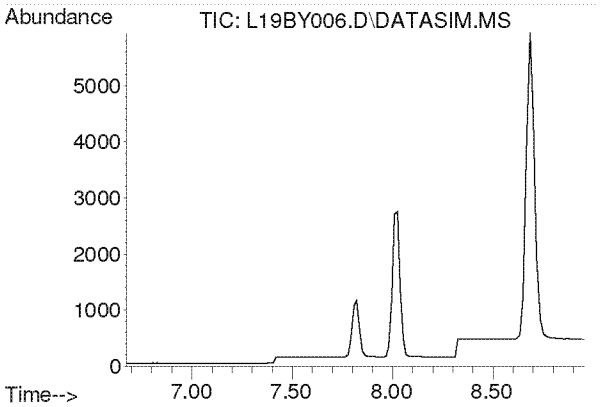


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 26



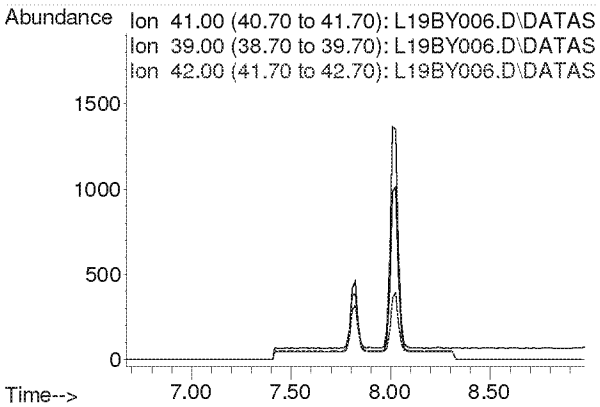


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

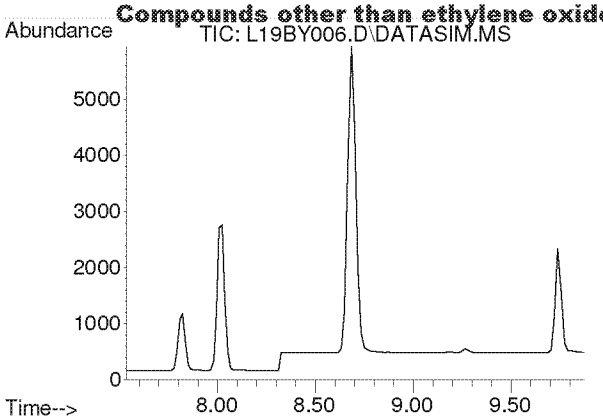
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

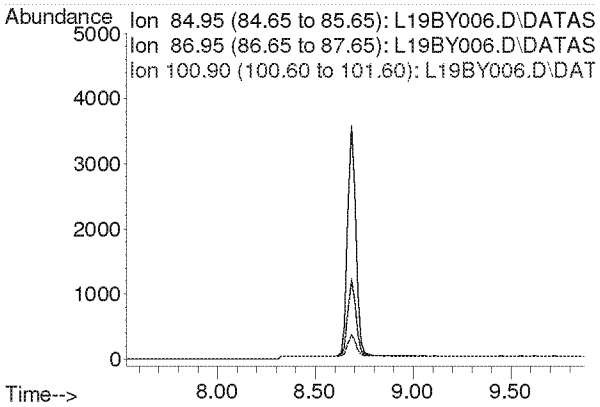


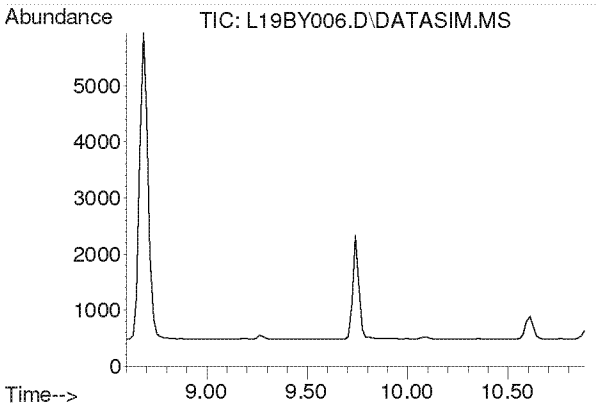
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



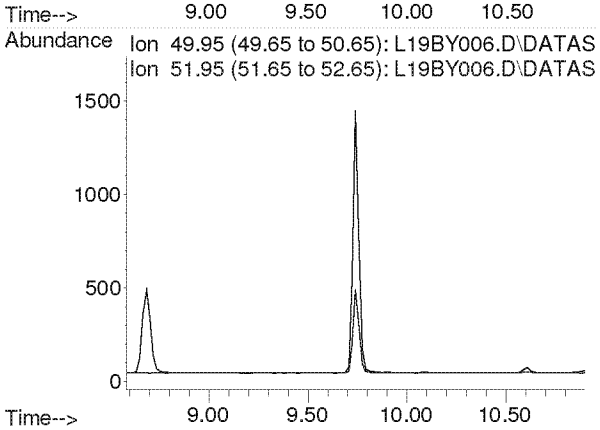


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

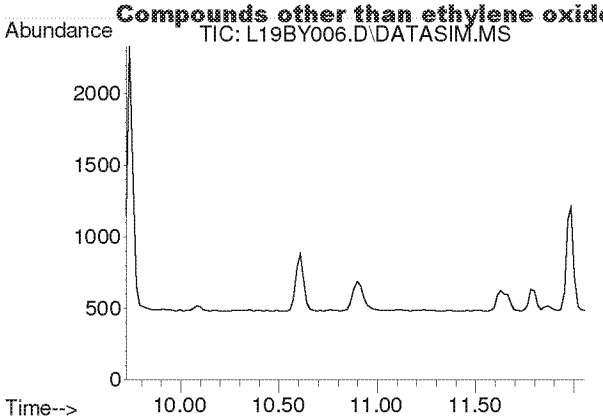
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

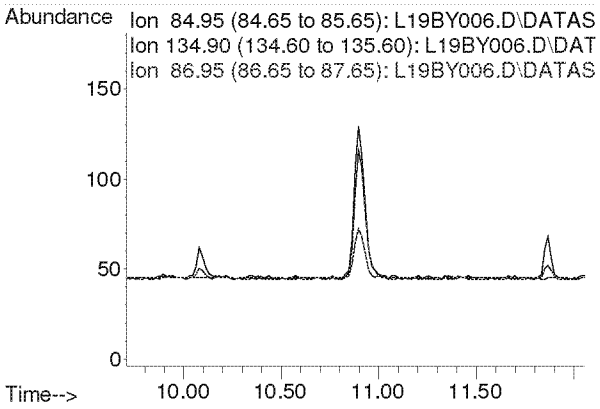


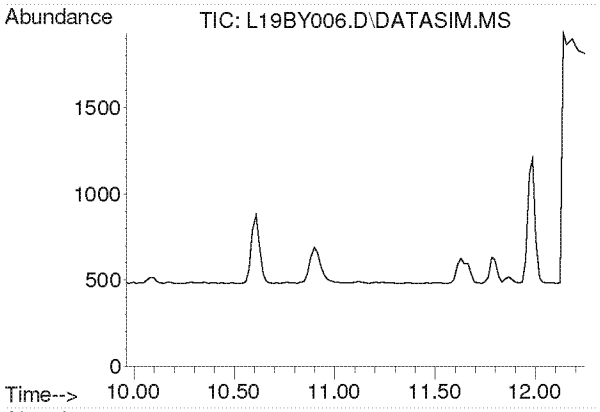
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



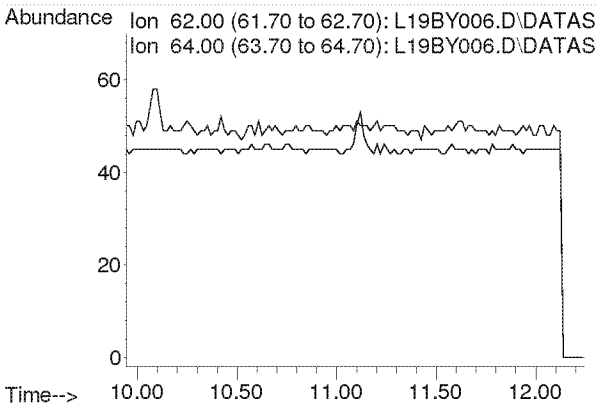


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

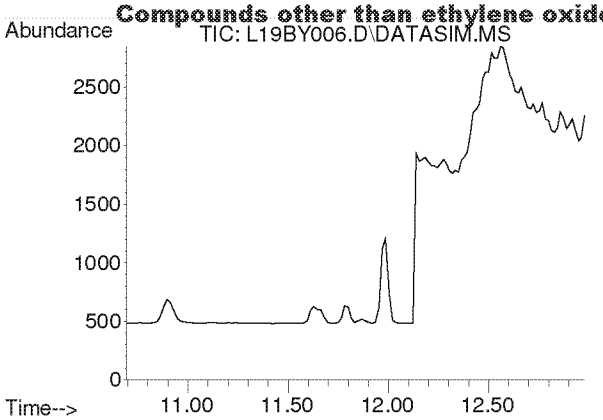
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

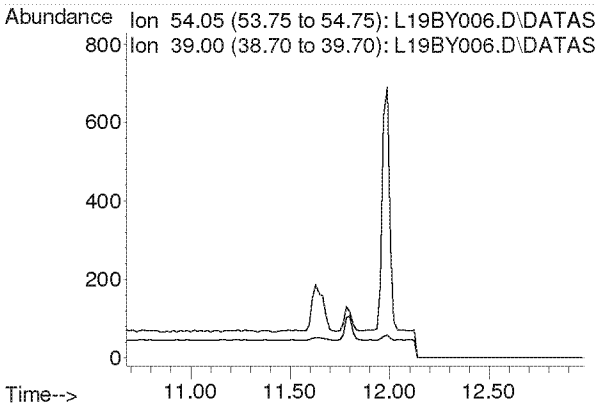


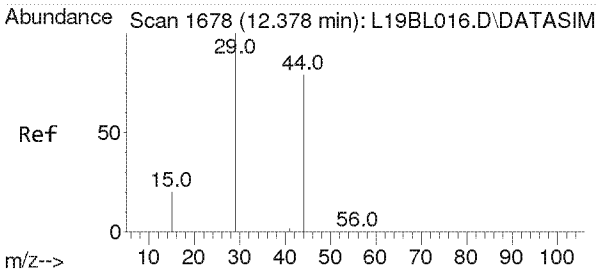
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

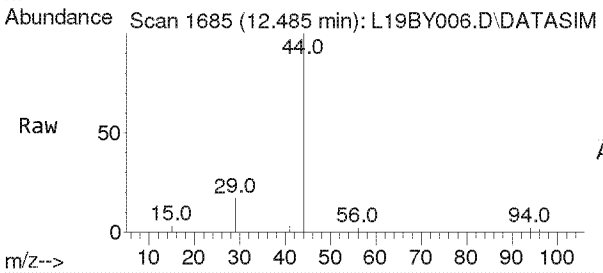


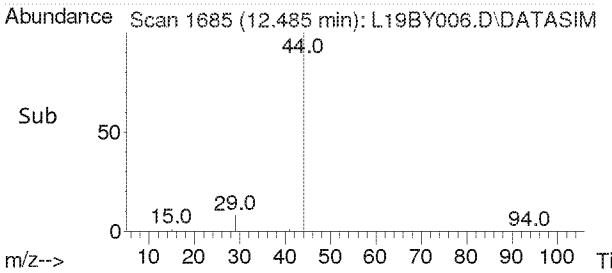


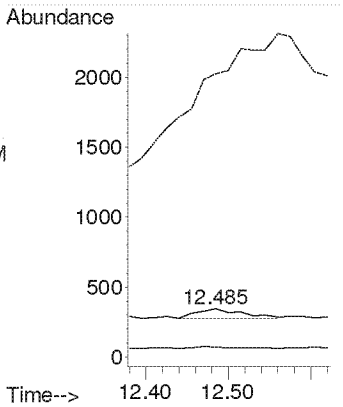
#9
Ethylene oxide
Concen: 0.112 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.107 min
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 29 Resp: 261

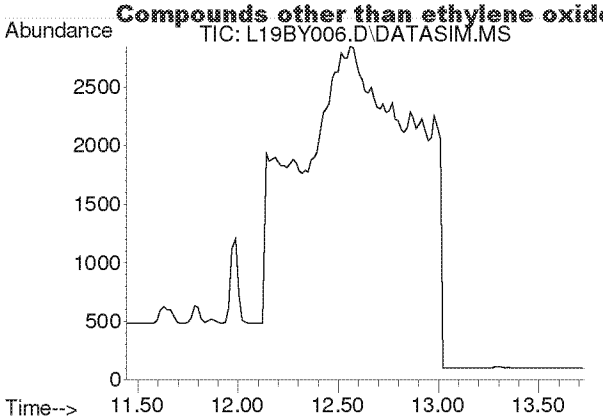
Ion	Ratio	Lower	Upper
29	100		
15	18.0	16.0	24.0
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

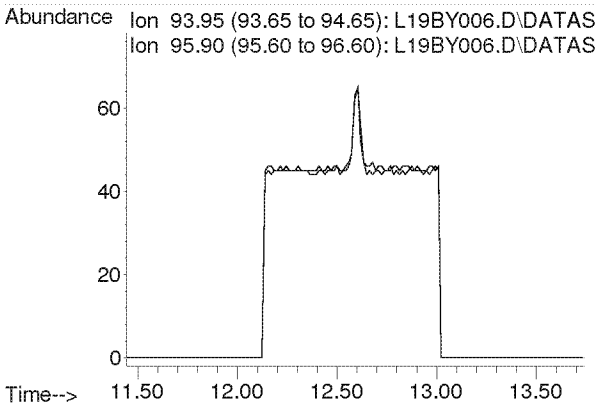


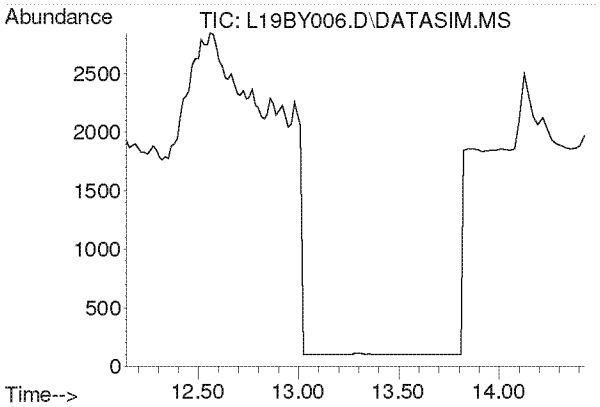
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



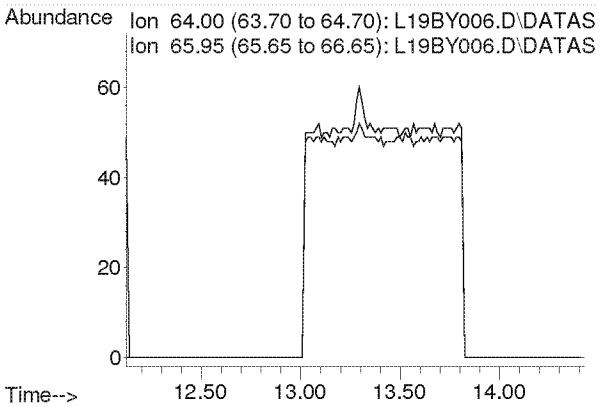


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

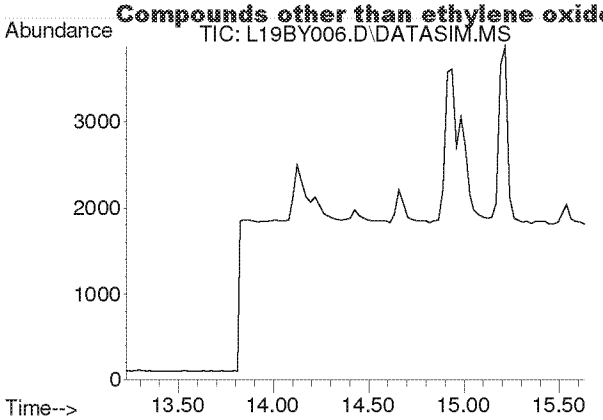
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

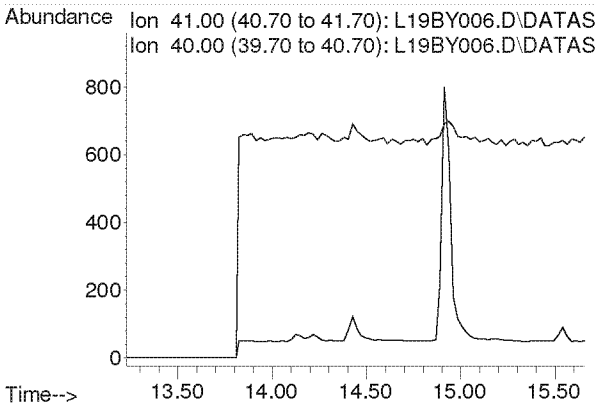


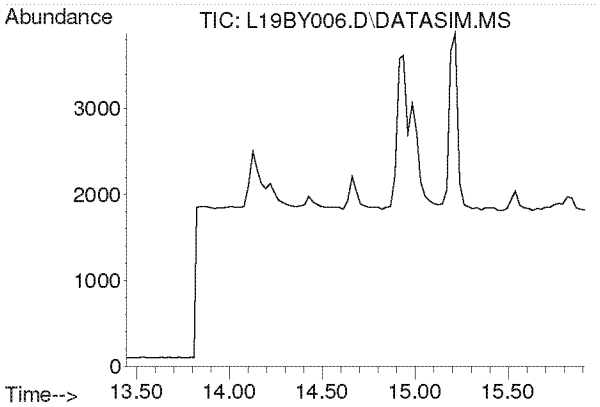
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



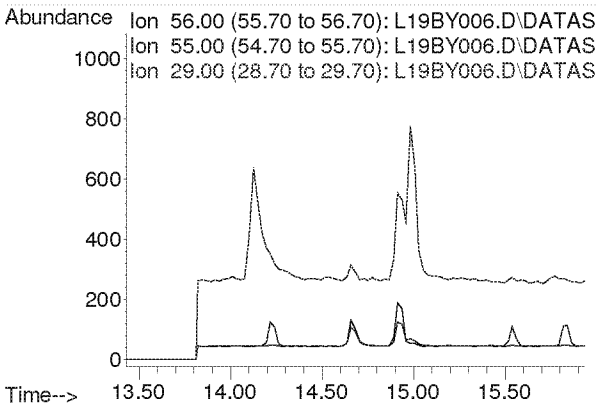


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

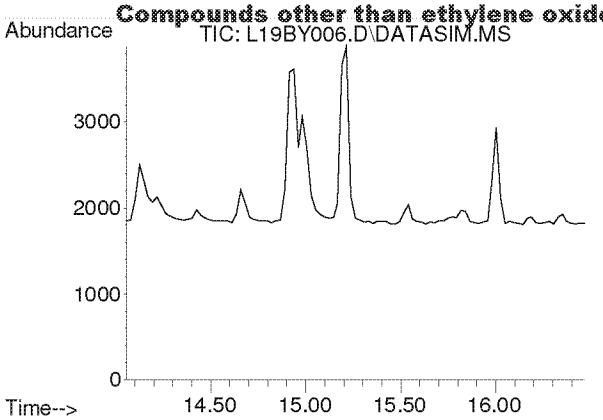
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

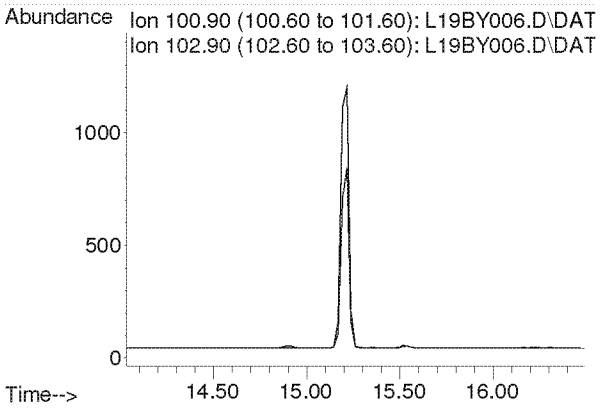


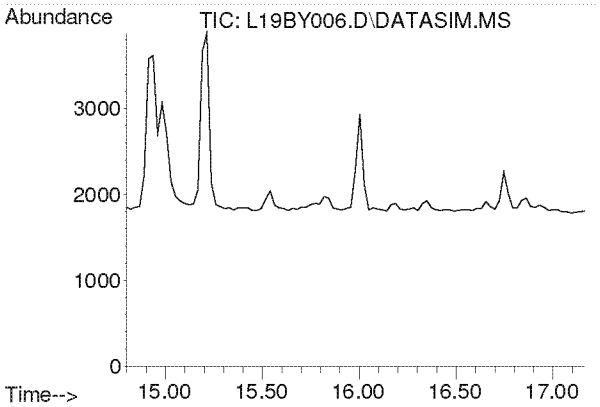
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



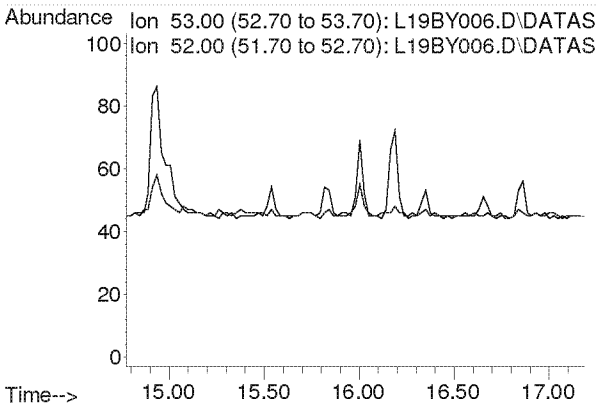


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

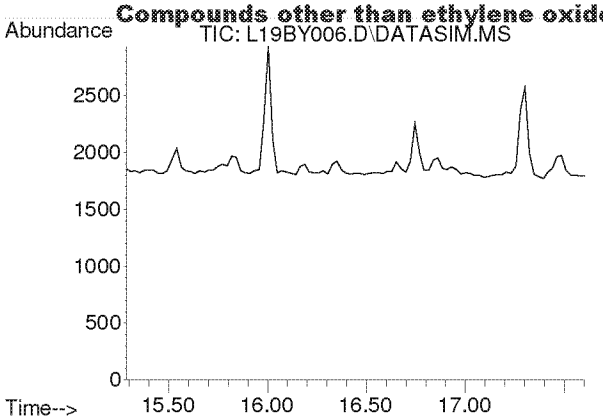
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

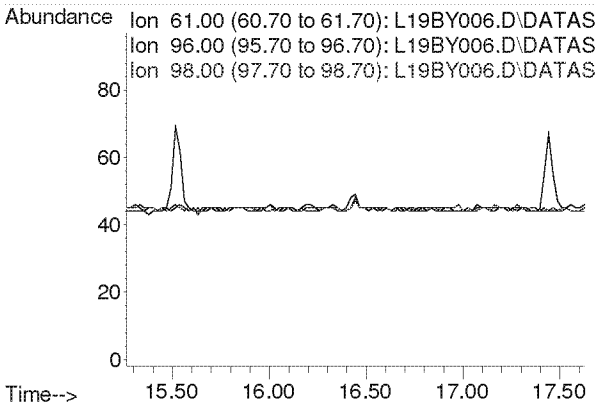


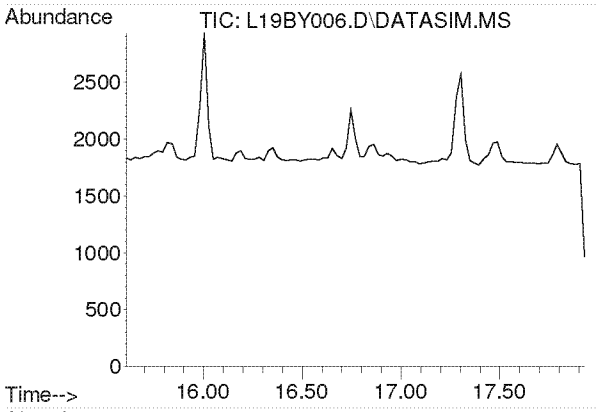
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



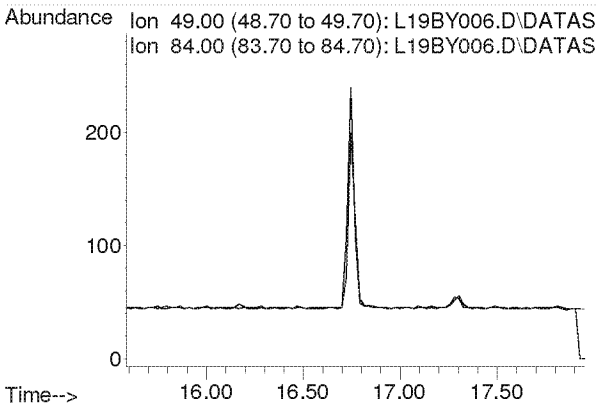


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

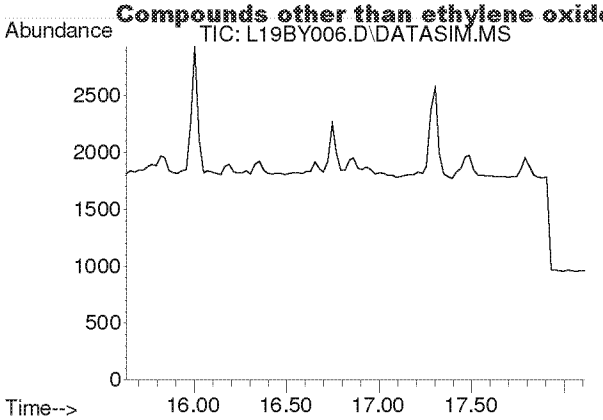
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

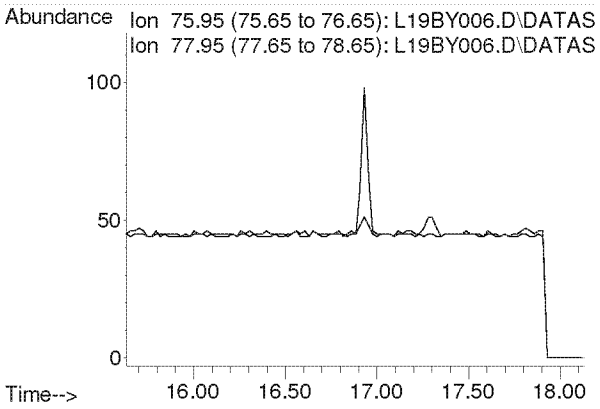


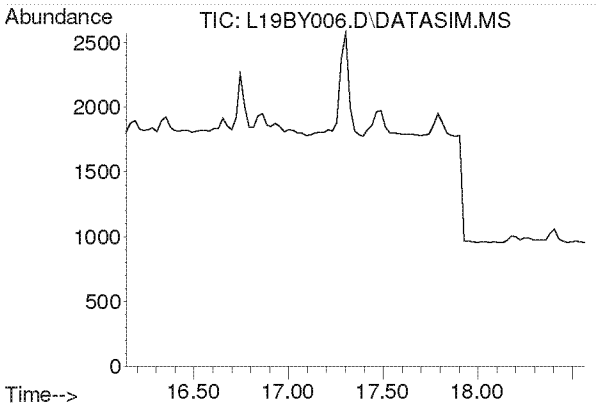
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



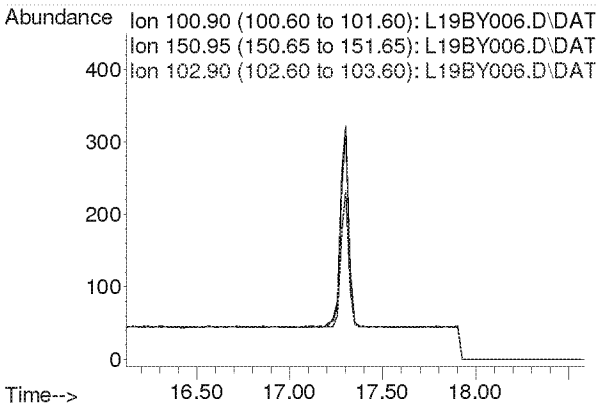


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

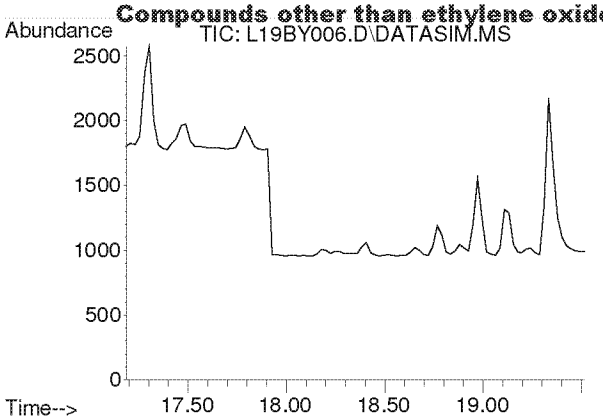
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

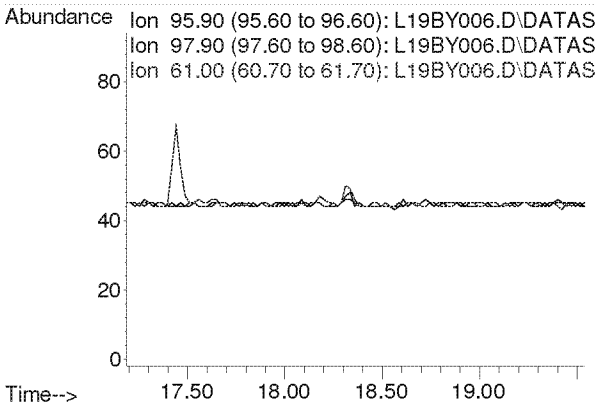


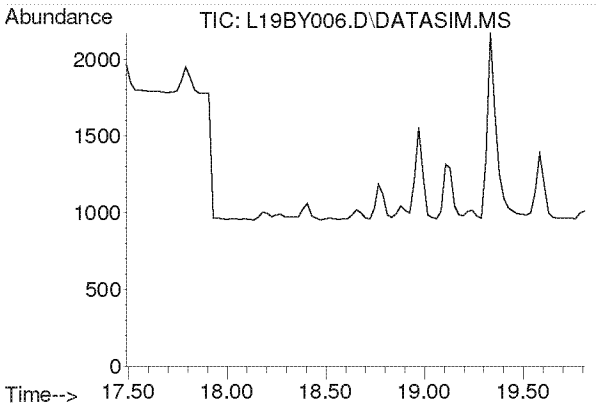
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



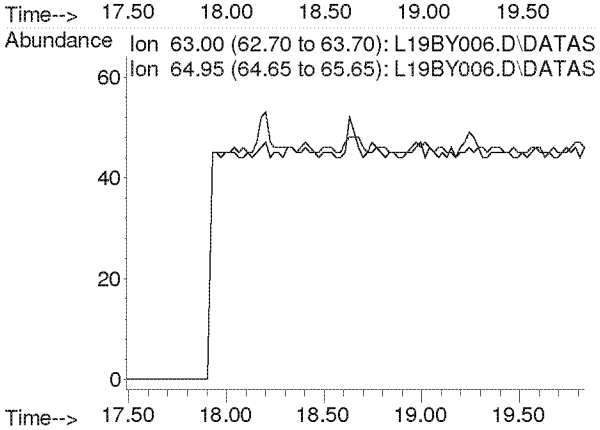


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

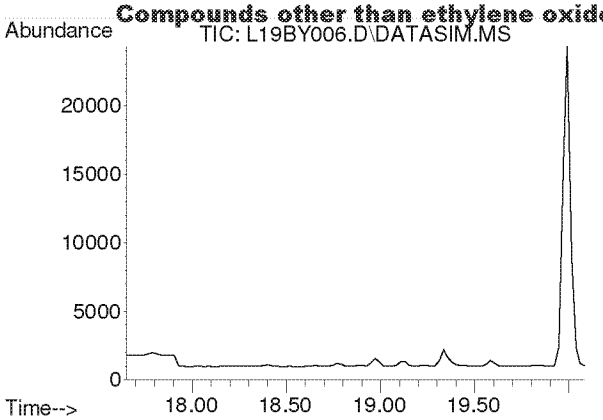
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

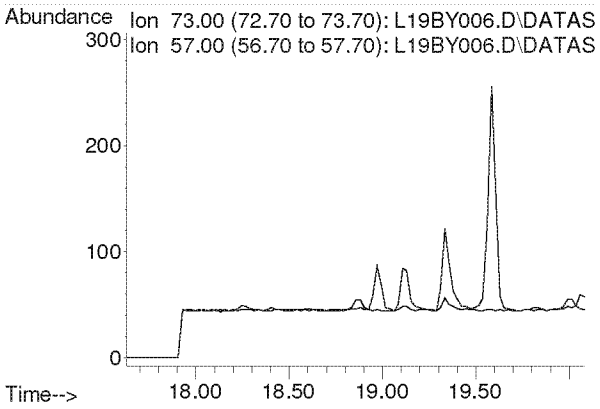


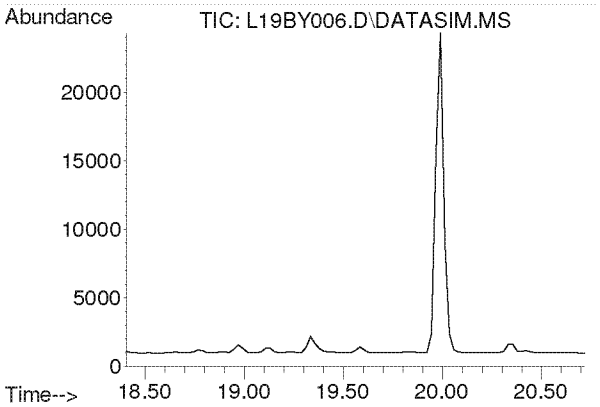
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



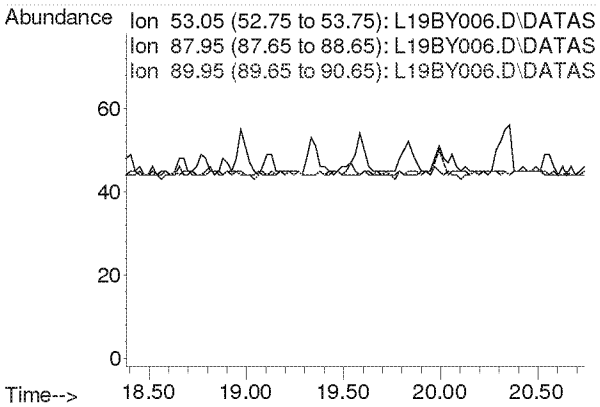


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

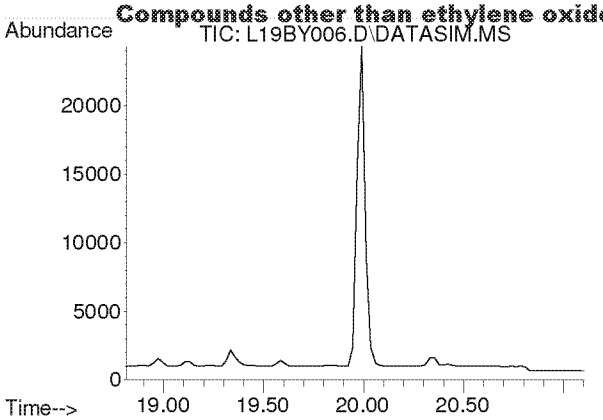
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

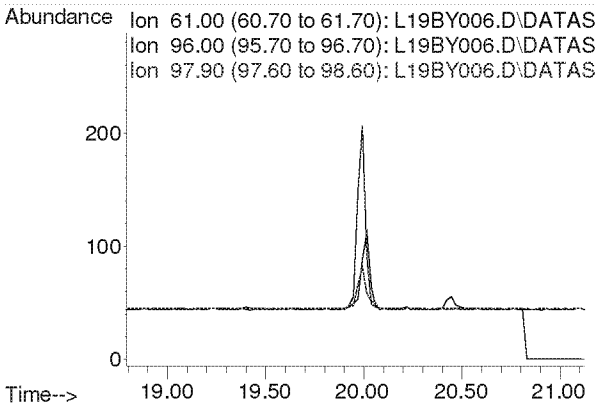


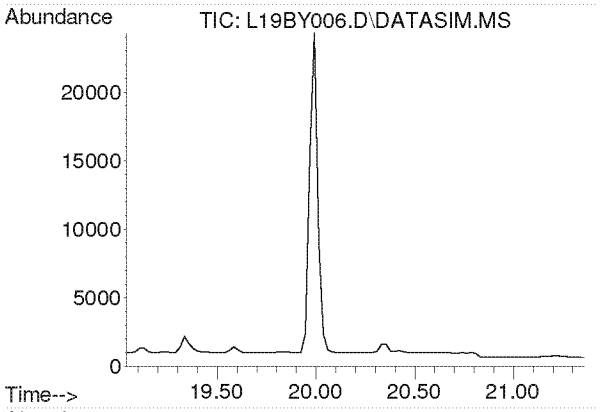
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



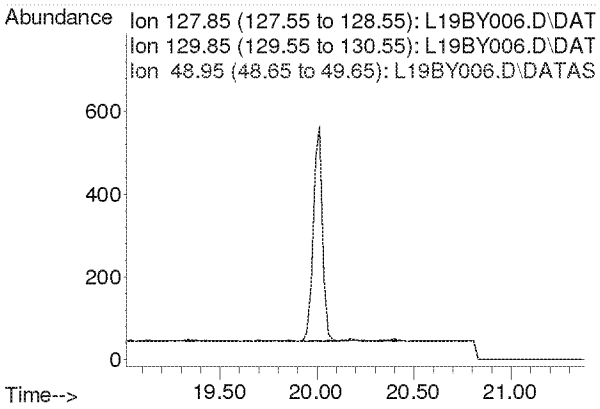


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

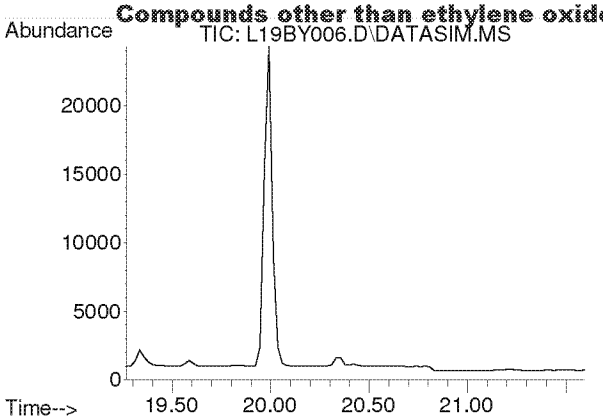
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

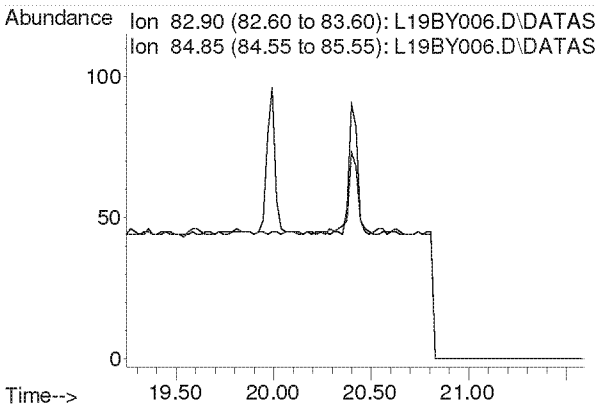


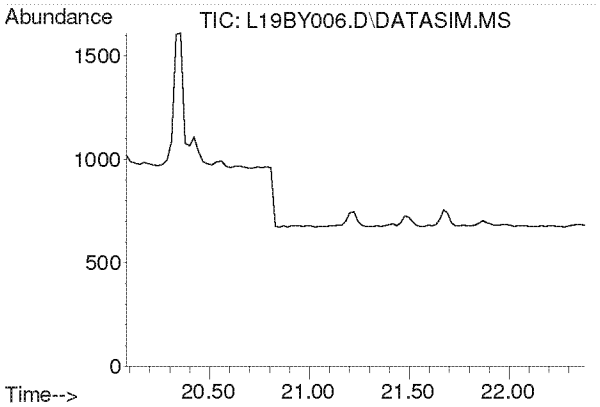
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



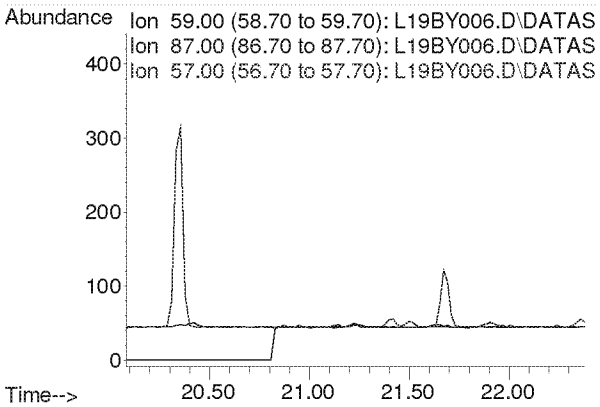


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

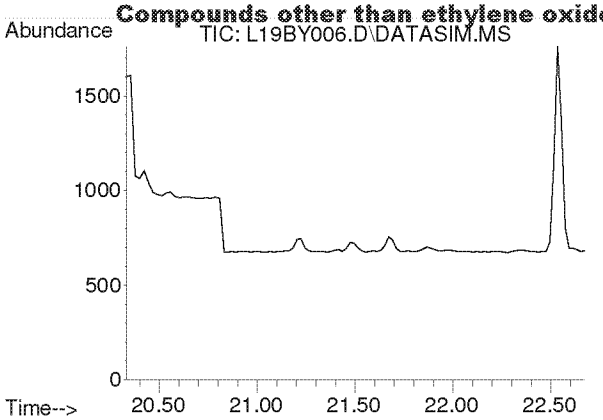
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

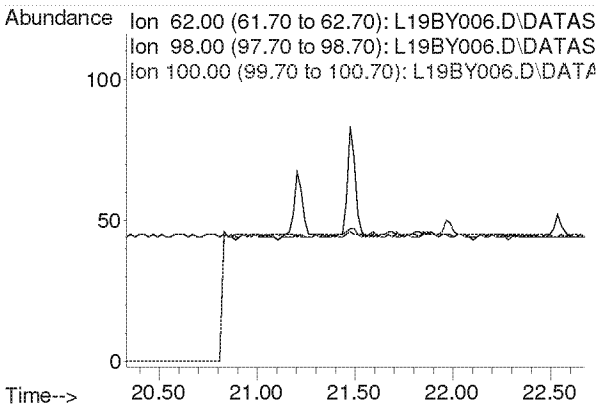


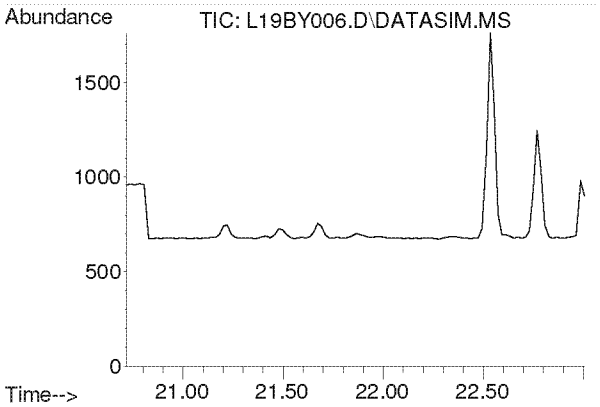
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



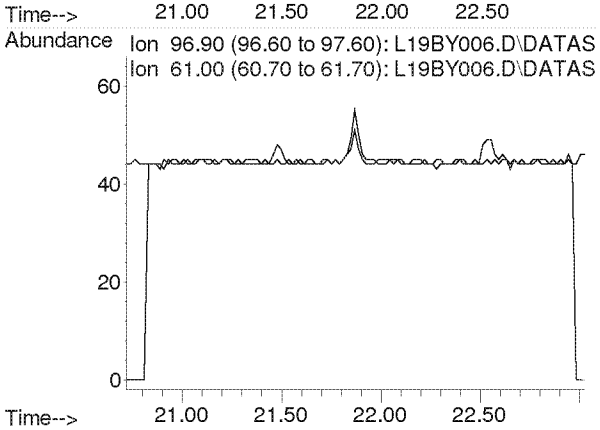


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

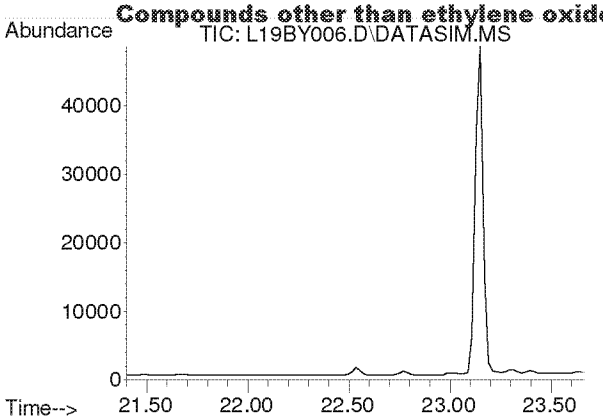
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

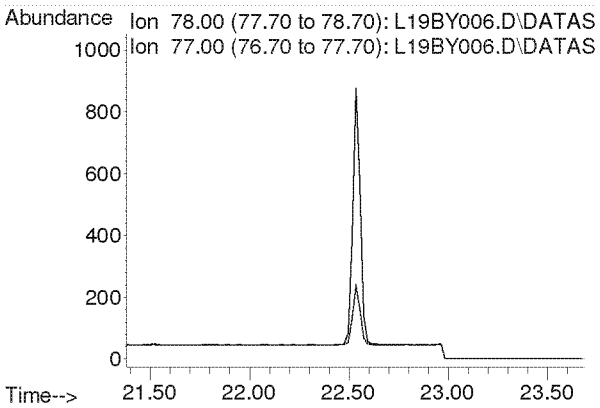


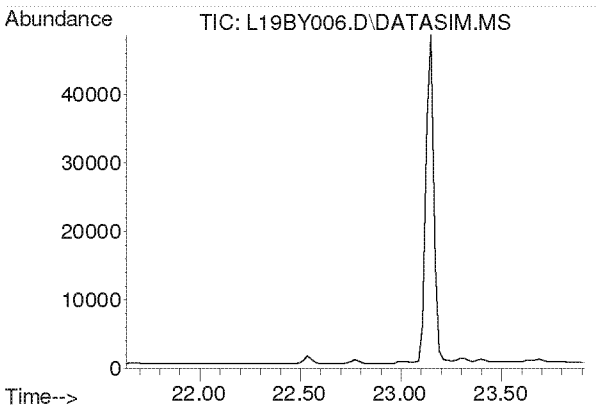
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



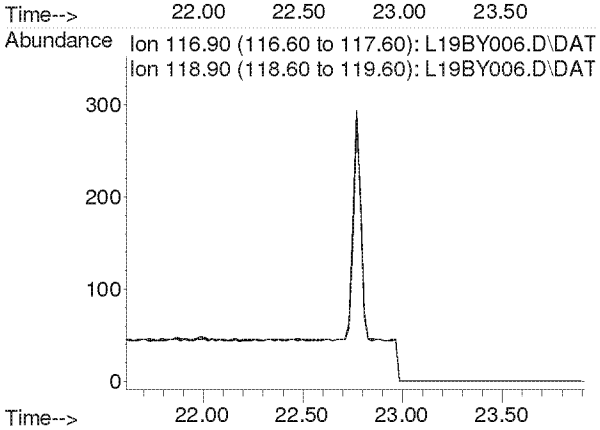


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

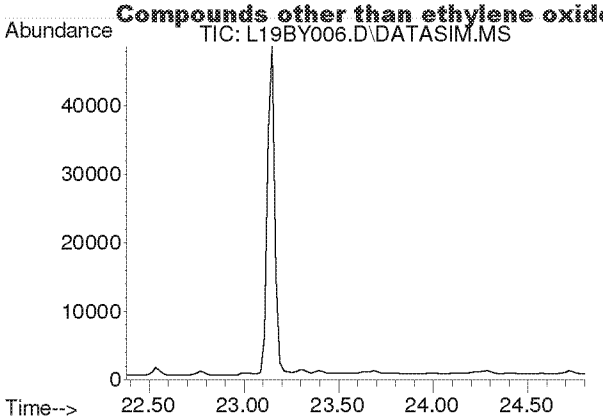
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

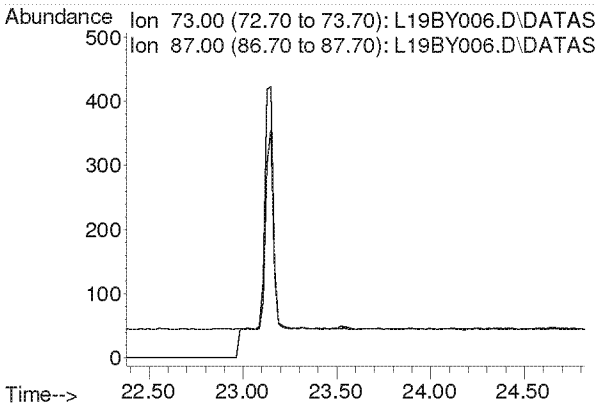


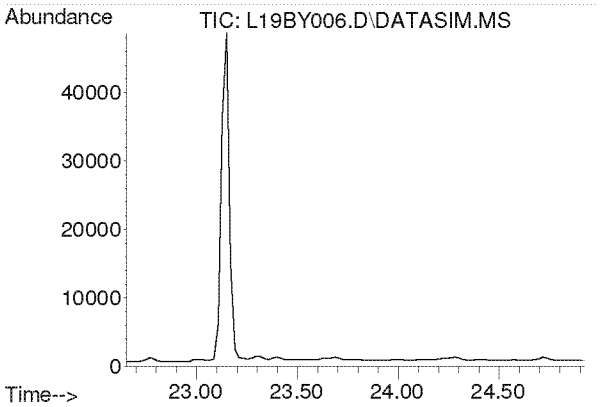
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



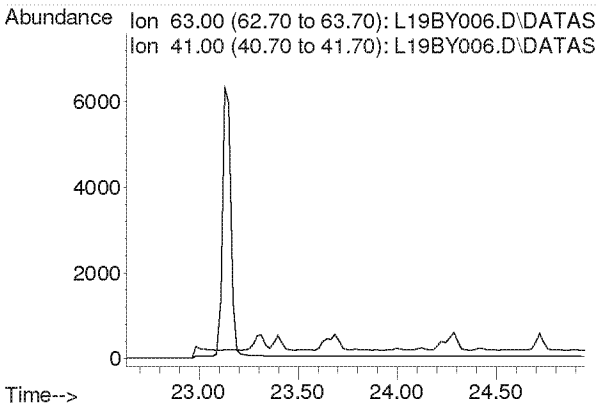


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

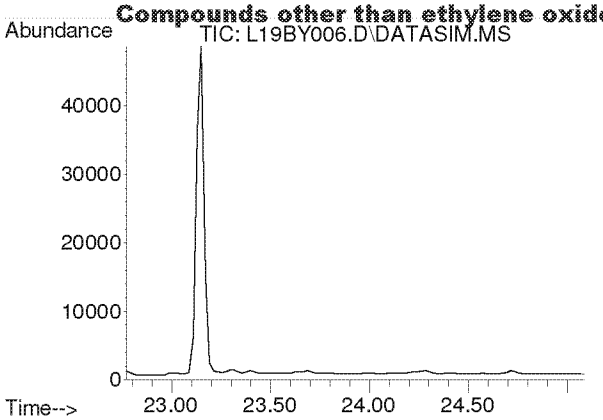
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

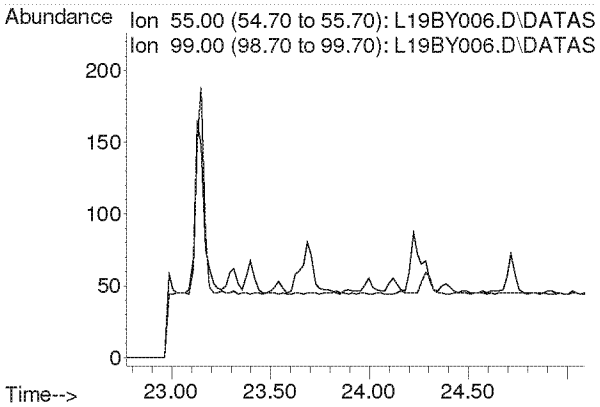


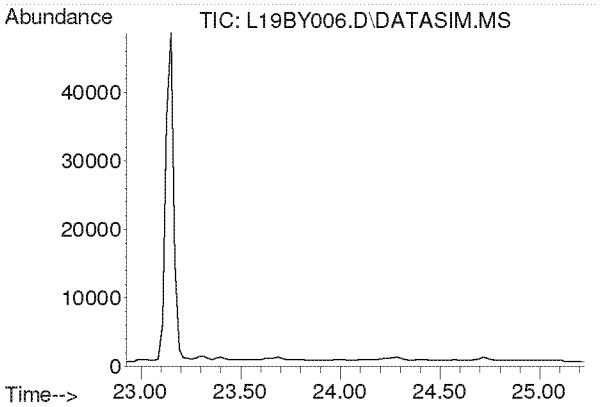
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



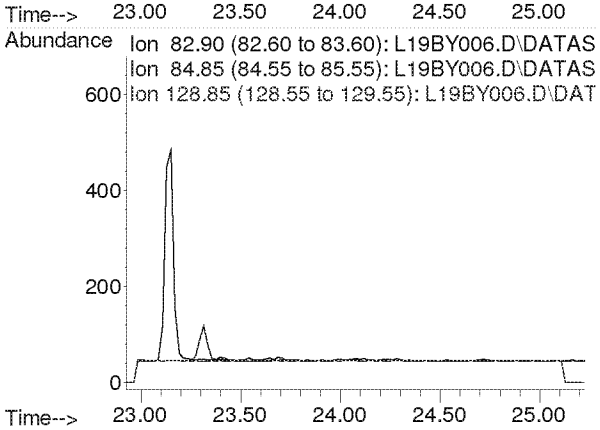


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

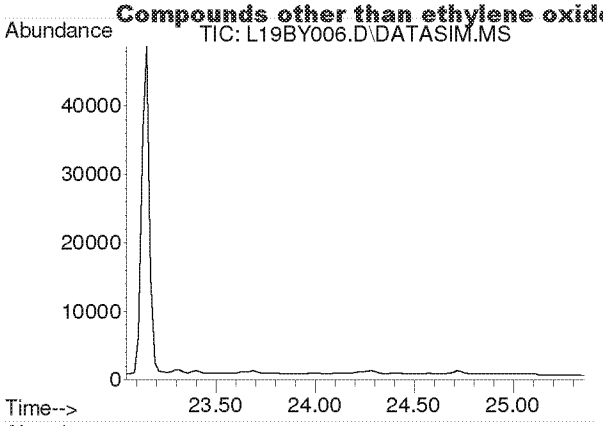
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

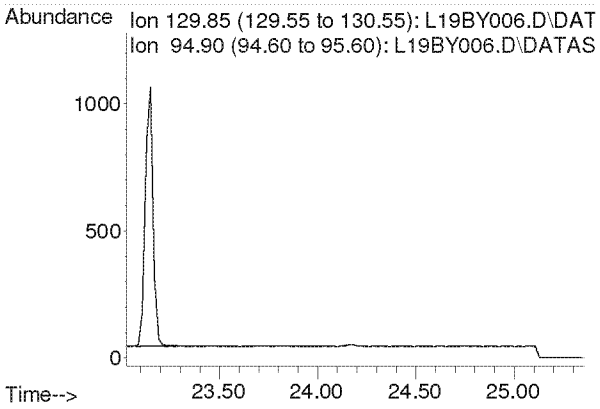


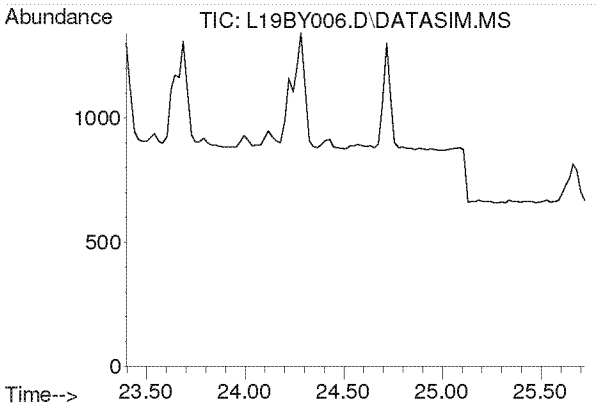
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



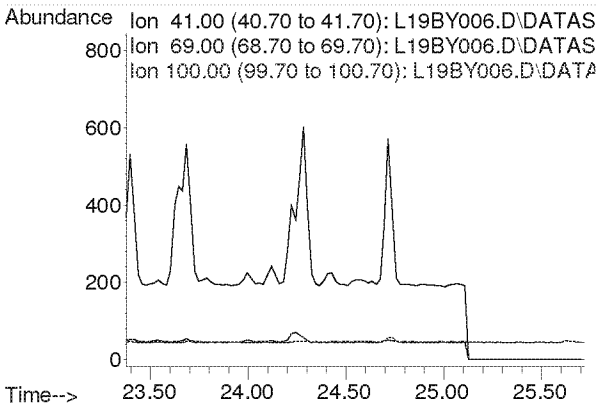


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

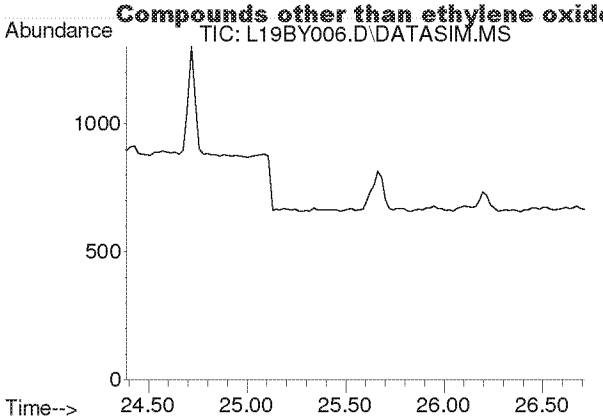
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

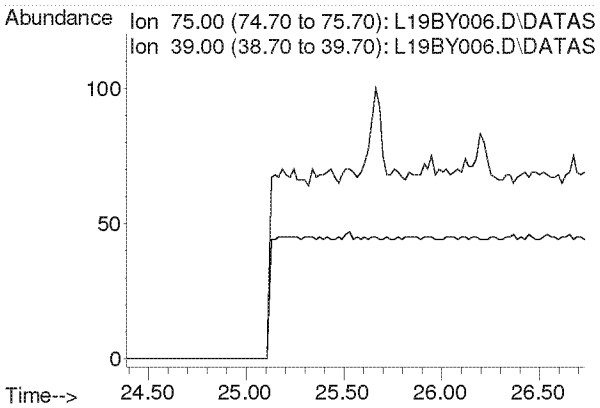


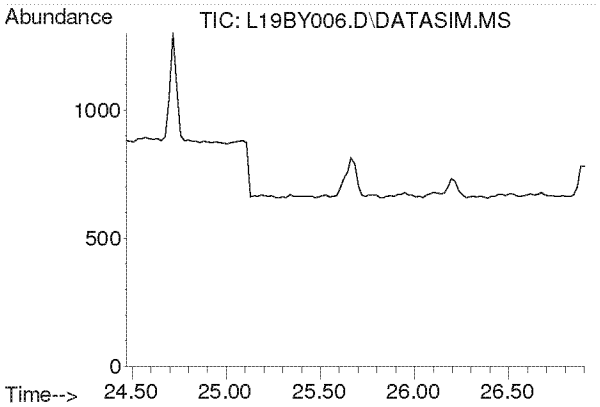
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



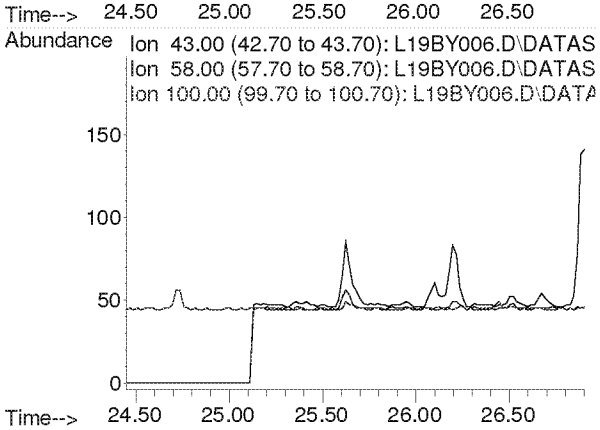


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

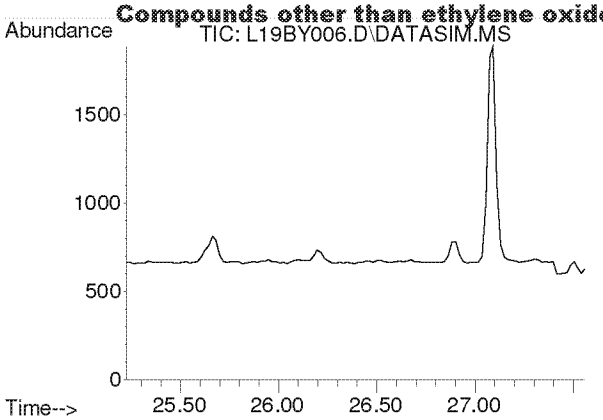
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

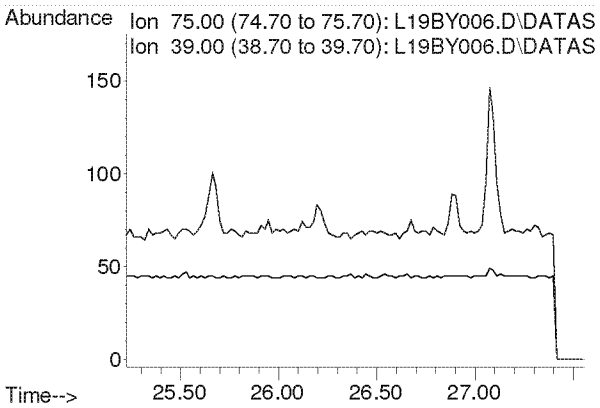


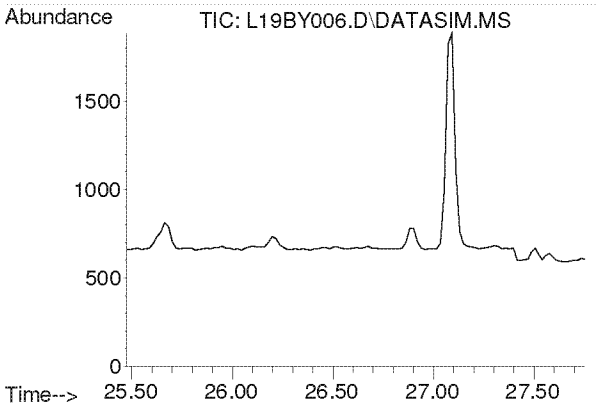
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



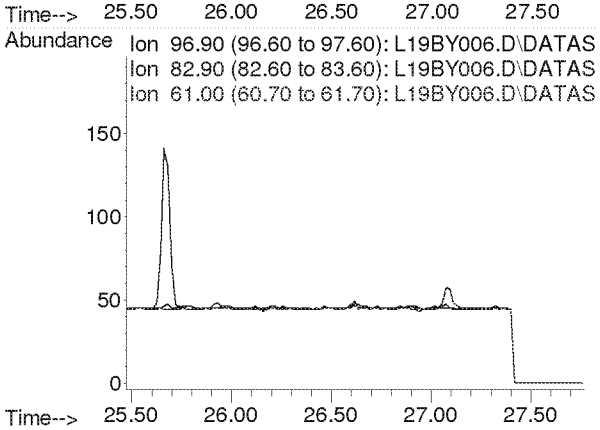


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

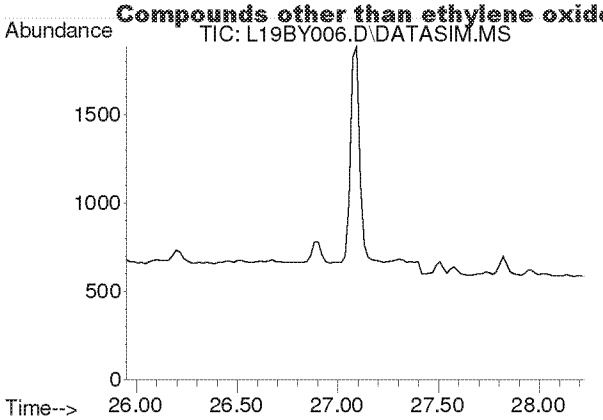
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

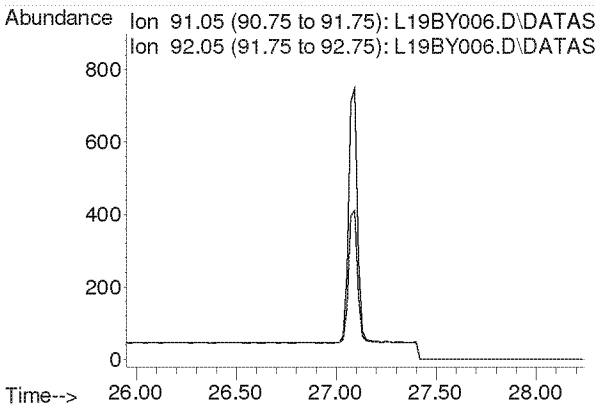


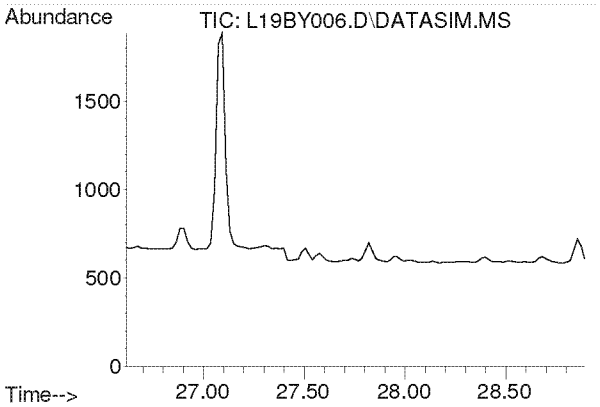
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



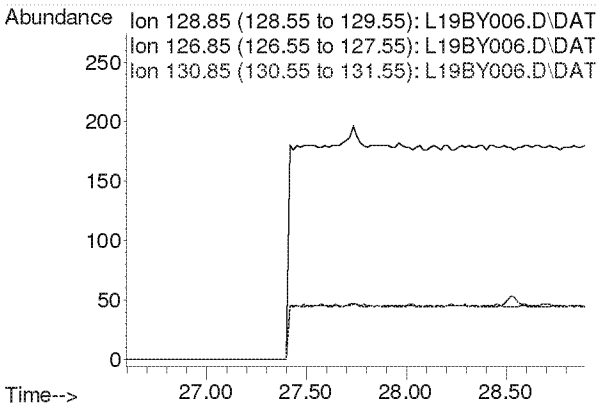


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

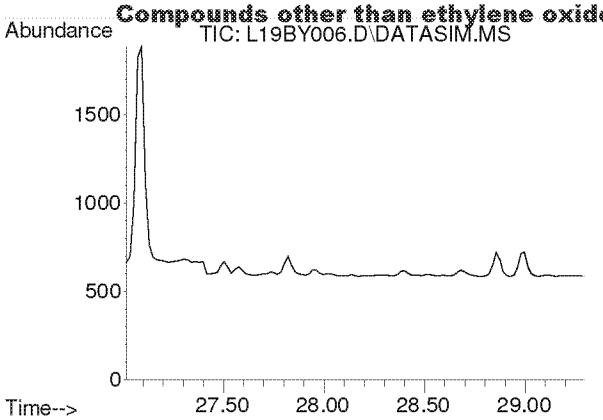
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

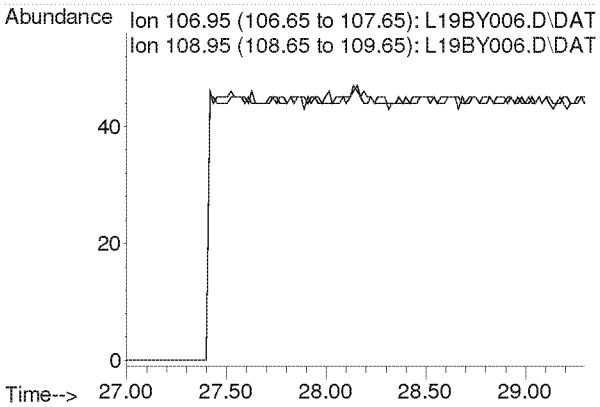


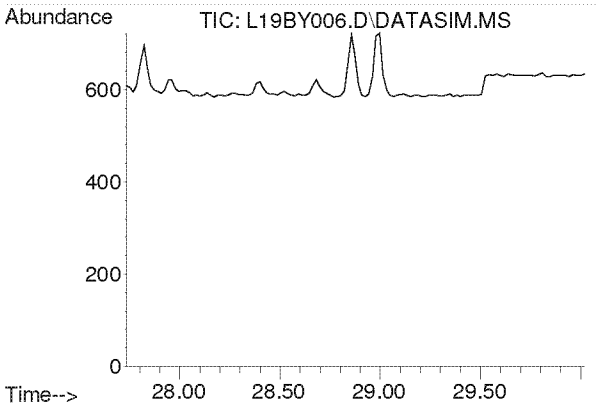
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



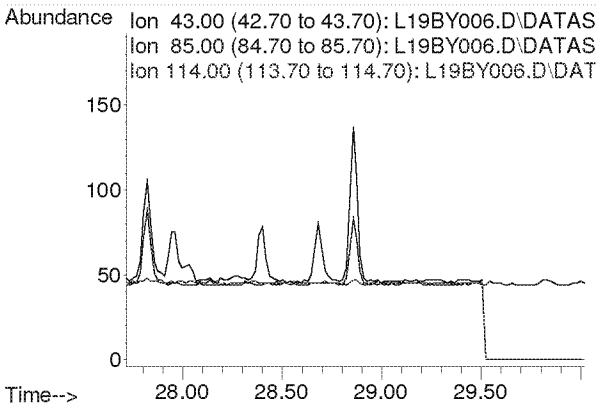


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

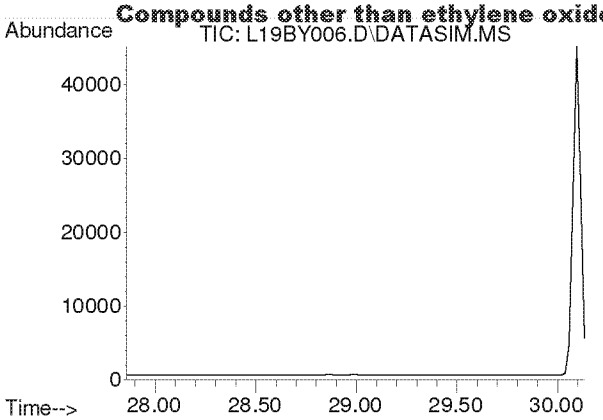
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

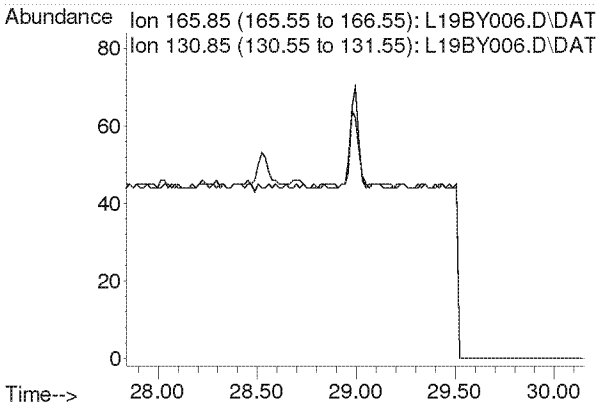


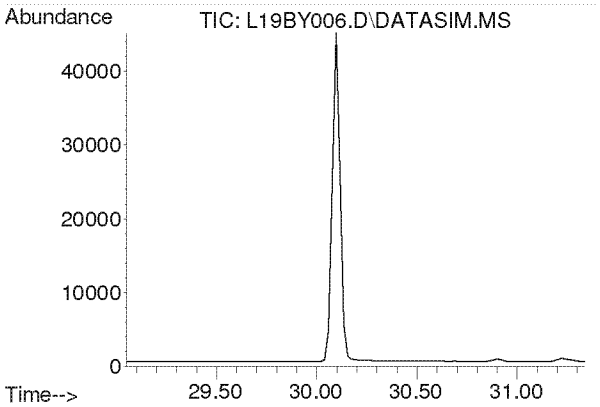
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



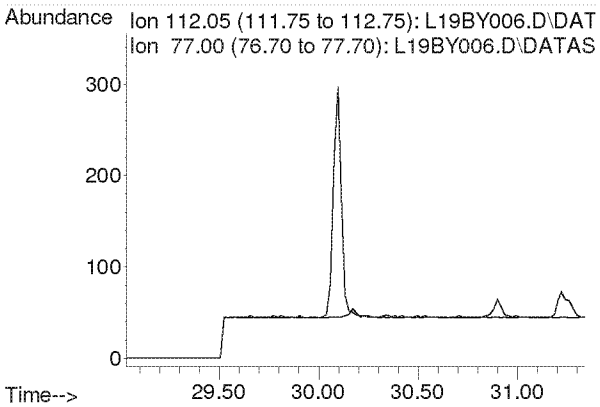


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

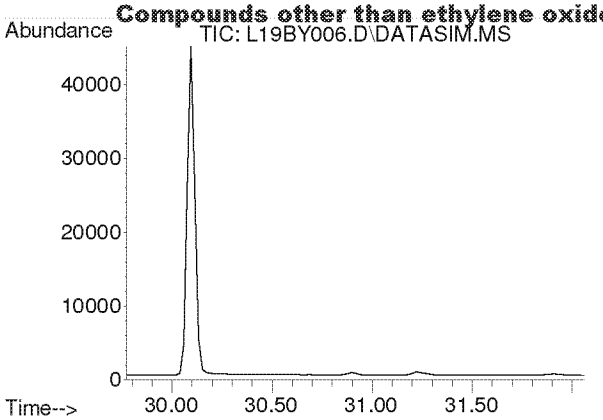
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

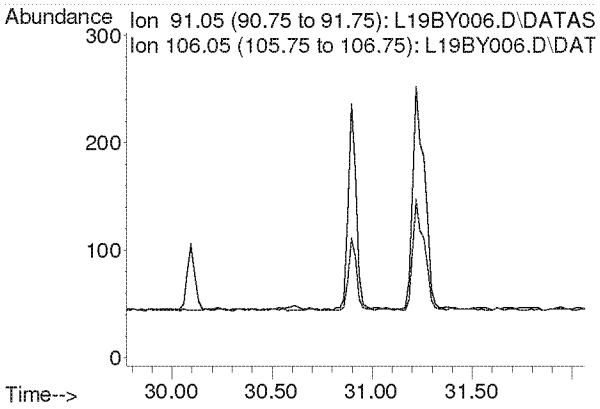


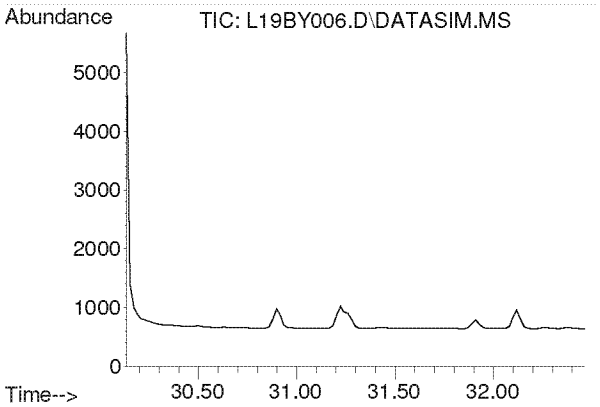
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



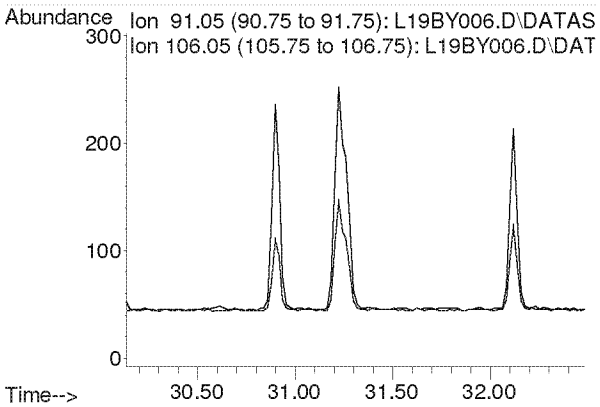


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

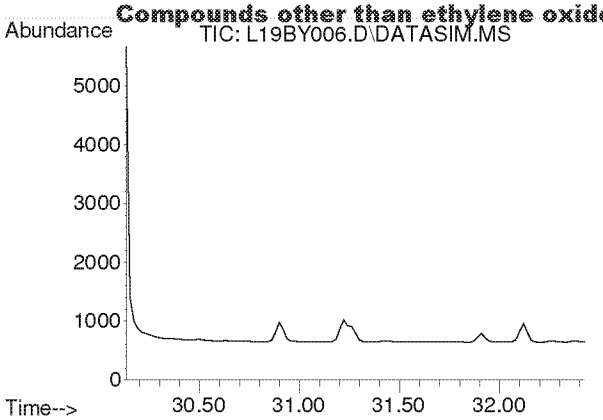
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

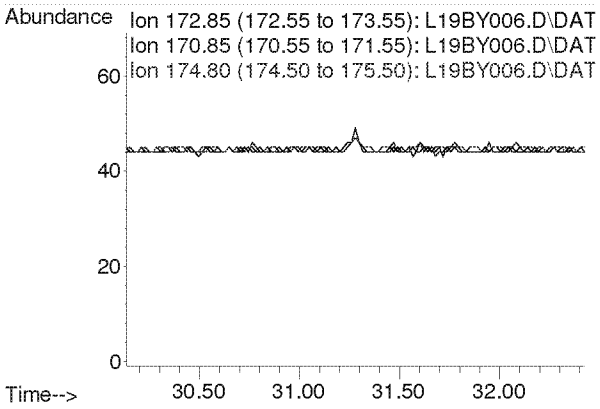


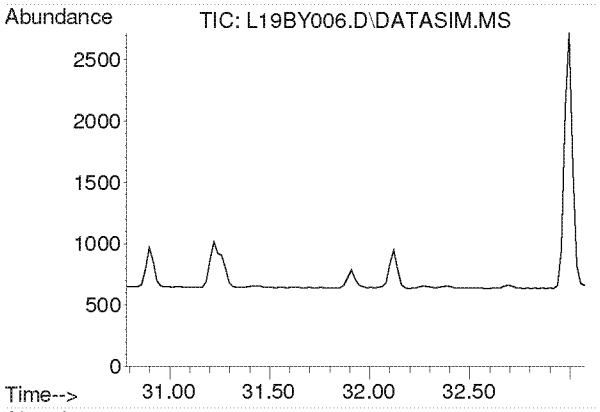
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



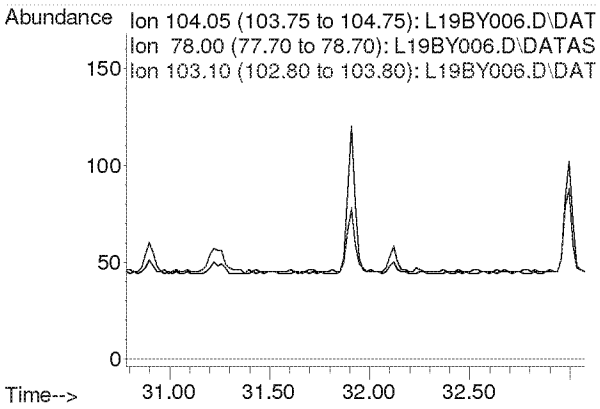


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

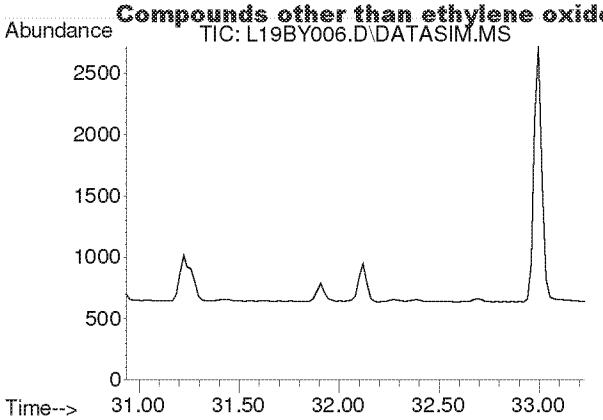
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

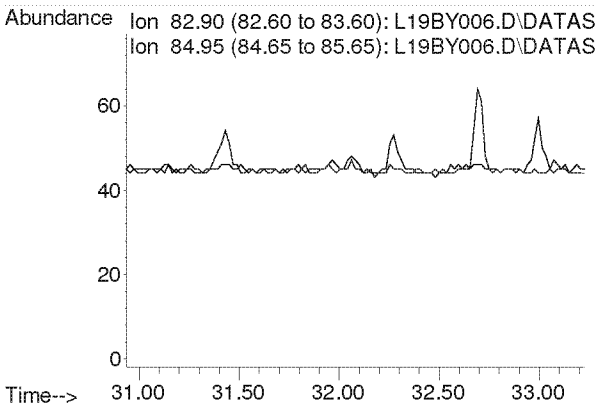


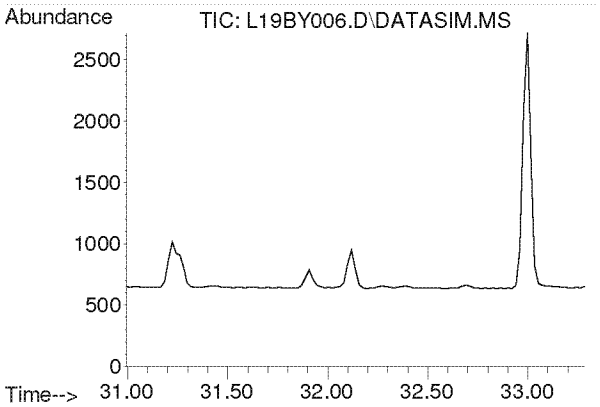
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



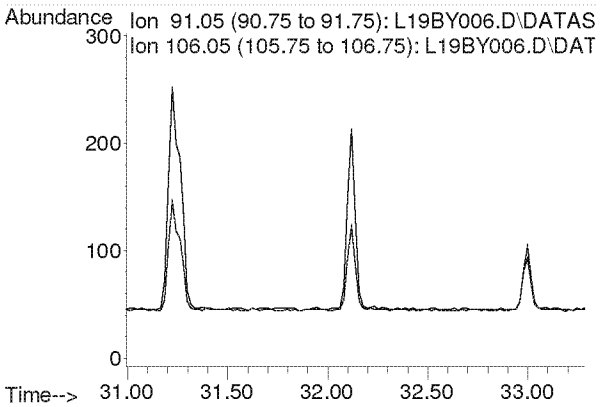


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

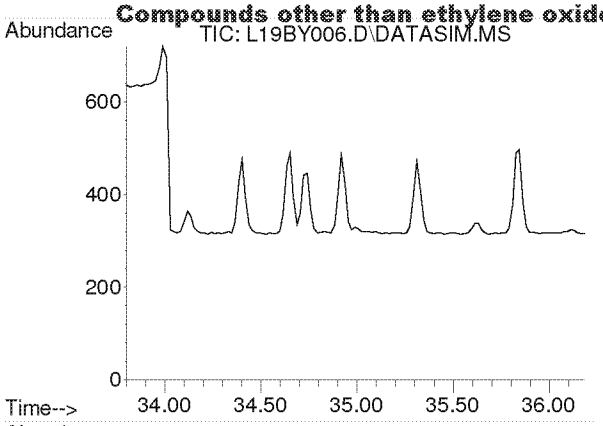
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

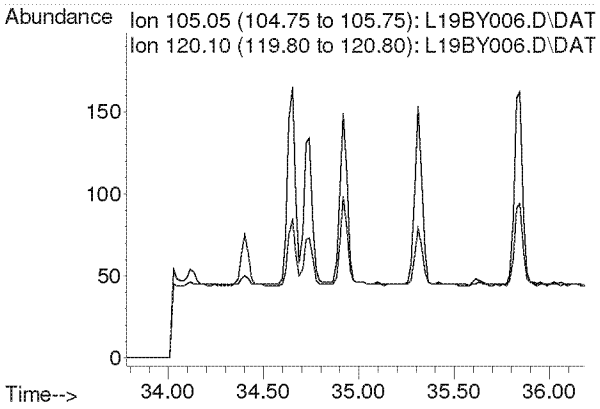


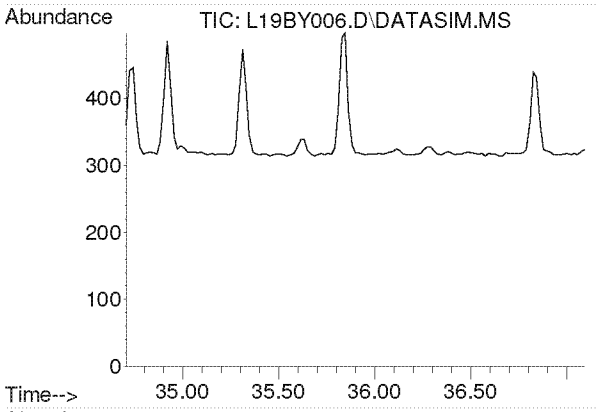
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



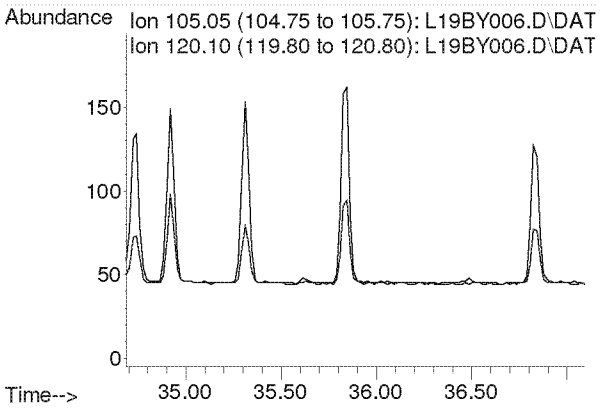


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

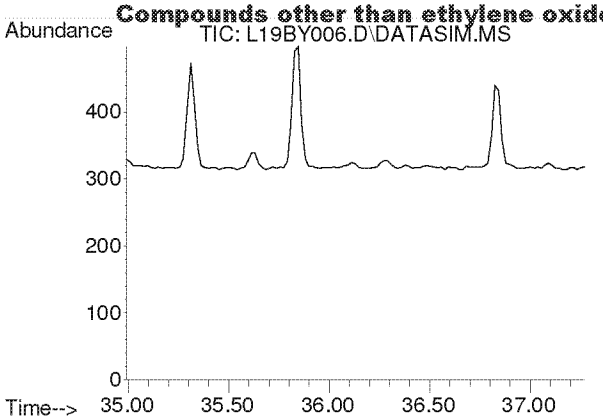
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

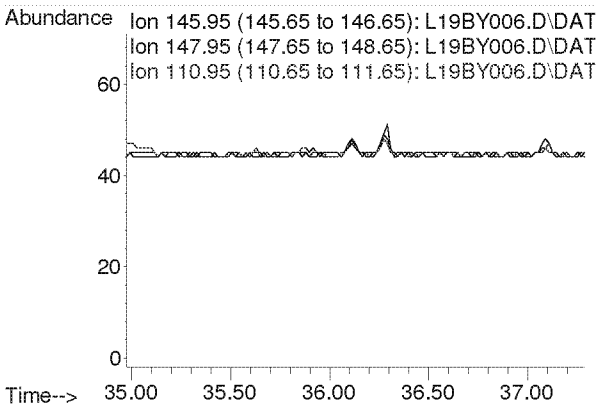


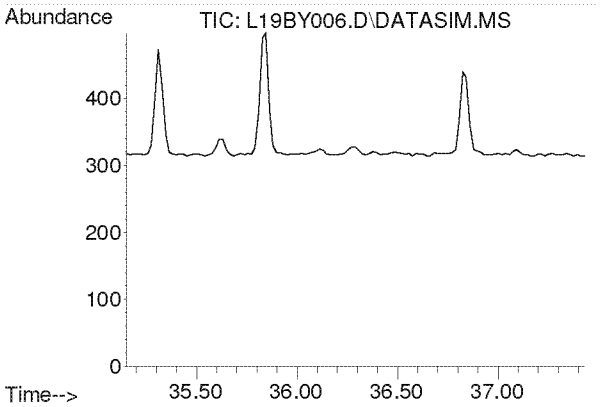
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



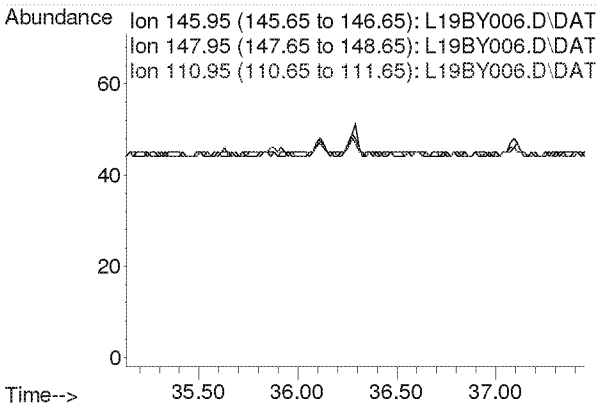


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

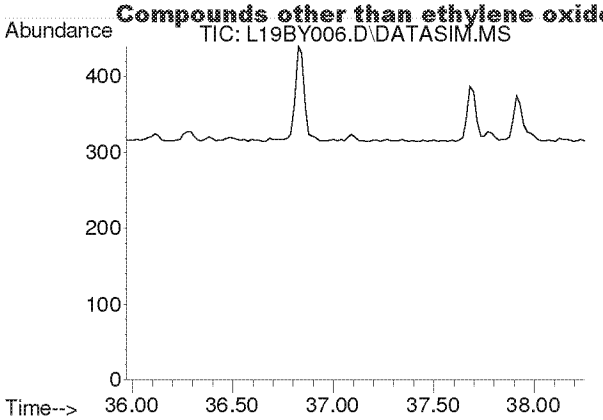
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

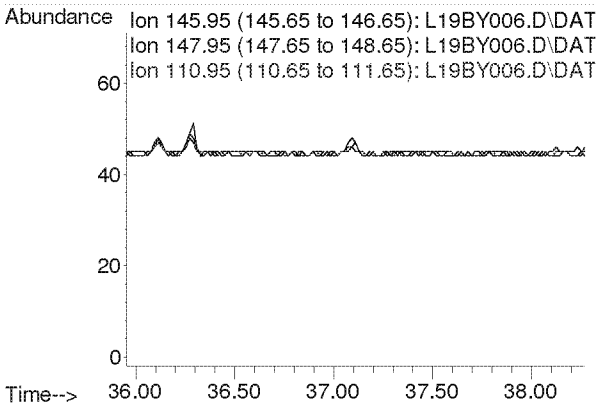


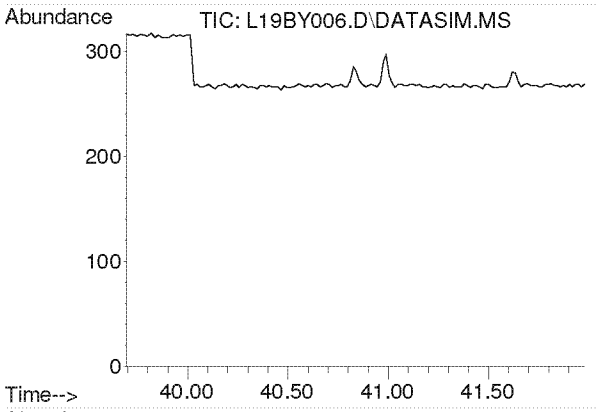
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



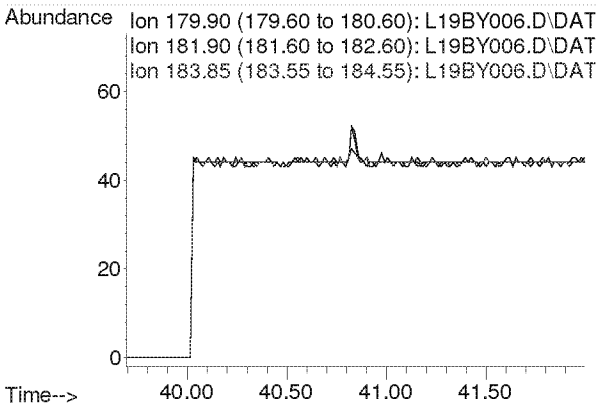


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

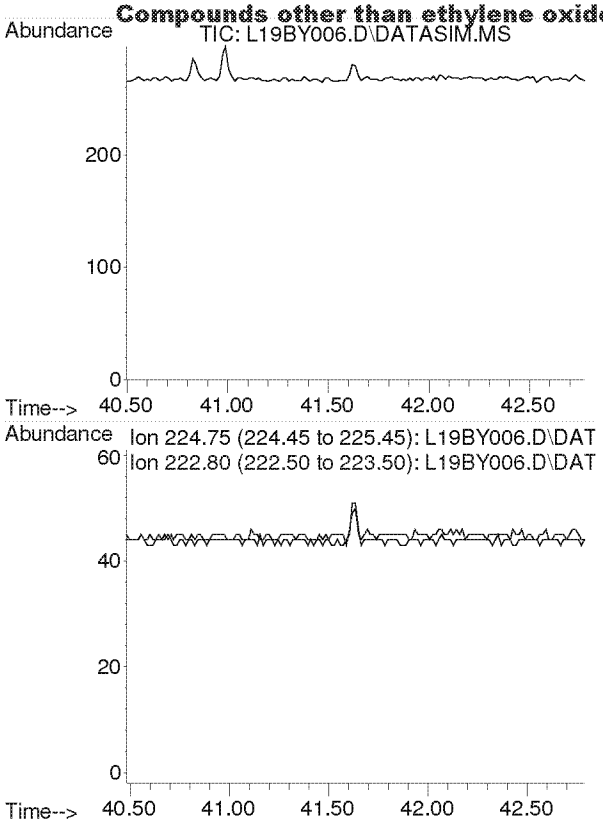
Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19BY006.D
Acq: 25 Feb 2019 12:24 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Duplicate Samples					
		D1	D2		
File ID		L19BY007.D	L19BY008.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022202-02	9022202-03		
Mics Comments		WB VILLAGE HALL	WB VILLAGE HALL C2 2/20/19		
Compound	**MDL**	**Amount (ppbv)**	**Amount (ppbv)**	**RPD**	**Passed?**
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.132	0.109	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

RMB 3/5/19

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

Y:\AIR TOX\TO-15 DUPTEST\DUPTEST_2019_NATTS\ETOX_2019\WB VILLAGE HALL 2_20_19.xlsx
DUPTEST 2017 TEMPLATE 012517

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Replicate Analyses

		D1	R1		
File ID		L19BY007.D	L19BY009.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003 M		
Sample ID		9022202-02	B9B2507-DUP1		
Mics Comments		WB VILLAGE H	WB VILLAGE HALL R1 2/20/19		
Compound	MDL	Amount/ppbv	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.132	0.11	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

Comparison of Replicate Analyses

		D2	R2		
File ID		L19BY008.D	L19BY010.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022202-03	B9B2507-DUP2		
Mics Comments		WB VILLAGE H	WB VILLAGE HALL R2 2/20/19		
Compound	MDL	Amount/ppbv	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	0	NA	
Propylene	0.0639	0	0	NA	
Dichlorodifluoromethane	0.0273	0	0	NA	
Chloromethane	0.0465	0	0	NA	
Dichlorotetrafluoroethane	0.0134	0	0	NA	
Vinyl chloride	0.0128	0	0	NA	
1,3-Butadiene	0.0193	0	0	NA	
Ethylene Oxide	0.0453	0.109	0.115	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY007.D
Acq On : 25 Feb 2019 1:26 pm
Operator : MAH
Sample : 9022202-02
Misc : WB VILLAGE HALL C1 2/20/19
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 26 09:53:44 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	36956	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	90253	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.094	117	66591	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.468	29	279m	0.1320 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. 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	

DAB 3/5/19

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY007.D
Acq On : 25 Feb 2019 1:26 pm
Operator : MAH
Sample : 9022202-02
Misc : WB VILLAGE HALL C1 2/20/19
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 26 09:53:44 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

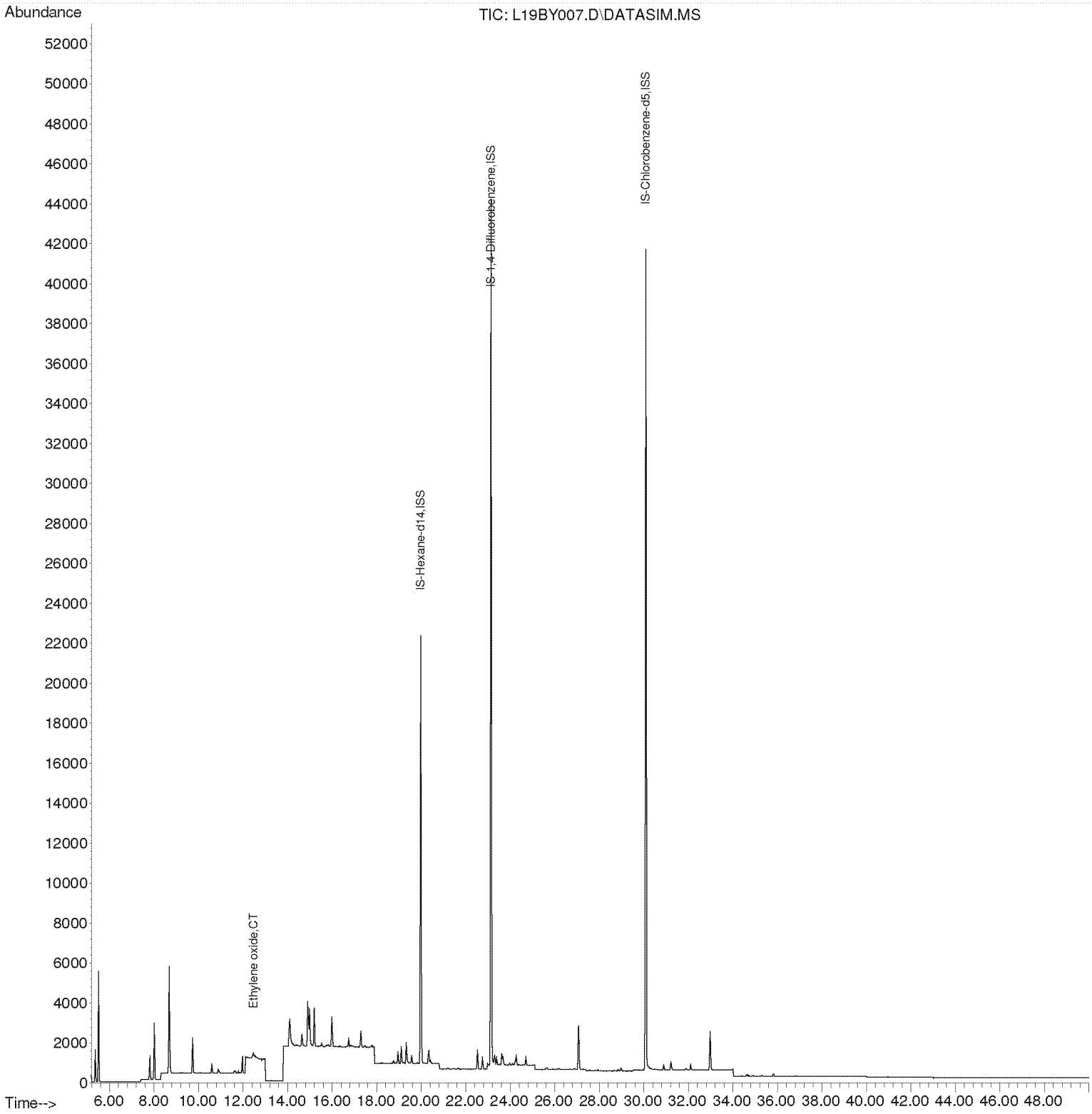
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.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

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

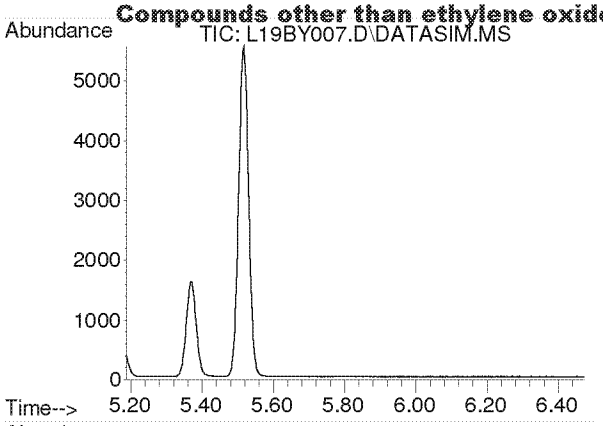
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY007.D
Acq On : 25 Feb 2019 1:26 pm
Operator : MAH
Sample : 9022202-02
Misc : WB VILLAGE HALL C1 2/20/19
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 26 09:53:44 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



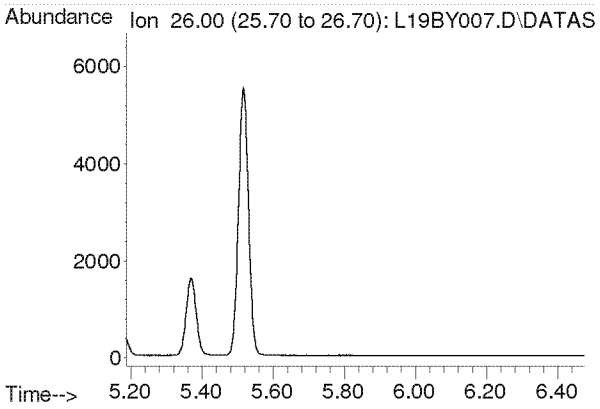
Compounds other than ethylene oxide were not quantitated.

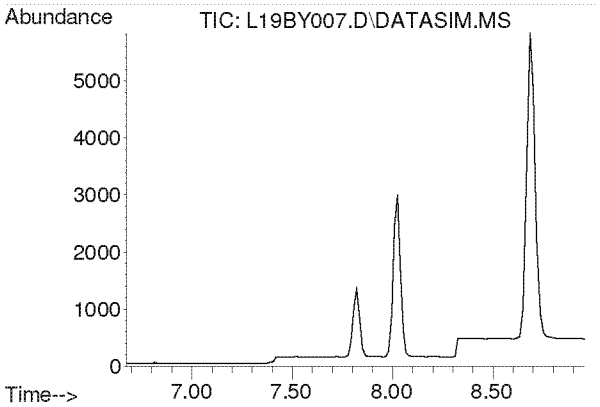


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 26



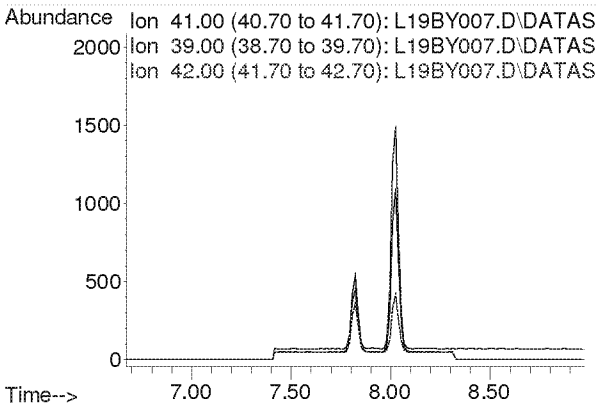


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

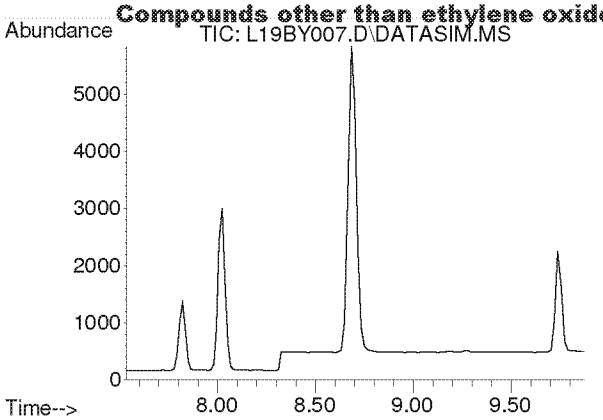
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

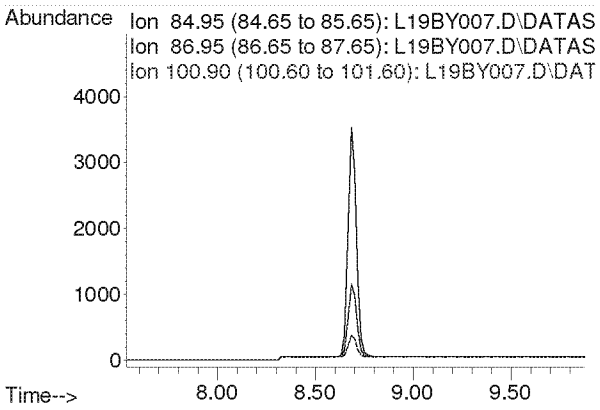


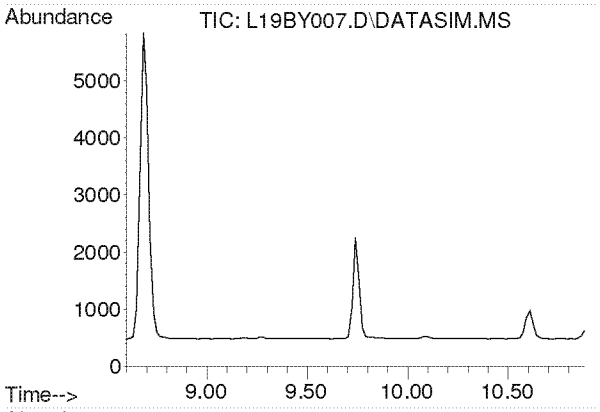
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



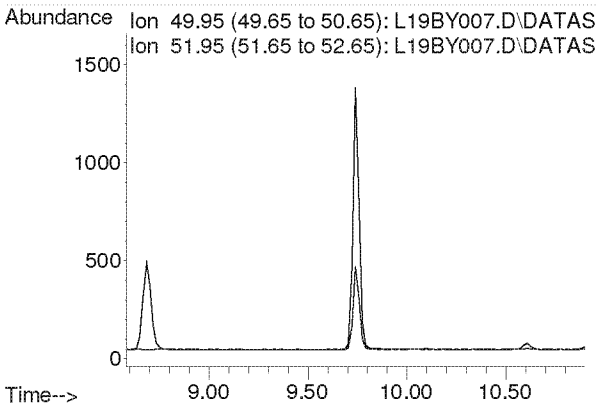


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

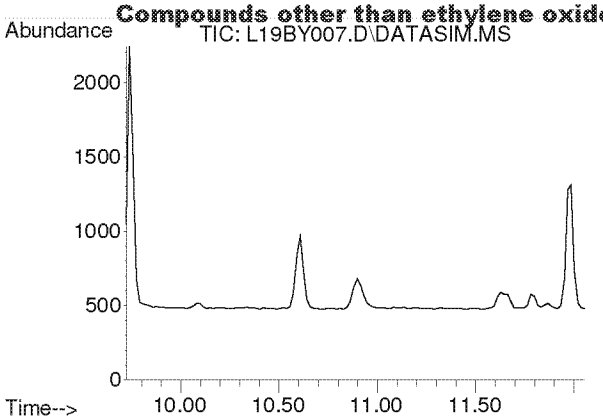
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

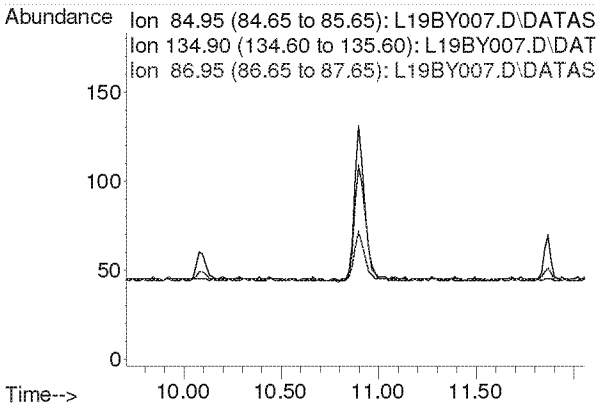


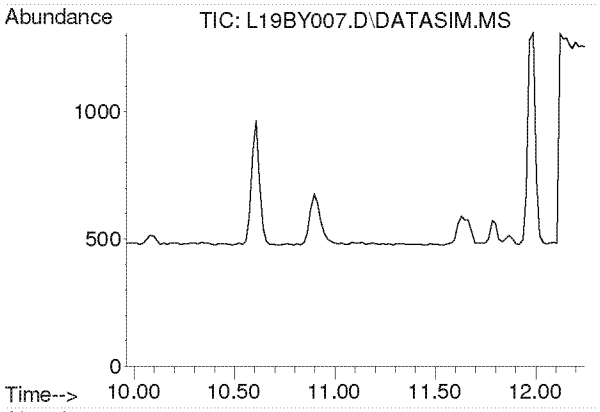
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



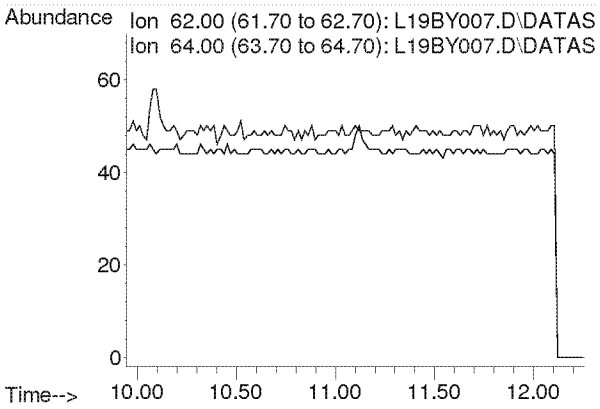


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

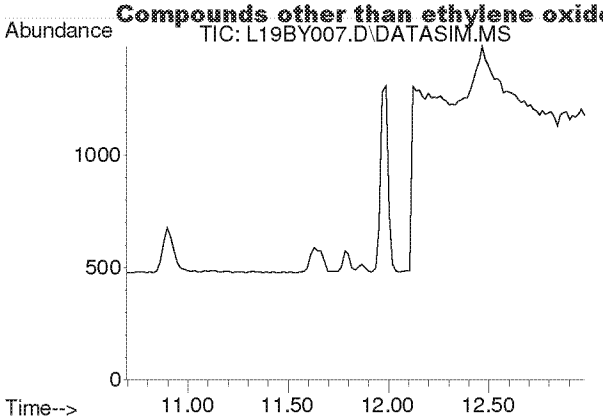
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

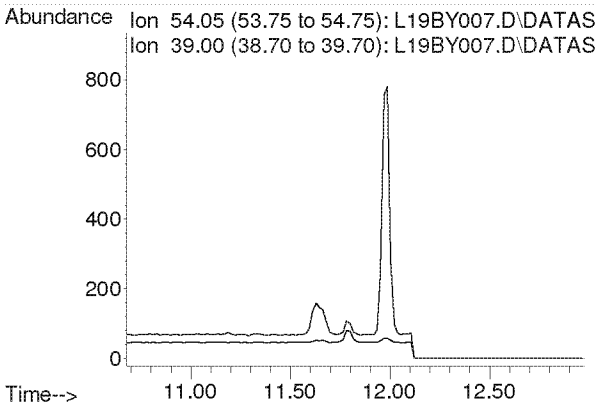


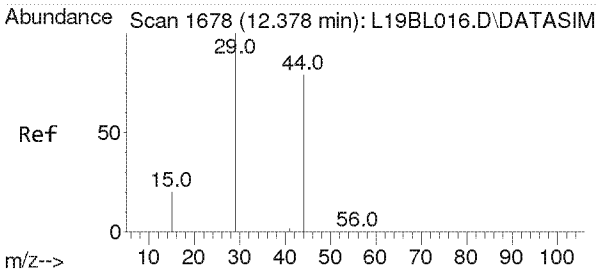
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

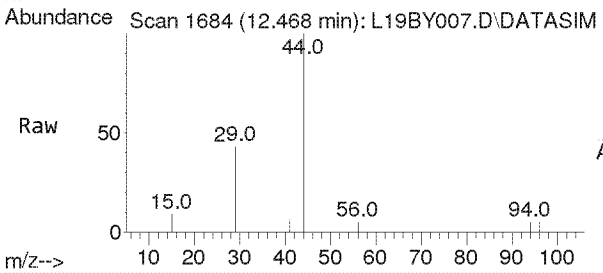


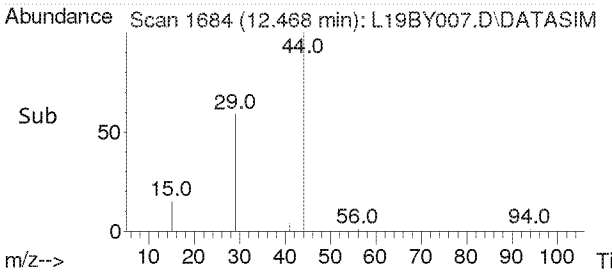


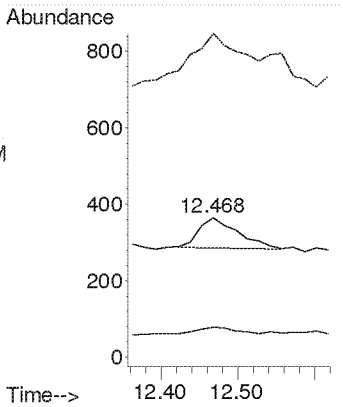
#9
Ethylene oxide
Concen: 0.132 ppbv m
RT: 12.468 min Scan# 1684
Delta R.T. 0.018 min
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 29 Resp: 279

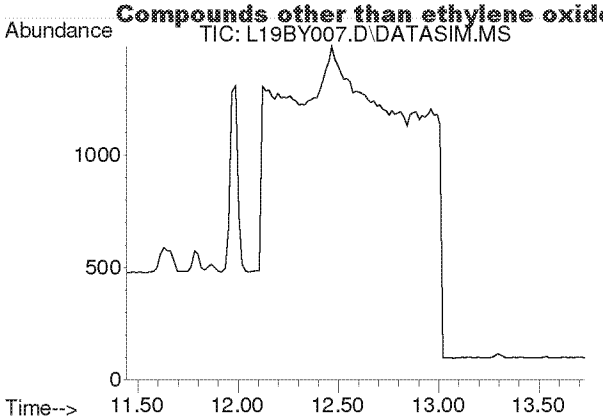
Ion	Ratio	Lower	Upper
29	100		
15	45.9	16.0	24.0#
44	330.8	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

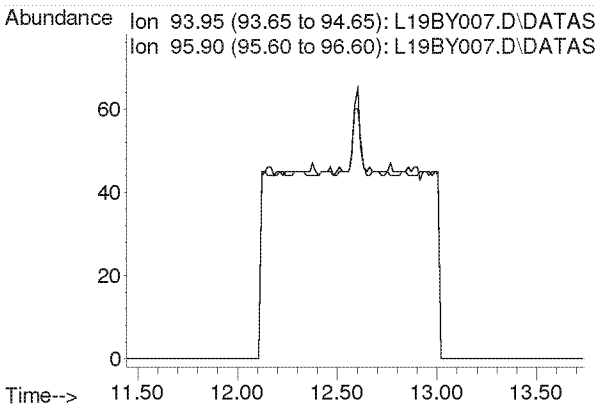


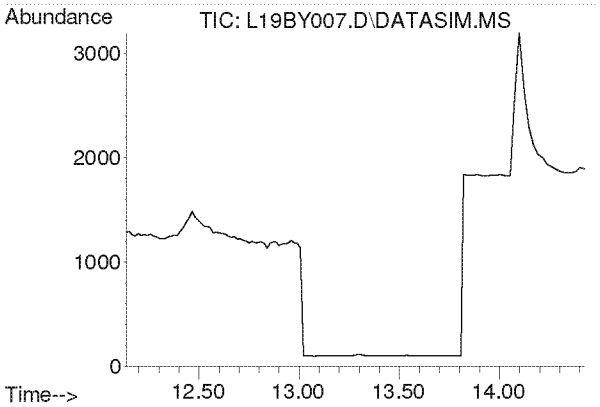
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



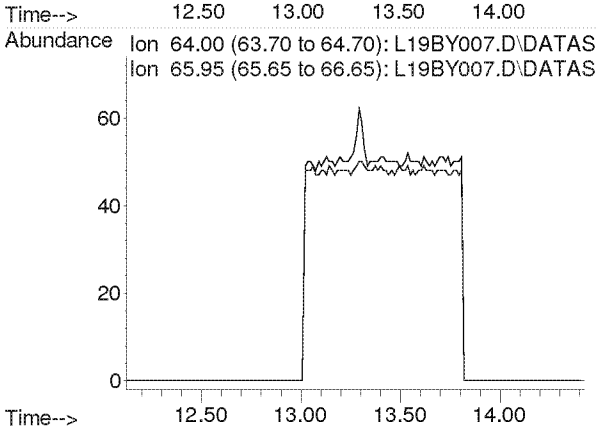


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

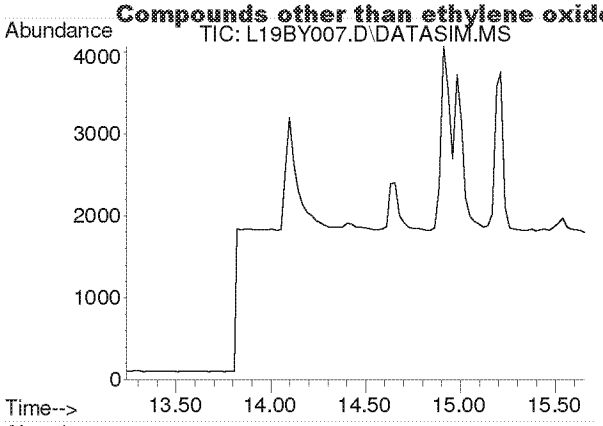
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

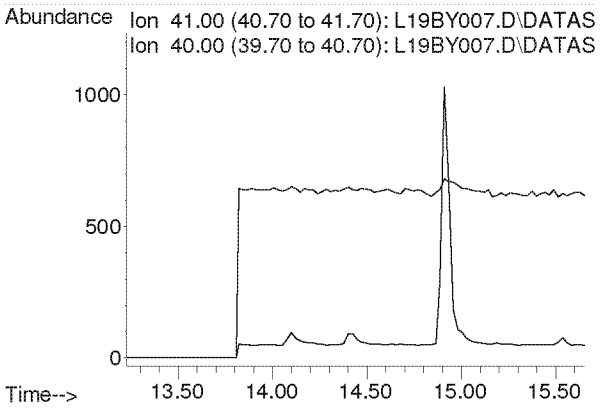


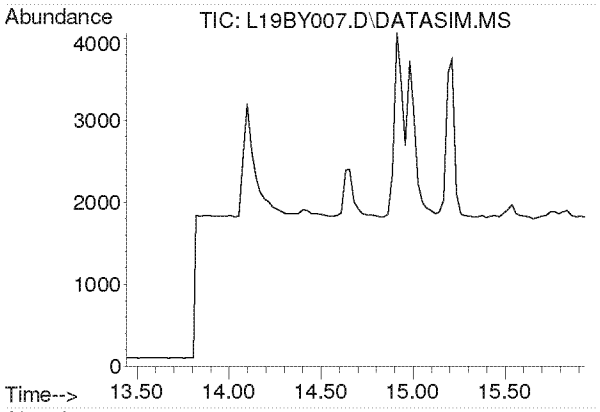
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



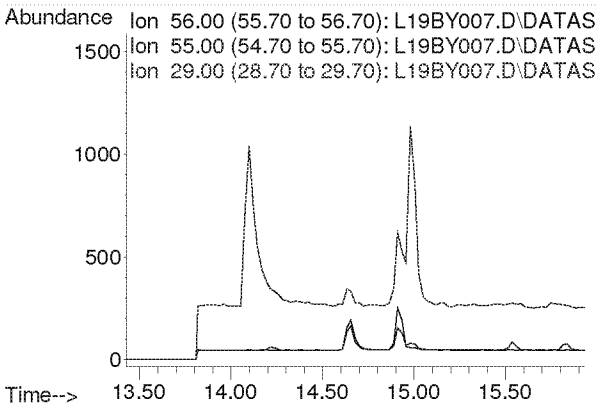


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

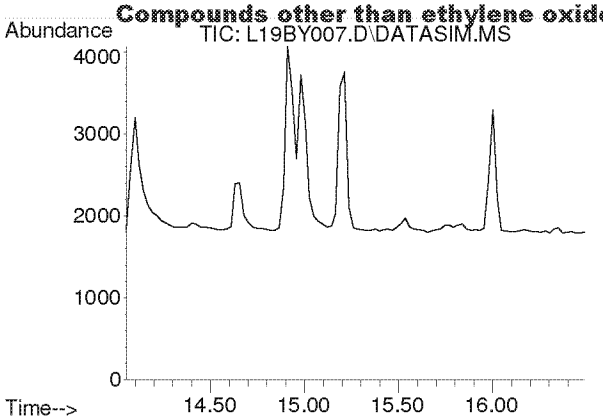
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

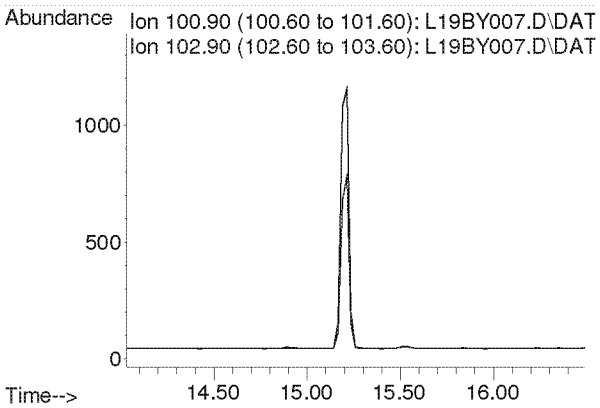


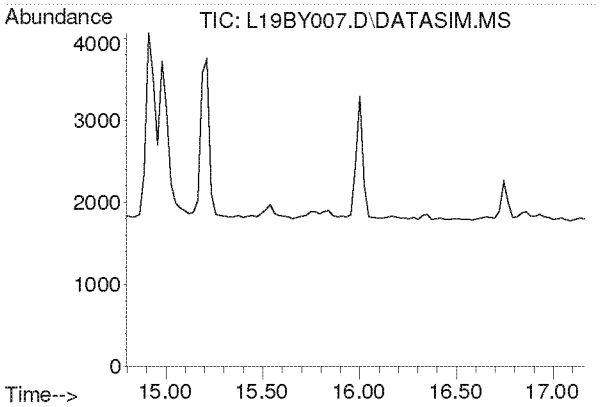
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



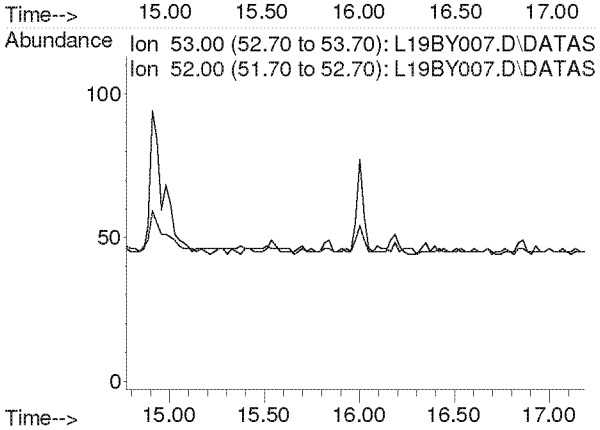


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

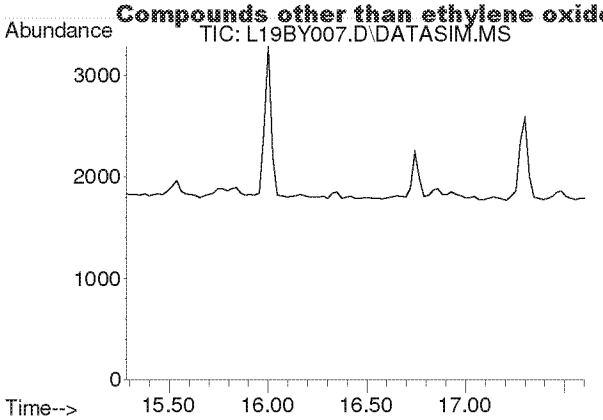
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

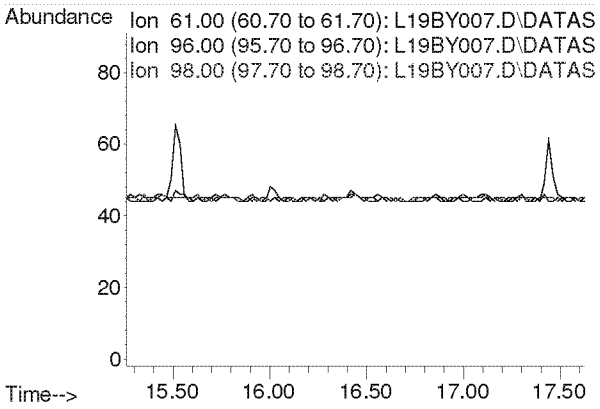


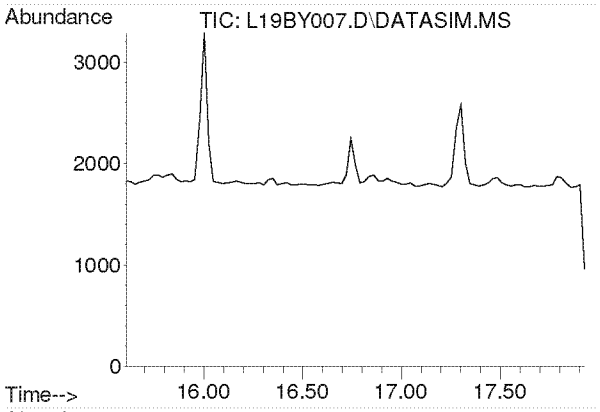
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



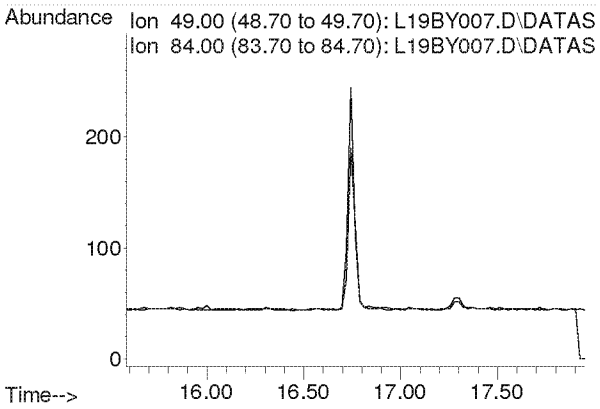


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

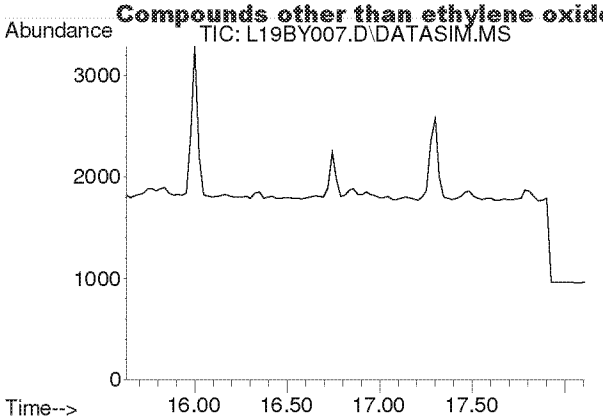
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

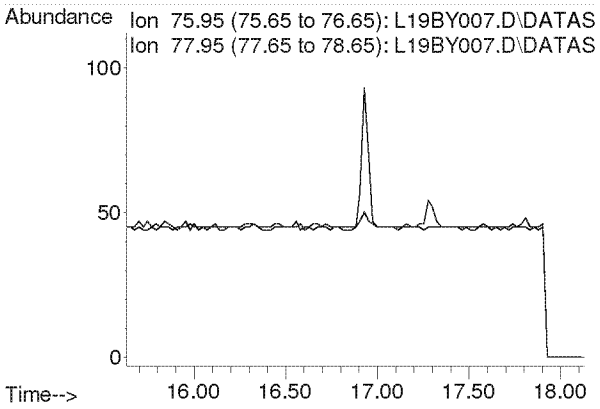


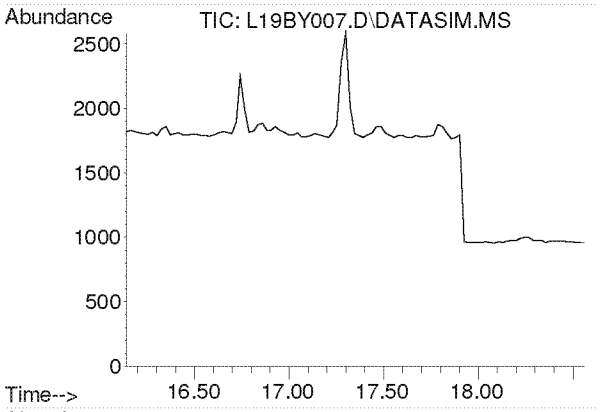
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



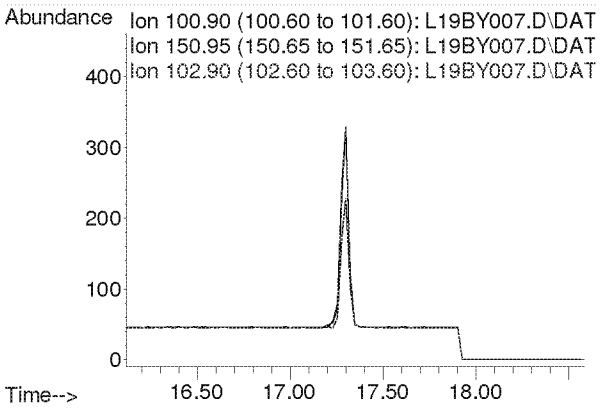


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

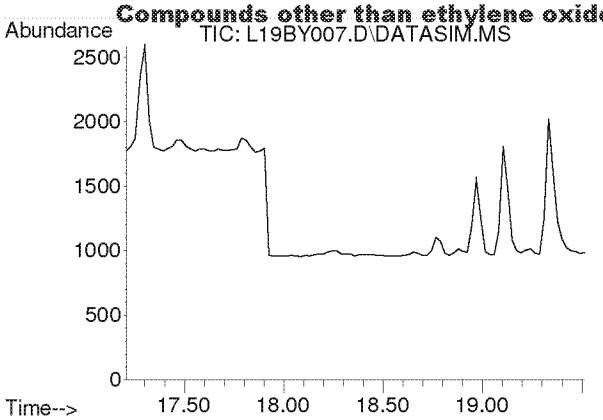
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

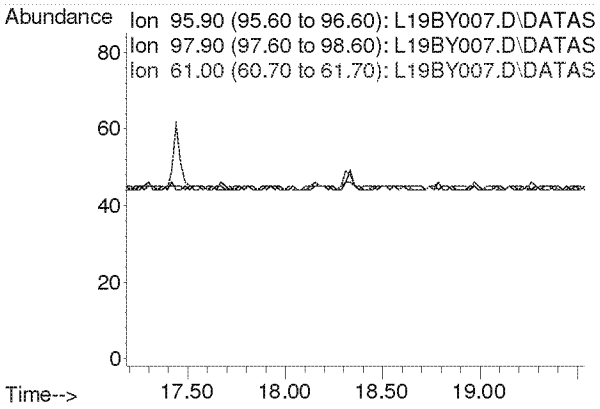


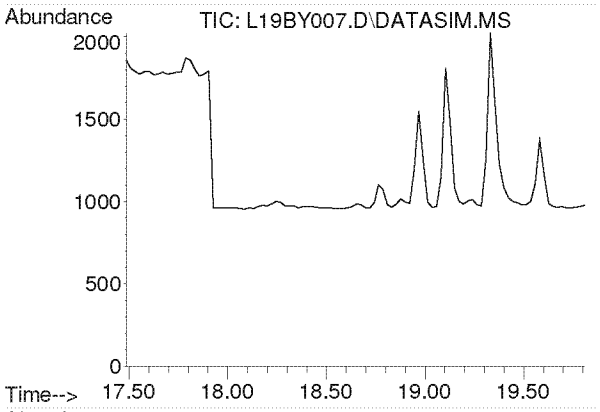
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



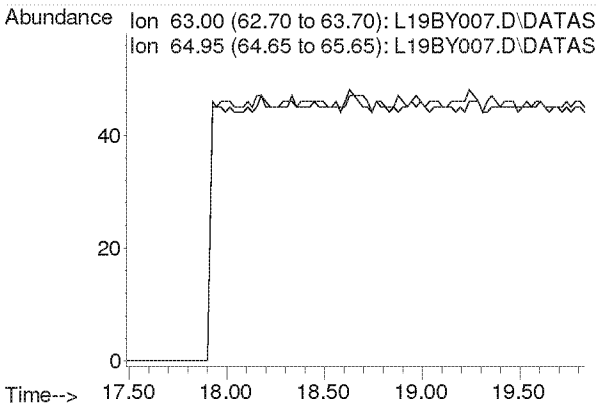


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

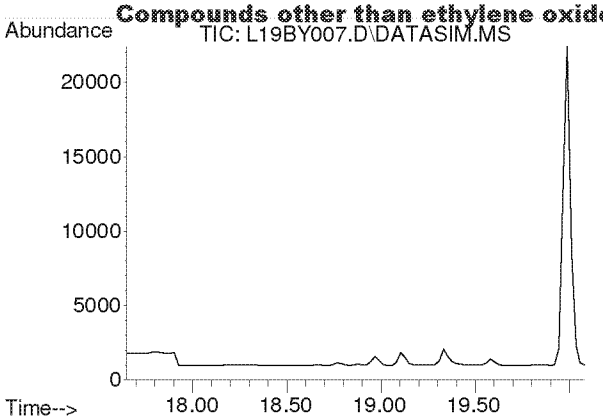
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

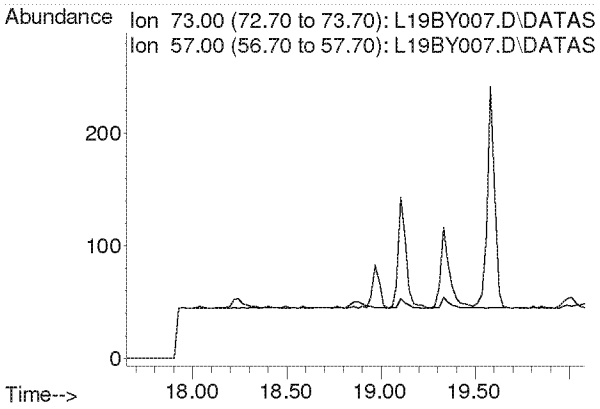


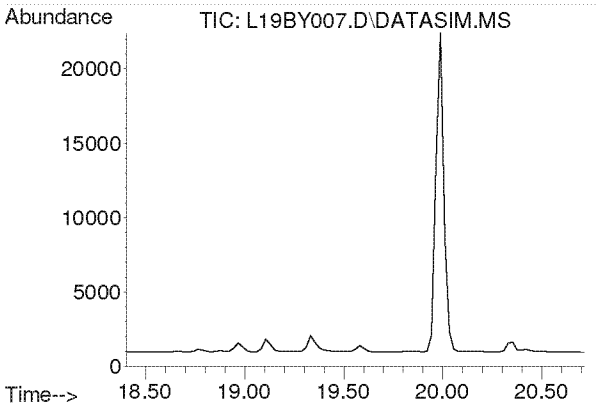
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



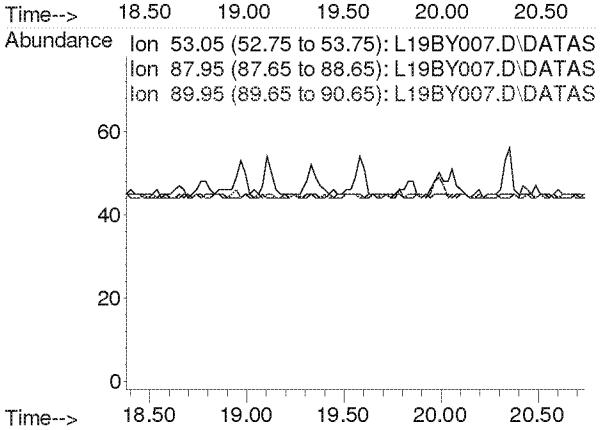


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

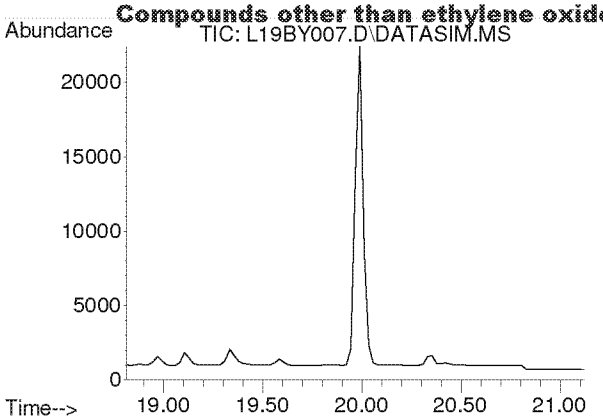
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

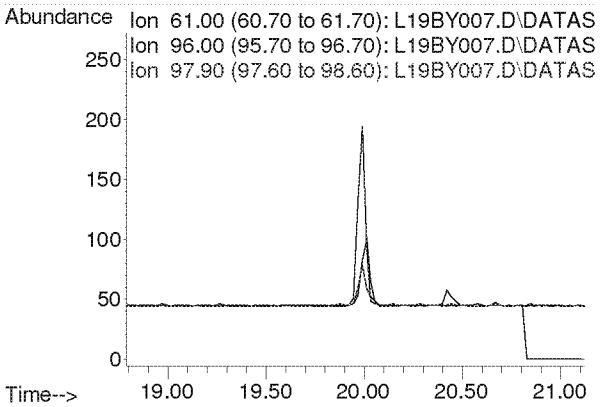


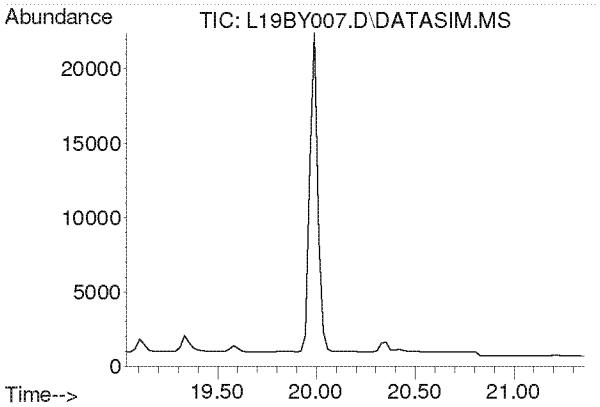
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



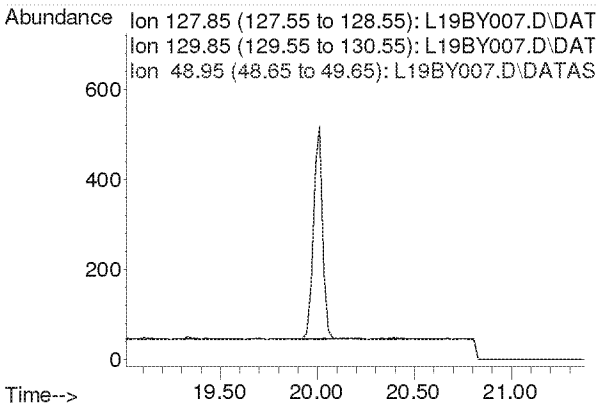


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

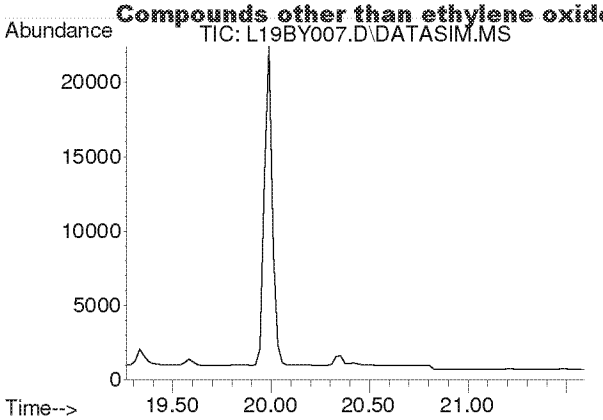
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

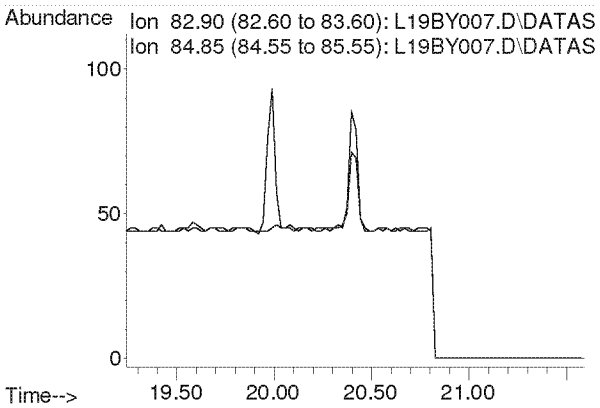


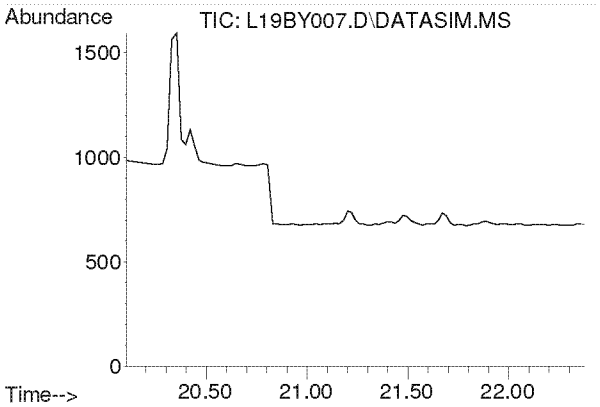
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



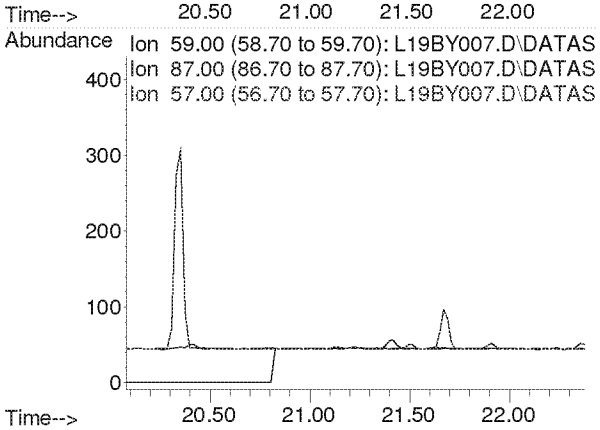


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

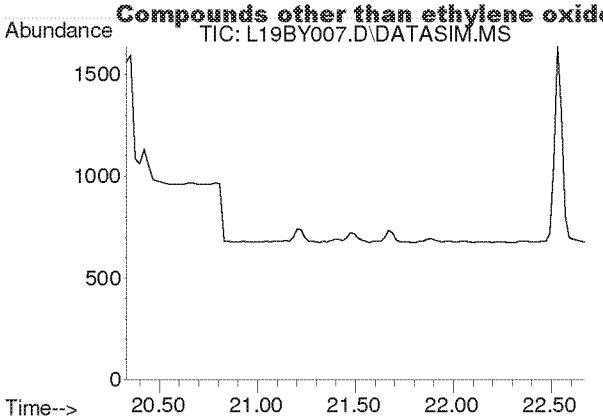
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

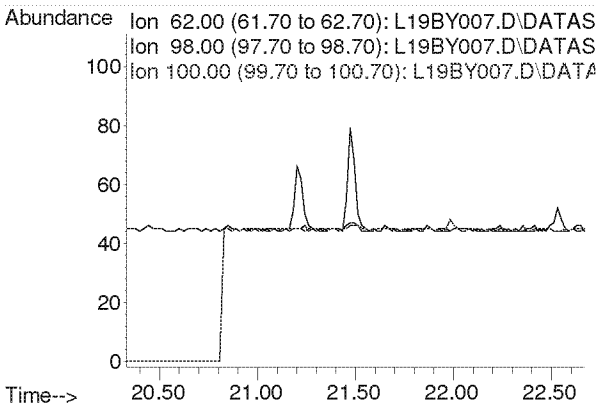


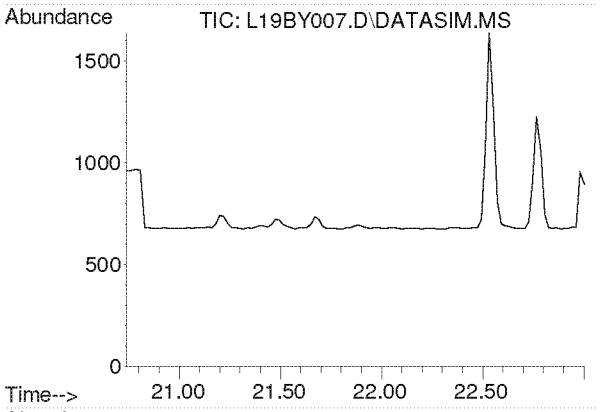
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



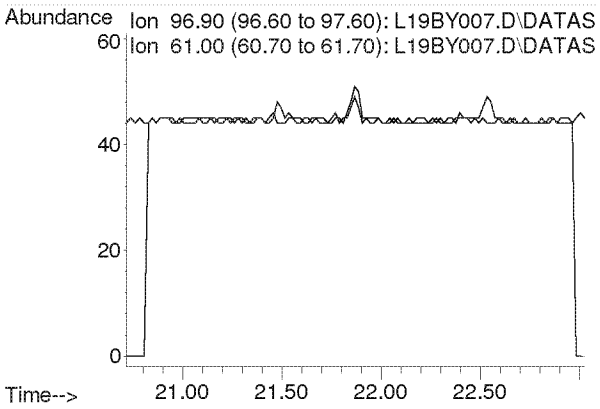


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

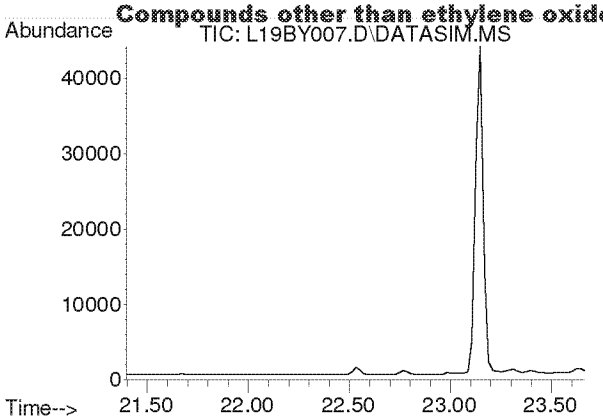
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

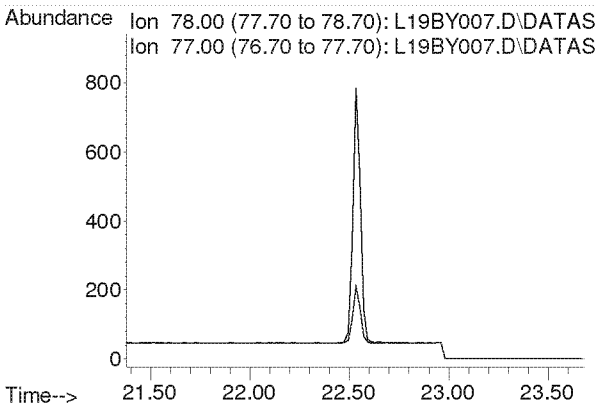


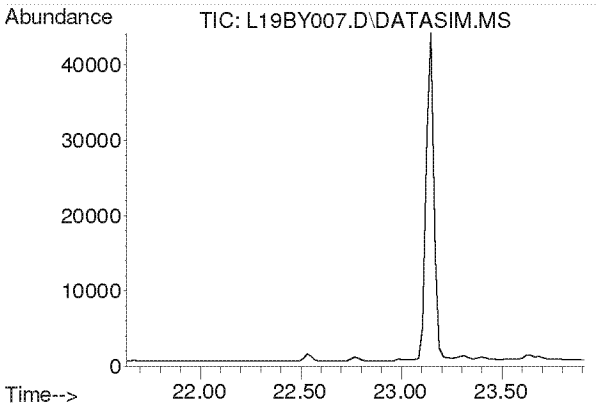
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



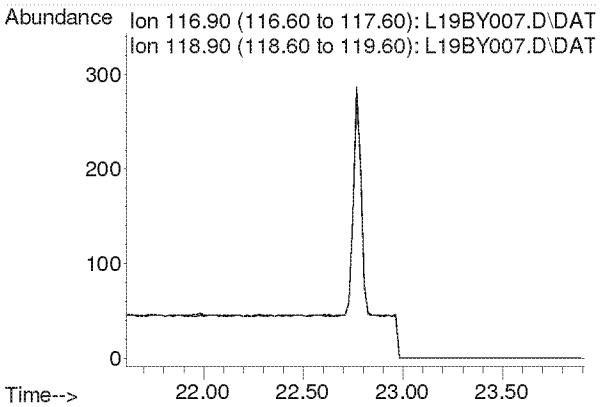


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

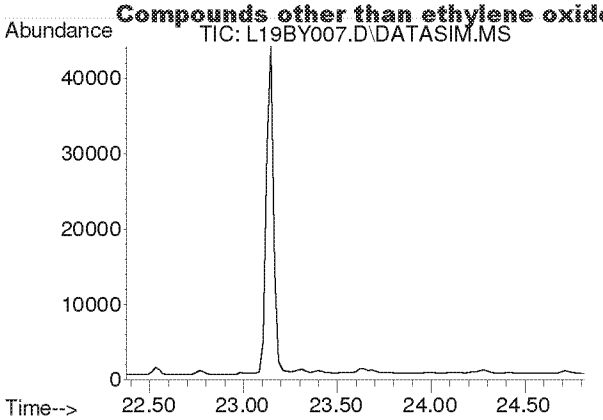
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

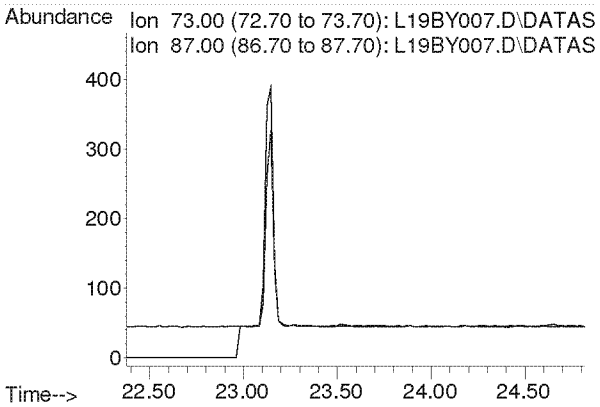


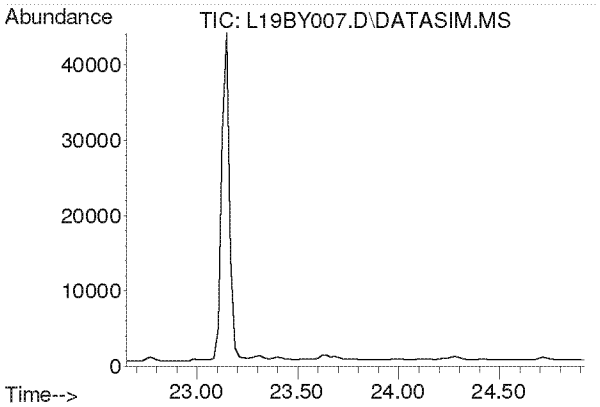
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



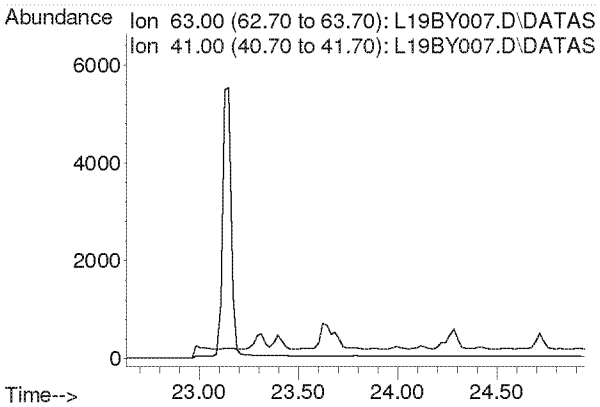


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

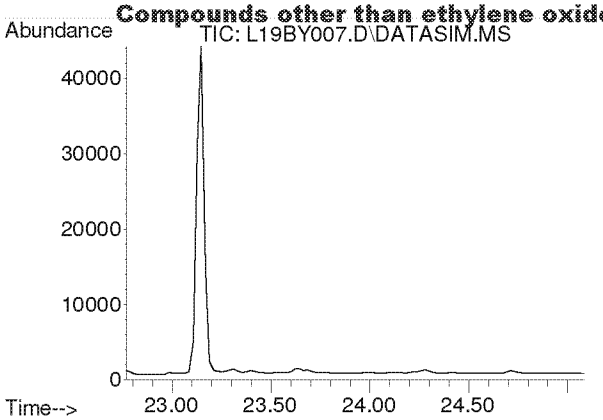
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

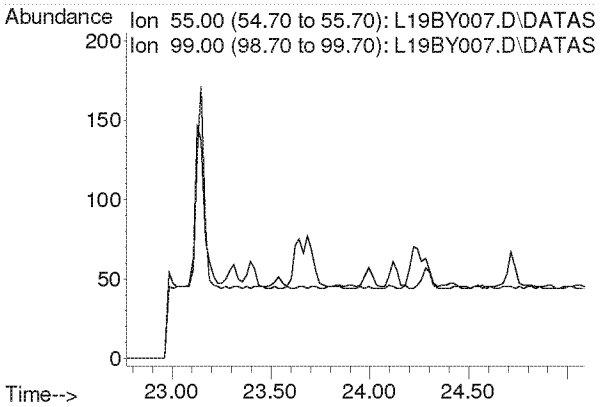


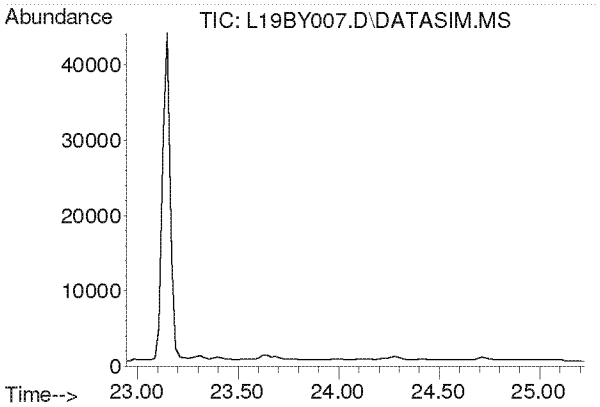
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



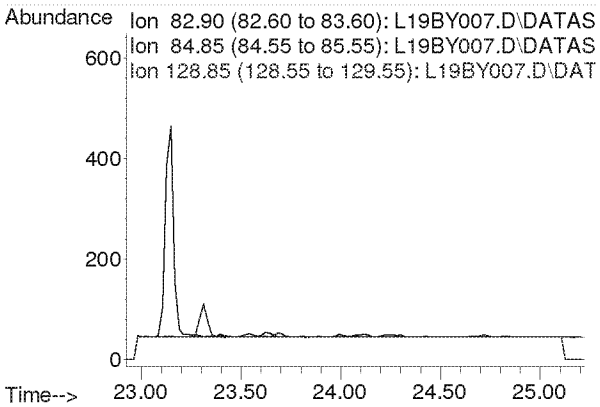


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

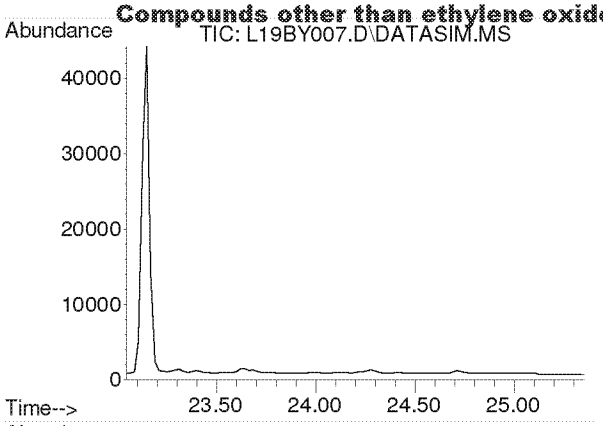
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

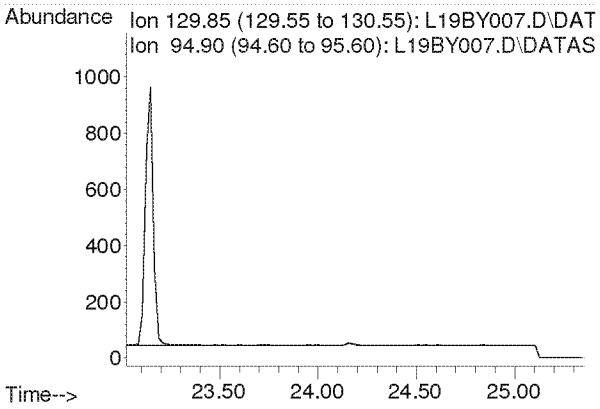


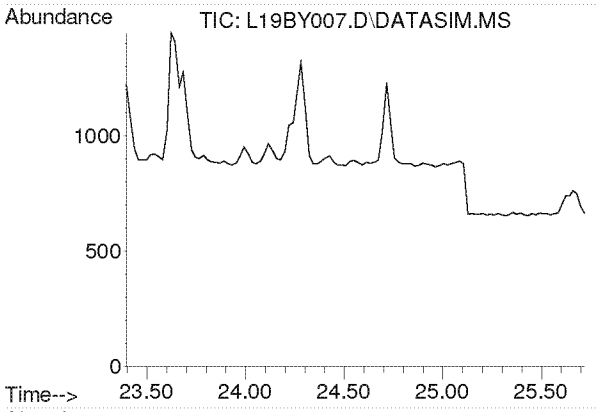
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



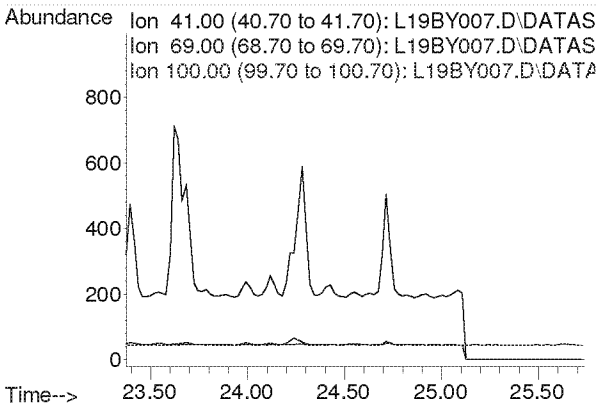


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

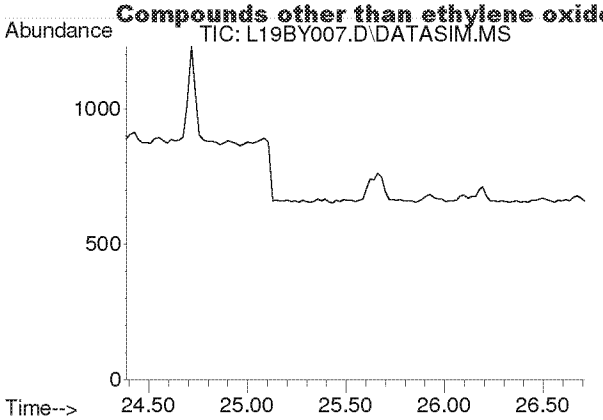
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

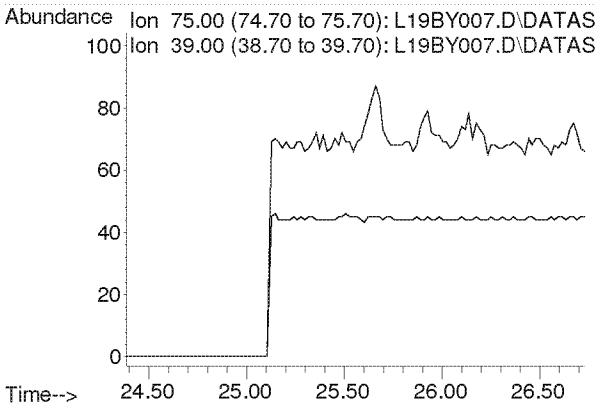


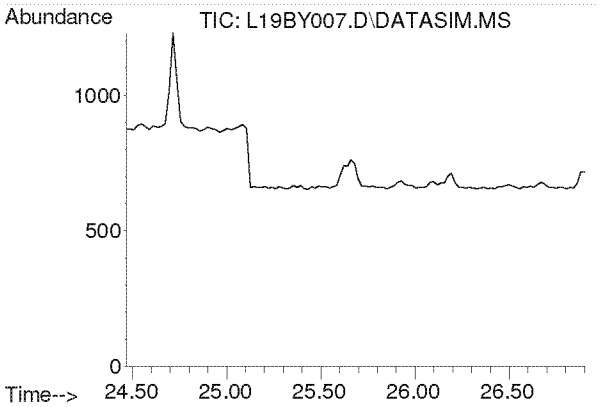
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



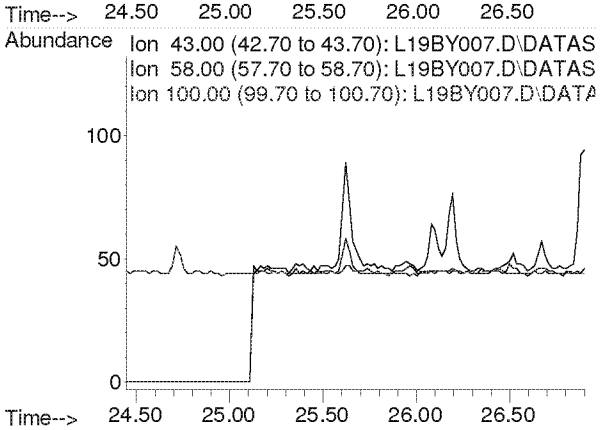


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

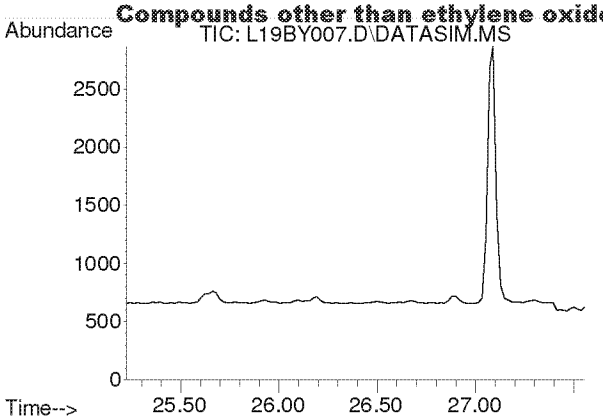
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

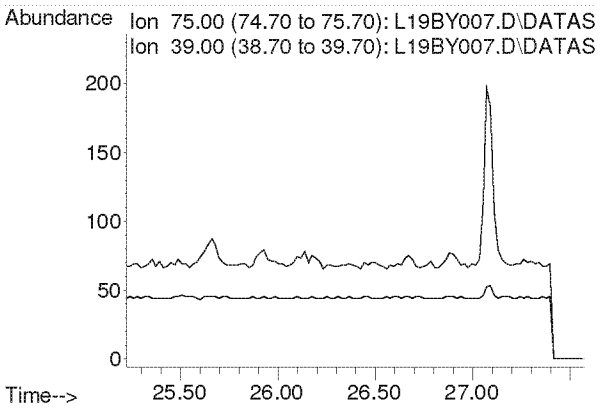


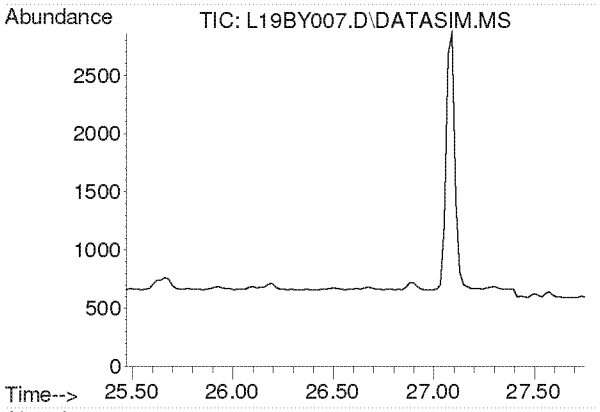
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



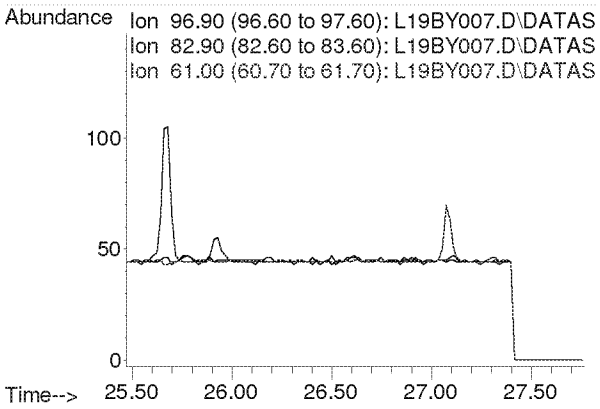


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

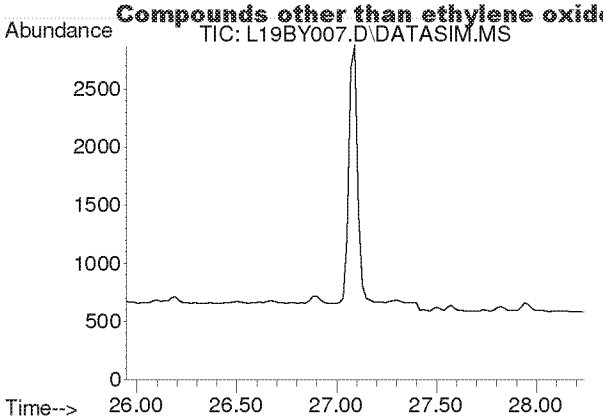
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

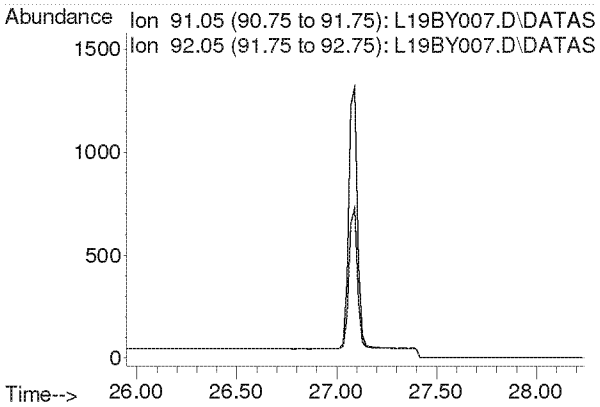


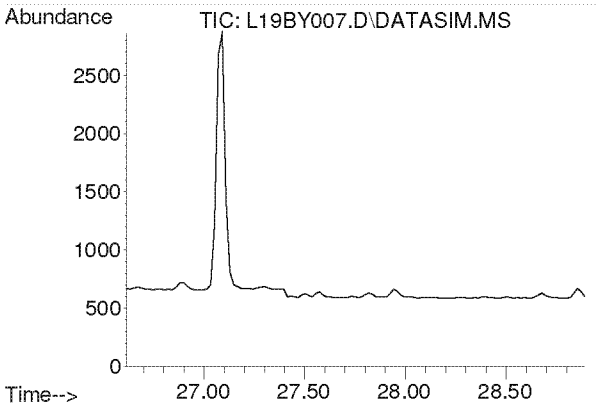
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



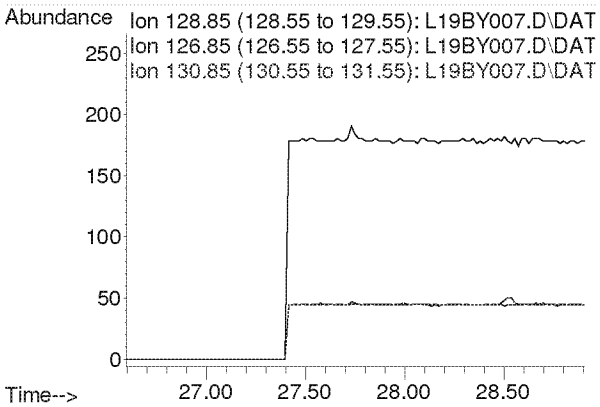


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

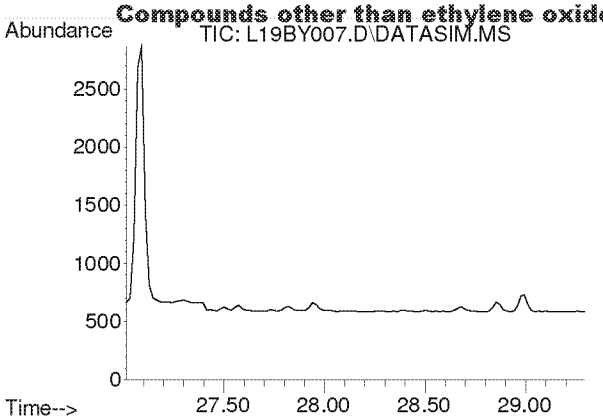
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

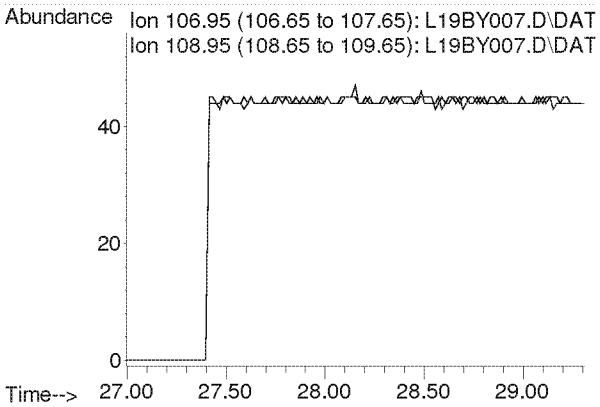


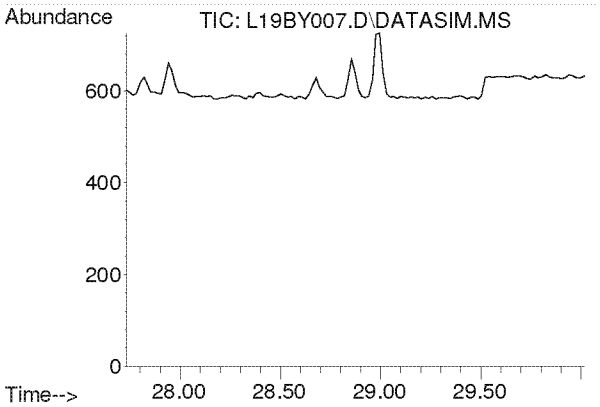
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



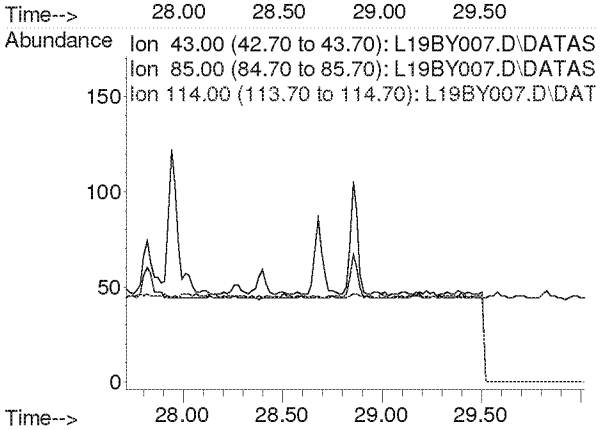


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

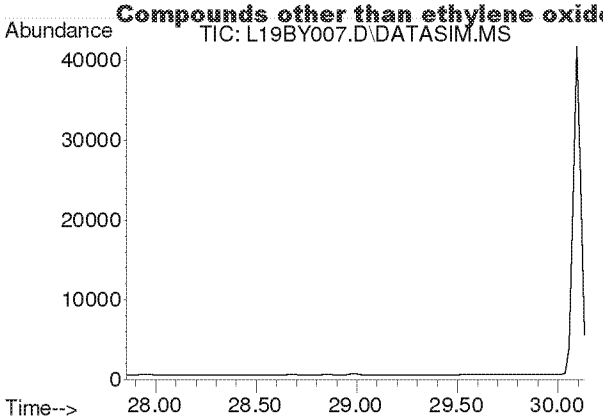
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

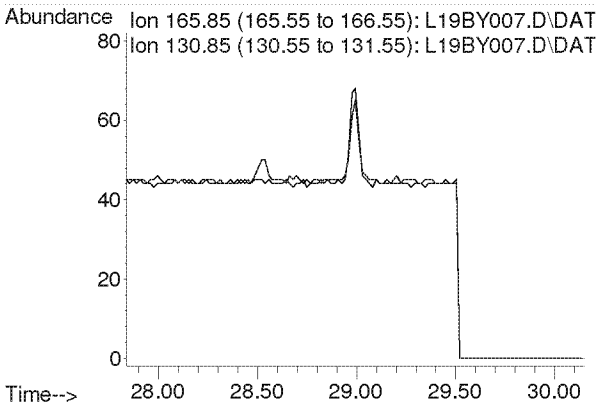


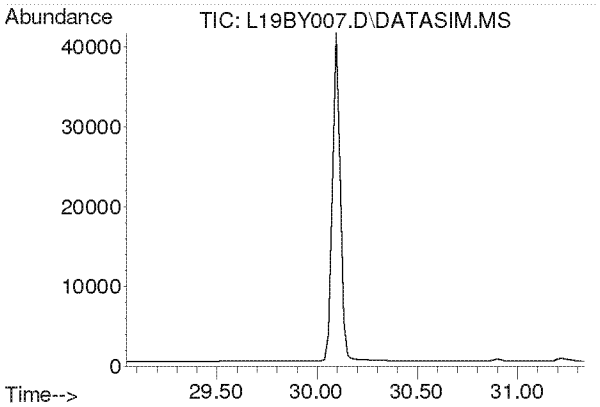
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



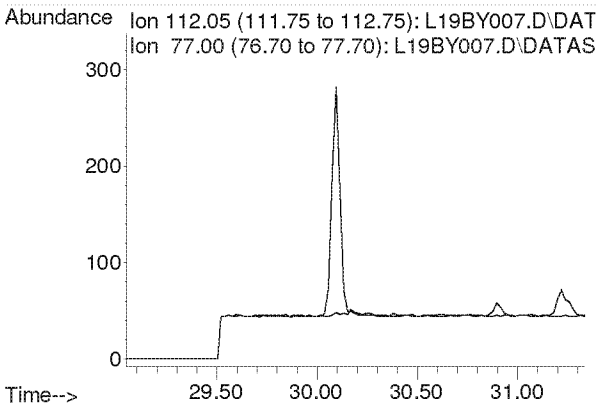


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

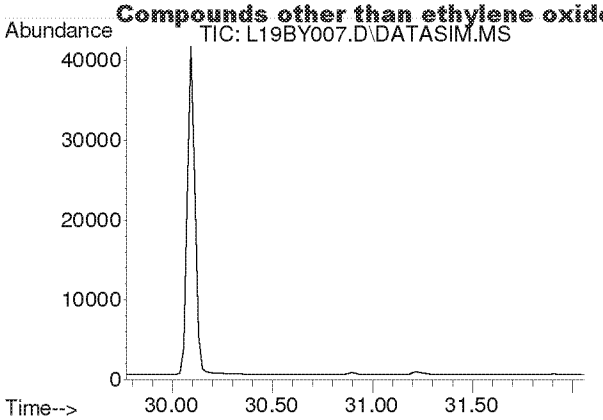
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

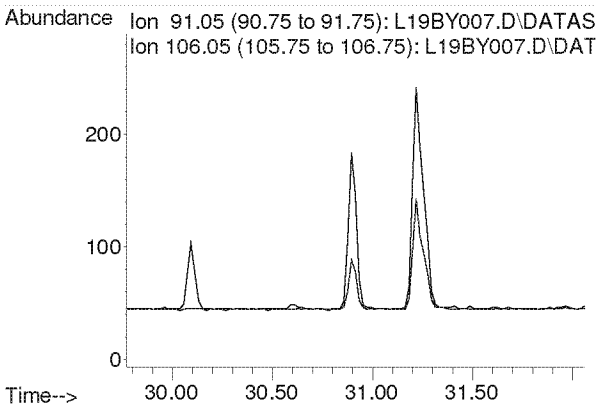


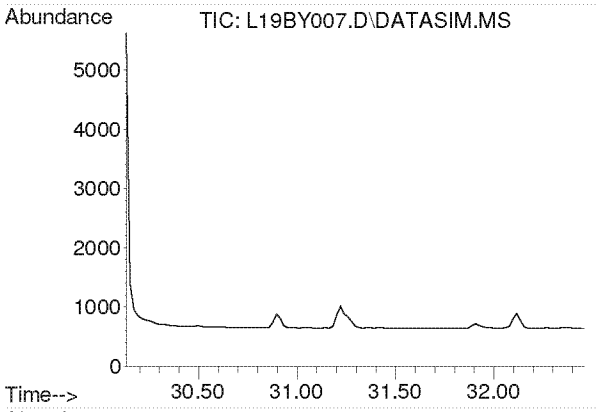
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



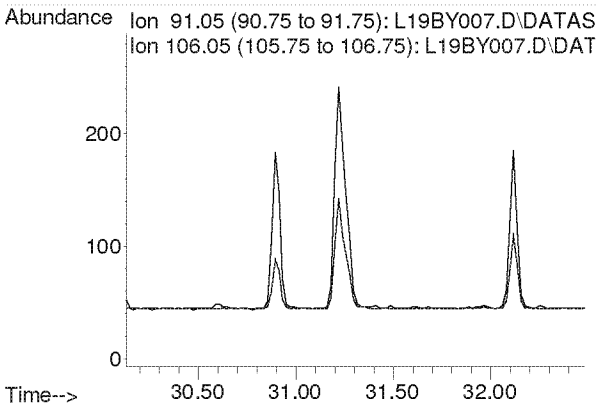


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

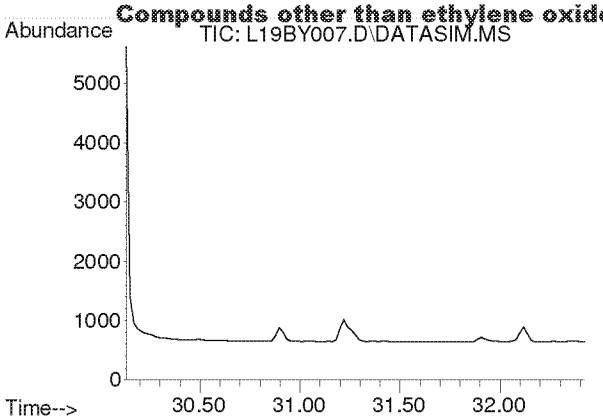
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

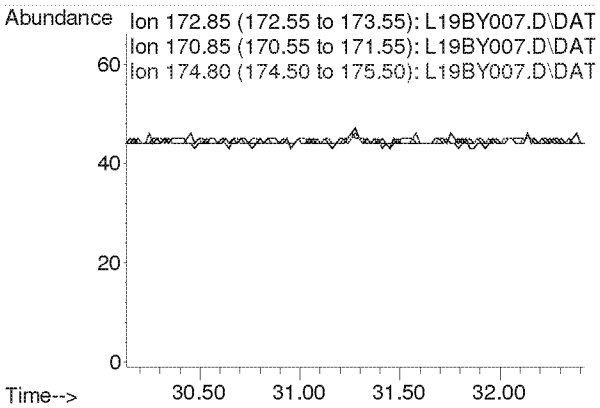


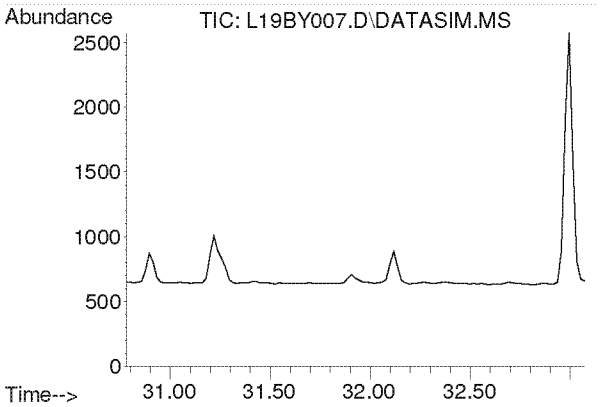
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



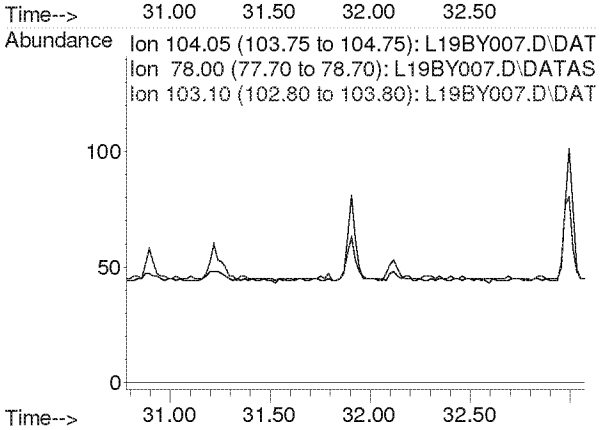


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

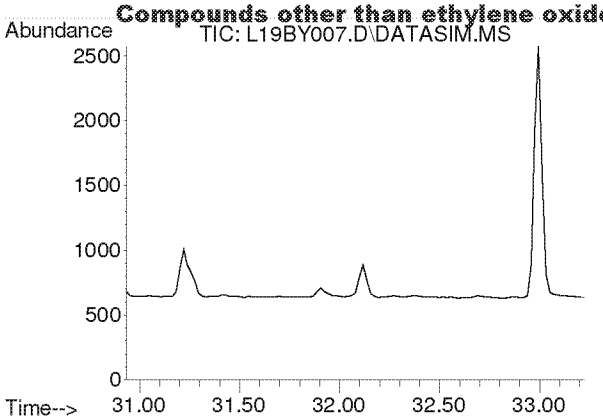
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

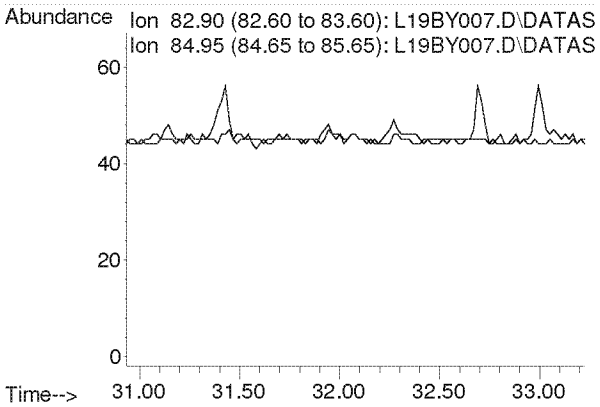


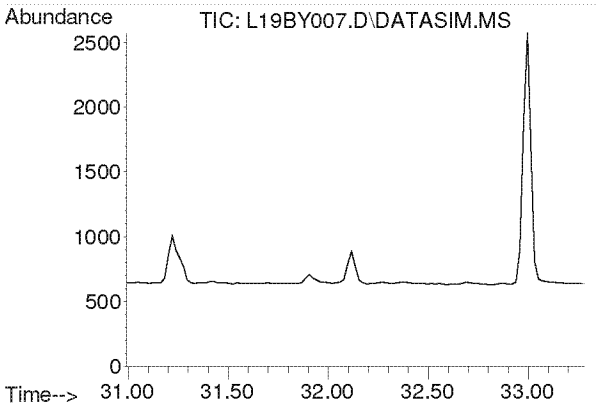
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



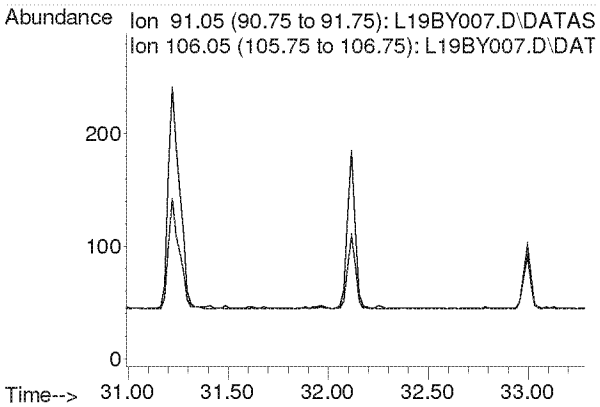


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

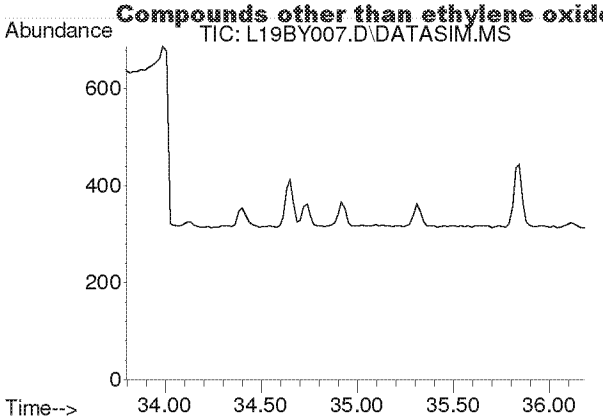
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

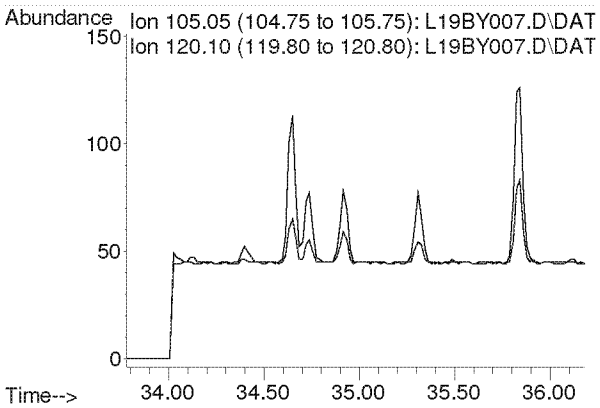


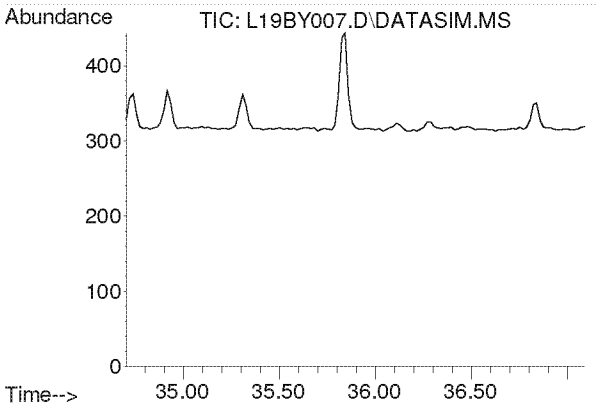
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



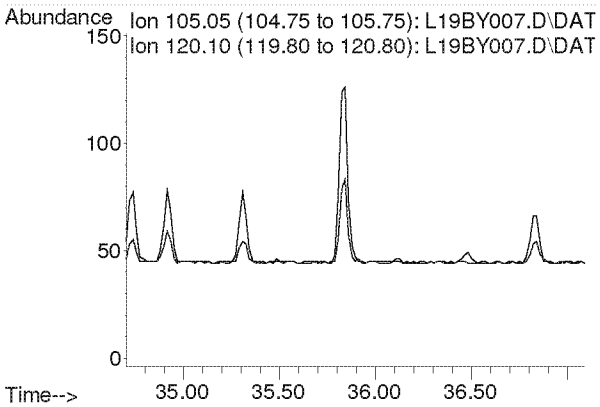


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

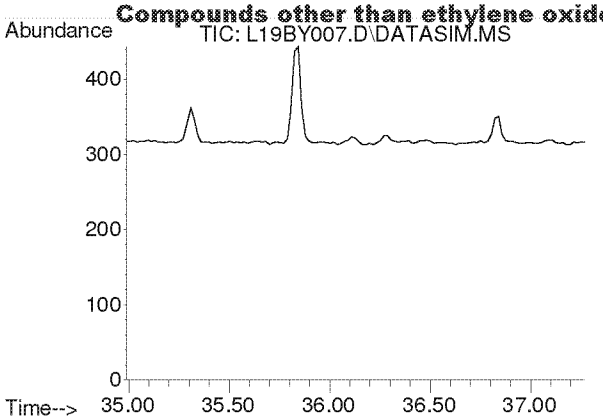
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

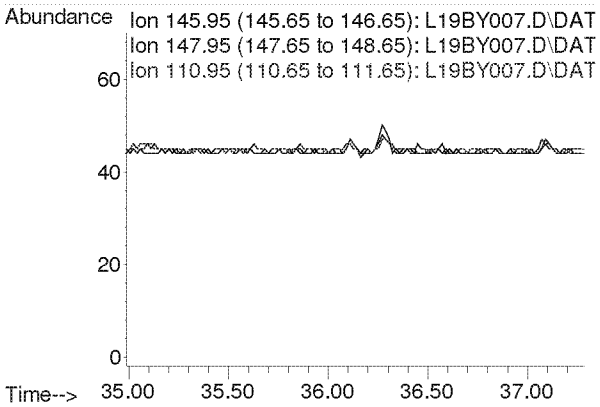


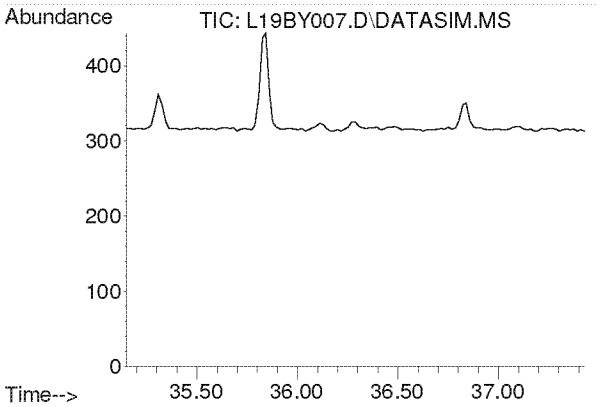
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



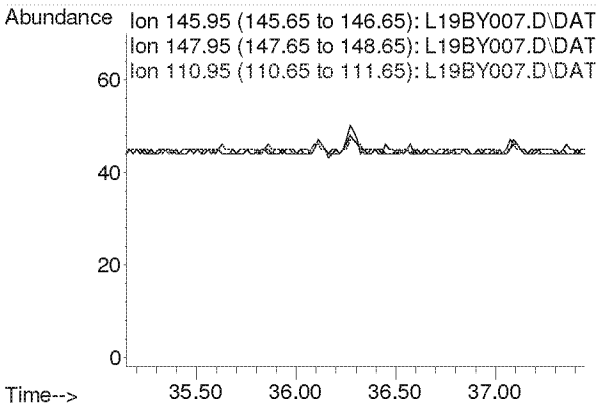


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

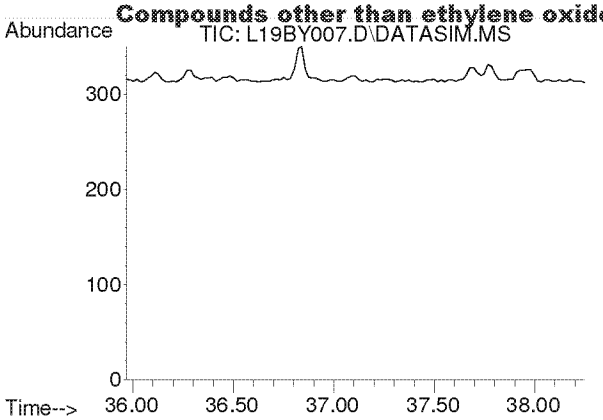
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

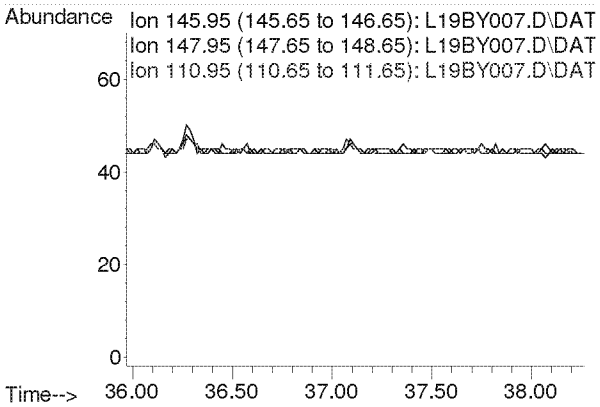


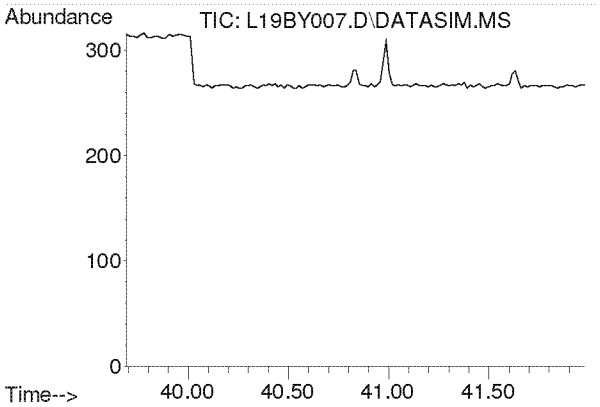
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



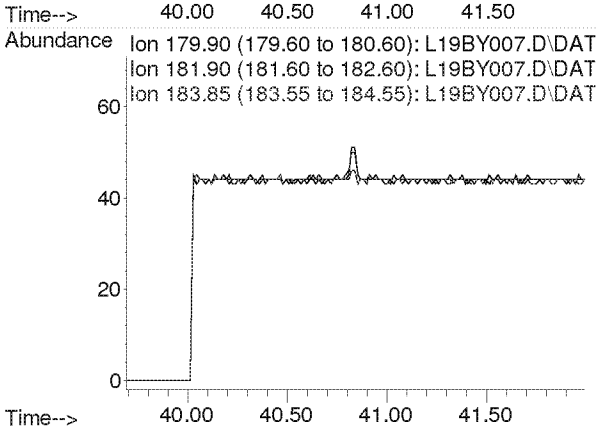


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

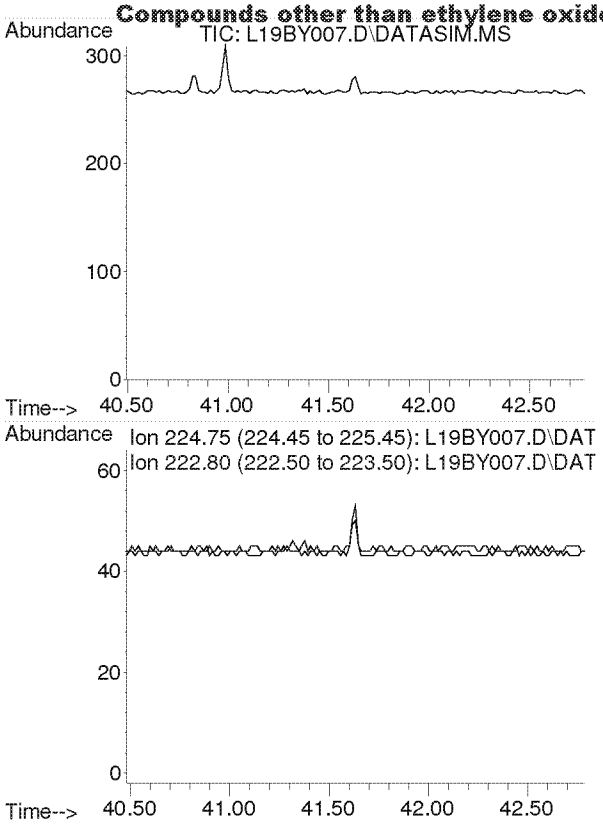
Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19BY007.D
Acq: 25 Feb 2019 1:26 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY008.D
Acq On : 25 Feb 2019 2:26 pm
Operator : MAH
Sample : 9022202-03 -
Misc : WB VILLAGE HALL C2 2/20/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 26 10:06:10 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d=nk

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	40097	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	101449	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	70597	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	251m	0.1094 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.	.00
17) Methylene Chloride	0.000	49	0	N.D. d	.00
18) Carbon Disulfide	0.000	76	0	N.D. d	.02
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY008.D
Acq On : 25 Feb 2019 2:26 pm
Operator : MAH
Sample : 9022202-03
Misc : WB VILLAGE HALL C2 2/20/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 26 10:06:10 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

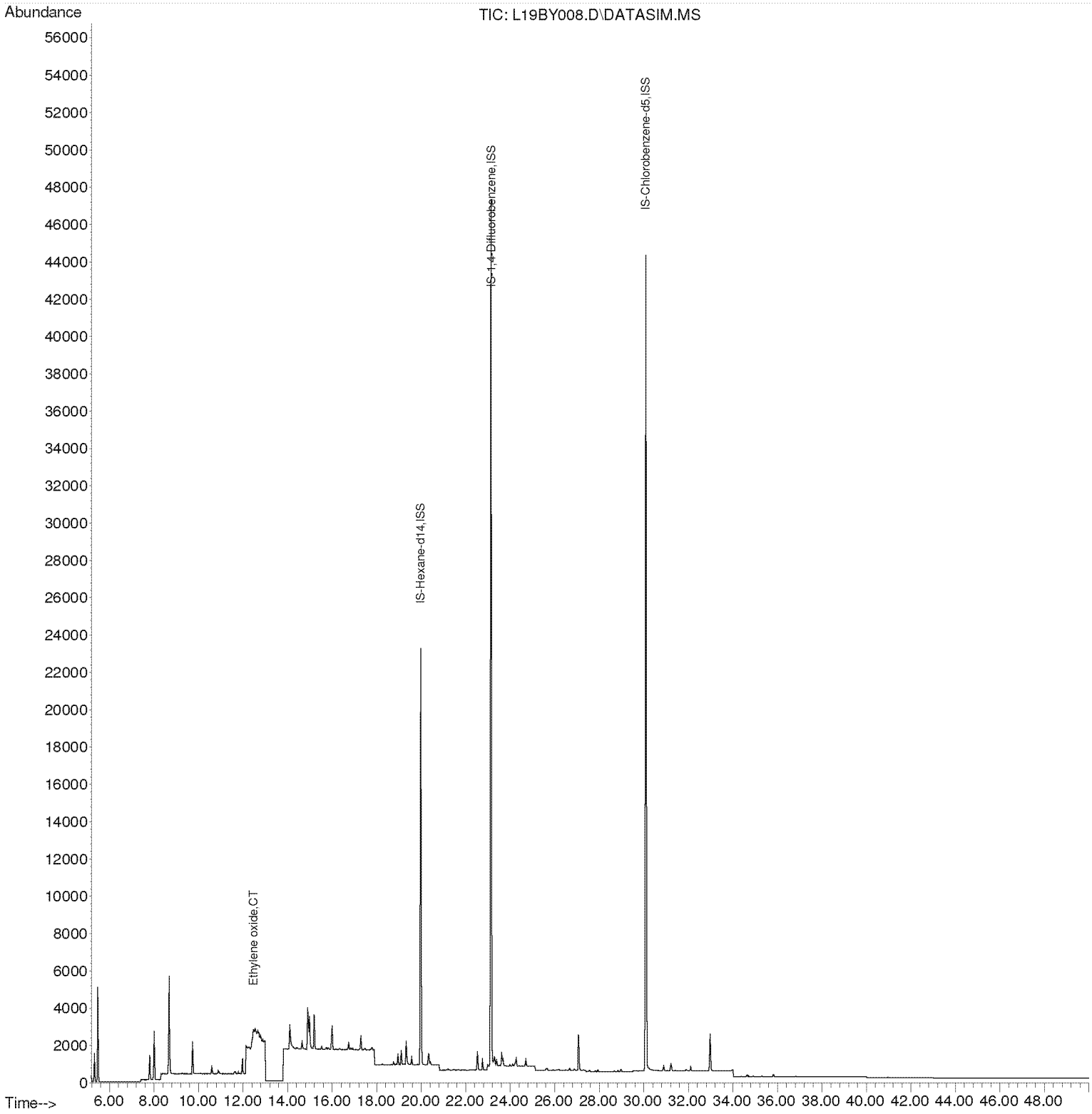
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000298-00151

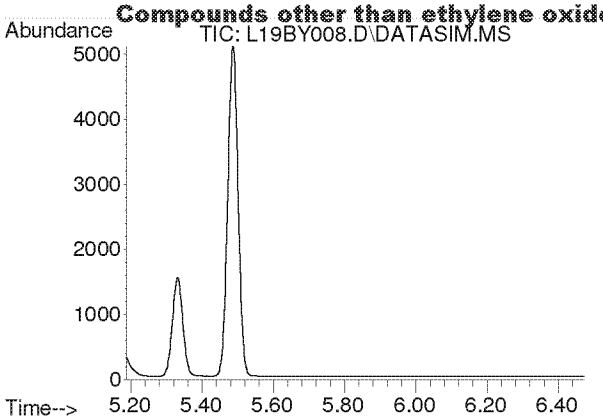
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY008.D
Acq On : 25 Feb 2019 2:26 pm
Operator : MAH
Sample : 9022202-03
Misc : WB VILLAGE HALL C2 2/20/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 26 09:53:57 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



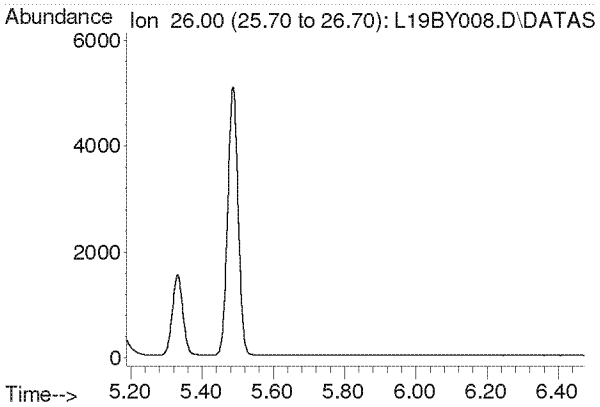
Compounds other than ethylene oxide were not quantitated.

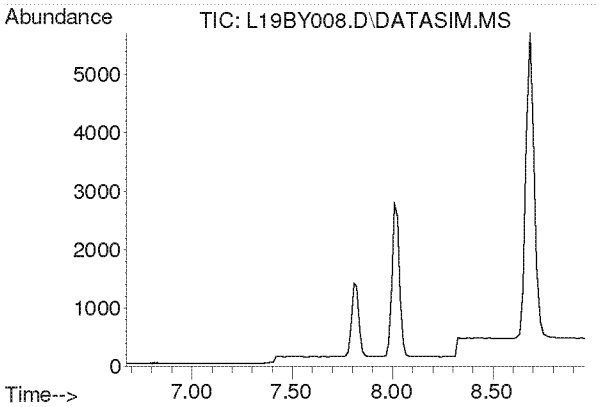


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 26



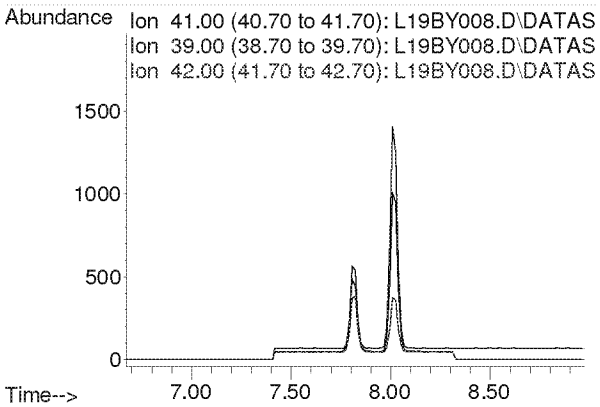


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

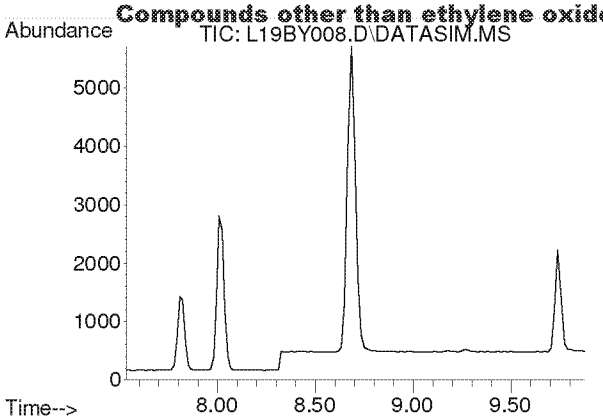
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

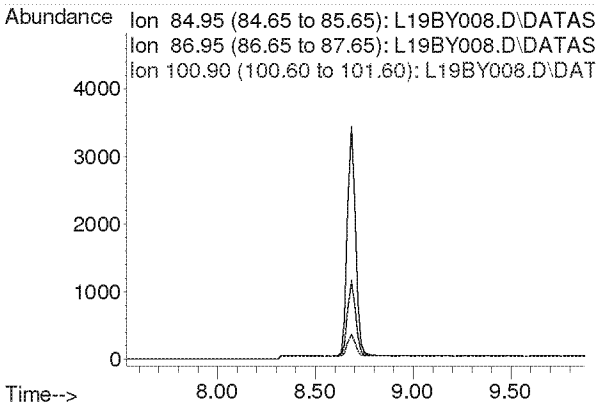


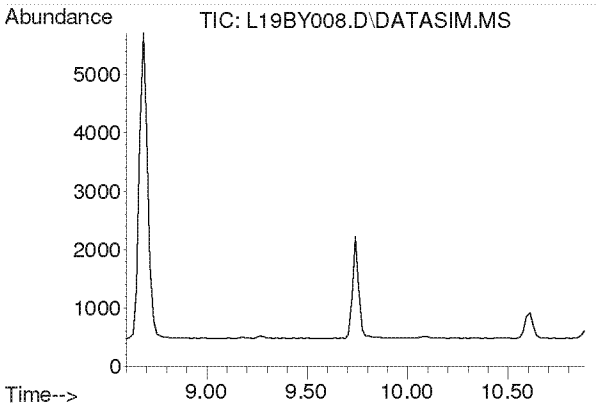
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



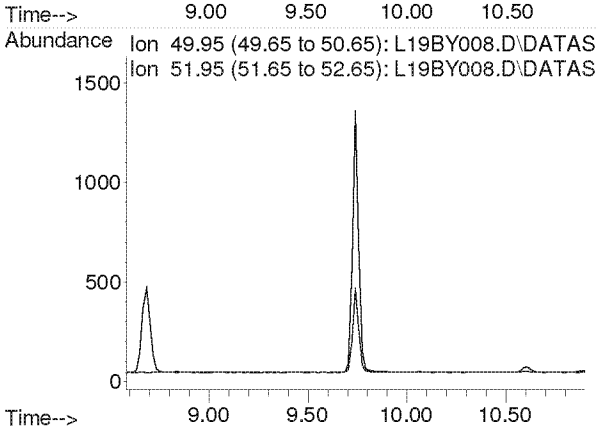


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

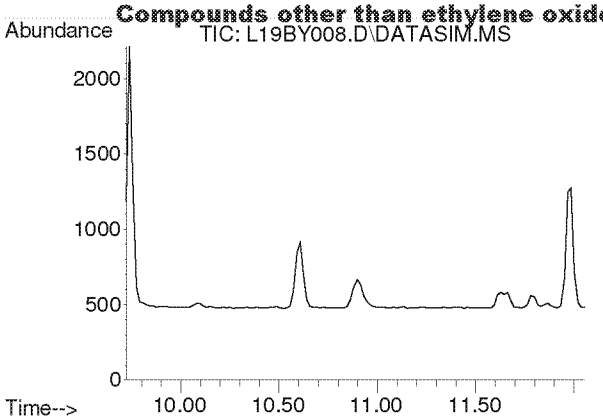
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

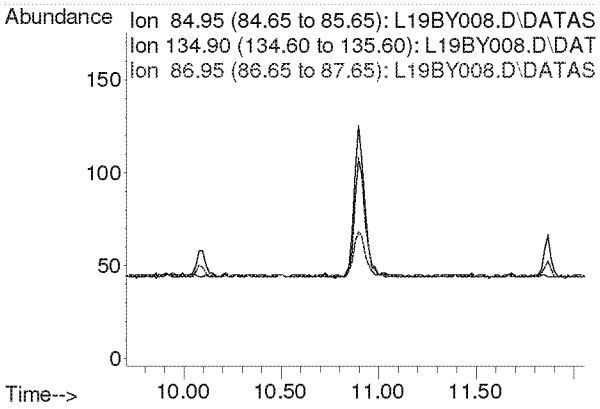


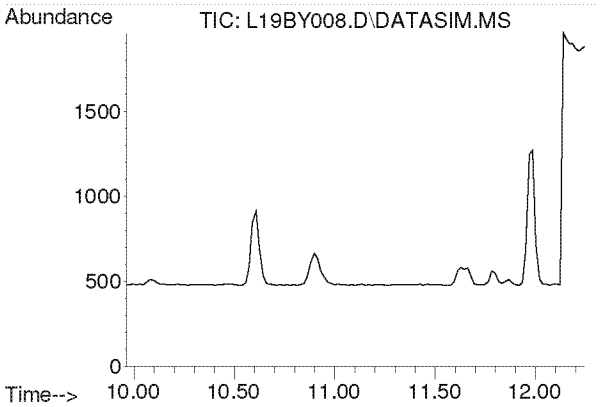
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



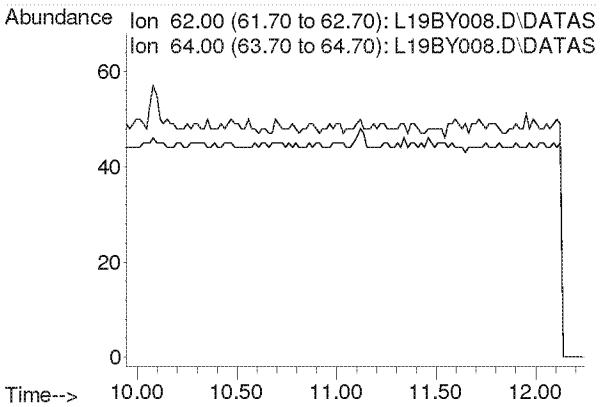


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

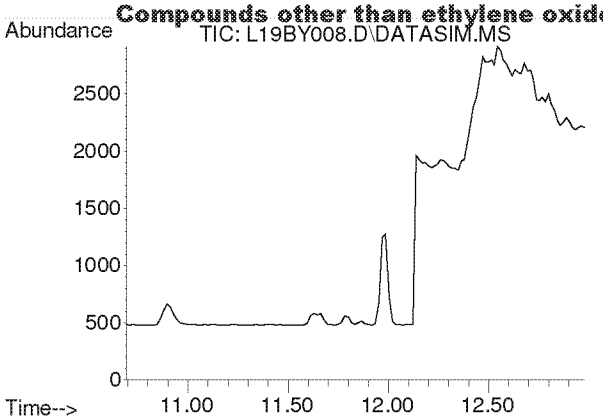
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

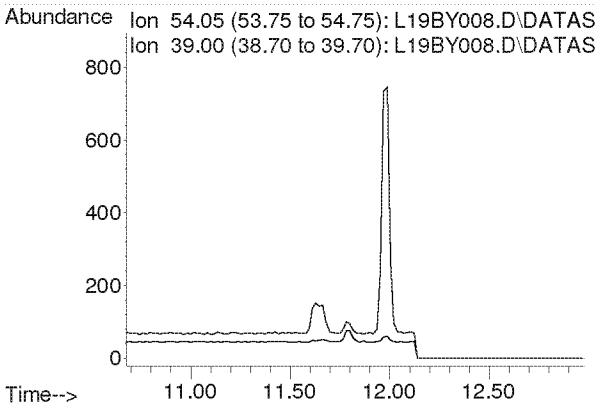


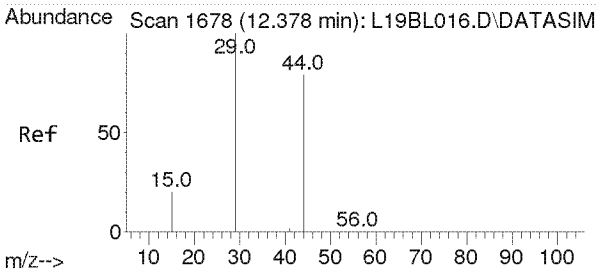
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

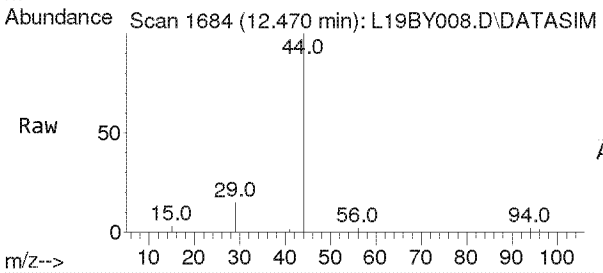


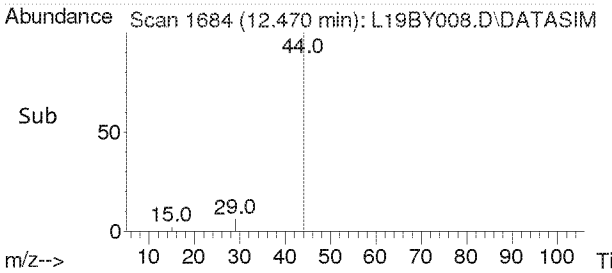


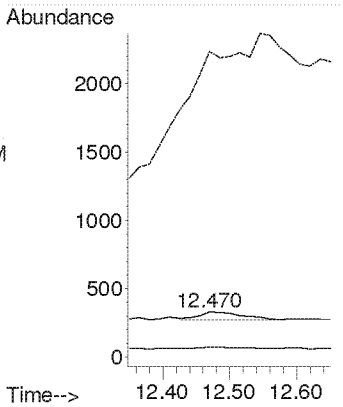
#9
Ethylene oxide
Concen: 0.109 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.020 min
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 29 Resp: 251

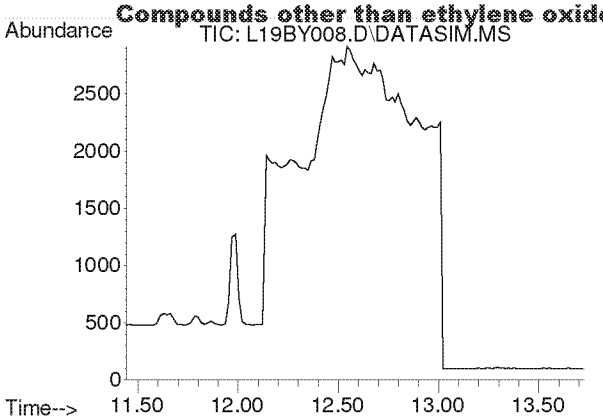
Ion	Ratio	Lower	Upper
29	100		
15	25.1	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

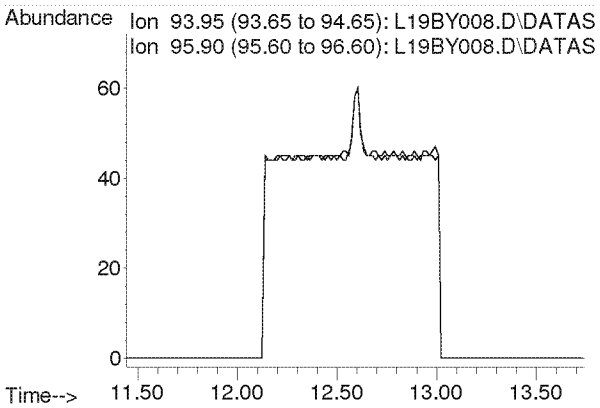


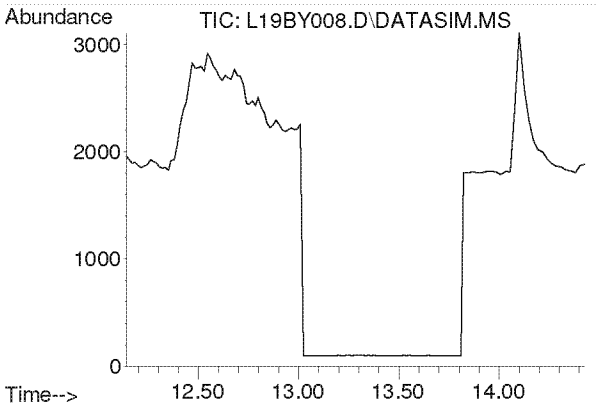
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



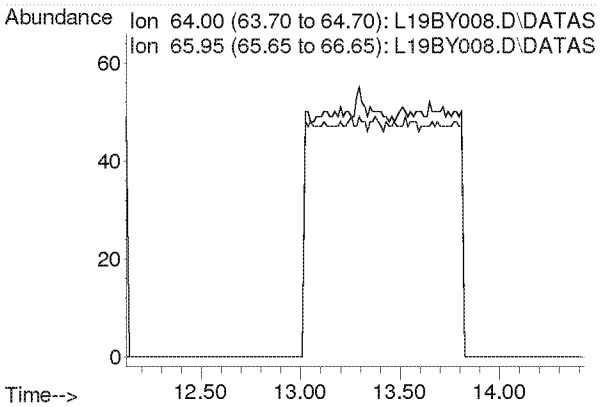


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

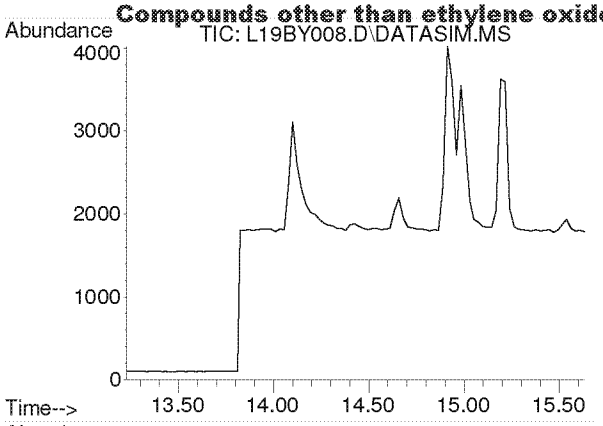
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

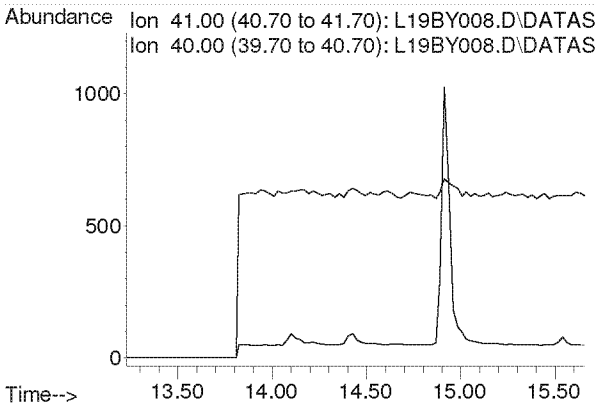


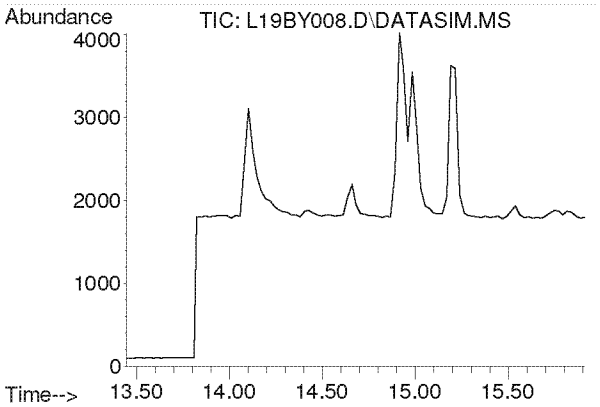
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



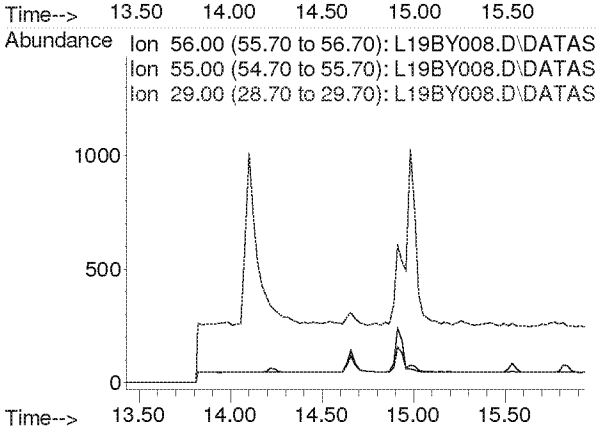


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

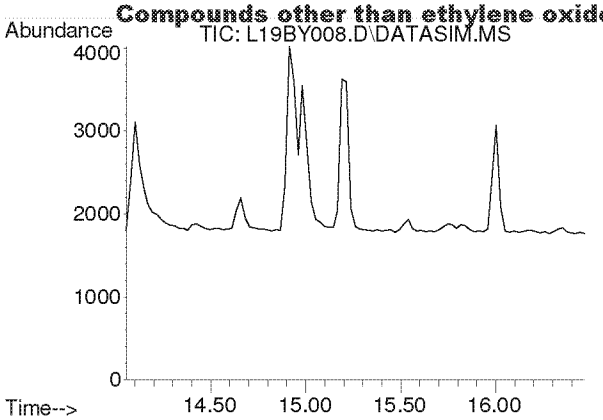
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

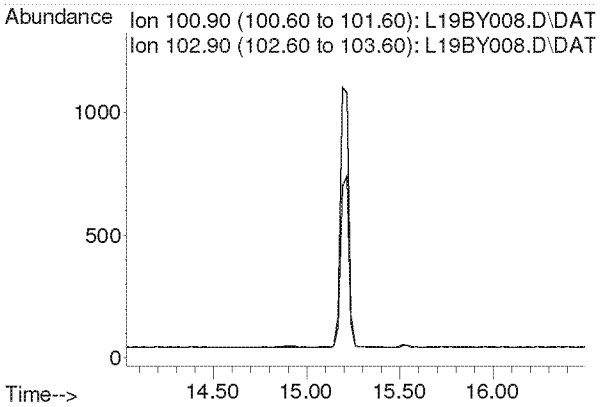


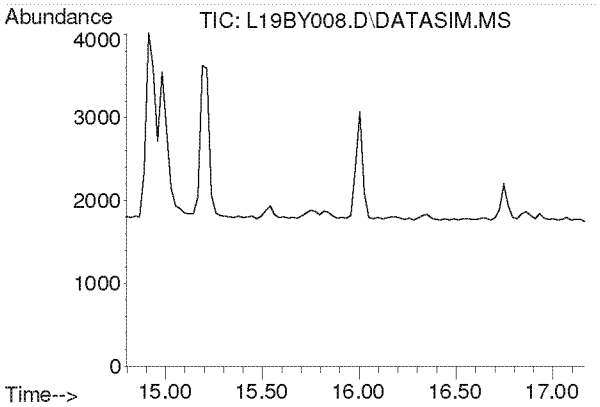
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



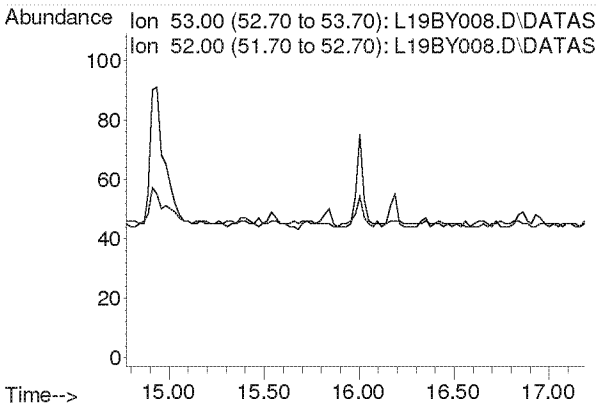


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

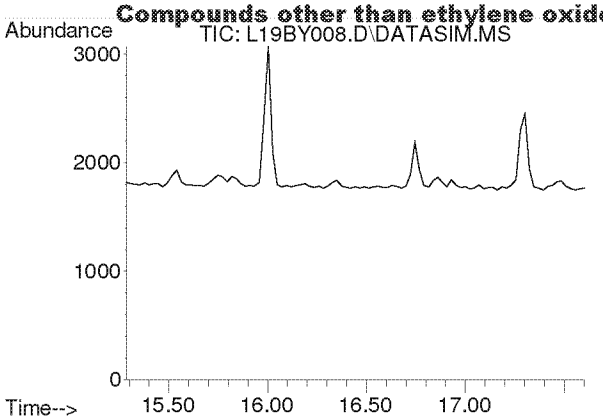
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

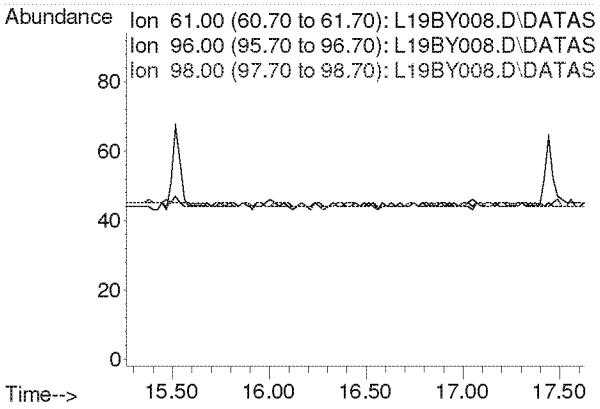


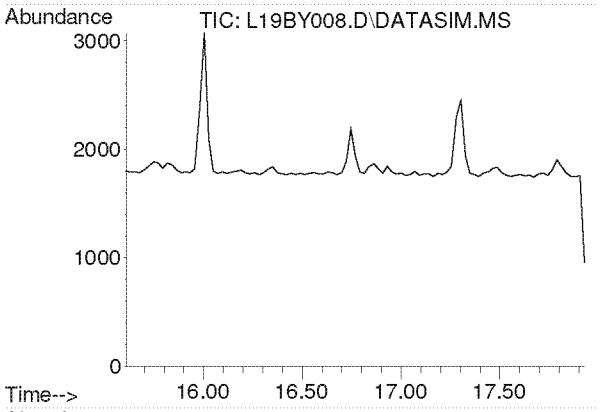
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



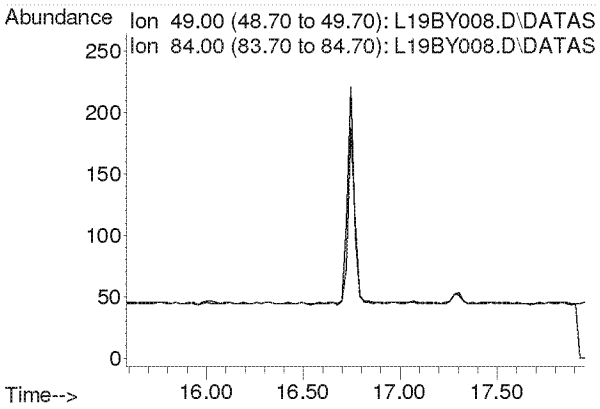


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

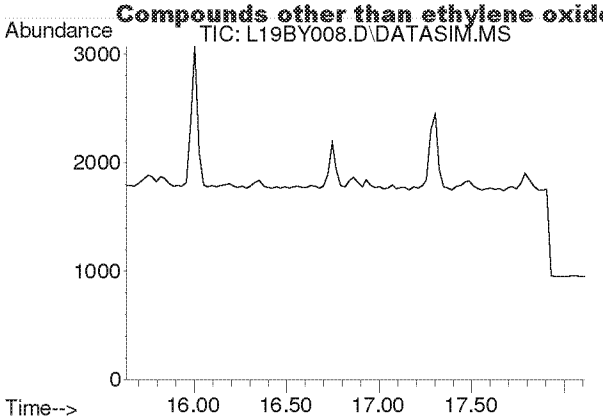
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

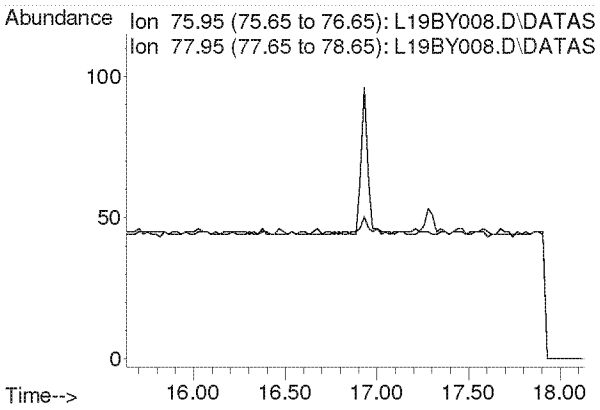


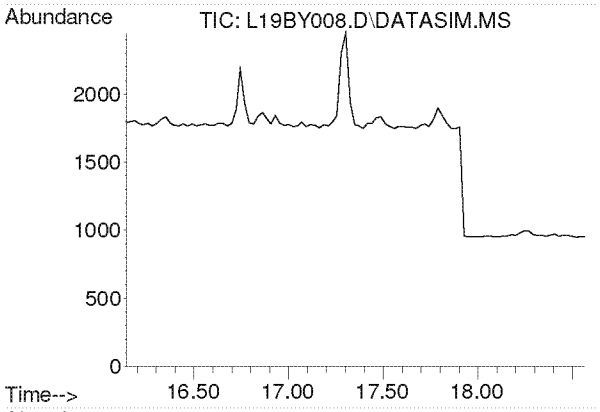
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



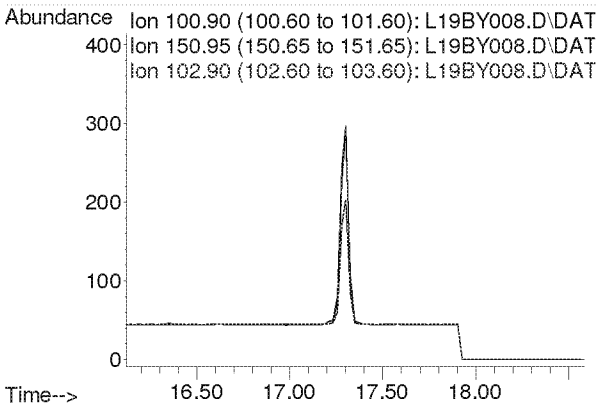


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

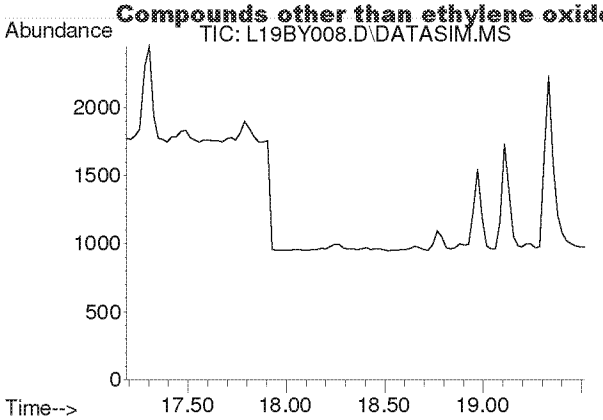
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

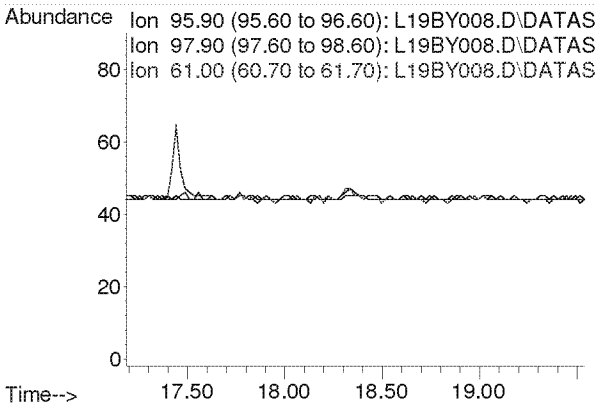


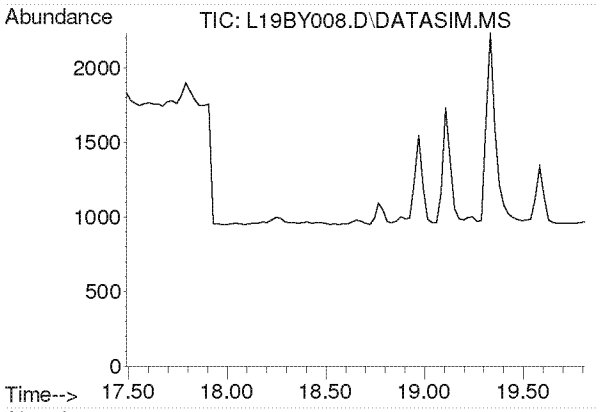
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



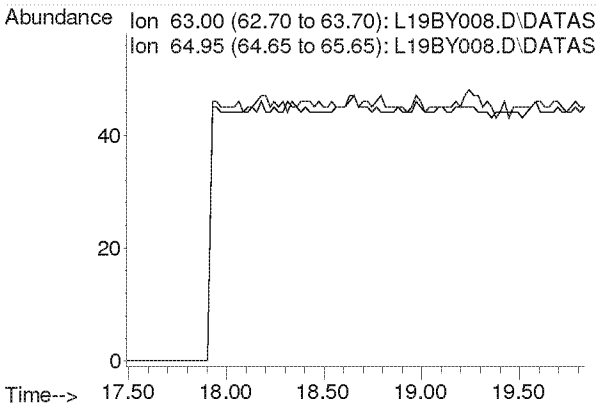


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

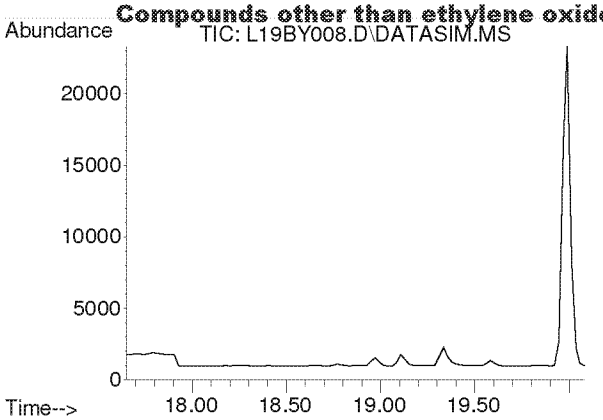
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

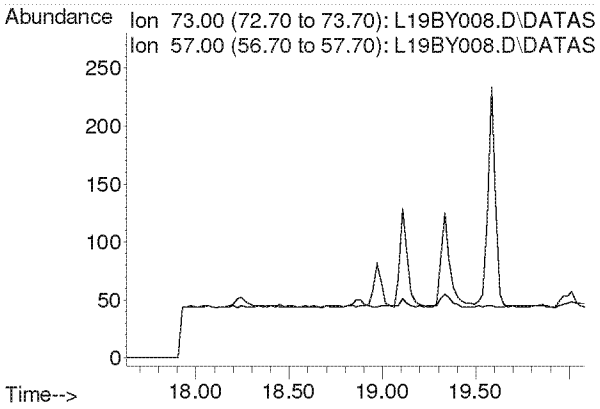


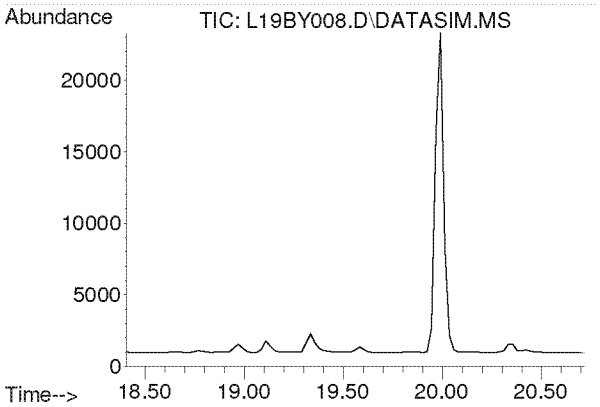
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



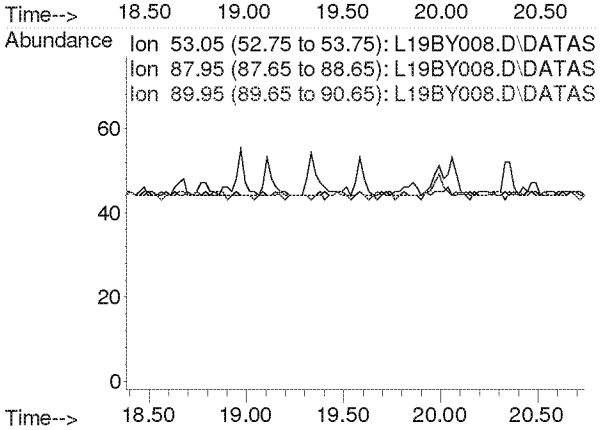


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

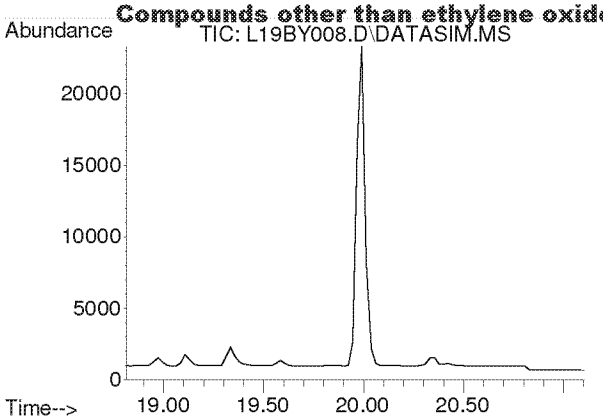
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

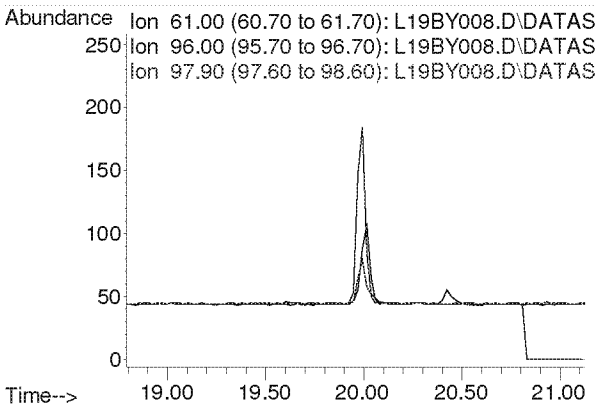


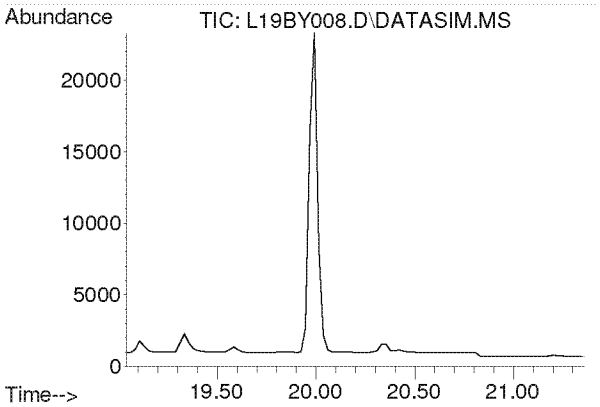
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



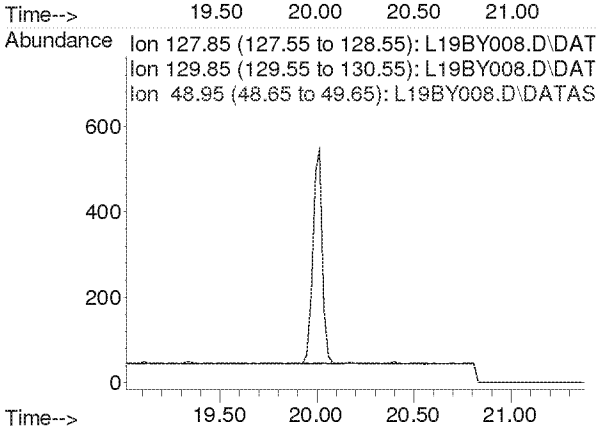


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

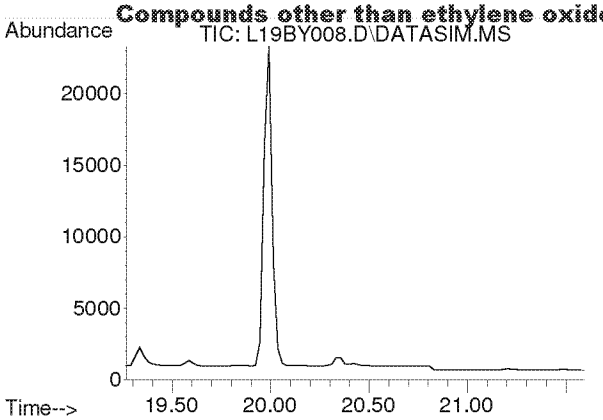
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

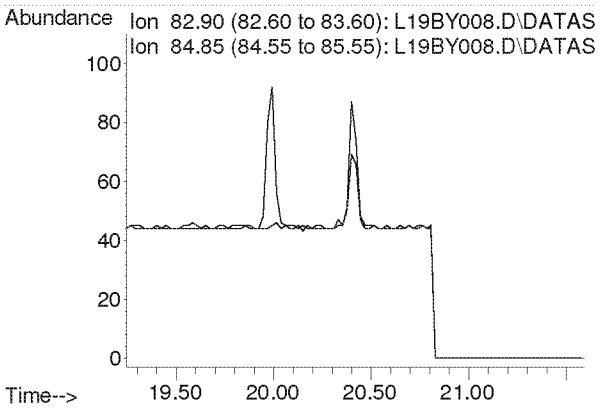


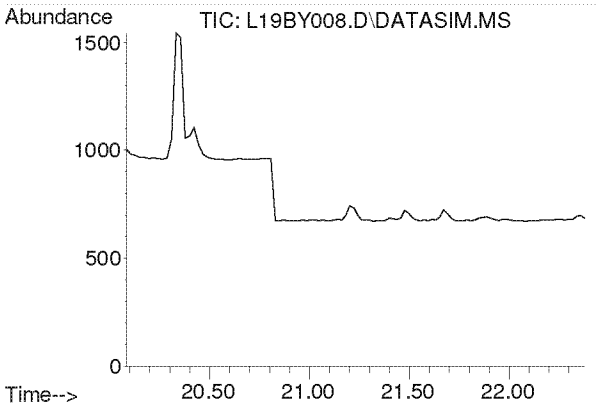
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



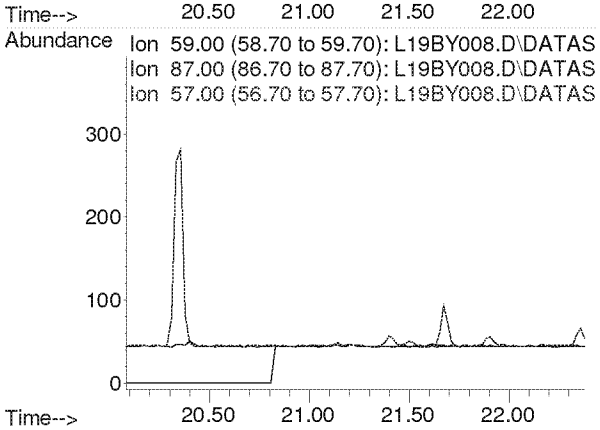


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

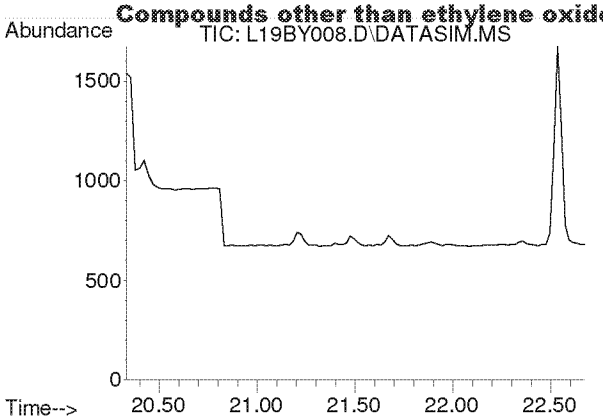
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

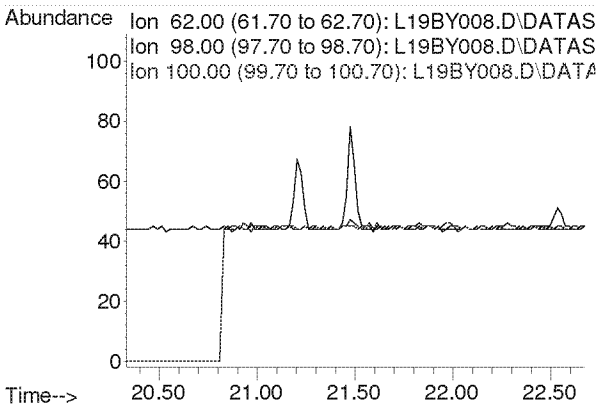


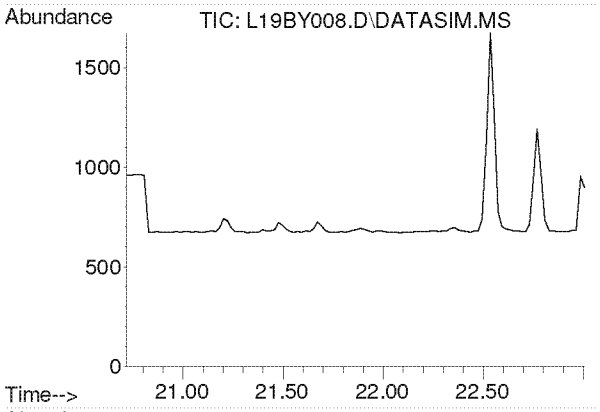
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



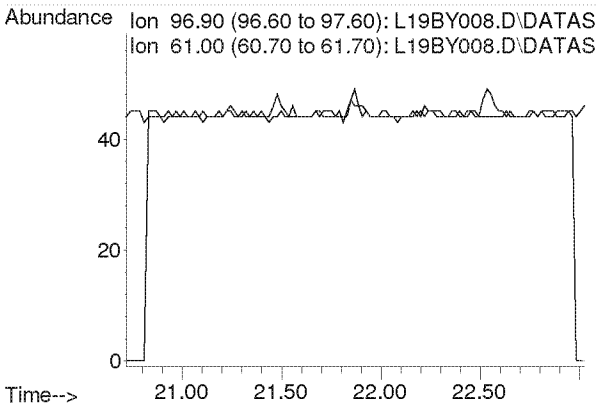


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

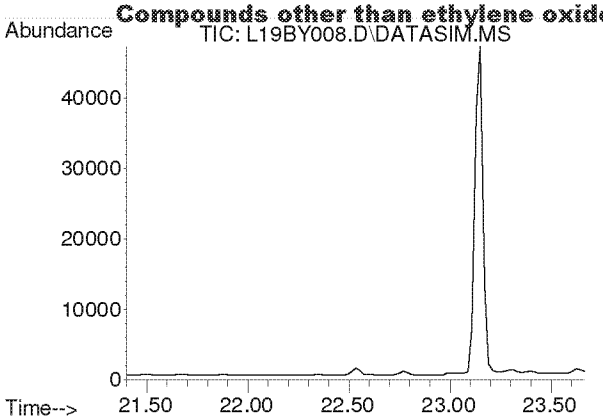
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

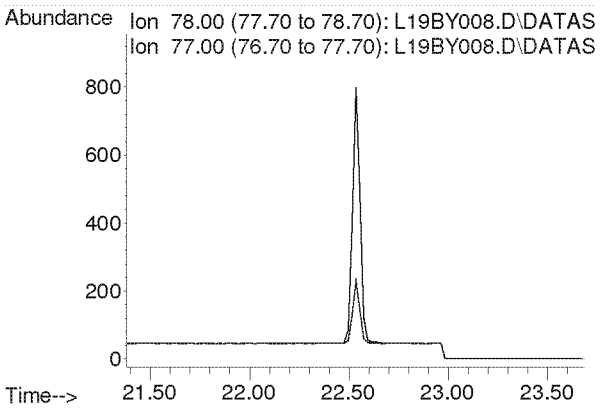


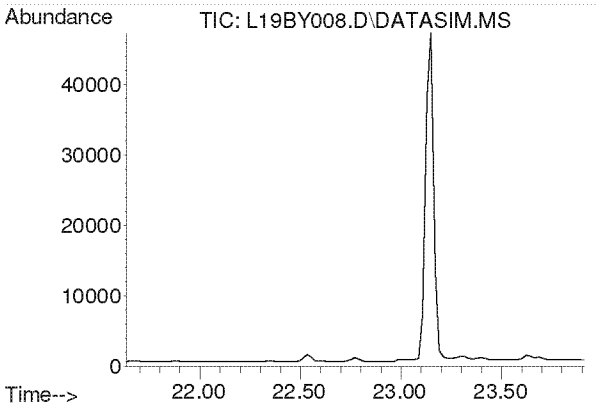
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



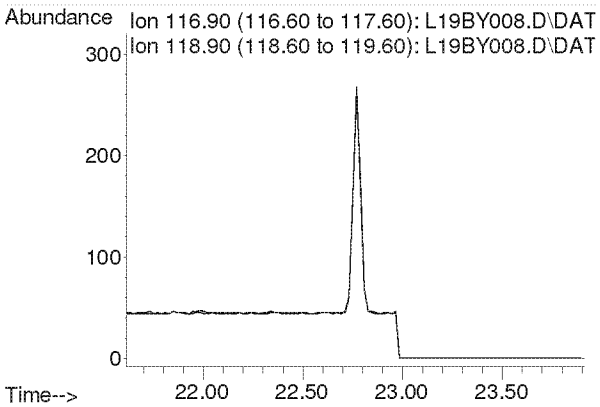


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

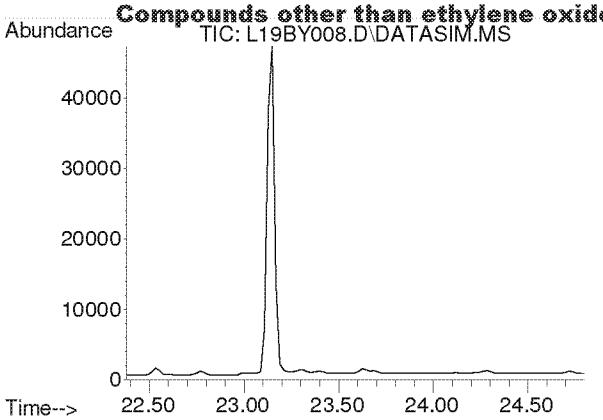
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

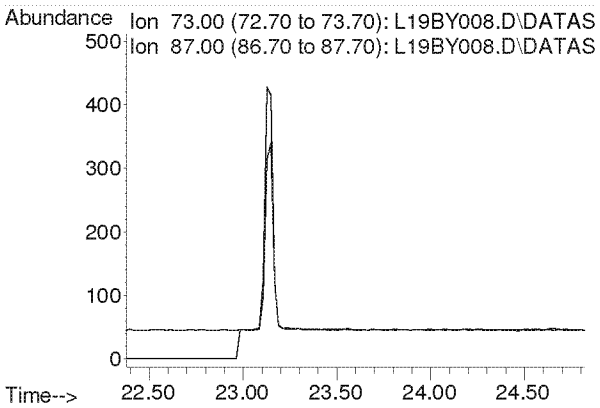


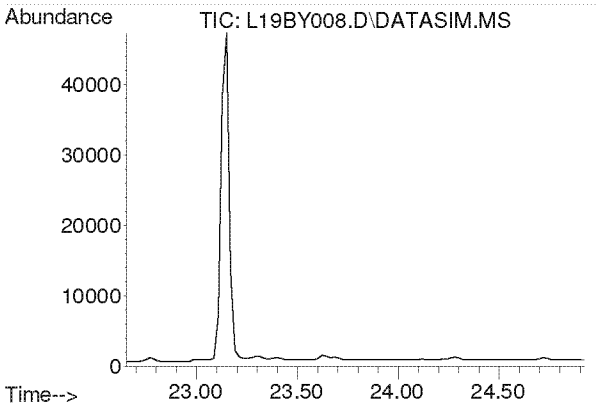
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



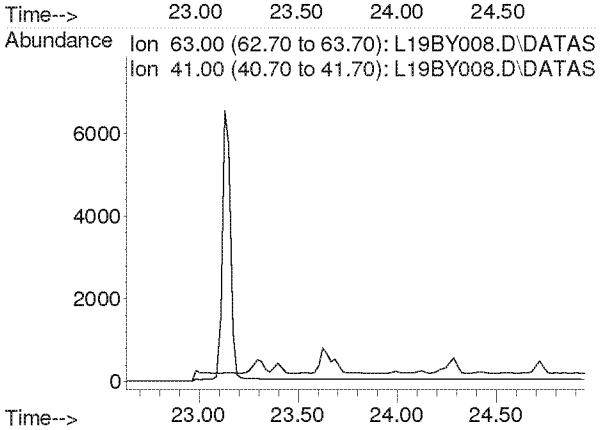


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

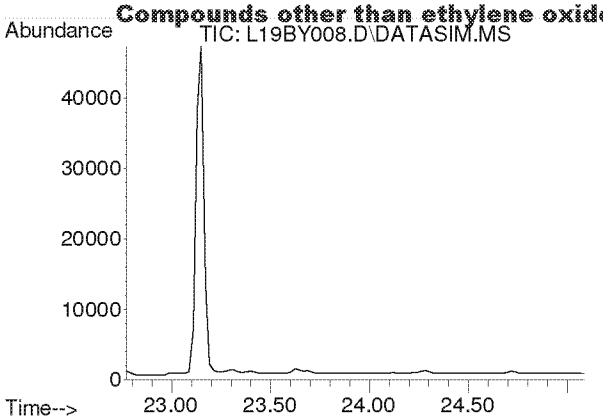
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

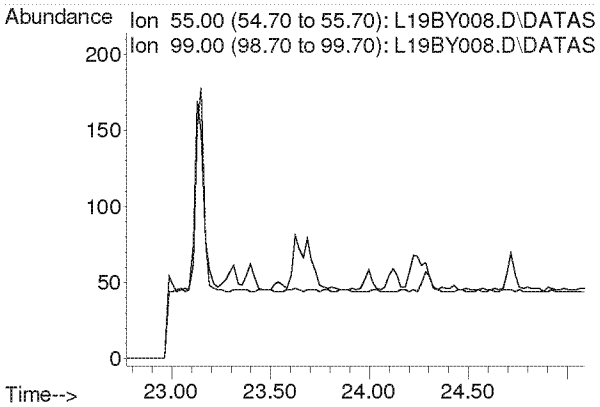


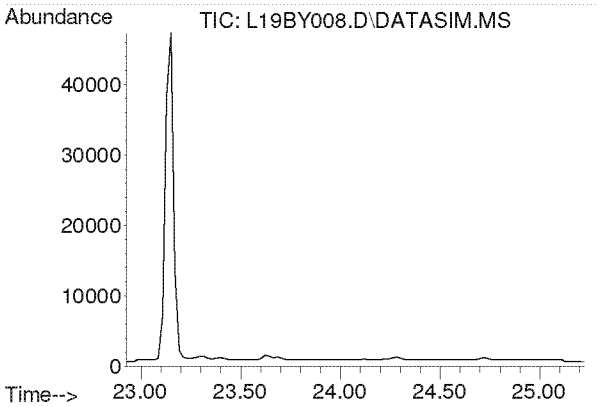
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



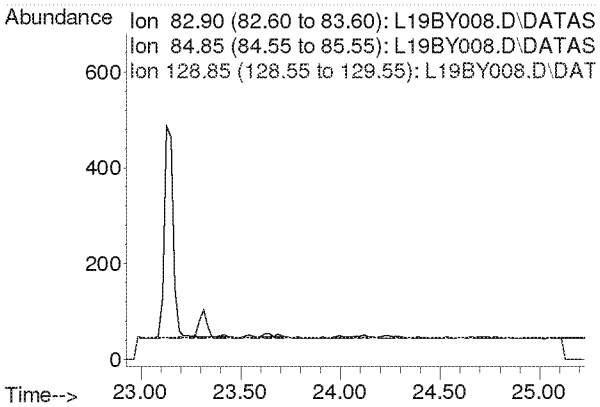


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

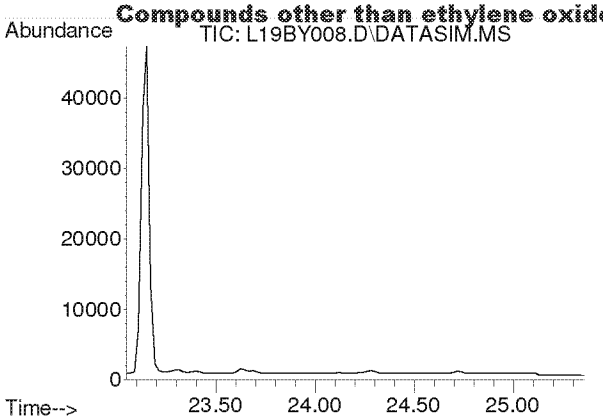
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

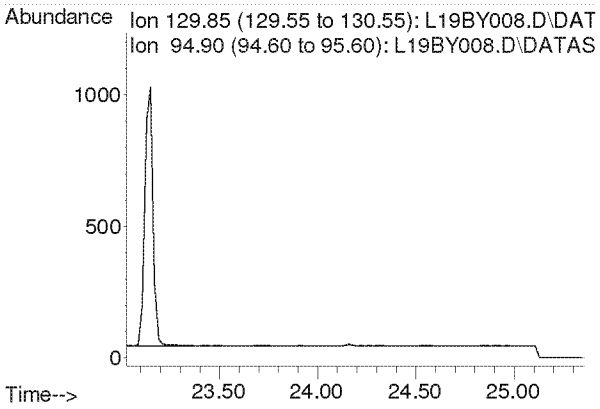


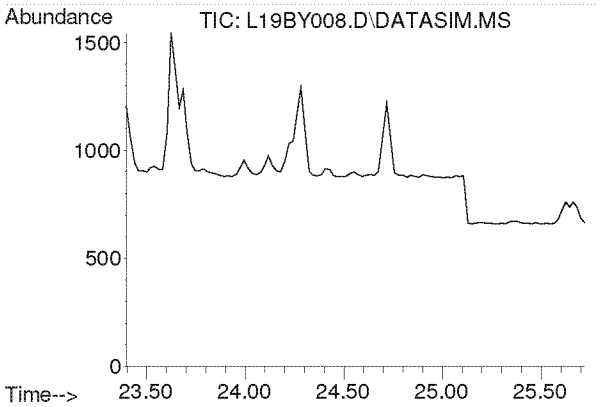
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



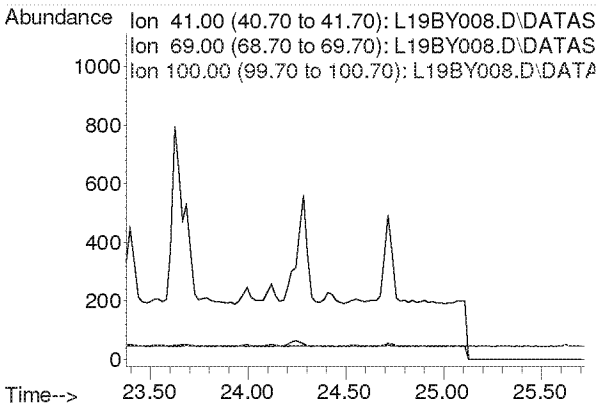


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

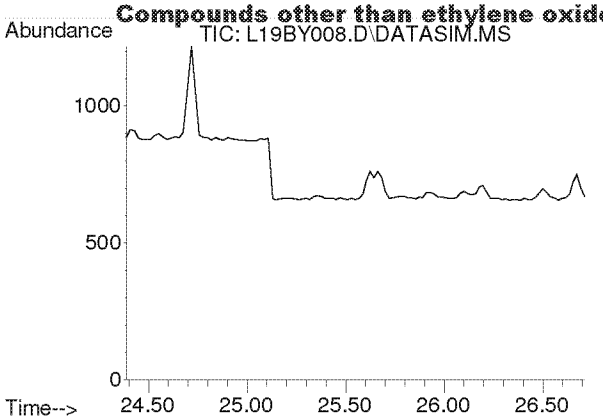
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

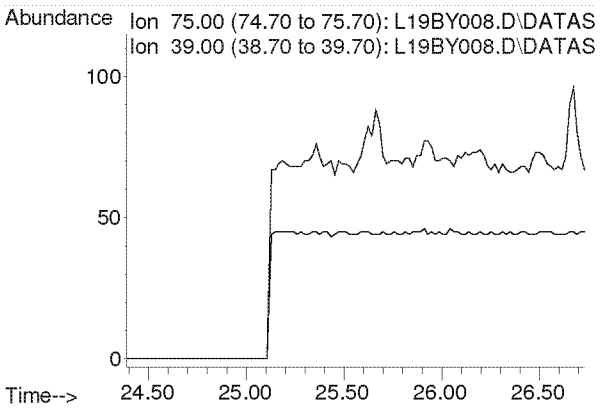


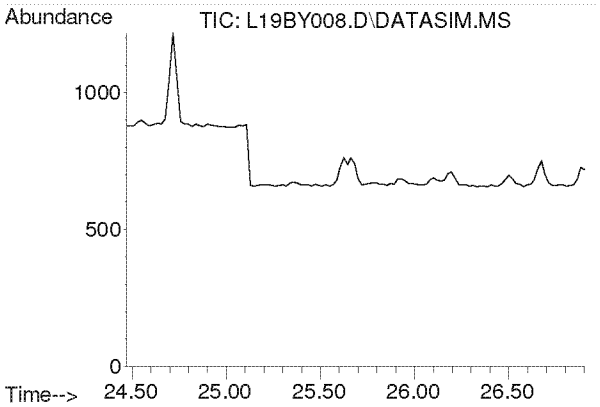
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



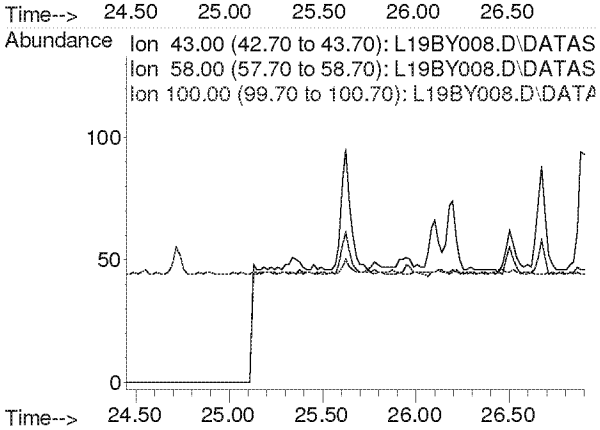


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

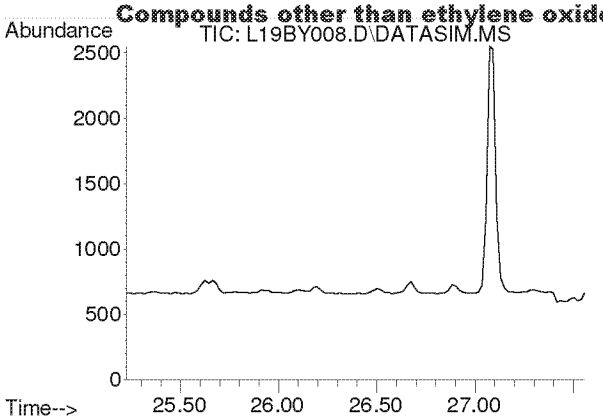
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

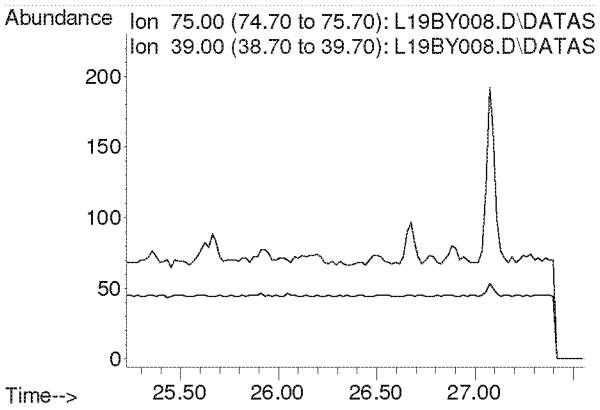


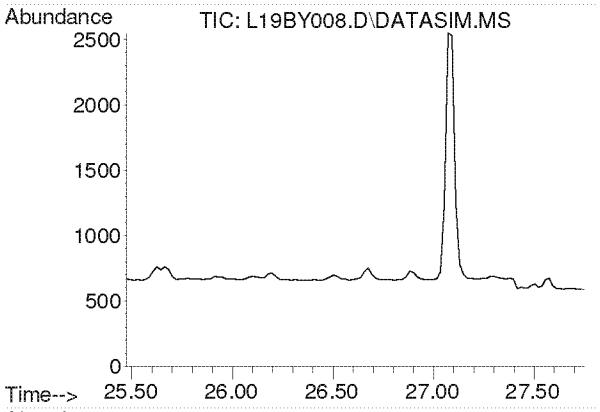
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



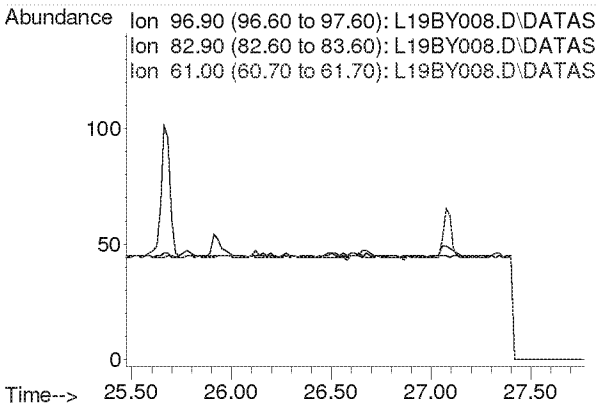


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

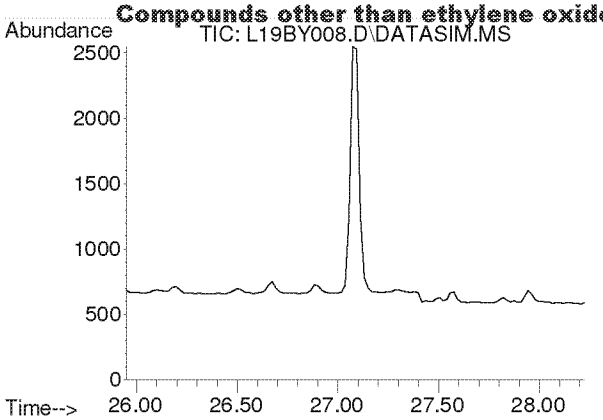
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

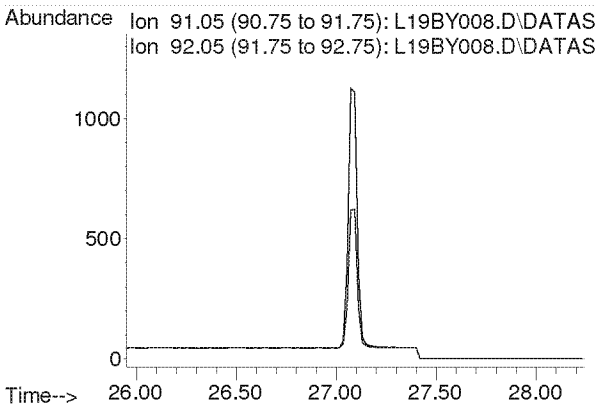


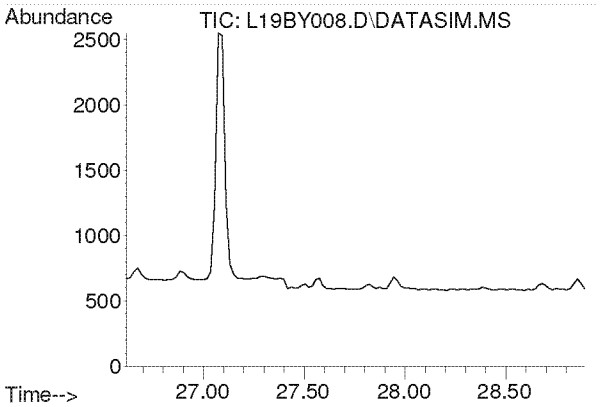
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



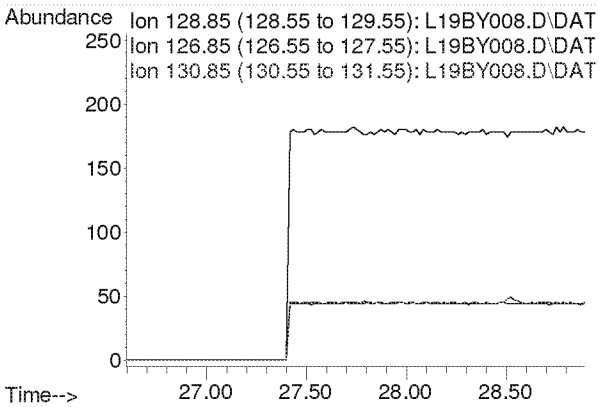


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

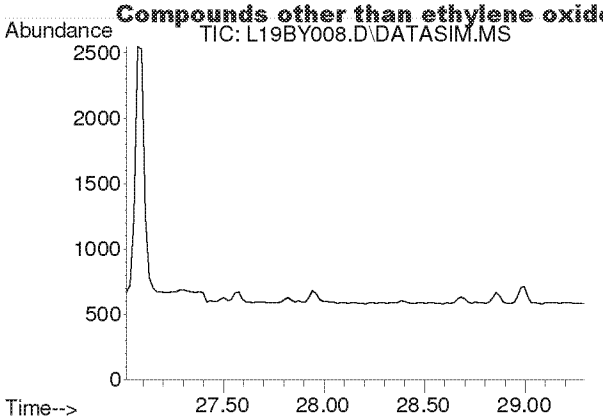
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

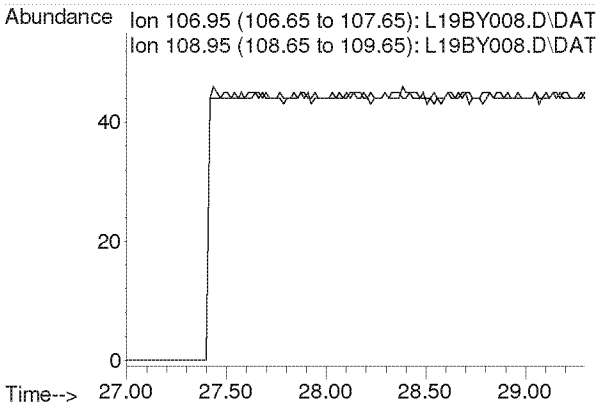


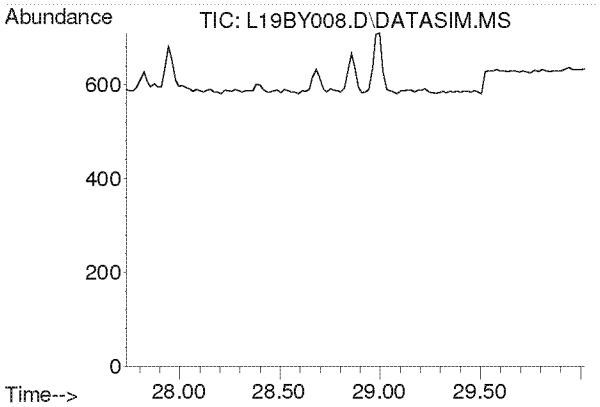
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



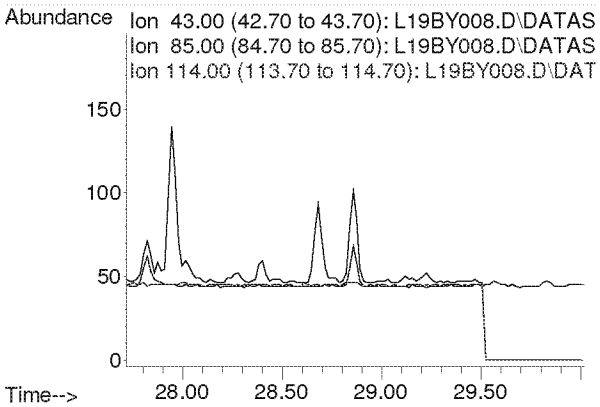


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

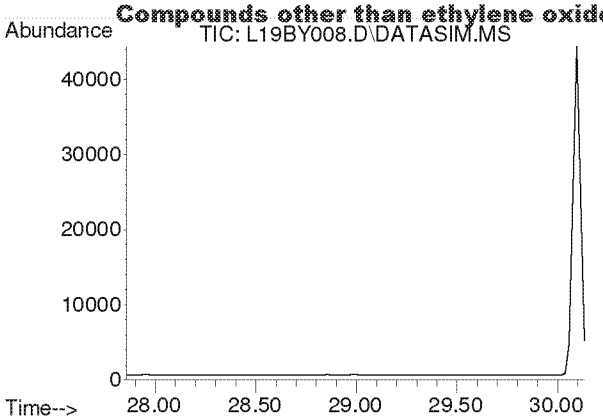
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

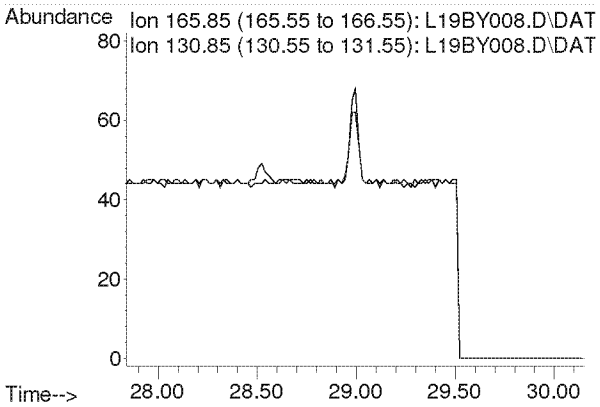


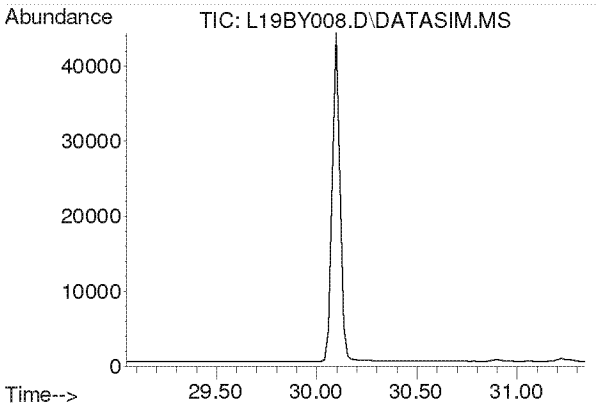
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



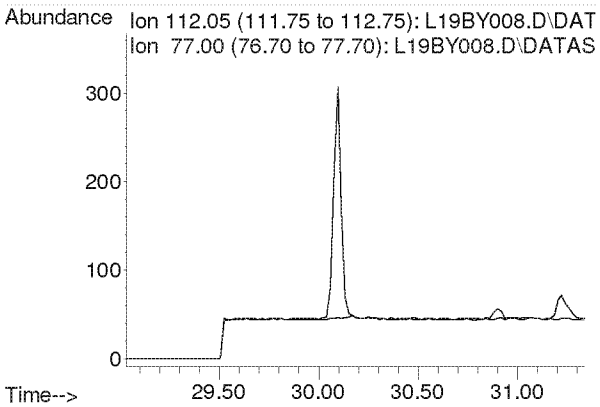


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

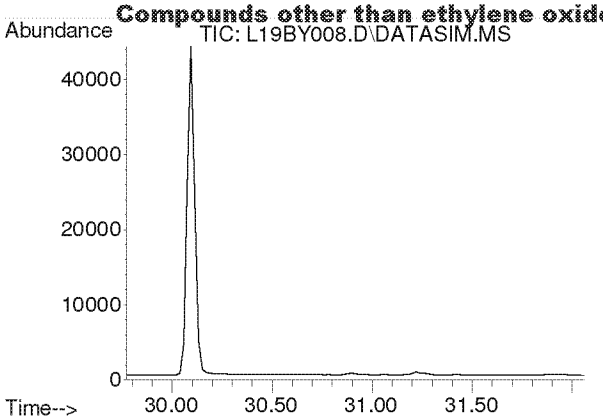
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

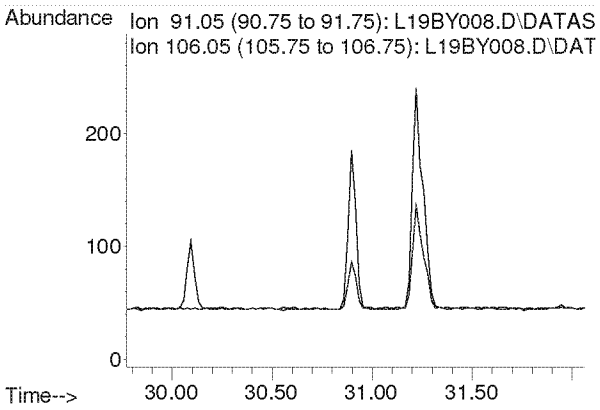


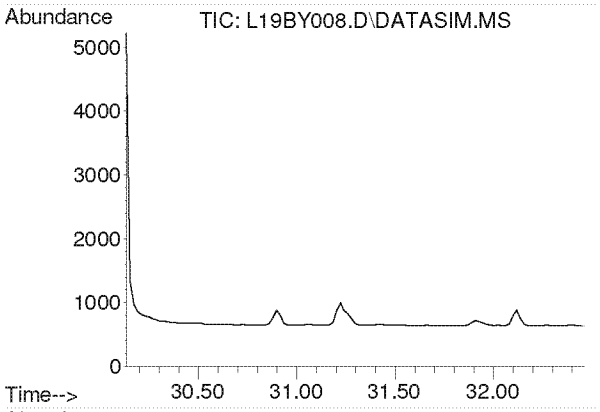
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



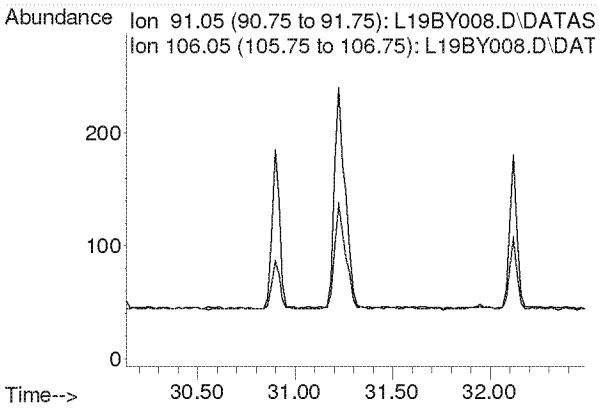


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

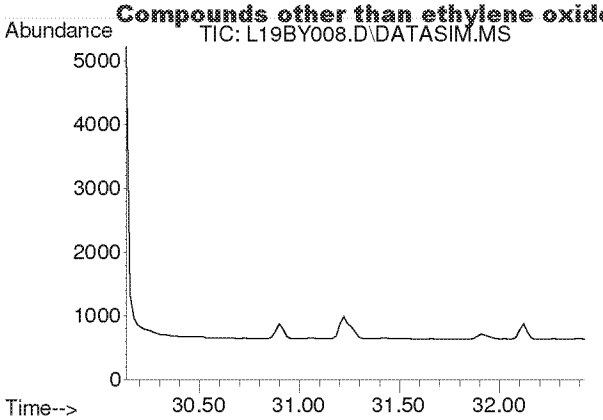
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

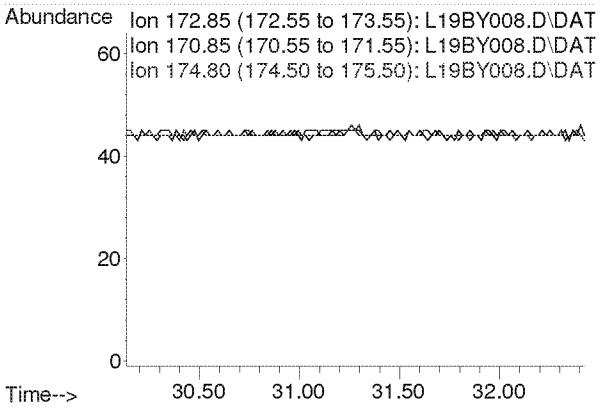


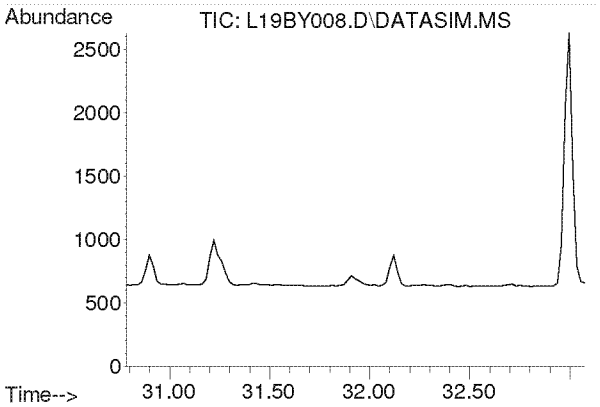
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



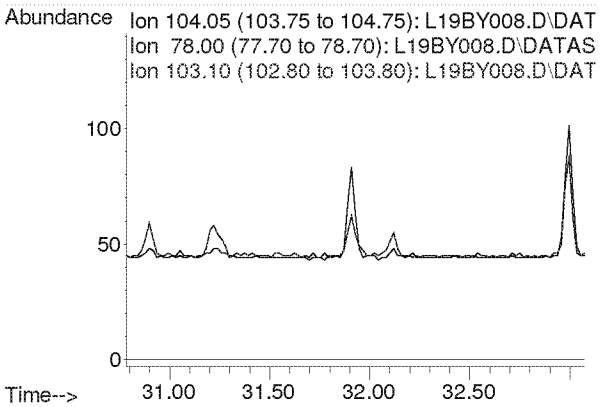


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

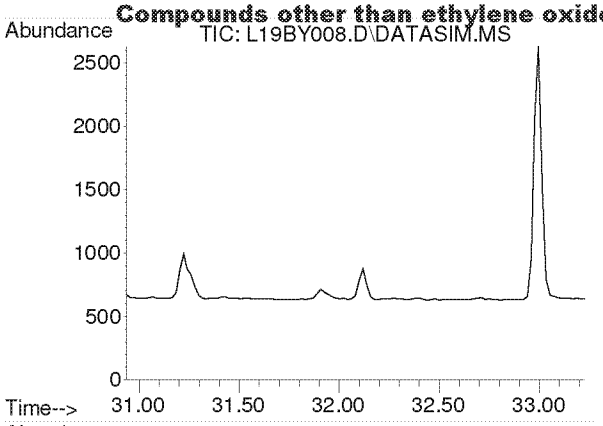
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

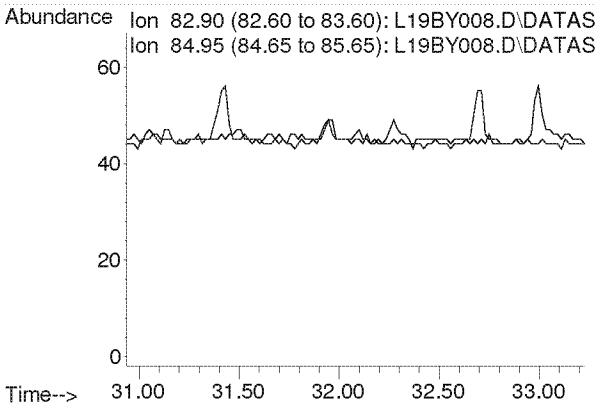


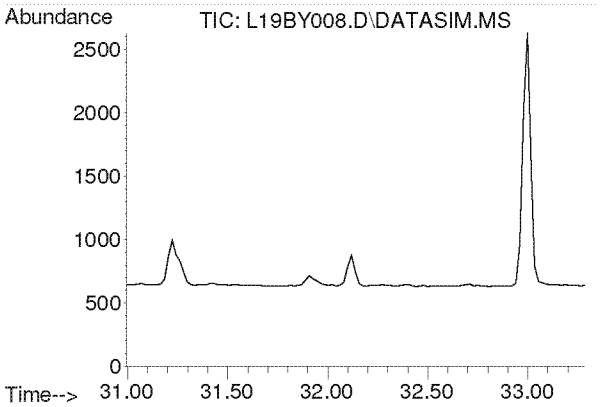
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



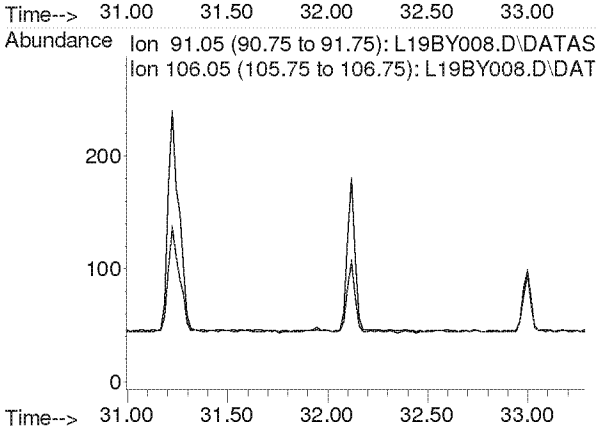


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

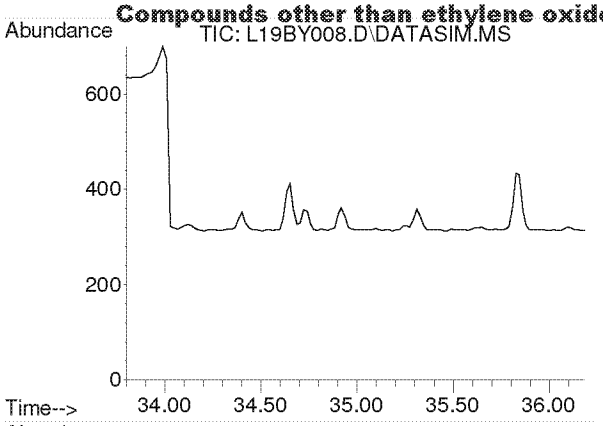
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

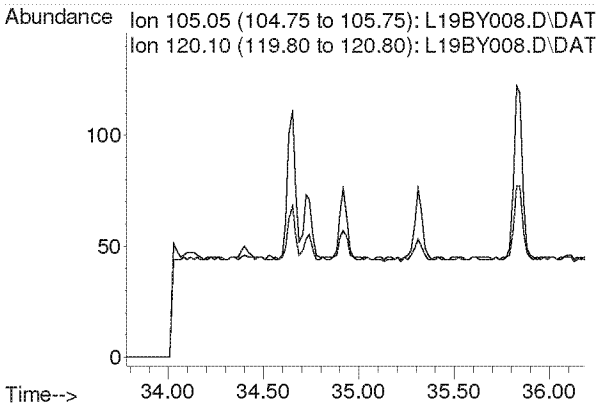


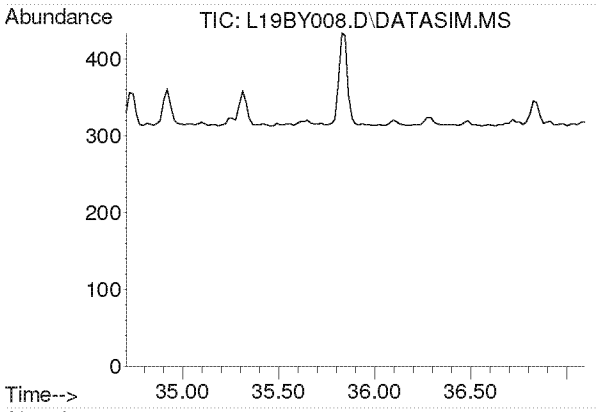
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



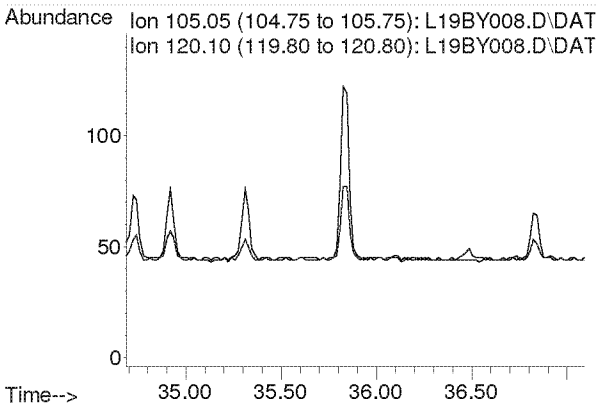


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

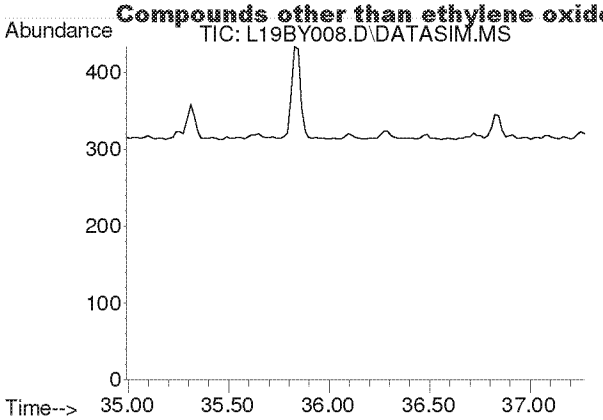
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

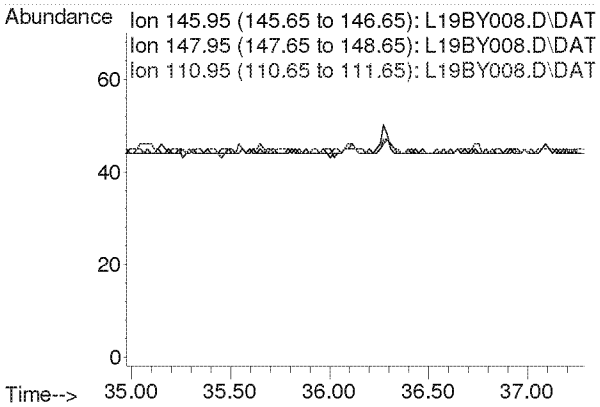


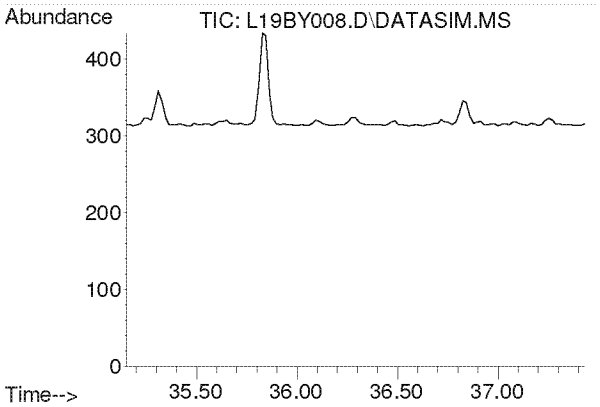
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



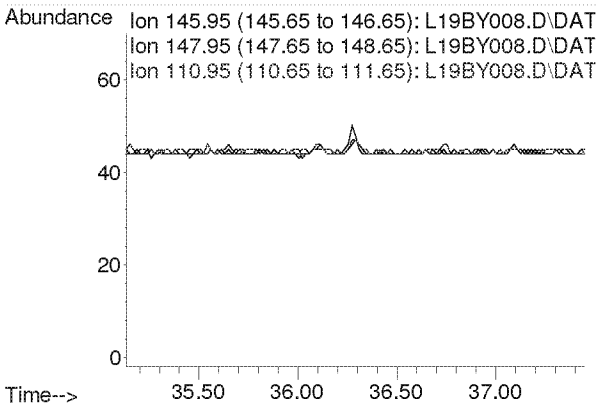


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

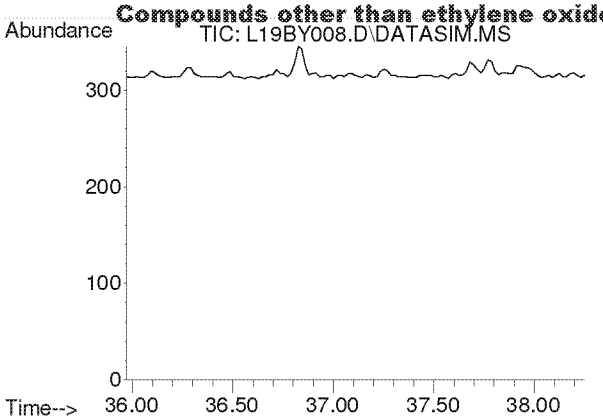
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

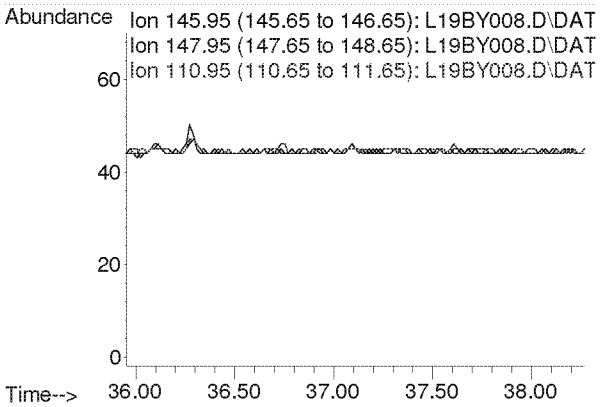


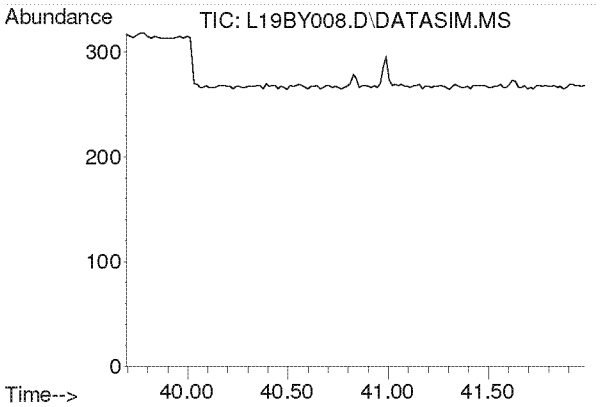
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



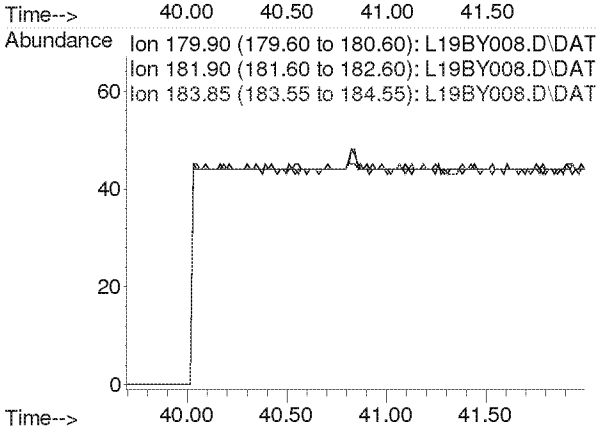


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

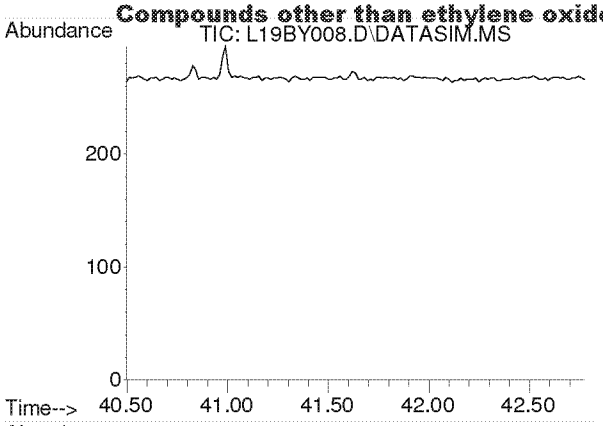
Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

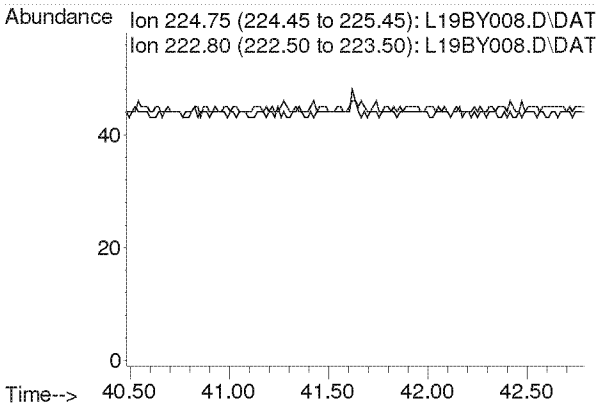


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY008.D
Acq: 25 Feb 2019 2:26 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY009.D
Acq On : 25 Feb 2019 3:26 pm
Operator : MAH
Sample : B9B2507-DUP1
Misc : WB VILLAGE HALL R1 2/20/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 26 10:06:57 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	39427	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	99284	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	69914	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.483	29	249m	0.1104 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. 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\L19BY\
Data File : L19BY009.D
Acq On : 25 Feb 2019 3:26 pm
Operator : MAH
Sample : B9B2507-DUP1
Misc : WB VILLAGE HALL R1 2/20/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 26 10:06:57 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

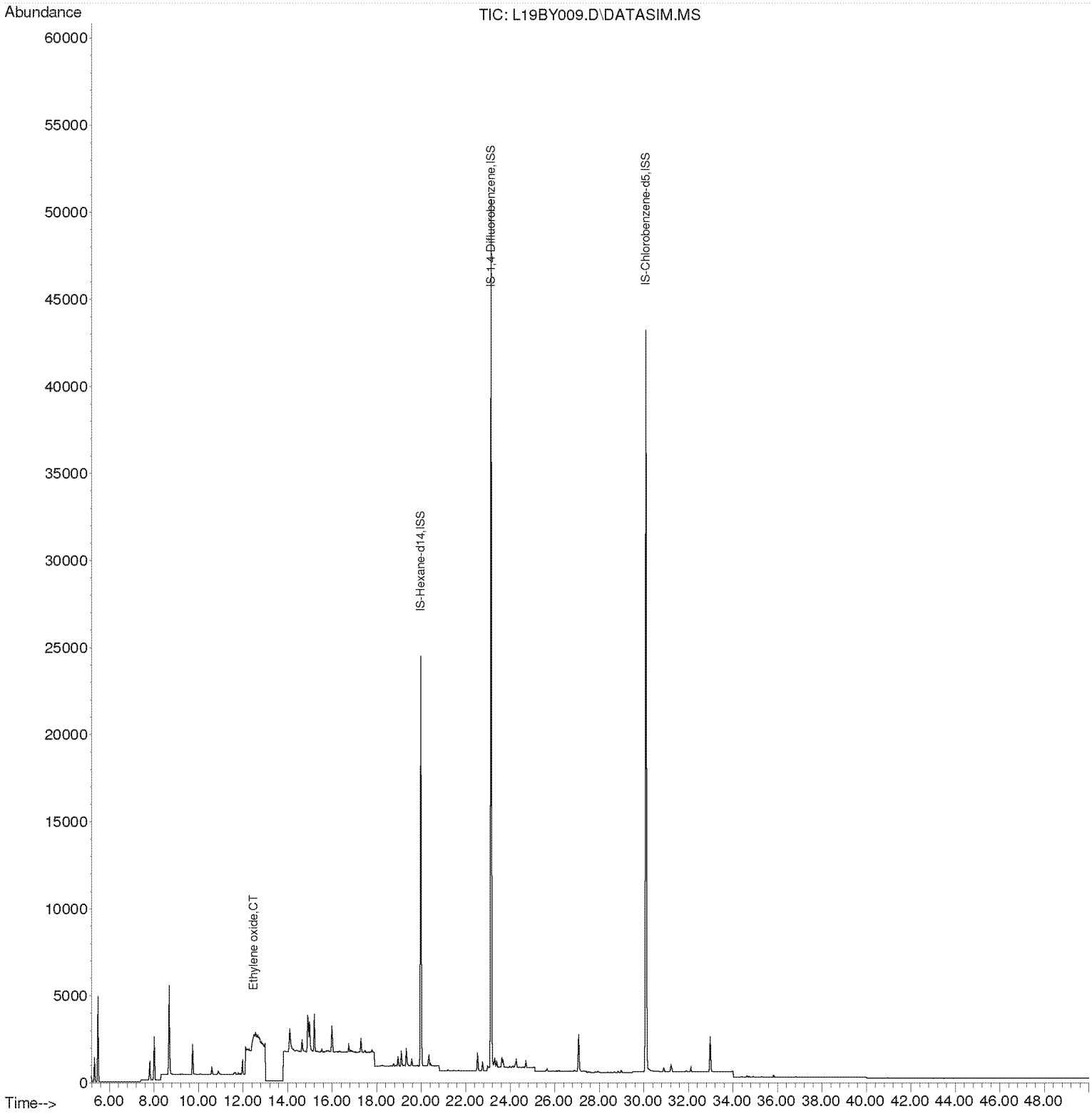
(d) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000298-00184

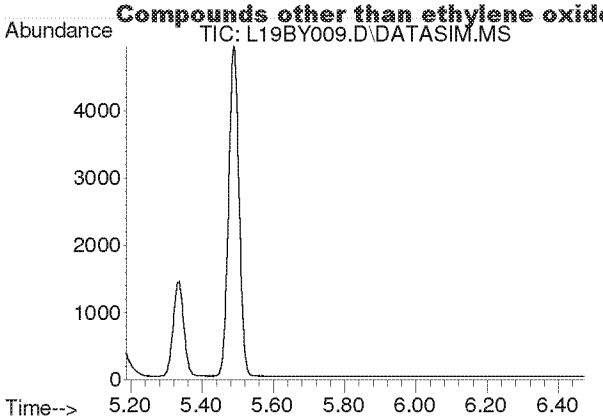
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY009.D
Acq On : 25 Feb 2019 3:26 pm
Operator : MAH
Sample : B9B2507-DUP1
Misc : WB VILLAGE HALL R1 2/20/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 26 09:54:09 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



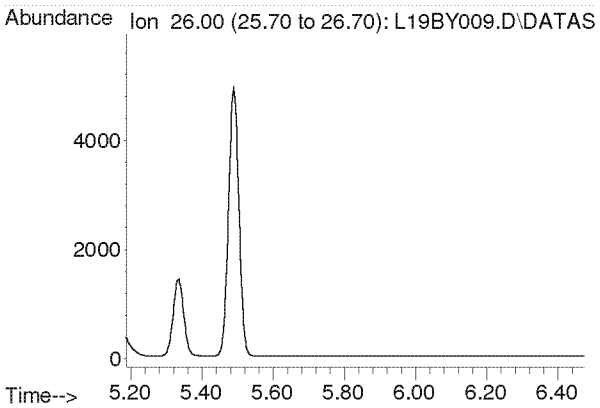
Compounds other than ethylene oxide were not quantitated.

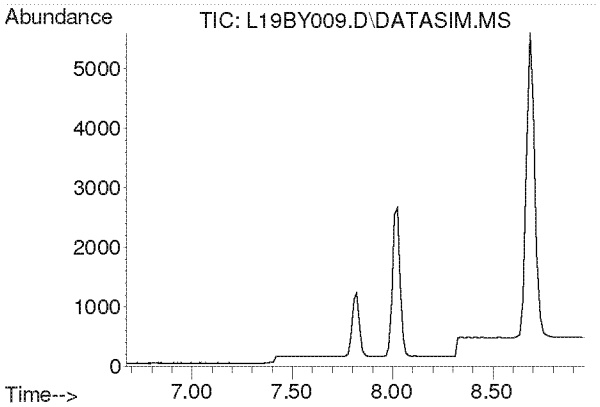


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 26



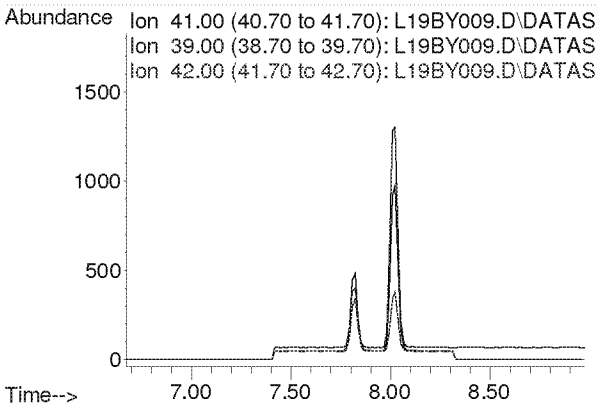


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

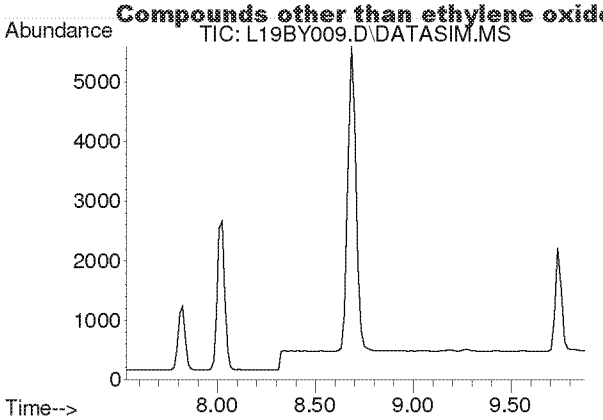
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

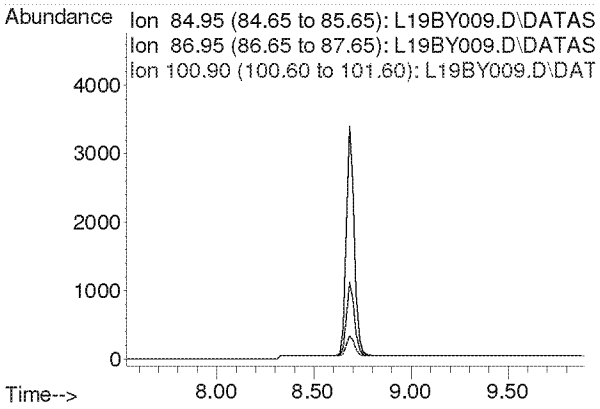


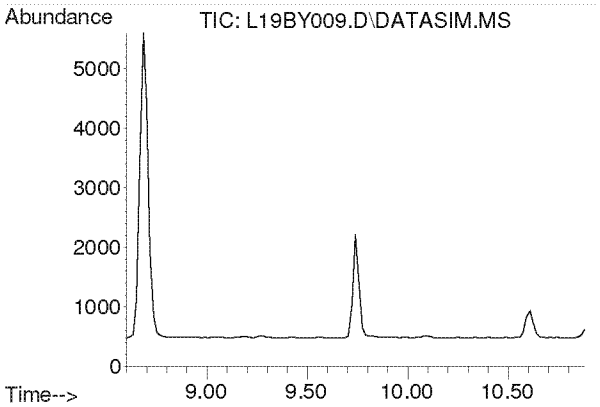
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



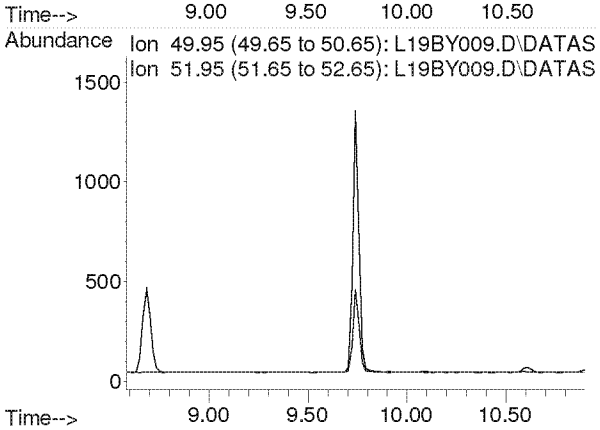


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

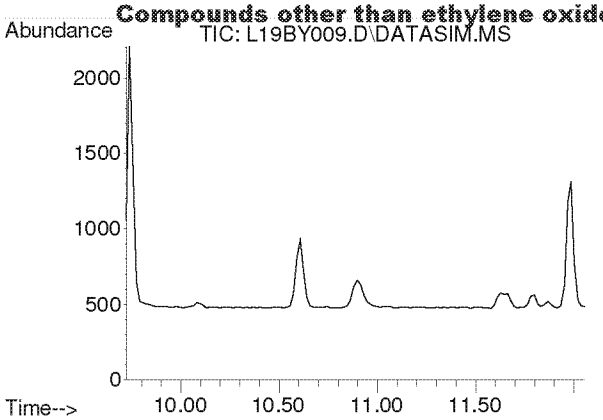
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

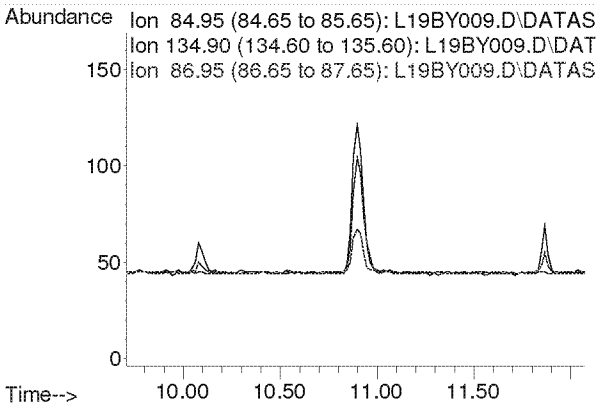


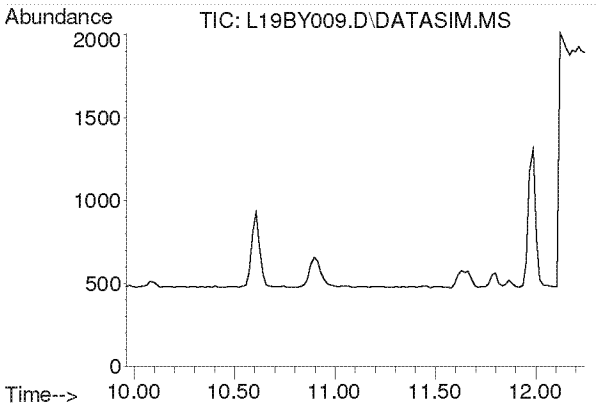
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



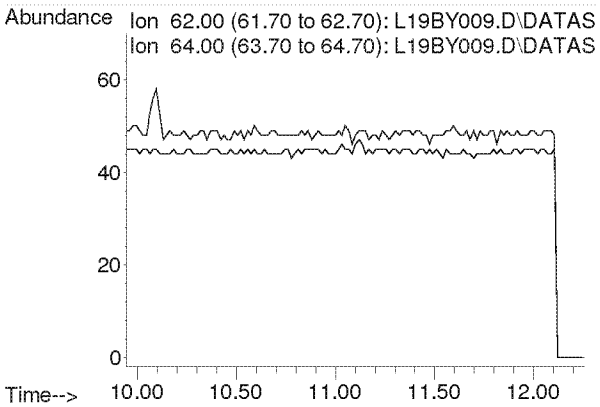


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

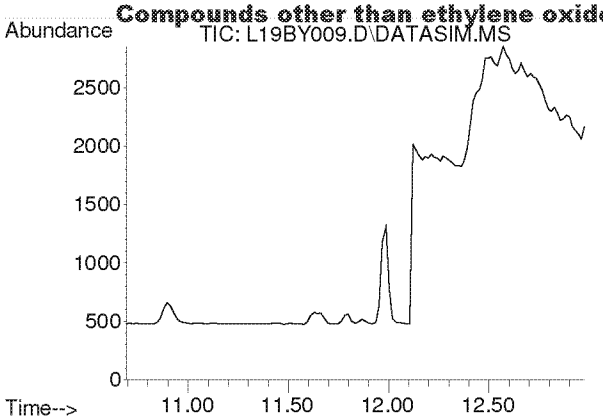
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

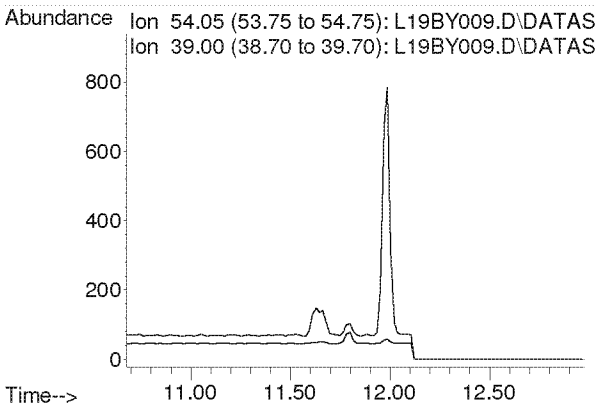


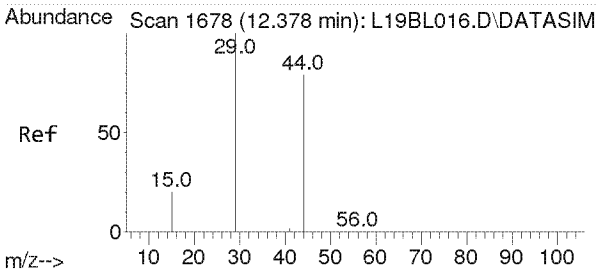
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

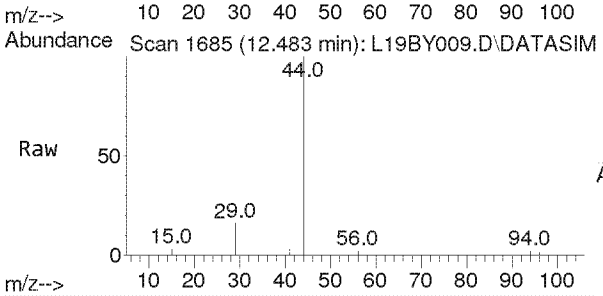


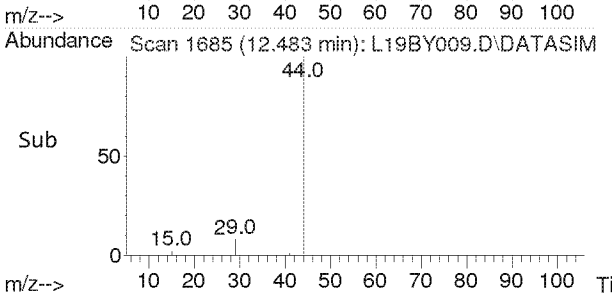


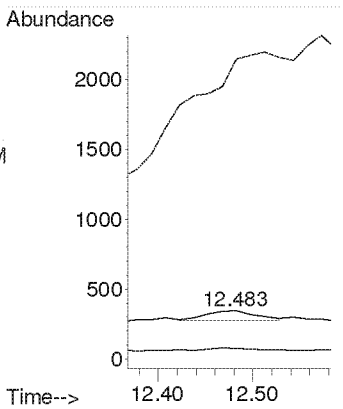
#9
Ethylene oxide
Concen: 0.110 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.033 min
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 29 Resp: 249

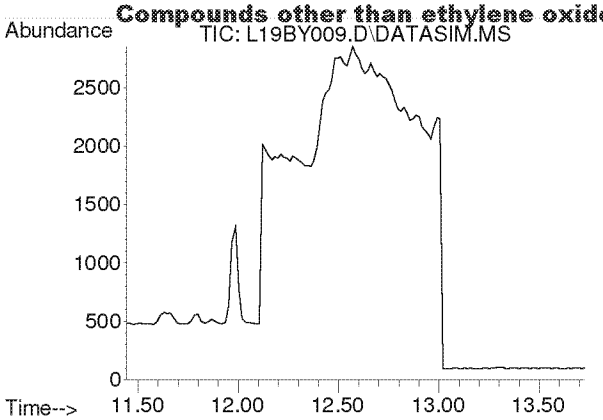
Ion	Ratio	Lower	Upper
29	100		
15	35.7	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

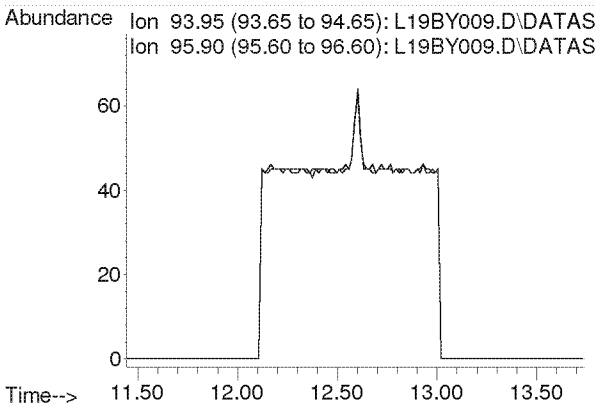


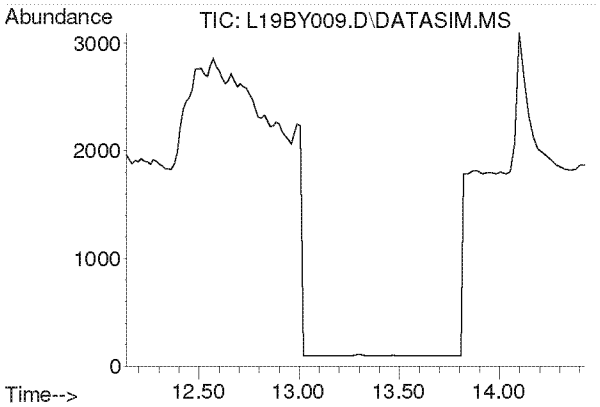
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



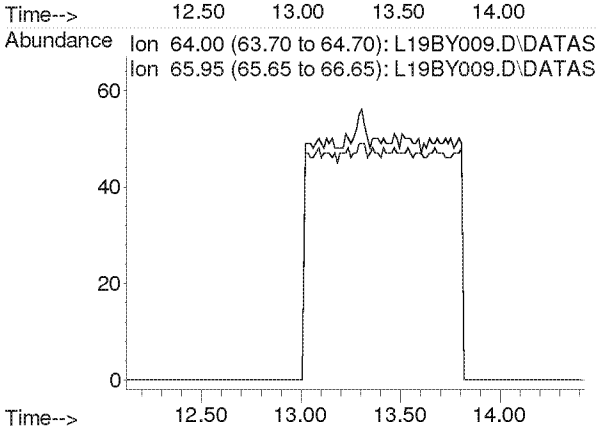


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

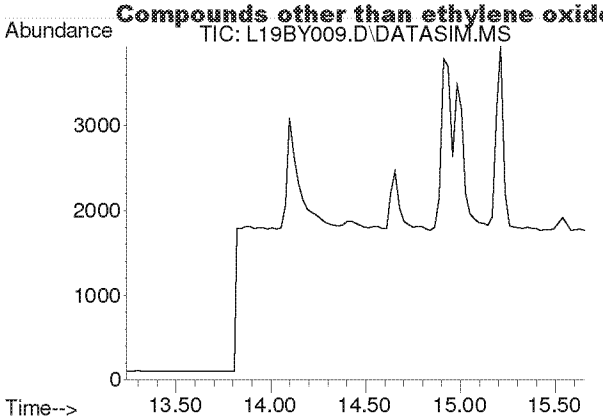
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

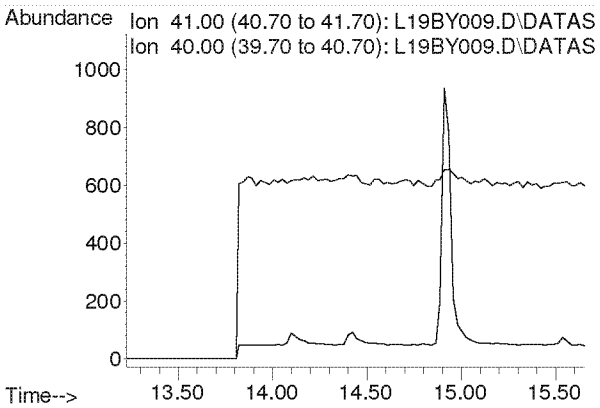


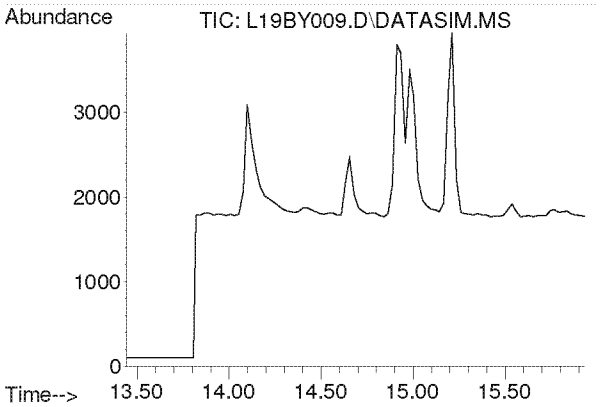
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



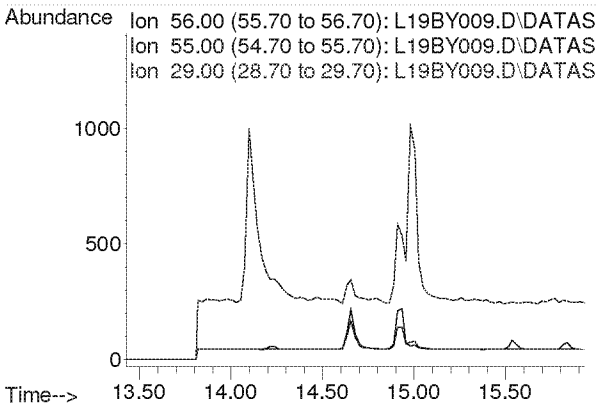


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

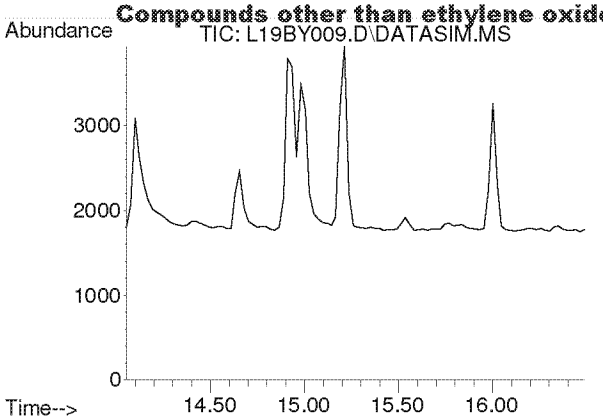
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

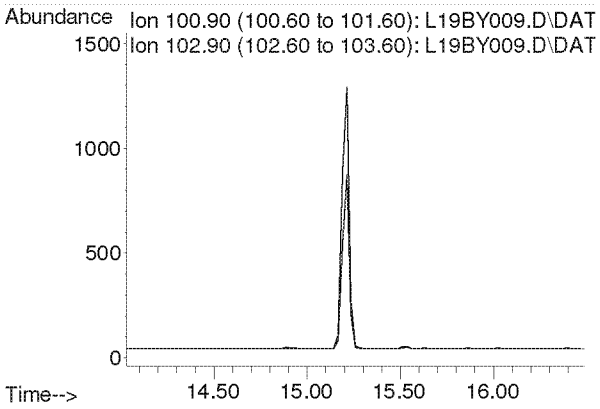


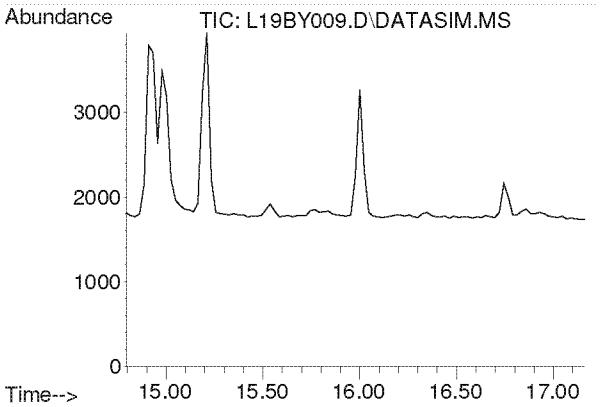
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



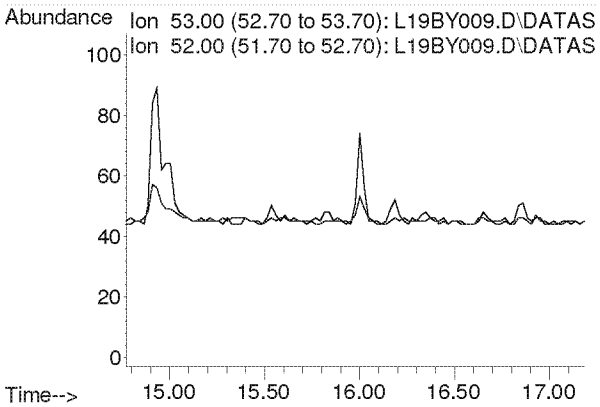


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

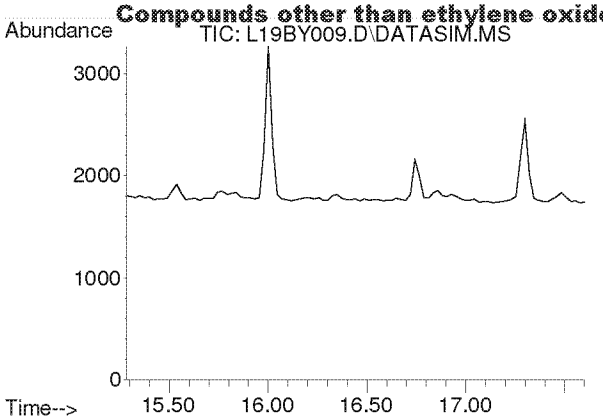
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

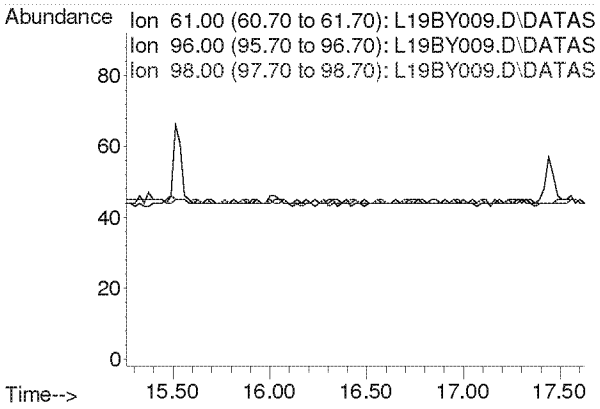


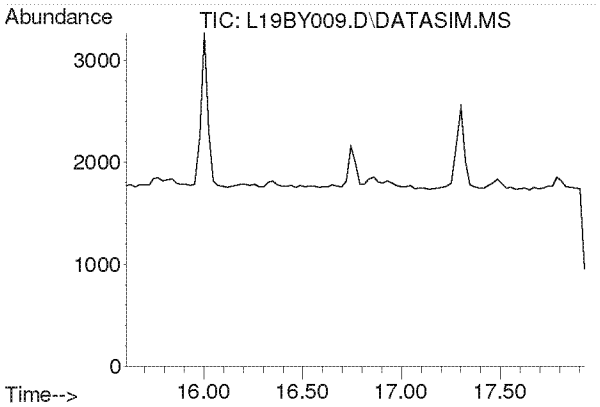
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



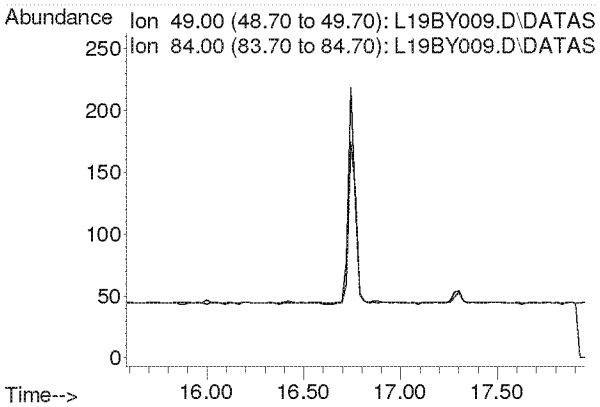


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

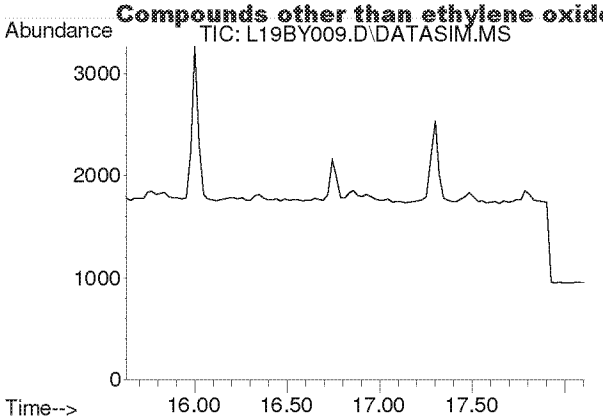
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

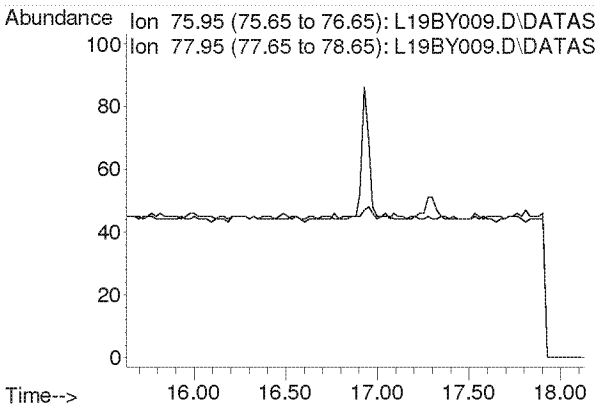


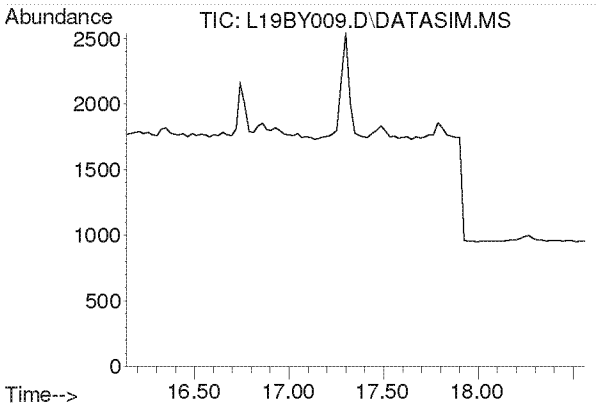
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



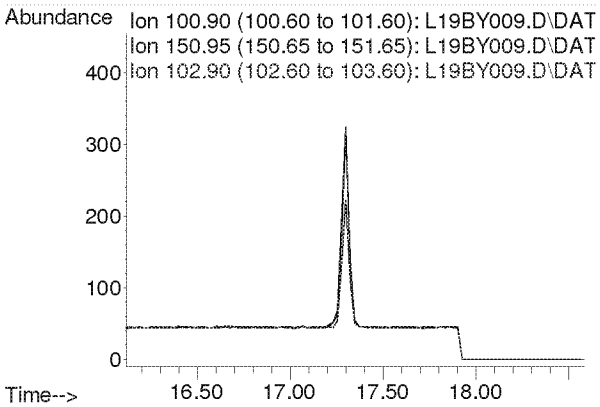


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

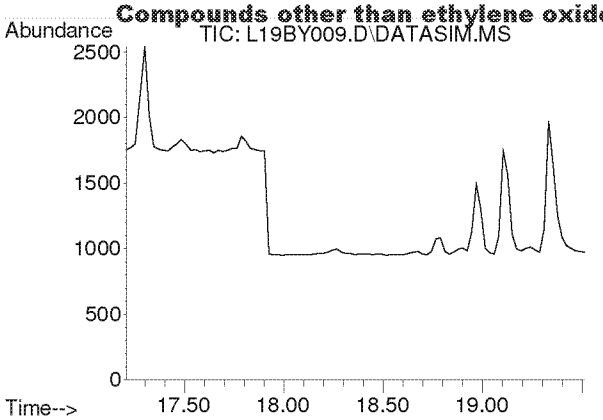
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

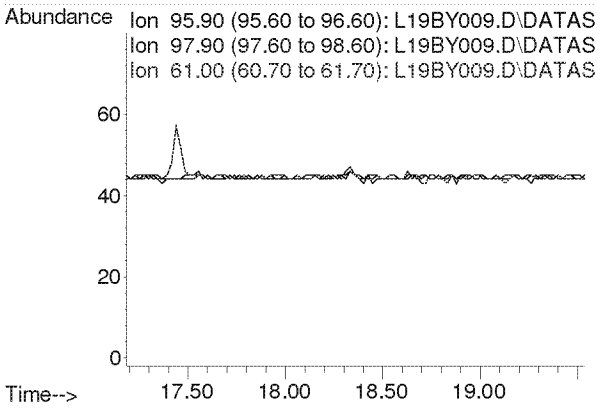


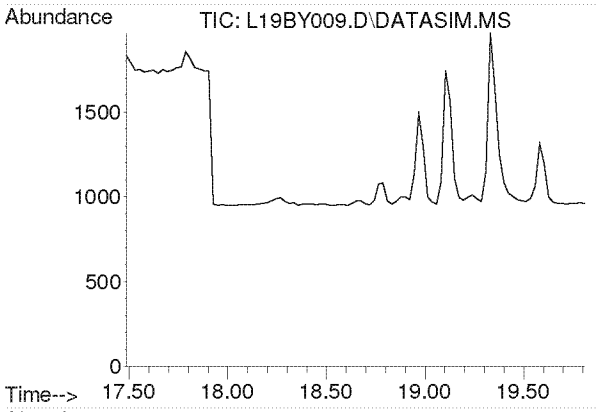
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



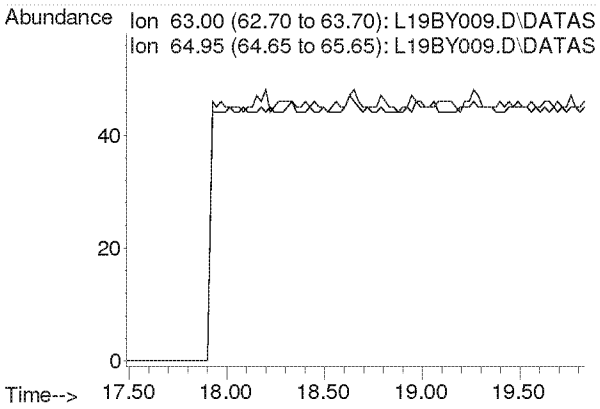


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

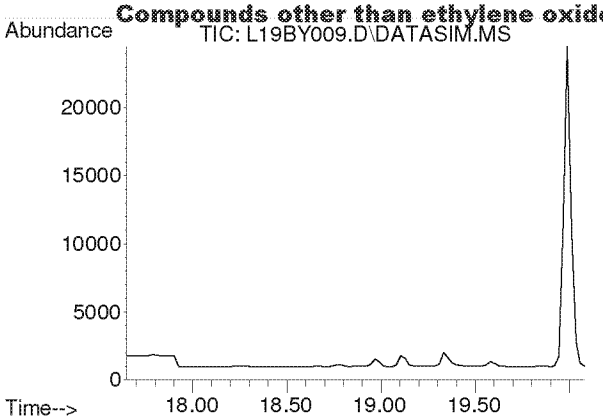
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

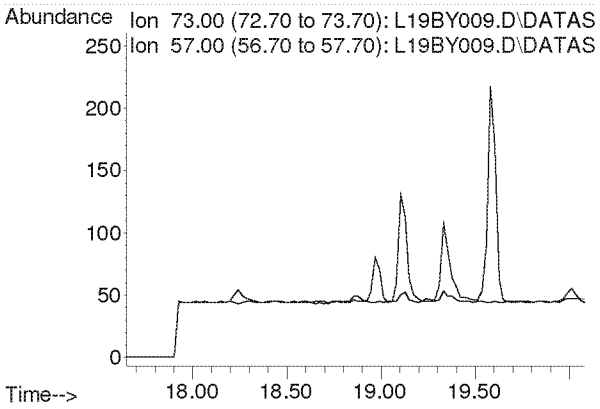


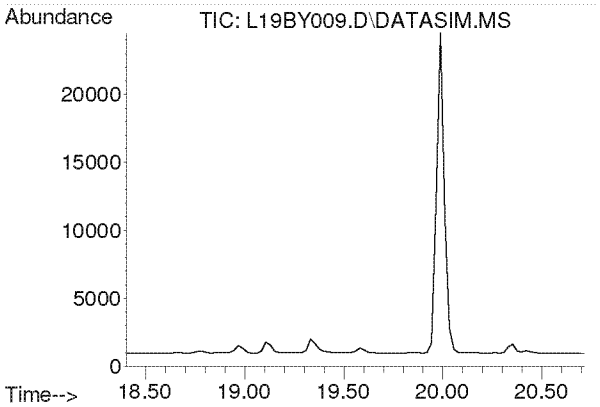
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



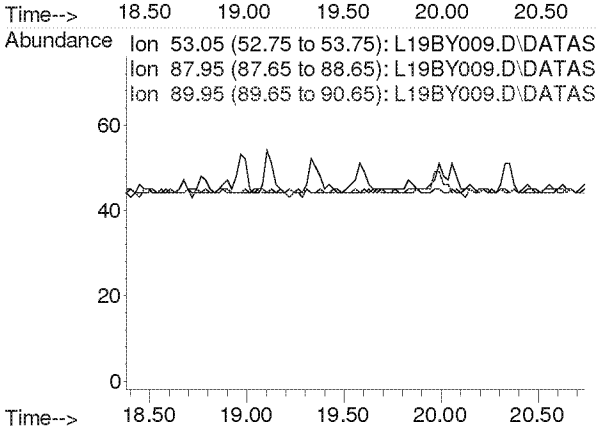


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

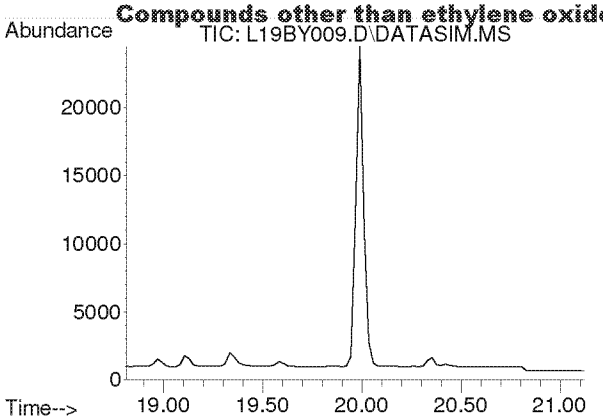
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

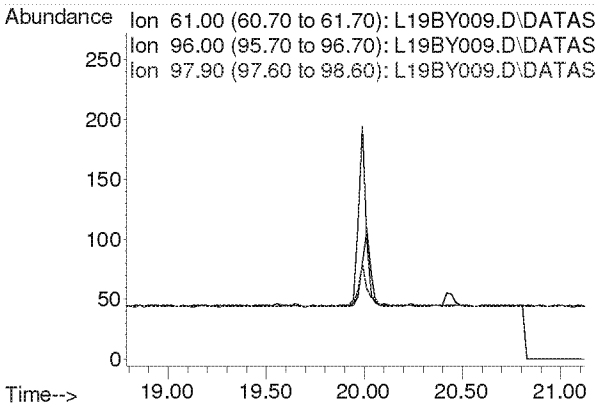


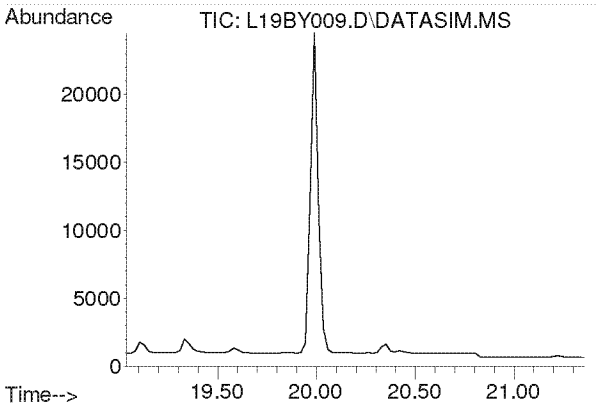
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



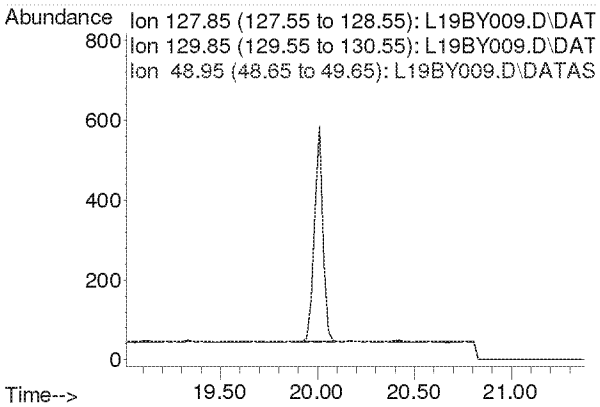


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

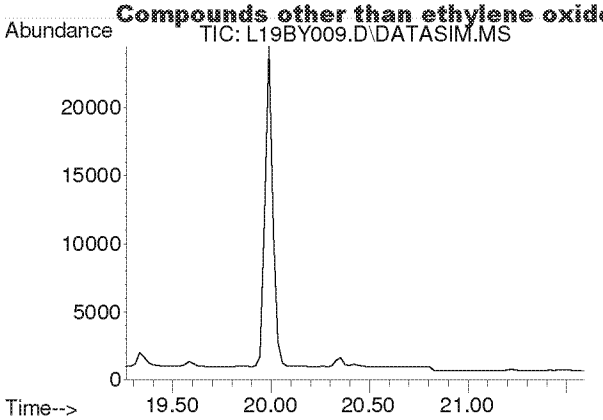
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

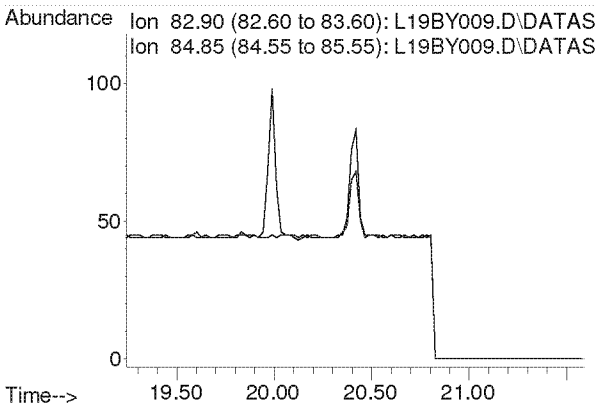


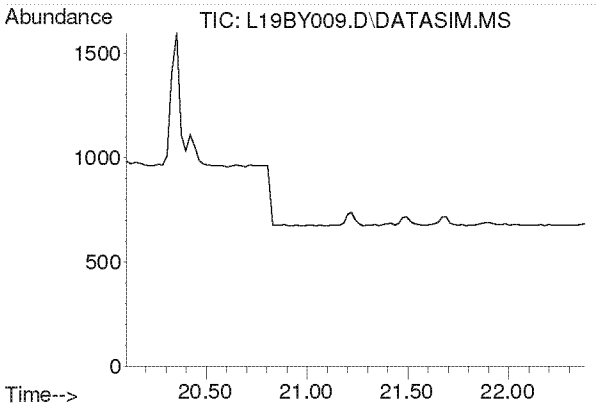
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



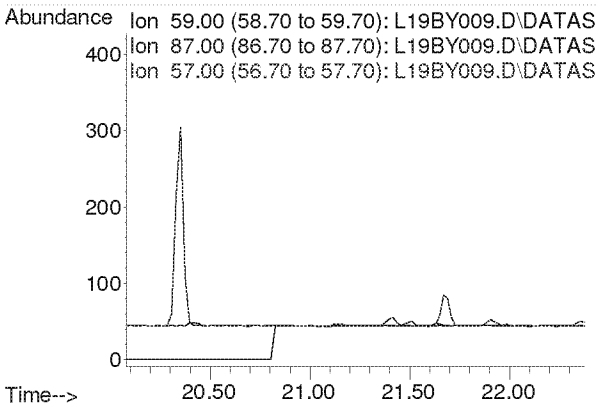


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

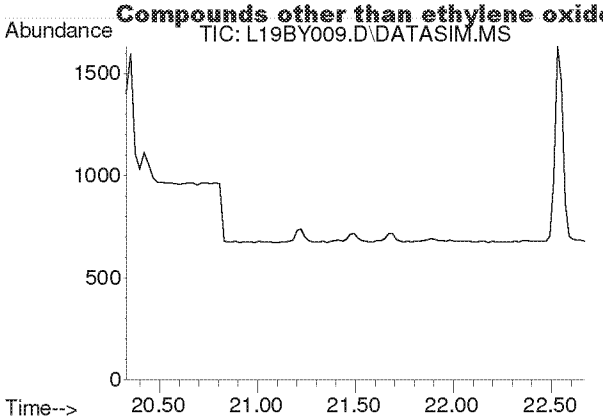
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

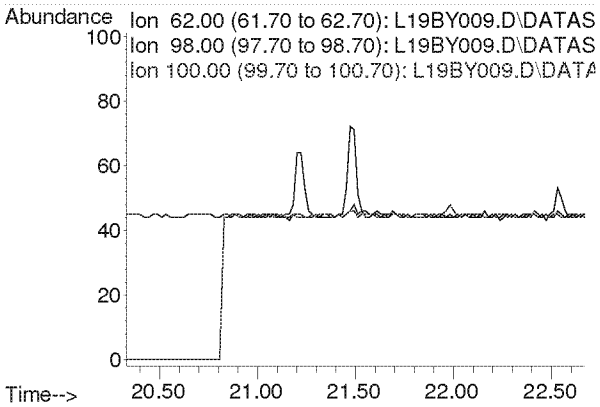


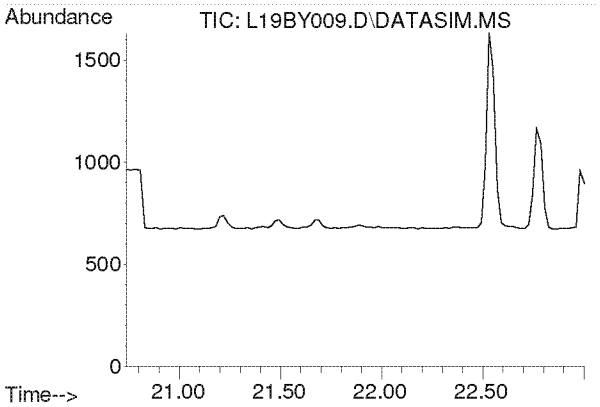
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



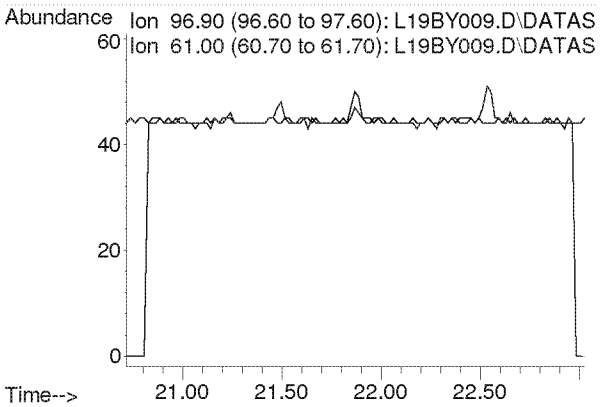


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

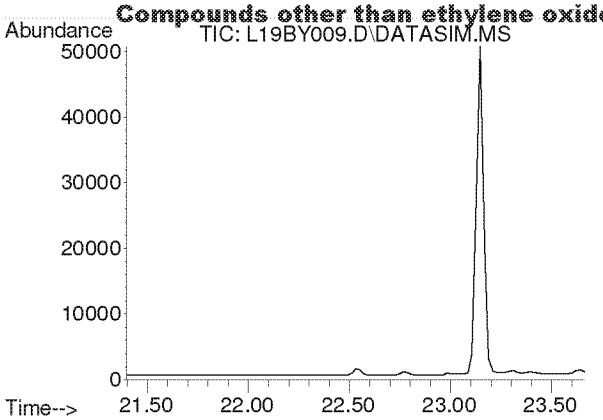
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

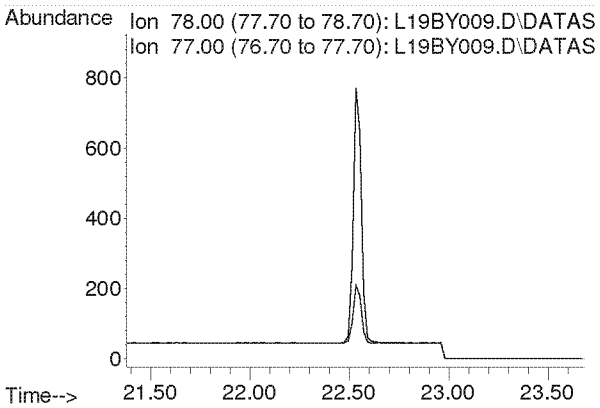


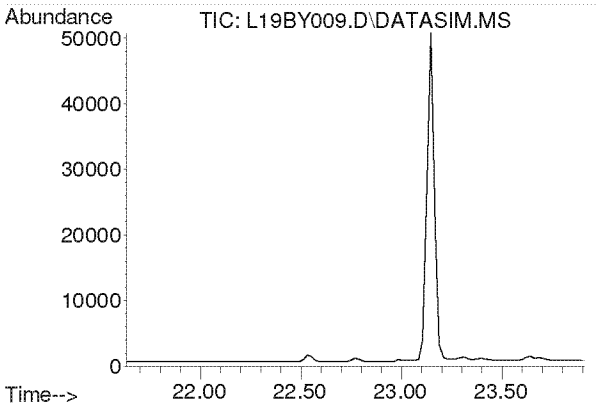
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



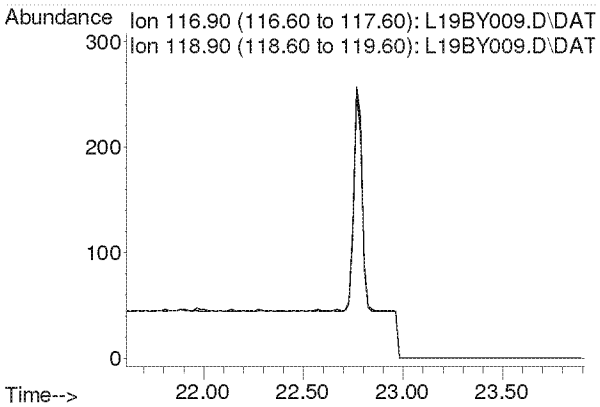


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

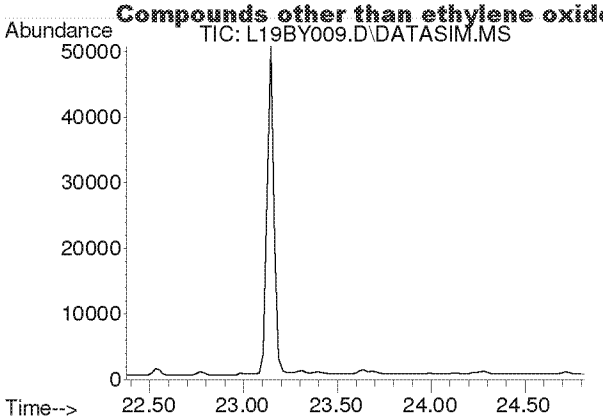
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

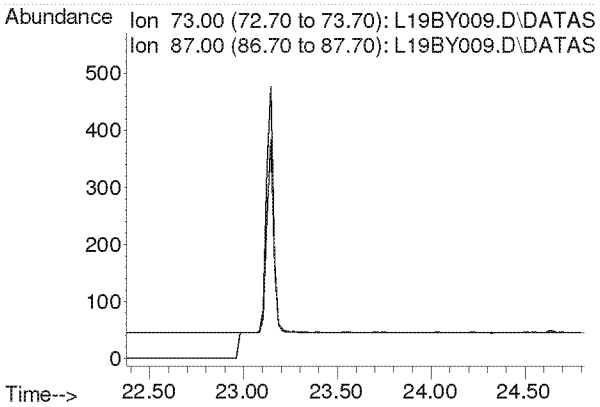


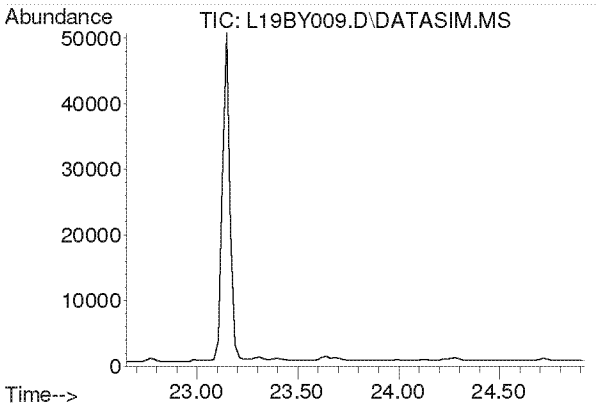
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



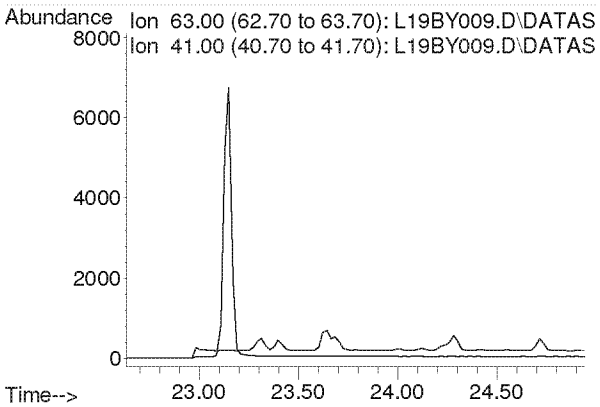


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

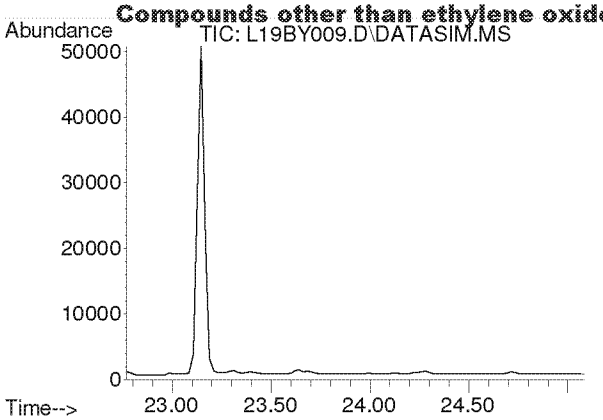
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

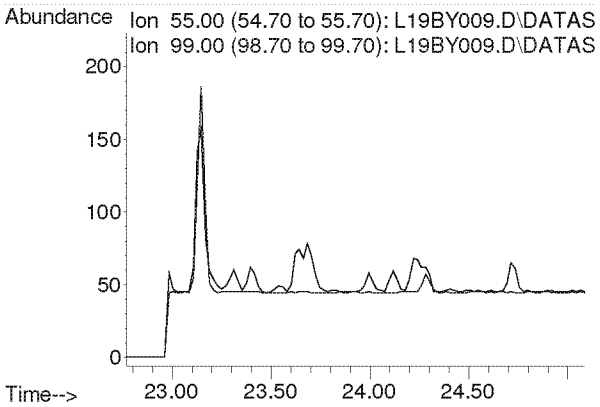


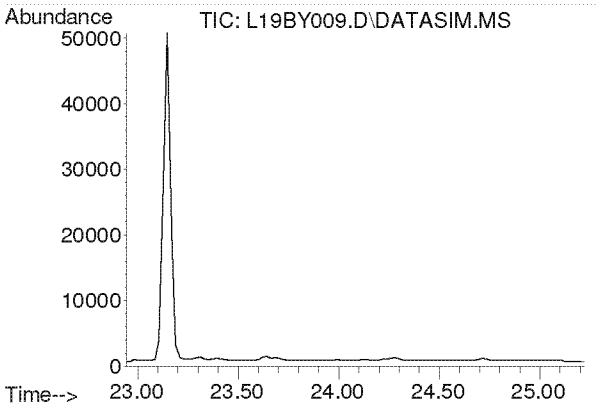
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



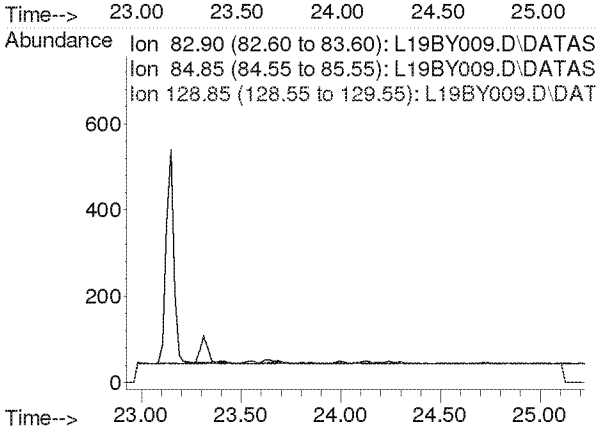


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

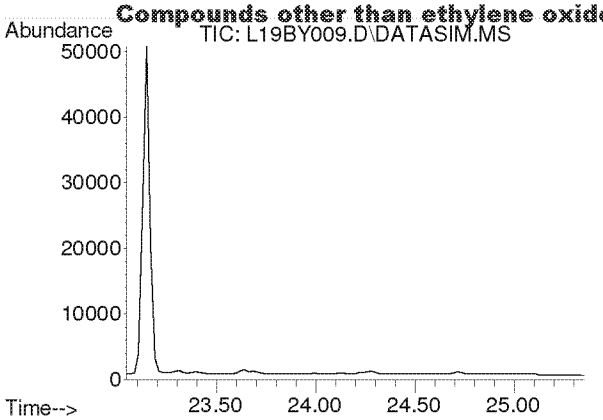
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

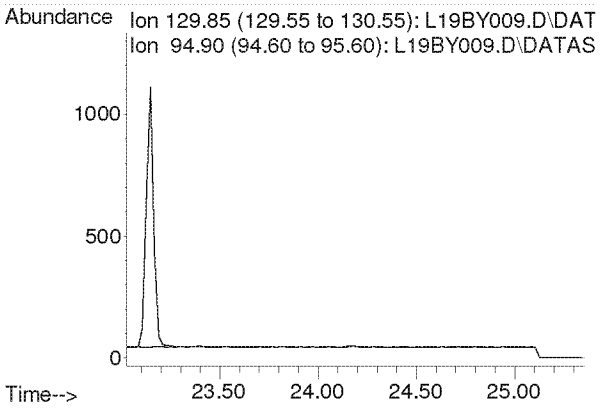


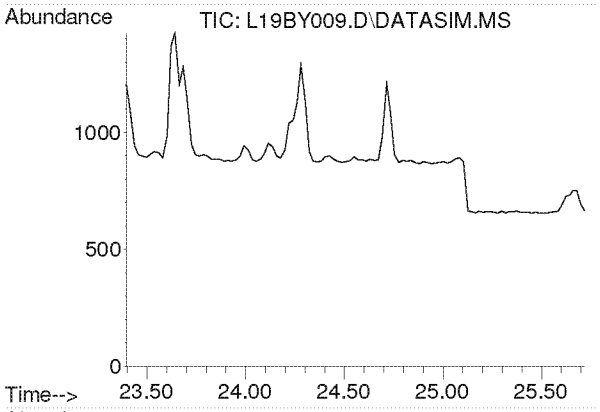
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



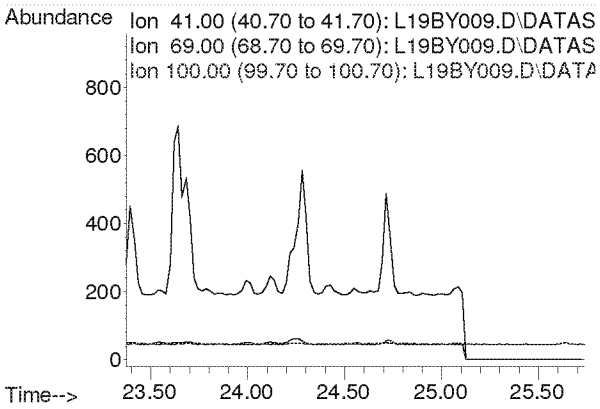


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

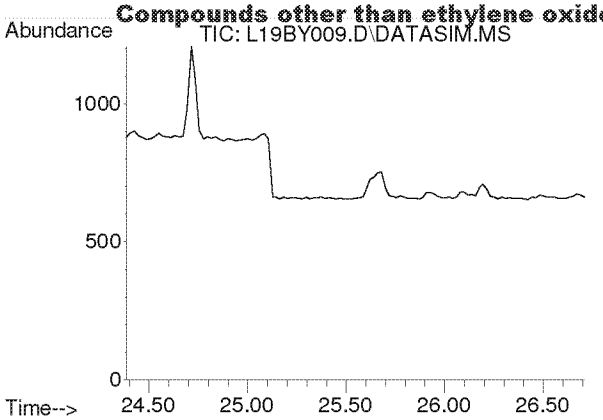
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

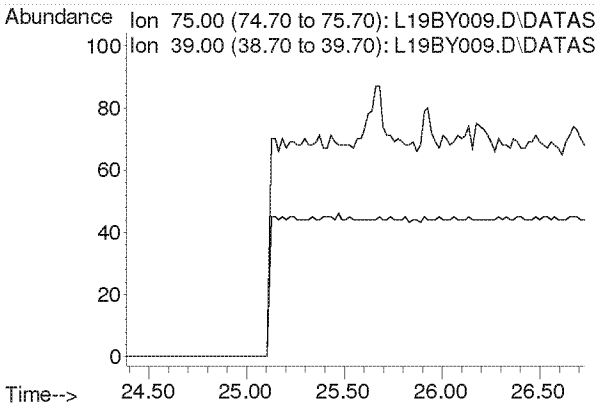


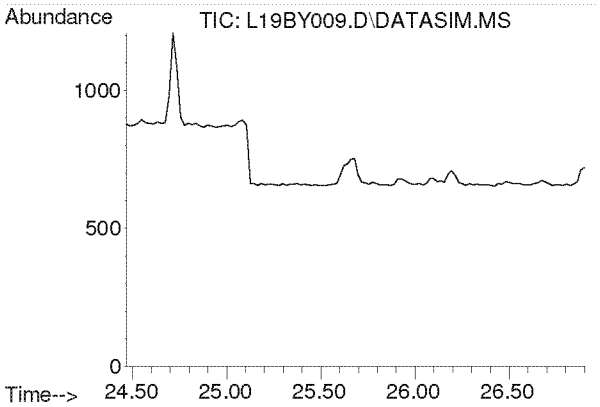
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



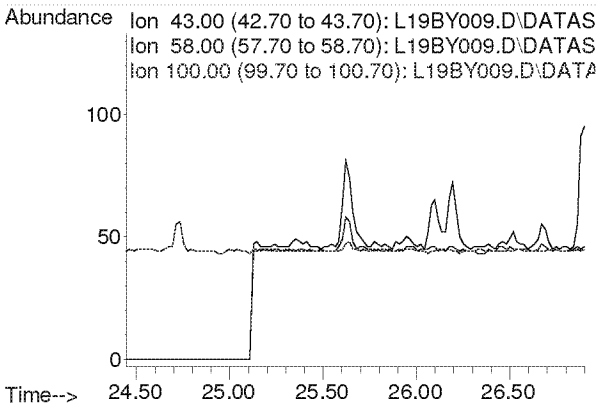


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

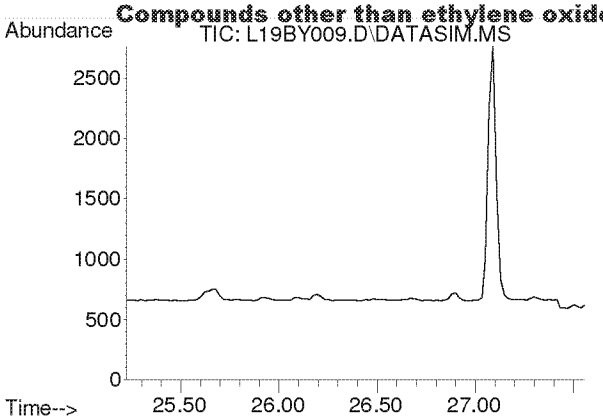
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

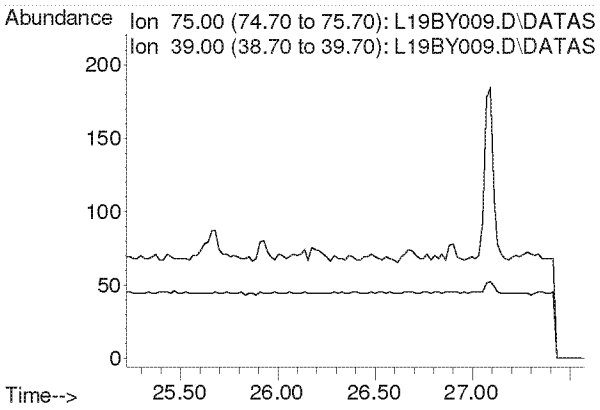


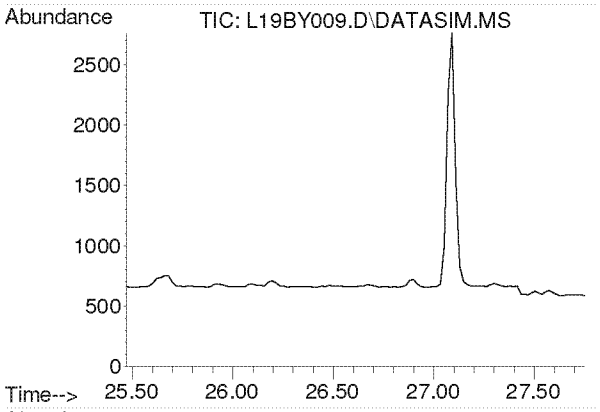
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



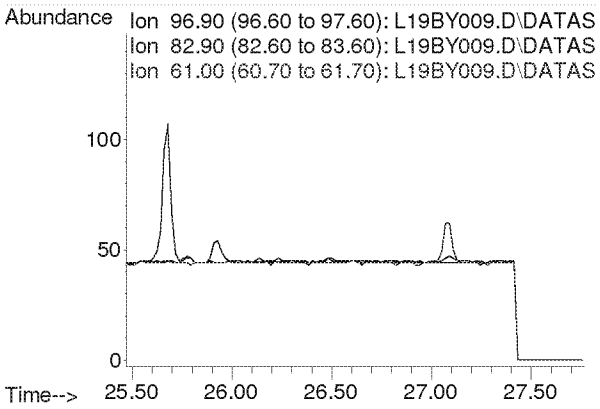


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

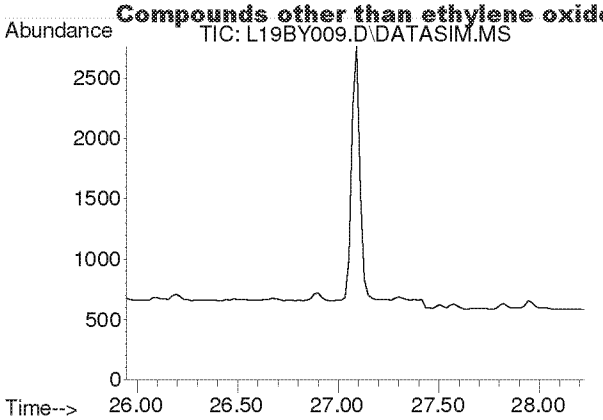
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

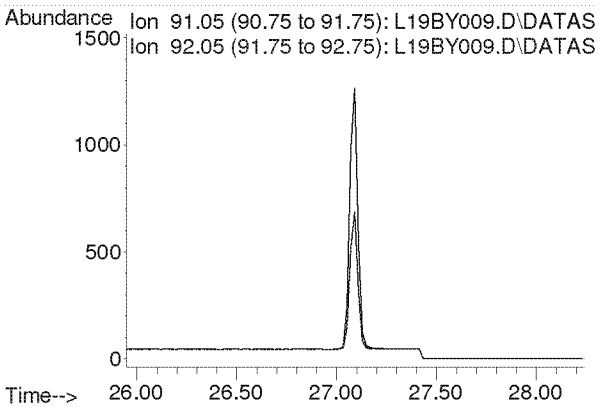


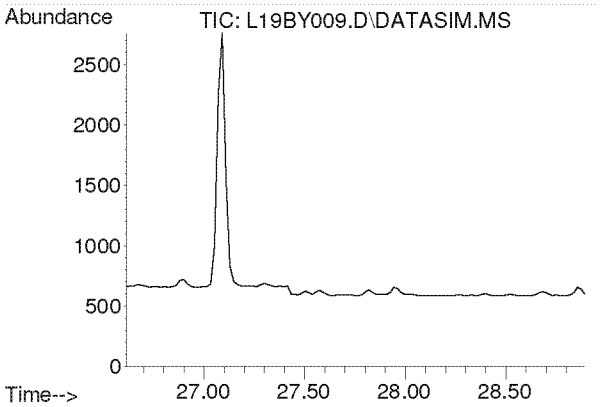
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



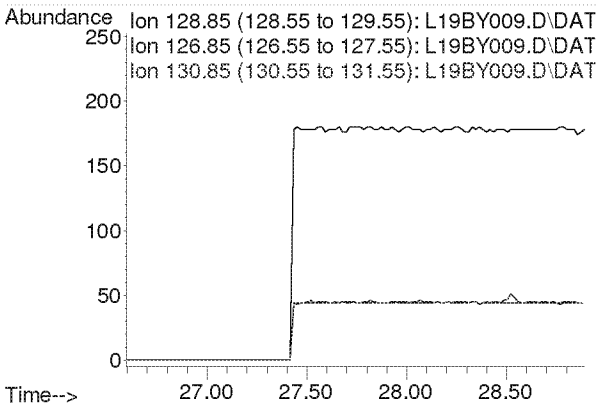


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

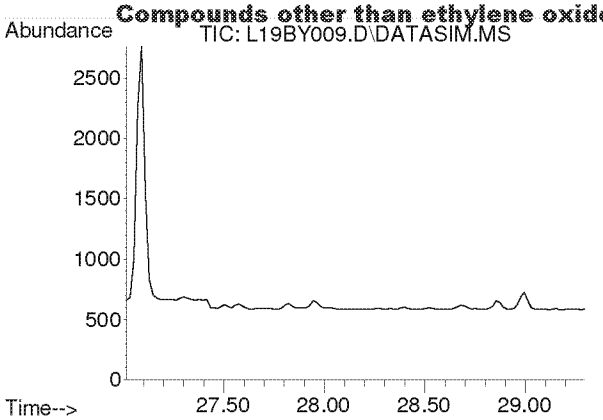
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

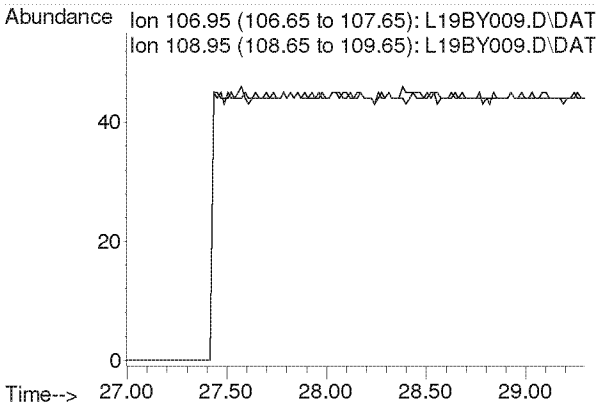


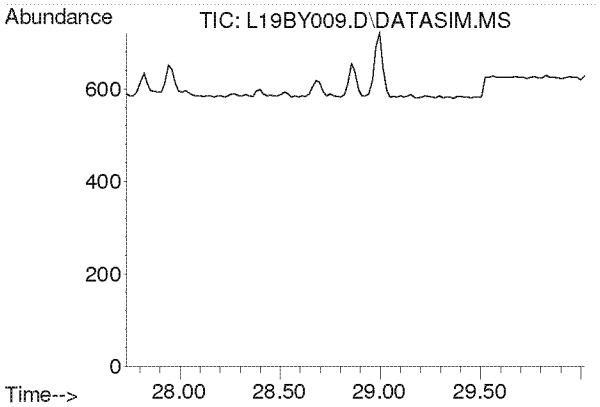
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



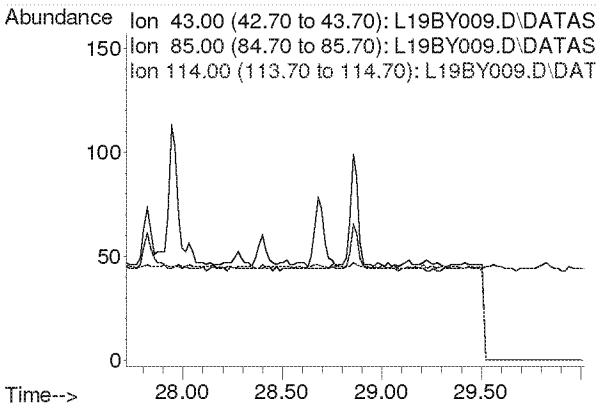


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

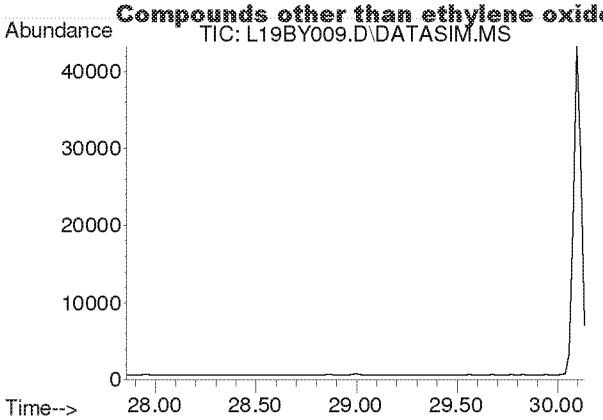
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

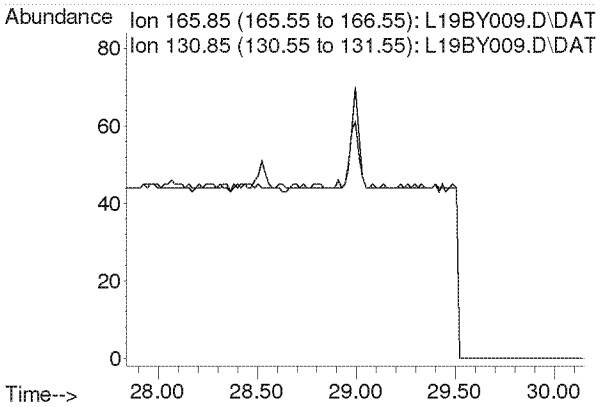


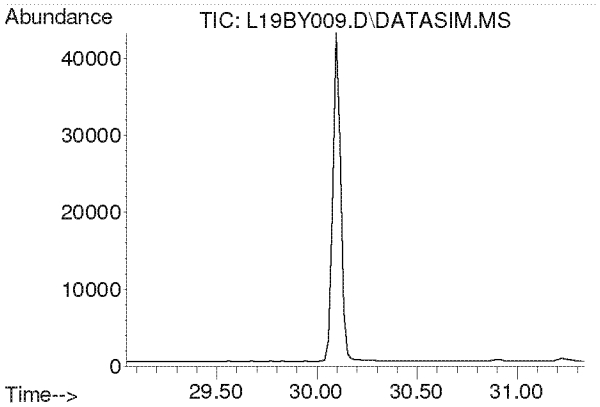
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



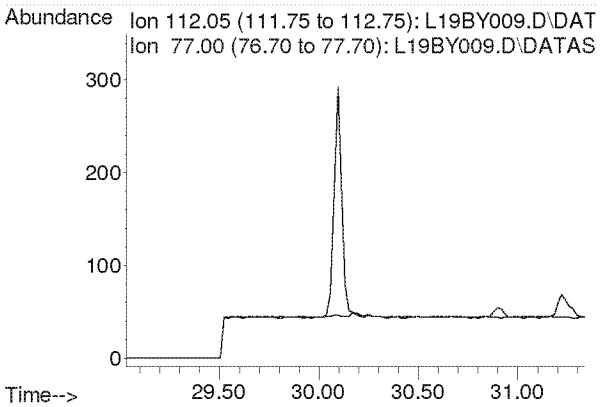


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

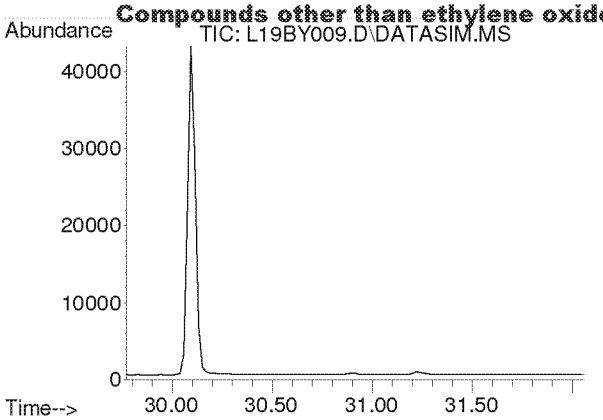
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

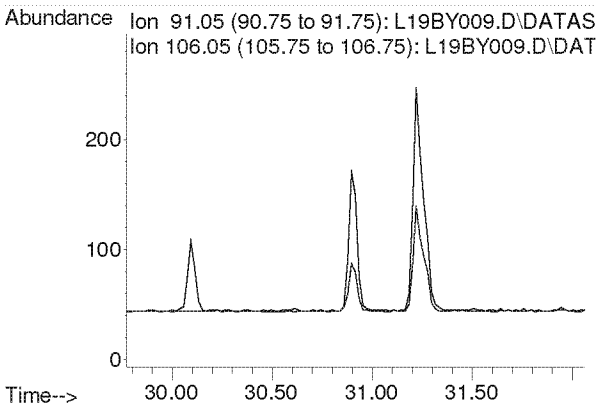


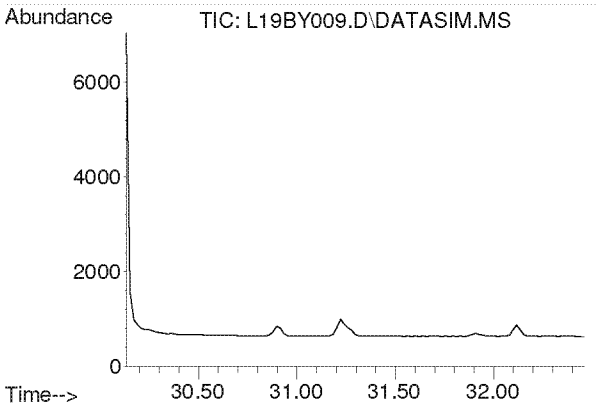
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



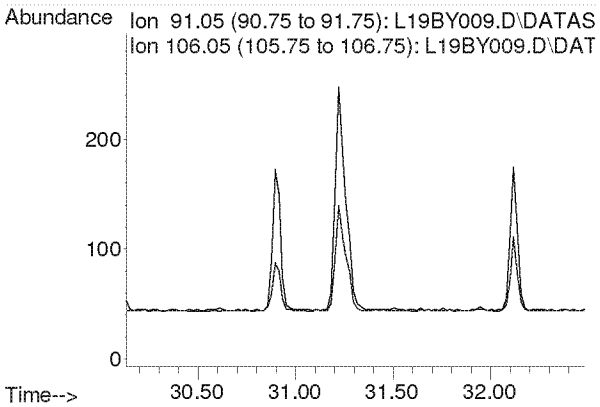


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

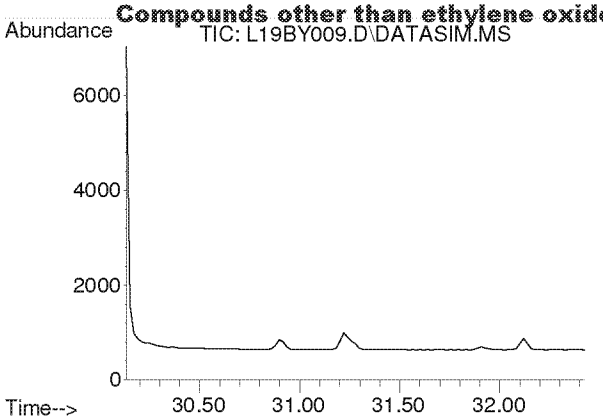
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

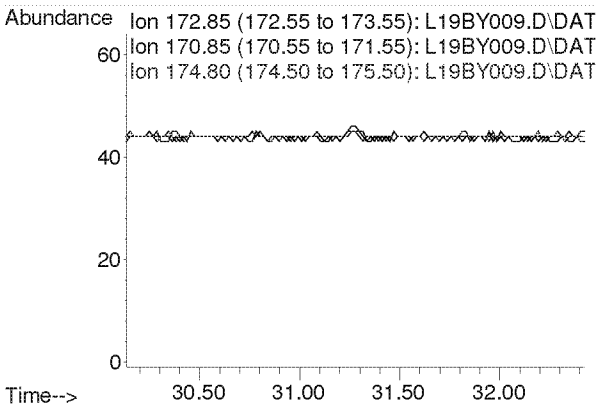


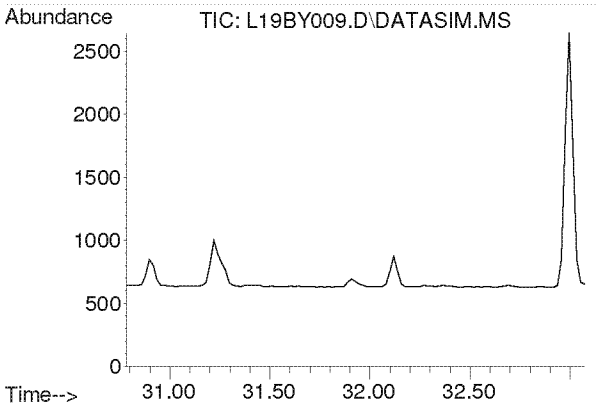
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



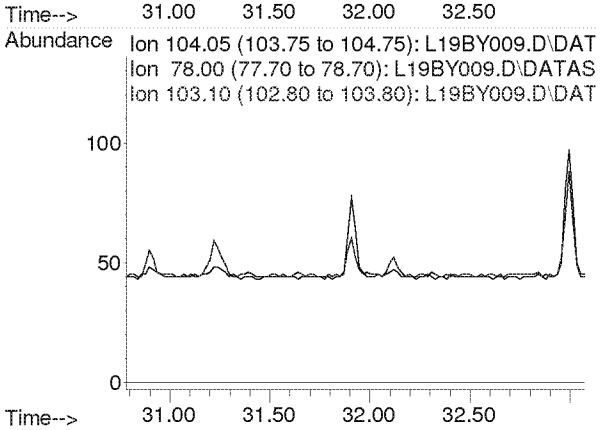


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

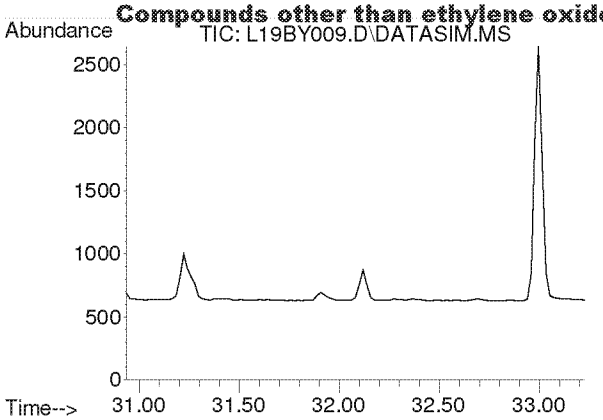
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

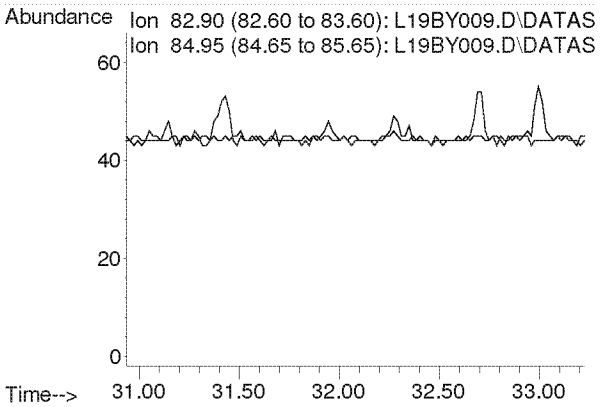


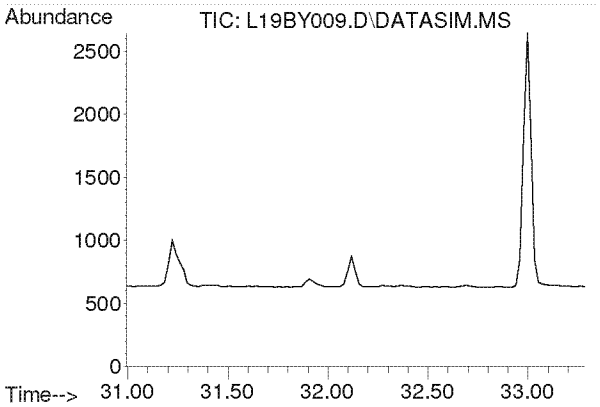
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



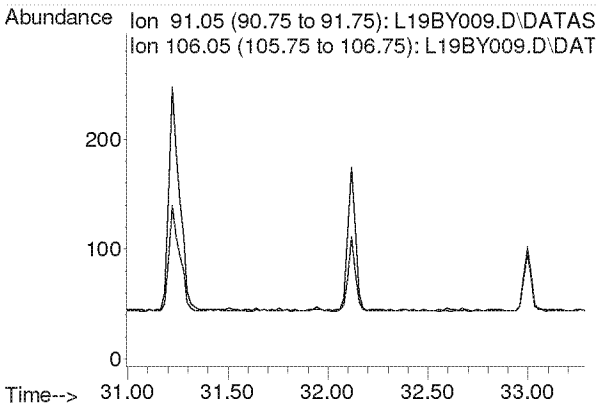


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

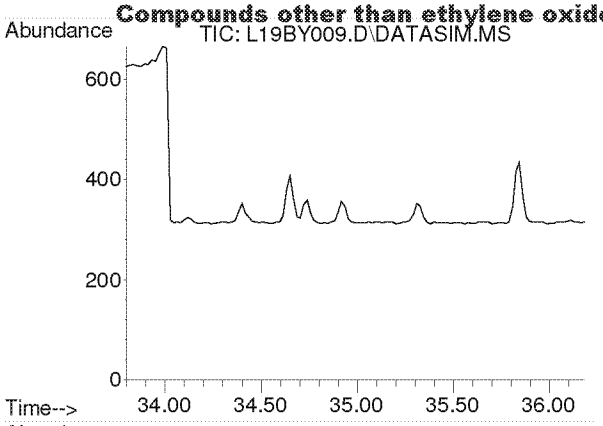
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

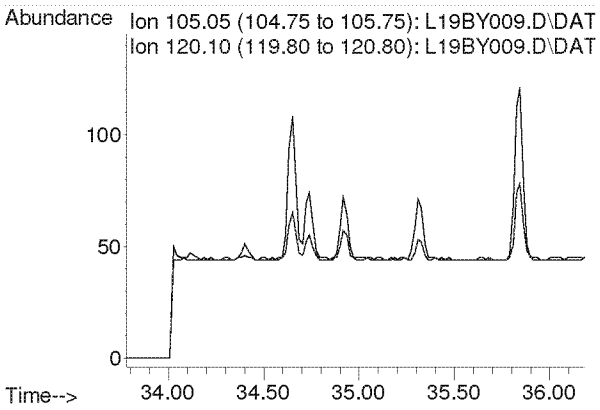


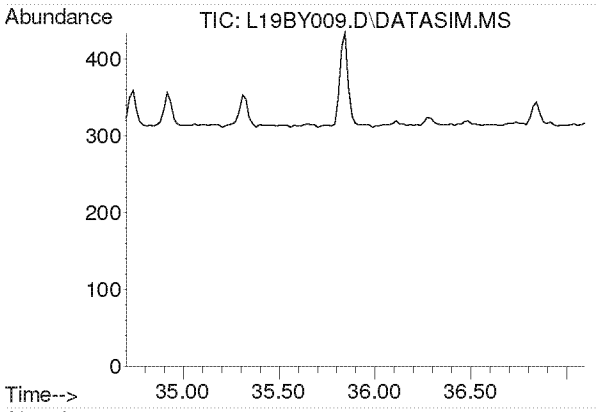
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



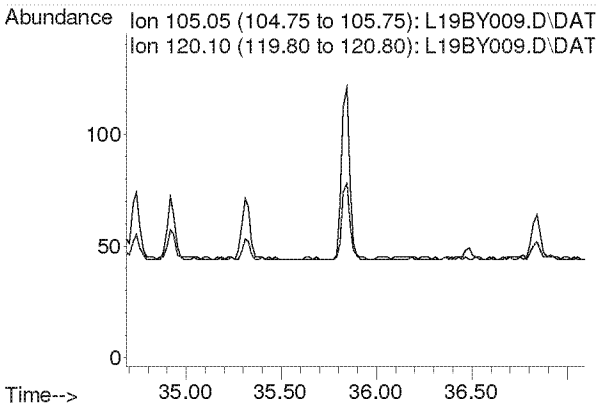


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

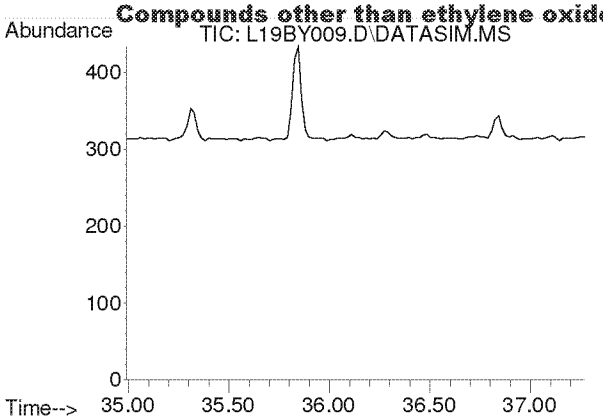
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

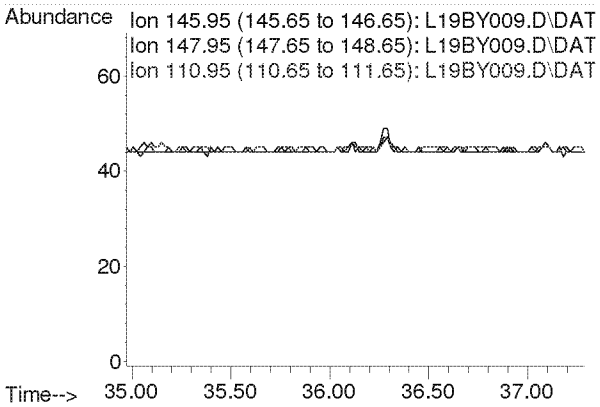


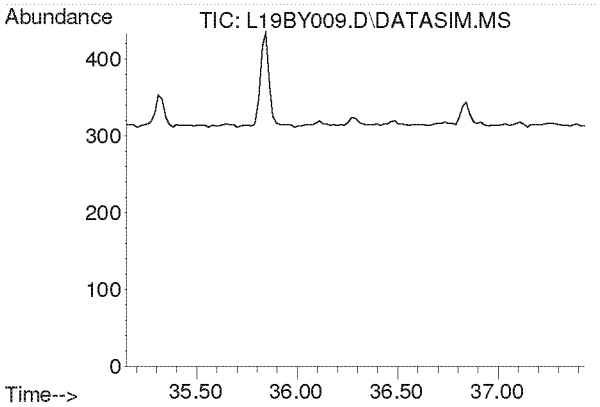
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



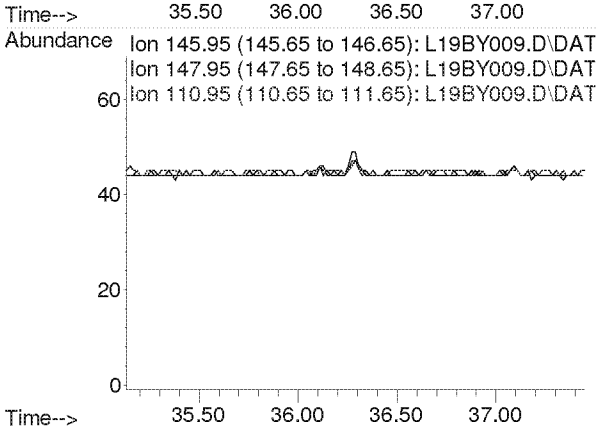


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

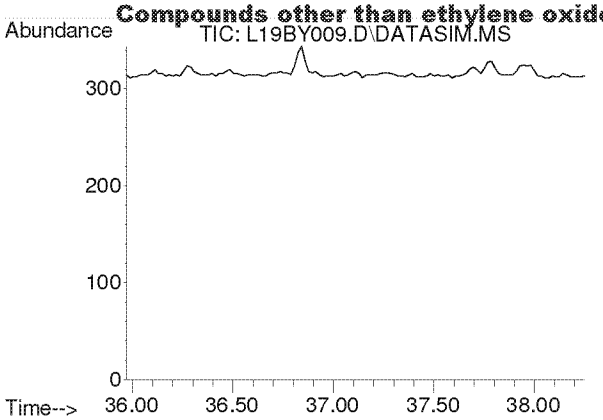
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

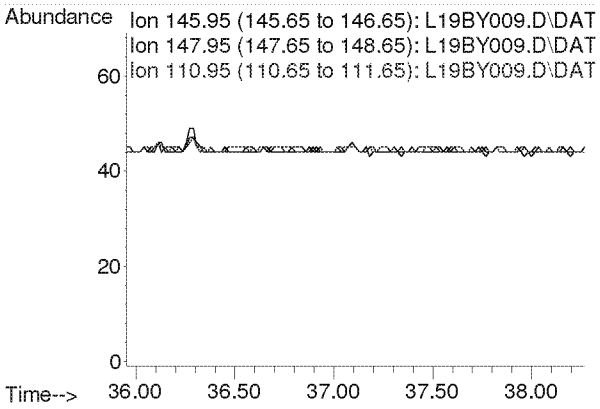


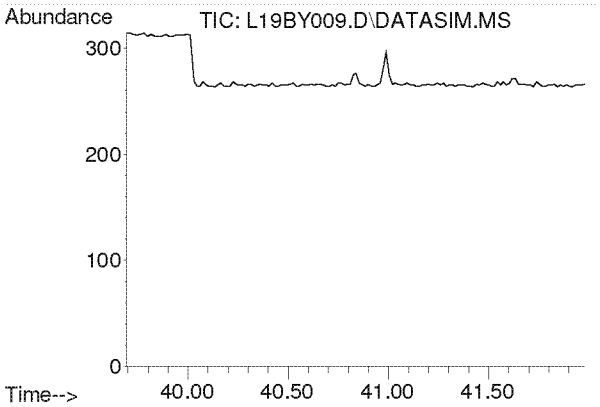
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



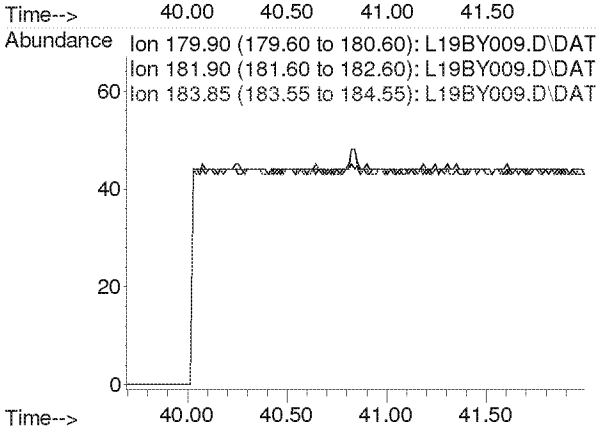


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

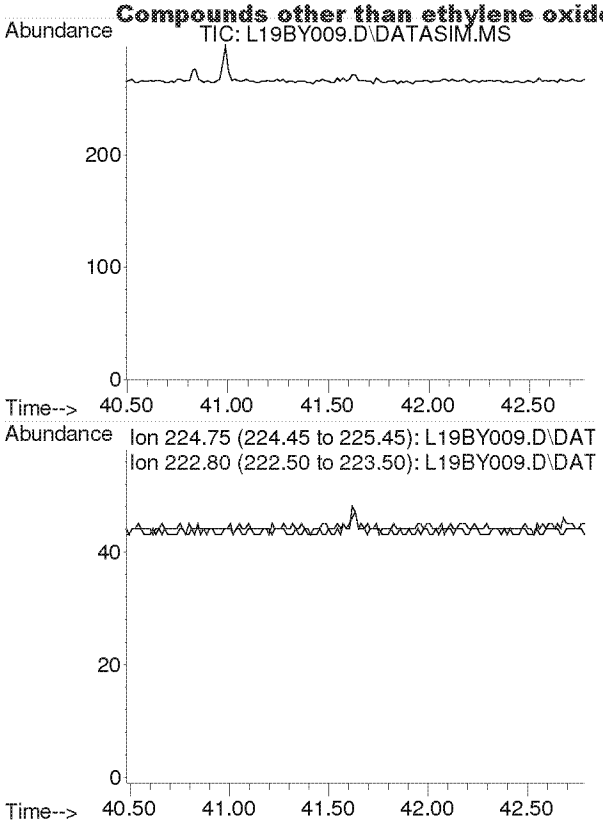
Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19BY009.D
Acq: 25 Feb 2019 3:26 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY010.D
Acq On : 25 Feb 2019 4:27 pm (#1); 25-Feb-19, 16:21:54 (#2)
Operator : MAH
Sample : B9B2507-DUP2
Misc : WB VILLAGE HALL R2 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 26 10:07:34 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	40727	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	103787	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	72769	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.485	29	269m	0.1155 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. 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\L19BY\
Data File : L19BY010.D
Acq On : 25 Feb 2019 4:27 pm (#1); 25-Feb-19, 16:21:54 (#2)
Operator : MAH
Sample : B9B2507-DUP2
Misc : WB VILLAGE HALL R2 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 26 10:07:34 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

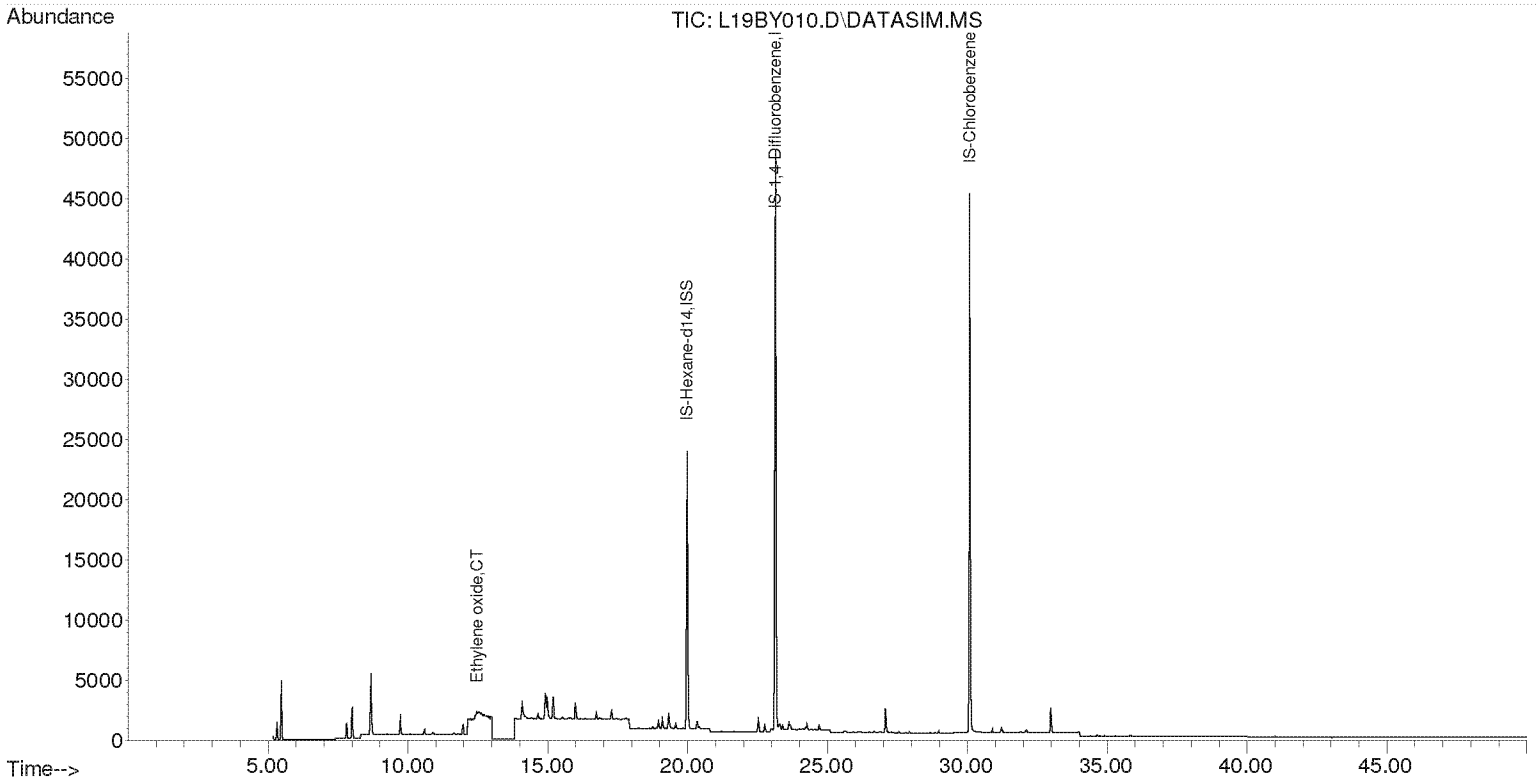
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

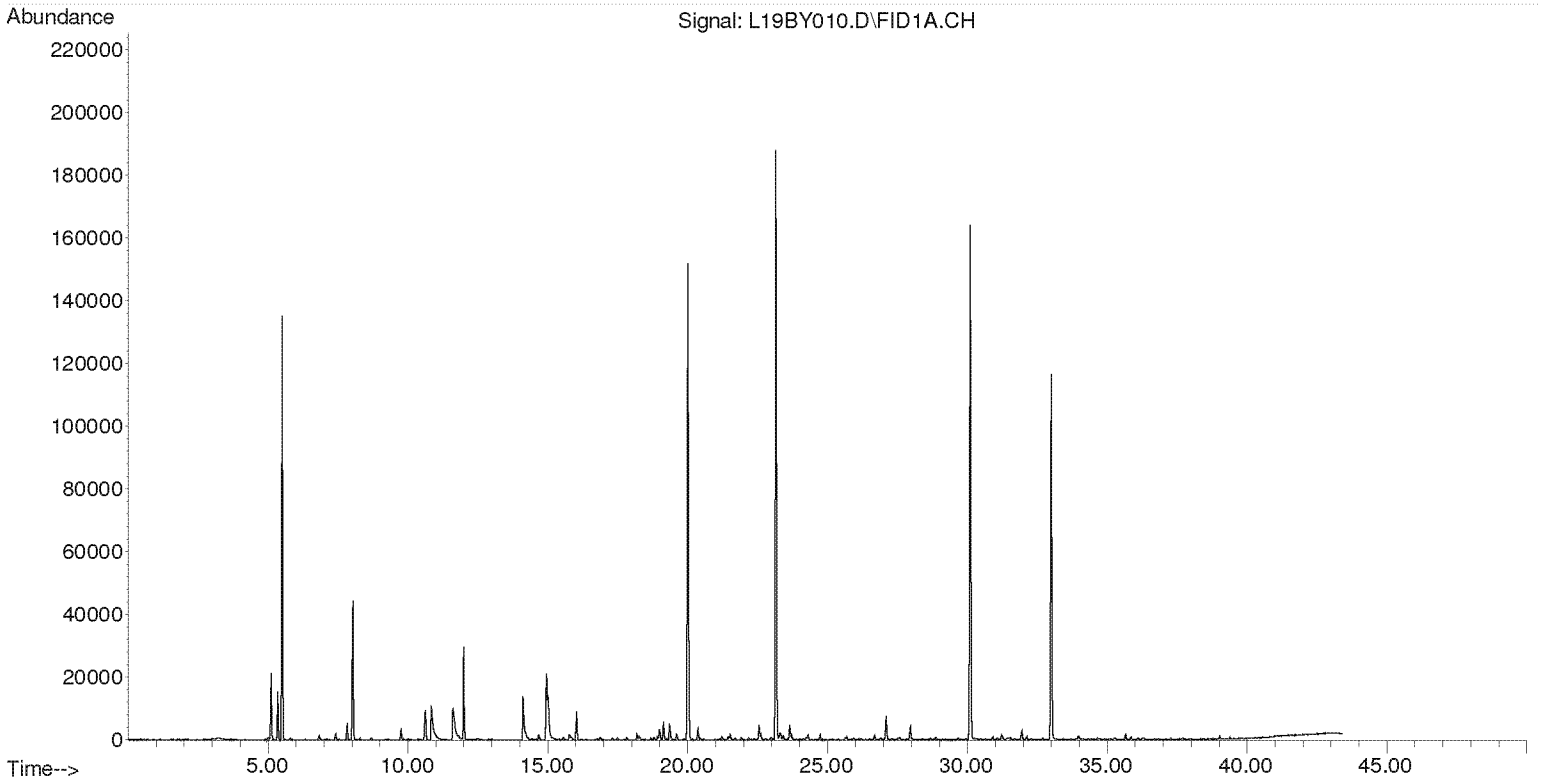
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

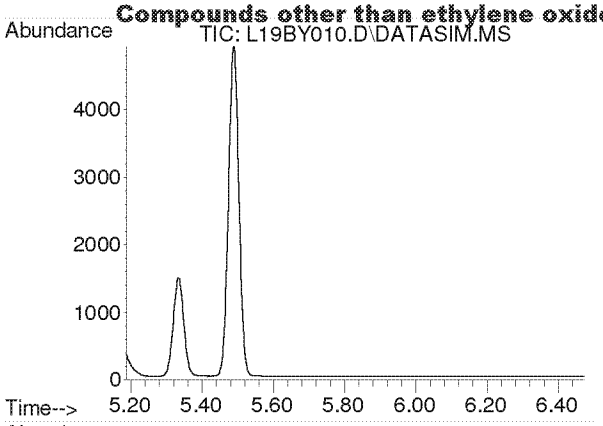
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY010.D
Acq On : 25 Feb 2019 4:27 pm (#1); 25 Feb 2019 4:21 pm (#2)
Operator : MAH
Sample : B9B2507-DUP2
Misc : WB VILLAGE HALL R2 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 26 09:54:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





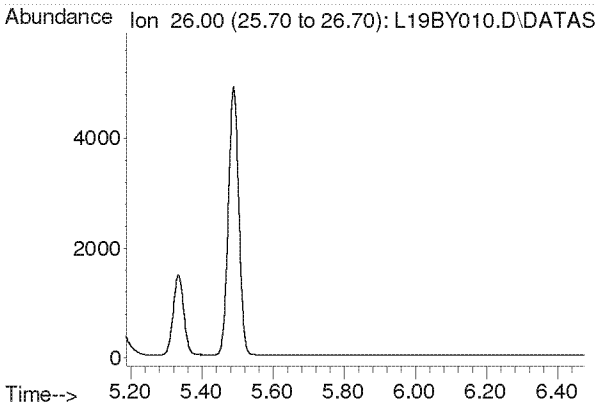
Compounds other than ethylene oxide were not quantitated.

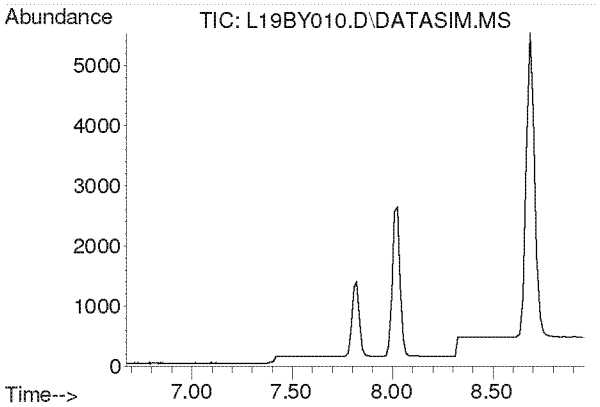


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 26



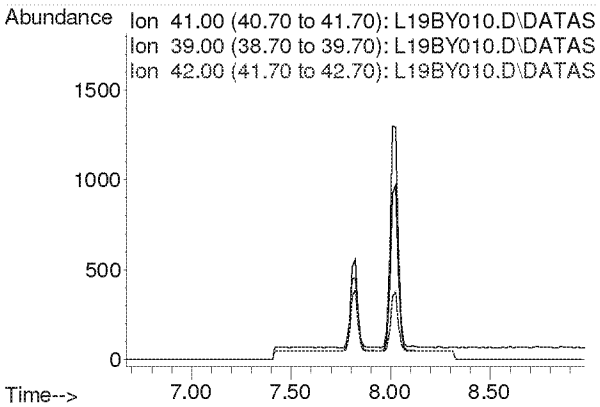


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

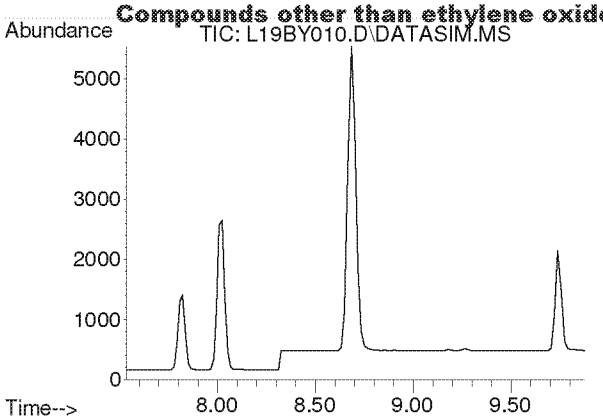
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

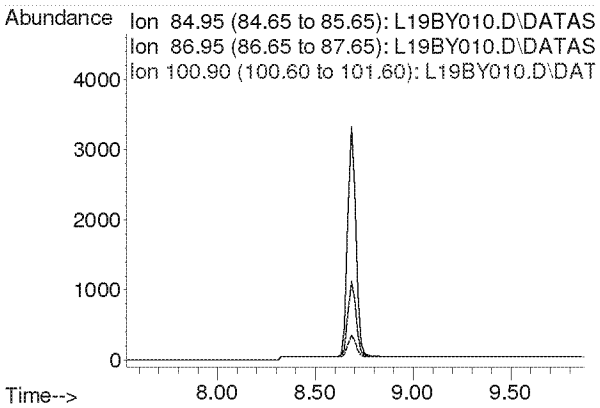


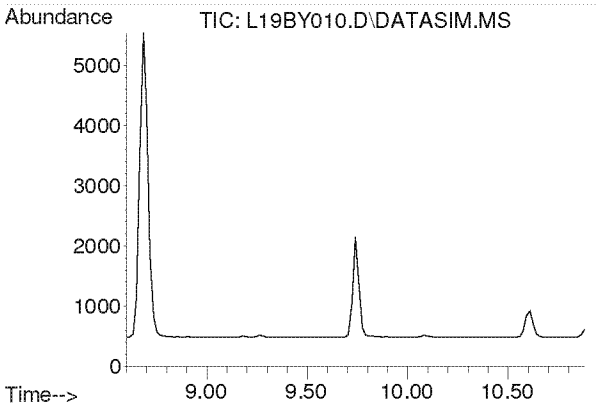
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



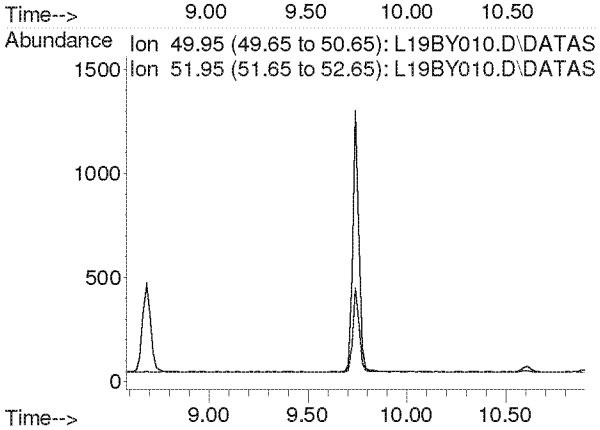


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

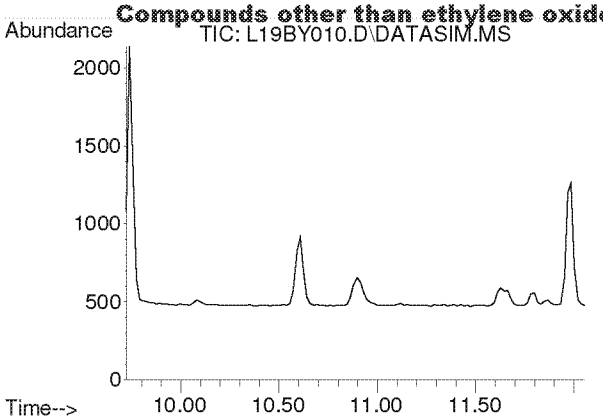
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

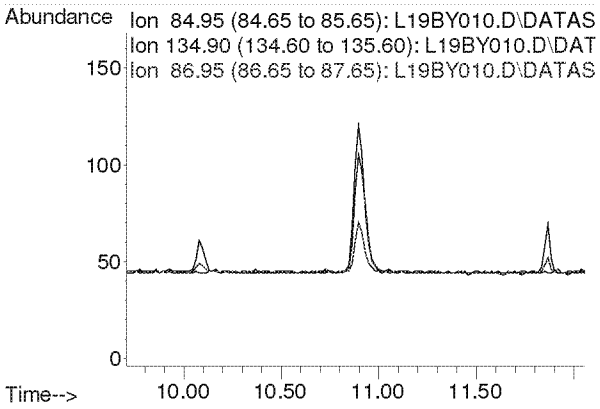


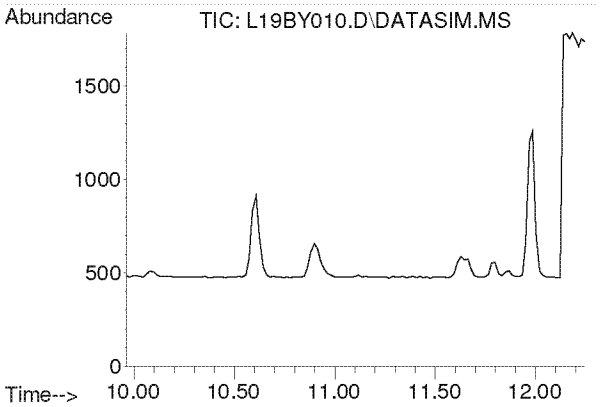
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



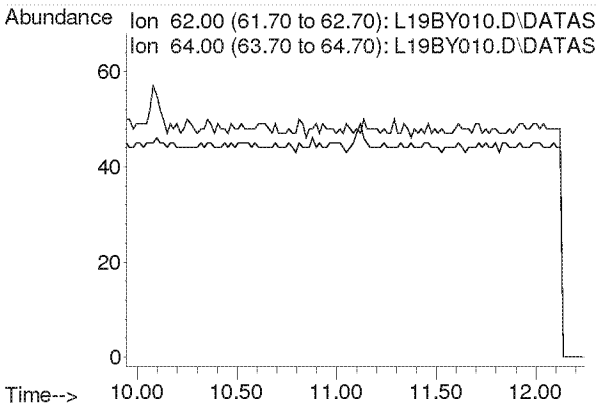


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

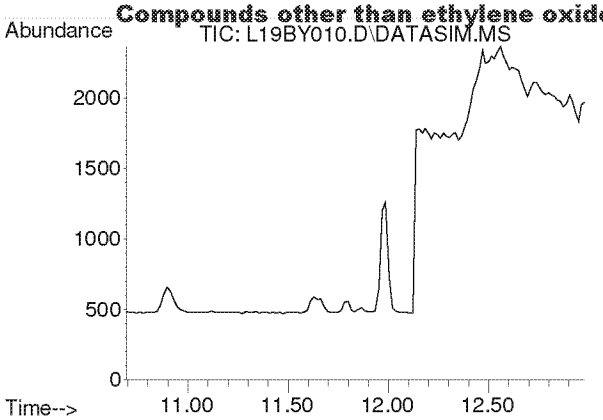
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

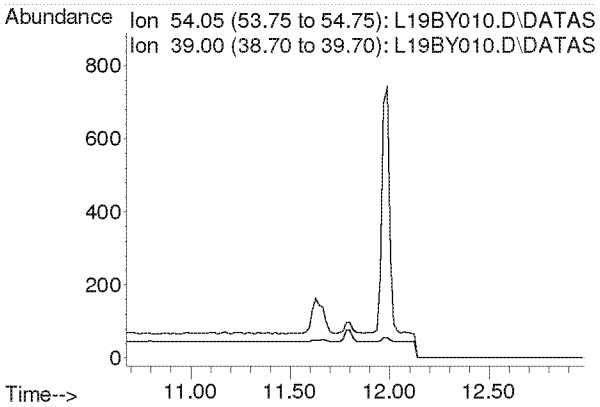


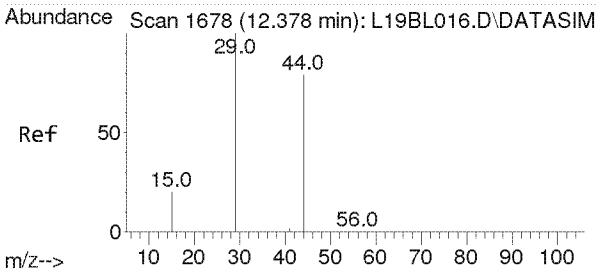
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

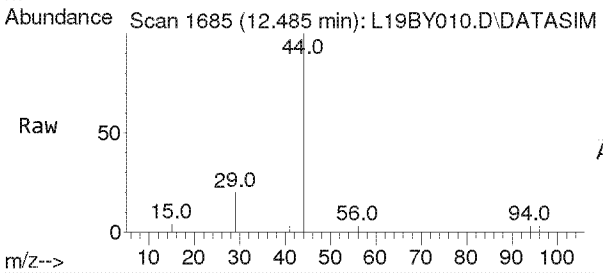


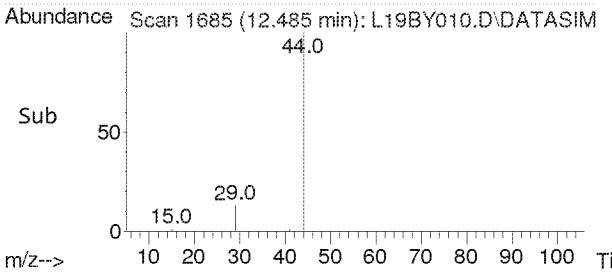


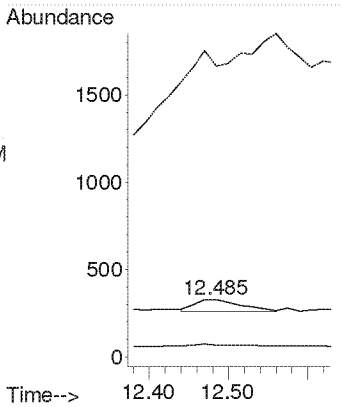
#9
Ethylene oxide
Concen: 0.115 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 29 Resp: 269

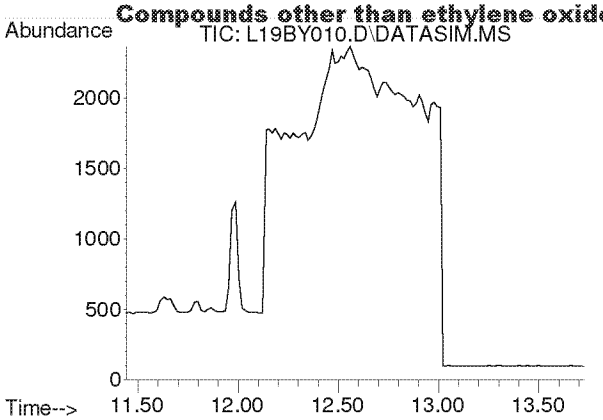
Ion	Ratio	Lower	Upper
29	100		
15	35.7	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

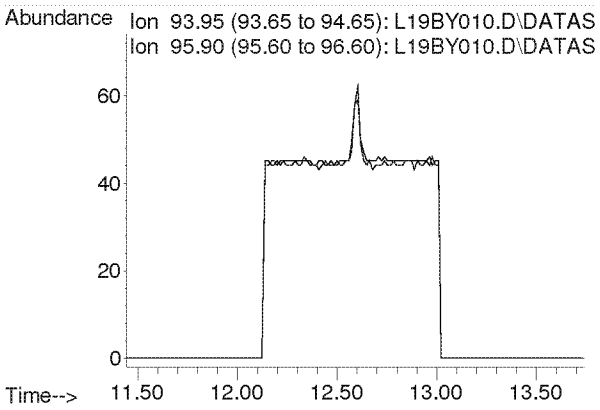


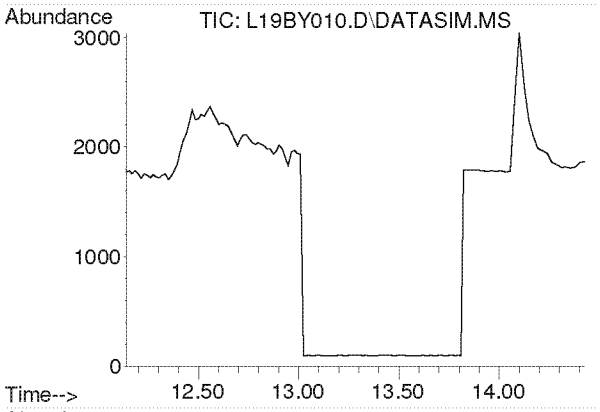
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



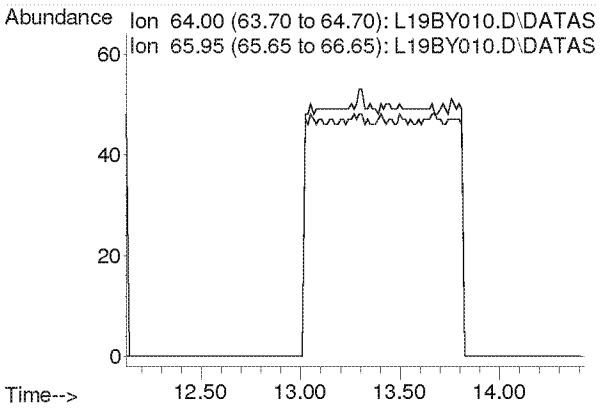


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

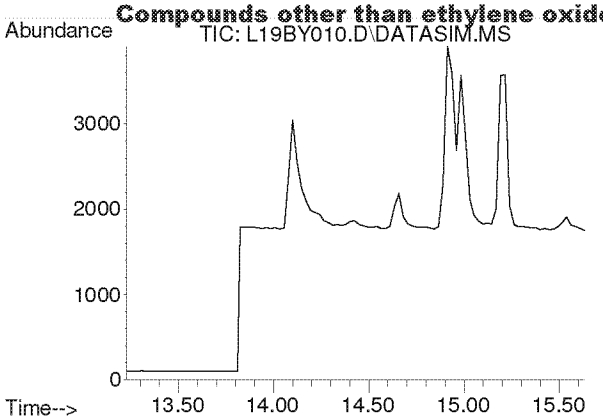
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

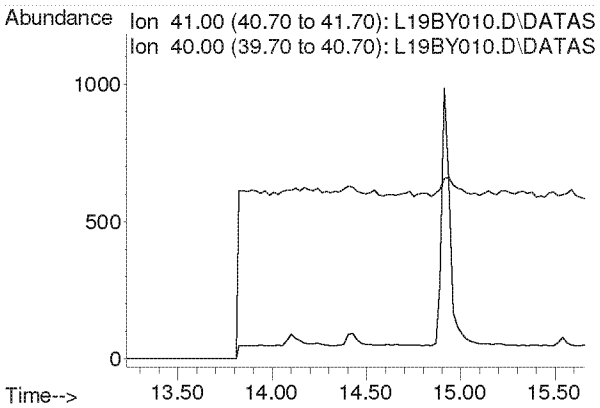


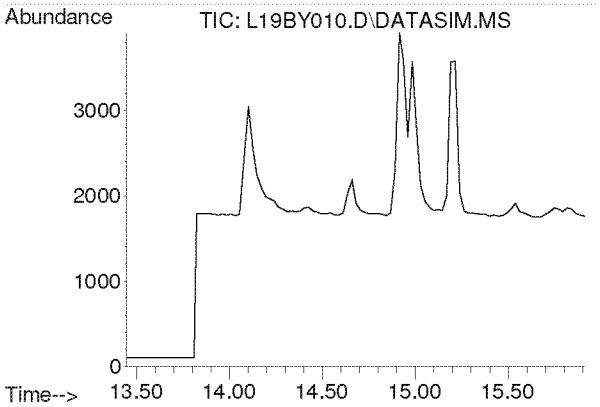
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



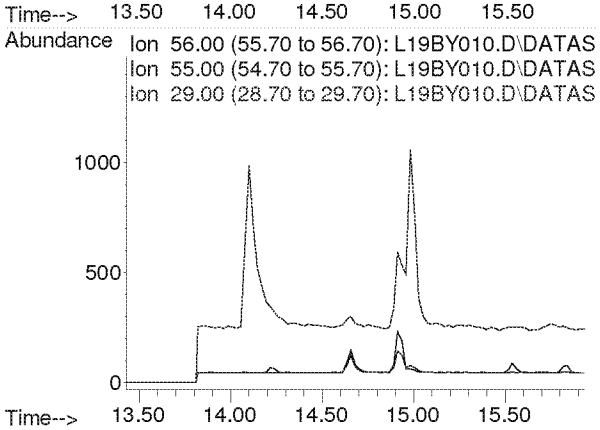


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

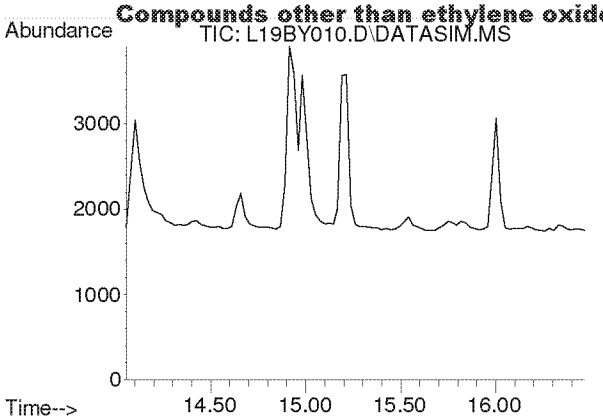
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

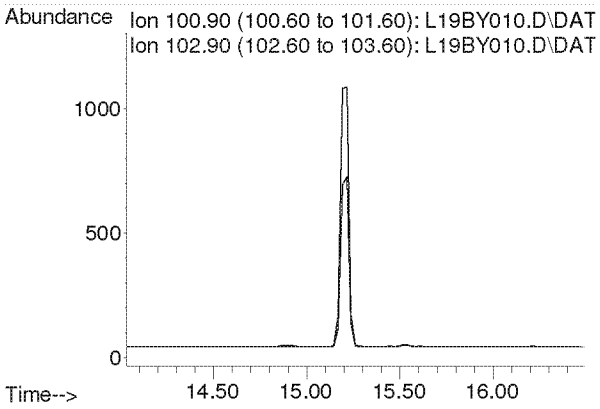


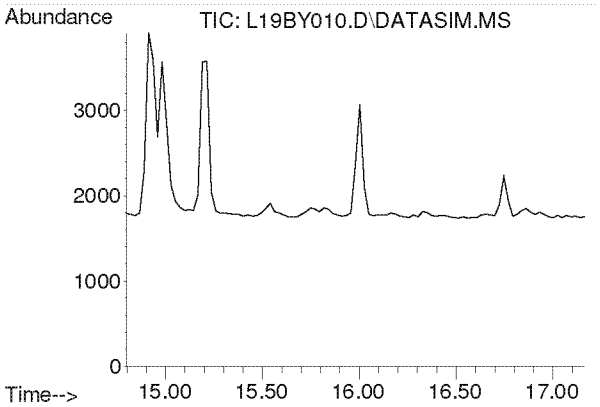
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



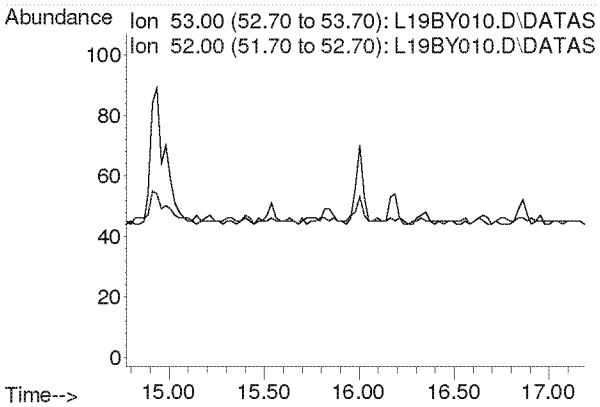


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

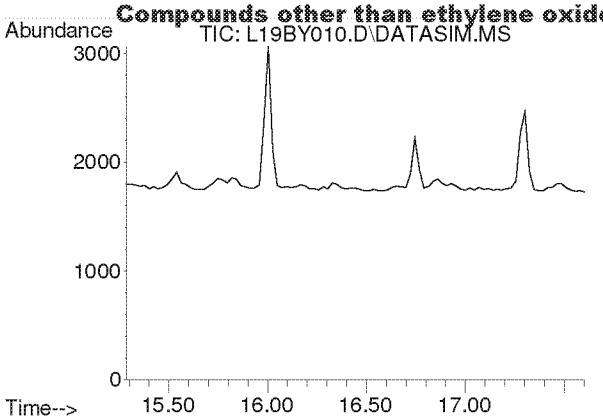
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

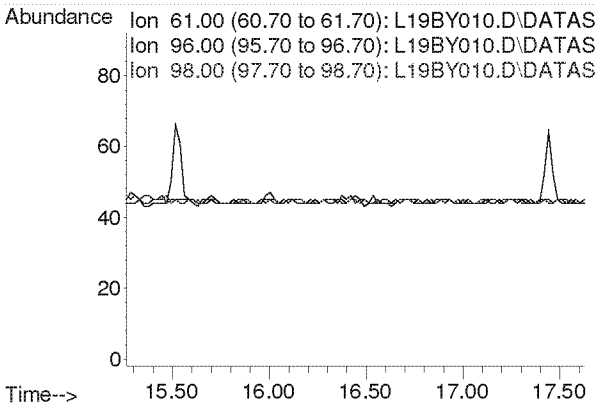


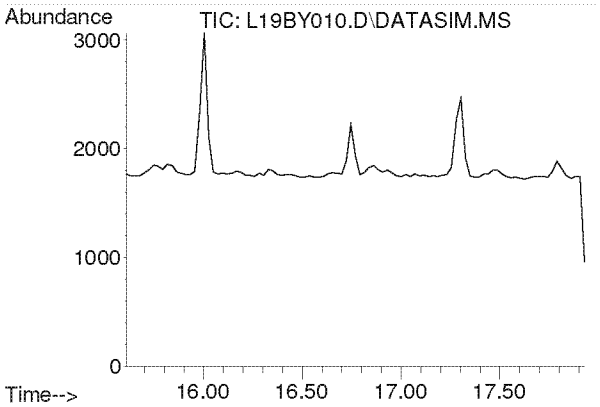
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



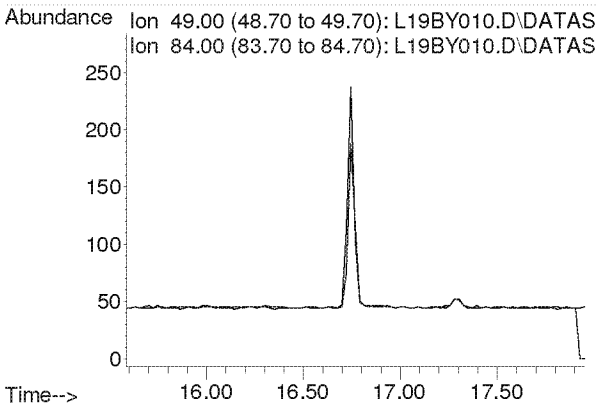


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

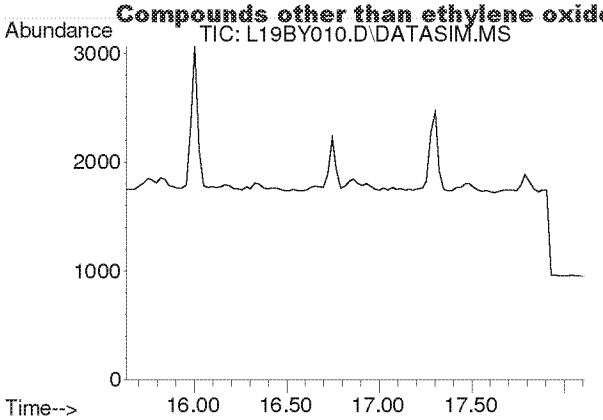
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

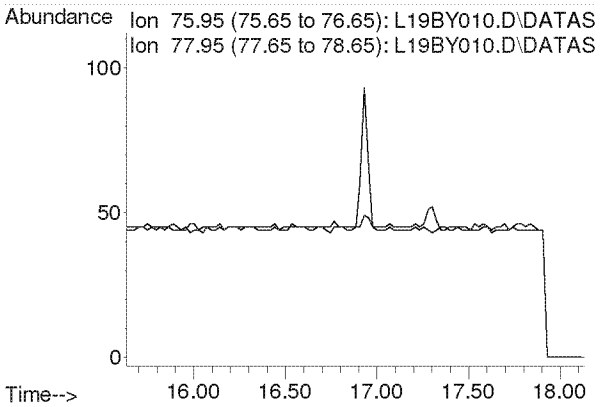


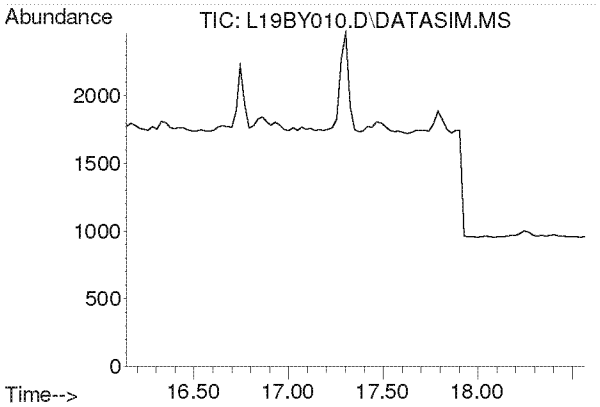
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



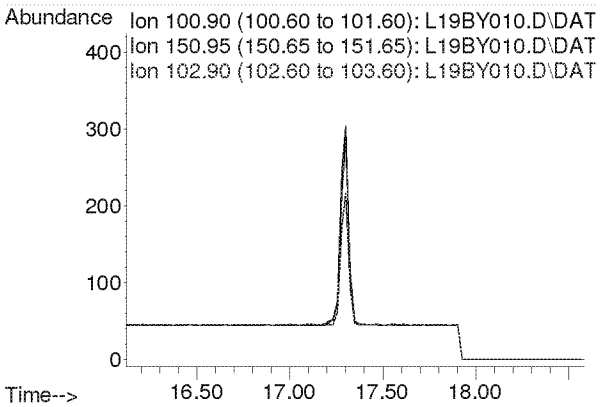


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

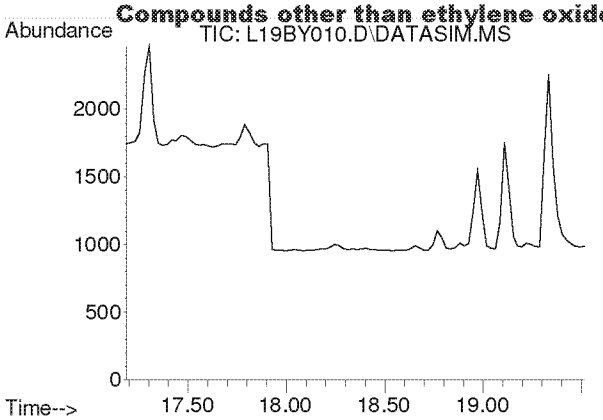
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

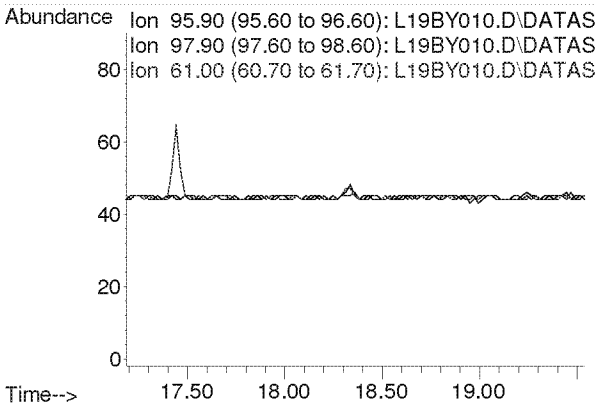


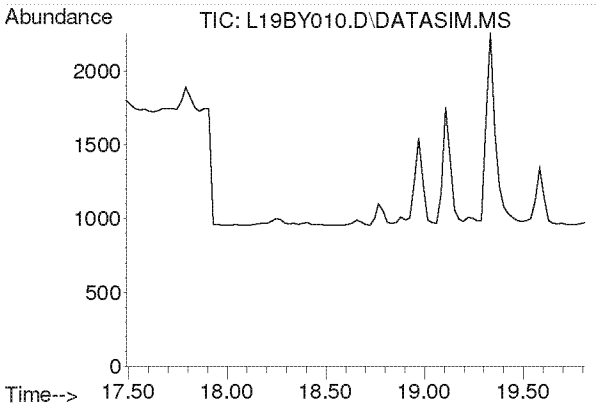
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



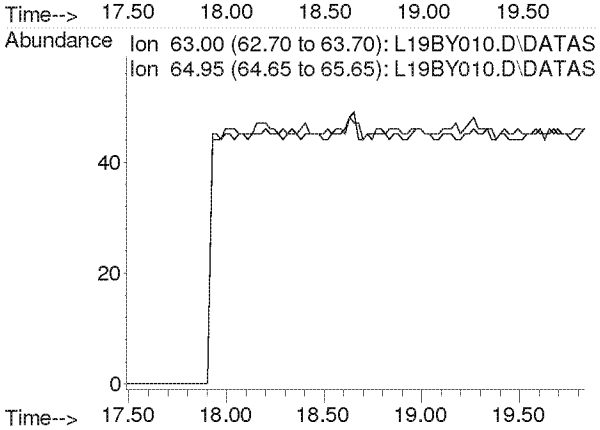


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

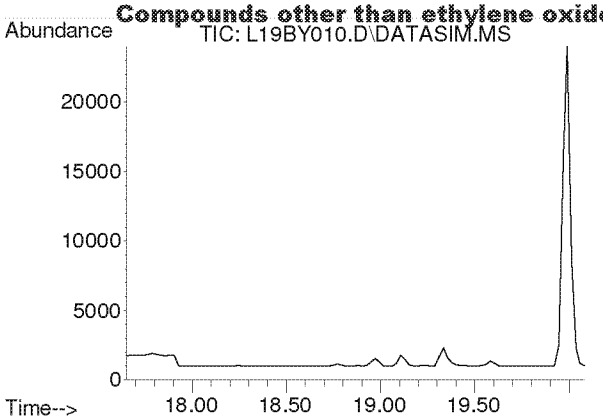
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

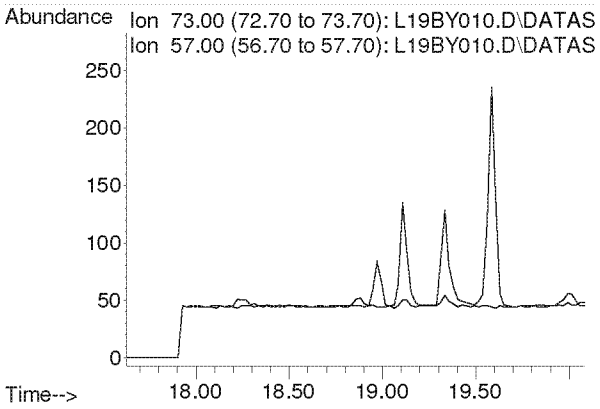


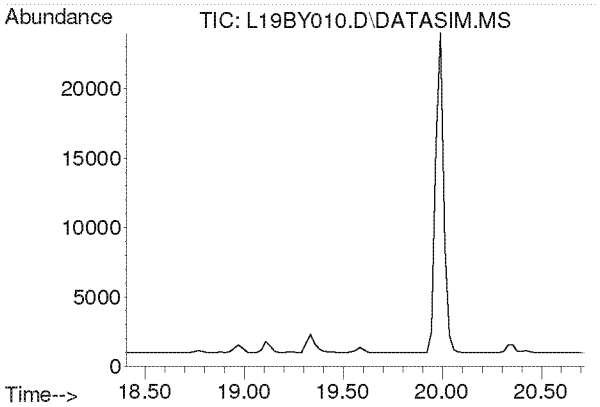
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



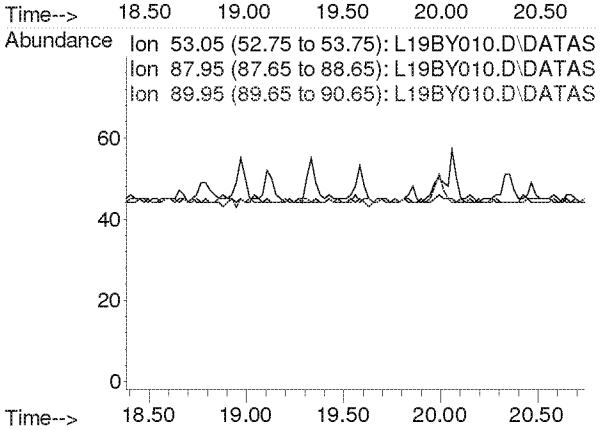


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

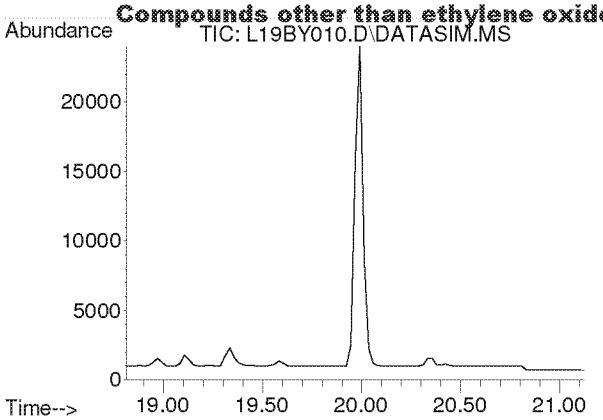
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

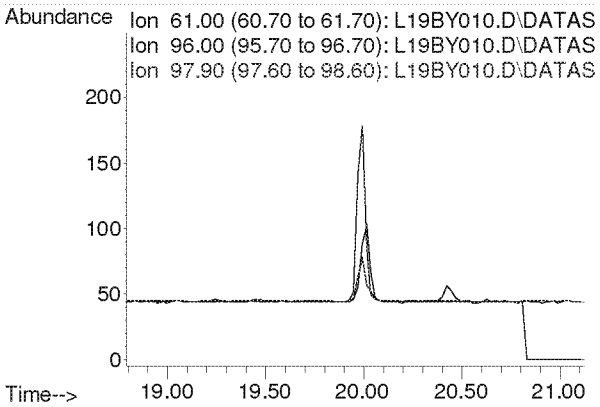


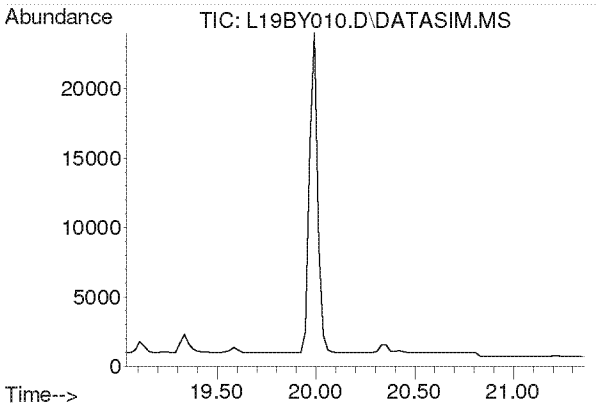
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



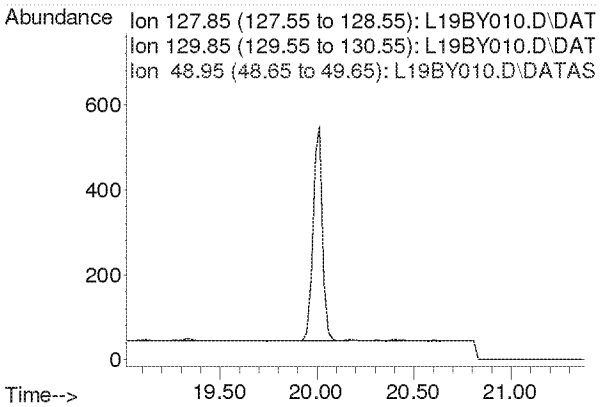


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

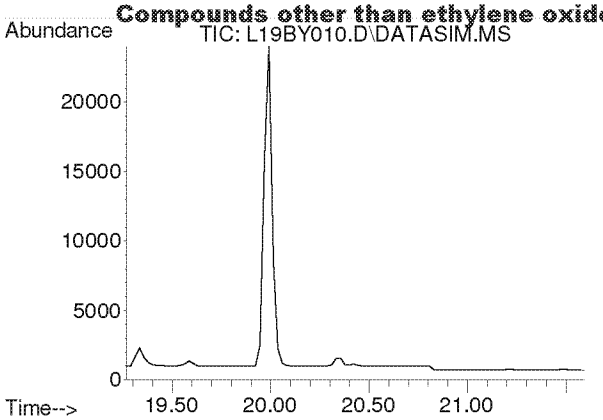
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

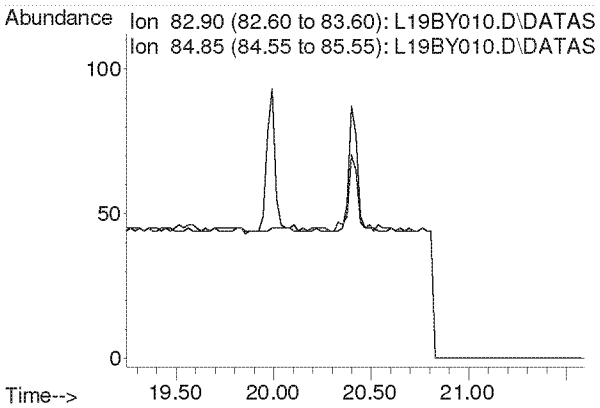


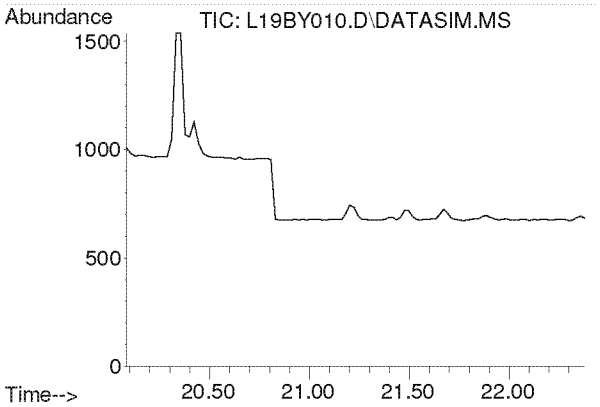
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



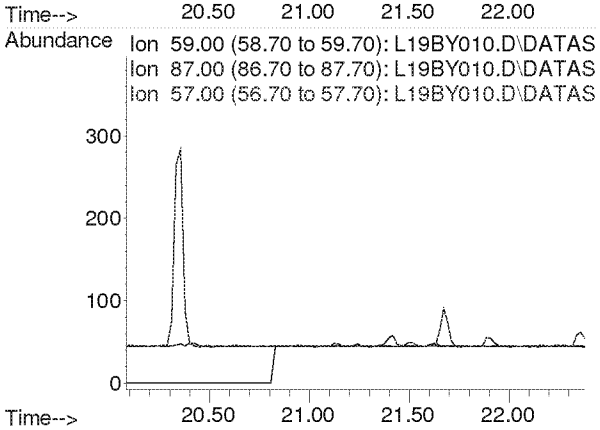


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

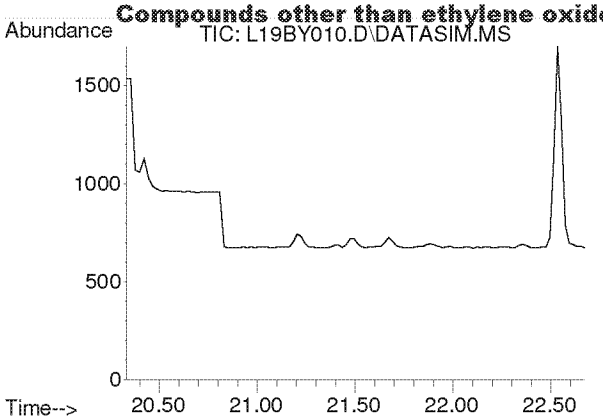
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

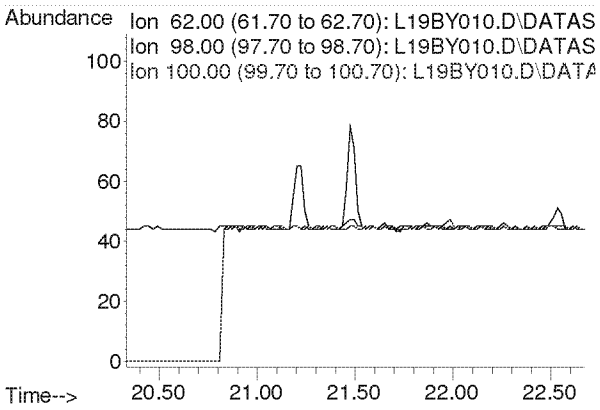


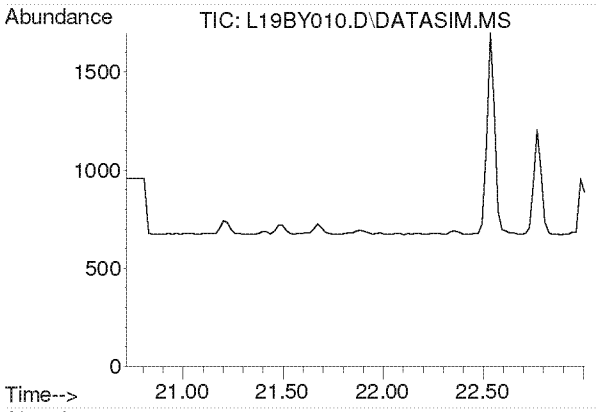
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



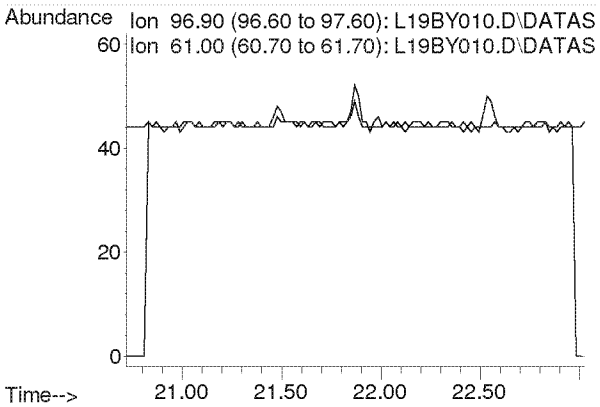


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

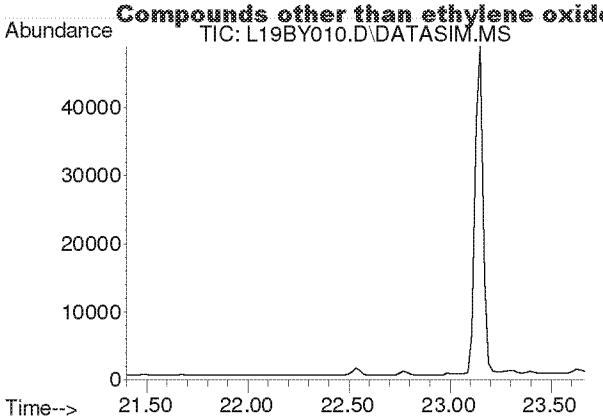
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

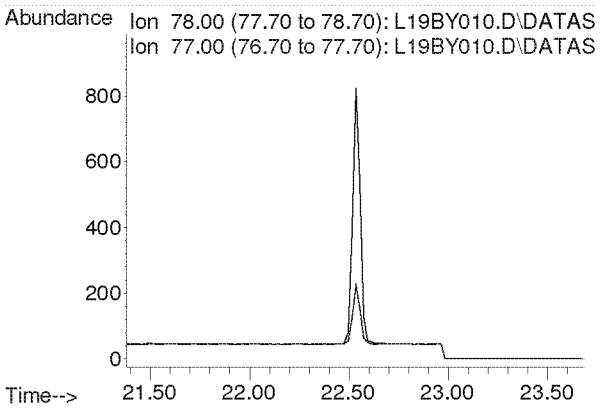


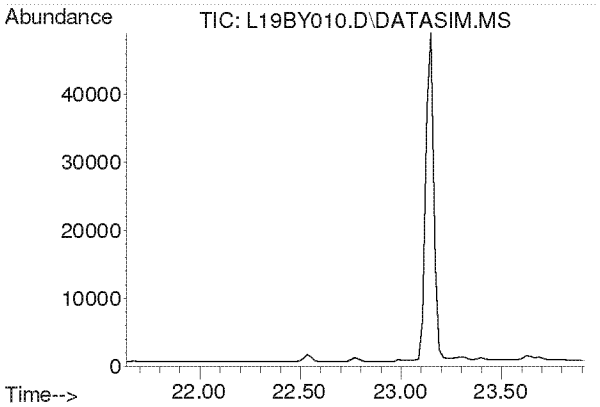
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



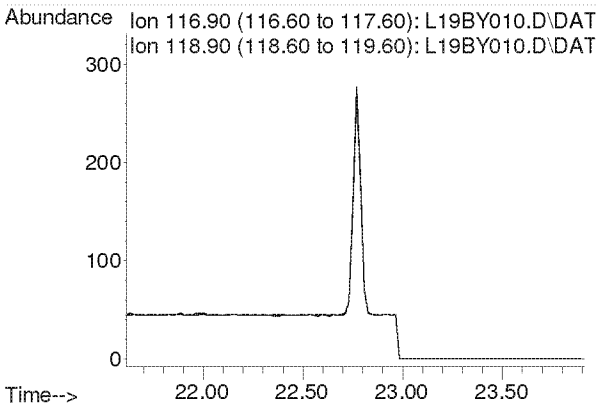


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

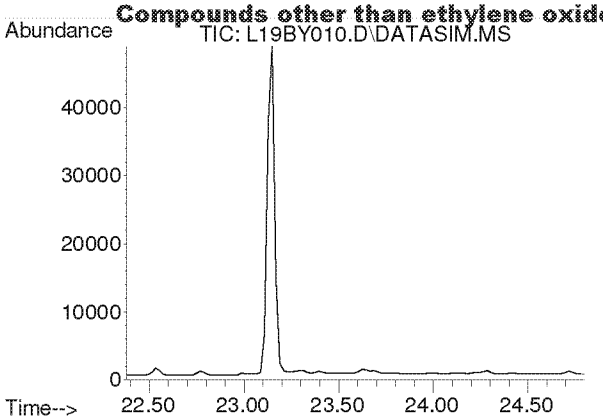
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

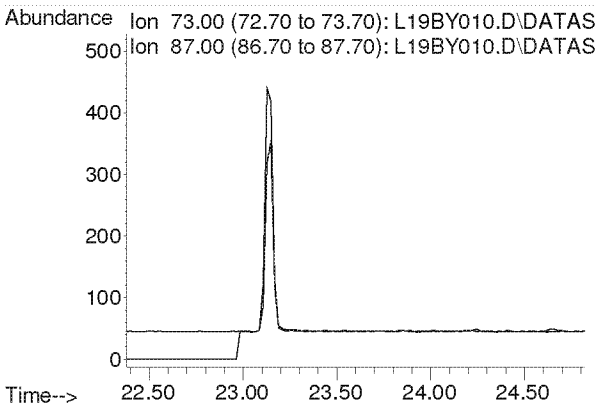


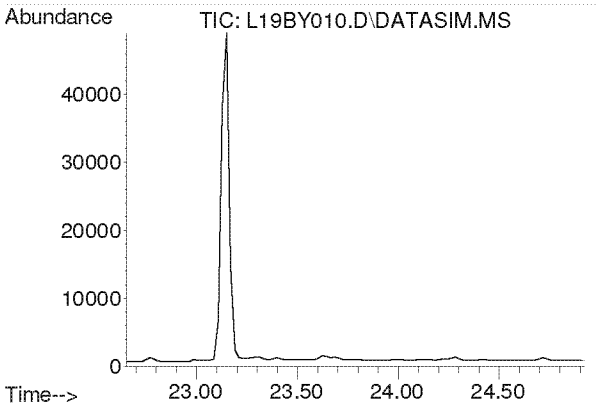
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



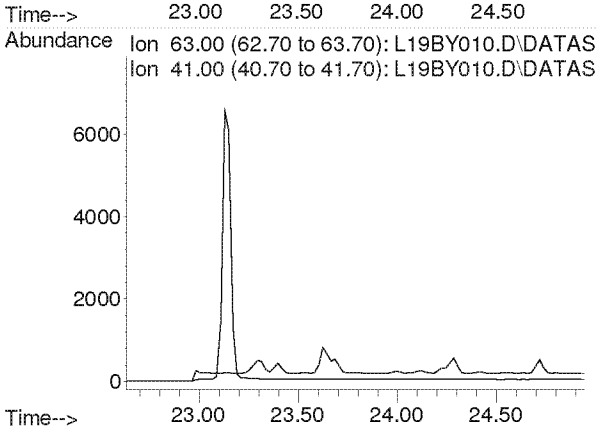


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

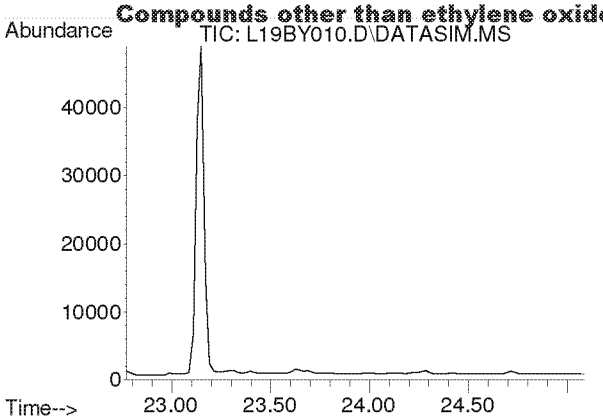
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

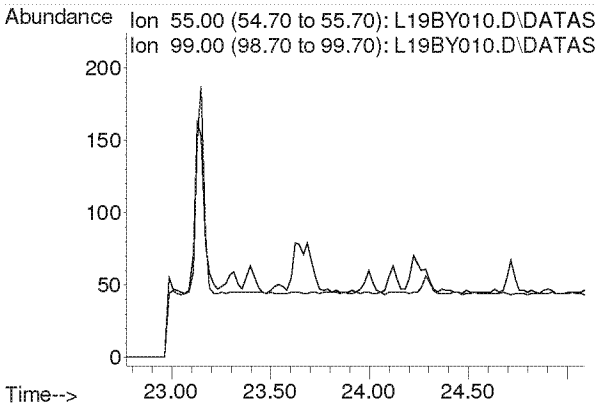


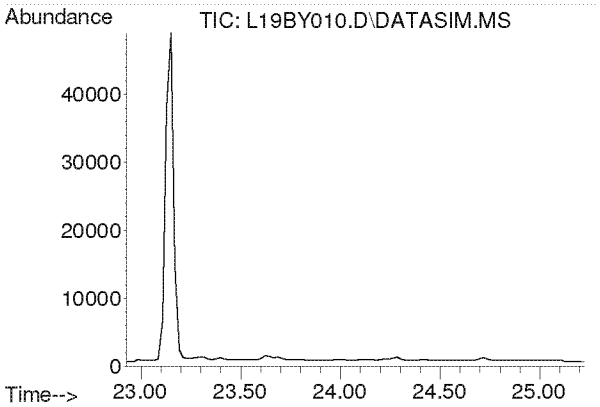
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



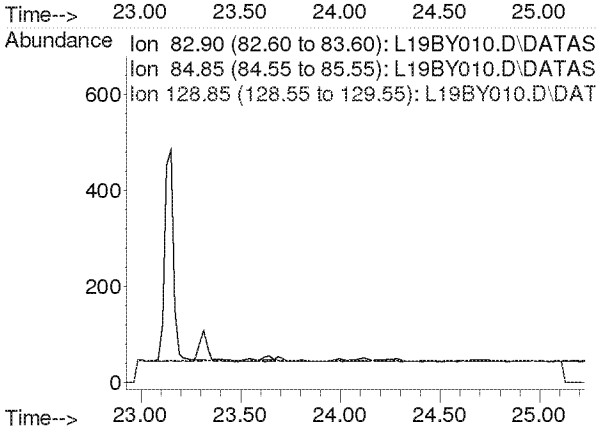


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

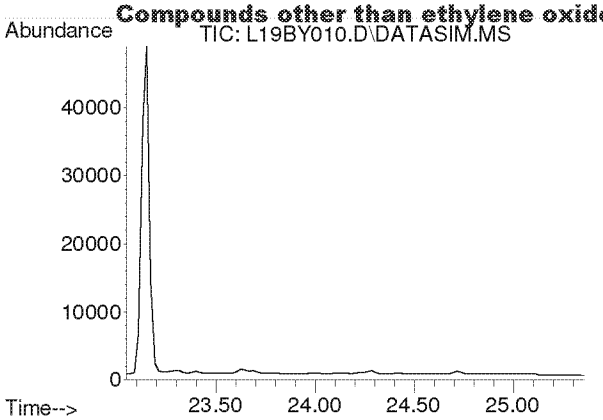
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

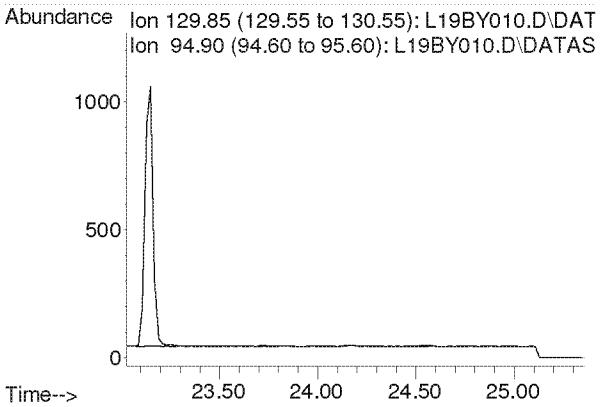


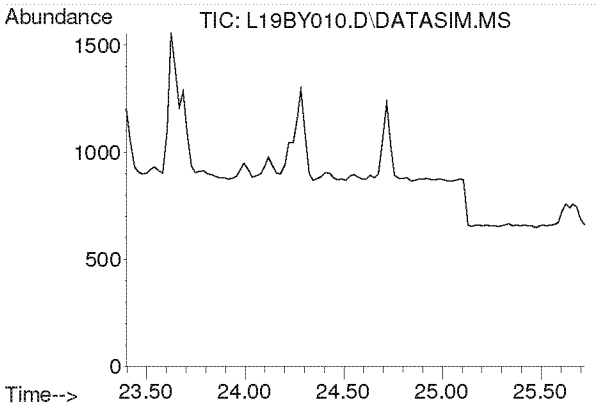
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



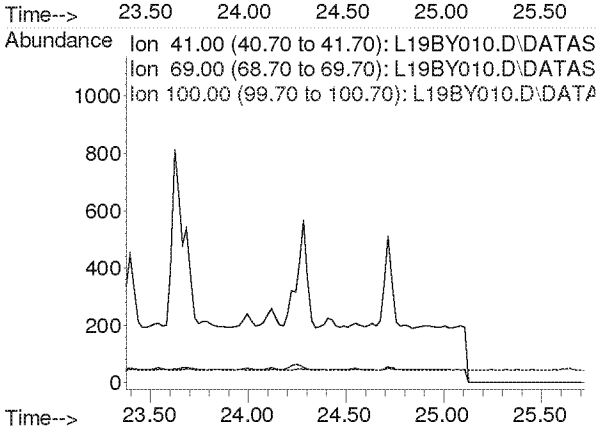


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

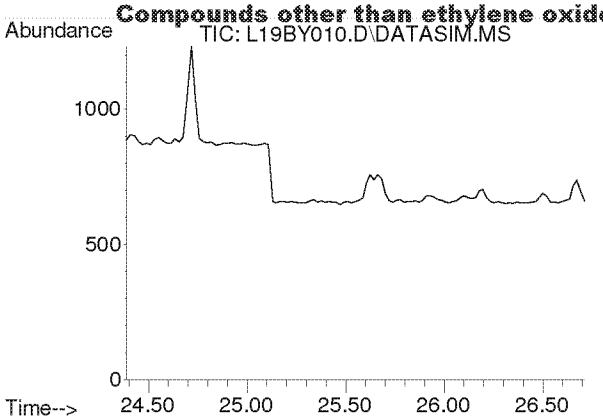
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

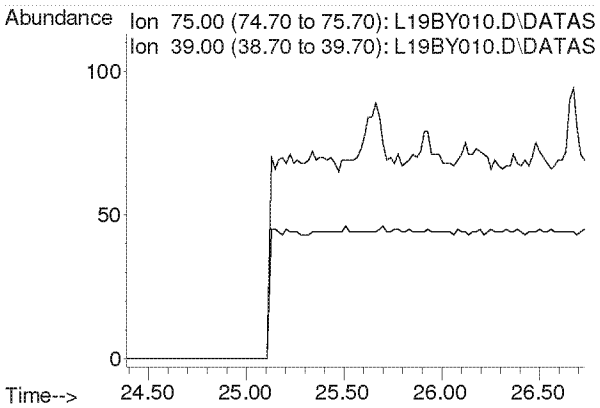


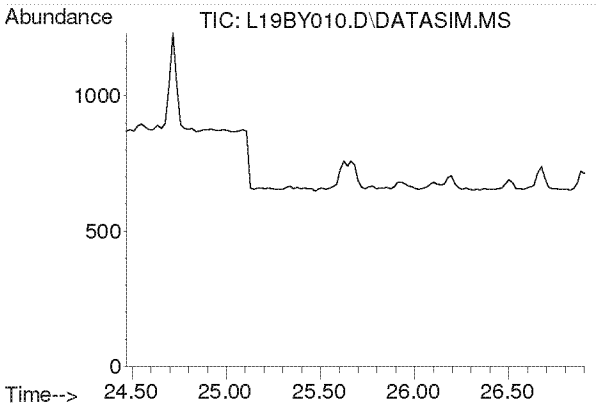
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



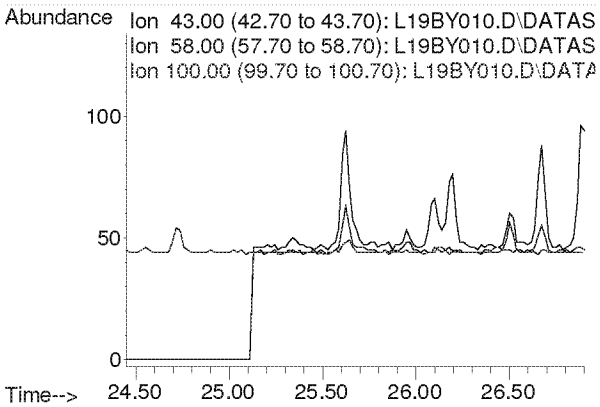


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

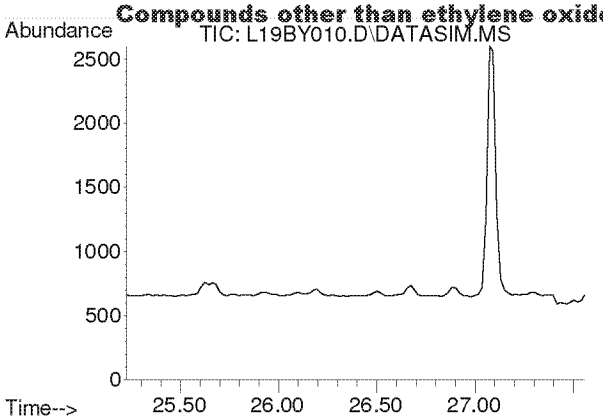
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

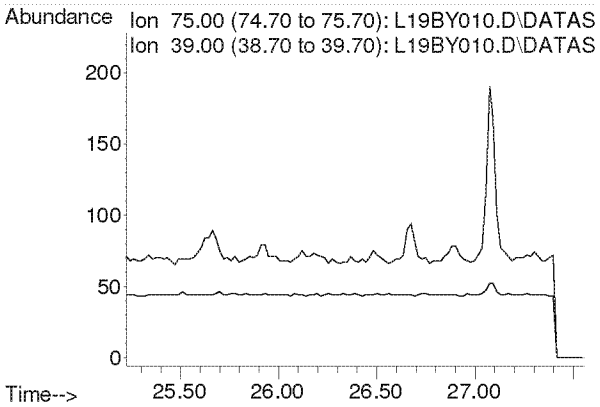


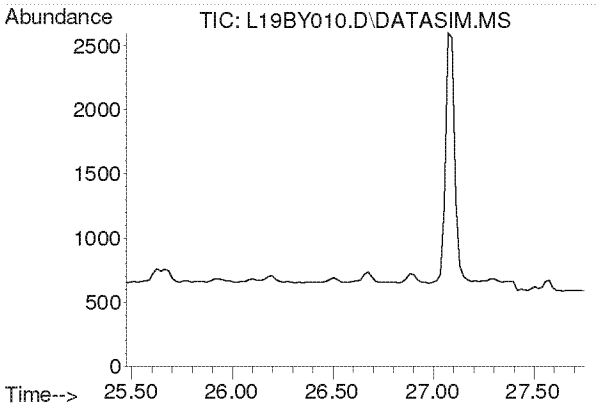
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



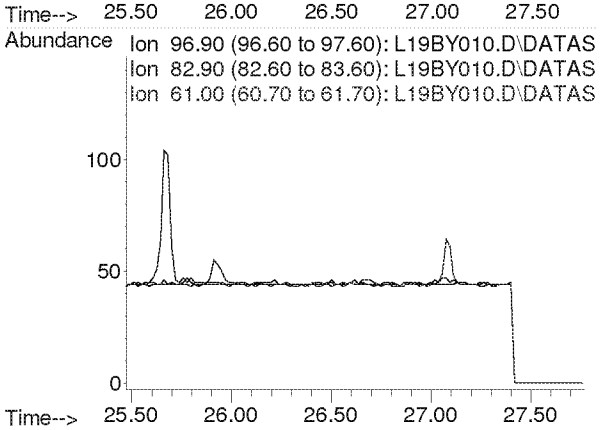


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

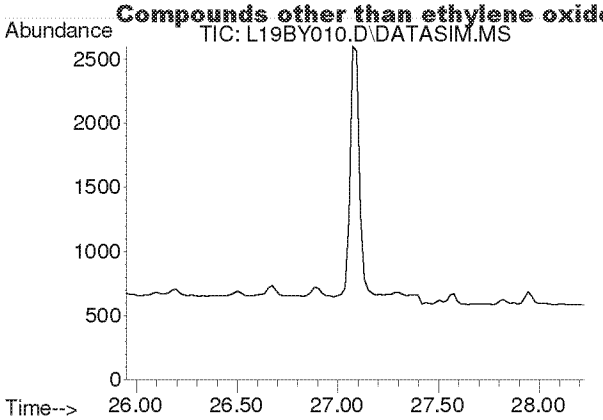
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

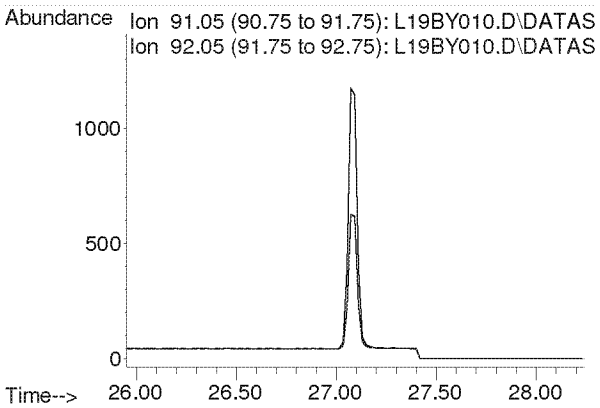


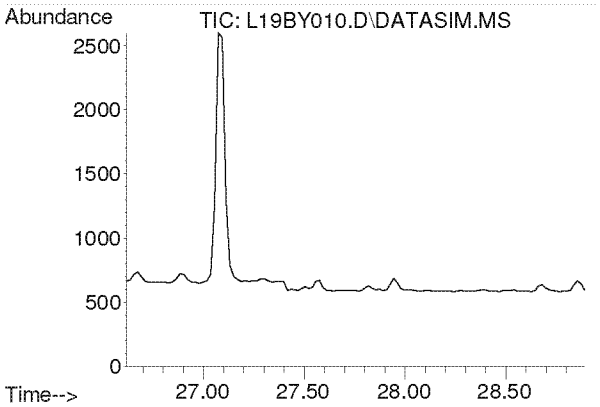
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



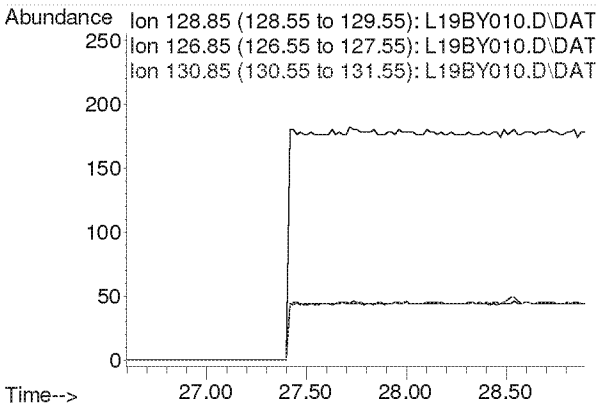


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

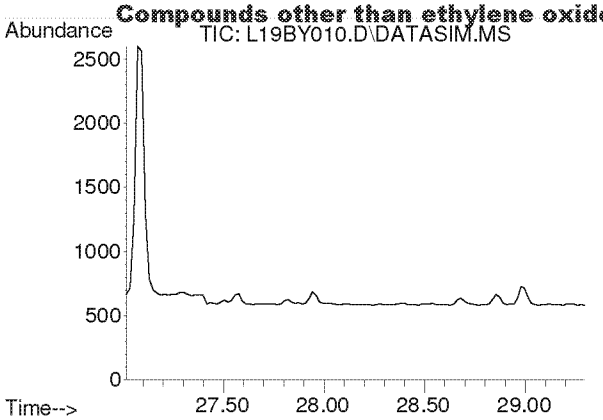
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

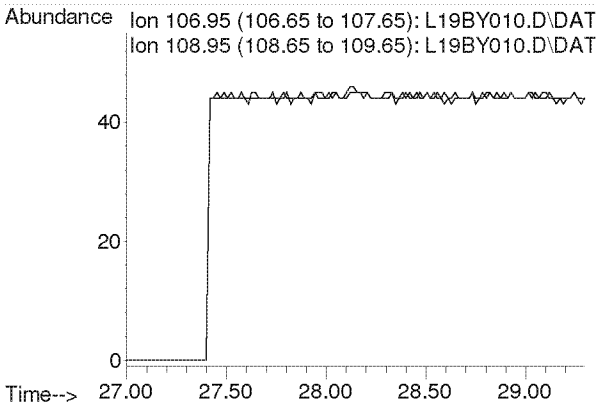


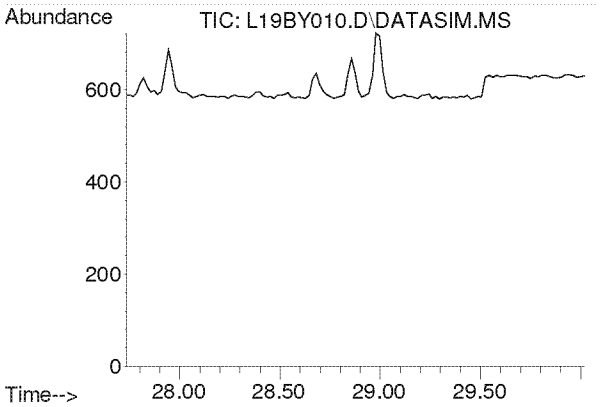
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



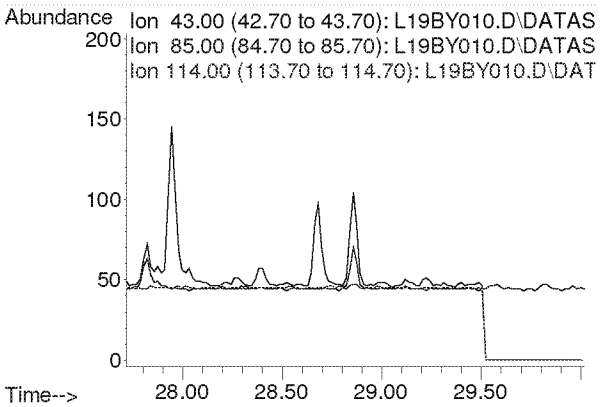


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

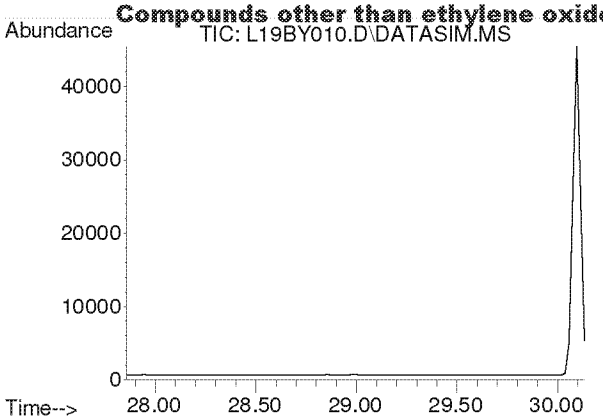
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

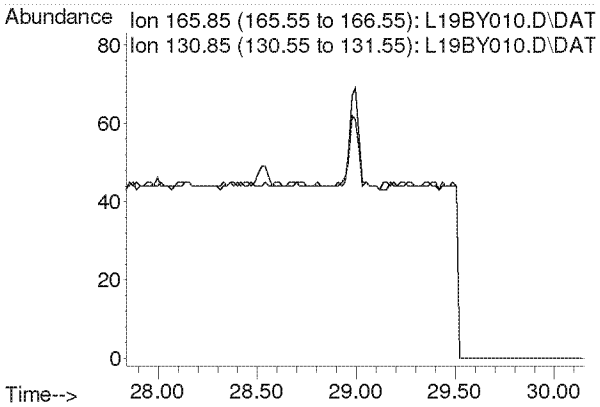


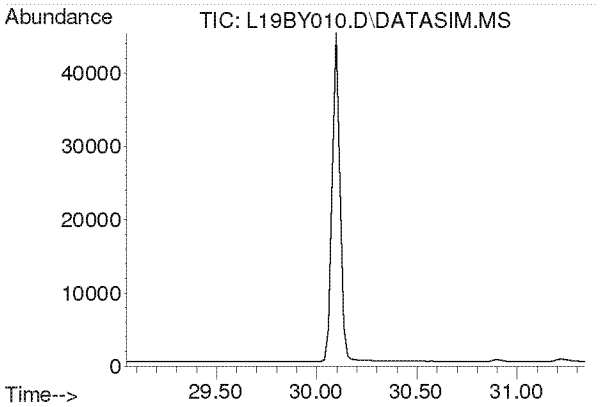
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



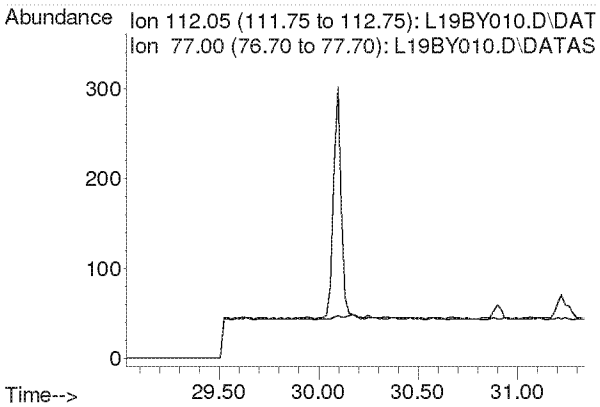


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

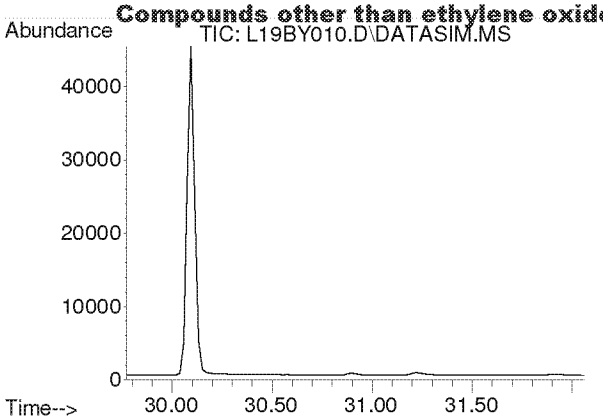
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

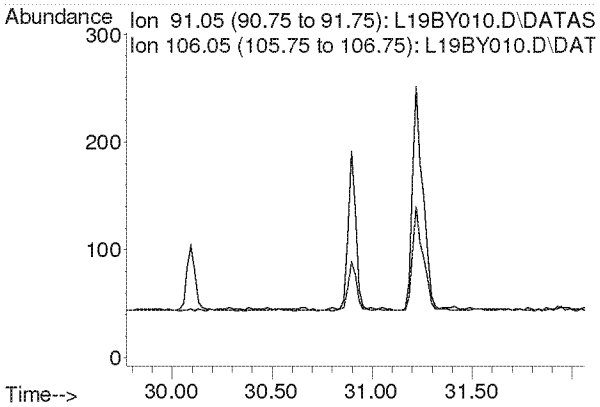


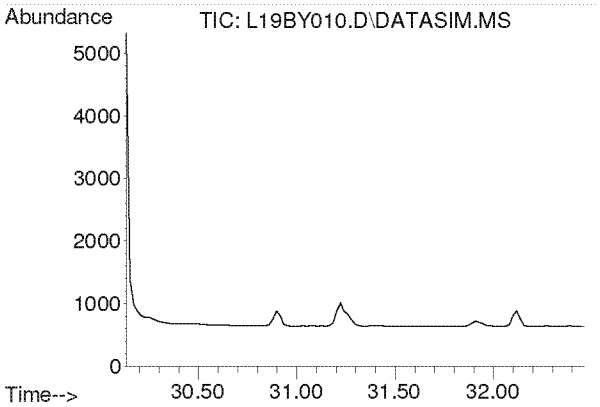
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



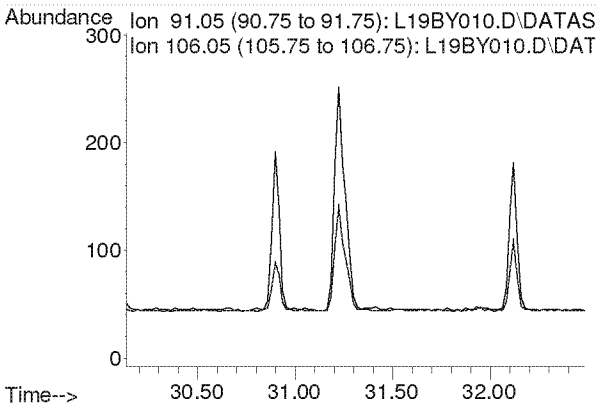


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

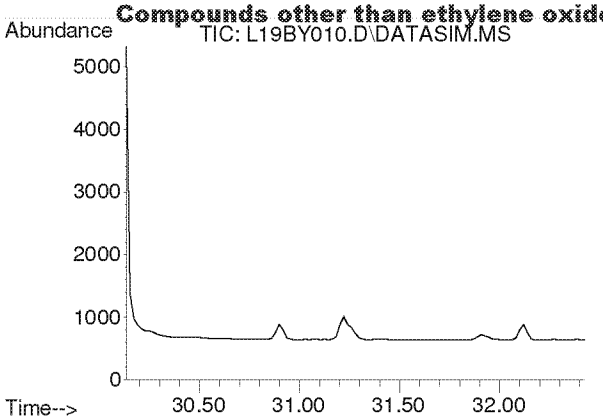
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

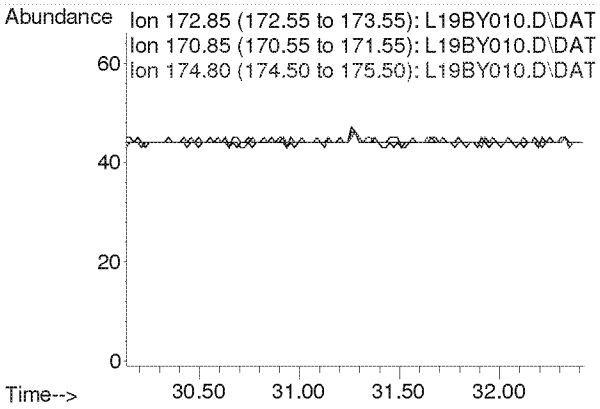


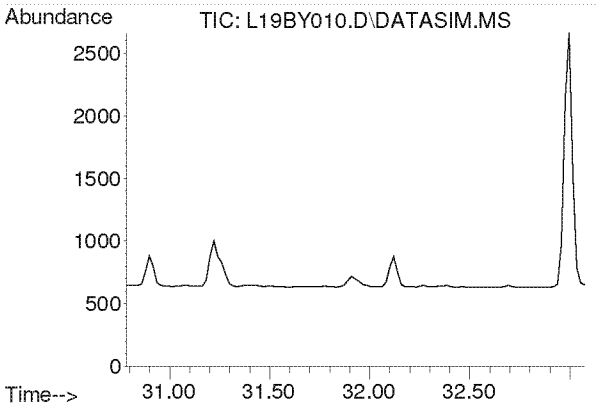
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



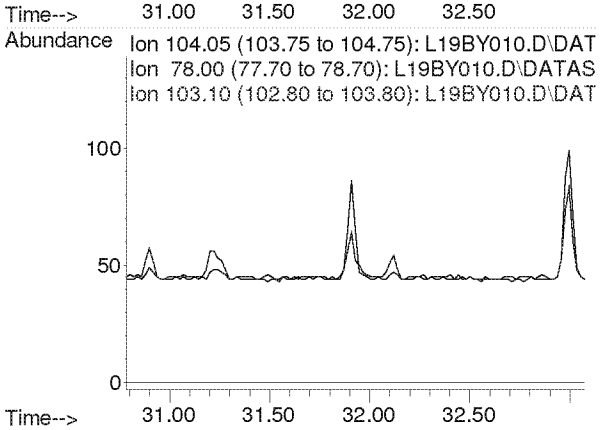


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

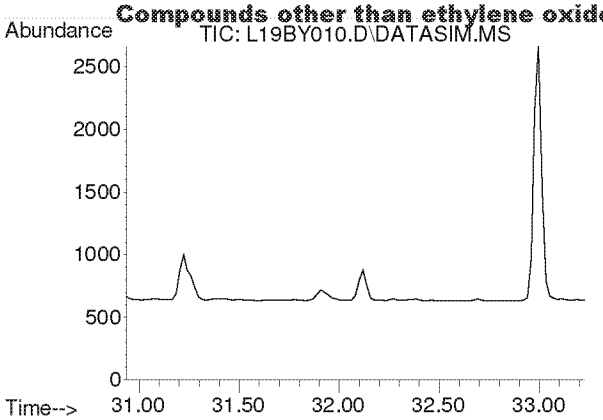
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

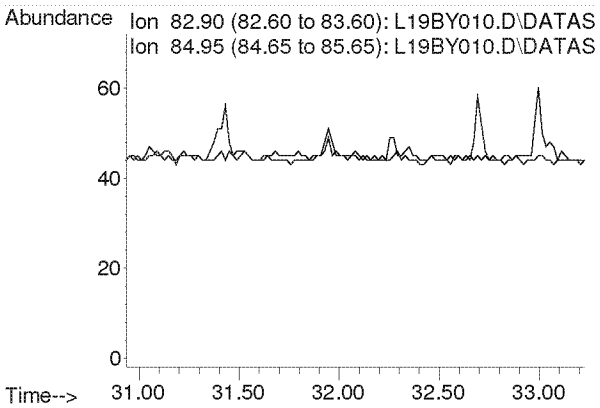


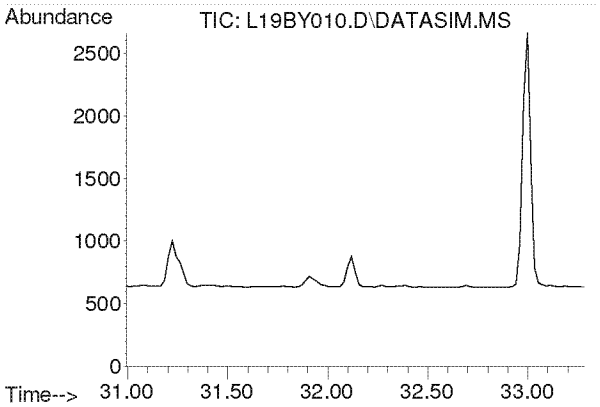
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



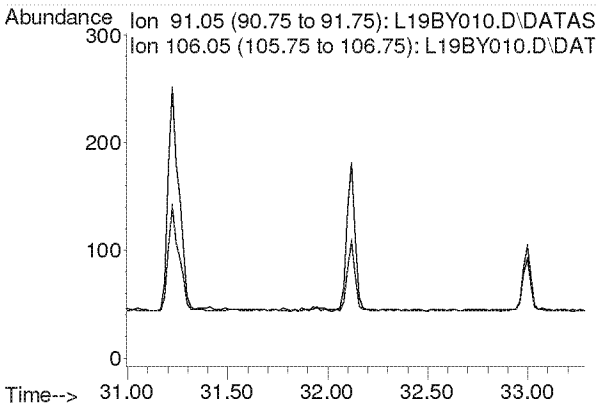


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

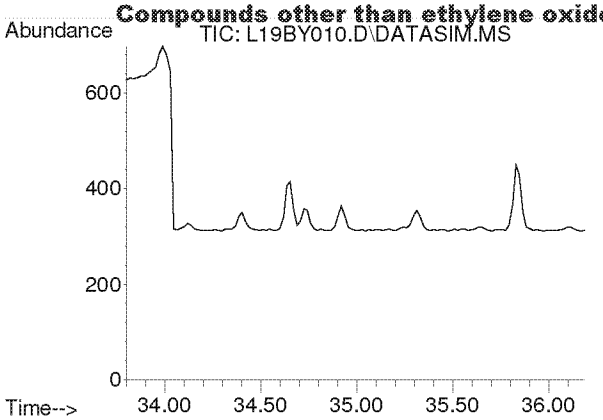
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

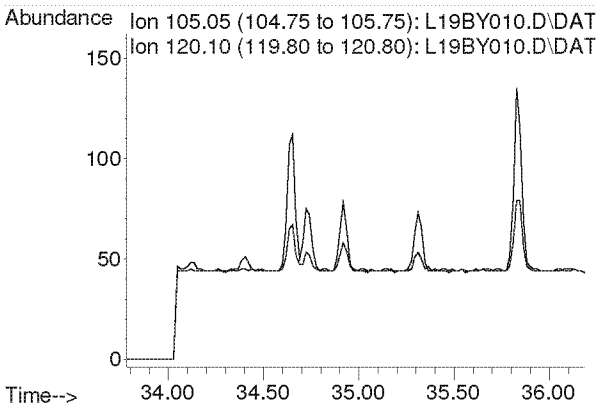


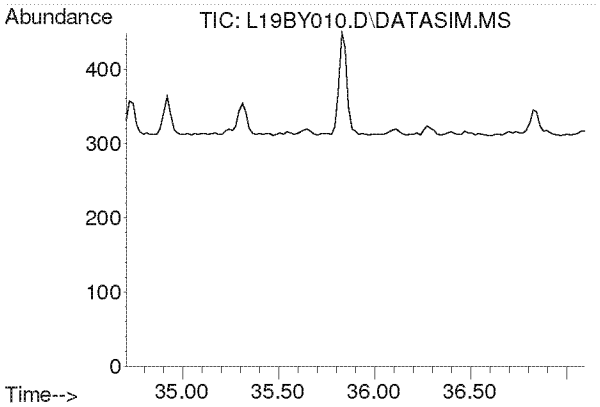
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



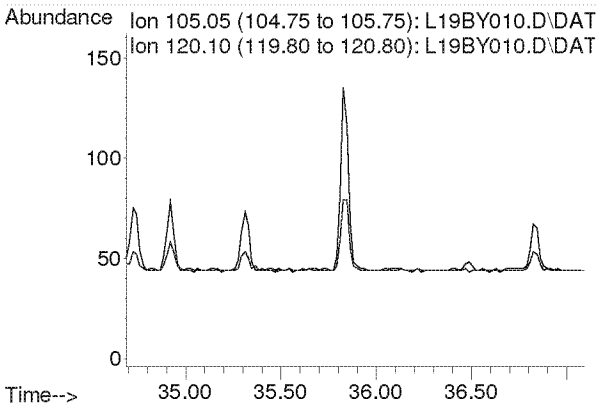


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

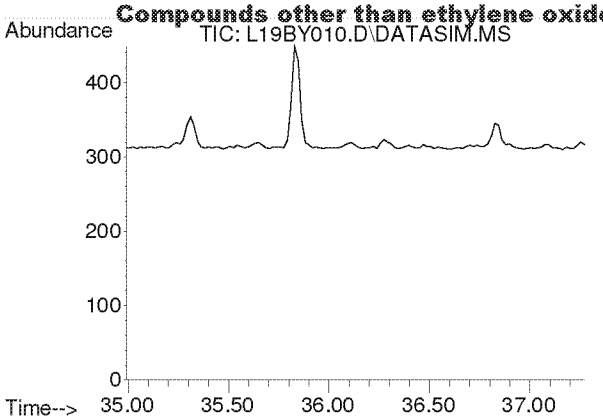
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

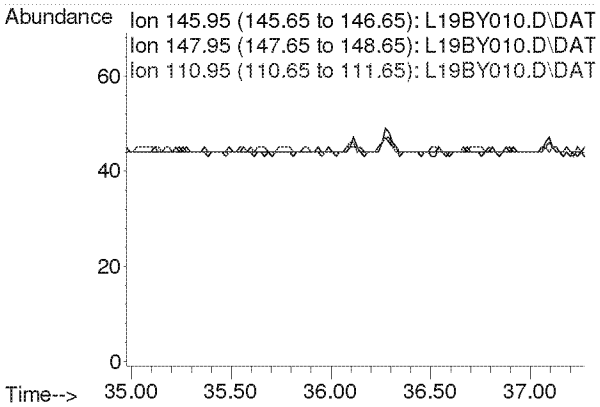


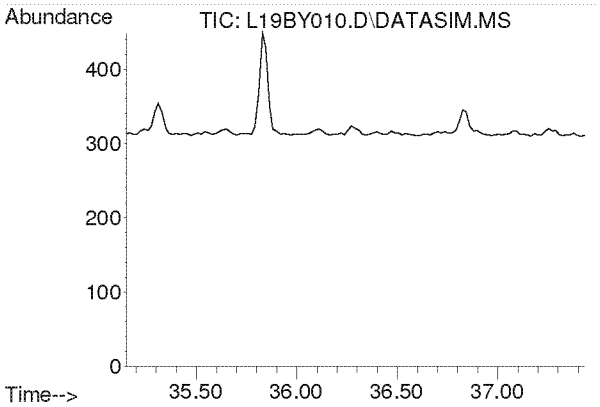
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



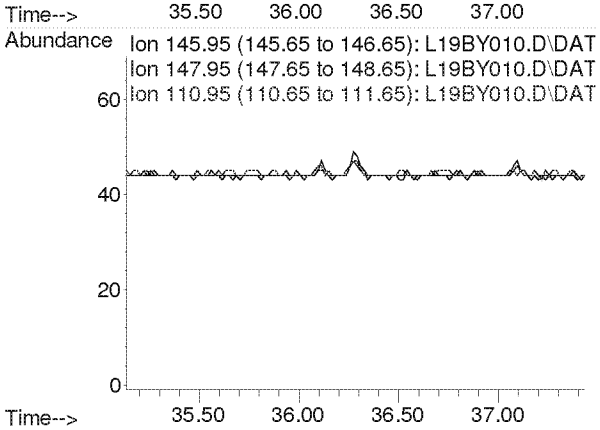


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

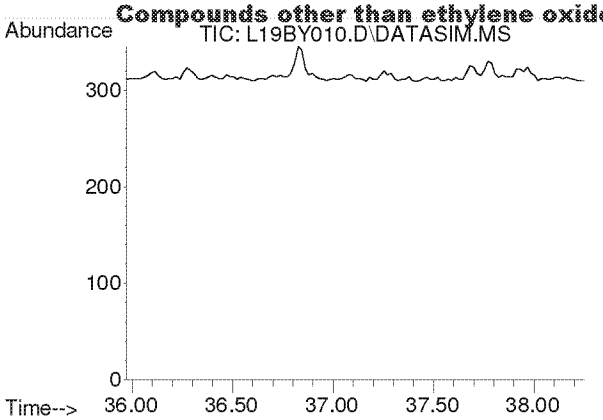
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

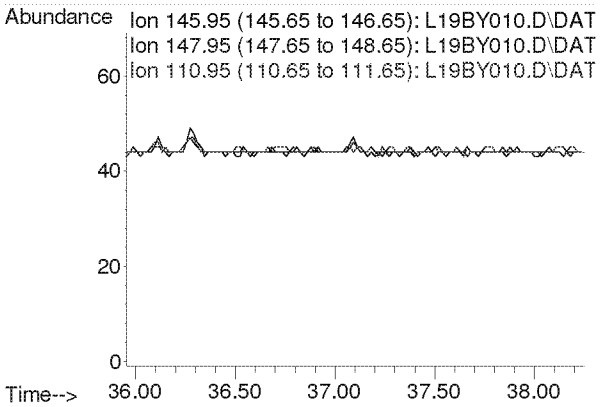


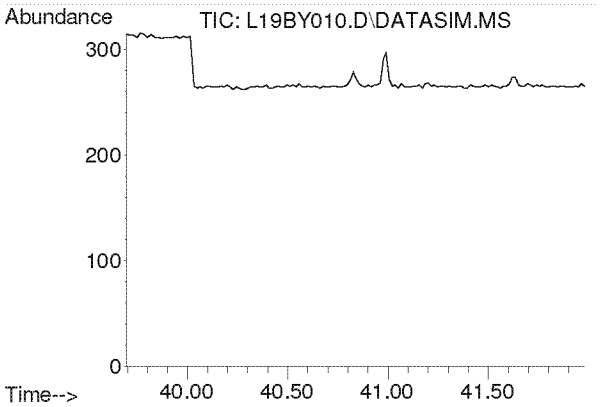
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



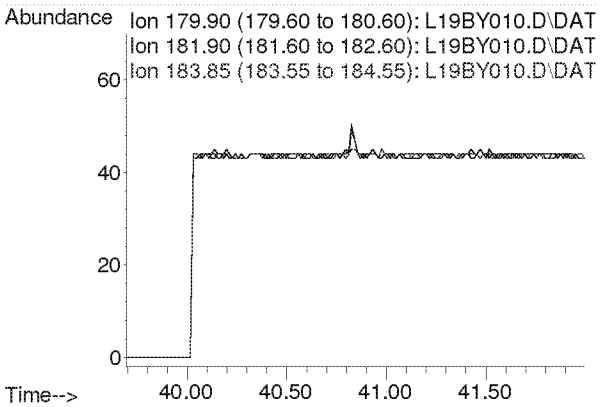


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

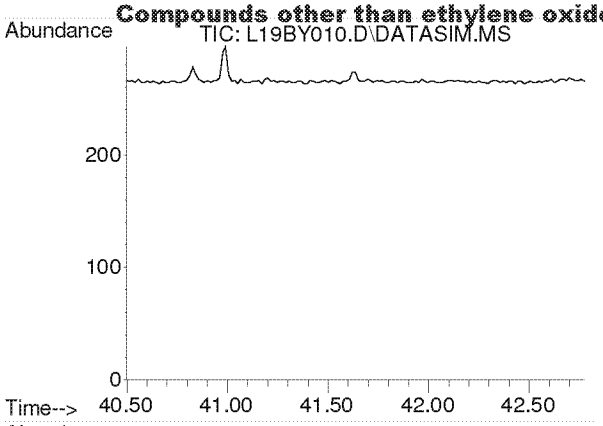
Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

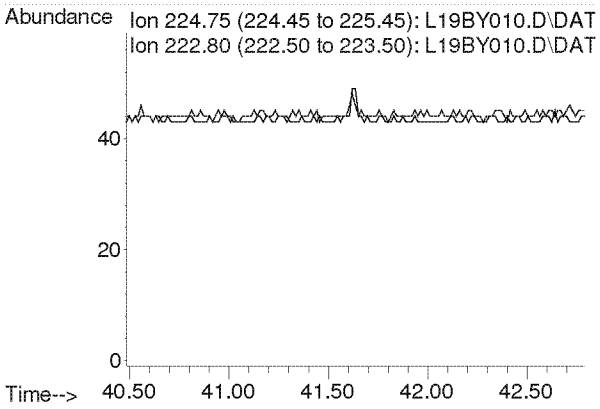


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY010.D
Acq: 25 Feb 2019 4:27 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY011.D
Acq On : 25 Feb 2019 5:27 pm (#1); 25-Feb-19, 17:22:06 (#2)
Operator : MAH
Sample : 9022202-04
Misc : WILLOW POND PARK 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 26 10:10:21 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

EtOf only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	41604	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	106790	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	73769	4.7400 ppbv	-0.02

System Monitoring Compounds

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY011.D
Acq On : 25 Feb 2019 5:27 pm (#1); 25-Feb-19, 17:22:06 (#2)
Operator : MAH
Sample : 9022202-04
Misc : WILLOW POND PARK 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 26 10:10:21 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

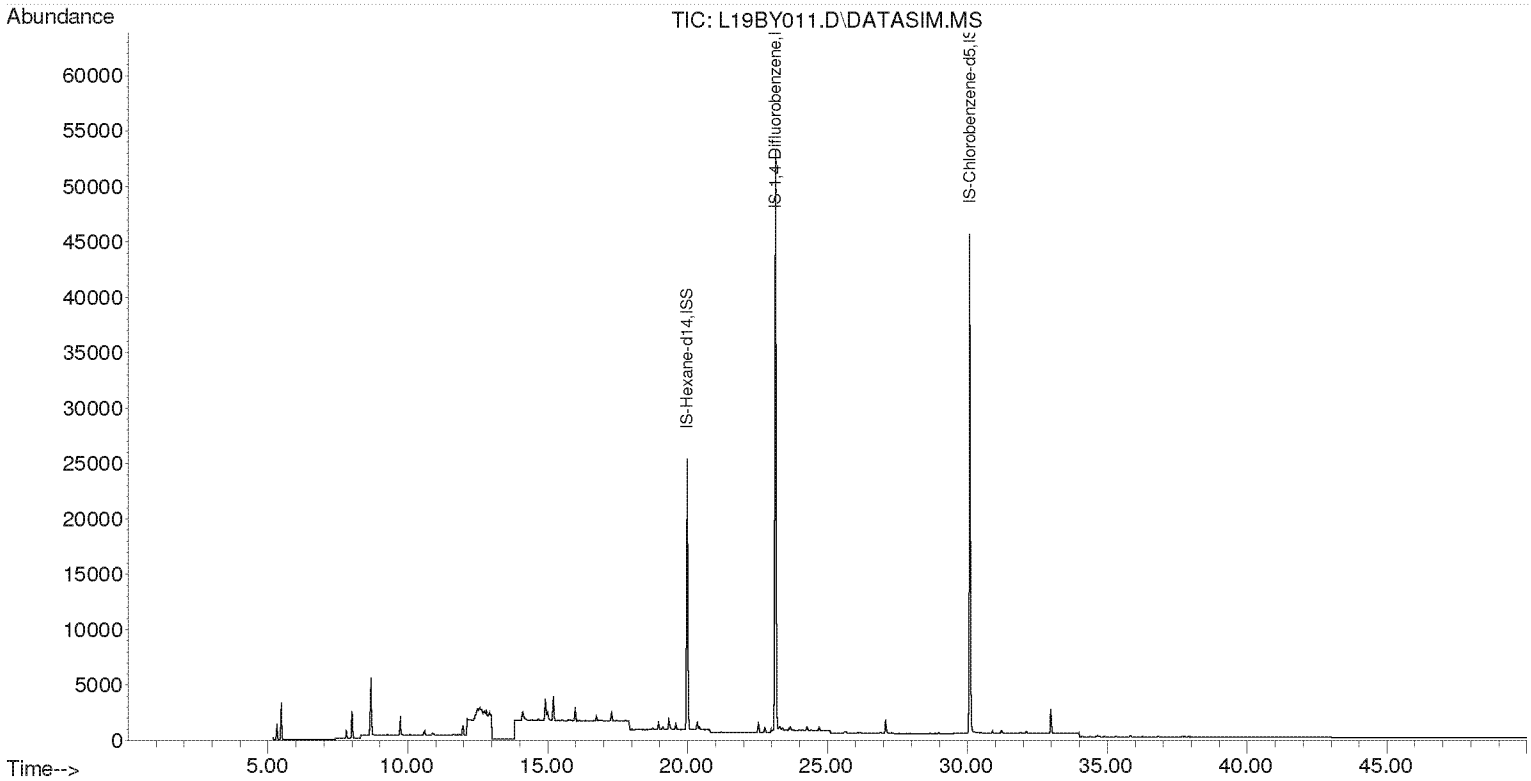
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

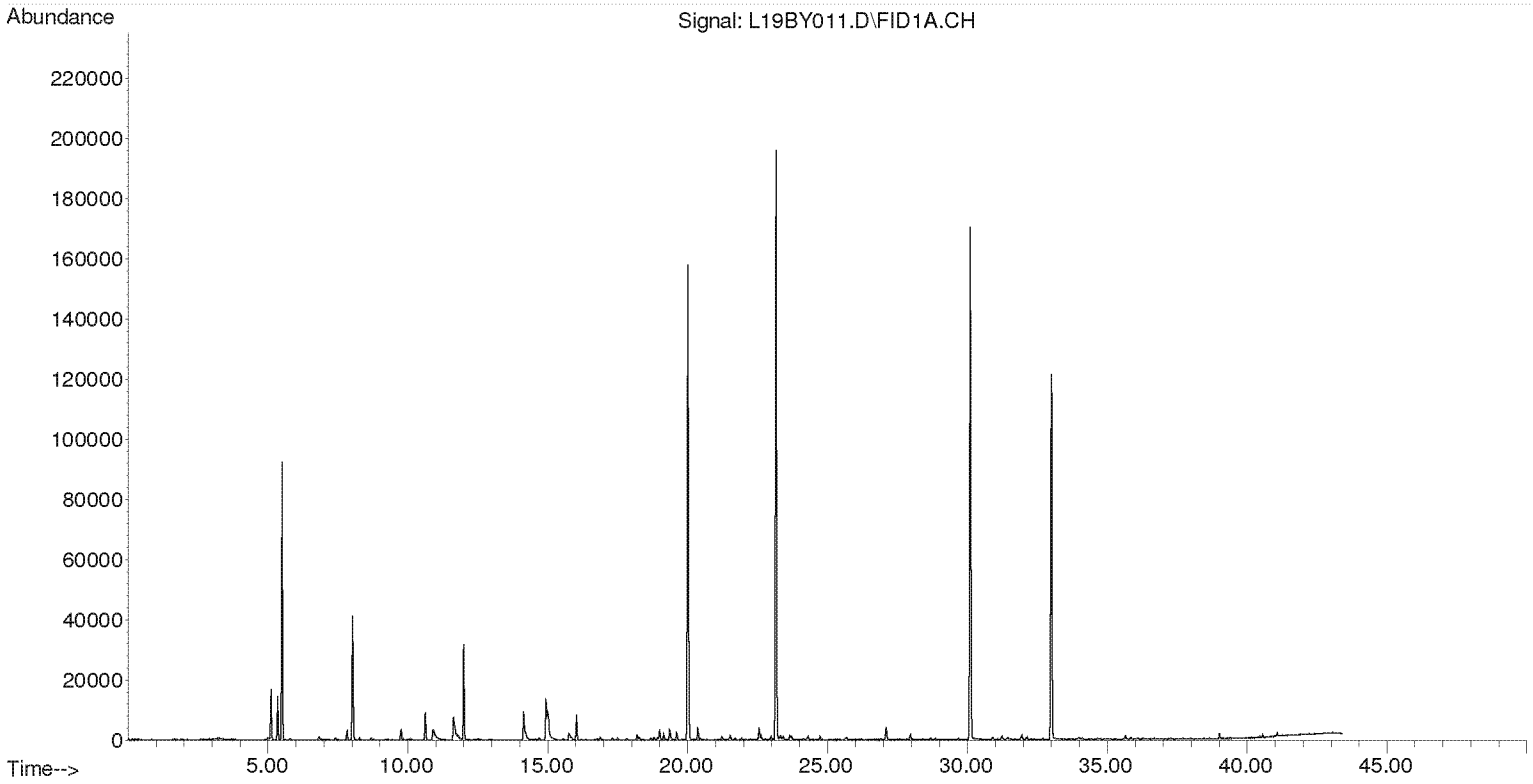
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

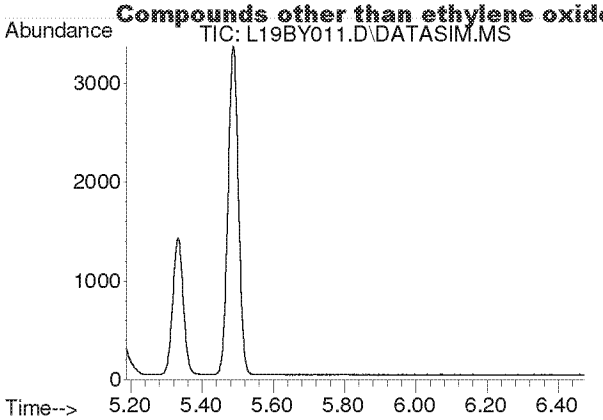
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY011.D
Acq On : 25 Feb 2019 5:27 pm (#1); 25 Feb 2019 5:22 pm (#2)
Operator : MAH
Sample : 9022202-04
Misc : WILLOW POND PARK 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 26 09:54:33 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





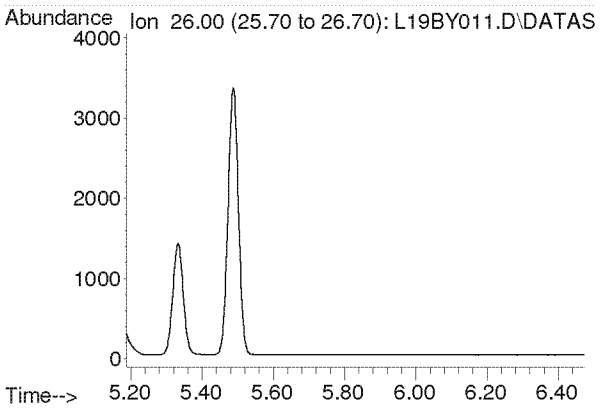
Compounds other than ethylene oxide were not quantitated.

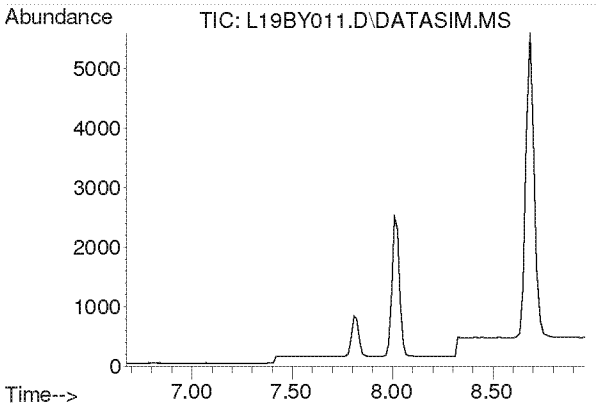


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 26



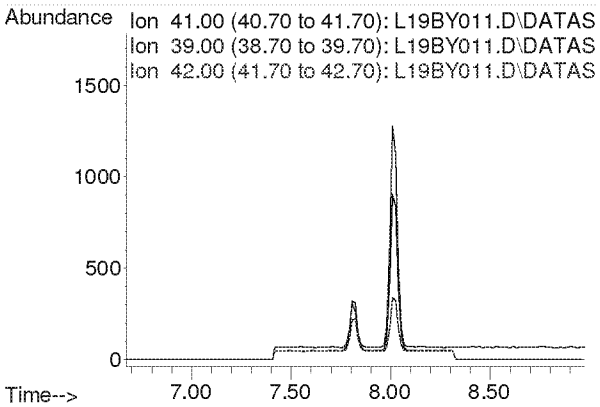


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

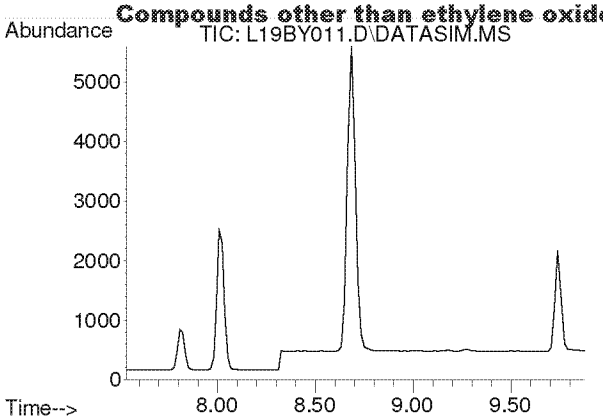
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

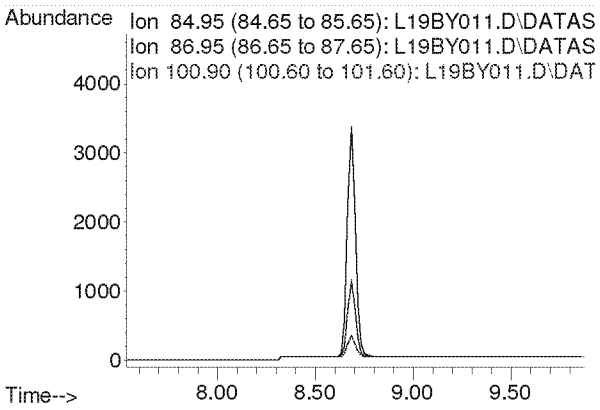


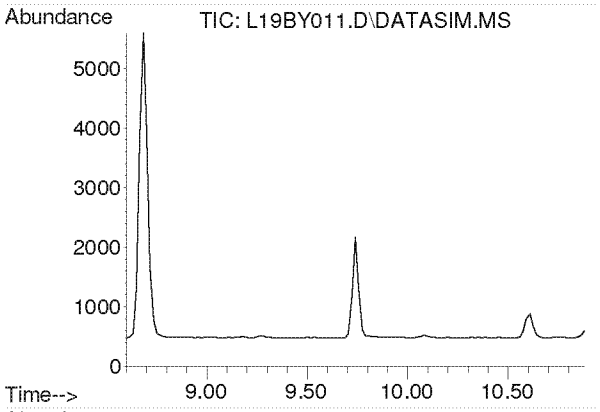
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



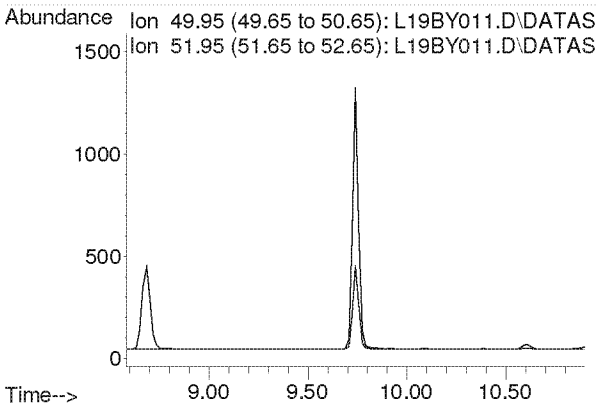


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

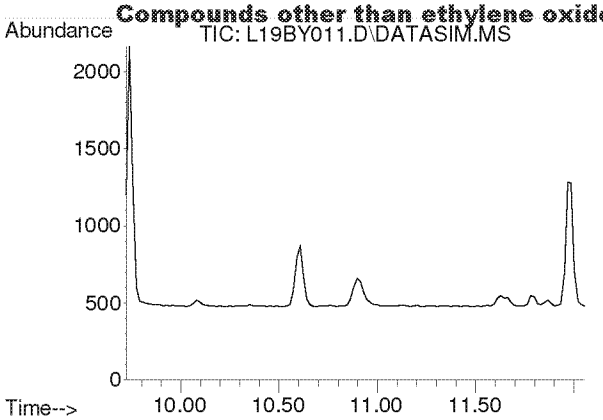
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

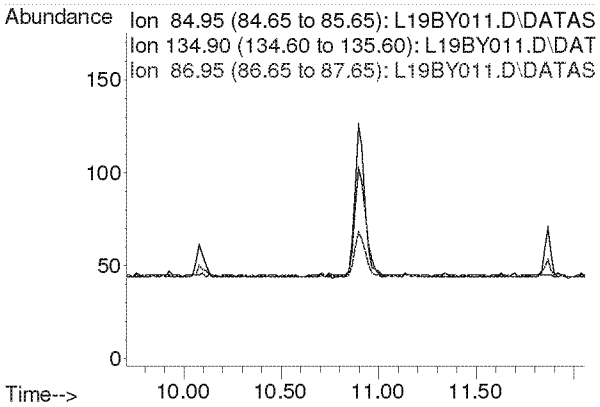


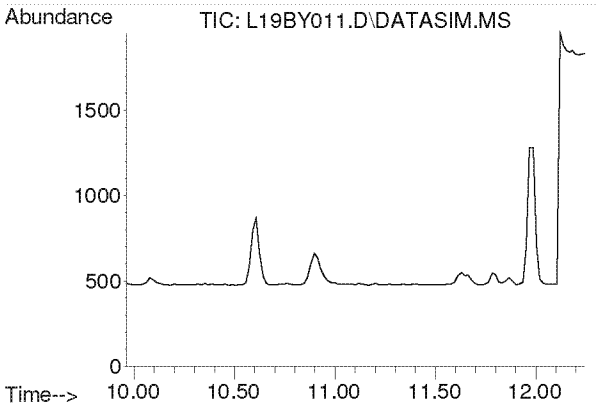
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



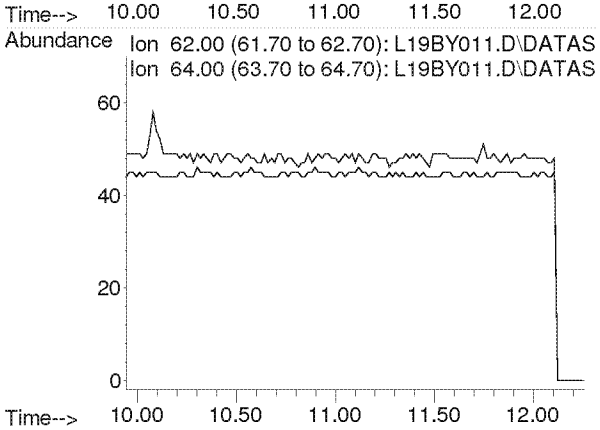


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

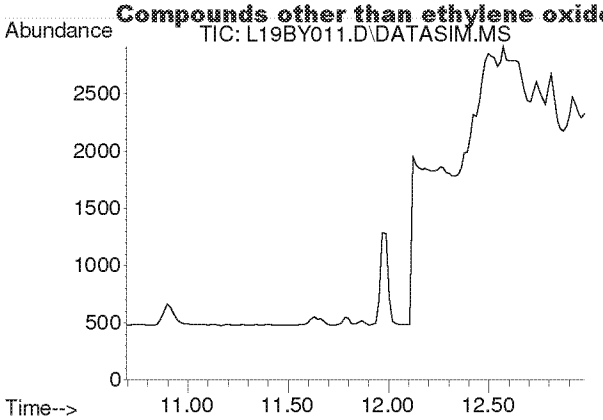
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

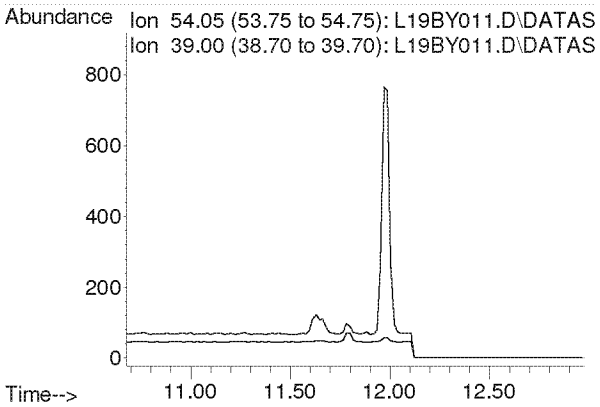


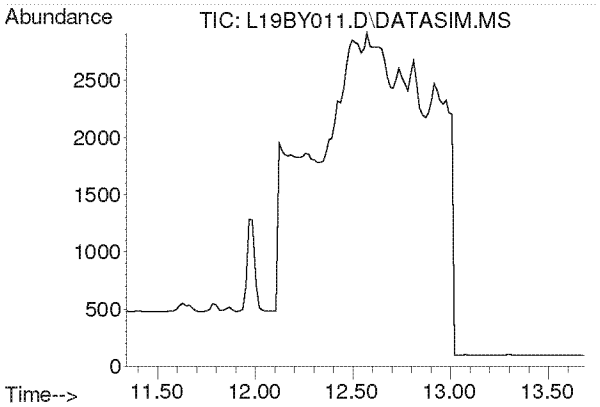
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



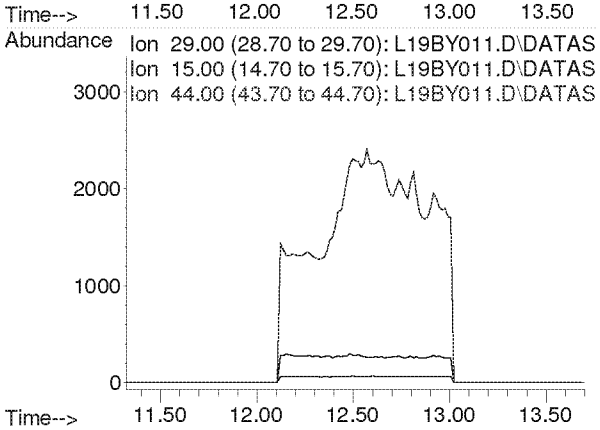


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

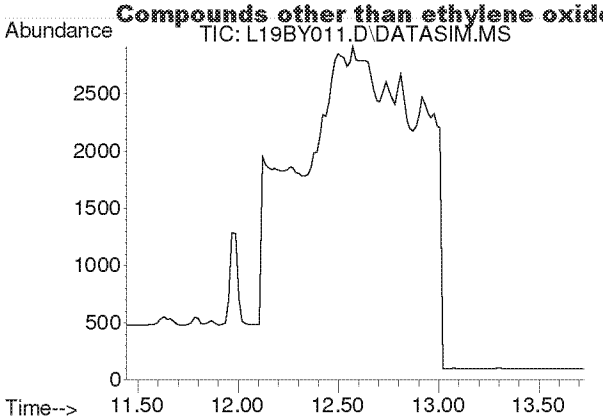
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

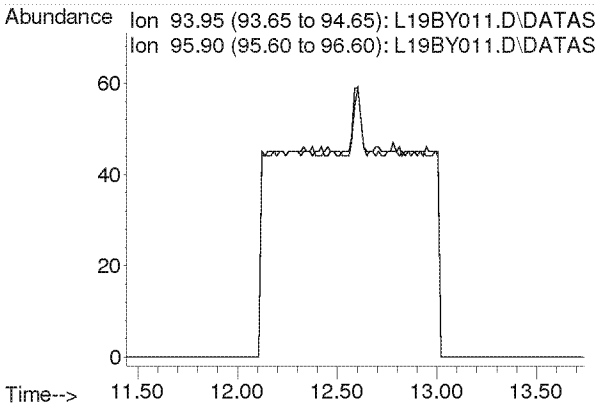


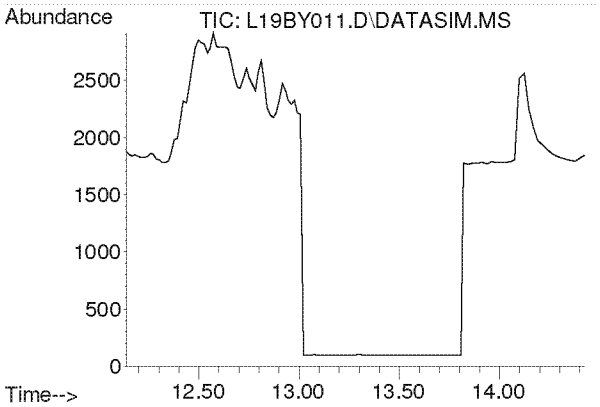
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



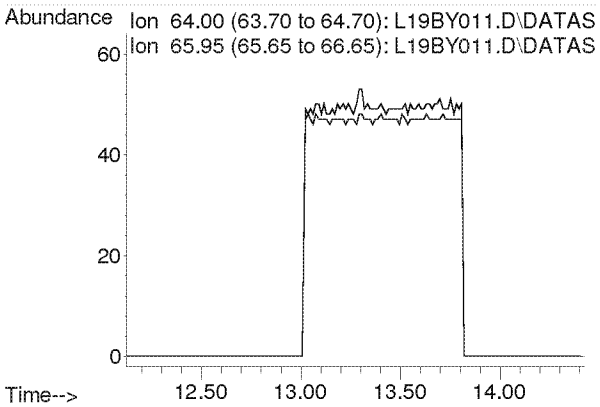


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

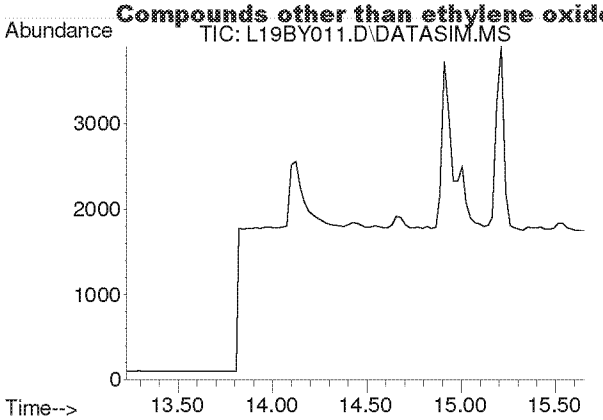
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

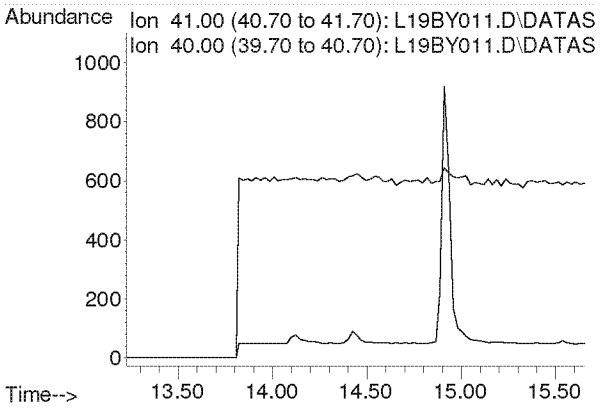


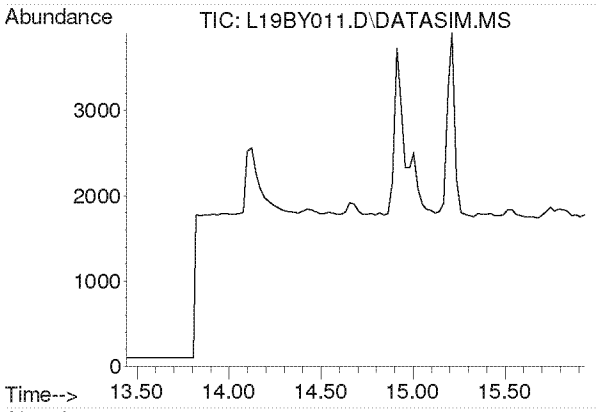
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



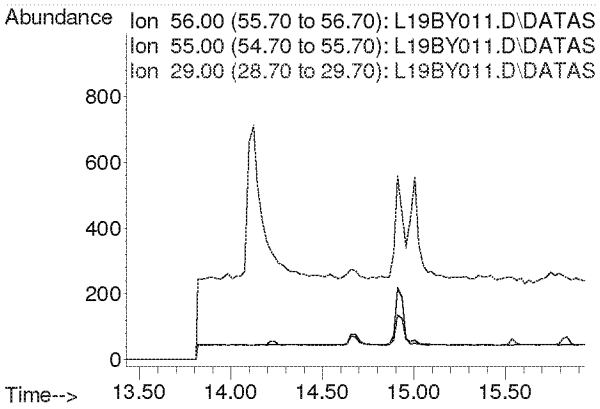


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

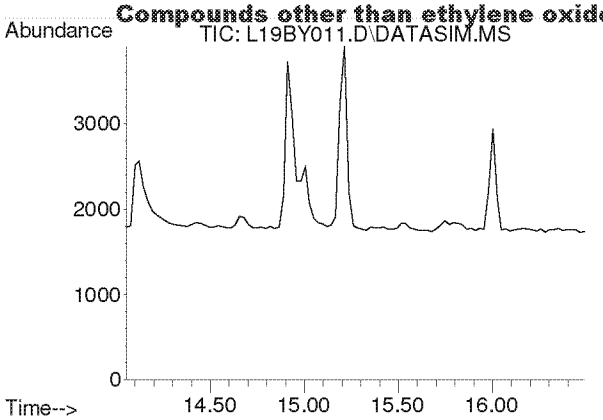
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

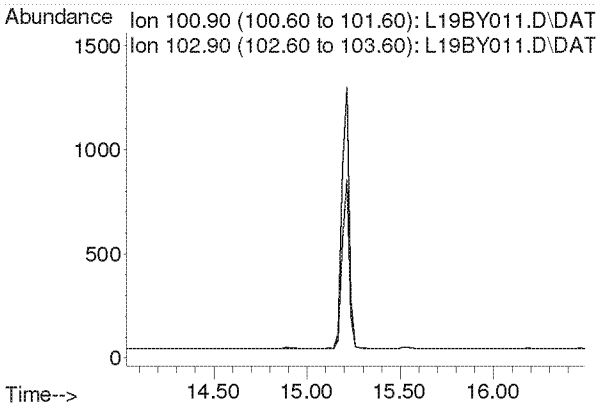


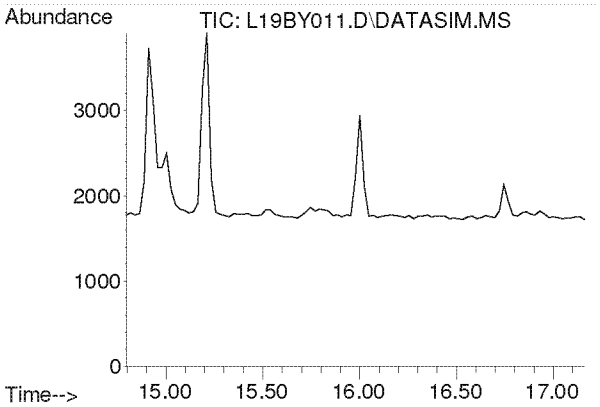
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



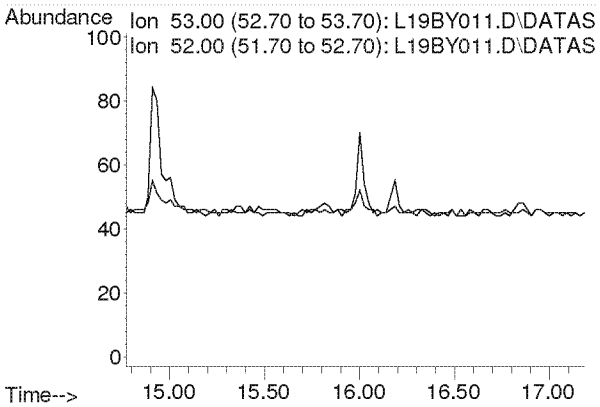


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

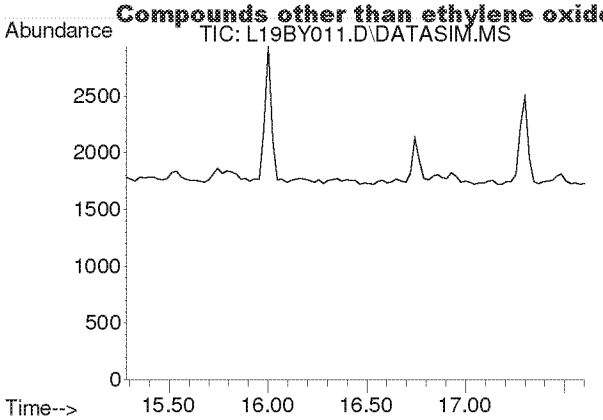
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

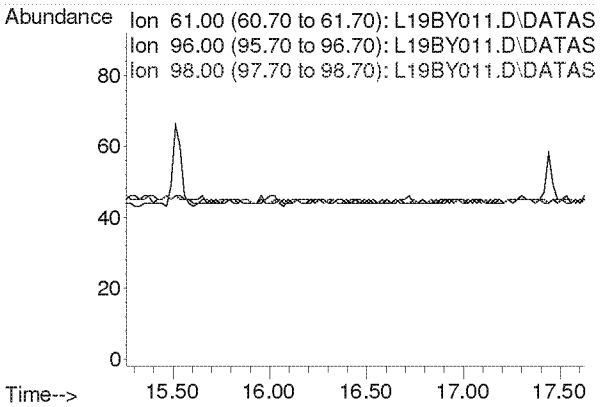


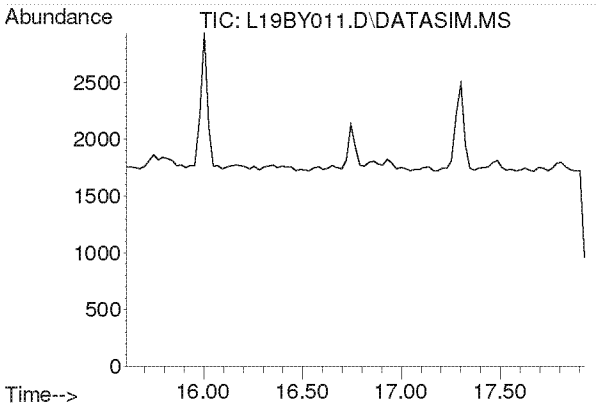
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



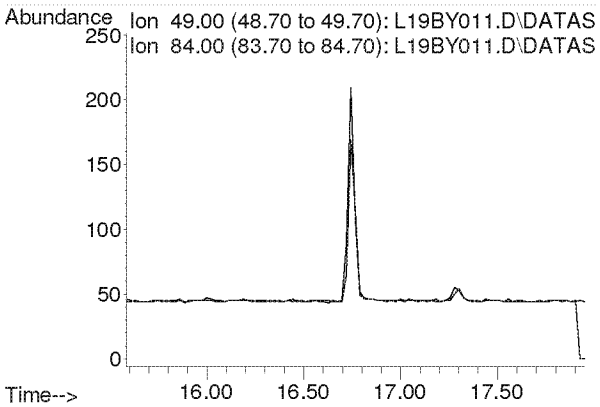


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

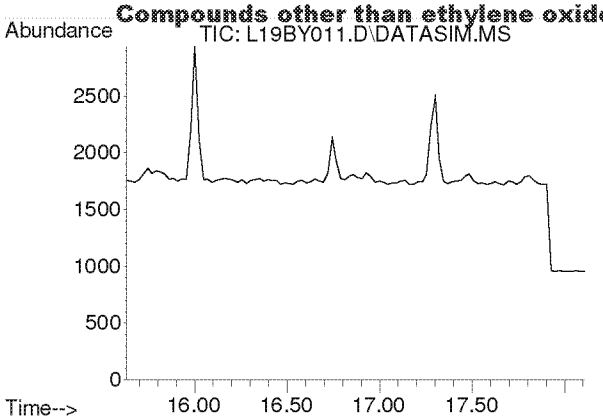
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

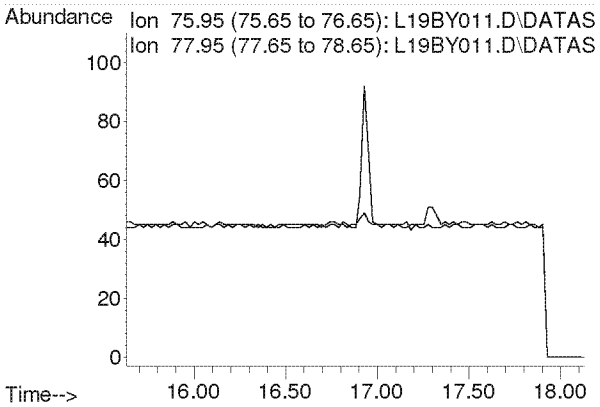


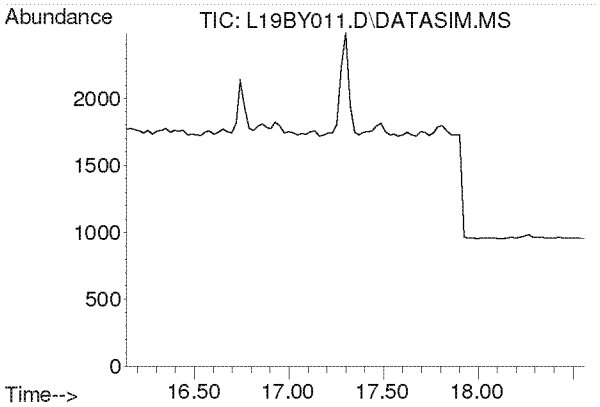
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



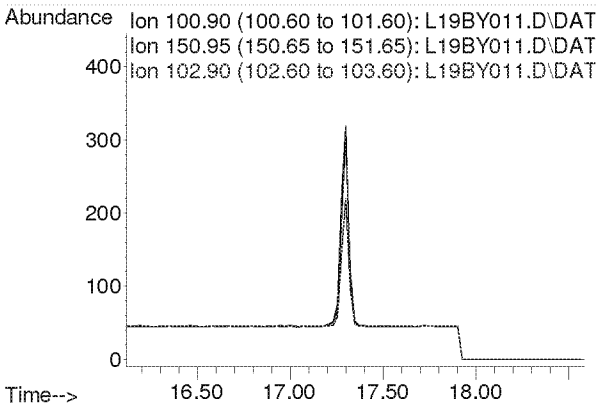


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

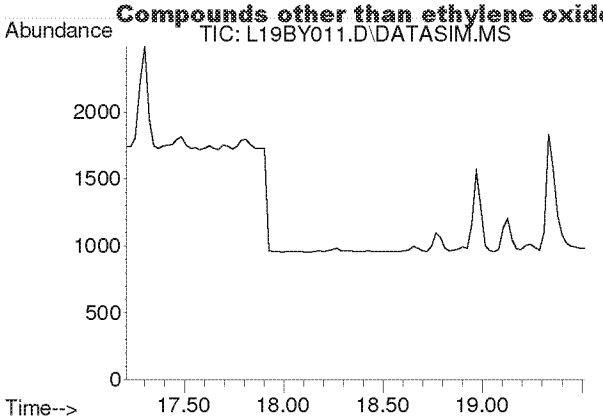
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

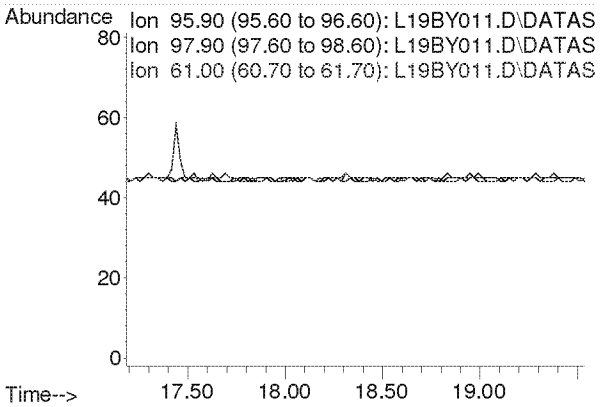


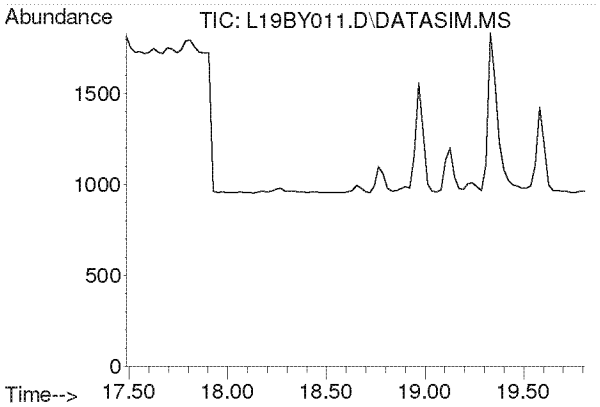
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



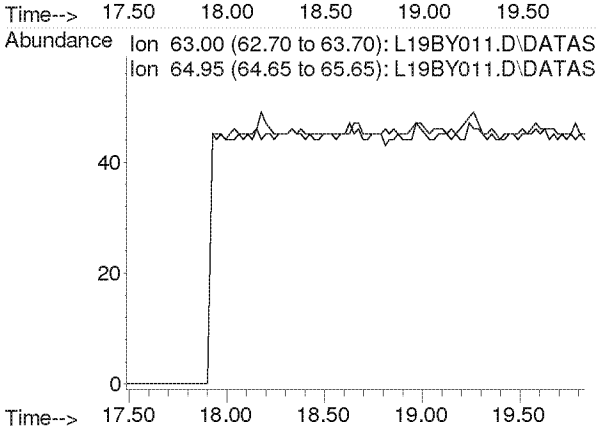


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

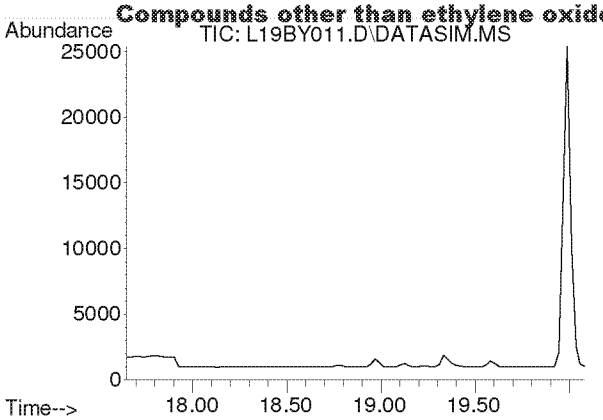
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

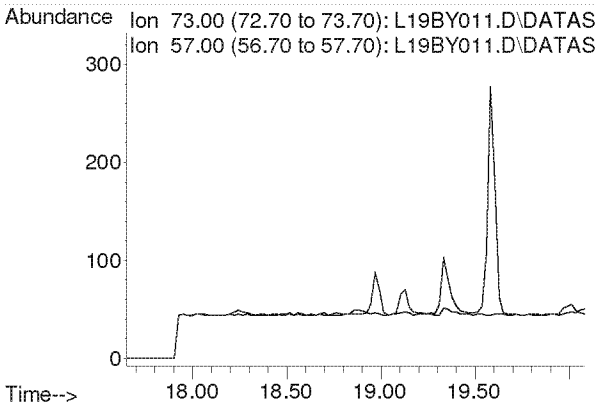


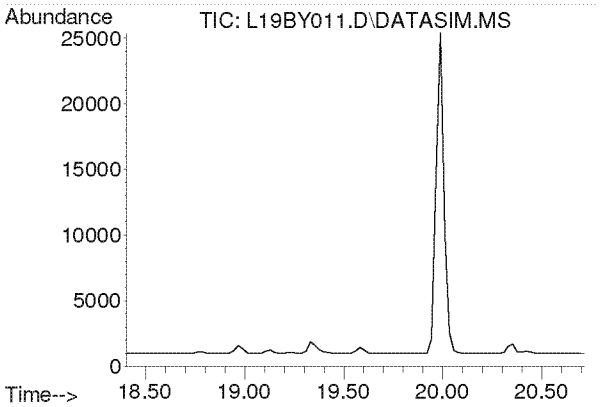
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



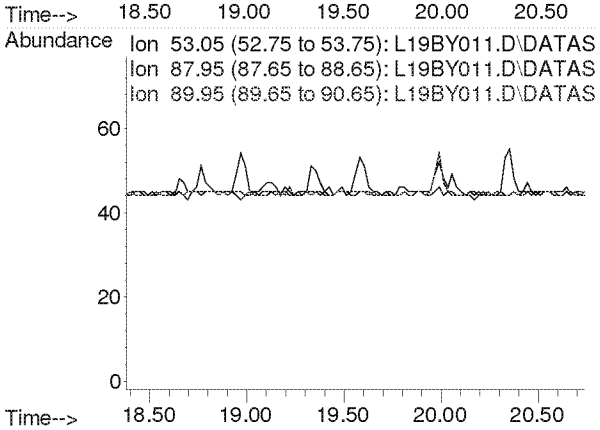


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

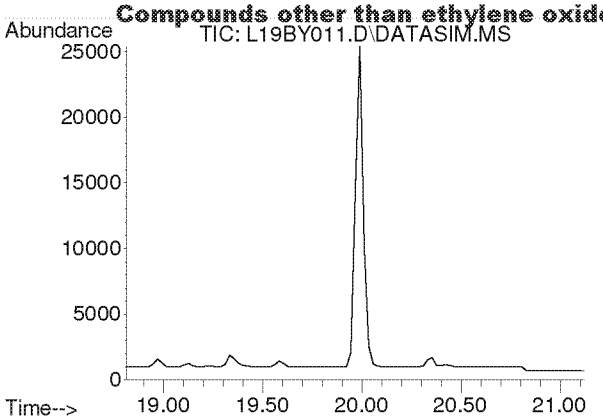
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

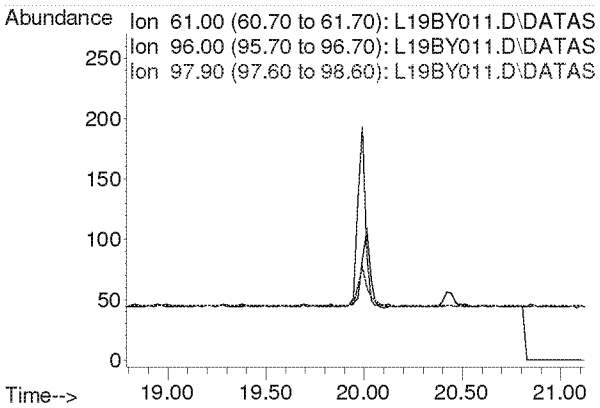


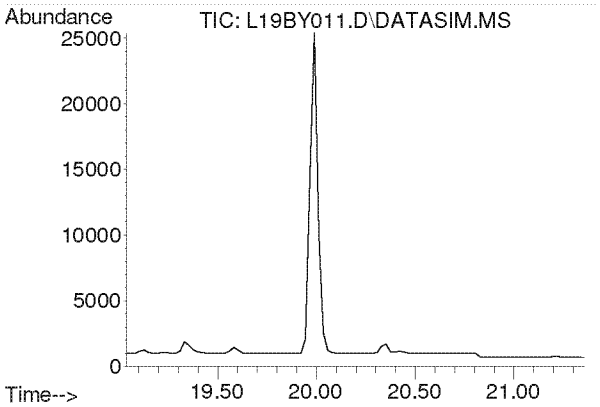
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



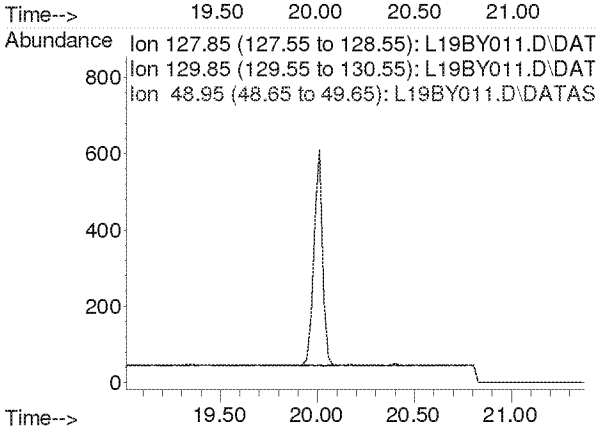


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

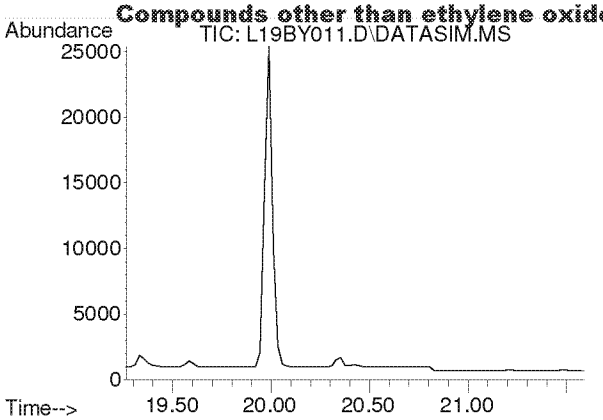
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

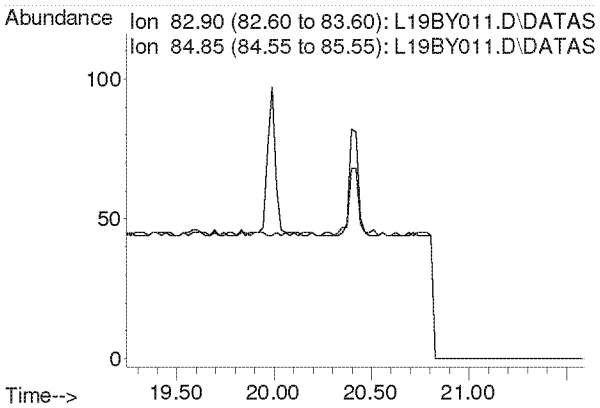


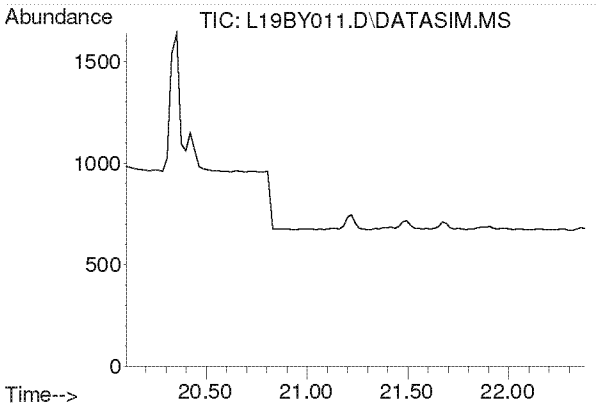
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



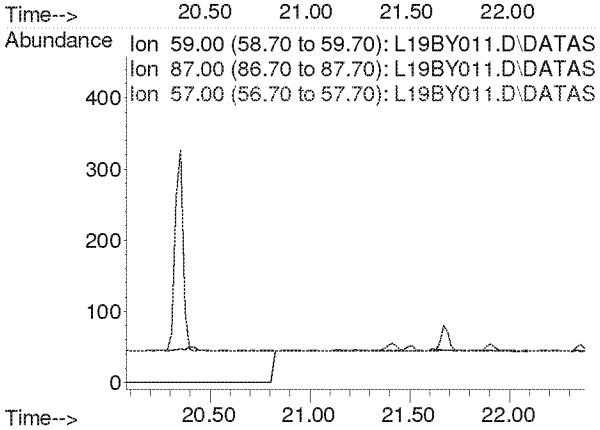


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

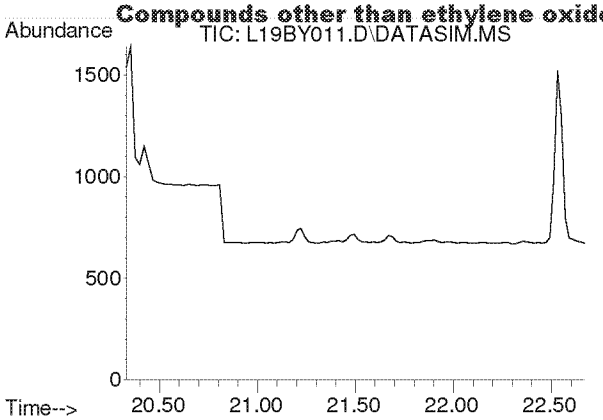
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

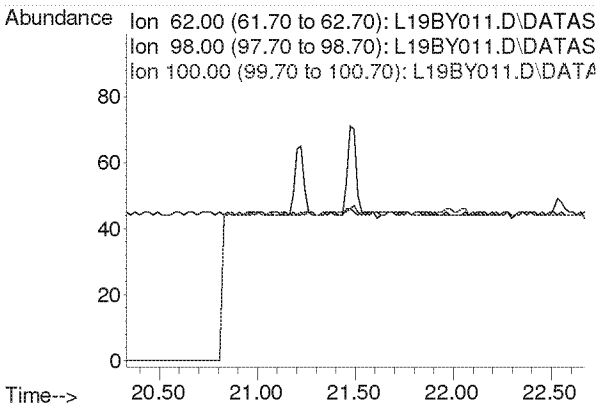


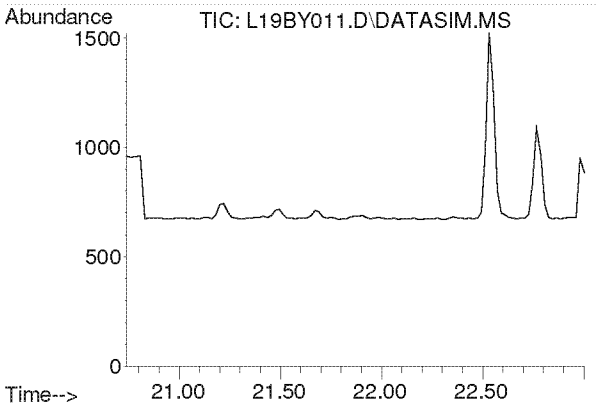
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



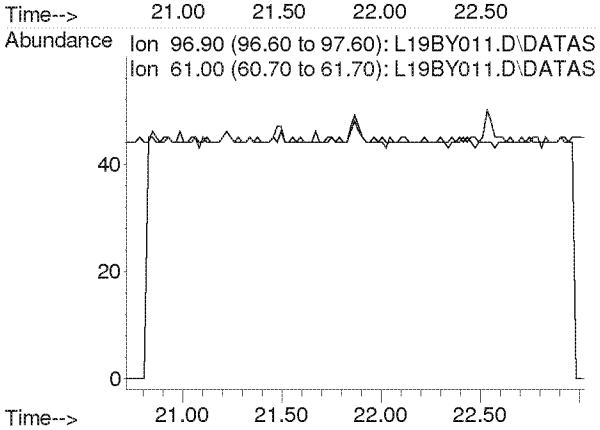


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

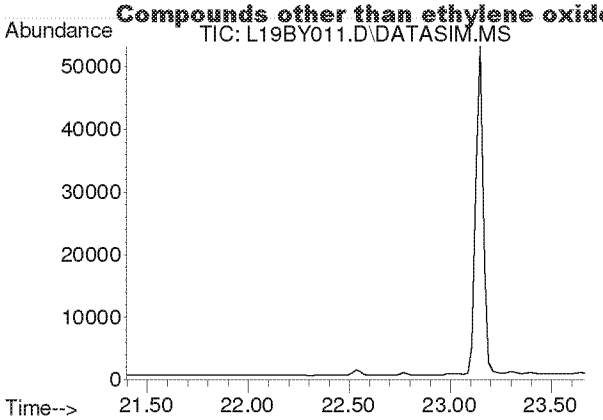
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

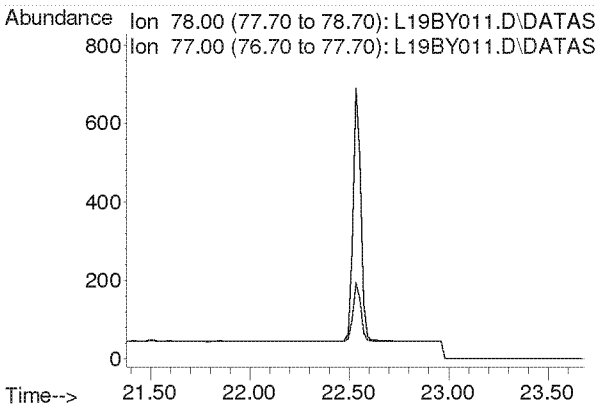


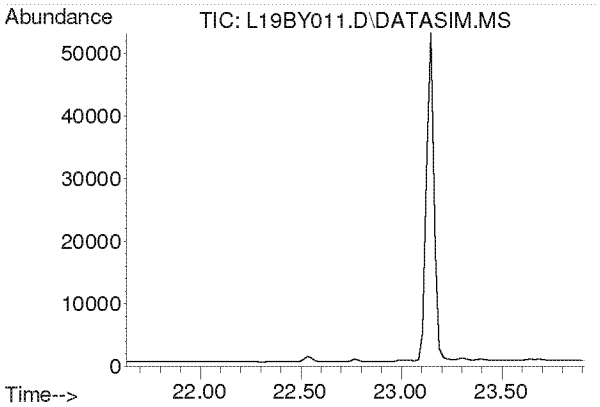
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



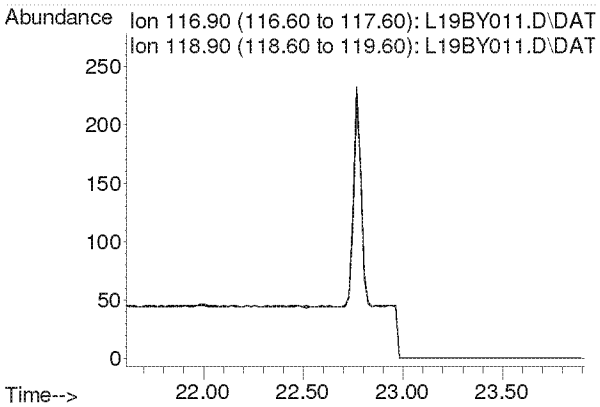


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

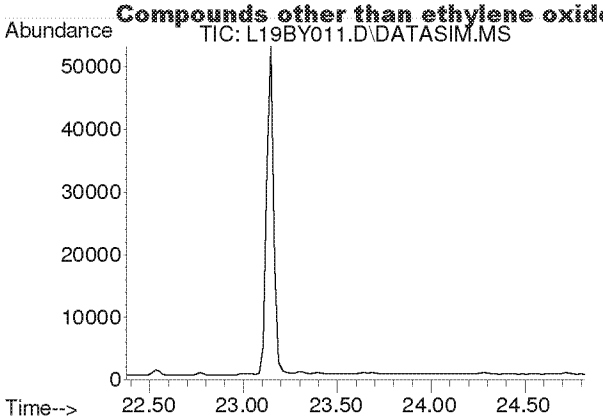
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

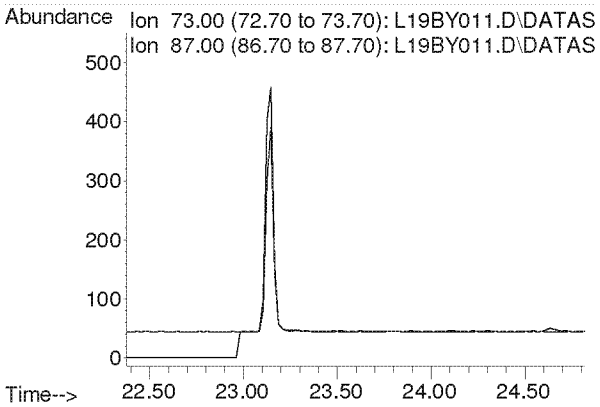


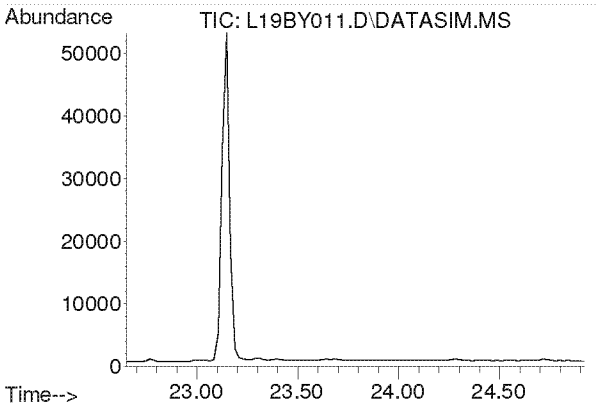
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



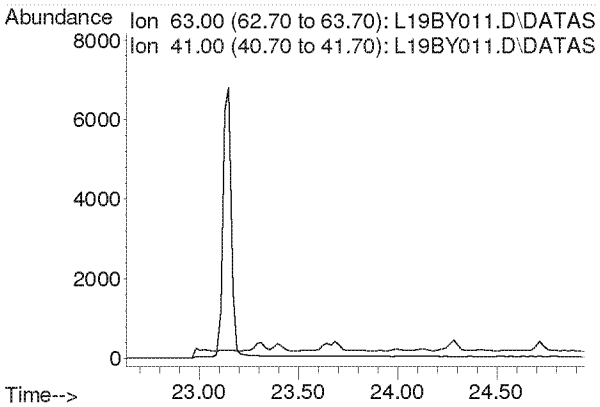


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

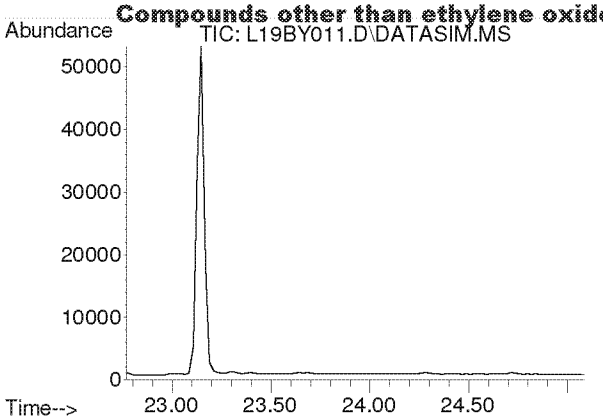
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

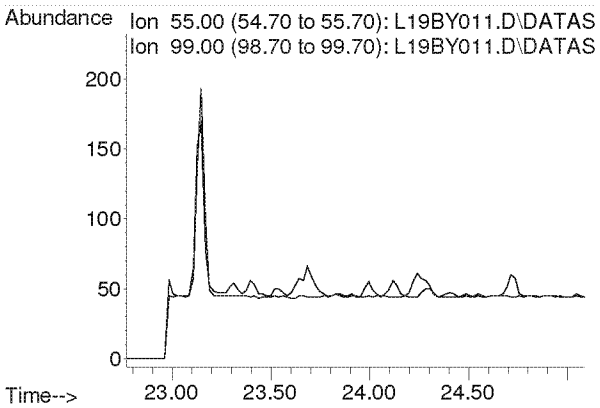


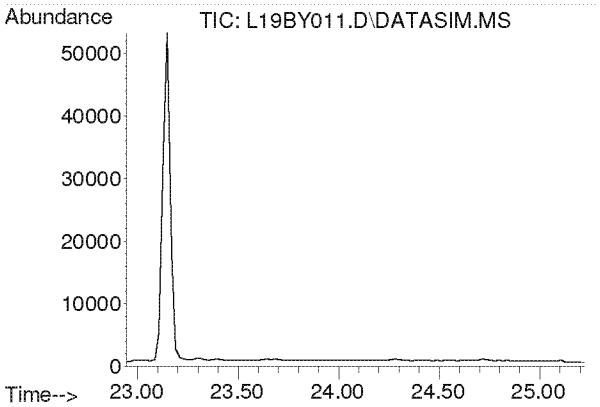
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



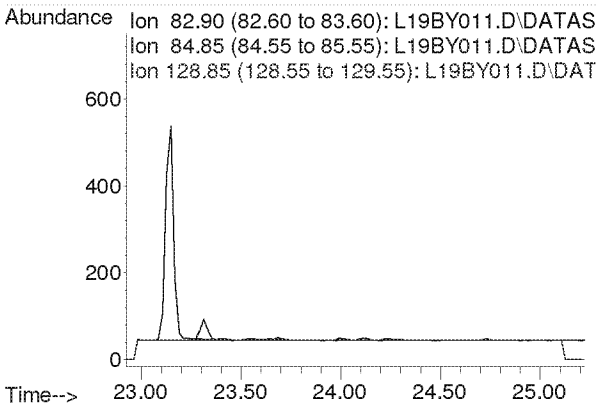


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

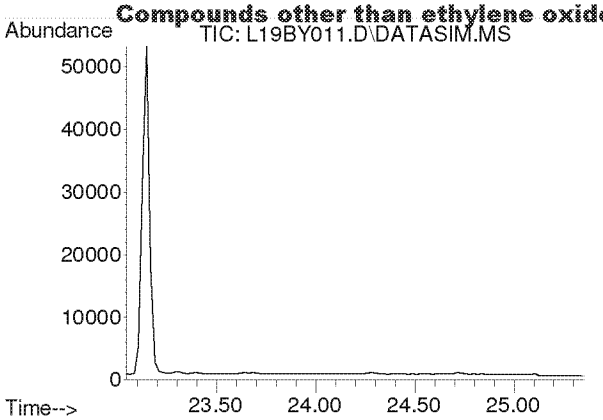
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

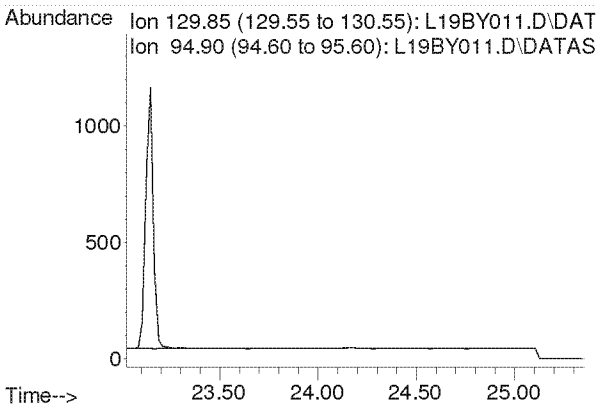


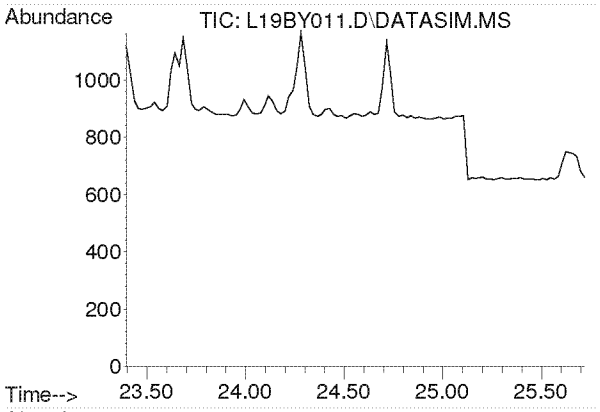
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



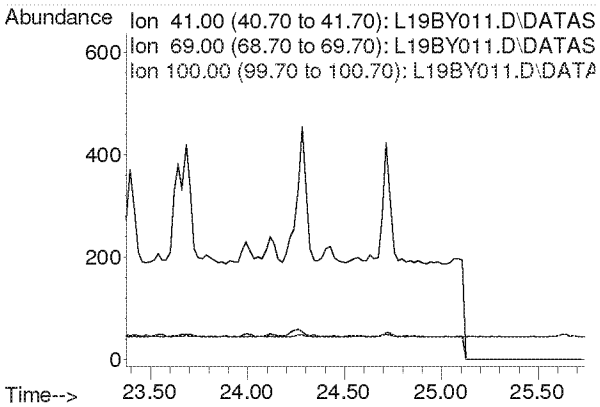


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

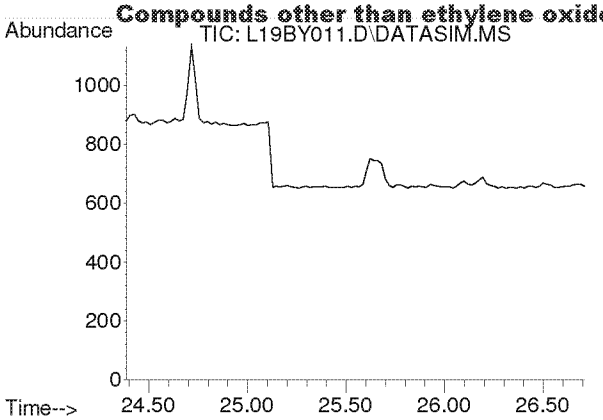
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

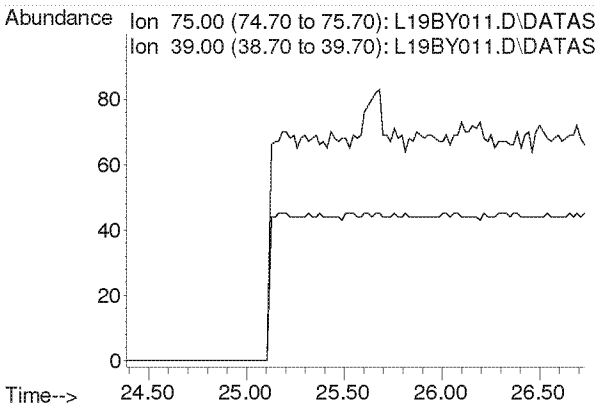


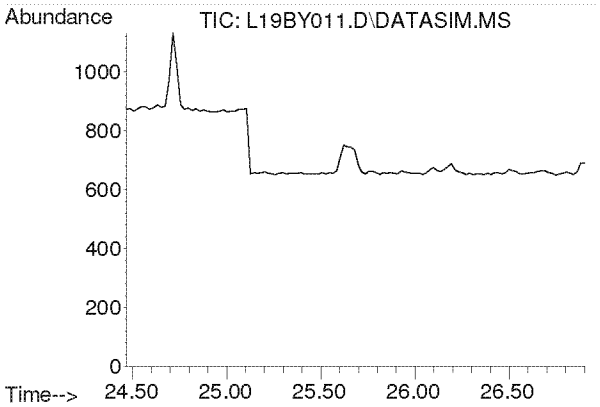
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



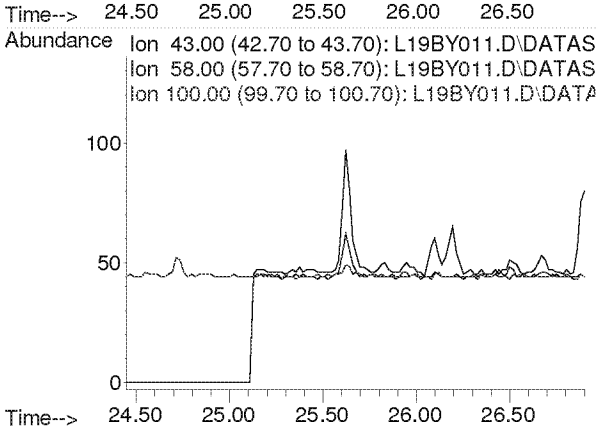


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

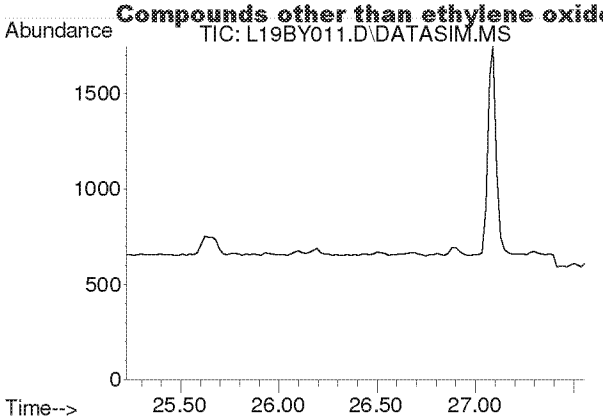
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

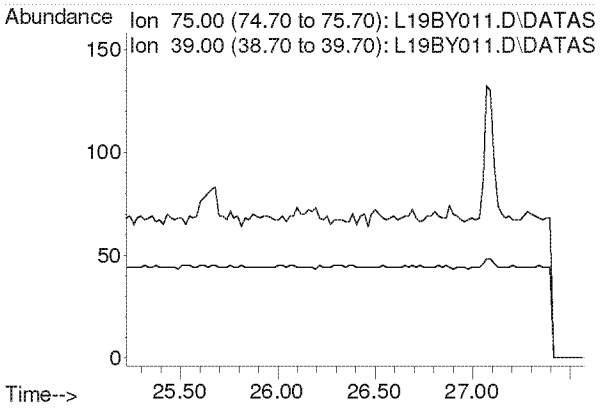


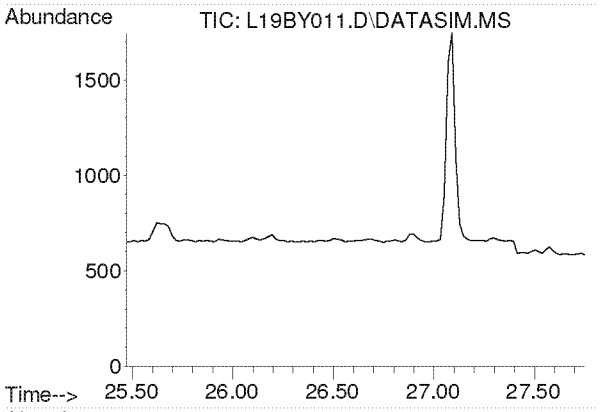
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



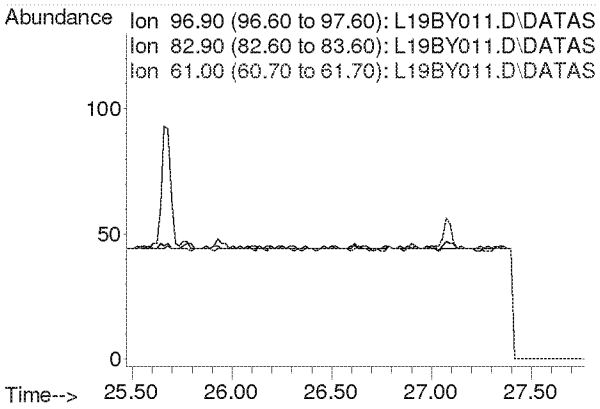


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

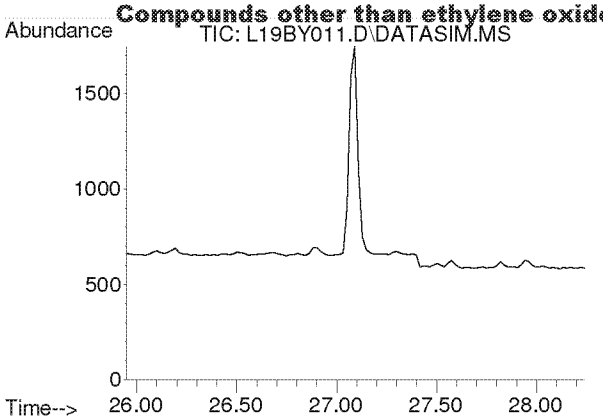
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

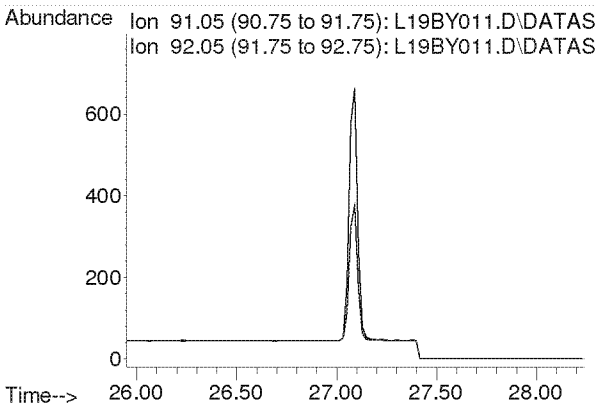


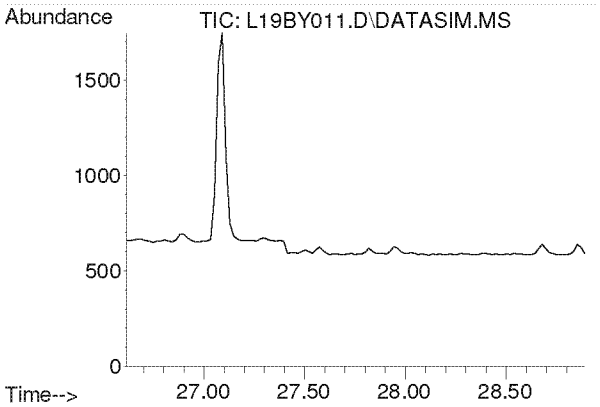
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



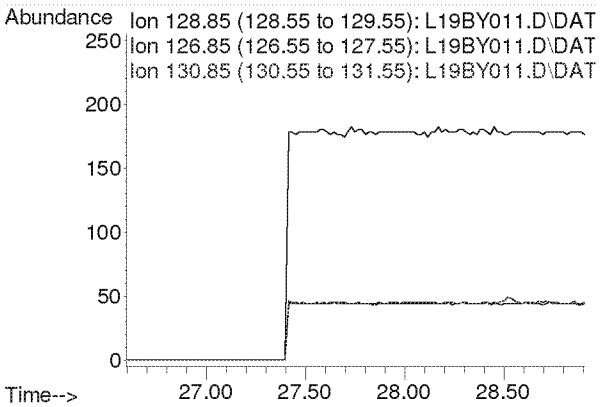


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

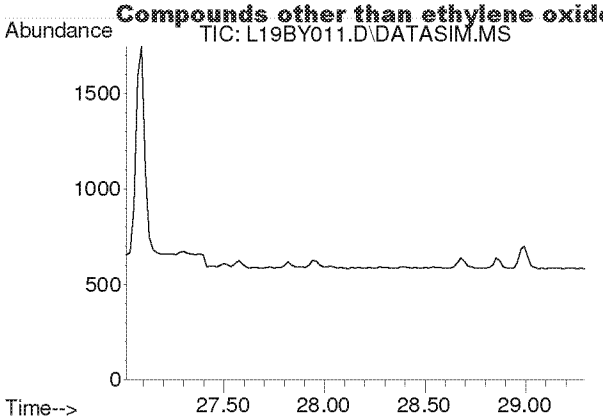
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

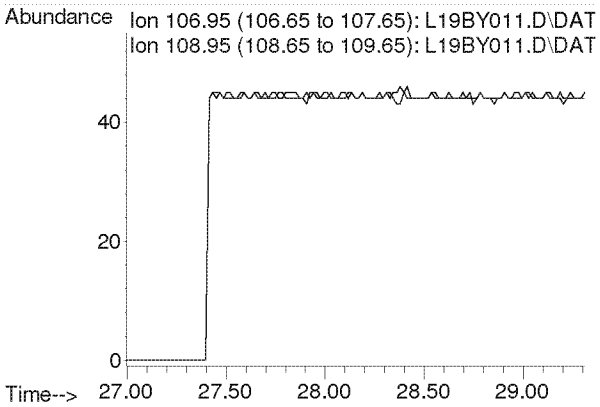


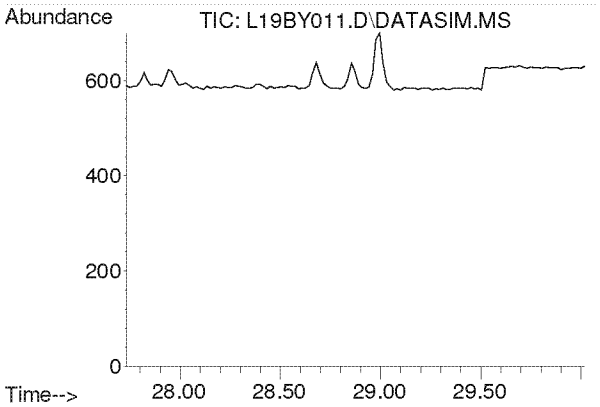
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



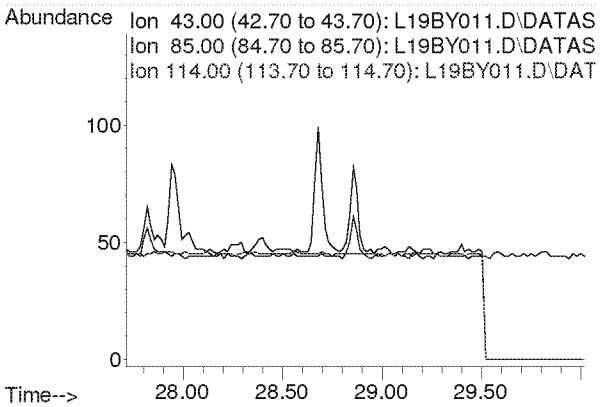


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

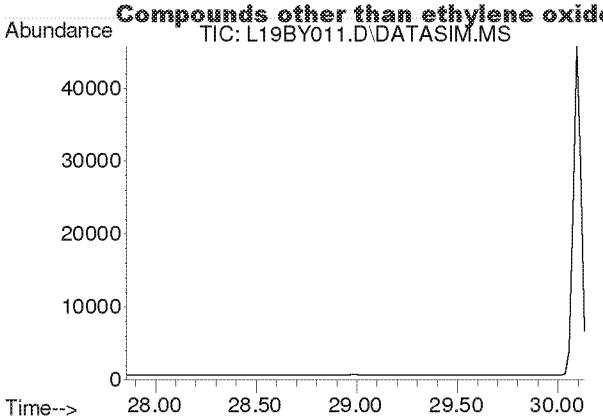
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

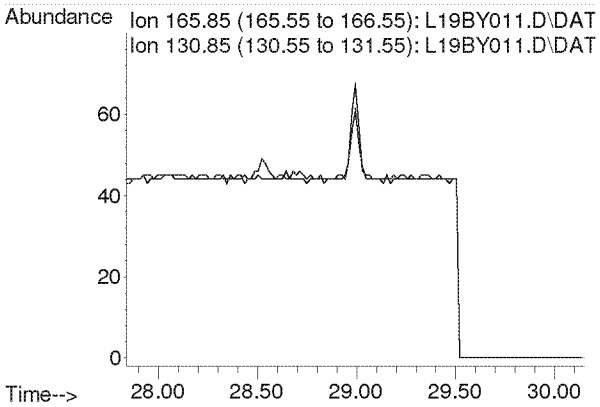


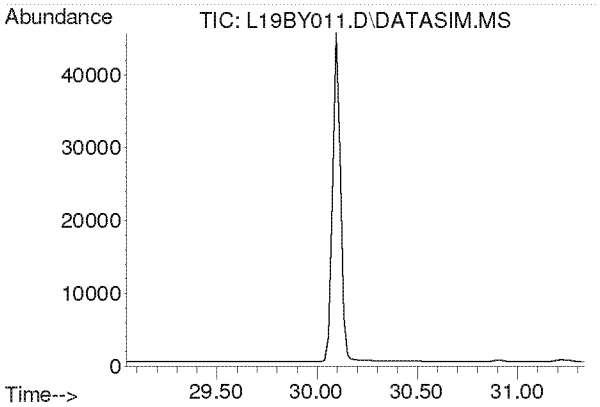
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



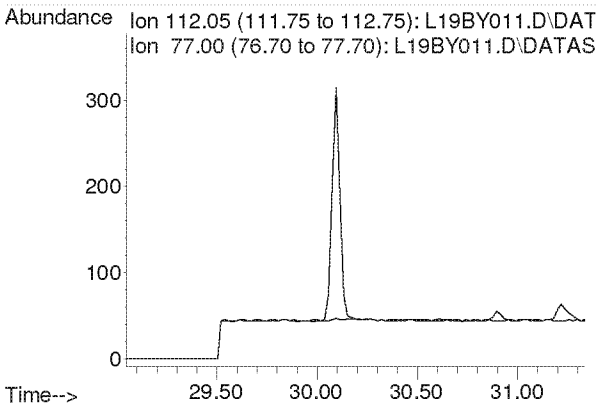


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

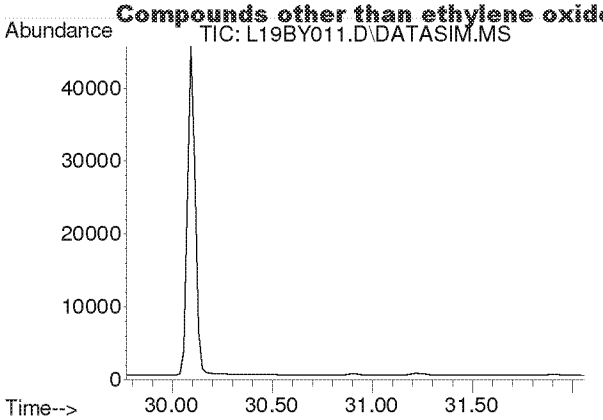
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

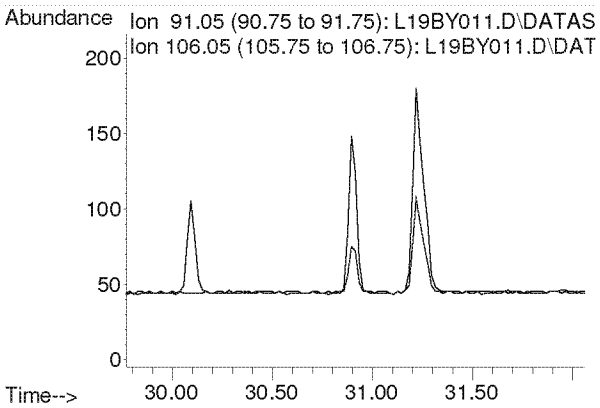


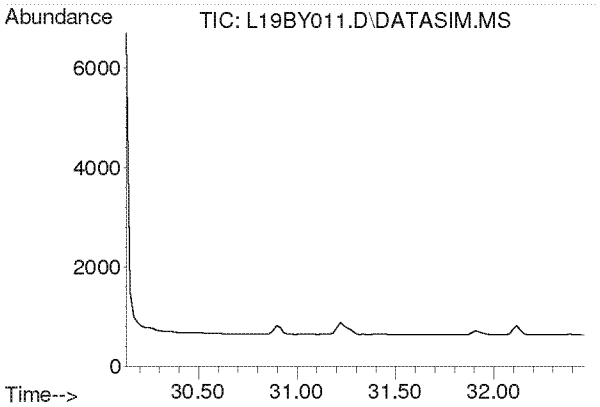
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



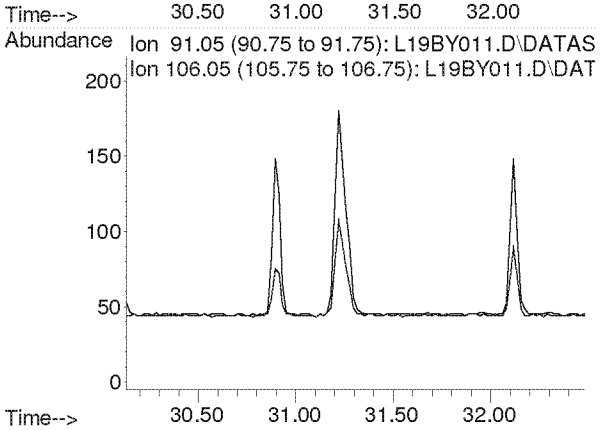


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

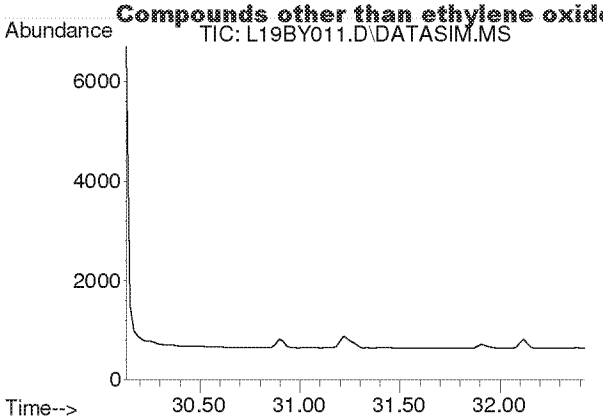
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

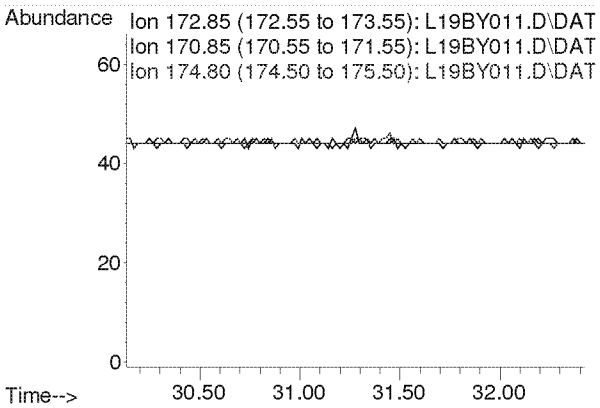


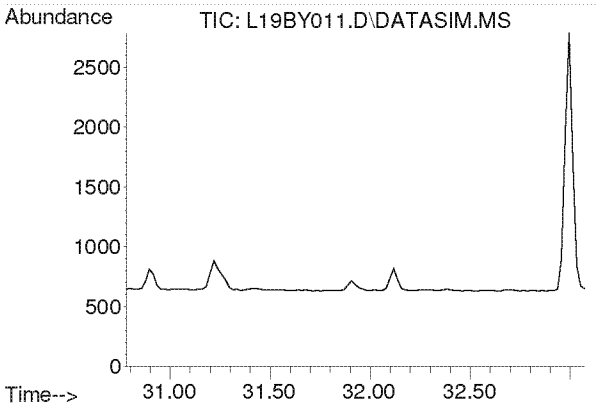
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



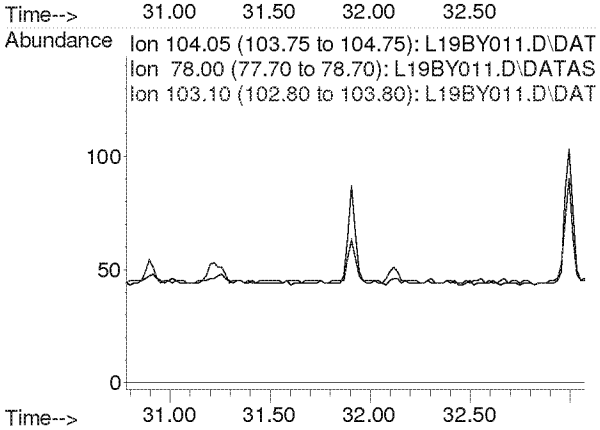


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

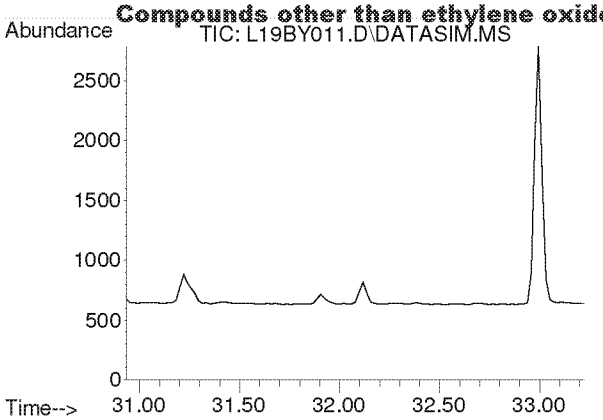
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

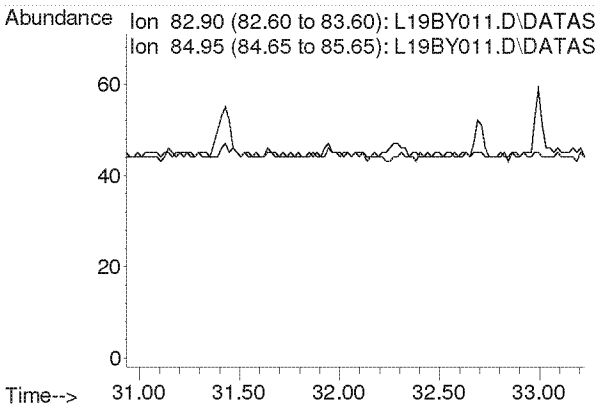


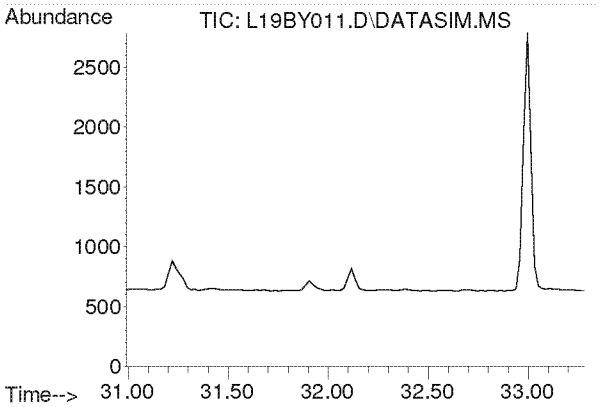
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



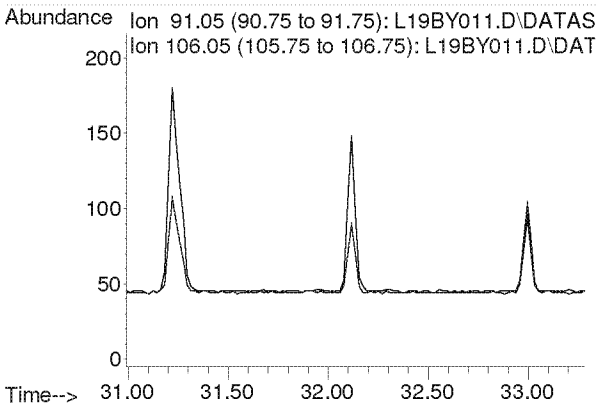


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

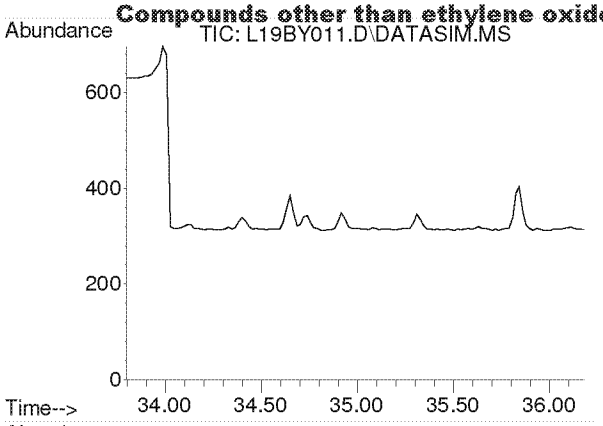
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

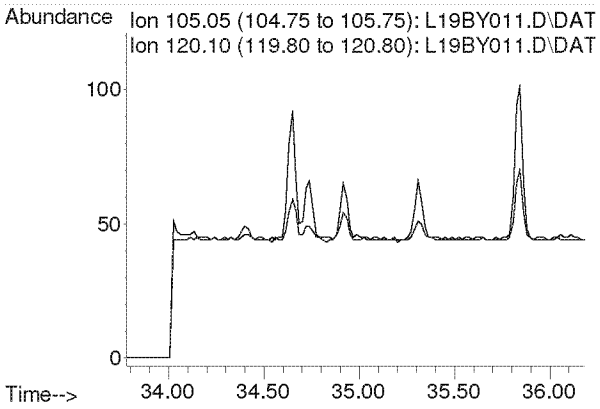


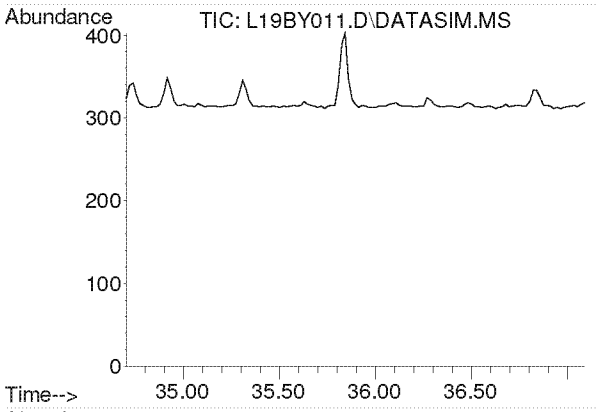
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



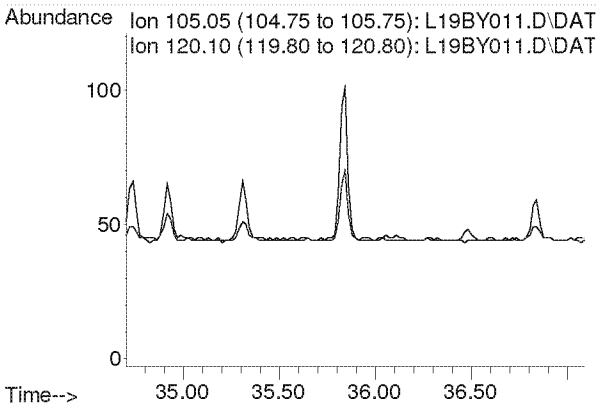


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

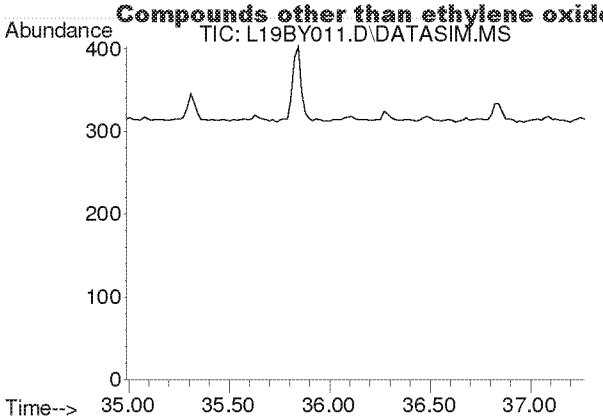
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

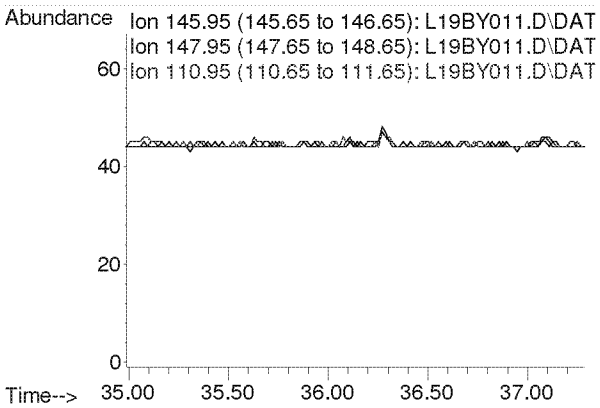


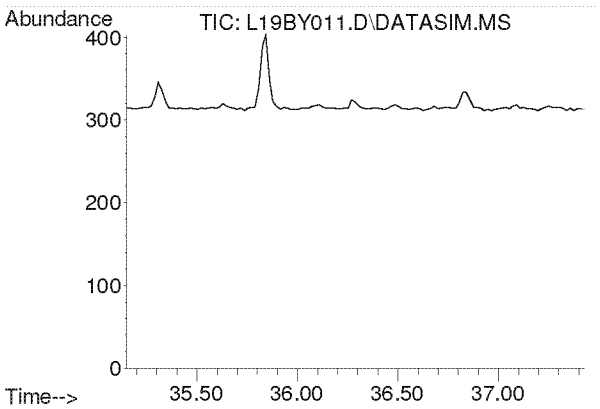
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



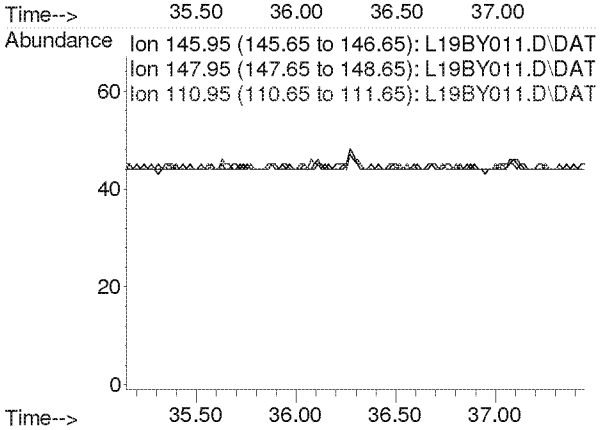


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

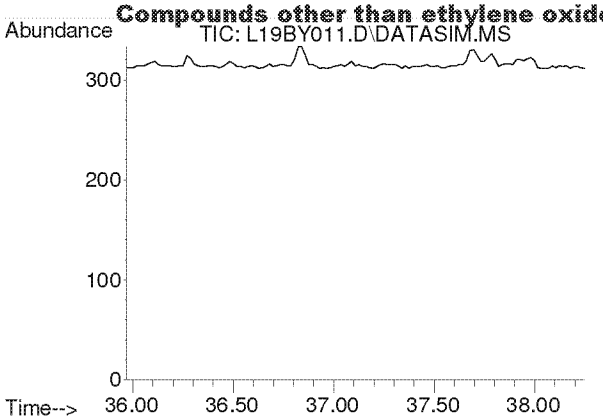
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

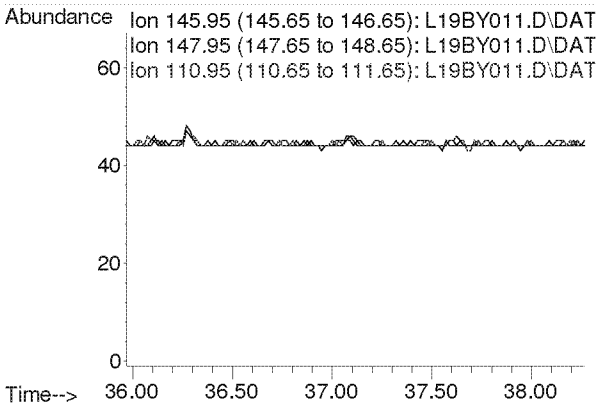


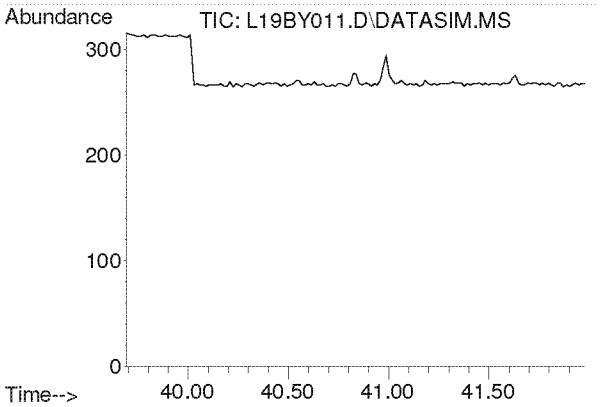
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



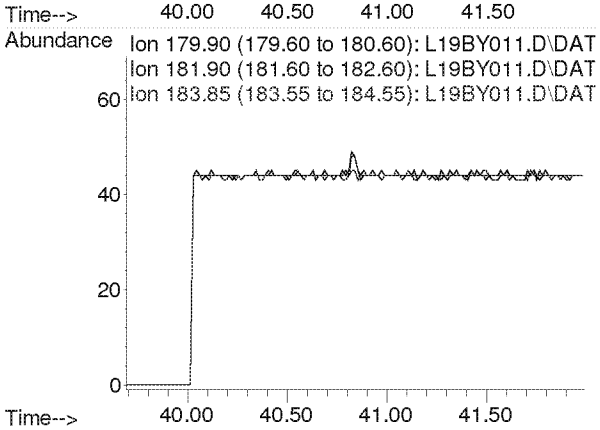


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

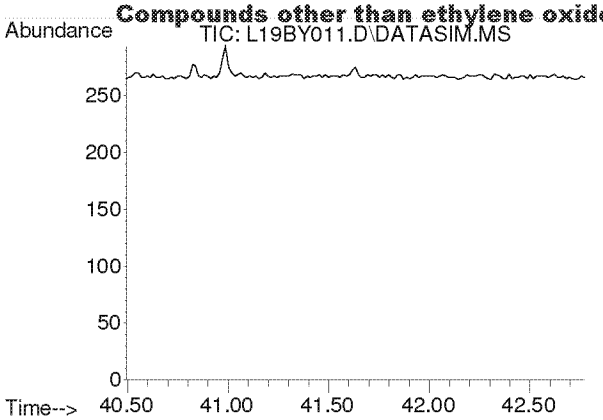
Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

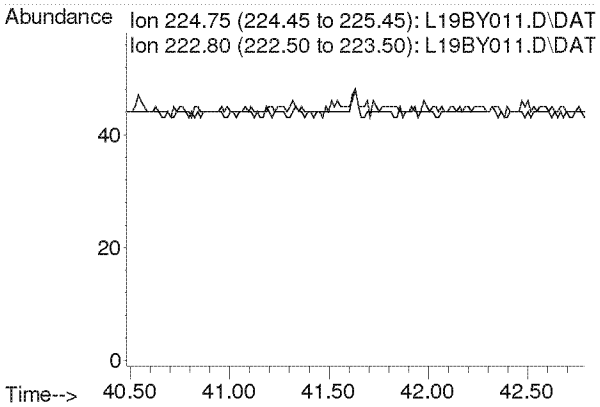


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY011.D
Acq: 25 Feb 2019 5:27 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY012.D
Acq On : 25 Feb 2019 6:27 pm (#1); 25-Feb-19, 18:22:18 (#2)
Operator : MAH
Sample : 9022202-05
Misc : WATER TOWER 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 26 10:10:58 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	38349	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	95271	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	67995	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	269m	0.1226 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY012.D
Acq On : 25 Feb 2019 6:27 pm (#1); 25-Feb-19, 18:22:18 (#2)
Operator : MAH
Sample : 9022202-05
Misc : WATER TOWER 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 26 10:10:58 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

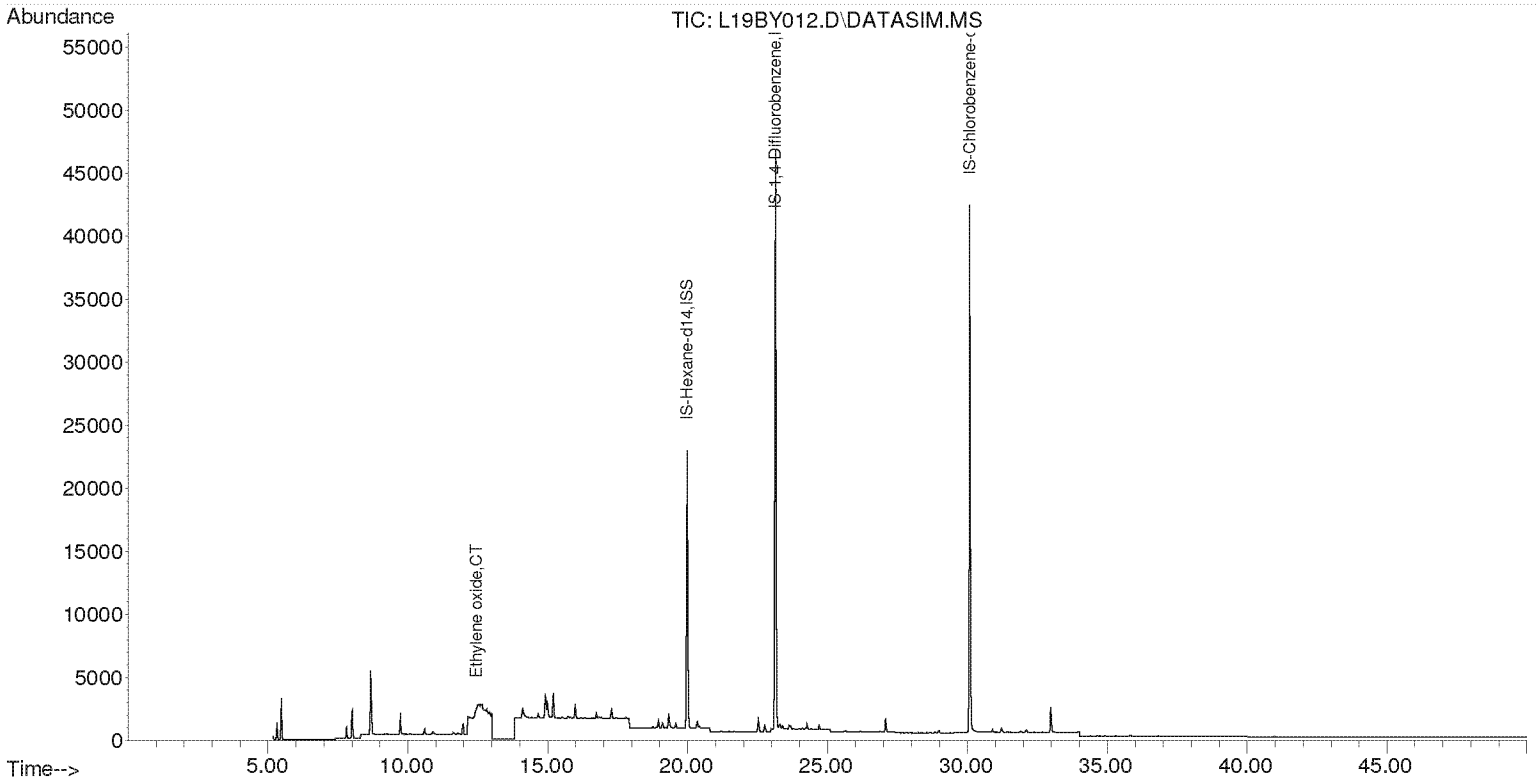
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

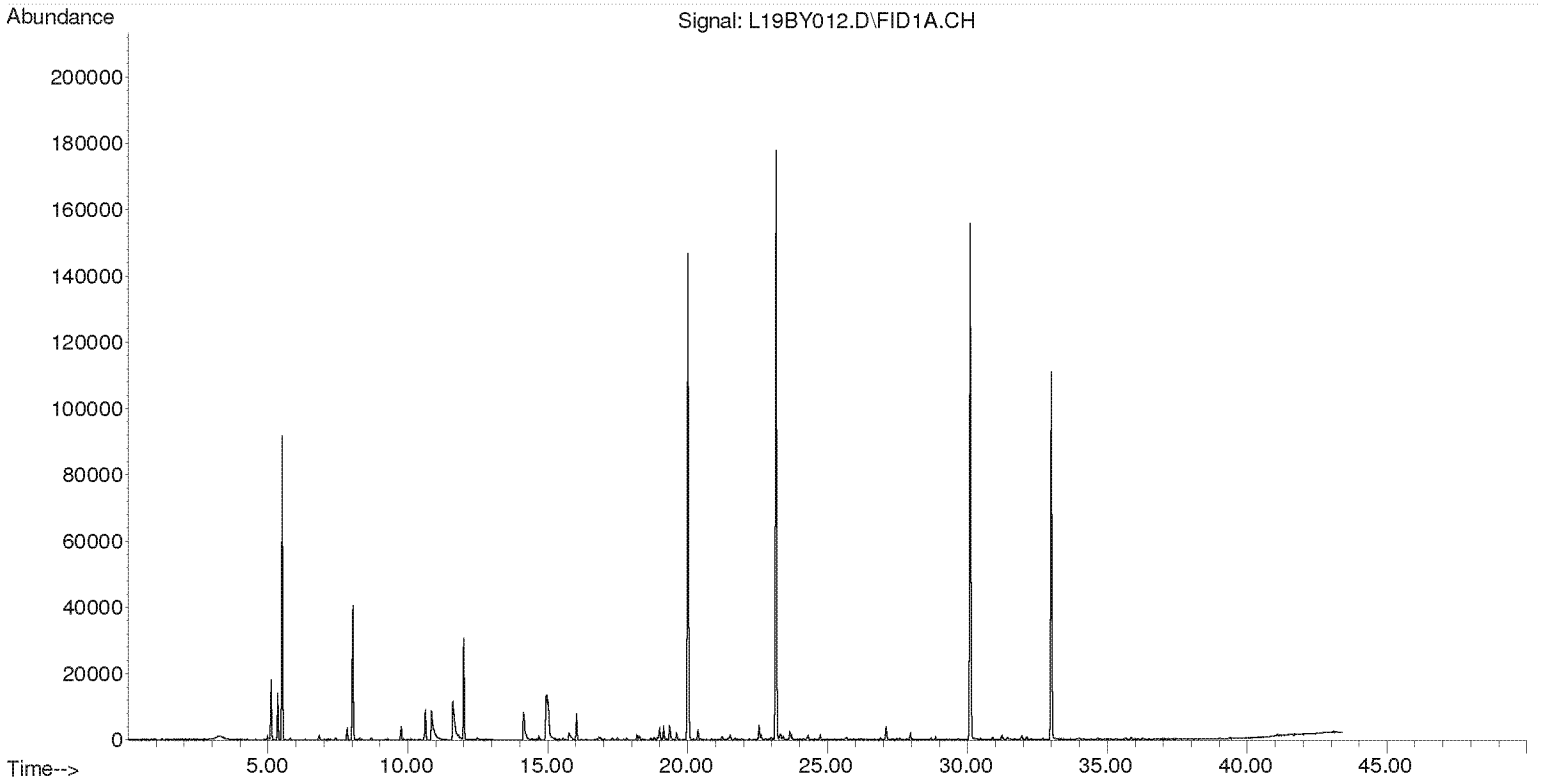
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

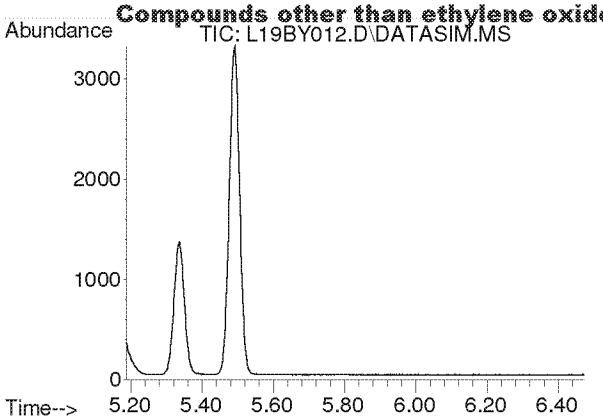
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY012.D
Acq On : 25 Feb 2019 6:27 pm (#1); 25 Feb 2019 6:22 pm (#2)
Operator : MAH
Sample : 9022202-05
Misc : WATER TOWER 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 26 09:54:52 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





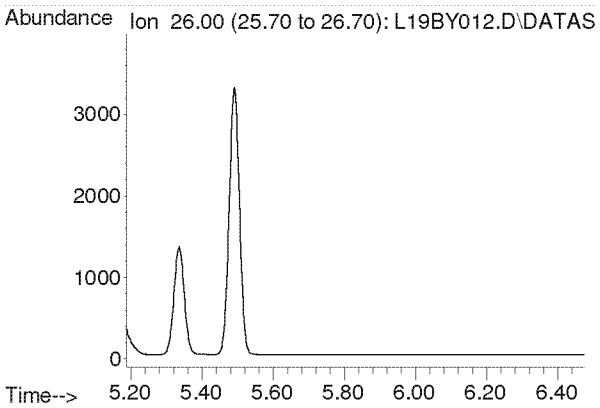
Compounds other than ethylene oxide were not quantitated.

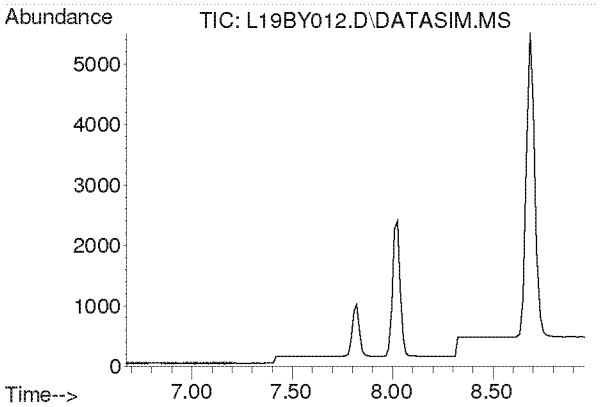


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 26



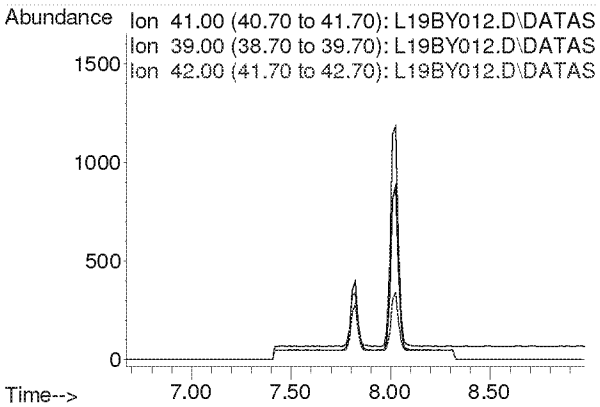


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

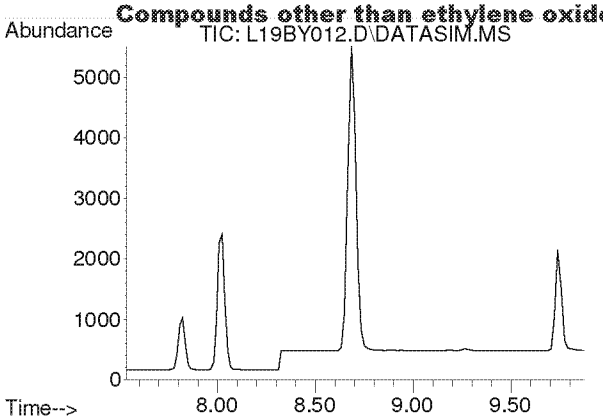
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

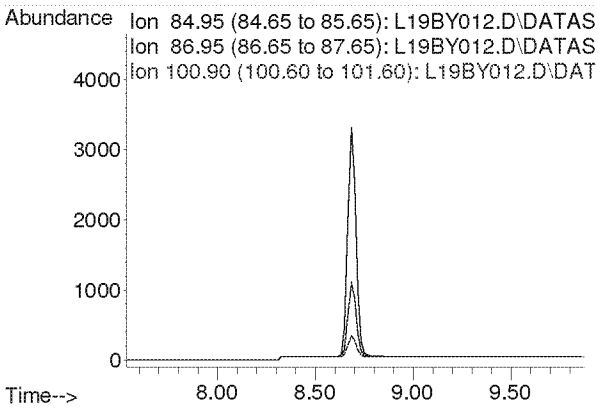


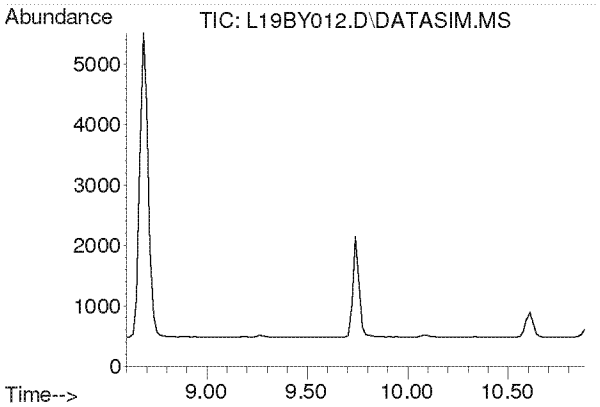
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



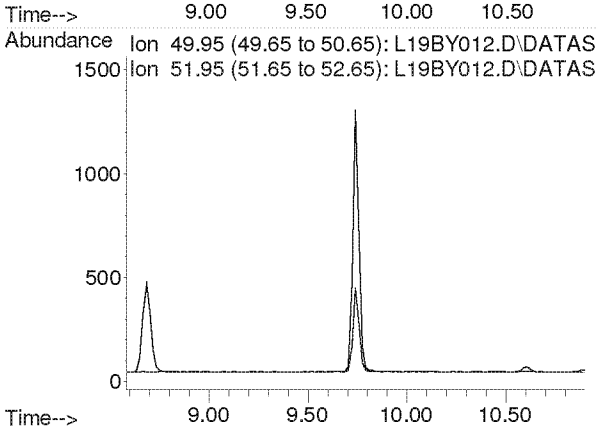


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

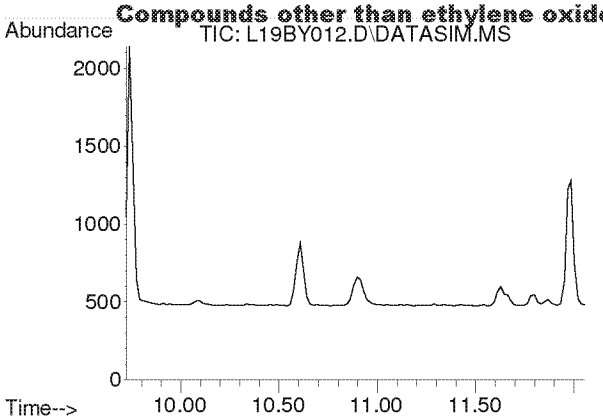
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

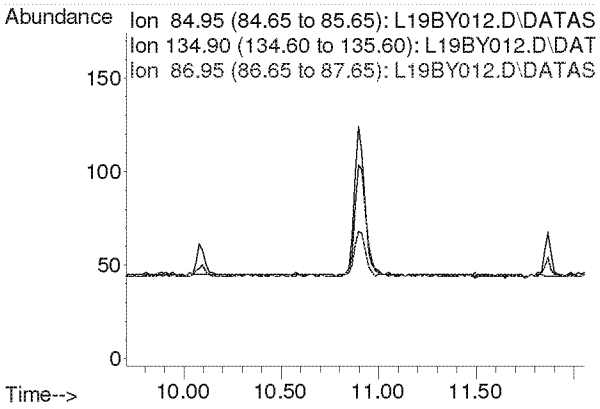


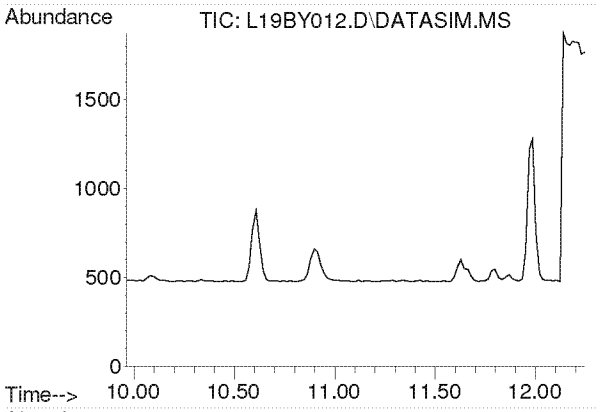
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



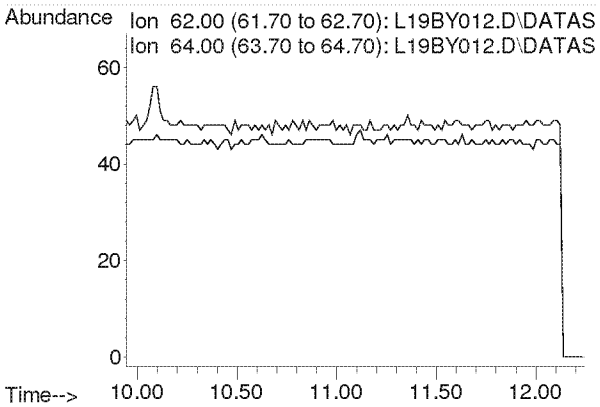


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

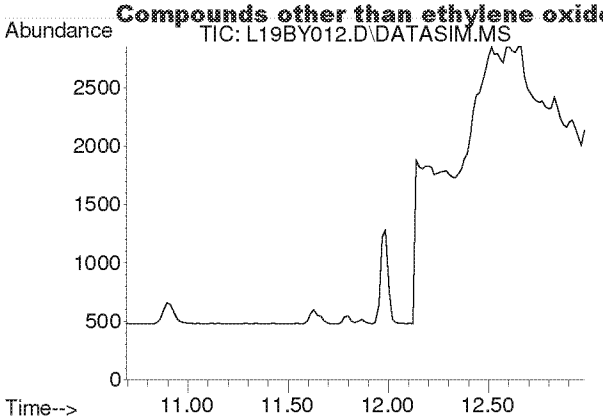
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

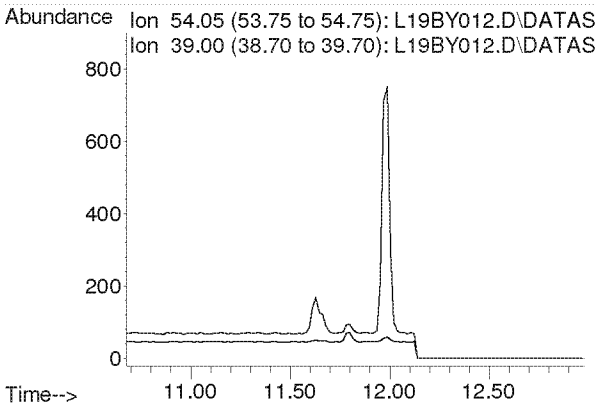


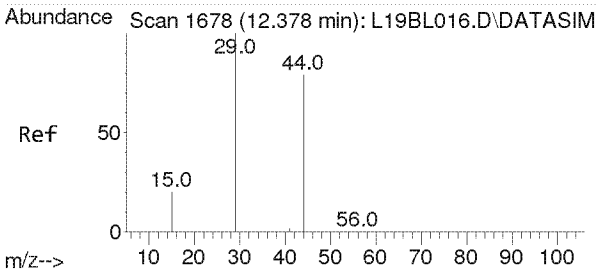
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

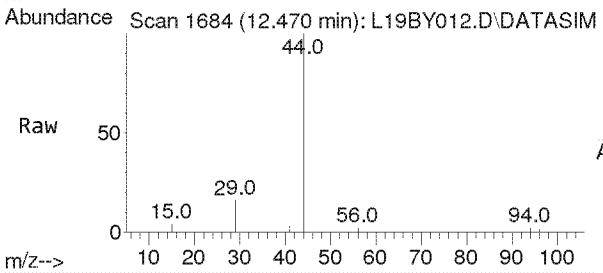


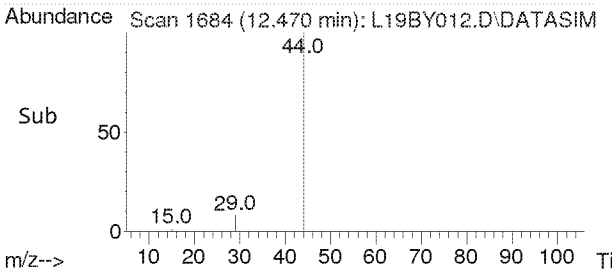


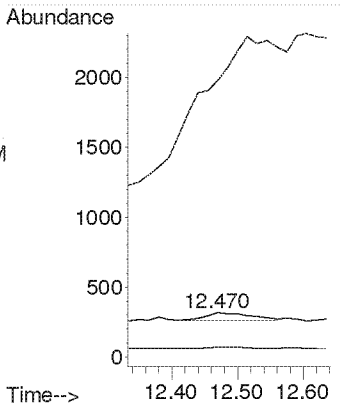
#9
Ethylene oxide
Concen: 0.123 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.020 min
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 29 Resp: 269

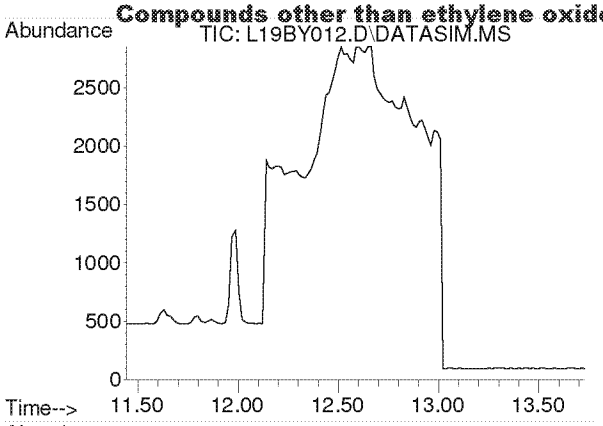
Ion	Ratio	Lower	Upper
29	100		
15	18.6	16.0	24.0
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

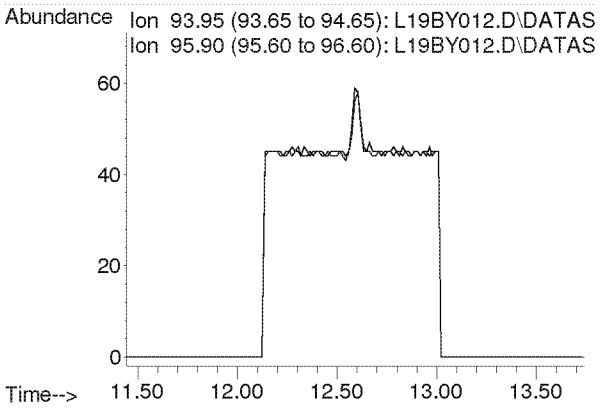


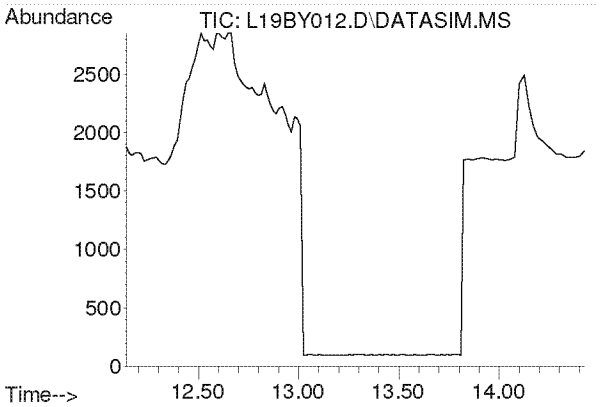
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



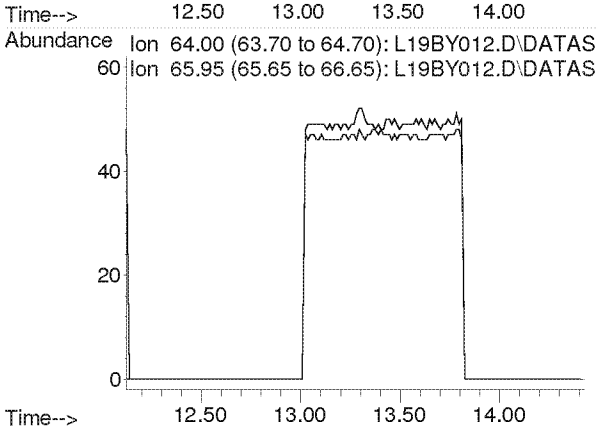


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

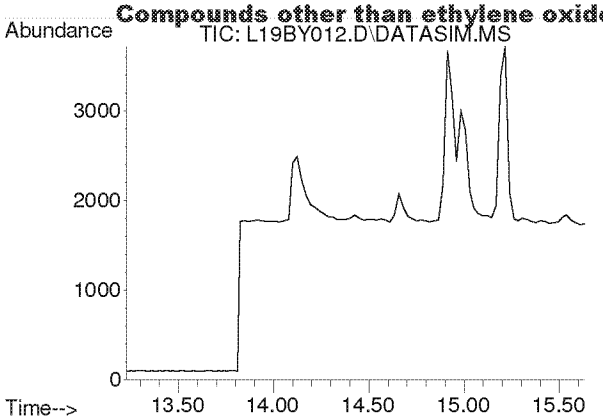
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

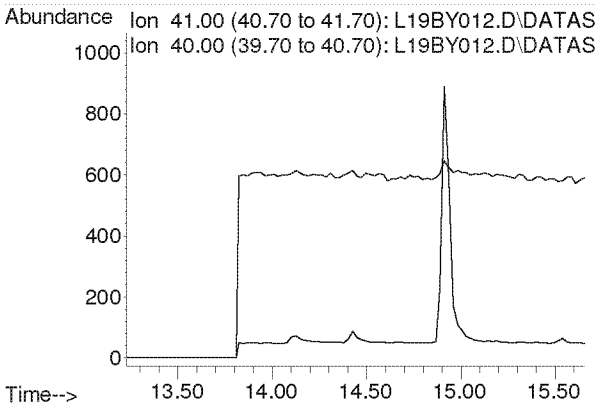


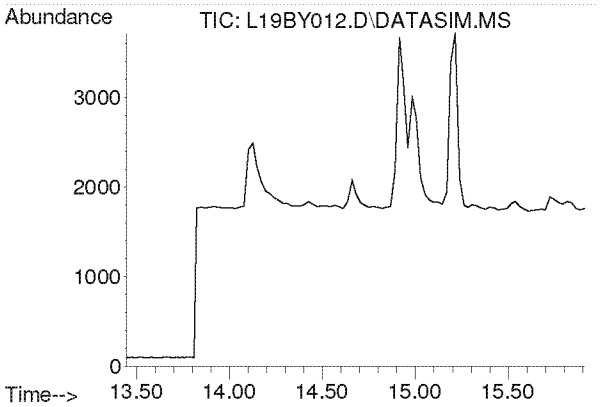
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



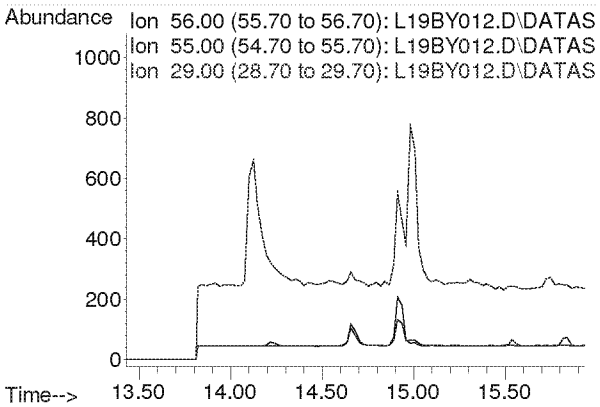


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

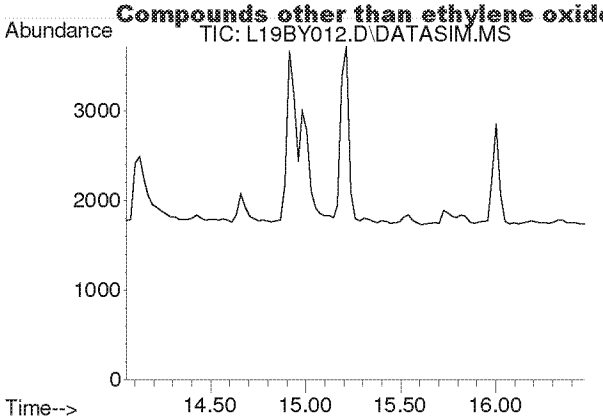
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

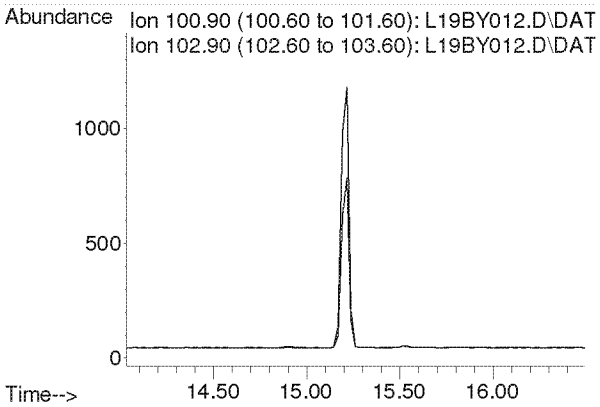


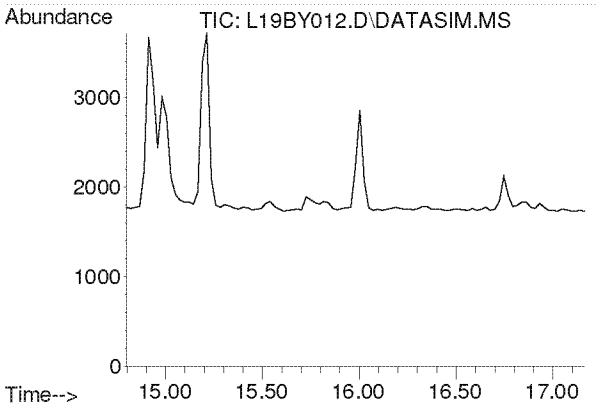
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



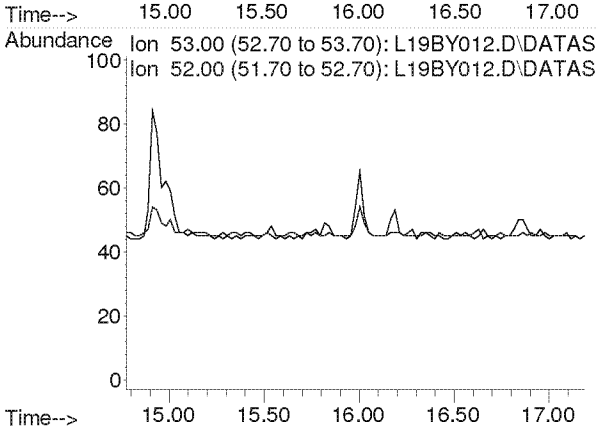


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

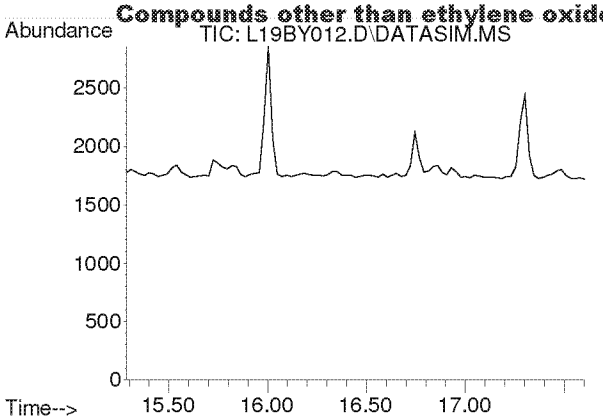
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

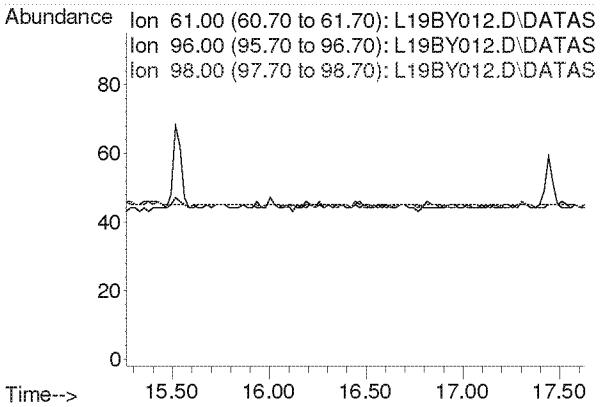


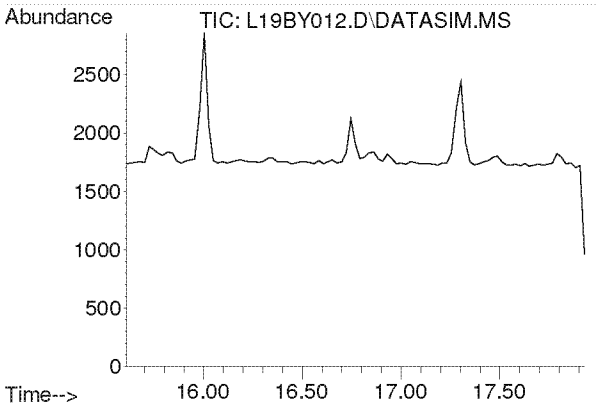
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



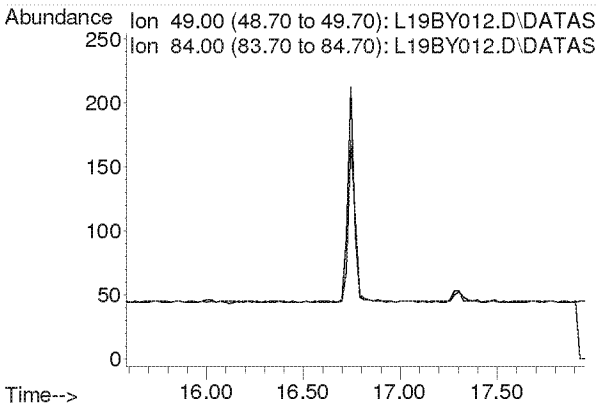


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

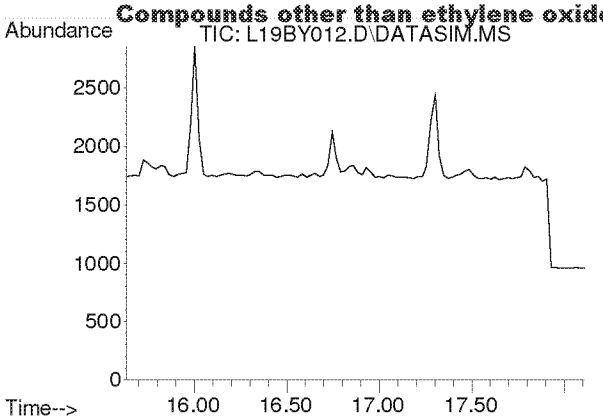
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

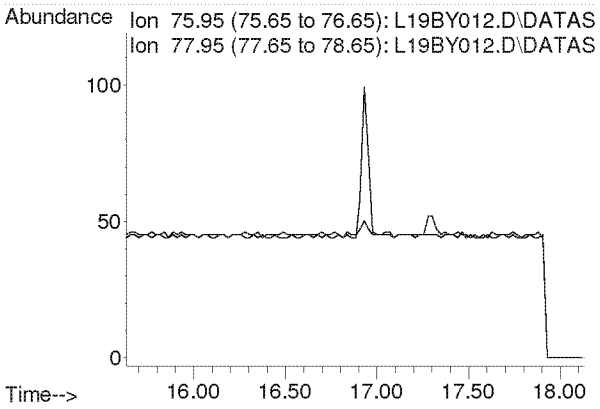


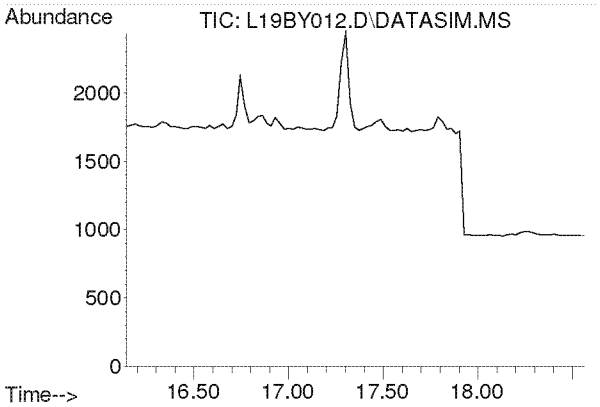
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



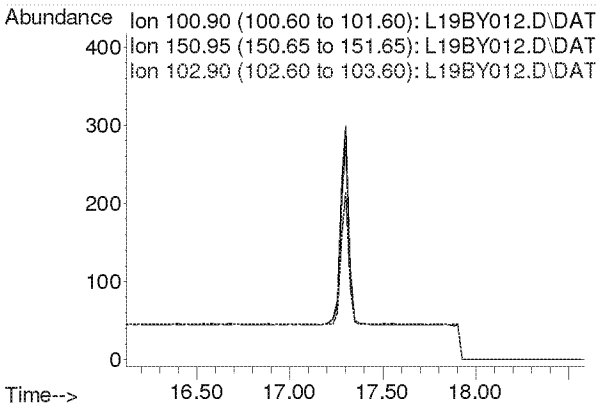


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

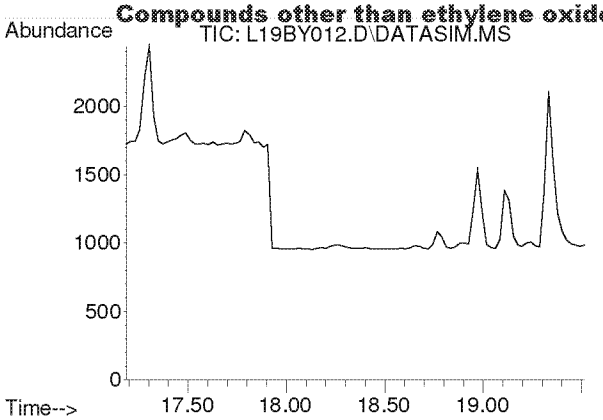
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

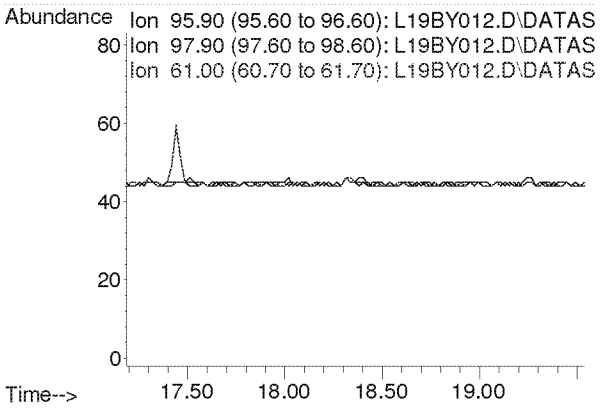


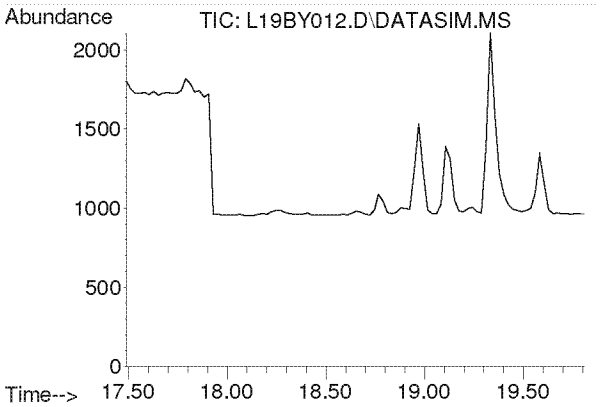
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



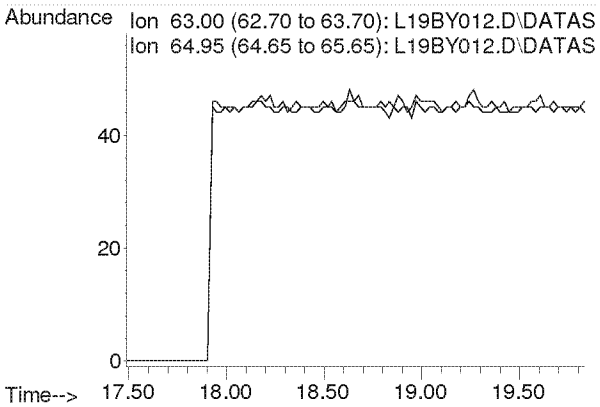


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

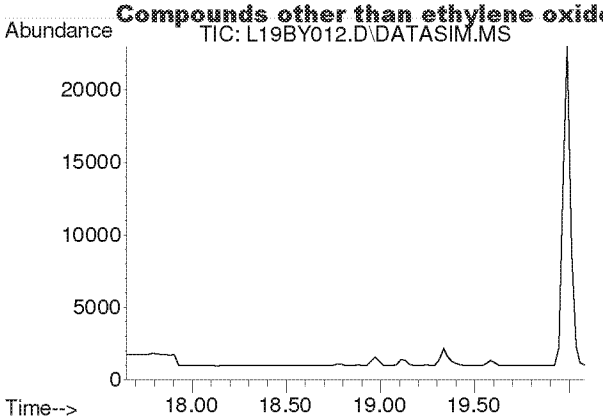
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

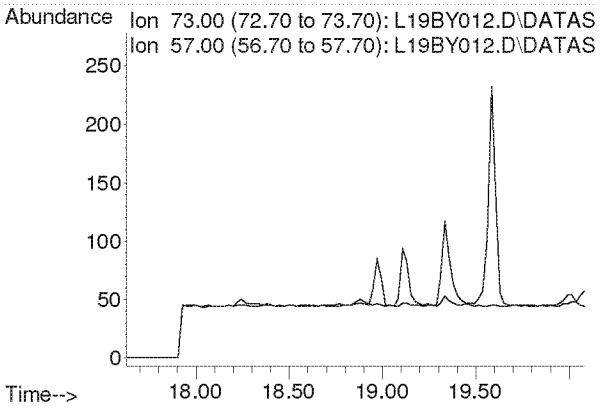


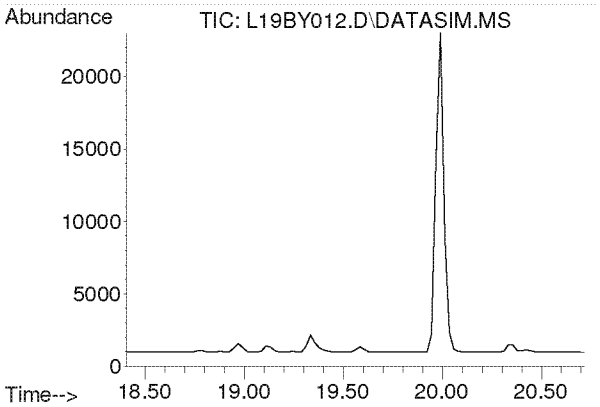
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



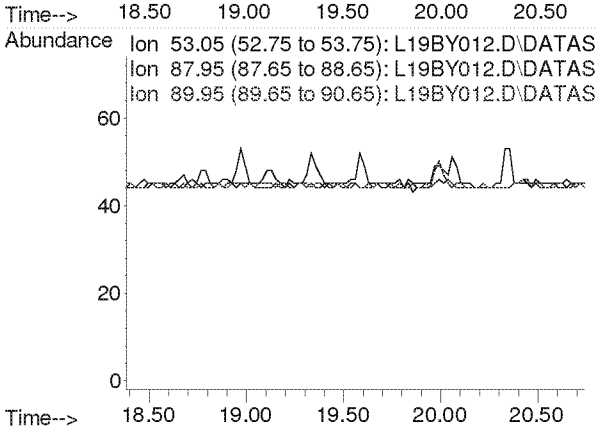


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

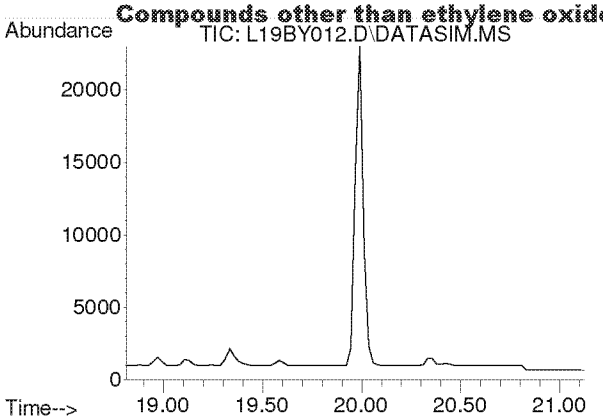
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

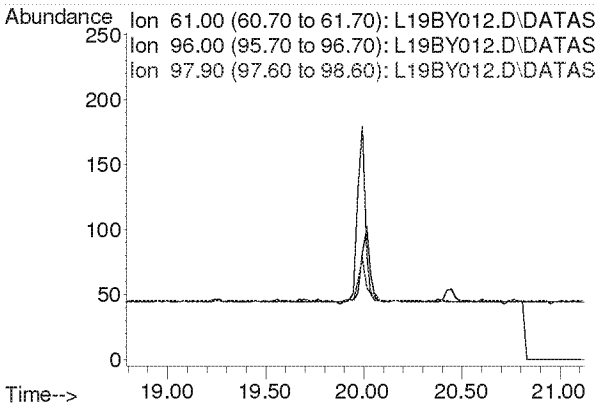


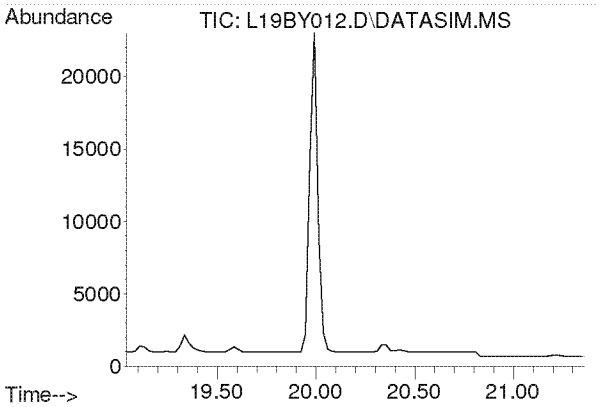
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



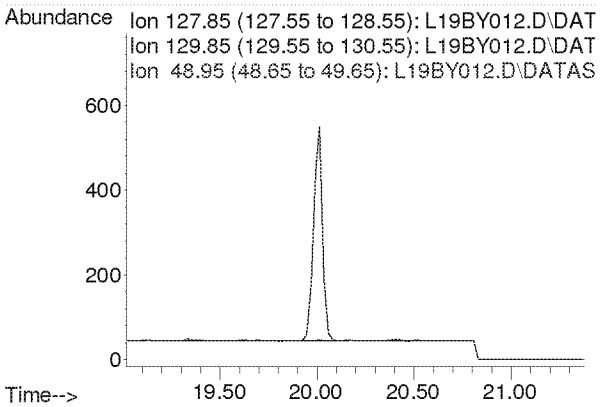


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

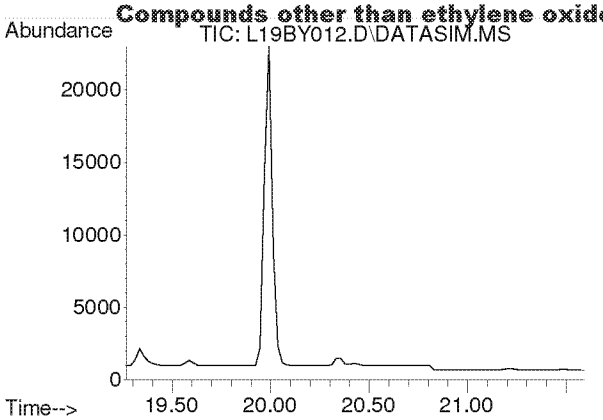
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

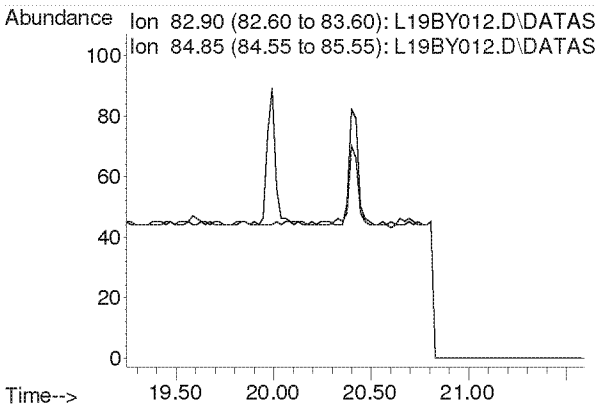


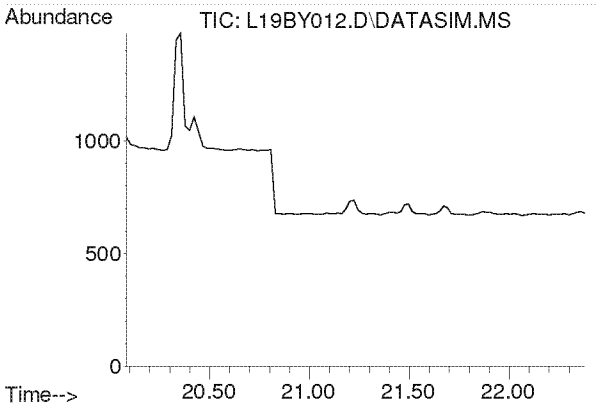
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



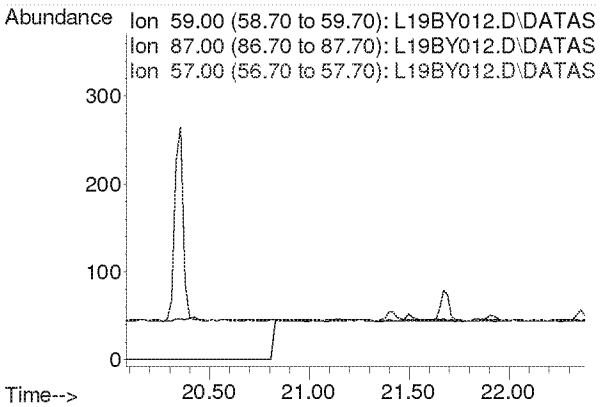


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

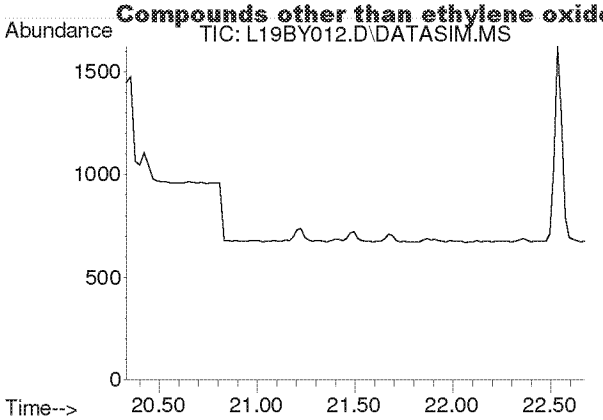
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

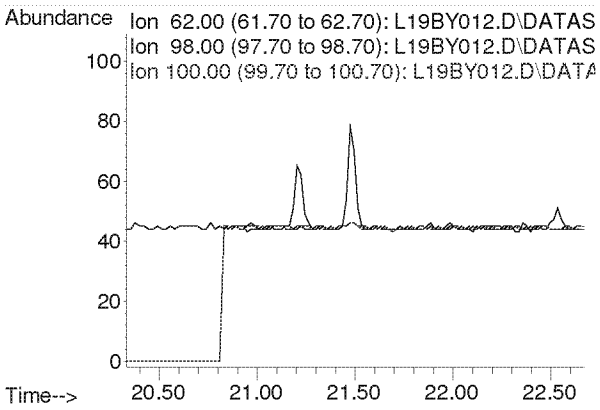


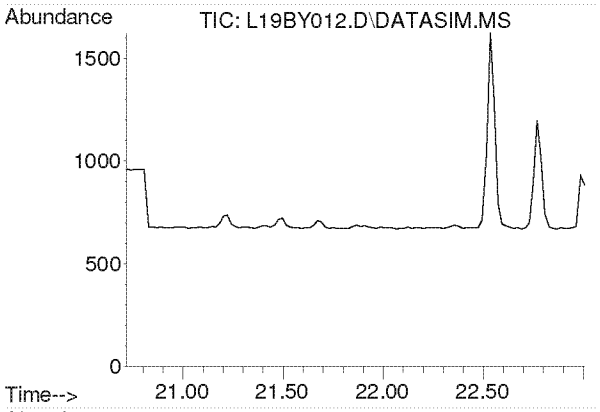
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



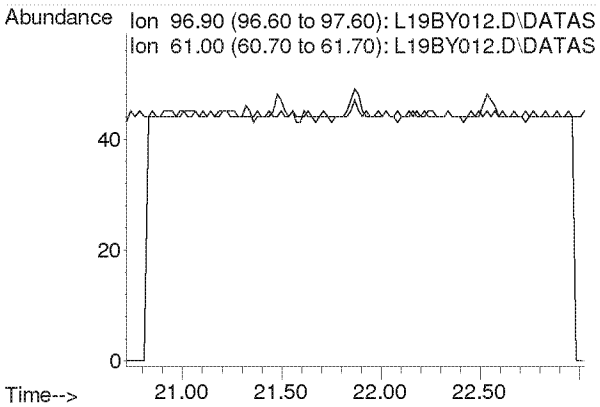


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

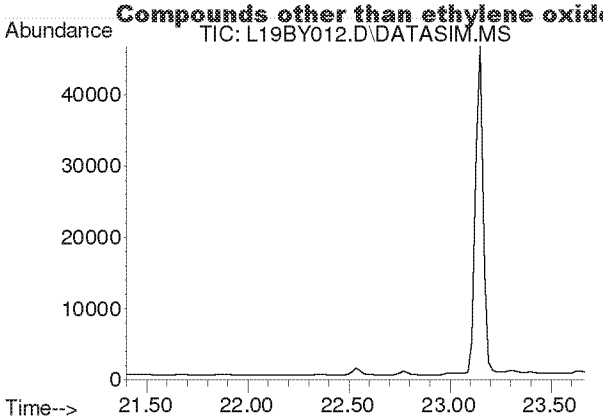
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

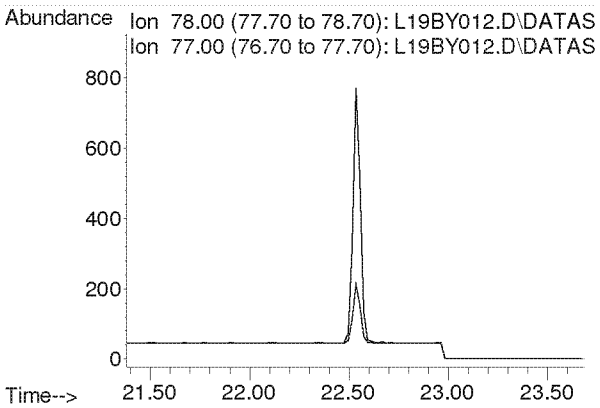


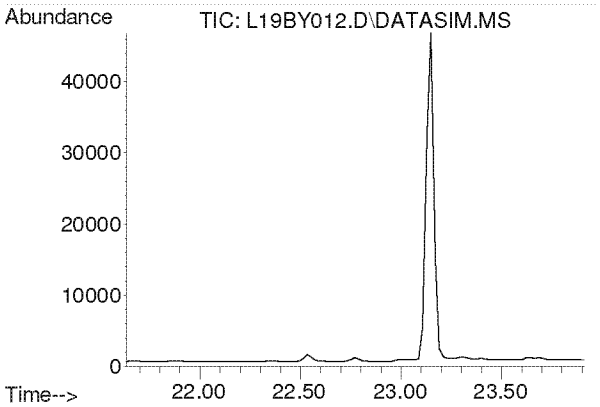
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



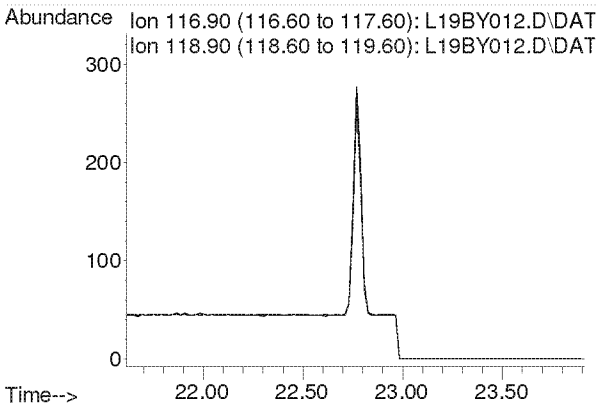


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

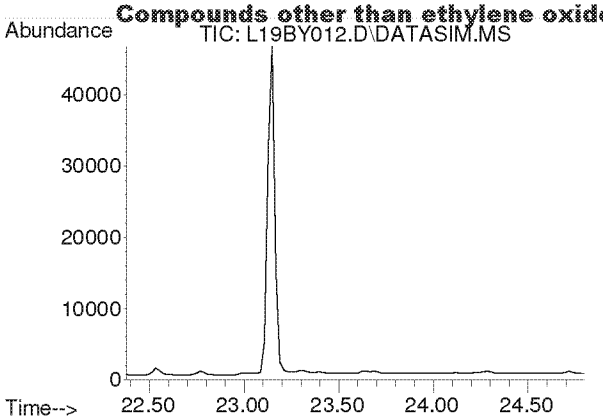
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

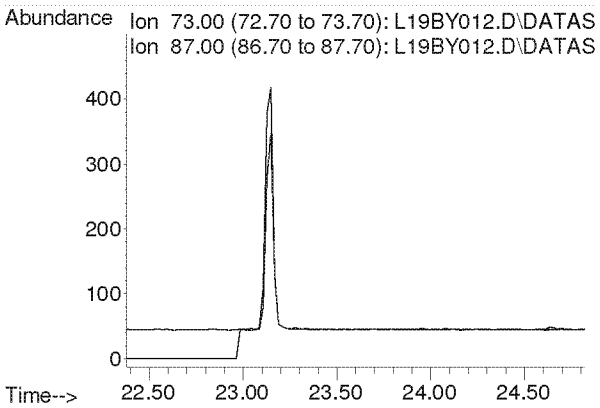


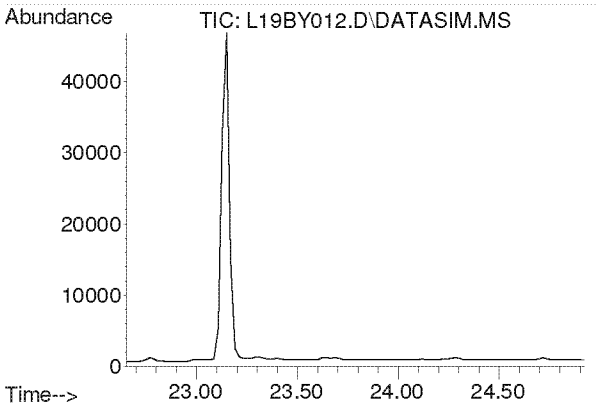
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



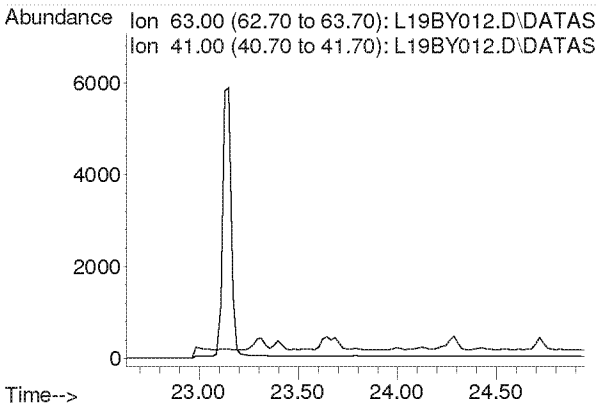


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

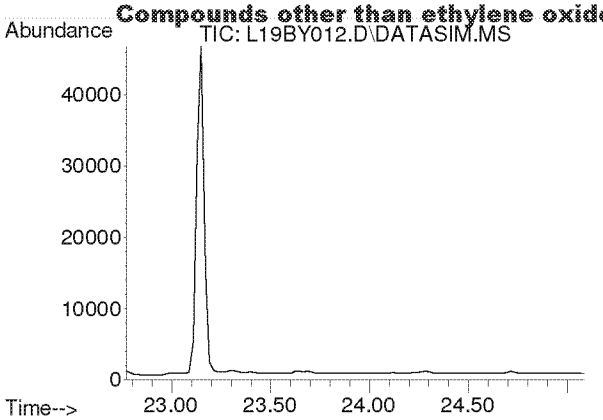
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

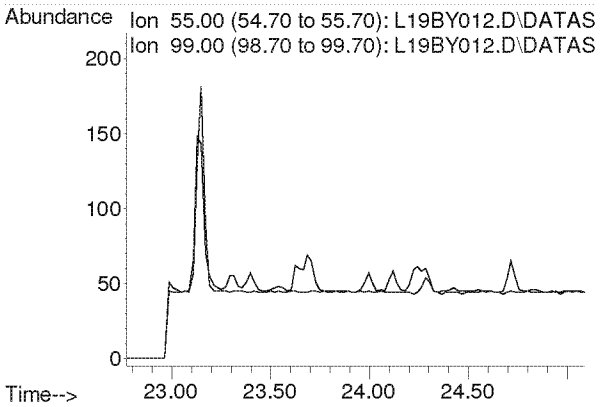


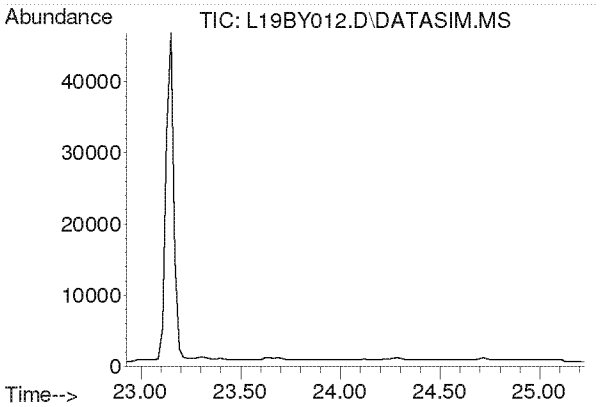
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



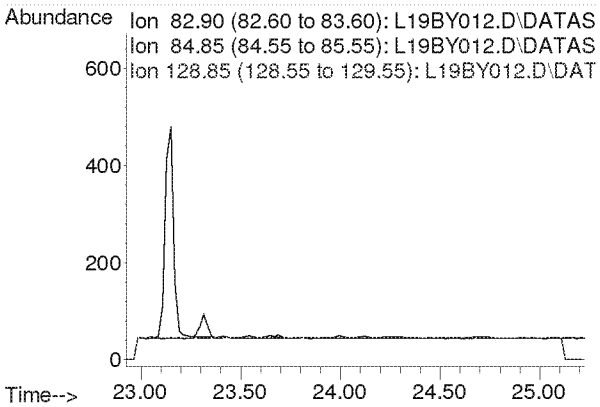


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

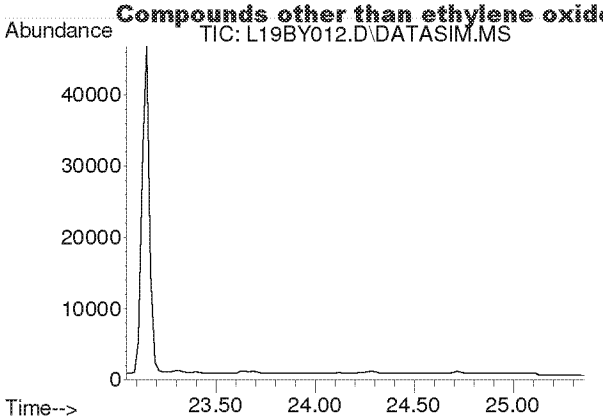
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

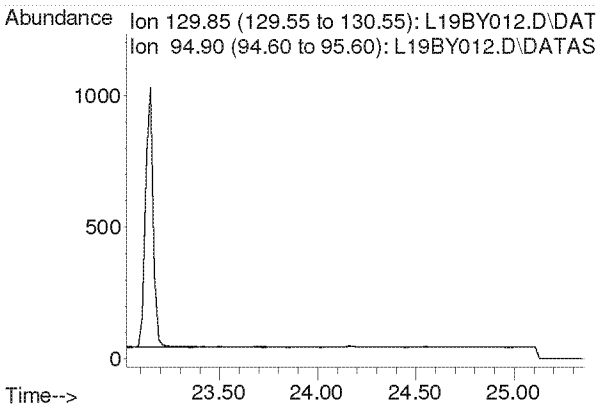


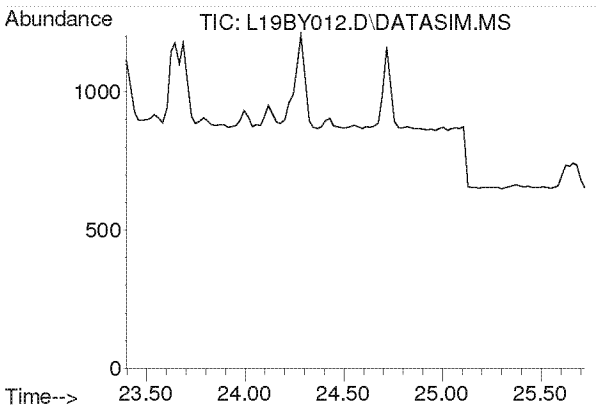
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



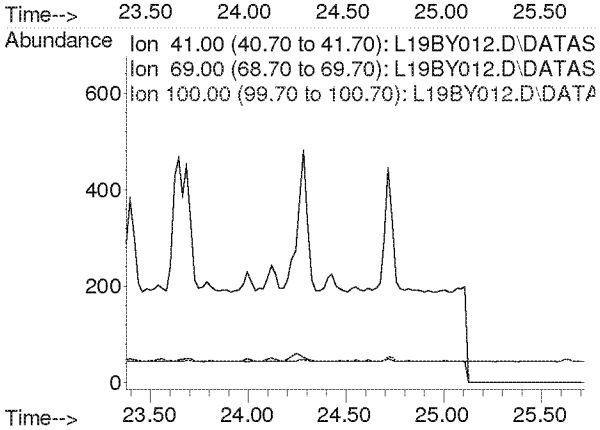


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

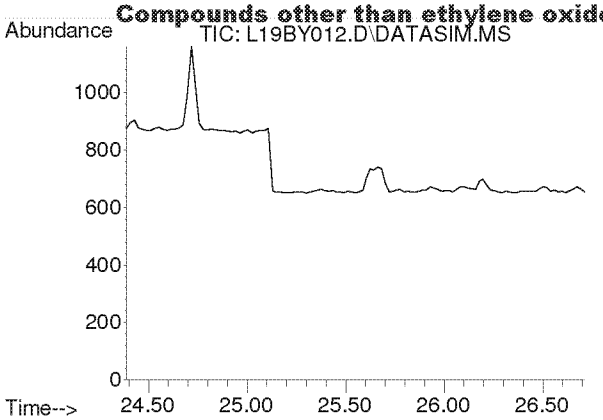
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

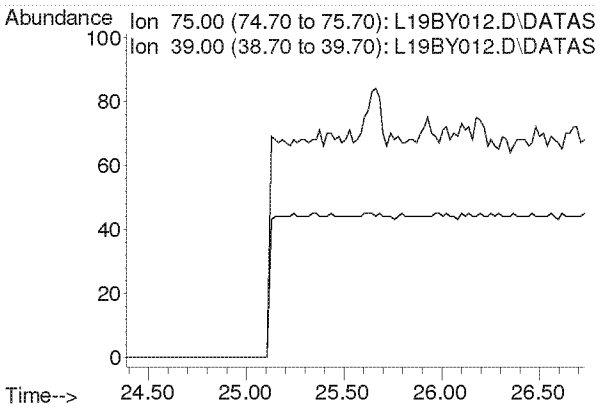


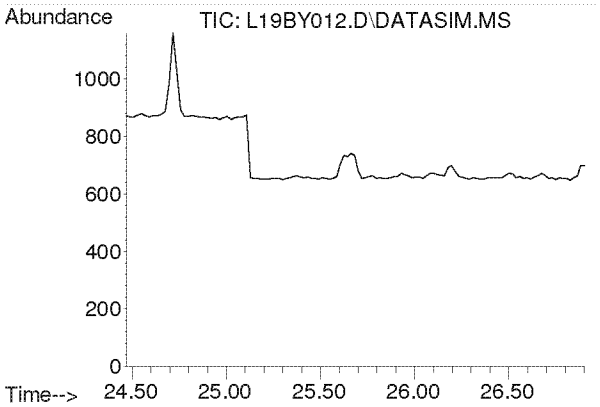
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



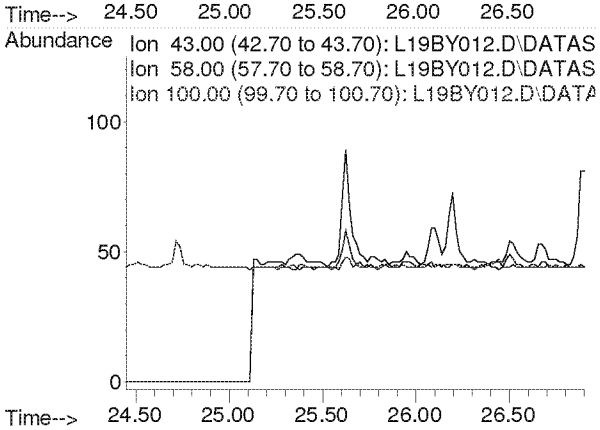


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

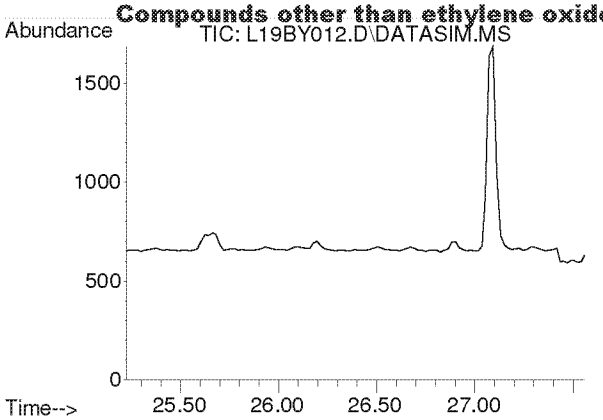
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

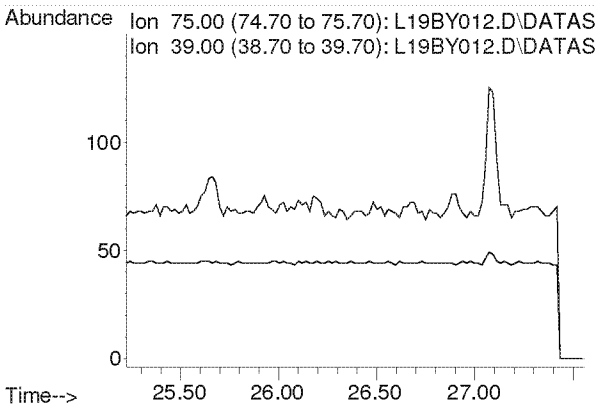


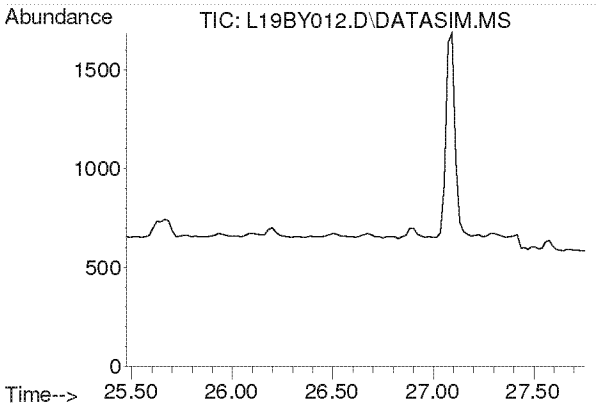
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



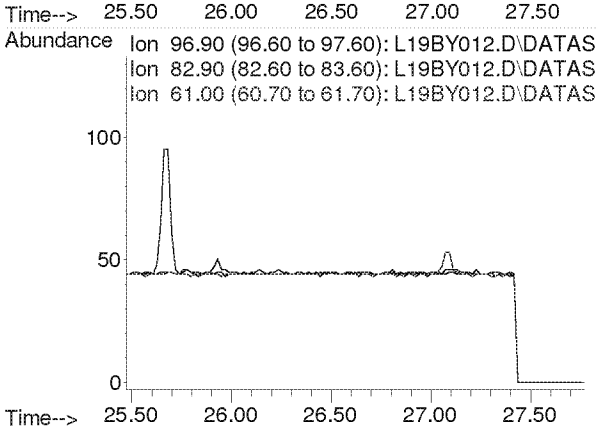


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

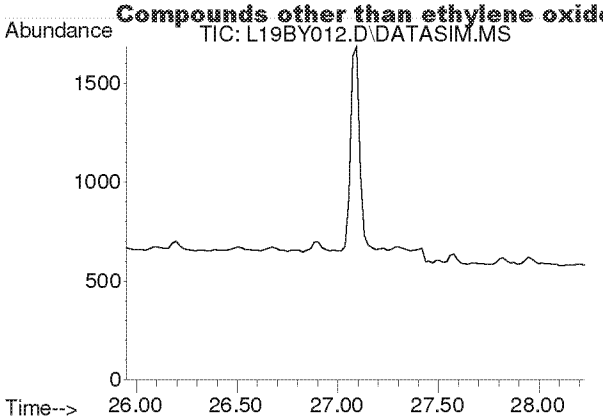
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

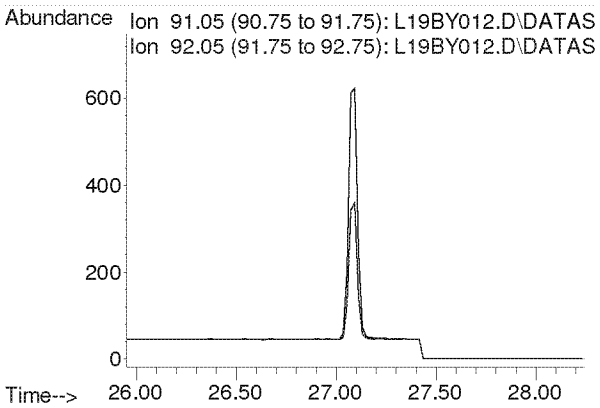


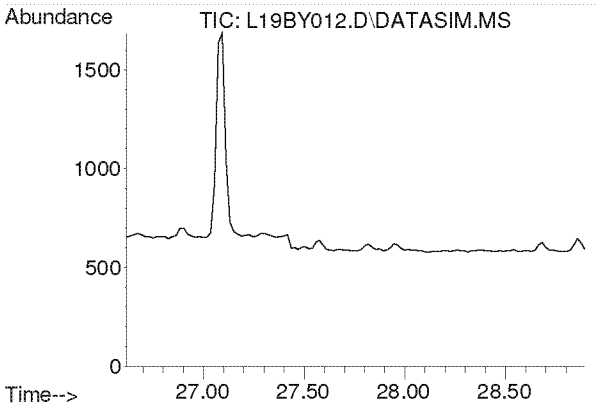
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



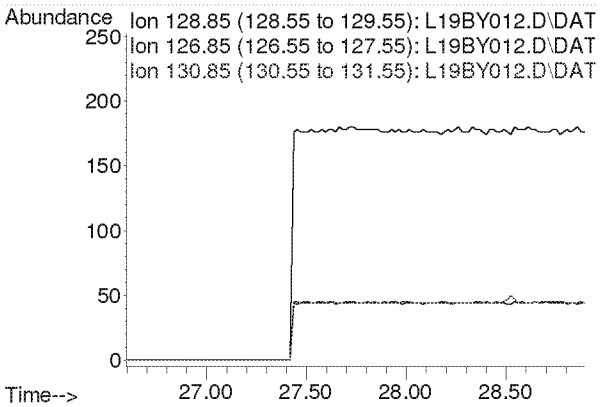


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

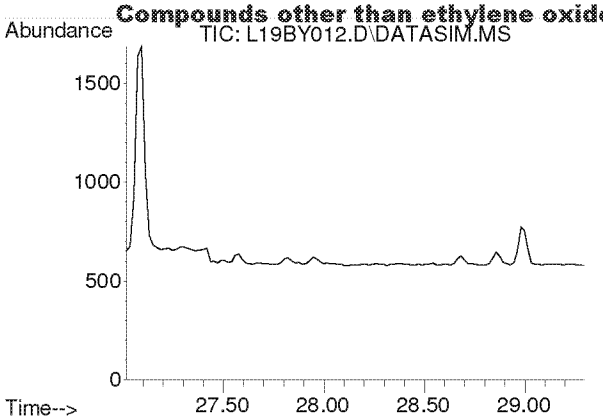
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

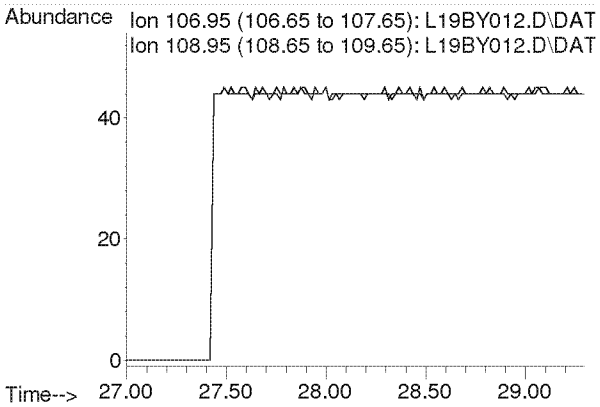


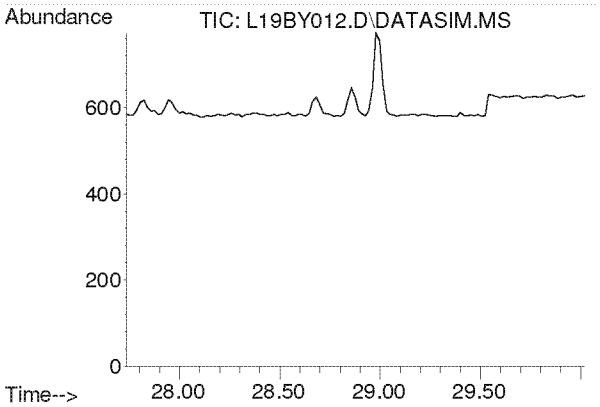
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



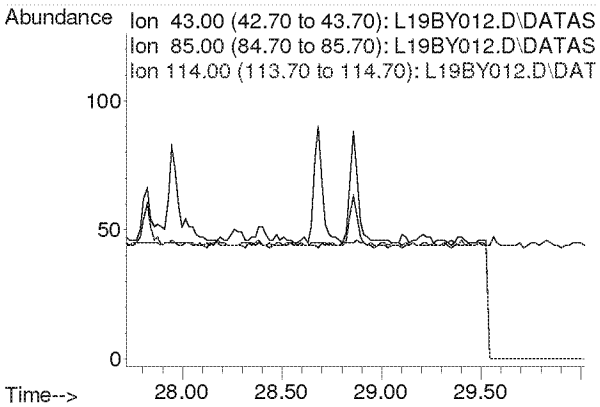


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

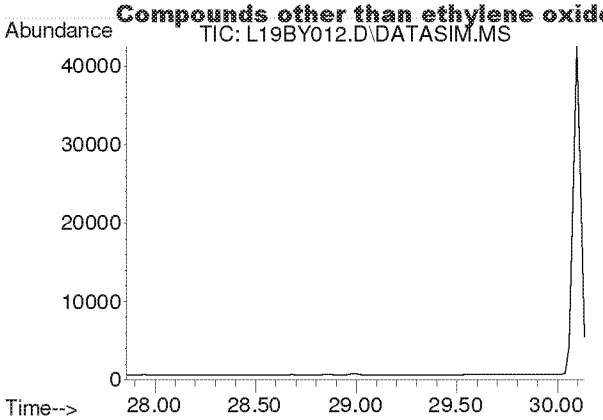
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

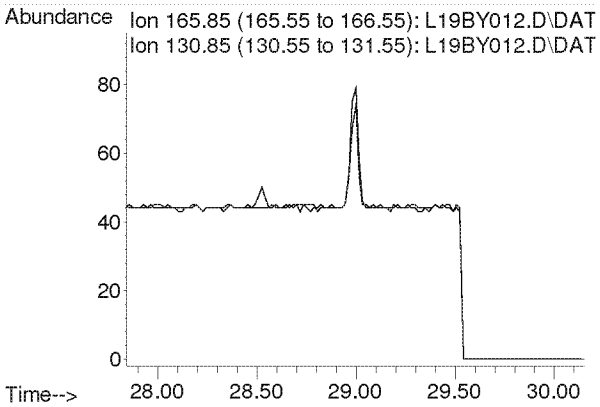


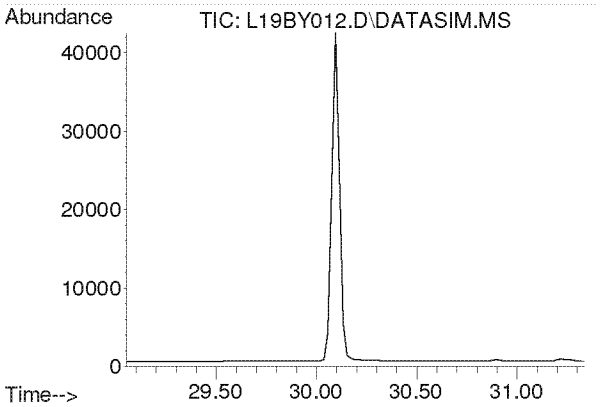
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



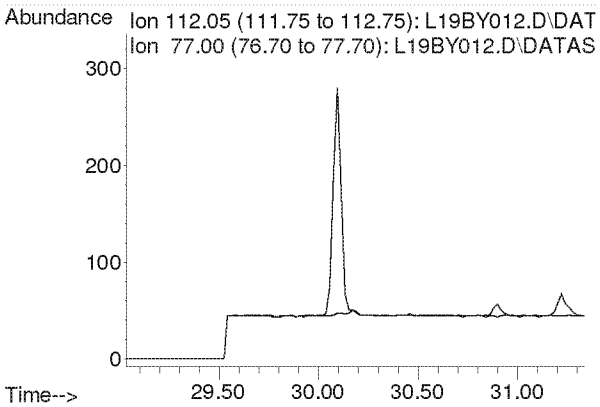


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

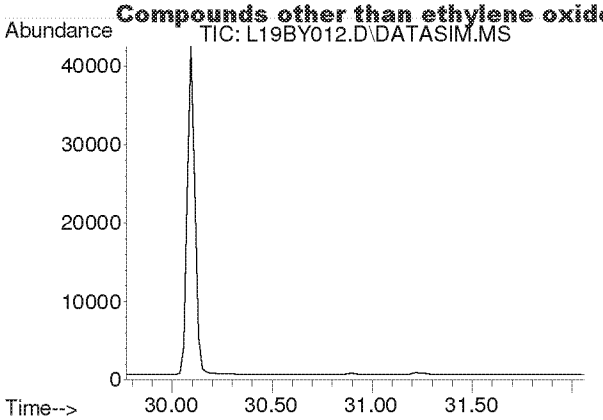
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

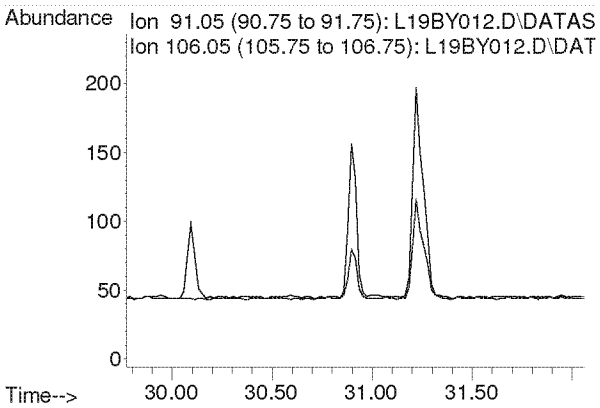


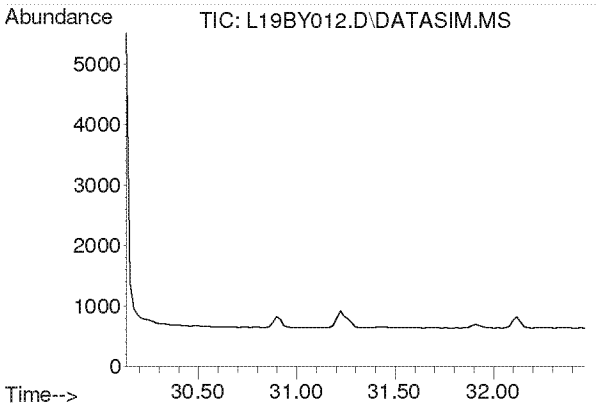
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



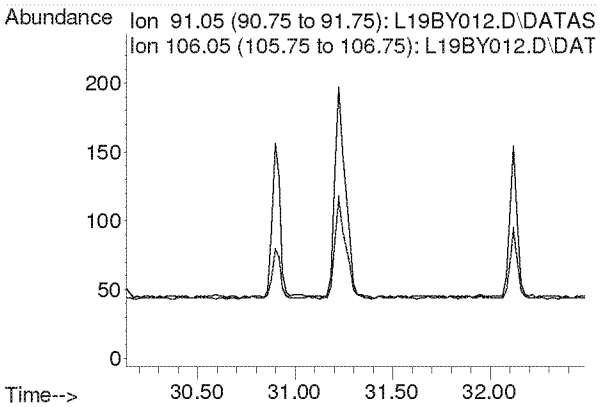


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

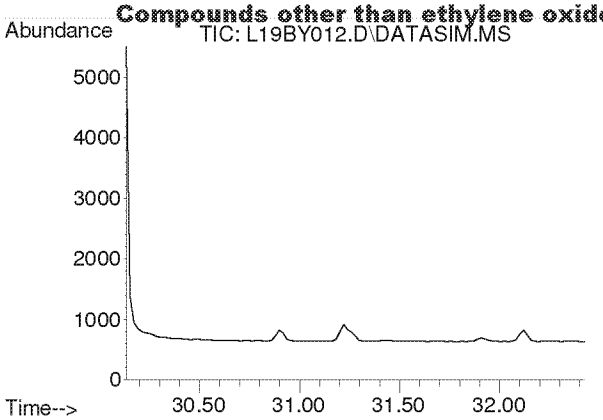
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

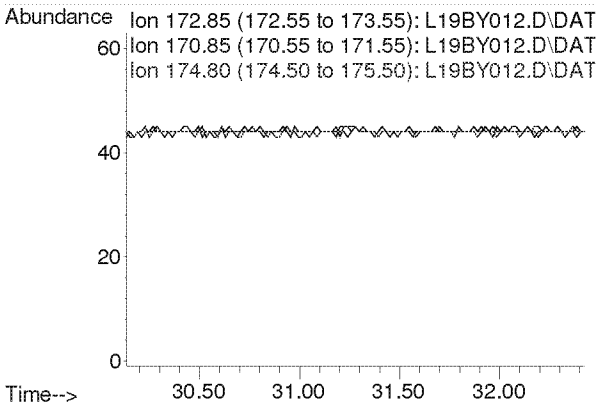


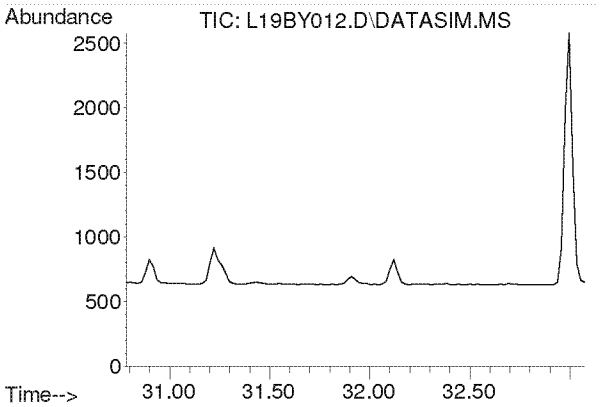
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



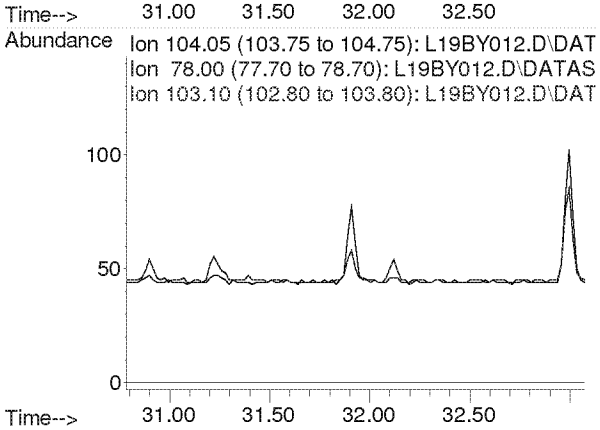


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

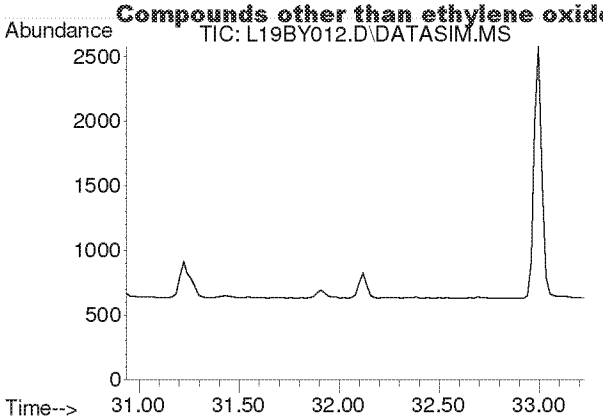
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

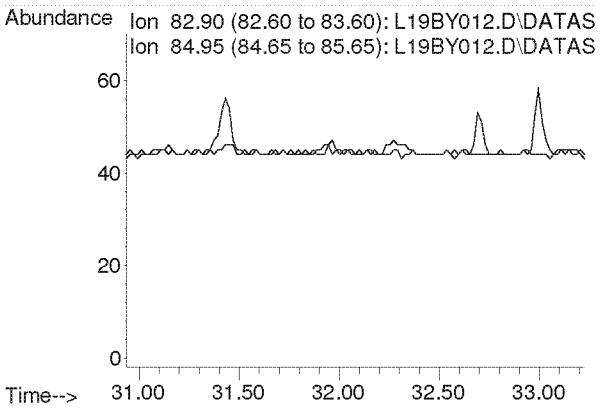


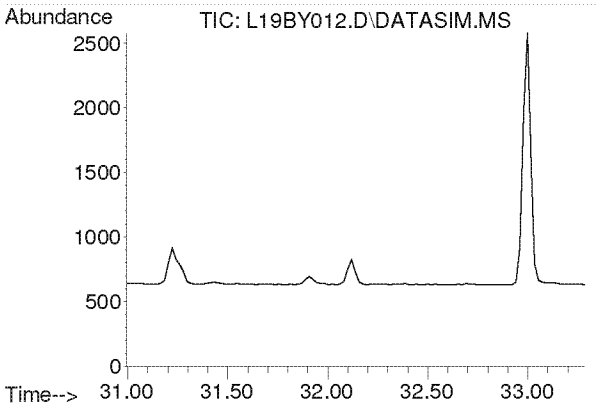
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



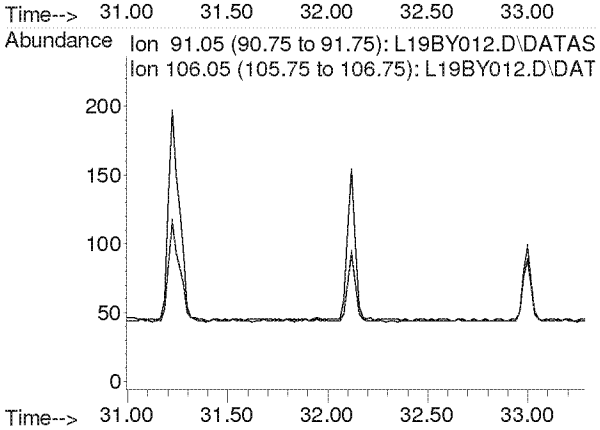


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

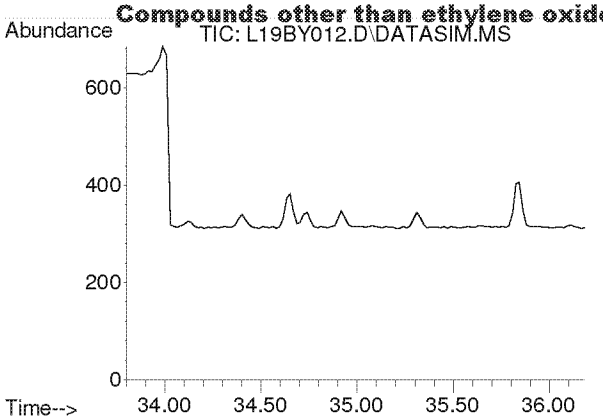
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

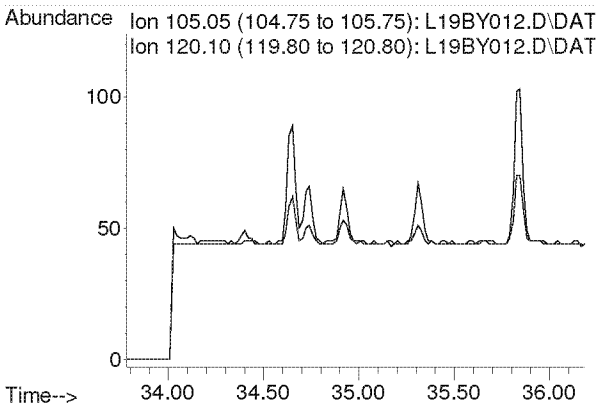


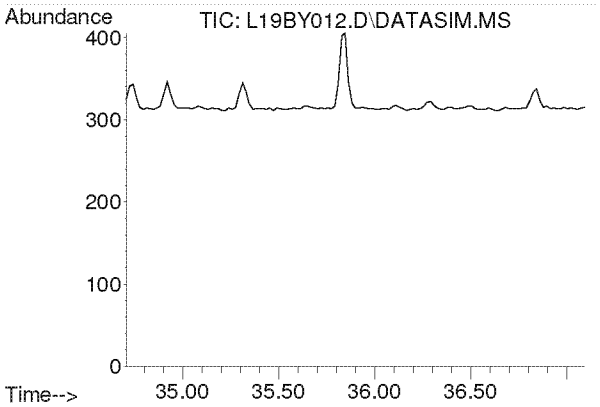
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



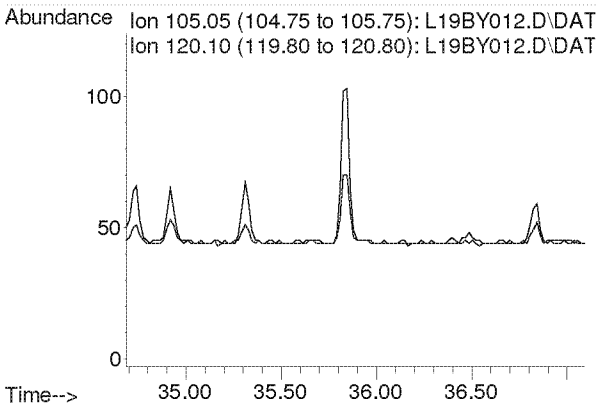


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

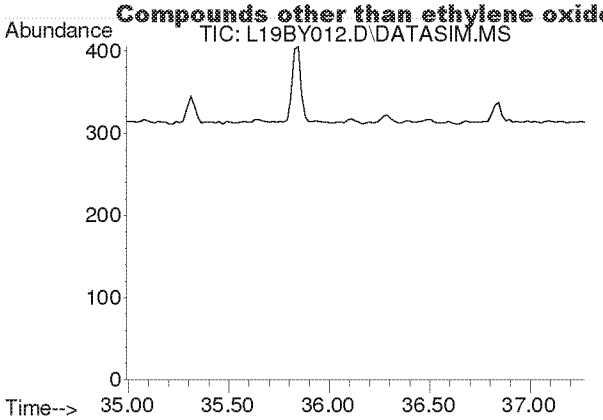
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

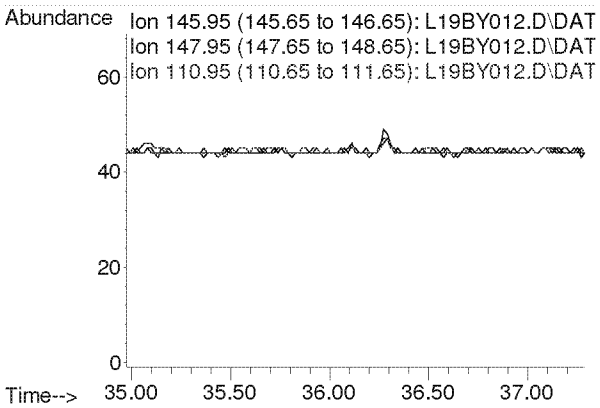


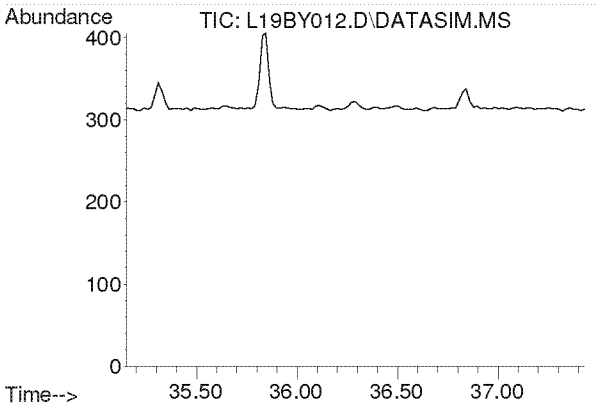
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



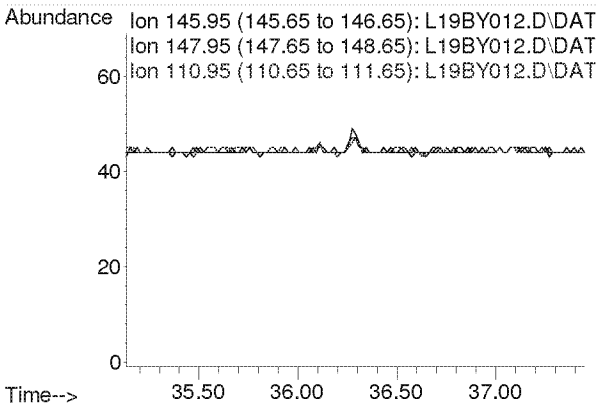


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

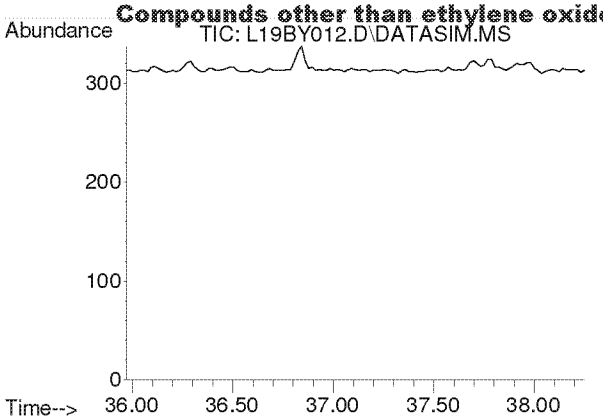
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

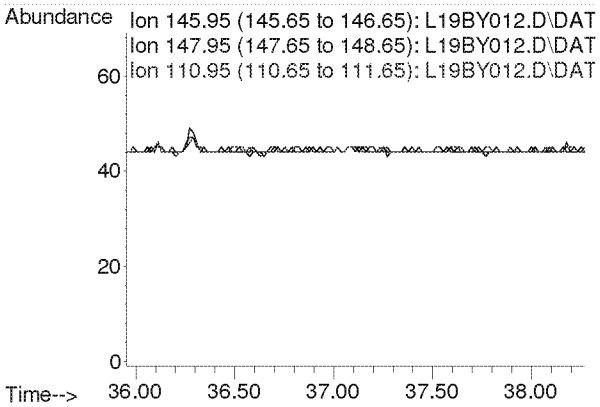


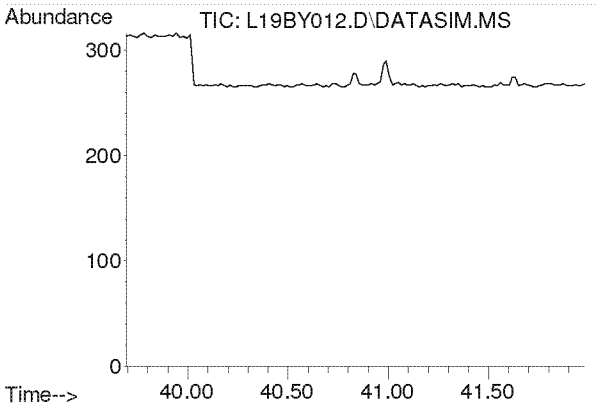
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



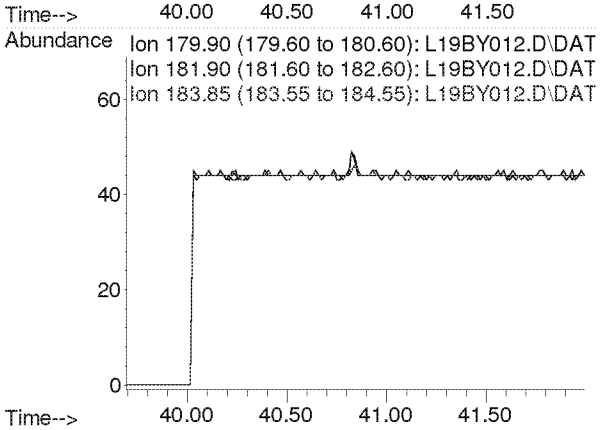


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

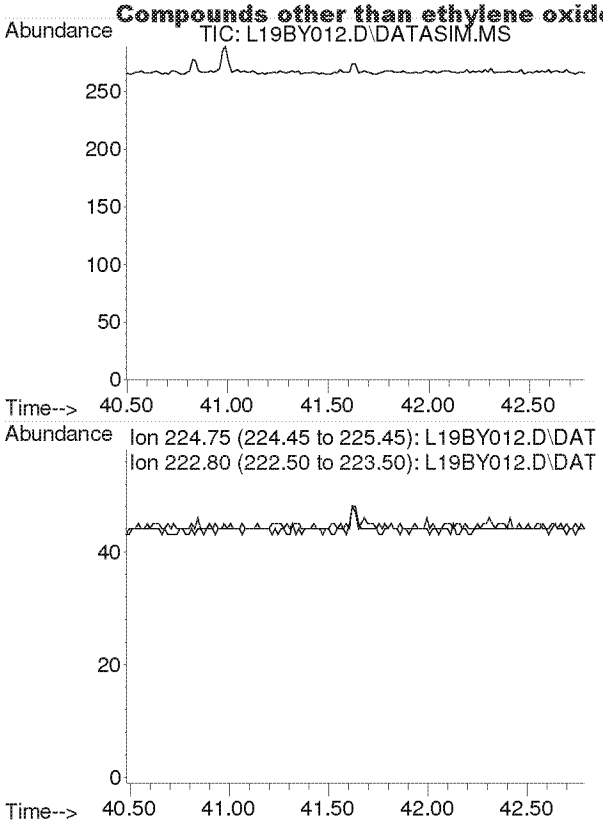
Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19BY012.D
Acq: 25 Feb 2019 6:27 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY013.D
Acq On : 25 Feb 2019 7:29 pm (#1); 25-Feb-19, 19:24:29 (#2)
Operator : MAH
Sample : 9022202-06
Misc : HINSDALE S. HS 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 26 10:11:28 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

dt NK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	38915	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	96977	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	67850	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.498	29	200	0.0899 ppbv #	25
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY013.D
Acq On : 25 Feb 2019 7:29 pm (#1); 25-Feb-19, 19:24:29 (#2)
Operator : MAH
Sample : 9022202-06
Misc : HINSDALE S. HS 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 26 10:11:28 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

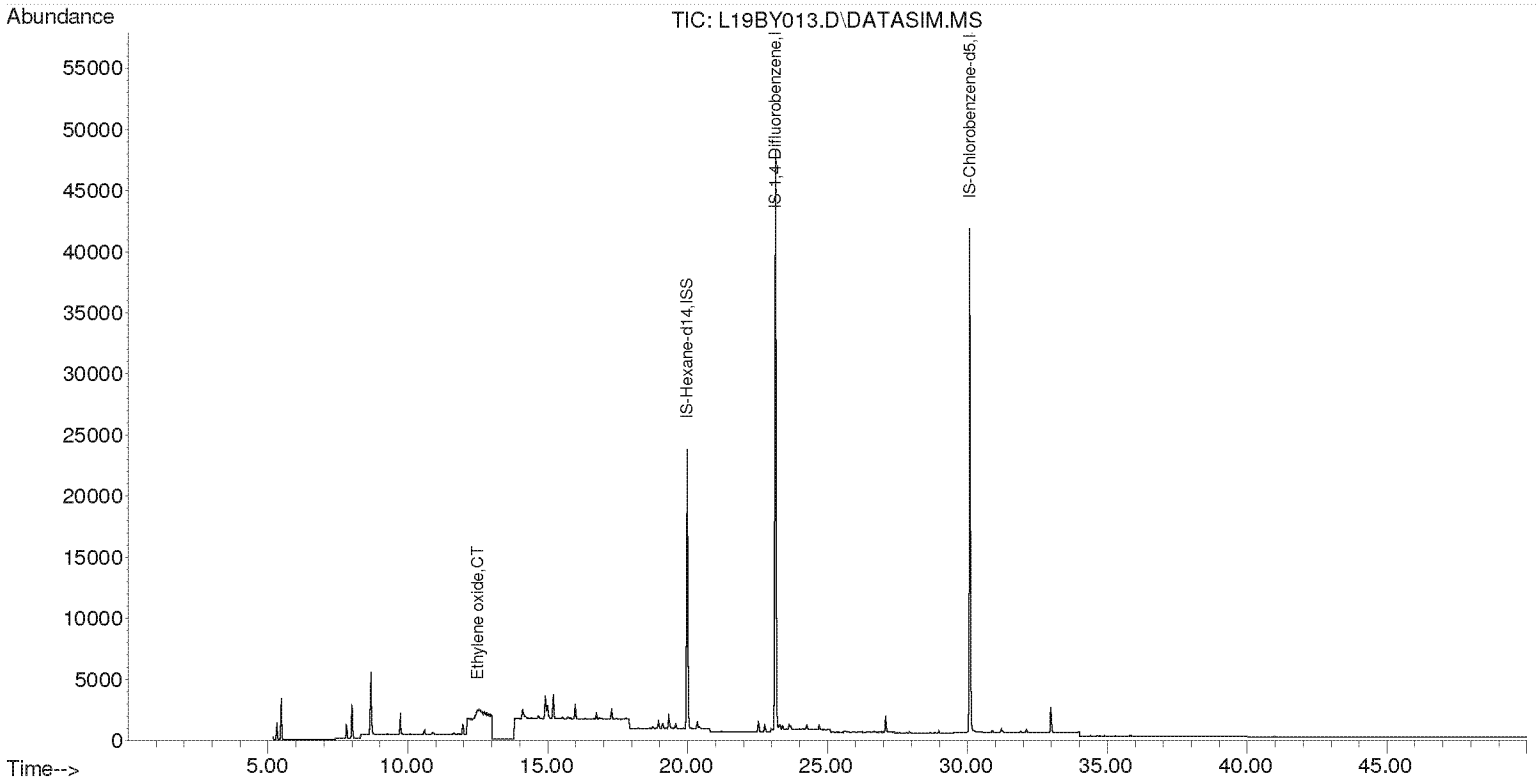
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

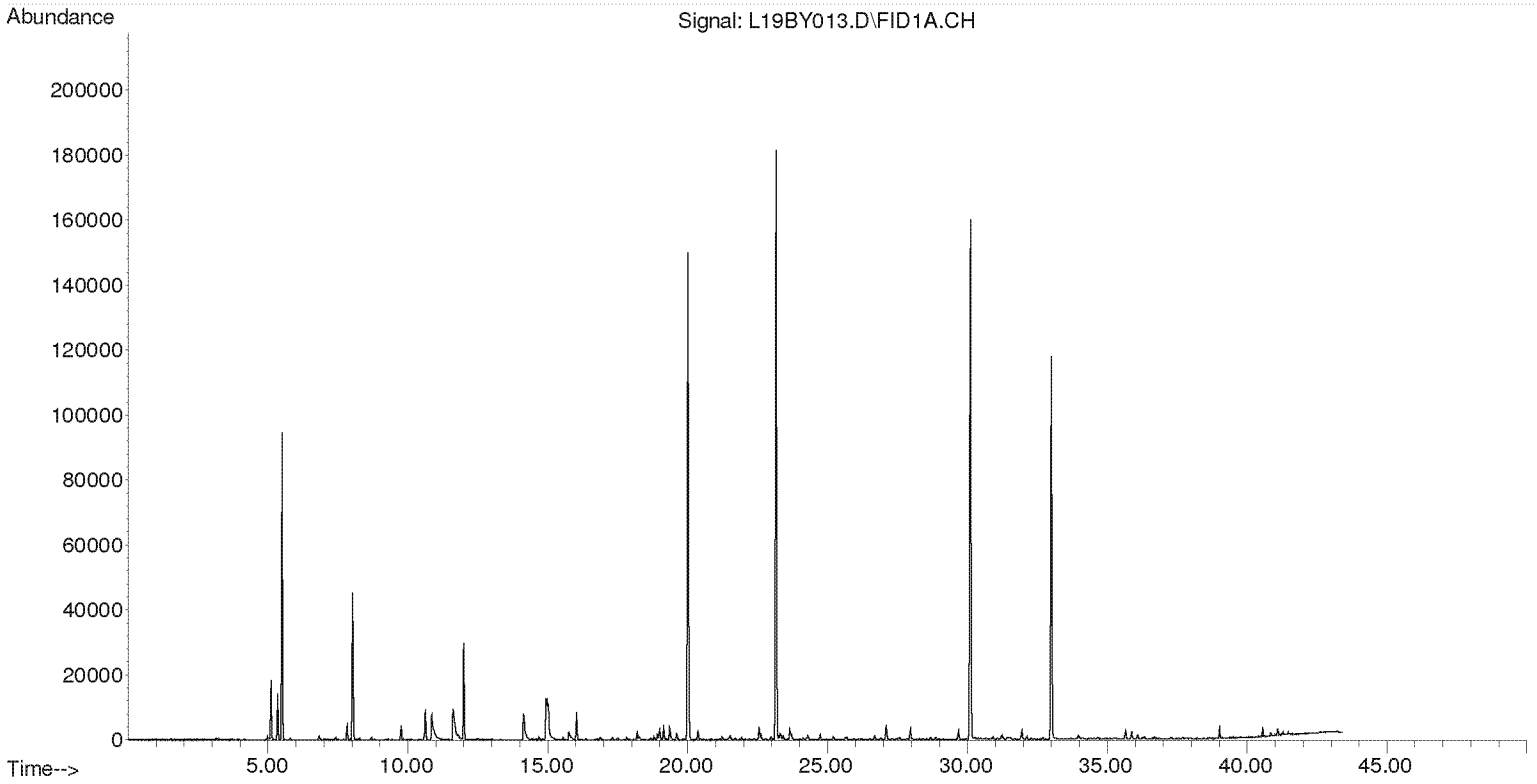
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

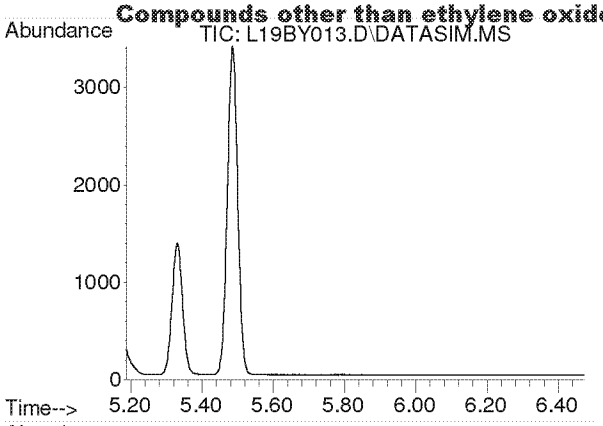
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY013.D
Acq On : 25 Feb 2019 7:29 pm (#1); 25 Feb 2019 7:24 pm (#2)
Operator : MAH
Sample : 9022202-06
Misc : HINSDALE S. HS 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 26 09:55:03 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





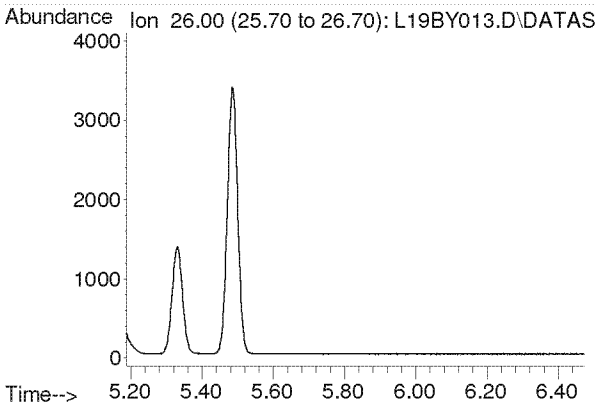
Compounds other than ethylene oxide were not quantitated.

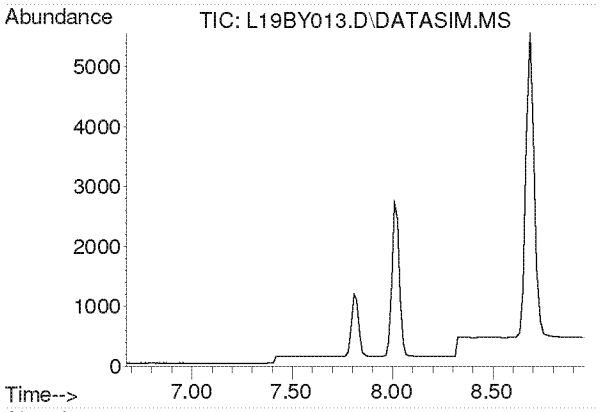


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 26



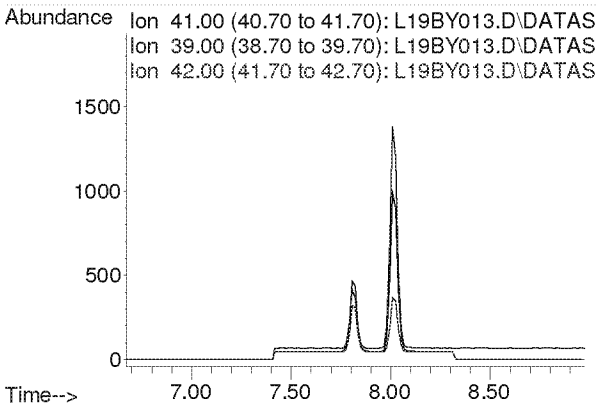


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

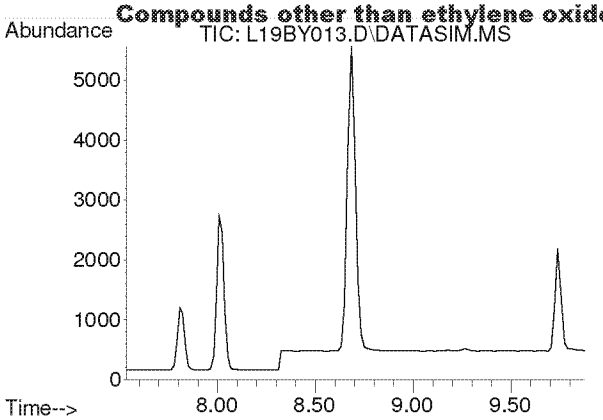
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

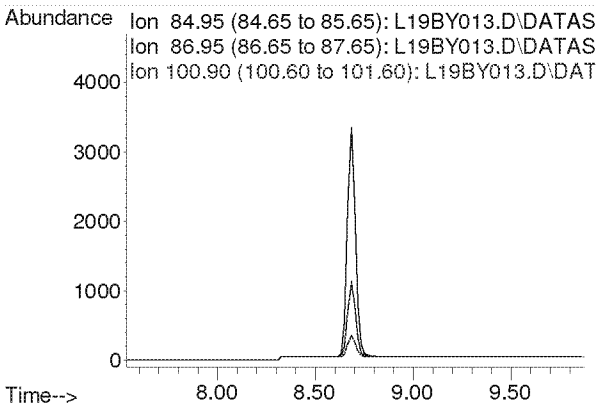


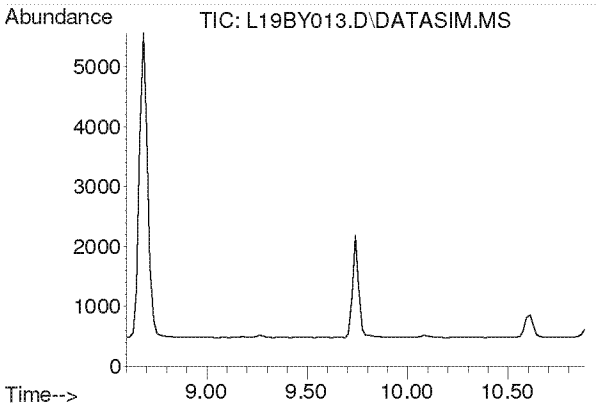
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



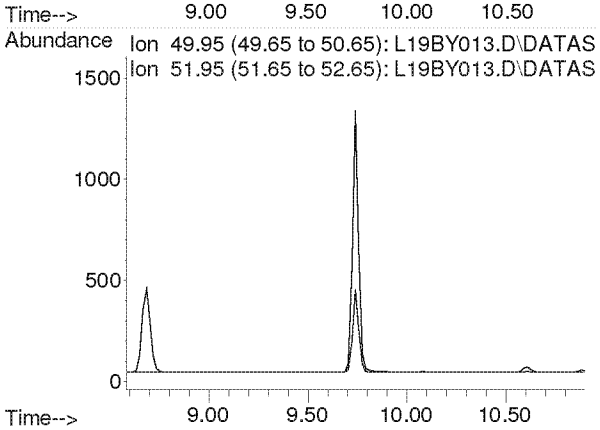


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

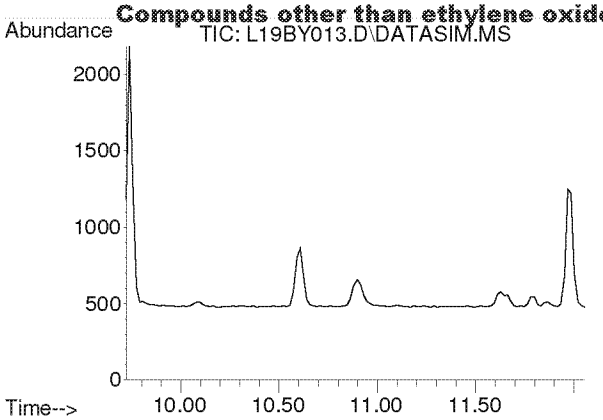
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

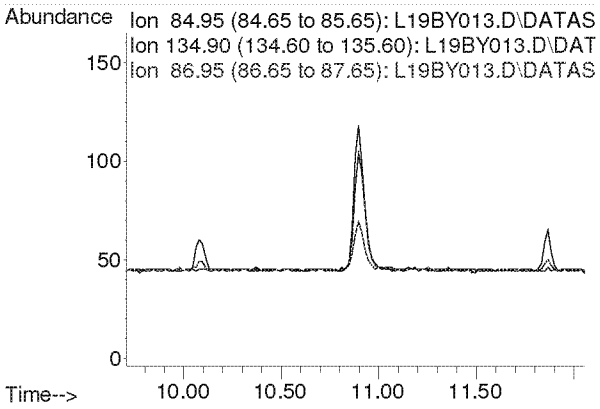


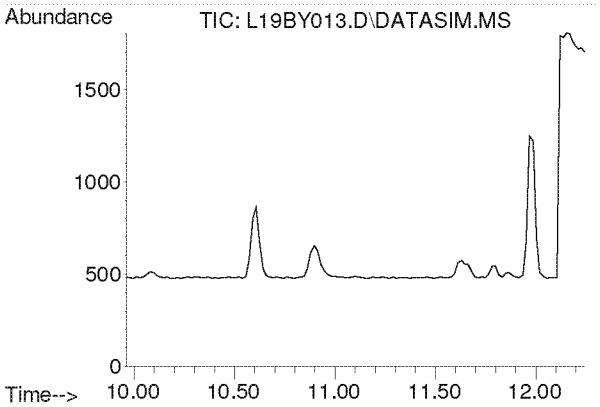
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



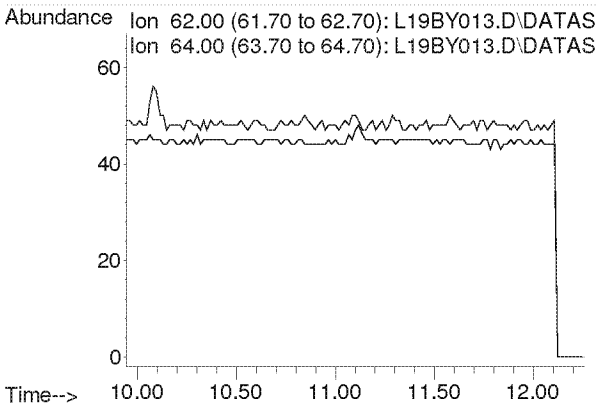


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

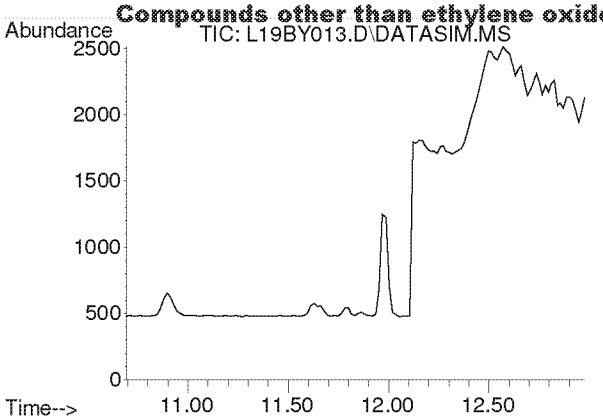
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

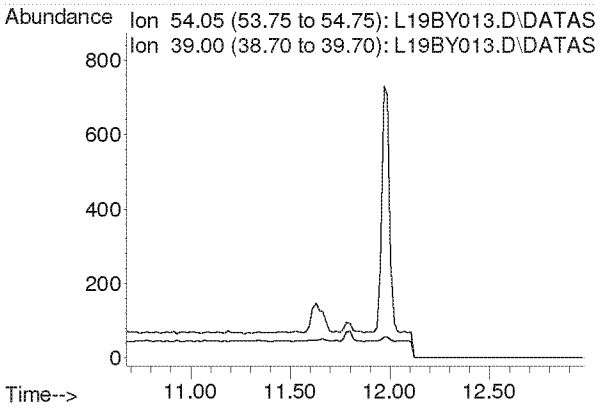


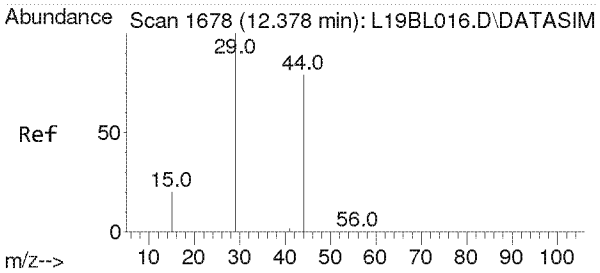
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

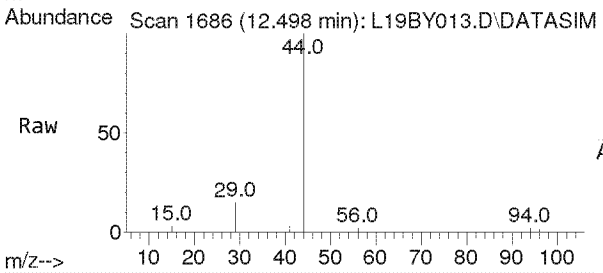


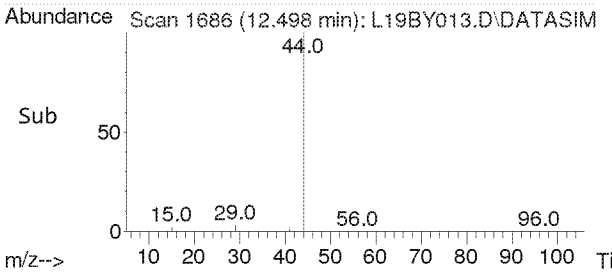


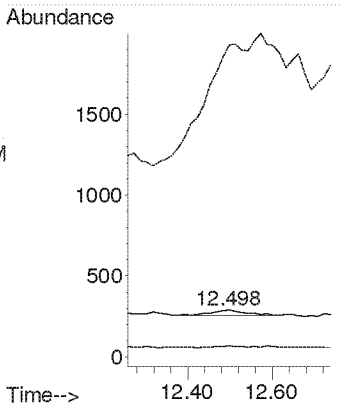
#9
Ethylene oxide
Concen: 0.090 ppbv
RT: 12.498 min Scan# 1686
Delta R.T. 0.048 min
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 29 Resp: 200

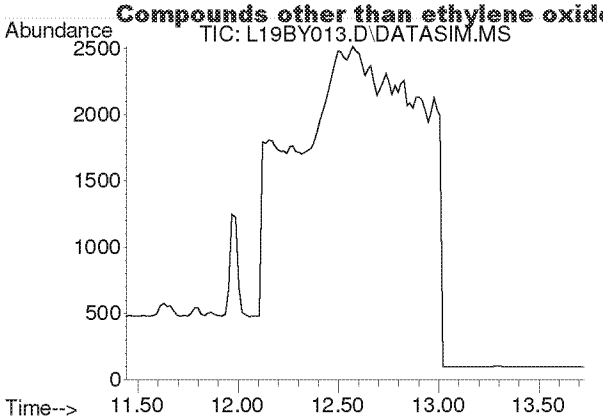
Ion	Ratio	Lower	Upper
29	100		
15	22.5	16.0	24.0
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

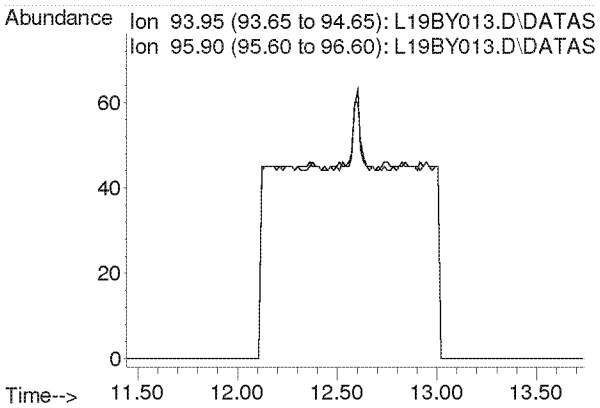


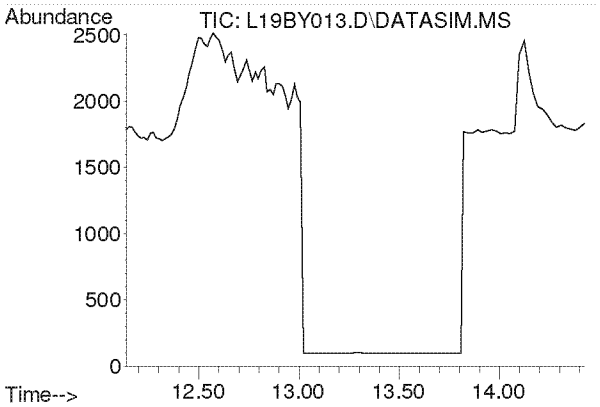
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



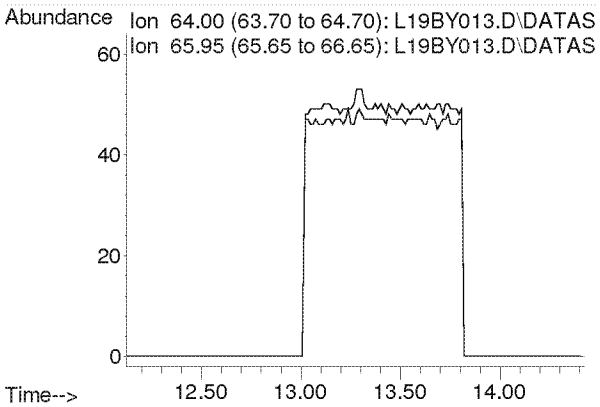


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

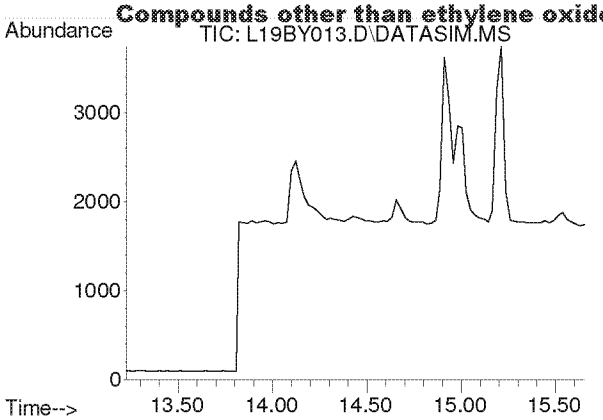
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

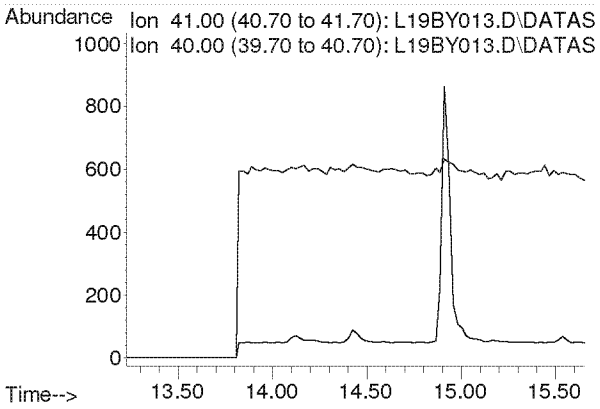


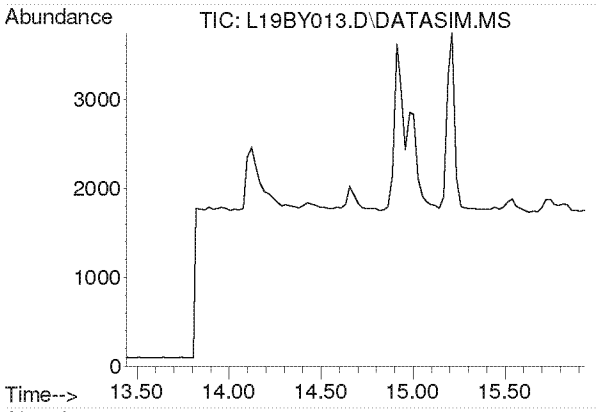
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



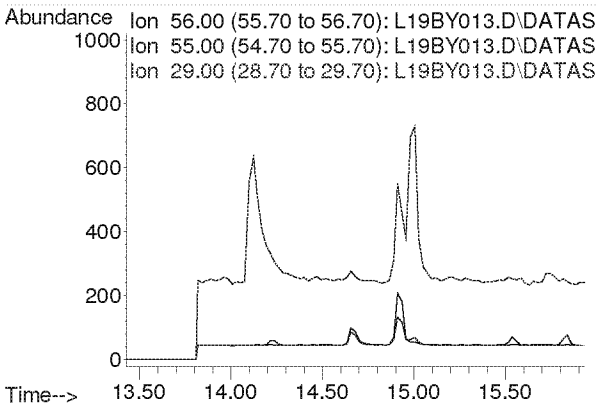


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

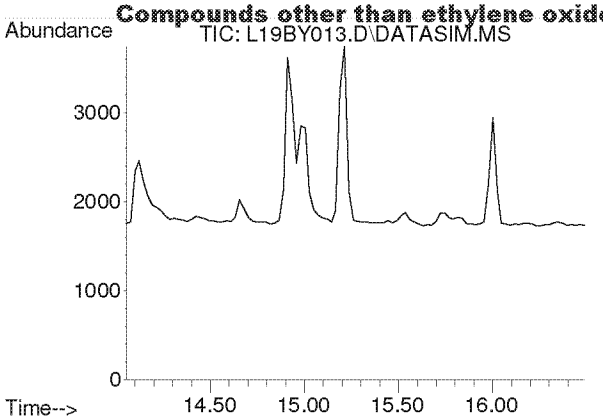
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

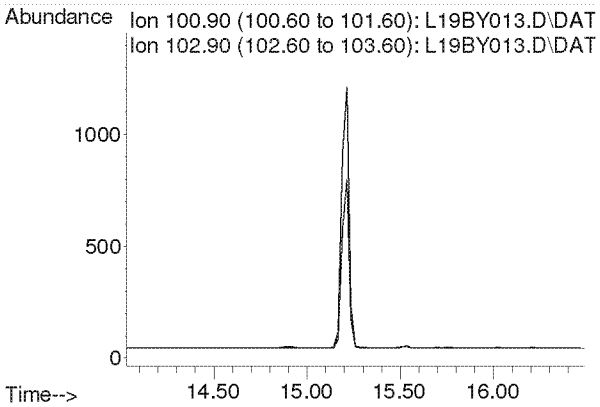


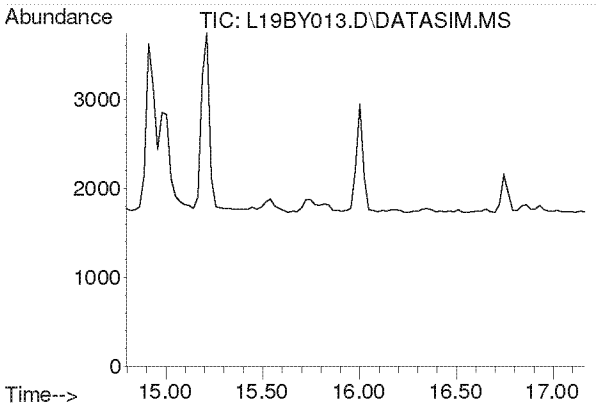
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



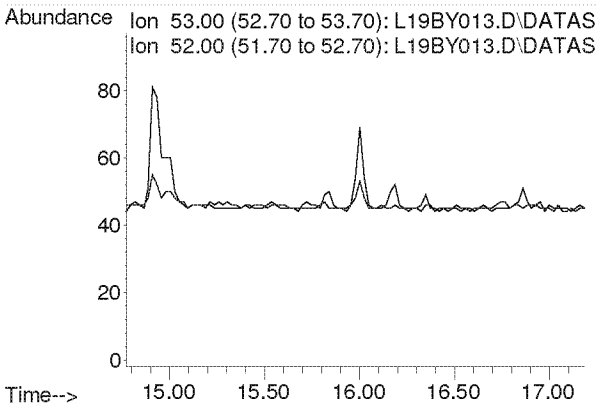


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

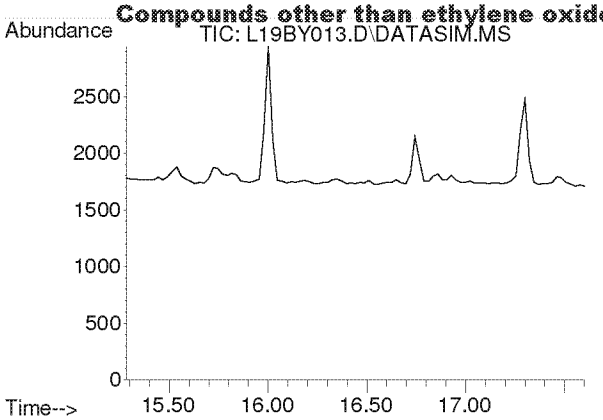
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

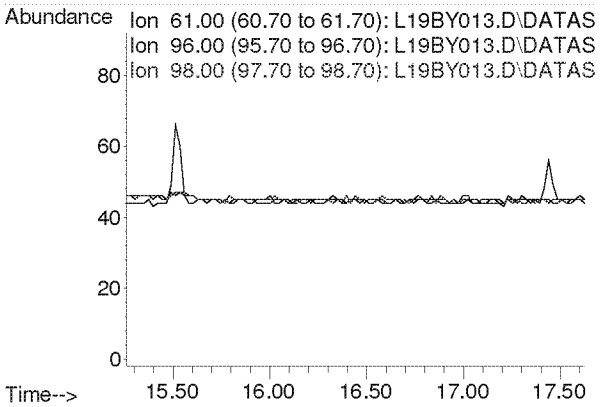


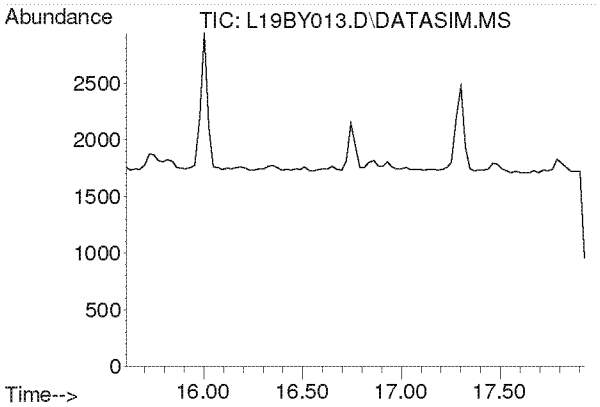
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



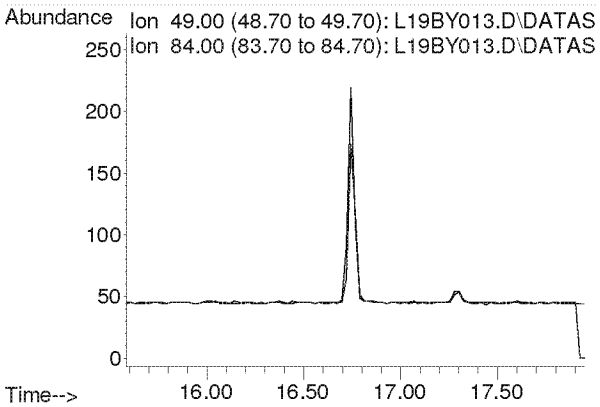


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

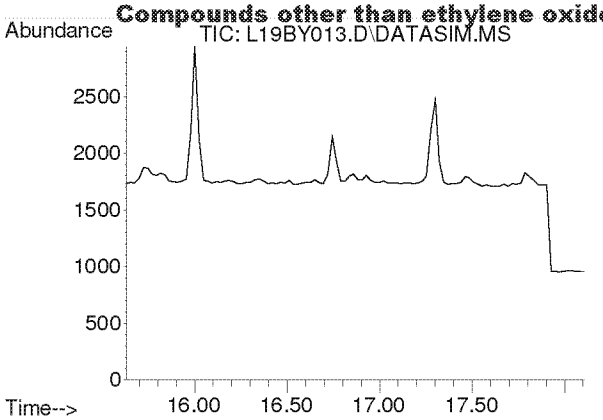
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

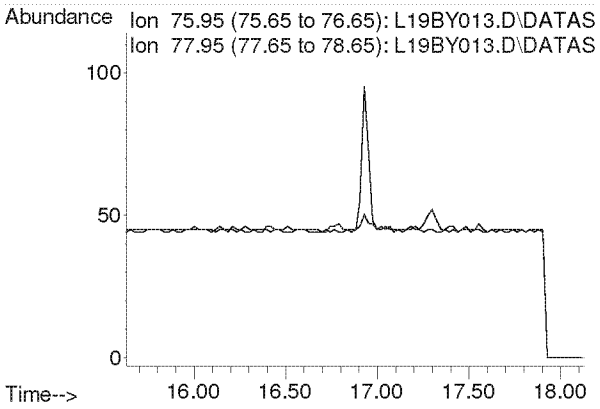


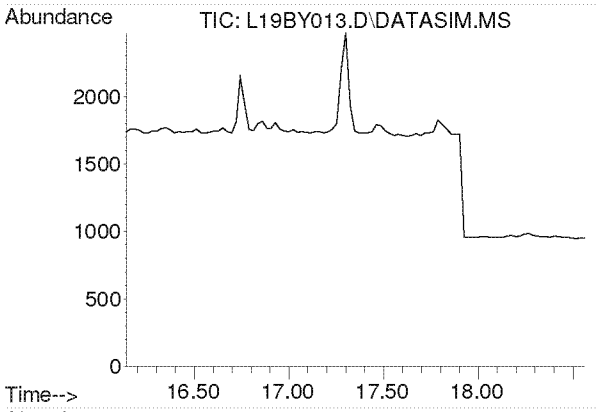
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



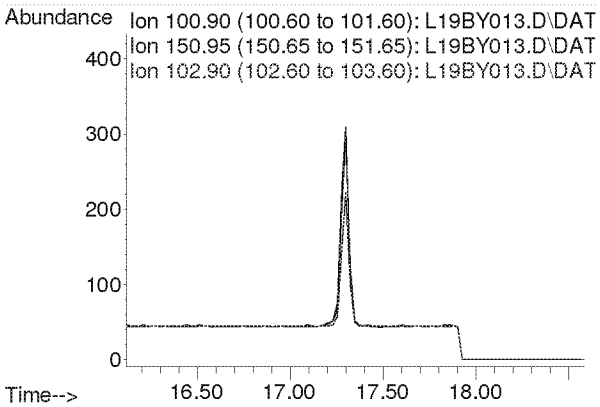


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

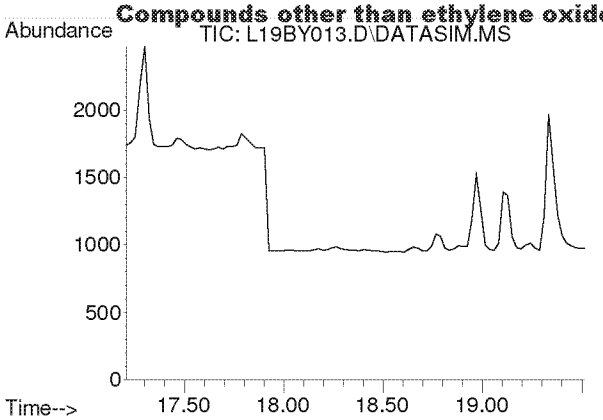
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

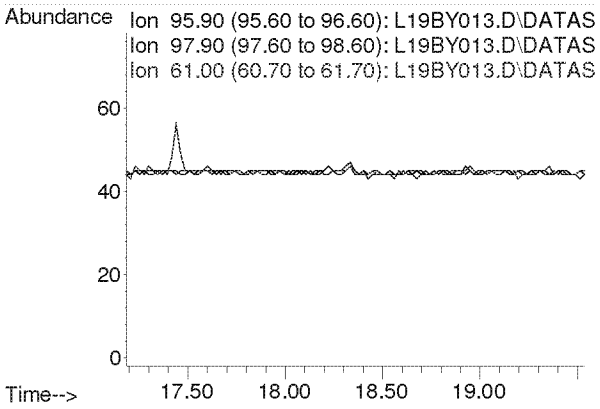


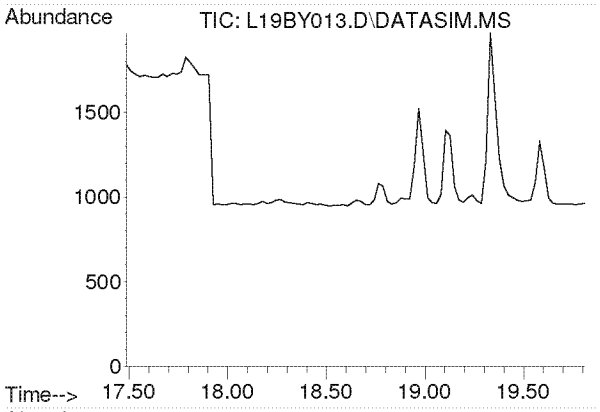
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



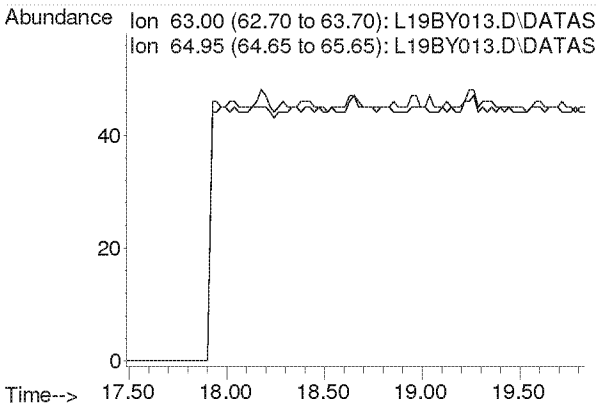


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

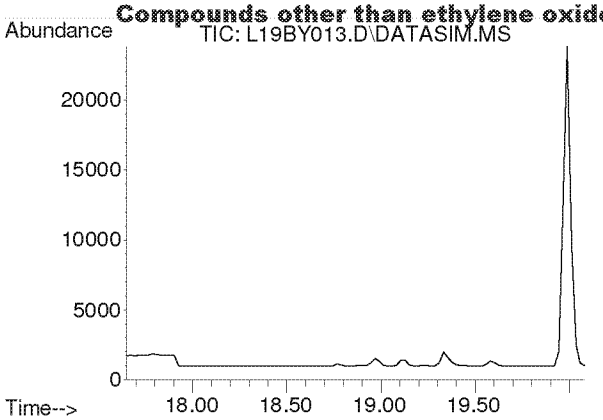
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

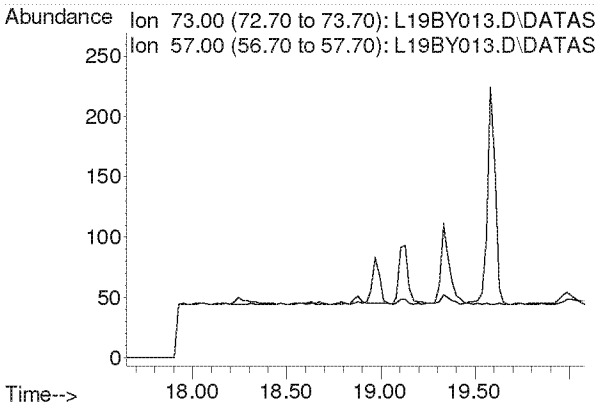


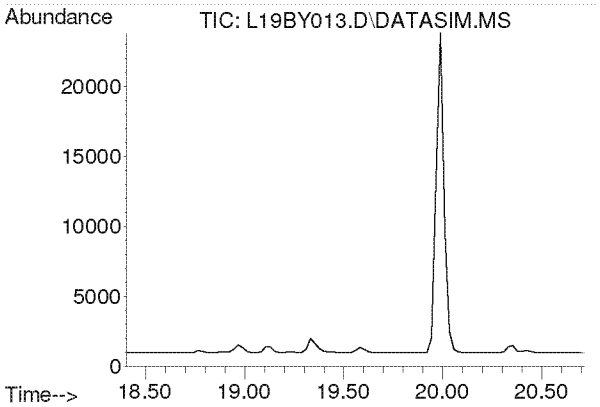
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



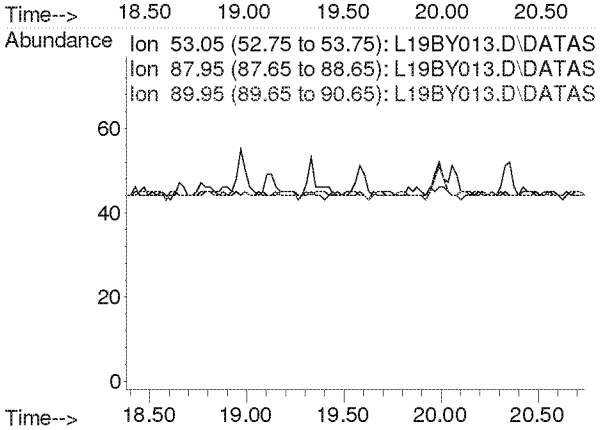


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

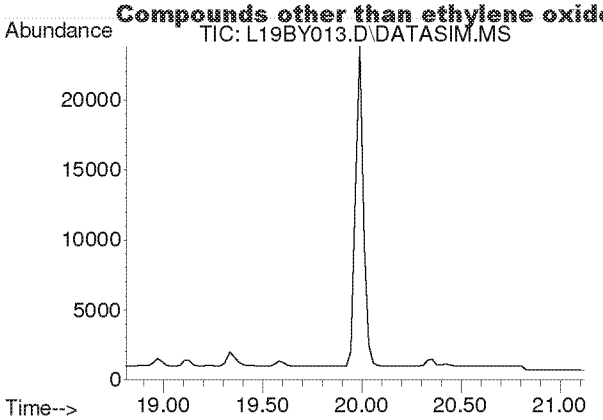
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

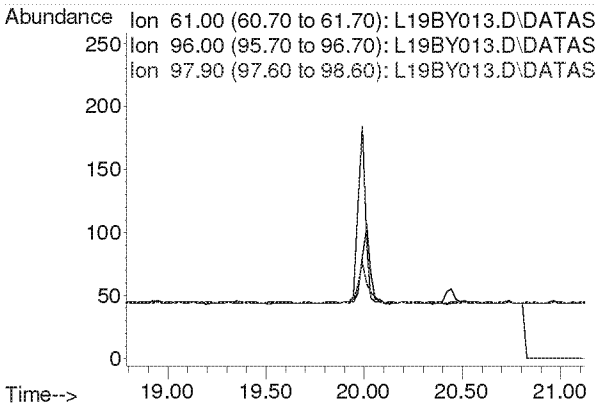


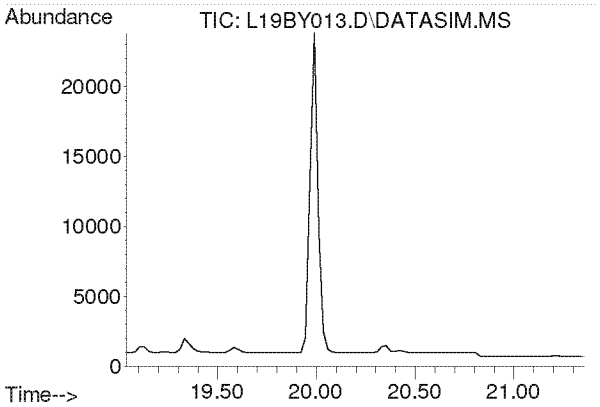
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



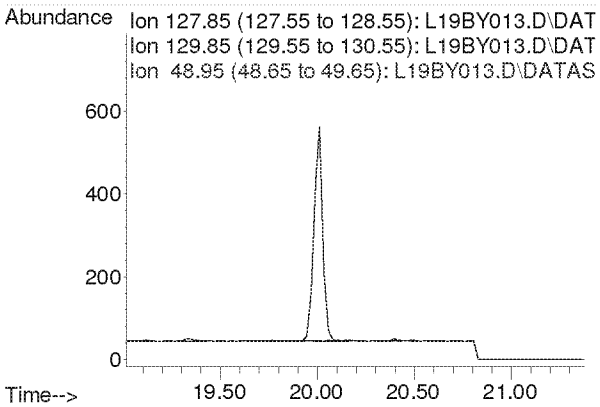


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

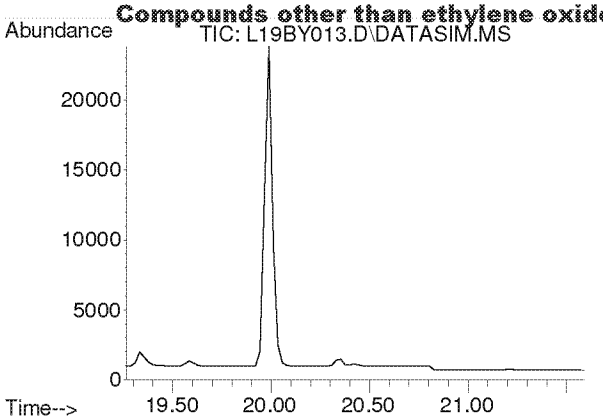
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

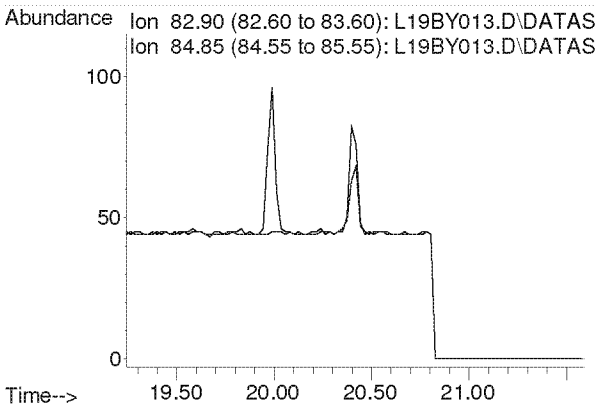


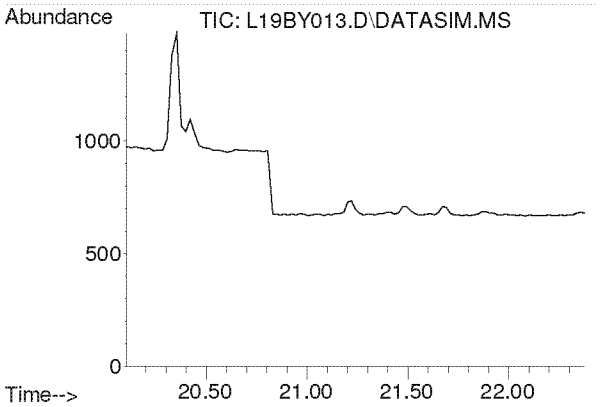
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



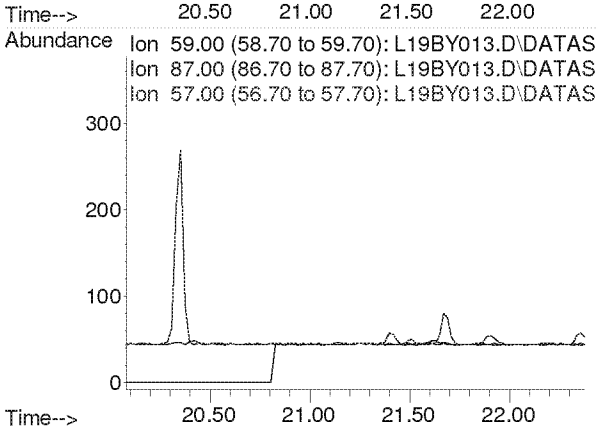


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

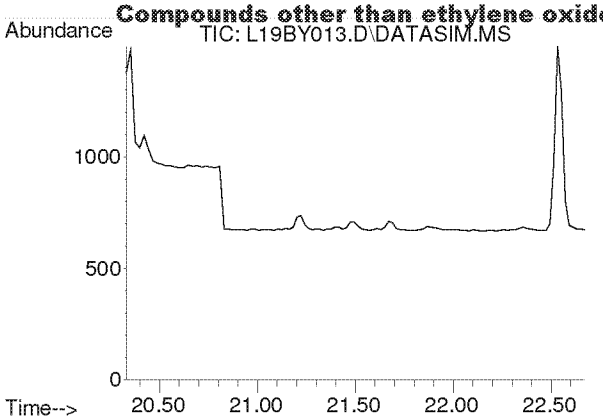
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

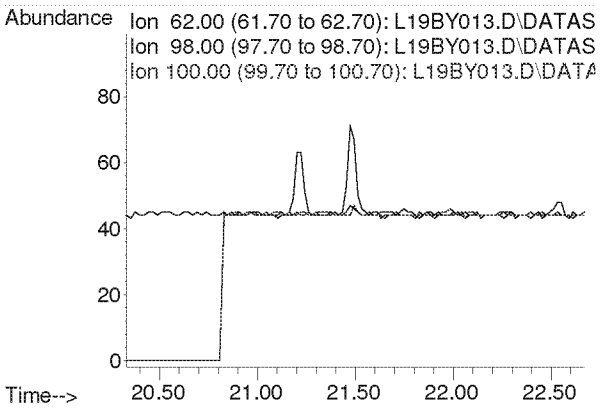


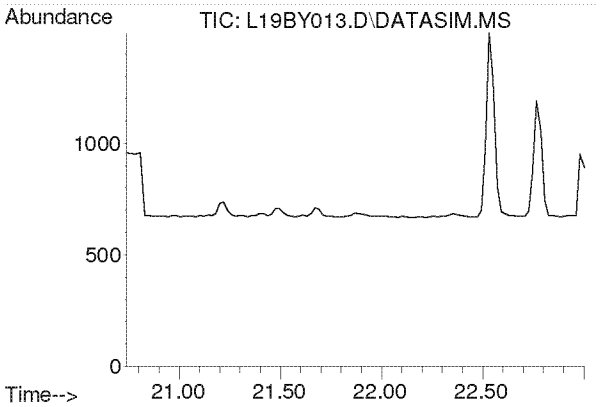
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



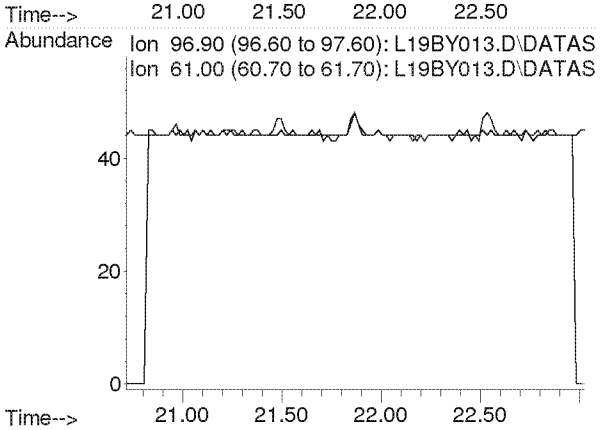


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

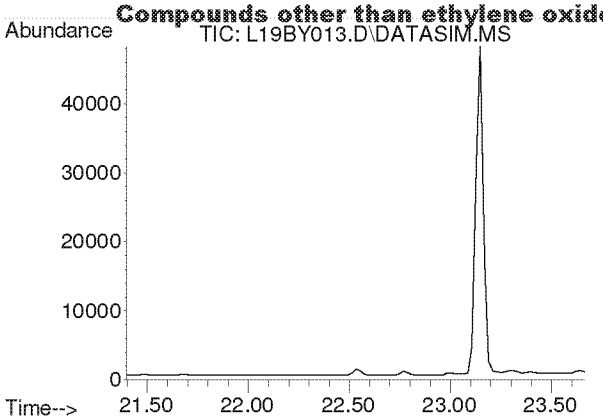
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

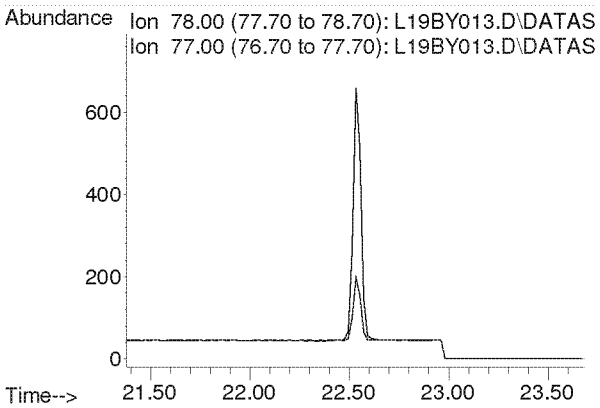


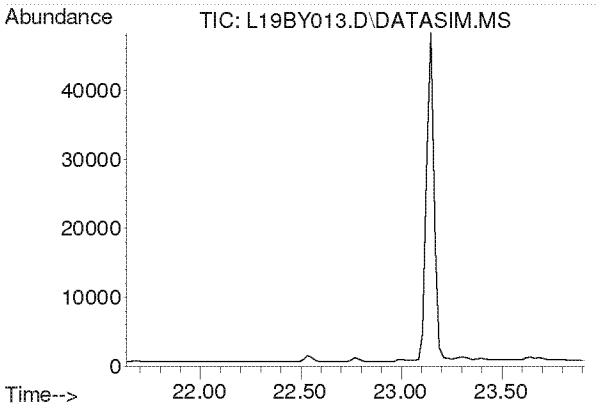
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



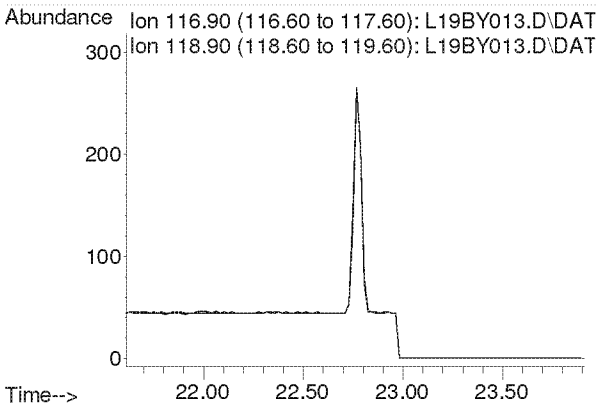


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

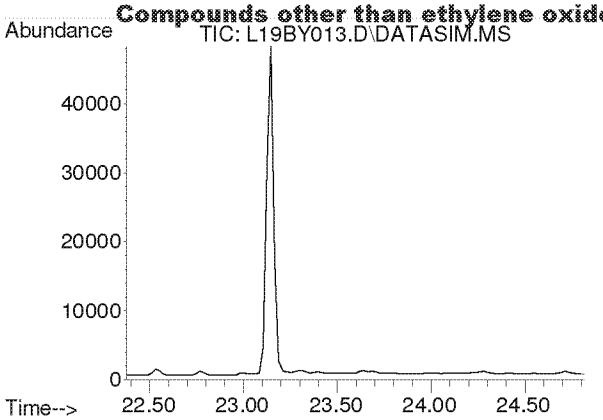
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

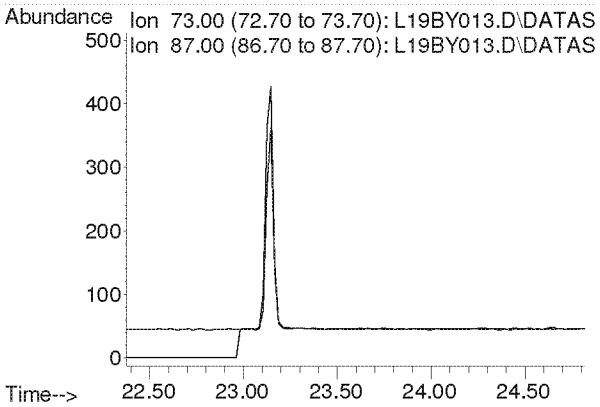


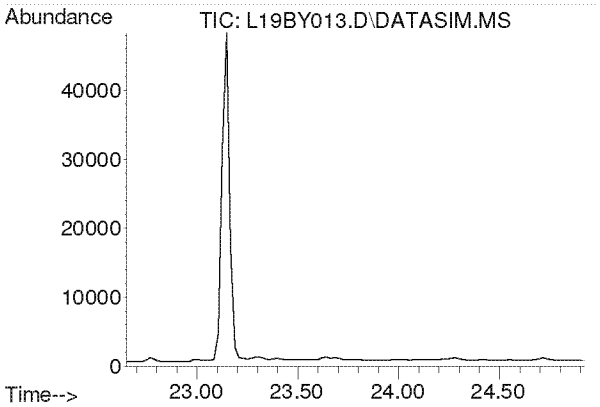
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



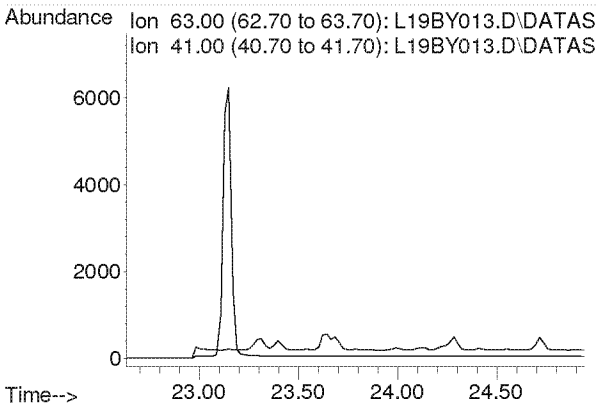


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

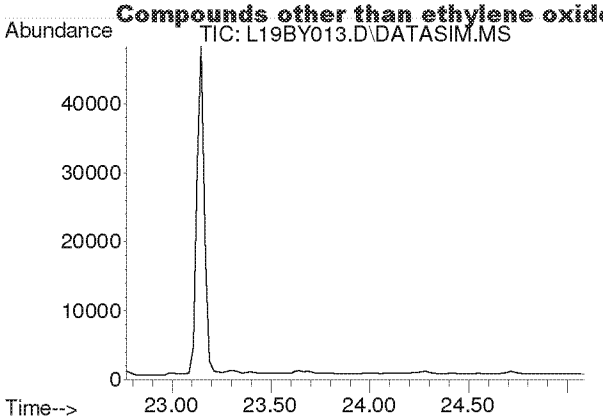
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

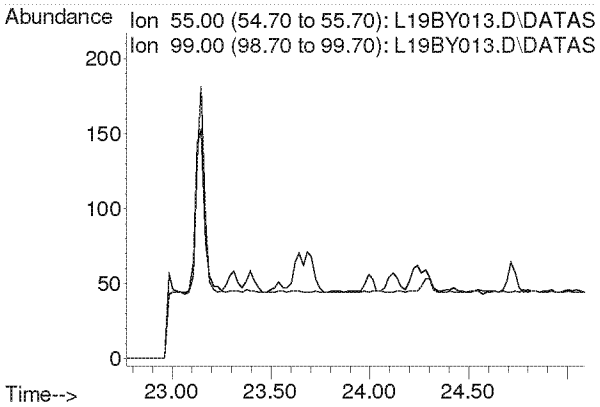


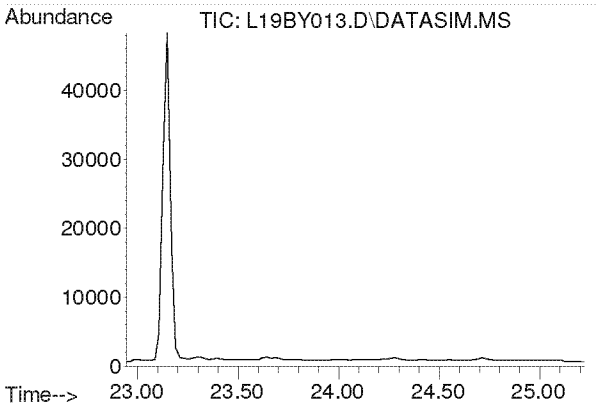
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



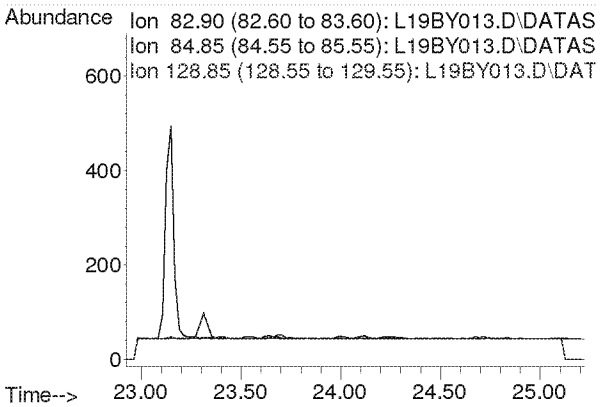


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

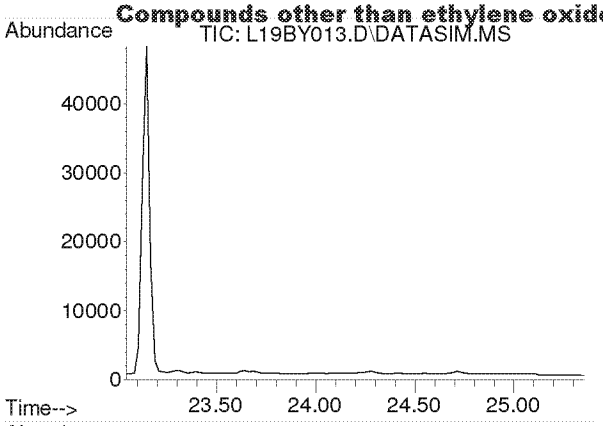
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

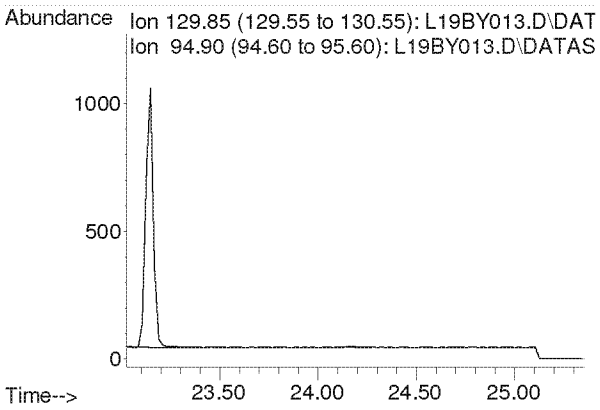


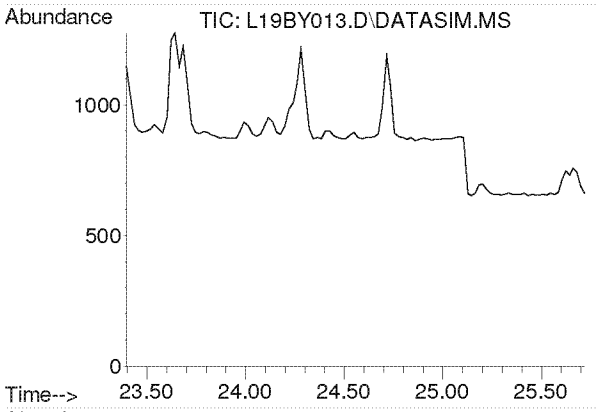
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



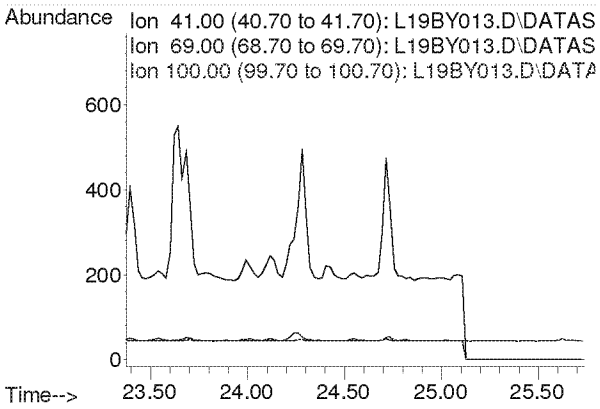


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

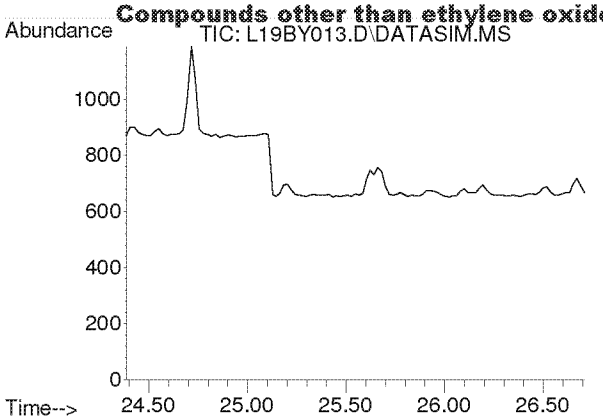
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

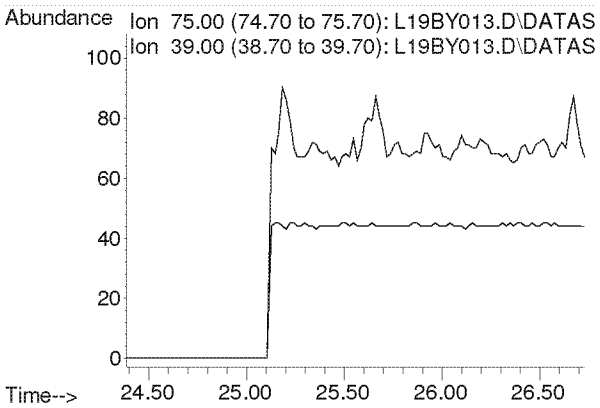


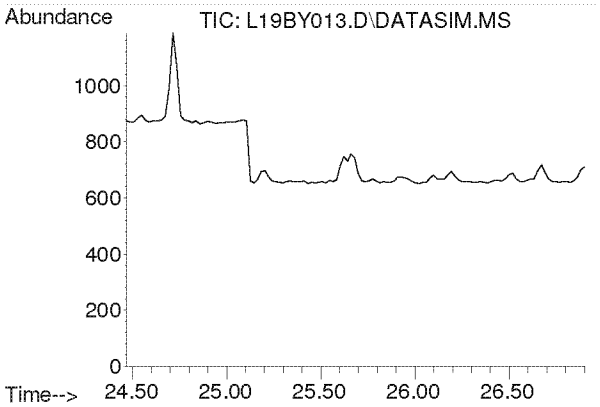
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



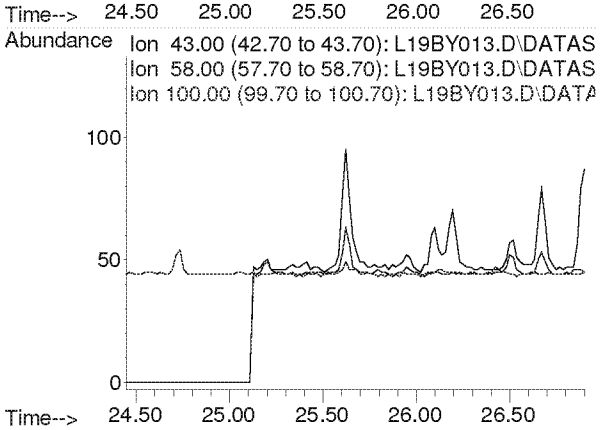


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

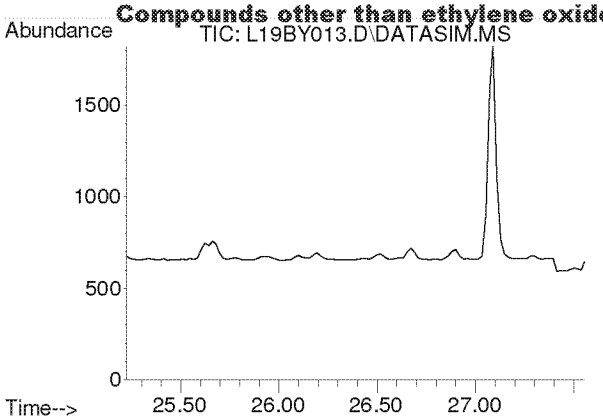
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

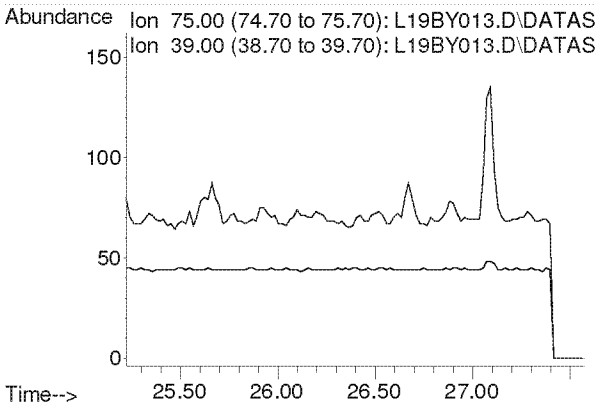


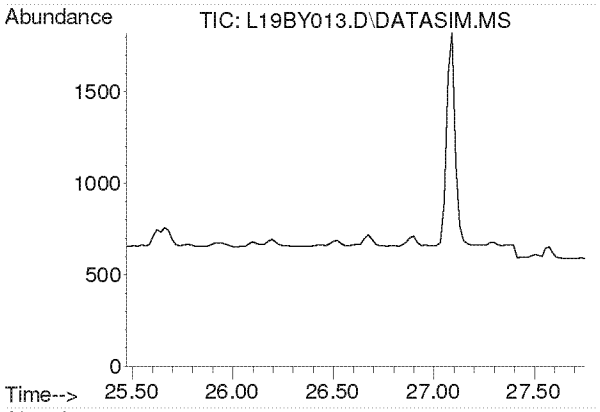
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



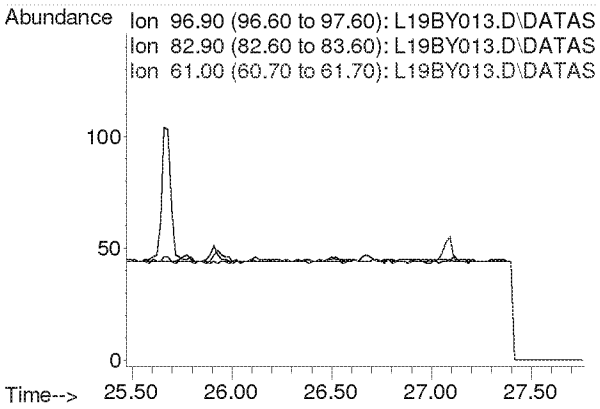


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

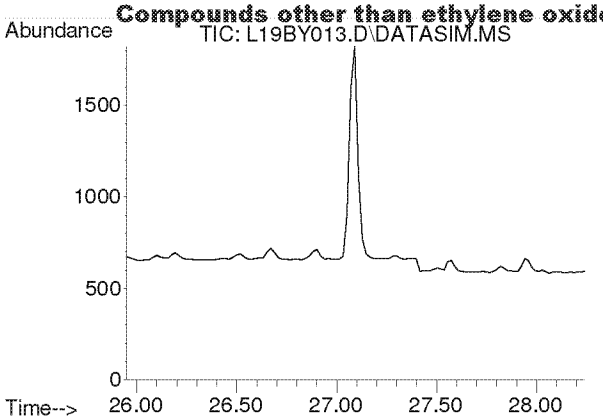
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

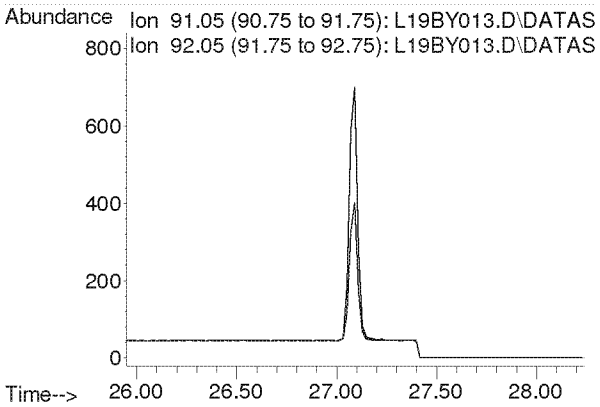


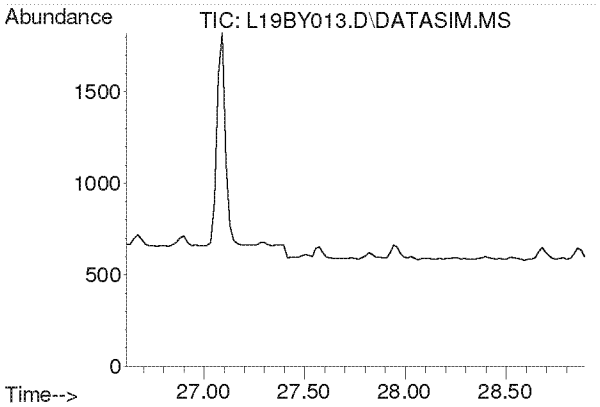
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



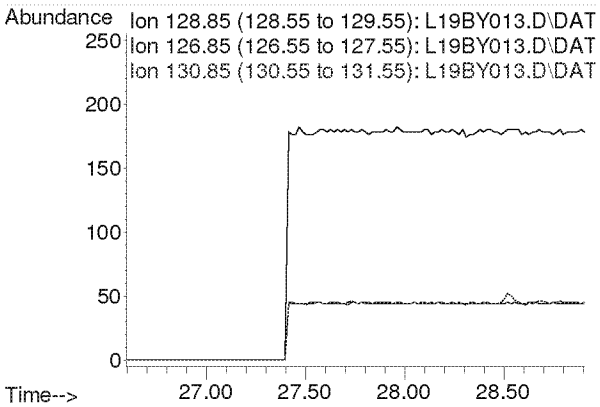


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

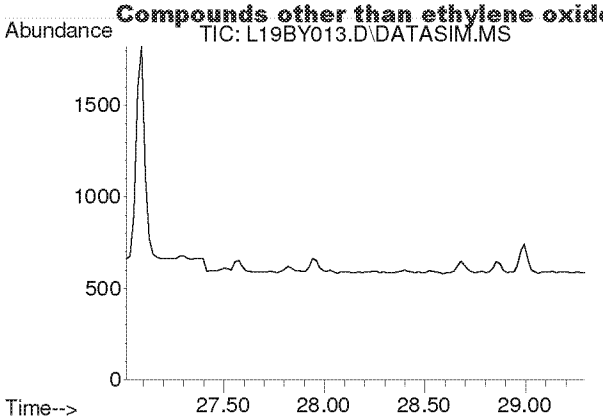
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

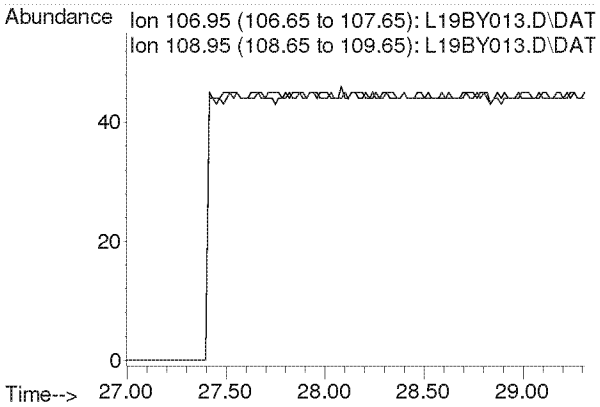


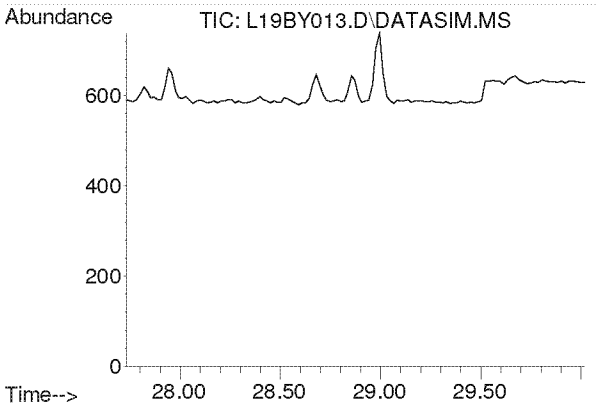
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



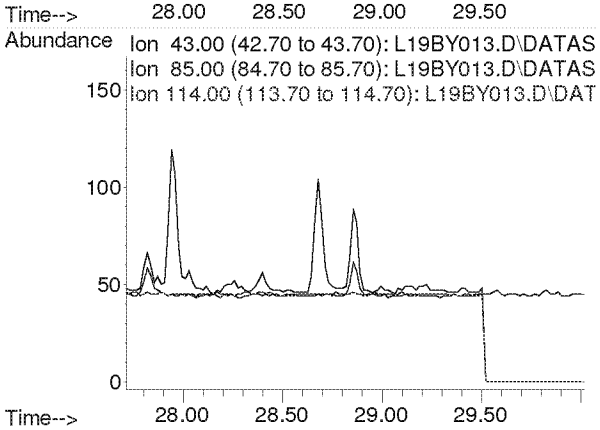


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

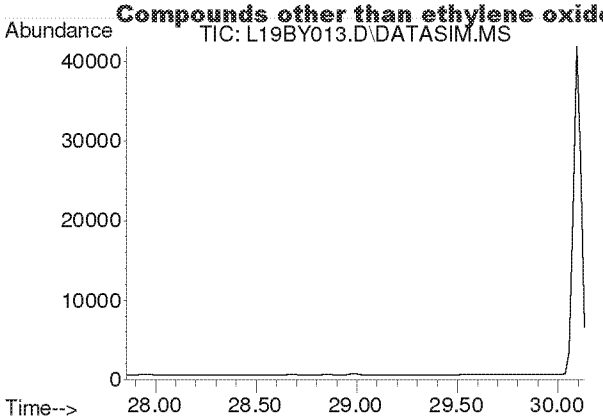
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

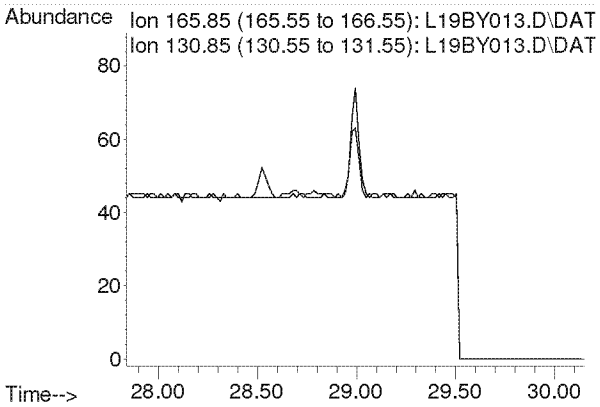


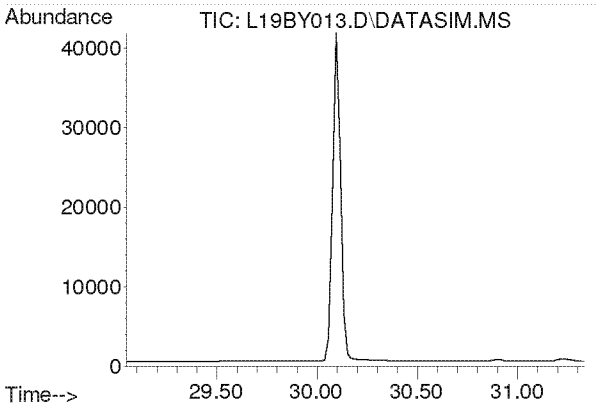
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



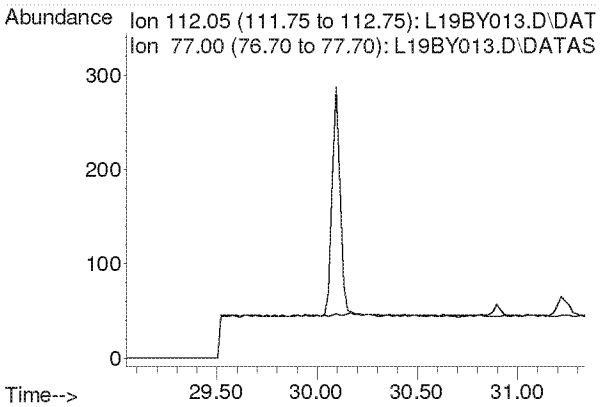


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

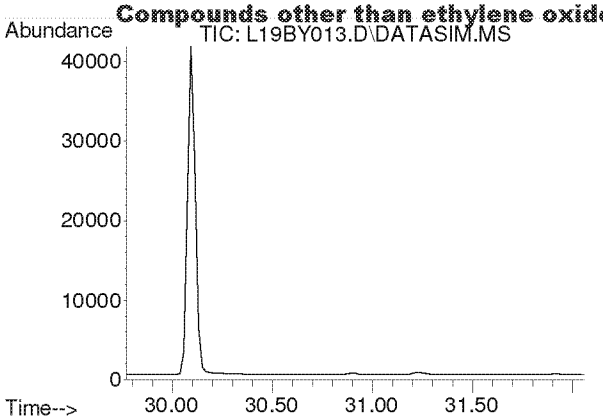
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

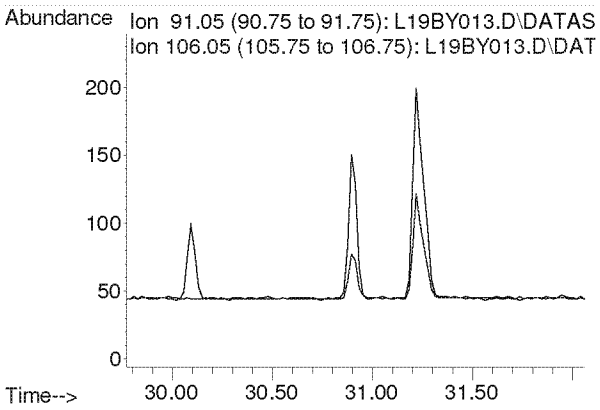


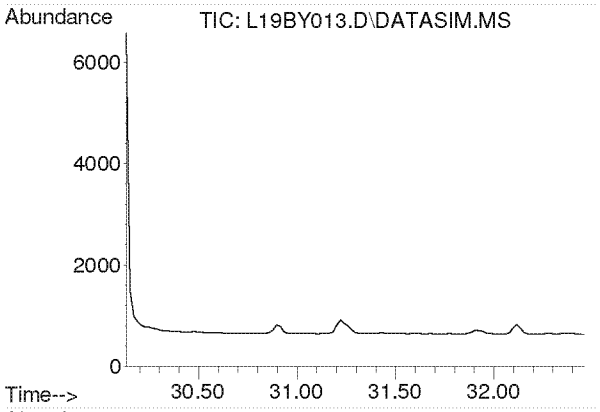
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



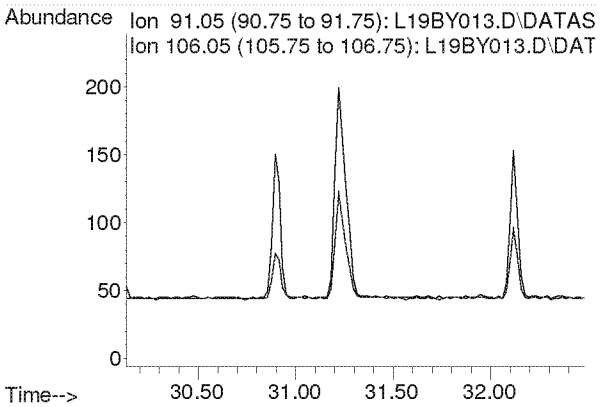


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

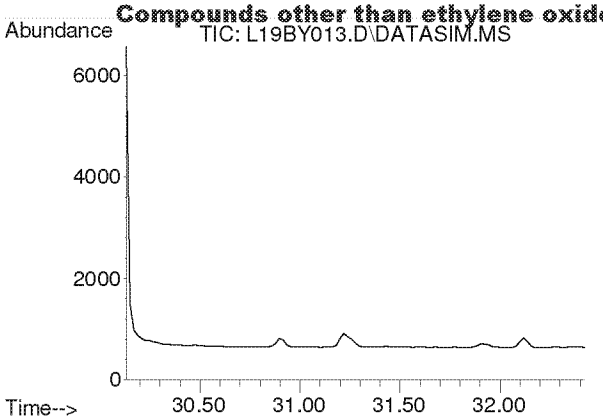
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

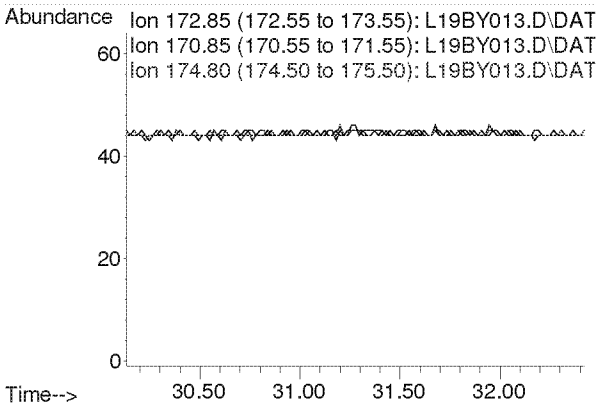


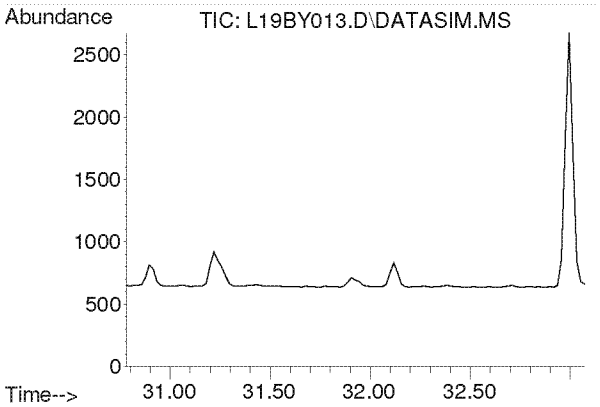
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



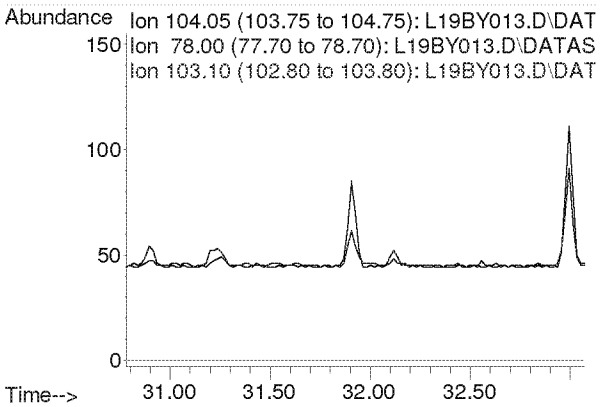


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

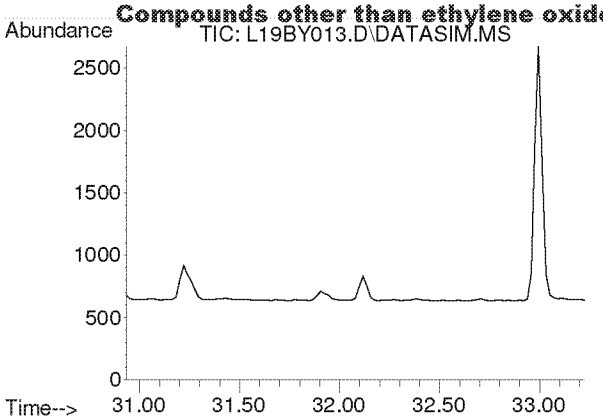
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

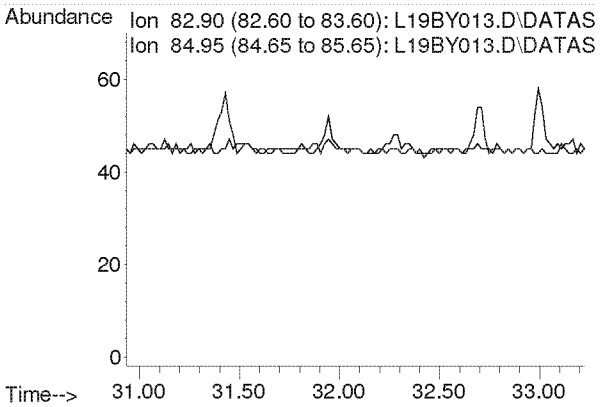


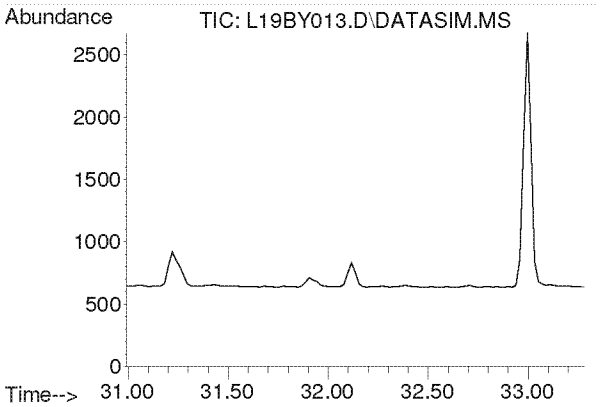
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



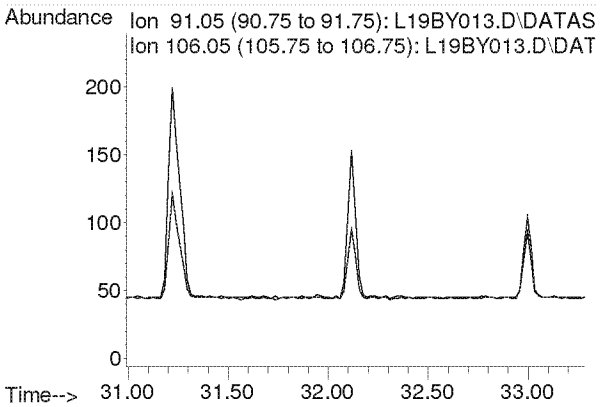


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

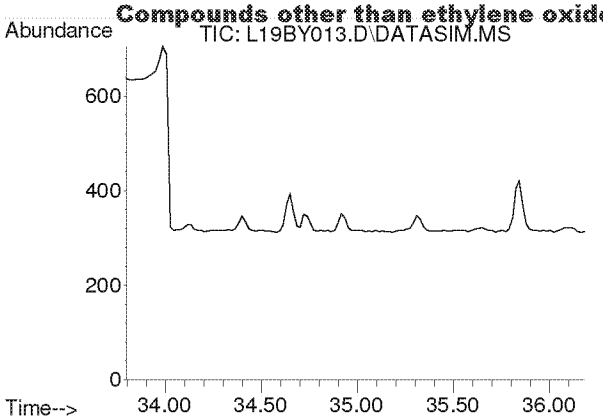
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

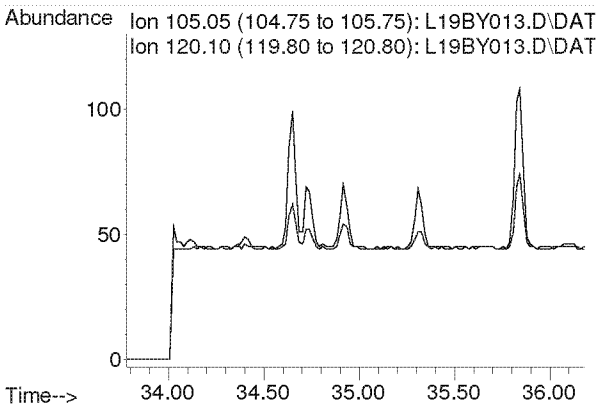


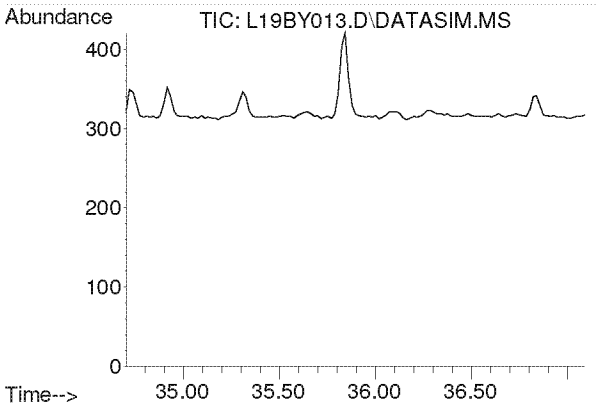
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



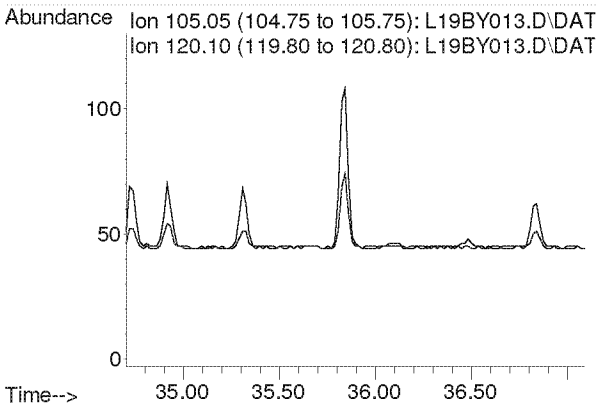


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

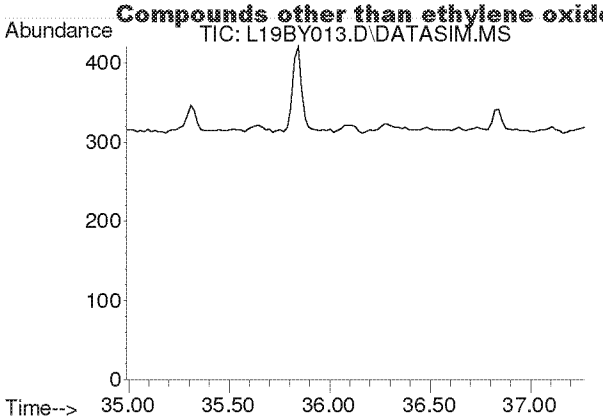
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

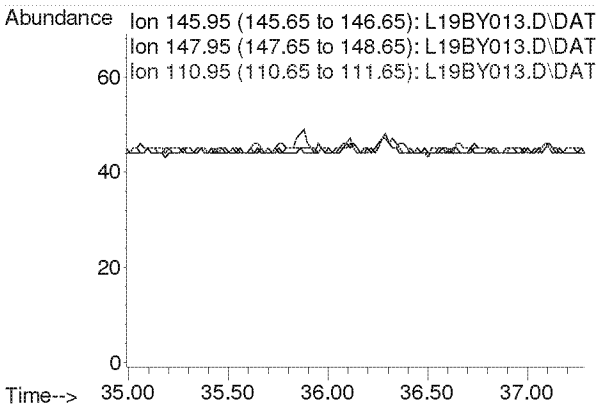


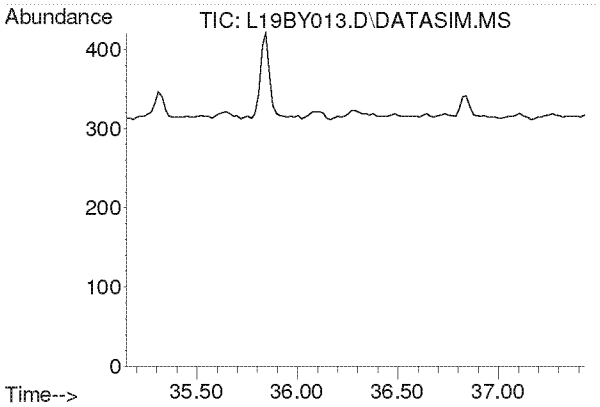
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



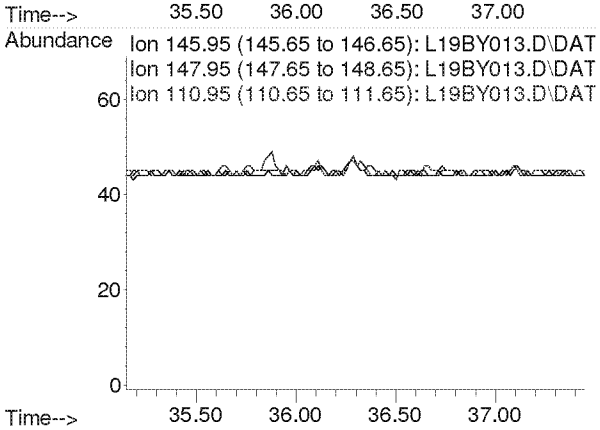


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

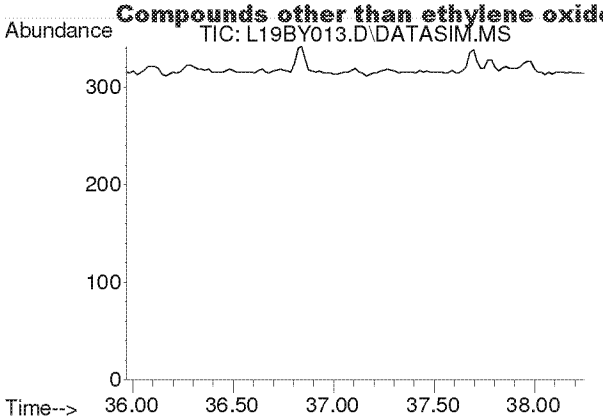
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

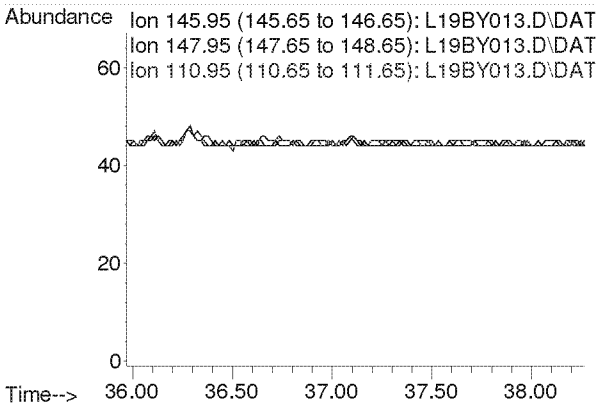


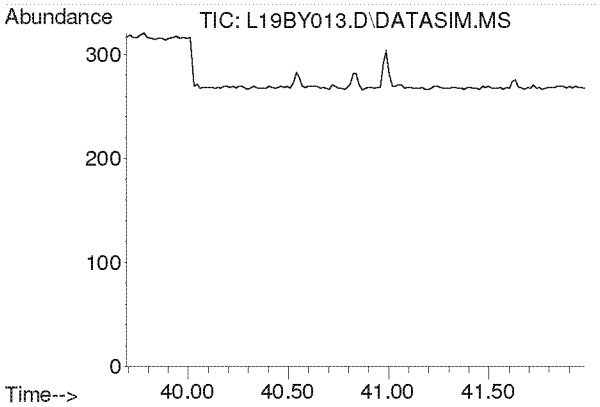
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



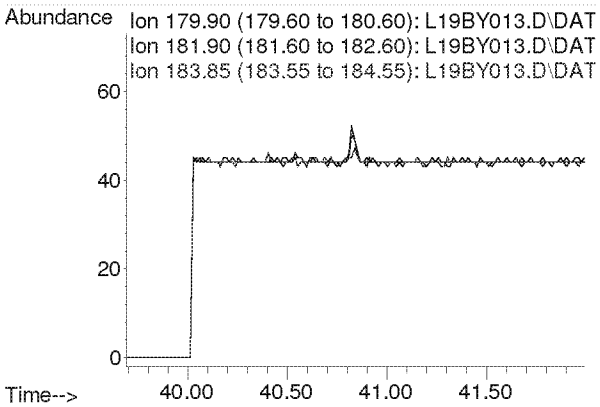


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

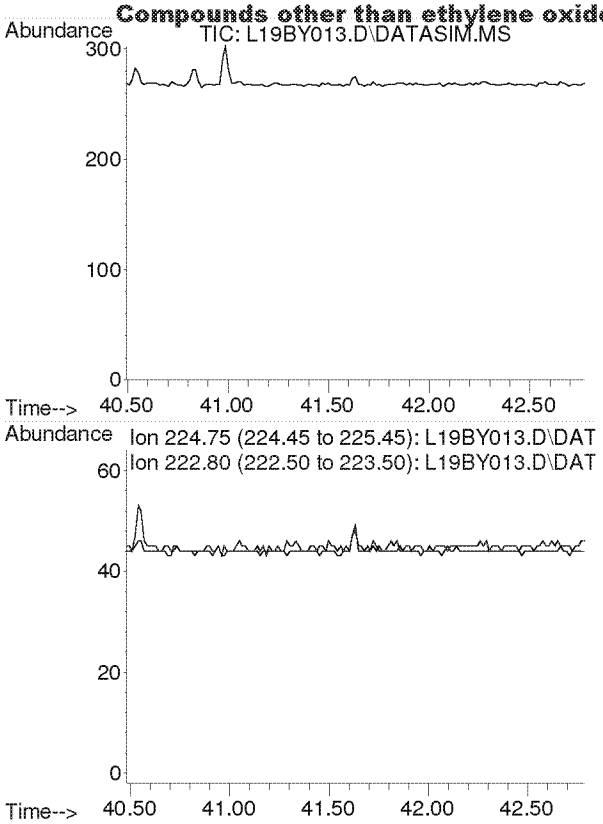
Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19BY013.D
Acq: 25 Feb 2019 7:29 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY014.D
Acq On : 25 Feb 2019 8:29 pm (#1); 25-Feb-19, 20:24:41 (#2)
Operator : MAH
Sample : 9022202-07
Misc : GOWER ES 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 26 10:11:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

ETOX only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	39157	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	99165	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	69692	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	0.000	29	0	N.D. d SL	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. 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\L19BY\
Data File : L19BY014.D
Acq On : 25 Feb 2019 8:29 pm (#1); 25-Feb-19, 20:24:41 (#2)
Operator : MAH
Sample : 9022202-07
Misc : GOWER ES 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 26 10:11:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

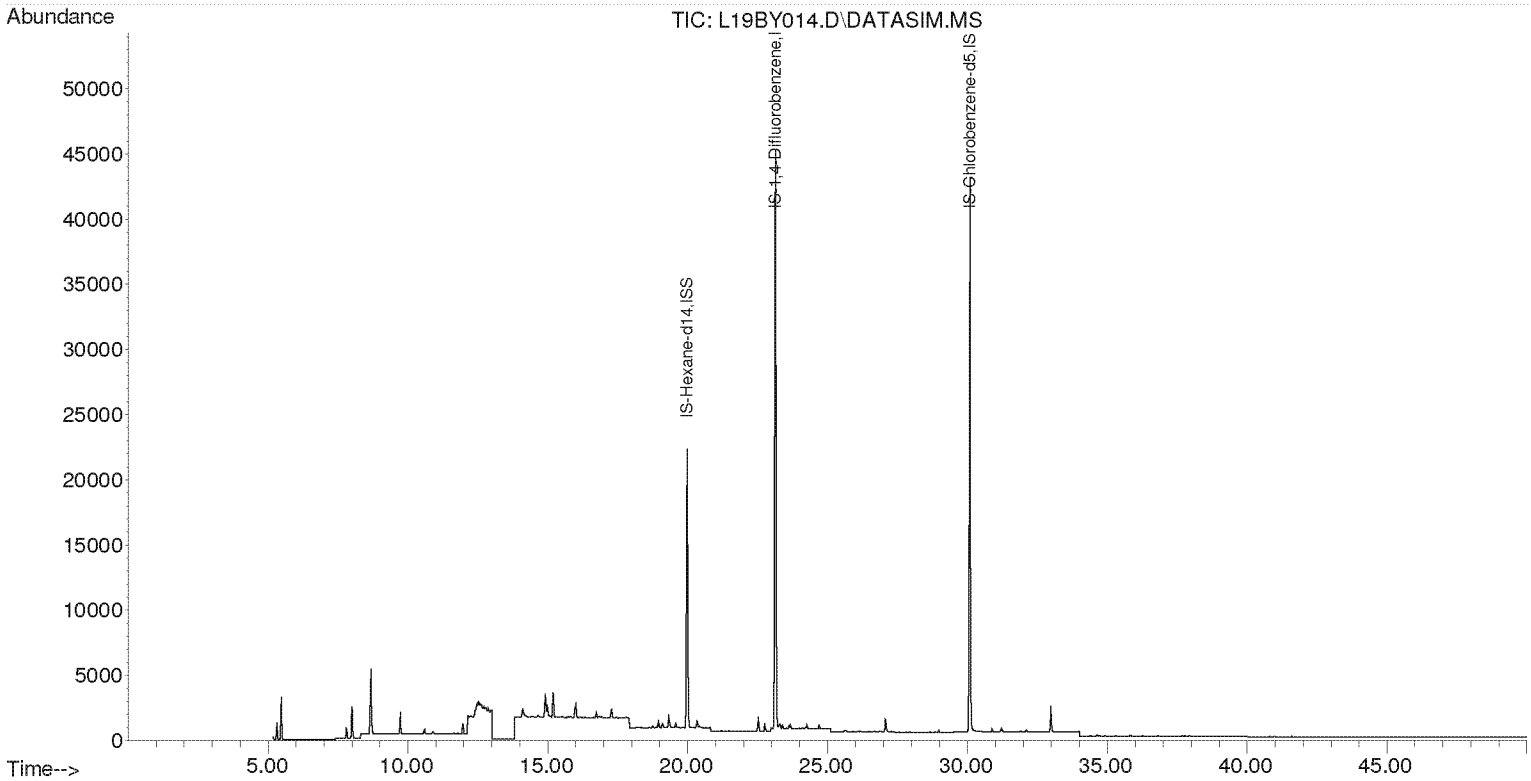
(#) = qualifier out of range (m) = manual integration (+) = signals summed

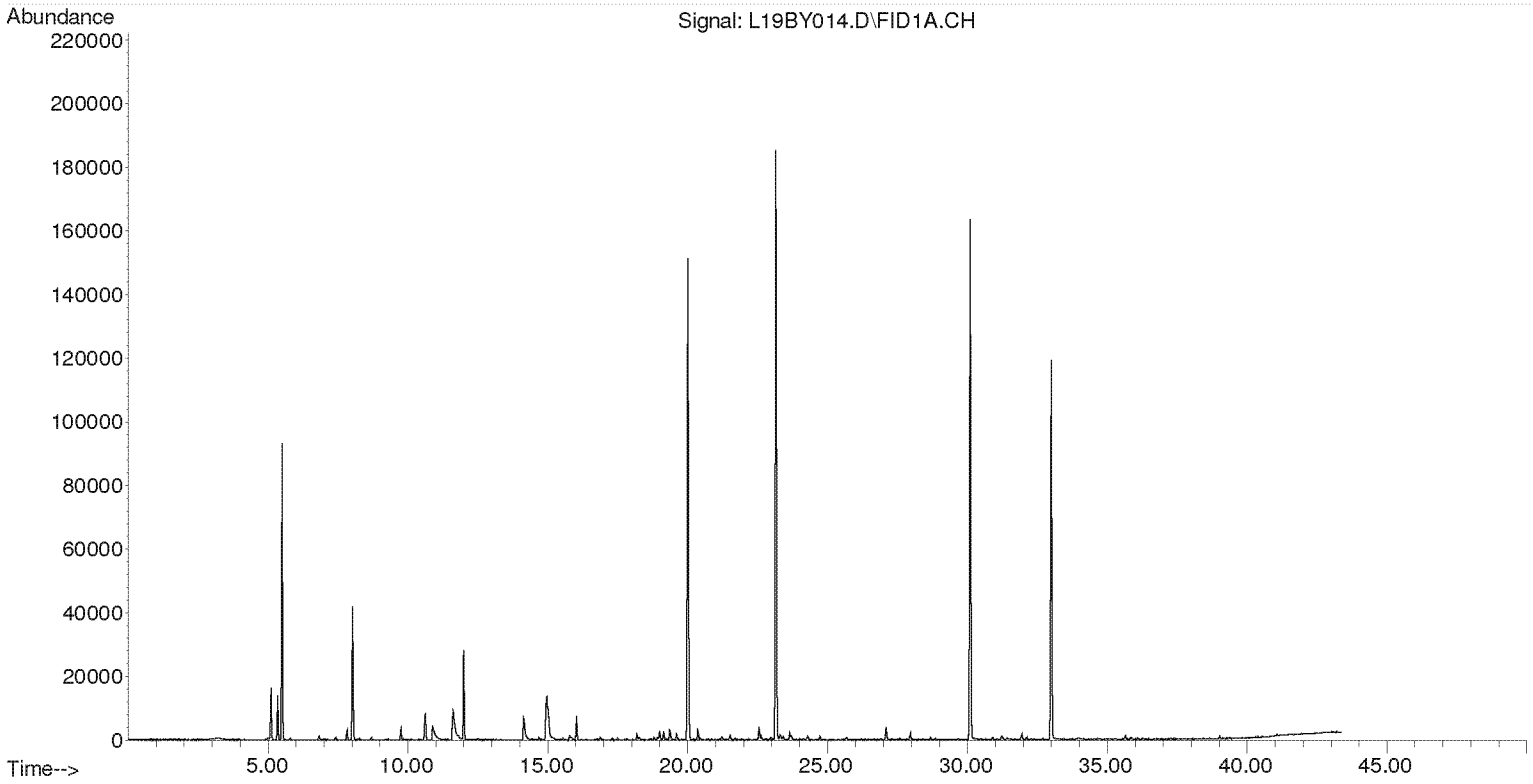
ED_002475_00000298-00349

Compounds other than ethylene oxide were not quantitated.

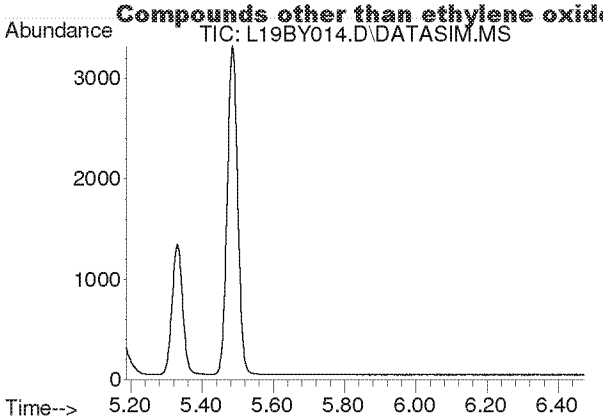
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY014.D
Acq On : 25 Feb 2019 8:29 pm (#1); 25 Feb 2019 8:24 pm (#2)
Operator : MAH
Sample : 9022202-07
Misc : GOWER ES 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 26 09:55:15 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





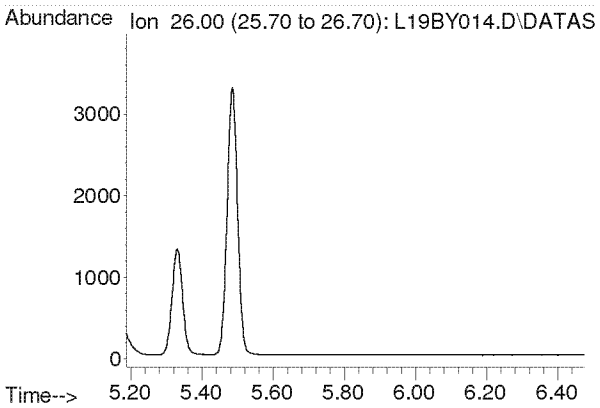
Compounds other than ethylene oxide were not quantitated.

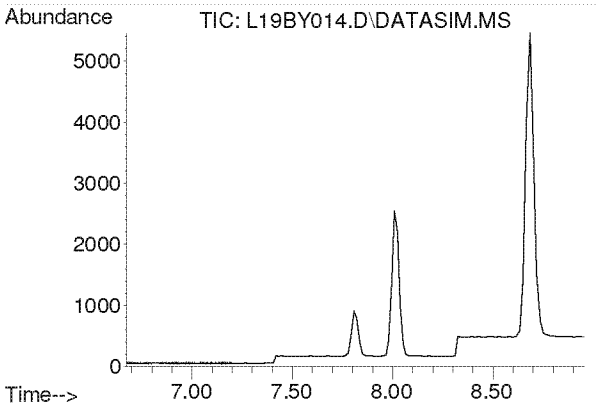


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 26



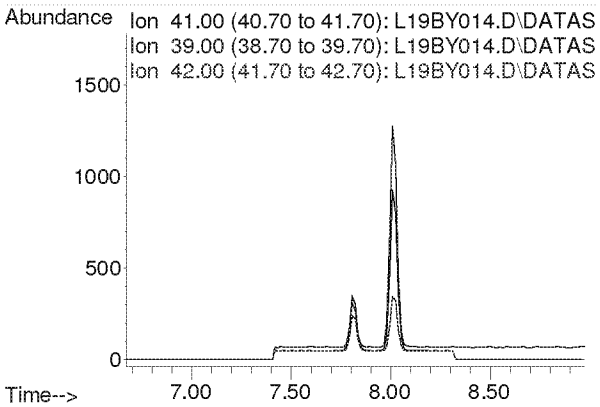


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

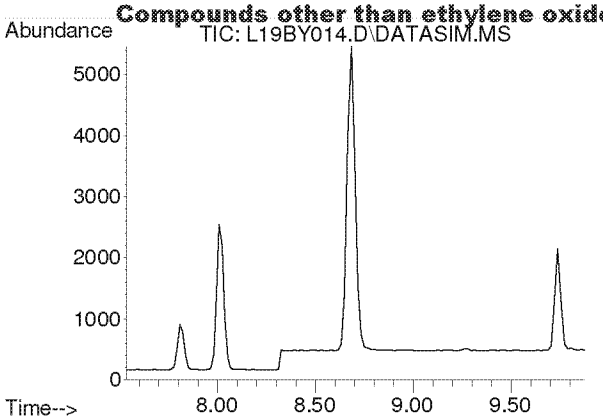
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

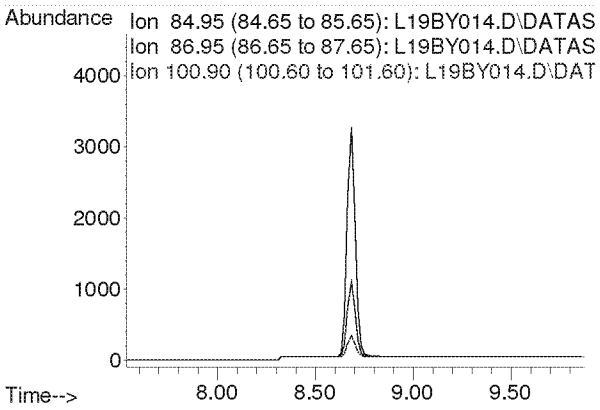


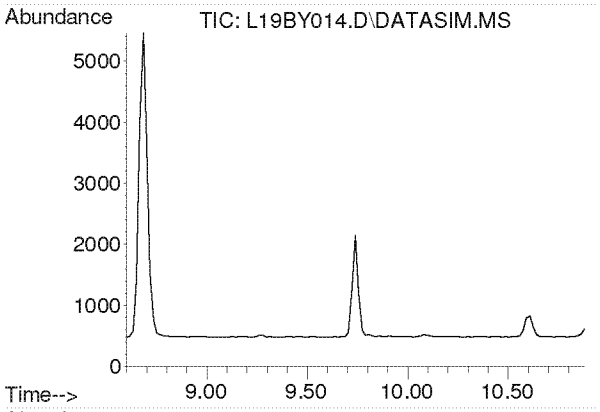
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



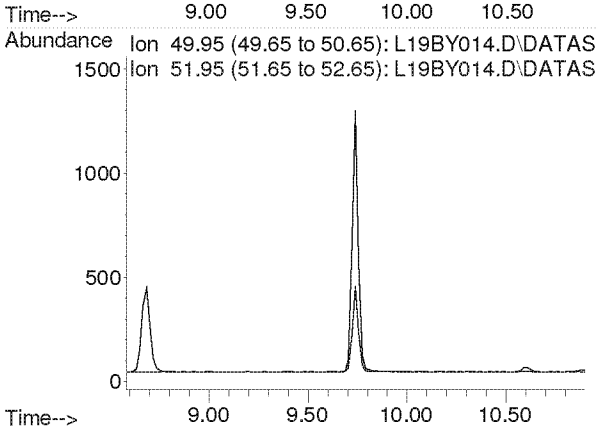


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

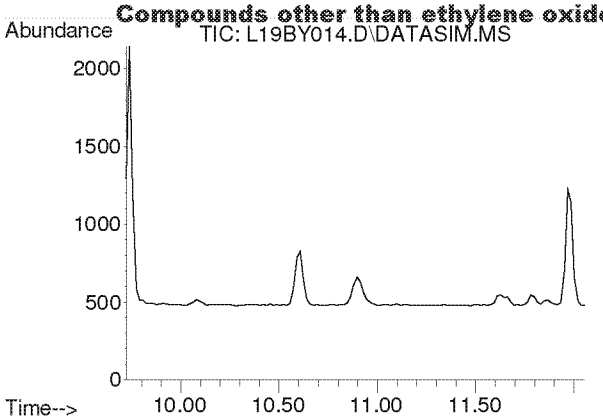
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

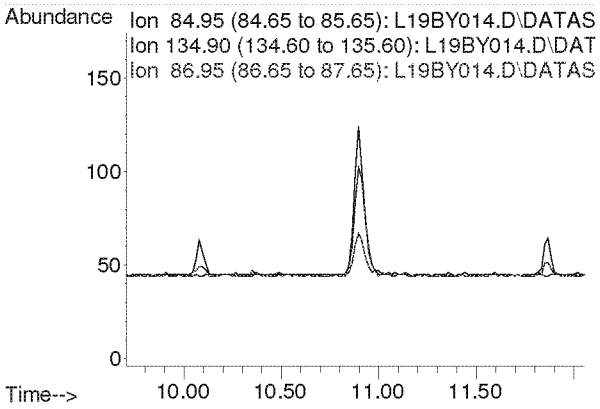


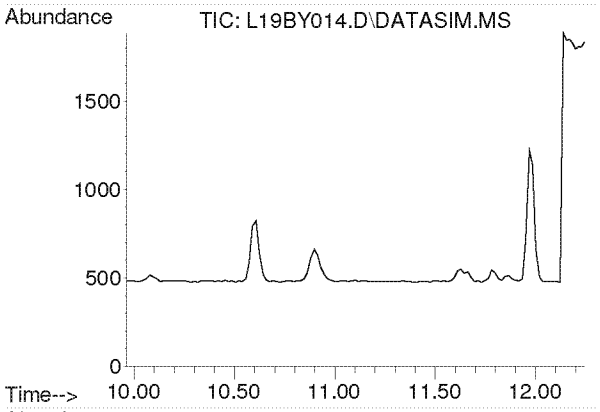
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



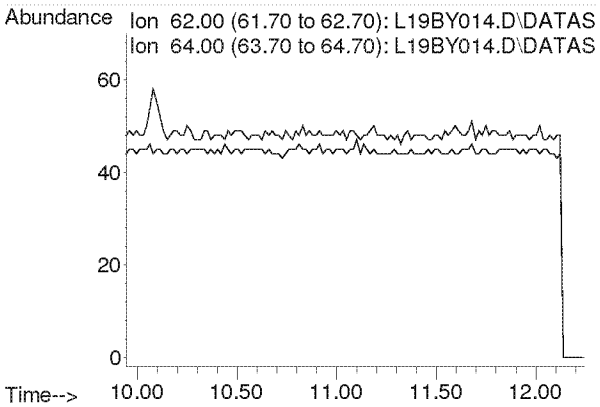


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

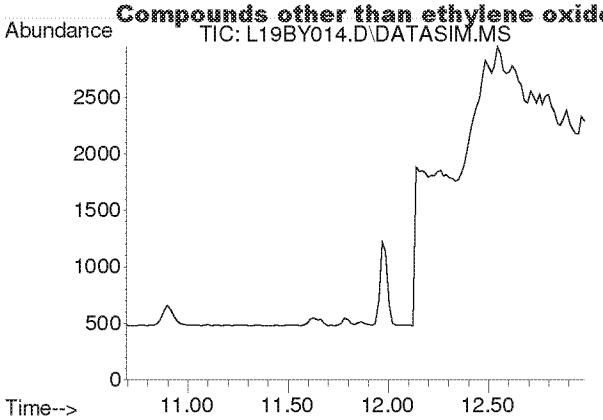
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

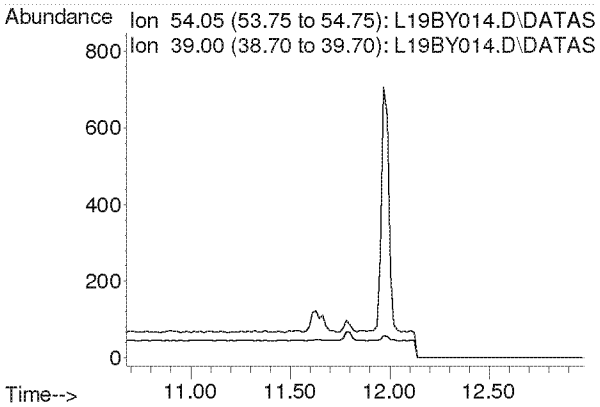


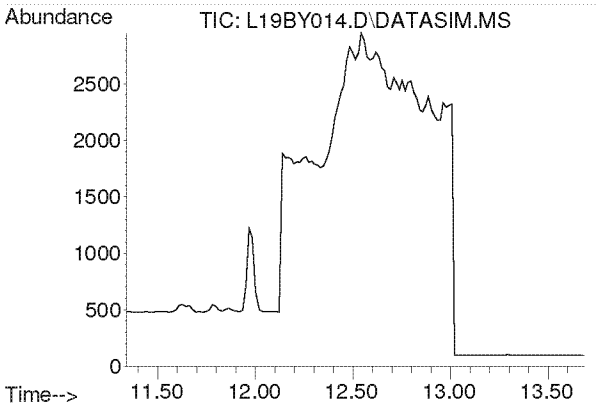
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



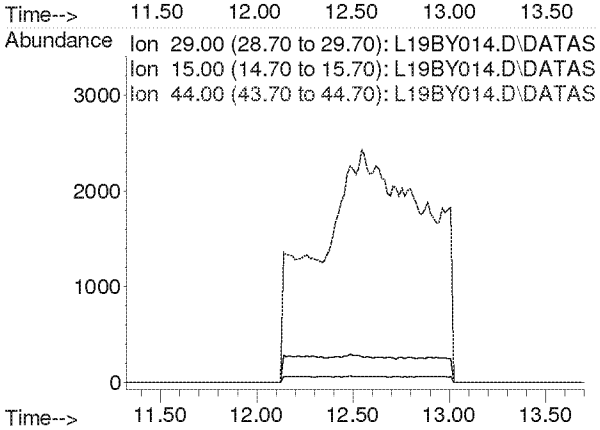


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

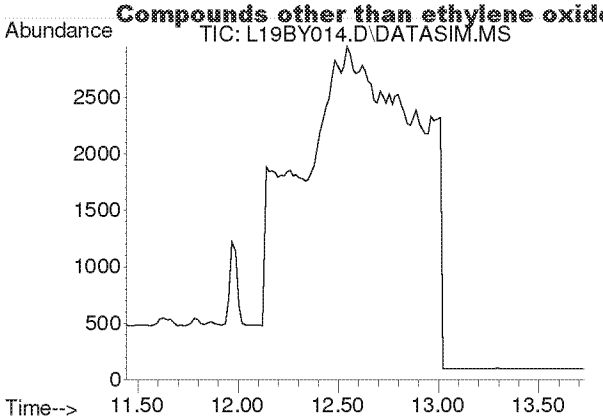
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

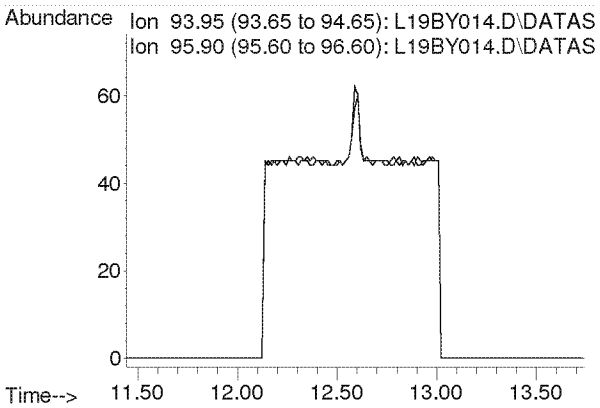


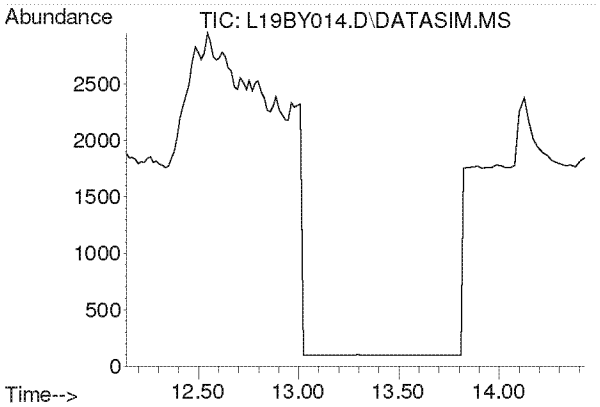
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



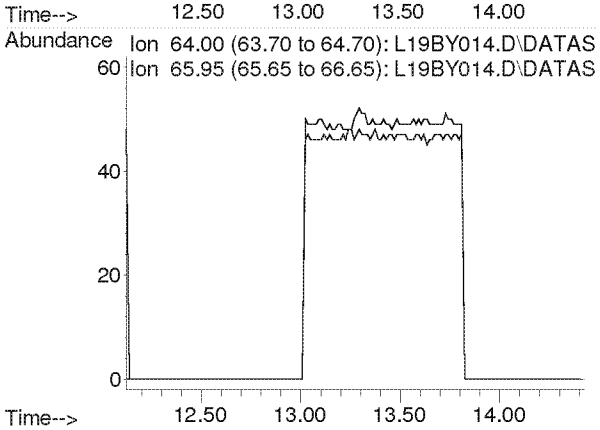


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

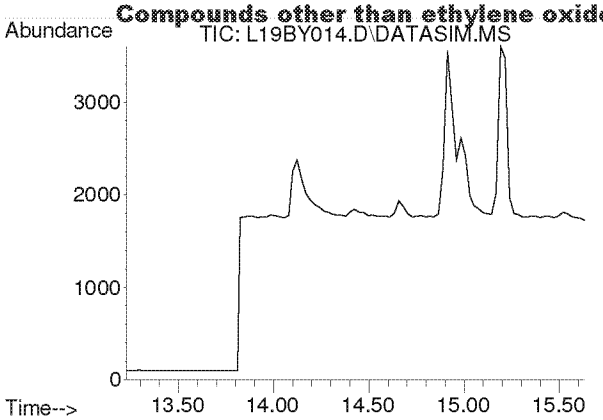
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

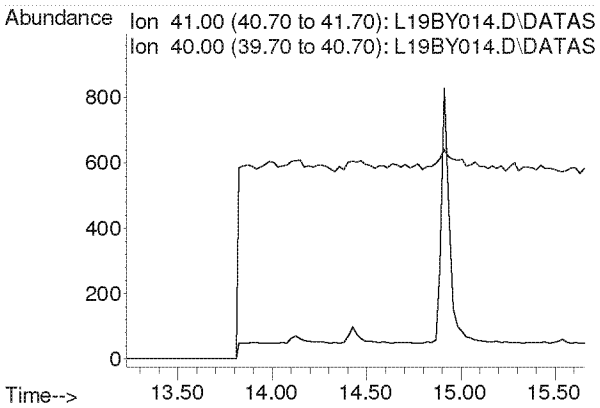


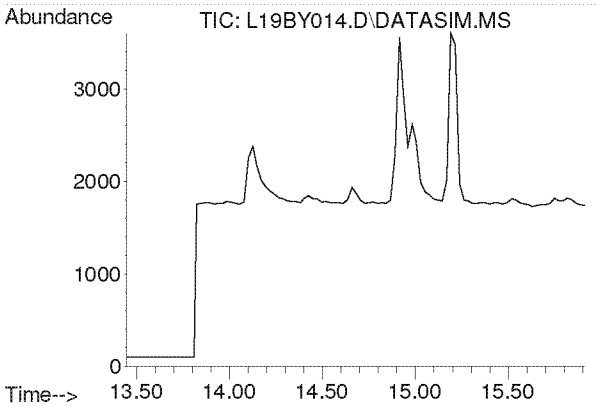
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



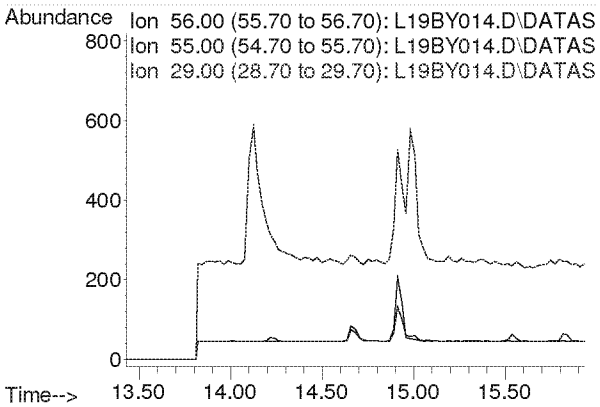


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

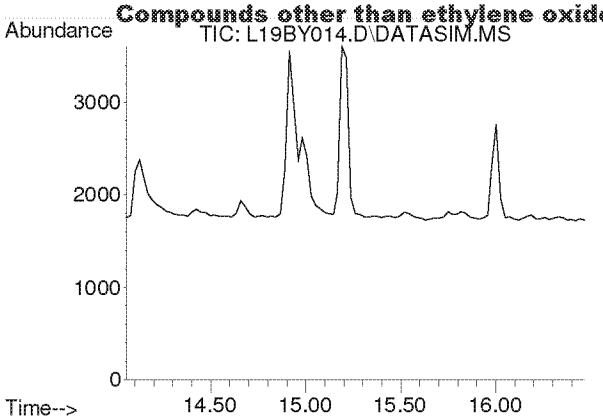
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

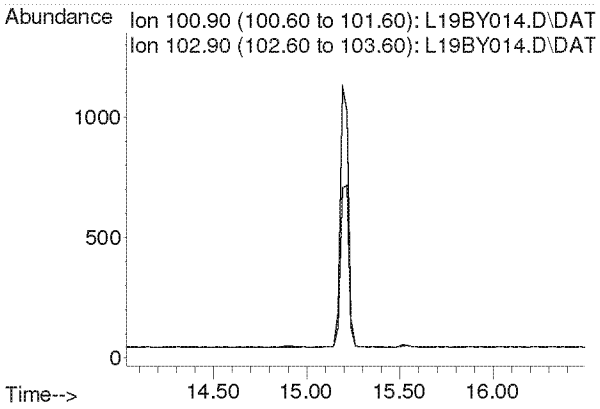


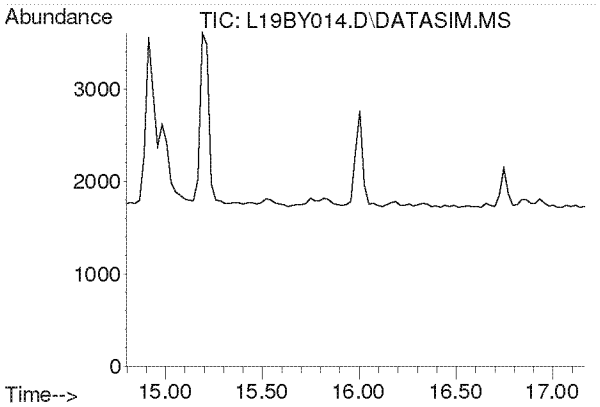
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



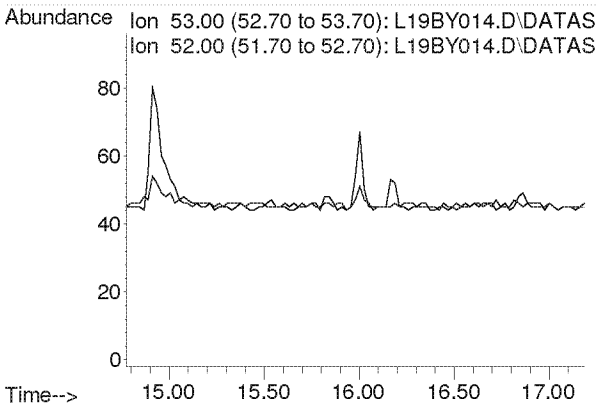


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

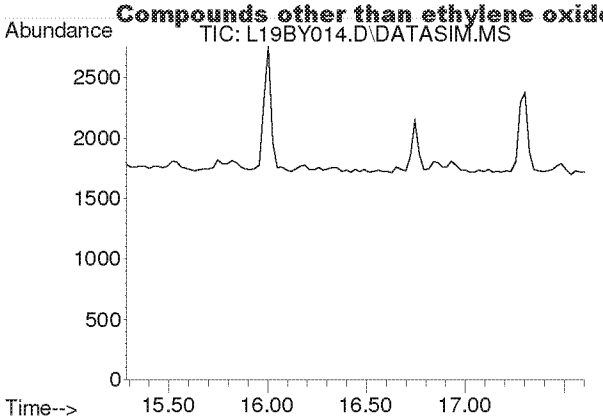
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

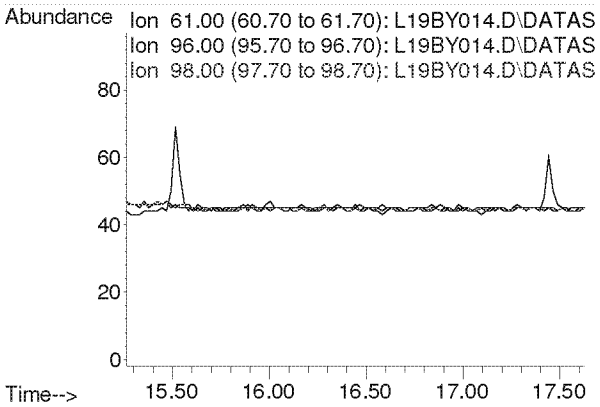


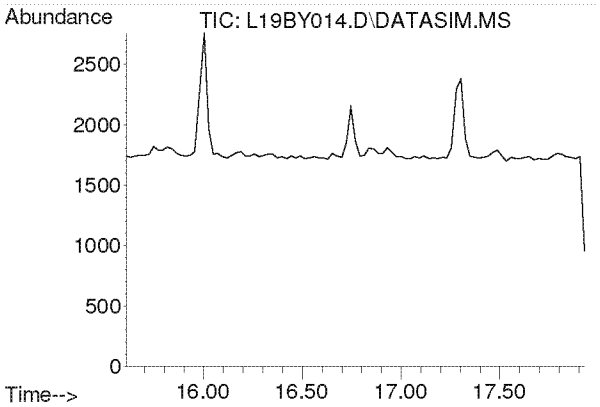
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



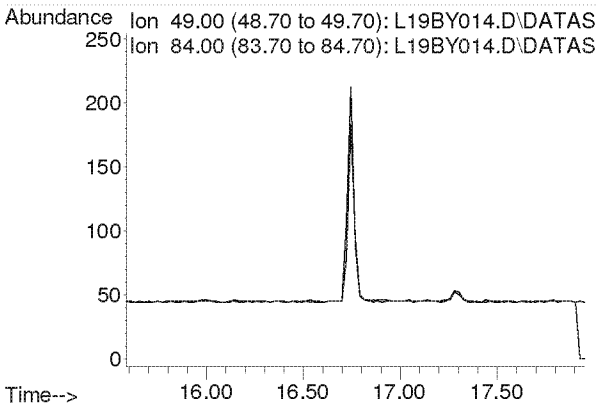


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

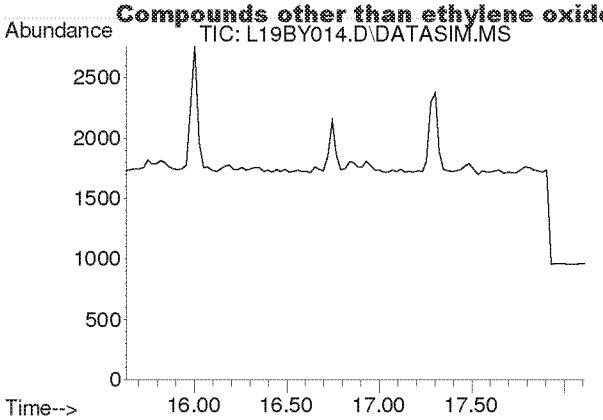
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

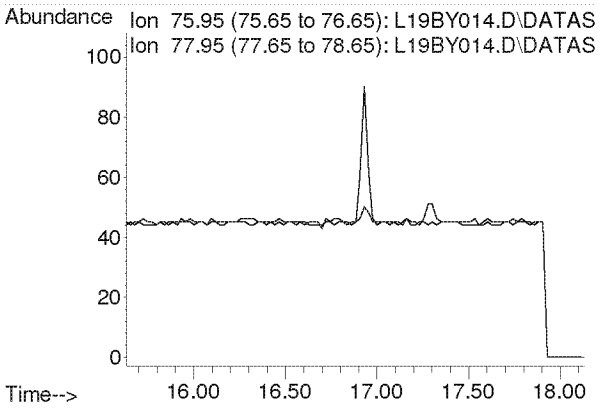


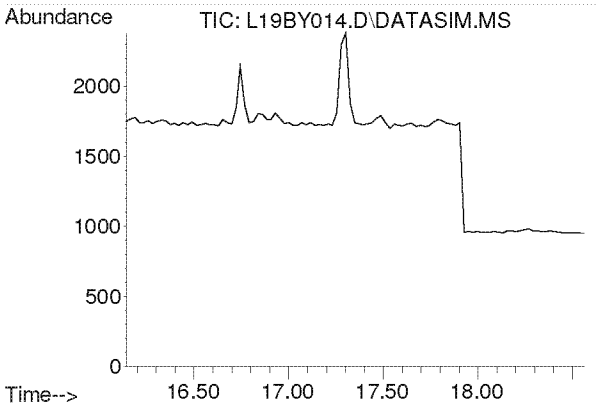
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



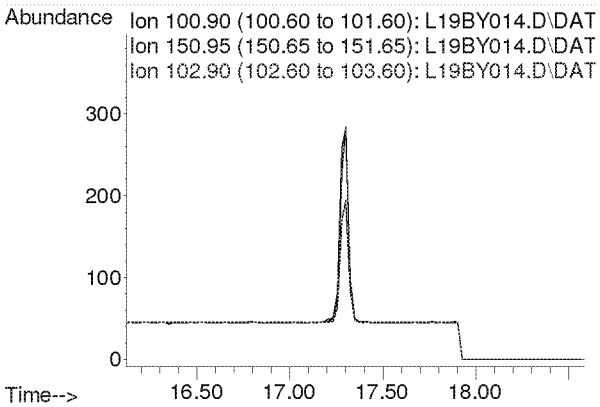


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

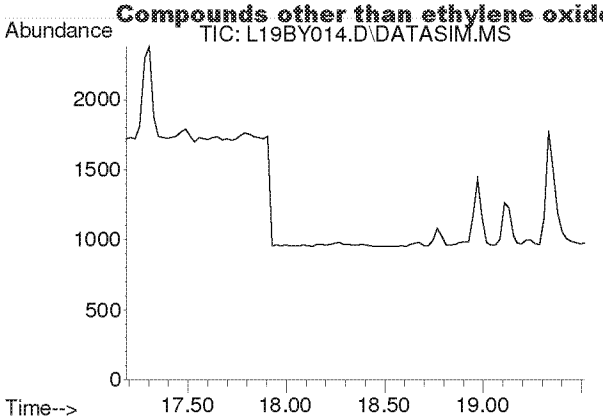
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

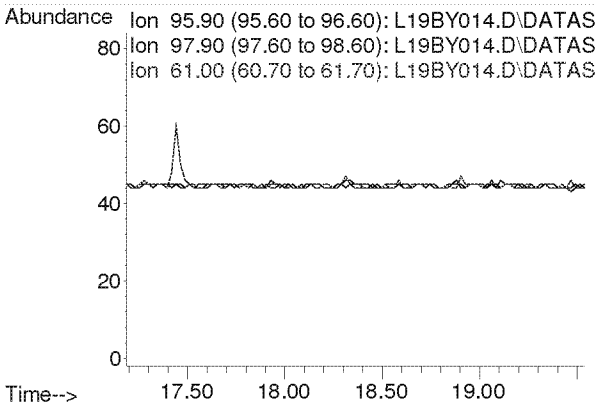


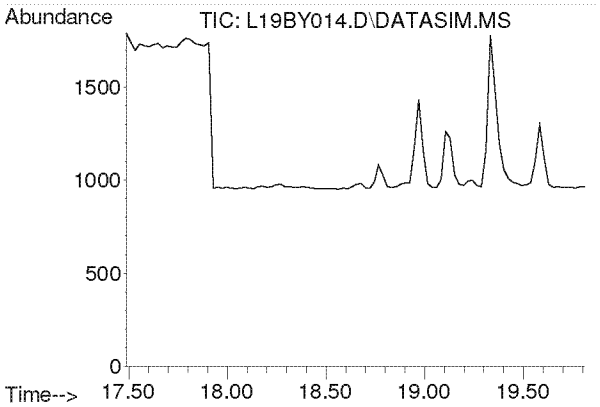
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



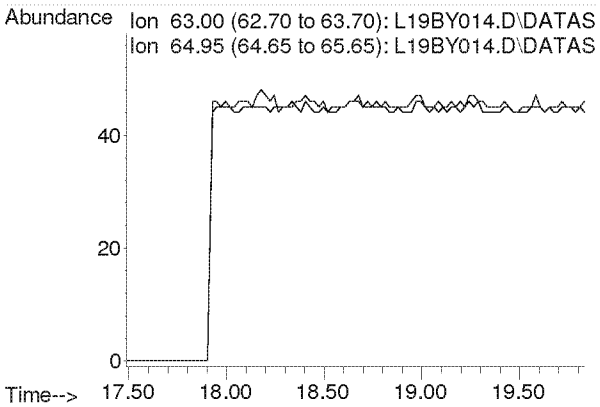


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

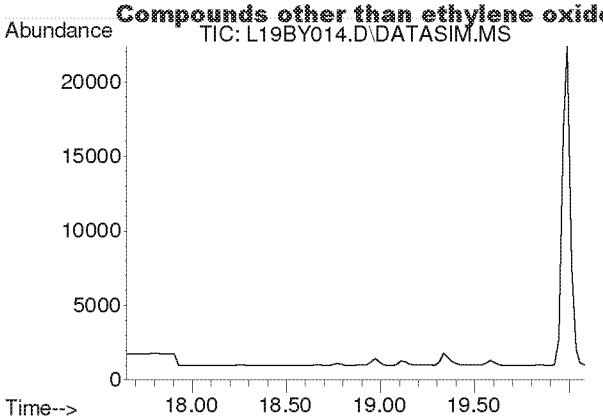
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

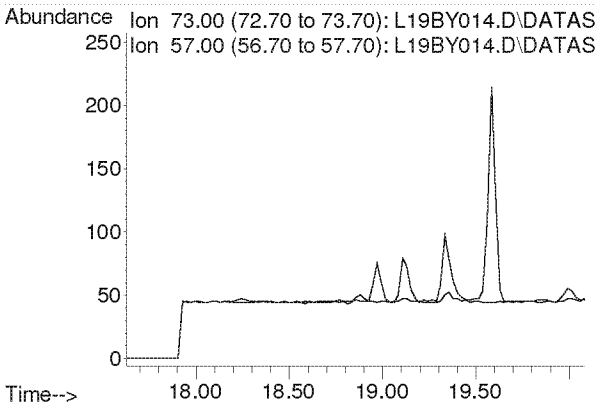


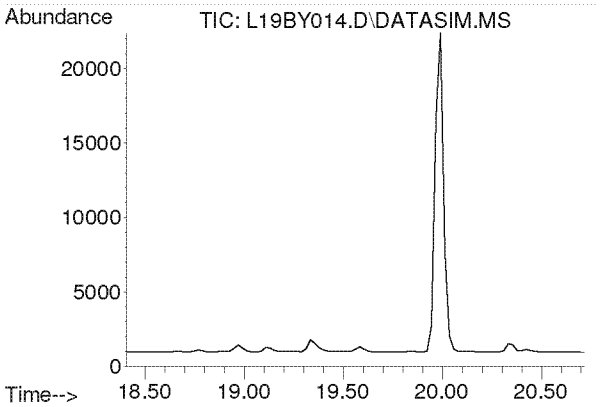
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



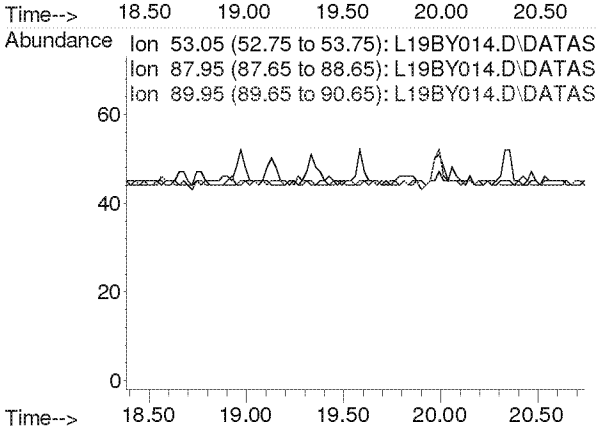


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

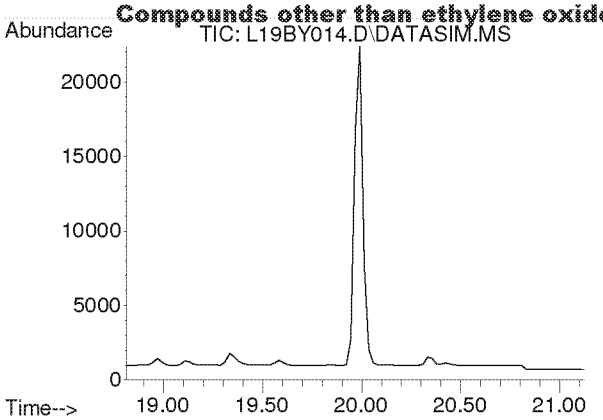
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

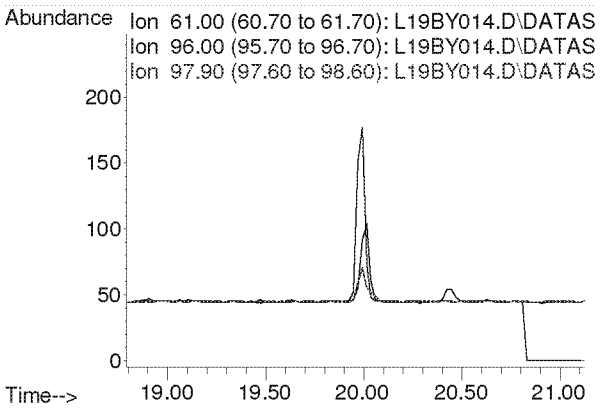


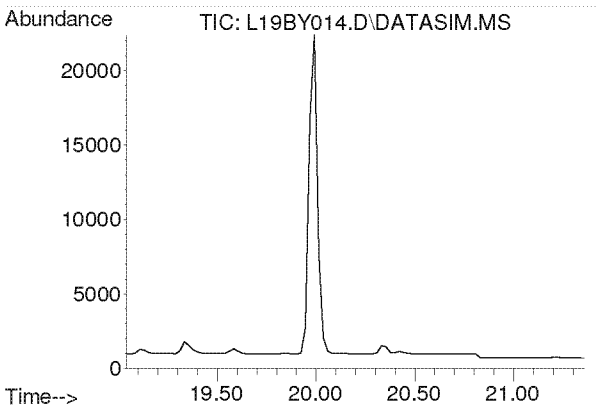
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



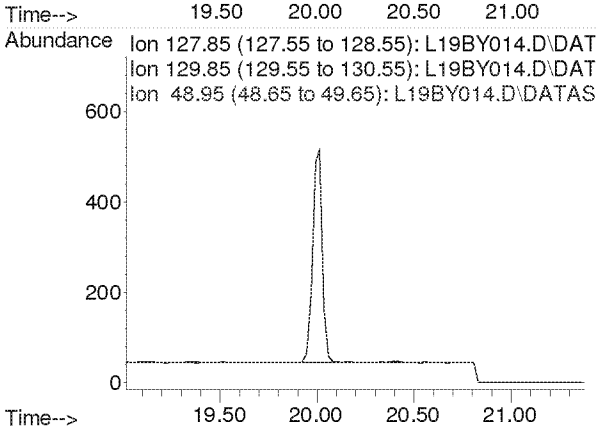


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

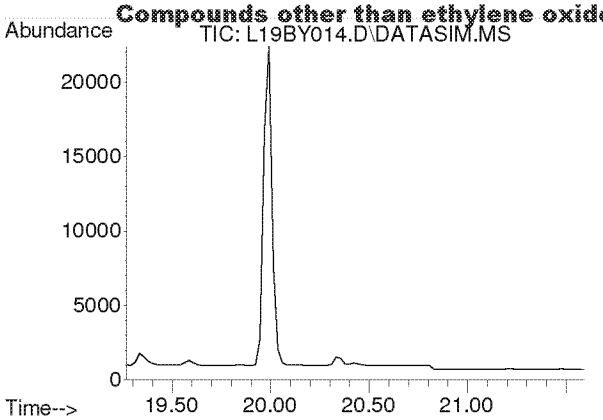
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

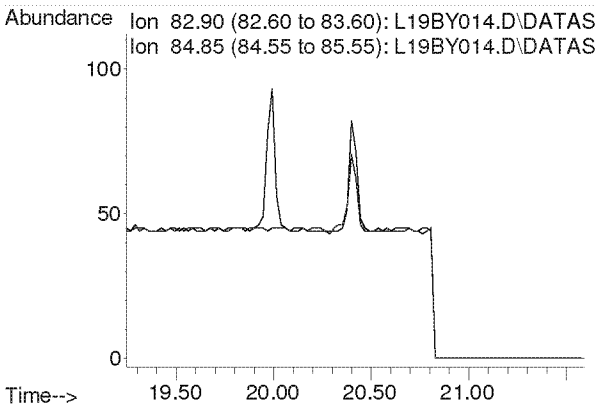


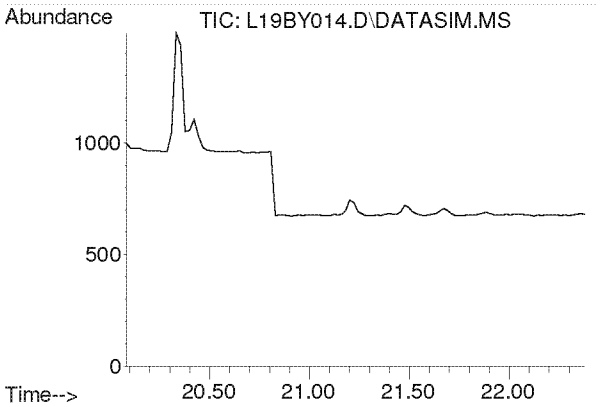
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



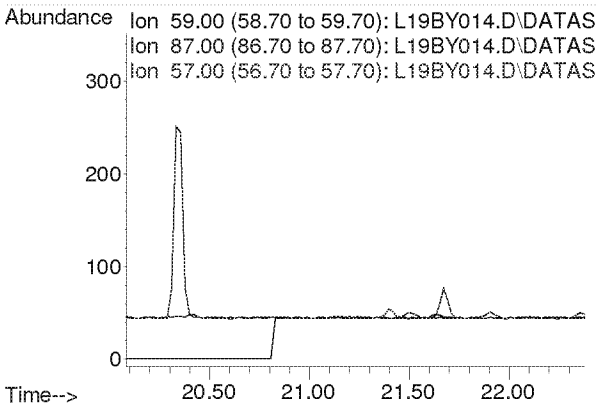


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

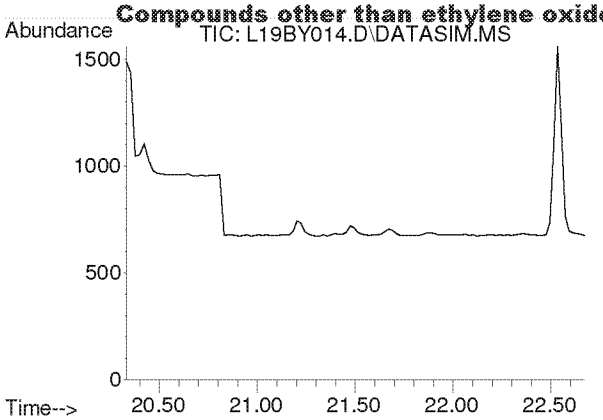
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

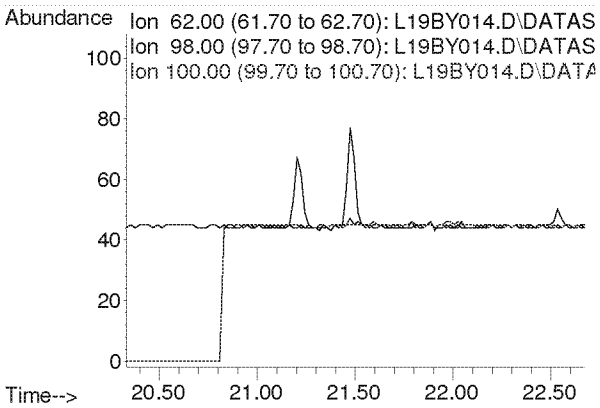


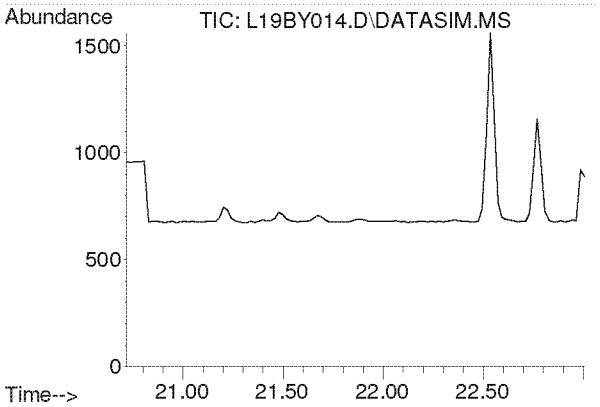
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



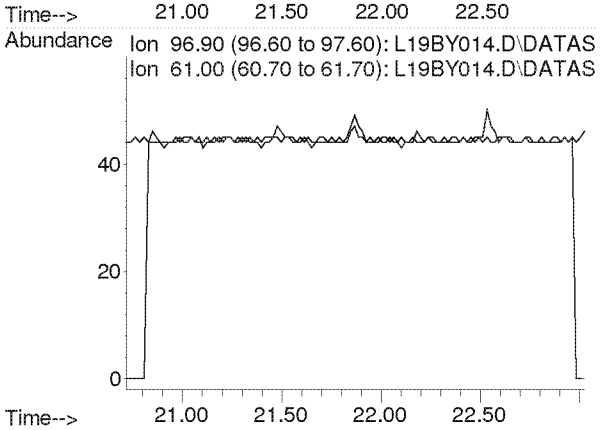


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

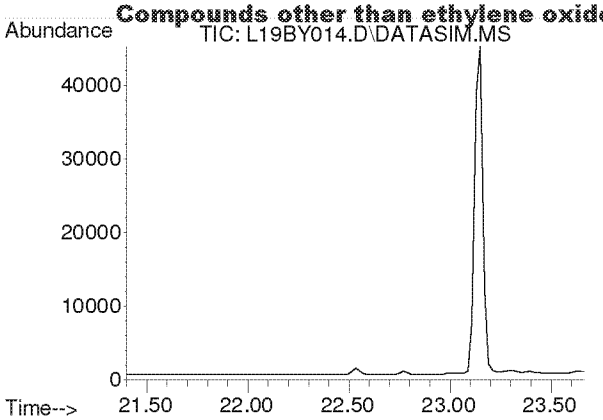
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

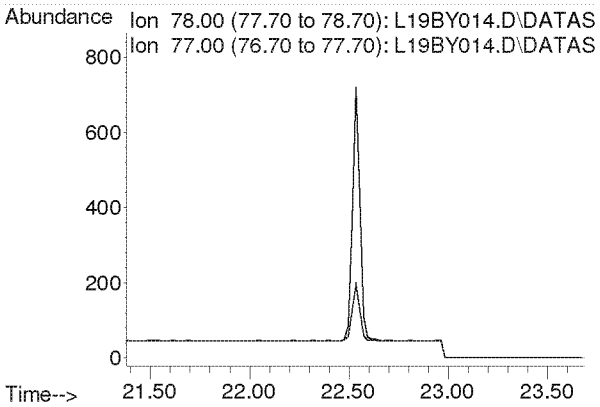


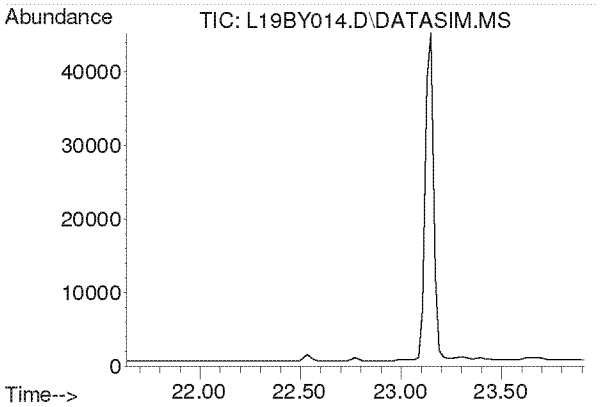
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



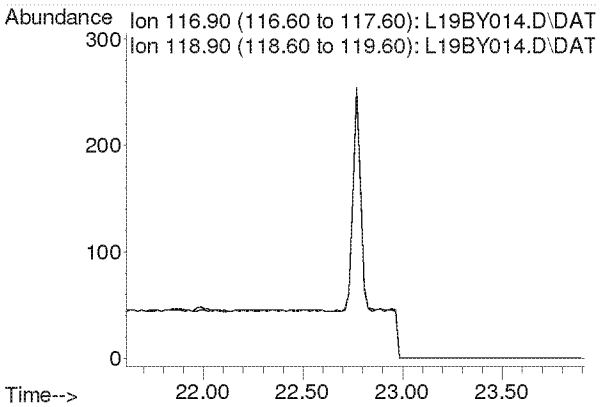


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

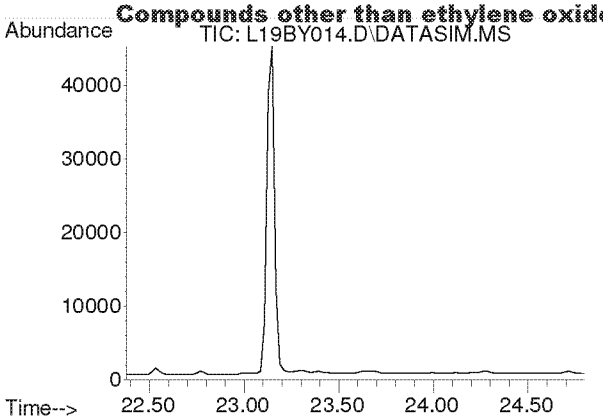
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

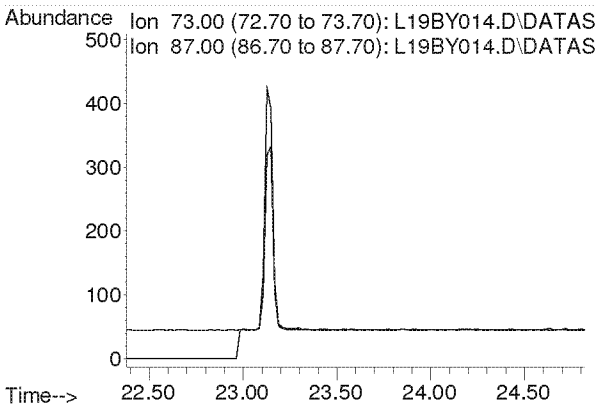


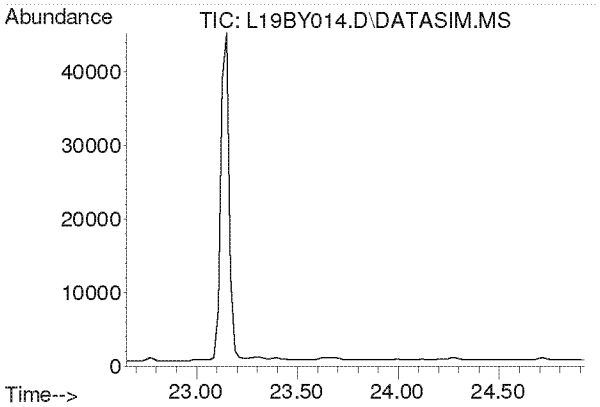
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



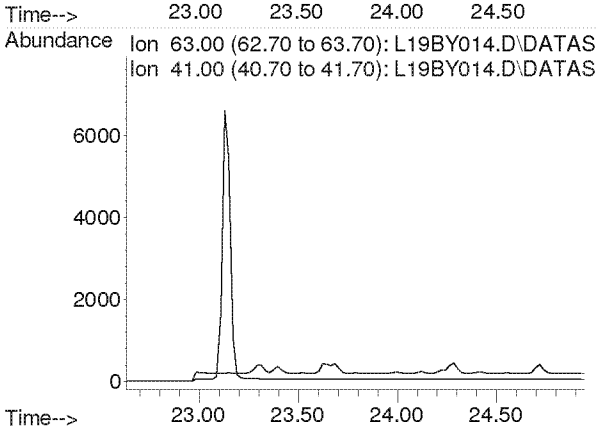


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

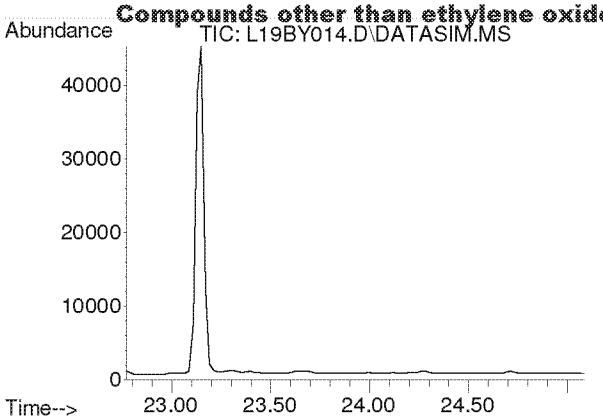
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

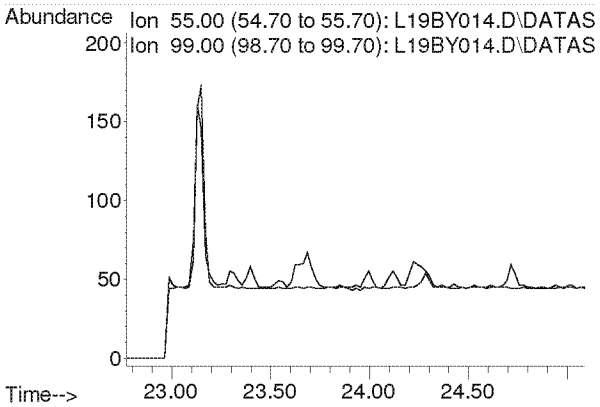


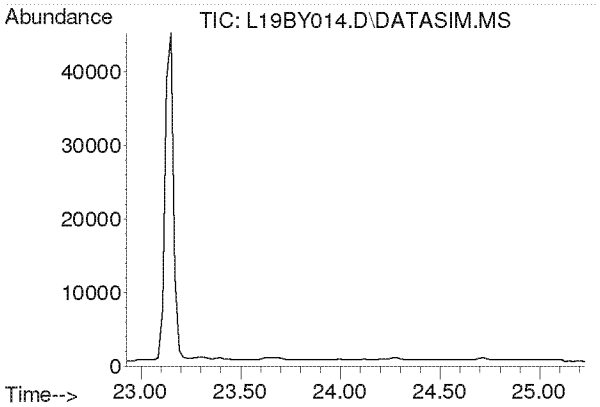
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



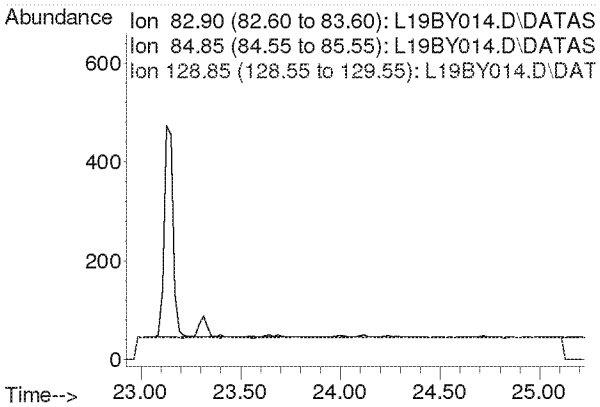


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

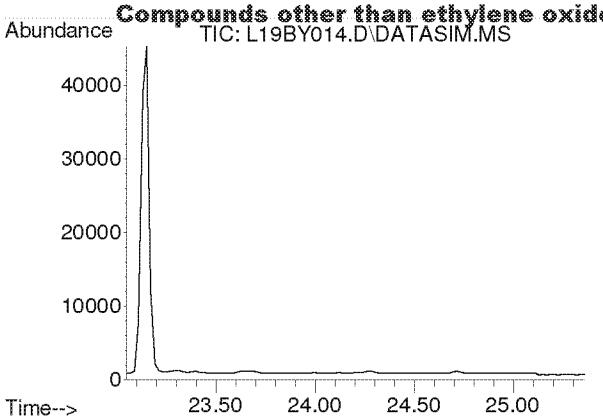
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

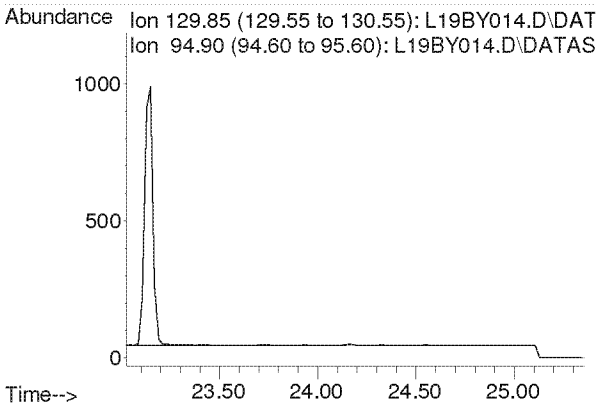


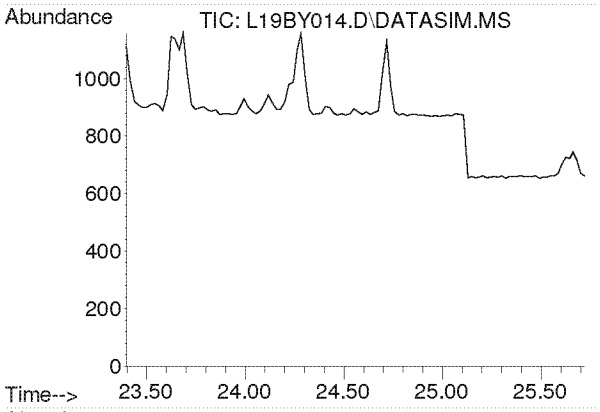
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



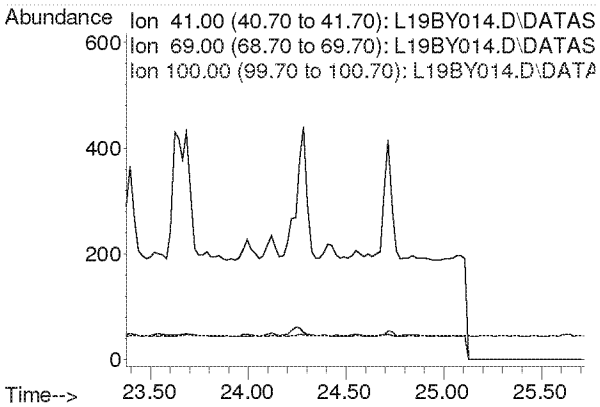


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

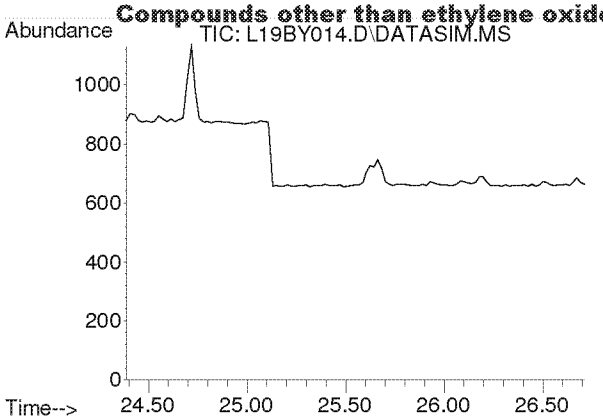
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

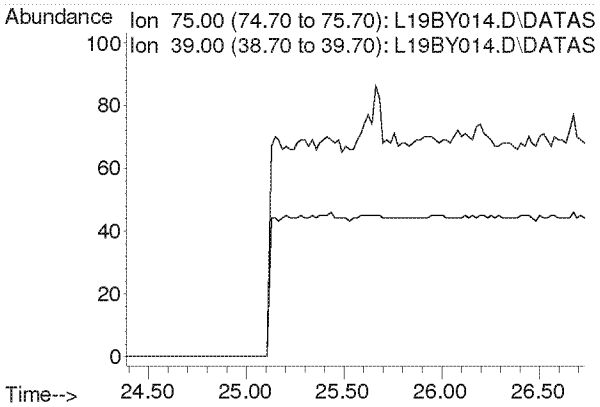


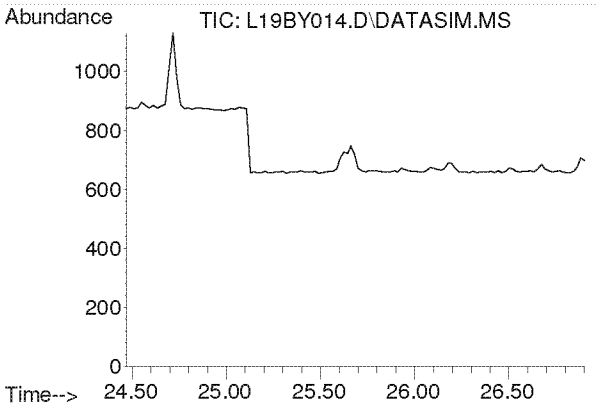
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



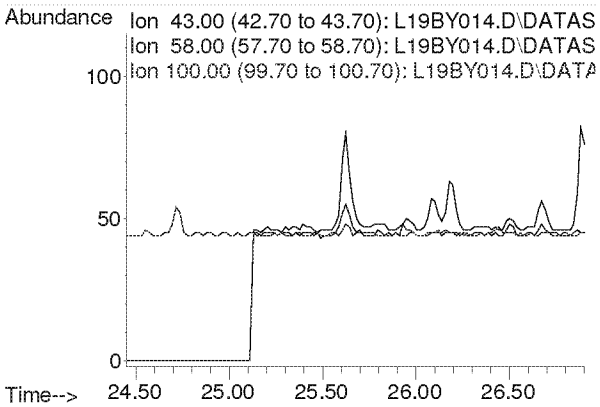


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

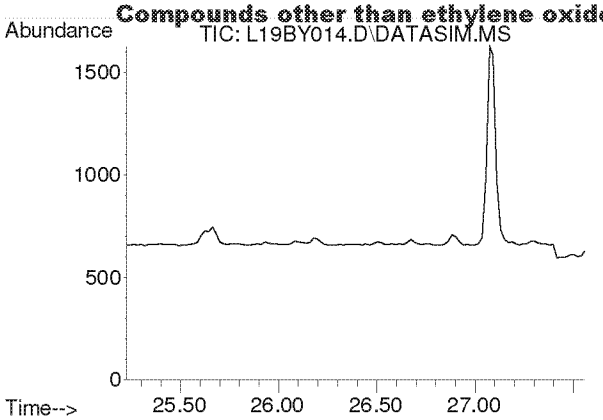
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

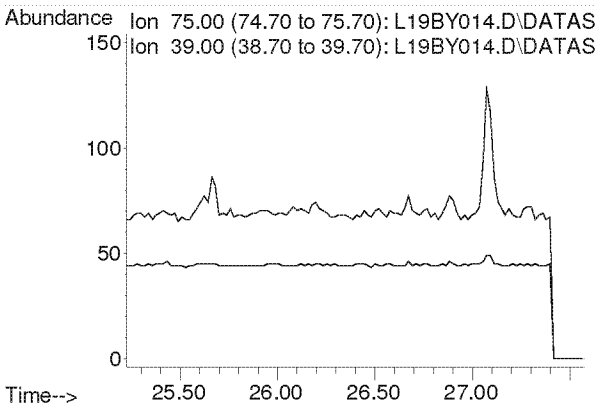


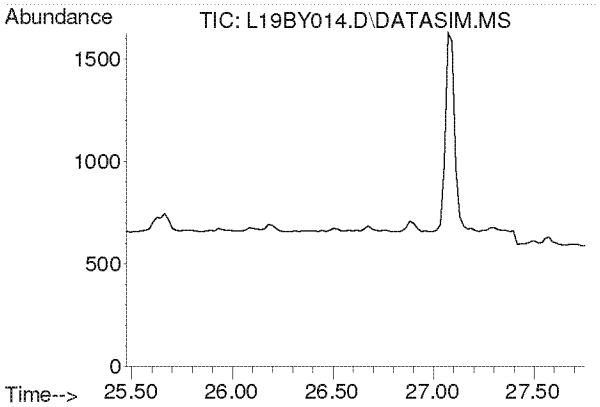
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



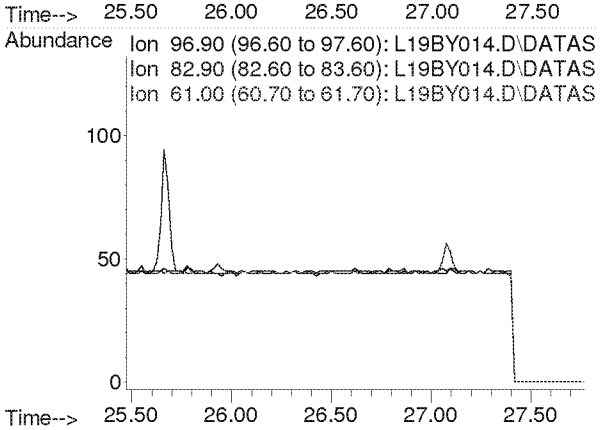


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

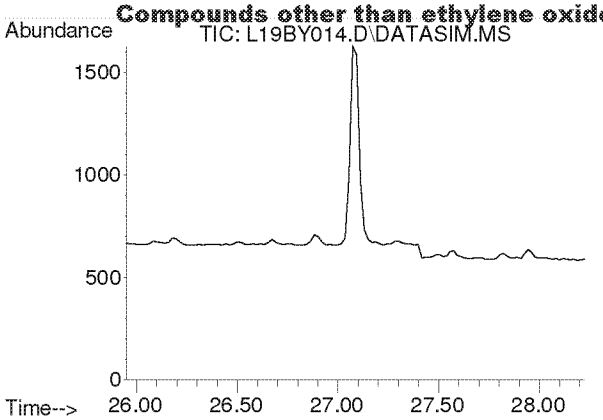
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

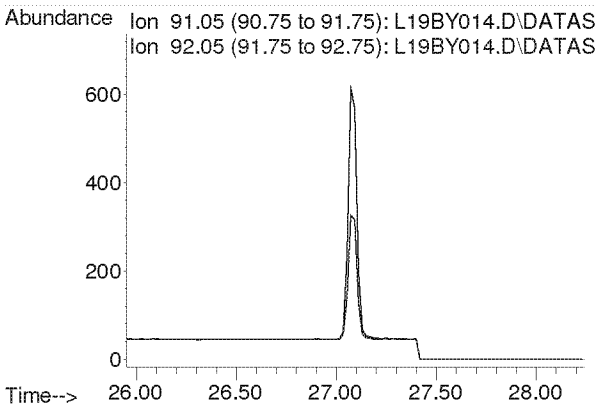


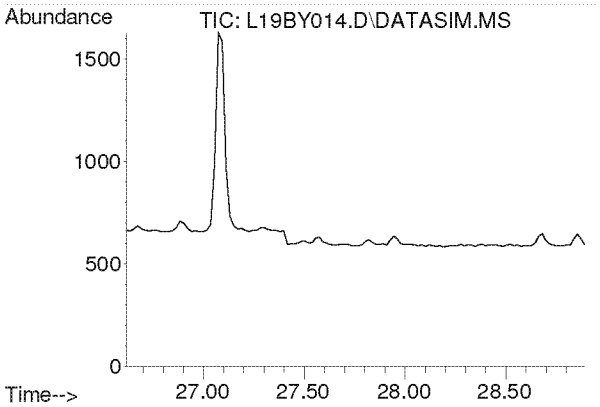
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



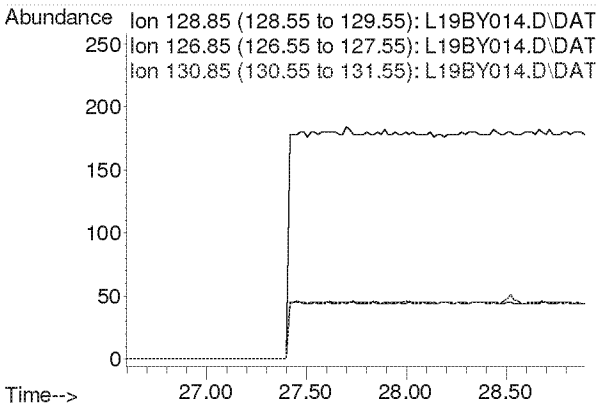


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

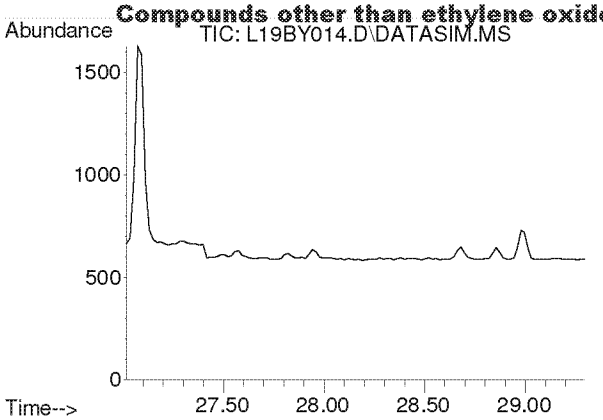
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

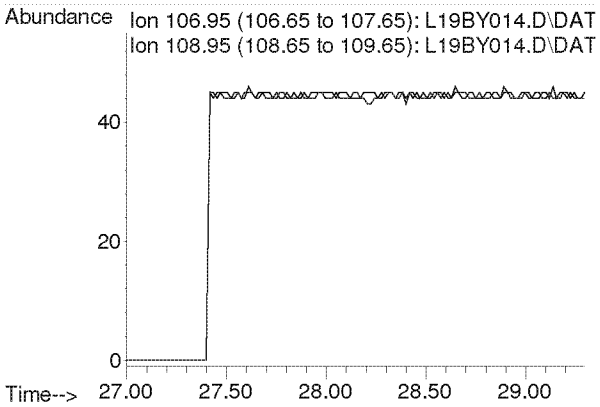


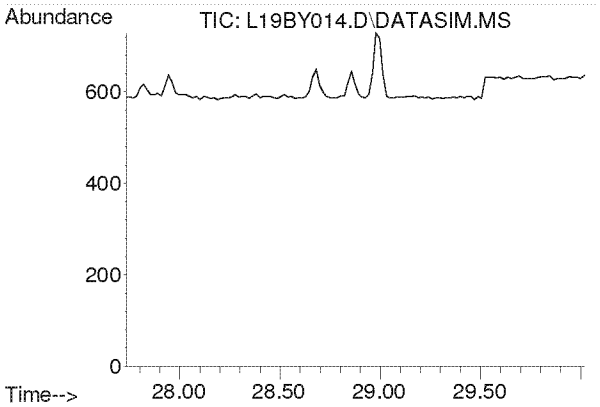
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



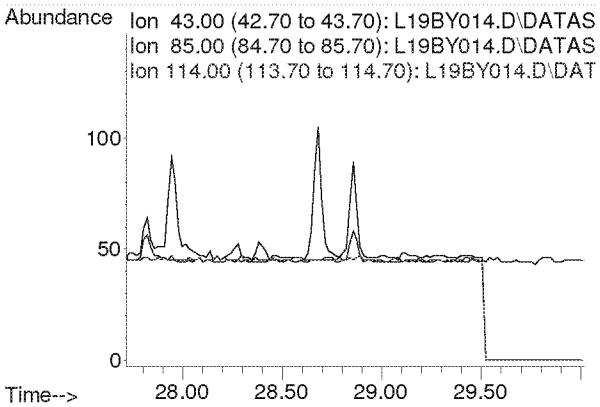


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

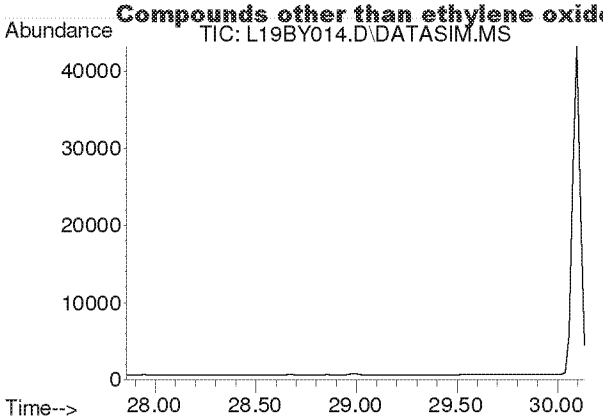
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

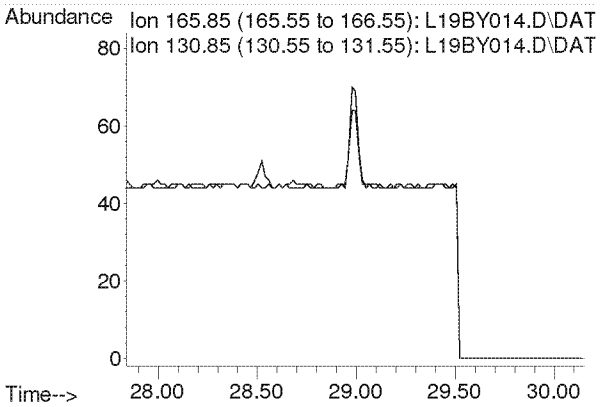


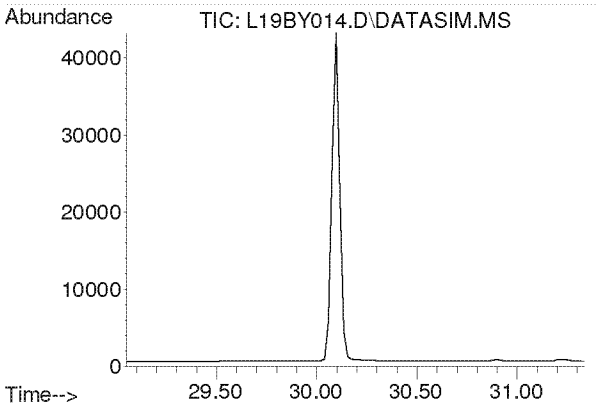
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



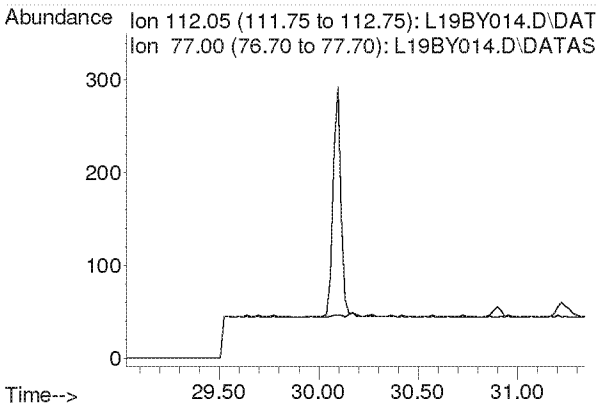


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

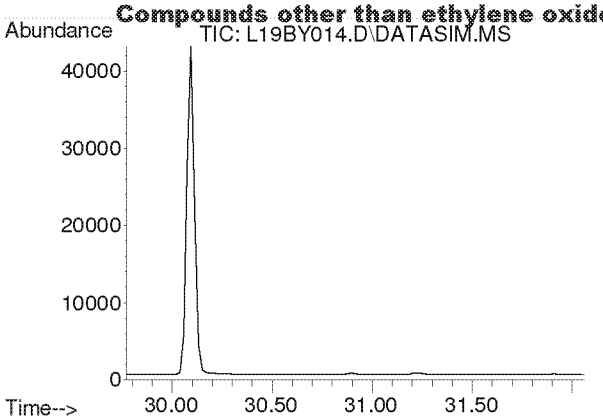
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

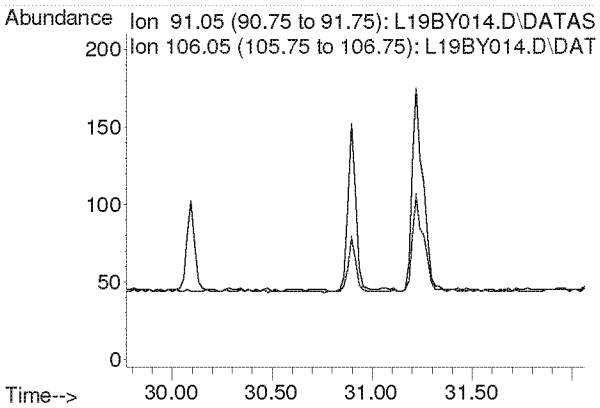


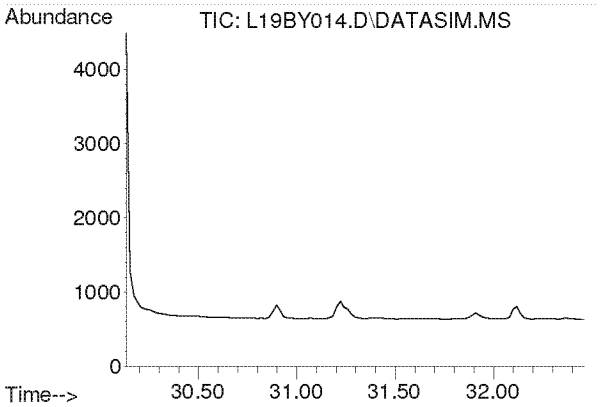
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



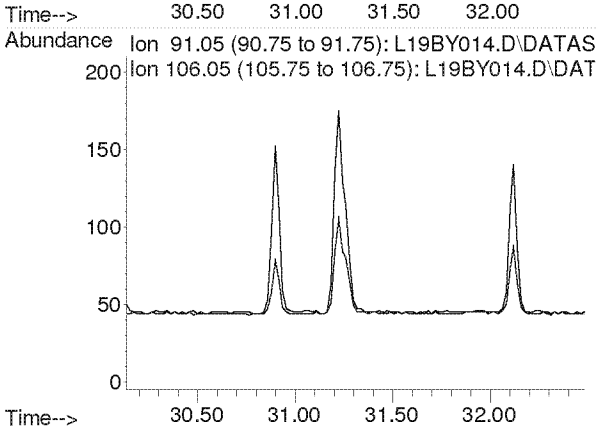


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

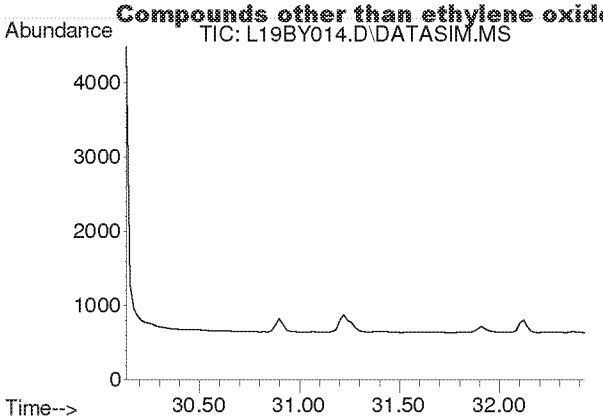
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

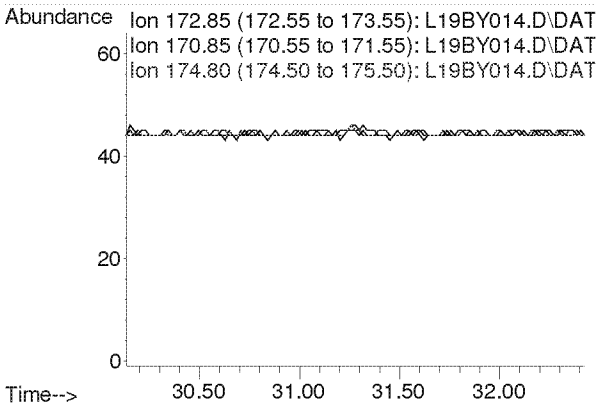


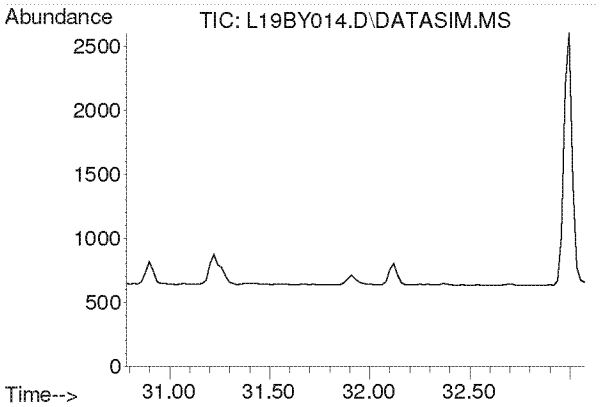
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



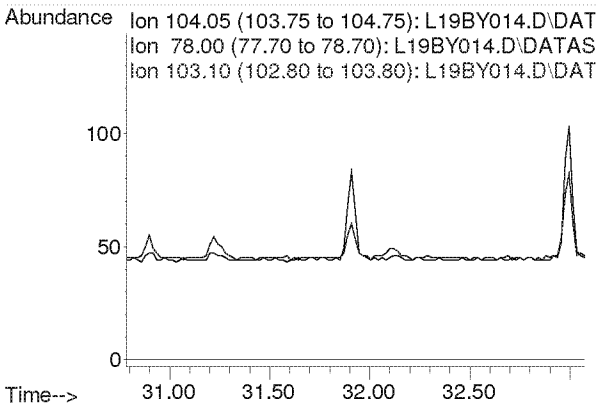


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

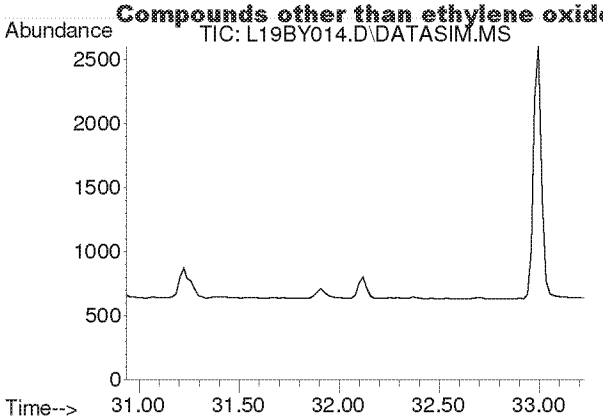
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

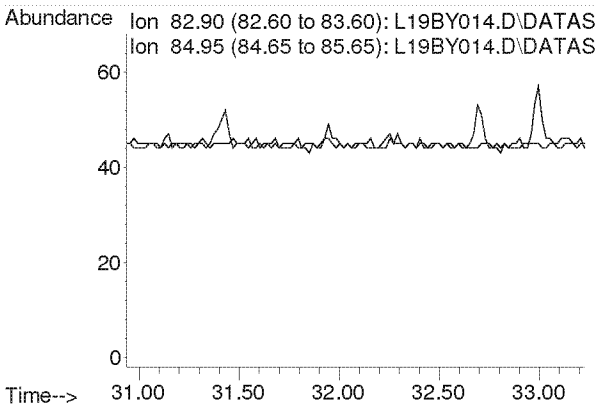


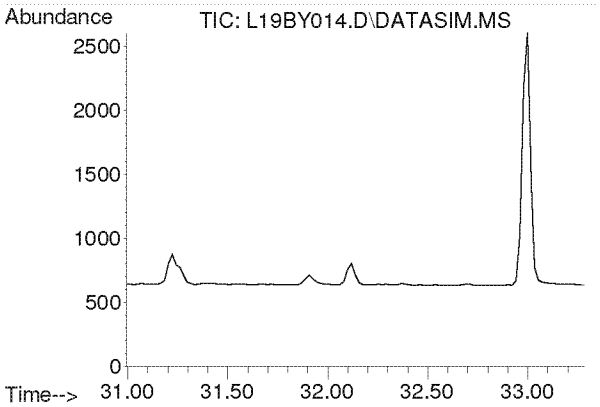
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



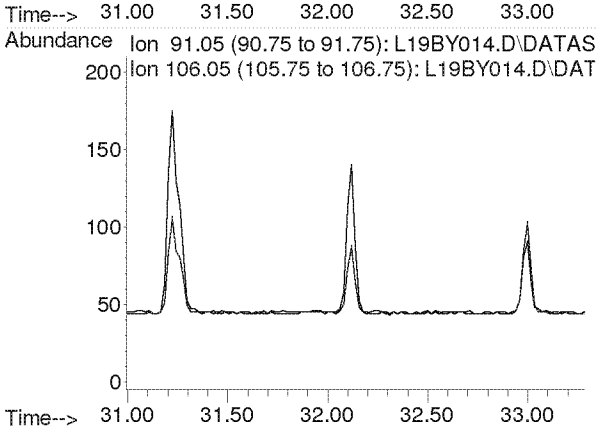


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

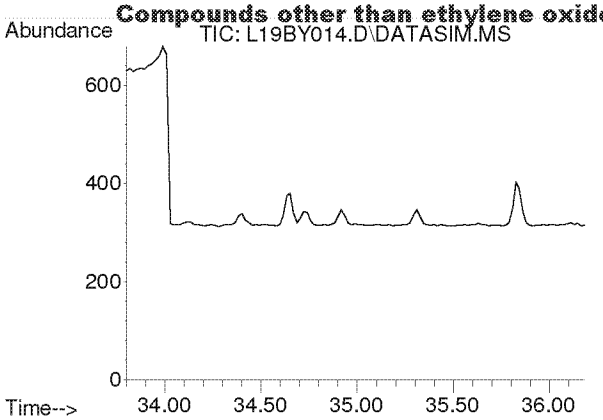
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

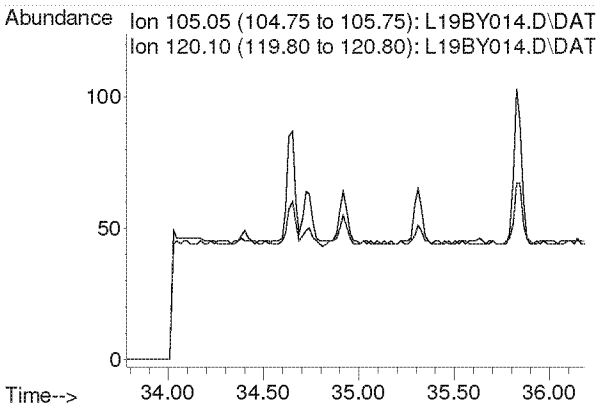


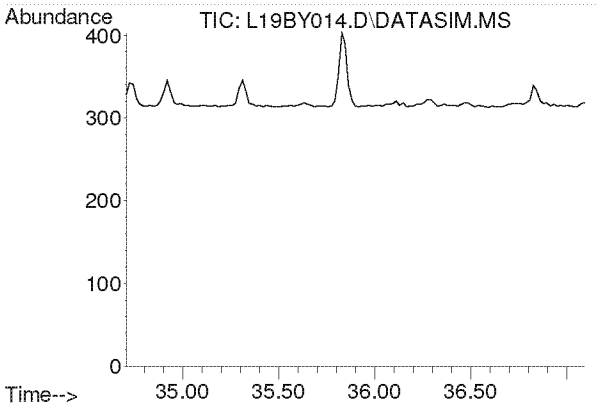
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



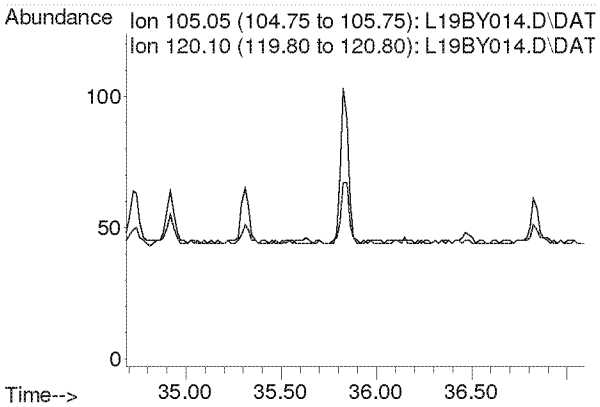


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

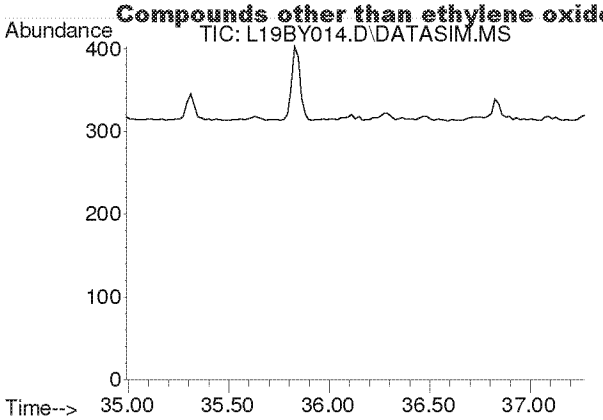
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

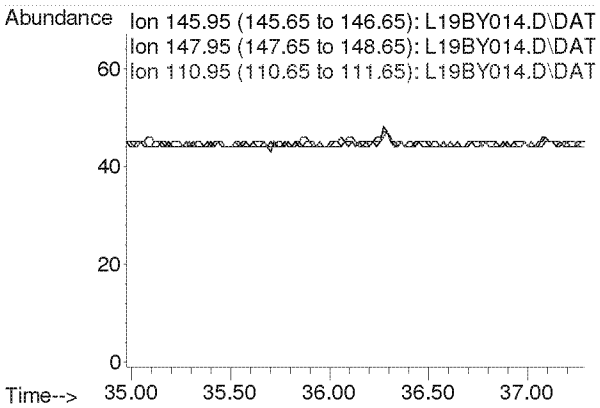


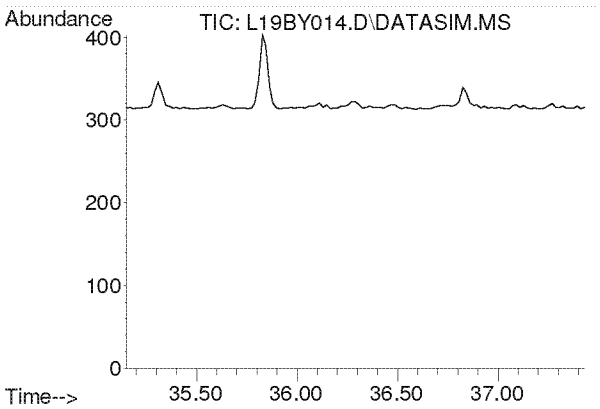
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



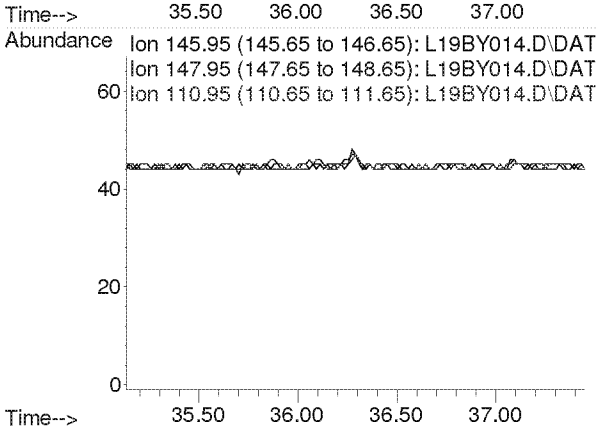


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

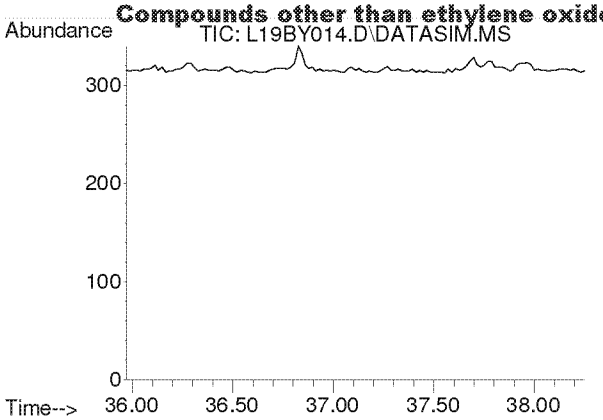
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

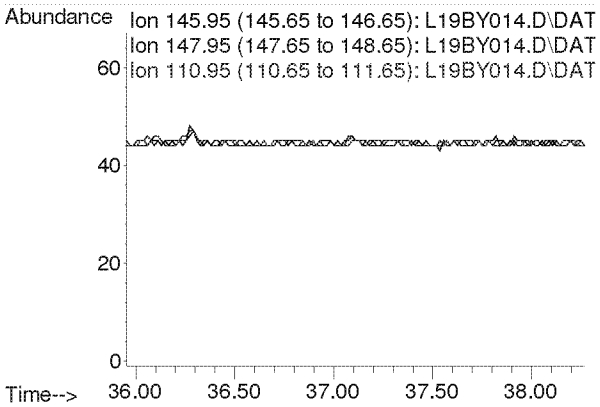


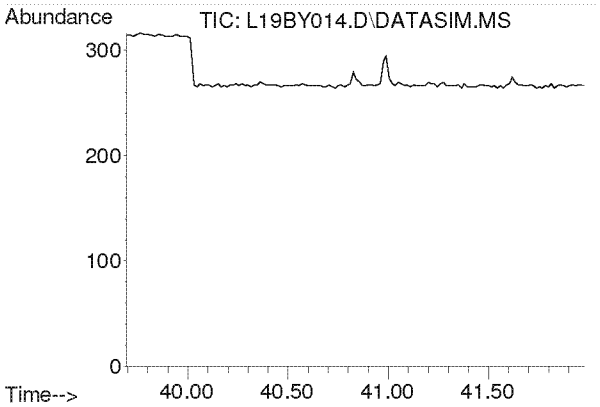
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



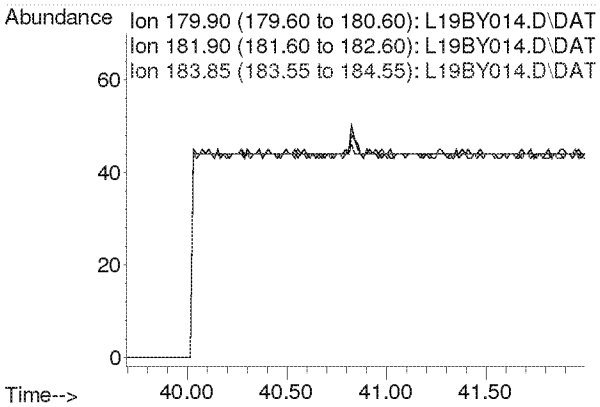


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

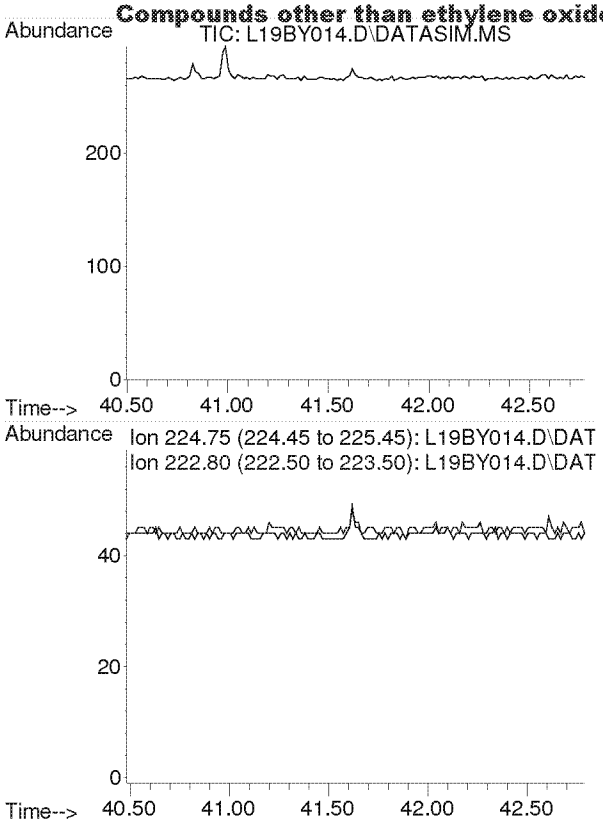
Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19BY014.D
Acq: 25 Feb 2019 8:29 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY015.D
Acq On : 25 Feb 2019 9:30 pm (#1); 25-Feb-19, 21:24:54 (#2)
Operator : MAH
Sample : 9022202-08
Misc : EOA WB WAREHOUSE 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 10:12:30 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	39229	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	99831	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	70271	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	186m	0.0829 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

ED_002475_00000298-00381

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY015.D
Acq On : 25 Feb 2019 9:30 pm (#1); 25-Feb-19, 21:24:54 (#2)
Operator : MAH
Sample : 9022202-08
Misc : EOA WB WAREHOUSE 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 10:12:30 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

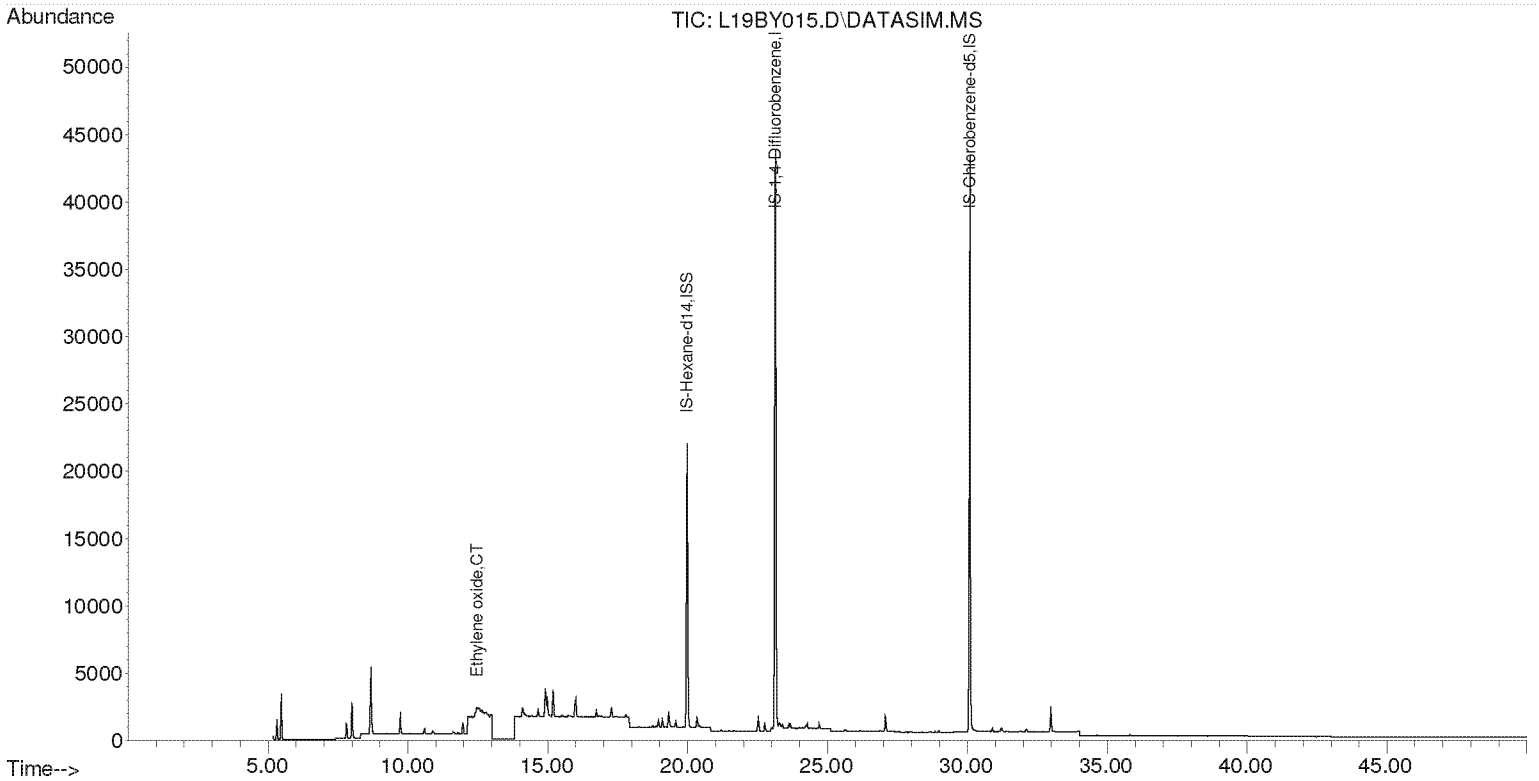
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

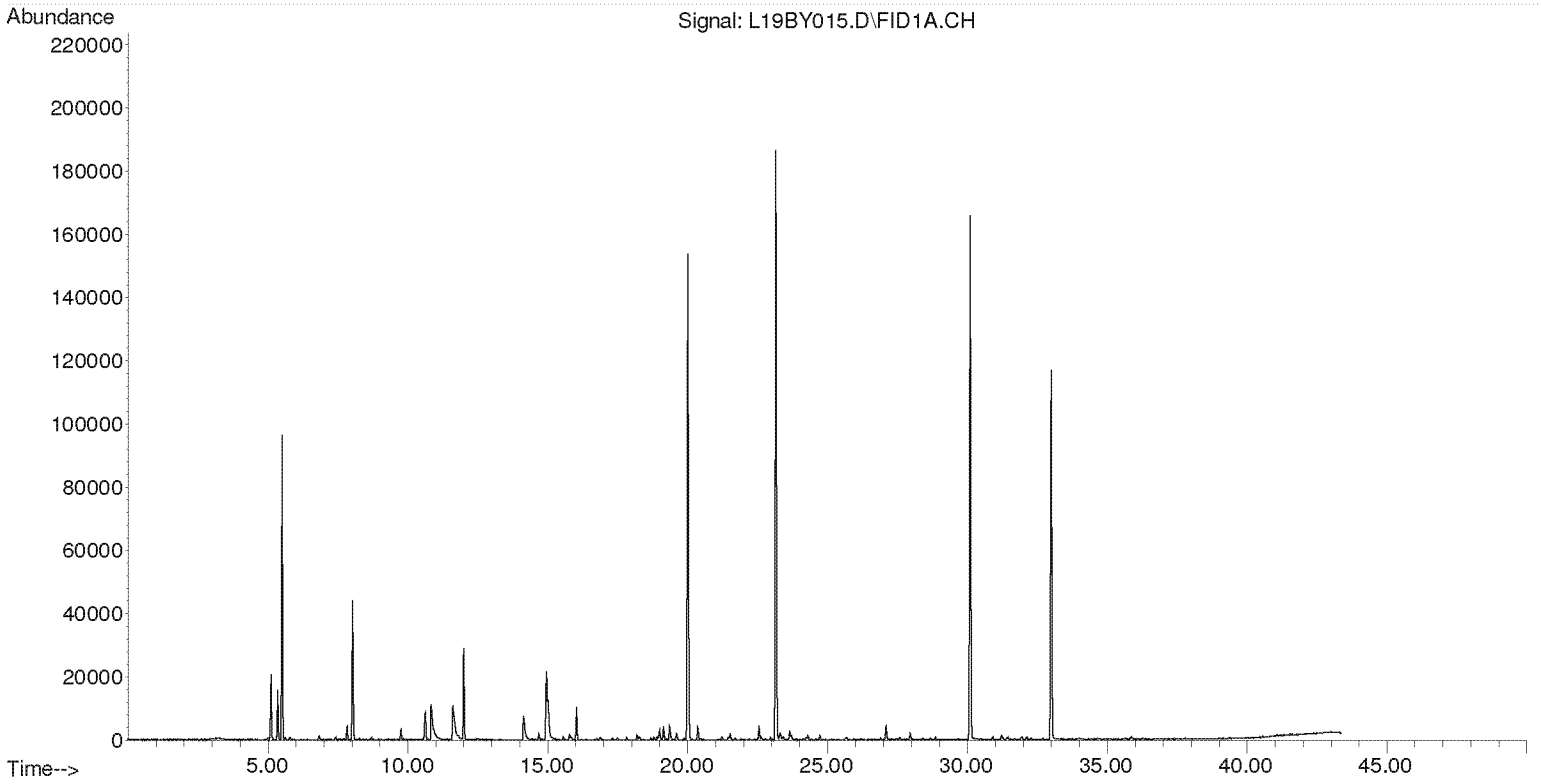
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

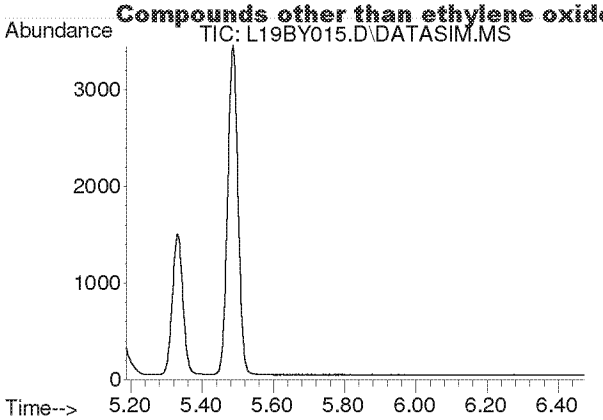
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY015.D
Acq On : 25 Feb 2019 9:30 pm (#1); 25 Feb 2019 9:24 pm (#2)
Operator : MAH
Sample : 9022202-08
Misc : EOA WB WAREHOUSE 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 09:55:28 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





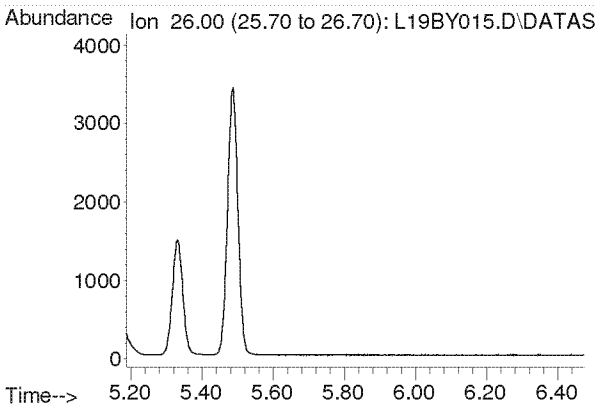
Compounds other than ethylene oxide were not quantitated.

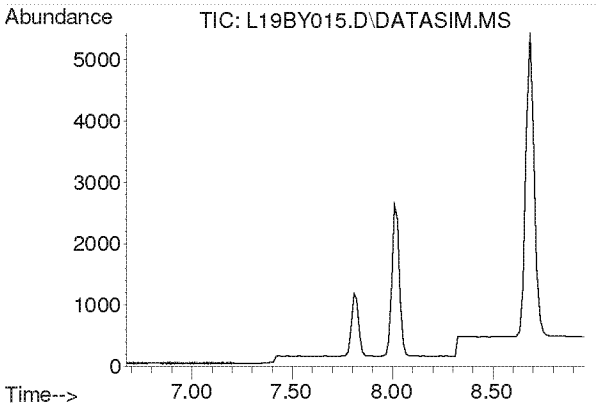


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 26



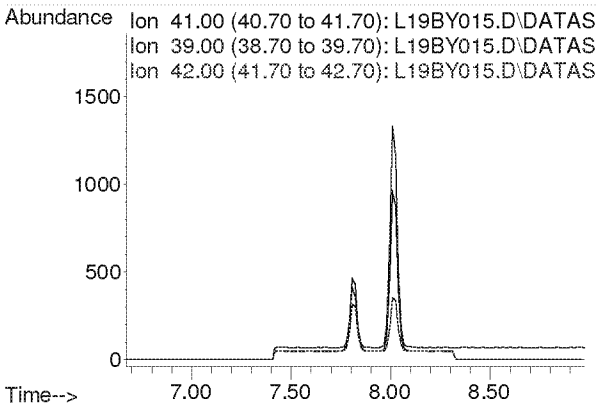


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

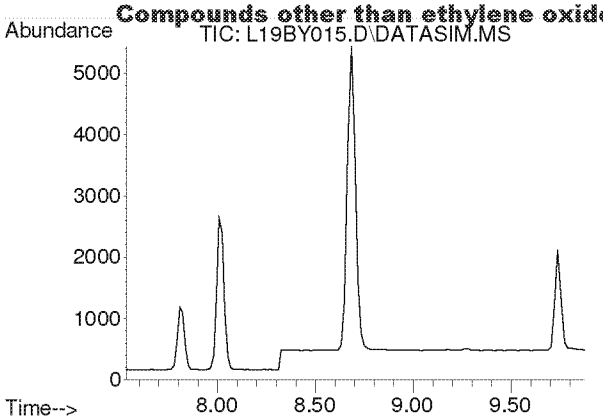
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

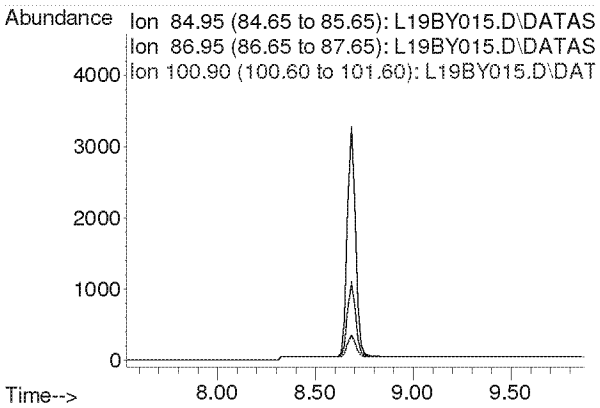


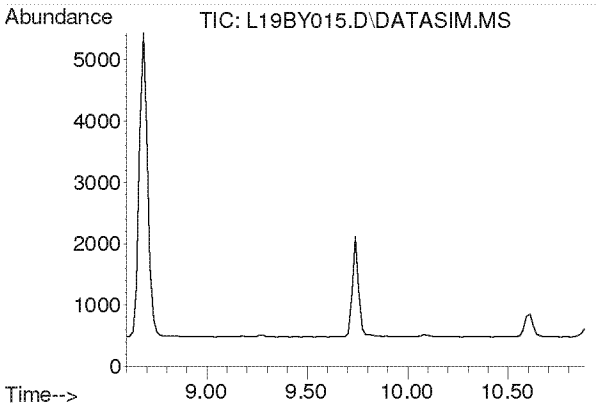
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



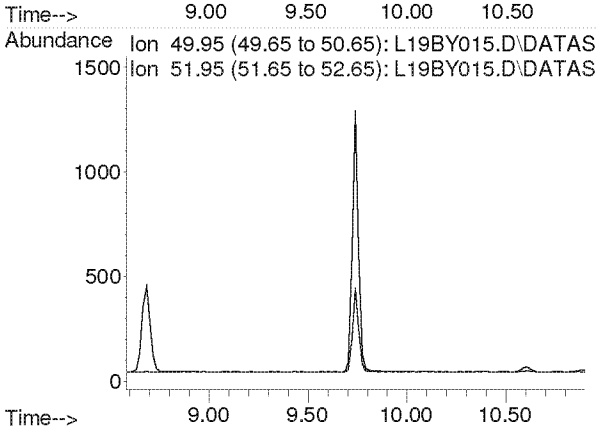


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

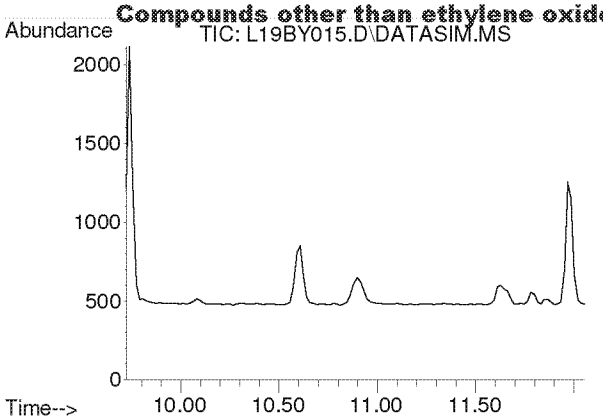
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

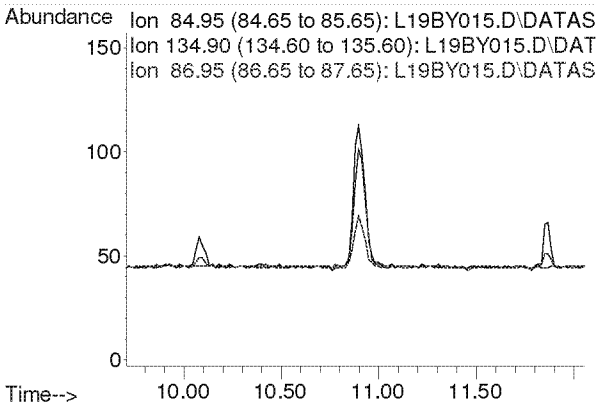


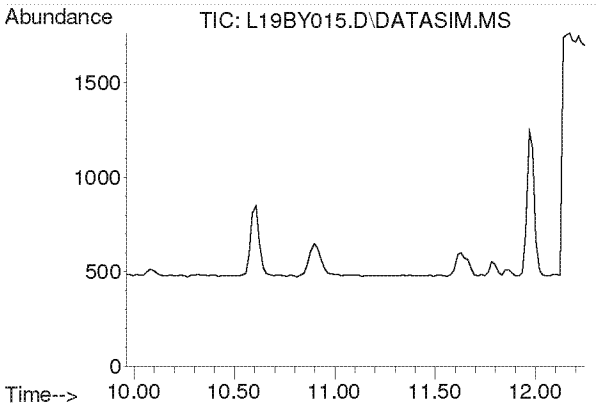
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



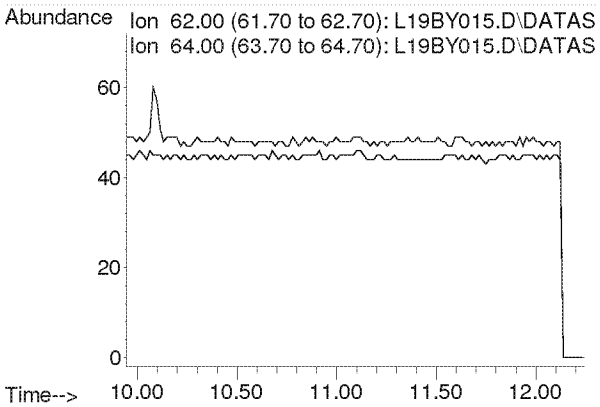


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

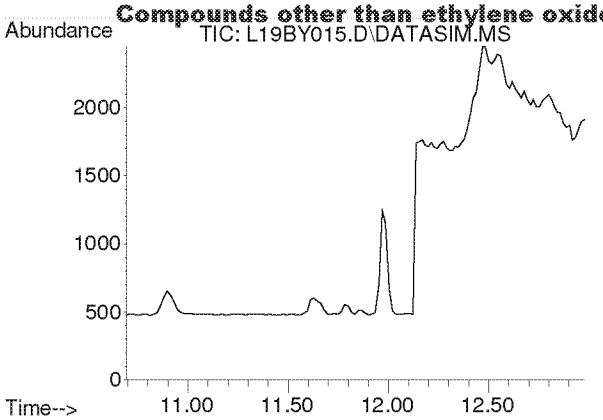
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

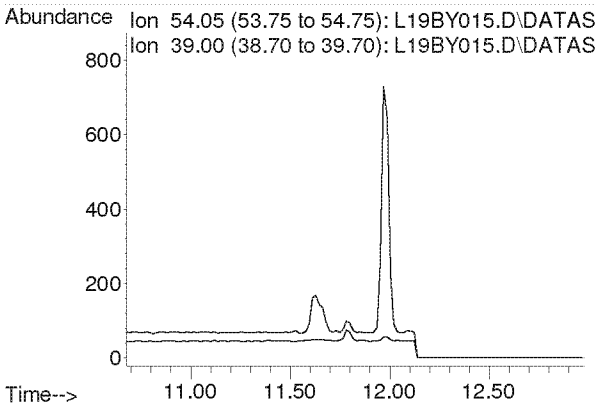


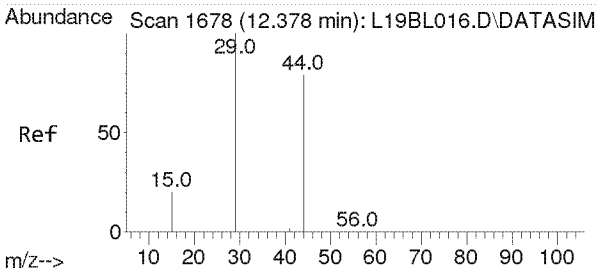
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

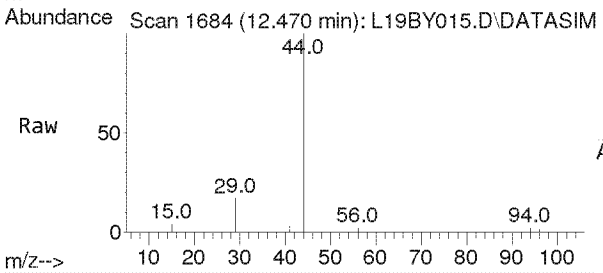


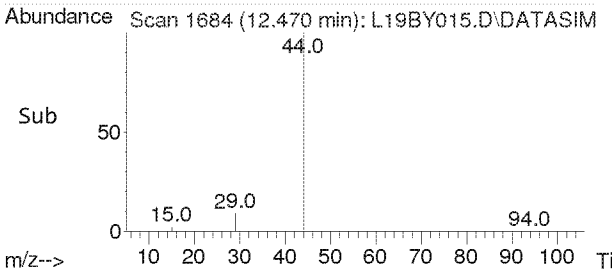


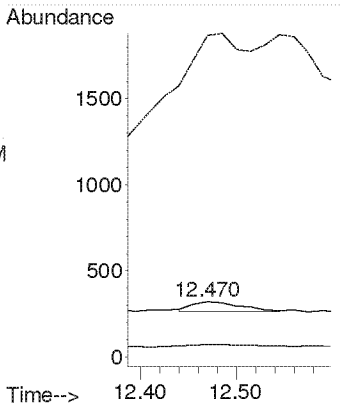
#9
Ethylene oxide
Concen: 0.083 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.020 min
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 29 Resp: 186

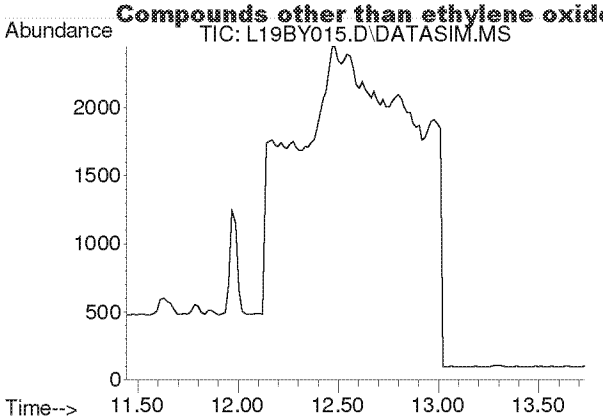
Ion	Ratio	Lower	Upper
29	100		
15	46.8	16.0	24.0#
44	3749.5	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

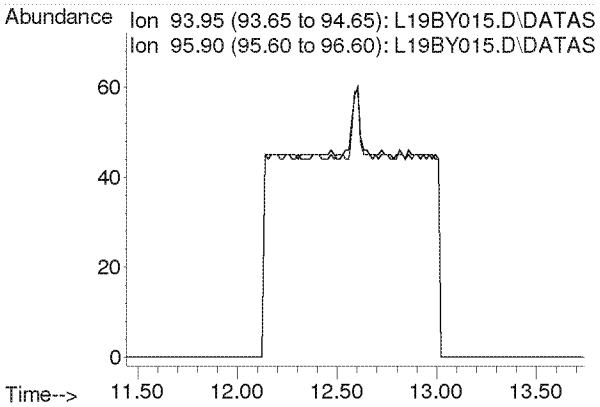


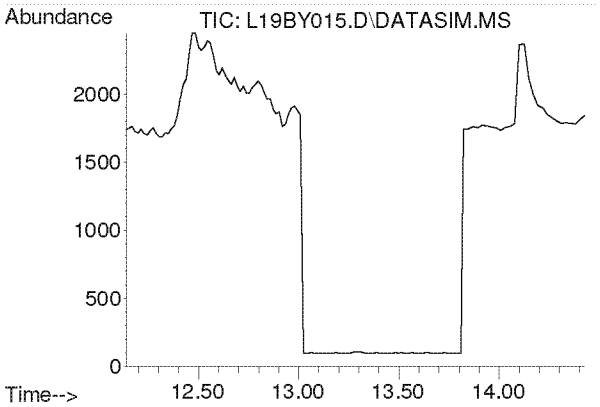
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



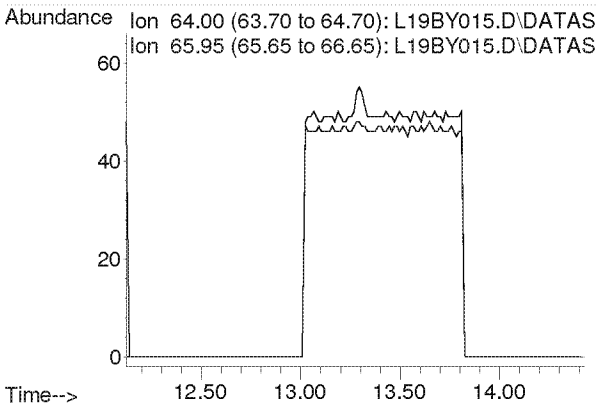


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

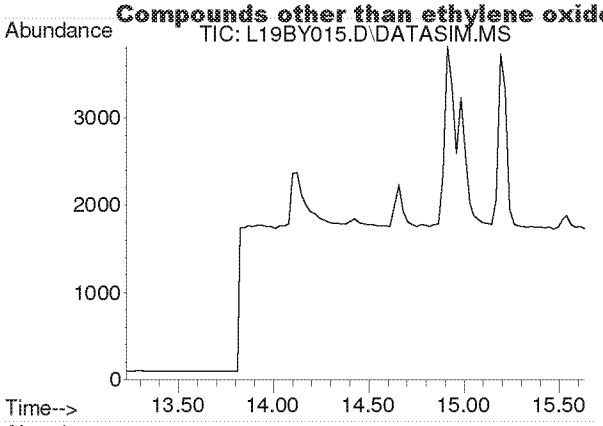
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

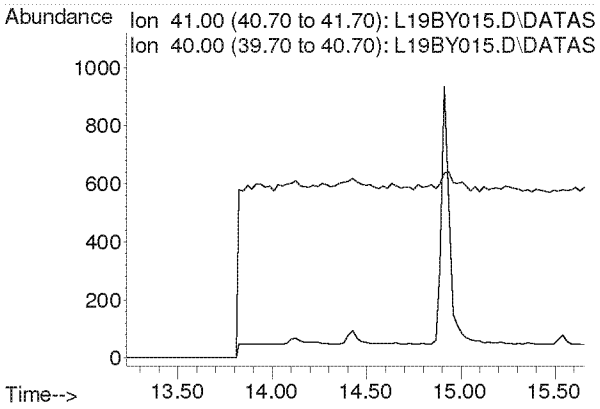


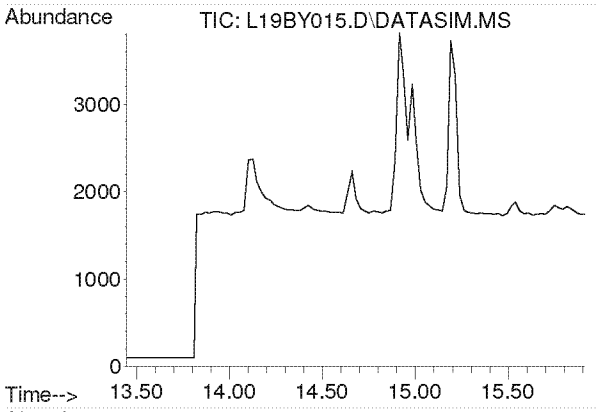
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



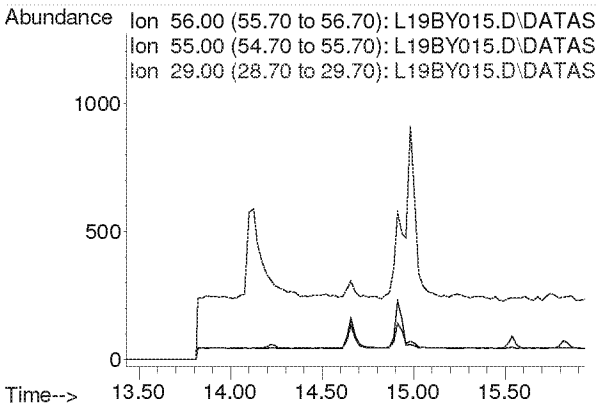


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

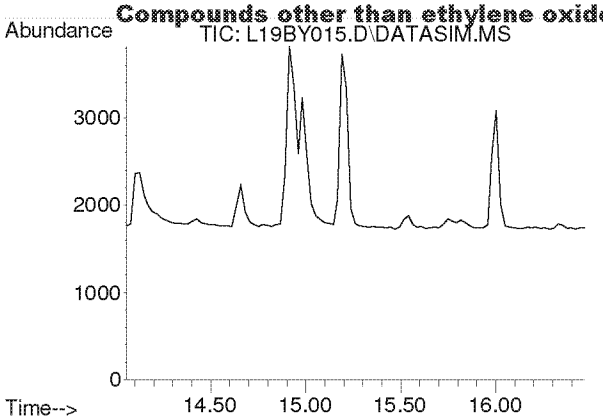
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

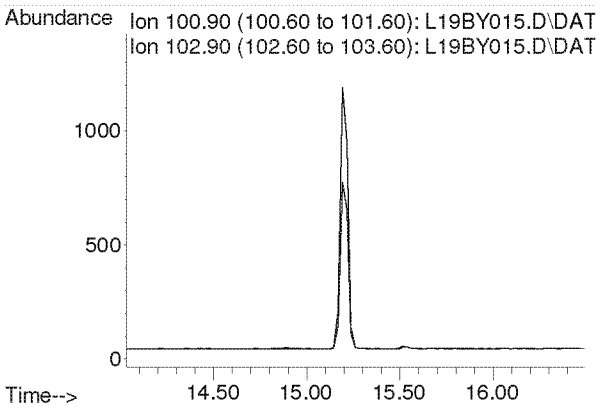


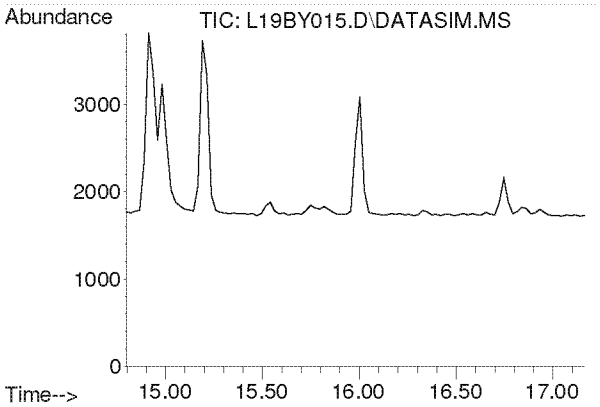
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



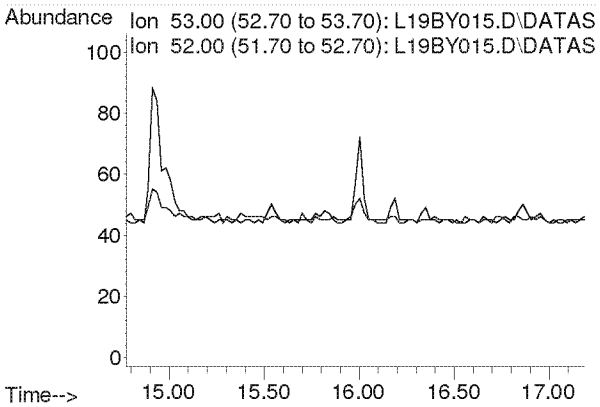


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

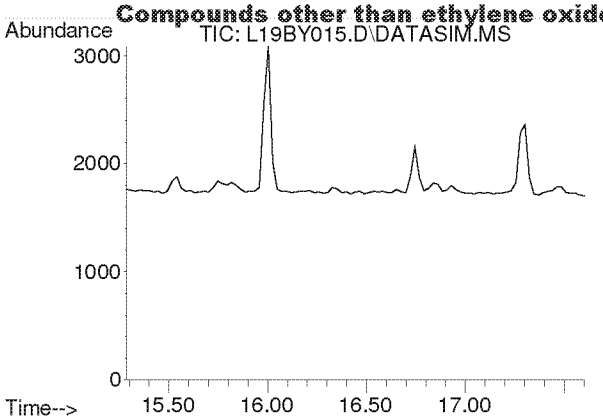
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

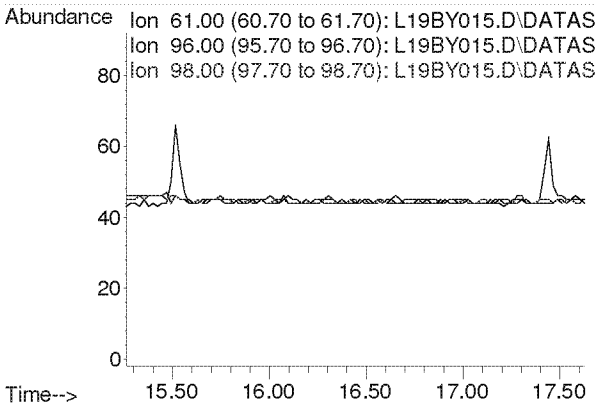


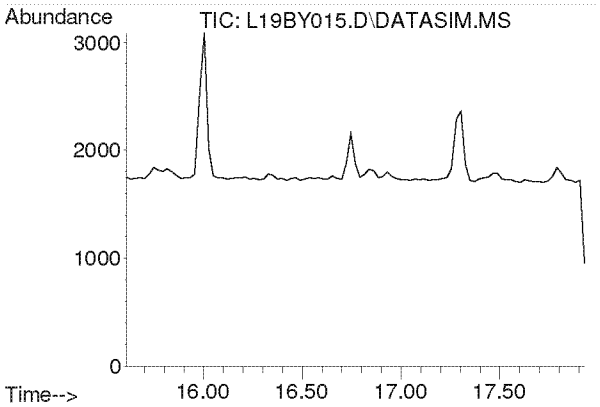
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



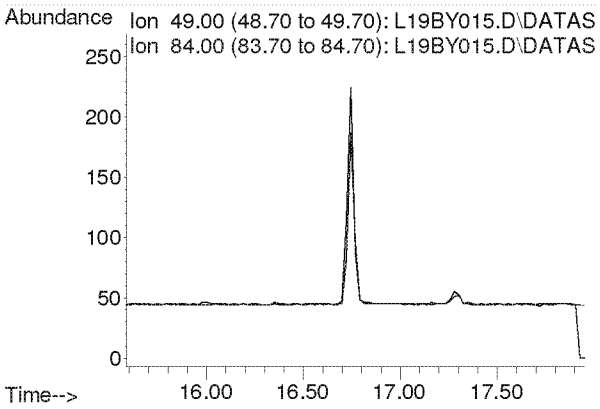


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

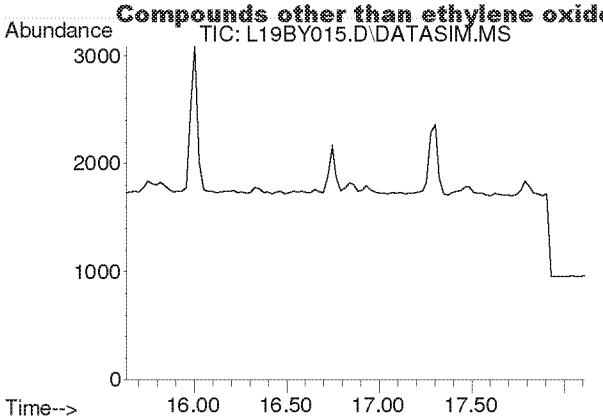
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

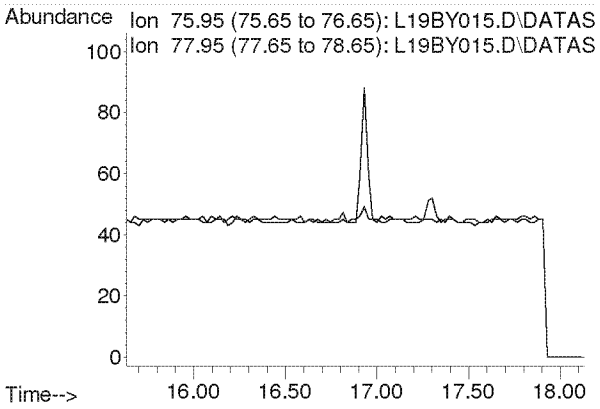


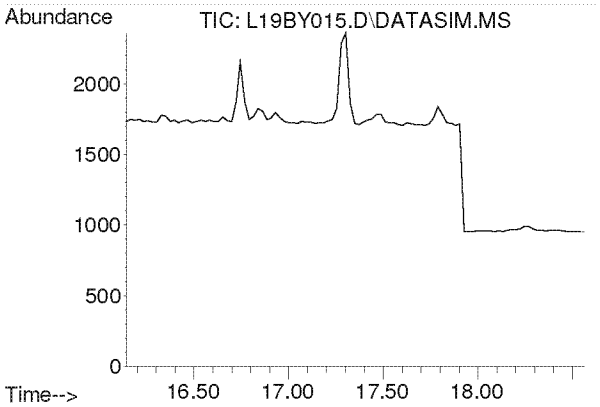
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



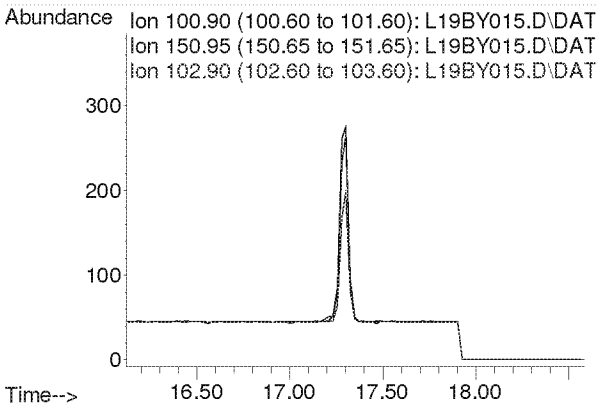


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

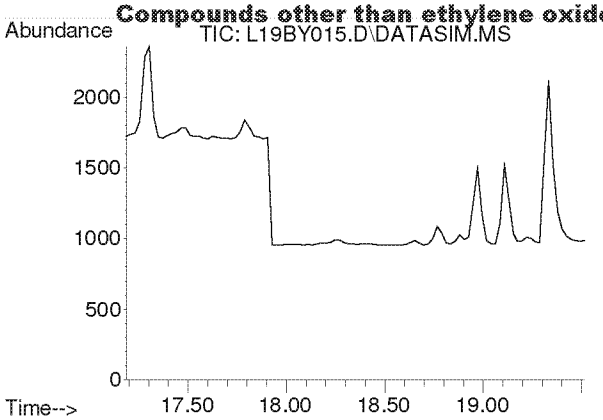
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

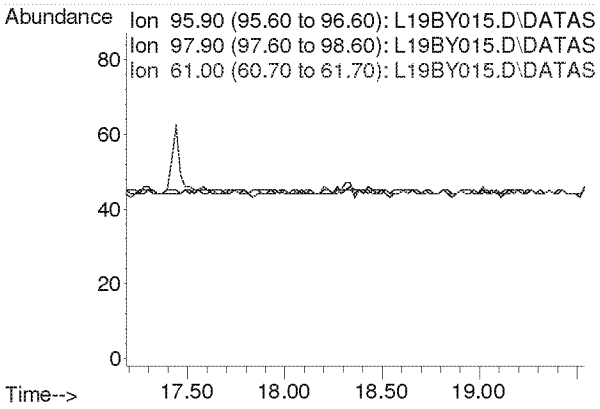


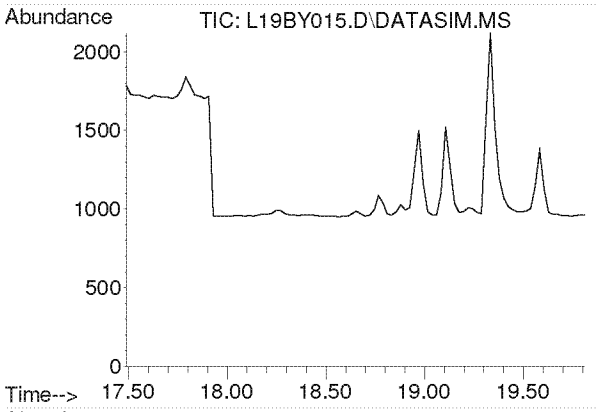
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



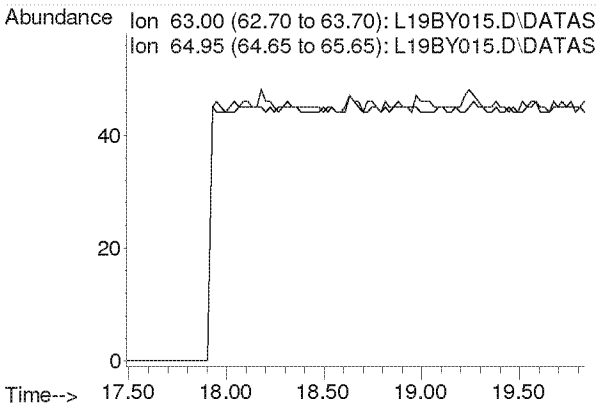


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

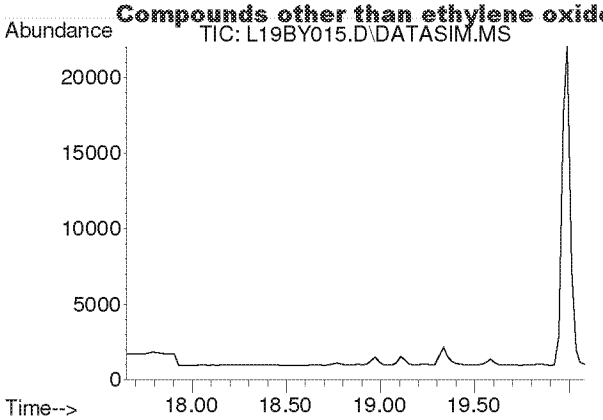
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

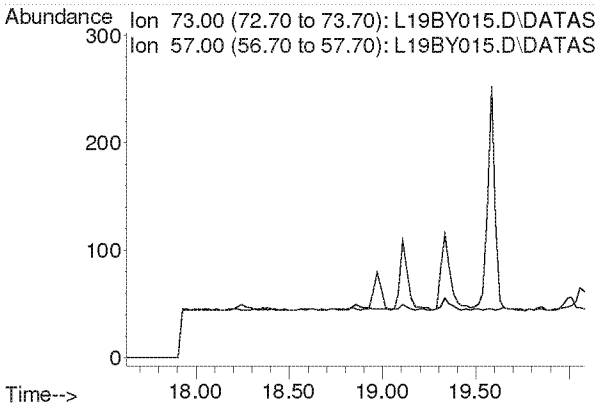


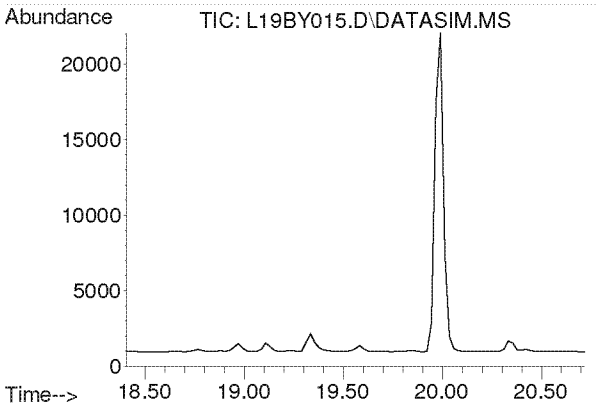
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



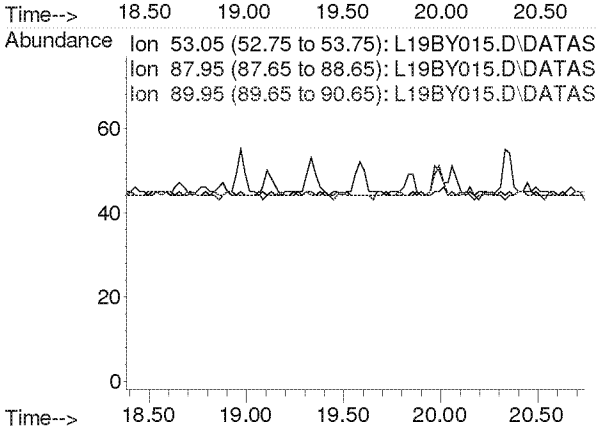


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

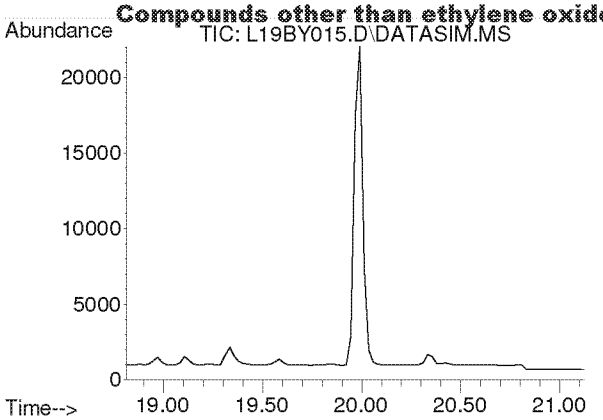
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

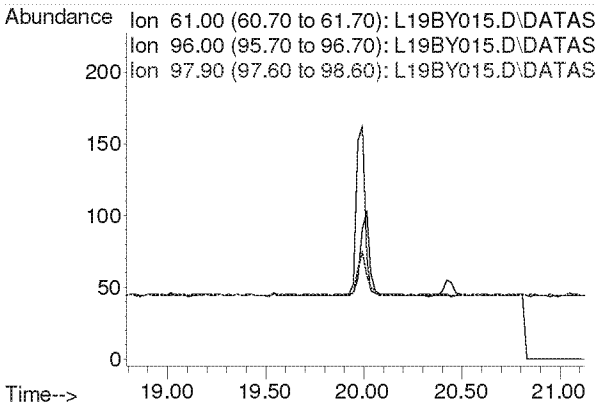


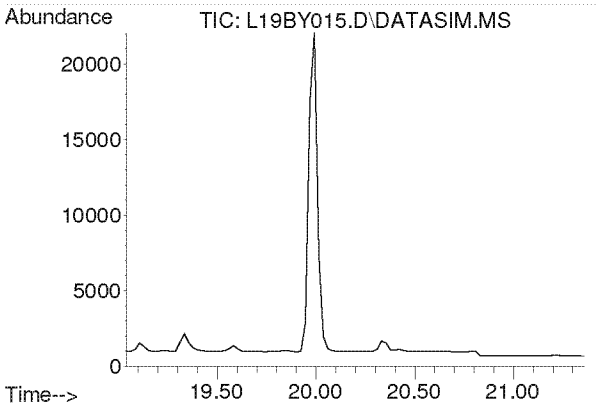
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



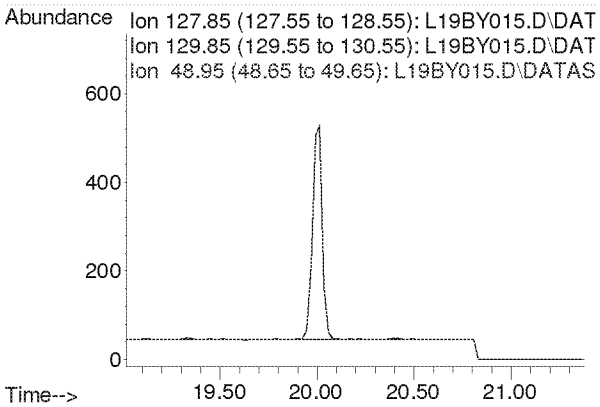


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

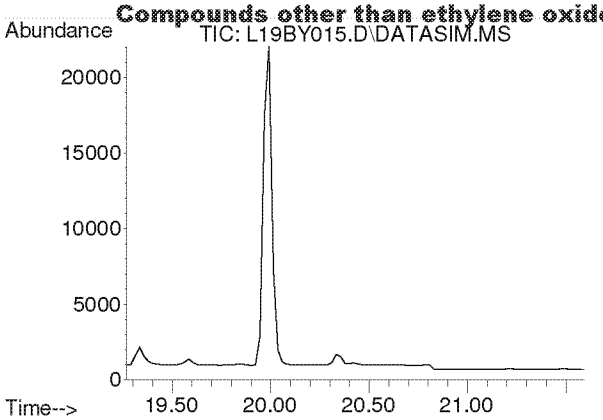
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

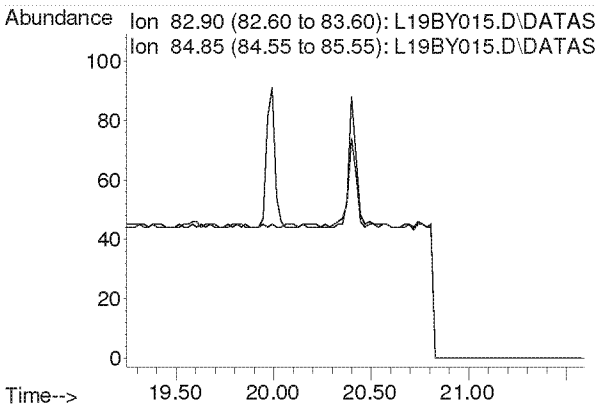


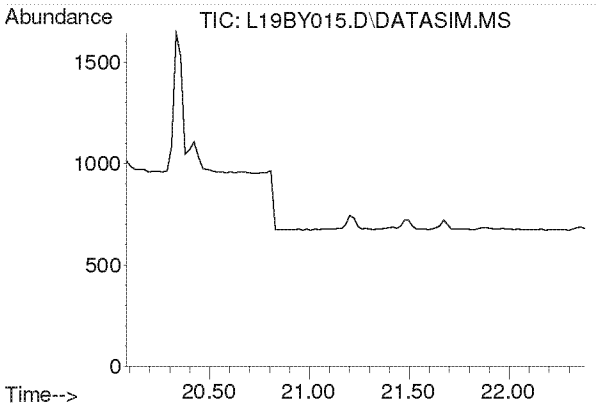
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



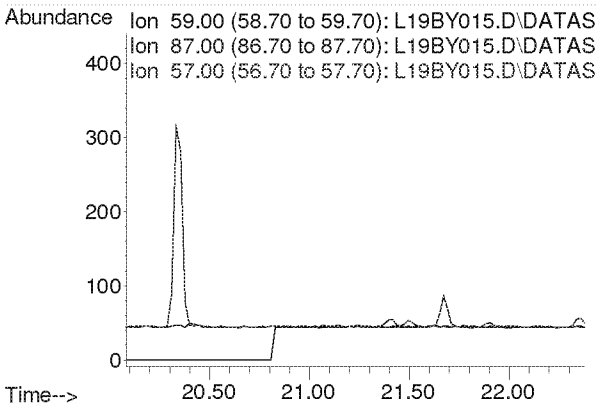


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

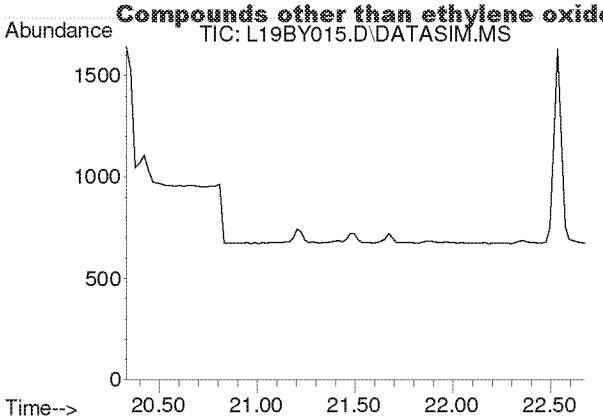
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

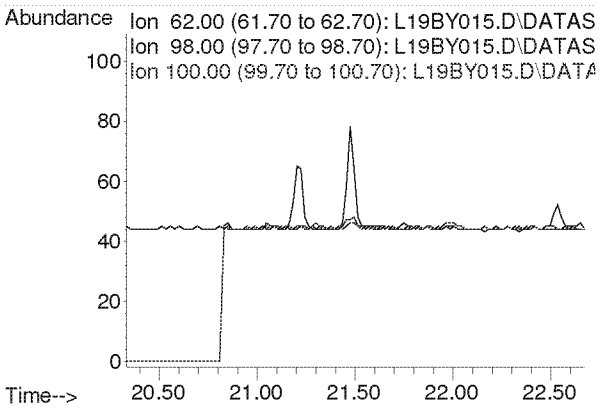


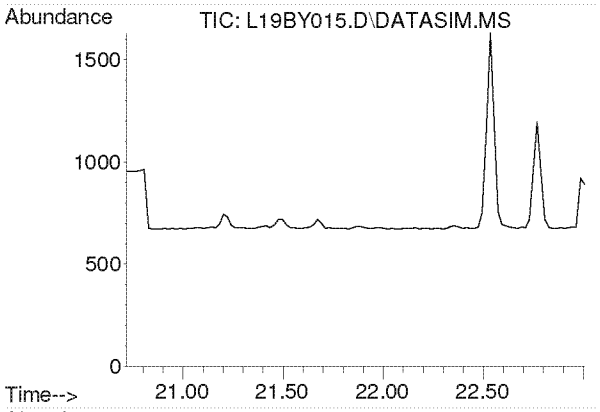
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



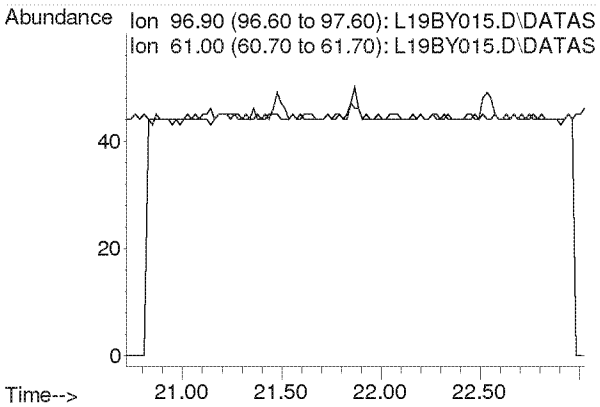


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

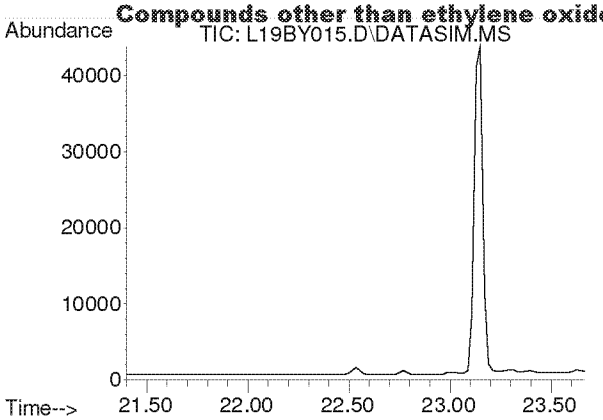
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

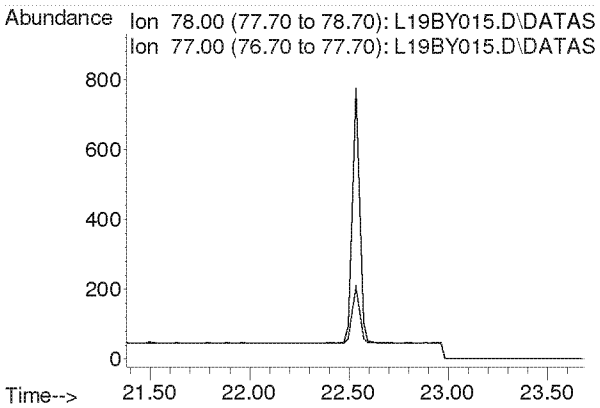


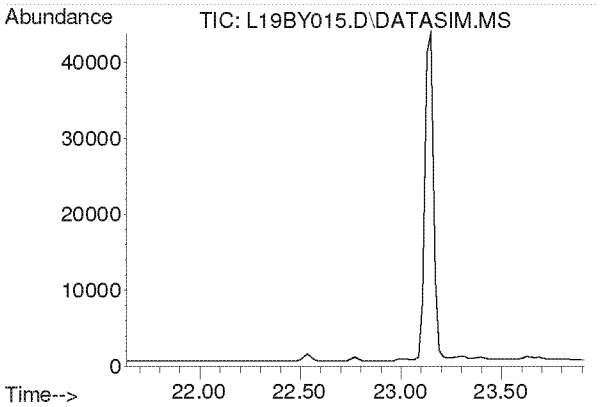
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



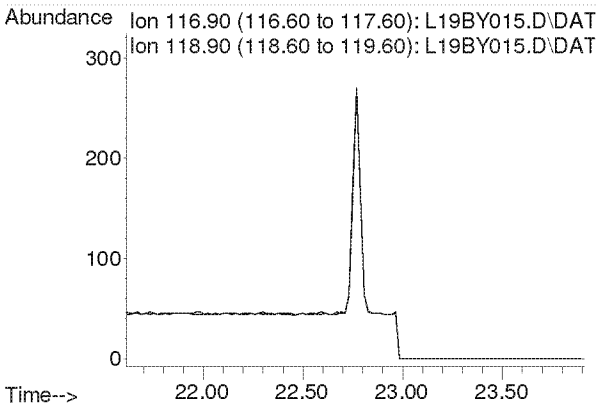


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

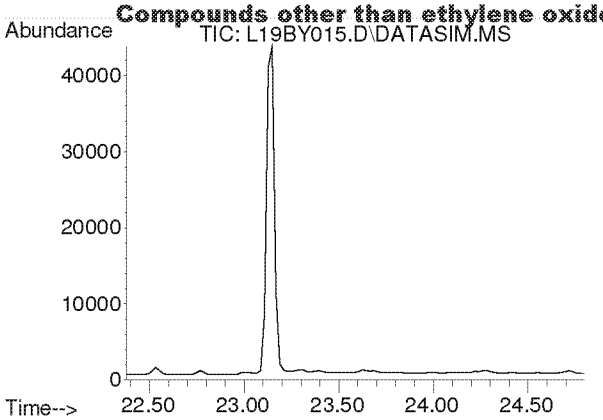
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

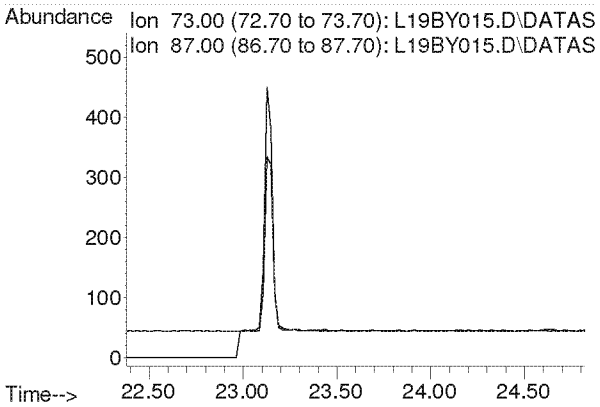


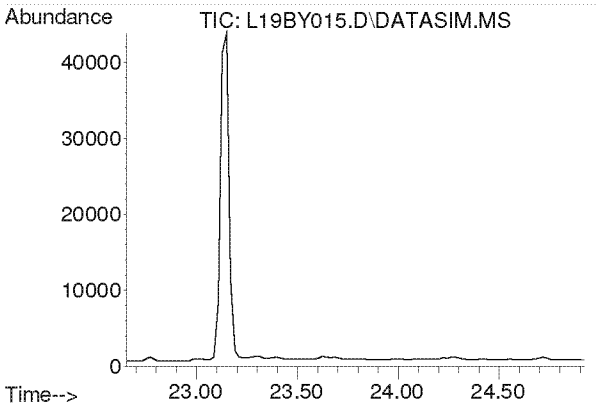
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



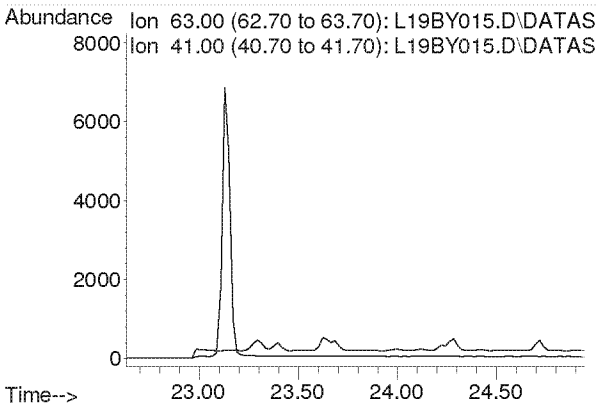


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

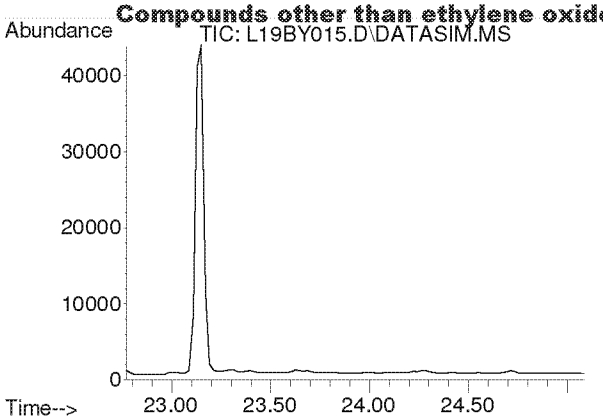
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

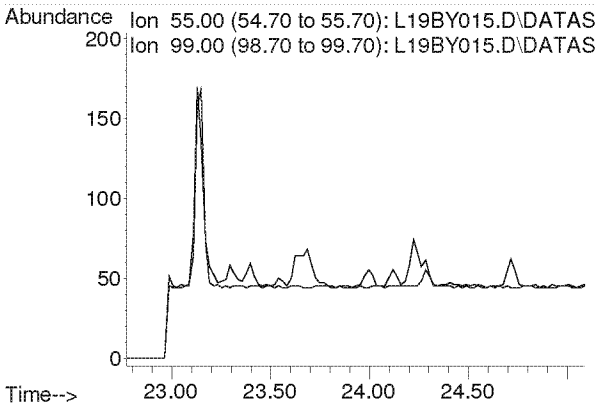


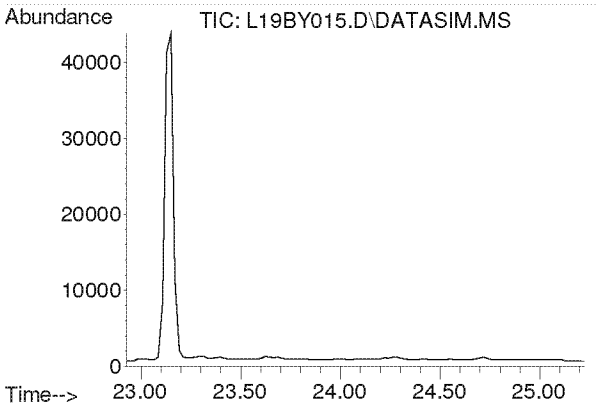
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



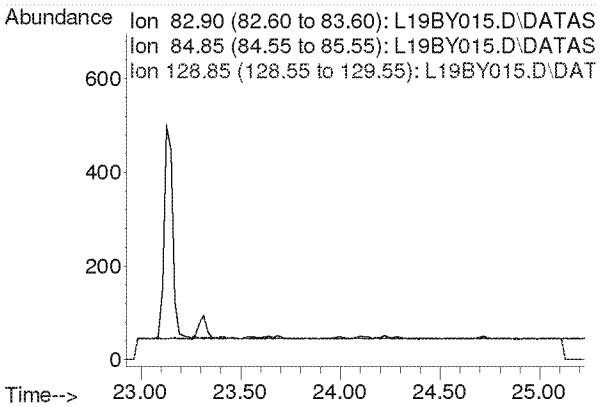


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

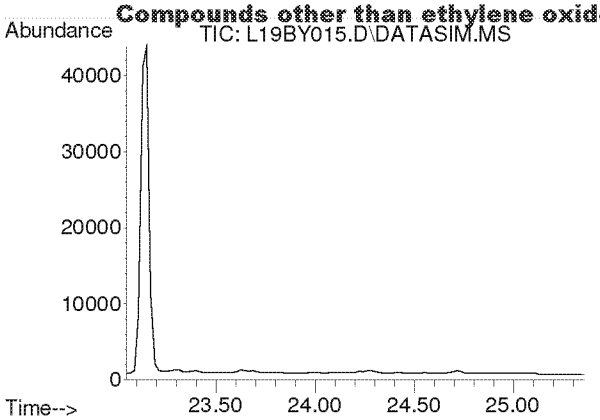
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

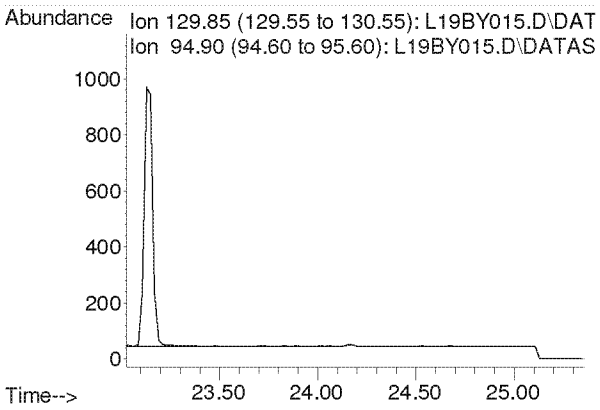


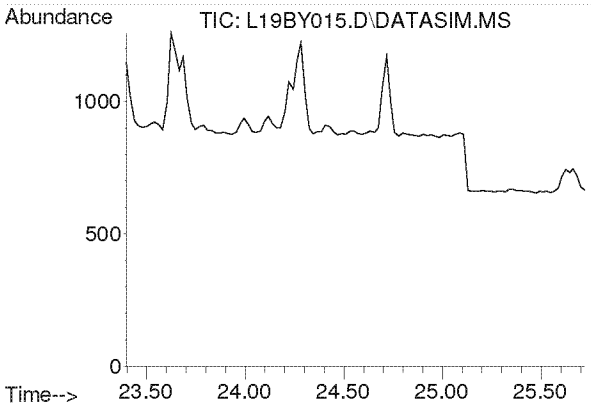
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



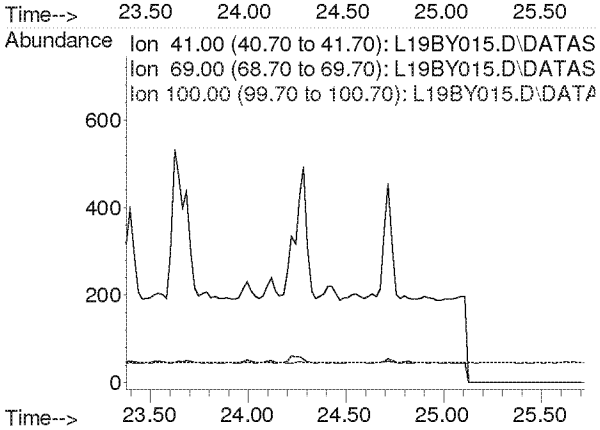


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

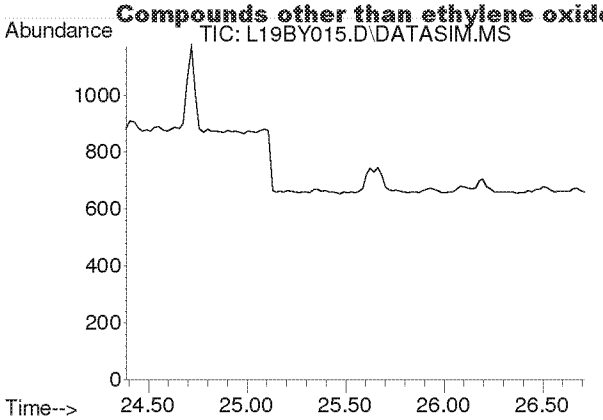
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

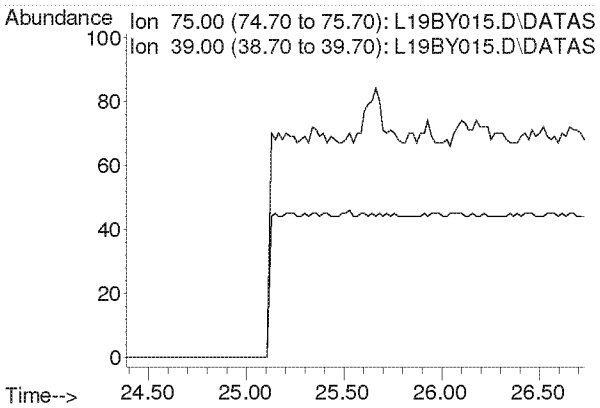


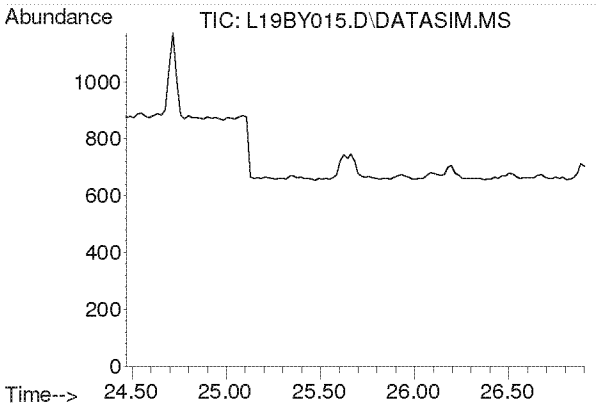
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



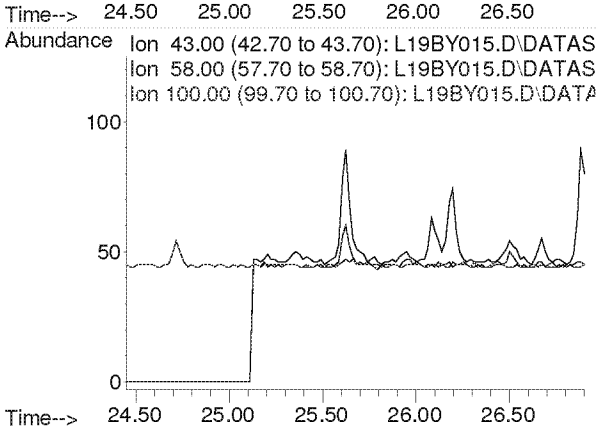


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

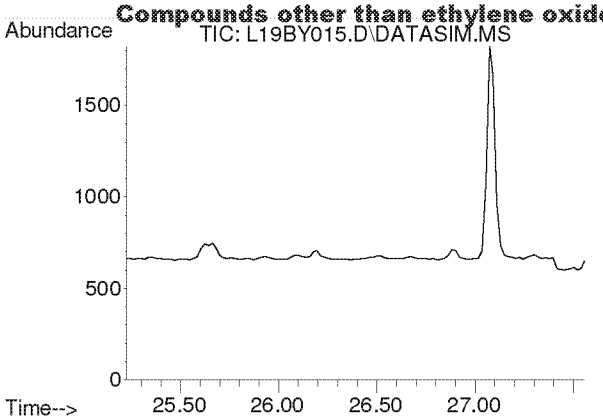
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

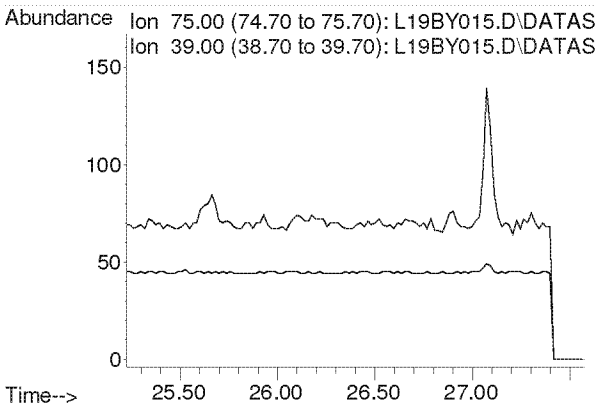


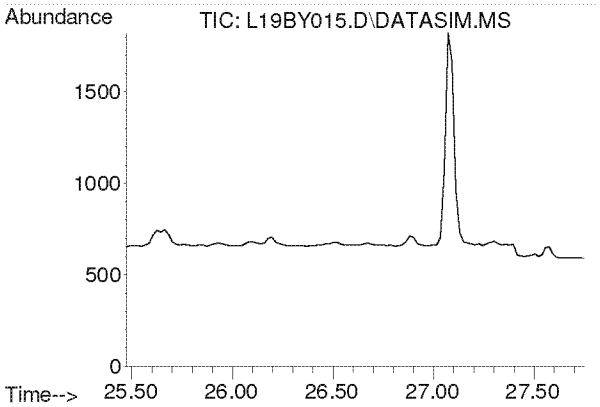
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



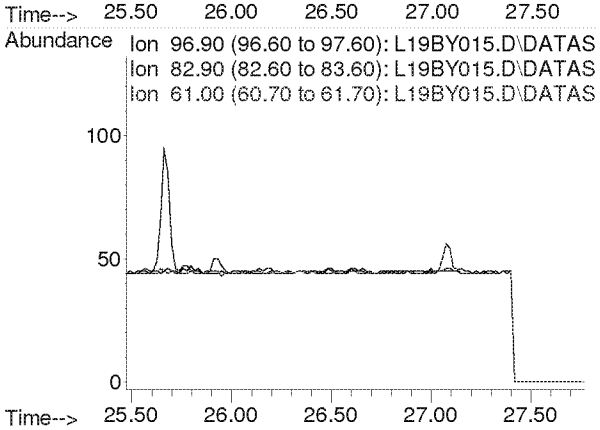


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

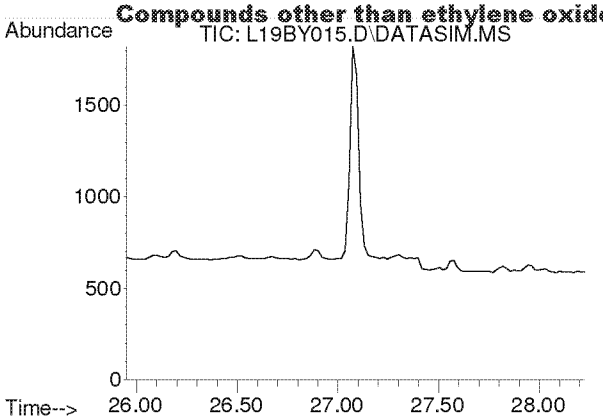
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

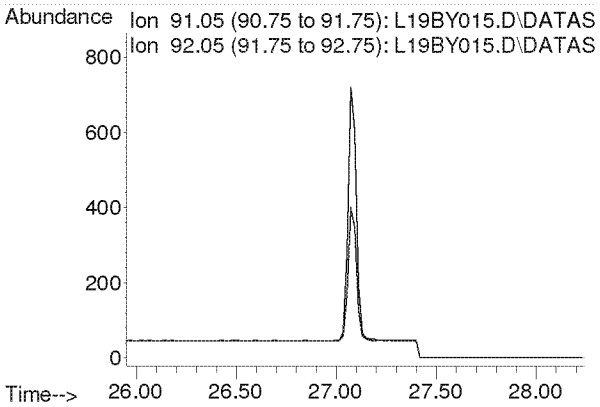


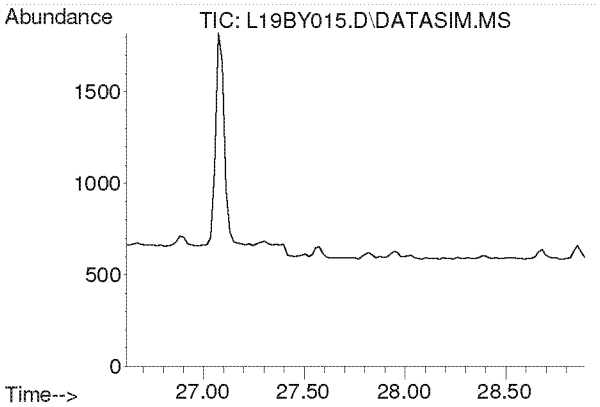
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



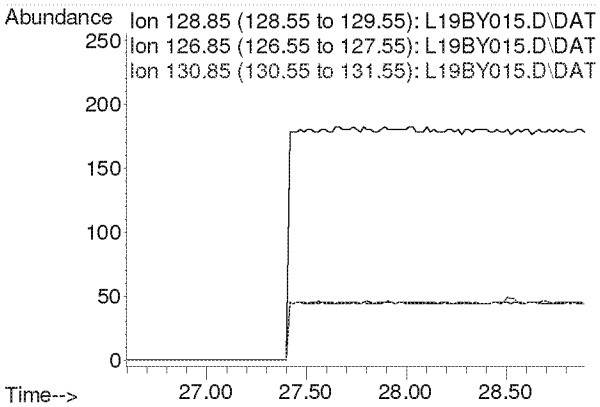


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

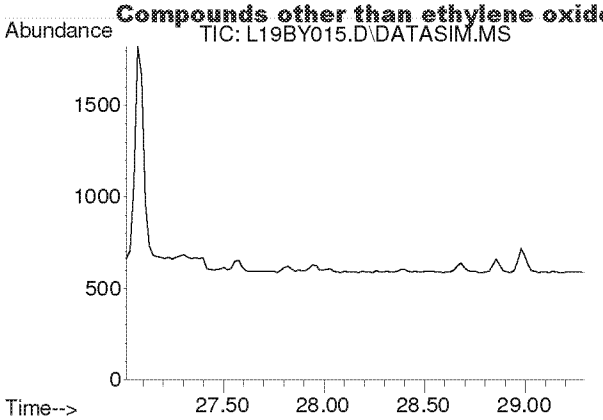
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

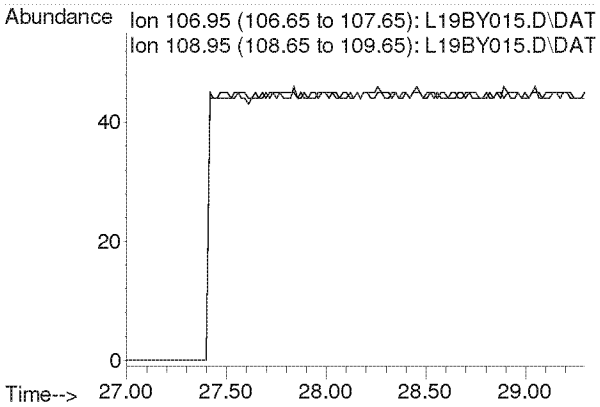


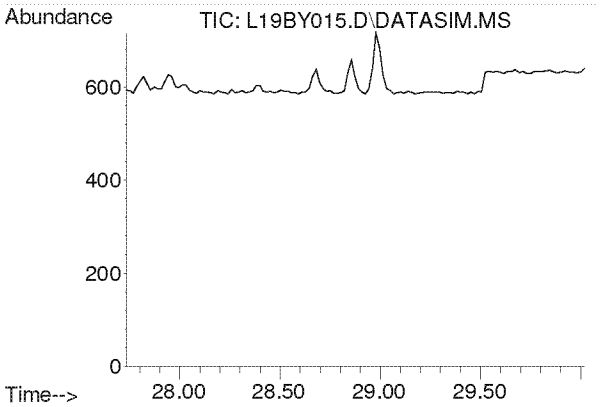
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



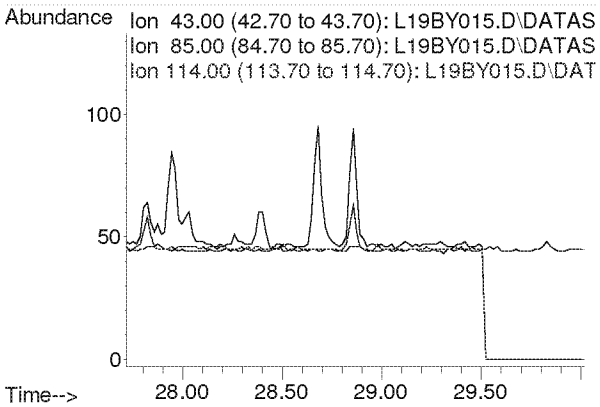


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

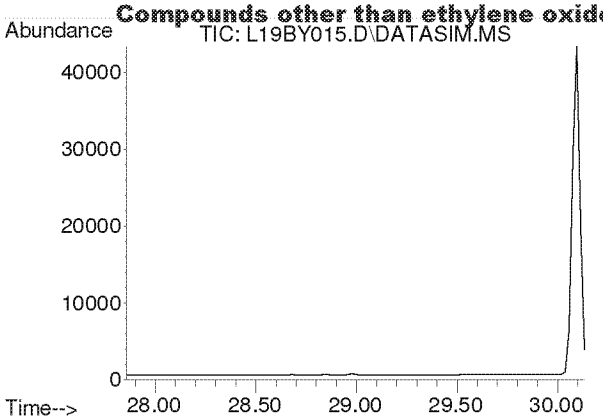
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

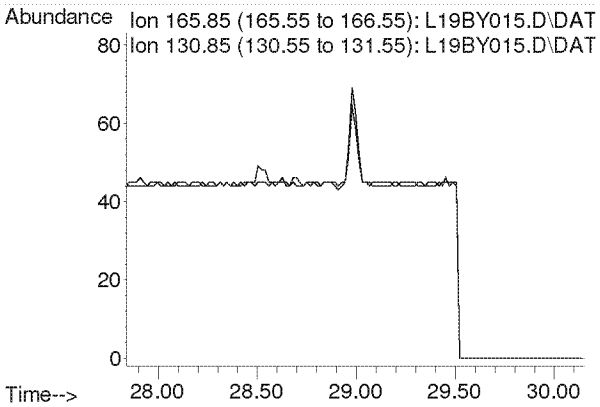


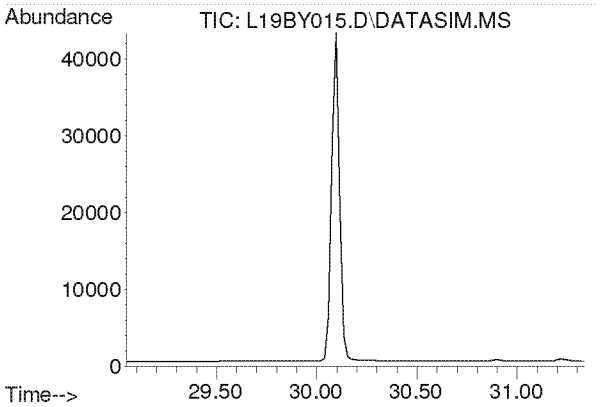
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



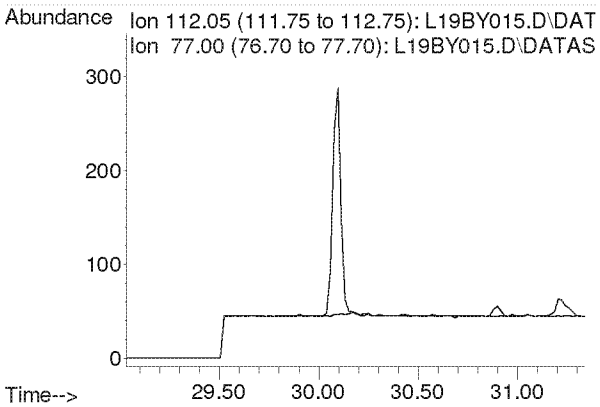


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

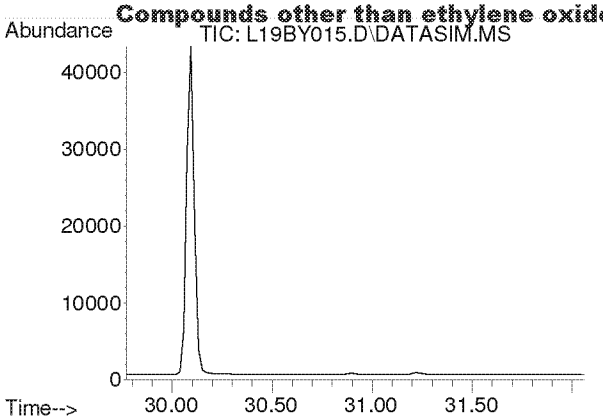
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

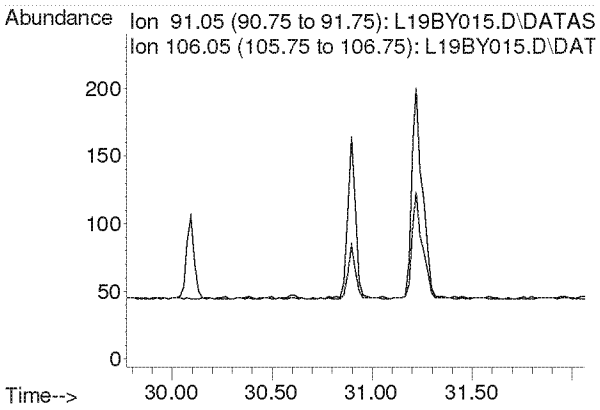


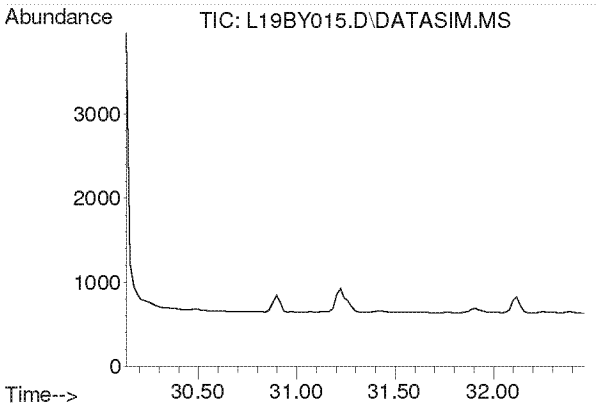
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



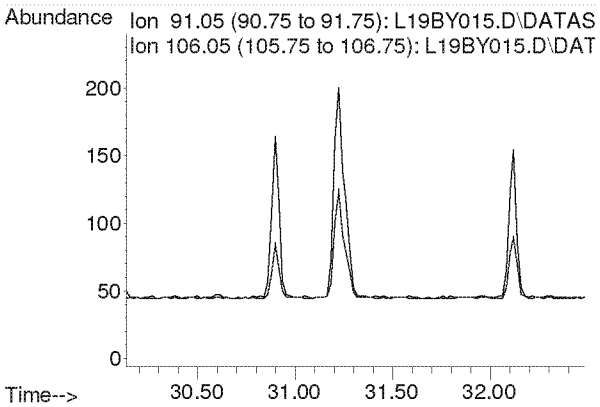


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

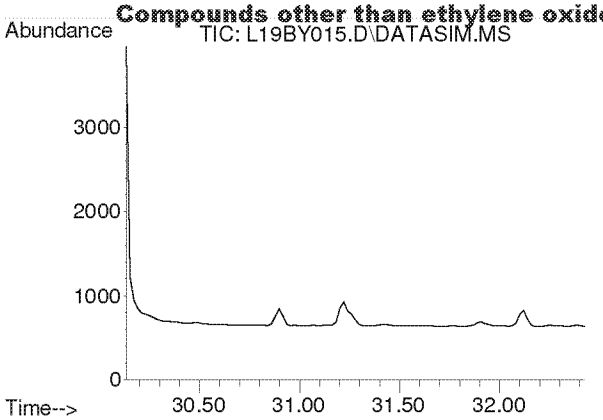
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

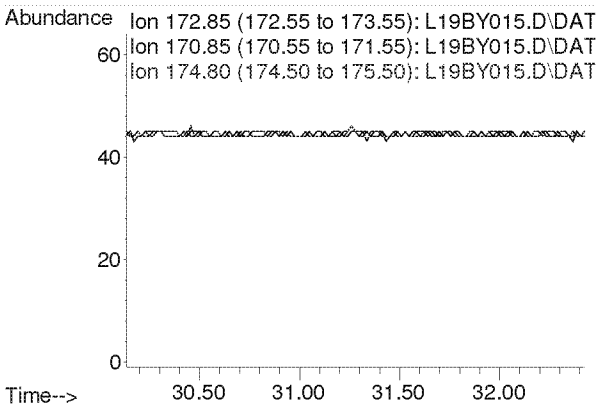


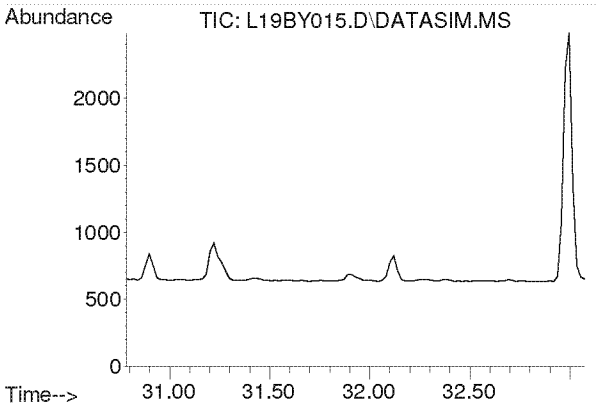
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



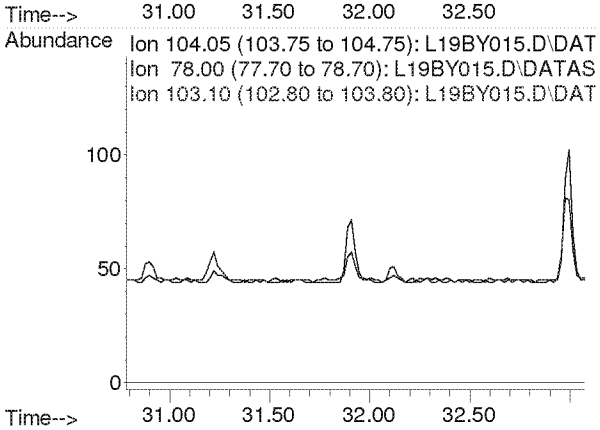


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

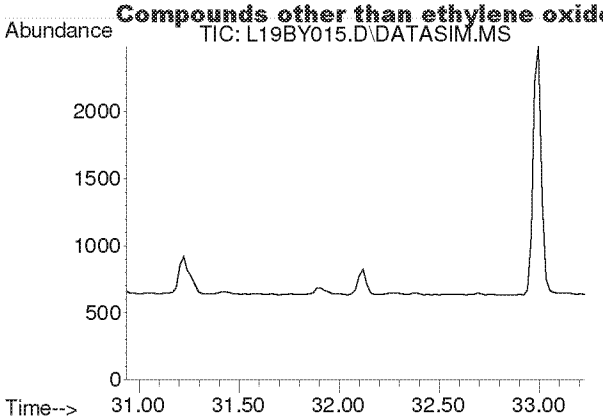
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

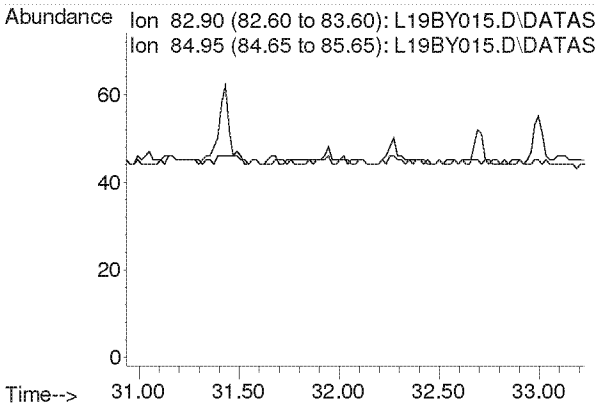


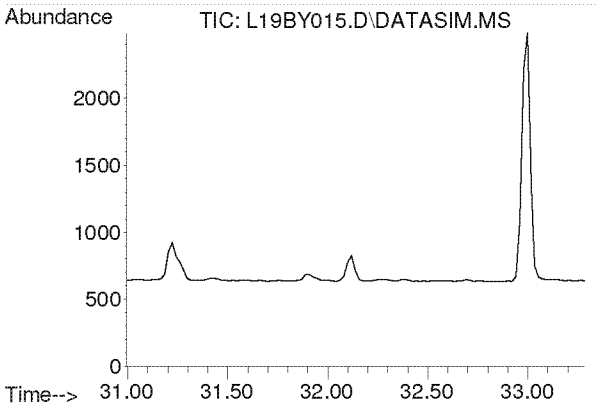
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



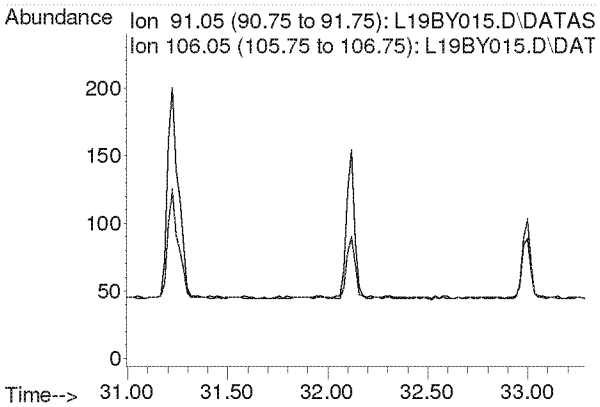


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

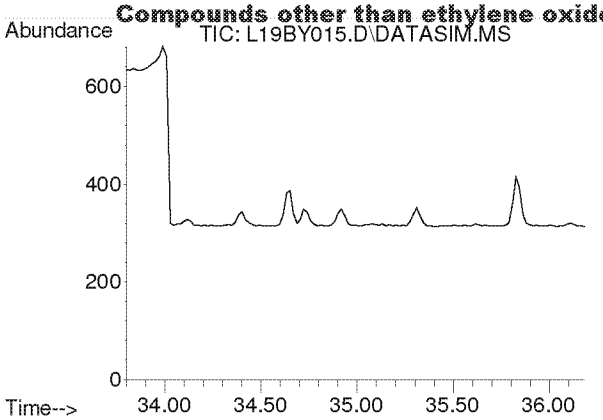
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

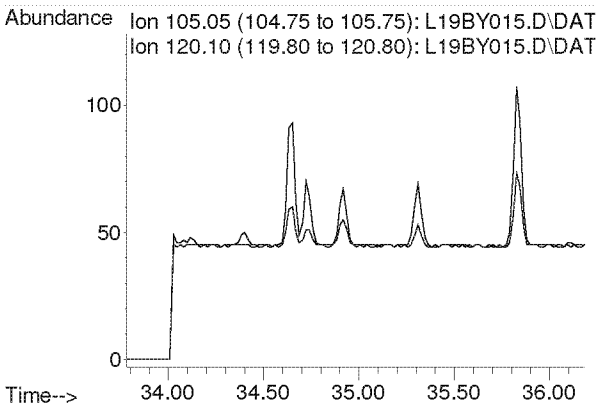


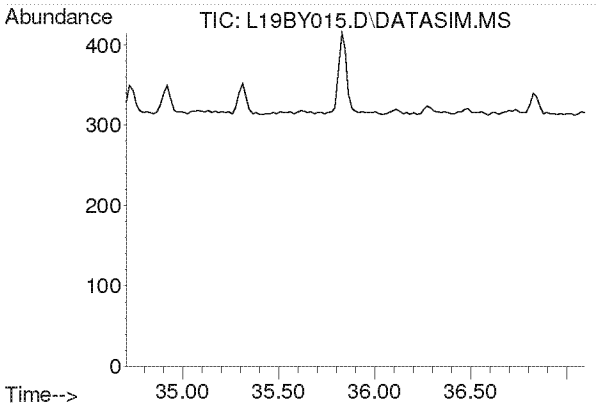
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



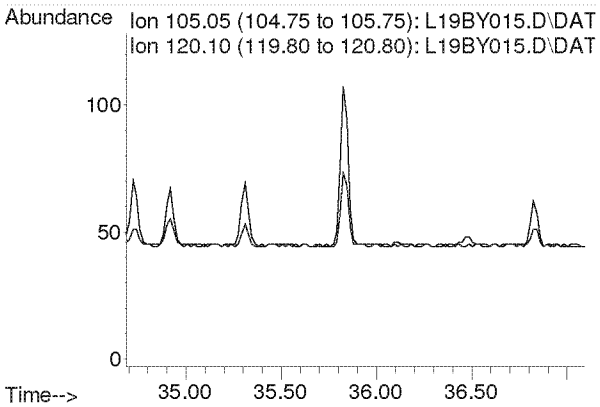


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

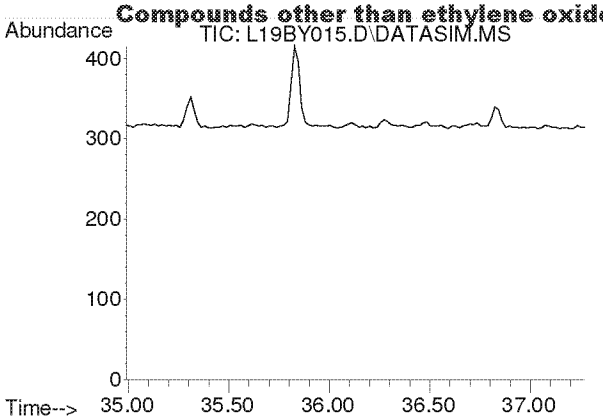
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

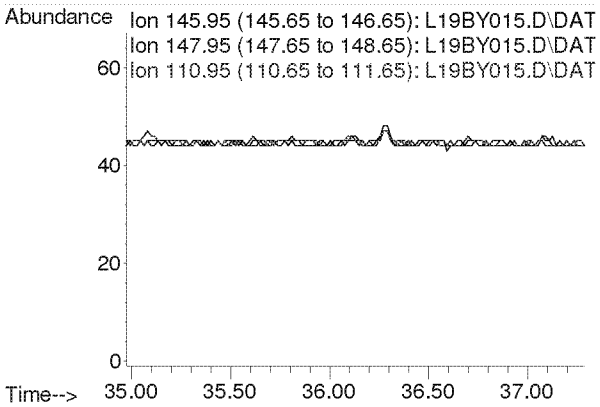


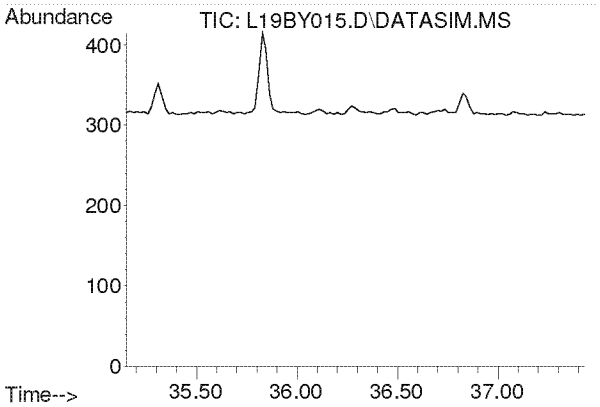
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



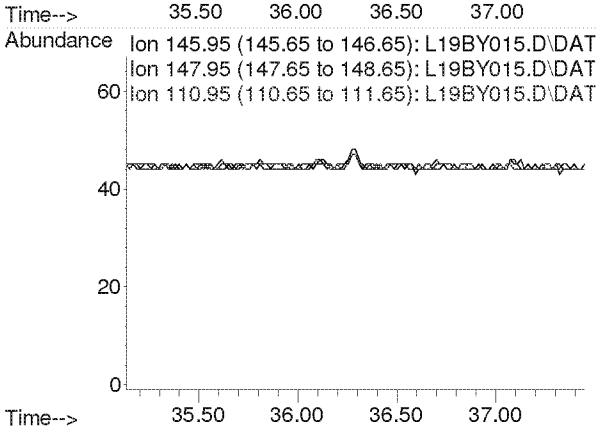


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

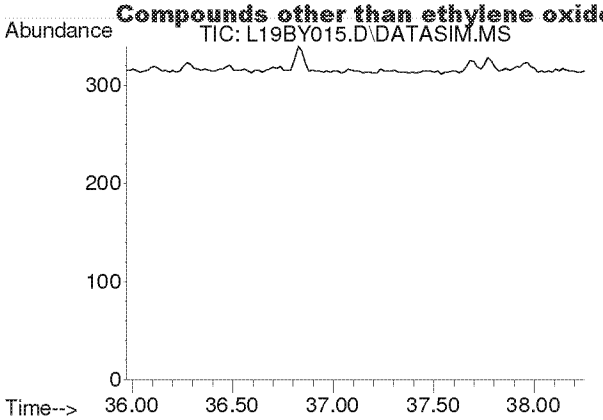
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

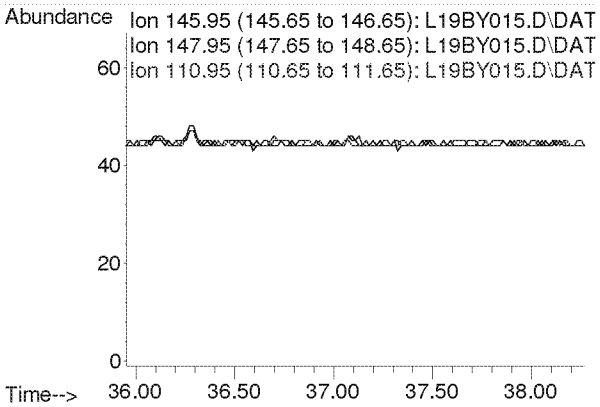


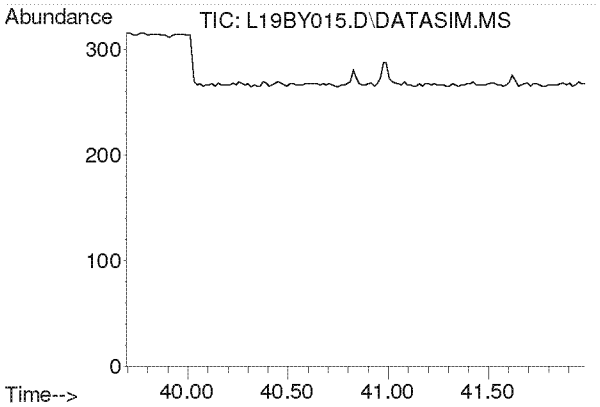
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



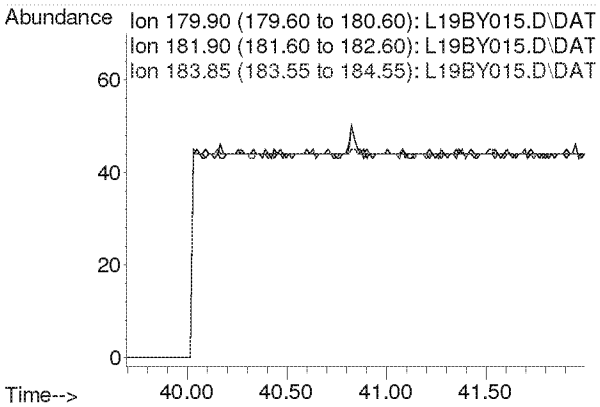


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

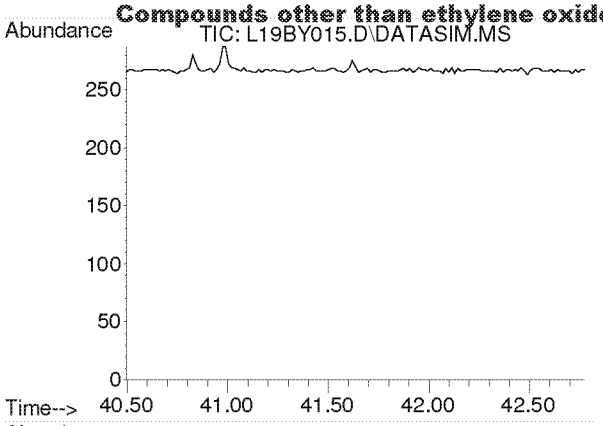
Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

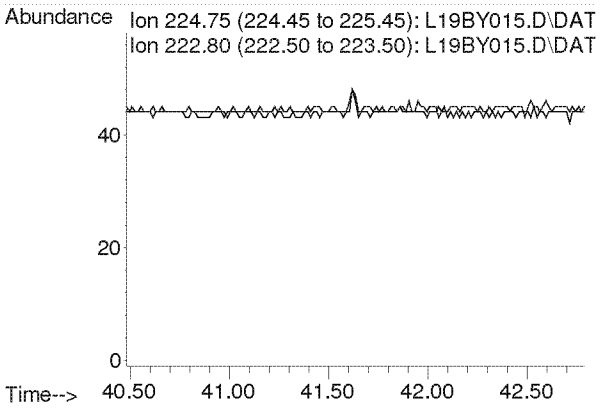


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY015.D
Acq: 25 Feb 2019 9:30 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY016.D
Acq On : 25 Feb 2019 10:30 pm (#1); 25-Feb-19, 22:25:09 (#2)
Operator : MAH
Sample : 9022202-09
Misc : WEST NEIGHBORHOOD 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 26 10:12:59 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	38971	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	98674	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	67322	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	368	0.1651 ppbv #	26
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. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
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\L19BY\
Data File : L19BY016.D
Acq On : 25 Feb 2019 10:30 pm (#1); 25-Feb-19, 22:25:09 (#2)
Operator : MAH
Sample : 9022202-09
Misc : WEST NEIGHBORHOOD 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 26 10:12:59 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

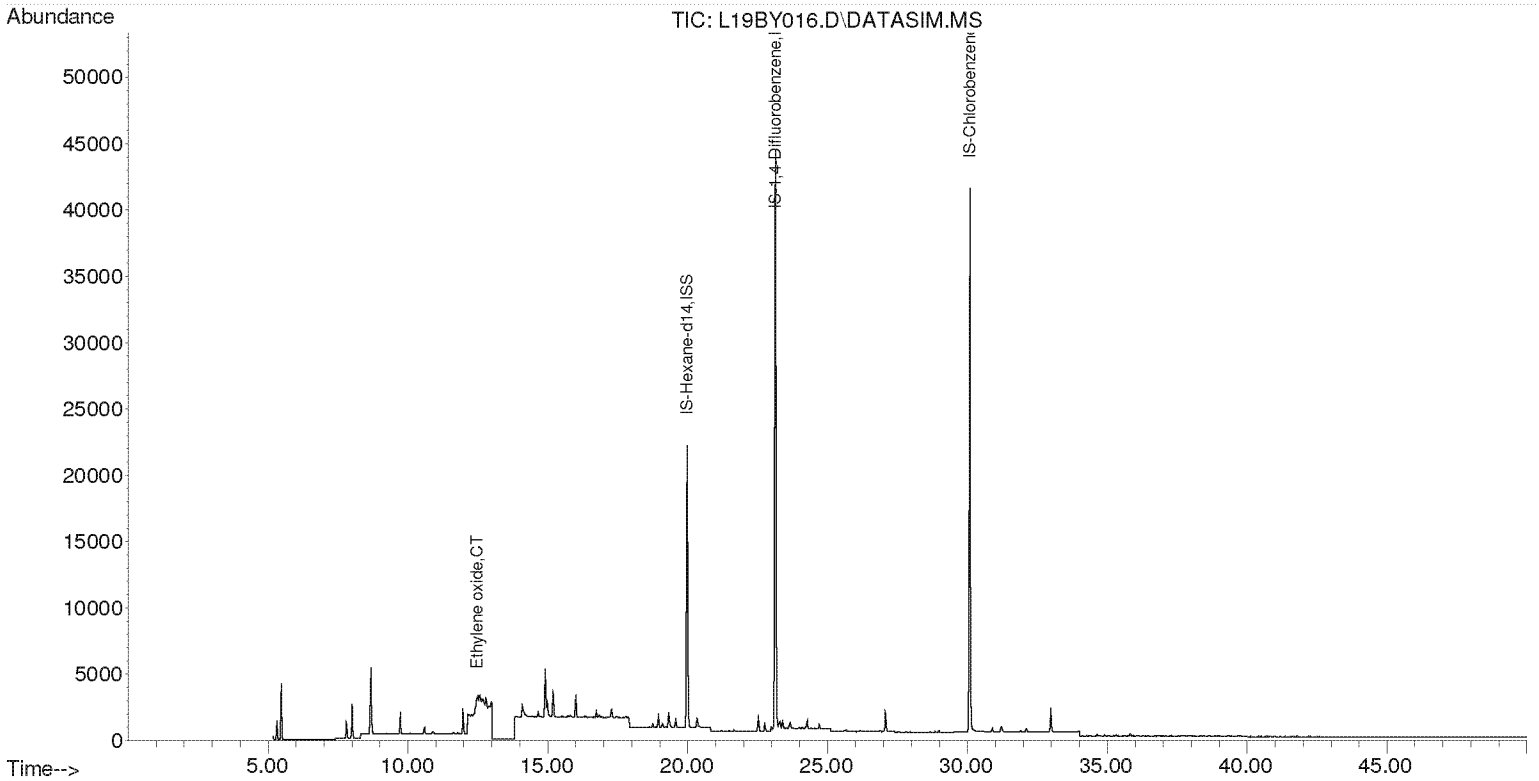
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

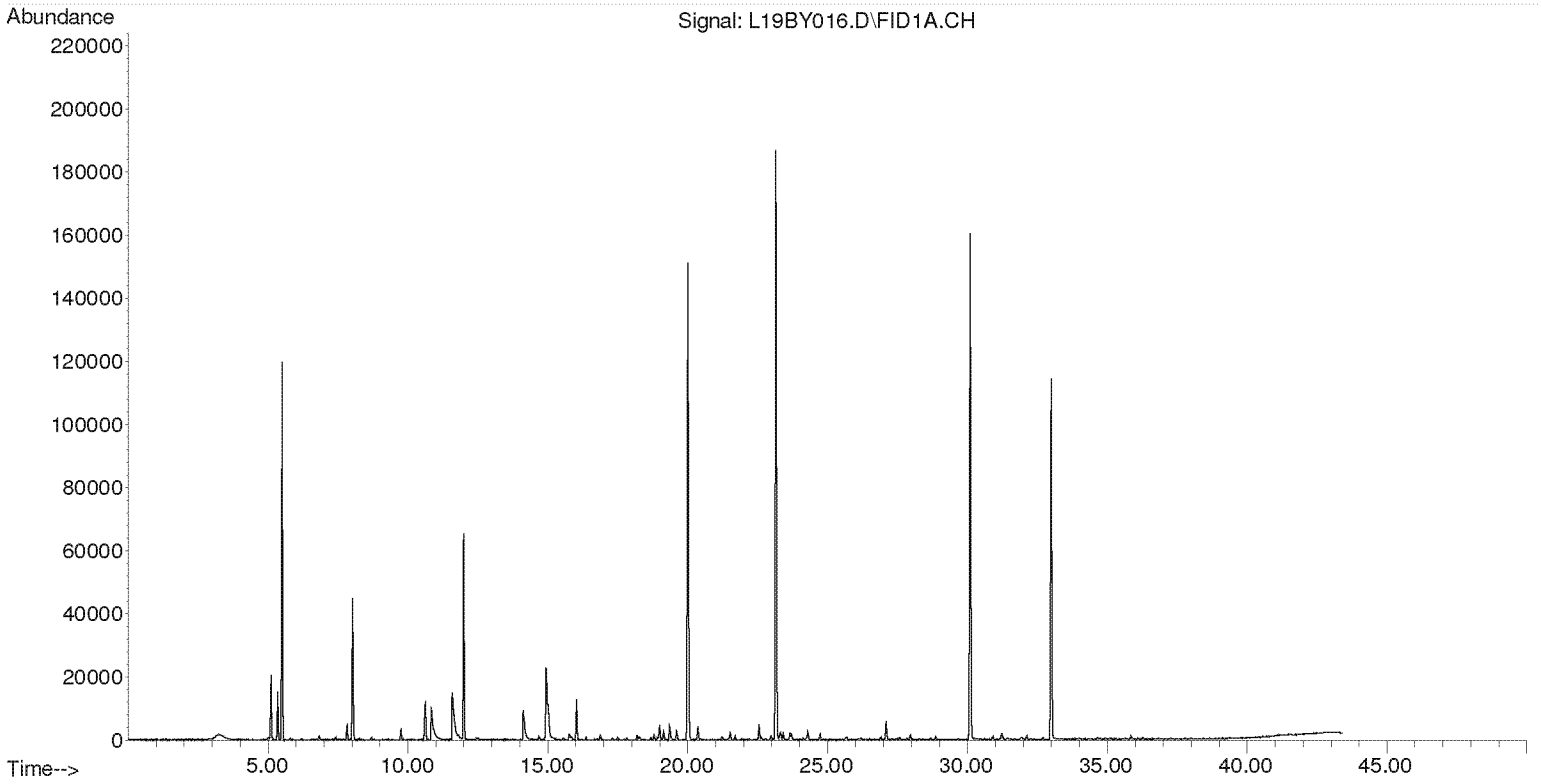
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

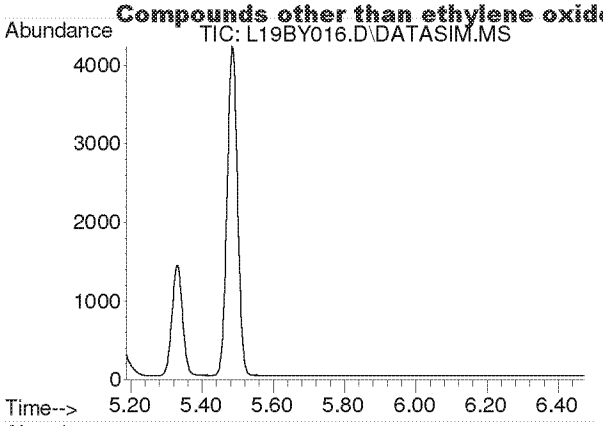
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY016.D
Acq On : 25 Feb 2019 10:30 pm (#1); 25 Feb 2019 10:25 pm (#2)
Operator : MAH
Sample : 9022202-09
Misc : WEST NEIGHBORHOOD 2/20/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 26 09:55:35 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





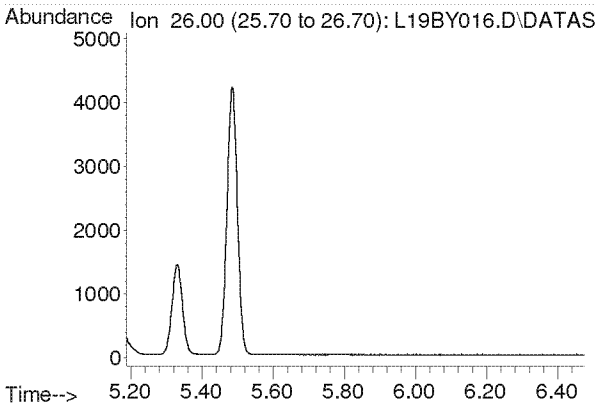
Compounds other than ethylene oxide were not quantitated.

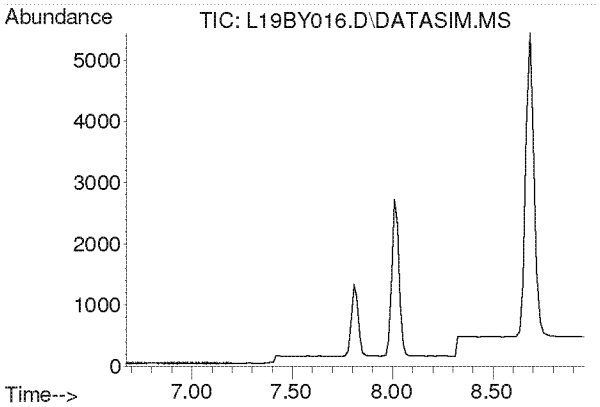


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 26



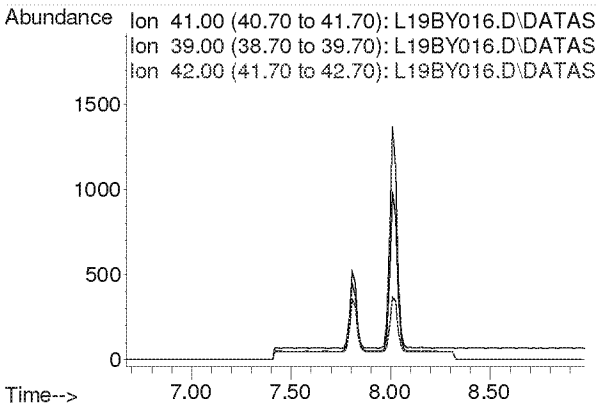


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

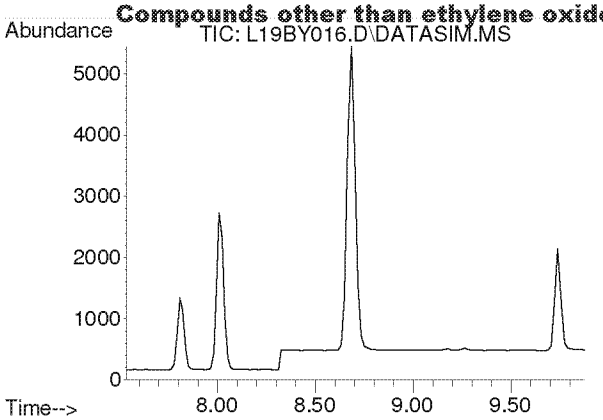
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

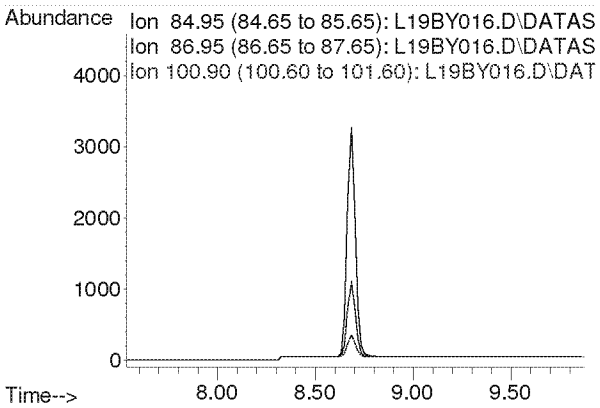


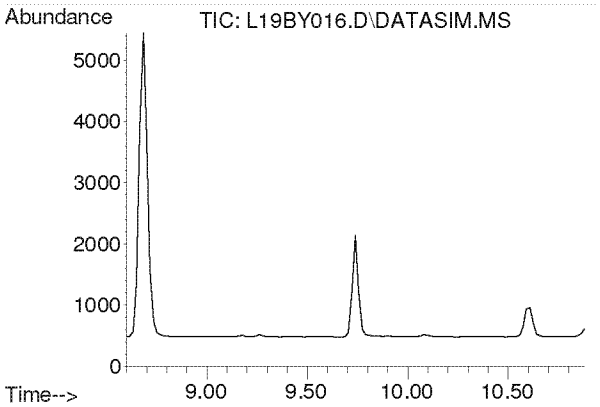
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



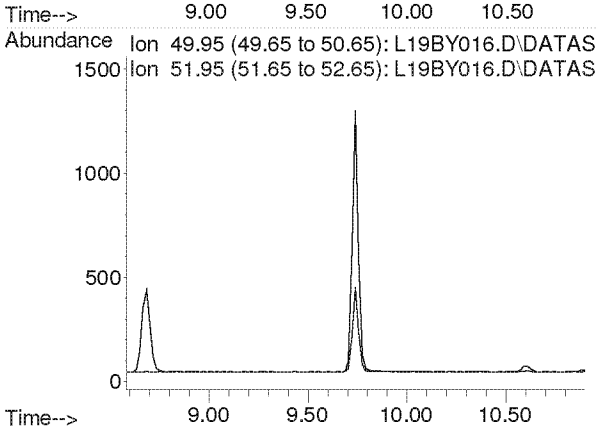


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

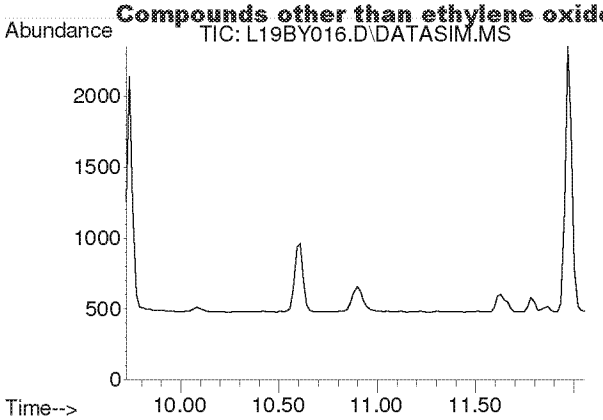
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

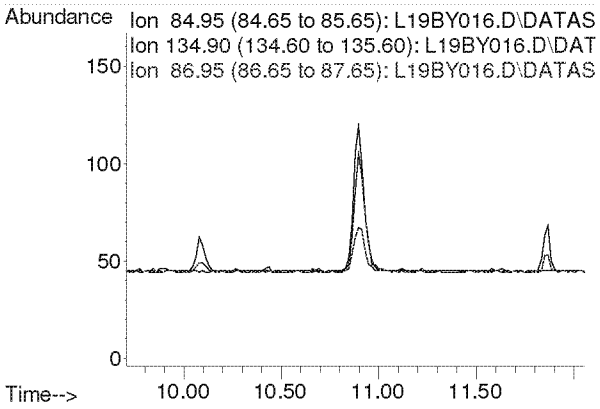


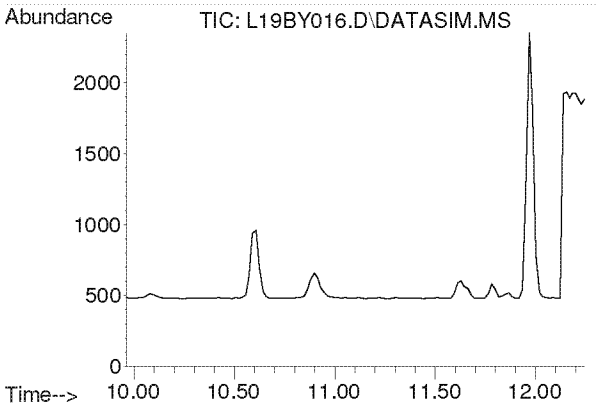
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



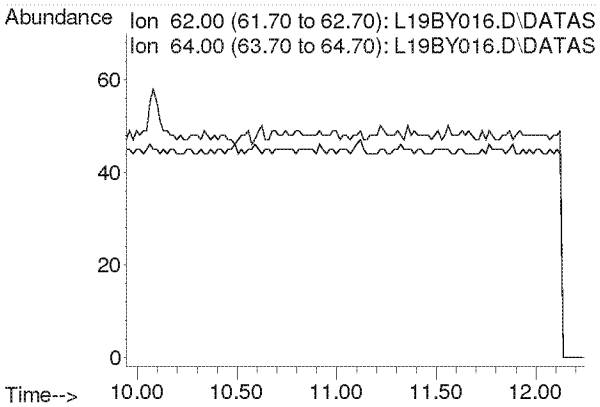


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

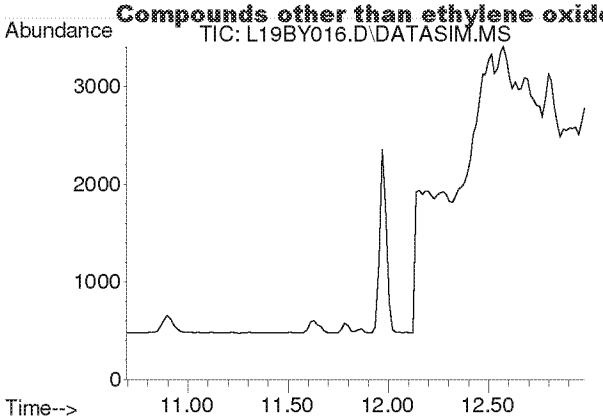
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

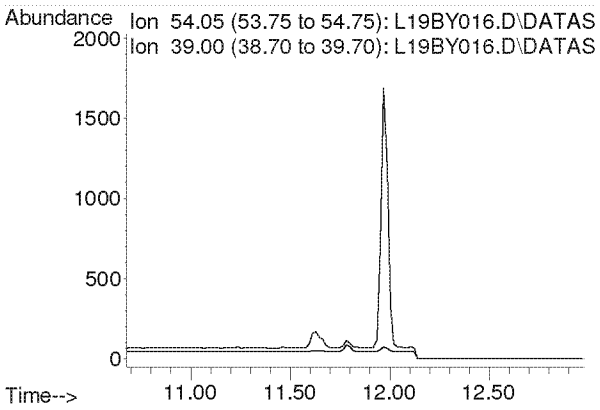


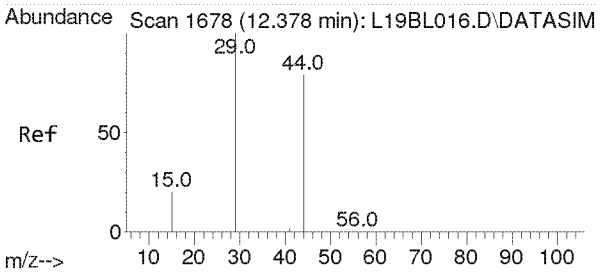
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

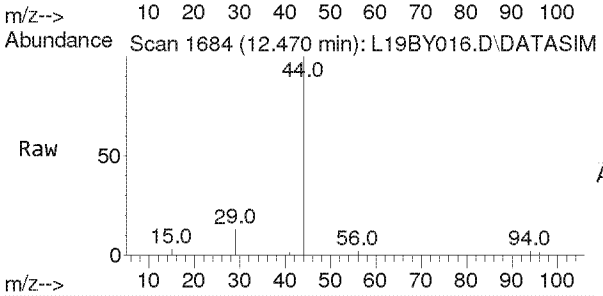


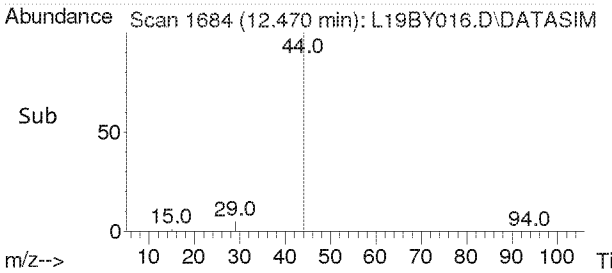


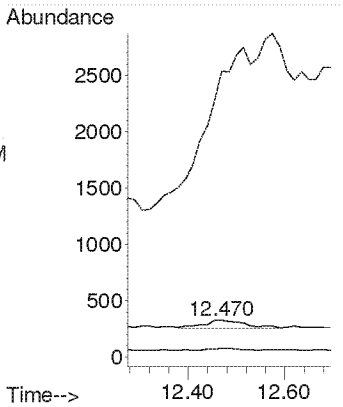
#9
Ethylene oxide
Concen: 0.165 ppbv
RT: 12.470 min Scan# 1684
Delta R.T. 0.020 min
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 29 Resp: 368

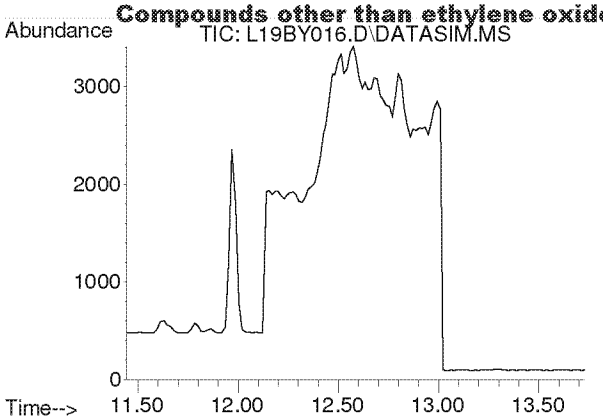
Ion	Ratio	Lower	Upper
29	100		
15	18.8	16.0	24.0
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

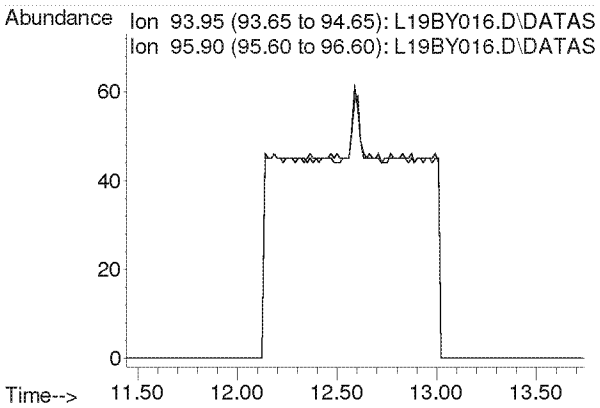


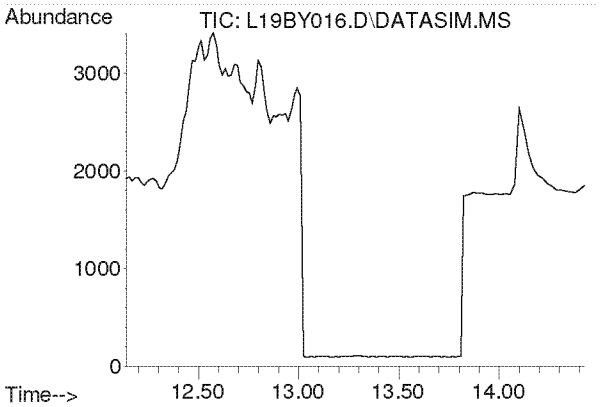
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



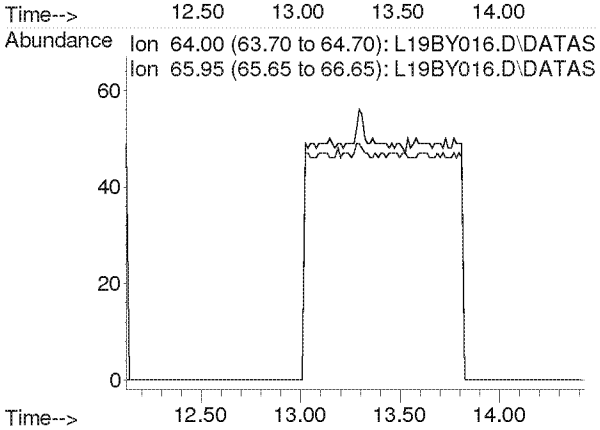


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

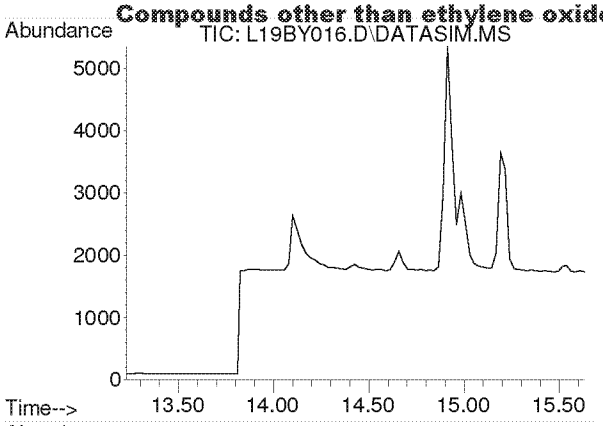
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

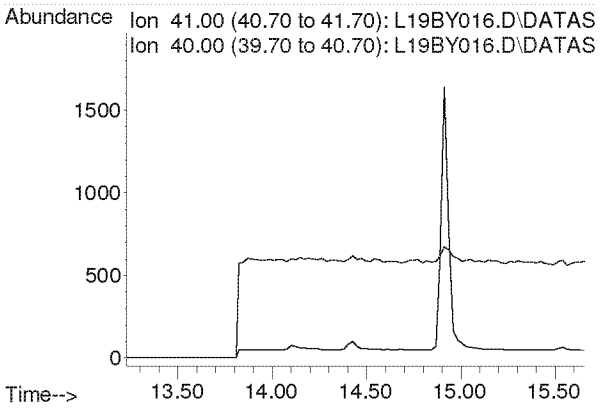


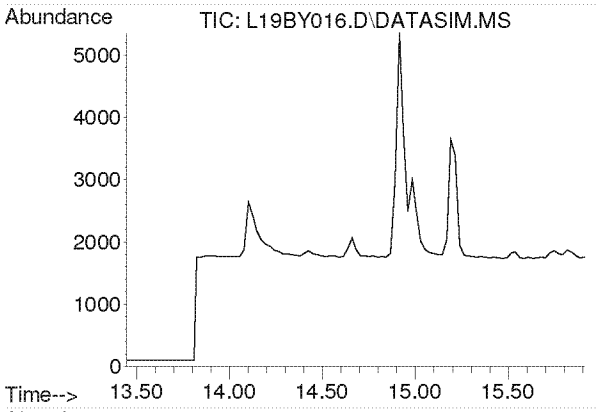
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



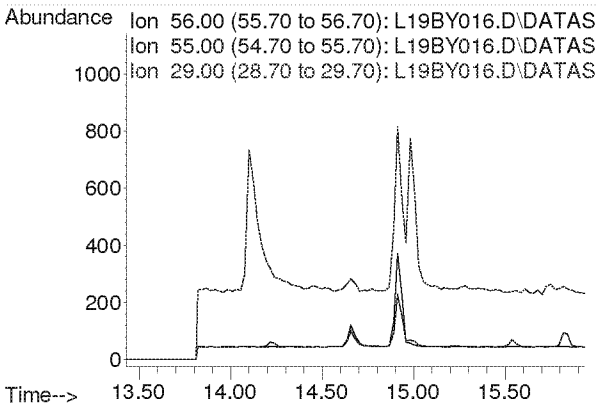


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

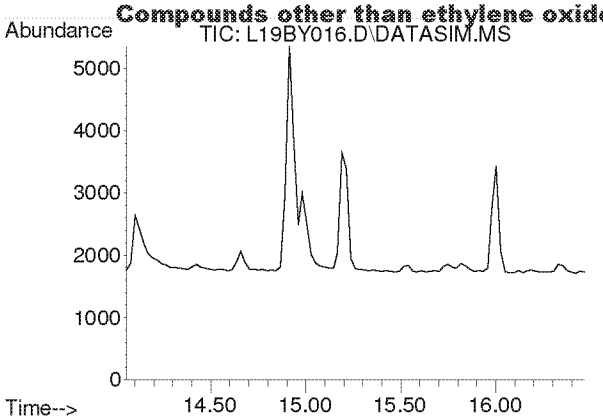
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

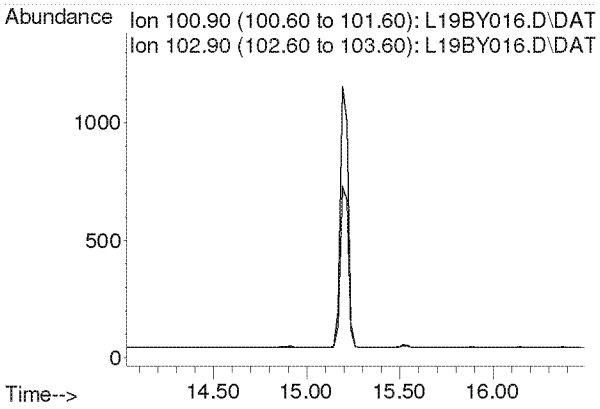


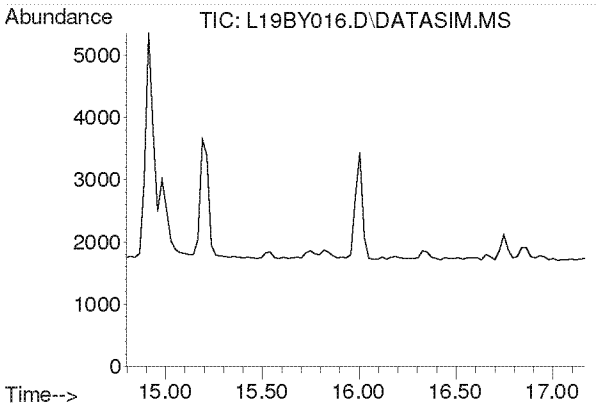
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



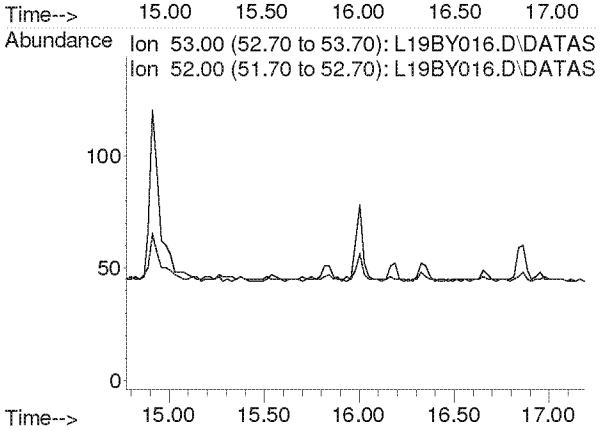


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

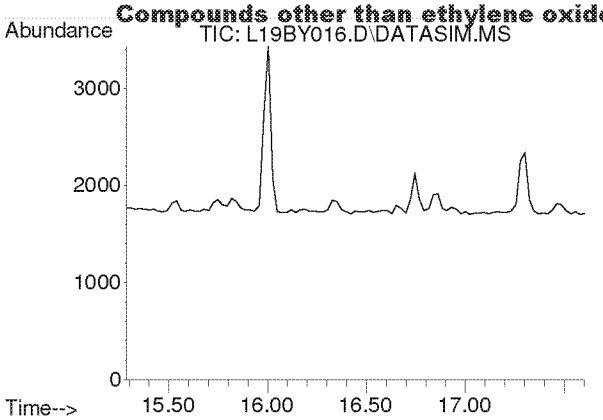
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

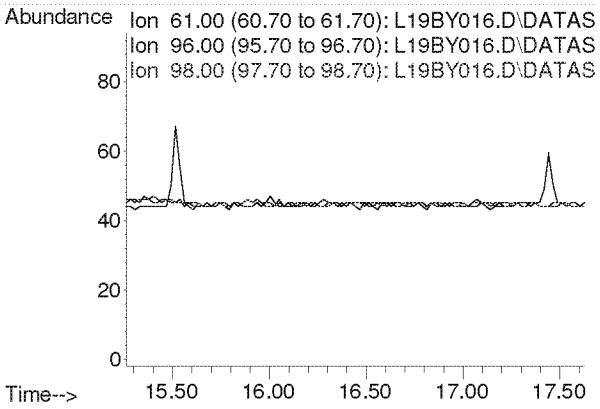


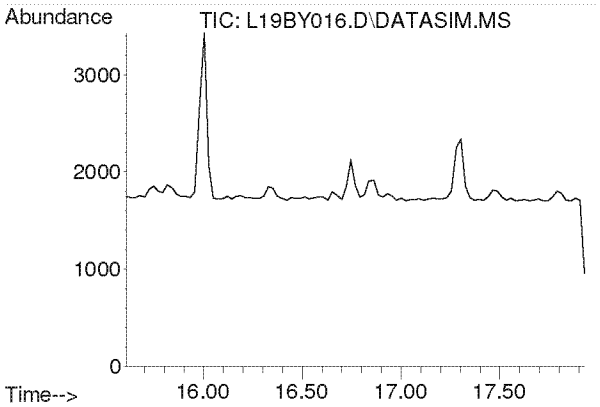
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



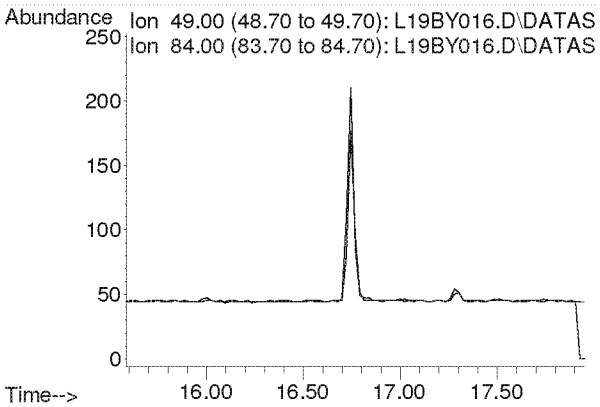


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

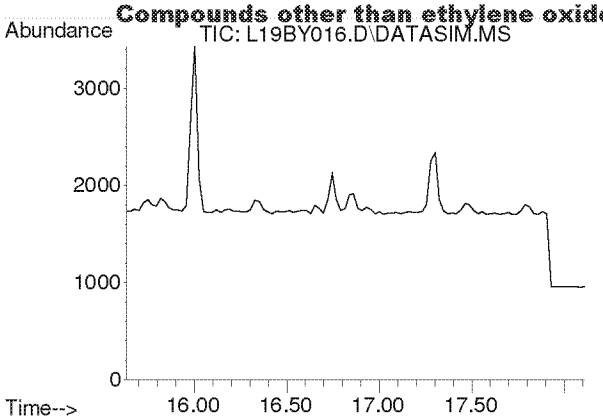
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

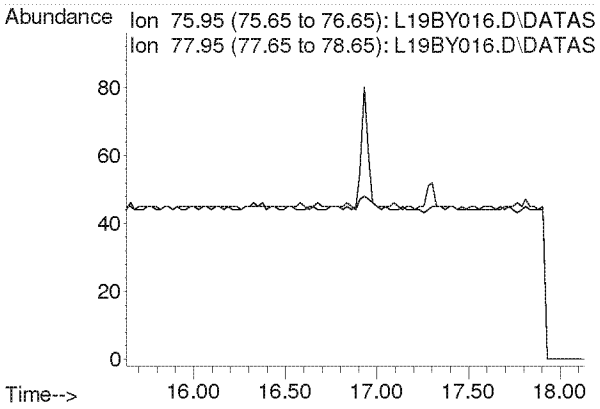


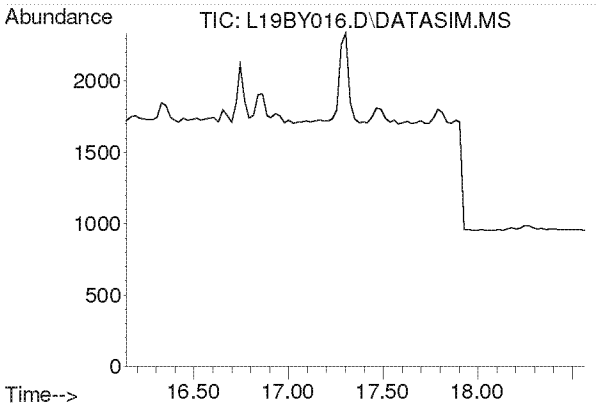
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



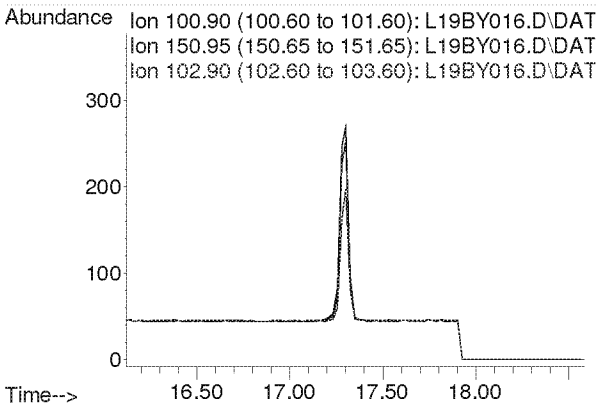


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

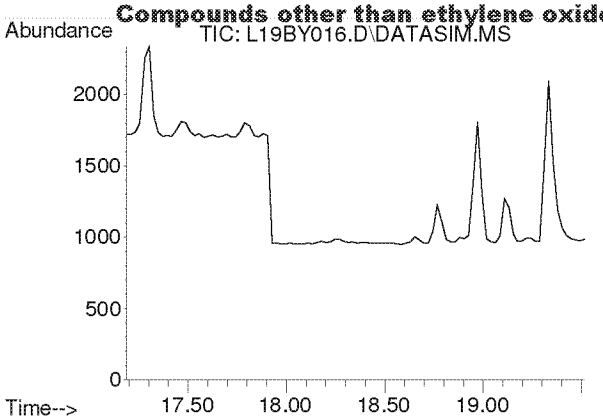
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

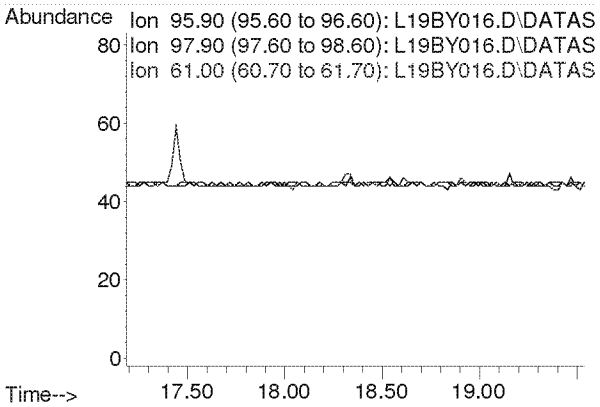


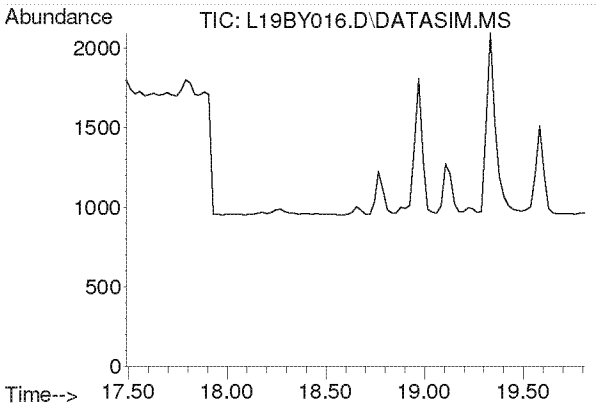
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



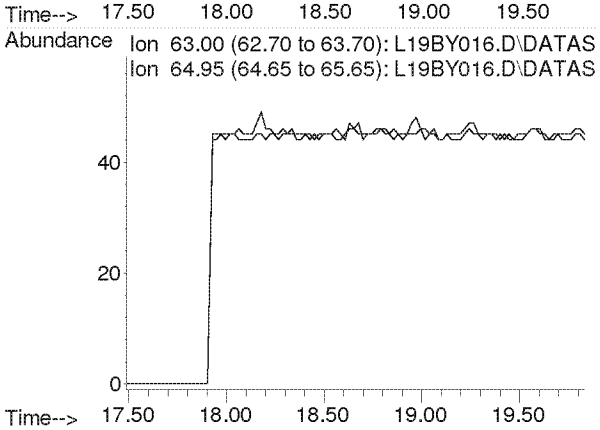


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

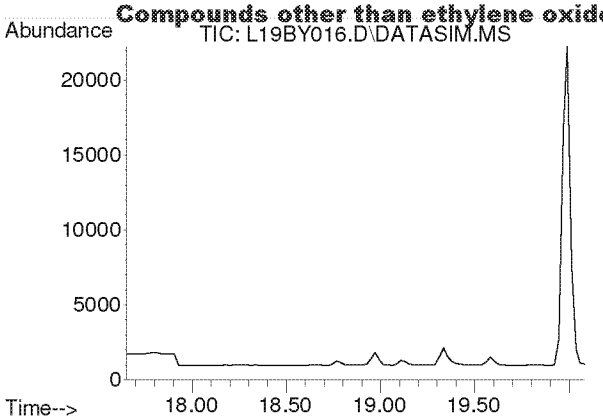
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

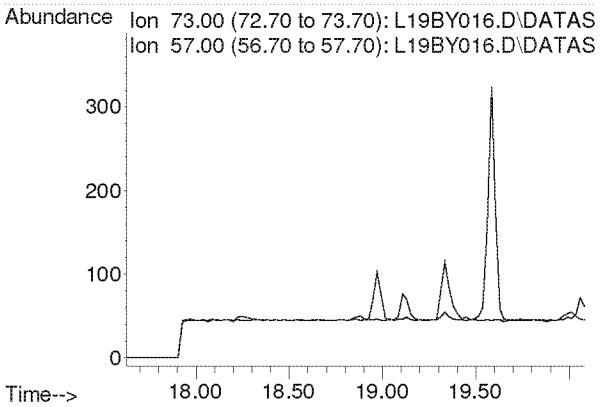


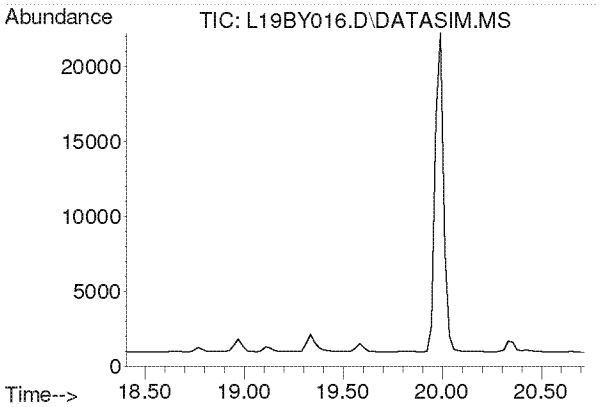
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



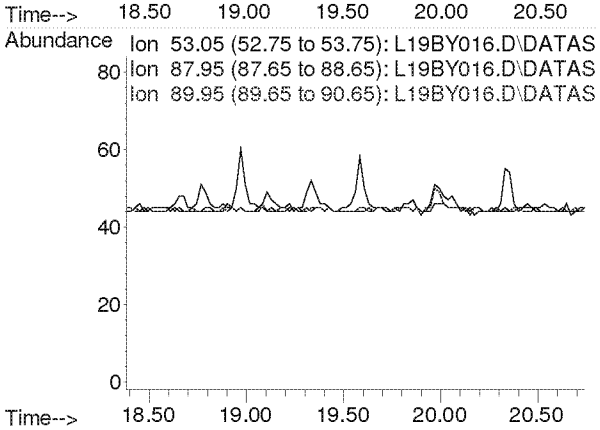


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

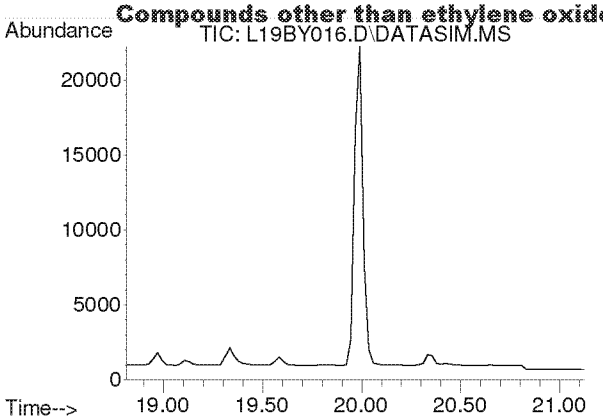
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

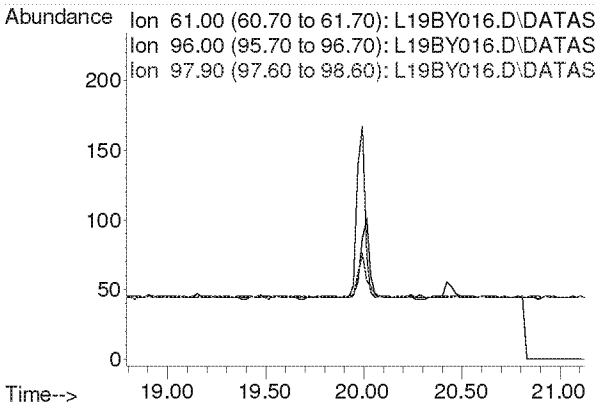


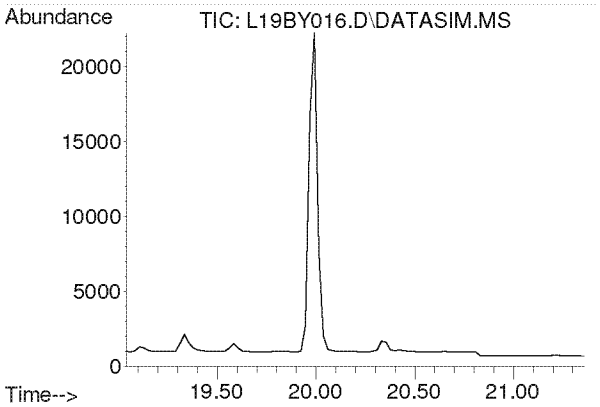
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



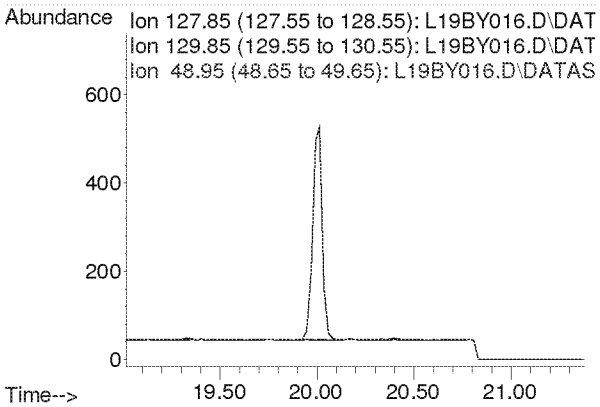


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

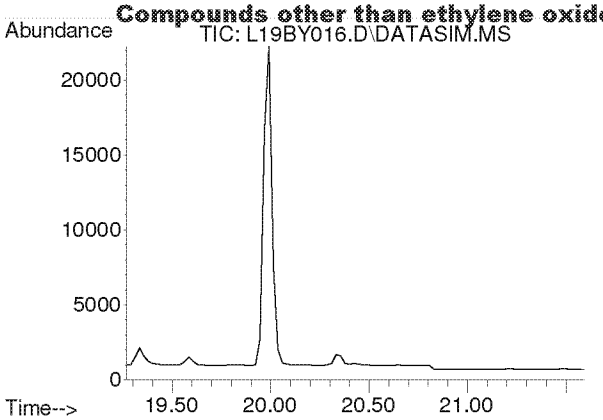
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

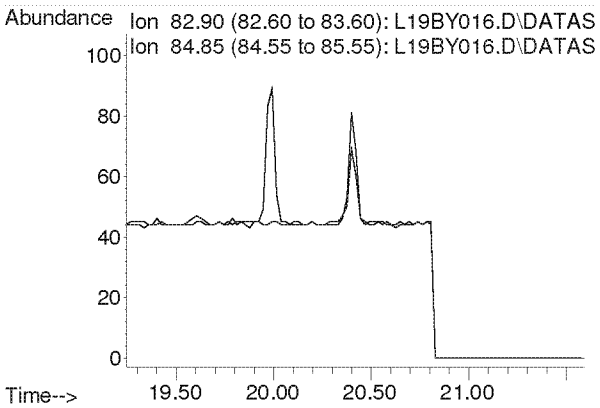


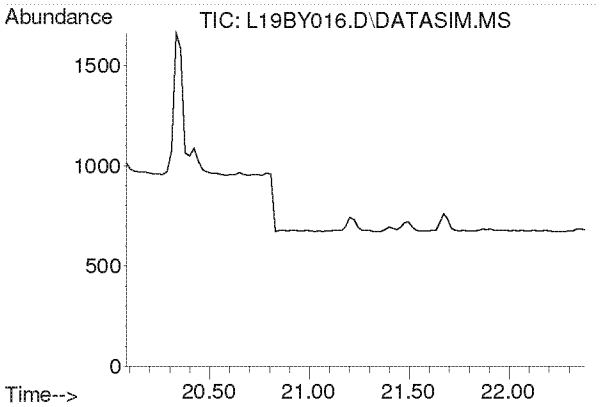
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



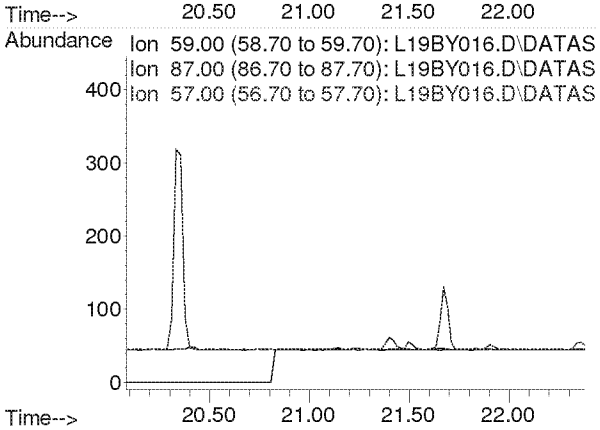


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

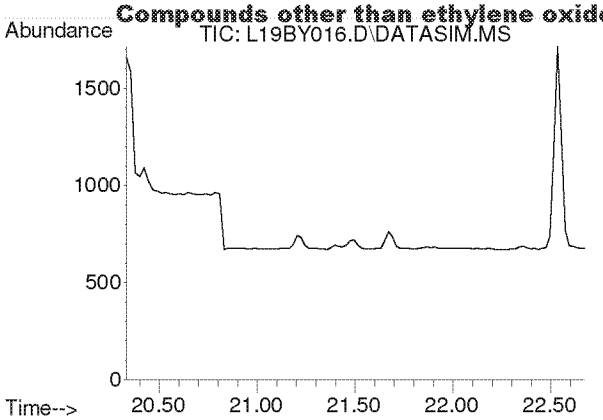
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

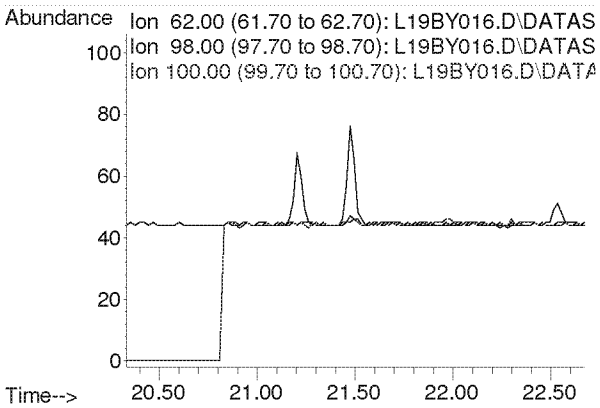


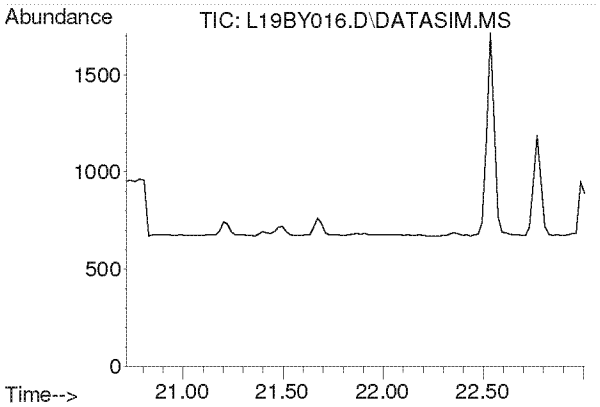
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



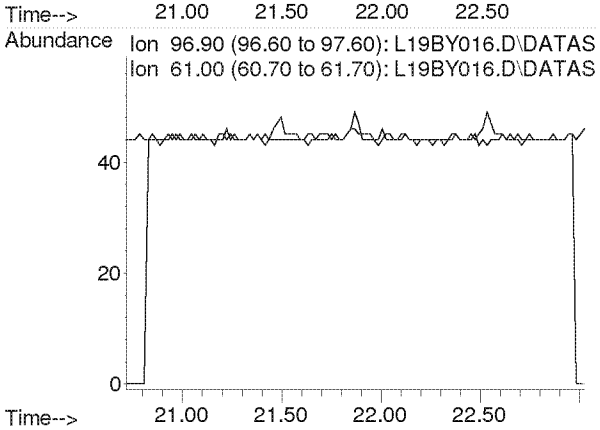


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

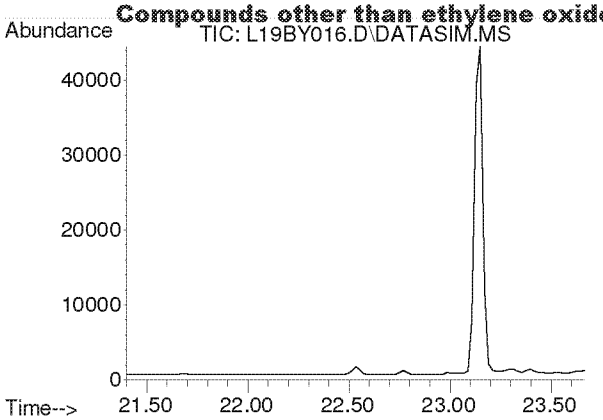
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

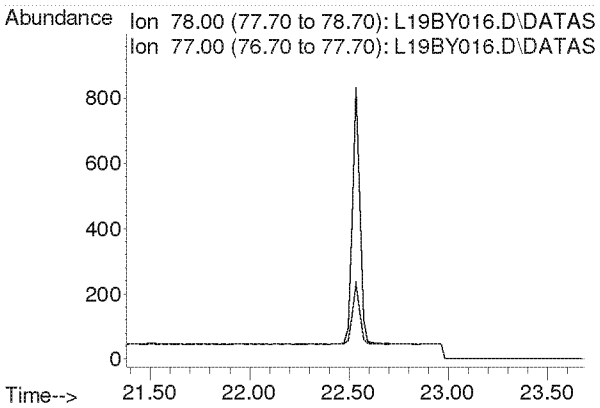


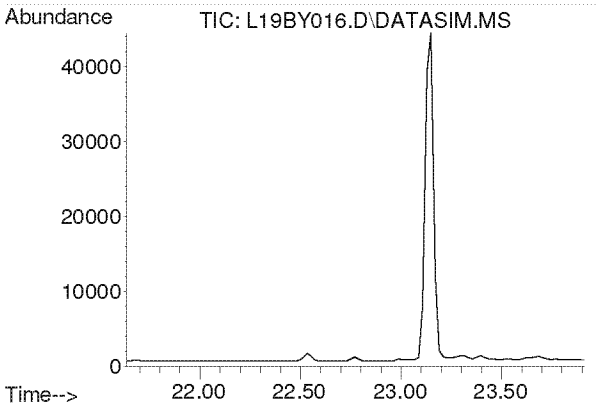
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



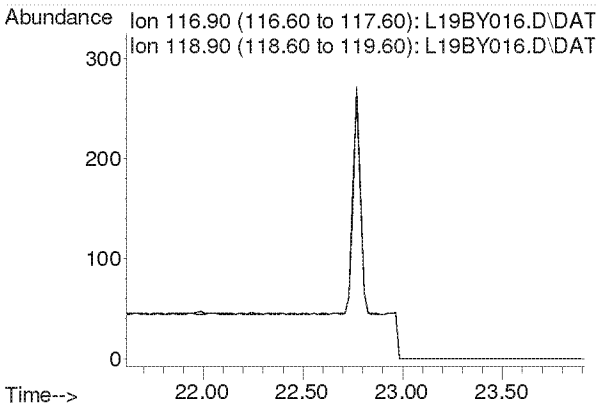


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

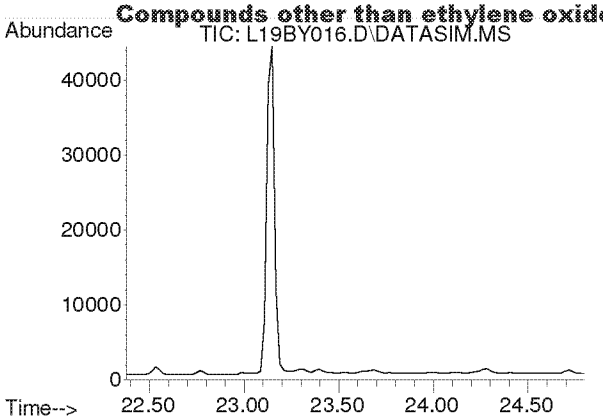
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

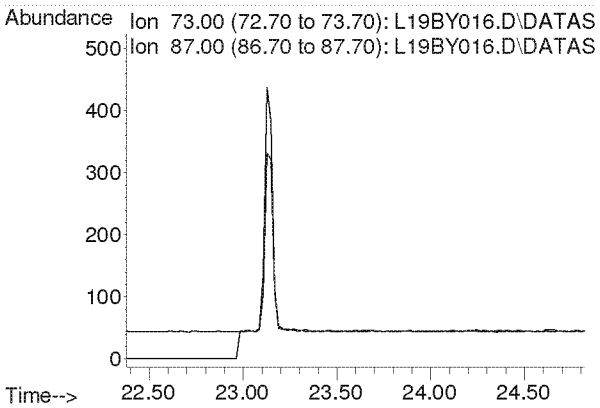


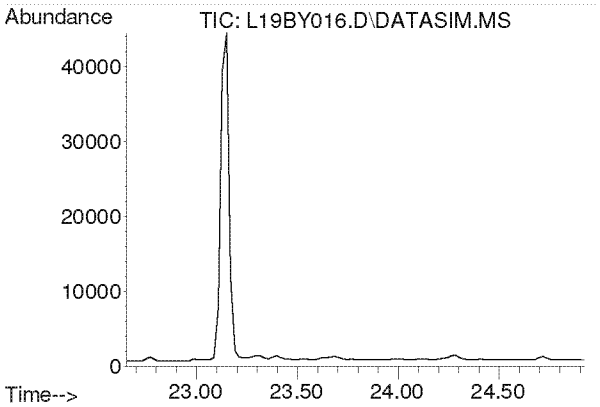
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



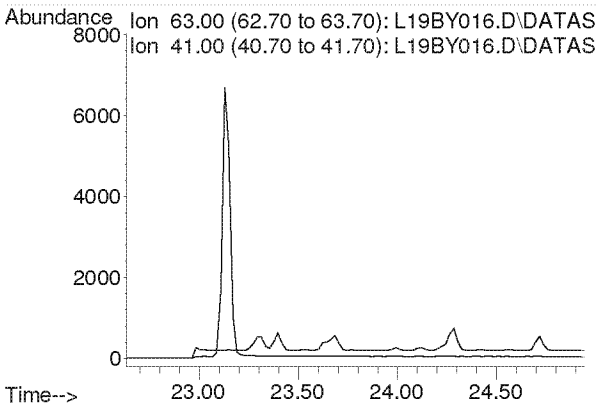


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

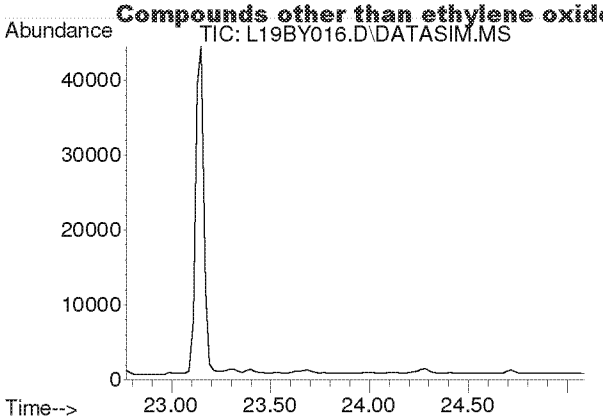
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

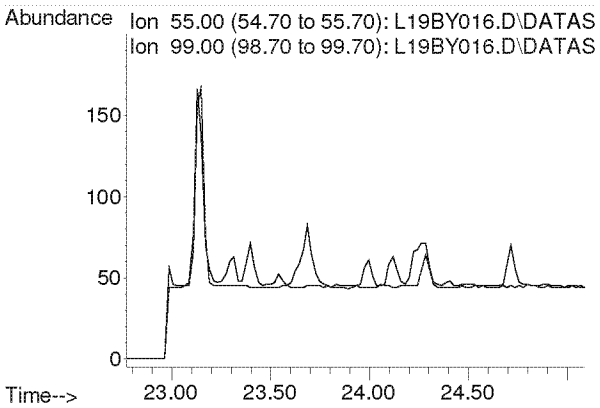


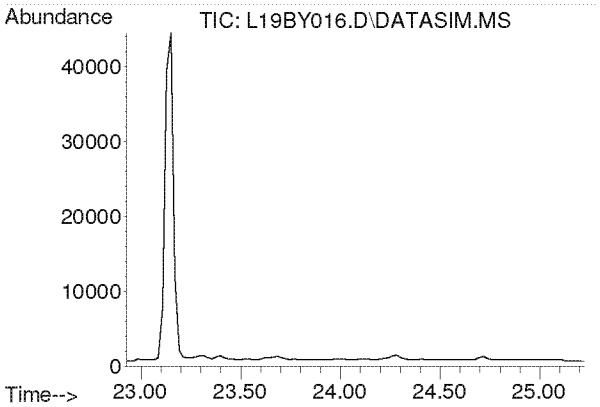
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



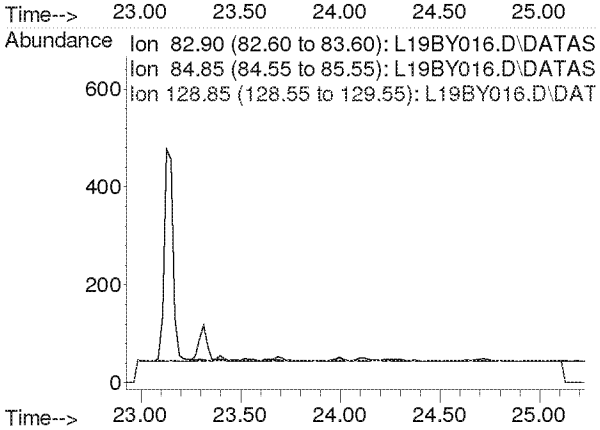


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

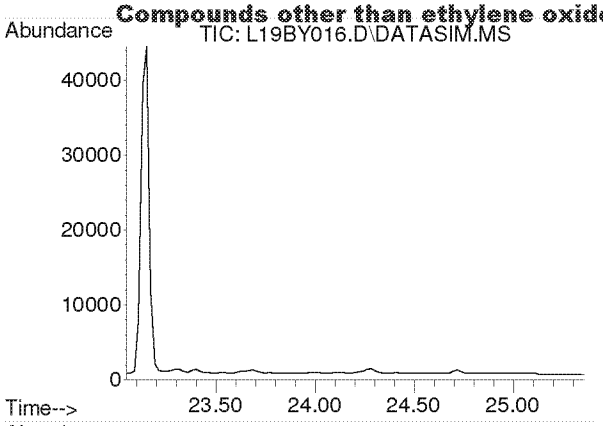
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

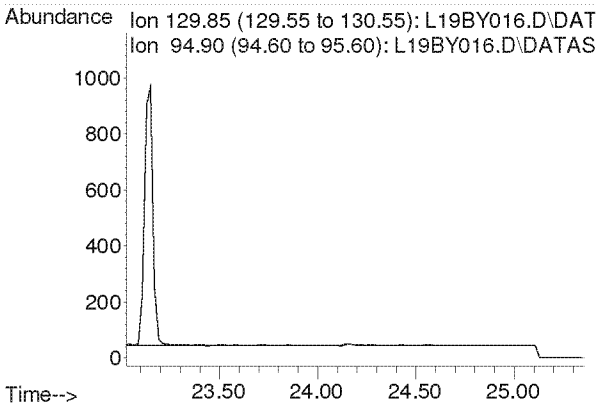


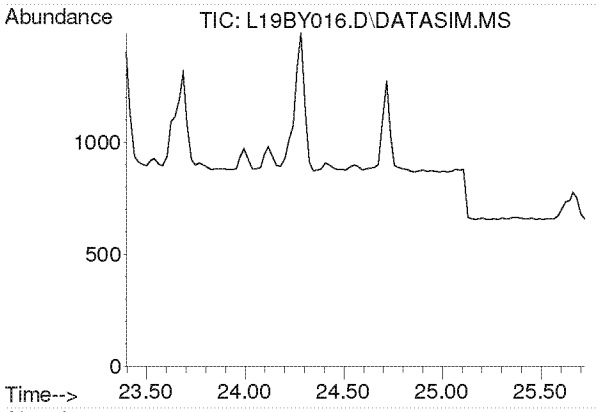
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



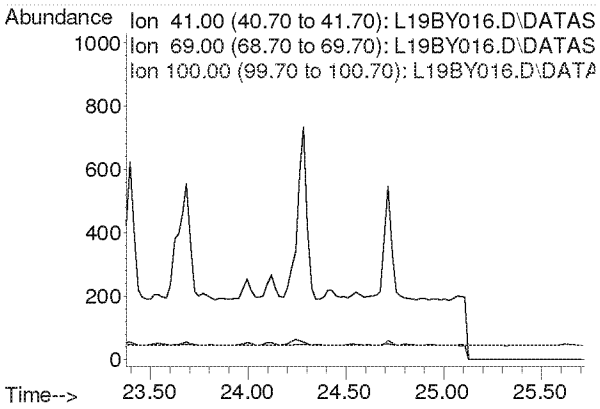


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

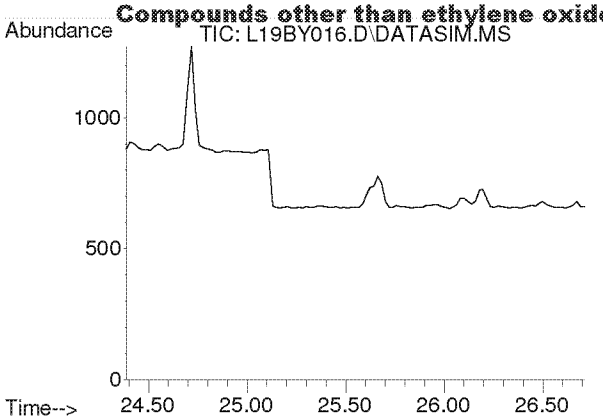
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

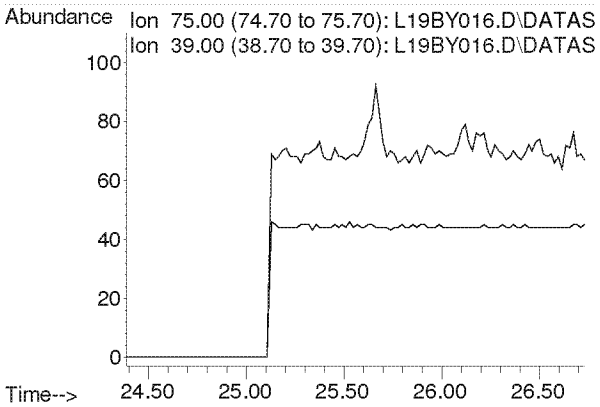


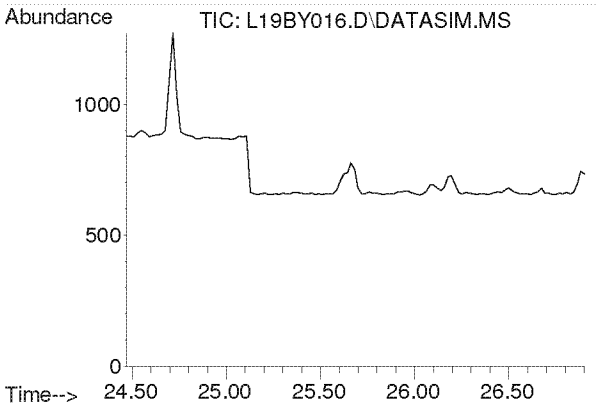
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



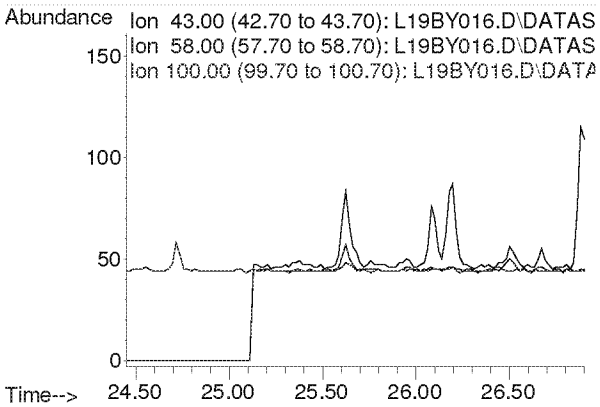


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

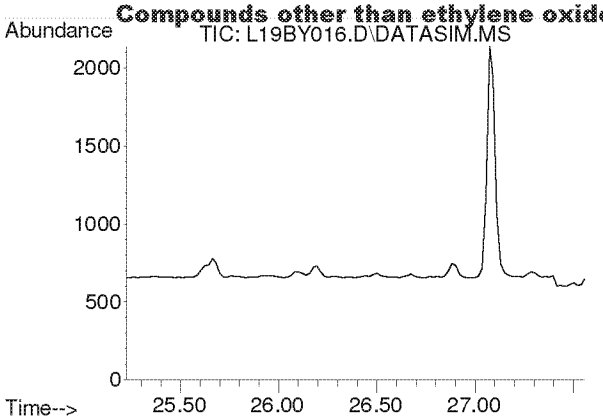
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

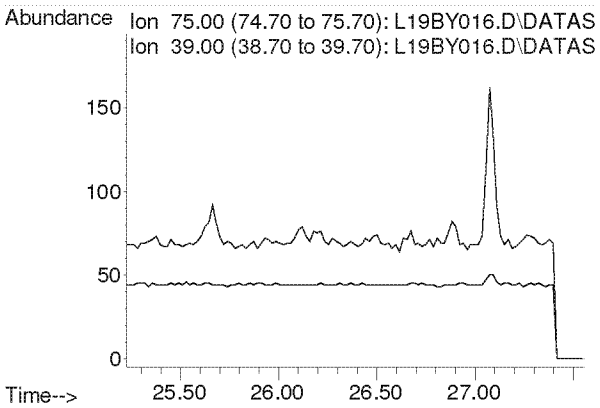


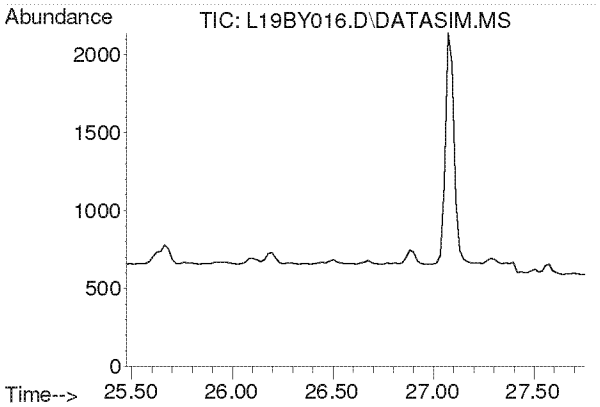
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



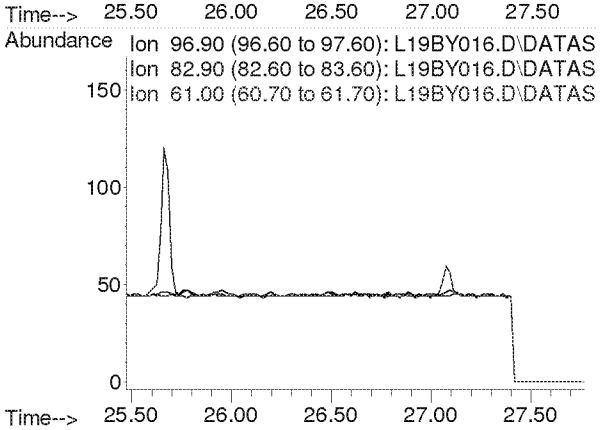


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

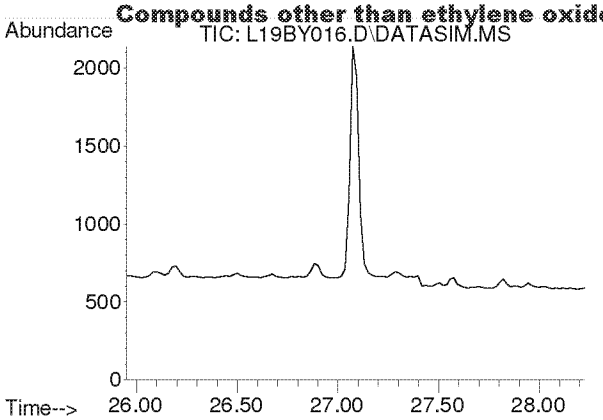
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

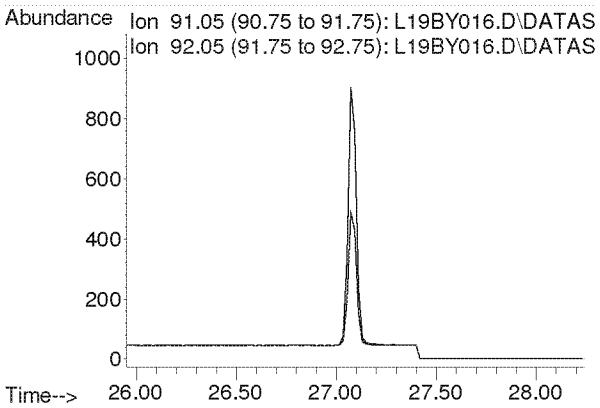


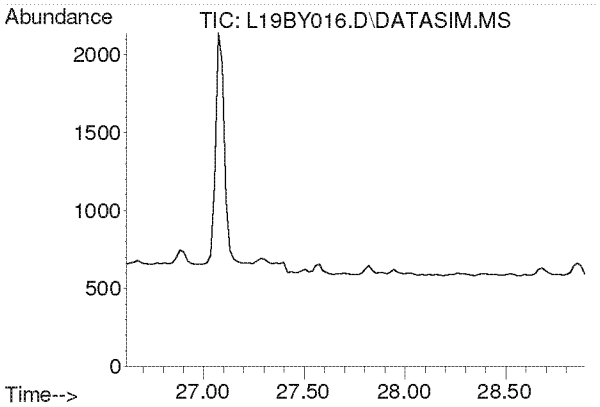
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



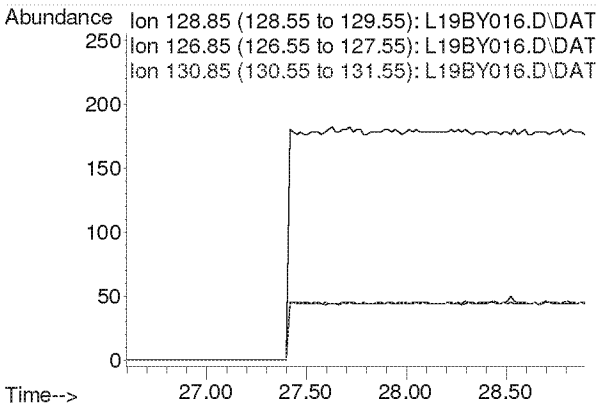


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

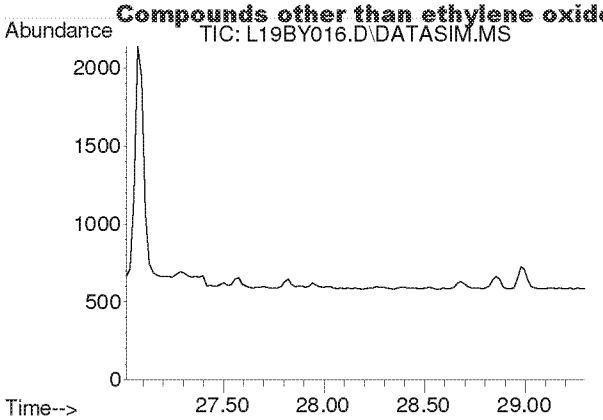
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

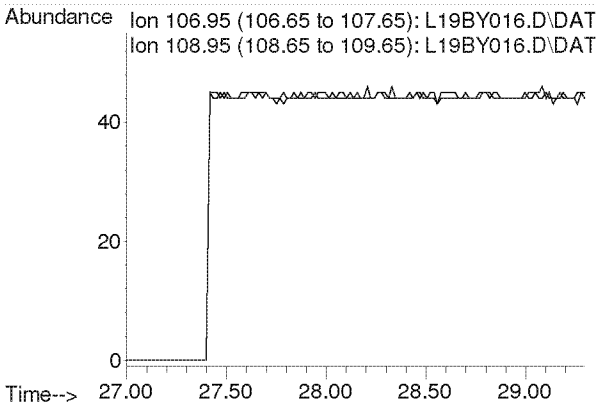


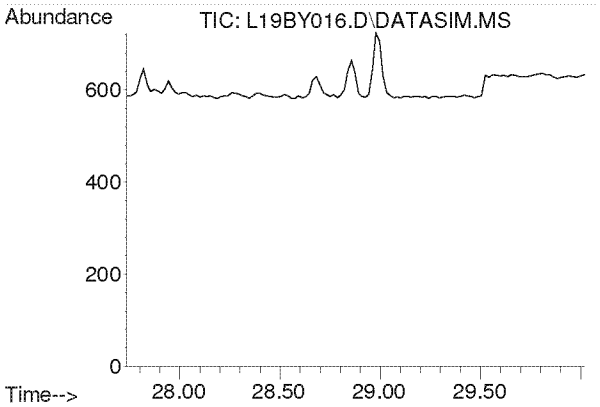
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



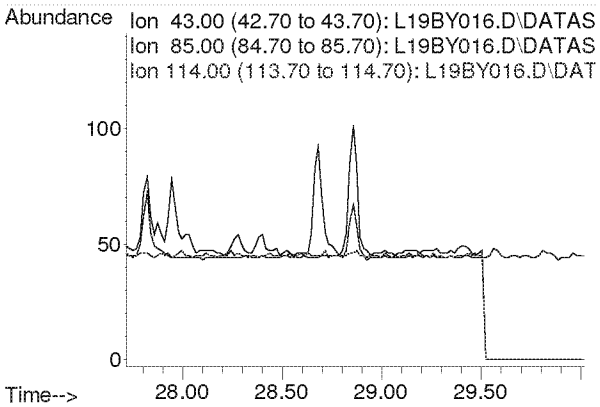


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

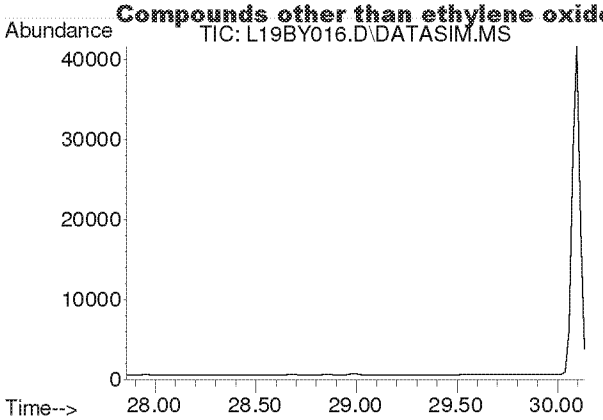
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

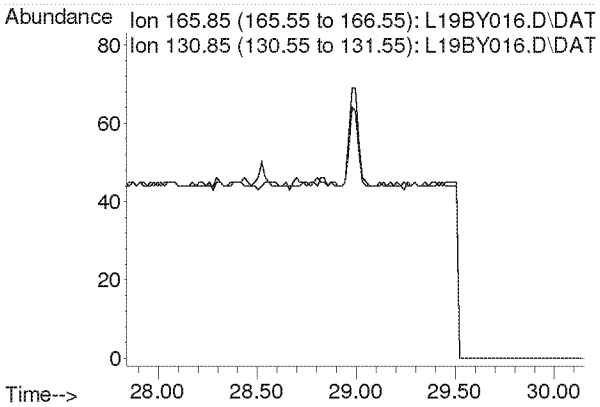


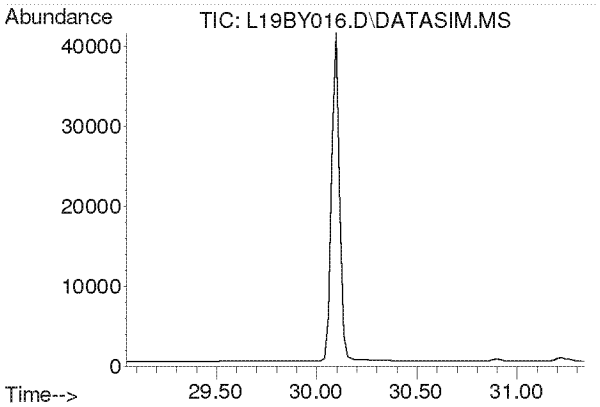
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



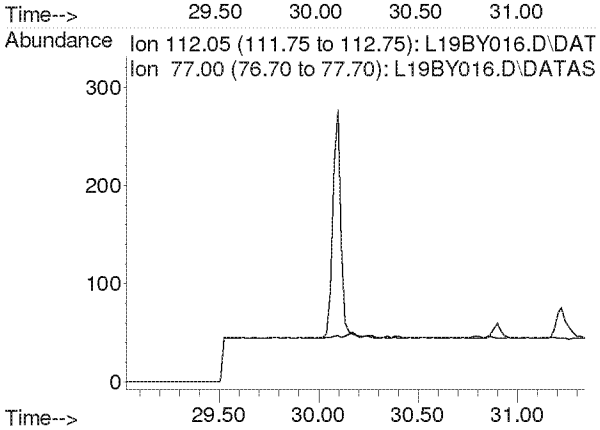


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

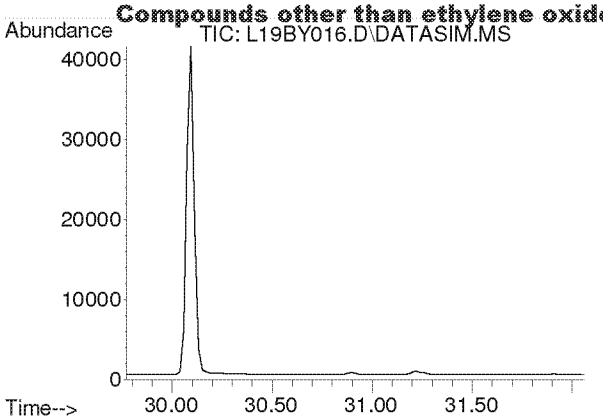
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

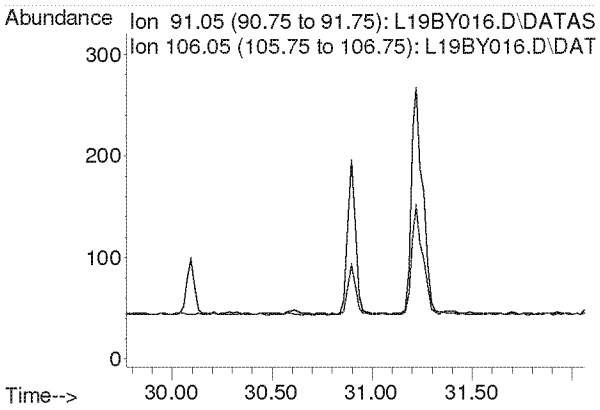


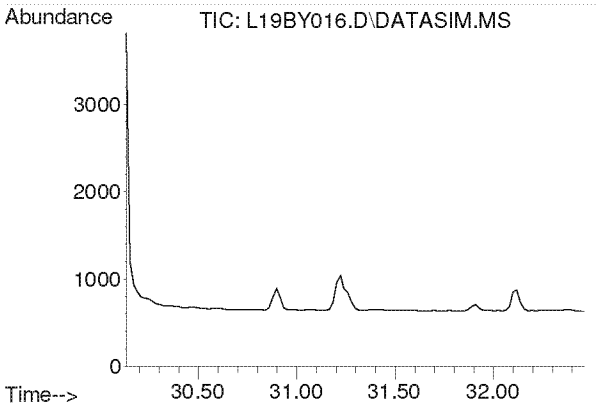
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



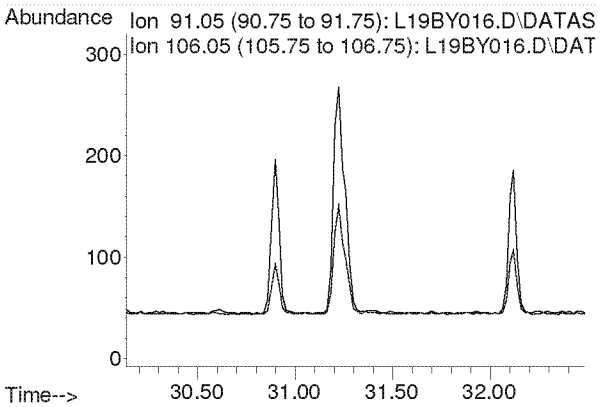


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

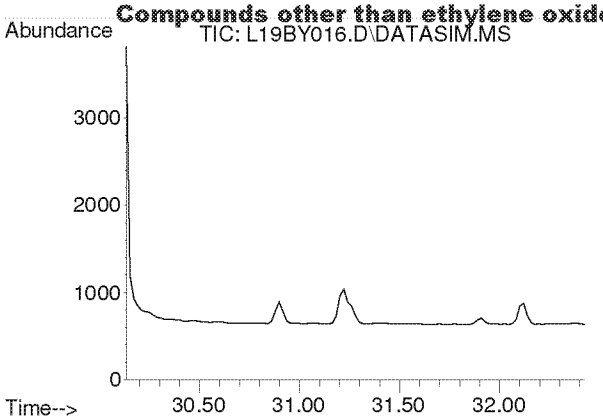
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

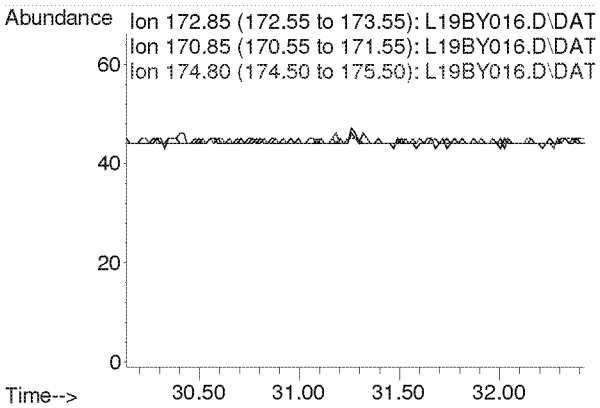


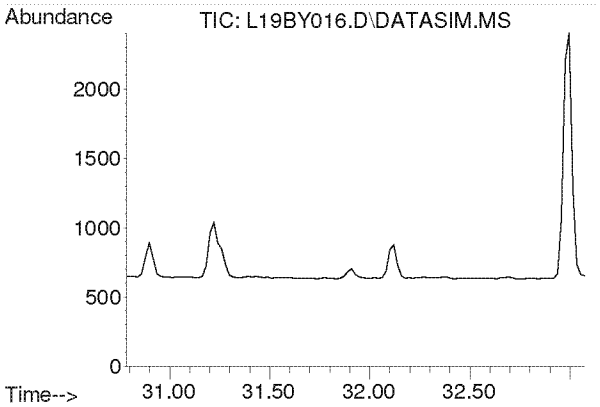
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



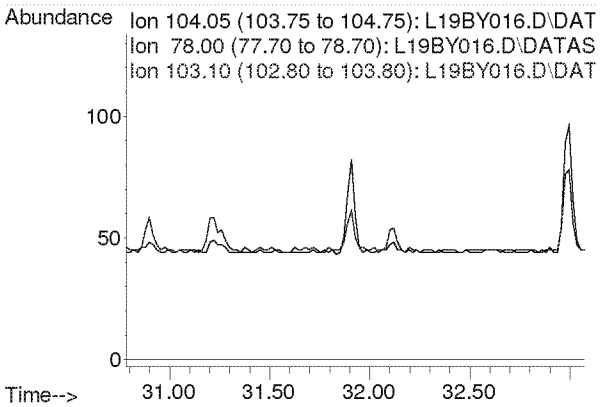


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

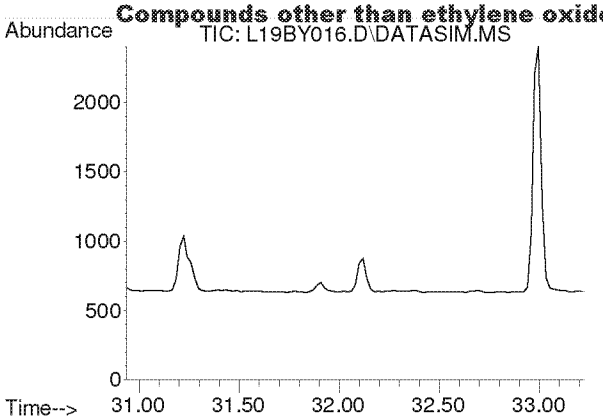
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

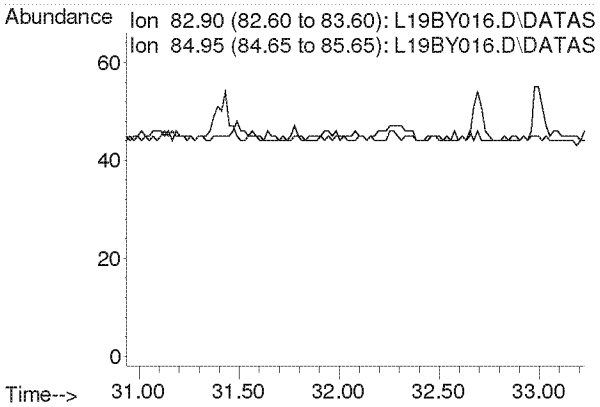


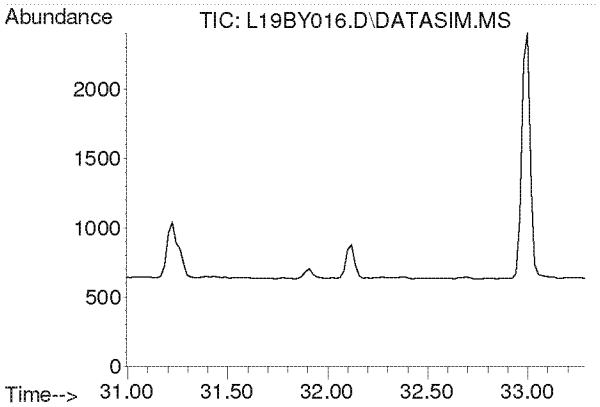
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



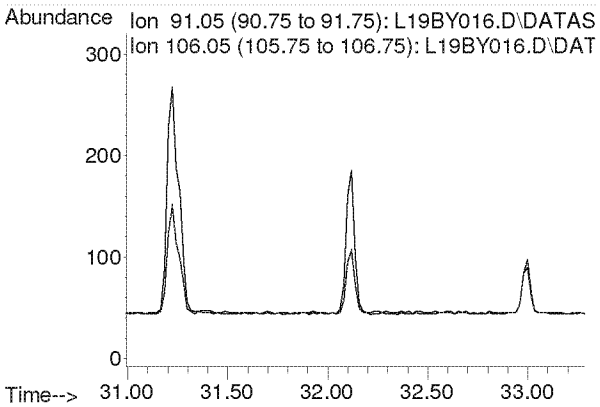


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

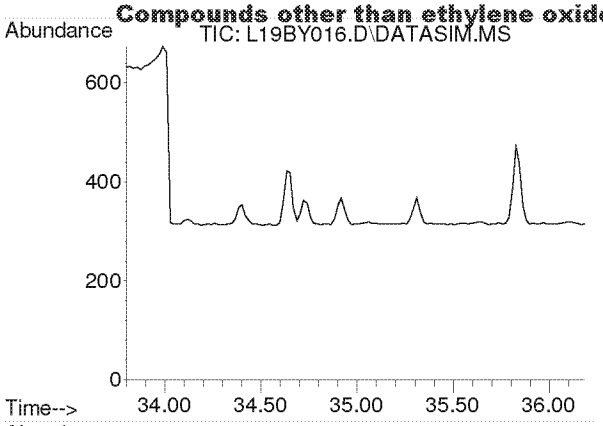
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

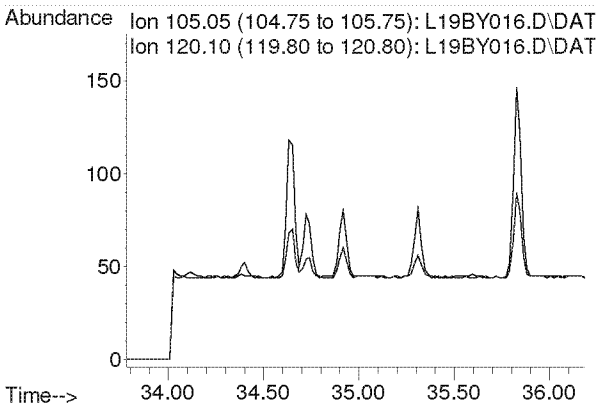


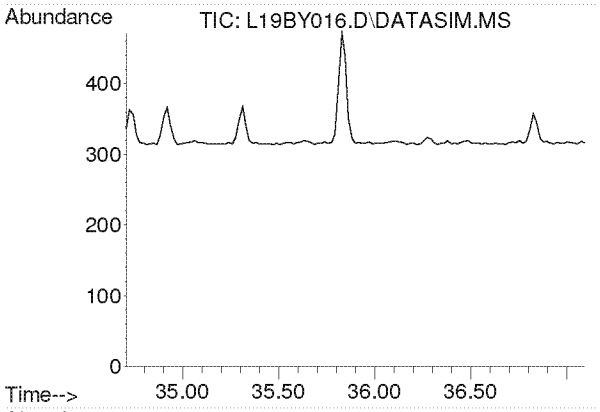
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



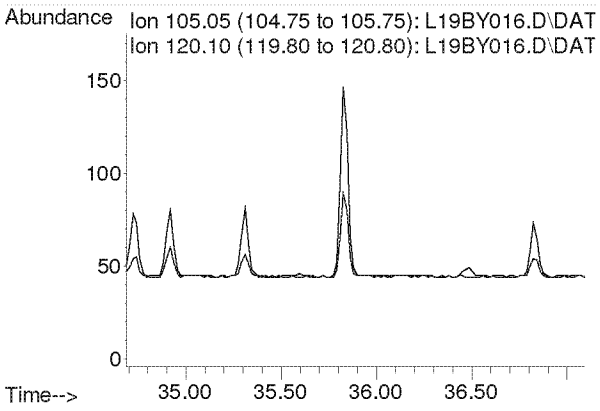


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

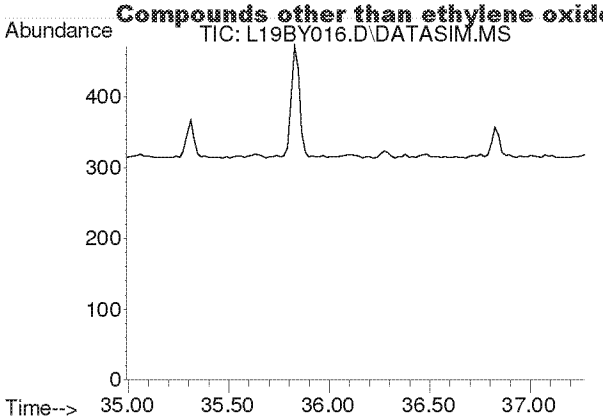
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

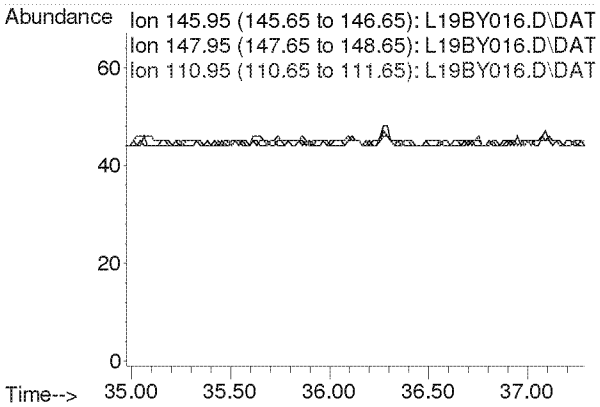


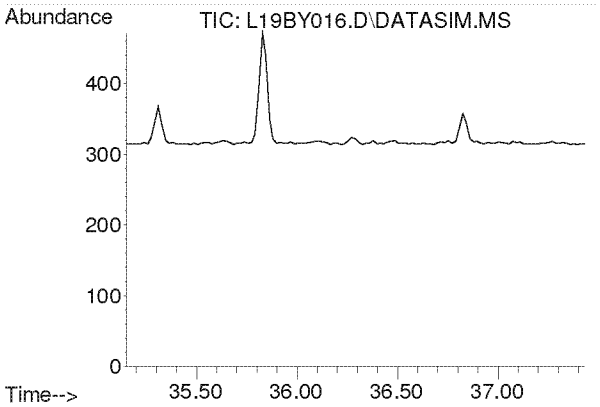
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



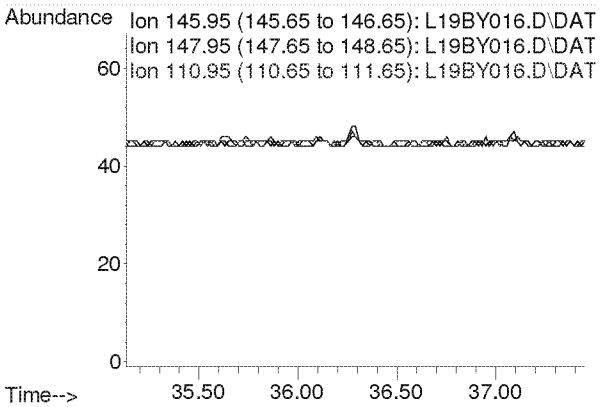


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

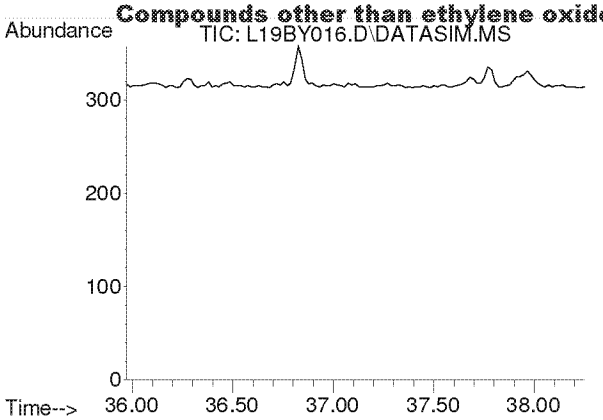
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

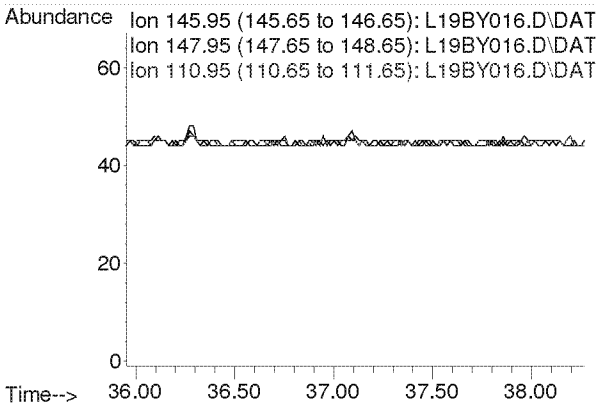


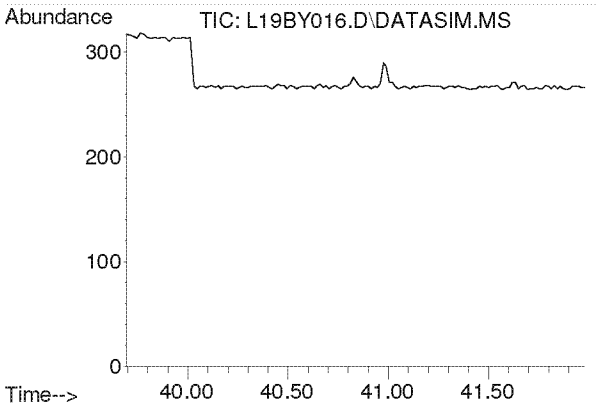
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



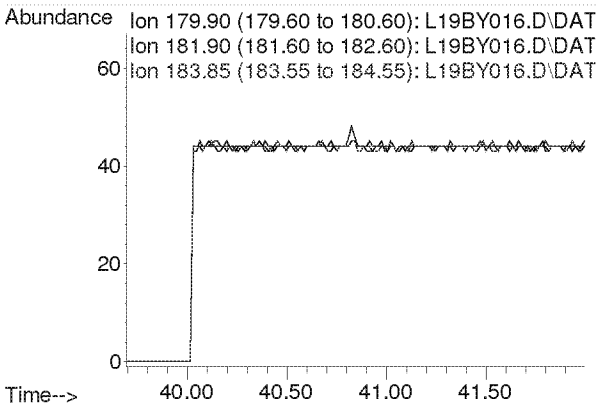


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

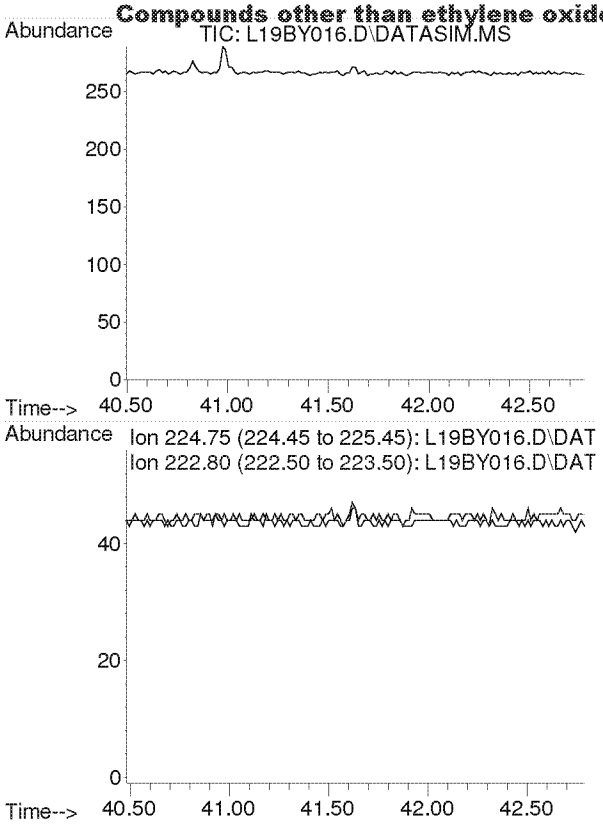
Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19BY016.D
Acq: 25 Feb 2019 10:30 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY017.D
Acq On : 25 Feb 2019 11:30 pm (#1); 25-Feb-19, 23:25:22 (#2)
Operator : MAH
Sample : 9022202-11
Misc : GOWER MS 2/21/09 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 26 10:13:20 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

EtOx only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	40361	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	102229	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	70130	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	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY017.D
Acq On : 25 Feb 2019 11:30 pm (#1); 25-Feb-19, 23:25:22 (#2)
Operator : MAH
Sample : 9022202-11
Misc : GOWER MS 2/21/09 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 26 10:13:20 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

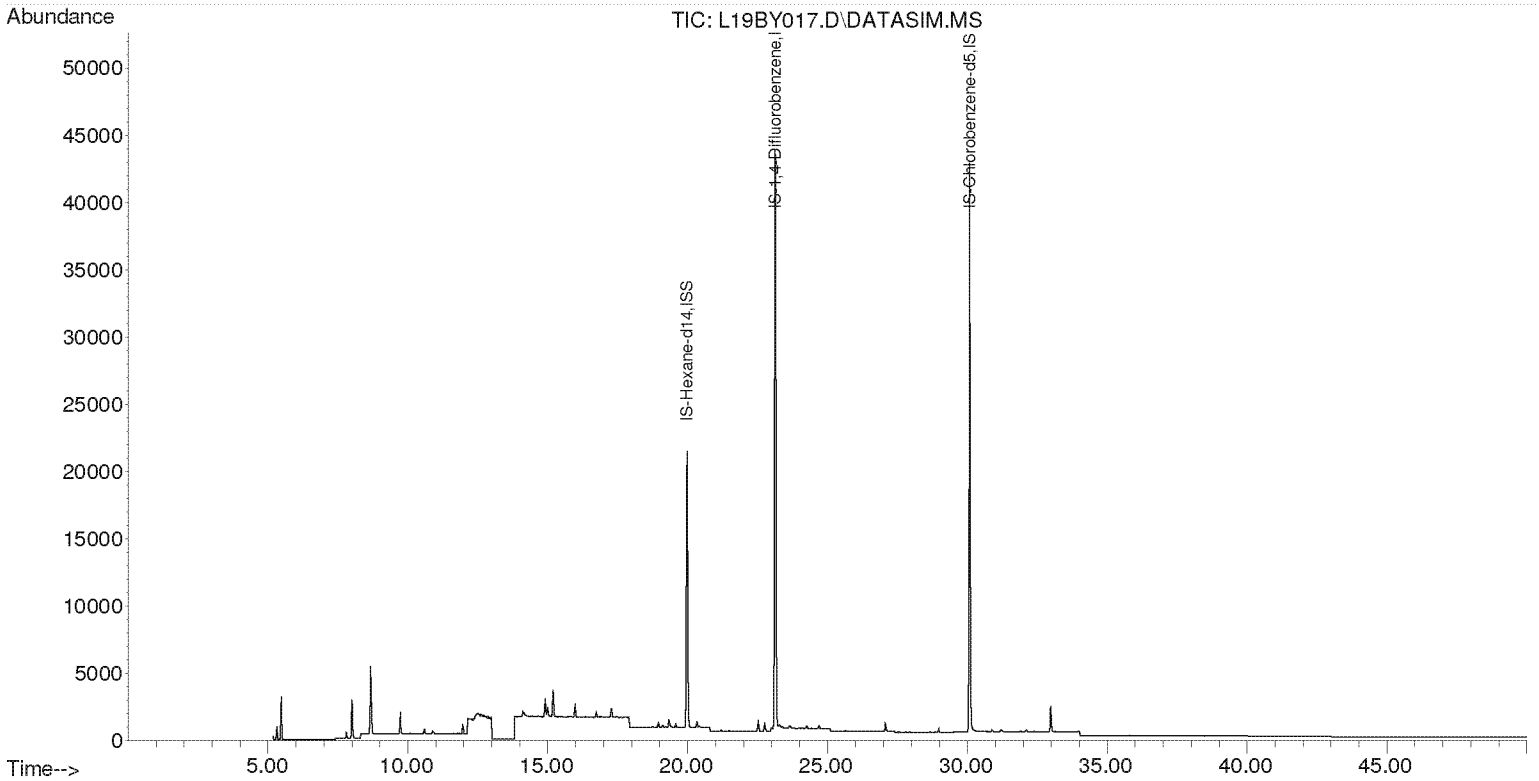
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

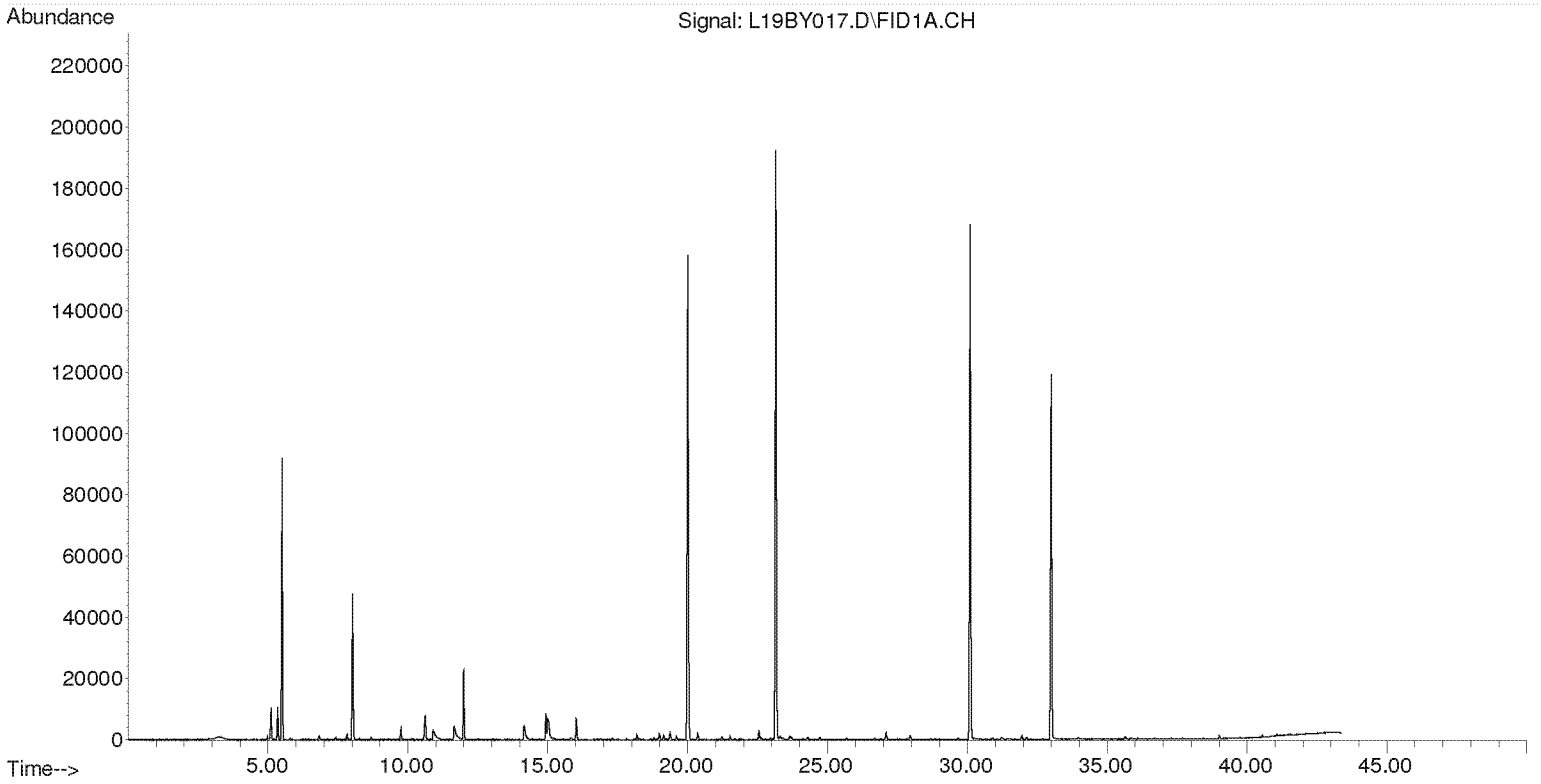
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

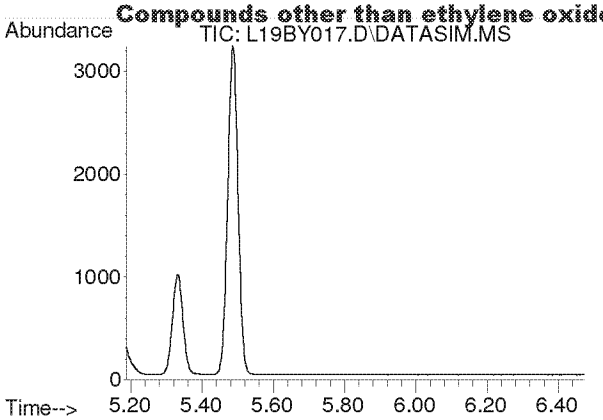
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY017.D
Acq On : 25 Feb 2019 11:30 pm (#1); 25 Feb 2019 11:25 pm (#2)
Operator : MAH
Sample : 9022202-11
Misc : GOWER MS 2/21/09 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 26 09:55:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





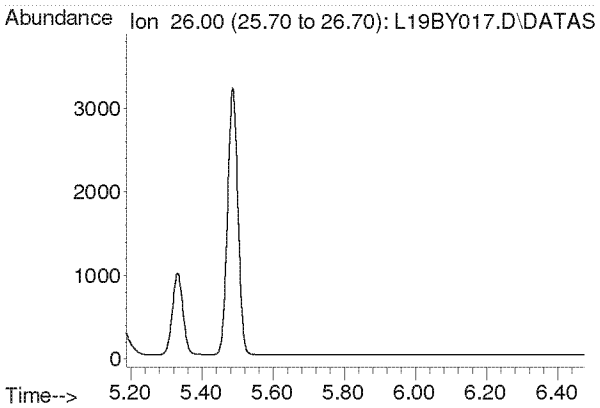
Compounds other than ethylene oxide were not quantitated.

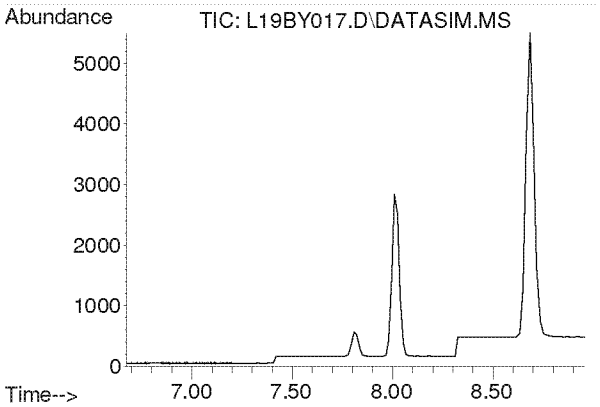


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 26



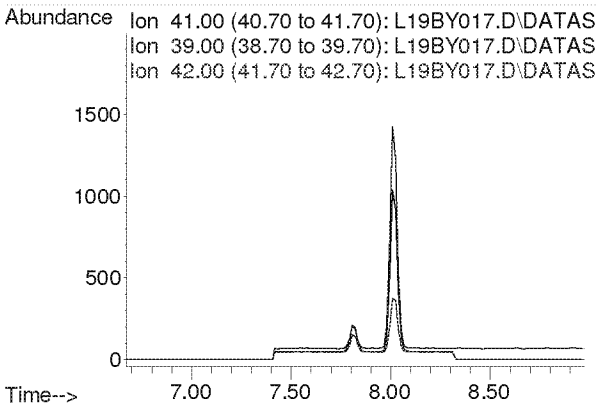


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

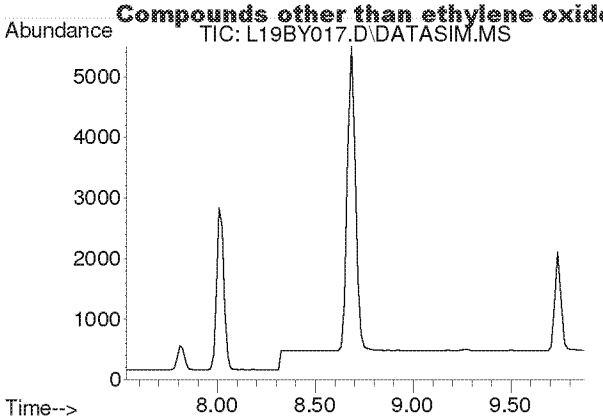
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

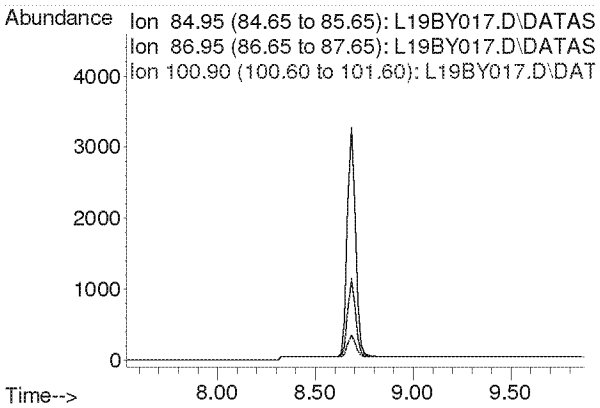


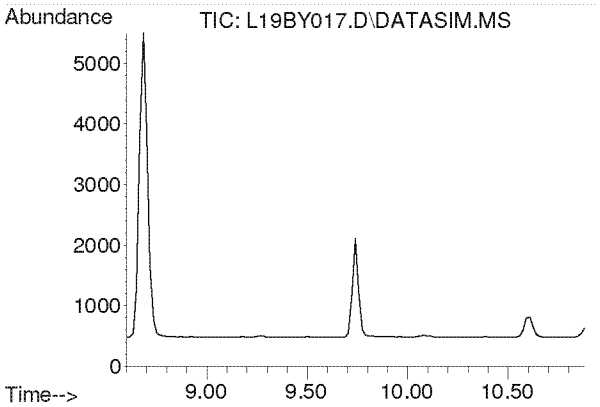
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



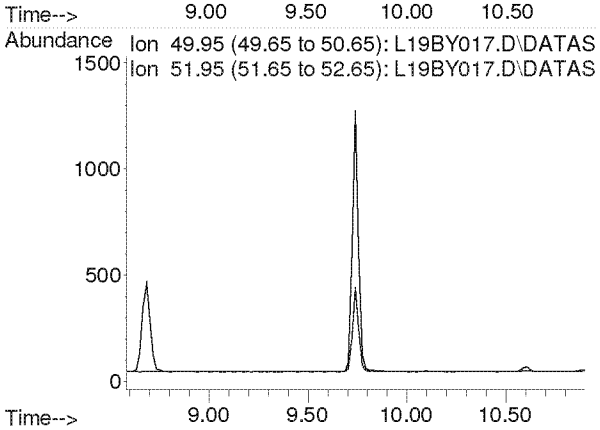


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

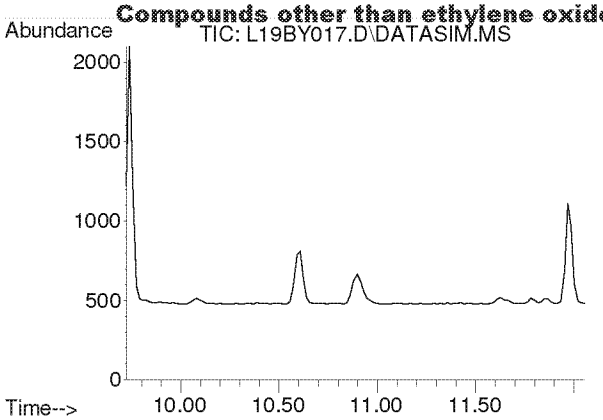
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

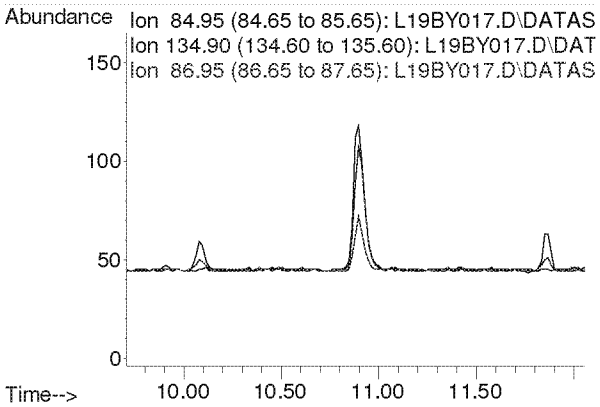


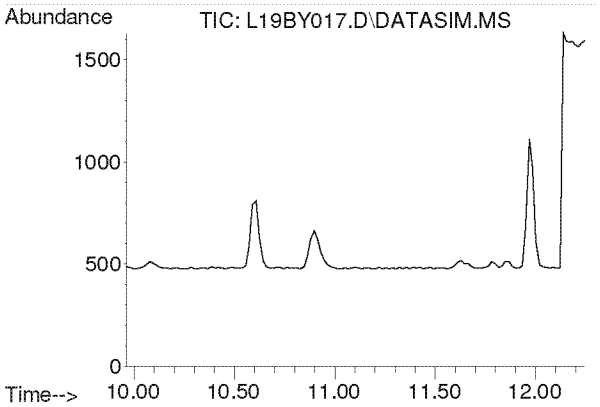
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



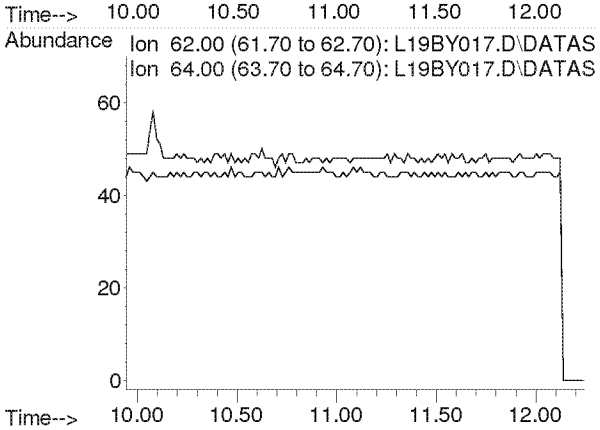


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

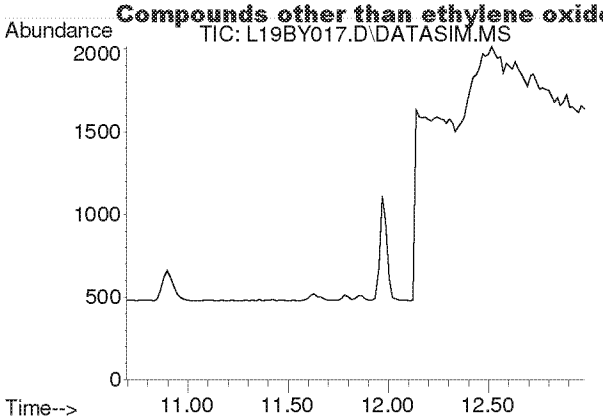
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

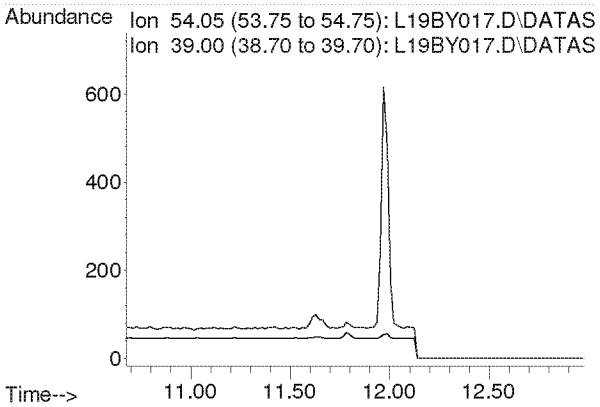


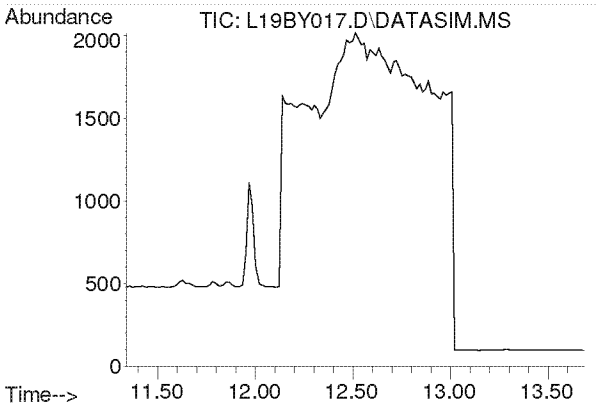
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



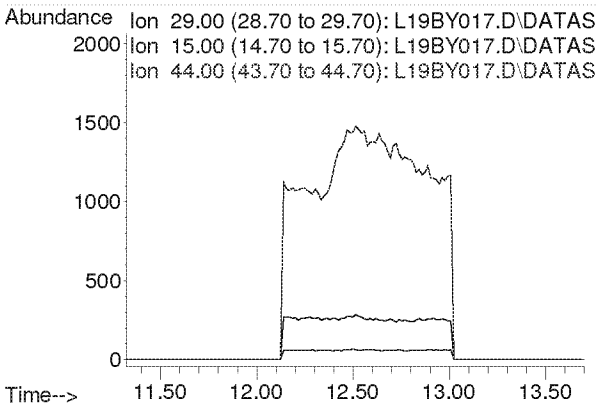


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

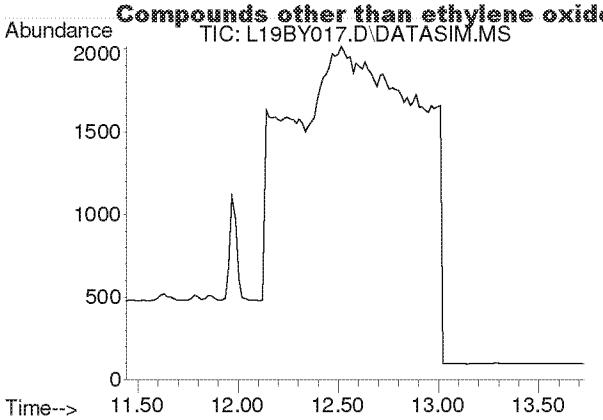
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

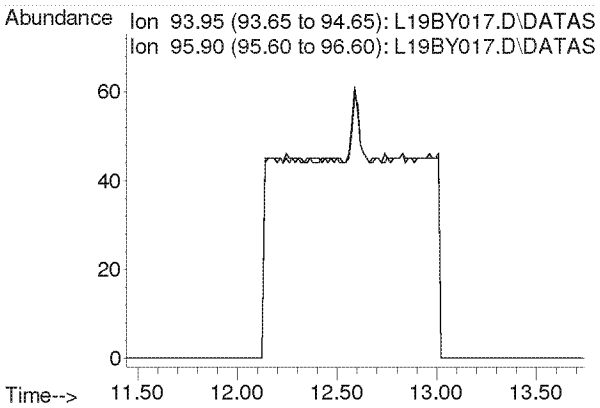


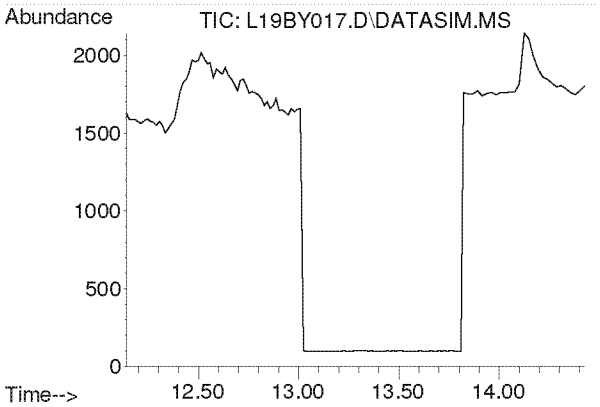
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



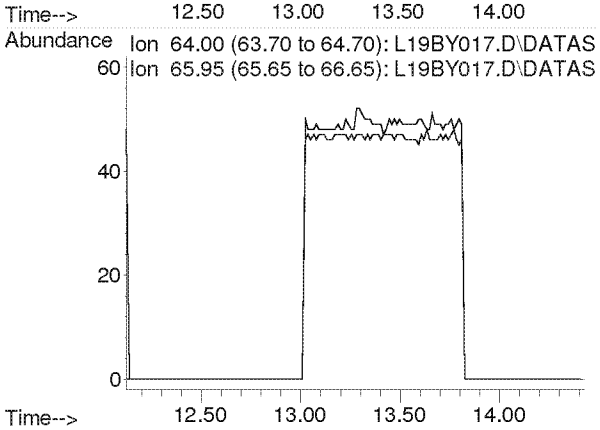


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

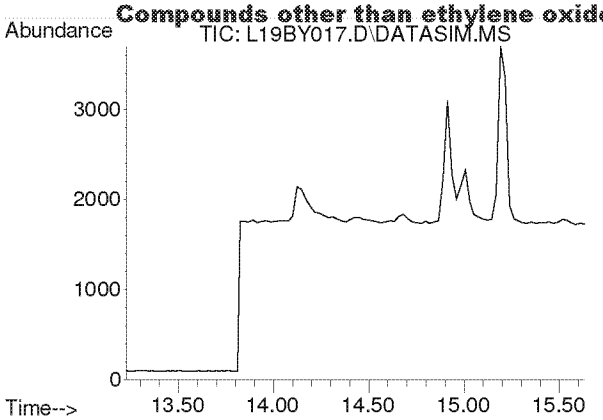
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

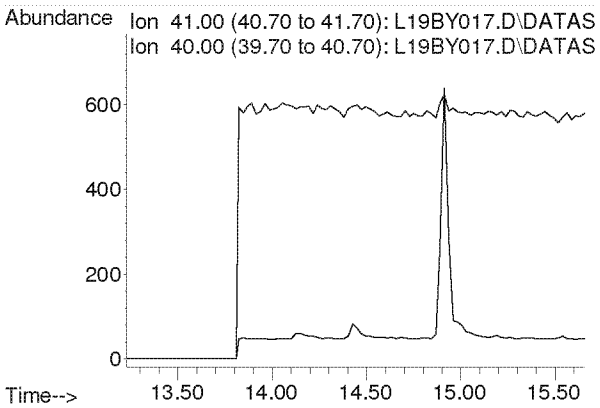


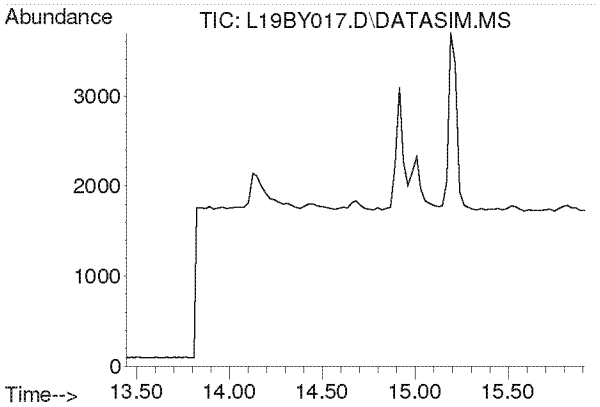
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



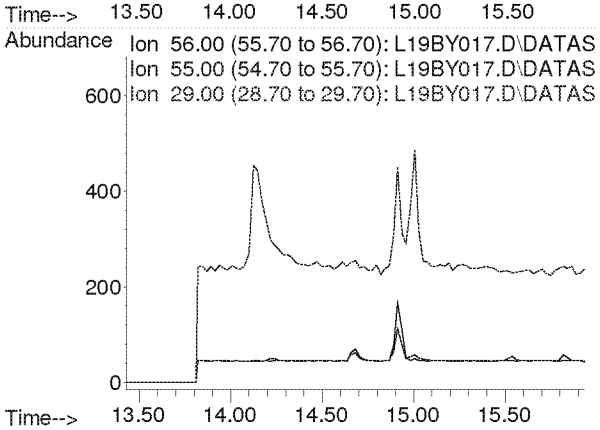


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

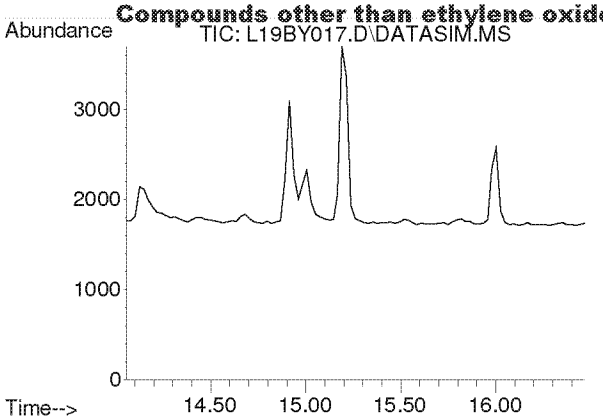
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

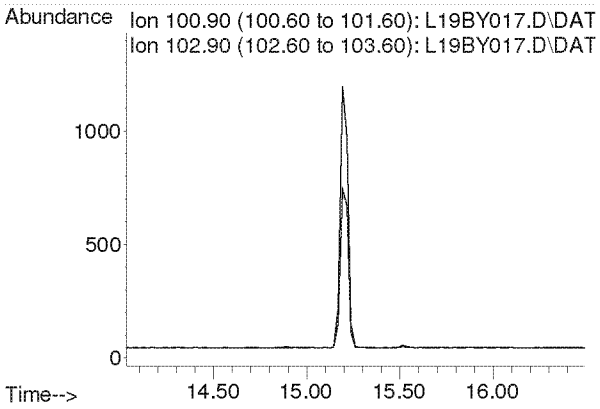


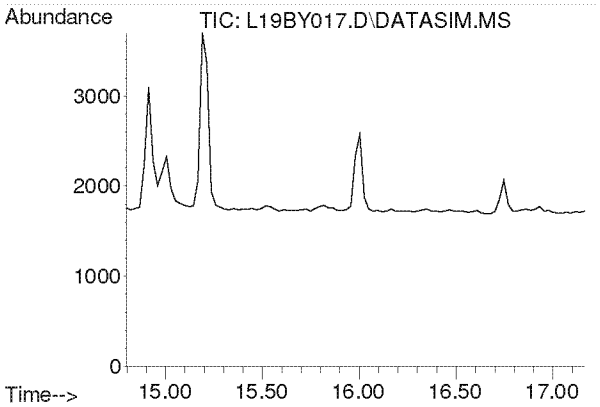
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



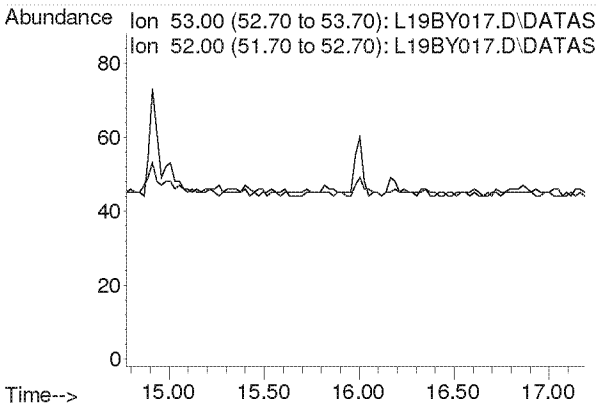


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

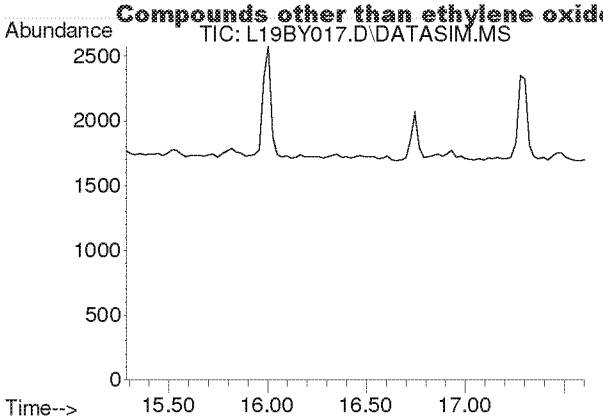
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

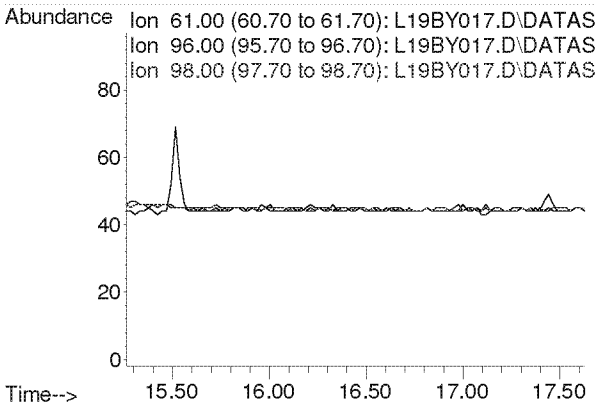


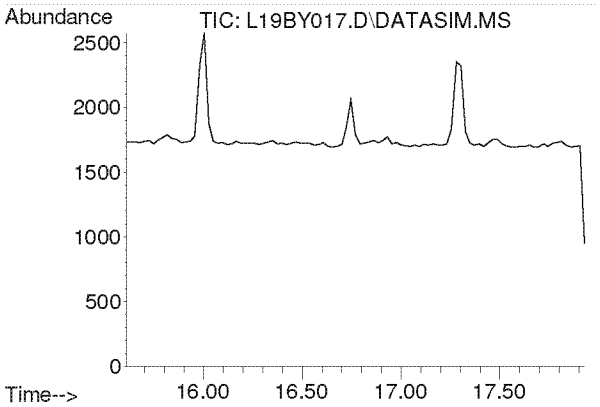
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



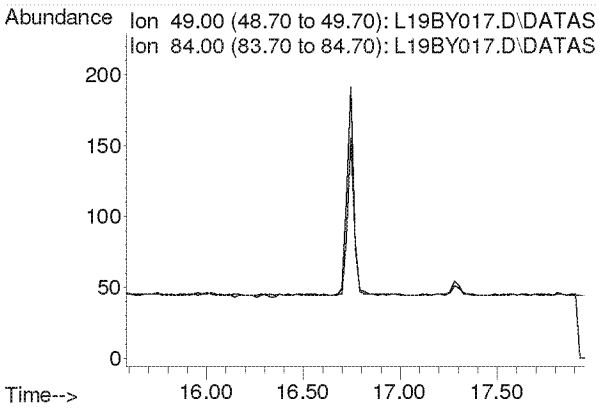


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

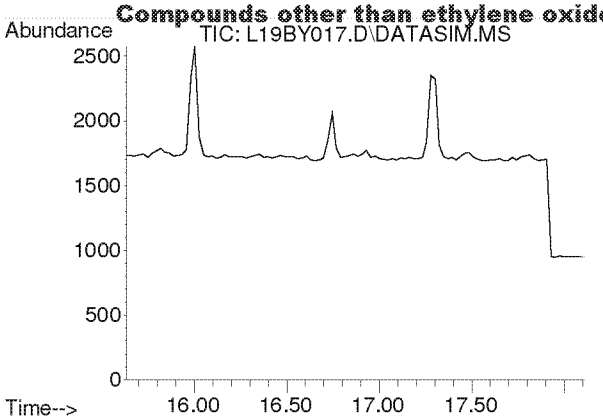
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

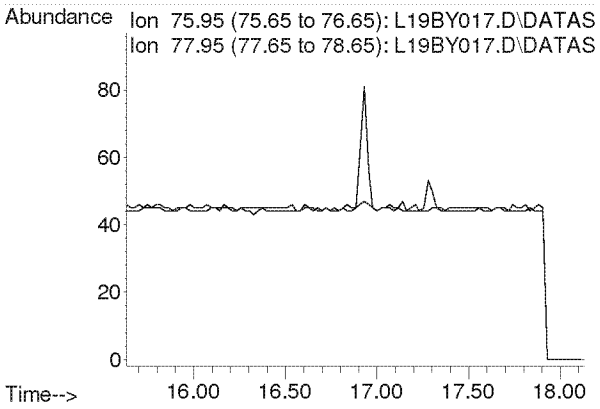


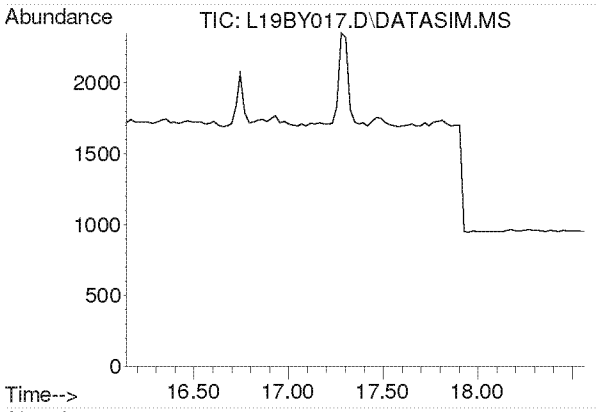
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



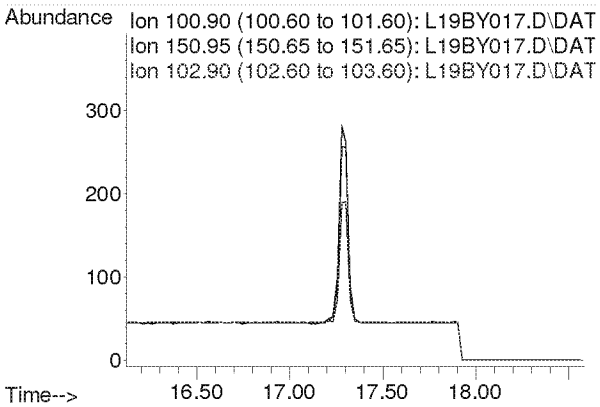


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

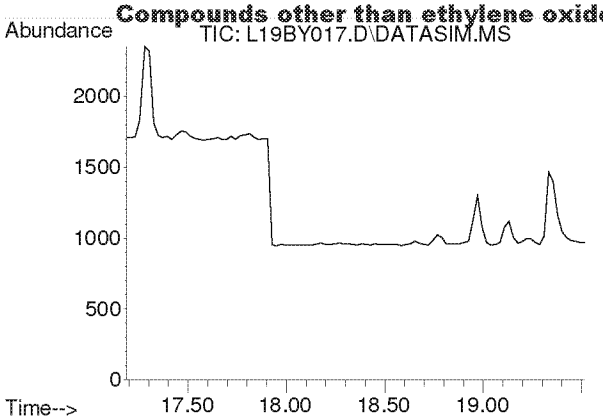
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

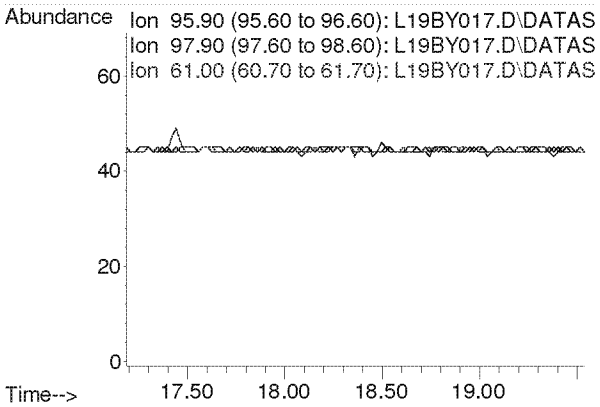


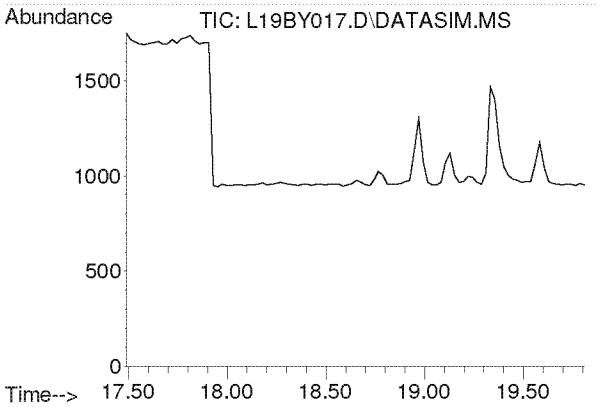
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



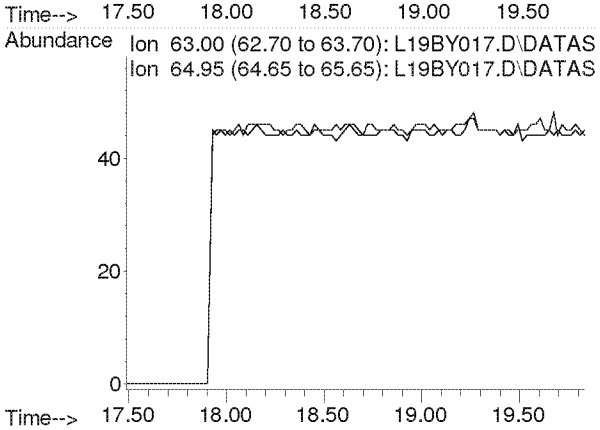


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

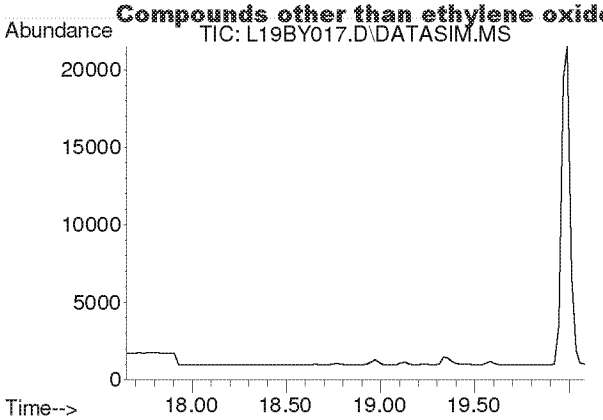
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

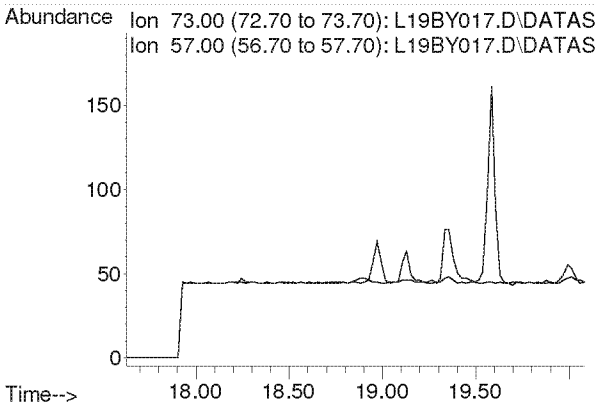


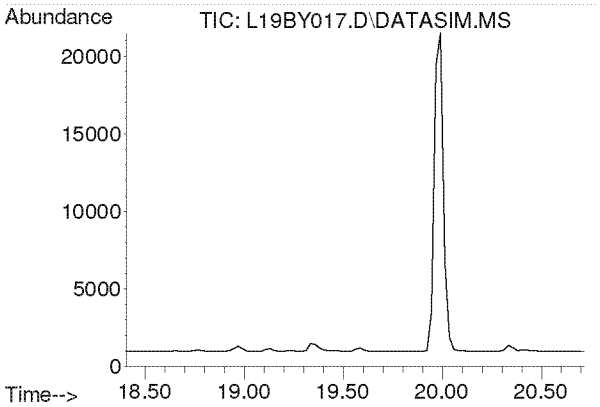
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



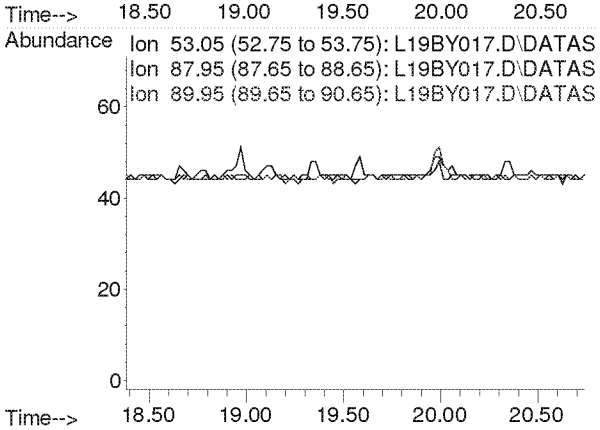


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

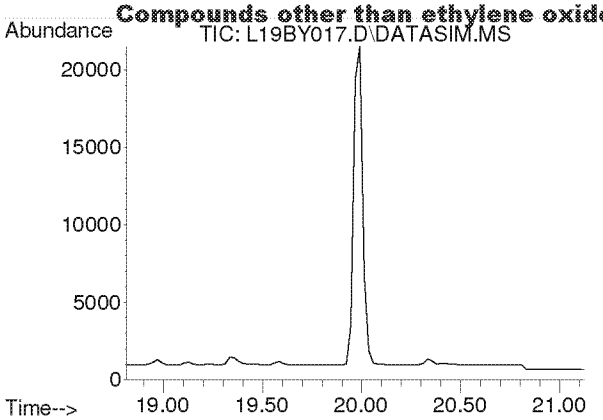
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

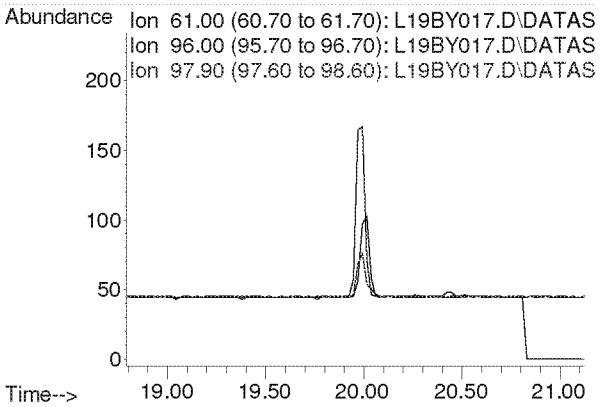


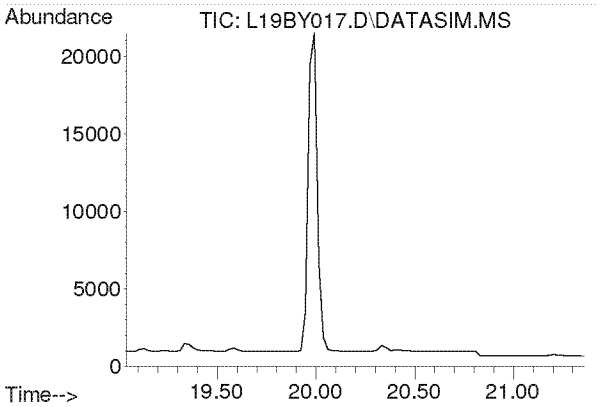
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



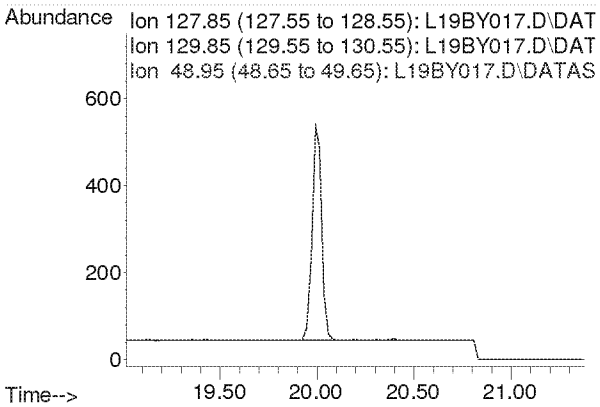


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

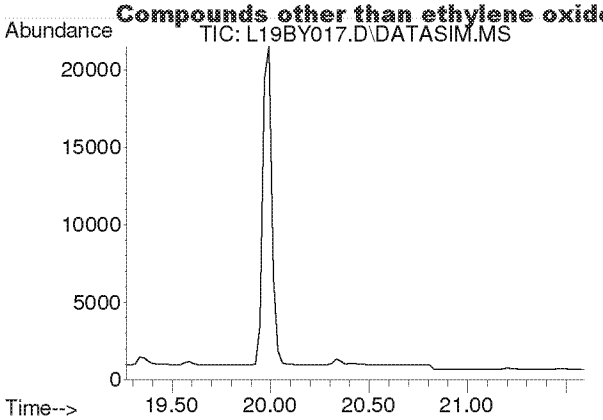
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

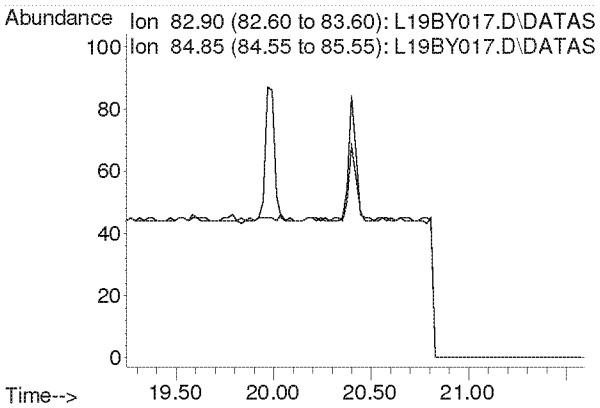


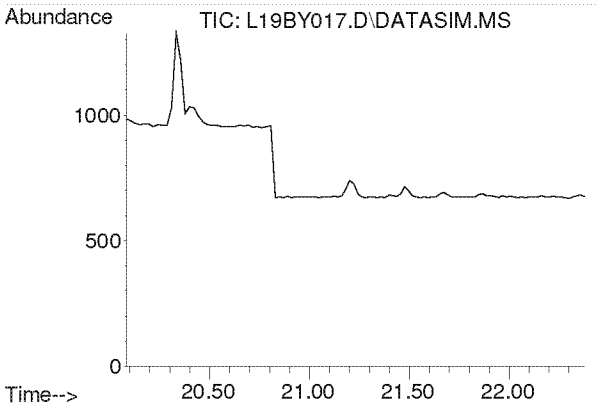
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



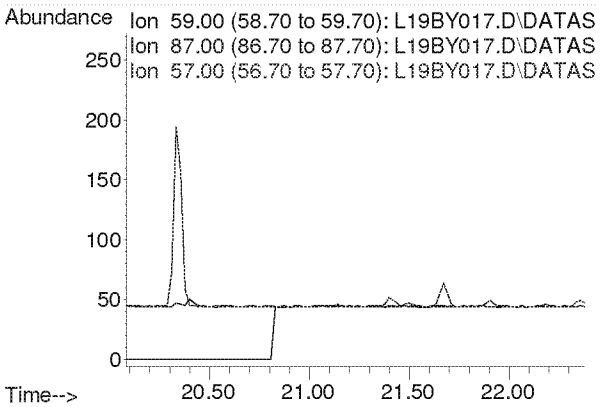


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

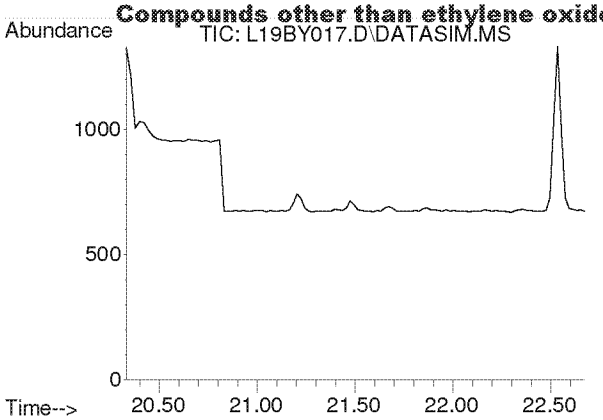
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

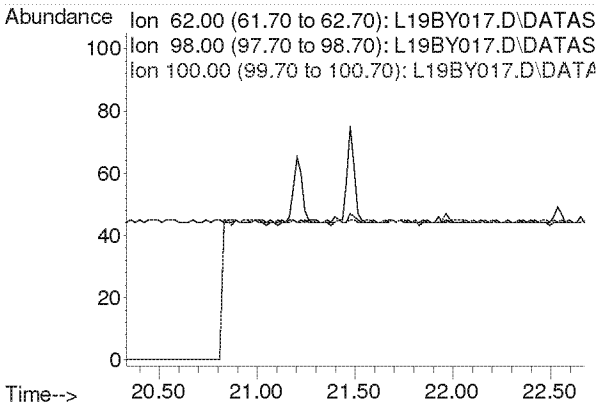


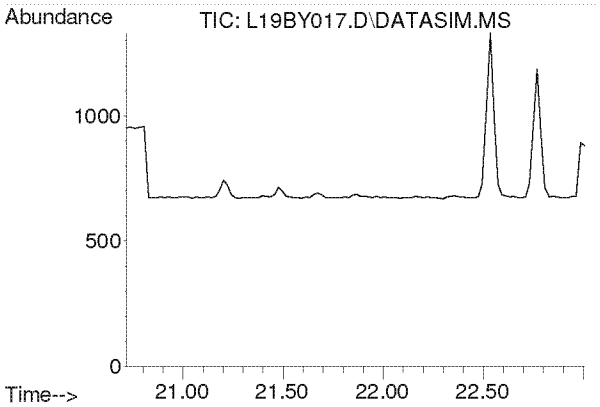
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



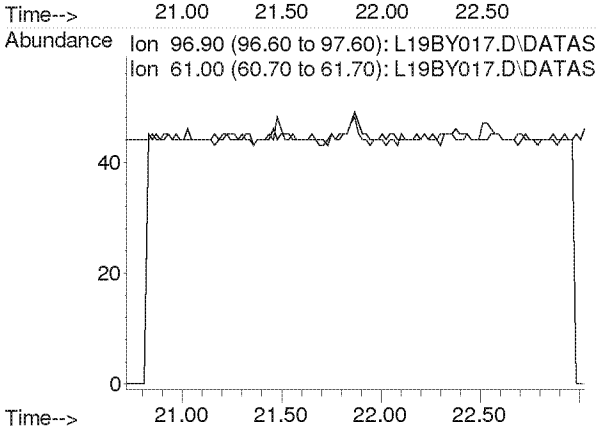


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

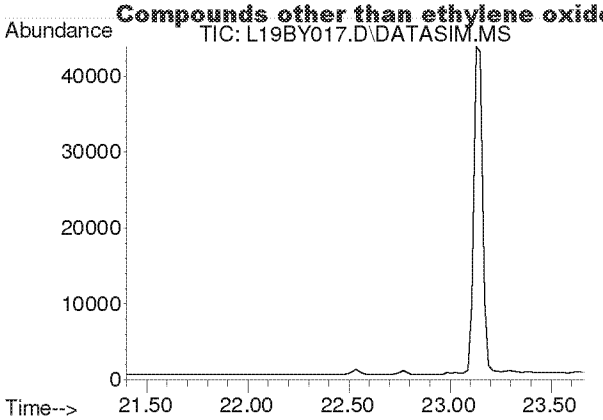
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

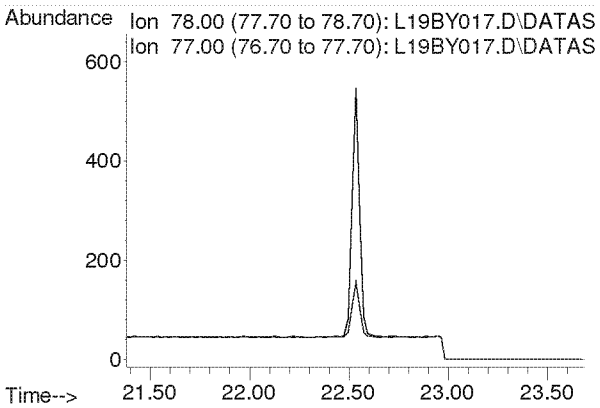


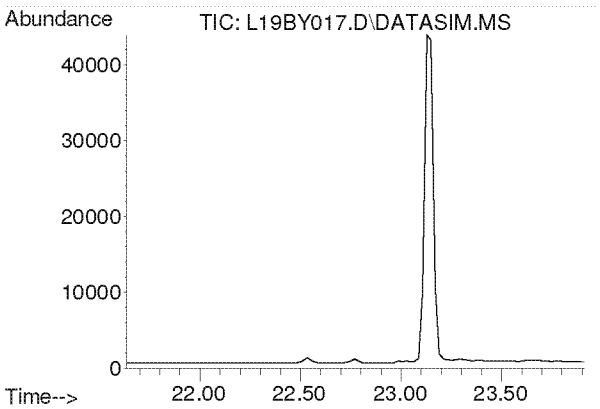
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



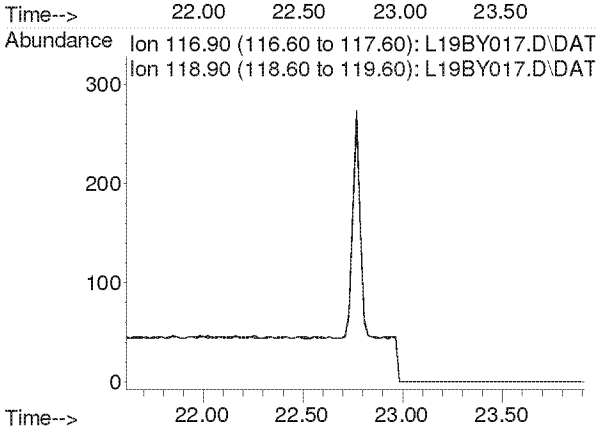


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

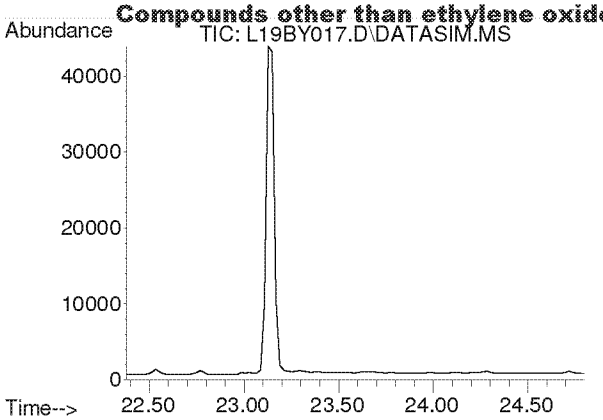
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

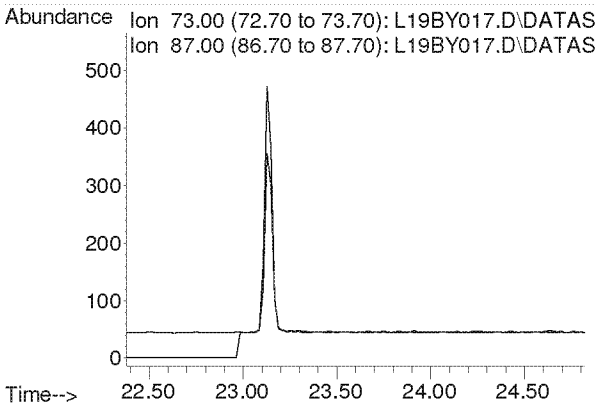


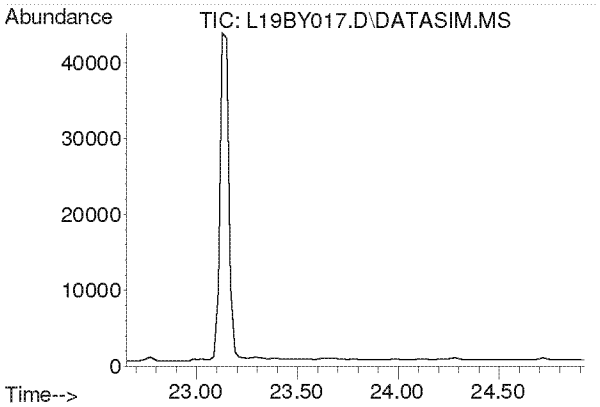
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



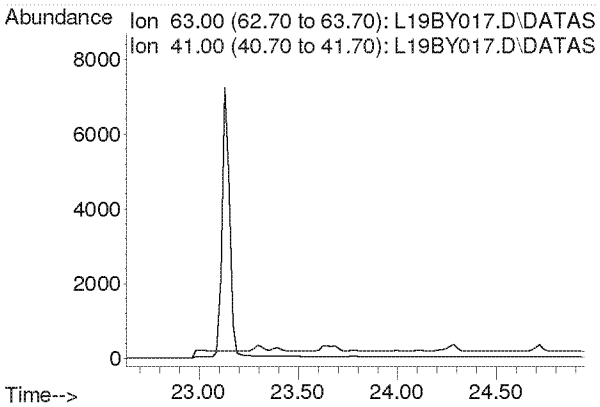


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

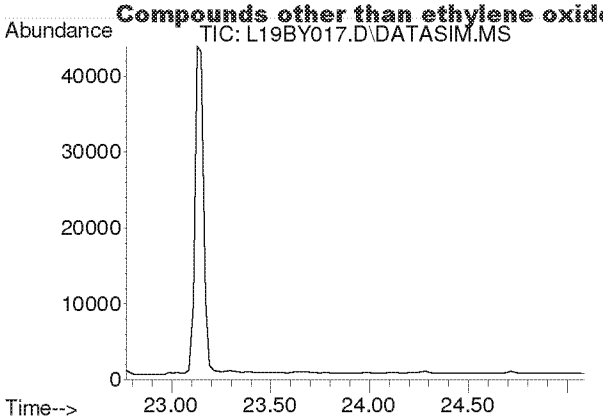
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

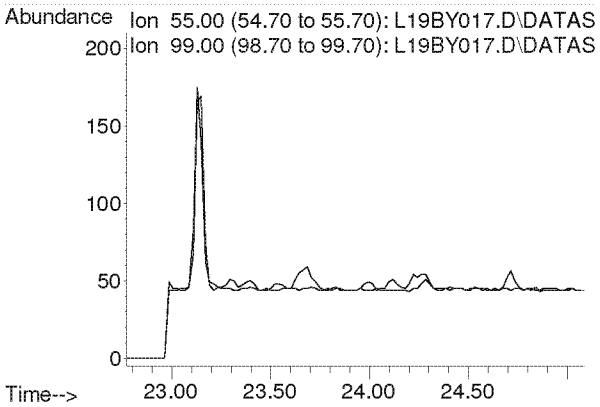


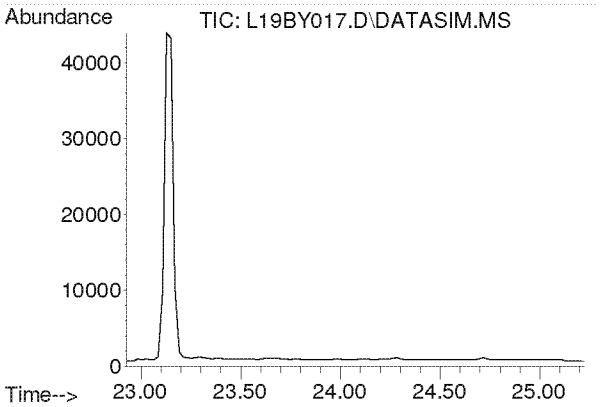
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



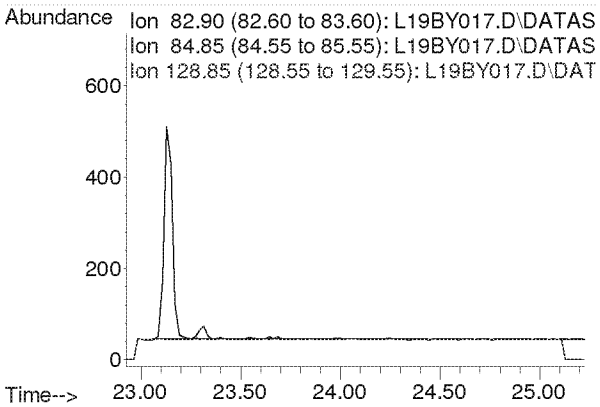


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

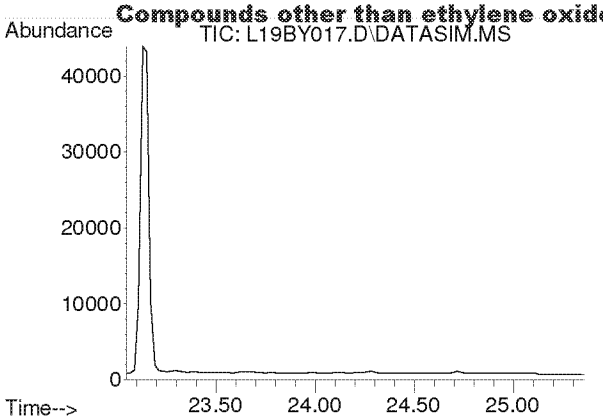
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

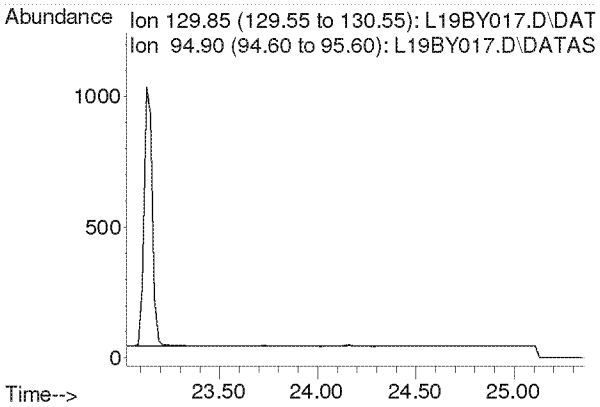


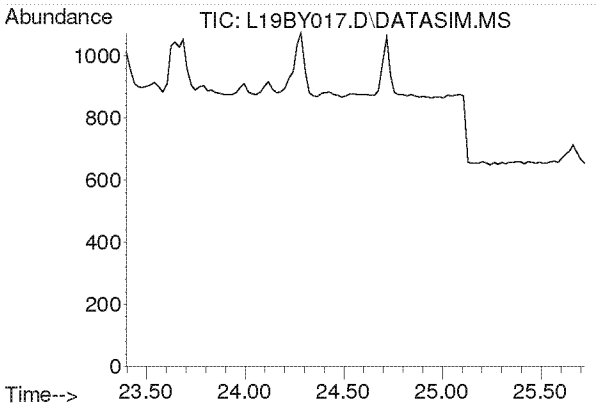
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



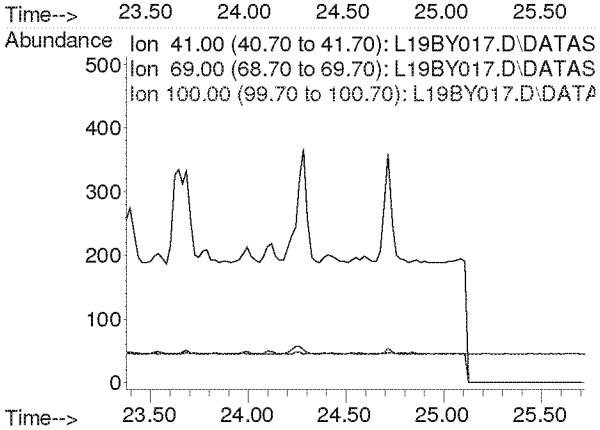


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

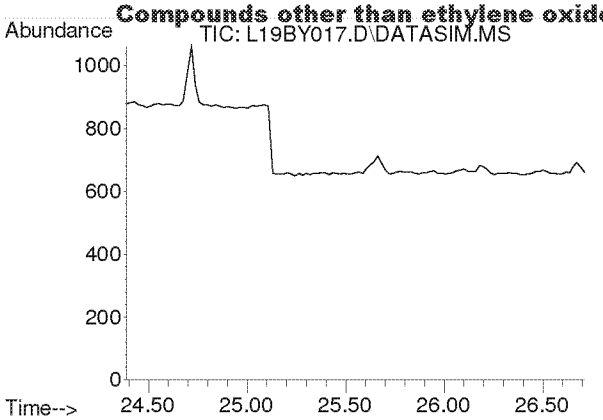
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

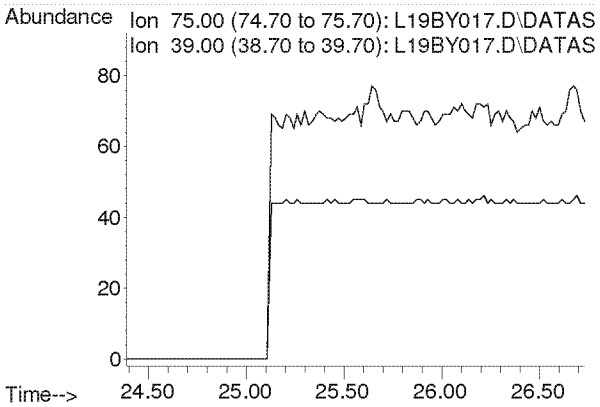


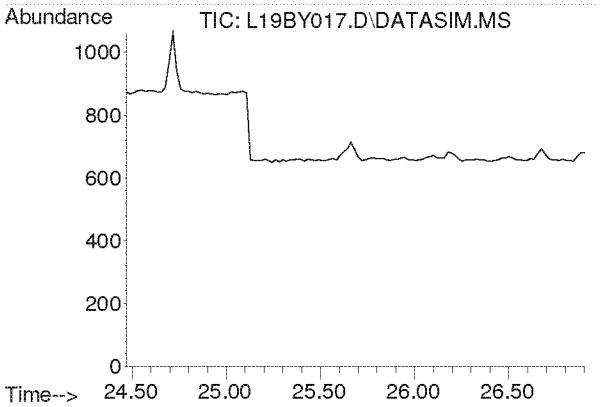
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



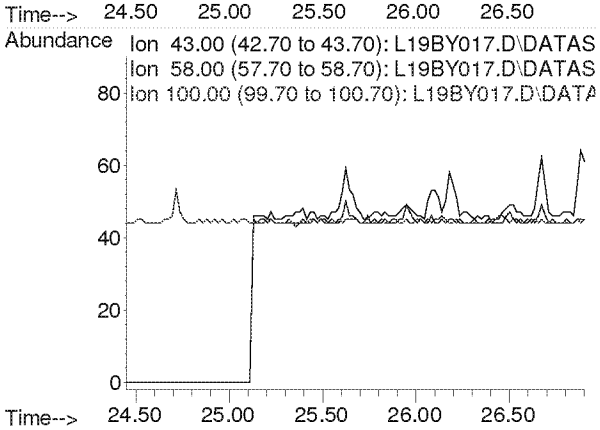


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

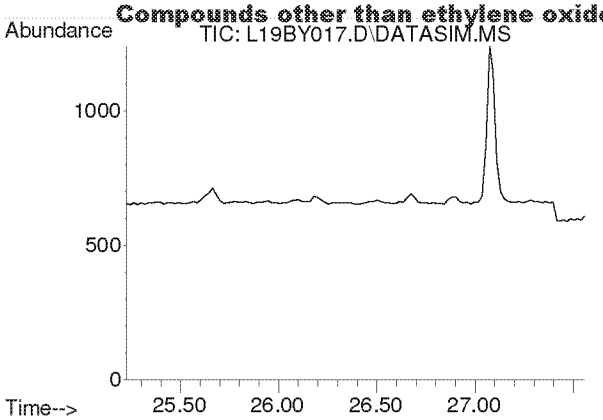
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

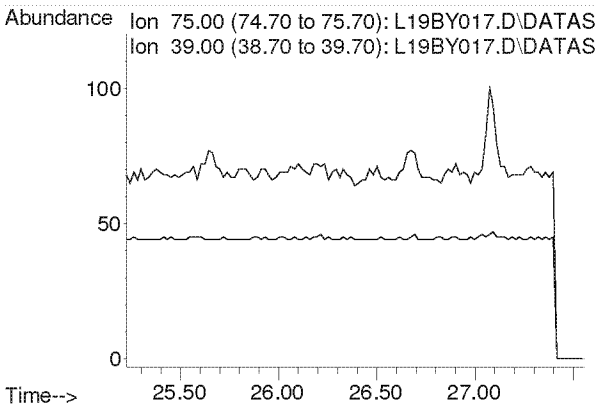


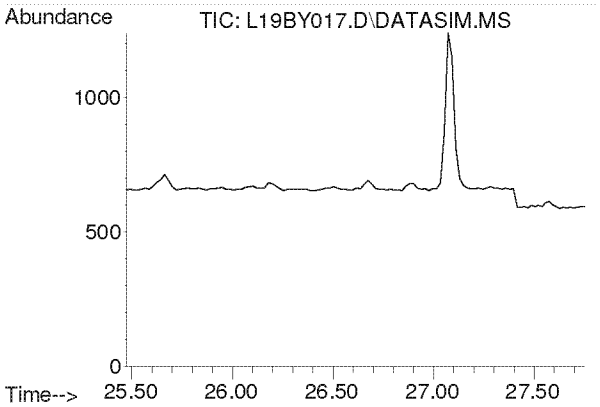
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



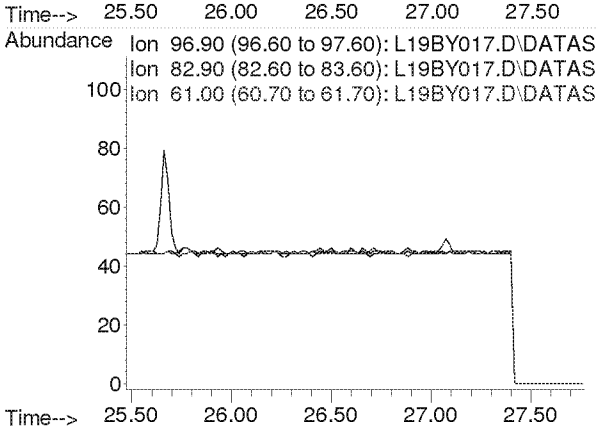


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

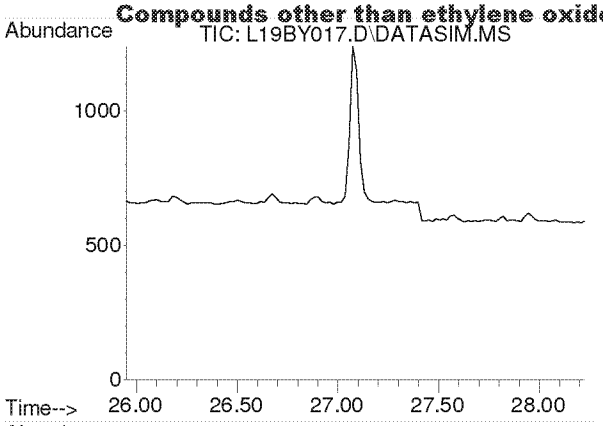
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

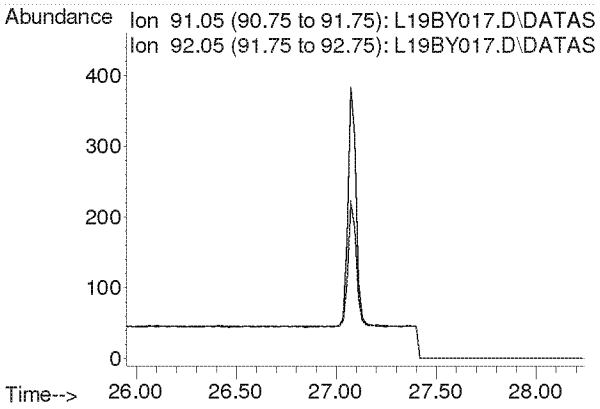


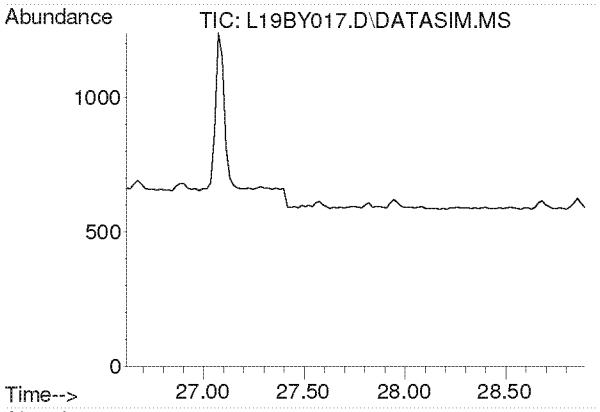
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



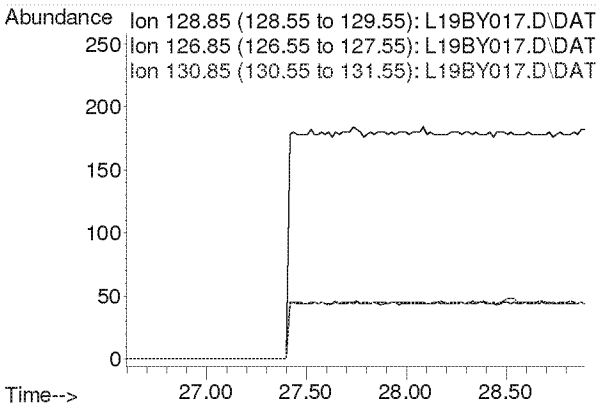


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

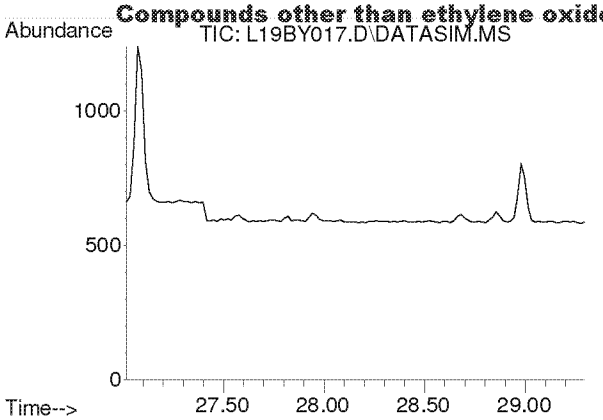
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

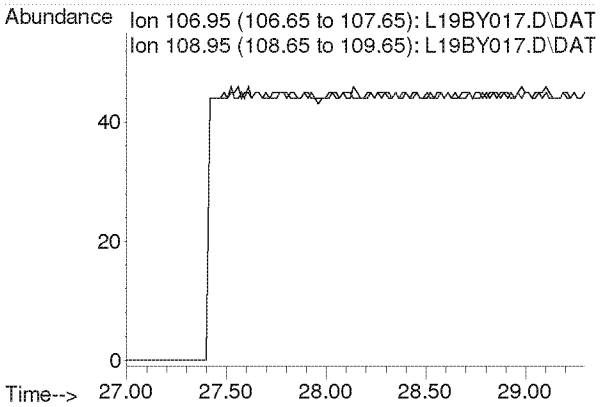


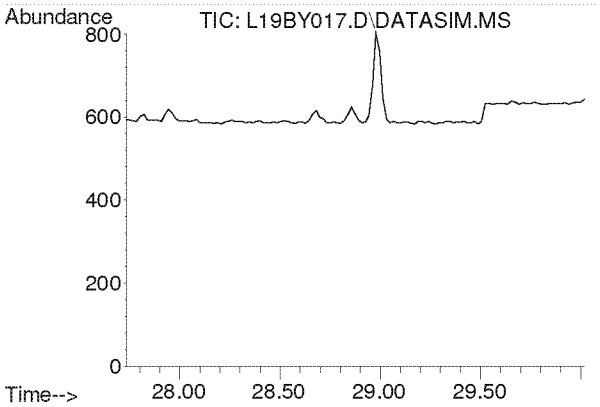
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



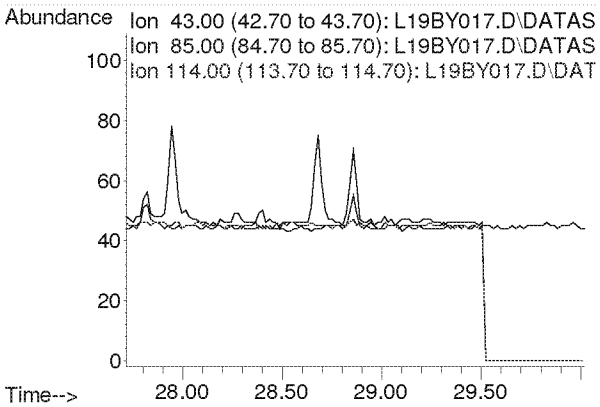


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

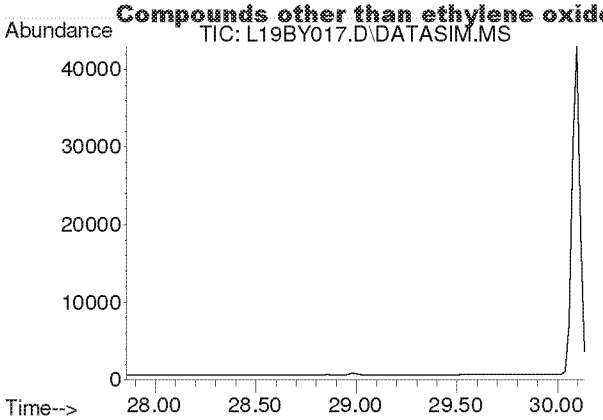
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

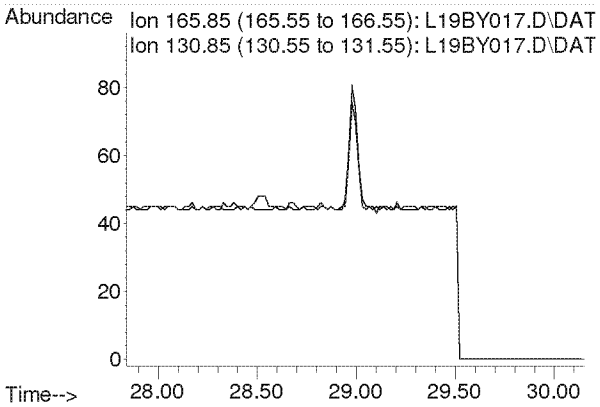


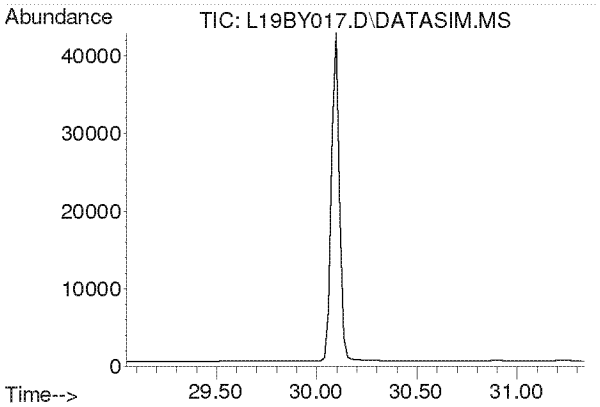
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



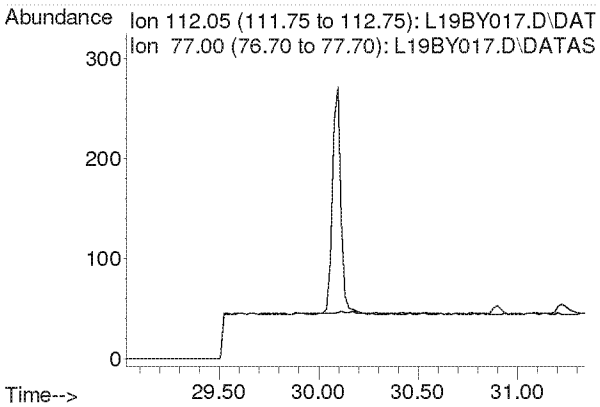


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

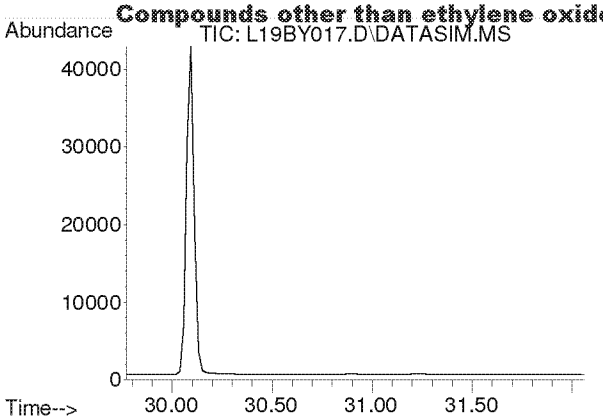
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

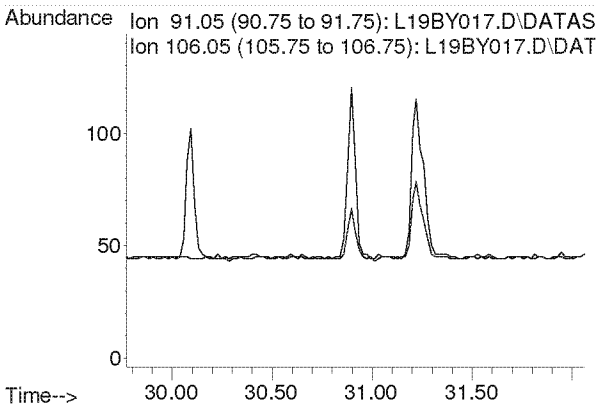


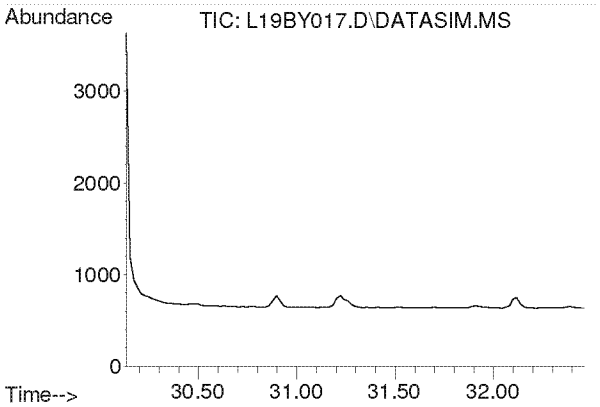
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



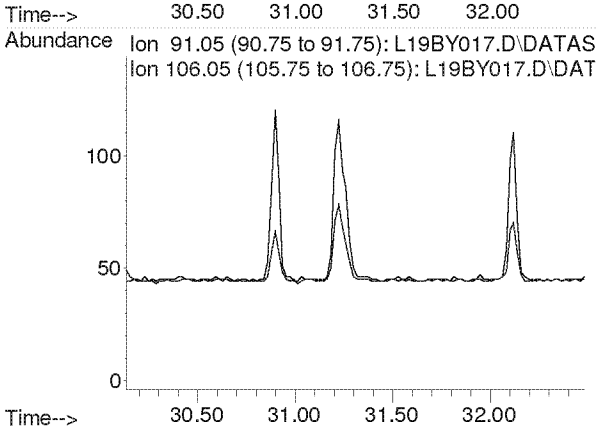


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

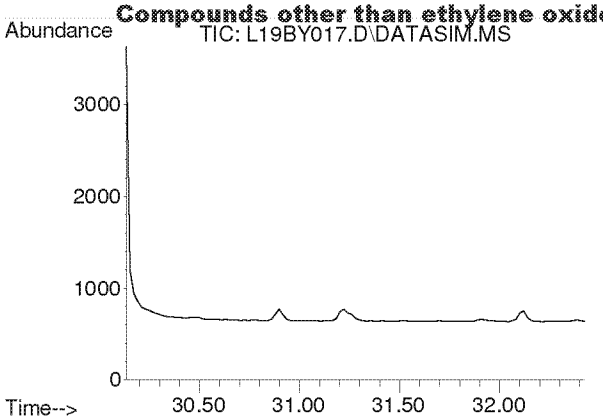
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

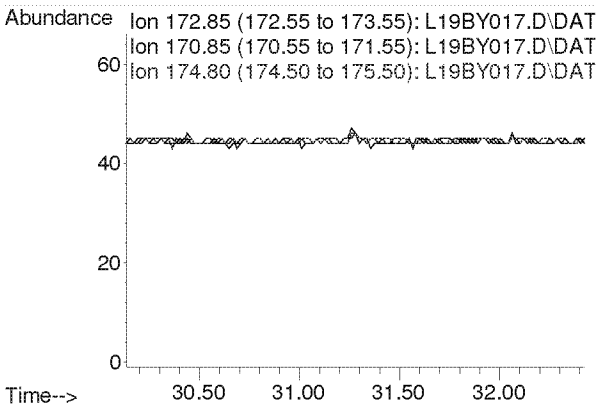


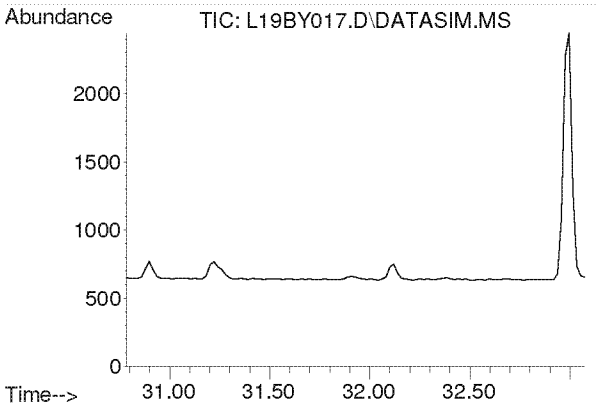
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



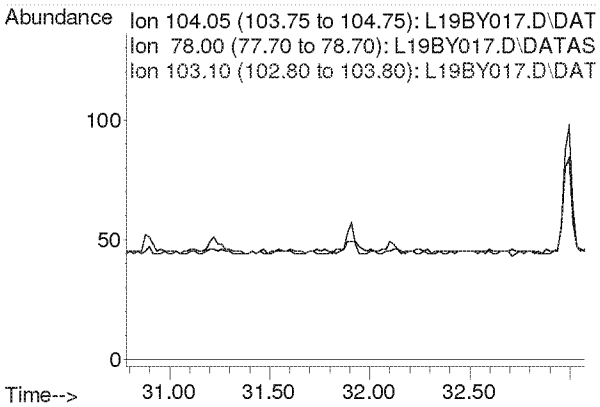


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

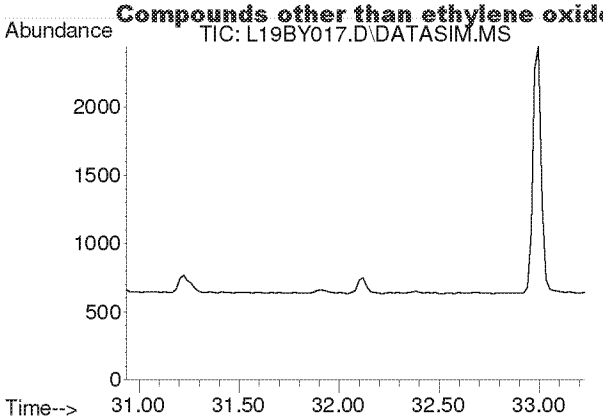
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

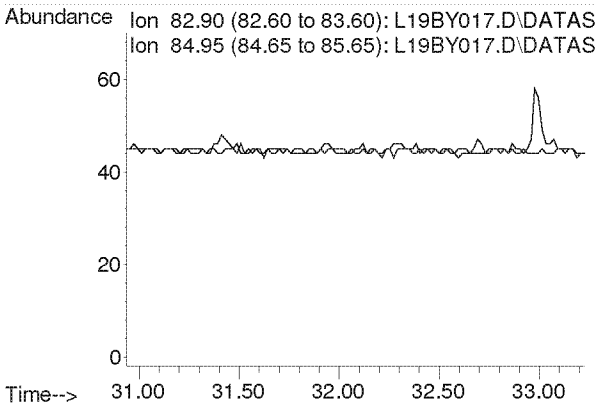


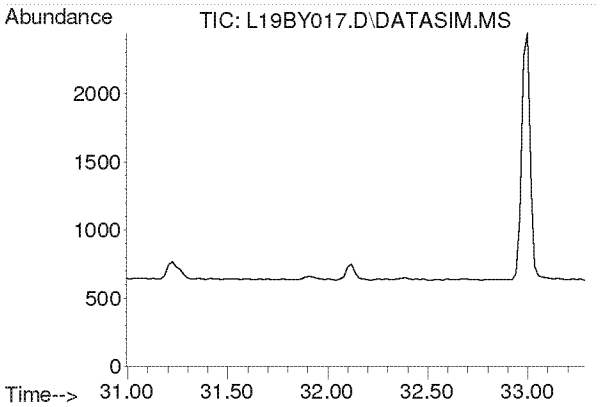
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



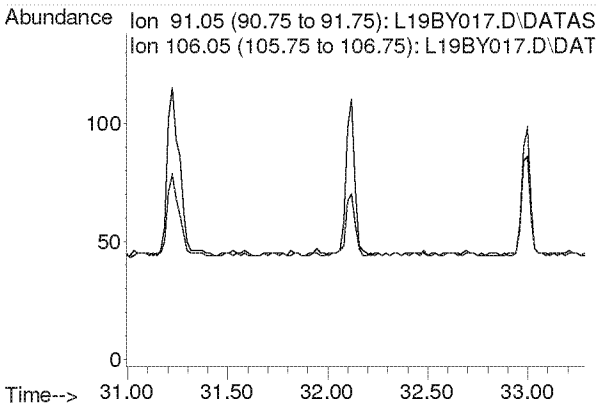


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

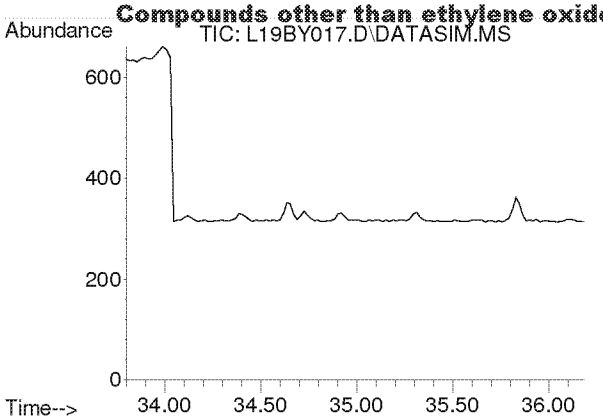
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

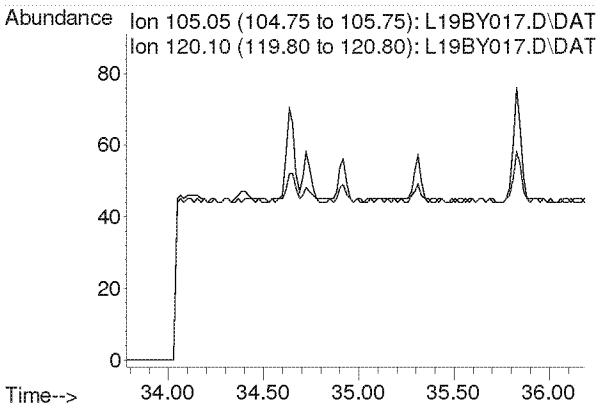


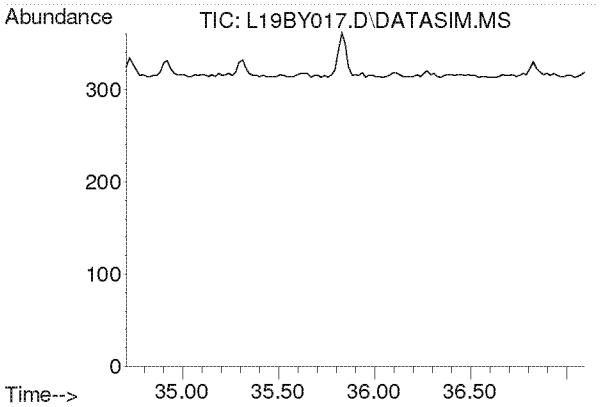
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



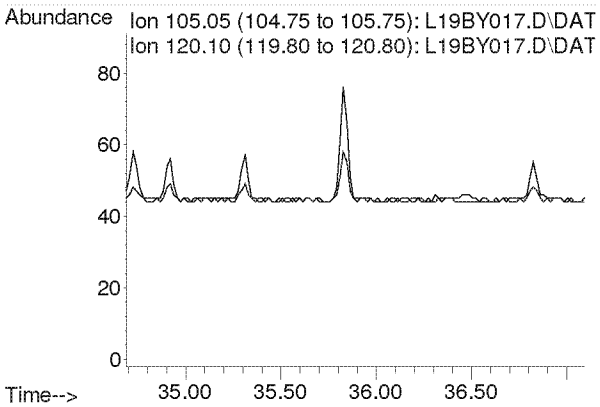


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

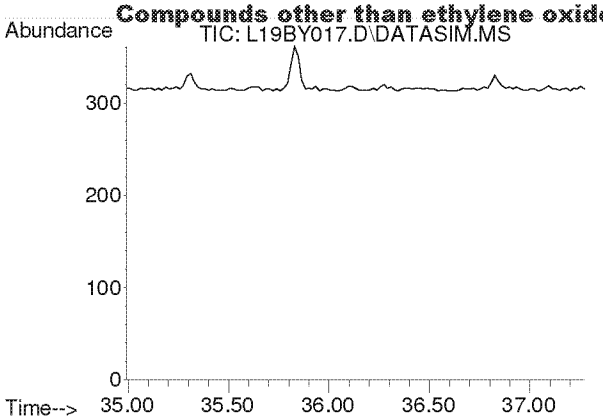
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

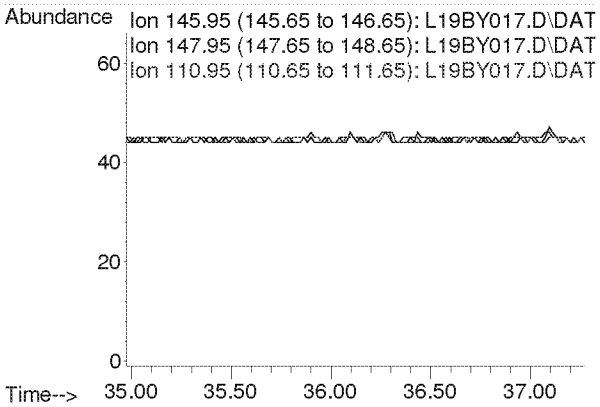


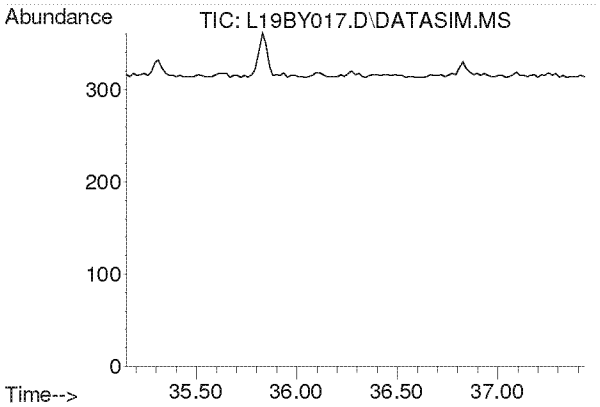
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



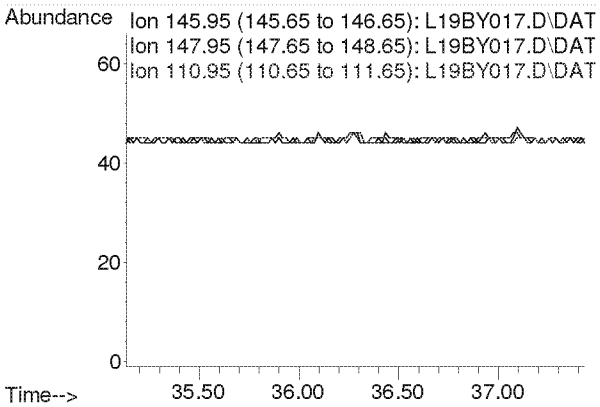


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

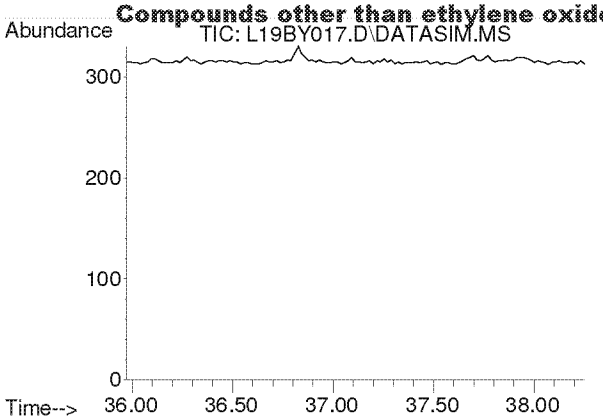
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

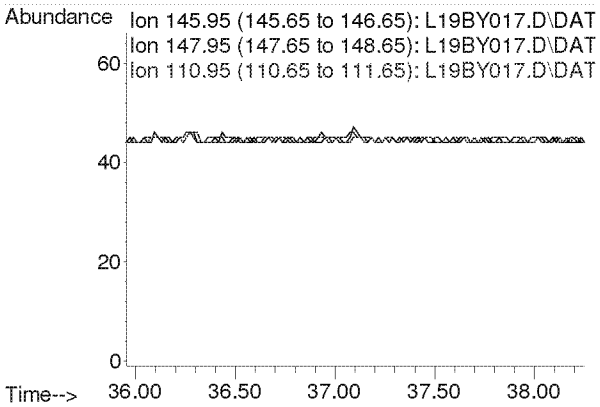


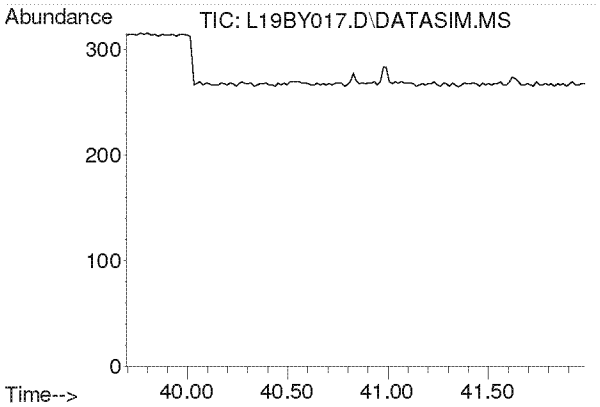
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



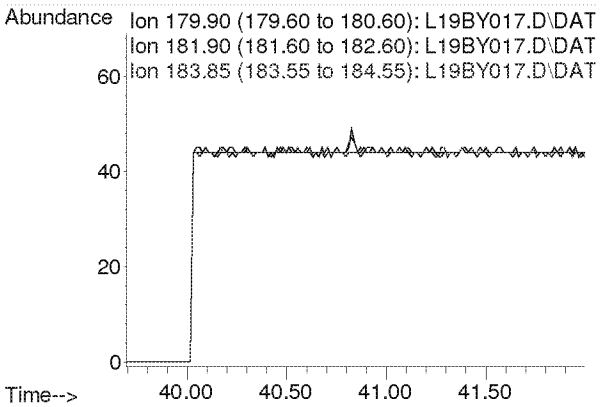


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

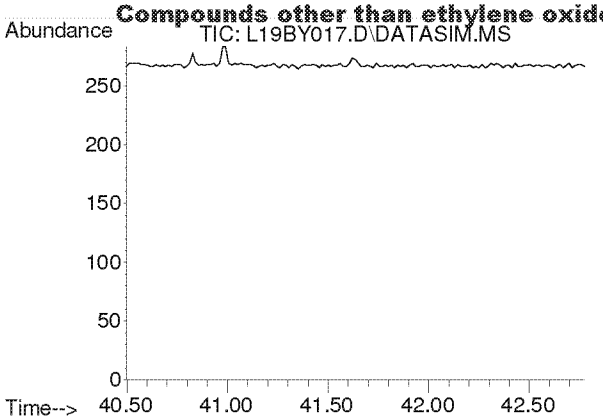
Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

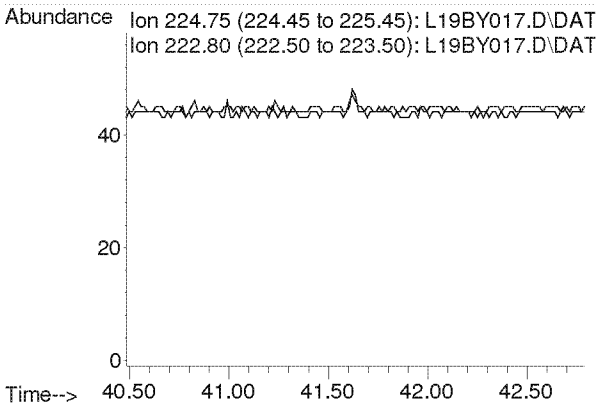


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY017.D
Acq: 25 Feb 2019 11:30 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY018.D
Acq On : 26 Feb 2019 12:30 am (#1); 26 Feb 2019 0:25 am (#2)
Operator : MAH
Sample : 9022202-12
Misc : GOWER 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Gower ES

Quant Time: Feb 26 09:55:54 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	38197	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	94765	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	69173	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	12.468	29	179m	0.0819 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	

MB 3/5/19

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY018.D
Acq On : 26 Feb 2019 12:30 am (#1); 26 Feb 2019 0:25 am (#2)
Operator : MAH
Sample : 9022202-12
Misc : GOWER 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 26 09:55:54 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

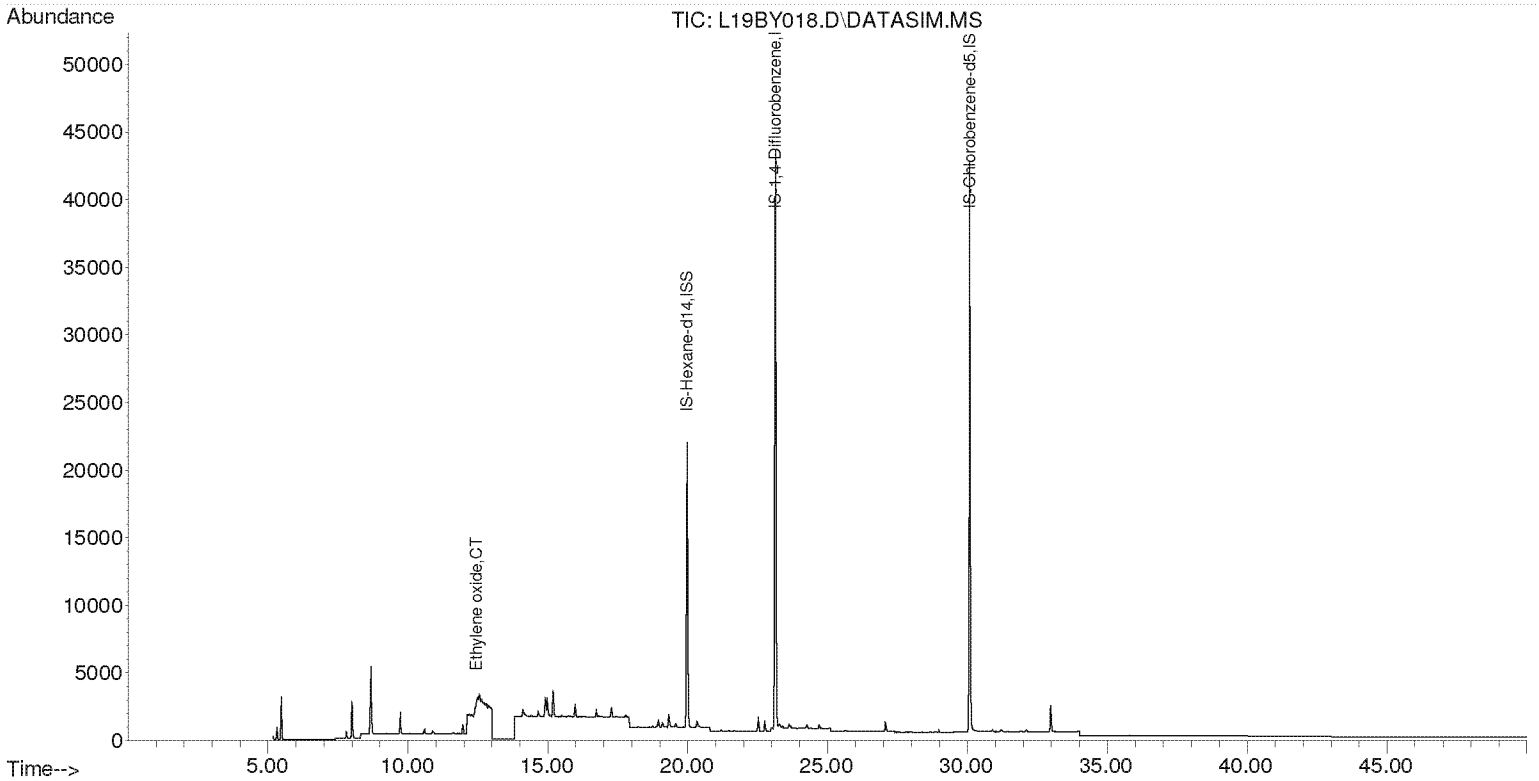
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d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

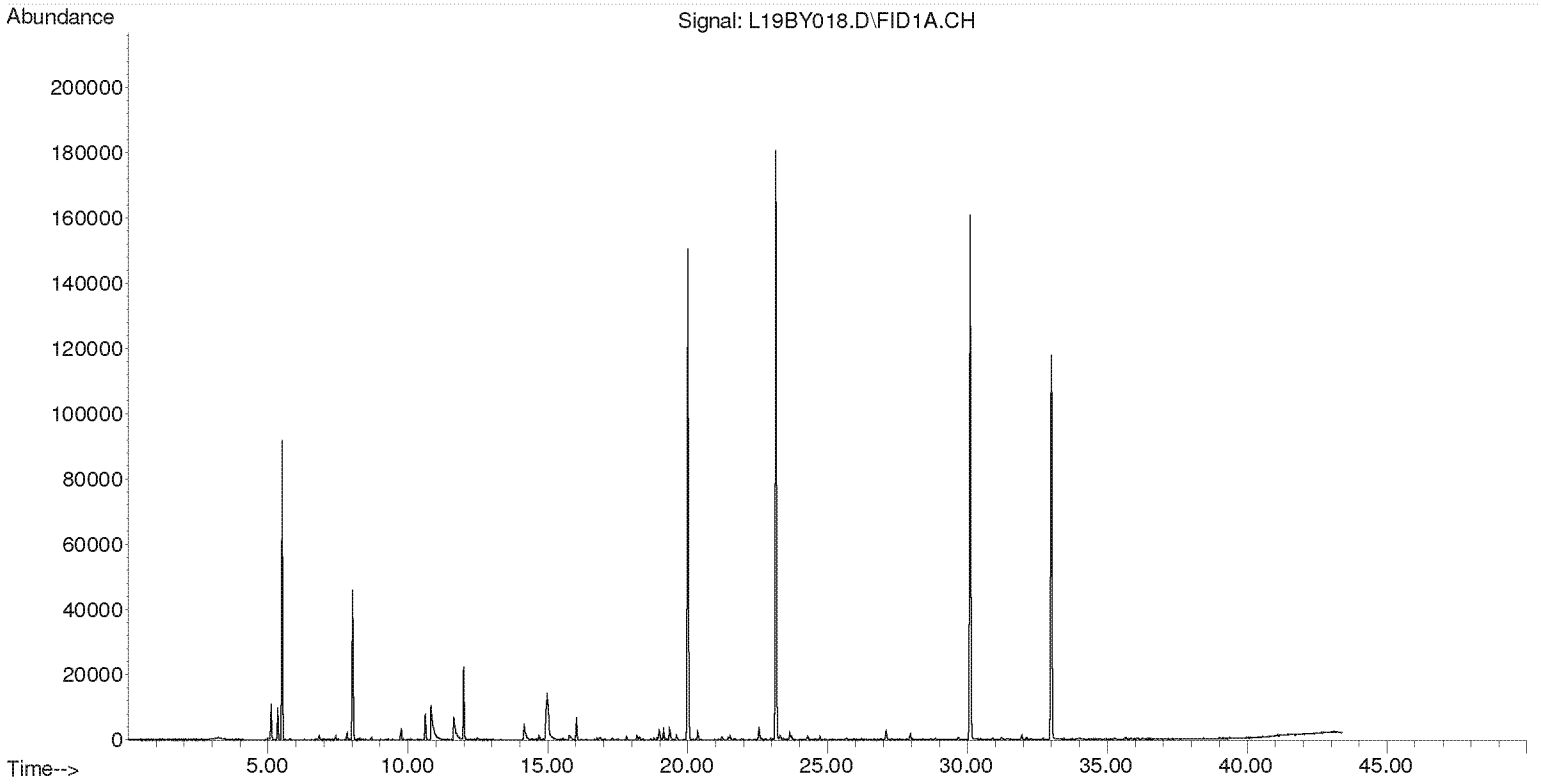
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

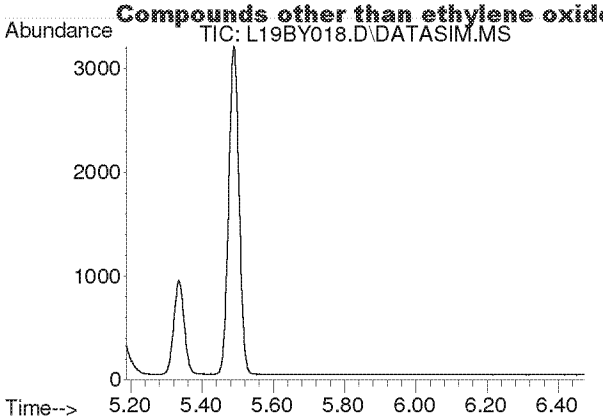
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY018.D
Acq On : 26 Feb 2019 12:30 am (#1); 26 Feb 2019 0:25 am (#2)
Operator : MAH
Sample : 9022202-12
Misc : GOWER 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 26 09:55:54 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





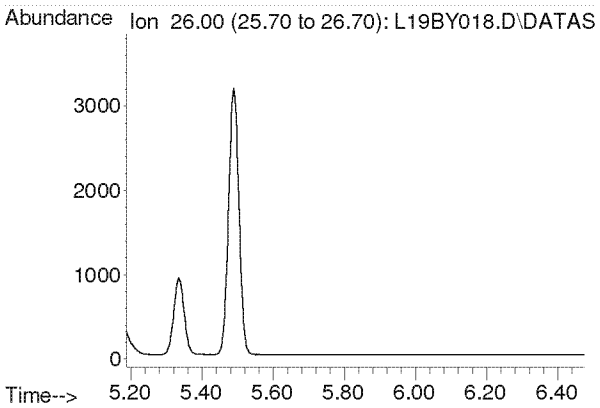
Compounds other than ethylene oxide were not quantitated.

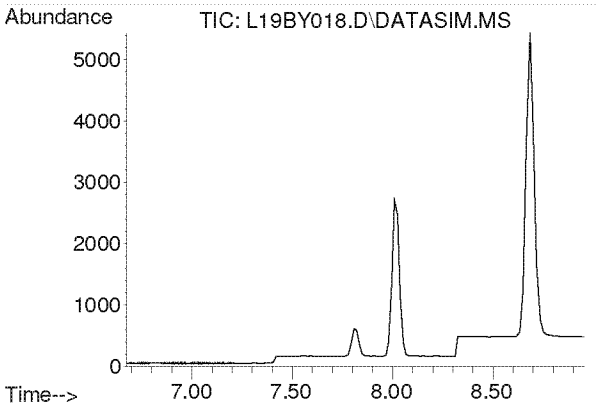


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 26



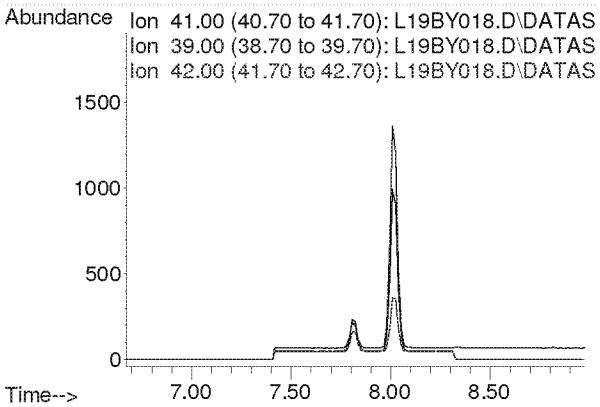


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

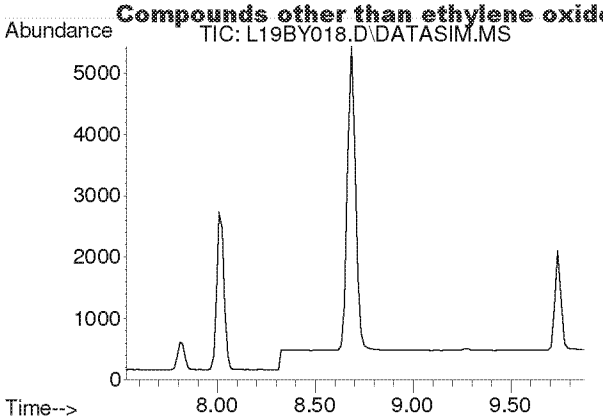
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

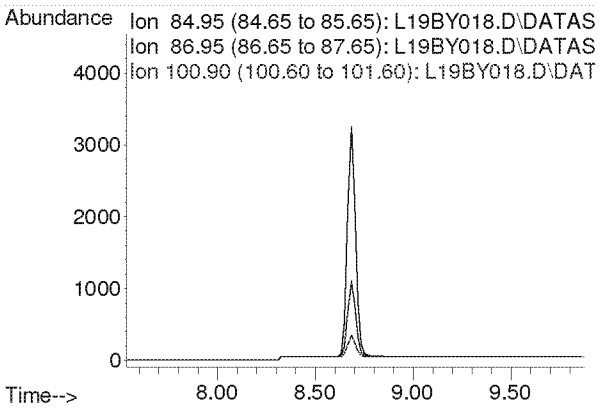


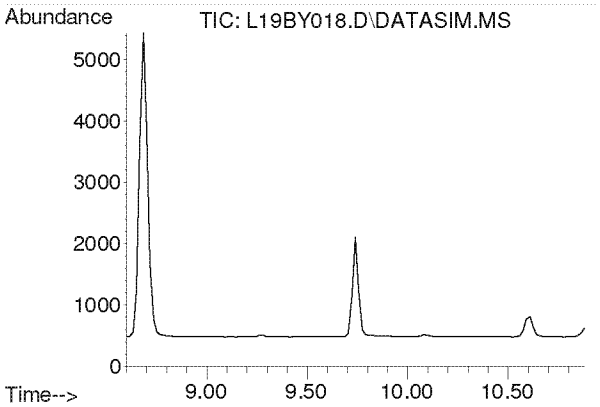
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



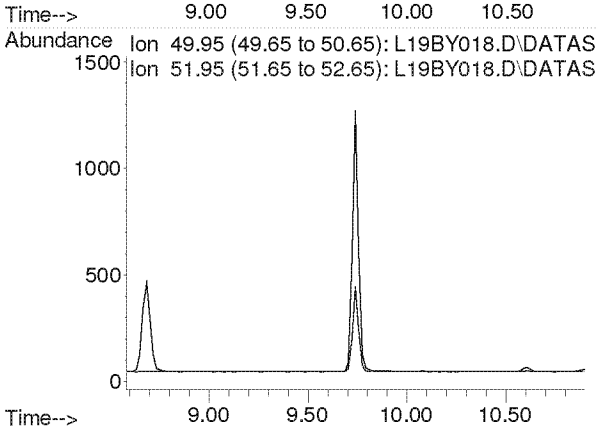


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

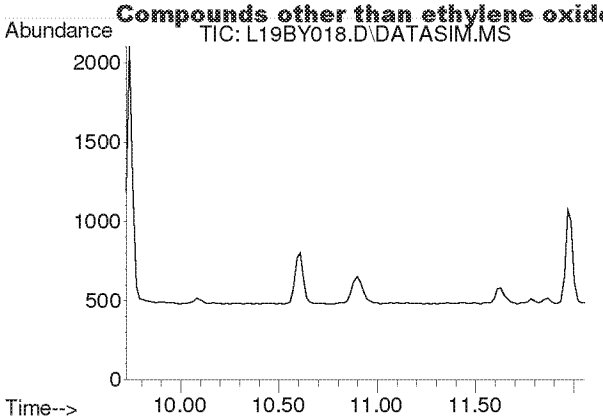
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

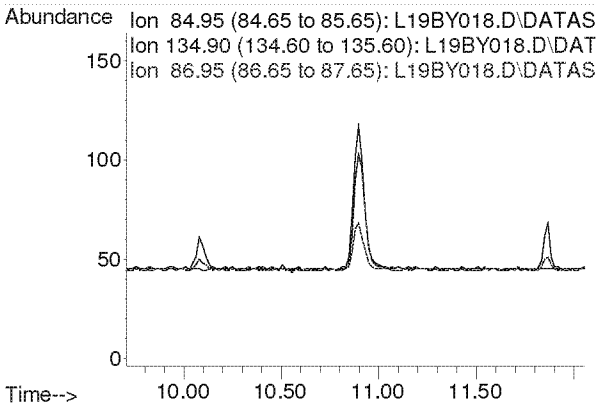


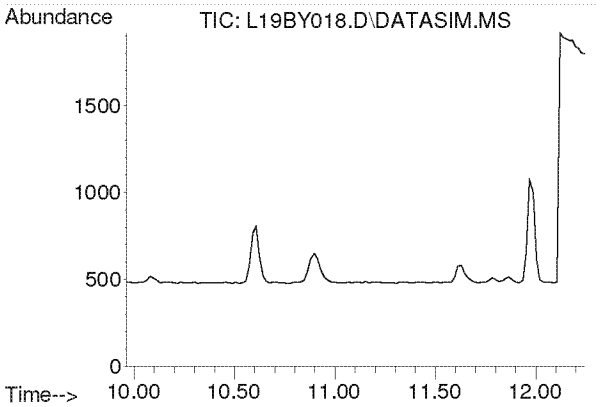
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



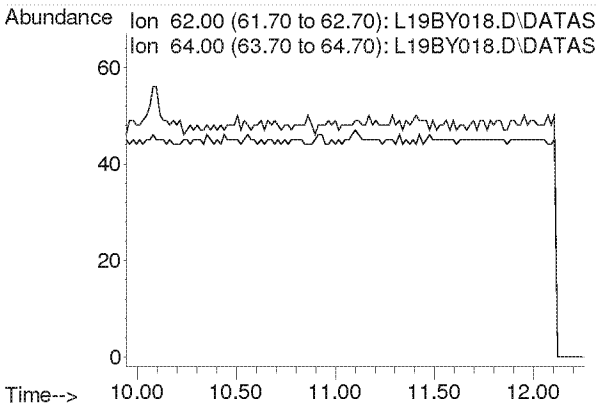


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

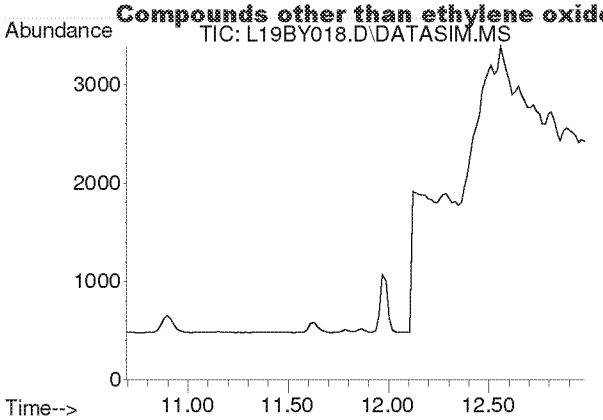
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

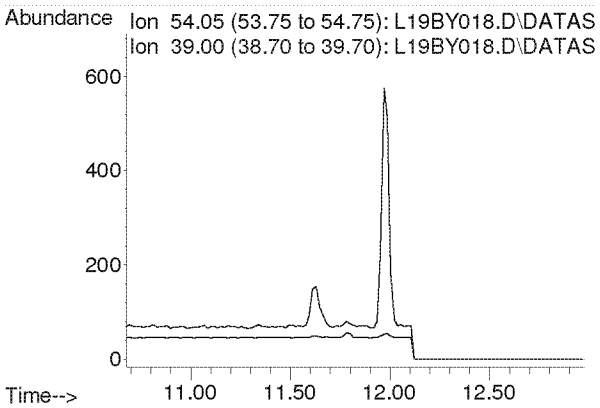


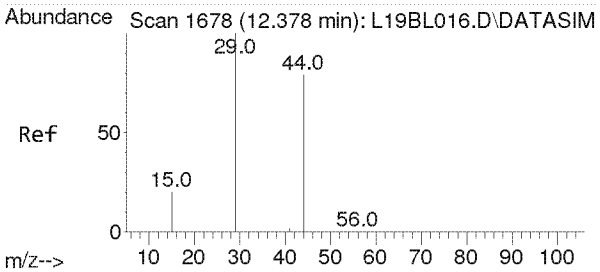
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

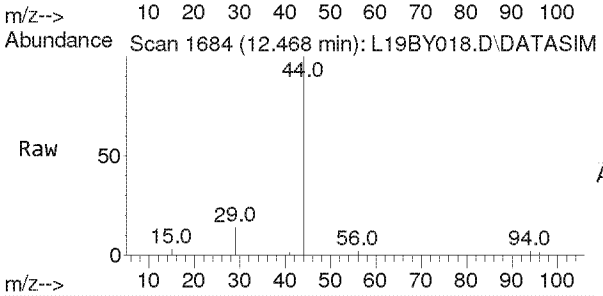


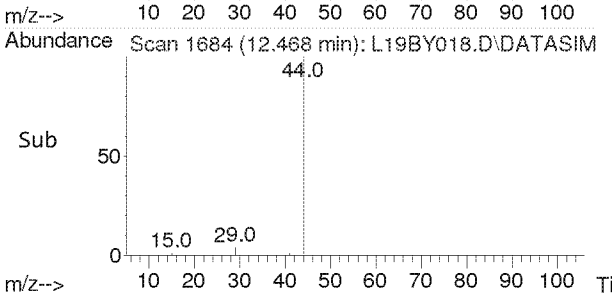


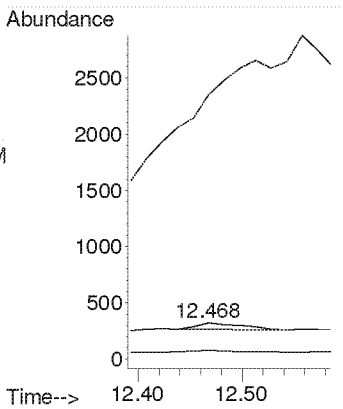
#9
Ethylene oxide
Concen: 0.082 ppbv m
RT: 12.468 min Scan# 1684
Delta R.T. 0.018 min
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 29 Resp: 179

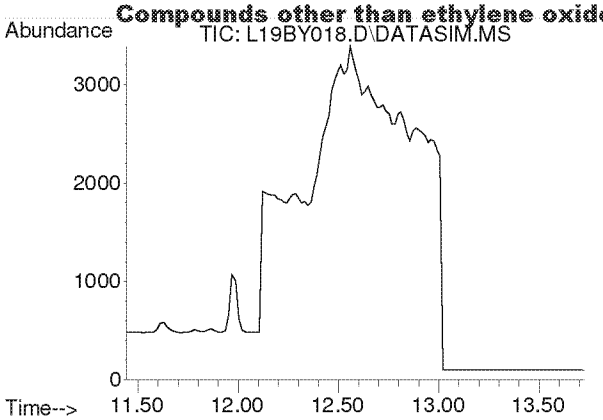
Ion	Ratio	Lower	Upper
29	100		
15	36.9	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

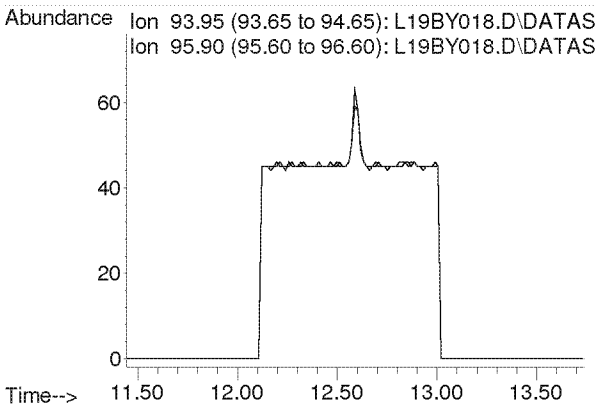


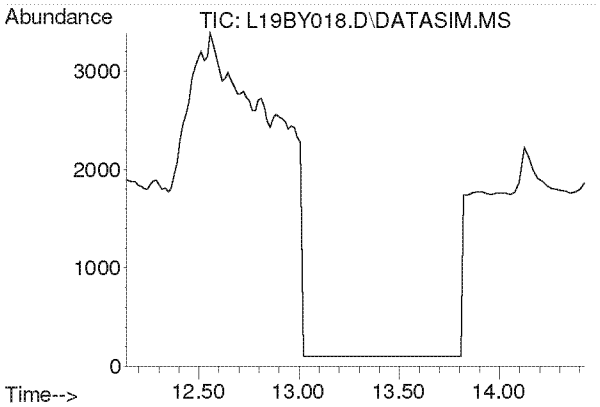
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



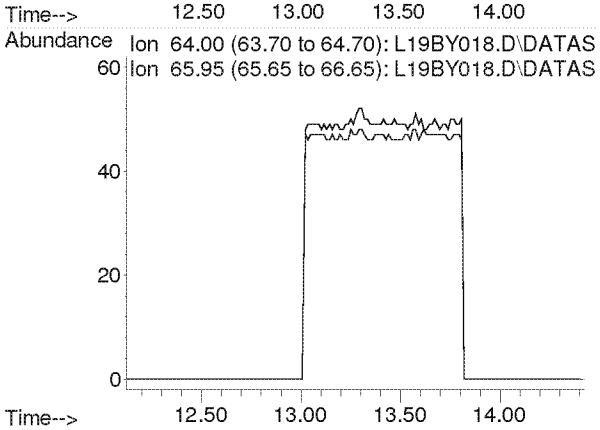


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

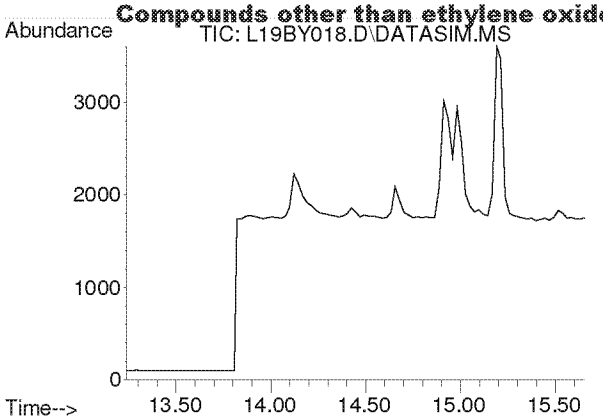
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

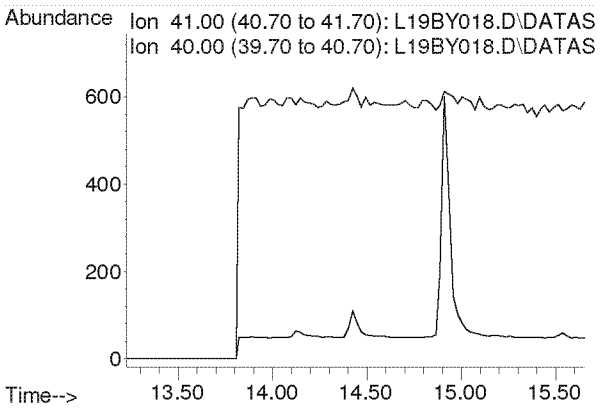


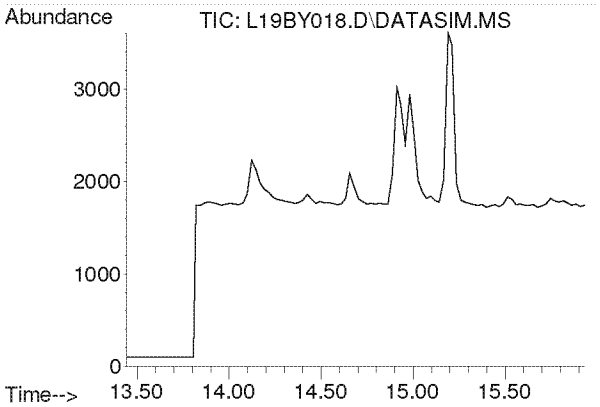
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



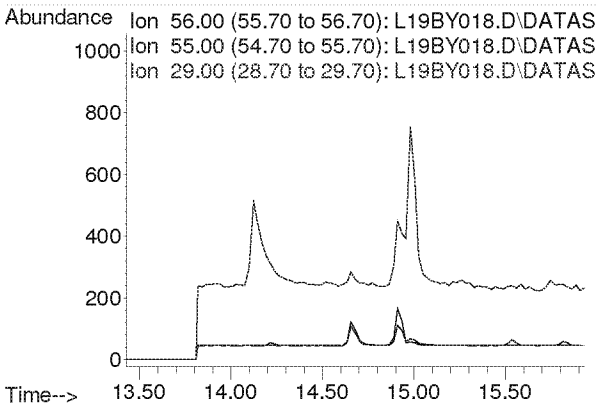


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

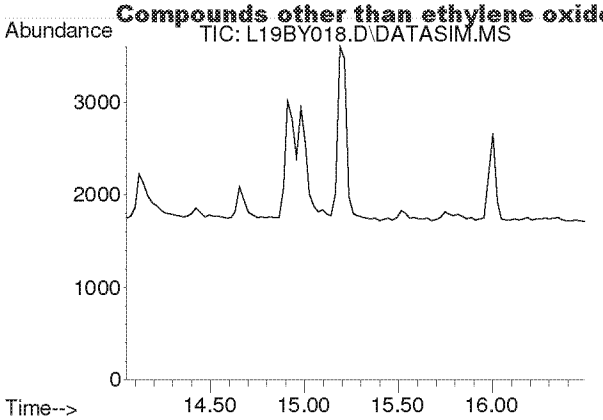
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

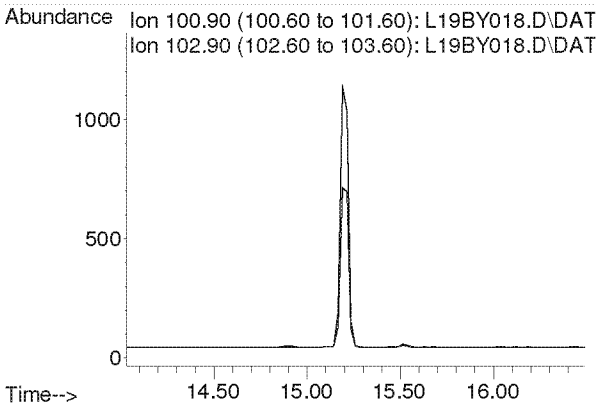


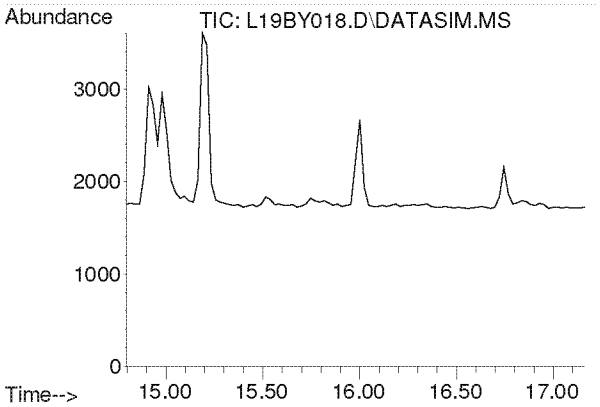
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



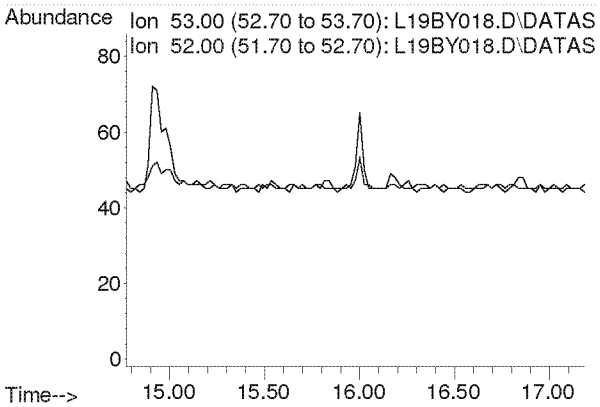


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

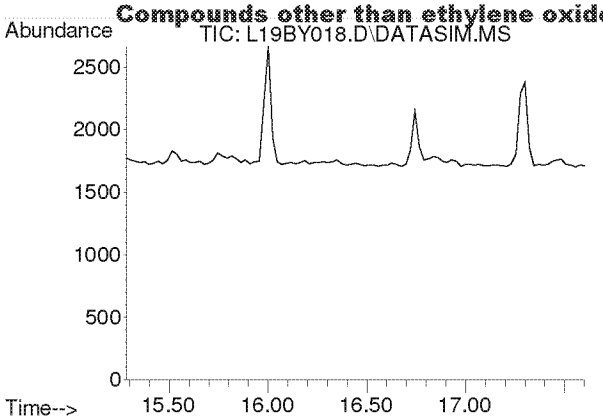
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

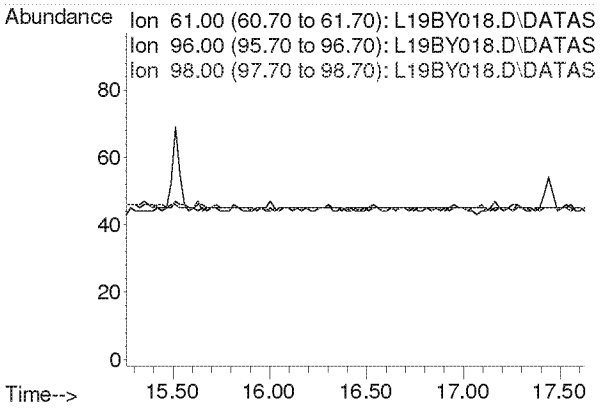


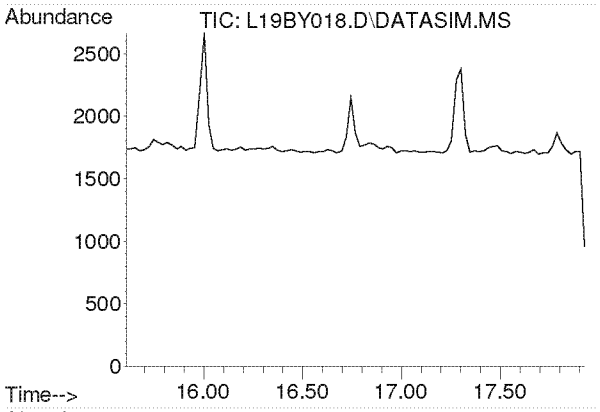
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



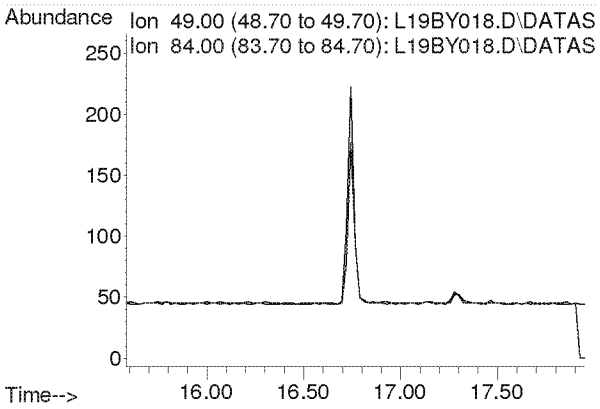


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

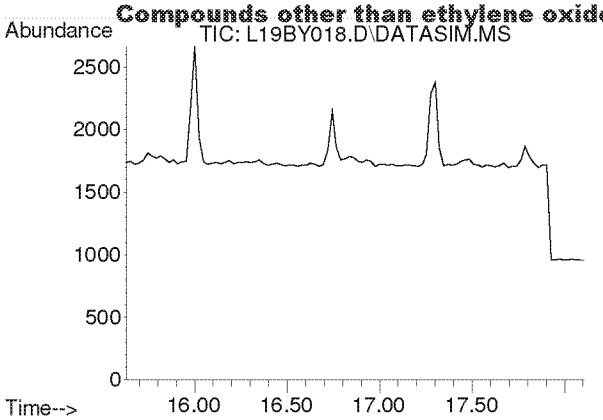
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

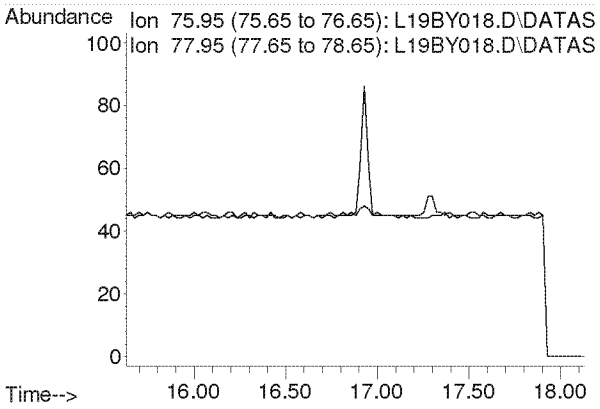


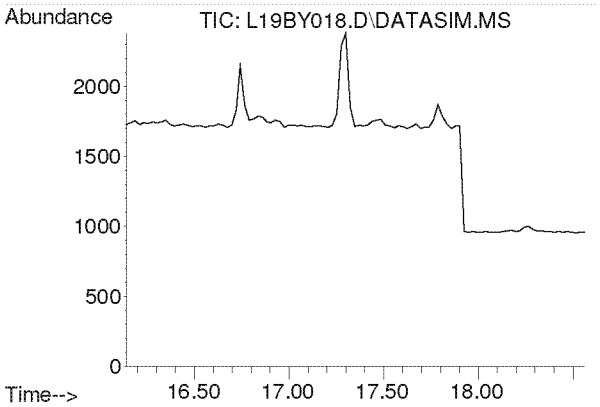
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



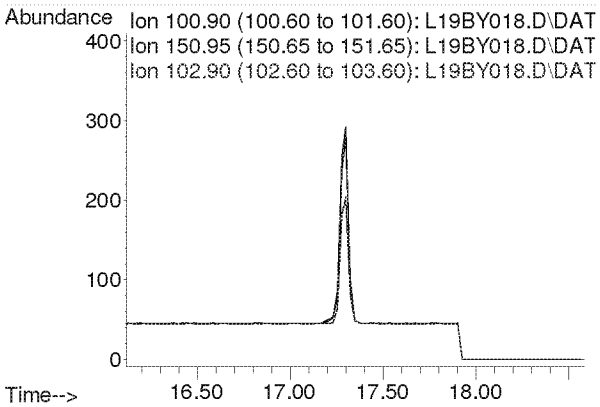


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

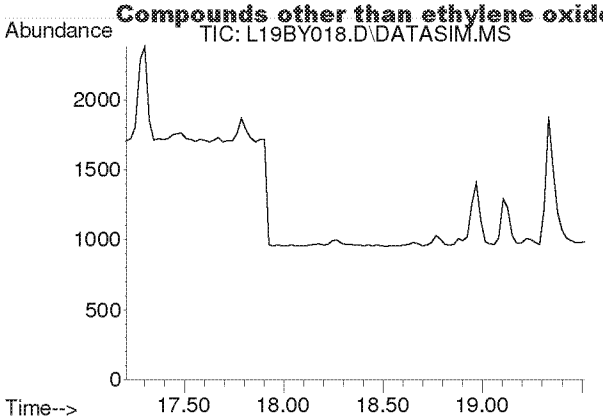
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

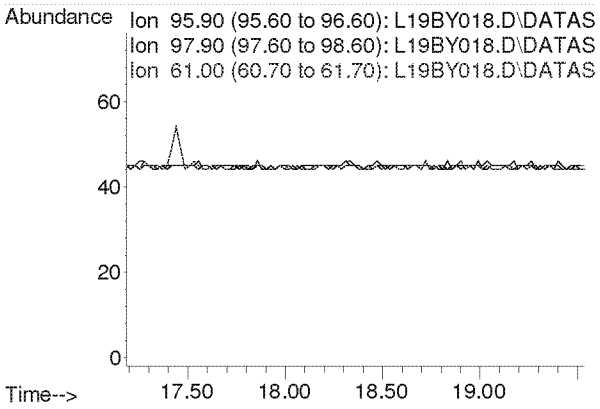


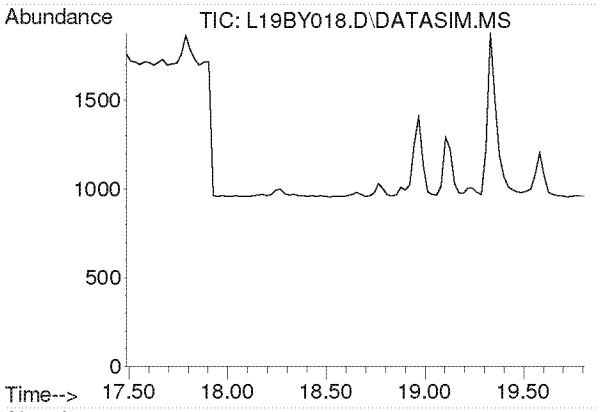
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



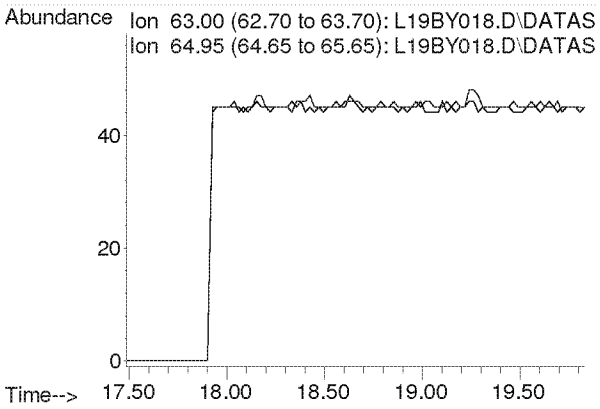


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

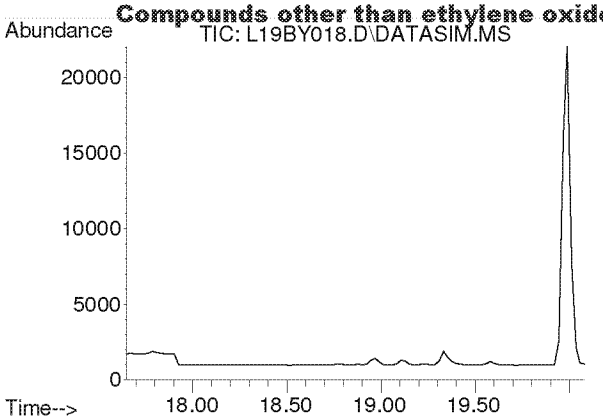
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

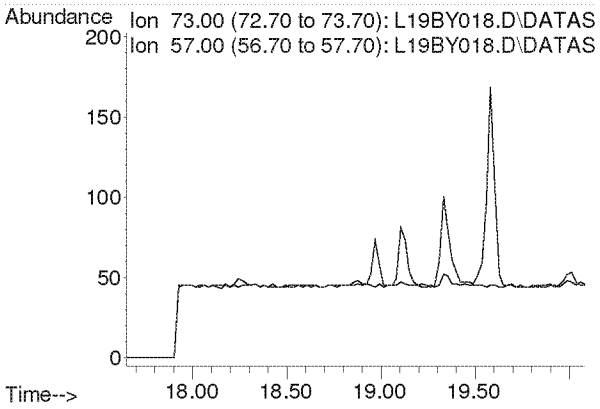


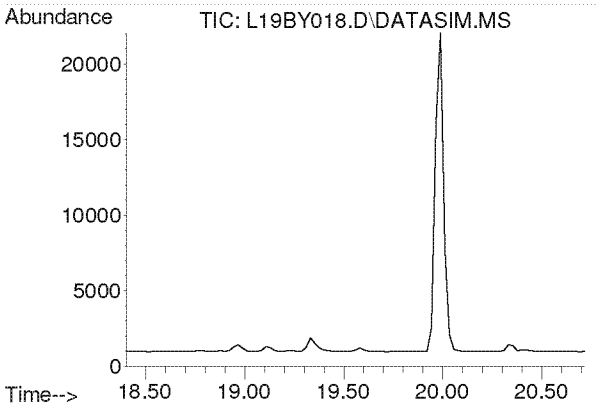
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



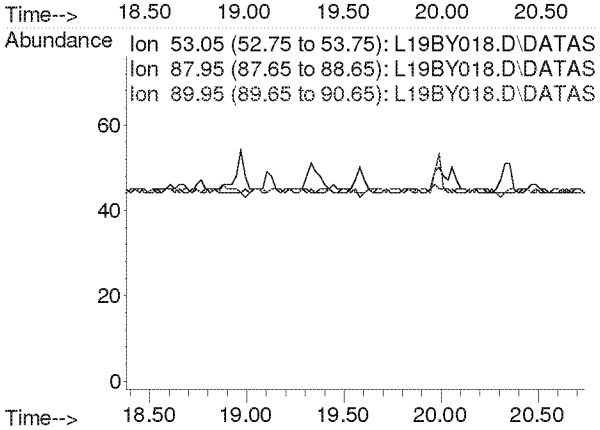


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

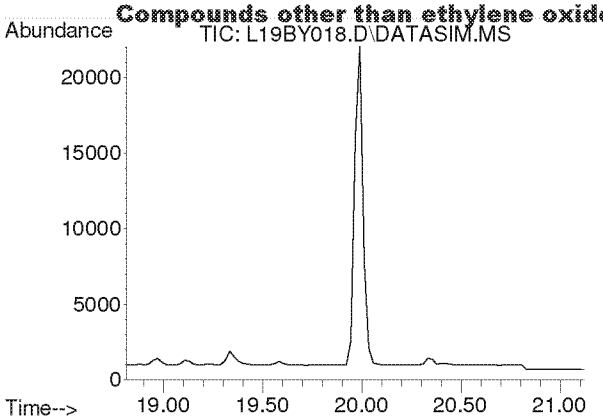
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

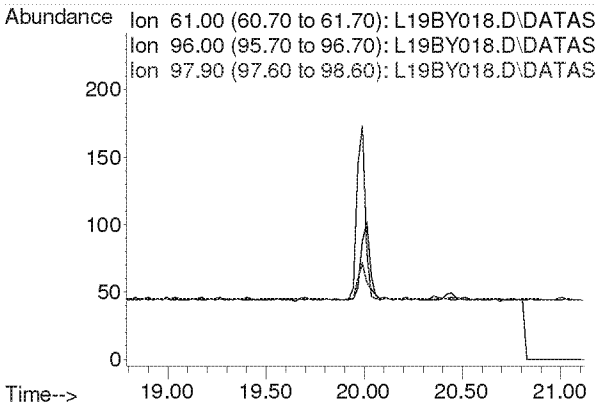


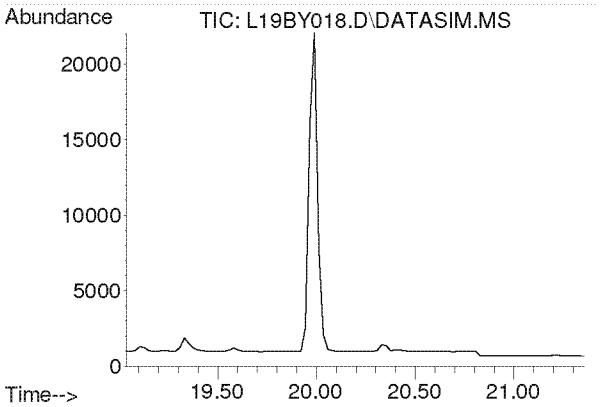
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



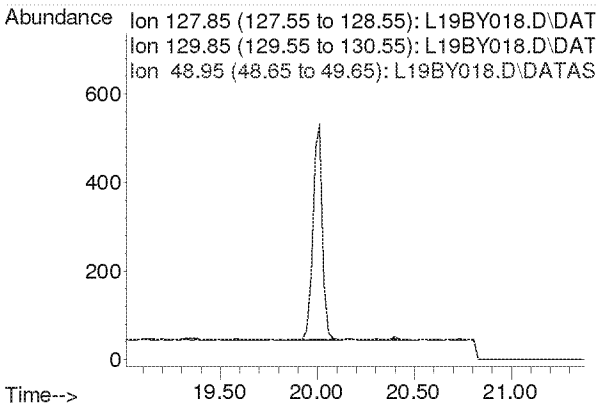


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

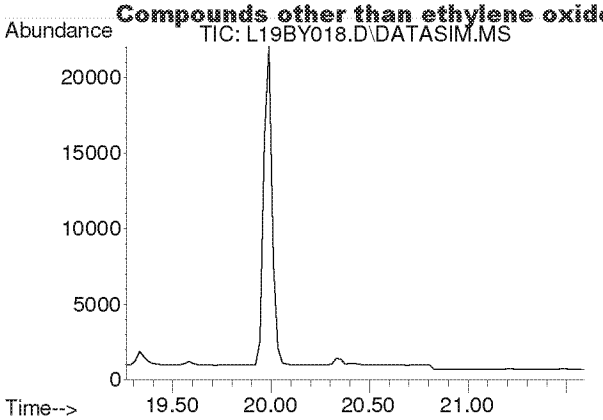
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

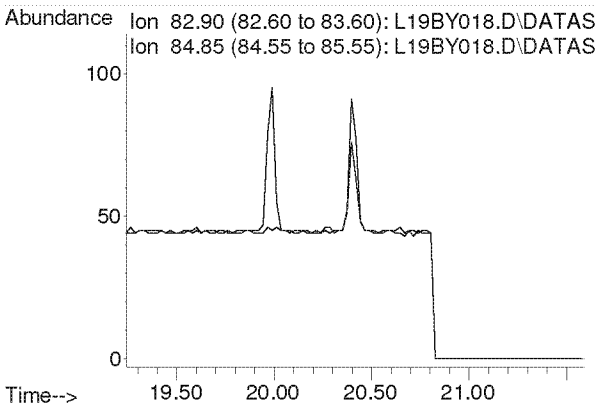


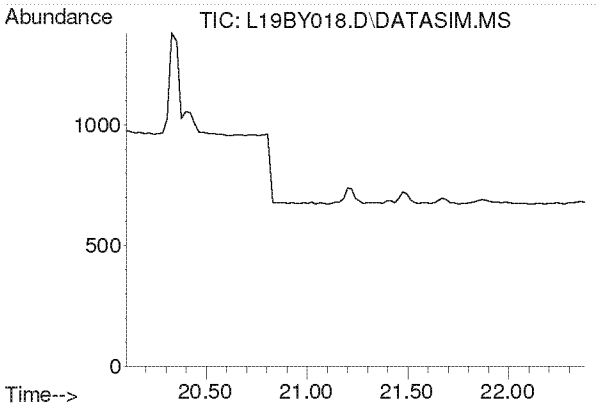
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



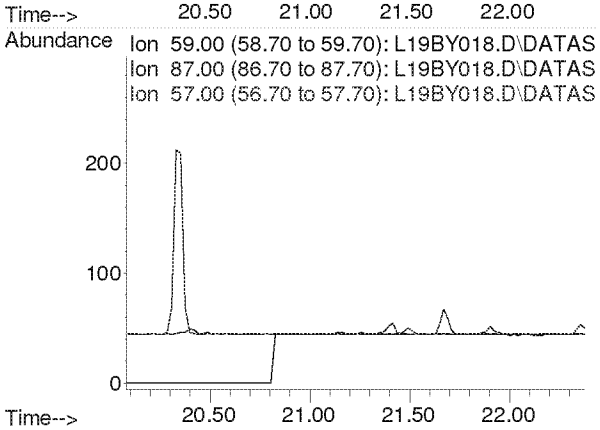


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

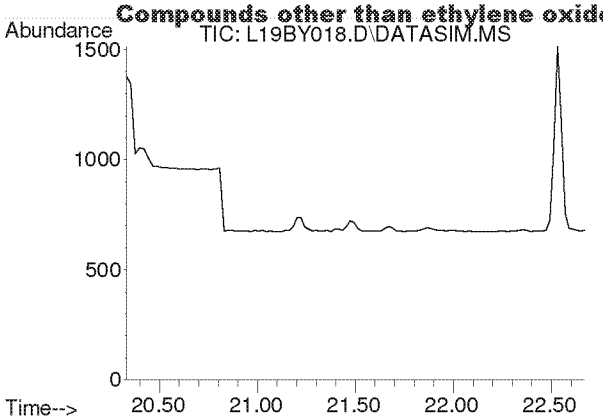
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

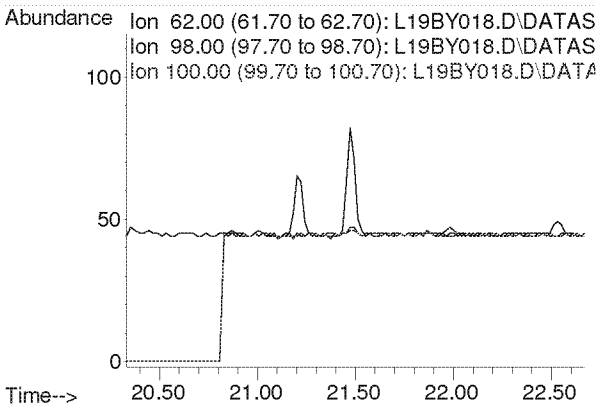


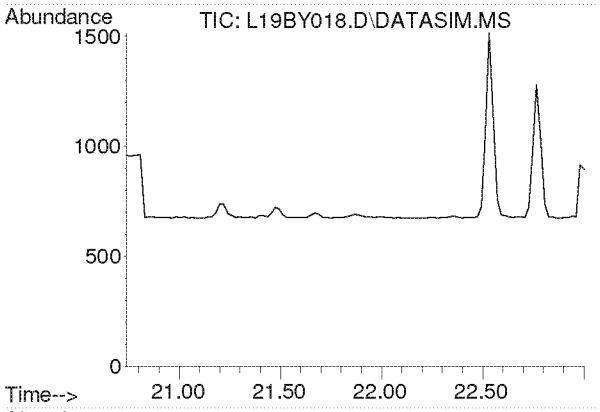
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



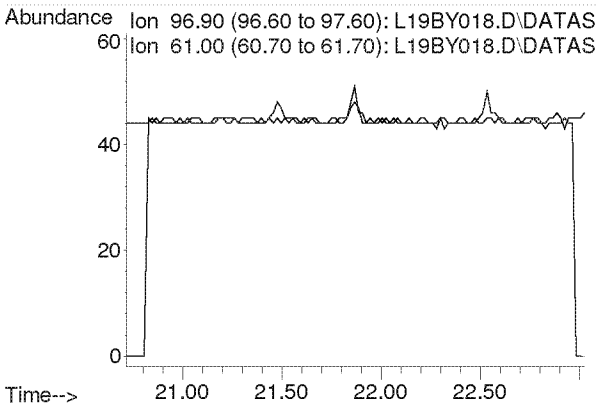


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

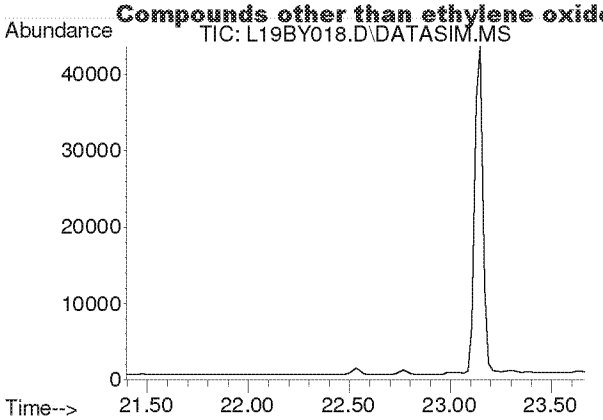
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

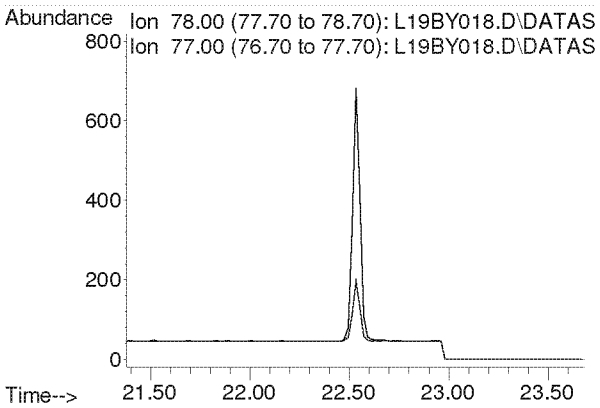


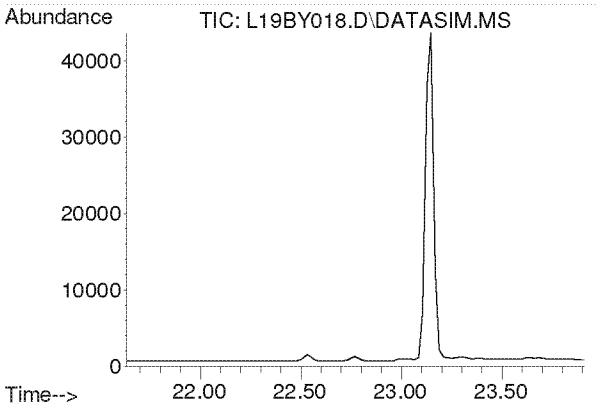
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



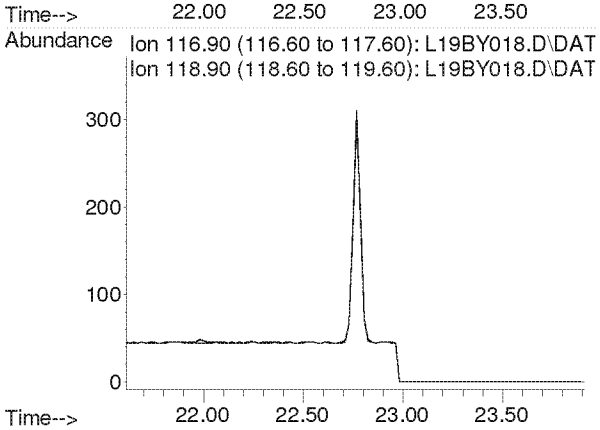


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

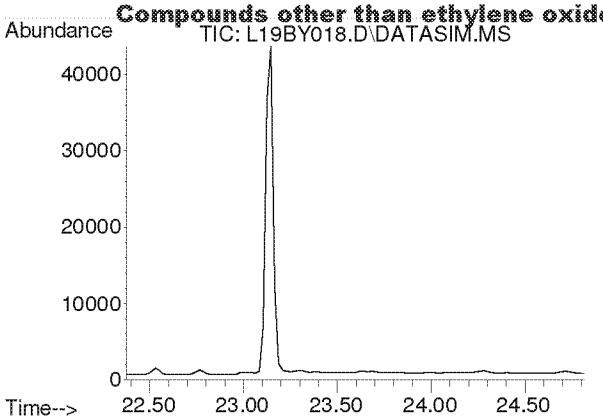
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

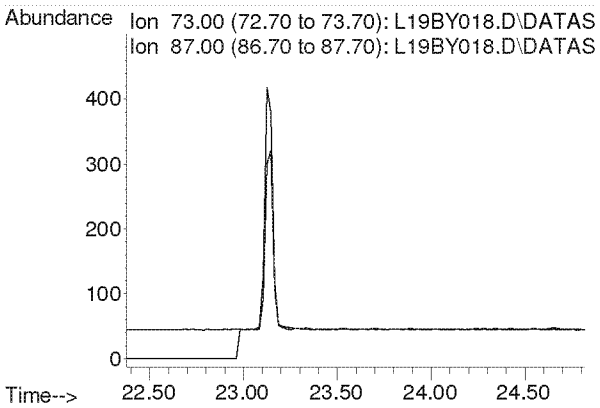


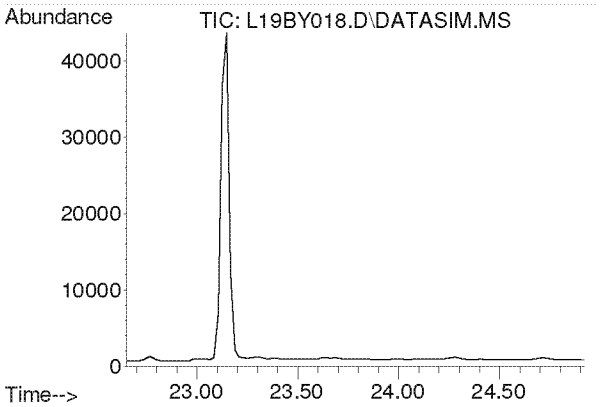
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



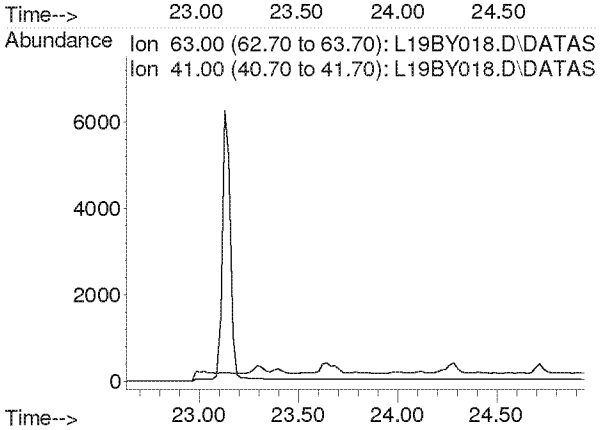


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

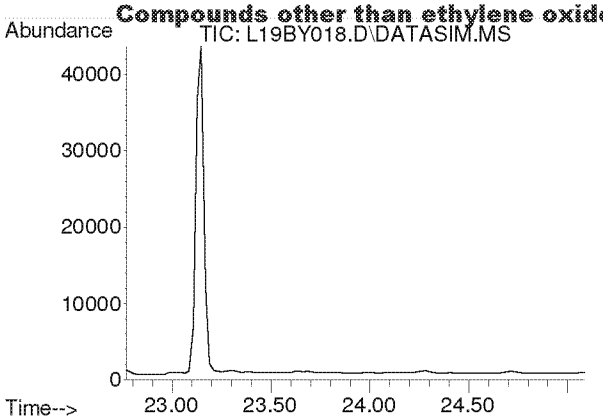
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

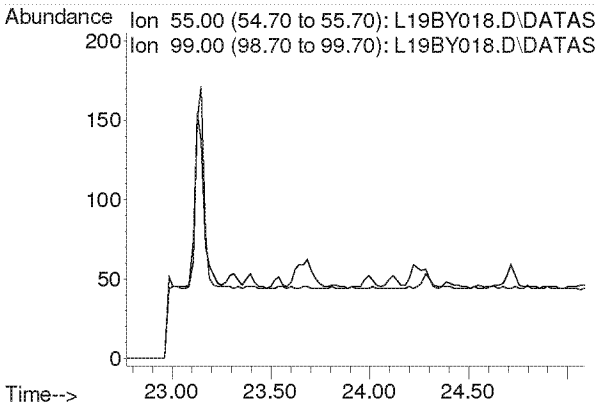


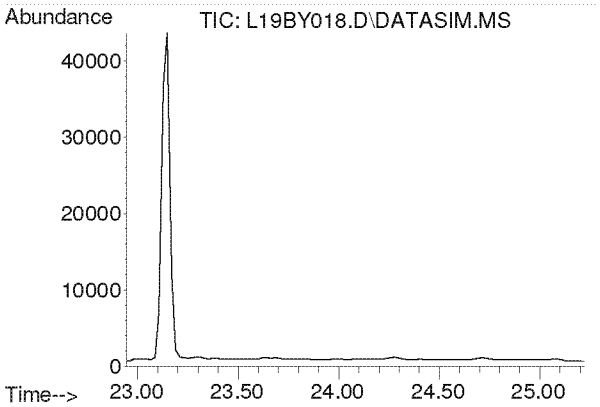
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



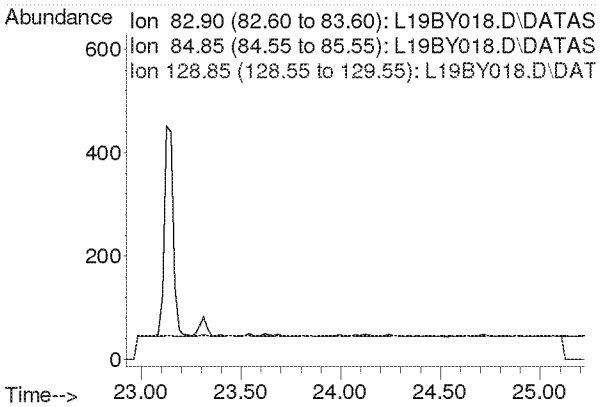


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

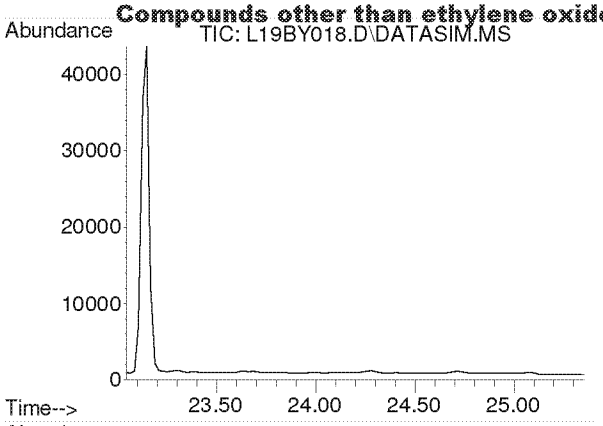
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

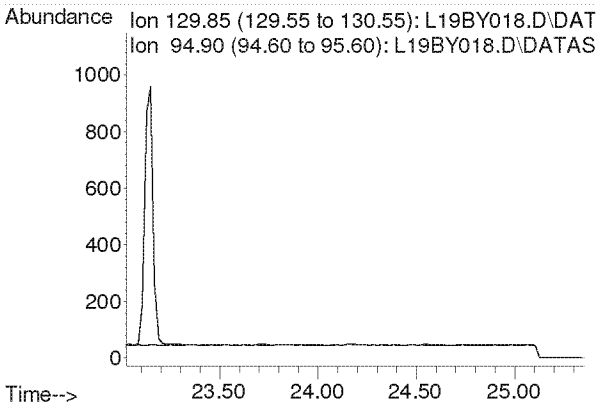


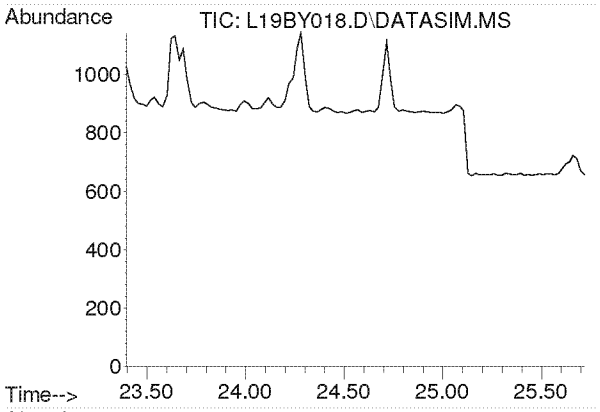
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



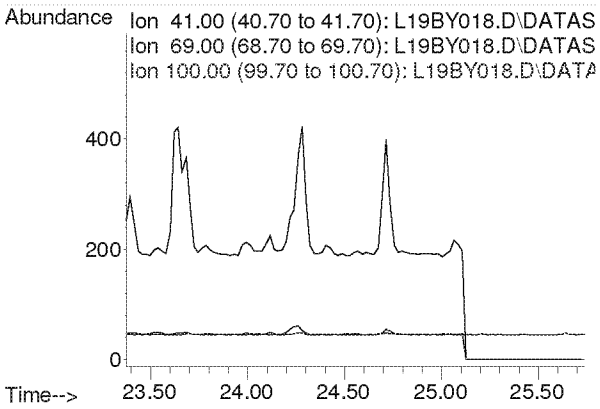


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

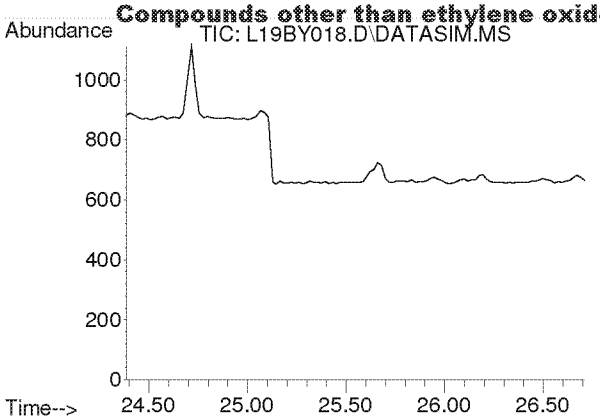
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

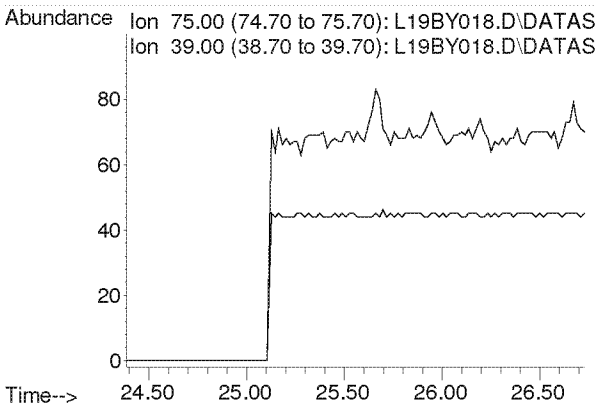


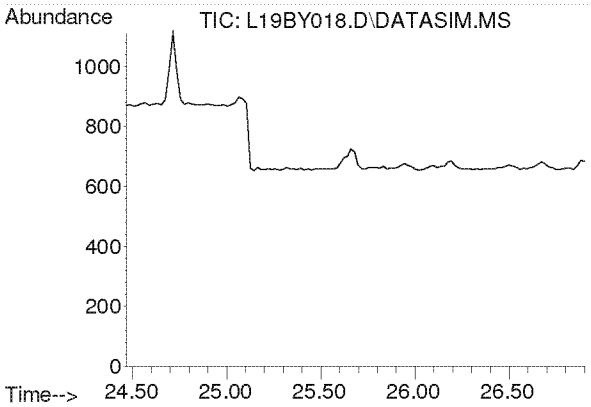
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



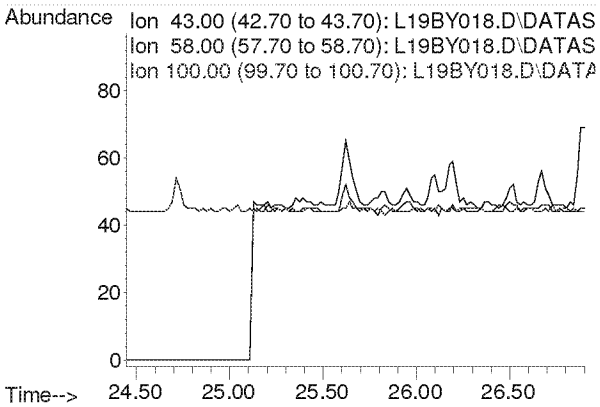


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

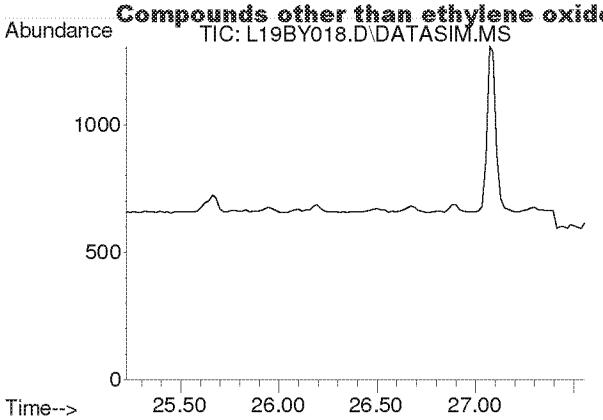
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

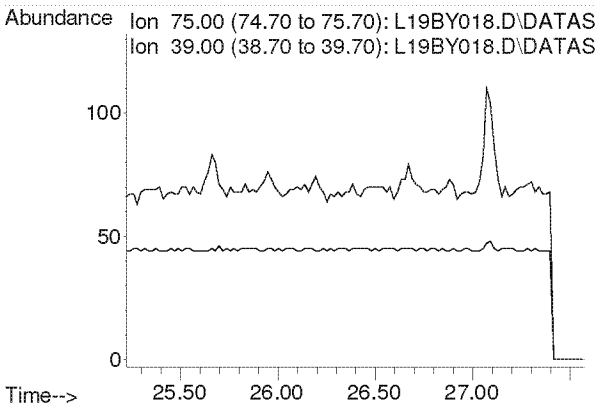


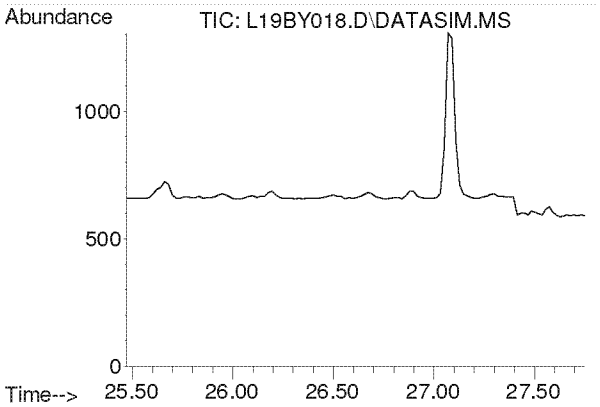
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



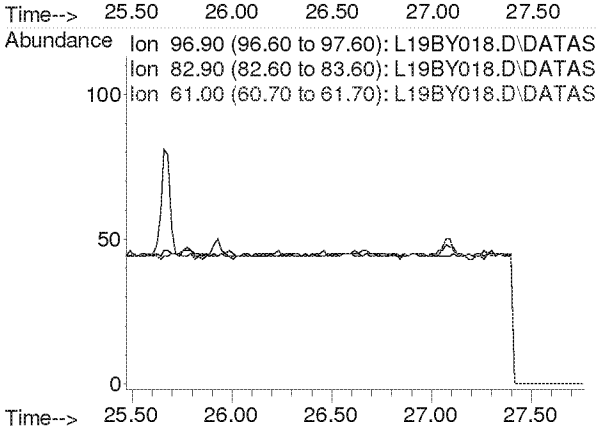


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

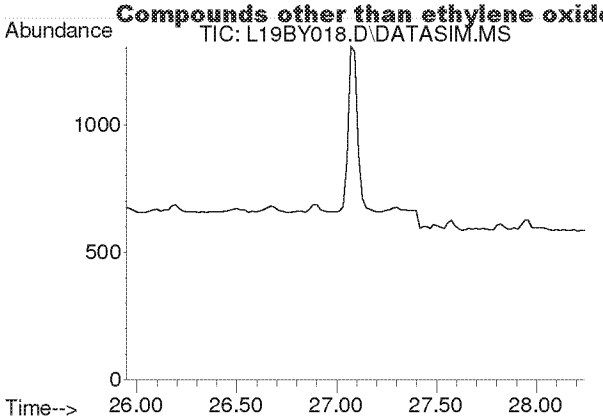
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

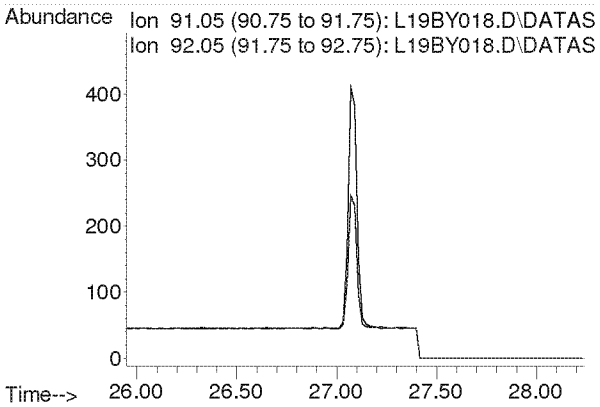


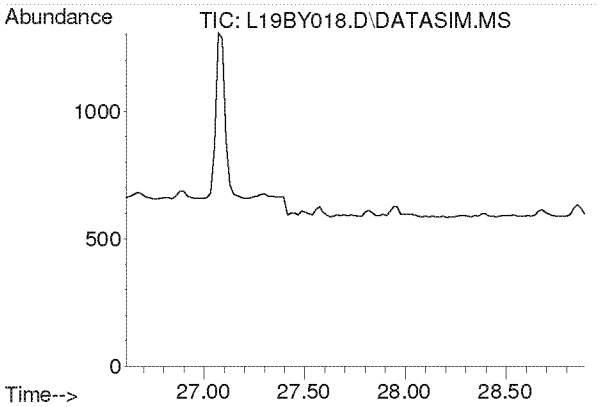
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



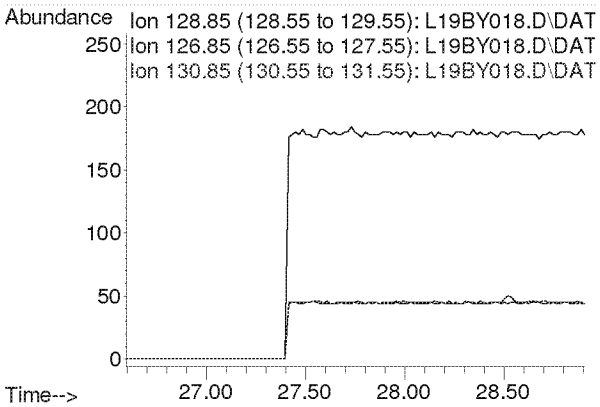


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

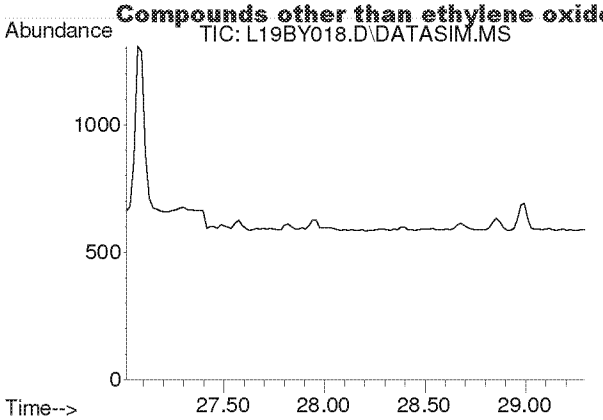
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

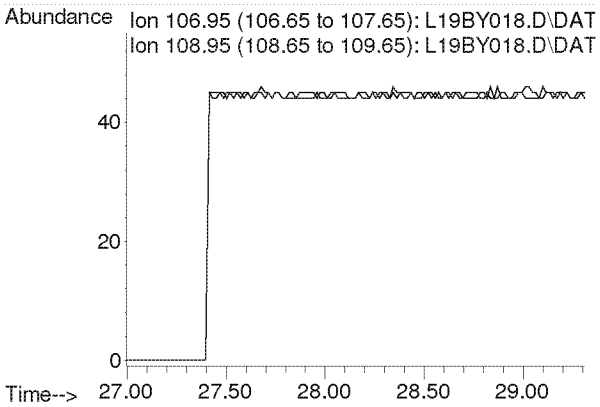


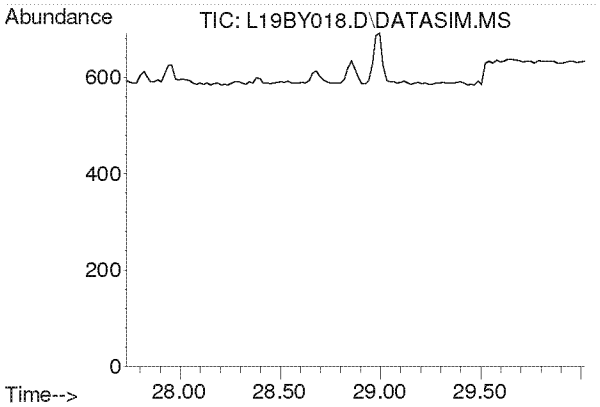
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



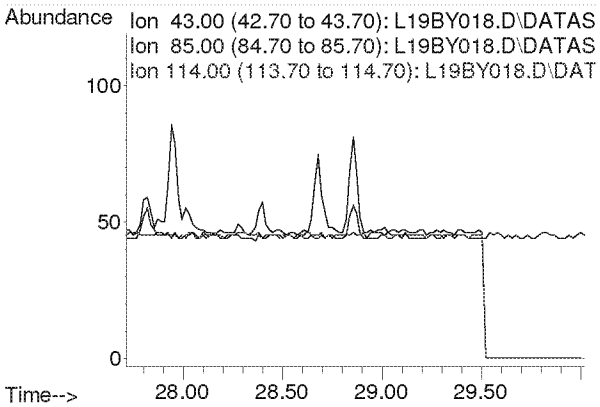


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

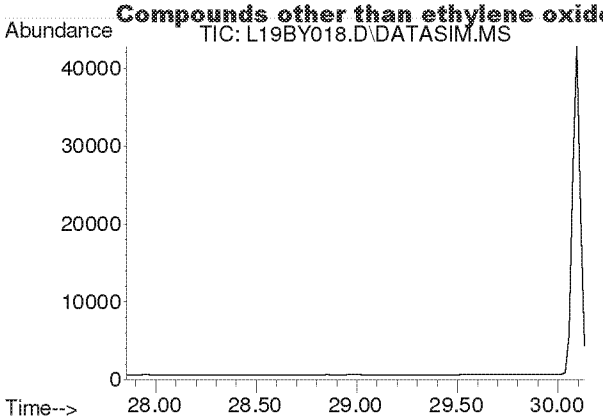
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

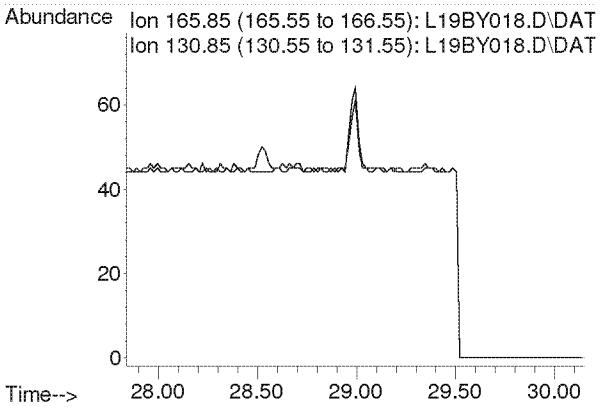


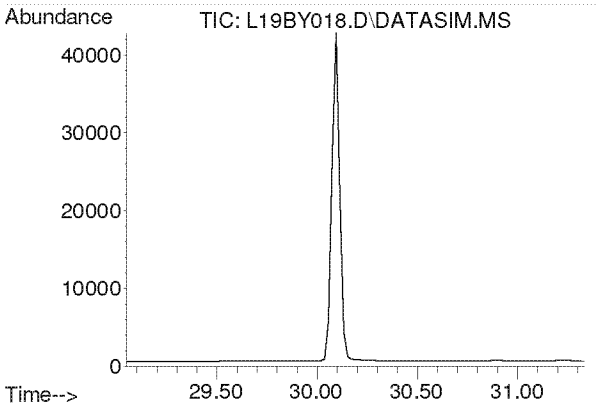
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



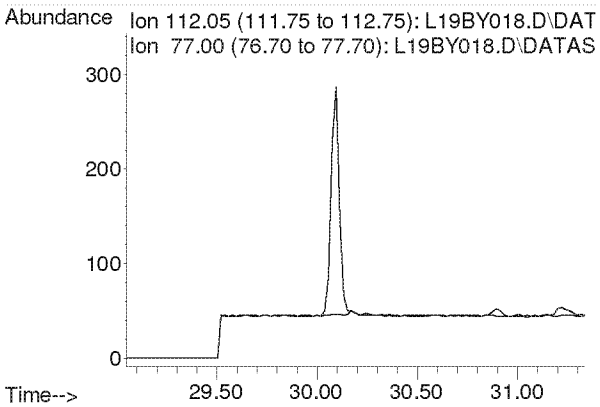


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

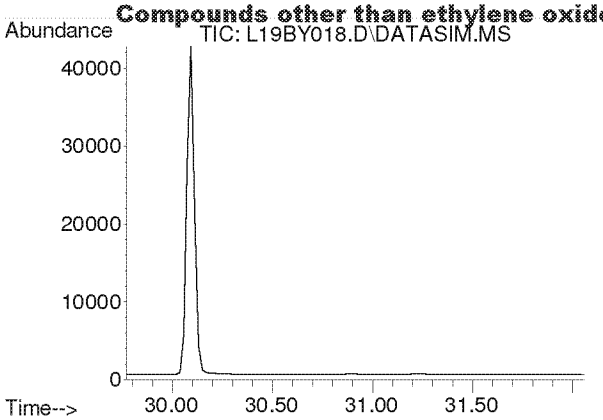
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

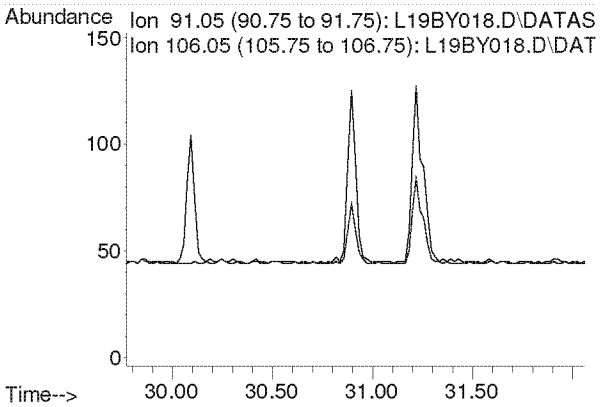


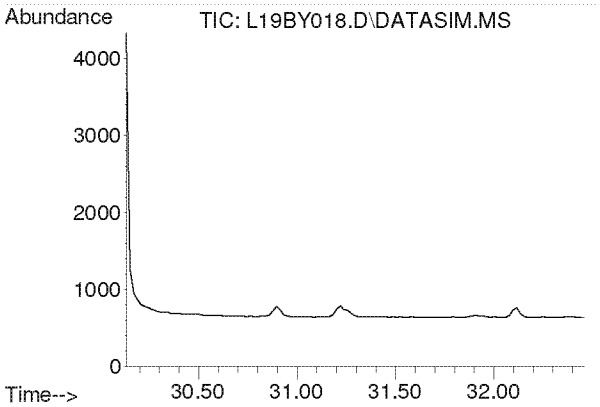
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



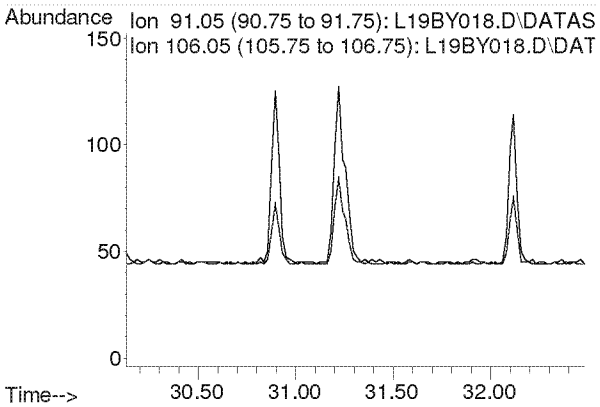


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

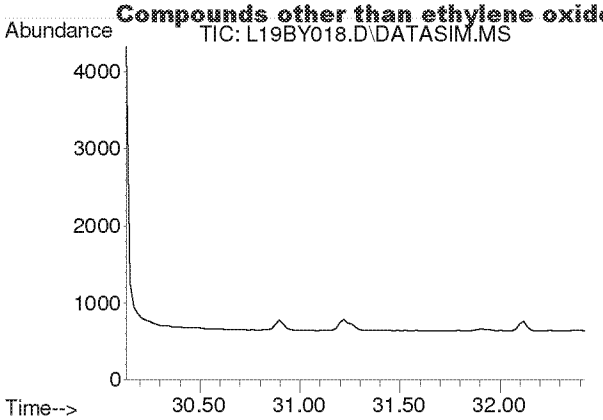
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

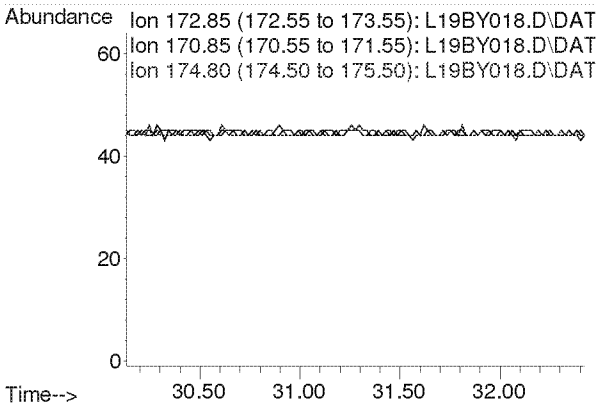


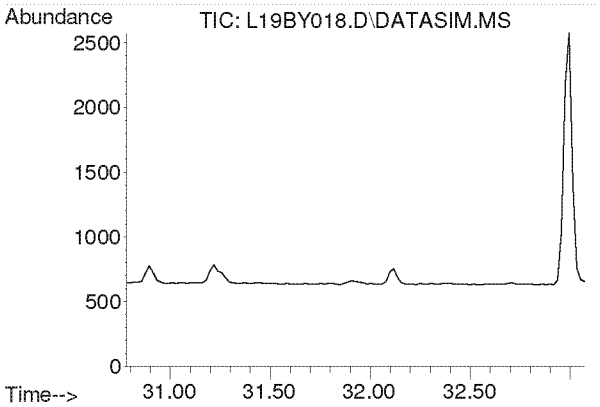
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



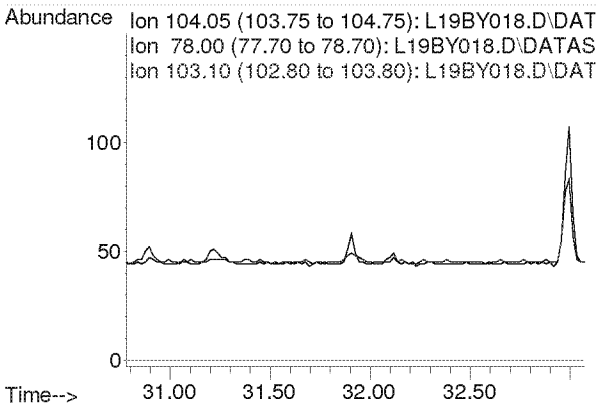


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

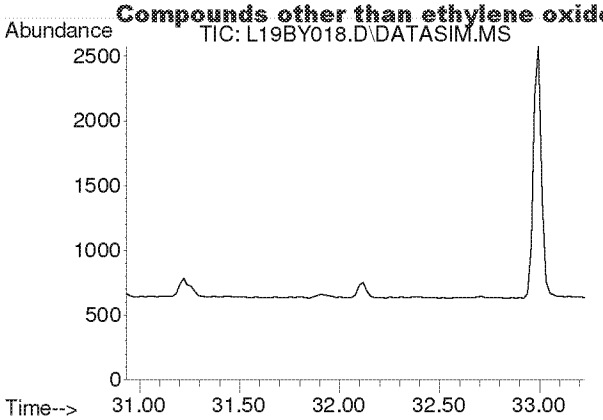
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

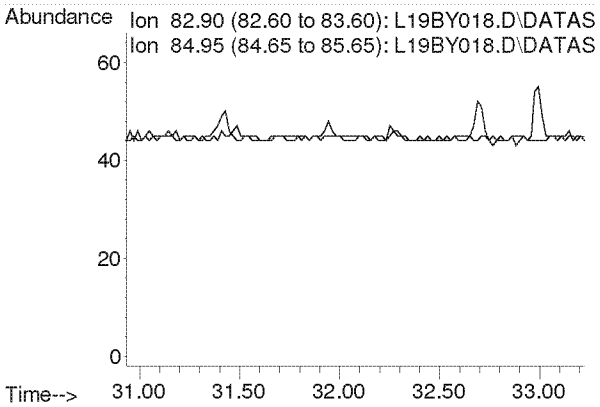


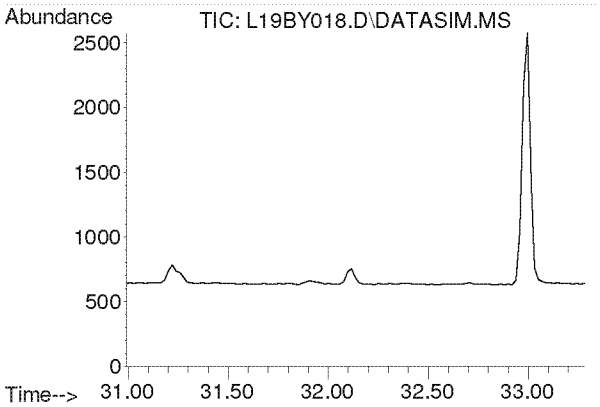
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



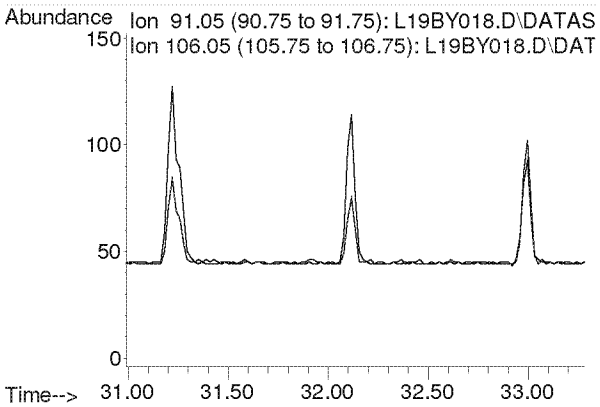


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

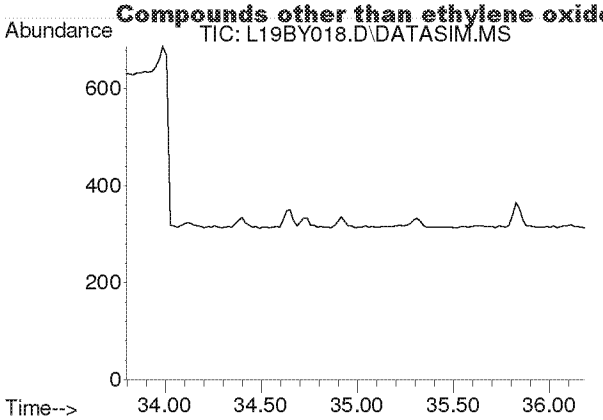
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

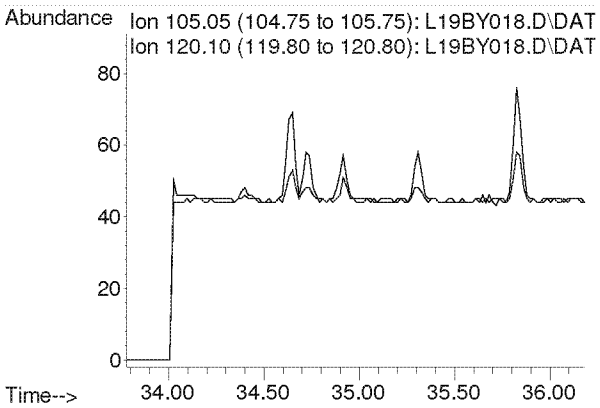


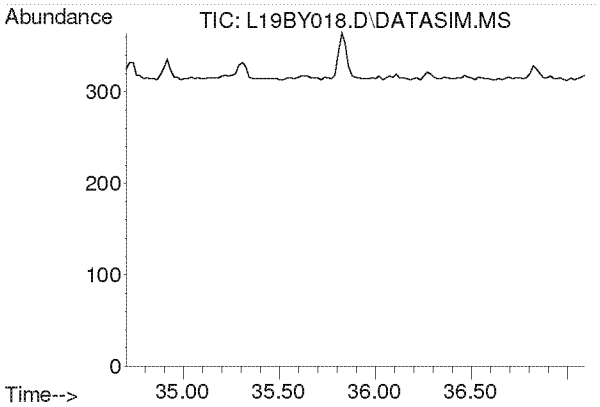
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



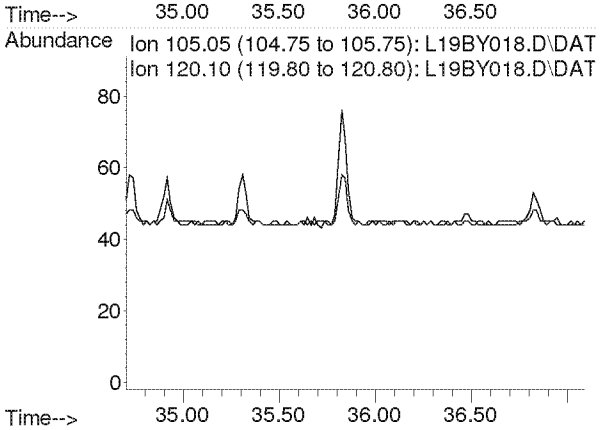


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

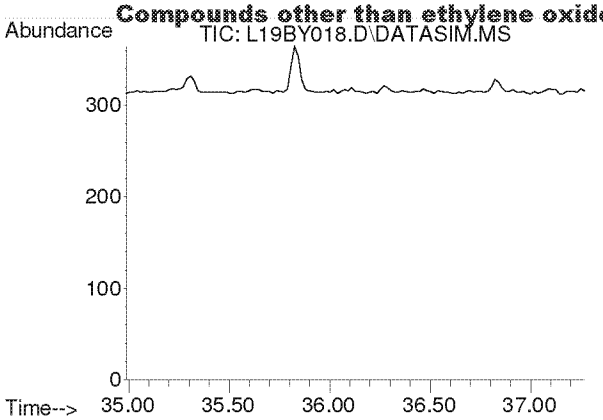
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

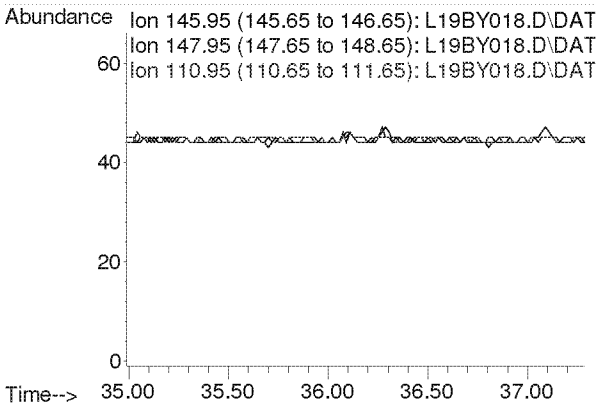


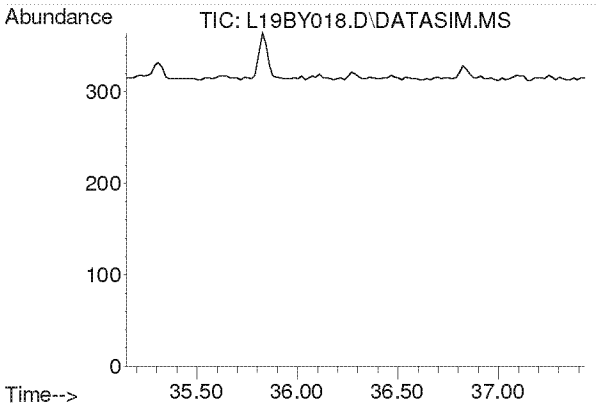
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



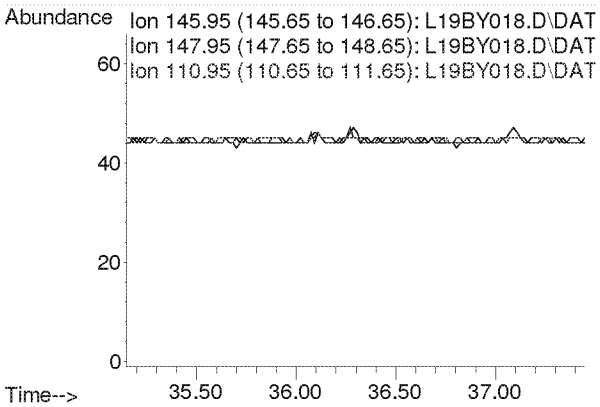


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

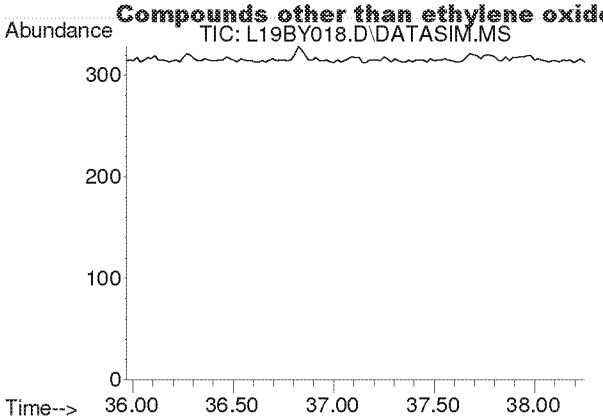
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

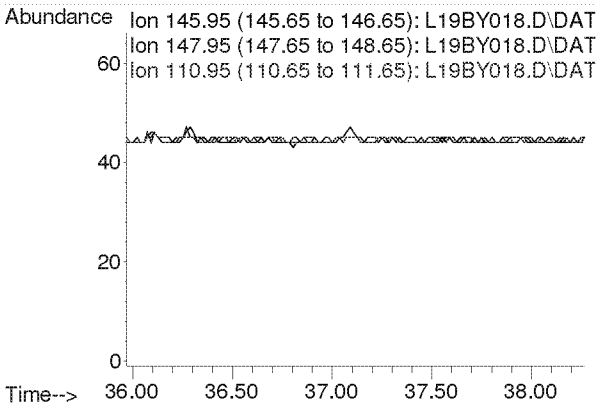


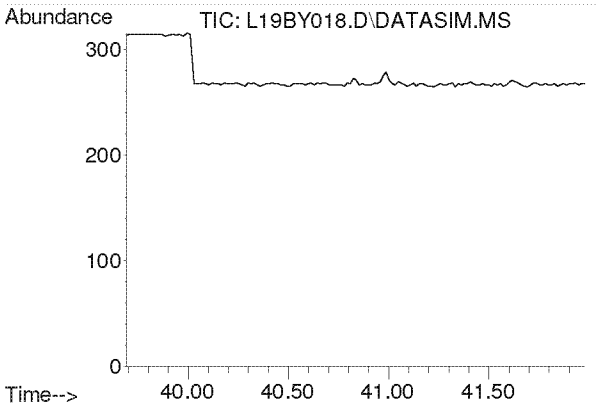
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



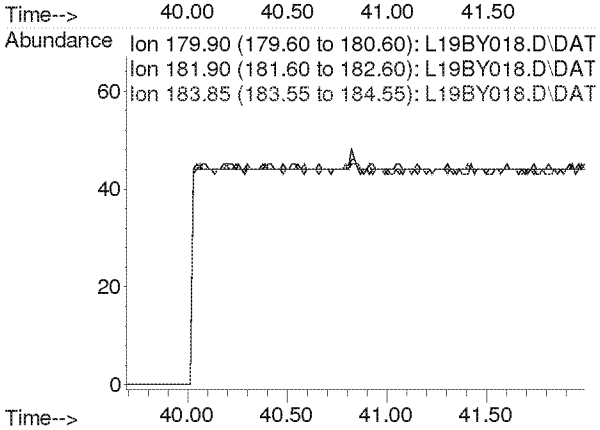


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

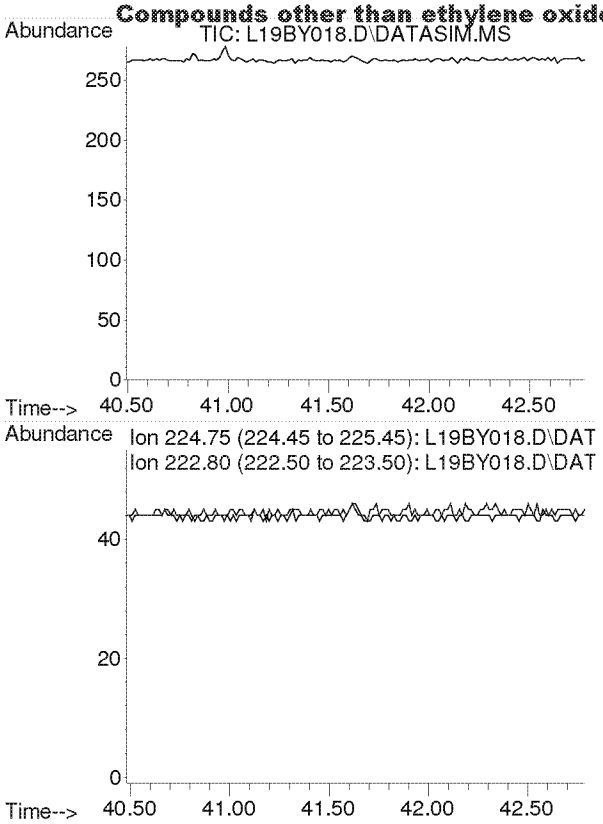
Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY018.D
Acq: 26 Feb 2019 12:30 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY019.D
Acq On : 26 Feb 2019 1:31 am (#1); 26-Feb-19, 01:25:50 (#2)
Operator : MAH
Sample : 9022202-13
Misc : HINSDALE S. HS 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 26 10:14:25 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

E704 only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	38298	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	97088	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	69109	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	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY019.D
Acq On : 26 Feb 2019 1:31 am (#1); 26-Feb-19, 01:25:50 (#2)
Operator : MAH
Sample : 9022202-13
Misc : HINSDALE S. HS 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 26 10:14:25 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
Quant Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

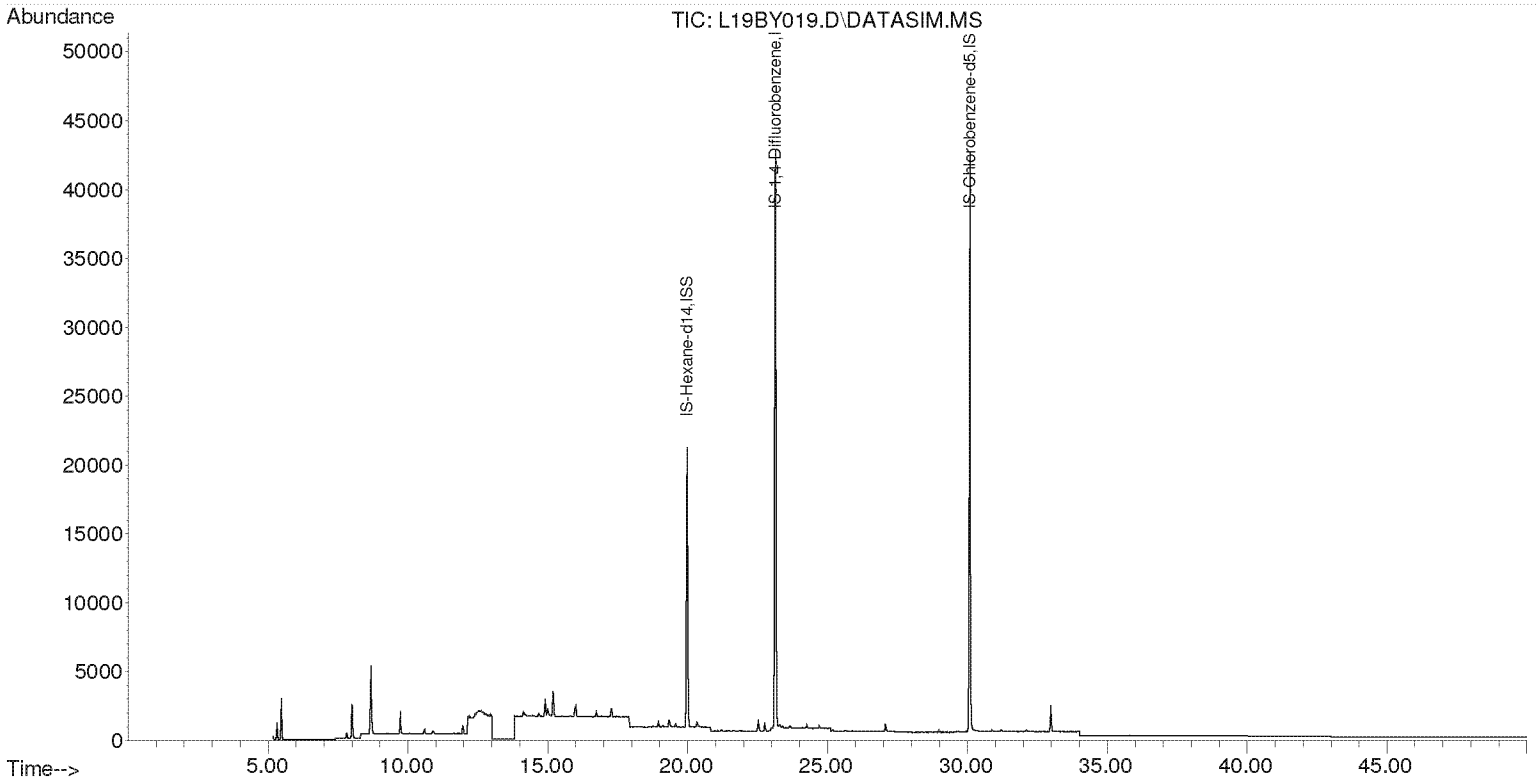
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

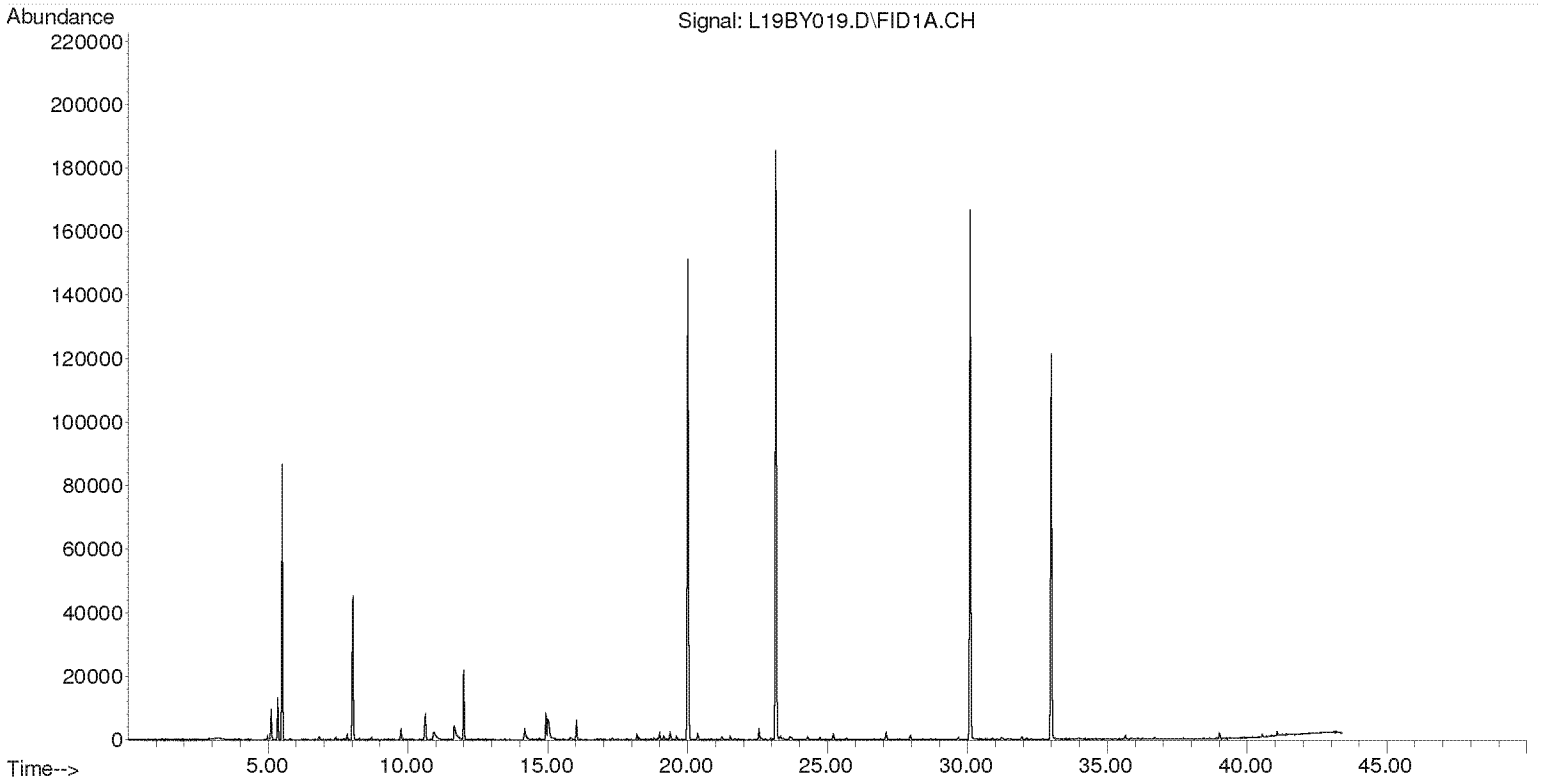
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

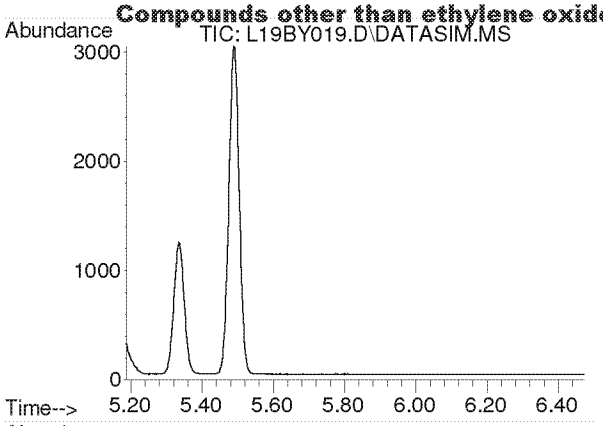
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY019.D
Acq On : 26 Feb 2019 1:31 am (#1); 26 Feb 2019 1:25 am (#2)
Operator : MAH
Sample : 9022202-13
Misc : HINSDALE S. HS 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 26 09:56:01 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





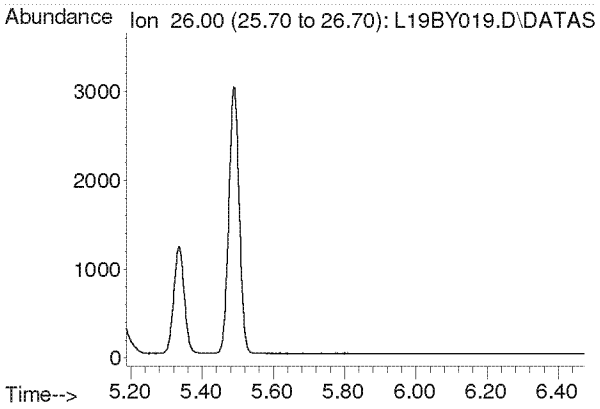
Compounds other than ethylene oxide were not quantitated.

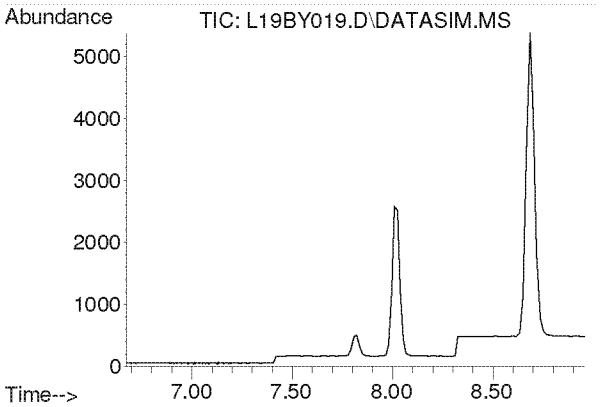


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 26



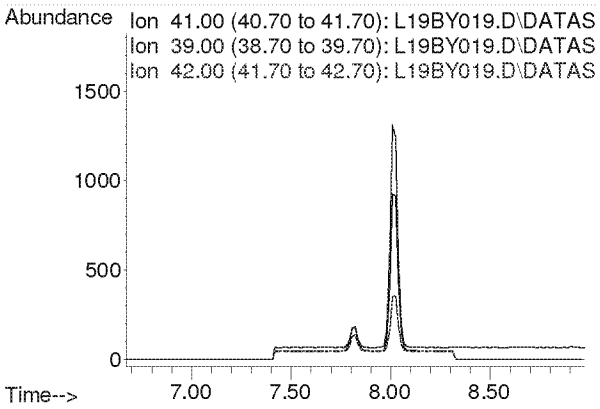


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

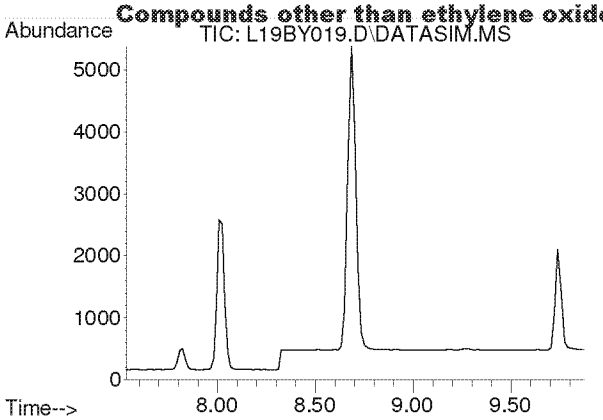
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

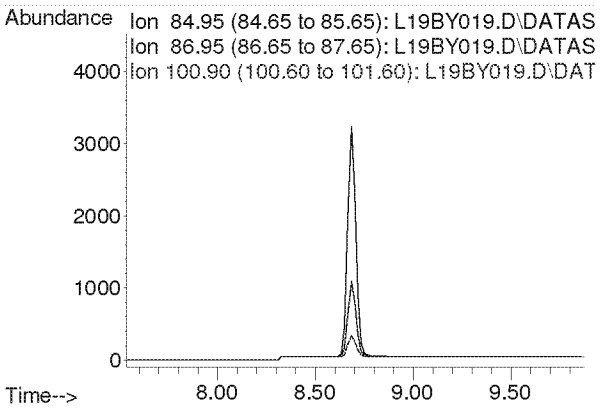


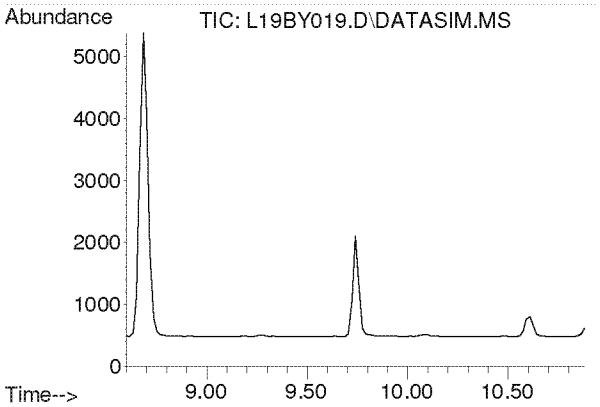
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



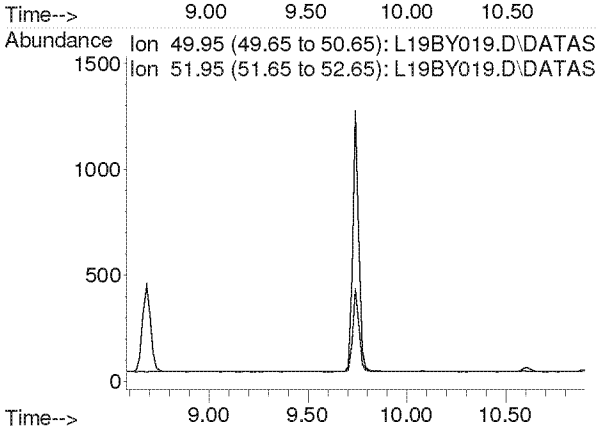


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

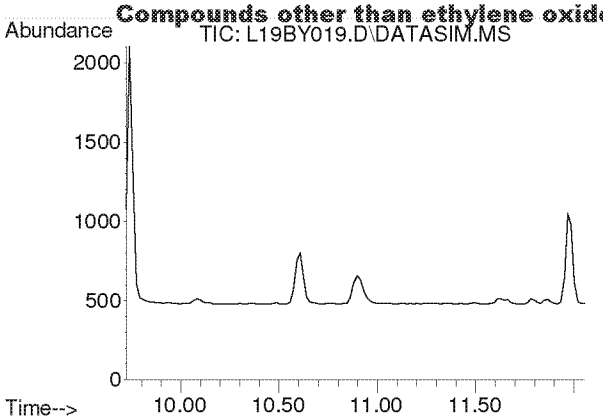
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

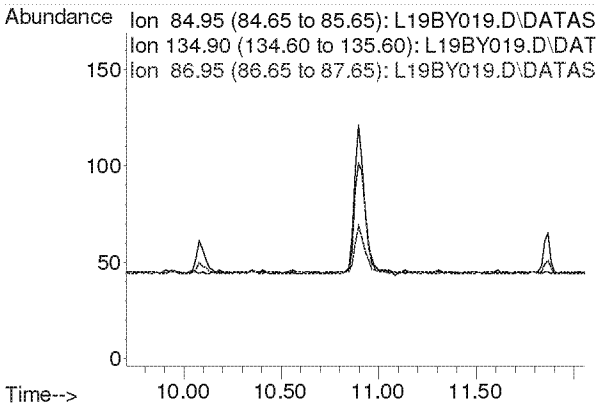


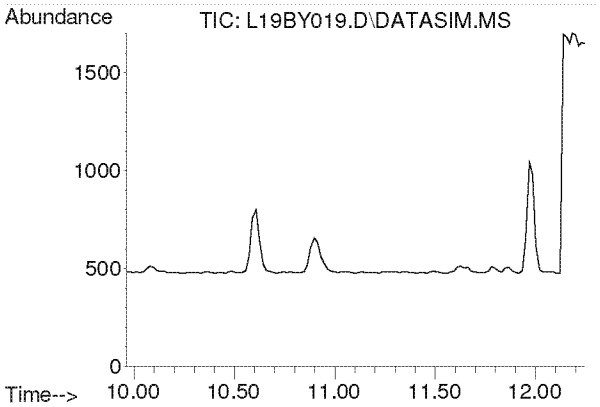
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



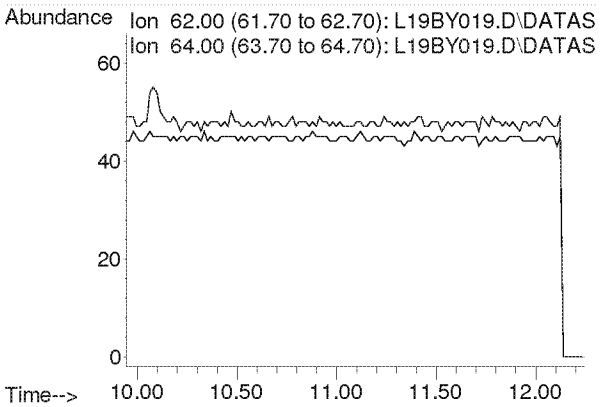


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

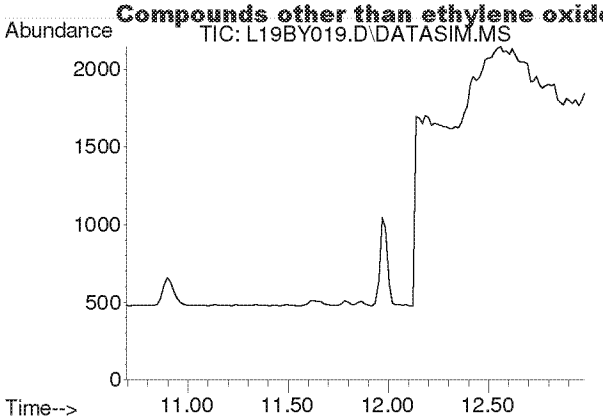
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

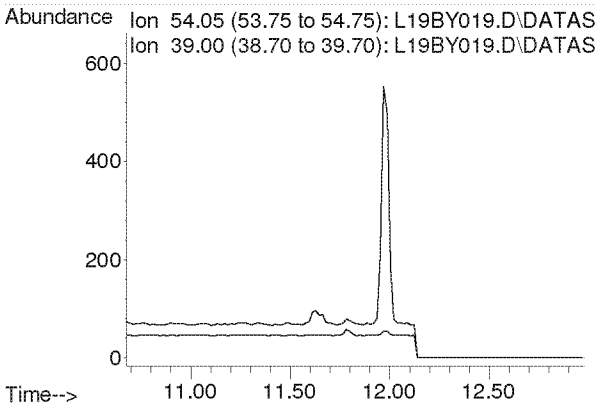


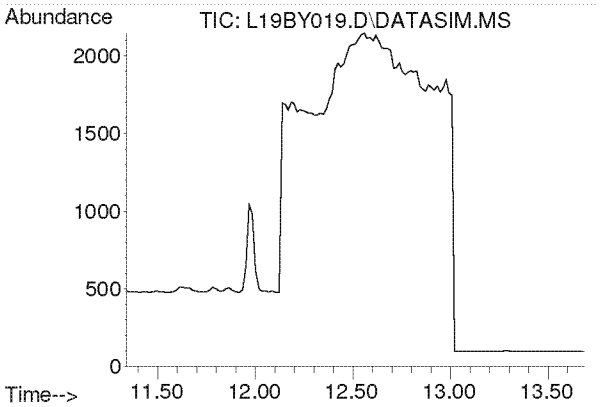
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



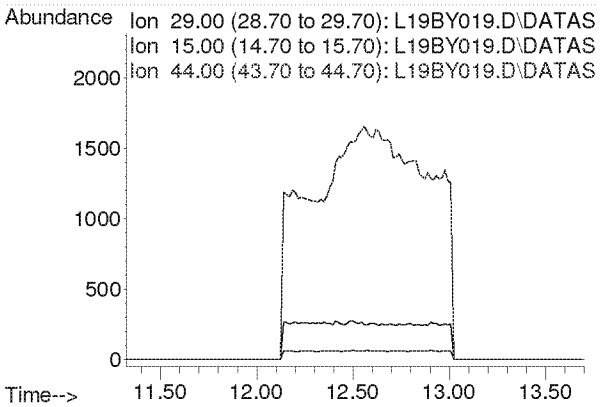


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

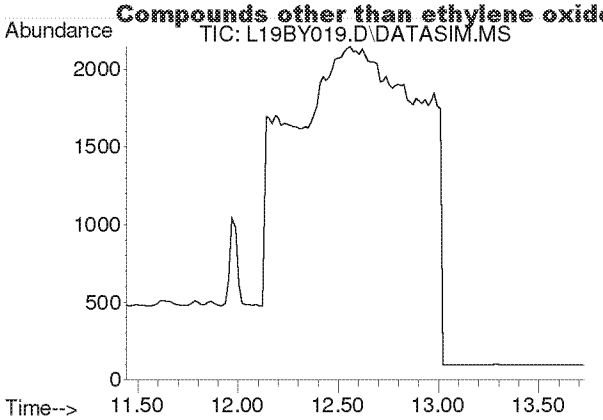
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

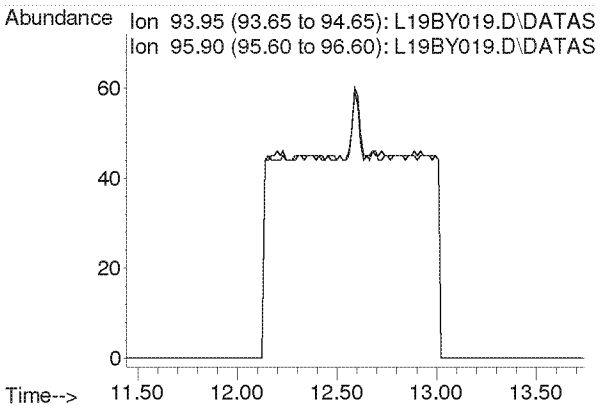


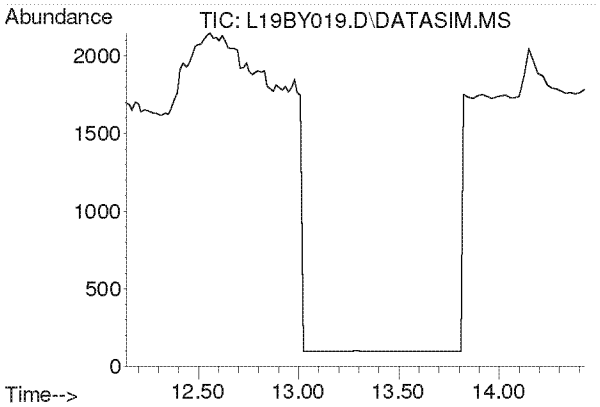
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



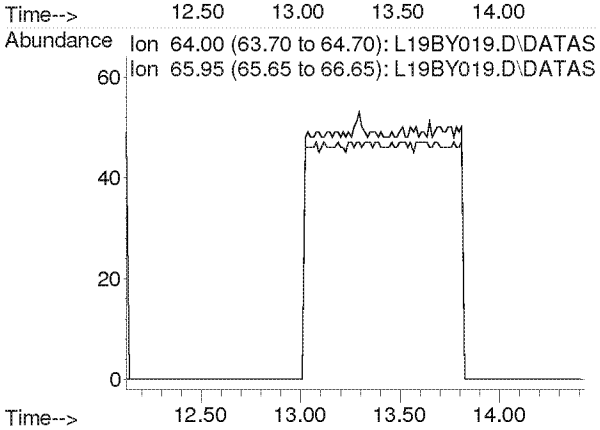


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

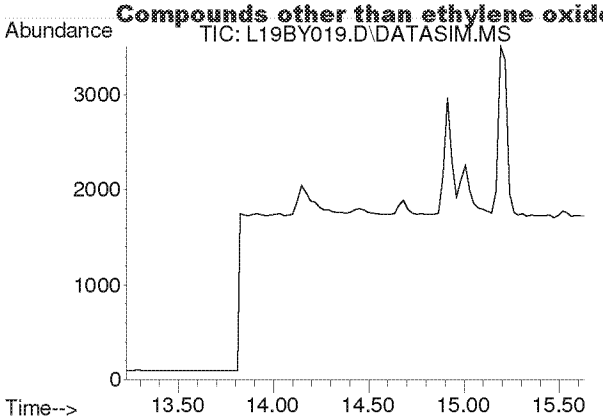
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

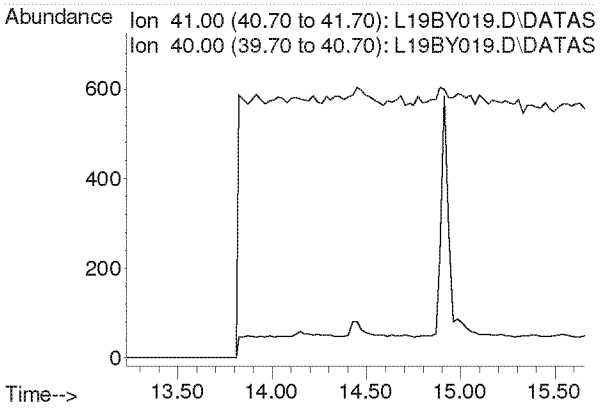


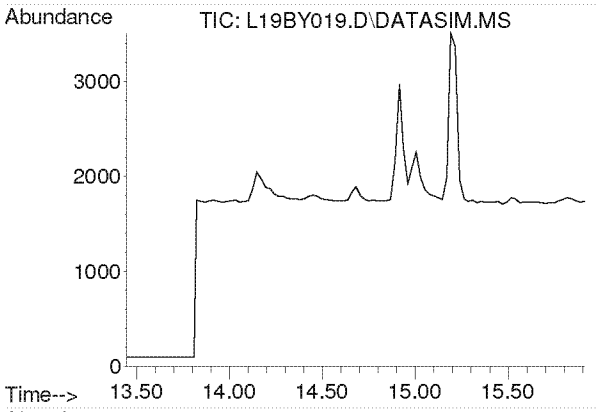
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



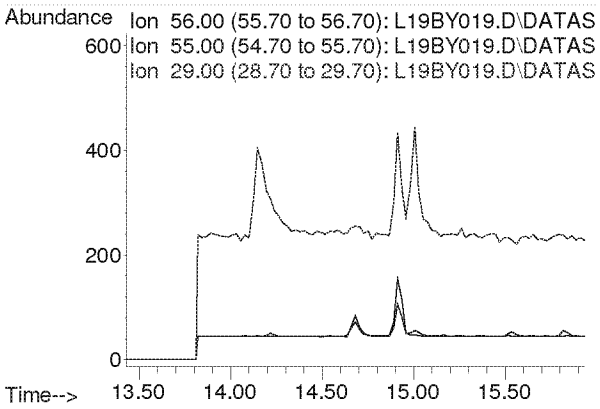


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

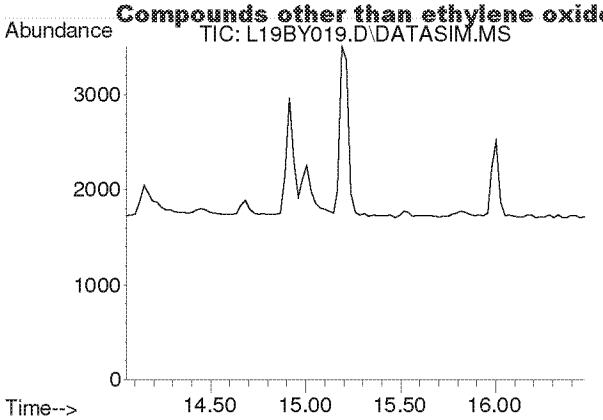
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

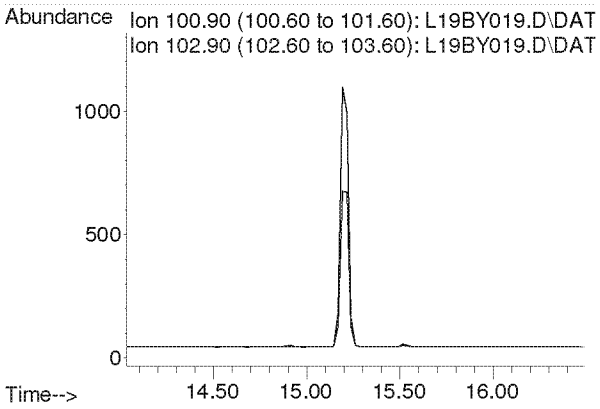


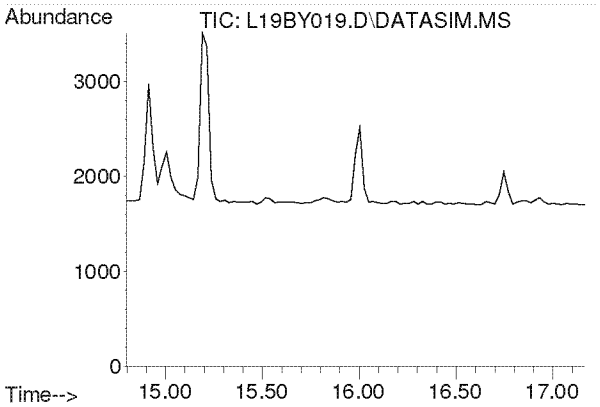
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



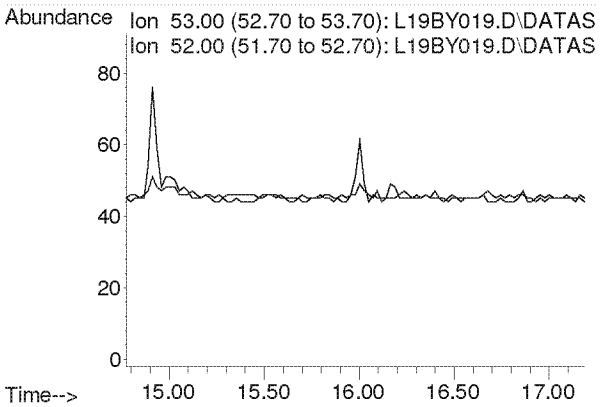


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

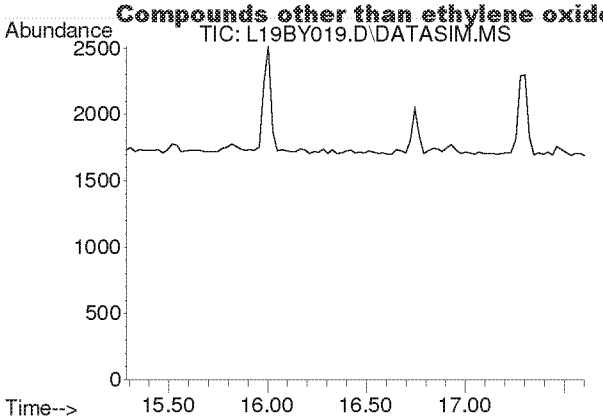
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

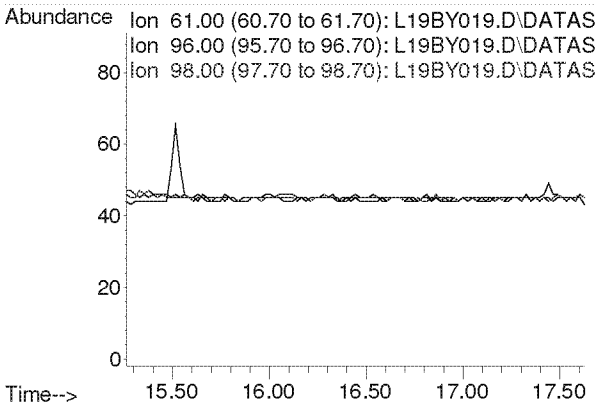


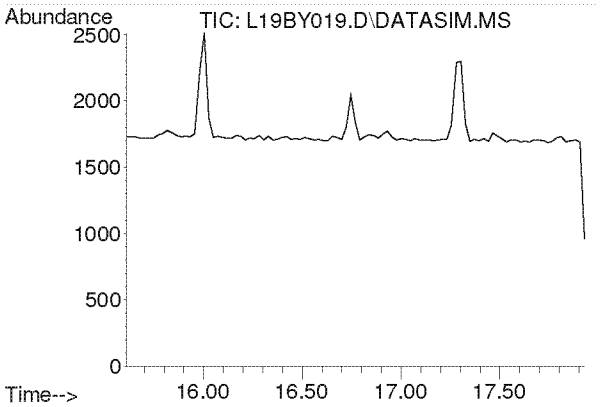
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



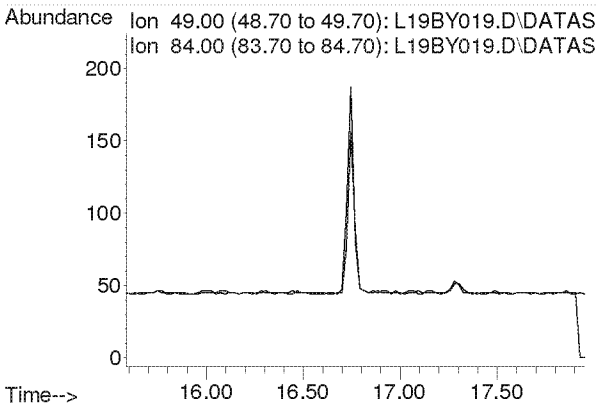


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

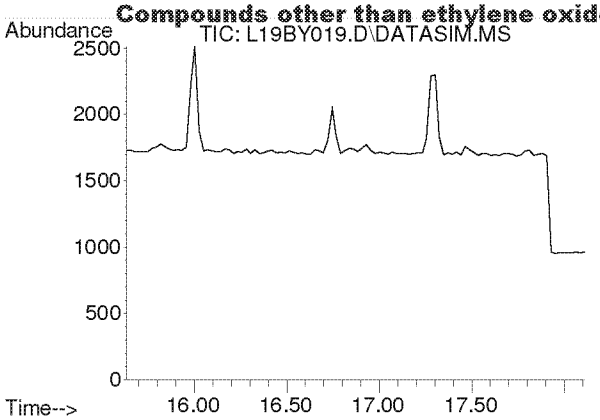
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

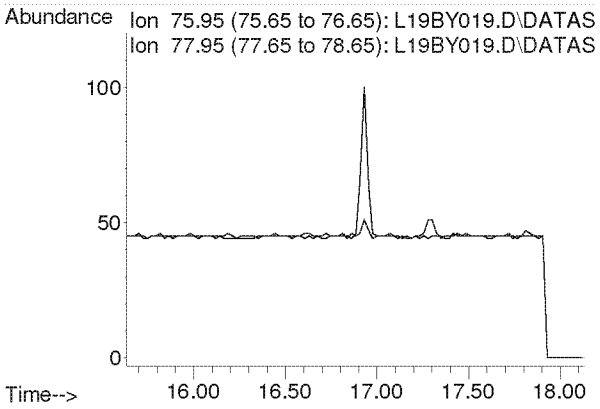


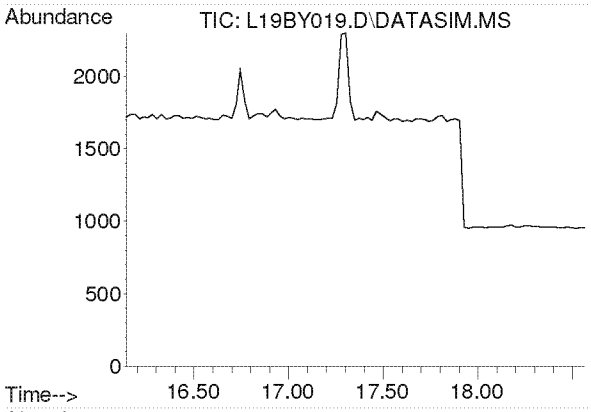
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



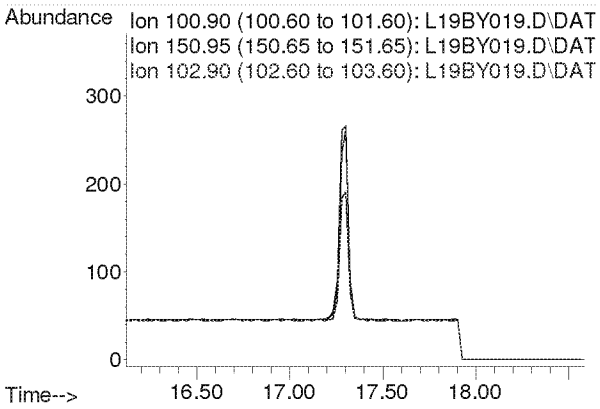


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

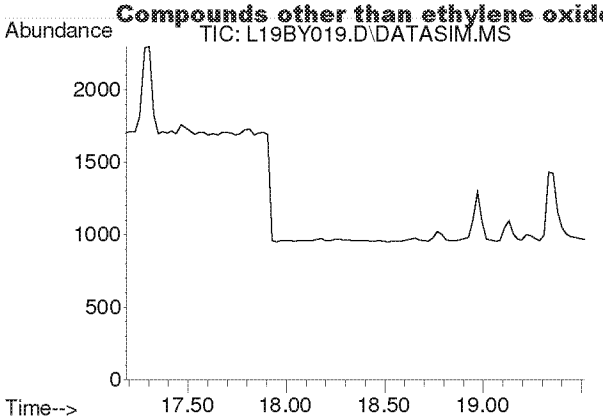
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

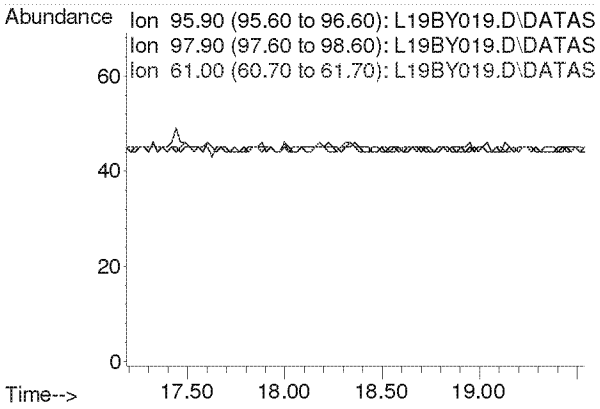


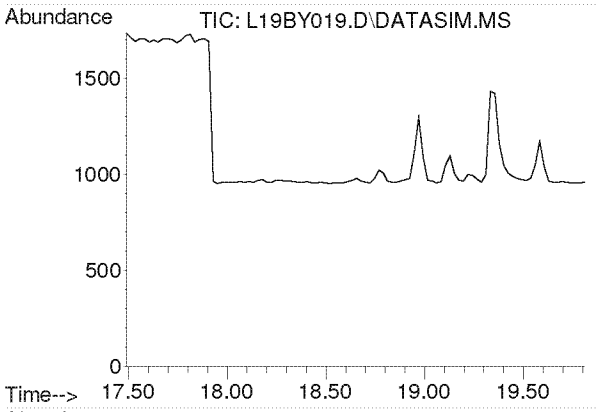
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



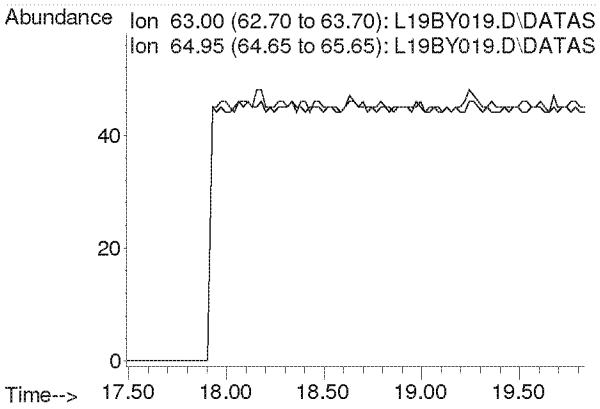


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

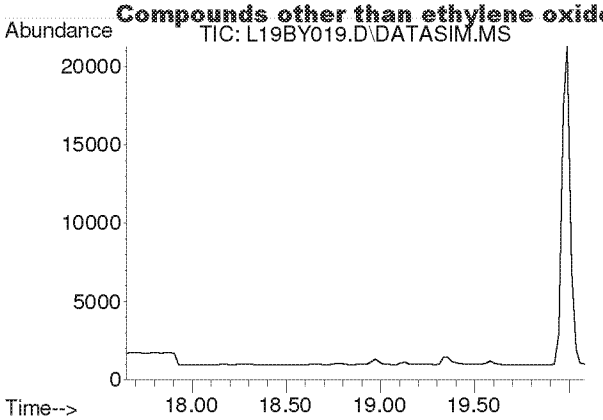
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

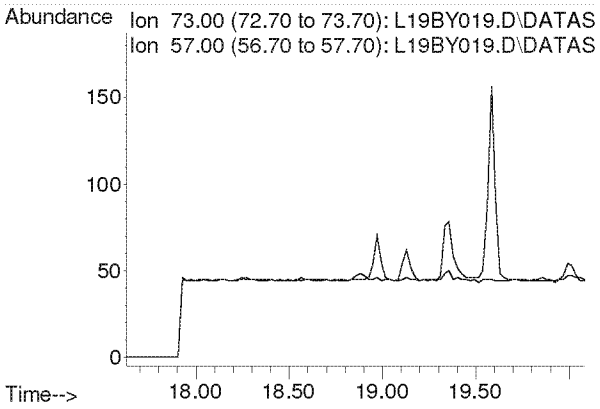


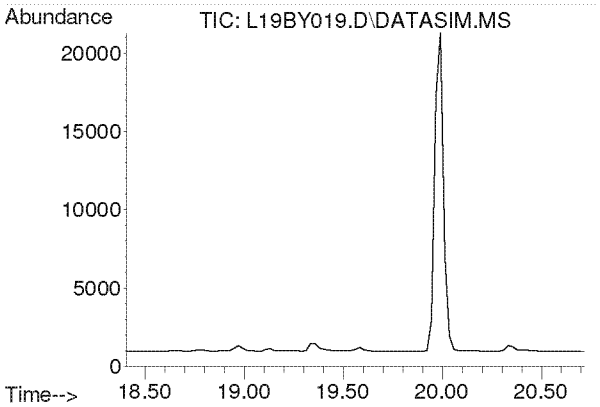
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



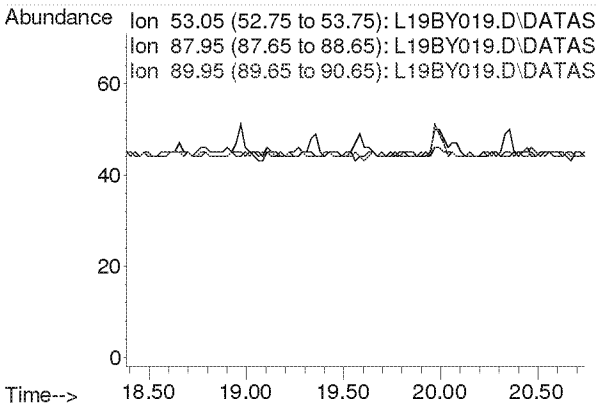


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

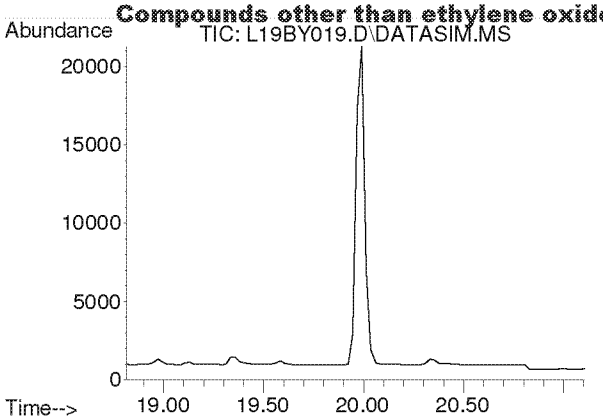
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

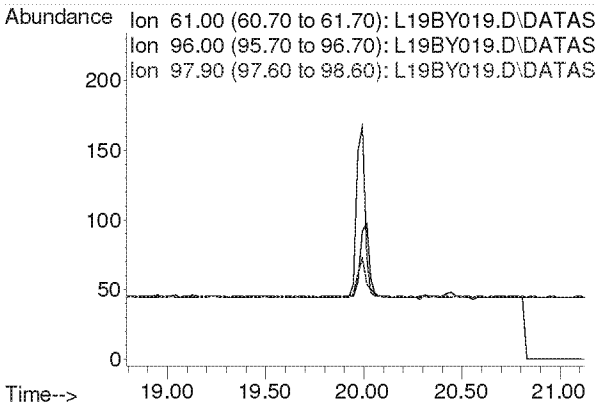


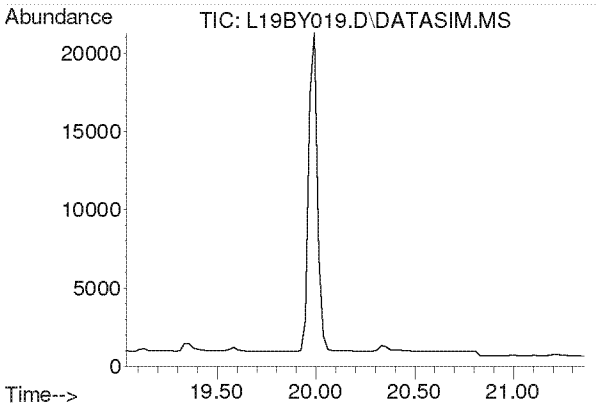
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



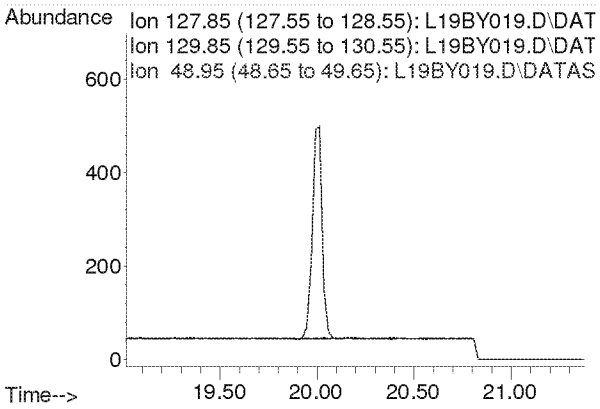


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

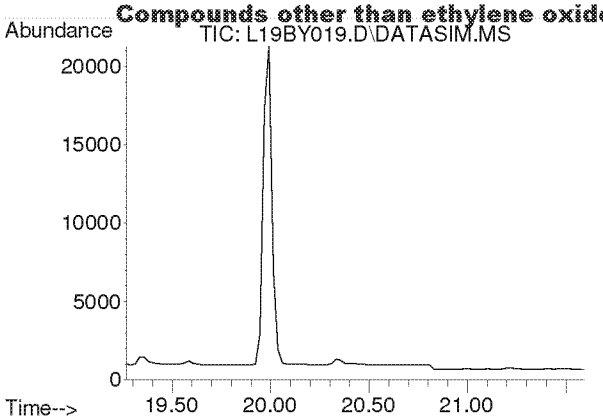
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

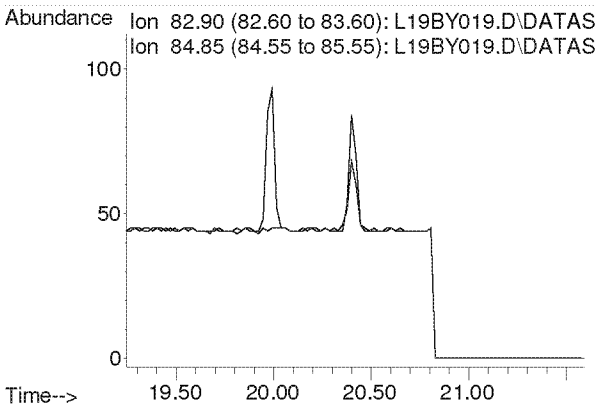


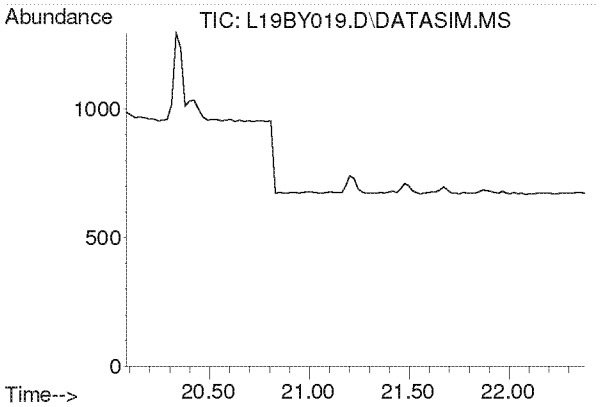
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



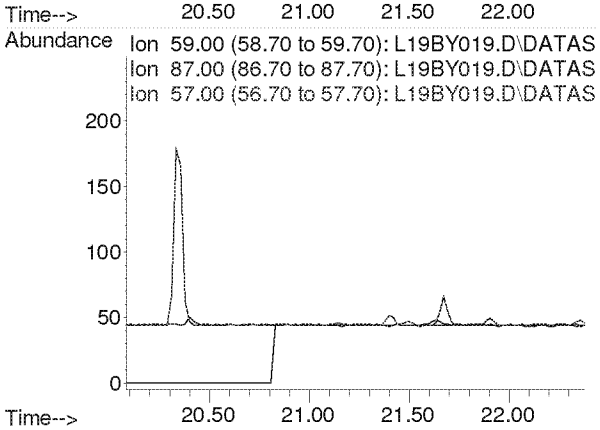


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

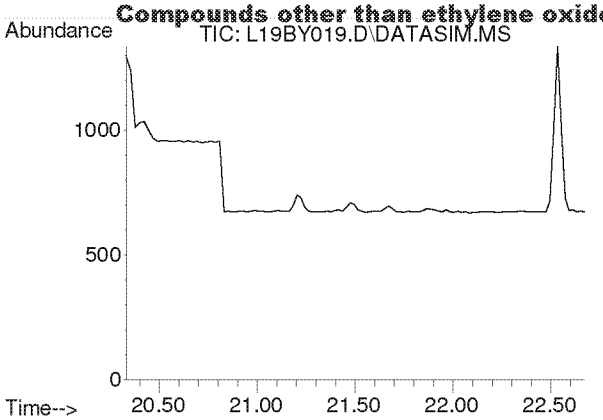
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

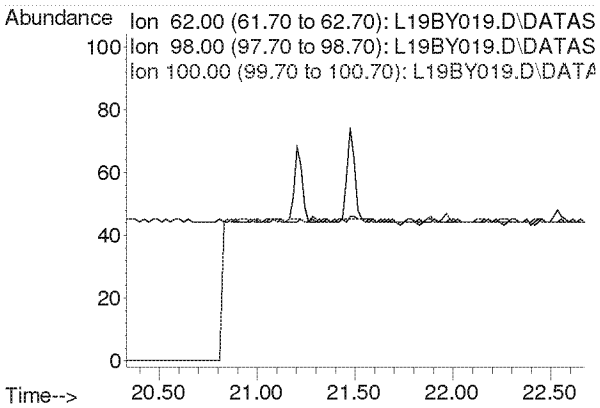


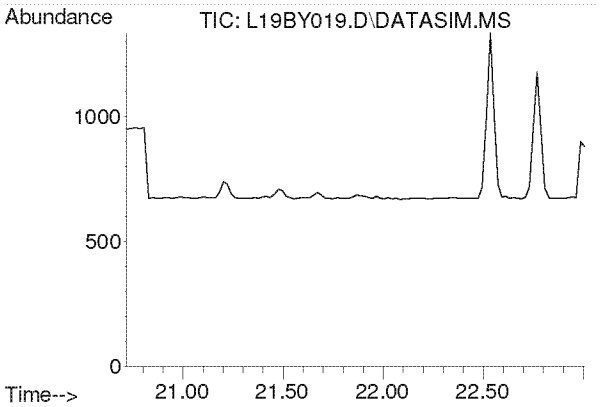
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



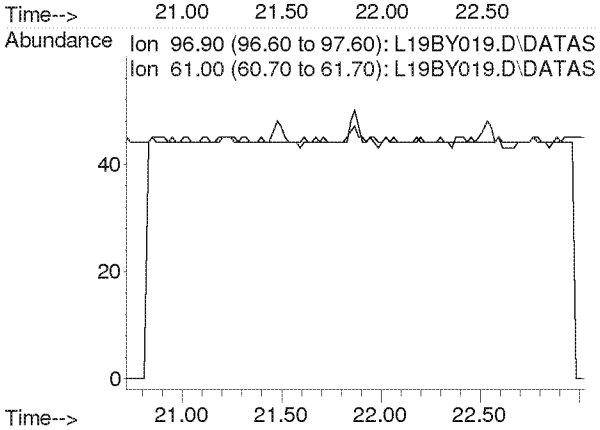


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

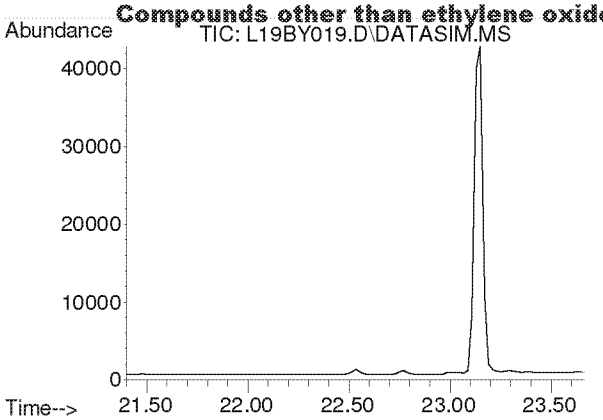
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

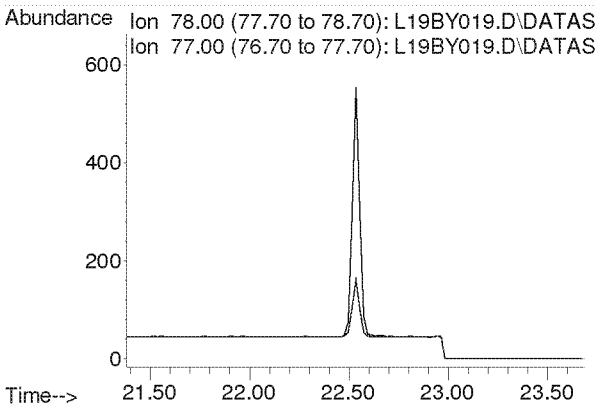


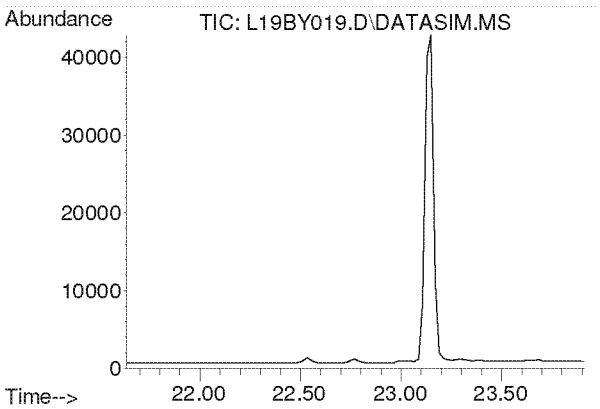
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



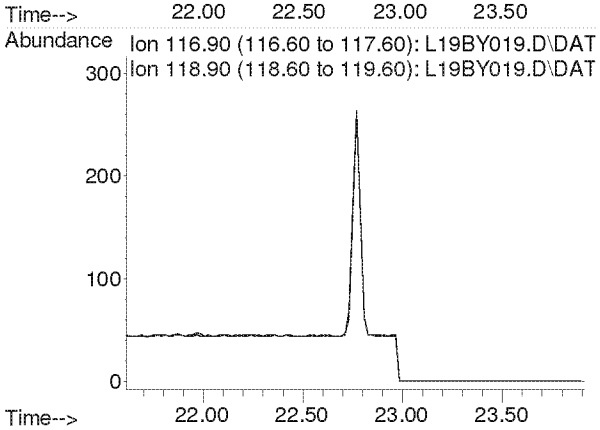


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

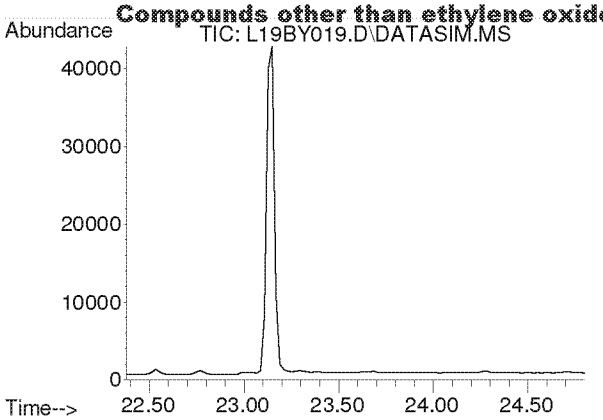
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

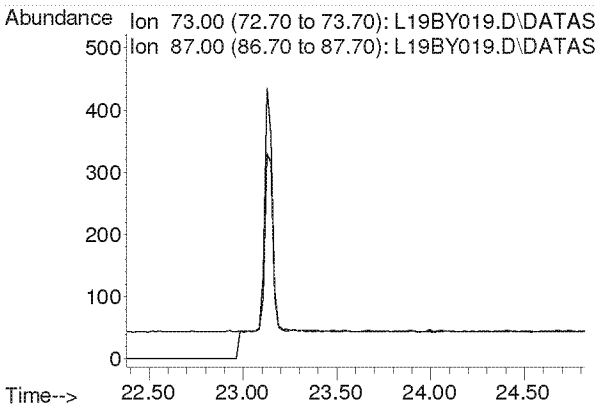


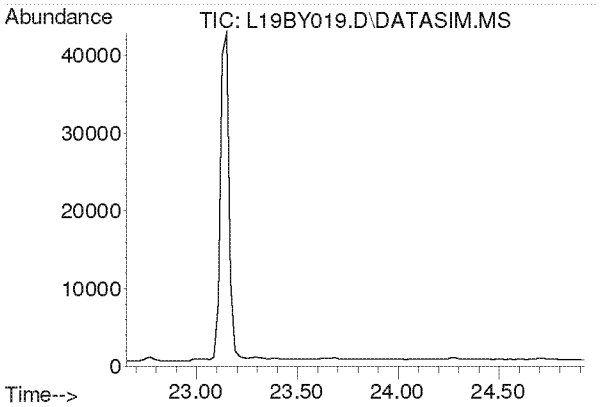
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



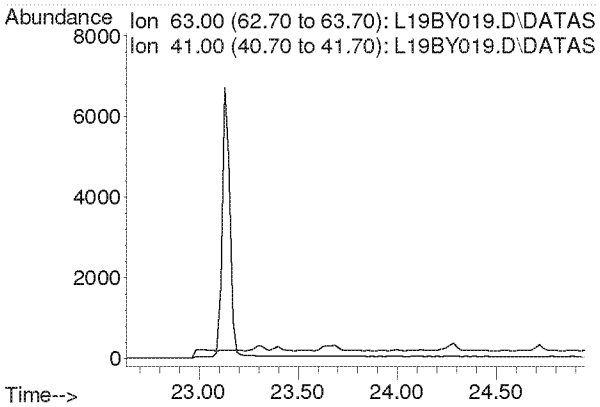


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

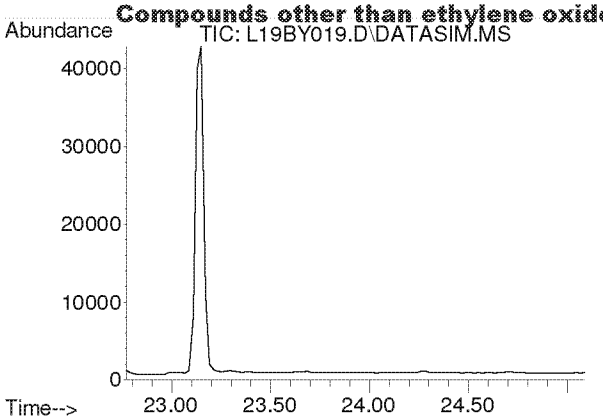
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

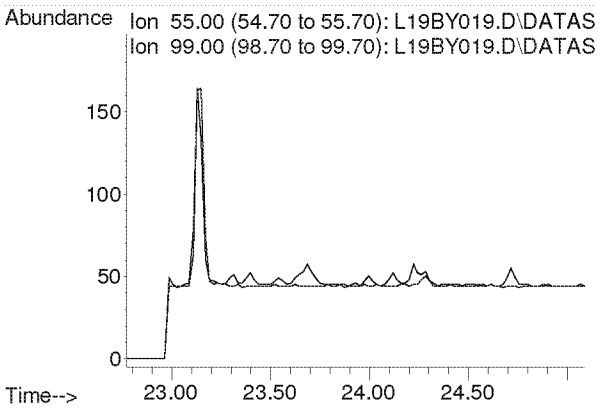


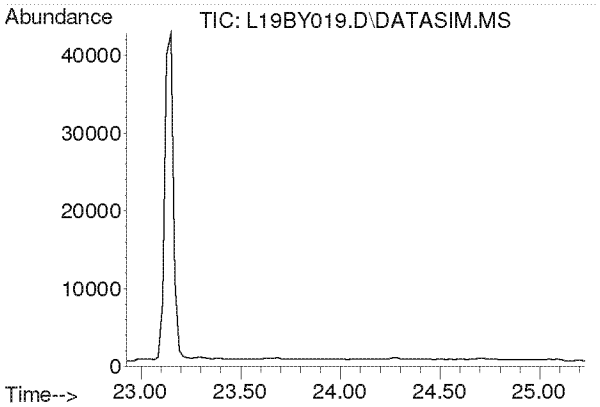
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



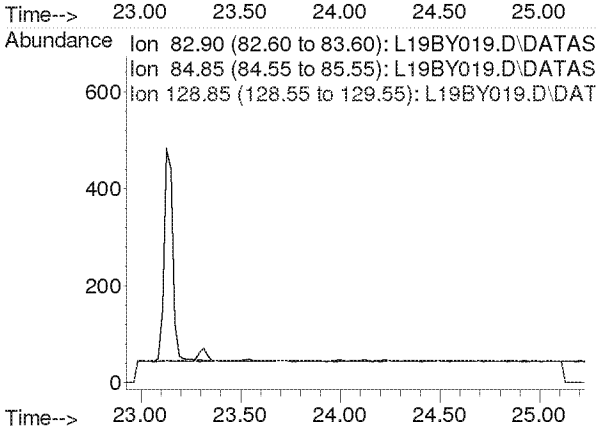


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

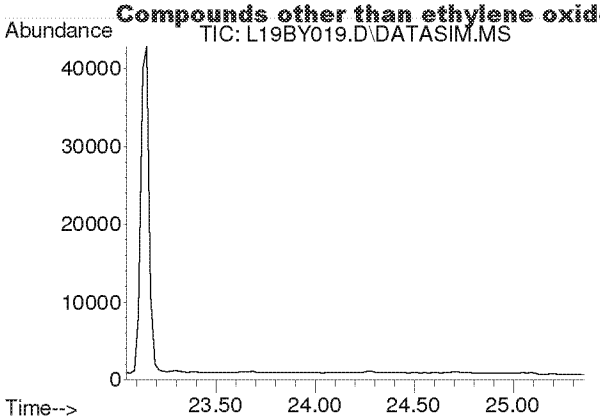
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

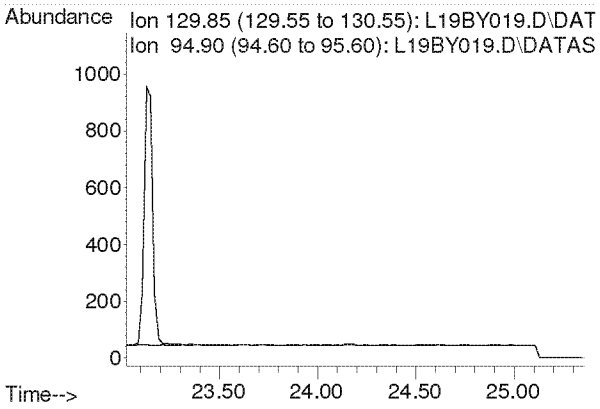


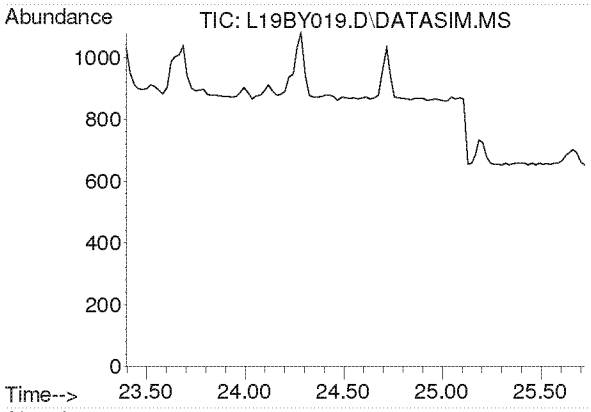
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



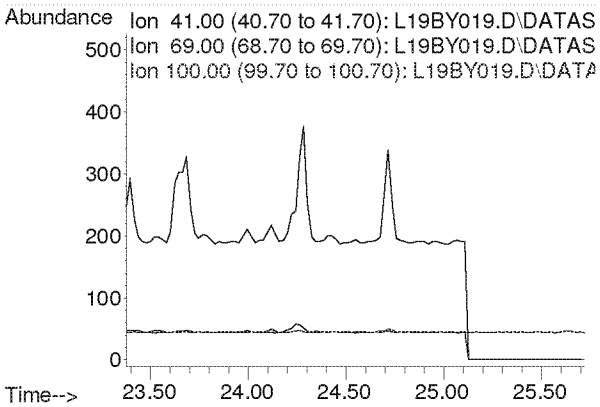


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

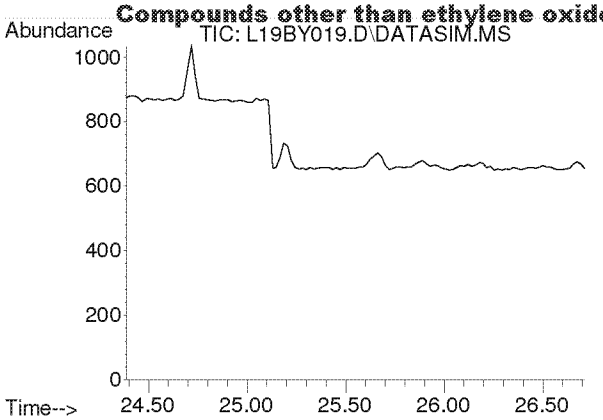
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

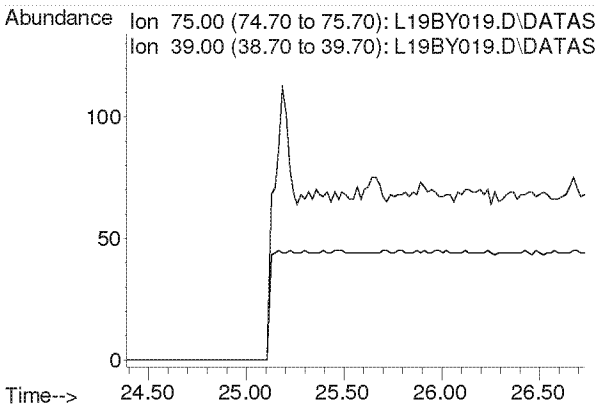


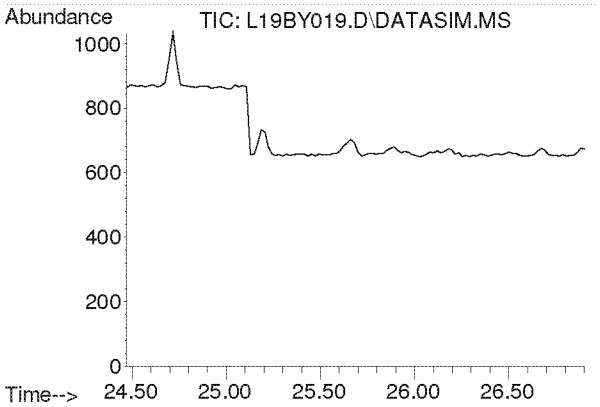
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



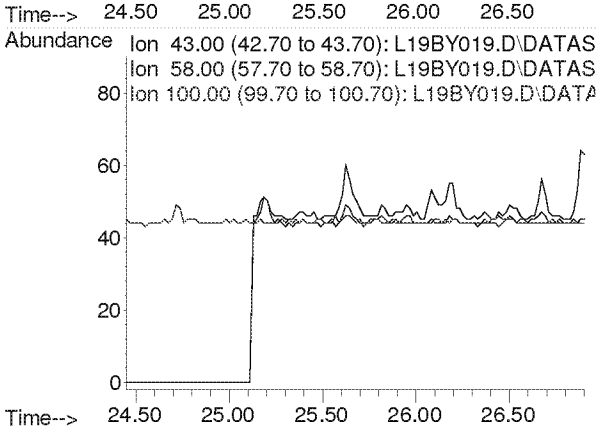


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

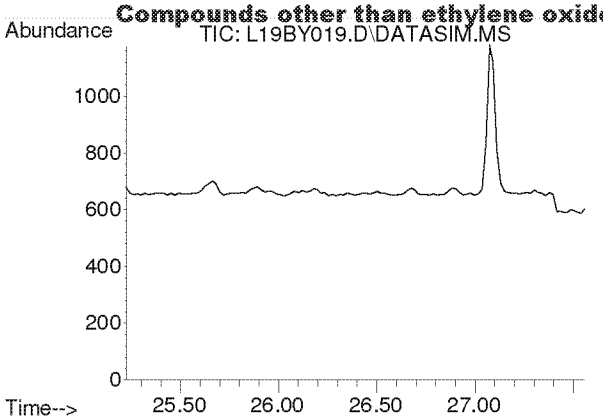
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

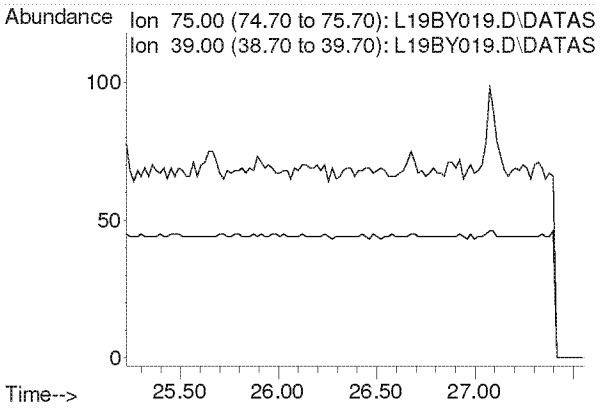


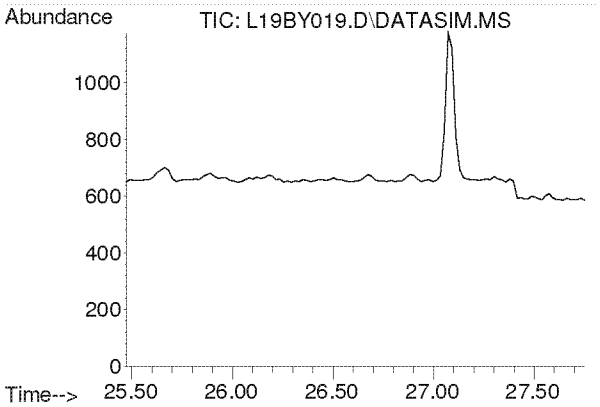
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



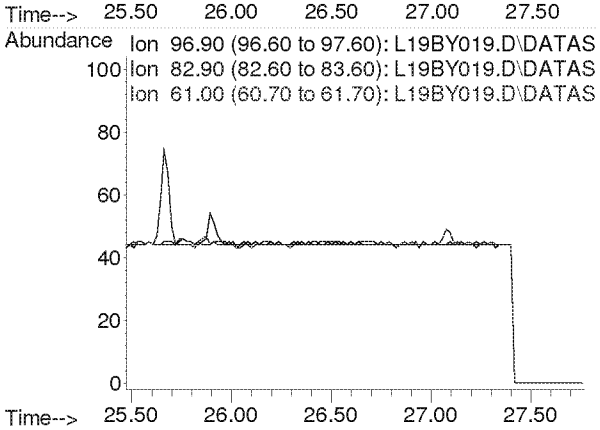


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

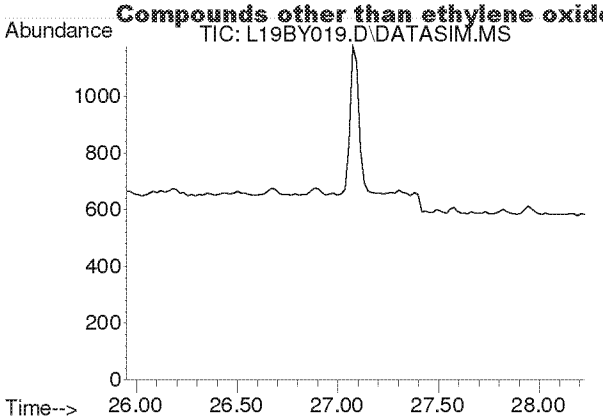
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

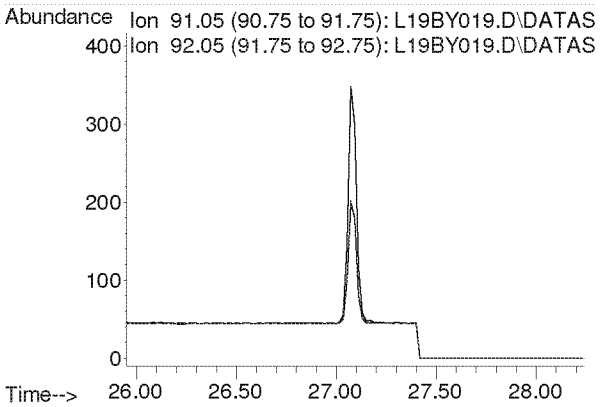


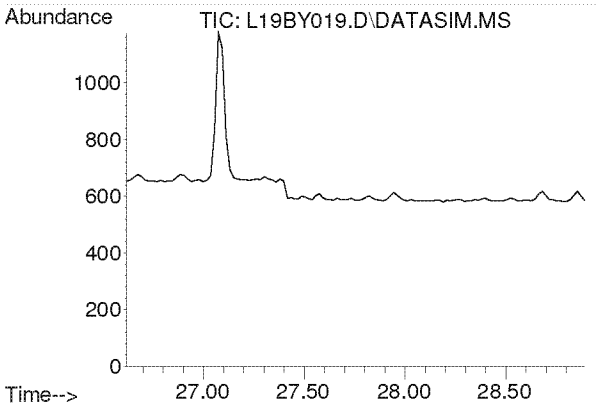
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



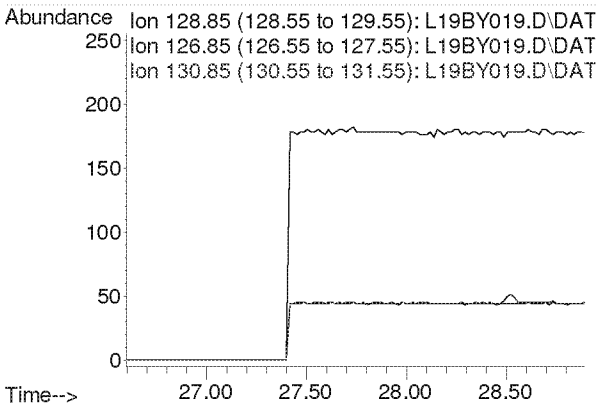


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

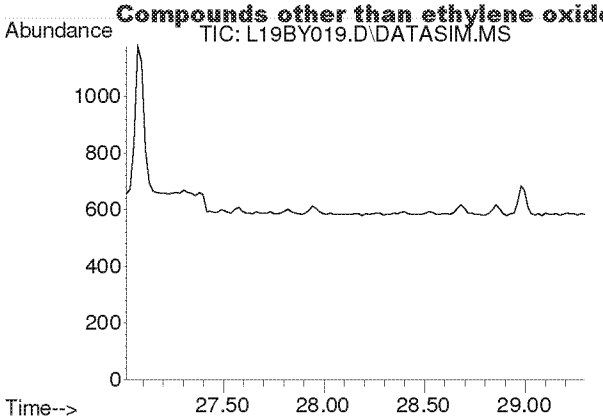
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

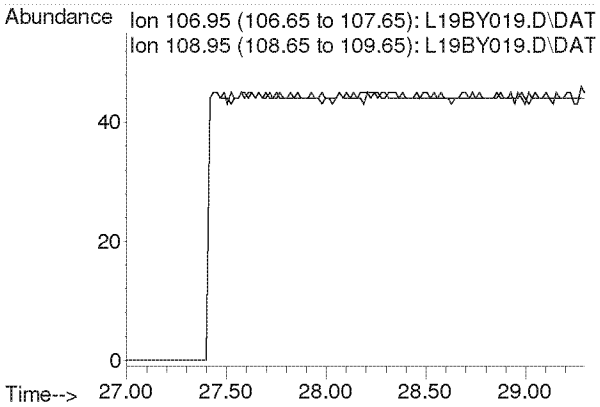


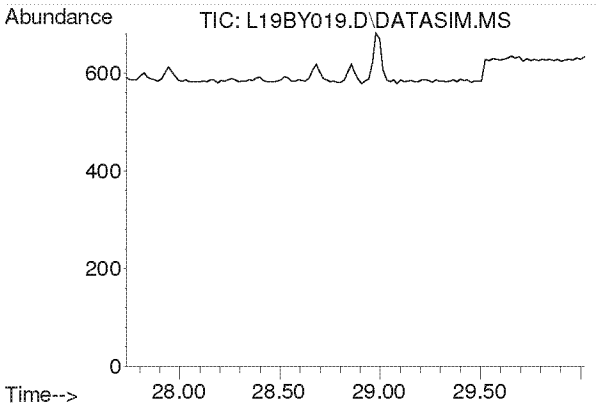
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



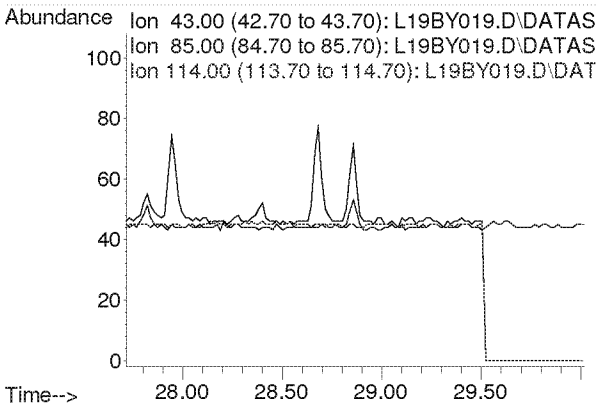


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

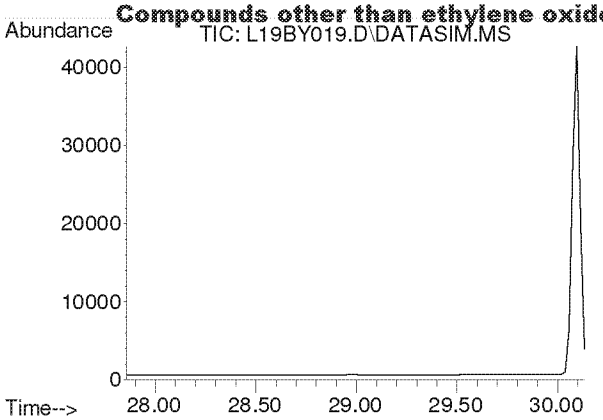
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

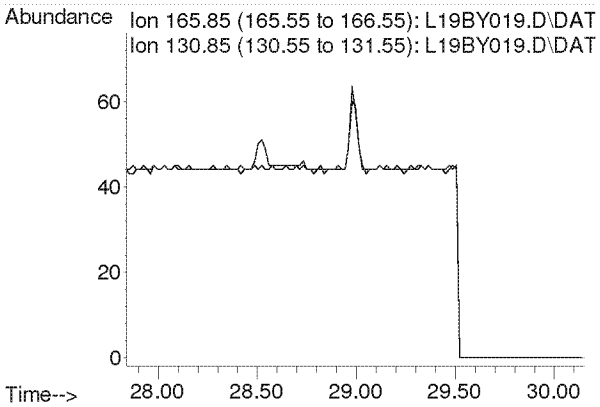


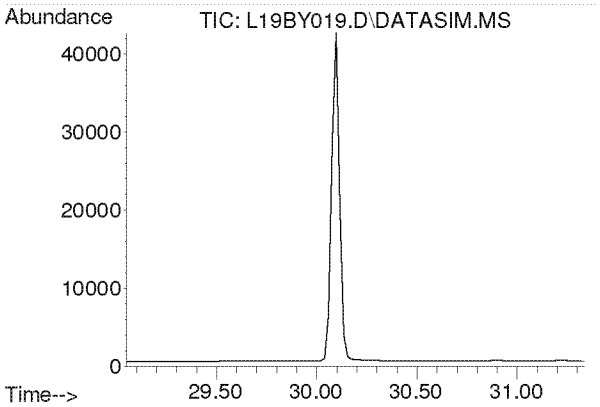
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



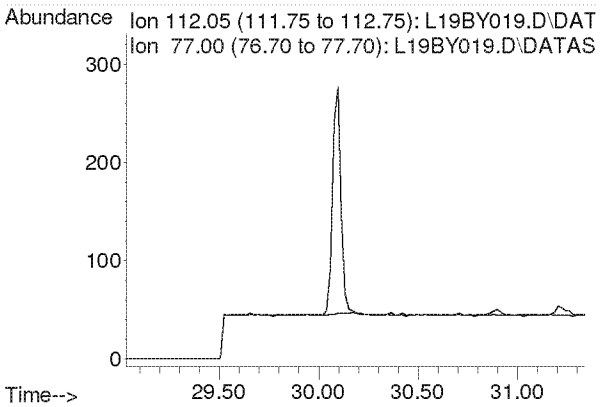


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

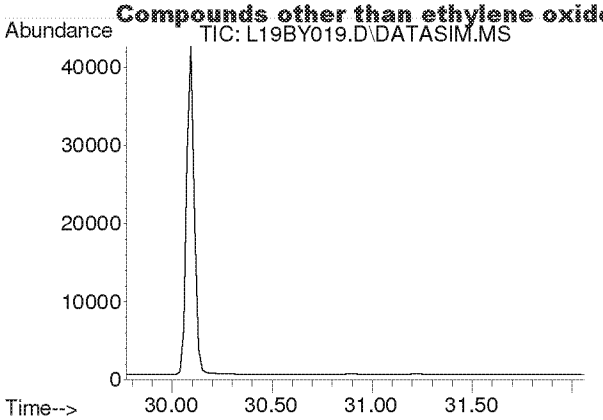
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

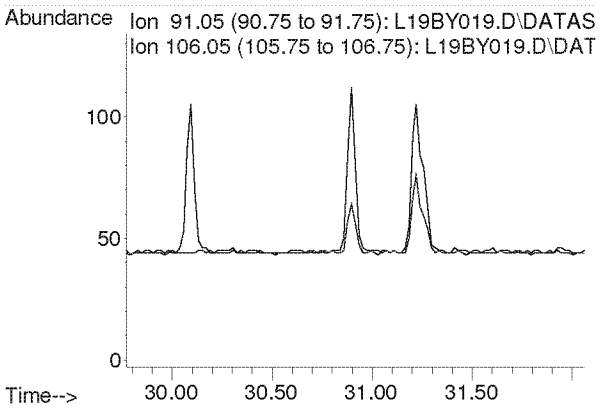


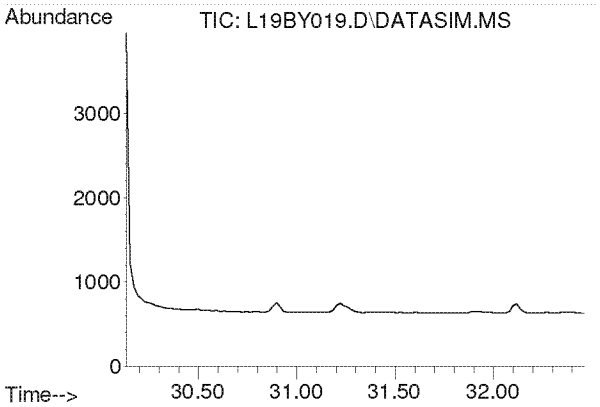
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



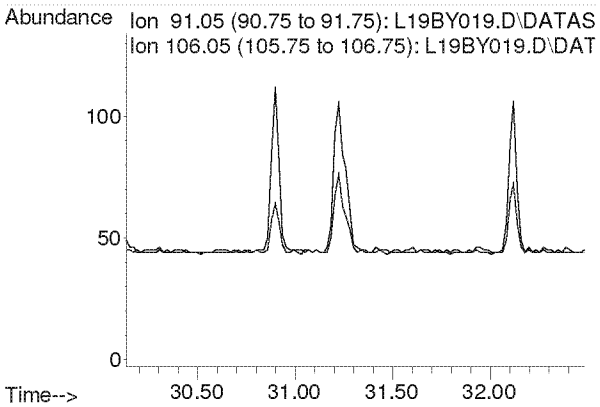


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

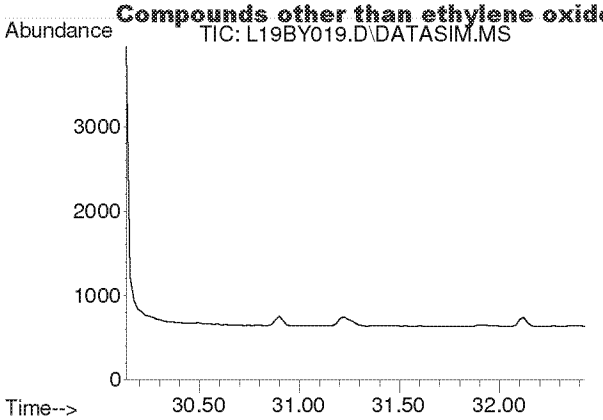
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

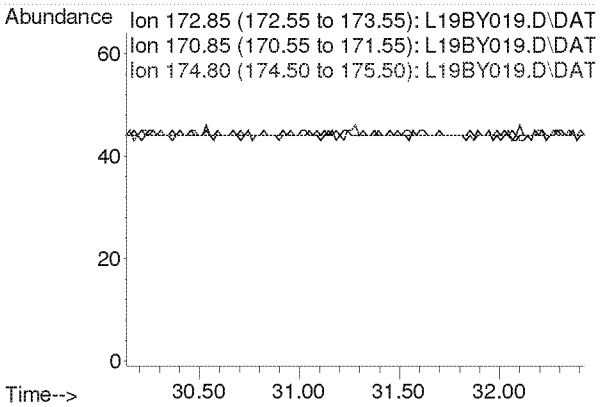


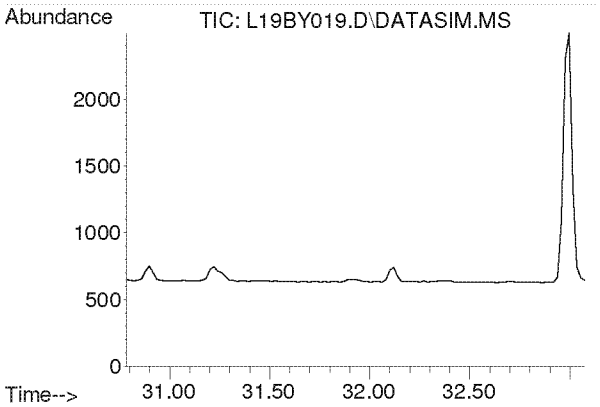
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



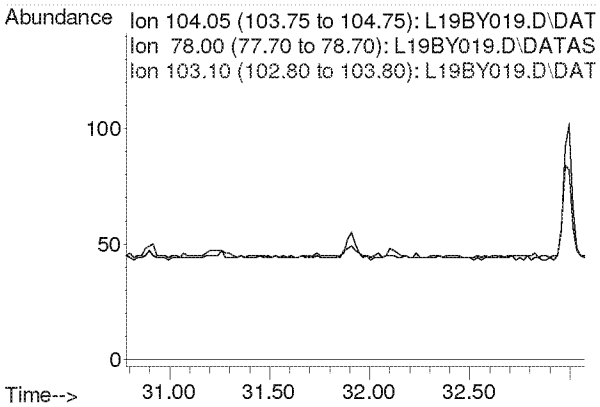


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

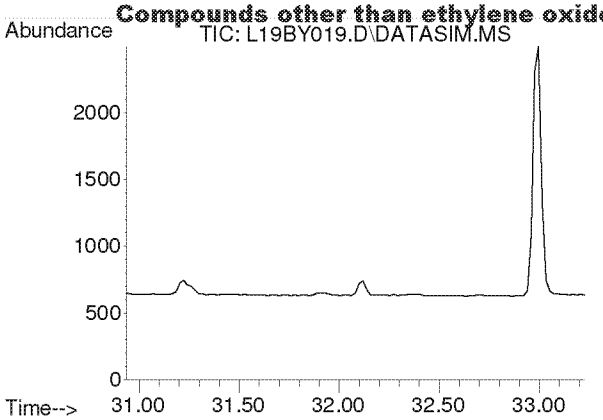
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

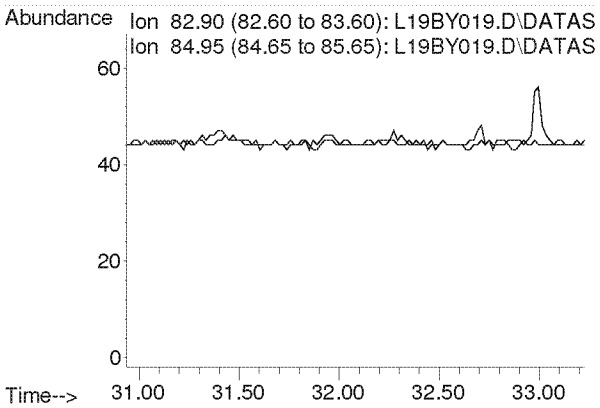


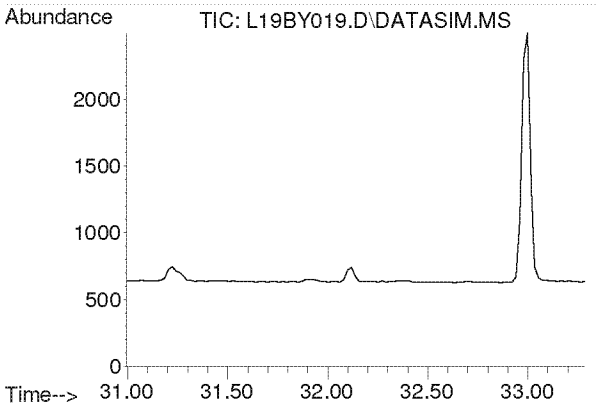
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



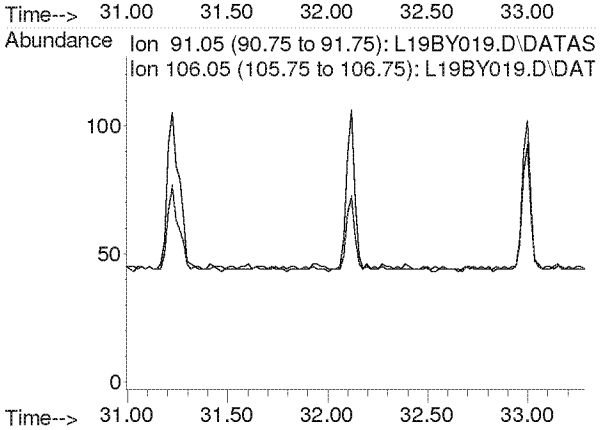


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

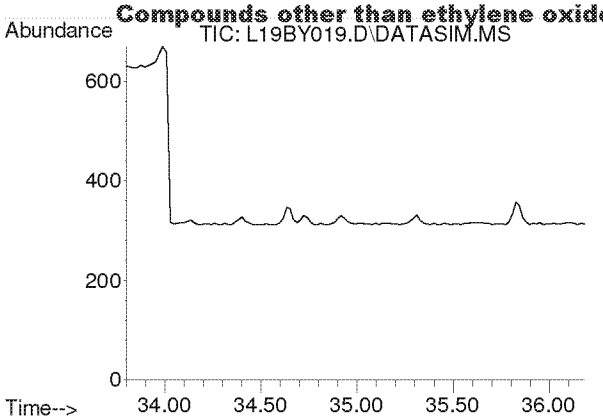
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

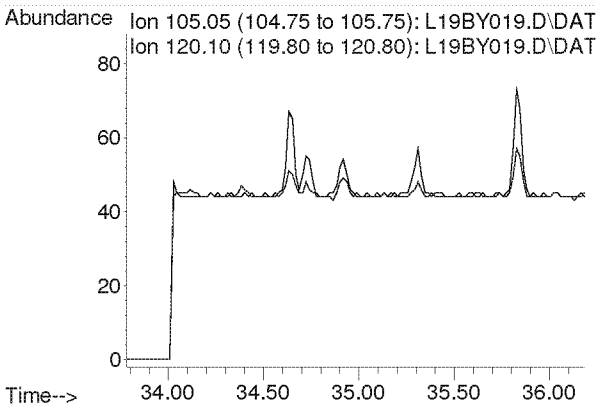


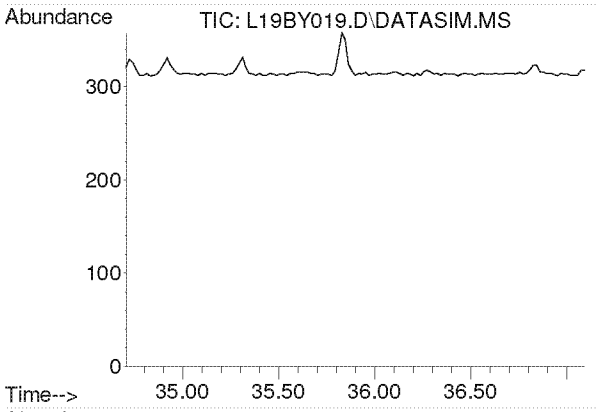
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



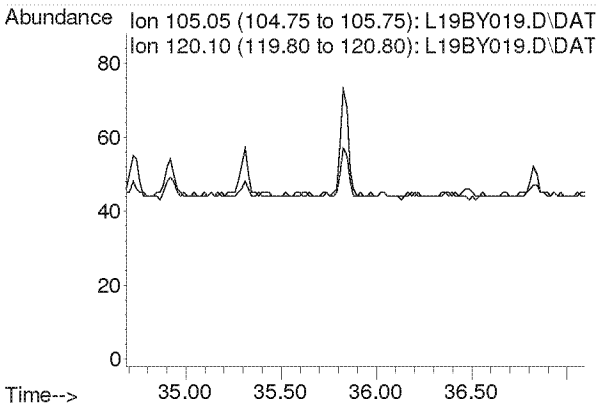


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

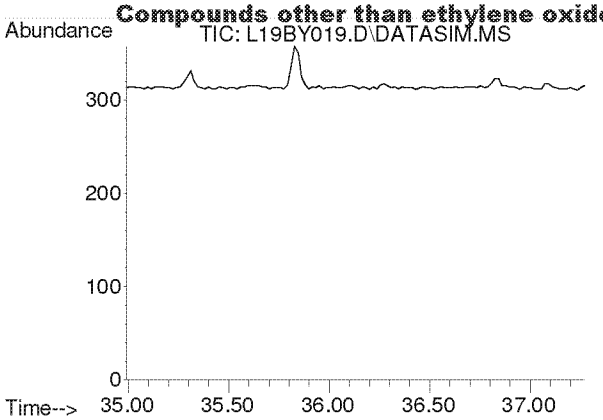
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

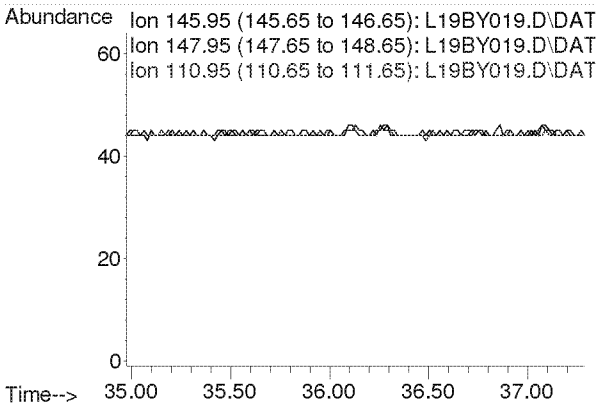


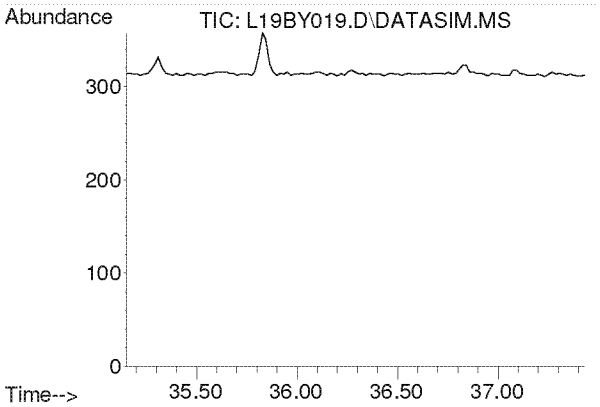
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



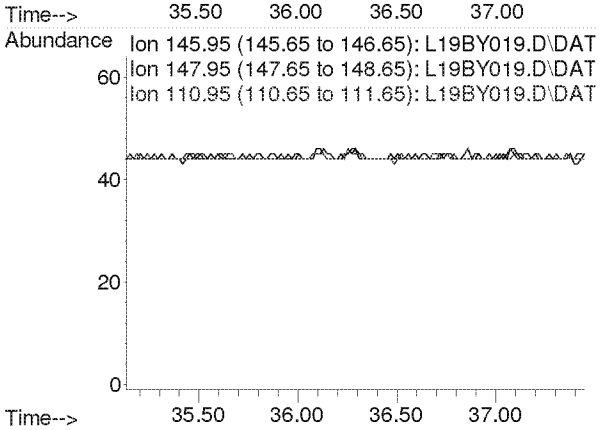


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

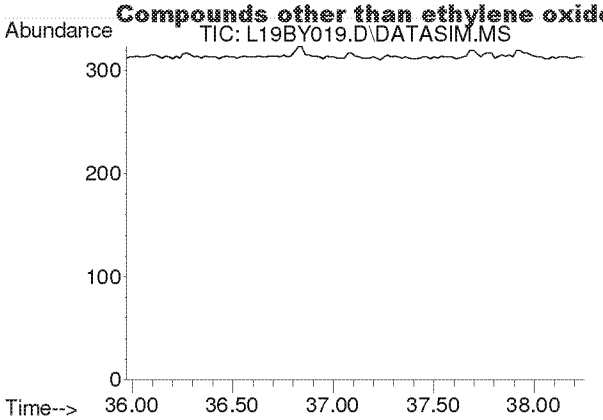
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

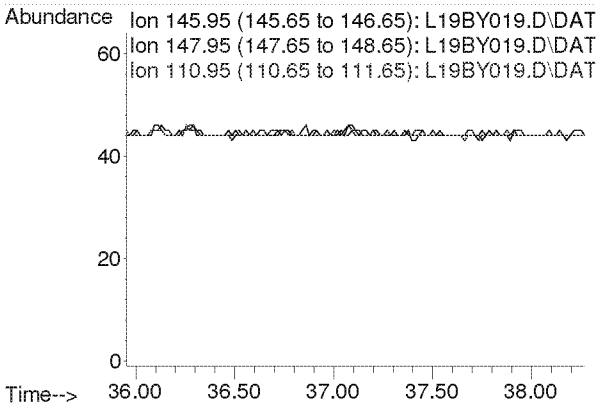


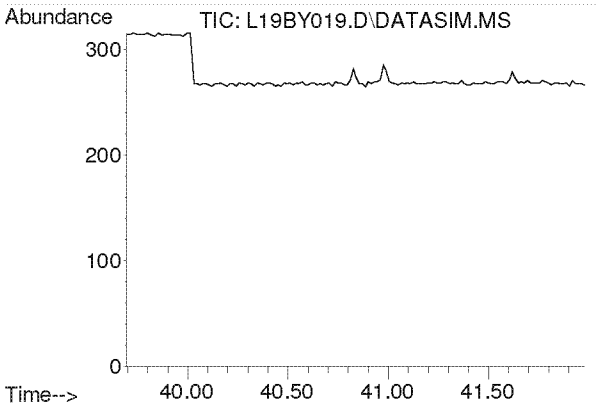
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



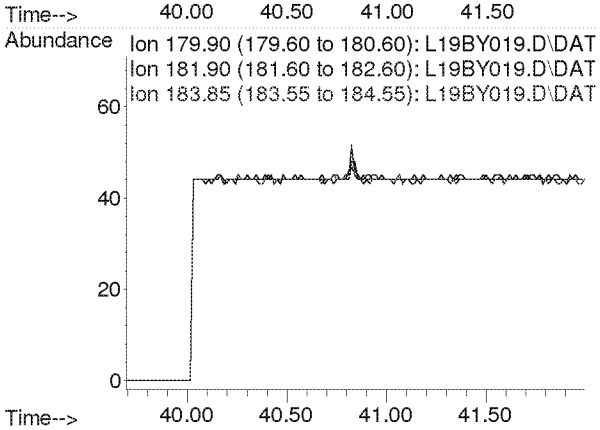


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

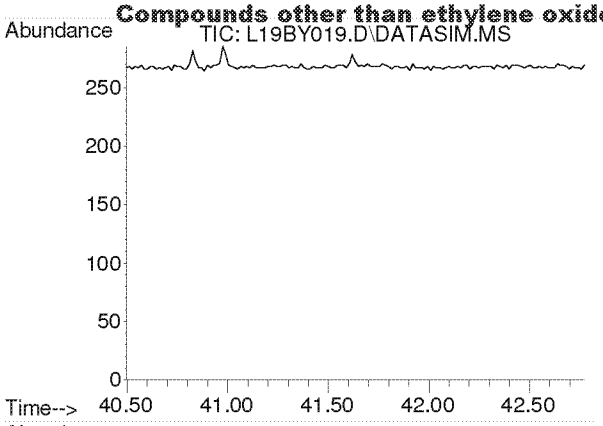
Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

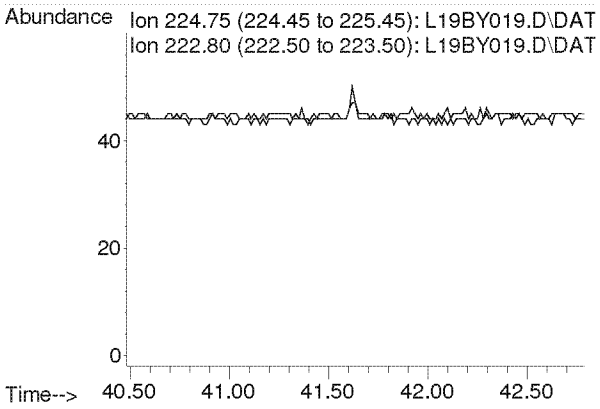


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY019.D
Acq: 26 Feb 2019 1:31 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY020.D
Acq On : 26 Feb 2019 2:31 am (#1); 26-Feb-19, 02:26:00 (#2)
Operator : MAH
Sample : 9022202-14
Misc : WEST NEIGHBORHOOD 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 26 10:14:54 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

EPA only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	37900	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	94883	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	66068	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	0.000	29	0	N.D. d SL	
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.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY020.D
Acq On : 26 Feb 2019 2:31 am (#1); 26-Feb-19, 02:26:00 (#2)
Operator : MAH
Sample : 9022202-14
Misc : WEST NEIGHBORHOOD 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 26 10:14:54 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

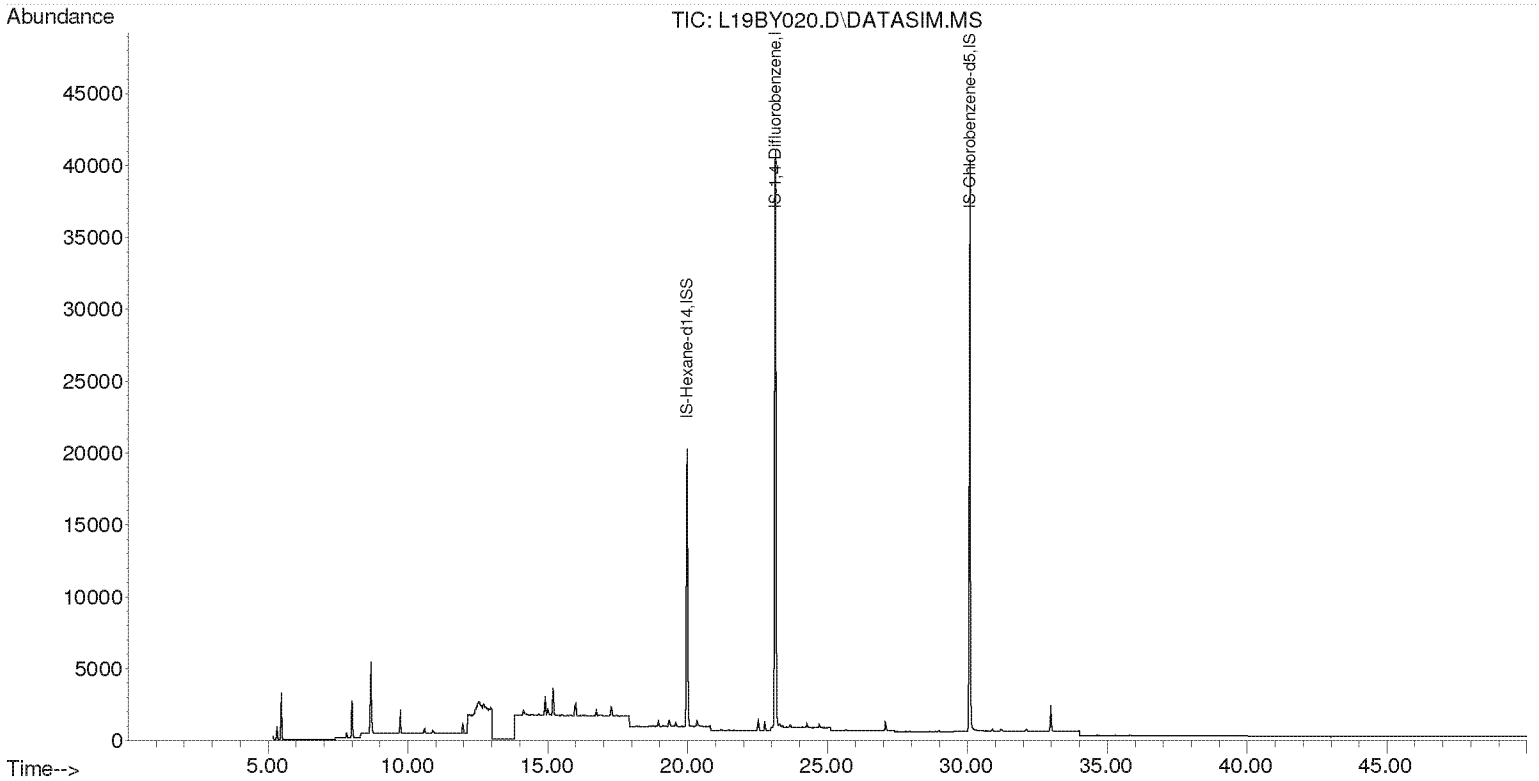
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

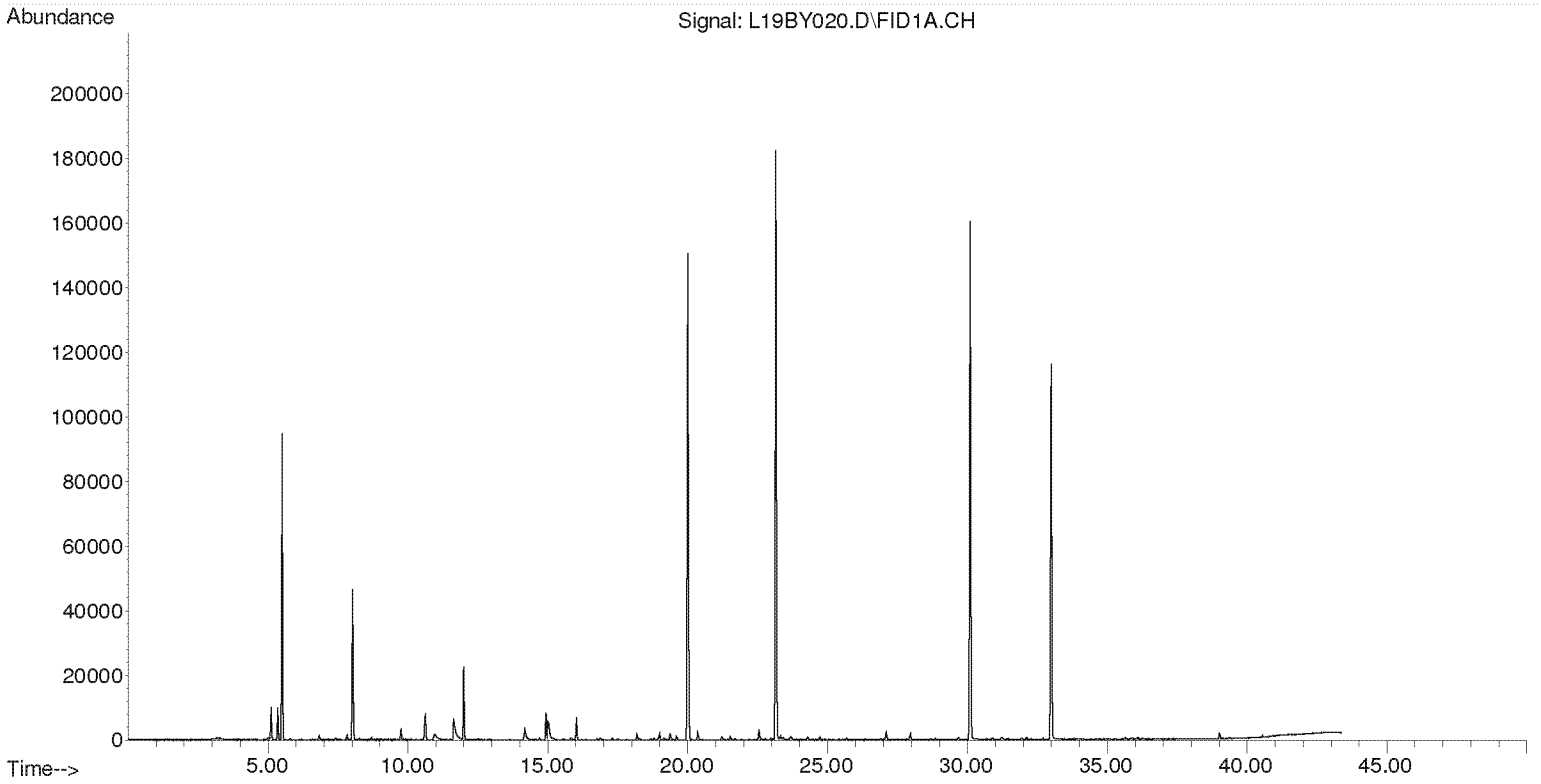
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

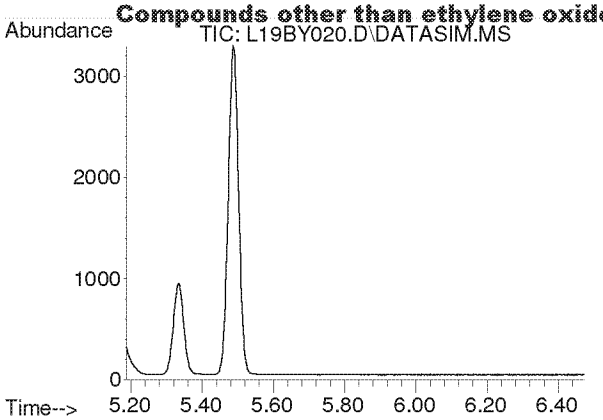
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY020.D
Acq On : 26 Feb 2019 2:31 am (#1); 26 Feb 2019 2:26 am (#2)
Operator : MAH
Sample : 9022202-14
Misc : WEST NEIGHBORHOOD 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 26 09:56:07 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





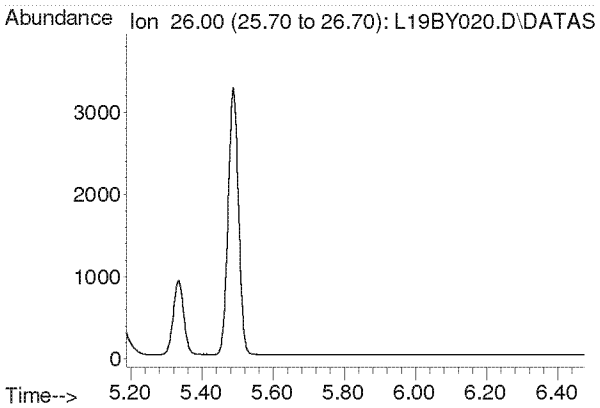
Compounds other than ethylene oxide were not quantitated.

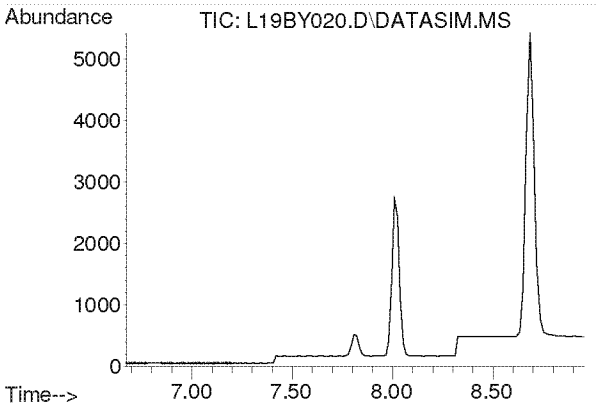


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 26



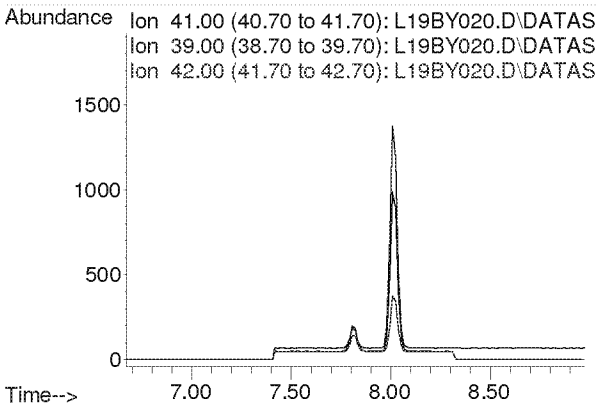


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

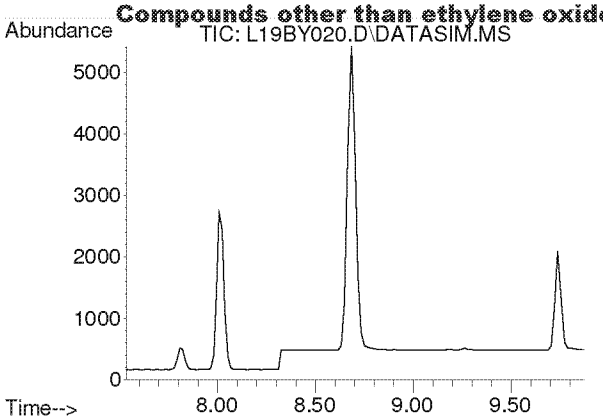
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

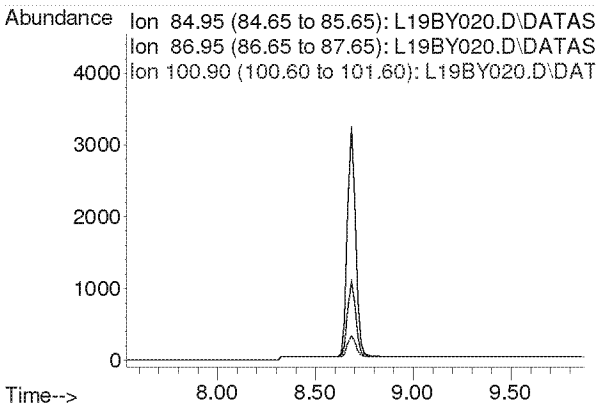


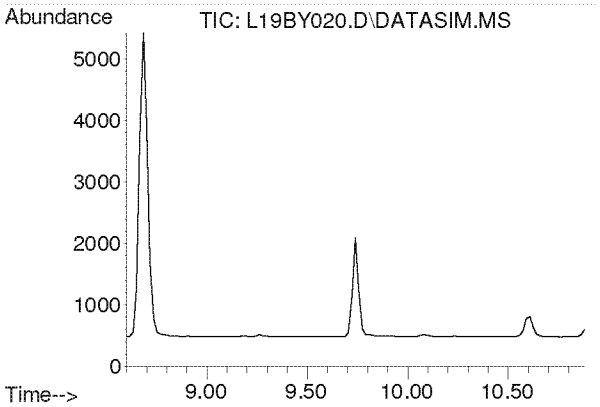
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



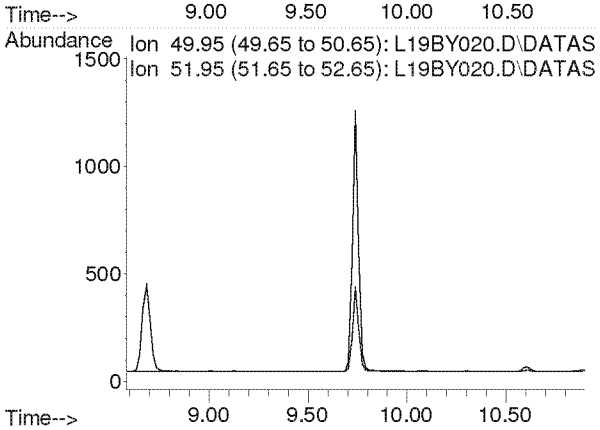


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

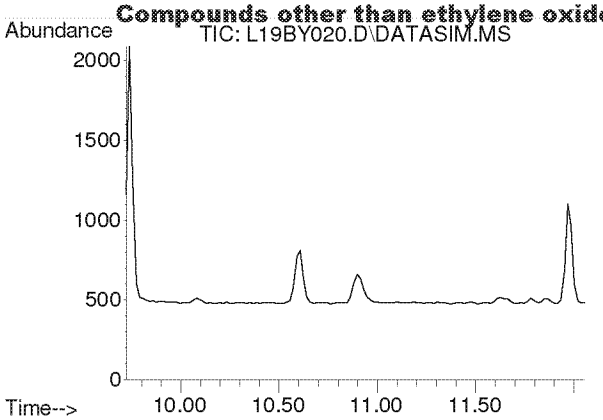
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

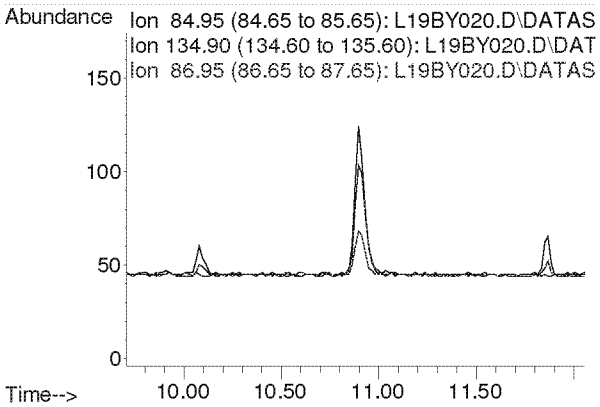


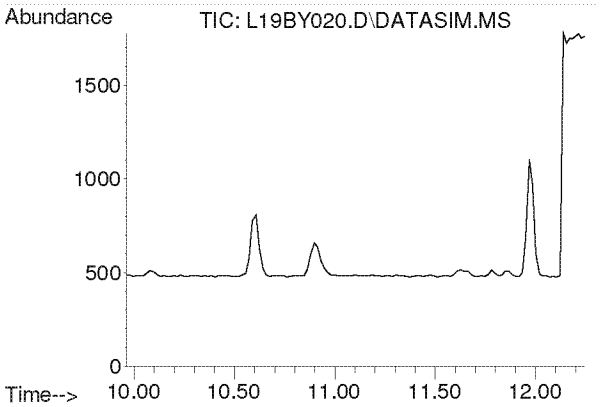
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



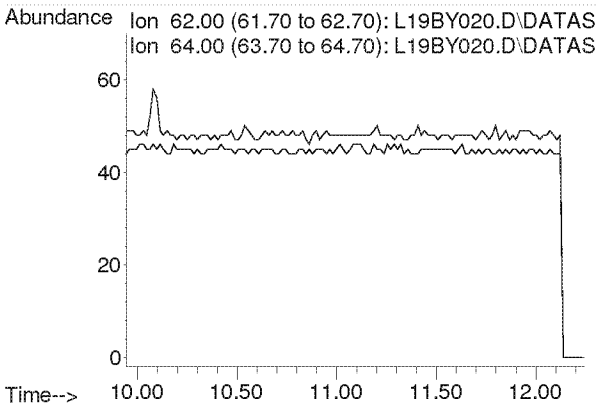


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

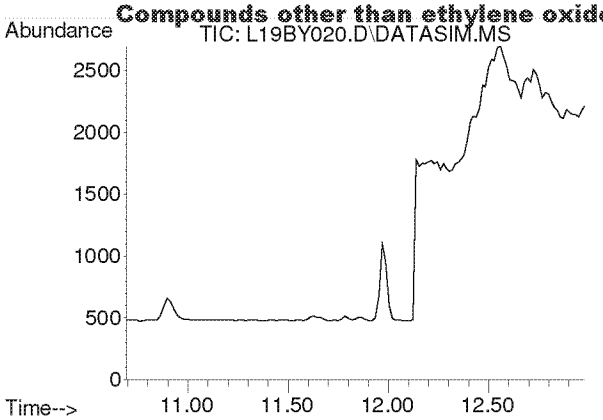
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

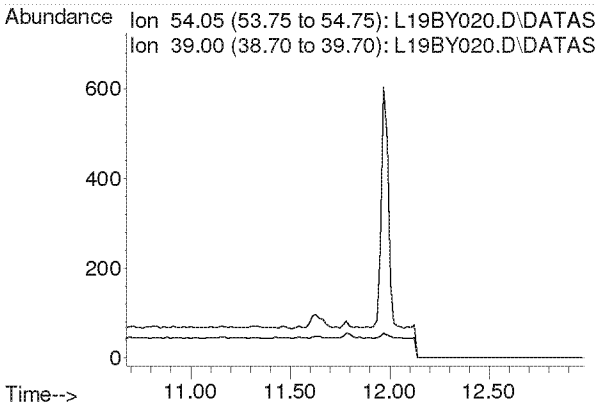


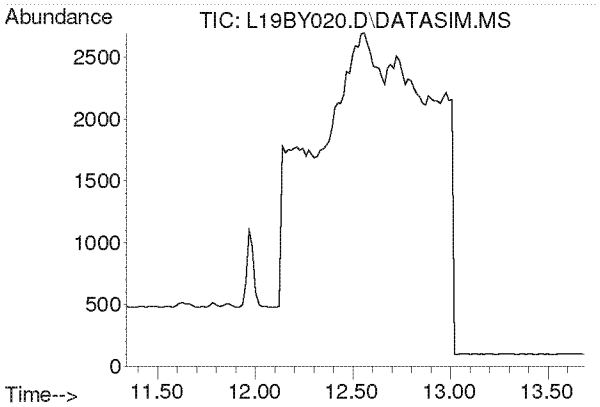
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



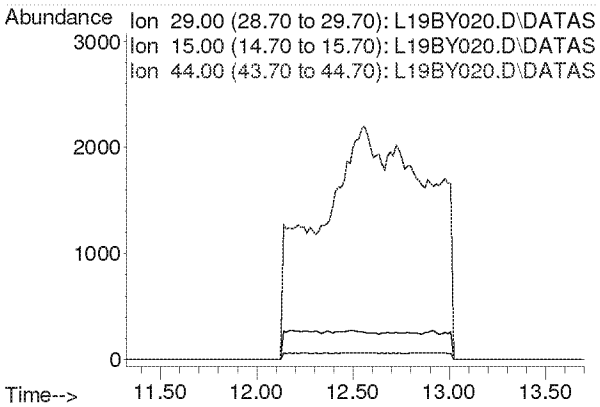


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

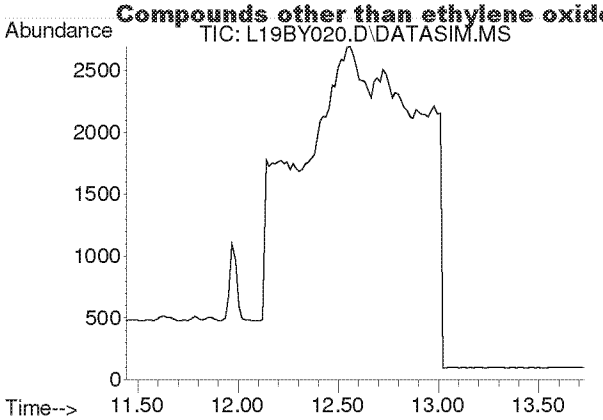
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

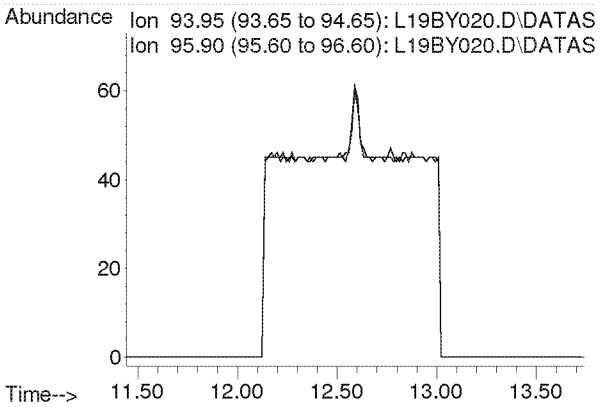


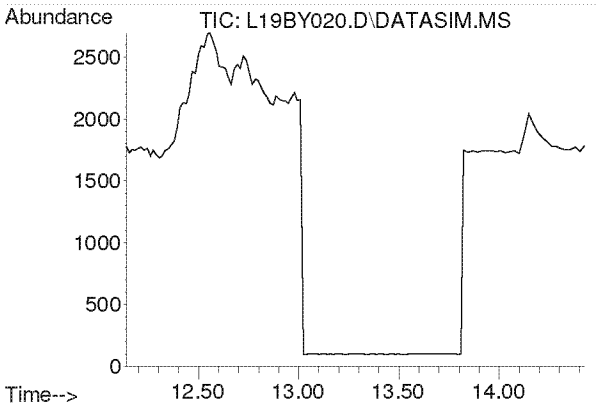
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



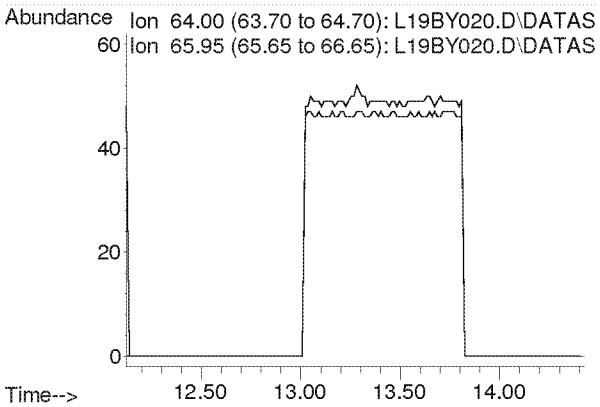


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

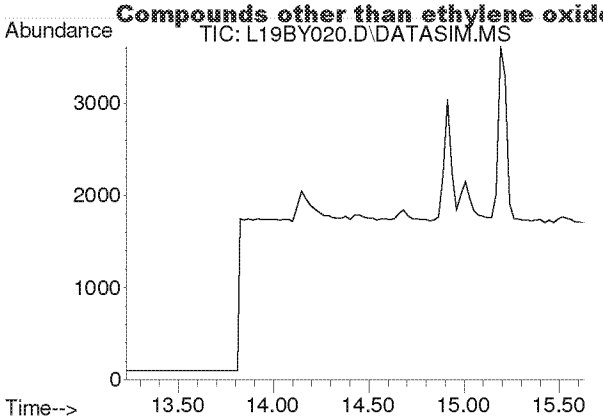
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

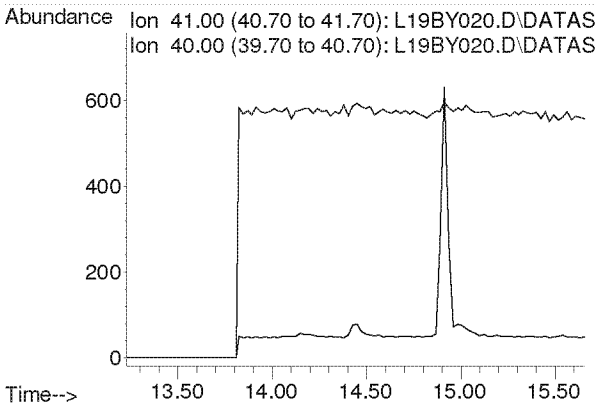


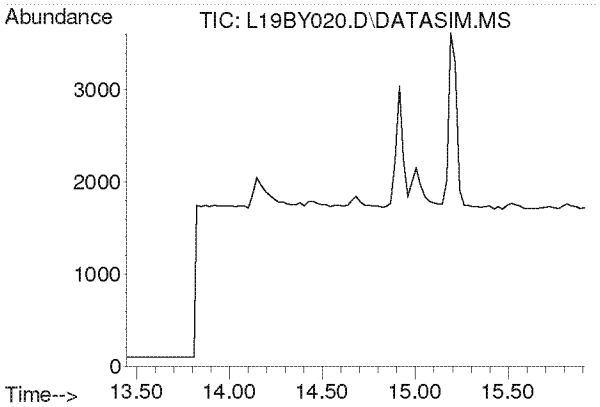
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



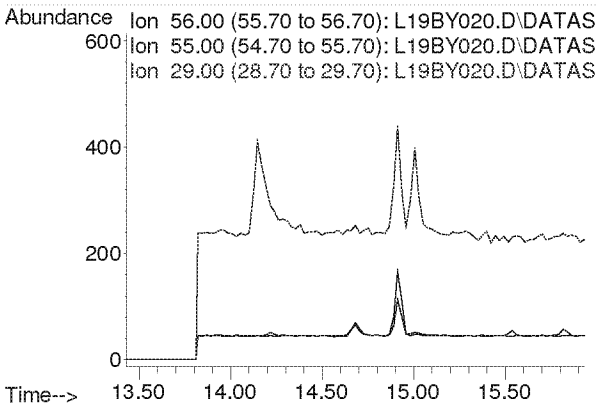


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

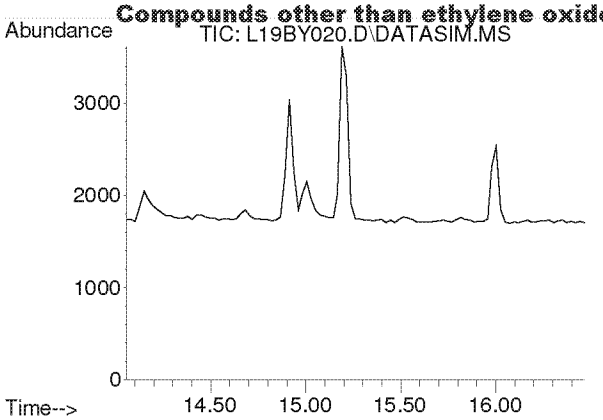
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

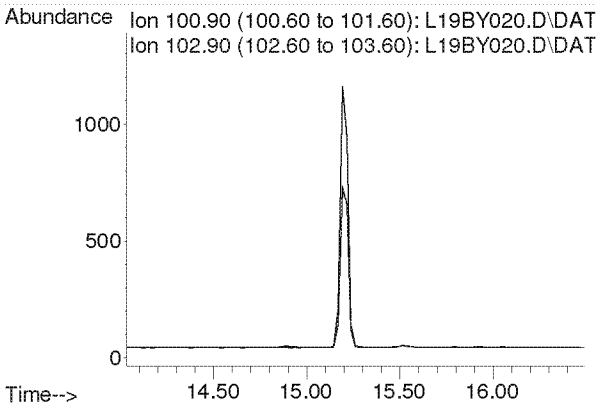


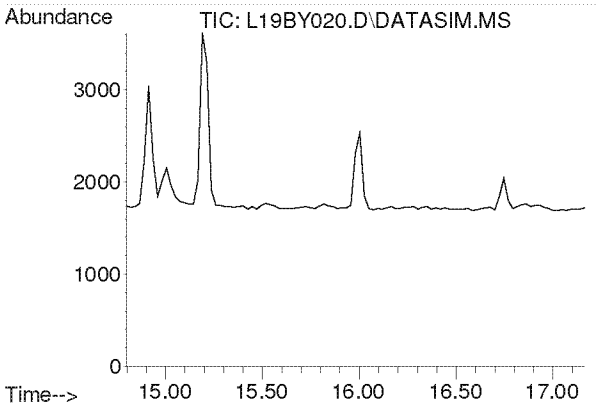
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



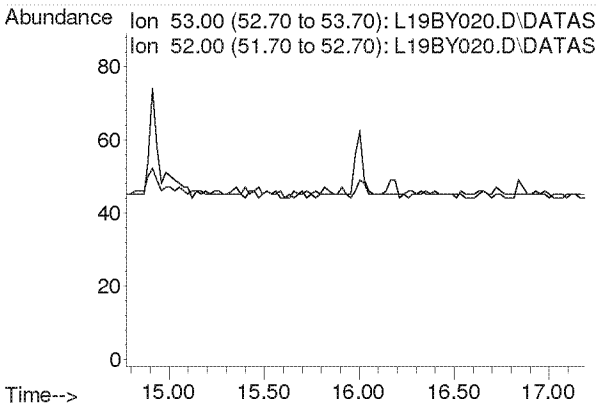


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

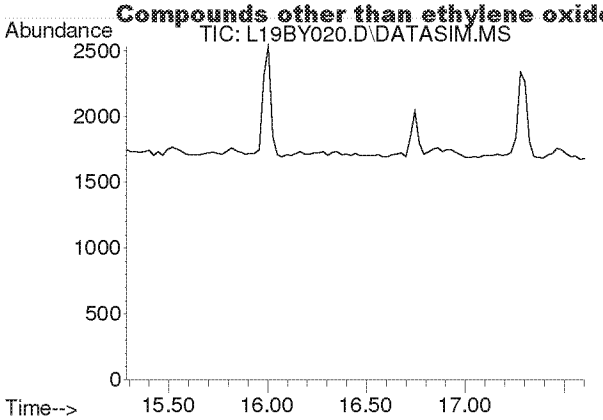
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

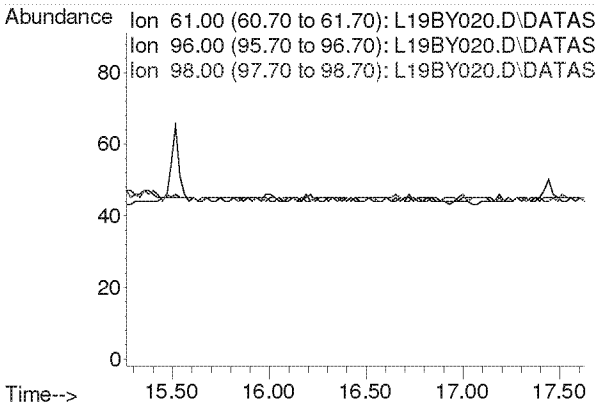


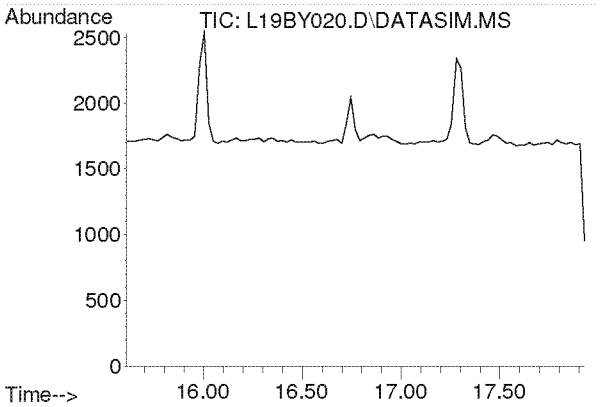
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



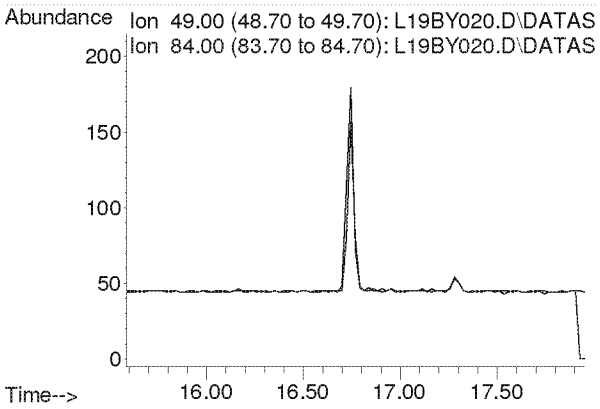


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

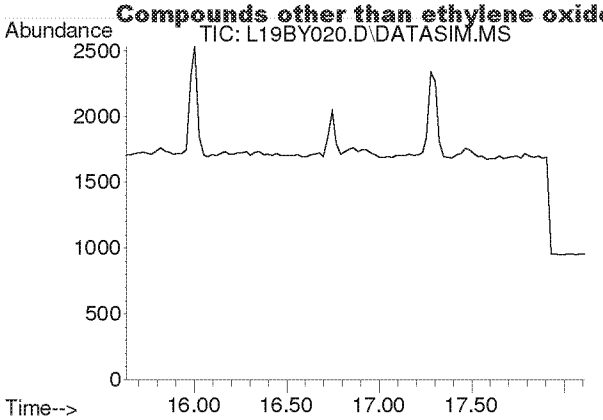
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

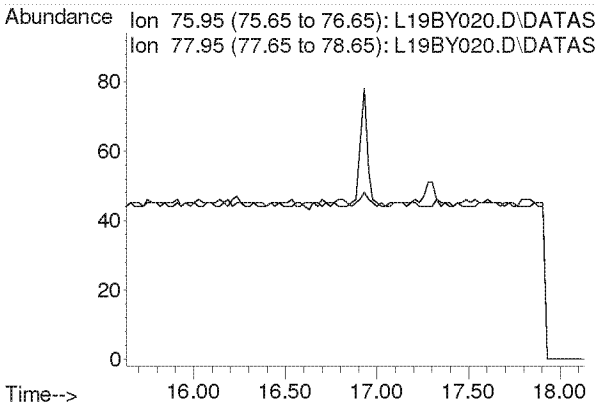


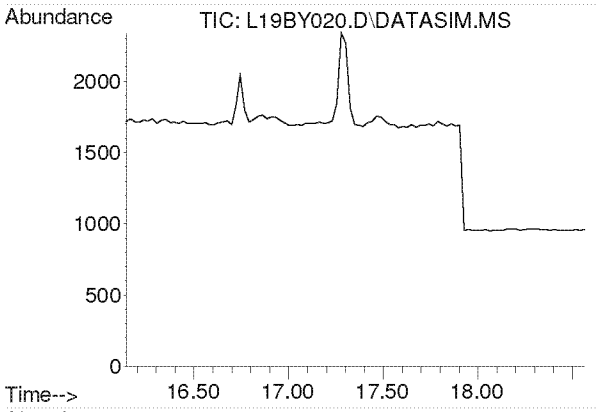
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



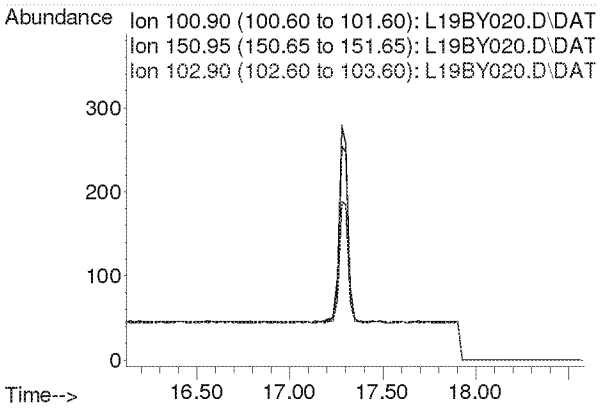


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

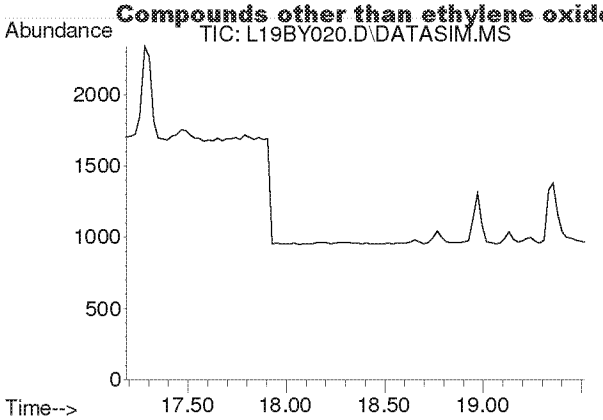
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

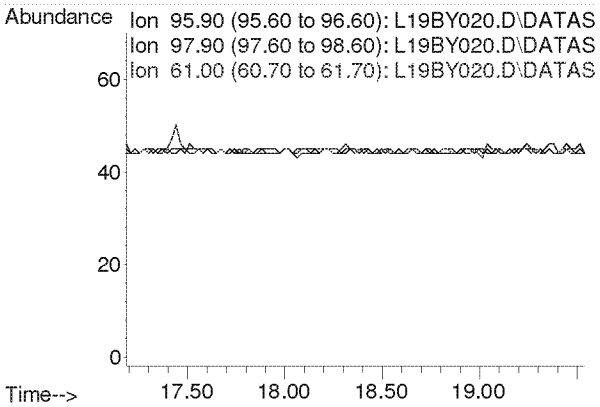


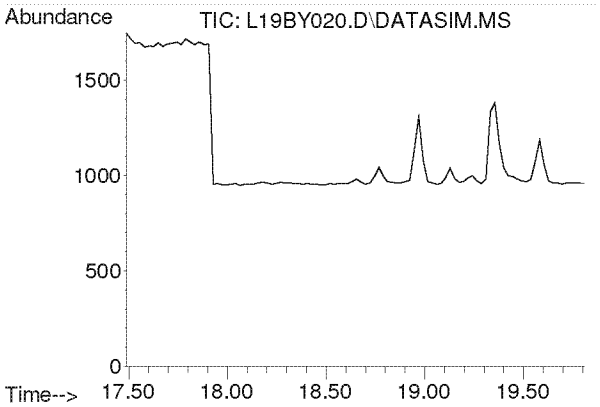
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



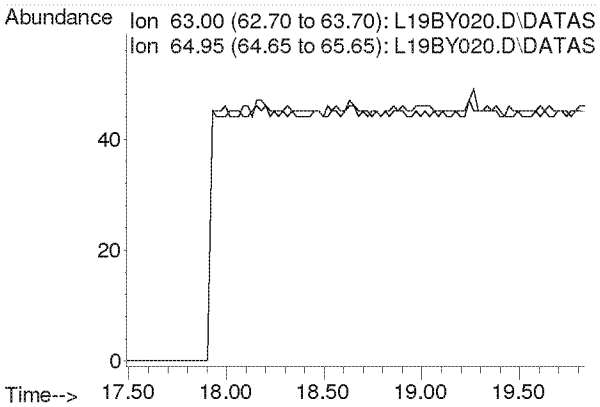


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

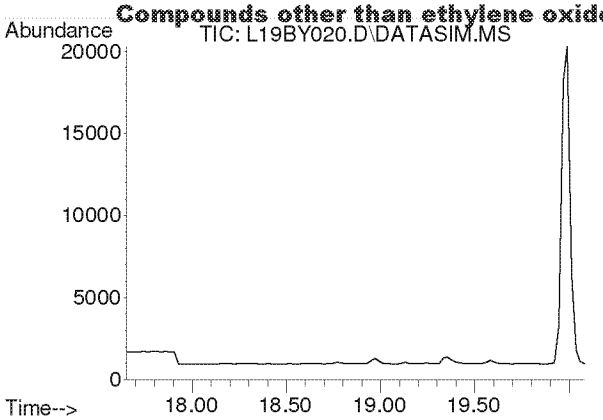
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

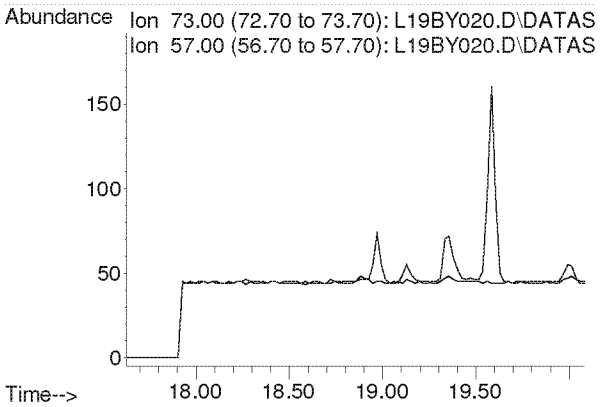


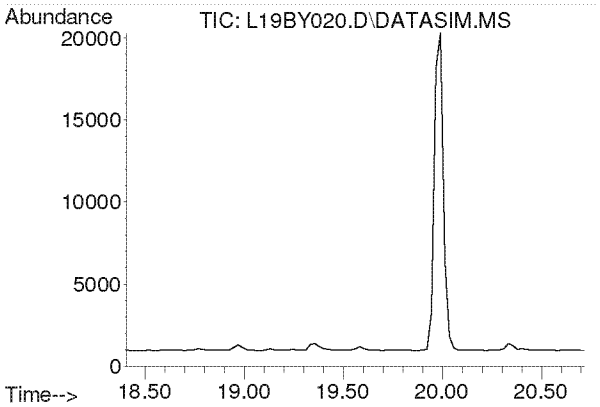
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



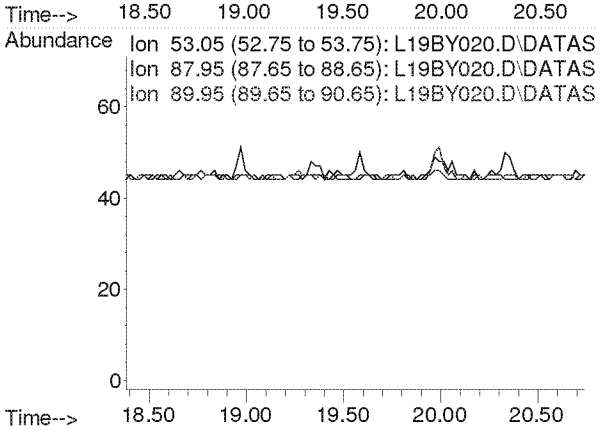


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

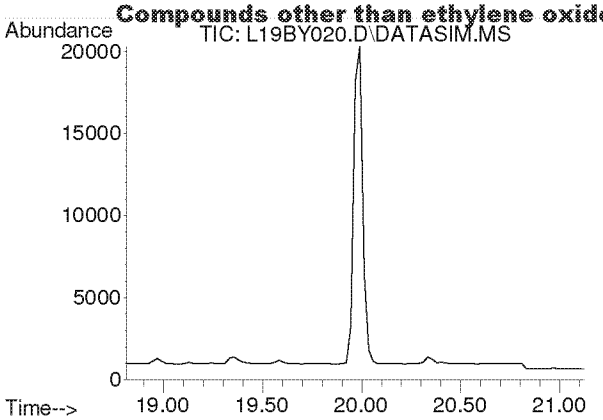
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

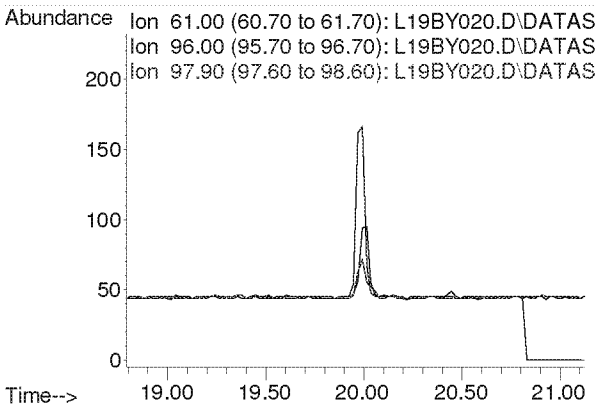


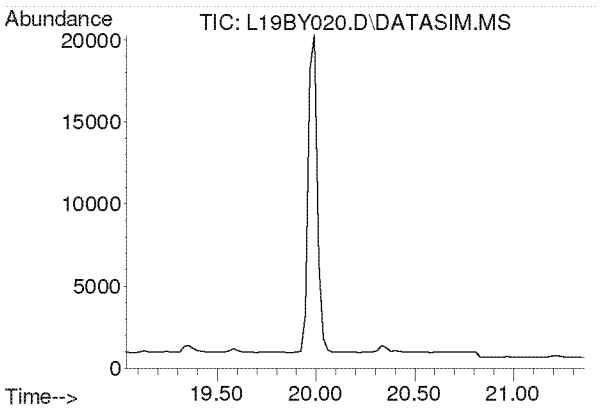
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



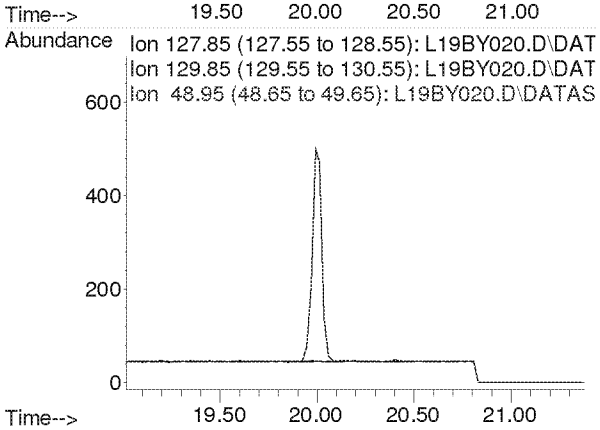


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

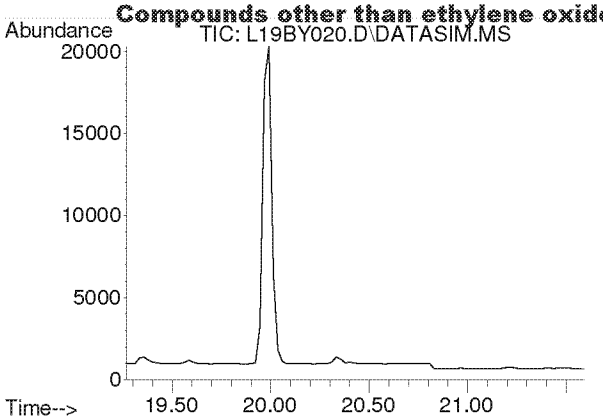
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

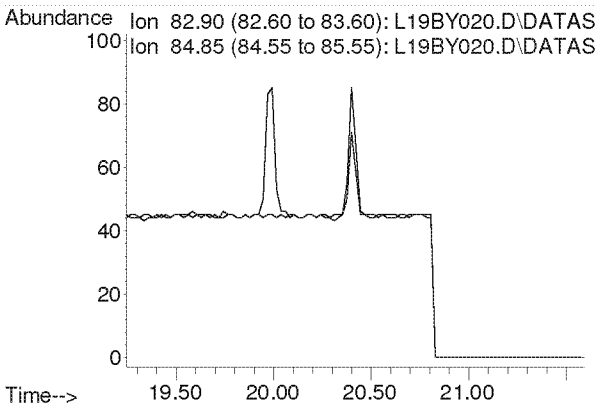


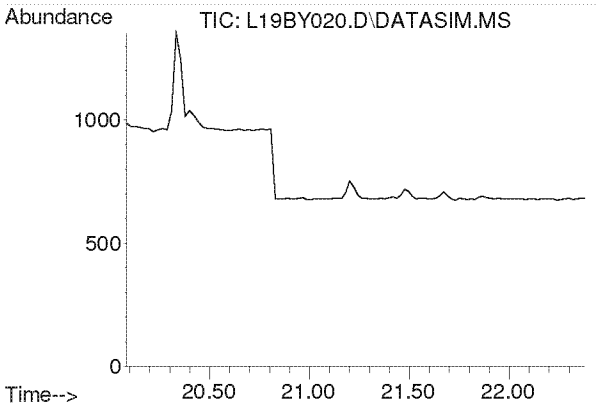
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



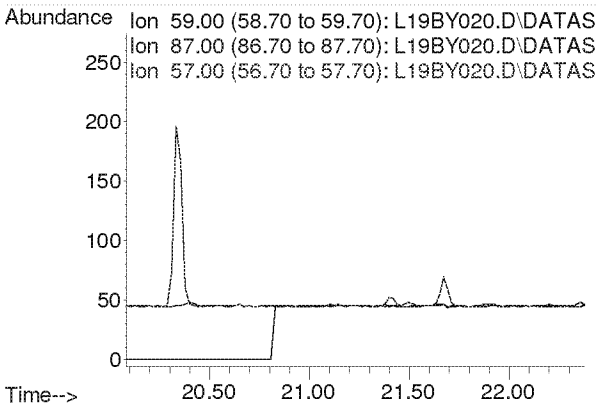


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

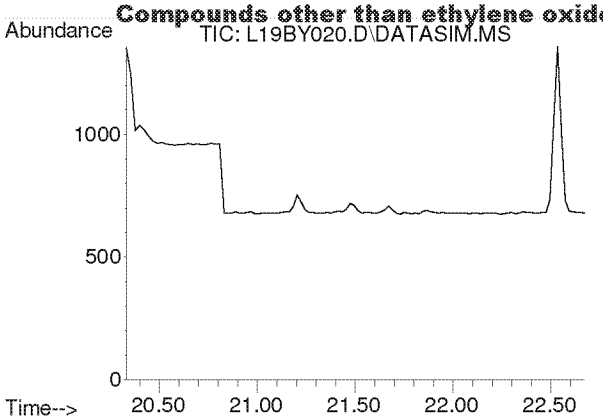
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

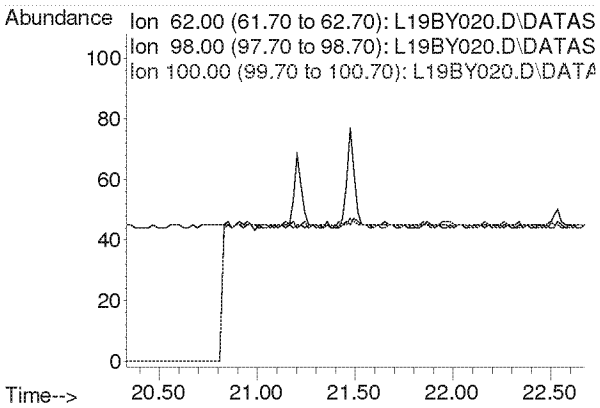


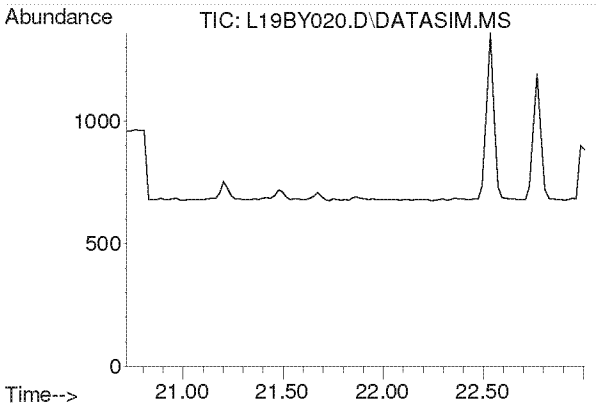
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



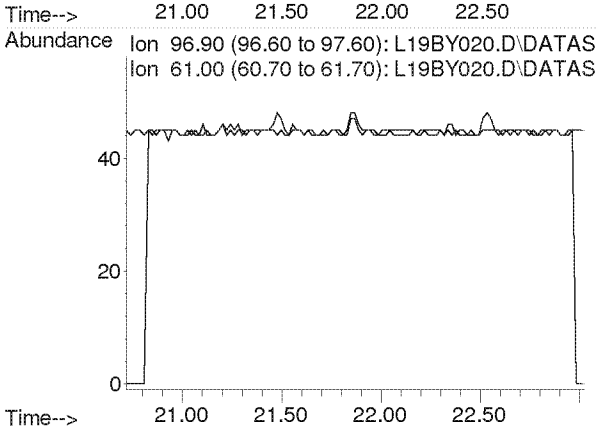


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

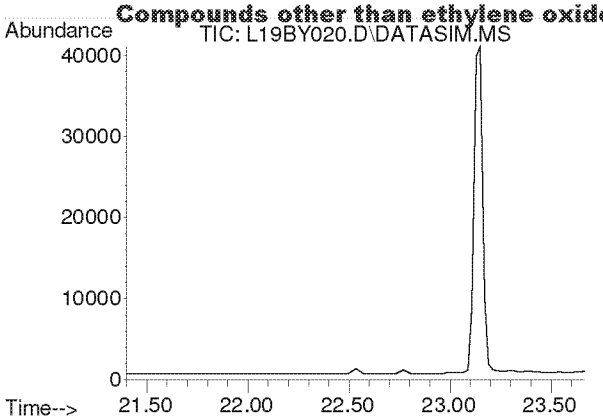
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

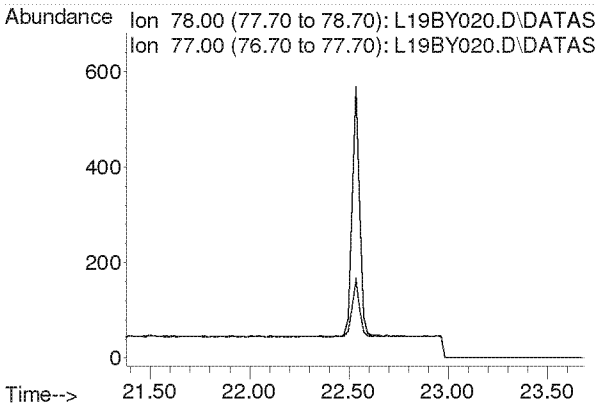


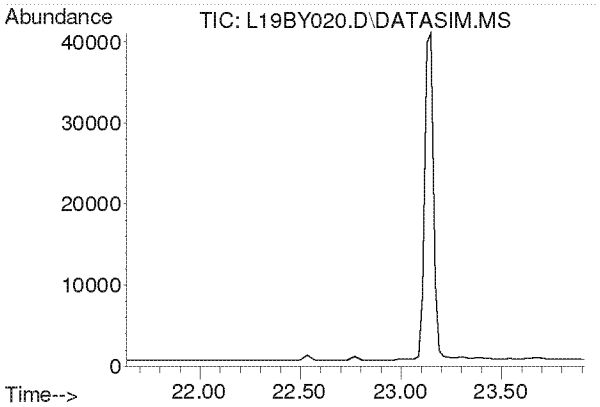
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



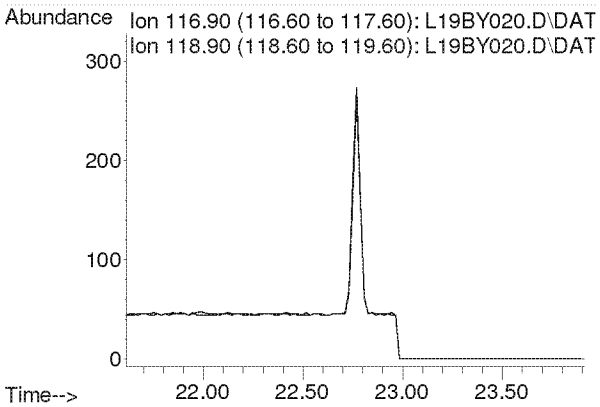


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

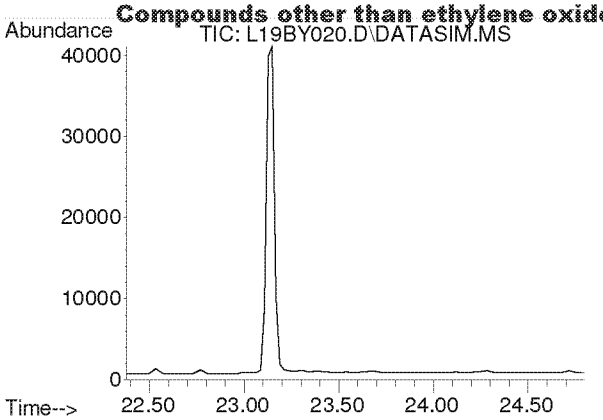
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

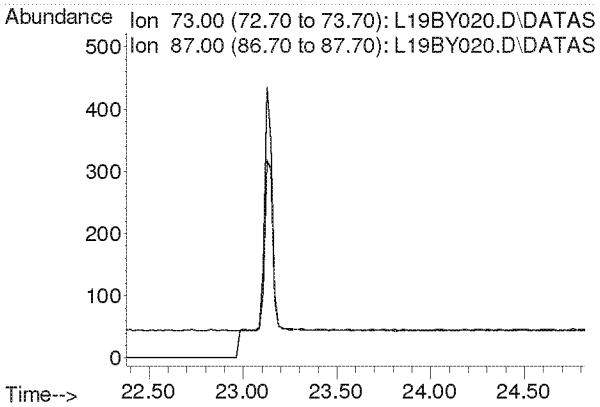


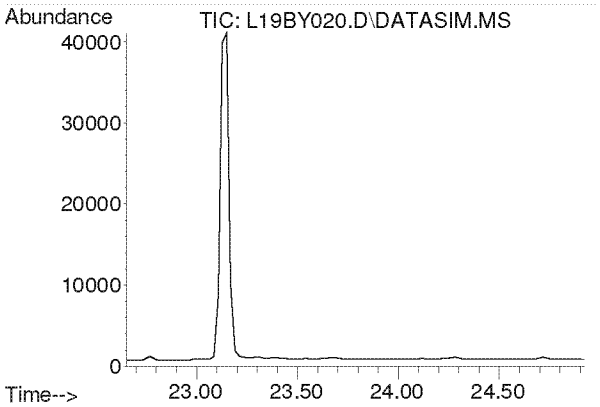
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



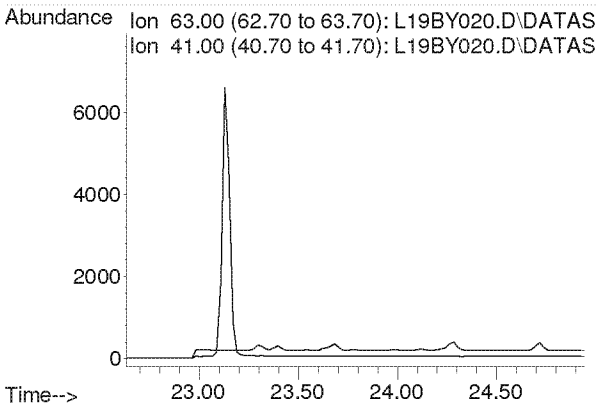


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

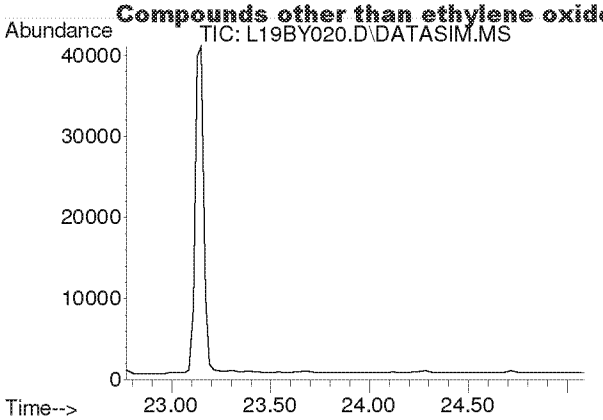
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

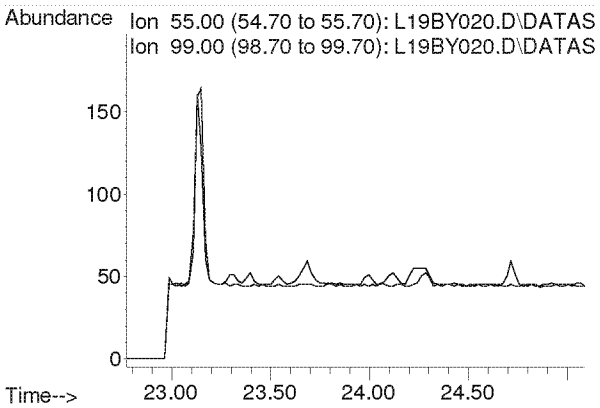


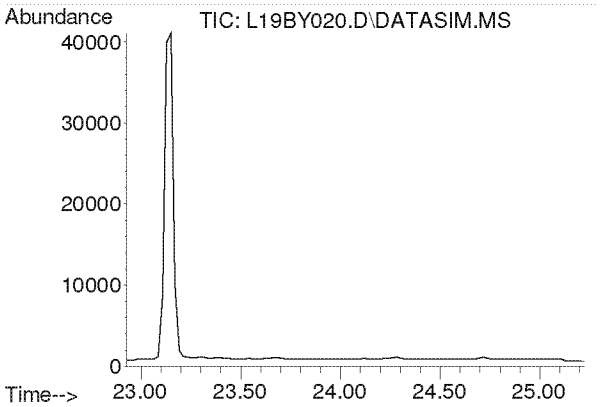
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



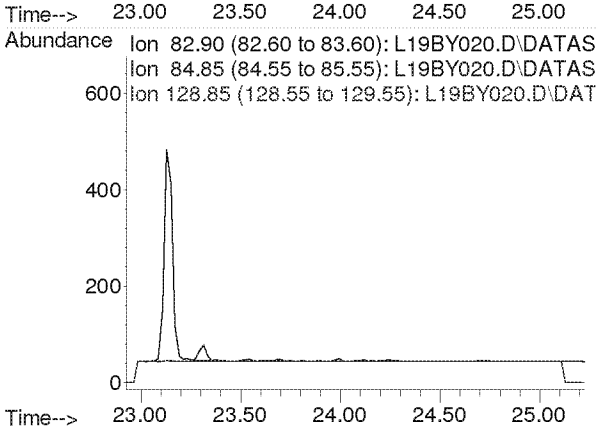


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

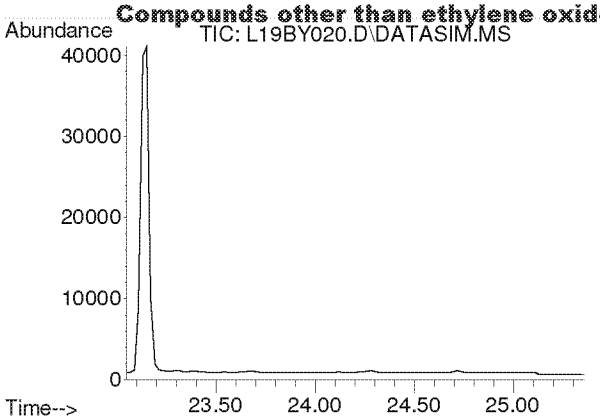
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

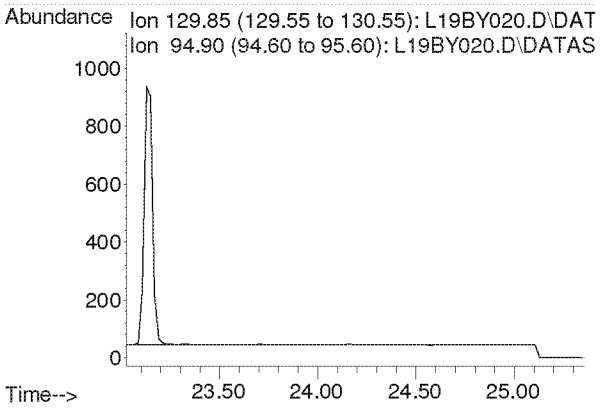


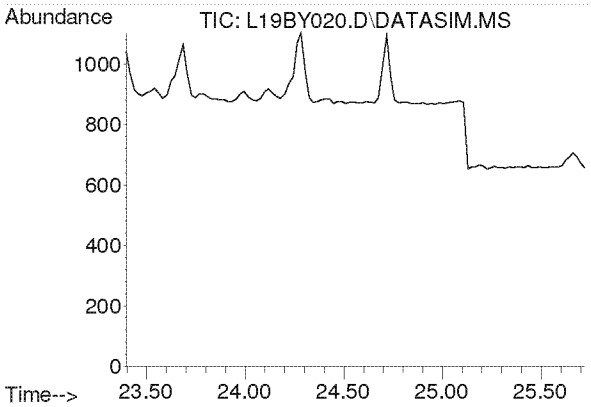
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



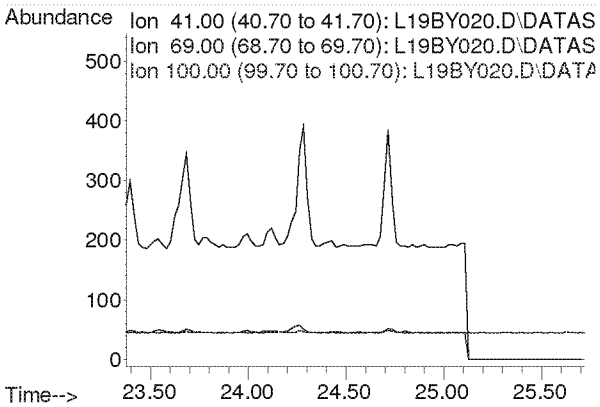


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

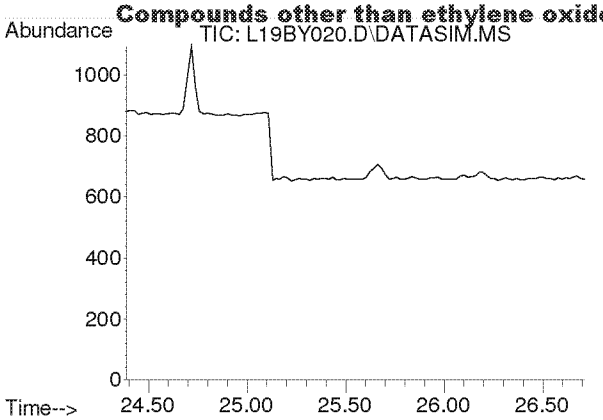
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

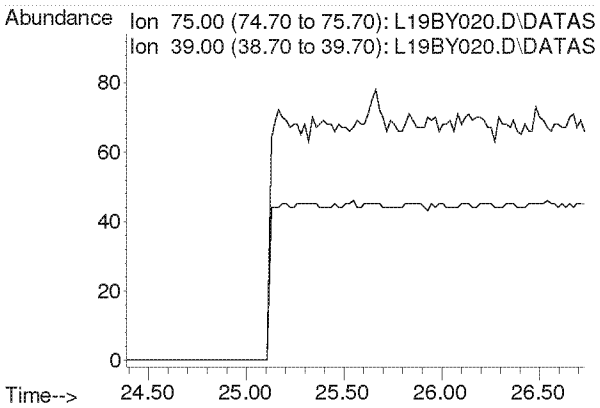


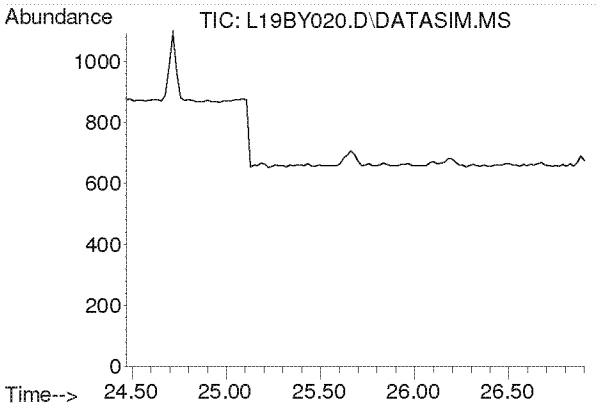
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



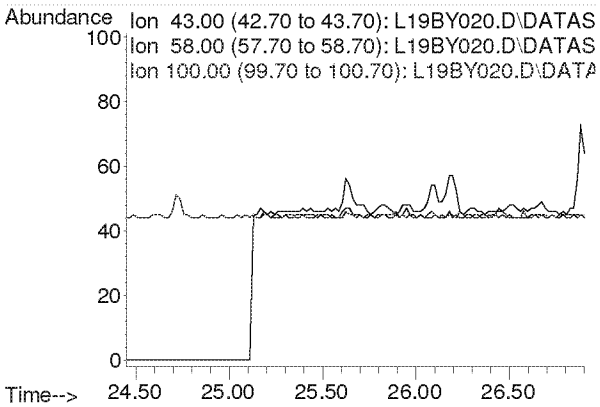


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

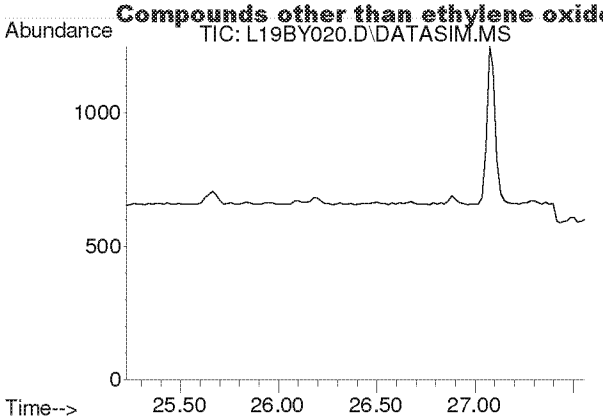
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

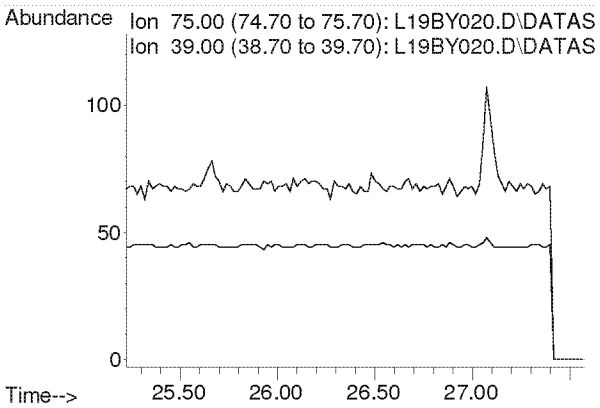


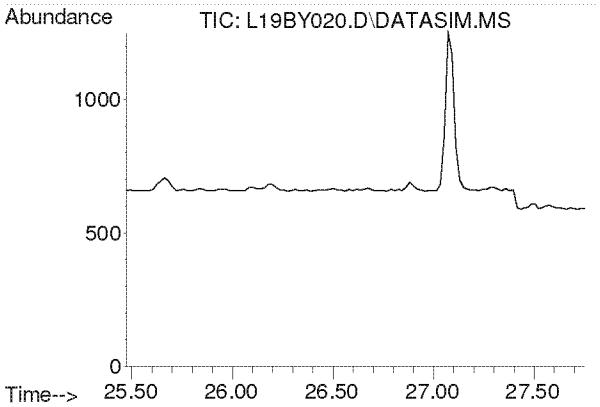
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



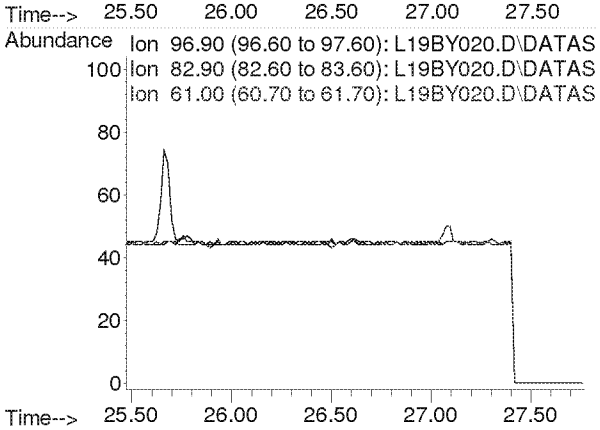


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

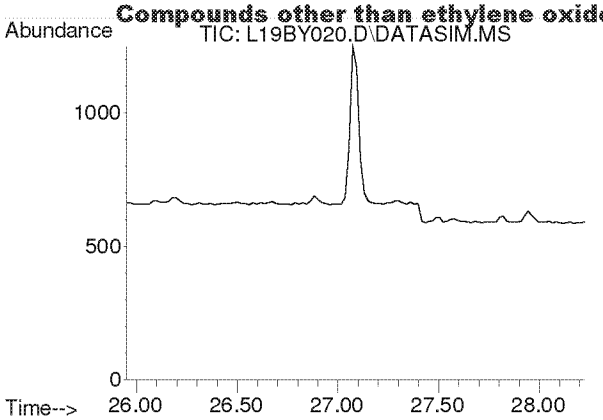
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

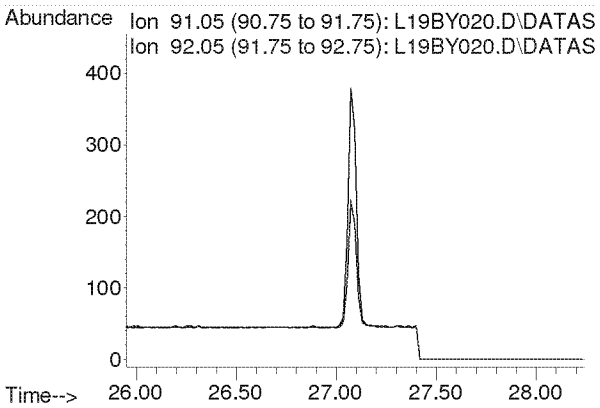


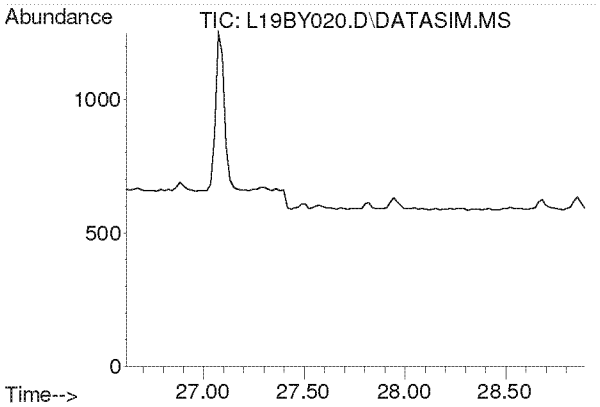
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



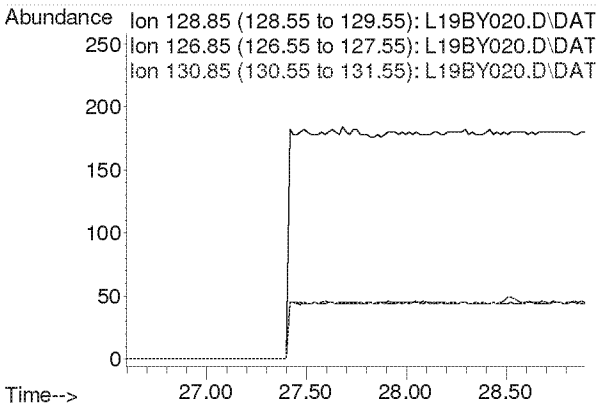


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

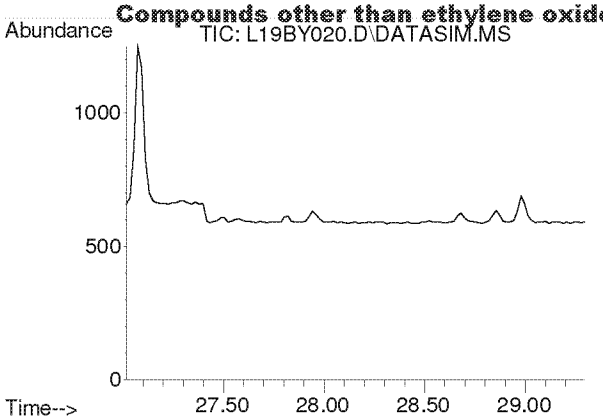
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

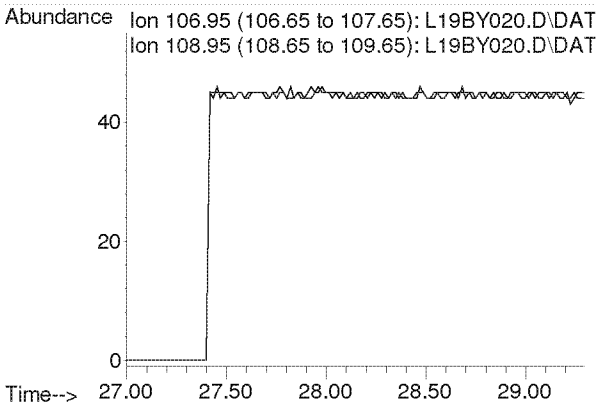


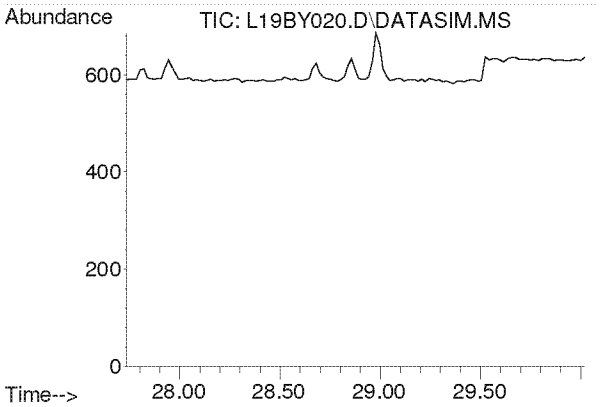
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



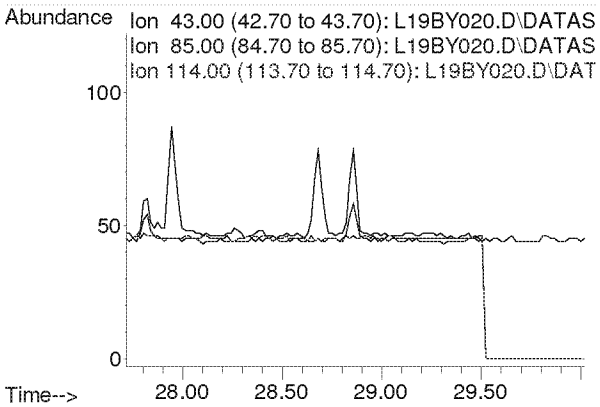


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

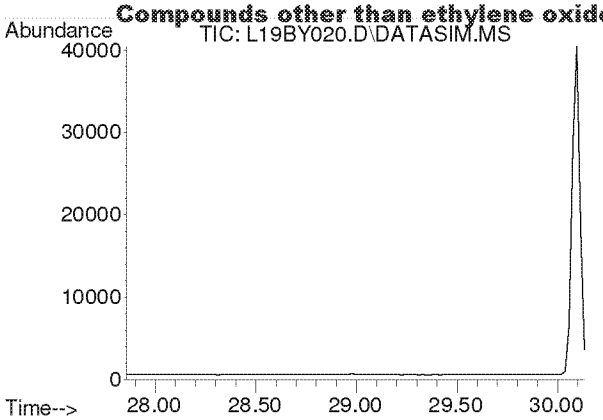
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

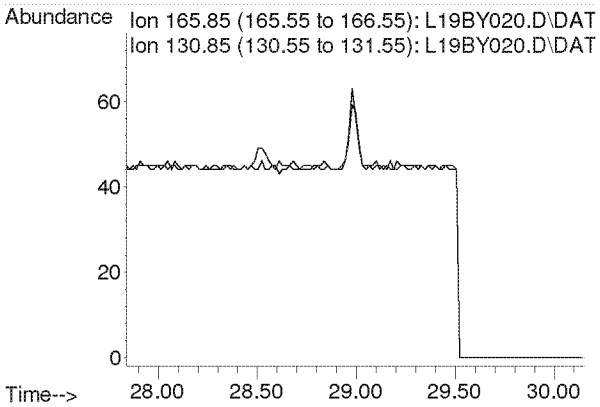


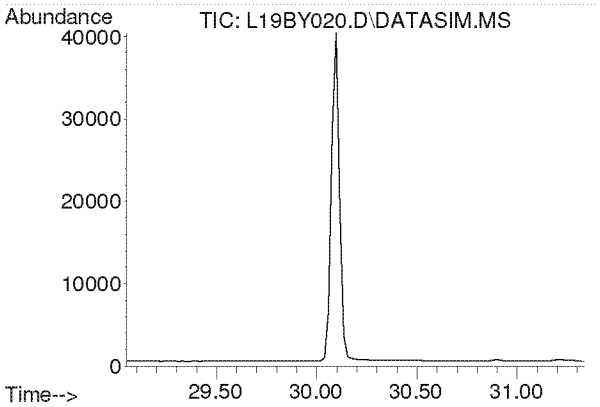
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



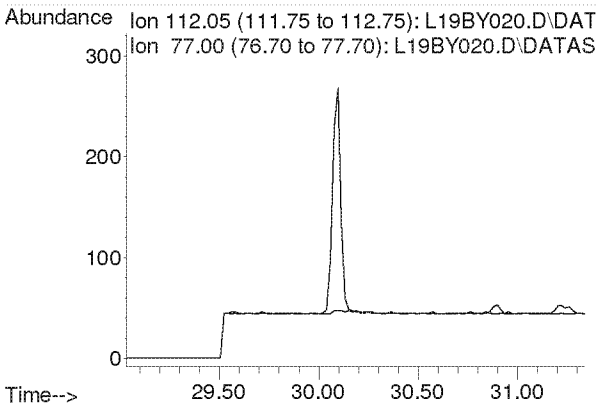


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

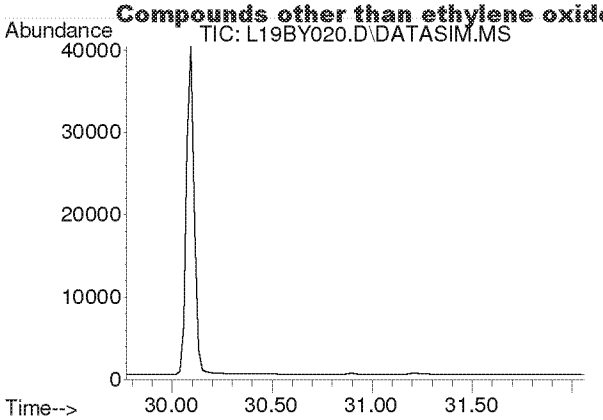
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

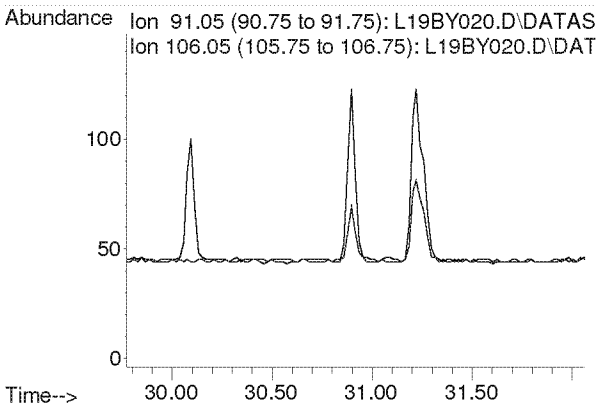


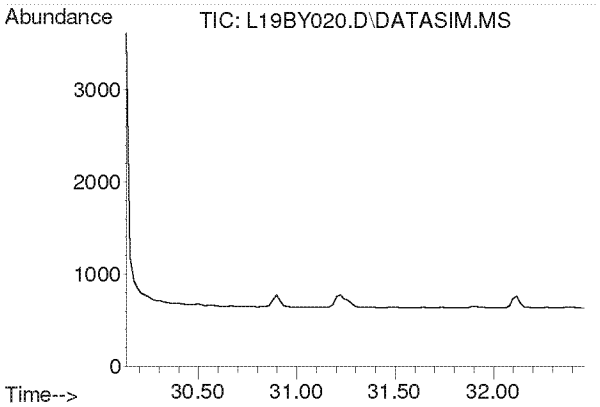
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



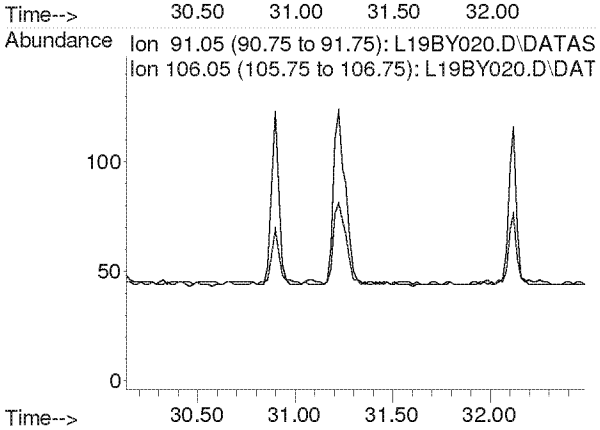


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

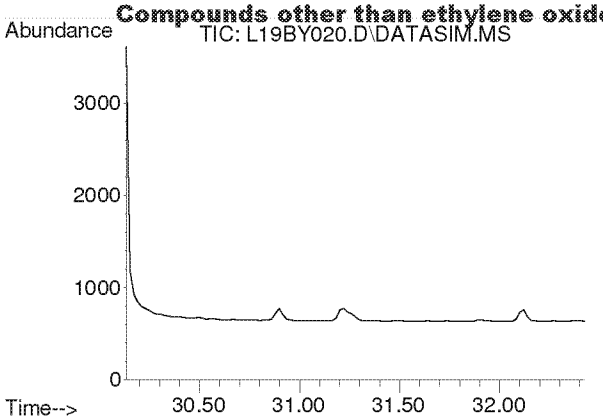
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

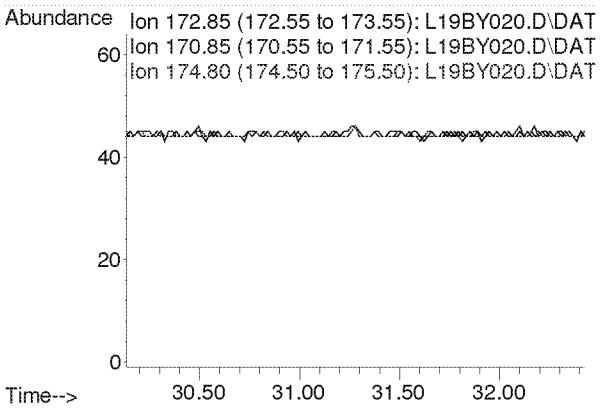


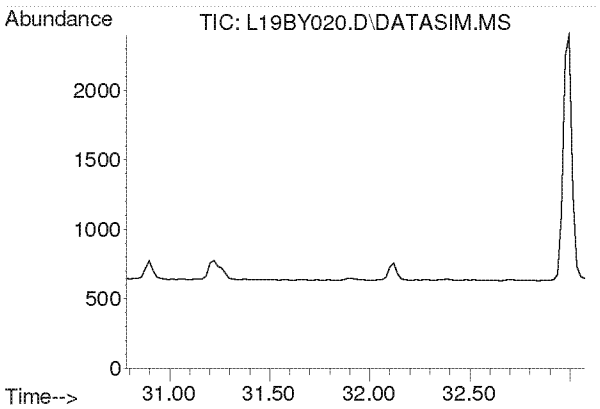
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



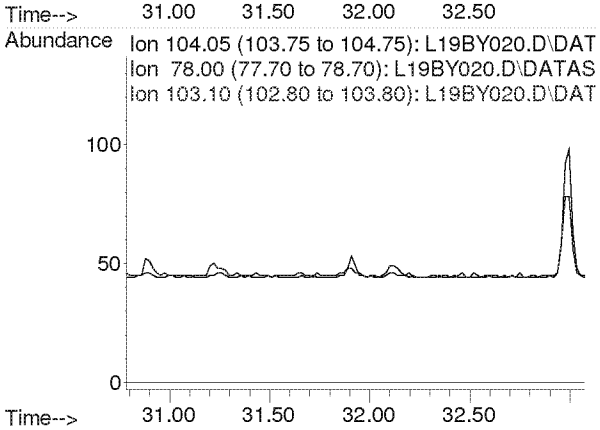


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

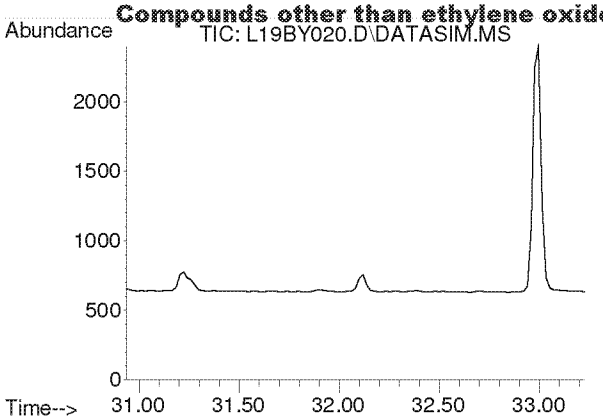
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

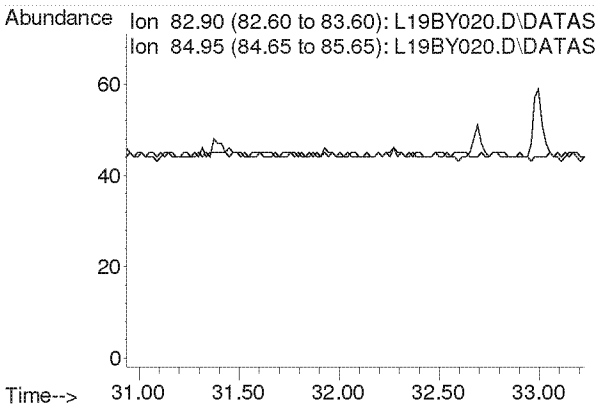


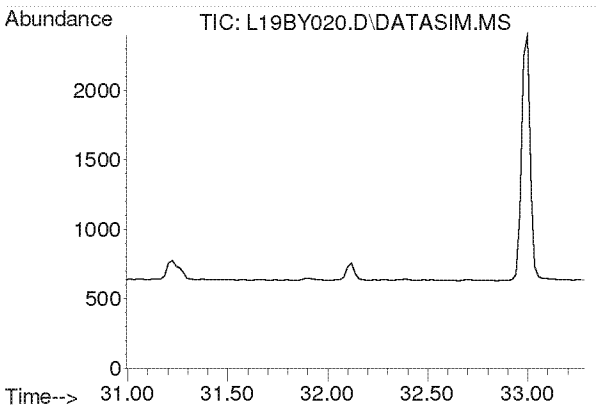
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



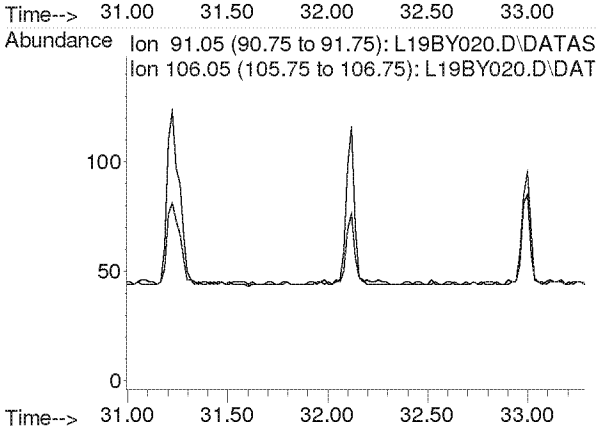


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

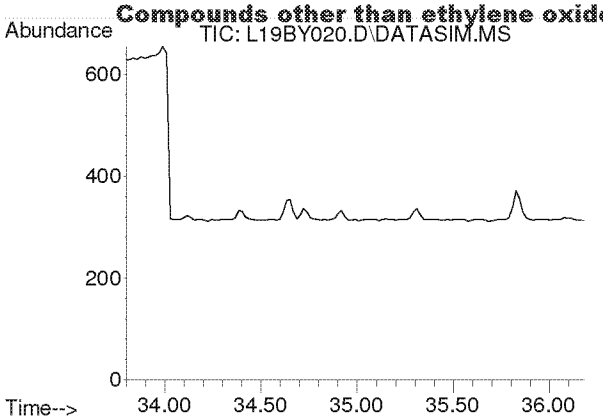
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

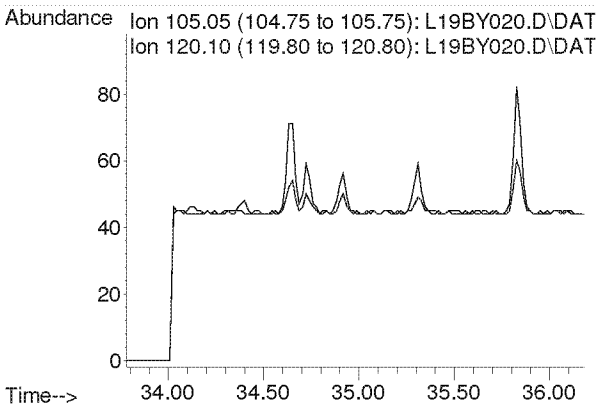


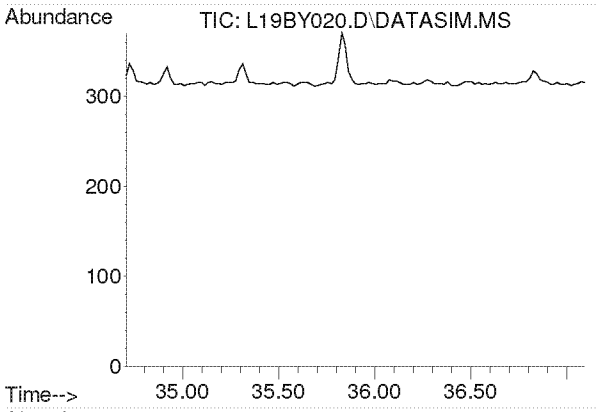
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



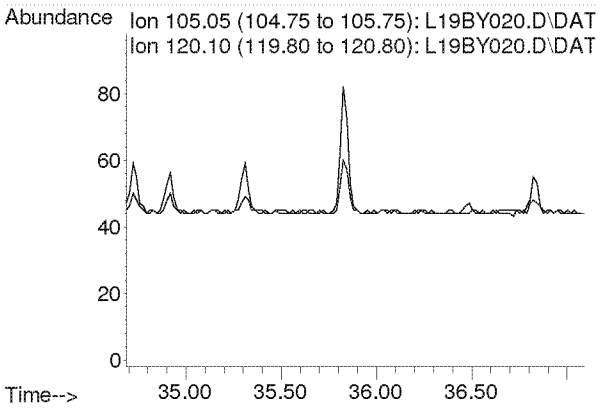


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

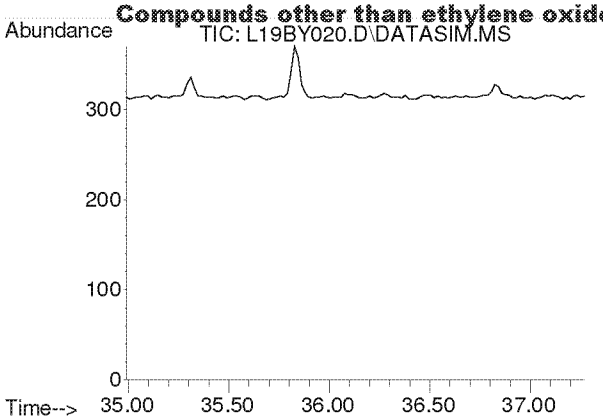
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

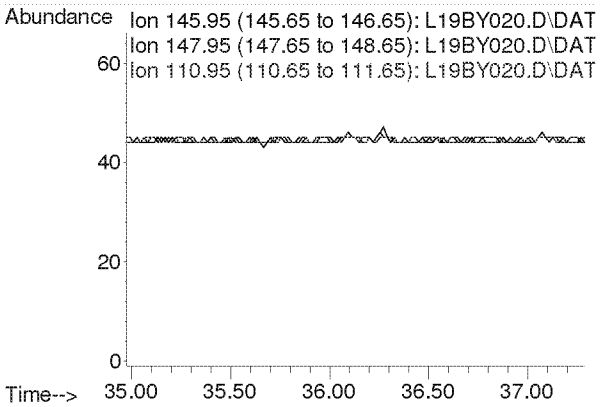


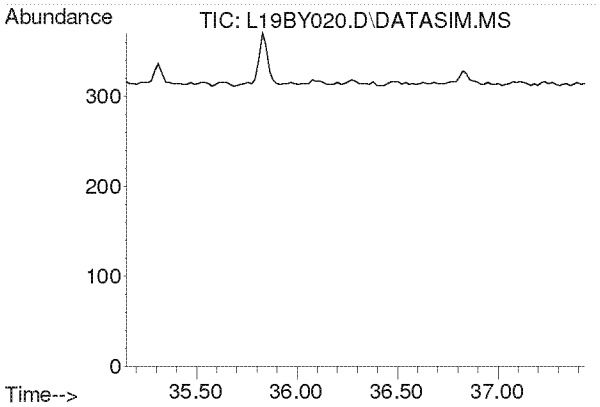
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



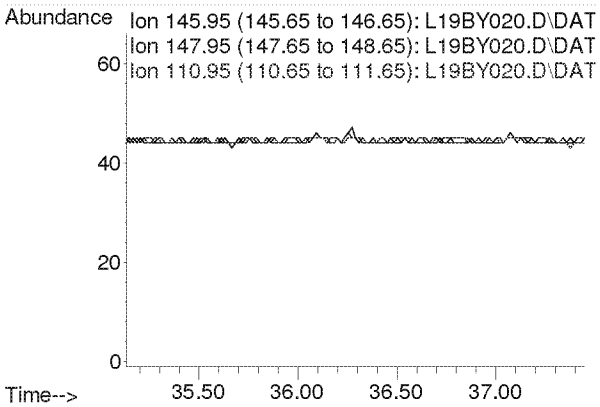


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

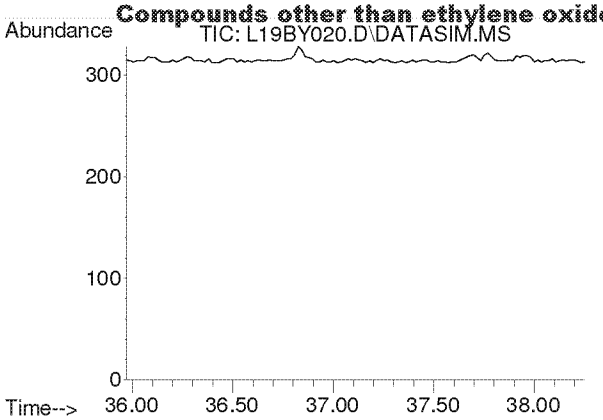
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

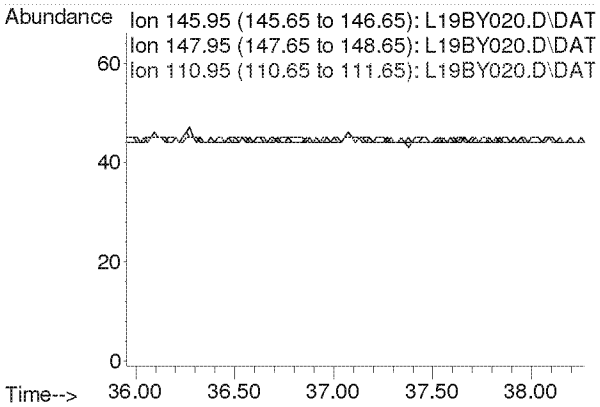


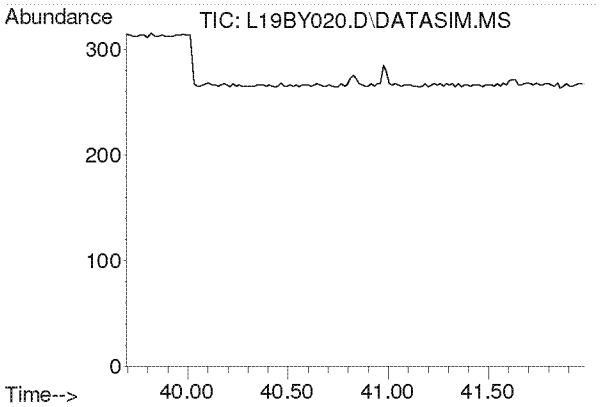
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



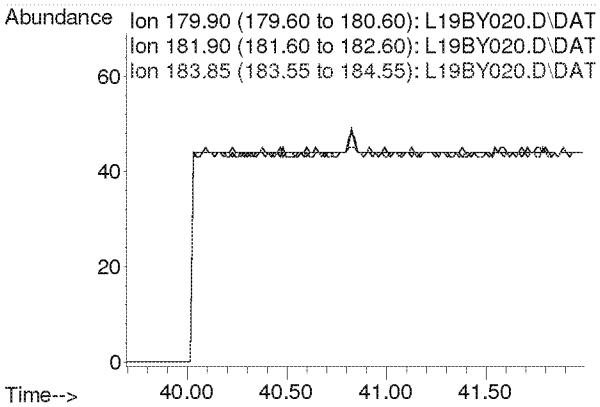


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

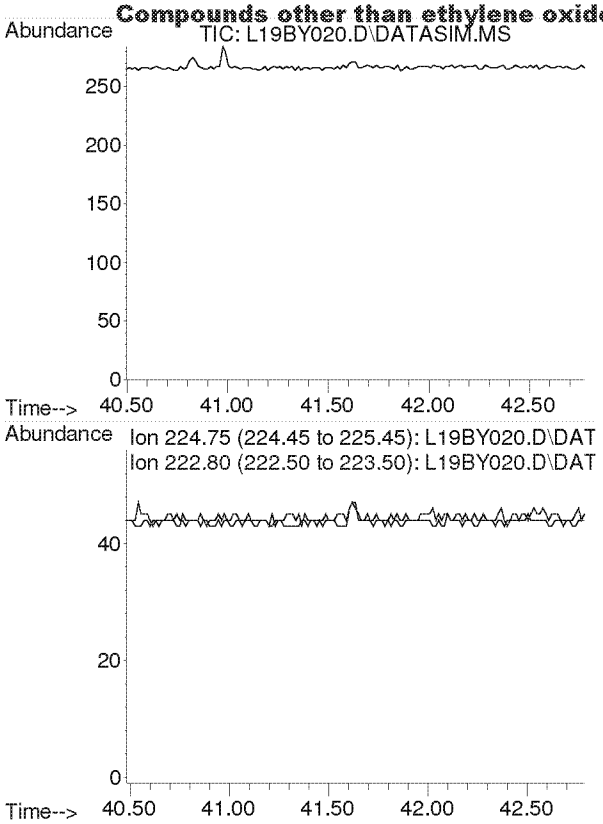
Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY020.D
Acq: 26 Feb 2019 2:31 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY021.D
Acq On : 26 Feb 2019 3:31 am (#1); 26-Feb-19, 03:26:11 (#2)
Operator : MAH
Sample : 9022202-15
Misc : WILLOW POND PARK 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 26 10:15:34 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d=nk

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	37660	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	94964	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	66079	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	12.485	29	132m	0.0613 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	
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. 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\L19BY\
Data File : L19BY021.D
Acq On : 26 Feb 2019 3:31 am (#1); 26-Feb-19, 03:26:11 (#2)
Operator : MAH
Sample : 9022202-15
Misc : WILLOW POND PARK 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 26 10:15:34 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

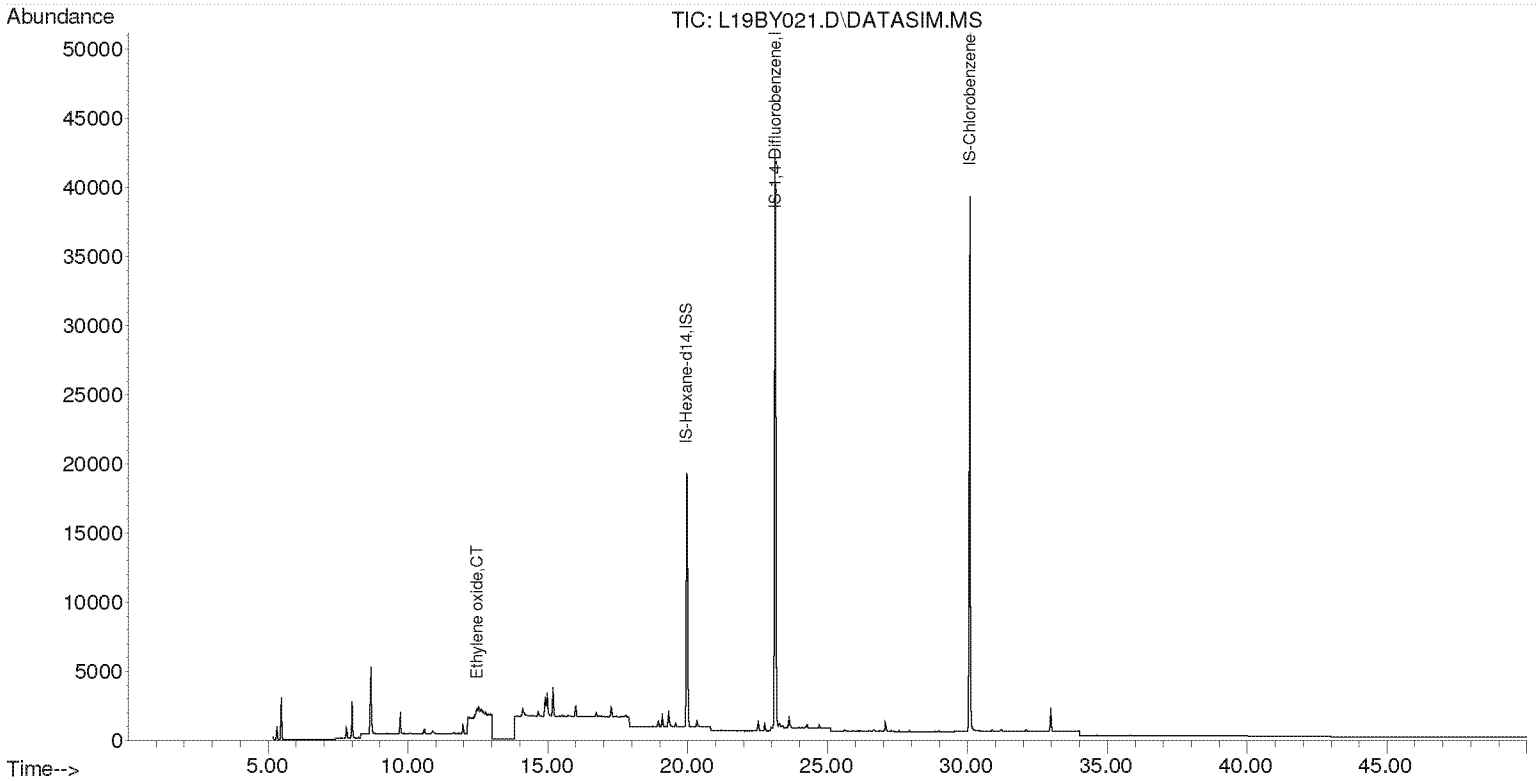
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

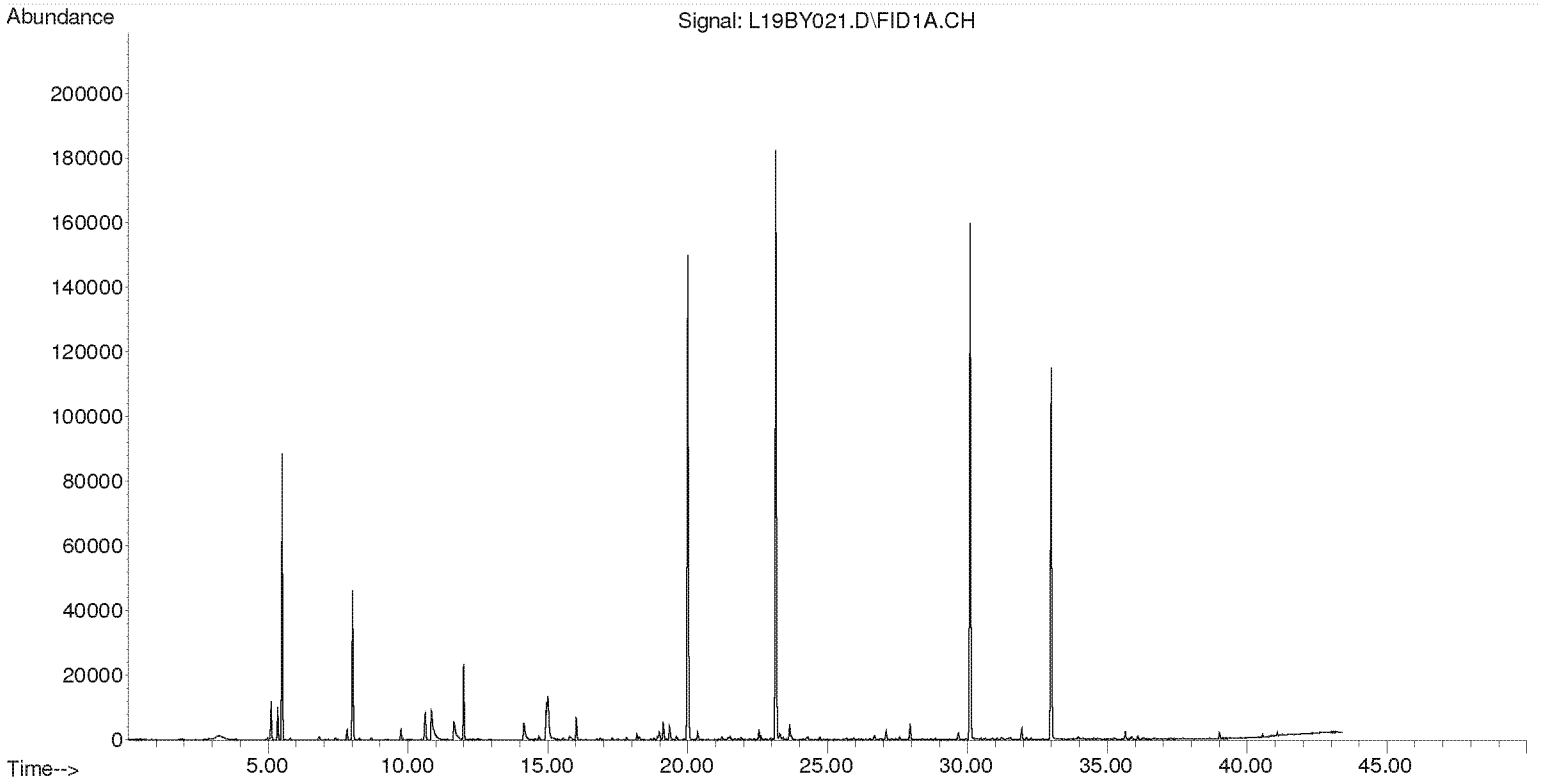
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

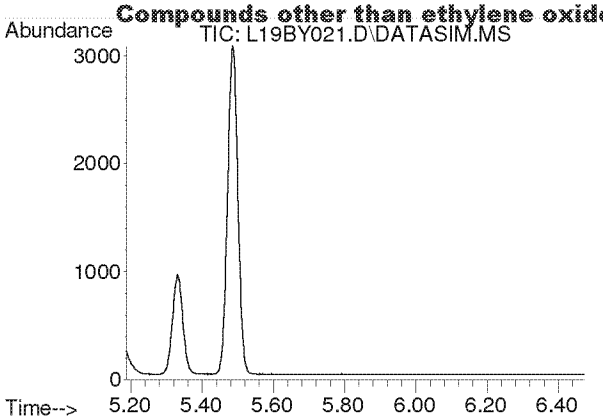
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY021.D
Acq On : 26 Feb 2019 3:31 am (#1); 26 Feb 2019 3:26 am (#2)
Operator : MAH
Sample : 9022202-15
Misc : WILLOW POND PARK 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 26 09:56:18 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





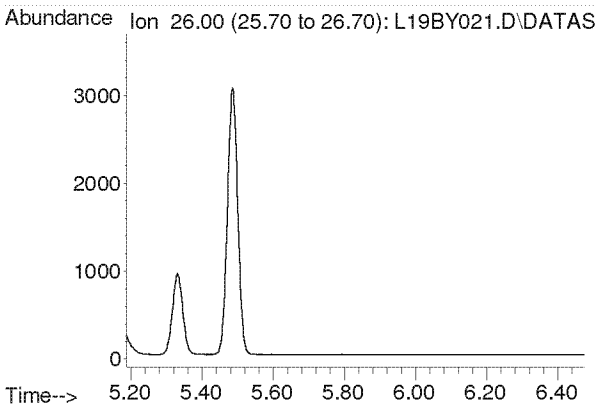
Compounds other than ethylene oxide were not quantitated.

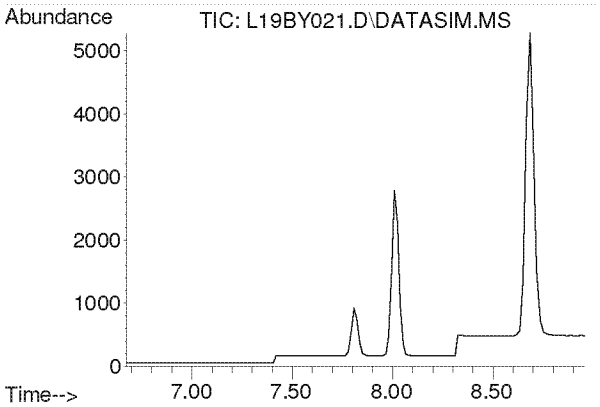


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 26



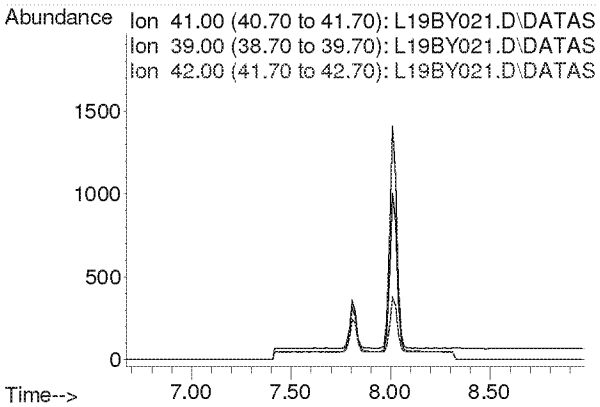


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

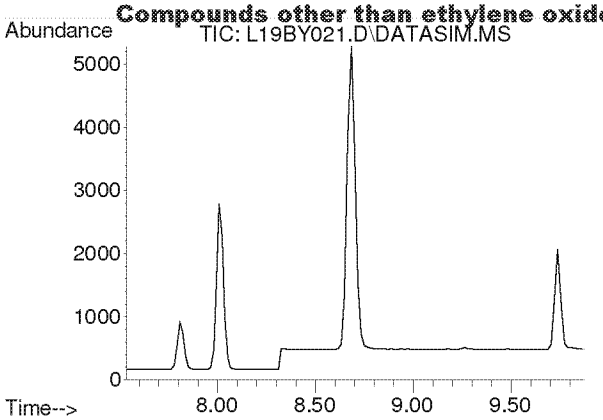
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

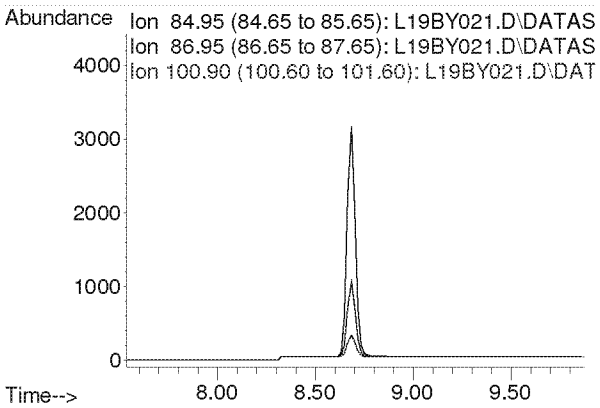


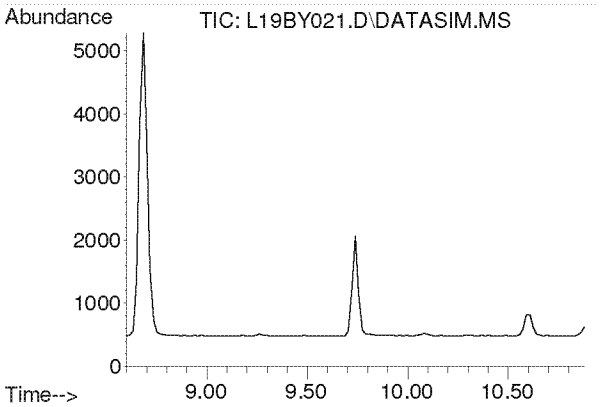
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



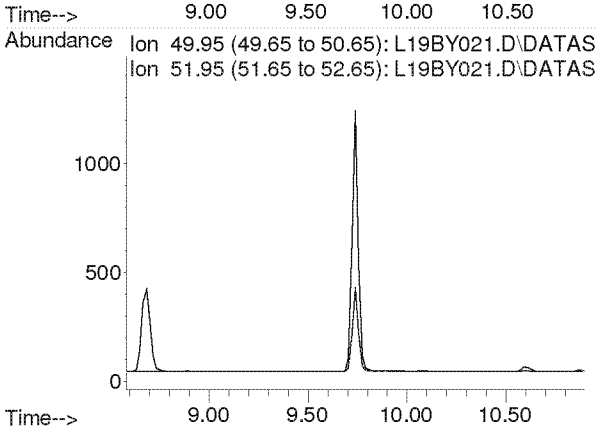


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

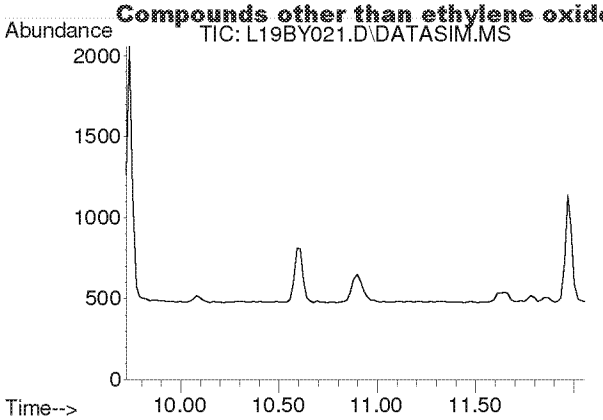
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

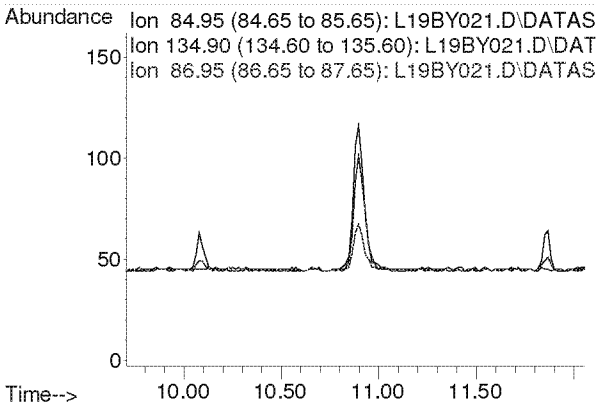


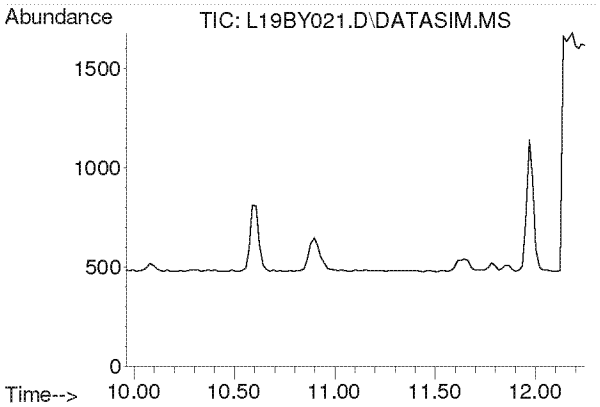
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



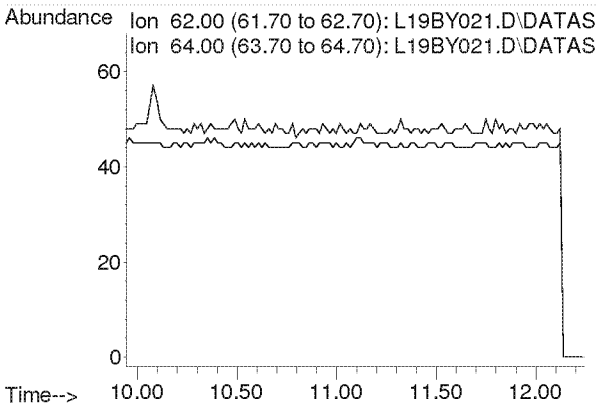


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

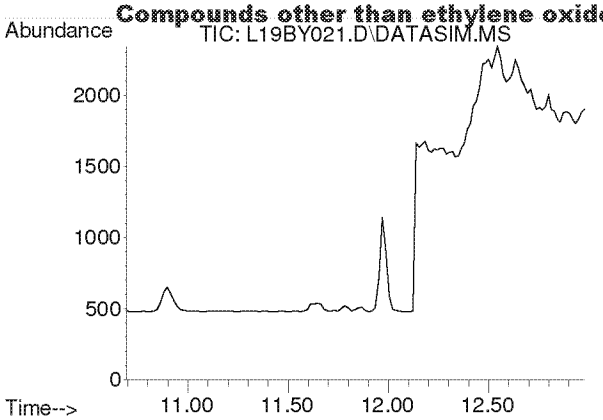
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

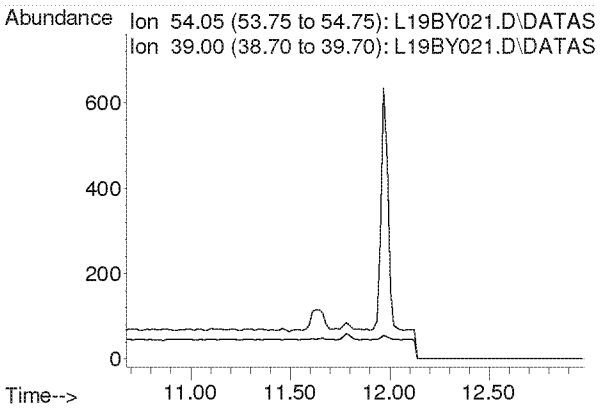


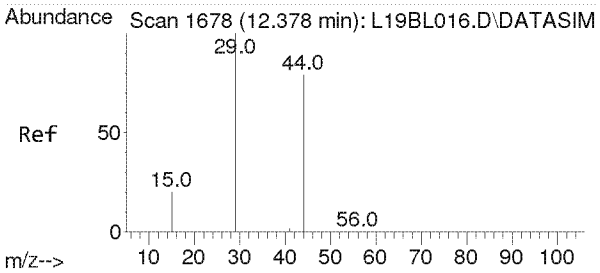
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

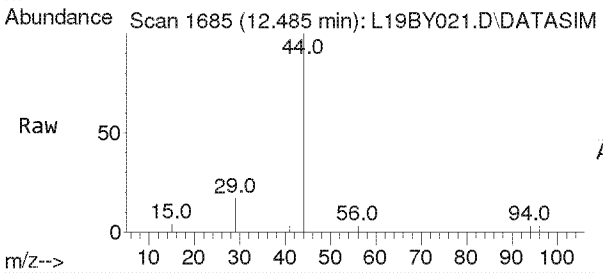


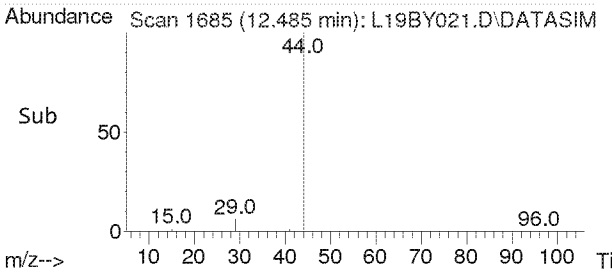


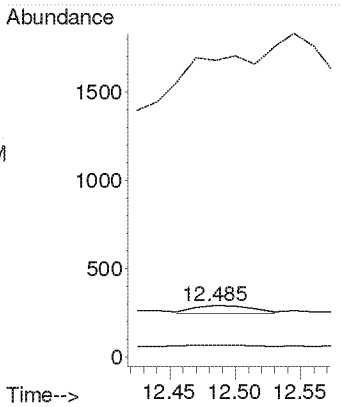
#9
Ethylene oxide
Concen: 0.061 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 29 Resp: 132

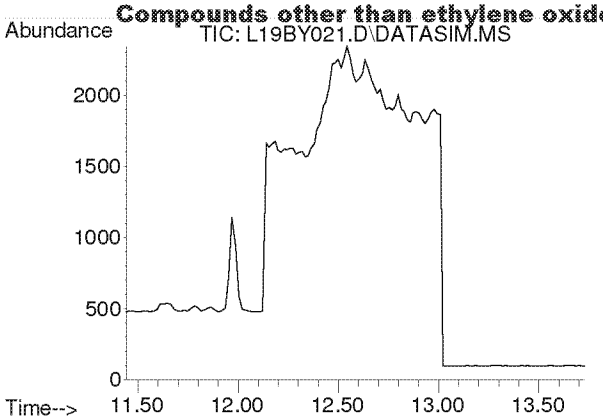
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	5370.5	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

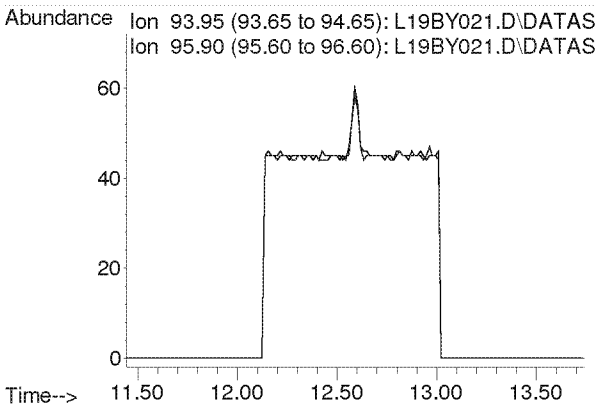


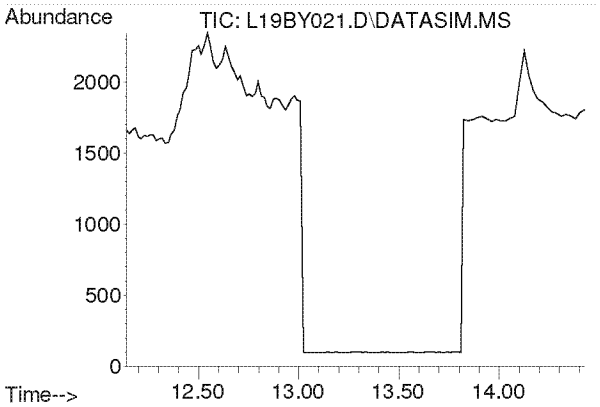
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



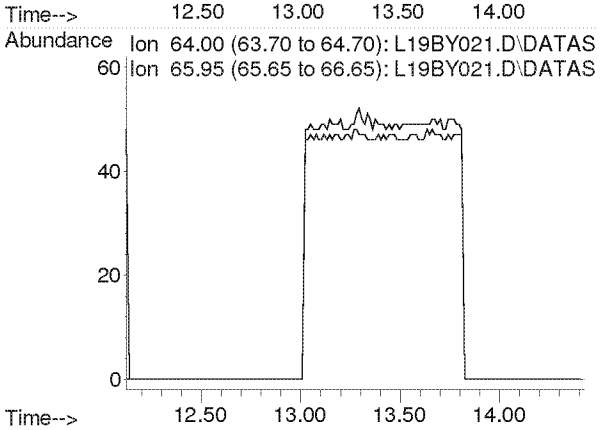


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

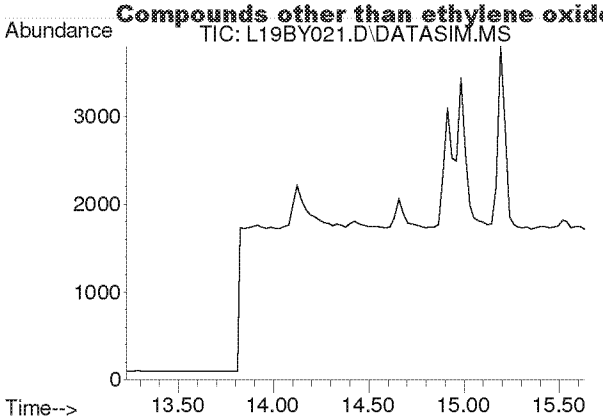
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

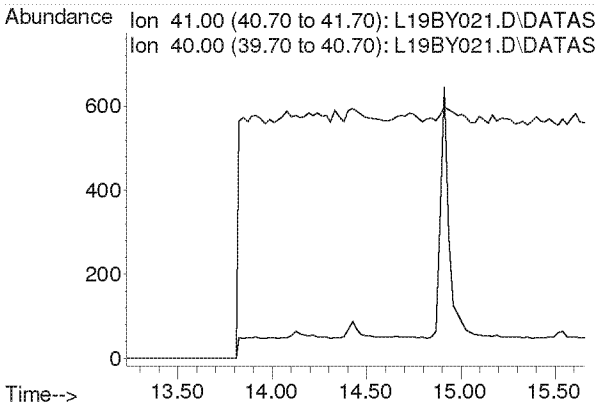


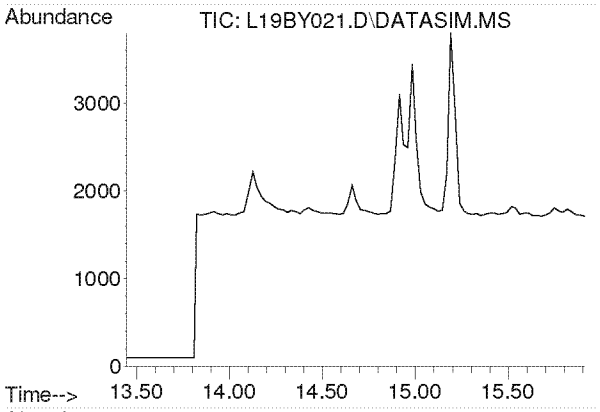
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



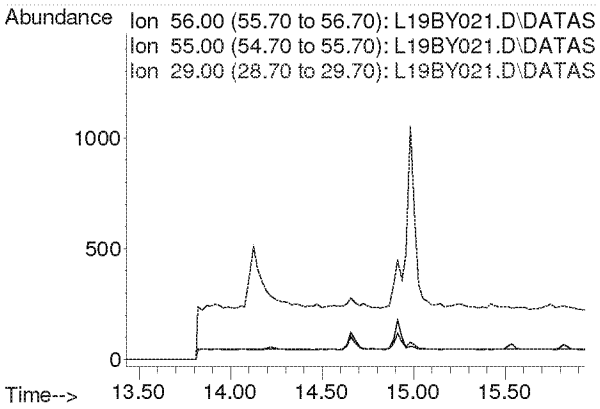


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

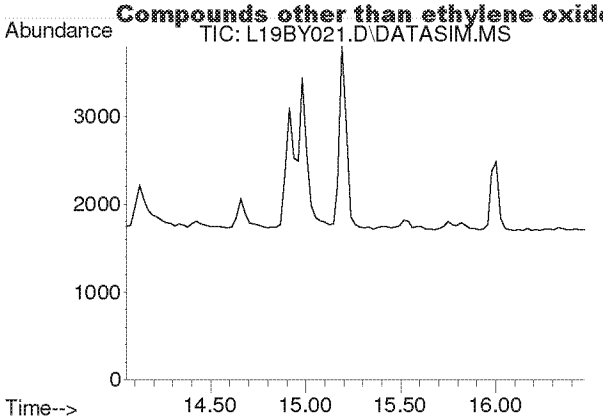
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

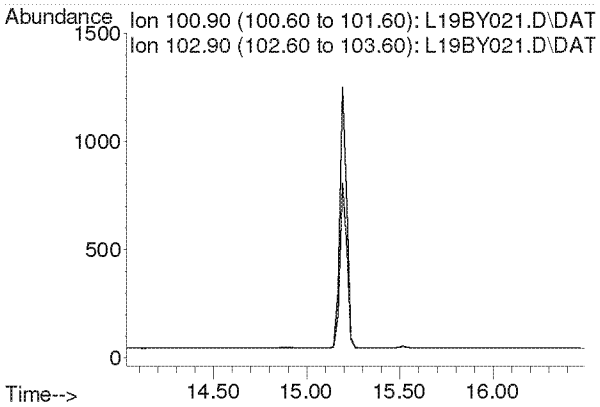


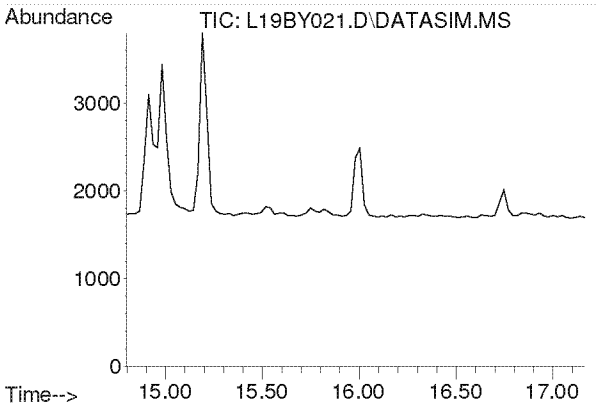
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



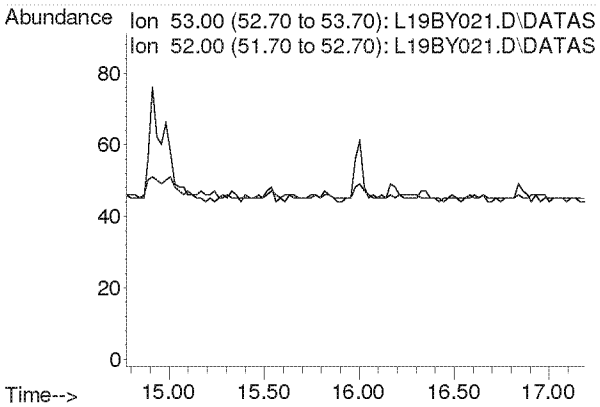


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

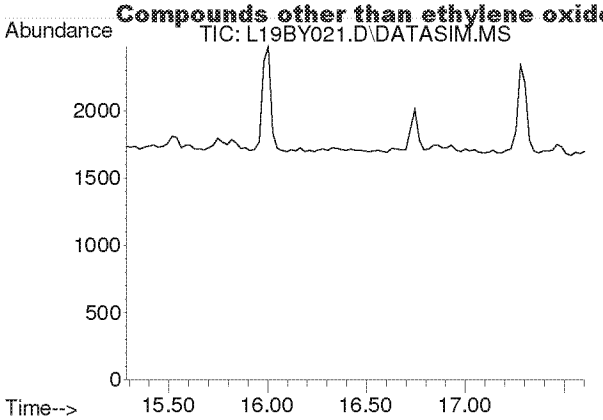
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

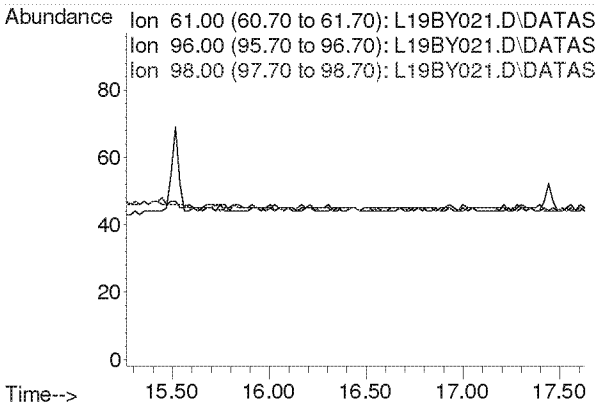


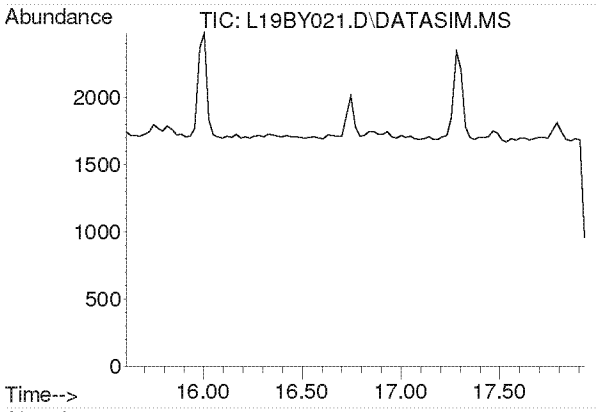
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



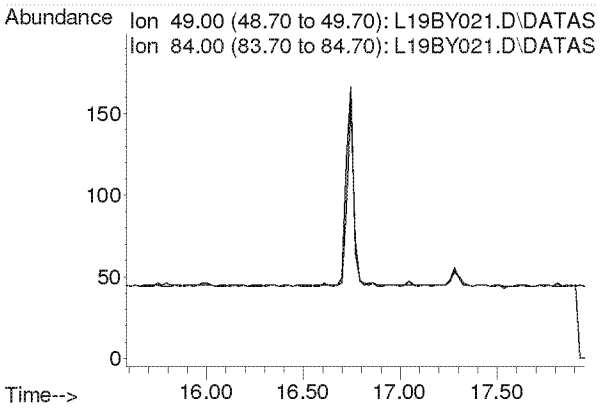


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

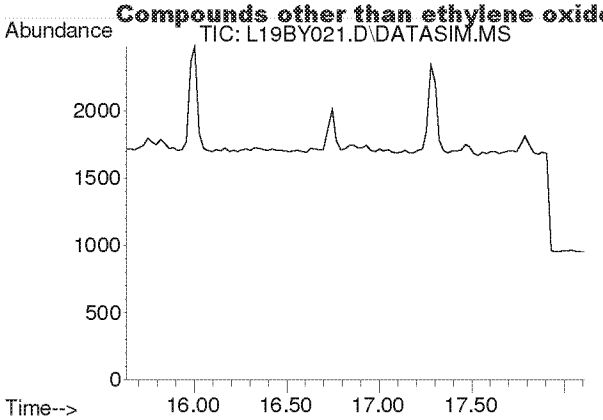
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

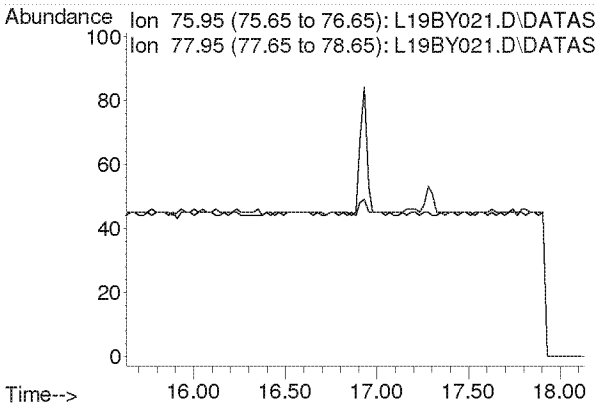


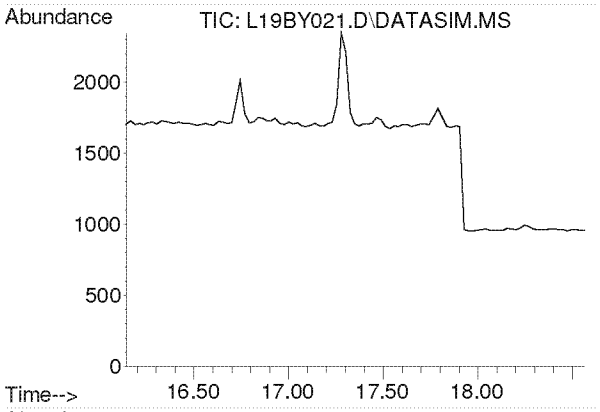
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



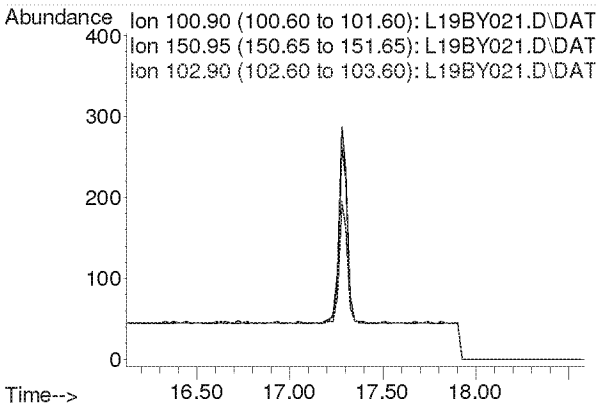


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

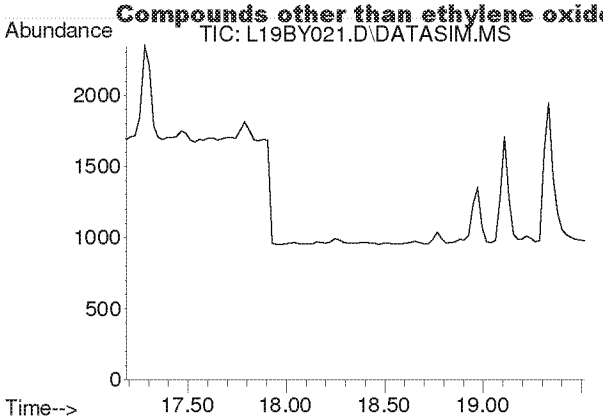
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

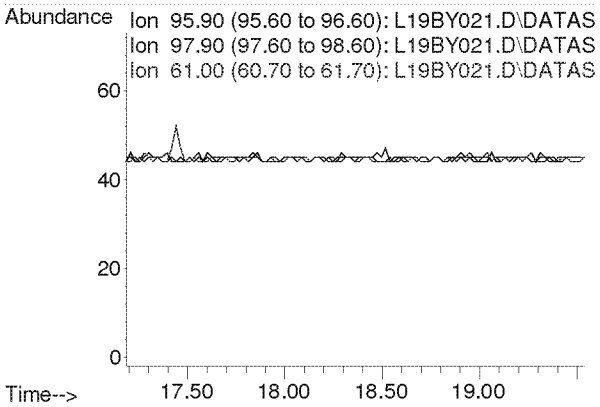


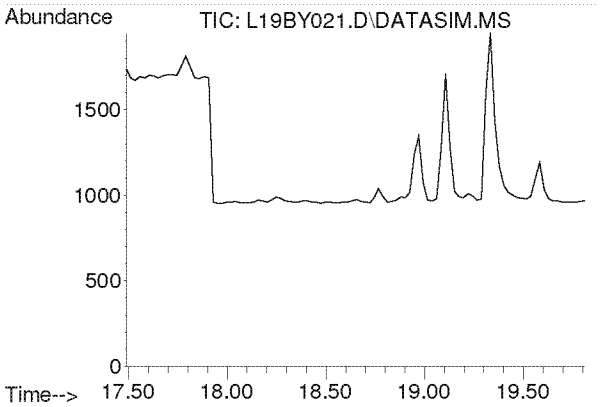
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



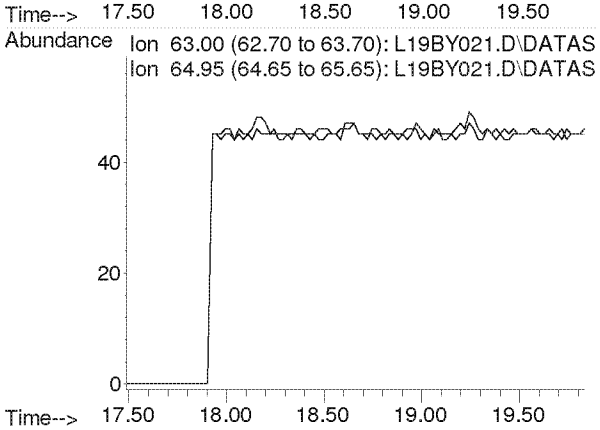


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

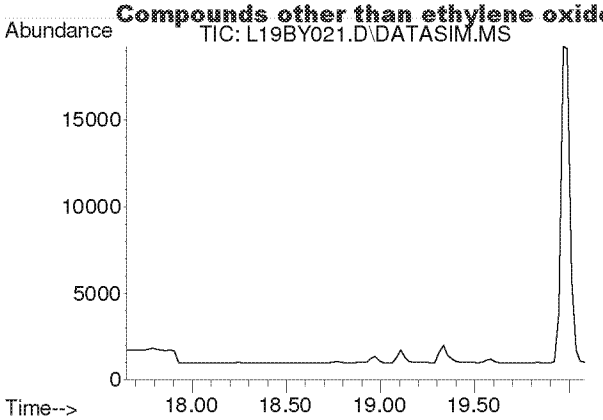
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

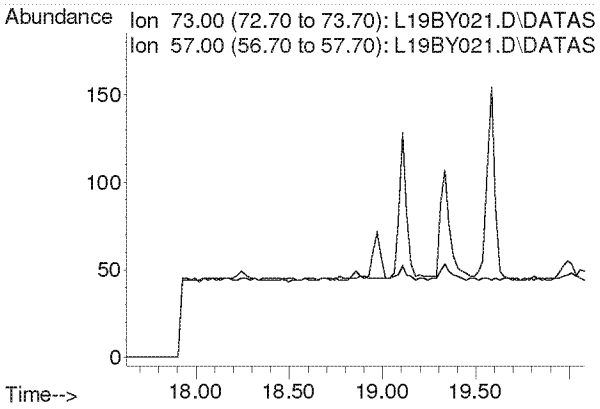


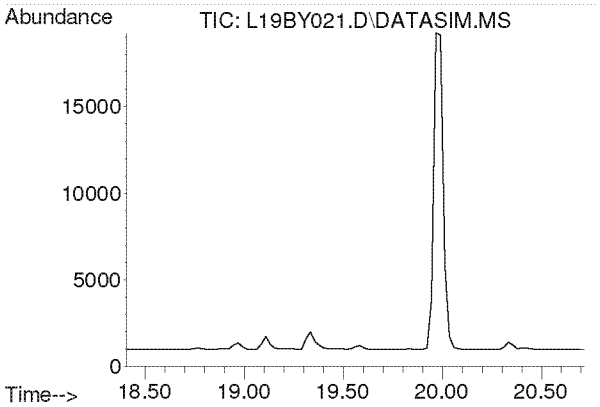
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



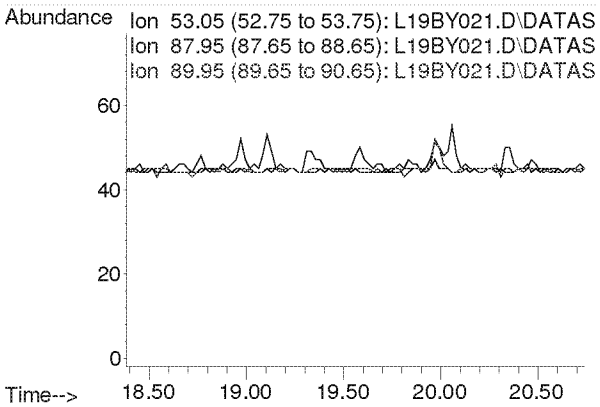


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

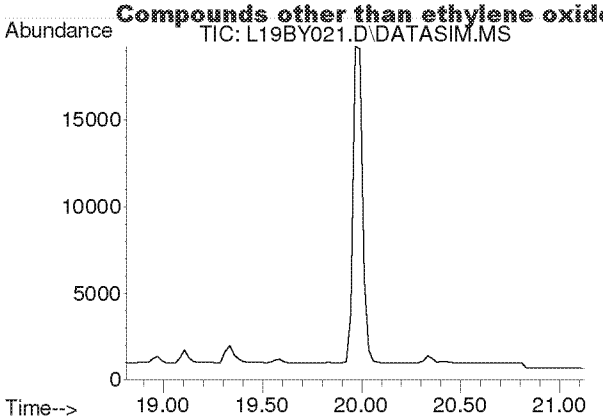
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

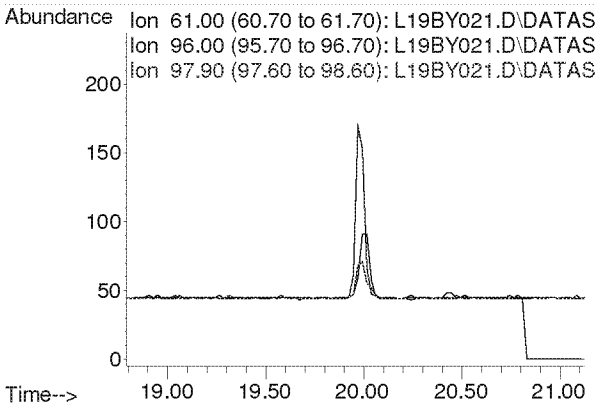


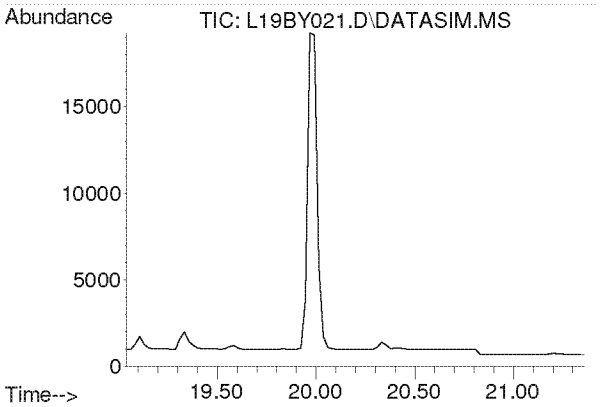
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



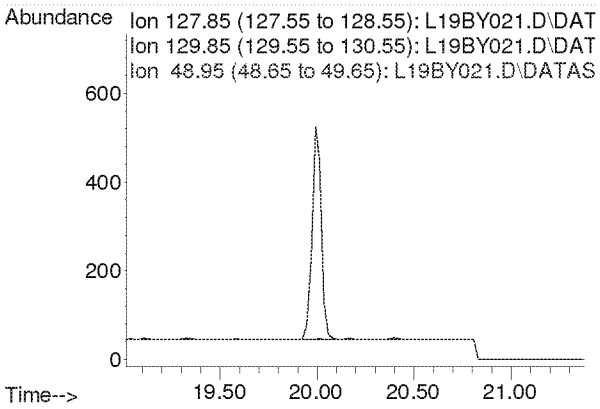


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

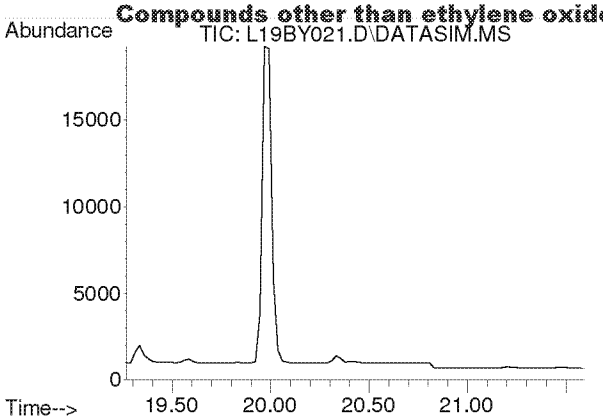
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

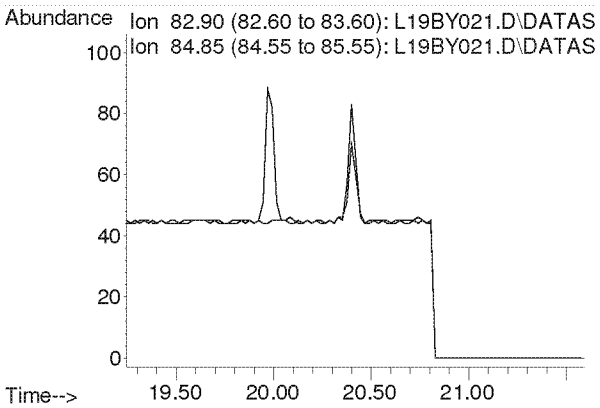


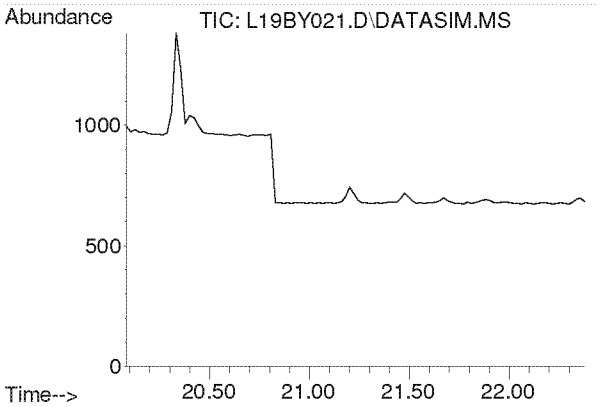
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



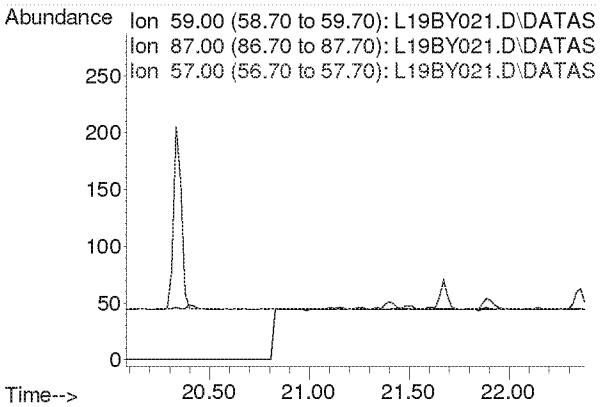


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

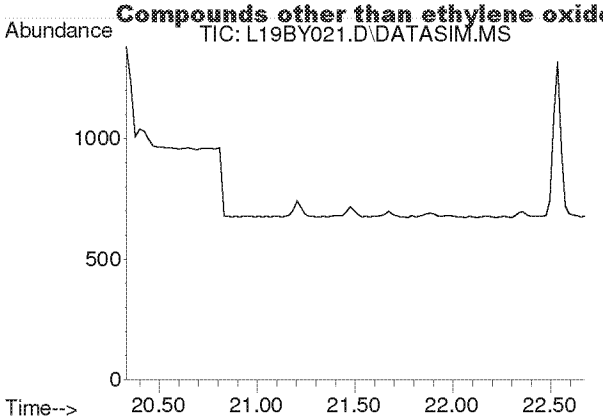
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

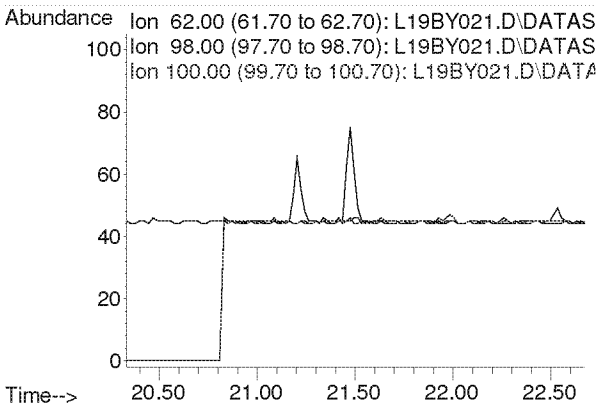


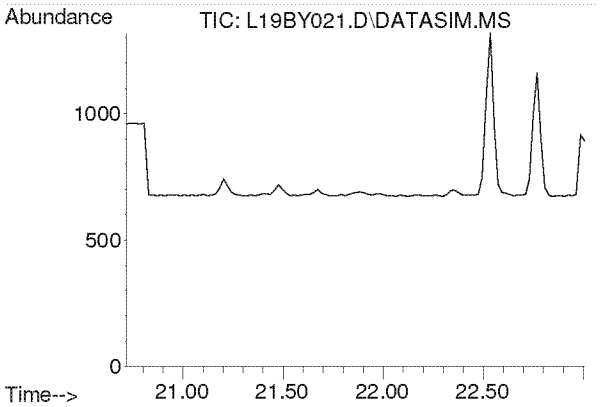
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



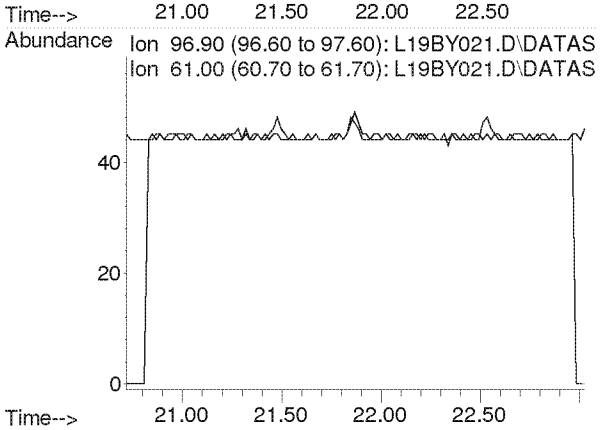


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

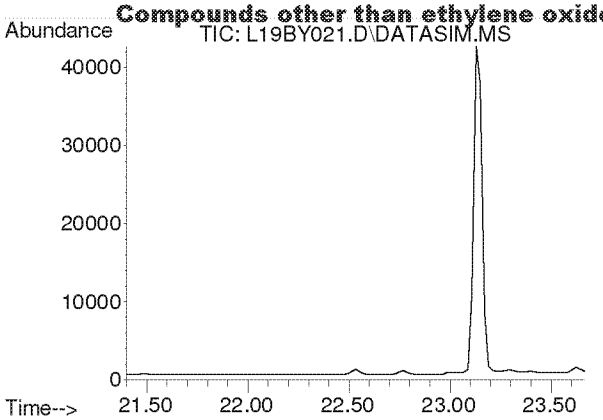
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

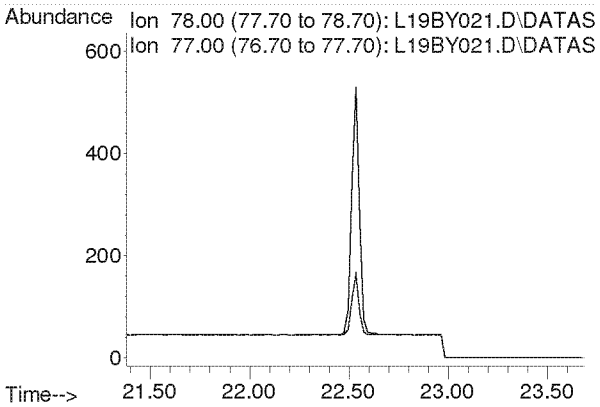


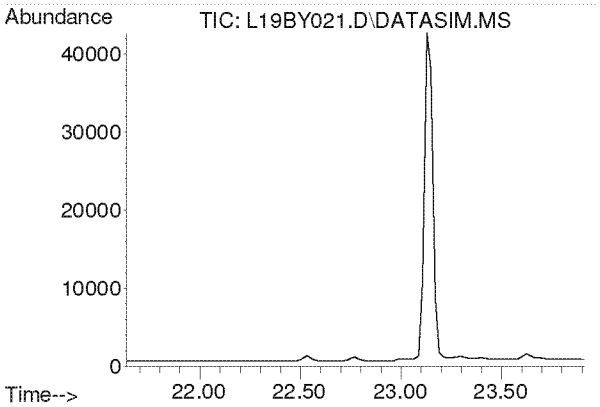
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



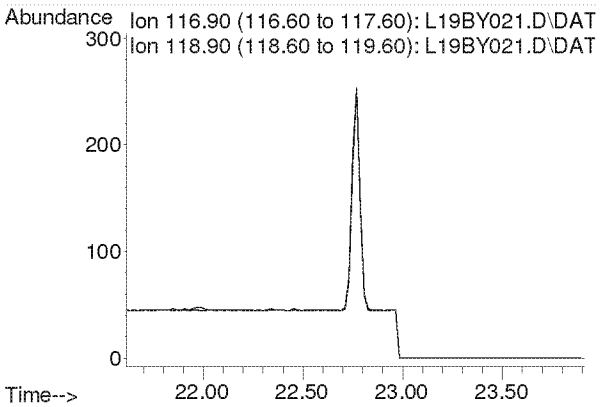


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

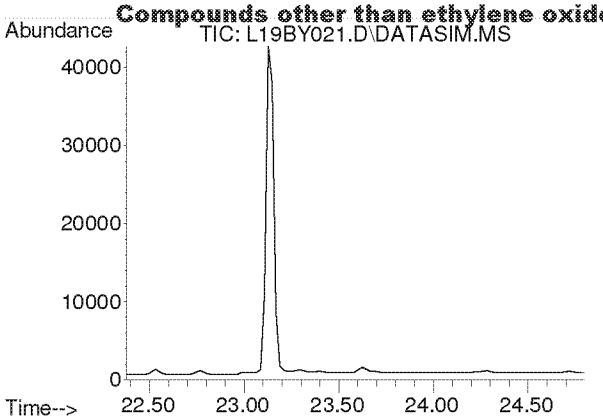
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

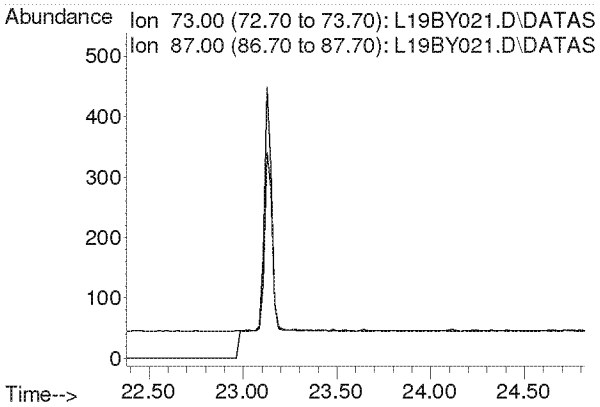


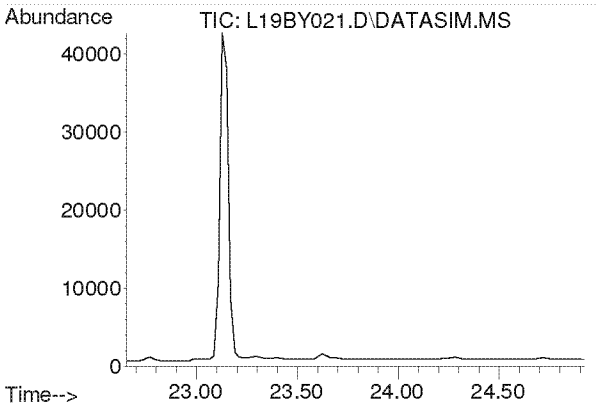
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



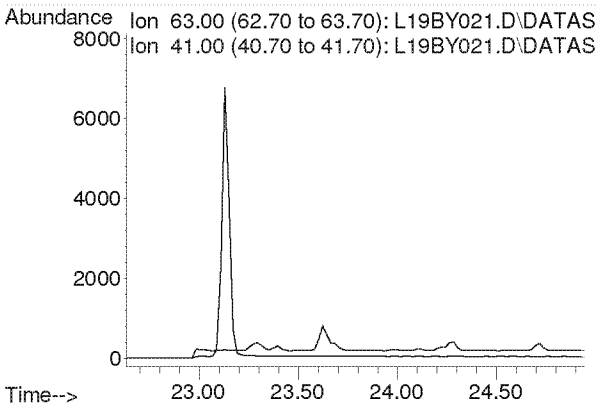


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

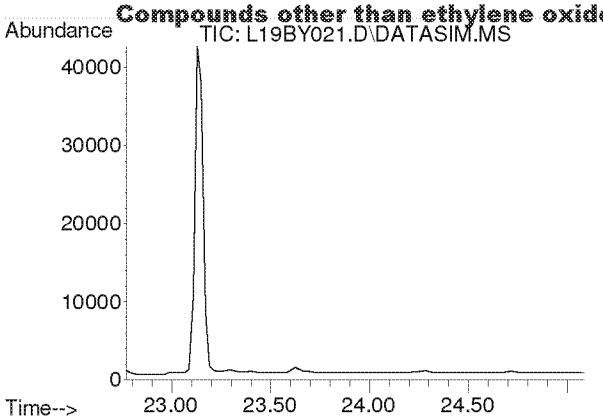
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

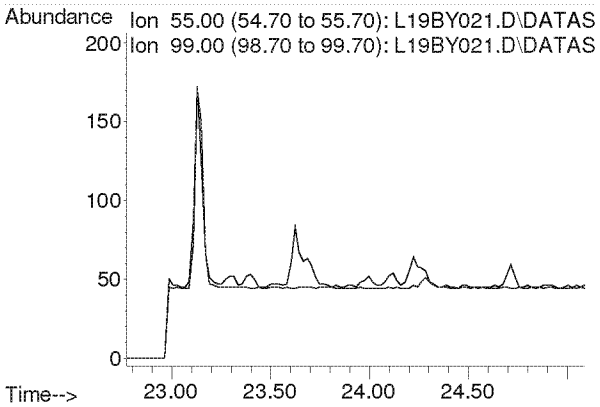


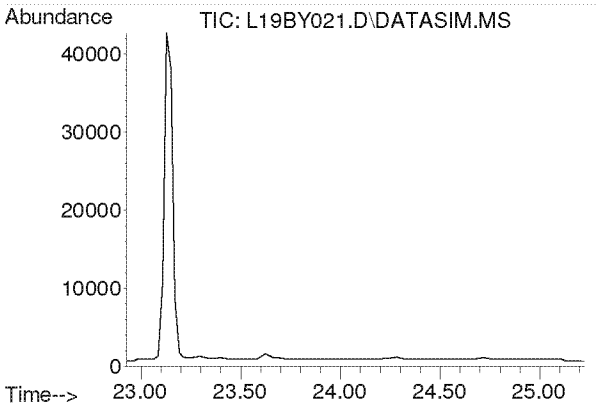
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



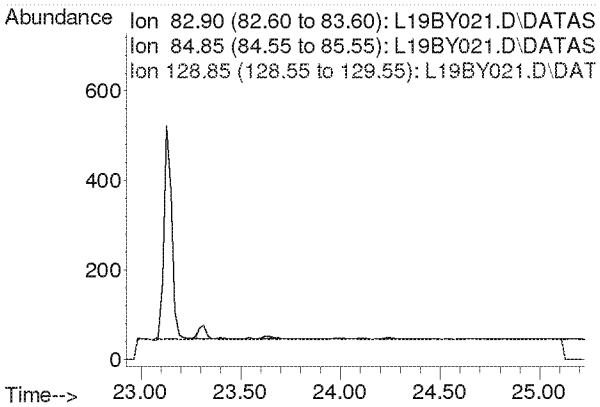


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

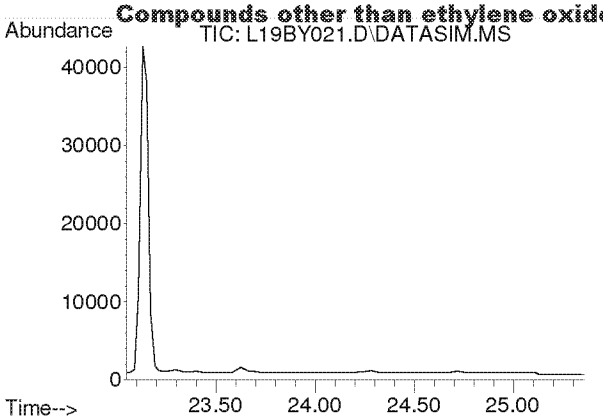
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

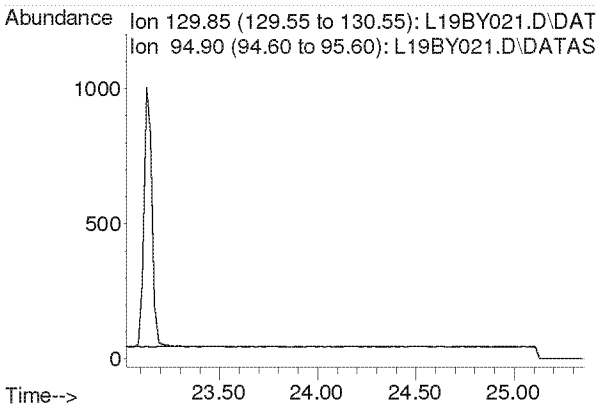


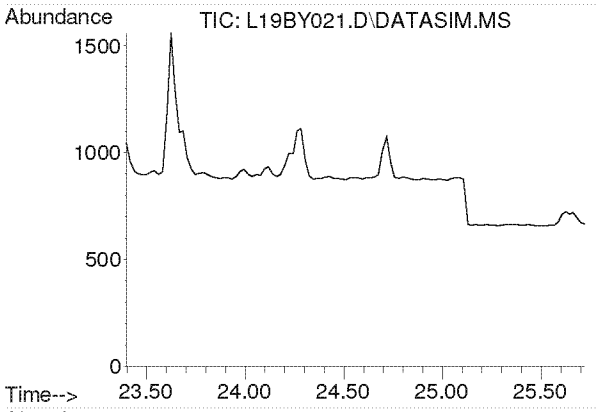
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



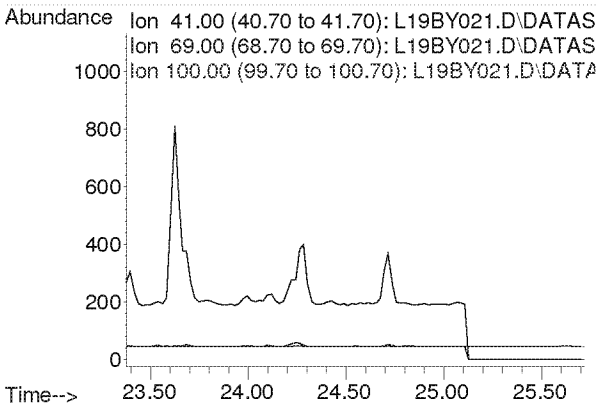


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

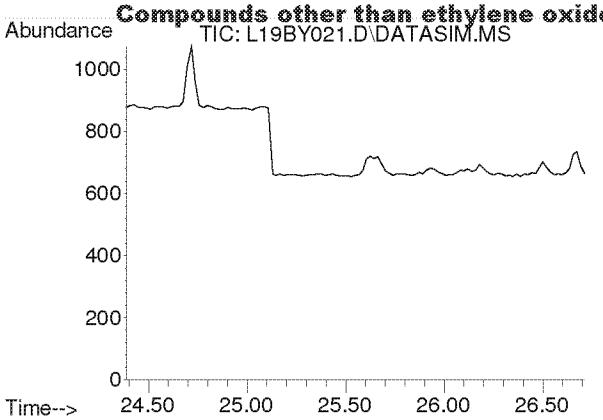
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

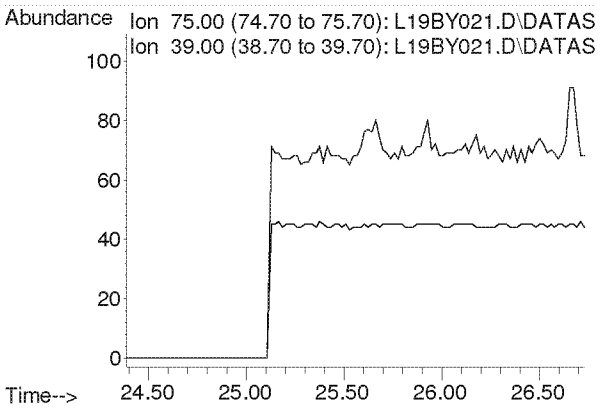


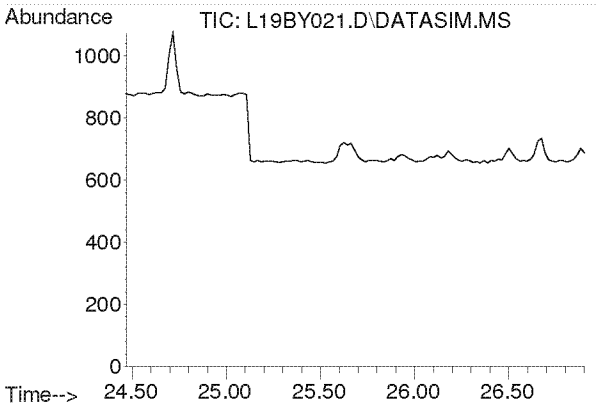
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



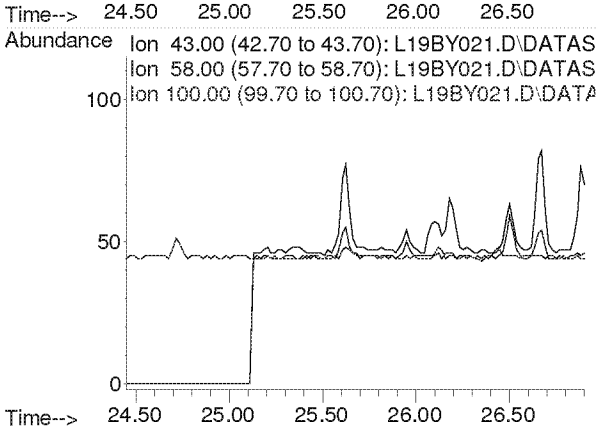


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

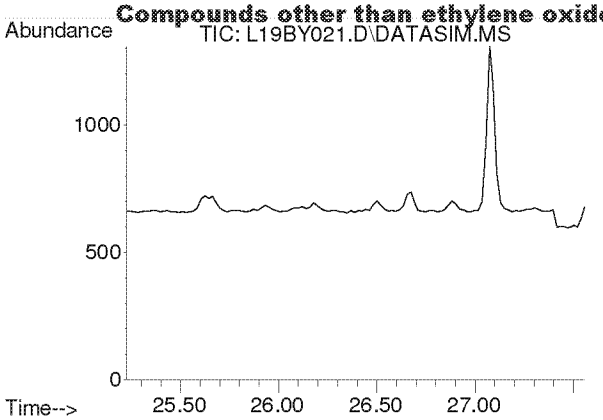
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

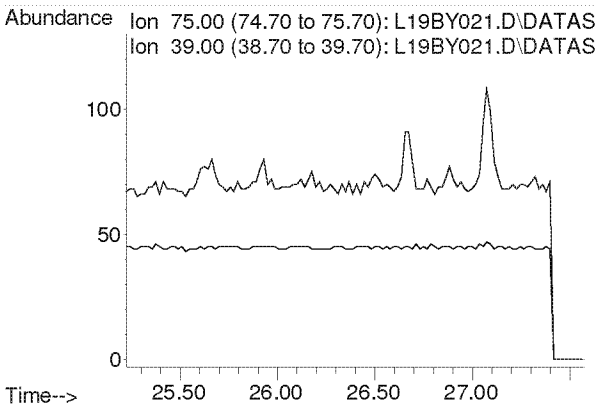


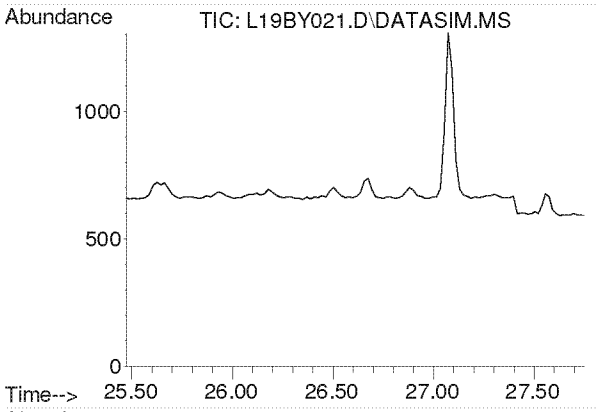
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



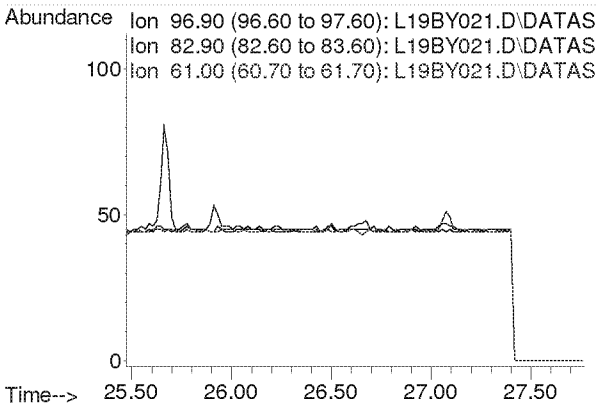


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

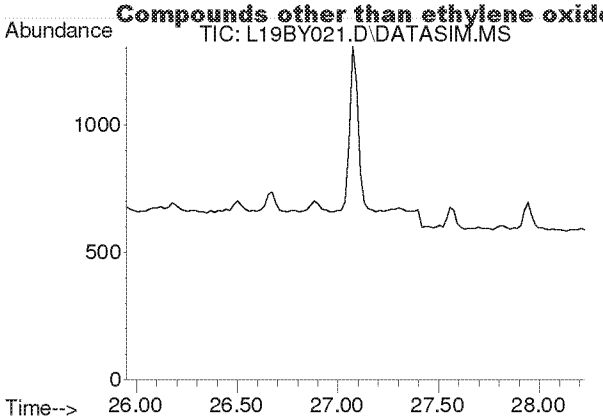
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

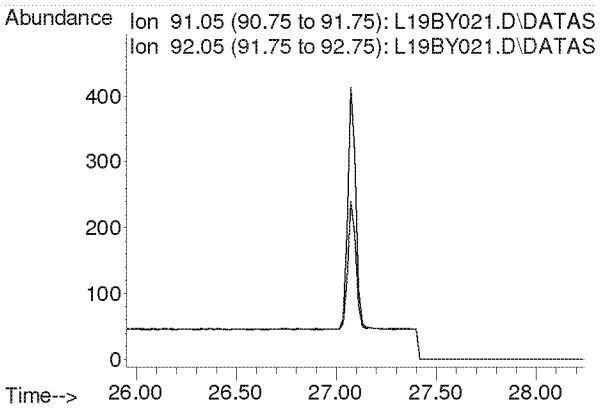


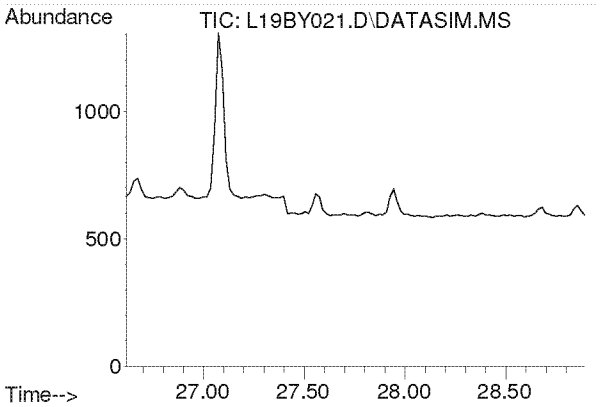
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



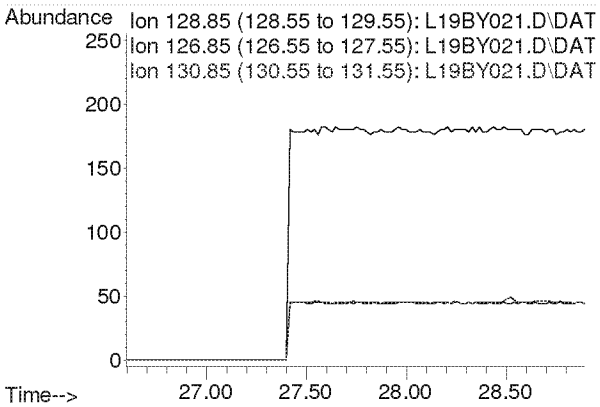


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

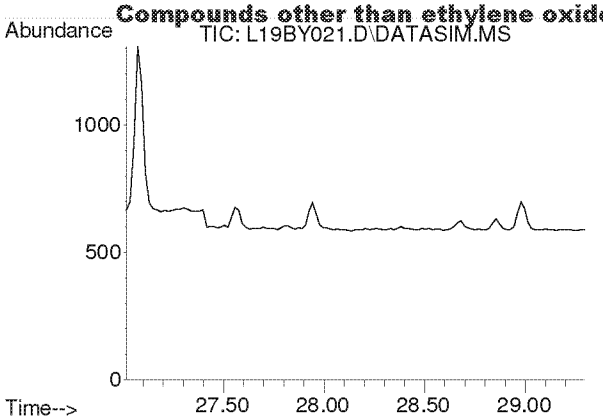
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

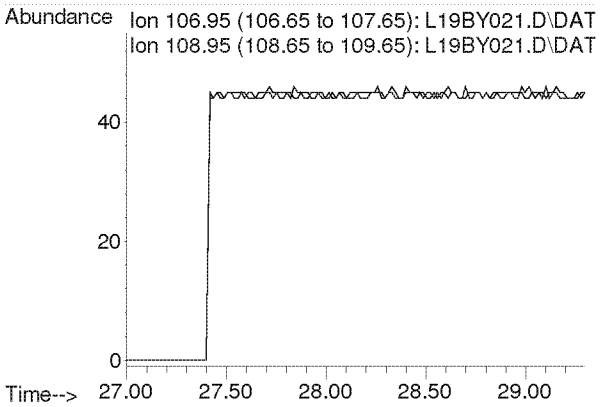


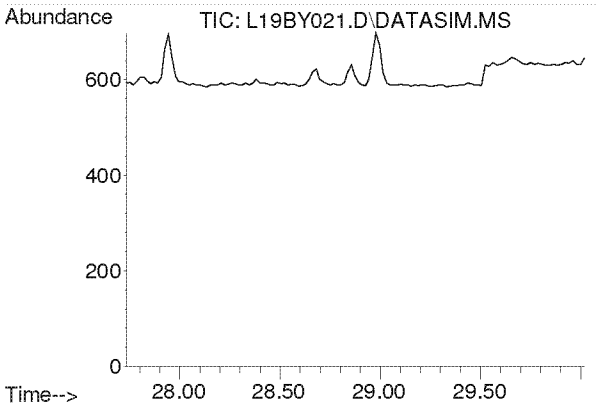
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



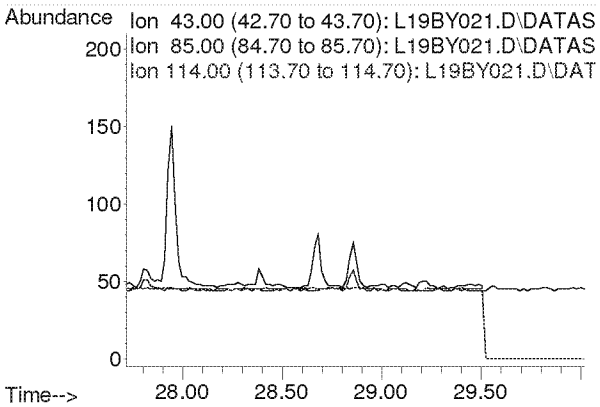


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

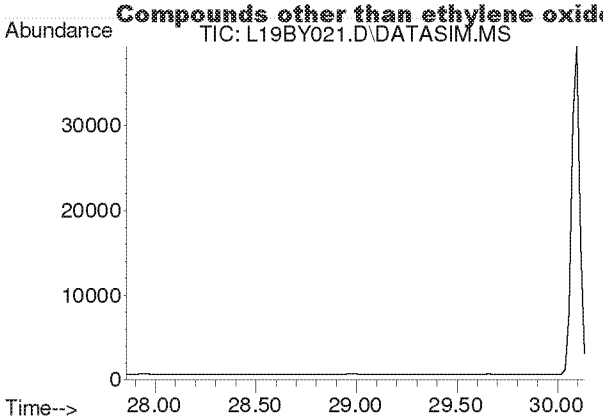
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

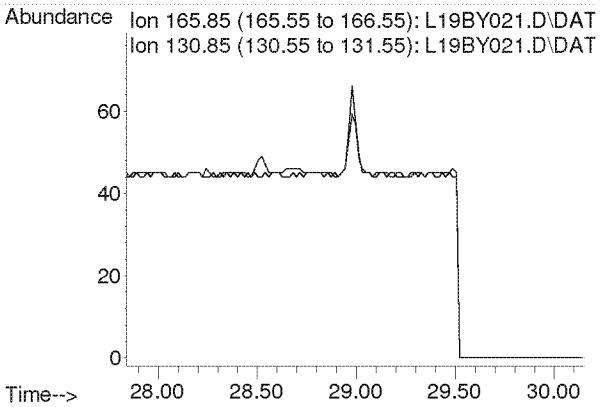


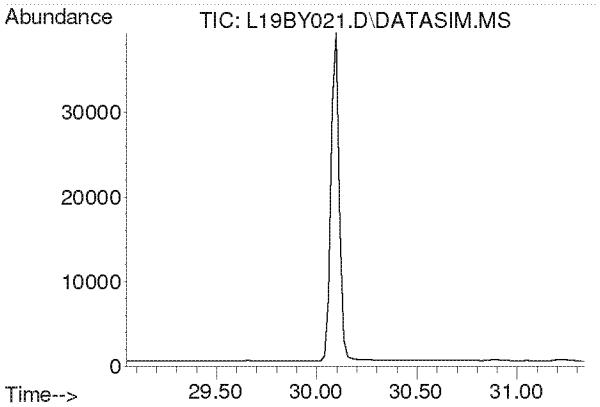
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



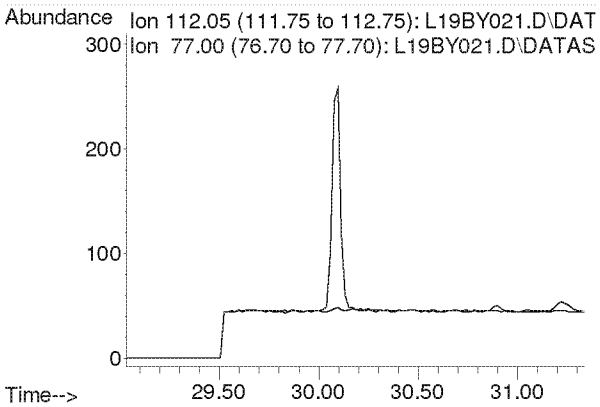


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

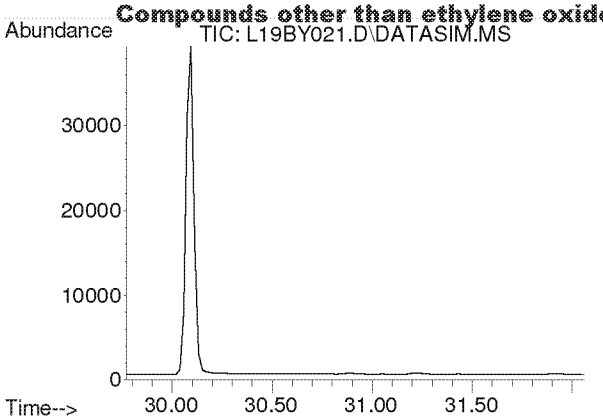
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

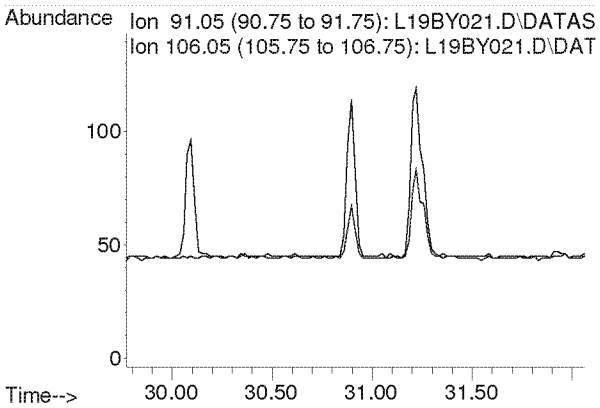


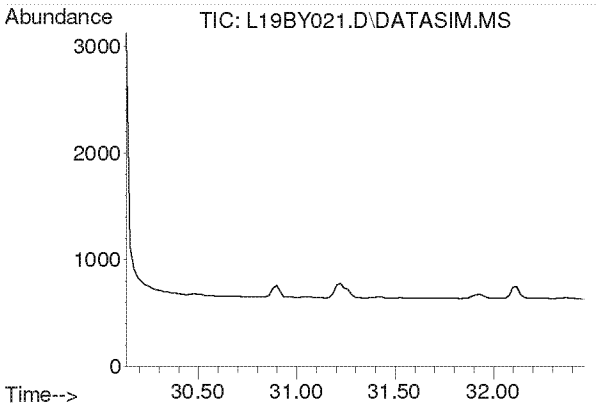
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



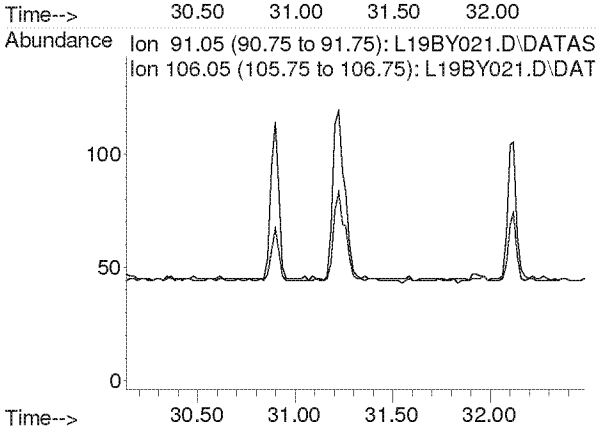


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

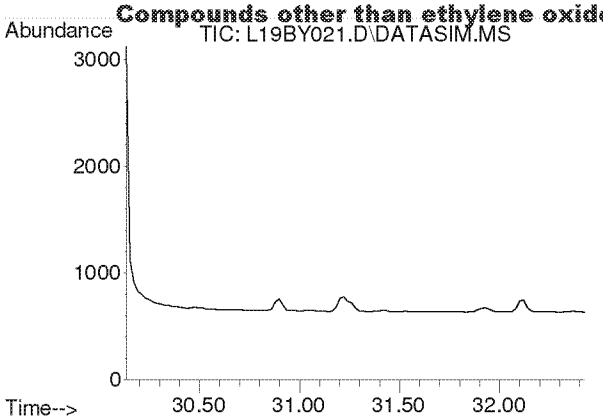
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

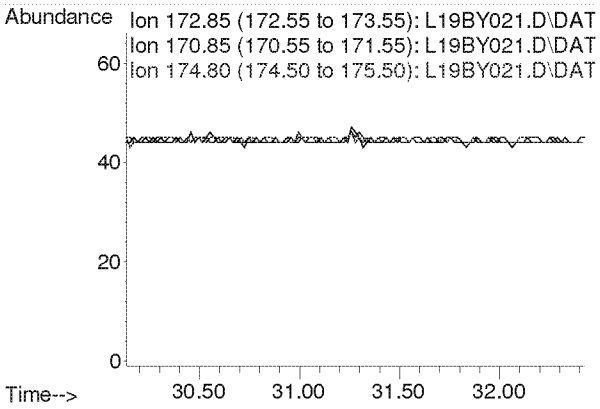


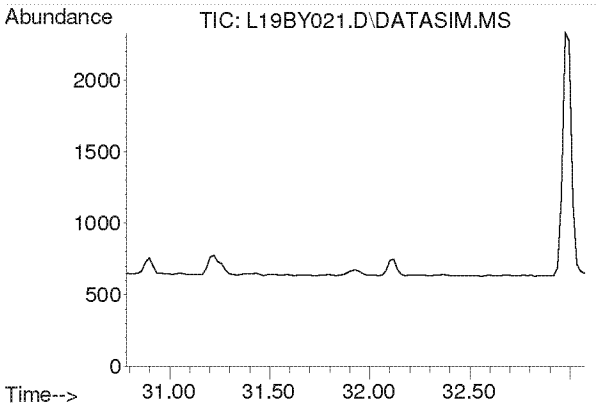
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



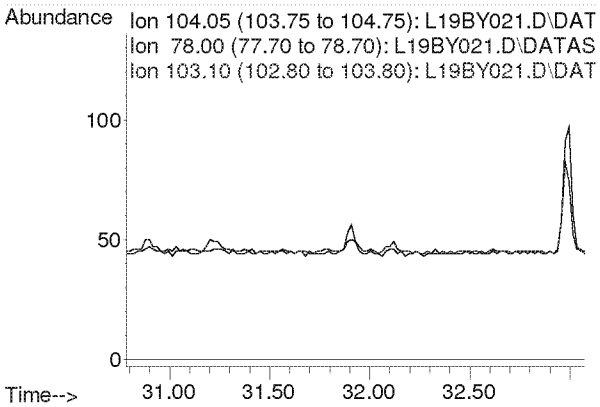


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

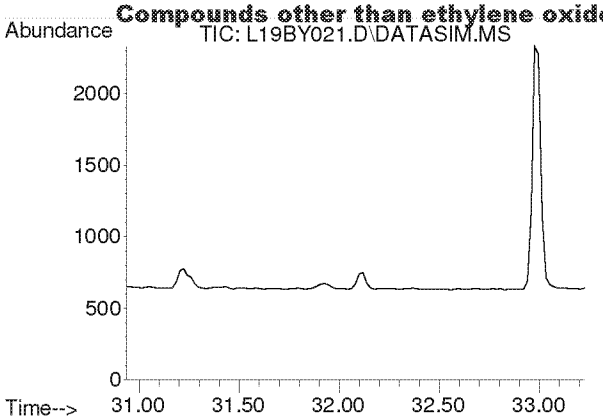
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

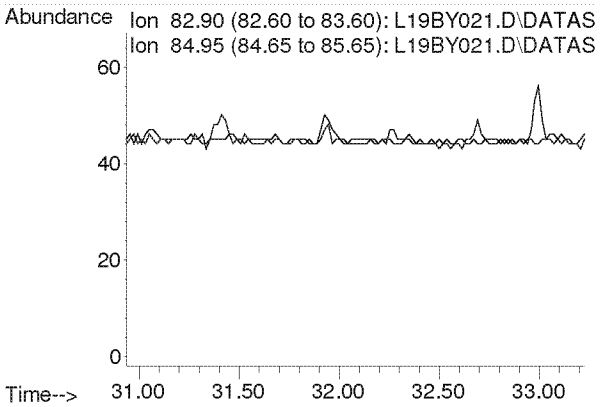


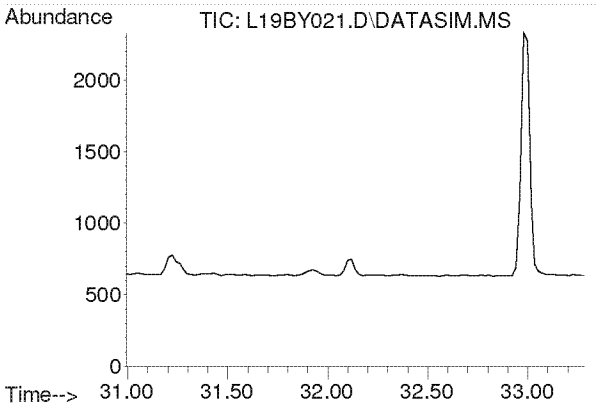
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



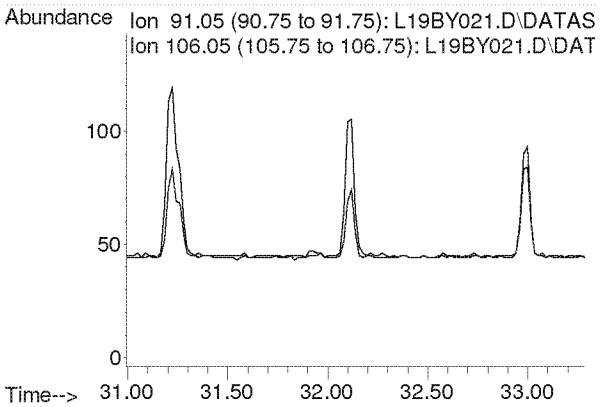


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

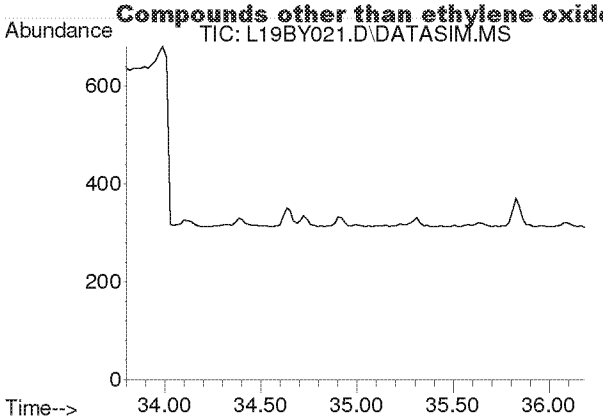
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

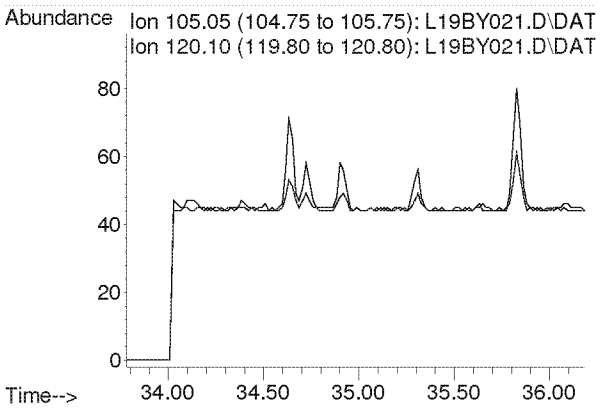


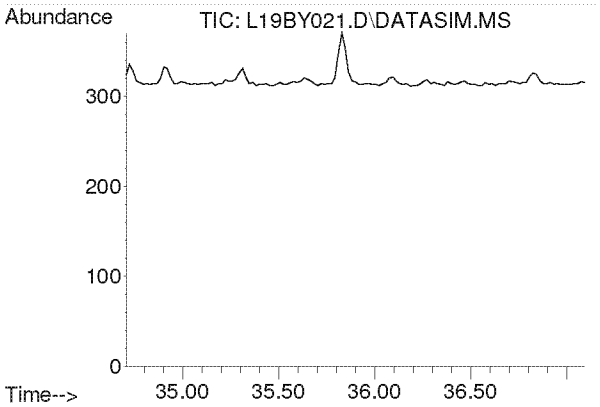
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



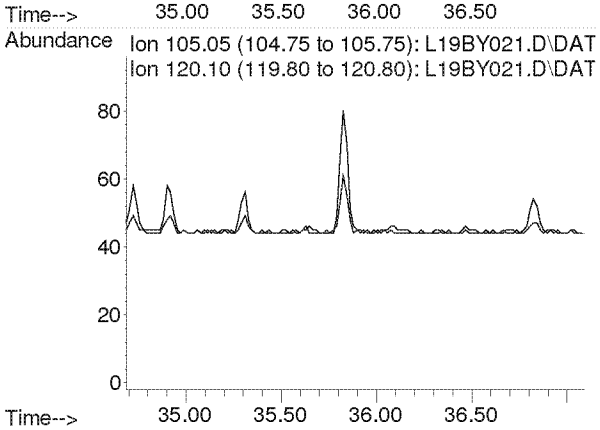


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

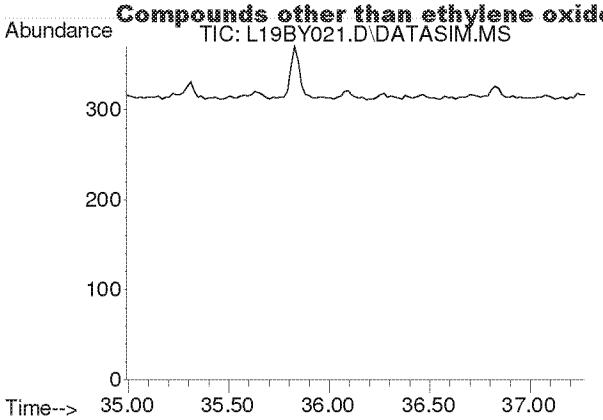
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

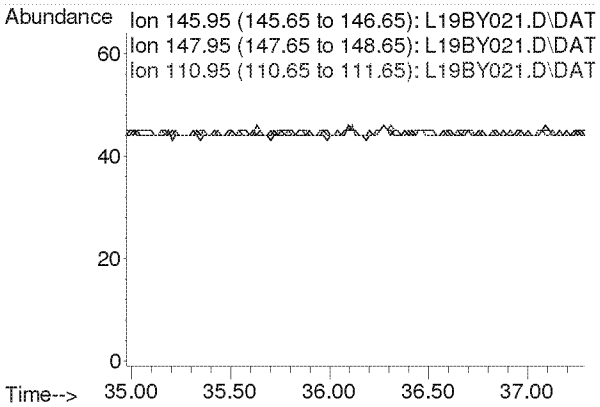


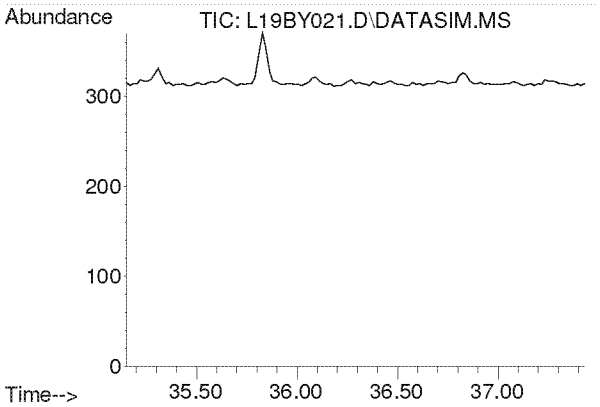
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



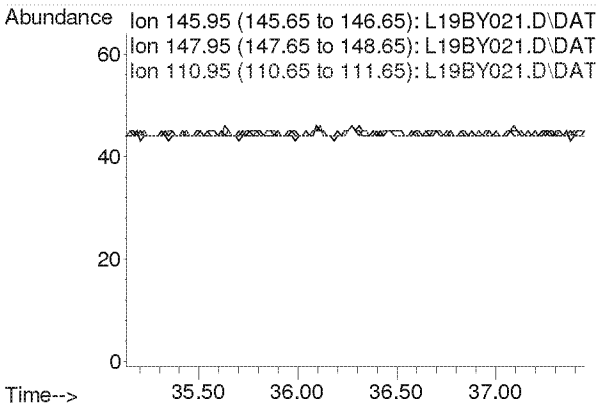


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

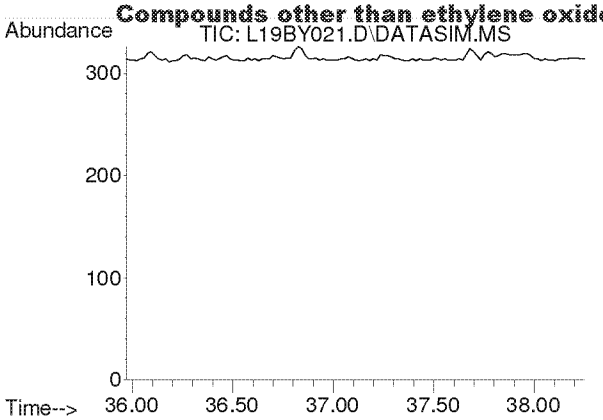
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

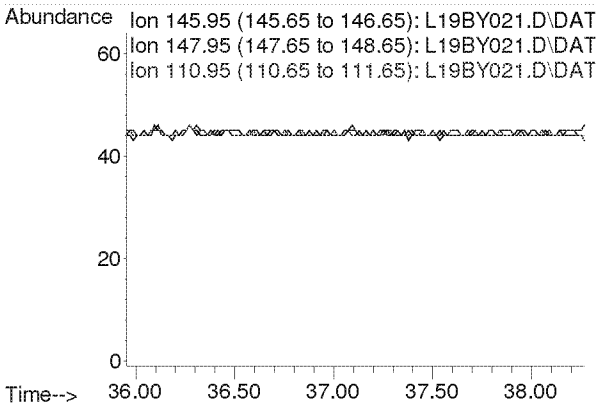


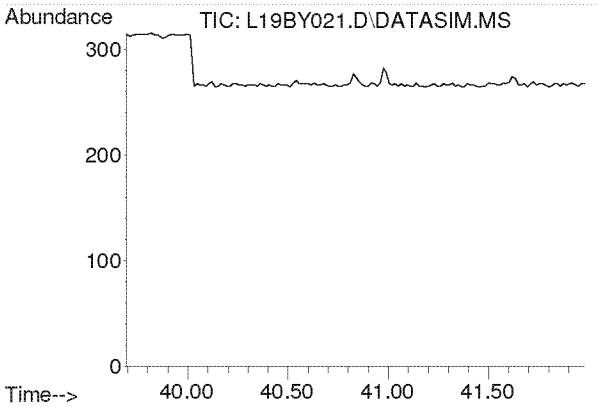
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



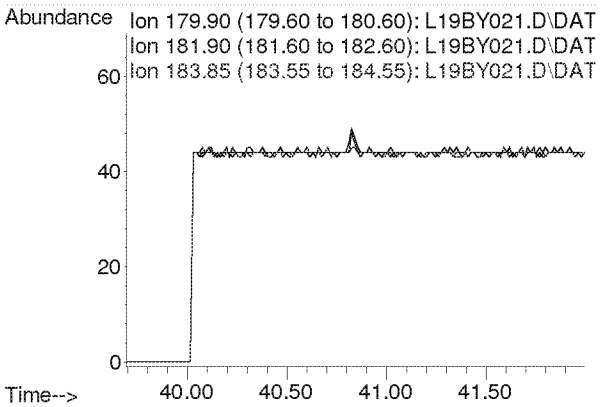


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

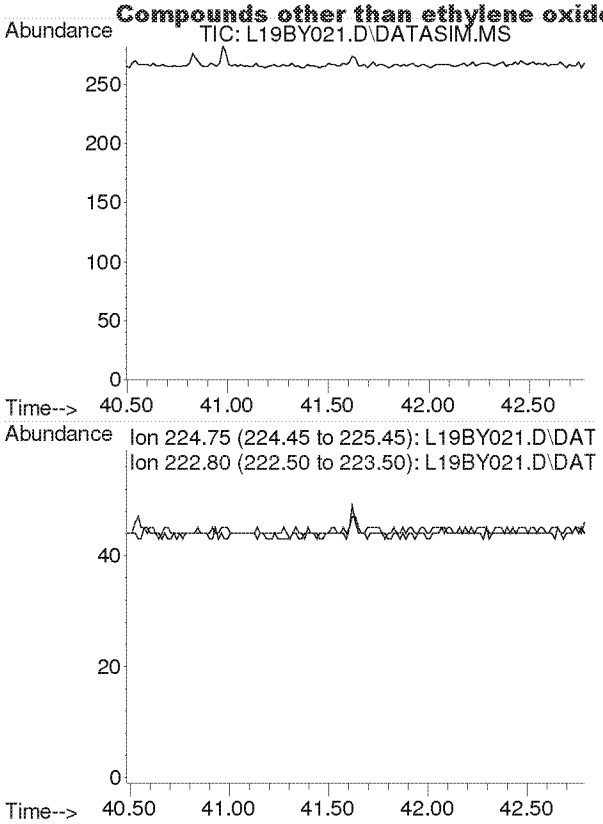
Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY021.D
Acq: 26 Feb 2019 3:31 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY022.D
Acq On : 26 Feb 2019 4:31 am (#1); 26-Feb-19, 04:26:27 (#2)
Operator : MAH
Sample : 9022202-16
Misc : WATER TOWER 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 26 10:15:57 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

ETOF only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	34599	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	85237	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	60079	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	0.000	29	0	N.D. d SW	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. d	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19BY\
Data File : L19BY022.D
Acq On : 26 Feb 2019 4:31 am (#1); 26-Feb-19, 04:26:27 (#2)
Operator : MAH
Sample : 9022202-16
Misc : WATER TOWER 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 26 10:15:57 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

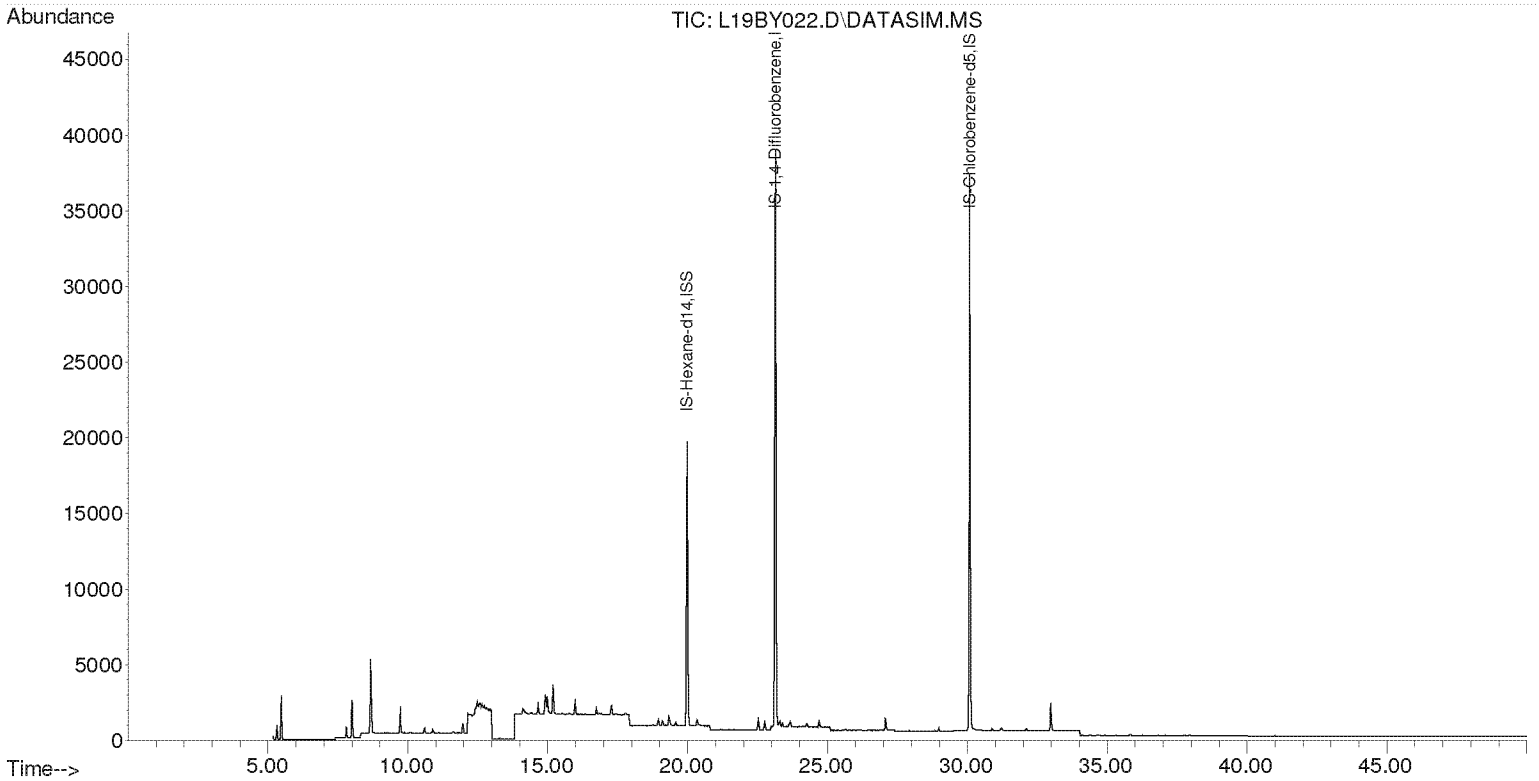
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D. d	
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

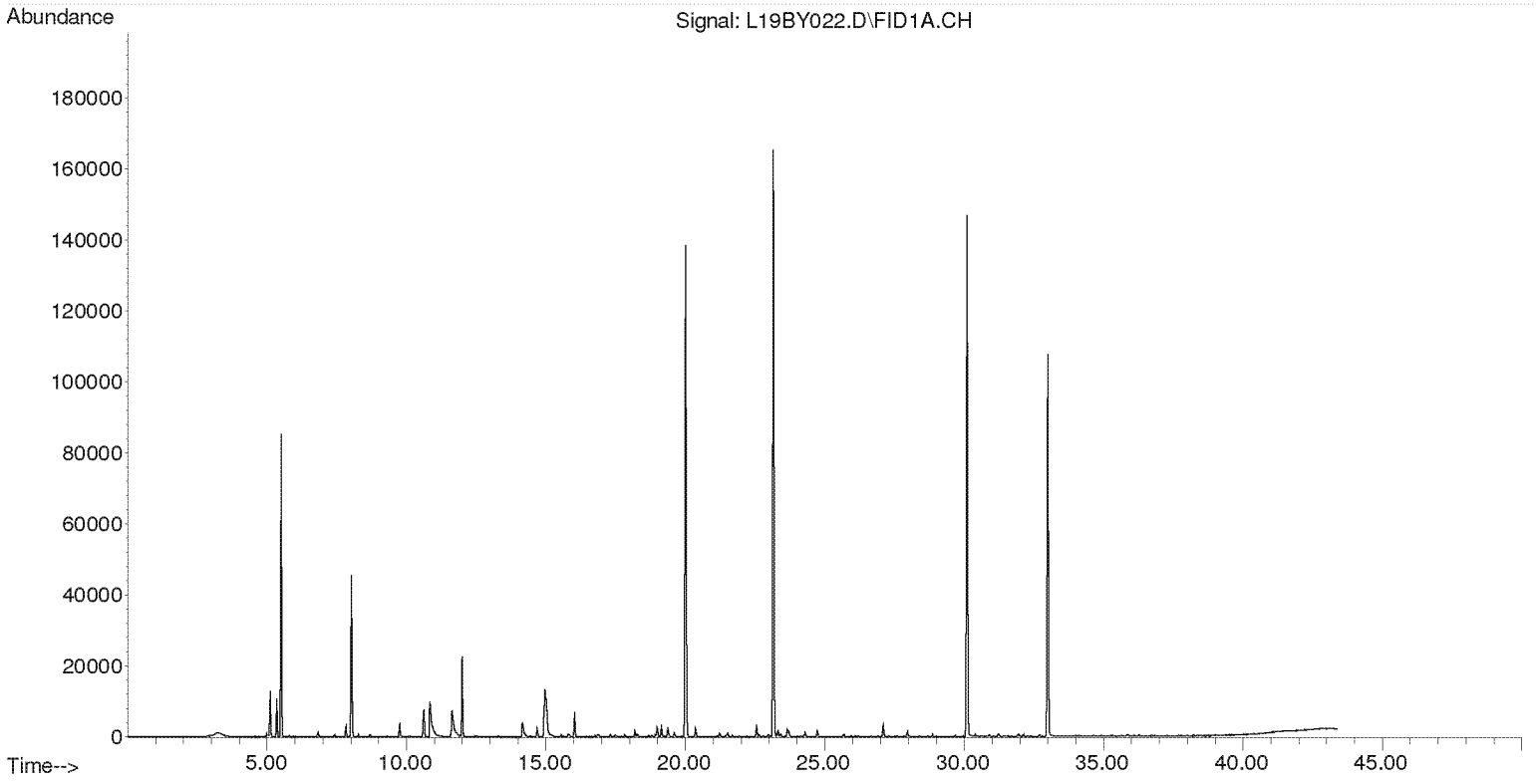
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

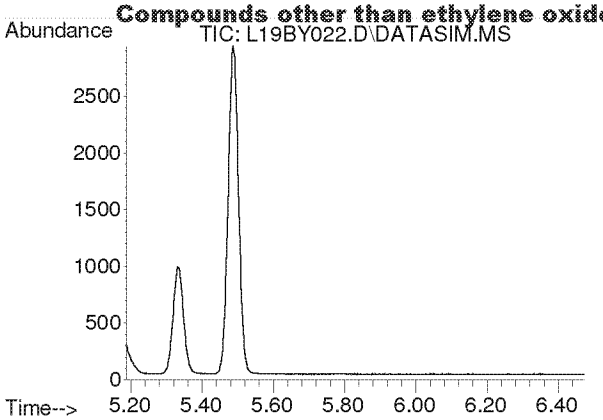
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY022.D
Acq On : 26 Feb 2019 4:31 am (#1); 26 Feb 2019 4:26 am (#2)
Operator : MAH
Sample : 9022202-16
Misc : WATER TOWER 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 26 09:56:25 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





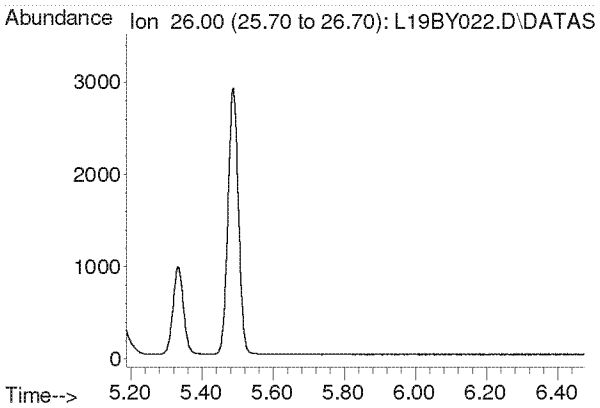
Compounds other than ethylene oxide were not quantitated.

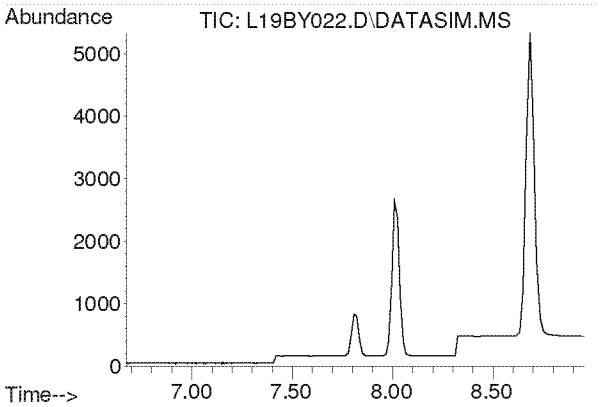


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 26



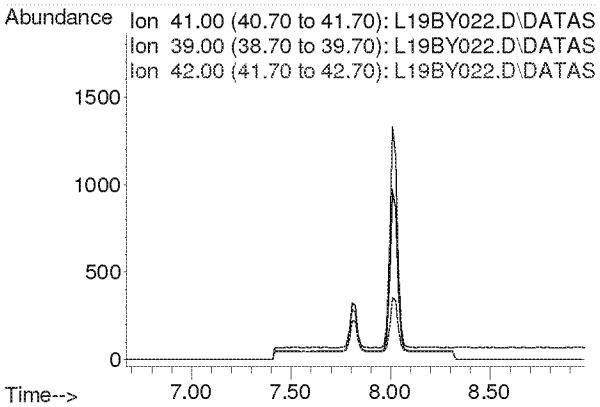


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

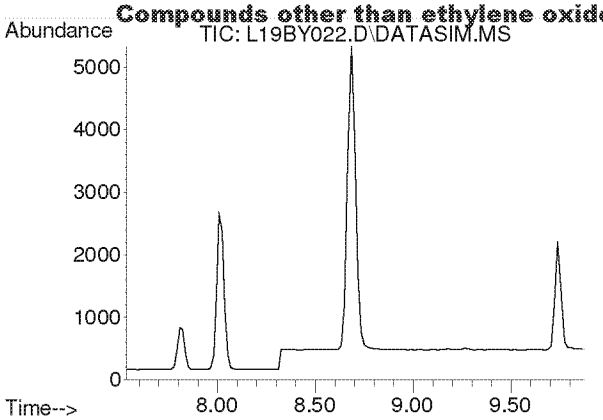
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

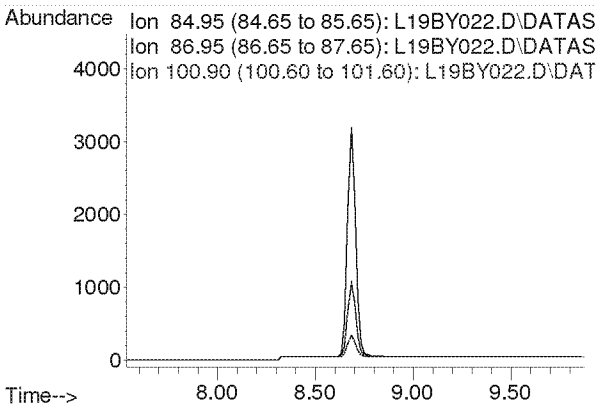


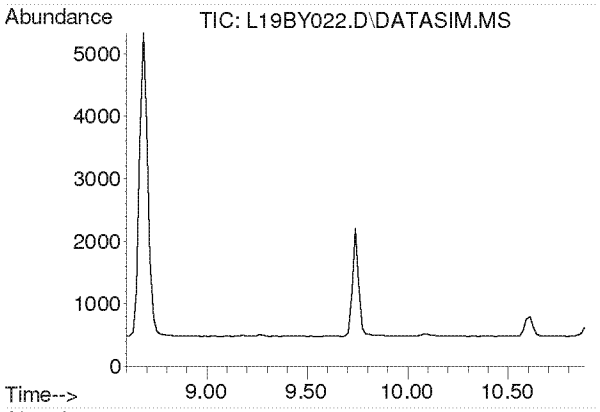
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



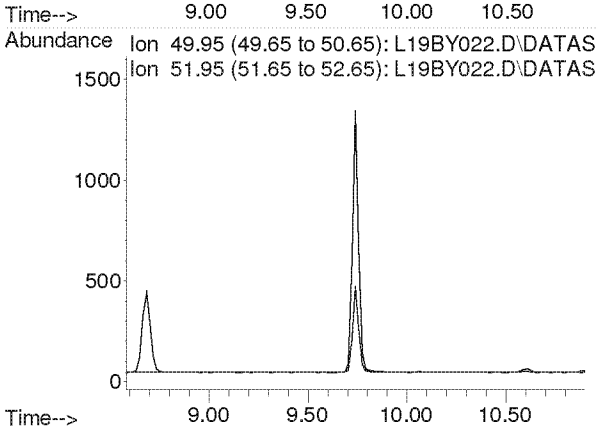


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

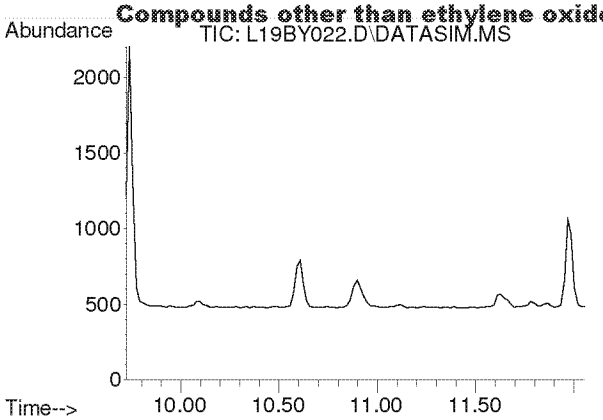
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

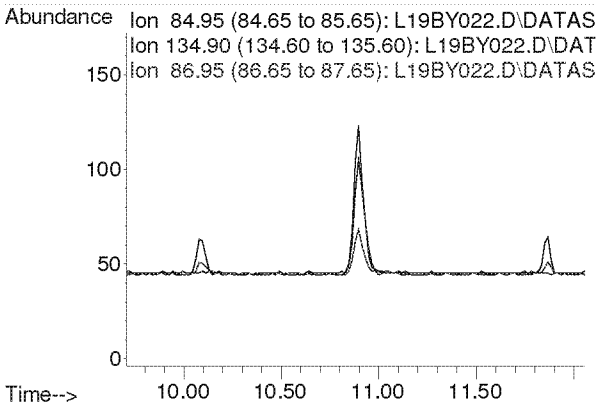


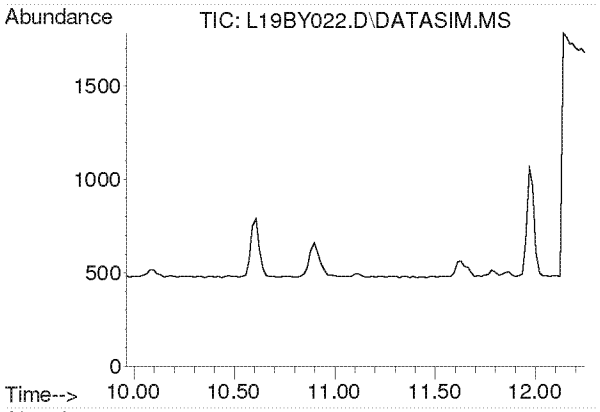
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



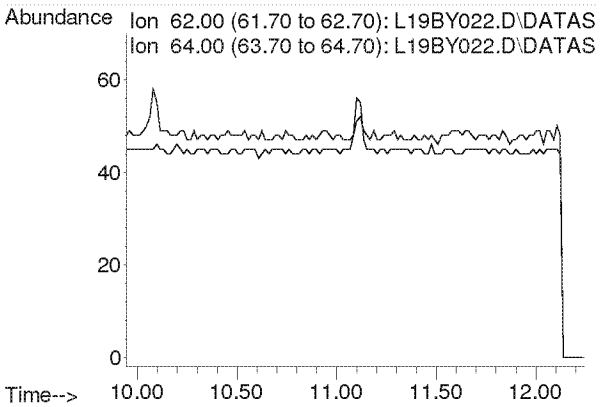


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

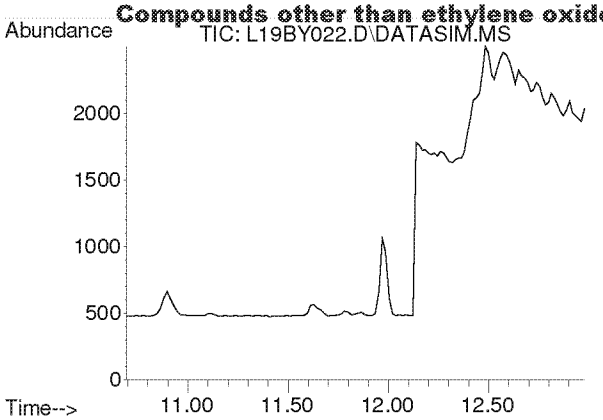
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

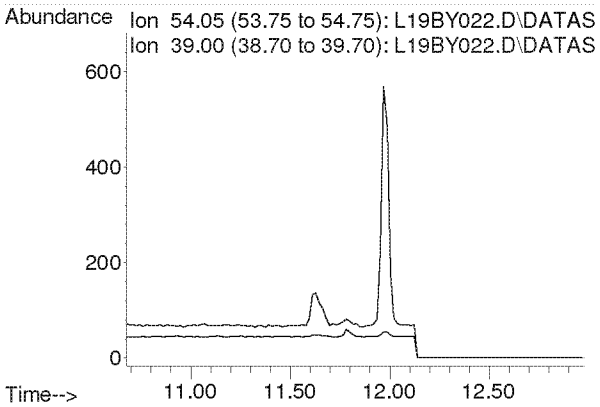


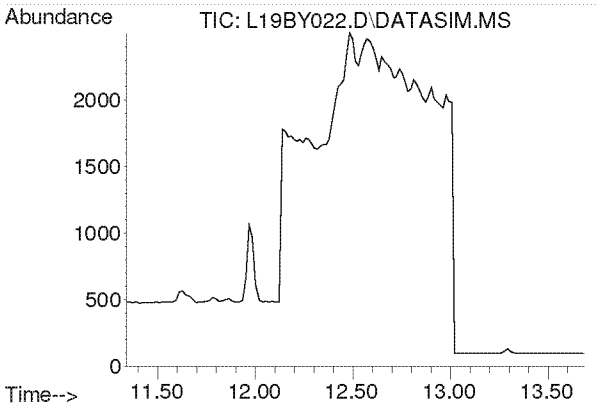
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



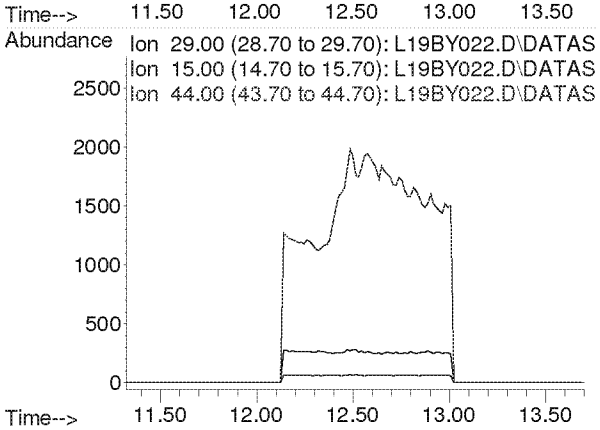


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

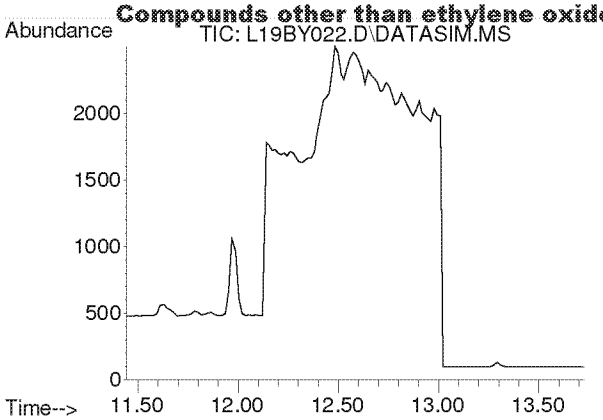
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

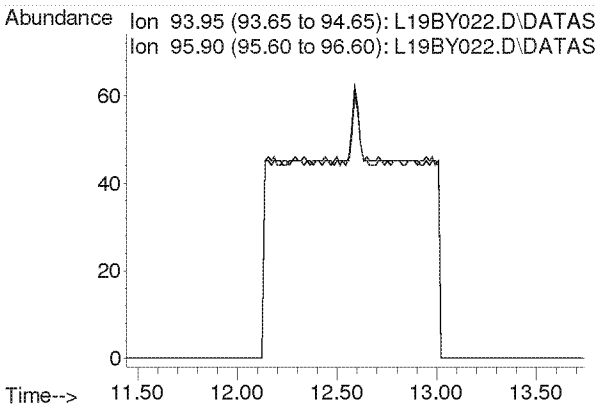


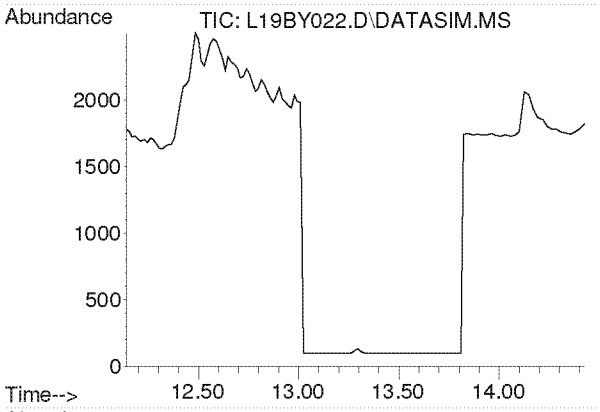
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



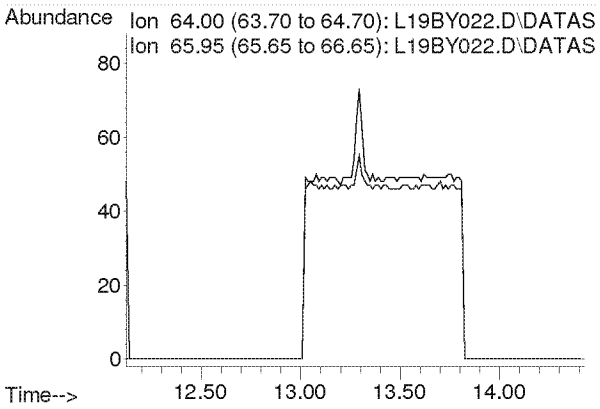


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

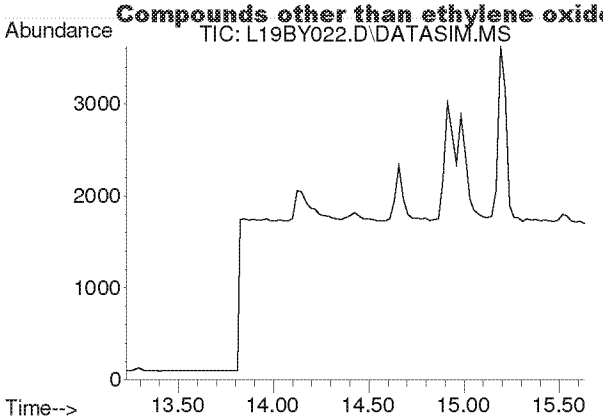
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

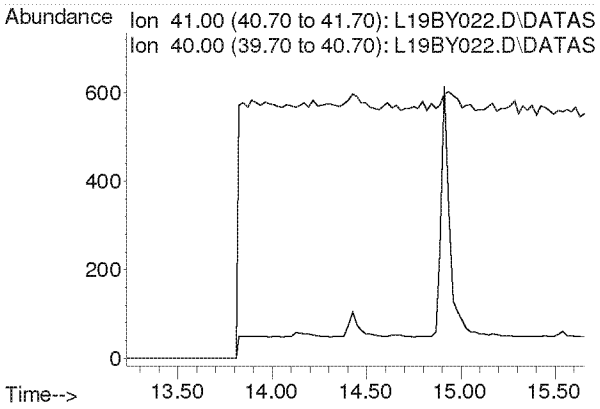


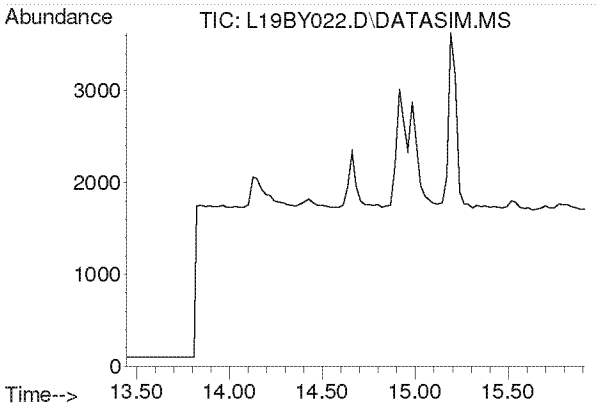
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



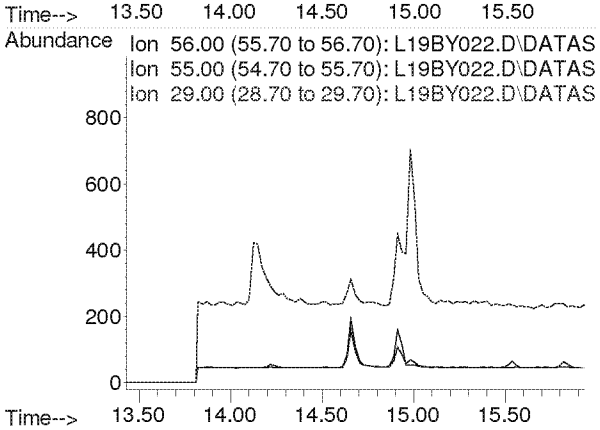


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

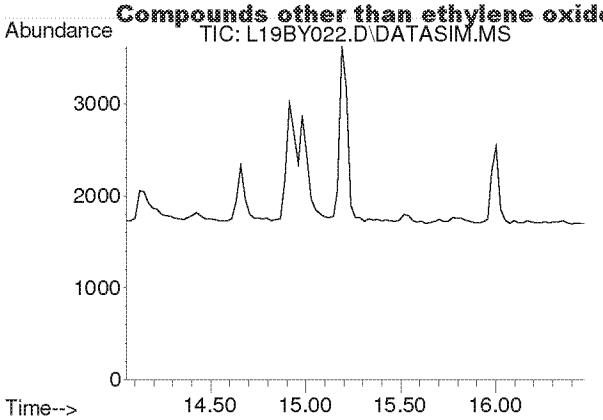
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

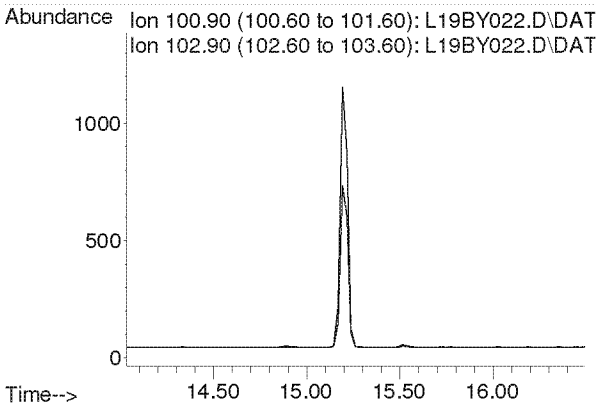


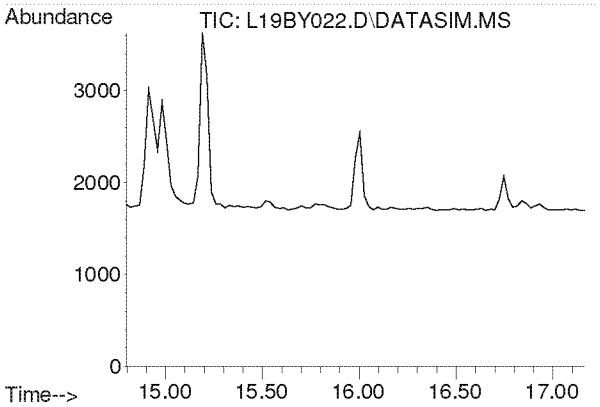
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



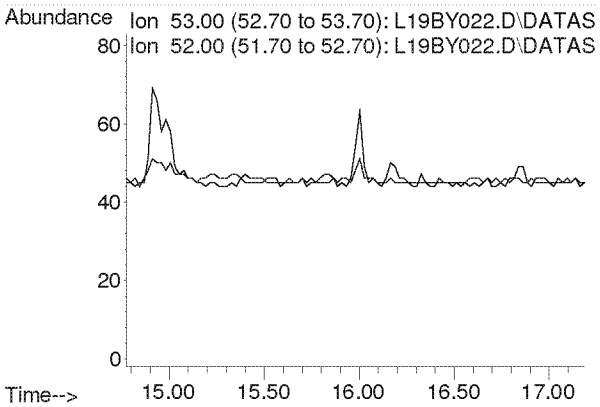


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

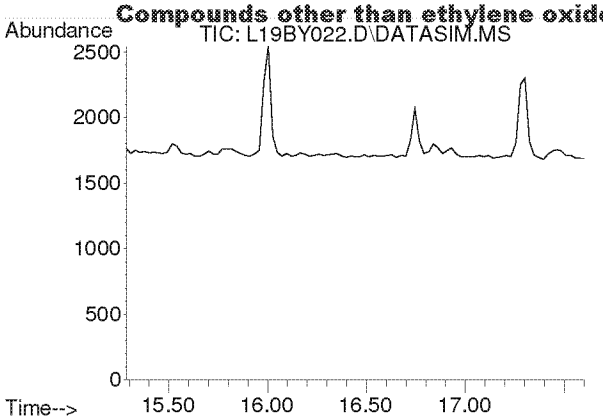
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

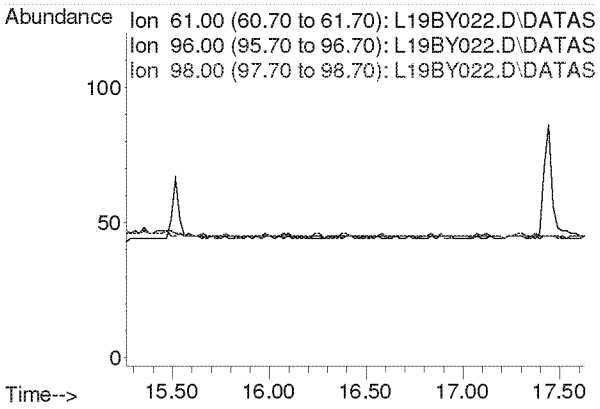


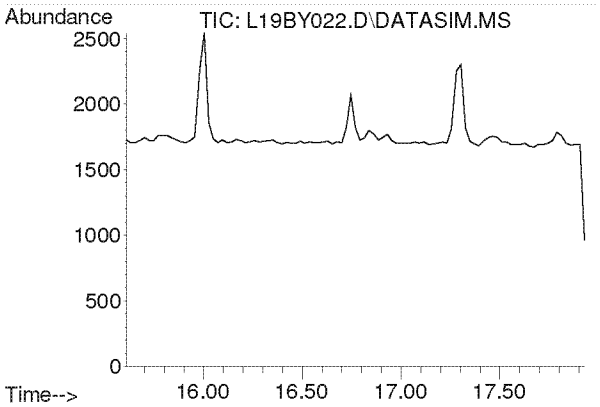
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



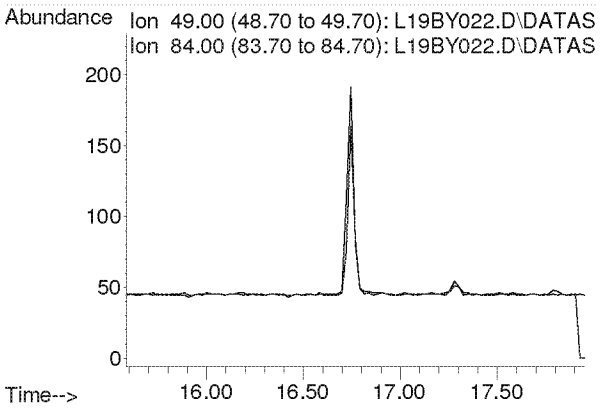


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

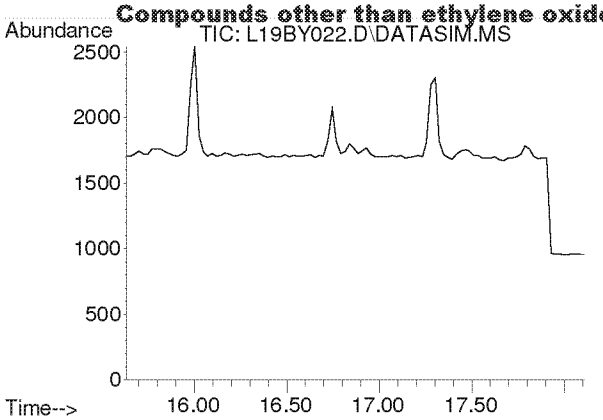
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

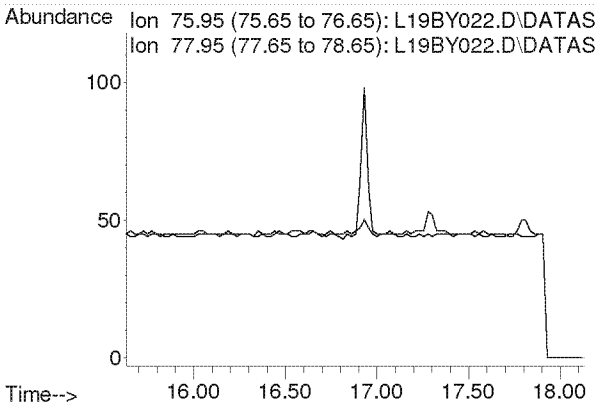


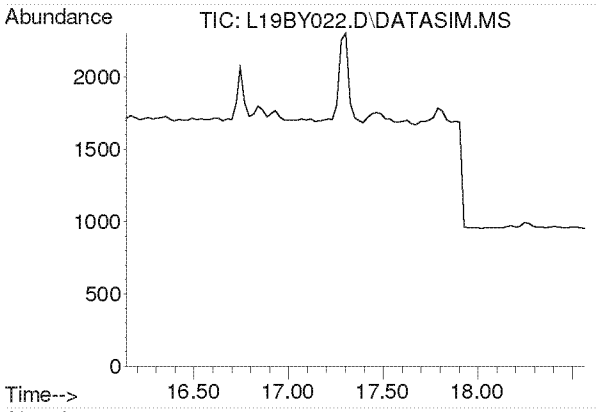
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



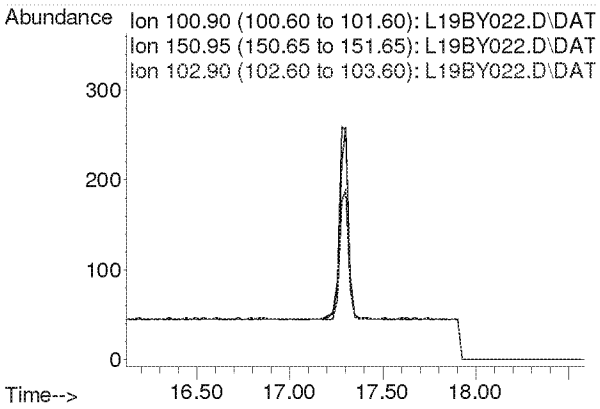


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

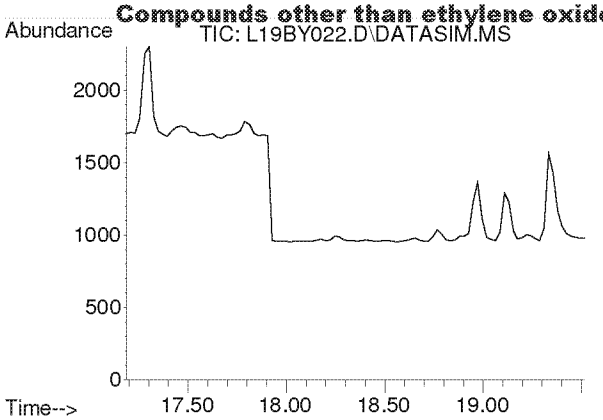
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

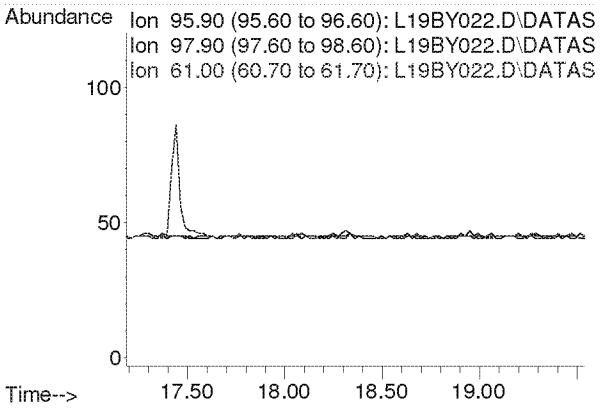


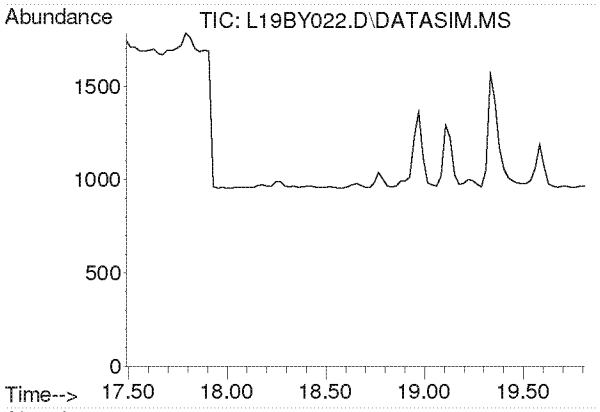
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



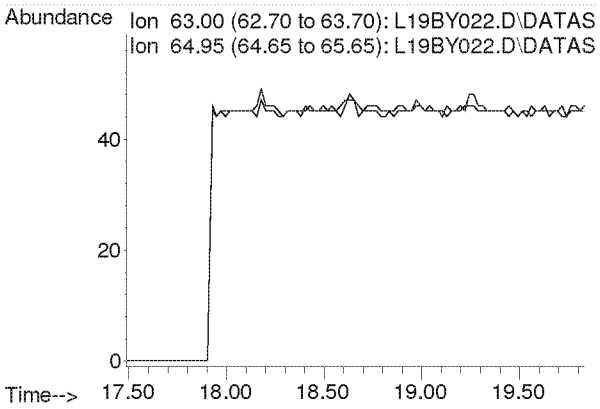


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

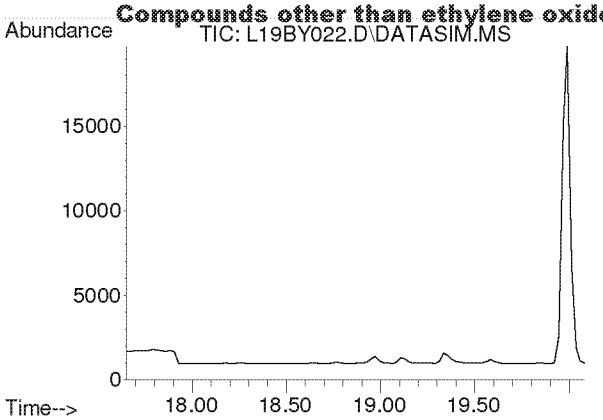
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

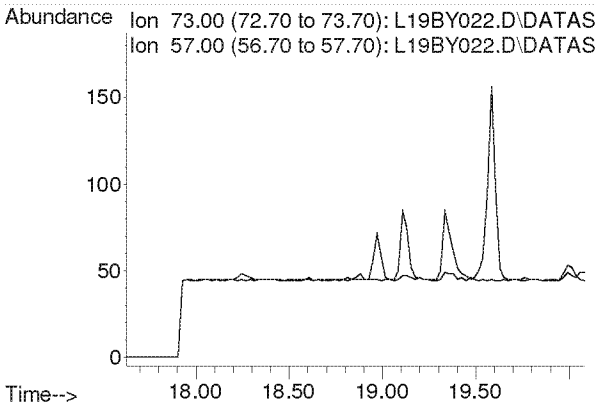


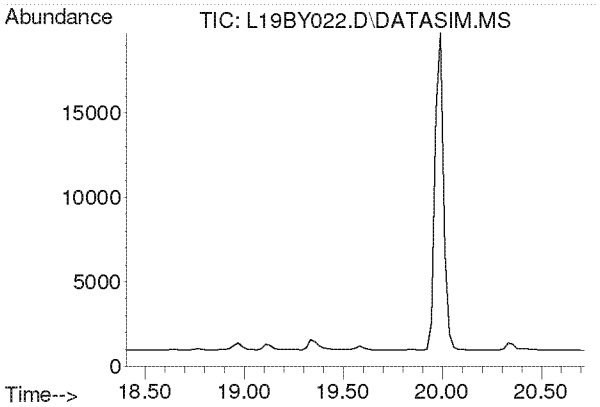
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



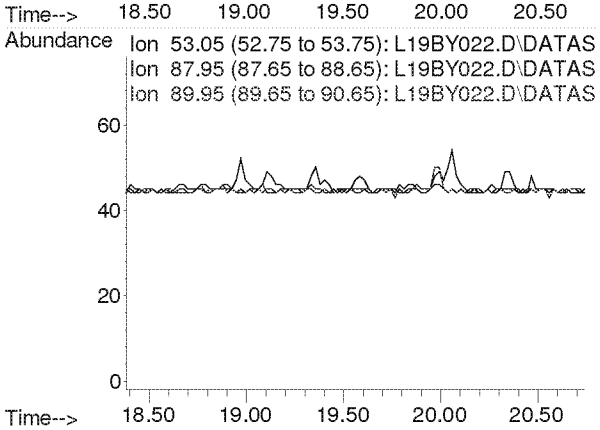


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

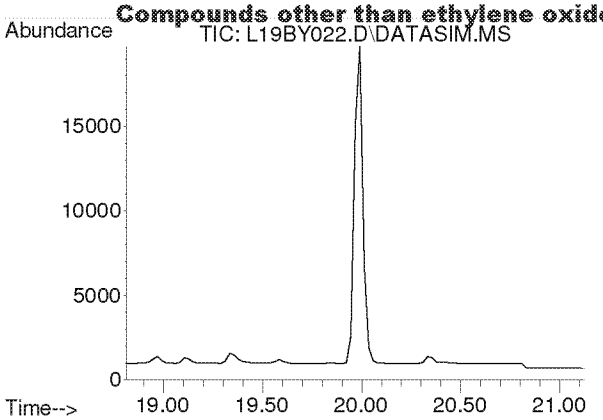
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

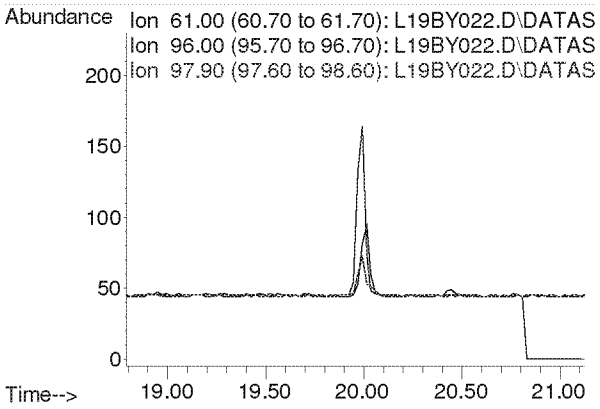


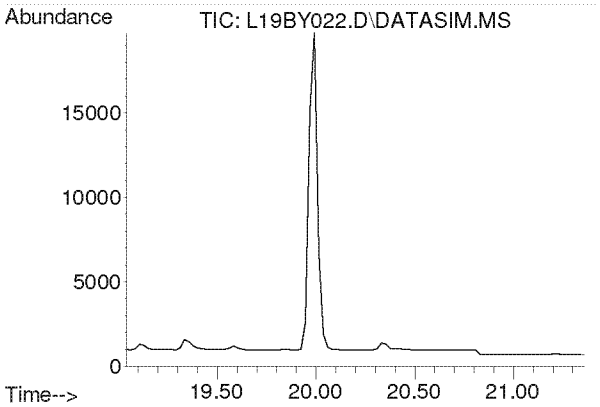
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



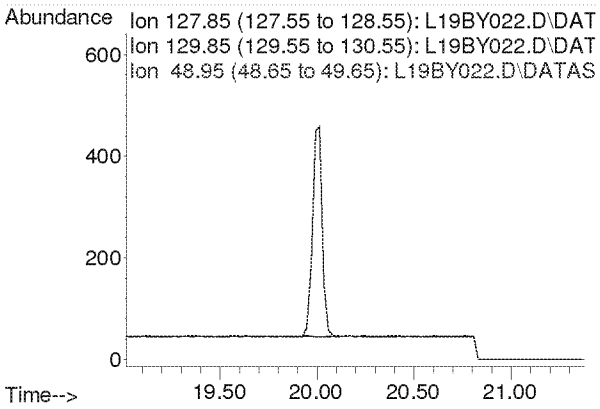


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

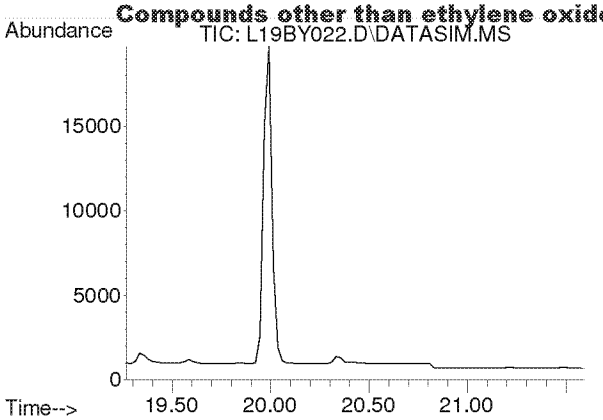
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

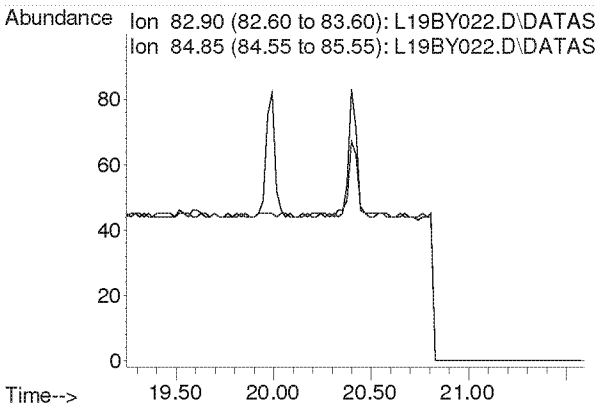


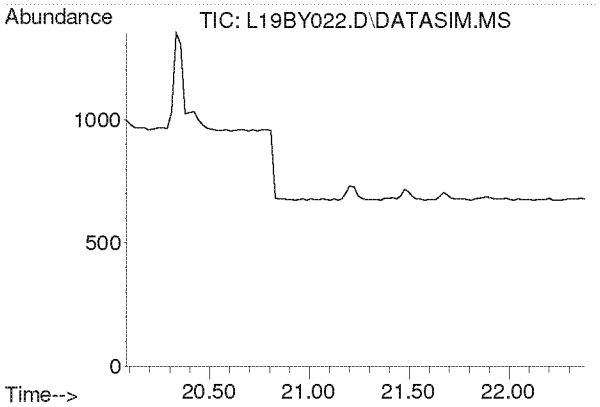
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



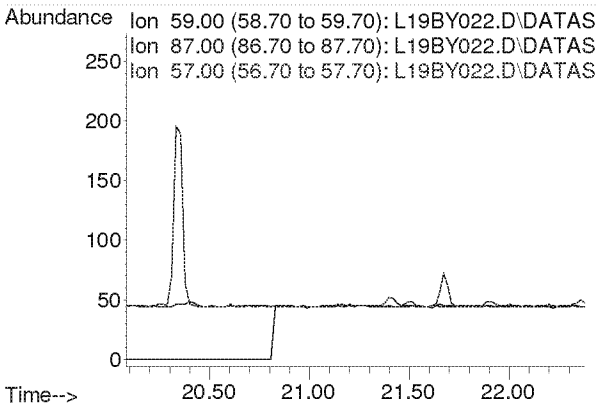


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

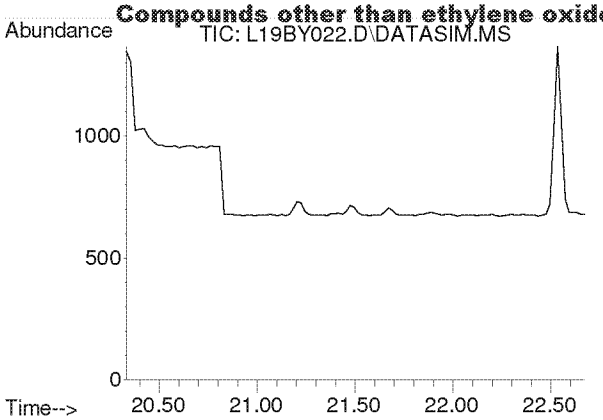
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

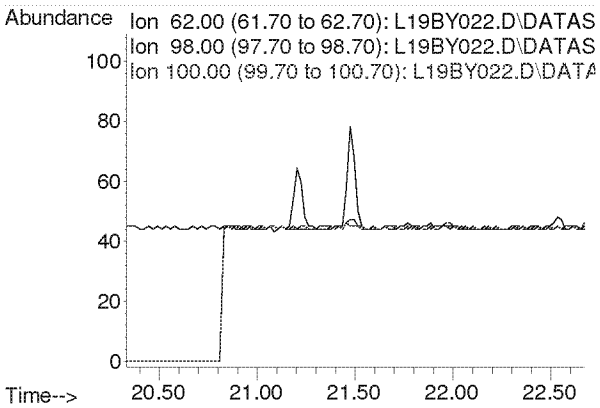


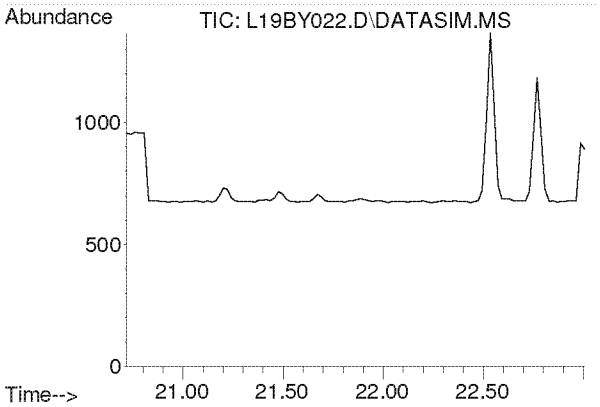
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



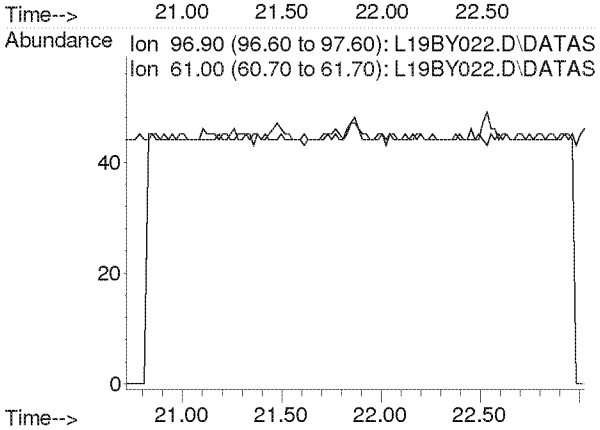


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

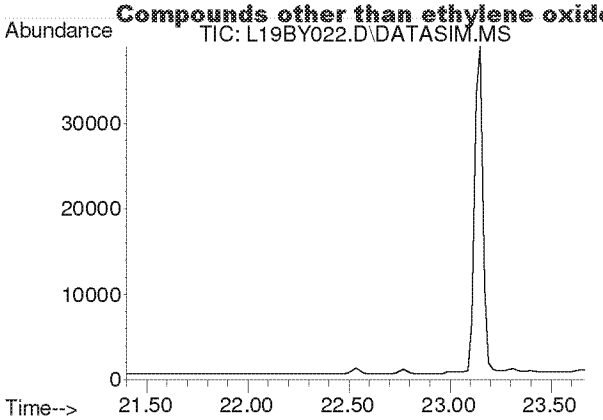
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

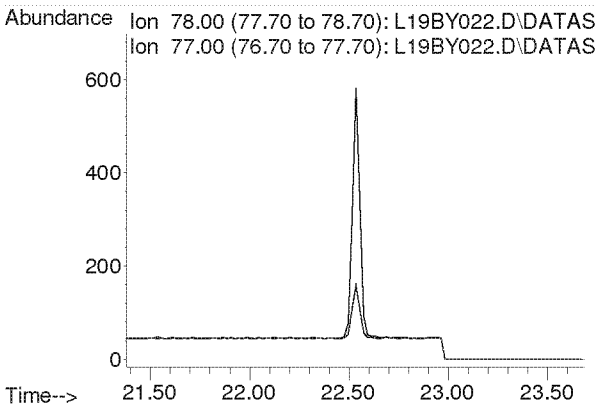


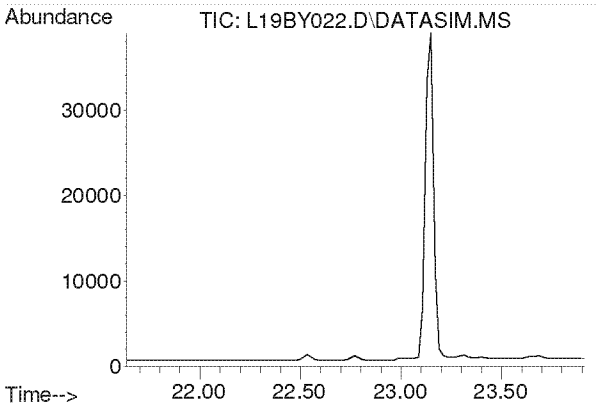
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



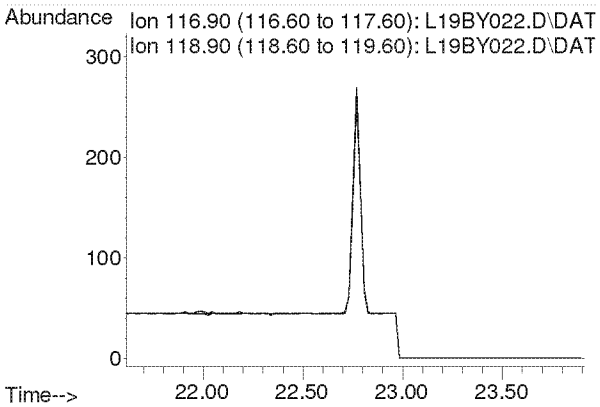


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

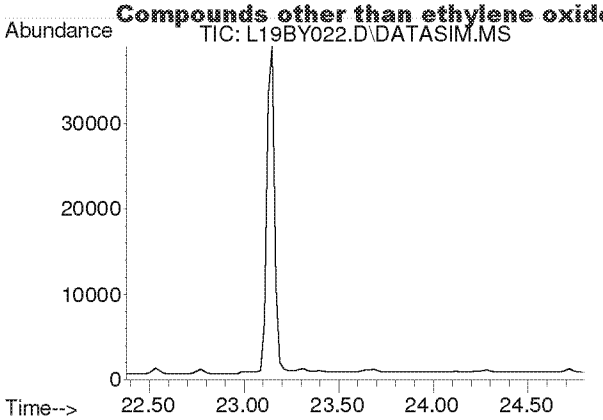
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

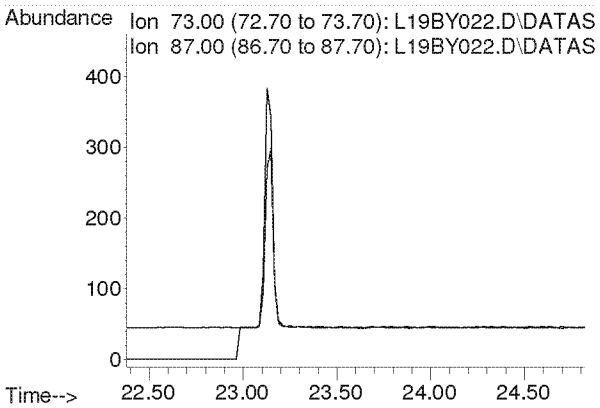


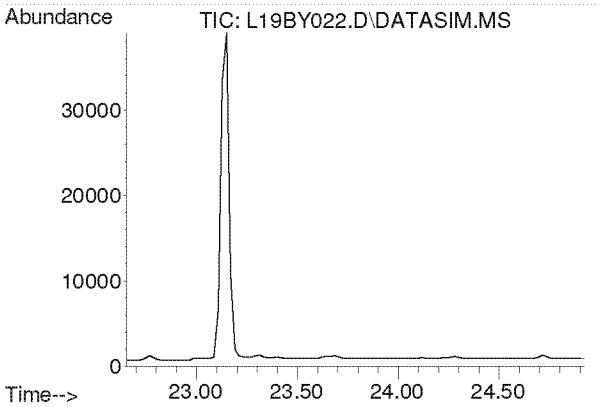
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



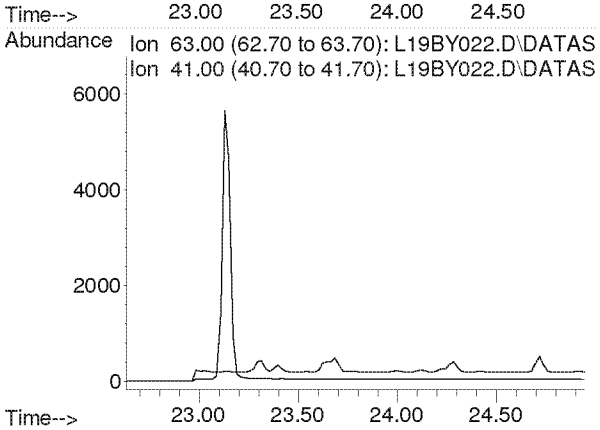


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

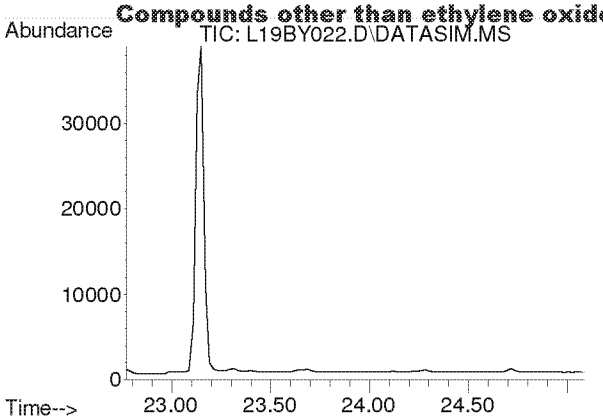
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

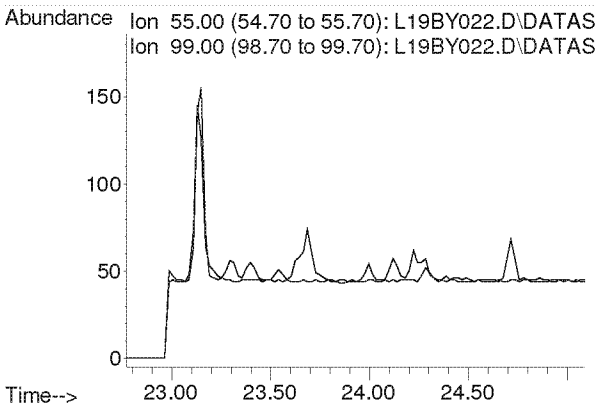


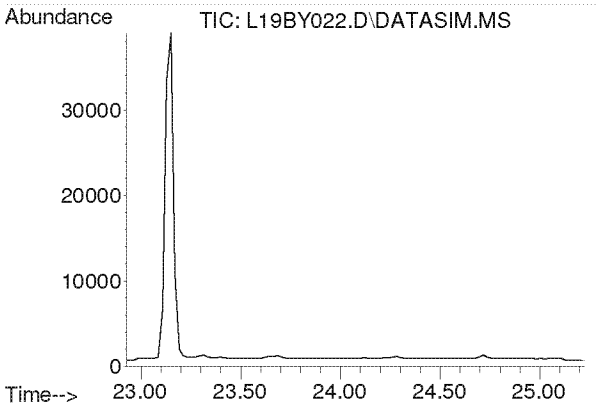
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



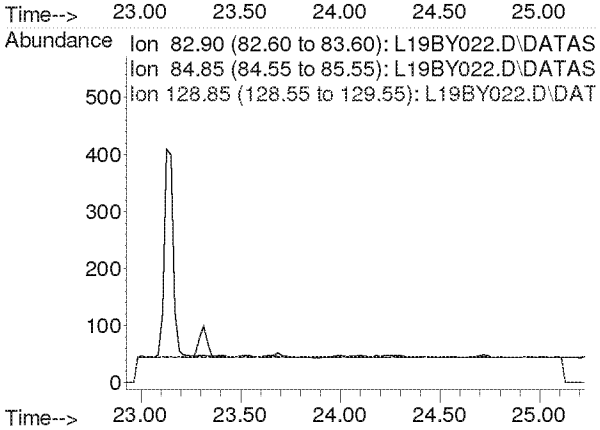


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

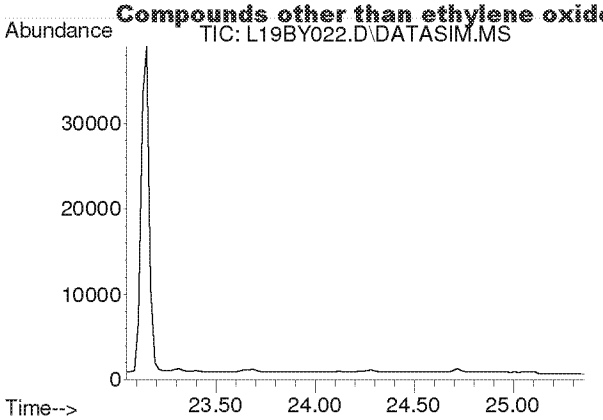
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

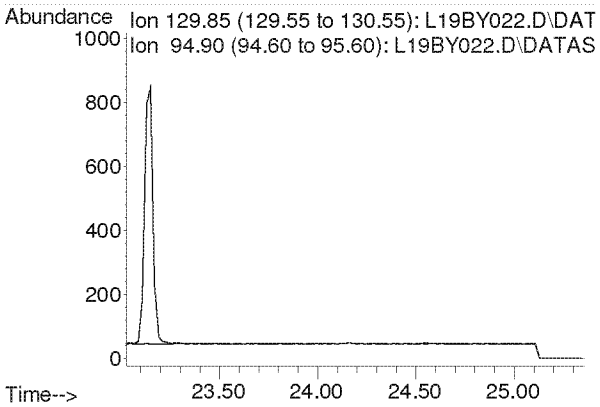


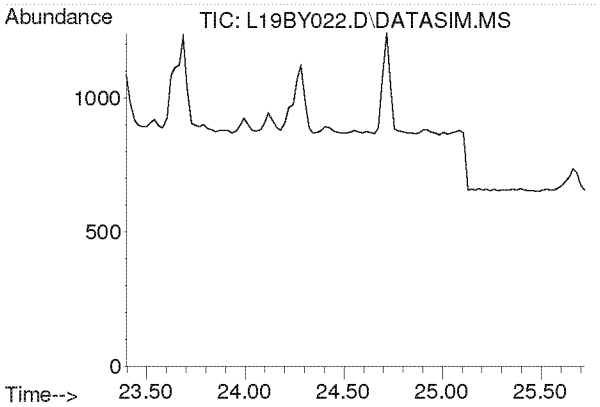
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



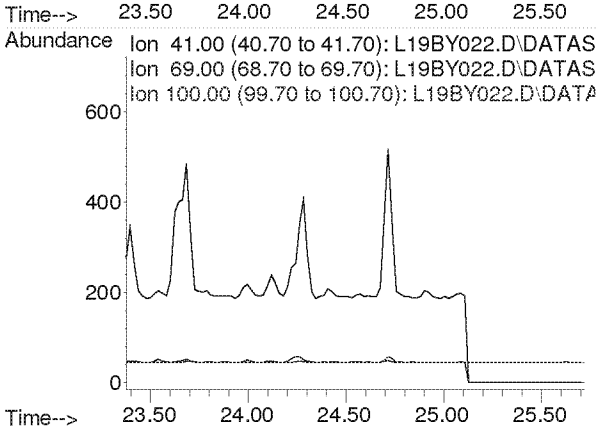


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

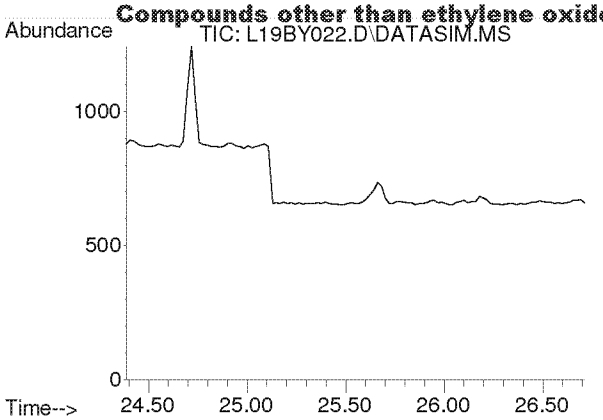
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

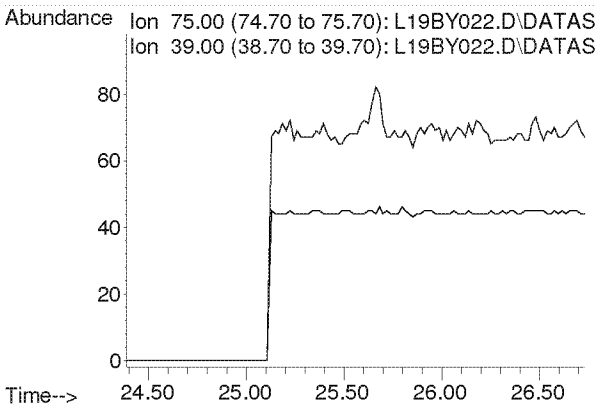


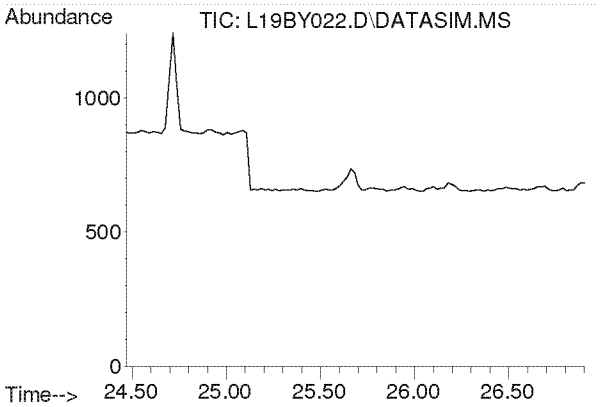
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



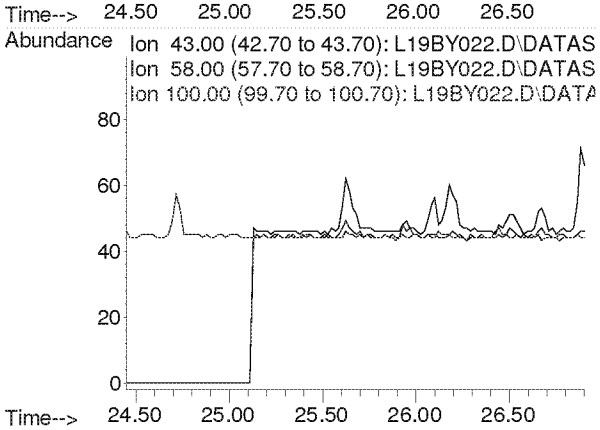


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

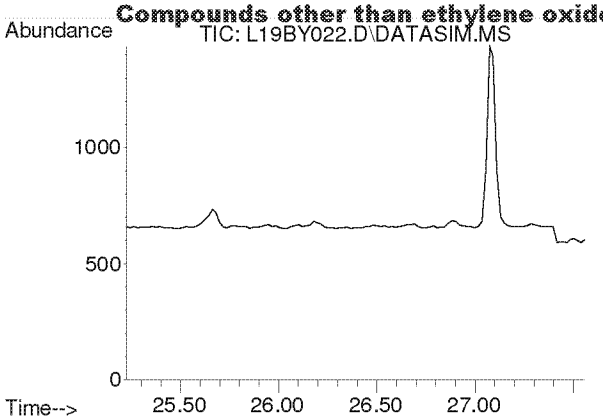
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

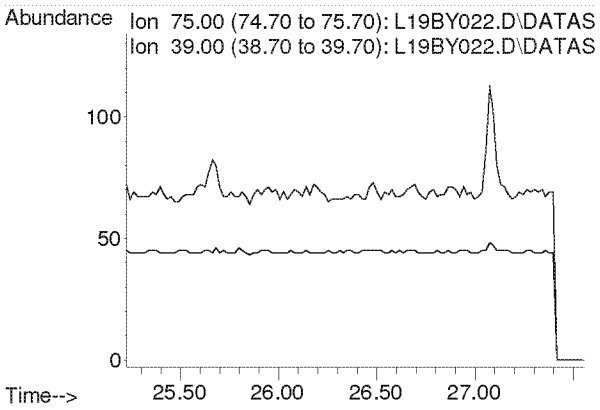


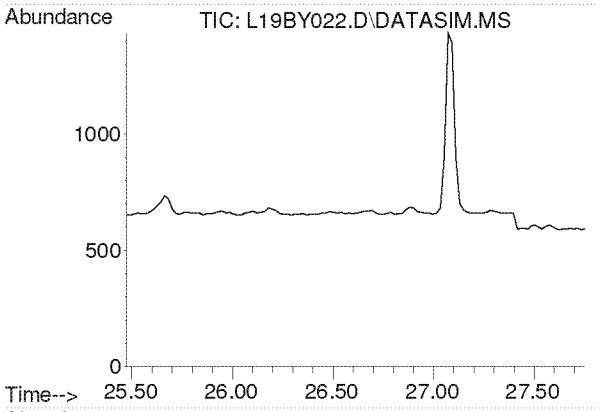
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



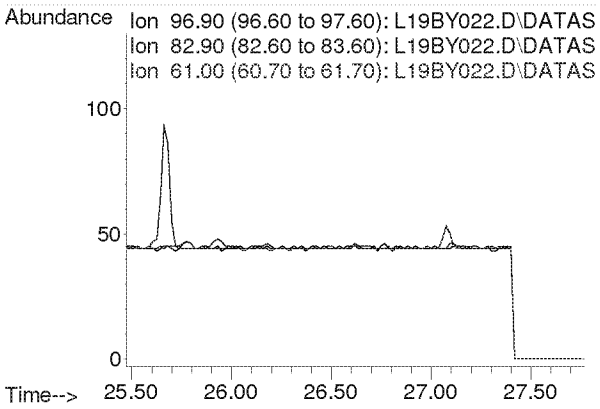


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

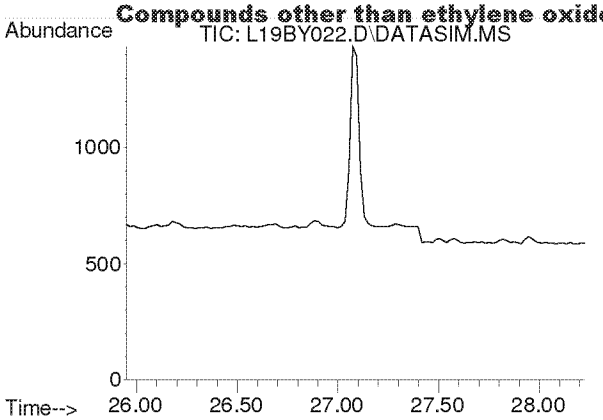
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

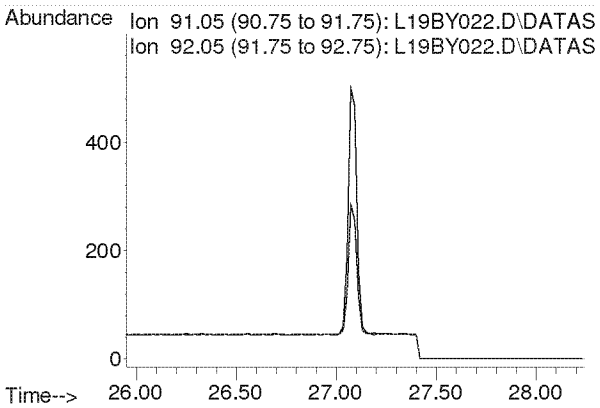


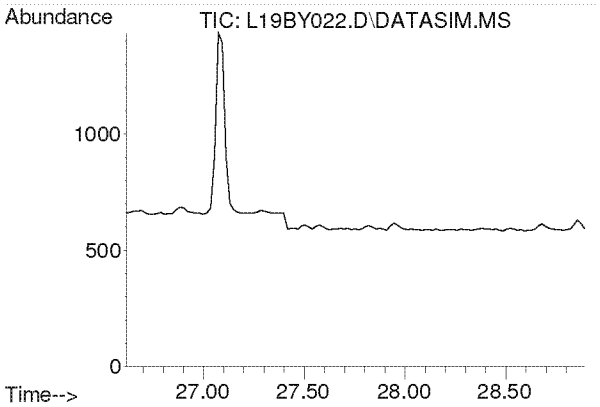
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



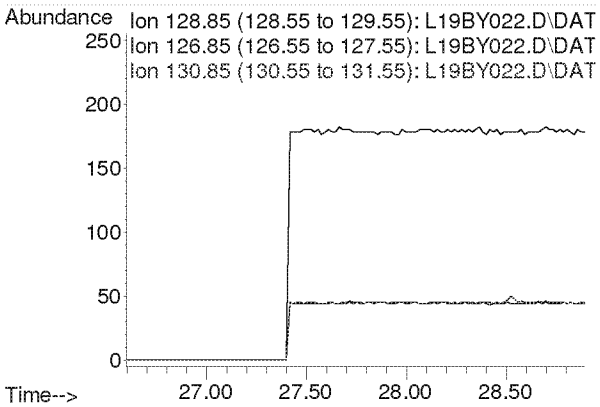


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

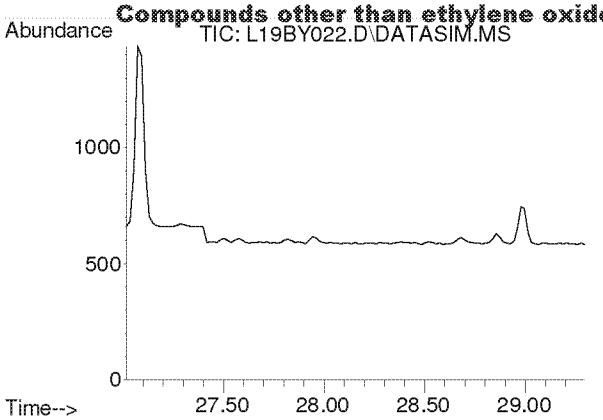
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

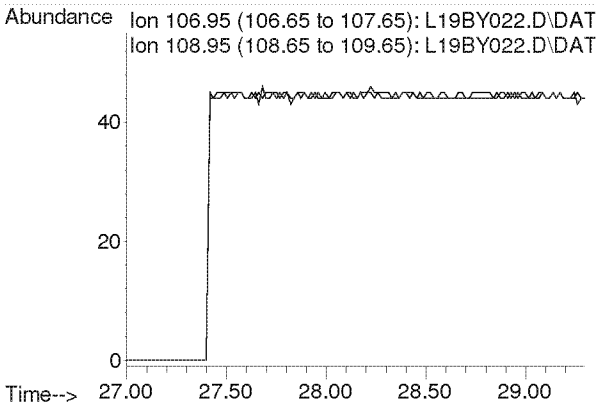


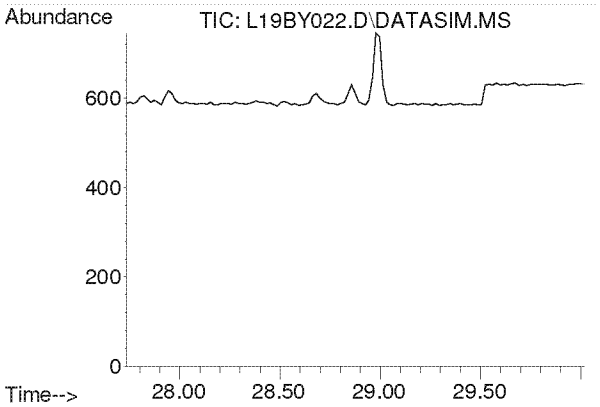
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



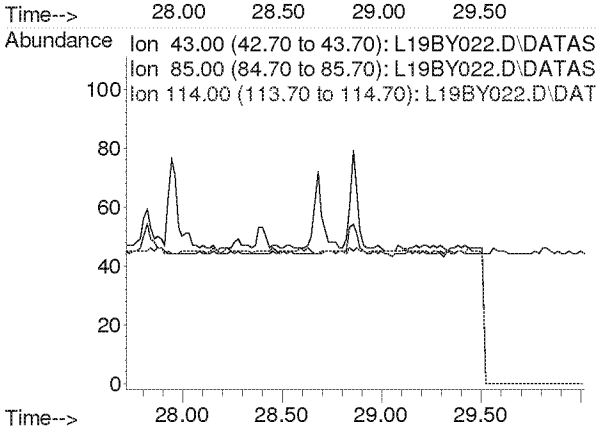


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

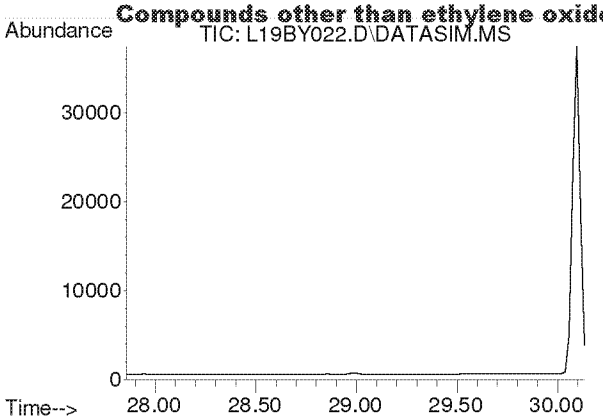
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

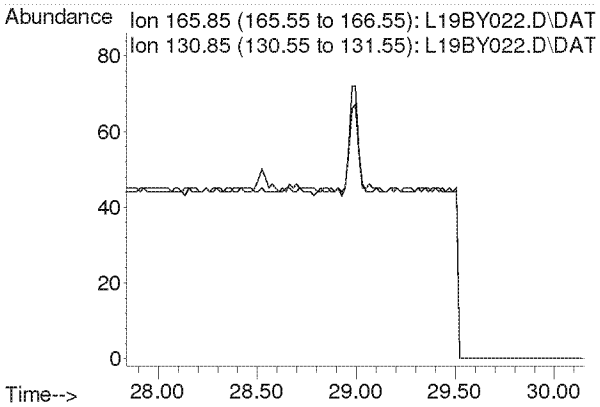


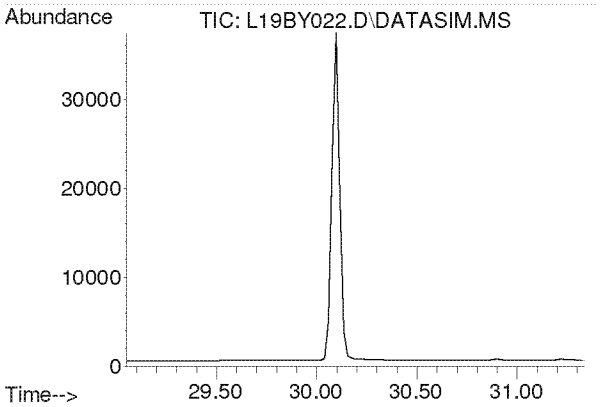
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



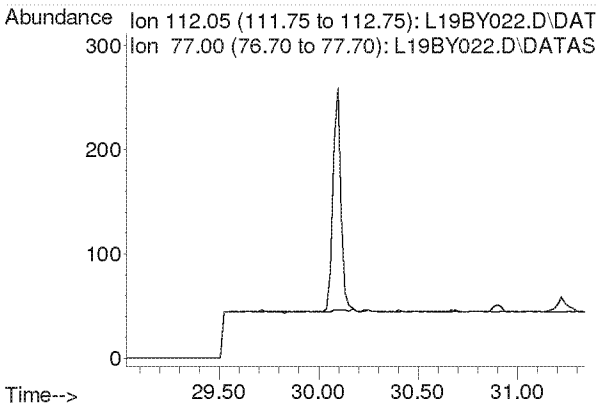


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

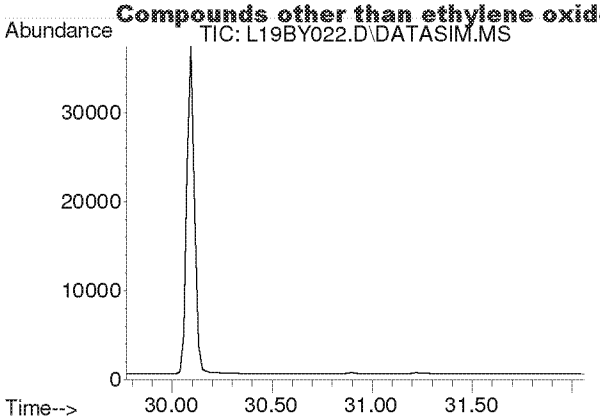
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

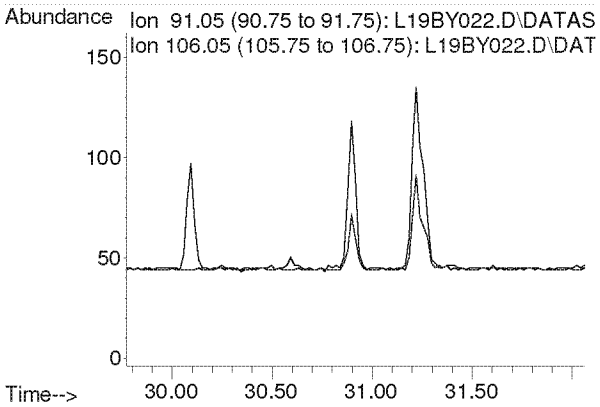


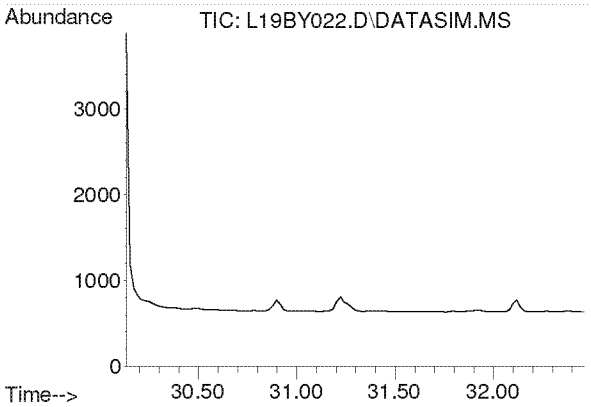
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



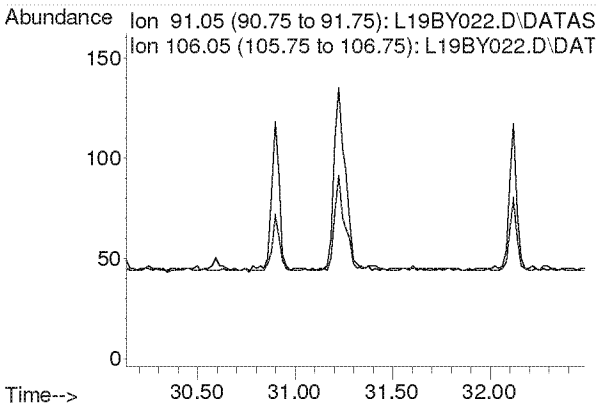


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

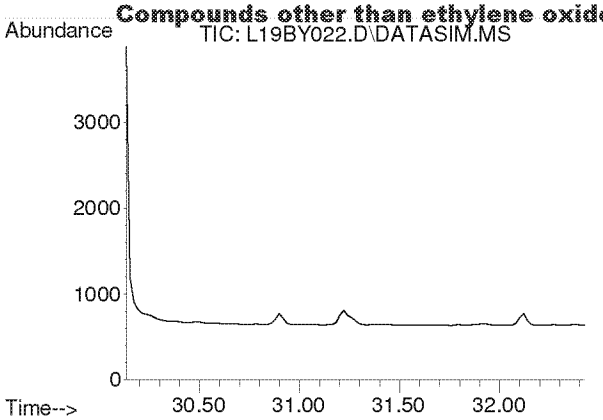
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

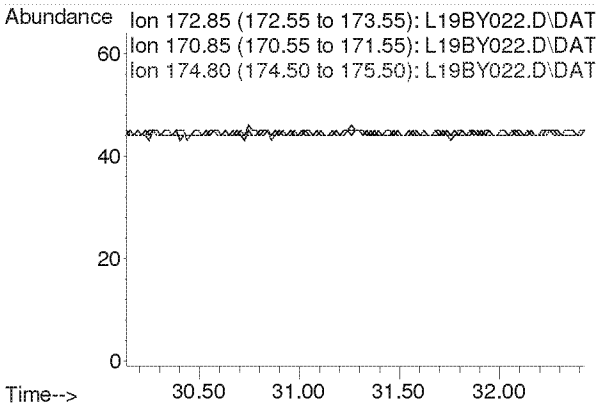


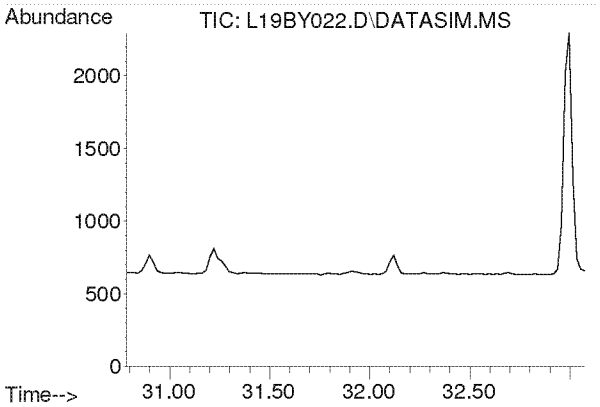
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



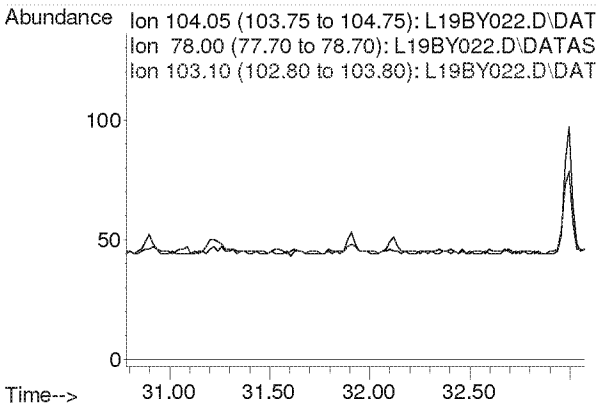


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

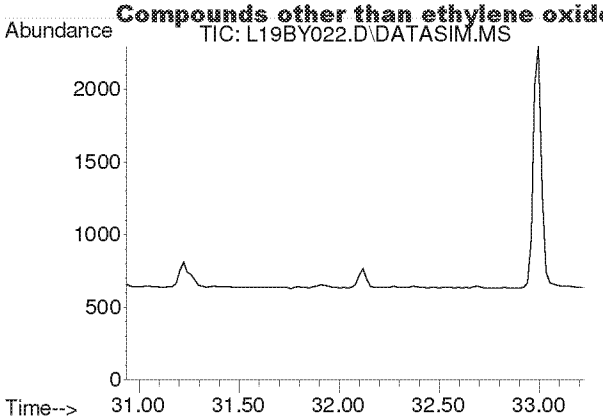
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

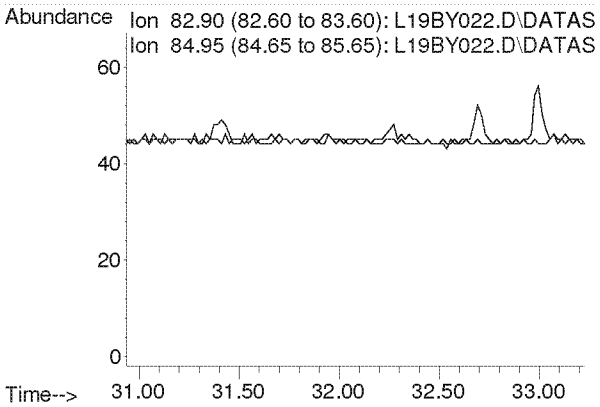


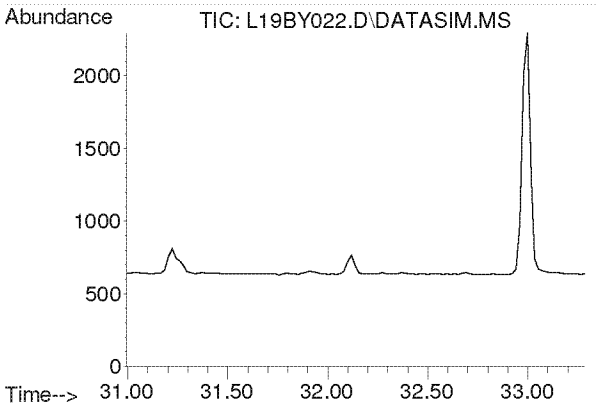
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



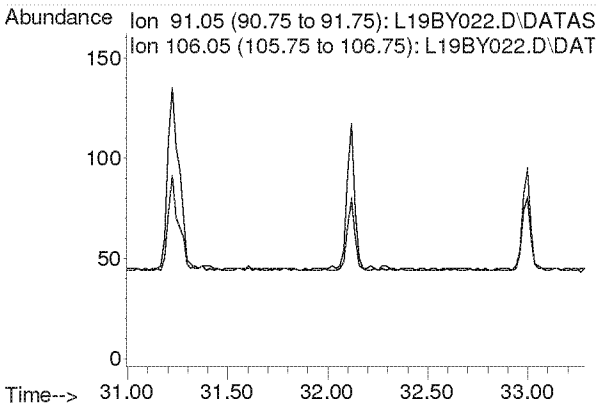


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

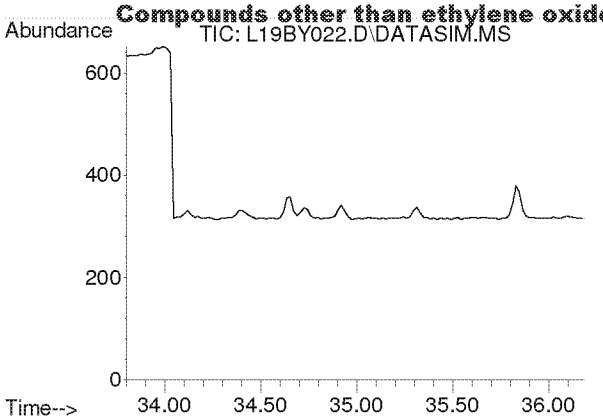
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

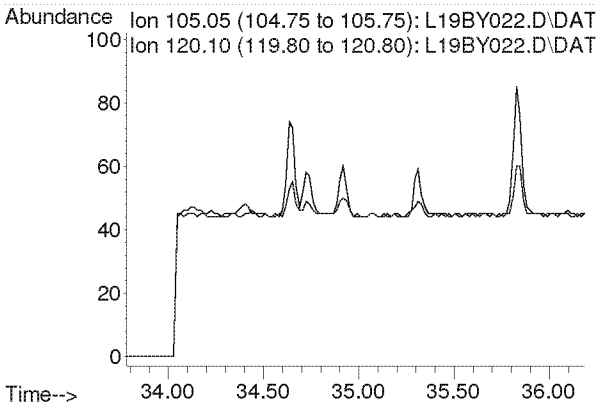


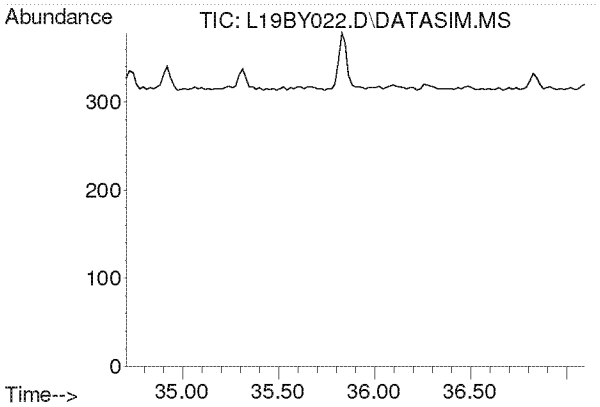
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



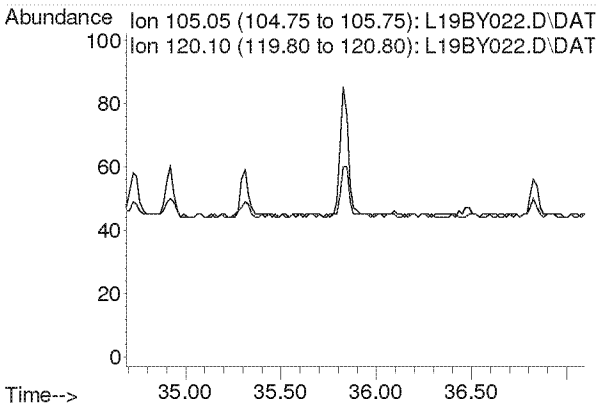


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

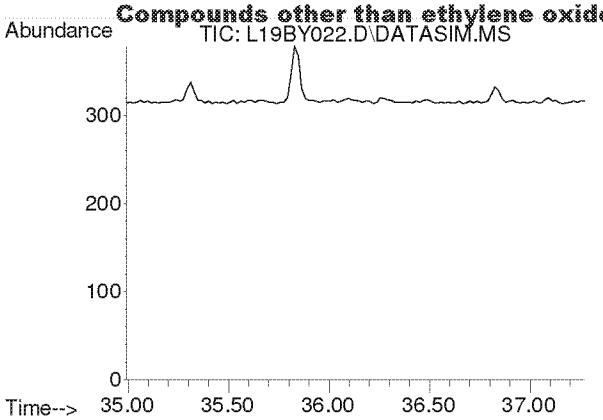
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

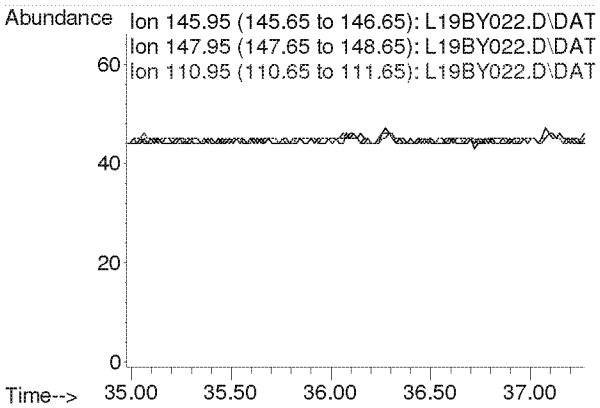


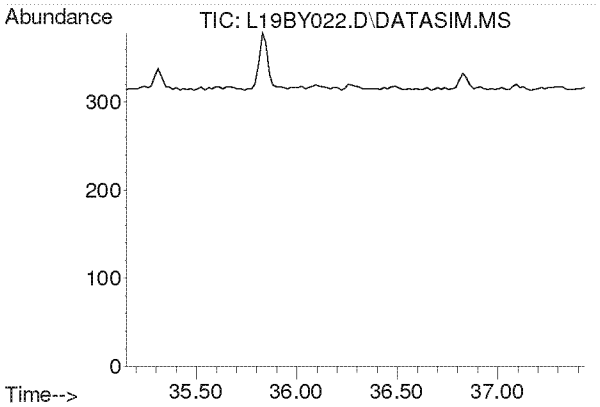
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



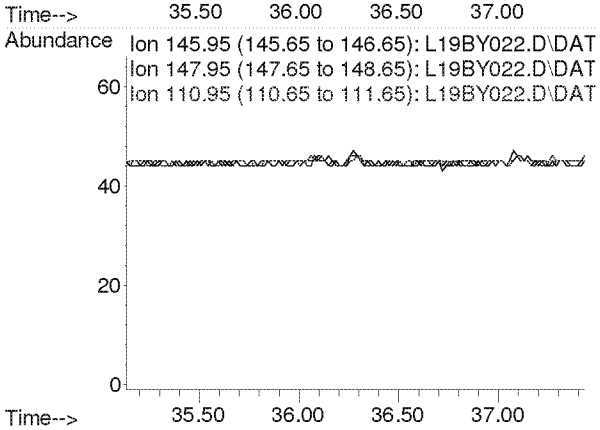


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

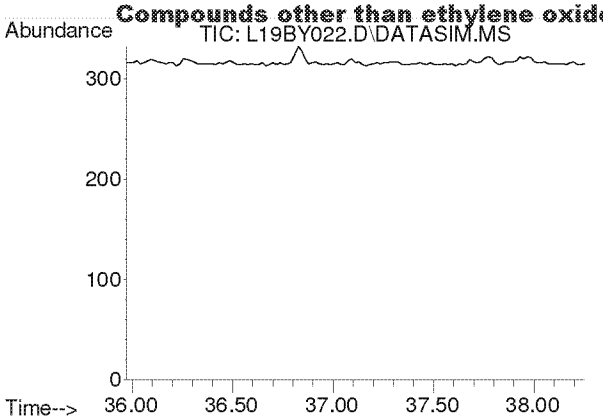
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

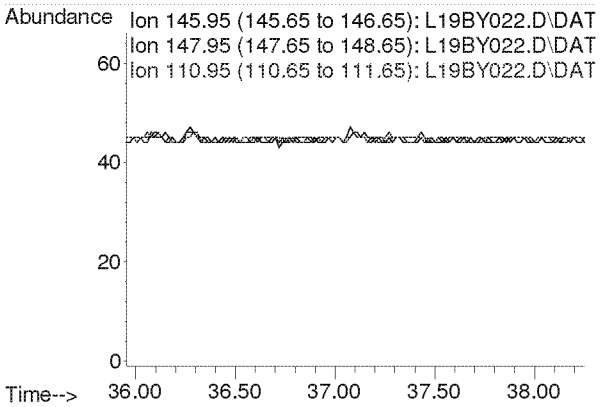


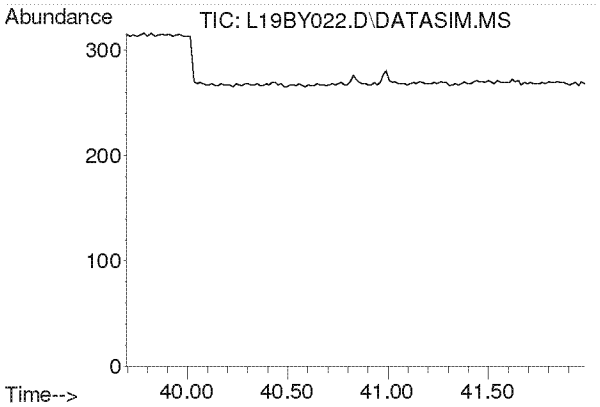
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



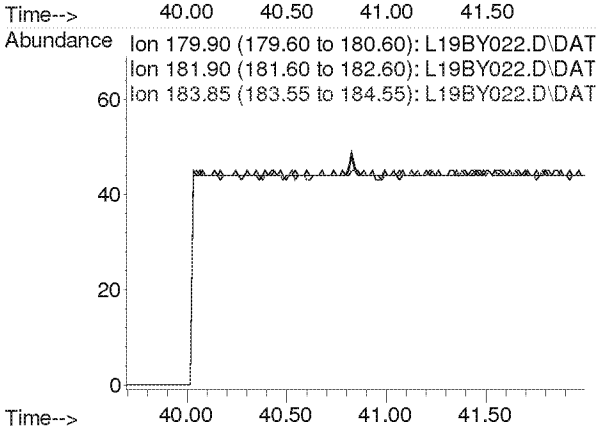


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

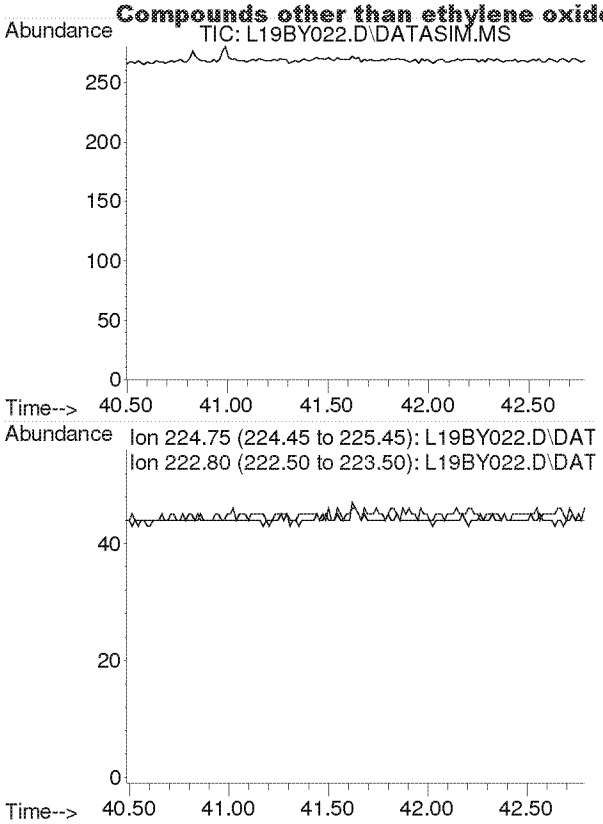
Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY022.D
Acq: 26 Feb 2019 4:31 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY023.D
Acq On : 26 Feb 2019 5:31 am (#1); 26 Feb 2019 5:26 am (#2)
Operator : MAH
Sample : 9022202-17
Misc : WB VILLAGE HALL 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 26 09:56:30 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	38850	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	98260	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.094	117	66621	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.468	29	321m	0.1445 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	

MB 3/7/19

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY023.D
Acq On : 26 Feb 2019 5:31 am (#1); 26 Feb 2019 5:26 am (#2)
Operator : MAH
Sample : 9022202-17
Misc : WB VILLAGE HALL 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 26 09:56:30 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

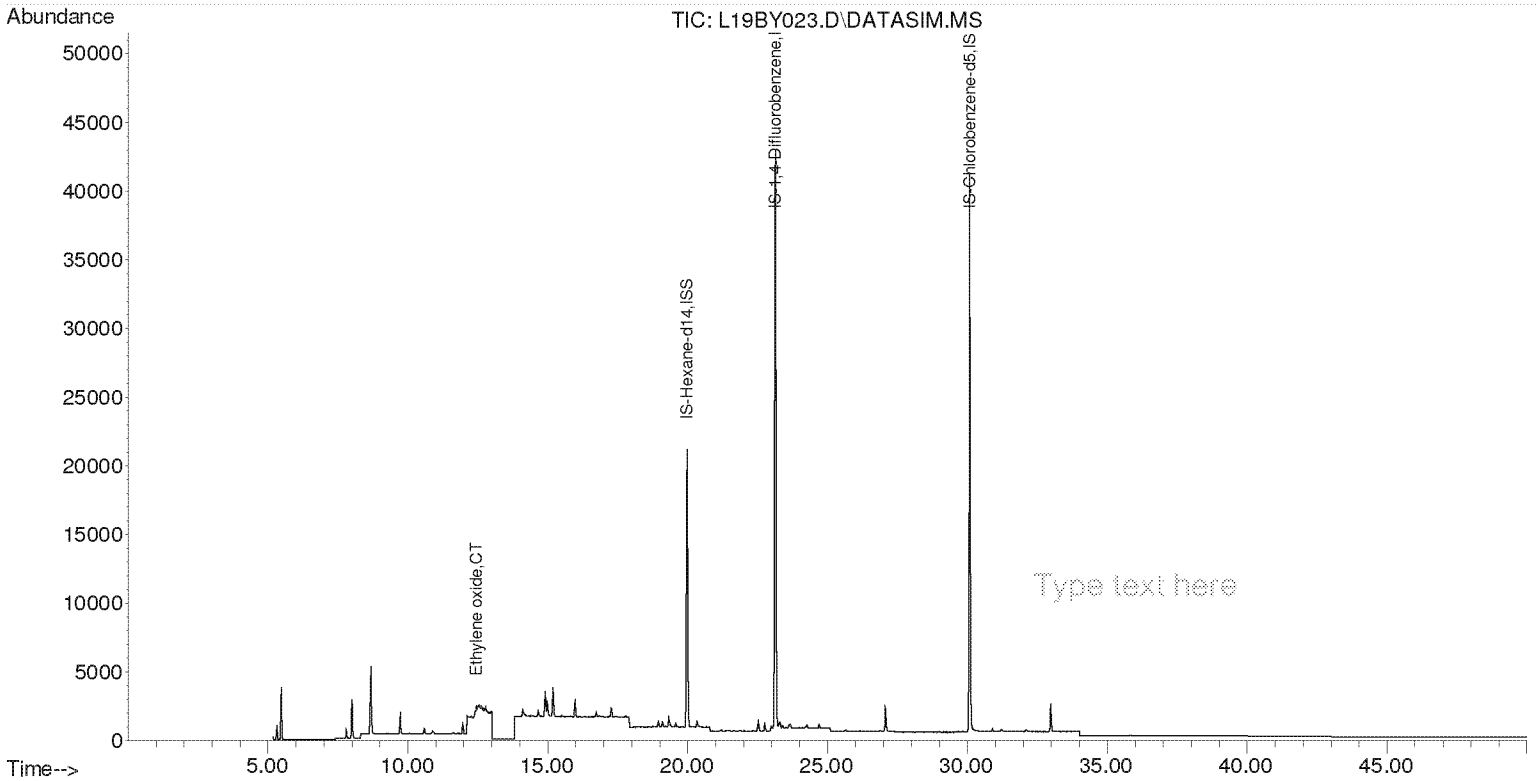
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

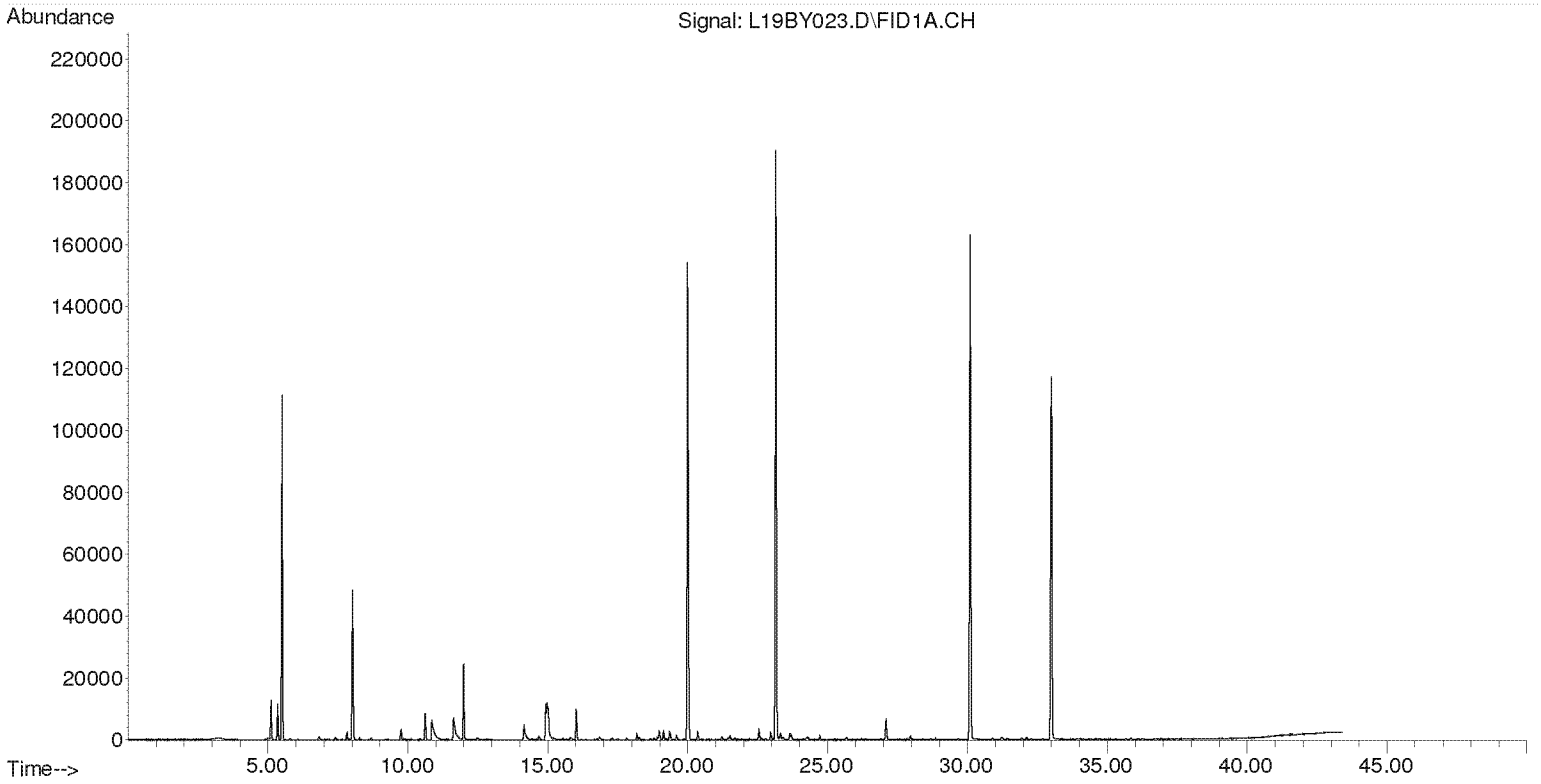
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

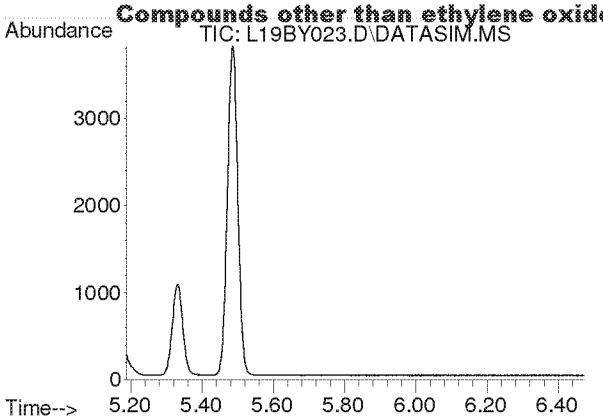
Data Path : Y:\MASS SPEC 1 DATA\L19BY\
Data File : L19BY023.D
Acq On : 26 Feb 2019 5:31 am (#1); 26 Feb 2019 5:26 am (#2)
Operator : MAH
Sample : 9022202-17
Misc : WB VILLAGE HALL 2/21/19 (Sig #1); (Sig #2)
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 26 09:56:30 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





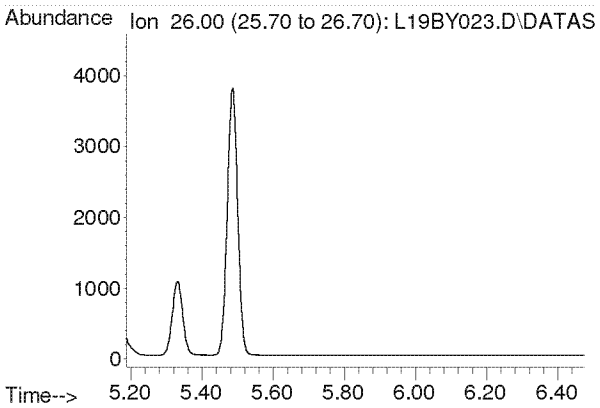
Compounds other than ethylene oxide were not quantitated.

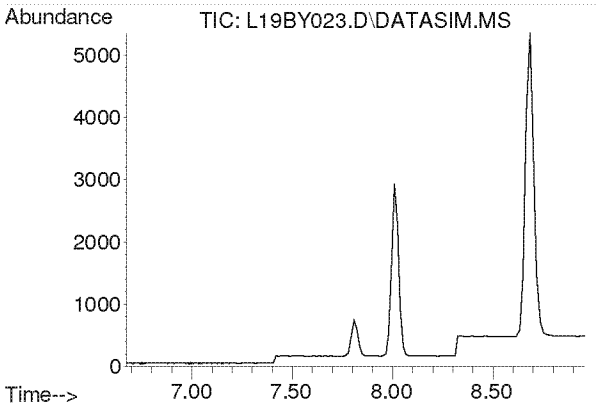


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 26



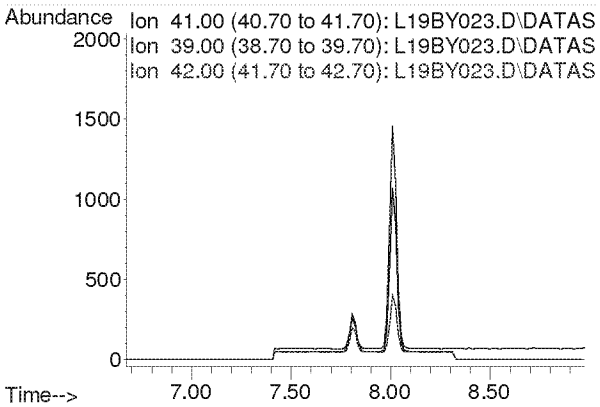


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

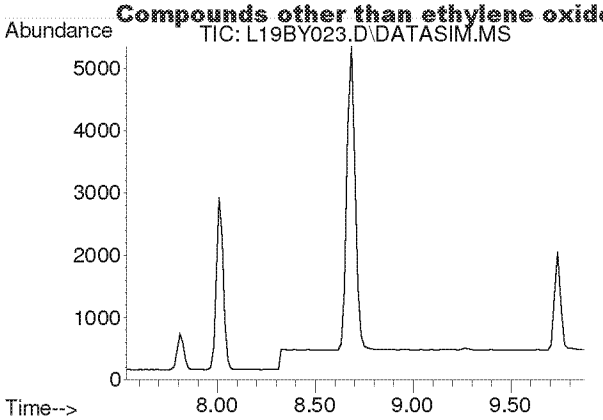
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

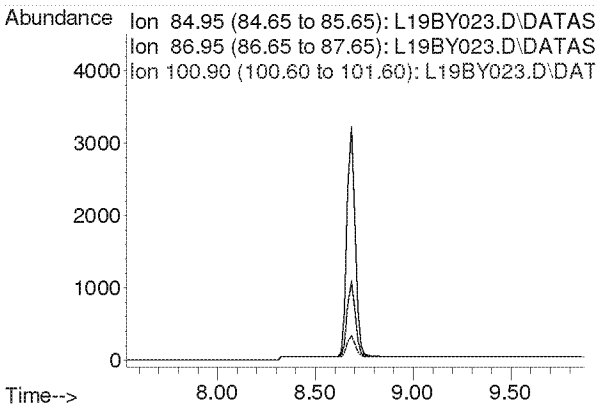


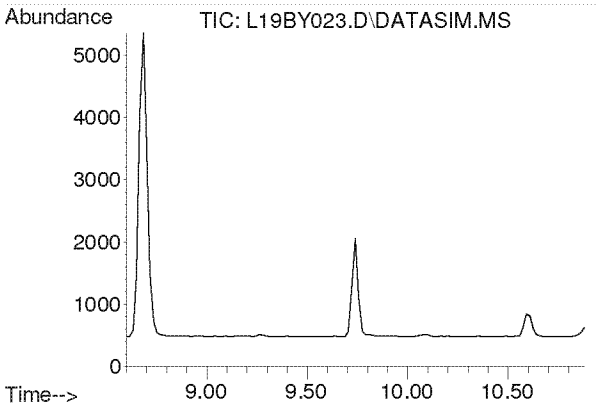
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



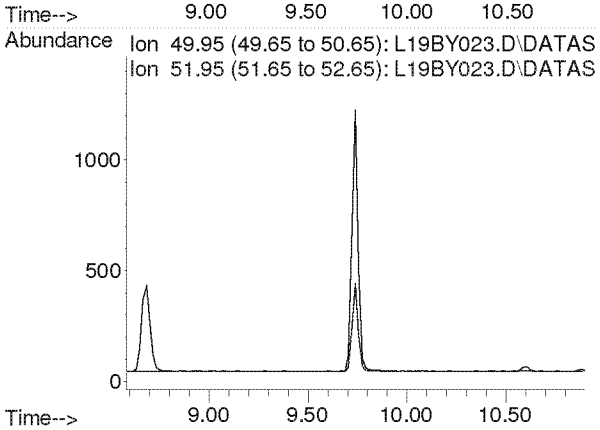


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

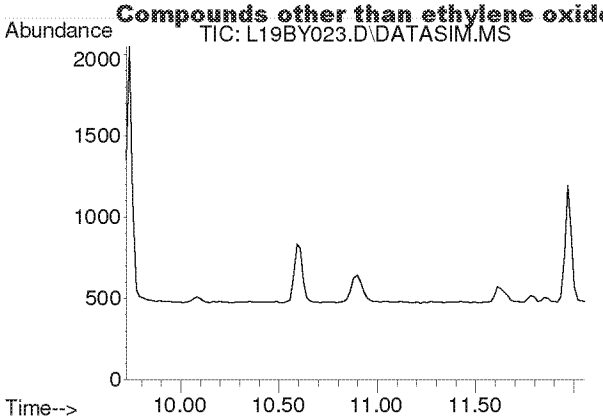
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

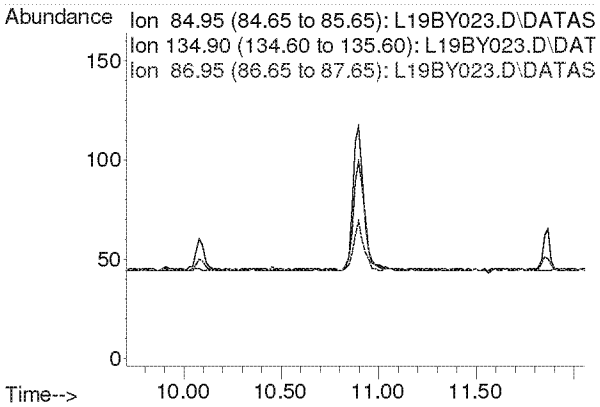


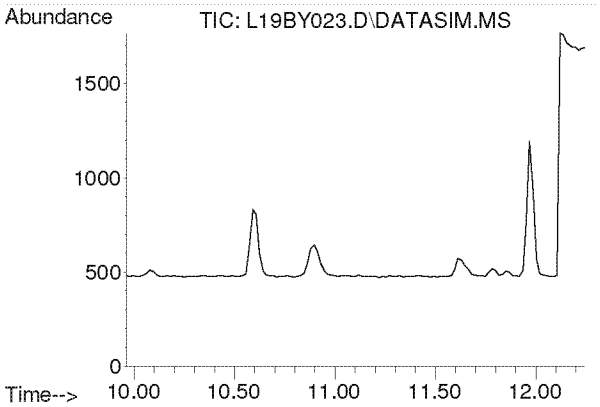
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



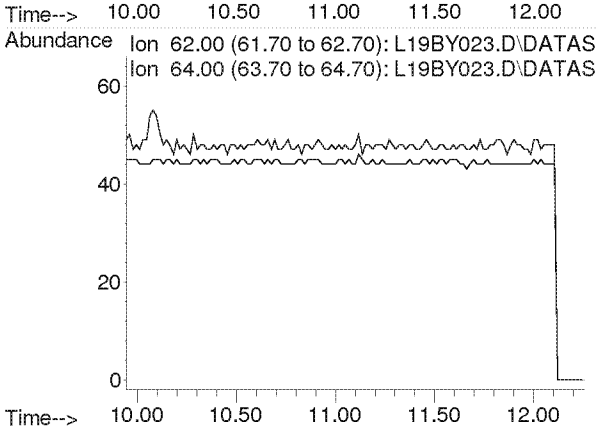


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

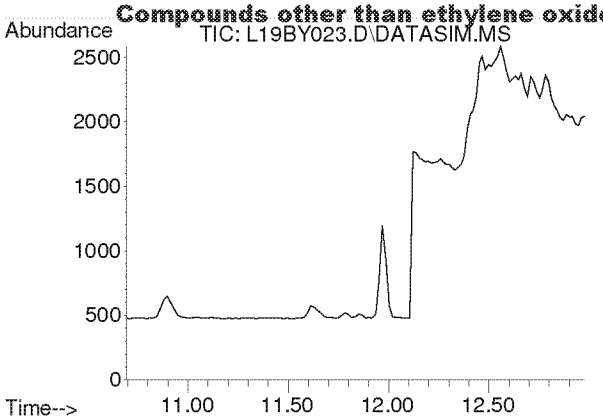
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

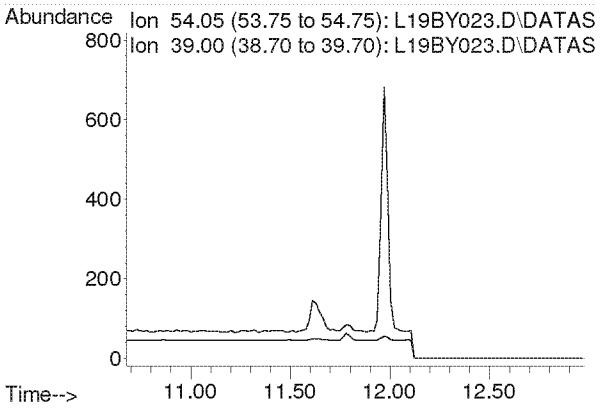


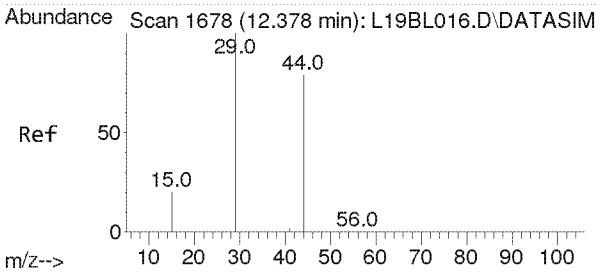
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

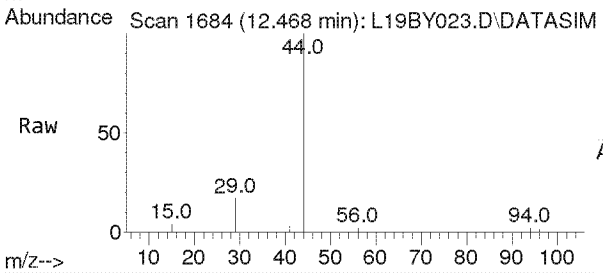


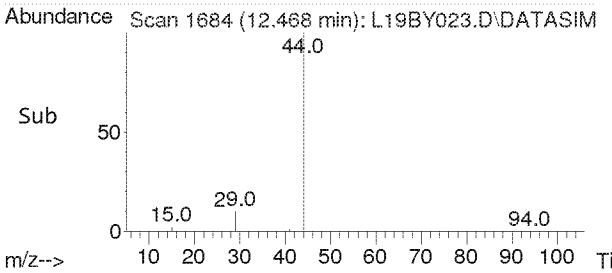


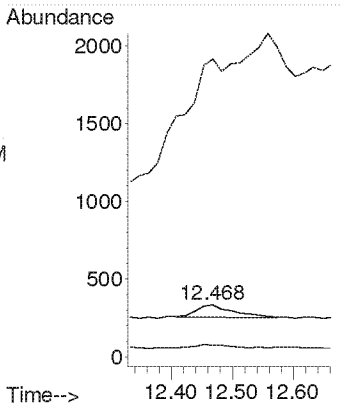
#9
Ethylene oxide
Concen: 0.144 ppbv m
RT: 12.468 min Scan# 1684
Delta R.T. 0.018 min
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 29 Resp: 321

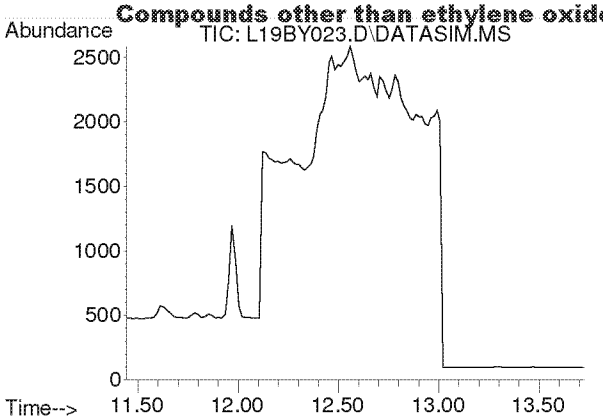
Ion	Ratio	Lower	Upper
29	100		
15	44.2	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

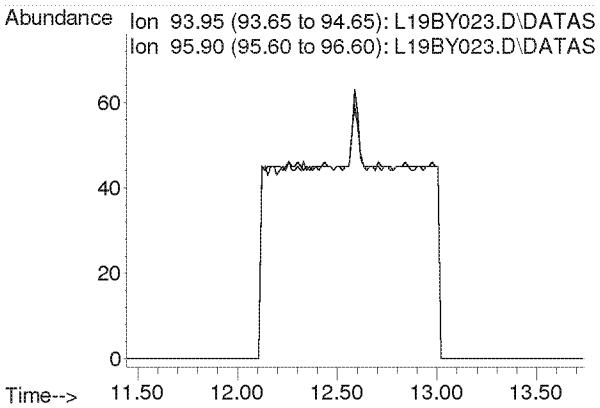


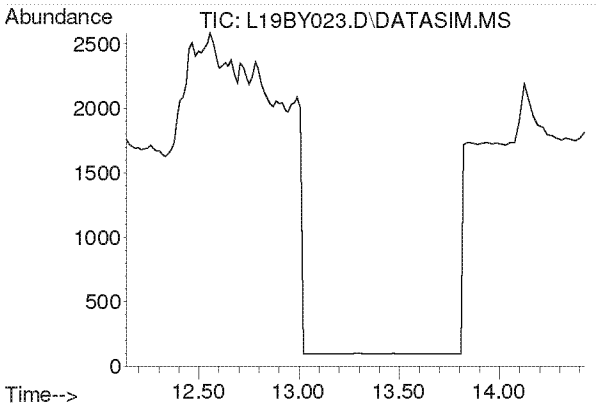
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



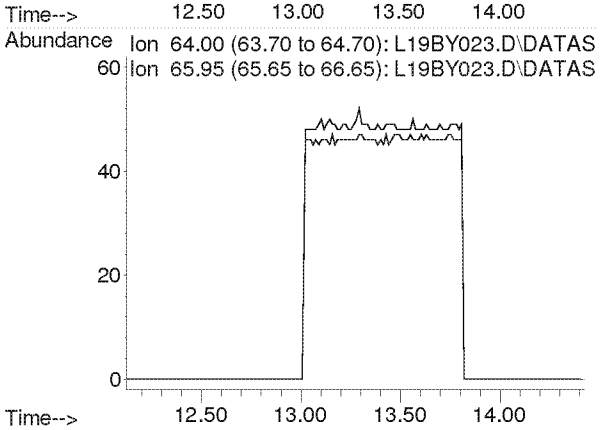


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

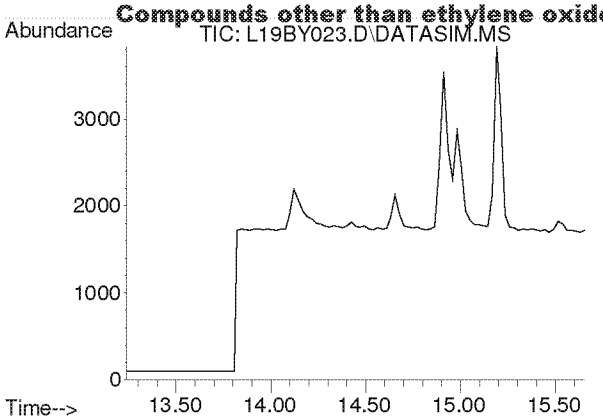
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

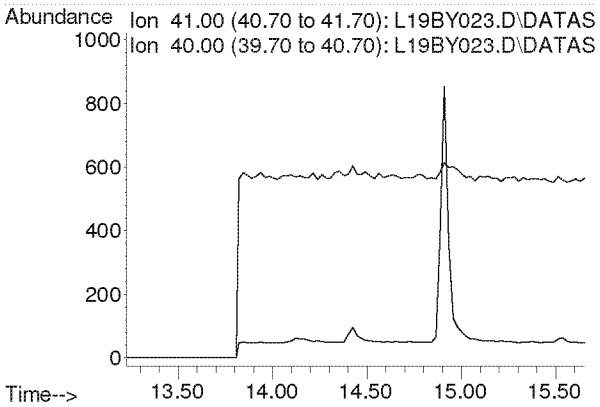


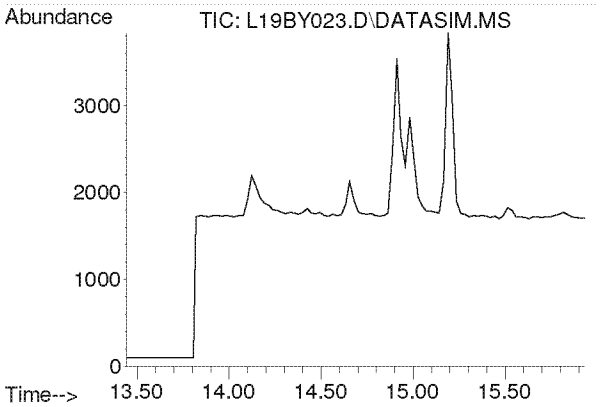
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



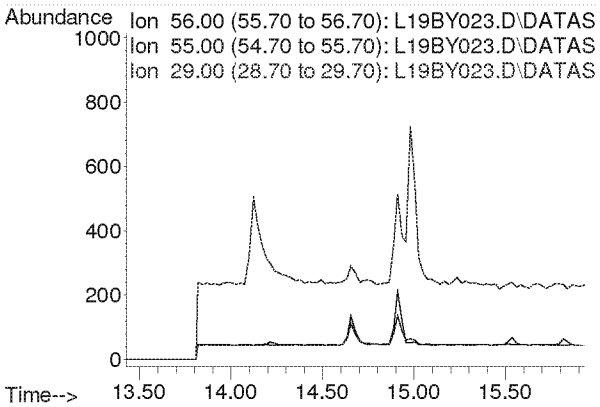


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

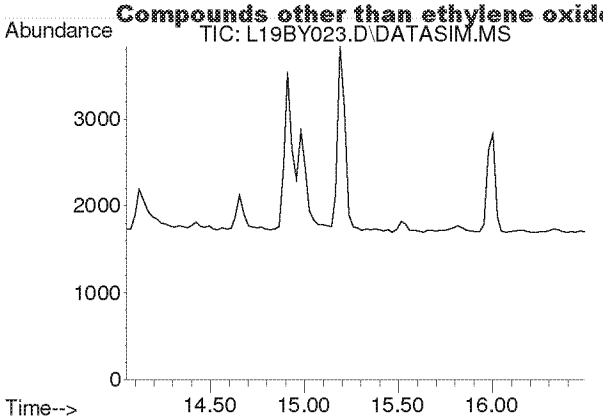
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

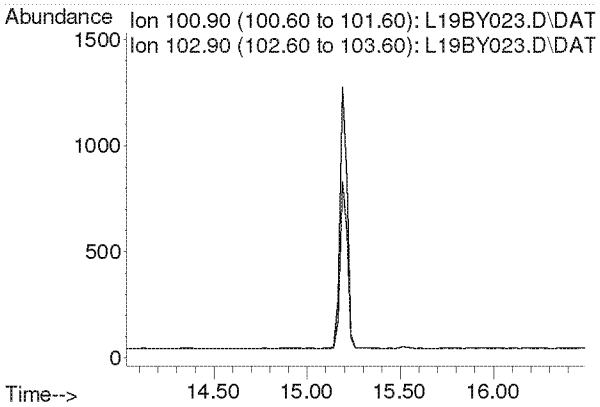


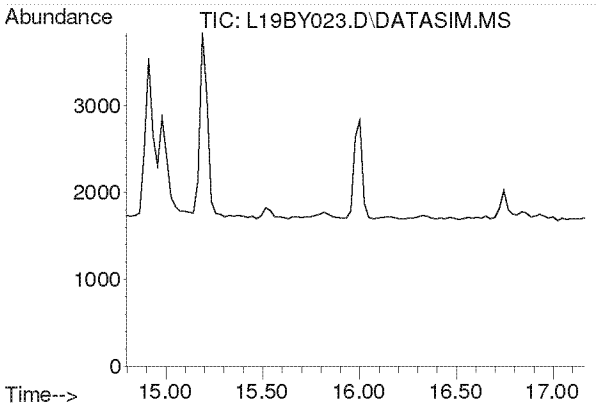
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



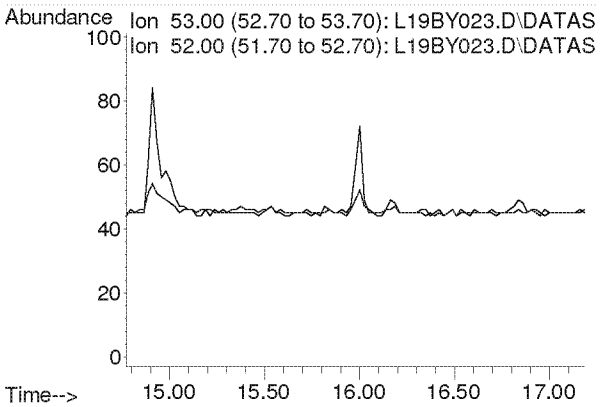


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

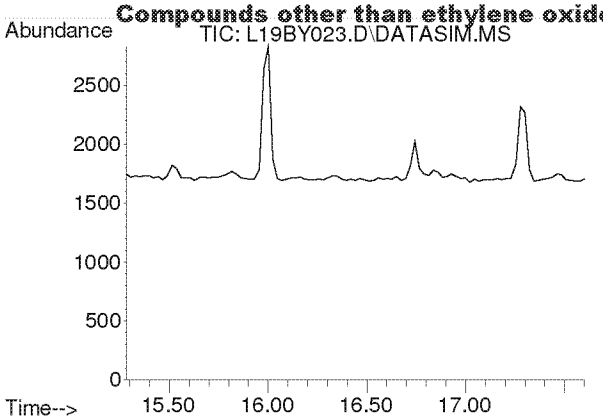
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

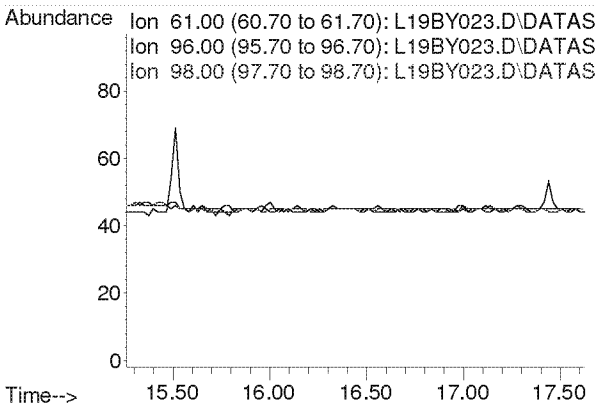


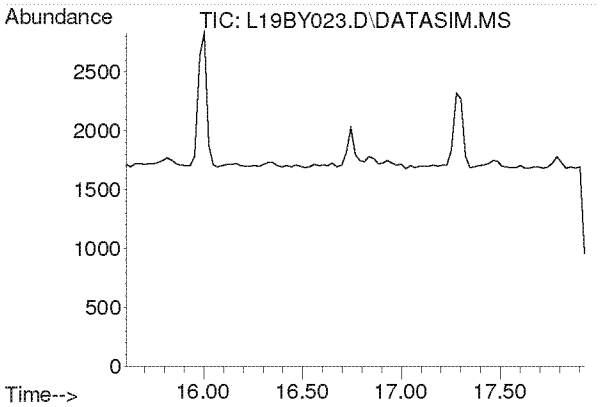
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



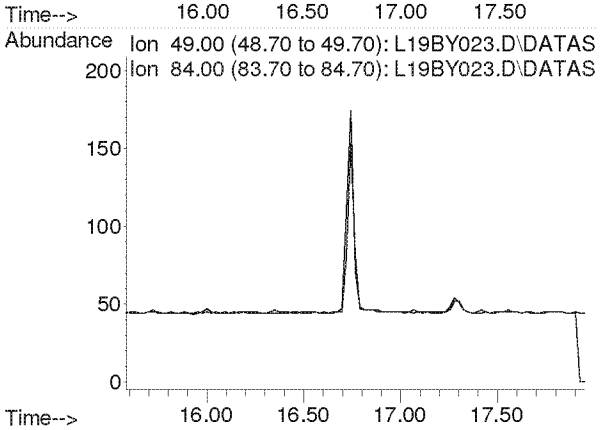


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

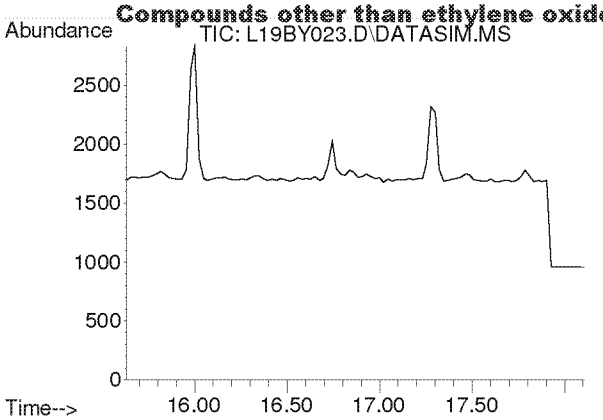
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

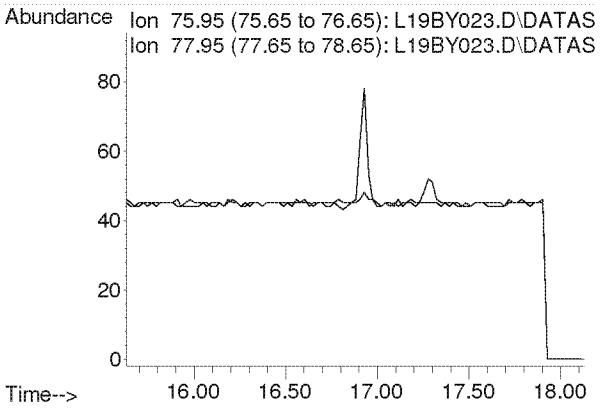


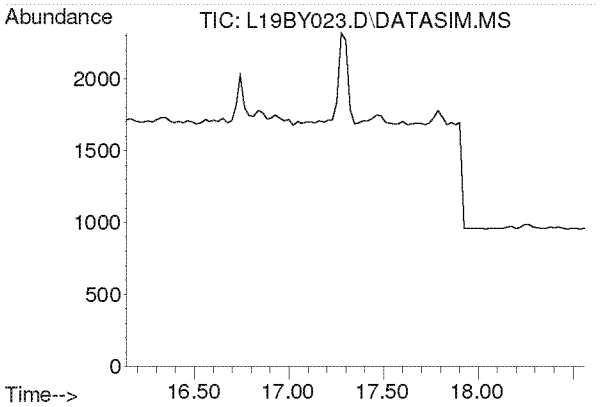
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



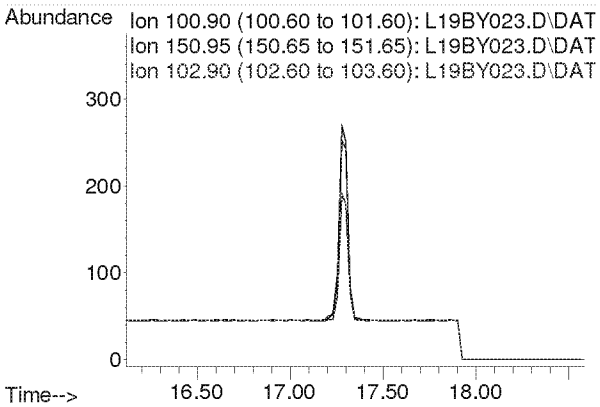


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

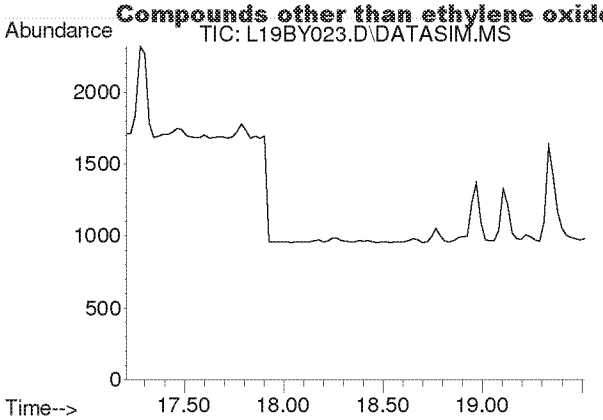
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

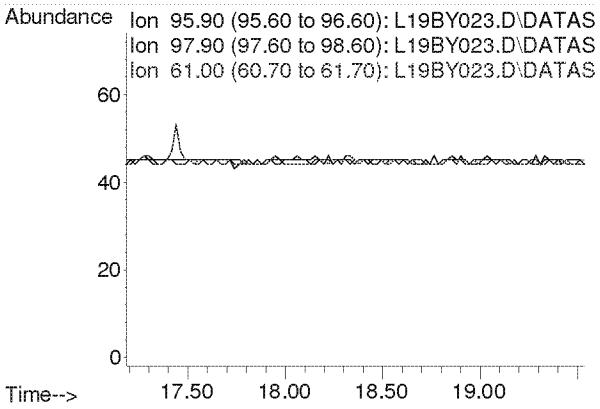


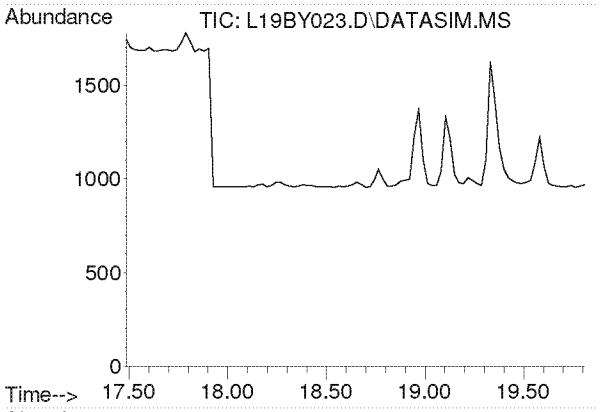
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



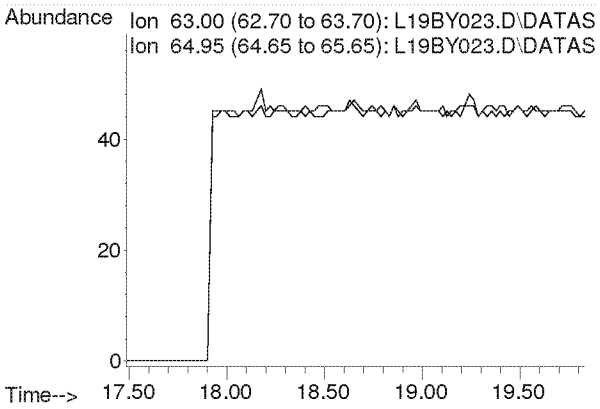


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

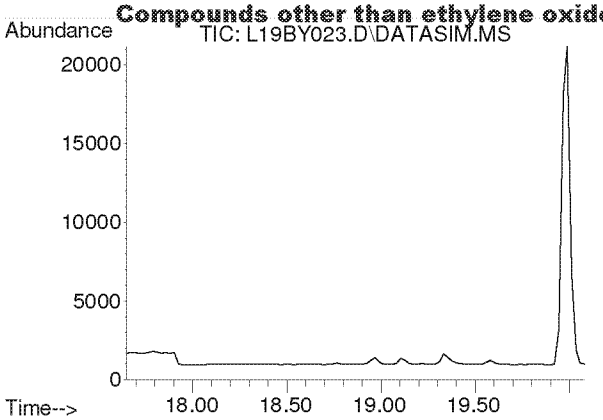
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

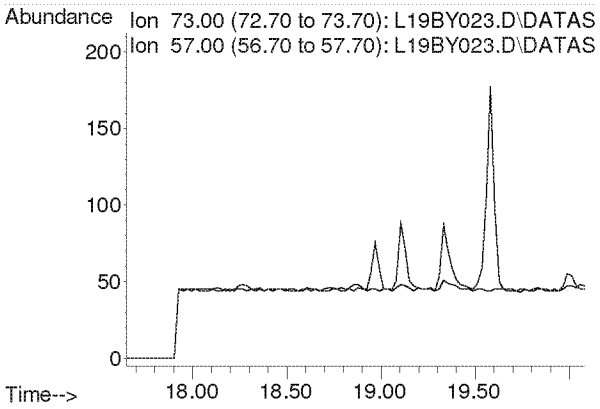


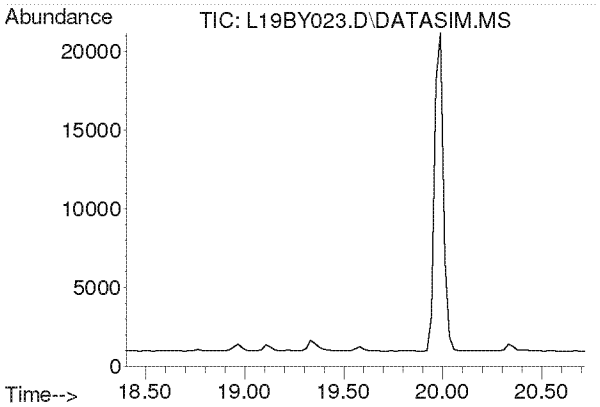
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



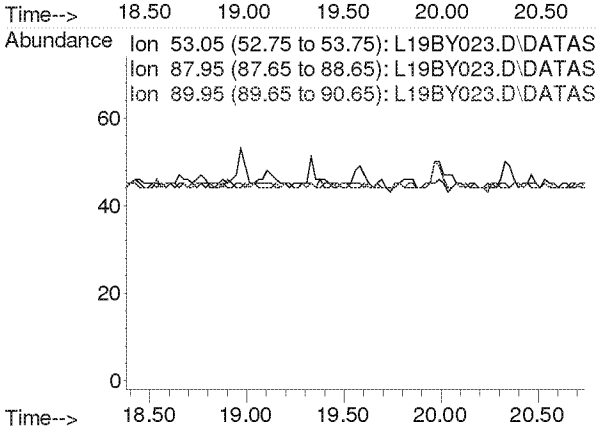


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

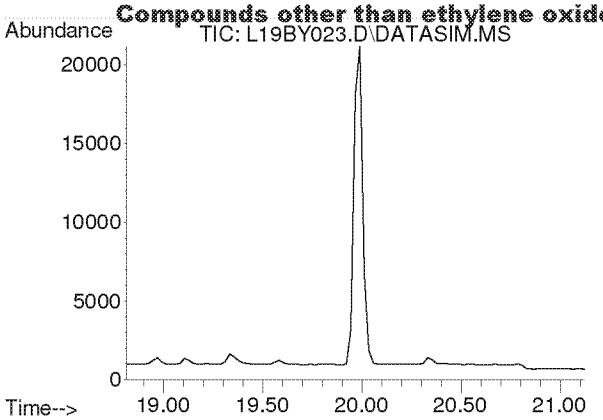
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

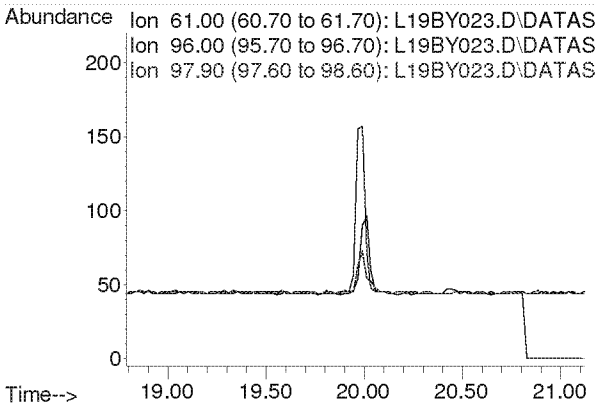


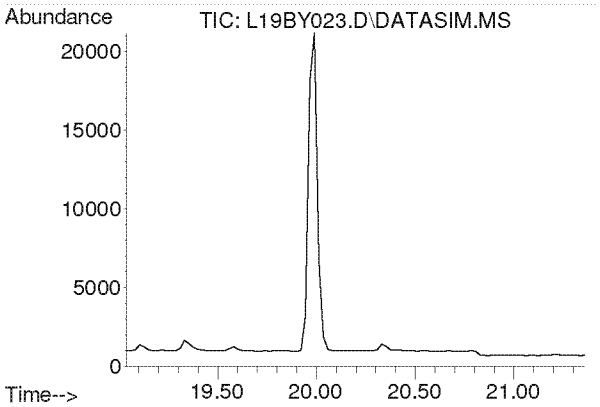
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



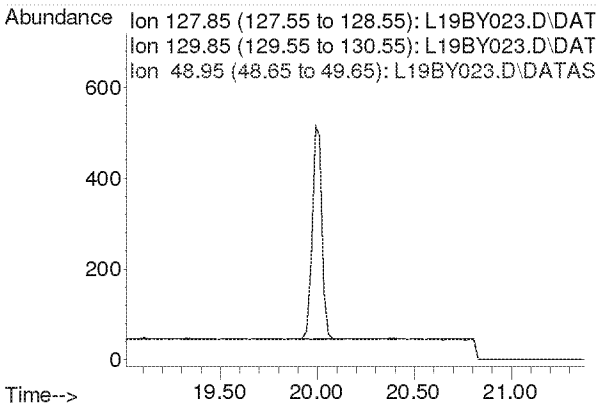


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

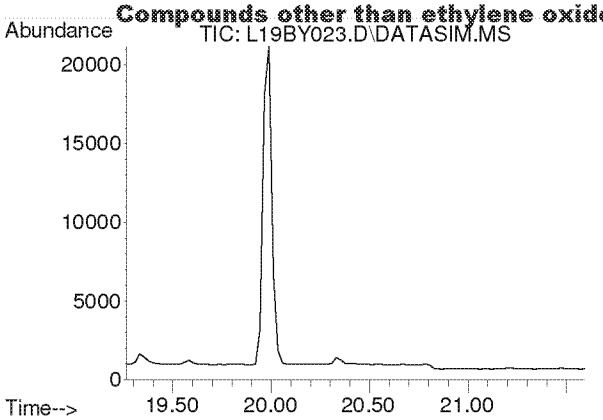
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

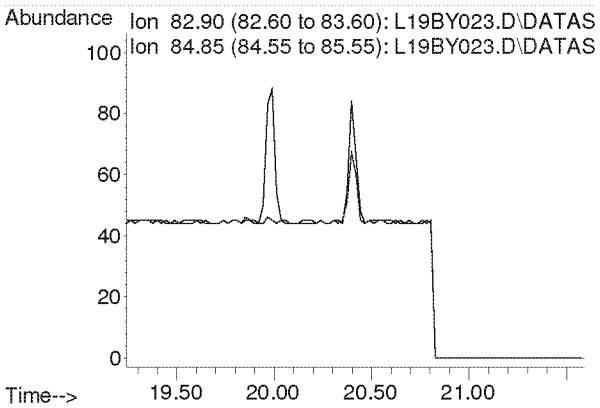


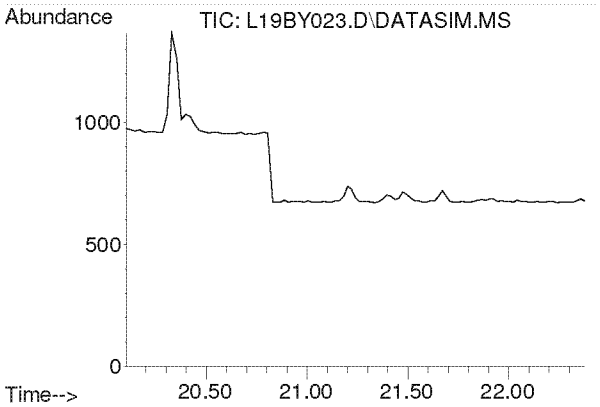
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



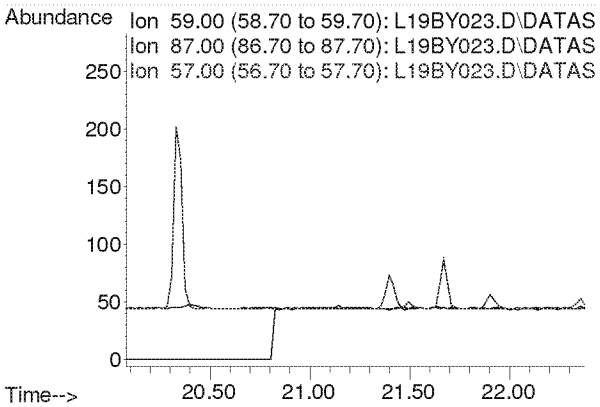


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

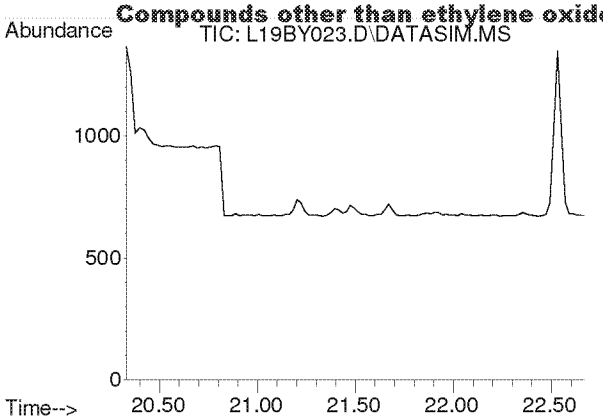
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

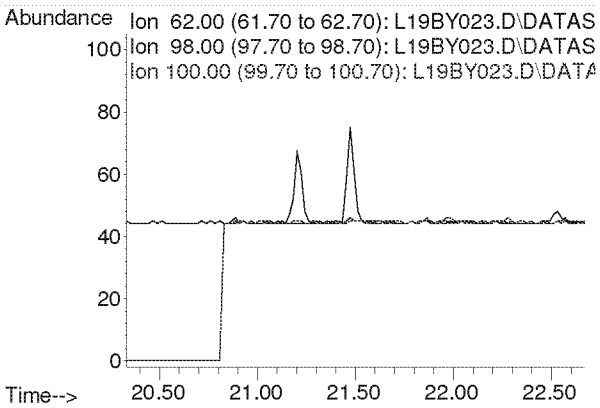


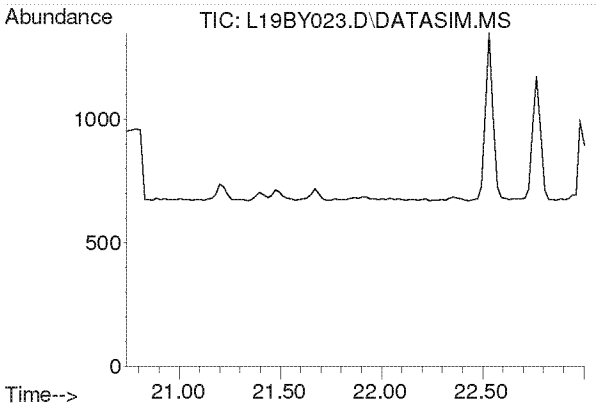
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



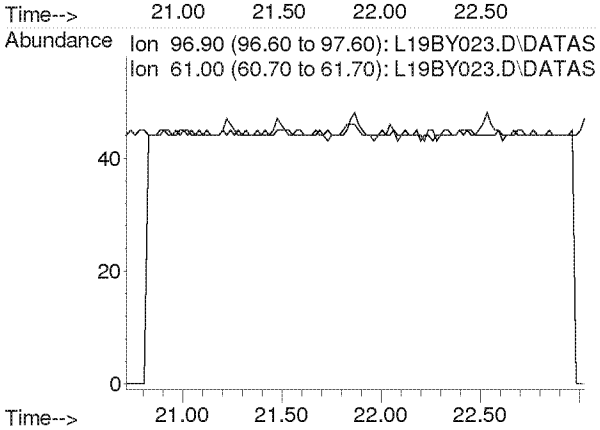


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

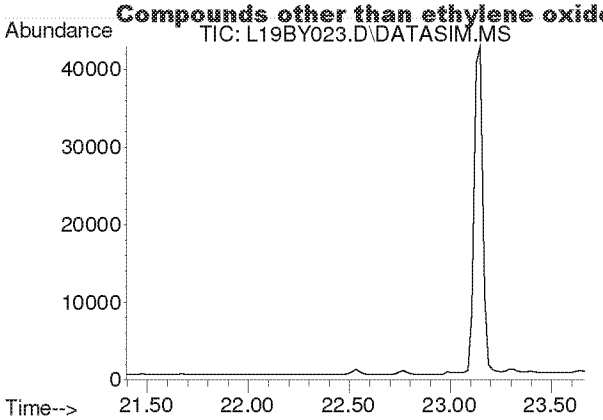
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

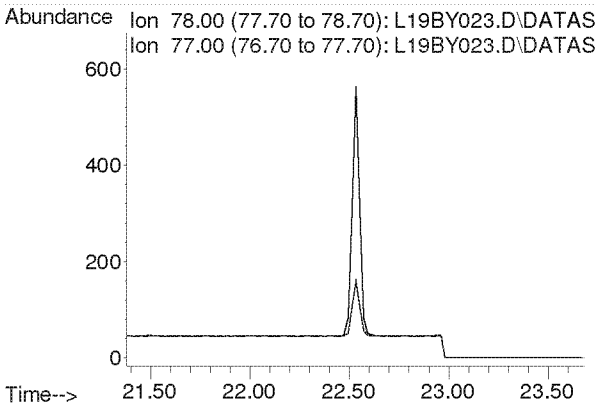


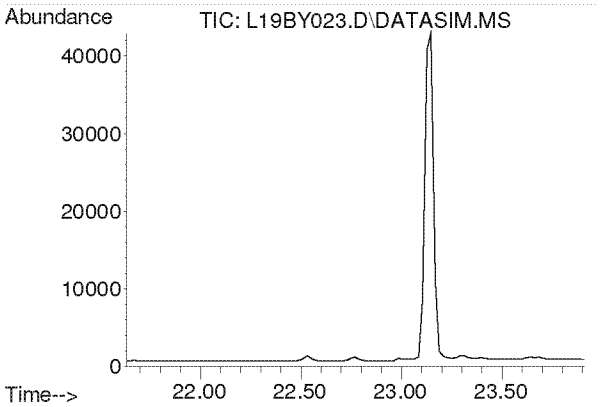
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



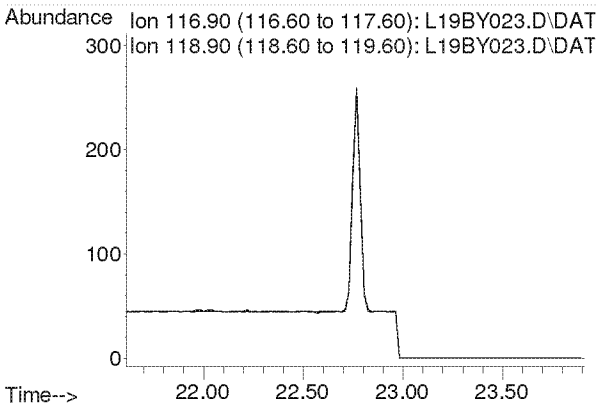


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

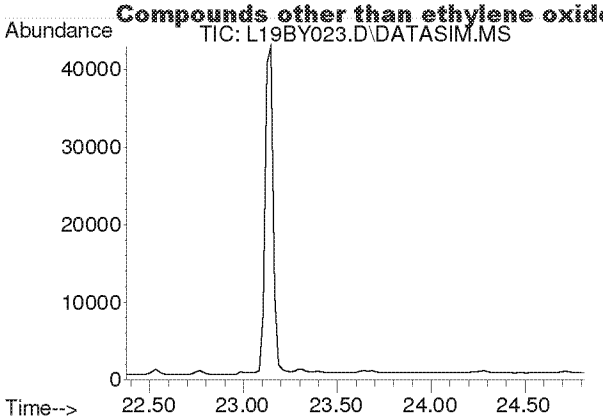
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

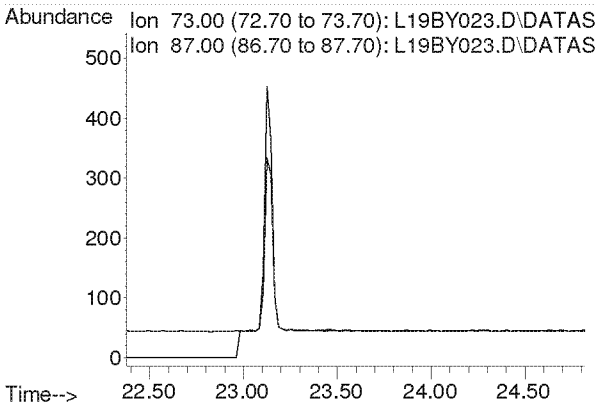


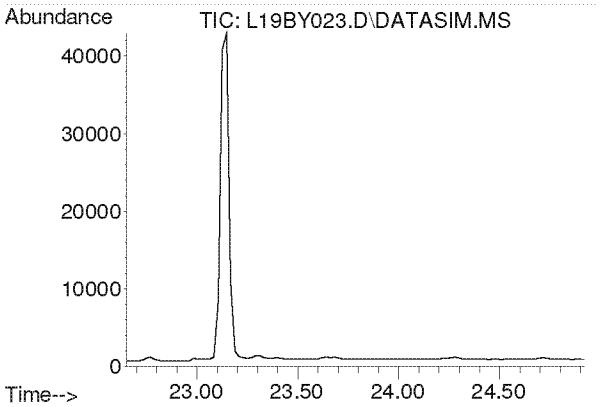
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



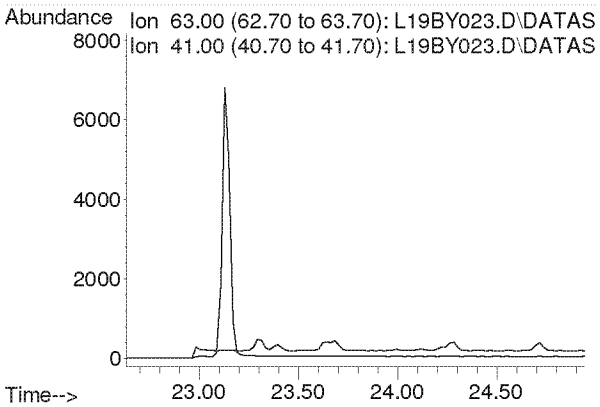


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

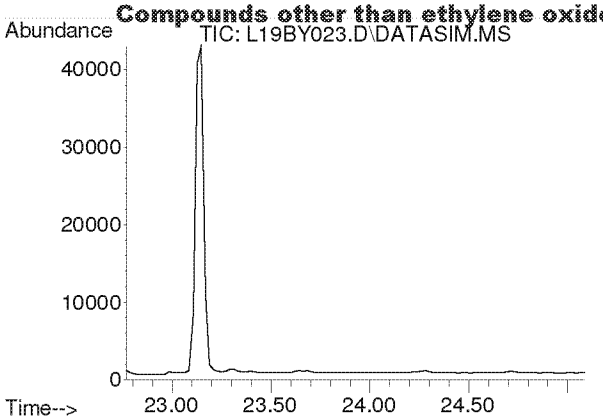
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

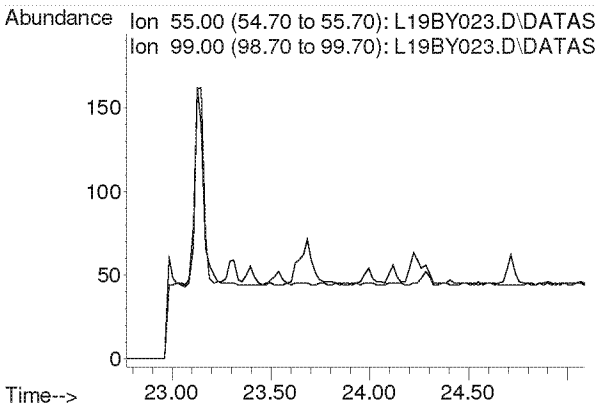


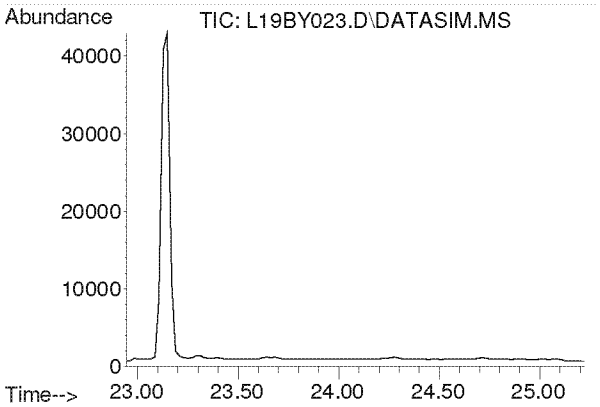
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



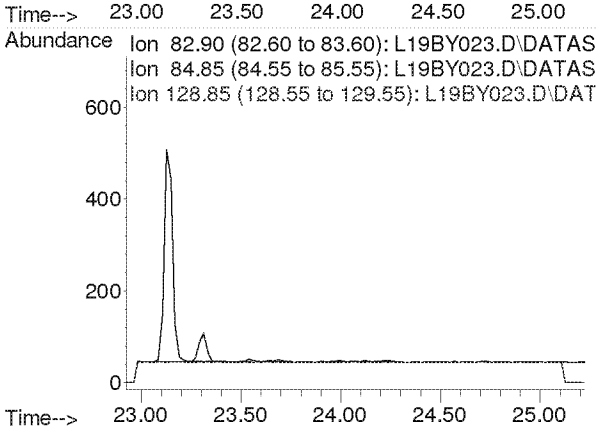


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

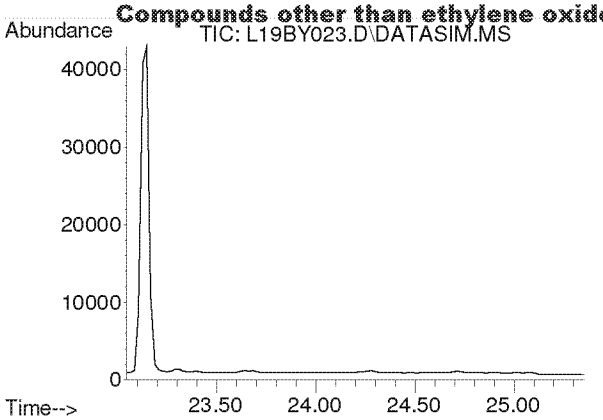
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

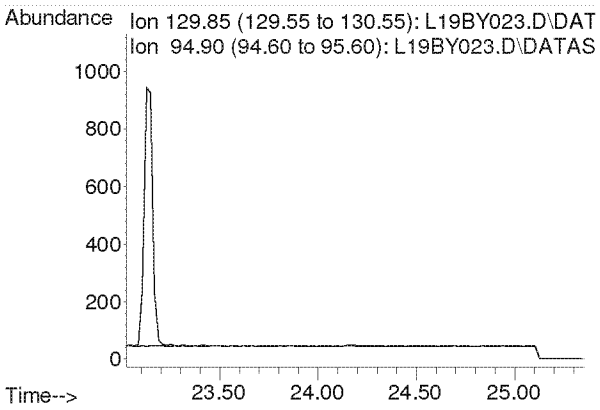


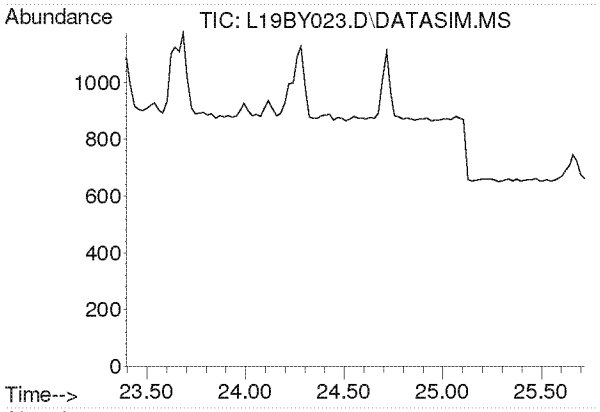
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



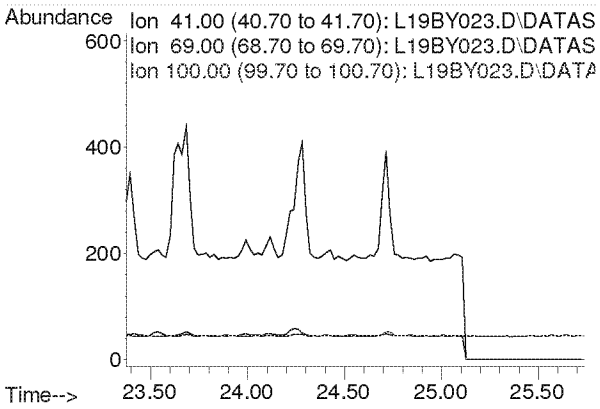


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

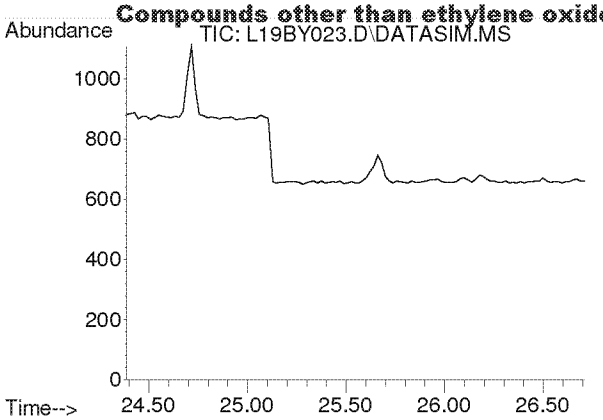
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

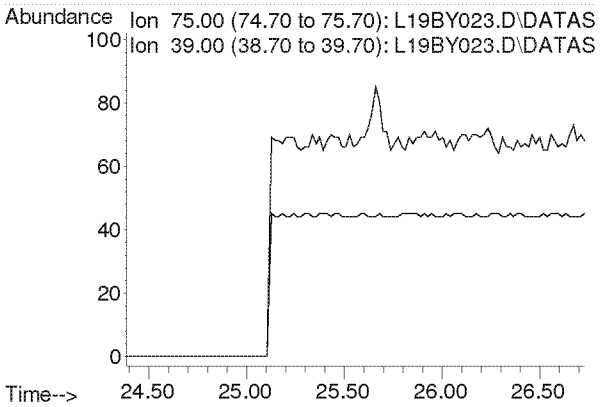


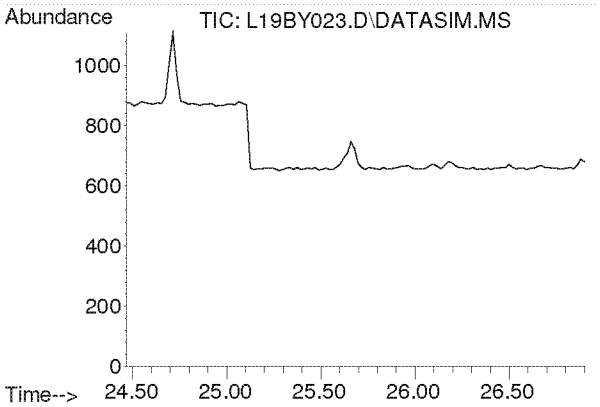
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



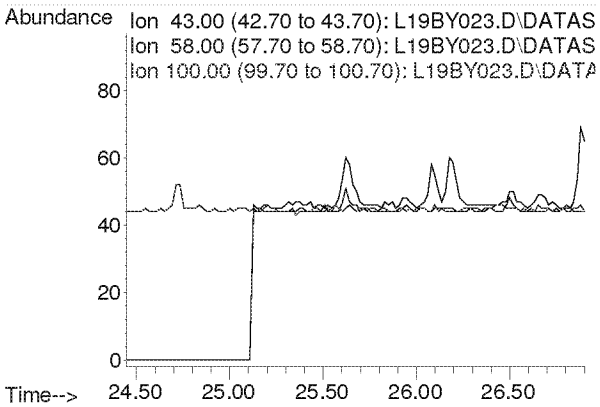


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

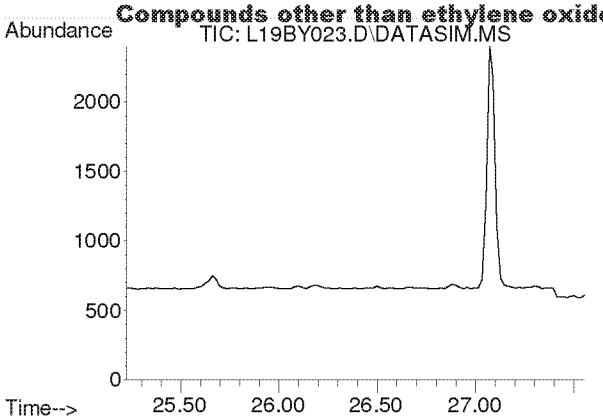
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

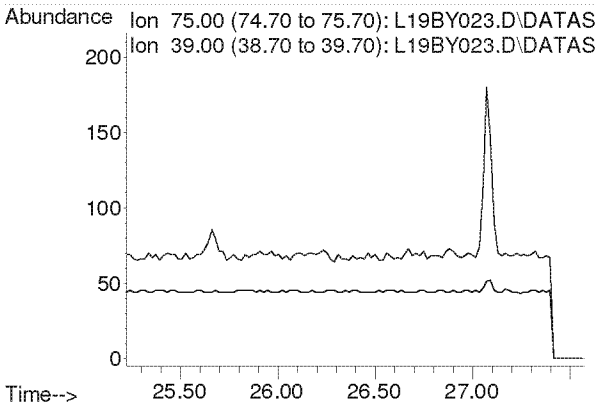


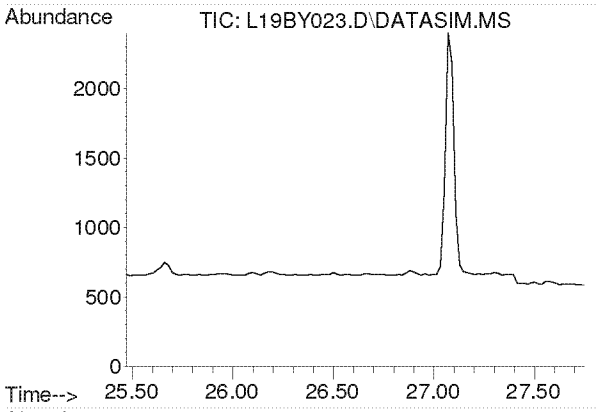
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



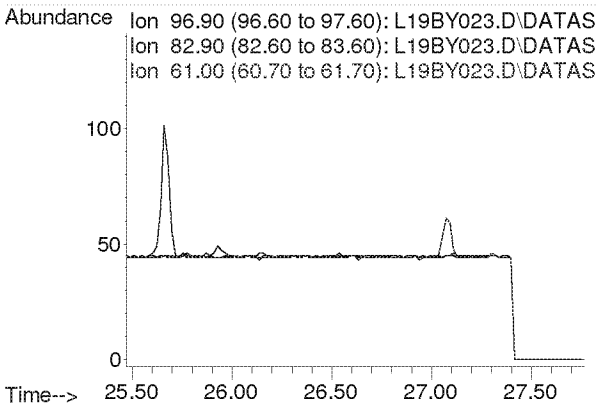


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

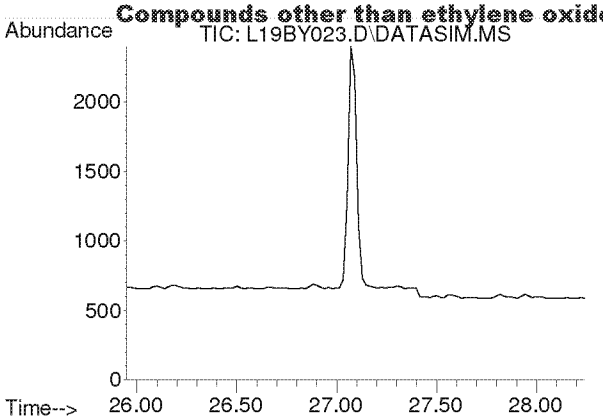
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

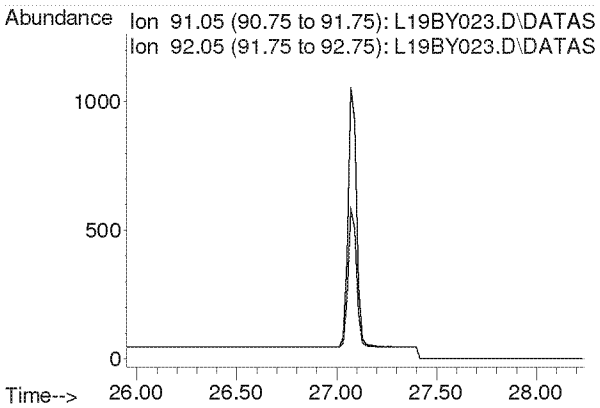


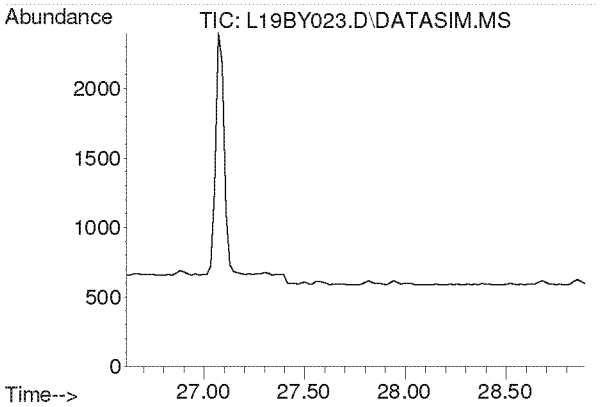
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



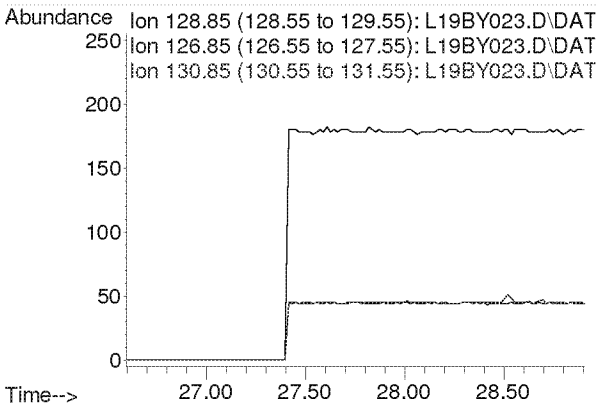


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

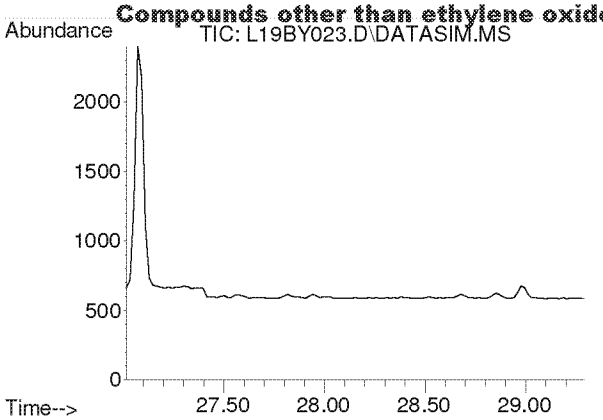
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

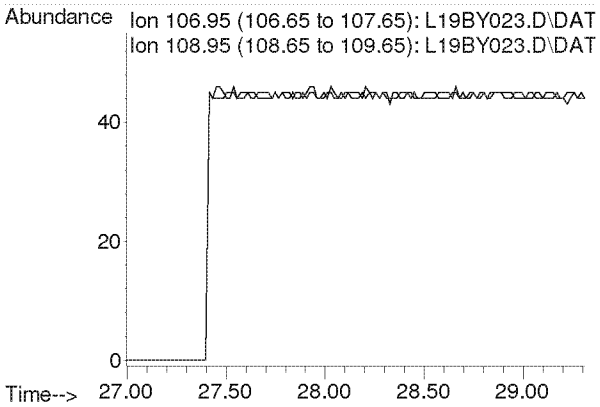


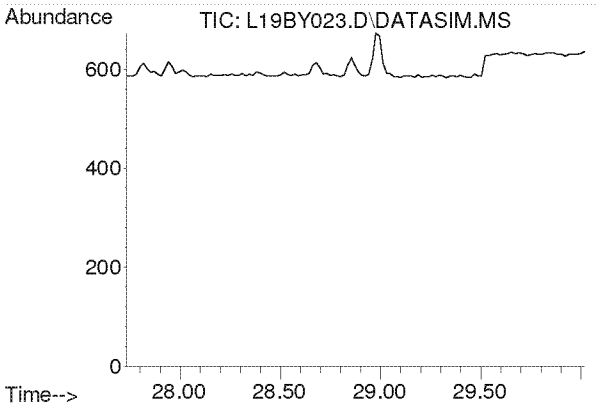
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



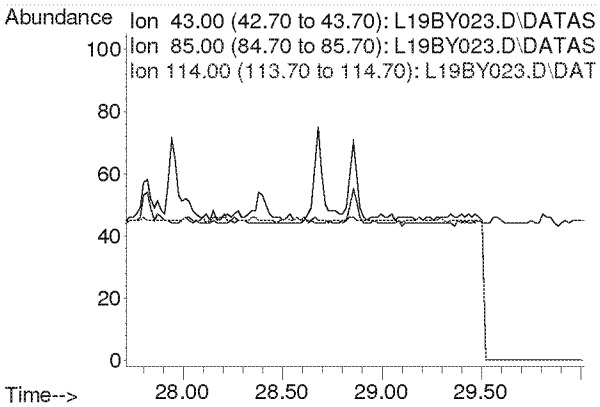


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

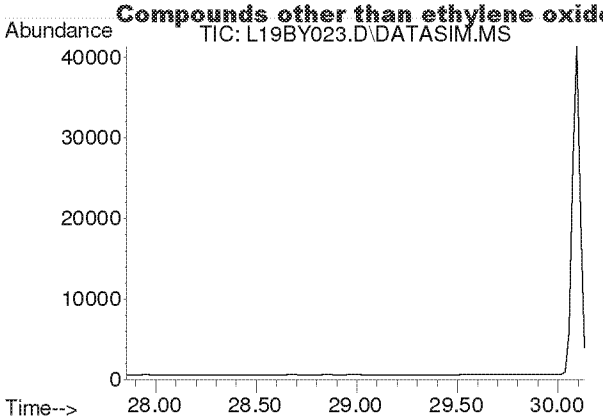
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

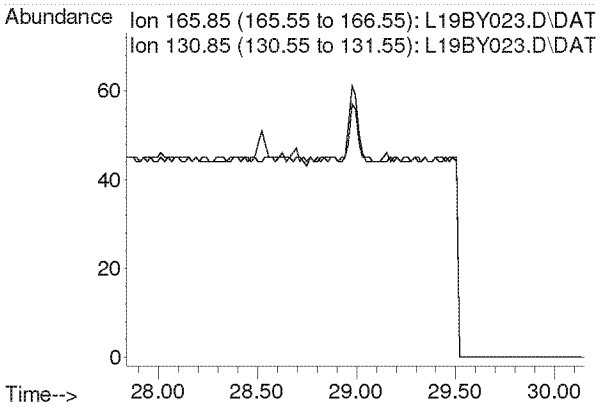


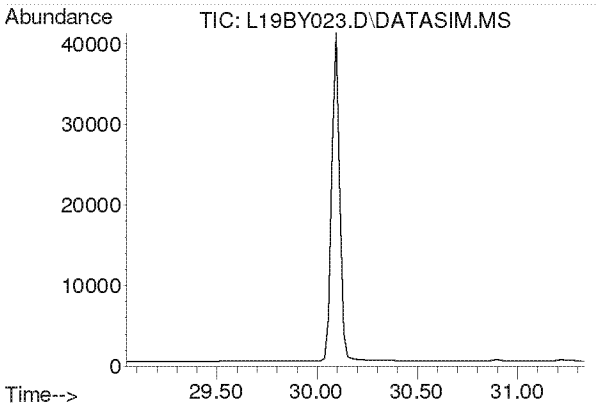
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



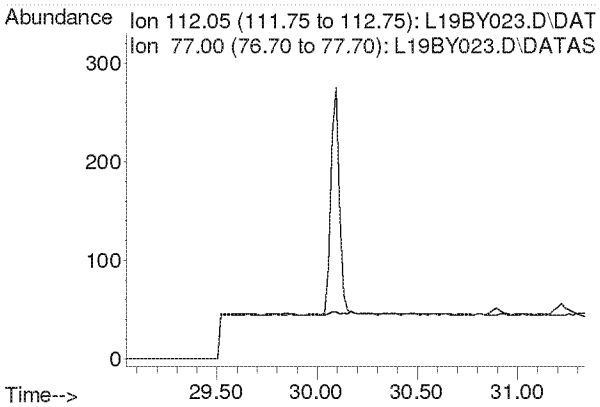


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

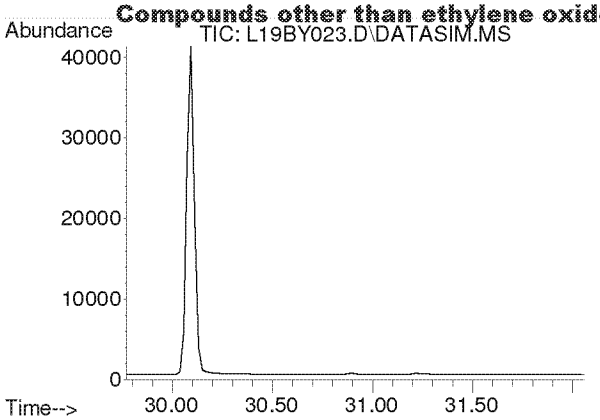
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

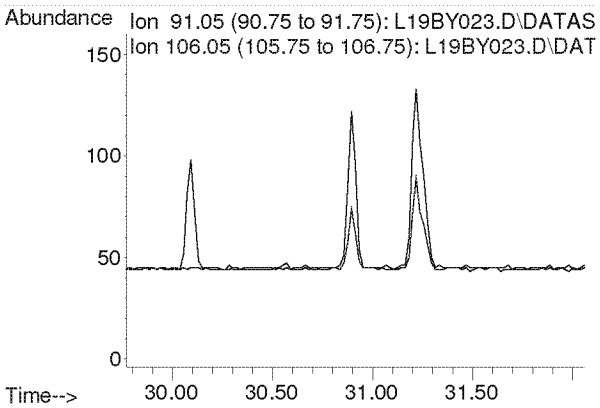


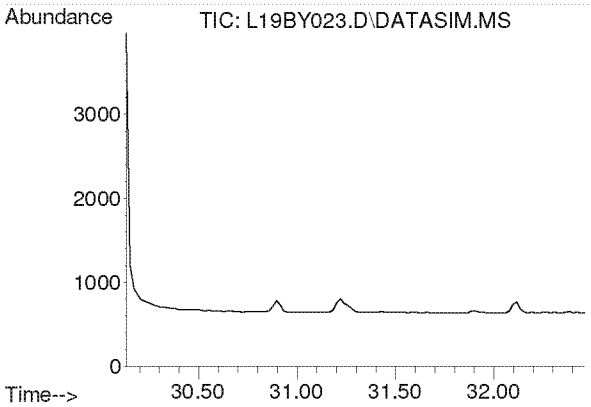
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



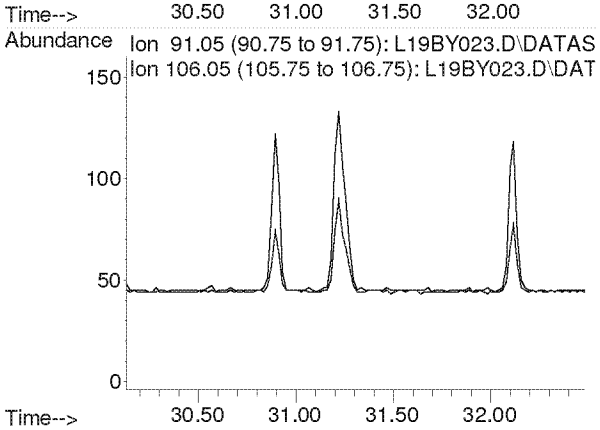


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

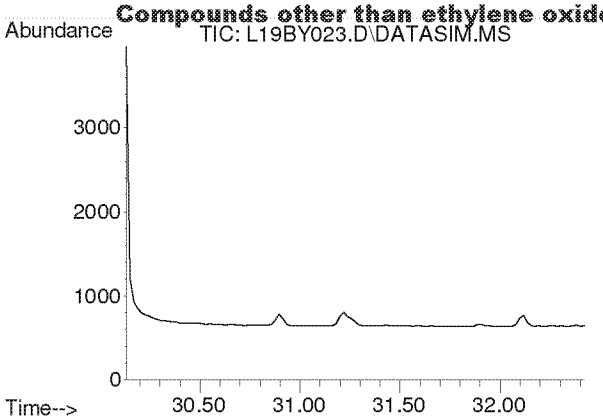
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

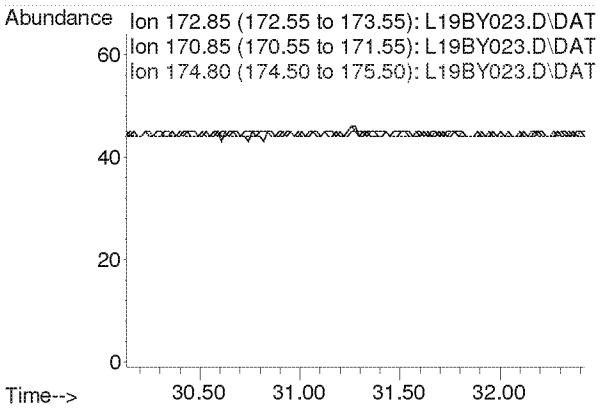


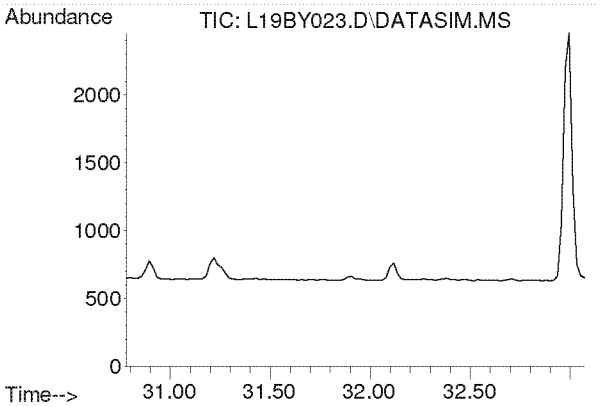
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



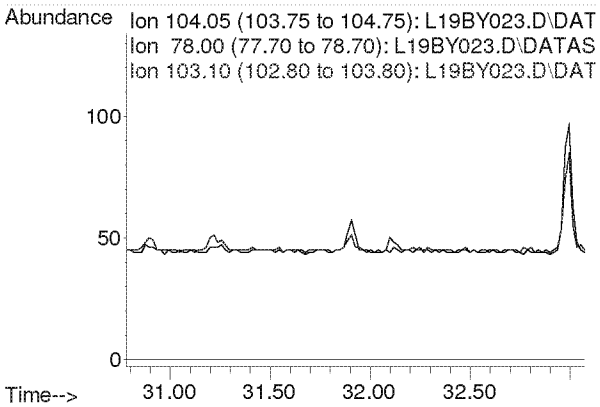


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

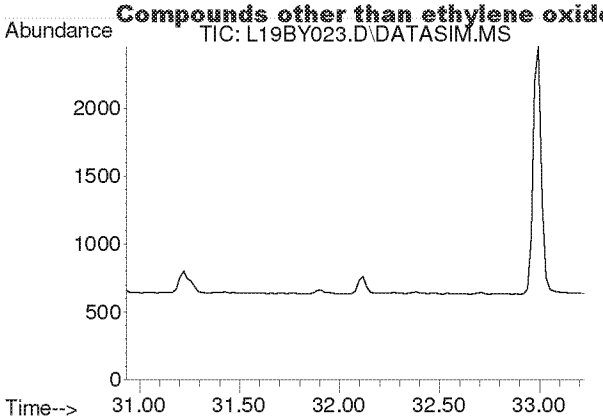
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

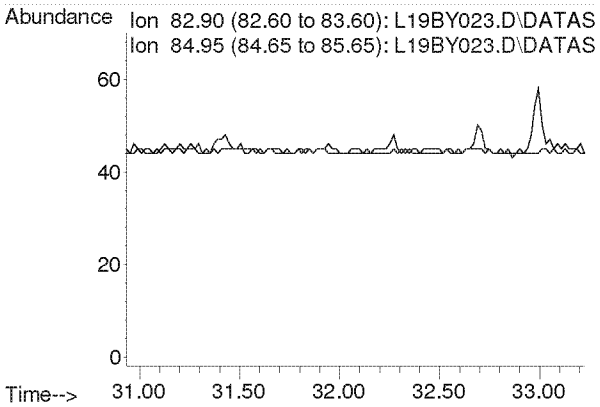


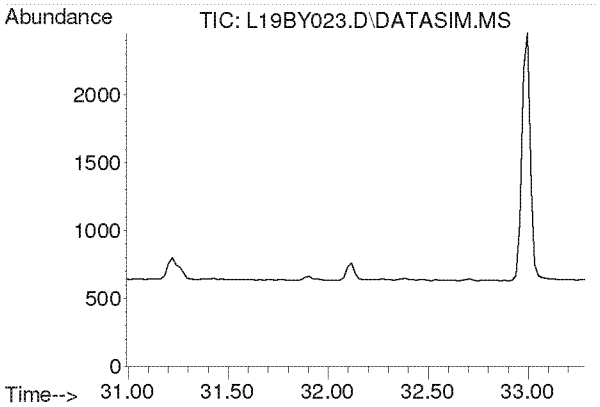
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



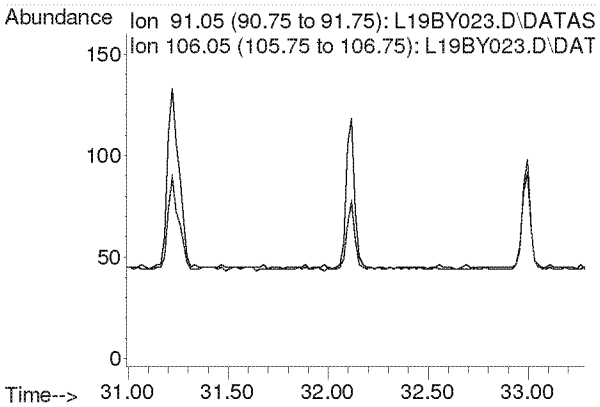


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

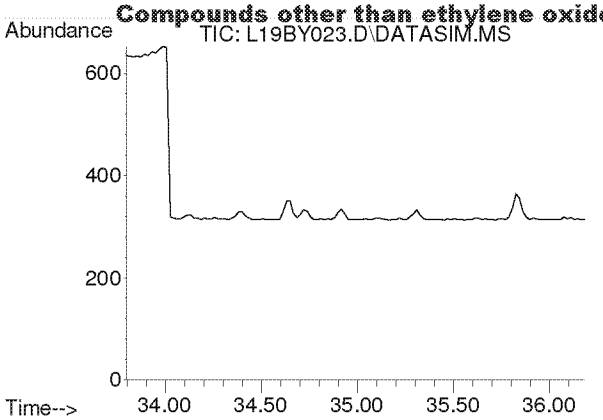
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

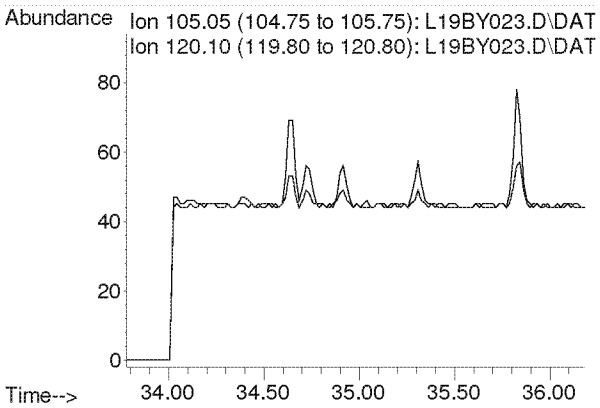


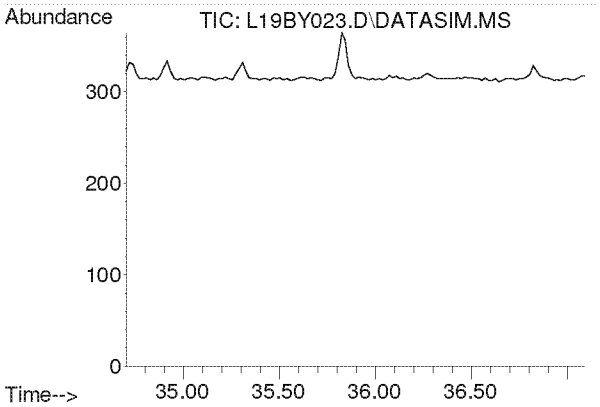
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



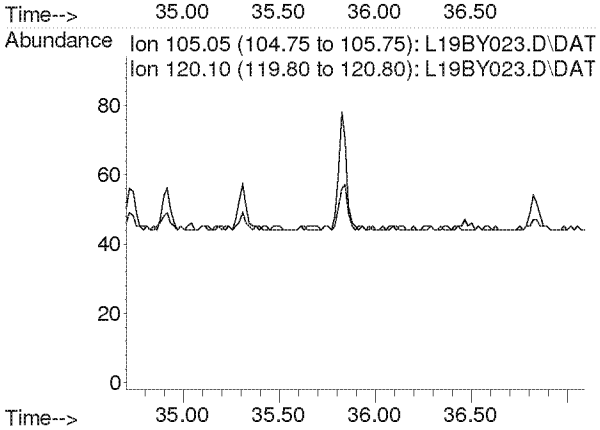


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

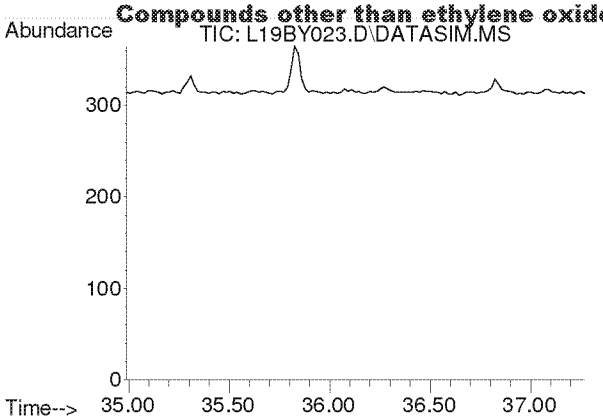
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

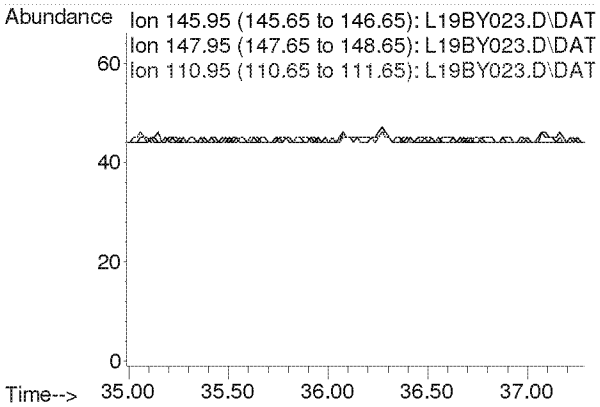


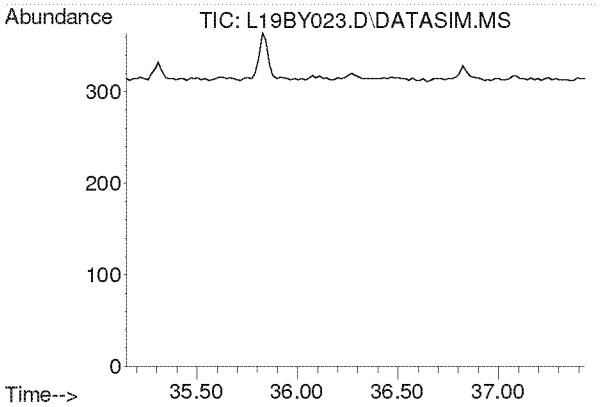
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



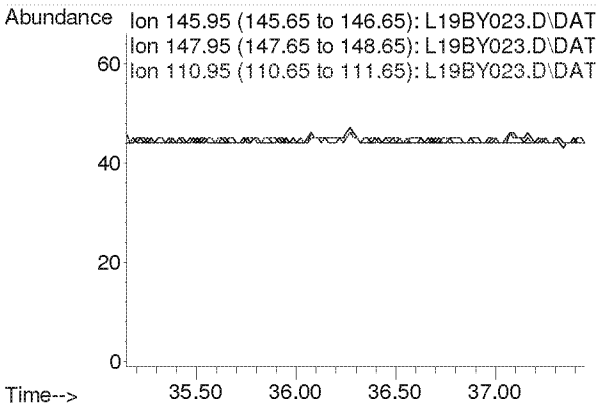


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

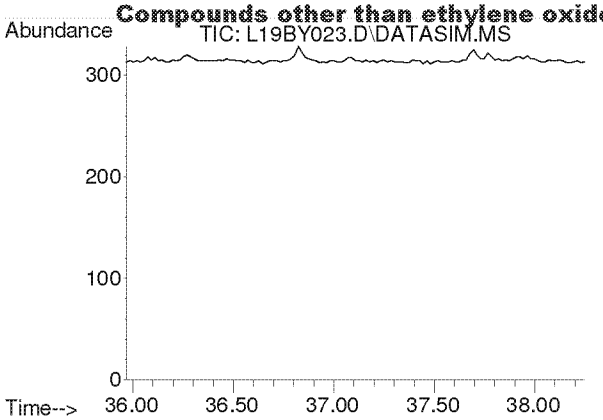
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

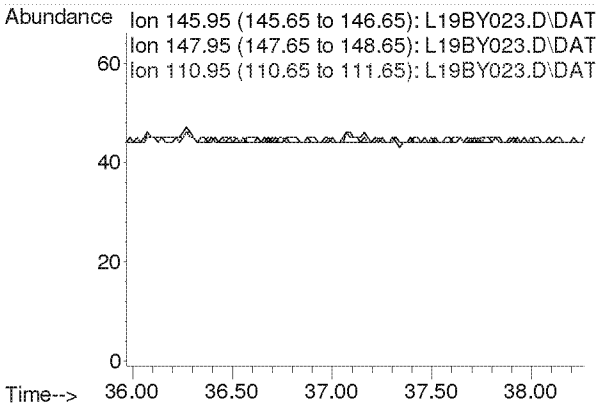


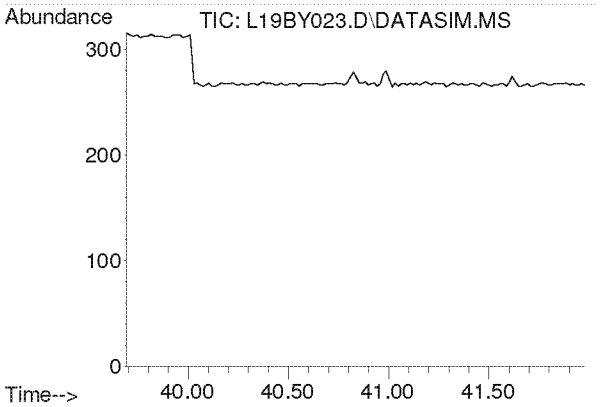
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



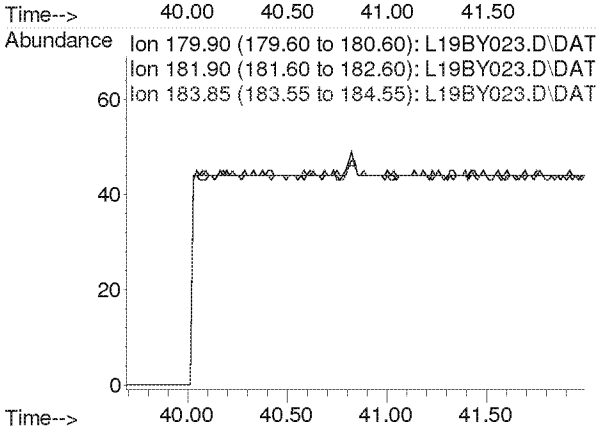


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

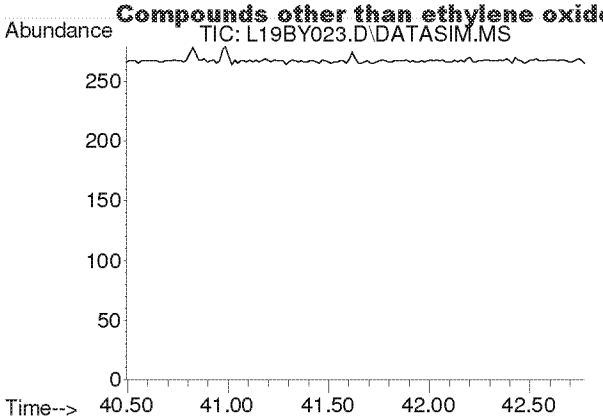
Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

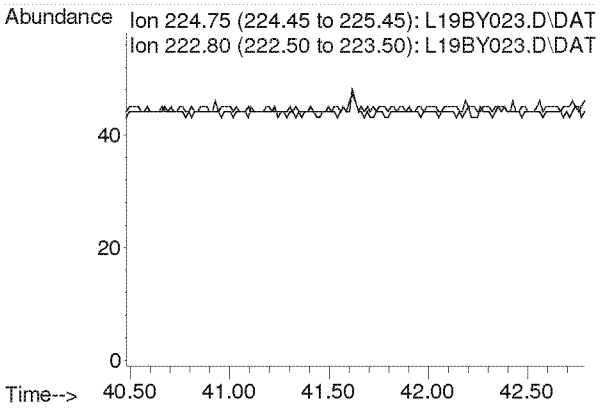


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19BY023.D
Acq: 26 Feb 2019 5:31 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9B2507

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **Printed: 2/25/2019 1:58:14PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9022202-01 *TO-15 2019*	02/20/19 09:55	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-02 *TO-15 2019*	02/20/19 09:23	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-03 *TO-15 2019*	02/20/19 09:23	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-04 *TO-15 2019*	02/20/19 10:26	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-05 *TO-15 2019*	02/20/19 10:10	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-06 *TO-15 2019*	02/20/19 10:40	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-07 *TO-15 2019*	02/20/19 10:53	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-08 *TO-15 2019*	02/20/19 09:37	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-09 *TO-15 2019*	02/20/19 11:06	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-10 *TO-15 2019*	02/20/19 00:00	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-11 *TO-15 2019*	02/21/19 10:09	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-12 *TO-15 2019*	02/21/19 10:26	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-13 *TO-15 2019*	02/21/19 10:21	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9022202-14 *TO-15 2019*	02/21/19 10:30	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only

Spiking Witnessed By: Date | Preparation Reviewed By: 2-27-19 Date | Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET PREPARATION BENCH SHEET PREPA

B9B2507

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **'rinted: 2/25/2019 1:58:14PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9022202-15 *TO-15 2019*	02/21/19 10:15	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022202-16 *TO-15 2019*	02/21/19 11:35	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022202-17 *TO-15 2019*	02/21/19 10:03	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
B9B2507-BLK1	02/21/19 08:00	250	250				b-h2-569	
B9B2507-DUP1	02/20/19 09:23	250	250		9022202-02			
B9B2507-DUP2	02/20/19 09:23	250	250		9022202-03			

Spiking Witnessed By Date Preparation Reviewed By Date Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 902 2202-01

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower MS

Canister Number: 5034

City/State: Birr Ridge, IL

Lab Initial Can. Press. ("Hg): 29.9

AQS Code:

Cleaning Batch # : H1-552

Collection Date: 2/19/19

Date Can. Cleaned: 1/31/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 2/11/19

Field Setup

Received by: C. Cummings

Date: 2/19/19

Operator: C. Cummings

MFC Setting:

System #: 10311

Elapsed Timer Reset (Y/N):

Setup Date: 2/19/19

Canister Valve Opened (Y/N): Y @ 10:05

Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/20/19

Sample Duration (3 or 24 hr): 24H

Operator: Fuzo / DIVITA / Cummings

Elapsed Time:

Field Final Can. Press.: -7.2 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 9:55

Relinquished by: Fuzo

Date: 02/20/19

Lab Recovery

Received by: KB

Date: 2/22/19

Lab Final Can. Press.: 4.50 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -30 inHg @ 10:00, -29.5" Hg @ 10:05

Field Setup: -30"

WS

LEC

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 # 9022202-02

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: KB Village Hall Replacement
Canister Number: 5114
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.9
AQS Code:
Cleaning Batch # : H1-552
Collection Date: 2/19/19
Date Can. Cleaned: 1/31/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): y
TOXICS (Y/N): y
Duplicate Can # : A22329
METHANE (Y/N):
Relinquished by: RMB
Date: 2/11/19

Field Setup

Received by: C. Cummings
Date: 2/19/19
Operator: C. Cummings
MFC Setting:
System #: 0313
Elapsed Timer Reset (Y/N):
Setup Date: 2/19/19
Canister Valve Opened (Y/N): y @ 09:53
Field Initial Can. Press.: -29.8" psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/20/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings, S. Dola, M. Fowler
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): y @ 09:23
Relinquished by: C. Cummings
Date: 2/20/19

Lab Recovery

Received by: KB
Date: 2/22/19
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: Lab Check: -29.8"Hg @ 09:45, -29.0"Hg @ 09:53
Field Setup: 22°F Leak in original canister for this site (5096) canister replaced with 5114. Rambal on canister already onsite, tech came and replaced w/ new canister ~ 09:45
Field Recovery: 31°F, 2 Rambal canisters set up, 1 Village contractor tripod set up

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

MR

Compounds other than ethylene oxide were not quantitated.

3

ERG Lab ID # 9022202-03

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WB Village Hall Duplicate
Canister Number: A22329
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.9
AQS Code:
Cleaning Batch # : H1-552
Collection Date: 2/19/19
Date Can. Cleaned: 1/31/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): y
TOXICS (Y/N): y
Duplicate Can # : 5096 cc 2/19/19 canister voided new duplicate 5114
METHANE (Y/N):
Relinquished by: RMB
Date: 2/11/19

Field Setup

Received by: C. Cummings
Date: 2/19/19
Operator: C. Cummings & S Hamilton
MFC Setting:
System #: 10315
Elapsed Timer Reset (Y/N):
Setup Date: 2/19/19
Canister Valve Opened (Y/N): y @ 09:44
Field Initial Can. Press.: -29.8 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/20/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings, A Fowler, S. Dunn
Elapsed Time:
Field Final Can. Press.: -6.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): y @ 09:23
Relinquished by: Anne Cummings
Date: 2/20/19

Lab Recovery

Received by: KB
Date: 2/22/19
Lab Final Can. Press.: 5.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -28.0"Hg @ 09:39 → -28.0"Hg @ 09:44
Field Setup: 22°F, Rambled canister already setup at site when we arrived.
Field Recovery: 31°F sleet, 2 Rambled canisters setup, 1 village contractor canister setup

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 902 2202 CX1

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WB Road Park (New) — Canister Number: 555

City/State: Williamstown, KY — Lab Initial Can. Press. ("Hg): 29.9

AQS Code: — Cleaning Batch # : H1-552

Collection Date: 2/19/19 — Date Can. Cleaned: 1/31/19

Options:

SNMOC (Y/N): — Duplicate Event (Y/N): N

TOXICS (Y/N): Y — Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB — Date: 2/11/19

Field Setup

Received by: C. Cummings — Date: 2/19/19

Operator: C. Cummings — MFC Setting:

System #: 10294 — Elapsed Timer Reset (Y/N):

Setup Date: 2/19/19 — Canister Valve Opened (Y/N): Y @ 10:27

Field Initial Can. Press.: -29.8 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/20/19 — Sample Duration (3 or 24 hr): 24

Operator: C. Cummings/Ewalt — Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: **VALID** **VOID** (Circle one) — Canister Valve Closed (Y/N): Y @ 10:28

Relinquished by: C. Cummings — Date: 2/20/19

Lab Recovery

Received by: KB — Date: 2/22/19

Lab Final Can. Press.: 4.50 psig "Hg (Circle one) — Converted to psia:

Status: **VALID** **VOID** (Circle one) — Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -29.8" Hg @ 10:22am, -29.8" Hg @ 10:27am
Field Set up: 22°F
Field Recovery: 31°F sleet.

White: Sample Traveler — Canary: Lab Copy — Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

5

ERG Lab ID # 902 2202-05

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Water Tower
Canister Number: SAT161
City/State: Williamsburg, KY
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H2-558
Collection Date: 2/19/19
Date Can. Cleaned: 2/7/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 2/14/19

Field Setup

Received by: C. Cummings
Date: 2/19/19
Operator: C. Cummings
MFC Setting:
System #: 10312
Elapsed Timer Reset (Y/N):
Setup Date: 2/19/19
Canister Valve Opened (Y/N): Y @ 10:16
Field Initial Can. Press.: -29.8 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/20/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings, [illegible]
Elapsed Time:
Field Final Can. Press.: -4.5 psig psia "Hg (Circle one)
Status: **VALID** **VOID** (Circle one)
Canister Valve Closed (Y/N): Y @ 10:10
Relinquished by: C. Cummings
Date: 2/20/19

Lab Recovery

Received by: KB
Date: 2/22/19
Lab Final Can. Press.: 3.00 psig "Hg (Circle one)
Converted to psia:
Status: **VALID** **VOID** (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -30 @ 10:10, -29.8 @ 10:15
Field Setup: 22°F, sampling contractor logged at site
Field Recovery: [illegible]

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

6

ERG Eastern Research Group, Inc.

ERG Lab ID # 902 2202 06

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Hinsdale South High Schl.

Canister Number: SATC47

City/State: Darien, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code:

Cleaning Batch # : H2-558

Collection Date: 2/19/19

Date Can. Cleaned: 2/7/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N):

TOXICS (Y/N): y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 2/14/19

Field Setup

Received by: C. Cummings

Date: 2/19/19

Operator: C. Cummings

MFC Setting:

System #: 10076

Elapsed Timer Reset (Y/N):

Setup Date: 2/19/19

Canister Valve Opened (Y/N): y @ 10:37

Field Initial Can. Press : -29.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/20/19

Sample Duration (3 or 24 hr): 24

Operator: C. Cummings

Elapsed Time:

Field Final Can. Press.: -6 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): 10:40

Relinquished by: C. Cummings

Date: 2/20/19

Lab Recovery

Received by: RB

Date: 2/22/19

Lab Final Can. Press.: 5.50 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -29.1"Hg @ ~~10:32~~ 10:22 2/19/19 → -29.0"Hg @ ~~Hg~~ 10:37 2/19/19 (Canister Date)

Field Setup: 22°F, Question for driver about what we were doing (944-9841)

Field Recovery: 5°F sleet.

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

7

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 902220-07

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Power ES

Canister Number: A21022

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.9

AQS Code:

Cleaning Batch # : H1-552

Collection Date: 2/19/19

Date Can. Cleaned: 1/31/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 2/11/19

Field Setup

Received by: C. Cummings

Date: 2/19/19

Operator: C. Cummings

MFC Setting:

System #: 16293

Elapsed Timer Reset (Y/N):

Setup Date: 2/19/19

Canister Valve Opened (Y/N): Y @ 10:48

Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/20/19

Sample Duration (3 or 24 hr): 24

Operator: Cummings

Elapsed Time:

Field Final Can. Press.: -4 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 10:53 AM

Relinquished by: C Cummings

Date: 2/20/19

Lab Recovery

Received by: KB

Date: 2/22/19

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 -28.5 @ 10:42, -28.5 @ 10:47 am "Hg

Field Setup: 22 °F, empty contractor trip.

Field Recovery: 34 °F, sleet, contractor canister setup at site.

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 # 902 2202-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA WB Warehouse

Canister Number: 5063

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.9

AQS Code:

Cleaning Batch # : H1-553

Collection Date: 2/19/19

Date Can. Cleaned: 1/31/19

Options:

SNMOC (Y/N): ~~y~~ CEC

Duplicate Event (Y/N): N

TOXICS (Y/N): y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 2/11/19

Field Setup

Received by: C. Cummings

Date: 2/19/19

Operator: C. Cummings

MFC Setting:

System #: 10314

Elapsed Timer Reset (Y/N):

Setup Date: 2/19/19

Canister Valve Opened (Y/N): y @ 07:35

Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/20/19

Sample Duration (3 or 24 hr): 24

Operator: C. Cummings, S. Dunta, M. Fa

Elapsed Time:

Field Final Can. Press.: -6.1 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): y @ 09:37

Relinquished by: C. Cummings

Date: 2/20/19

Lab Recovery

Received by: KB

Date: 2/22/19

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: -30" Hg @ 09:30, -29" Hg @ 09:35

Field Setup: 22°F, [illegible] at leak check, [illegible] at 07:35

4 Contractor tripods set setup to run at time of our deployment

Field Recovery: 31°F, Sleet. 1 Rambal canister set up.

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 # 9022202-09

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: West Neighborhood

Canister Number: 5050

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.9

AQS Code:

Cleaning Batch # : H1-553

Collection Date: 2/19/19

Date Can. Cleaned: 1/31/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 2/11/19

Field Setup

Received by: C. Cummings

Date: 2/19/19

Operator: C. Cummings

MFC Setting:

System #: 1C10

Elapsed Timer Reset (Y/N):

Setup Date: 2/19/19

Canister Valve Opened (Y/N): yes 10:57

Field Initial Can. Press.: -28.9 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/20/19

Sample Duration (3 or 24 hr): 24

Operator: Cummings/Kuepper

Elapsed Time:

Field Final Can. Press.: -4.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): yes 10:20

Relinquished by: C. Cummings

Date: 2/20/19

Lab Recovery

Received by: KB

Date: 2/22/19

Lab Final Can. Press.: 4.00 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check = -24" Hg @ 10:52, -28.9" Hg @ 10:57

Field Setup: 22°F

Field Recovery: 31°F start

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

12

ERG Lab ID # 9022202-11

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: Gower EMS 2/20/19 — Canister Number: A21039
City/State: Burr Ridge, IL — Lab Initial Can. Press. ("Hg): 29.8
AQS Code: — Cleaning Batch # : H1-558
Collection Date: 2/20/19 — Date Can. Cleaned: 2/7/19
Options:
SNMOC (Y/N): — Duplicate Event (Y/N): N
TOXICS (Y/N): Y — Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB — Date: 2/14/19

Field Setup

Received by: C Cummings — Date: 2/20/19
Operator: C Cummings, S Shute, M Force — MFC Setting:
System #: 10311 — Elapsed Timer Reset (Y/N):
Setup Date: 2/20/19 — Canister Valve Opened (Y/N): Y @ 1004
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/21/19 — Sample Duration (3 or 24 hr): 24 H
Operator: NWIA — Elapsed Time: —
Field Final Can. Press.: -6.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one) — Canister Valve Closed (Y/N): Y @ 10:09am
Relinquished by: NWIA — Date: 2/21/19

Lab Recovery

Received by: KB — Date: 2/22/19
Lab Final Can. Press.: 4.00 psig "Hg (Circle one) — Converted to psia:
Status: VALID VOID (Circle one) — Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -30" Hg @ 09:59, -29.8 10:04 am
Field Setup: 31°F Sleet. Contractor canister set out at site
Air temp @ collection = 30°F

White: Sample Traveler — Canary: Lab Copy — Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 902 2202-12

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: Grace-ES
Canister Number: SAT166
City/State: [illegible], IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H2-558
Collection Date: 2/20/19
Date Can. Cleaned: 2/7/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 2/14/19

Field Setup

Received by: [illegible]
Date: 2/20/19
Operator: [illegible]
MFC Setting:
System #: 10293
Elapsed Timer Reset (Y/N):
Setup Date: 2/20/19
Canister Valve Opened (Y/N): [illegible]
Field Initial Can. Press.: -28 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/21/19
Sample Duration (3 or 24 hr): 24H
Operator: [illegible]
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y 10:26 AM
Relinquished by: [illegible]
Date:

Lab Recovery

Received by: KB
Date: 2/22/19
Lab Final Can. Press.: 4.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -27.9 @ 10:57 → -27.9 @ 1:02 pm
Field Setup: 31°F - Wind, 1 Contractor travel Setup at site
[illegible] Temp [illegible]°F
[illegible] 2/21/19

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 902 2202-13

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: HINSDALE SOUTH HS
Canister Number: A21044
City/State: CLARENDON HILLS IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H1-560
Collection Date: 02/20/19 - 02/21/19
Date Can. Cleaned: 2/11/19
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: RMB
Date: 2/14/19

Field Setup

Received by: [illegible]
Date: 02/20/19
Operator: [illegible]/DIVITA
MFC Setting: —
System #: [illegible]
Elapsed Timer Reset (Y/N): —
Setup Date: 02/20/19
Canister Valve Opened (Y/N): Y
Field Initial Can. Press.: [illegible] psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/21/19
Sample Duration (3 or 24 hr): 24
Operator: NWIA
Elapsed Time: —
Field Final Can. Press.: [illegible] psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y
Relinquished by: NWIA
Date: 2/21/19

Lab Recovery

Received by: KB
Date: 2/22/19
Lab Final Can. Press.: 5.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check 28.4 "Hg @ 10:41 10:43am [illegible]
Field Setup 31°F [illegible]
Field Recovery temp = 30°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

13

ERG Eastern Research Group, Inc.

ERG Lab ID # 9022202-14

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WEST NEIGHBORHOOD

Canister Number: 18873

City/State: MILWAUKEE, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code:

Cleaning Batch # : H1-560

Collection Date: 02/20/19 - 02/21/19

Date Can. Cleaned: 2/11/19

Options:

SNMOC (Y/N): —

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # : —

METHANE (Y/N): —

Relinquished by: RMB

Date: 2/14/19

Field Setup

Received by: JLOZ

Date: 02/20/19

Operator: JLOZ/DIVITA

MFC Setting:

System #: 1031C

Elapsed Timer Reset (Y/N):

Setup Date: 02/20/19

Canister Valve Opened (Y/N): Y(@

Field Initial Can. Press.: —5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/21/19

Sample Duration (3 or 24 hr): 24 H

Operator: NWH

Elapsed Time: —

Field Final Can. Press.: —5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y@10:30 AM

Relinquished by: NWH

Date: 2/21/19

Lab Recovery

Received by: KB

Date: 2/22/19

Lab Final Can. Press.: 4.00 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: 02/20/19 - Temp. 31°F - 28.0 @ 11:19 am
Leak check - 28.8 "Hg @ 11:09 AM
Ambient Temp @ collection = 30°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

14

ERG Lab ID # 9022202-15

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: BOND PARK
Canister Number: SAT096
City/State: WILLOWBROOK IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H1-560
Collection Date: 02/20/19 - 02/21/19
Date Can. Cleaned: 2/11/19
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N): —
Relinquished by: RMB
Date: 2/14/19

Field Setup

Received by: [illegible]
Date: 02/20/19
Operator: [illegible]/DWITA
MFC Setting:
System #: 10299
Elapsed Timer Reset (Y/N):
Setup Date: 02/20/19
Canister Valve Opened (Y/N): Y @ 1033 am
Field Initial Can. Press.: -9 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/21/19
Sample Duration (3 or 24 hr): 24 hr
Operator: NWIA
Elapsed Time:
Field Final Can. Press.: -6 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:10 am
Relinquished by: NWIA
Date: 2/21/19

Lab Recovery

Received by: KB
Date: 2/22/19
Lab Final Can. Press.: 5.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: 02/20/19: Temp: 31°F
Leak Check: -28.9 @ 10:28 am
Ambient temp @ collection = 30°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 902 2202-16

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: Waterfront
Canister Number: 5015
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code:
Cleaning Batch # : H1-558
Collection Date: 2/20/19
Date Can. Cleaned: 2/7/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 2/13/19

Field Setup

Received by: C. Cummings
Date: 2/20/19
Operator: Cummings/Fowler/Beck
MFC Setting:
System #: 10312
Elapsed Timer Reset (Y/N):
Setup Date: 2/20/19
Canister Valve Opened (Y/N): Y @ 11:45 am
Field Initial Can. Press.: -28.5 "Hg psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/21/19
Sample Duration (3 or 24 hr): 24 hr
Operator: NWIA
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 1135 am
Relinquished by: [illegible]
Date: 02/21/19

Lab Recovery

Received by: KB
Date: 2/22/19
Lab Final Can. Press.: 4.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check -29" Hg @ 11:40 am → -28.5" Hg 11:45
Field setup 3/F sheet
02/21/19 Temp 30.4
02/21/19

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

16

ERG Lab ID # 9022202-17

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WB Village Hall
Canister Number: 5051
City/State: Willowbrook/IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H2-560
Collection Date: 02/20/19 - 02/21/19
Date Can. Cleaned: 2/11/19
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N): —
Relinquished by: RB
Date: 2/14/19

Field Setup

Received by: M Flores
Date: 02/20/19
Operator: M Flores
MFC Setting:
System #: RFC# 10313
Elapsed Timer Reset (Y/N):
Setup Date: 02/20
Canister Valve Opened (Y/N): Y @ 9:33 am
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/21/19
Sample Duration (3 or 24 hr):
Operator:
Elapsed Time: —
Field Final Can. Press.: -4 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:03 am
Relinquished by:
Date:

Lab Recovery

Received by: RB
Date: 2/22/19
Lab Final Can. Press.: 2.50 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 9:28 am - 29.11 Hg ; 1:32 [illegible]

2/21/19

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy