Compounds other than ethylene oxide were not quantitated.

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

Sequence ID:	L19B~, A902073	**Instrument:**	MS1	**Batch:**	A9S2705
Cal Curve (Method):	9020003	**Analyst:**	MAL	**Date Analyzed:**	2-27-19
10% Review Sample IDs:	90226116-016	**Reviewer:**	QWash	**Date:**	3/6/19
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	— 3-5-19	RMB 3/5/19	QW 3/6/19		
Initial calibration with a minimum of 5 points - quarterly	1)RSD of response factors < ±30% with two exceptions of up to ±40% (non-Tier I compounds) 2) IS response < ±40% of mean 3) RRTs for target peaks ±0.06 units from mean RRT 4) IS RTs within 20sec of mean 5) Each calibration standard within ±30% of nominal conc (for Tier I compounds)	— 3-5-19	RMB 3/5/19	QW 3/6/19		L19AL
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	— 3-5-19	RMB 3/5/19	QW 3/6/19		L19AL
Continuing calibration verification (CCV), approximately mid-point of the calibration curve -- one per analysis sequence	The response factor ≤ ±30% DEV from calibration curve average response factor	— 3-5-19	RMB 3/5/19	QW 3/6/19		2nd source
Method Blank Analysis -- one per analysis sequence	1) < 3xMDL or 0.2ppbv, whichever is lower 2) Internal Standard (IS) area response within < ±40% and IS Retention Time (RT) within ±0.33 min. of most recent initial calibration	— 3-5-19	RMB 3/5/19	QW 3/6/19		

Compounds other than ethylene oxide were not quantitated.

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

Parameter	Acceptance Criteria	Analyst Check (Initials and Date)	Task Lead/Data (Initials and Date)	10% QA Review (Initials and Date)	Optional Additional QA Review (Initials and Date)	Comments
Replicate Analysis – one per analysis sequence /Duplicate Sample	< 25% RPD for compounds greater than 5 times the MDL	3-5-19	RMB 3/5/19	QW 3/6/19		
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	3-5-19	RMB 3/5/19	QW 3/6/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	3-5-19	RMB 3/5/19	QW 3/6/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	3-5-19	RMB 3/5/19	QW 3/6/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	3-5-19	RMB 3/5/19	QW 3/6/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 3/5/19	QW 3/6/19		90226116-02, EtO $\frac{104(4.77)}{42779(0.2728)} = 0.0070$ ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	3-5-19	RMB 3/5/19	QW 3/6/19		

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

L19B~003 ethylene oxide $\frac{5423 \times 4.77}{50505 \times 0.2728} = 1.88$ ppbv

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

Instrument: ERGMS#1

Calibration ID: 9020003

1902073

Printed: 3/5/2019 1:41:52PM

Lab Number	Sample Name	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
1902073-CCV1	Calibration Check	QC		1		9B27007	8L13002	
B9B2705-BLK1	Blank	QC		2			8L13002	
9022202-18	WB Warehouse C1	TO-15 2019	A	3			8L13002	Ethylene Oxide only
9022202-19	WB Warehouse C2	TO-15 2019	A	4			8L13002	Ethylene Oxide only
B9B2705-DUP1	Duplicate	QC		5			8L13002	
B9B2705-DUP2	Duplicate	QC		6			8L13002	
9022616-01	WB Warehouse C1	TO-15 2019	A	7			8L13002	Ethylene Oxide only
9022616-02	WB Warehouse C2	TO-15 2019	A	8			8L13002	Ethylene Oxide only
B9B2705-DUP3	Duplicate	QC		9			8L13002	
B9B2705-DUP4	Duplicate	QC		10			8L13002	
9022616-03	WB Village Hall	TO-15 2019	A	11			8L13002	Ethylene Oxide only
9022616-04	WB Village Hall C1	TO-15 2019	A	12			8L13002	Ethylene Oxide only
9022616-05	WB Village Hall C2	TO-15 2019	A	13			8L13002	Ethylene Oxide only
B9B2705-DUP5	Duplicate	QC		14			8L13002	
B9B2705-DUP6	Duplicate	QC		15			8L13002	
9022616-06	WB Warehouse	TO-15 2019	A	16			8L13002	Ethylene Oxide only
9022616-09	WB Warehouse C1	TO-15 2019	A	17			8L13002	Ethylene Oxide only
9022616-10	WB Warehouse C2	TO-15 2019	A	18			8L13002	Ethylene Oxide only
B9B2705-DUP7	Duplicate	QC		19			8L13002	
B9B2705-DUP8	Duplicate	QC		20			8L13002	

Samples Loaded By _____ Date _____

Randy Bower 3/5/19

Data Processed By Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19B~.s
Comment: ANALYZE 2/27/19,9020003 exp 5/13/19, L19B~
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19B~\
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	L19B~001	BFB	BFB
2)	Sample	2	L19B~002	9020003	-CCV1 NOT USED
3)	Sample	3	L19B~003	9020003	1902073-CCV1
4)	Sample	4	L19B~004	9020003	FLUSH
5)	Sample	5	L19B~005	9020003	B9B2705-BLK1
6)	Sample	6	L19B~006	9020003	9022202-18
7)	Sample	7	L19B~007	9020003	9022202-19
8)	Sample	8	L19B~008	9020003	B9B2705-DUP1
9)	Sample	9	L19B~009	9020003	B9B2705-DUP2
10)	Sample	10	L19B~010	9020003	9022616-01
11)	Sample	11	L19B~011	9020003	9022616-02
12)	Sample	12	L19B~012	9020003	B9B2705-DUP3
13)	Sample	13	L19B~013	9020003	B9B2705-DUP4
14)	Sample	14	L19B~014	9020003	9022616-03
15)	Sample	15	L19B~015	9020003	9022616-04
16)	Sample	16	L19B~016	9020003	9022616-05
17)	Sample	18	L19B~017	9020003	B9B2705-DUP5
18)	Sample	19	L19B~018	9020003	B9B2705-DUP6
19)	Sample	17	L19B~019	9020003	9022616-06
20)	Sample	20	L19B~020	9020003	9022616-09
21)	Sample	21	L19B~021	9020003	9022616-10
22)	Sample	22	L19B~022	9020003	B9B2705-DUP7
23)	Sample	23	L19B~023	9020003	B9B2705-DUP8
24)	Sample	100	OFF	FIDOFF	OFF

3-5/19

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19B~001	80 ML 8L13001	1
Sample	2	-CCV1 NOT USED	9020003	L19B~002	80 ML 8L13001,9B20006	1
Sample	3	1902073-CCV1	9020003	L19B~003	80 ML 8L13001,9B27007,NEW STD	1
Sample	4	FLUSH	9020003	L19B~004	80 ML 8L13001	1
Sample	5	B9B2705-BLK1	9020003	L19B~005	80 ML 8L13001	1
Sample	6	9022202-18	9020003	L19B~006	EPA WB WAREHOUSE C1 2/21/19	1
Sample	7	9022202-19	9020003	L19B~007	EPA WB WAREHOUSE C2 2/21/19	1
Sample	8	B9B2705-DUP1	9020003	L19B~008	EPA WB WAREHOUSE R1 2/21/19	1
Sample	9	B9B2705-DUP2	9020003	L19B~009	EPA WB WAREHOUSE R2 2/21/19	1
Sample	10	9022616-01	9020003	L19B~010	EPA WB WAREHOUSE C1 2/22/19	1
Sample	11	9022616-02	9020003	L19B~011	EPA WB WAREHOUSE C2 2/22/19	1
Sample	12	B9B2705-DUP3	9020003	L19B~012	EPA WB WAREHOUSE R1 2/22/19	1
Sample	13	B9B2705-DUP4	9020003	L19B~013	EPA WB WAREHOUSE R2 2/22/19	1
Sample	14	9022616-03	9020003	L19B~014	WB VILLAGE HALL 2/22/19	1
Sample	15	9022616-04	9020003	L19B~015	WB VILLAGE HALL C1 2/23/19	1
Sample	16	9022616-05	9020003	L19B~016	WB VILLAGE HALL C2 2/23/19	1
Sample	18	B9B2705-DUP5	9020003	L19B~017	WB VILLAGE HALL R1 2/23/19	1
Sample	19	B9B2705-DUP6	9020003	L19B~018	WB VILLAGE HALL R2 2/23/19	1
Sample	17	9022616-06	9020003	L19B~019	WB WB WAREHOUSE 2/23/19	1
Sample	20	9022616-09	9020003	L19B~020	EPA WB WAREHOUSE 2/24/19	1
Sample	21	9022616-10	9020003	L19B~021	EPA WB WAREHOUSE 2/24/19	1
Sample	22	B9B2705-DUP7	9020003	L19B~022	EPA WB WAREHOUSE 2/24/19	1
Sample	23	B9B2705-DUP8	9020003	L19B~023	EPA WB WAREHOUSE 2/24/19	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

3-5-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19B~.SEQ
Date: 03-05-2019
Time: 10:55:21
Int. Std Volume: 80 cc

Sample Name	Inlet #	Auto Pos	Samp Vol.	Cal Std Vol.	Method	Time
BFB	1	1	0	0	C:\Smart\BFB.MPT	12:00
-CCV1 NOT USED	2	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
1902073-CCV1	2	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2705-BLK1	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-18	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022202-19	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2705-DUP1	1	1	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2705-DUP2	1	2	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022616-01	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022616-02	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2705-DUP3	1	3	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2705-DUP4	1	4	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022616-03	1	5	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022616-04	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022616-05	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2705-DUP5	1	6	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2705-DUP6	1	7	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022616-06	1	8	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022616-09	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
9022616-10	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2705-DUP7	1	9	250	0	C:\Smart\TO-15A_MS1.MPT	12:00
B9B2705-DUP8	1	10	250	0	C:\Smart\TO-15A_MS1.MPT	12:00

3-5-19

Compounds other than ethylene oxide were not quantitated.

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

2/28/2019 12:28:07 PM
Leak Check for C:\Smart\L19B~.SEQ
Report File: C:\Smart\L19B~.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	1.2	0.00
1	3	---	---	1.2	1.2	0.00
1	4	---	---	1.2	1.3	0.10
1	5	---	---	1.1	1.2	0.10
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.1	1.2	0.10
1	8	---	---	1.1	1.2	0.10
1	9	---	---	1.2	1.3	0.10
1	10	---	---	1.1	1.2	0.10

3-5-19

Compounds other than ethylene oxide were not quantitated.

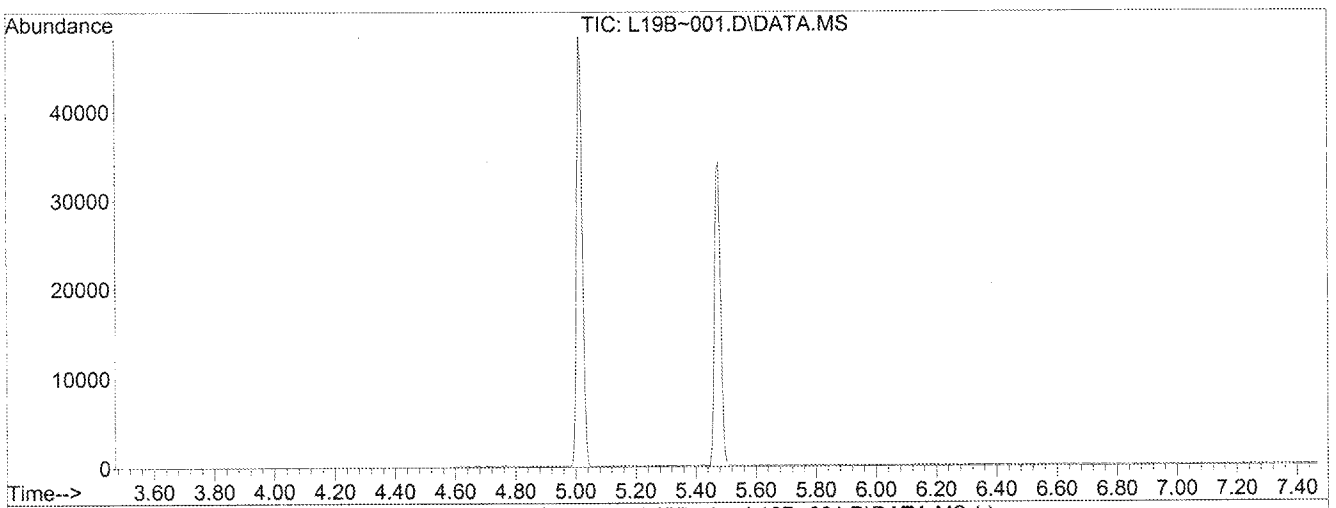
BFB

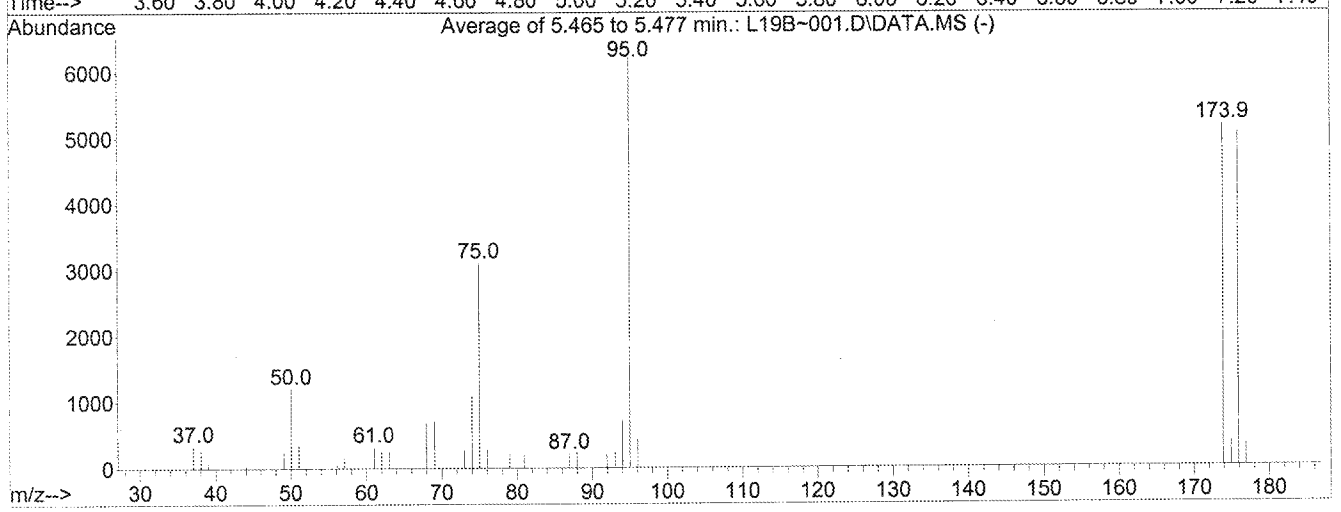
Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~001.D
Acq On : 27 Feb 2019 10:52 am
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

3-5-19

Integration File: RTEINT.P

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





AutoFind: Scans 144, 145, 146; 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	19.4	1207	PASS
75	95	30	66	49.9	3102	PASS
95	95	100	100	100.0	6214	PASS
96	95	5	9	7.2	445	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	83.2	5171	PASS
175	174	4	9	7.1	369	PASS
176	174	93	101	97.8	5055	PASS
177	176	5	9	6.4	322	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19B~\L19B~001.D
Tune Time : 27 Feb 2019 10:52 am

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

File	Sample	Internal Standard Responses		
L19B~002.D	1902073	52169	132112	97067
L19B~005.D	B9B2705-BLK1	47426	115530	82336
L19B~006.D	9022202-18	46831	116744	83074
L19B~007.D	9022202-19	42056	100504	75314
L19B~008.D	B9B2705-DUP1	46183	116976	81769
L19B~009.D	B9B2705-DUP2	45460	114238	81230
L19B~010.D	9022616-01	42943	103475	75654
L19B~011.D	9022616-02	43974	109133	76733
L19B~012.D	B9B2705-DUP3	42402	106885	76982
L19B~013.D	B9B2705-DUP4	43996	111632	76461
L19B~014.D	9022616-03	44888	112074	78936
L19B~015.D	9022616-04	41048	99695	75310
L19B~016.D	9022616-05	41252	101801	73675
L19B~017.D	B9B2705-DUP5	44458	115215	81504
L19B~018.D	B9B2705-DUP6	43070	110328	77128
L19B~019.D	9022616-06	42779	106330	74822
L19B~020.D	9022616-09	45329	113671	80161
L19B~021.D	9022616-10	43779	109864	77356
L19B~022.D	B9B2705-DU	43331	106358	77098
L19B~023.D	B9B2705-DU	42273	105773	74861

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

Created: Thu Feb 28 12:57:03 2019 MS1

3-5-19

Compounds other than ethylene oxide were not quantitated.

C:\MSDCHEM

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
	2/28/2019 9:39	L19B~023.D	42273	19.99	105773	23.15	74861	30.10
Format 1 (Yes/No)								
Format 1 Title								
Format 2 (Yes/No)			YES	YES	YES	YES	YES	YES
Format 2 Title								
Show X Axis Title			YES	YES	YES	YES	YES	YES
Show Y Axis Title								
Lines To Chart								

Start of Data	Format 1 X-axis	Format 2 X-axis	IS-Hexane-d14	% Rec	RT	DEV (min)	IS-Difluorobenzene	% Rec	RT	DEV (min)	IS-Chlorobenzene-d5	% Rec	RT	DEV (min)
		IS AVG / AVG RT	**48611**		**19.99**		**118146**		**23.15**		**86564**		**30.11**	
	2/27/2019 11:38	L19B~002.D	52169	107	19.97	-0.02	132112	112	23.15	0	97067	112	30.10	-0.01
	2/27/2019 14:54	L19B~005.D	47426	98	19.97	-0.02	115530	98	23.15	0	82336	95	30.10	-0.01
	2/27/2019 16:26	L19B~006.D	46831	96	19.99	0	116744	99	23.15	0	83074	96	30.09	-0.02
	2/27/2019 17:28	L19B~007.D	42056	87	19.97	-0.02	100504	85	23.15	0	75314	87	30.10	-0.01
	2/27/2019 18:29	L19B~008.D	46183	95	19.99	0	116976	99	23.15	0	81769	94	30.10	-0.01
	2/27/2019 19:29	L19B~009.D	45460	94	19.97	-0.02	114238	97	23.15	0	81230	94	30.10	-0.01
	2/27/2019 20:31	L19B~010.D	42943	88	19.99	0	103475	88	23.15	0	75654	87	30.11	0
	2/27/2019 21:32	L19B~011.D	43974	90	19.99	0	109133	92	23.15	0	76733	89	30.10	-0.01
	2/27/2019 22:32	L19B~012.D	42402	87	19.99	0	106885	90	23.15	0	76982	89	30.10	-0.01
	2/27/2019 23:32	L19B~013.D	43996	91	19.99	0	111632	94	23.15	0	76461	88	30.09	-0.02
	2/28/2019 12:32	L19B~014.D	44888	92	19.99	0	112074	95	23.15	0	78936	91	30.09	-0.02
	2/28/2019 1:35	L19B~015.D	41048	84	19.97	-0.02	99695	84	23.15	0	75310	87	30.10	-0.01
	2/28/2019 2:37	L19B~016.D	41252	85	19.99	0	101801	86	23.15	0	73675	85	30.11	0
	2/28/2019 3:37	L19B~017.D	44458	91	19.99	0	115215	98	23.15	0	81504	94	30.11	0
	2/28/2019 4:38	L19B~018.D	43070	89	19.99	0	110328	93	23.15	0	77128	89	30.11	0
	2/28/2019 5:38	L19B~019.D	42779	88	19.99	0	106330	90	23.15	0	74822	86	30.12	0.01
	2/28/2019 6:38	L19B~020.D	45329	93	19.99	0	113671	96	23.15	0	80161	93	30.12	0.01
	2/28/2019 7:39	L19B~021.D	43779	90	19.99	0	109864	93	23.15	0	77356	89	30.12	0.01
	2/28/2019 8:39	L19B~022.D	43331	89	19.99	0	106358	90	23.15	0	77098	89	30.11	0
	2/28/2019 9:39	L19B~023.D	42273	87	19.99	0	105773	90	23.15	0	74861	86	30.10	-0.01

3-5-19

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B27007

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

canister# SAT028

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

Randy Bowe — Reviewed By

3/5/19 — Date

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B27007

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

Parent Standards used in this standard:

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

Reviewed By Date

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~003.D
Acq On : 27 Feb 2019 12:51 pm
Operator : MAH
Sample : 1902073-CCV1
Misc : 80 ML 8L13001,9B27007,NEW STD
ALS Vial : 3 Sample Multiplier: 1

3-5-19

Quant Time: Feb 27 15:02:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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	0.385	1.5	100	0.00
3	CT	Propylene	0.487	0.514	-5.5	100	0.00
4	CT	Dichlorodifluoromethane	2.300	2.402	-4.4	100	0.00
5	CT	Chloromethane	0.592	0.576	2.7	100	0.00
6	CT	Dichlorotetrafluoroethane	2.013	2.302	-14.4	100	0.00
7	CT	Vinyl Chloride	0.662	0.670	-1.2	100	0.00
8	CT	1,3-Butadiene	0.450	0.454	-0.9	100	0.00
9	CT	Ethylene oxide	0.273	0.205	24.9	100	0.00
10	CT	Bromomethane	0.627	0.649	-3.5	100	0.00
11	CT	Chloroethane	0.263	0.268	-1.9	100	0.00
12	CT	Acetonitrile	0.414	0.386	6.8	100	0.00
13	CT	Acrolein	0.209	0.180	13.9	100	0.00
14	CT	Trichlorofluoromethane	1.944	1.724	11.3	100	0.00
15	CT	Acrylonitrile	0.330	0.298	9.7	100	0.00
16	CT	1,1-Dichloroethene	0.843	0.898	-6.5	100	0.00
17	CT	Methylene Chloride	0.557	0.578	-3.8	100	0.00
18	CT	Carbon Disulfide	1.716	1.740	-1.4	100	0.00
19	CT	Trichlorotrifluoroethane	1.307	1.384	-5.9	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.467	0.466	0.2	100	0.00
21	CT	1,1-Dichloroethane	0.786	0.756	3.8	100	0.00
22	CT	Methyl tert-Butyl Ether	1.318	1.311	0.5	100	0.00
23	CT	Chloroprene	0.639	0.598	6.4	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.620	0.584	5.8	100	0.00
25	CT	Bromochloromethane	0.335	0.323	3.6	100	0.00
26	CT	Chloroform	0.912	0.919	-0.8	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.260	1.265	-0.4	100	0.00
28	CT	1,2-Dichloroethane	0.560	0.553	1.3	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	0.398	-7.6	100	0.00
31	CT	Benzene	0.529	0.541	-2.3	100	0.00
32	CT	Carbon Tetrachloride	0.396	0.474	-19.7	100	0.00
33	CT	tert-Amyl Methyl Ether	0.449	0.450	-0.2	100	0.00
34	CT	1,2-Dichloropropane	0.201	0.194	3.5	100	0.00
35	CT	Ethyl Acrylate	0.171	0.230	-34.5#	100	0.00
36	CT	Bromodichloromethane	0.356	0.326	8.4	100	0.00
37	CT	Trichloroethylene	0.252	0.235	6.7	100	0.00
38	CT	Methyl Methacrylate	0.513	0.610	-18.9	100	0.00
39	CT	cis-1,3-Dichloropropene	0.175	0.196	-12.0	100	0.00
40	CT	Methyl Isobutyl Ketone	0.377	0.381	-1.1	100	0.00
41	CT	trans-1,3-Dichloropropene	0.117	0.133	-13.7	100	0.00
42	CT	1,1,2-Trichloroethane	0.184	0.182	1.1	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.779	0.774	0.6	100	0.00
45	CT	Dibromochloromethane	1.529	1.553	-1.6	100	0.00
46	CT	1,2-Dibromoethane	0.292	0.303	-3.8	100	0.00
47	CT	n-Octane	0.469	0.449	4.3	100	0.00
48	CT	Tetrachloroethylene	0.375	0.365	2.7	100	0.00

EDY initials

3-5-19

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~003.D
Acq On : 27 Feb 2019 12:51 pm
Operator : MAH
Sample : 1902073-CCV1
Misc : 80 ML 8L13001,9B27007,NEW STD
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 27 15:02:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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	0.488	1.8	100	0.00
50 CT	Ethylbenzene	0.819	0.813	0.7	100	0.00
51 CT	m,p-Xylene	0.691	0.677	2.0	100	0.00
52 CT	Bromoform	0.296	0.304	-2.7	100	0.00
53 CT	Styrene	0.392	0.381	2.8	100	0.00
54 CT	1,1,2,2-Tetrachloroethane	0.446	0.445	0.2	100	0.00
55 CT	o-Xylene	0.682	0.699	-2.5	100	0.00
56 CT	1,3,5-Trimethylbenzene	0.732	0.681	7.0	100	0.00
57 CT	1,2,4-Trimethylbenzene	0.633	0.586	7.4	100	0.00
58 CT	m-Dichlorobenzene	0.333	0.278	16.5	100	0.00
59 CT	p-Dichlorobenzene	0.271	0.237	12.5	100	0.00
60 CT	o-Dichlorobenzene	0.305	0.269	11.8	100	0.00
61 CT	1,2,4-Trichlorobenzene	0.103	0.113	-9.7	100	0.00
62 CT	Hexachloro-1,3-butadiene	0.264	0.252	4.5	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~003.D
Acq On : 27 Feb 2019 12:51 pm
Operator : MAH
Sample : 1902073-CCV1
Misc : 80 ML 8L13001,9B27007,NEW STD
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 27 15:02:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

35-19

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	50505	4.7700	ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	120219	4.9900	ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	88738	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.408	26	9794	2.3680	ppbv	100
3) Propylene	7.823	41	13337	2.5851	ppbv	100
4) Dichlorodifluoromethane	8.685	85	60537	2.4855	ppbv	100
5) Chloromethane	9.740	50	15121	2.4112	ppbv	99
6) Dichlorotetrafluoroethane	10.847	85	59467	2.7894	ppbv	100
7) Vinyl Chloride	11.102	62	17733	2.5281	ppbv	99
8) 1,3-Butadiene	11.766	54	11869	2.4892	ppbv	99
9) Ethylene oxide	12.380	29	5423	1.8773	ppbv	97
10) Bromomethane	12.575	94	17167	2.5863	ppbv	100
11) Chloroethane	13.255	64	7082	2.5414	ppbv	100
12) Acetonitrile	14.335	41	10328	2.3562	ppbv	99
13) Acrolein	14.613	56	4602	2.0836	ppbv	90
14) Trichlorofluoromethane	15.193	101	45646	2.2180	ppbv	99
15) Acrylonitrile	15.912	53	7886	2.2548	ppbv	98
16) 1,1-Dichloroethene	16.422	61	23197	2.5981	ppbv	99
17) Methylene Chloride	16.723	49	15186	2.5743	ppbv	97
18) Carbon Disulfide	16.909	76	45695	2.5151	ppbv	99
19) Trichlorotrifluoroethane	17.257	101	35762	2.5837	ppbv	100
20) trans-1,2-Dichloroethy...	18.315	96	12139	2.4528	ppbv	98
21) 1,1-Dichloroethane	18.610	63	19439	2.3367	ppbv	100
22) Methyl tert-Butyl Ether	18.768	73	35266	2.5276	ppbv	99
23) Chloroprene	19.517	53	15706	2.3210	ppbv	98
24) cis-1,2-Dichloroethylene	19.925	61	15451	2.3524	ppbv	98
25) Bromochloromethane	20.174	128	8457	2.3820	ppbv	98
26) Chloroform	20.401	83	24313	2.5188	ppbv	99
27) Ethyl tert-Butyl Ether	21.164	59	34421	2.5795	ppbv	100
28) 1,2-Dichloroethane	21.458	62	14569	2.4591	ppbv	100
30) 1,1,1-Trichloroethane	21.850	97	23696	2.6590	ppbv	95
31) Benzene	22.535	78	32732	2.5685	ppbv	99
32) Carbon Tetrachloride	22.770	117	28797	3.0170	ppbv	100
33) tert-Amyl Methyl Ether	23.501	73	28218	2.6073	ppbv	100
34) 1,2-Dichloropropane	23.769	63	11803	2.4362	ppbv	96
35) Ethyl Acrylate	23.872	55	14093	3.4238	ppbv	99
36) Bromodichloromethane	24.058	83	20104	2.3448	ppbv	100
37) Trichloroethylene	24.161	130	14286	2.3533	ppbv	99
38) Methyl Methacrylate	24.532	41	37345	3.0229	ppbv	99
39) cis-1,3-Dichloropropene	25.511	75	12013	2.8554	ppbv	90
40) Methyl Isobutyl Ketone	25.588	43	23234	2.5583	ppbv	99
41) trans-1,3-Dichloropropene	26.350	75	7870	2.7921	ppbv	96
42) 1,1,2-Trichloroethane	26.617	97	10865	2.4510	ppbv	100
44) Toluene	27.075	91	35336	2.4233	ppbv	100
45) Dibromochloromethane	27.734	129	73830	2.5793	ppbv	100
46) 1,2-Dibromoethane	28.138	107	14180	2.5934	ppbv	100
47) n-Octane	28.857	43	21186	2.4122	ppbv	99
48) Tetrachloroethylene	28.998	166	17025	2.4258	ppbv	98
49) Chlorobenzene	30.173	112	22491	2.4167	ppbv	100
50) Ethylbenzene	30.898	91	38070	2.4832	ppbv	100

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~003.D
Acq On : 27 Feb 2019 12:51 pm
Operator : MAH
Sample : 1902073-CCV1
Misc : 80 ML 8L13001,9B27007,NEW STD
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 27 15:02:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

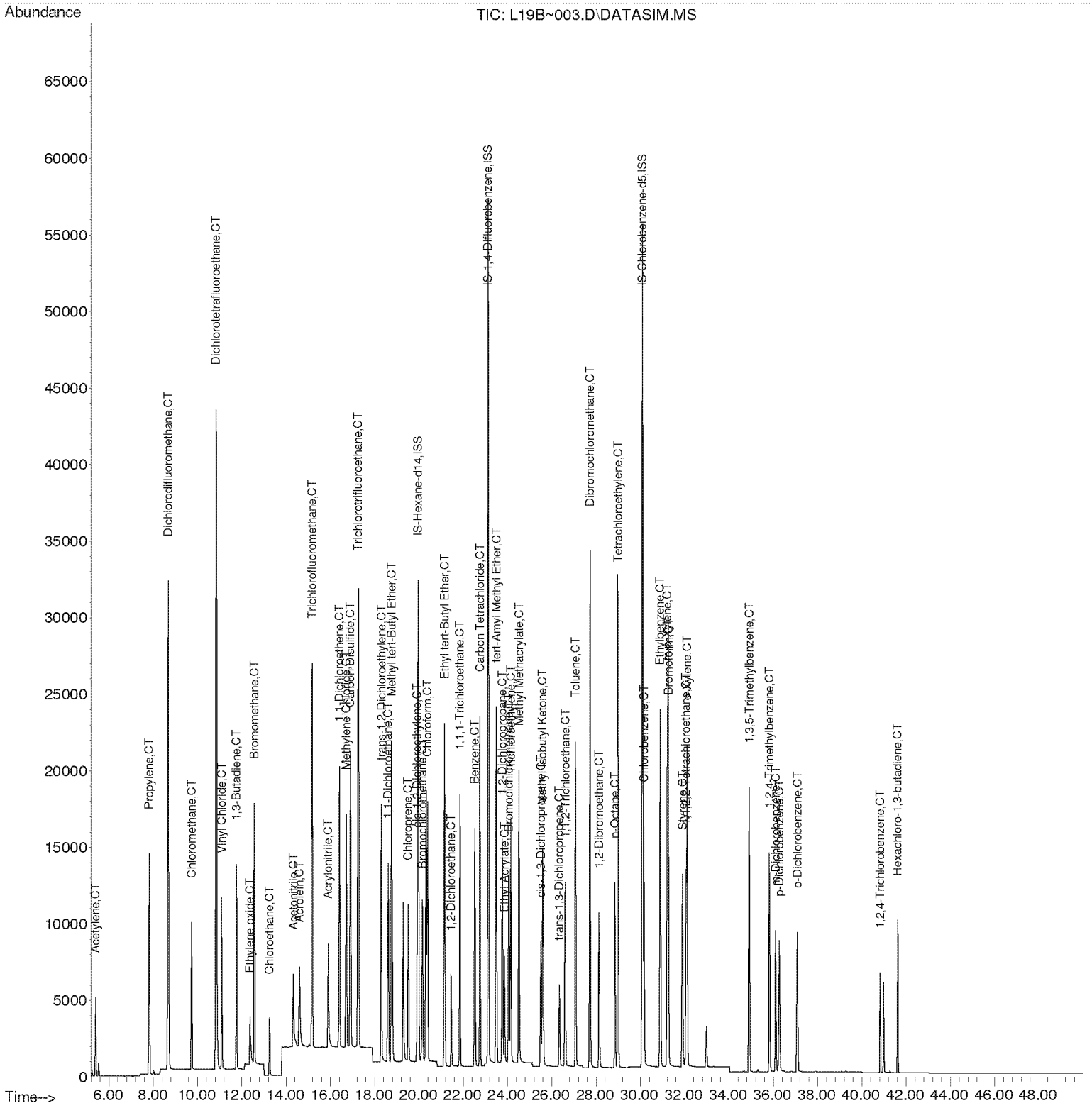
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.223	91	63133	4.8825 ppbv	99
52) Bromoform	31.280	173	14467	2.6139 ppbv	100
53) Styrene	31.910	104	17839	2.4334 ppbv #	99
54) 1,1,2,2-Tetrachloroethane	32.063	83	21078	2.5257 ppbv	100
55) o-Xylene	32.120	91	31947	2.5035 ppbv	99
56) 1,3,5-Trimethylbenzene	34.921	105	32116	2.3426 ppbv	99
57) 1,2,4-Trimethylbenzene	35.829	105	26122	2.2031 ppbv	99
58) m-Dichlorobenzene	36.114	146	12484	2.0026 ppbv	99
59) p-Dichlorobenzene	36.275	146	11599	2.2840 ppbv	99
60) o-Dichlorobenzene	37.094	146	12567	2.2040 ppbv	99
61) 1,2,4-Trichlorobenzene	40.828	180	5242	2.7107 ppbv	99
62) Hexachloro-1,3-butadiene	41.622	225	11785	2.3863 ppbv	100

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

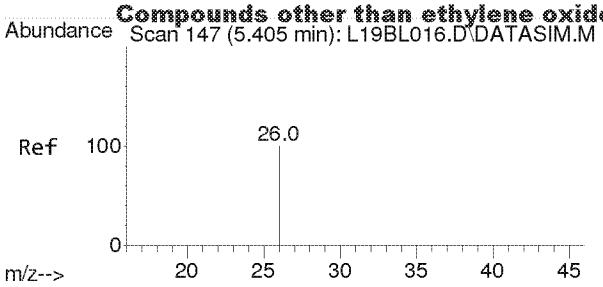
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~003.D
Acq On : 27 Feb 2019 12:51 pm
Operator : MAH
Sample : 1902073-CCV1
Misc : 80 ML 8L13001,9B27007,NEW STD
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 27 15:02:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

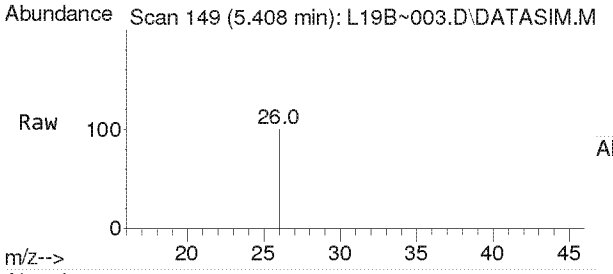


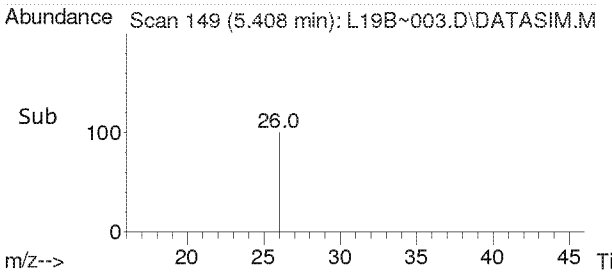
Compounds other than ethylene oxide were not quantitated.

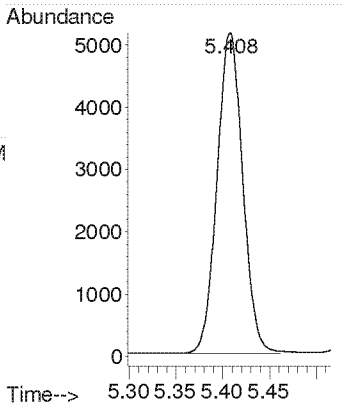


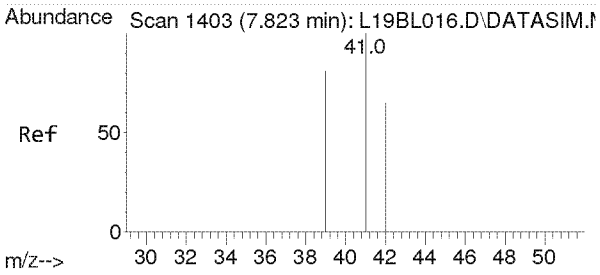
#2
Acetylene
Concen: 2.368 ppbv
RT: 5.408 min Scan# 149
Delta R.T. 0.003 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 26 Resp: 9794





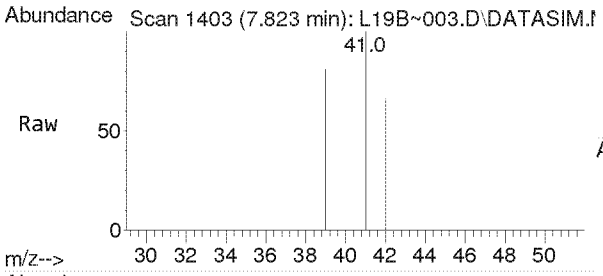


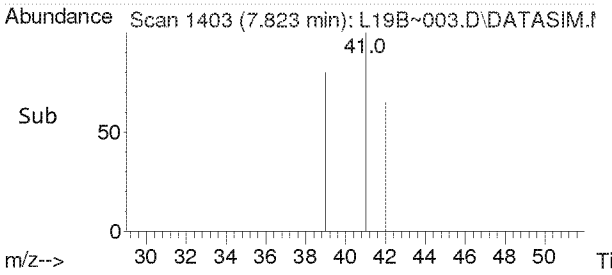


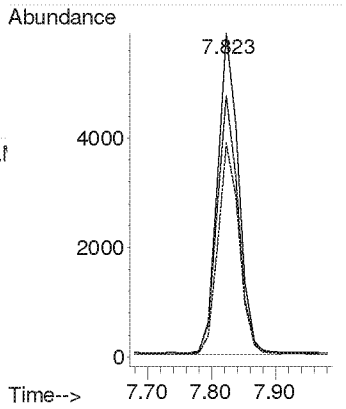
#3
Propylene
Concen: 2.585 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. 0.000 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 41 Resp: 13337

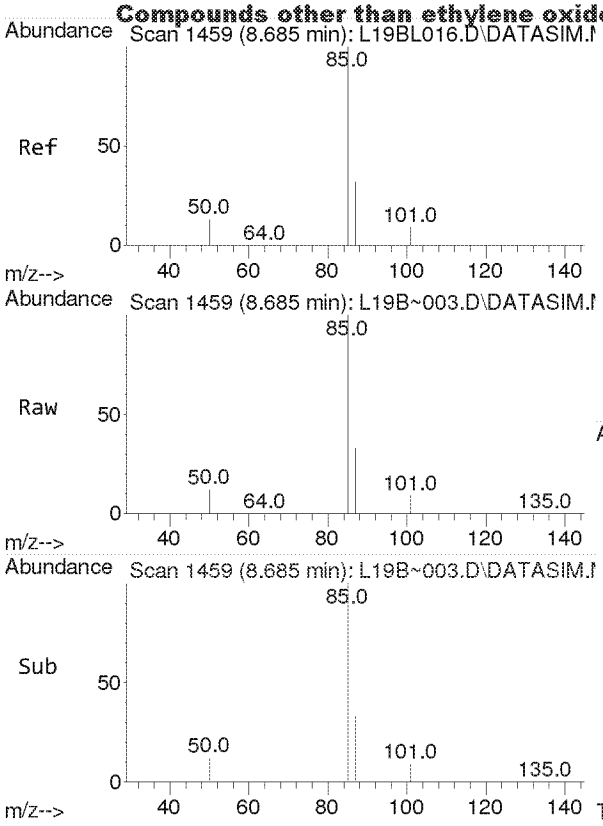
Ion	Ratio	Lower	Upper
41	100		
39	79.8	64.2	96.2
42	66.1	52.6	79.0







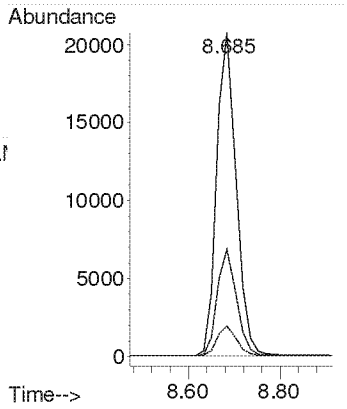
Compounds other than ethylene oxide were not quantitated.

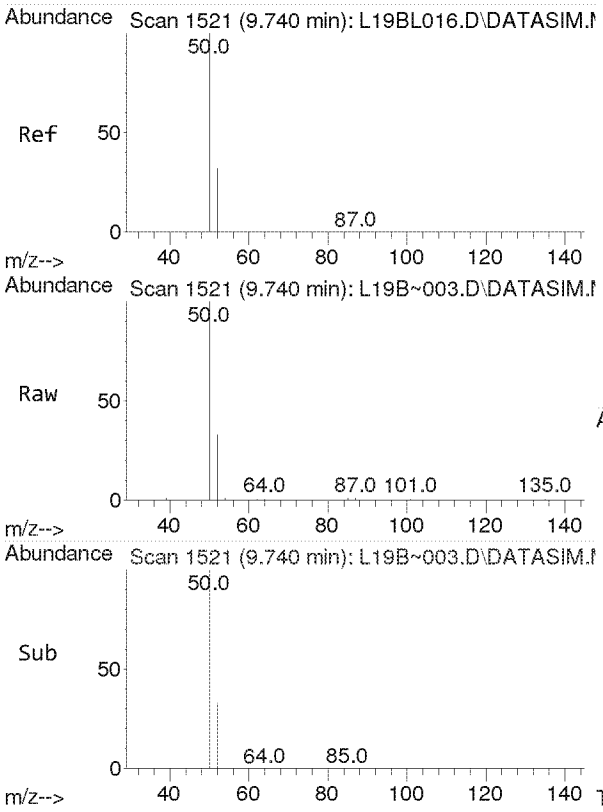


#4
Dichlorodifluoromethane
Concen: 2.485 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. 0.000 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 85 Resp: 60537

Ion	Ratio	Lower	Upper
85	100		
87	32.5	26.0	39.0
101	9.1	7.3	10.9

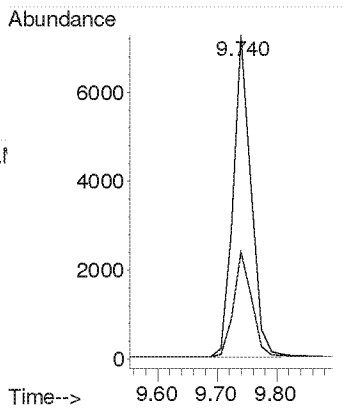




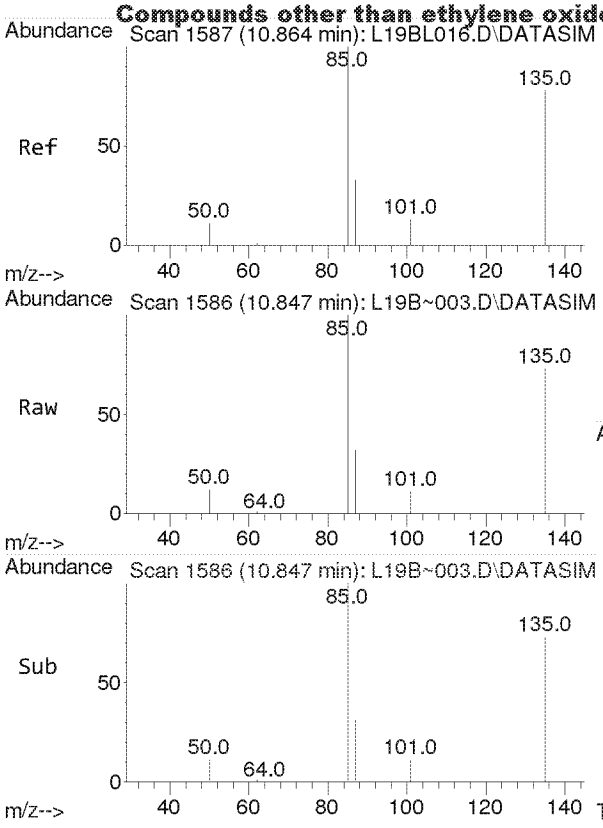
#5
Chloromethane
Concen: 2.411 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. 0.000 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 50 Resp: 15121

Ion	Ratio	Lower	Upper
50	100		
52	33.0	26.1	39.1



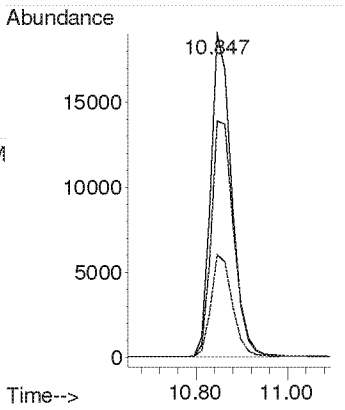
Compounds other than ethylene oxide were not quantitated.

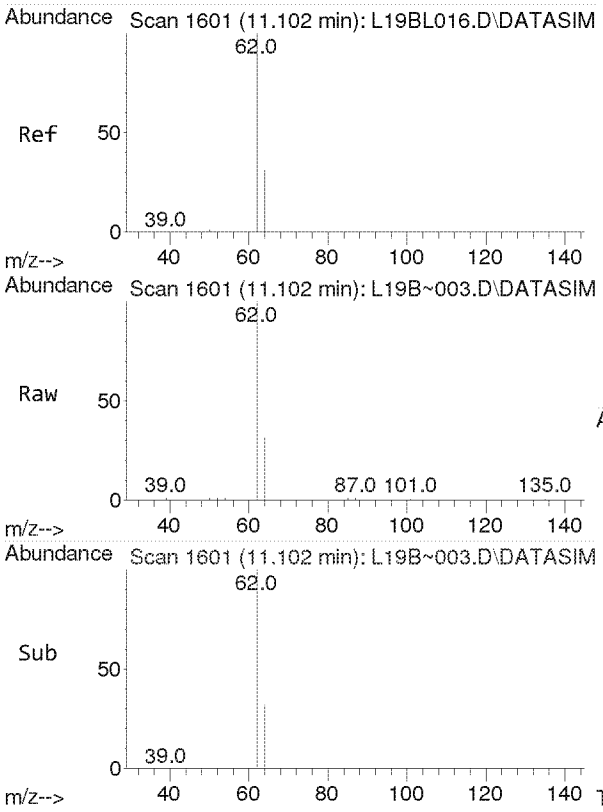


#6
Dichlorotetrafluoroethane
Concen: 2.789 ppbv
RT: 10.847 min Scan# 1586
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 85 Resp: 59467

Ion	Ratio	Lower	Upper
85	100		
135	79.3	63.2	94.8
87	32.2	25.9	38.9

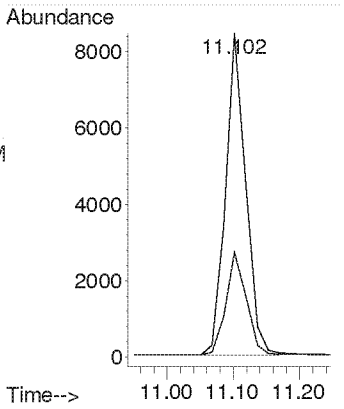




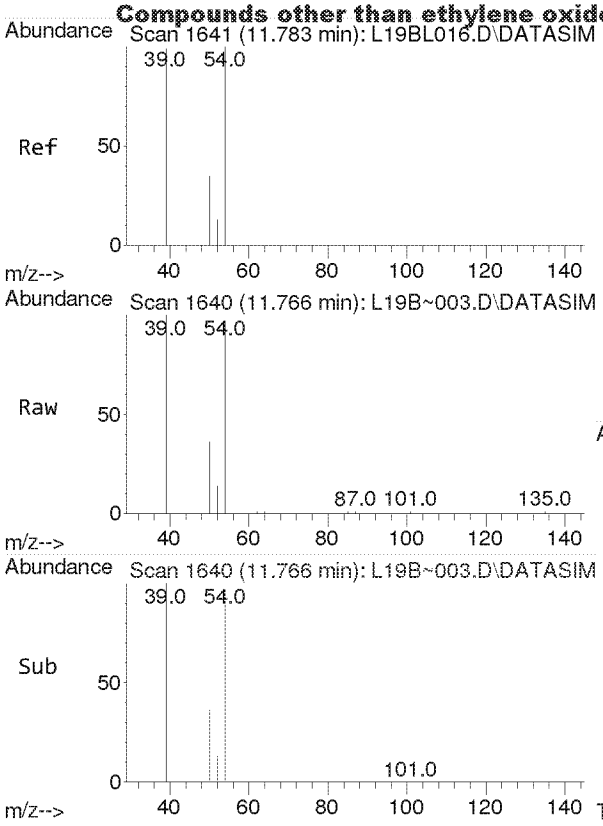
#7
Vinyl Chloride
Concen: 2.528 ppbv
RT: 11.102 min Scan# 1601
Delta R.T. 0.000 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 62 Resp: 17733

Ion	Ratio	Lower	Upper
62	100		
64	32.2	25.4	38.0



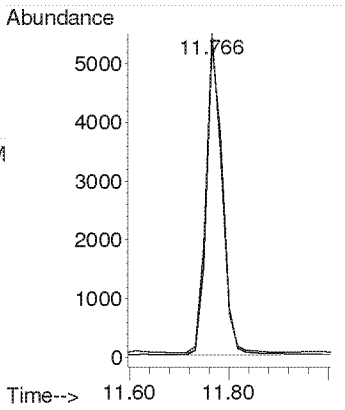
Compounds other than ethylene oxide were not quantitated.

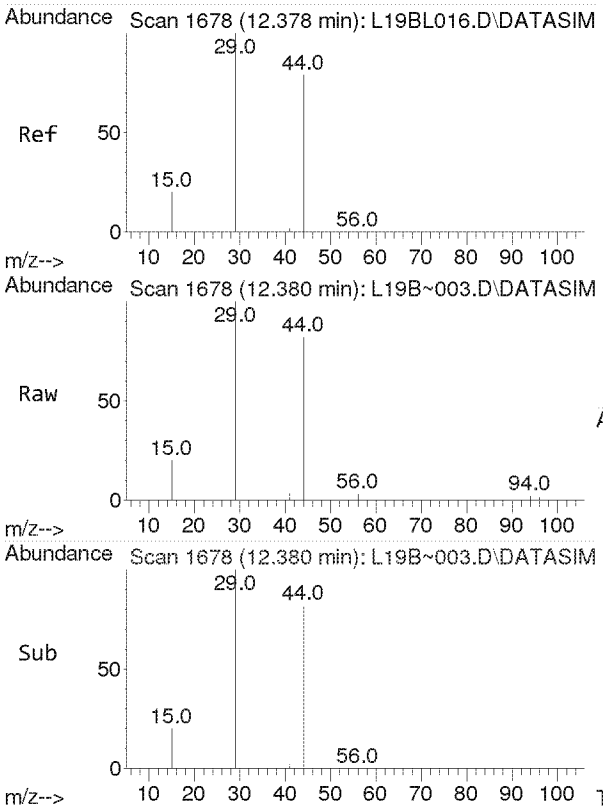


#8
1,3-Butadiene
Concen: 2.489 ppbv
RT: 11.766 min Scan# 1640
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 54 Resp: 11869

Ion	Ratio	Lower	Upper
54	100		
39	100.6	81.6	122.4

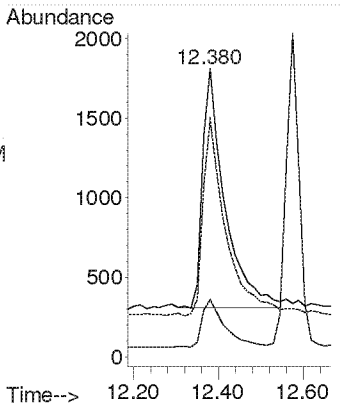




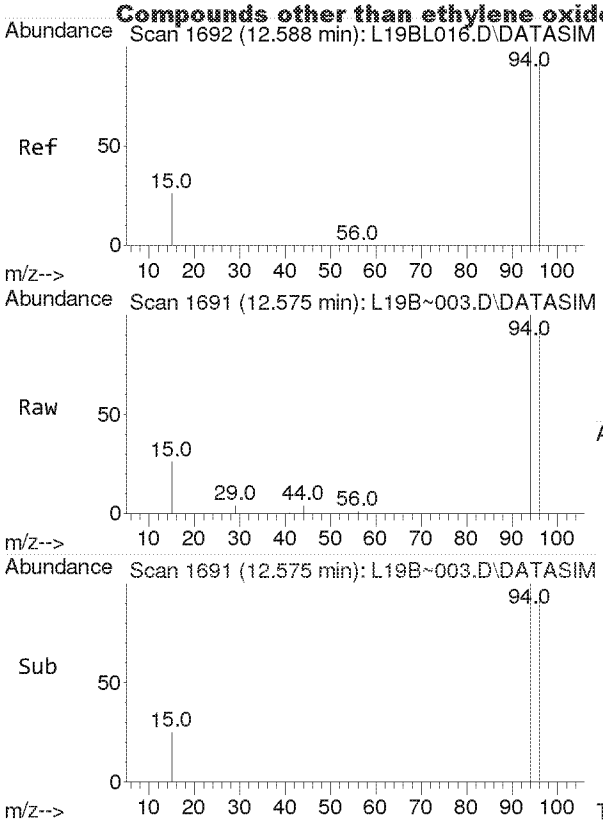
#9
Ethylene oxide
Concen: 1.877 ppbv
RT: 12.380 min Scan# 1678
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 29 Resp: 5423

Ion	Ratio	Lower	Upper
29	100		
15	20.9	16.0	24.0
44	84.5	65.4	98.2



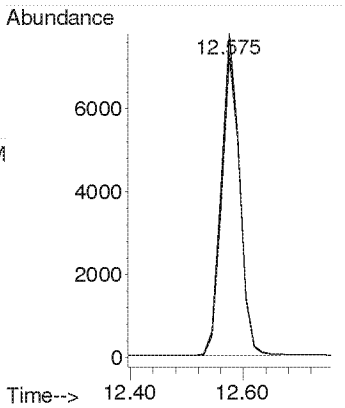
Compounds other than ethylene oxide were not quantitated.

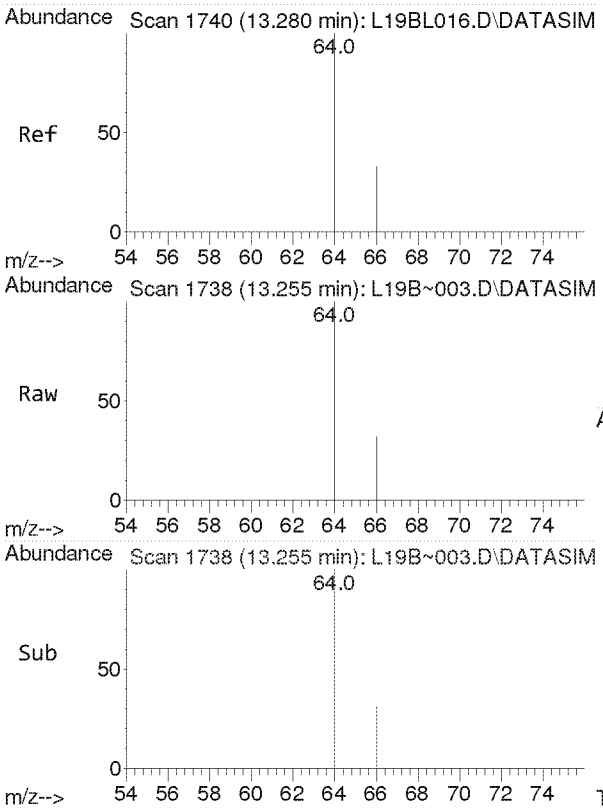


#10
Bromomethane
Concen: 2.586 ppbv
RT: 12.575 min Scan# 1691
Delta R.T. -0.013 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 94 Resp: 17167

Ion	Ratio	Lower	Upper
94	100		
96	94.6	75.5	113.3

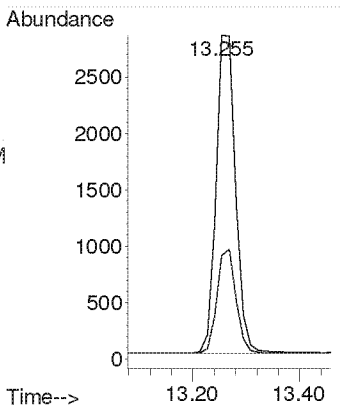




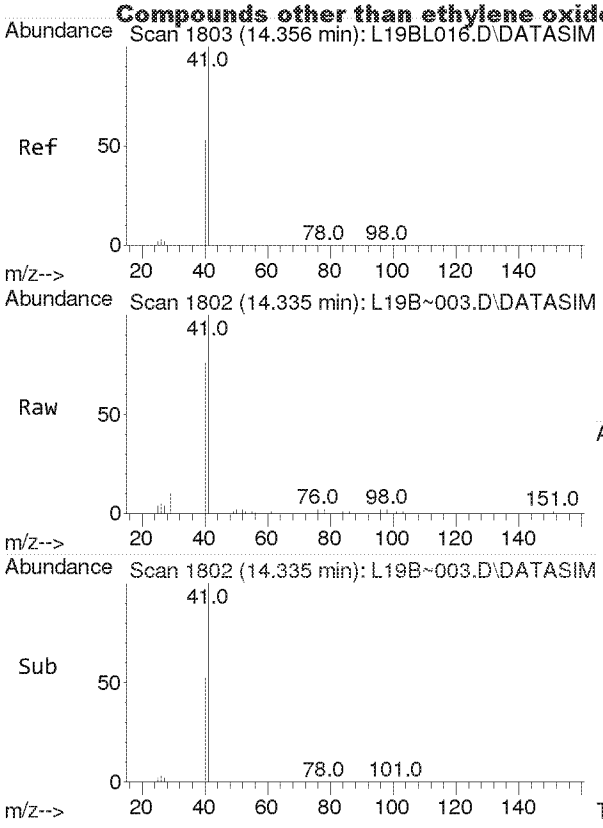
#11
Chloroethane
Concen: 2.541 ppbv
RT: 13.255 min Scan# 1738
Delta R.T. -0.025 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 64 Resp: 7082

Ion	Ratio	Lower	Upper
64	100		
66	32.2	25.8	38.6



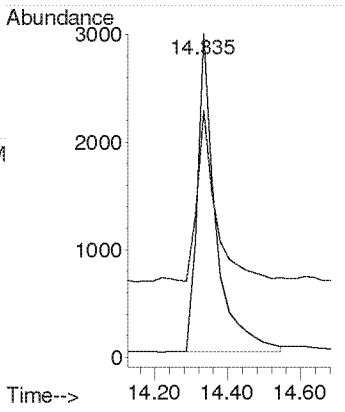
Compounds other than ethylene oxide were not quantitated.

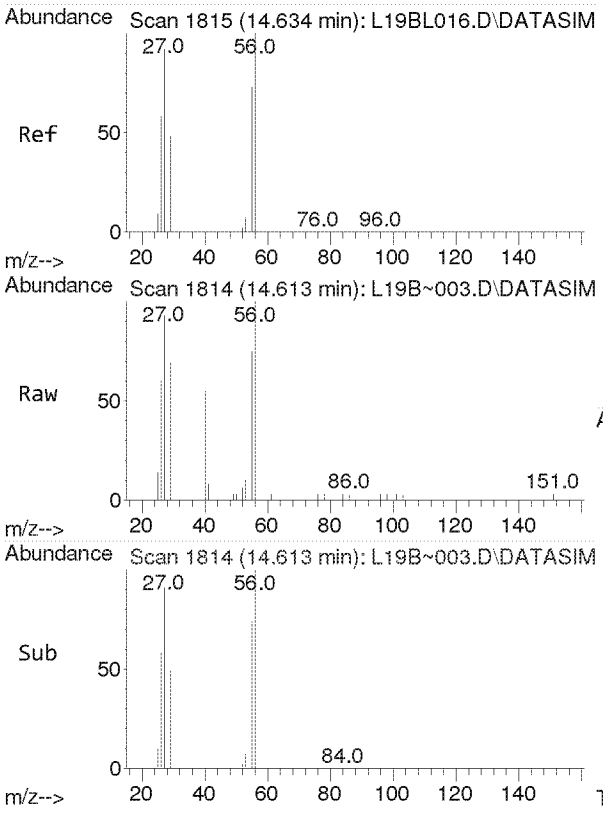


#12
Acetonitrile
Concen: 2.356 ppbv
RT: 14.335 min Scan# 1802
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 41 Resp: 10328

Ion	Ratio	Lower	Upper
41	100		
40	53.3	42.2	63.4

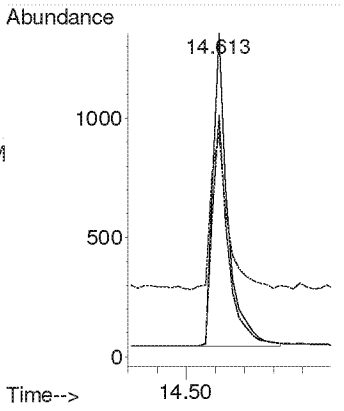




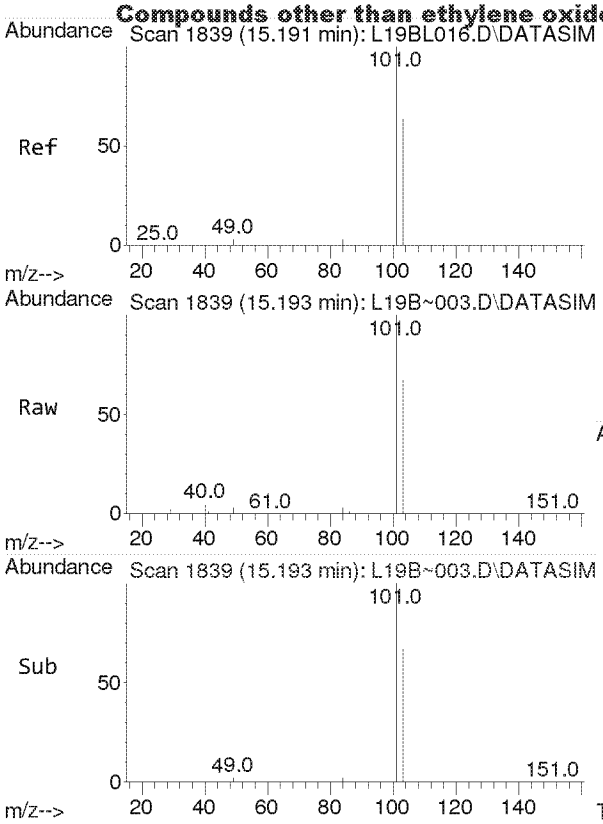
#13
Acrolein
Concen: 2.084 ppbv
RT: 14.613 min Scan# 1814
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 56 Resp: 4602

Ion	Ratio	Lower	Upper
56	100		
55	77.4	60.8	91.2
29	56.8	43.8	65.6



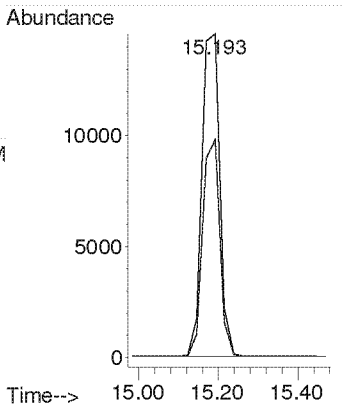
Compounds other than ethylene oxide were not quantitated.

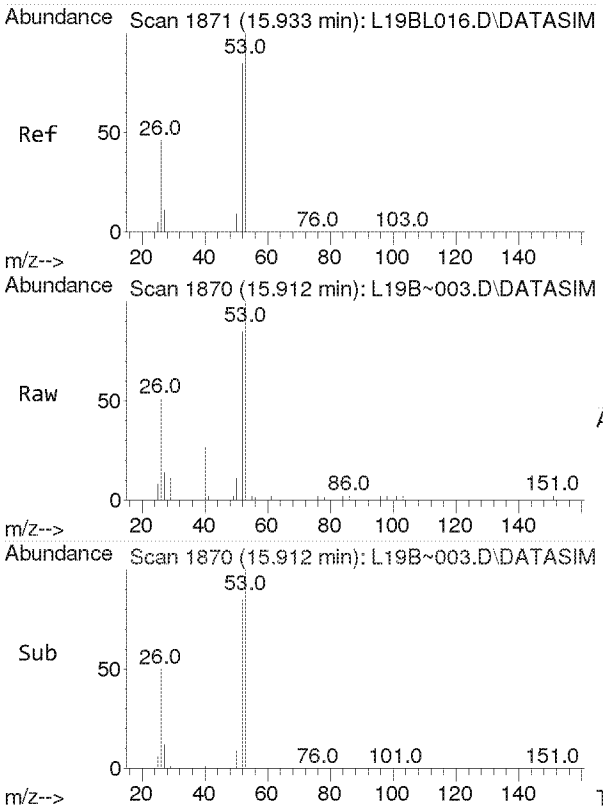


#14
Trichlorofluoromethane
Concen: 2.218 ppbv
RT: 15.193 min Scan# 1839
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:101 Resp: 45646

Ion	Ratio	Lower	Upper
101	100		
103	65.0	51.7	77.5

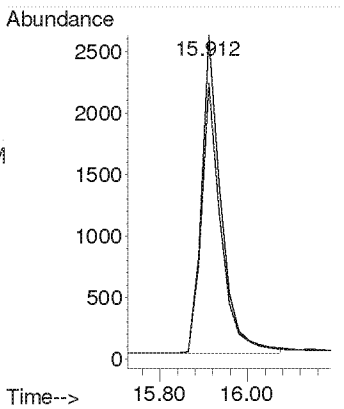




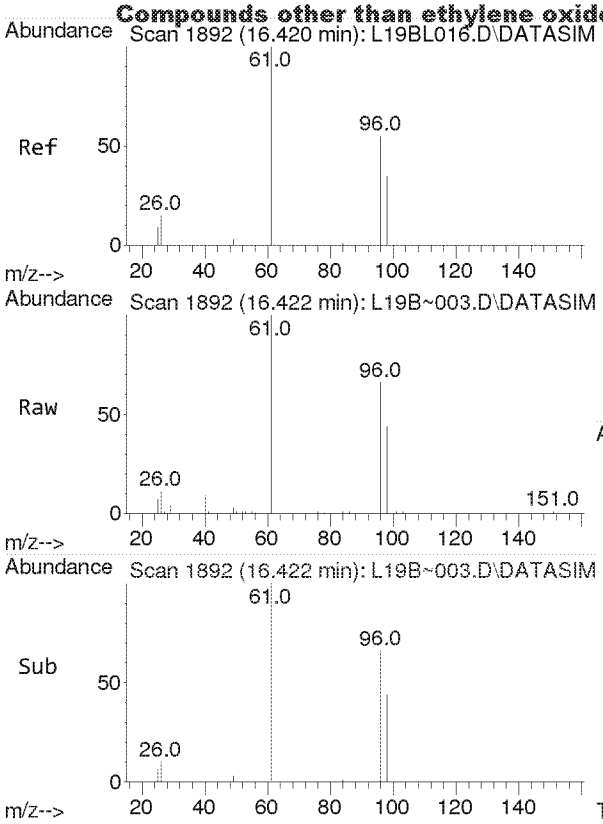
#15
Acrylonitrile
Concen: 2.255 ppbv
RT: 15.912 min Scan# 1870
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 53 Resp: 7886

Ion	Ratio	Lower	Upper
53	100		
52	85.4	69.5	104.3



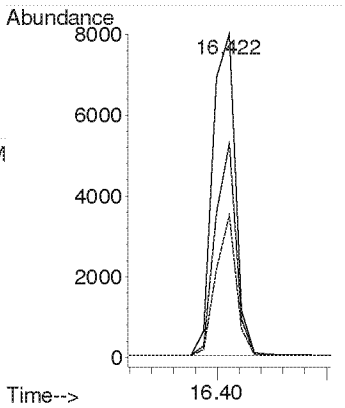
Compounds other than ethylene oxide were not quantitated.

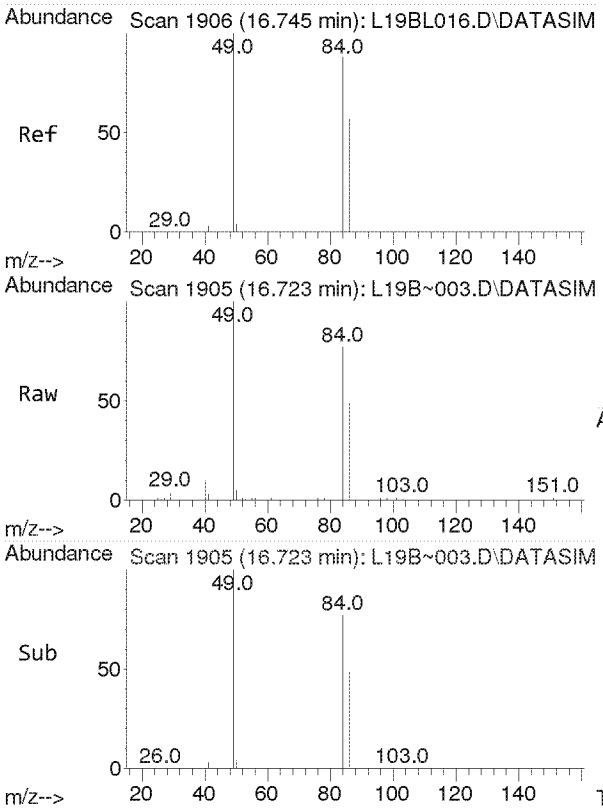


#16
1,1-Dichloroethene
Concen: 2.598 ppbv
RT: 16.422 min Scan# 1892
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 61 Resp: 23197

Ion	Ratio	Lower	Upper
61	100		
96	60.0	47.3	70.9
98	38.6	30.6	45.8

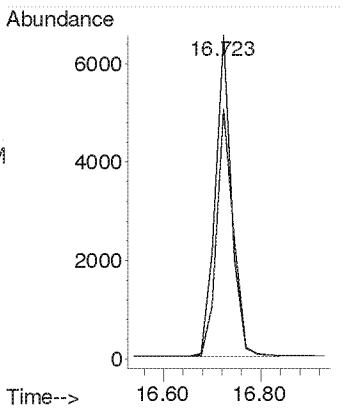




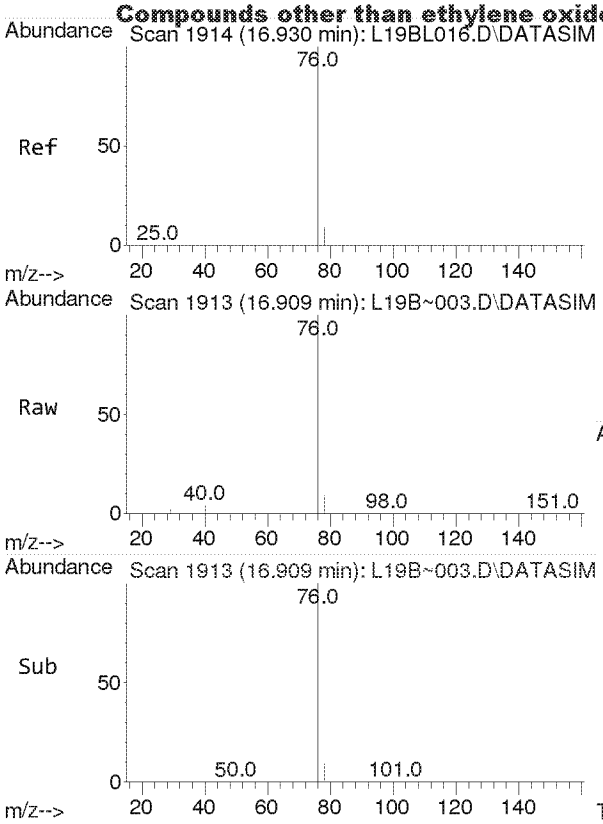
#17
Methylene Chloride
Concen: 2.574 ppbv
RT: 16.723 min Scan# 1905
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 49 Resp: 15186

Ion	Ratio	Lower	Upper
49	100		
84	79.8	54.0	100.4



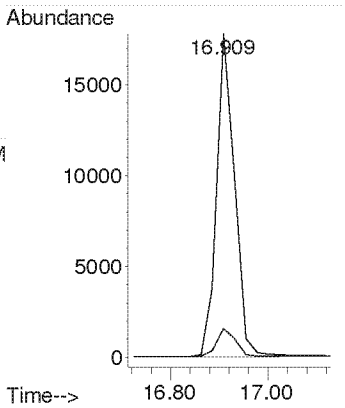
Compounds other than ethylene oxide were not quantitated.

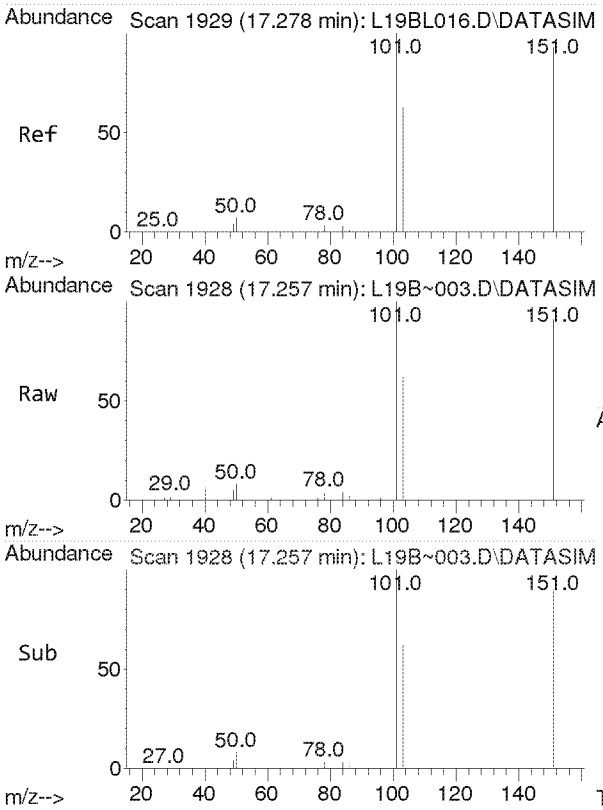


#18
Carbon Disulfide
Concen: 2.515 ppbv
RT: 16.909 min Scan# 1913
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 76 Resp: 45695

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.4	11.0

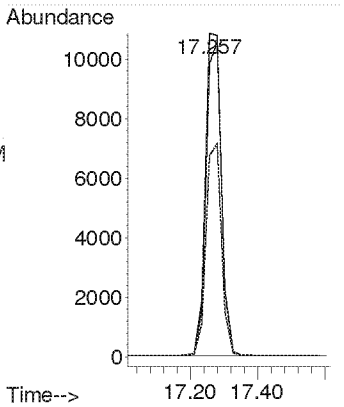




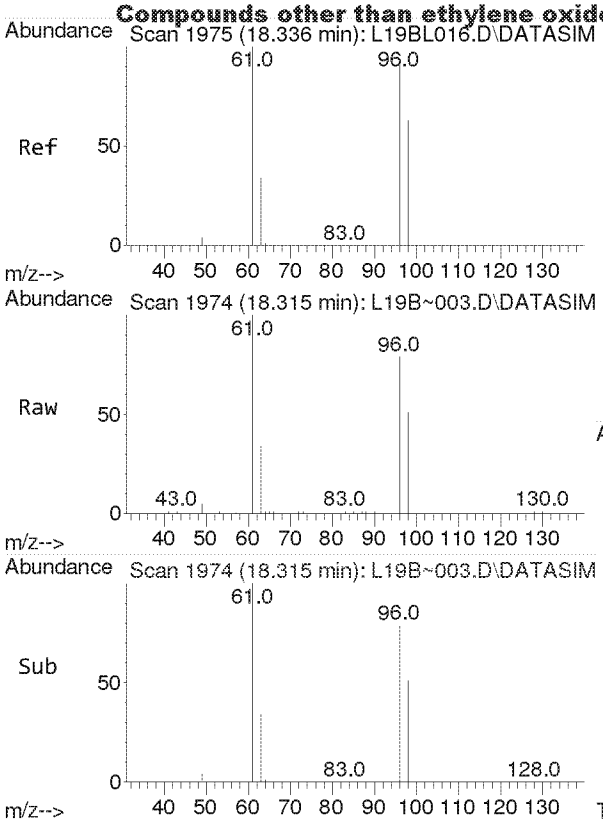
#19
Trichlorotrifluoroethane
Concen: 2.584 ppbv
RT: 17.257 min Scan# 1928
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:101 Resp: 35762

Ion	Ratio	Lower	Upper
101	100		
151	94.4	75.8	113.8
103	64.2	51.1	76.7



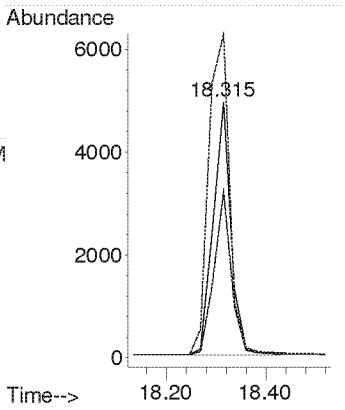
Compounds other than ethylene oxide were not quantitated.

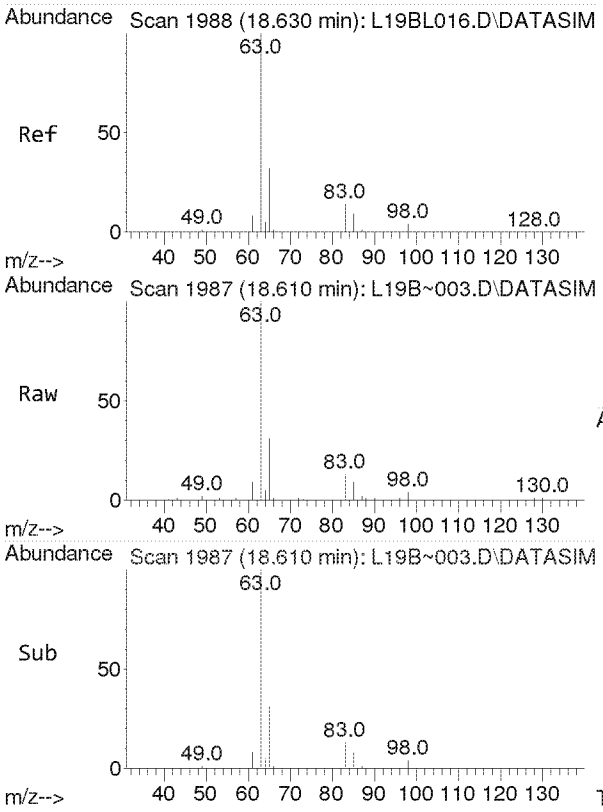


#20
trans-1,2-Dichloroethylene
Concen: 2.453 ppbv
RT: 18.315 min Scan# 1974
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 96 Resp: 12139

Ion	Ratio	Lower	Upper
96	100		
98	63.9	51.5	77.3
61	149.9	122.9	184.3

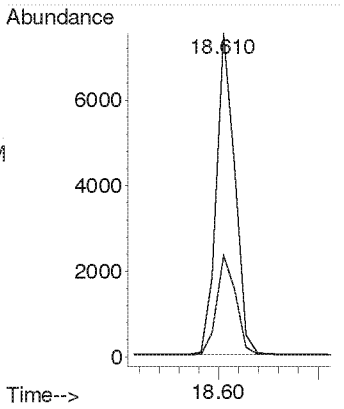




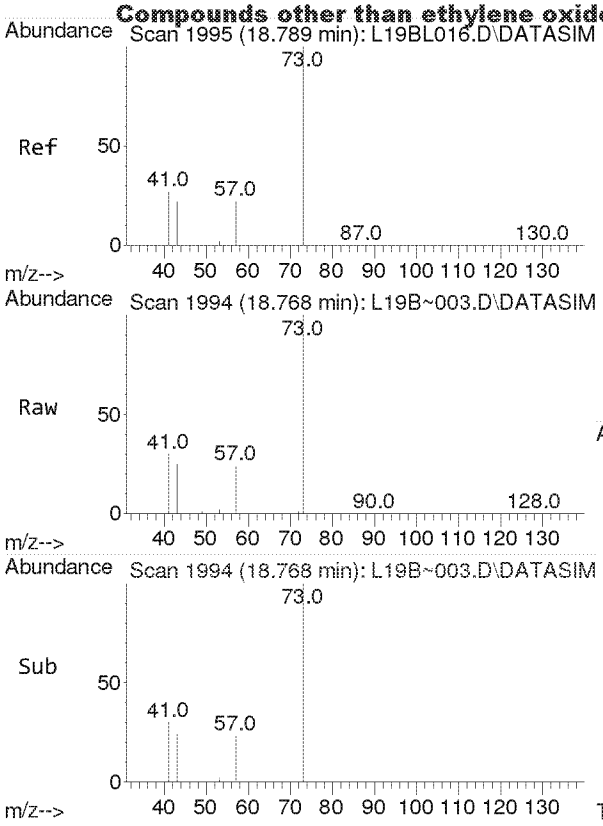
#21
1,1-Dichloroethane
Concen: 2.337 ppbv
RT: 18.610 min Scan# 1987
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 63 Resp: 19439

Ion	Ratio	Lower	Upper
63	100		
65	32.0	25.4	38.0



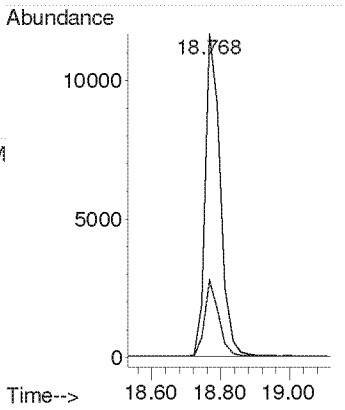
Compounds other than ethylene oxide were not quantitated.

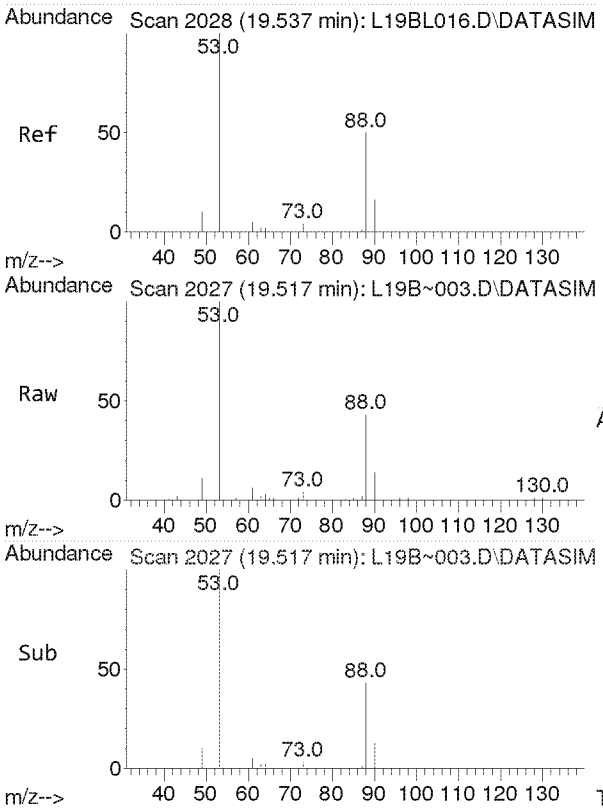


#22
Methyl tert-Butyl Ether
Concen: 2.528 ppbv
RT: 18.768 min Scan# 1994
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 73 Resp: 35266

Ion	Ratio	Lower	Upper
73	100		
57	22.0	18.0	27.0

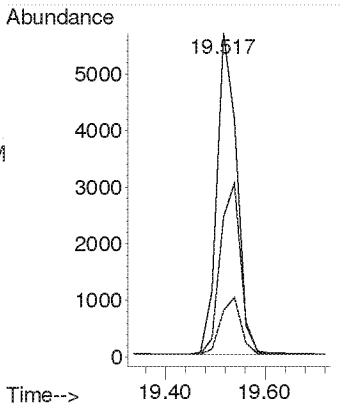




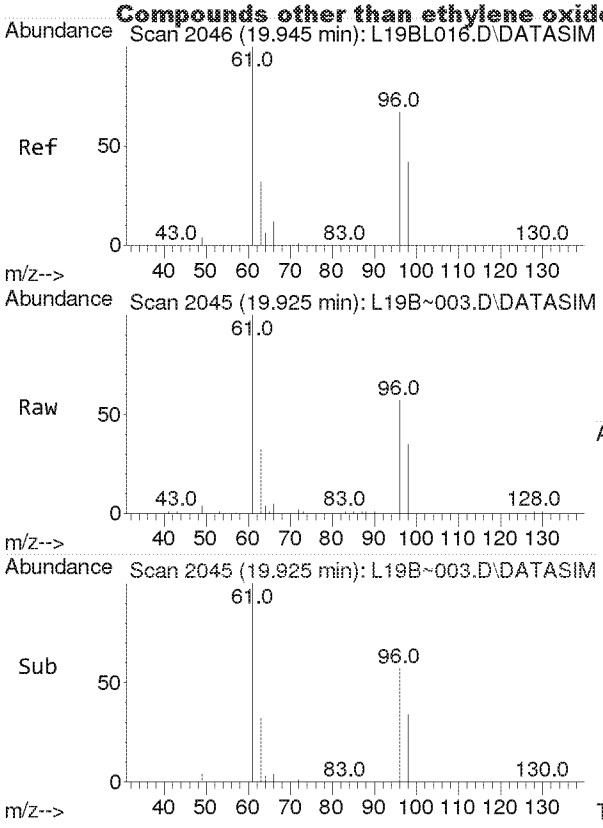
#23
Chloroprene
Concen: 2.321 ppbv
RT: 19.517 min Scan# 2027
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 53 Resp: 15706

Ion	Ratio	Lower	Upper
53	100		
88	55.3	42.6	64.0
90	18.1	13.9	20.9



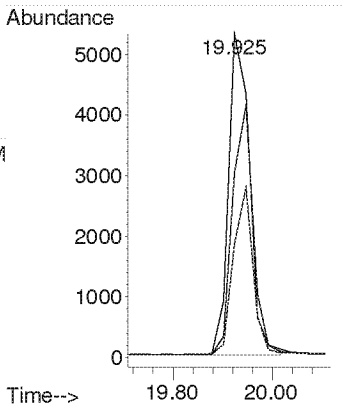
Compounds other than ethylene oxide were not quantitated.

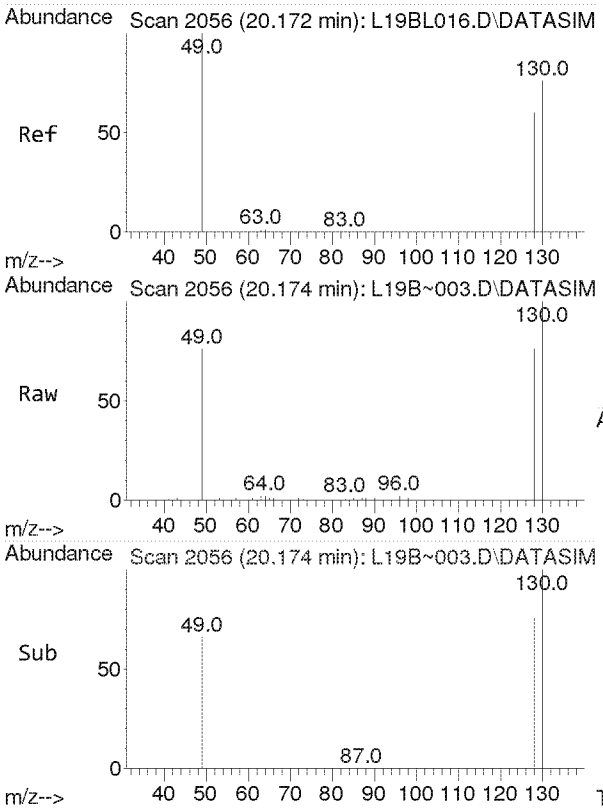


#24
cis-1,2-Dichloroethylene
Concen: 2.352 ppbv
RT: 19.925 min Scan# 2045
Delta R.T. -0.021 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 61 Resp: 15451

Ion	Ratio	Lower	Upper
61	100		
96	75.6	59.0	88.6
98	48.3	37.6	56.4

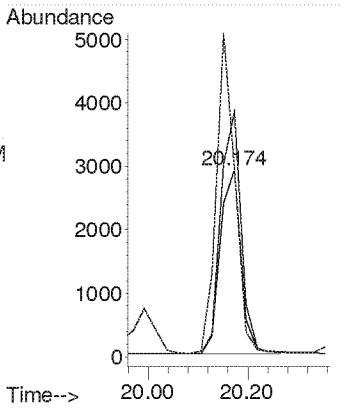




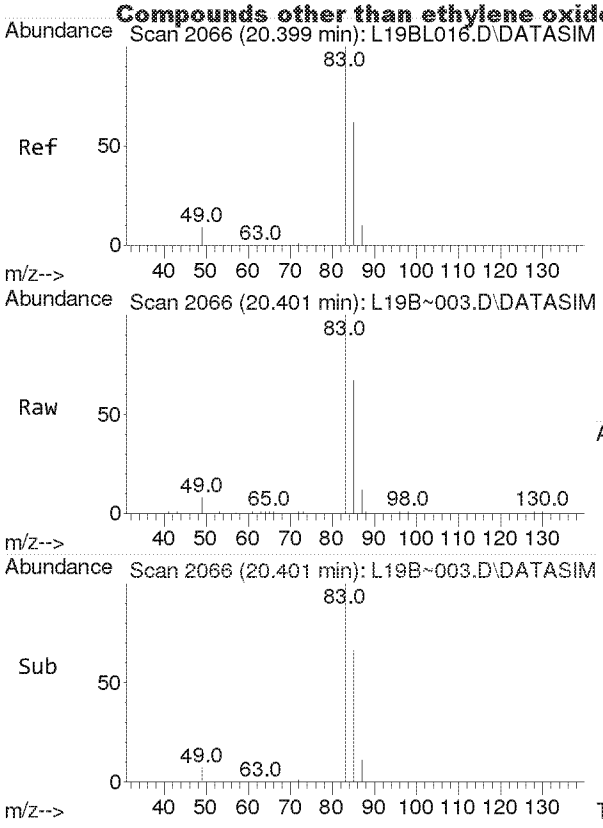
#25
Bromochloromethane
Concen: 2.382 ppbv
RT: 20.174 min Scan# 2056
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:128 Resp: 8457

Ion	Ratio	Lower	Upper
128	100		
130	129.6	103.3	154.9
49	156.2	128.3	192.5



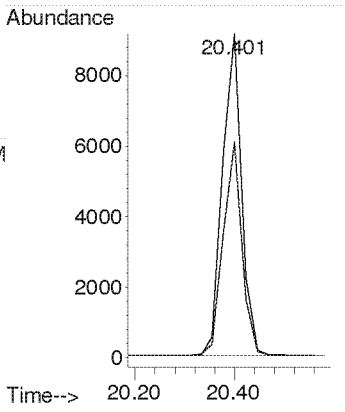
Compounds other than ethylene oxide were not quantitated.

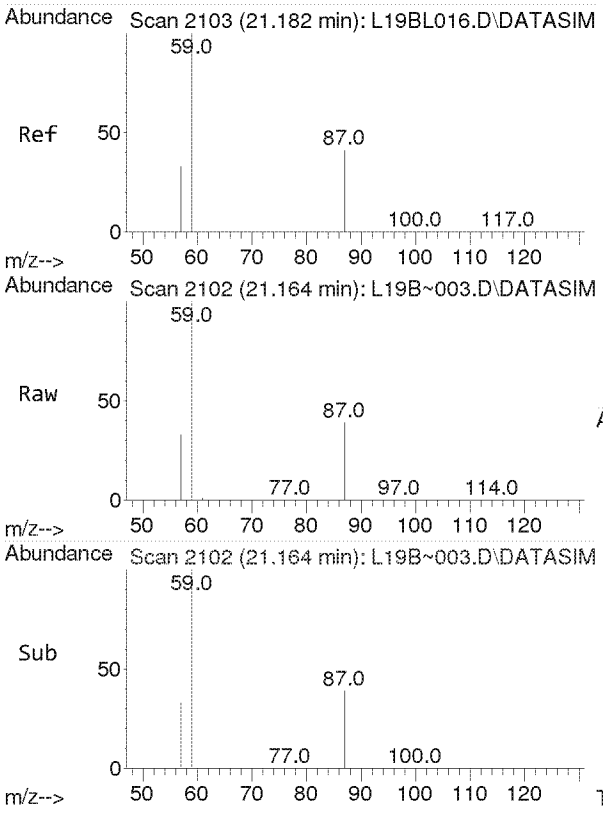


#26
Chloroform
Concen: 2.519 ppbv
RT: 20.401 min Scan# 2066
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 83 Resp: 24313

Ion	Ratio	Lower	Upper
83	100		
85	65.5	51.5	77.3

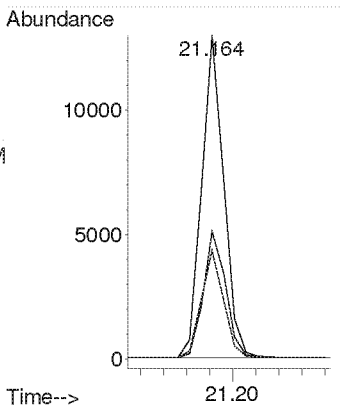




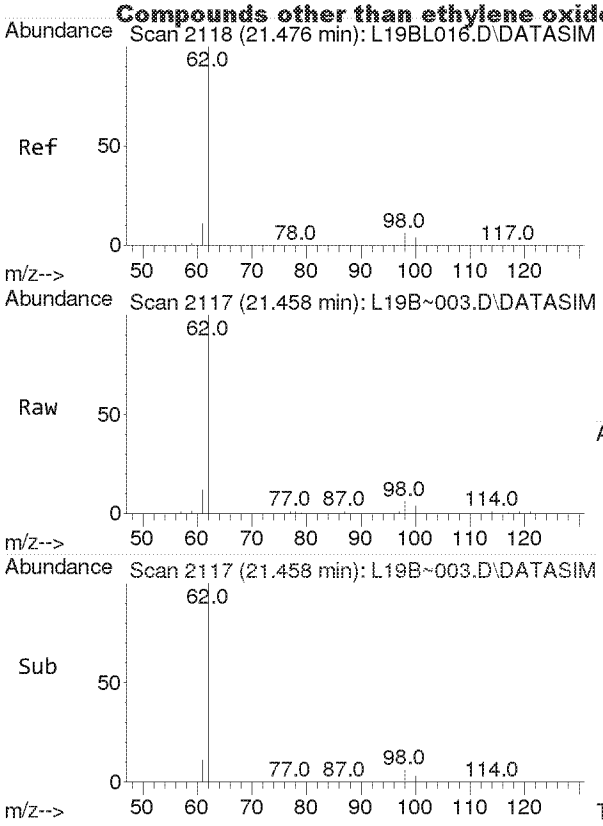
#27
Ethyl tert-Butyl Ether
Concen: 2.579 ppbv
RT: 21.164 min Scan# 2102
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 59 Resp: 34421

Ion	Ratio	Lower	Upper
59	100		
87	39.7	31.5	47.3
57	33.2	26.6	39.8



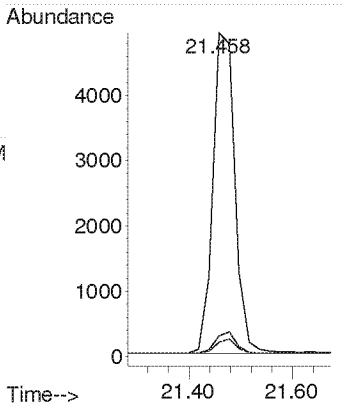
Compounds other than ethylene oxide were not quantitated.

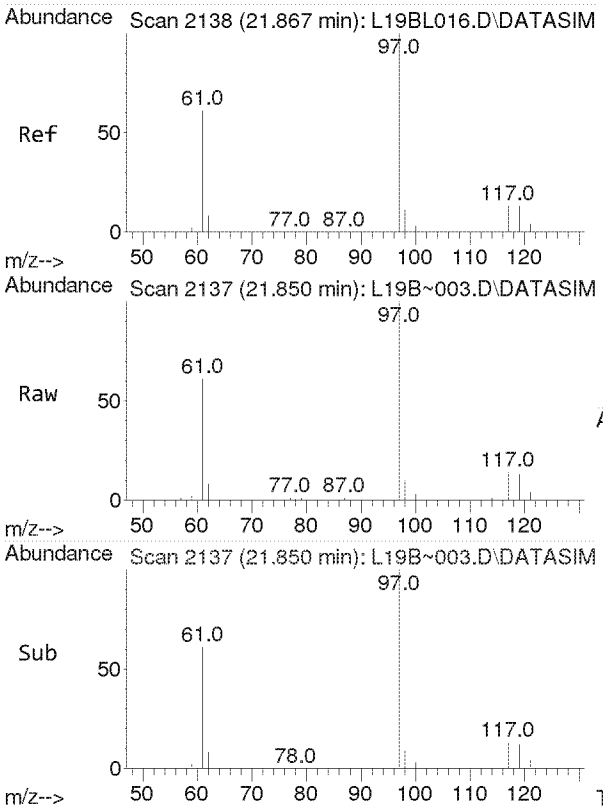


#28
1,2-Dichloroethane
Concen: 2.459 ppbv
RT: 21.458 min Scan# 2117
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 62 Resp: 14569

Ion	Ratio	Lower	Upper
62	100		
98	6.2	5.0	7.6
100	4.1	3.2	4.8

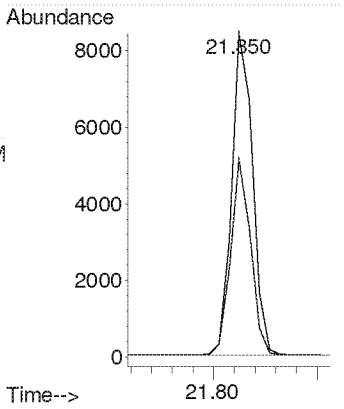




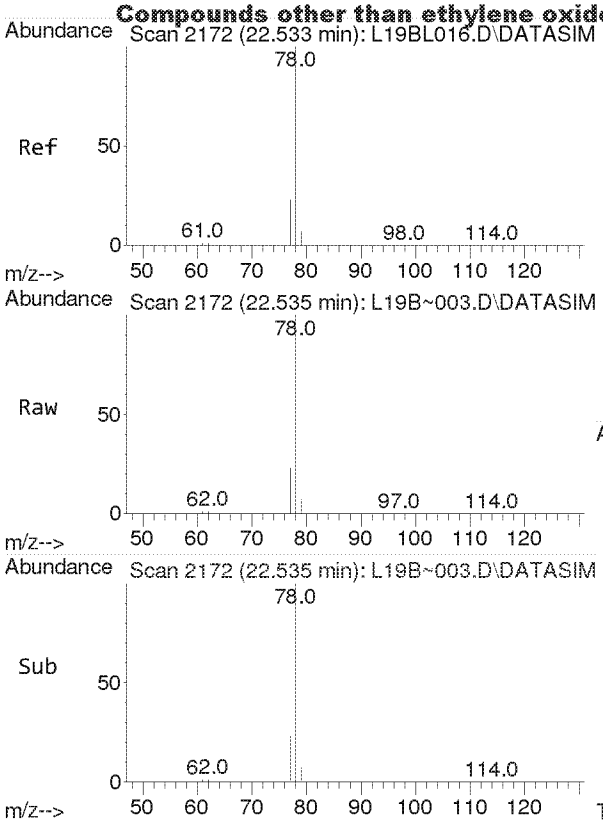
#30
1,1,1-Trichloroethane
Concen: 2.659 ppbv
RT: 21.850 min Scan# 2137
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 97 Resp: 23696

Ion	Ratio	Lower	Upper
97	100		
61	58.2	49.7	74.5



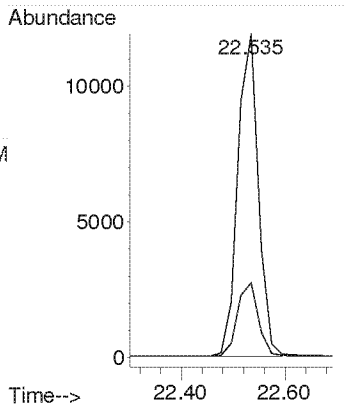
Compounds other than ethylene oxide were not quantitated.

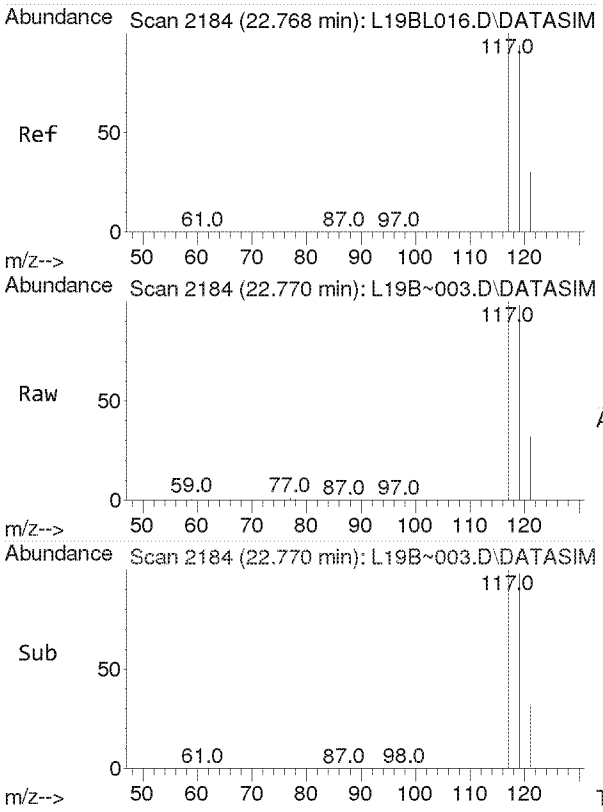


#31
Benzene
Concen: 2.568 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 78 Resp: 32732

Ion	Ratio	Lower	Upper
78	100		
77	23.1	18.2	27.4

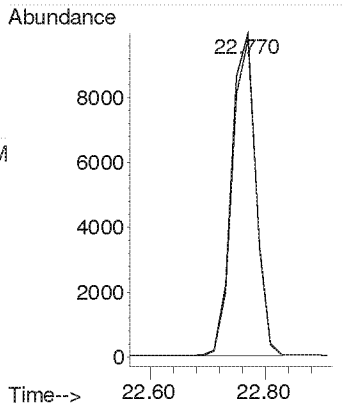




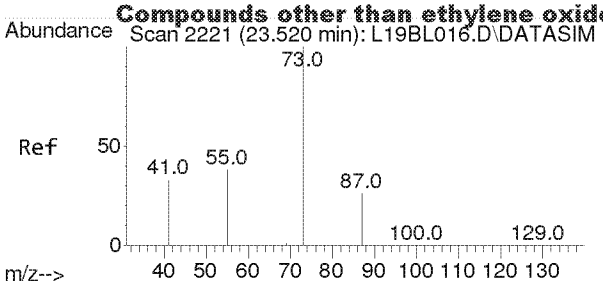
#32
Carbon Tetrachloride
Concen: 3.017 ppbv
RT: 22.770 min Scan# 2184
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:117 Resp: 28797

Ion	Ratio	Lower	Upper
117	100		
119	96.4	77.0	115.6



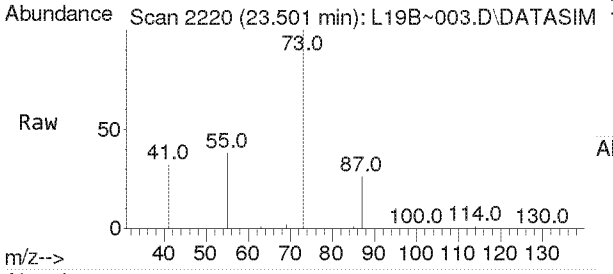
Compounds other than ethylene oxide were not quantitated.

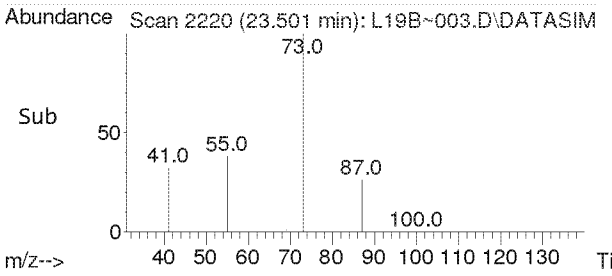


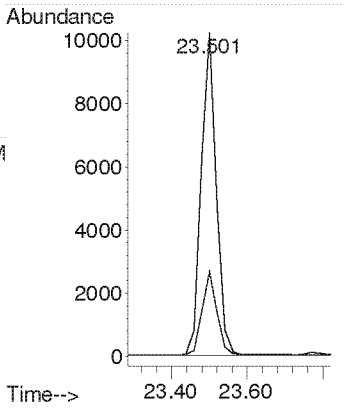
#33
tert-Amyl Methyl Ether
Concen: 2.607 ppbv
RT: 23.501 min Scan# 2220
Delta R.T. -0.018 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

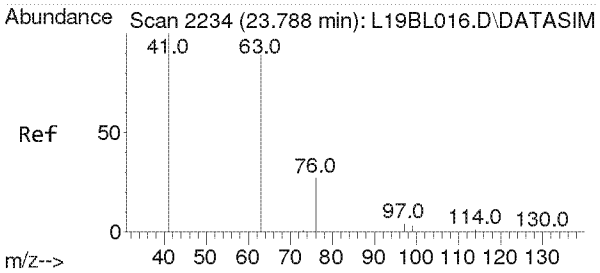
Tgt Ion: 73 Resp: 28218

Ion	Ratio	Lower	Upper
73	100		
87	25.4	20.1	30.1





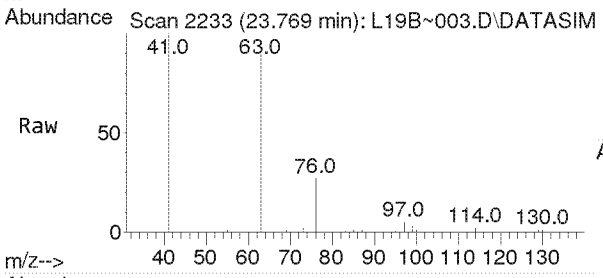


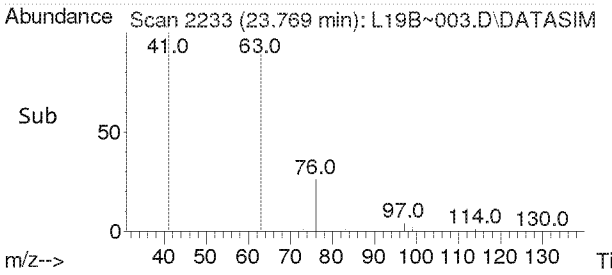


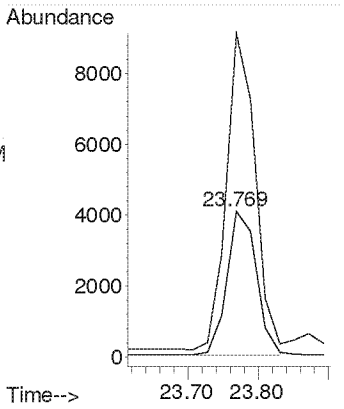
#34
1,2-Dichloropropane
Concen: 2.436 ppbv
RT: 23.769 min Scan# 2233
Delta R.T. -0.018 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 63 Resp: 11803

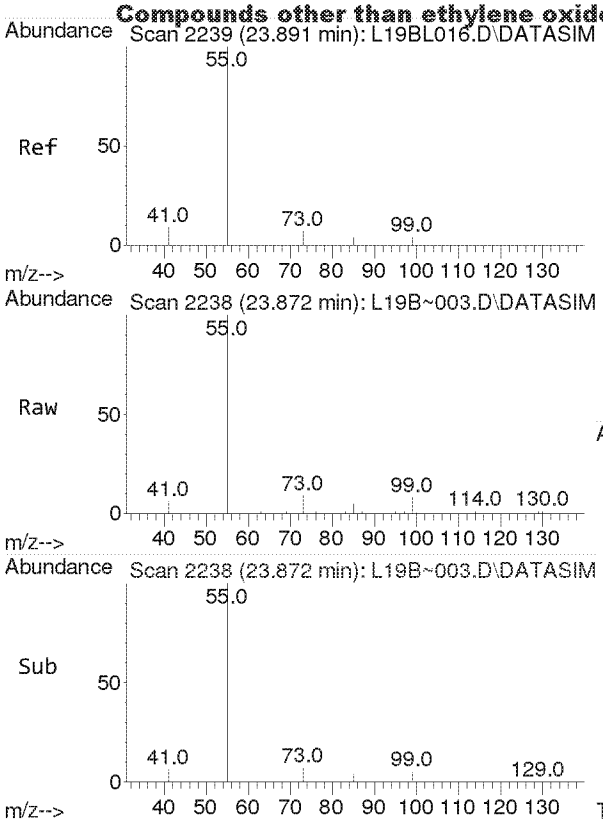
Ion	Ratio	Lower	Upper
63	100		
41	213.7	175.9	263.9







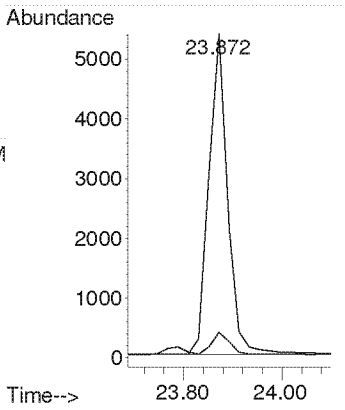
Compounds other than ethylene oxide were not quantitated.

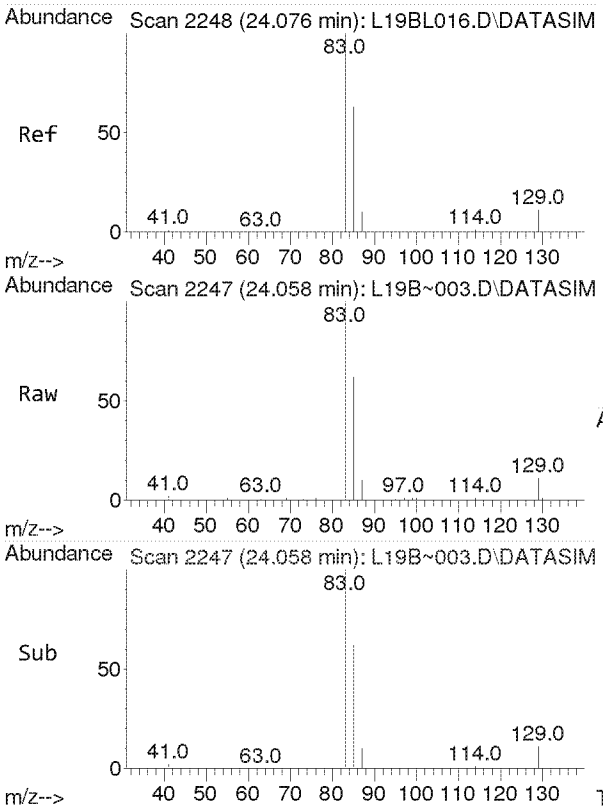


#35
Ethyl Acrylate
Concen: 3.424 ppbv
RT: 23.872 min Scan# 2238
Delta R.T. -0.018 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 55 Resp: 14093

Ion	Ratio	Lower	Upper
55	100		
99	6.6	5.0	7.6

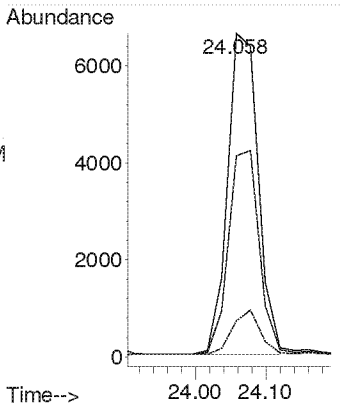




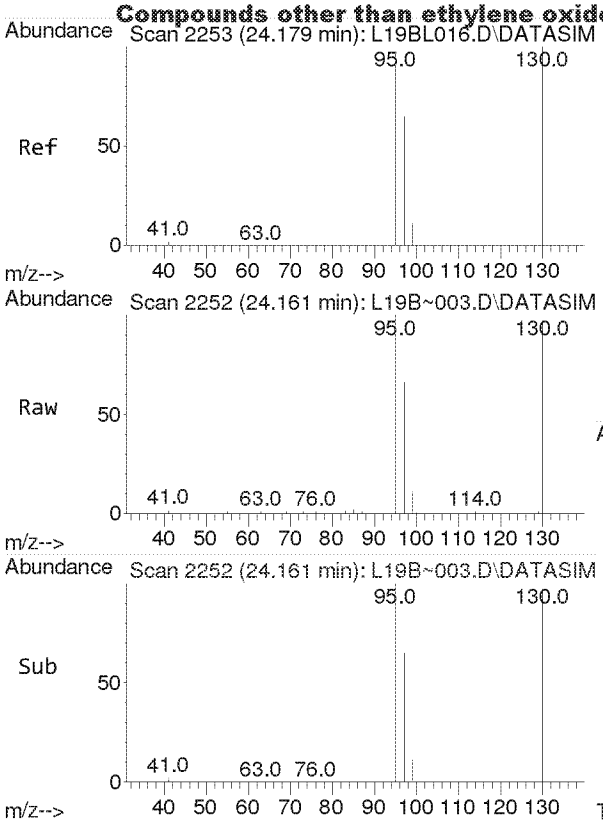
#36
Bromodichloromethane
Concen: 2.345 ppbv
RT: 24.058 min Scan# 2247
Delta R.T. -0.018 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 83 Resp: 20104

Ion	Ratio	Lower	Upper
83	100		
85	63.7	51.0	76.4
129	12.6	9.9	14.9



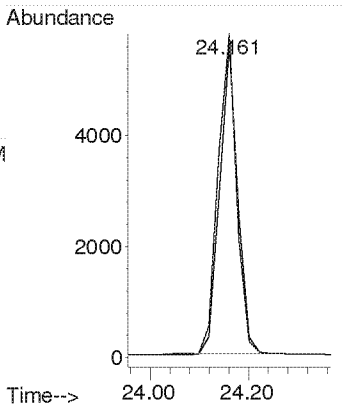
Compounds other than ethylene oxide were not quantitated.

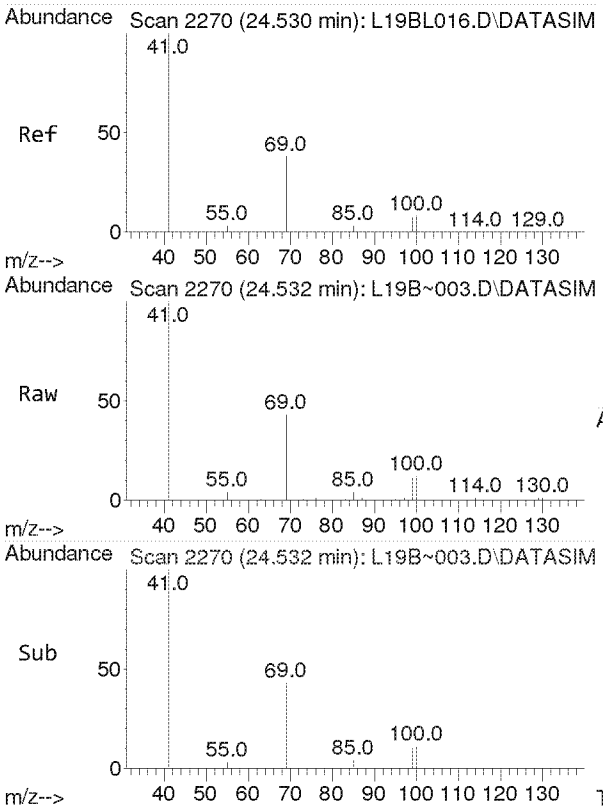


#37
Trichloroethylene
Concen: 2.353 ppbv
RT: 24.161 min Scan# 2252
Delta R.T. -0.018 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:130 Resp: 14286

Ion	Ratio	Lower	Upper
130	100		
95	106.9	84.9	127.3

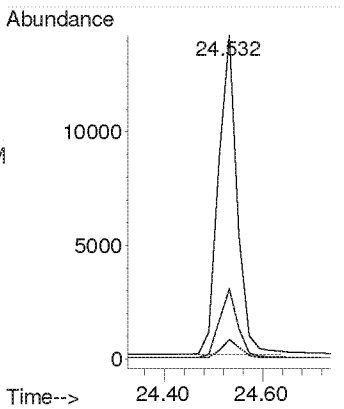




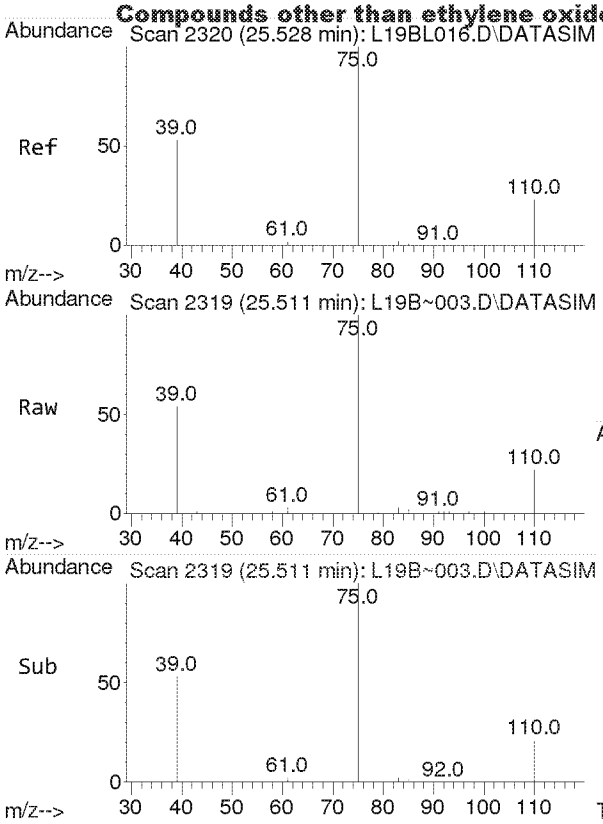
#38
Methyl Methacrylate
Concen: 3.023 ppbv
RT: 24.532 min Scan# 2270
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 41 Resp: 37345

Ion	Ratio	Lower	Upper
41	100		
69	21.3	16.8	25.2
100	5.7	4.5	6.7



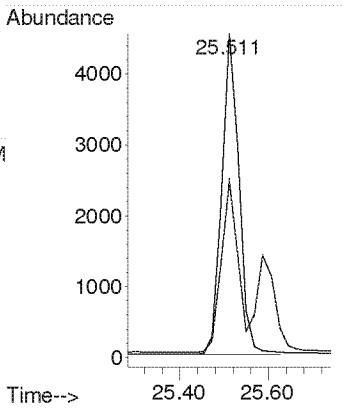
Compounds other than ethylene oxide were not quantitated.

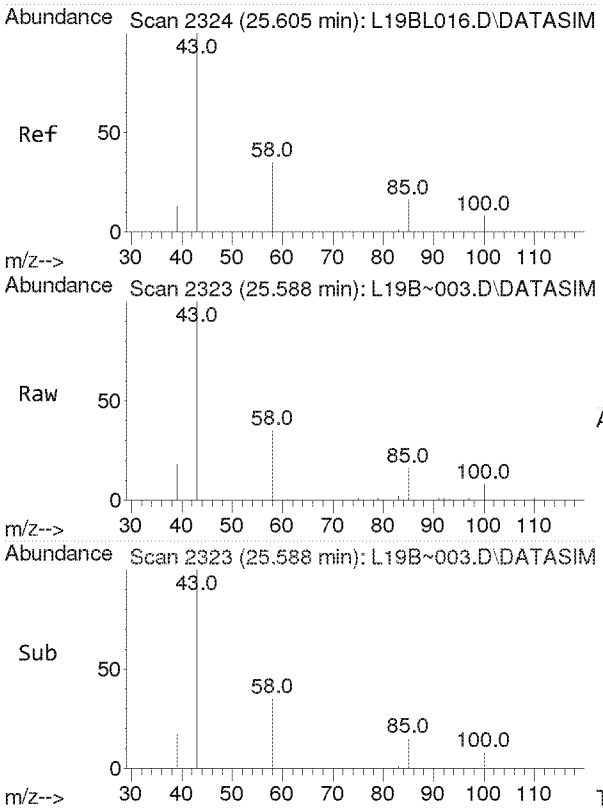


#39
cis-1,3-Dichloropropene
Concen: 2.855 ppbv
RT: 25.511 min Scan# 2319
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 75 Resp: 12013

Ion	Ratio	Lower	Upper
75	100		
39	51.6	43.4	65.0

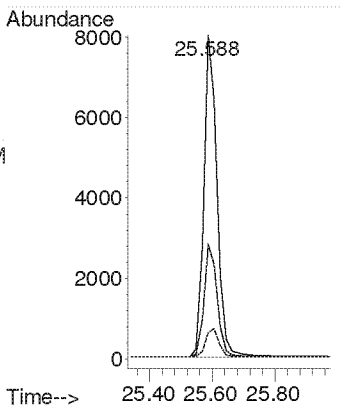




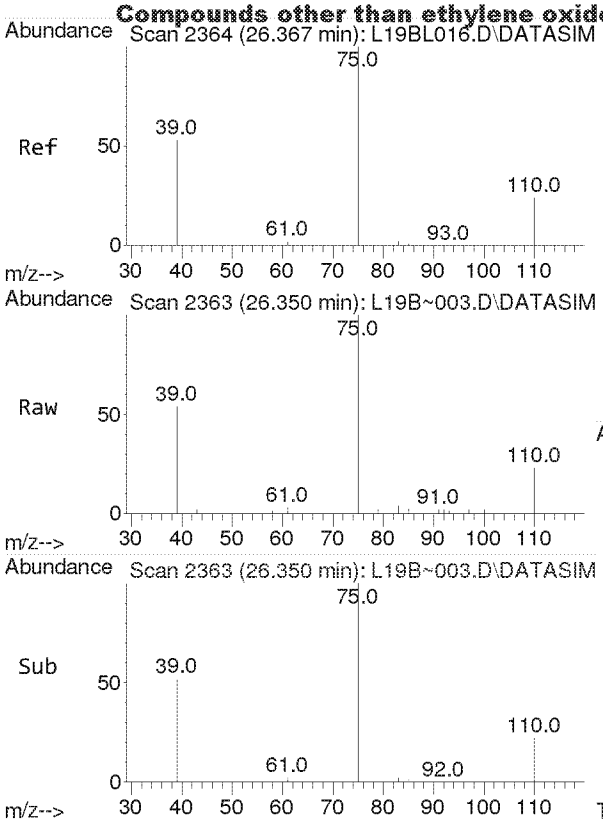
#40
Methyl Isobutyl Ketone
Concen: 2.558 ppbv
RT: 25.588 min Scan# 2323
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 43 Resp: 23234

Ion	Ratio	Lower	Upper
43	100		
58	35.3	28.0	42.0
100	8.9	7.0	10.4



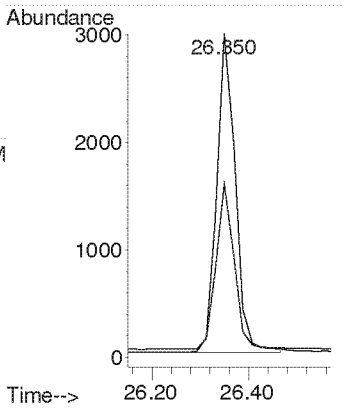
Compounds other than ethylene oxide were not quantitated.

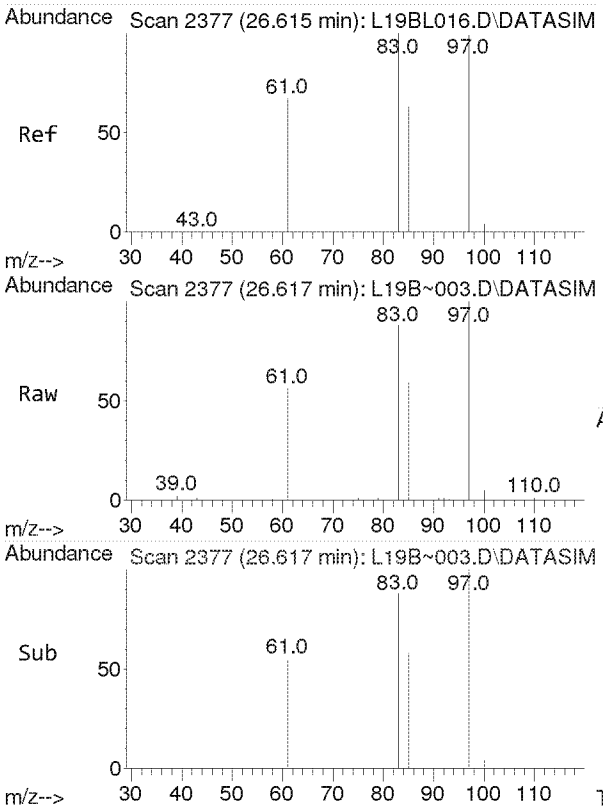


#41
trans-1,3-Dichloropropene
Concen: 2.792 ppbv
RT: 26.350 min Scan# 2363
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 75 Resp: 7870

Ion	Ratio	Lower	Upper
75	100		
39	50.6	42.9	64.3

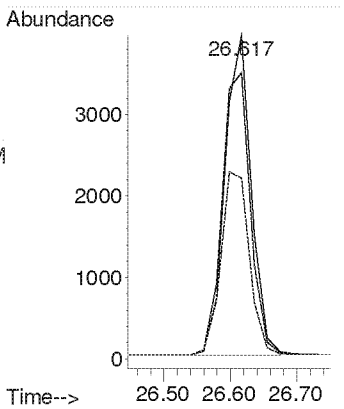




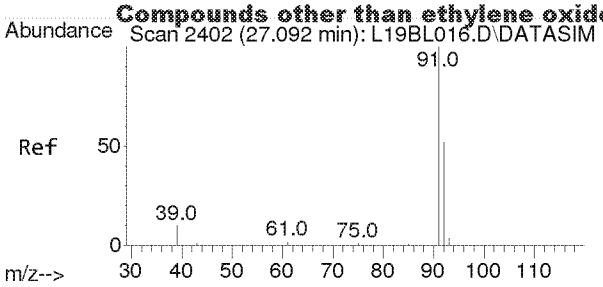
#42
1,1,2-Trichloroethane
Concen: 2.451 ppbv
RT: 26.617 min Scan# 2377
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 97 Resp: 10865

Ion	Ratio	Lower	Upper
97	100		
83	94.4	75.4	113.0
61	62.2	49.8	74.6



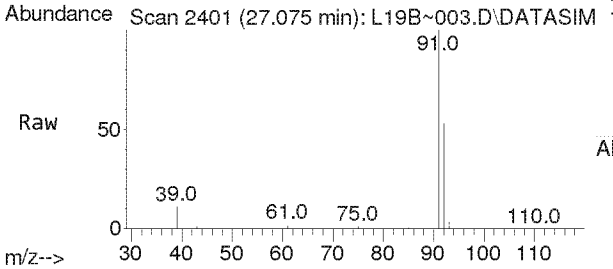
Compounds other than ethylene oxide were not quantitated.

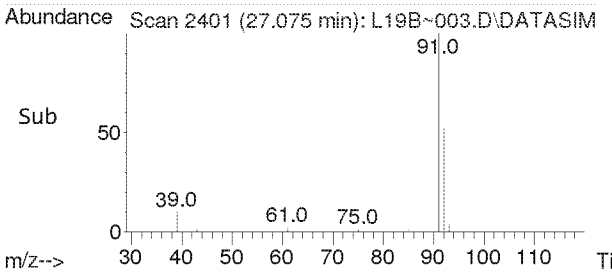


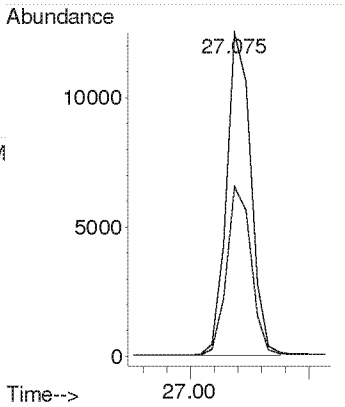
#44
Toluene
Concen: 2.423 ppbv
RT: 27.075 min Scan# 2401
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

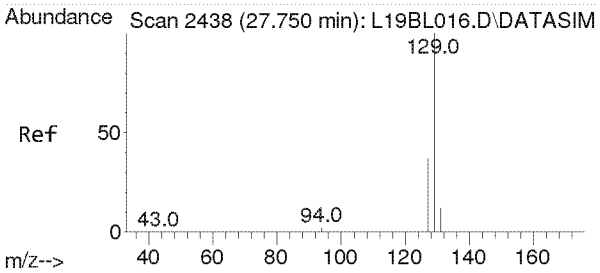
Tgt Ion: 91 Resp: 35336

Ion	Ratio	Lower	Upper
91	100		
92	52.6	42.0	63.0





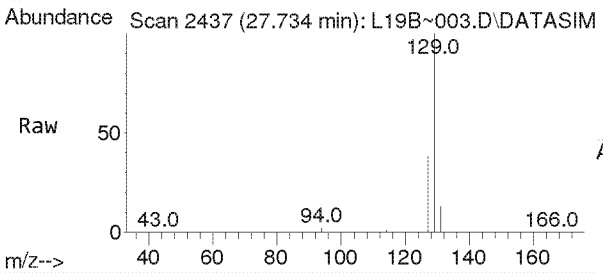


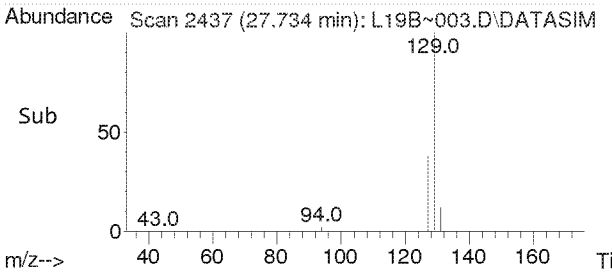


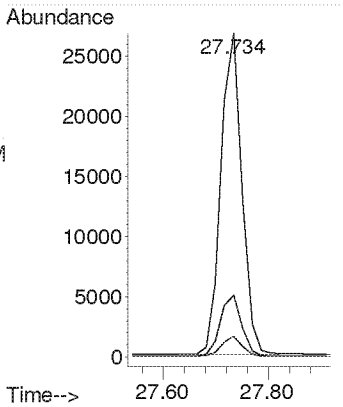
#45
Dibromochloromethane
Concen: 2.579 ppbv
RT: 27.734 min Scan# 2437
Delta R.T. -0.015 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:129 Resp: 73830

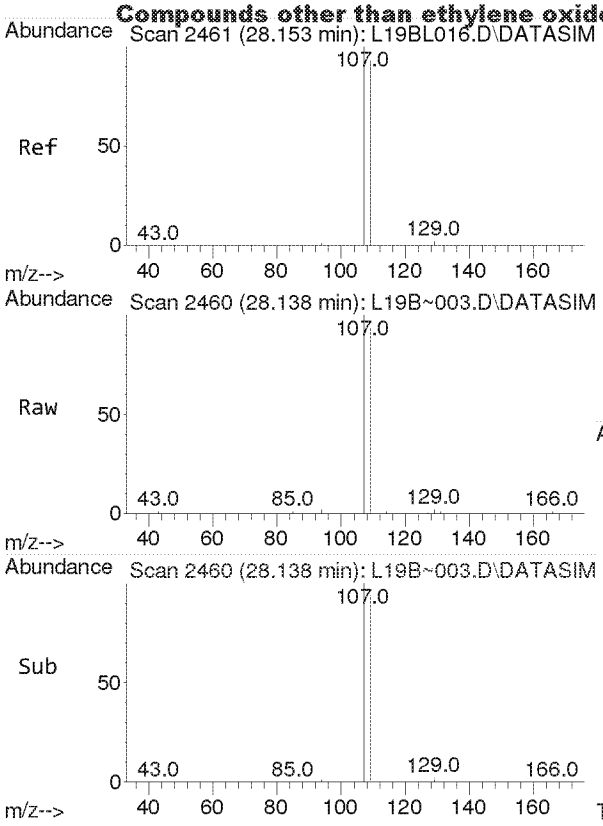
Ion	Ratio	Lower	Upper
129	100		
127	19.2	15.4	23.2
131	6.0	4.8	7.2







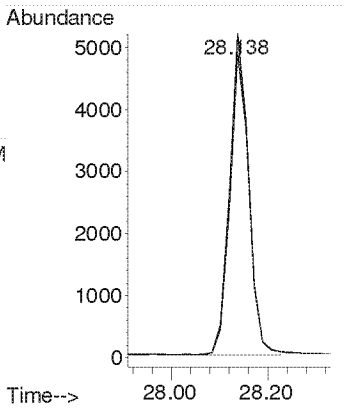
Compounds other than ethylene oxide were not quantitated.

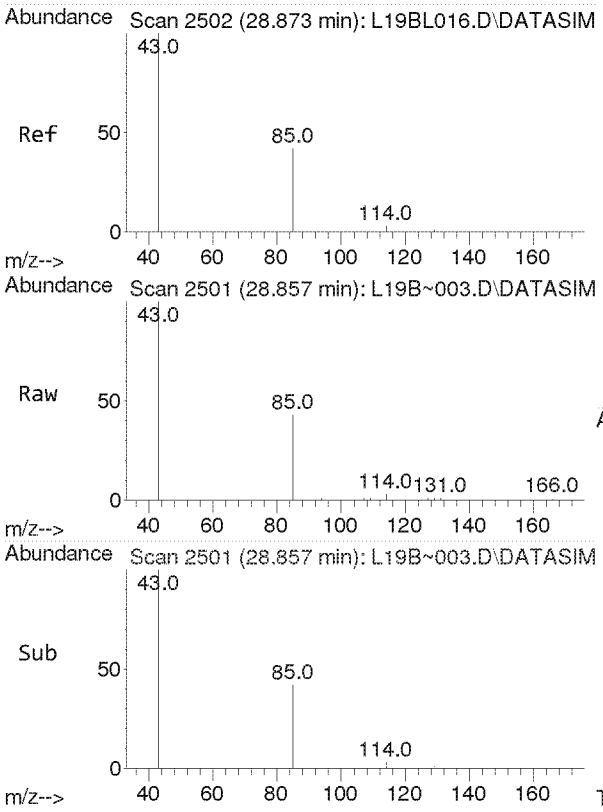


#46
1,2-Dibromoethane
Concen: 2.593 ppbv
RT: 28.138 min Scan# 2460
Delta R.T. -0.015 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:107 Resp: 14180

Ion	Ratio	Lower	Upper
107	100		
109	94.6	75.4	113.0

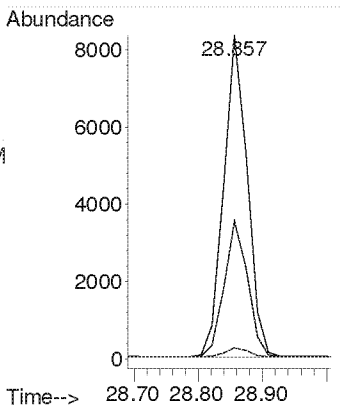




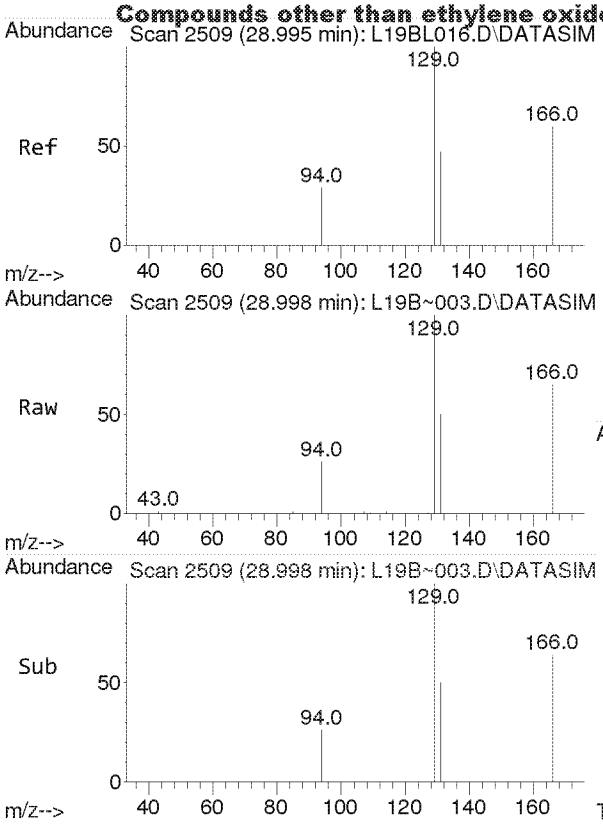
#47
n-Octane
Concen: 2.412 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. -0.015 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 43 Resp: 21186

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



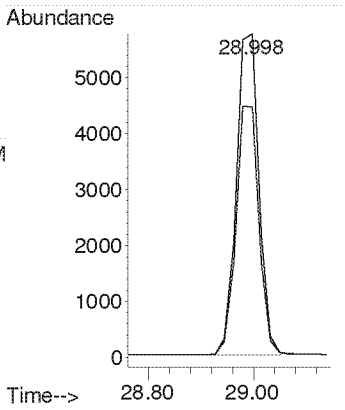
Compounds other than ethylene oxide were not quantitated.

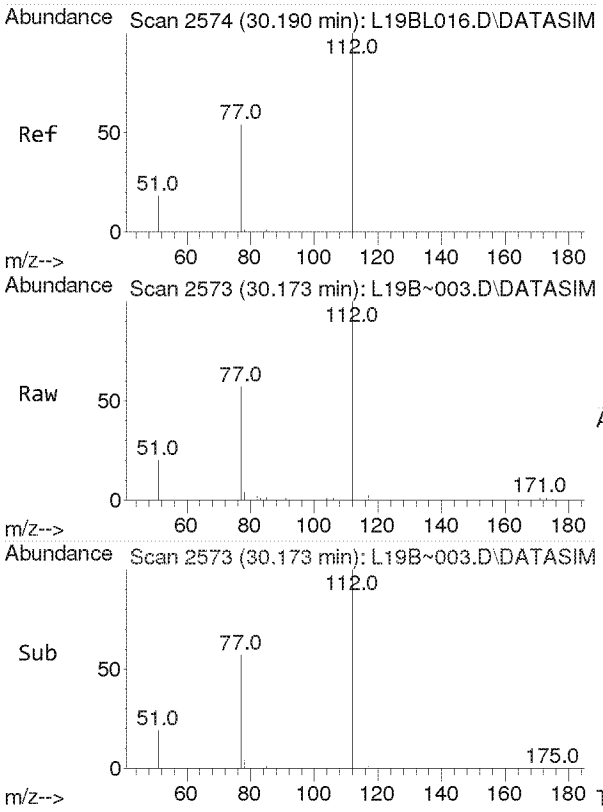


#48
Tetrachloroethylene
Concen: 2.426 ppbv
RT: 28.998 min Scan# 2509
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:166 Resp: 17025

Ion	Ratio	Lower	Upper
166	100		
131	78.4	61.5	92.3

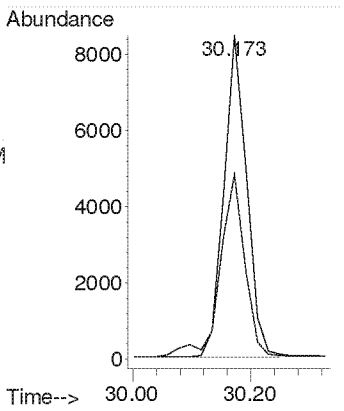




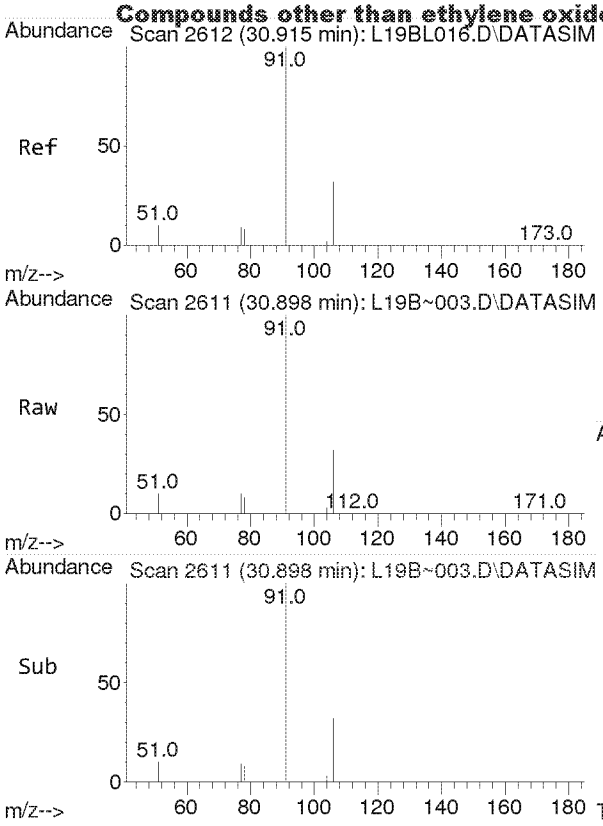
#49
Chlorobenzene
Concen: 2.417 ppbv
RT: 30.173 min Scan# 2573
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:112 Resp: 22491

Ion	Ratio	Lower	Upper
112	100		
77	59.7	47.8	71.6



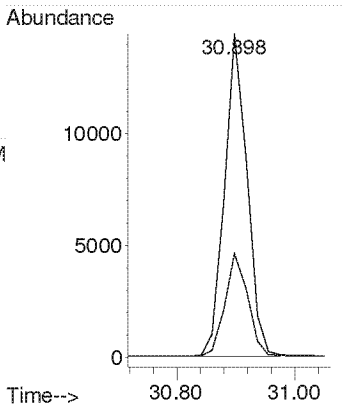
Compounds other than ethylene oxide were not quantitated.

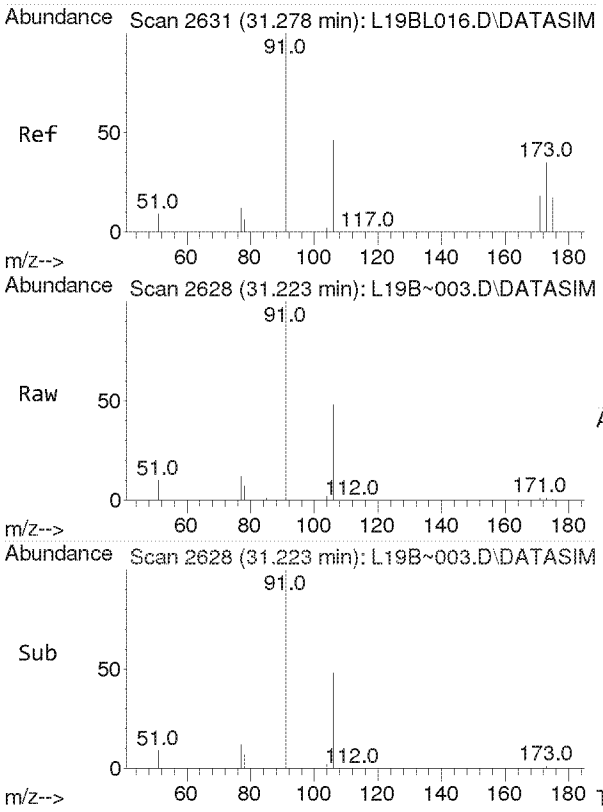


#50
Ethylbenzene
Concen: 2.483 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 91 Resp: 38070

Ion	Ratio	Lower	Upper
91	100		
106	32.3	26.0	39.0

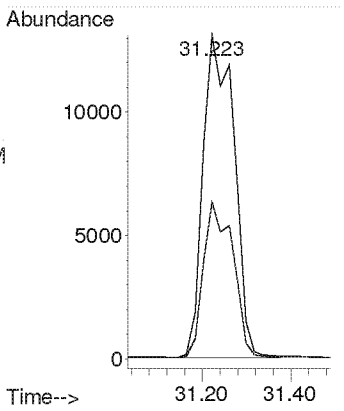




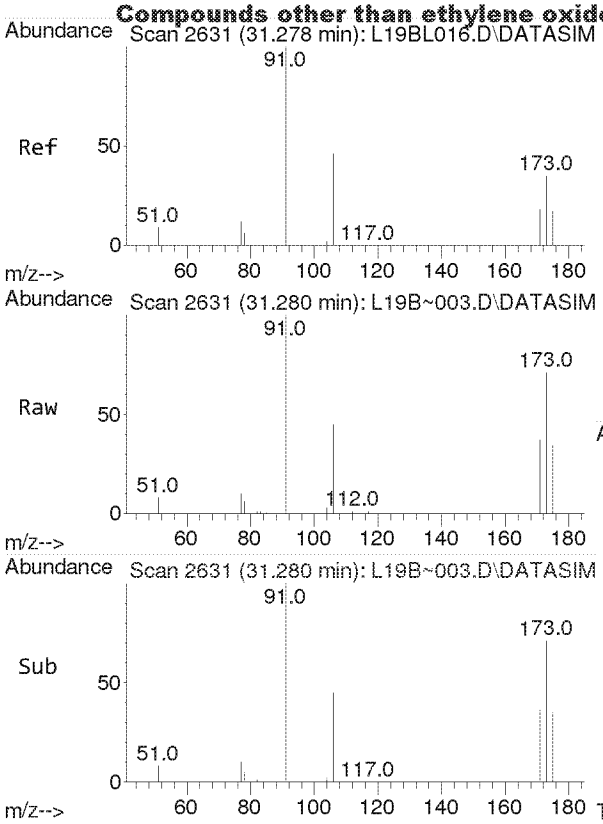
#51
m,p-Xylene
Concen: 4.883 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 91 Resp: 63133

Ion	Ratio	Lower	Upper
91	100		
106	45.9	37.3	55.9



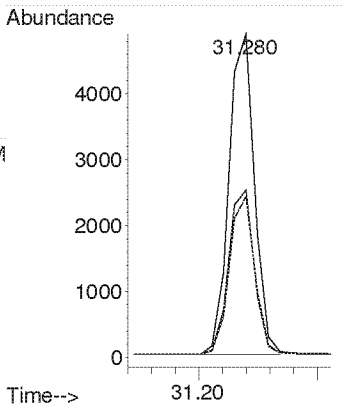
Compounds other than ethylene oxide were not quantitated.

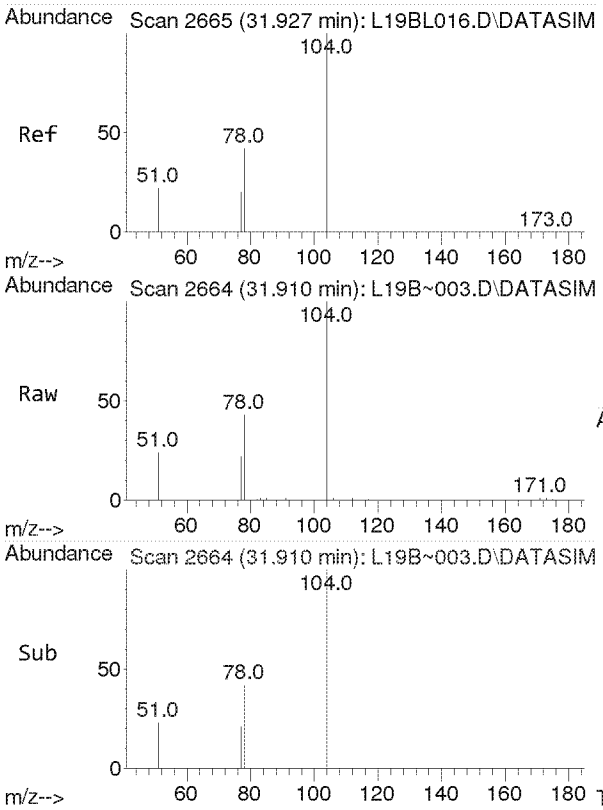


#52
Bromoform
Concen: 2.614 ppbv
RT: 31.280 min Scan# 2631
Delta R.T. 0.002 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:173 Resp: 14467

Ion	Ratio	Lower	Upper
173	100		
171	51.5	41.0	61.6
175	49.0	39.1	58.7

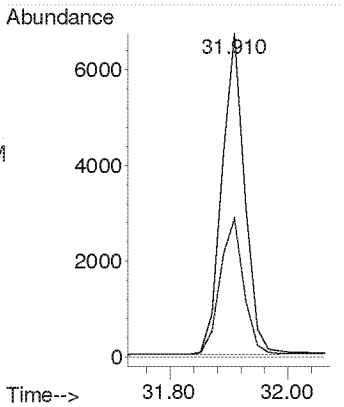




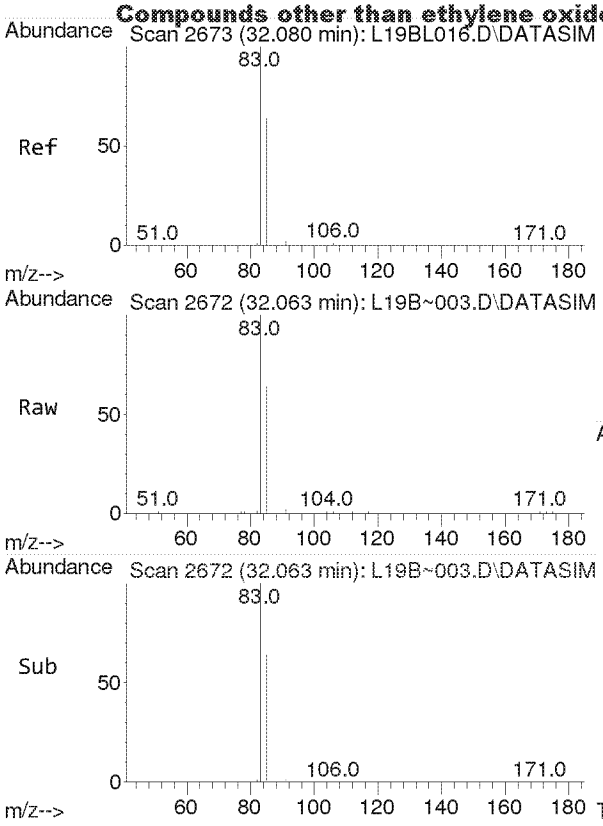
#53
Styrene
Concen: 2.433 ppbv
RT: 31.910 min Scan# 2664
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:104 Resp: 17839

Ion	Ratio	Lower	Upper
104	100		
78	43.9	35.4	53.2
103	0.0	0.0	0.0



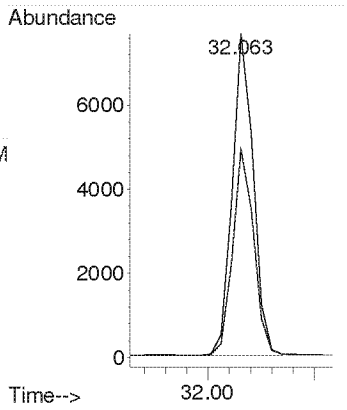
Compounds other than ethylene oxide were not quantitated.

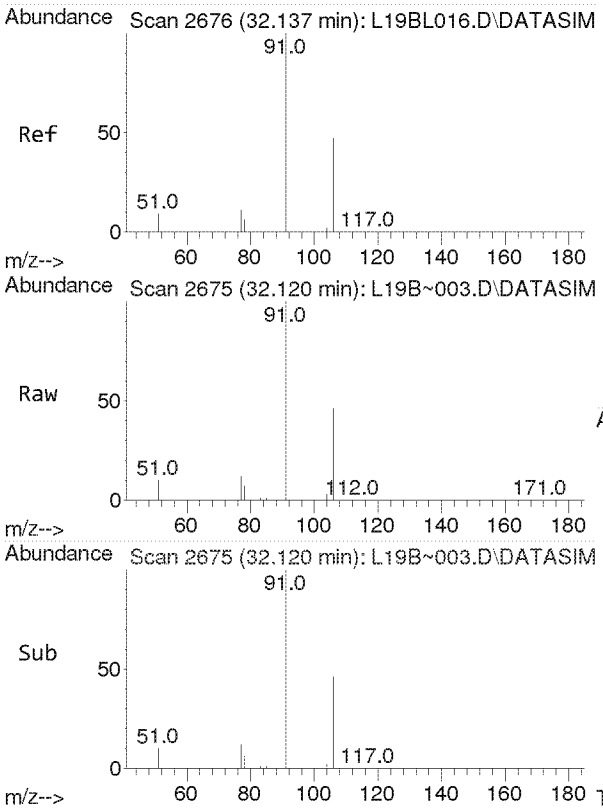


#54
1,1,2,2-Tetrachloroethane
Concen: 2.526 ppbv
RT: 32.063 min Scan# 2672
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 83 Resp: 21078

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.6	77.4

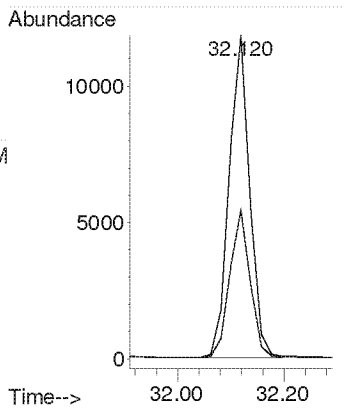




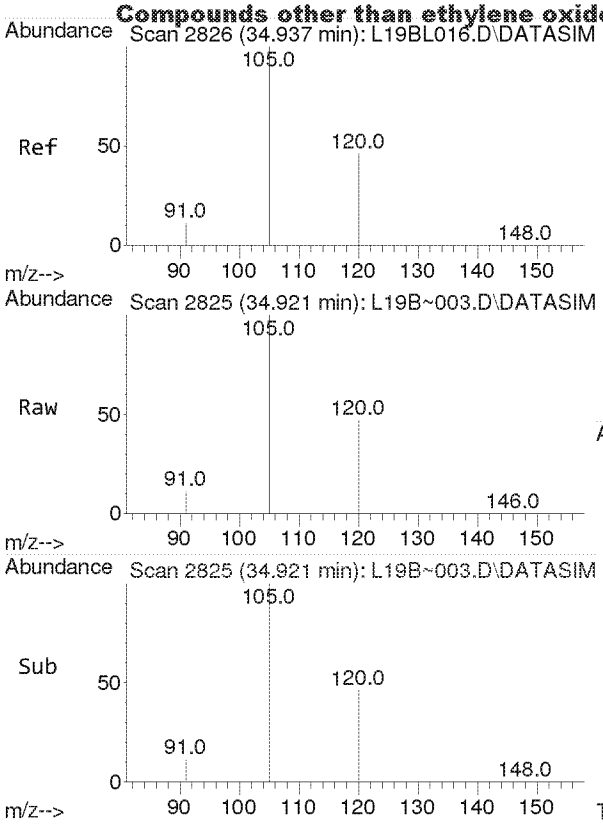
#55
o-Xylene
Concen: 2.503 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion: 91 Resp: 31947

Ion	Ratio	Lower	Upper
91	100		
106	45.3	36.6	55.0



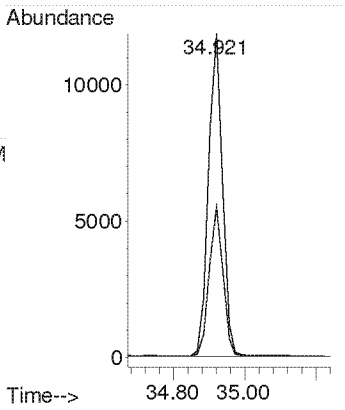
Compounds other than ethylene oxide were not quantitated.

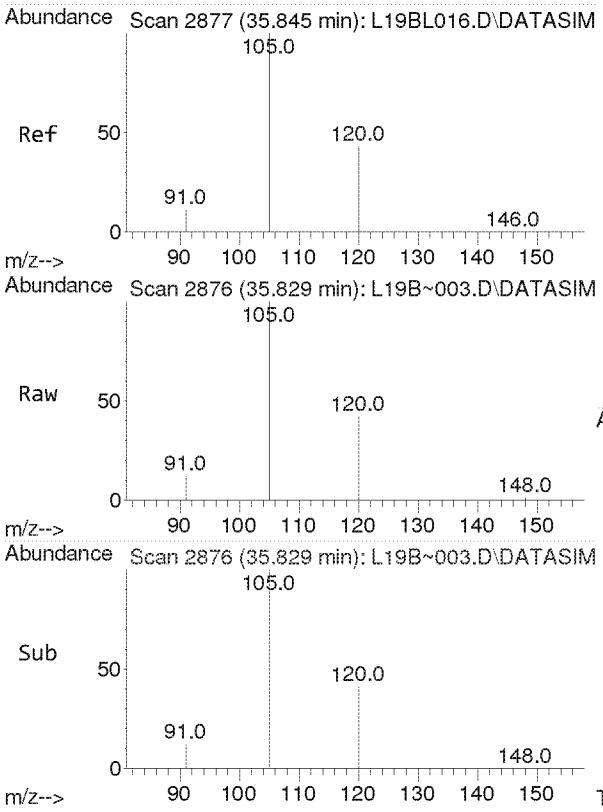


#56
1,3,5-Trimethylbenzene
Concen: 2.343 ppbv
RT: 34.921 min Scan# 2825
Delta R.T. -0.016 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:105 Resp: 32116

Ion	Ratio	Lower	Upper
105	100		
120	45.5	36.8	55.2

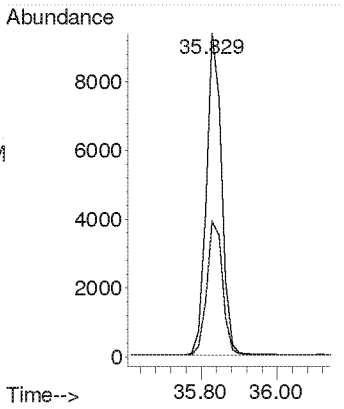




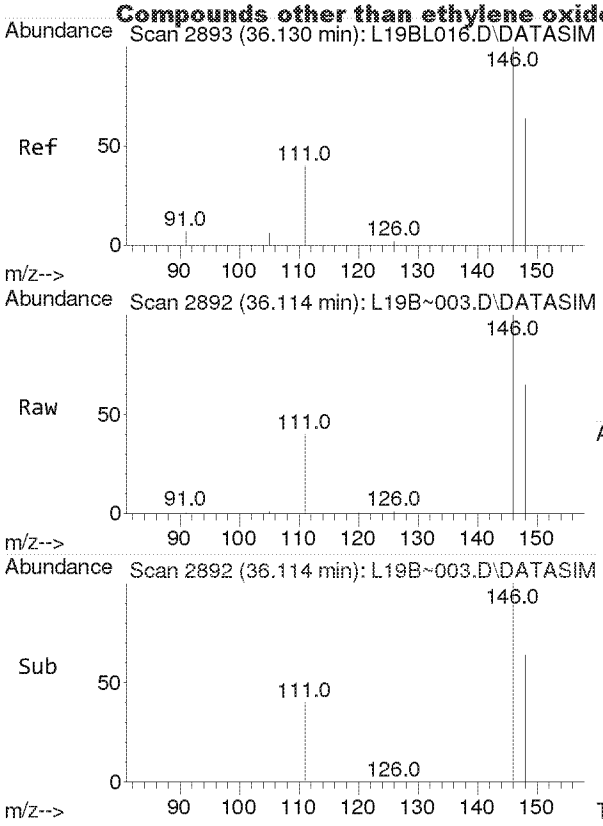
#57
1,2,4-Trimethylbenzene
Concen: 2.203 ppbv
RT: 35.829 min Scan# 2876
Delta R.T. -0.016 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:105 Resp: 26122

Ion	Ratio	Lower	Upper
105	100		
120	43.1	35.2	52.8



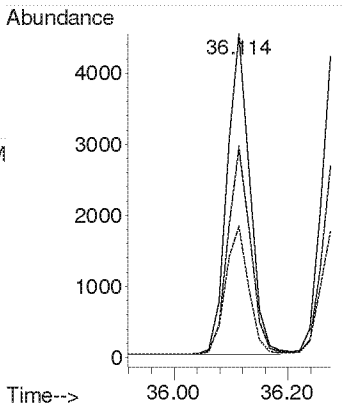
Compounds other than ethylene oxide were not quantitated.

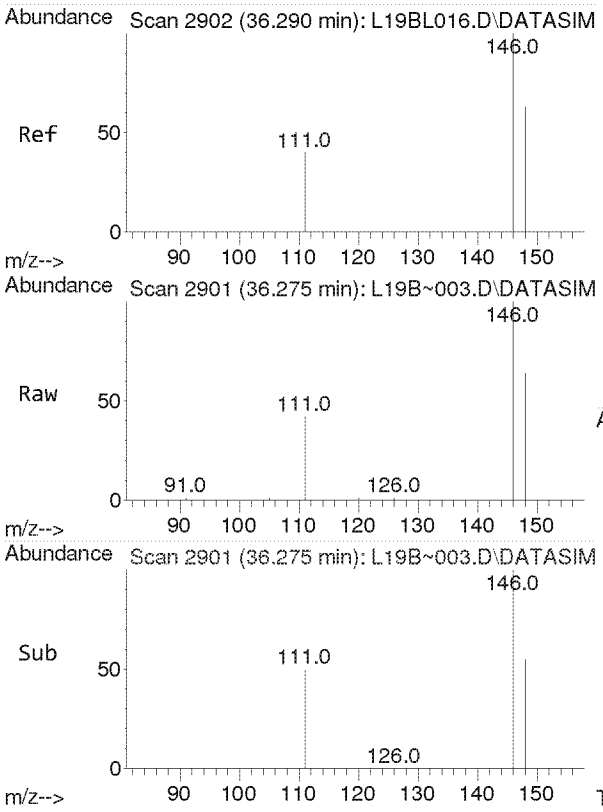


#58
m-Dichlorobenzene
Concen: 2.003 ppbv
RT: 36.114 min Scan# 2892
Delta R.T. -0.016 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:146 Resp: 12484

Ion	Ratio	Lower	Upper
146	100		
148	64.3	51.3	76.9
111	40.8	32.1	48.1

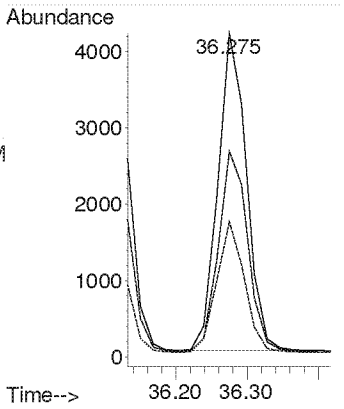




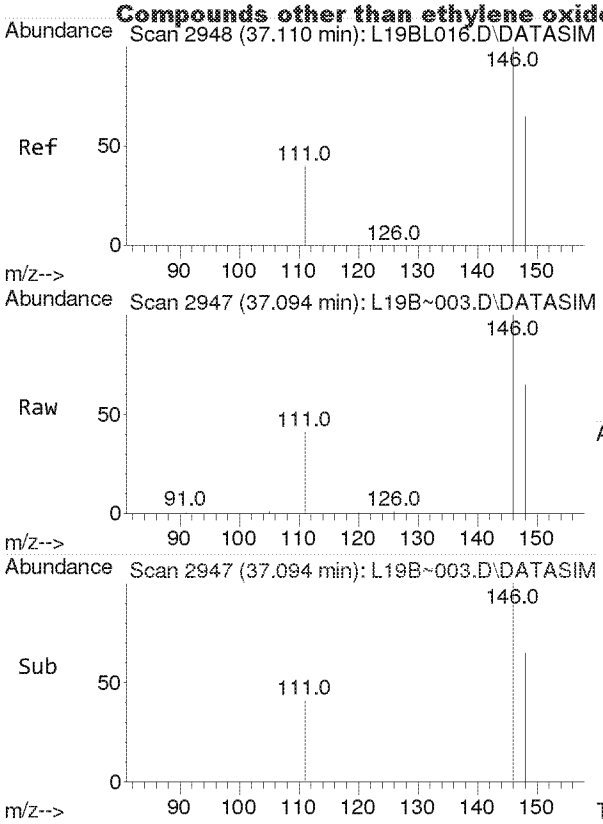
#59
p-Dichlorobenzene
Concen: 2.284 ppbv
RT: 36.275 min Scan# 2901
Delta R.T. -0.016 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:146 Resp: 11599

Ion	Ratio	Lower	Upper
146	100		
148	64.7	51.4	77.2
111	40.2	31.0	46.4



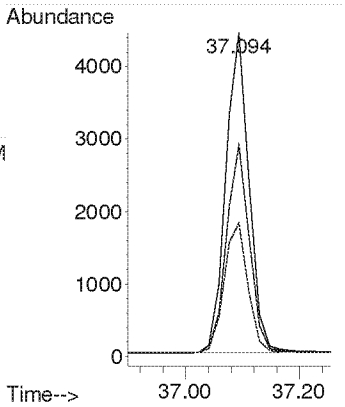
Compounds other than ethylene oxide were not quantitated.

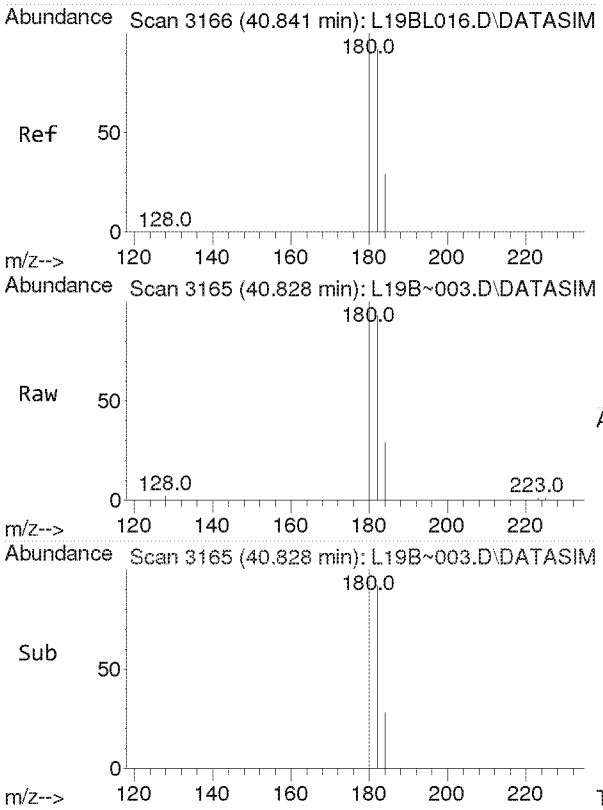


#60
o-Dichlorobenzene
Concen: 2.204 ppbv
RT: 37.094 min Scan# 2947
Delta R.T. -0.016 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:146 Resp: 12567

Ion	Ratio	Lower	Upper
146	100		
148	64.2	51.2	76.8
111	41.8	32.6	49.0

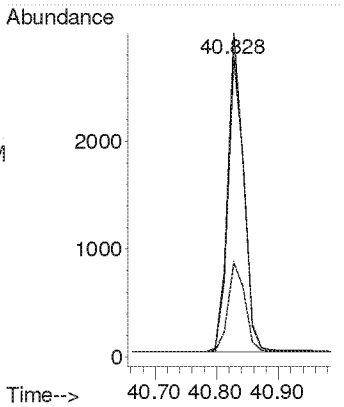




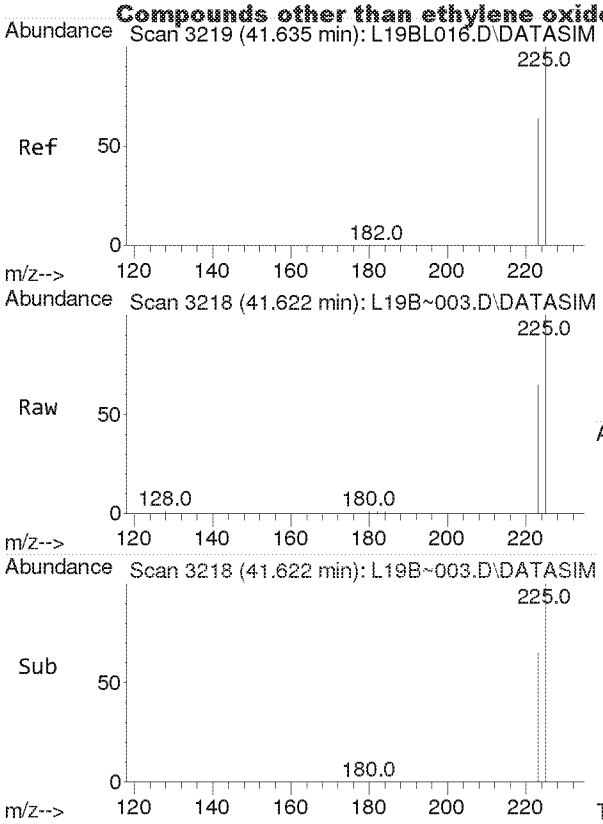
#61
1,2,4-Trichlorobenzene
Concen: 2.711 ppbv
RT: 40.828 min Scan# 3165
Delta R.T. -0.013 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:180 Resp: 5242

Ion	Ratio	Lower	Upper
180	100		
182	95.4	75.7	113.5
184	30.0	24.2	36.2



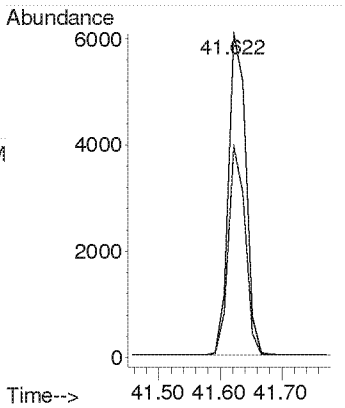
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.386 ppbv
RT: 41.622 min Scan# 3218
Delta R.T. -0.013 min
Lab File: L19B~003.D
Acq: 27 Feb 2019 12:51 pm

Tgt Ion:225 Resp: 11785

Ion	Ratio	Lower	Upper
225	100		
223	62.8	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst:	Date: 3-5-19	Data File Name	L19B~005.D			
		Operator	MAH			
		Acq. Method File	9020003.M			
Reviewer: RMB	Date: 3/5/19	Sample Name	B9B2705-BLK1			
		Misc Info	80 ML 8L13001			
#	Name	Target Response	Amount (µpbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	47426		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	41	0.008	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	0	0.000	Y		0.139
6)	Dichlorotetrafluoroethane	0	0.000	Y		0.040
7)	Vinyl Chloride	0	0.000	Y		0.038
8)	1,3-Butadiene	0	0.000	Y		0.058
	Ethylene oxide	0	0.000	Y		0.136
9)	Bromomethane	0	0.000	Y		0.035
10)	Chloroethane	0	0.000	Y		0.075
11)	Acetonitrile	153	0.037	Y	MAX	0.049
12)	Acrolein	0	0.000	Y		0.200
13)	Trichlorofluoromethane	0	0.000	Y		0.035
14)	Acrylonitrile	0	0.000	Y		0.032
15)	1,1-Dichloroethene	0	0.000	Y		0.036
16)	Methylene Chloride	0	0.000	Y		0.043
17)	Carbon Disulfide	480	0.028	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	115530		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	45	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	82336		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	81	0.006	Y		0.077
50)	m,p-Xylene	65	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	112	0.009	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	45	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\L19B~\
Data File : L19B~005.D
Acq On : 27 Feb 2019 2:54 pm
Operator : MAH
Sample : B9B2705-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

J-5-15

Quant Time: Mar 05 06:38:09 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	47426	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	115530	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	82336	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.823	41	41	0.0085 ppbv #	40
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	0.000	50	0	N.D.	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	14.497	41	153m J 5-15	0.0372 ppbv	
13) Acrolein	0.000	56	0	N.D.	
14) Trichlorofluoromethane	0.000	101	0	N.D.	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.909	76	480	0.0281 ppbv	99
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	45	0.0037 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	81	0.0057 ppbv #	42

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~005.D
Acq On : 27 Feb 2019 2:54 pm
Operator : MAH
Sample : B9B2705-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 06:38:09 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

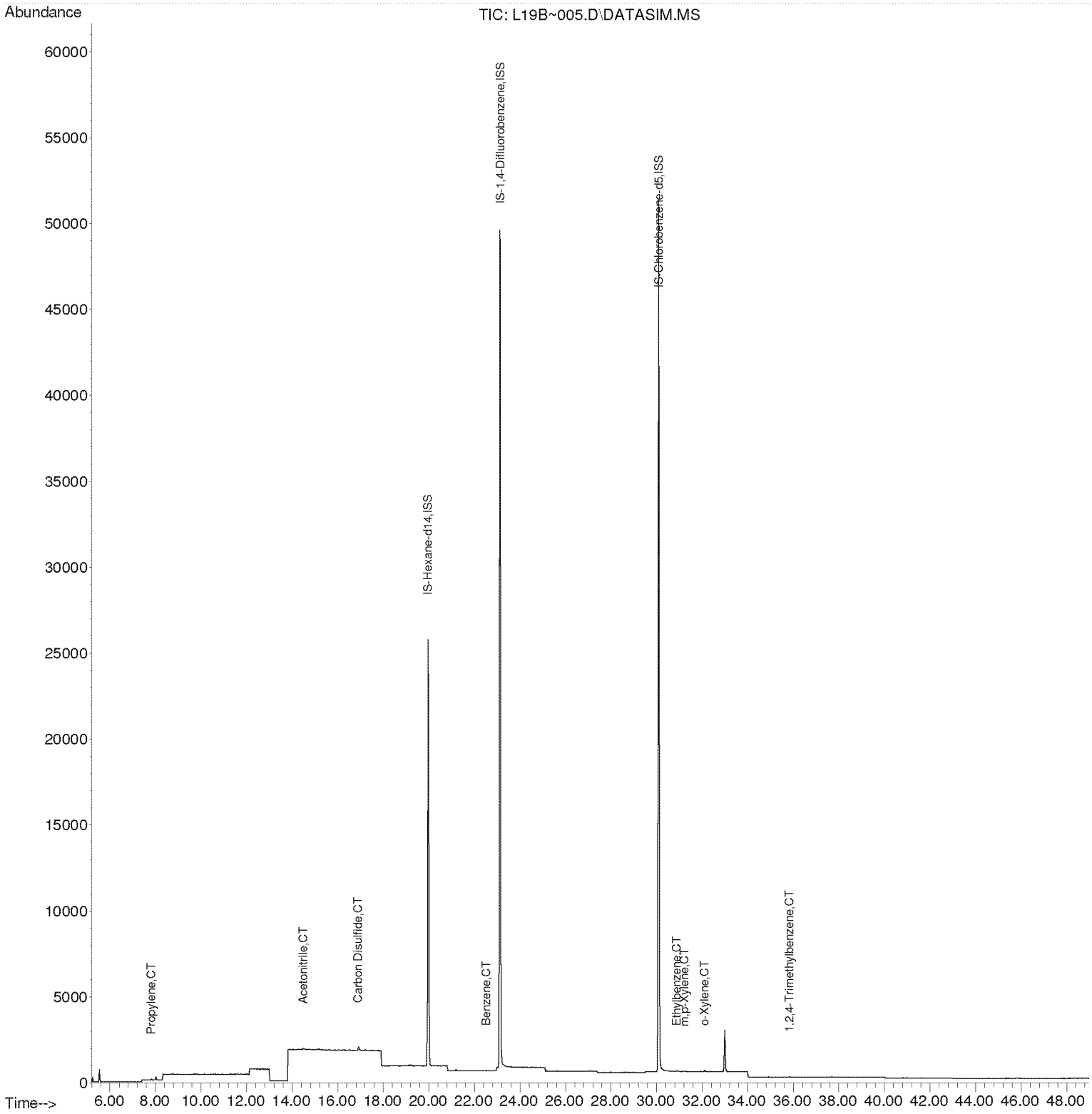
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.223	91	65	0.0054 ppbv #	30
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.120	91	112	0.0095 ppbv	99
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.828	105	45	0.0041 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

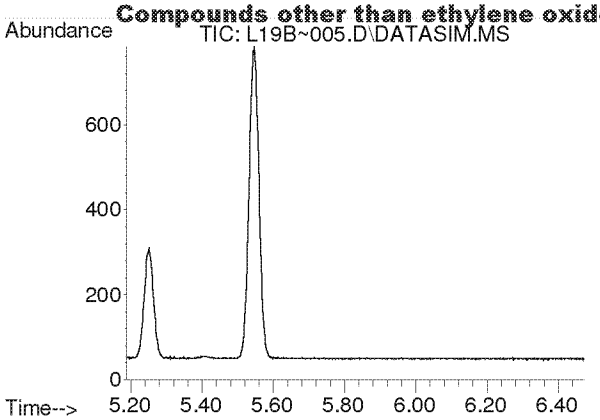
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~005.D
Acq On : 27 Feb 2019 2:54 pm
Operator : MAH
Sample : B9B2705-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 28 12:39:46 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



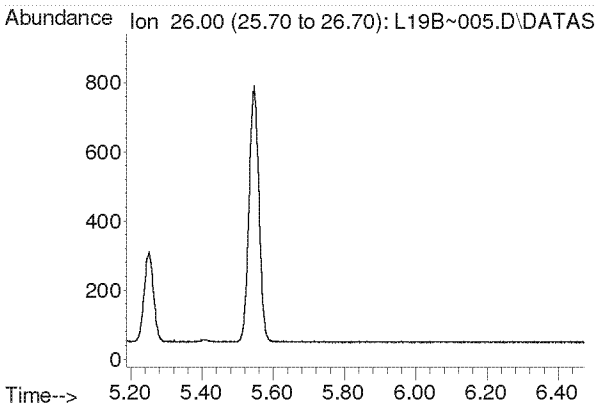
Compounds other than ethylene oxide were not quantitated.

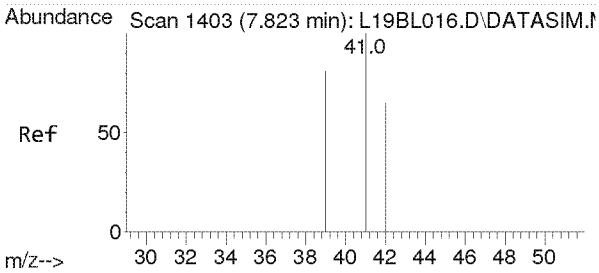


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 26

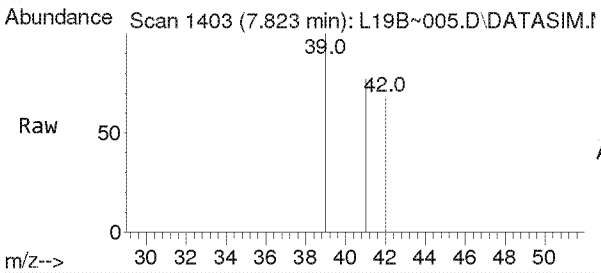


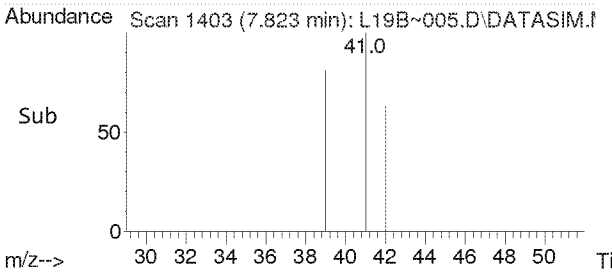


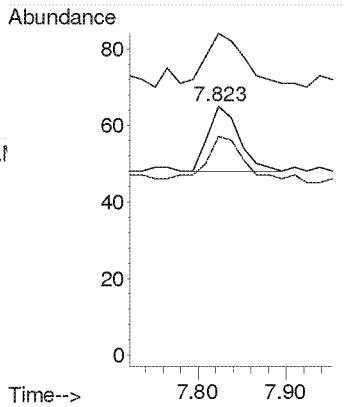
#3
Propylene
Concen: 0.008 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. 0.000 min
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 41 Resp: 41

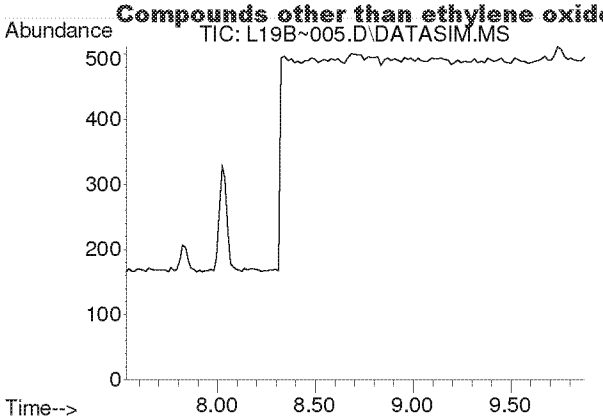
Ion	Ratio	Lower	Upper
41	100		
39	117.1	64.2	96.2#
42	0.0	52.6	79.0#







Compounds other than ethylene oxide were not quantitated.

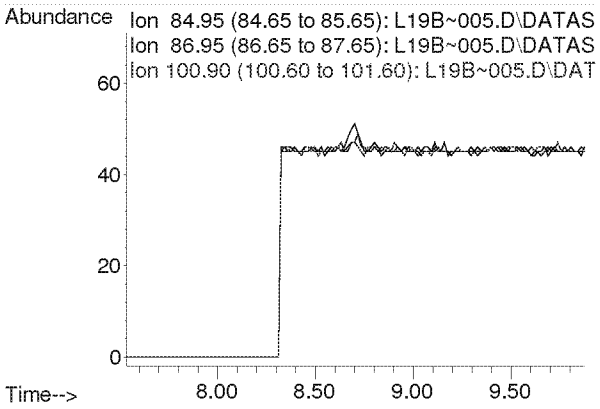


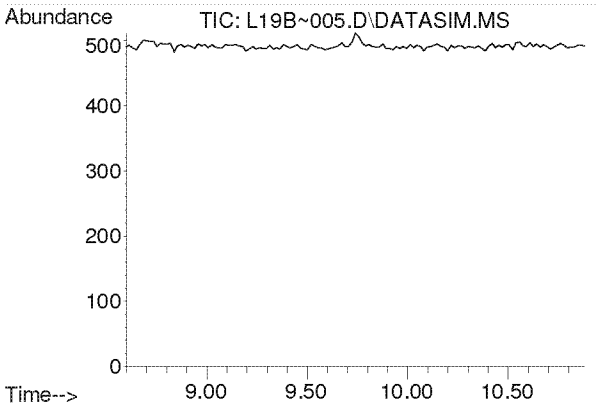
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



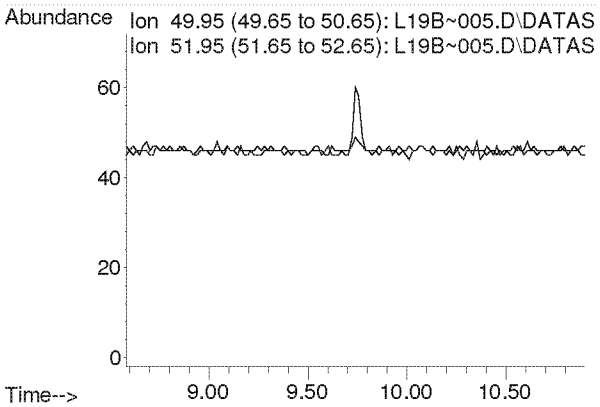


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

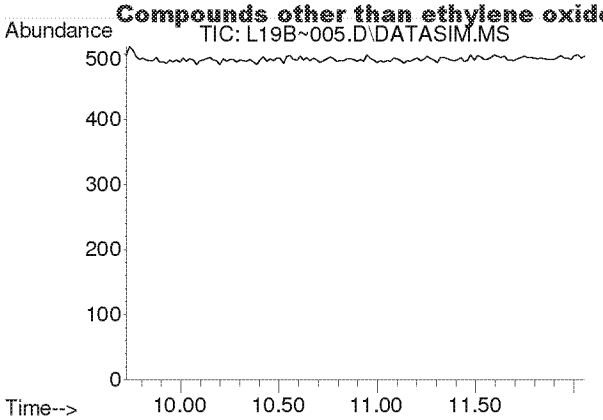
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

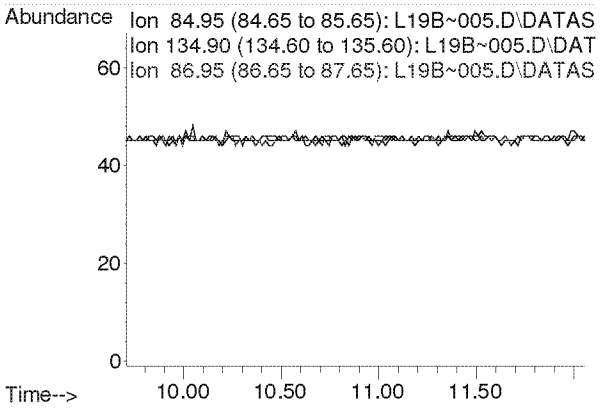


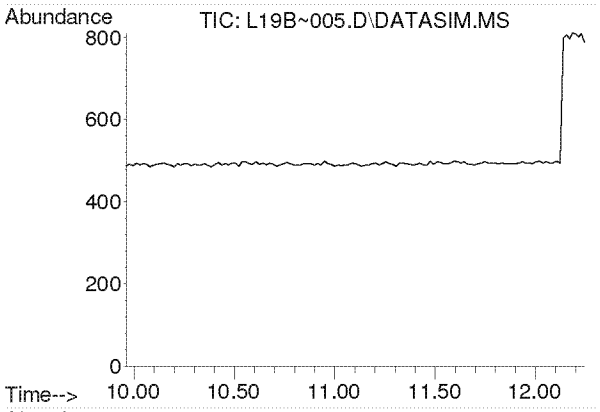
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



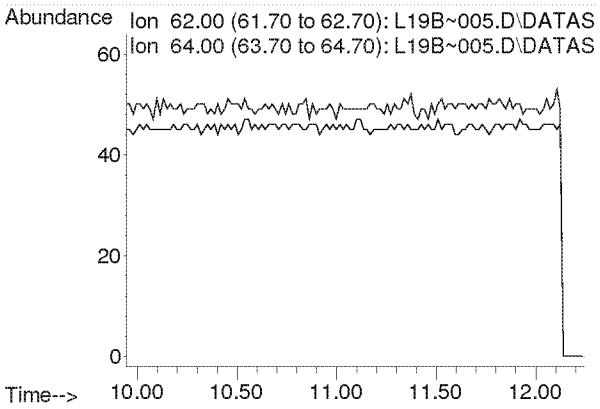


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

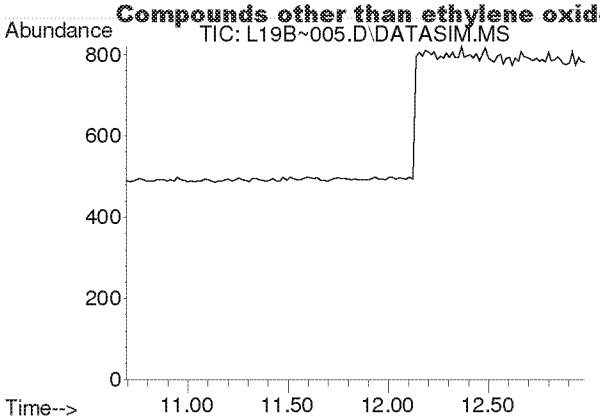
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

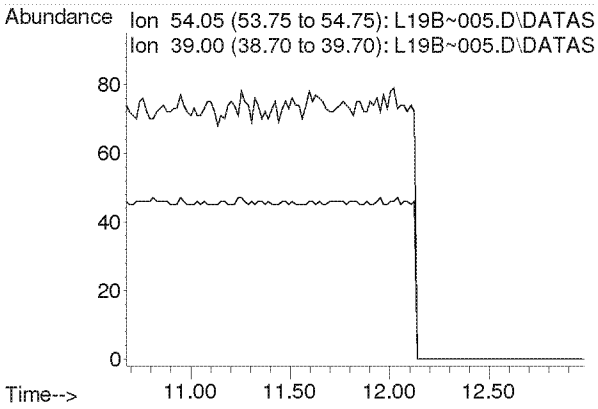


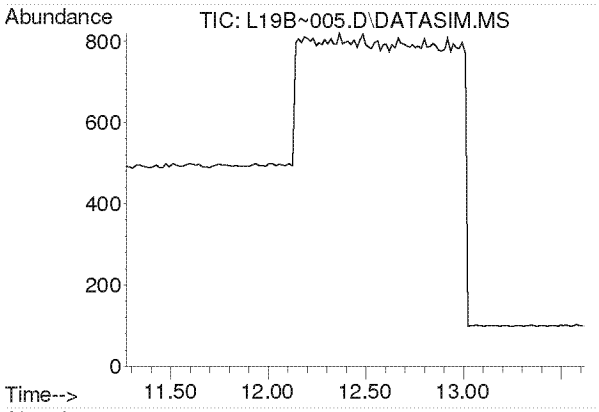
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



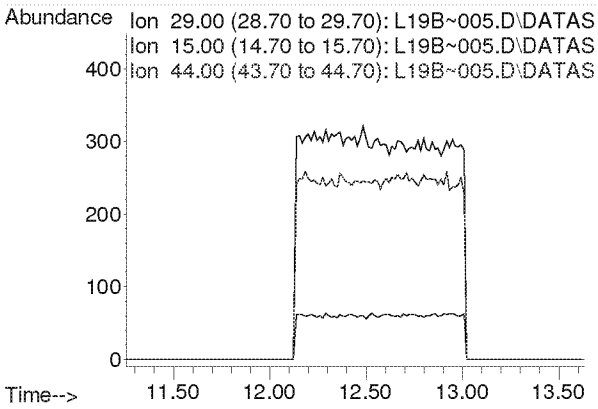


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

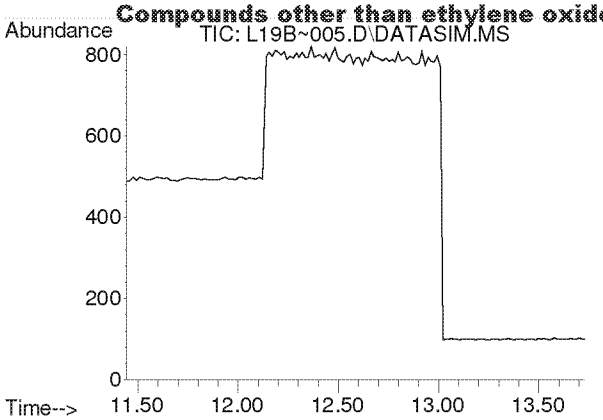
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

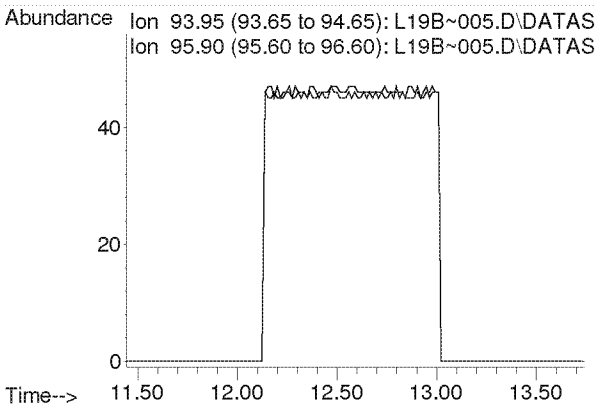


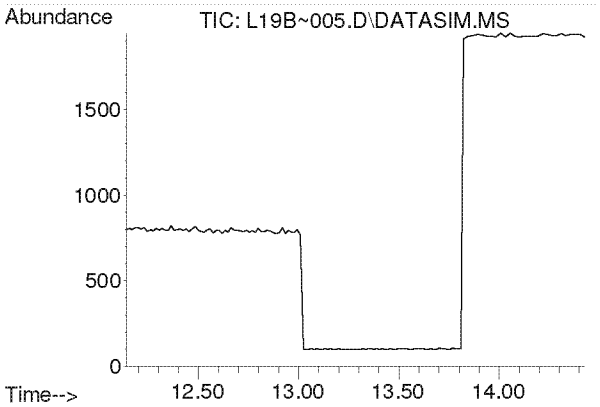
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



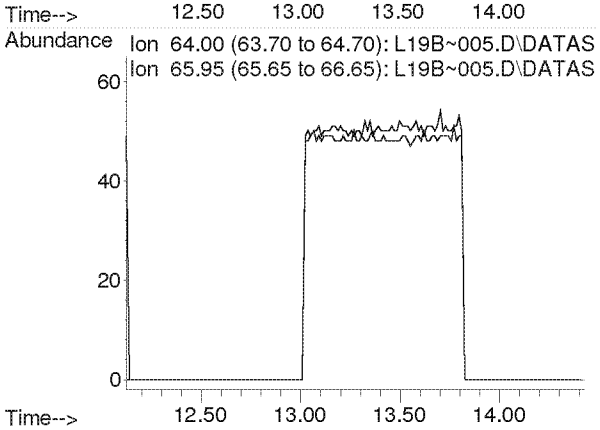


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

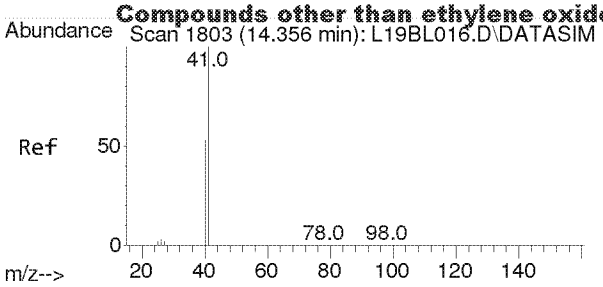
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



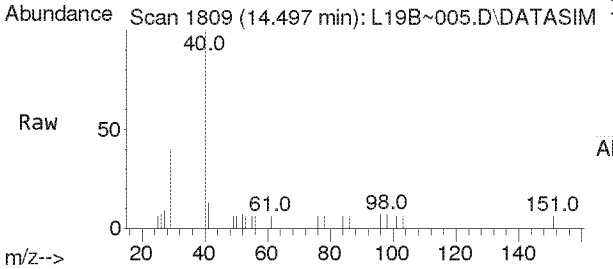
Compounds other than ethylene oxide were not quantitated.

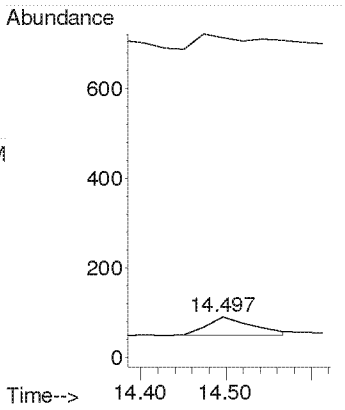


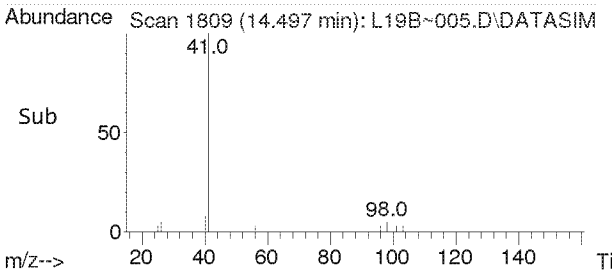
#12
Acetonitrile
Concen: 0.037 ppbv m
RT: 14.497 min Scan# 1809
Delta R.T. 0.141 min
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

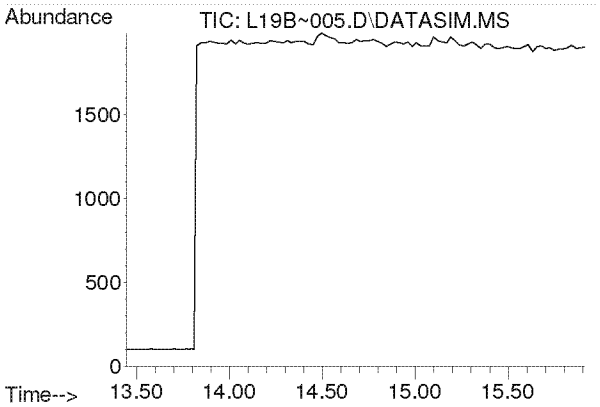
Tgt Ion: 41 Resp: 153

Ion	Ratio	Lower	Upper
41	100		
40	71.9	42.2	63.4#







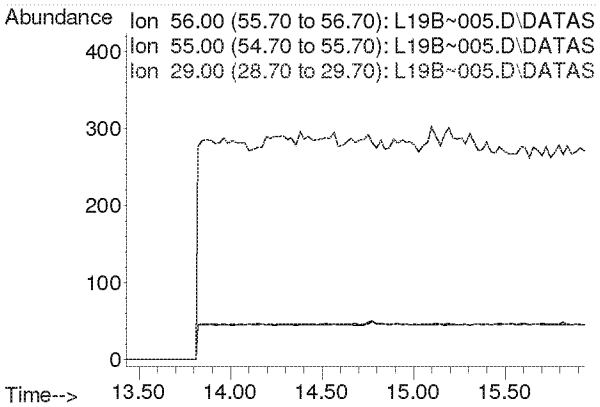


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

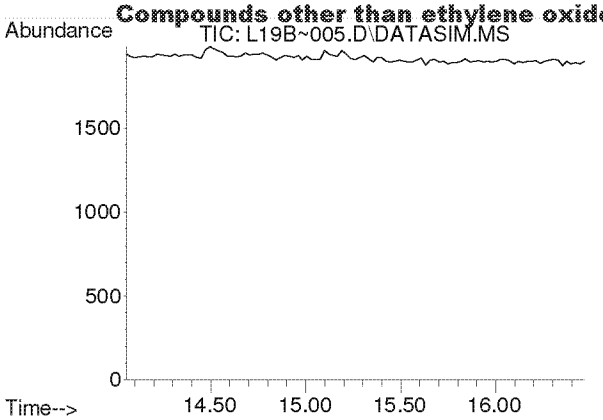
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

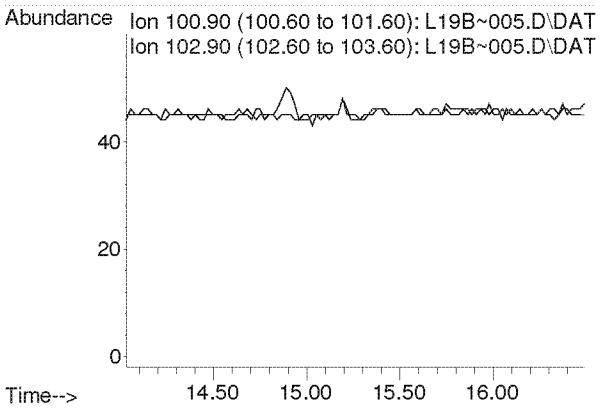


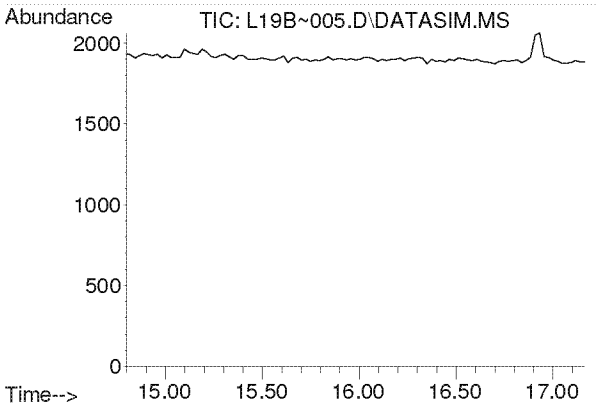
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



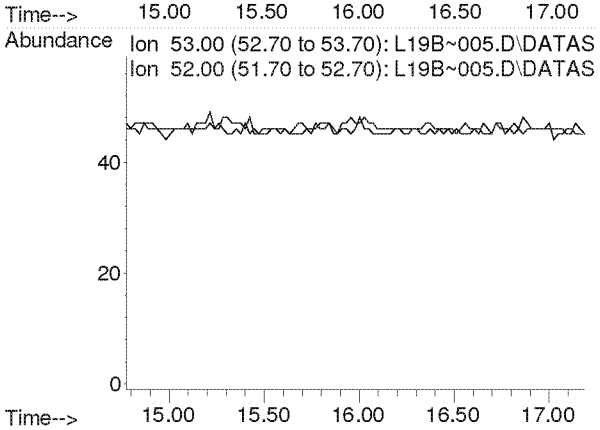


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

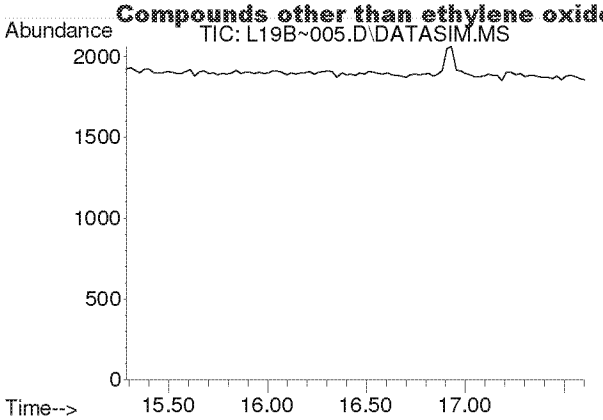
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

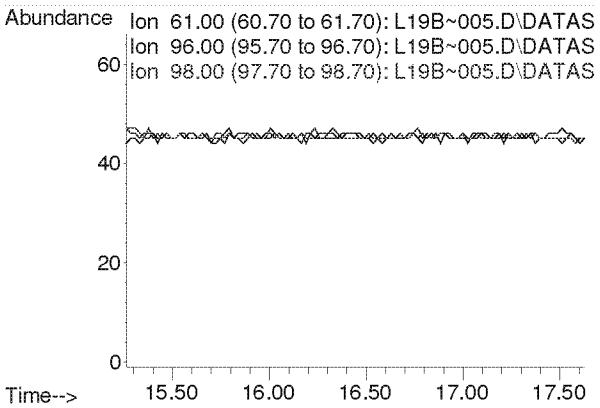


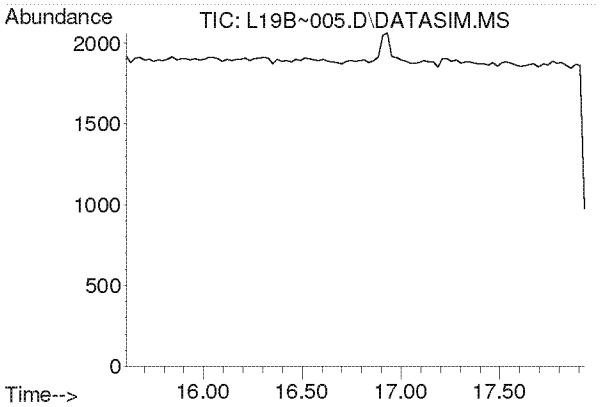
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



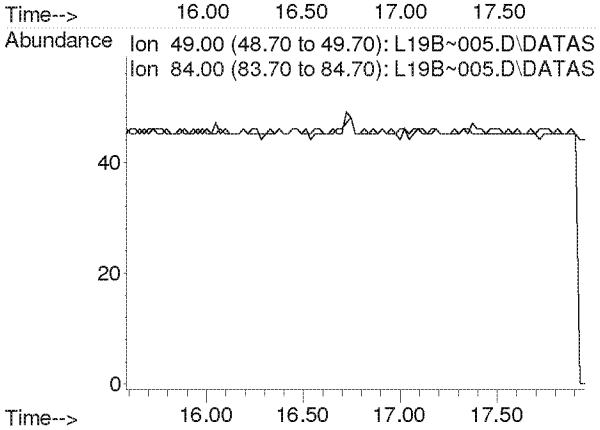


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

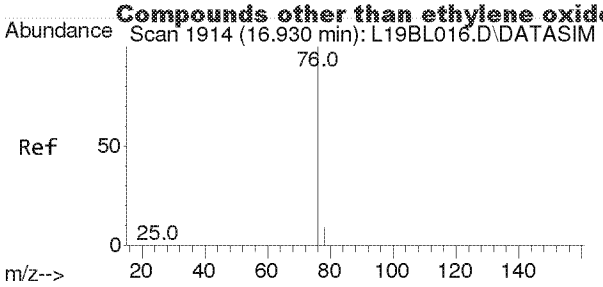
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



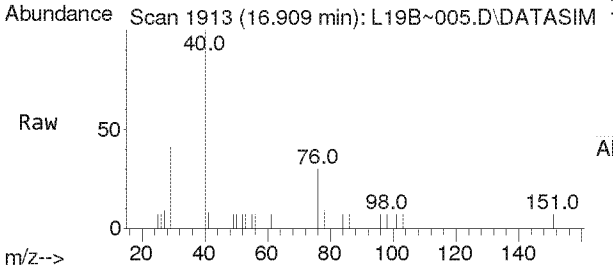
Compounds other than ethylene oxide were not quantitated.

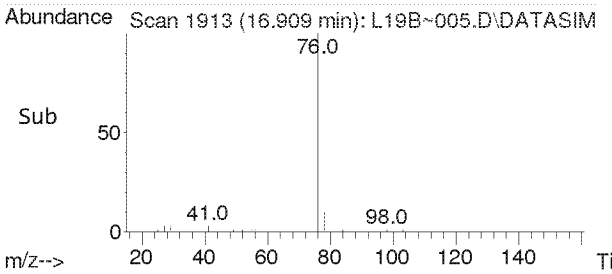


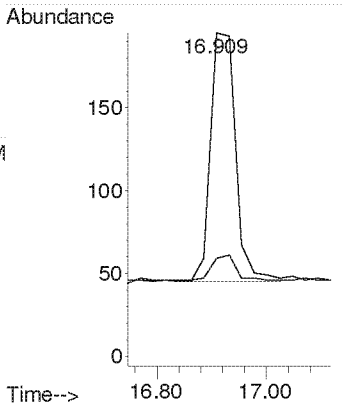
#18
Carbon Disulfide
Concen: 0.028 ppbv
RT: 16.909 min Scan# 1913
Delta R.T. -0.021 min
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

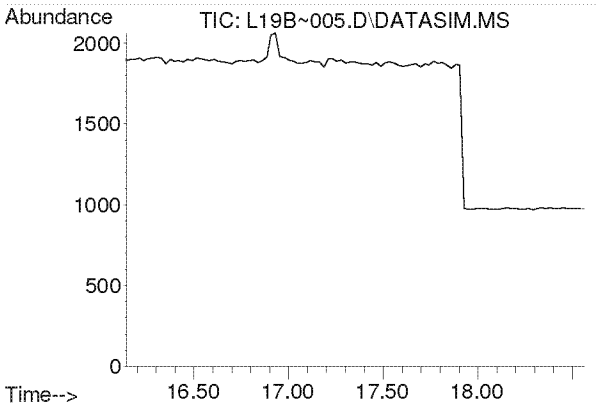
Tgt Ion: 76 Resp: 480

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.4	11.0







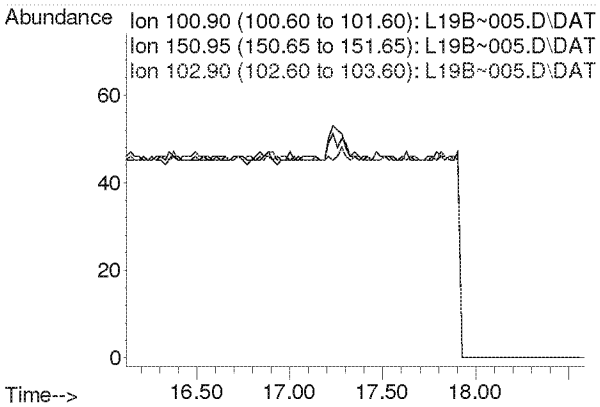


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

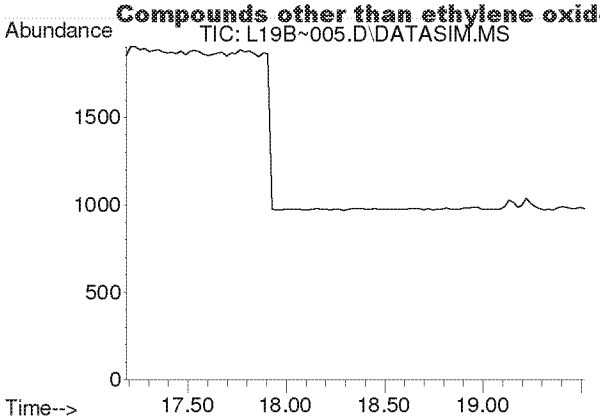
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

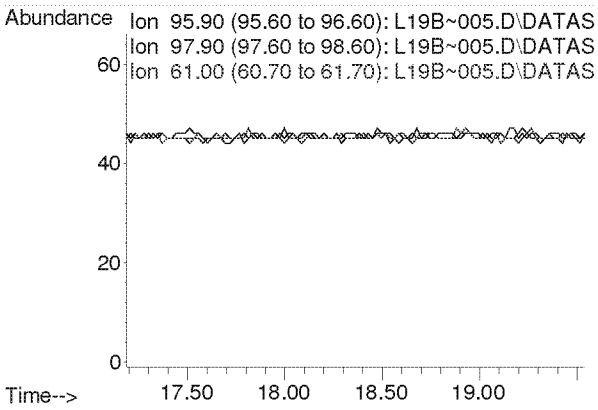


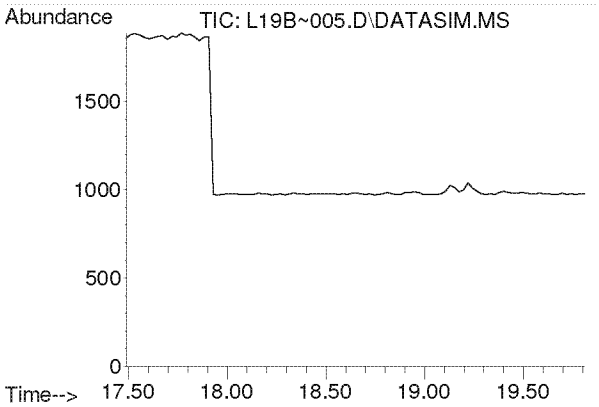
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



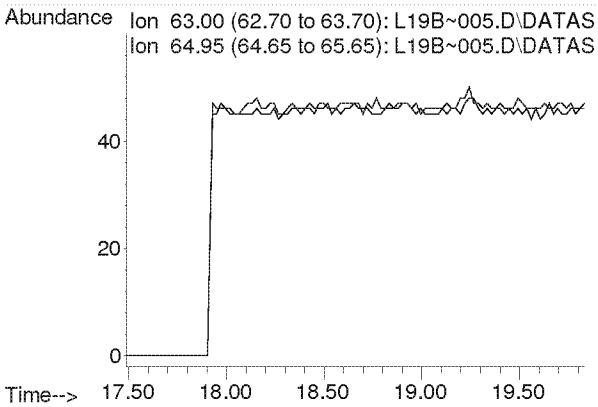


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

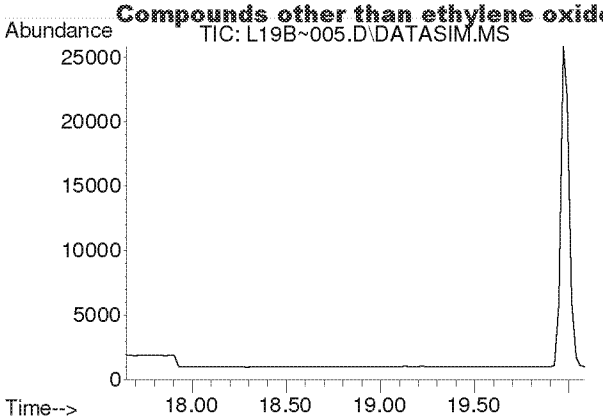
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

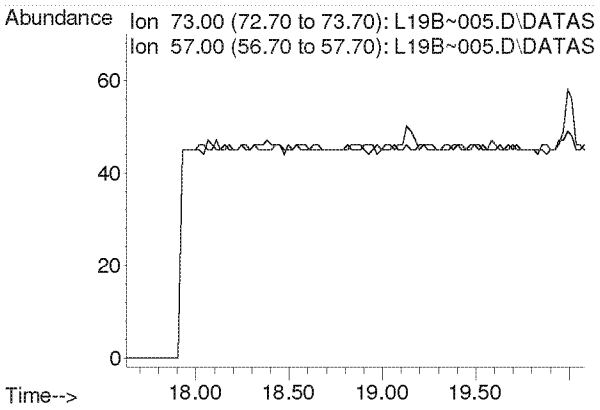


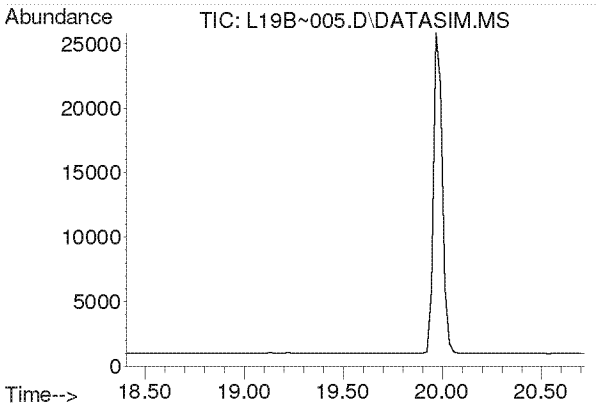
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



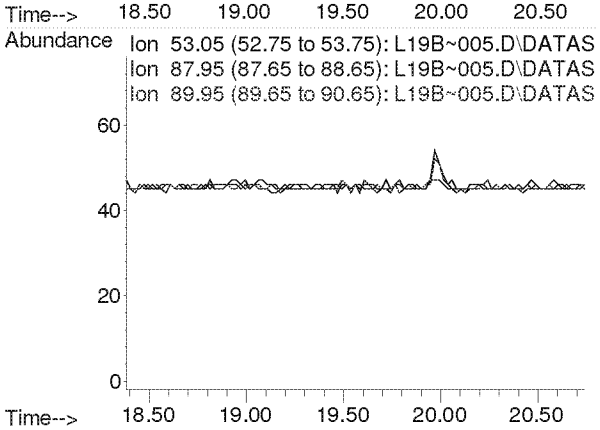


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

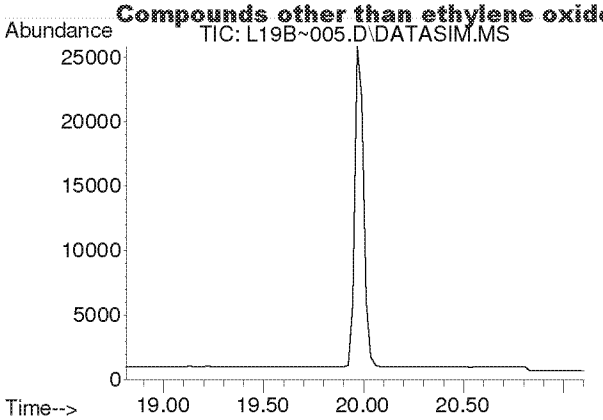
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

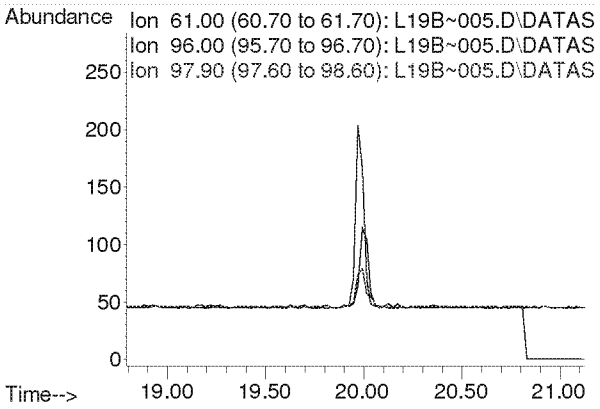


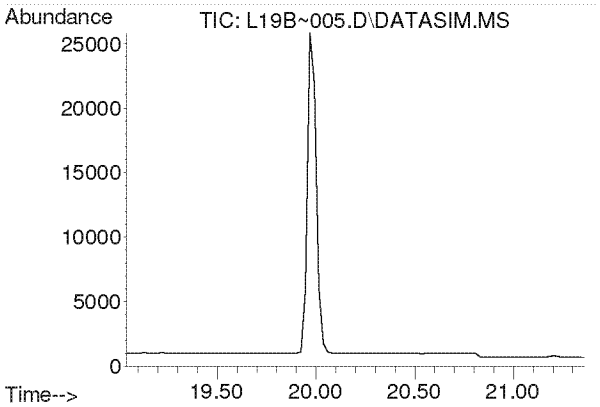
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



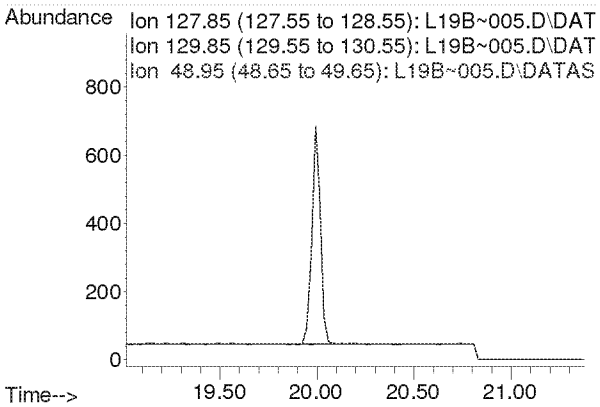


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

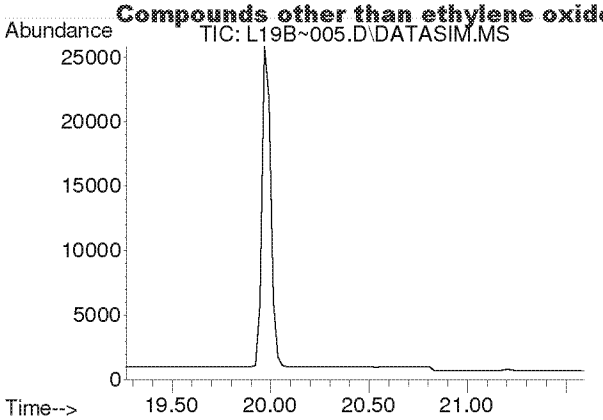
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

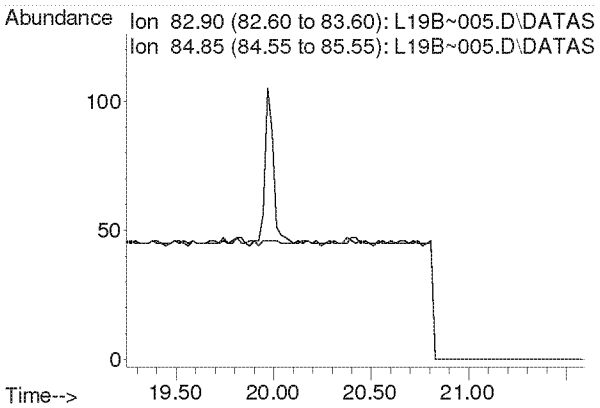


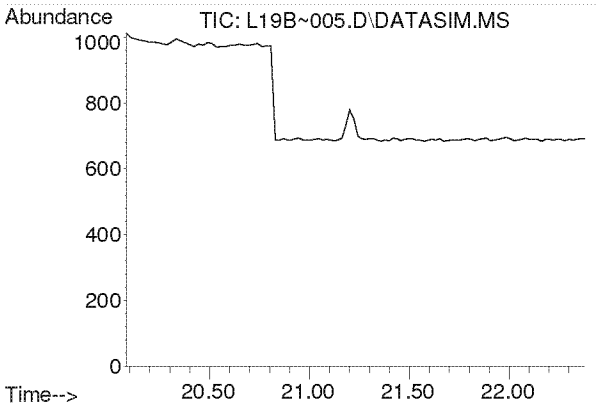
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



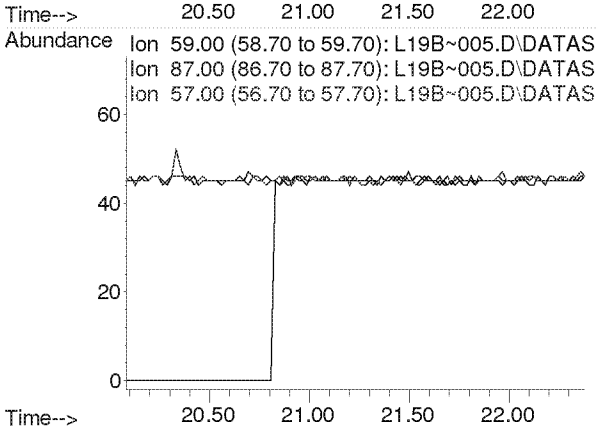


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

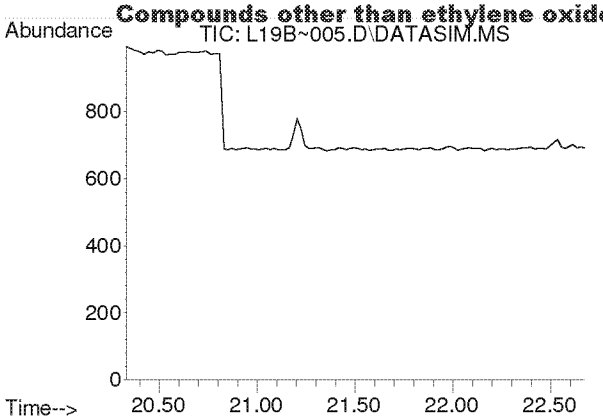
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

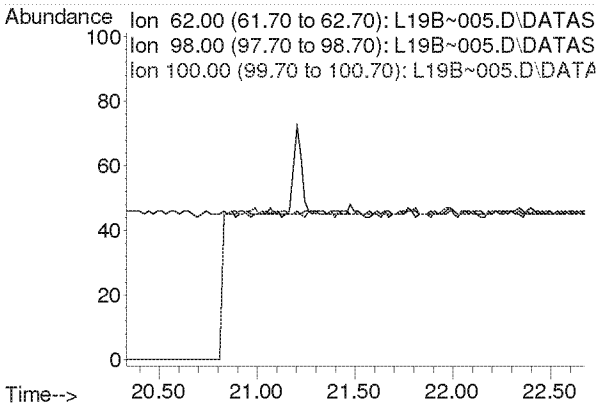


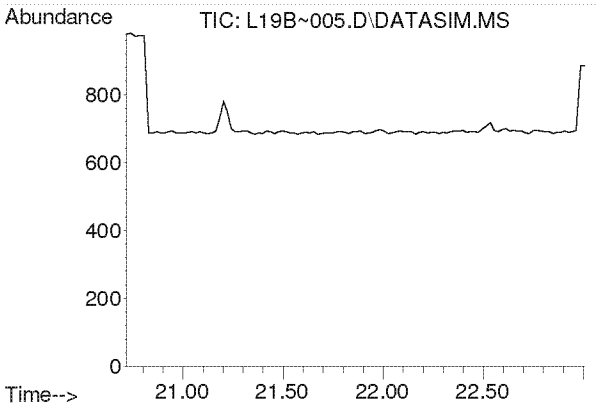
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



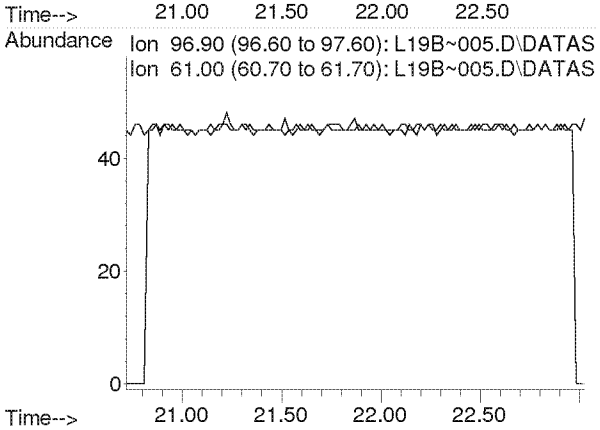


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

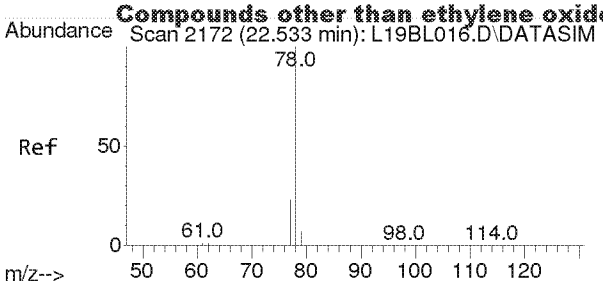
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



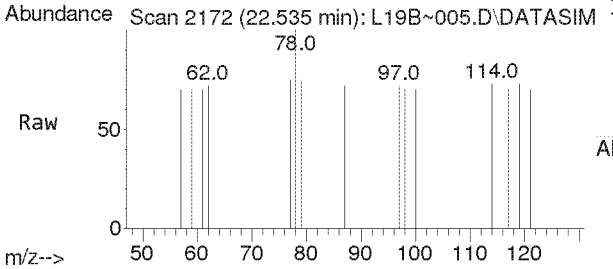
Compounds other than ethylene oxide were not quantitated.

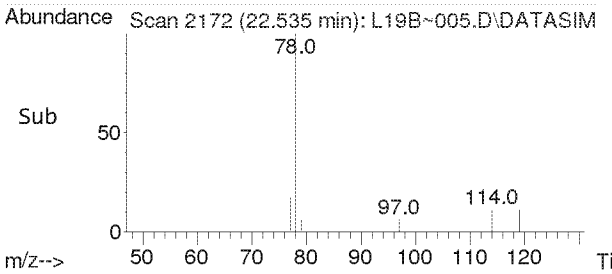


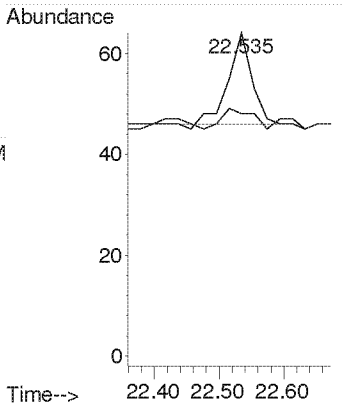
#31
Benzene
Concen: 0.004 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.002 min
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

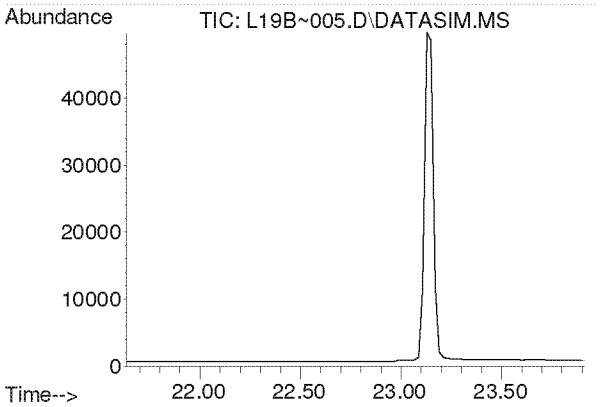
Tgt Ion: 78 Resp: 45

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.4#







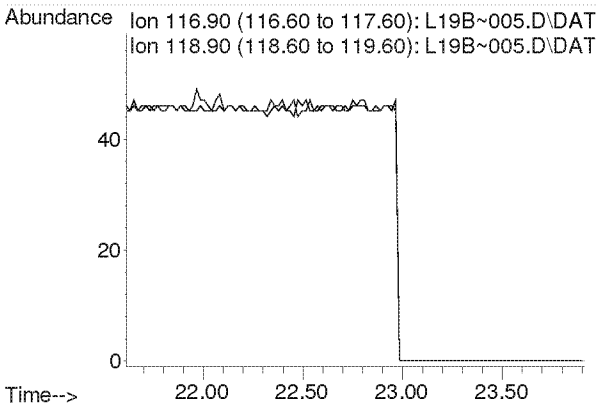


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

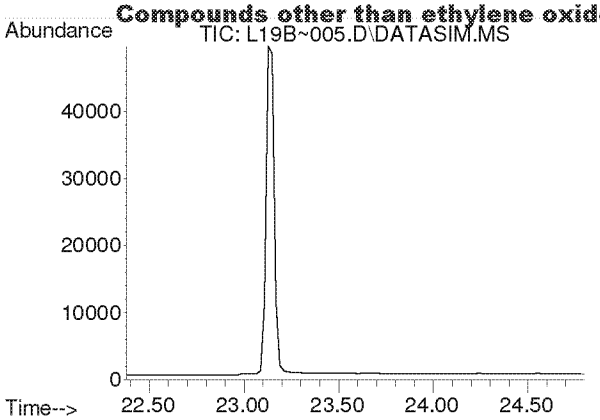
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

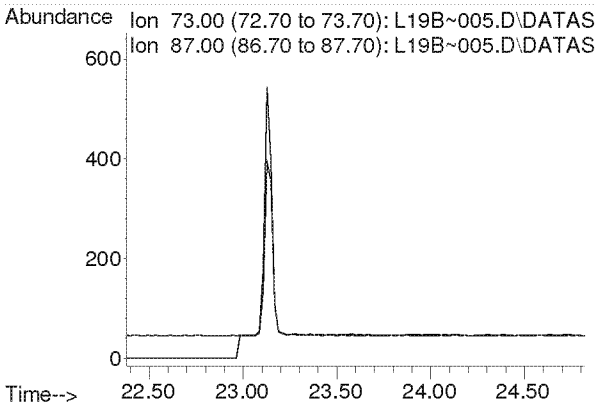


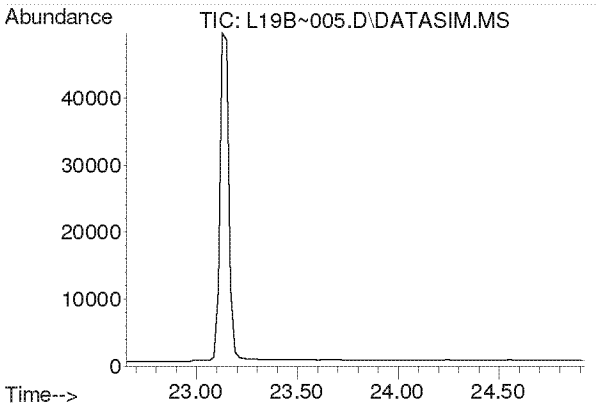
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



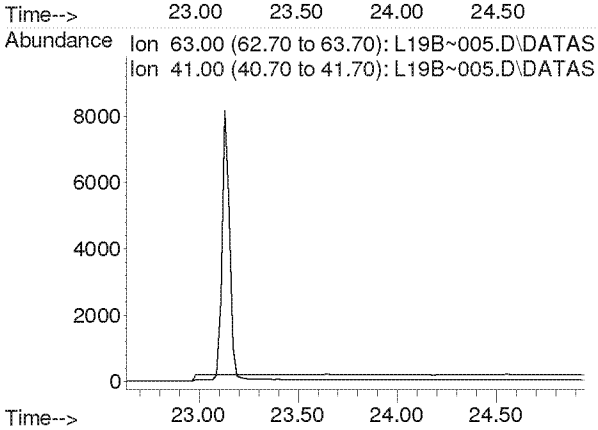


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

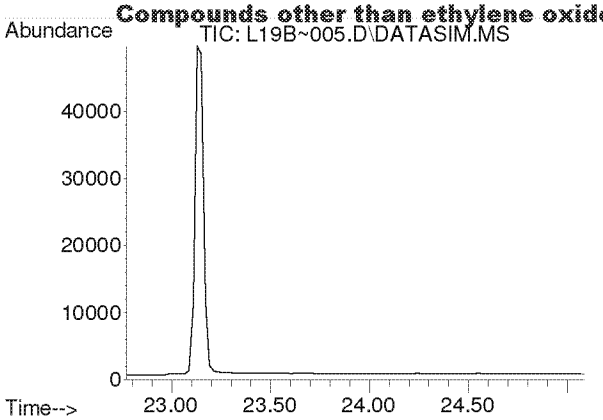
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

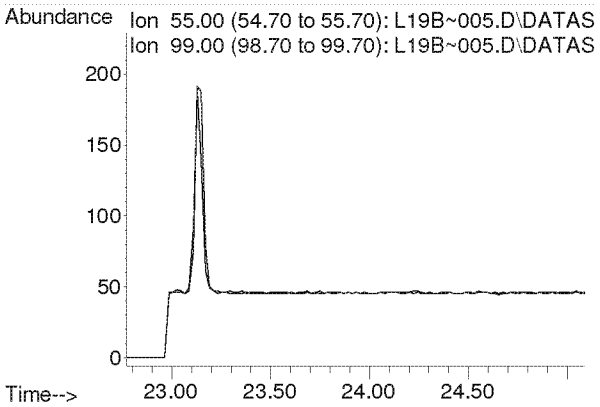


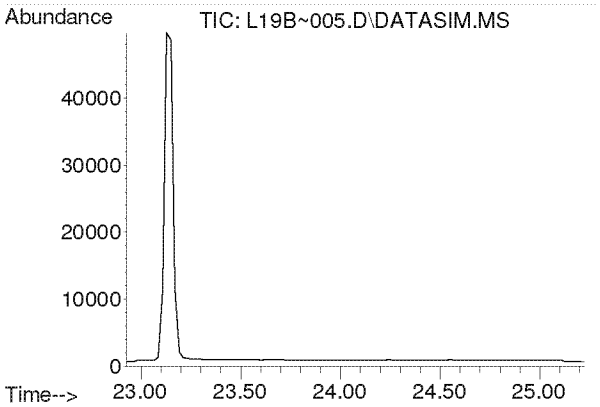
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



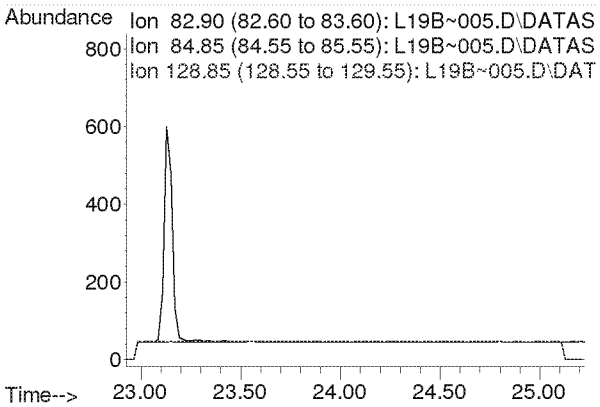


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

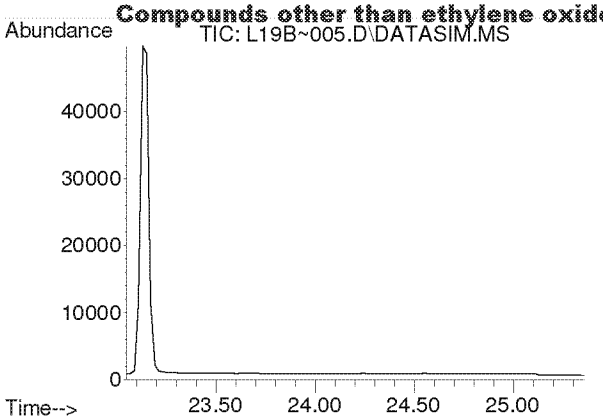
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

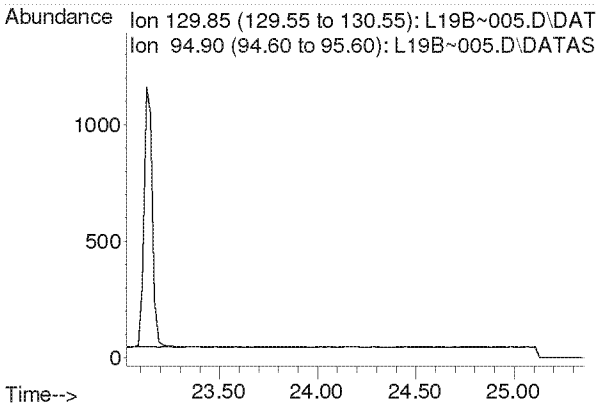


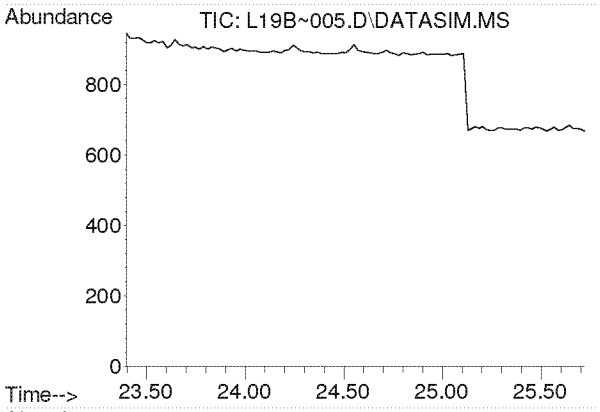
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



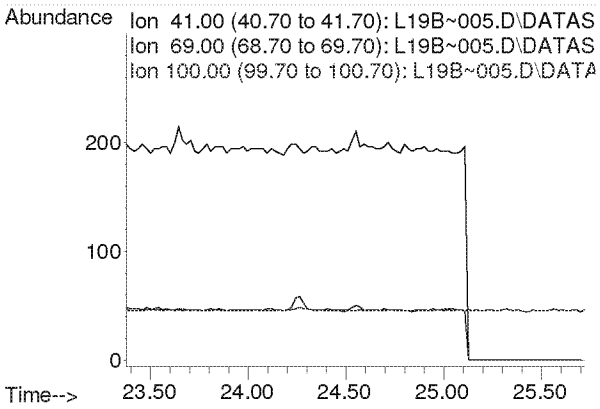


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

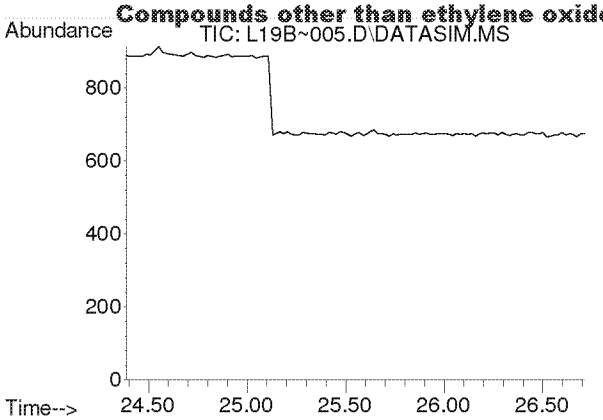
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

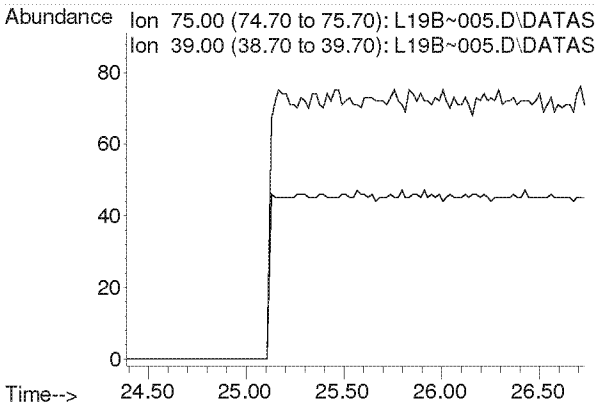


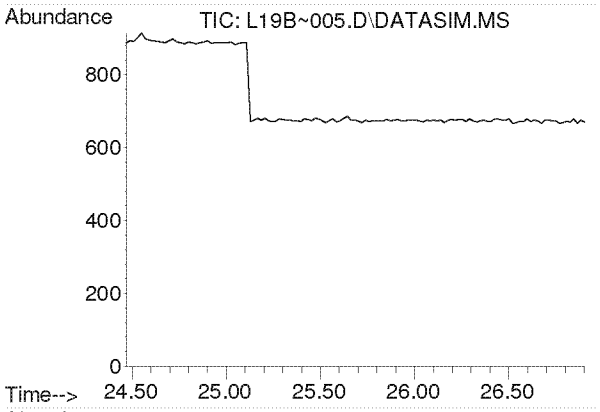
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



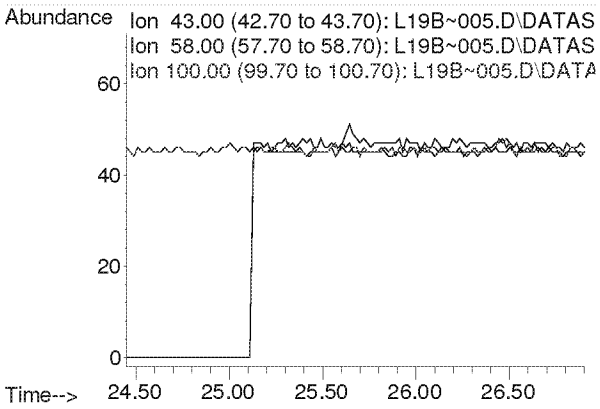


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

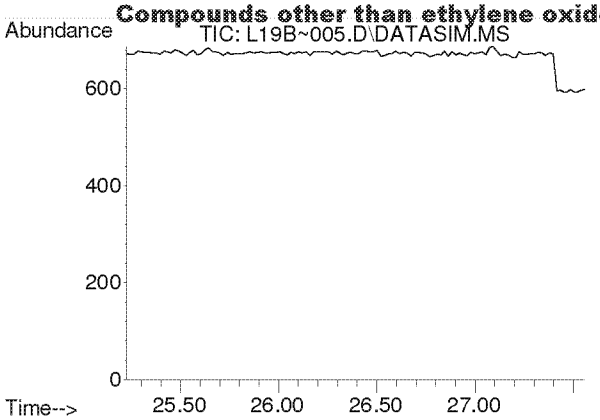
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

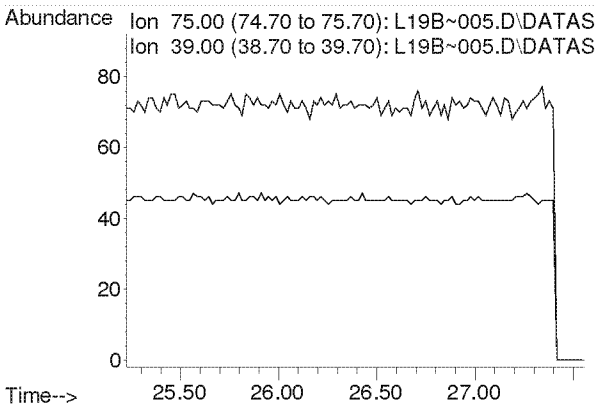


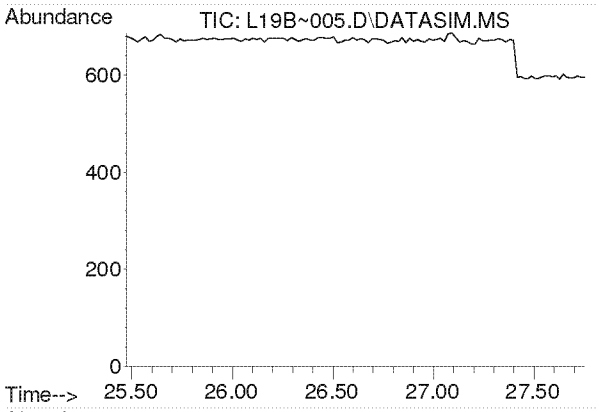
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



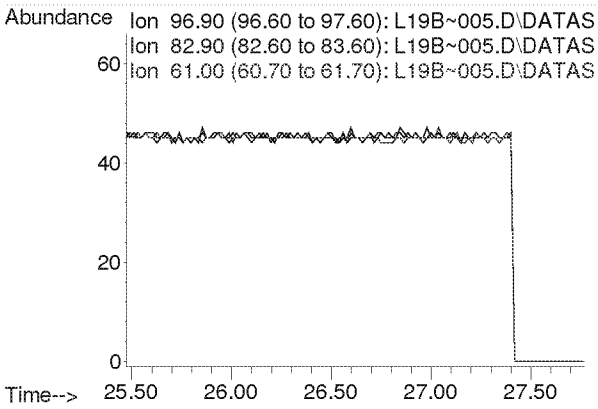


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

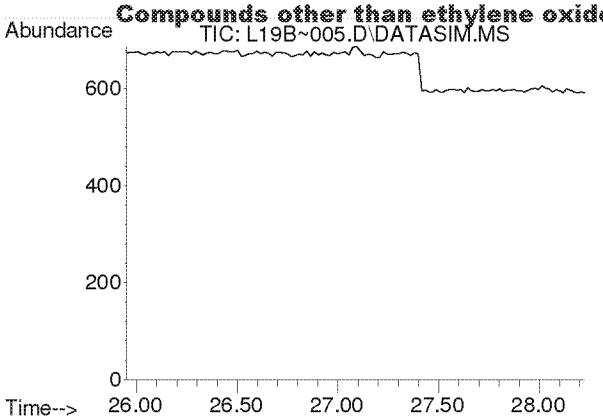
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

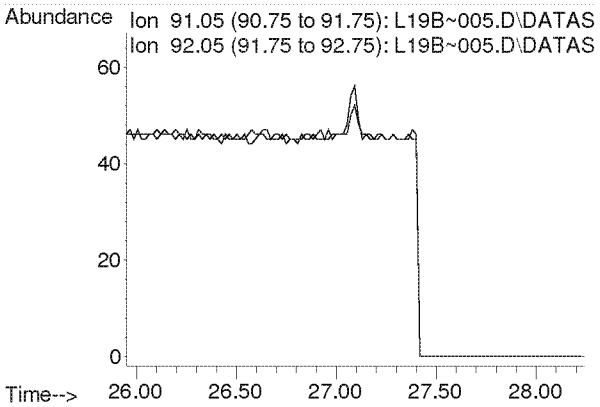


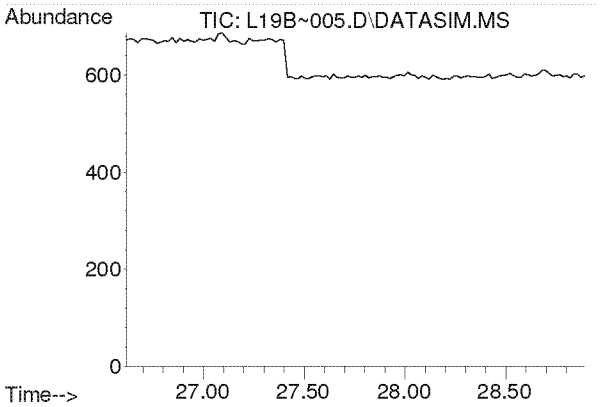
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



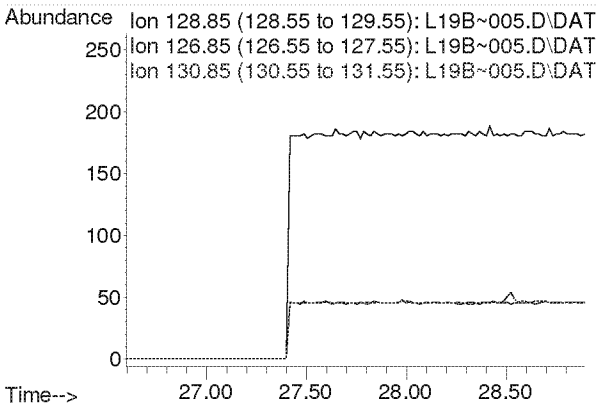


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

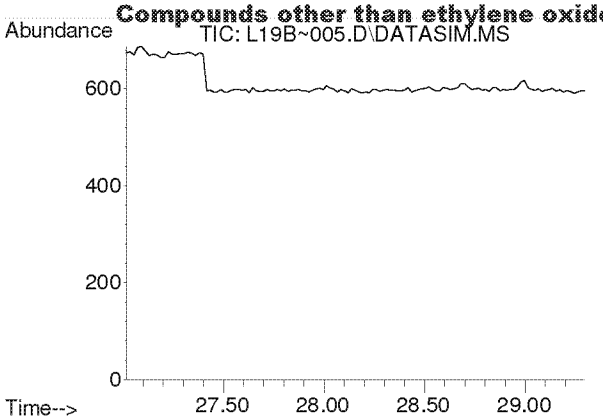
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

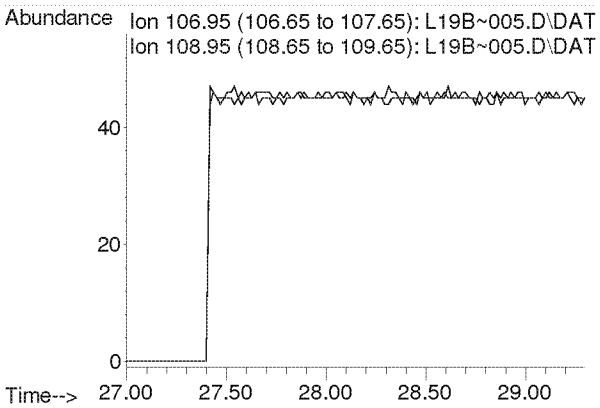


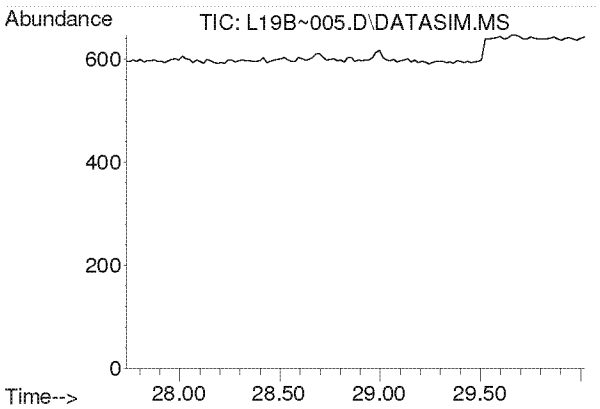
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



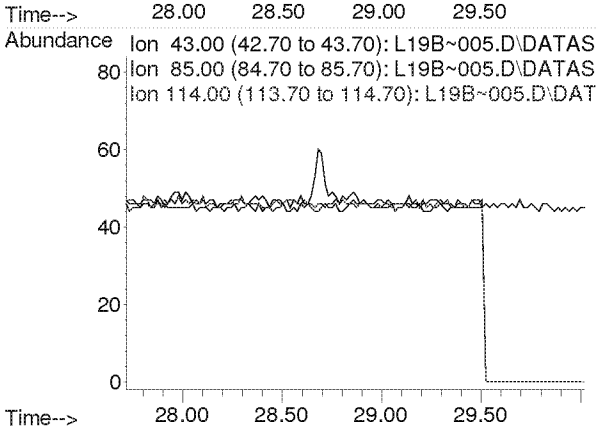


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

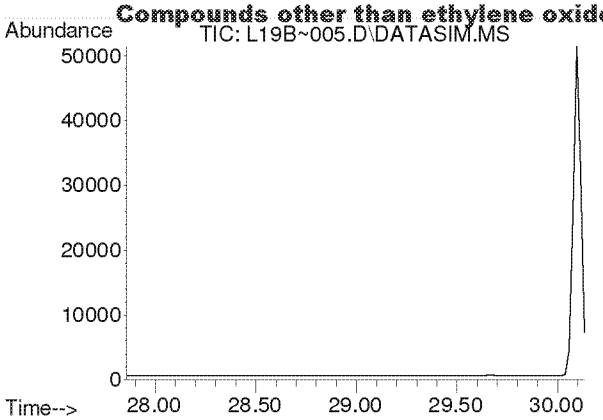
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

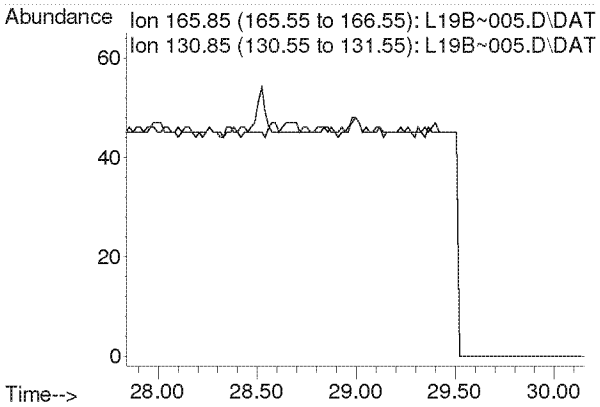


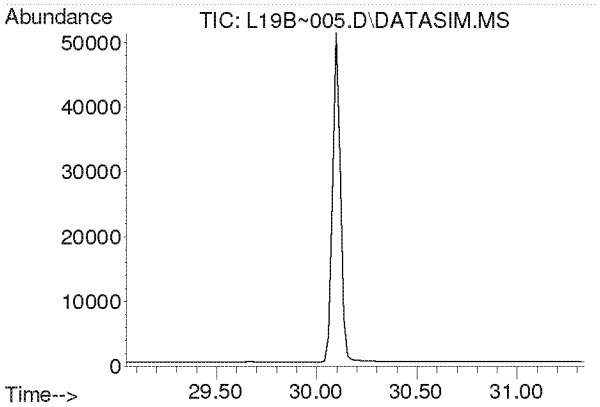
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



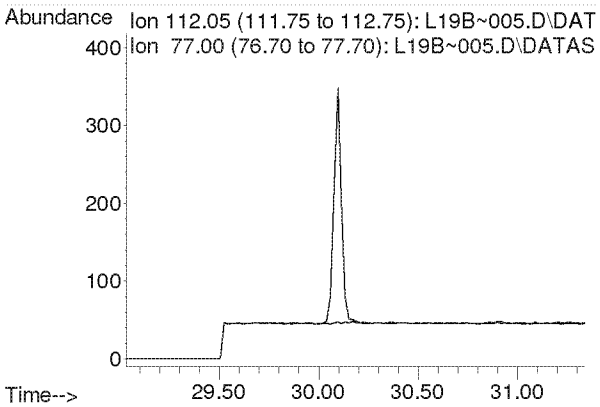


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

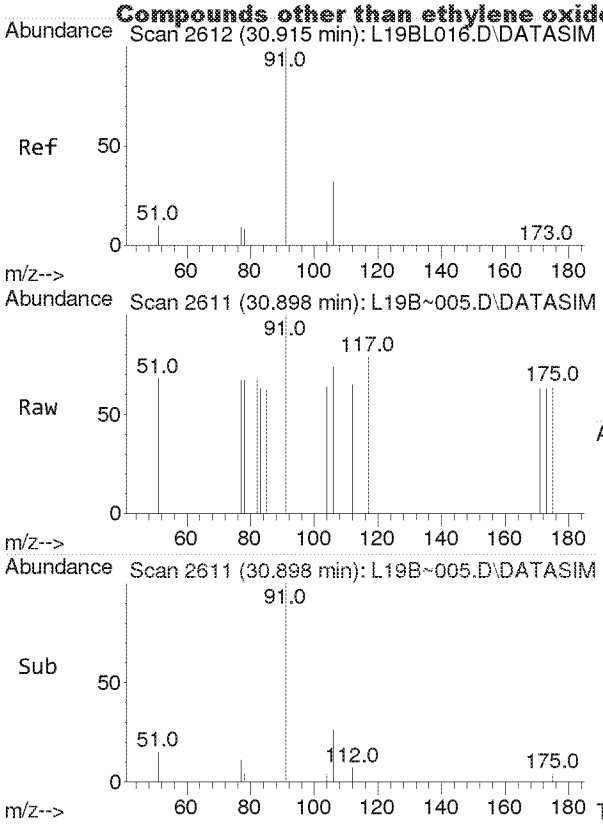
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



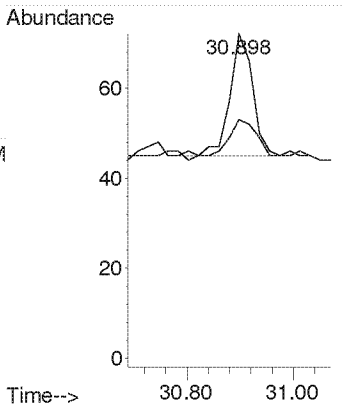
Compounds other than ethylene oxide were not quantitated.

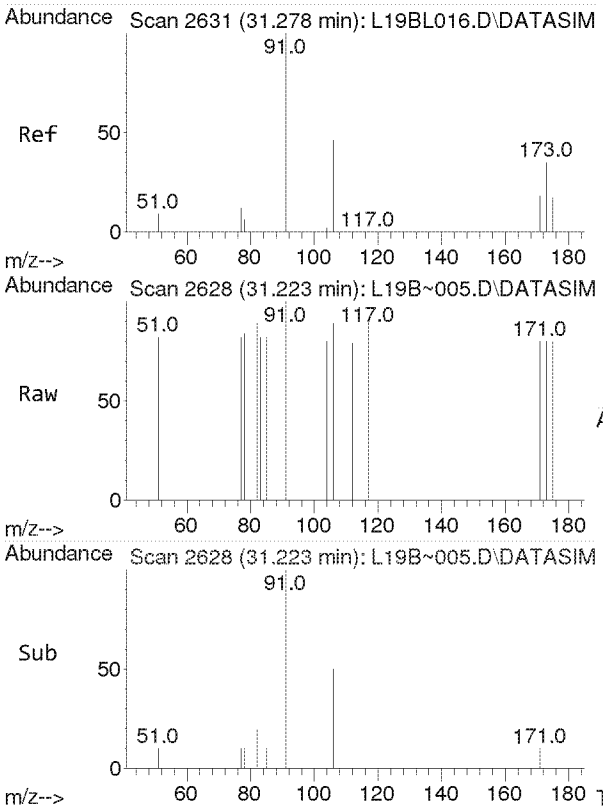


#50
Ethylbenzene
Concen: 0.006 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 91 Resp: 81

Ion	Ratio	Lower	Upper
91	100		
106	0.0	26.0	39.0#

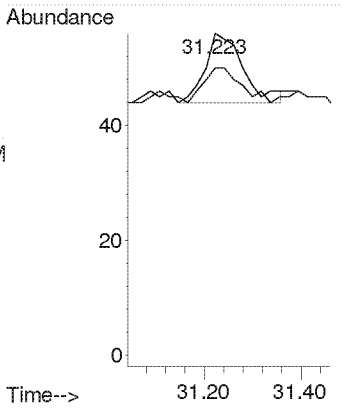




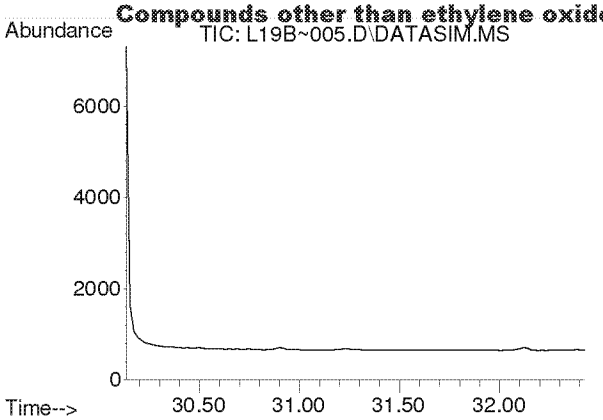
#51
m,p-Xylene
Concen: 0.005 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 91 Resp: 65

Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.3	55.9#



Compounds other than ethylene oxide were not quantitated.

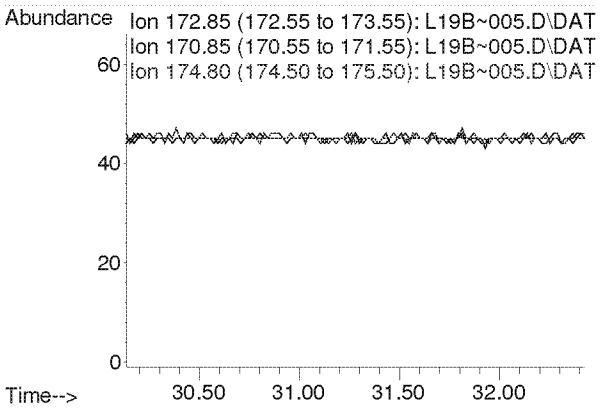


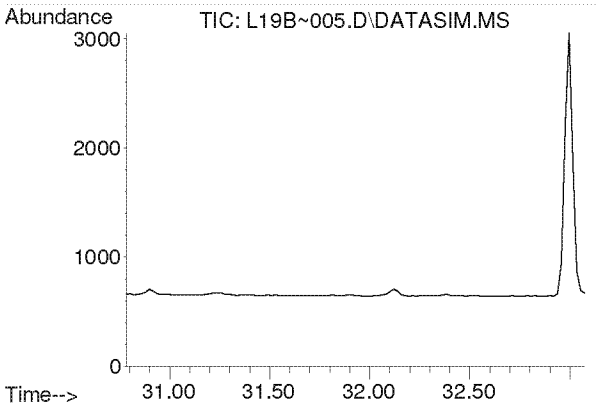
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



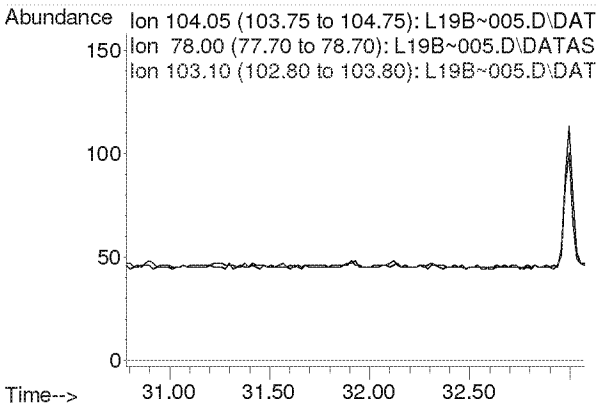


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

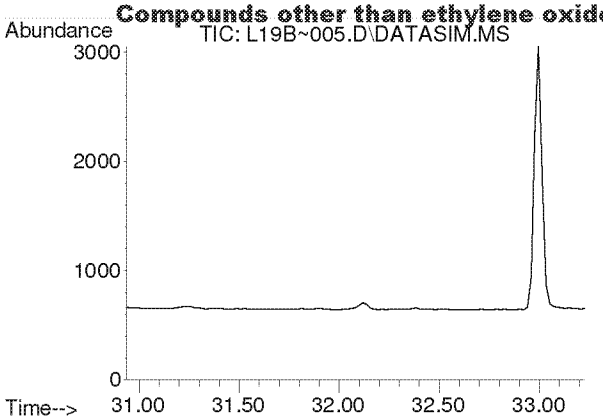
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

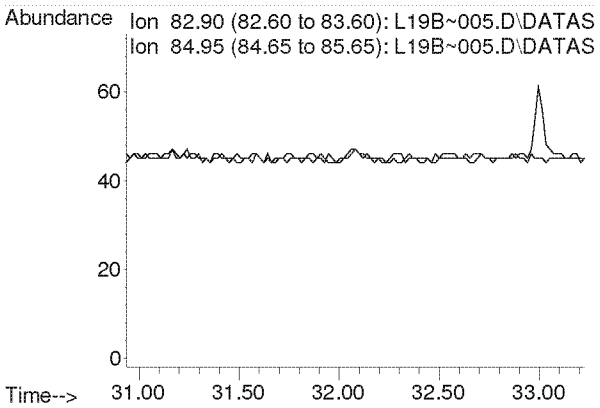


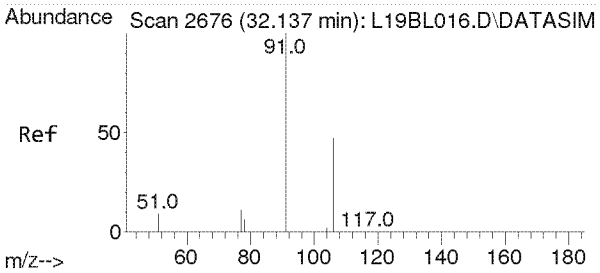
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

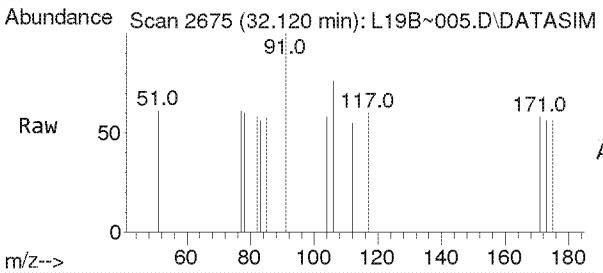


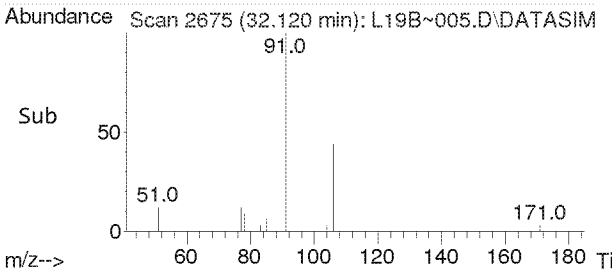


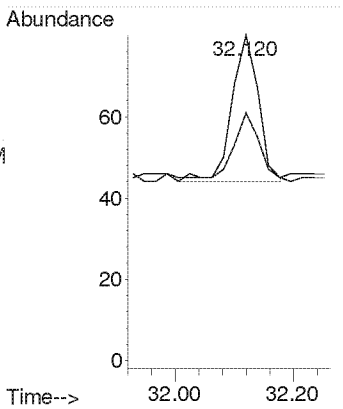
#55
o-Xylene
Concen: 0.009 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 91 Resp: 112

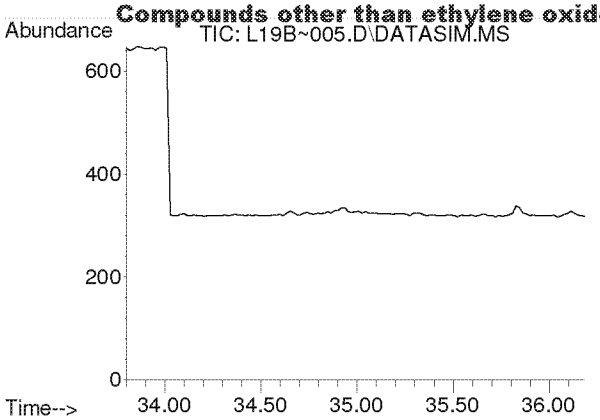
Ion	Ratio	Lower	Upper
91	100		
106	46.4	36.6	55.0







Compounds other than ethylene oxide were not quantitated.

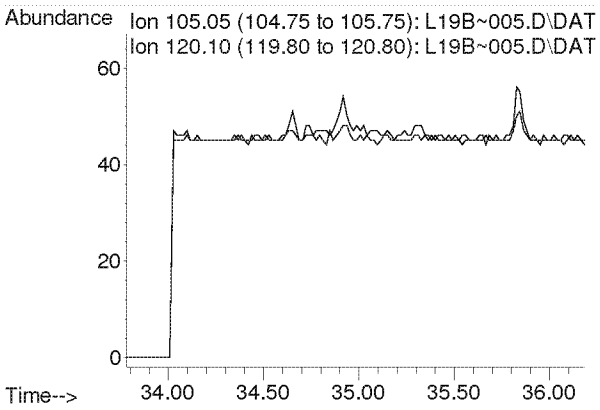


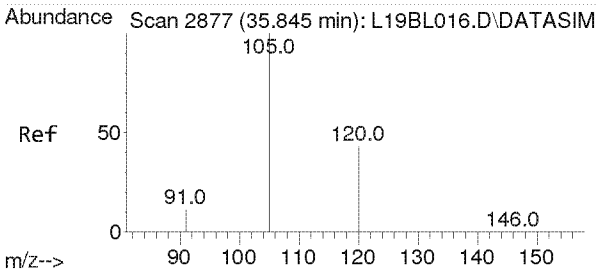
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0

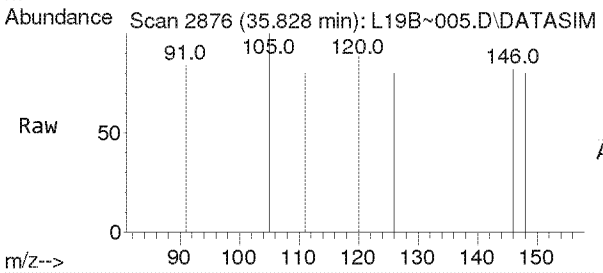


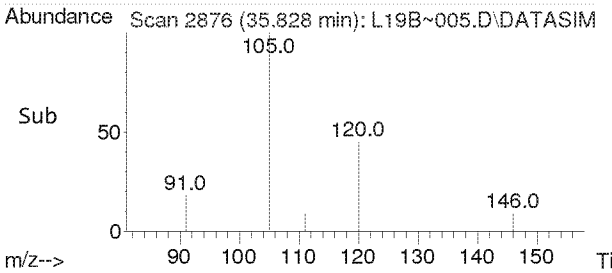


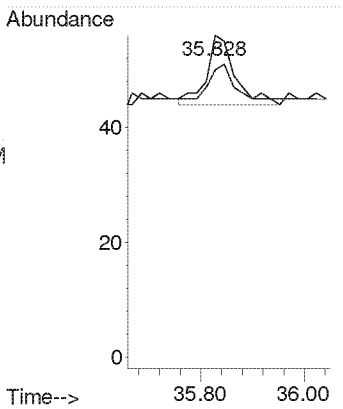
#57
1,2,4-Trimethylbenzene
Concen: 0.004 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.017 min
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion:105 Resp: 45

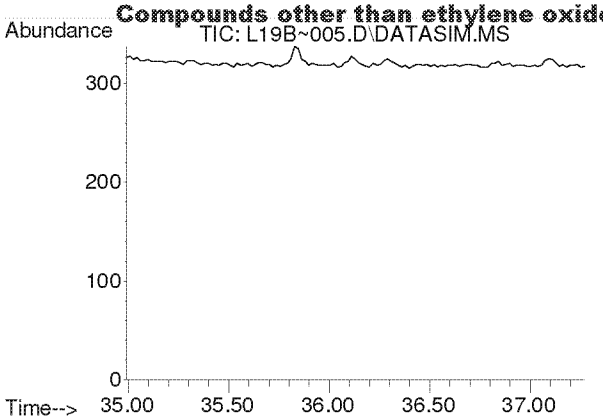
Ion	Ratio	Lower	Upper
105	100		
120	0.0	35.2	52.8#







Compounds other than ethylene oxide were not quantitated.

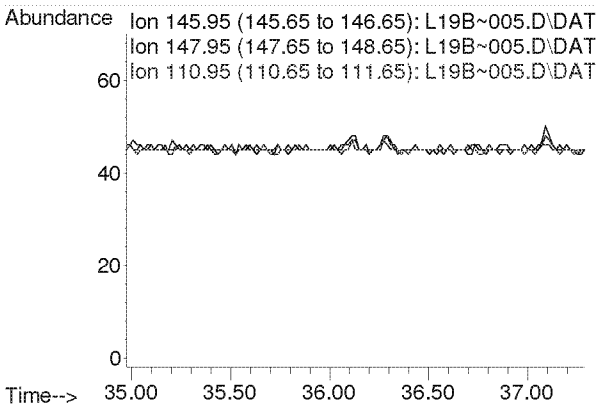


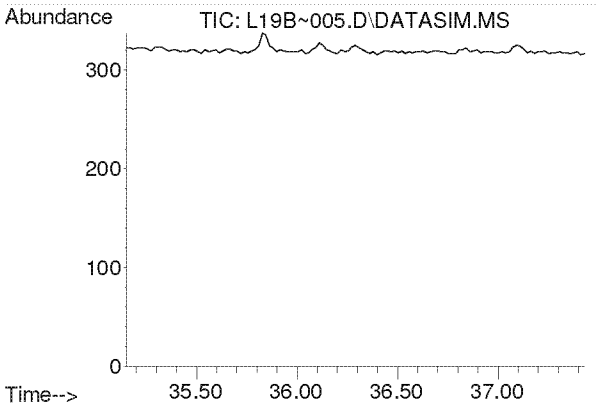
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



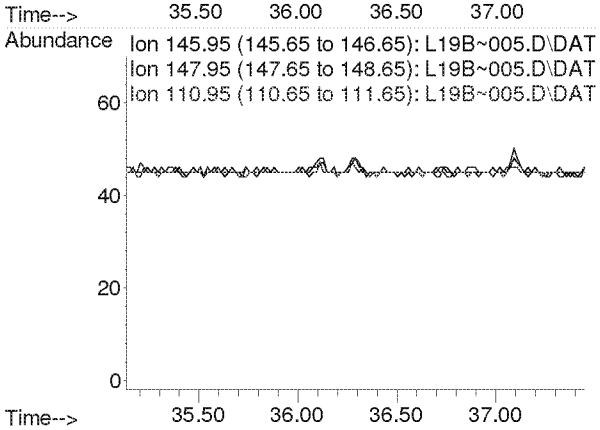


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

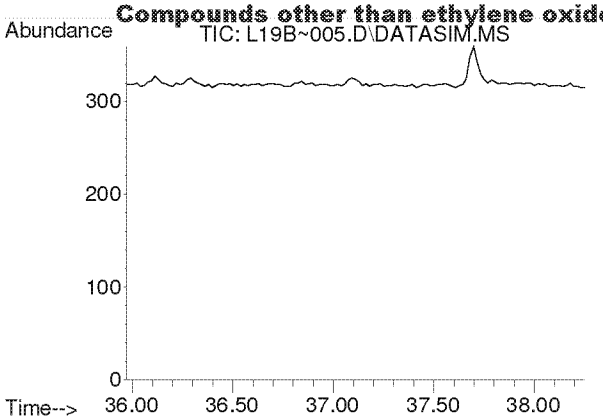
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

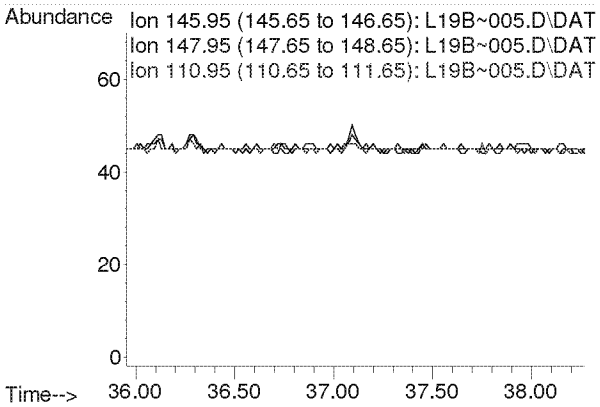


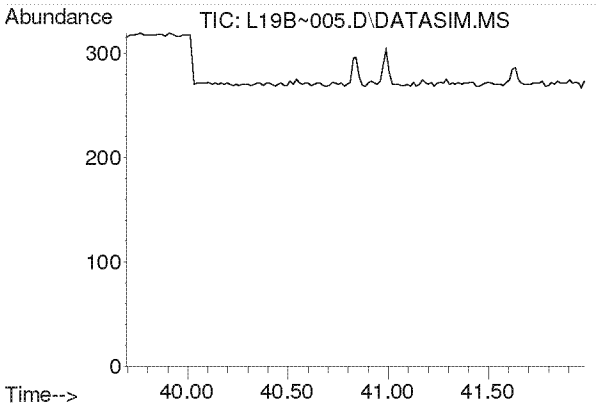
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



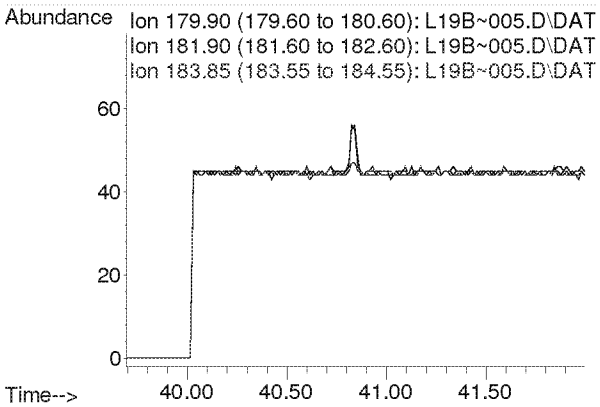


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

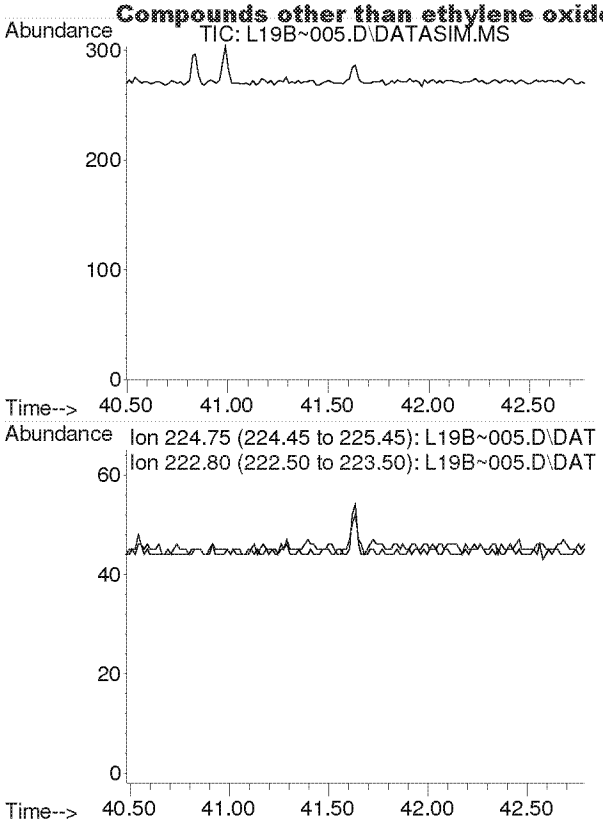
Lab File: L19B~005.D
Acq: 27 Feb 2019 2:54 pm

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: L19B~005.D
Acq: 27 Feb 2019 2:54 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		L19B~006.D	L19B~007.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022202-18	9022202-19		
Mics Comments		EPA WB WAREHO	EPA WB WAREHOUSE C2 2/21/19		
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	0.088	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	

3-5-19

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

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Replicate Analyses

		D1	R1		
File ID		L19B~006.D	L19B~008.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022202-18	B9B2705-DUP1		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R1 2/21/19		
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	0.088	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	

Comparison of Replicate Analyses

		D2	R2		
File ID		L19B~007.D	L19B~009.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022202-19	B9B2705-DUP2		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R2 2/21/19		
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	0.108	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~006.D
Acq On : 27 Feb 2019 4:26 pm
Operator : MAH
Sample : 9022202-18
Misc : EPA WB WAREHOUSE C1 2/21/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 05 06:39:54 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

dEMR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	46831	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	116744	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	83074	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	12.453	29	235m	0.0877 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D. d	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D. d	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D. d	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D. d	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D. d	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~006.D
Acq On : 27 Feb 2019 4:26 pm
Operator : MAH
Sample : 9022202-18
Misc : EPA WB WAREHOUSE C1 2/21/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 05 06:39:54 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
Quant Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

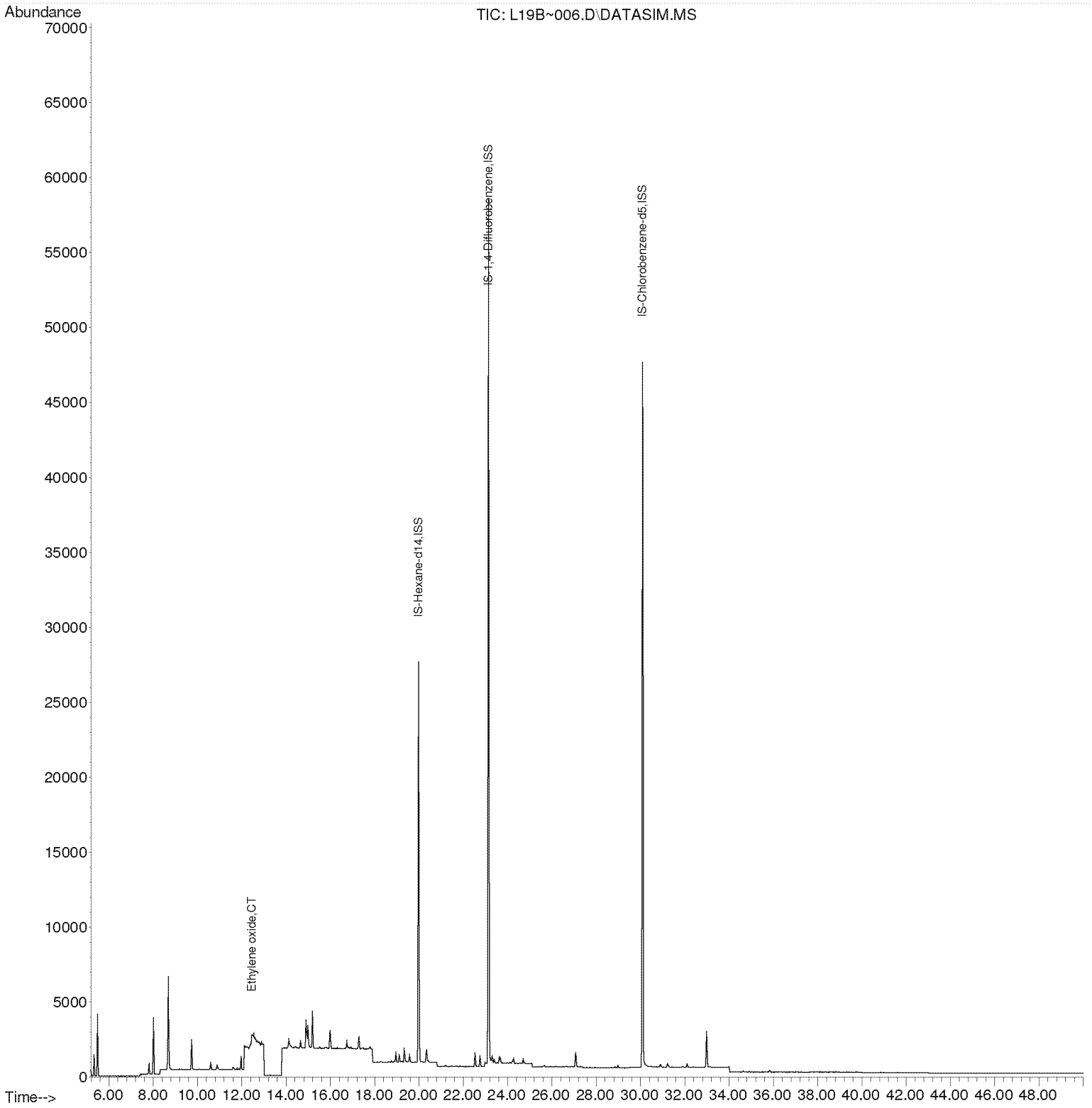
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

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

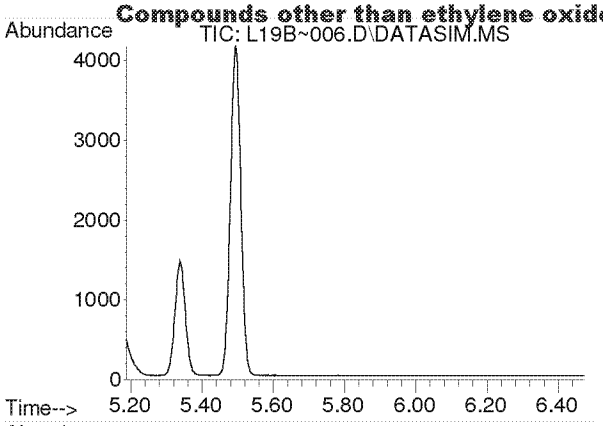
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~006.D
Acq On : 27 Feb 2019 4:26 pm
Operator : MAH
Sample : 9022202-18
Misc : EPA WB WAREHOUSE C1 2/21/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 28 12:53:20 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



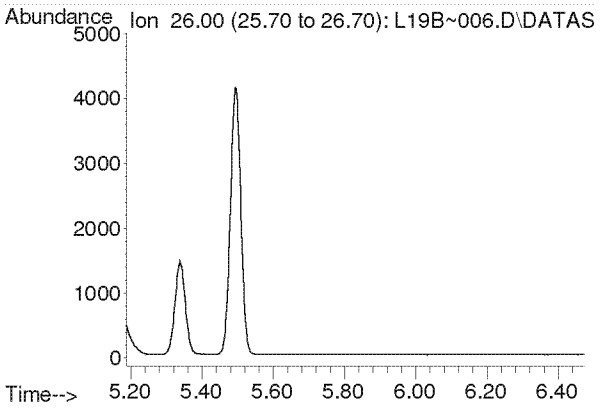
Compounds other than ethylene oxide were not quantitated.

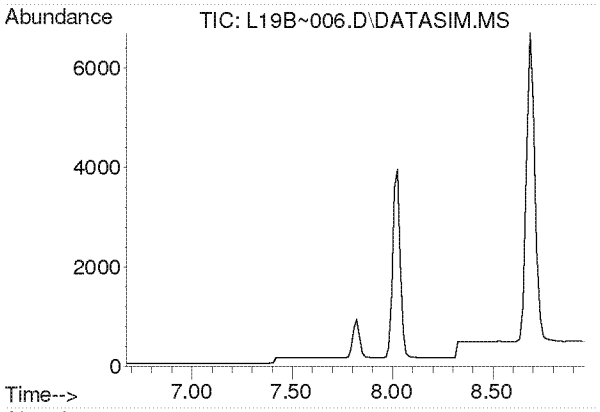


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 26



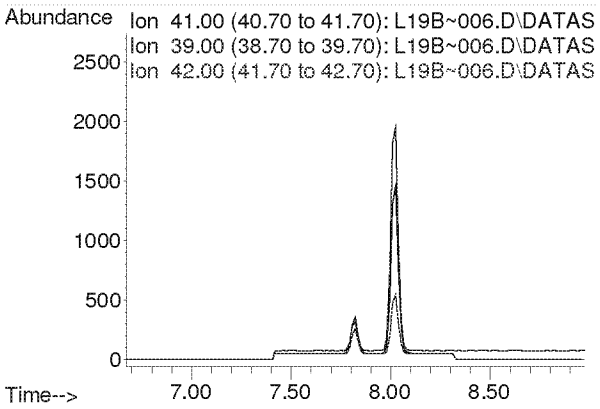


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

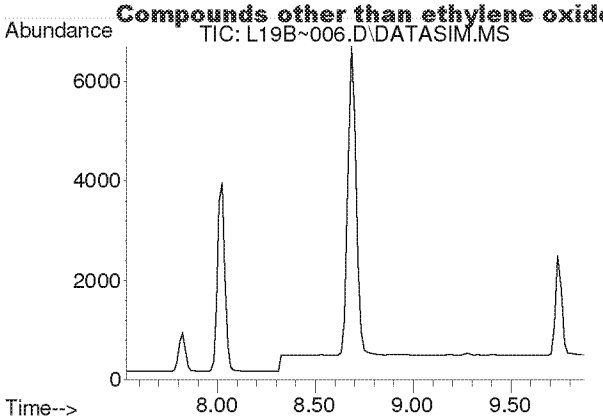
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

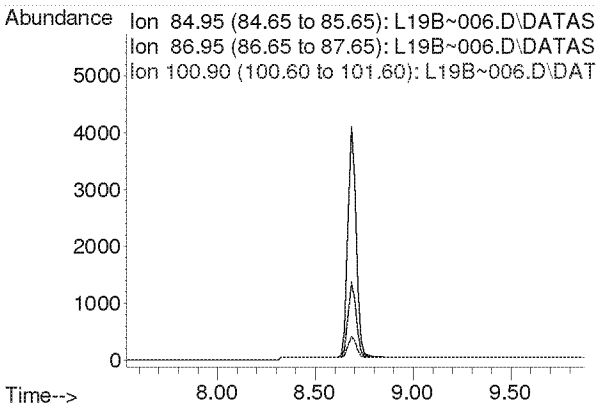


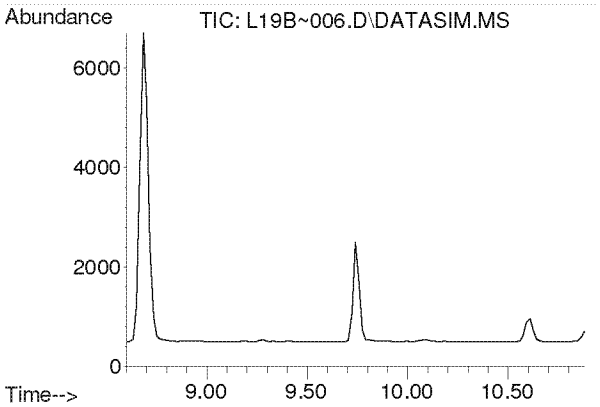
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



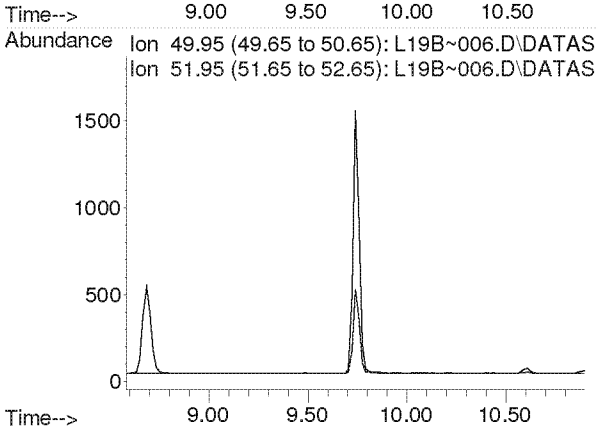


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

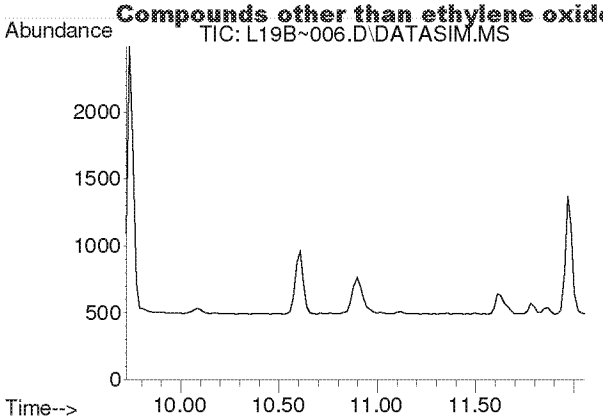
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

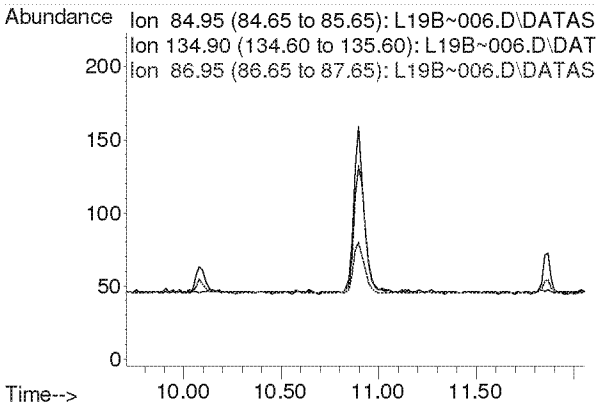


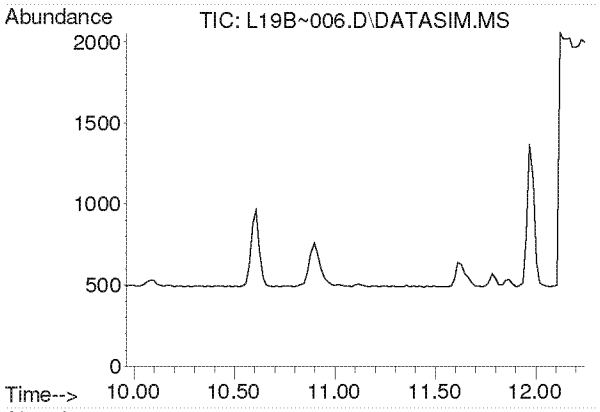
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



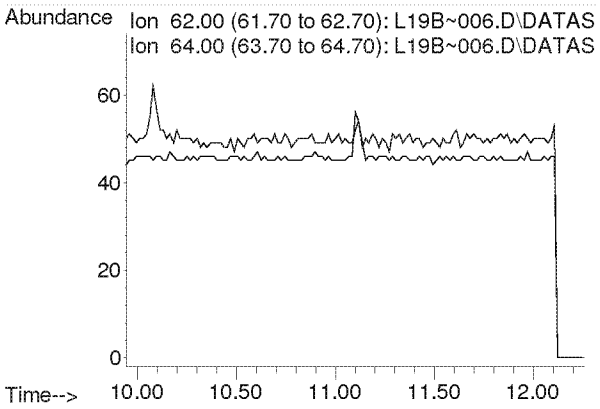


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

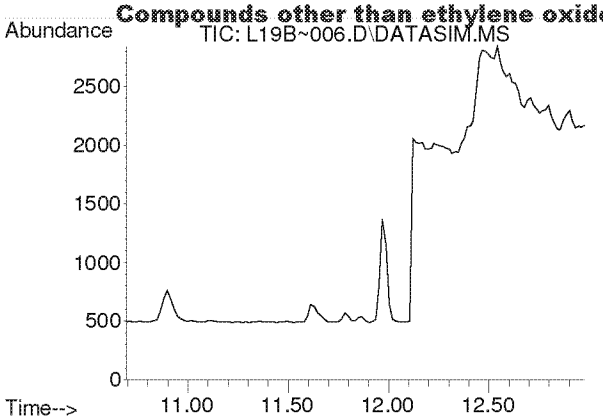
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

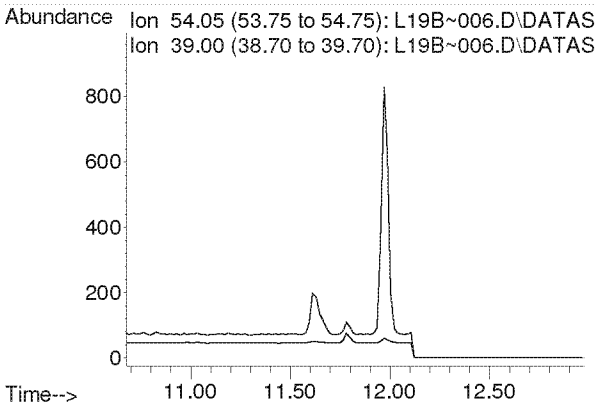


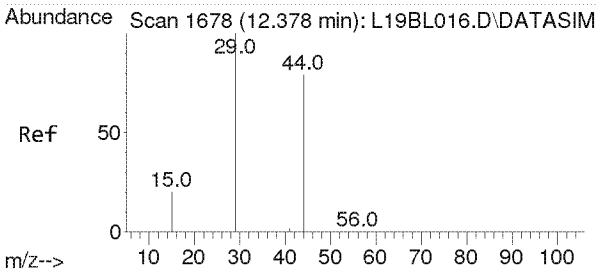
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

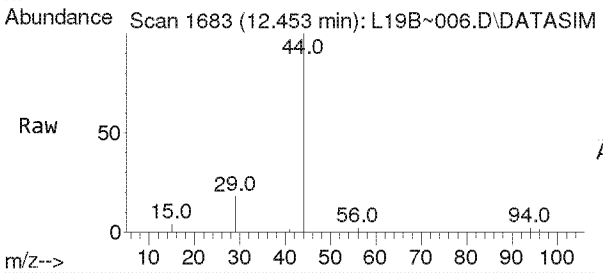


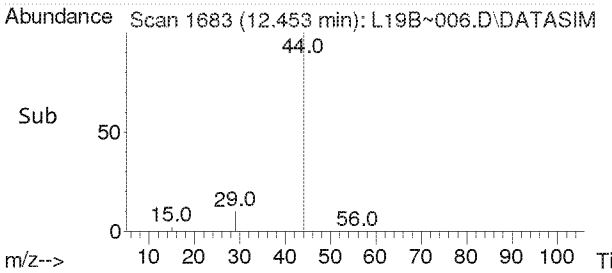


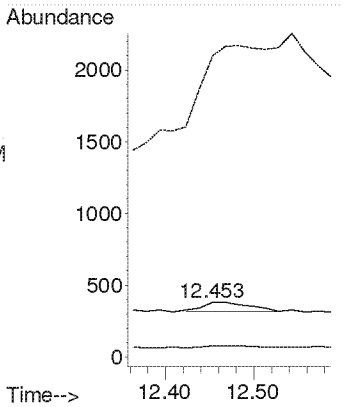
#9
Ethylene oxide
Concen: 0.088 ppbv m
RT: 12.453 min Scan# 1683
Delta R.T. 0.003 min
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 29 Resp: 235

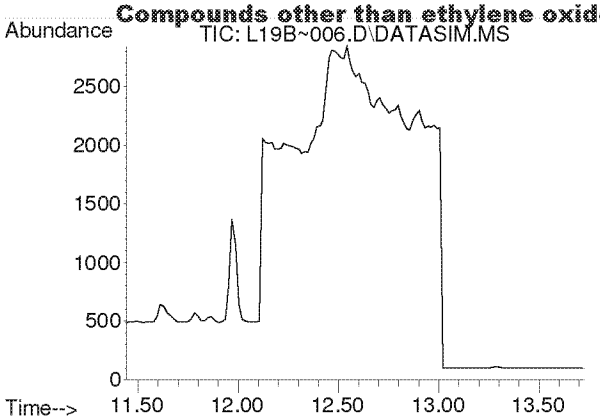
Ion	Ratio	Lower	Upper
29	100		
15	48.5	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

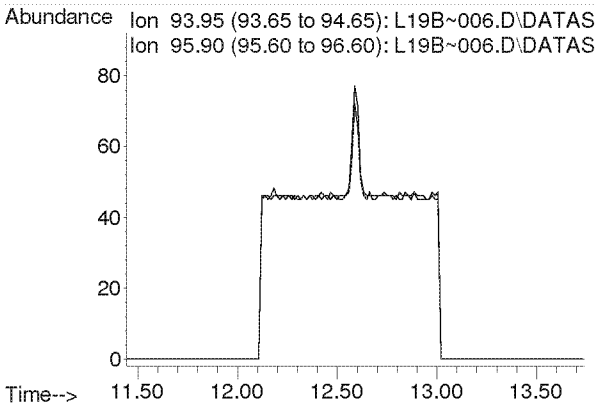


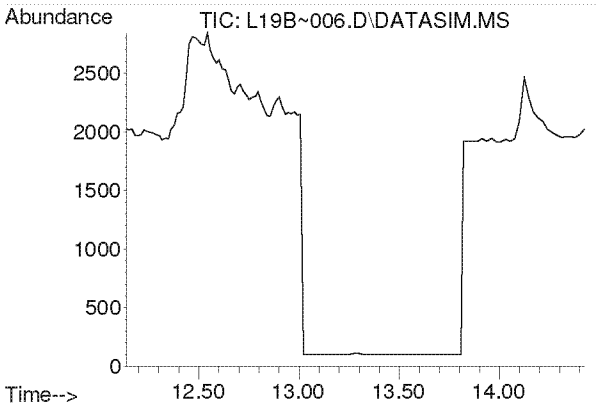
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



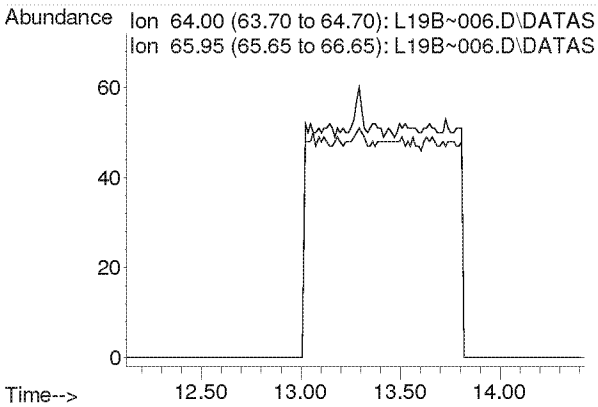


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

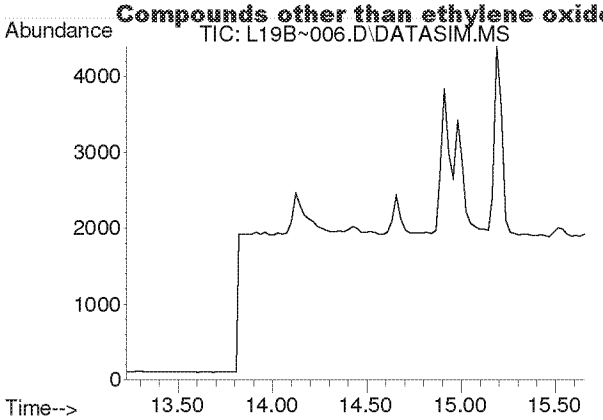
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

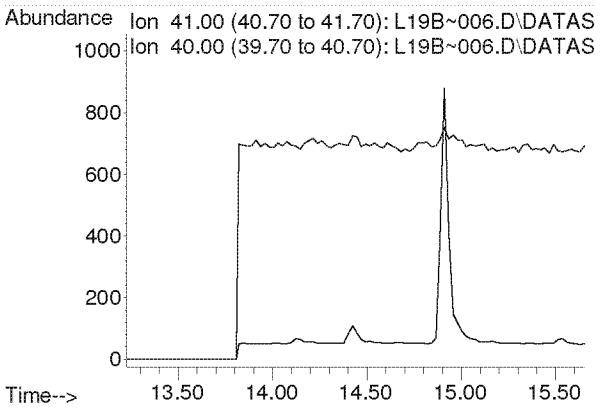


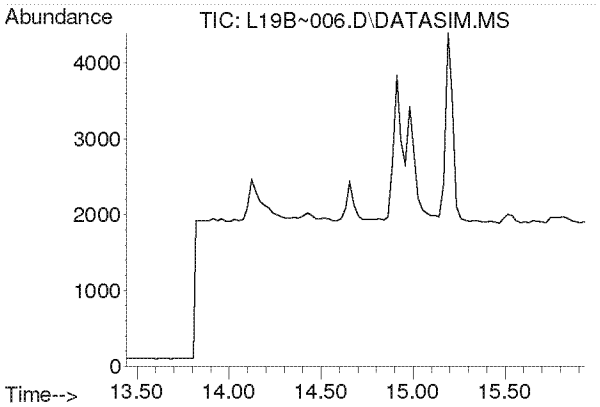
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



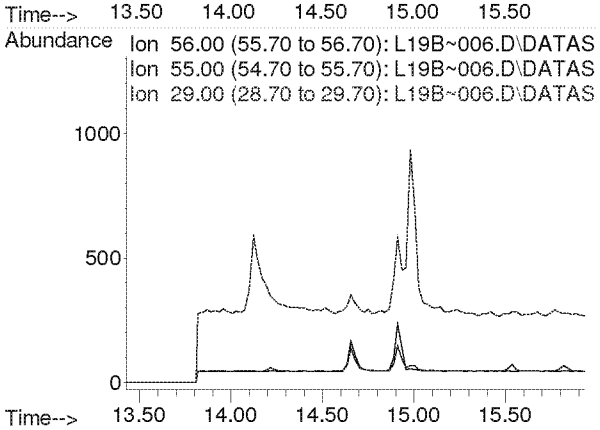


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

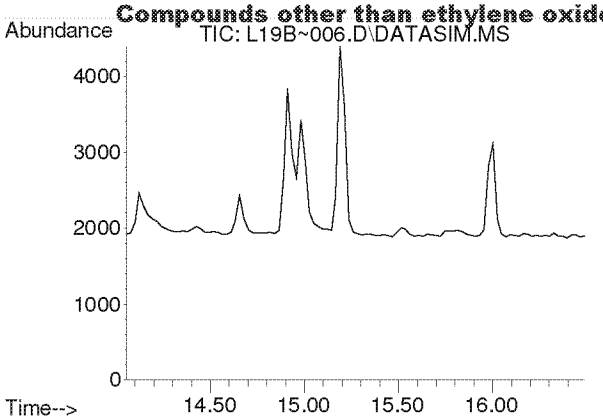
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

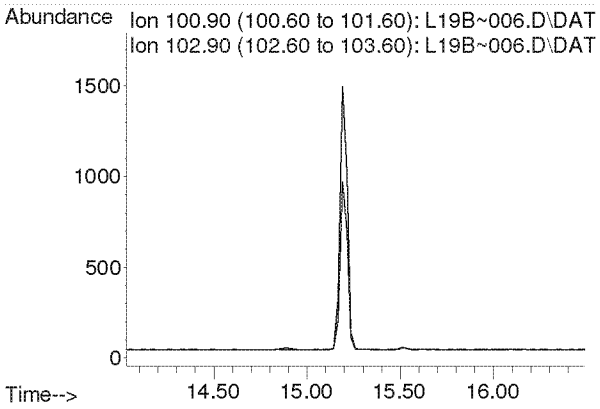


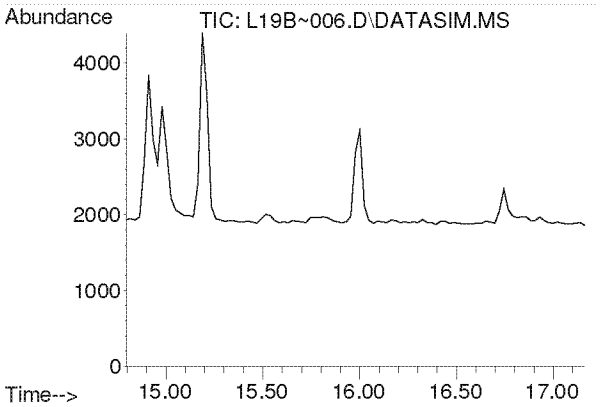
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



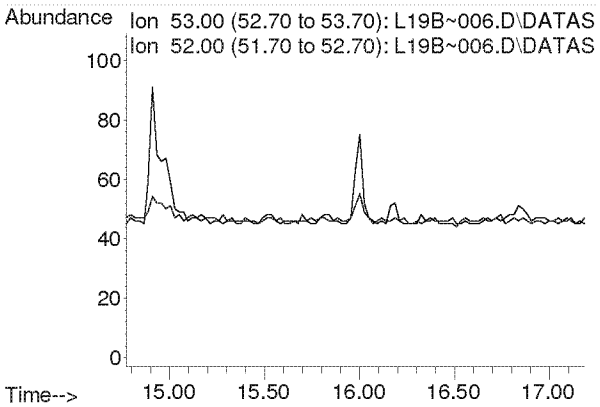


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

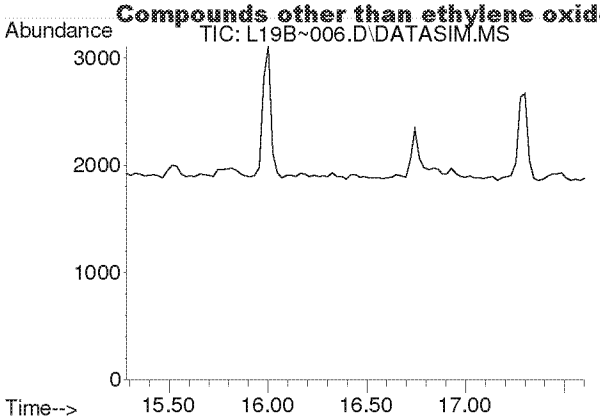
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

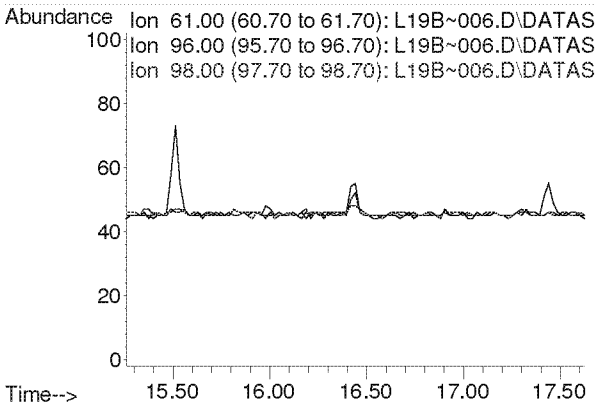


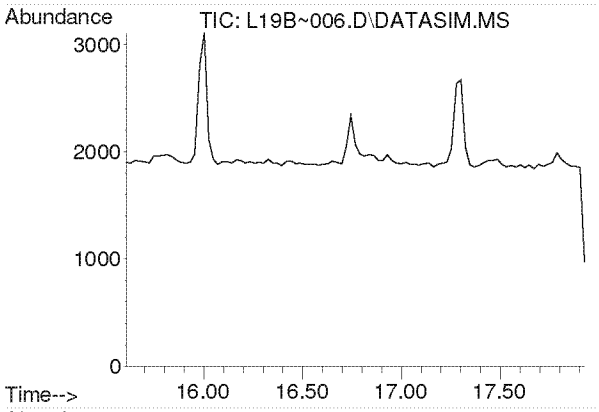
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



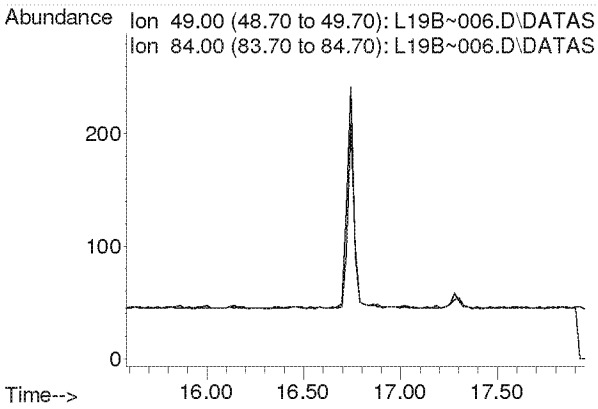


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

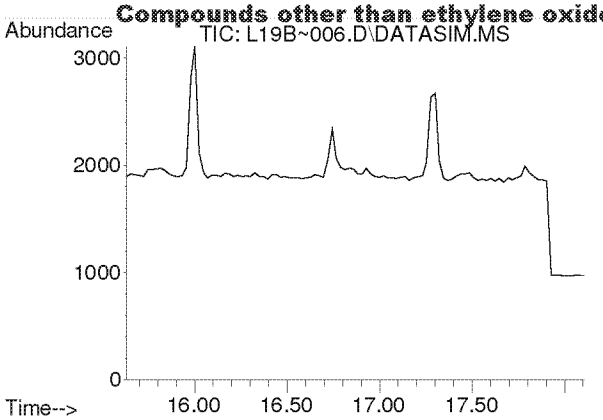
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

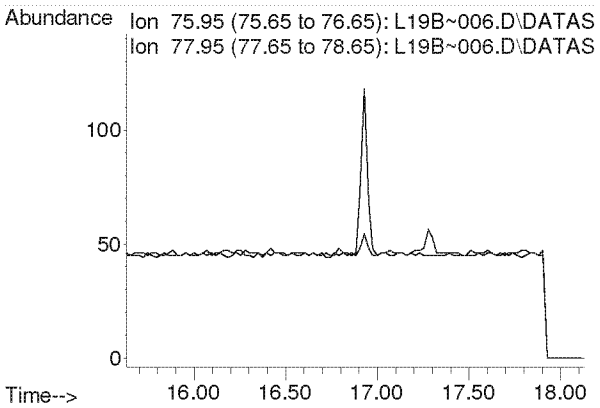


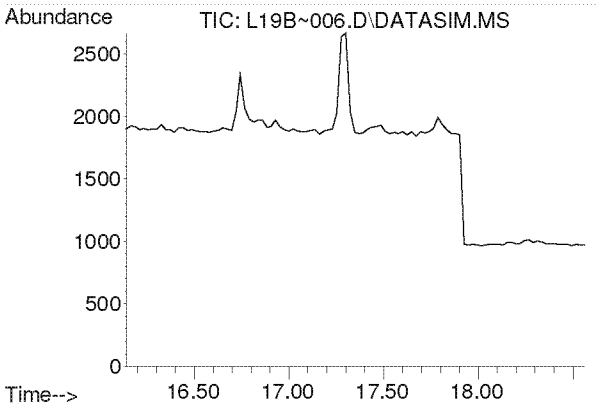
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



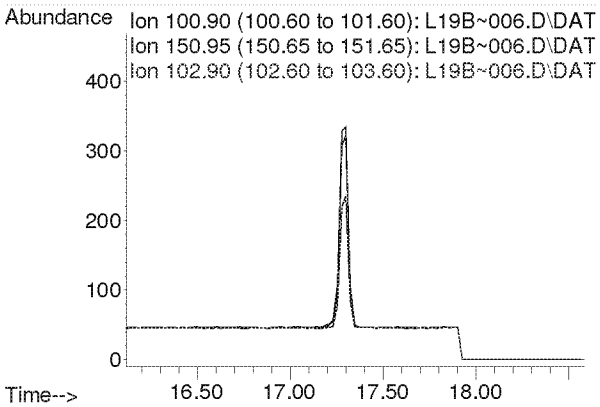


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

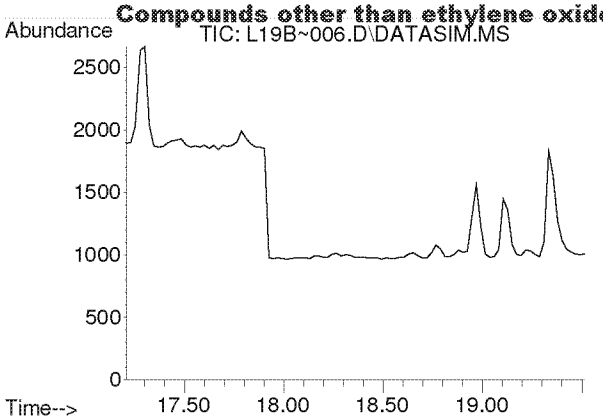
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

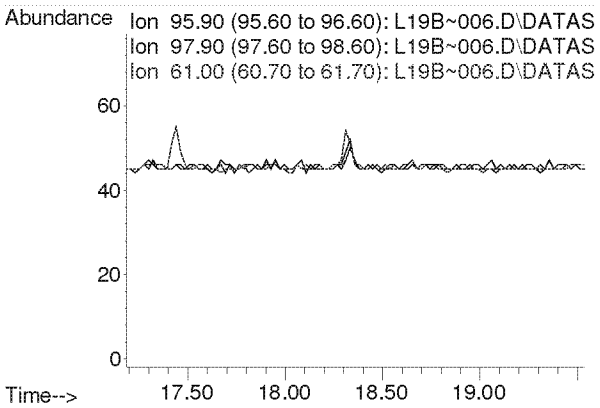


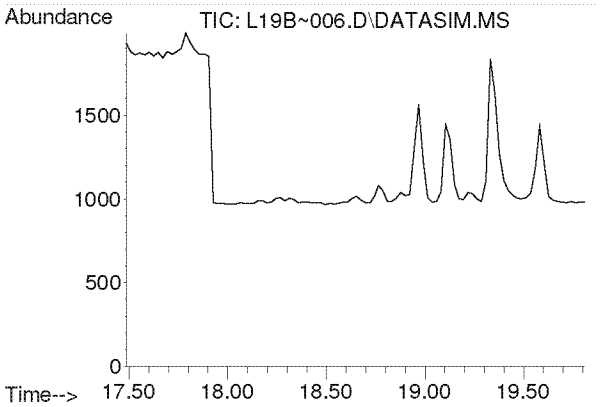
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



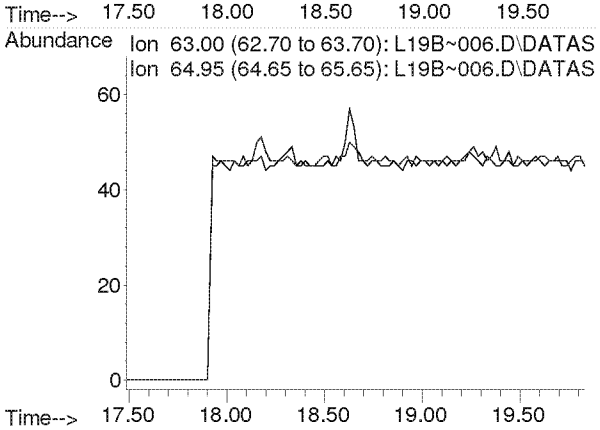


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

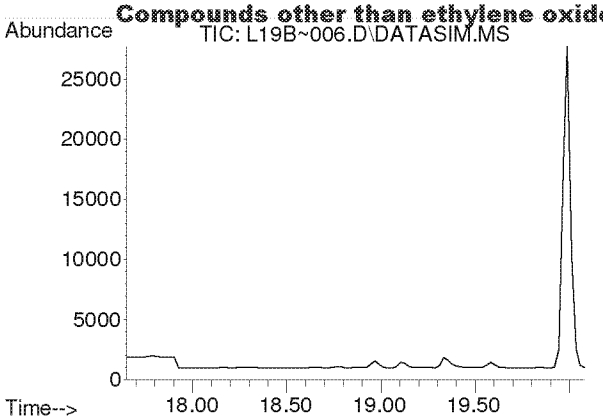
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

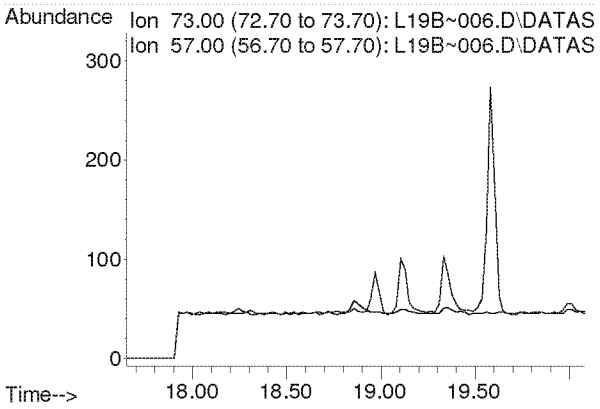


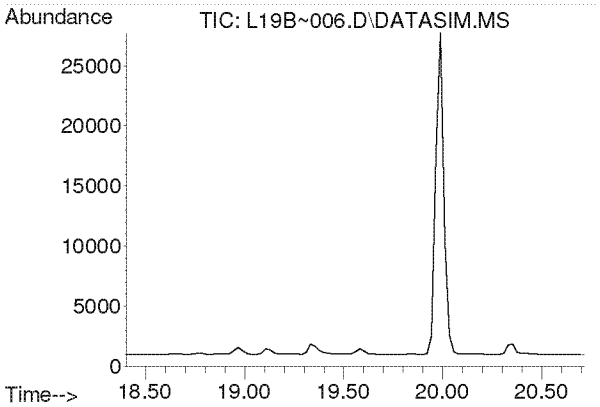
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



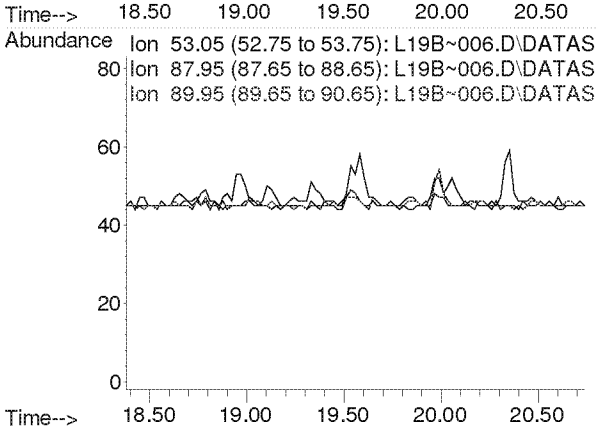


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

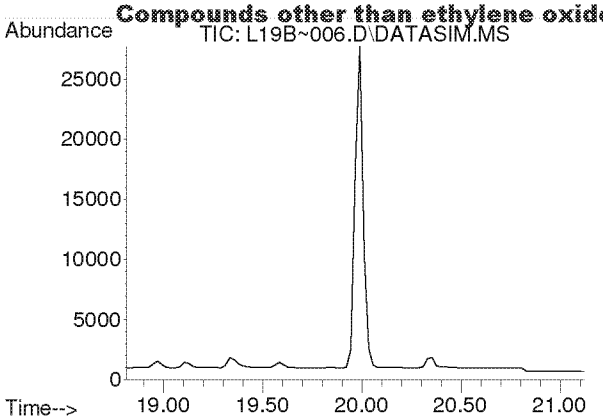
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

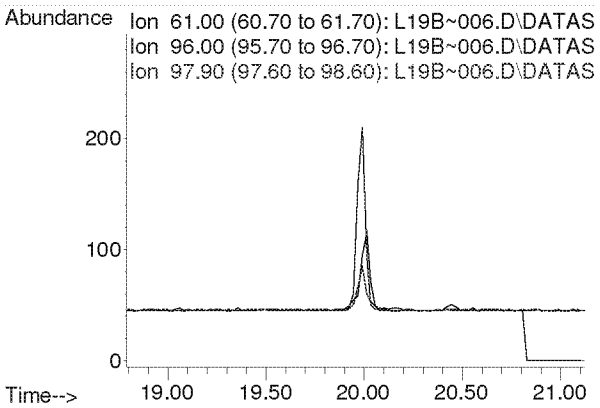


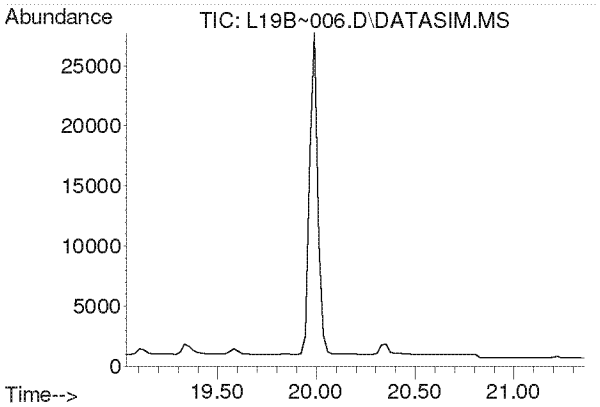
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



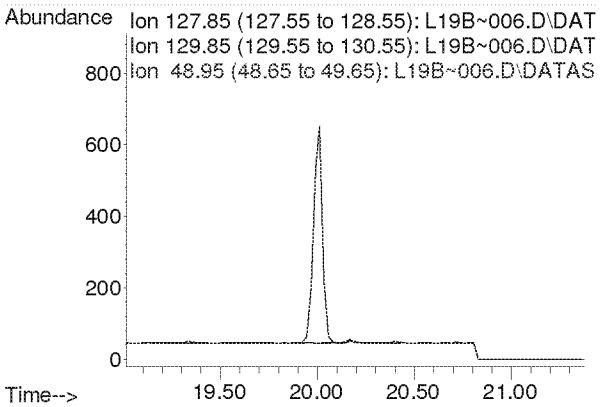


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

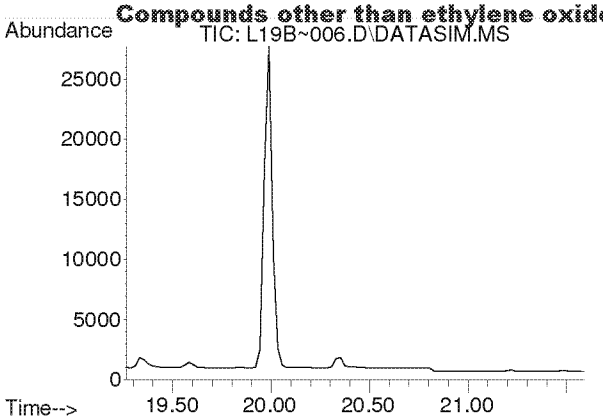
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

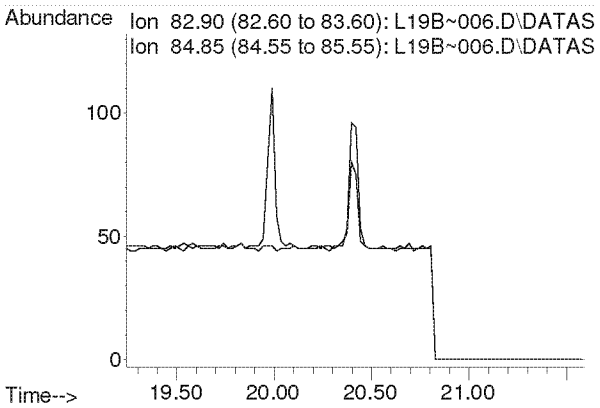


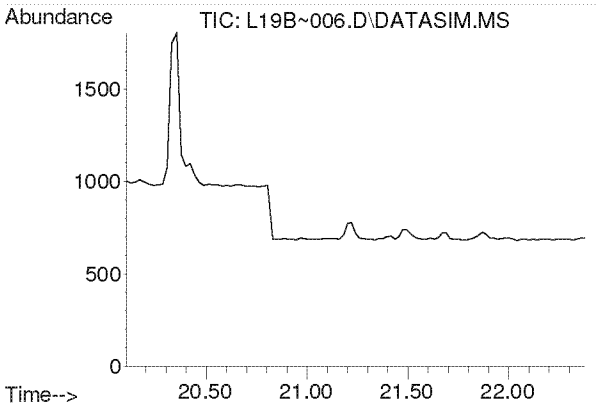
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



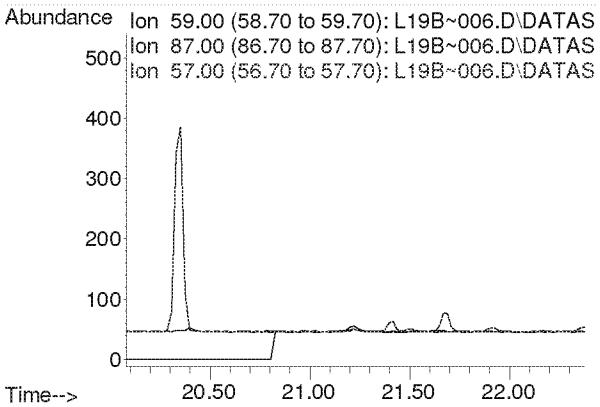


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

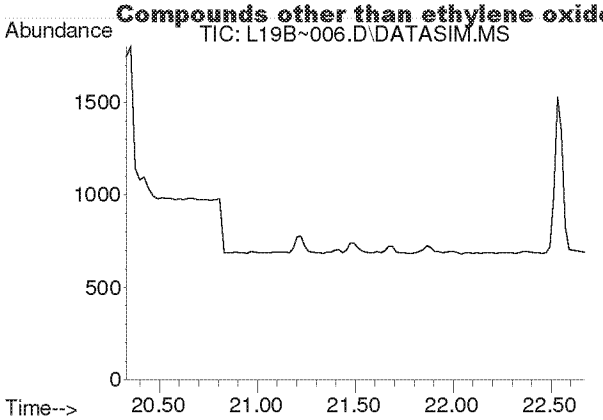
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

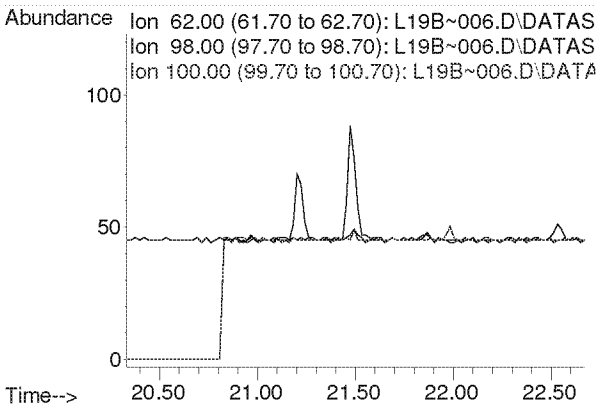


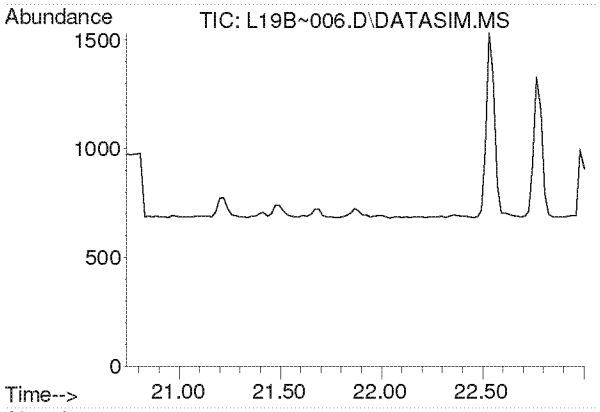
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



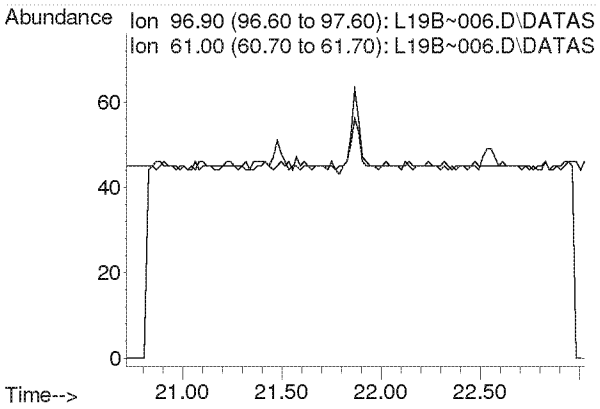


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

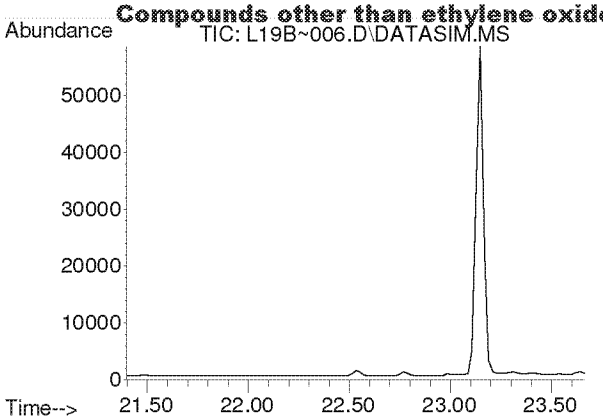
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

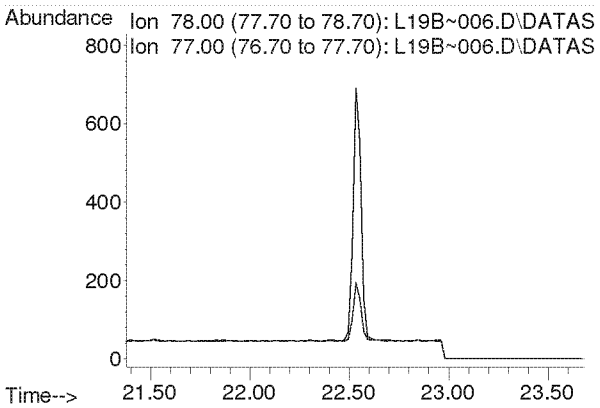


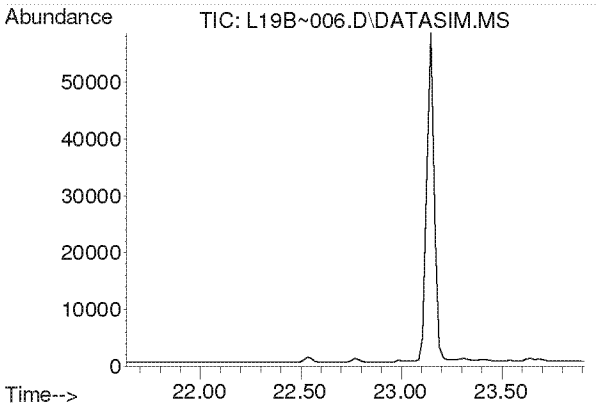
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



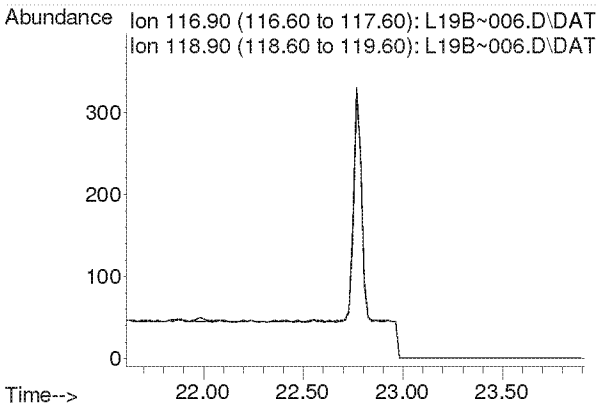


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

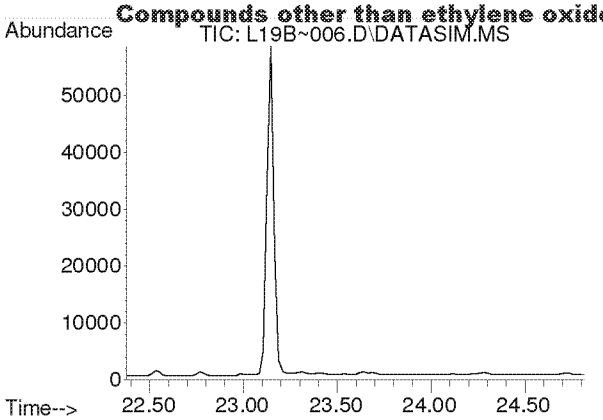
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

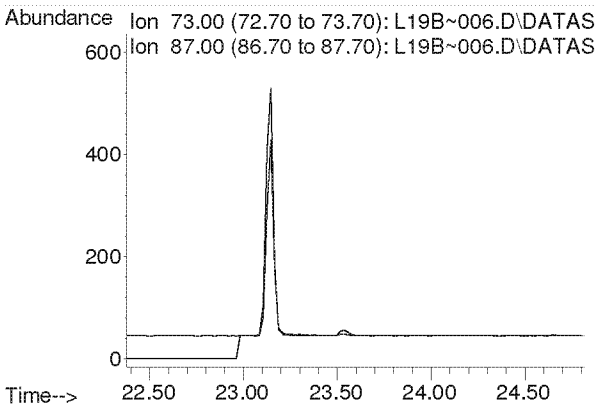


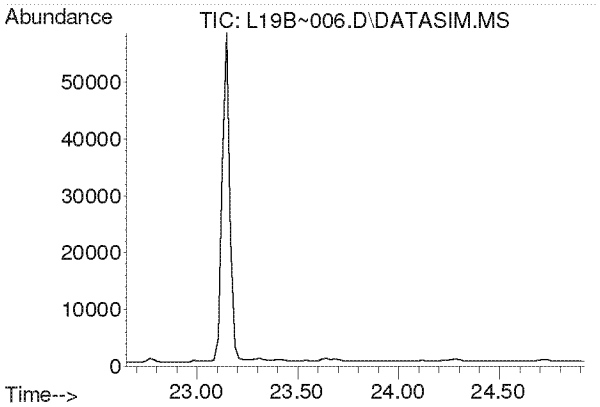
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



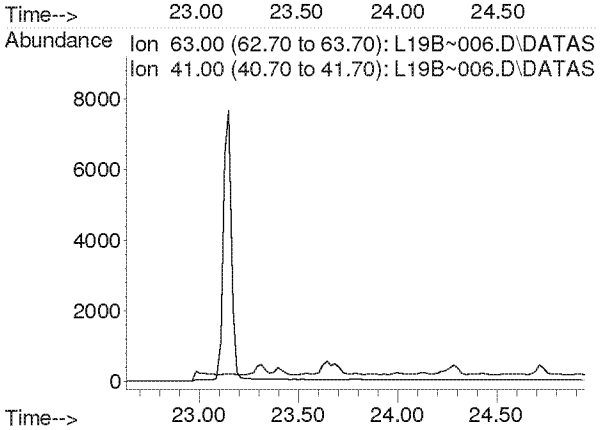


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

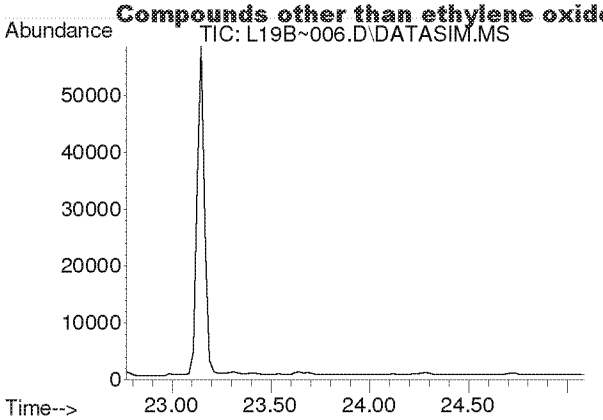
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

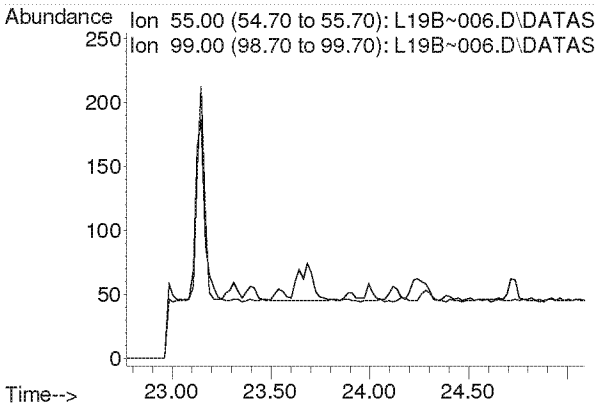


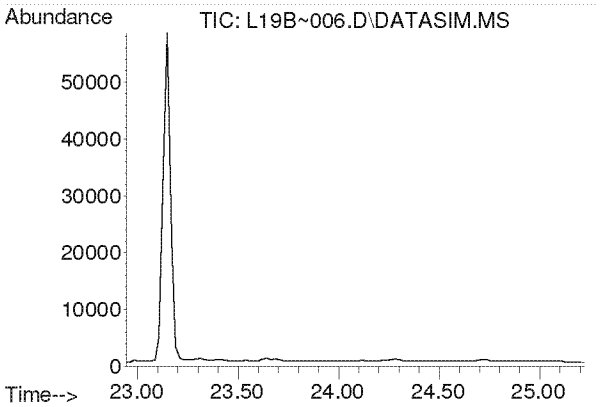
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



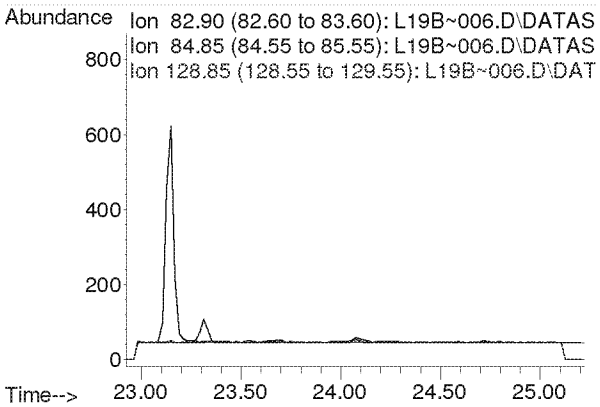


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

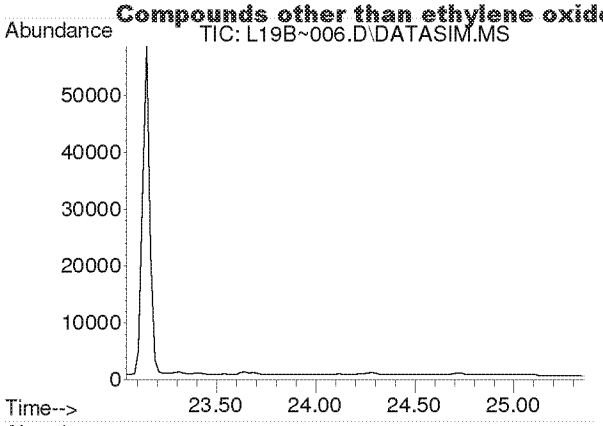
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

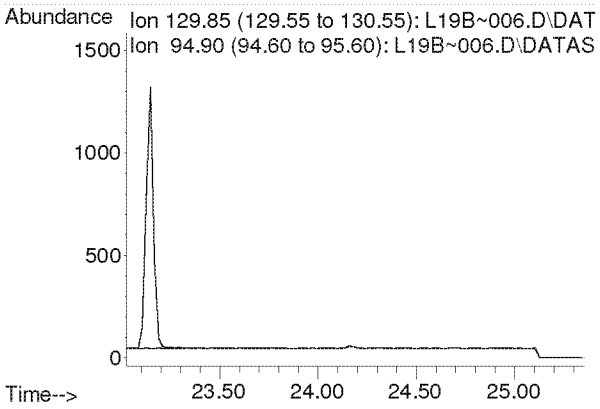


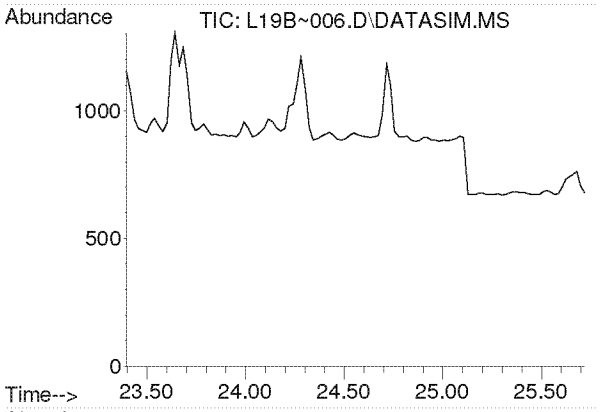
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



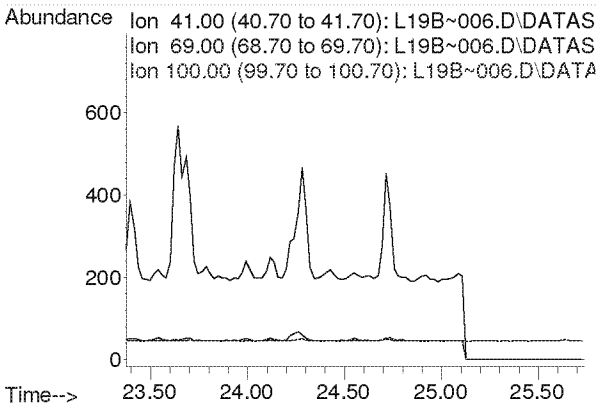


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

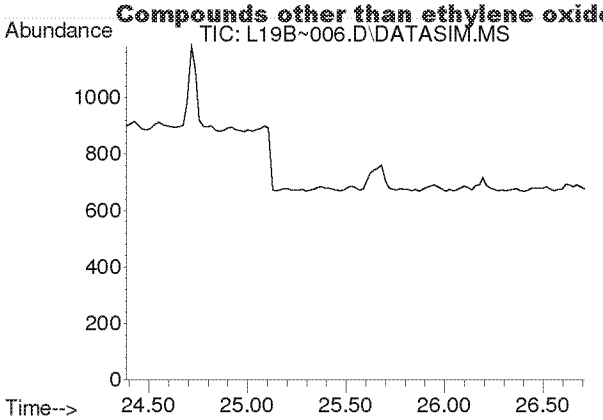
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

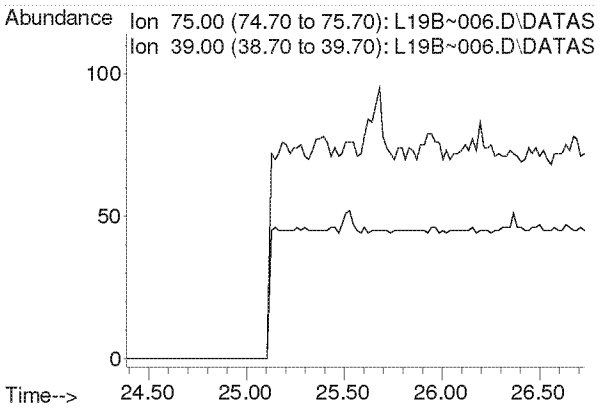


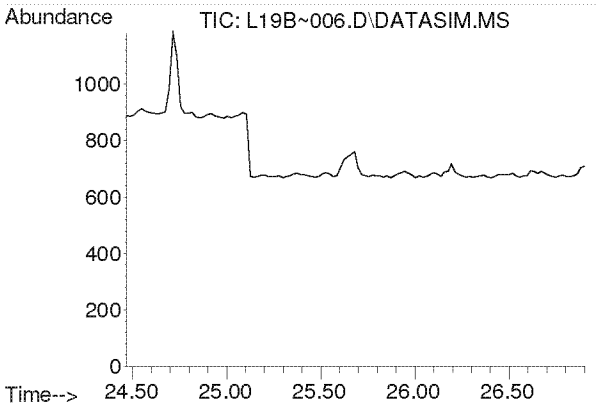
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



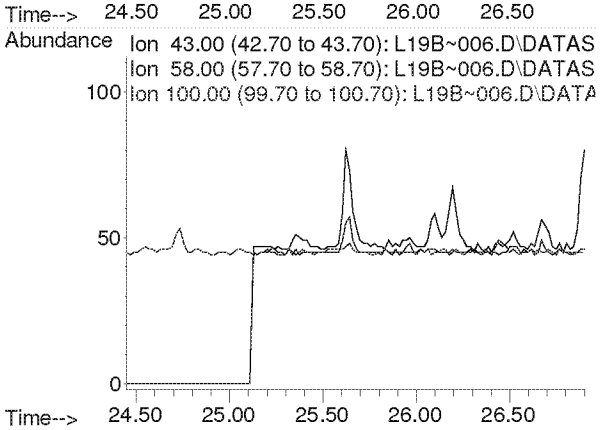


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

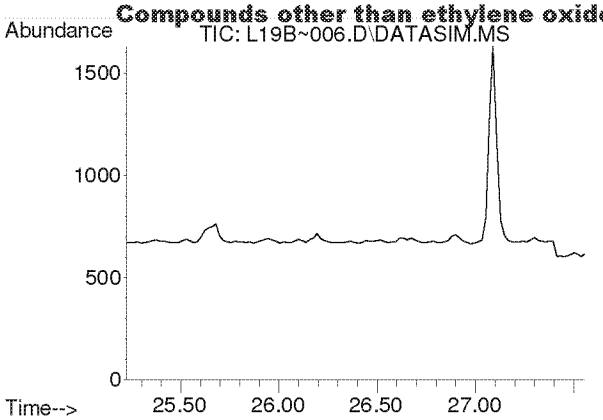
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

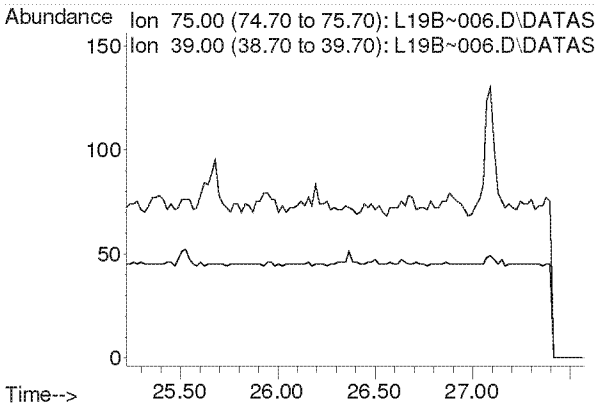


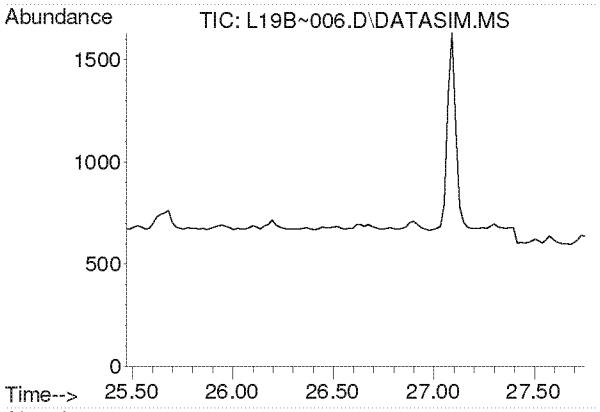
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



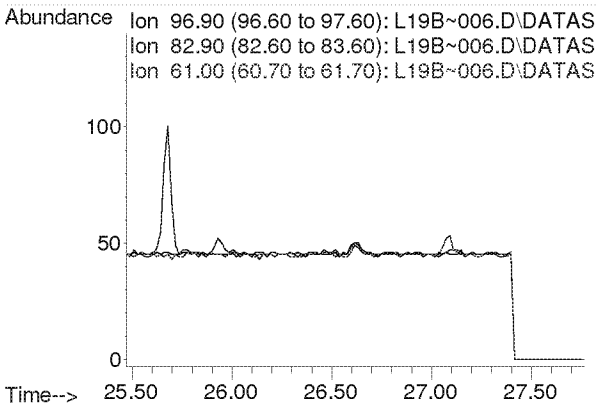


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

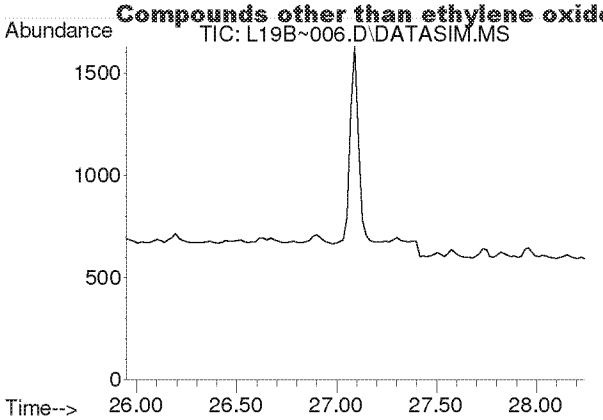
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

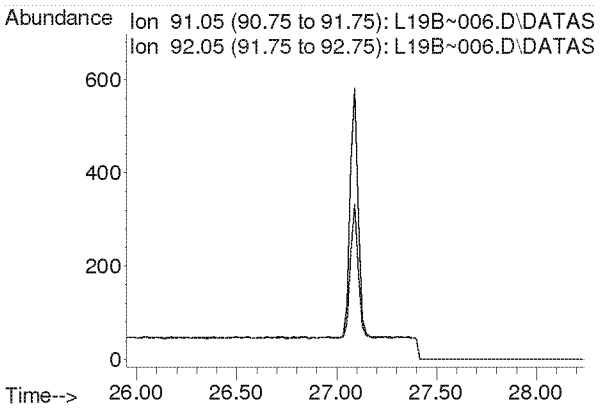


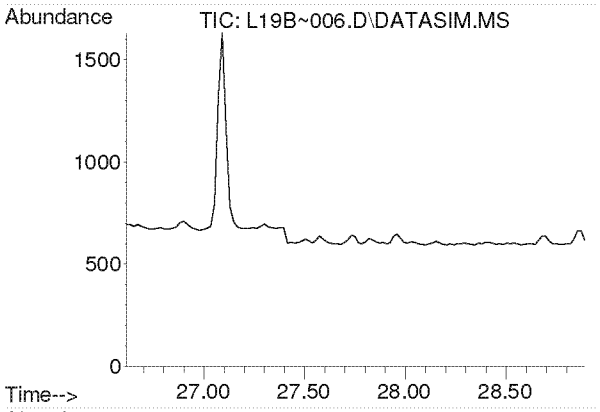
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



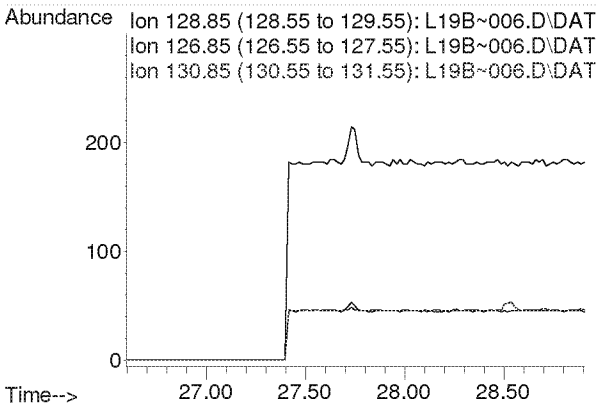


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

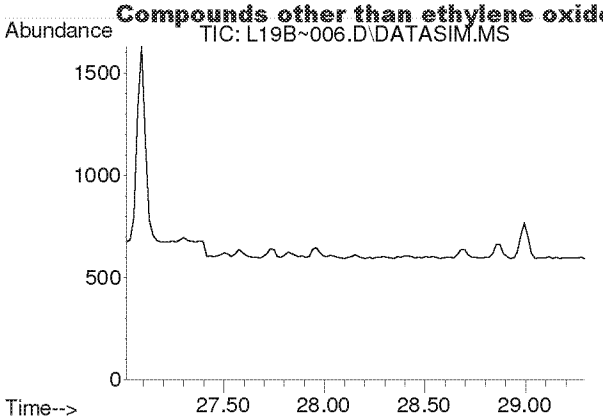
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

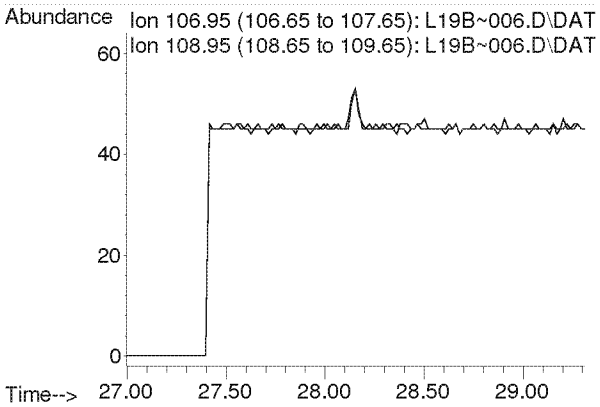


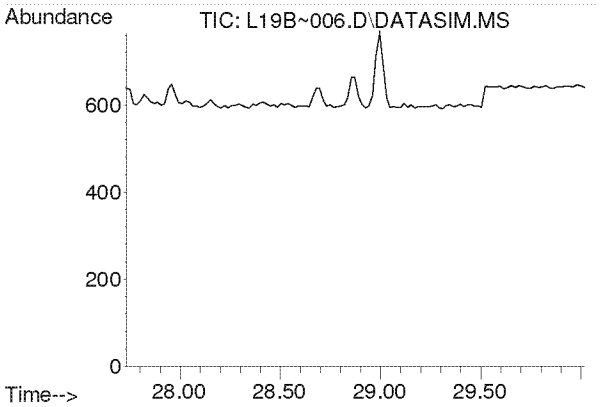
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



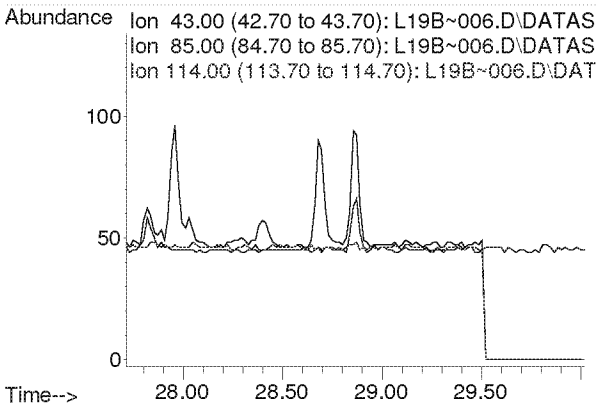


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

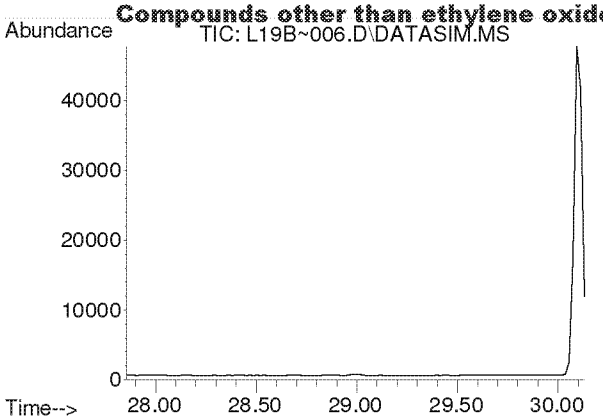
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

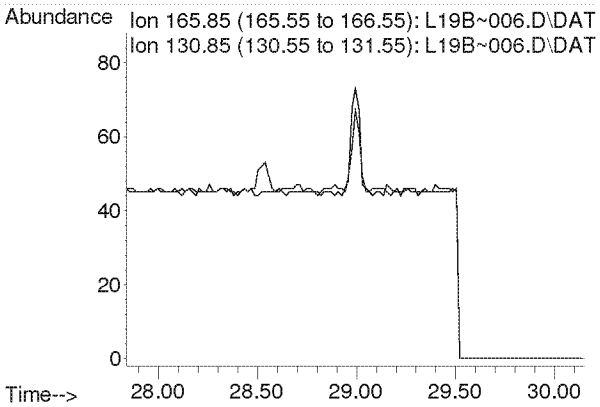


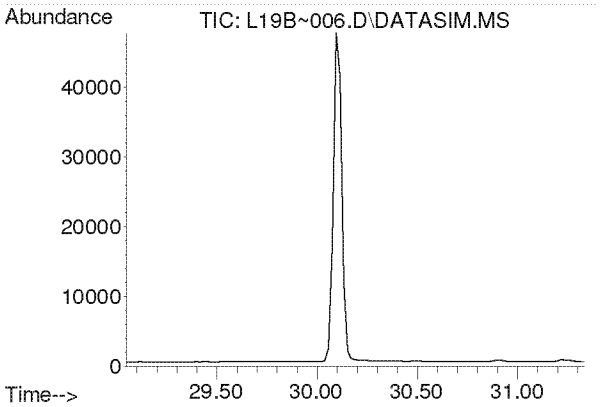
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



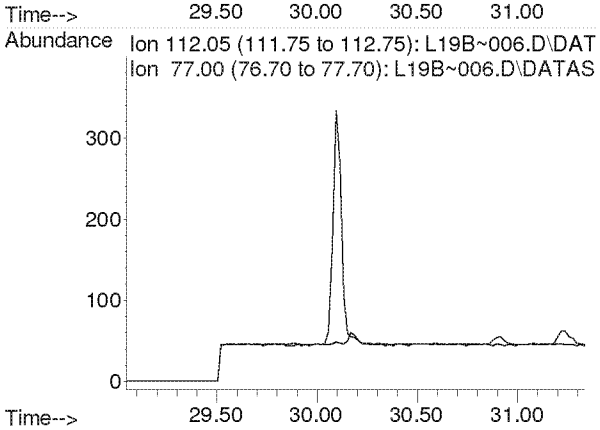


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

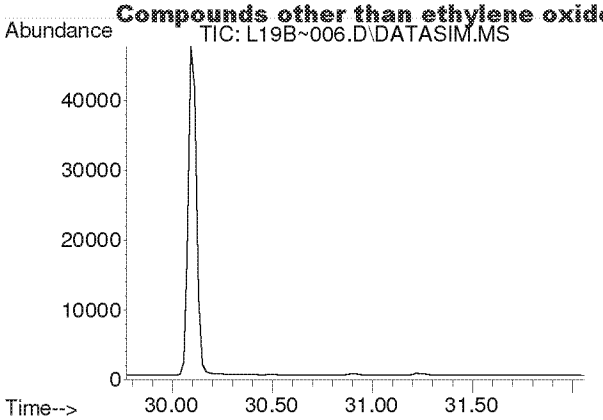
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

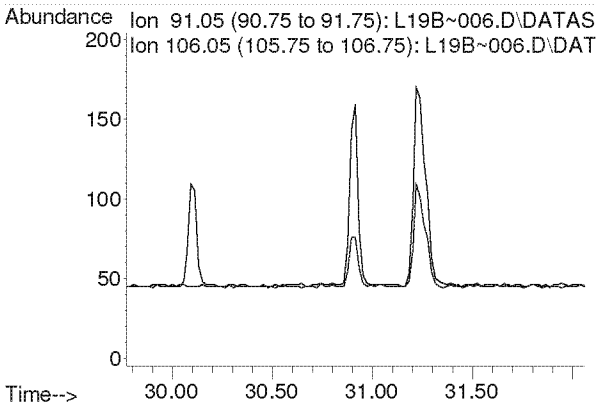


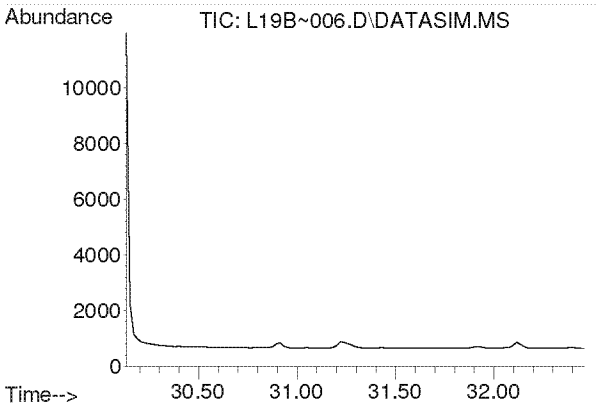
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



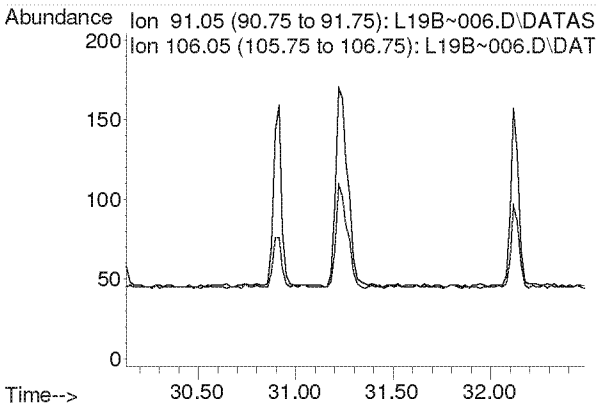


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

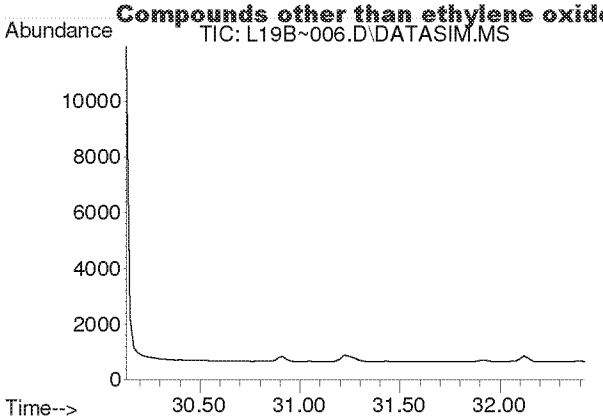
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

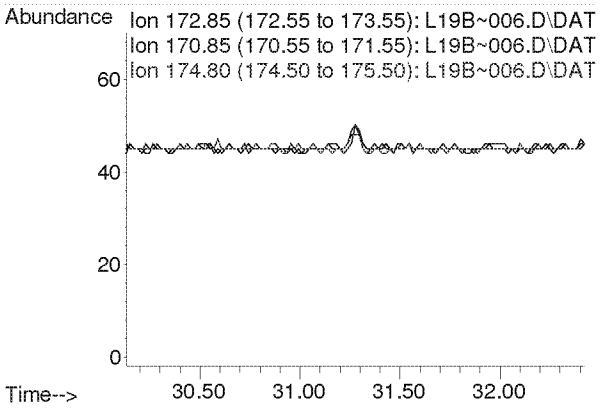


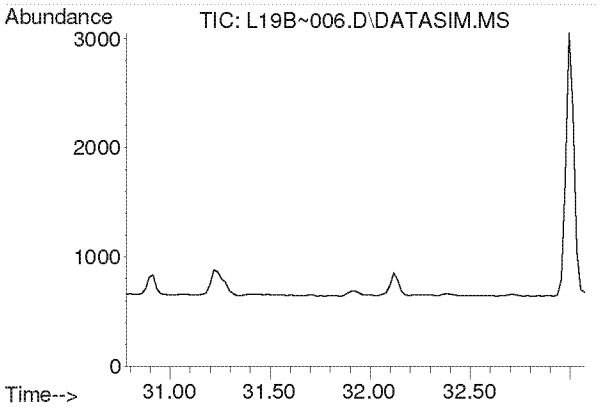
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



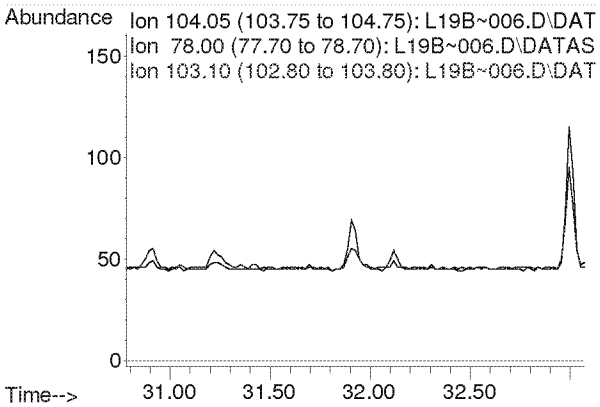


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

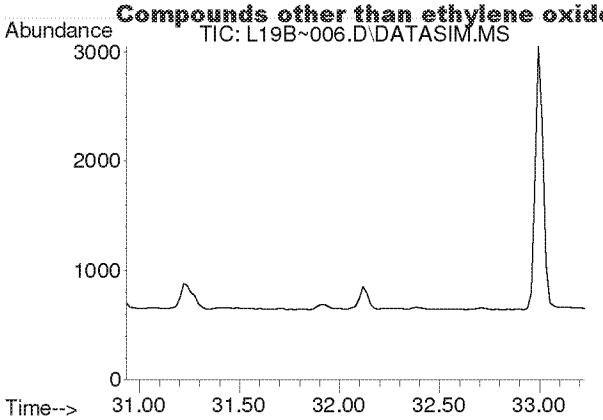
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

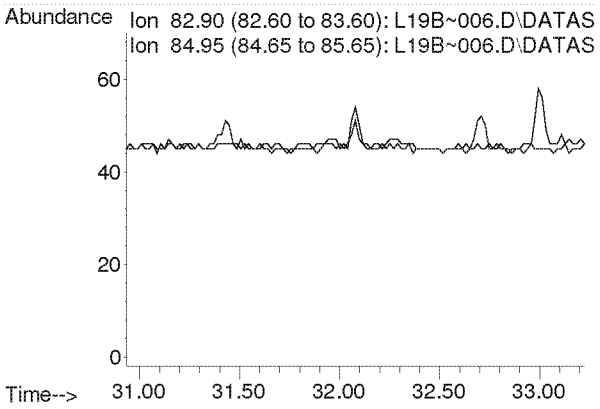


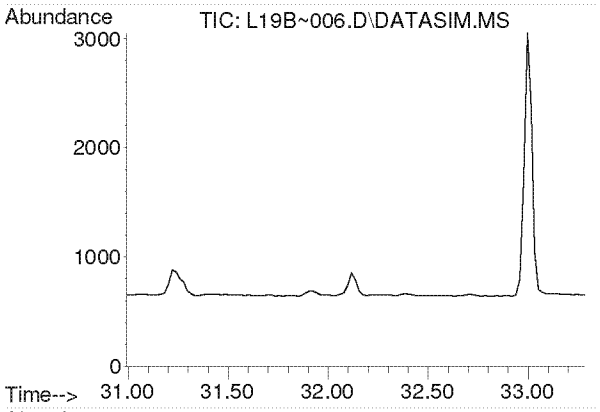
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



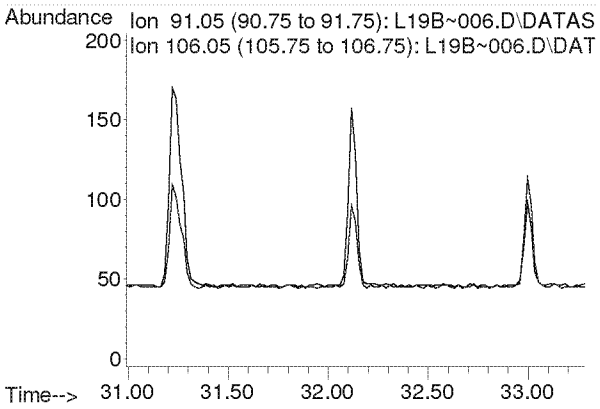


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

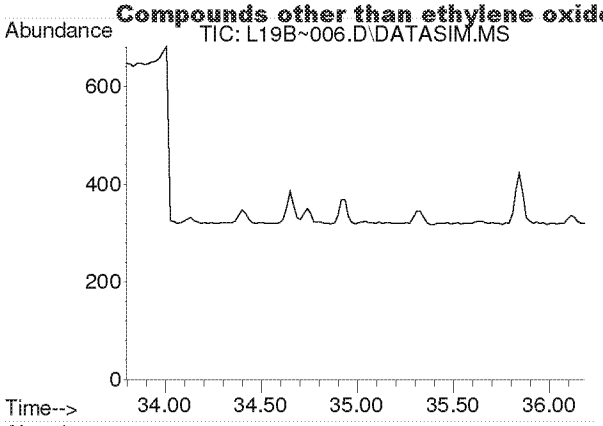
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

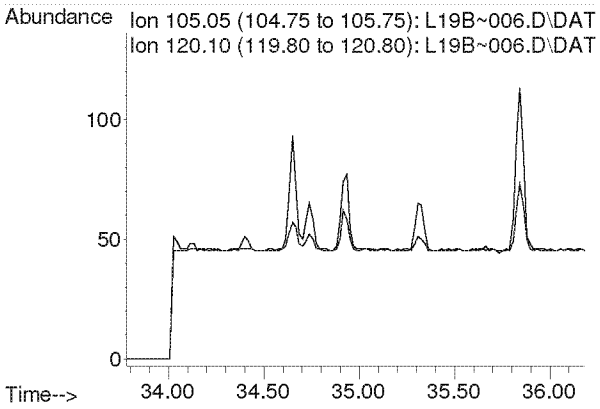


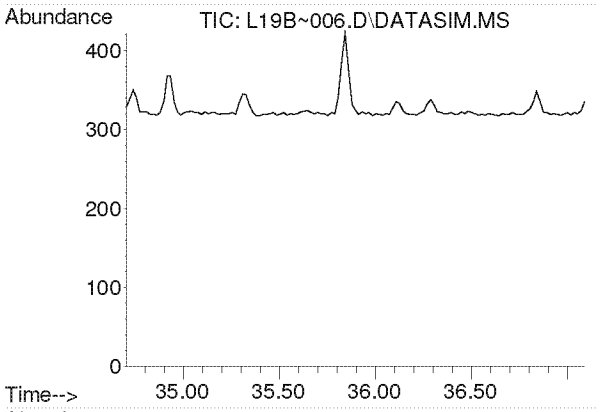
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



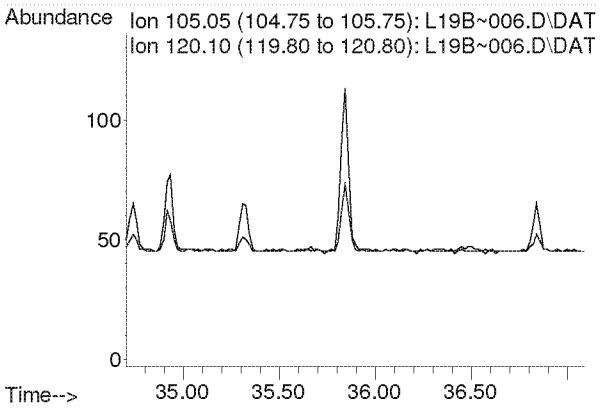


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

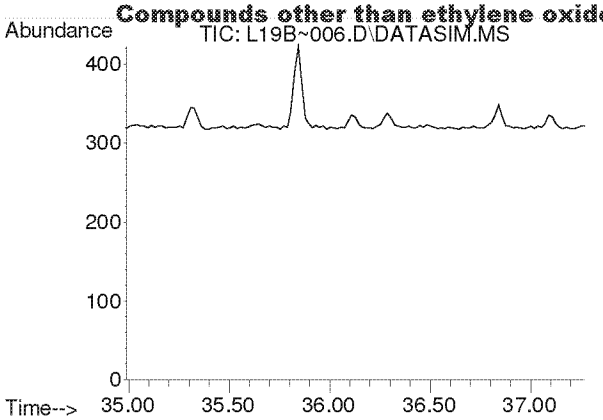
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

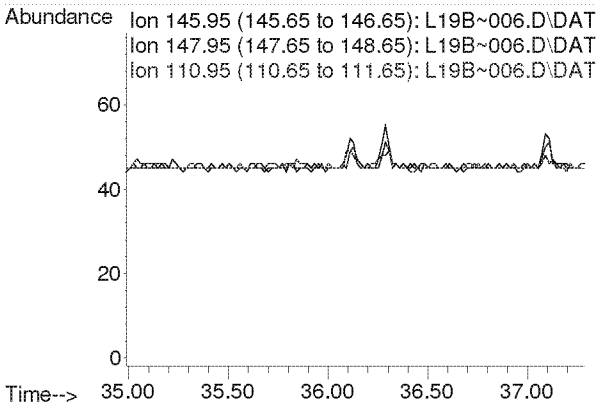


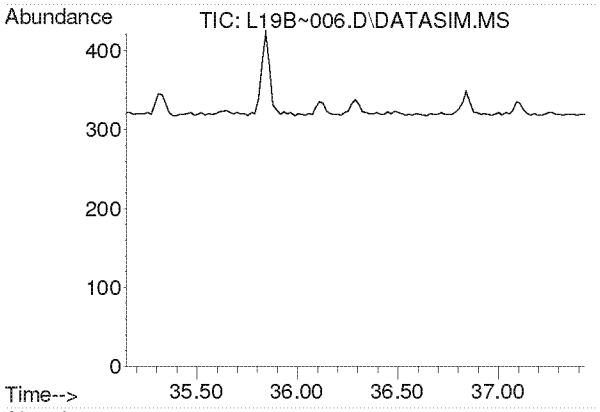
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



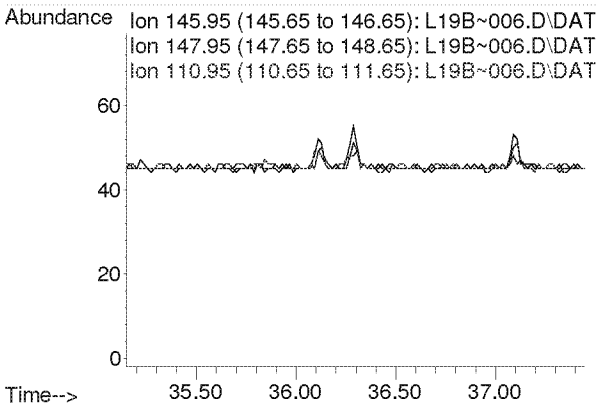


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

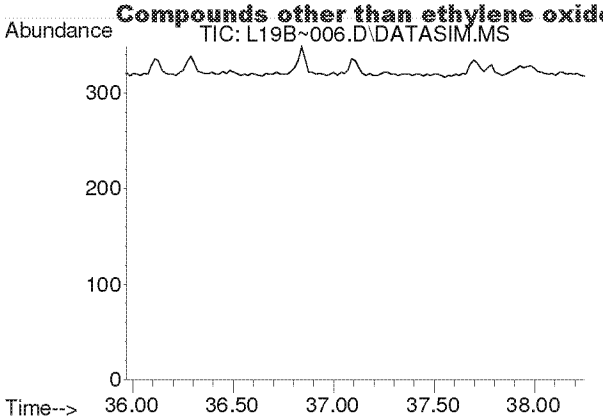
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

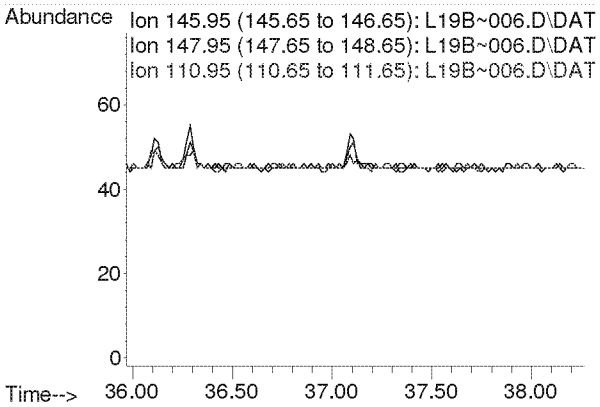


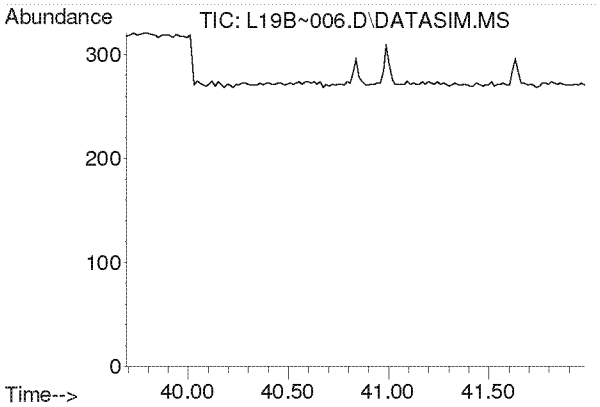
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



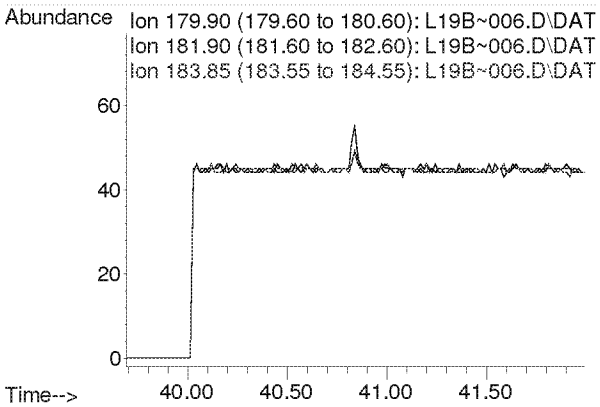


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

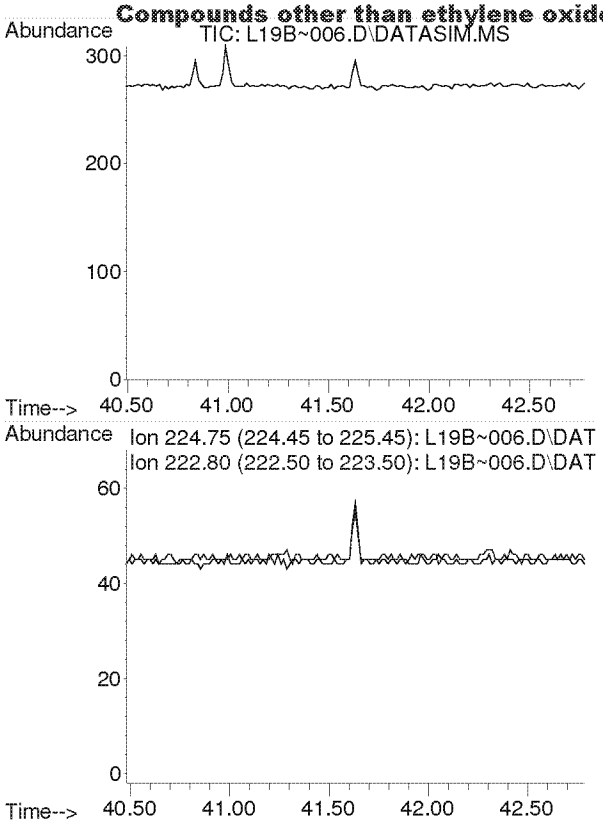
Lab File: L19B~006.D
Acq: 27 Feb 2019 4:26 pm

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: L19B~006.D
Acq: 27 Feb 2019 4:26 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\L19B~\
Data File : L19B~007.D
Acq On : 27 Feb 2019 5:28 pm
Operator : MAH
Sample : 9022202-19
Misc : EPA WB WAREHOUSE C2 2/21/19
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 05 06:40:33 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

d-MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	42056	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	100504	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	75314	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.455	29	263m 5-15	0.1093 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\L19B~\
Data File : L19B~007.D
Acq On : 27 Feb 2019 5:28 pm
Operator : MAH
Sample : 9022202-19
Misc : EPA WB WAREHOUSE C2 2/21/19
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 05 06:40:33 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

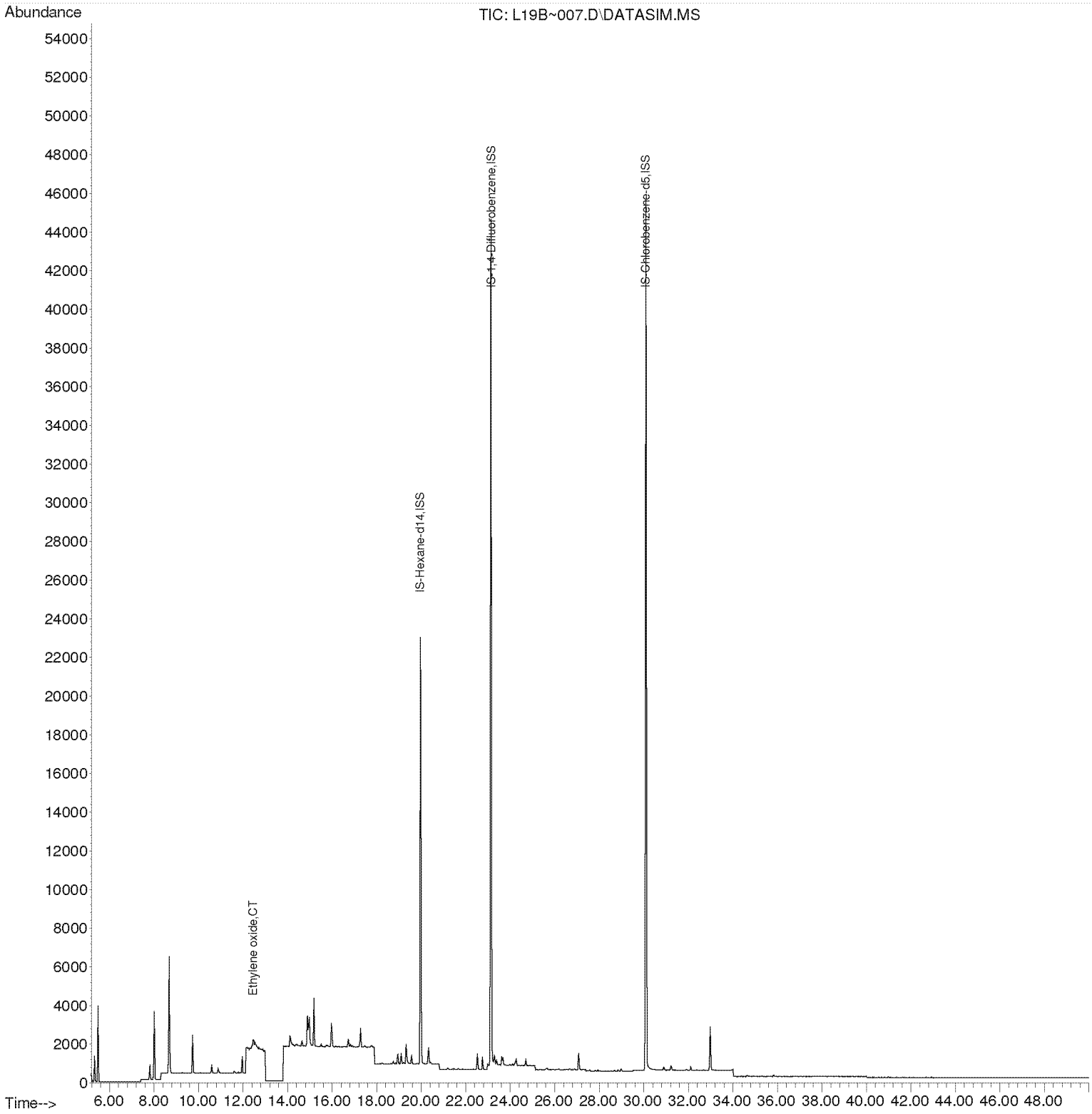
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

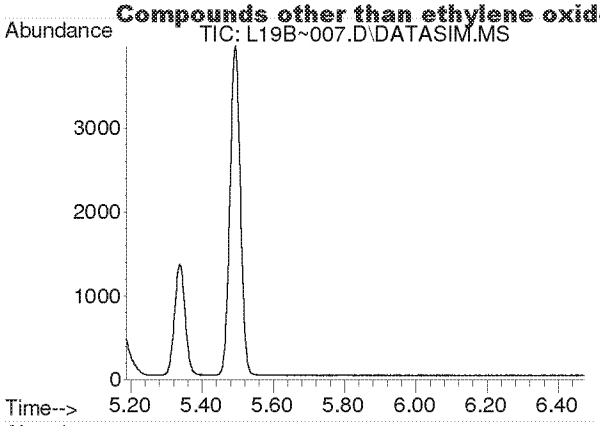
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~007.D
Acq On : 27 Feb 2019 5:28 pm
Operator : MAH
Sample : 9022202-19
Misc : EPA WB WAREHOUSE C2 2/21/19
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 28 12:53:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



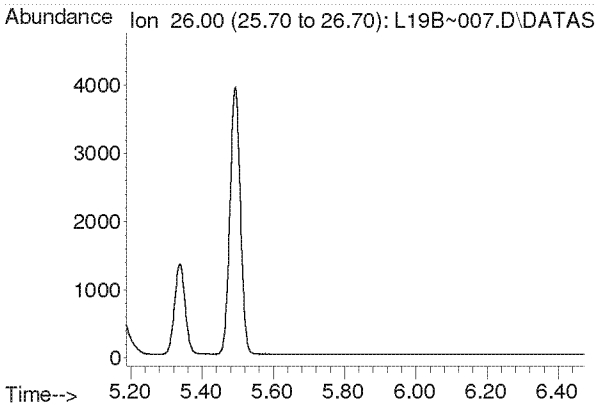
Compounds other than ethylene oxide were not quantitated.

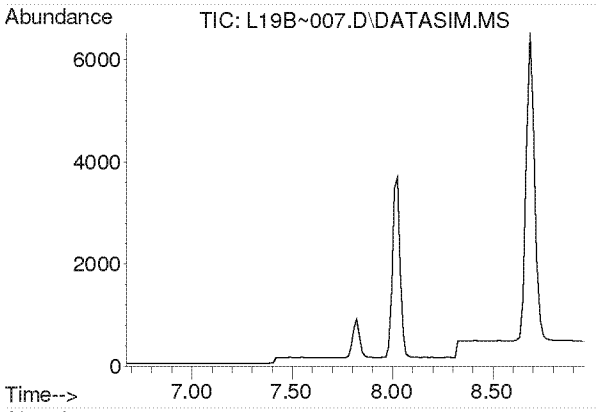


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 26



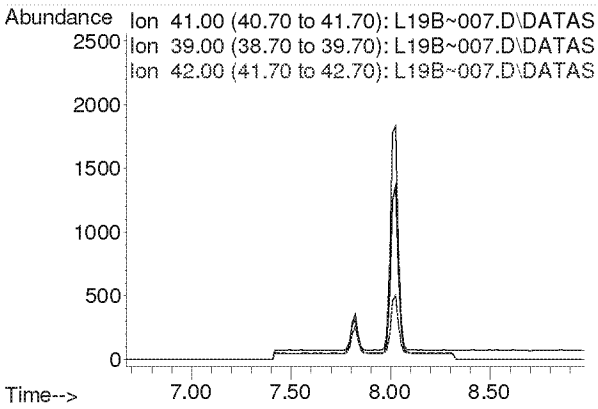


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

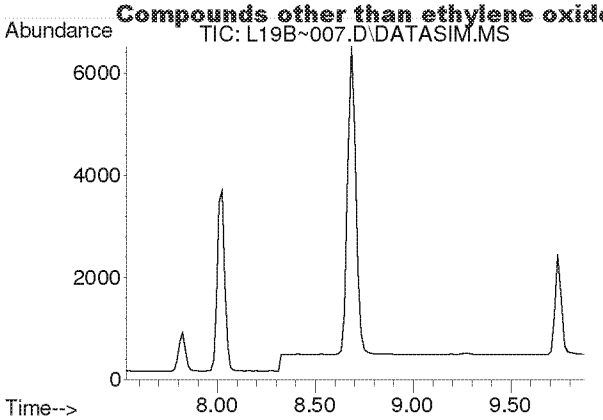
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

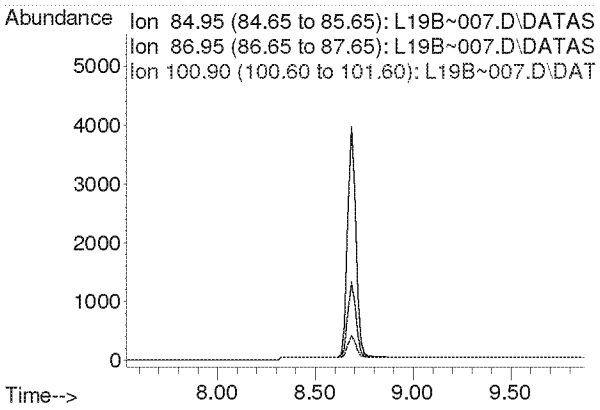


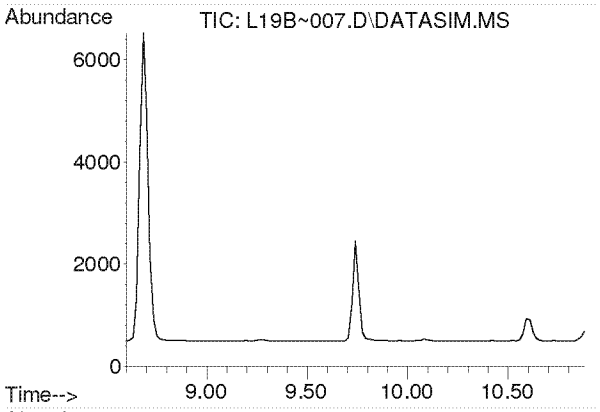
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



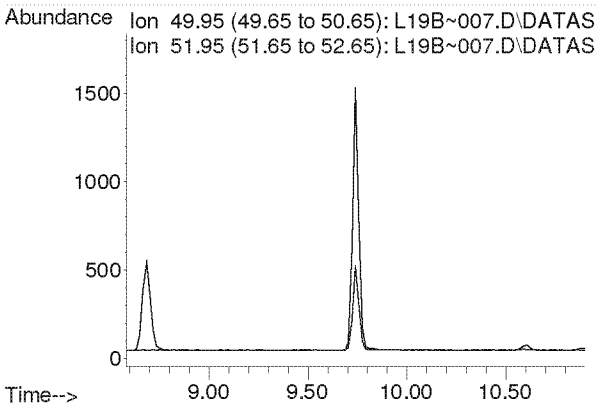


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

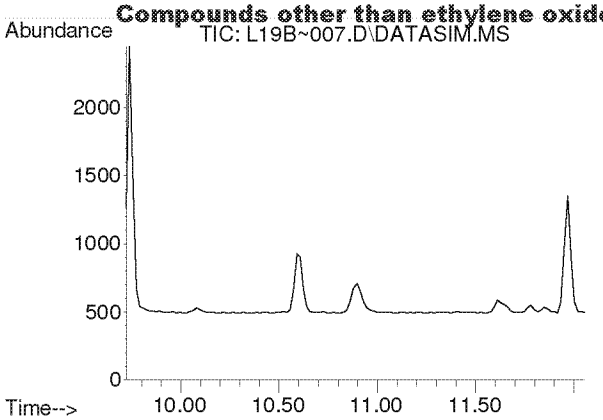
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

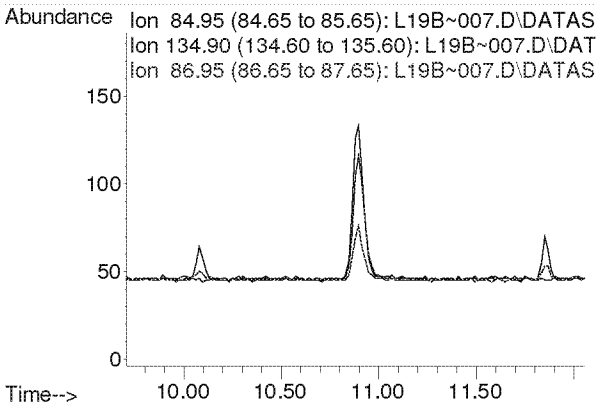


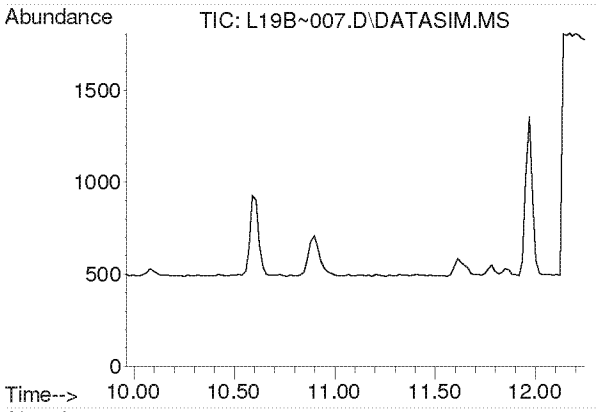
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



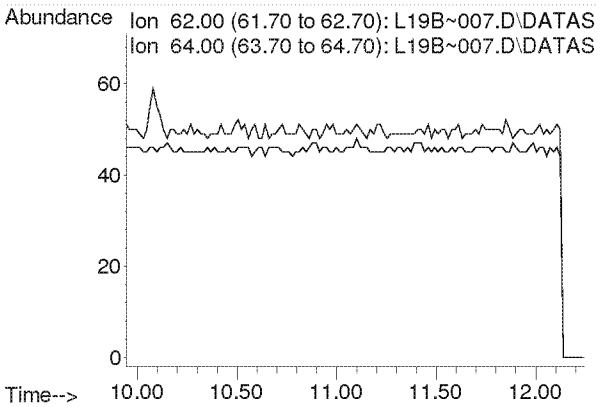


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

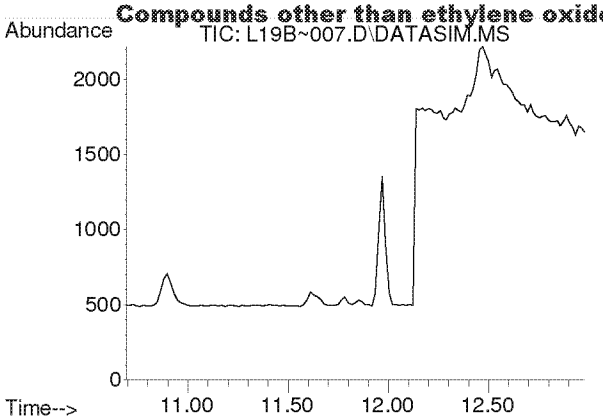
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

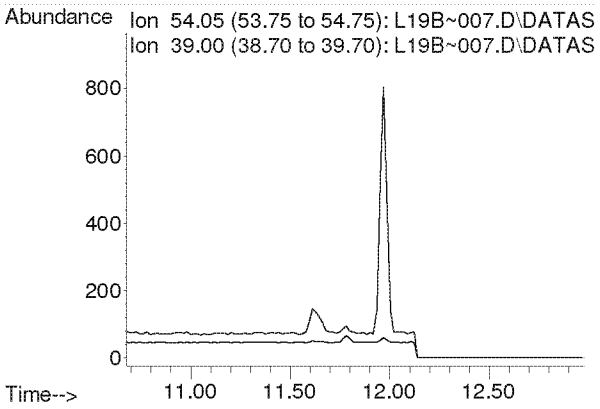


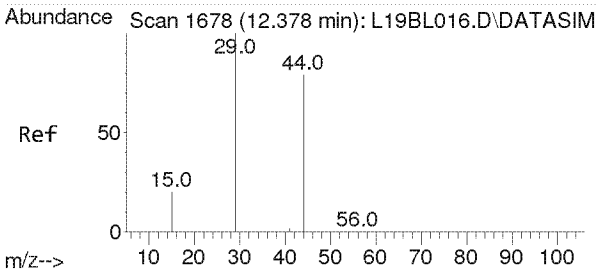
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

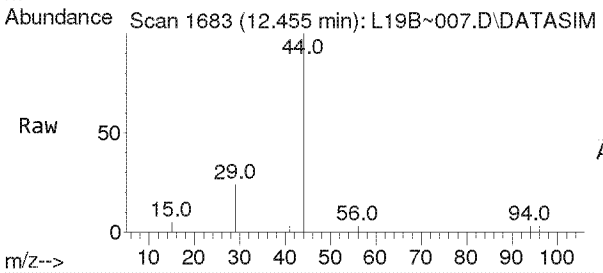


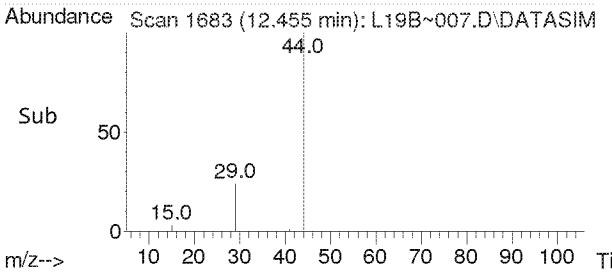


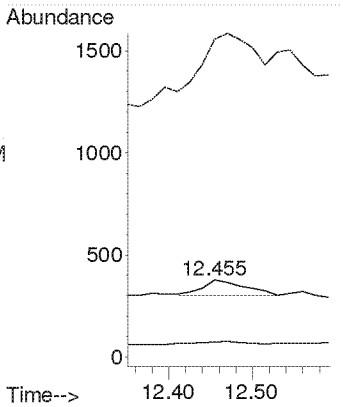
#9
Ethylene oxide
Concen: 0.109 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.005 min
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 29 Resp: 263

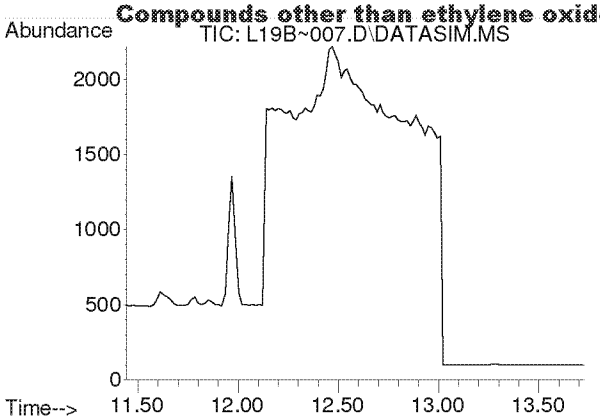
Ion	Ratio	Lower	Upper
29	100		
15	28.1	16.0	24.0#
44	1142.6	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

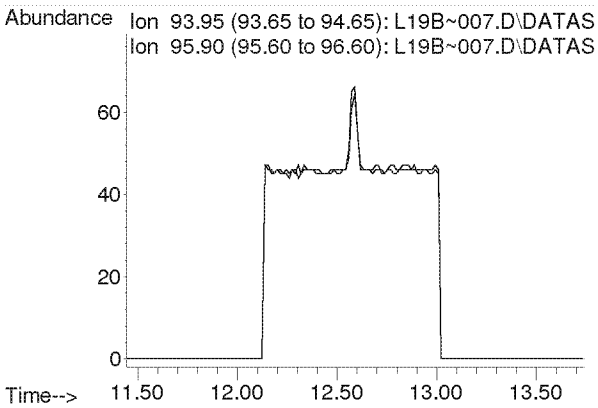


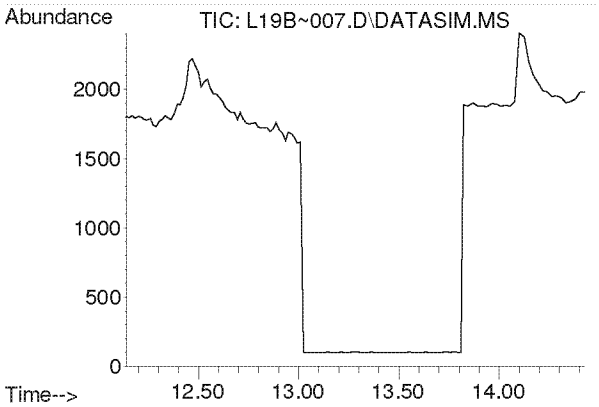
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



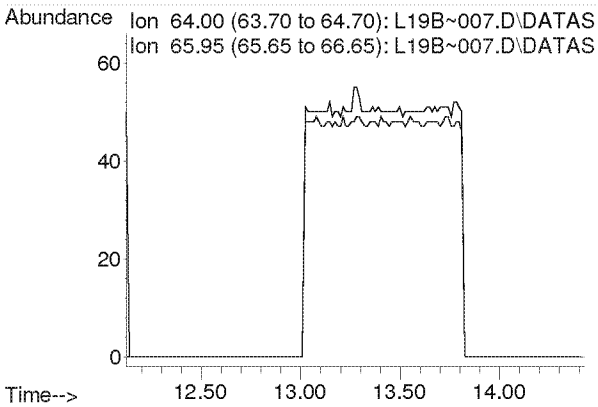


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

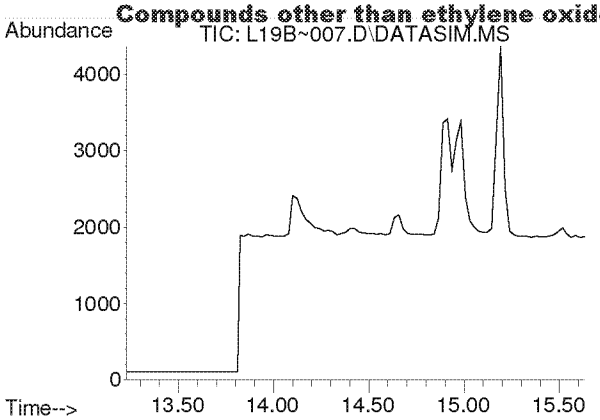
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

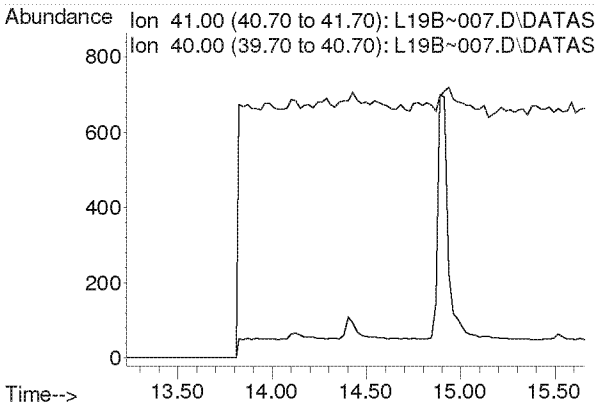


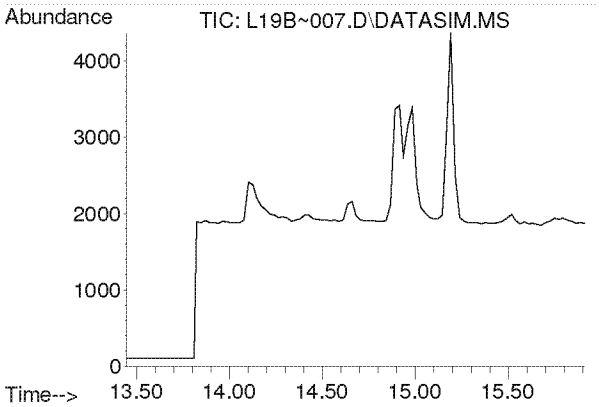
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



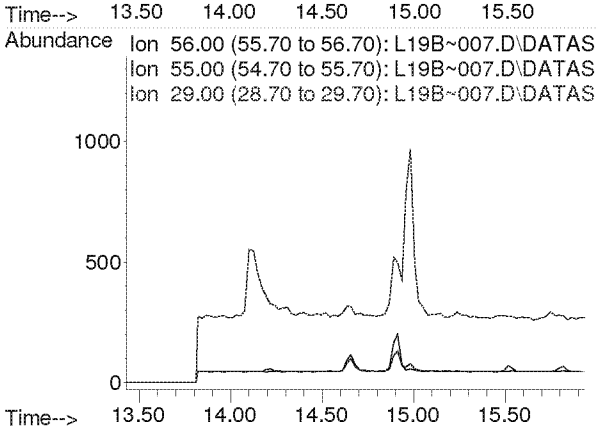


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

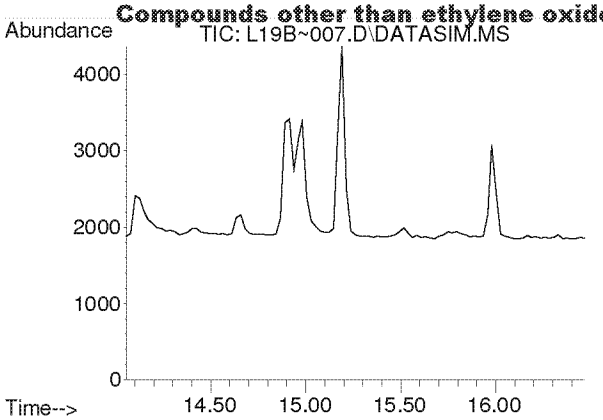
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

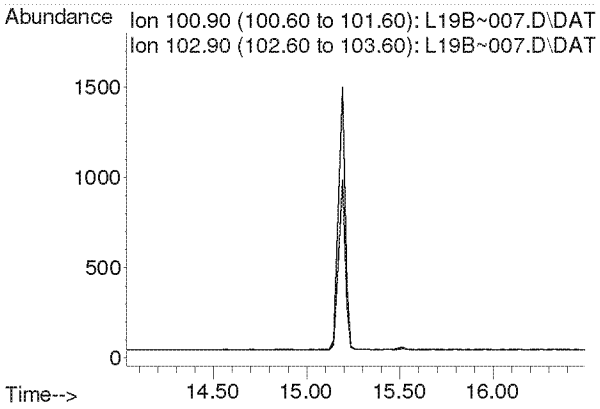


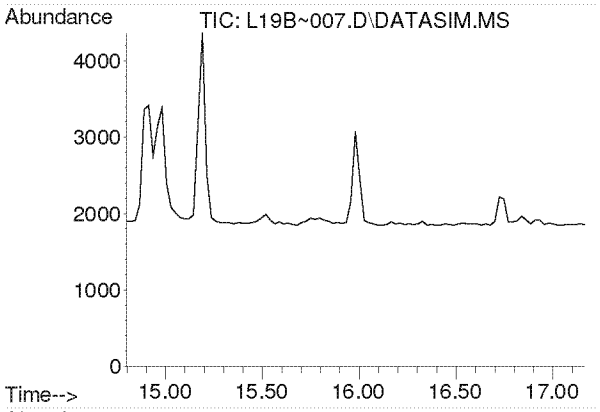
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



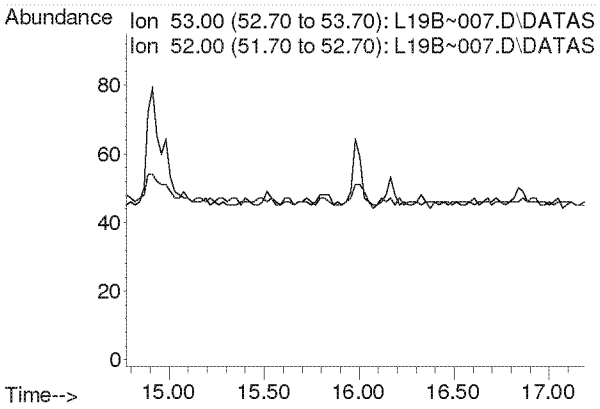


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

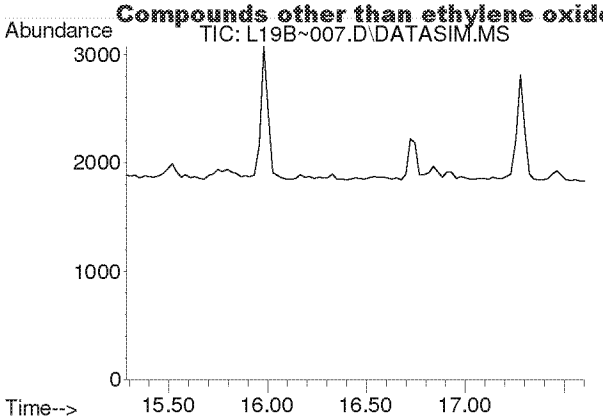
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

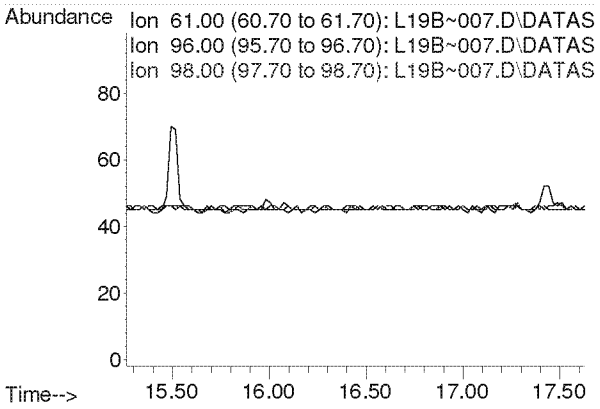


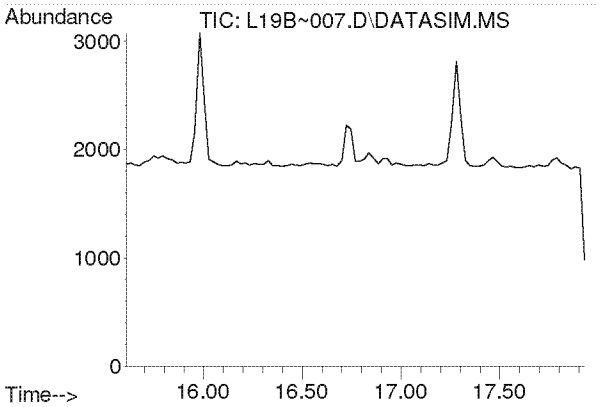
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



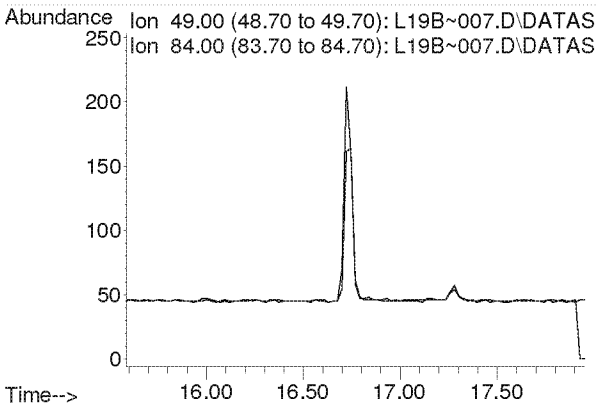


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

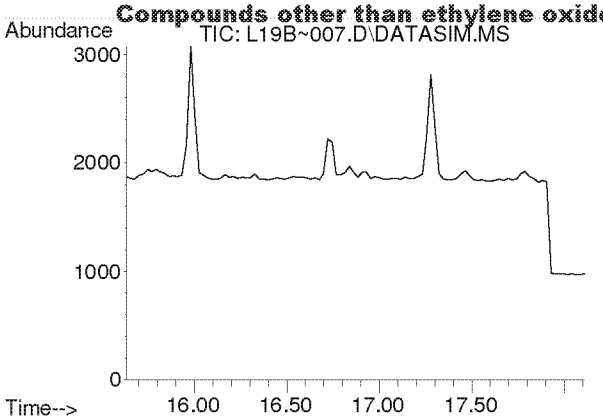
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

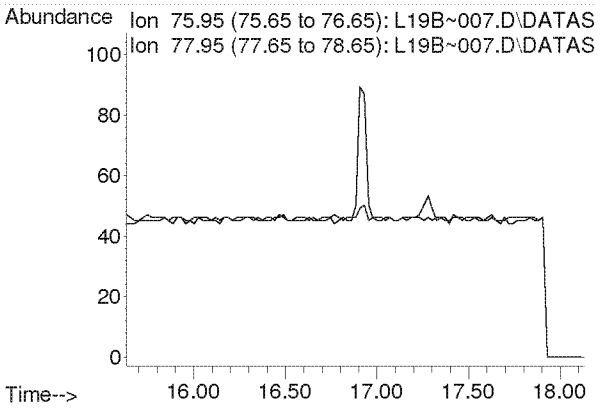


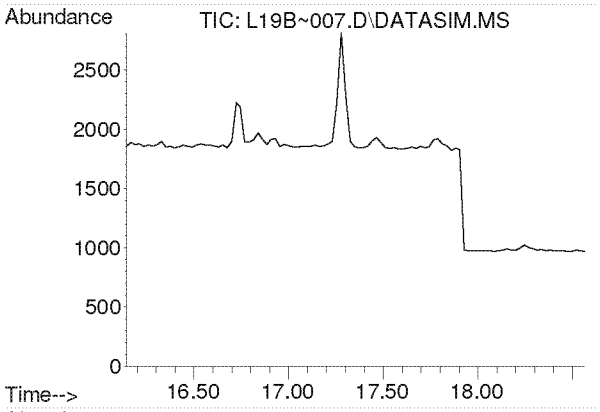
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



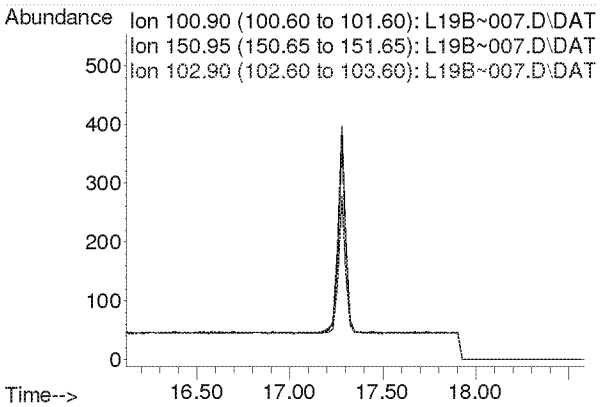


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

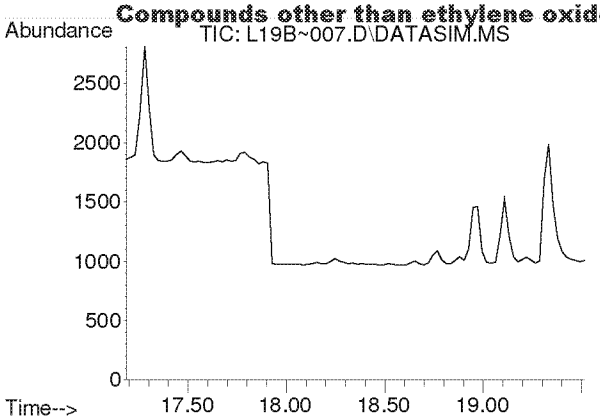
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

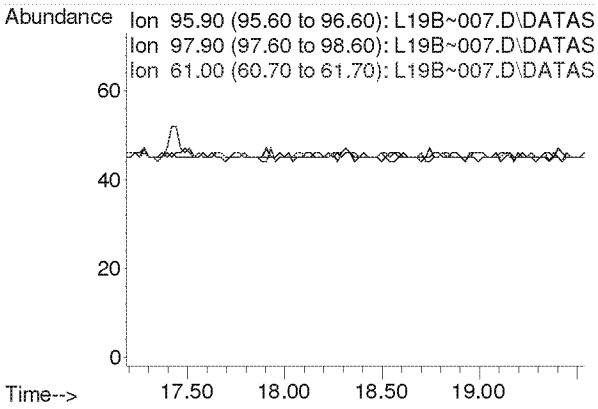


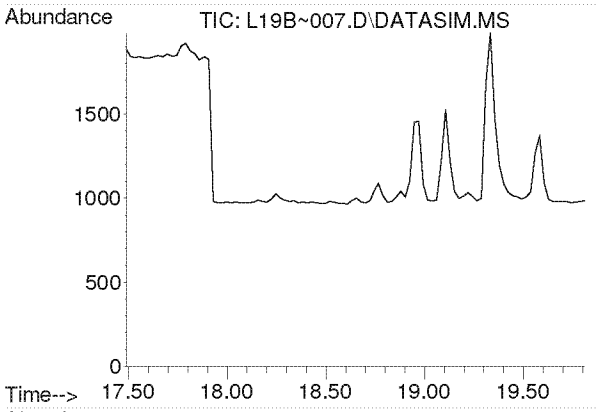
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



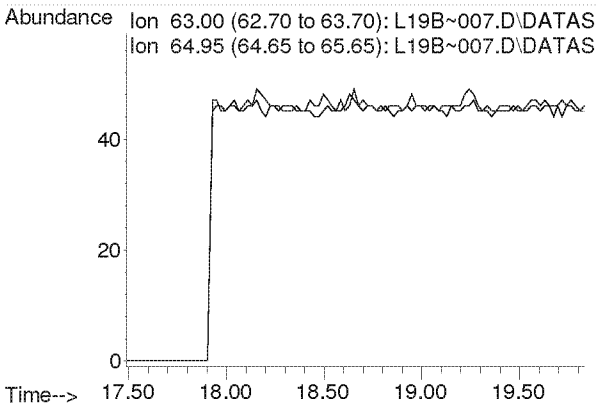


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

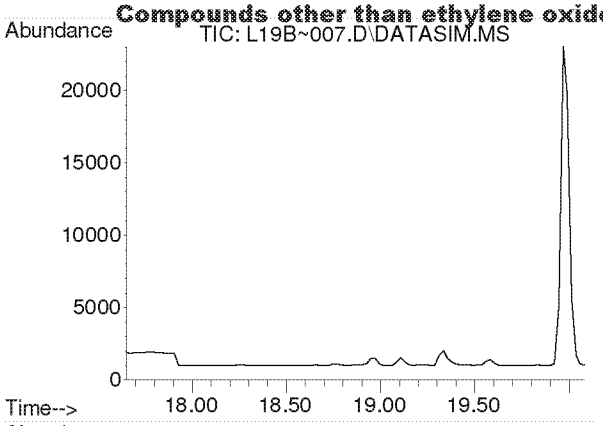
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

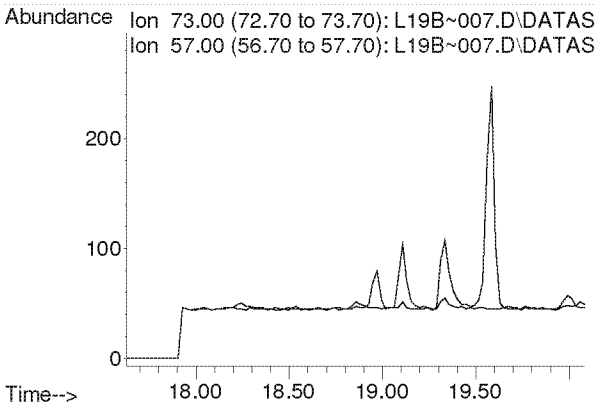


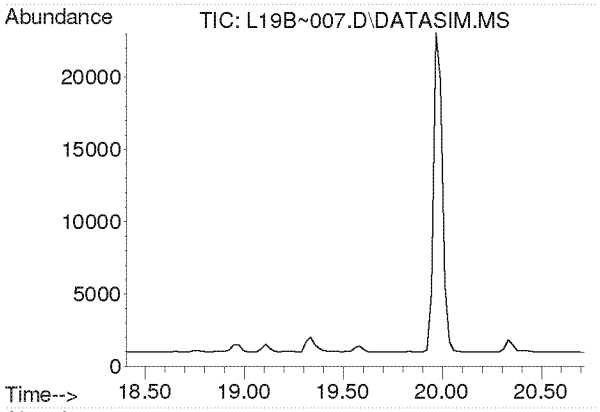
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



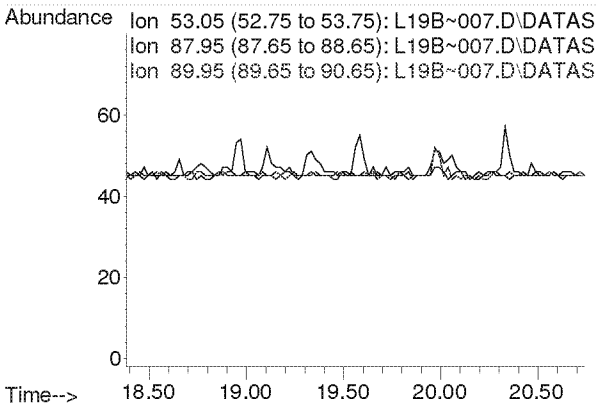


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

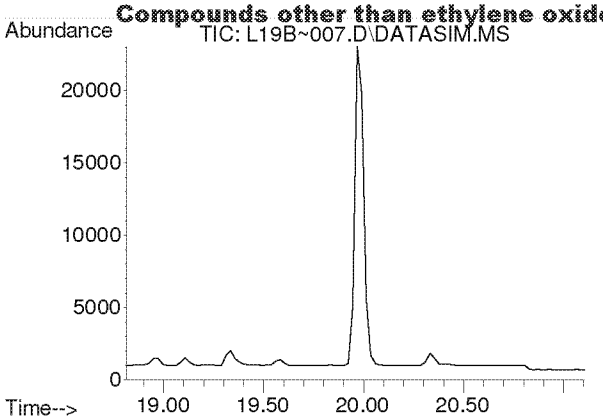
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

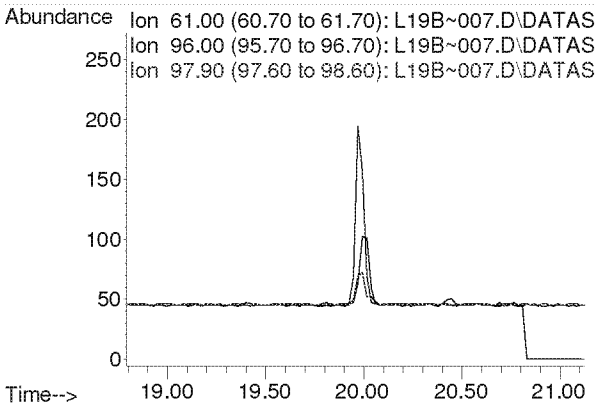


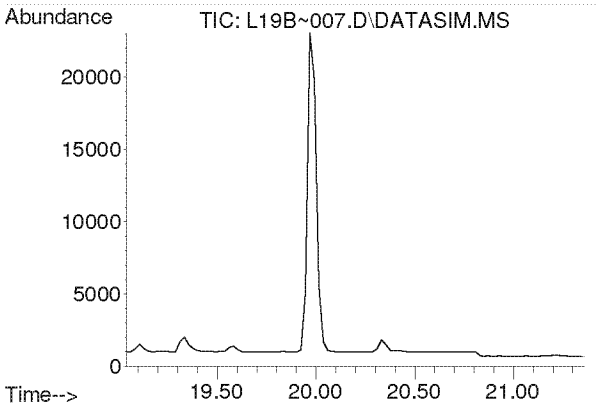
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



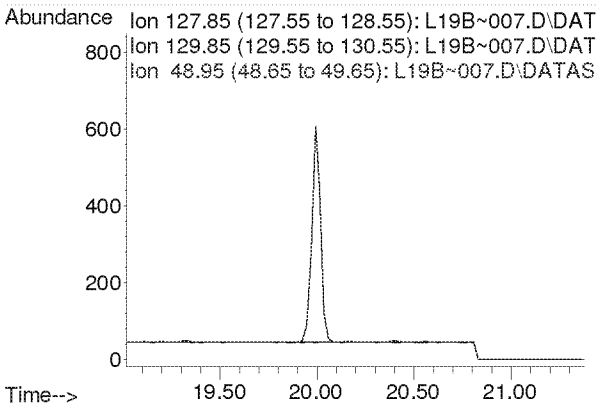


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

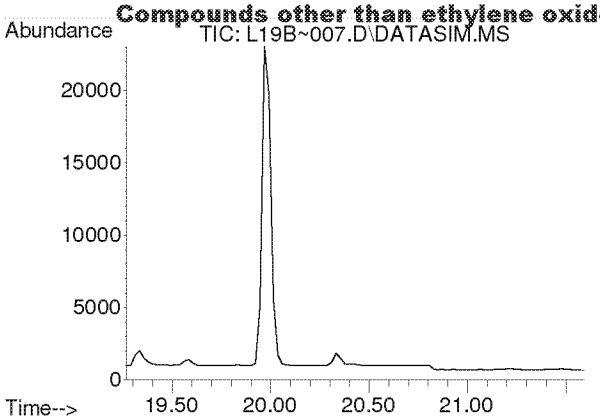
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

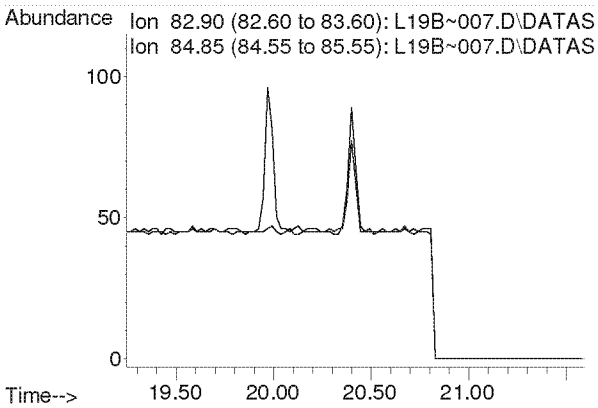


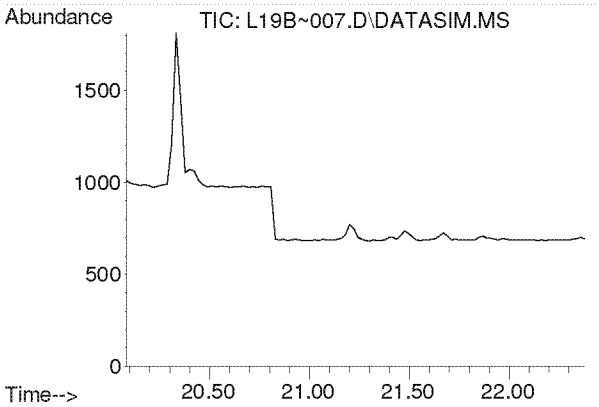
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



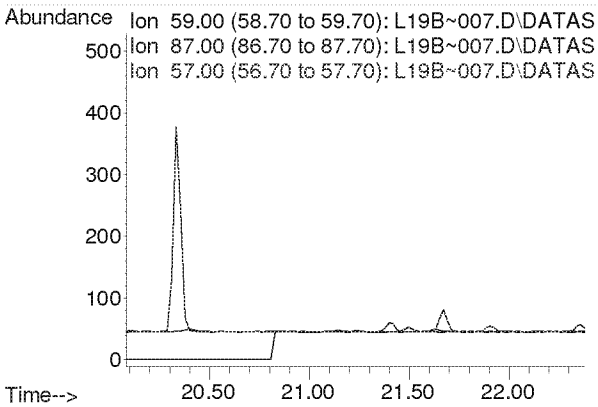


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

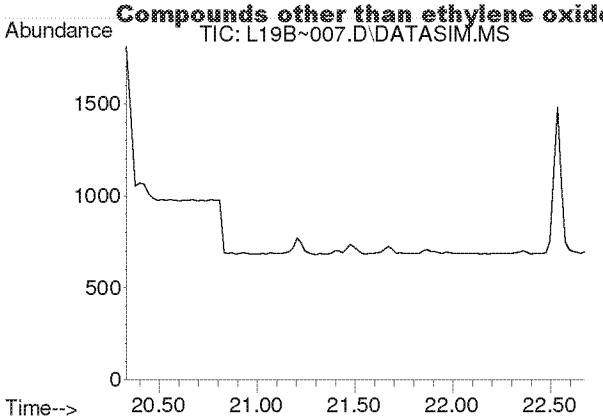
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

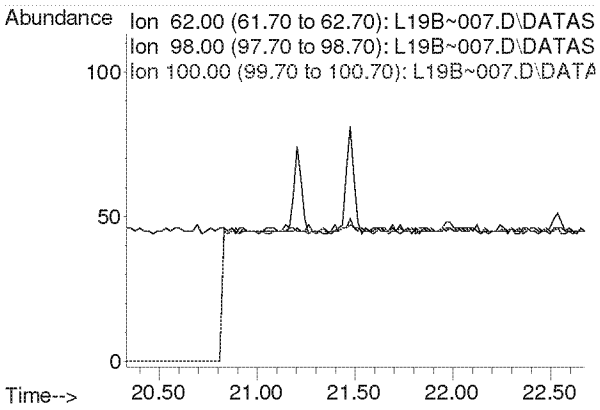


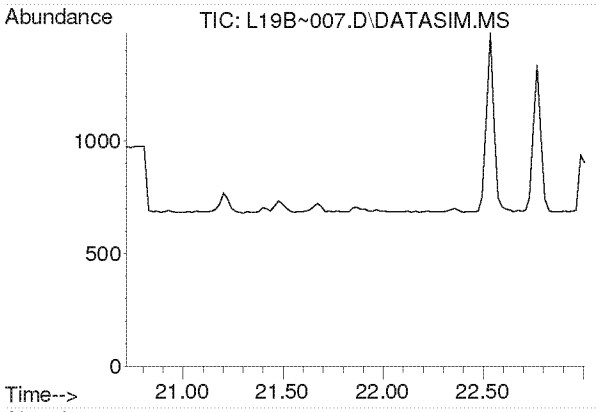
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



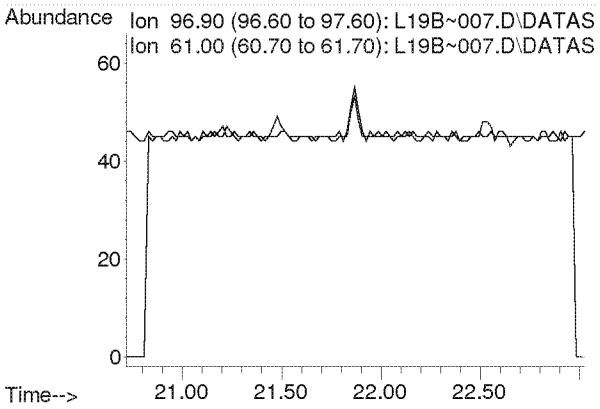


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

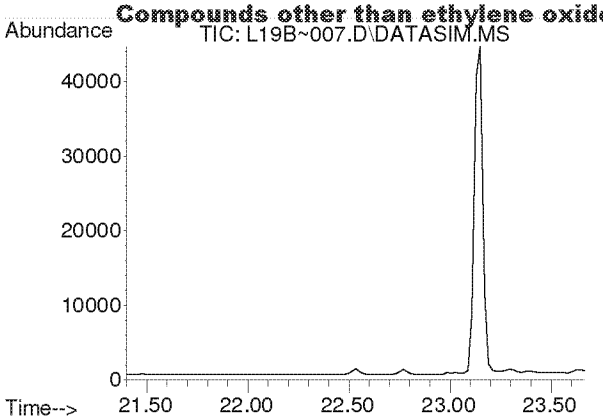
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

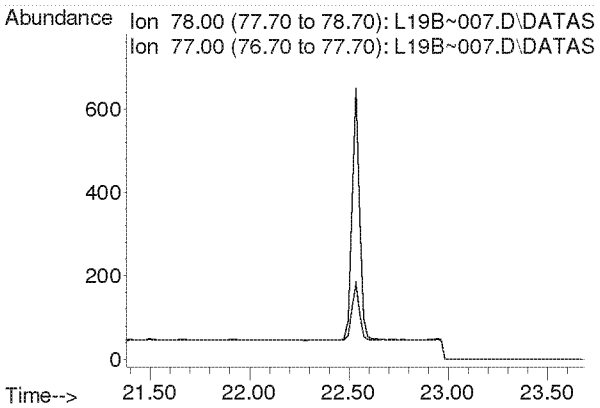


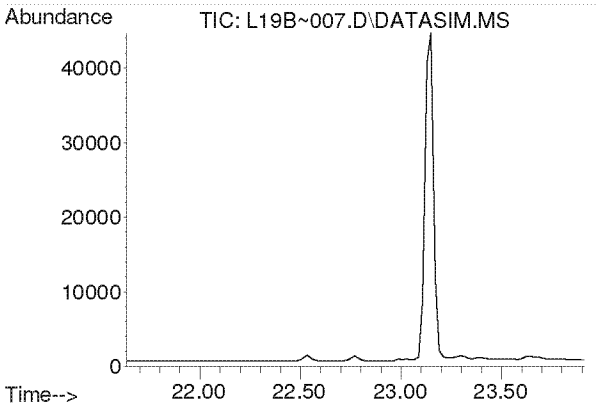
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



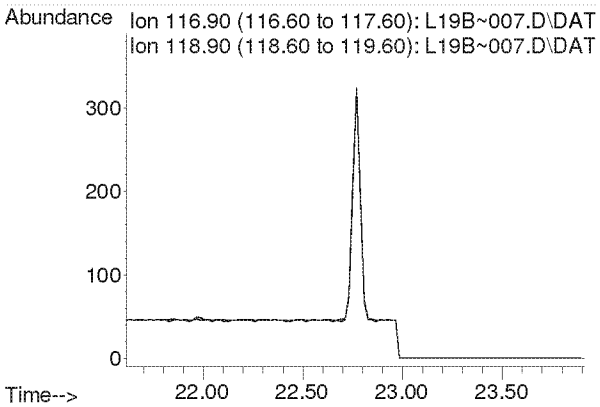


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

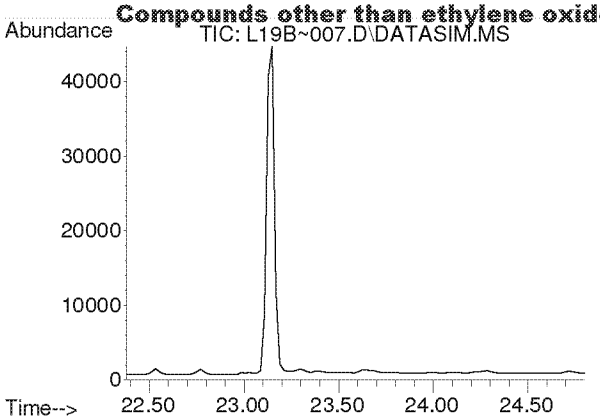
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

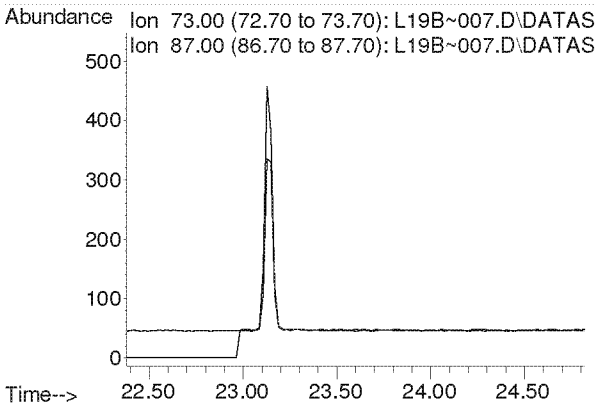


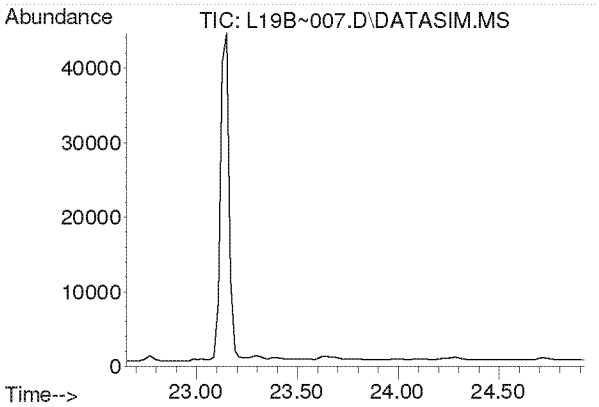
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



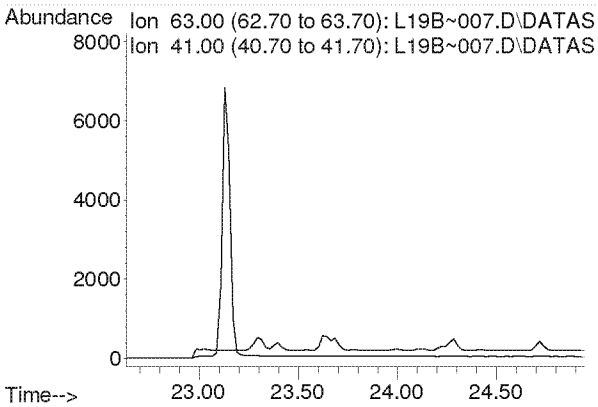


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

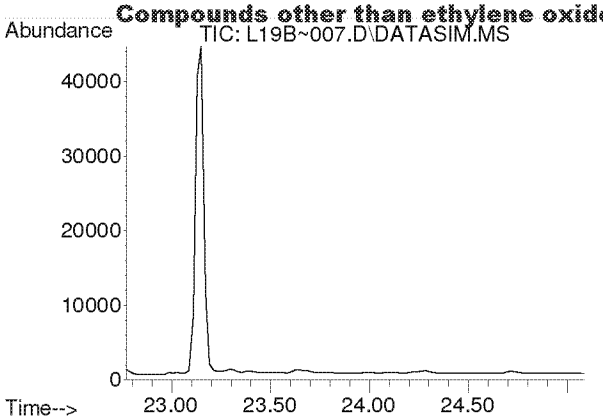
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

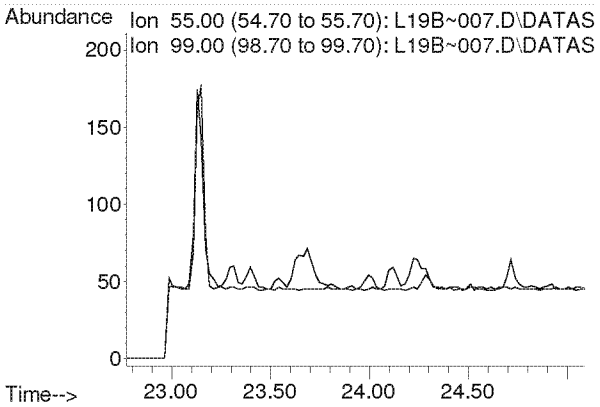


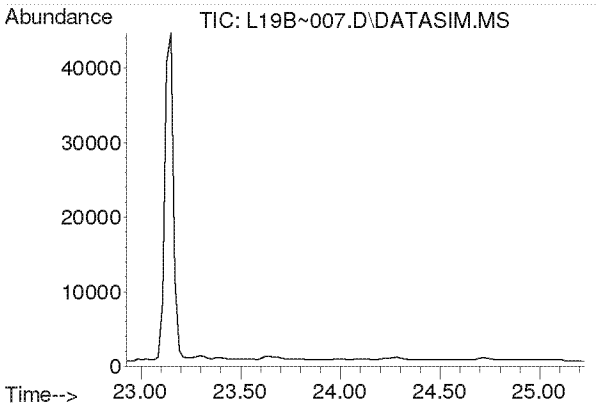
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



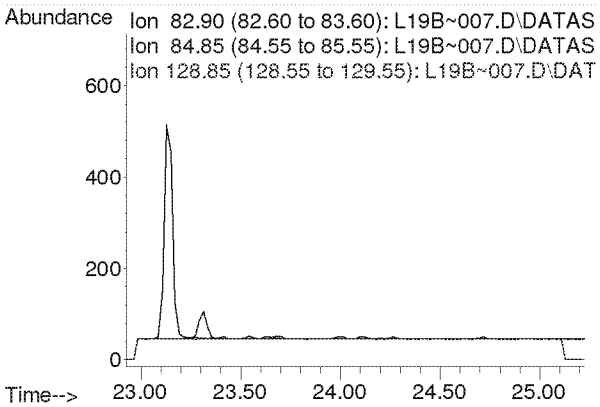


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

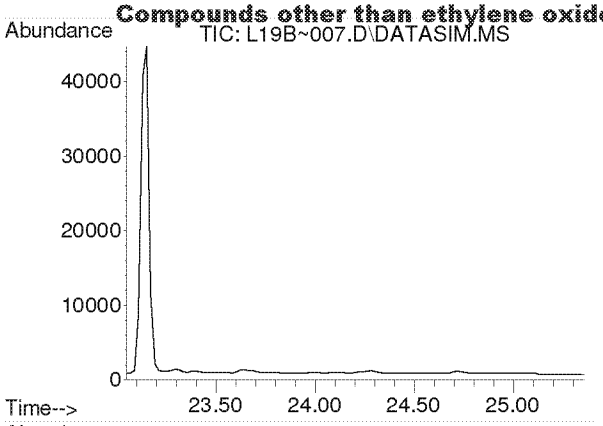
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

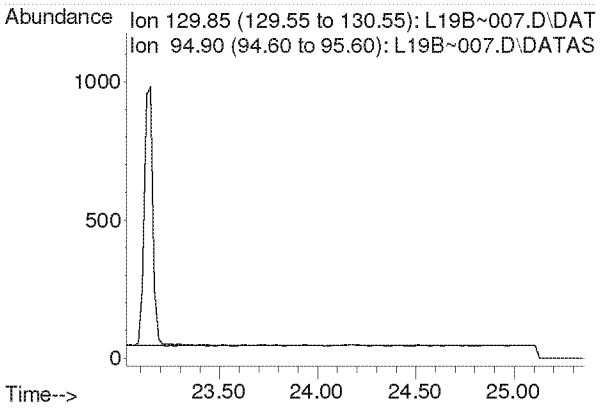


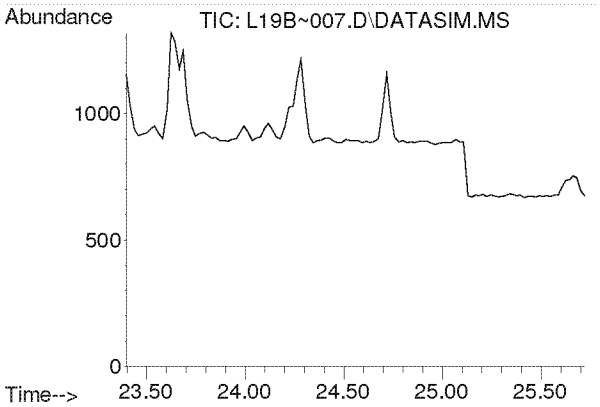
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



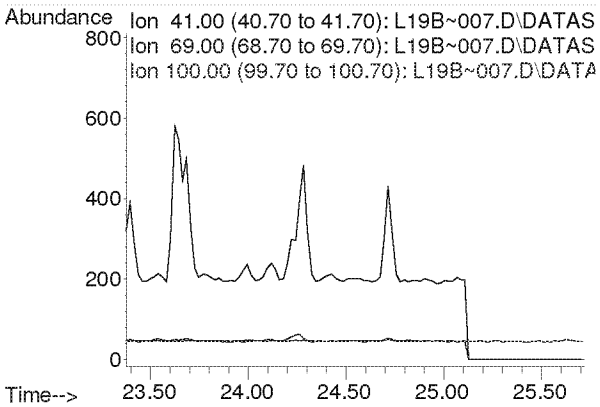


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

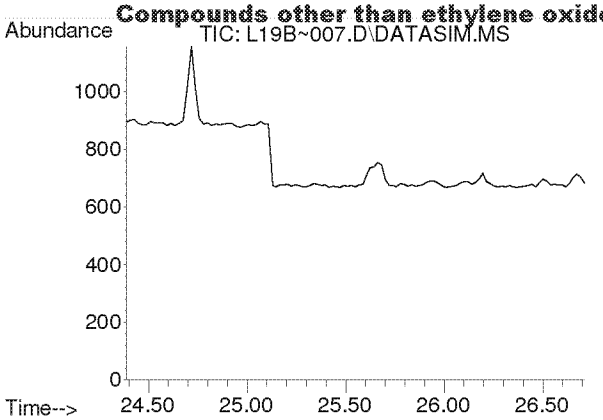
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

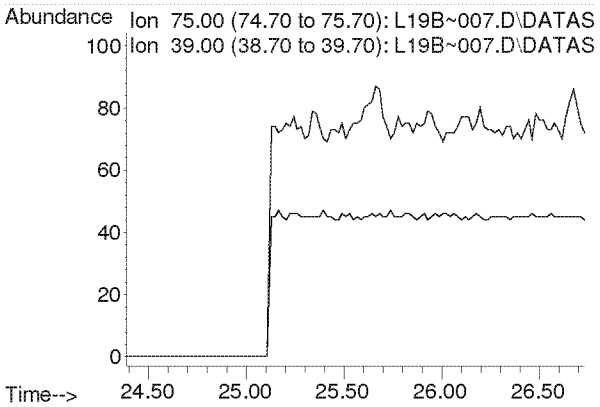


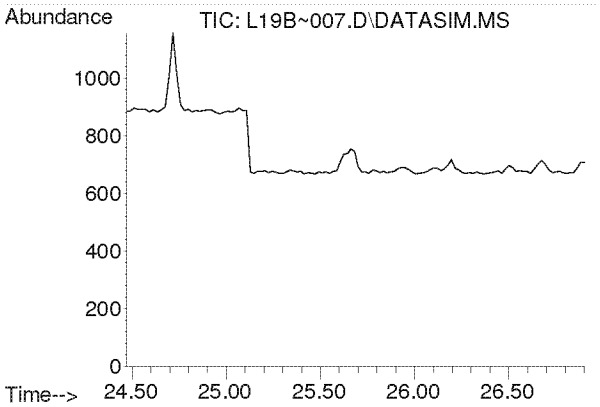
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



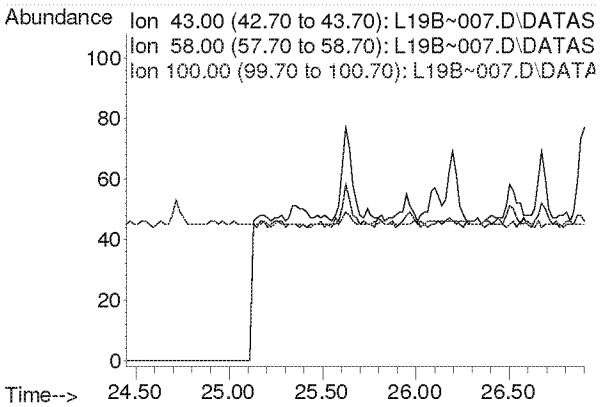


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

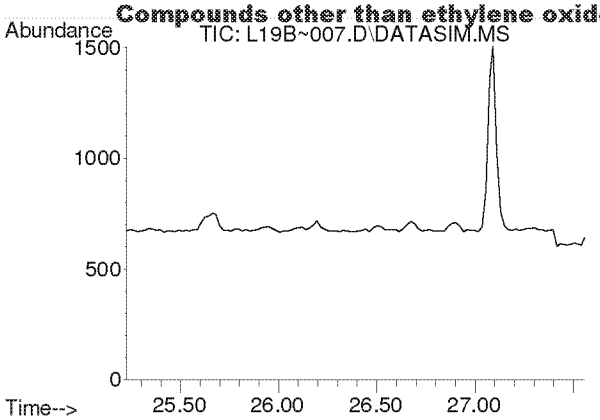
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

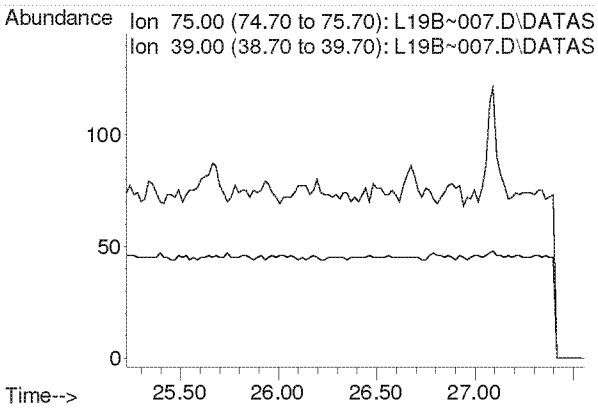


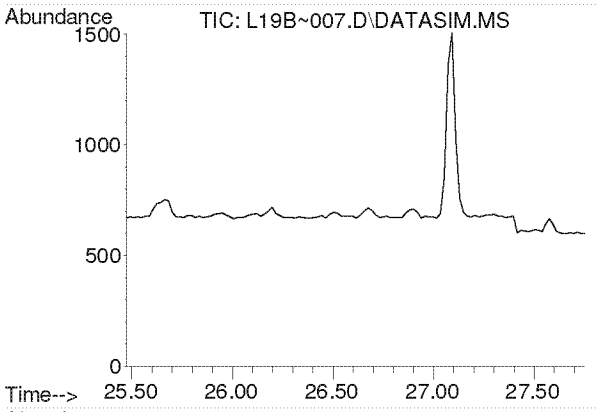
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



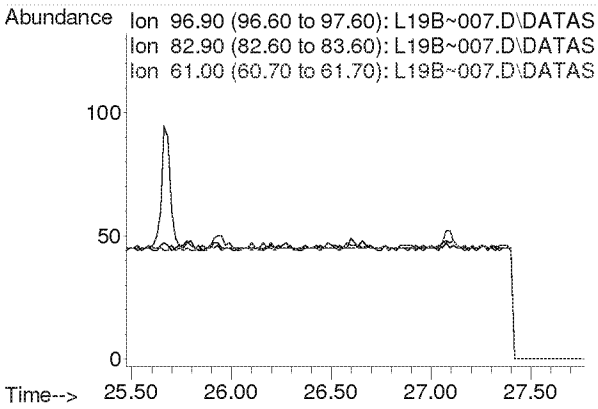


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

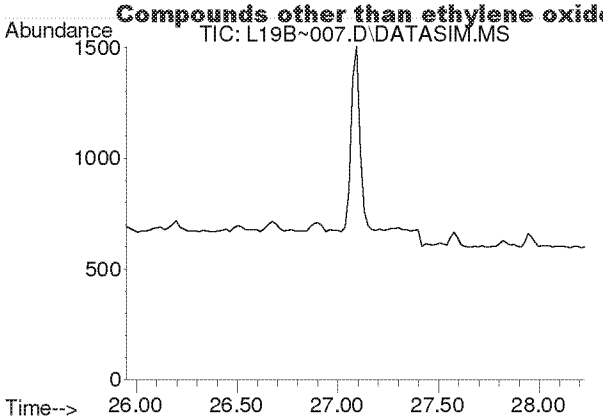
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

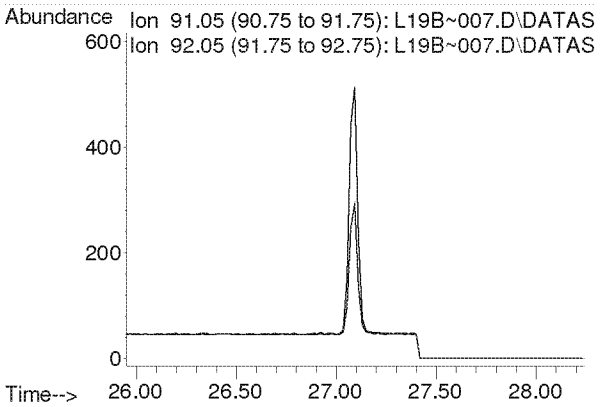


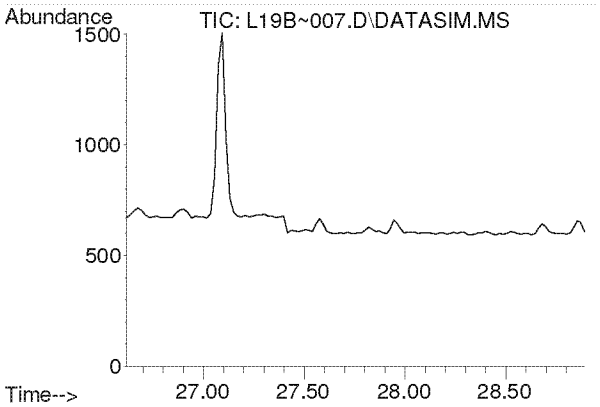
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



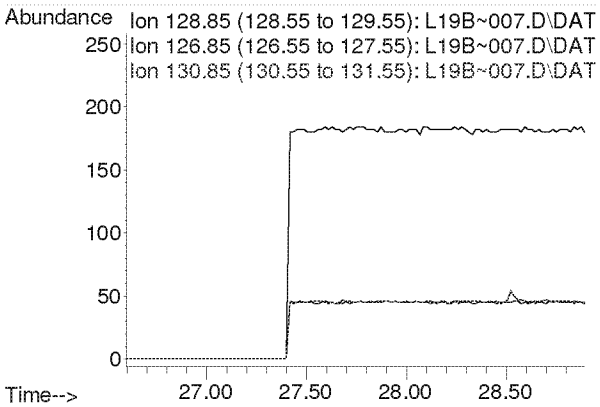


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

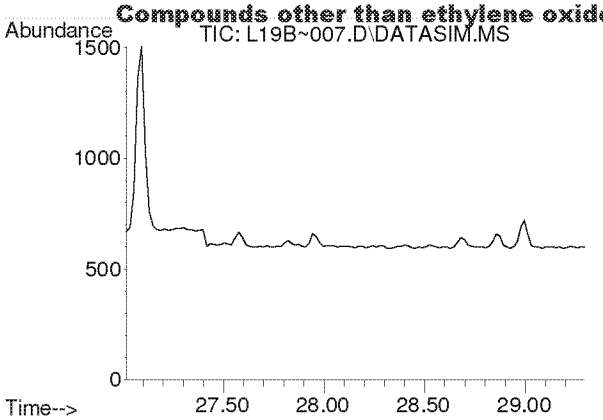
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

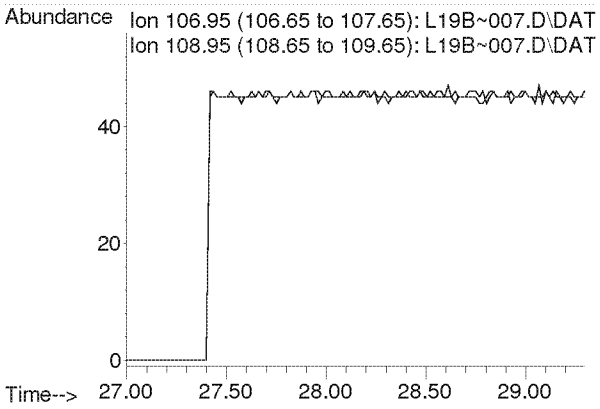


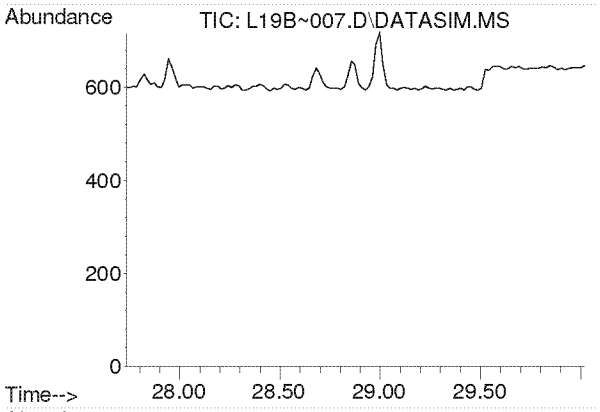
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



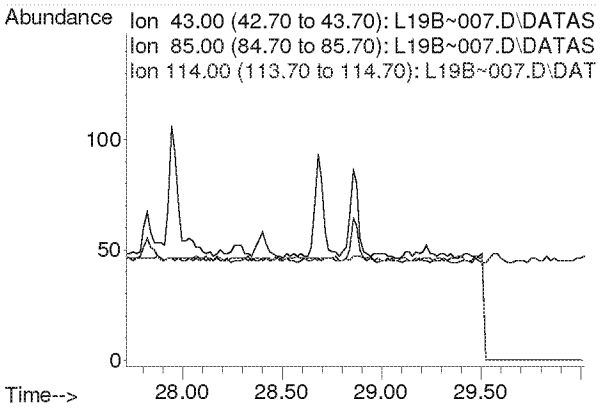


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

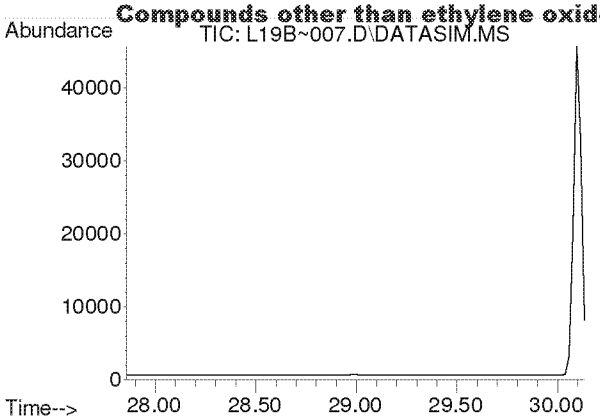
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

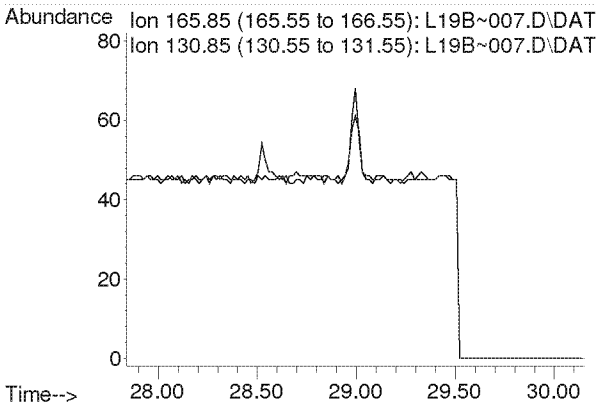


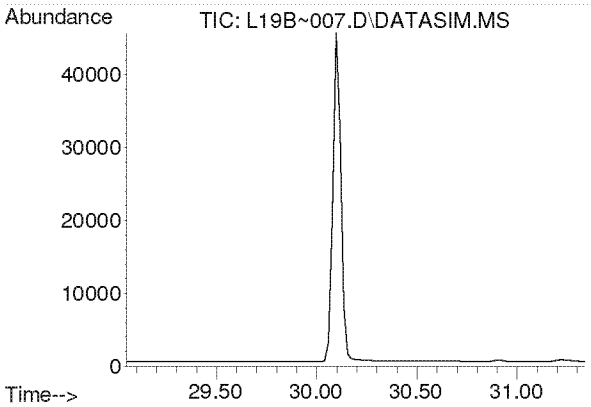
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



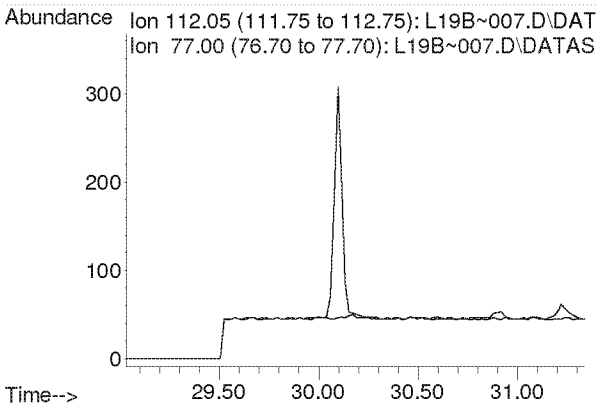


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

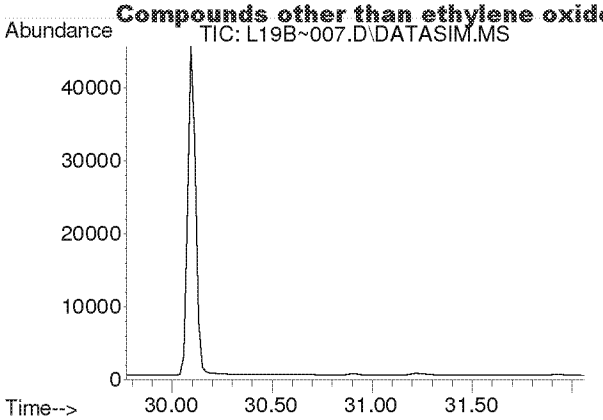
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

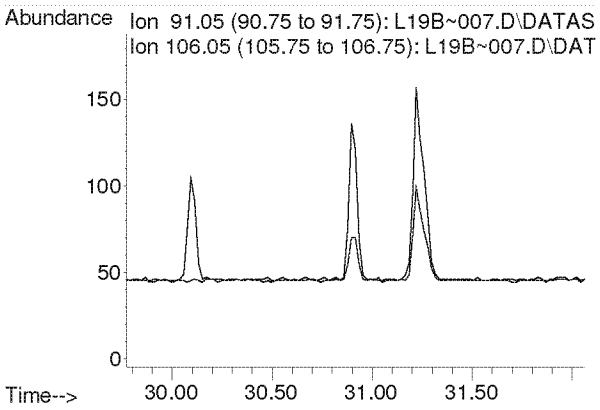


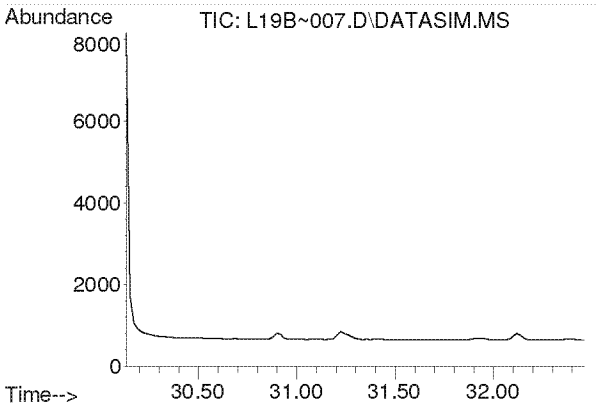
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



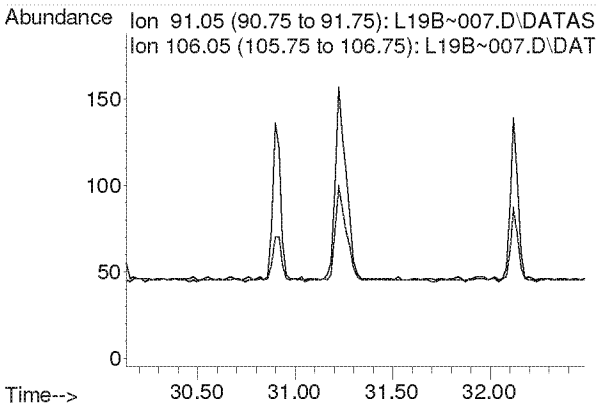


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

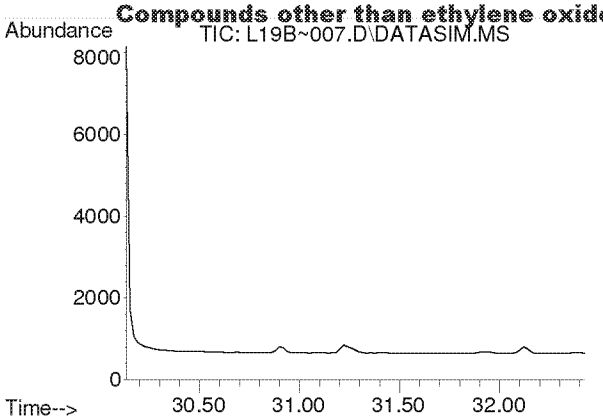
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

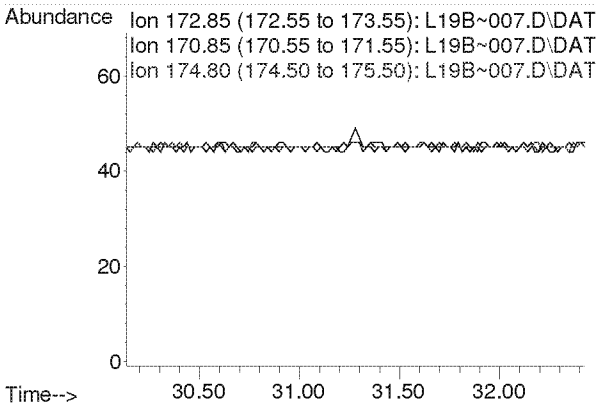


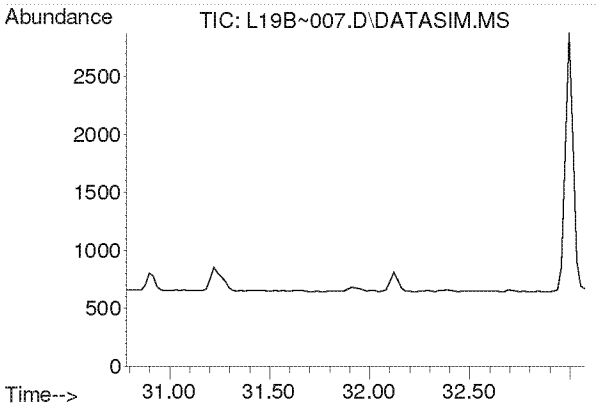
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



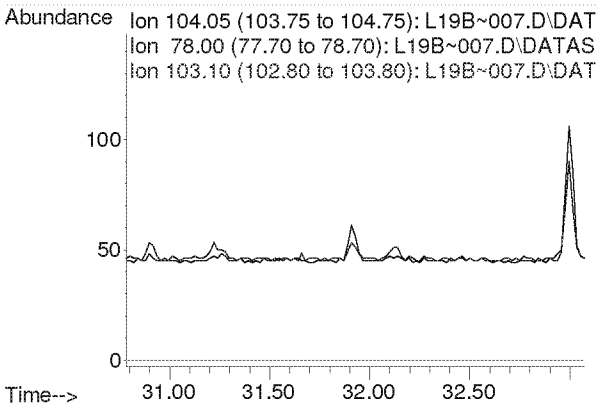


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

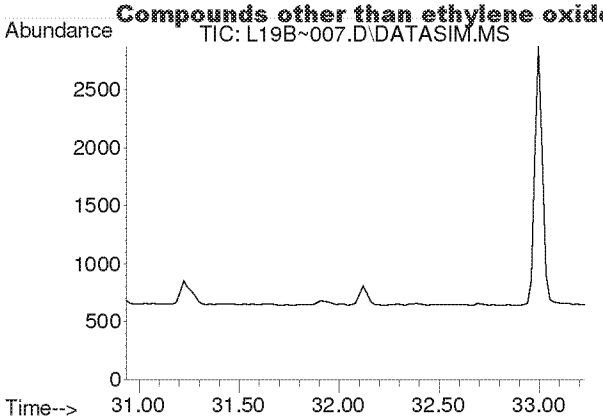
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

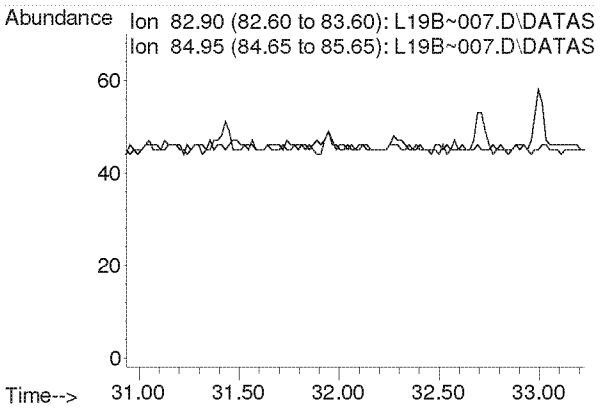


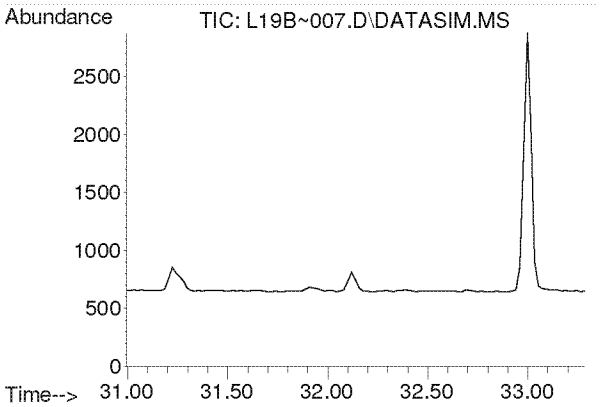
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



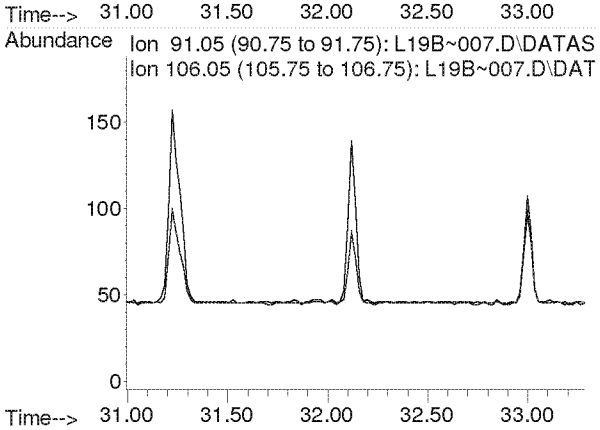


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

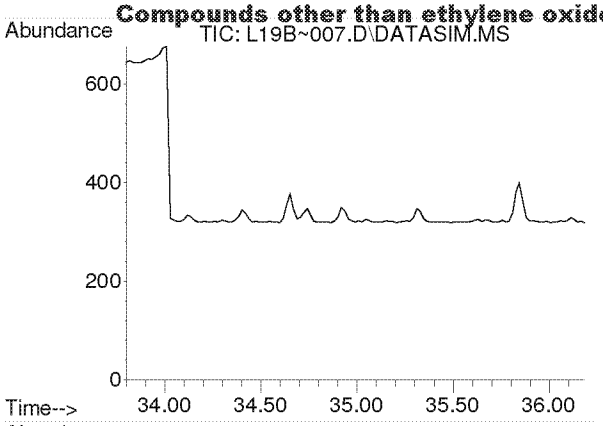
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

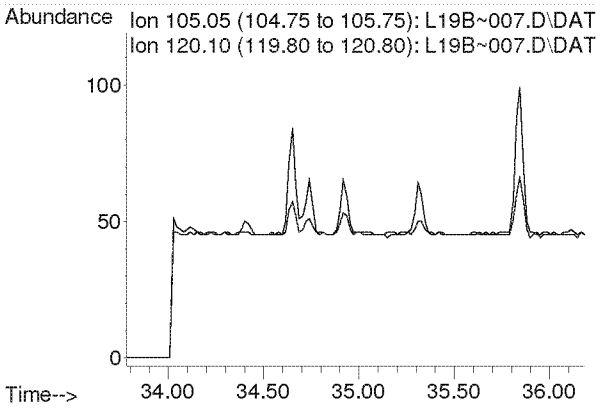


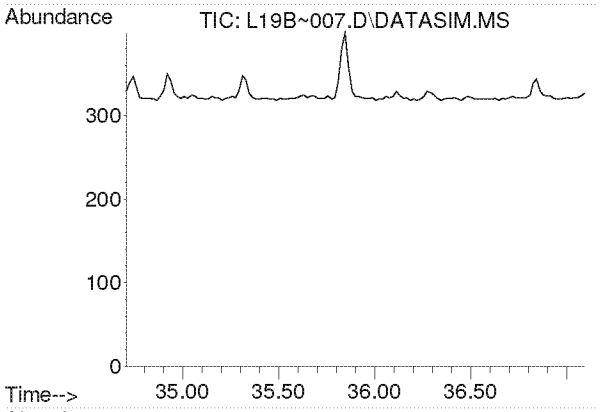
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



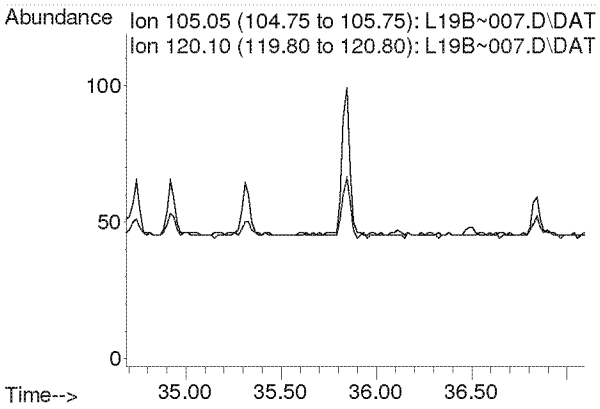


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

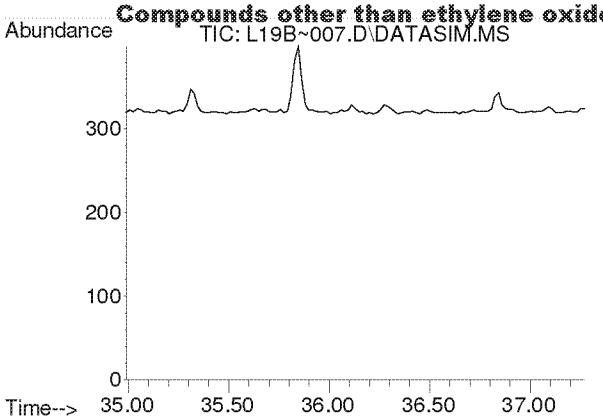
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

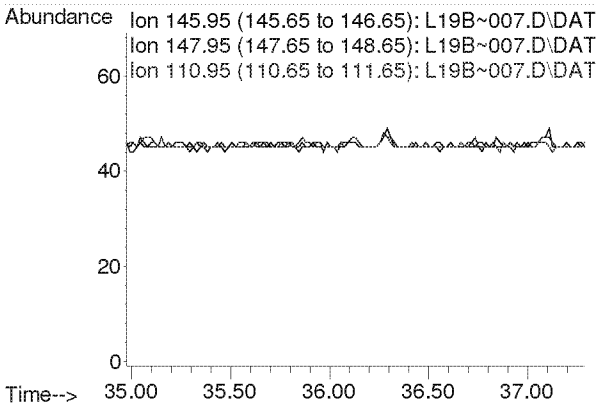


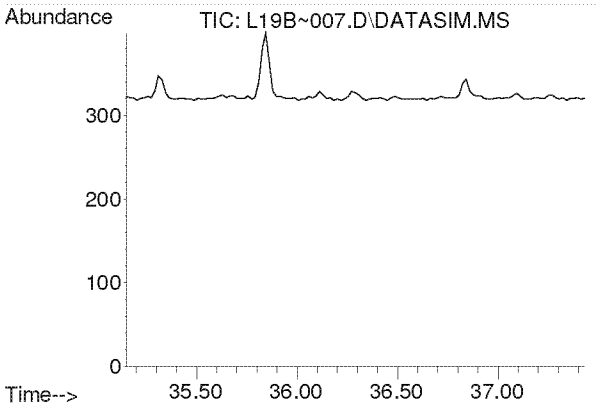
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



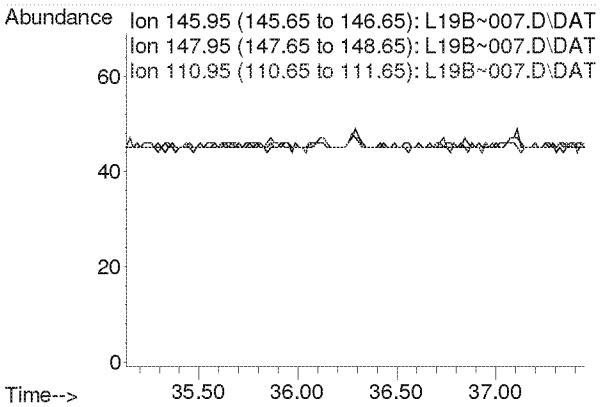


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

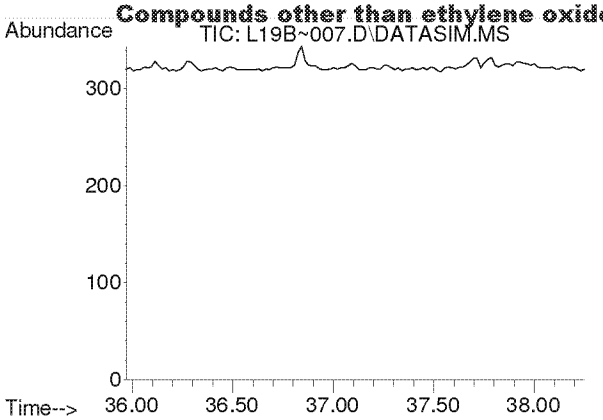
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

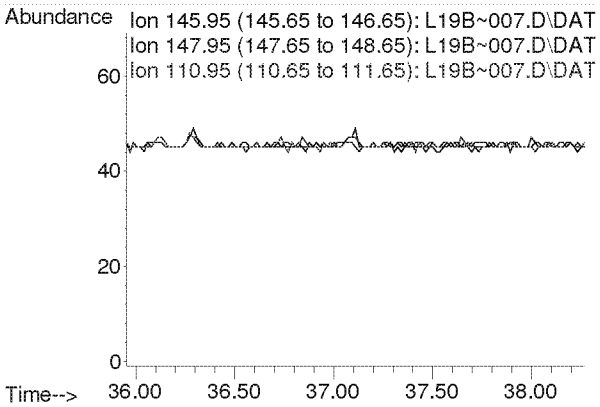


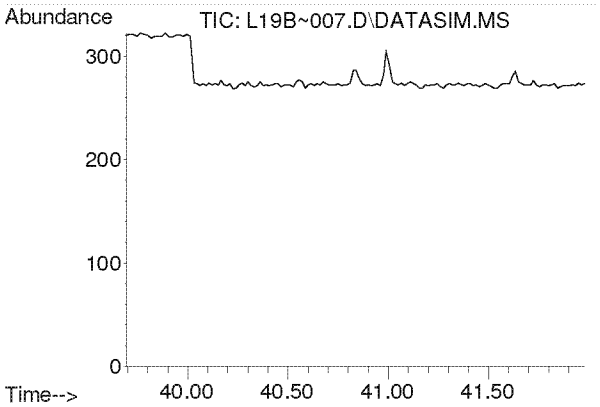
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



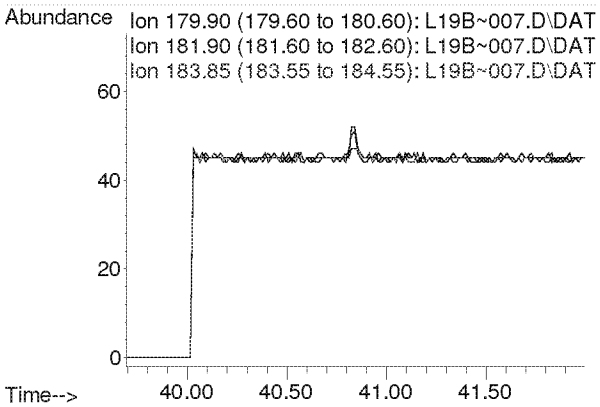


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

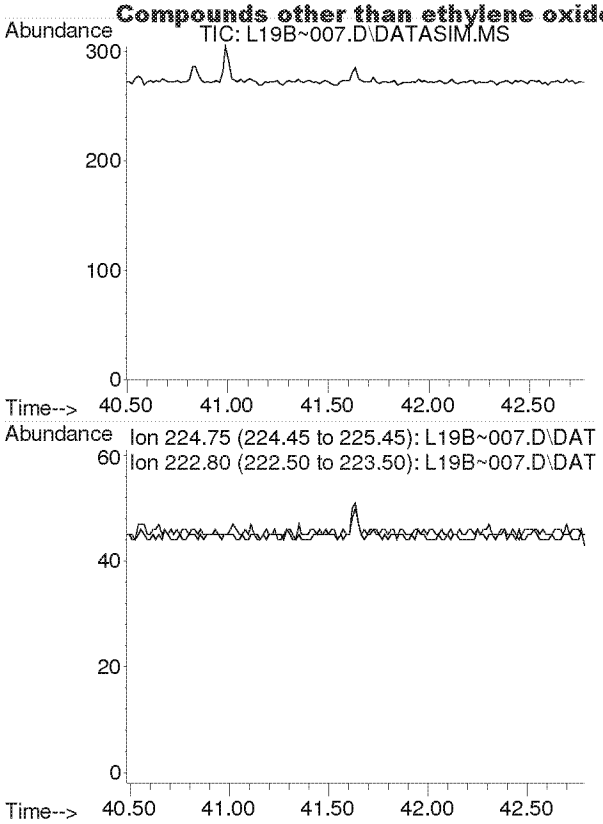
Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19B~007.D
Acq: 27 Feb 2019 5:28 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~008.D
Acq On : 27 Feb 2019 6:29 pm
Operator : MAH
Sample : B9B2705-DUP1
Misc : EPA WB WAREHOUSE R1 2/21/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 05 06:41:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d=4K

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46183	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	116976	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	81769	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	288m	0.1090 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\L19B~\
Data File : L19B~008.D
Acq On : 27 Feb 2019 6:29 pm
Operator : MAH
Sample : B9B2705-DUP1
Misc : EPA WB WAREHOUSE R1 2/21/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 05 06:41:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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.	

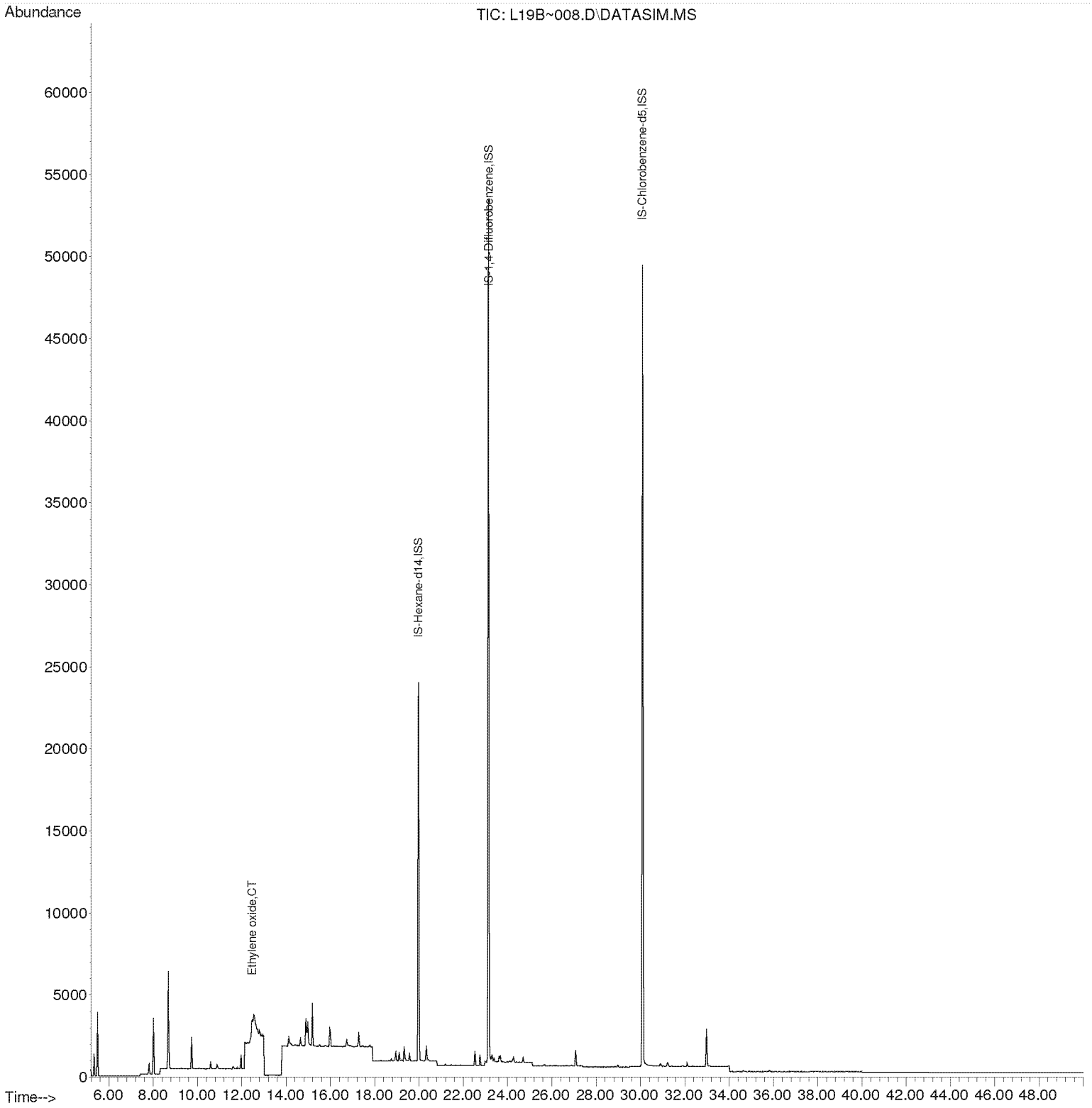
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000099-00151

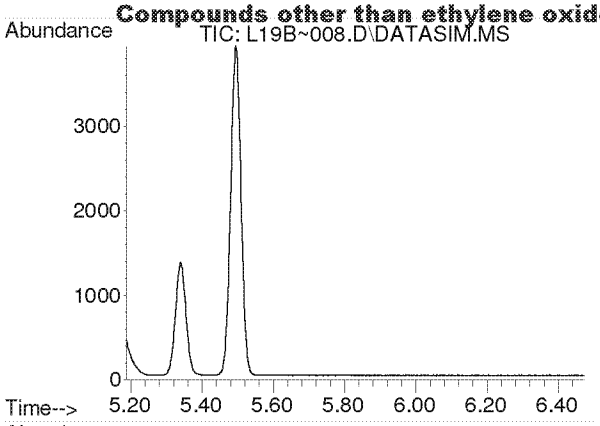
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~008.D
Acq On : 27 Feb 2019 6:29 pm
Operator : MAH
Sample : B9B2705-DUP1
Misc : EPA WB WAREHOUSE R1 2/21/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 28 12:53:35 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



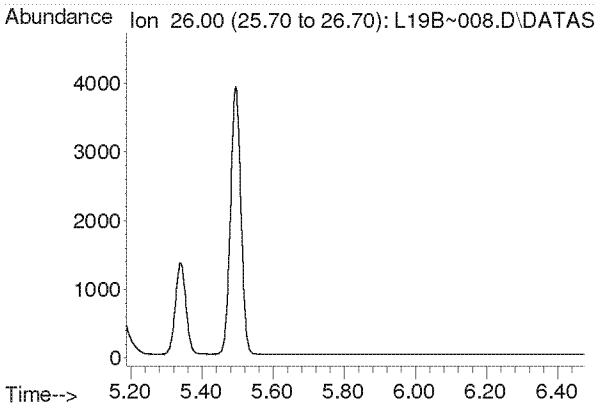
Compounds other than ethylene oxide were not quantitated.

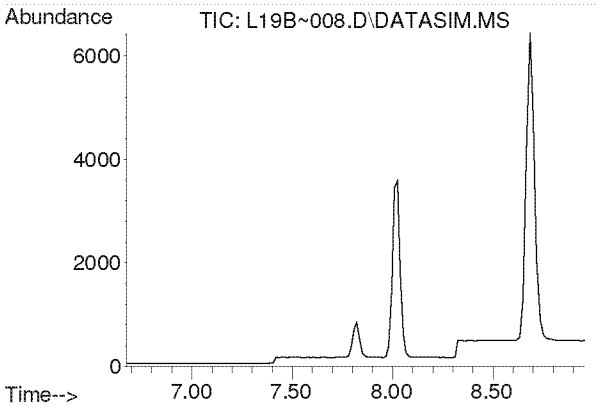


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 26



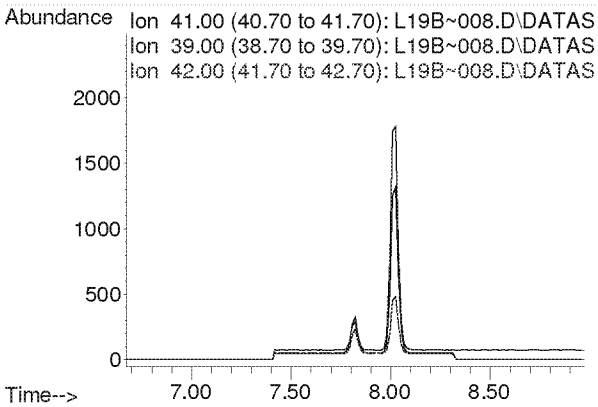


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

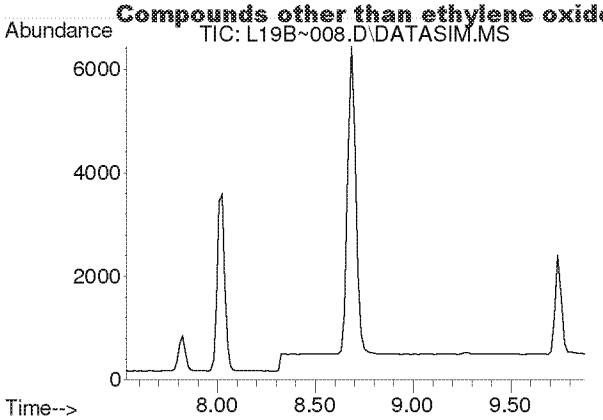
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

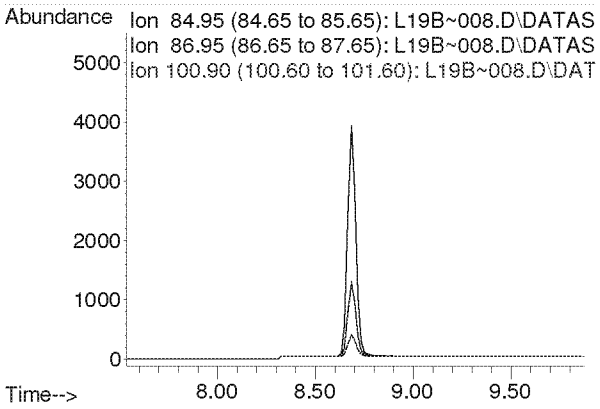


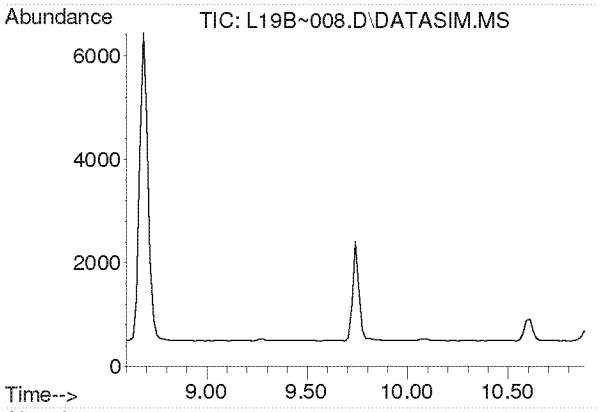
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



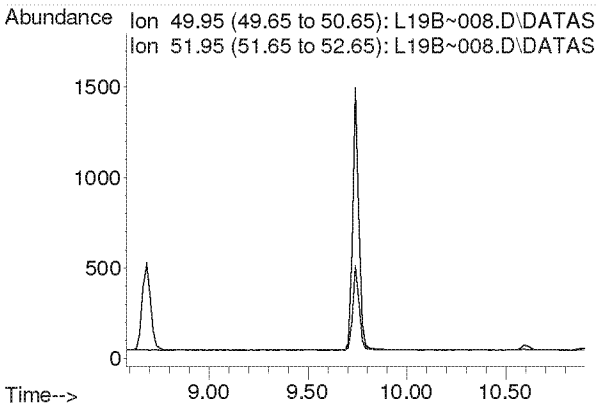


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

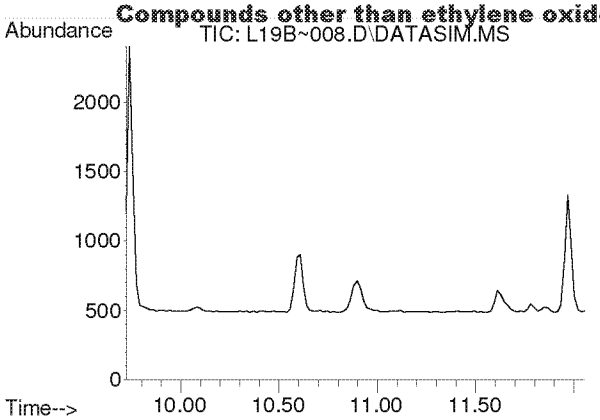
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

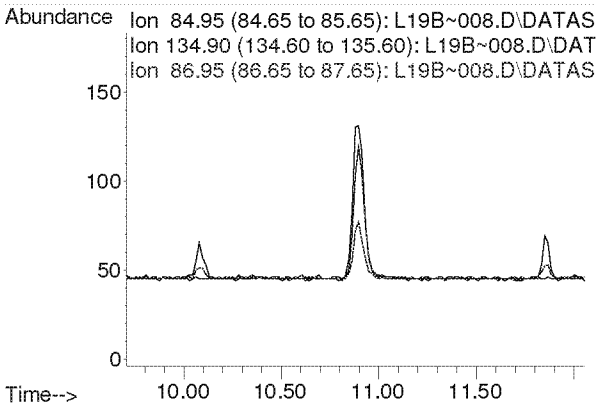


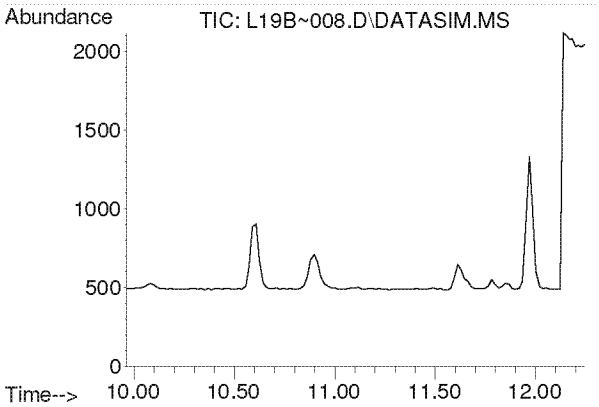
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



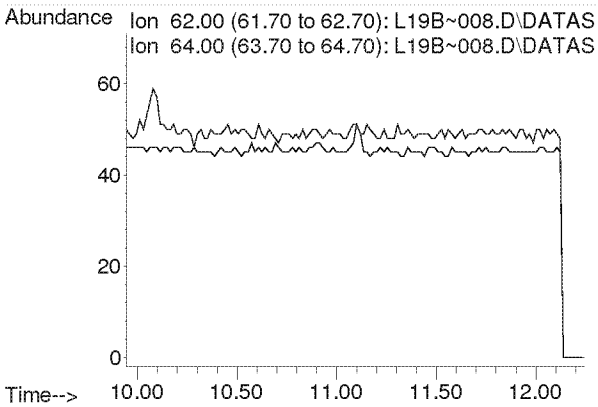


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

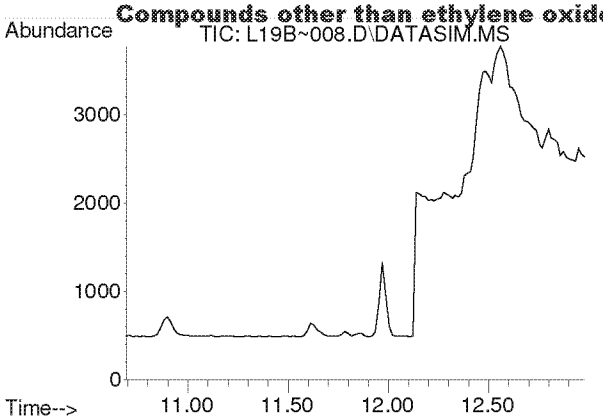
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

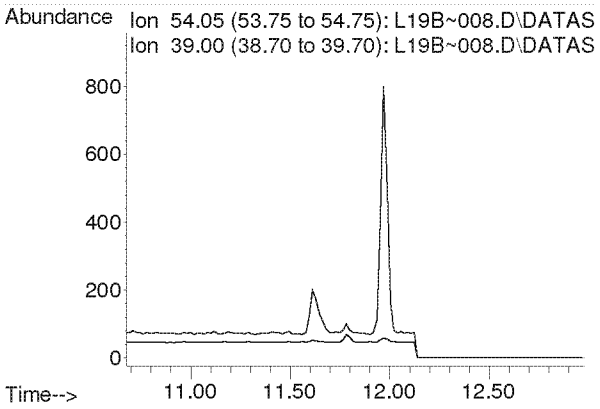


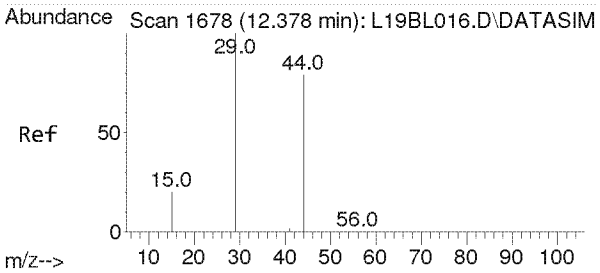
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

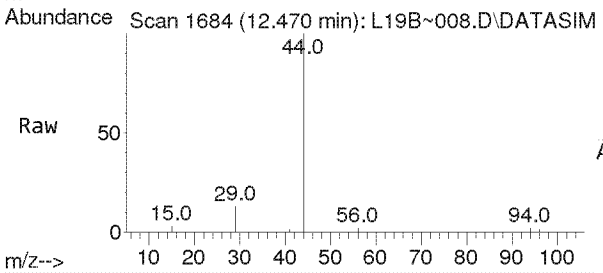


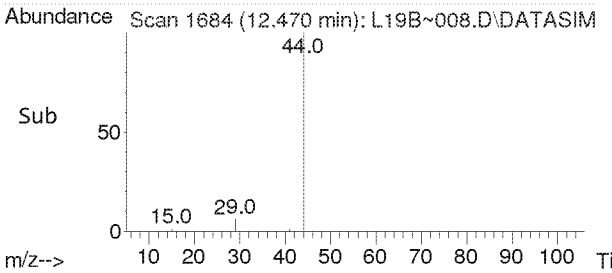


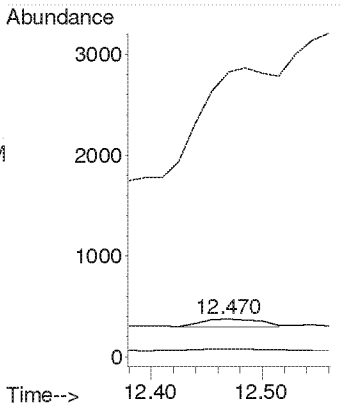
#9
Ethylene oxide
Concen: 0.109 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.020 min
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 29 Resp: 288

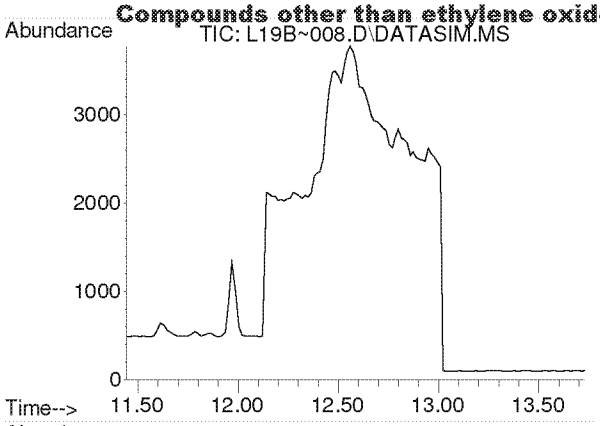
Ion	Ratio	Lower	Upper
29	100		
15	27.1	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

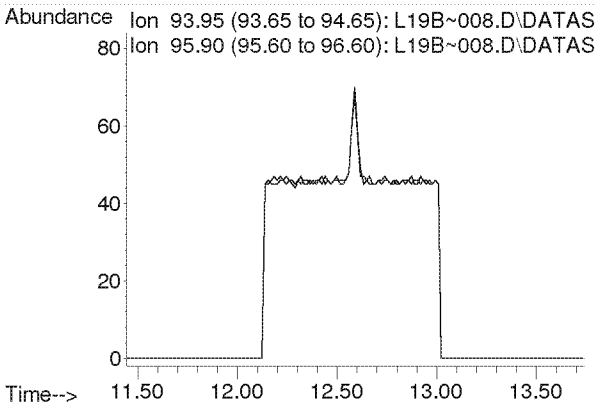


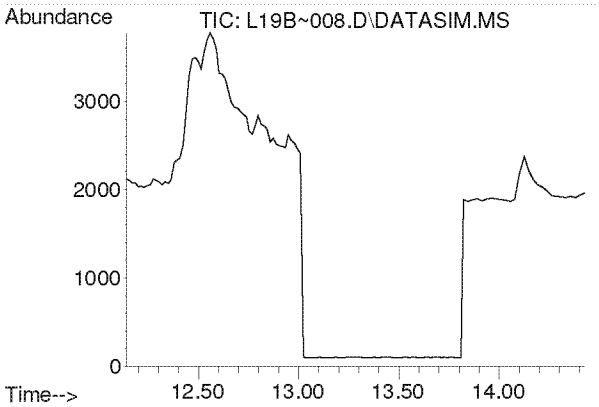
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



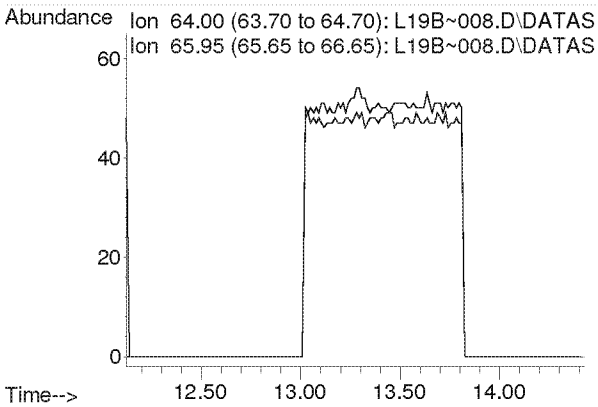


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

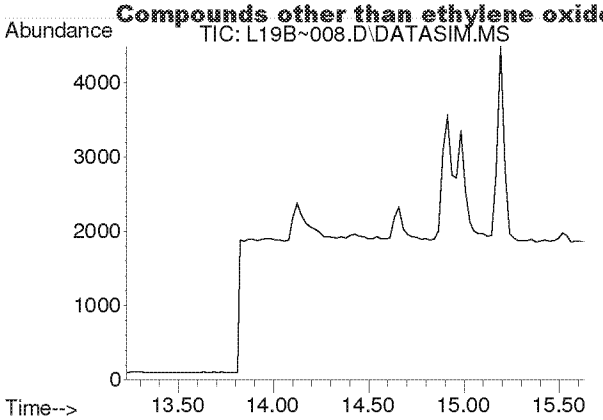
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

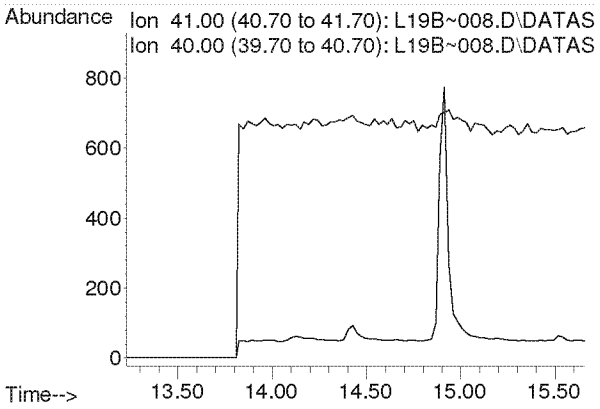


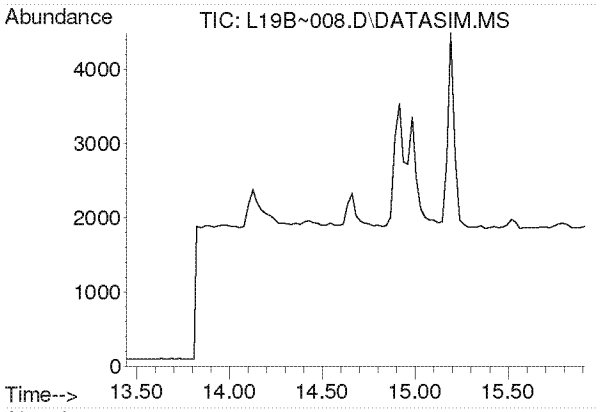
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



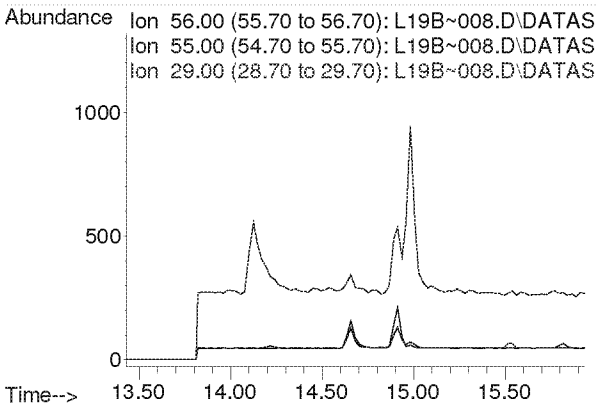


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

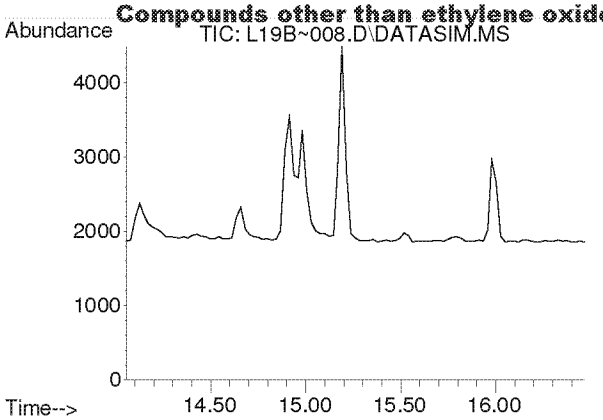
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

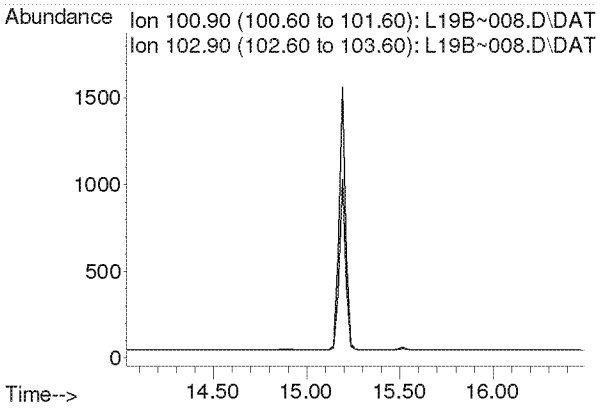


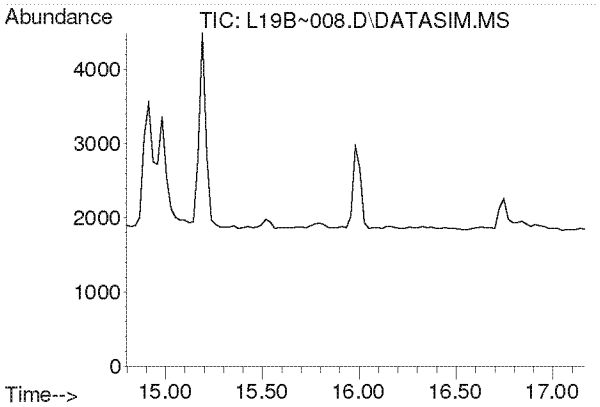
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



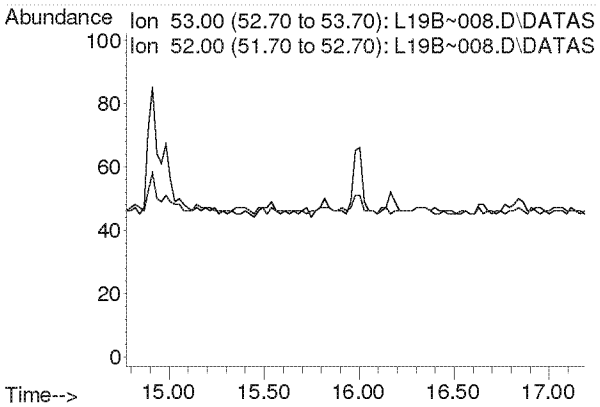


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

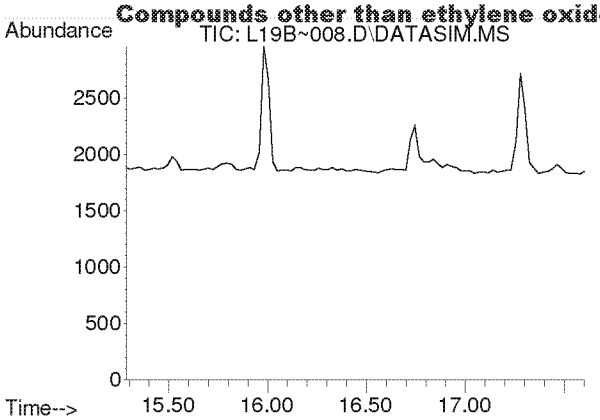
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

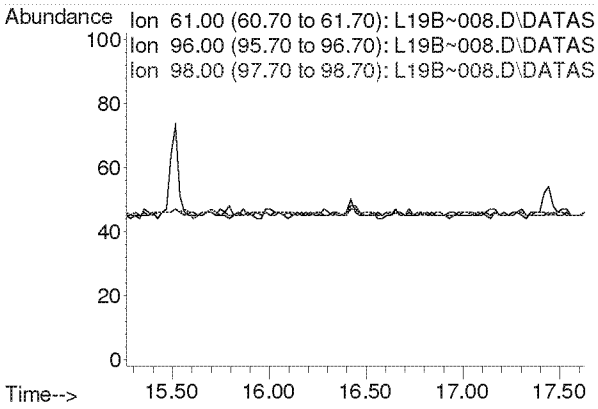


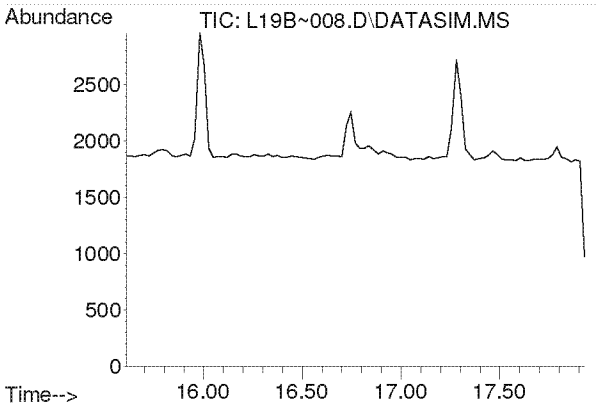
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



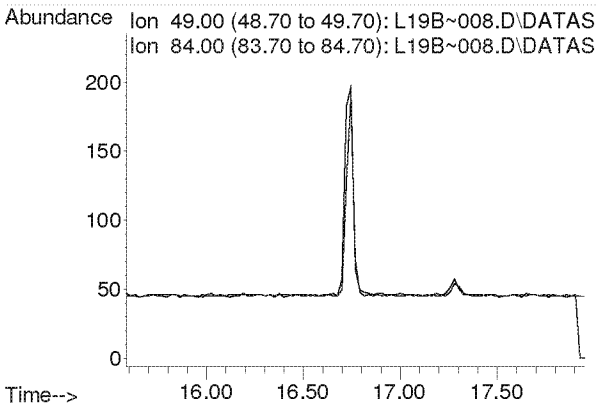


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

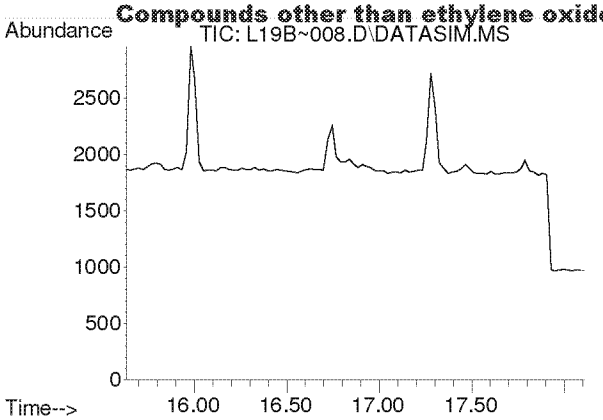
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

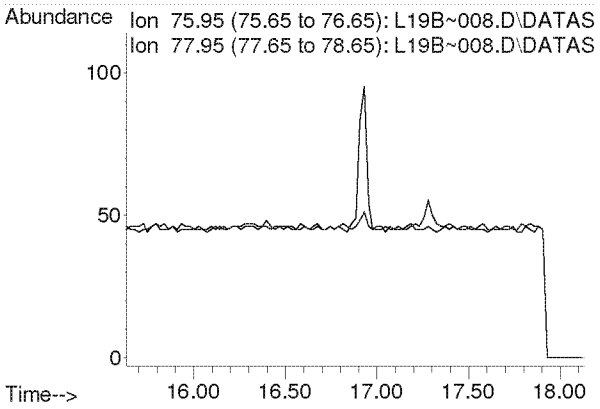


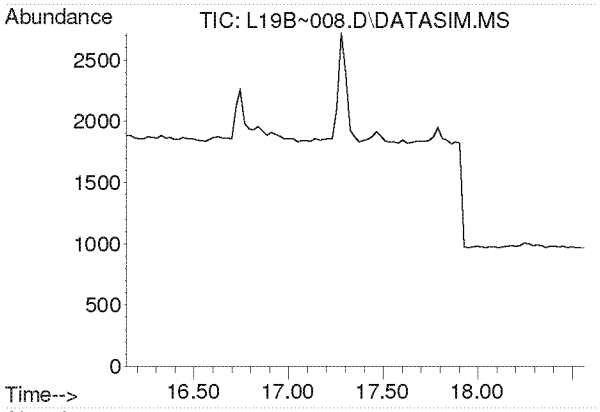
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



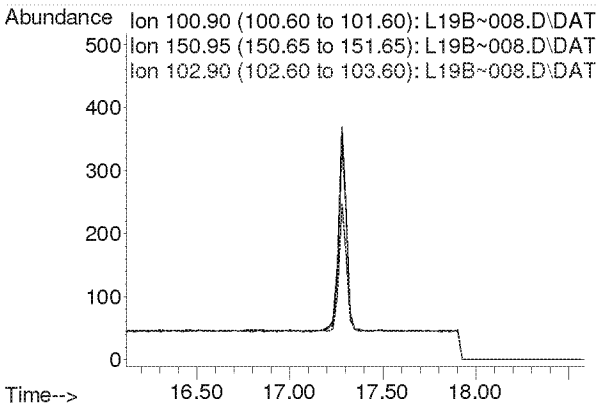


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

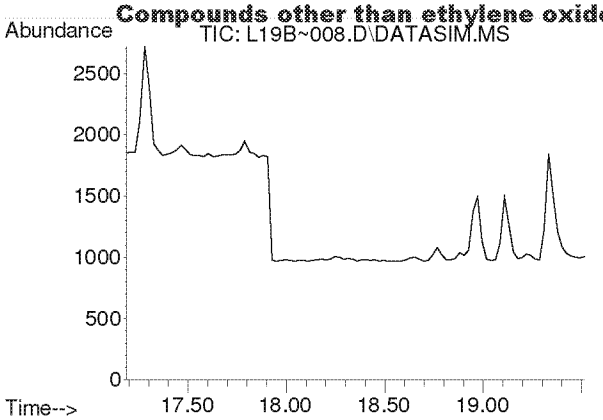
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

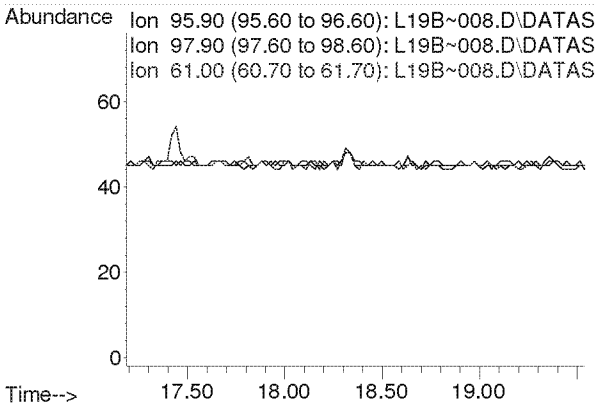


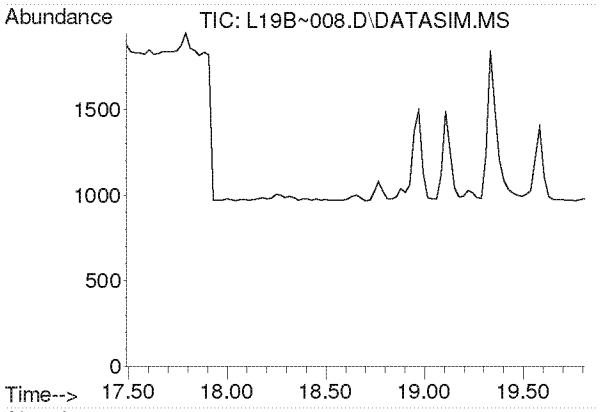
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



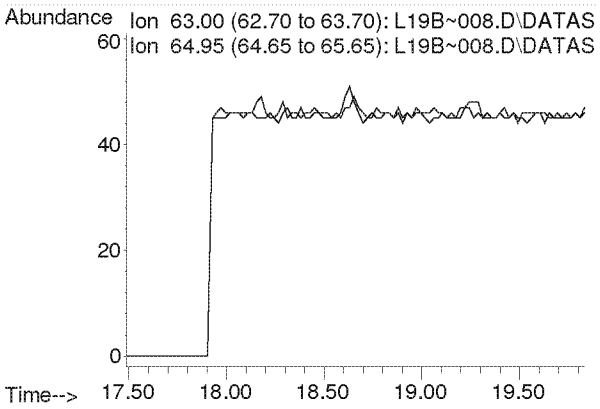


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

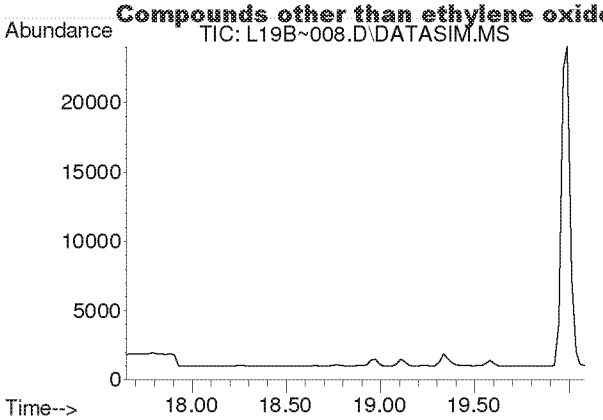
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

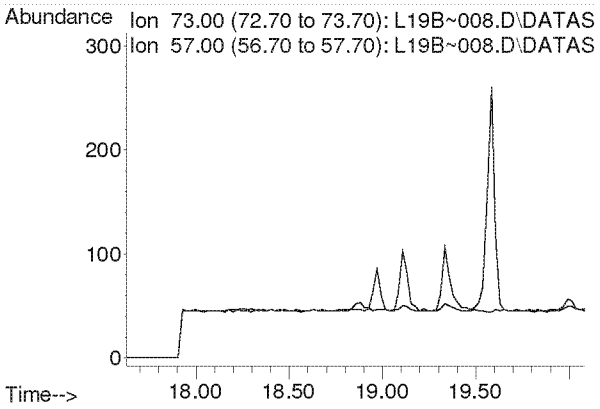


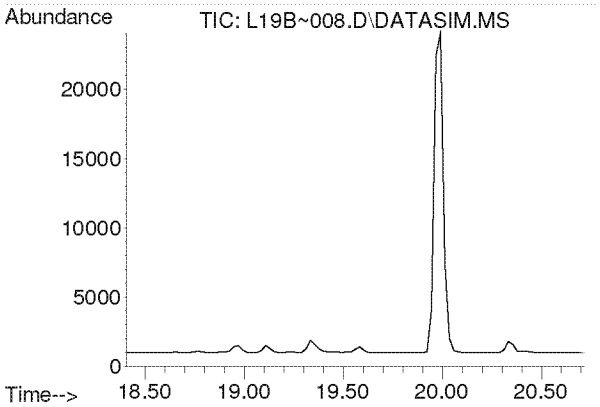
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



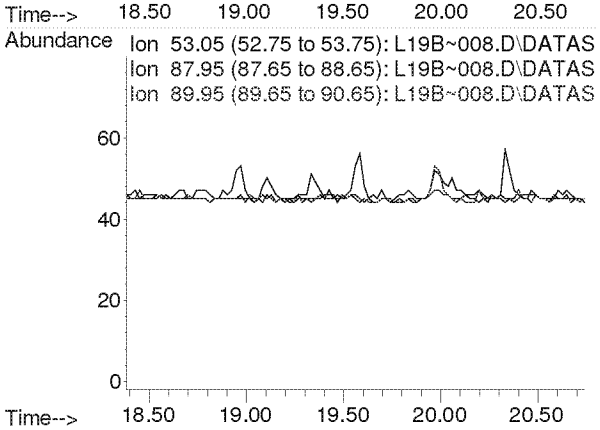


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

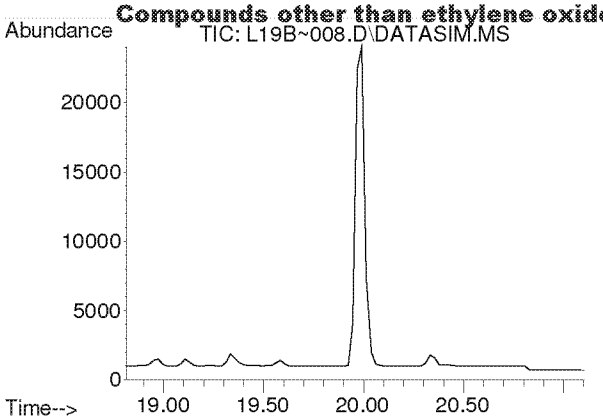
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

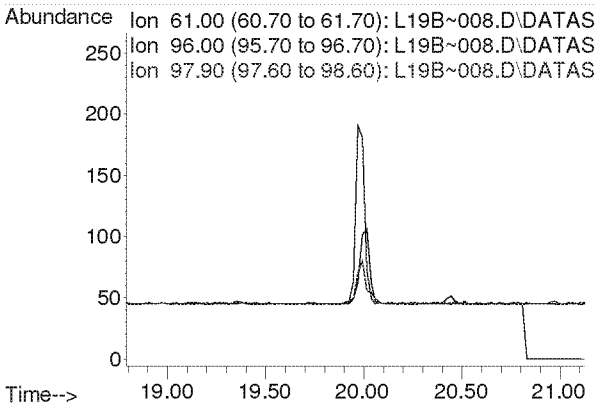


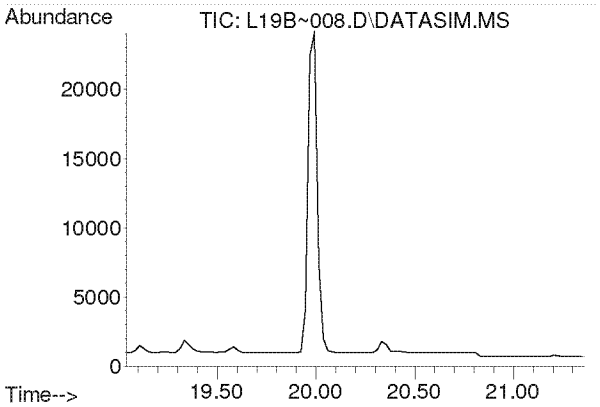
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



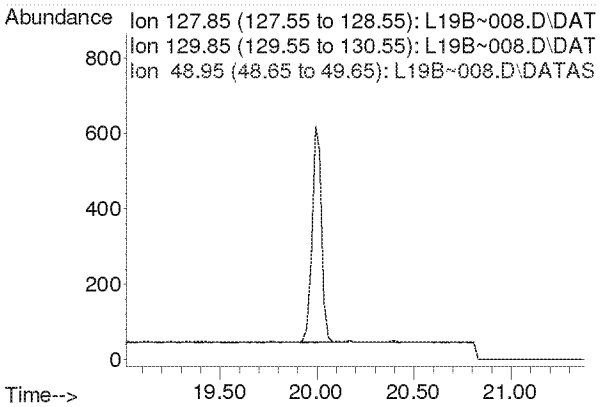


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

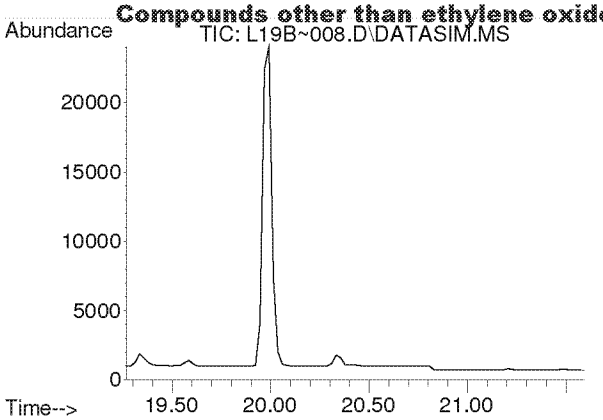
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

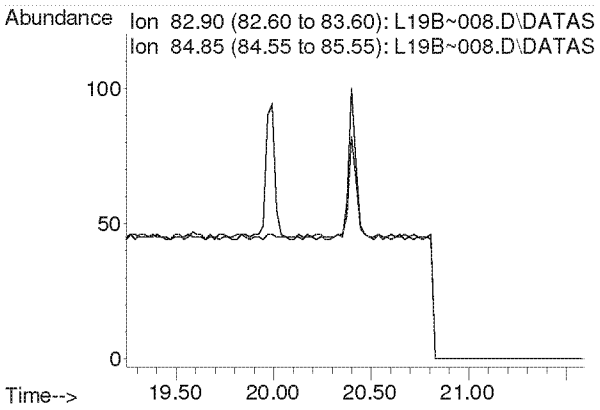


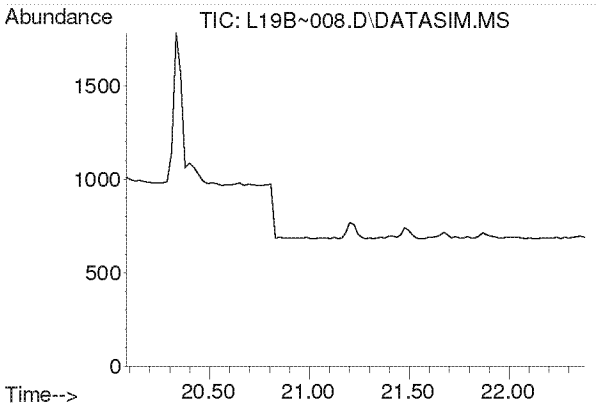
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



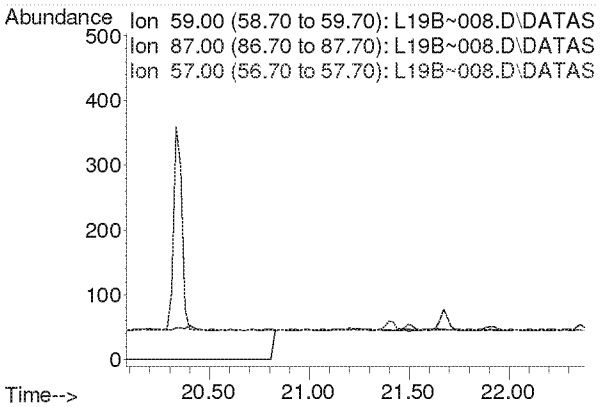


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

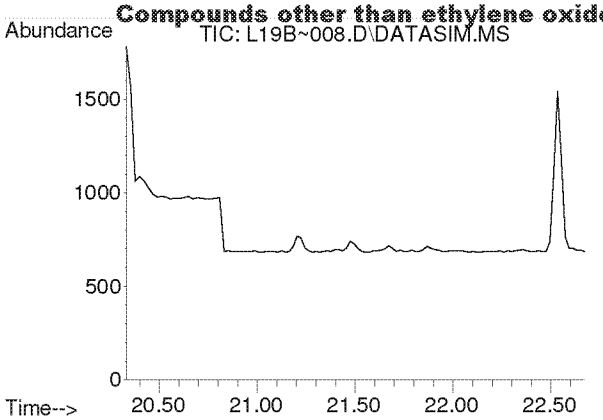
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

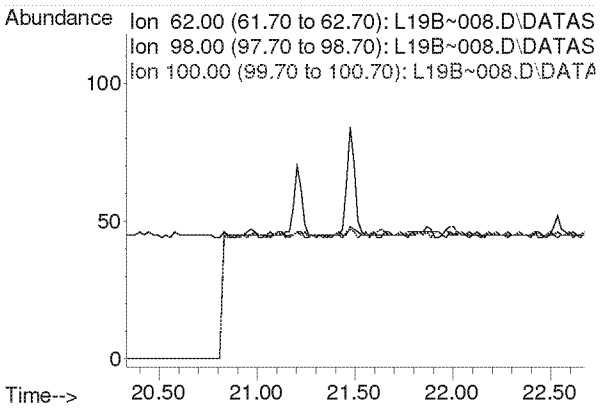


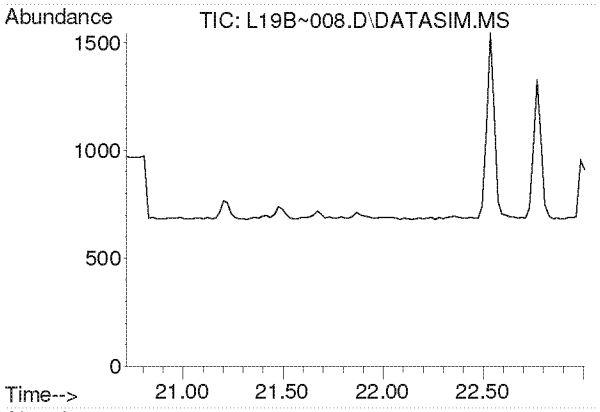
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



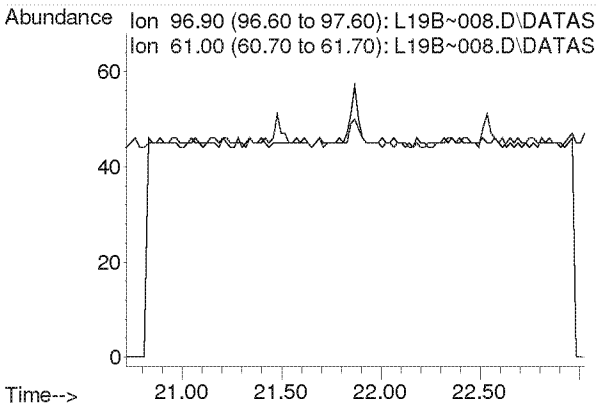


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

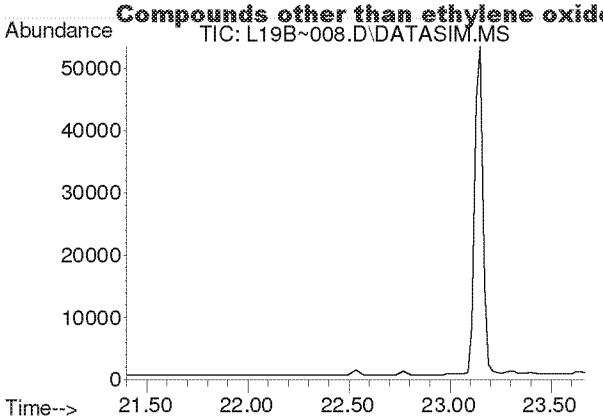
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

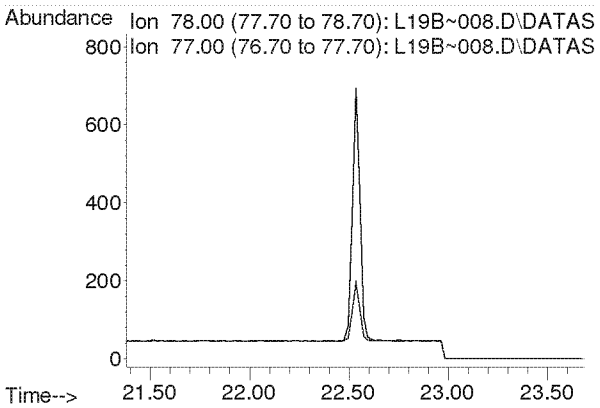


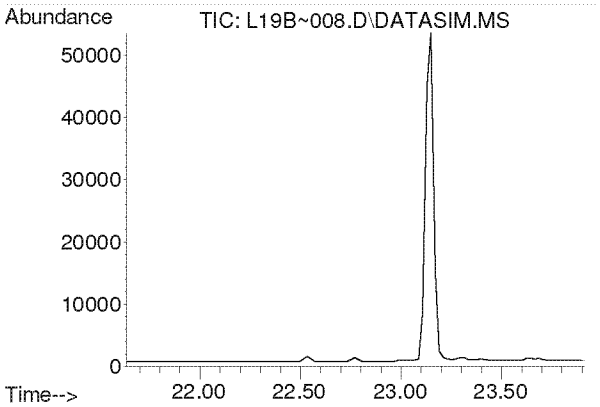
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



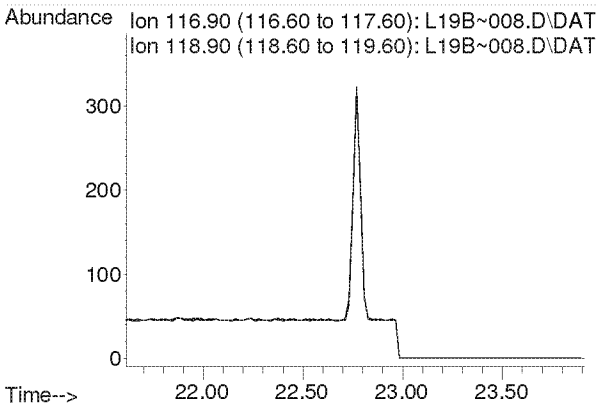


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

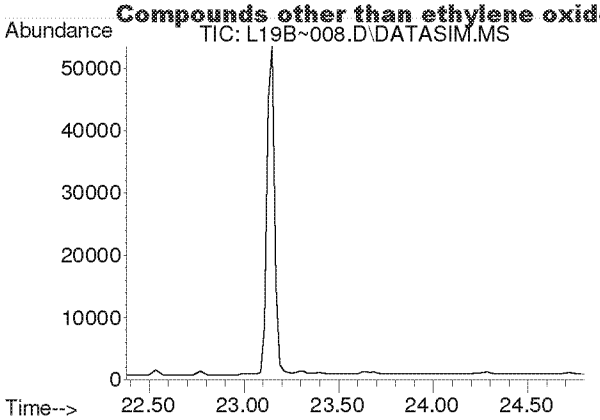
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

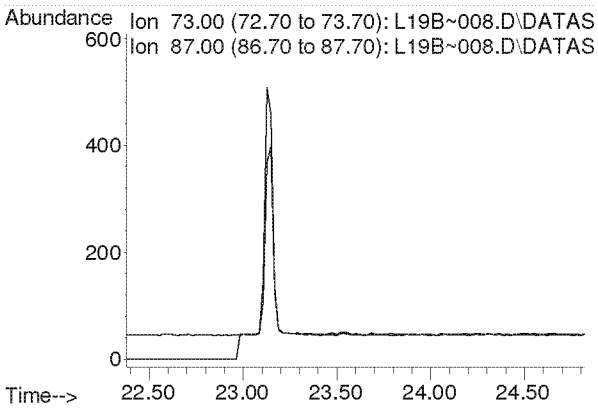


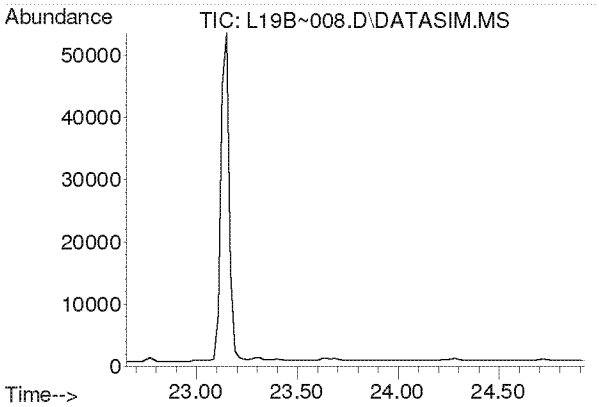
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



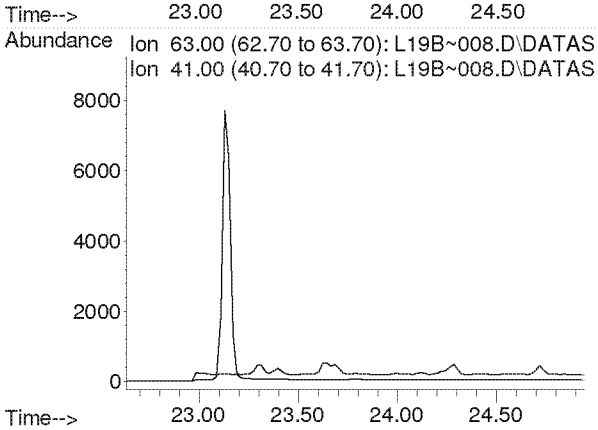


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

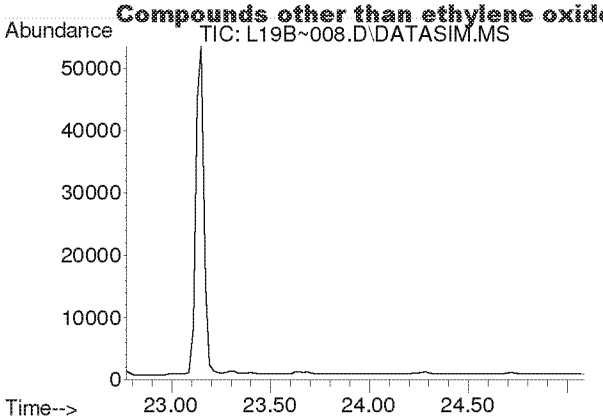
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

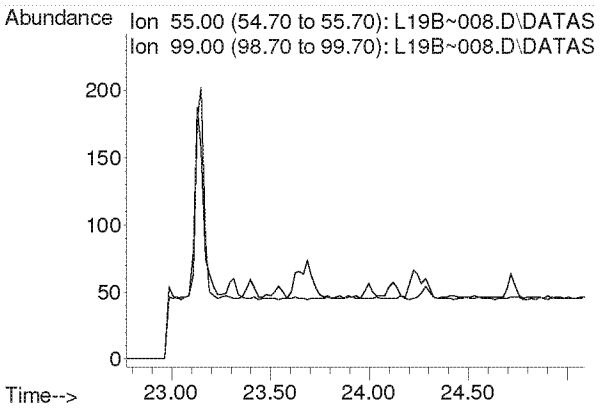


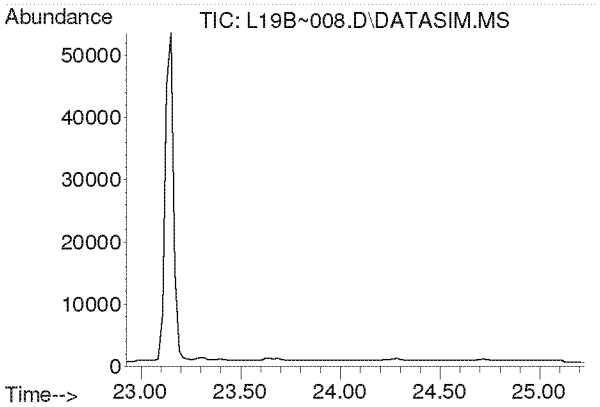
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



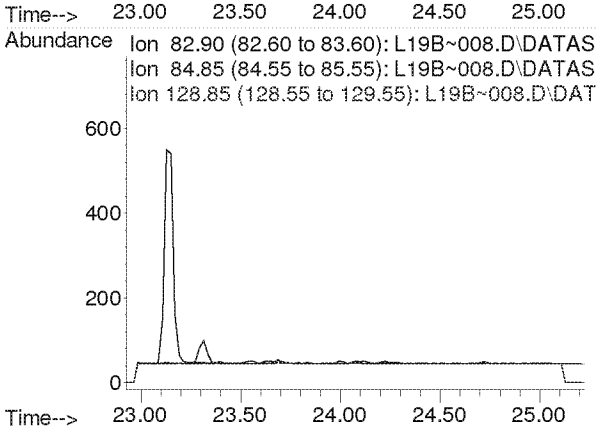


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

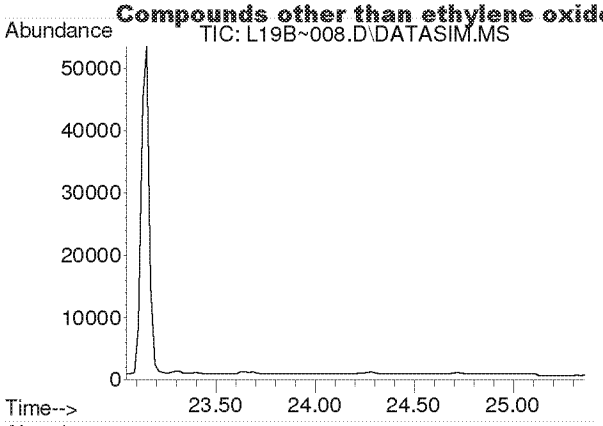
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

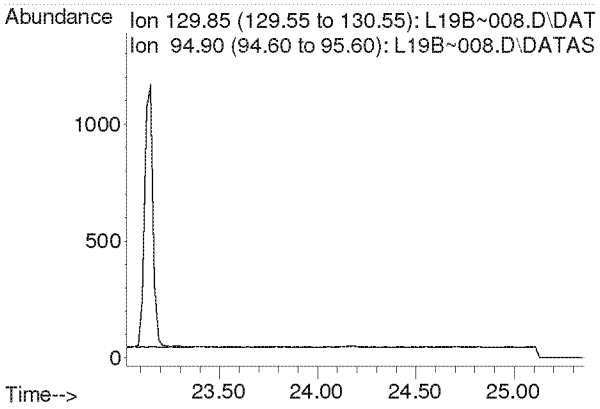


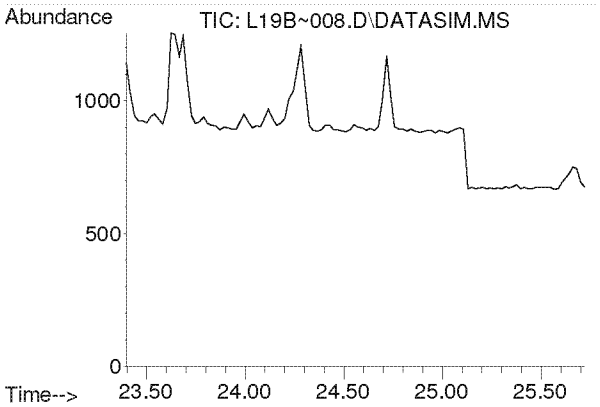
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



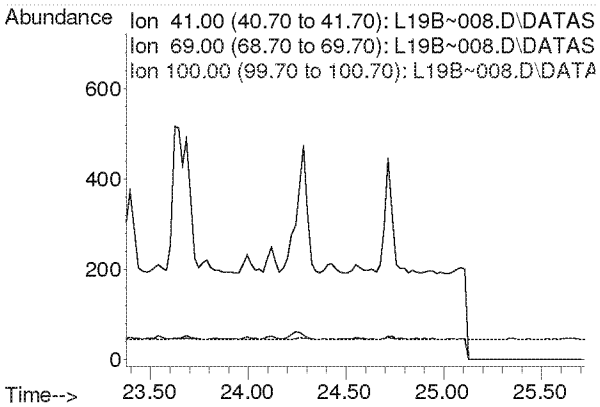


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

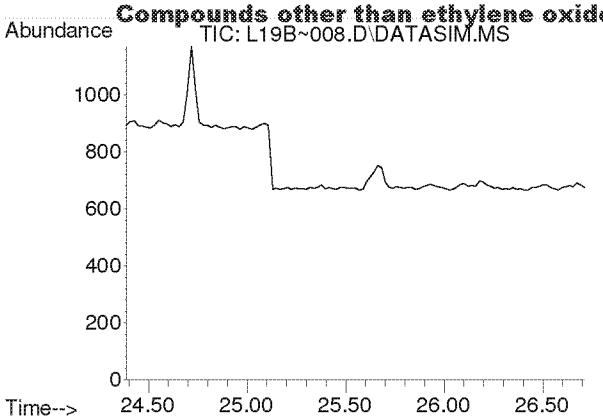
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

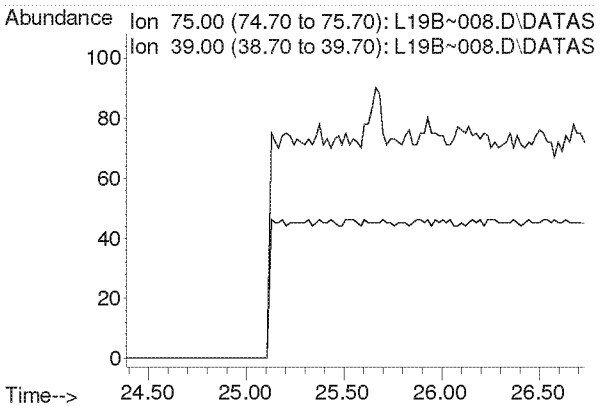


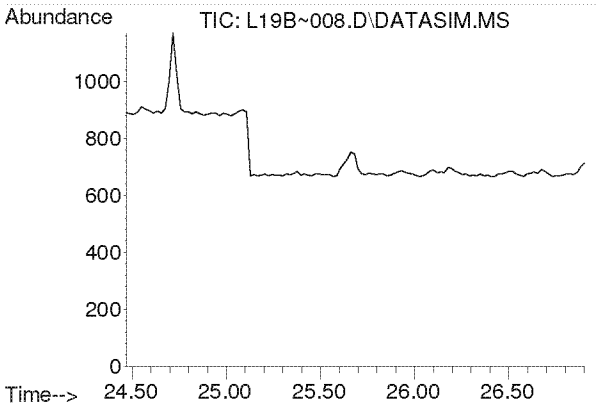
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



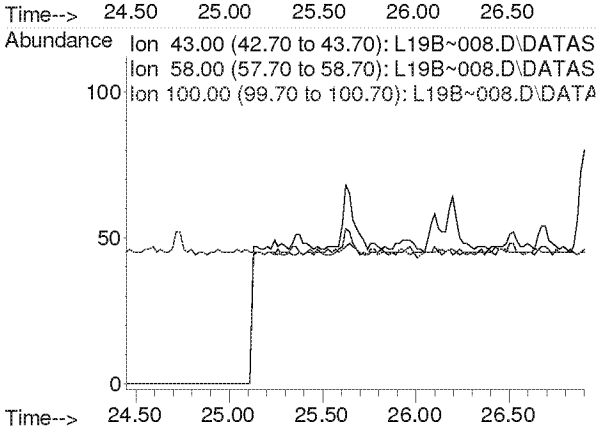


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

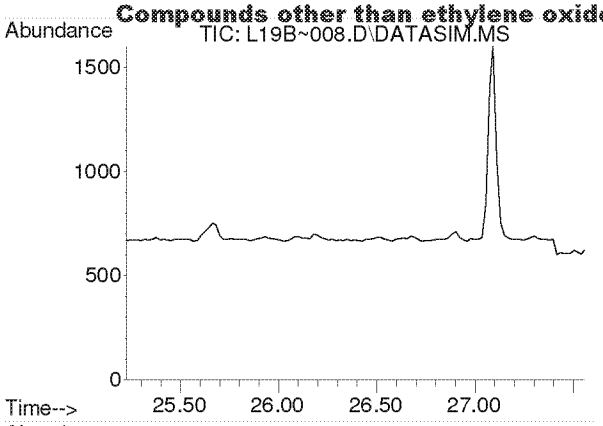
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

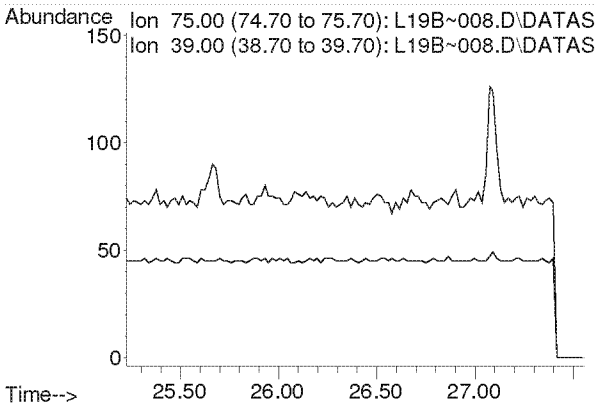


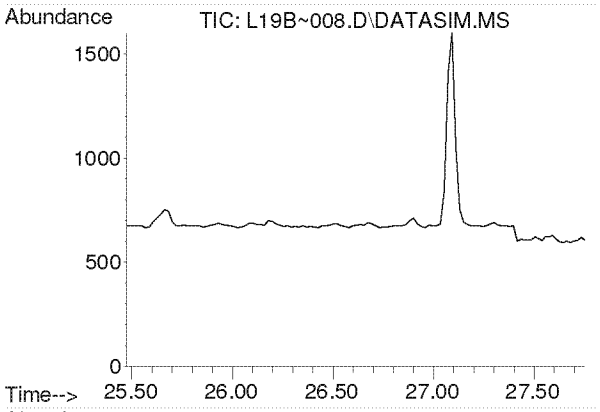
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



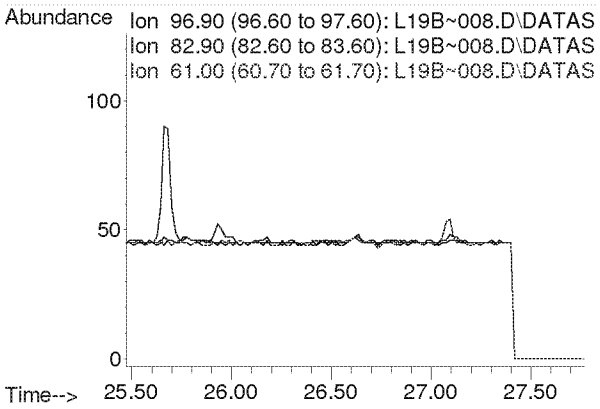


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

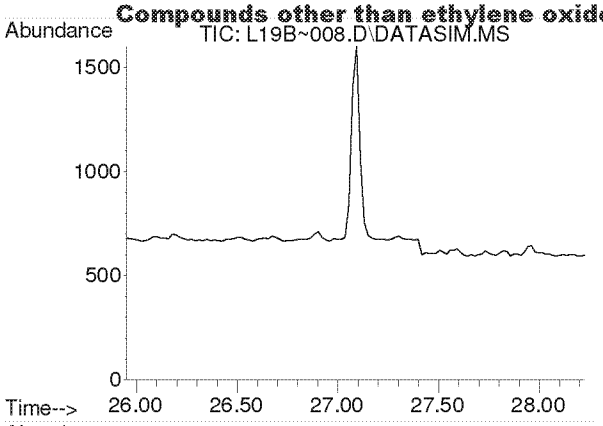
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

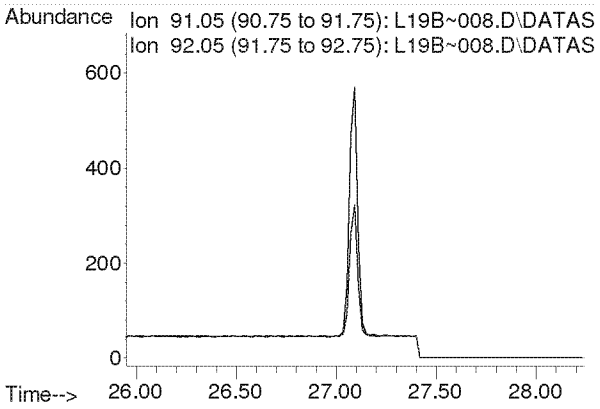


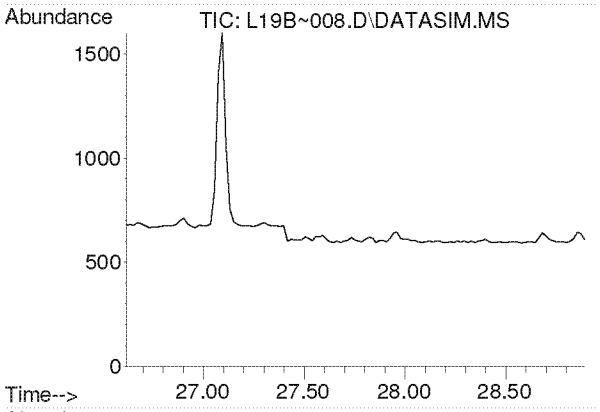
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



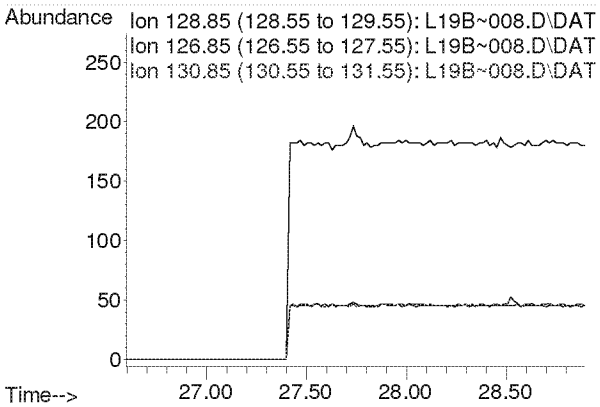


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

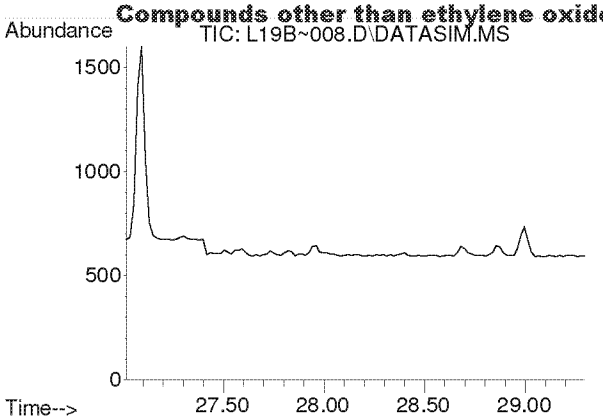
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

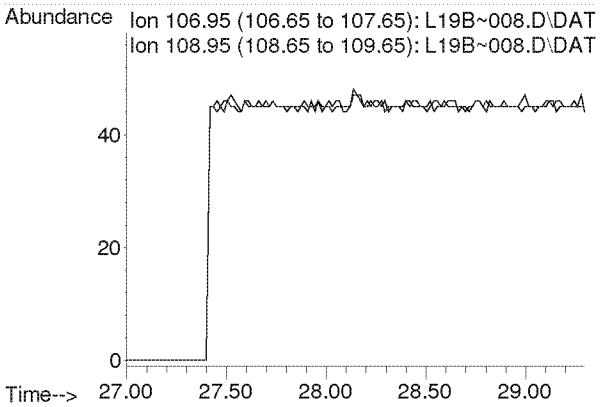


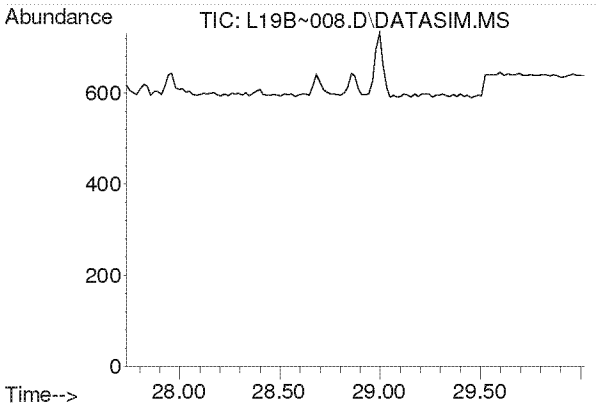
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



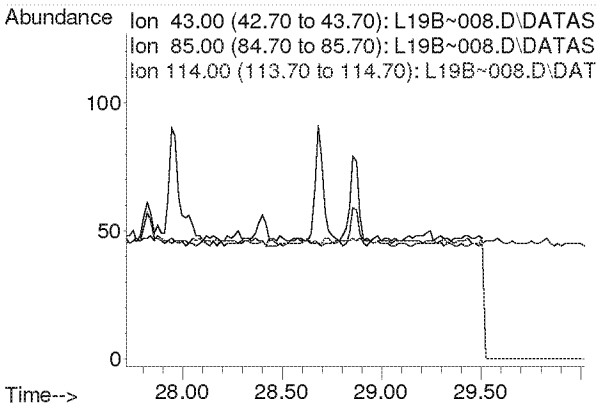


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

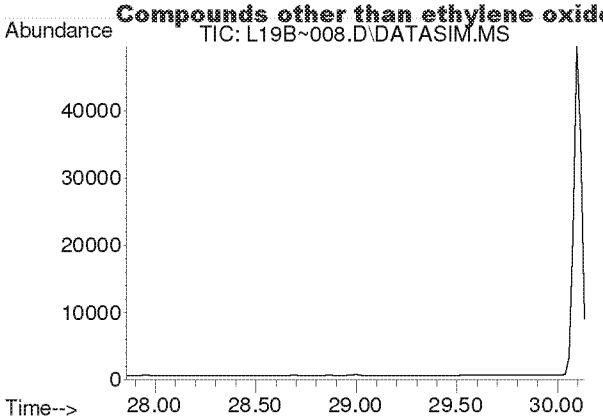
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

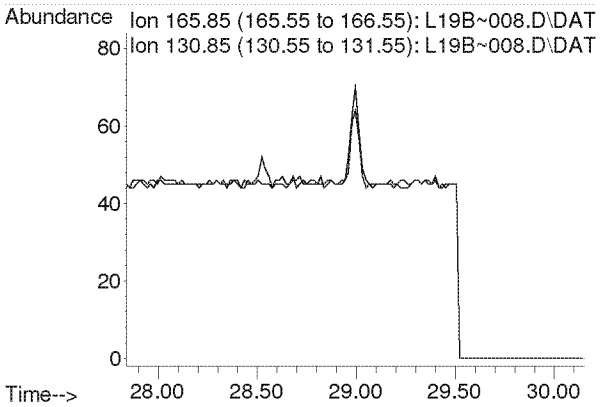


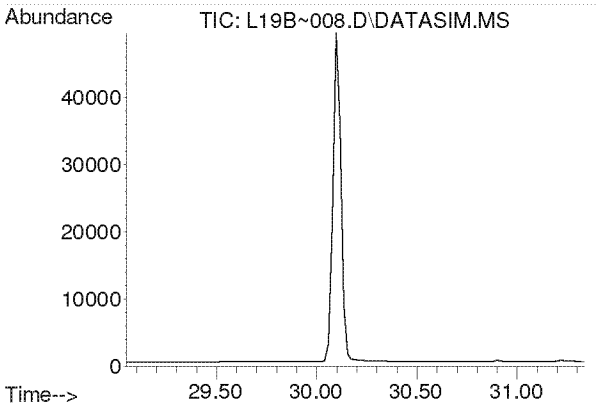
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



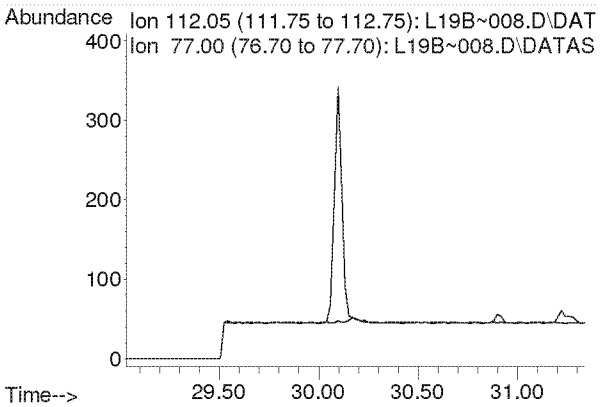


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

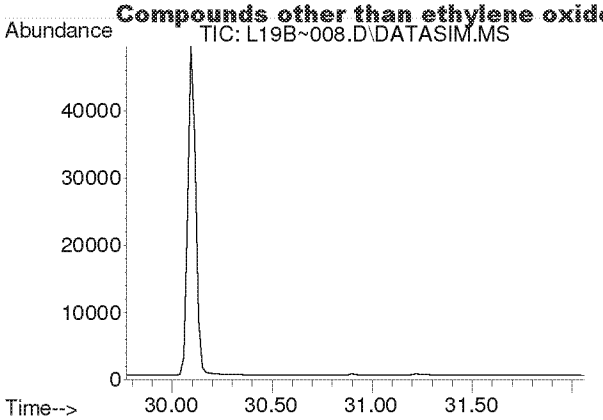
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

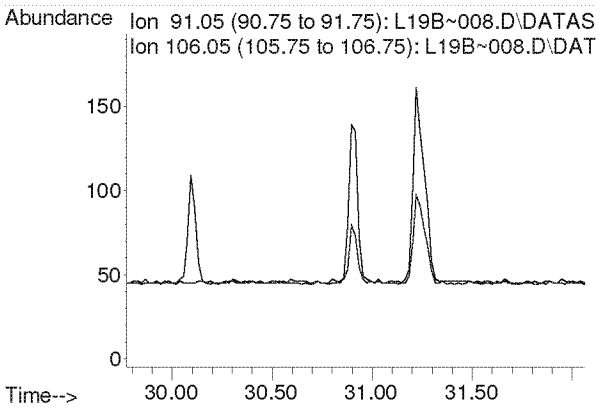


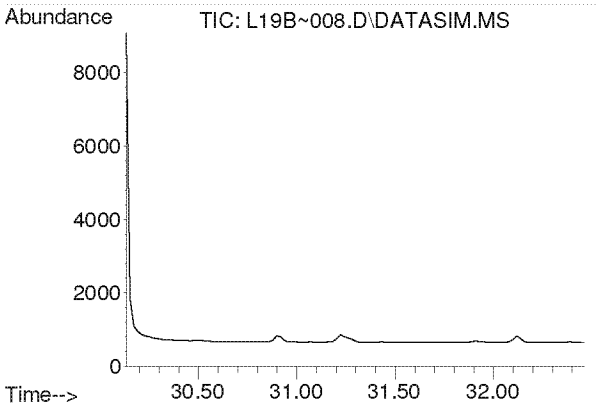
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



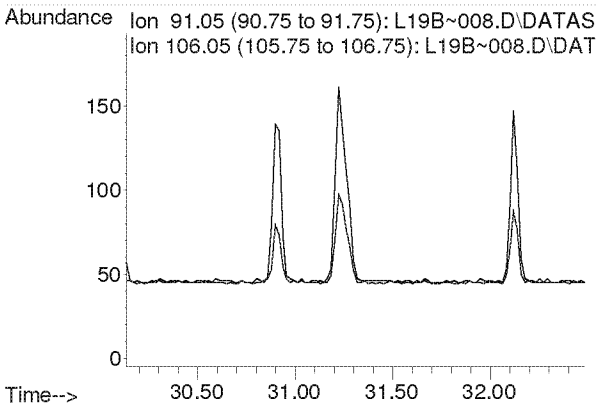


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

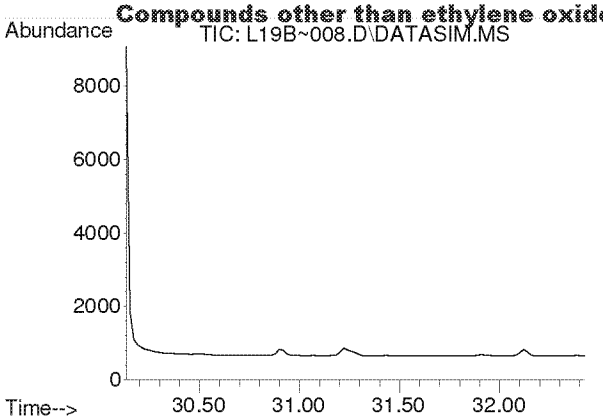
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

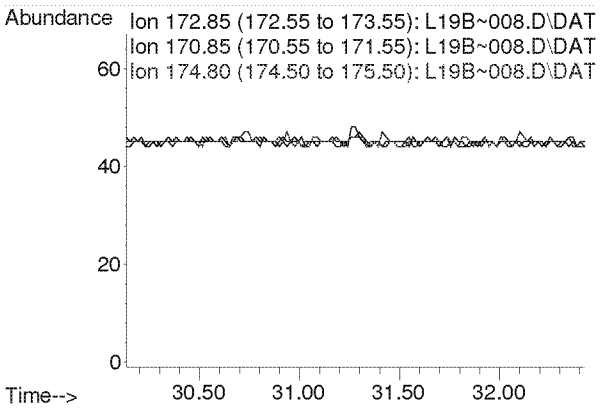


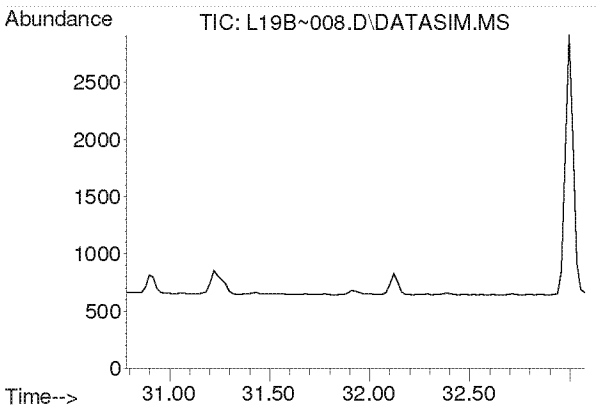
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



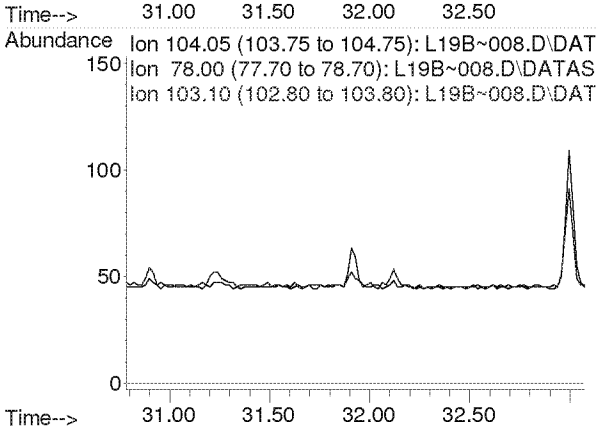


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

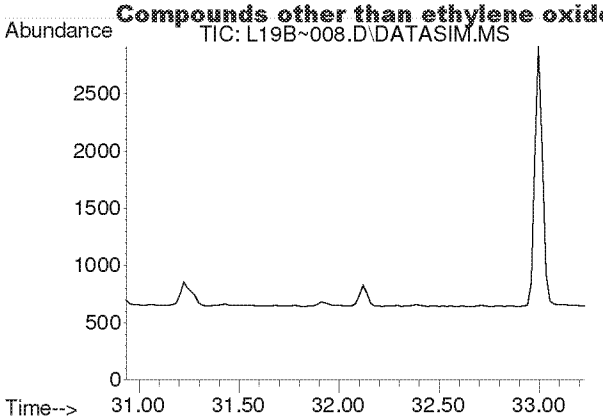
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

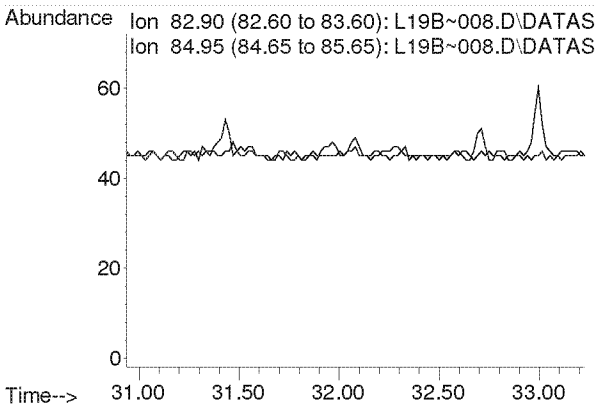


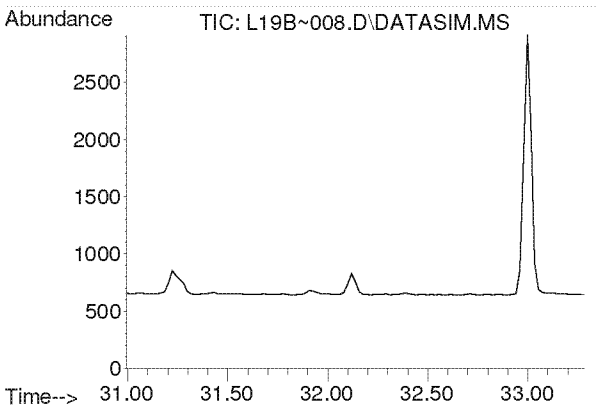
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



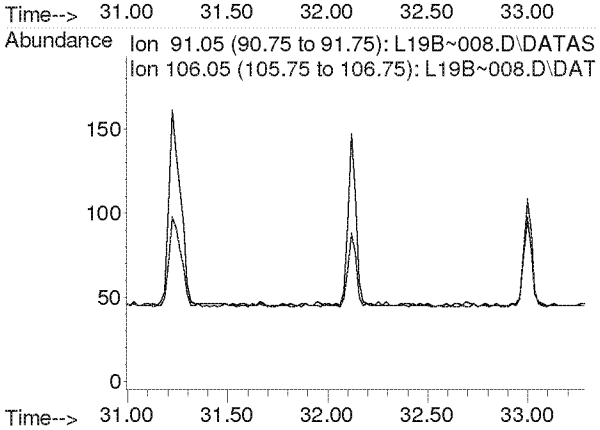


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

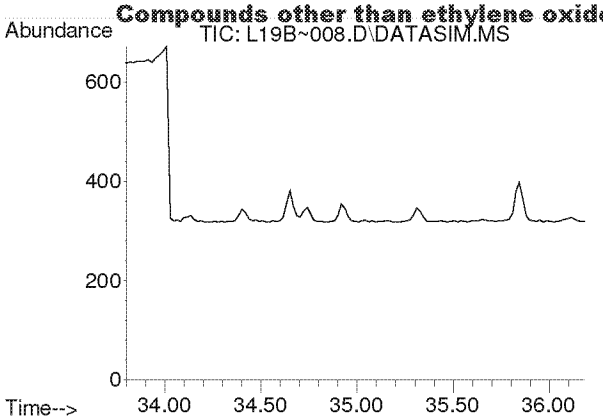
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

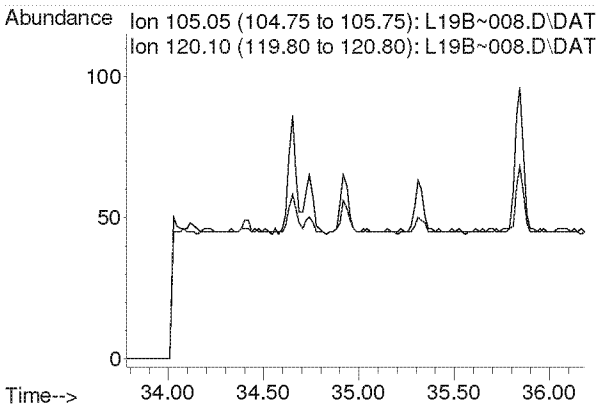


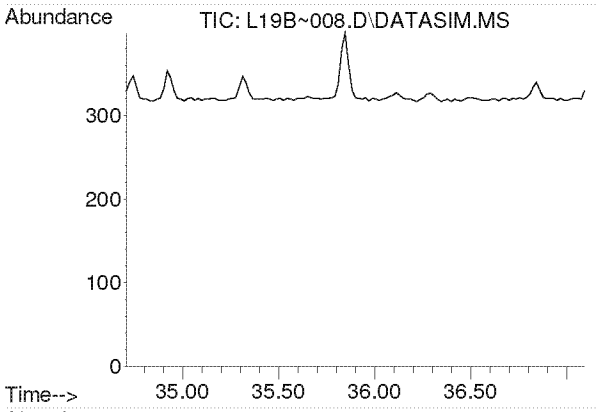
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



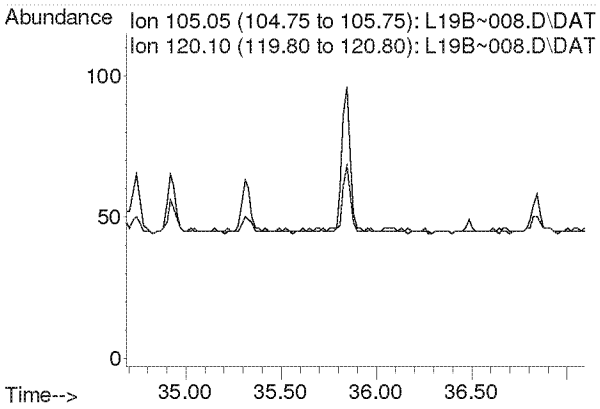


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

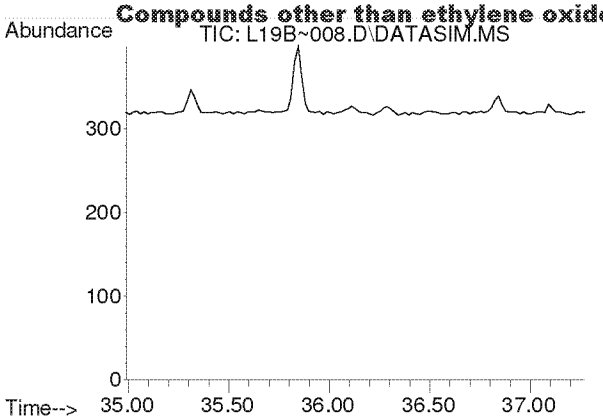
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

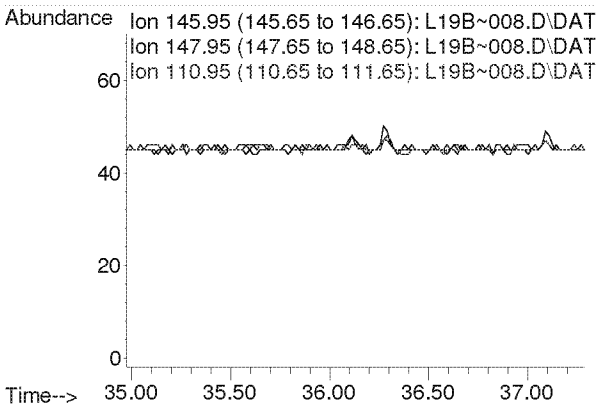


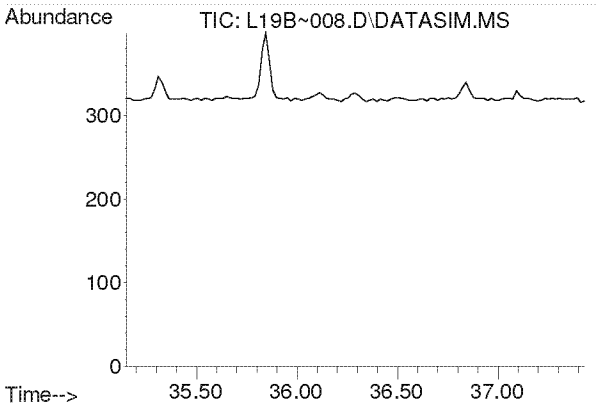
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



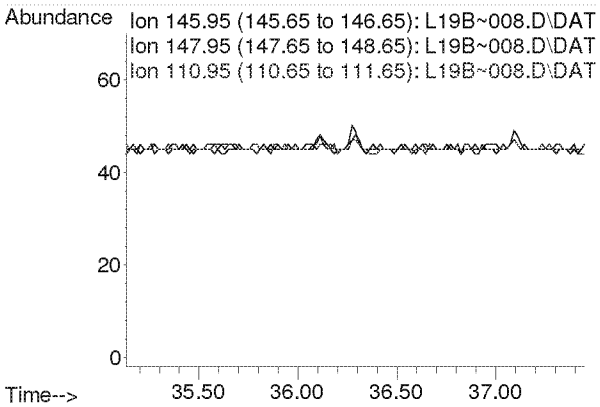


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

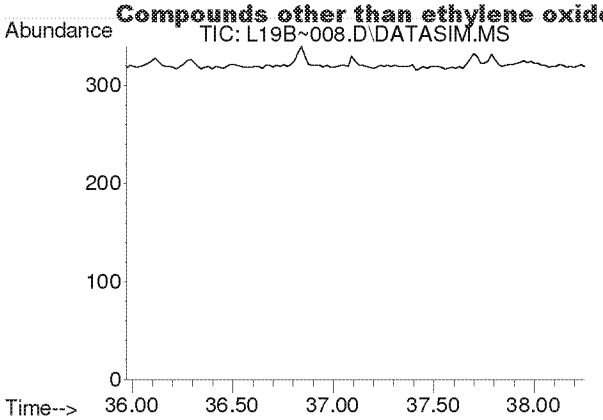
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

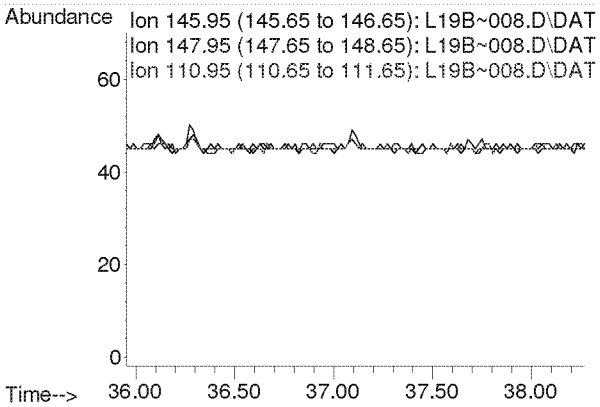


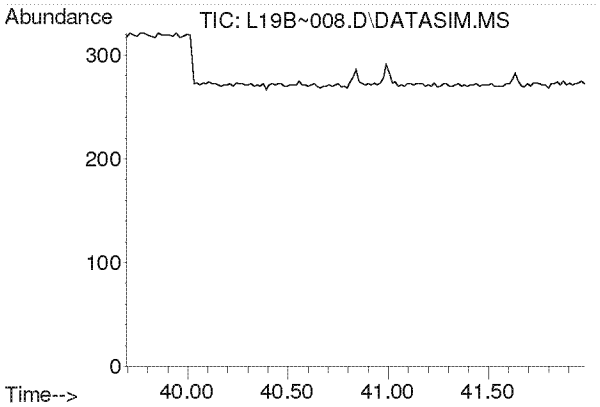
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



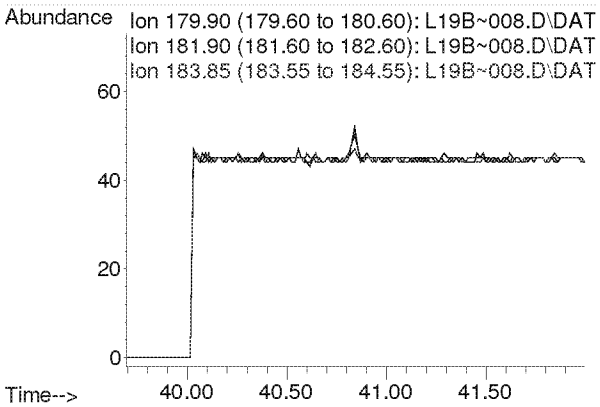


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

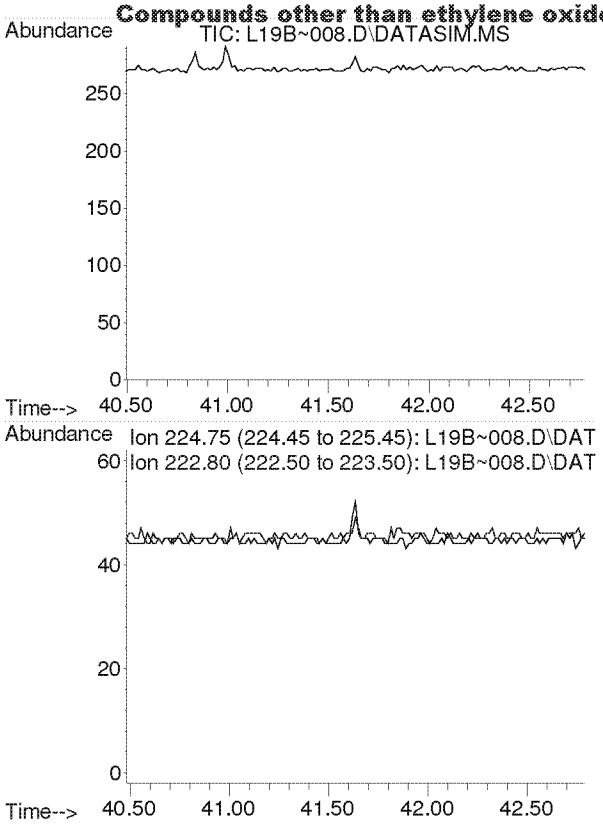
Lab File: L19B~008.D
Acq: 27 Feb 2019 6:29 pm

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: L19B~008.D
Acq: 27 Feb 2019 6:29 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\L19B~\
Data File : L19B~009.D
Acq On : 27 Feb 2019 7:29 pm
Operator : MAH
Sample : B9B2705-DUP2
Misc : EPA WB WAREHOUSE R2 2/21/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 05 06:42:11 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

3-5-19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	45460	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	114238	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	81230	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	282m	0.1085 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\L19B~\
Data File : L19B~009.D
Acq On : 27 Feb 2019 7:29 pm
Operator : MAH
Sample : B9B2705-DUP2
Misc : EPA WB WAREHOUSE R2 2/21/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 05 06:42:11 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

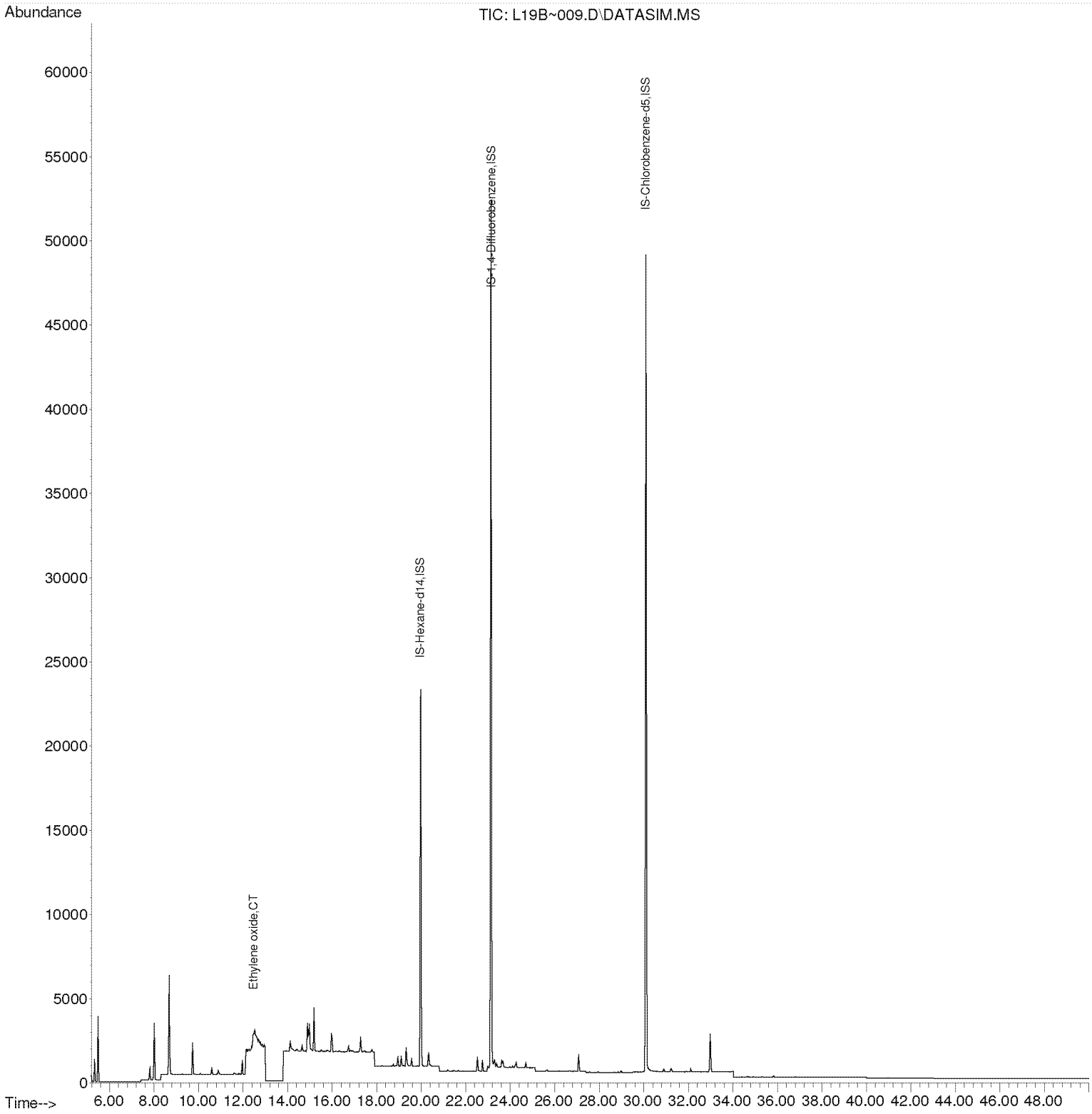
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

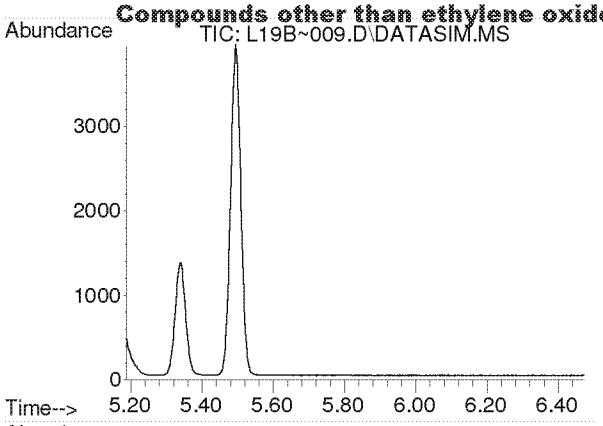
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~009.D
Acq On : 27 Feb 2019 7:29 pm
Operator : MAH
Sample : B9B2705-DUP2
Misc : EPA WB WAREHOUSE R2 2/21/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 28 12:53:51 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



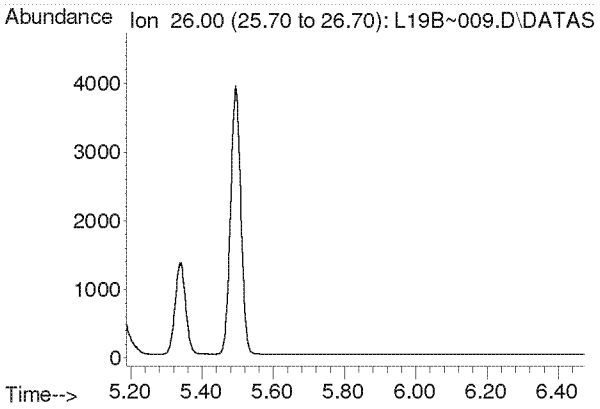
Compounds other than ethylene oxide were not quantitated.

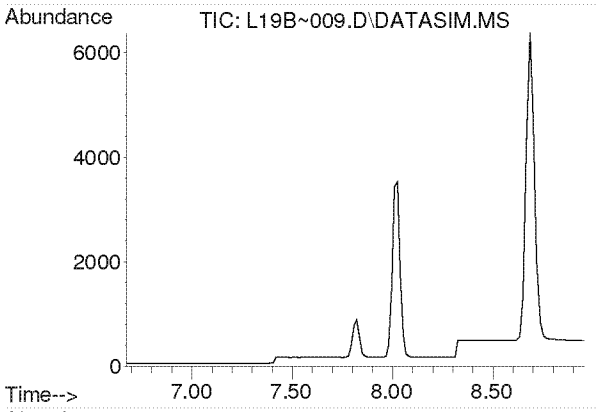


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 26



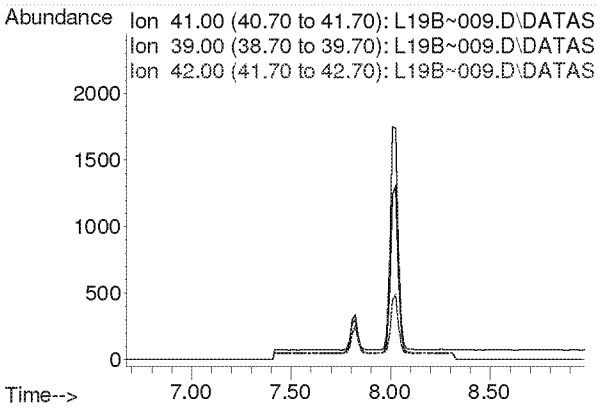


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

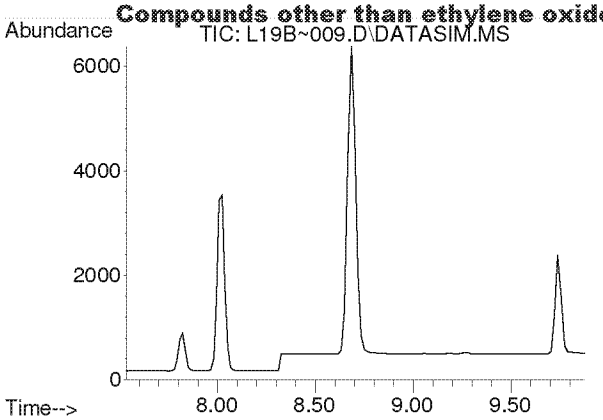
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

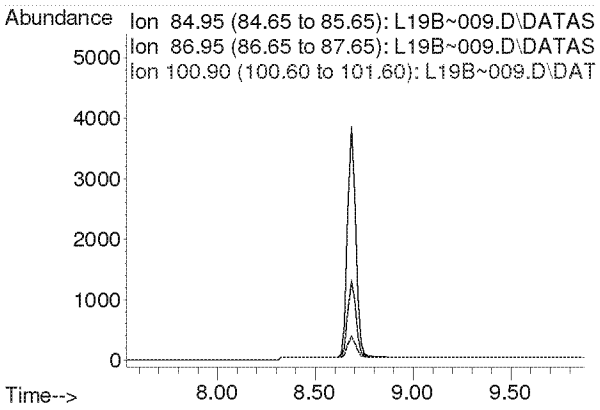


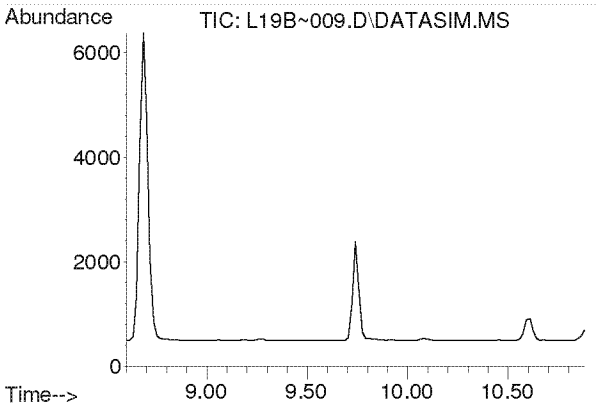
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



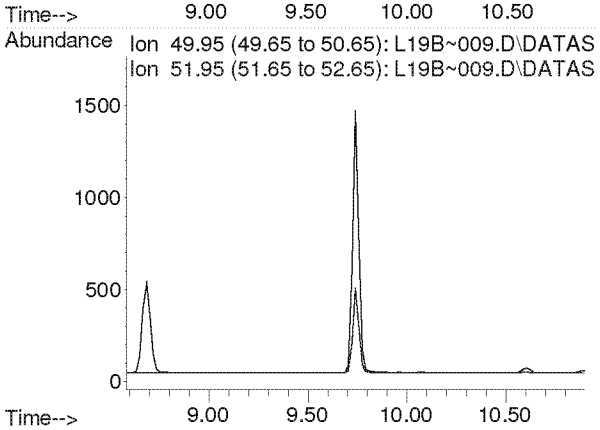


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

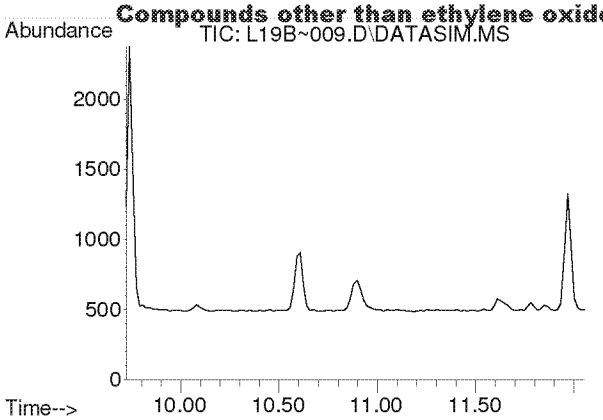
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

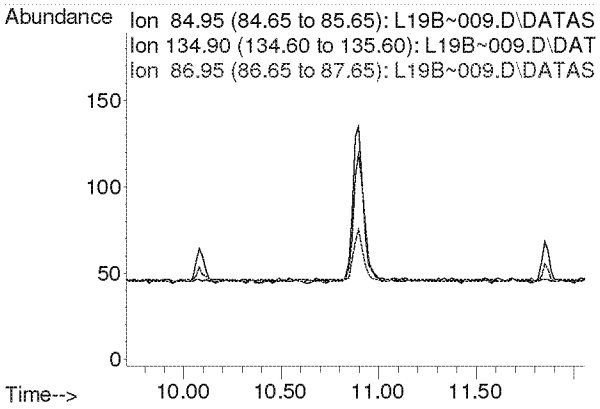


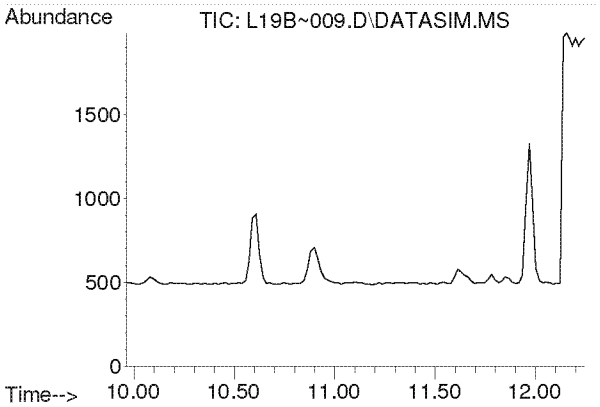
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



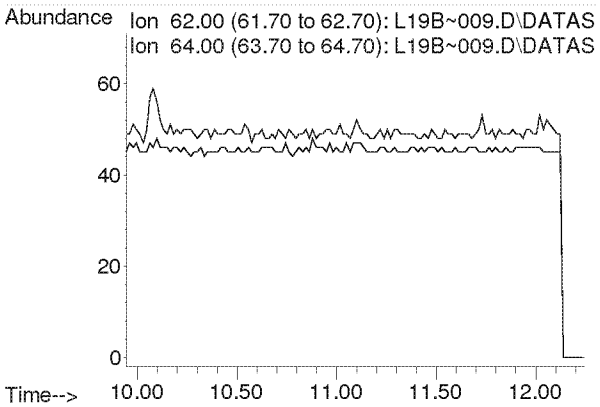


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

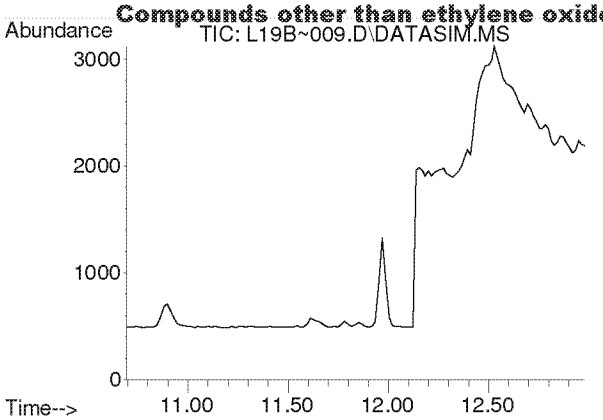
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

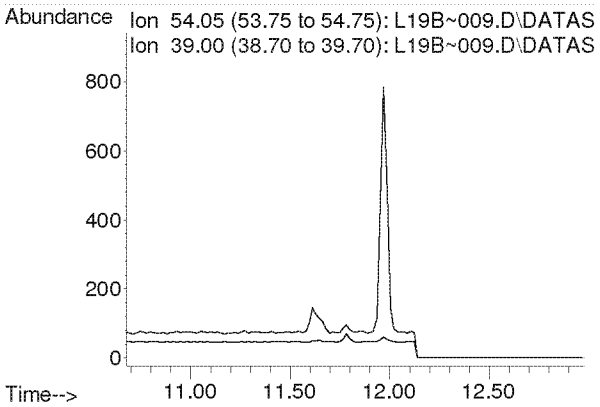


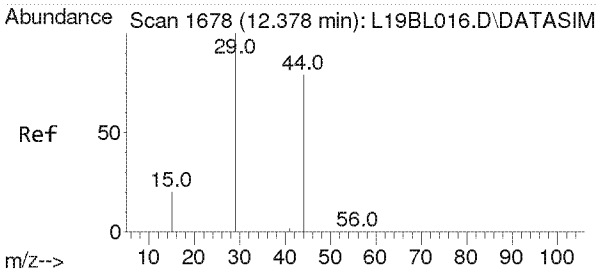
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

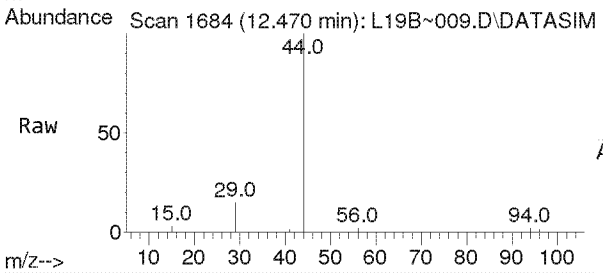


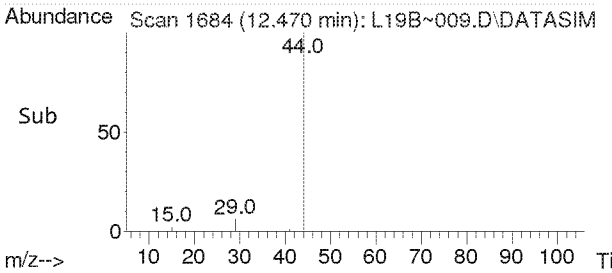


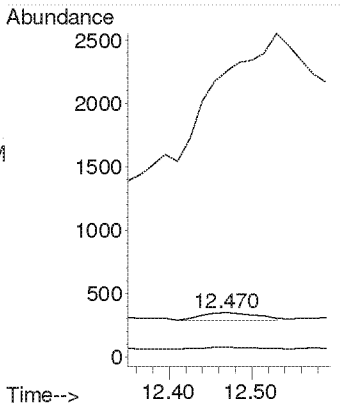
#9
Ethylene oxide
Concen: 0.108 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.020 min
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 29 Resp: 282

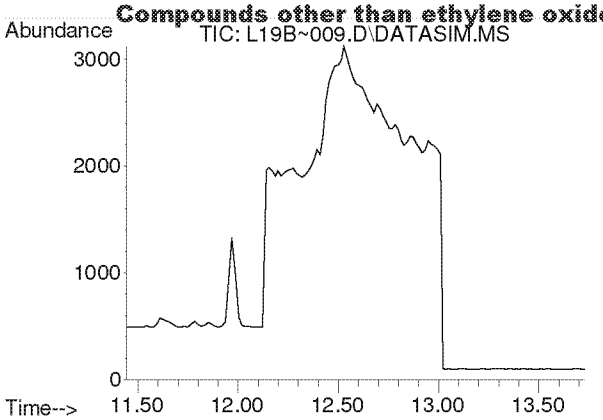
Ion	Ratio	Lower	Upper
29	100		
15	27.7	16.0	24.0#
44	3971.3	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

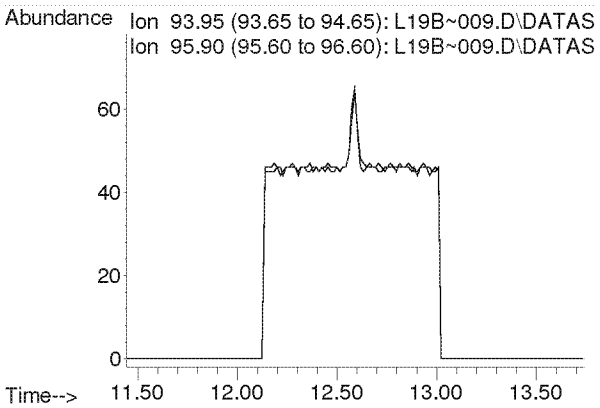


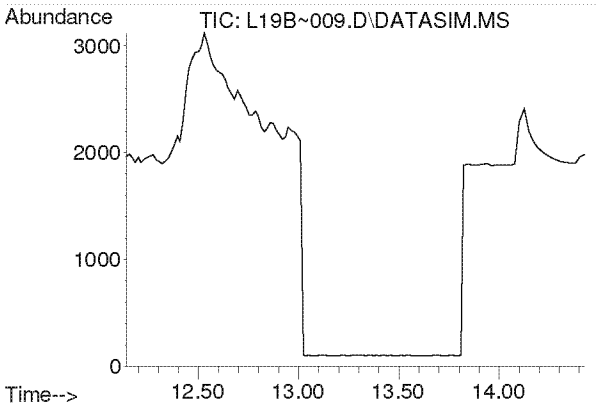
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



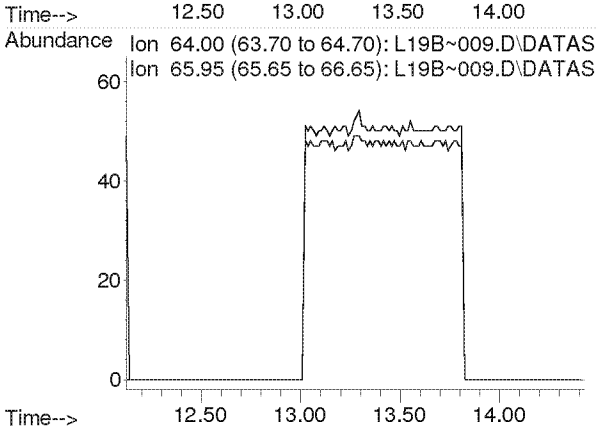


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

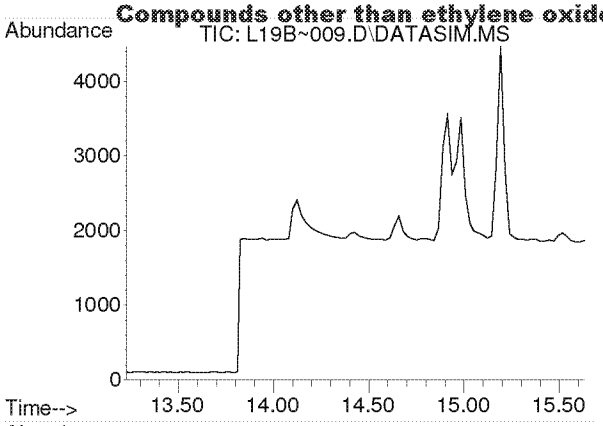
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

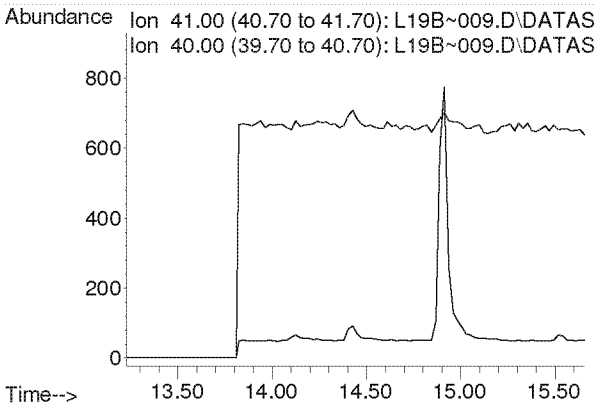


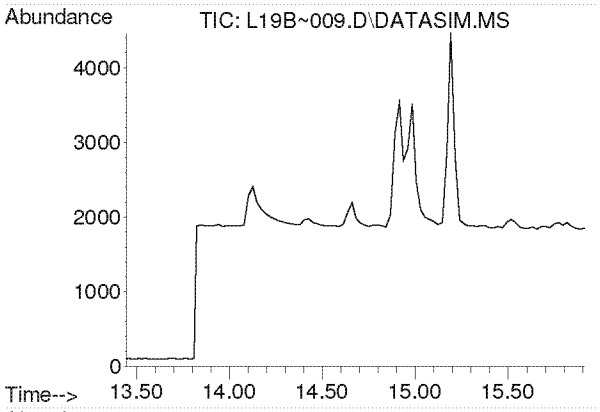
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



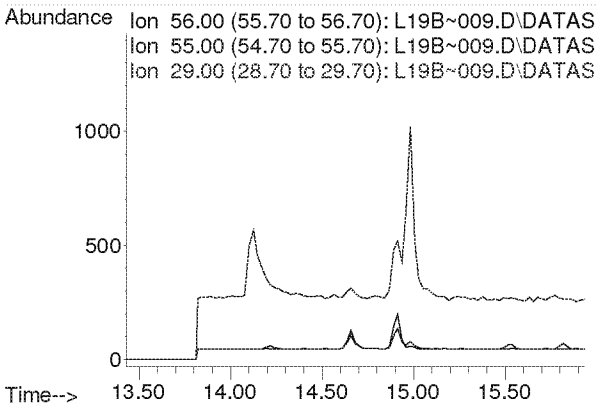


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

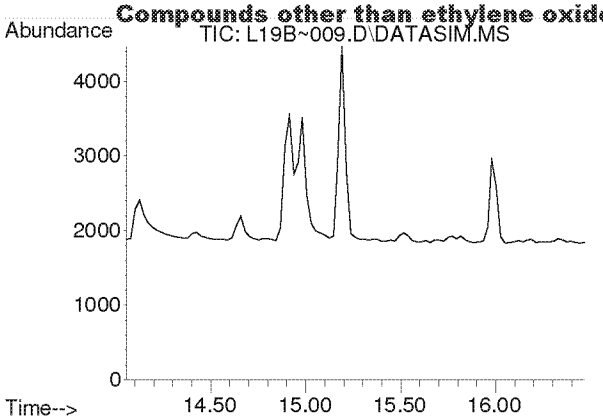
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

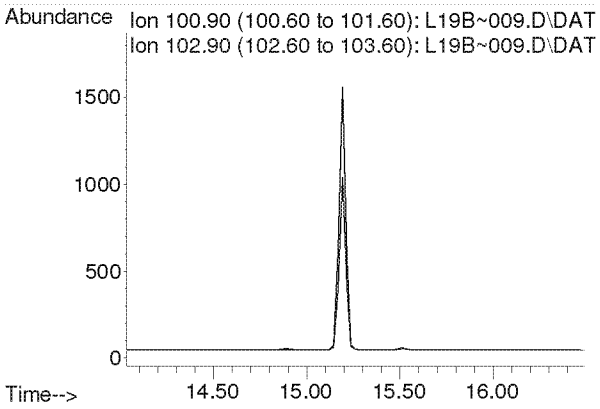


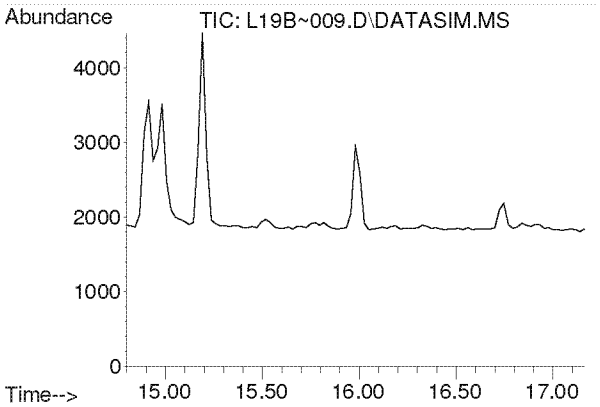
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



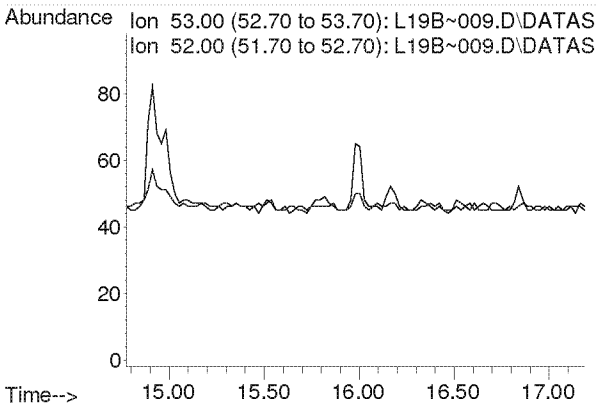


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

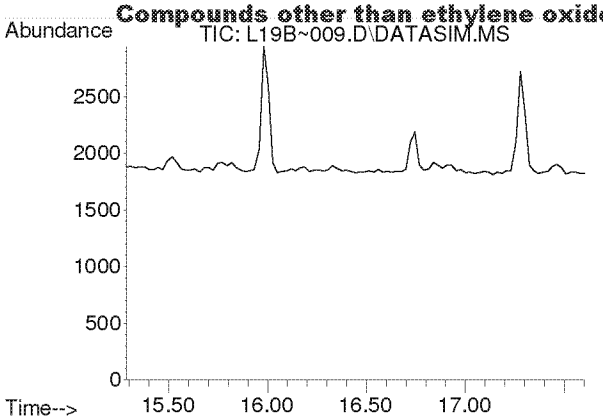
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

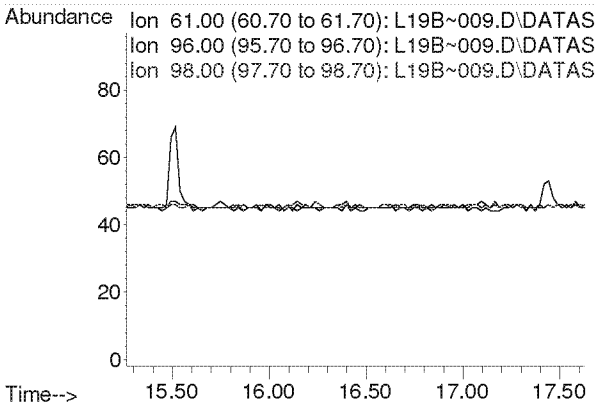


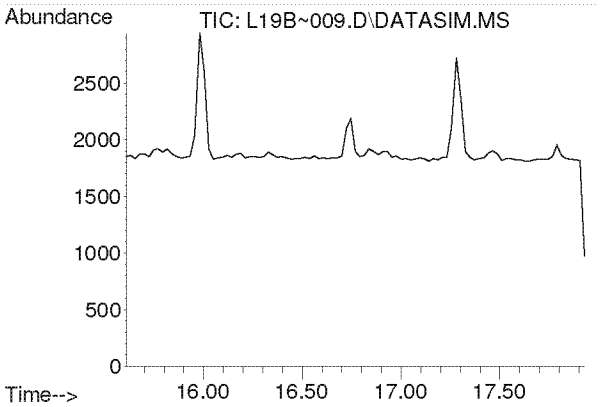
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



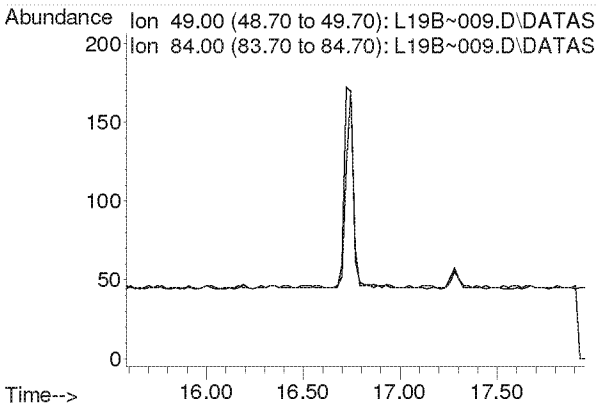


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

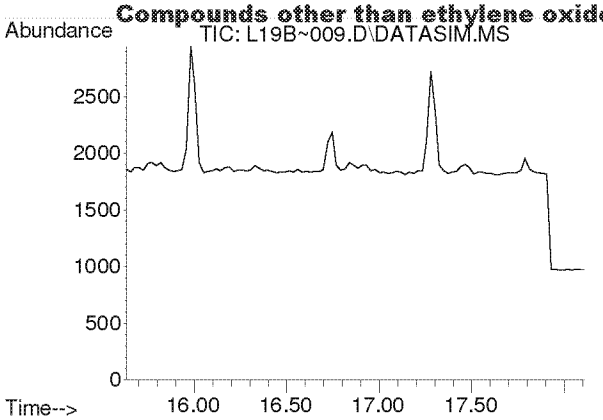
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

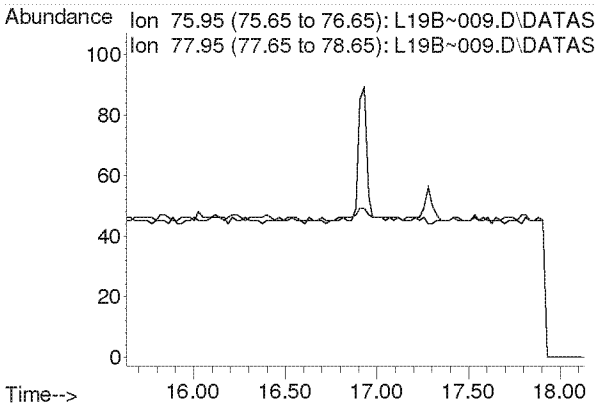


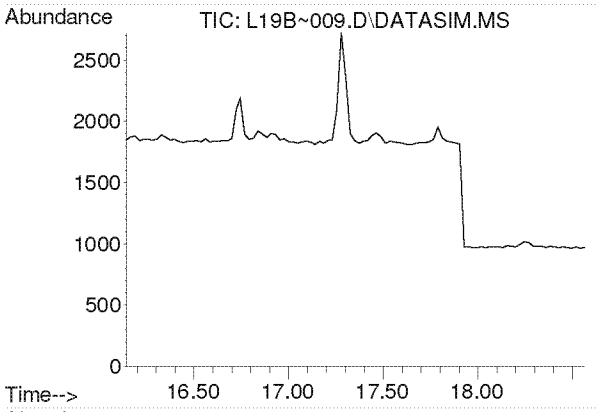
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



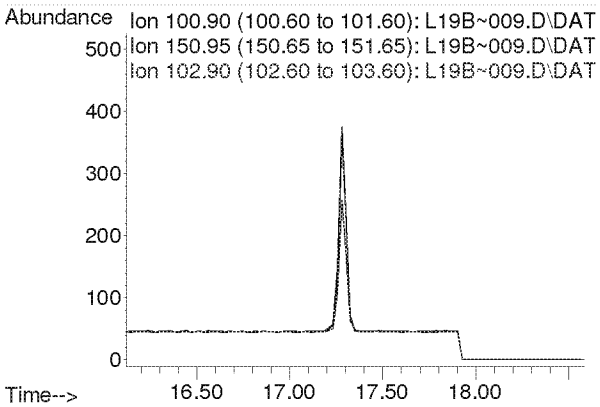


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

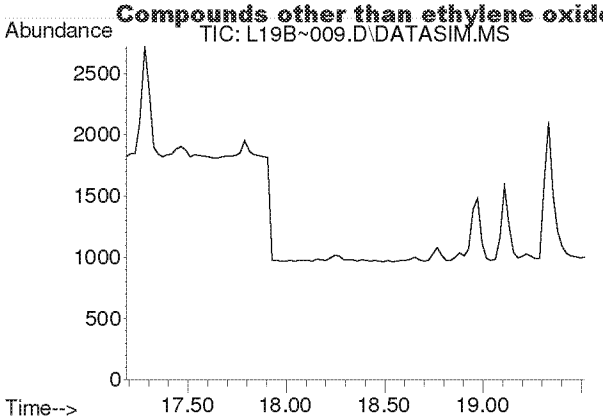
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

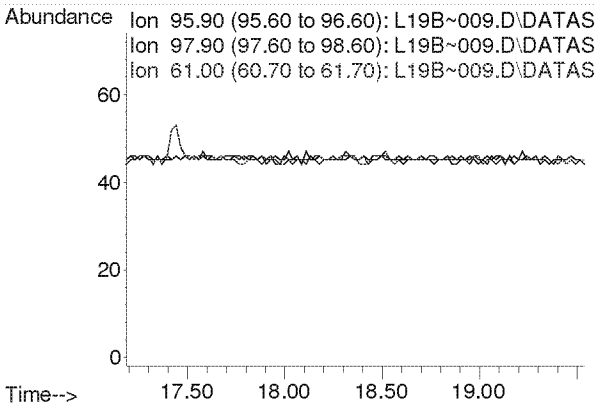


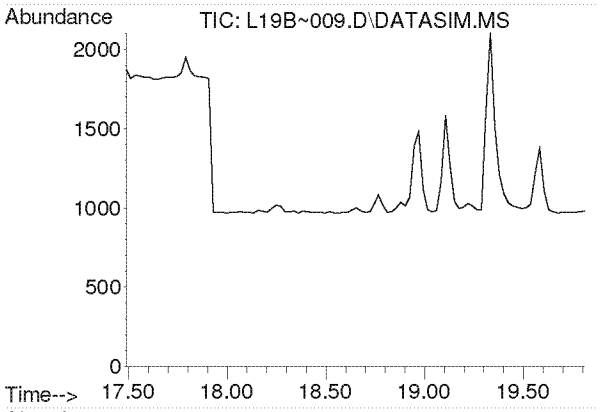
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



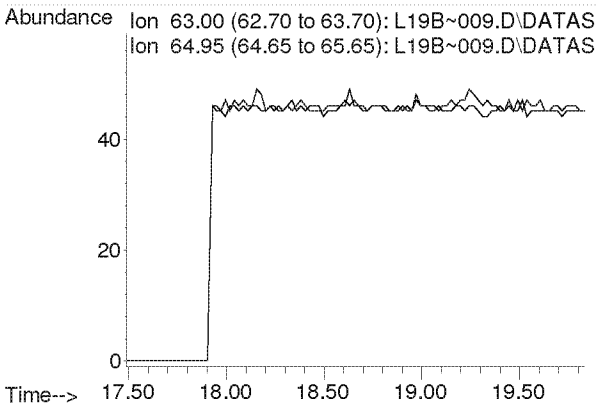


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

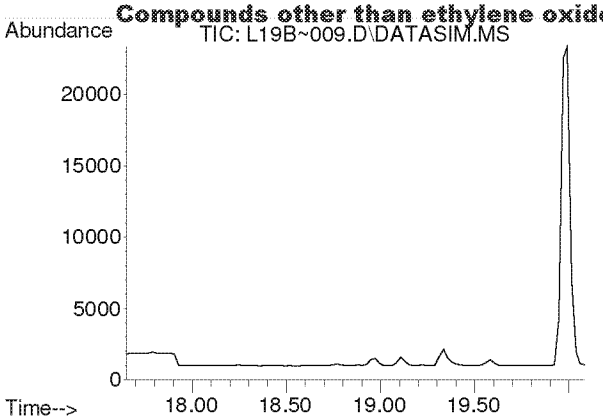
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

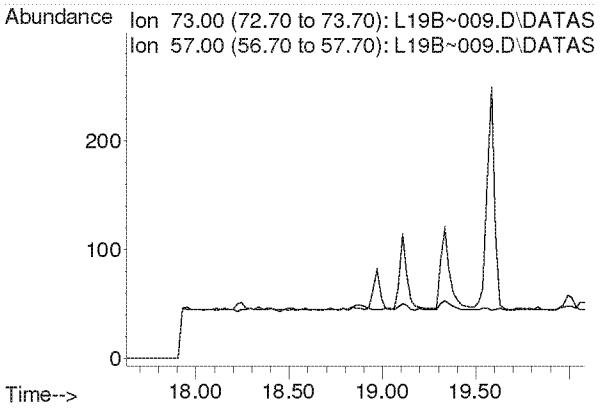


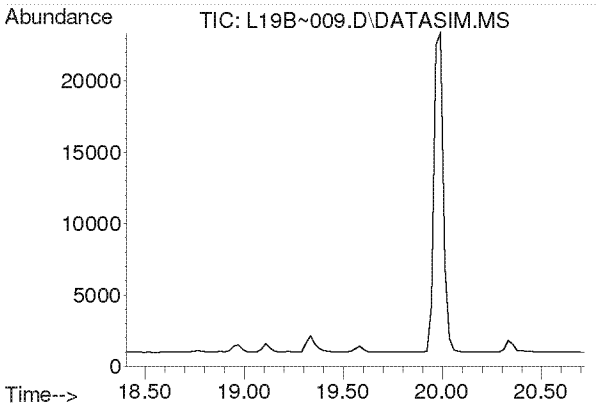
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



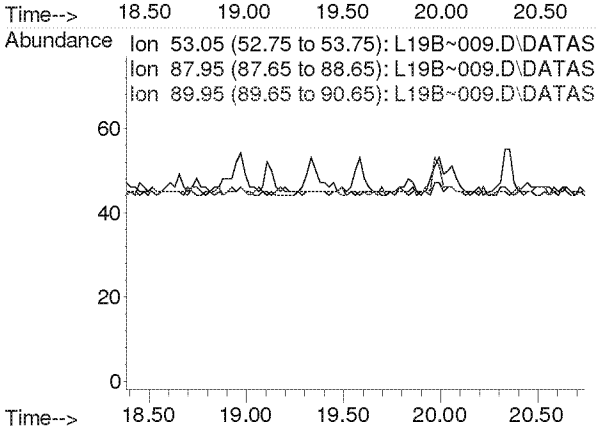


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

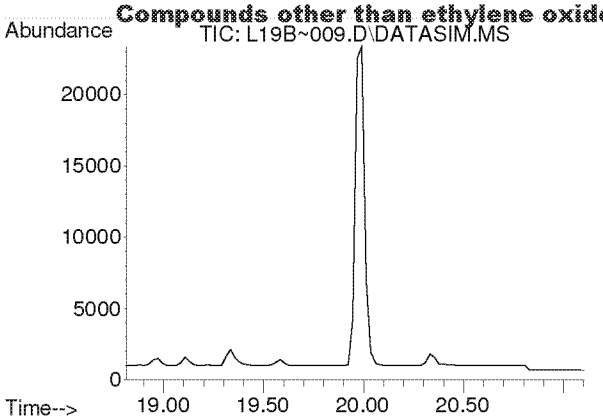
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

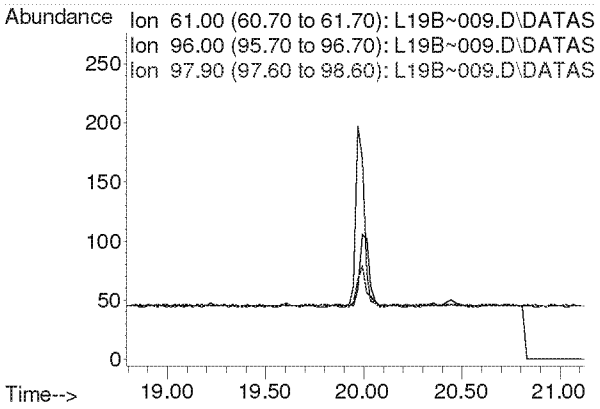


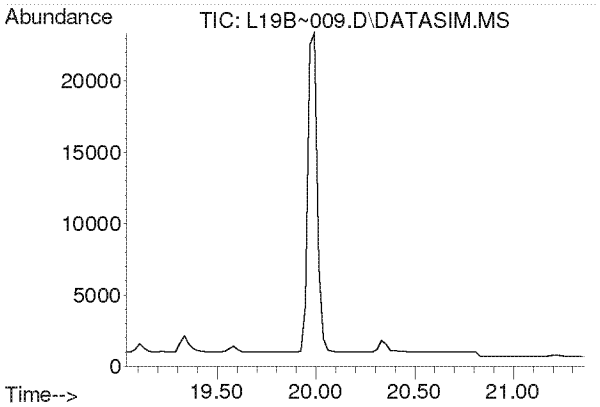
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



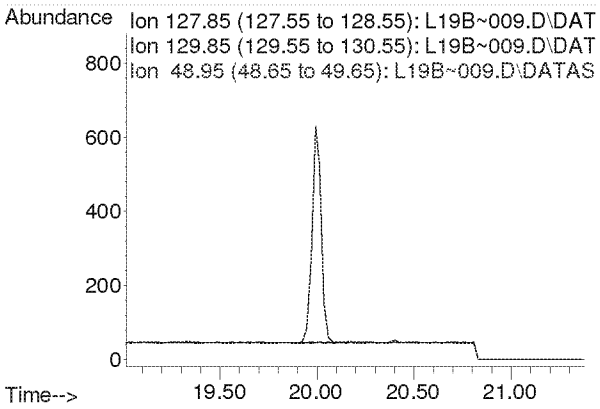


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

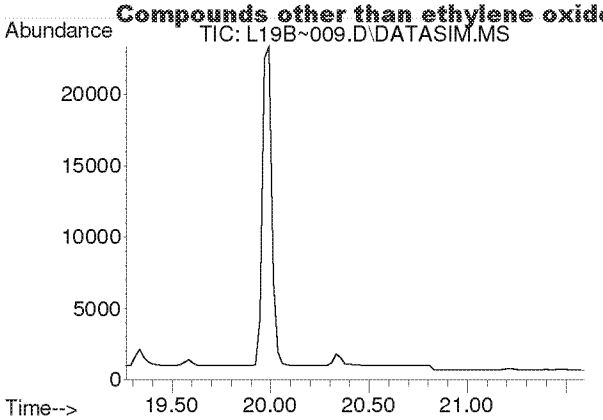
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

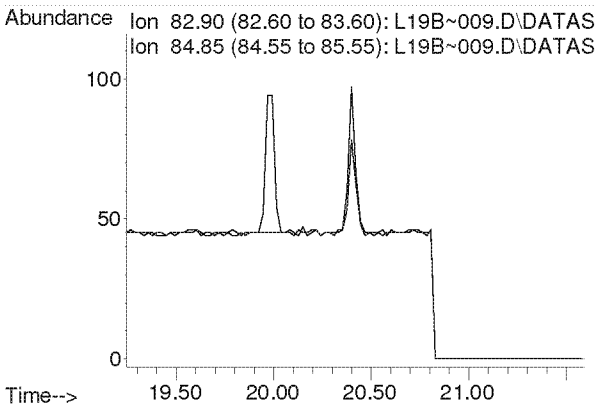


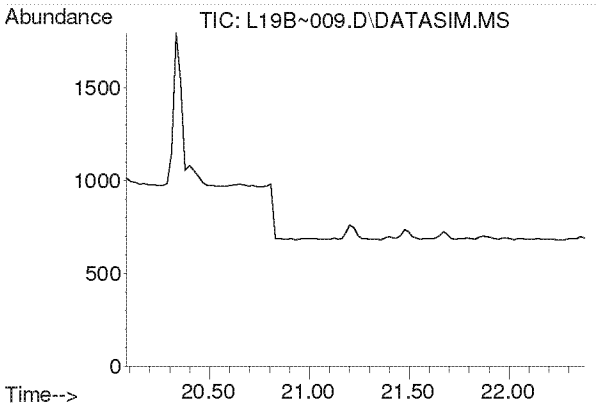
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



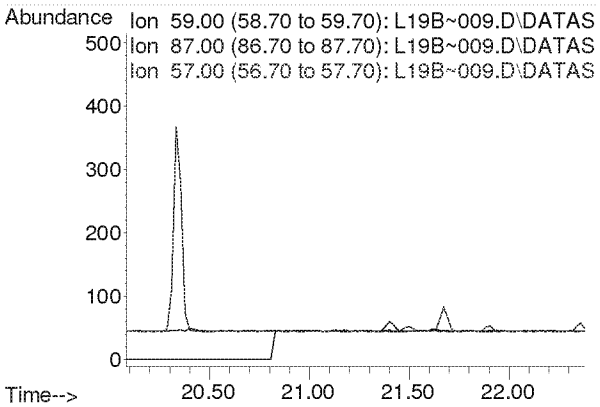


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

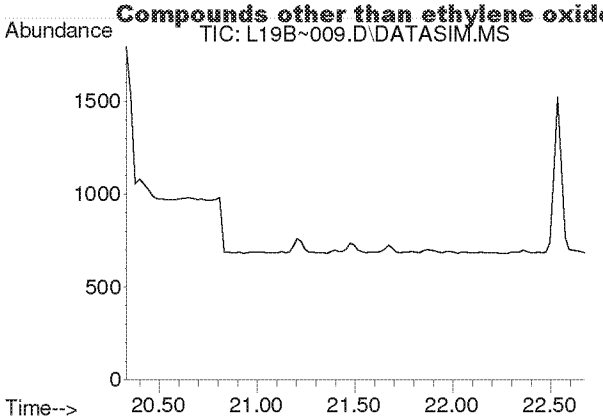
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

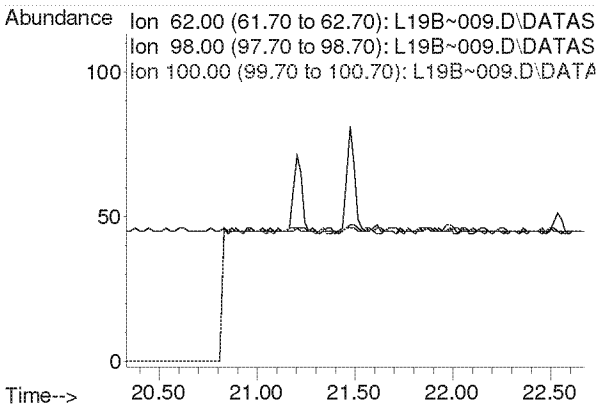


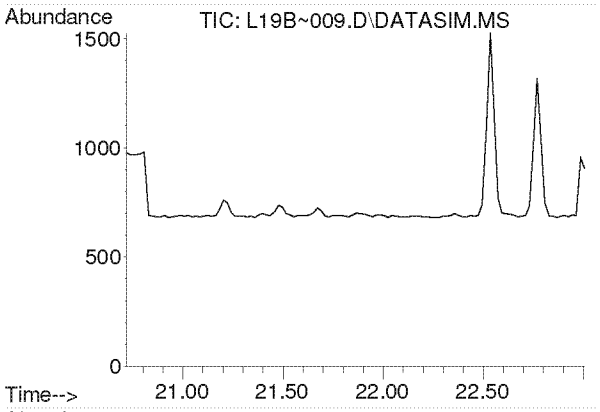
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



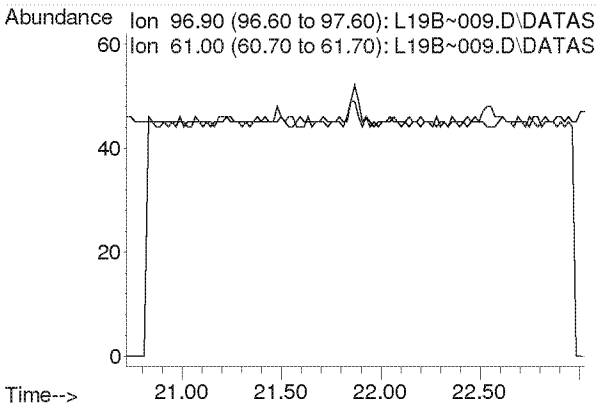


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

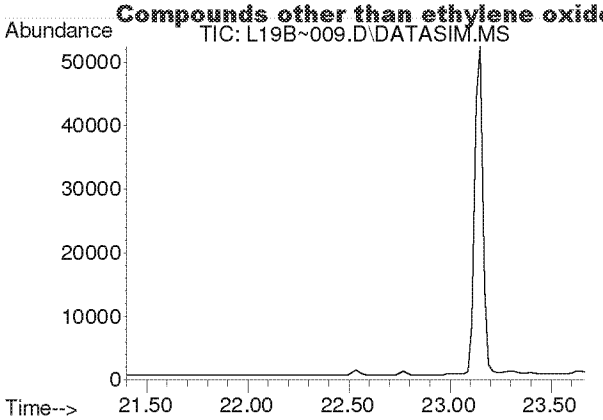
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

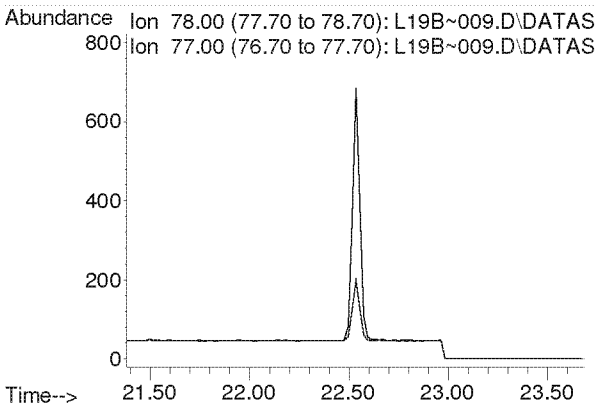


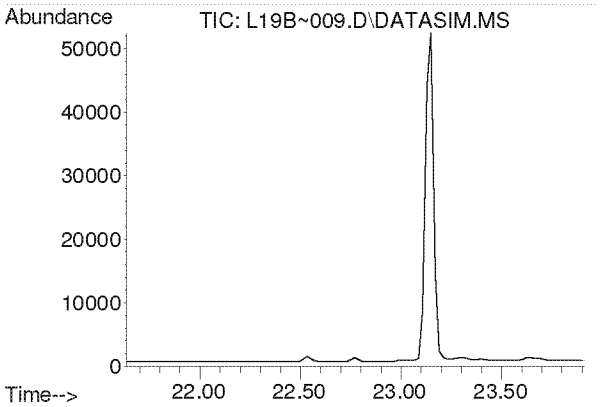
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



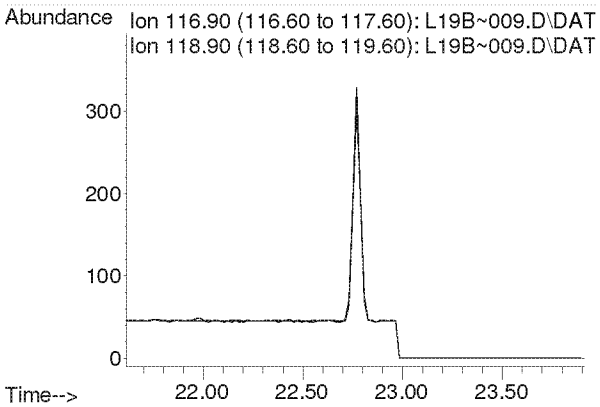


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

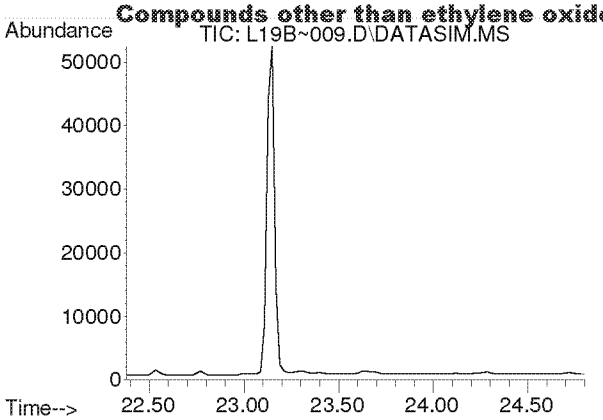
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

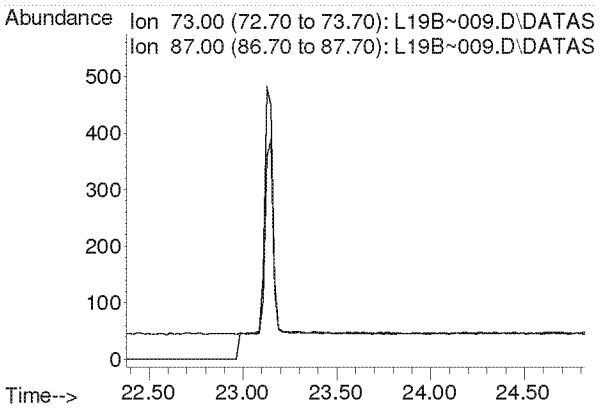


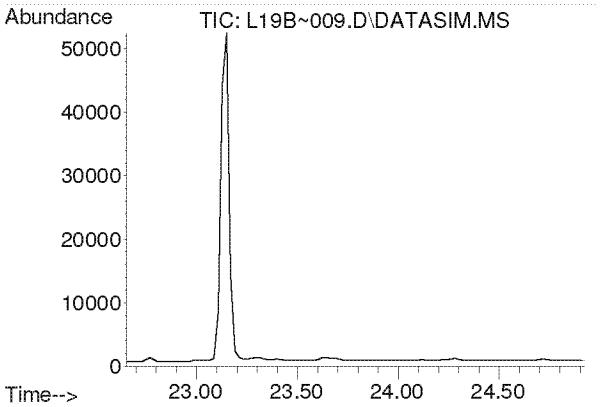
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



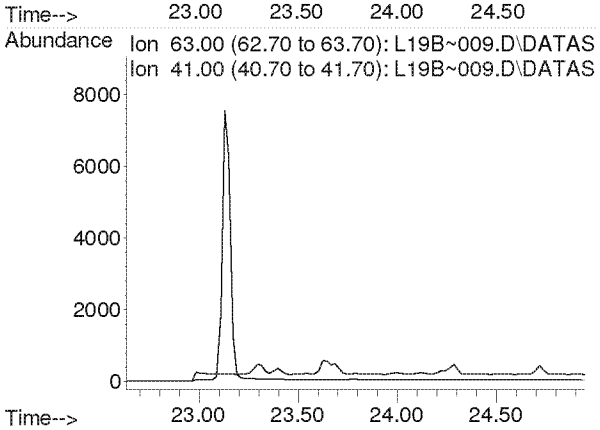


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

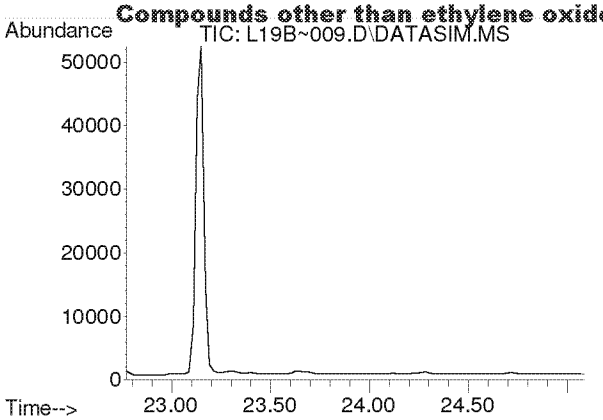
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

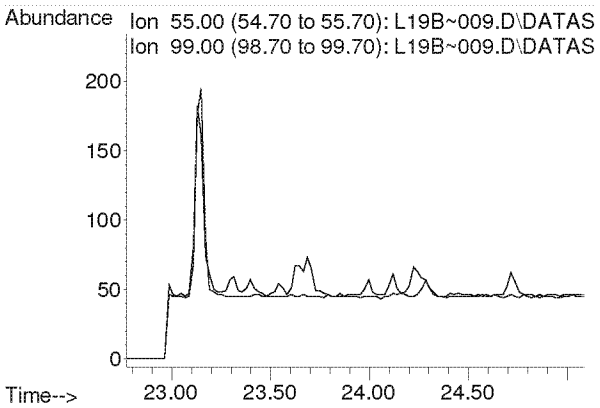


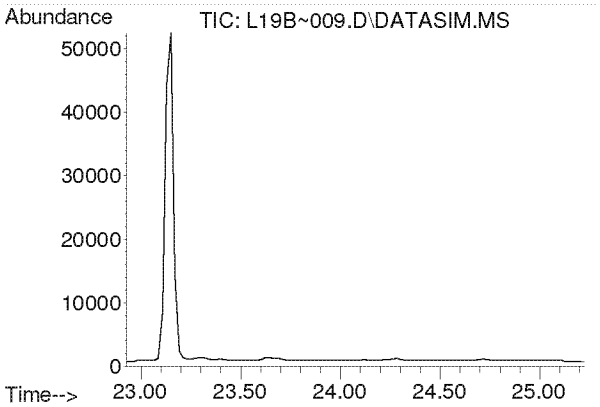
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



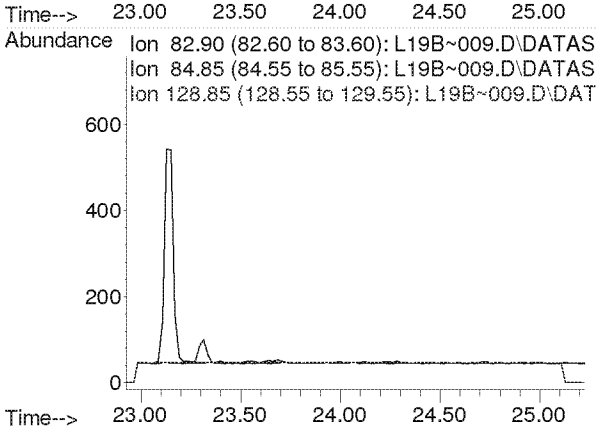


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

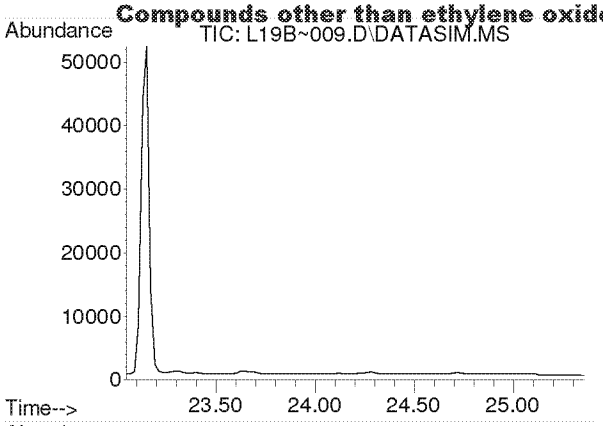
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

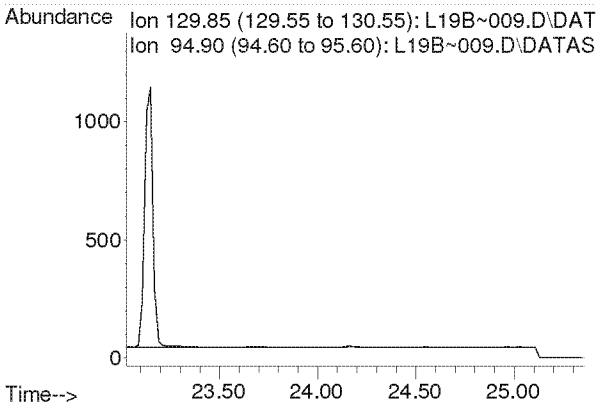


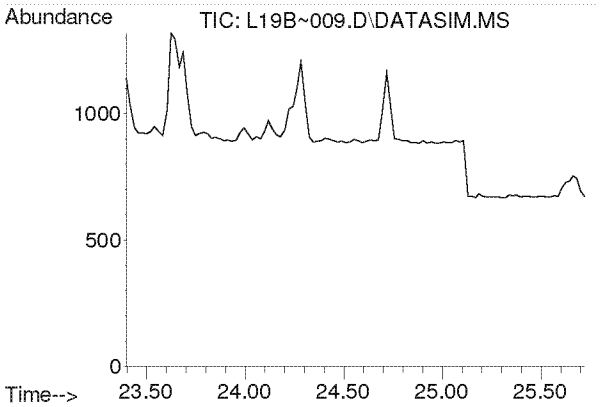
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



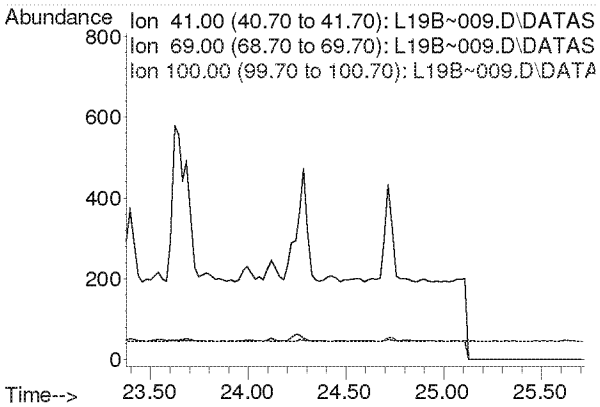


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

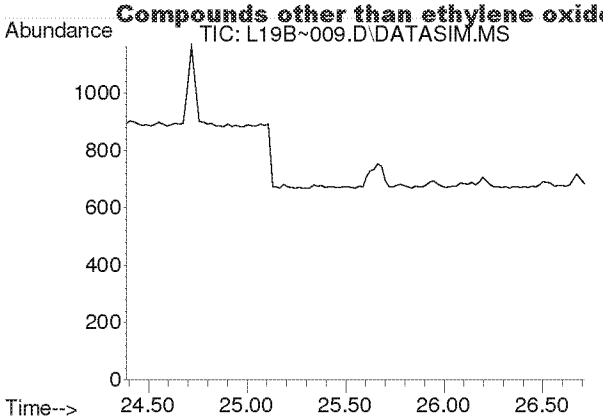
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

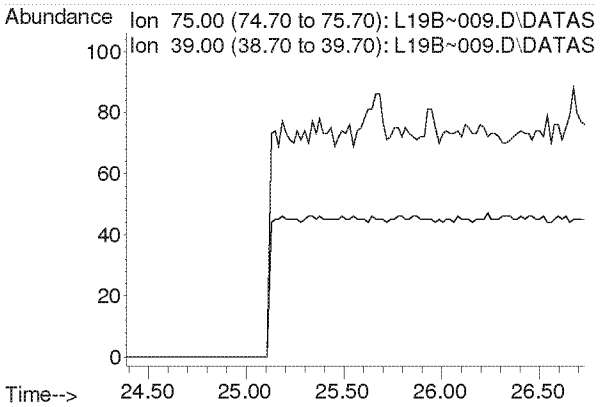


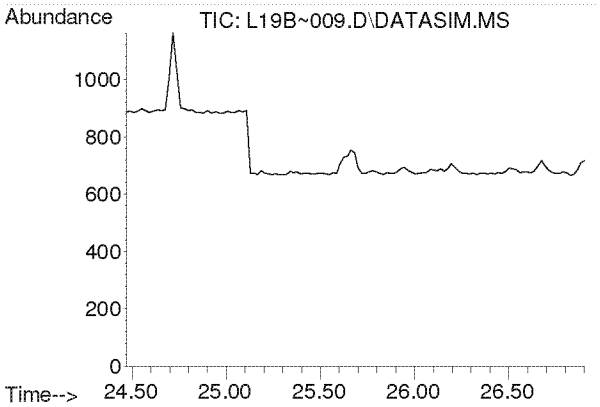
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



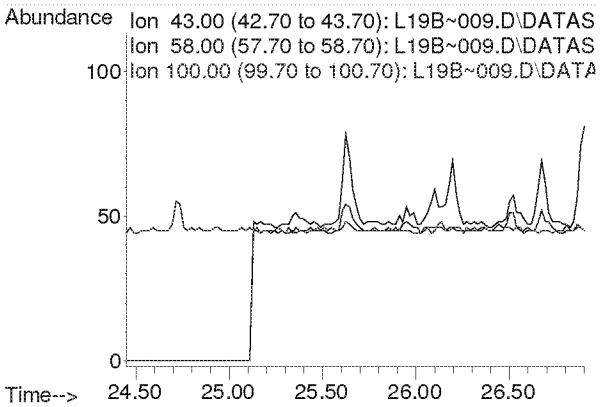


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

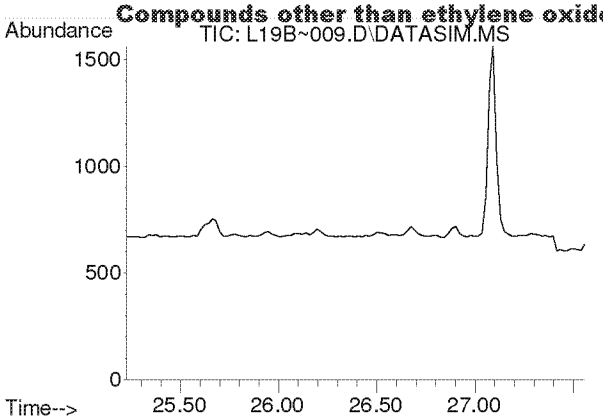
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

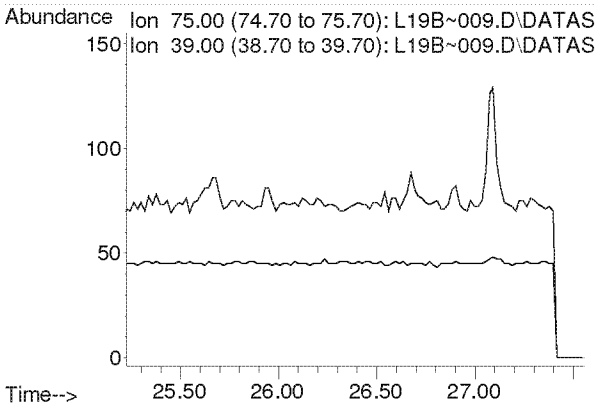


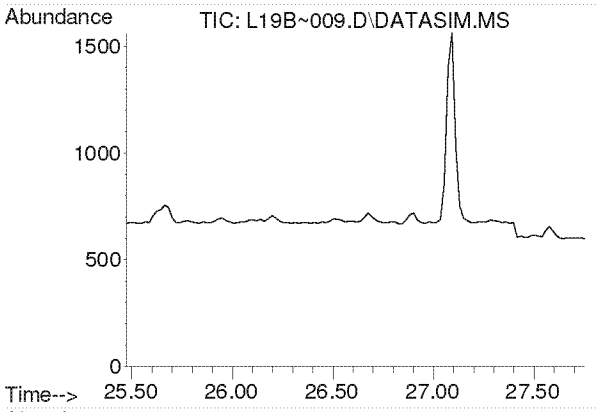
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



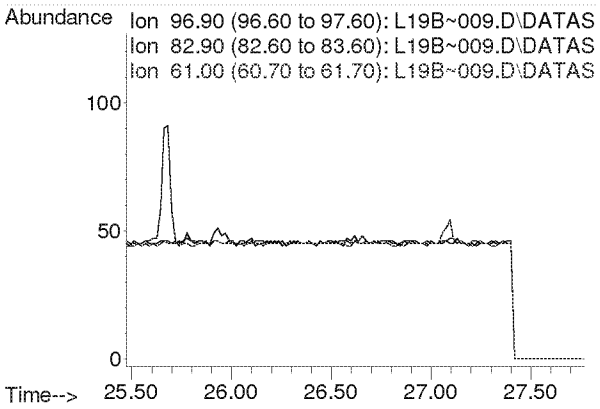


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

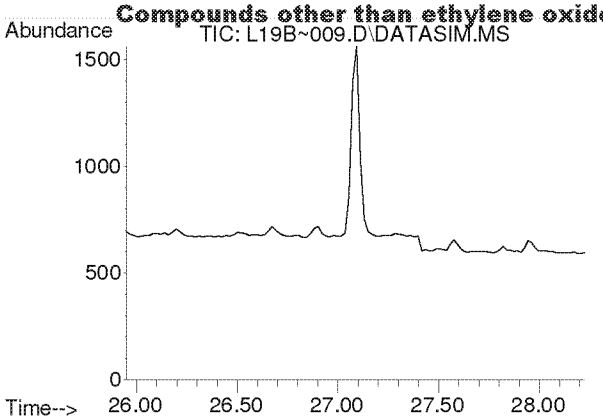
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

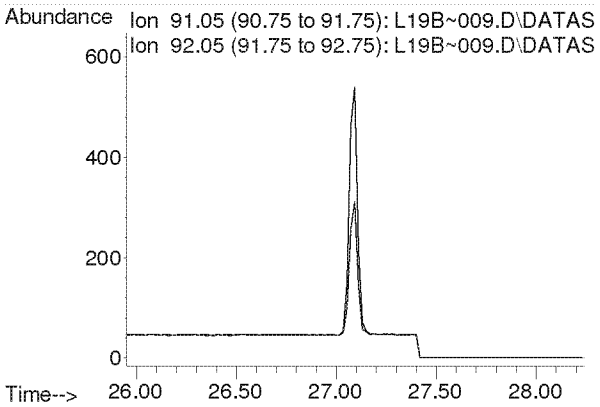


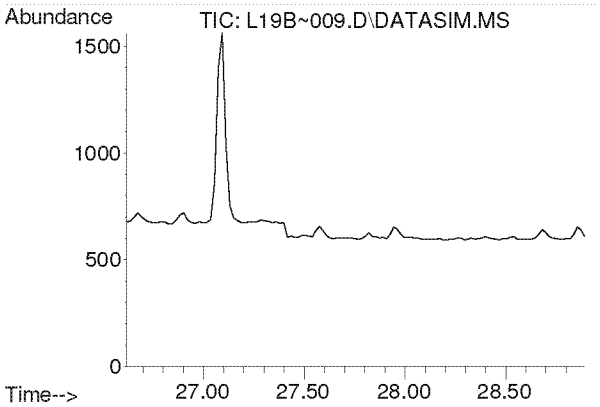
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



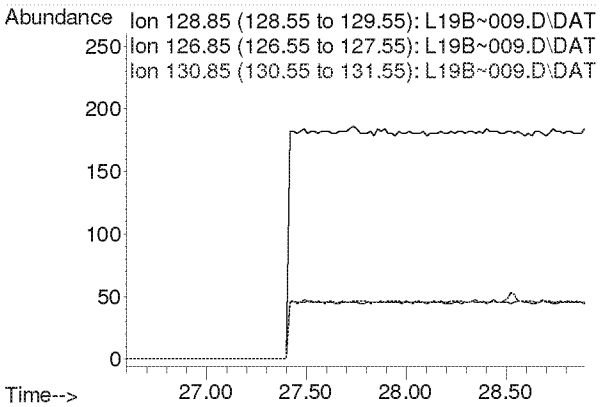


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

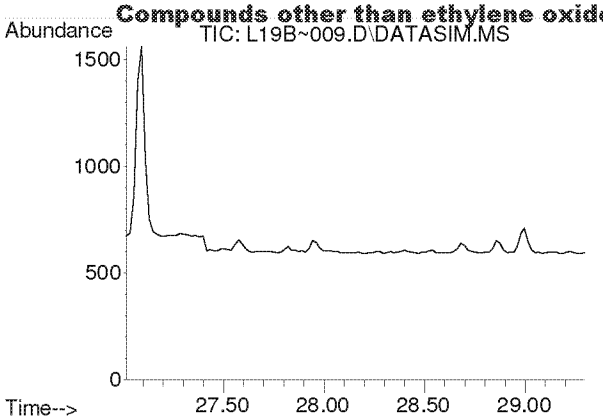
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

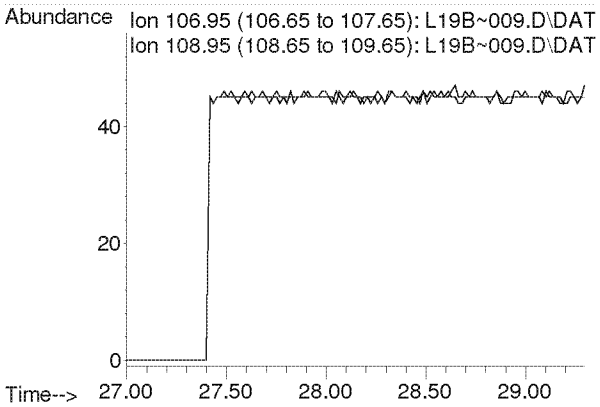


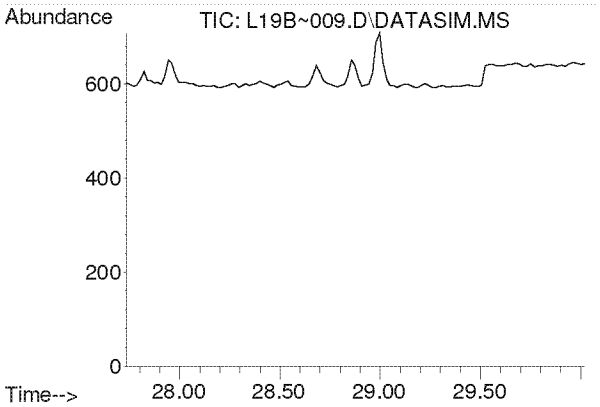
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



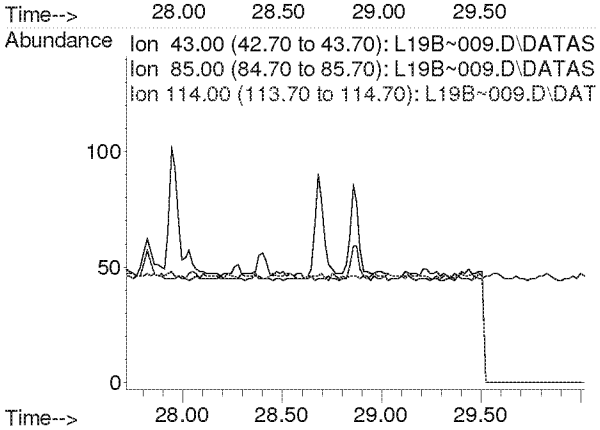


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

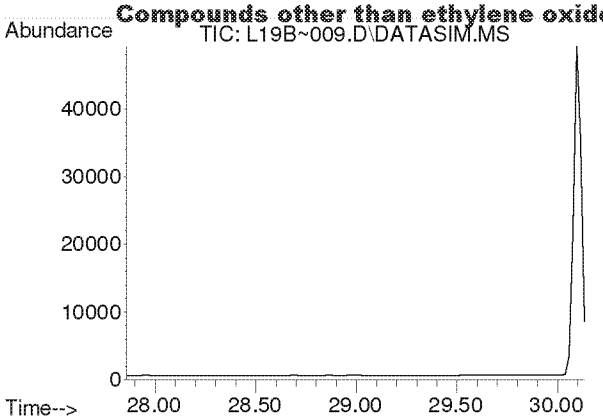
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

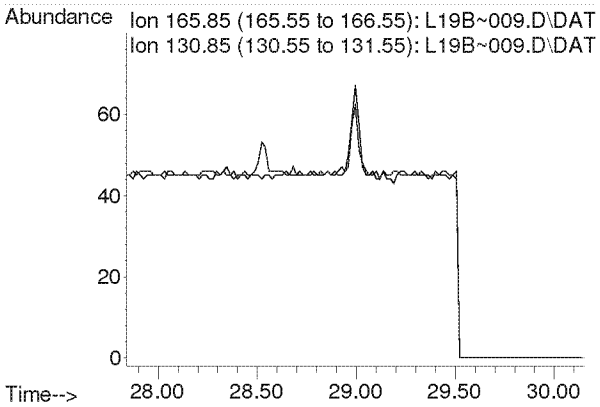


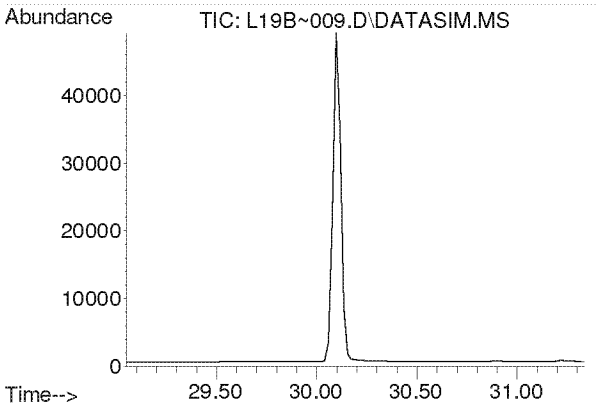
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



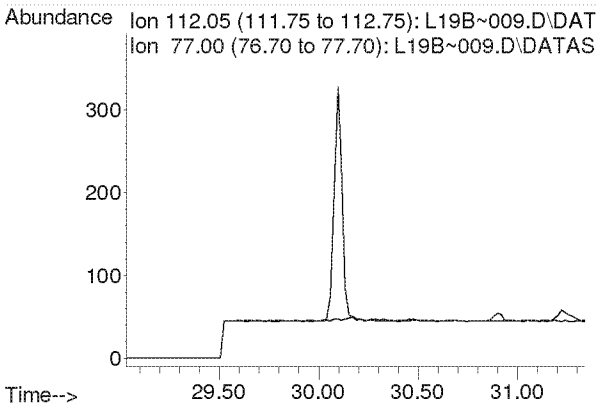


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

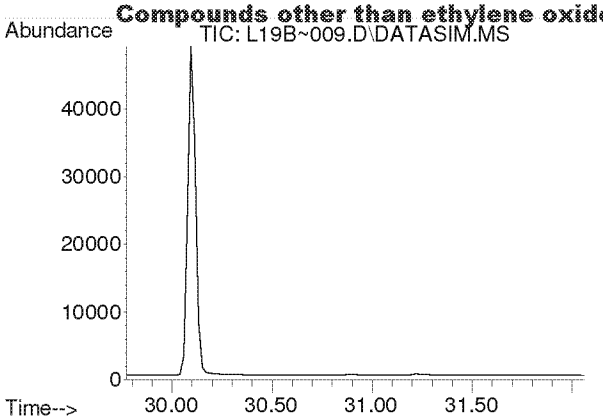
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

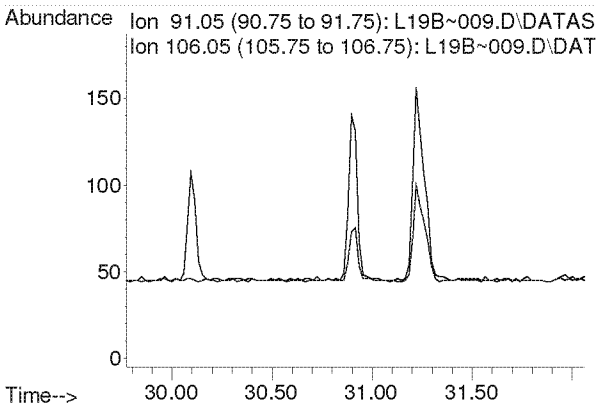


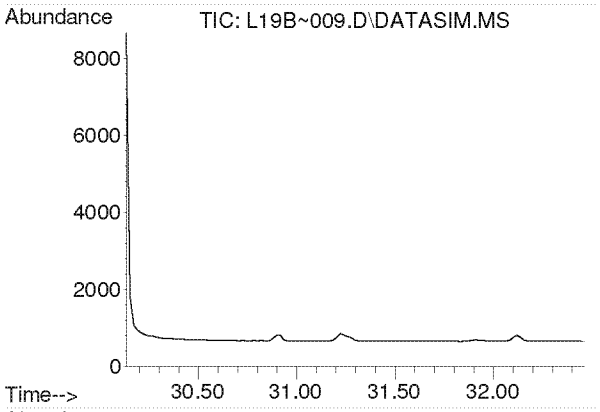
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



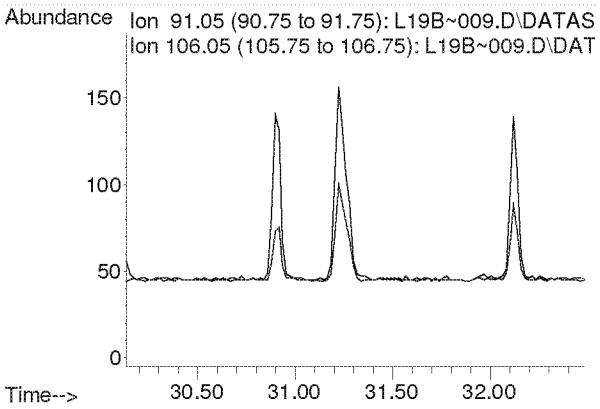


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

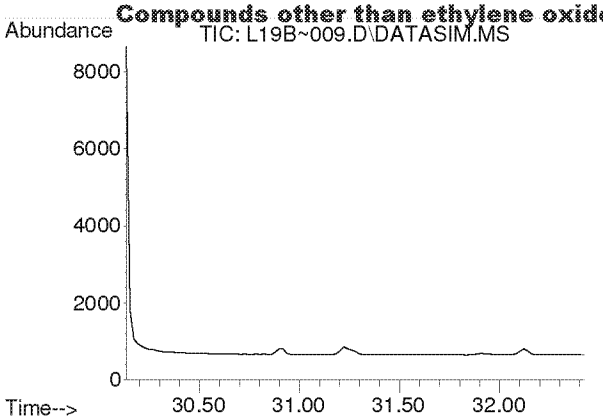
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

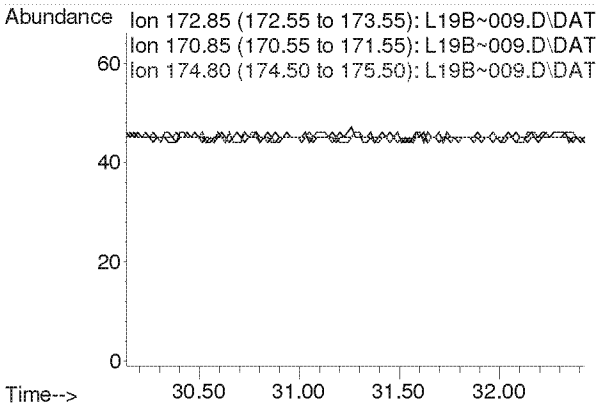


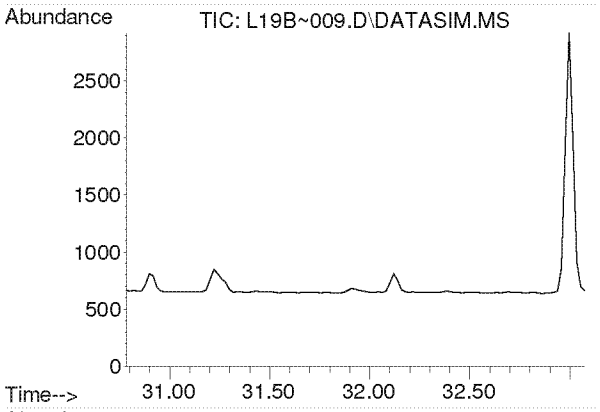
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



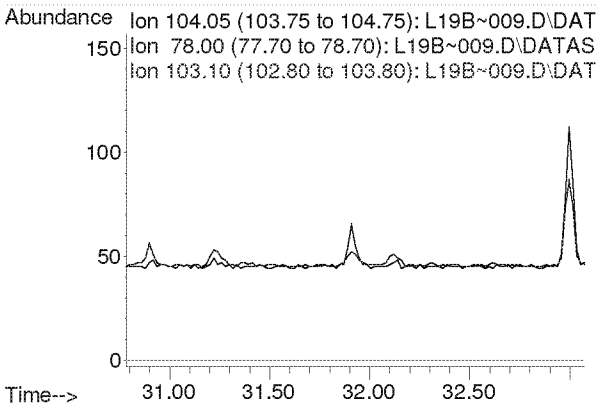


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

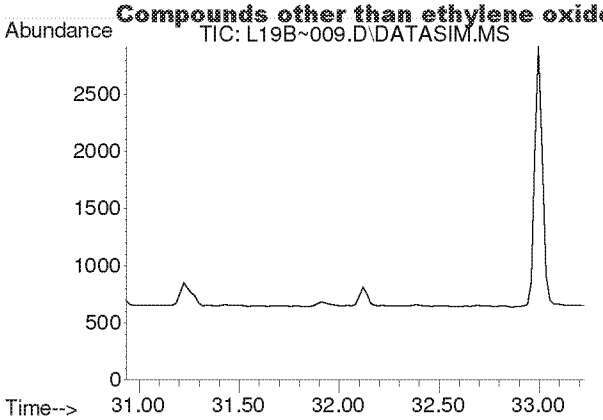
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

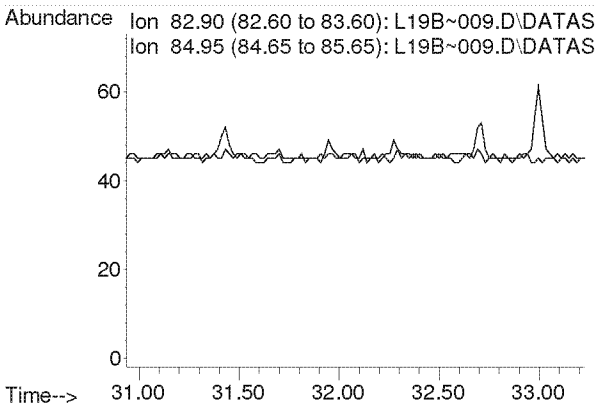


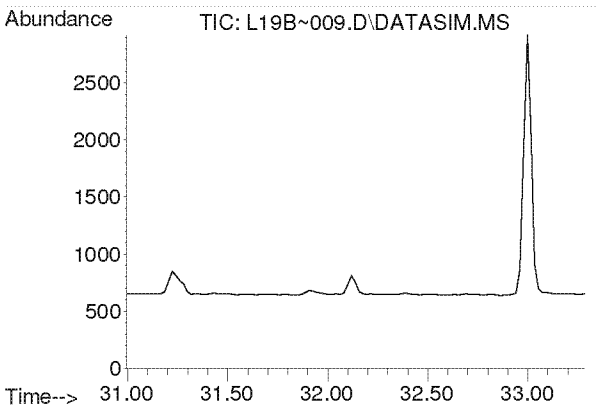
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



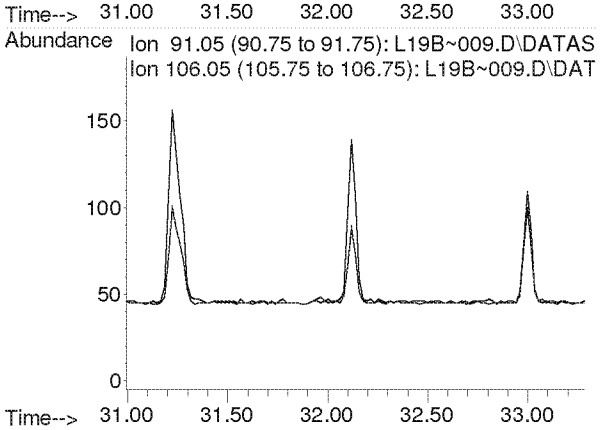


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

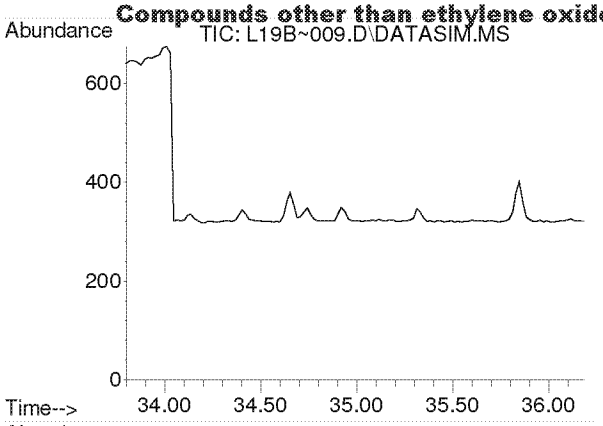
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

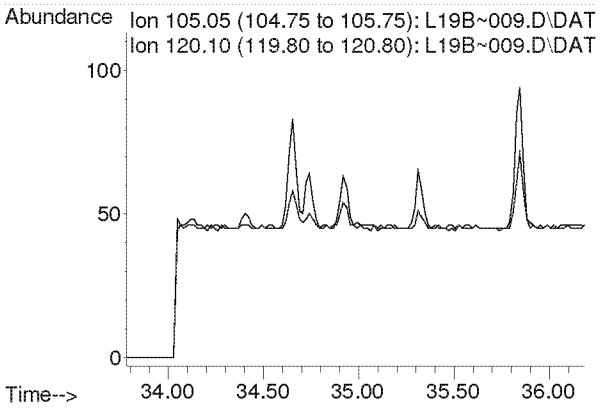


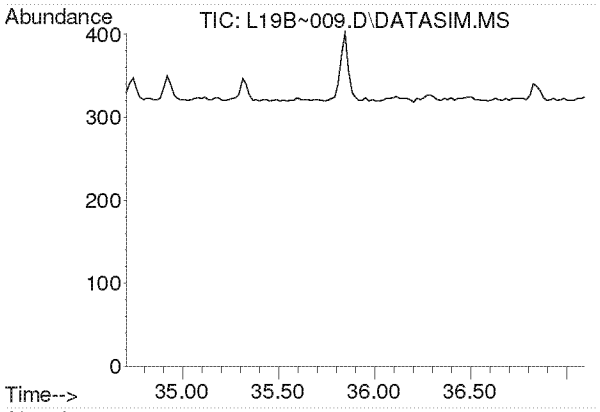
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



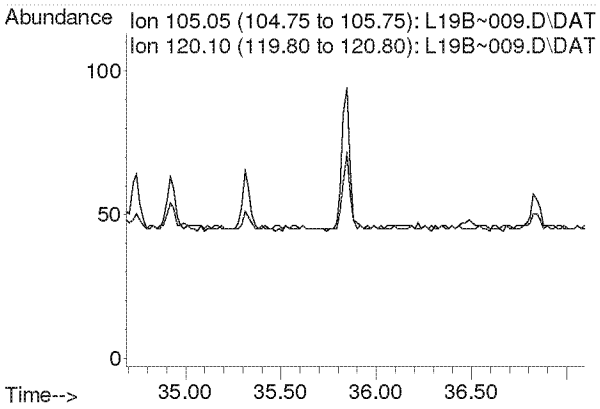


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

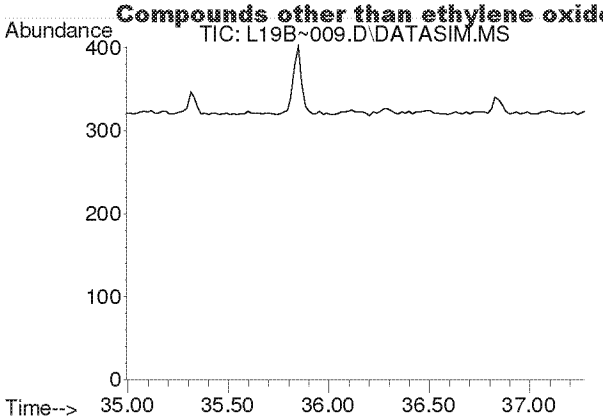
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

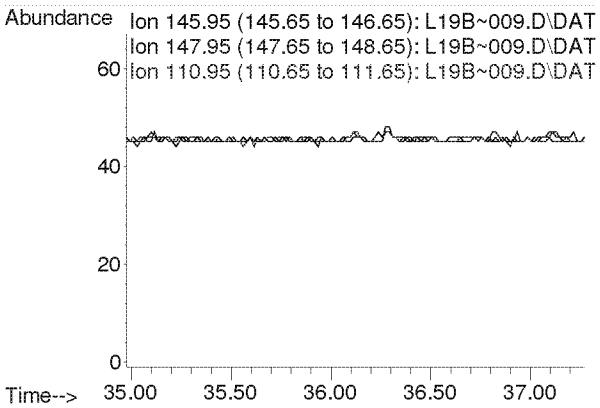


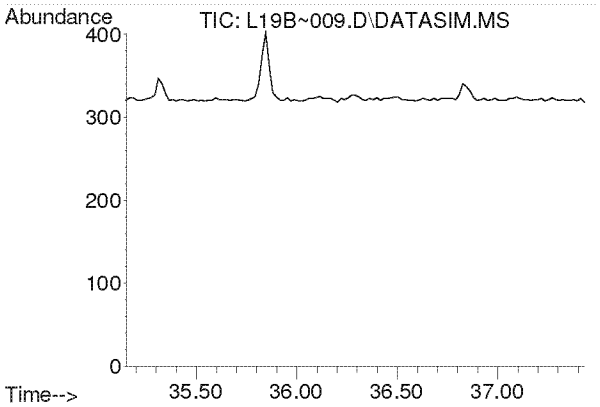
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



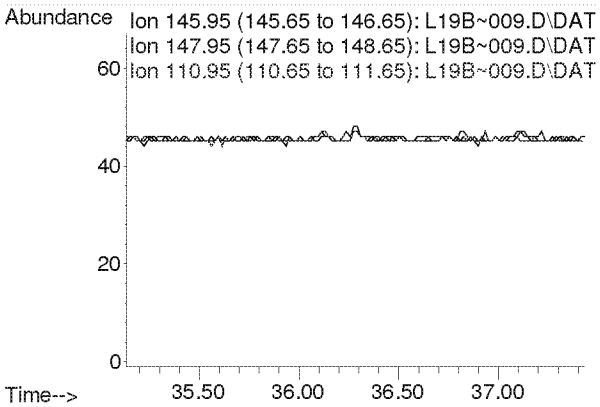


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

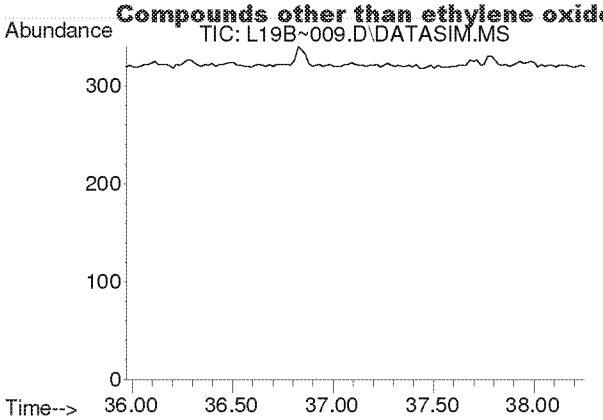
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

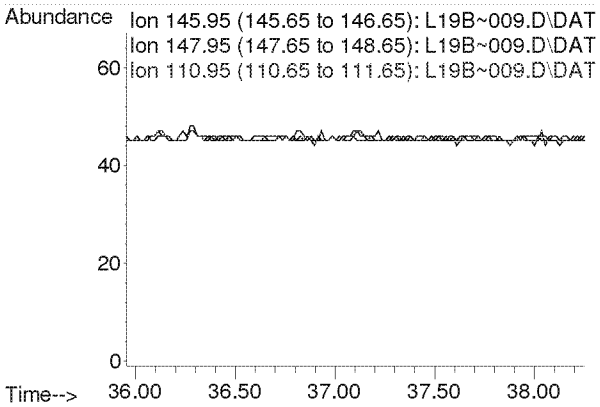


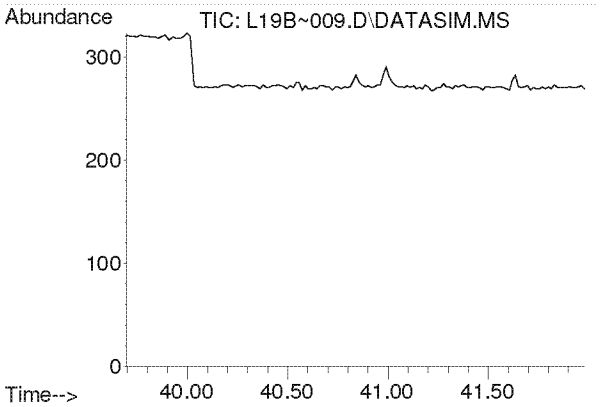
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



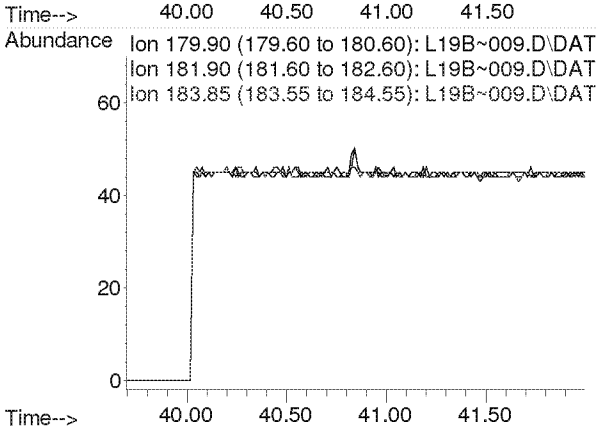


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

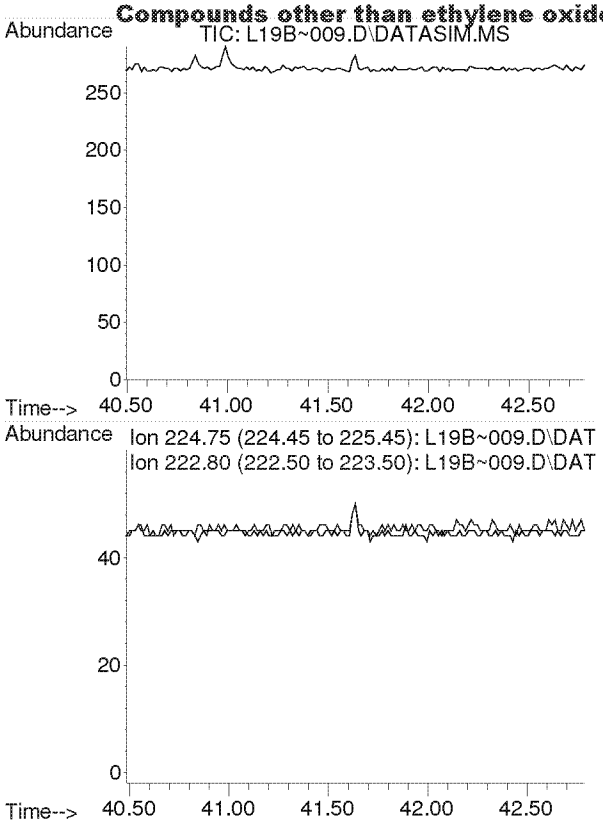
Lab File: L19B~009.D
Acq: 27 Feb 2019 7:29 pm

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: L19B~009.D
Acq: 27 Feb 2019 7:29 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		L19B-010.D	L19B-011.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022616-01	9022616-02		
Mics Comments		EPA WB WAREHO	EPA WB WAREHOUSE C2 2/22/19		
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	0	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\EPA WB WAREHOUSE 2_22_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		L19B~010.D	L19B~012.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022616-01	B9B2705-DUP3		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R1 2/22/19		
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	0	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		L19B~011.D	L19B~013.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022616-02	B9B2705-DUP4		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R2 2/22/19		
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	0	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~010.D
Acq On : 27 Feb 2019 8:31 pm
Operator : MAH
Sample : 9022616-01
Misc : EPA WB WAREHOUSE C1 2/22/19
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 05 06:44:51 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

1-5-19

EPT only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	42943	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	103475	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	75654	4.7400 ppbv	0.00

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	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
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\L19B~\
Data File : L19B~010.D
Acq On : 27 Feb 2019 8:31 pm
Operator : MAH
Sample : 9022616-01
Misc : EPA WB WAREHOUSE C1 2/22/19
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 05 06:44:51 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

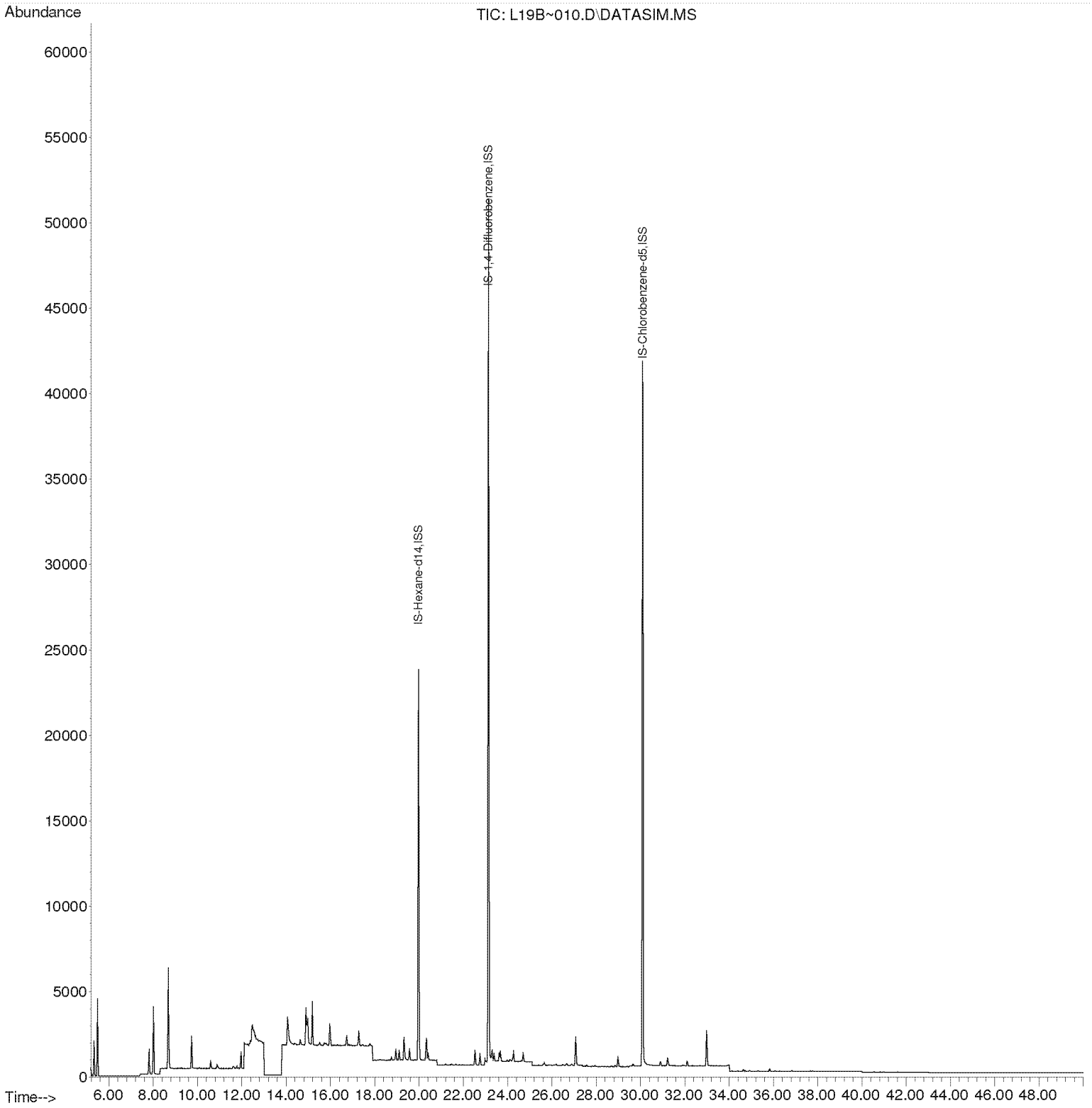
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

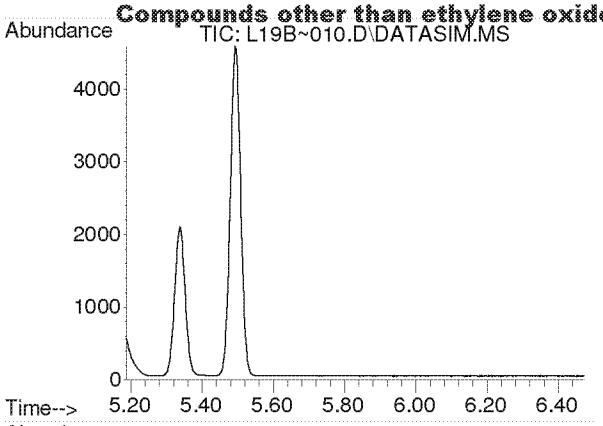
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~010.D
Acq On : 27 Feb 2019 8:31 pm
Operator : MAH
Sample : 9022616-01
Misc : EPA WB WAREHOUSE C1 2/22/19
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 28 12:54:06 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



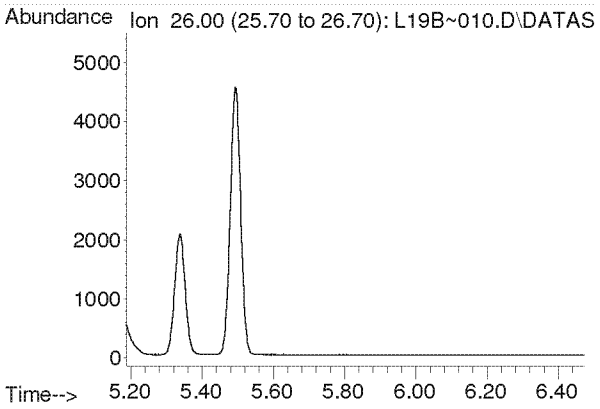
Compounds other than ethylene oxide were not quantitated.

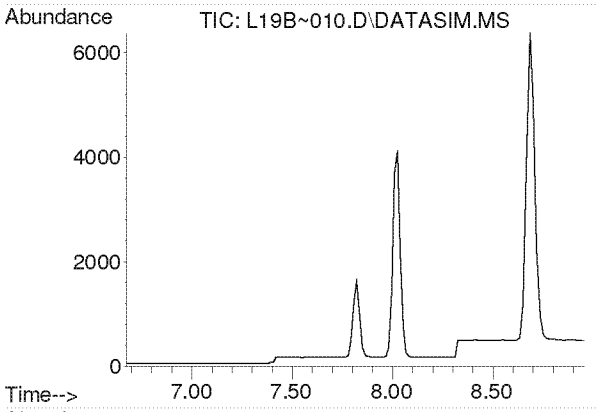


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 26



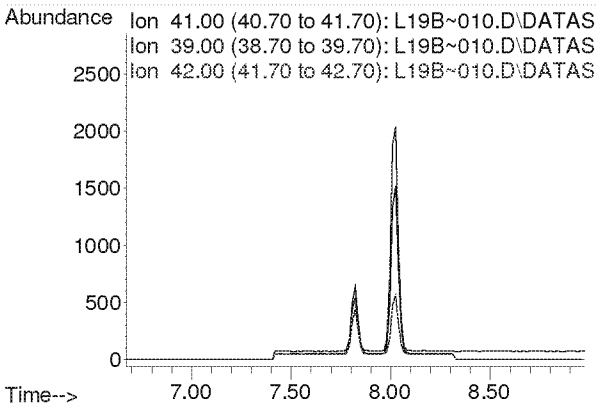


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

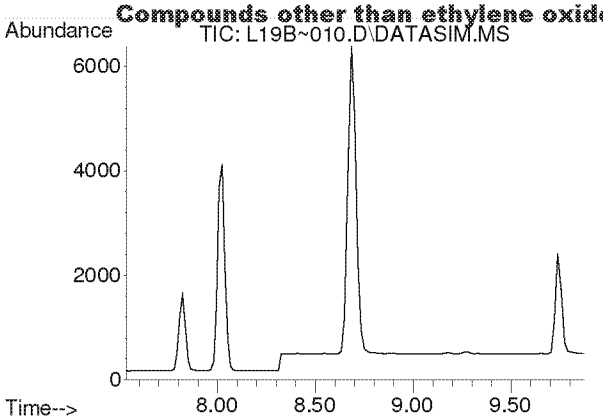
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

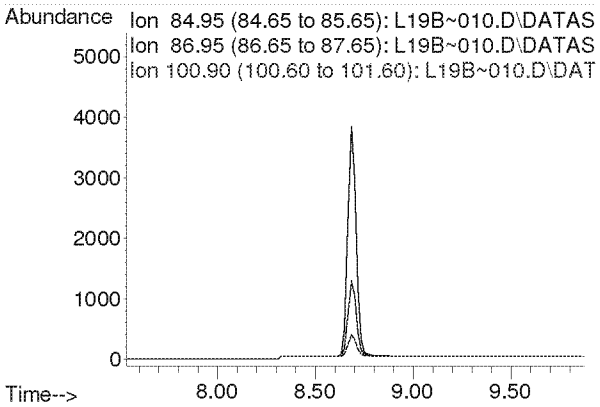


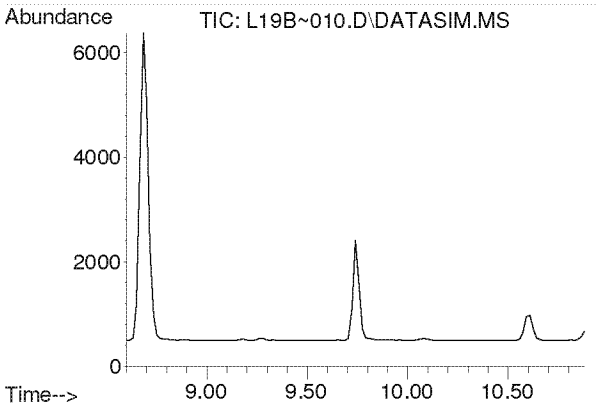
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



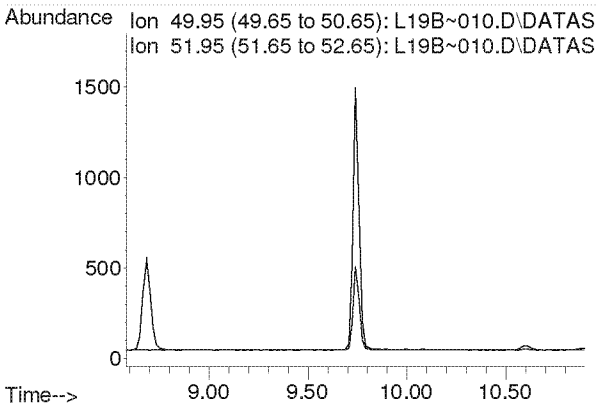


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

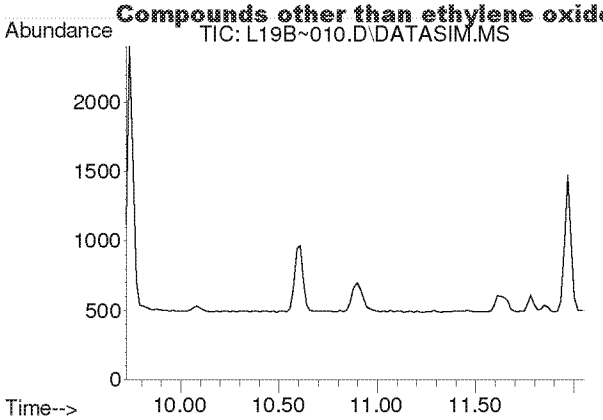
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

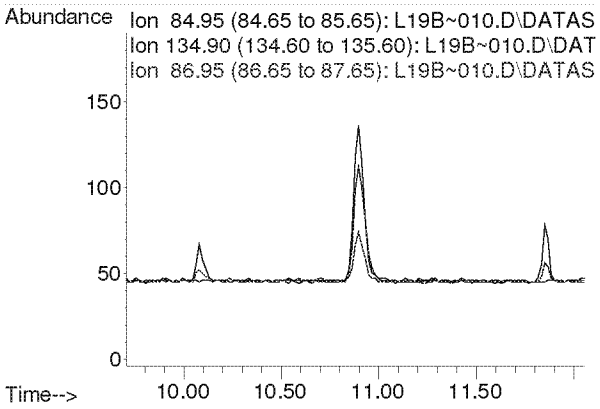


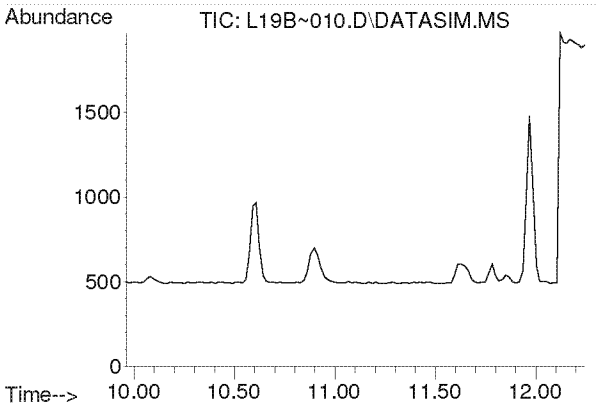
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



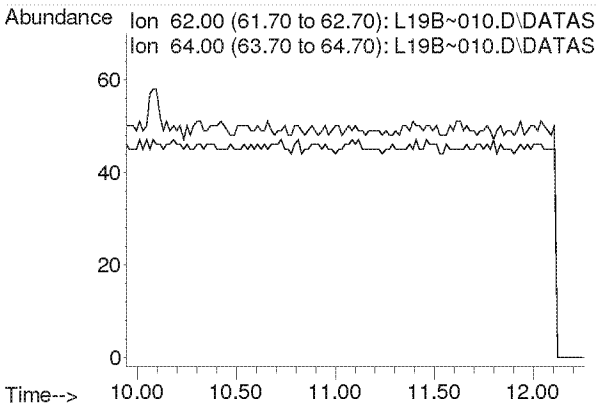


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

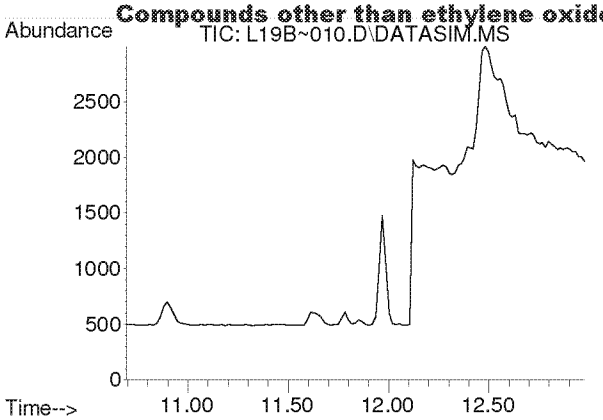
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

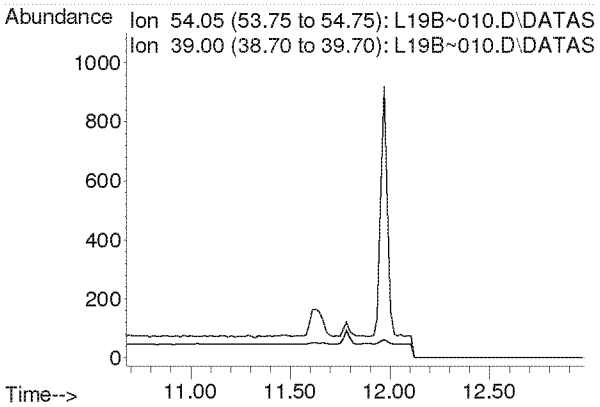


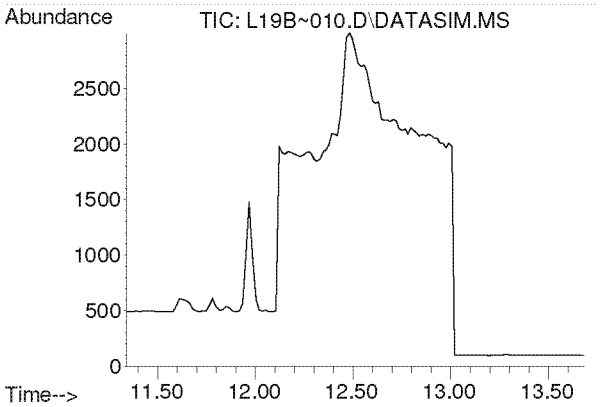
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



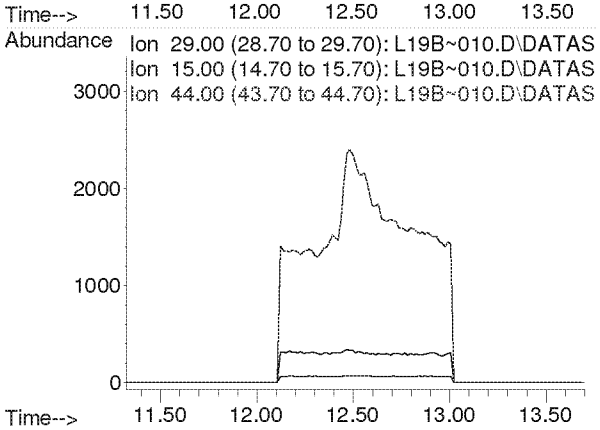


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

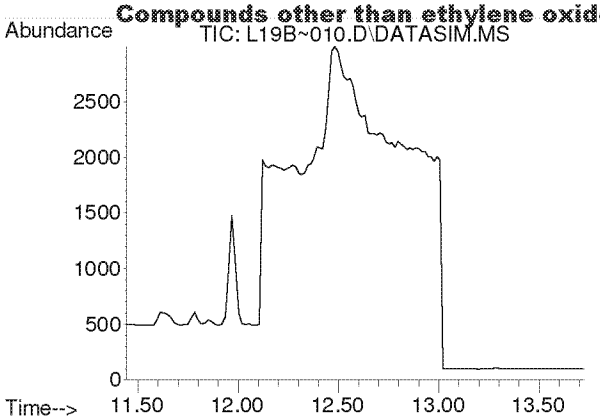
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

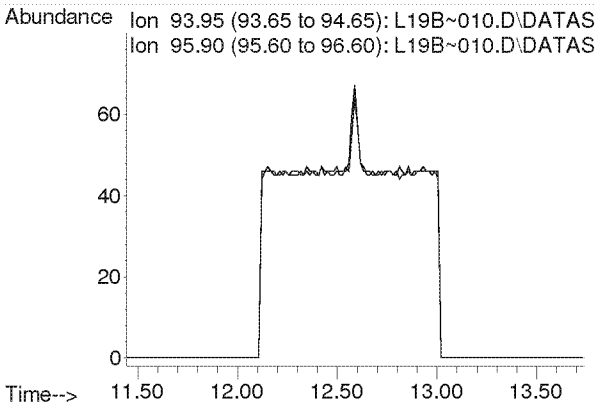


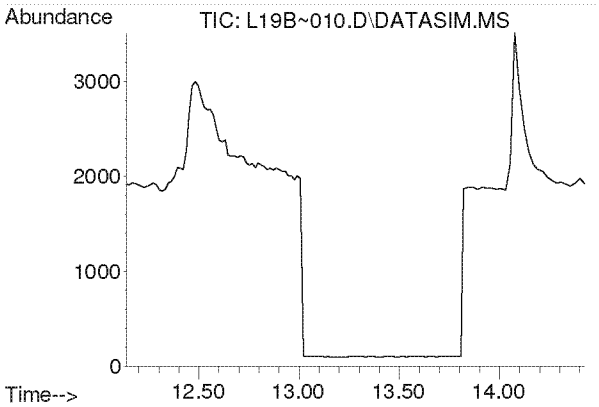
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



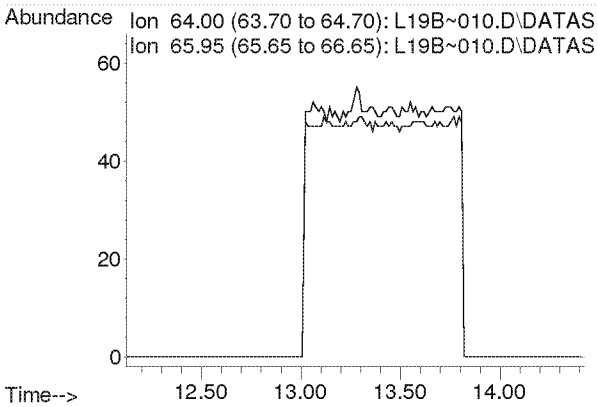


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

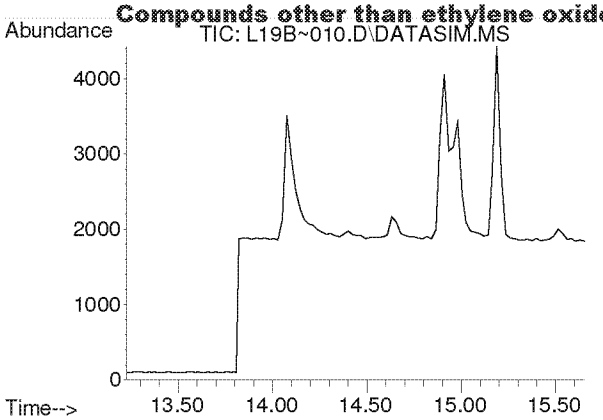
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

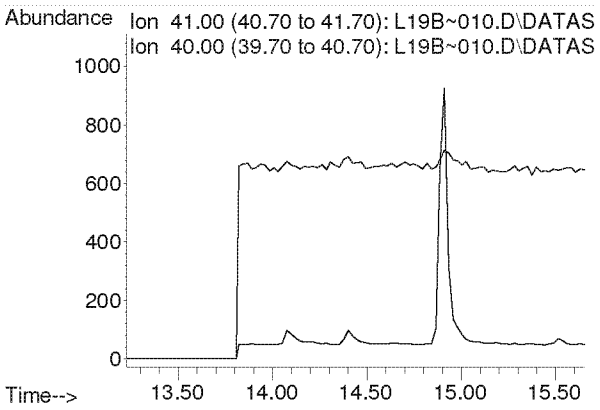


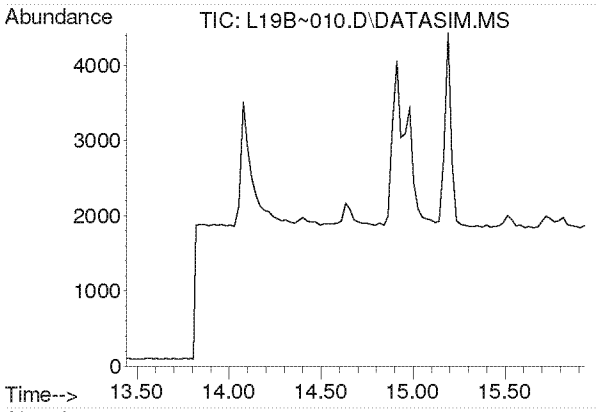
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



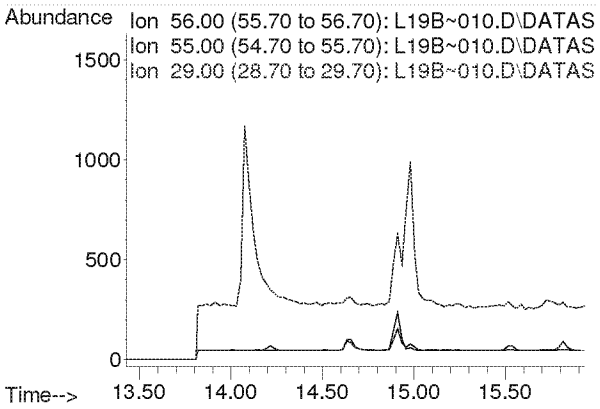


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

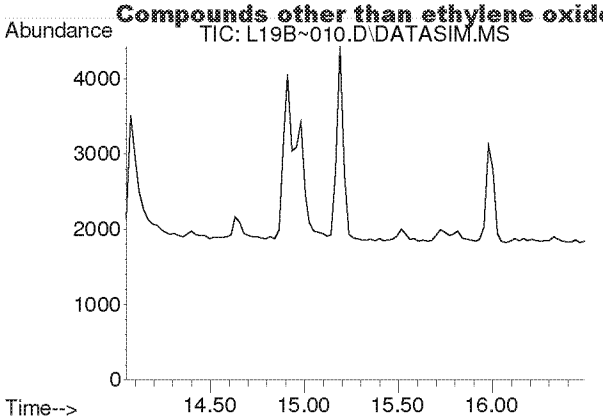
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

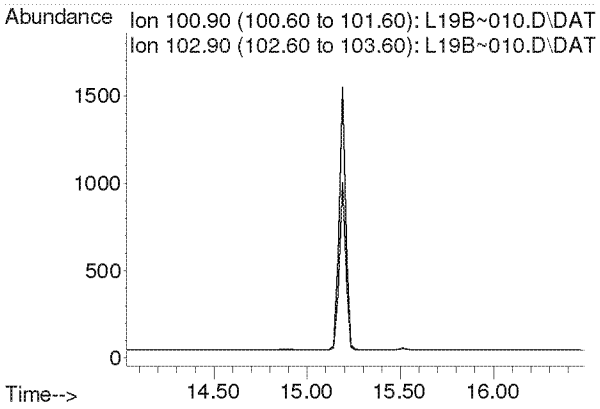


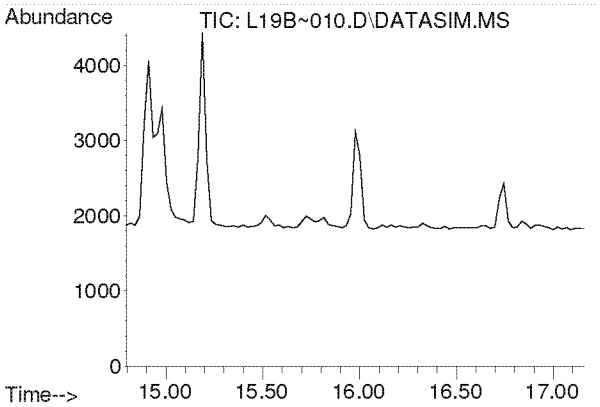
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



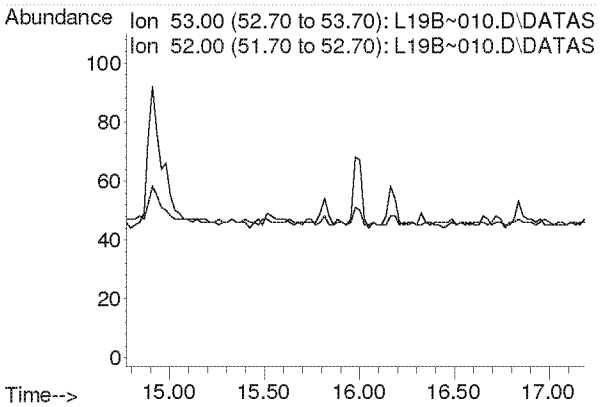


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

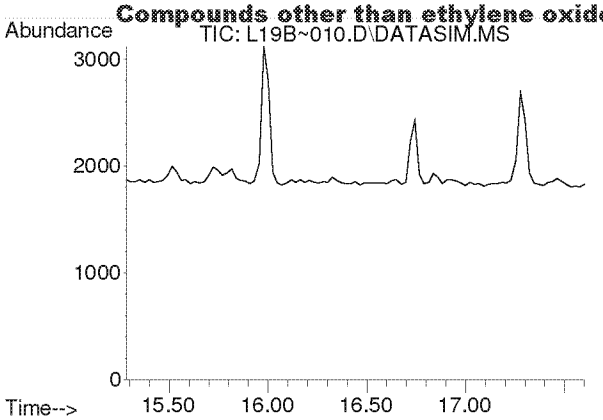
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

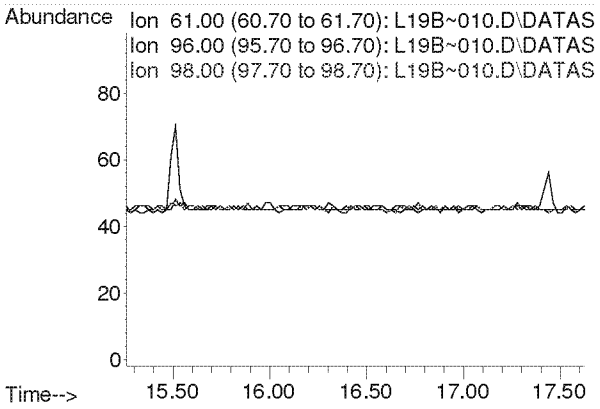


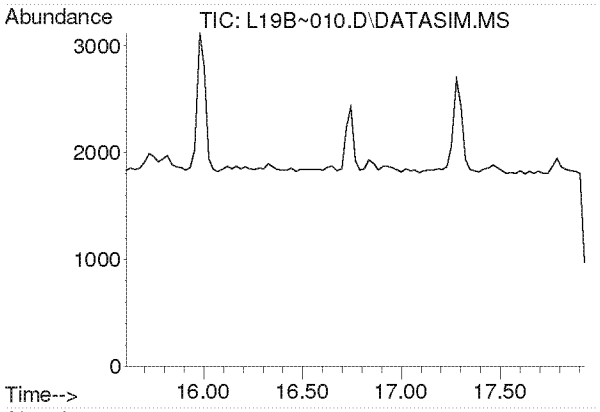
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



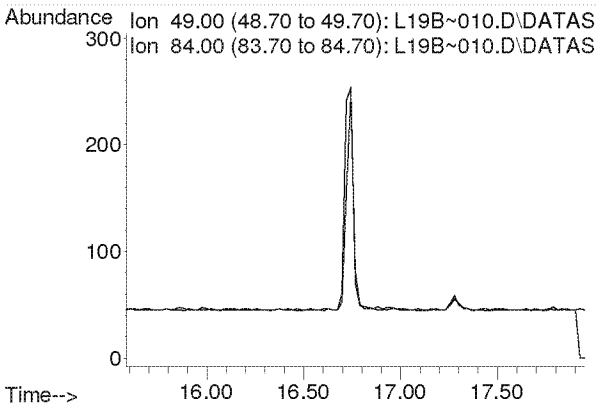


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

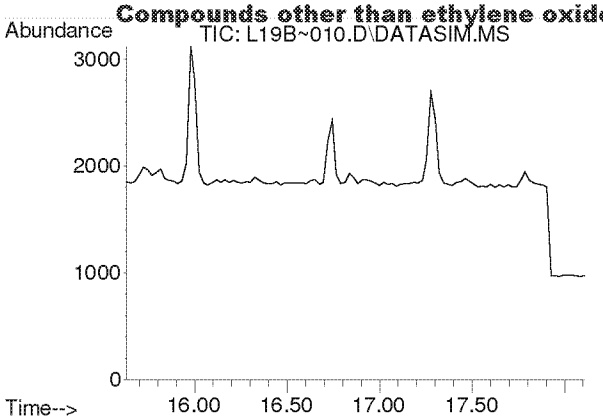
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

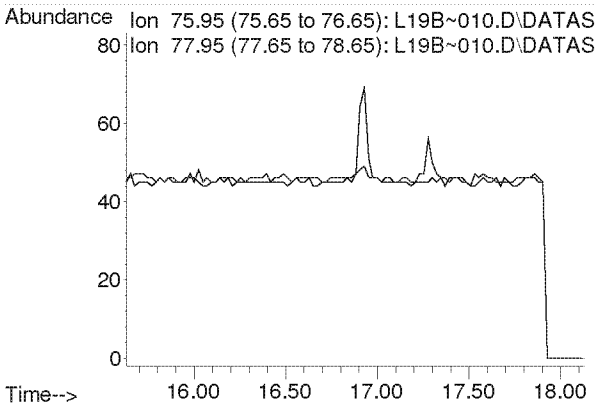


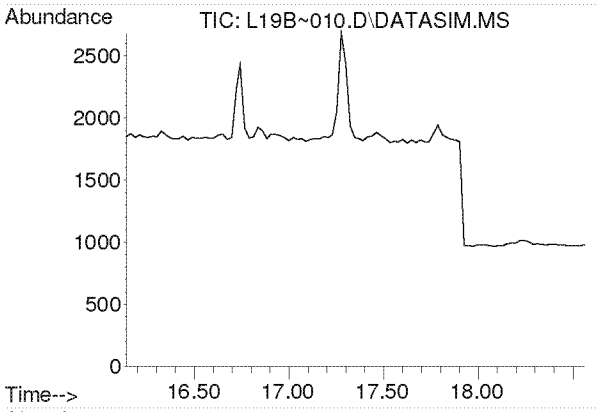
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



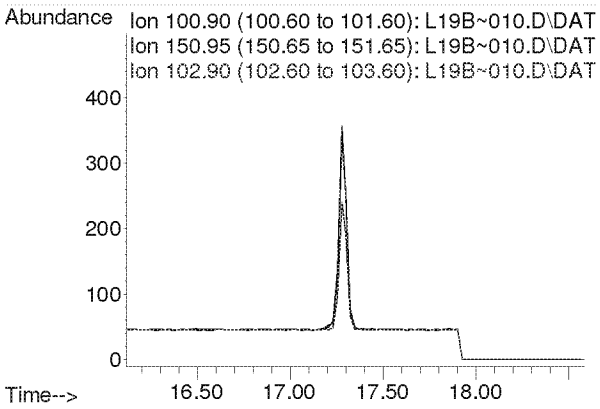


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

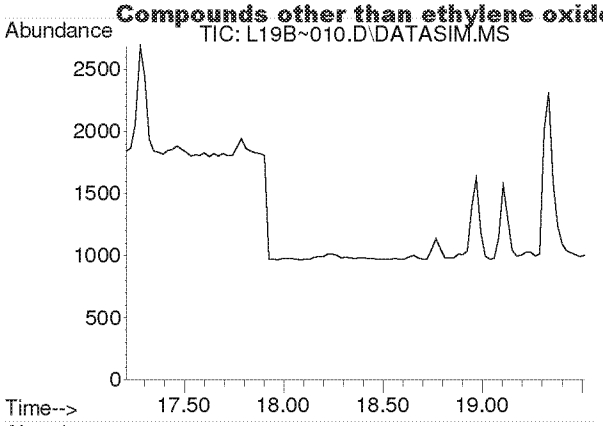
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

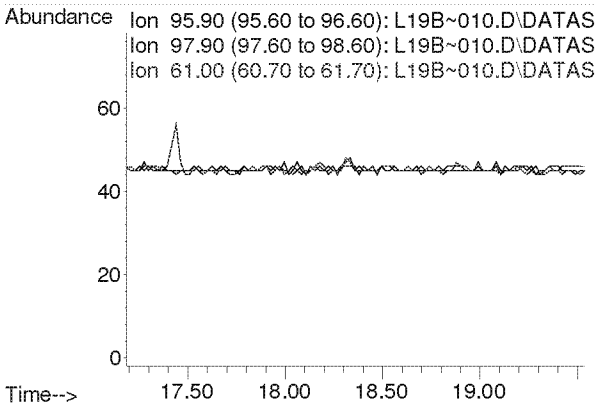


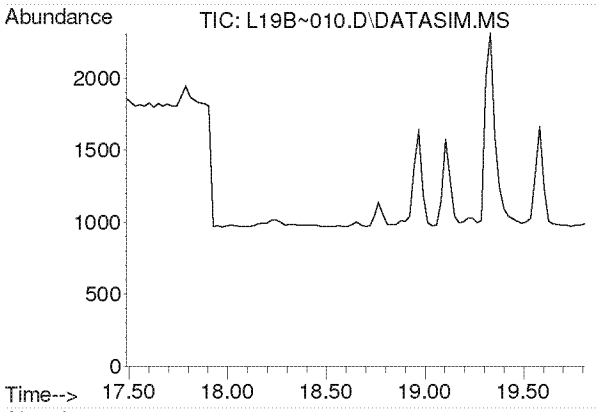
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



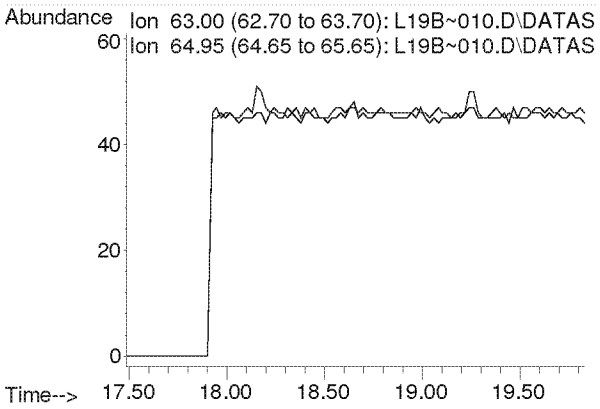


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

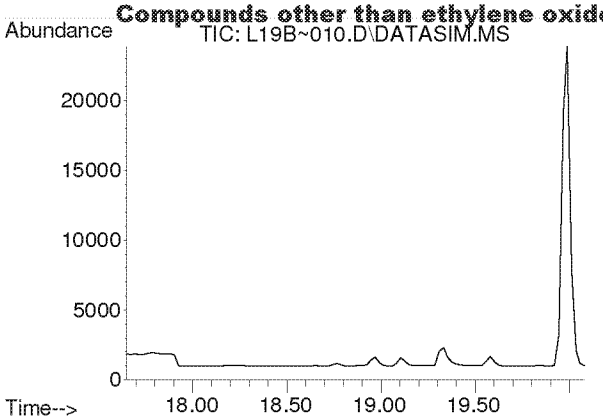
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

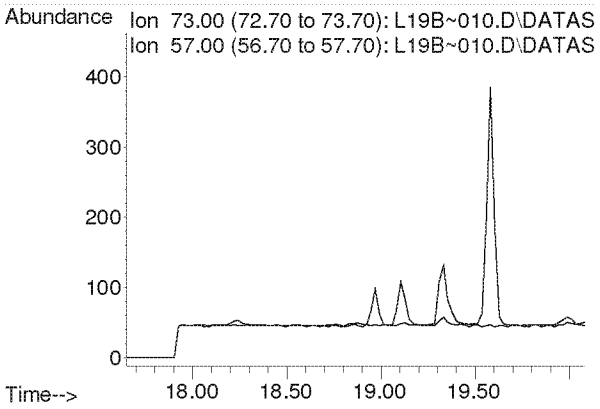


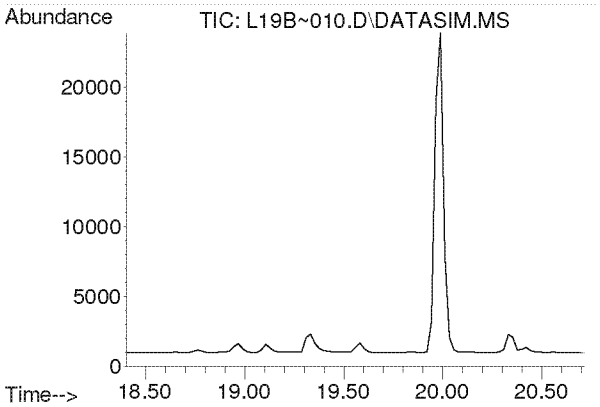
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



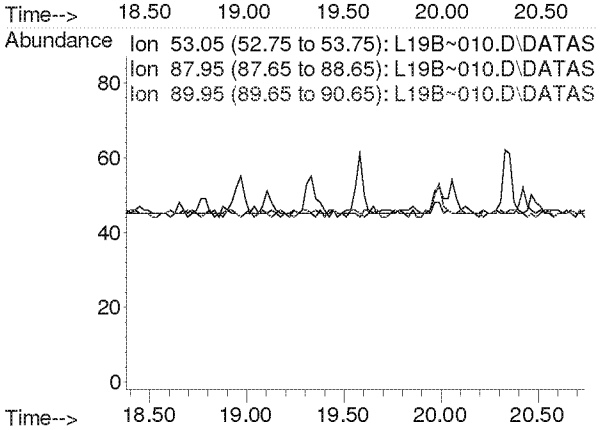


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

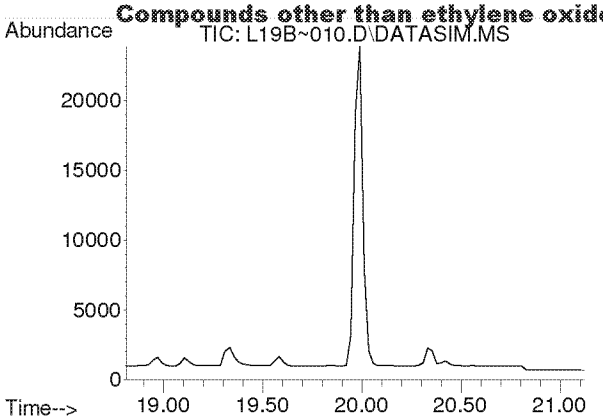
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

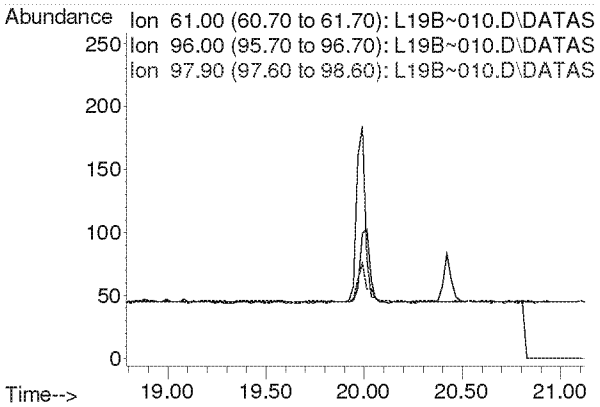


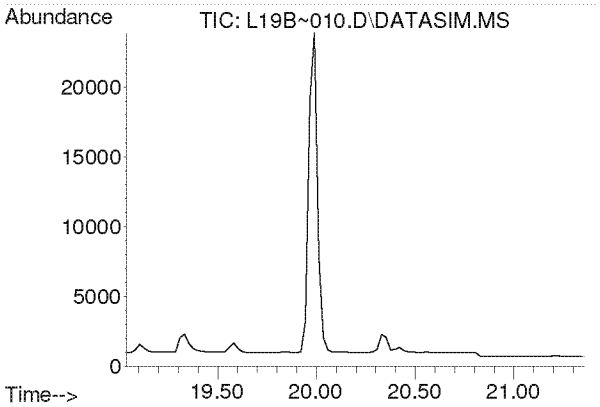
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



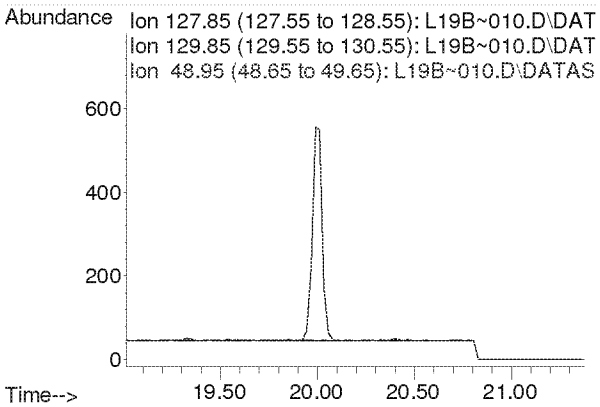


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

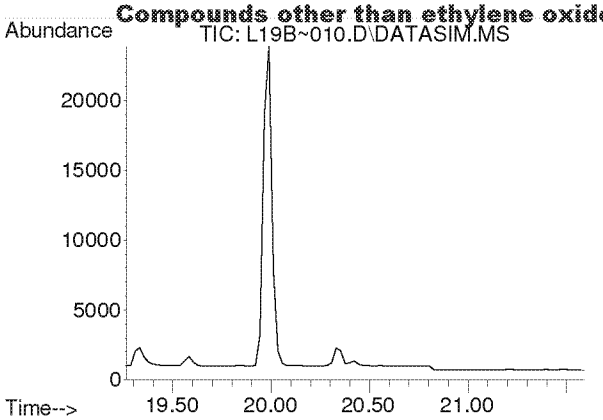
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

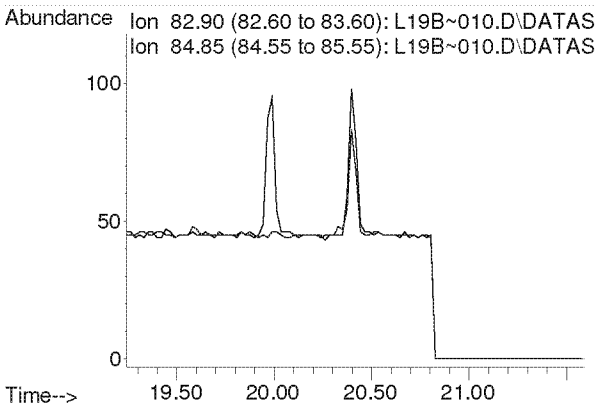


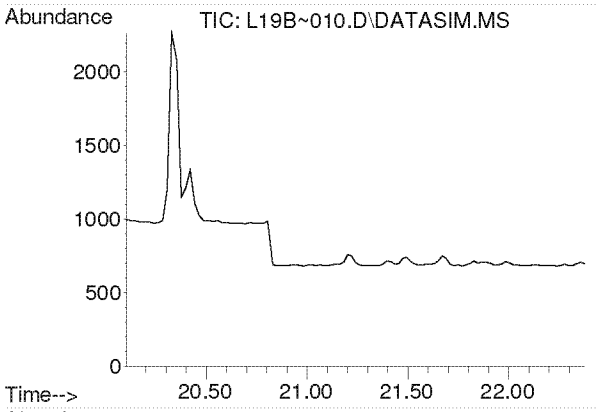
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



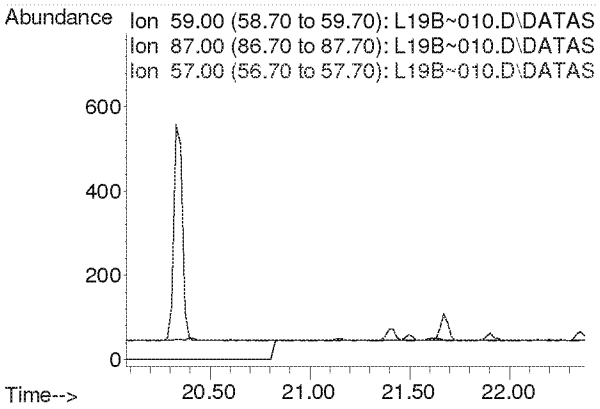


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

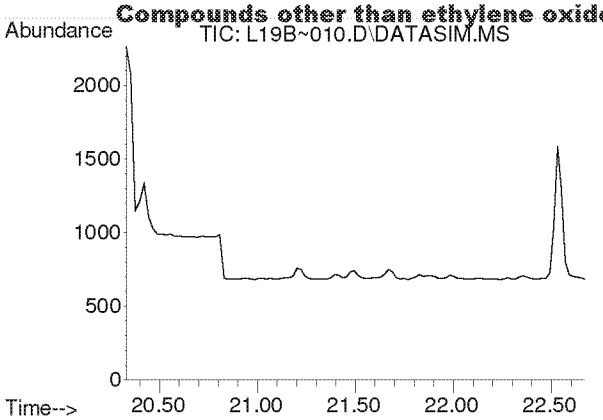
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

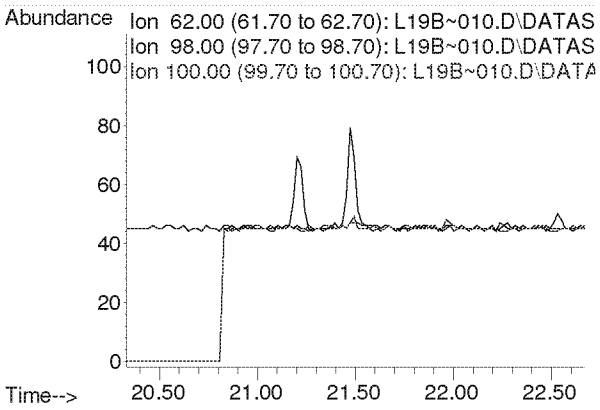


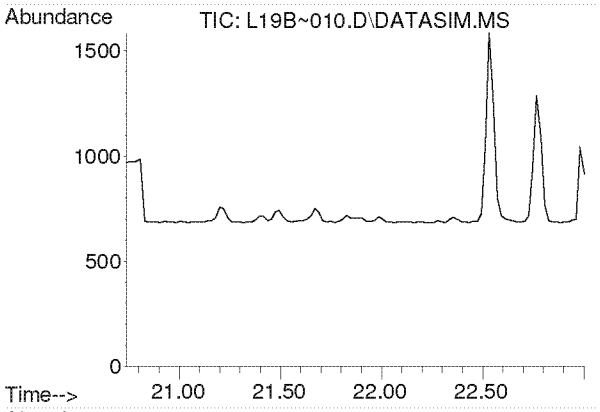
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



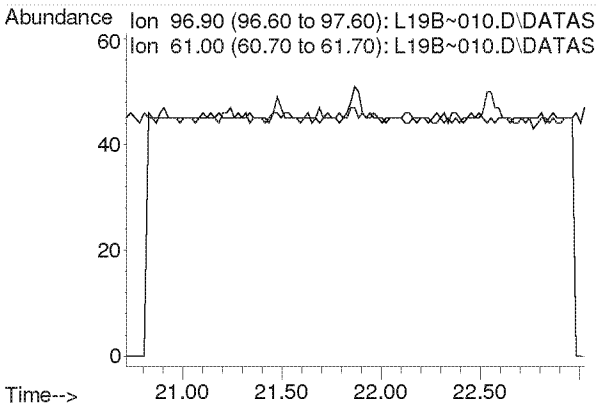


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

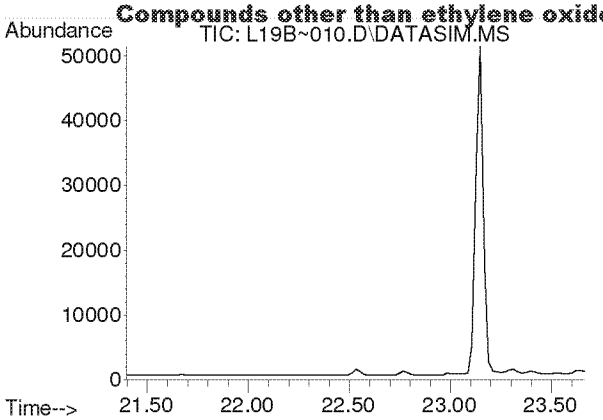
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

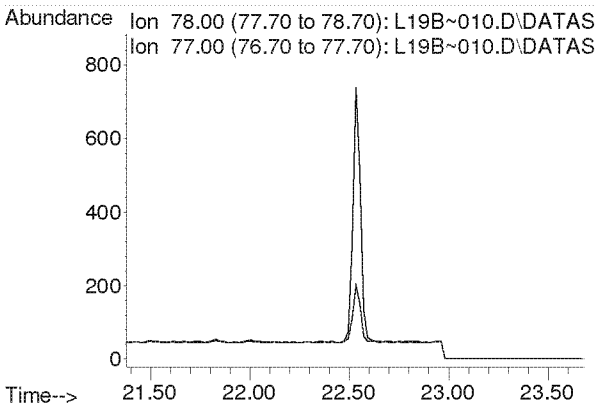


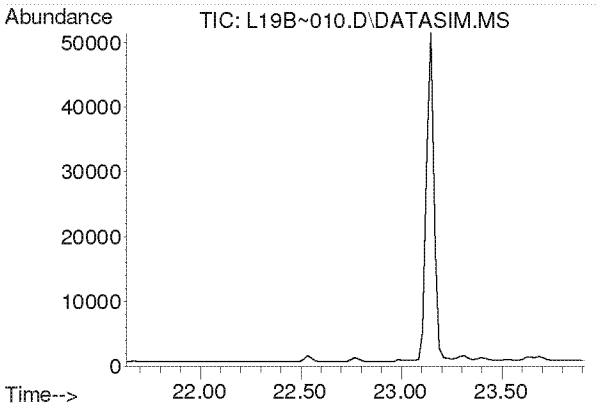
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



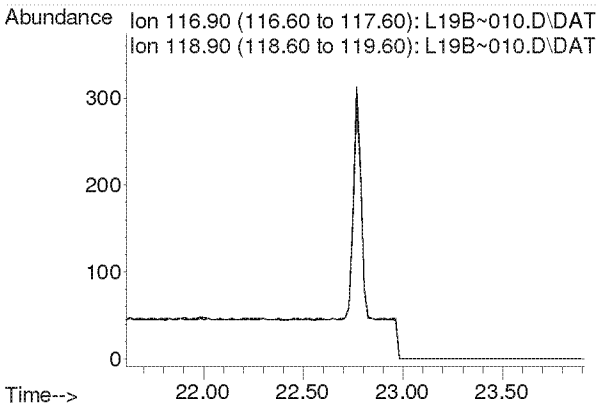


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

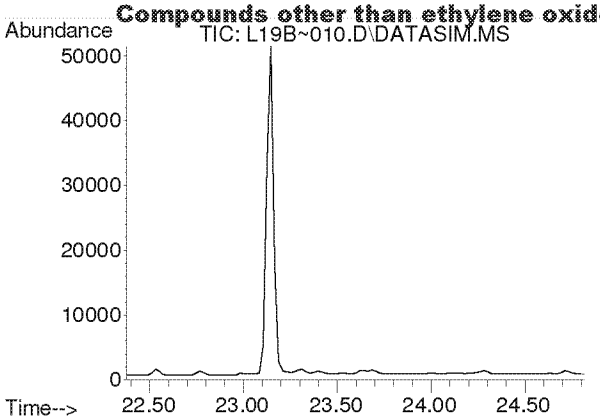
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

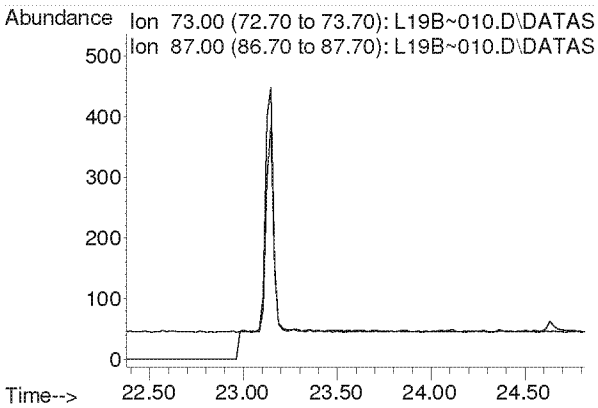


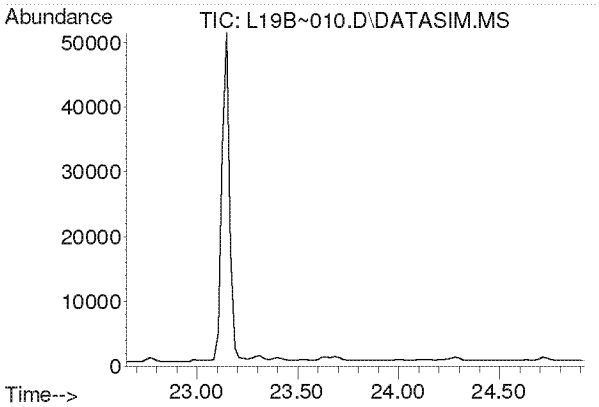
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



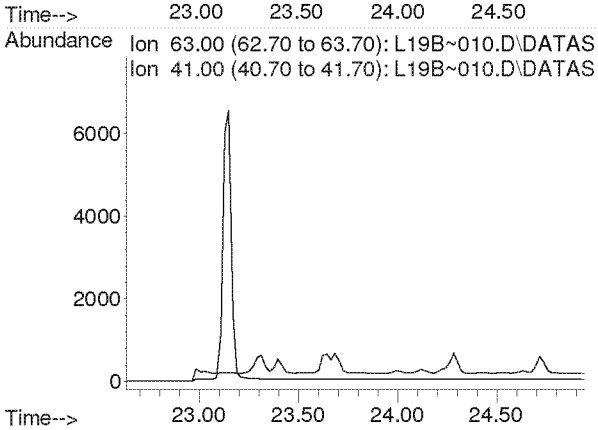


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

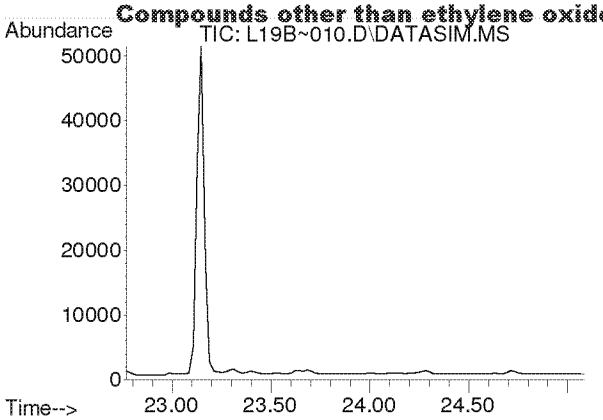
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

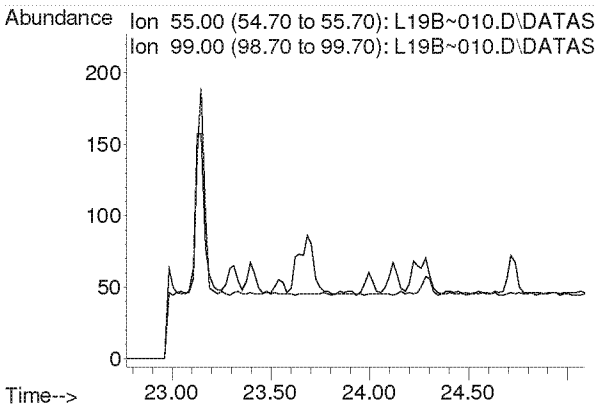


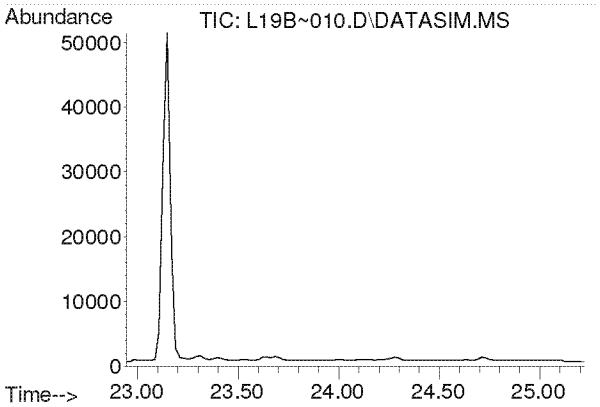
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



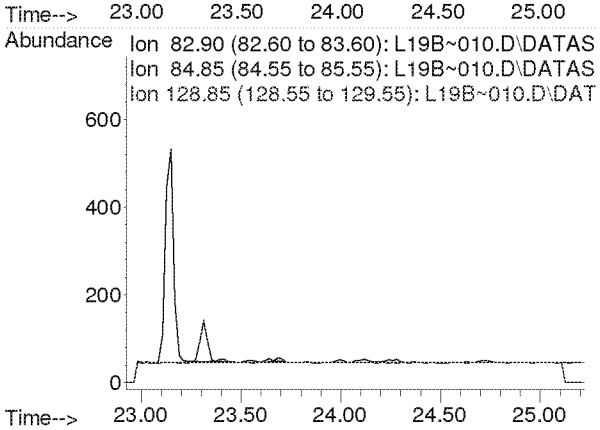


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

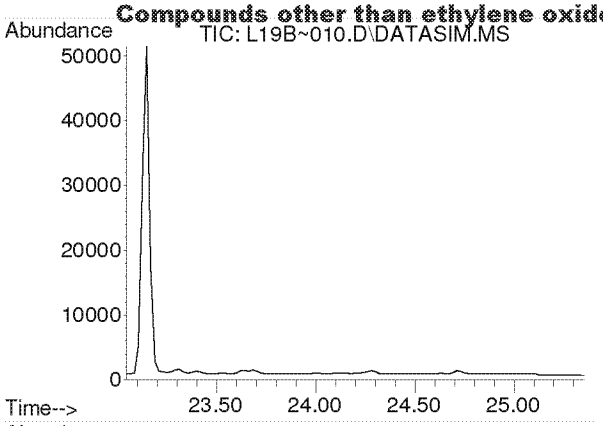
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

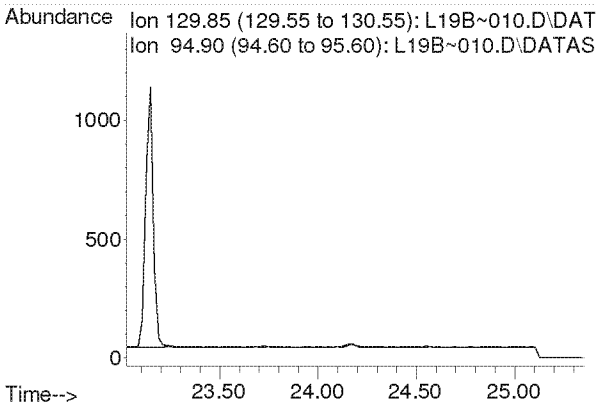


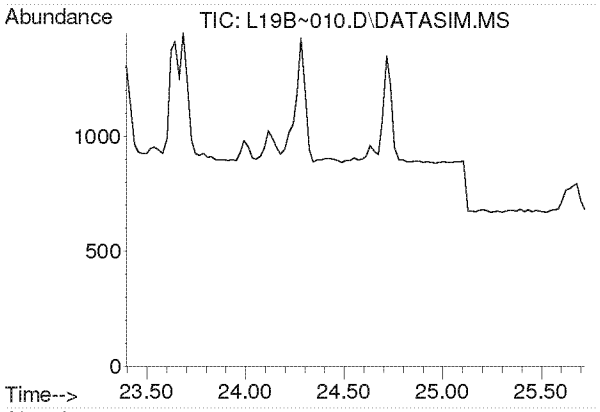
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



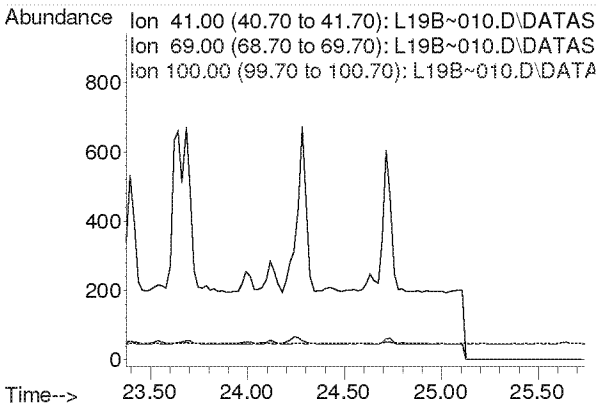


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

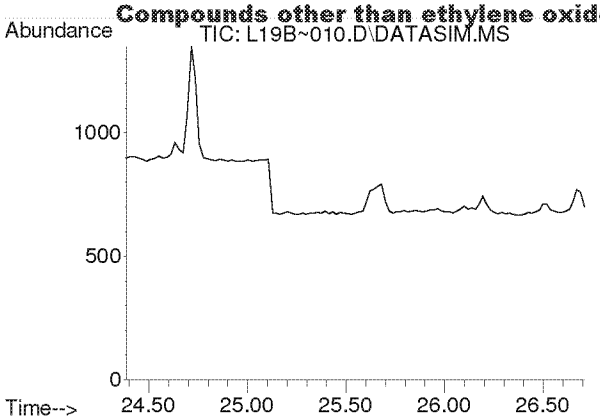
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

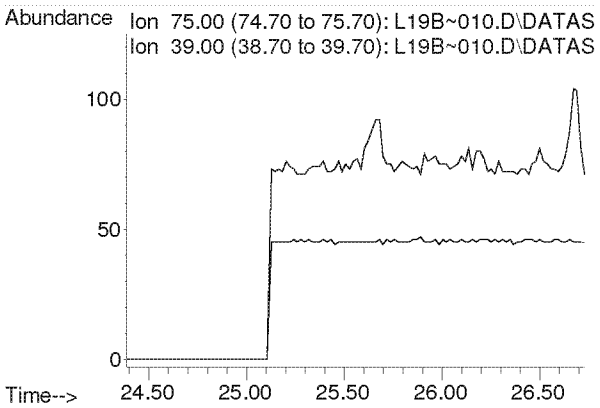


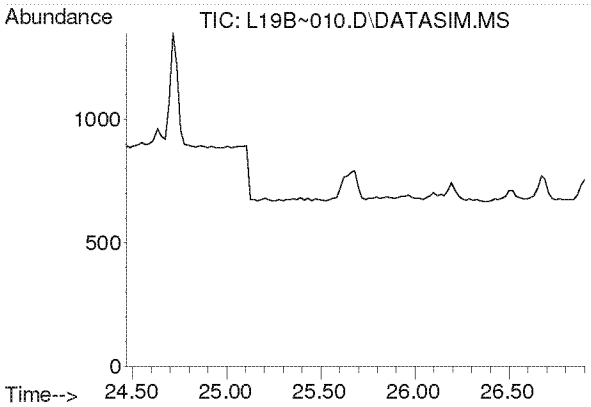
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



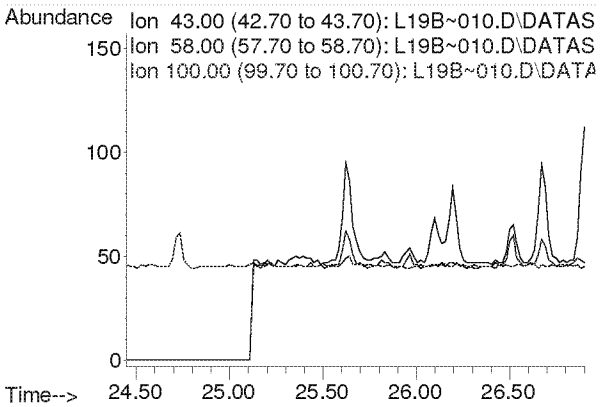


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

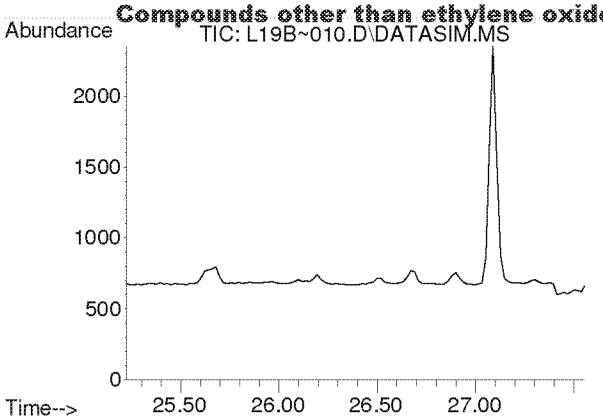
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

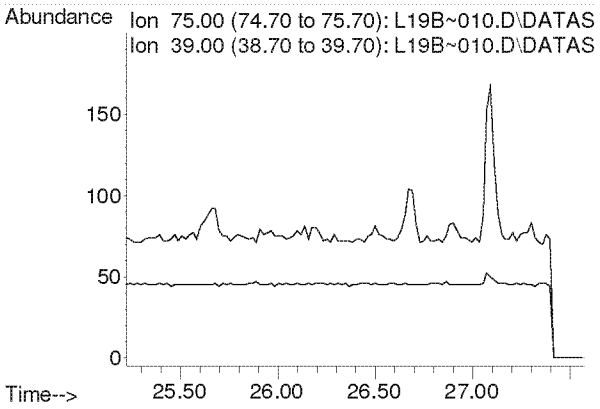


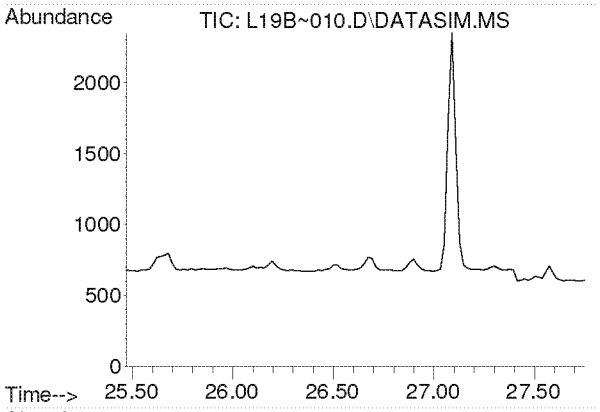
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



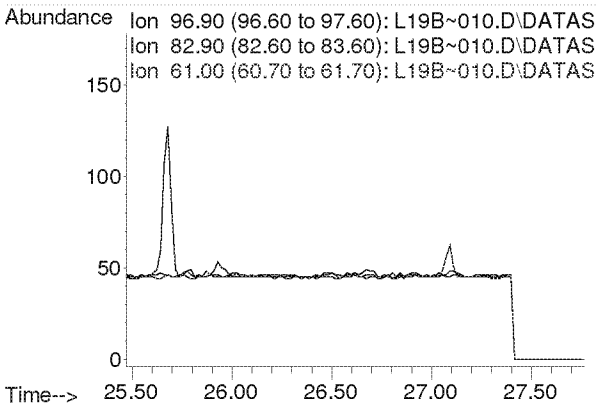


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

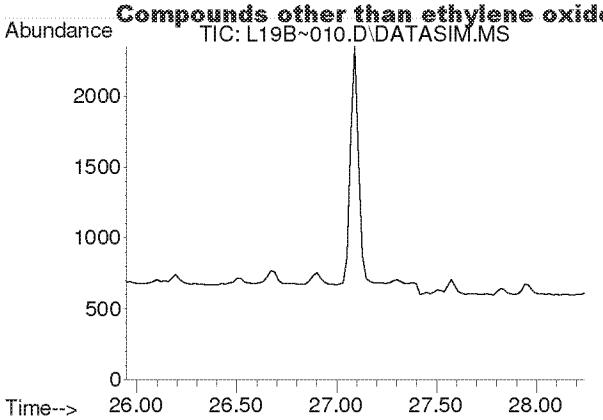
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

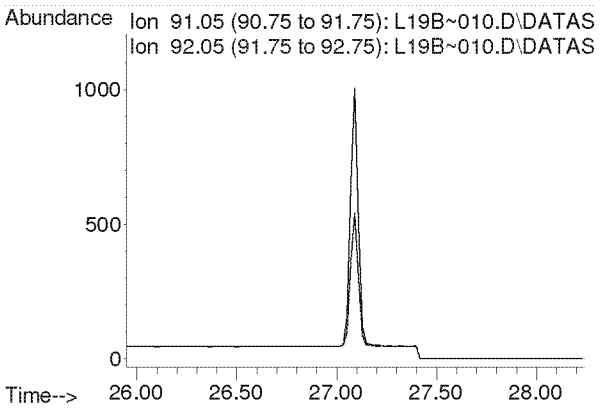


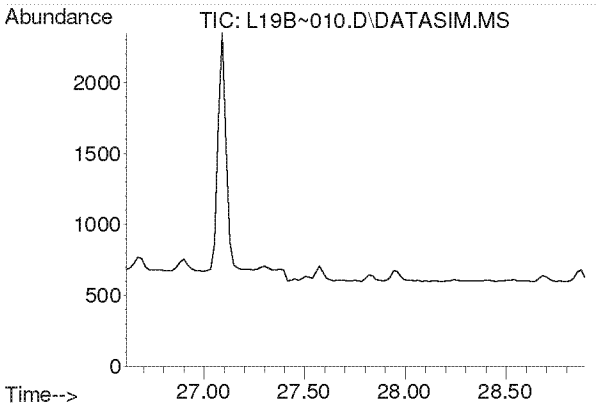
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



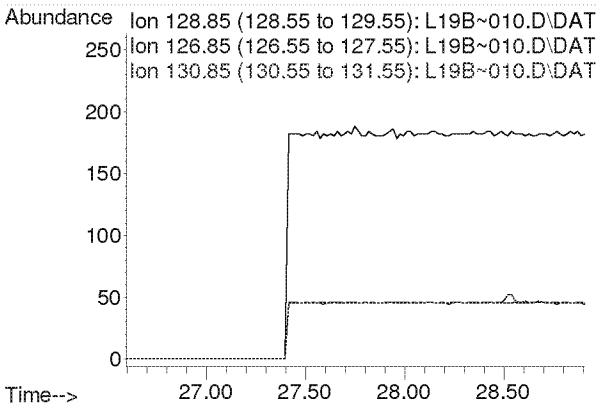


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

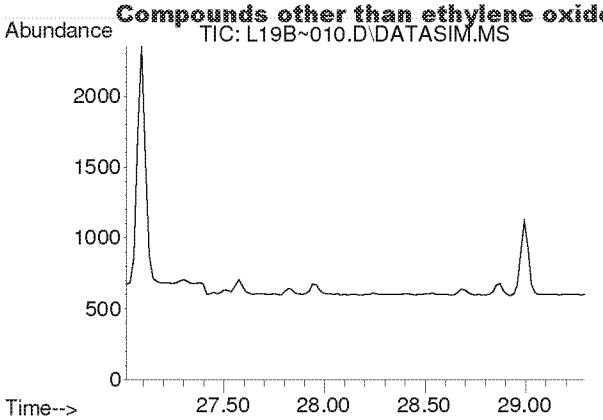
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

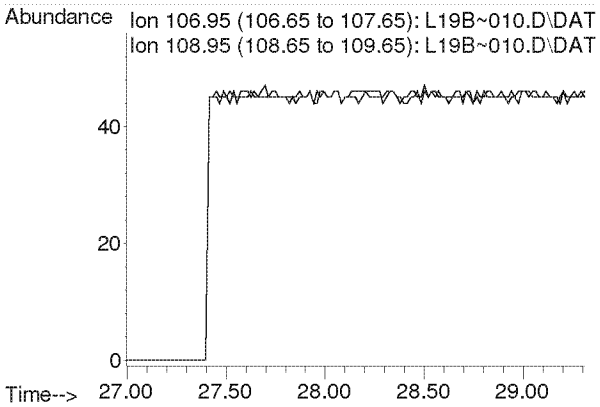


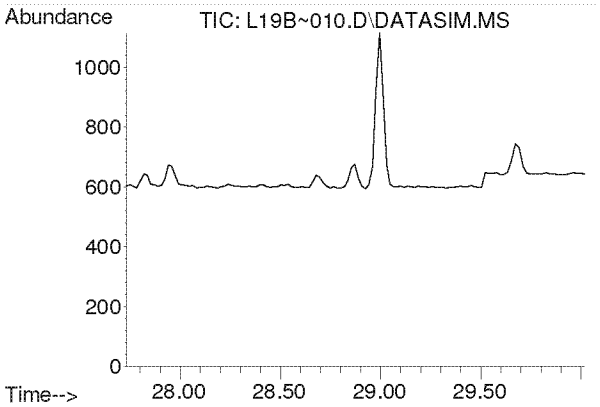
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



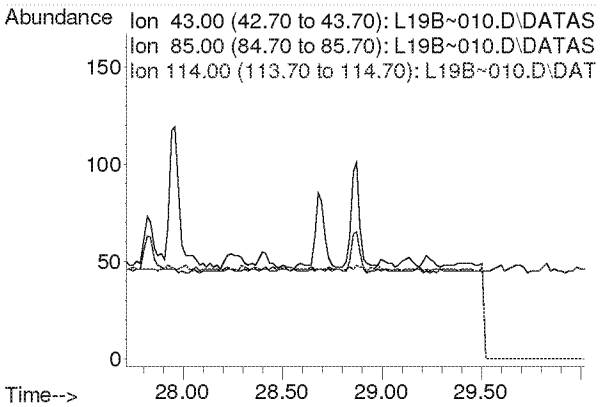


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

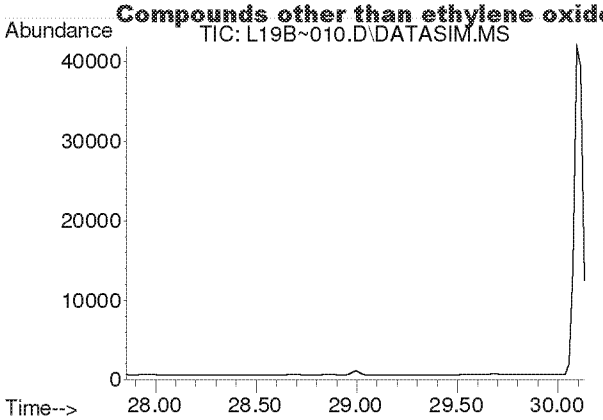
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

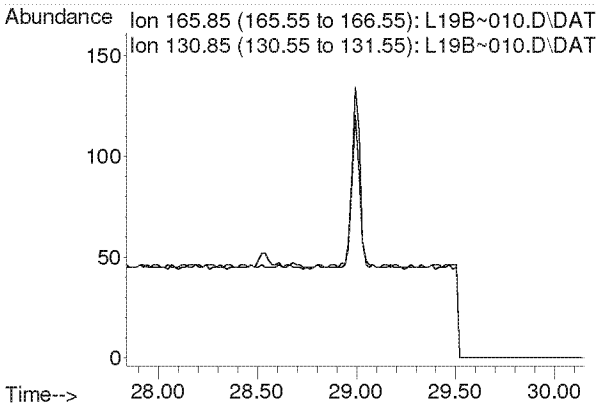


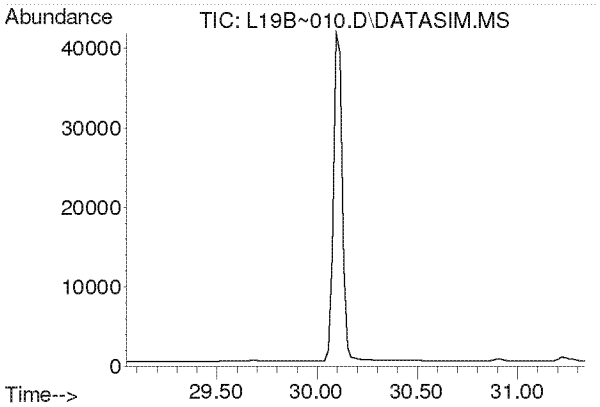
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



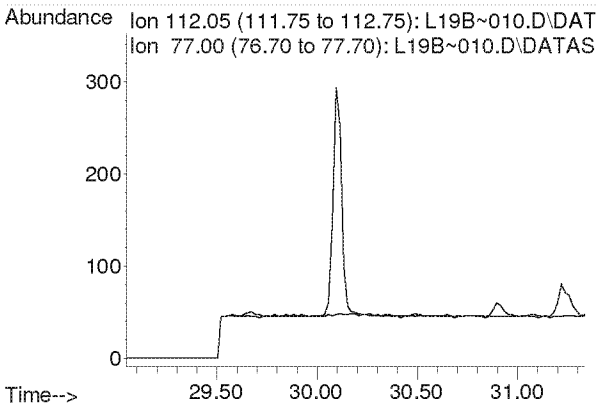


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

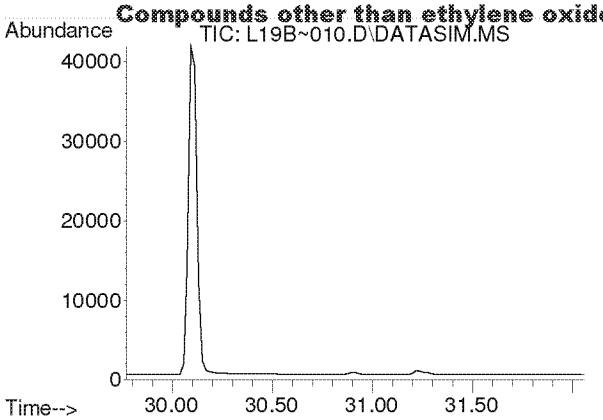
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

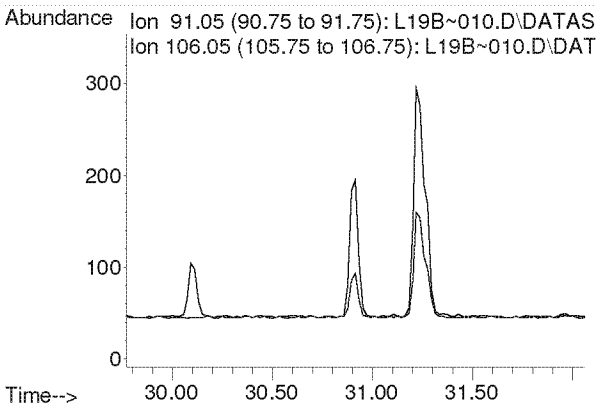


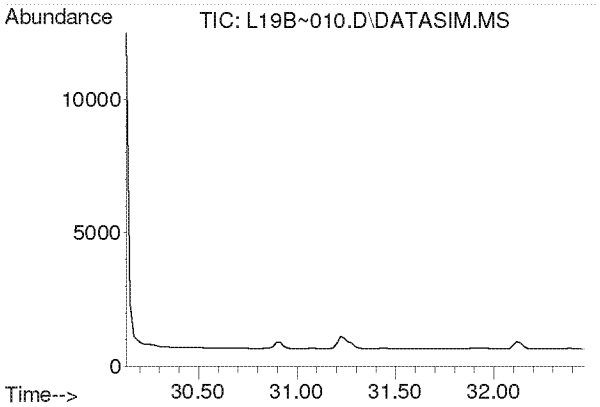
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



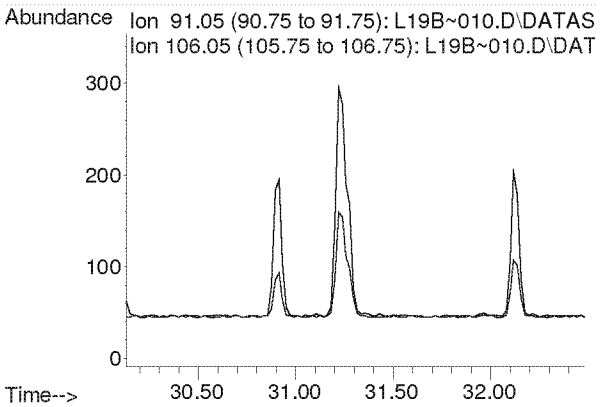


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

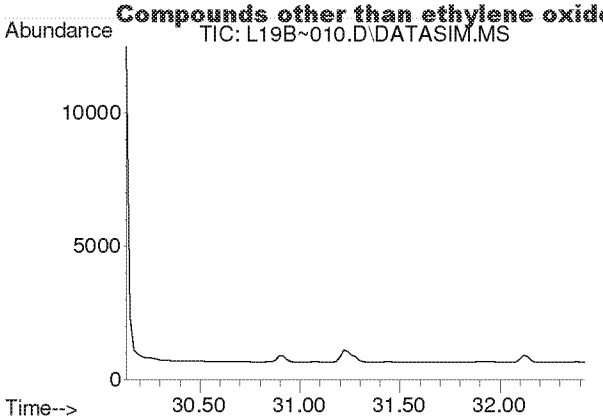
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

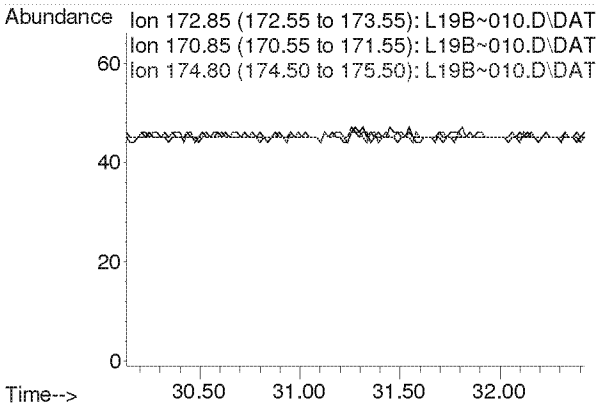


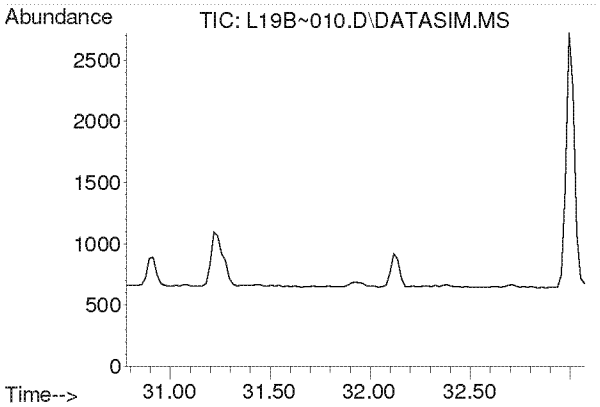
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



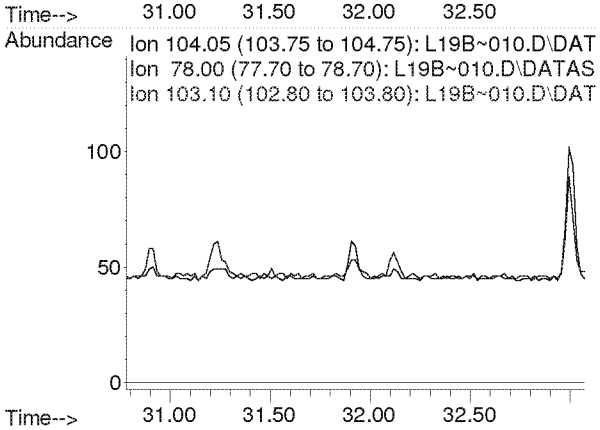


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

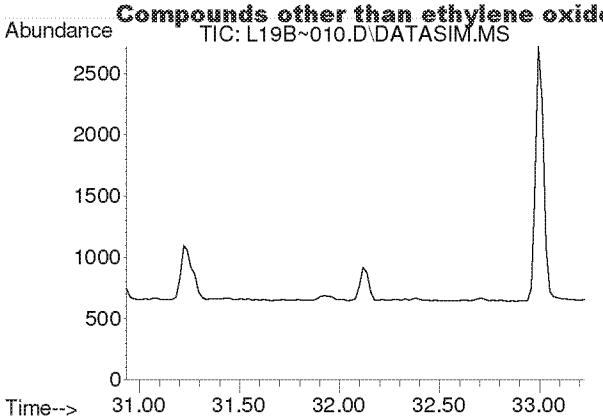
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

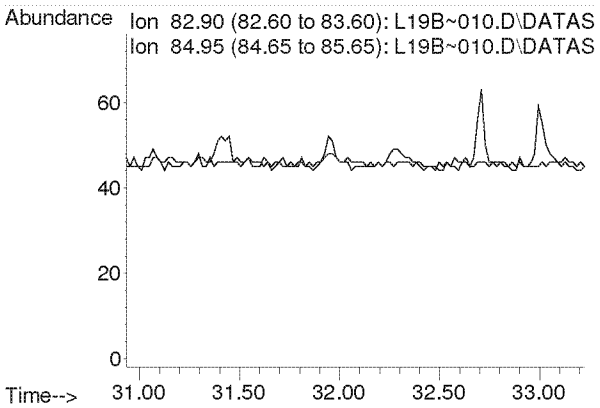


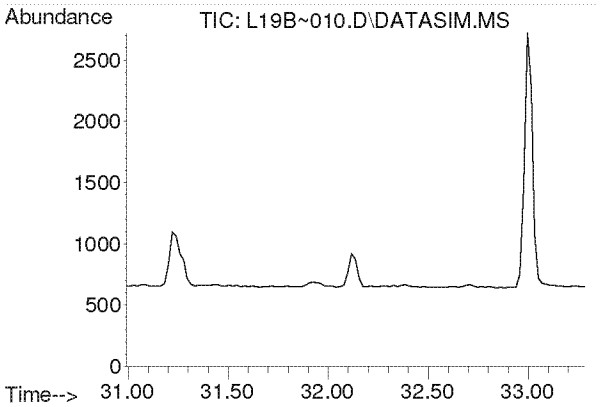
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



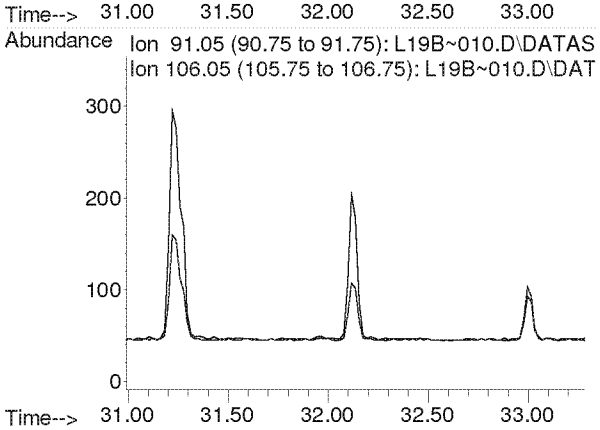


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

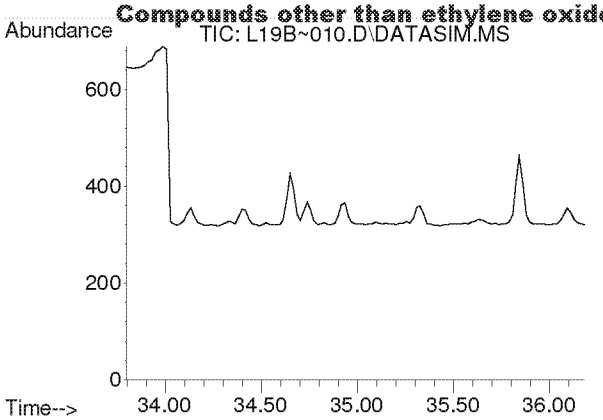
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

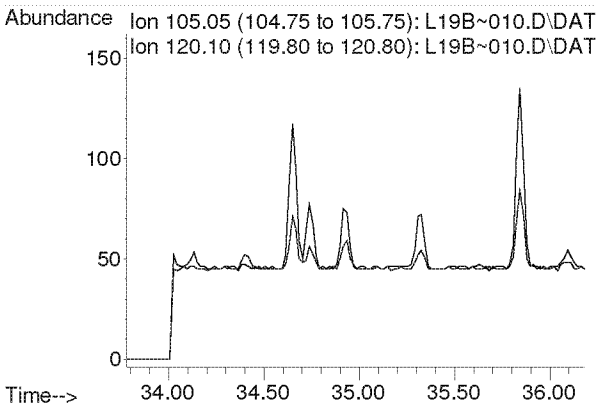


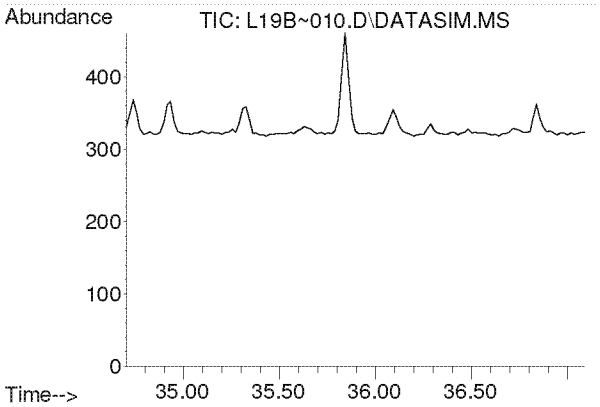
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



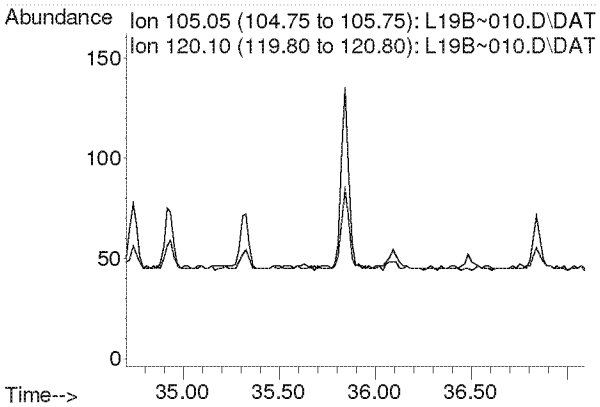


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

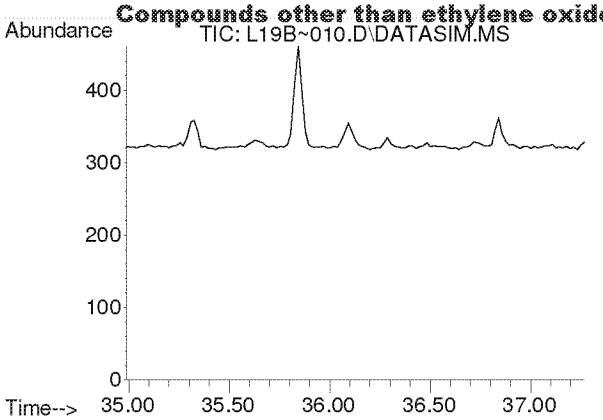
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

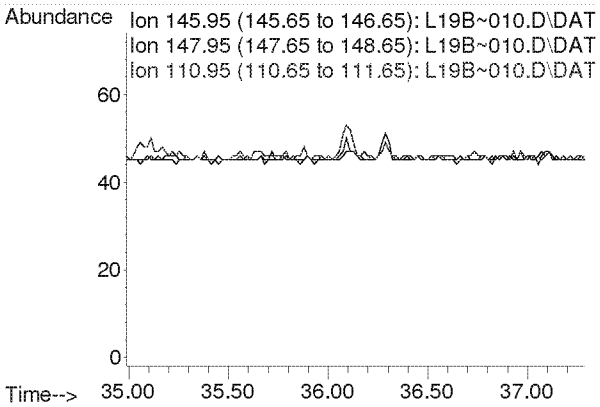


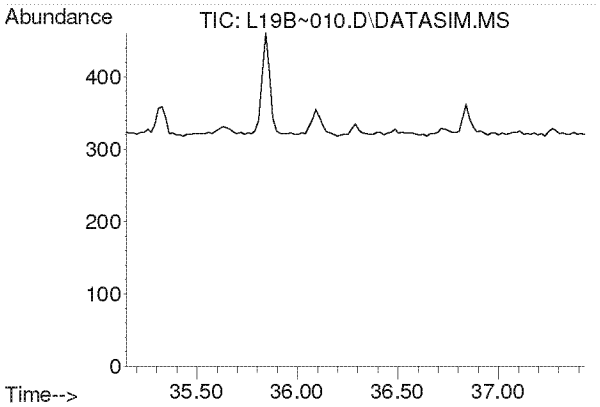
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



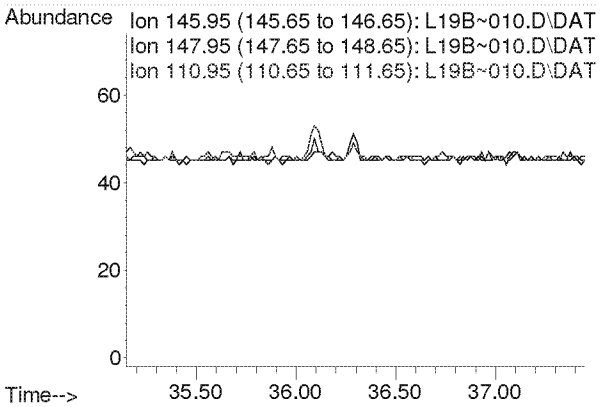


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

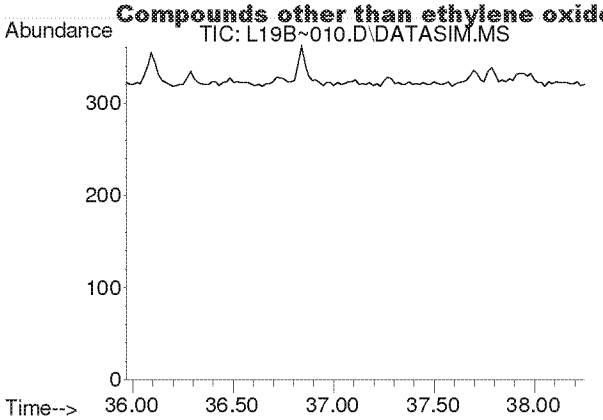
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

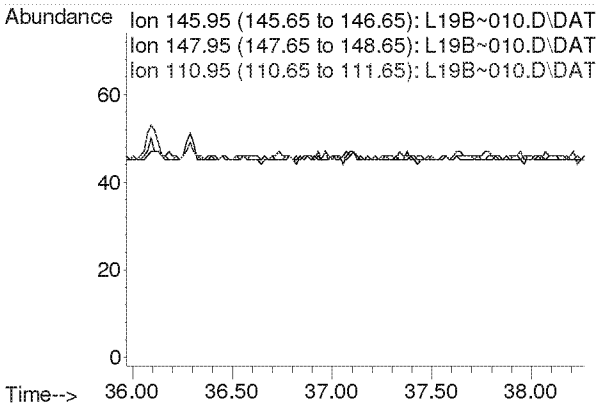


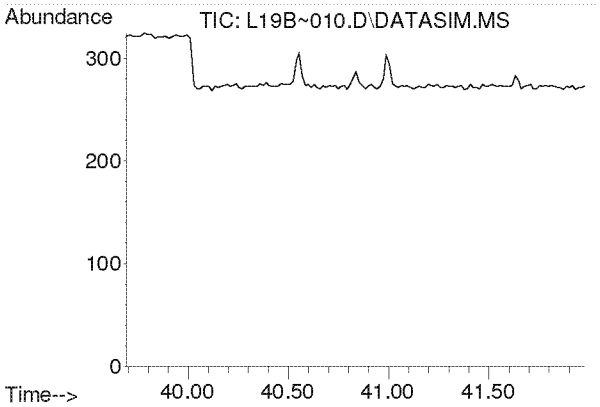
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



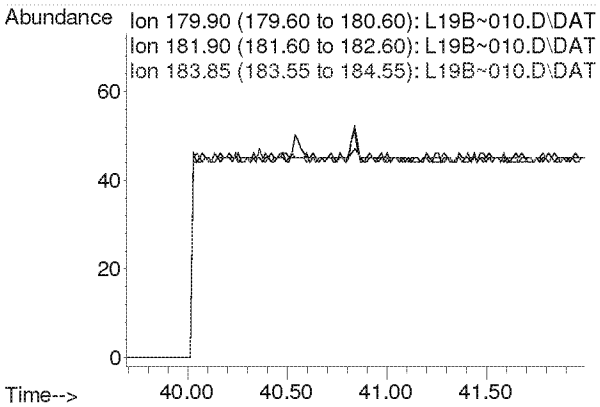


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

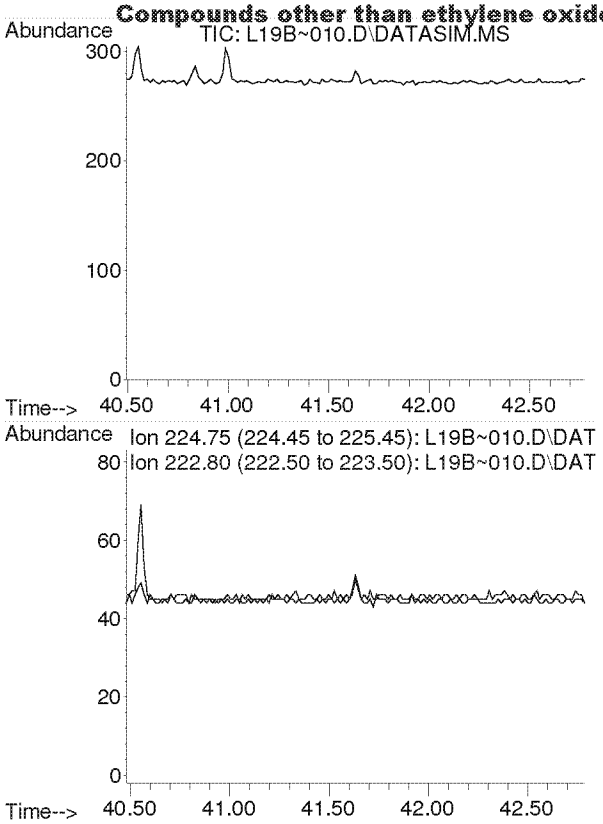
Lab File: L19B~010.D
Acq: 27 Feb 2019 8:31 pm

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: L19B~010.D
Acq: 27 Feb 2019 8:31 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\L19B~\
Data File : L19B~011.D
Acq On : 27 Feb 2019 9:32 pm
Operator : MAH
Sample : 9022616-02
Misc : EPA WB WAREHOUSE C2 2/22/19
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 05 06:45:17 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

ETOH only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	43974	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	109133	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	76733	4.7400 ppbv	-0.02

System Monitoring Compounds

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~011.D
Acq On : 27 Feb 2019 9:32 pm
Operator : MAH
Sample : 9022616-02
Misc : EPA WB WAREHOUSE C2 2/22/19
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 05 06:45:17 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

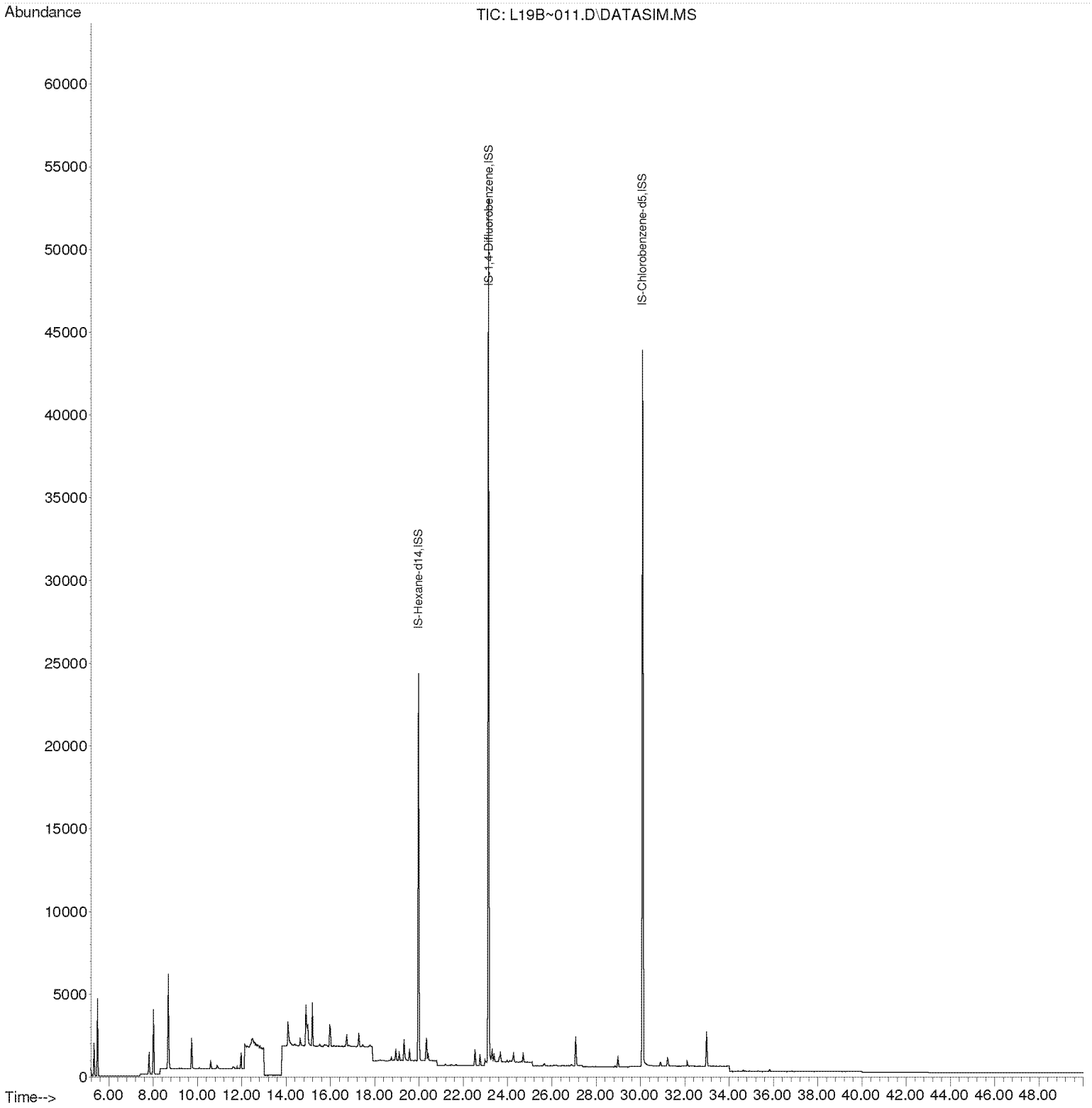
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

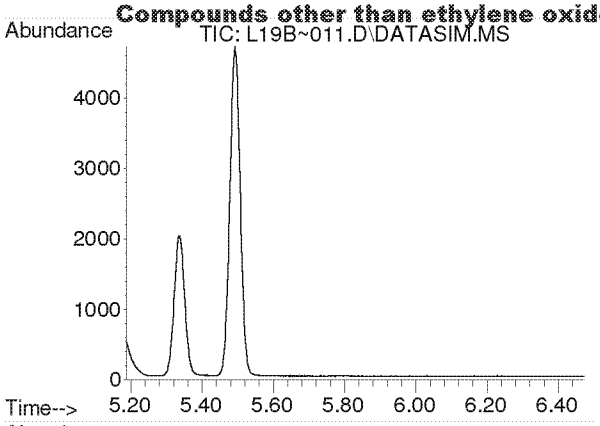
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~011.D
Acq On : 27 Feb 2019 9:32 pm
Operator : MAH
Sample : 9022616-02
Misc : EPA WB WAREHOUSE C2 2/22/19
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 28 12:54:20 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



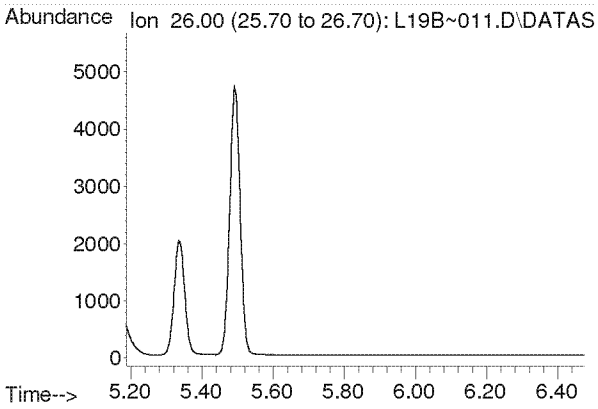
Compounds other than ethylene oxide were not quantitated.

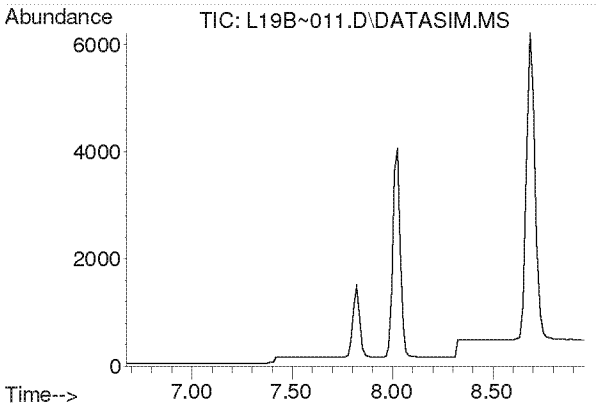


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 26



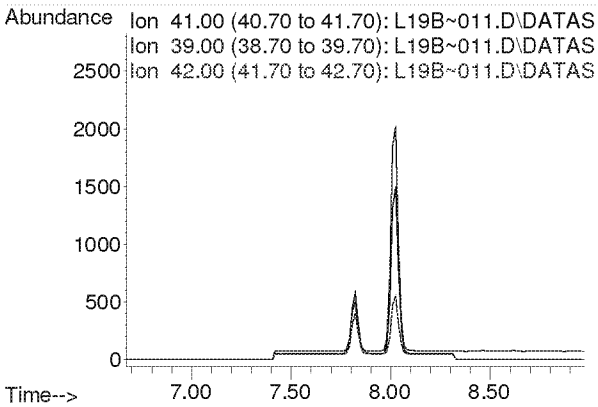


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

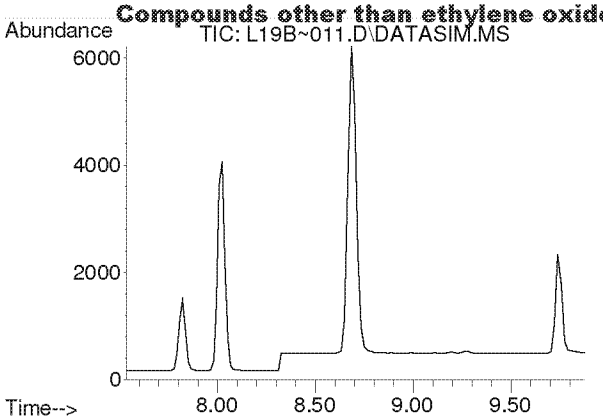
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

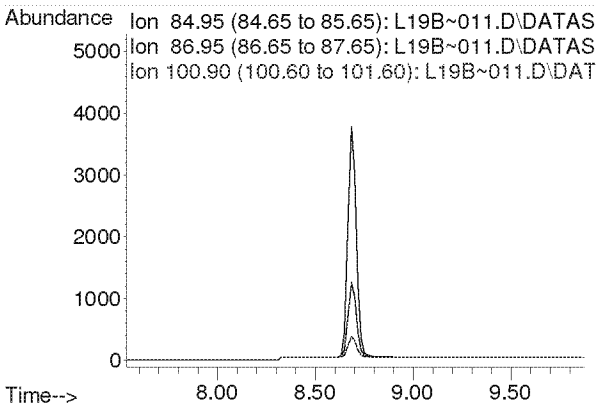


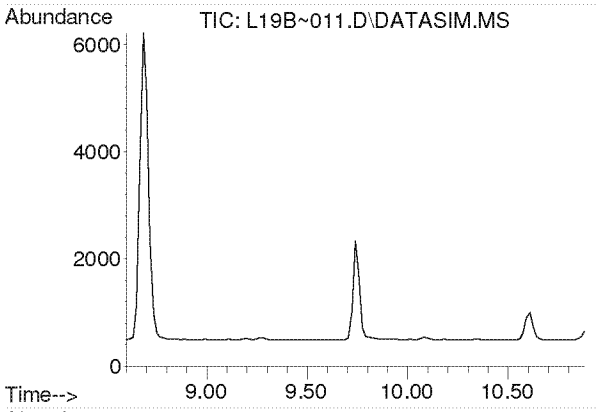
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



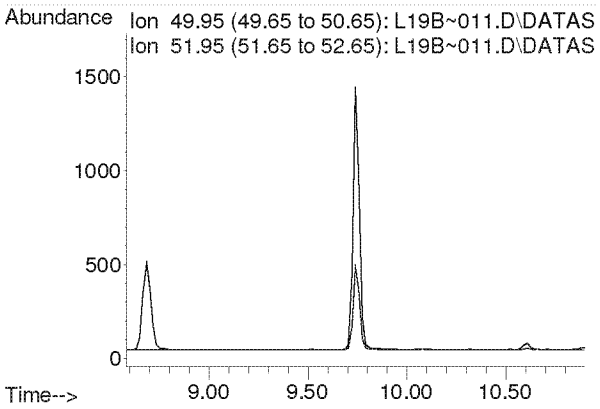


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

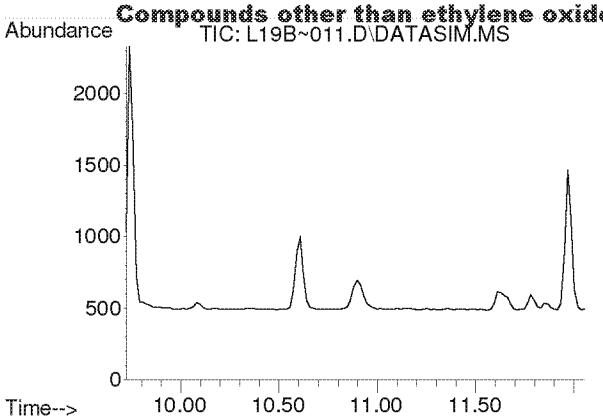
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

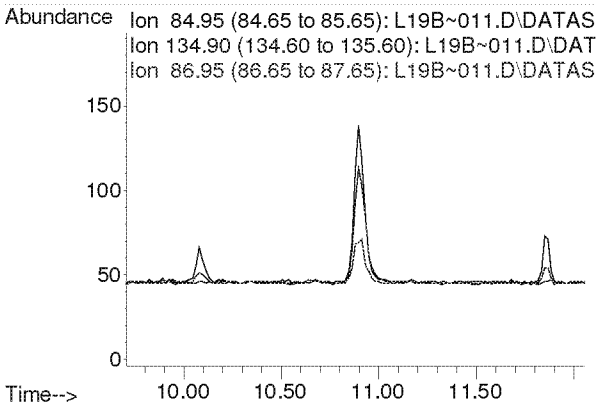


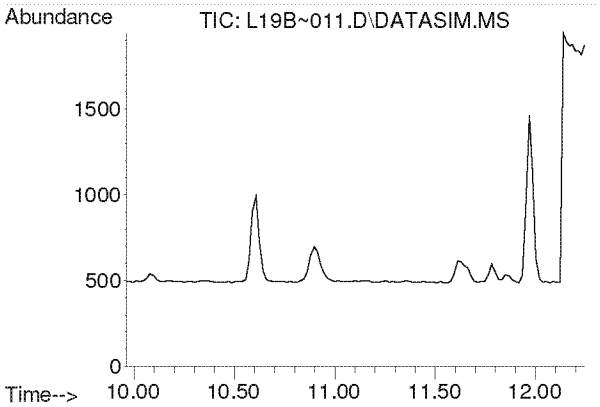
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



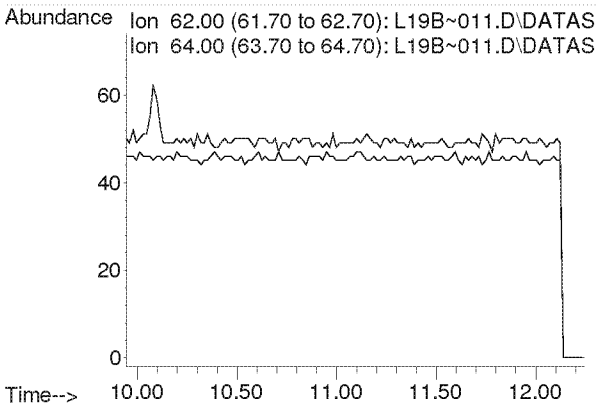


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

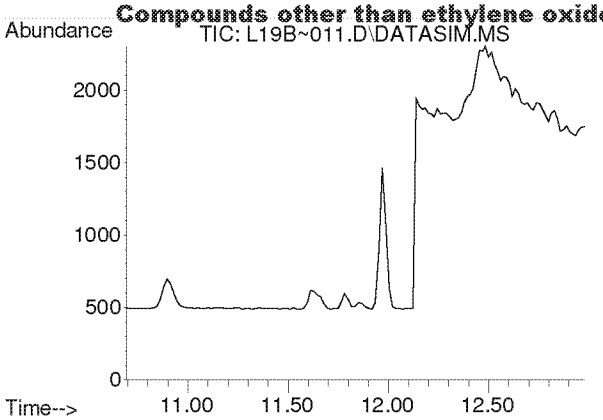
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

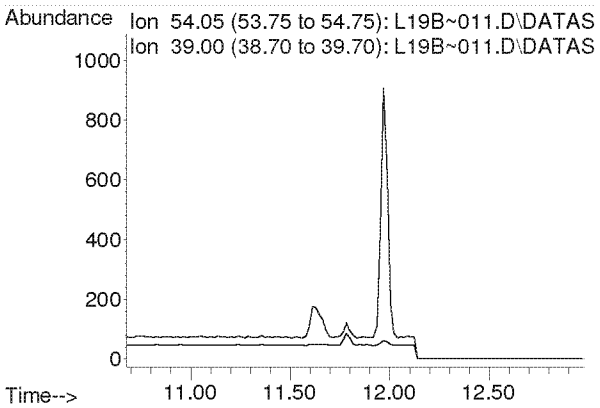


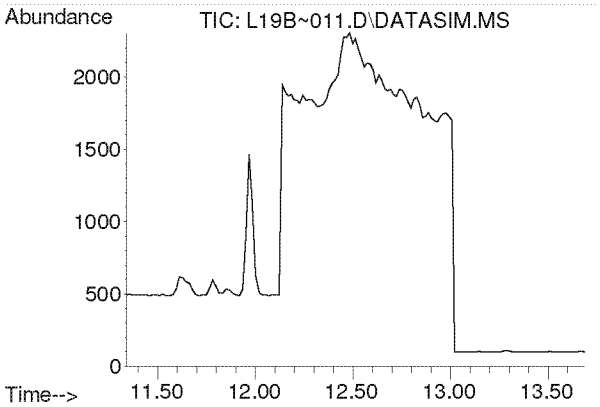
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



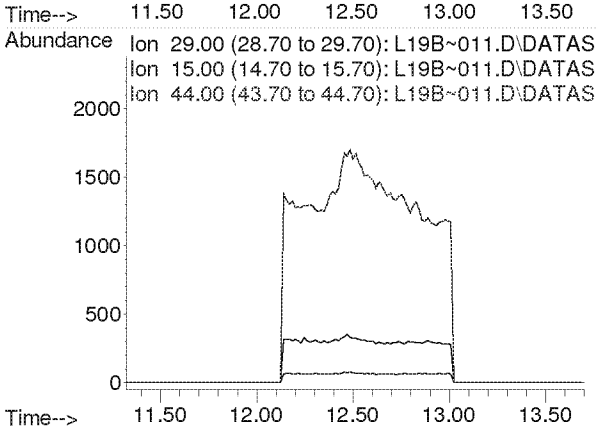


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

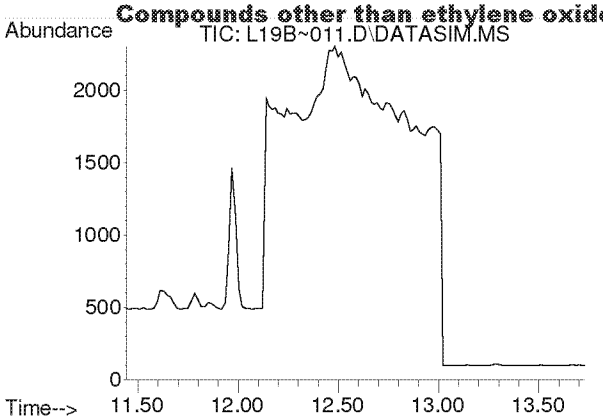
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

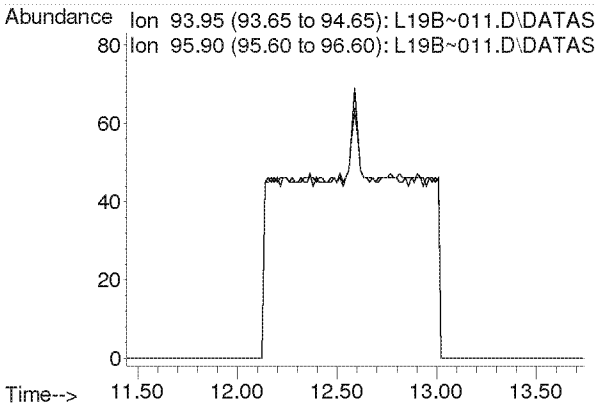


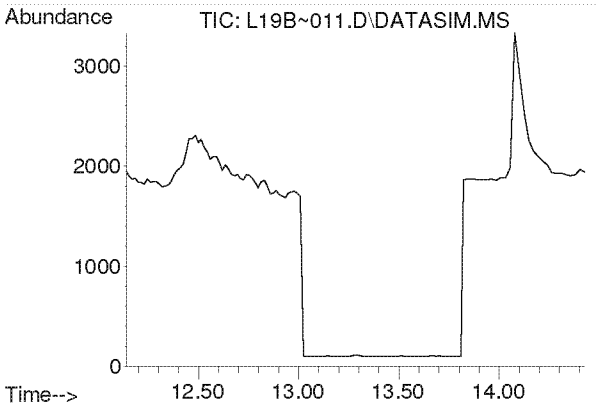
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



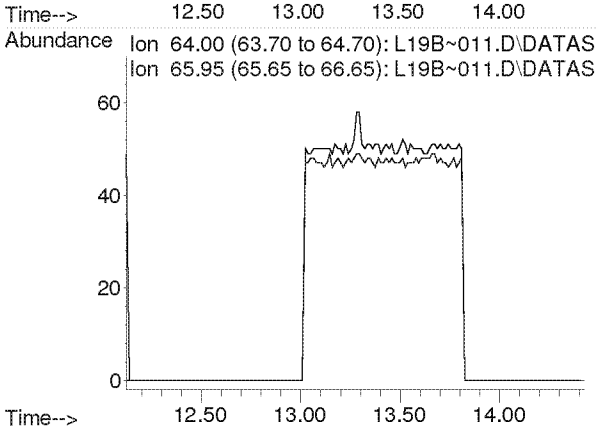


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

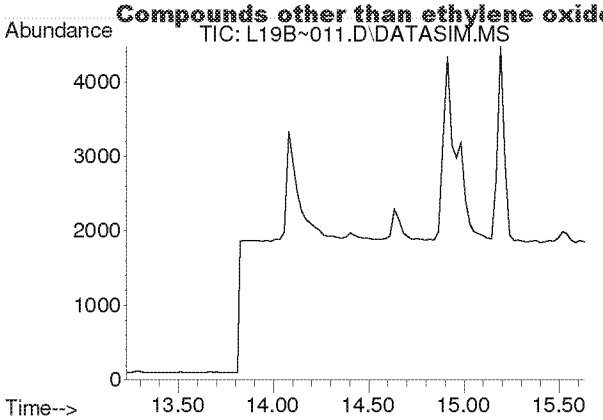
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

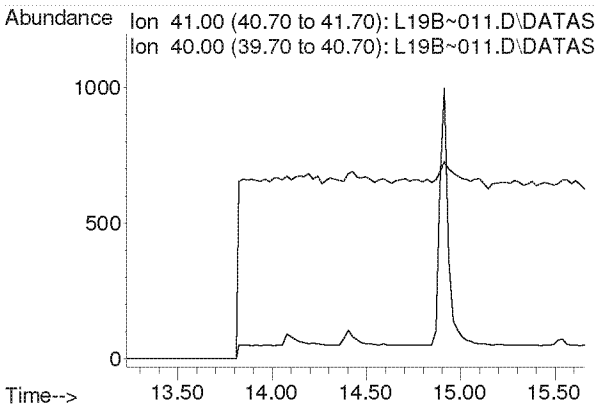


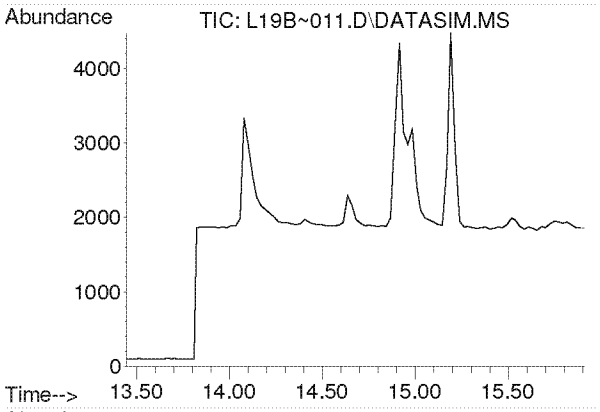
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



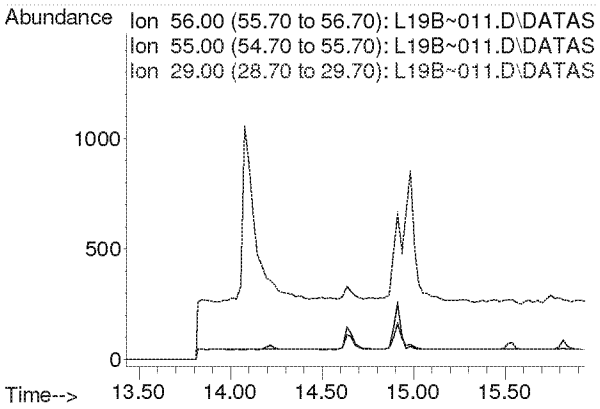


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

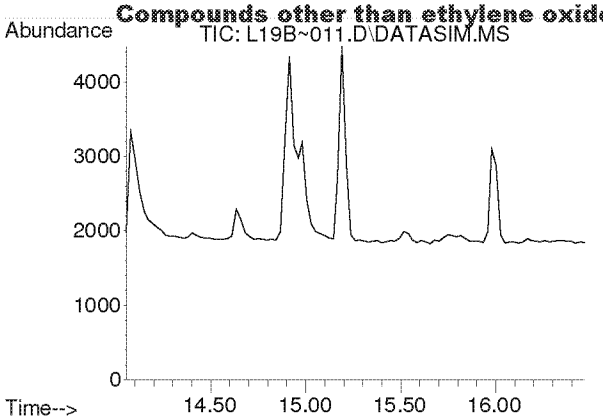
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

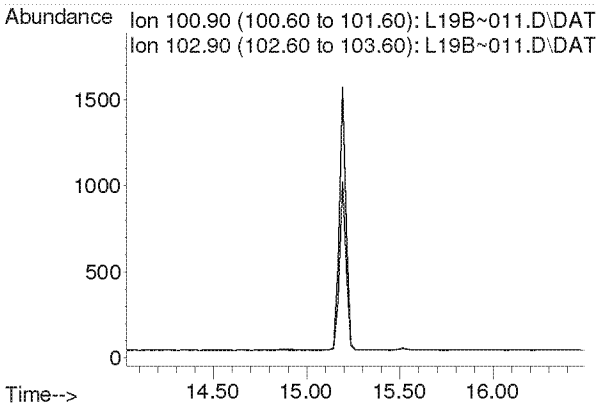


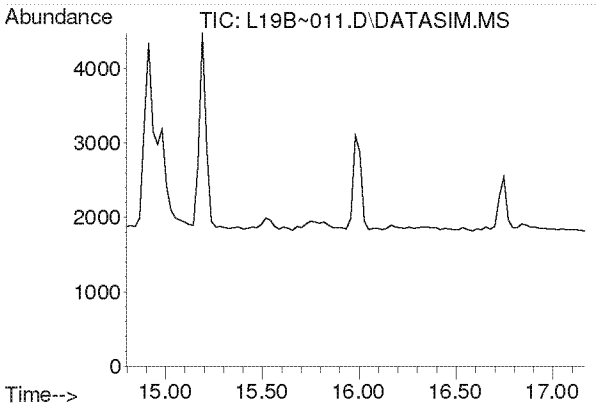
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



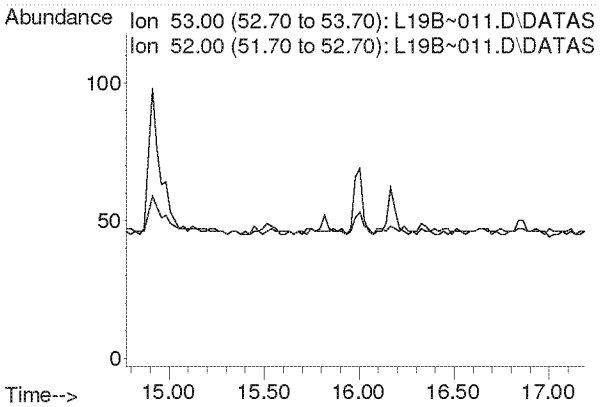


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

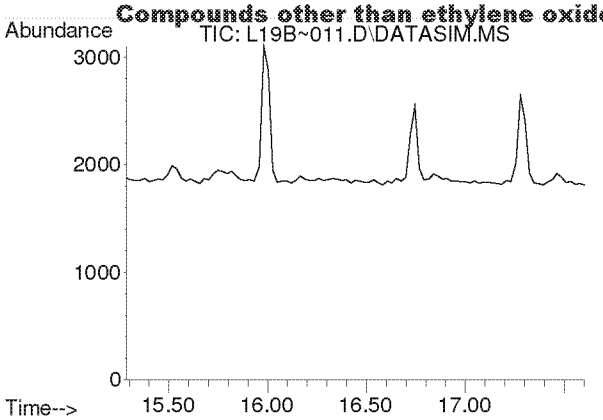
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

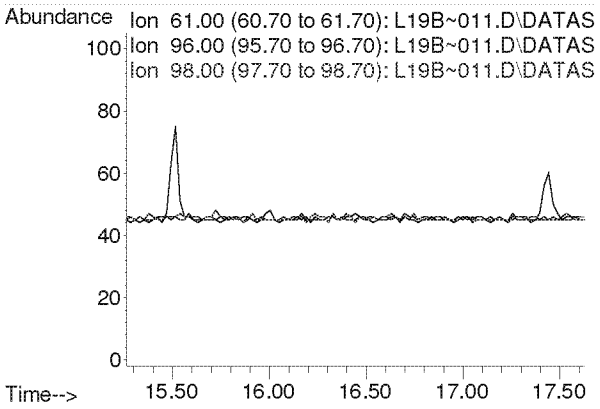


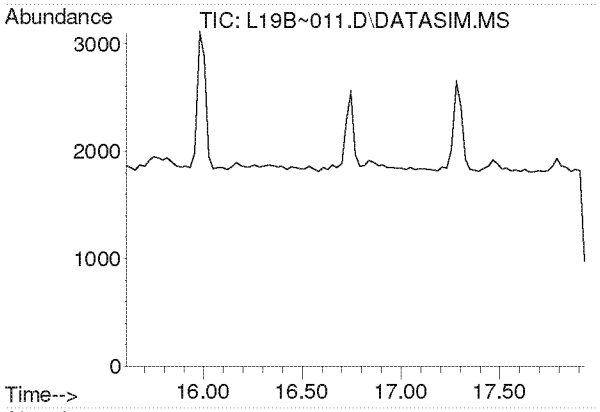
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



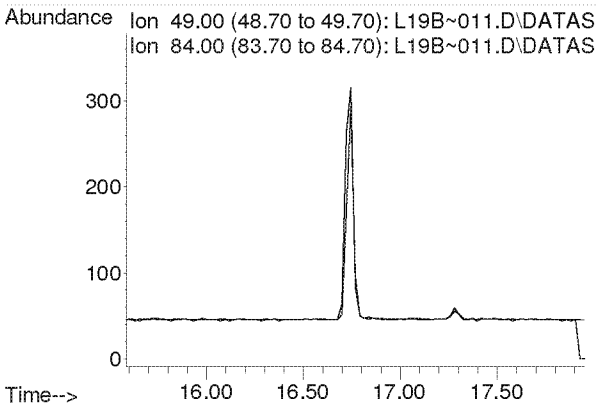


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

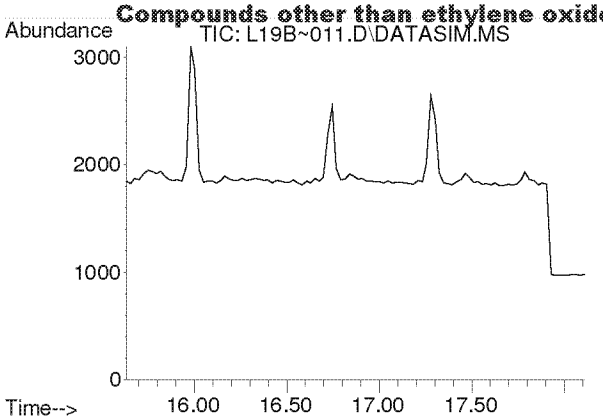
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

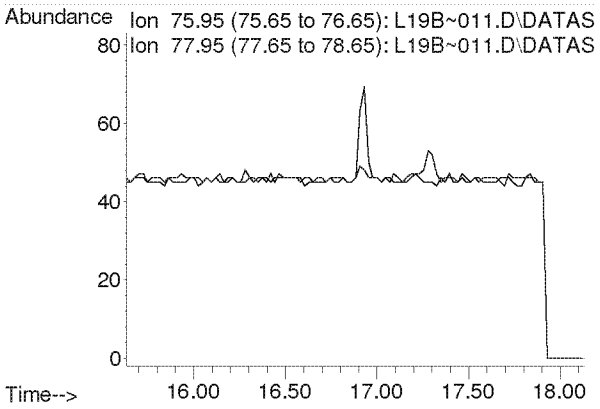


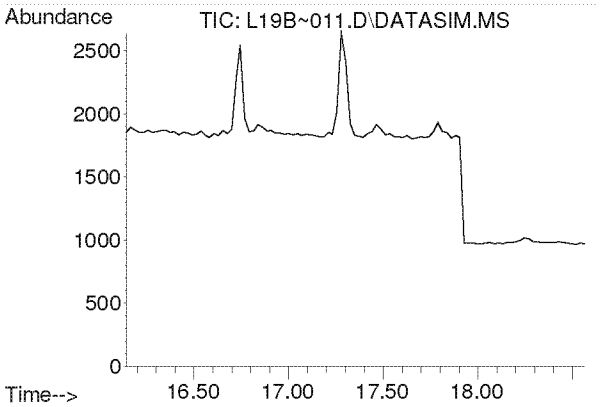
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



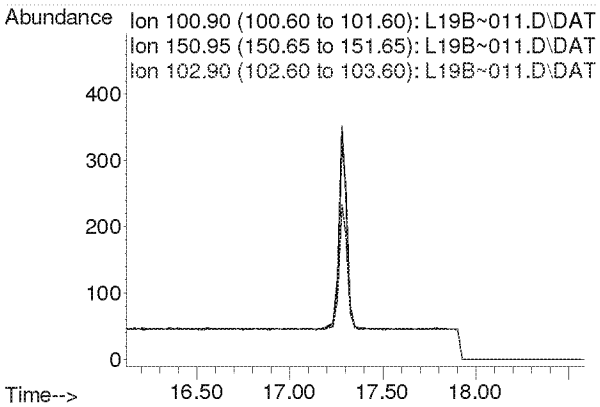


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

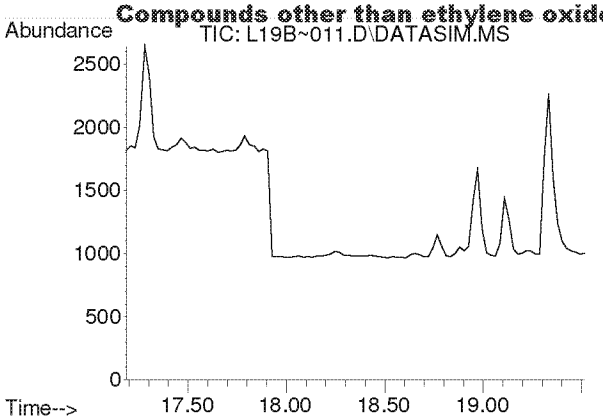
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

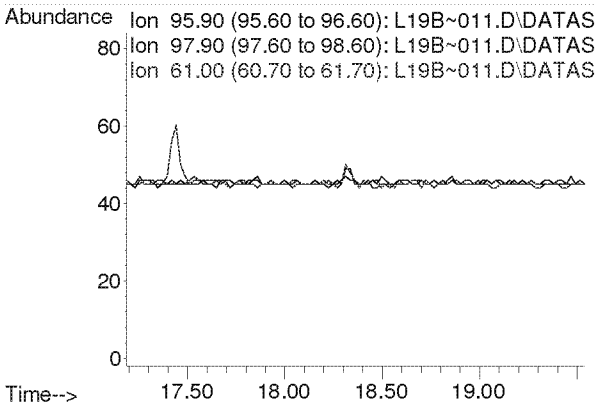


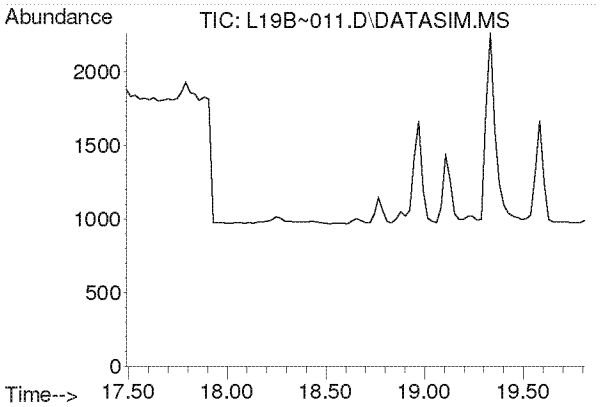
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



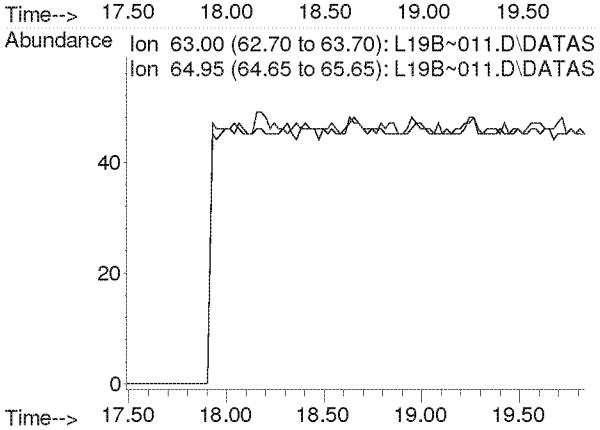


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

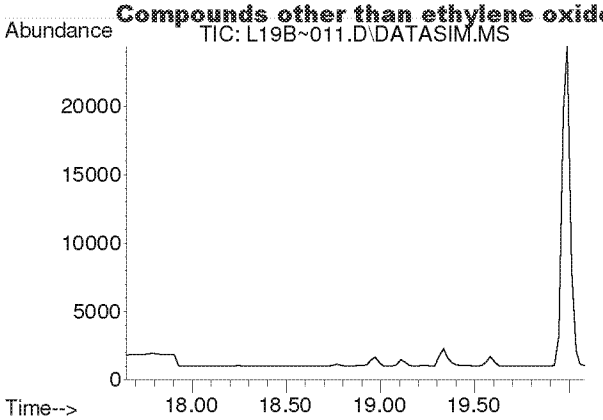
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

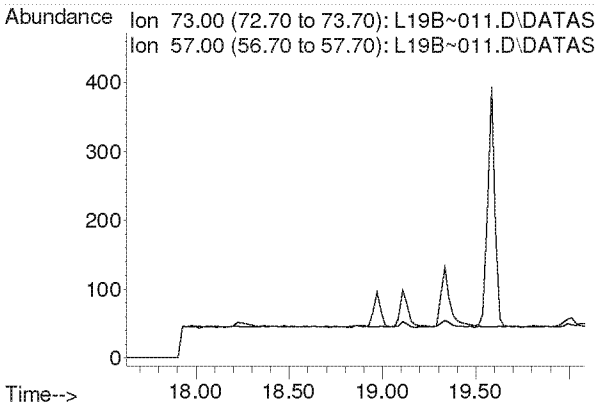


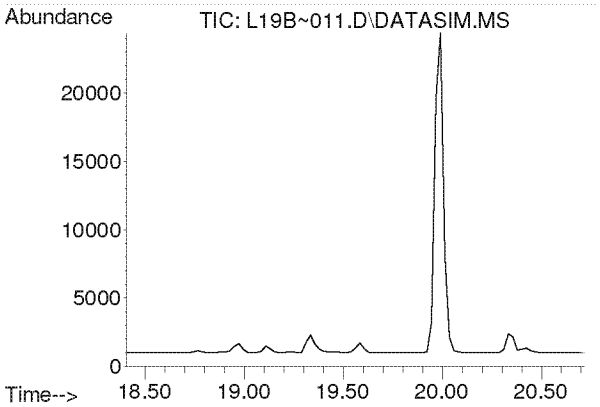
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



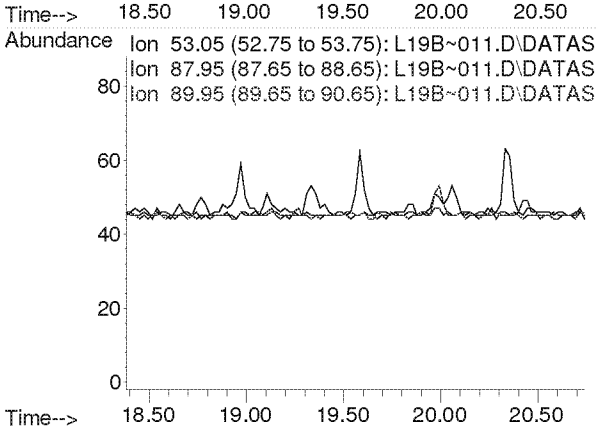


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

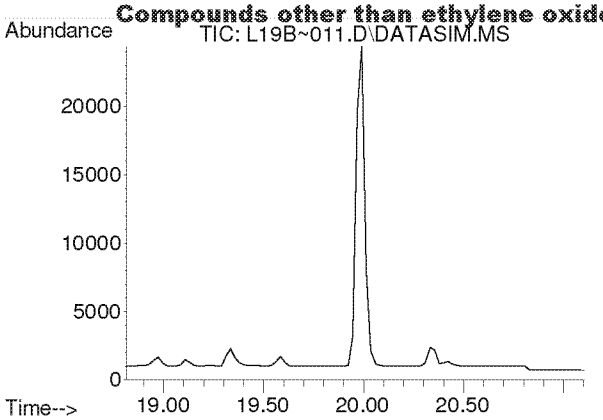
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

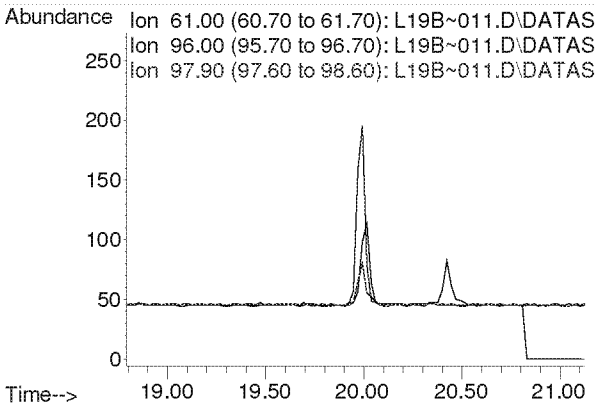


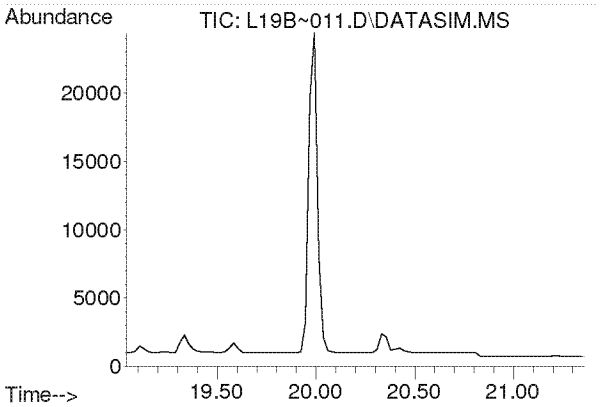
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



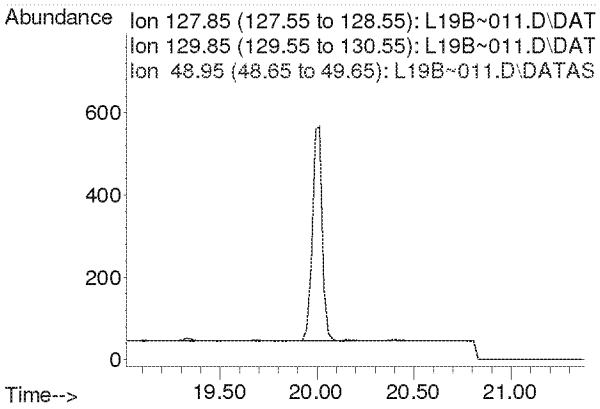


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

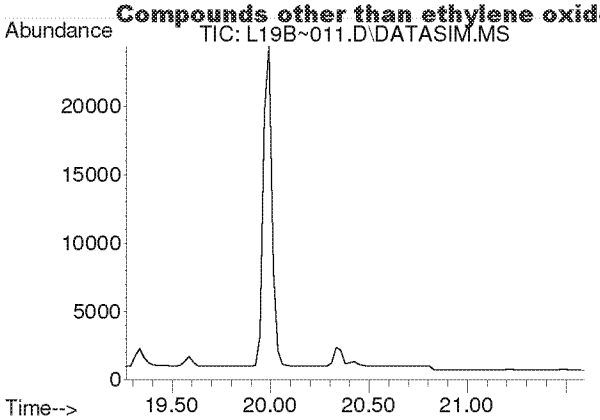
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

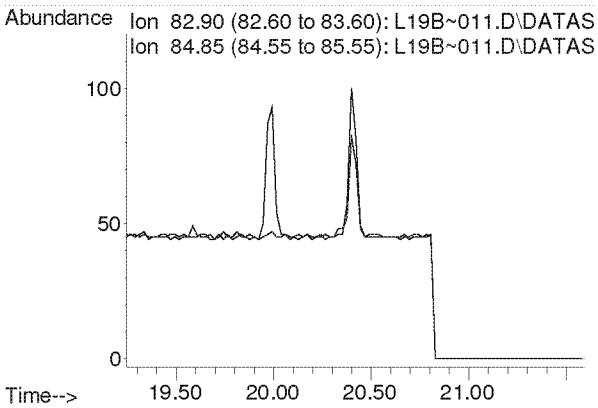


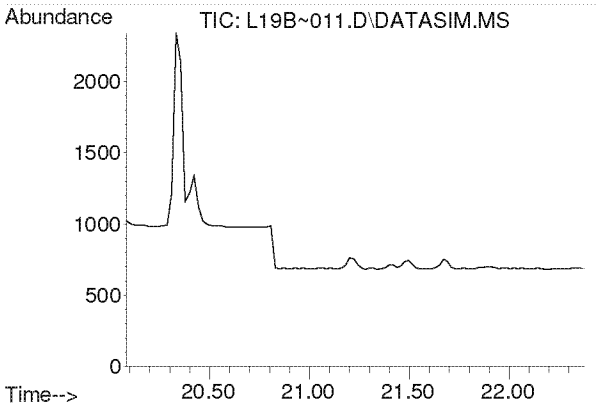
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



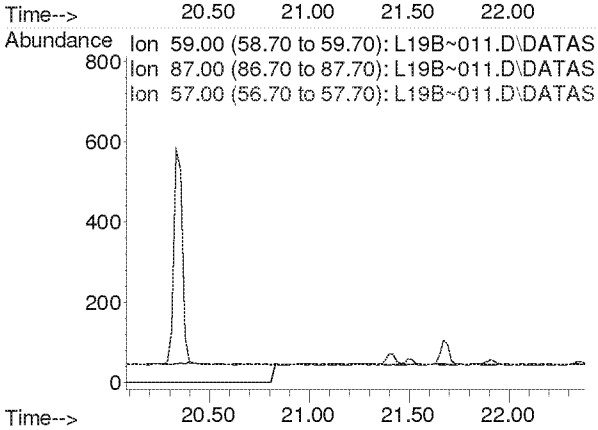


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

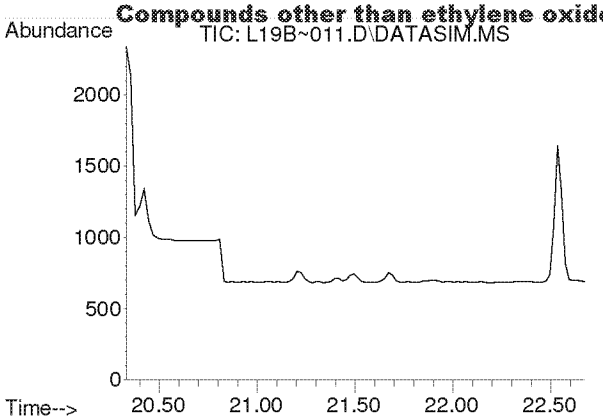
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

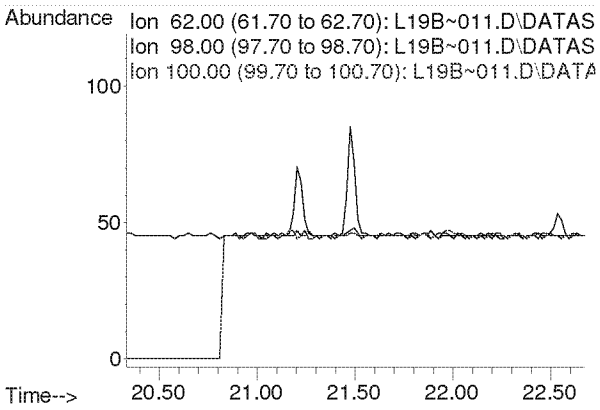


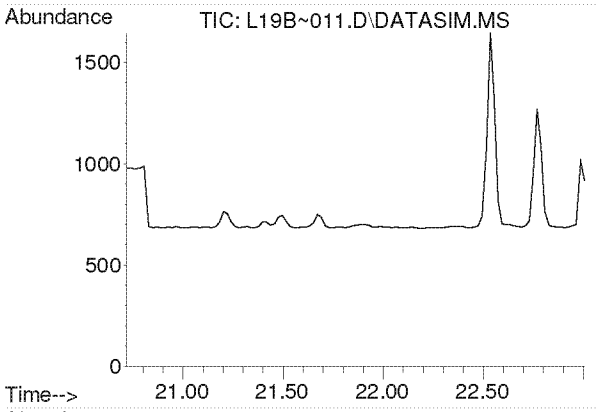
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



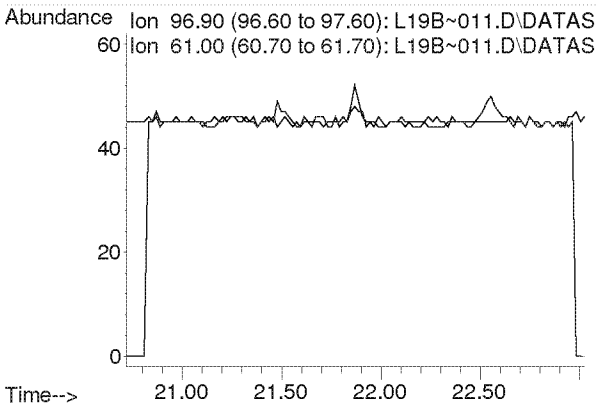


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

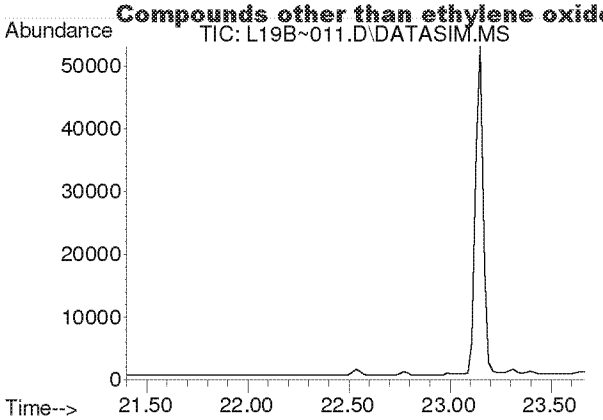
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

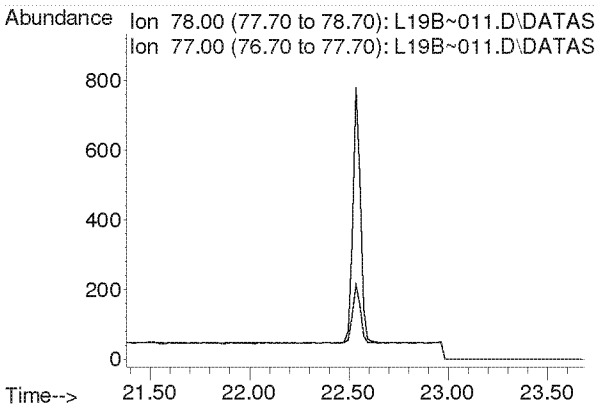


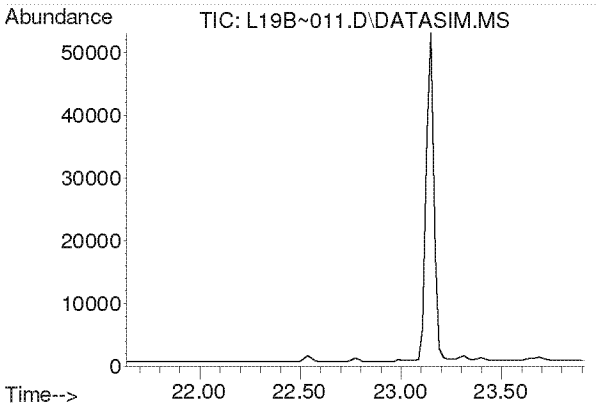
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



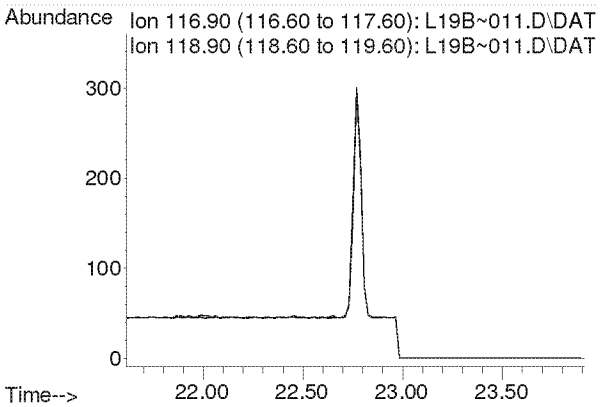


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

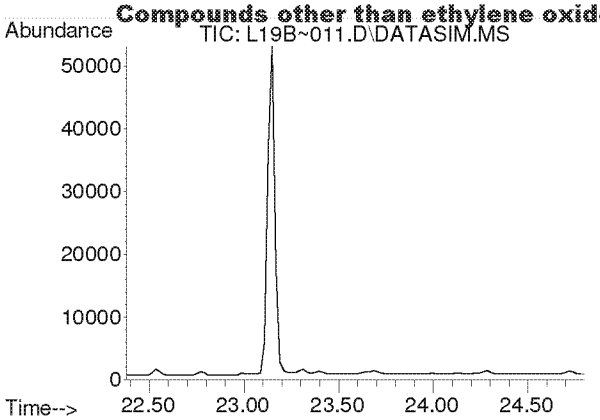
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

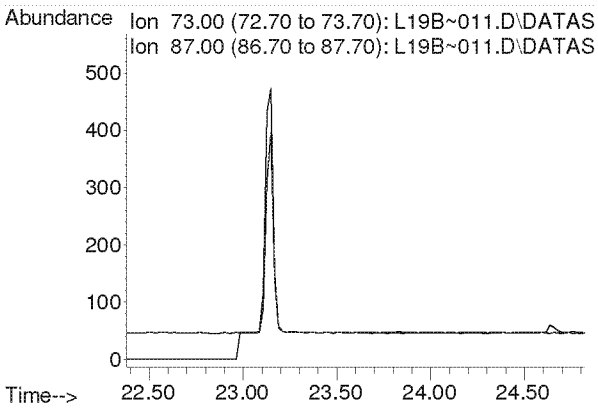


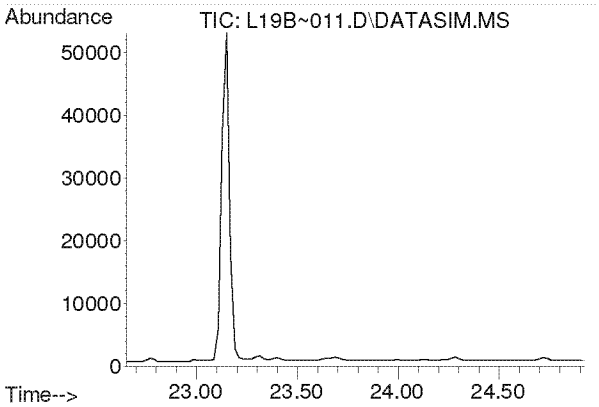
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



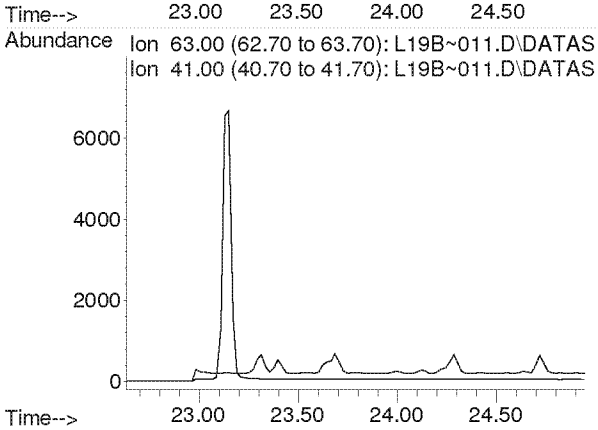


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

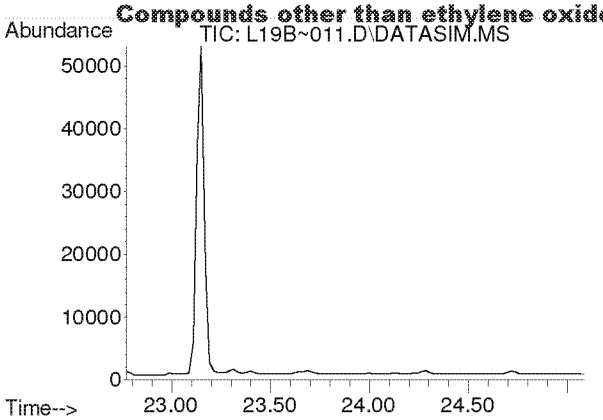
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

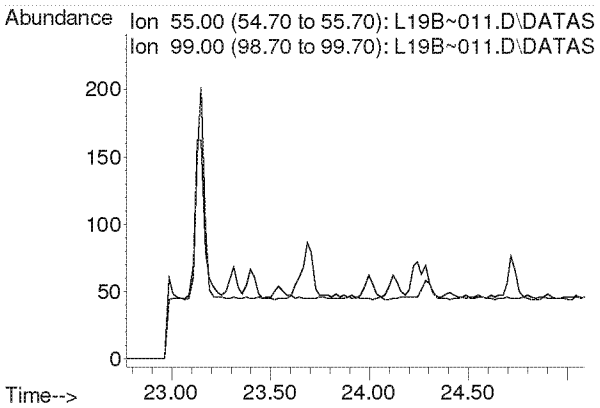


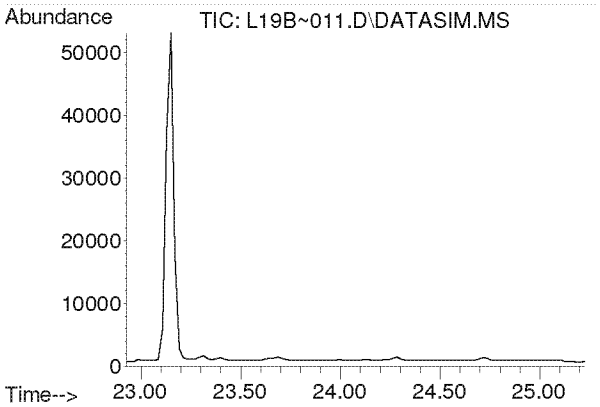
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



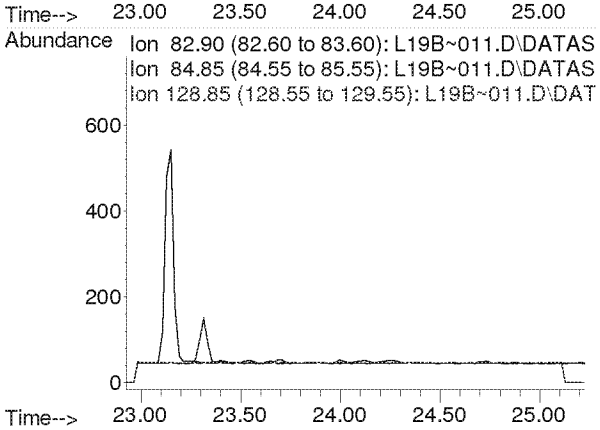


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

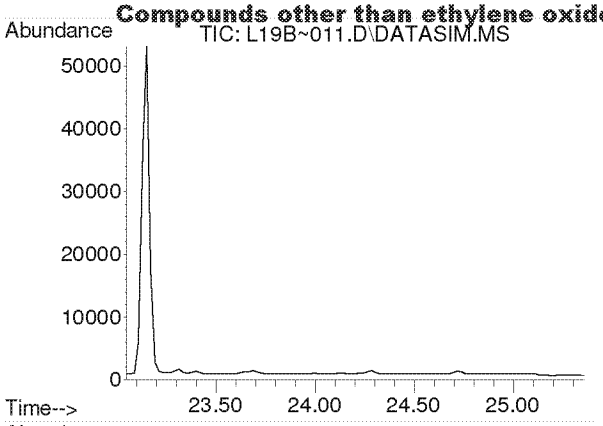
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

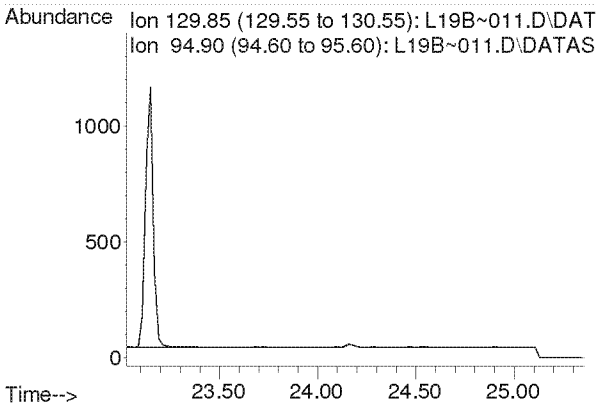


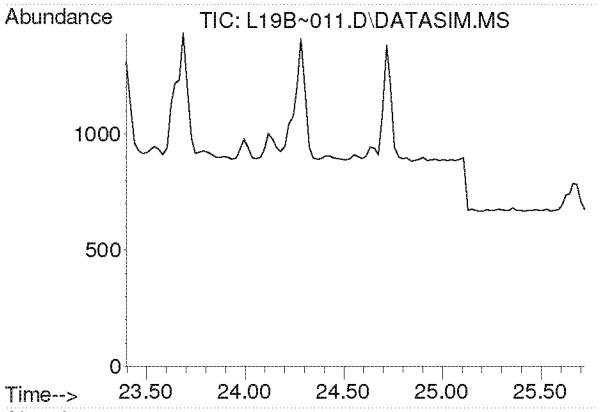
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



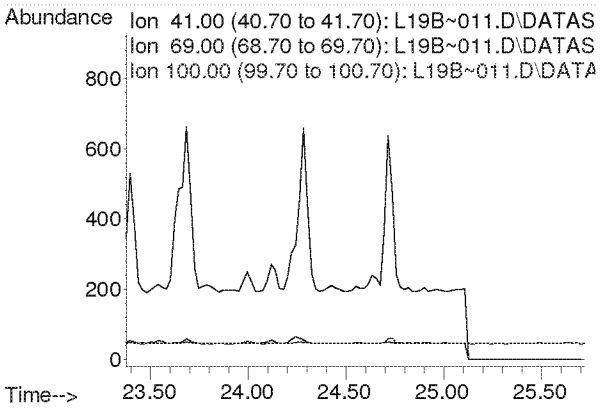


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

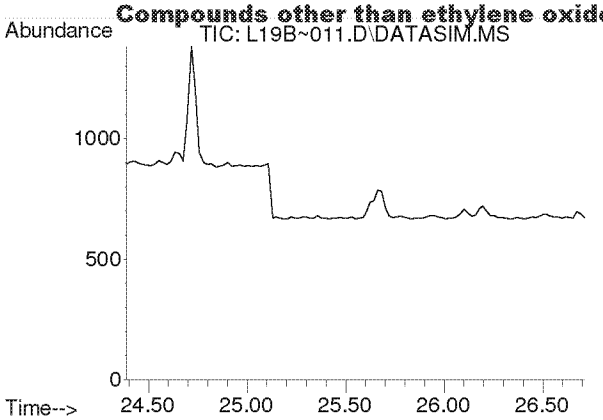
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

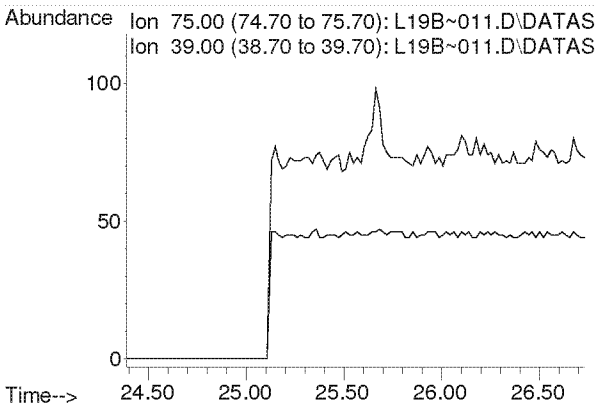


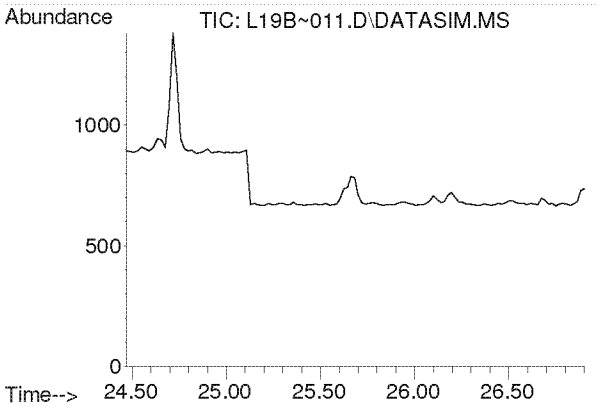
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



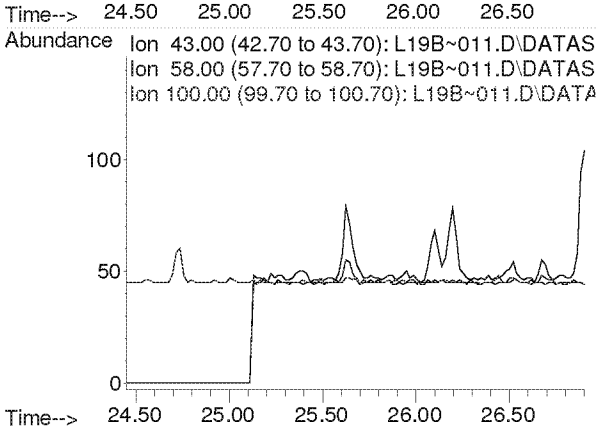


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

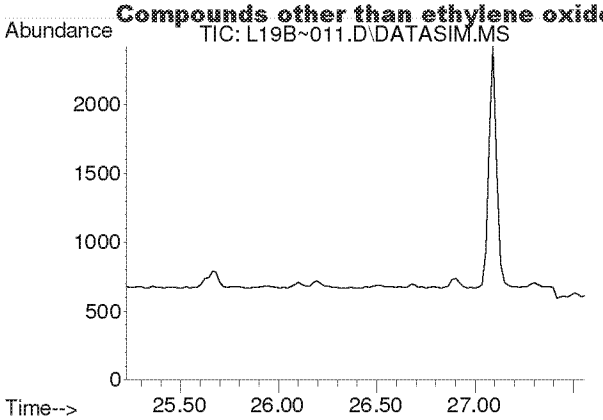
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

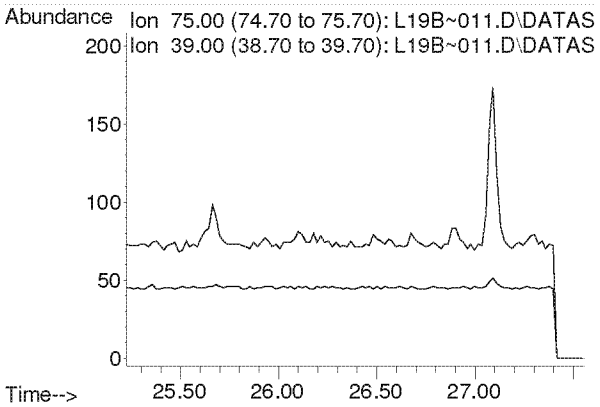


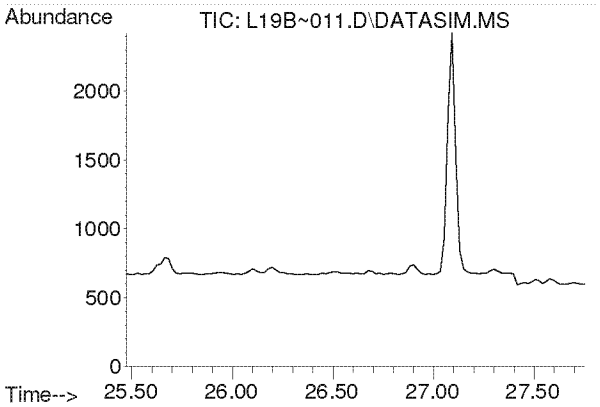
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



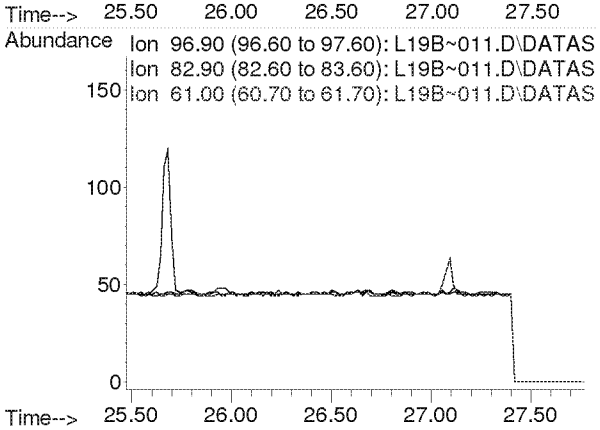


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

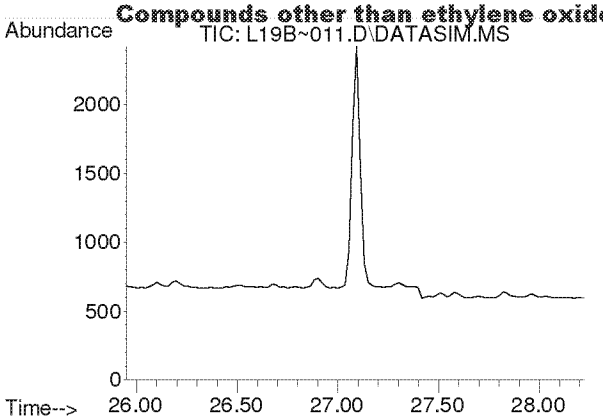
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

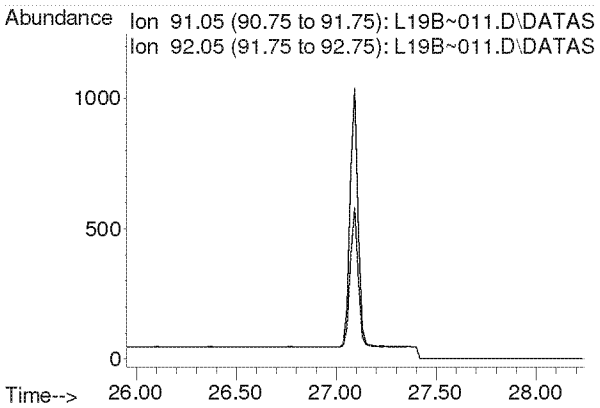


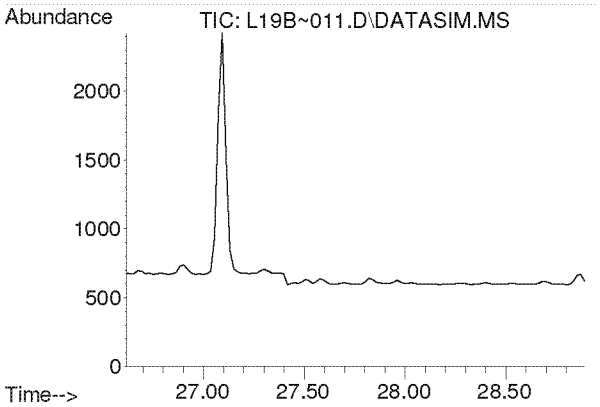
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



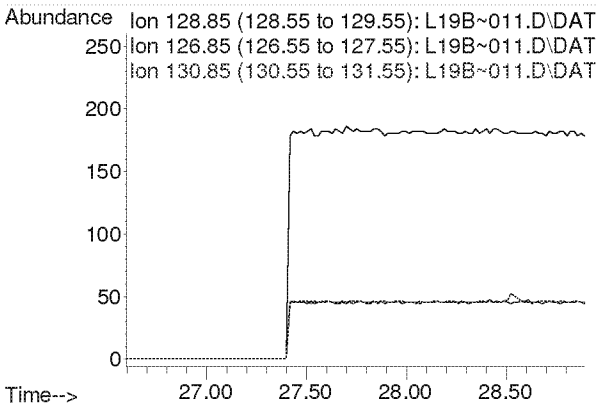


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

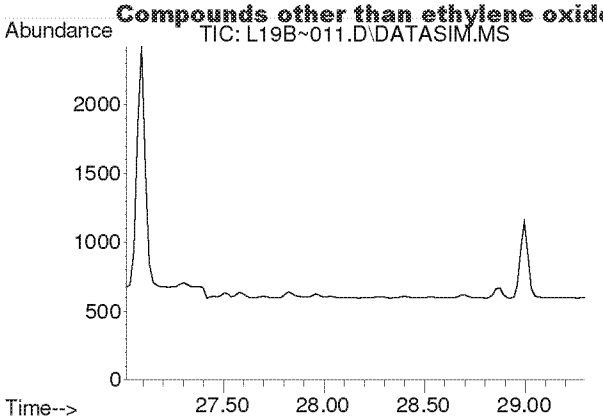
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

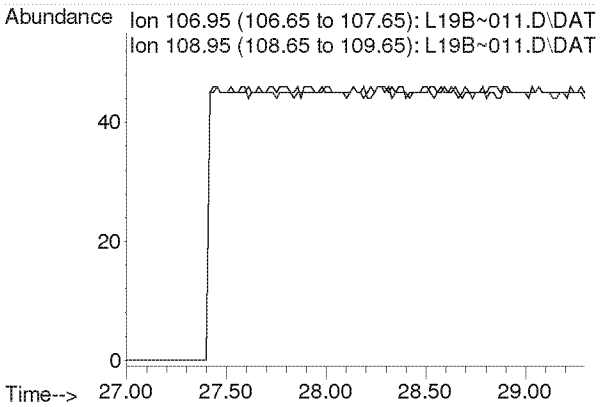


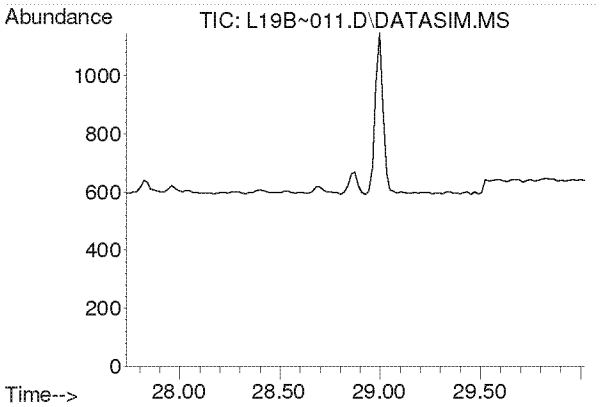
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



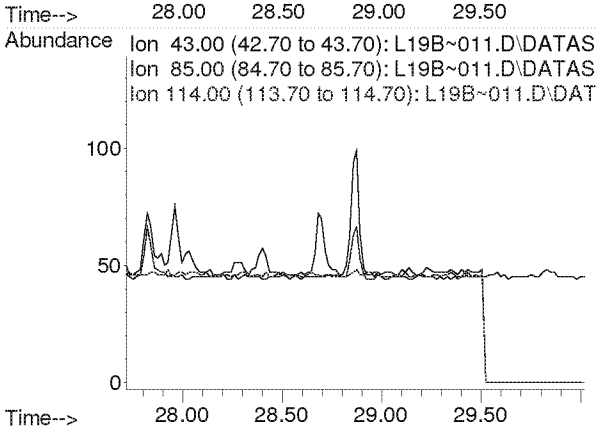


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

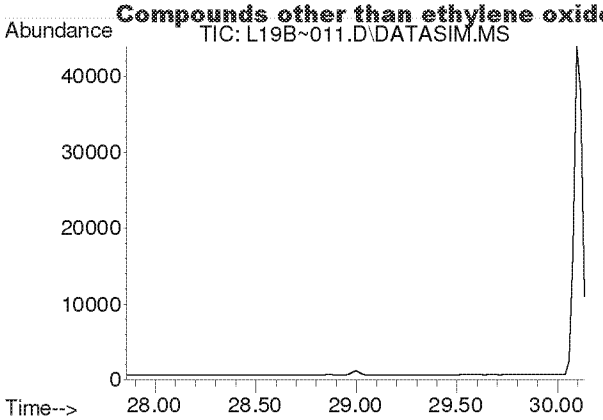
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

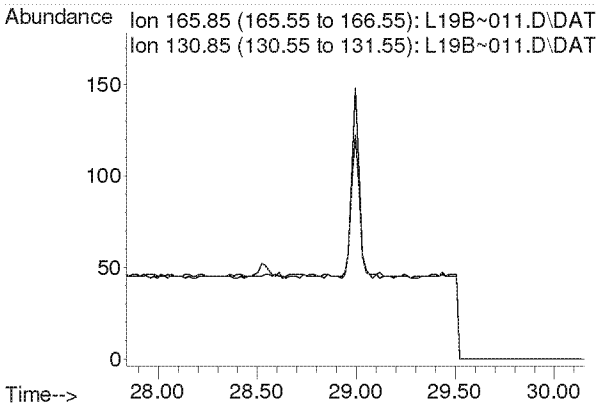


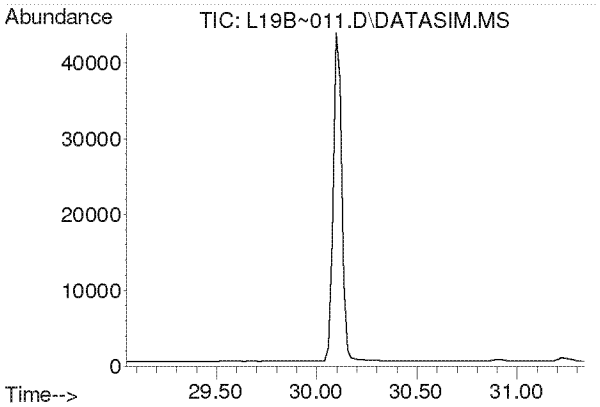
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



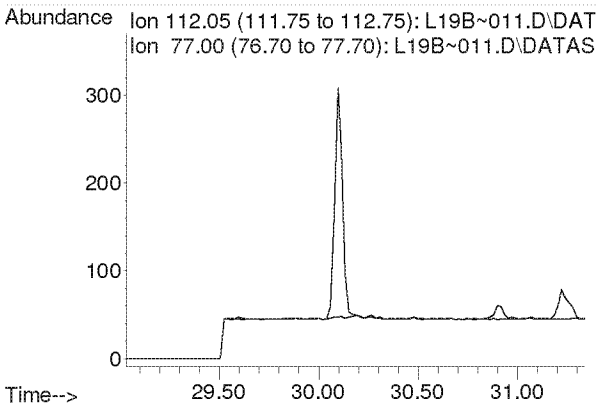


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

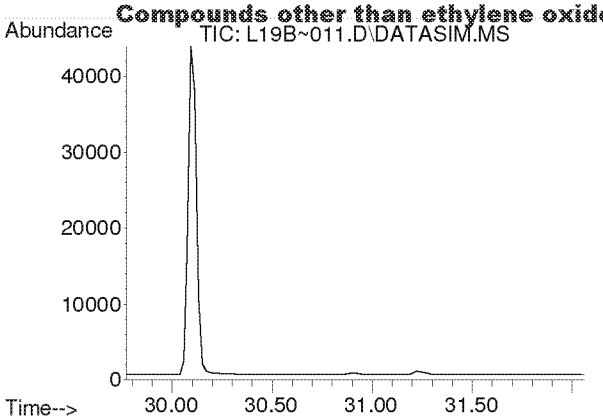
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

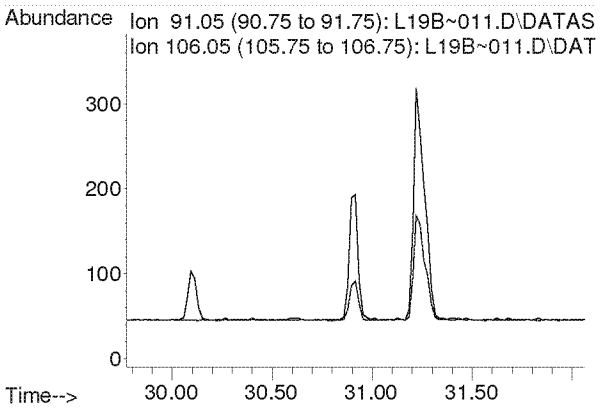


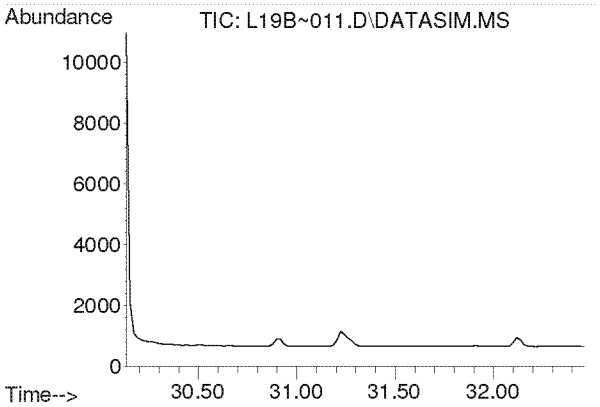
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



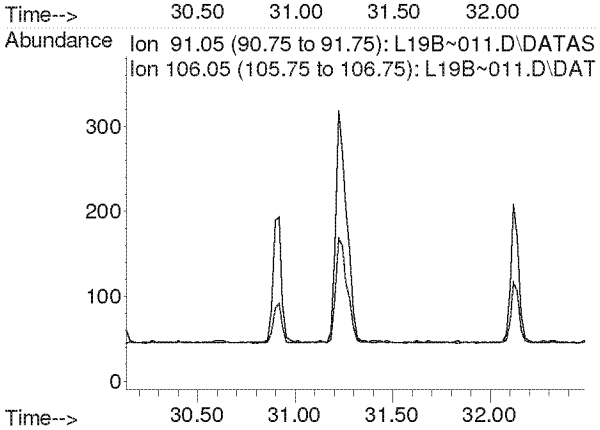


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

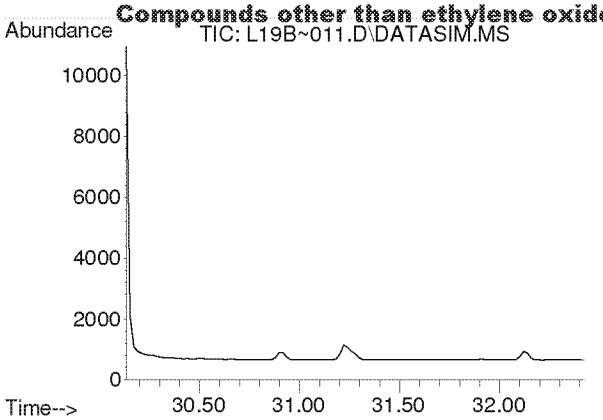
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

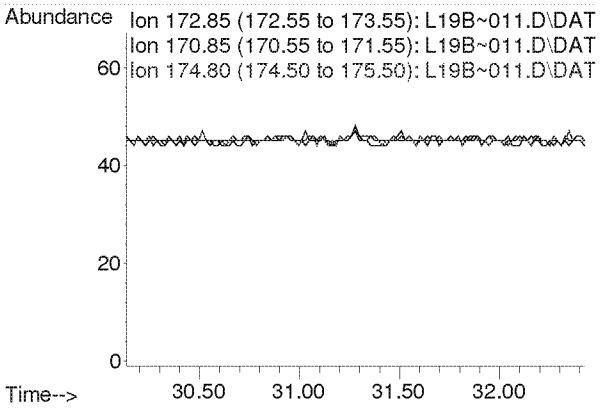


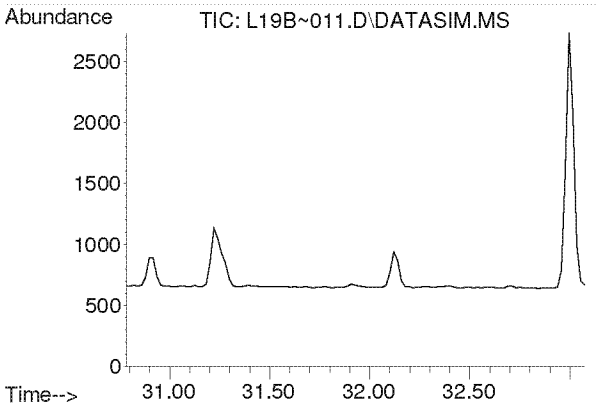
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



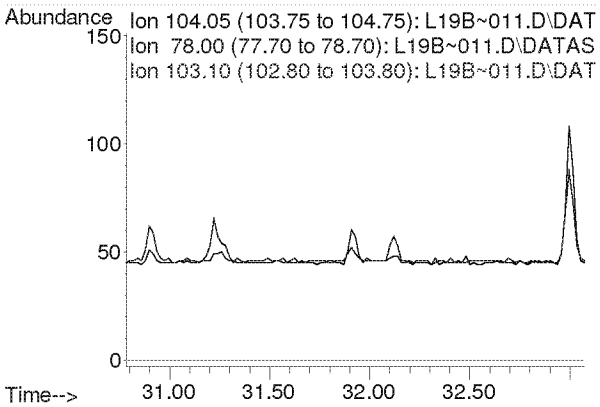


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

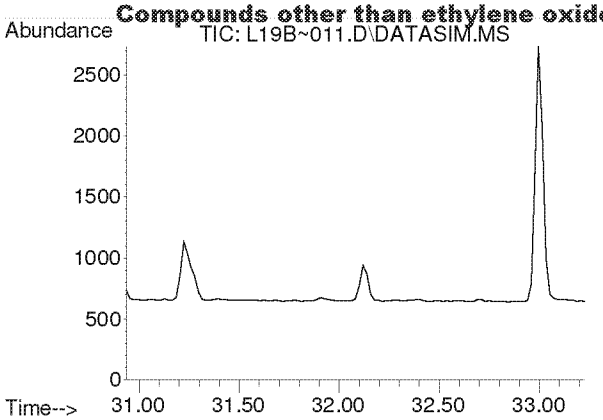
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

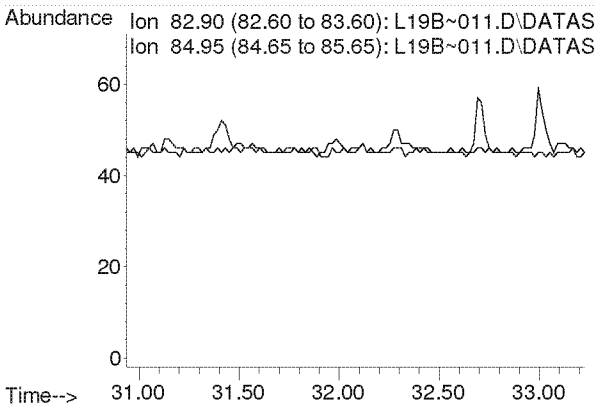


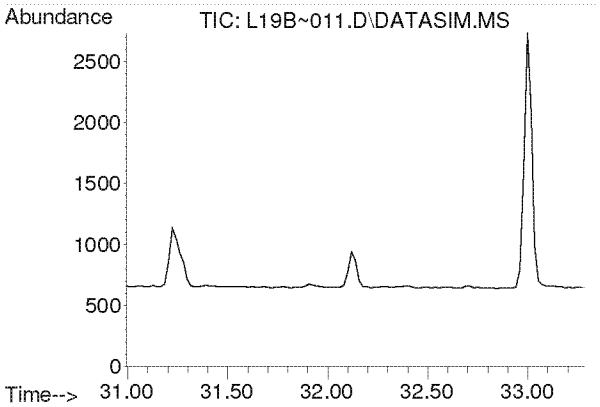
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



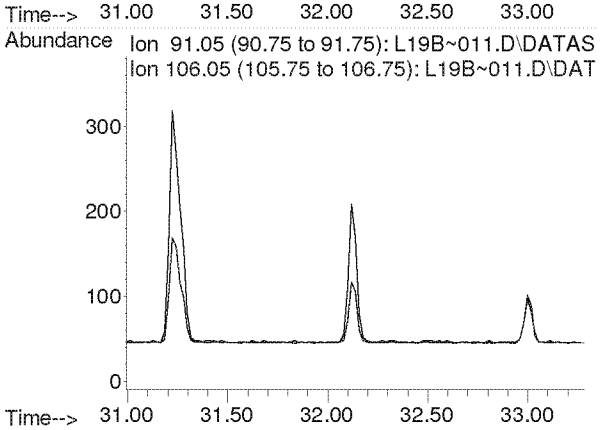


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

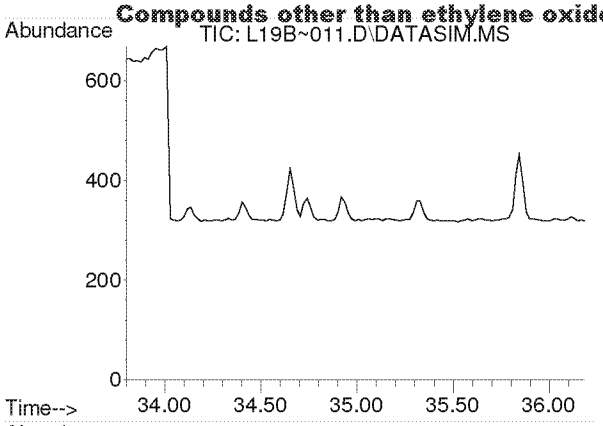
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

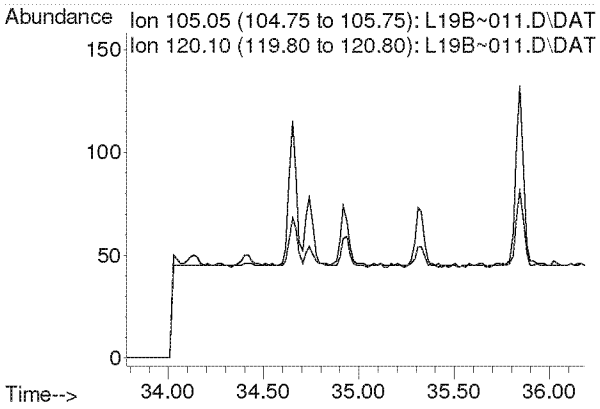


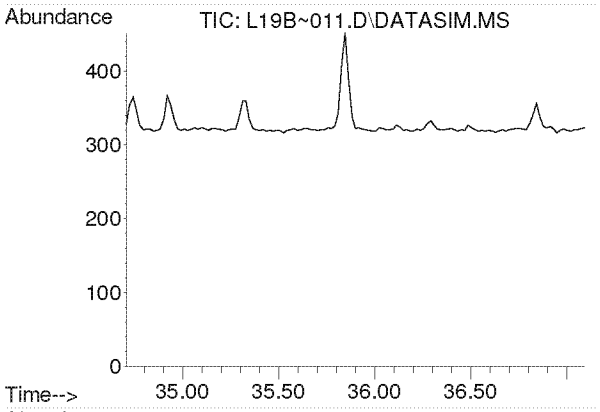
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



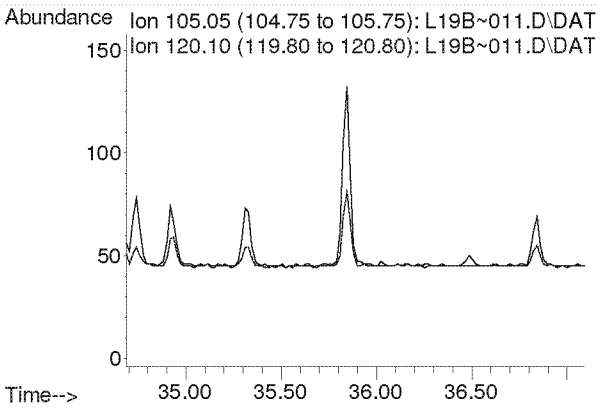


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

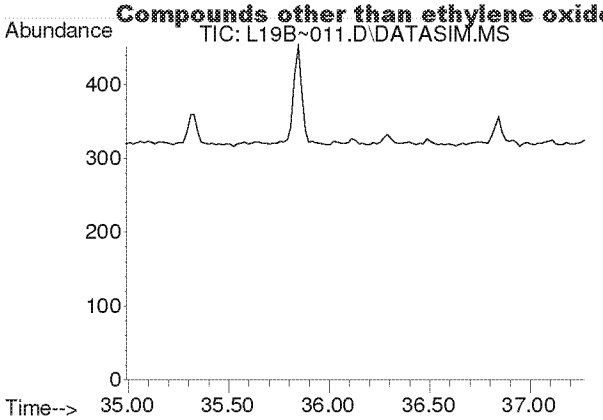
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

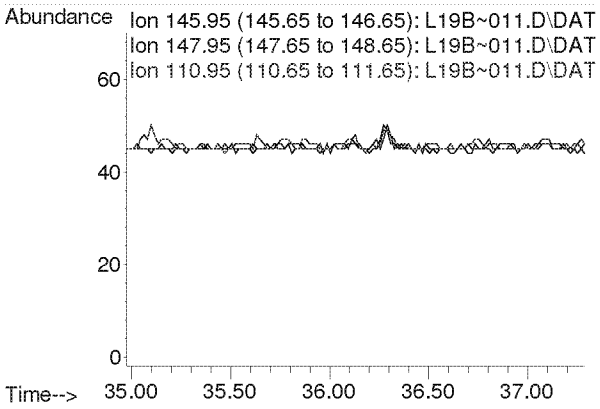


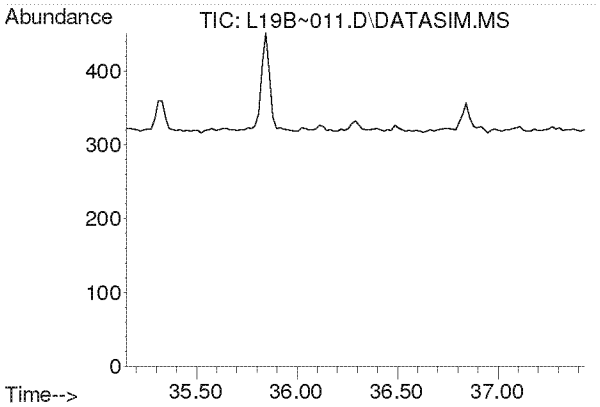
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



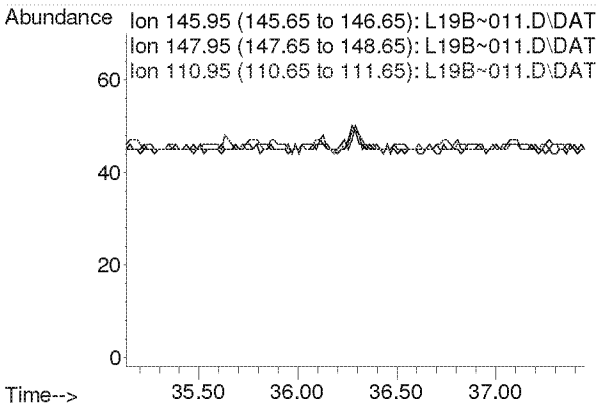


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

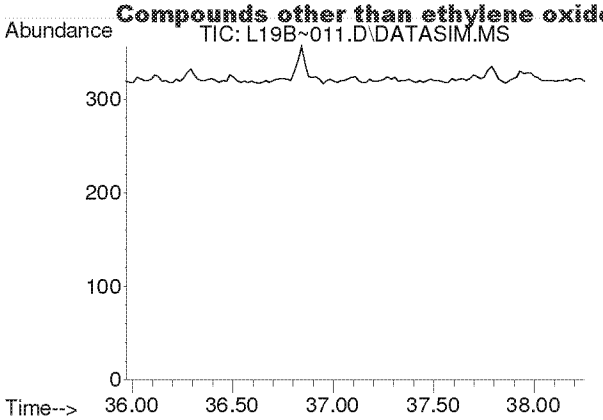
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

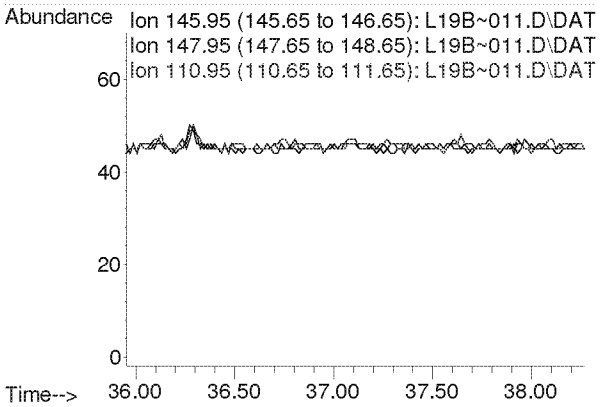


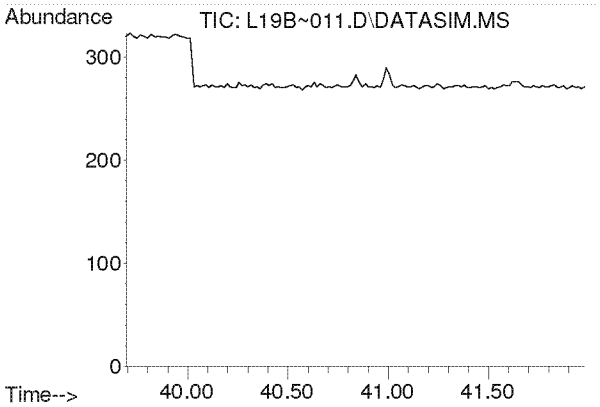
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



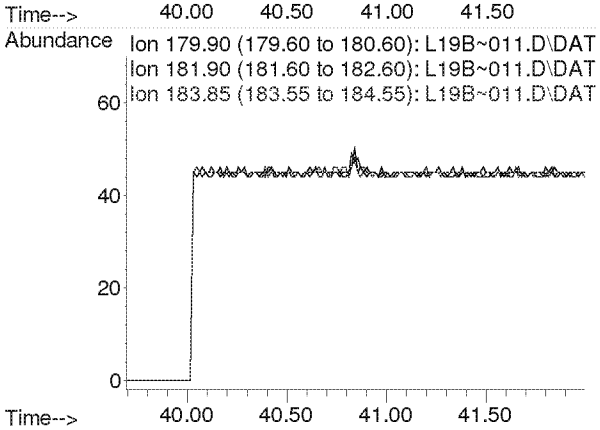


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

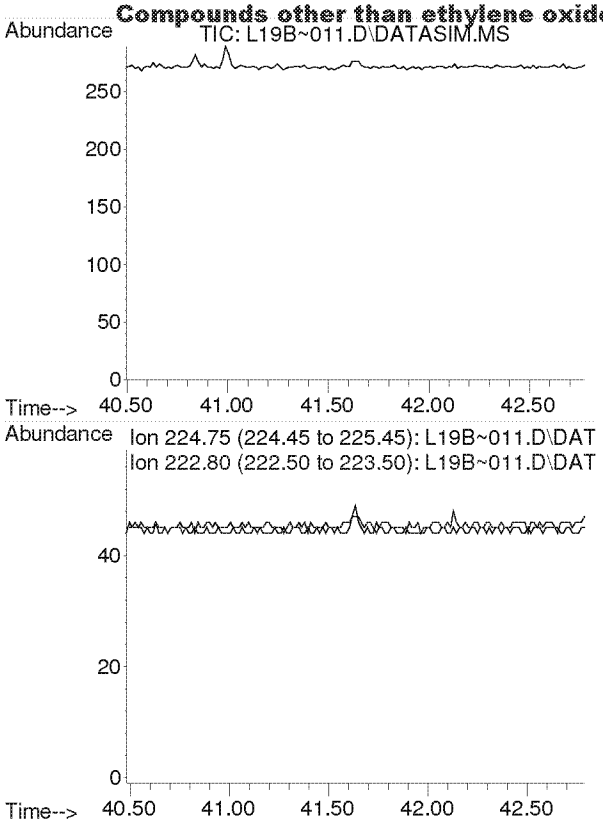
Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19B~011.D
Acq: 27 Feb 2019 9:32 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~012.D
Acq On : 27 Feb 2019 10:32 pm
Operator : MAH
Sample : B9B2705-DUP3
Misc : EPA WB WAREHOUSE R1 2/22/19
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 05 06:45:59 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

EPA only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	42402	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	106885	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	76982	4.7400 ppbv	-0.00

System Monitoring Compounds

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~012.D
Acq On : 27 Feb 2019 10:32 pm
Operator : MAH
Sample : B9B2705-DUP3
Misc : EPA WB WAREHOUSE R1 2/22/19
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 05 06:45:59 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

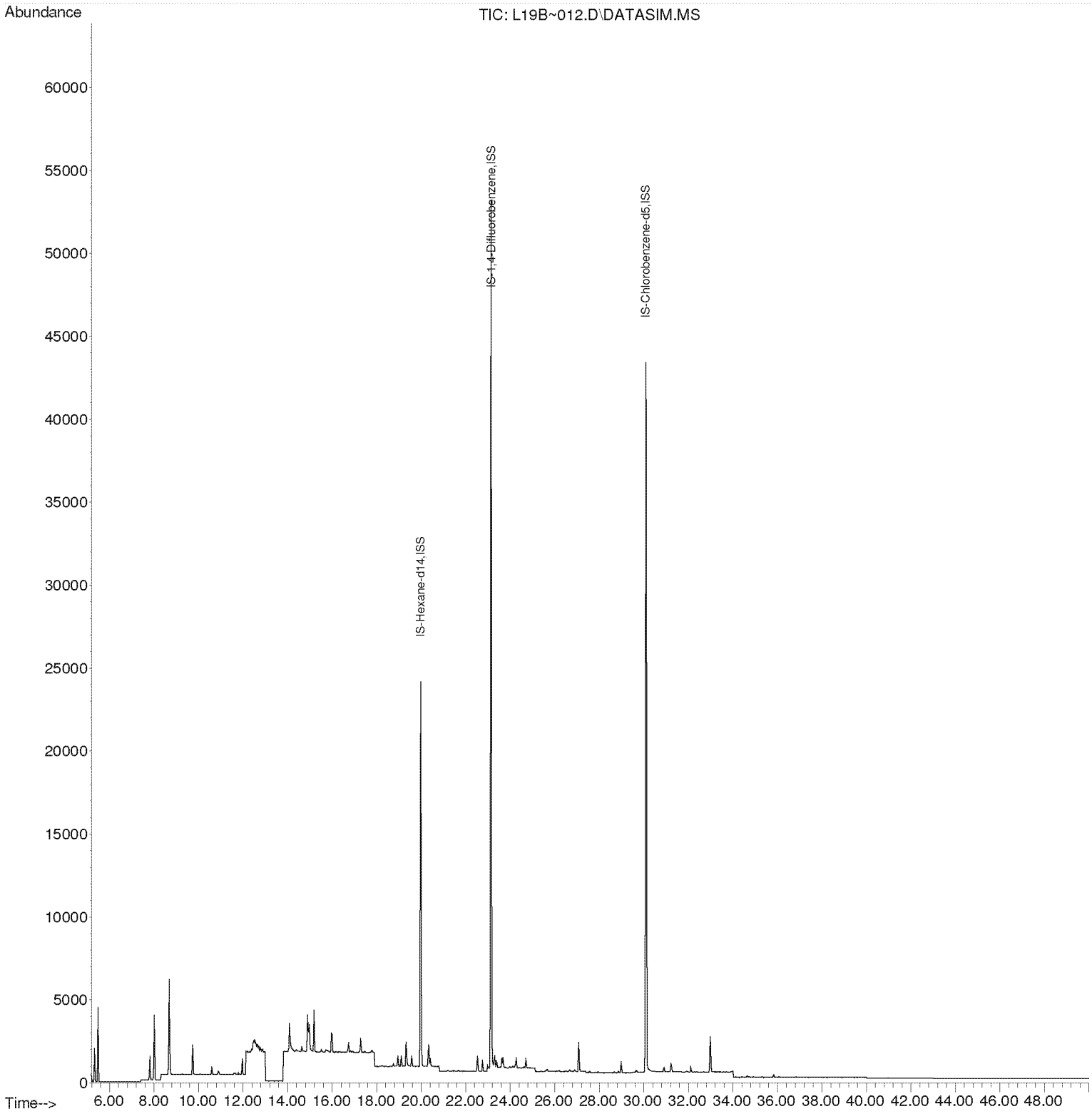
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

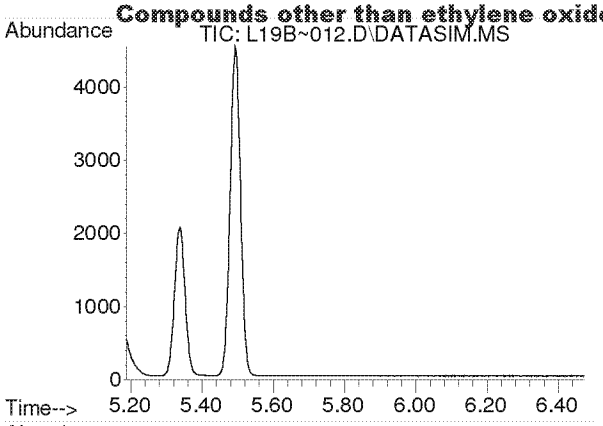
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~012.D
Acq On : 27 Feb 2019 10:32 pm
Operator : MAH
Sample : B9B2705-DUP3
Misc : EPA WB WAREHOUSE R1 2/22/19
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 28 12:54:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



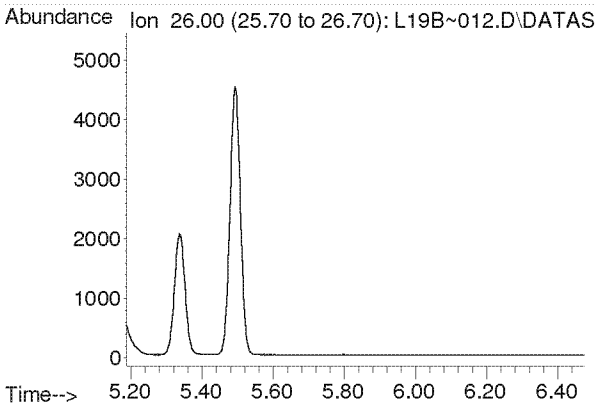
Compounds other than ethylene oxide were not quantitated.

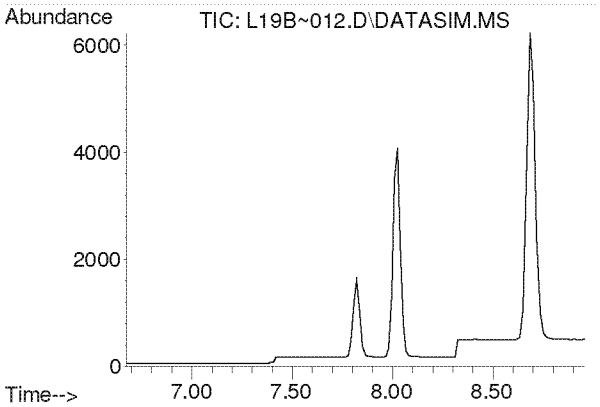


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 26



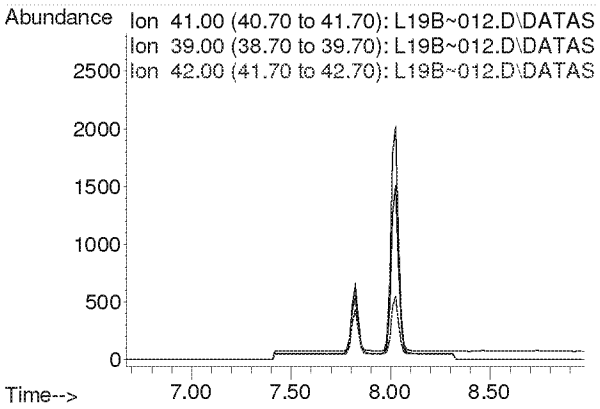


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

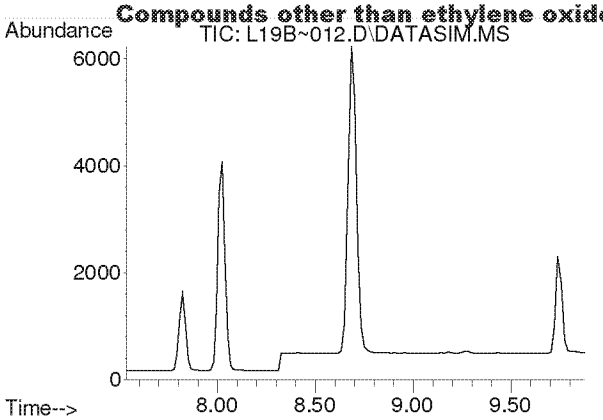
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

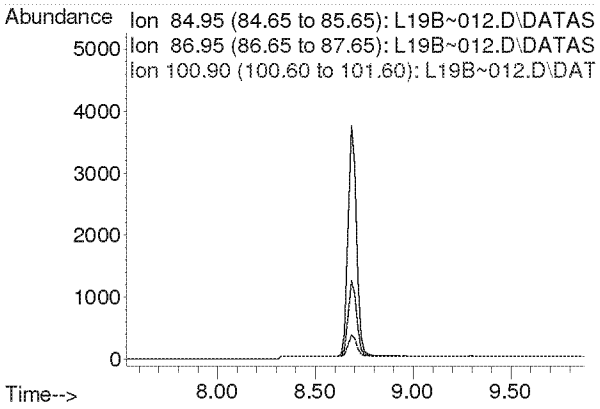


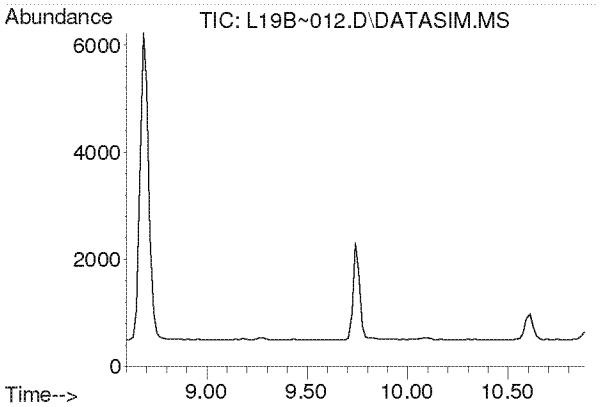
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



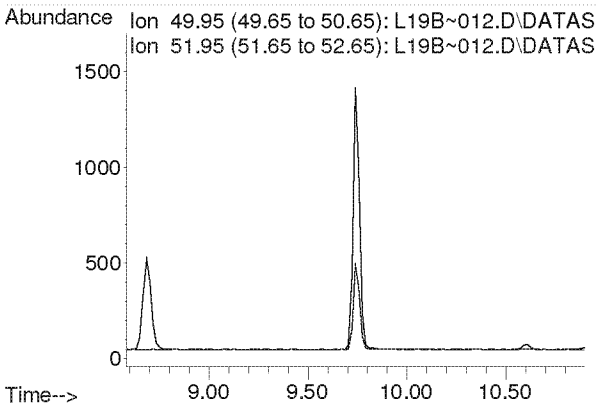


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

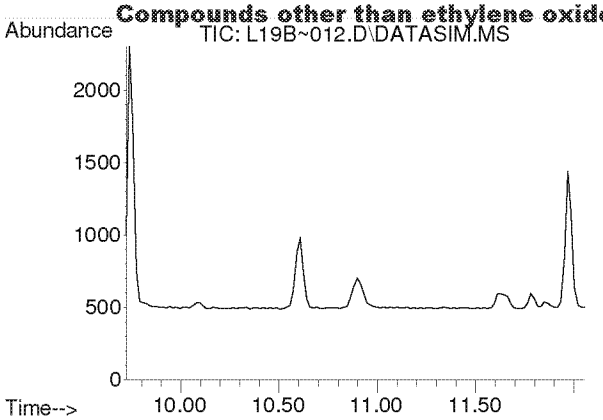
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

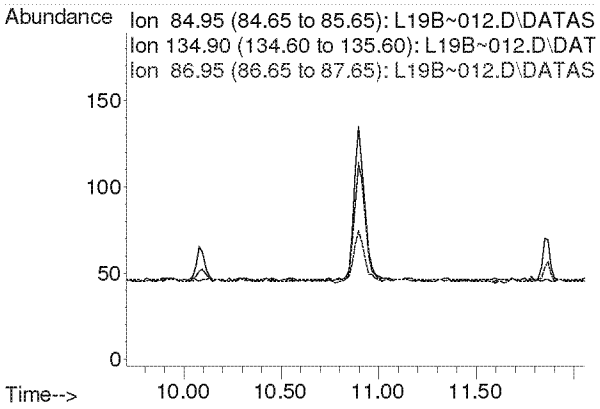


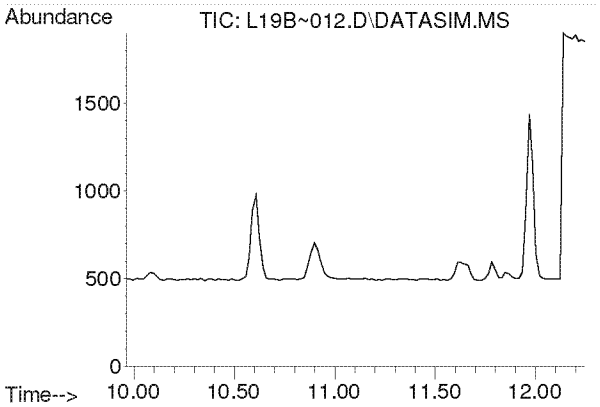
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



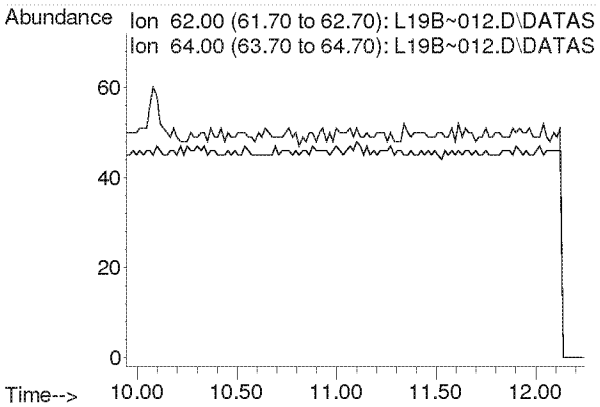


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

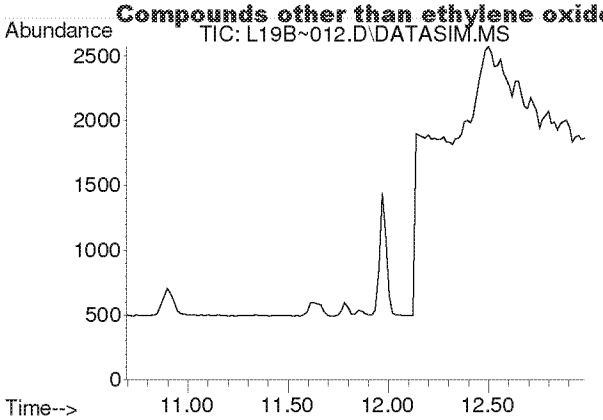
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

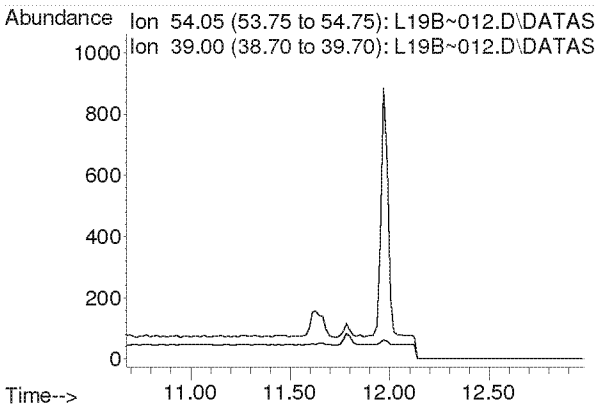


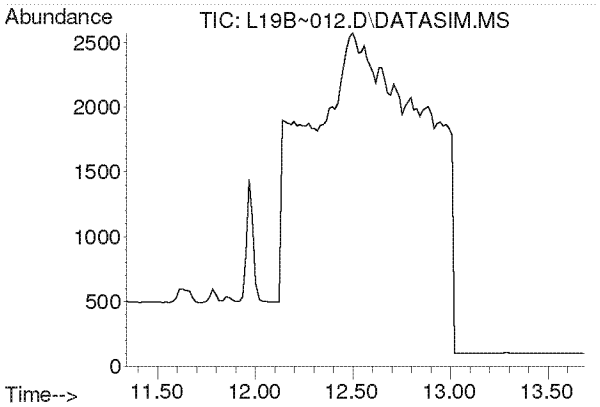
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



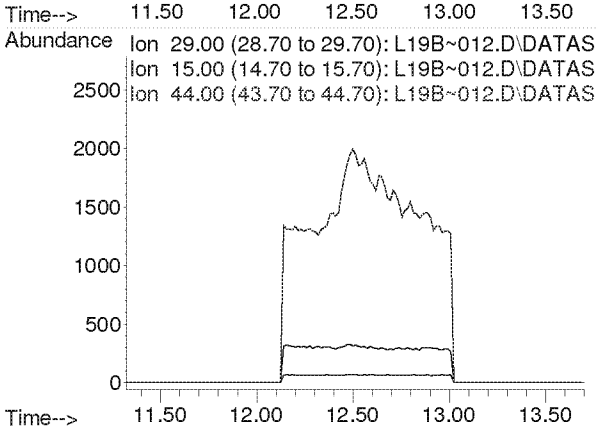


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

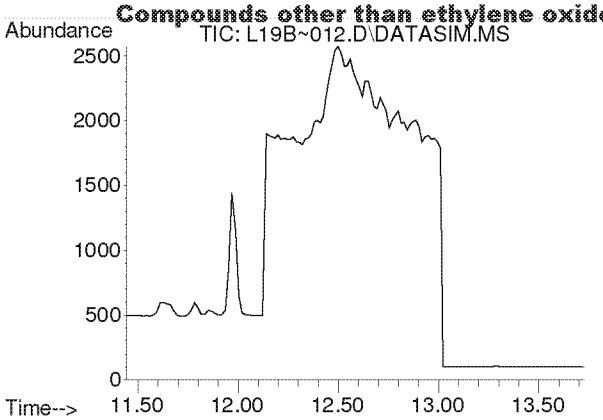
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

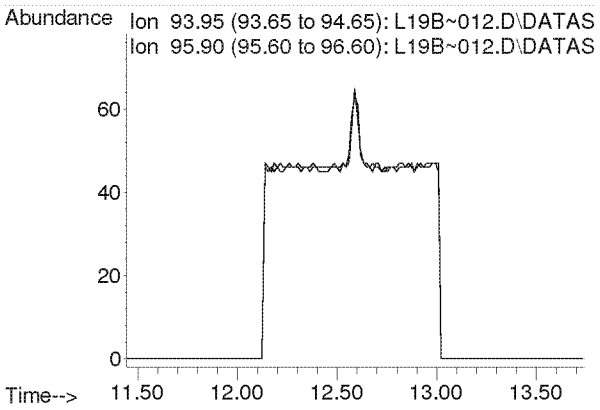


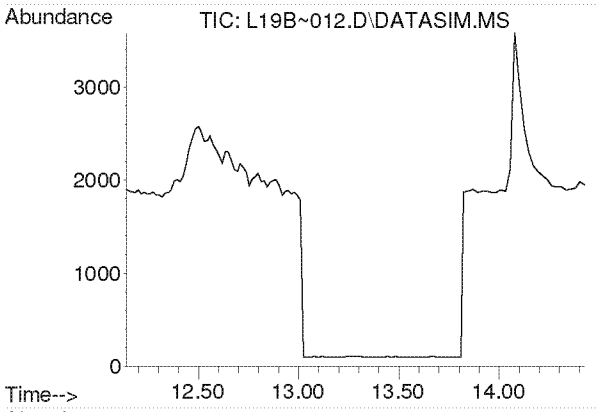
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



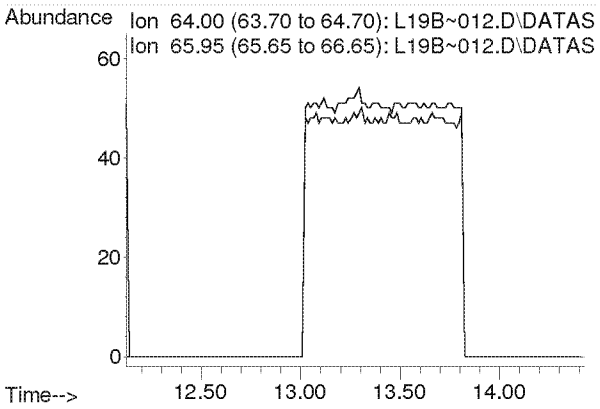


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

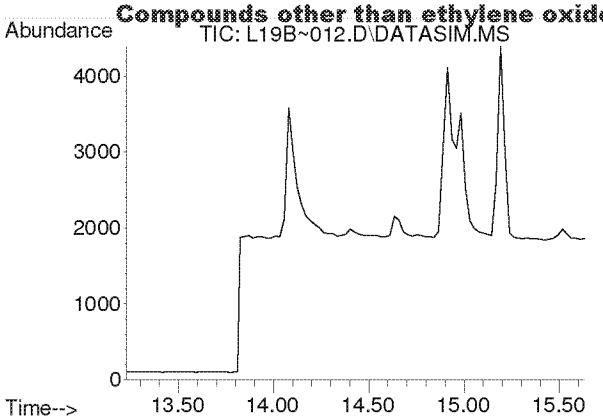
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

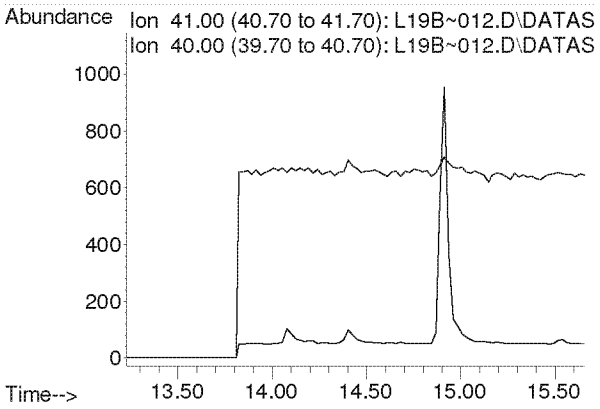


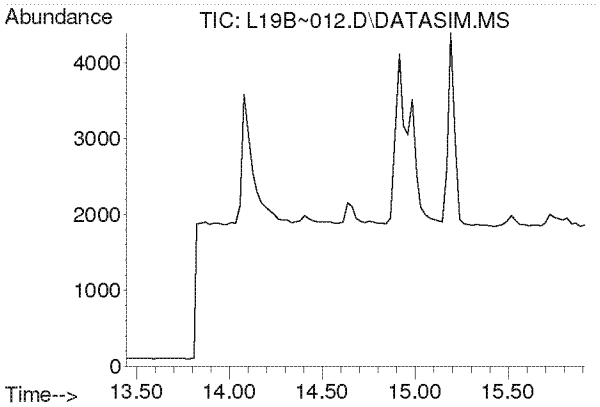
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



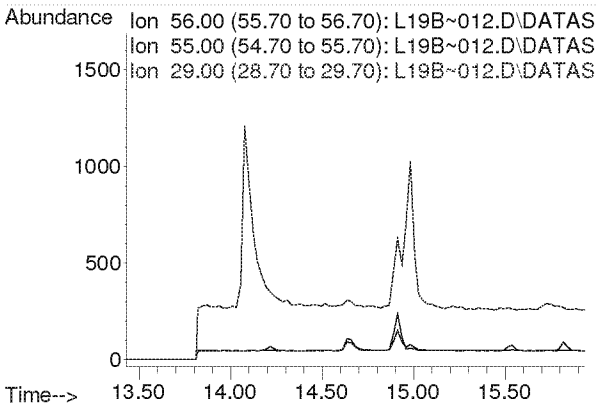


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

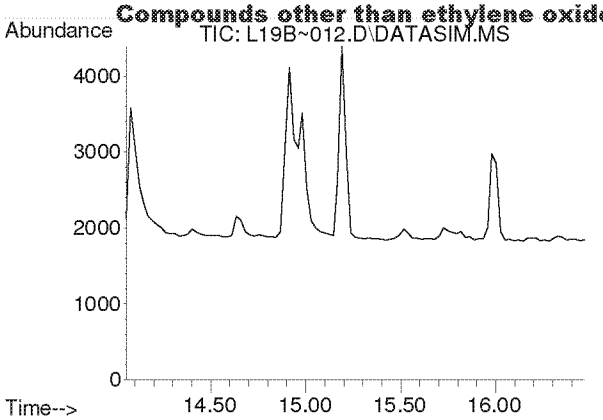
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

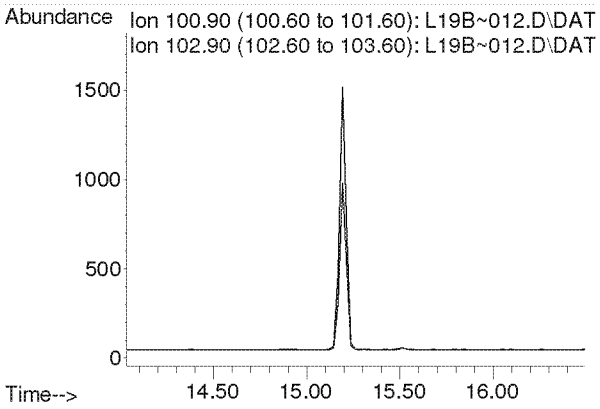


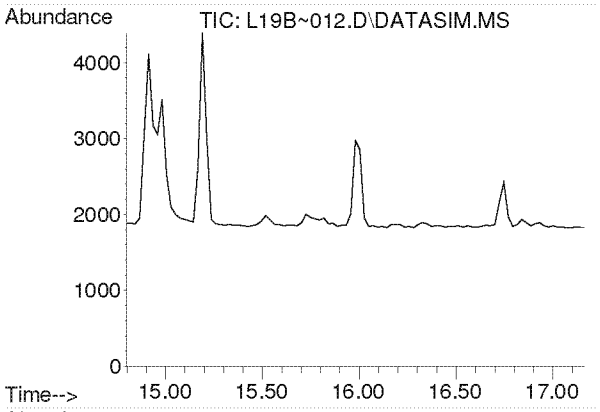
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



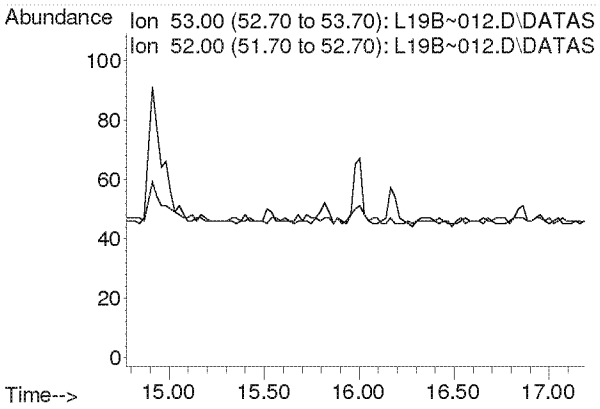


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

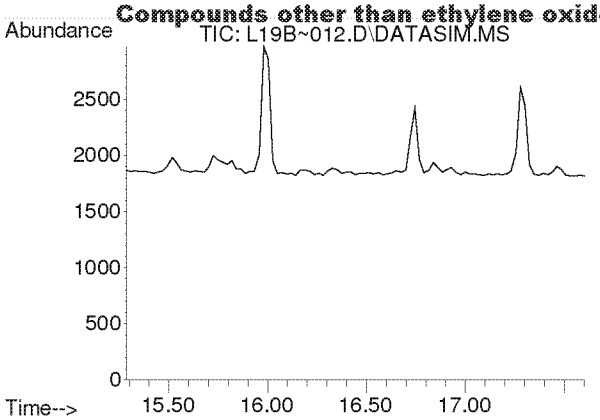
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

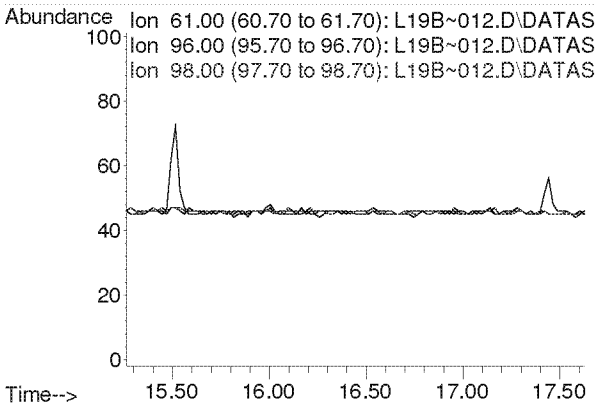


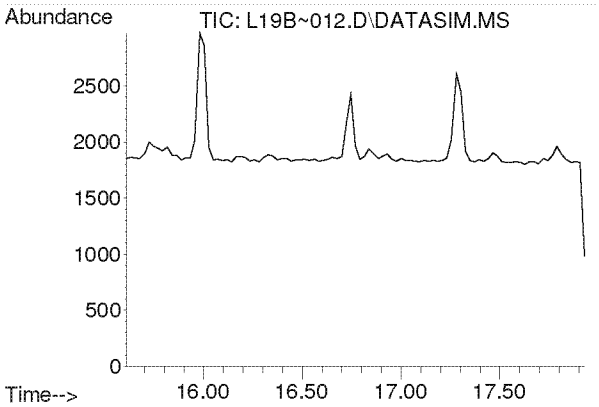
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



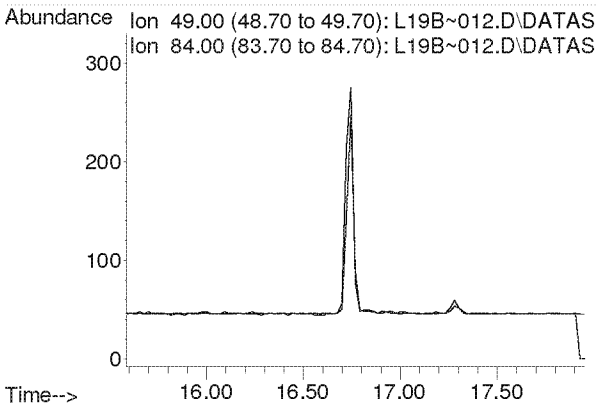


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

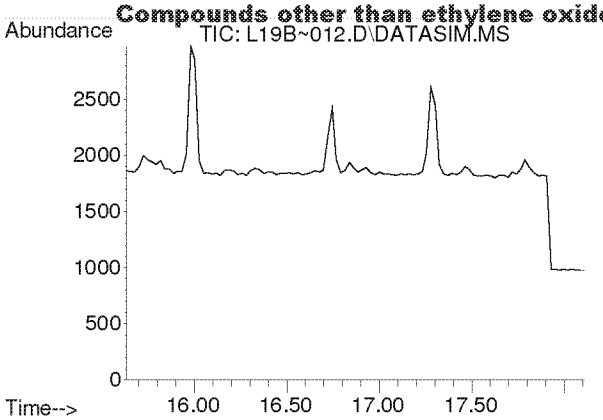
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

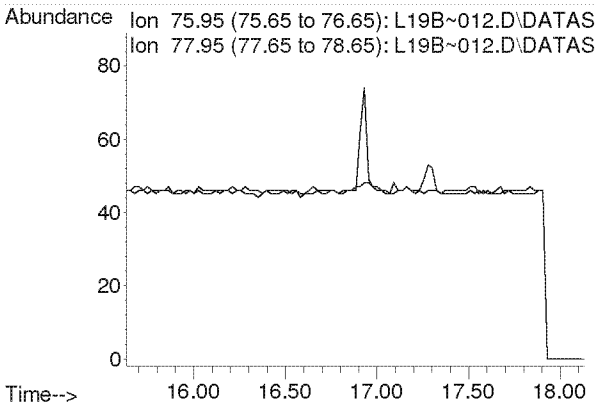


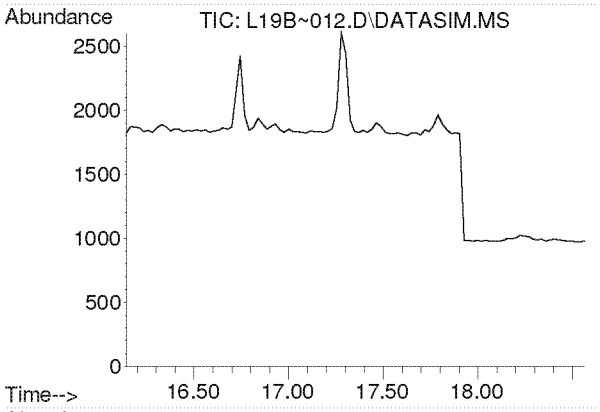
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



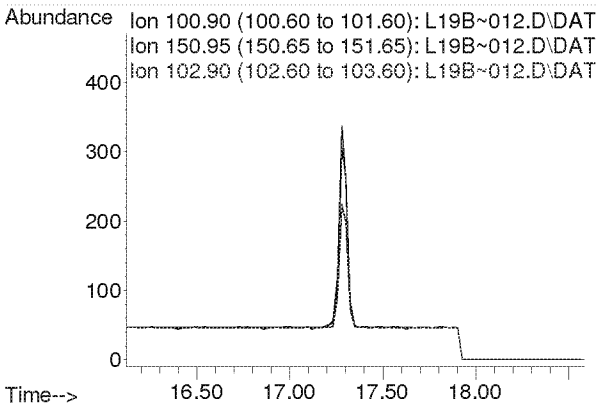


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

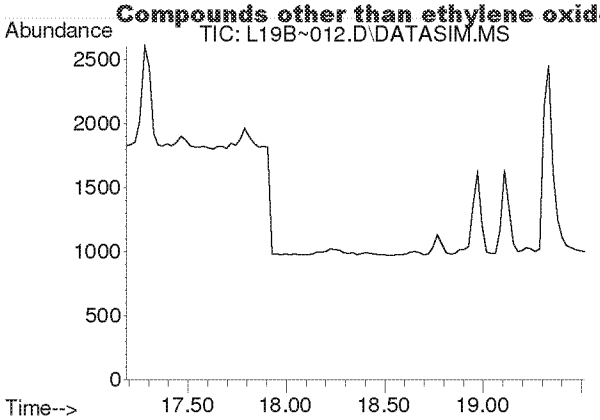
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

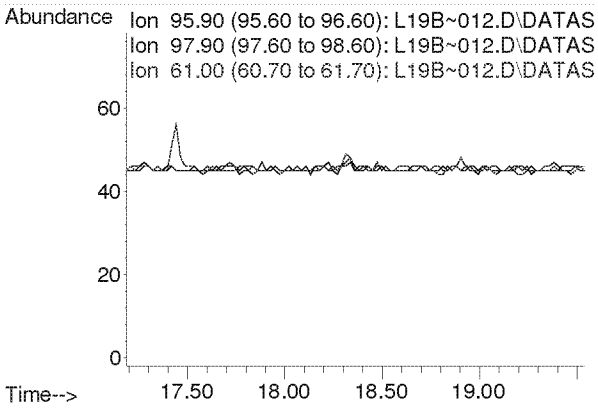


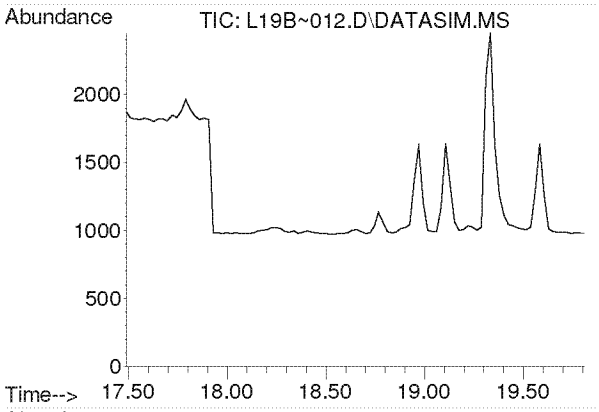
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



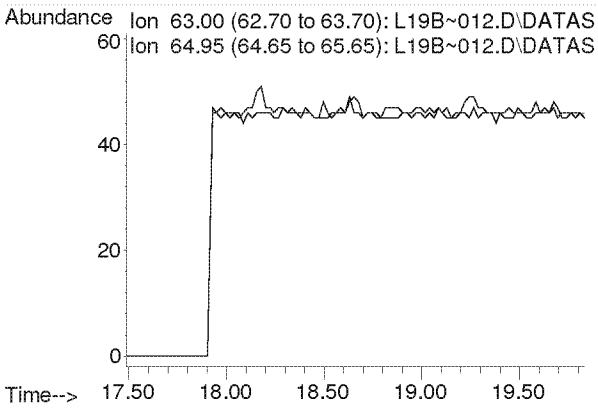


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

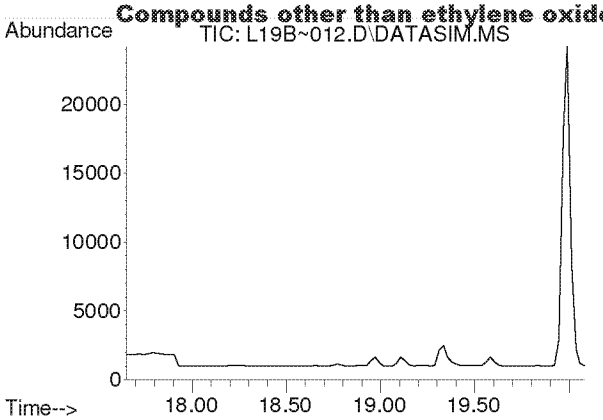
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

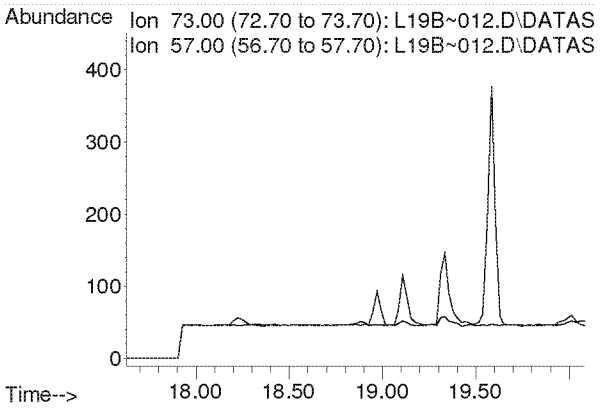


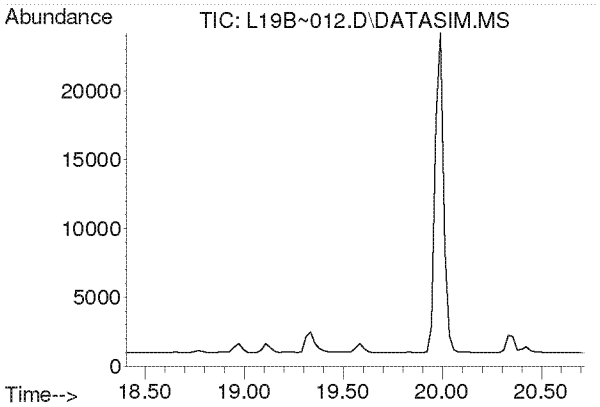
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



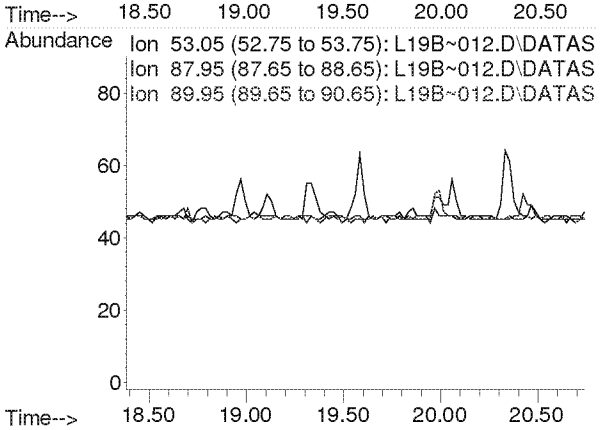


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

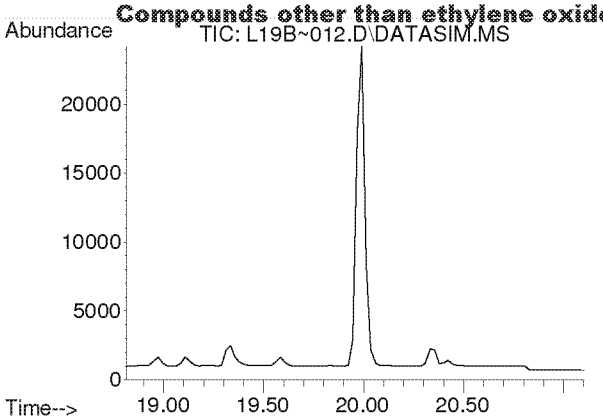
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

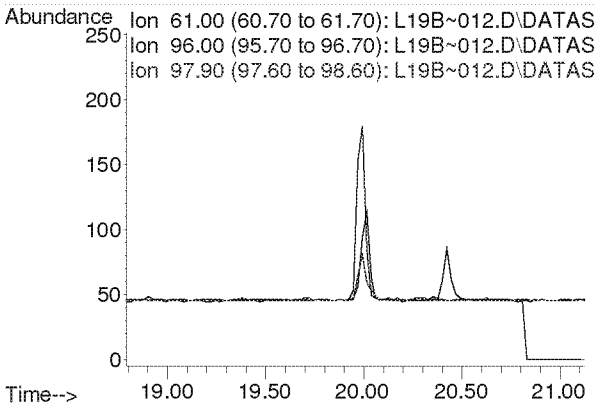


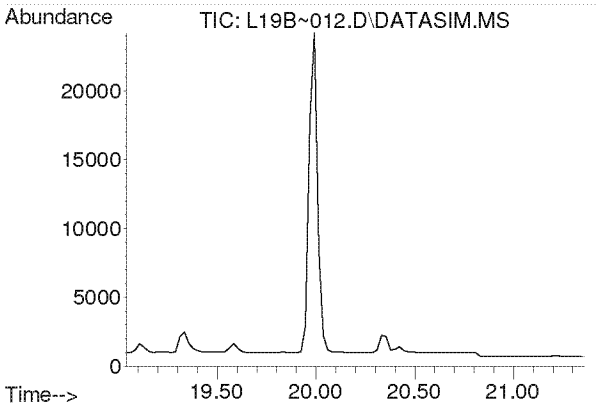
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



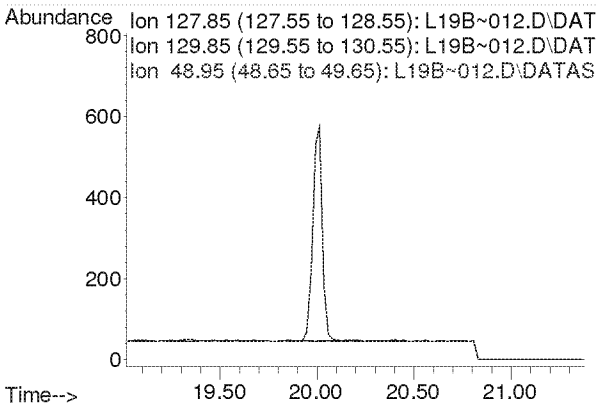


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

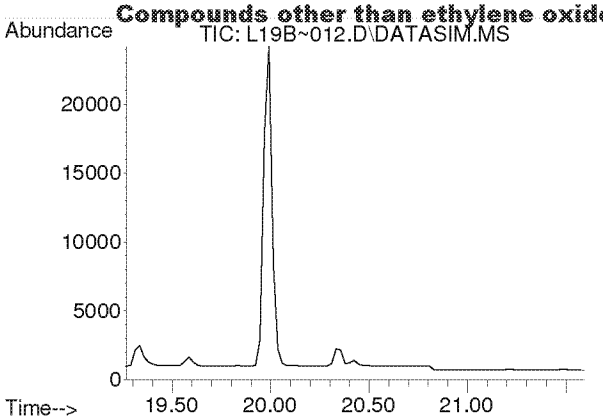
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

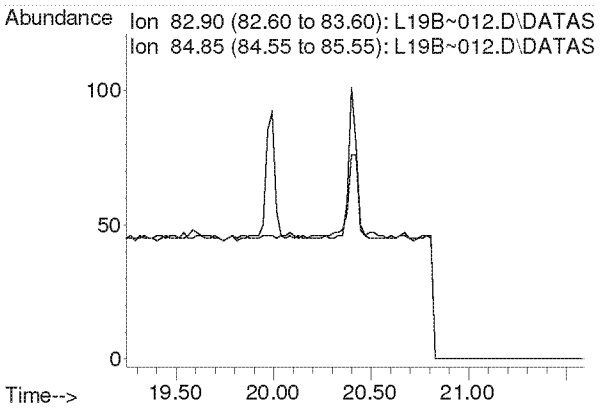


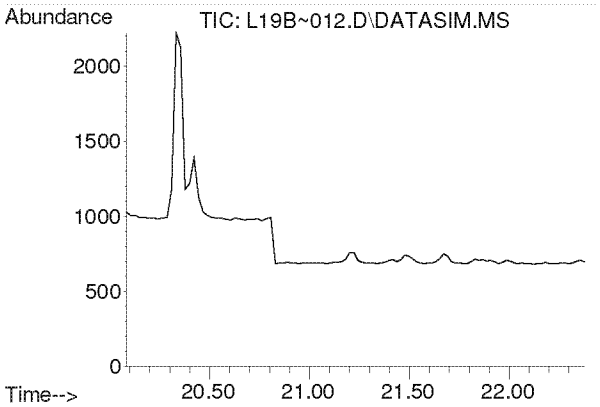
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



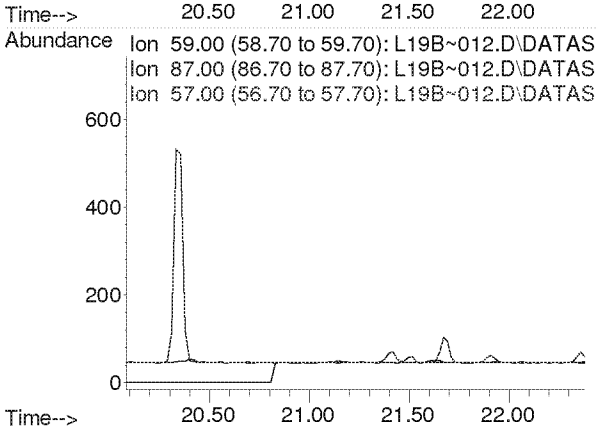


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

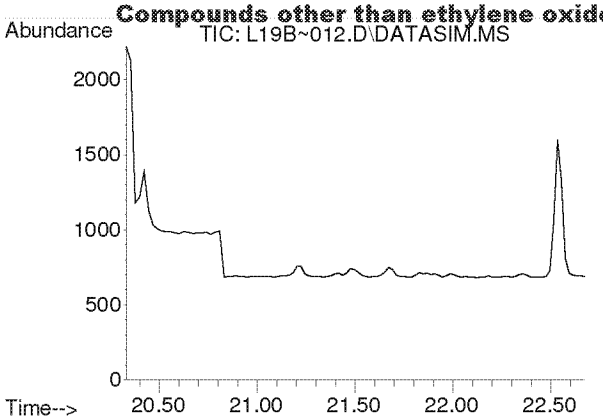
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

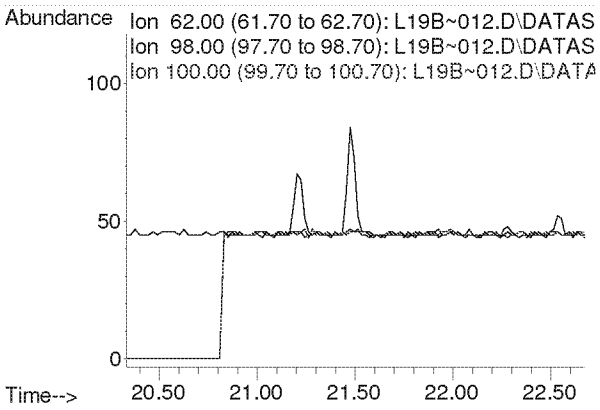


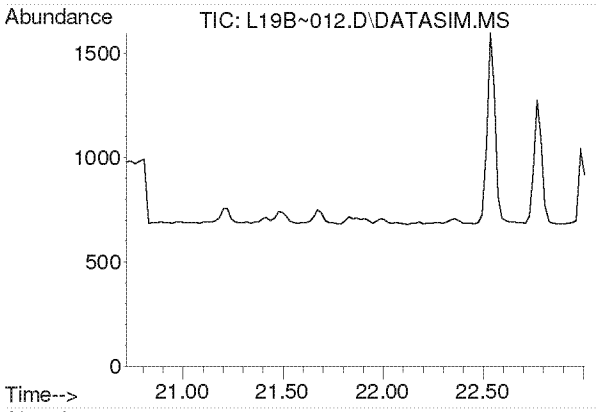
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



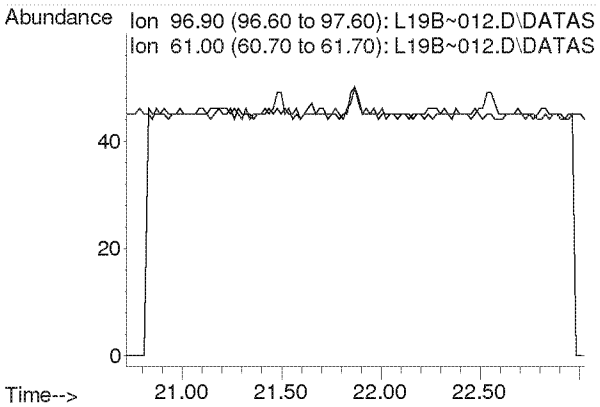


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

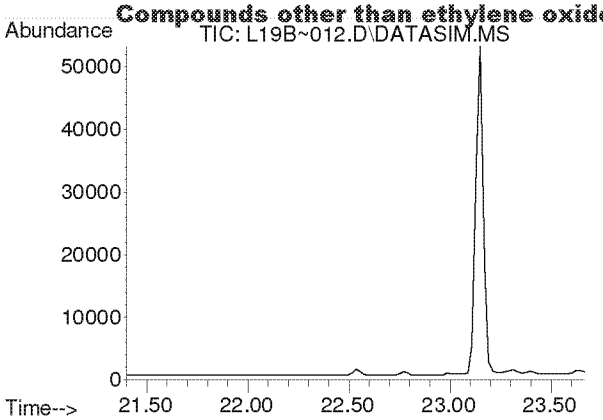
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

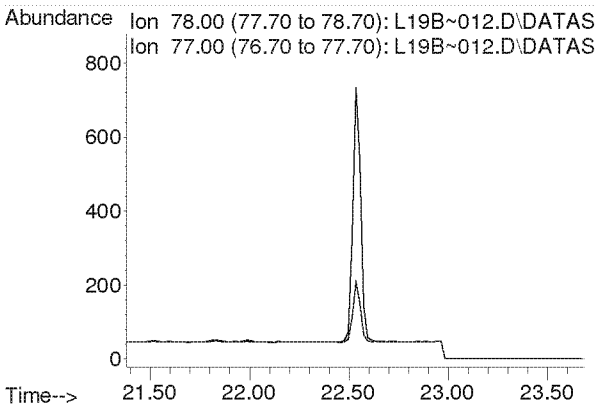


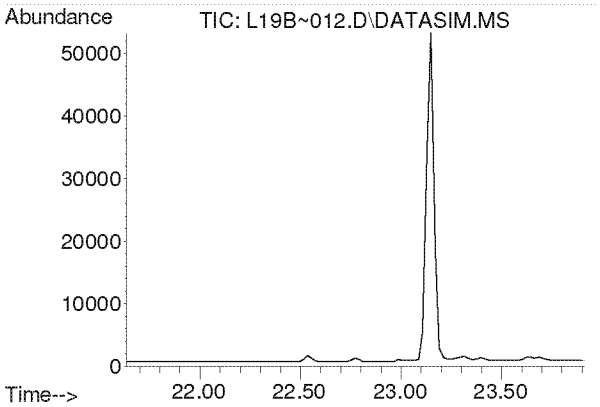
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



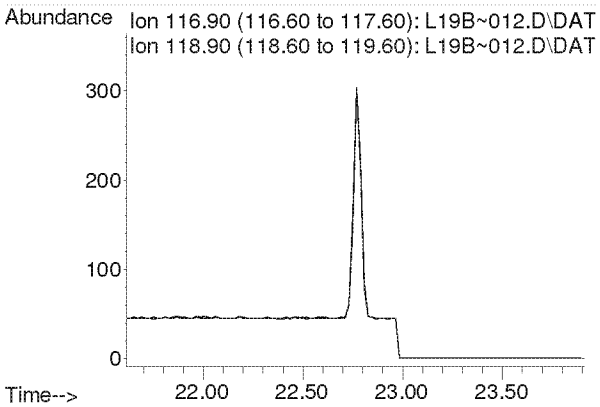


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

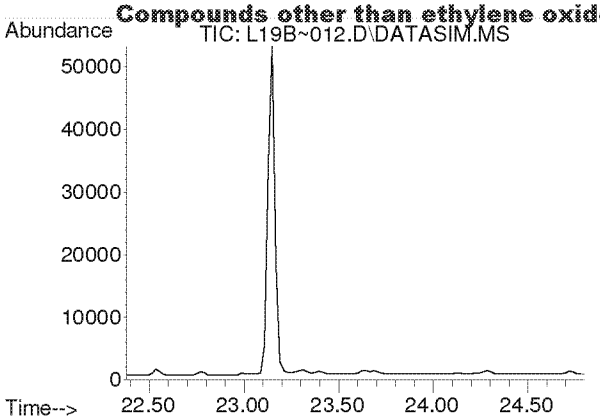
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

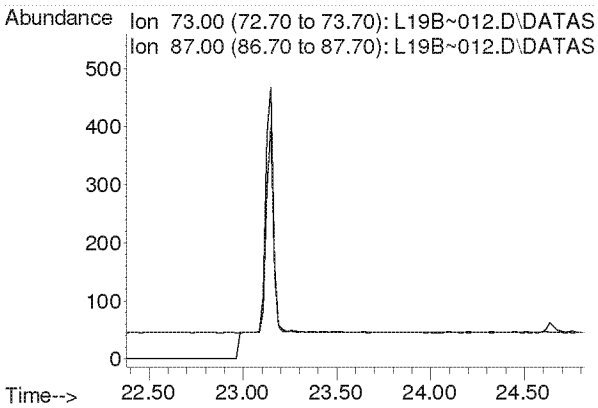


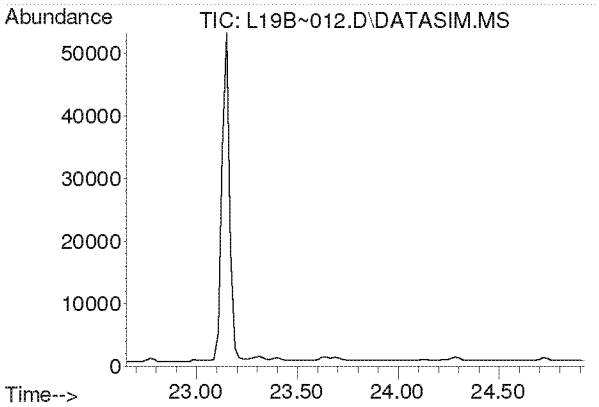
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



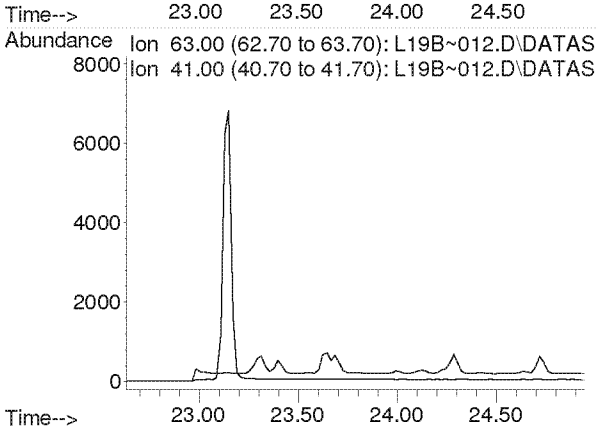


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

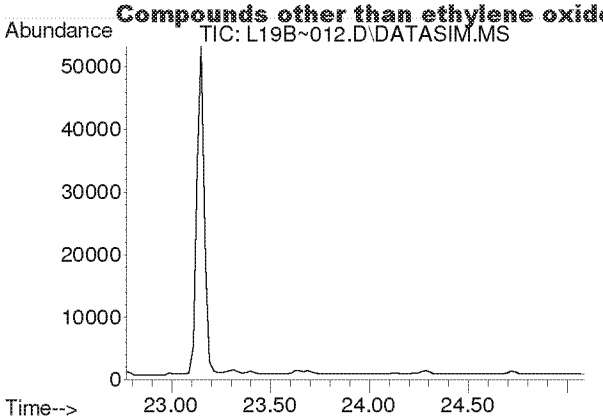
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

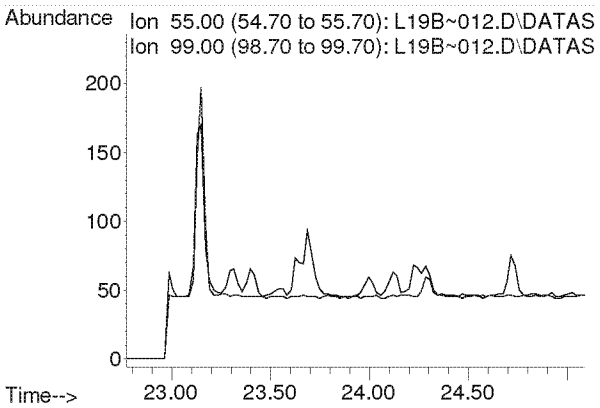


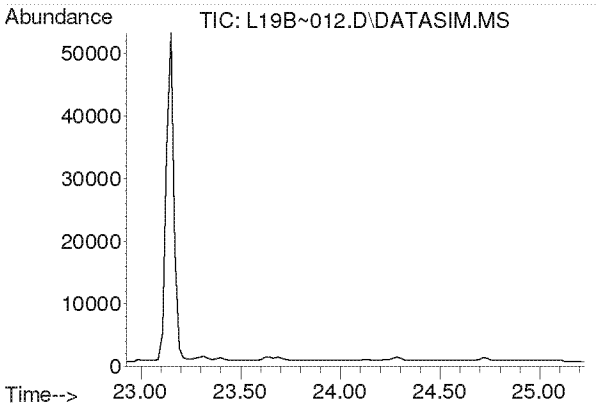
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



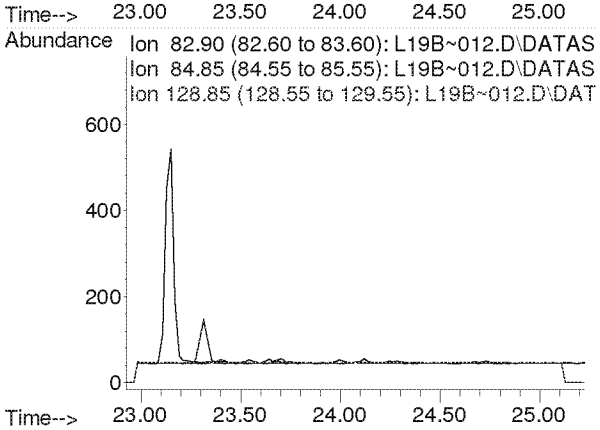


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

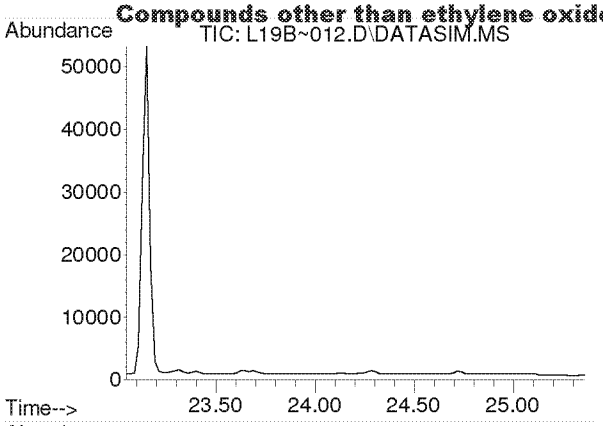
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

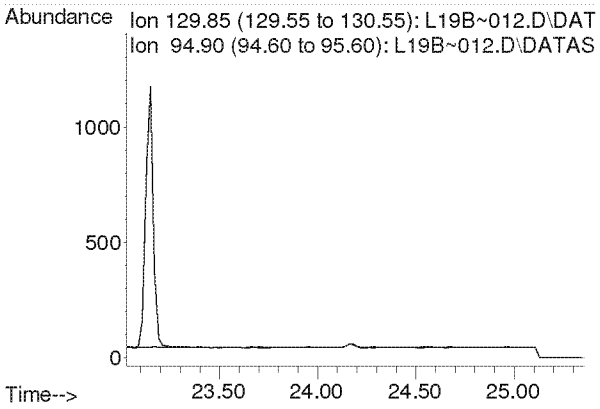


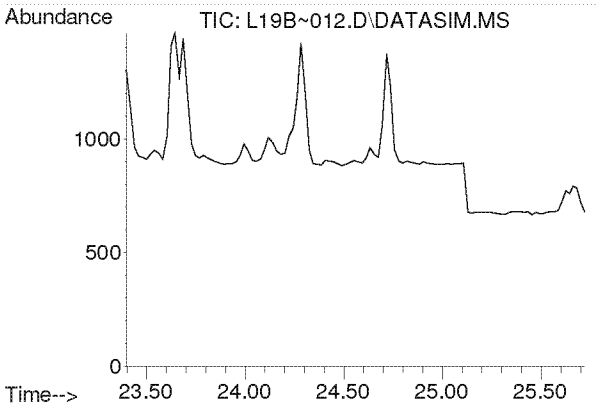
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



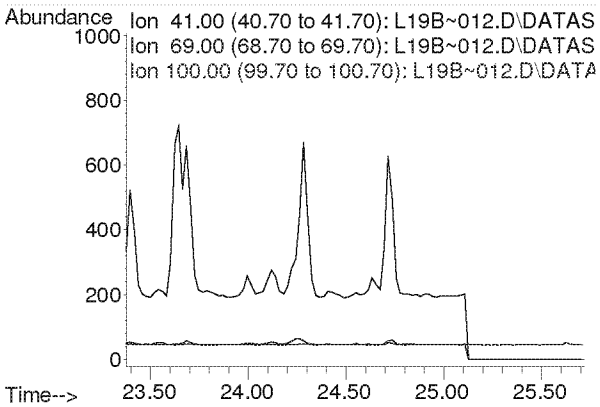


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

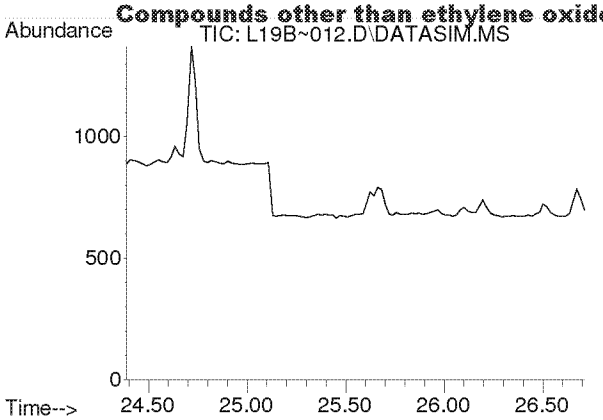
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

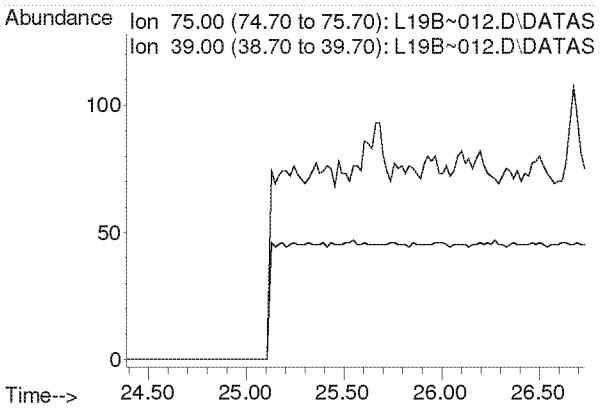


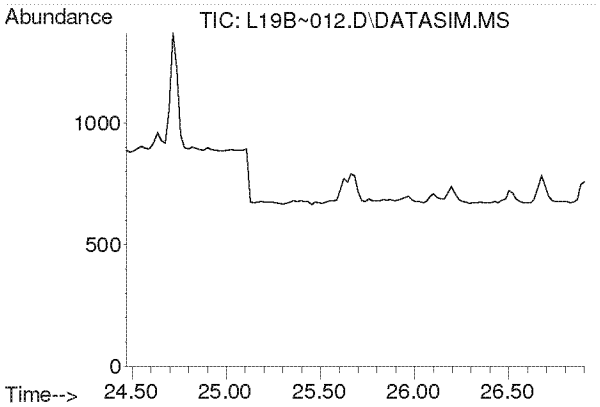
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



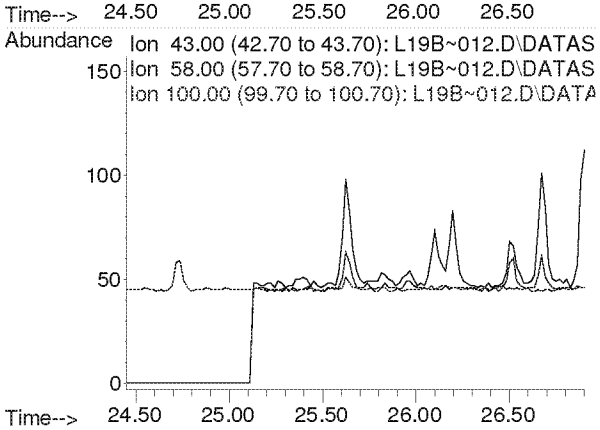


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

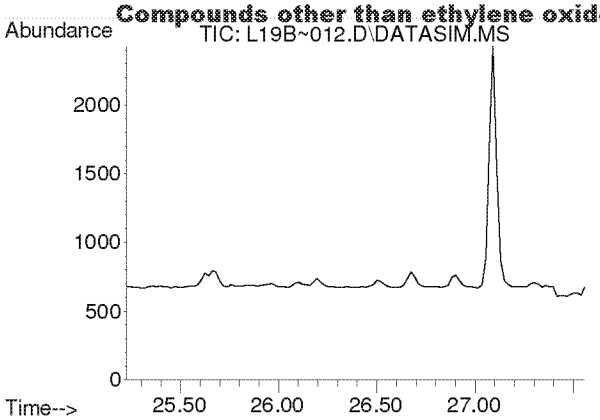
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

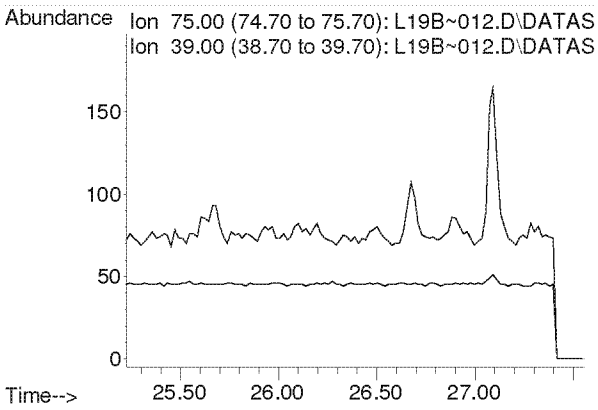


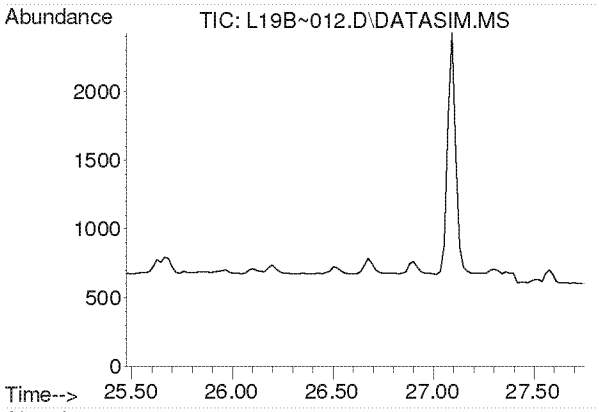
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



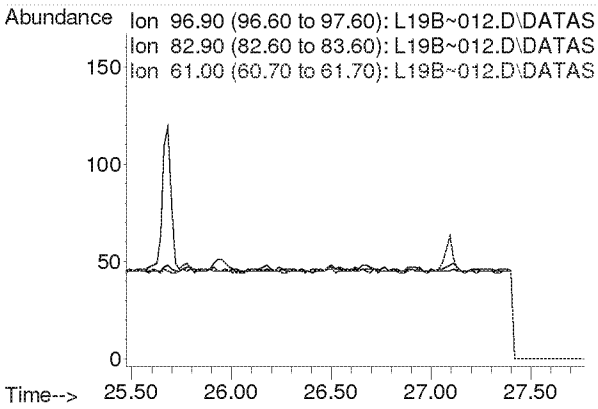


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

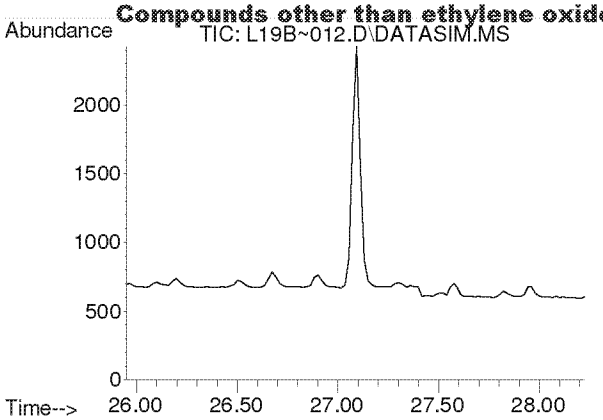
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

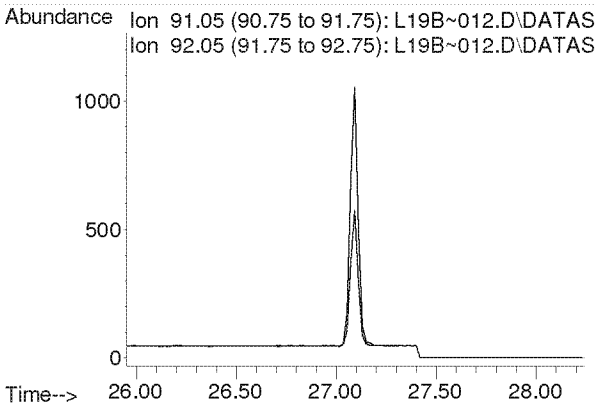


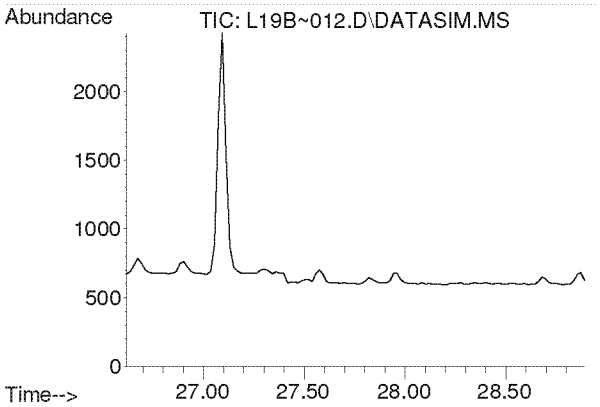
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



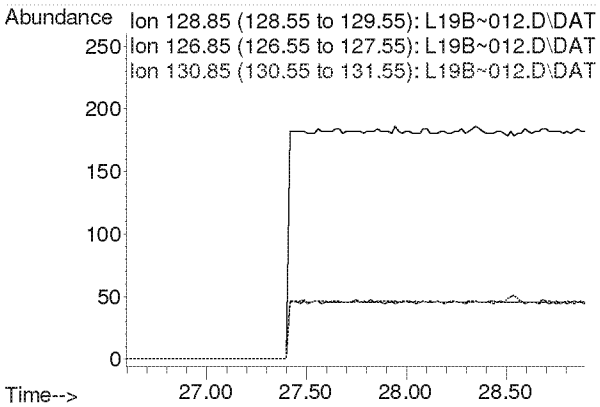


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

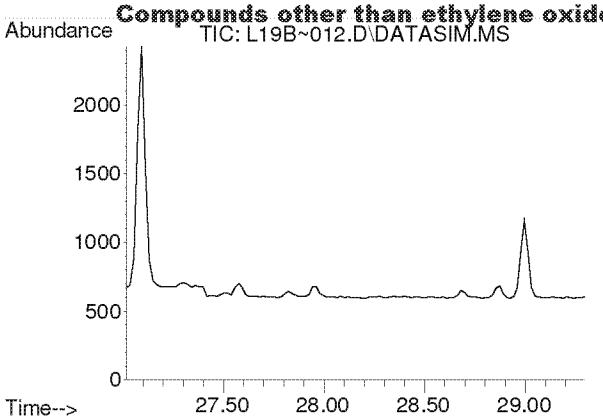
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

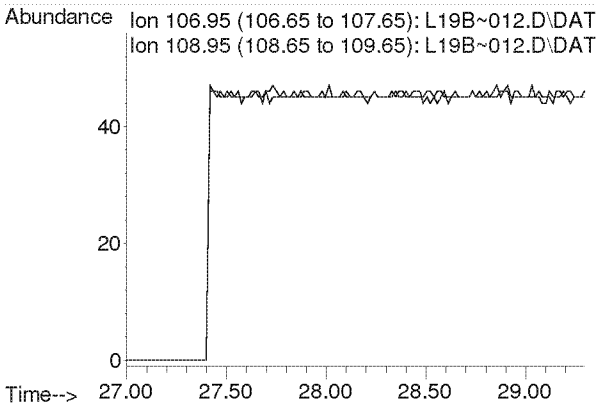


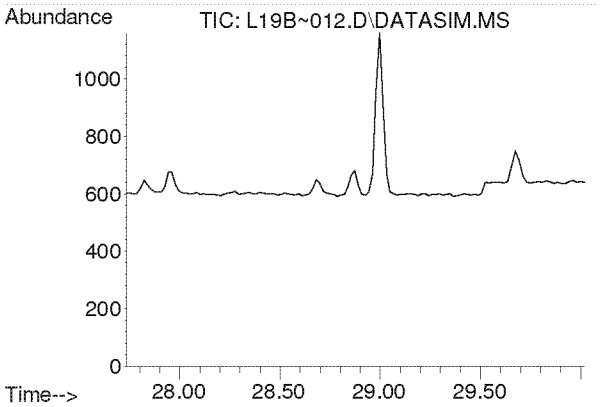
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



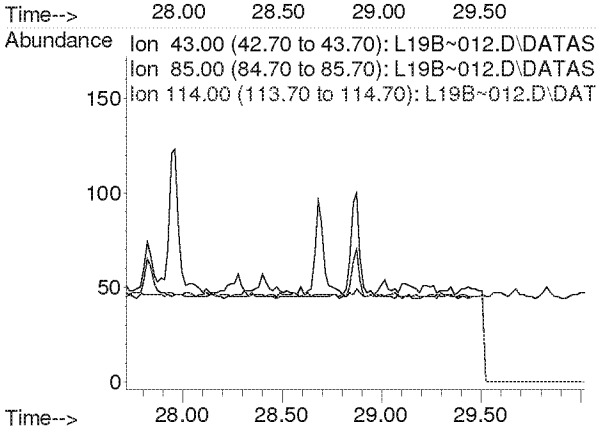


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

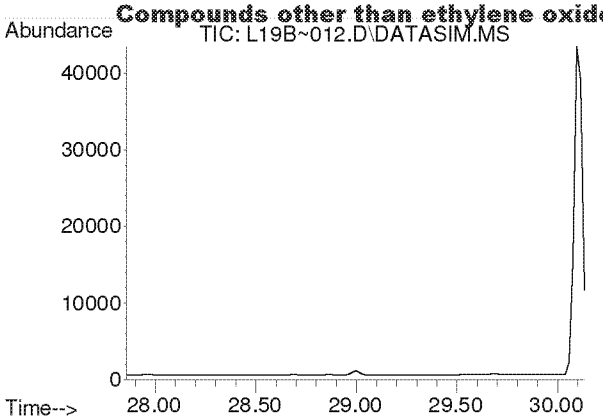
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

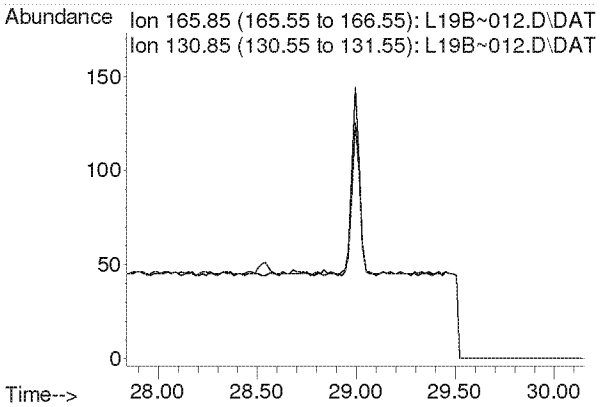


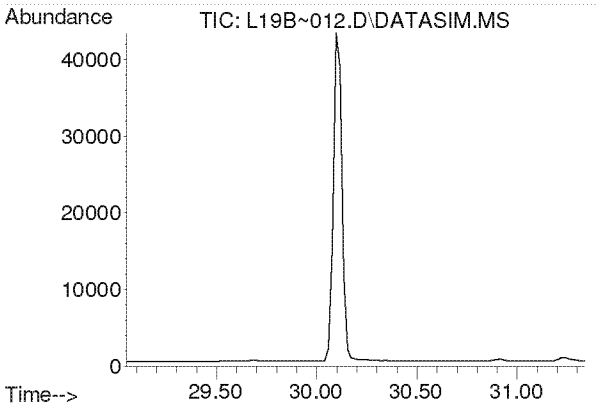
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



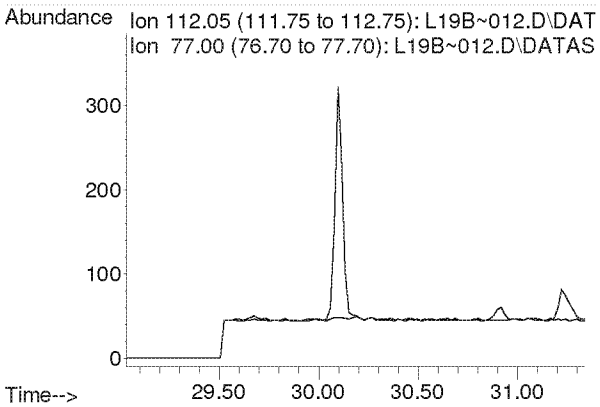


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

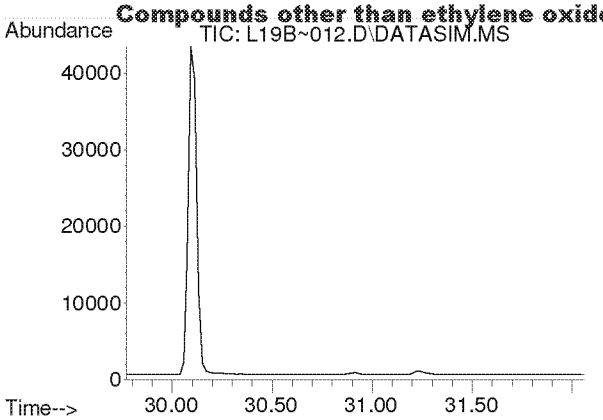
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

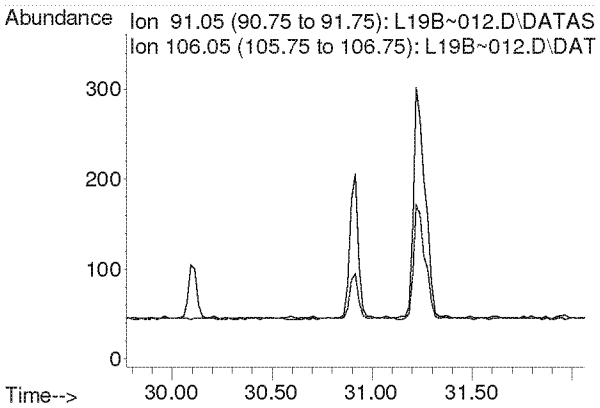


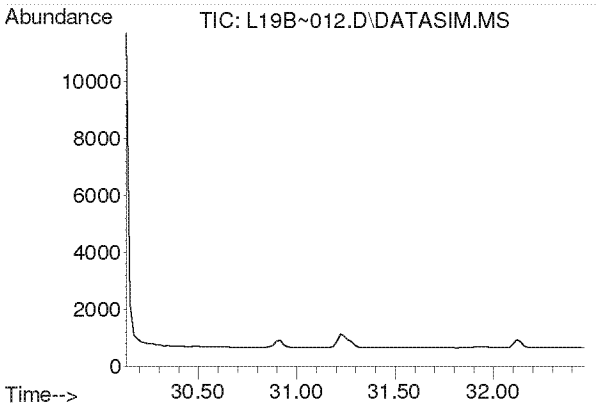
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



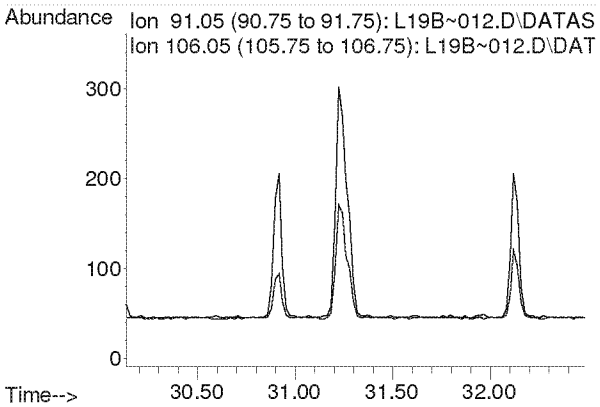


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

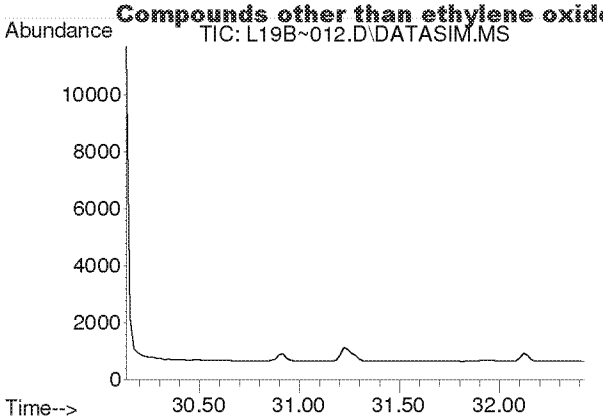
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

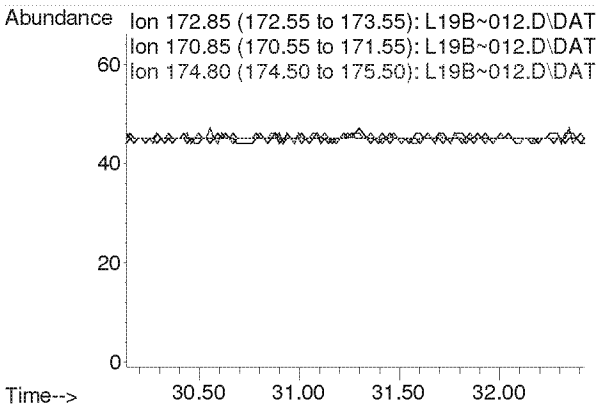


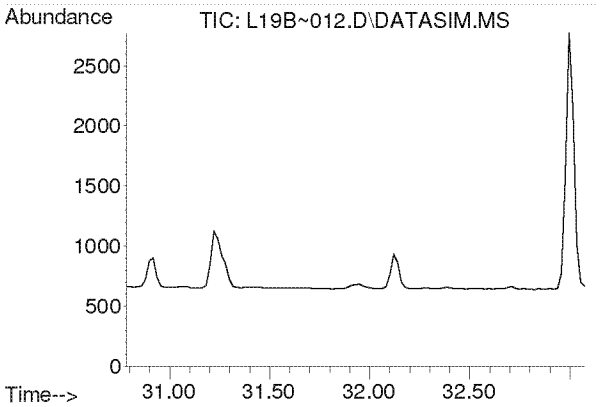
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



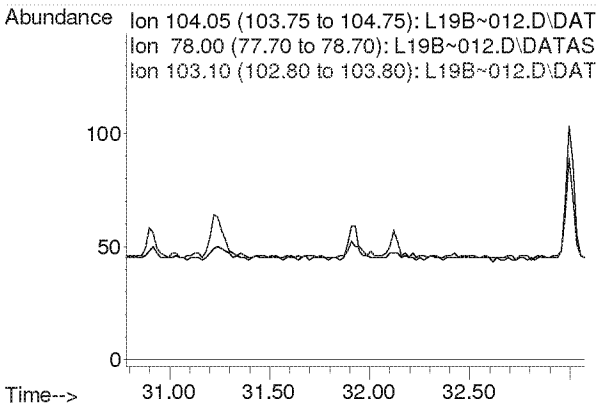


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

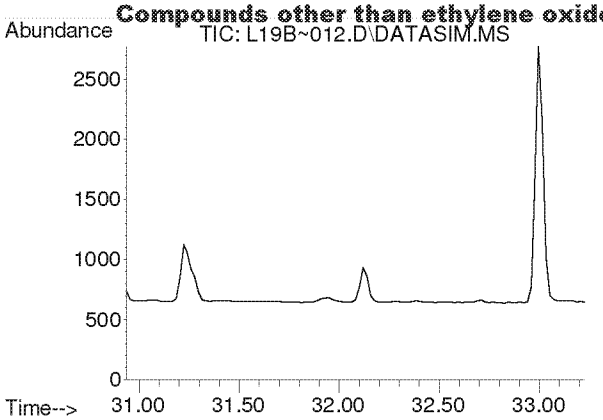
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

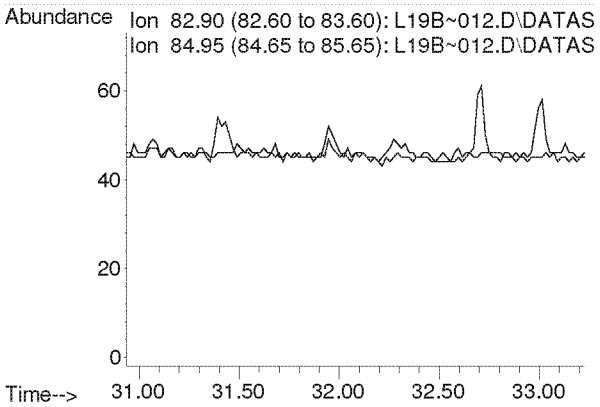


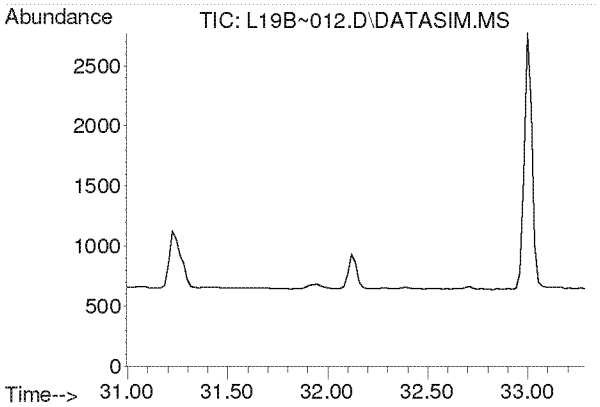
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



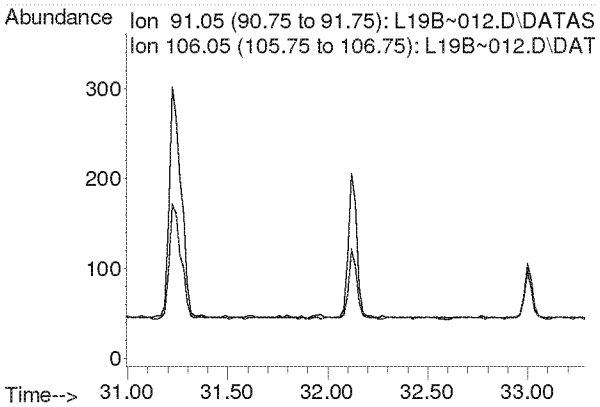


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

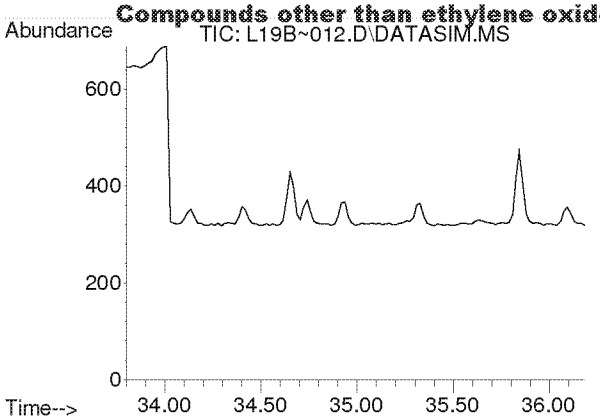
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

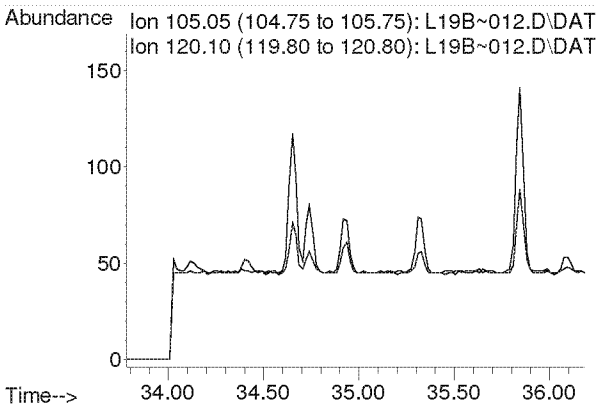


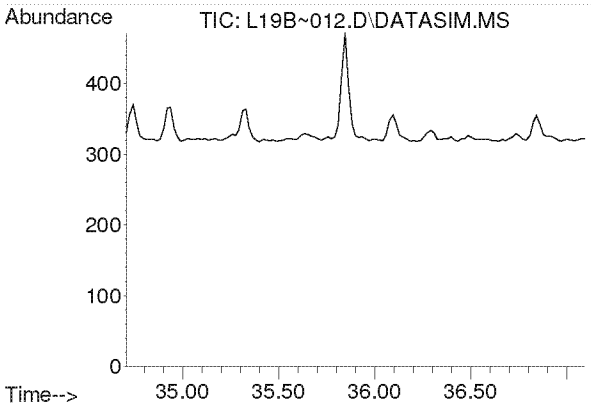
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



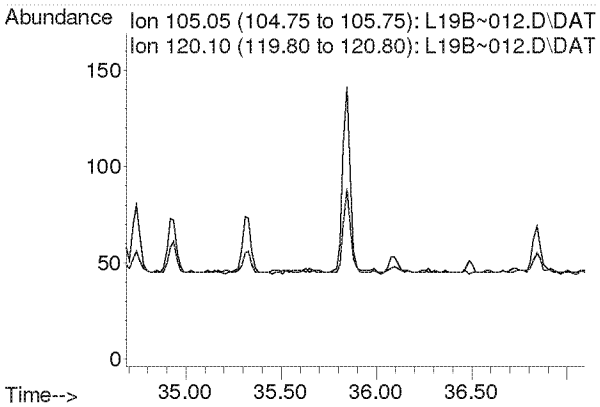


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

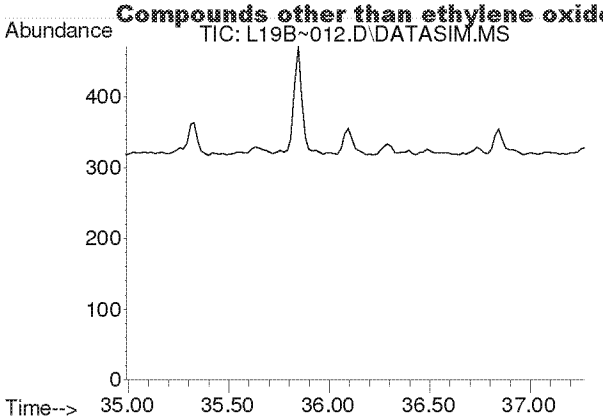
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

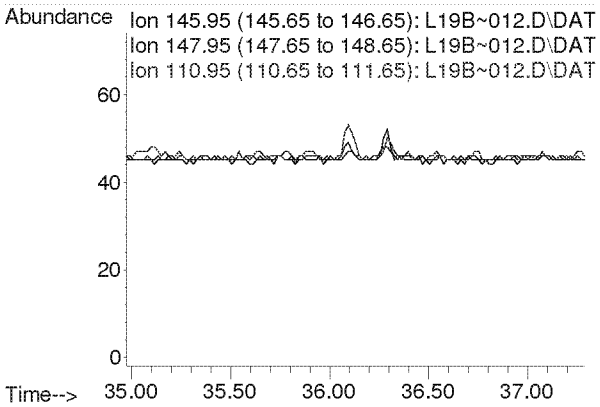


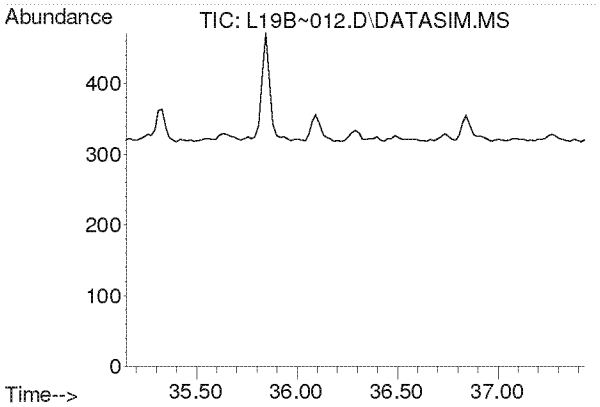
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



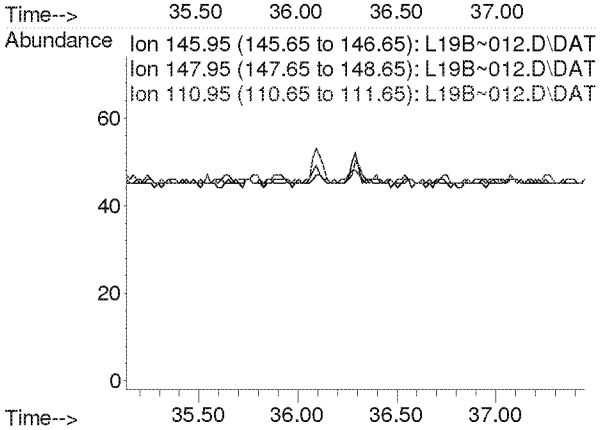


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

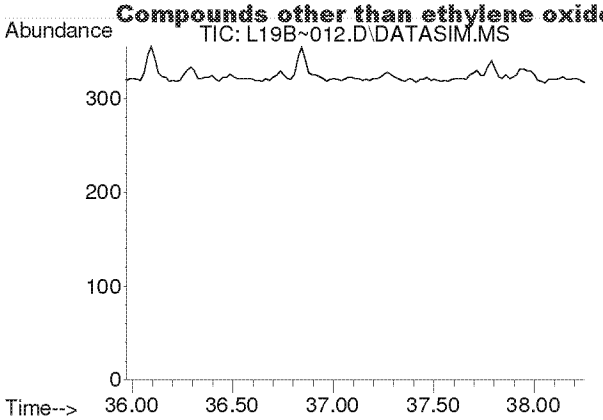
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

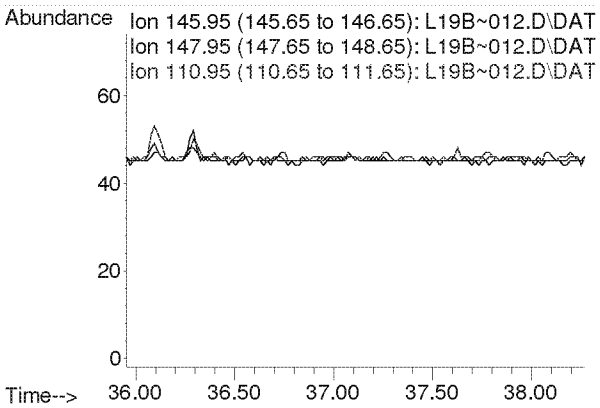


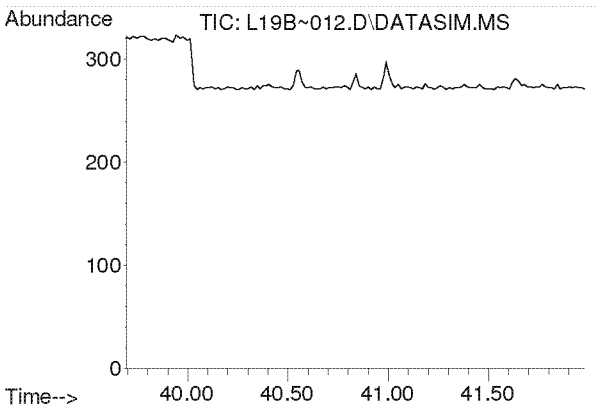
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



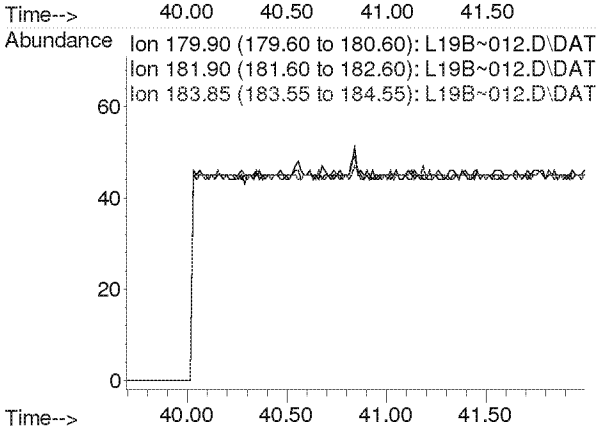


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

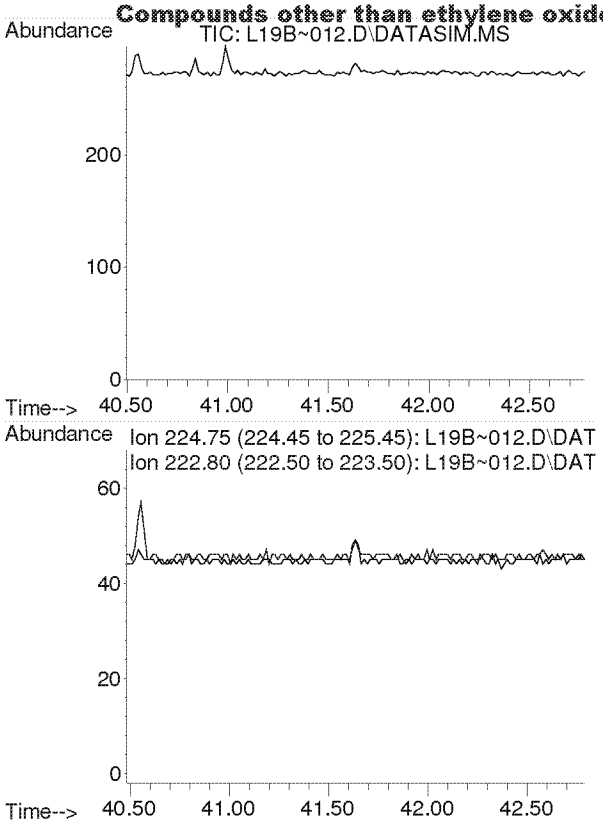
Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19B~012.D
Acq: 27 Feb 2019 10:32 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~013.D
Acq On : 27 Feb 2019 11:32 pm
Operator : MAH
Sample : B9B2705-DUP4
Misc : EPA WB WAREHOUSE R2 2/22/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 05 06:46:38 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	43996	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	111632	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	76461	4.7400 ppbv	-0.02

System Monitoring Compounds

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~013.D
Acq On : 27 Feb 2019 11:32 pm
Operator : MAH
Sample : B9B2705-DUP4
Misc : EPA WB WAREHOUSE R2 2/22/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 05 06:46:38 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.	

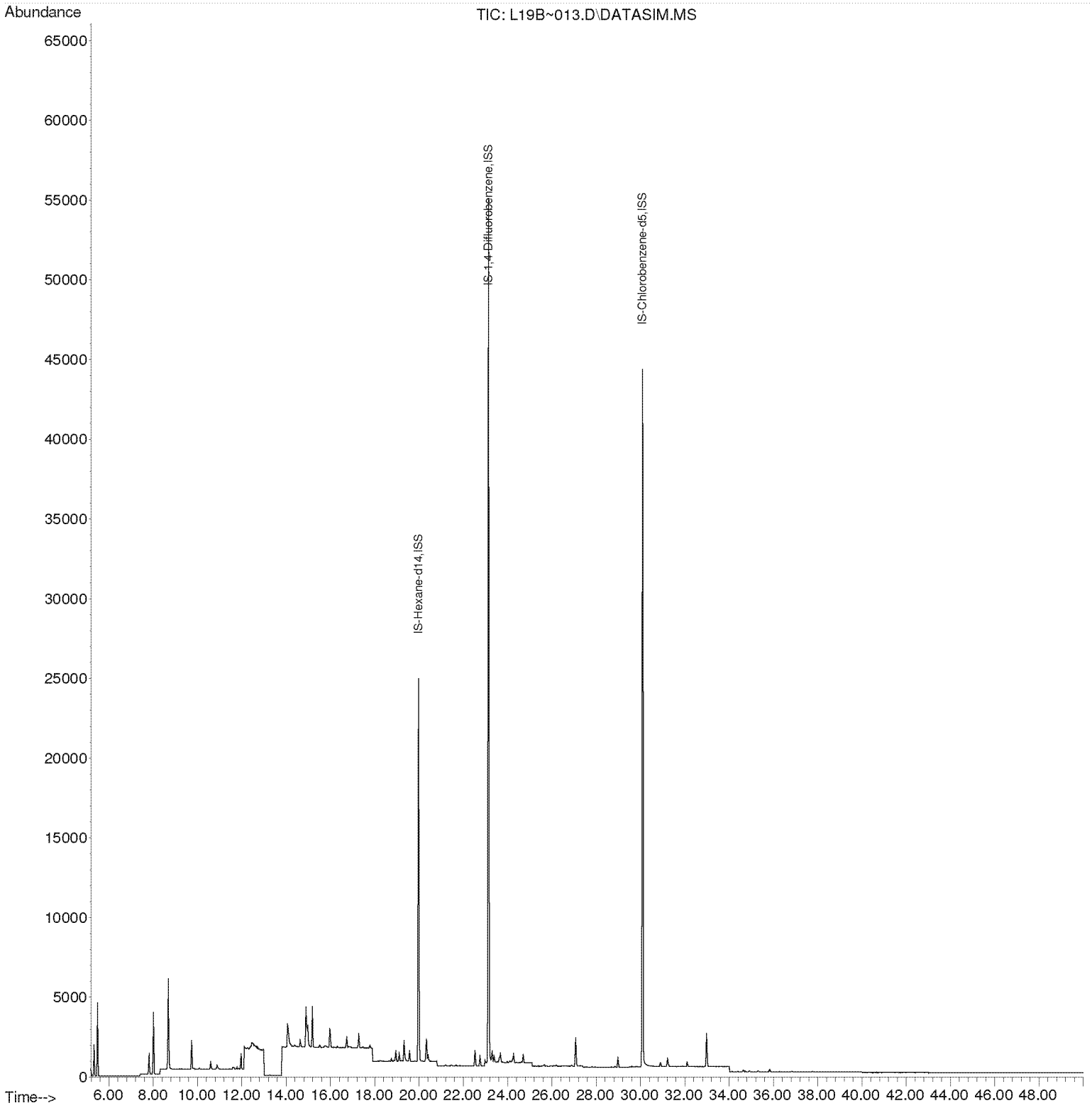
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000099-00318

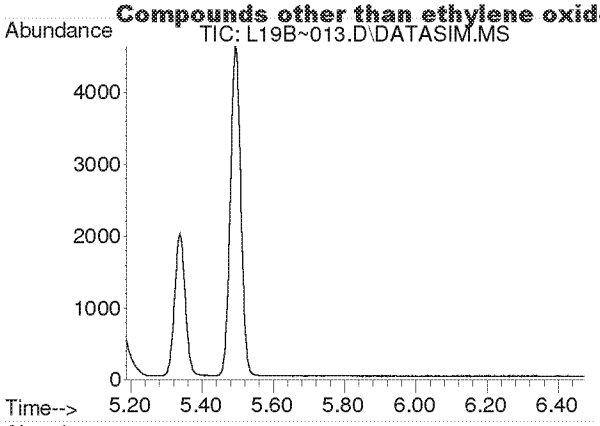
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~013.D
Acq On : 27 Feb 2019 11:32 pm
Operator : MAH
Sample : B9B2705-DUP4
Misc : EPA WB WAREHOUSE R2 2/22/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 28 12:54:34 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



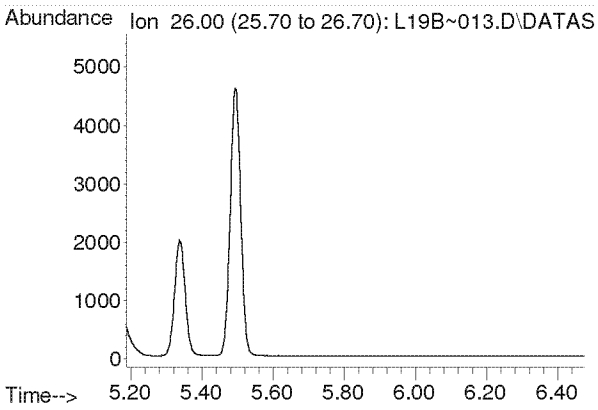
Compounds other than ethylene oxide were not quantitated.

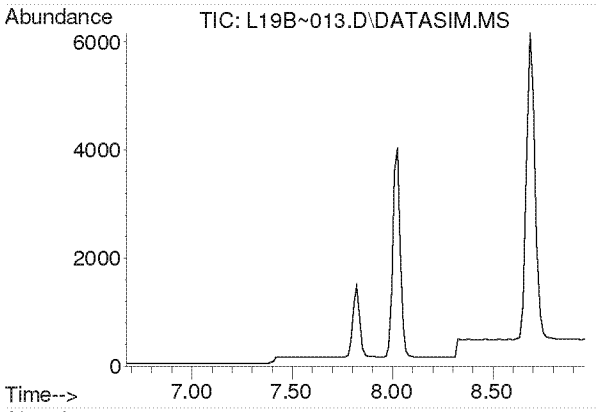


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 26



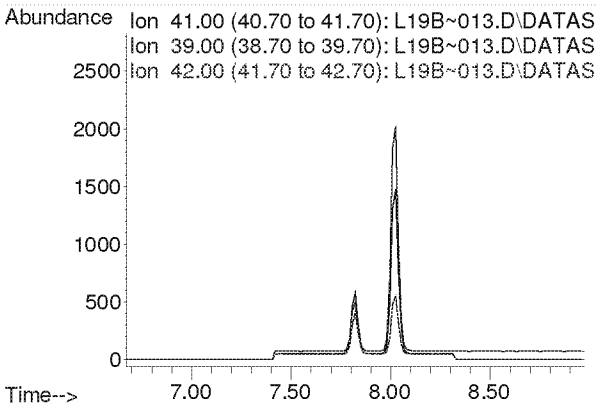


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

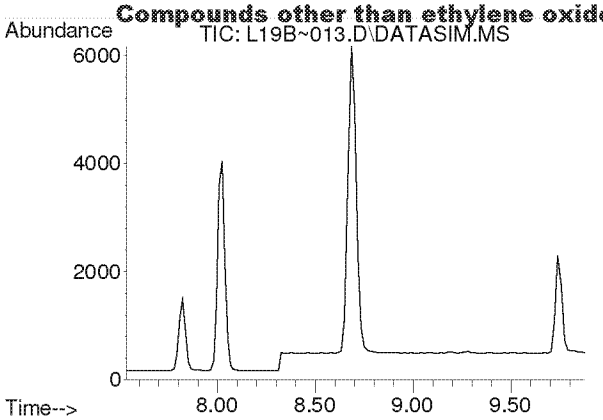
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

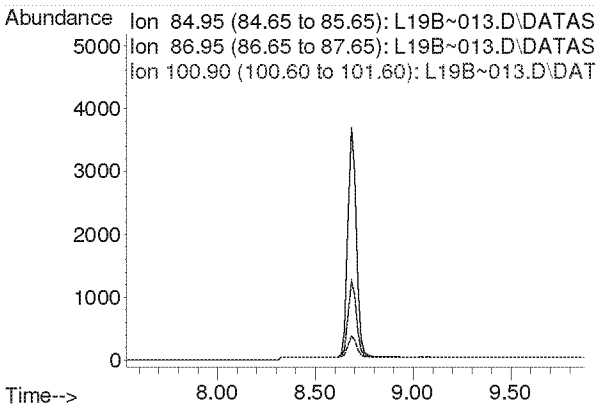


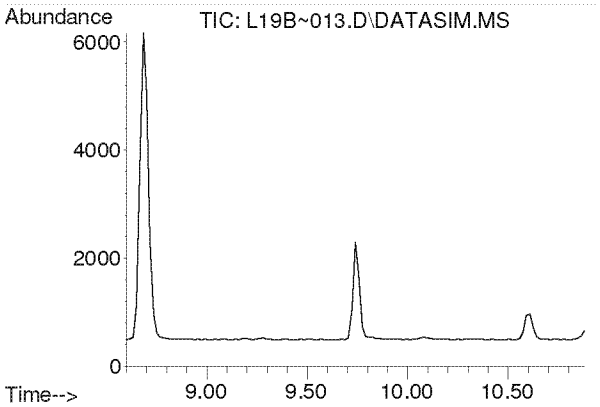
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



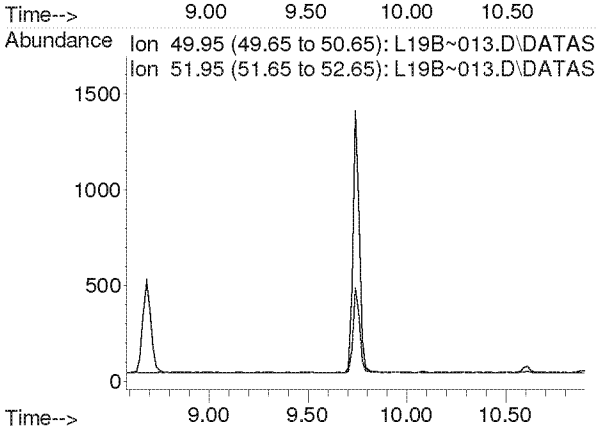


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

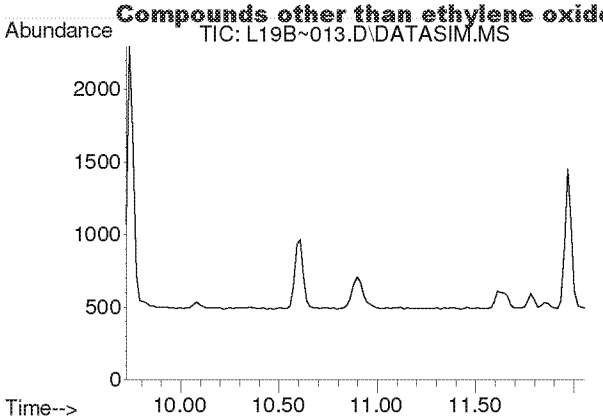
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

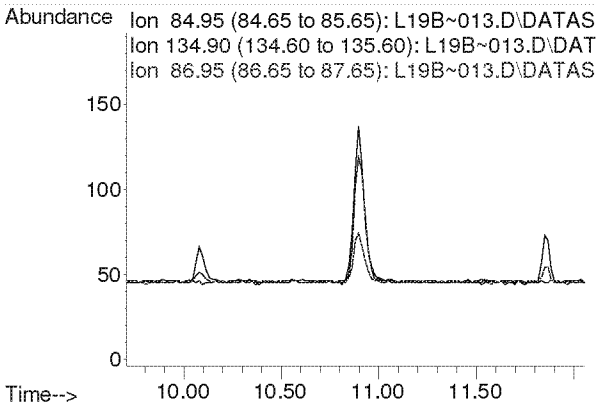


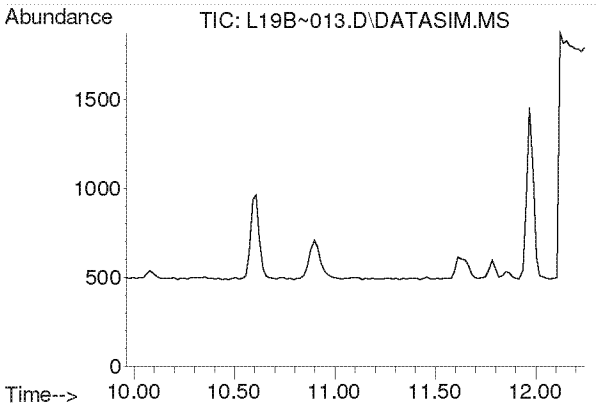
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



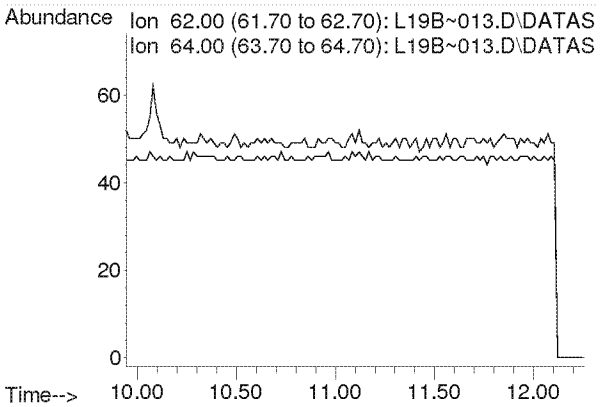


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

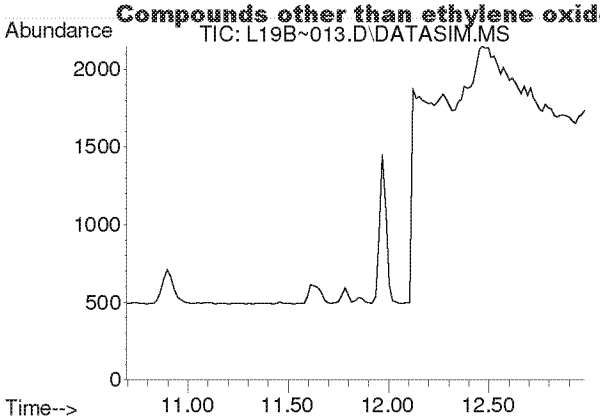
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

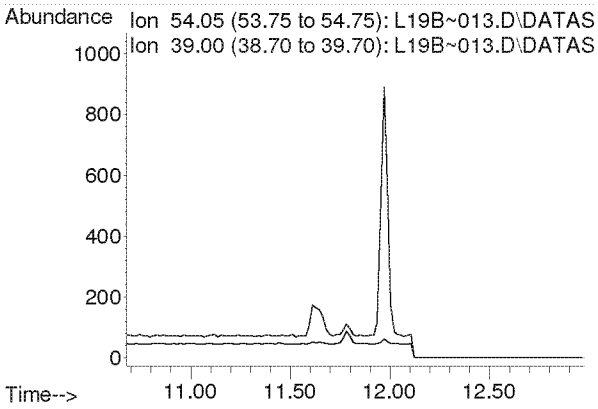


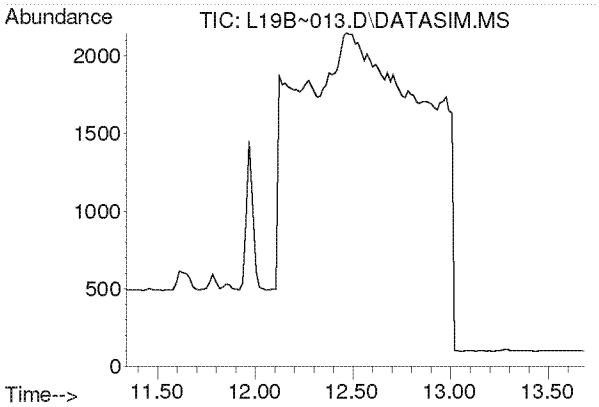
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



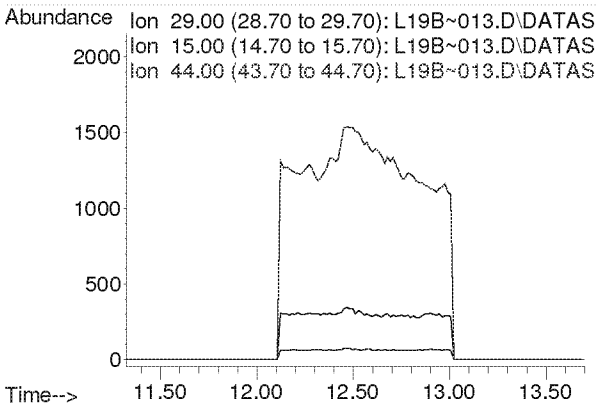


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

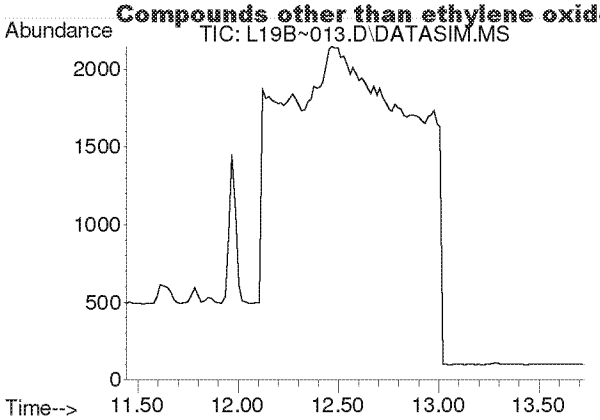
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

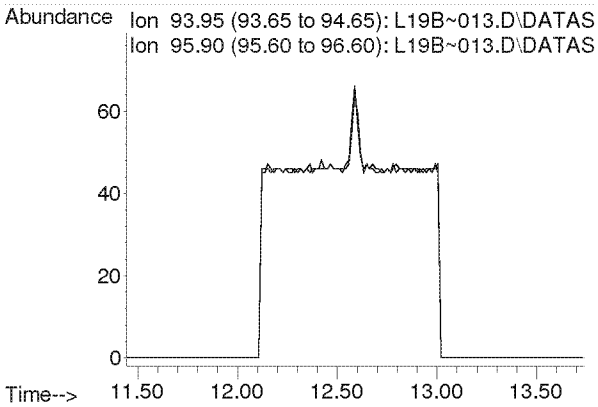


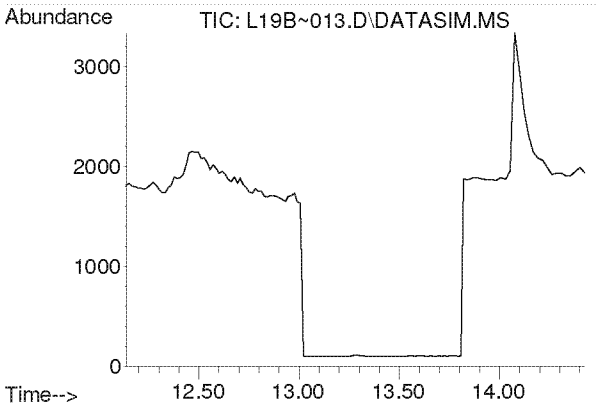
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



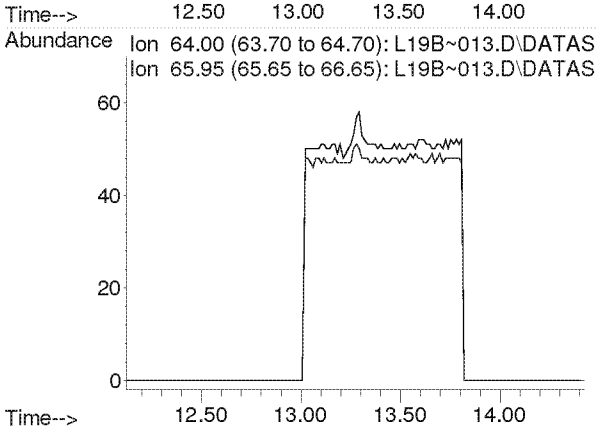


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

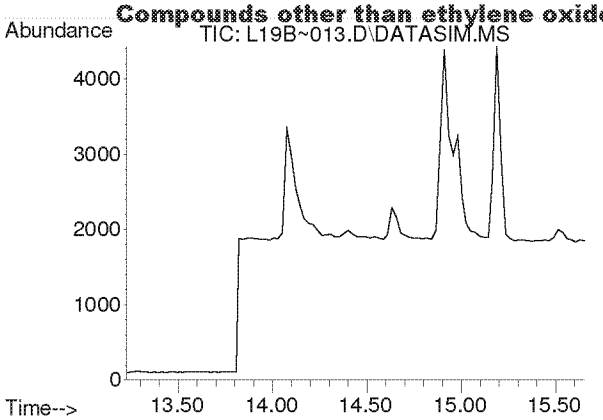
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

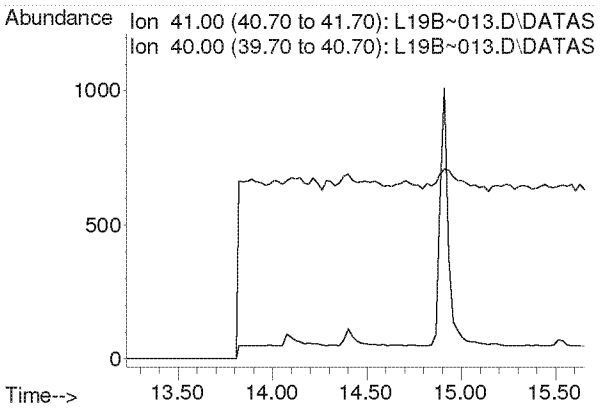


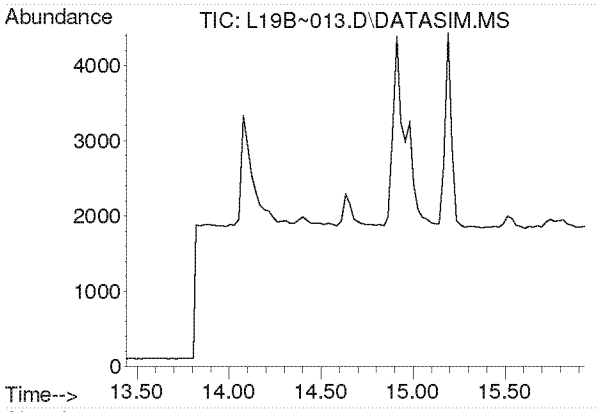
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



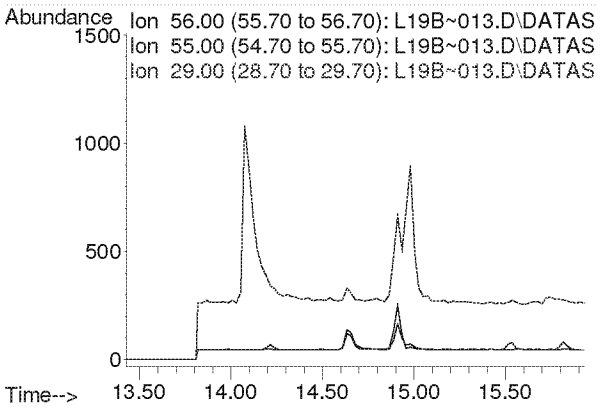


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

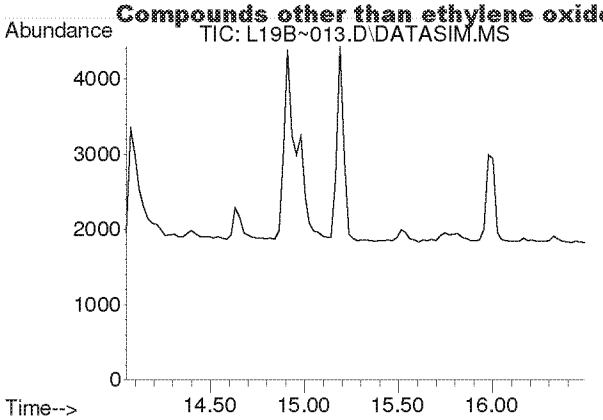
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

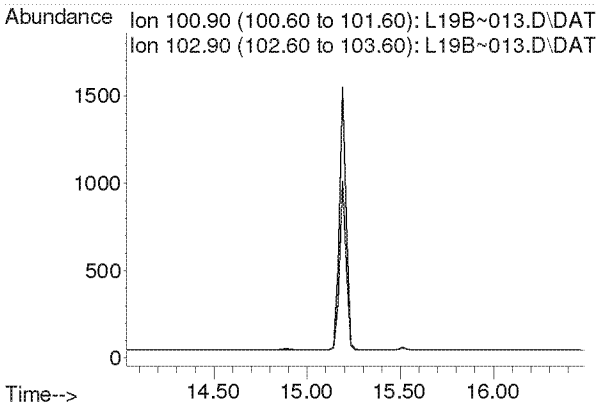


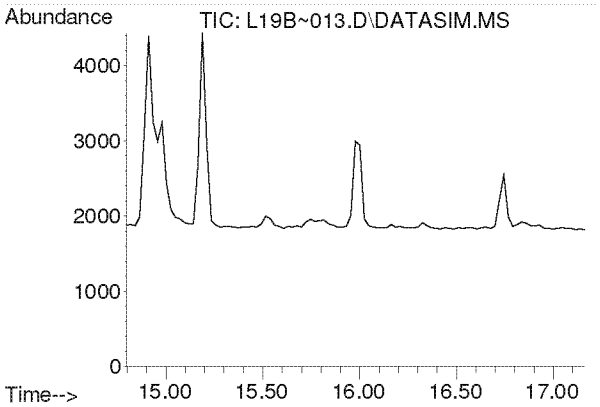
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



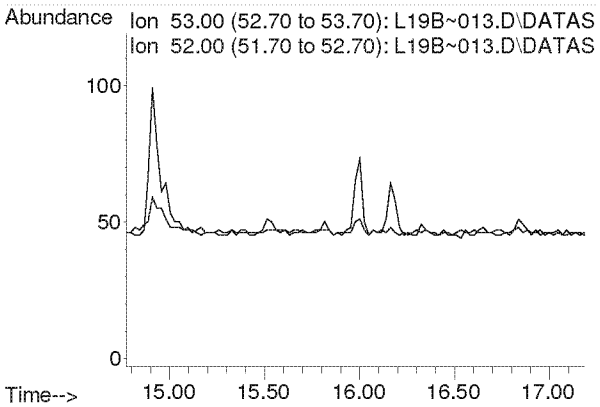


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

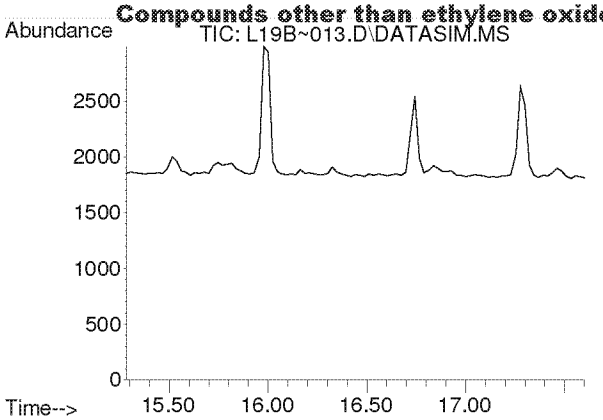
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

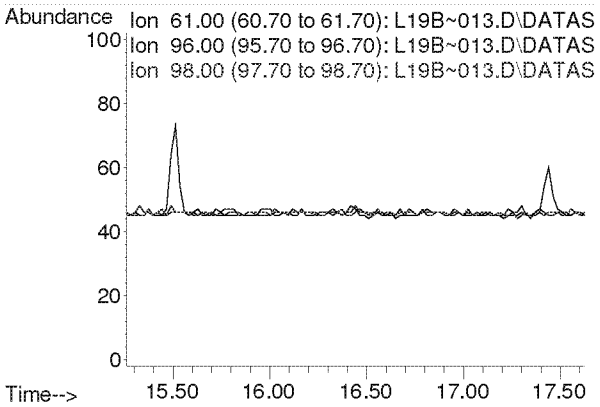


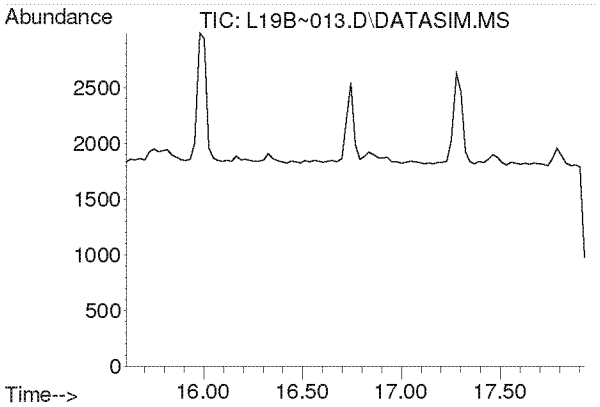
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



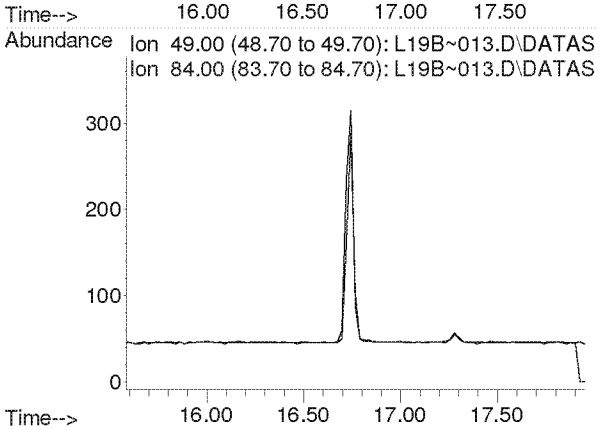


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

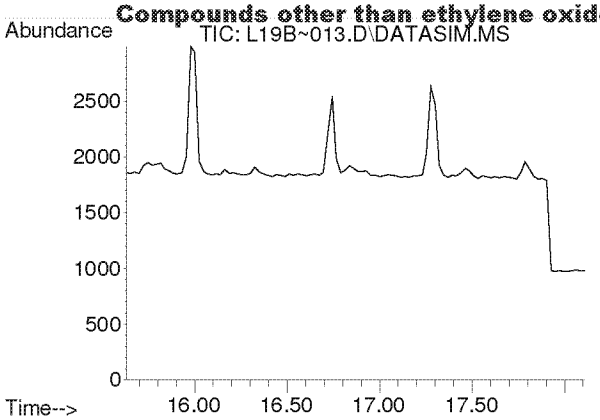
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

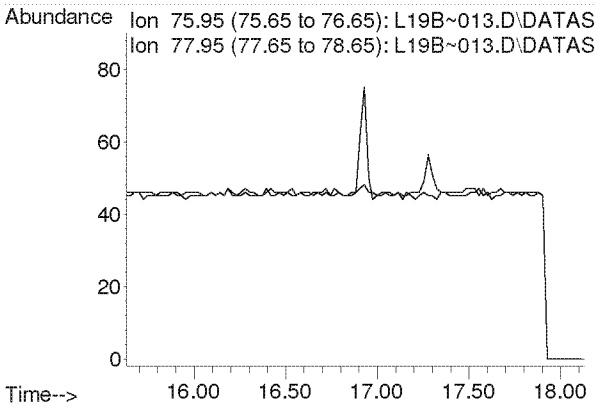


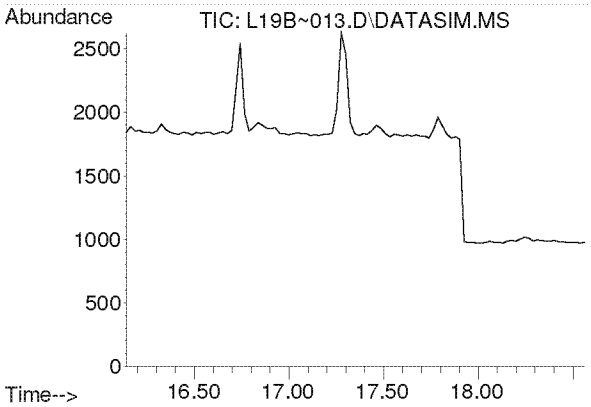
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



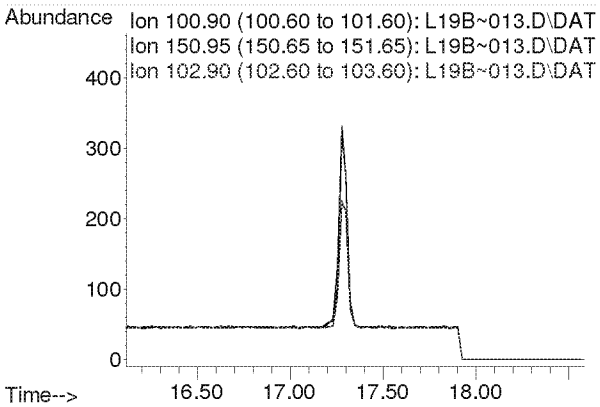


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

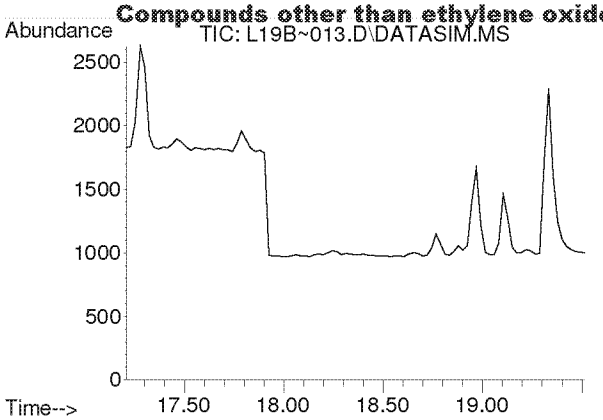
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

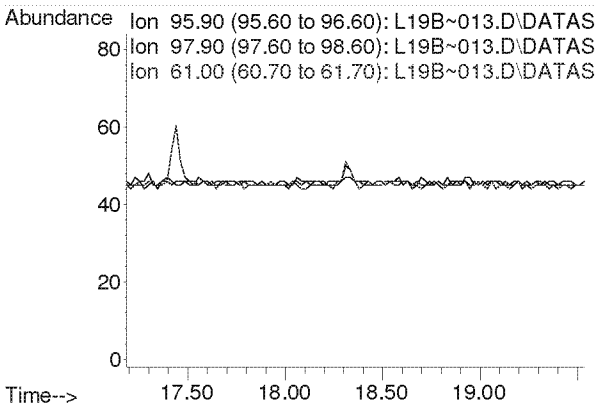


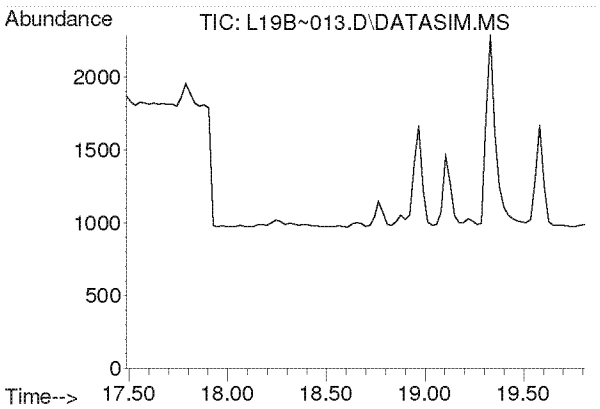
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



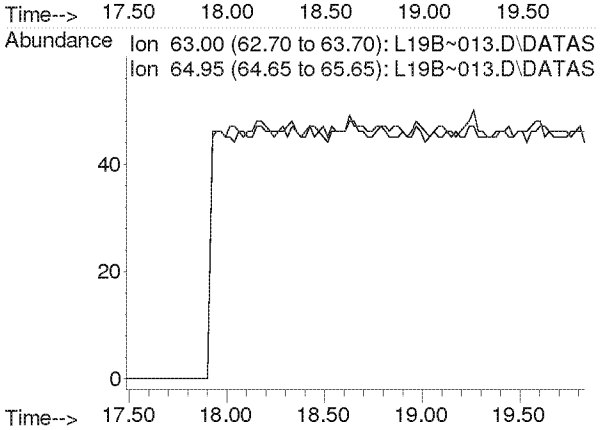


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

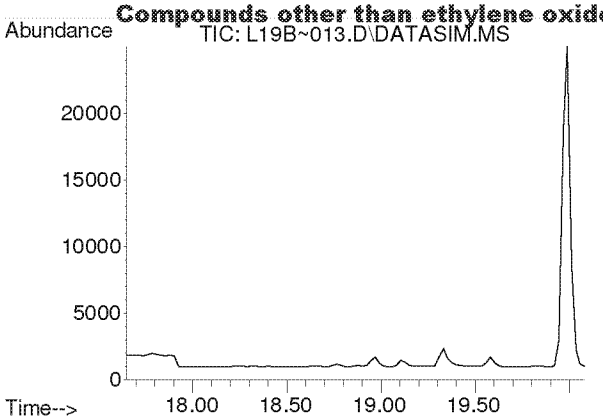
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

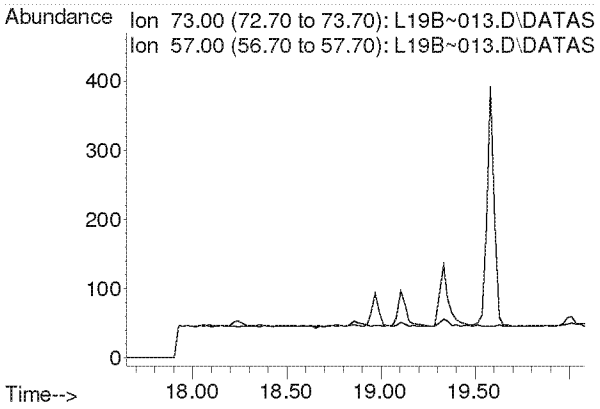


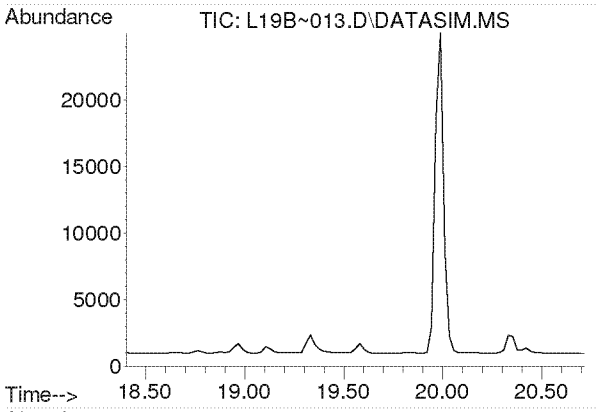
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



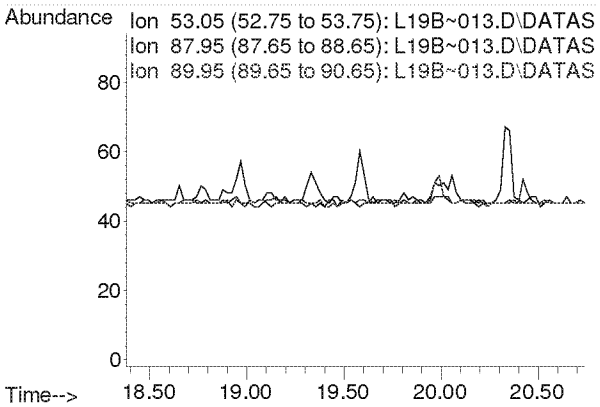


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

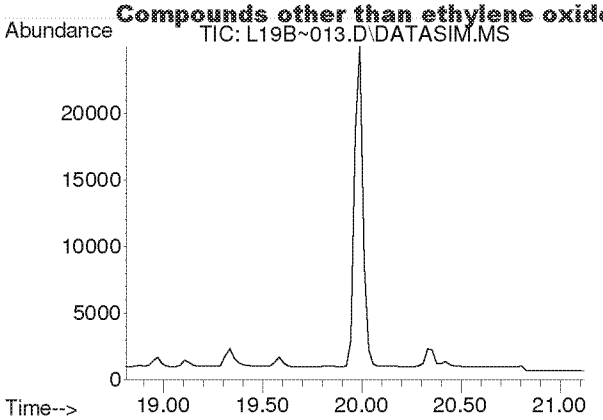
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

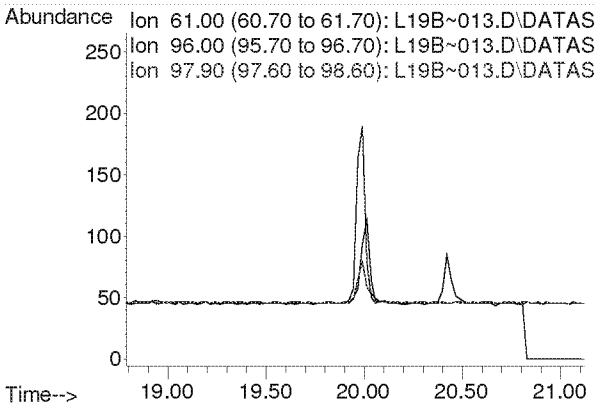


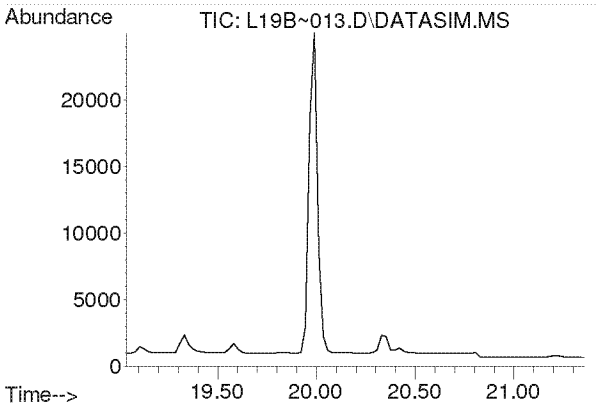
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



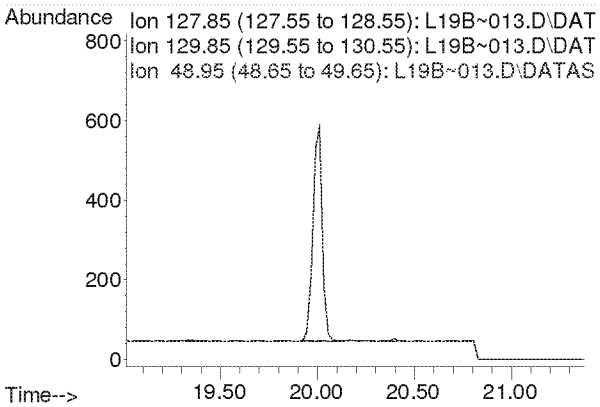


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

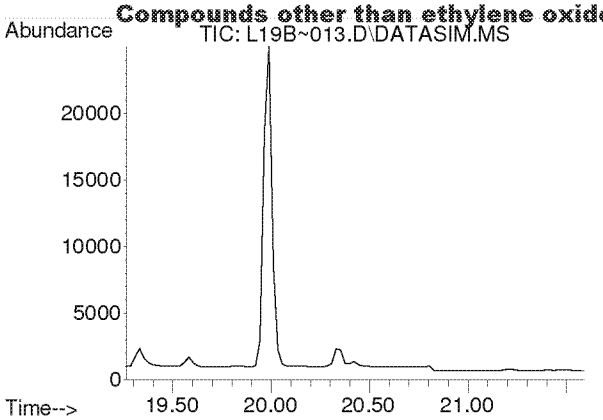
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

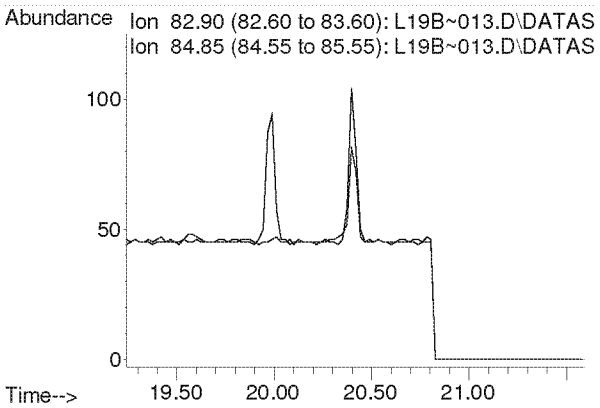


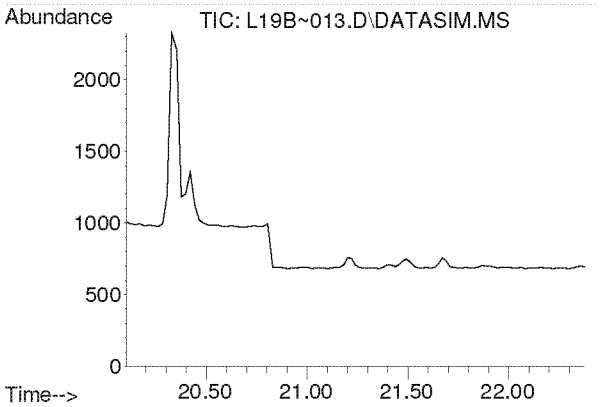
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



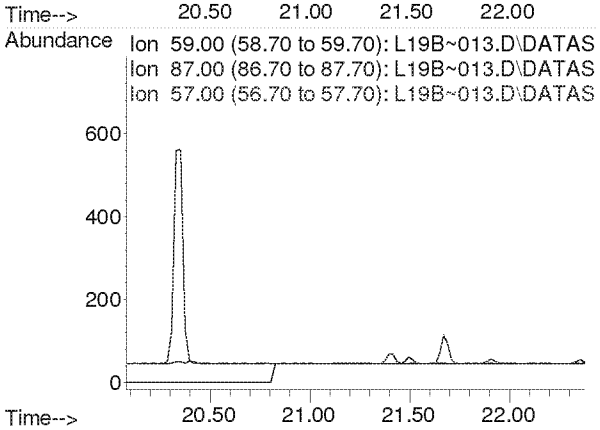


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

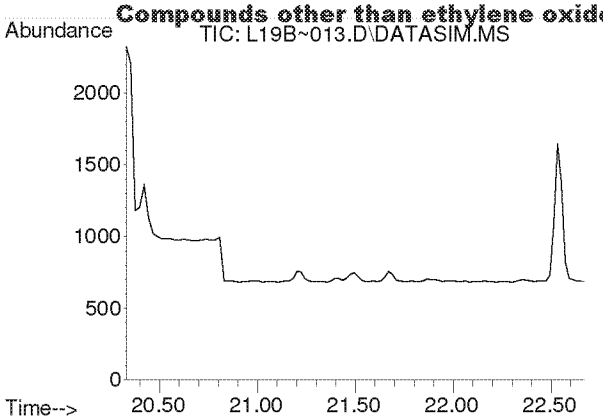
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

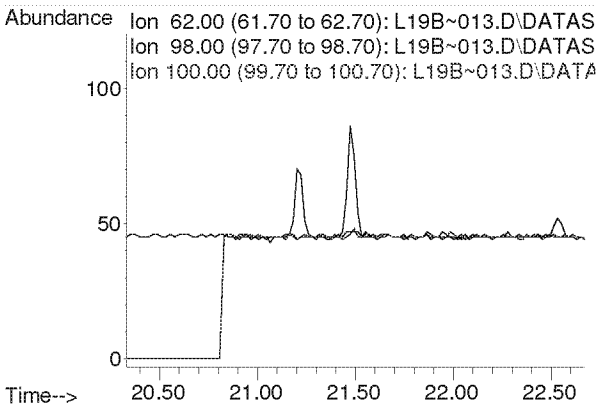


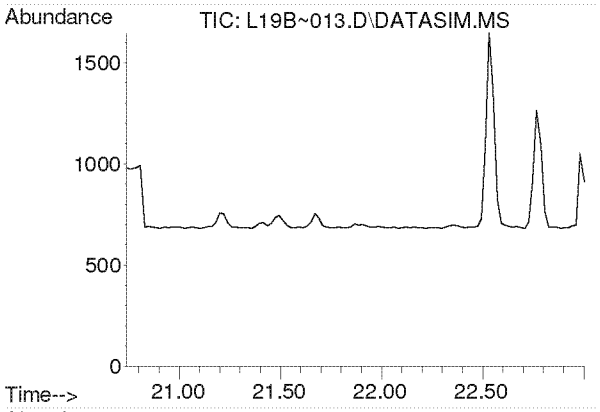
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



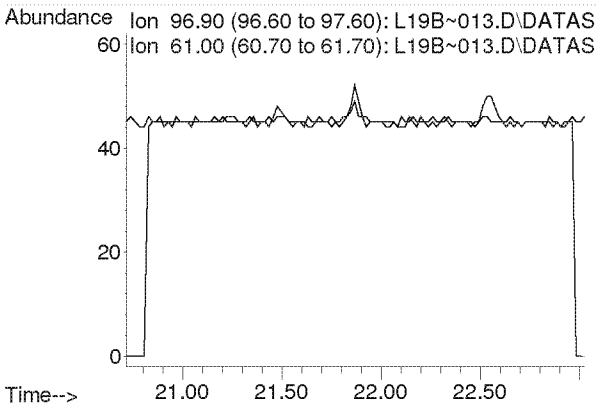


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

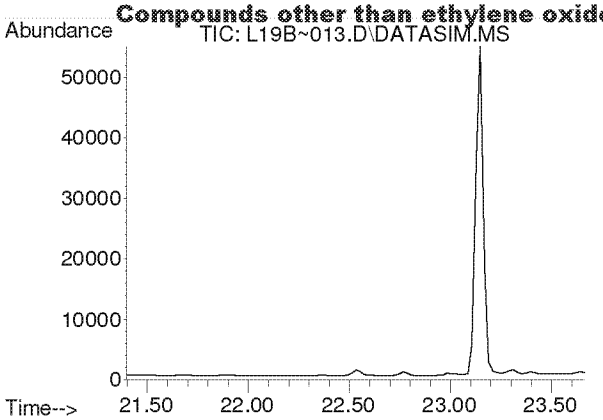
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

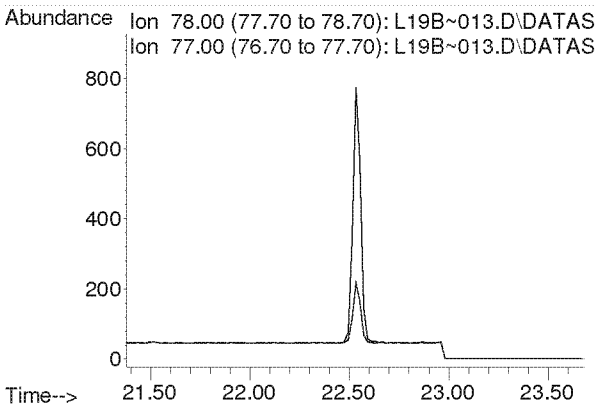


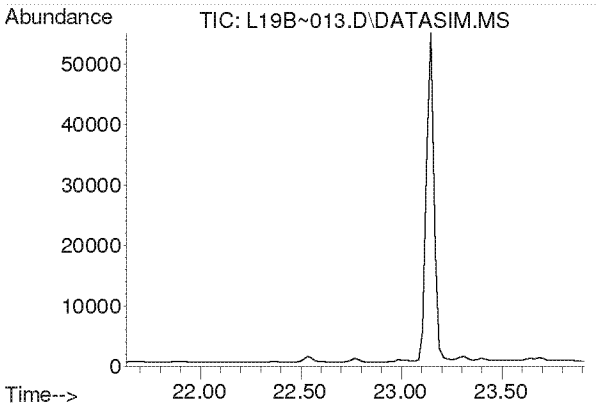
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



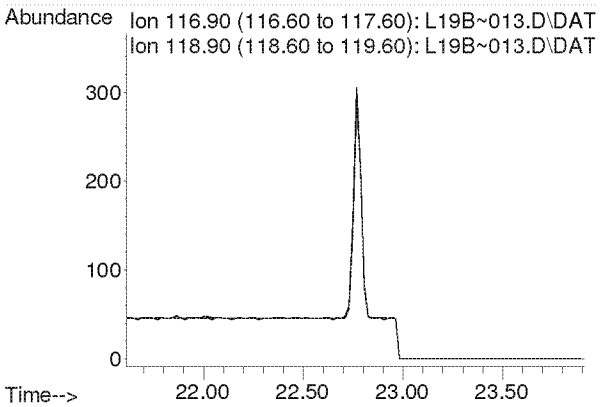


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

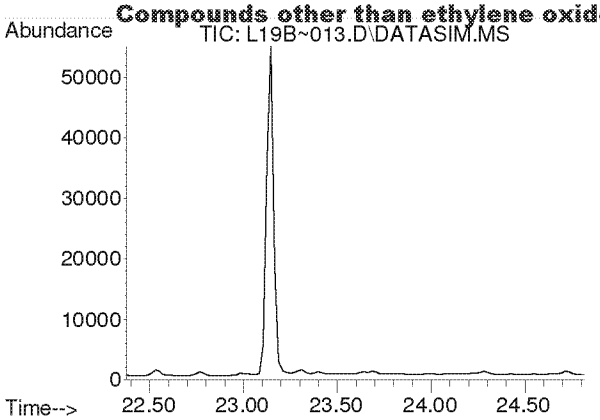
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

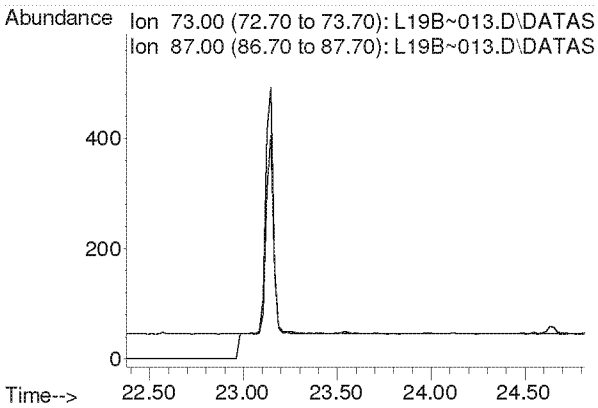


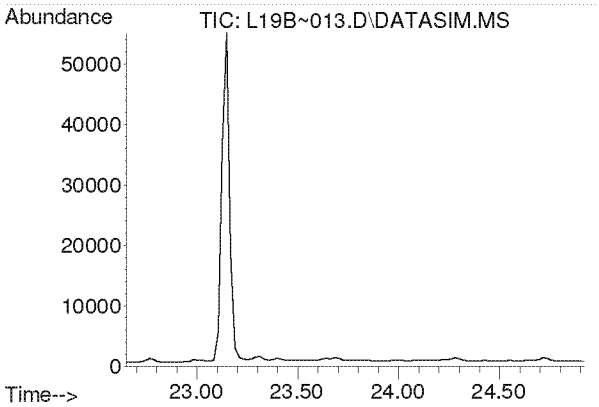
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



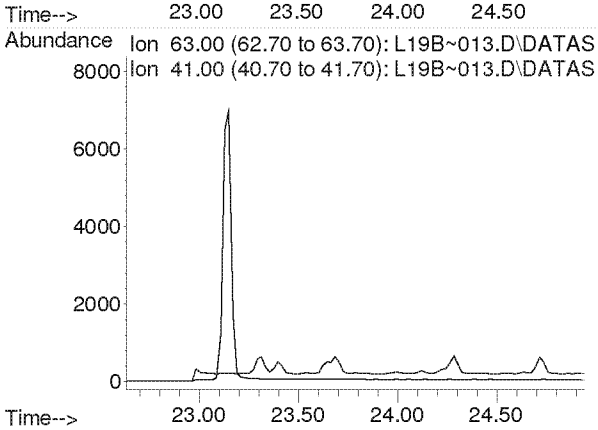


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

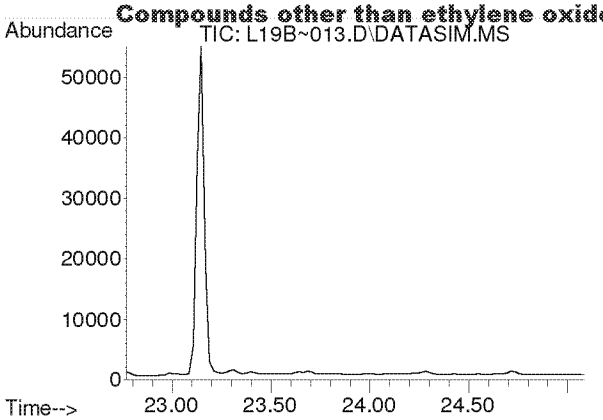
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

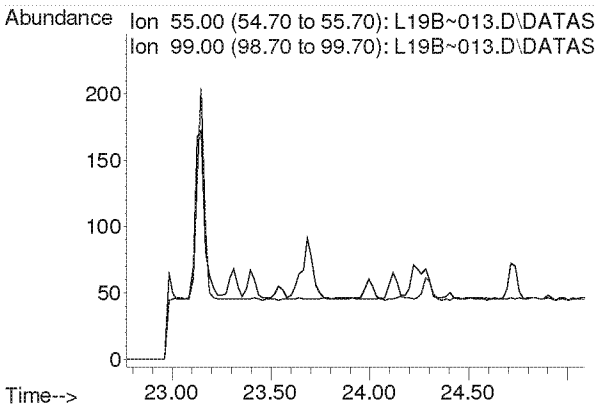


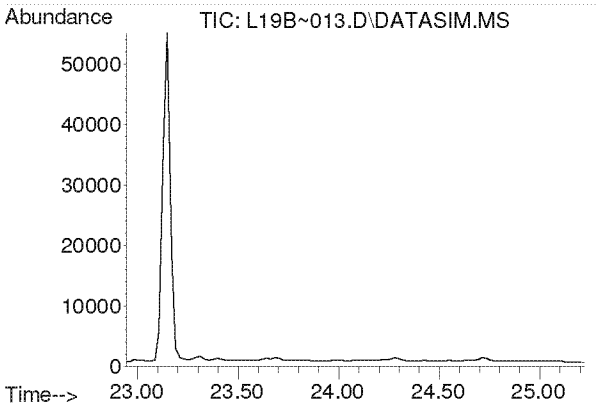
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



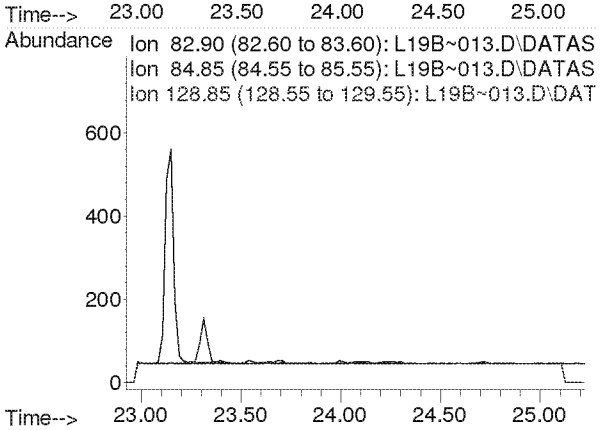


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

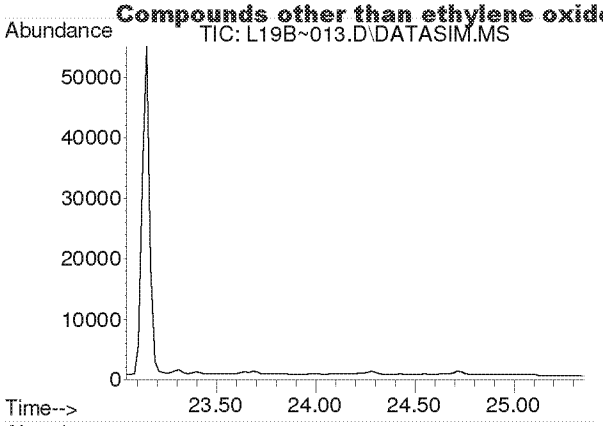
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

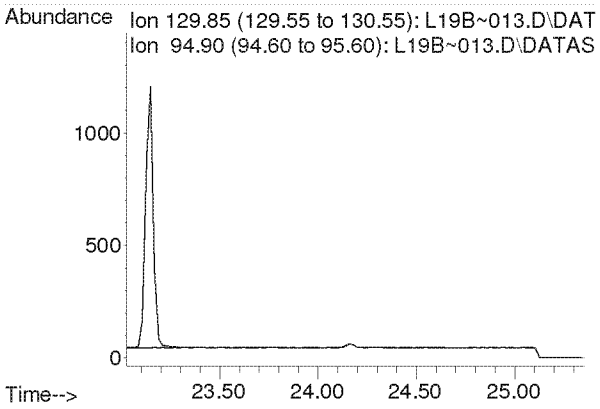


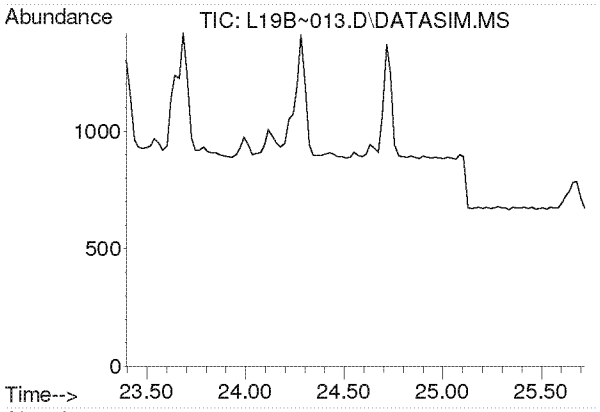
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



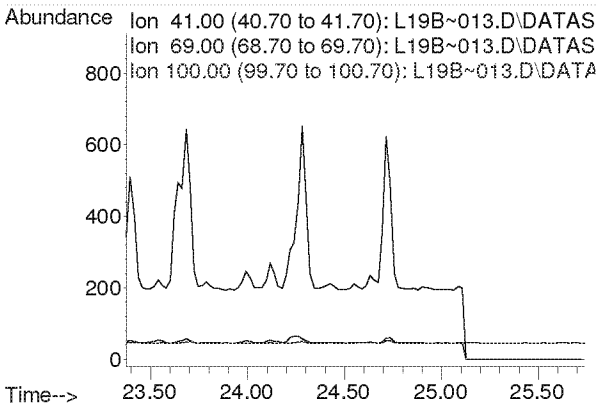


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

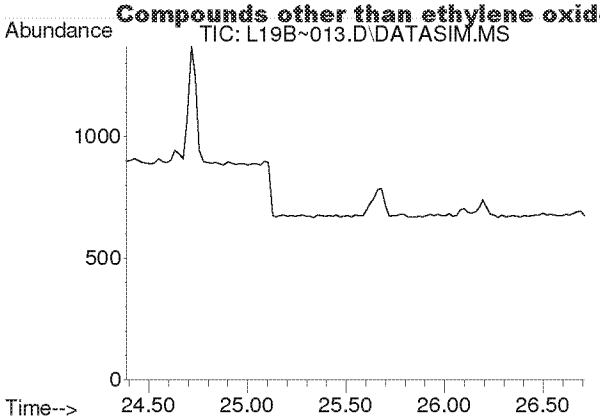
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

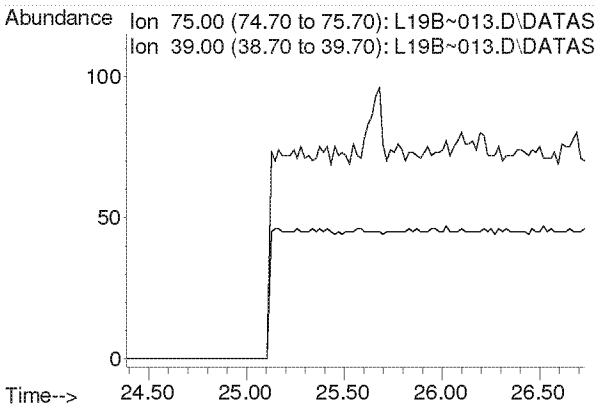


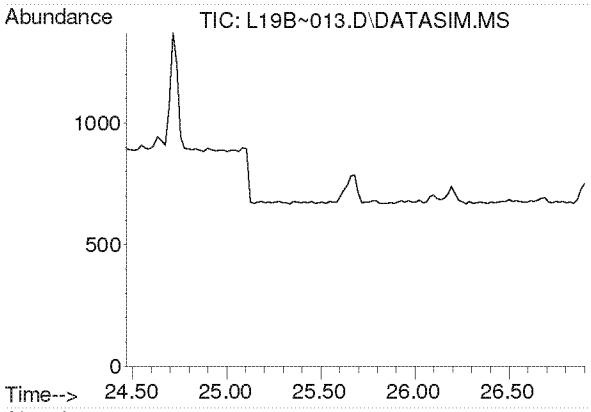
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



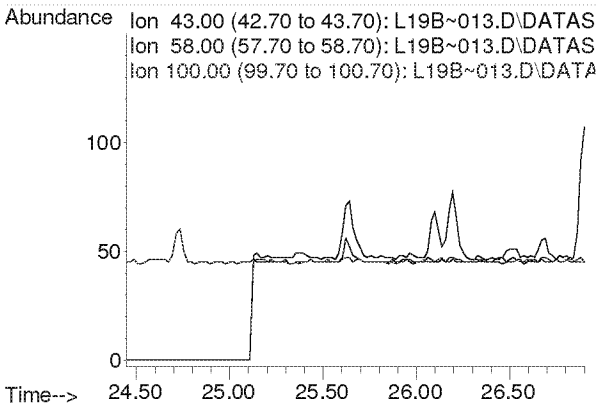


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

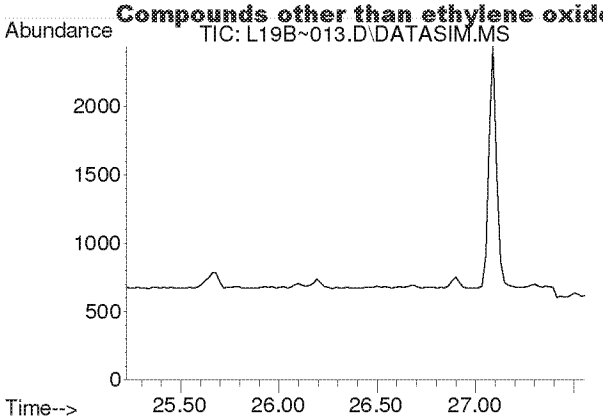
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

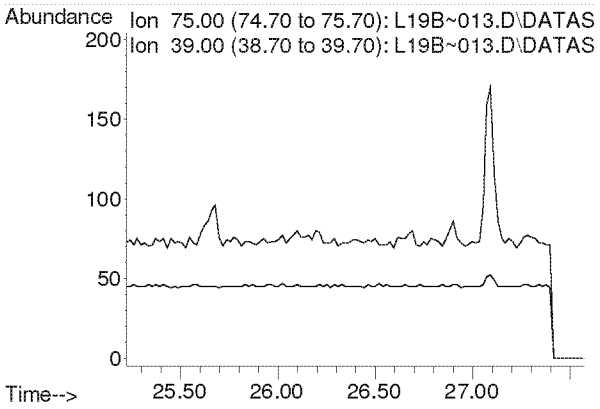


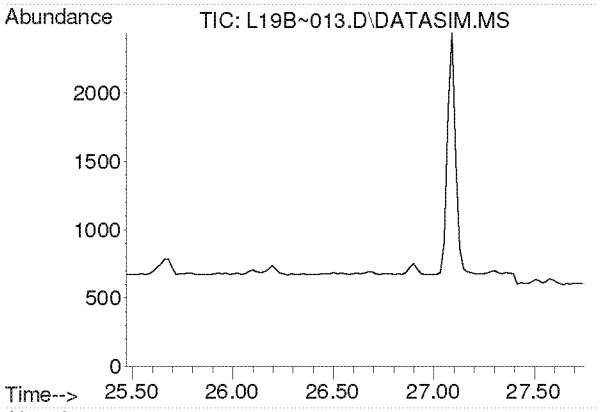
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



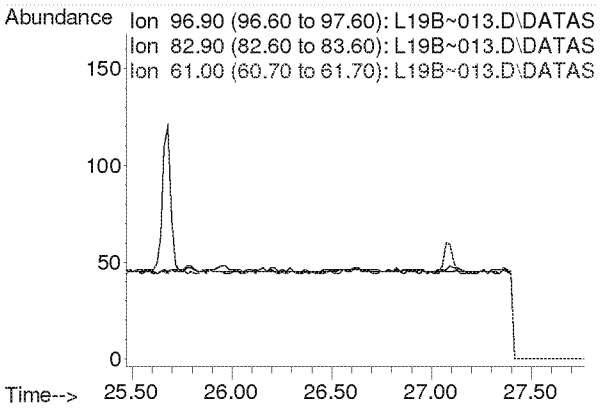


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

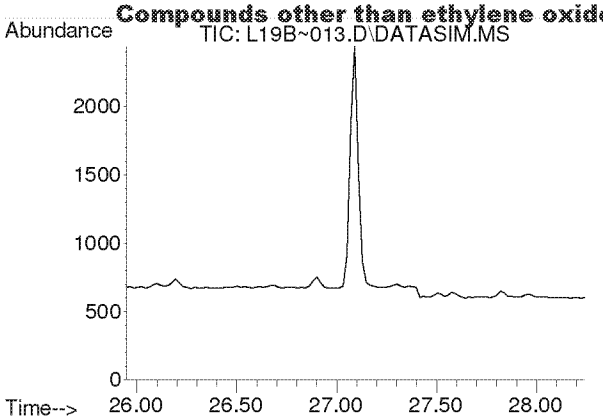
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

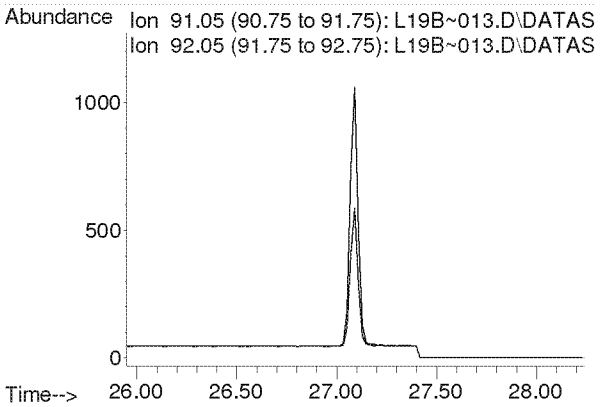


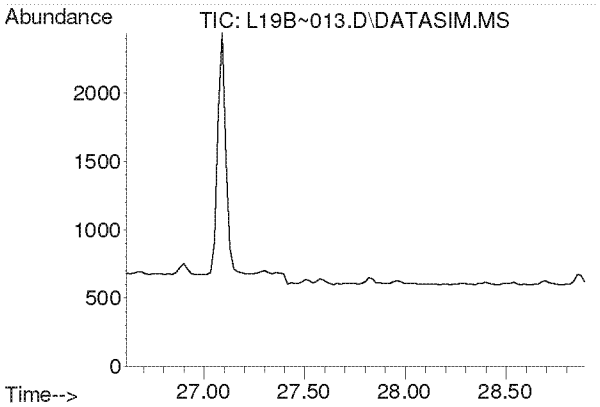
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



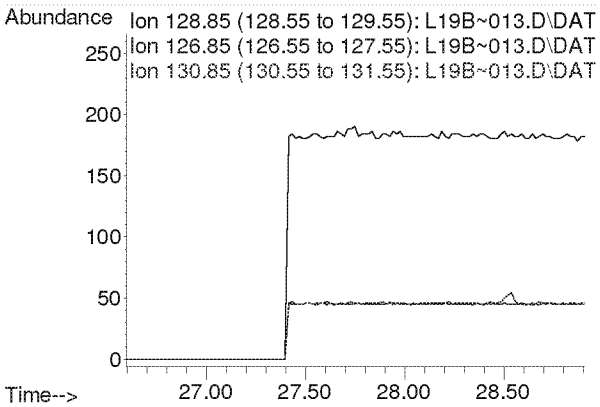


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

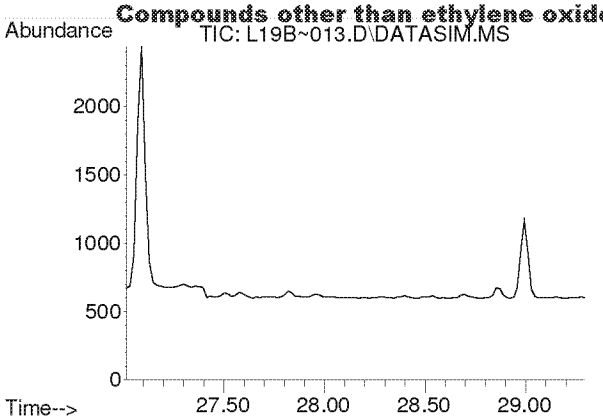
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

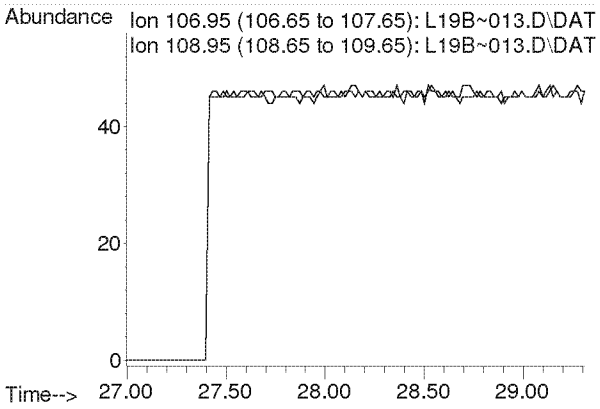


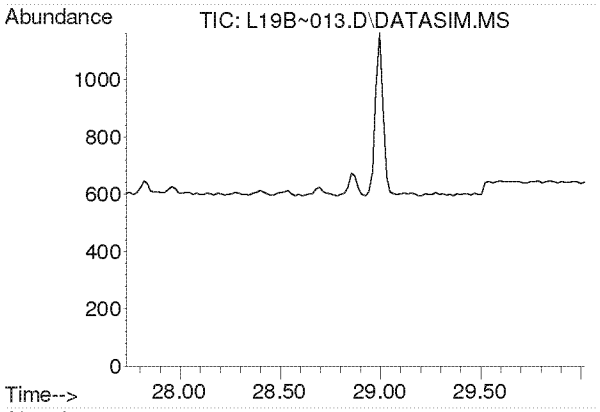
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



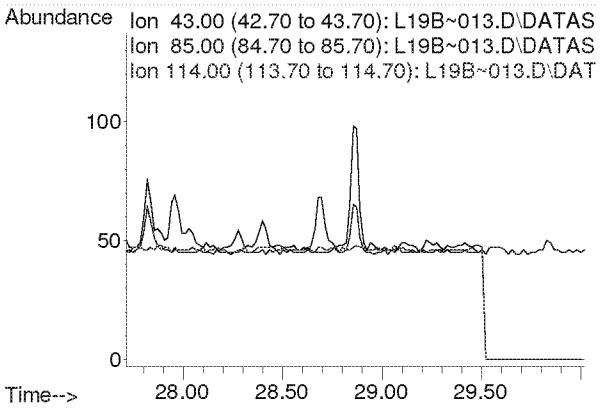


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

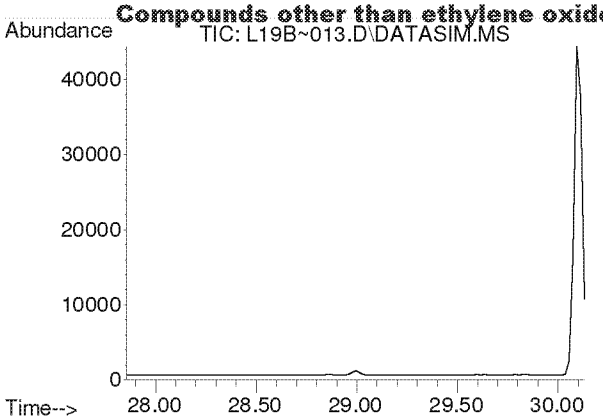
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

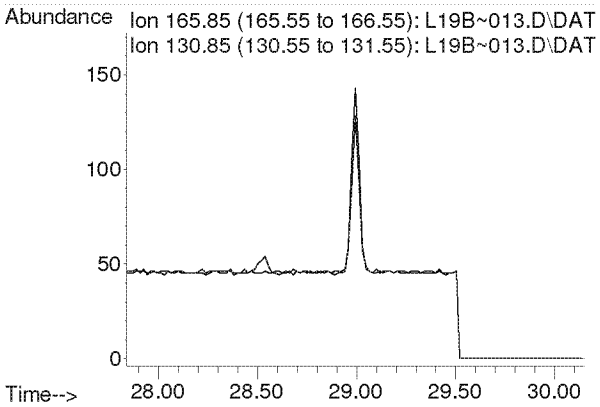


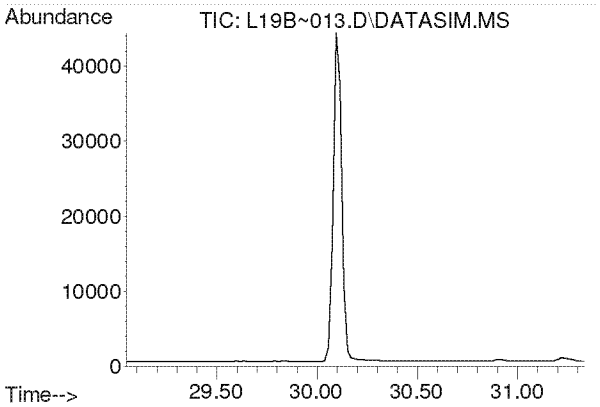
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



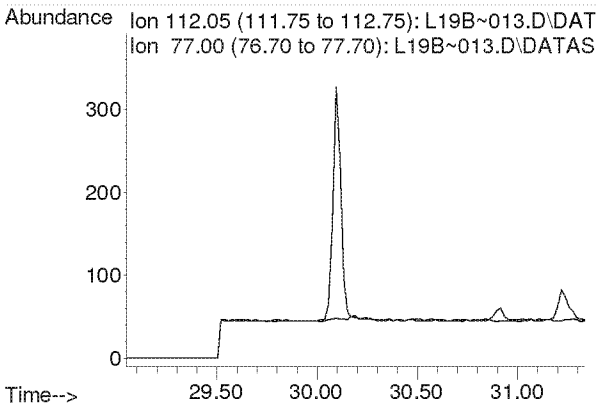


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

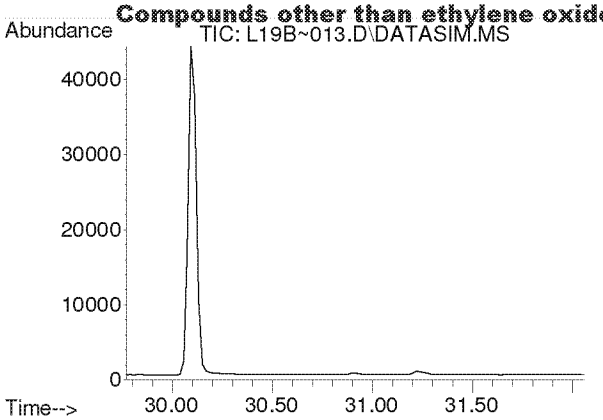
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

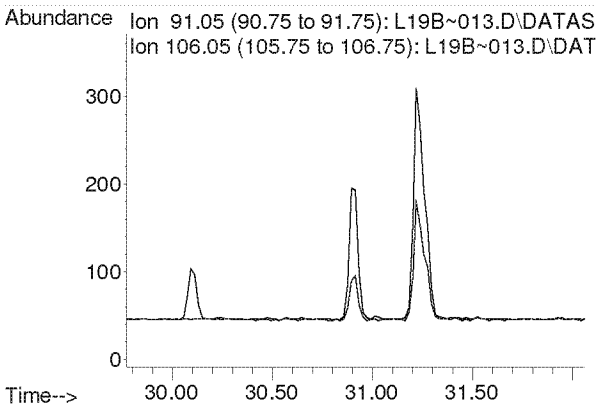


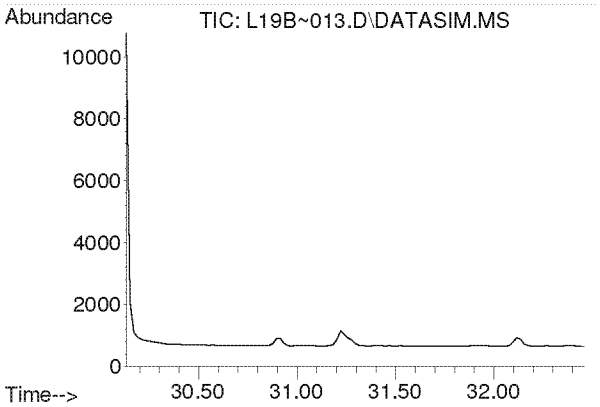
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



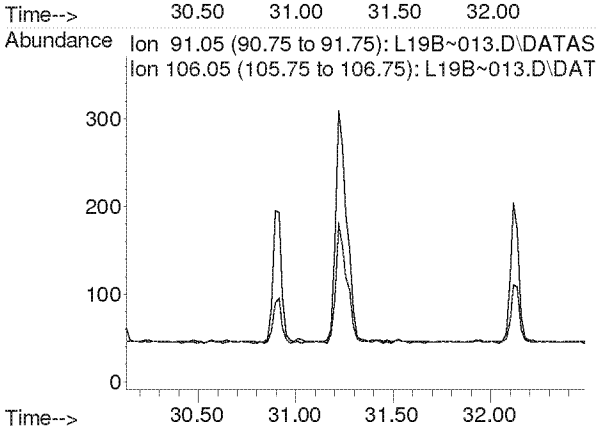


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

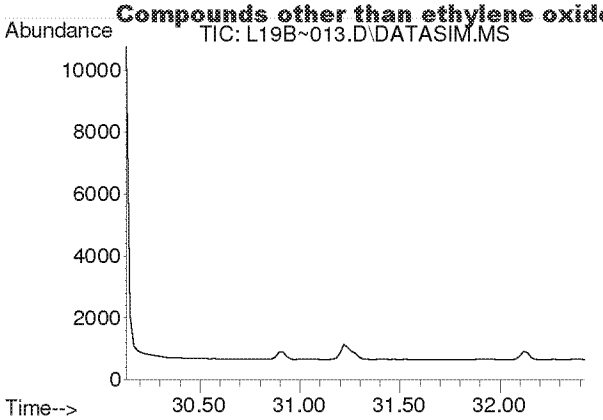
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

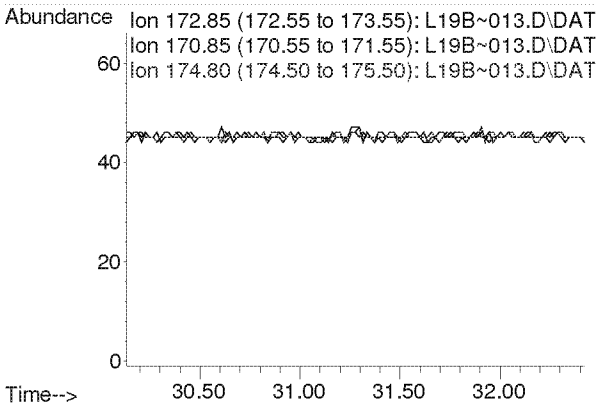


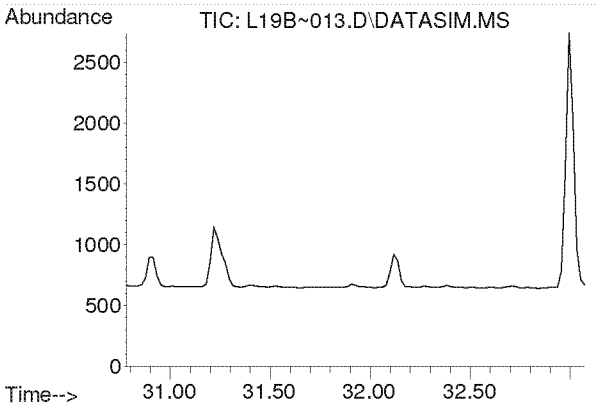
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



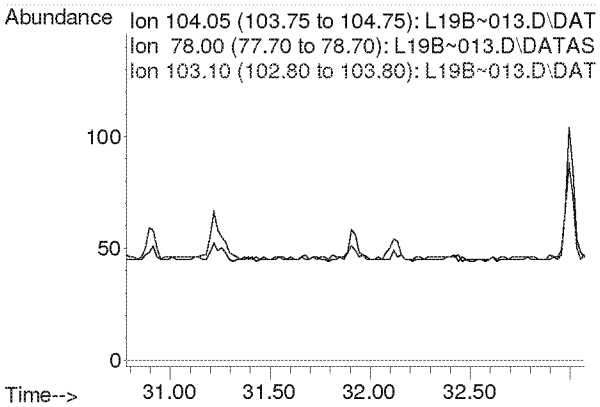


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

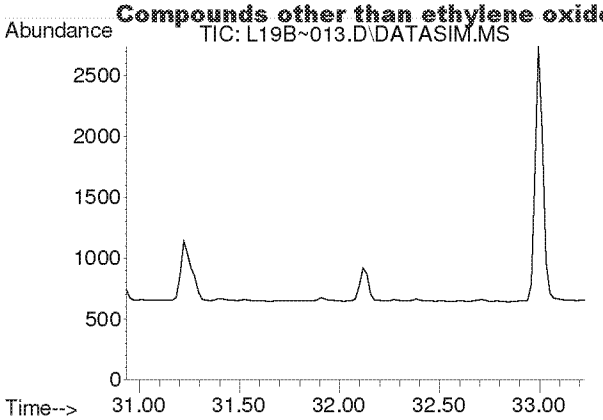
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

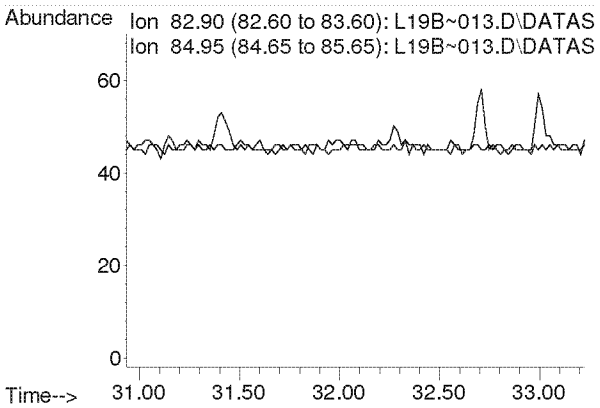


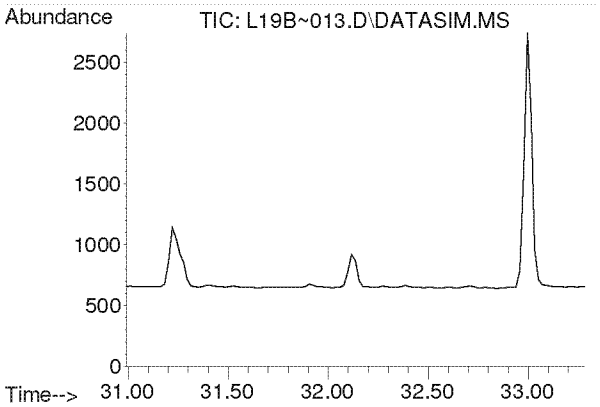
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



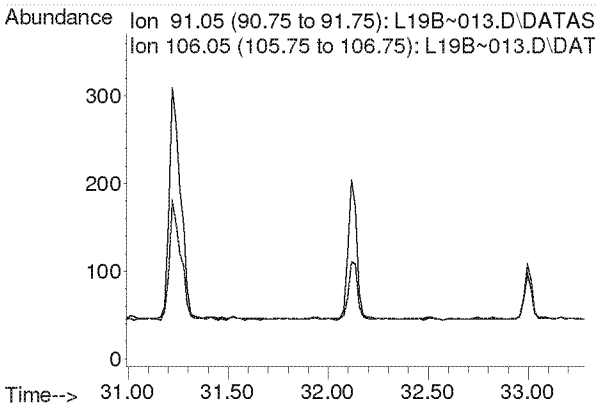


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

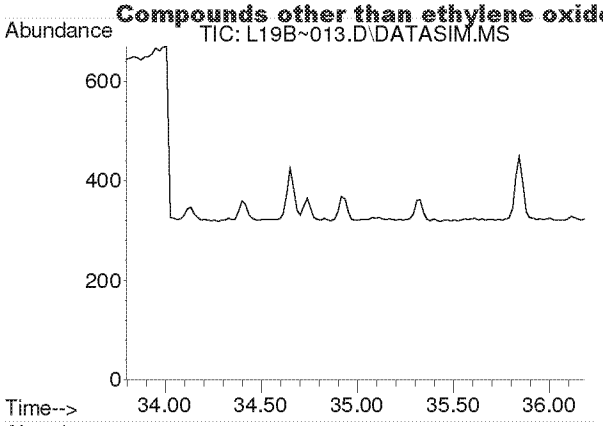
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

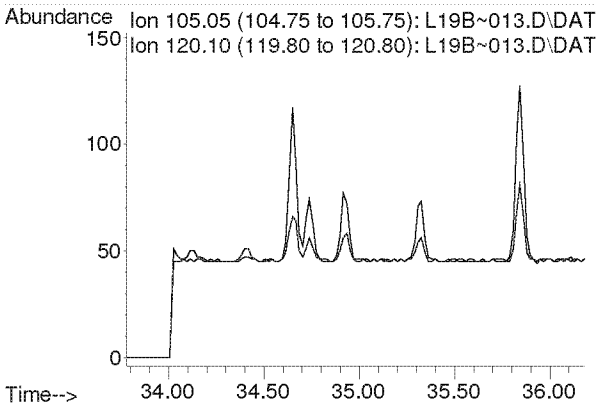


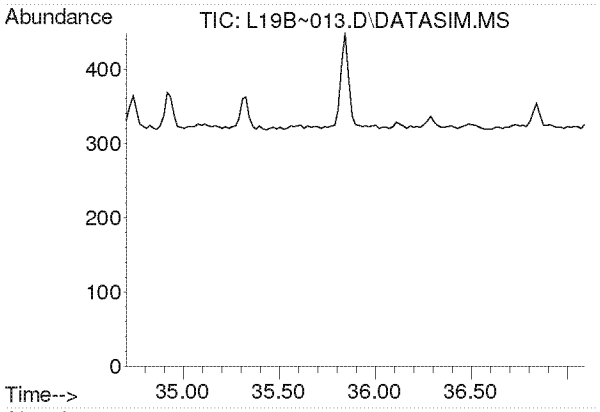
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



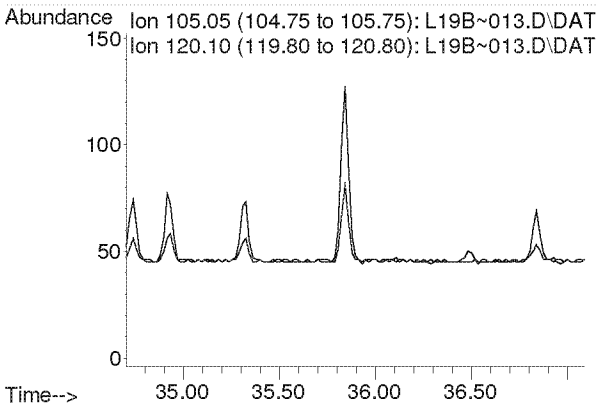


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

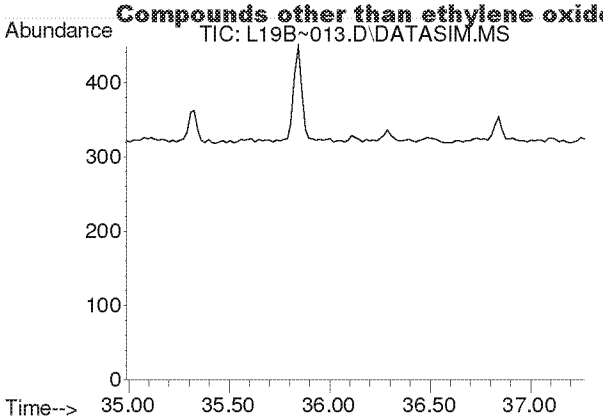
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

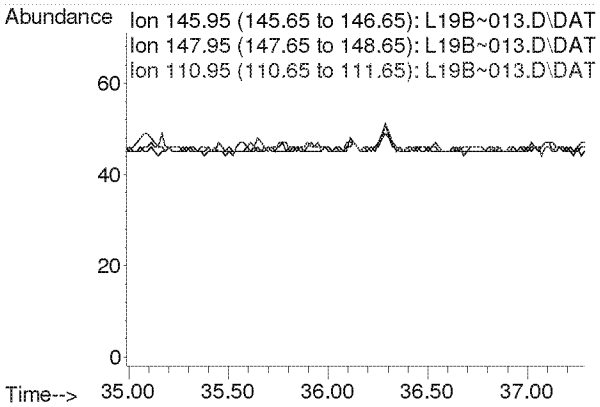


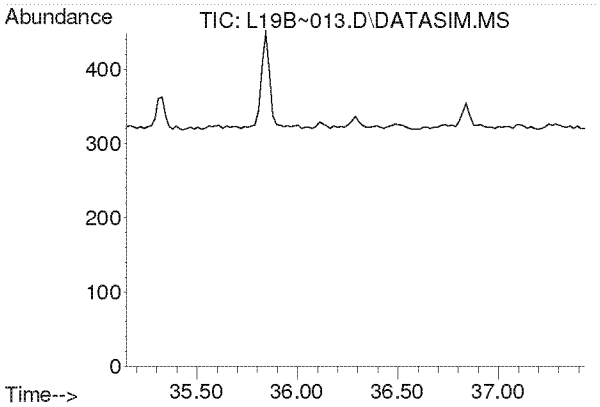
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



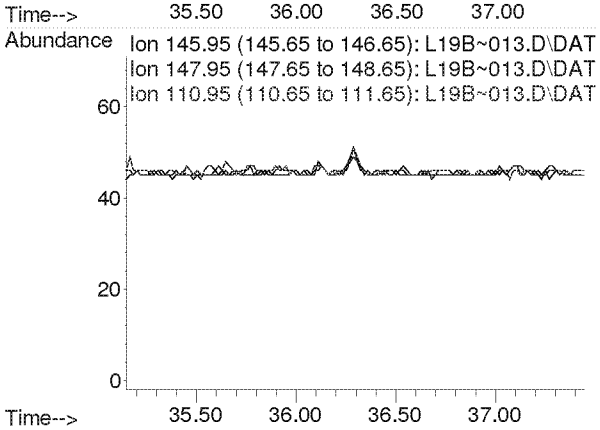


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

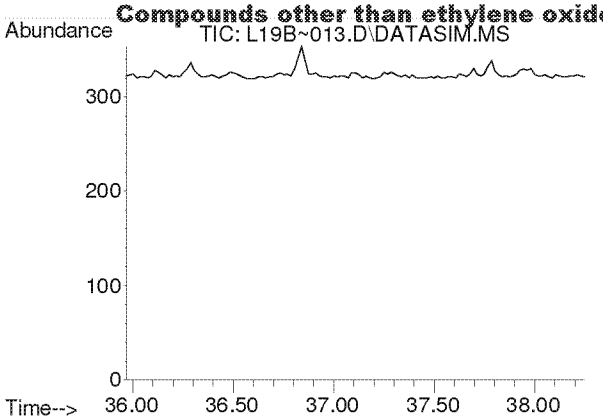
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

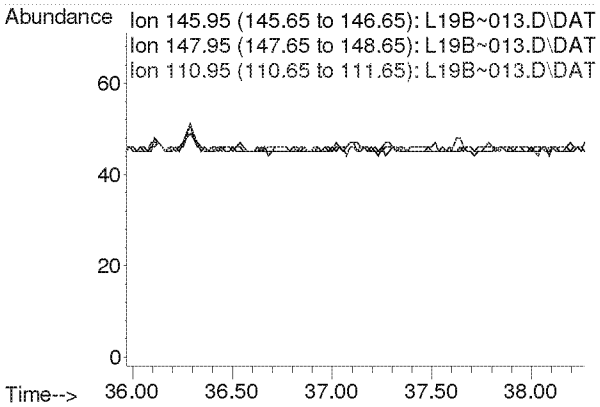


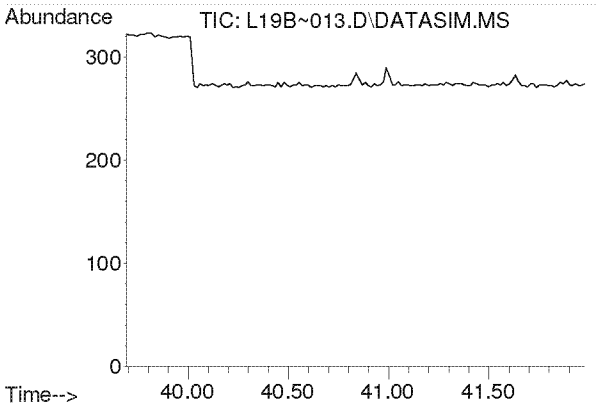
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



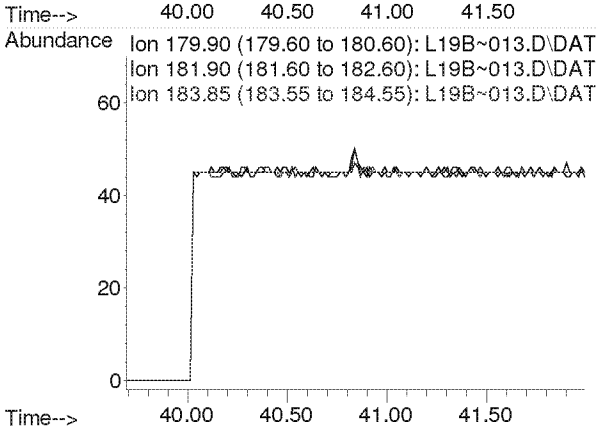


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

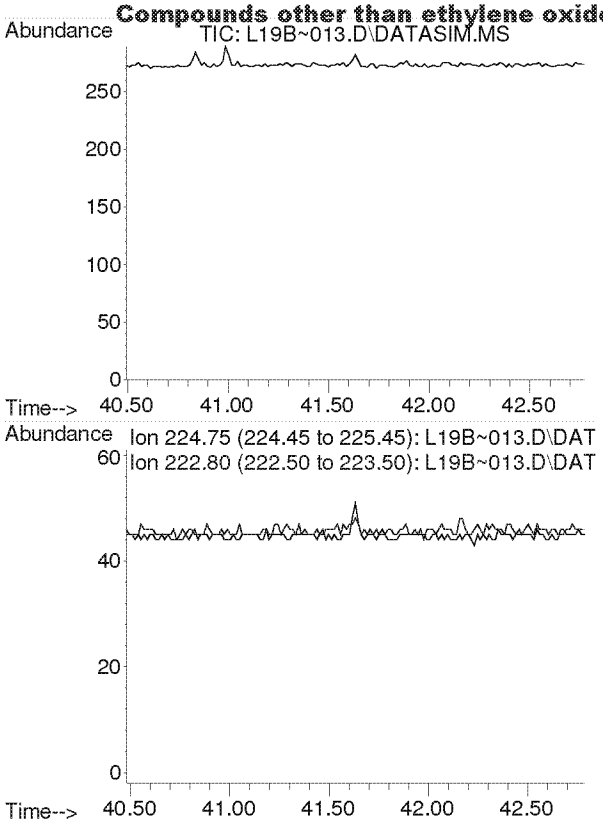
Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19B~013.D
Acq: 27 Feb 2019 11:32 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~014.D
Acq On : 28 Feb 2019 12:32 am
Operator : MAH
Sample : 9022616-03
Misc : WB VILLAGE HALL 2/22/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 05 06:48:00 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	44888	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	112074	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	78936	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	204m	0.0795 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D.	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~014.D
Acq On : 28 Feb 2019 12:32 am
Operator : MAH
Sample : 9022616-03
Misc : WB VILLAGE HALL 2/22/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 05 06:48:00 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

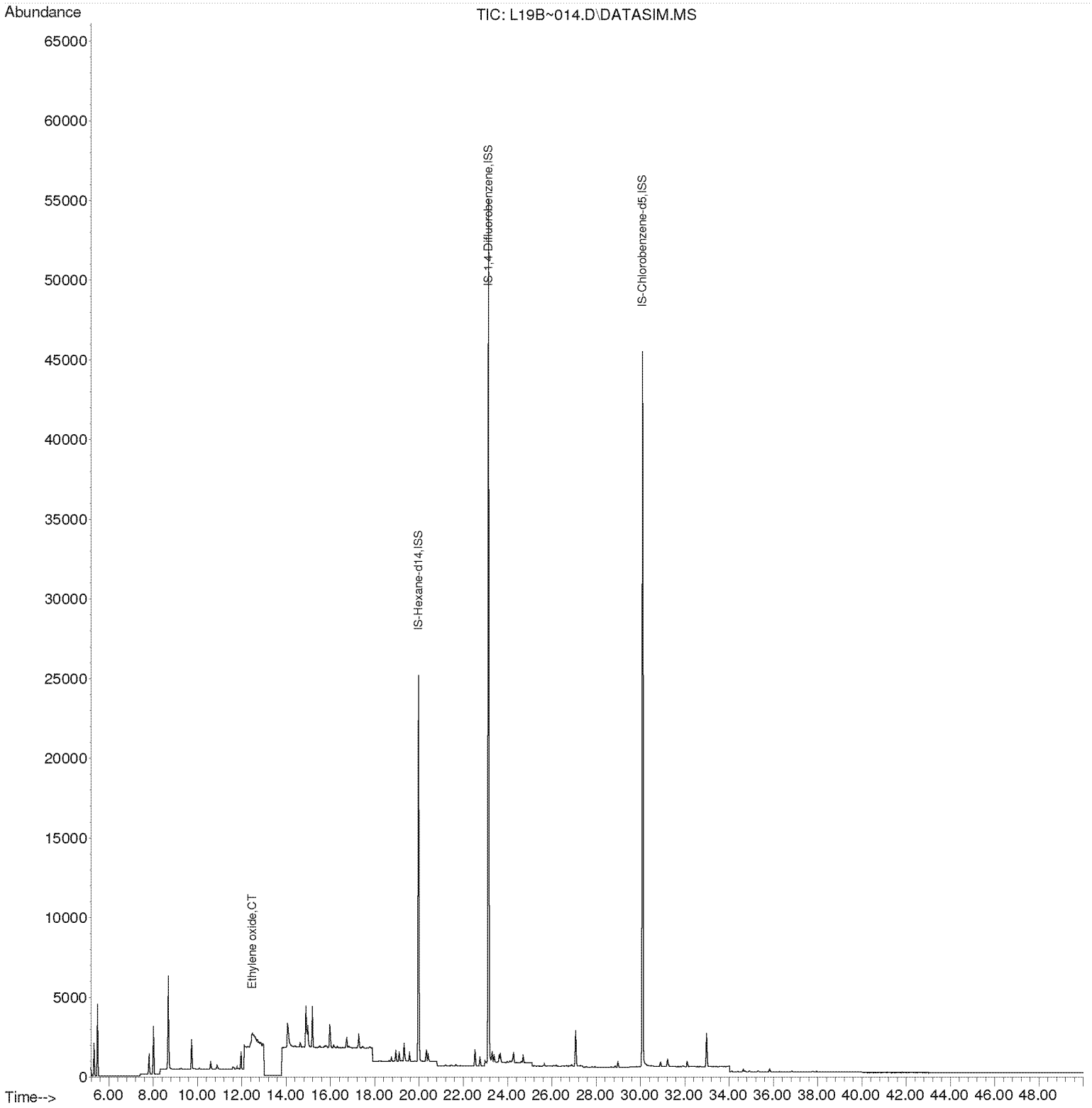
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

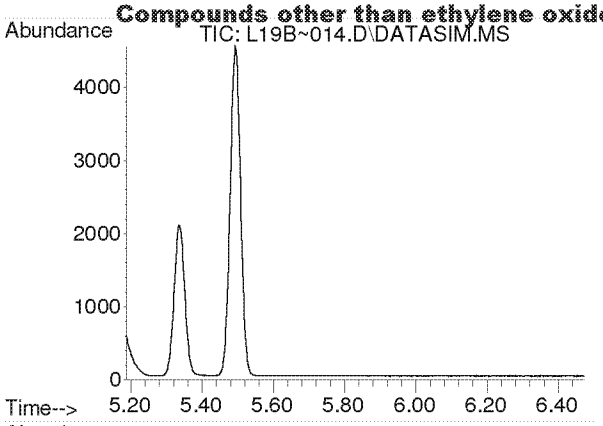
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~014.D
Acq On : 28 Feb 2019 12:32 am
Operator : MAH
Sample : 9022616-03
Misc : WB VILLAGE HALL 2/22/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 28 12:54:42 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



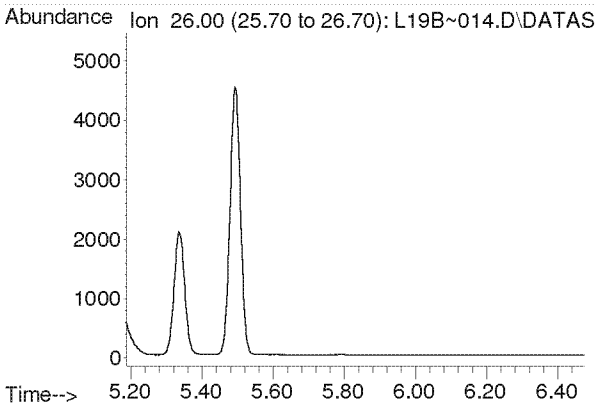
Compounds other than ethylene oxide were not quantitated.

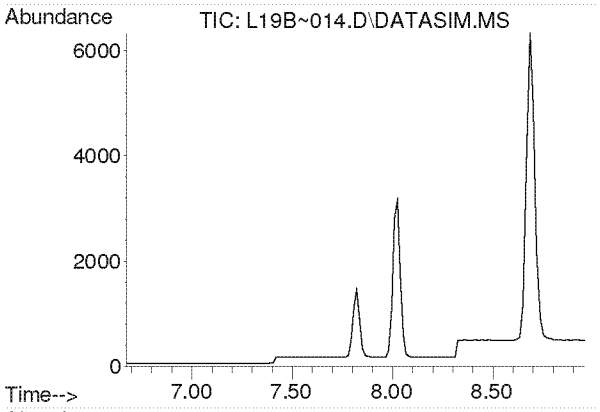


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 26



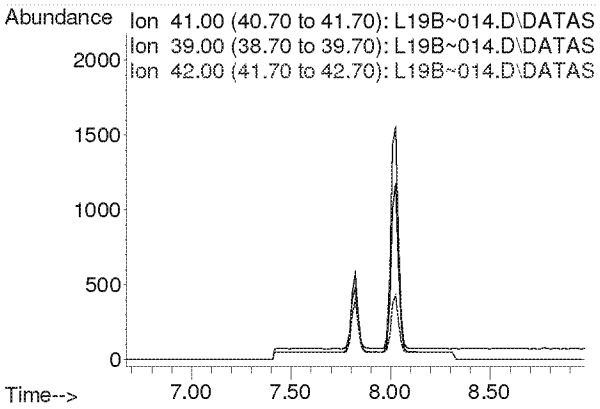


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

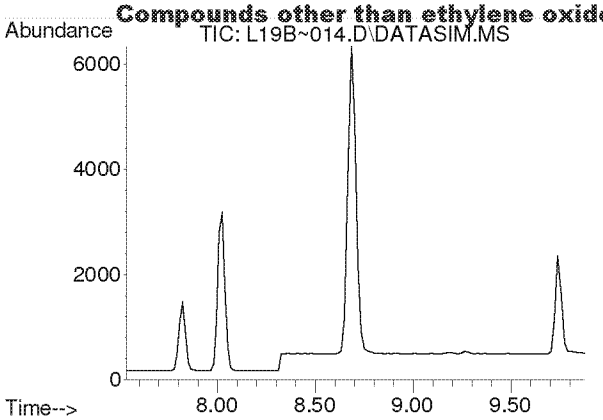
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

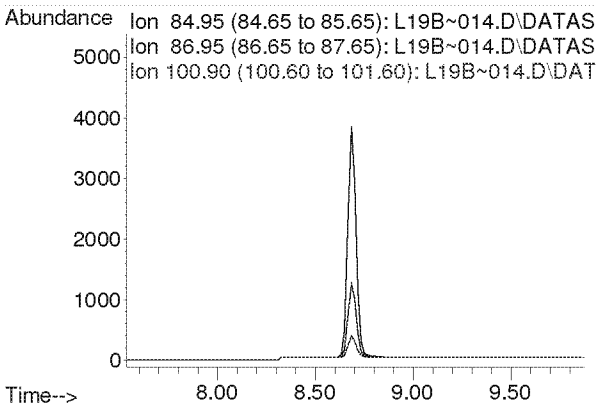


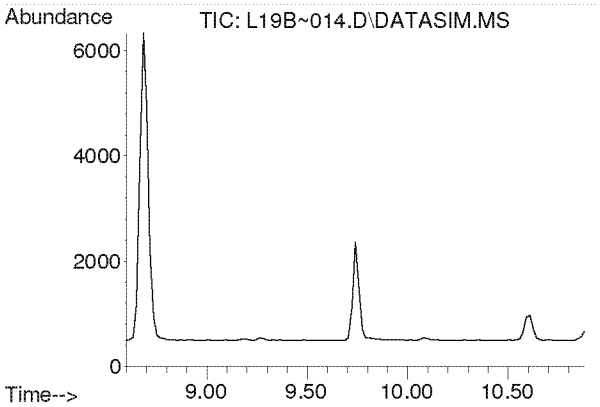
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



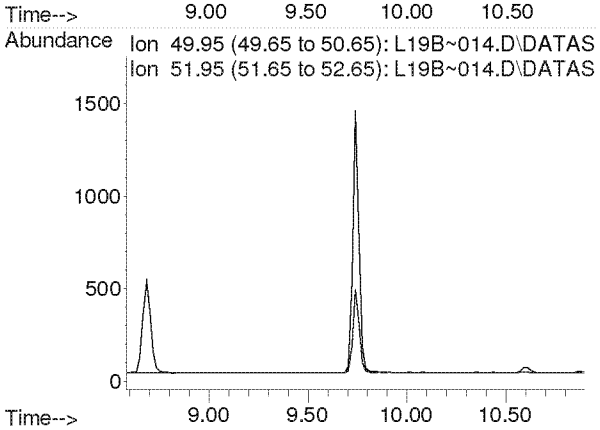


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

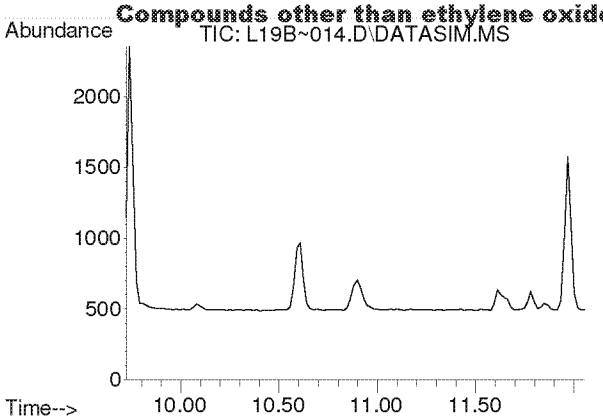
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

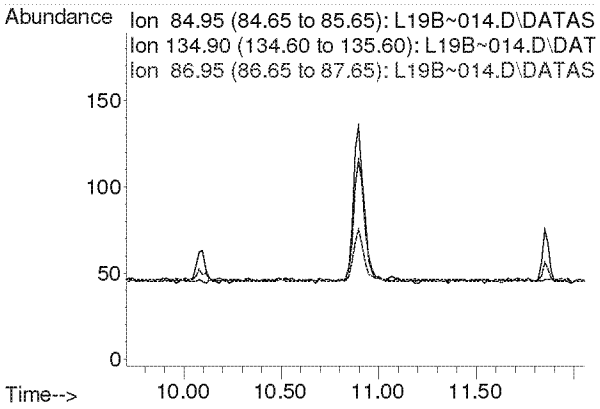


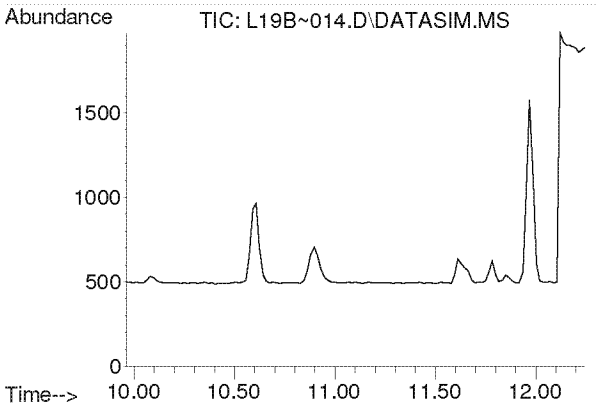
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



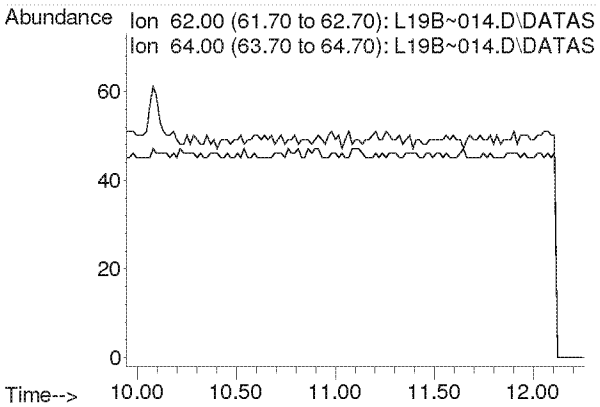


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

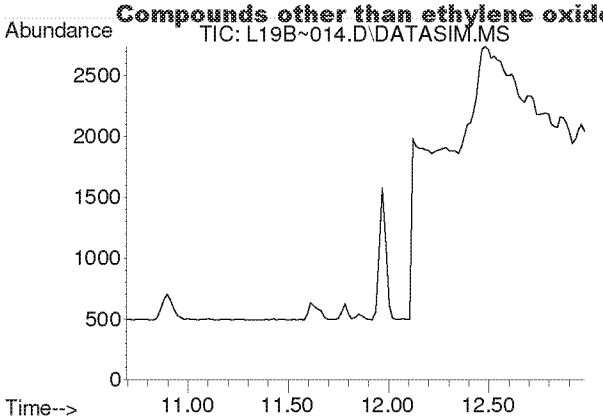
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

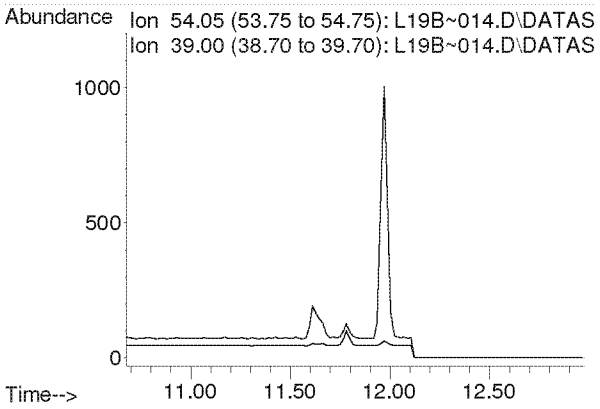


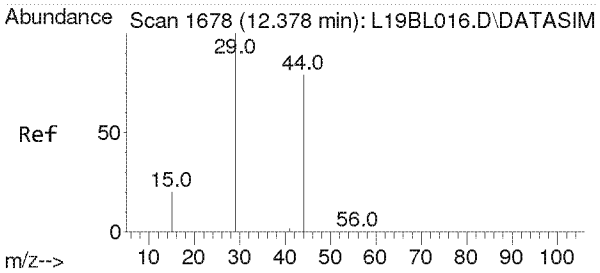
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

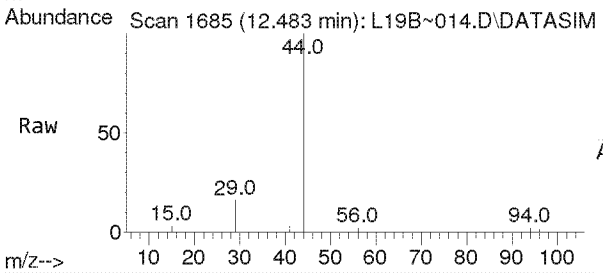


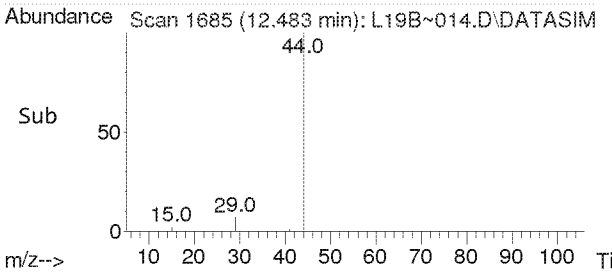


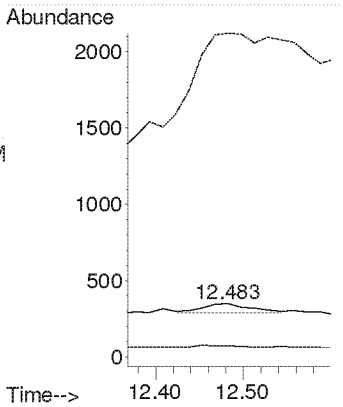
#9
Ethylene oxide
Concen: 0.079 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.033 min
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 29 Resp: 204

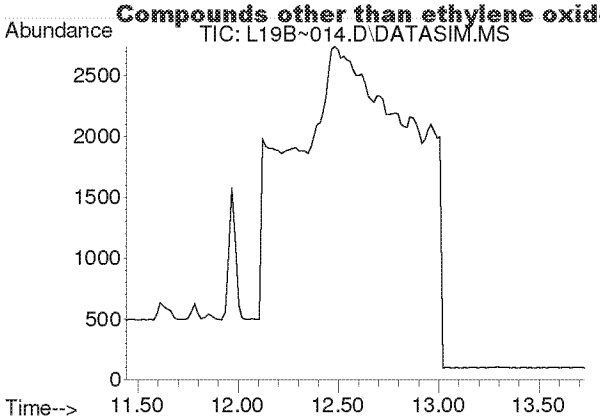
Ion	Ratio	Lower	Upper
29	100		
15	48.0	16.0	24.0#
44	4152.5	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

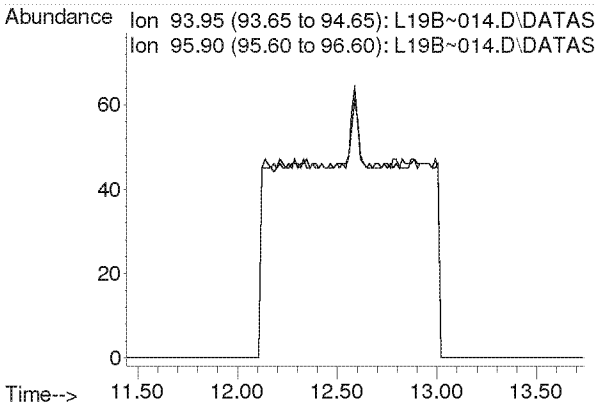


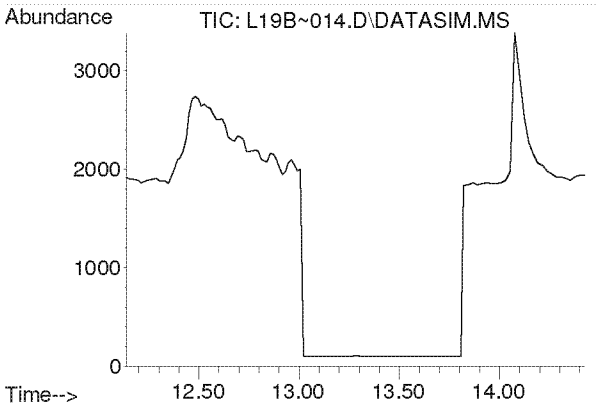
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



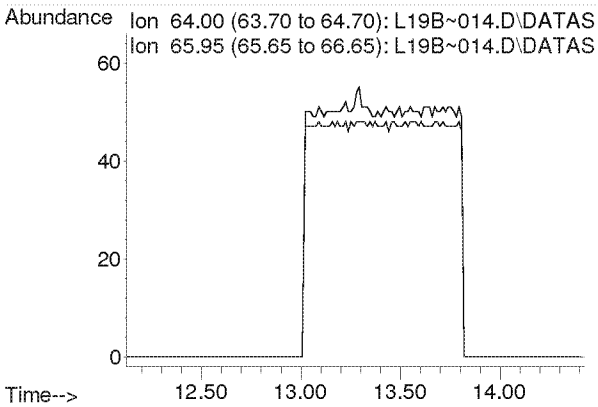


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

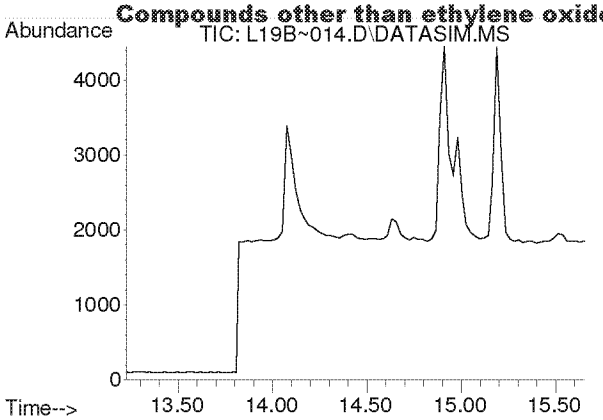
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

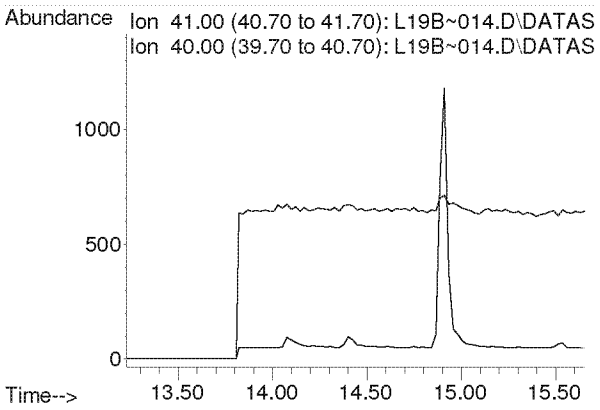


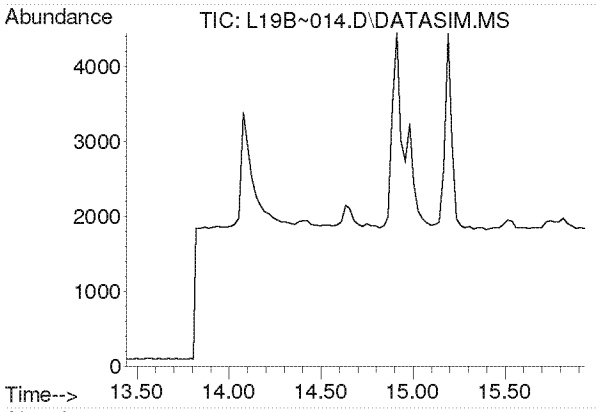
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



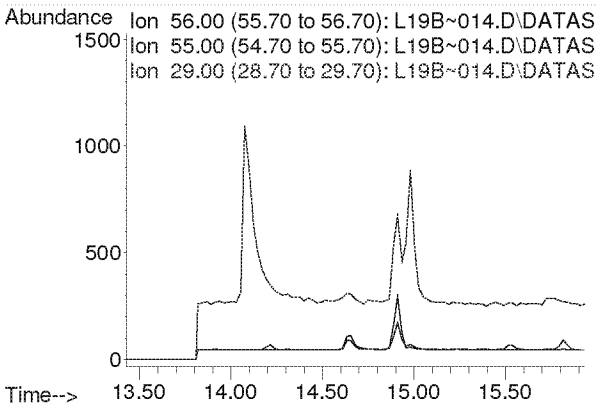


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

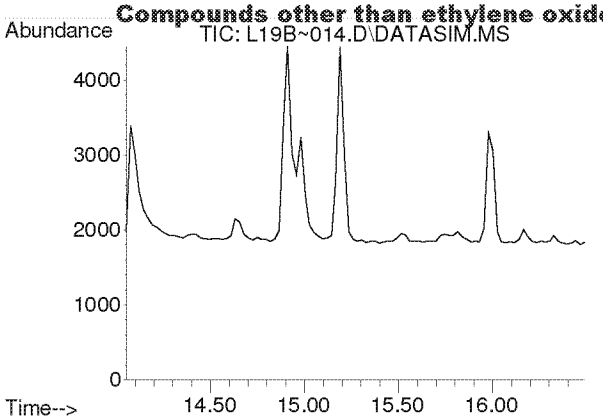
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

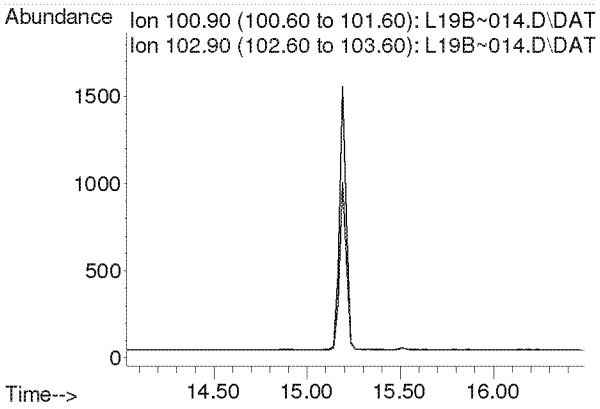


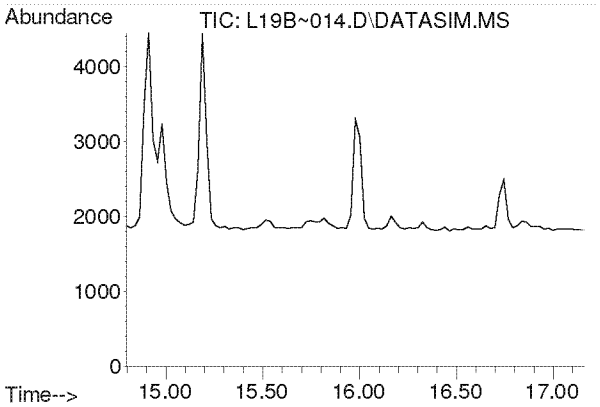
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



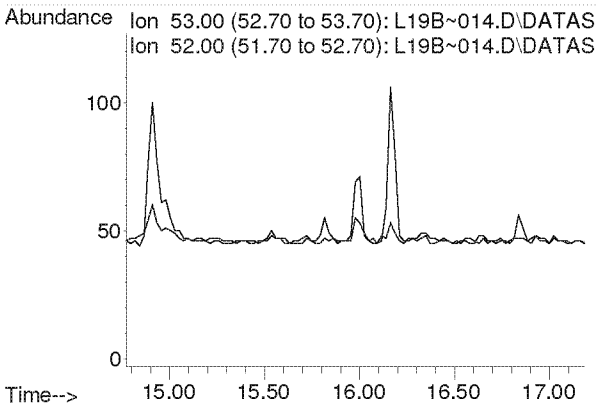


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

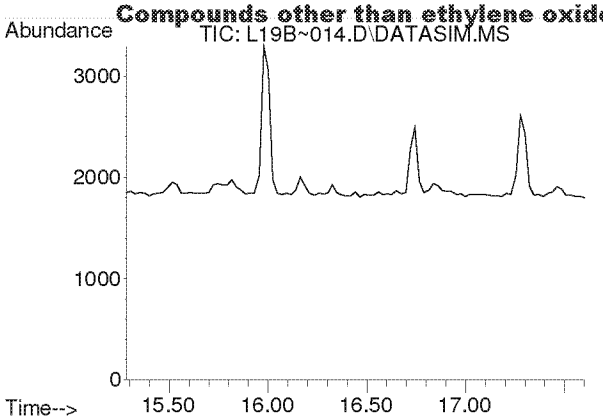
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

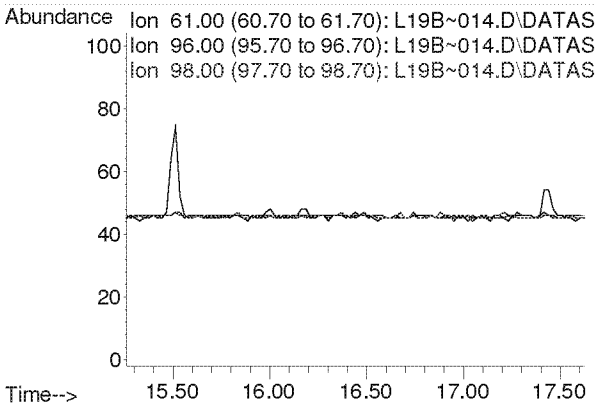


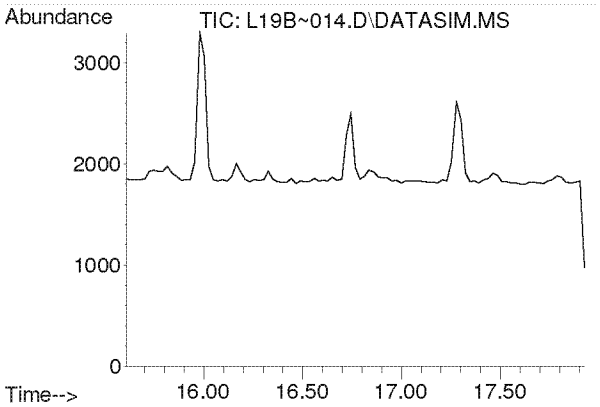
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



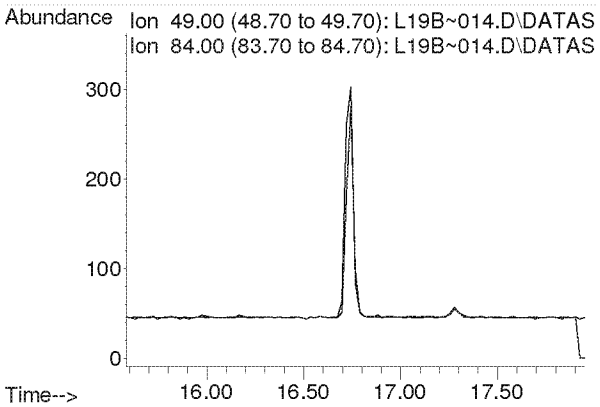


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

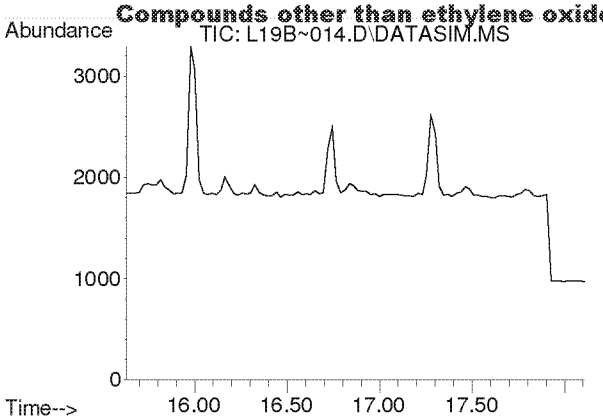
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

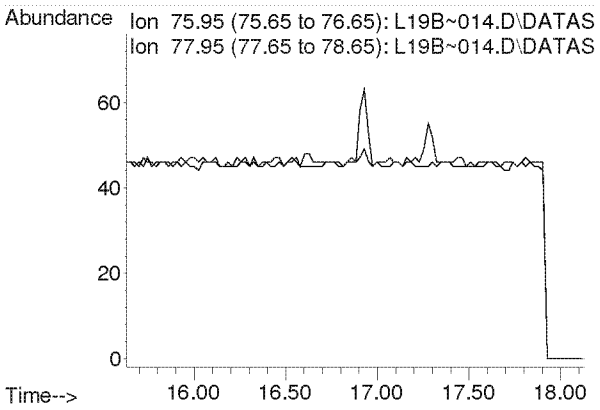


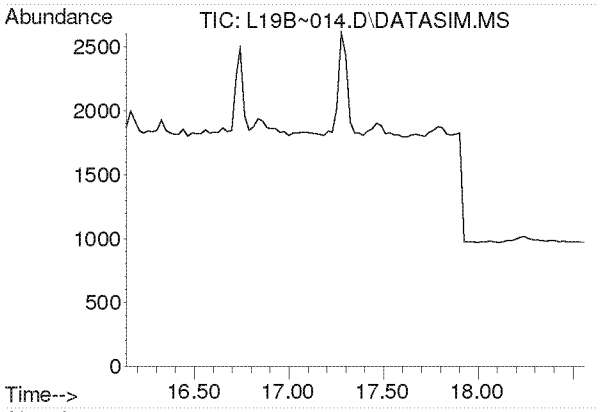
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



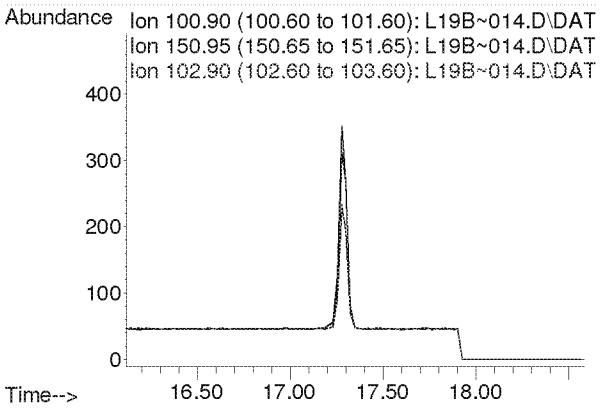


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

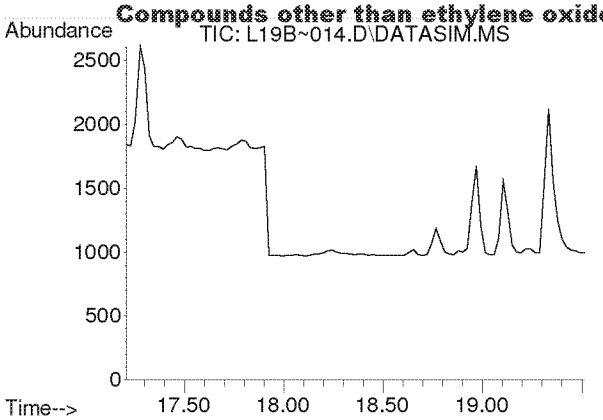
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

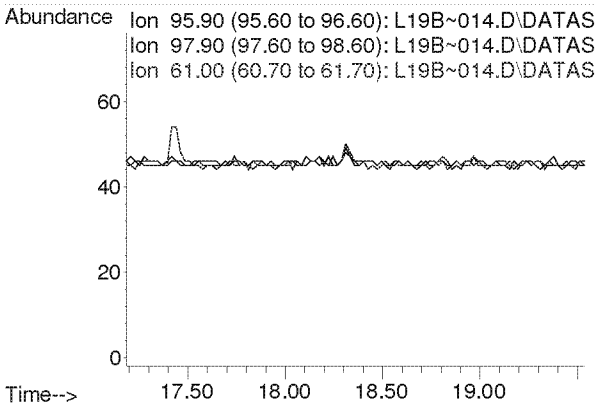


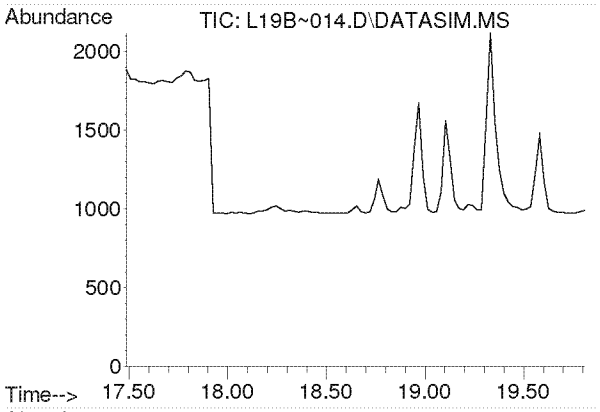
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



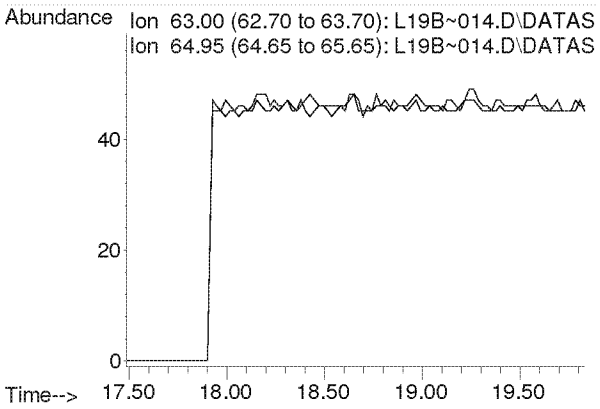


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

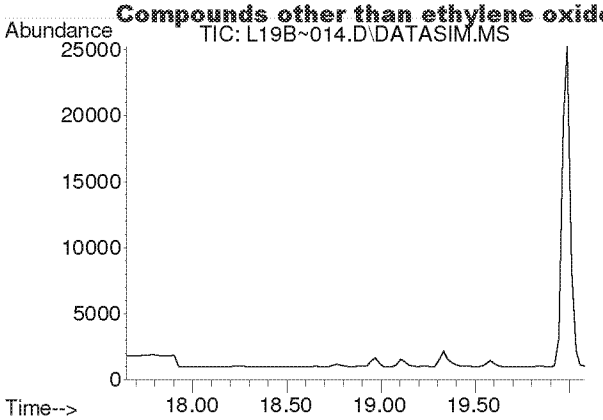
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

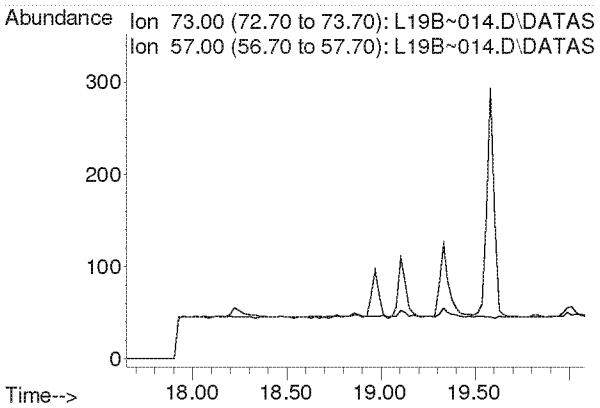


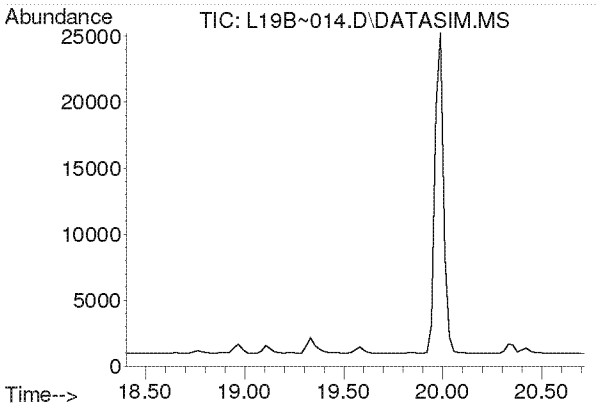
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



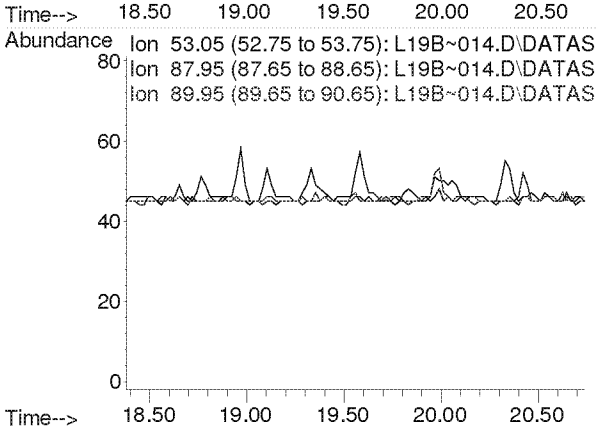


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

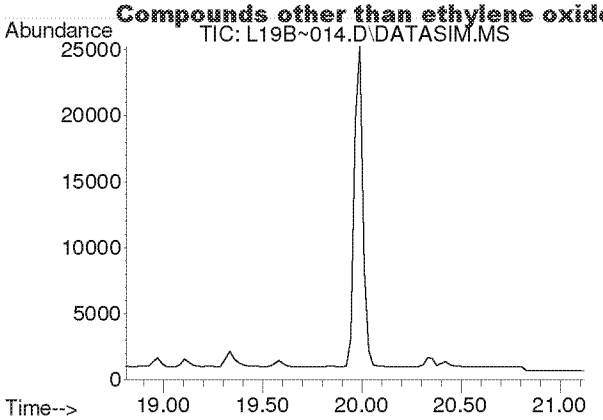
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

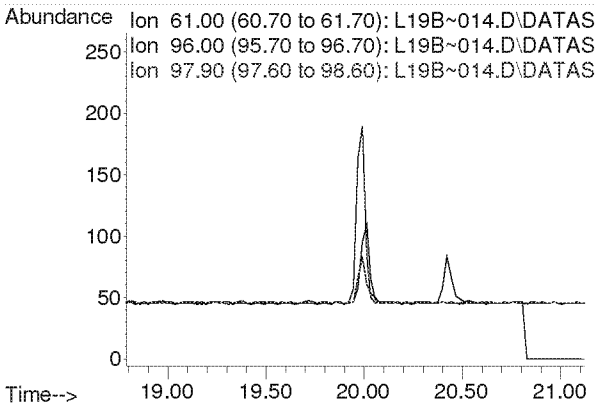


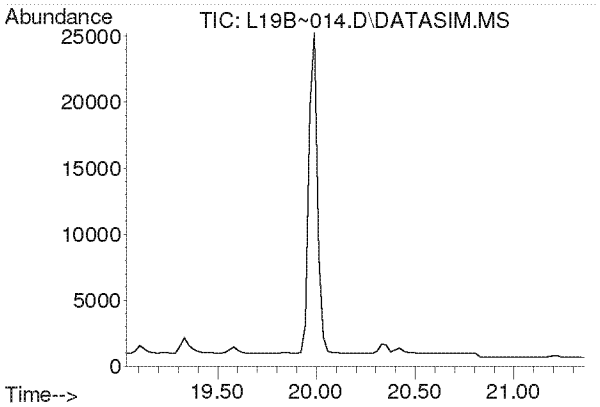
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



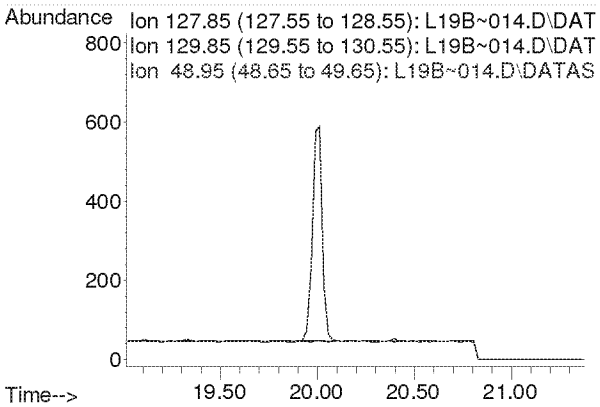


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

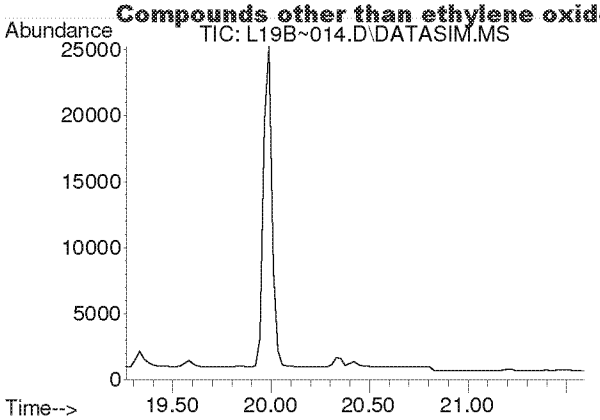
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

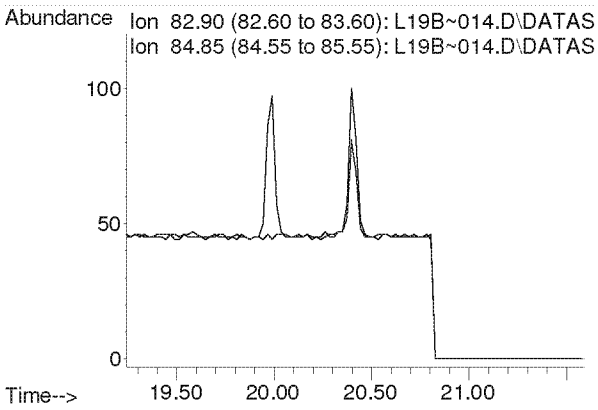


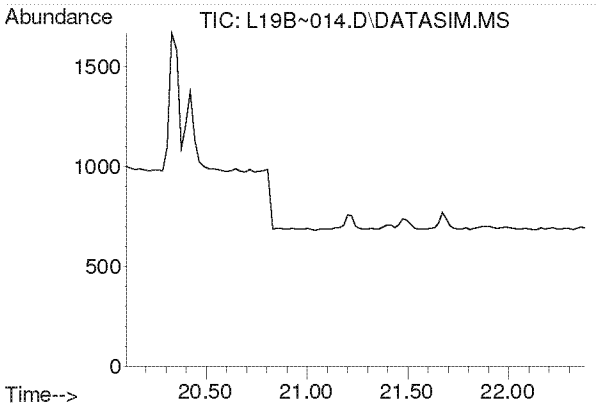
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



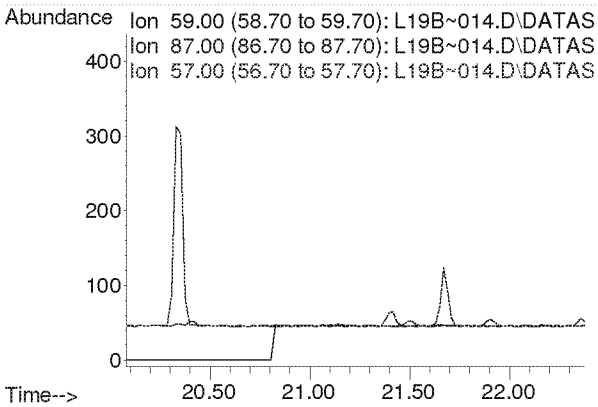


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

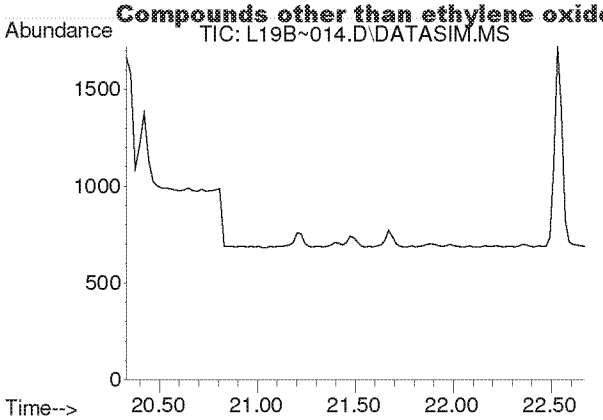
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

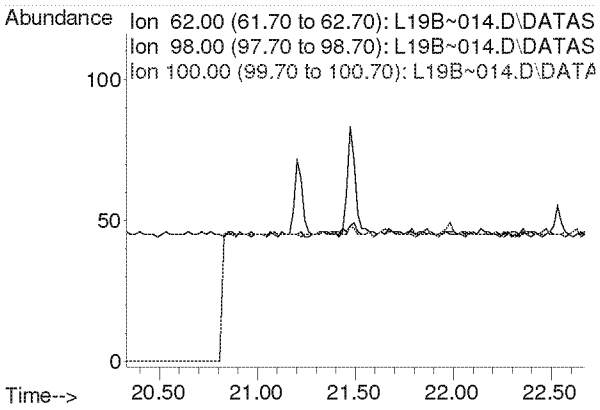


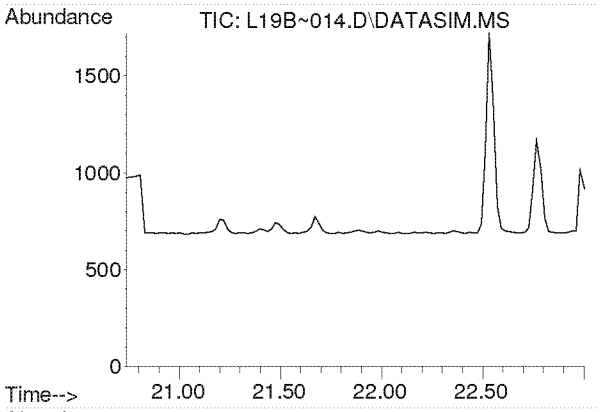
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



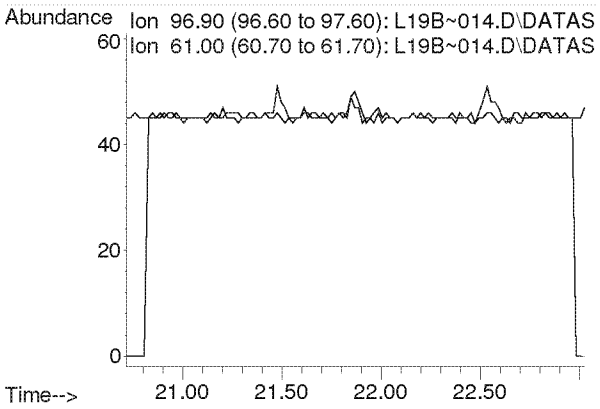


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

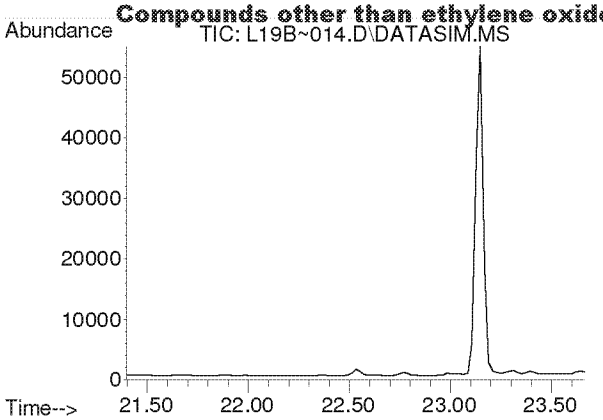
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

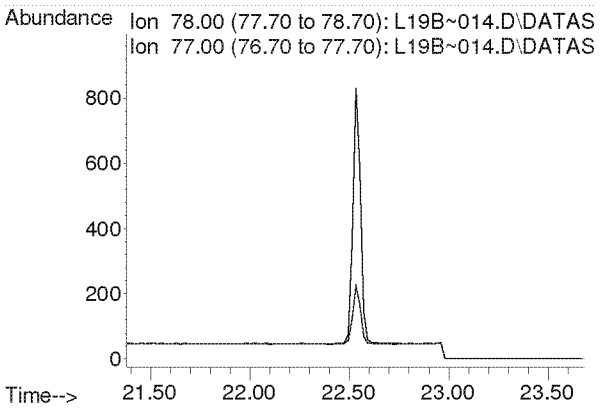


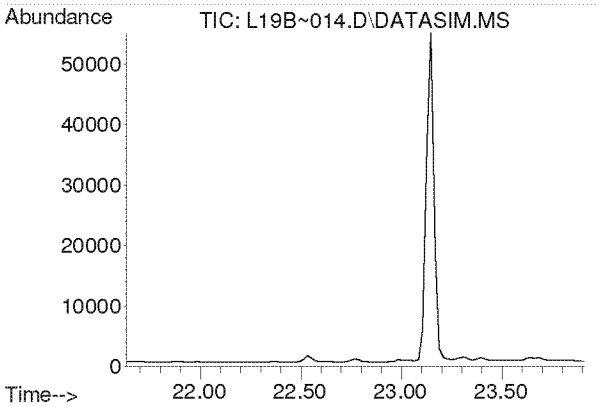
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



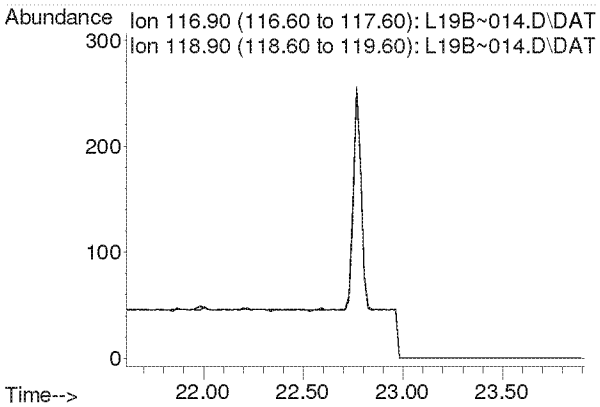


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

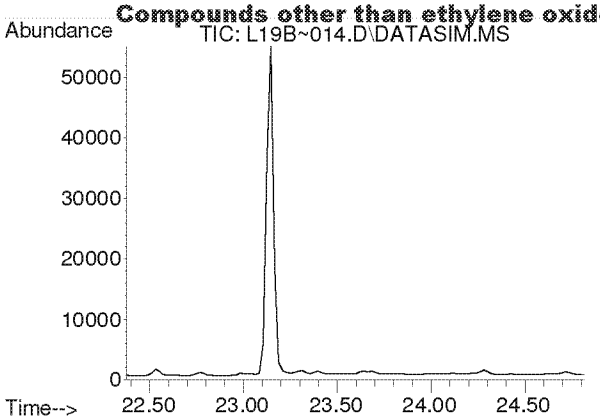
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

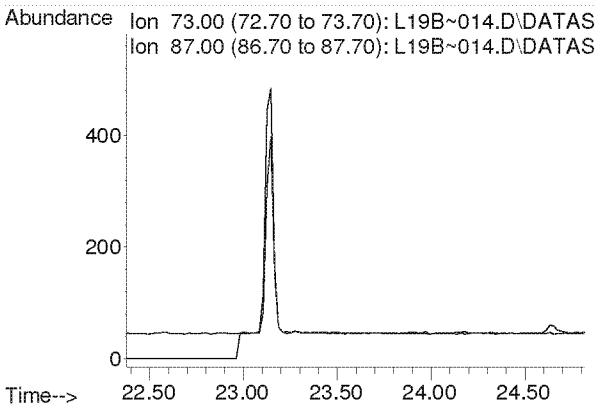


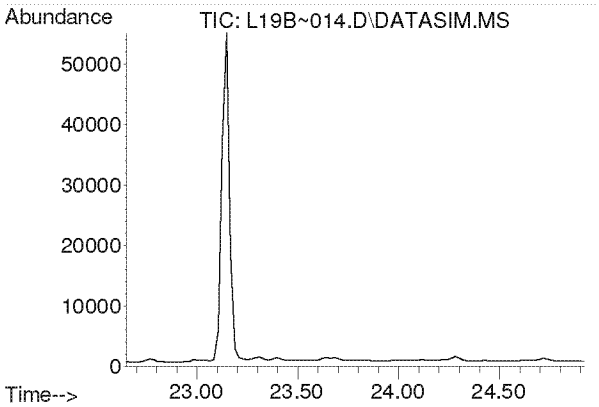
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



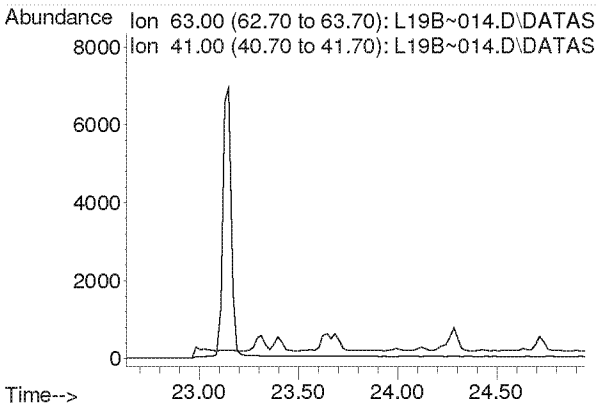


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

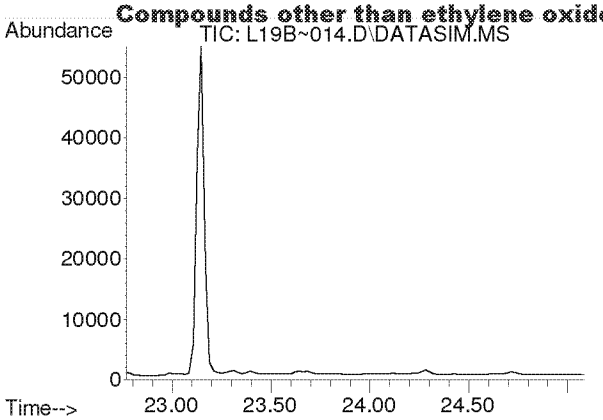
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

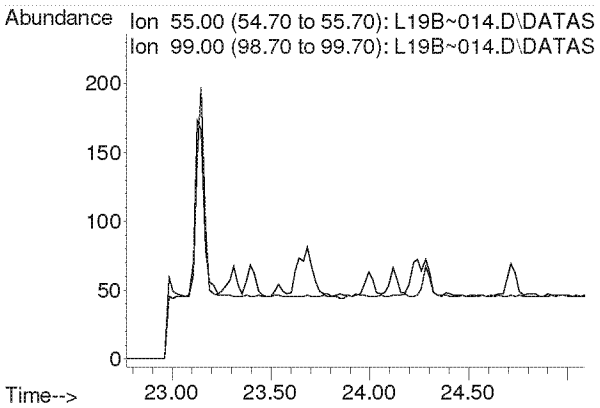


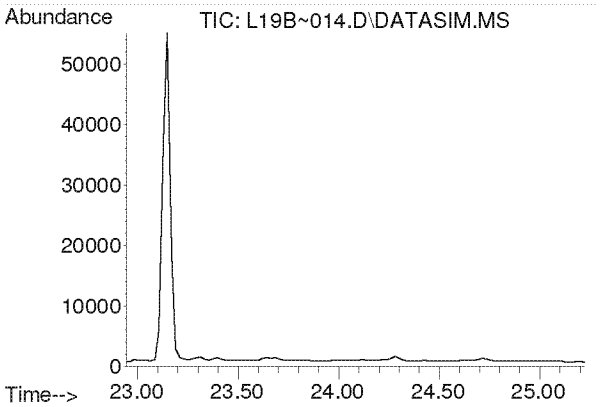
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



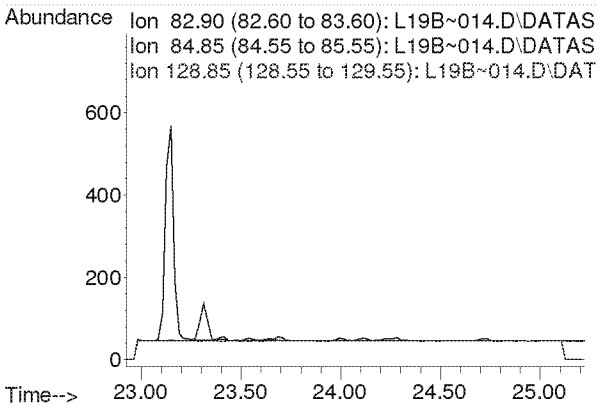


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

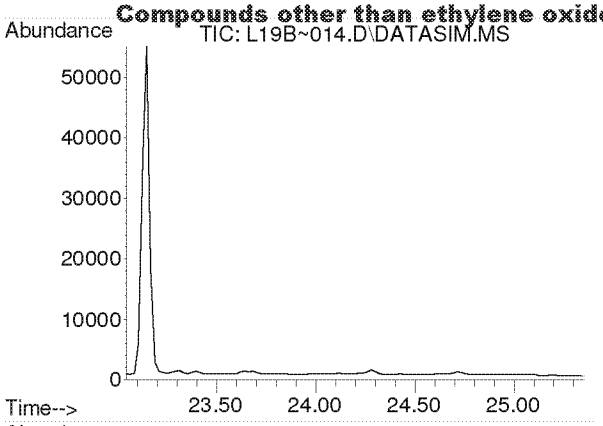
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

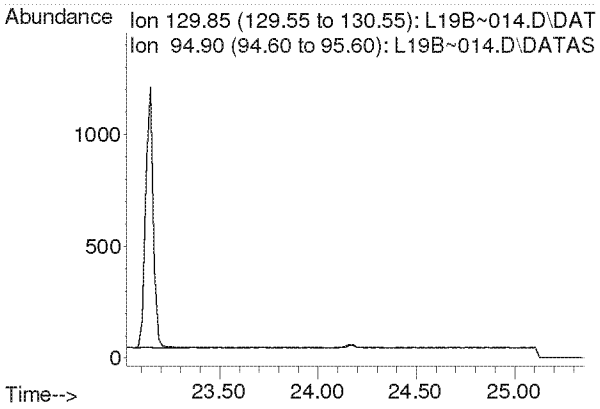


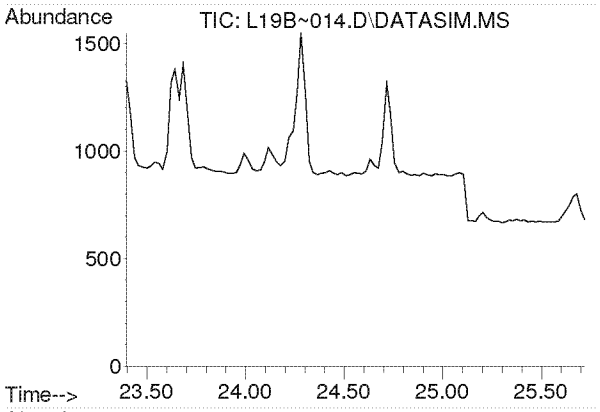
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



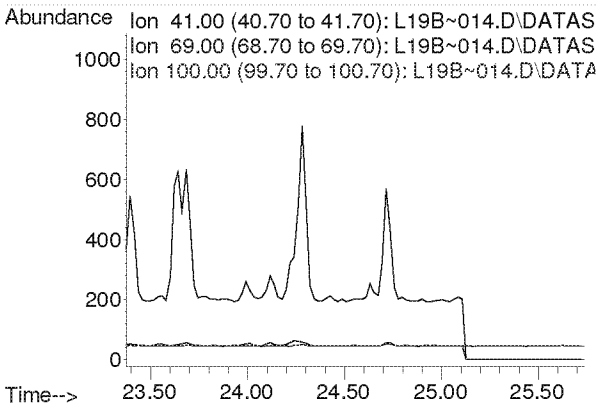


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

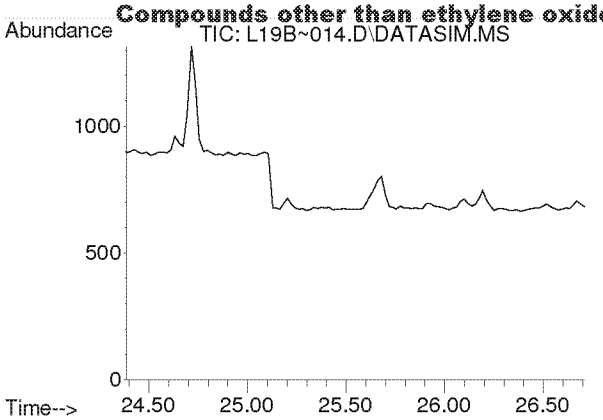
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

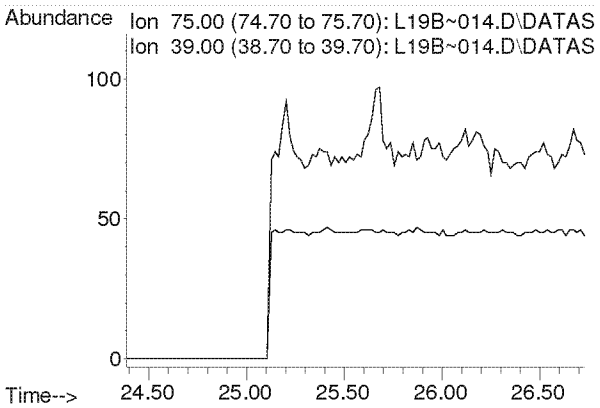


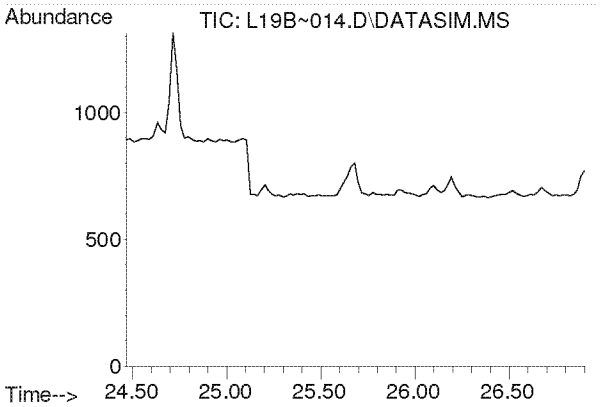
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



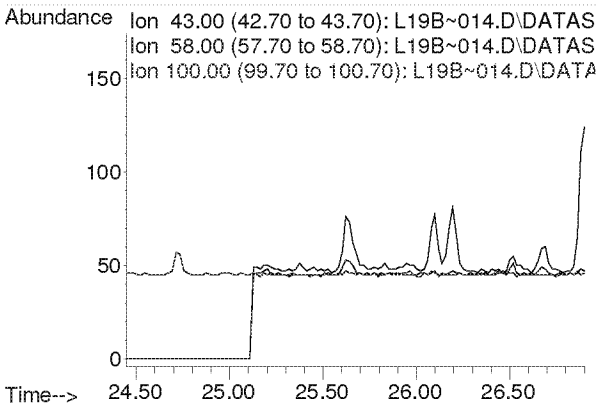


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

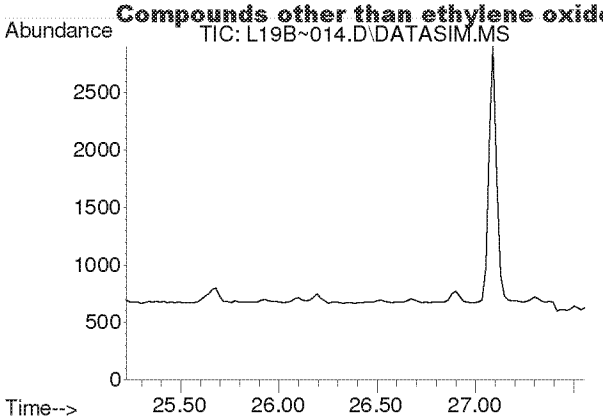
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

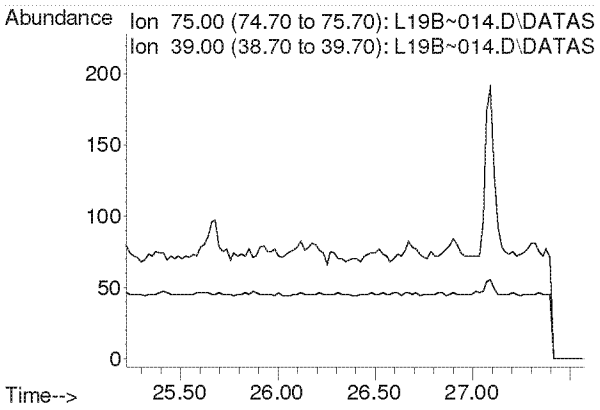


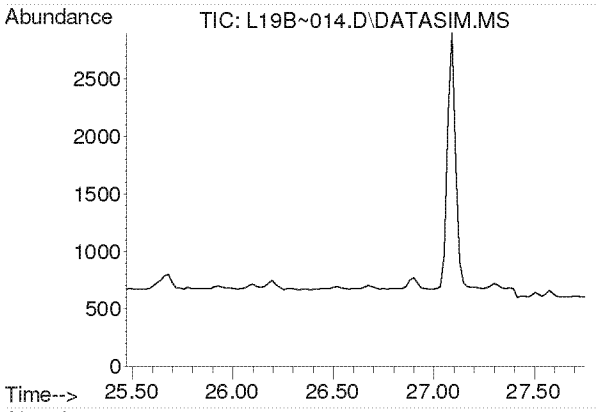
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



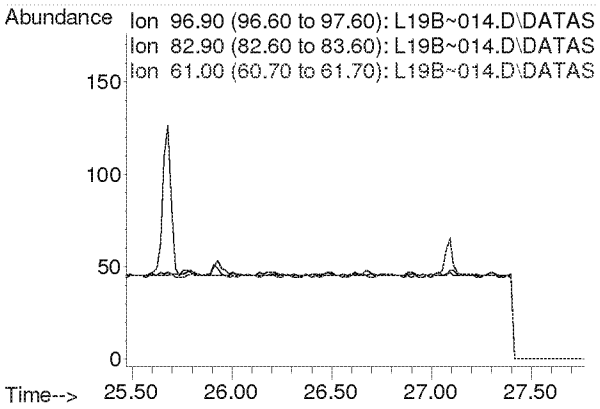


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

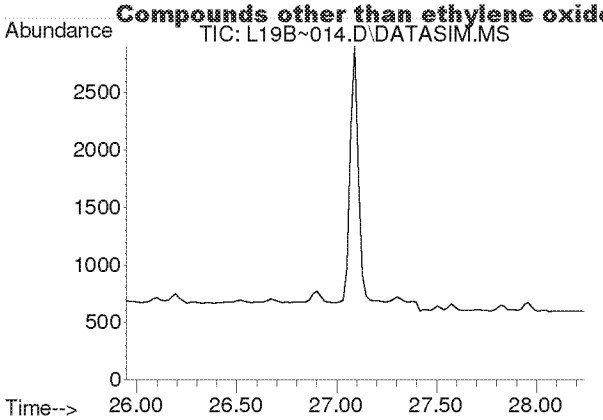
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

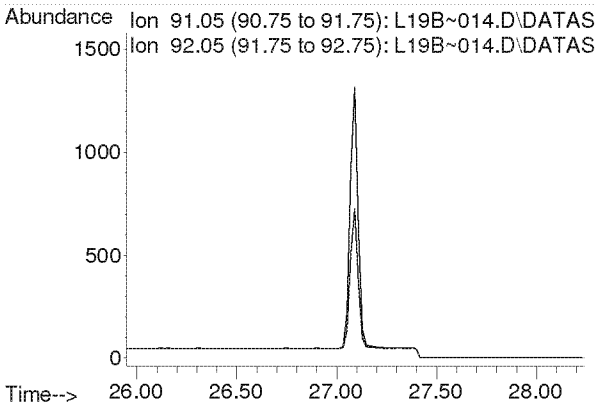


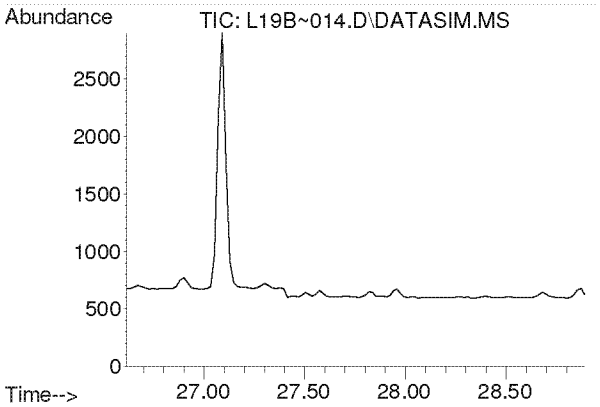
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



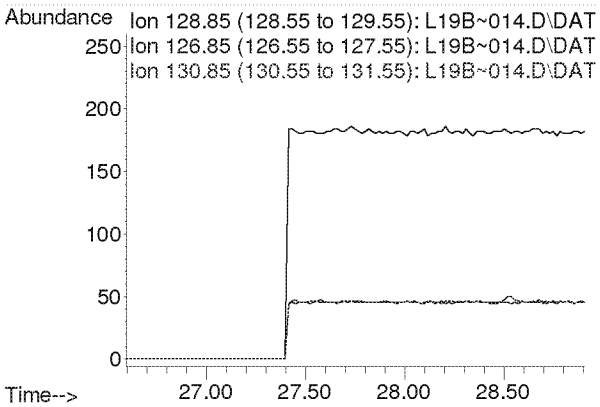


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

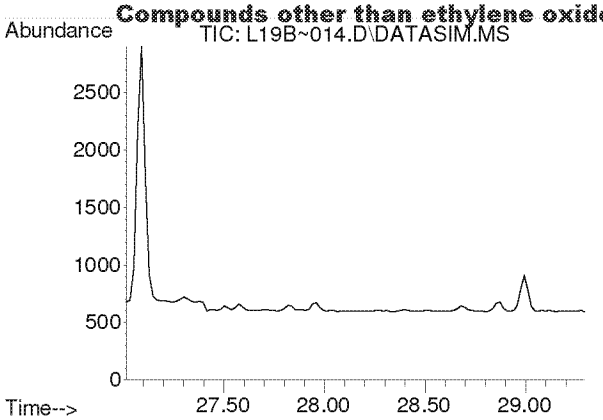
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

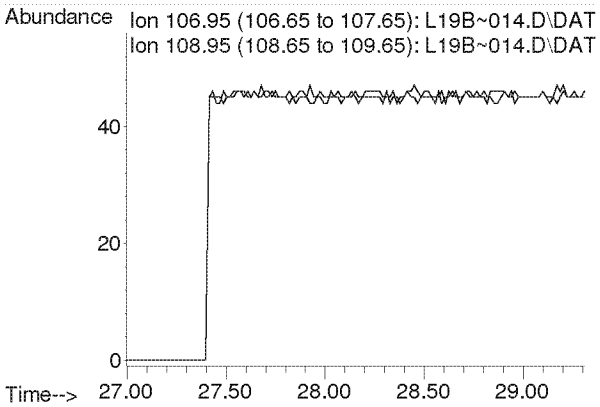


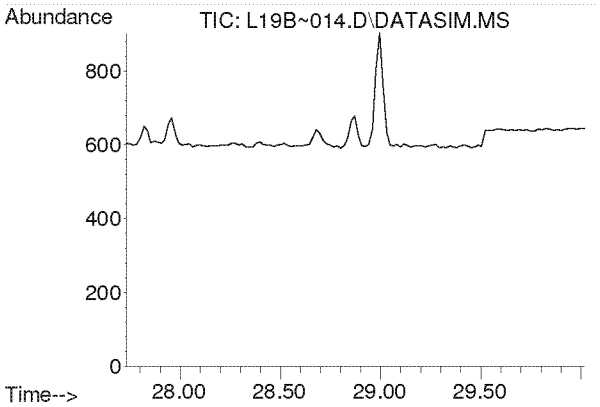
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



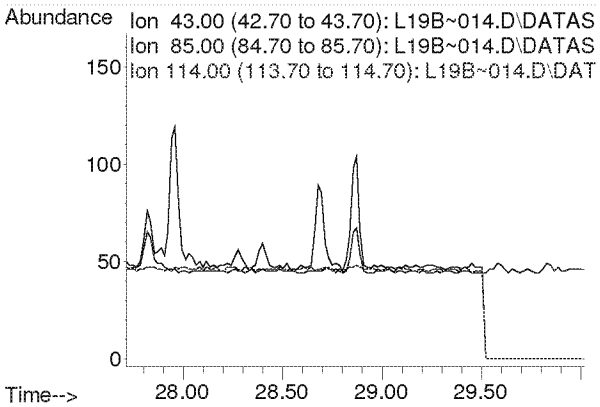


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

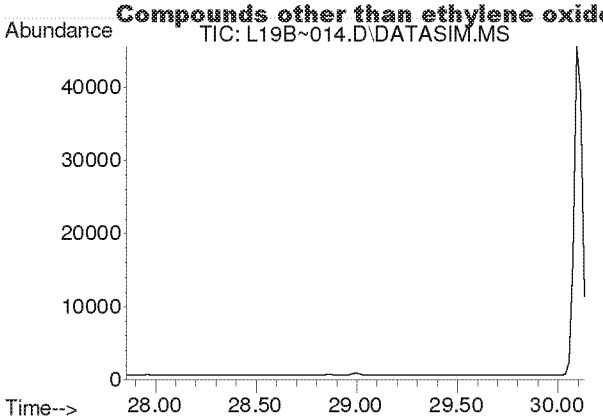
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

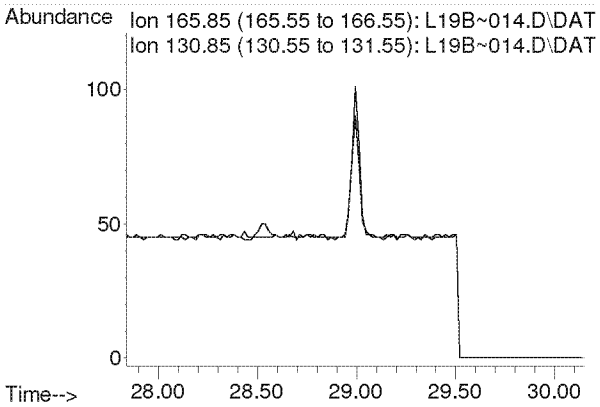


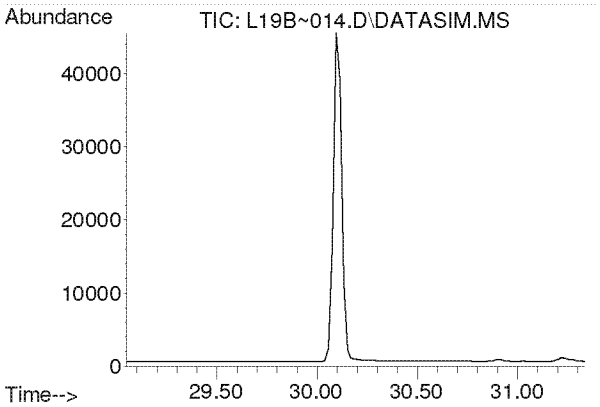
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



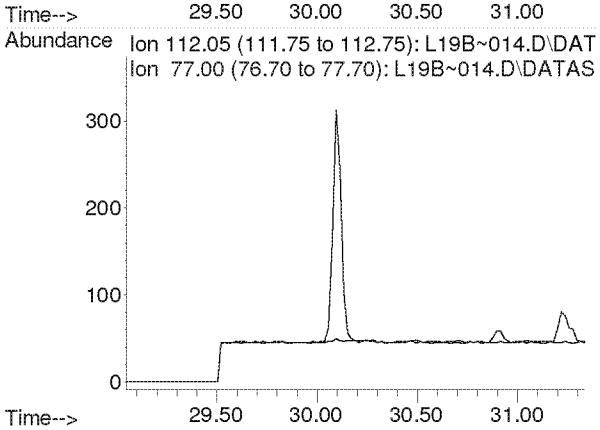


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

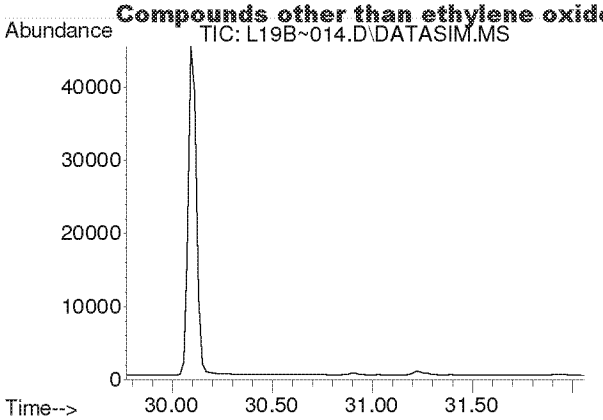
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

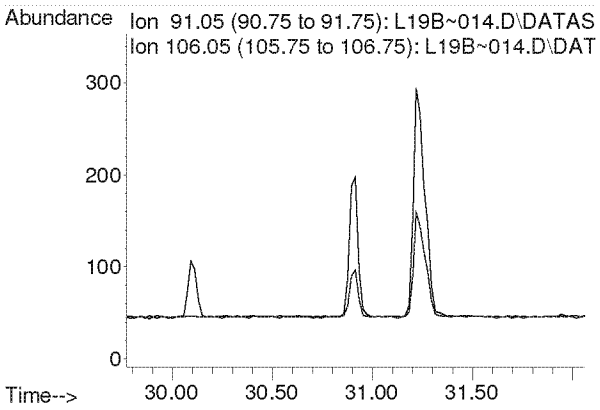


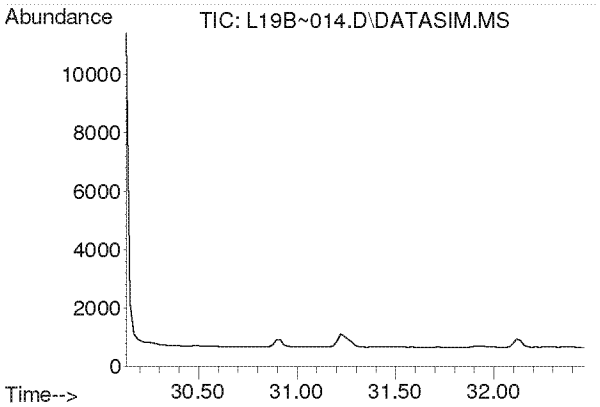
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



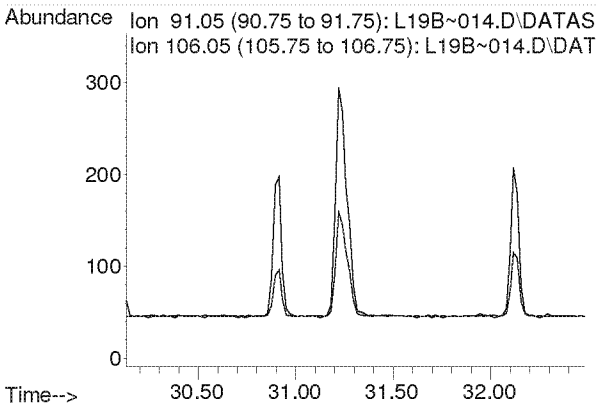


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

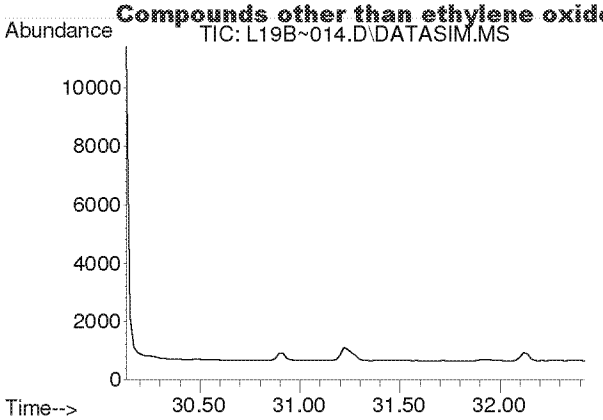
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

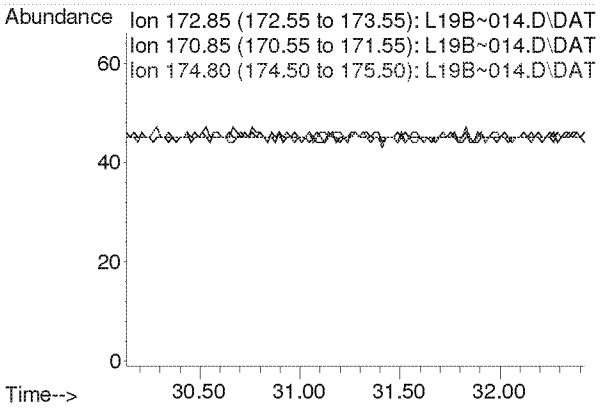


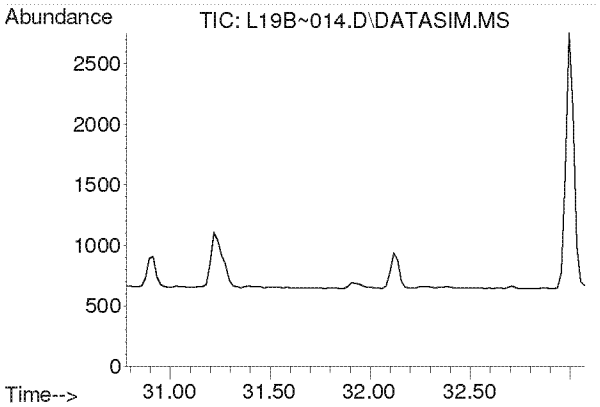
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



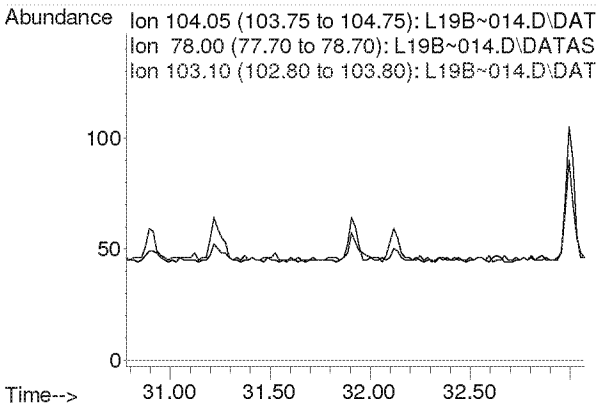


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

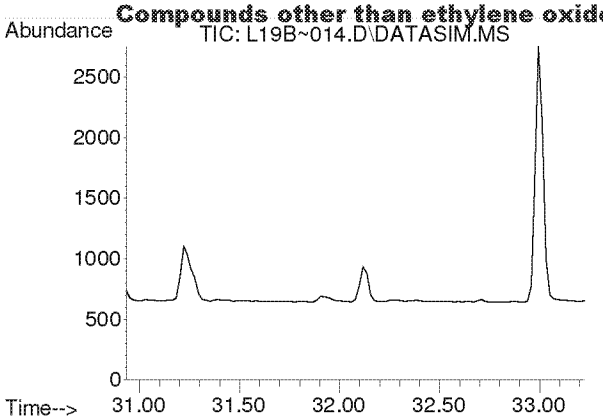
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

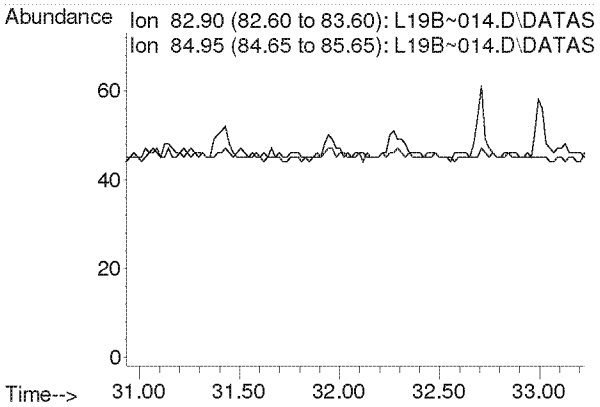


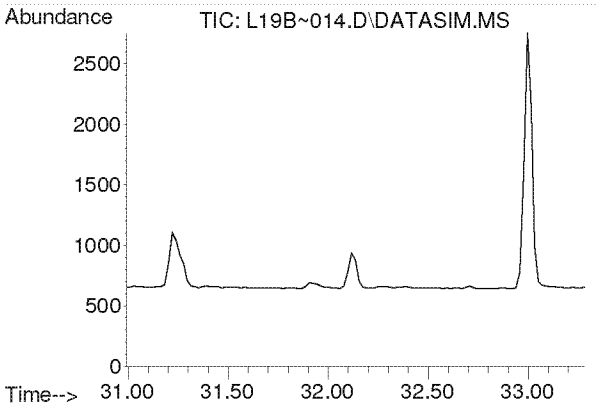
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



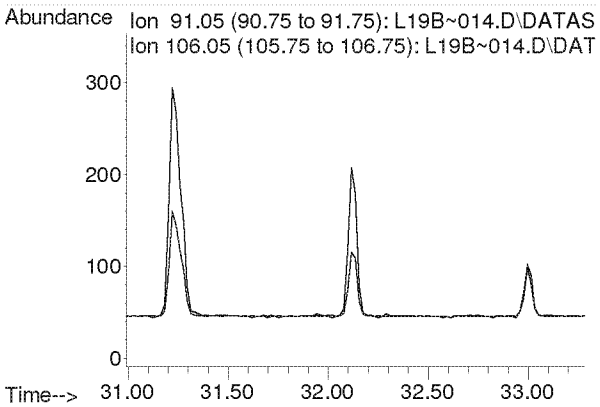


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

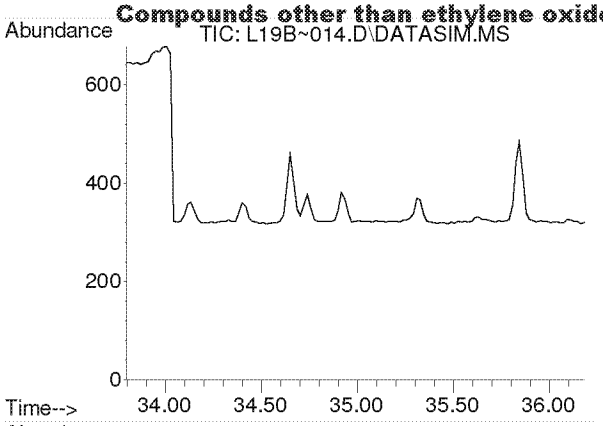
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

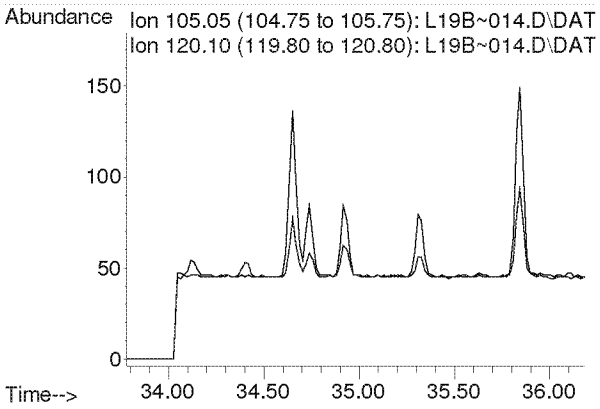


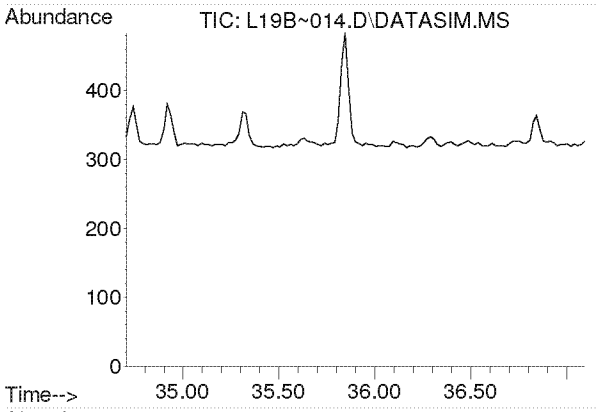
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



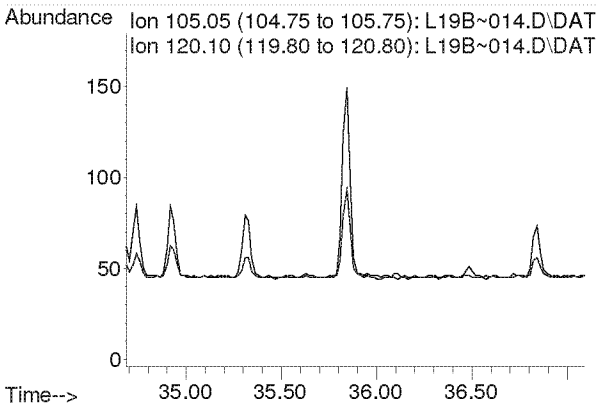


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

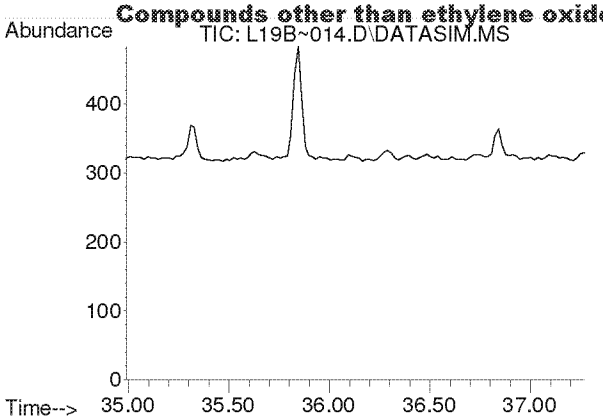
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

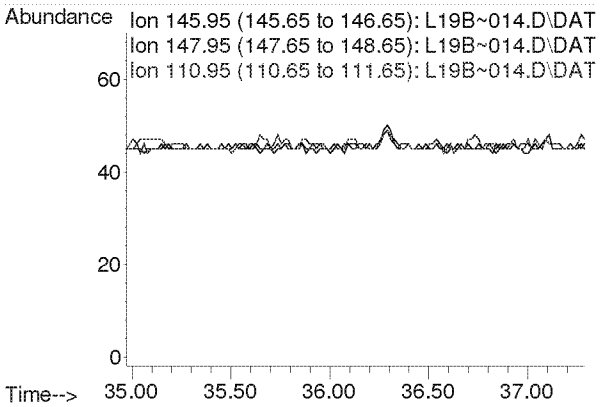


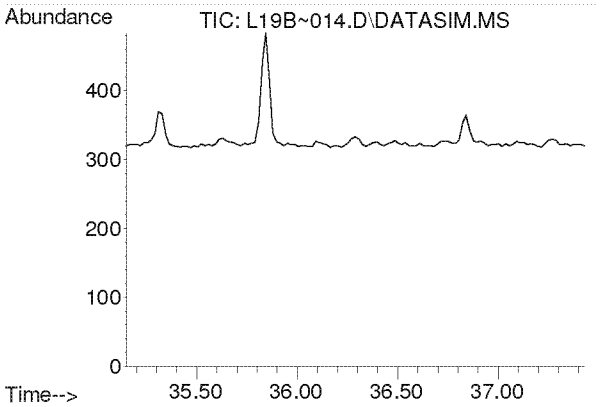
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



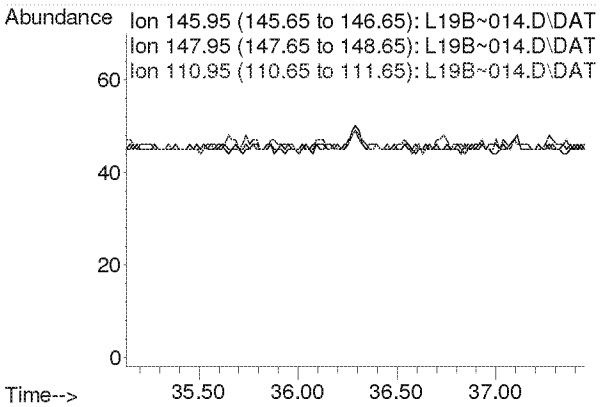


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

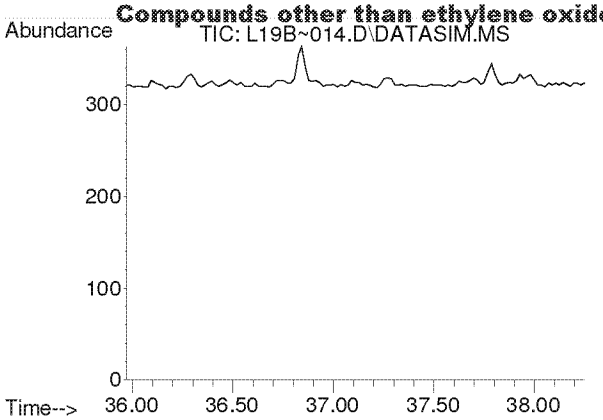
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

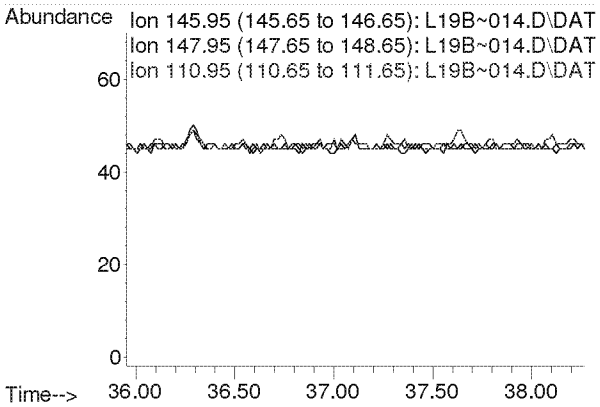


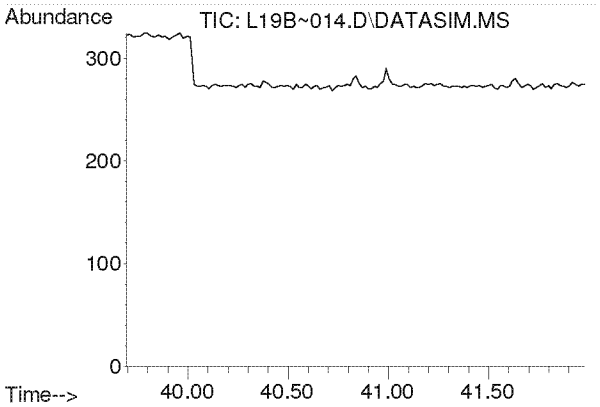
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



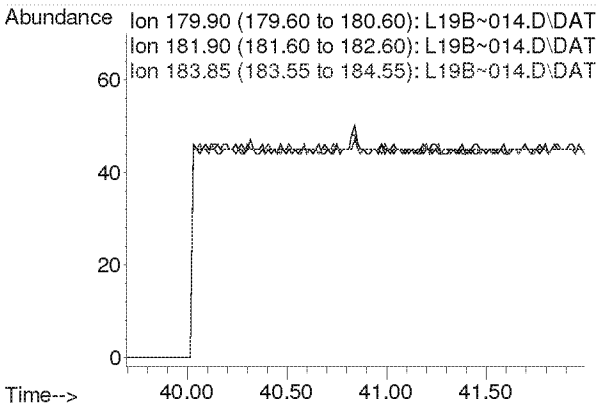


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

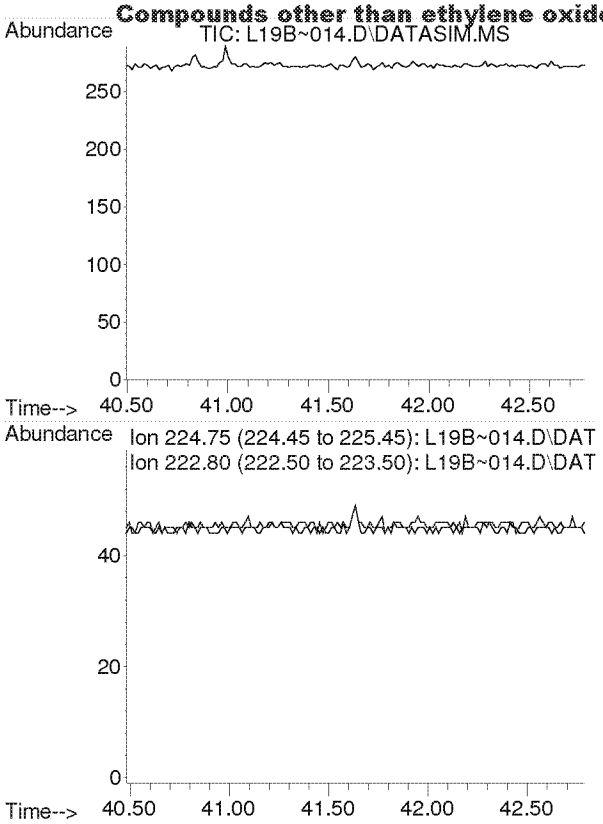
Lab File: L19B~014.D
Acq: 28 Feb 2019 12:32 am

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: L19B~014.D
Acq: 28 Feb 2019 12:32 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Duplicate Samples					
		D1	D2		
File ID		L19B-015.D	L19B-016.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022616-04	9022616-05		
Misc Comments		WB VILLAGE HALL	WB VILLAGE HALL R1 2/23/19		
Compound	MDL	Amount (ppbv)	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	1.202	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	0.003	0.12	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

3-5-19

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

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Replicate Analyses

		D1	R1		
File ID		L19B~015.D	L19B~017.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022616-04	B9B2705-DUP5		
Mics Comments		WB VILLAGE H	WB VILLAGE HALL R2 2/23/19		
Compound	MDL	Amount/ppbv	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	1.202	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	0.068	0.078	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		L19B~016.D	L19B~018.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022616-05	B9B2705-DUP6		
Mics Comments		WB VILLAGE H	WB VILLAGE HALL C2 2/23/19		
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	0.12	0.113	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~015.D
Acq On : 28 Feb 2019 1:35 am
Operator : MAH
Sample : 9022616-04
Misc : WB VILLAGE HALL C1 2/23/19
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 05 11:12:36 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	19.970	66	41048	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	99695	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	75310	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	160m	0.0682 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D.	
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\L19B~\
Data File : L19B~015.D
Acq On : 28 Feb 2019 1:35 am
Operator : MAH
Sample : 9022616-04
Misc : WB VILLAGE HALL C1 2/23/19
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 05 11:12:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

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

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

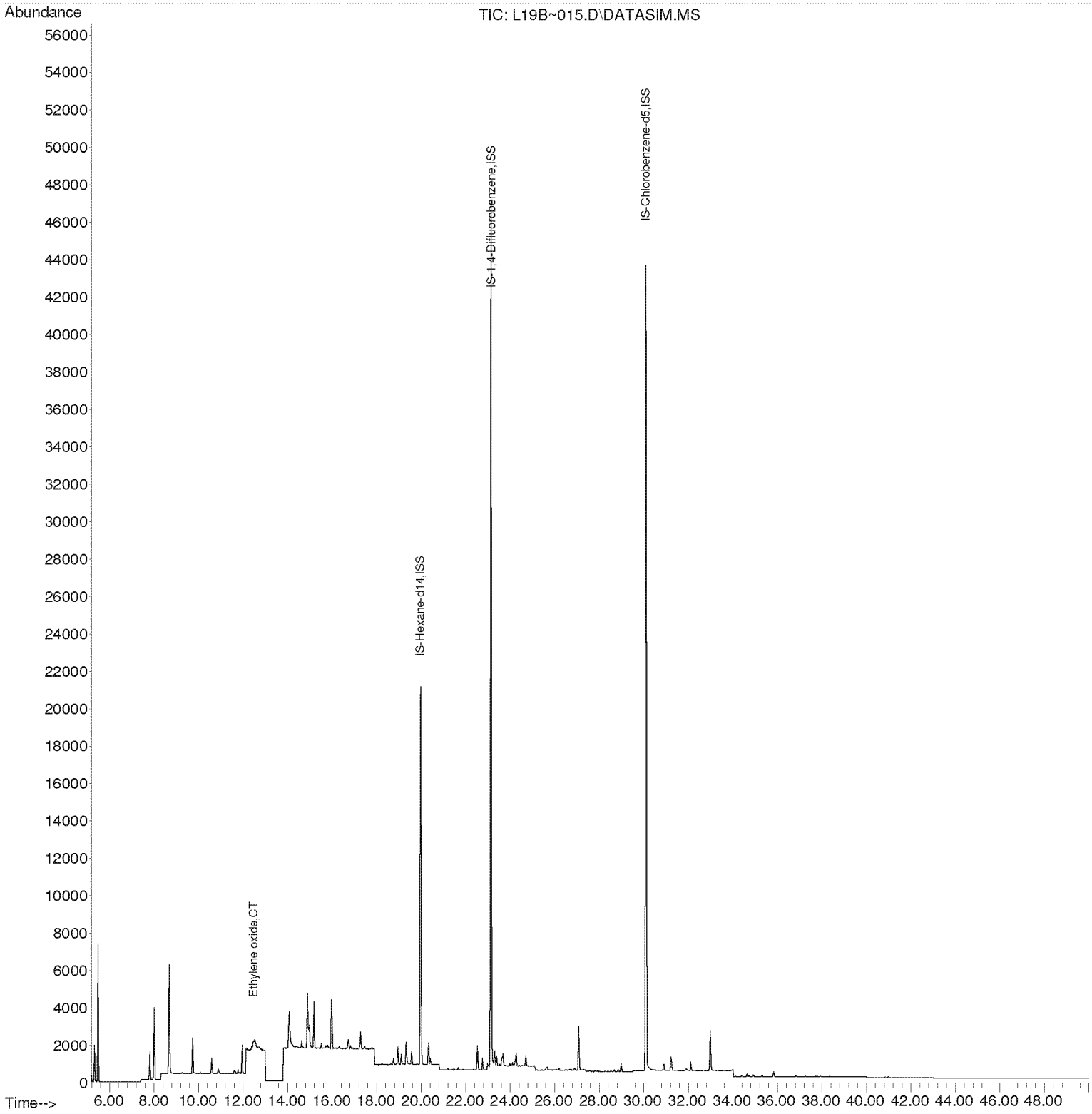
ED_002475_00000099-00386

Quantitation Report (QT Reviewed)

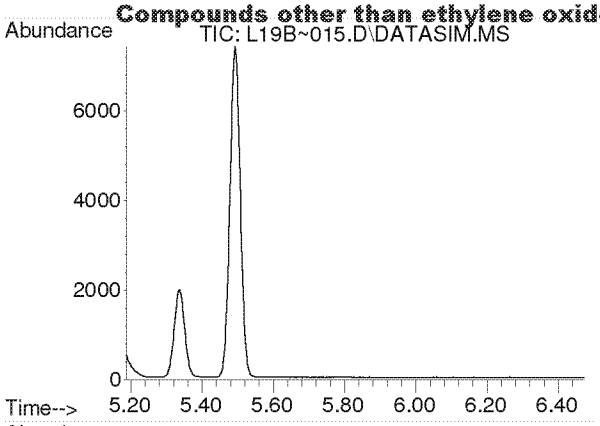
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~015.D
Acq On : 28 Feb 2019 1:35 am
Operator : MAH
Sample : 9022616-04
Misc : WB VILLAGE HALL C1 2/23/19
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 28 12:54:49 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



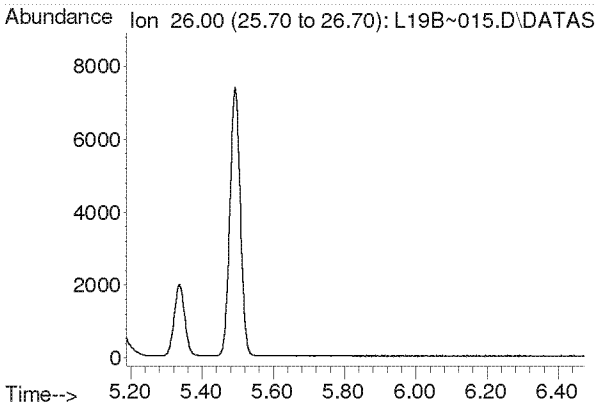
Compounds other than ethylene oxide were not quantitated.

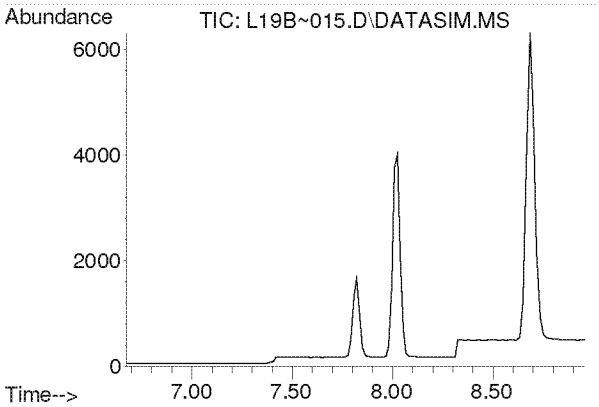


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 26



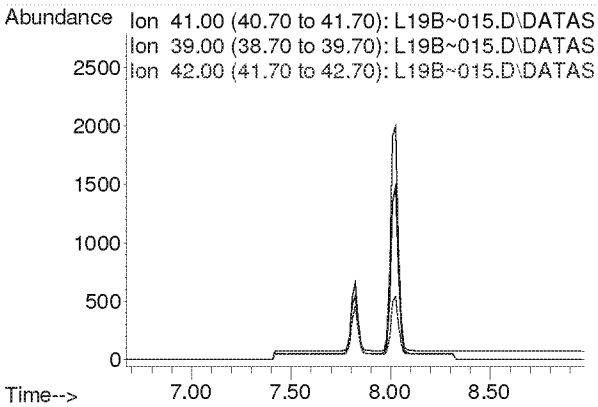


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

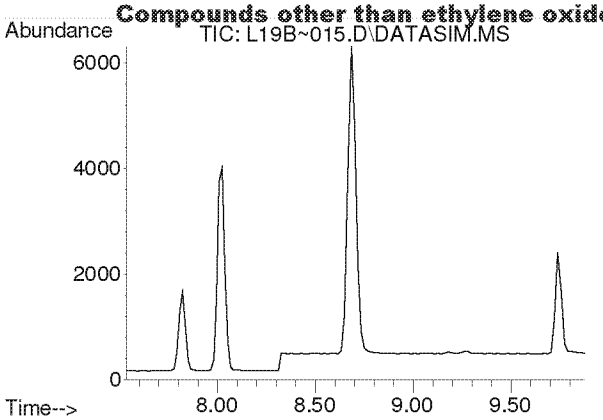
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

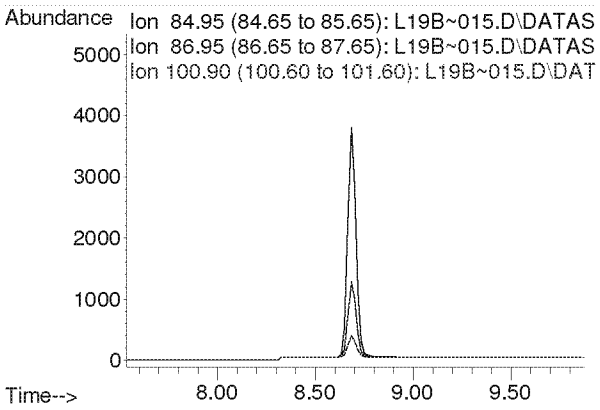


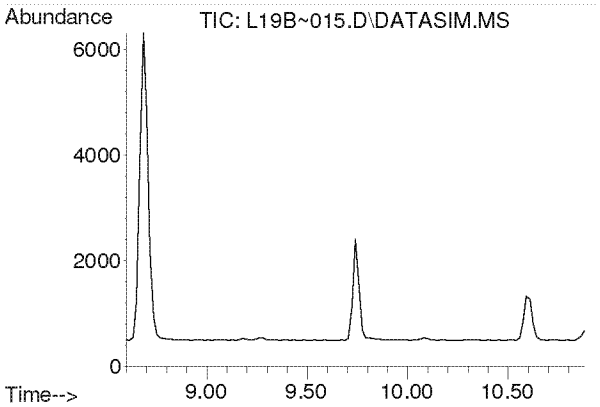
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



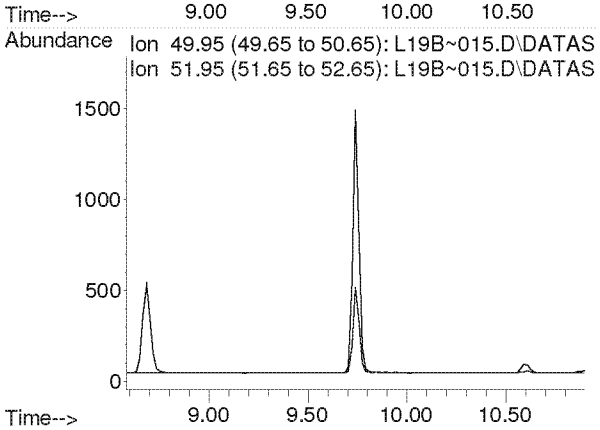


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

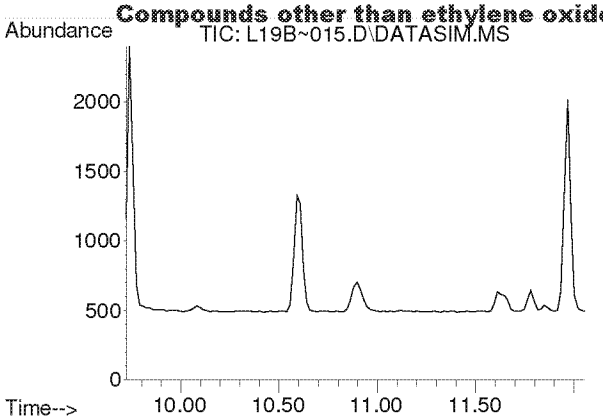
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

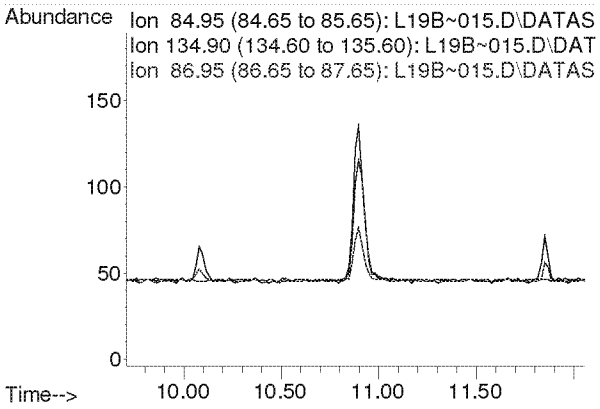


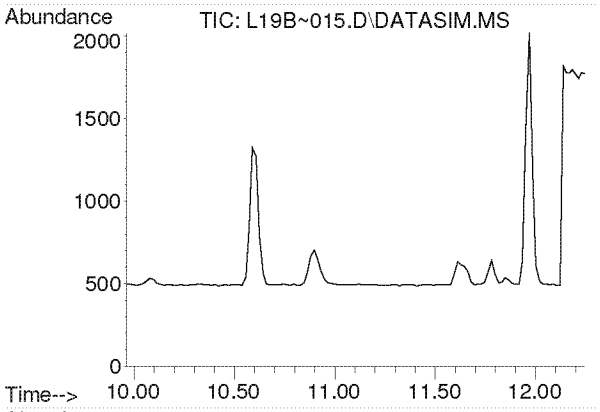
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



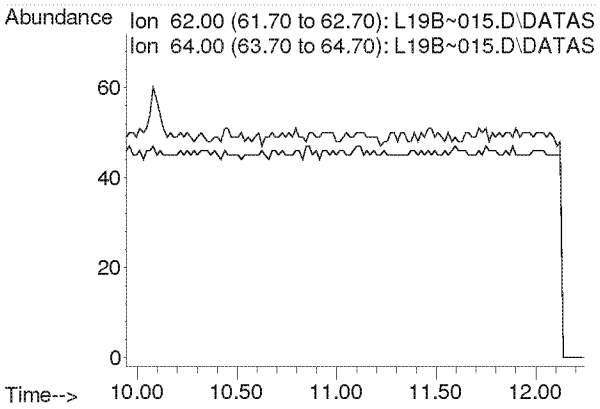


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

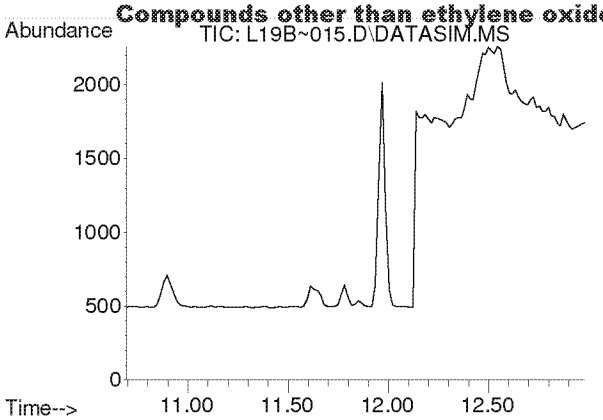
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

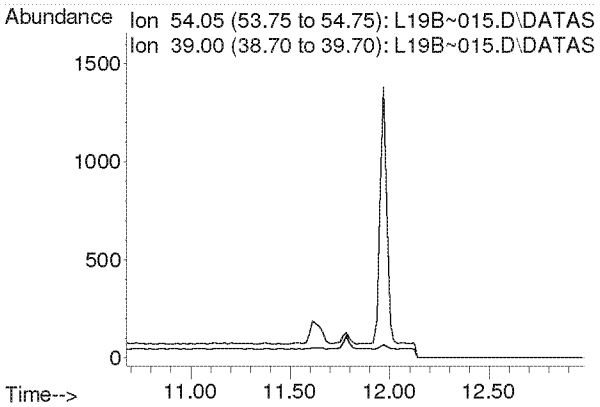


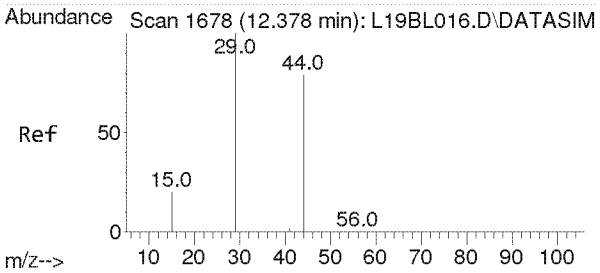
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

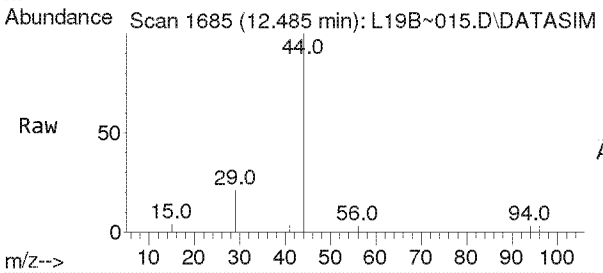


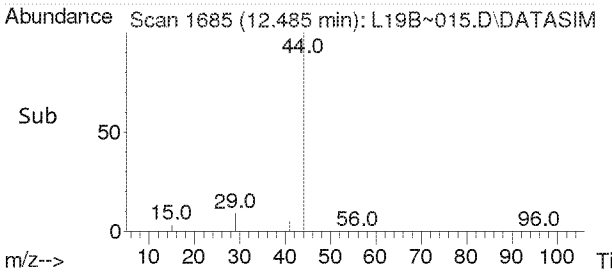


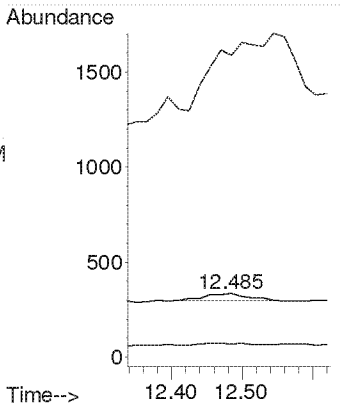
#9
Ethylene oxide
Concen: 0.068 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 29 Resp: 160

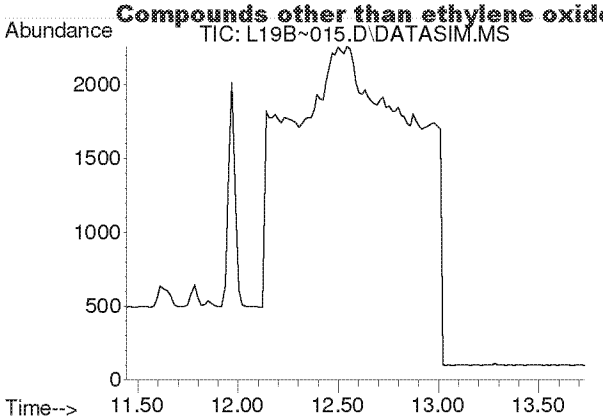
Ion	Ratio	Lower	Upper
29	100		
15	46.9	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

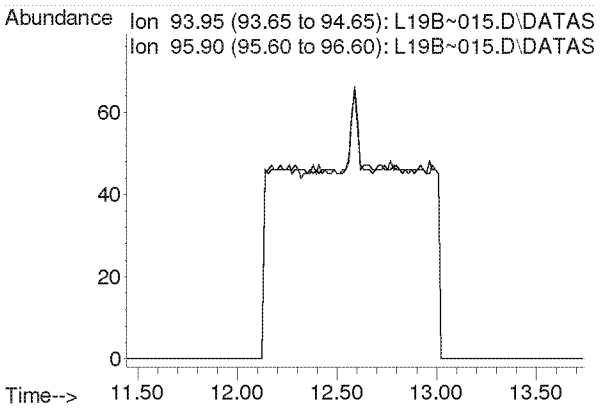


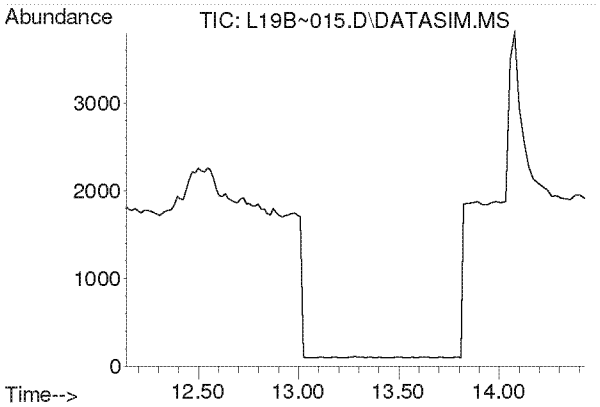
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



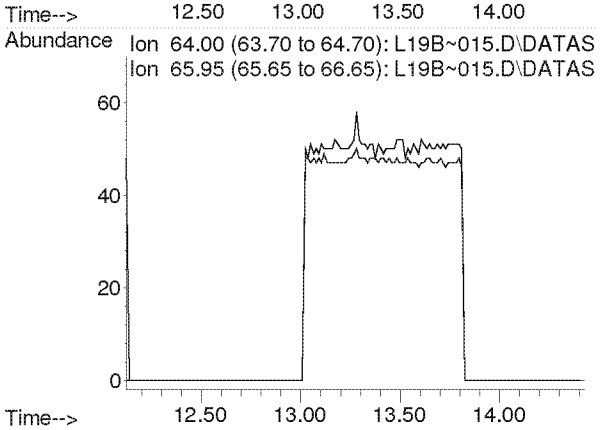


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

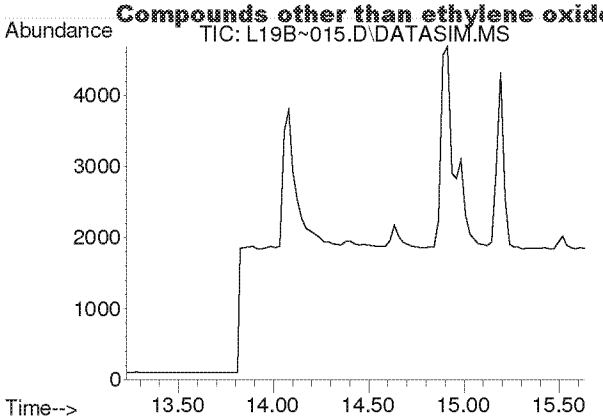
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

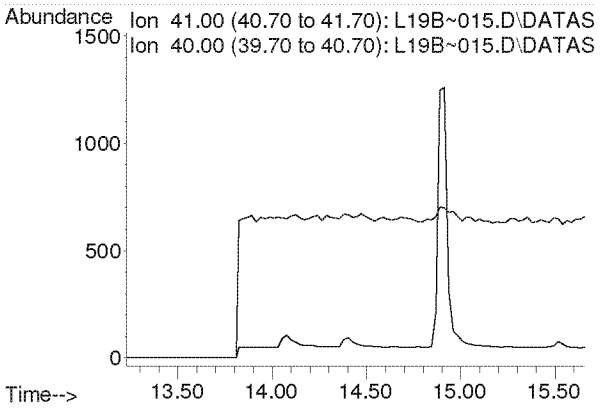


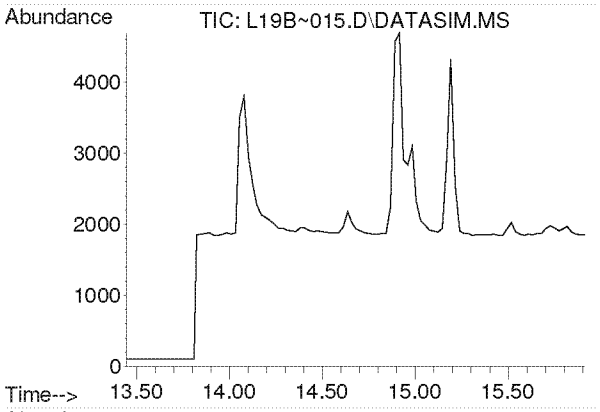
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



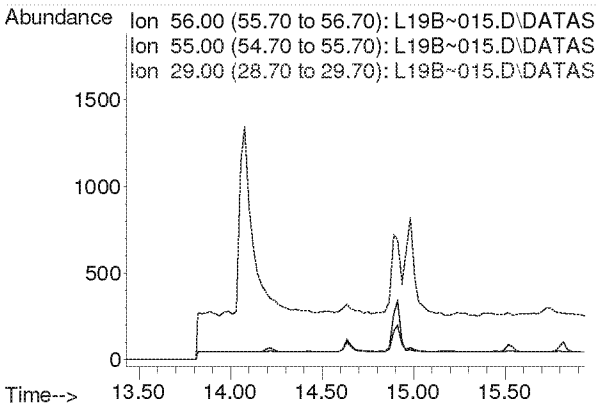


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

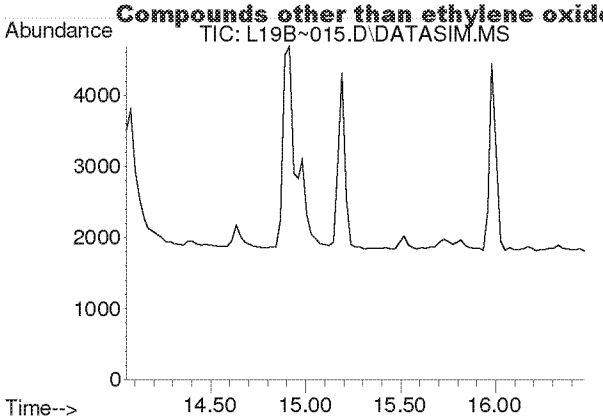
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

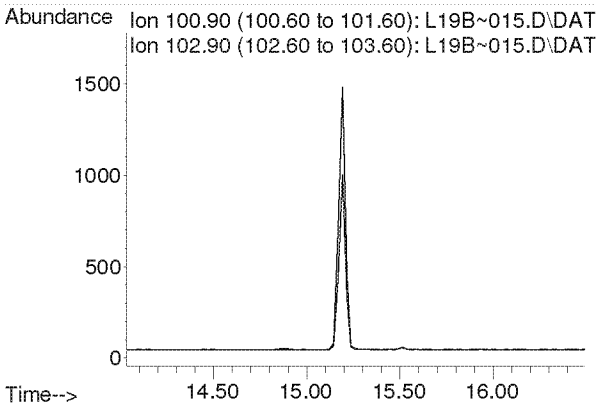


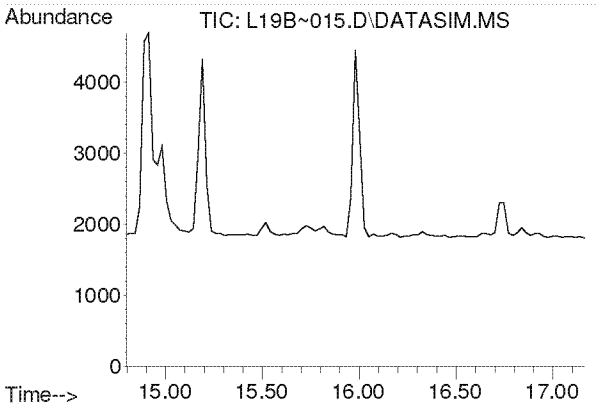
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



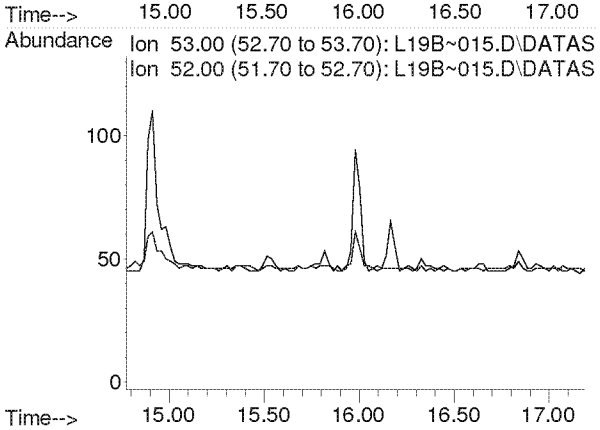


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

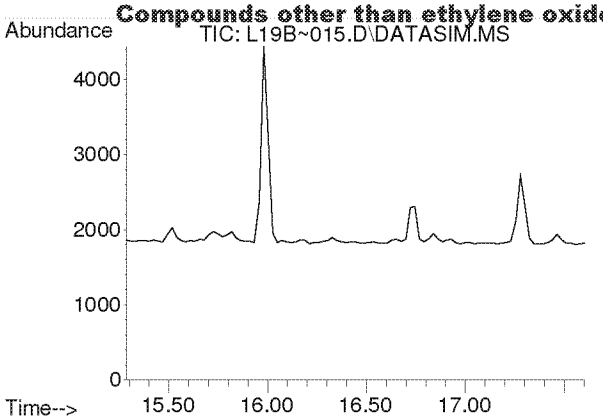
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

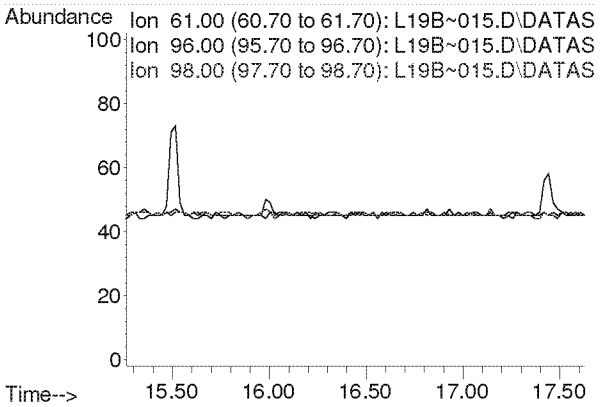


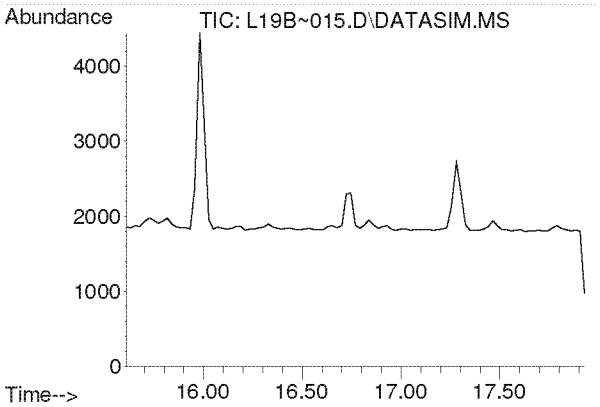
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



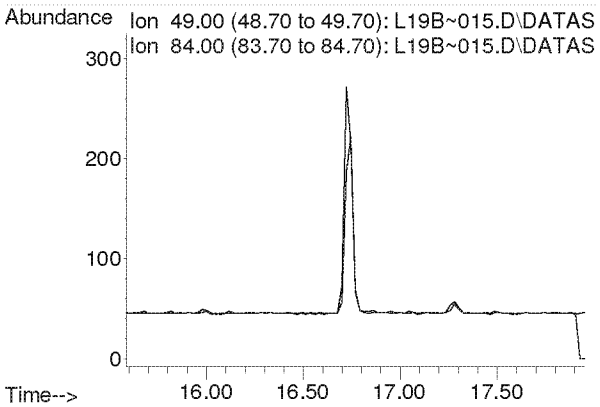


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

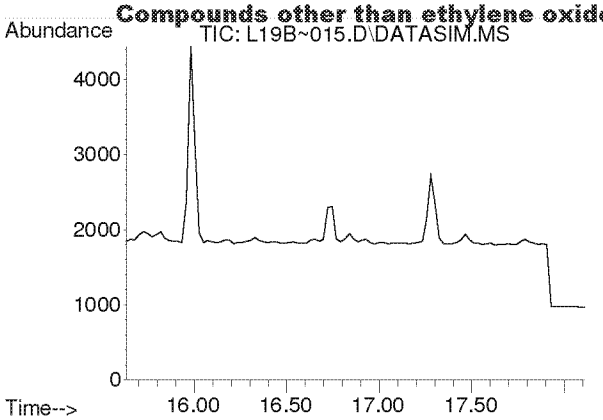
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

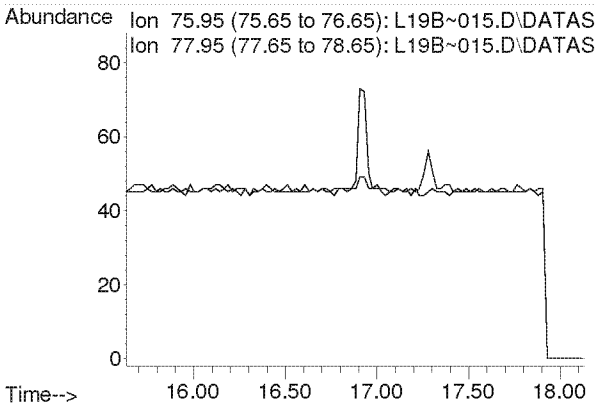


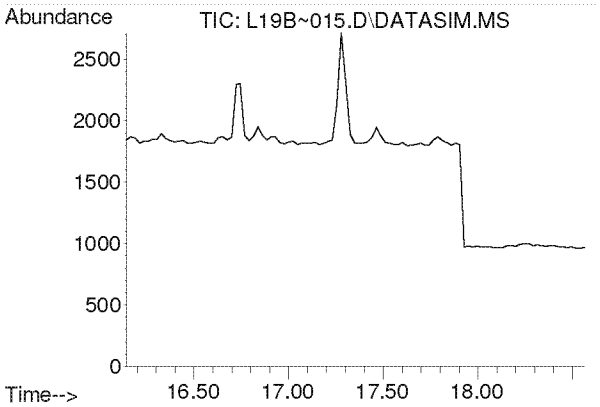
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



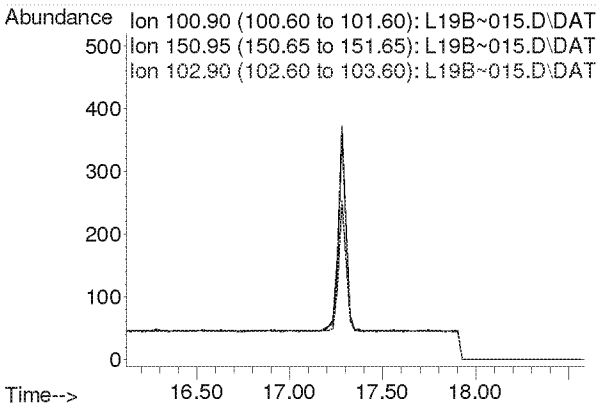


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

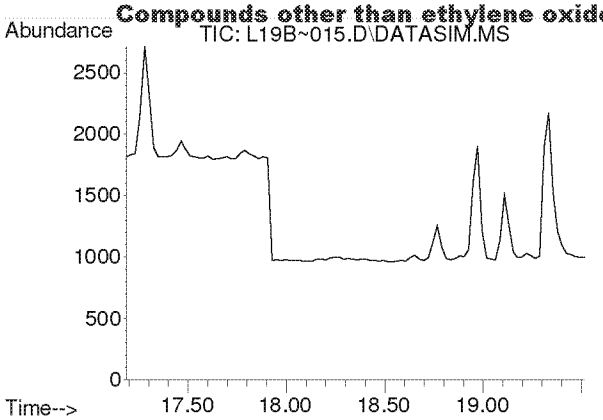
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

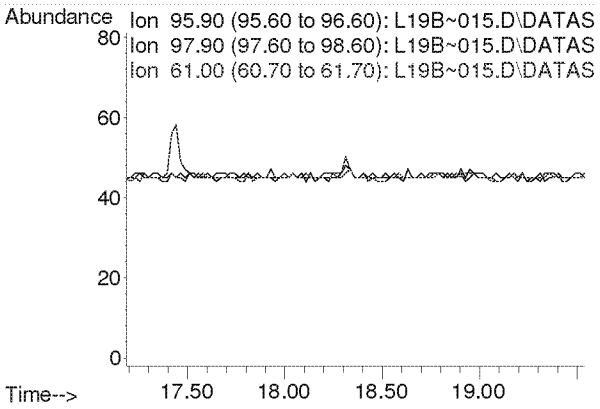


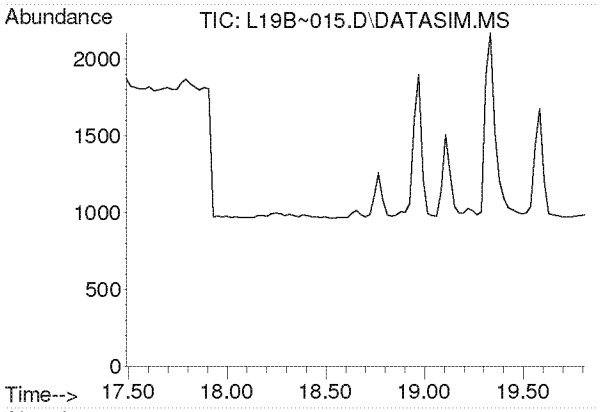
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



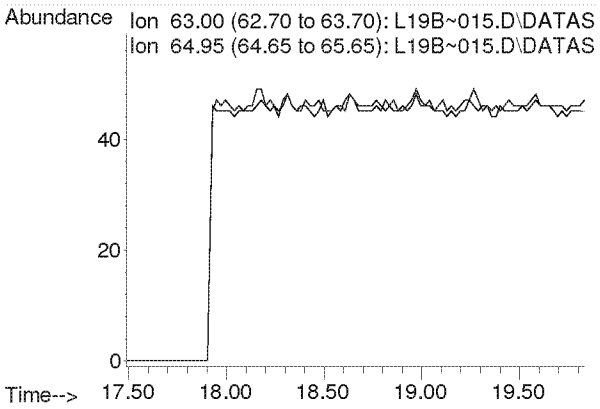


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

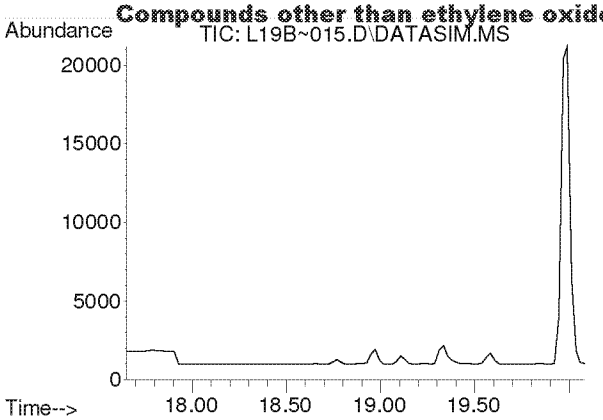
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

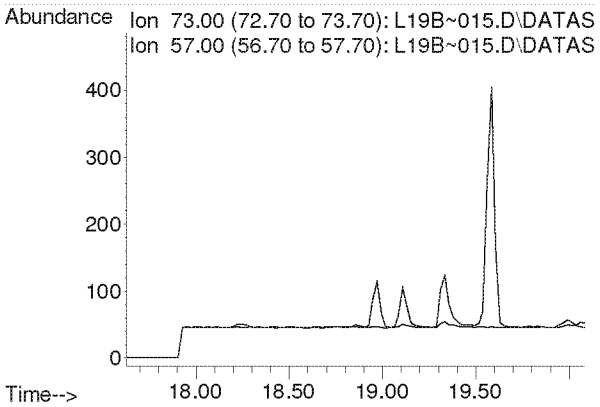


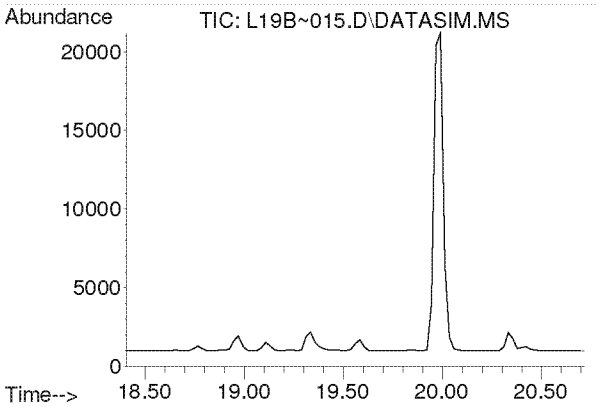
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



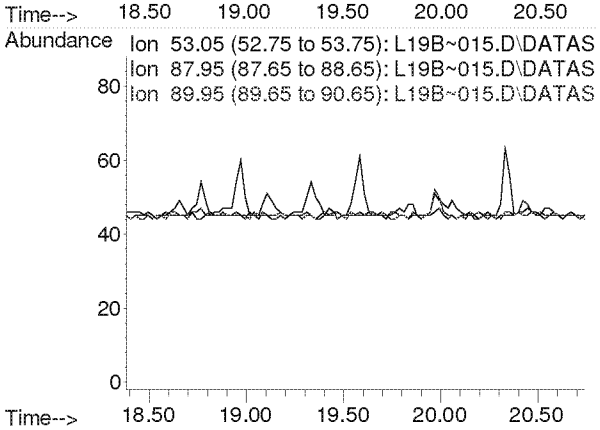


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

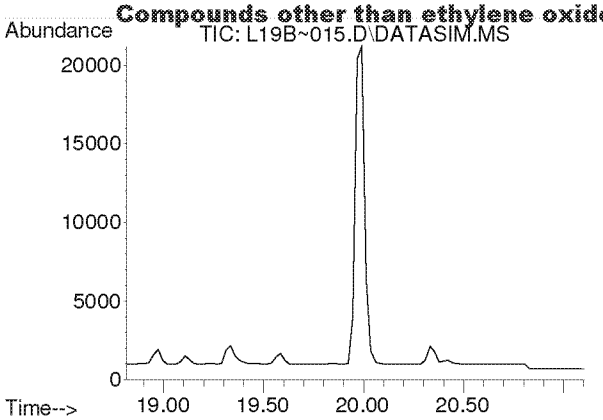
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

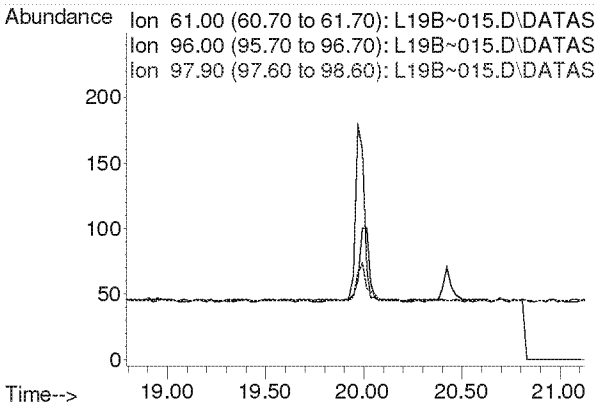


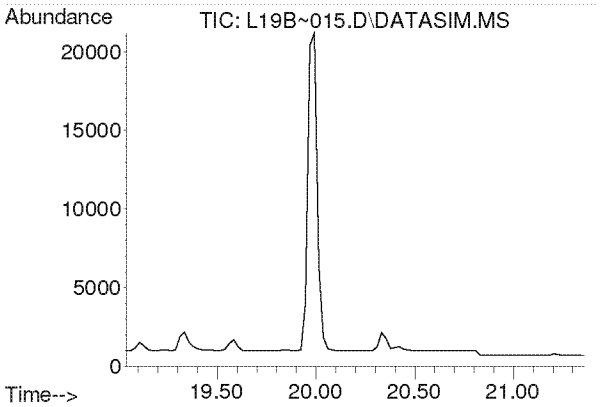
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



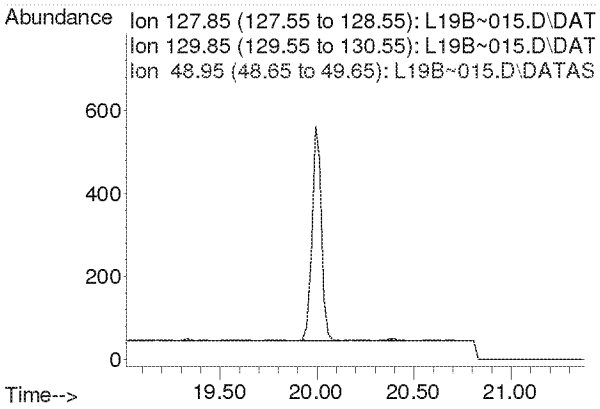


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

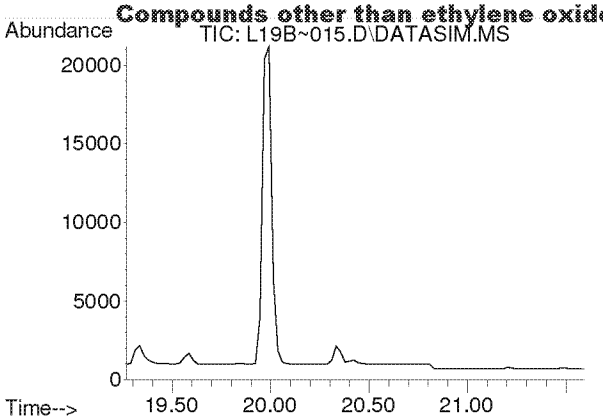
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

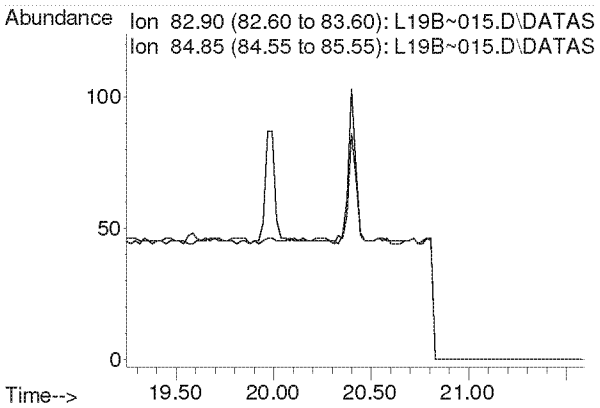


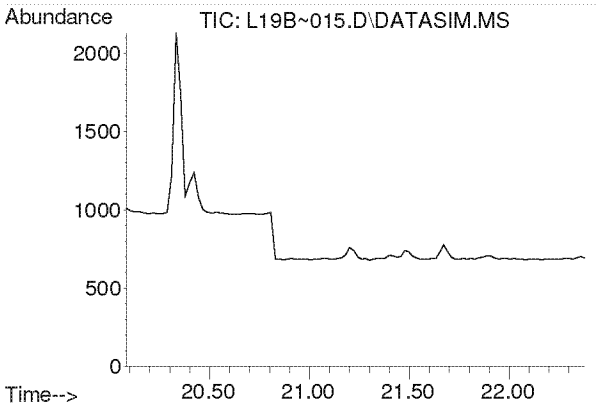
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



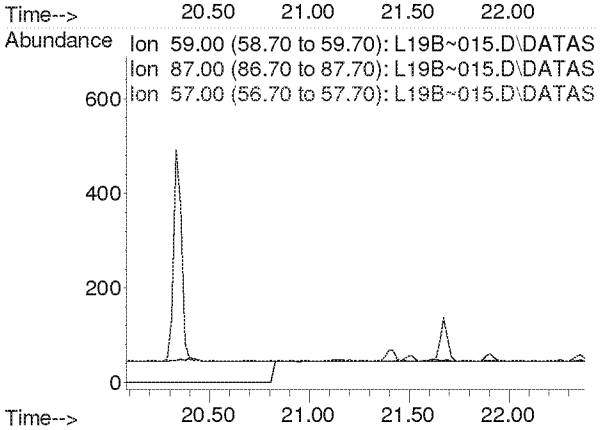


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

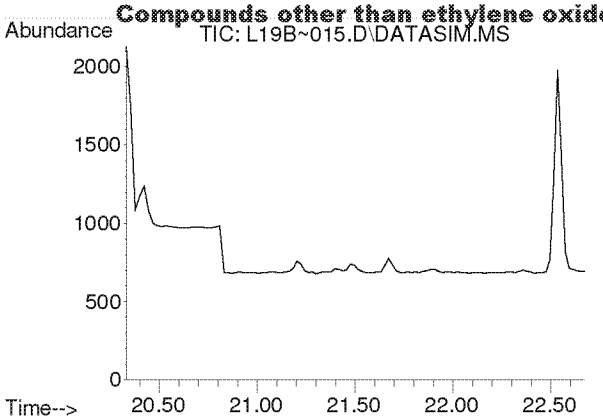
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

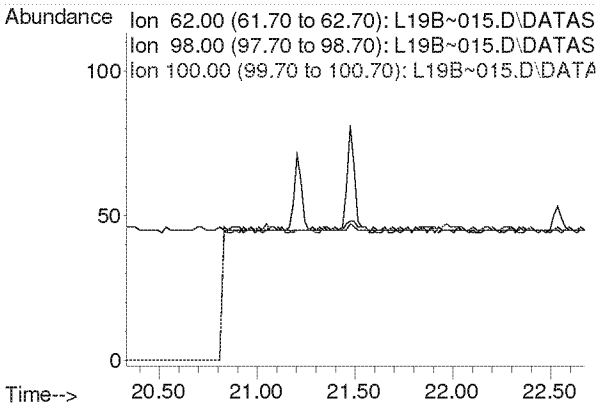


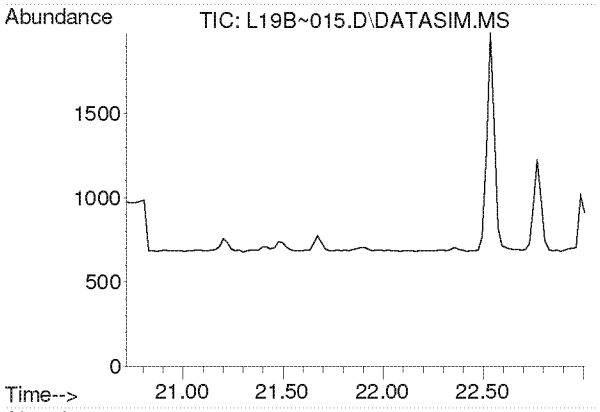
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



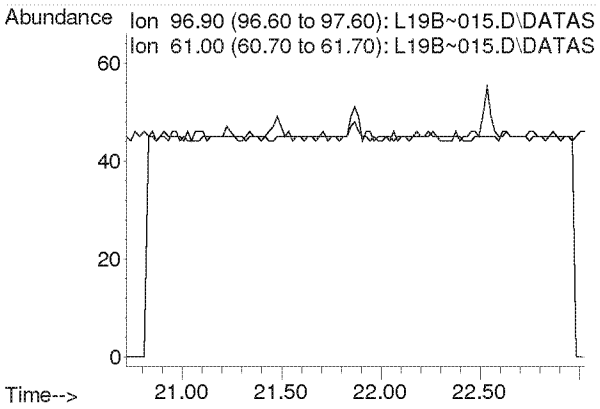


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

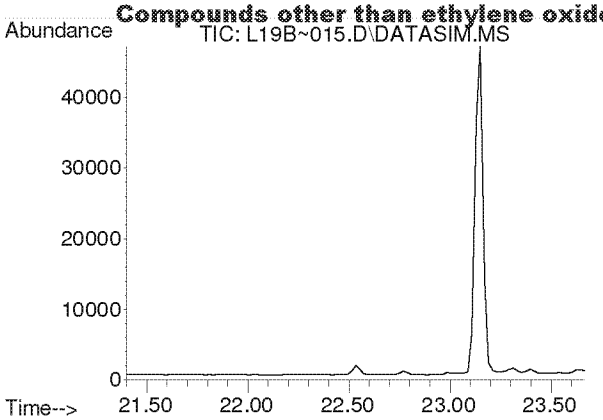
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

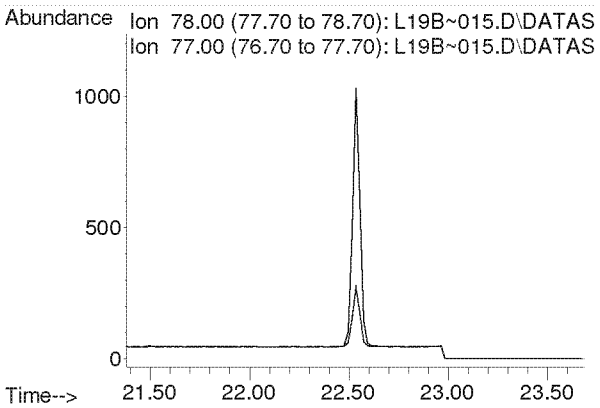


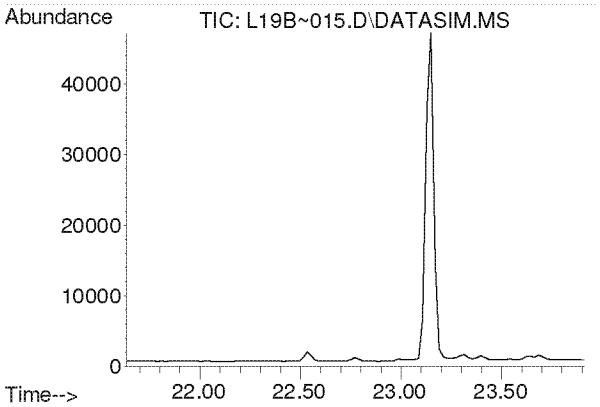
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



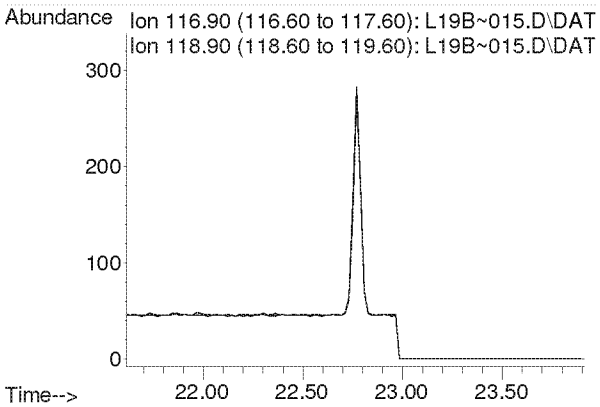


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

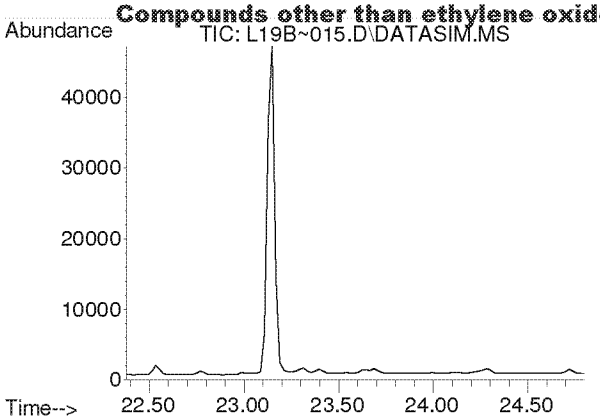
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

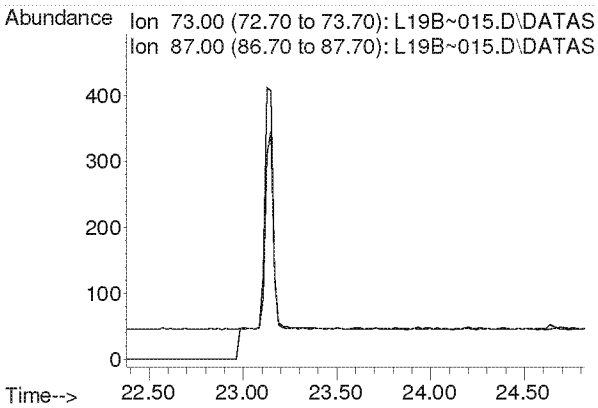


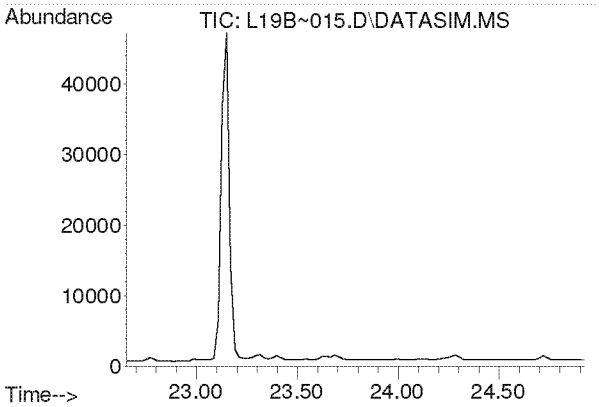
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



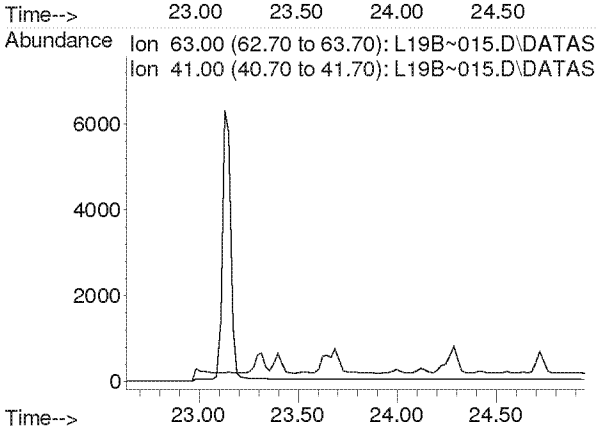


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

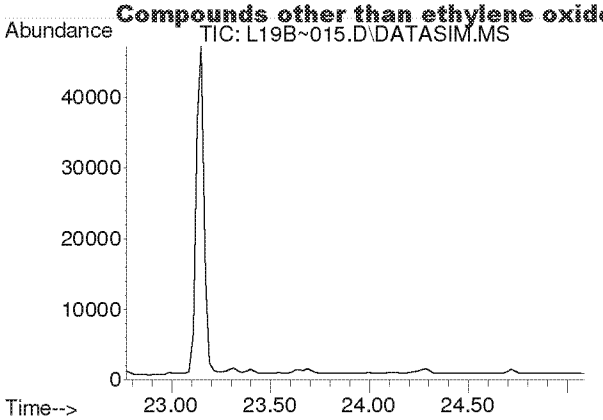
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

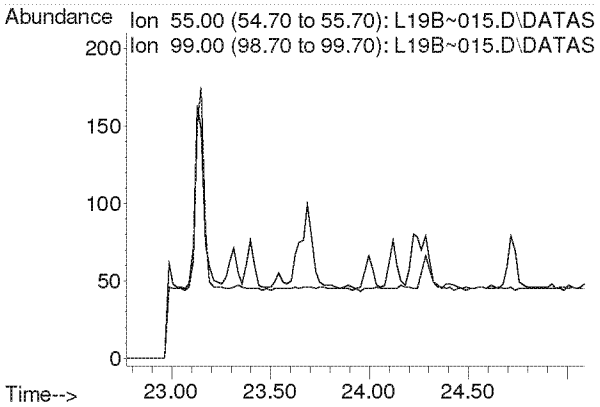


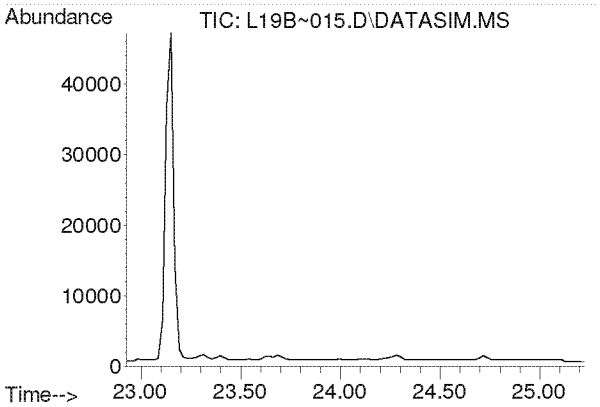
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



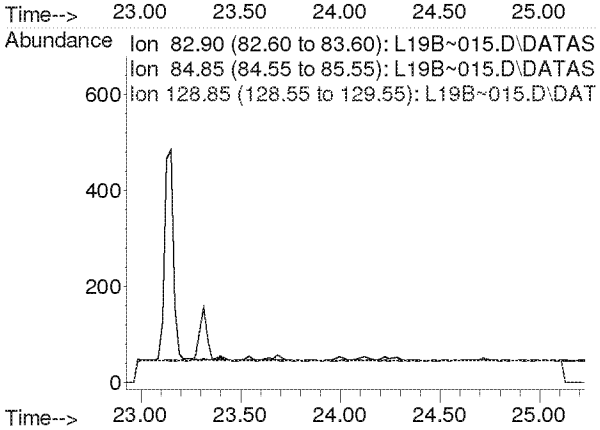


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

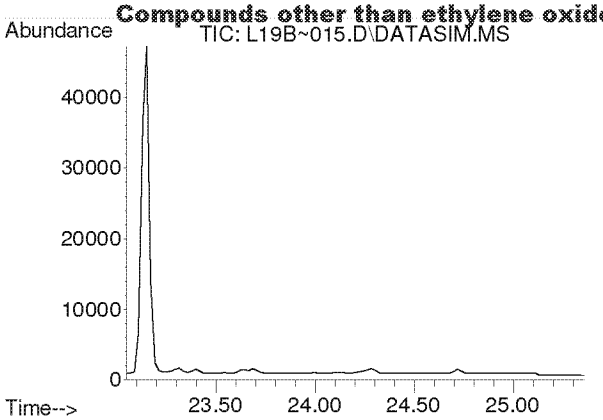
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

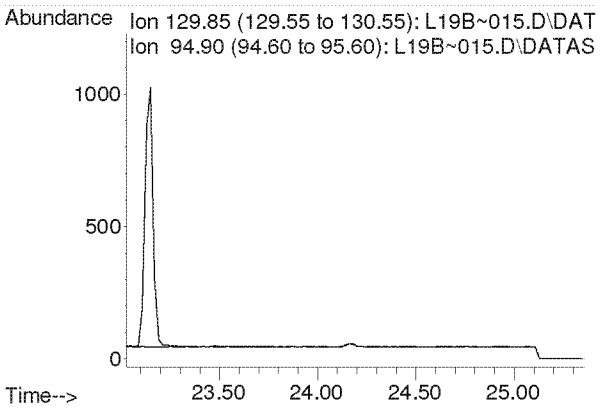


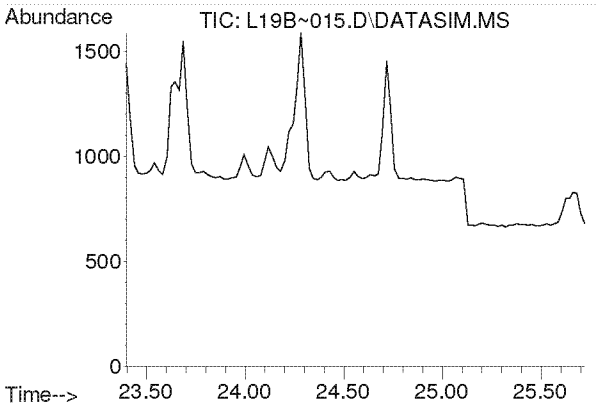
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



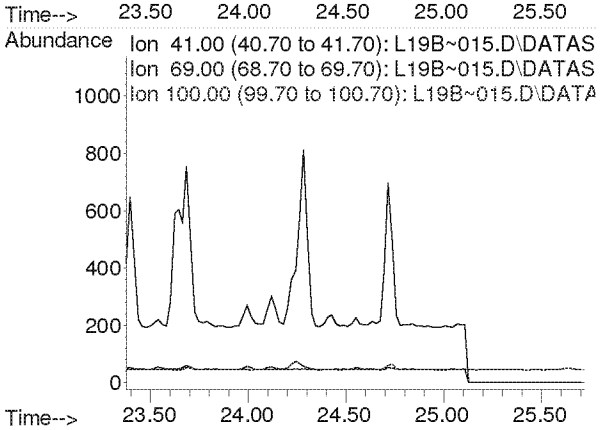


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

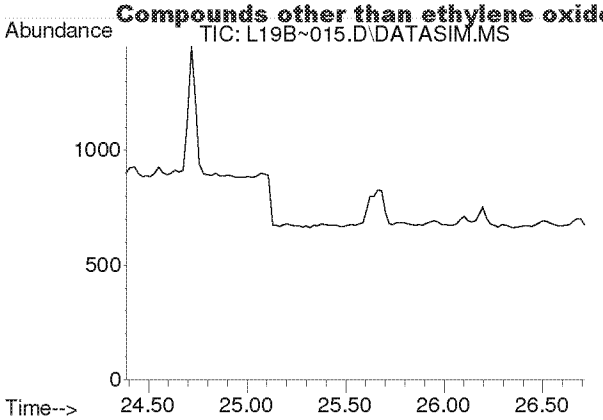
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

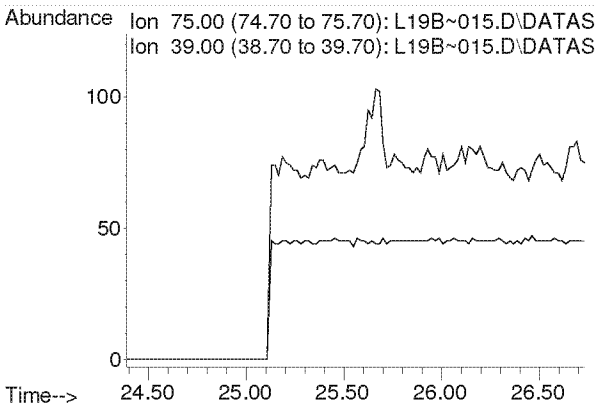


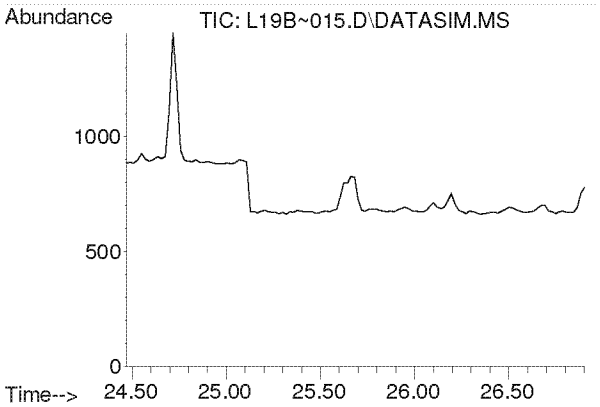
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



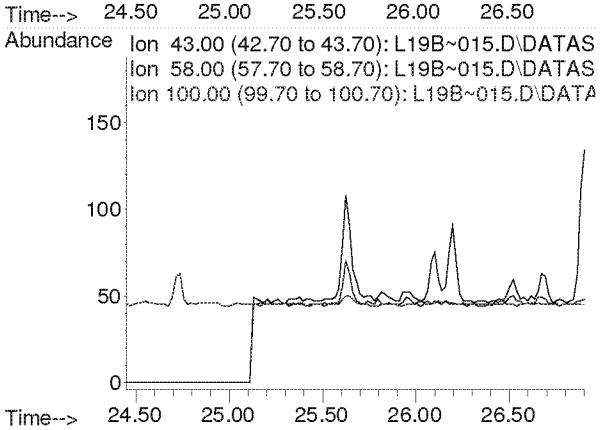


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

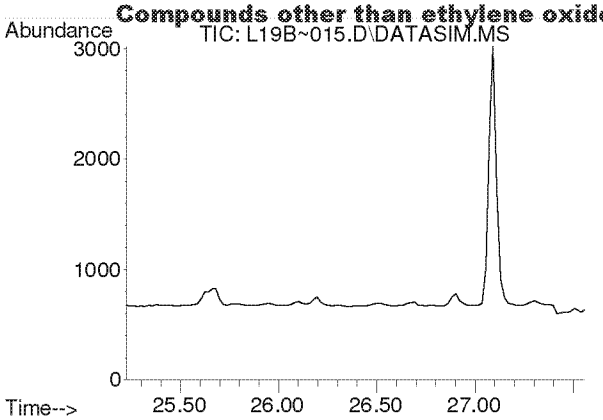
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

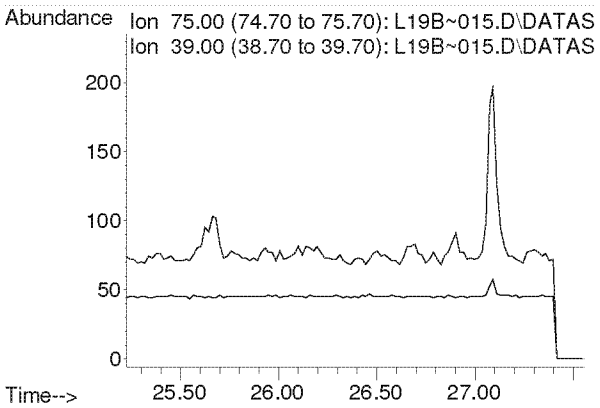


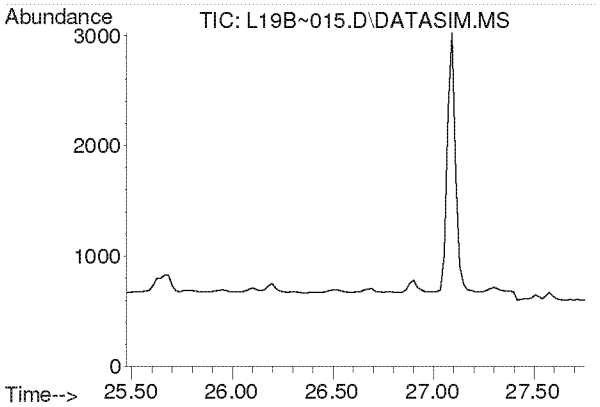
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



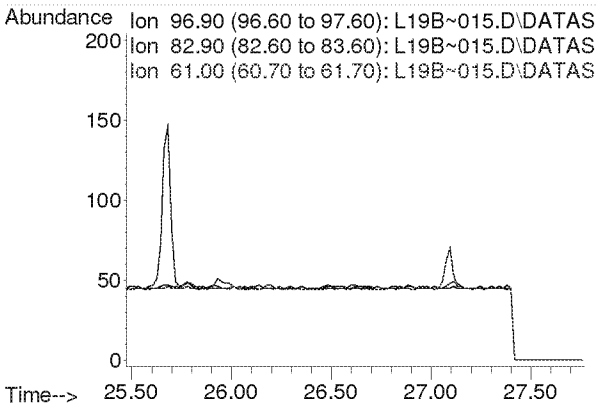


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

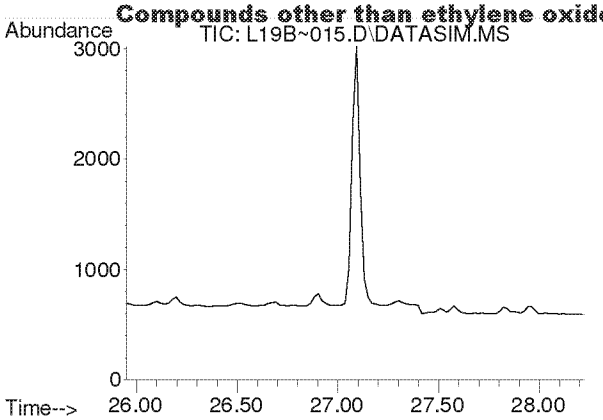
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

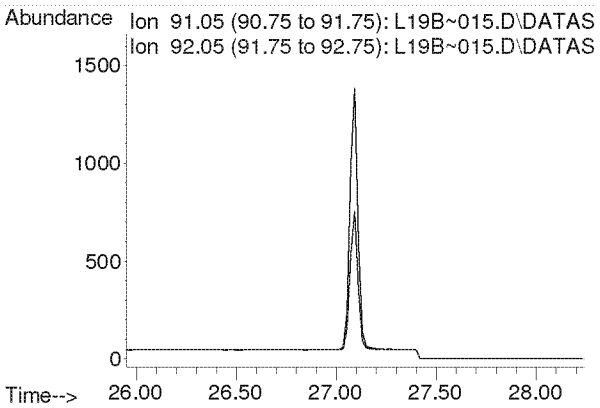


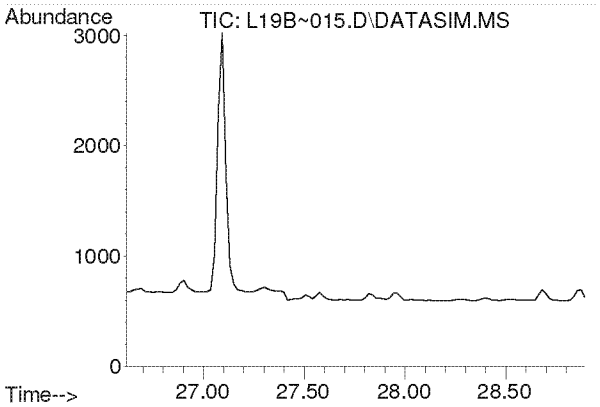
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



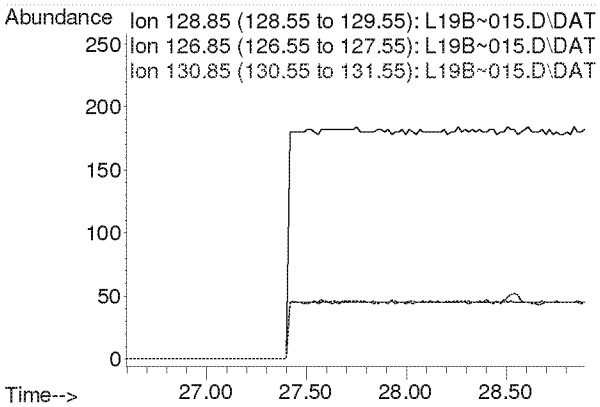


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

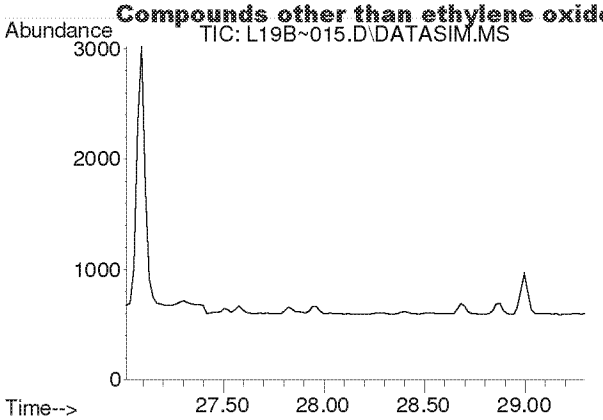
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

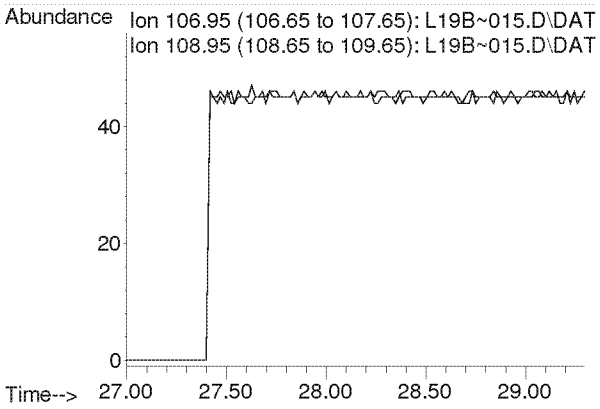


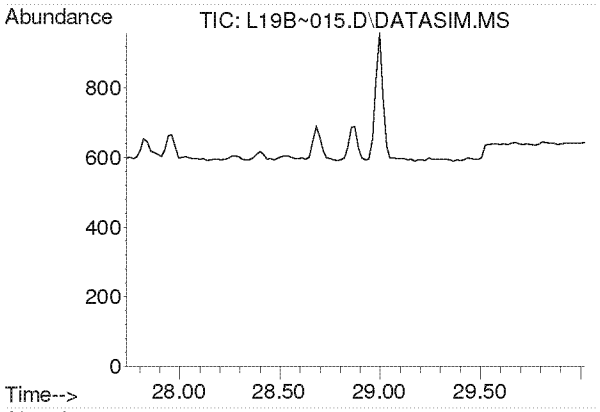
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



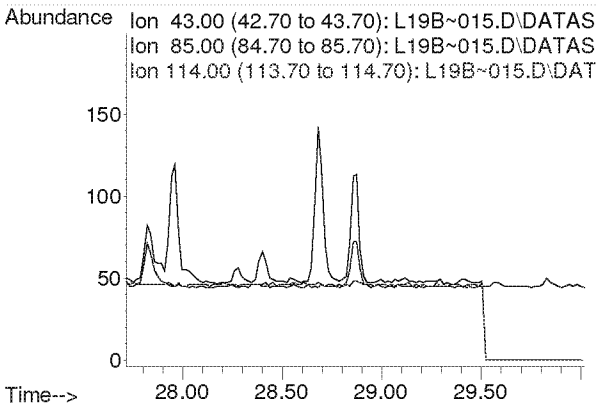


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

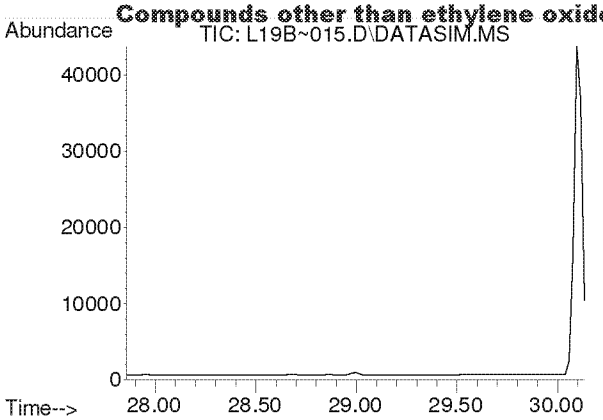
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

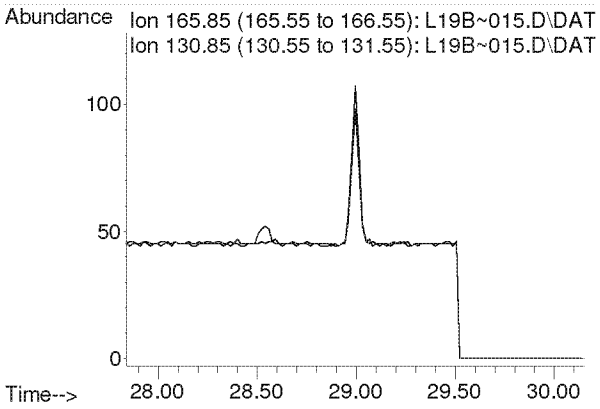


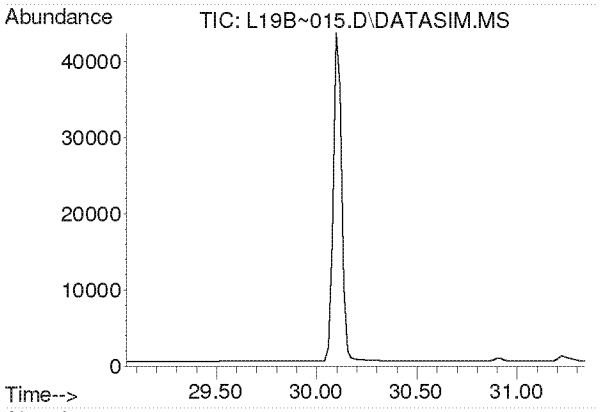
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



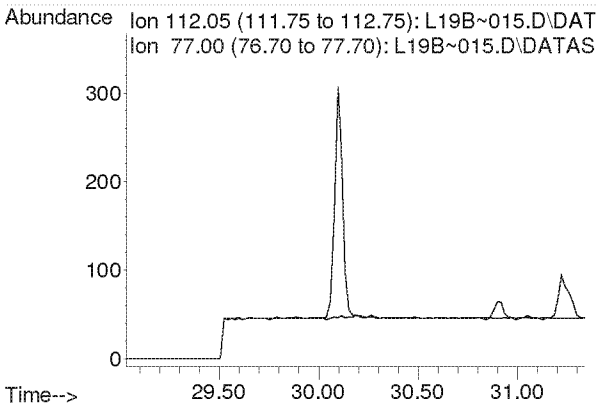


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

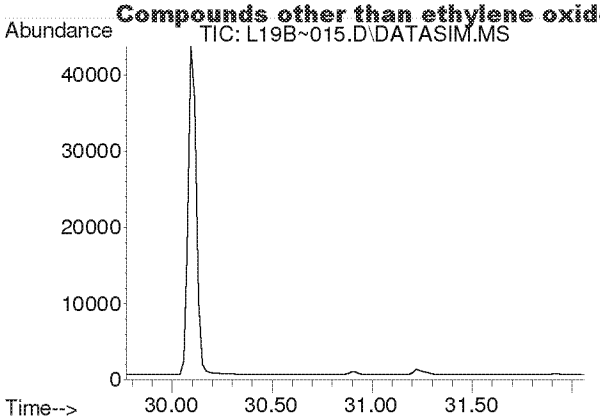
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

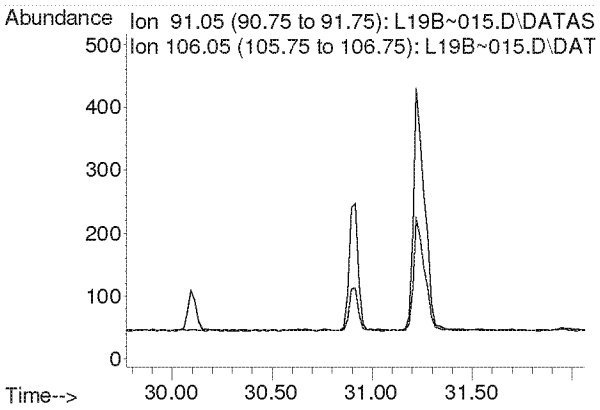


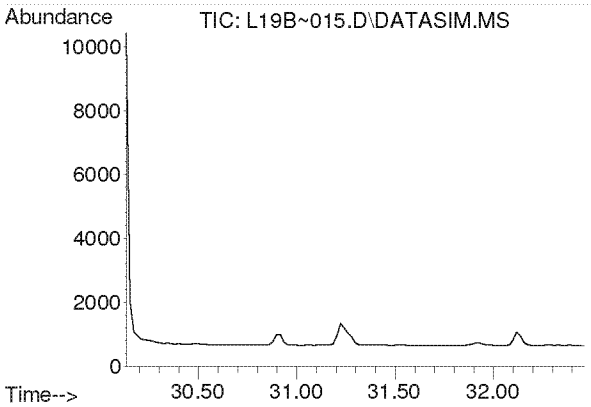
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



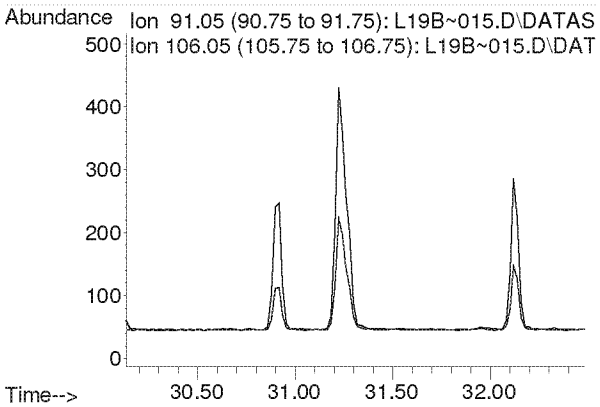


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

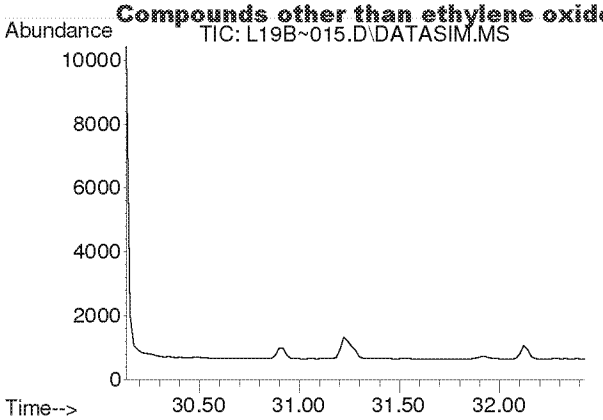
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

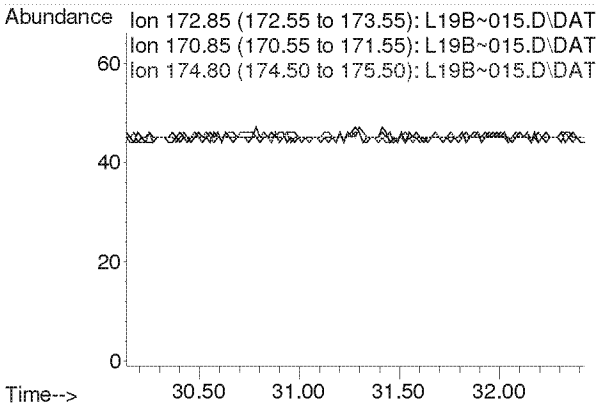


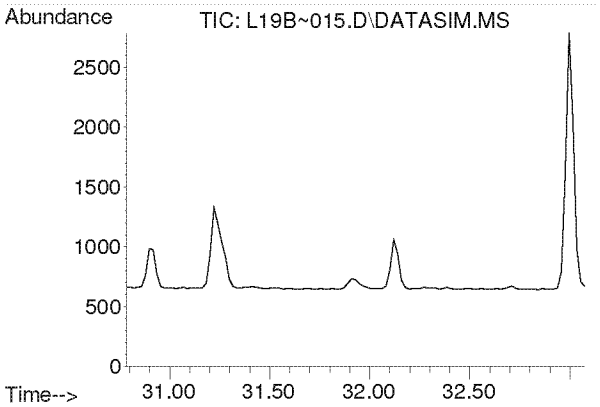
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



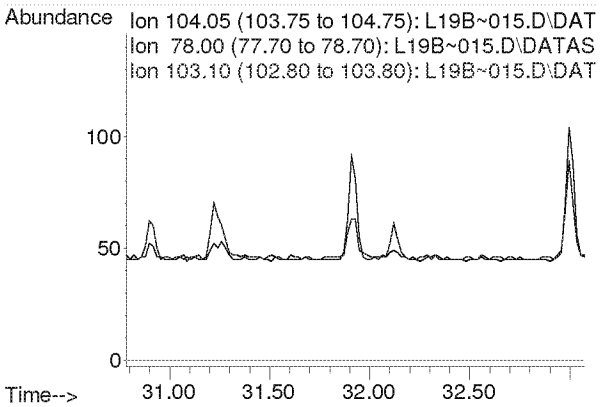


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

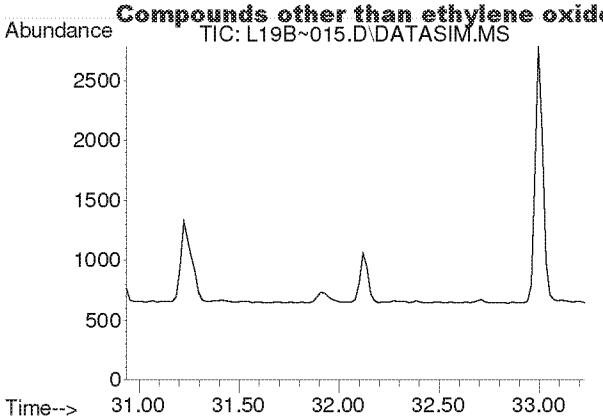
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

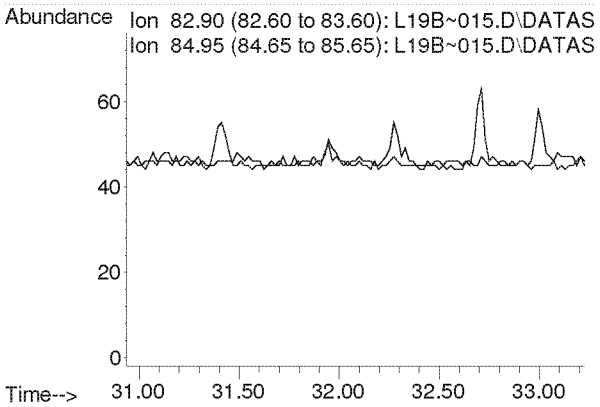


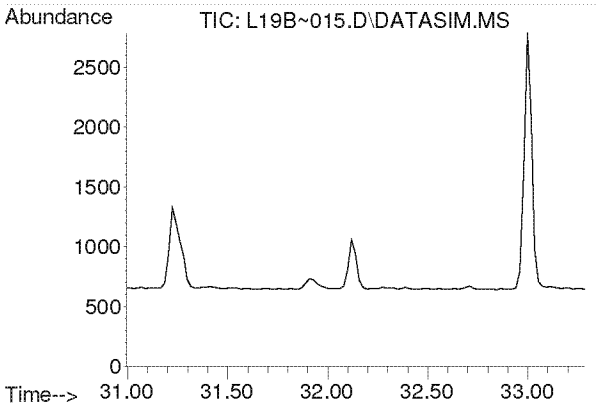
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



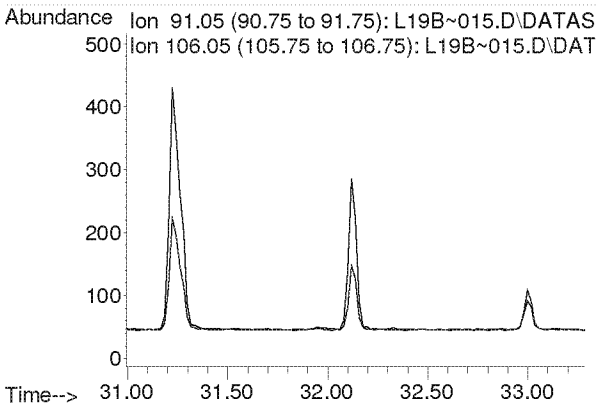


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

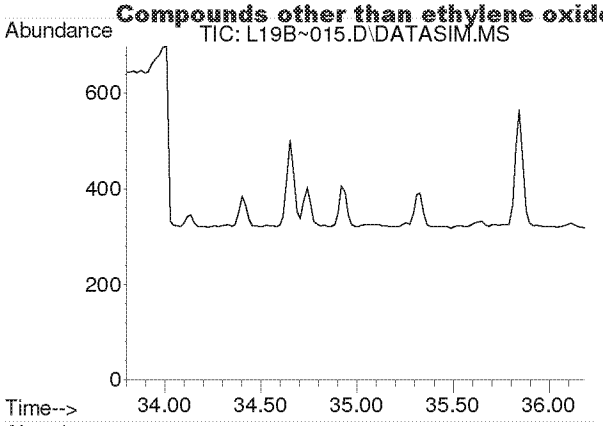
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

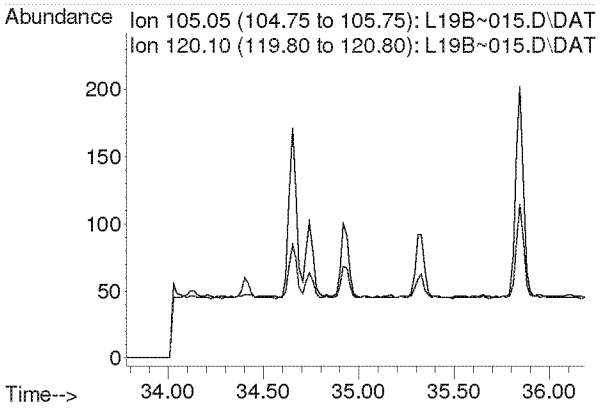


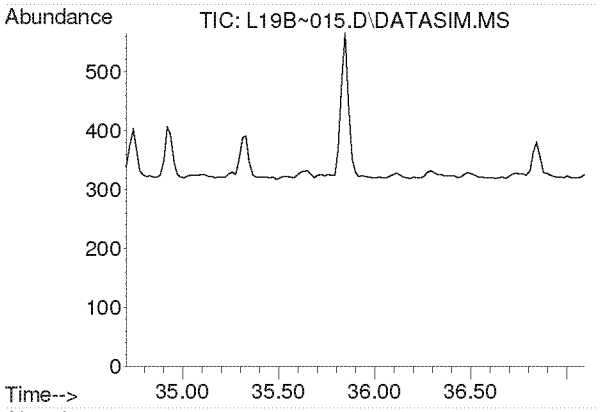
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



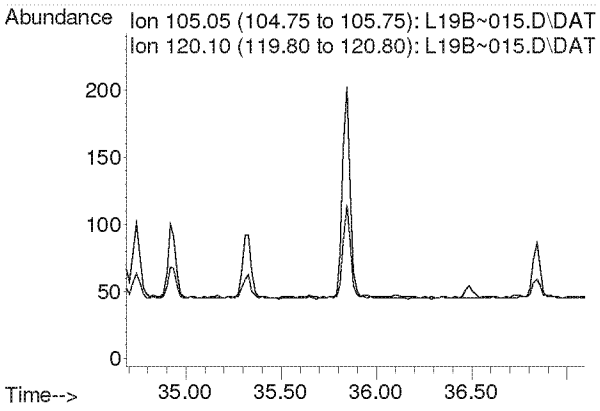


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

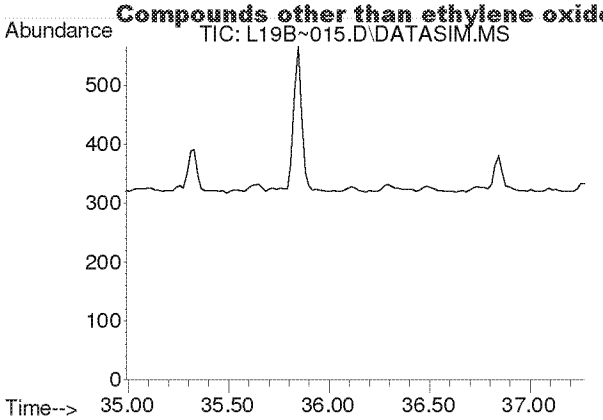
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

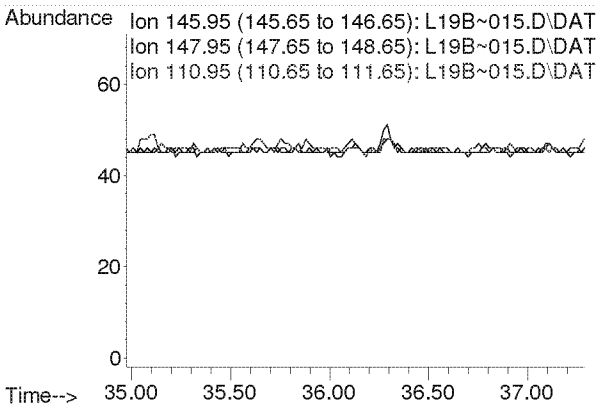


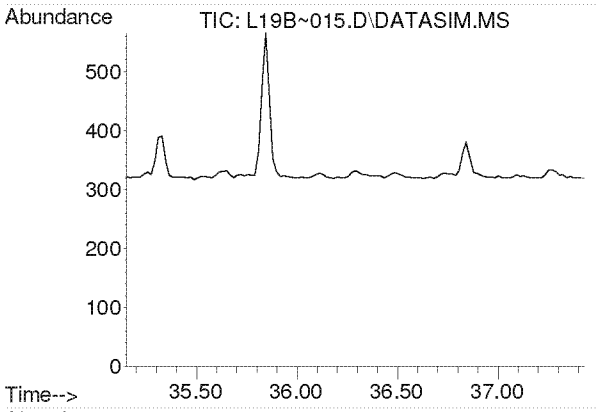
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



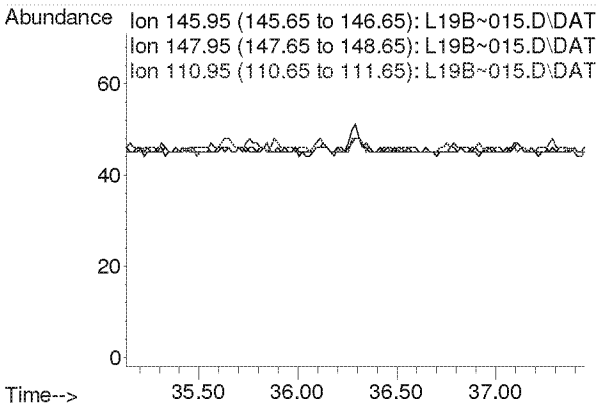


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

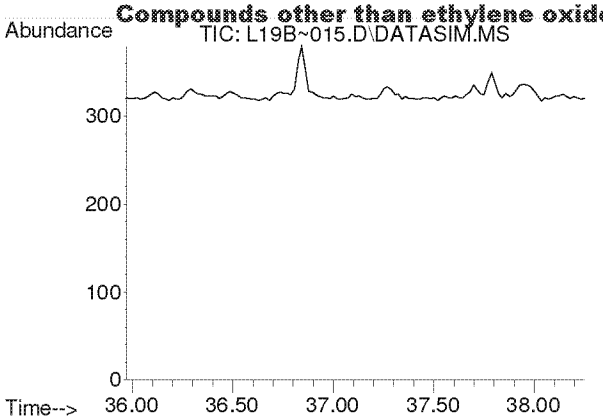
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

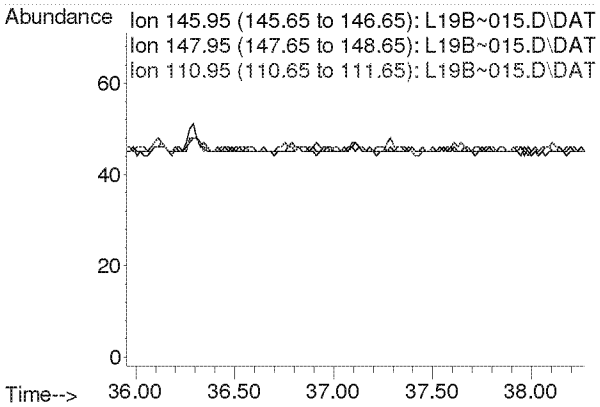


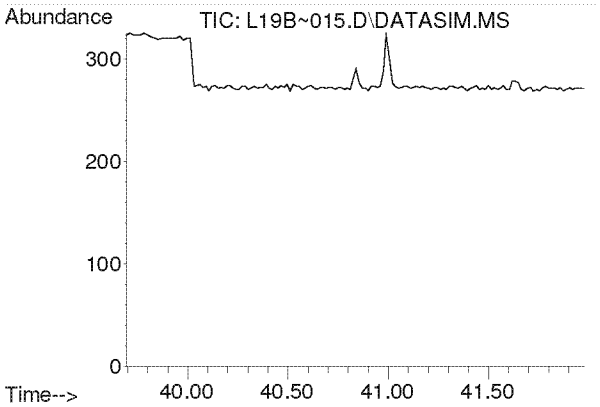
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



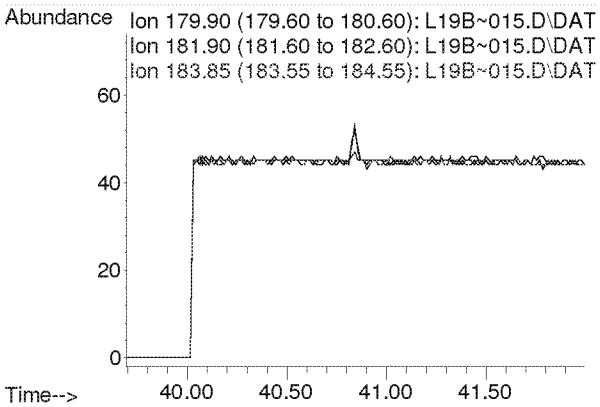


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

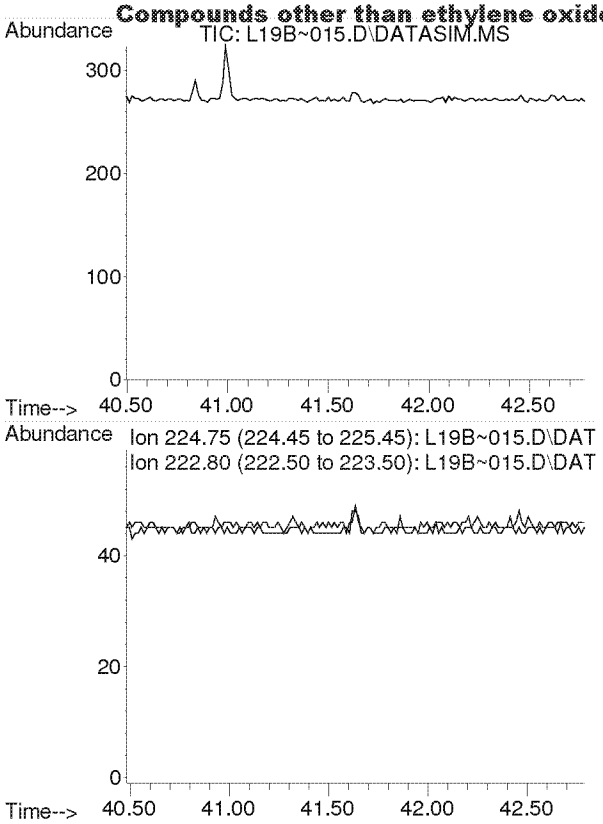
Lab File: L19B~015.D
Acq: 28 Feb 2019 1:35 am

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: L19B~015.D
Acq: 28 Feb 2019 1:35 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\L19B~\
Data File : L19B~016.D
Acq On : 28 Feb 2019 2:37 am
Operator : MAH
Sample : 9022616-05
Misc : WB VILLAGE HALL C2 2/23/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 05 06:49:17 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

d-MH

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	41252	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	101801	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	73675	4.7400 ppbv	0.00

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	12.453	29	283m	0.1199 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
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\L19B~\
Data File : L19B~016.D
Acq On : 28 Feb 2019 2:37 am
Operator : MAH
Sample : 9022616-05
Misc : WB VILLAGE HALL C2 2/23/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 05 06:49:17 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

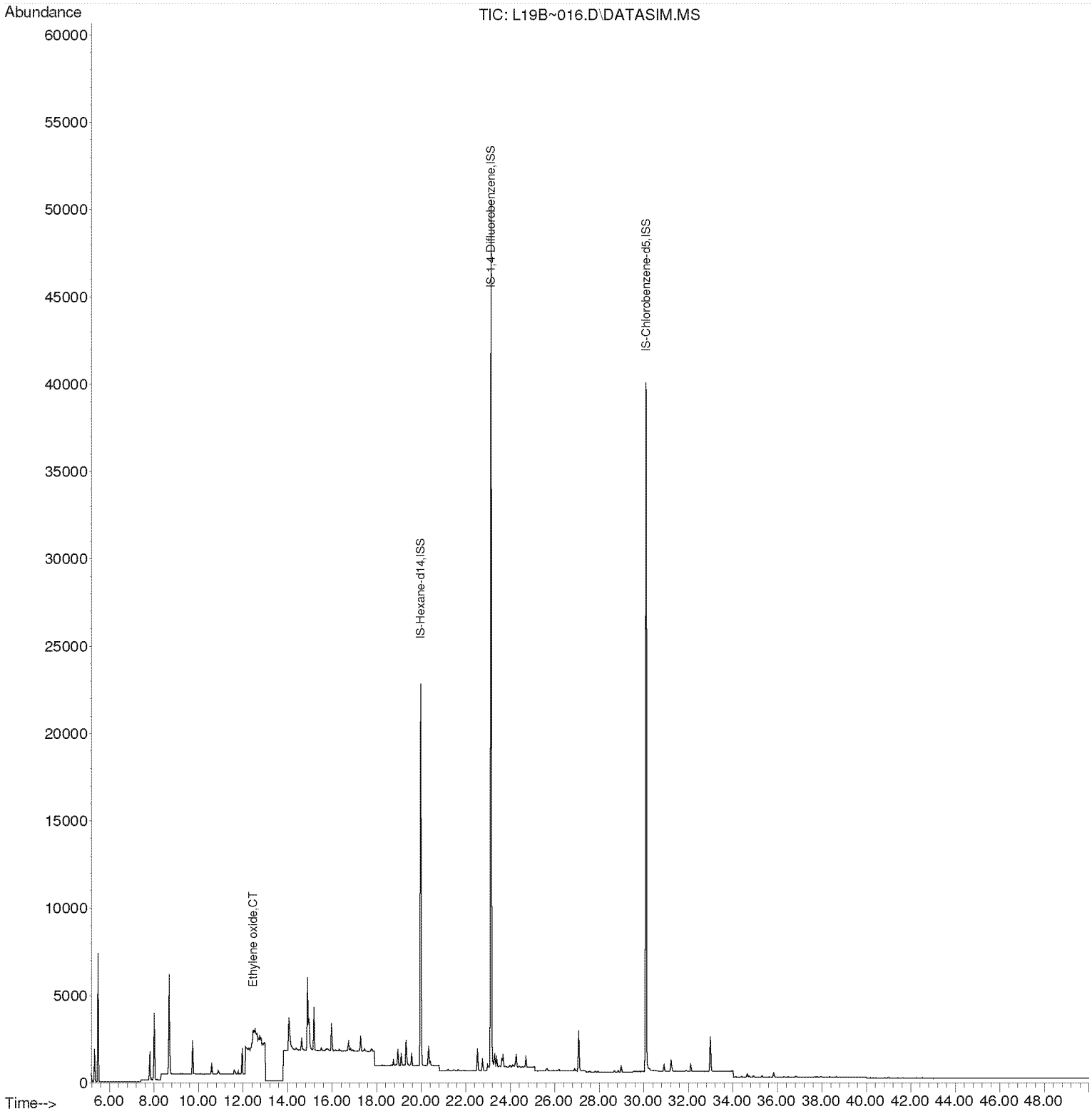
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

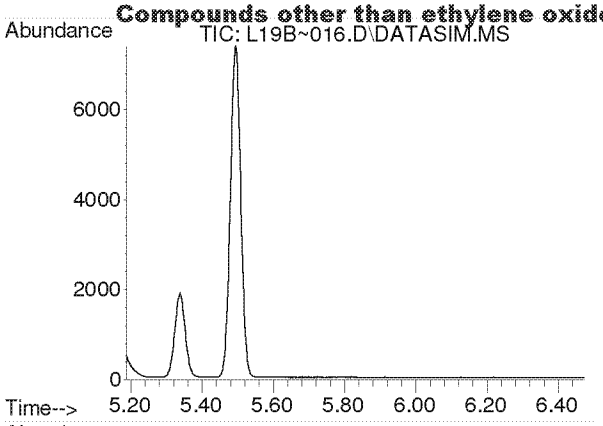
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~016.D
Acq On : 28 Feb 2019 2:37 am
Operator : MAH
Sample : 9022616-05
Misc : WB VILLAGE HALL C2 2/23/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 28 12:54:57 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



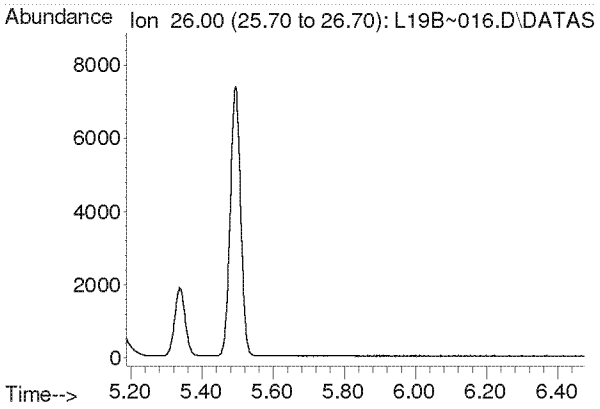
Compounds other than ethylene oxide were not quantitated.

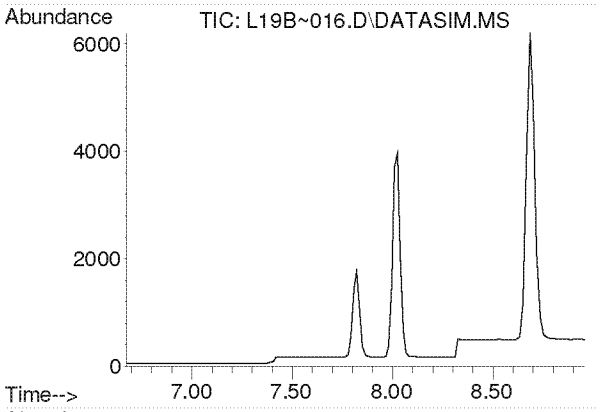


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 26



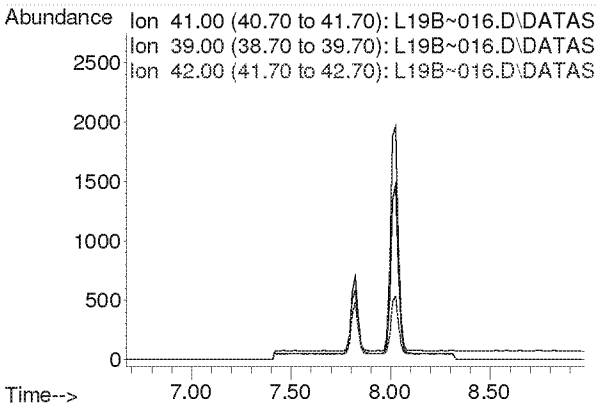


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

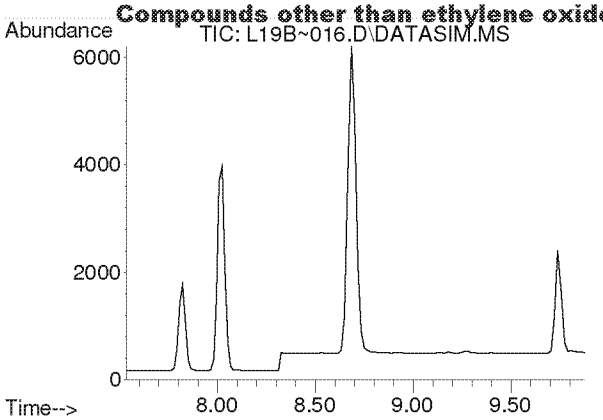
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

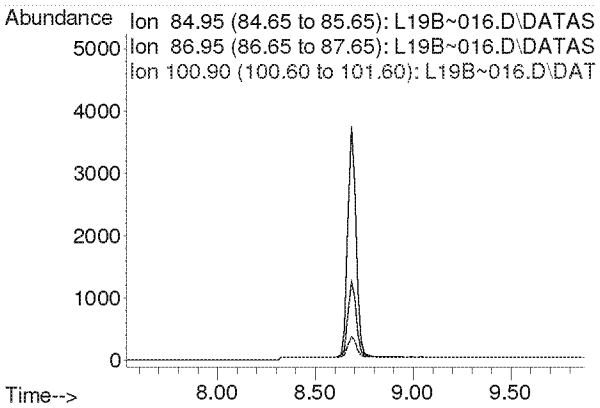


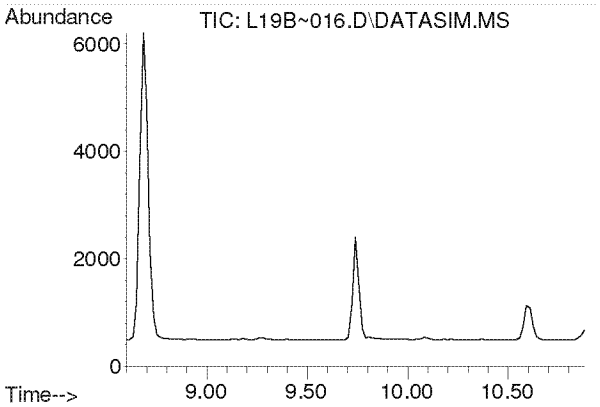
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



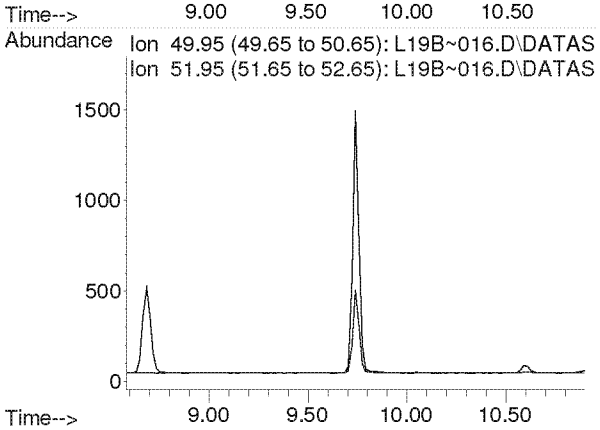


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

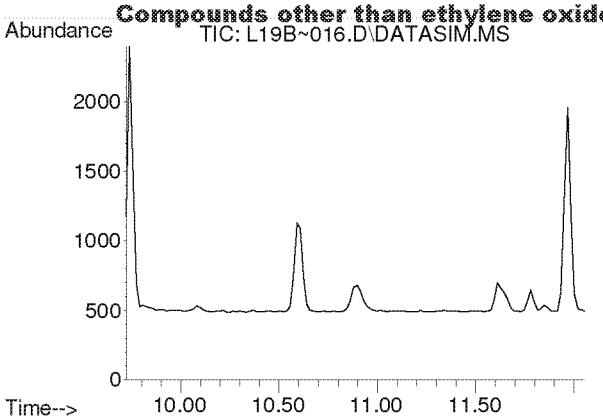
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

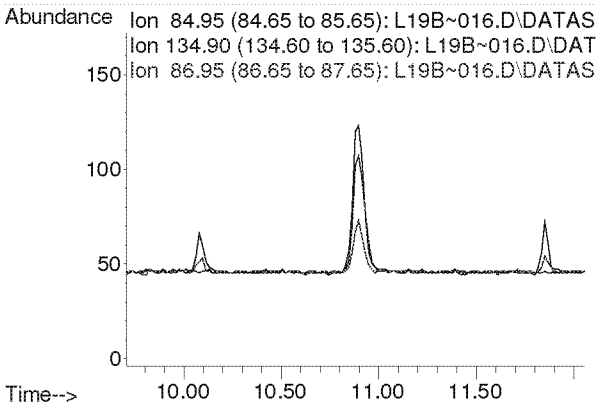


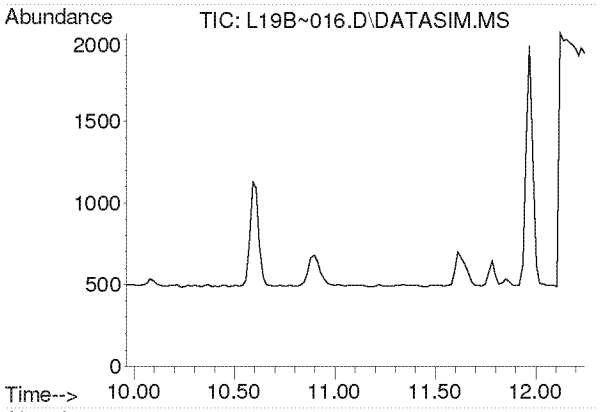
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



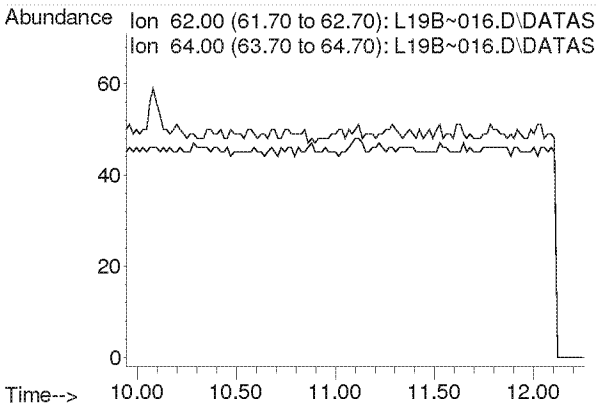


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

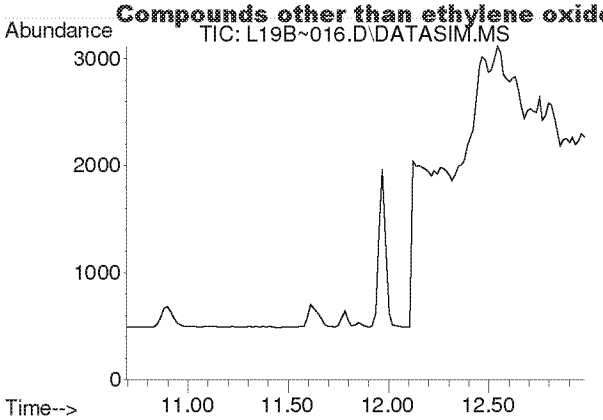
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

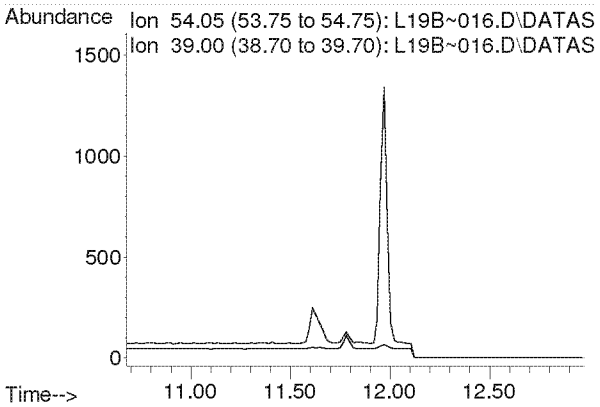


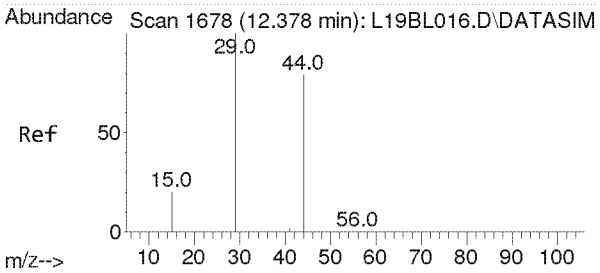
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

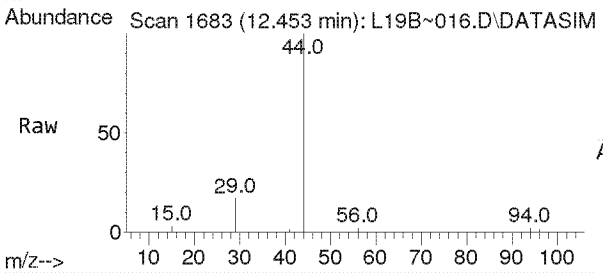


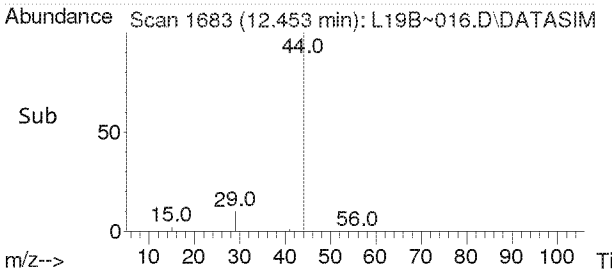


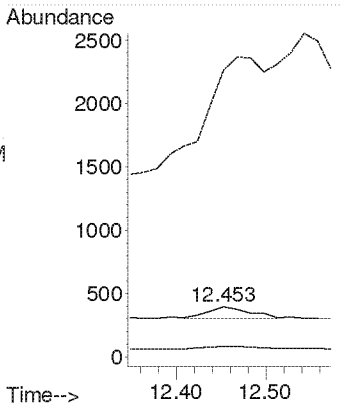
#9
Ethylene oxide
Concen: 0.120 ppbv m
RT: 12.453 min Scan# 1683
Delta R.T. 0.003 min
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 29 Resp: 283

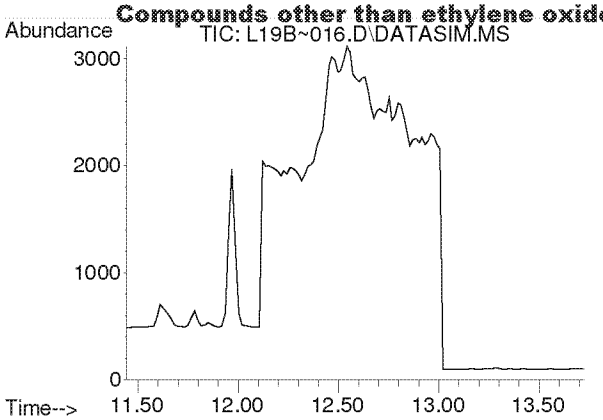
Ion	Ratio	Lower	Upper
29	100		
15	42.4	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

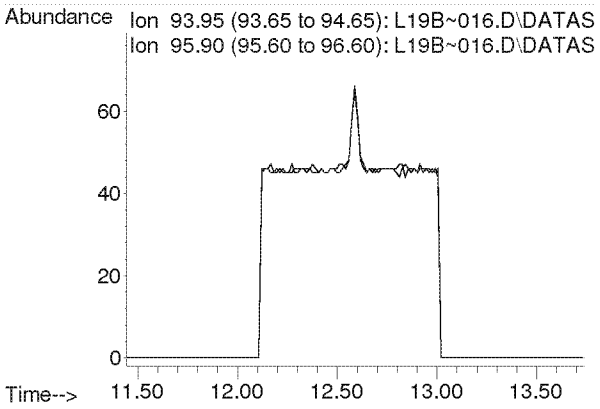


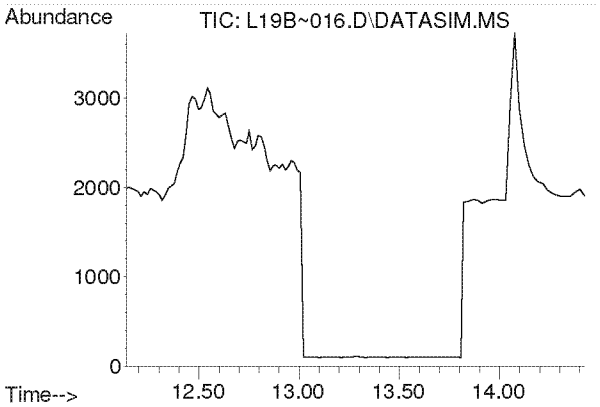
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



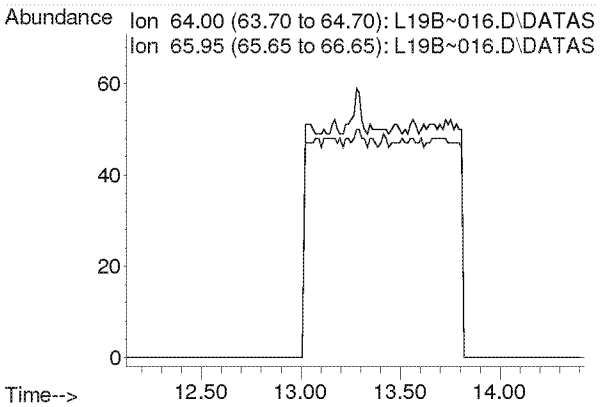


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

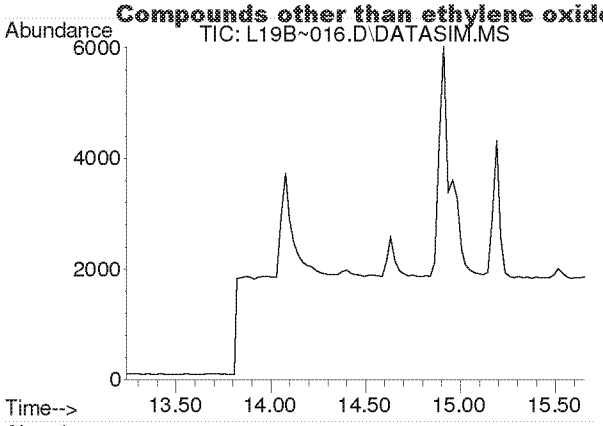
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

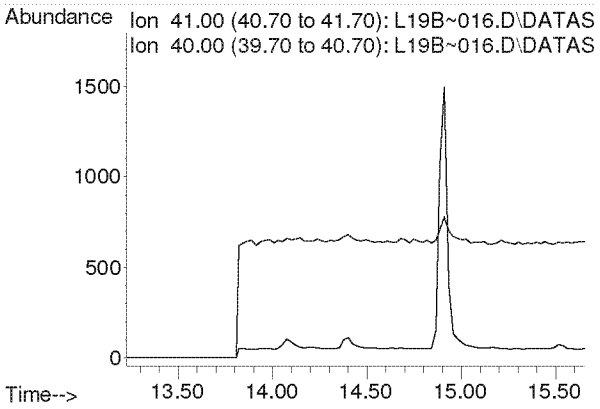


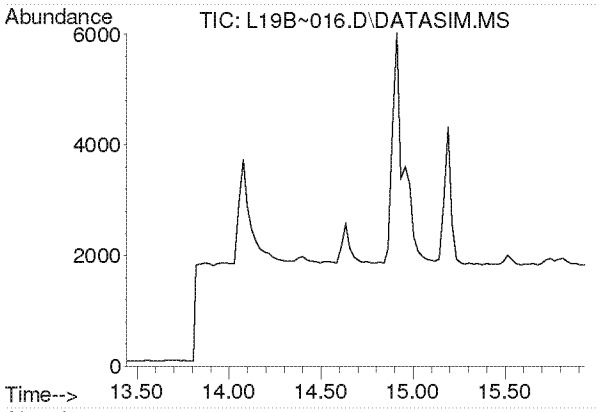
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



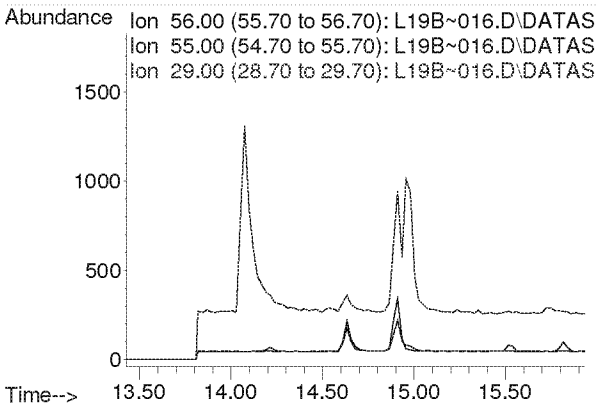


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

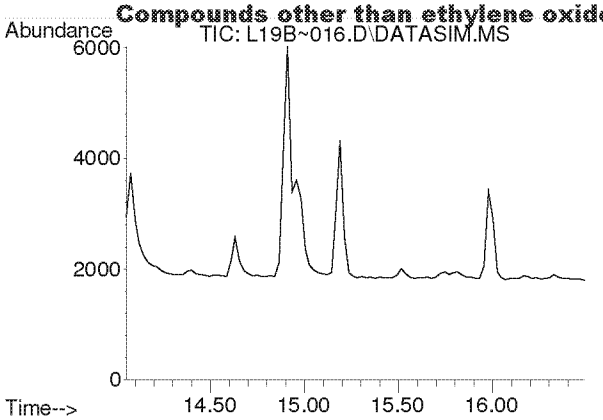
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

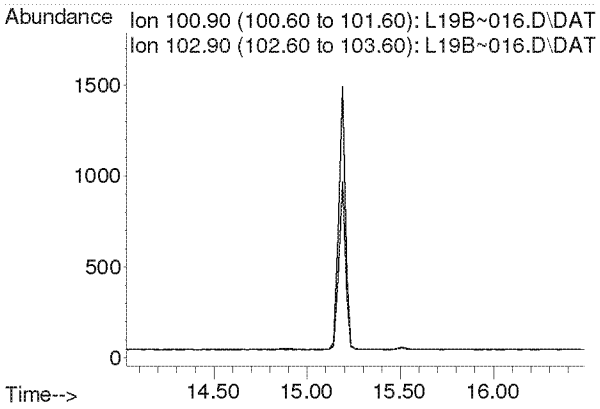


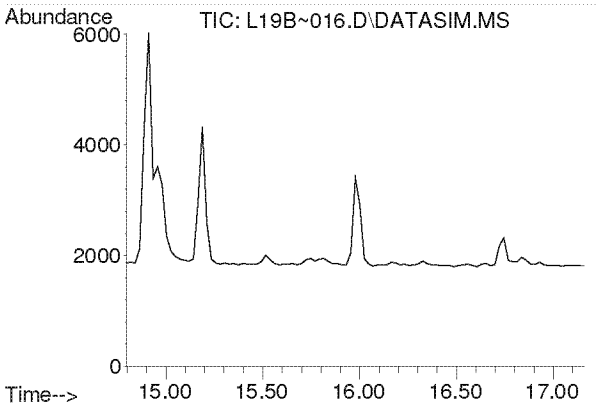
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



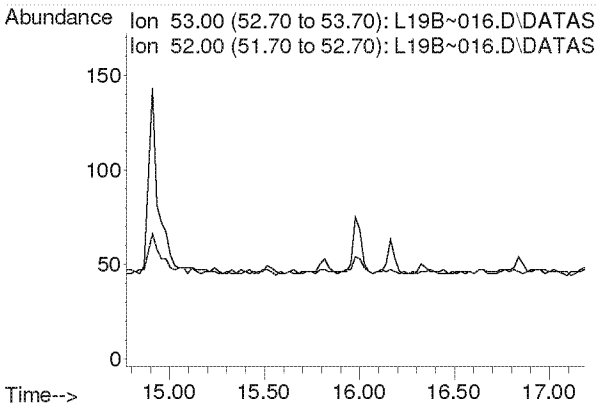


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

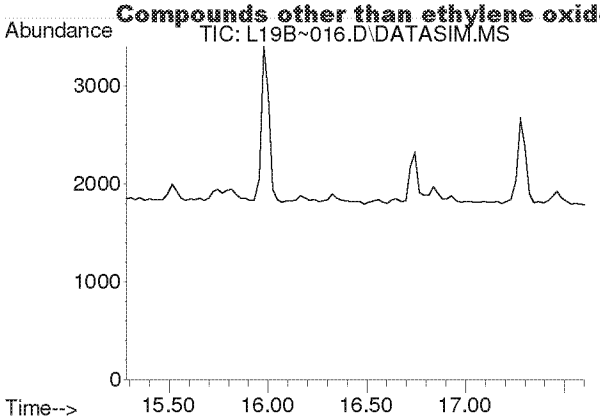
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

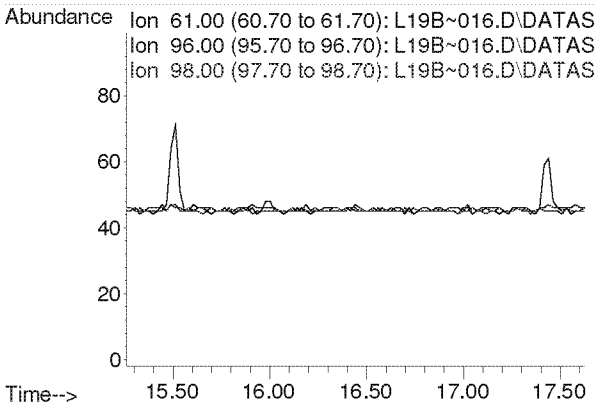


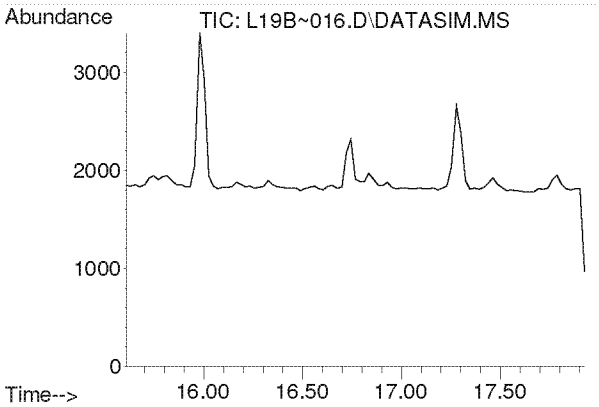
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



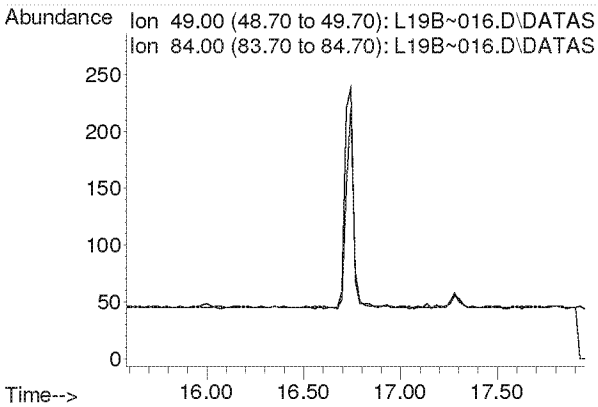


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

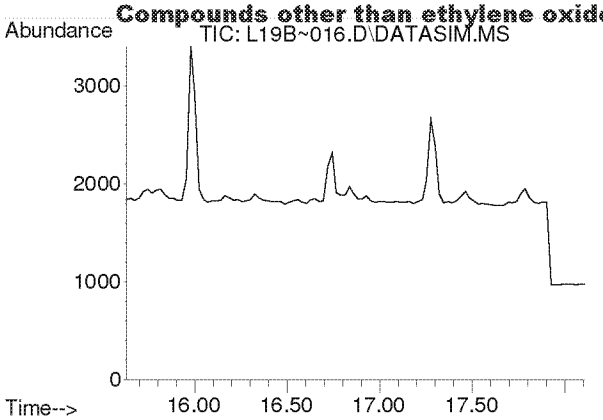
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

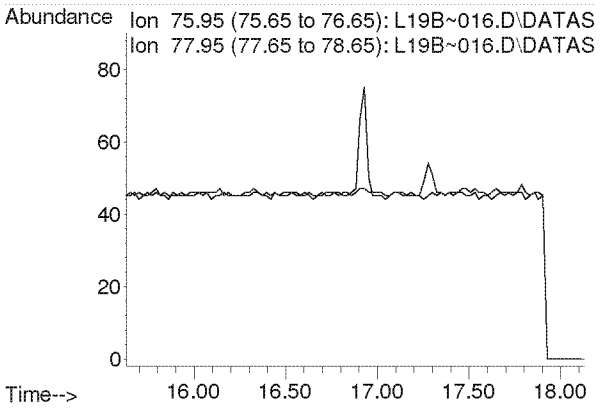


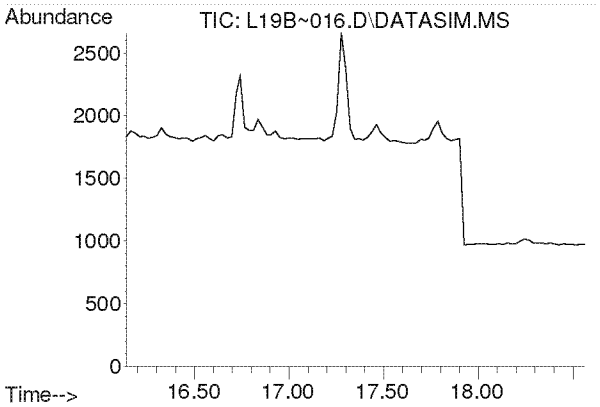
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



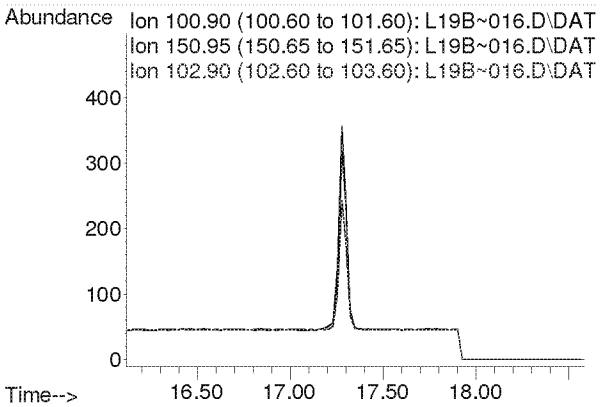


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

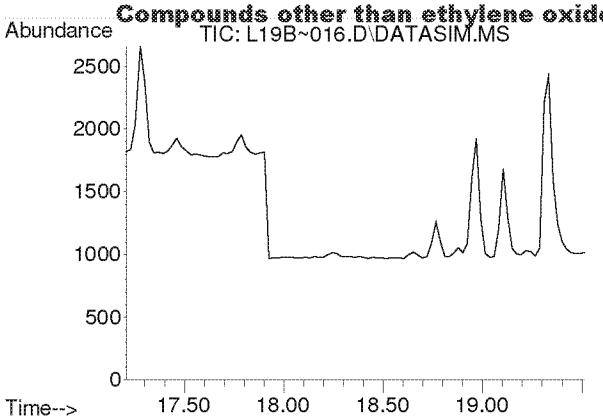
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

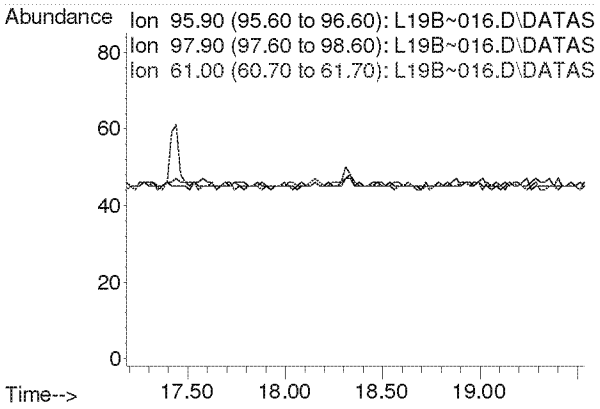


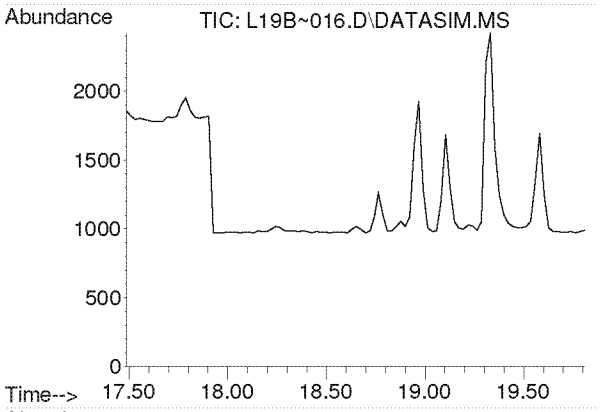
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



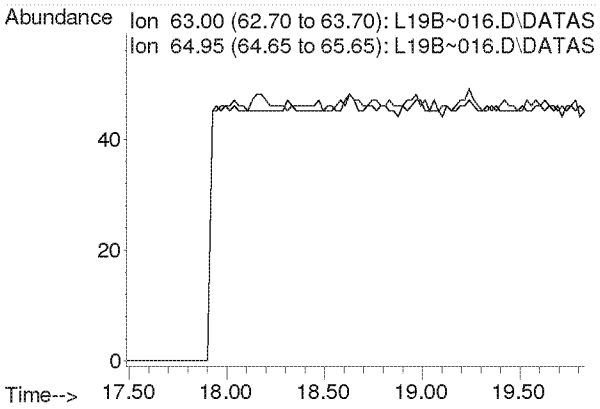


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

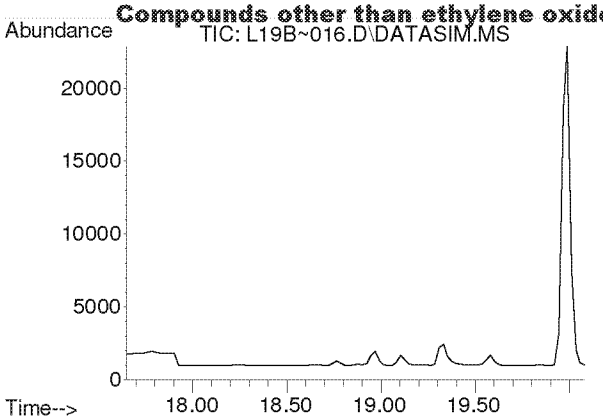
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

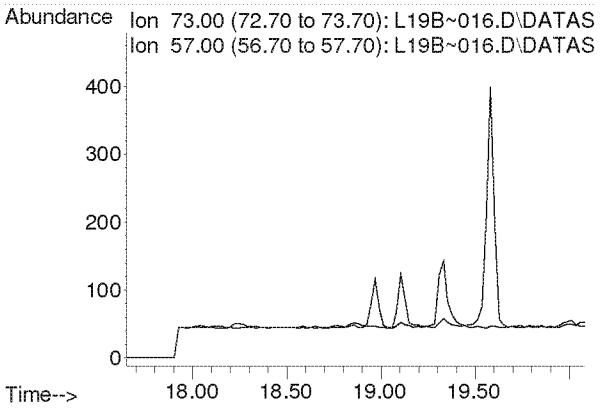


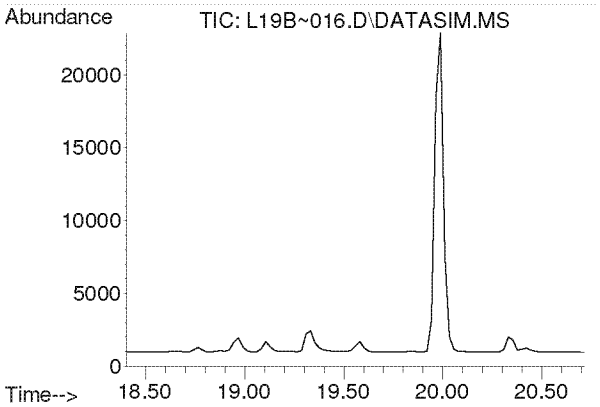
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



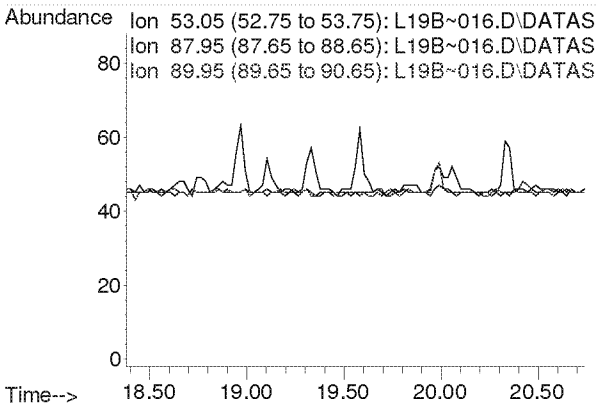


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

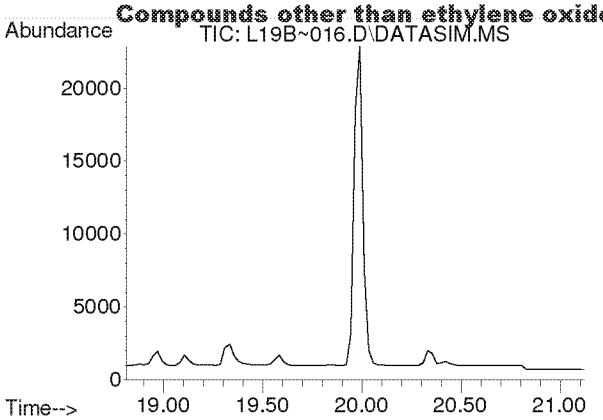
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

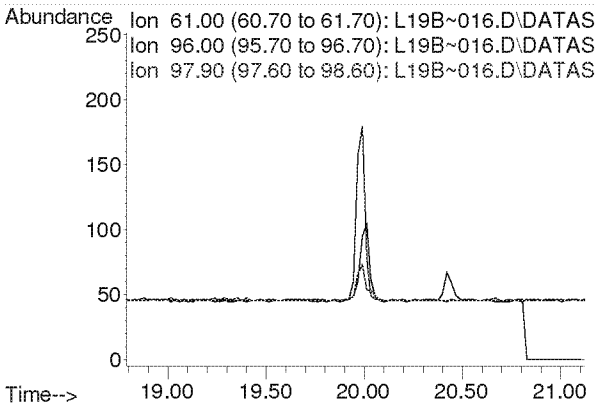


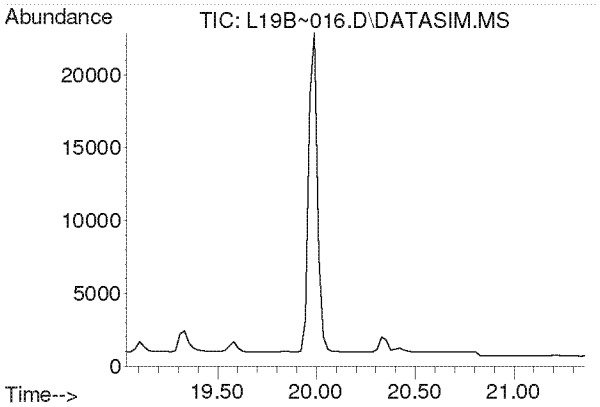
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



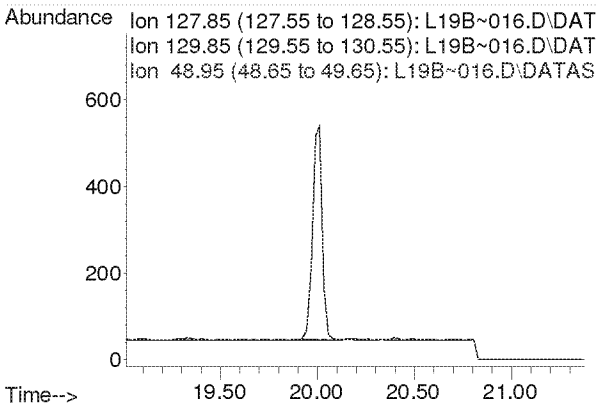


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

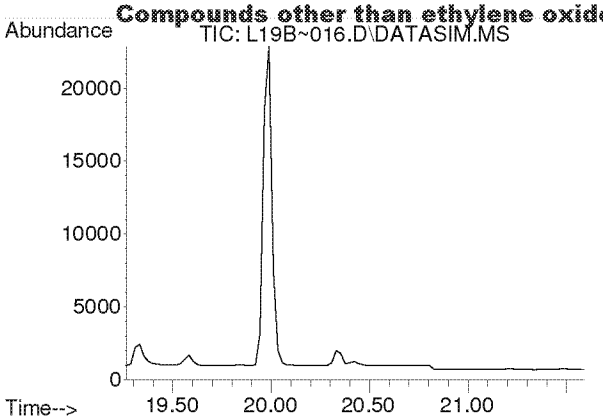
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

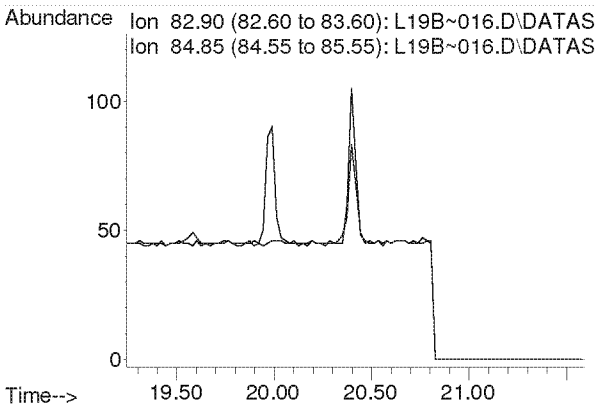


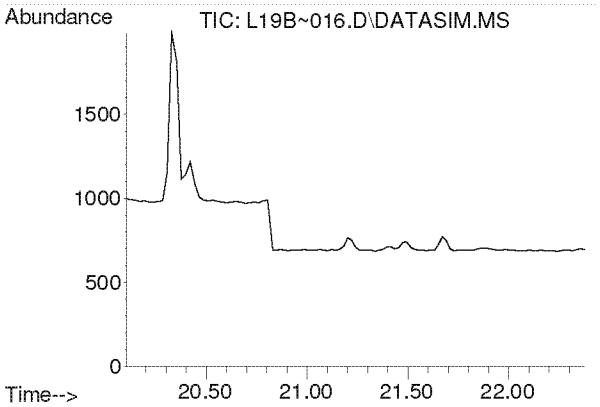
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



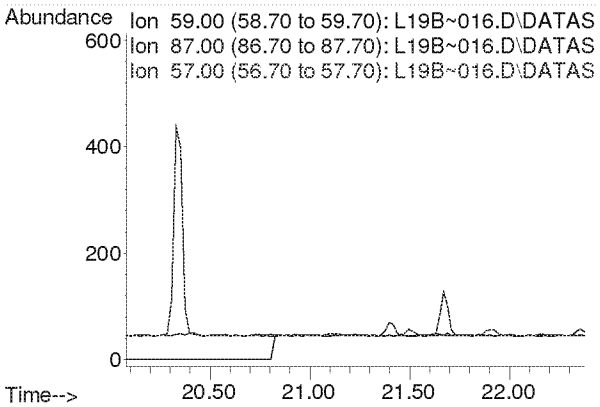


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

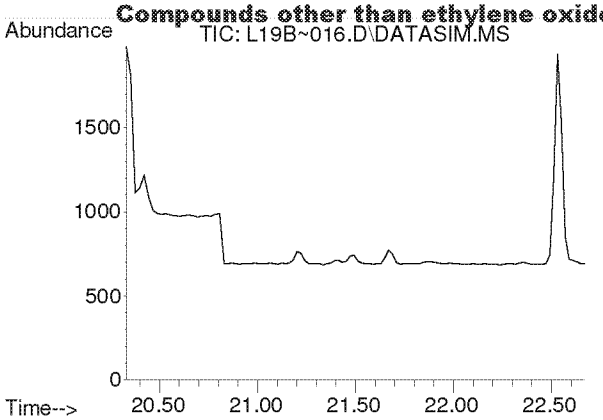
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

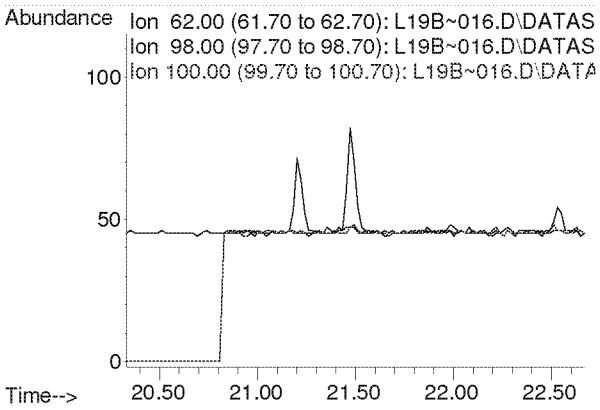


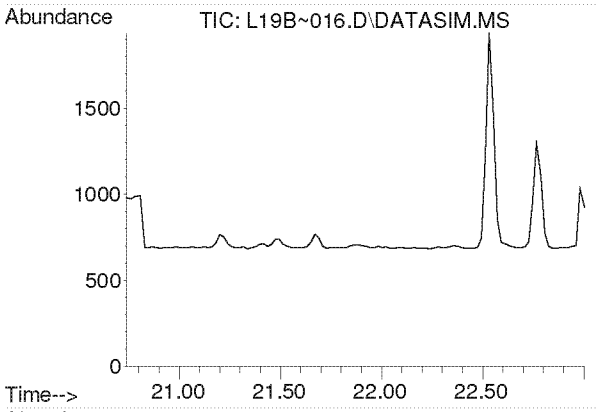
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



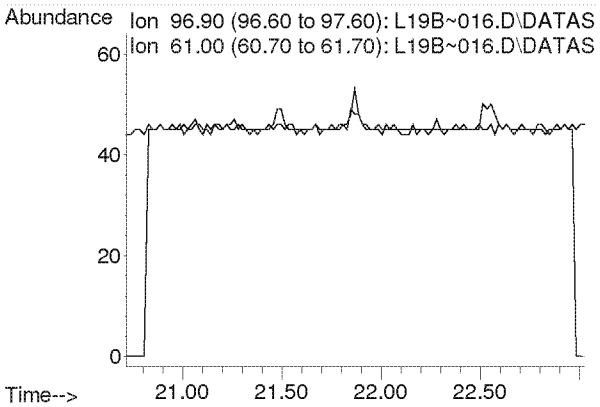


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

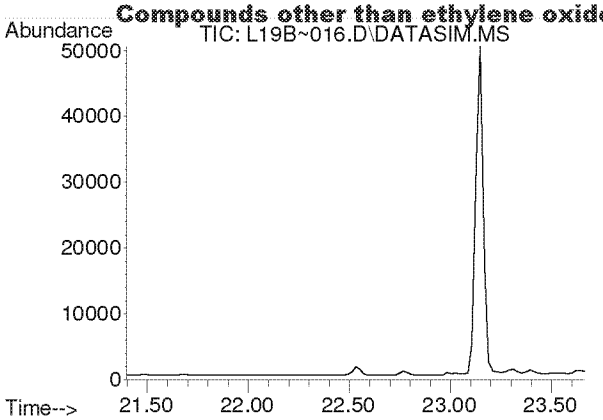
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

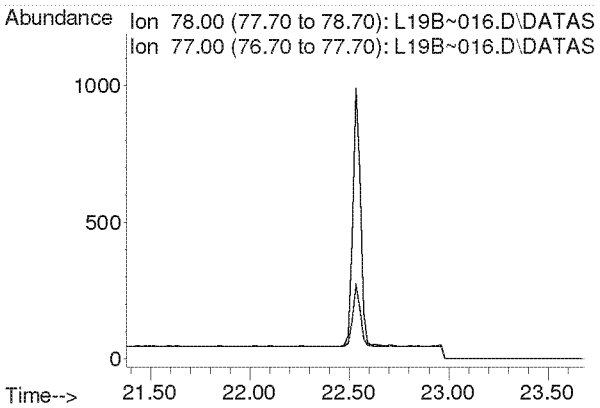


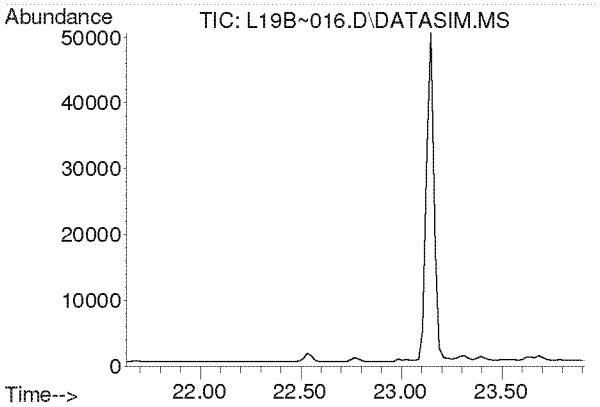
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



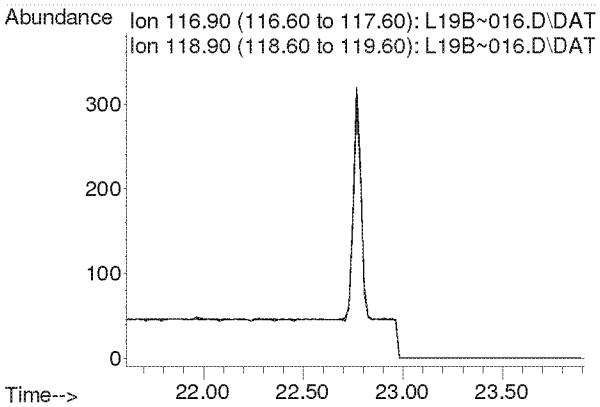


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

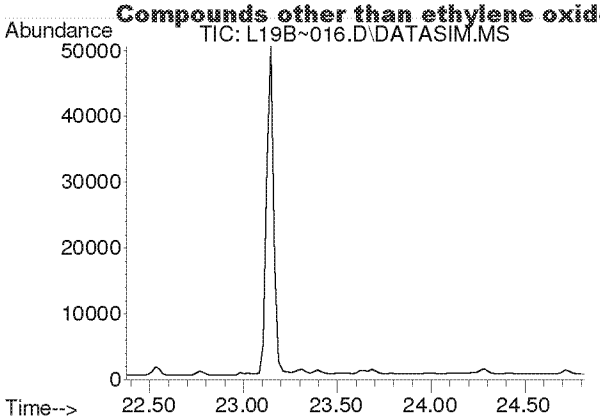
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

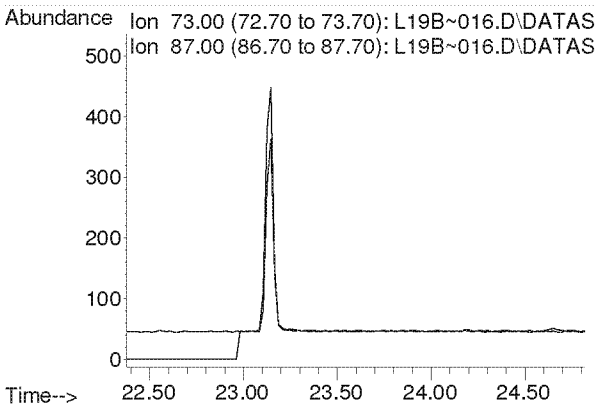


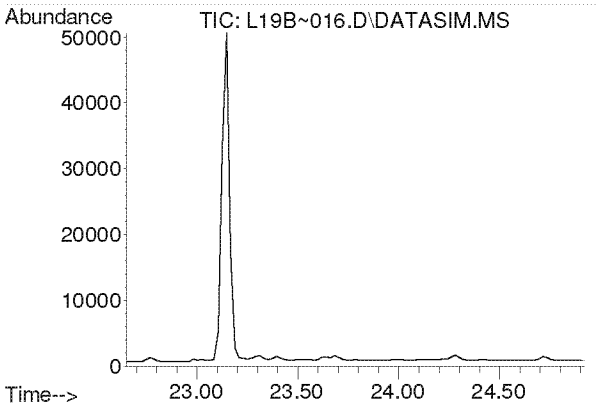
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



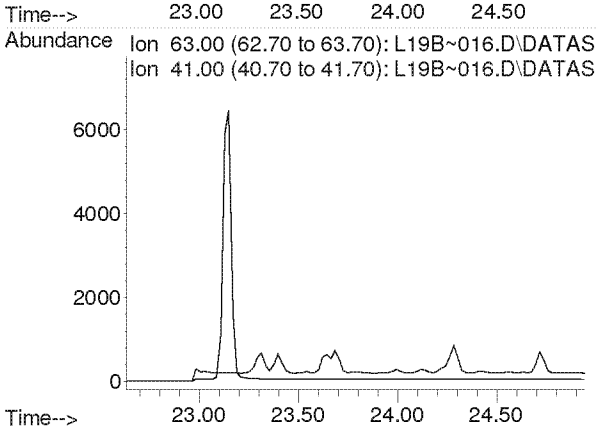


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

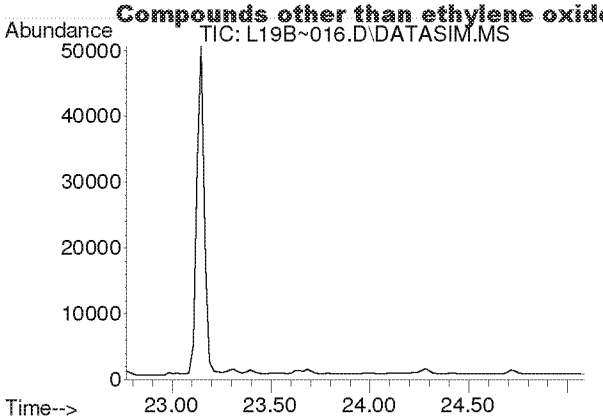
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

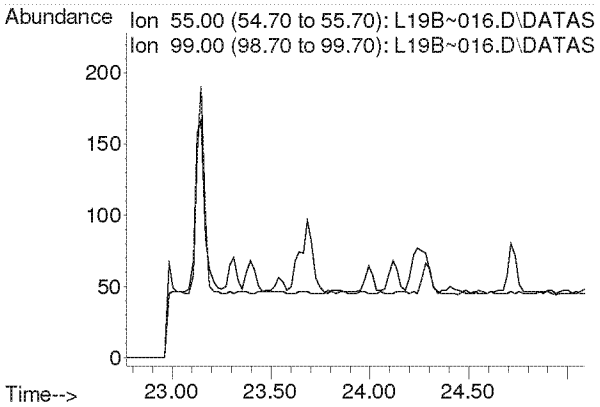


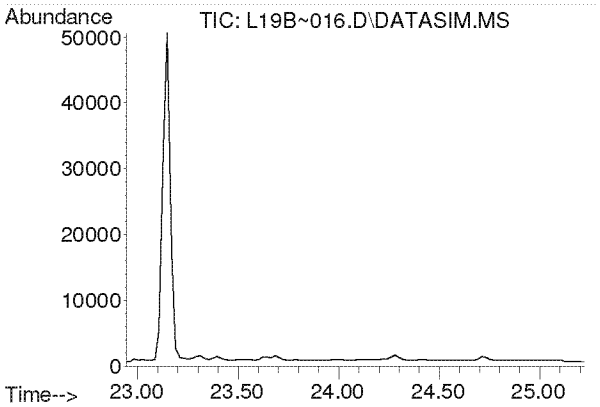
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



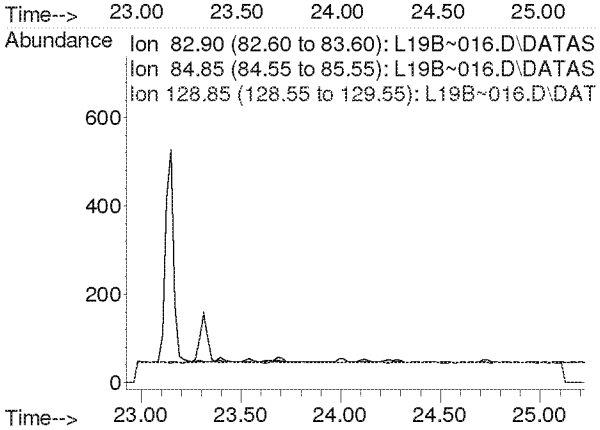


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

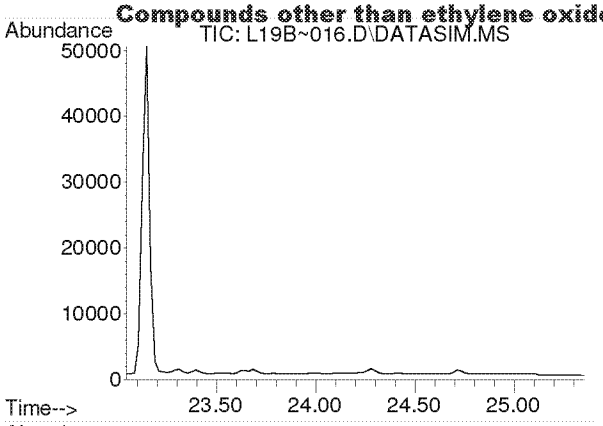
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

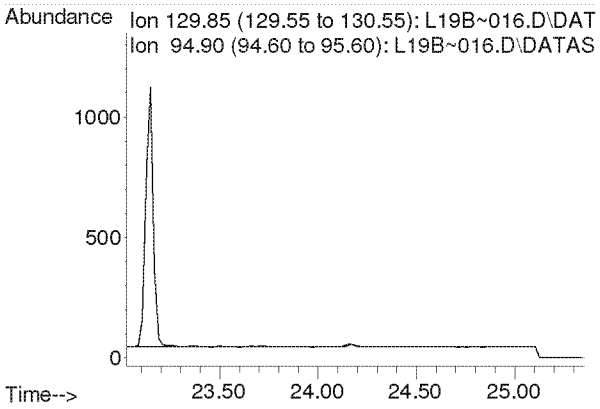


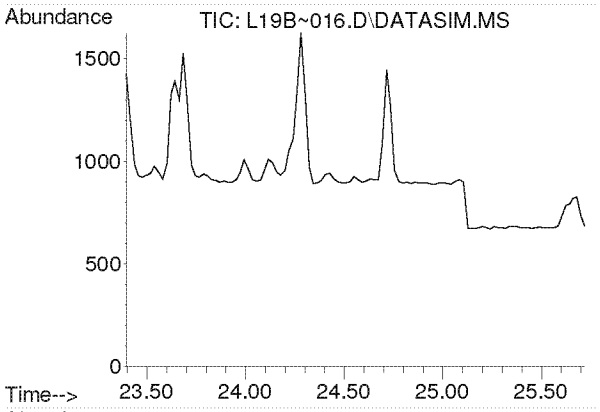
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



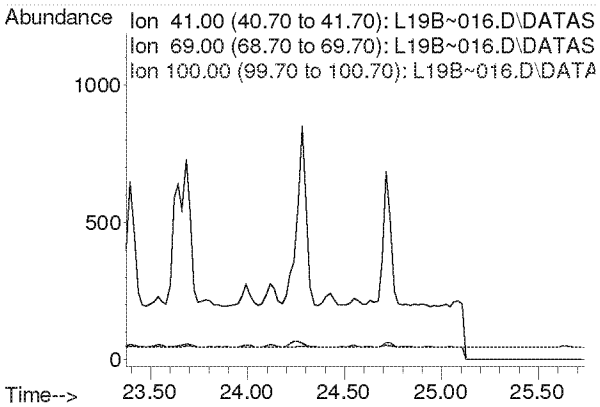


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

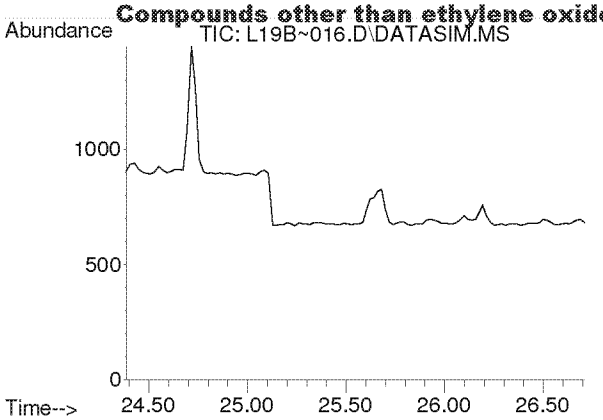
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

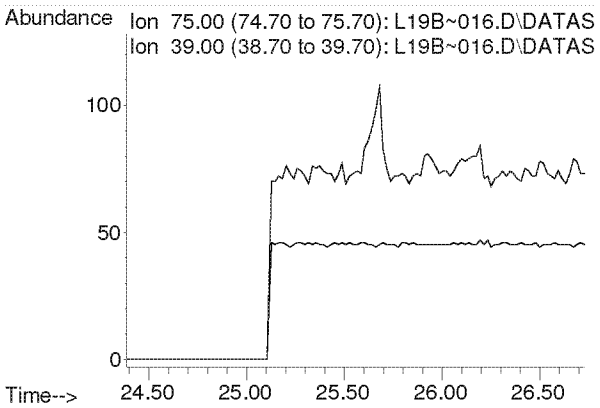


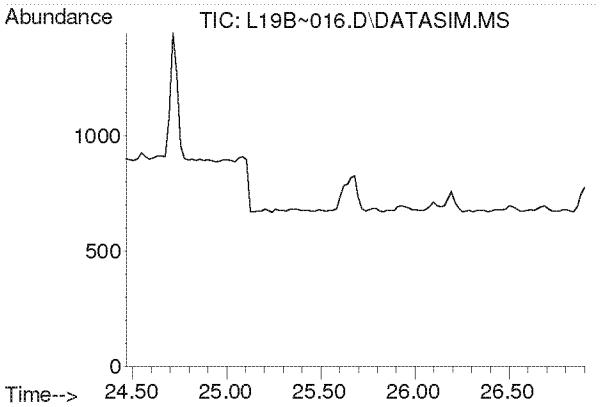
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



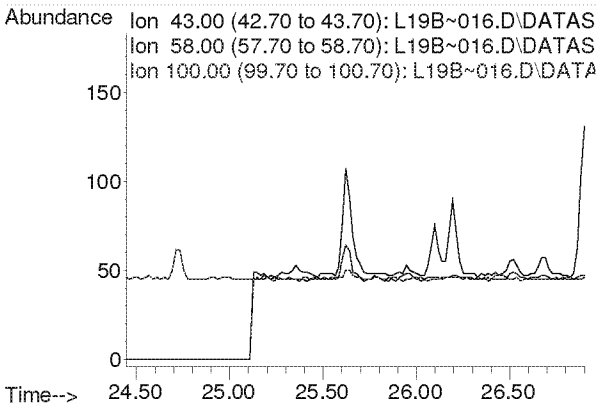


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

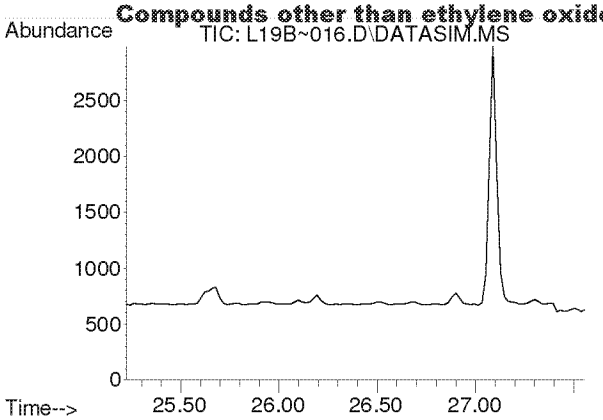
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

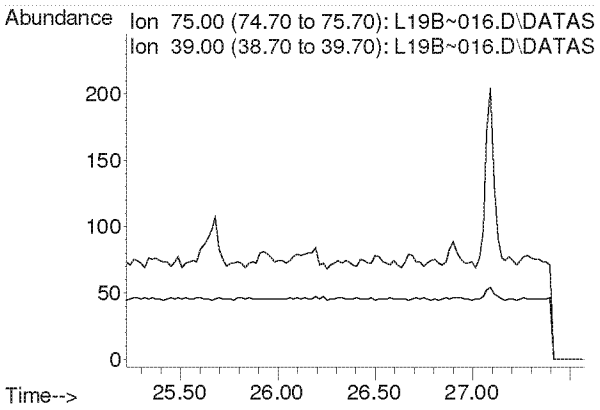


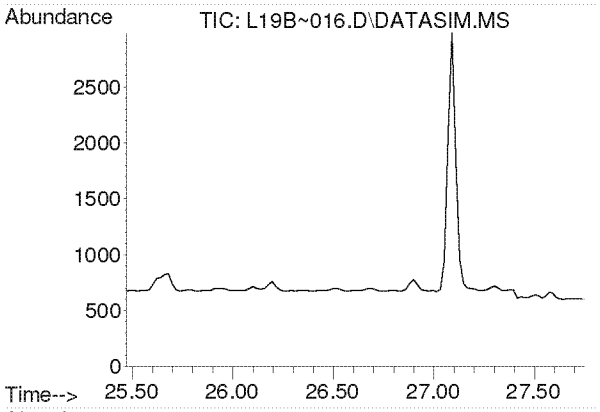
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



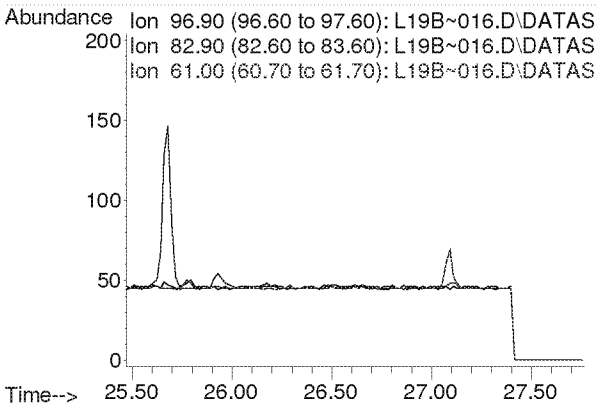


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

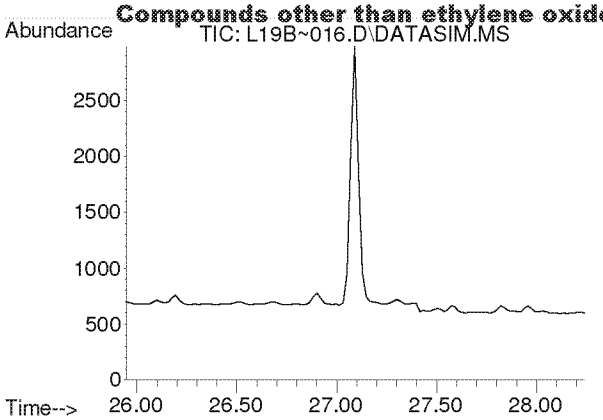
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

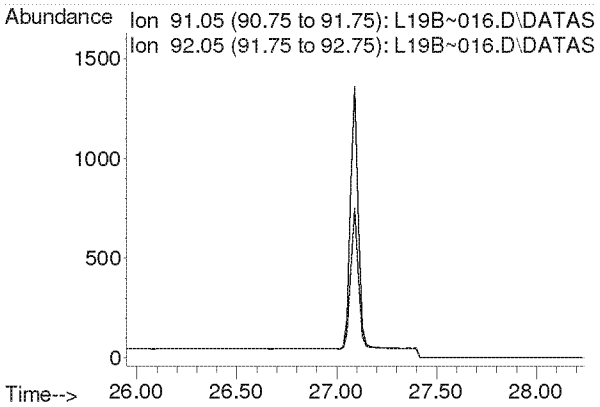


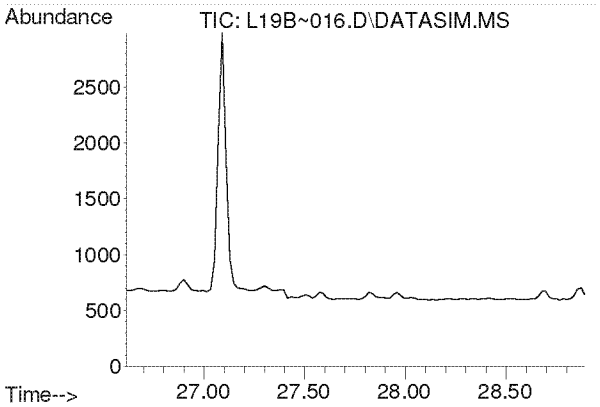
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



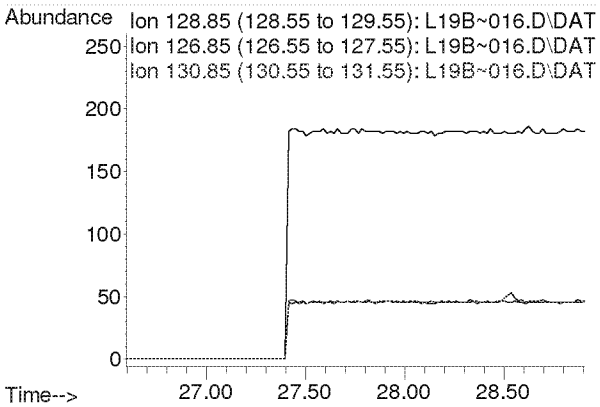


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

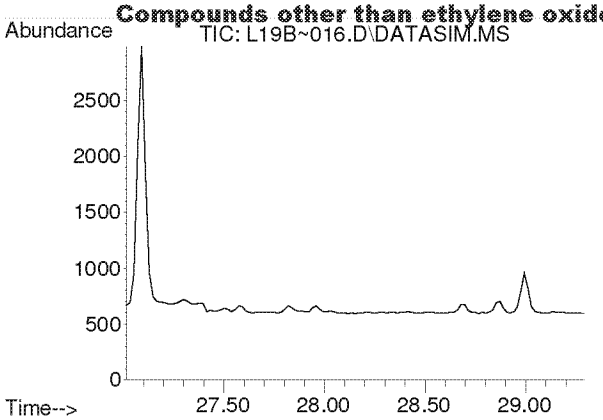
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

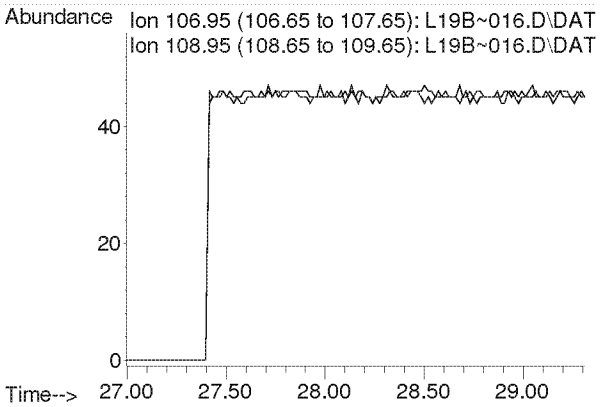


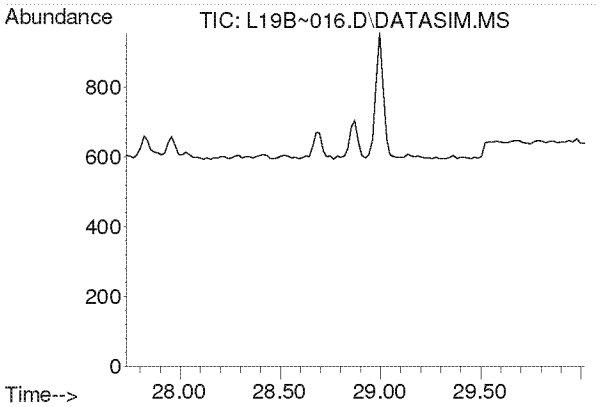
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



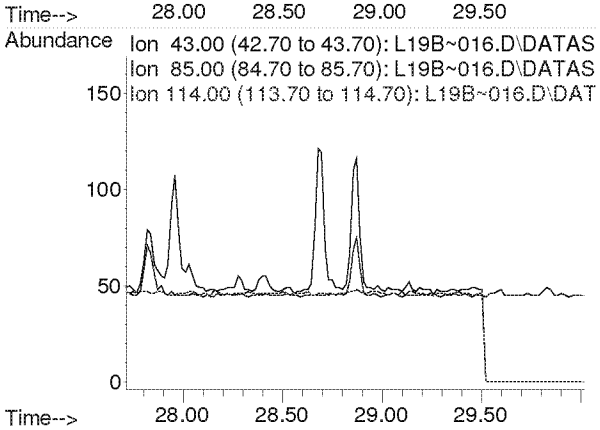


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

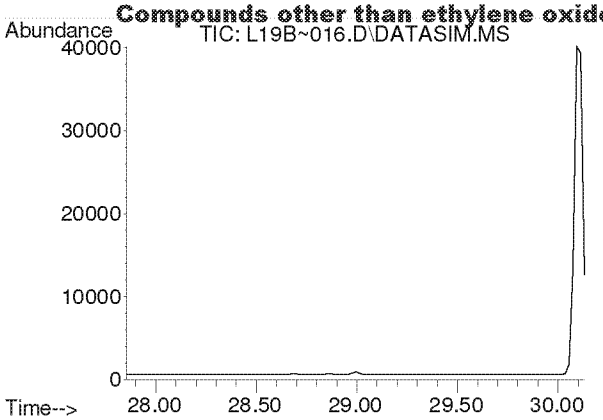
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

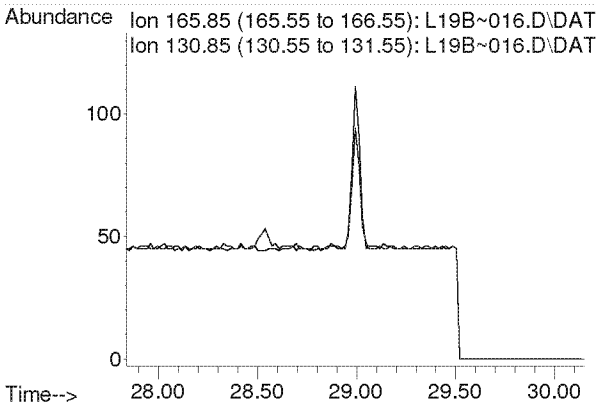


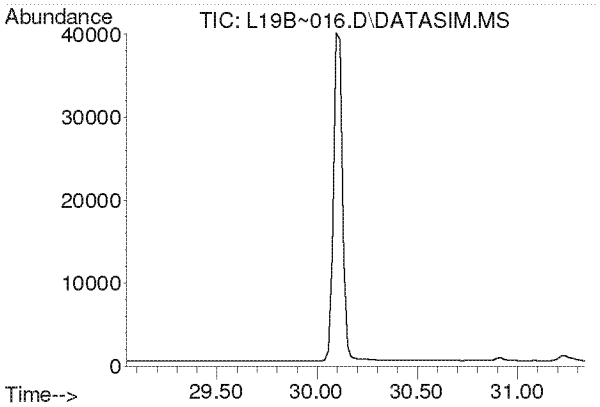
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



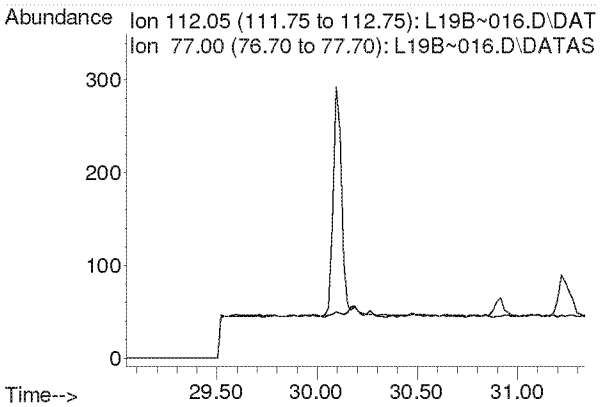


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

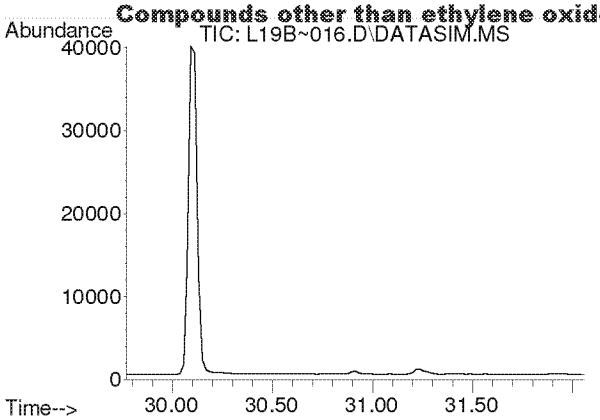
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

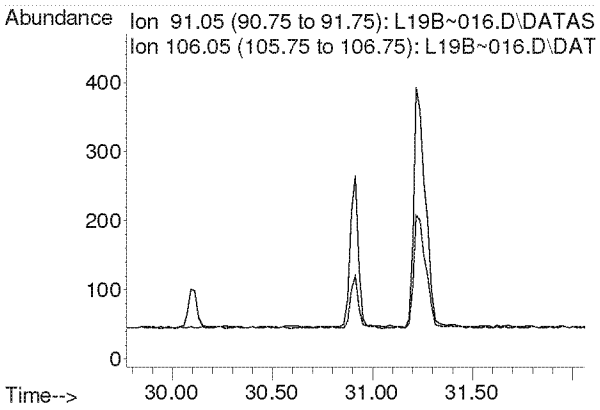


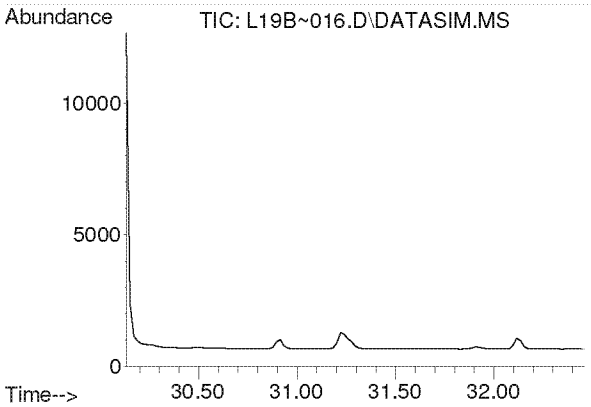
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



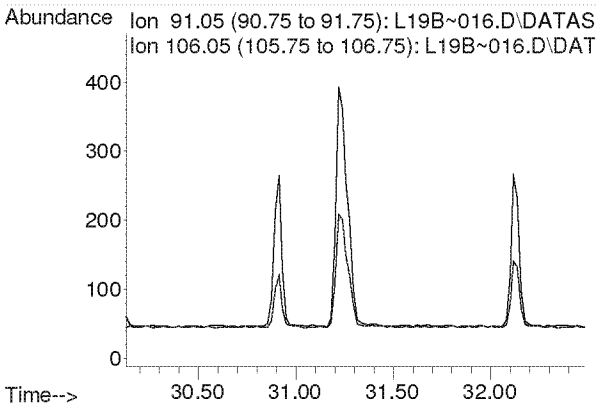


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

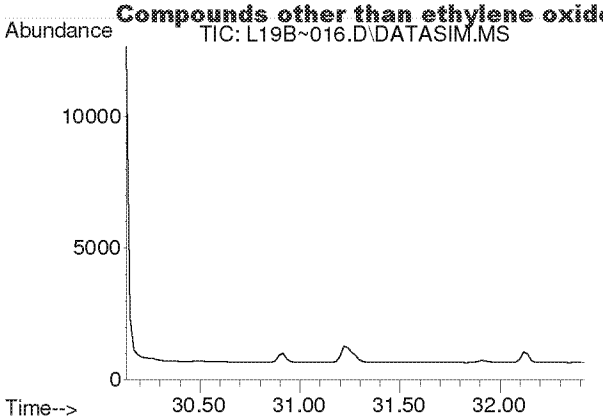
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

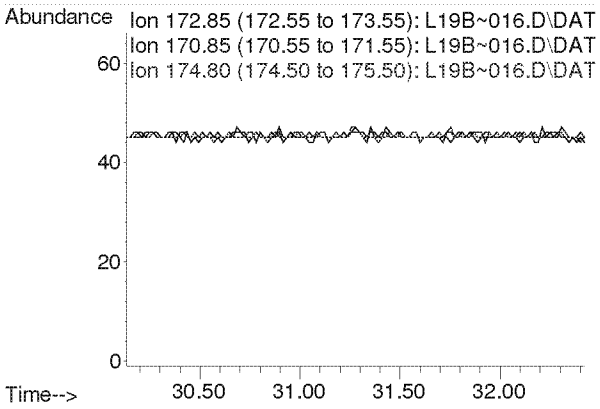


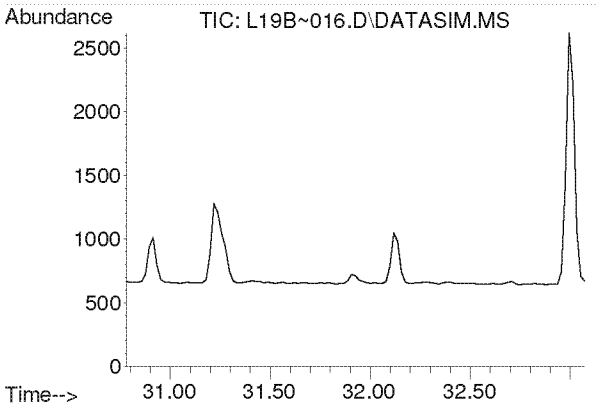
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



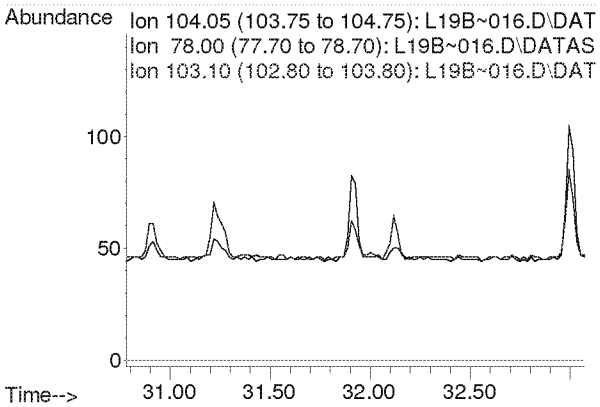


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

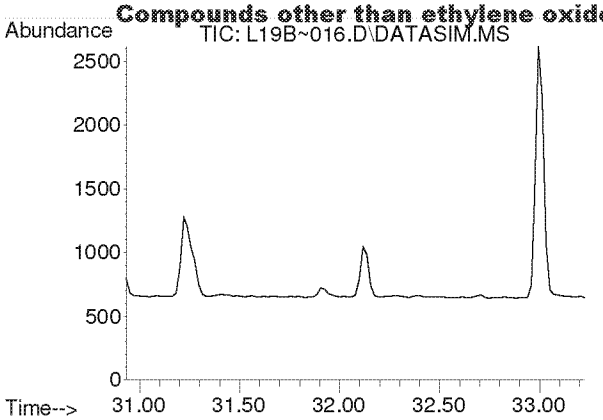
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

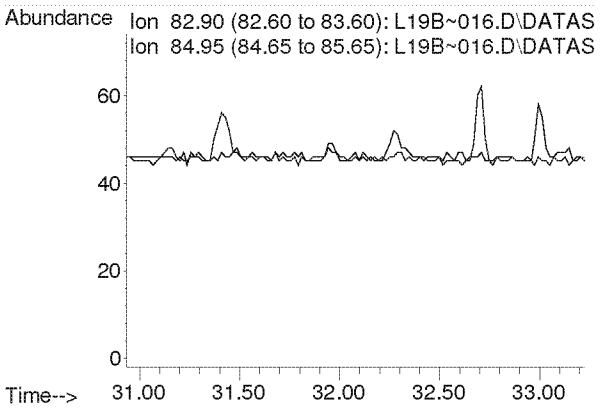


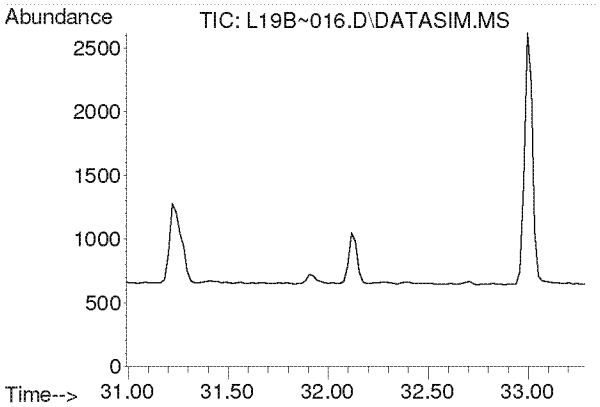
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



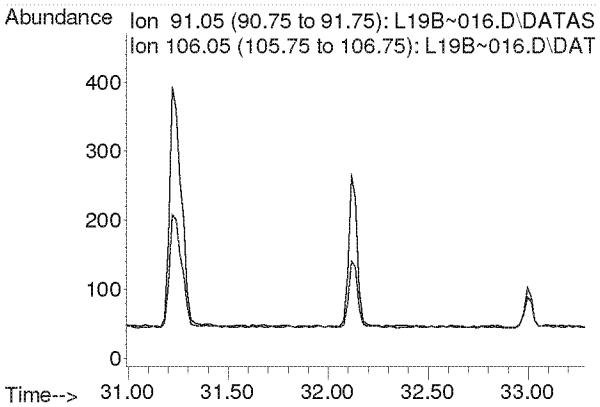


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

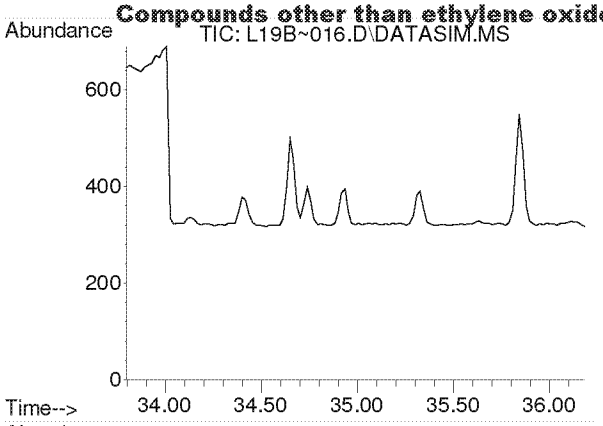
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

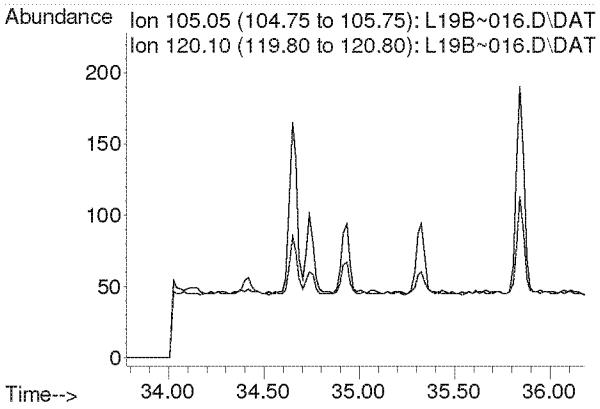


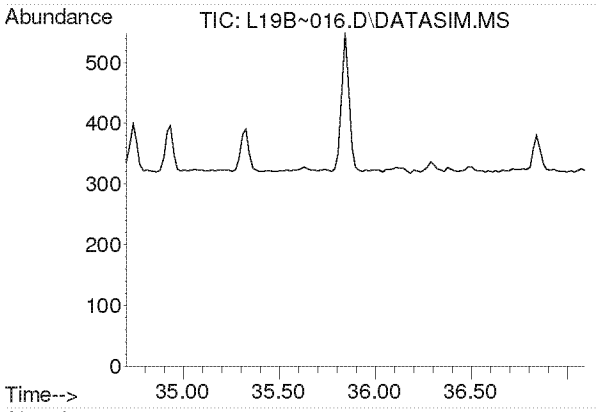
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



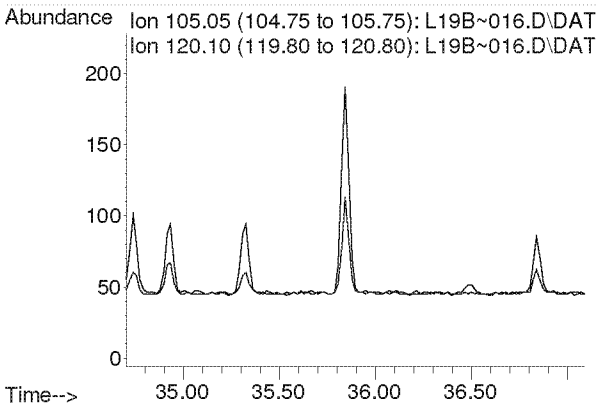


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

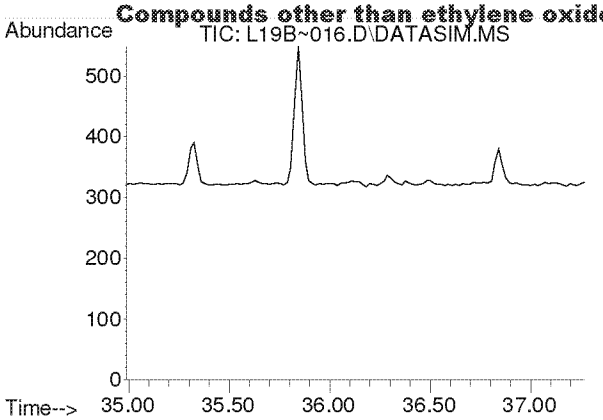
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

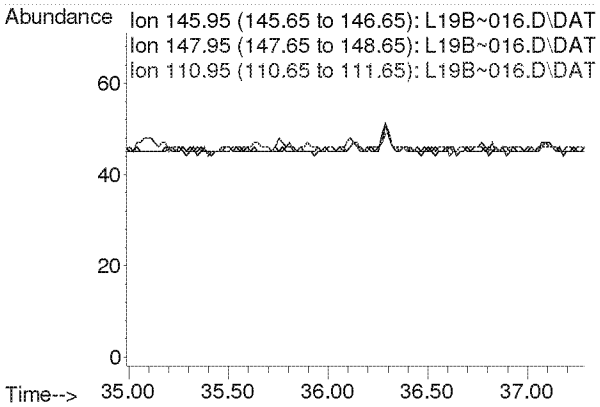


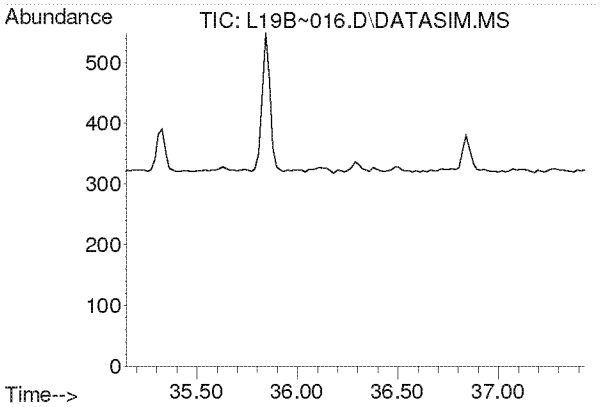
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



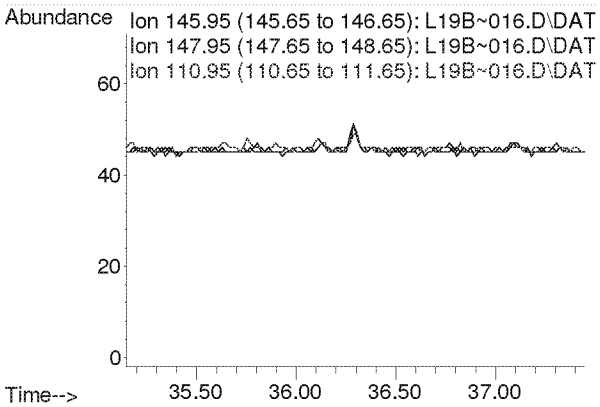


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

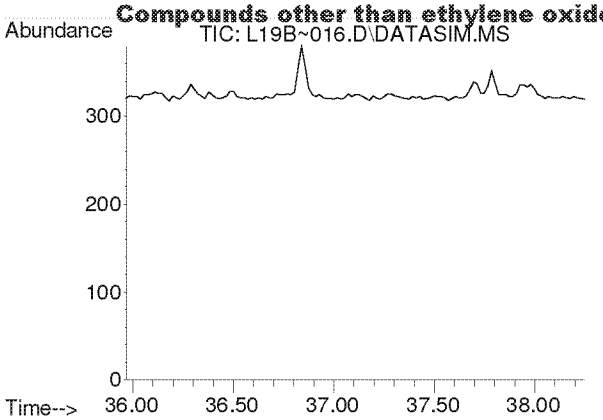
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

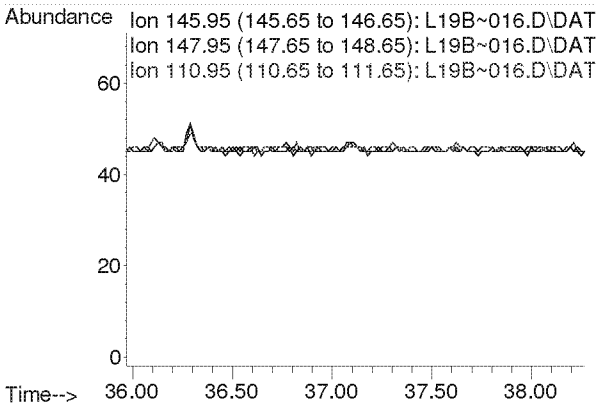


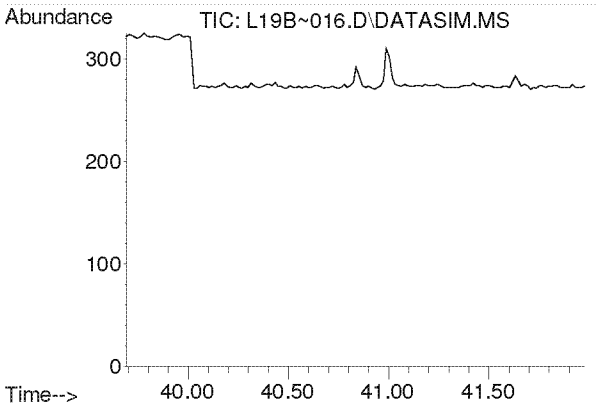
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



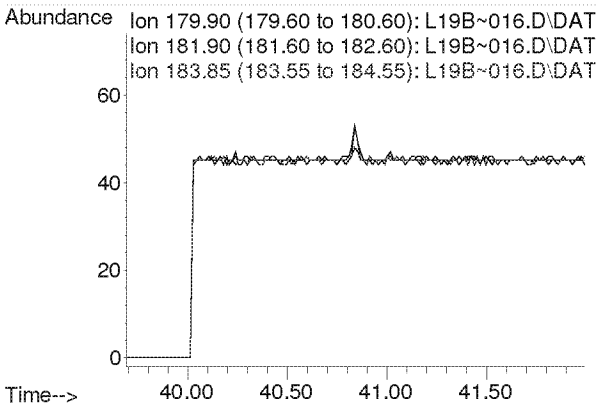


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

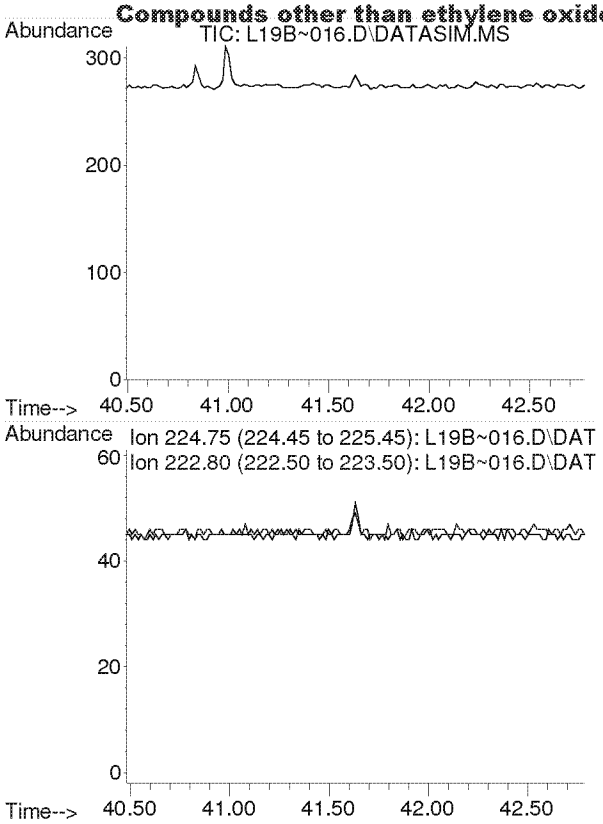
Lab File: L19B~016.D
Acq: 28 Feb 2019 2:37 am

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: L19B~016.D
Acq: 28 Feb 2019 2:37 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\L19B~\
Data File : L19B~017.D
Acq On : 28 Feb 2019 3:37 am
Operator : MAH
Sample : B9B2705-DUP5
Misc : WB VILLAGE HALL R1 2/23/19
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 05 06:49:51 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

3-5-19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	44458	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	115215	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	81504	4.7400 ppbv	0.00

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	198m	0.0779 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
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\L19B~\
Data File : L19B~017.D
Acq On : 28 Feb 2019 3:37 am
Operator : MAH
Sample : B9B2705-DUP5
Misc : WB VILLAGE HALL R1 2/23/19
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 05 06:49:51 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
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

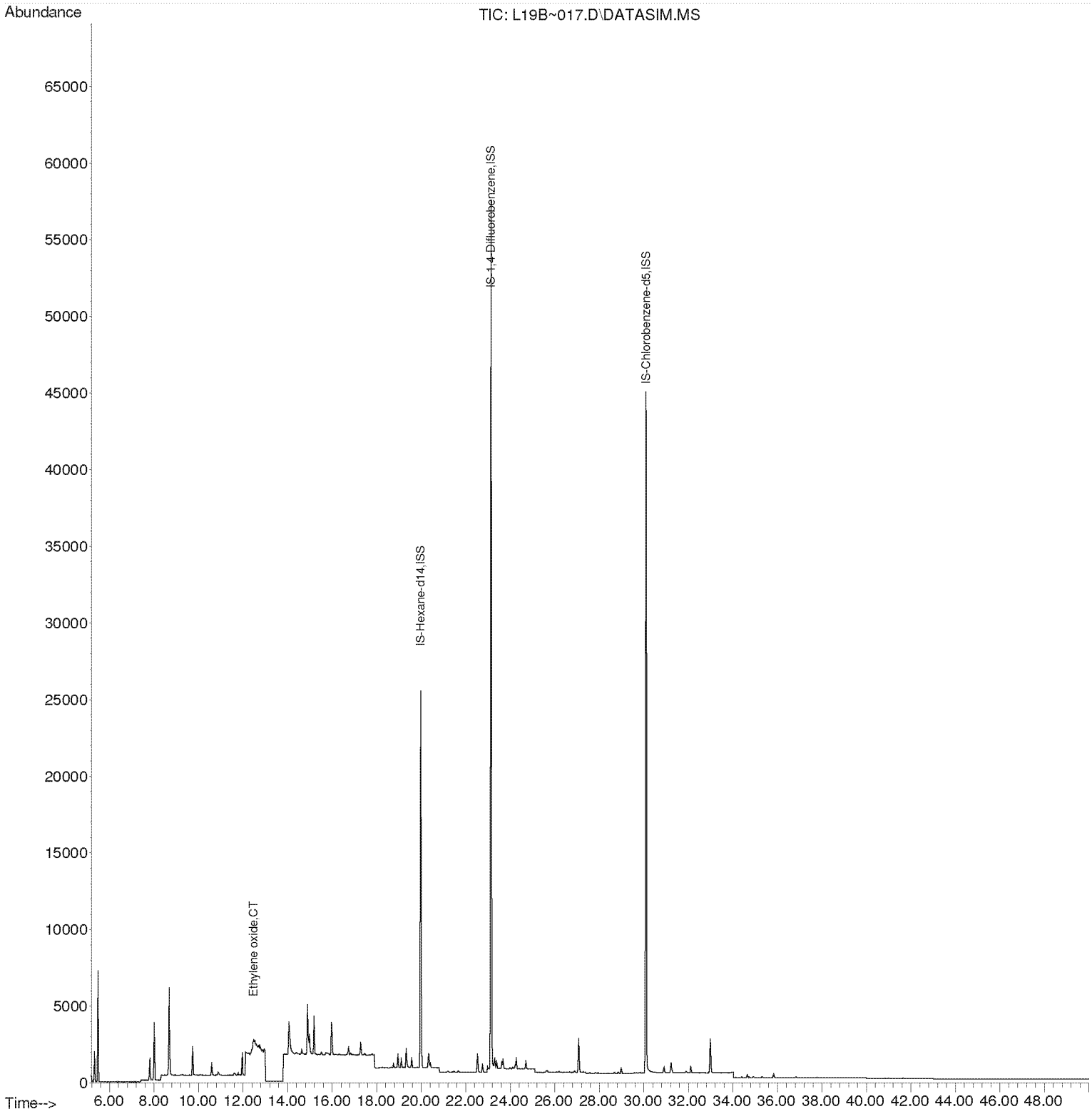
ED_002475_00000099-00452

Quantitation Report (QT Reviewed)

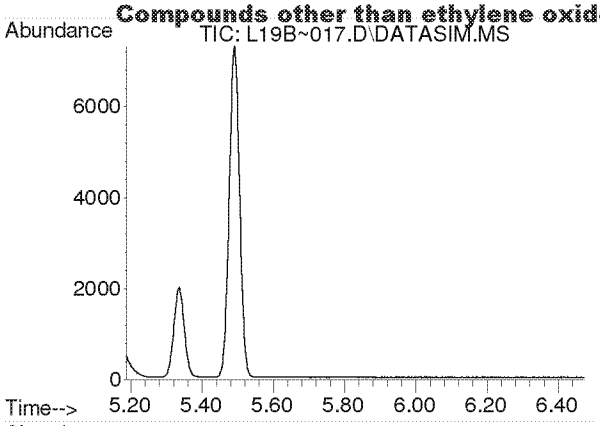
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~017.D
Acq On : 28 Feb 2019 3:37 am
Operator : MAH
Sample : B9B2705-DUP5
Misc : WB VILLAGE HALL R1 2/23/19
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 28 12:55:03 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



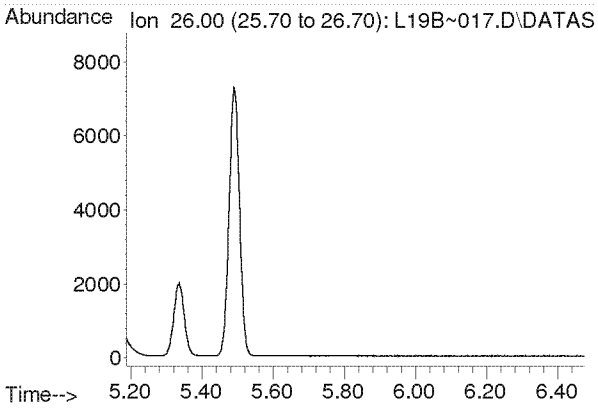
Compounds other than ethylene oxide were not quantitated.

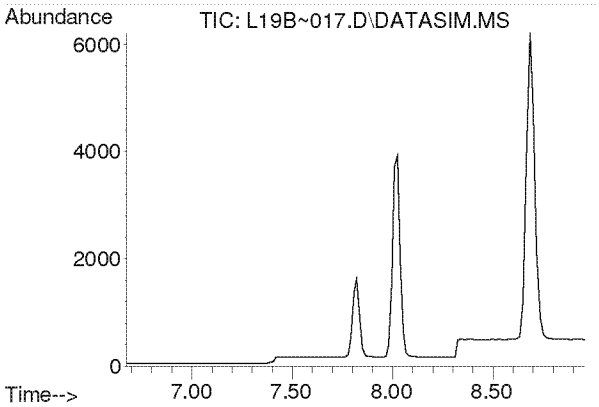


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 26



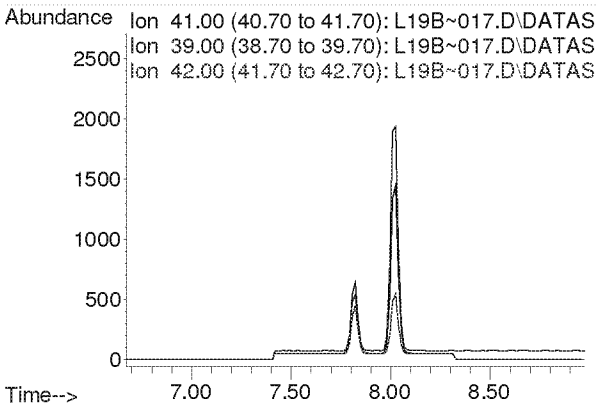


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

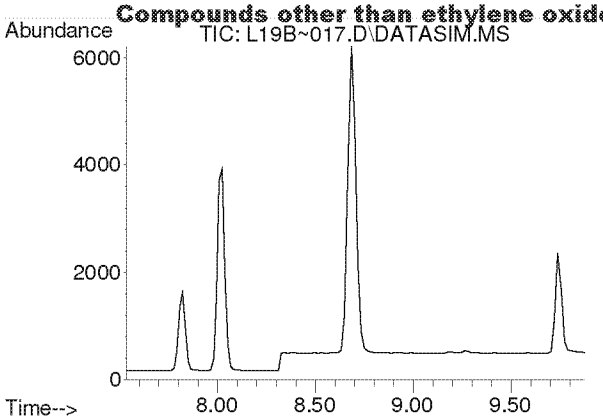
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

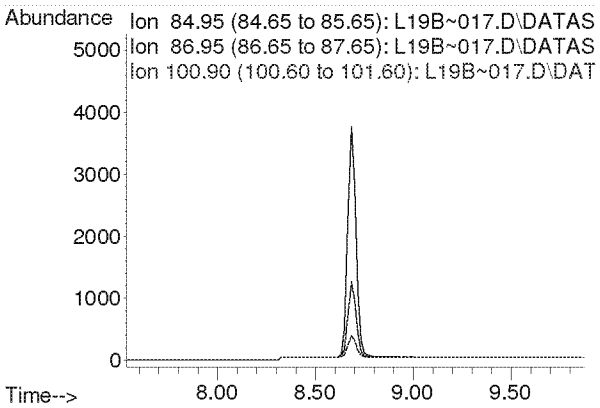


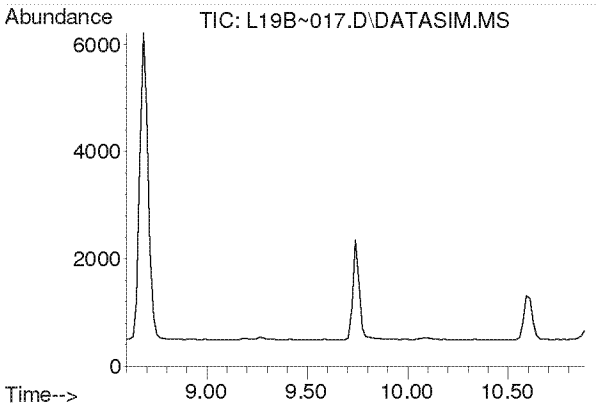
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



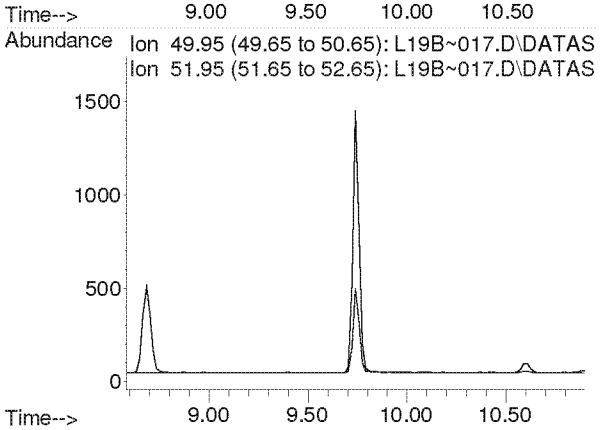


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

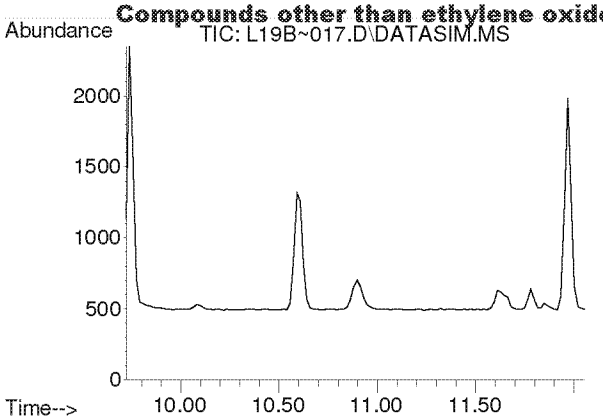
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

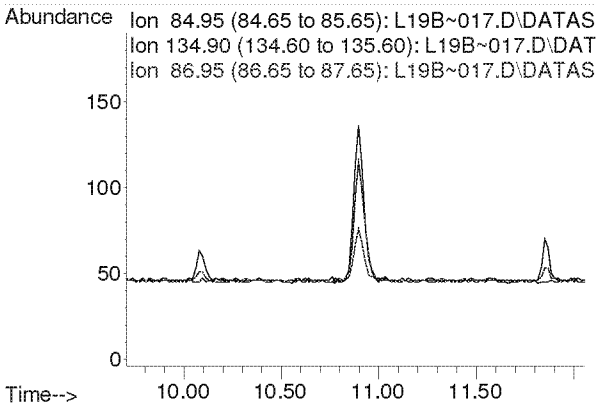


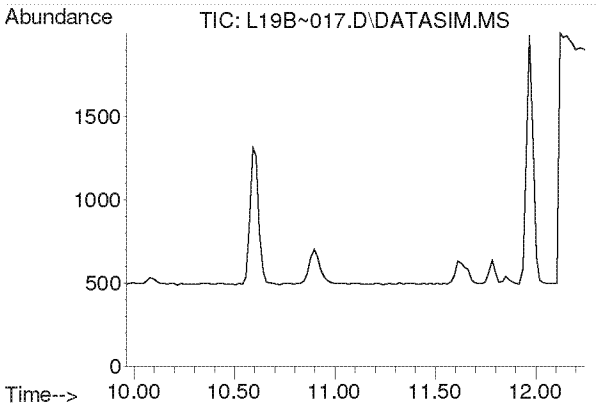
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



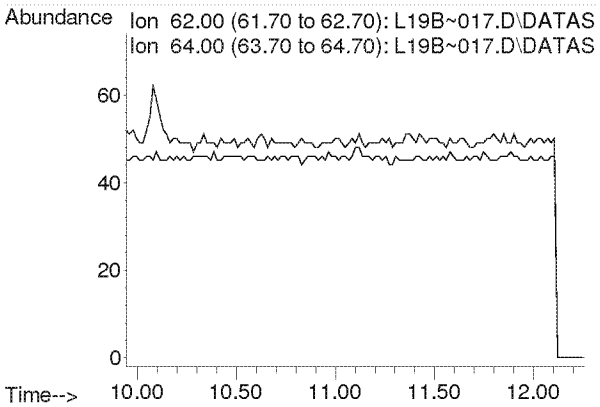


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

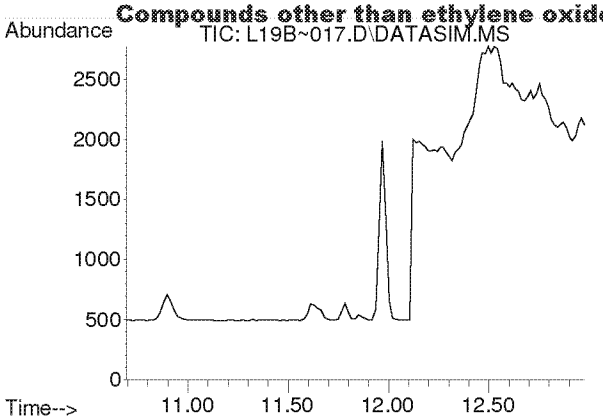
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

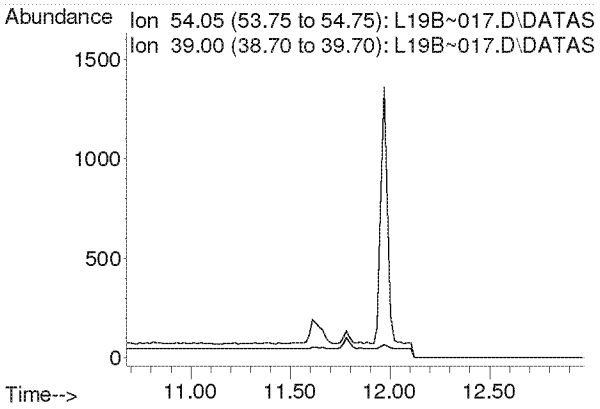


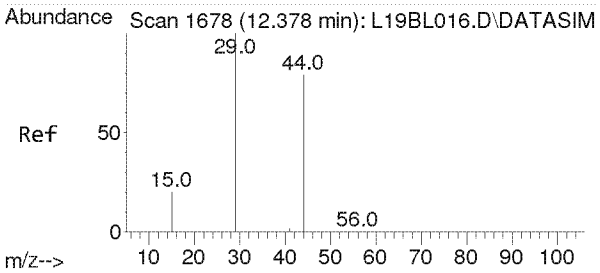
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

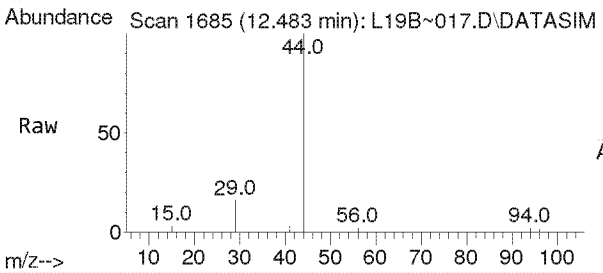


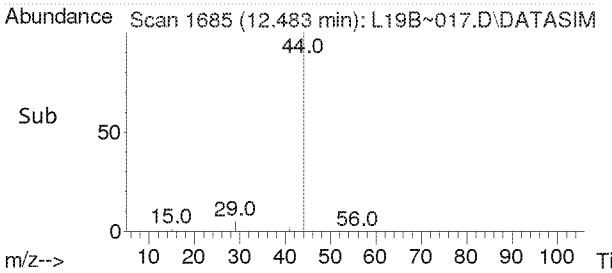


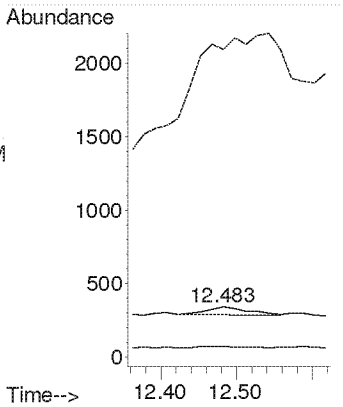
#9
Ethylene oxide
Concen: 0.078 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.033 min
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 29 Resp: 198

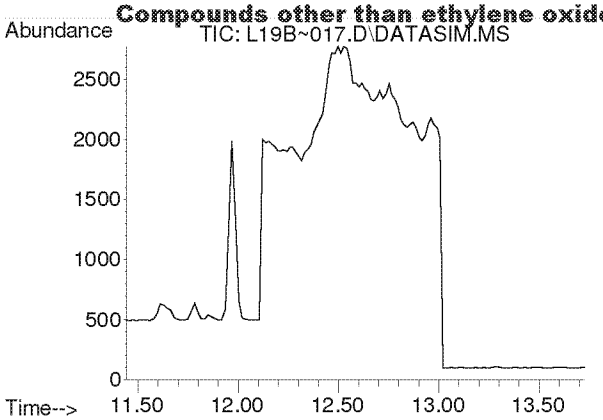
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	4151.5	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

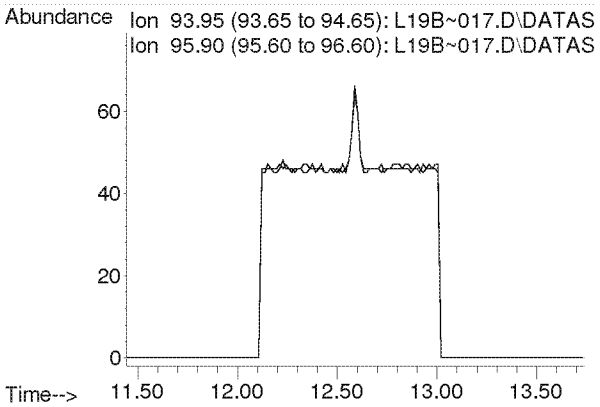


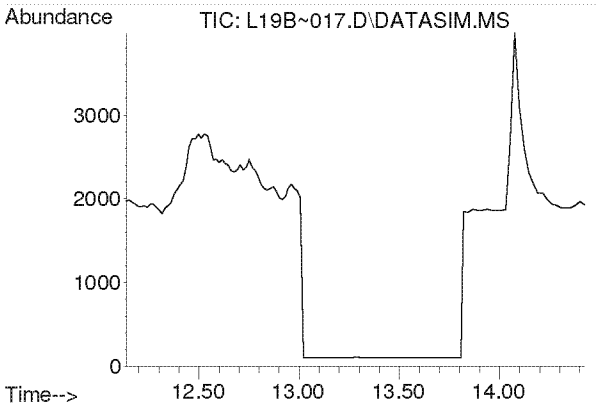
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



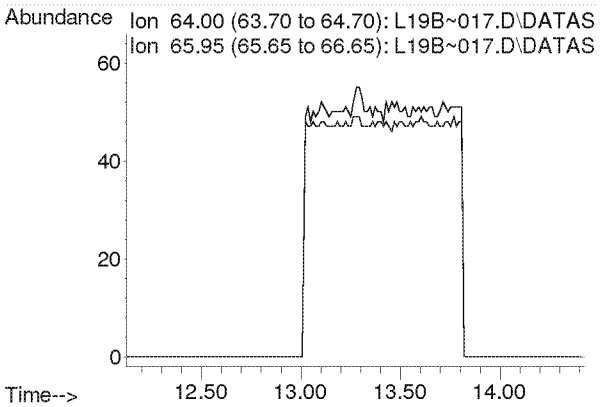


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

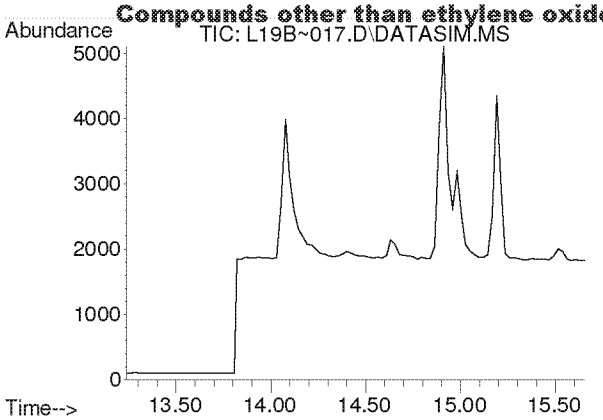
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

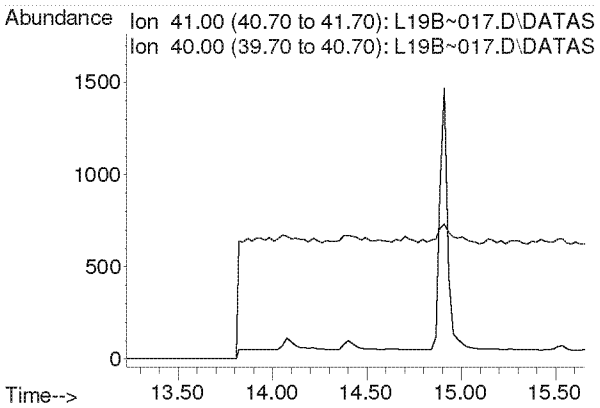


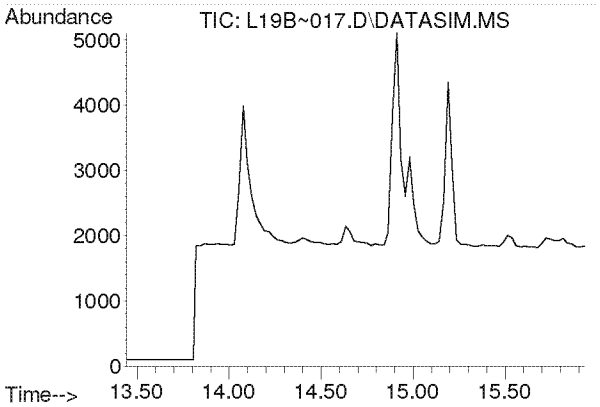
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



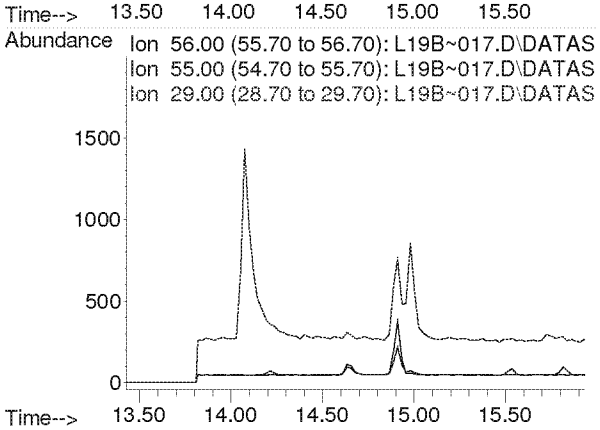


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

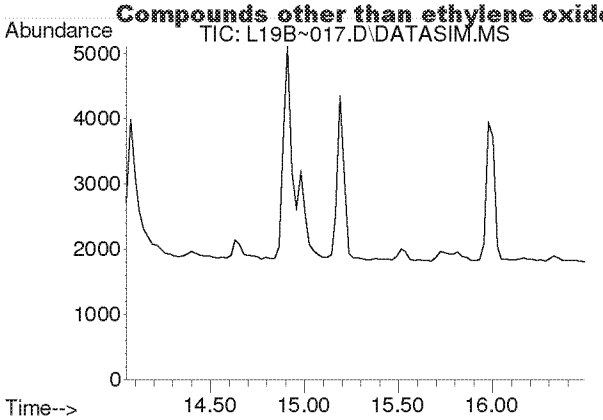
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

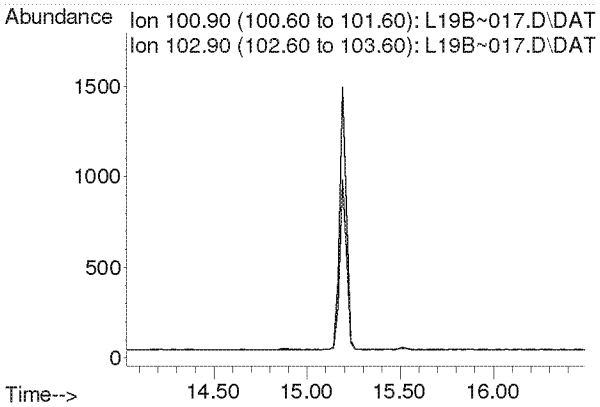


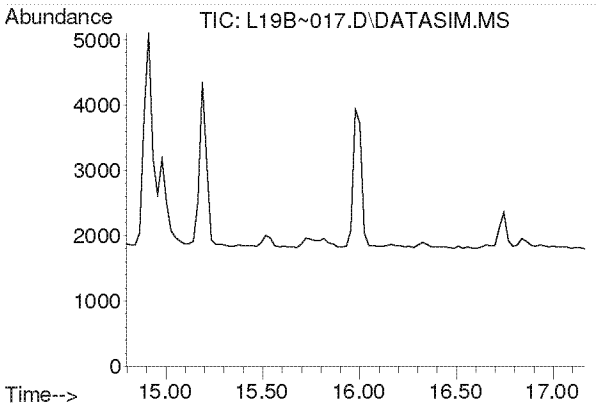
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



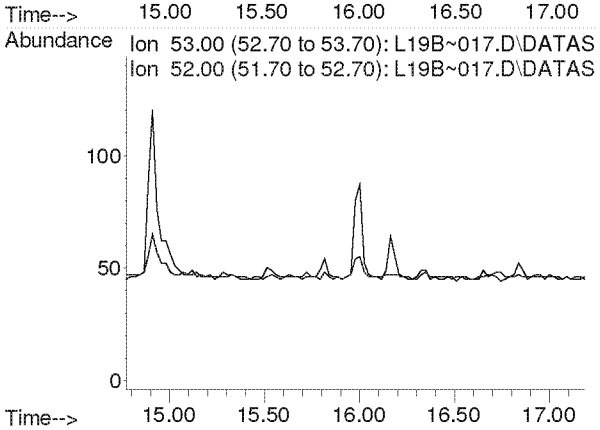


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

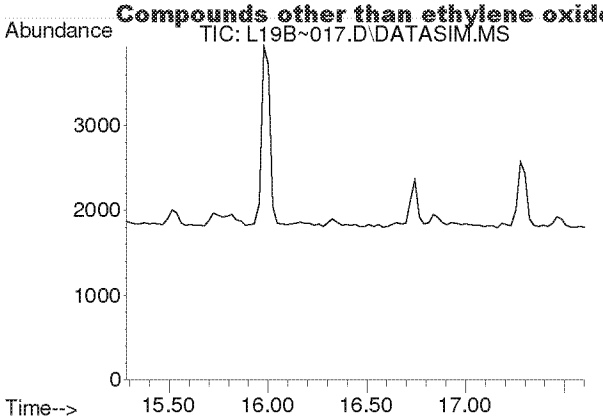
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

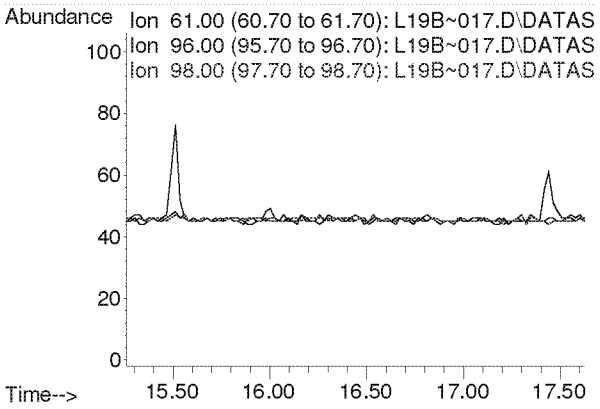


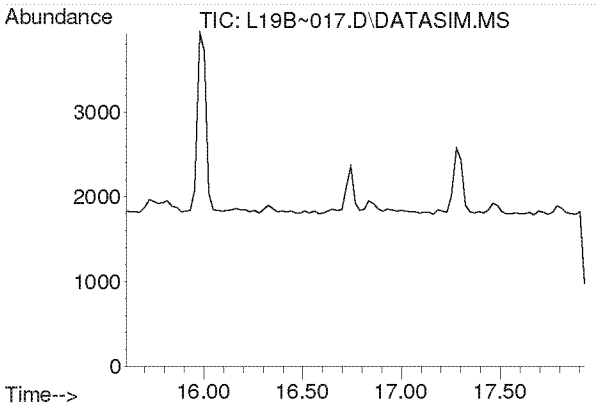
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



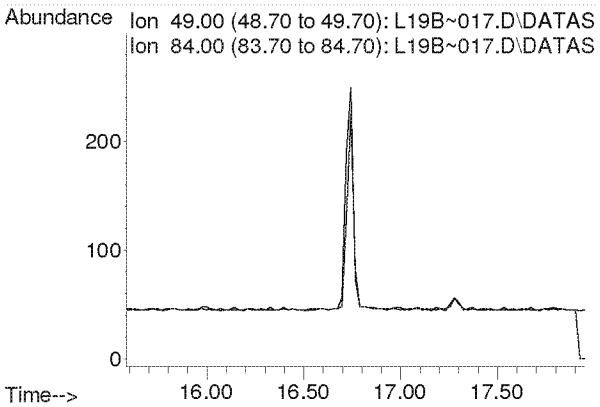


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

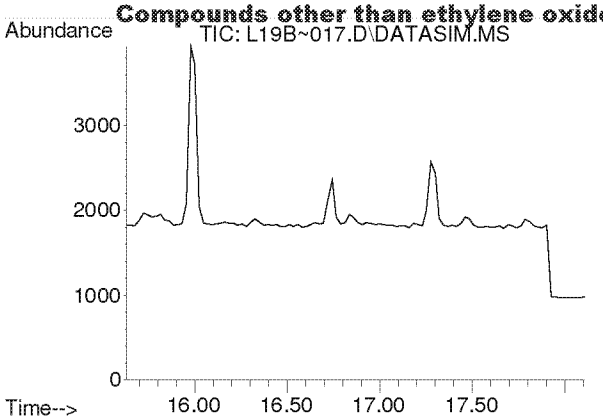
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

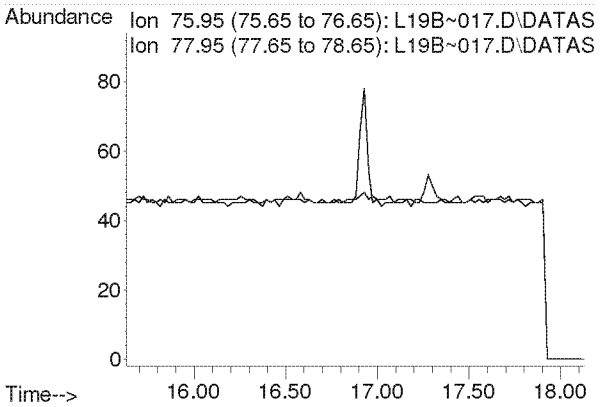


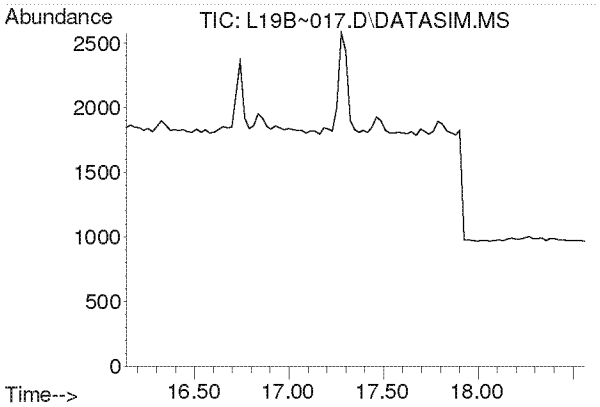
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



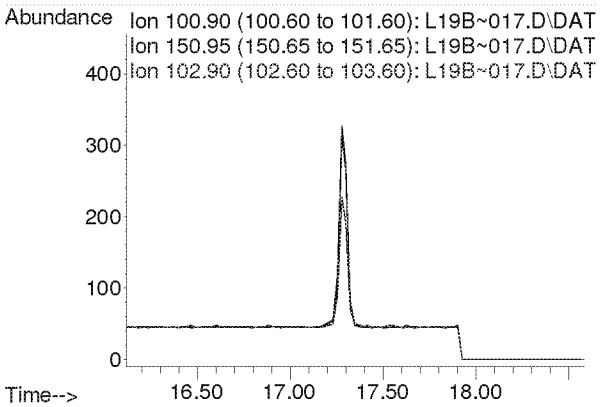


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

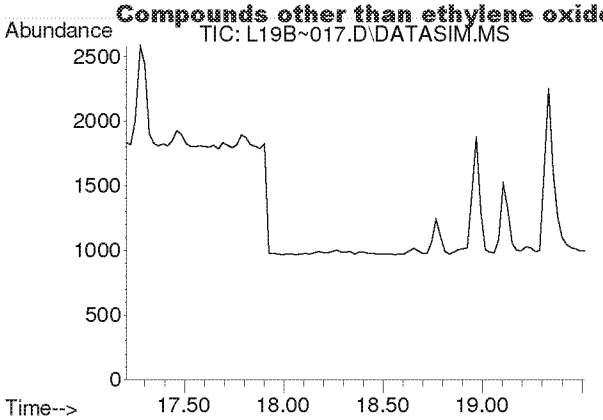
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

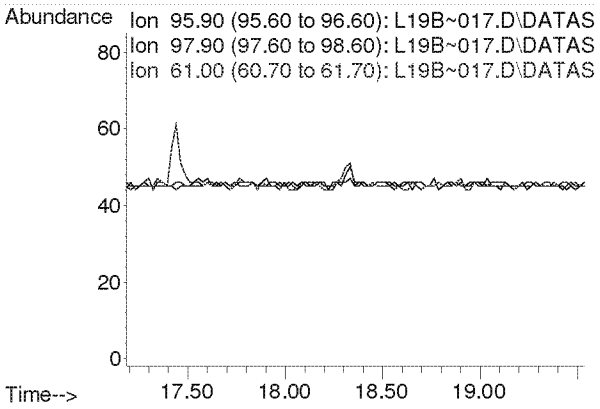


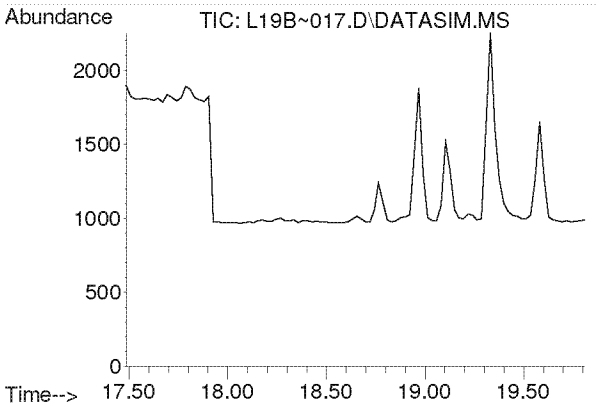
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



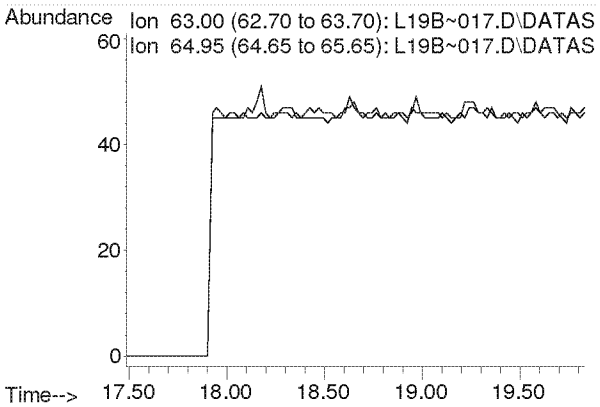


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

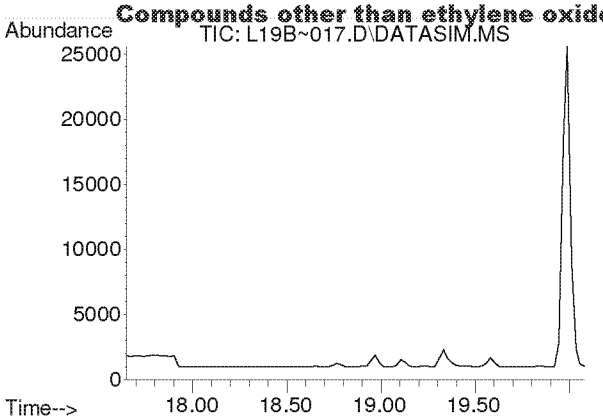
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

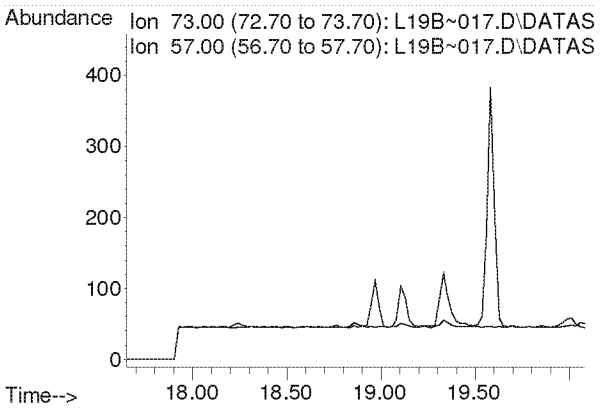


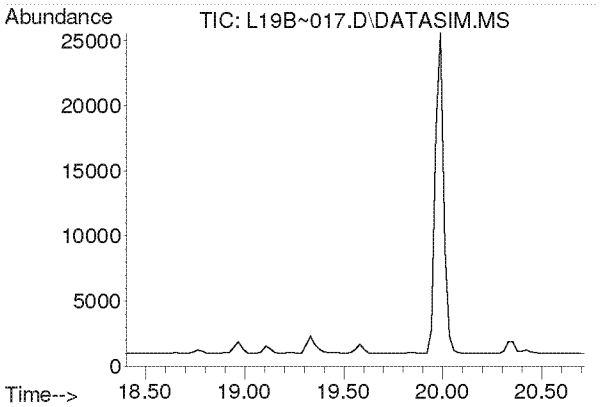
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



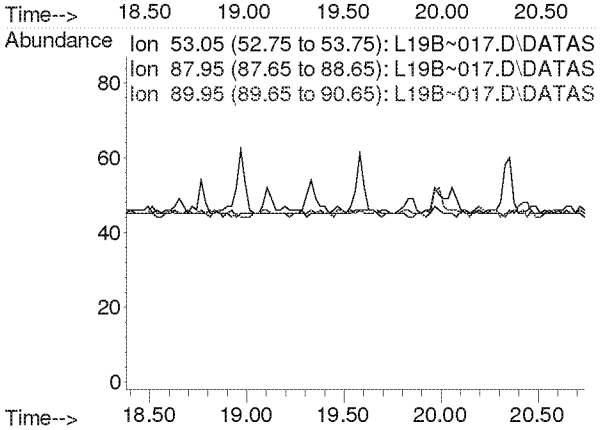


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

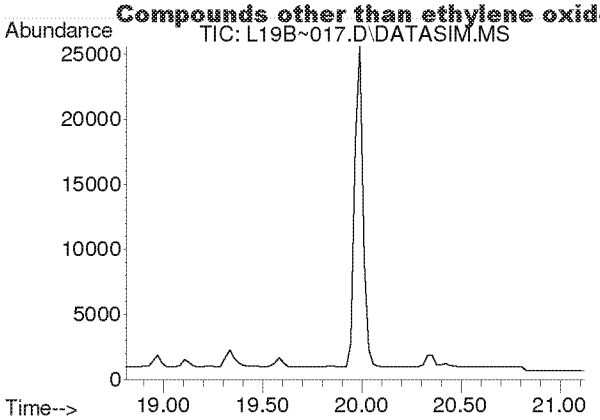
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

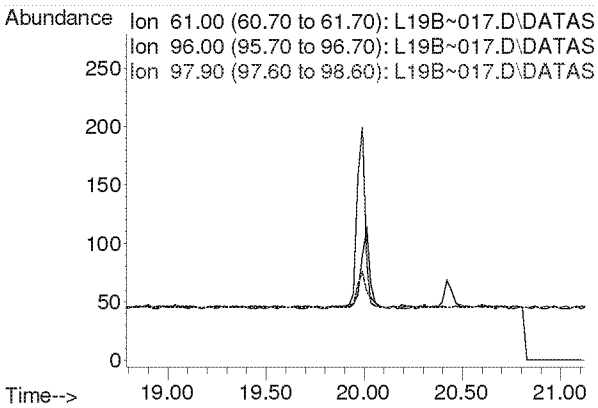


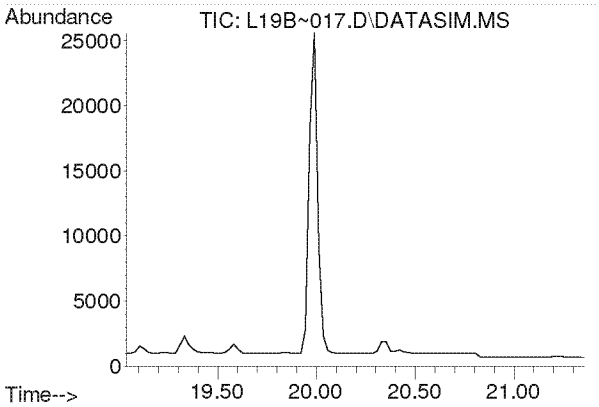
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



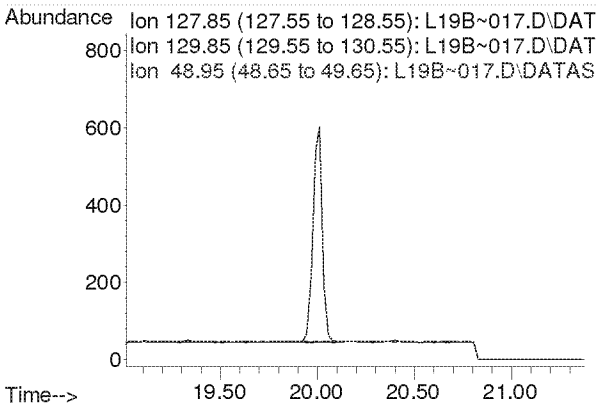


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

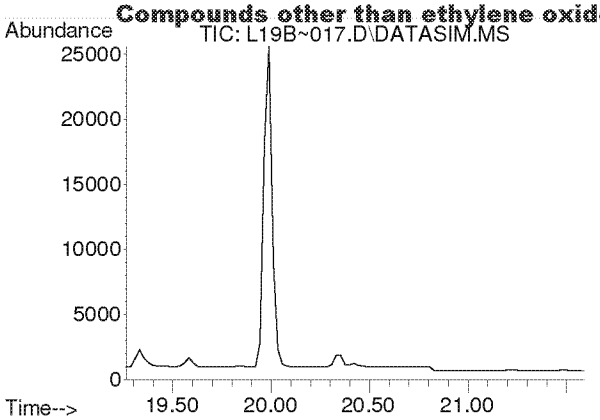
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

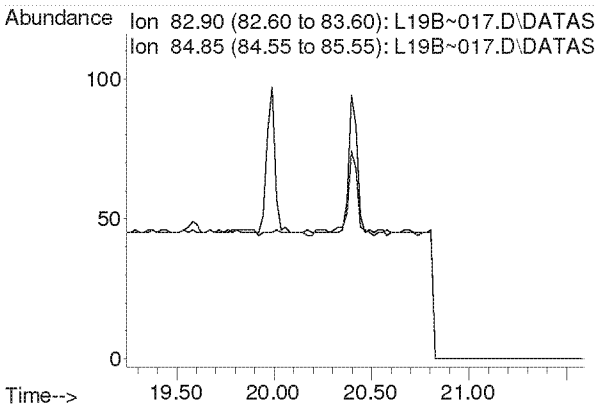


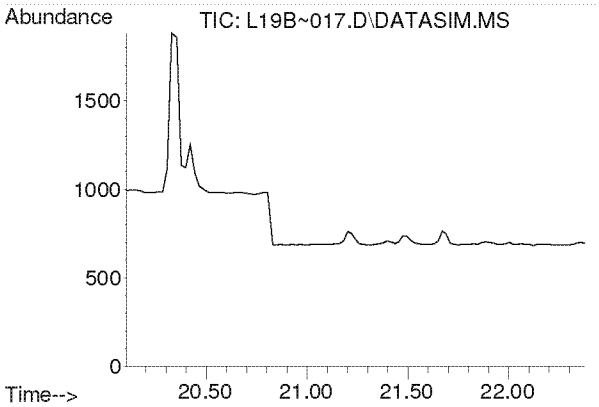
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



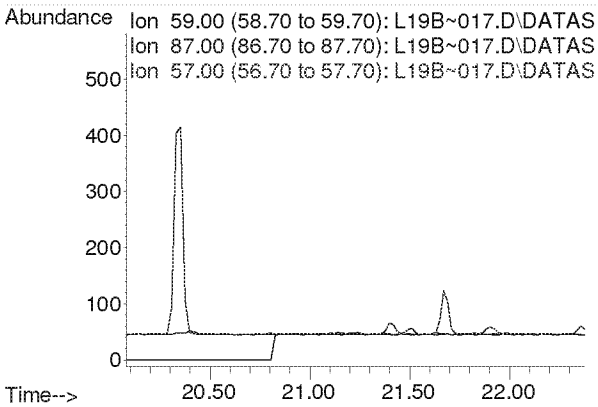


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

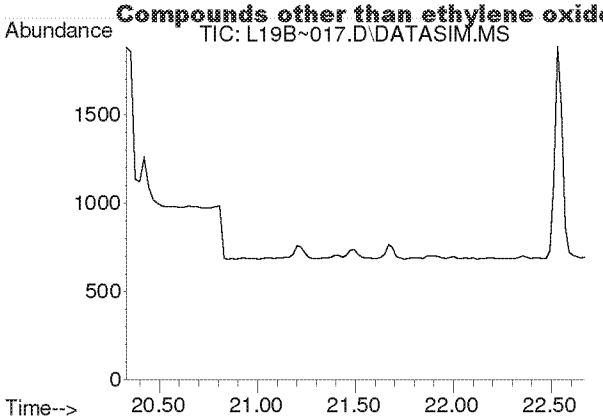
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

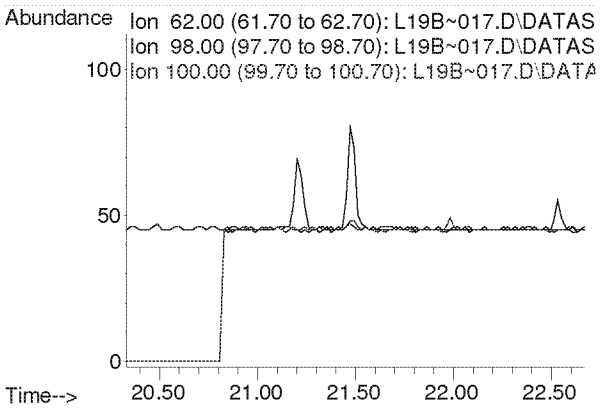


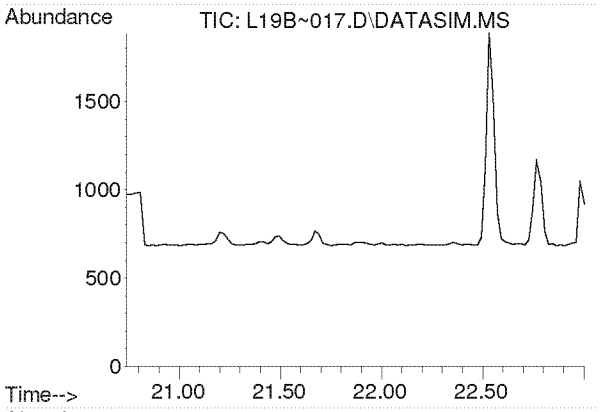
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



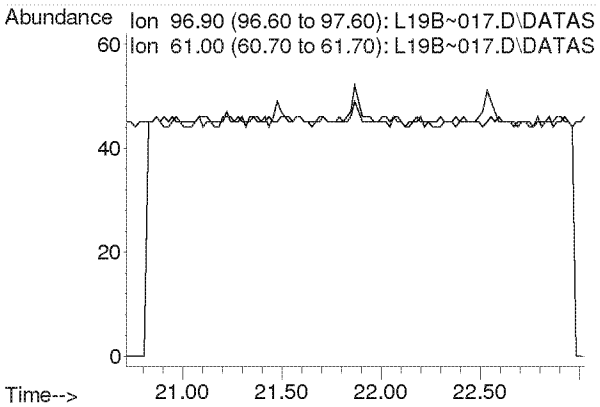


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

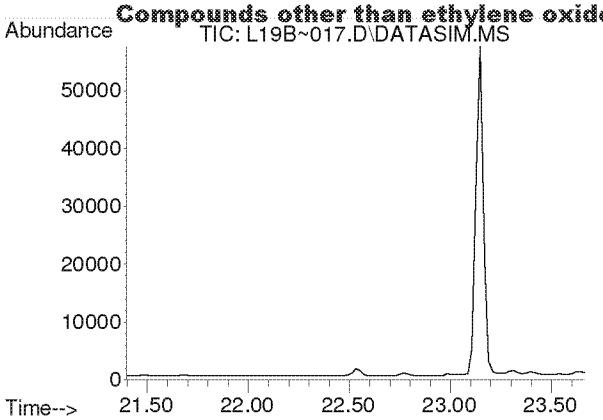
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

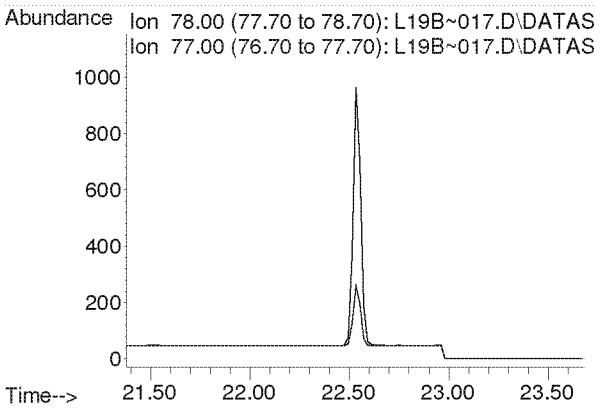


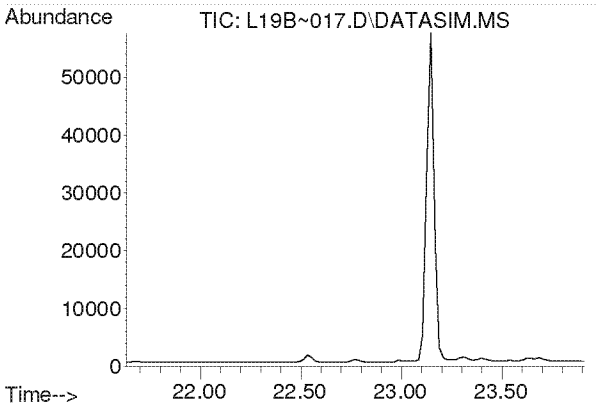
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



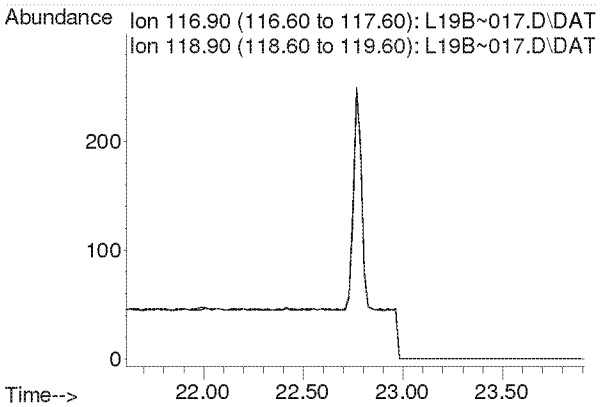


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

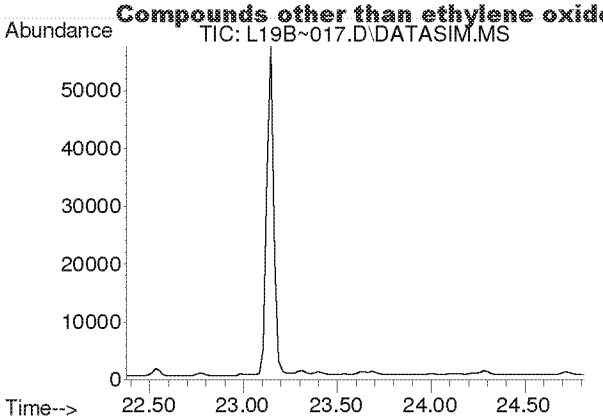
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

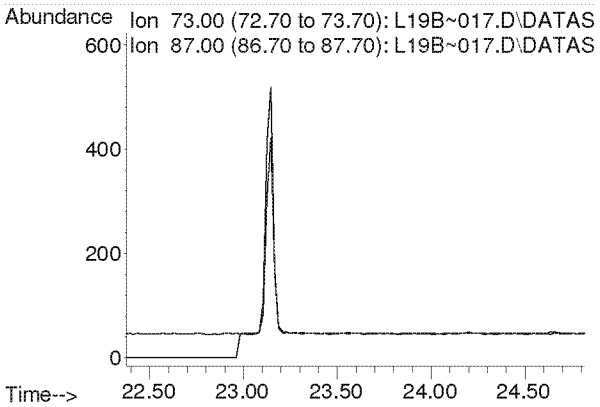


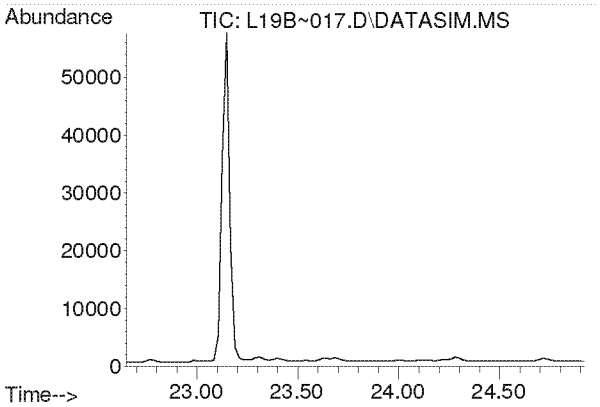
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



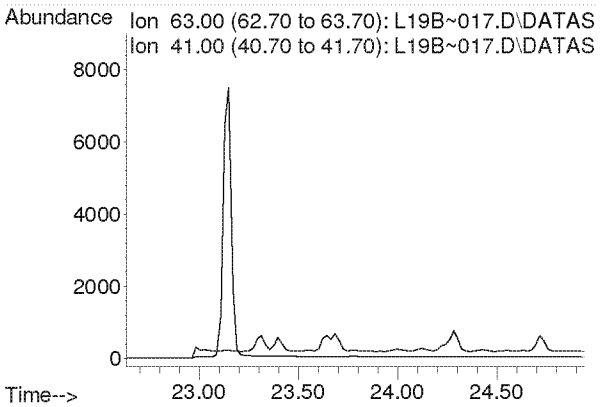


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

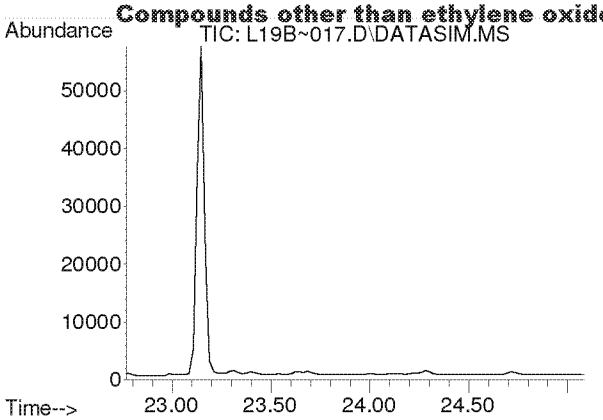
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

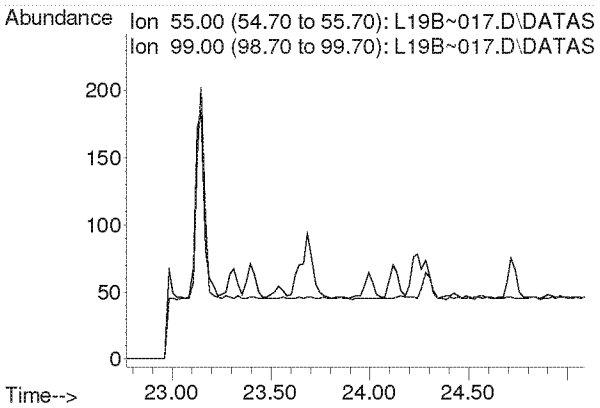


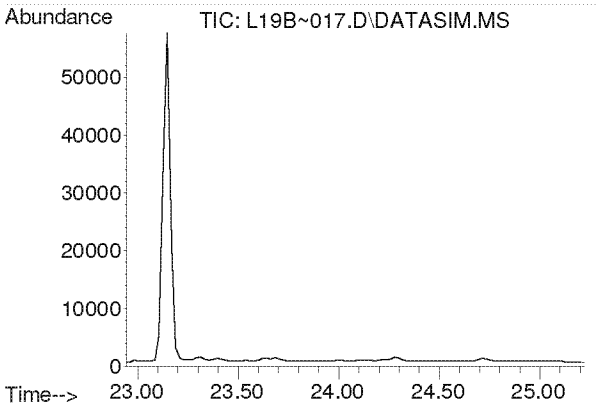
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



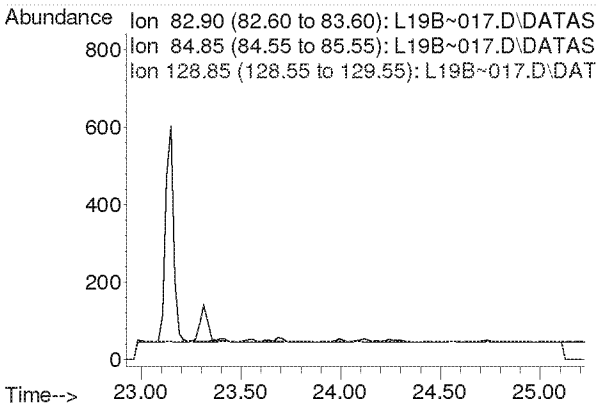


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

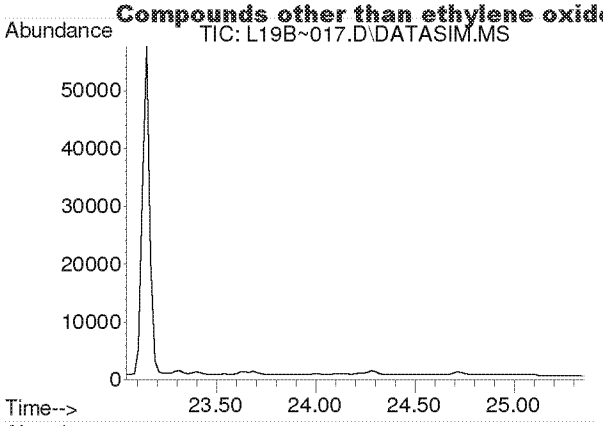
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

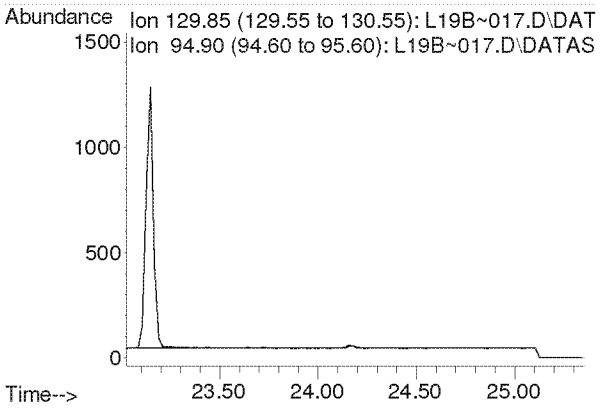


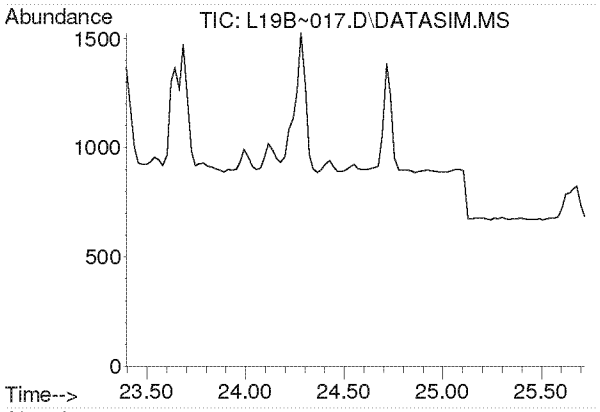
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



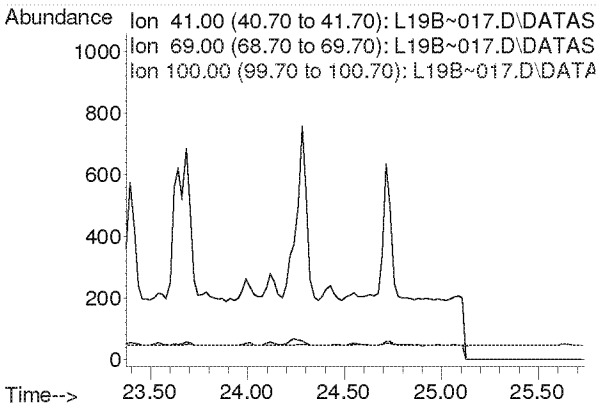


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

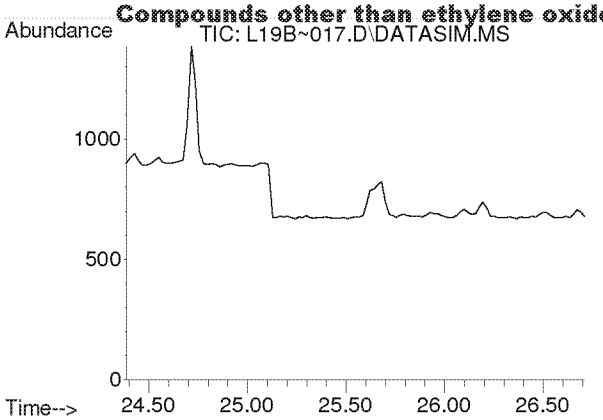
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

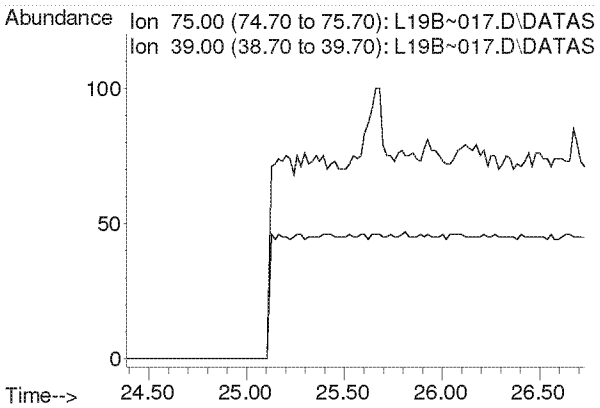


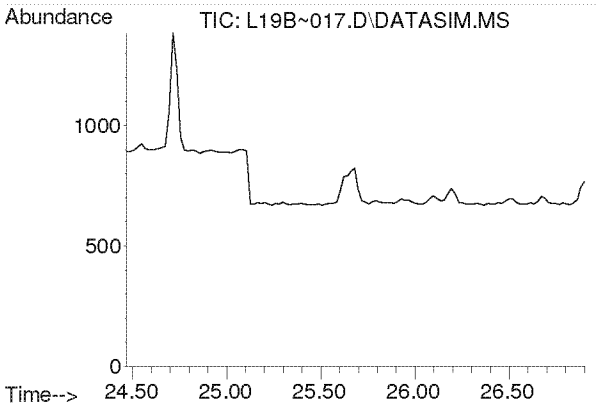
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



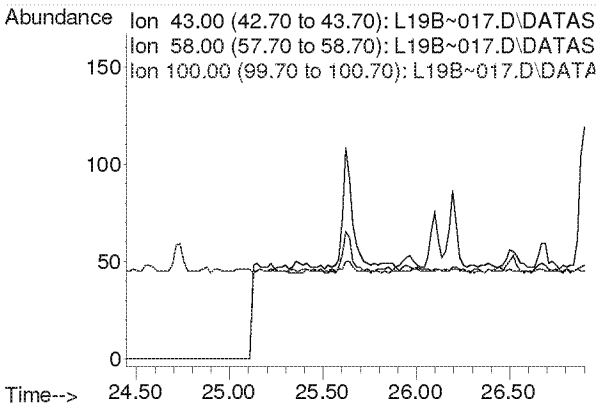


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

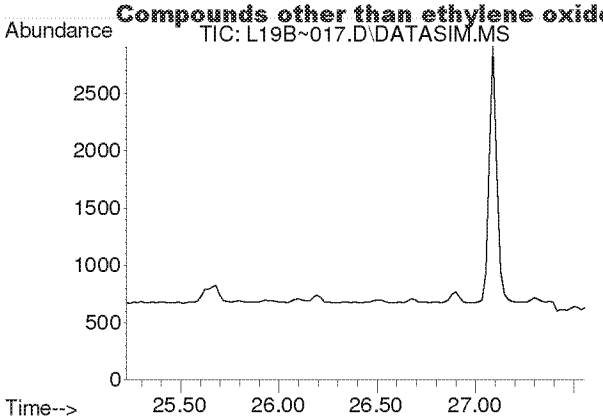
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

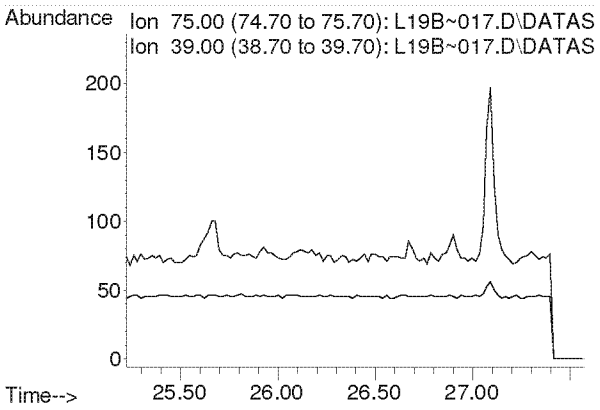


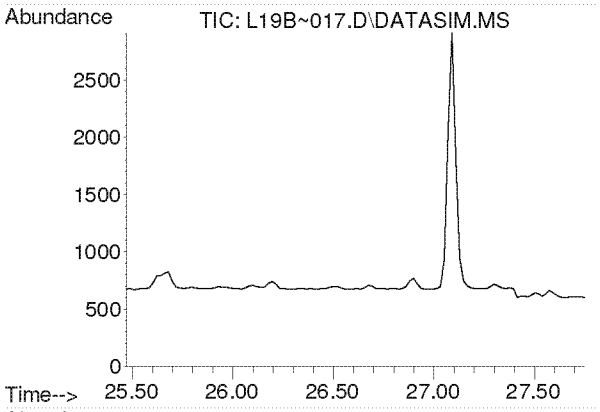
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



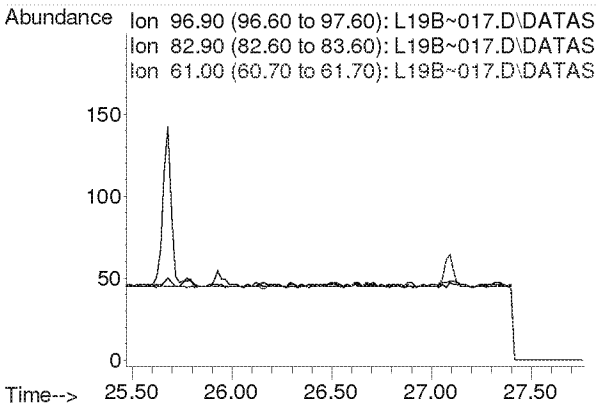


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

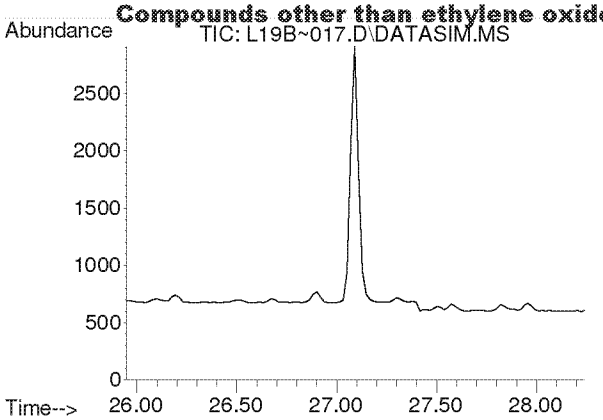
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

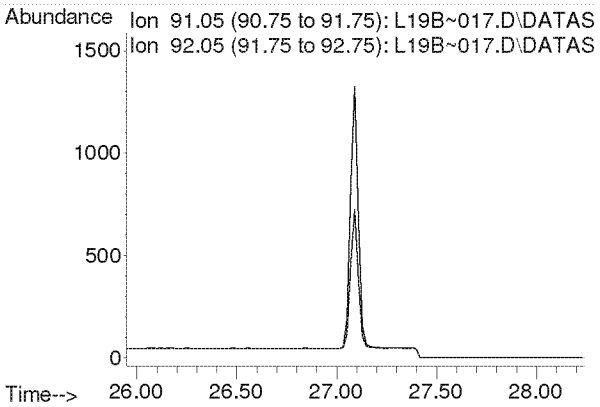


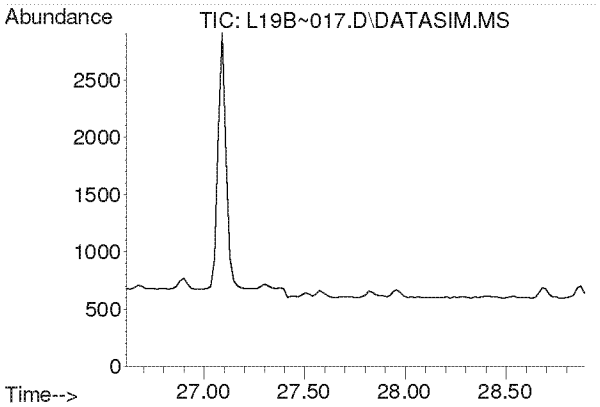
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



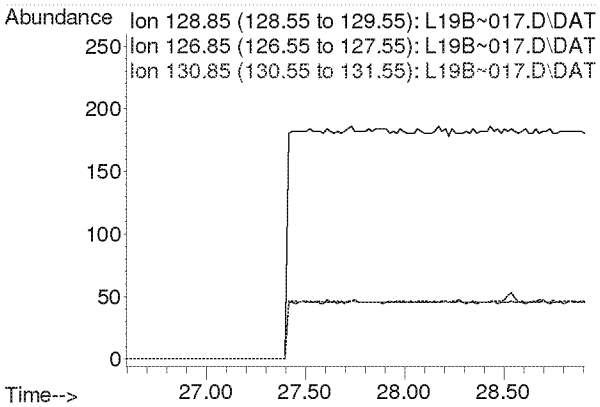


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

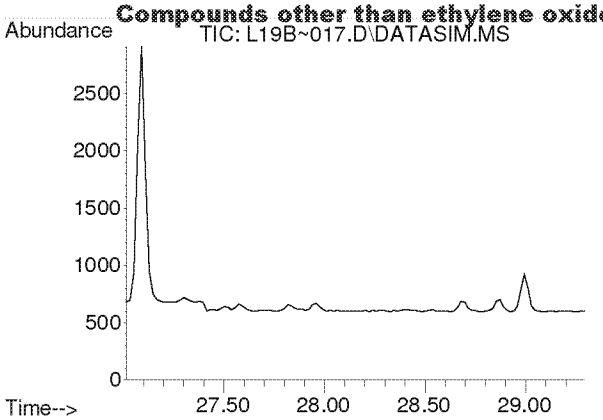
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

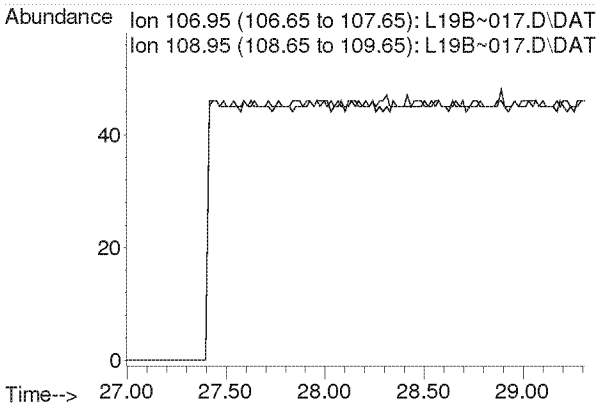


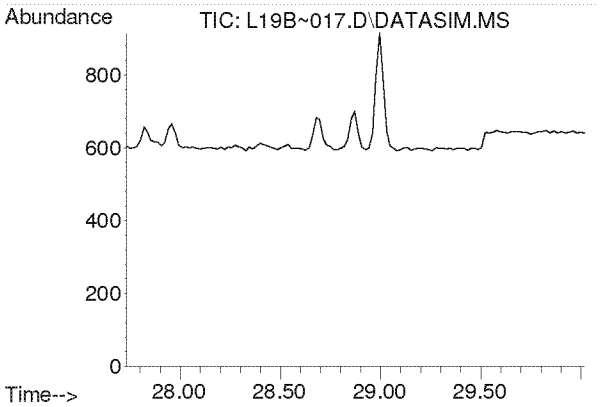
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



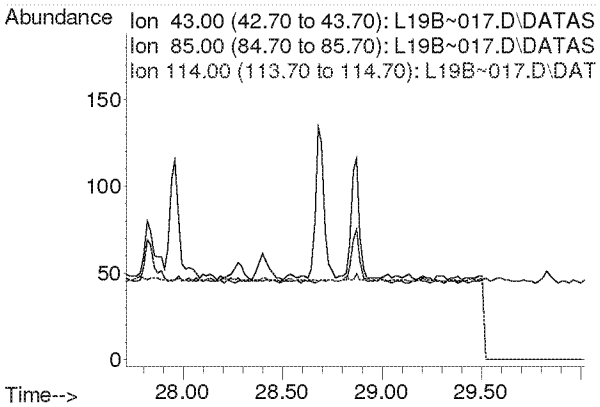


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

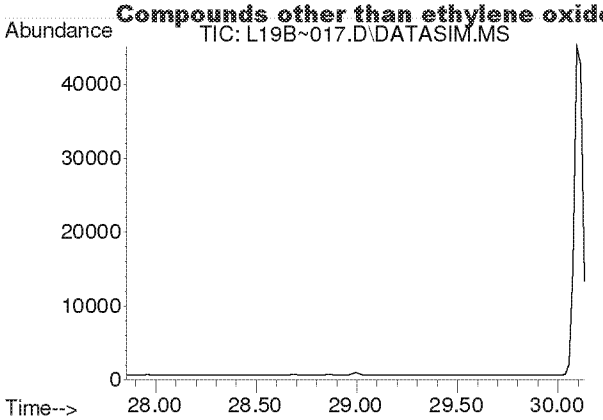
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

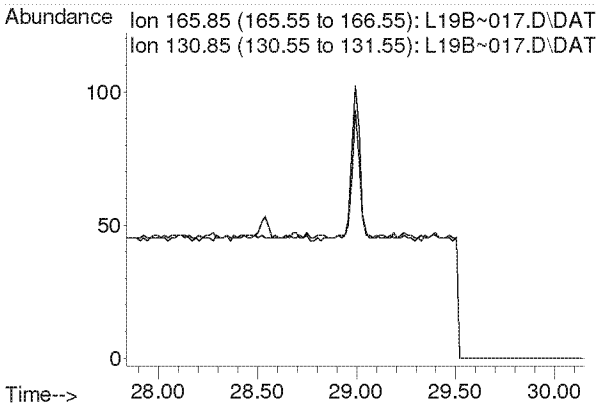


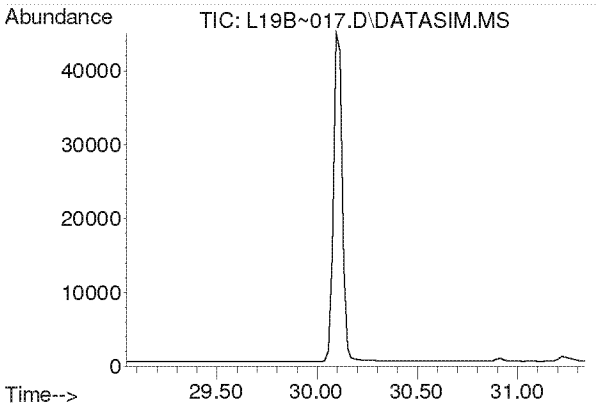
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



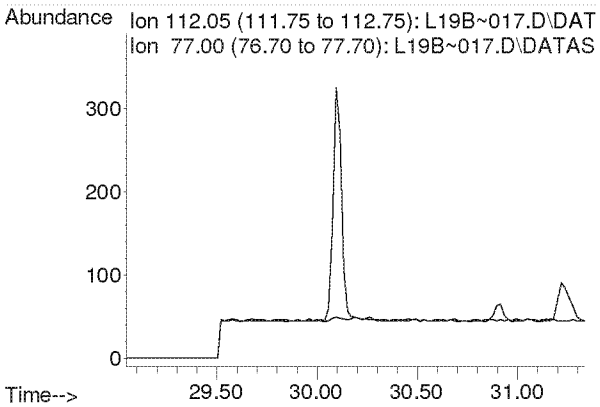


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

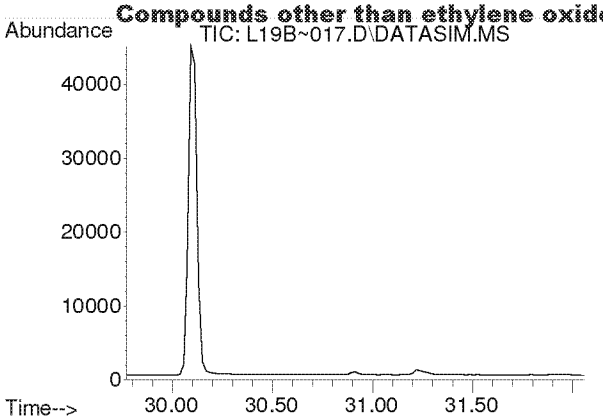
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

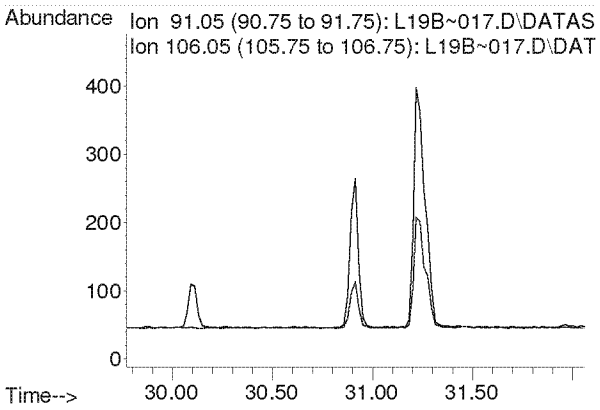


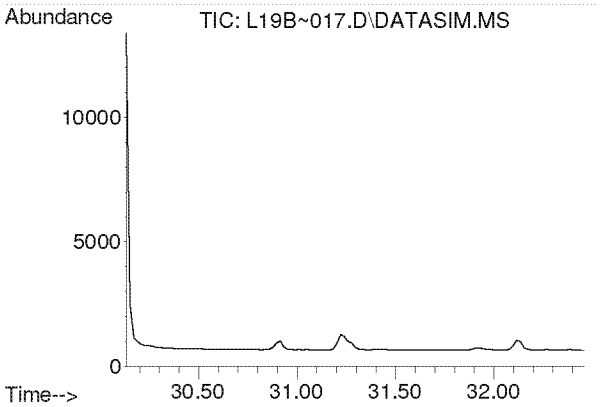
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



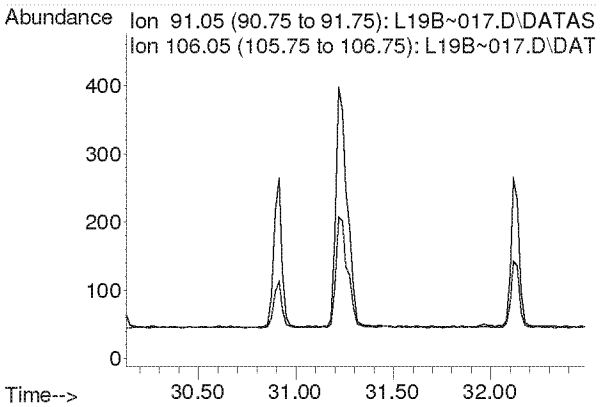


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

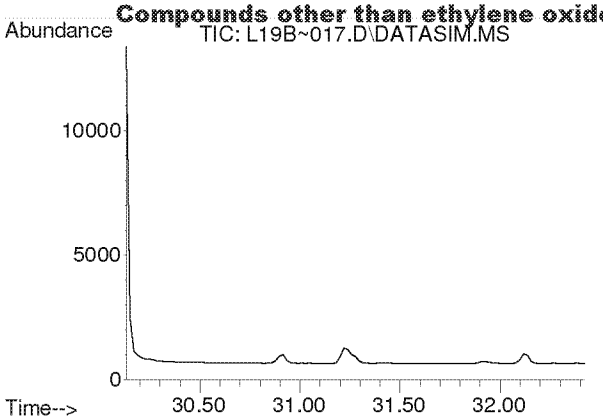
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

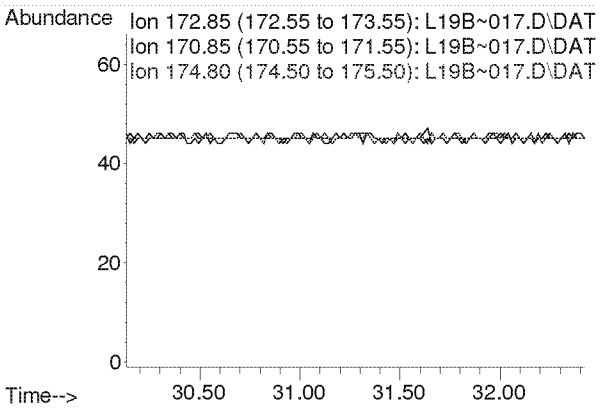


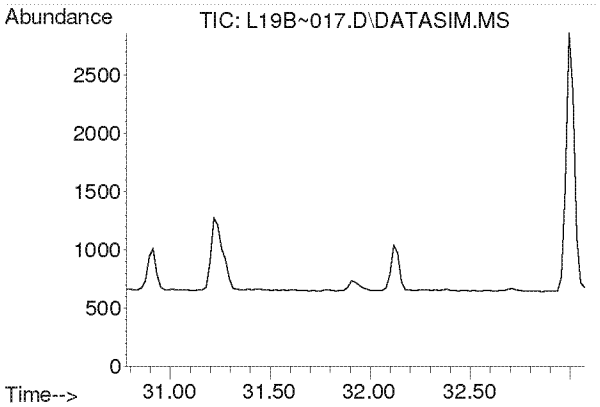
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



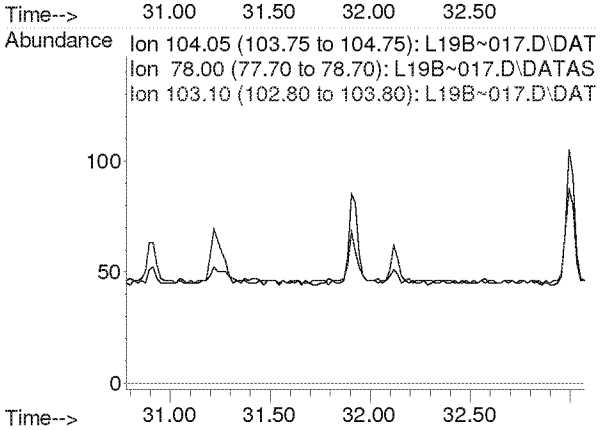


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

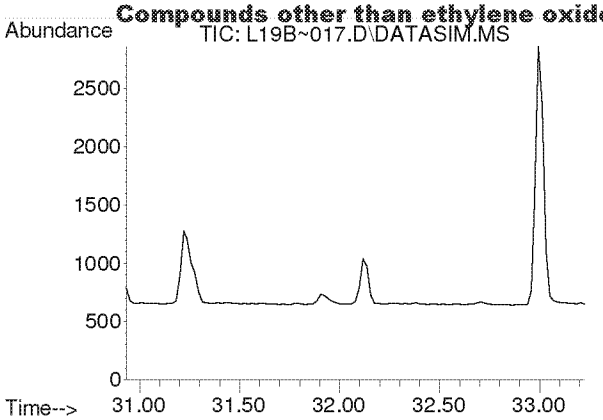
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

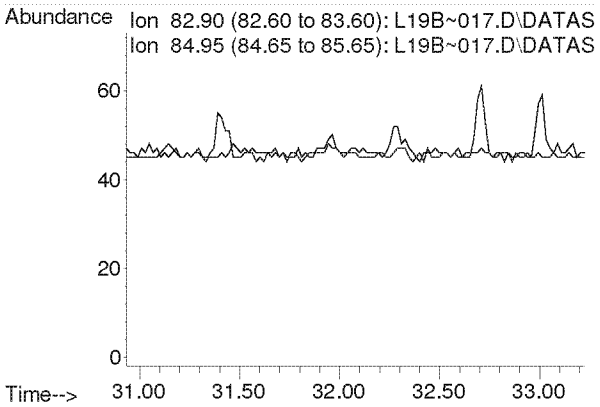


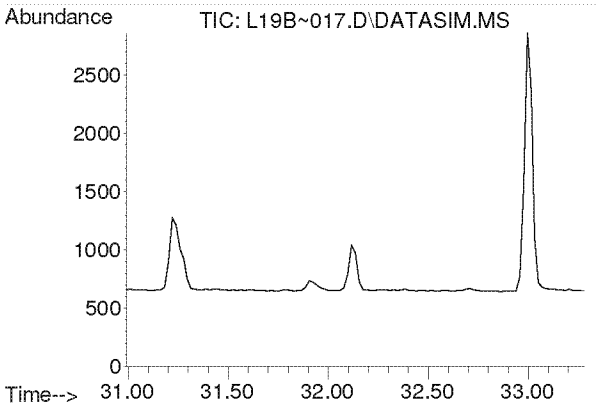
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



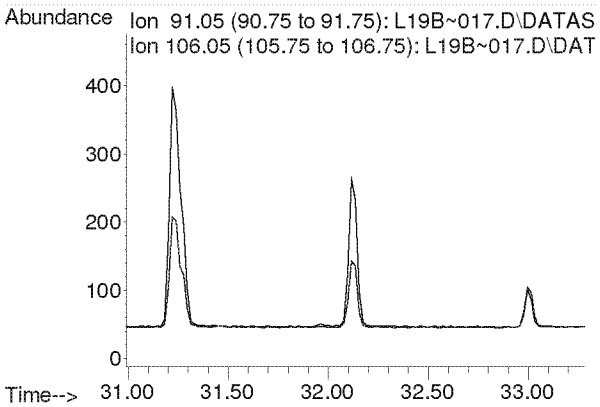


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

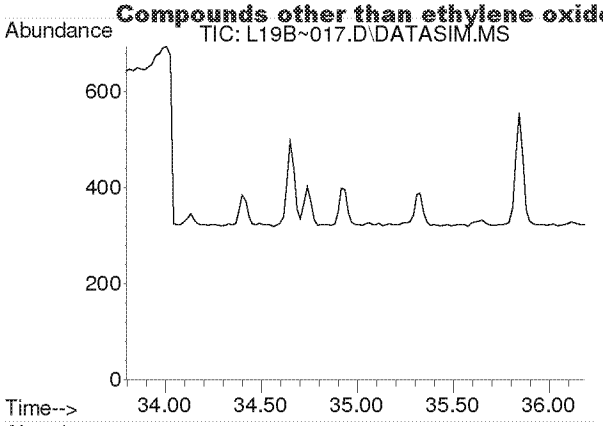
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

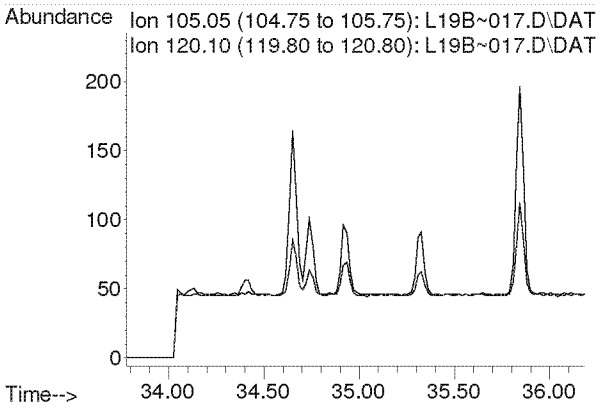


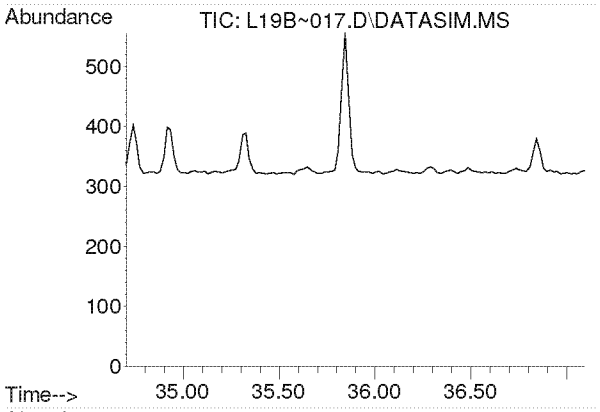
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



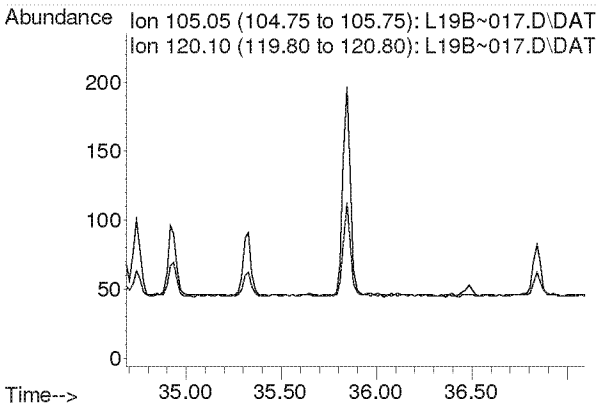


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

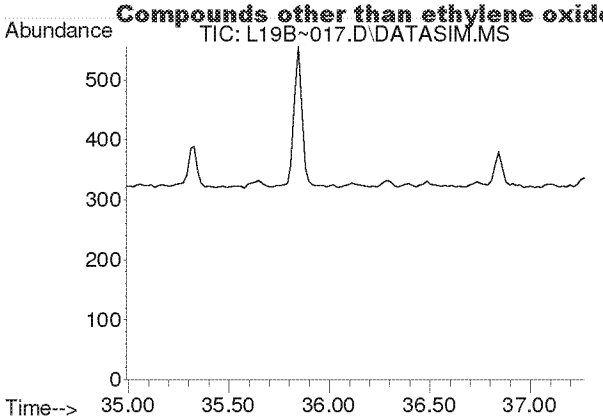
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

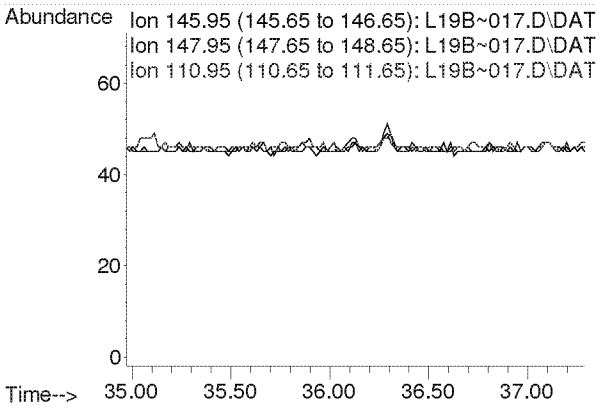


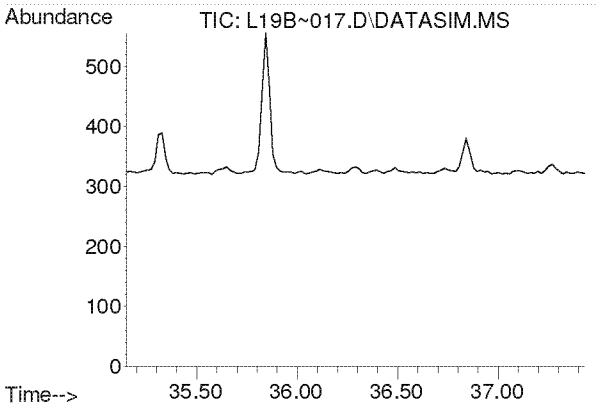
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



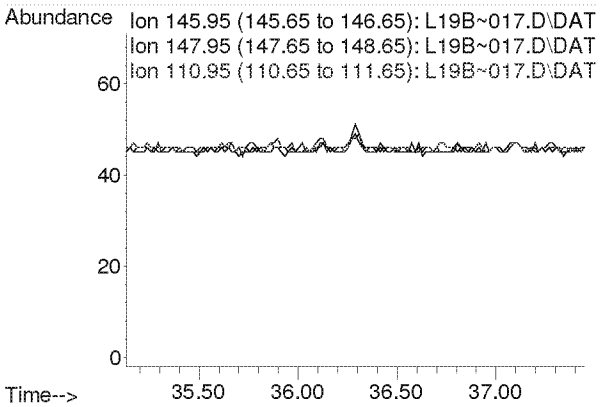


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

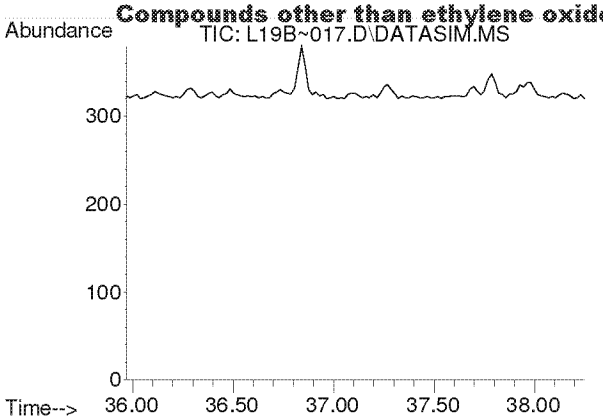
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

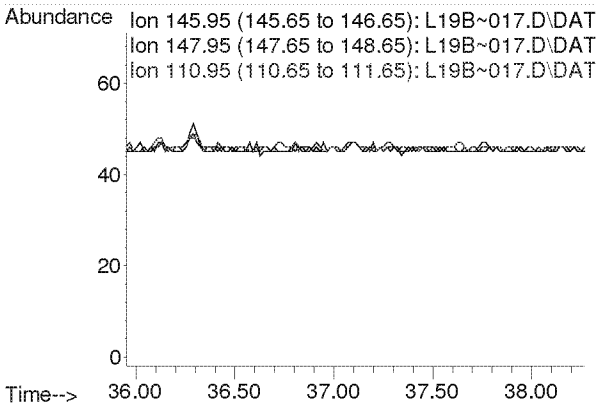


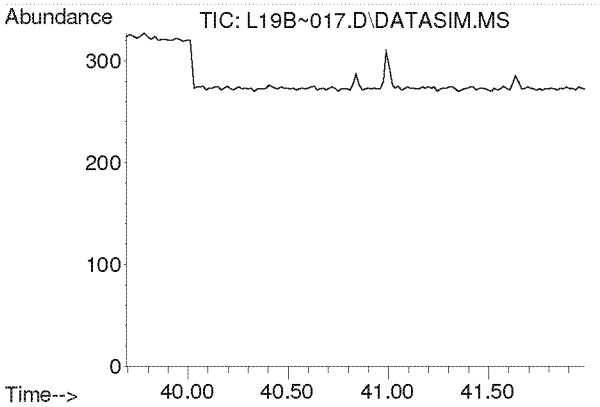
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



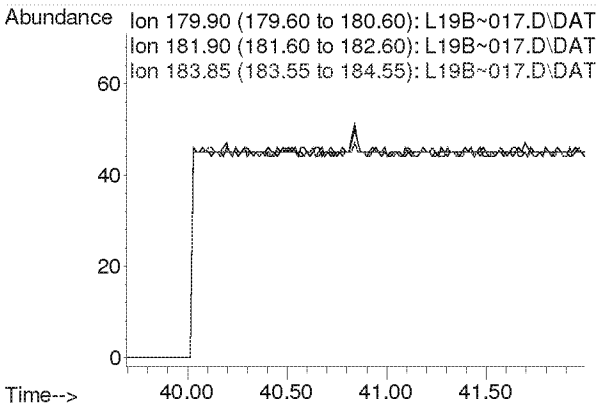


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

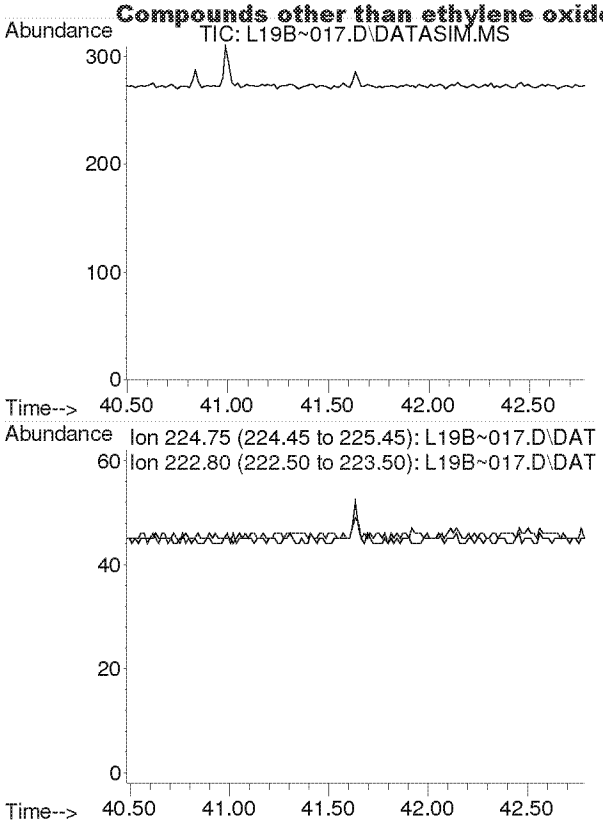
Lab File: L19B~017.D
Acq: 28 Feb 2019 3:37 am

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: L19B~017.D
Acq: 28 Feb 2019 3:37 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\L19B~\
Data File : L19B~018.D
Acq On : 28 Feb 2019 4:38 am
Operator : MAH
Sample : B9B2705-DUP6
Misc : WB VILLAGE HALL R2 2/23/19
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 05 06:52:07 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

dNK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	43070	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	110328	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	77128	4.7400 ppbv	0.00

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	12.453	29	279m	0.1133 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
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\L19B~\
Data File : L19B~018.D
Acq On : 28 Feb 2019 4:38 am
Operator : MAH
Sample : B9B2705-DUP6
Misc : WB VILLAGE HALL R2 2/23/19
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 05 06:52:07 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

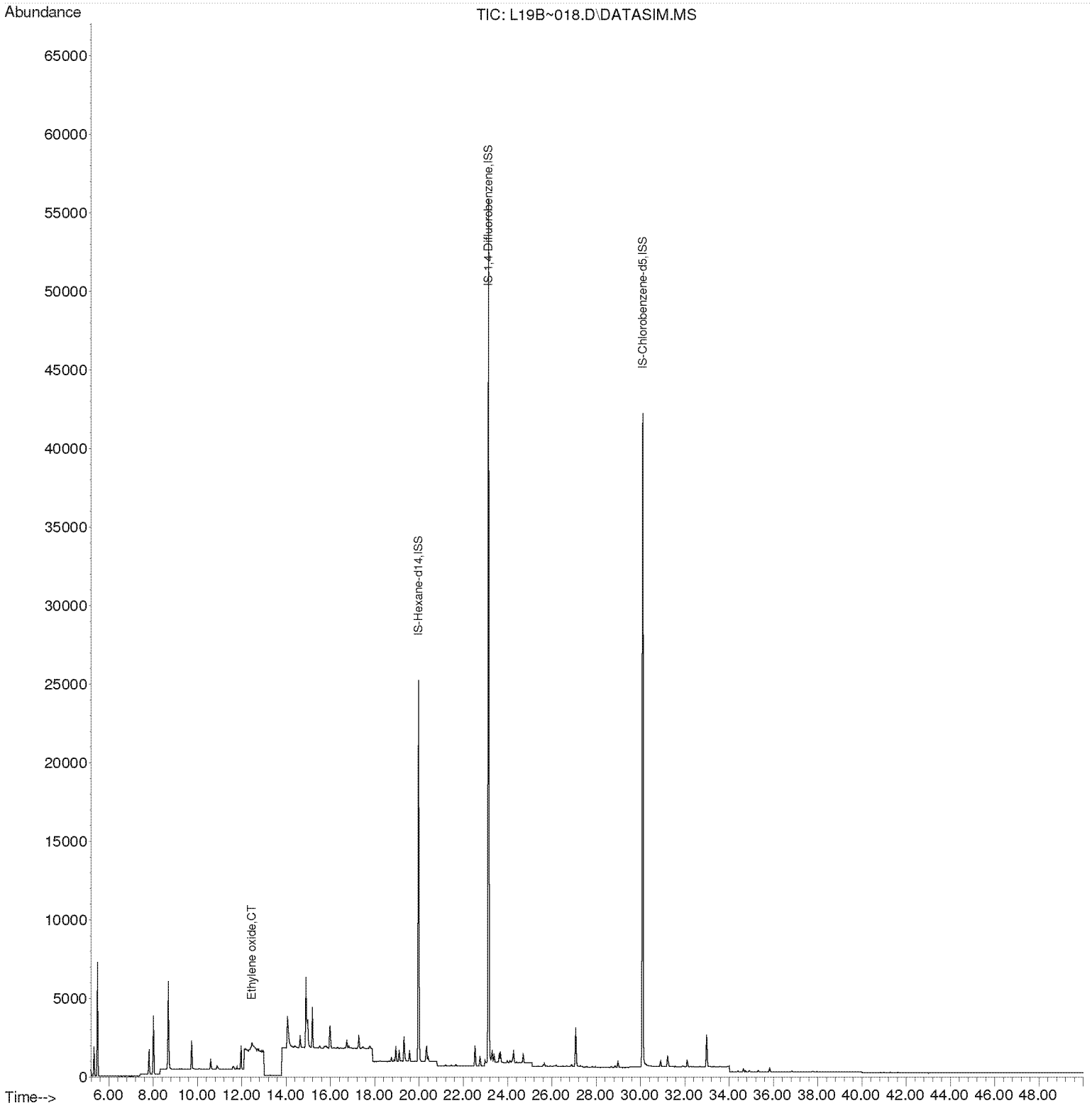
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

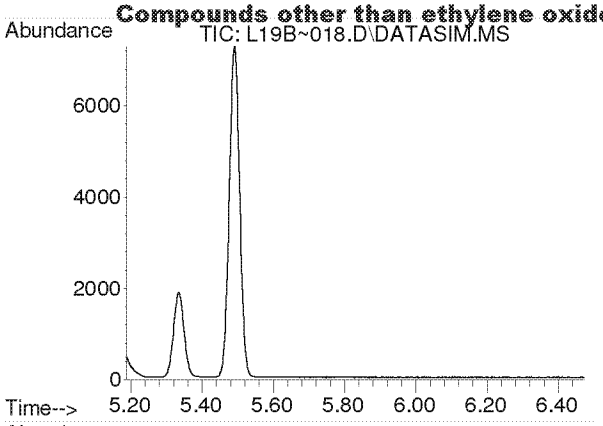
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~018.D
Acq On : 28 Feb 2019 4:38 am
Operator : MAH
Sample : B9B2705-DUP6
Misc : WB VILLAGE HALL R2 2/23/19
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 28 12:55:20 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



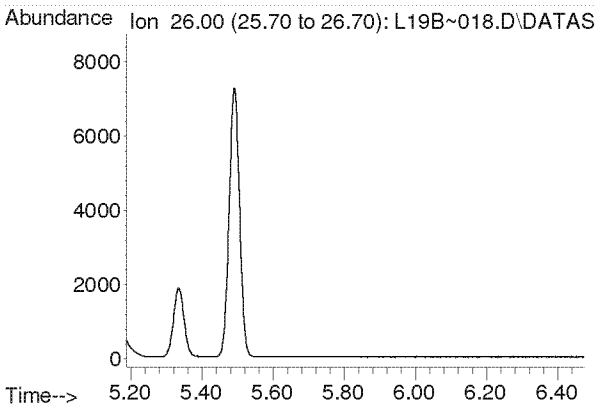
Compounds other than ethylene oxide were not quantitated.

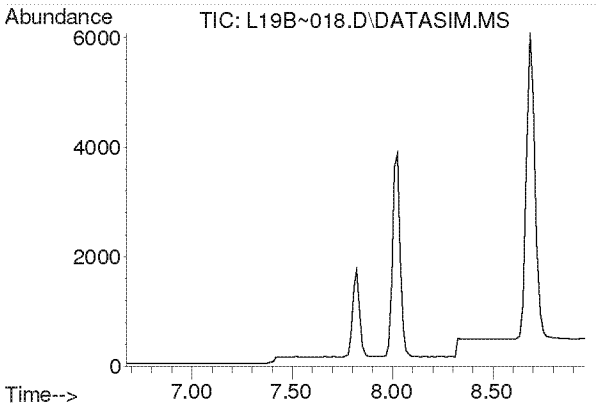


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 26



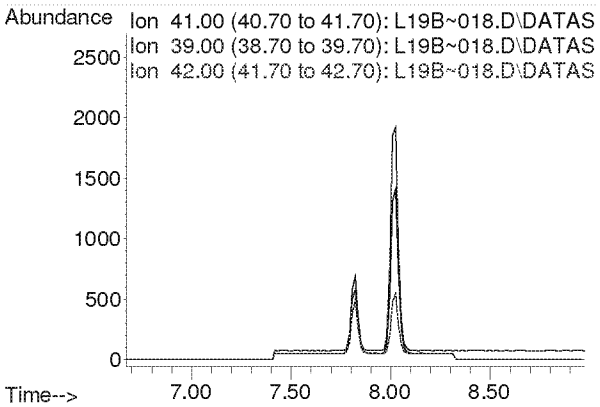


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

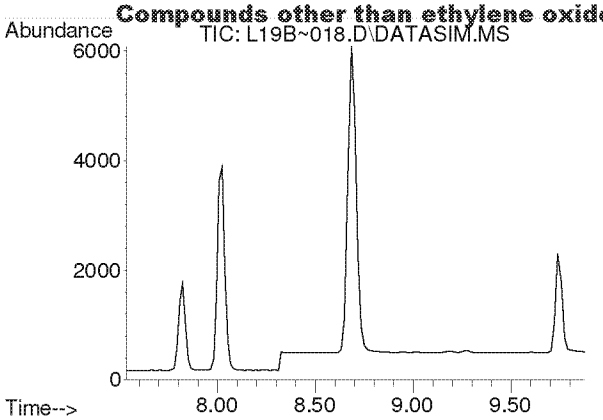
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

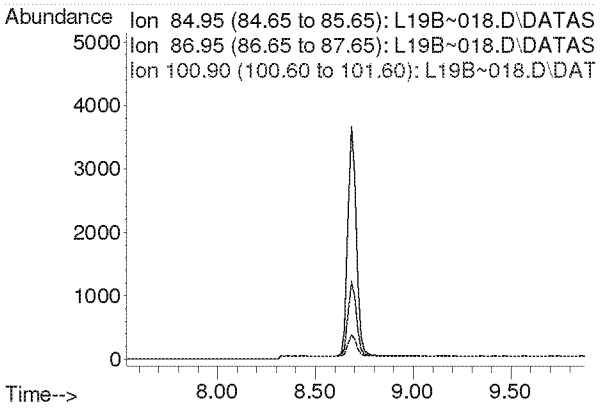


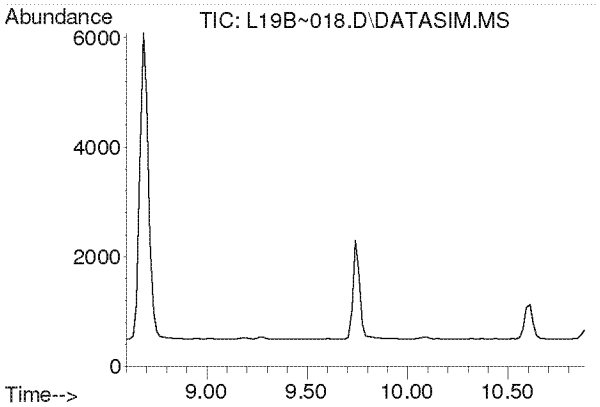
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



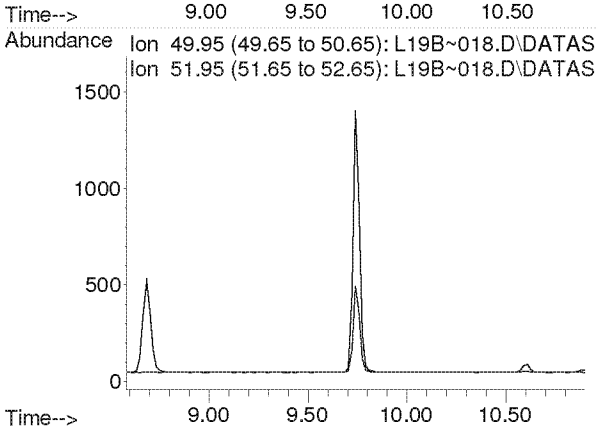


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

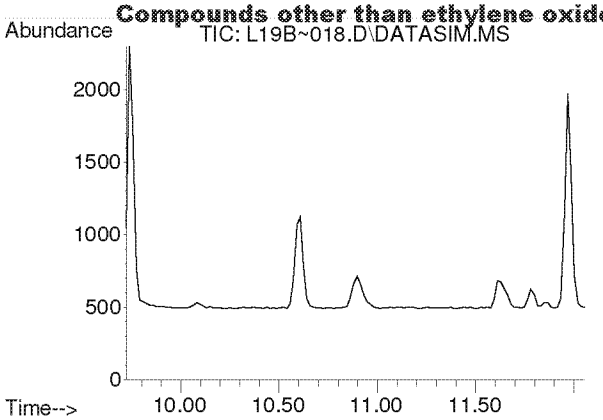
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

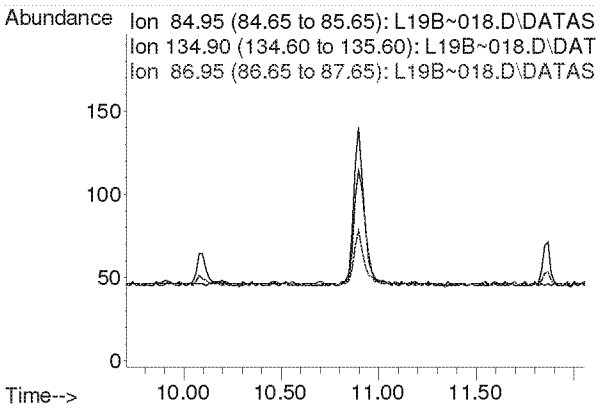


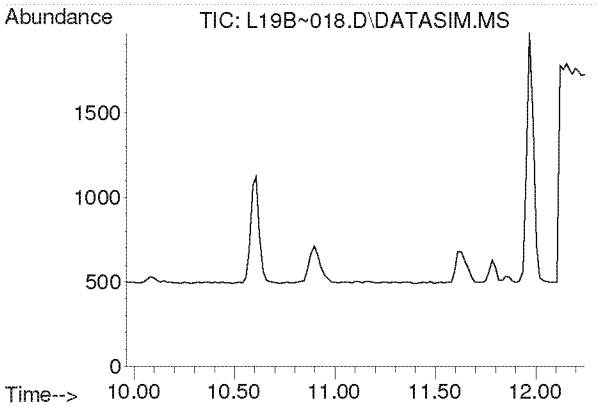
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



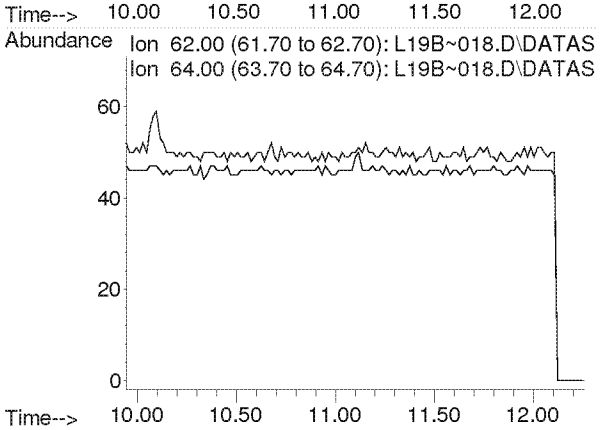


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

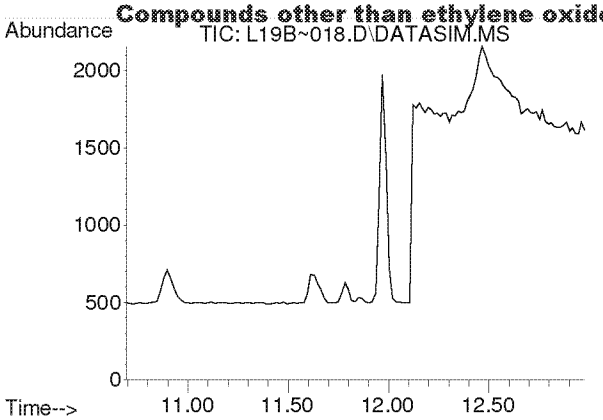
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

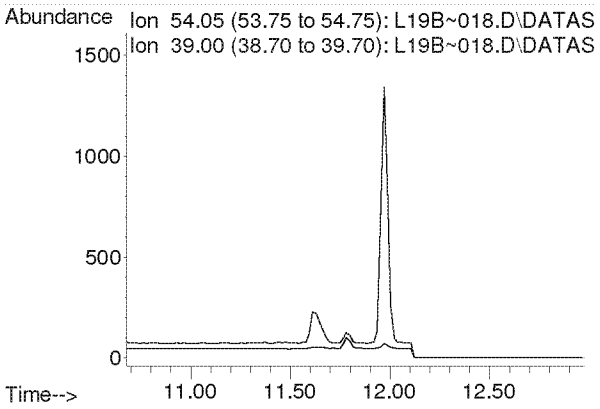


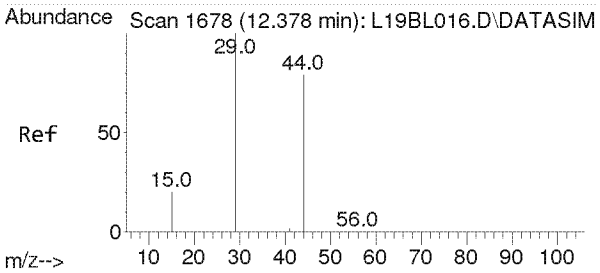
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

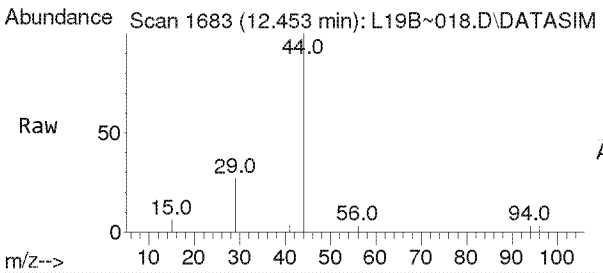


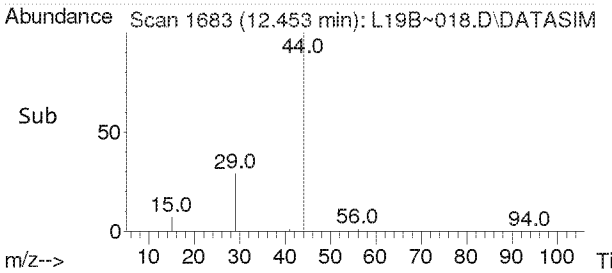


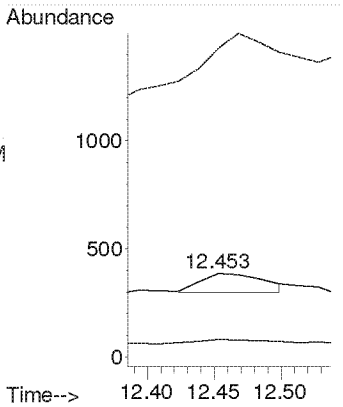
#9
Ethylene oxide
Concen: 0.113 ppbv m
RT: 12.453 min Scan# 1683
Delta R.T. 0.003 min
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 29 Resp: 279

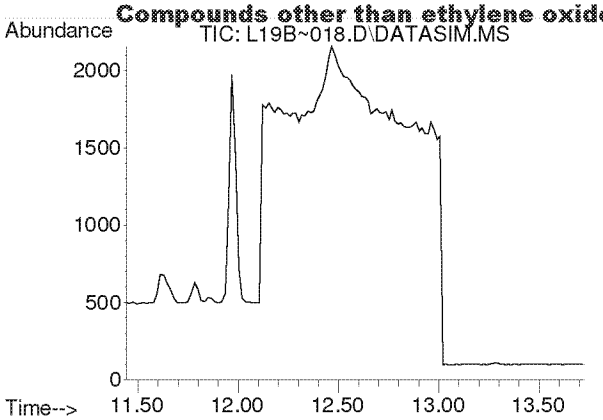
Ion	Ratio	Lower	Upper
29	100		
15	35.8	16.0	24.0#
44	880.6	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

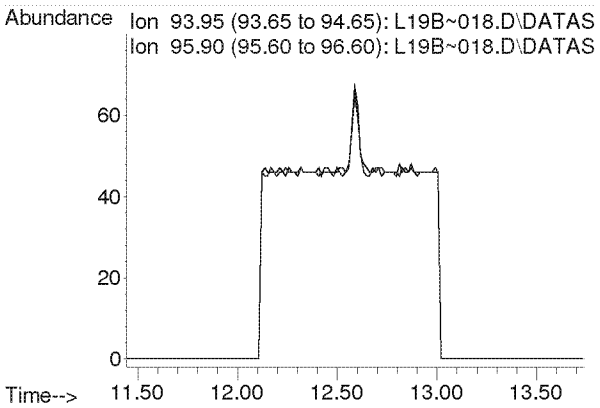


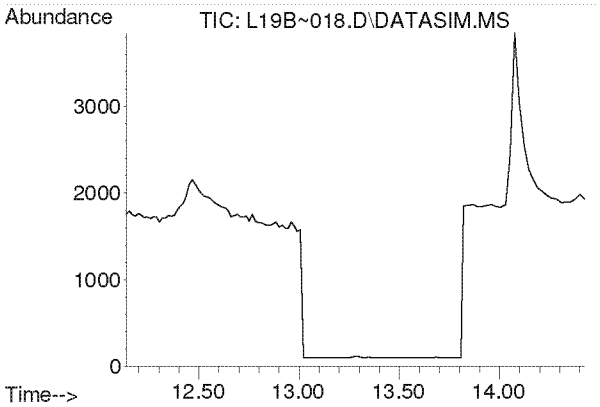
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



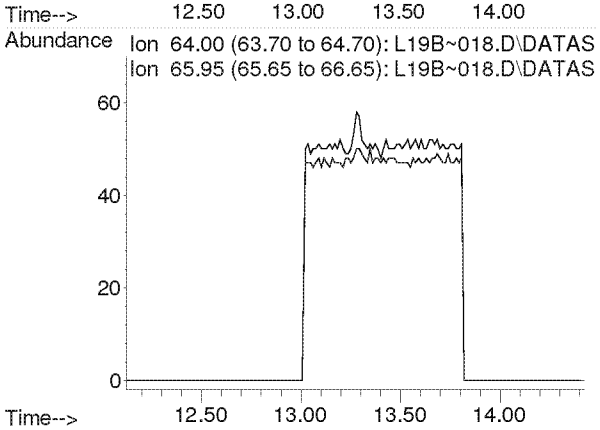


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

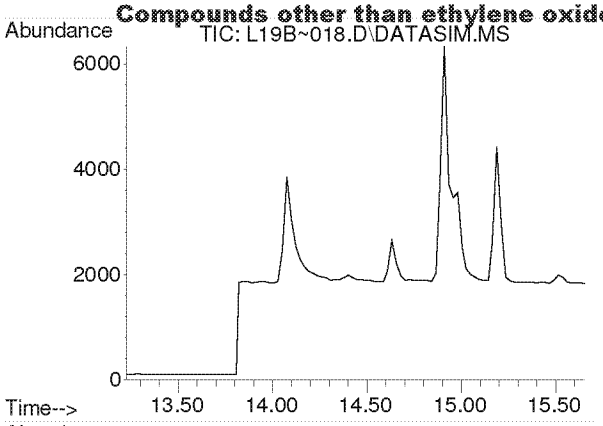
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

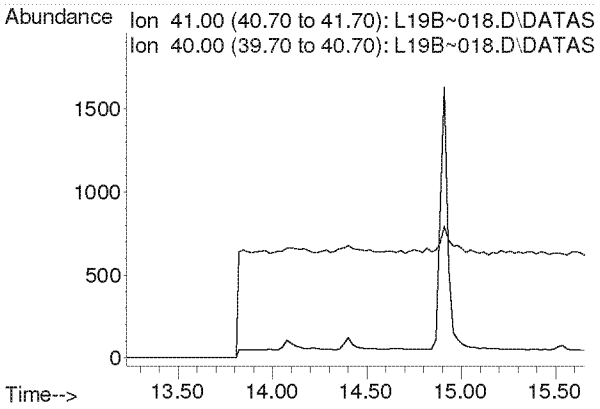


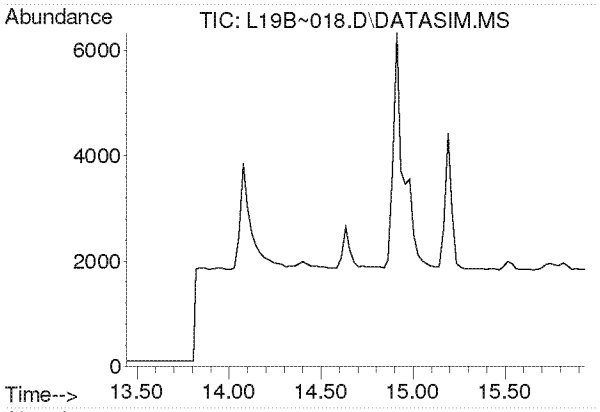
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



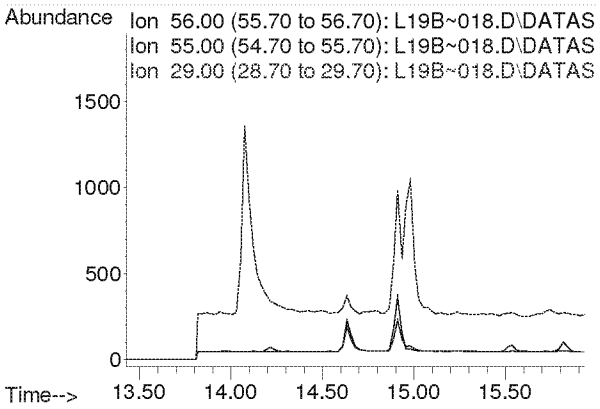


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

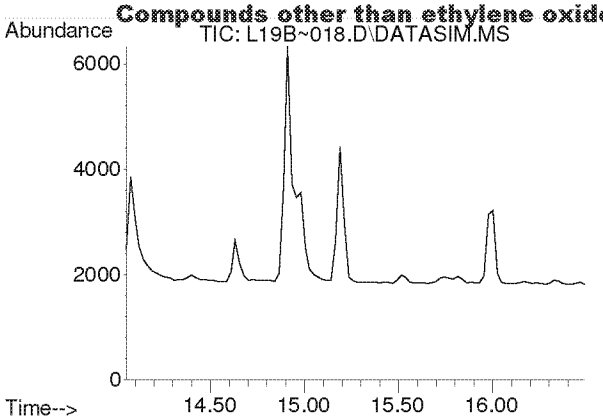
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

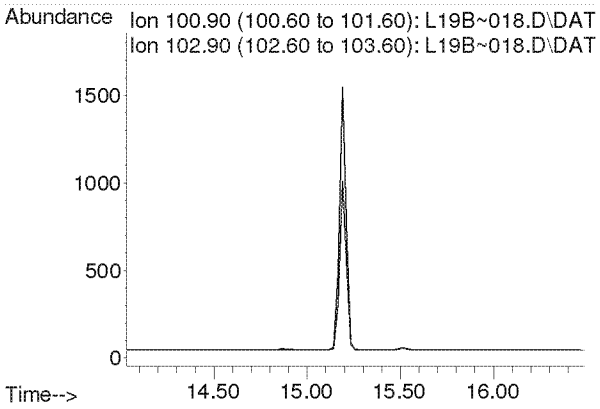


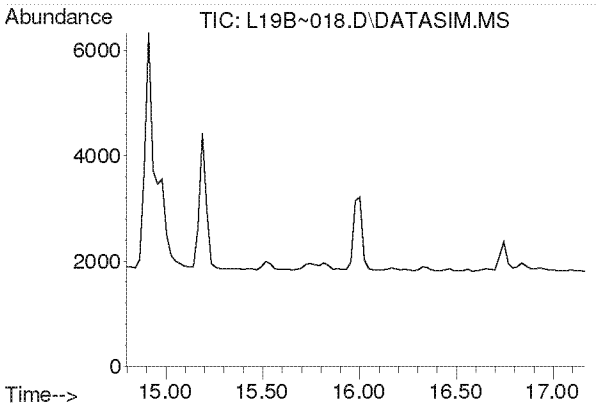
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



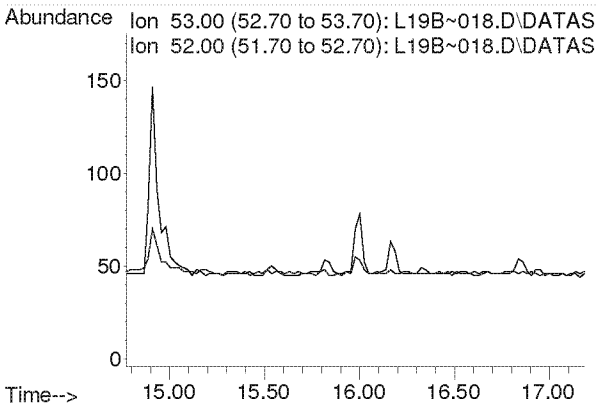


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

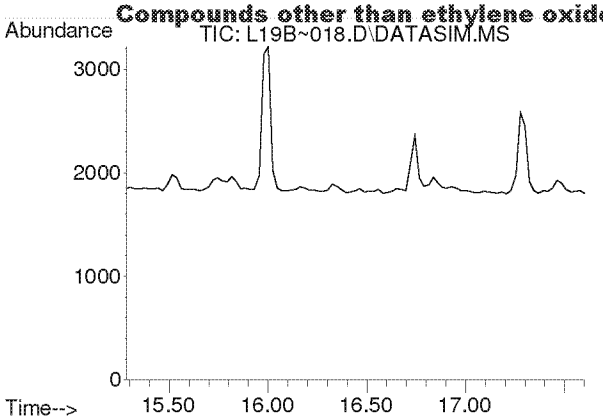
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

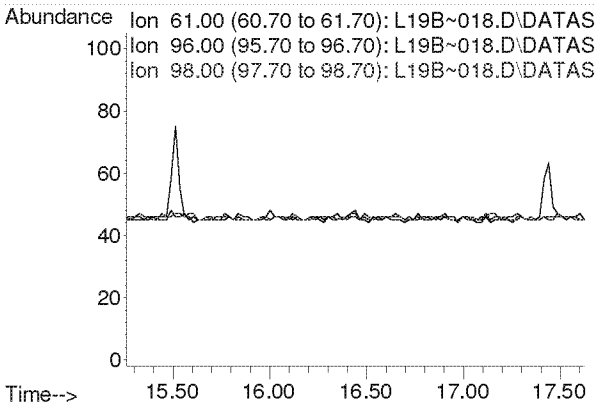


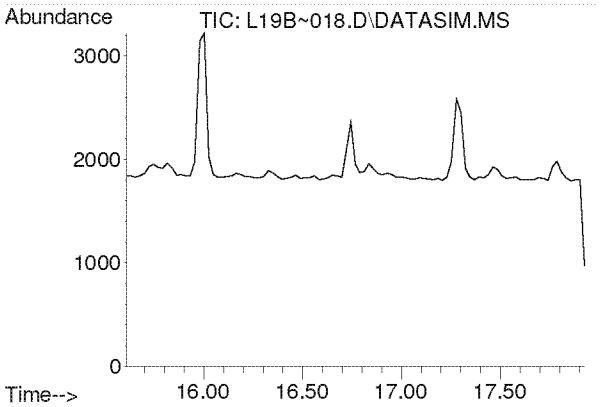
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



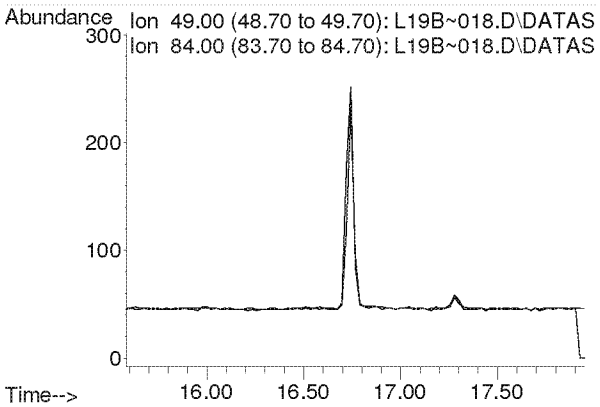


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

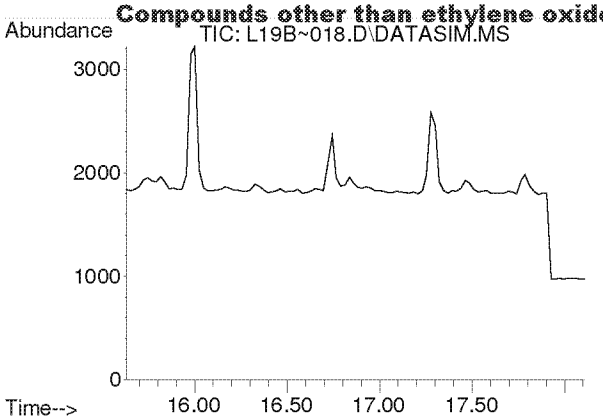
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

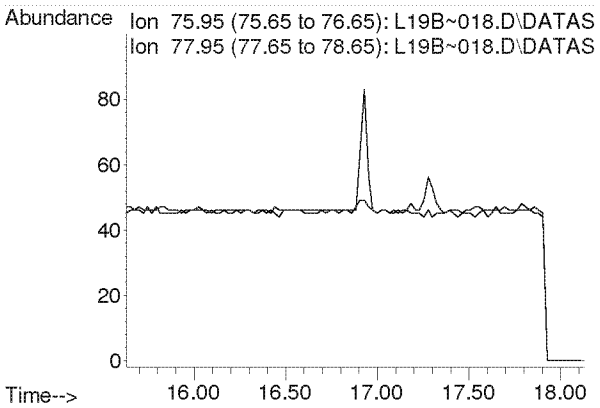


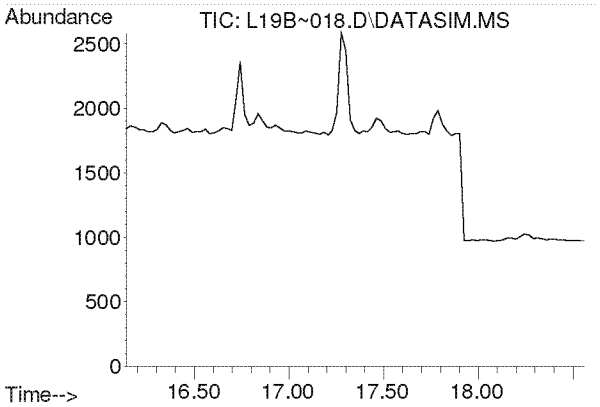
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



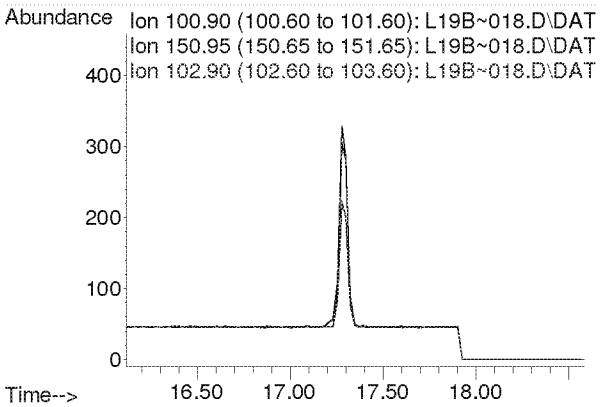


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

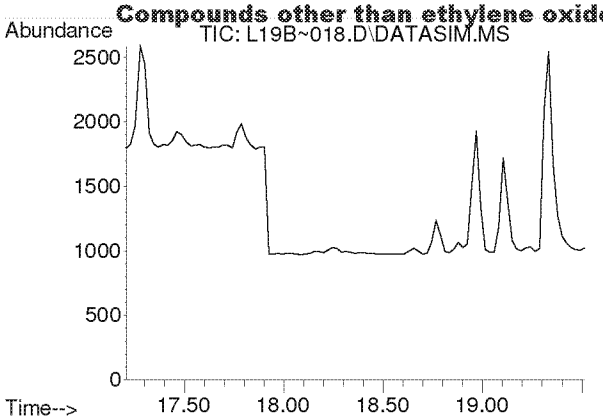
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

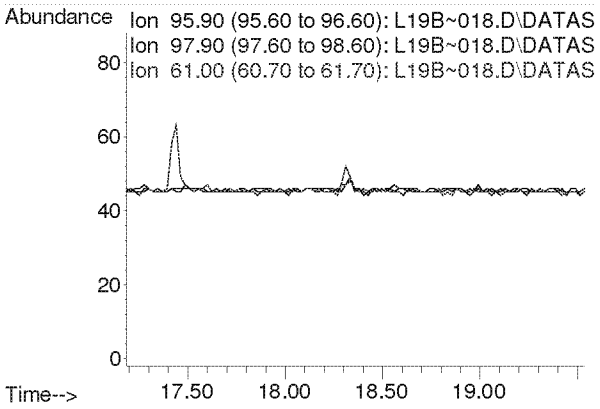


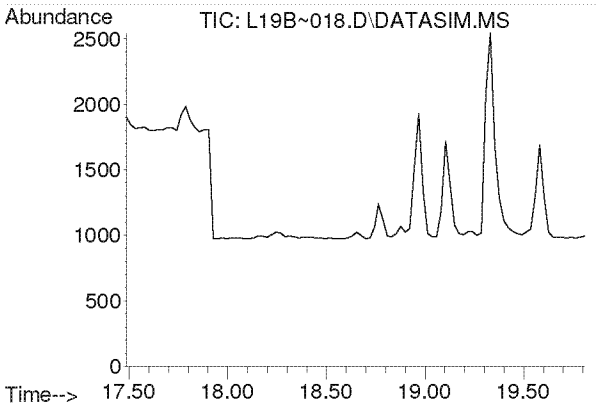
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



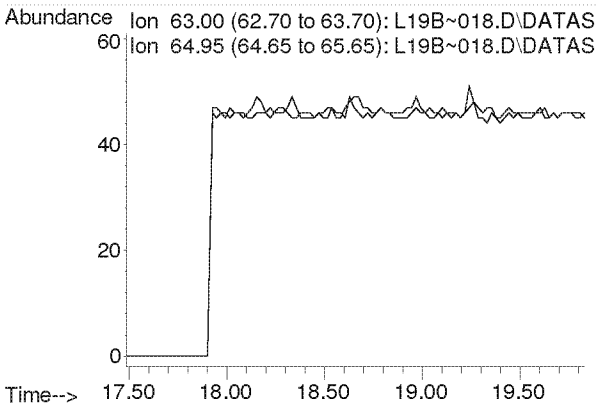


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

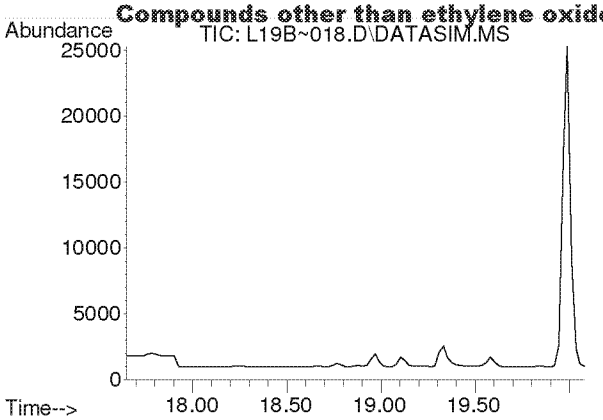
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

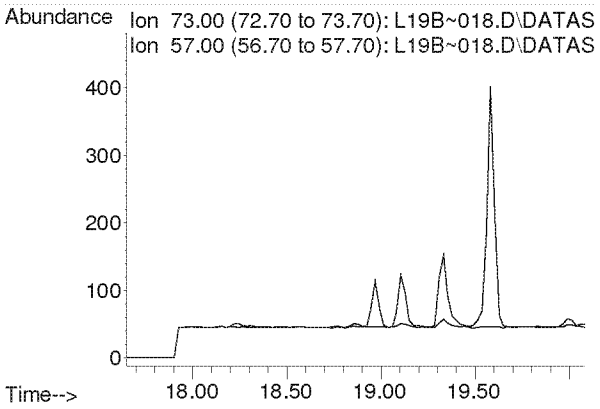


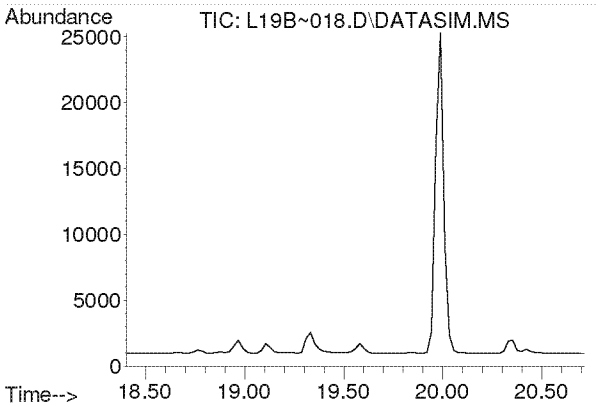
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



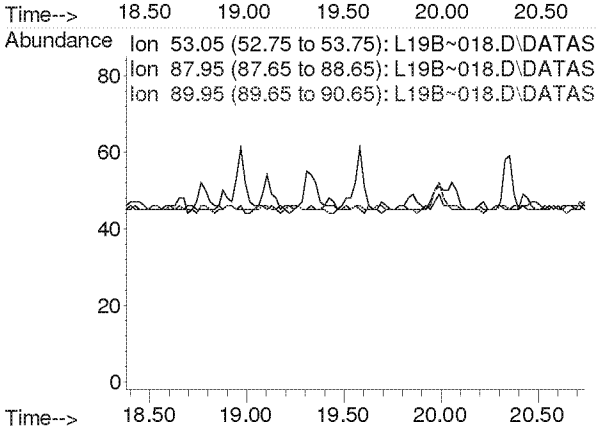


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

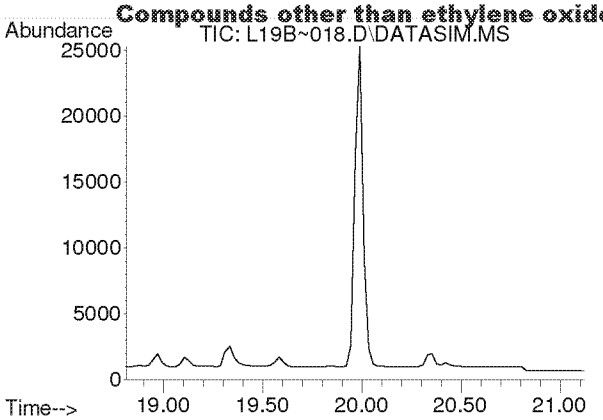
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

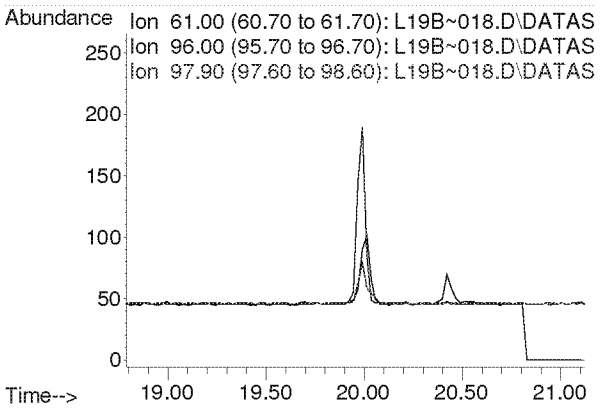


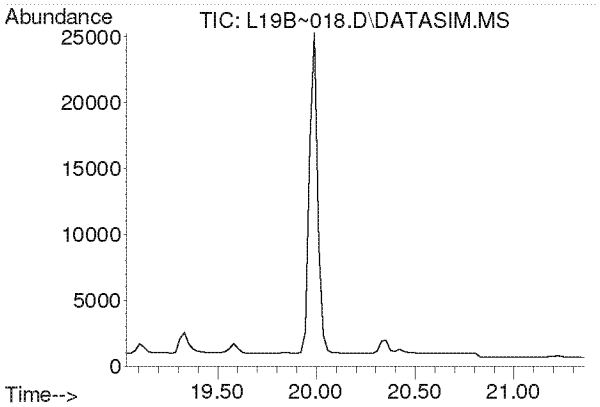
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



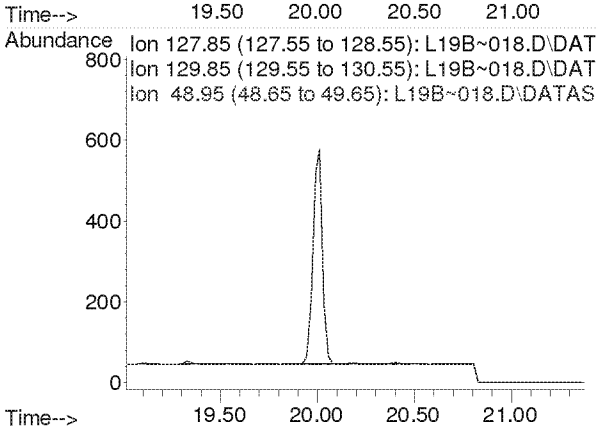


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

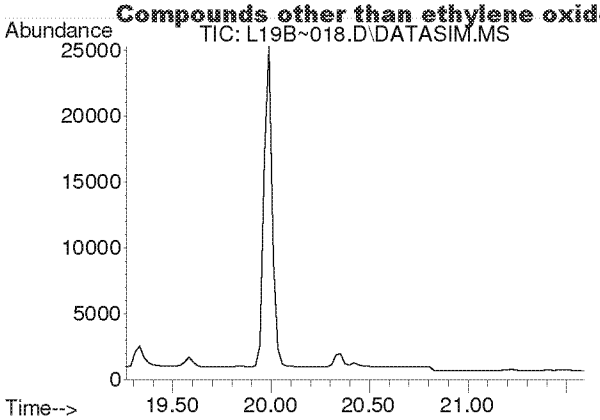
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

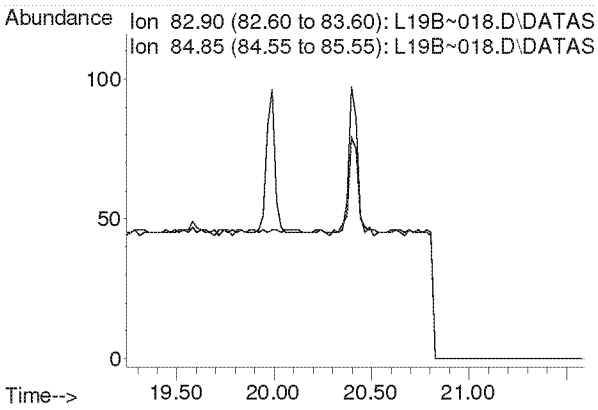


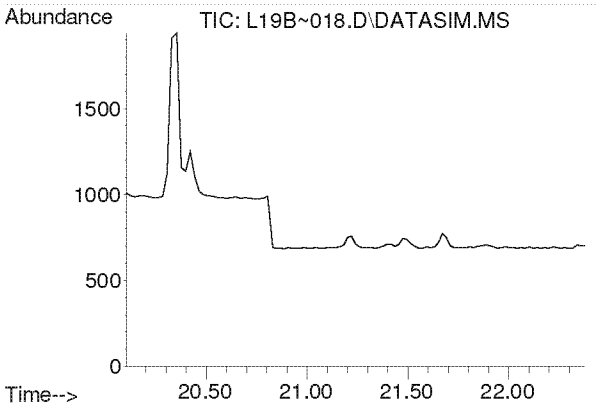
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



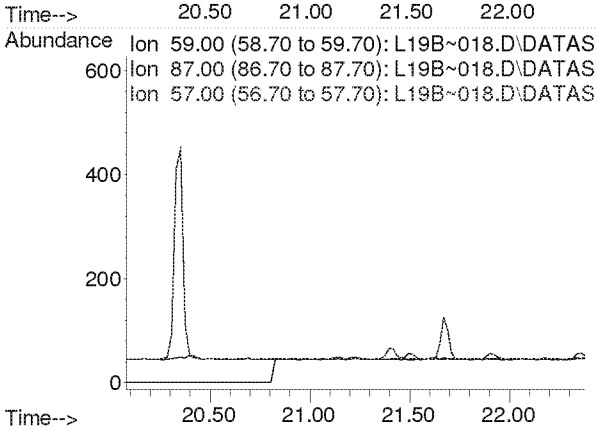


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

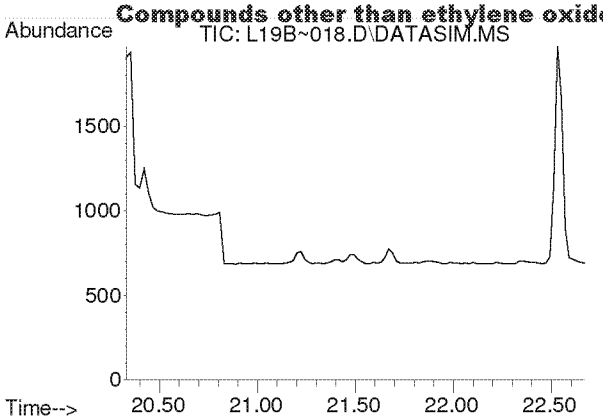
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

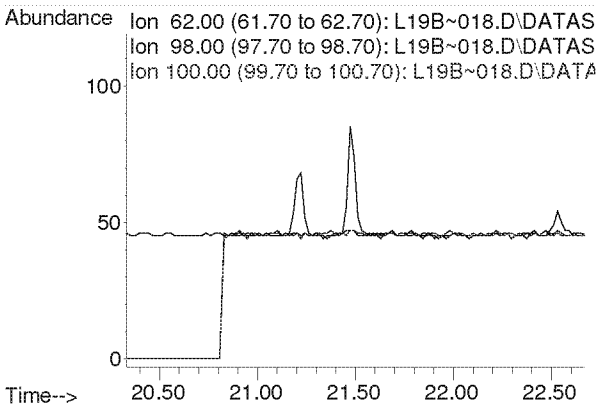


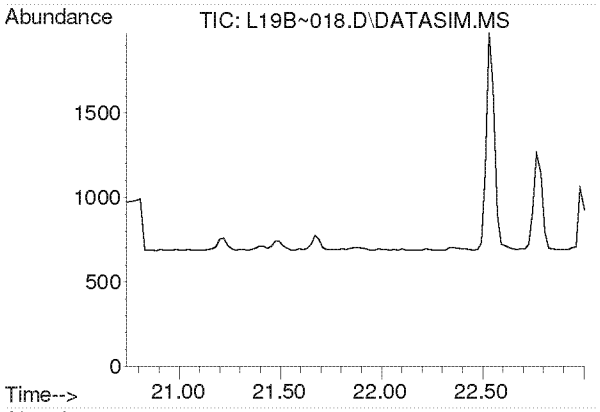
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



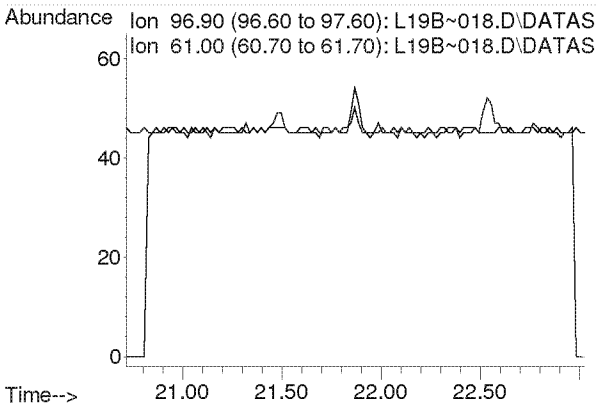


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

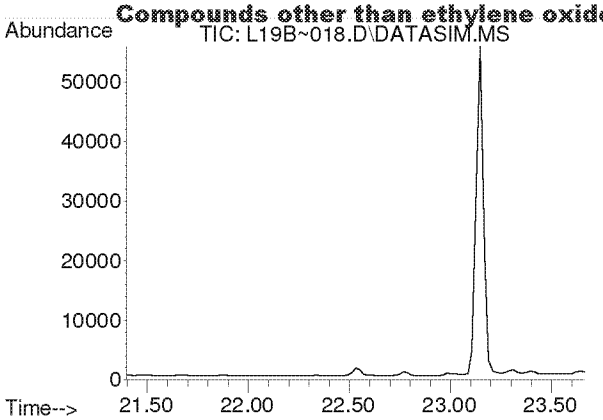
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

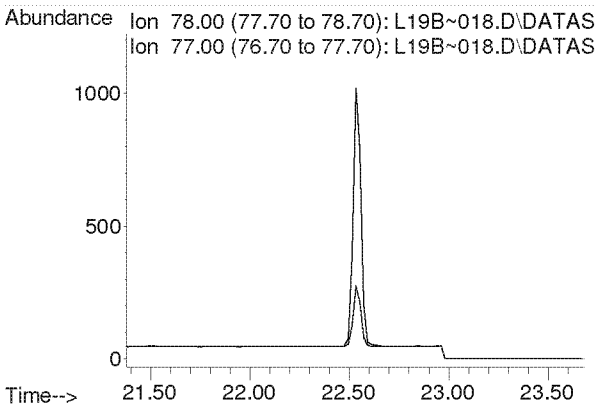


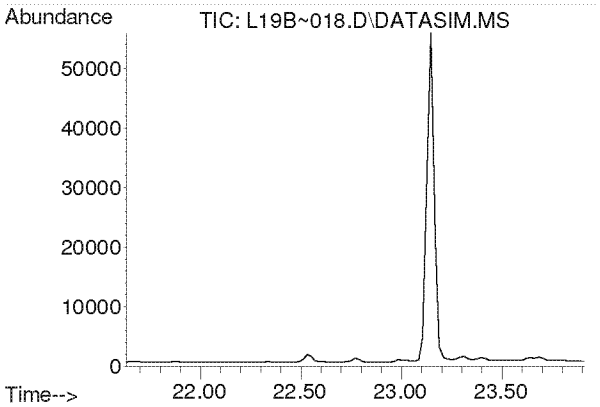
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



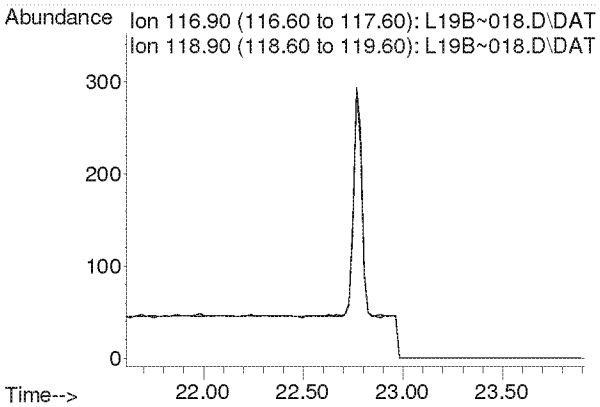


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

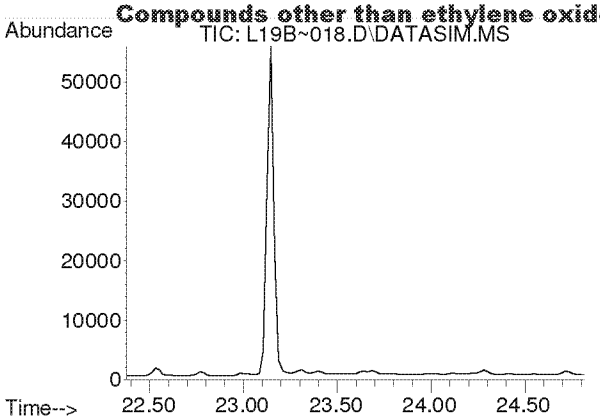
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

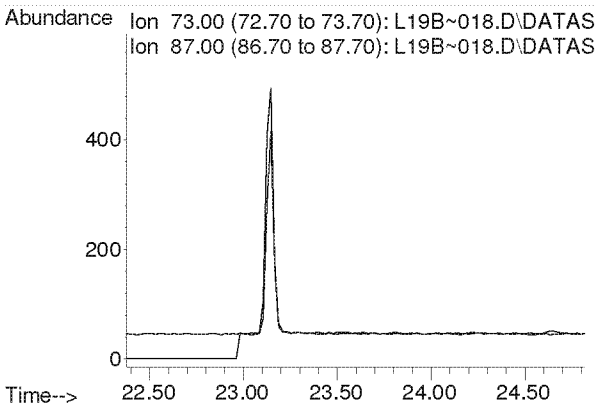


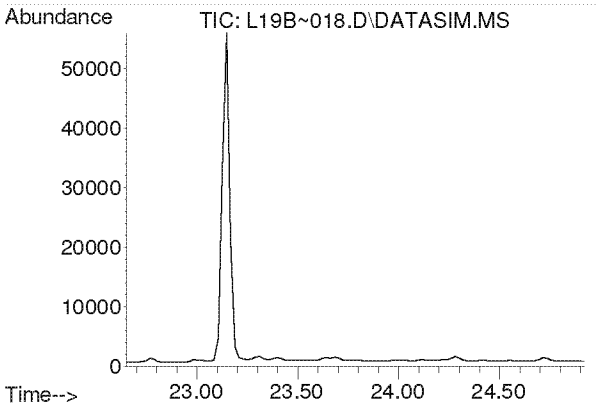
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



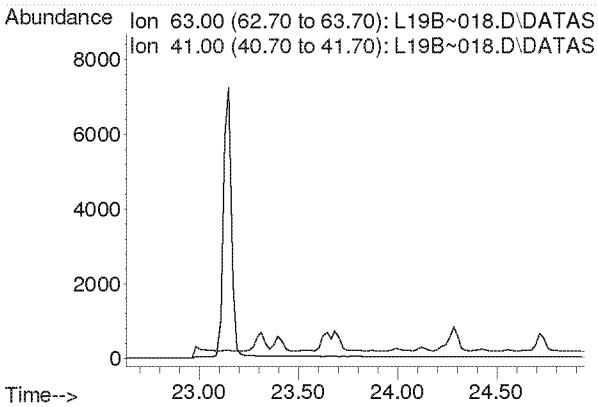


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

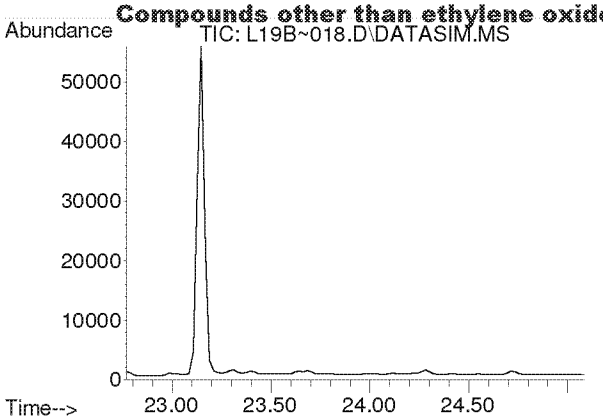
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

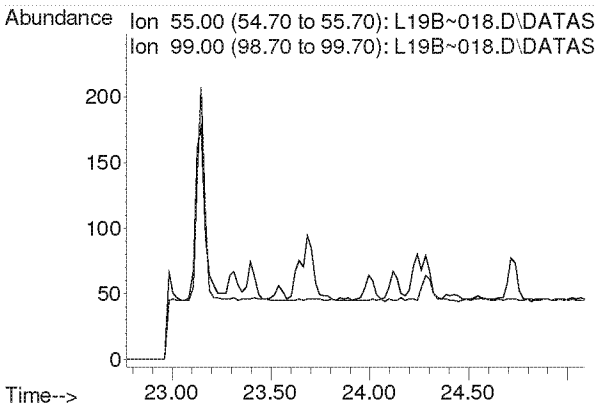


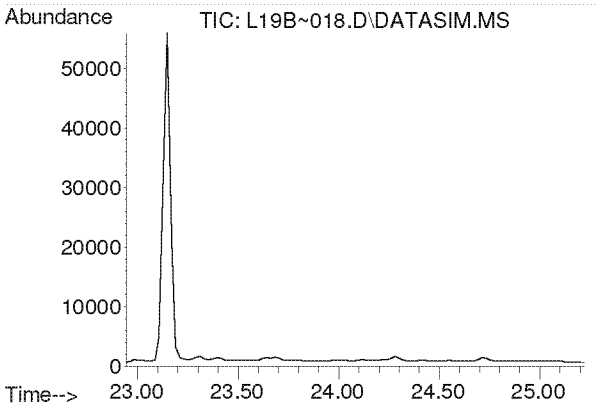
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



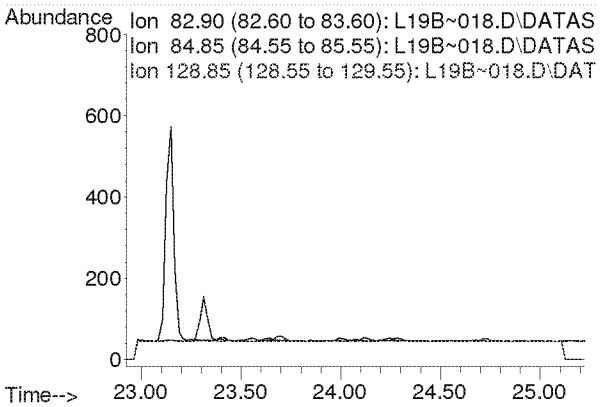


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

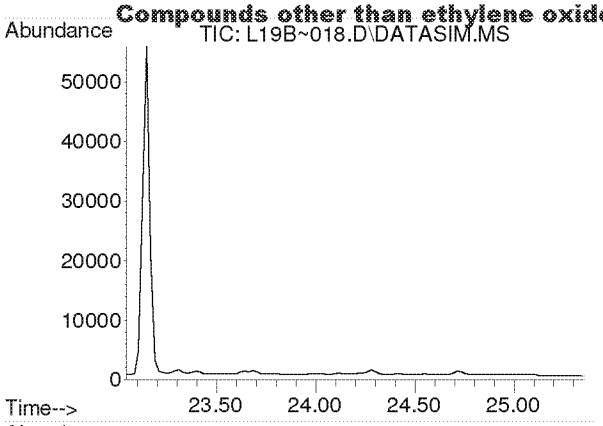
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

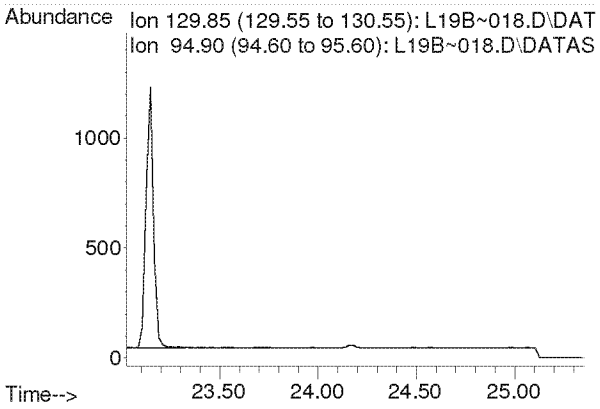


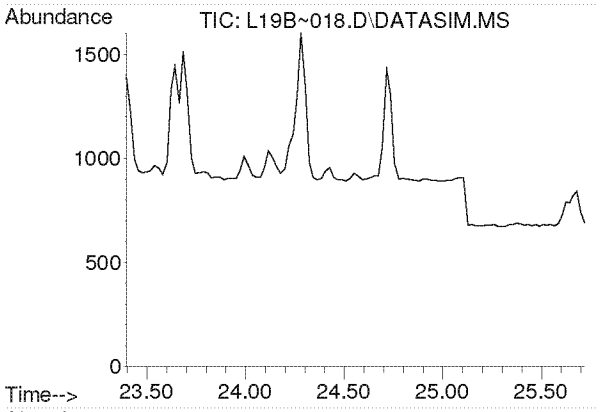
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



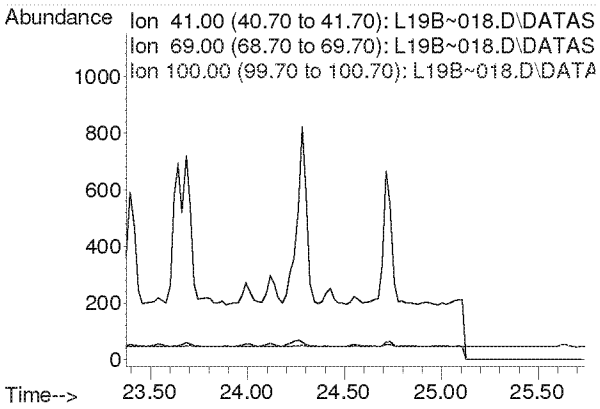


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

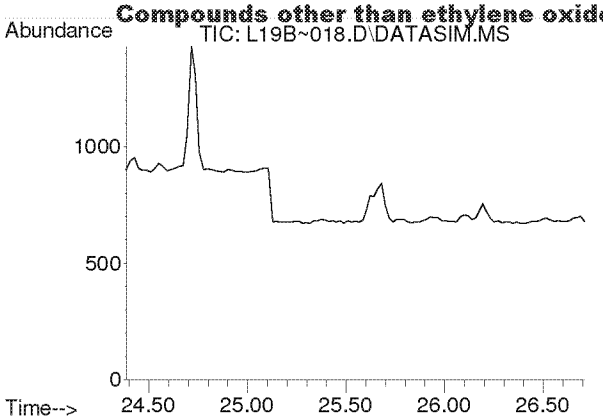
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

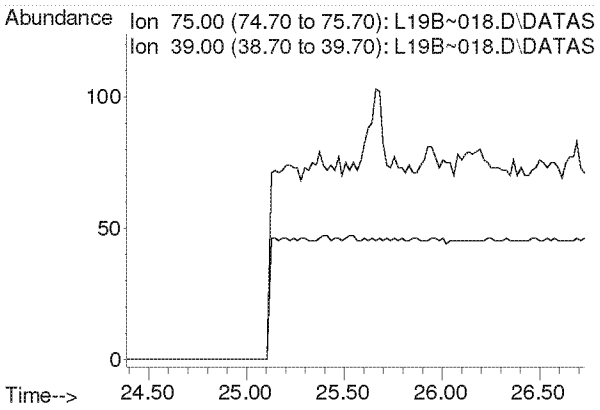


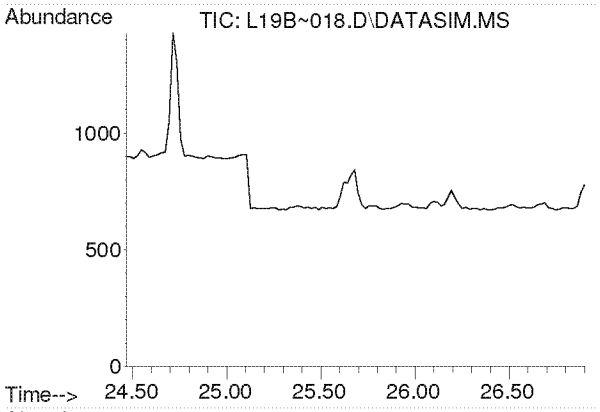
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



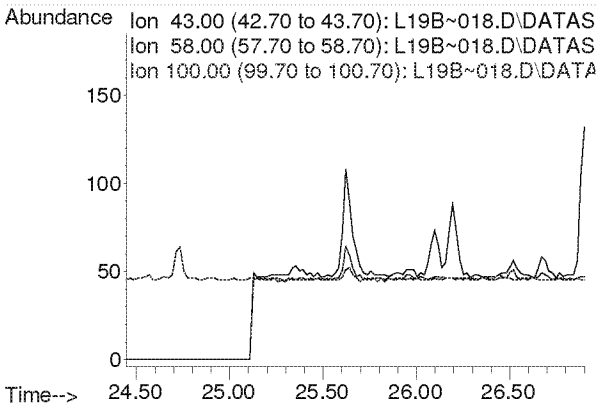


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

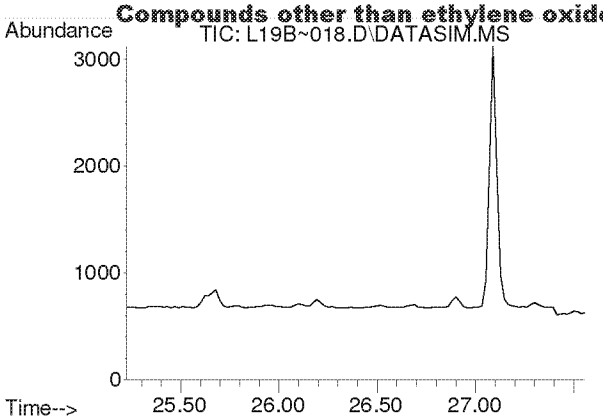
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

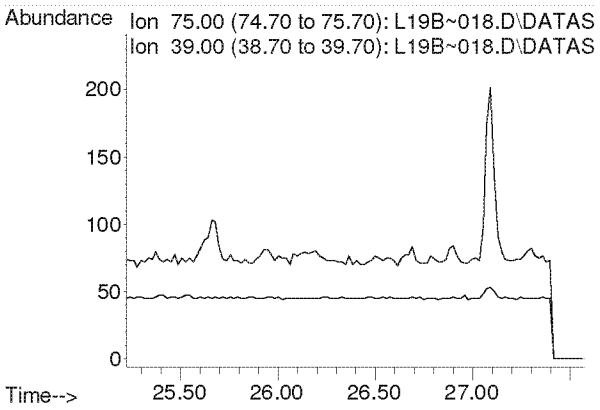


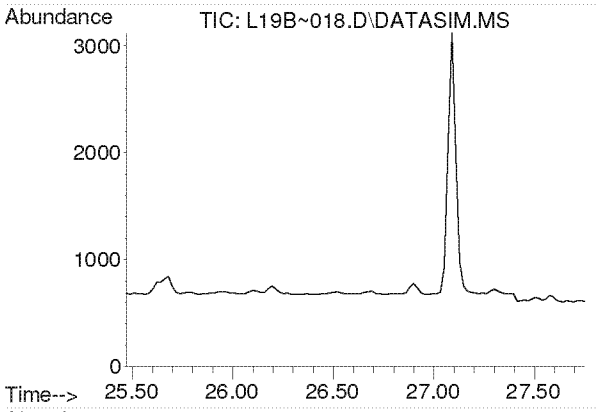
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



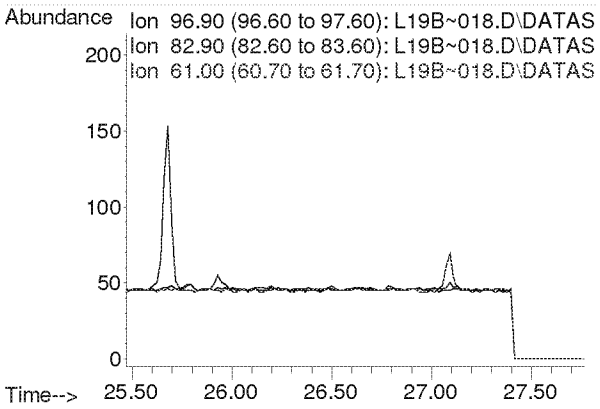


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

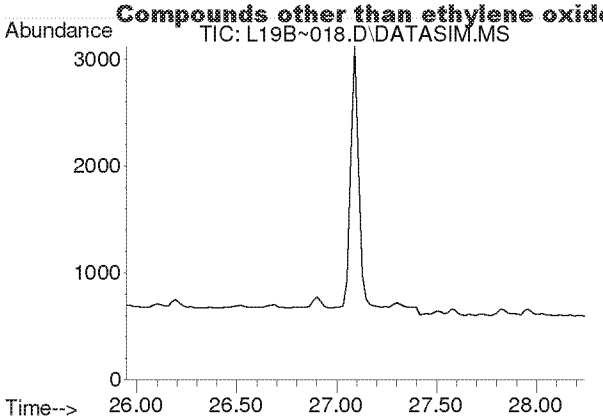
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

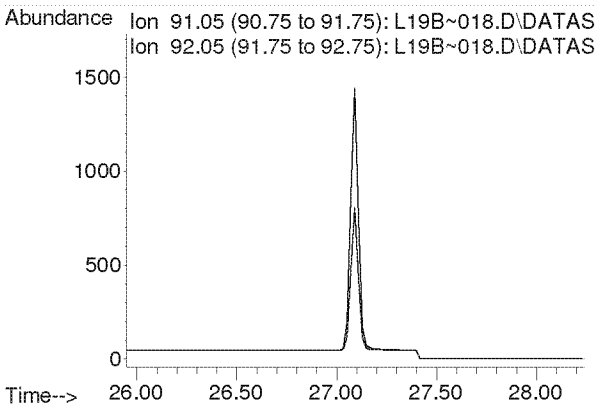


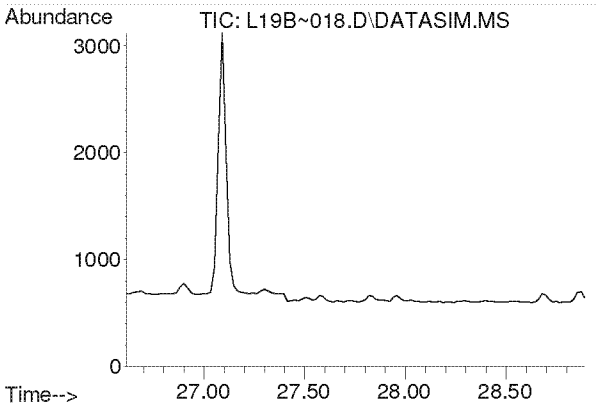
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



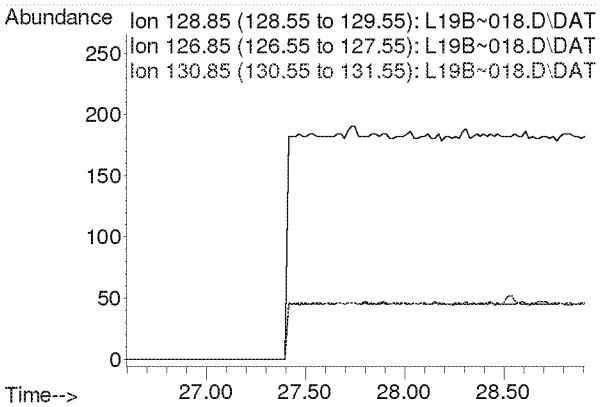


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

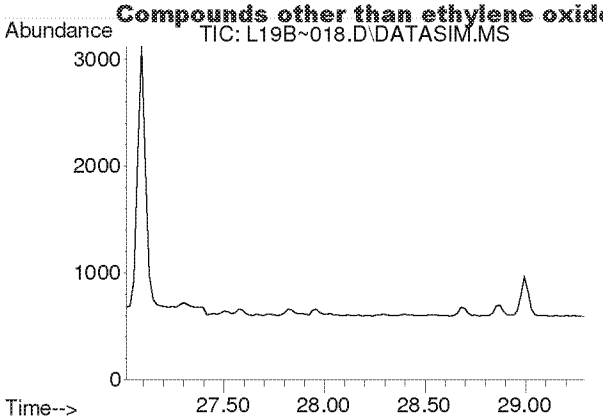
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

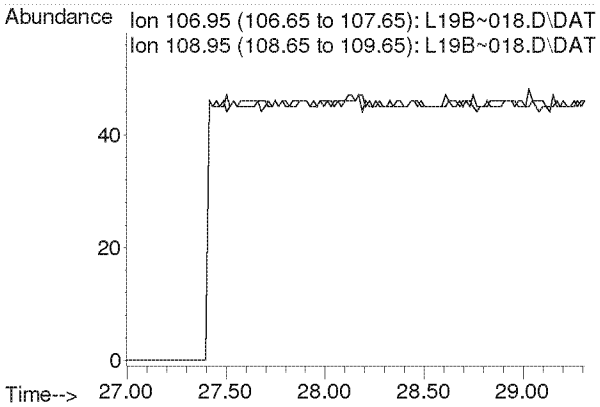


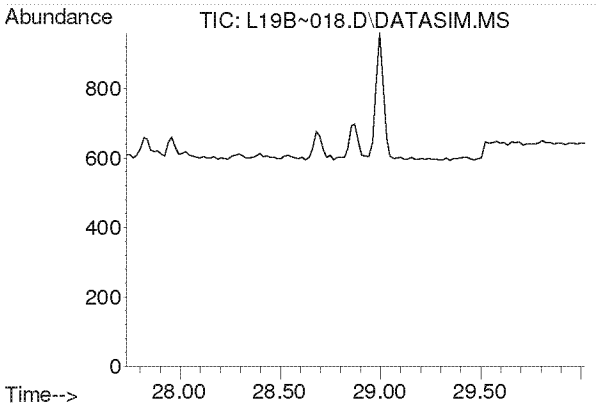
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



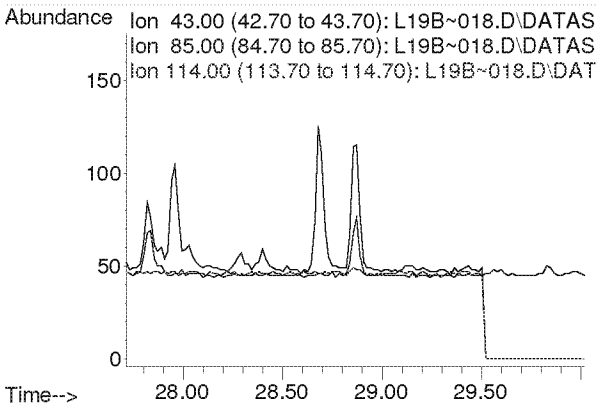


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

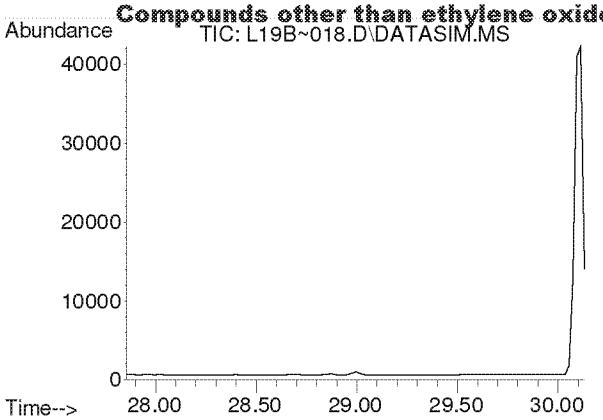
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

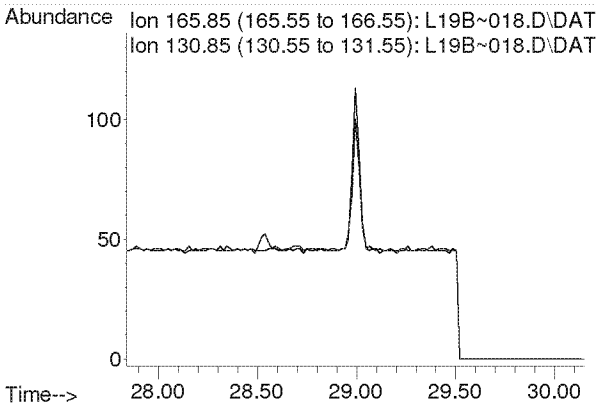


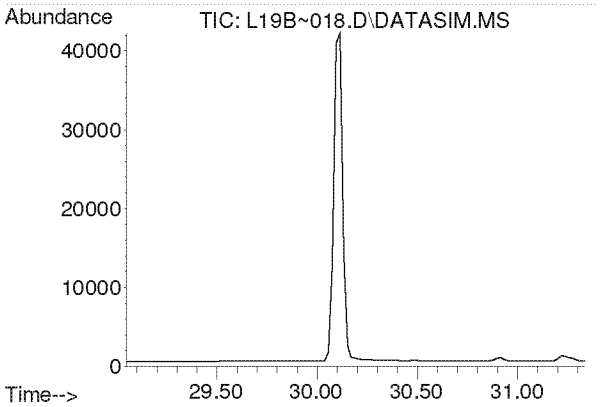
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



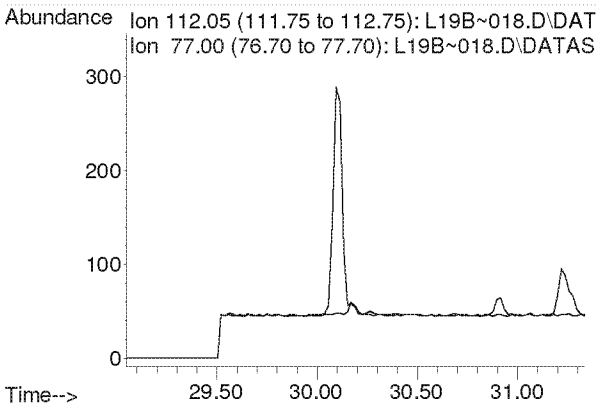


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

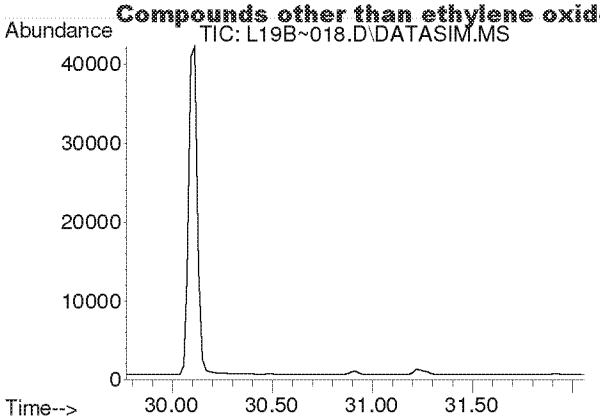
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

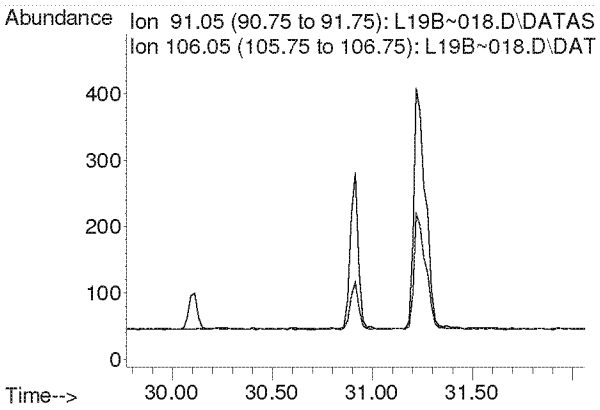


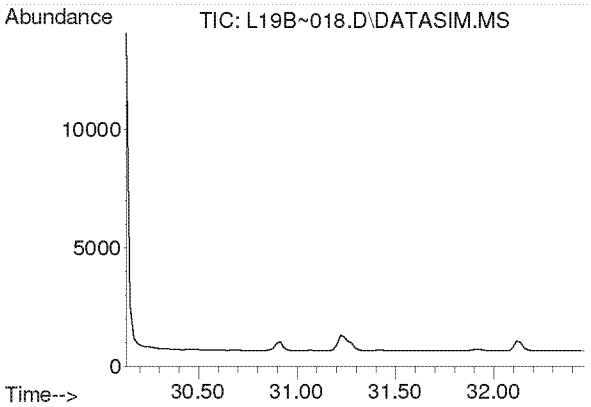
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



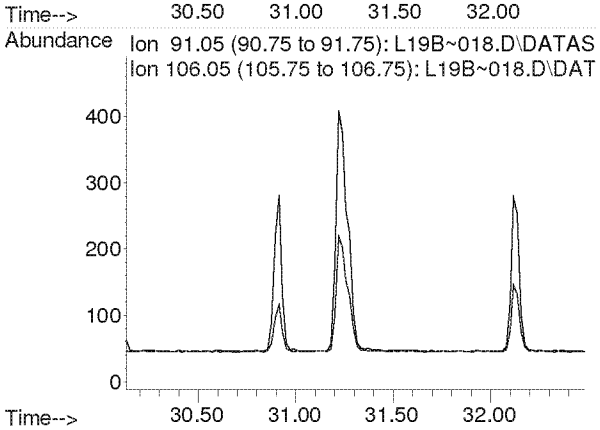


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

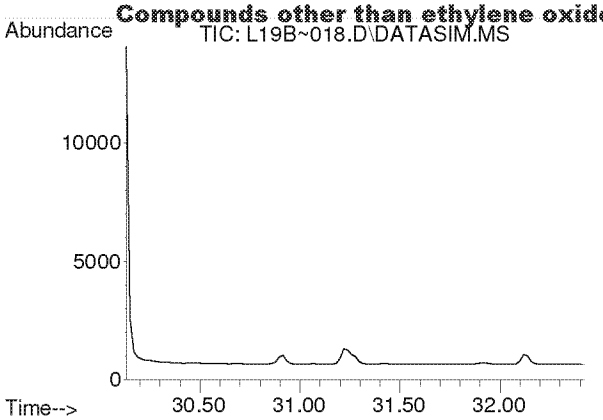
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

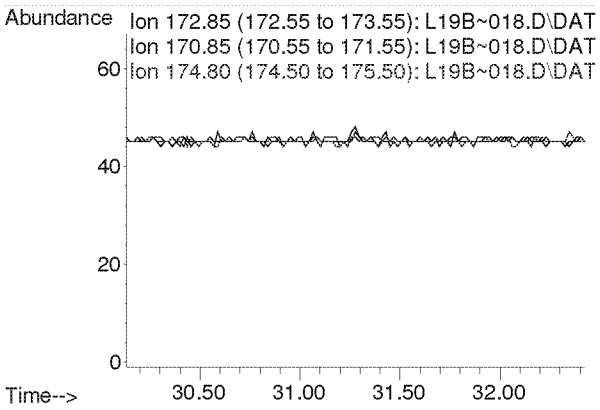


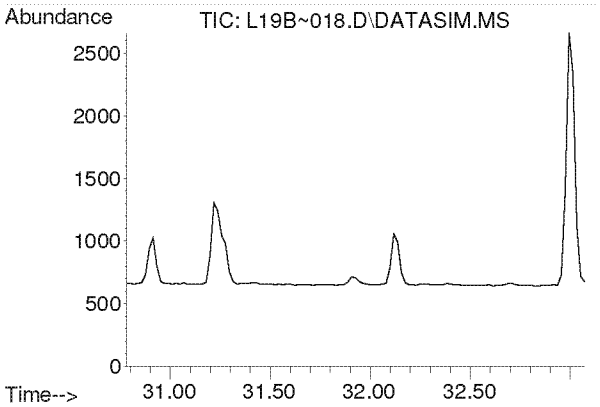
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



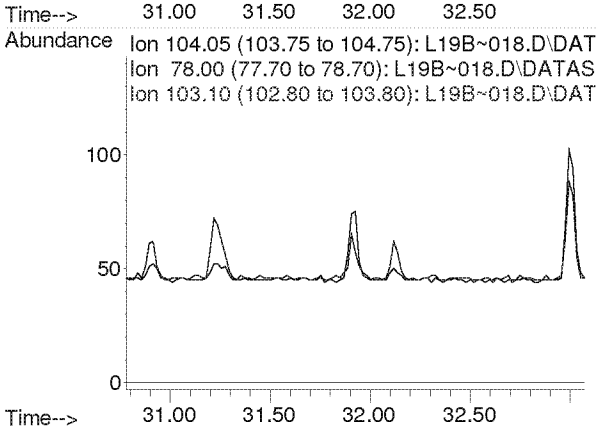


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

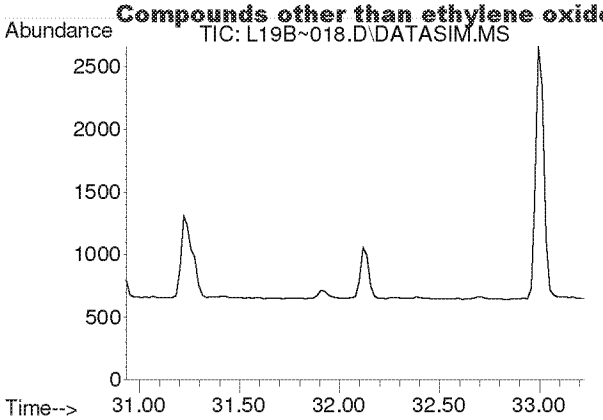
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

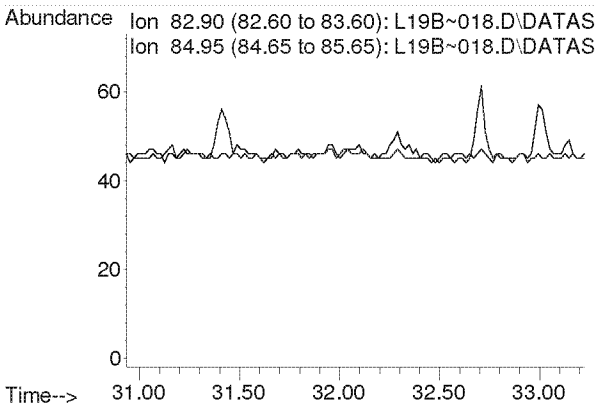


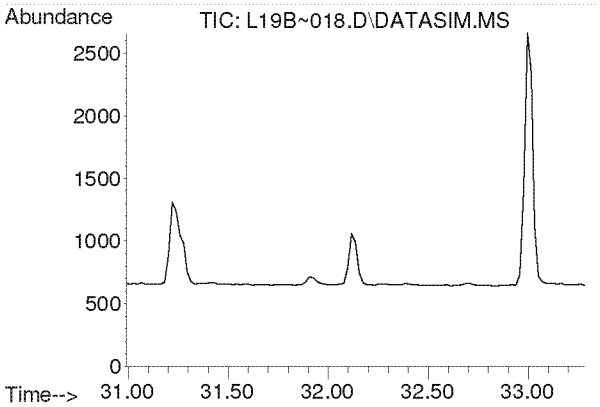
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



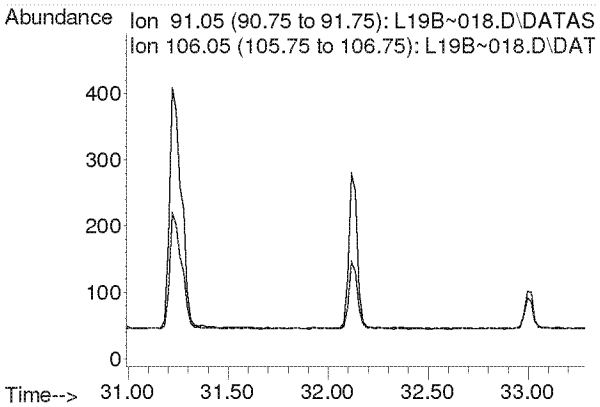


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

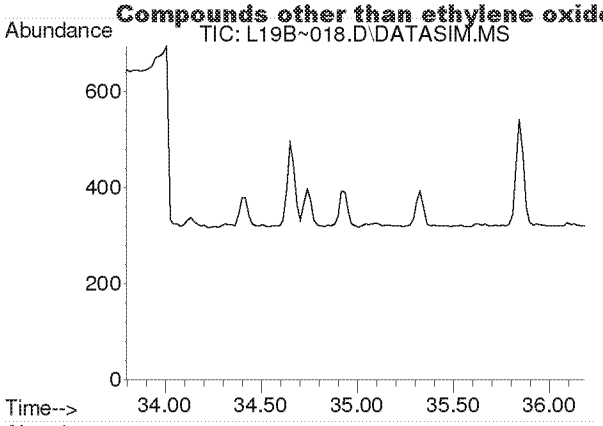
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

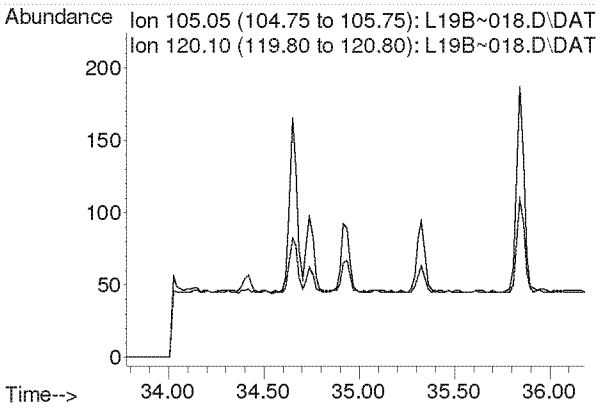


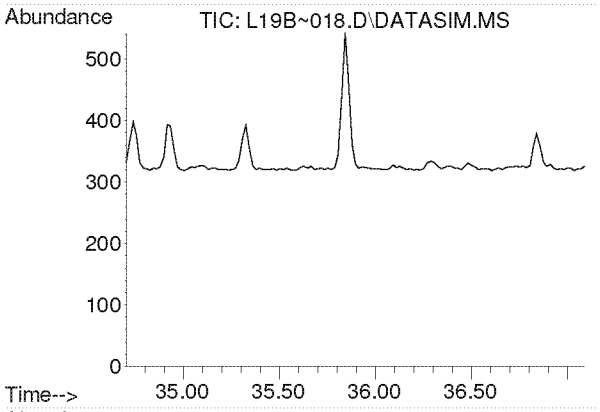
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



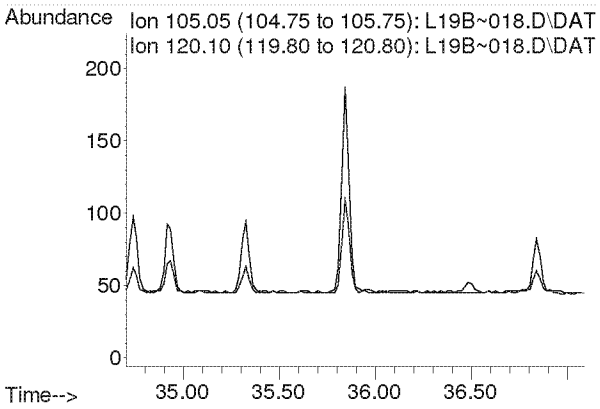


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

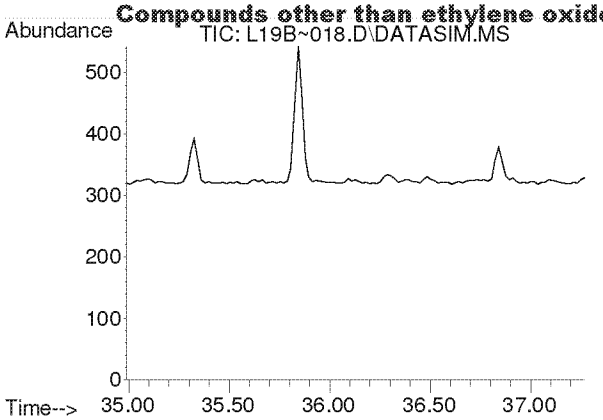
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

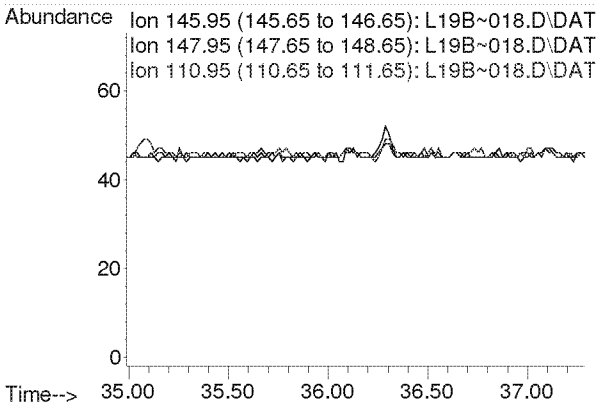


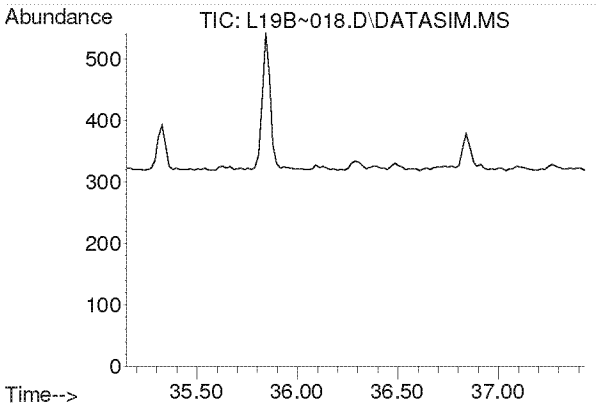
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



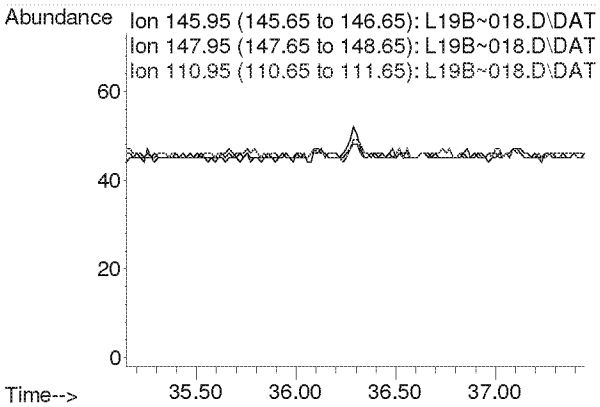


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

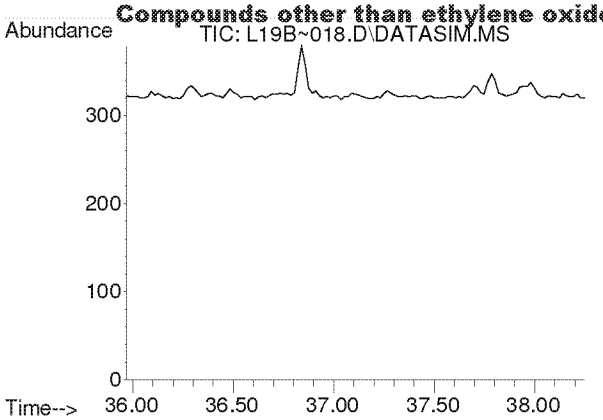
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

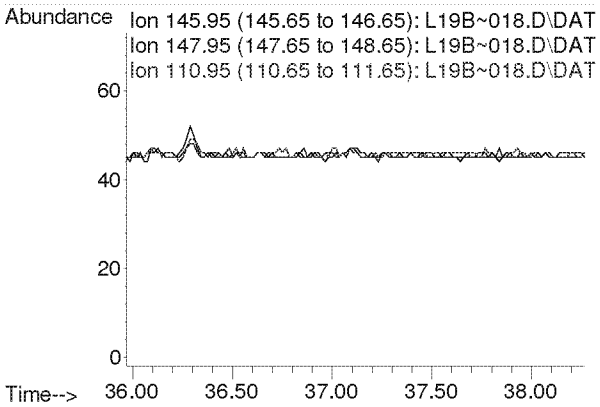


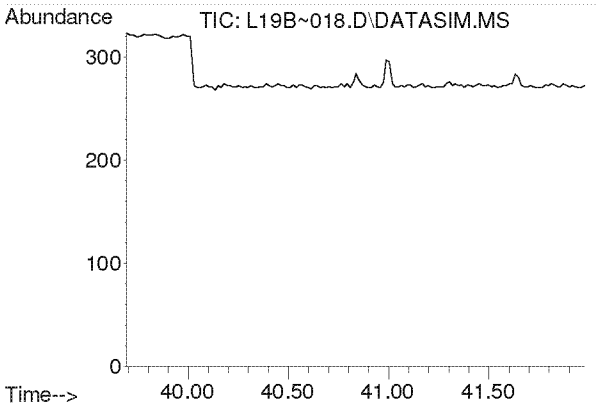
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



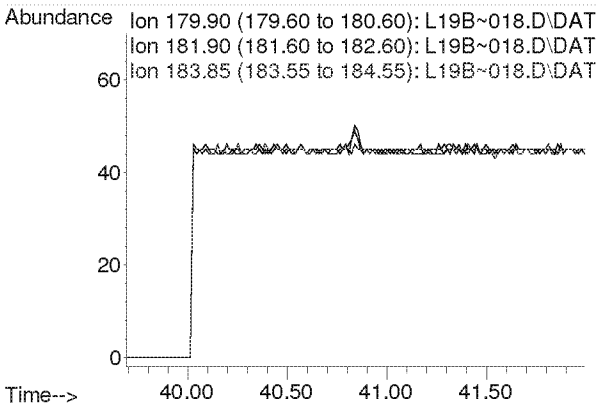


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

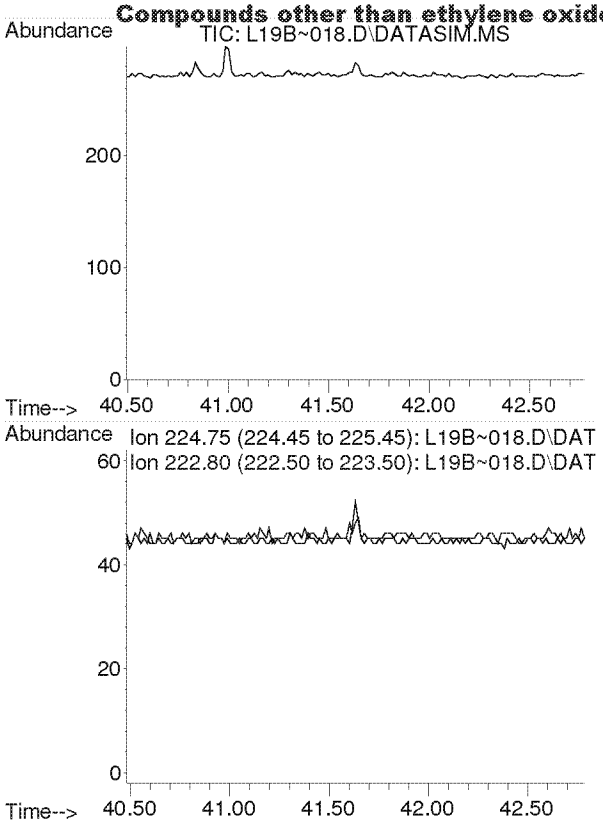
Lab File: L19B~018.D
Acq: 28 Feb 2019 4:38 am

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: L19B~018.D
Acq: 28 Feb 2019 4:38 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\L19B~\
Data File : L19B~019.D
Acq On : 28 Feb 2019 5:38 am
Operator : MAH
Sample : 9022616-06
Misc : WB WB WAREHOUSE 2/23/19
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 05 06:54:16 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

3-5-19

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	42779	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	106330	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	74822	4.7400 ppbv	0.00

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	164m	0.0670 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D. d	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19B~\
Data File : L19B~019.D
Acq On : 28 Feb 2019 5:38 am
Operator : MAH
Sample : 9022616-06
Misc : WB WB WAREHOUSE 2/23/19
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 05 06:54:16 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
Quant Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

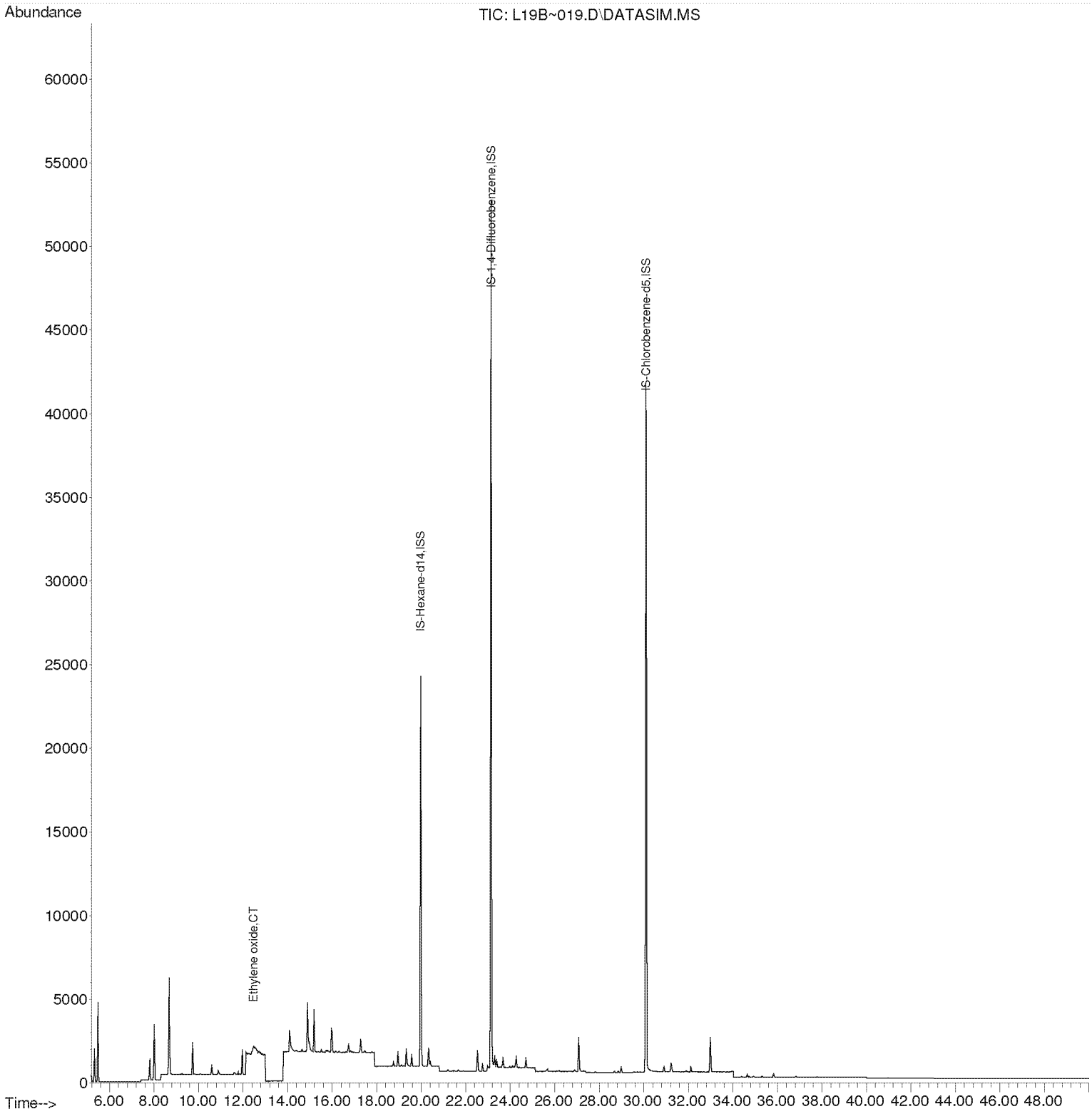
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.D.	d
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

(d) = qualifier out of range (m) = manual integration (+) = signals summed

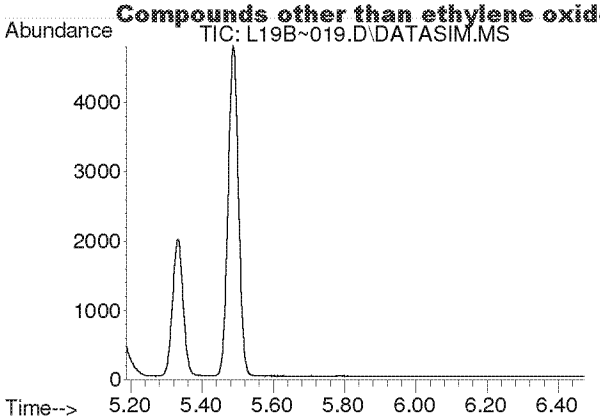
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~019.D
Acq On : 28 Feb 2019 5:38 am
Operator : MAH
Sample : 9022616-06
Misc : WB WB WAREHOUSE 2/23/19
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 28 12:55:27 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



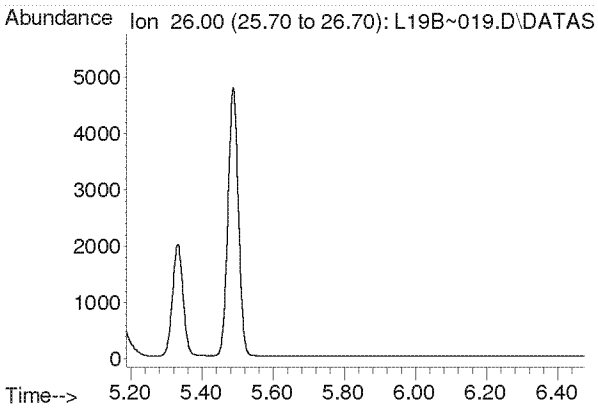
Compounds other than ethylene oxide were not quantitated.

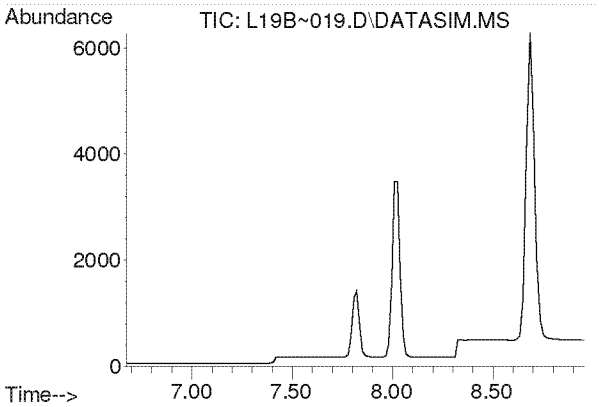


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 26



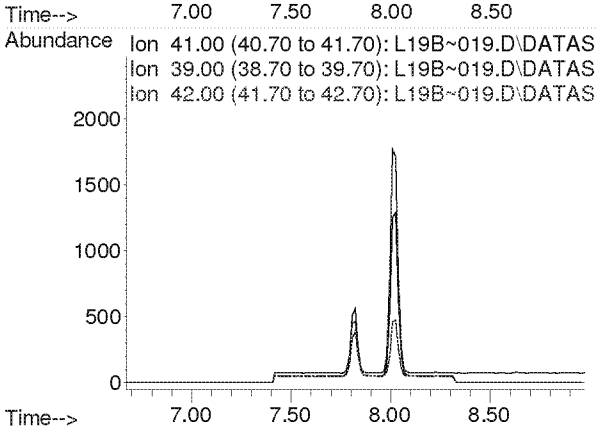


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

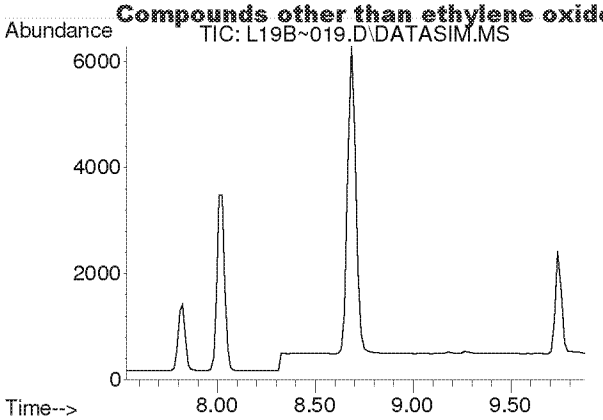
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

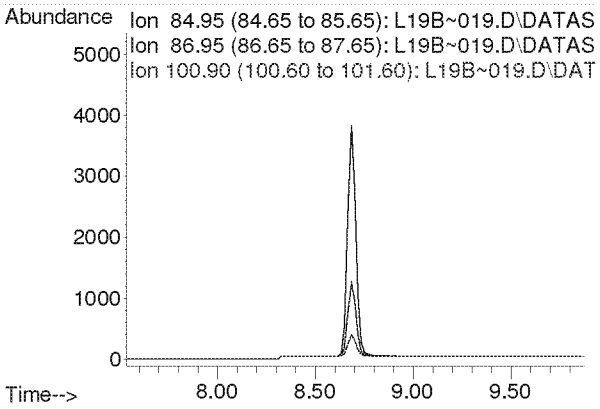


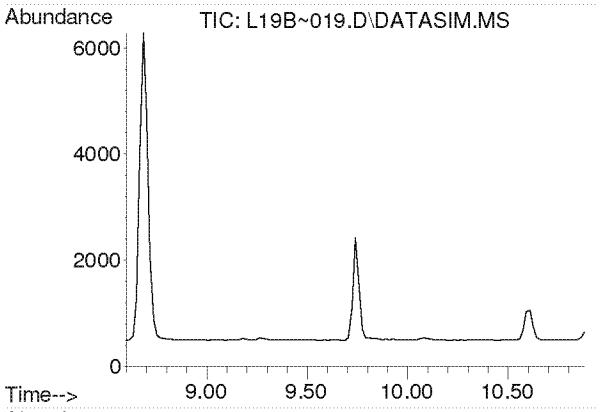
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



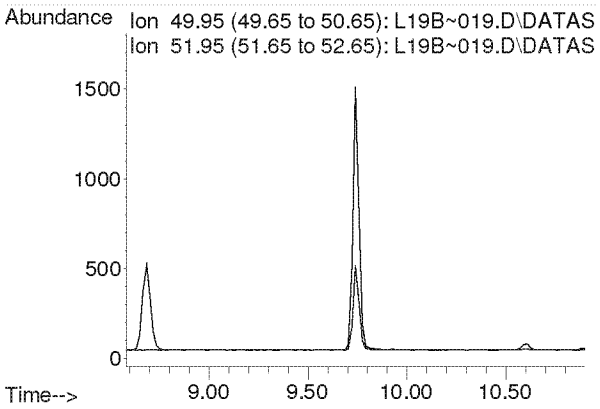


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

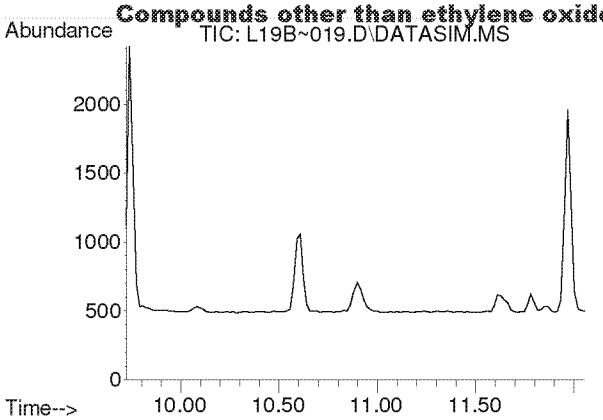
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

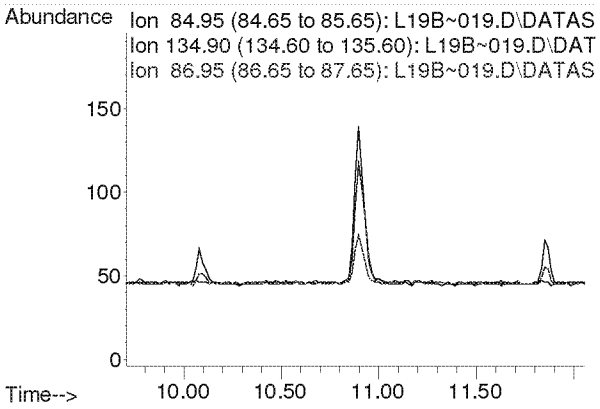


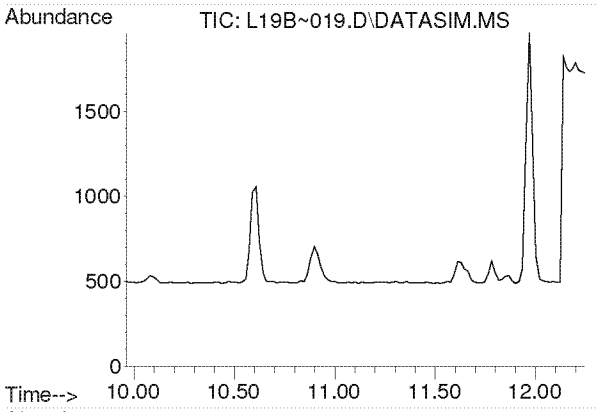
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



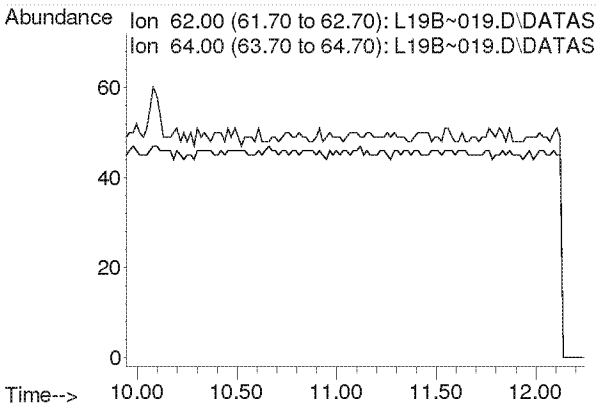


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

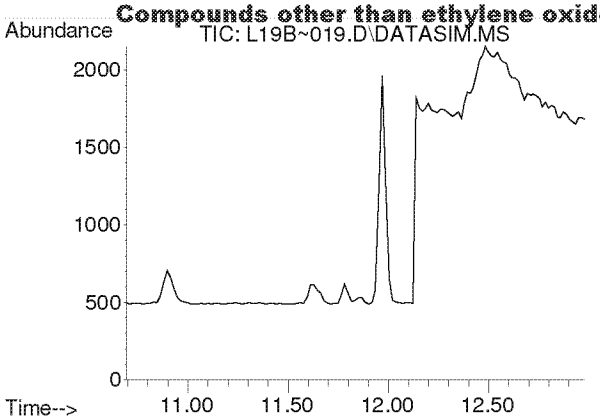
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

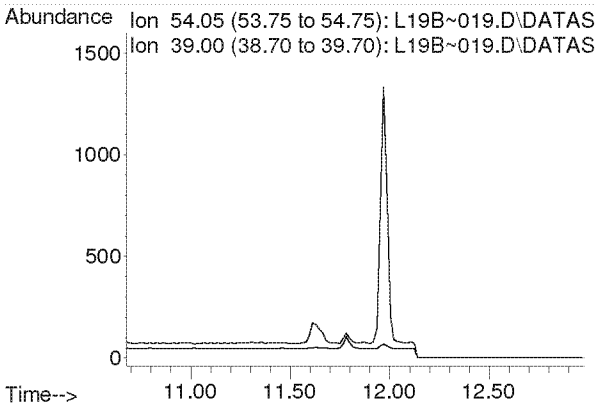


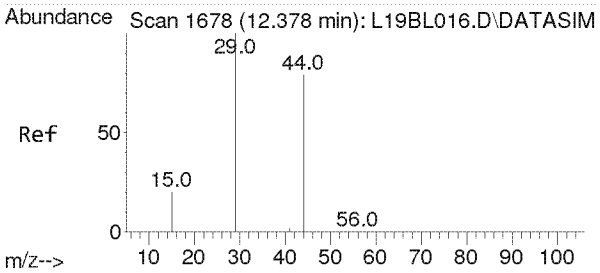
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

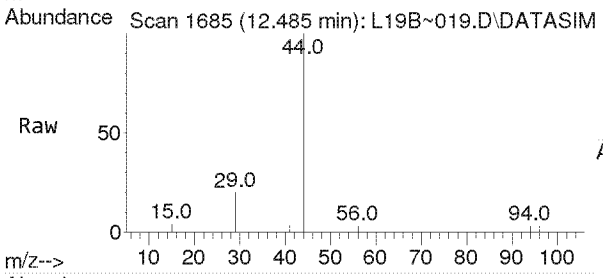


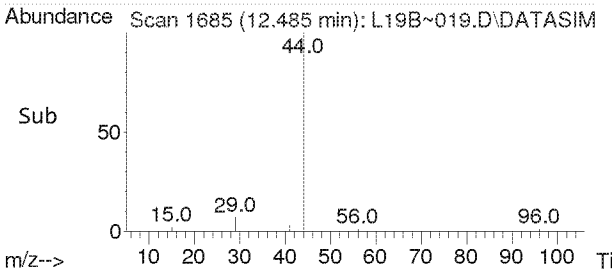


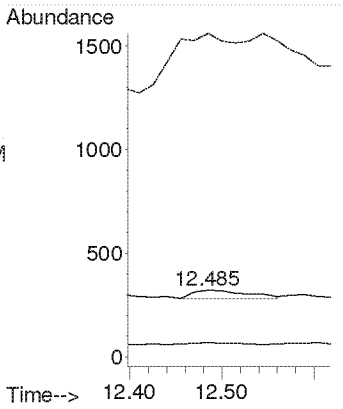
#9
Ethylene oxide
Concen: 0.067 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 29 Resp: 164

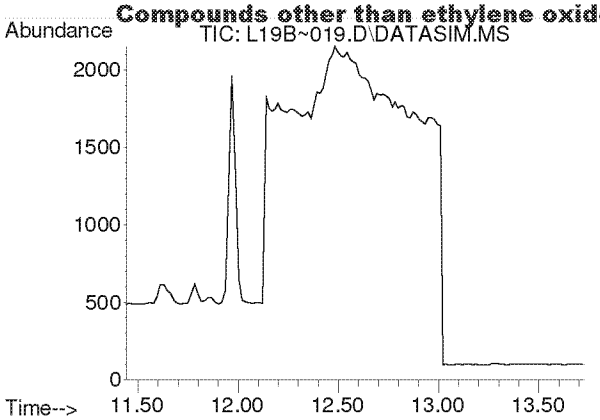
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	2717.7	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

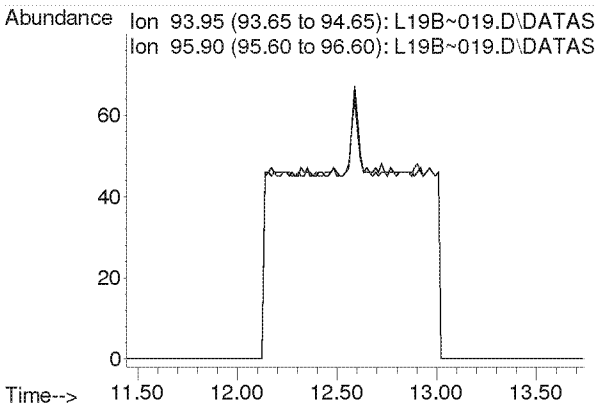


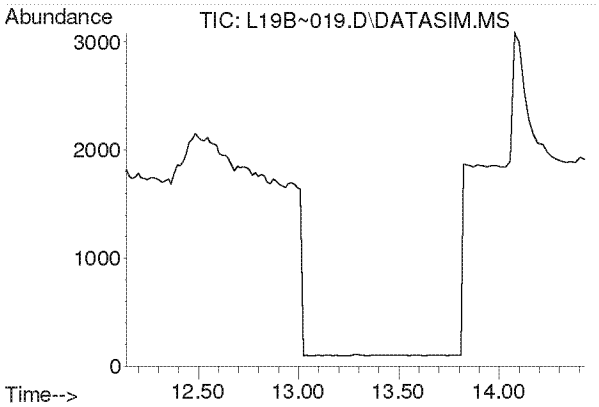
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



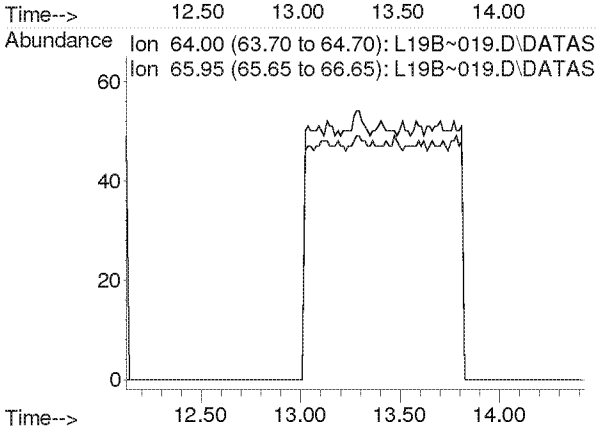


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

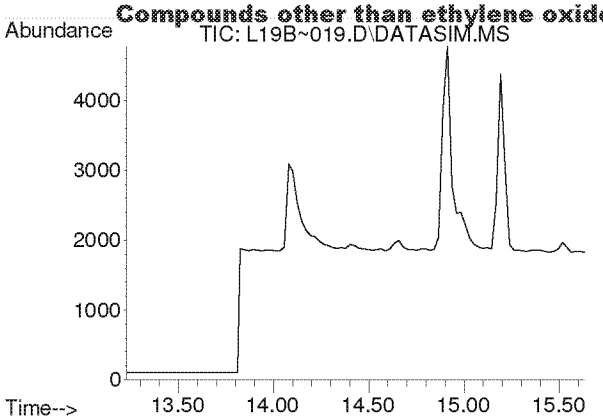
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

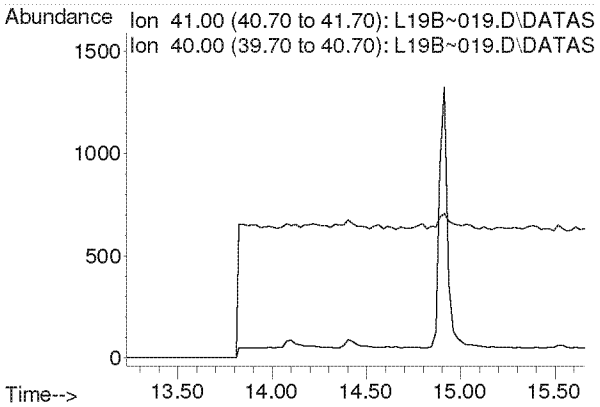


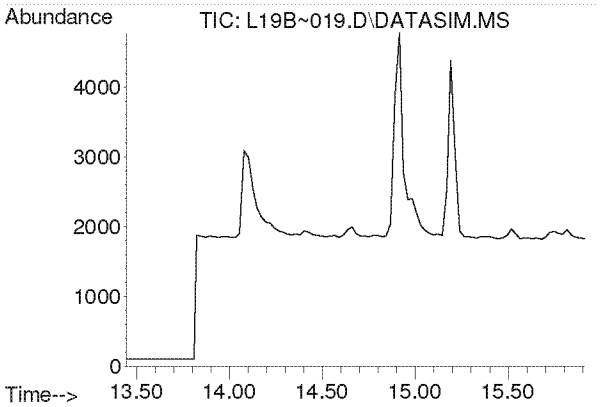
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



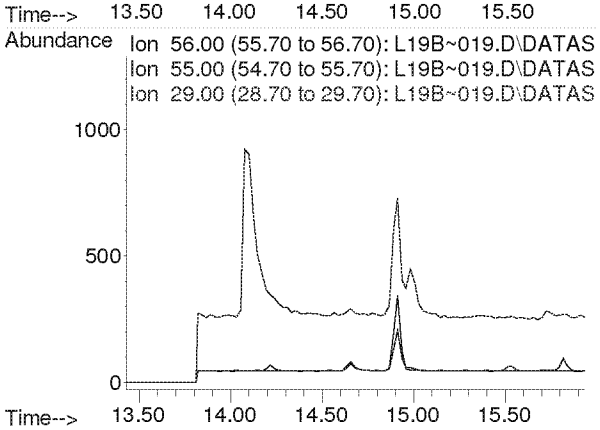


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

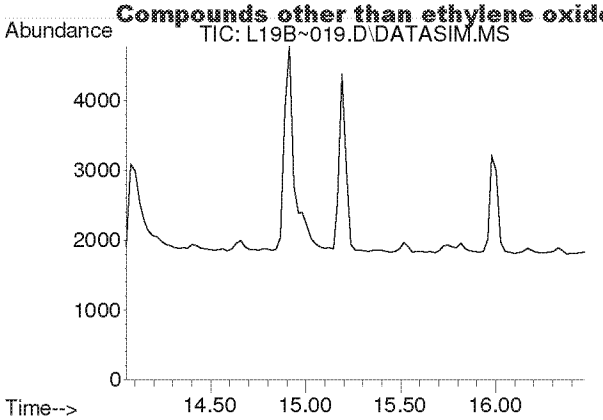
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

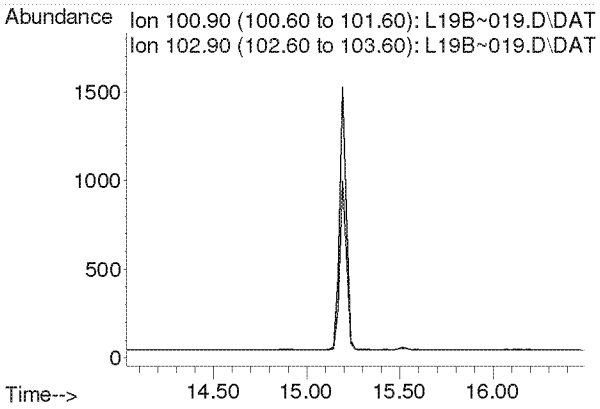


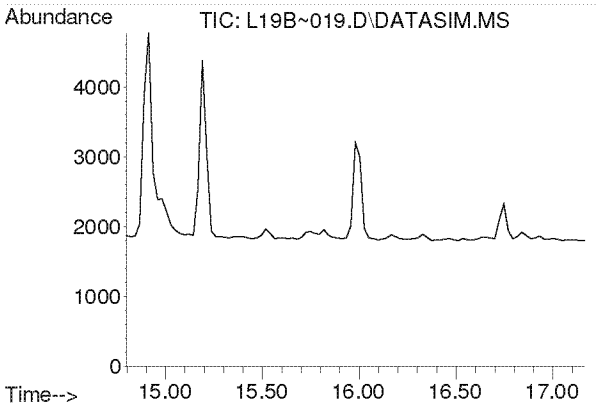
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



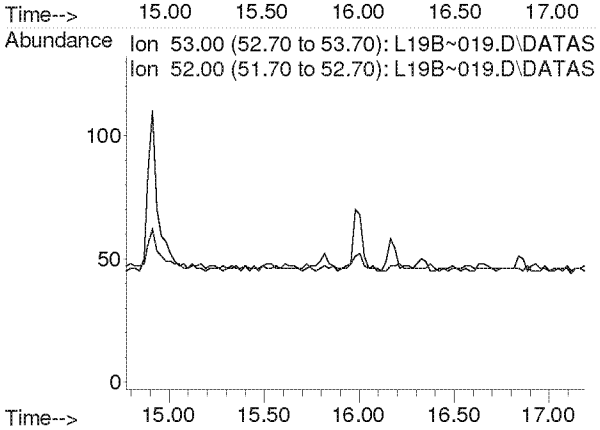


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

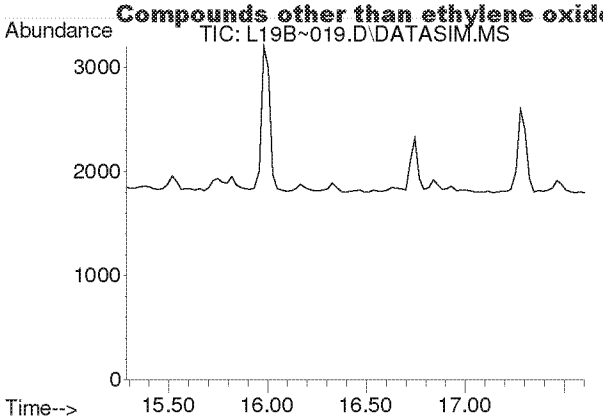
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

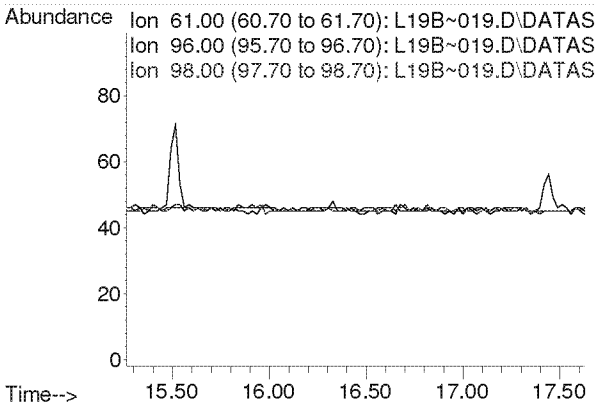


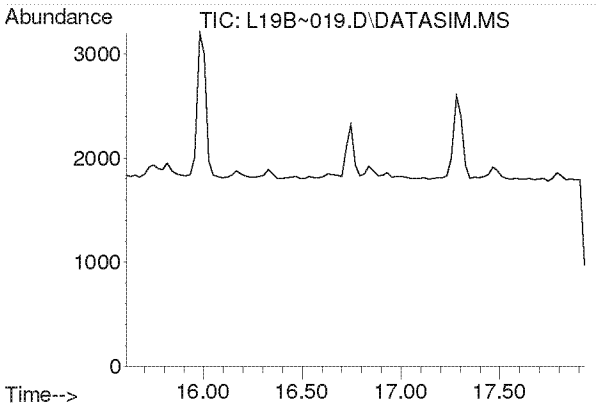
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



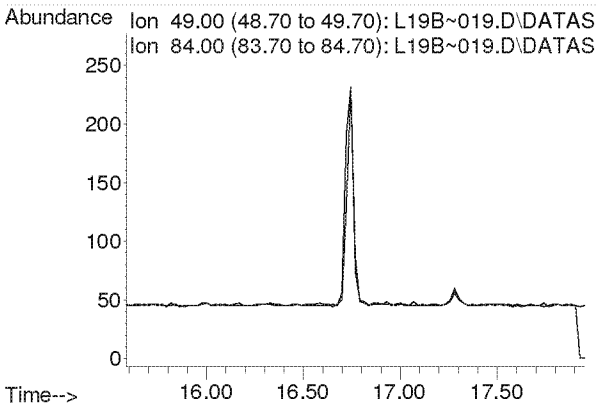


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

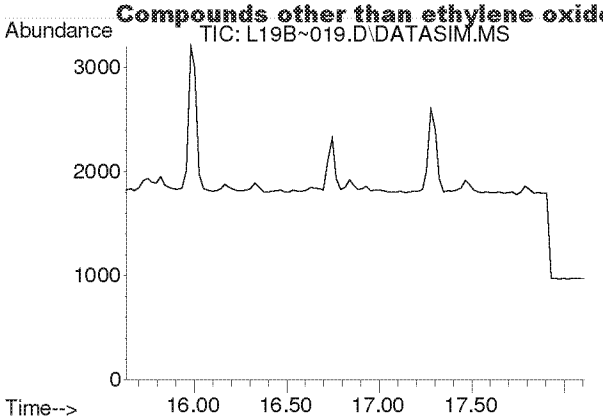
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

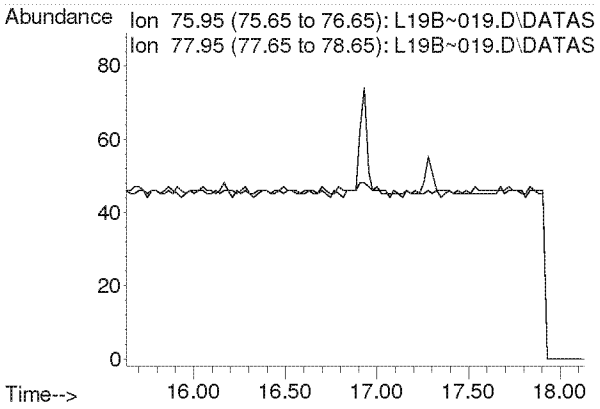


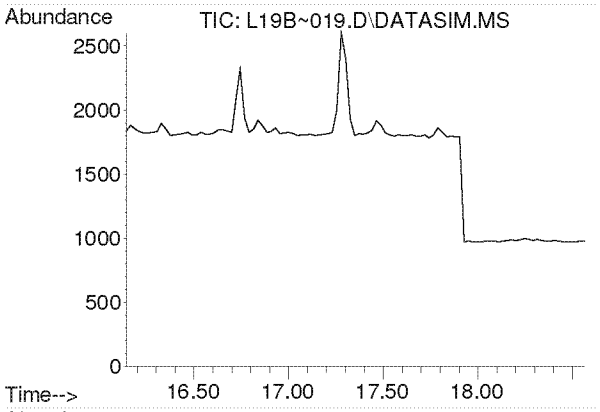
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



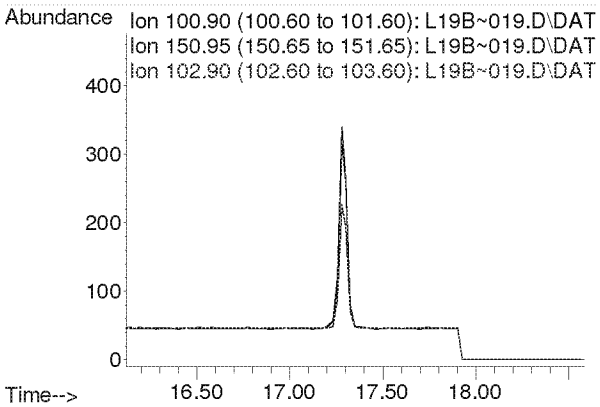


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

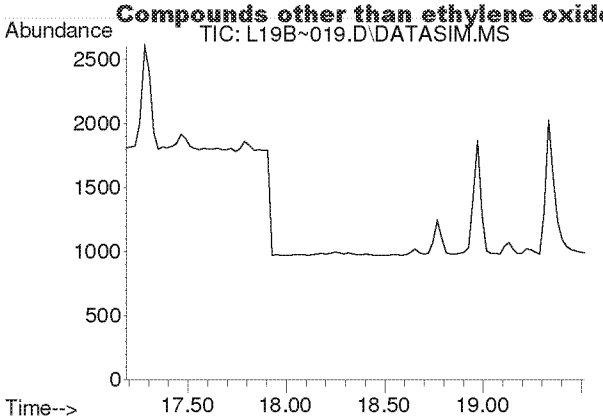
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

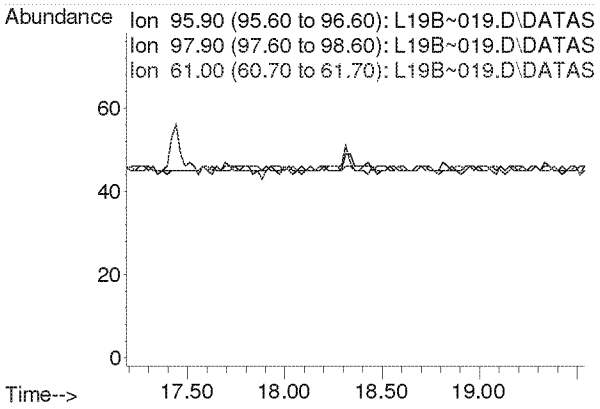


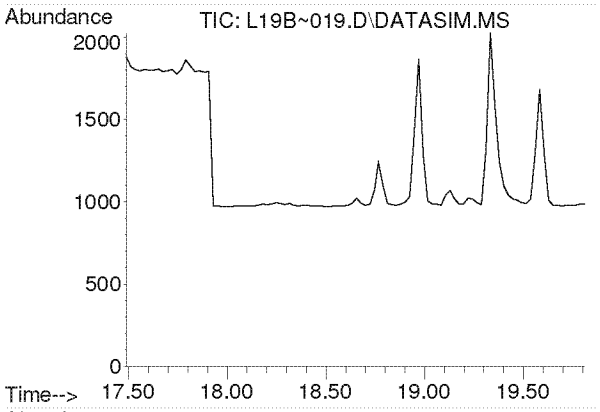
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



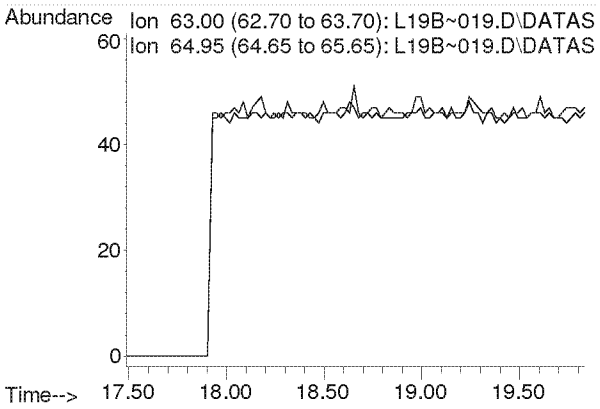


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

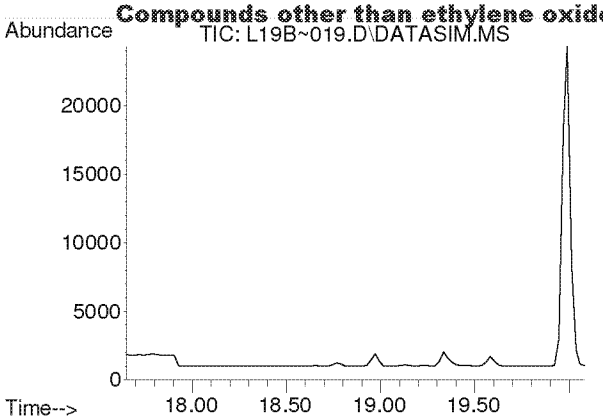
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

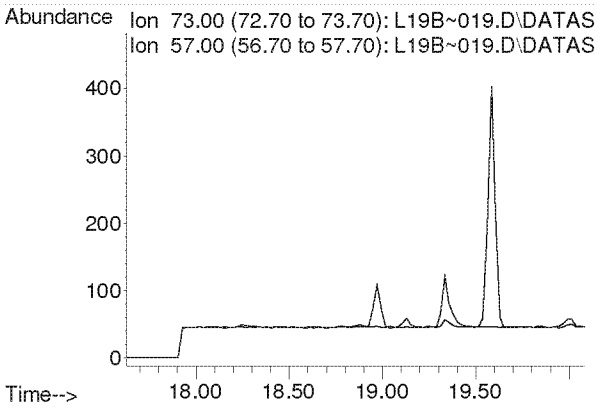


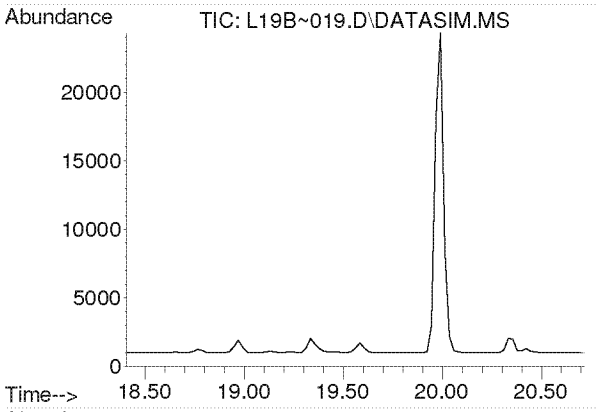
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



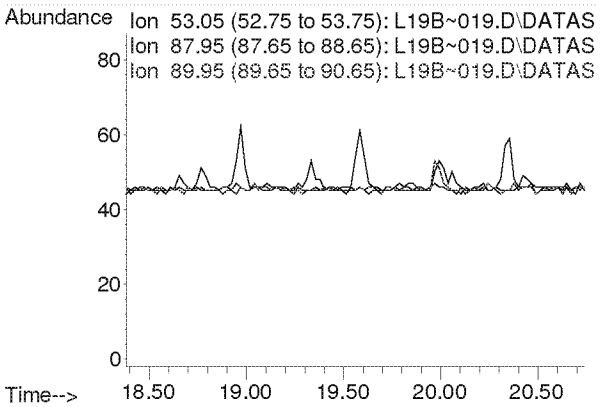


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

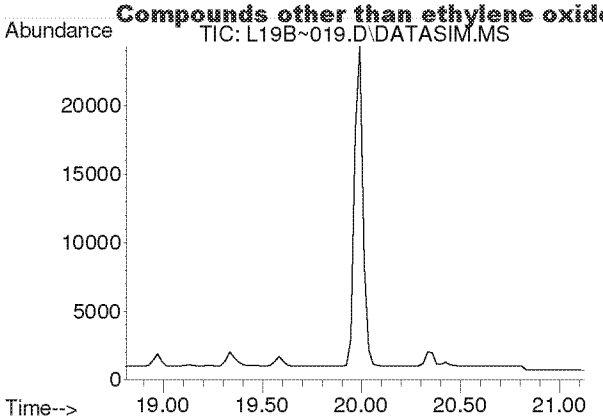
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

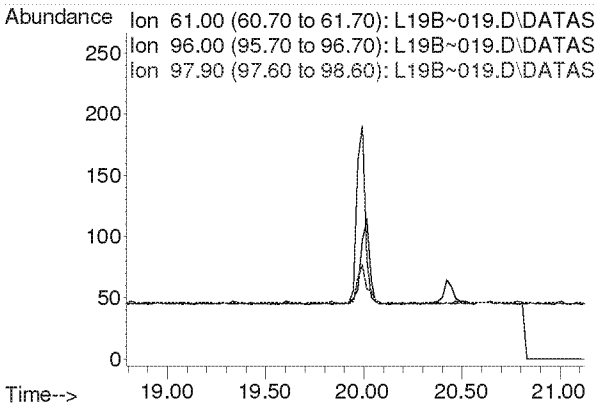


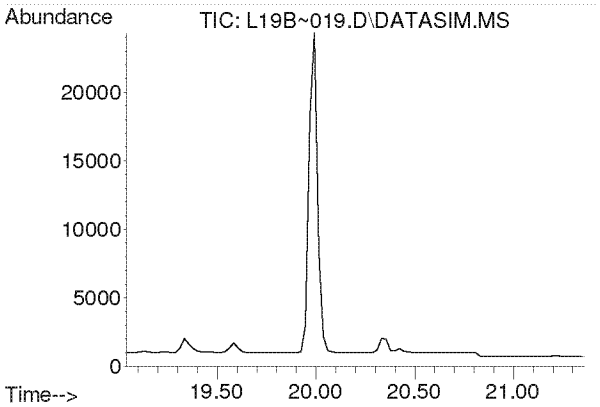
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



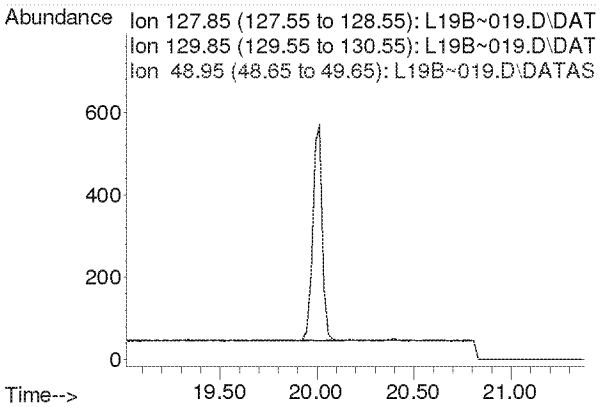


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

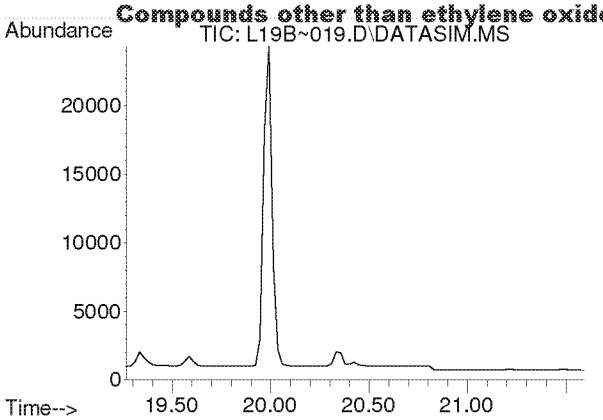
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

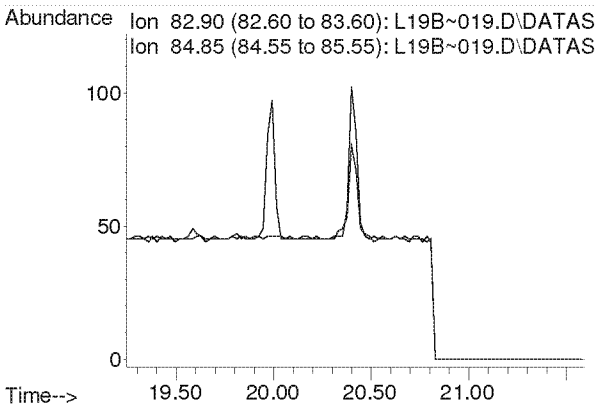


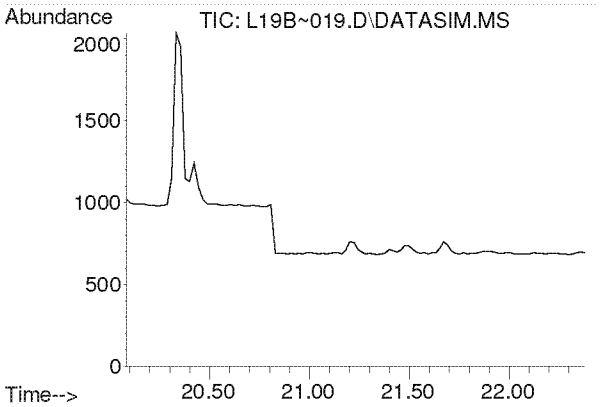
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



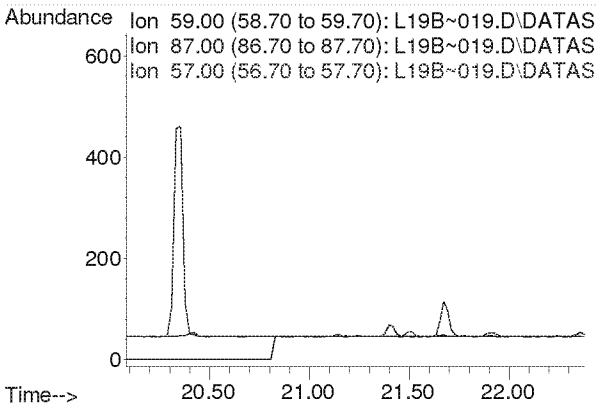


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

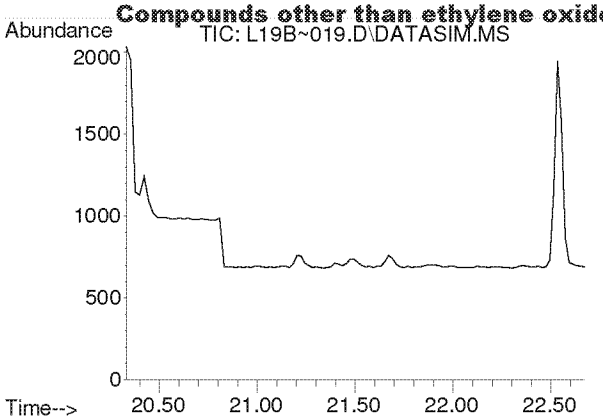
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

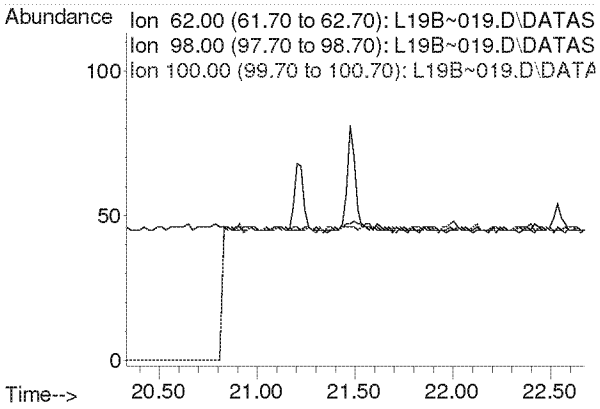


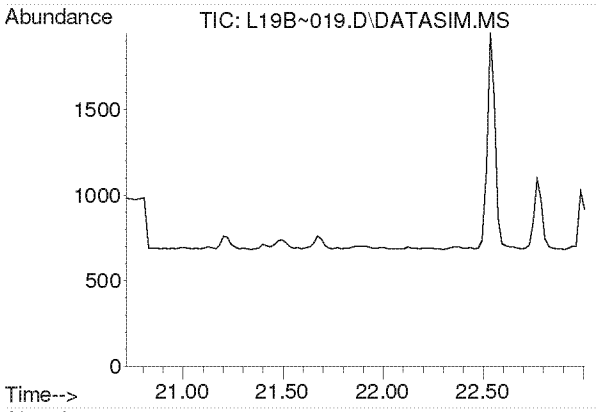
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



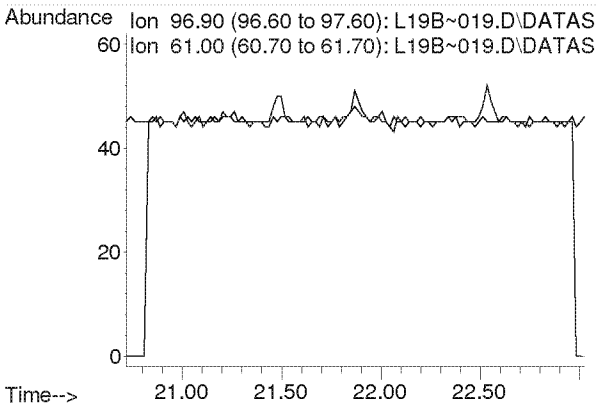


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

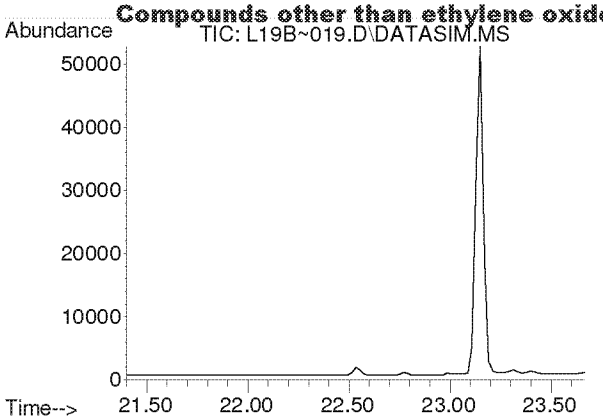
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

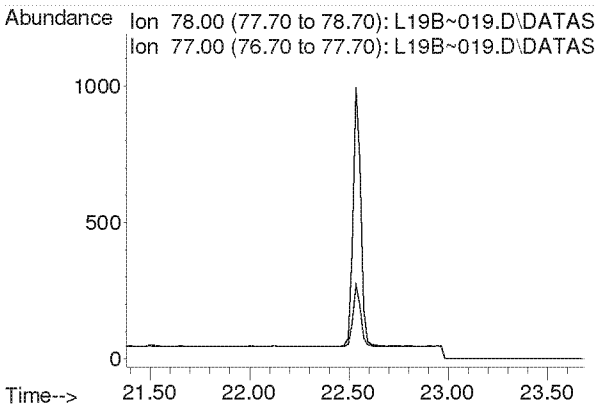


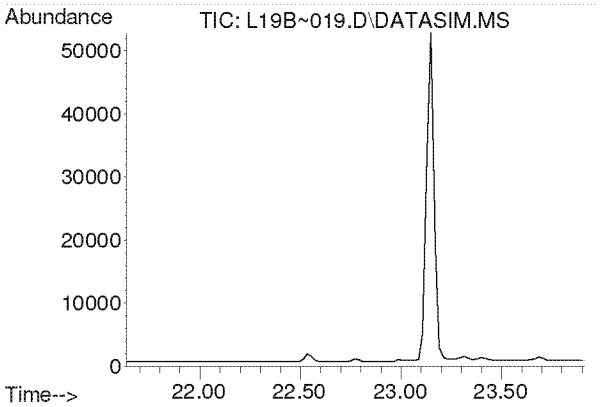
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



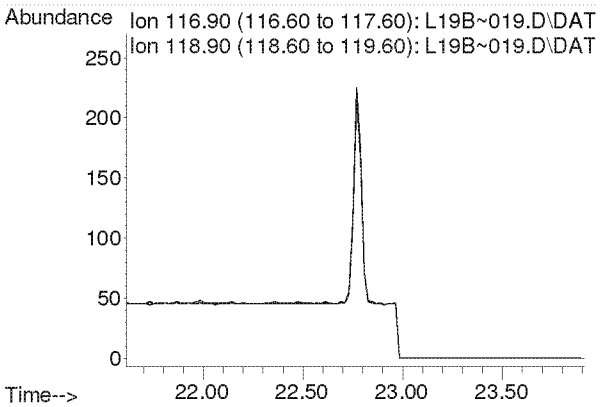


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

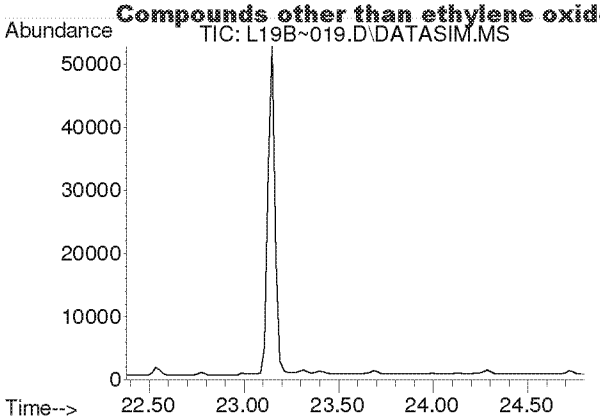
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

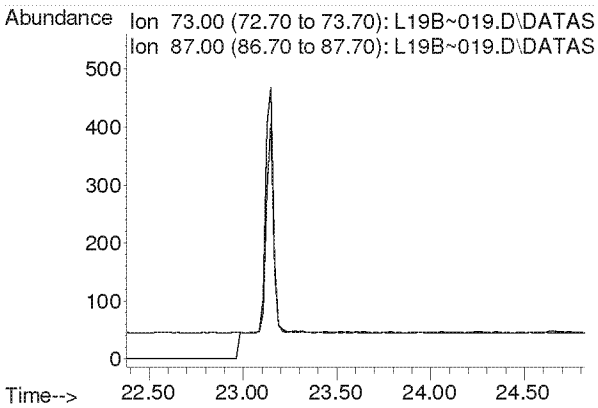


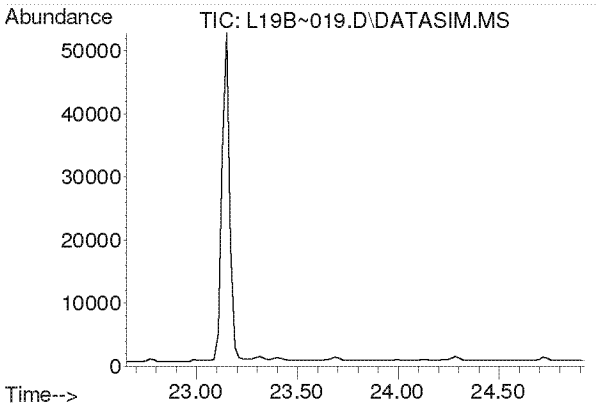
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



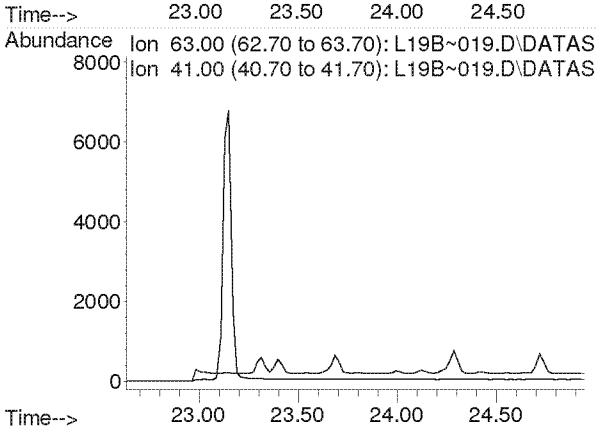


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

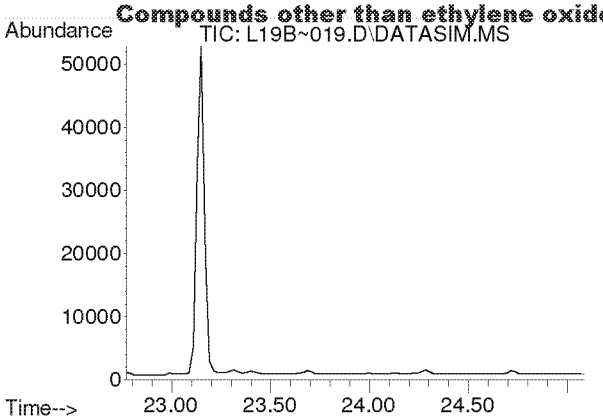
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

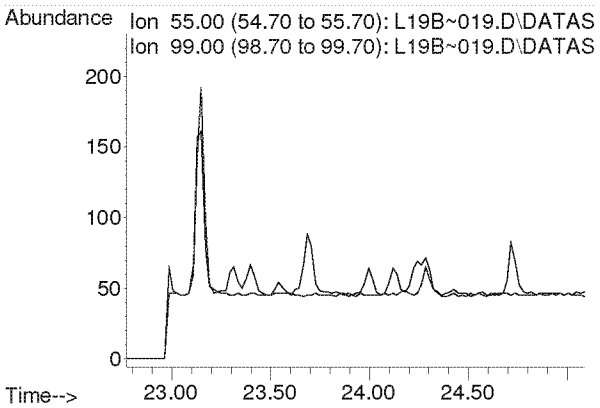


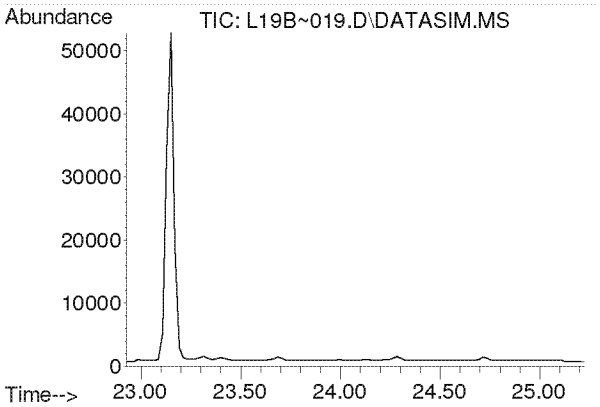
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



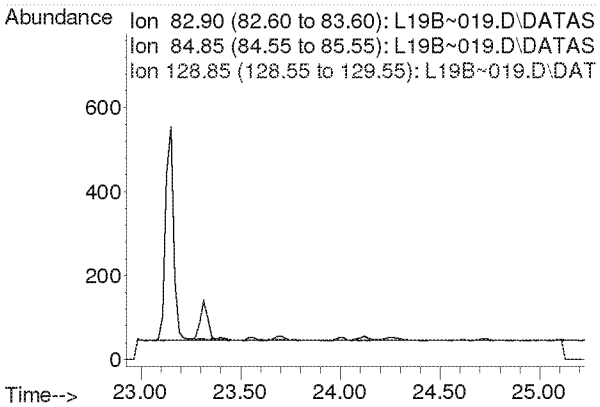


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

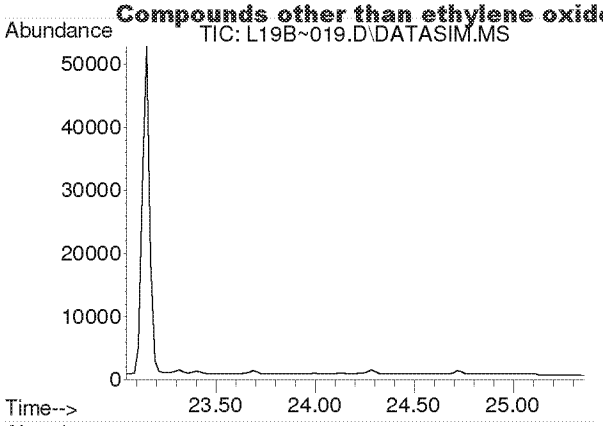
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

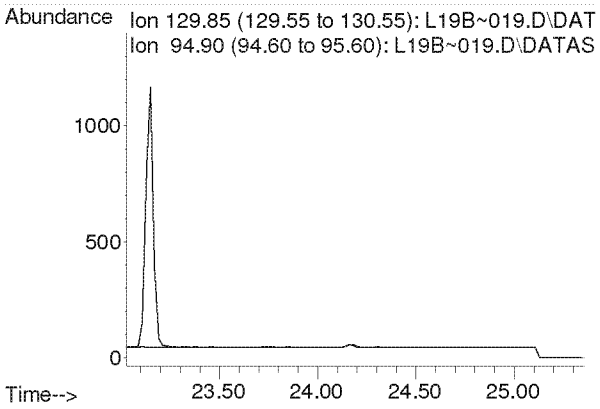


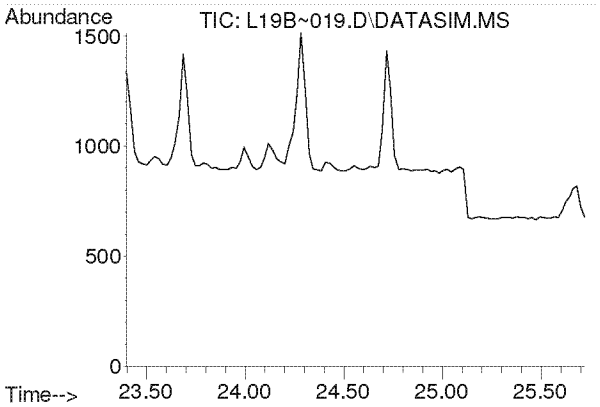
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



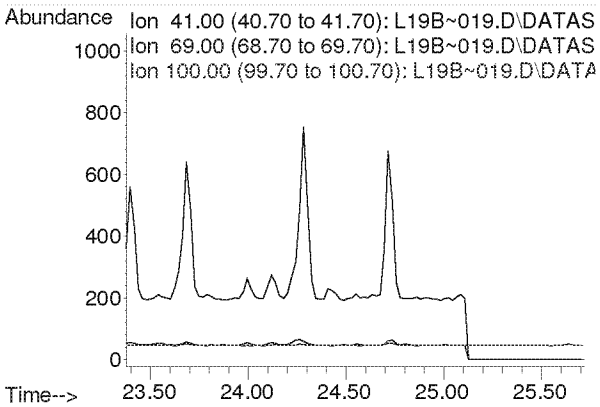


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

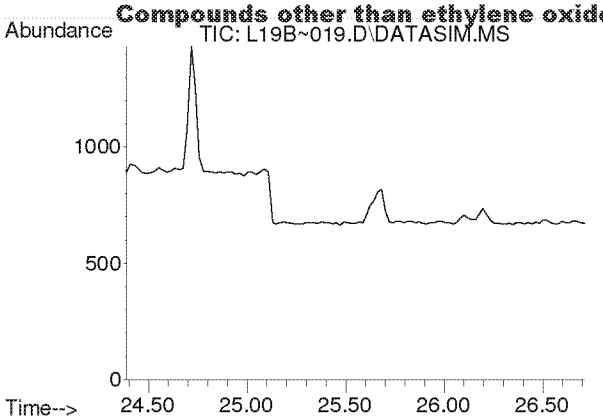
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

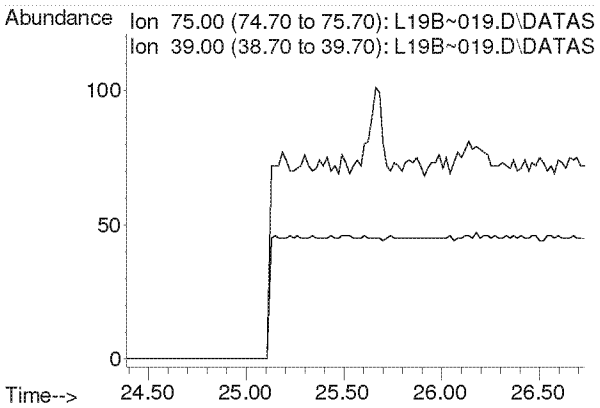


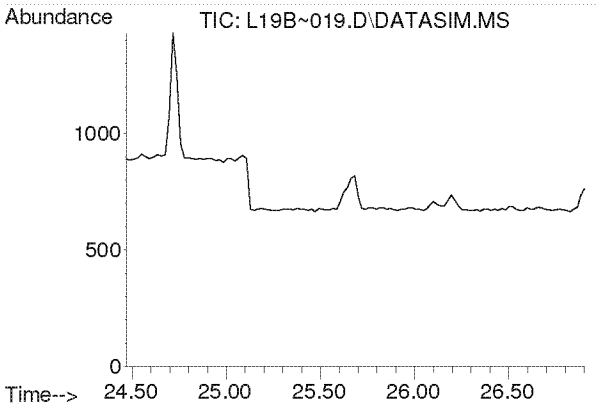
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



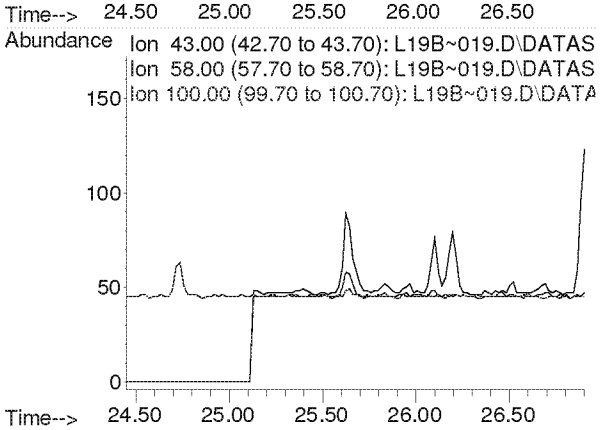


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

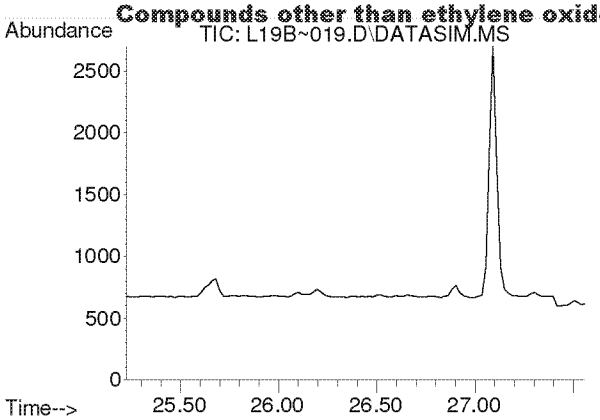
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

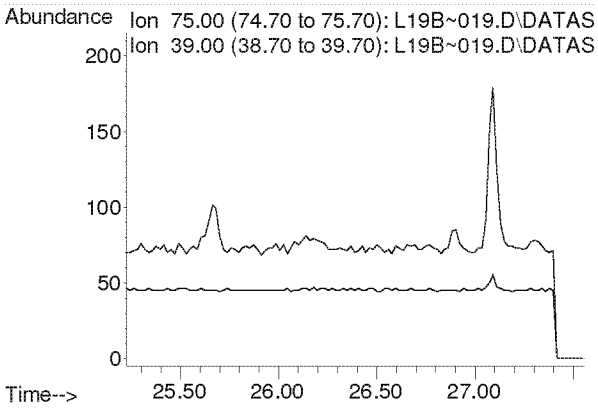


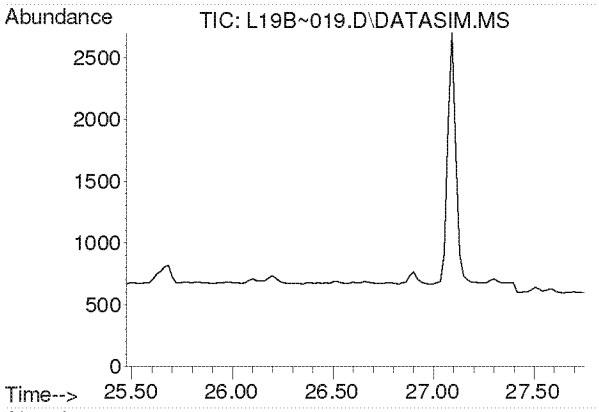
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



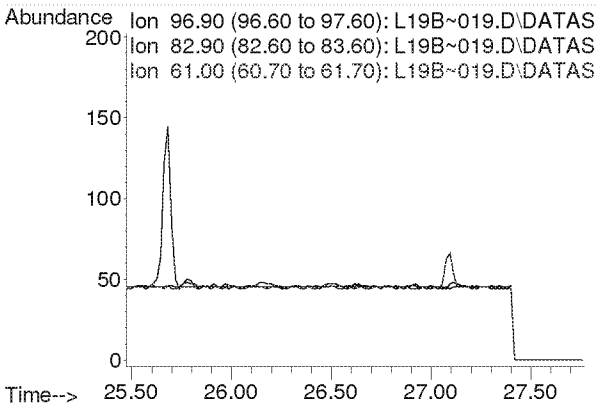


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

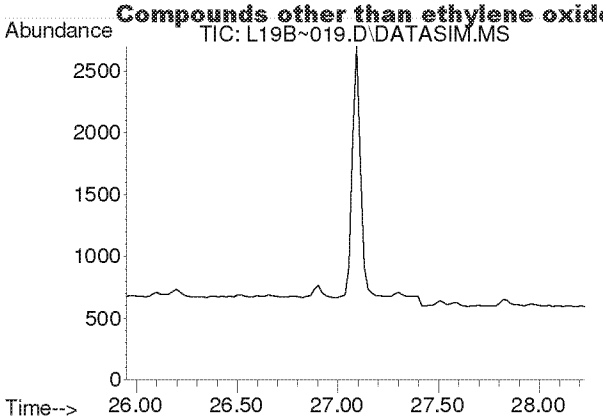
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

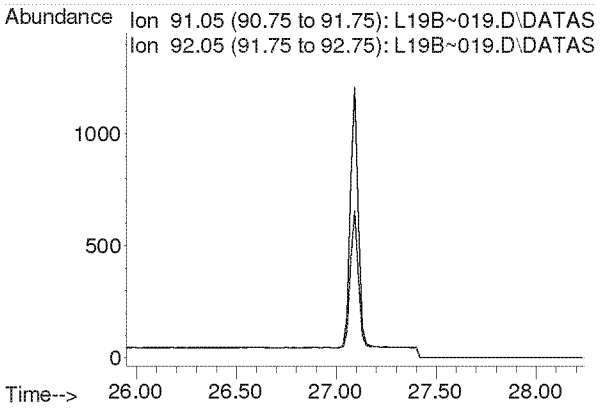


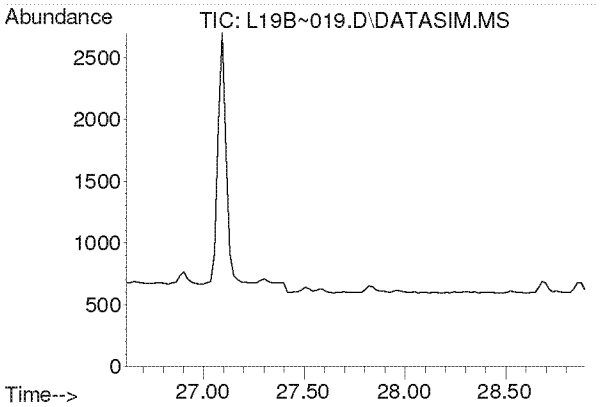
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



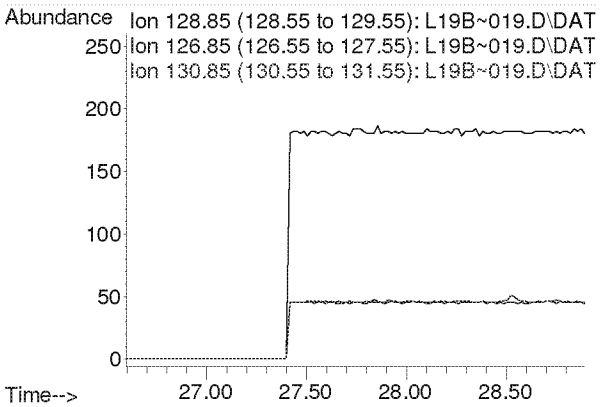


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

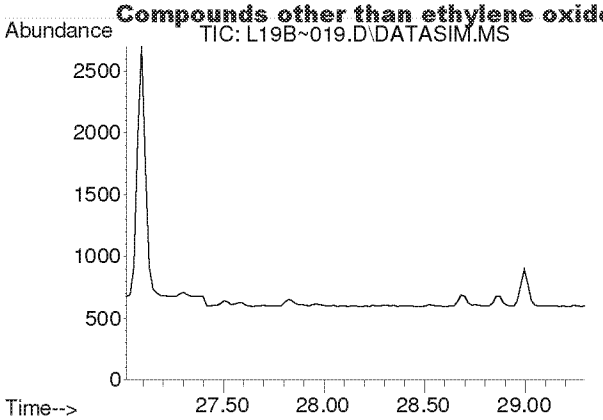
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

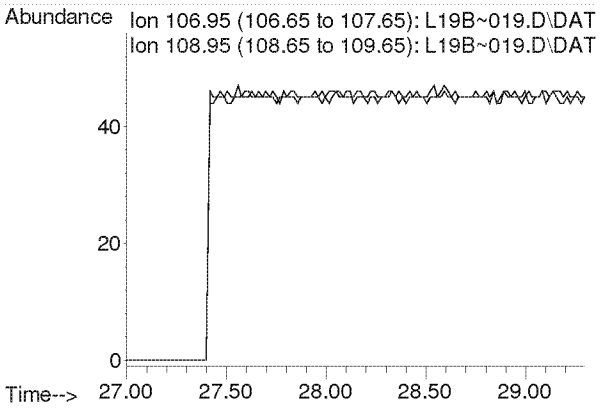


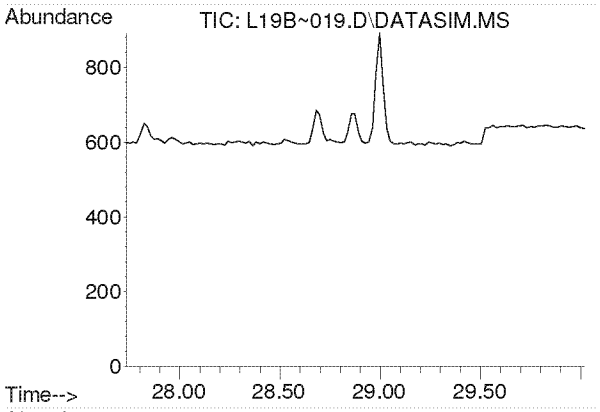
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



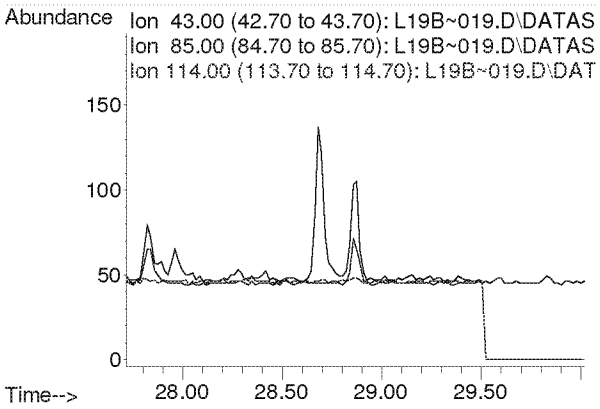


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

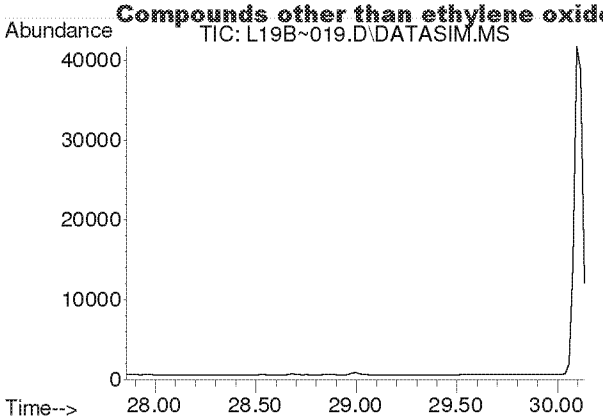
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

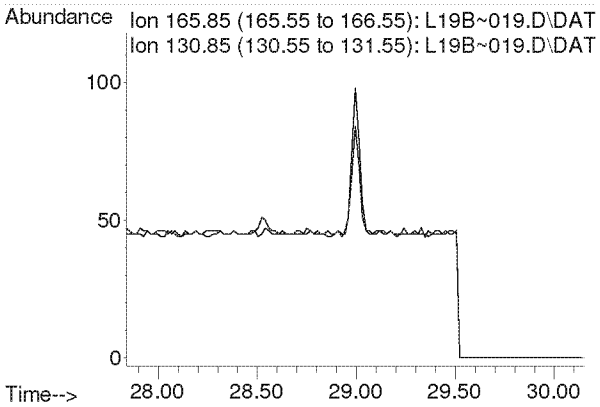


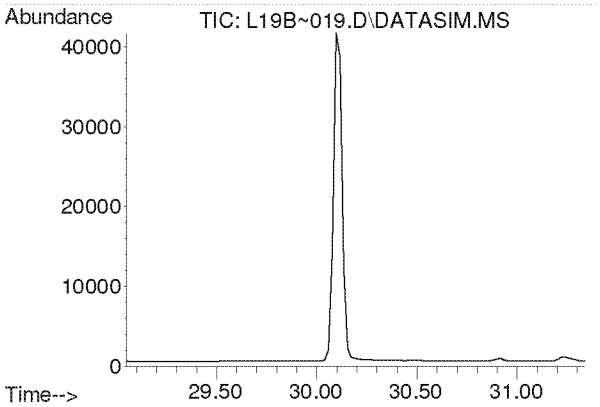
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



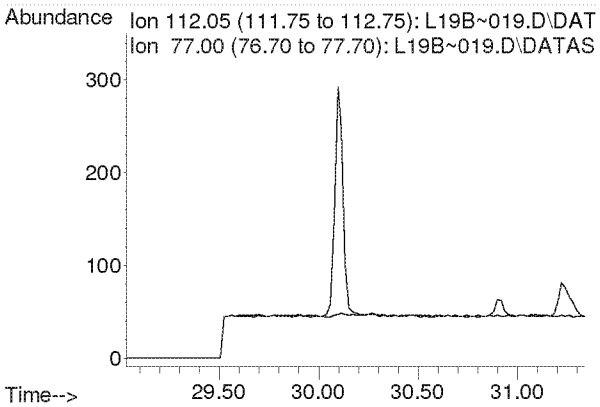


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

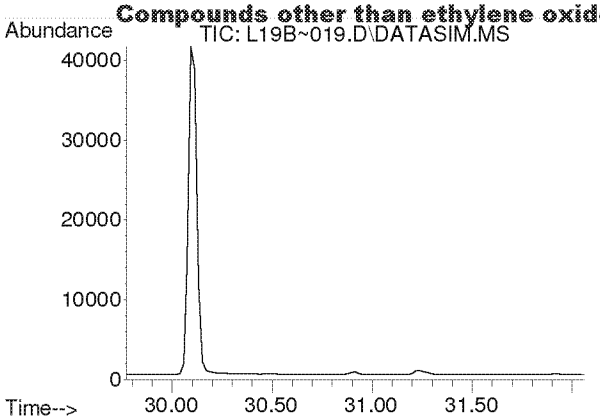
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

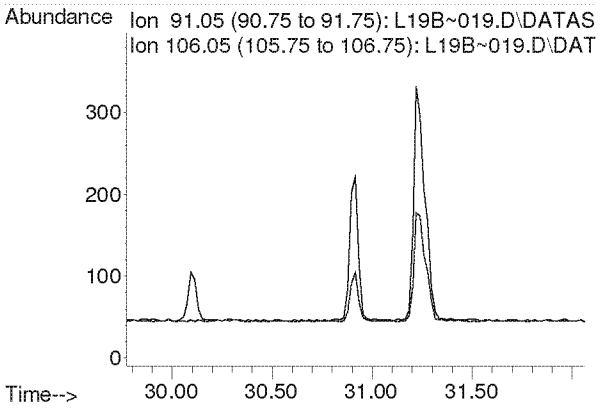


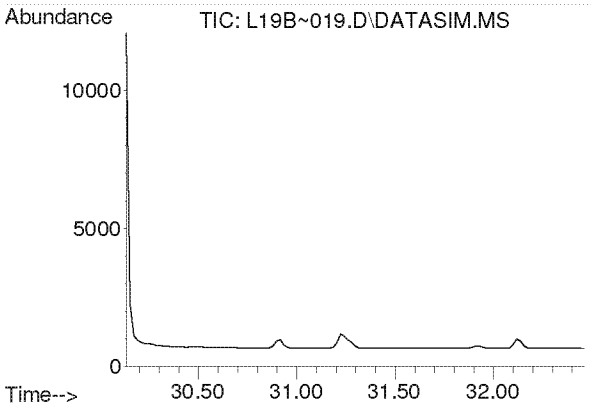
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



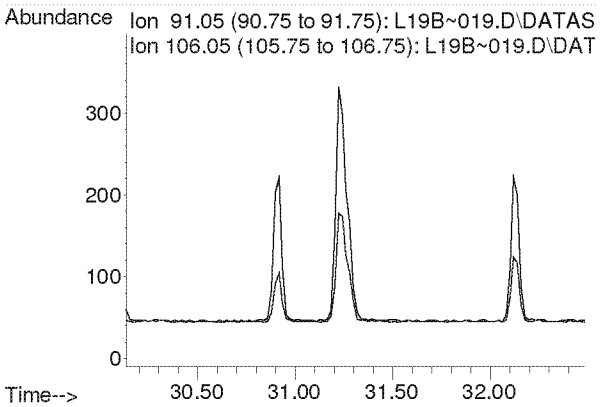


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

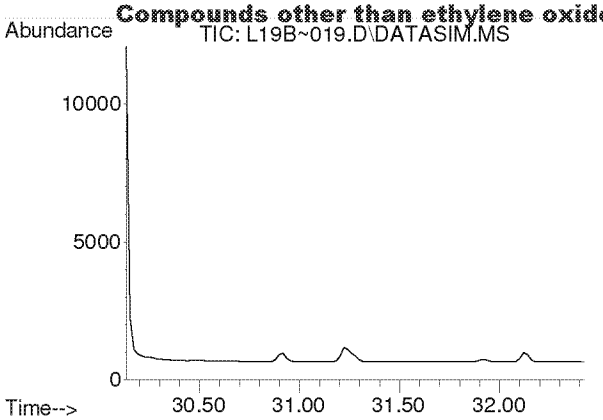
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

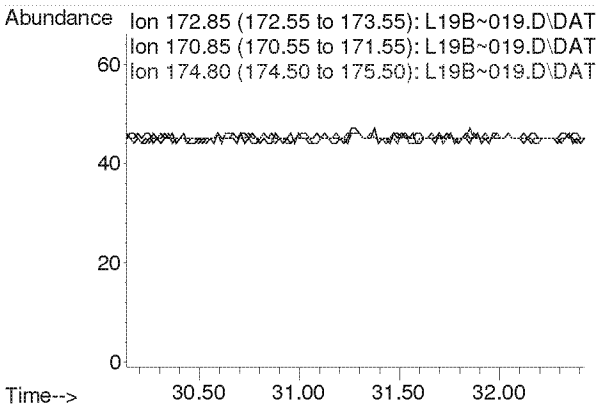


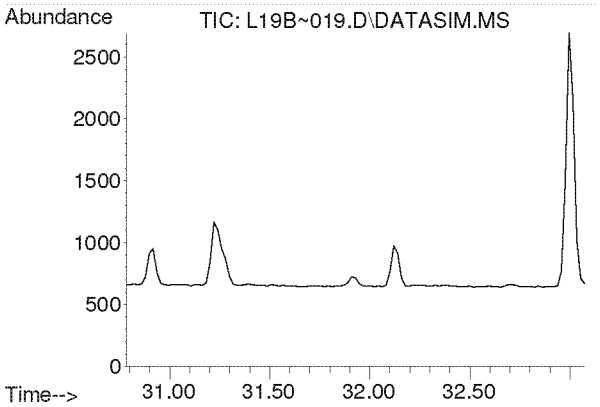
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



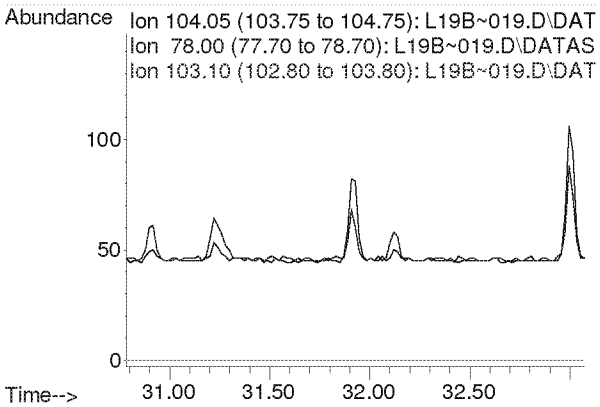


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

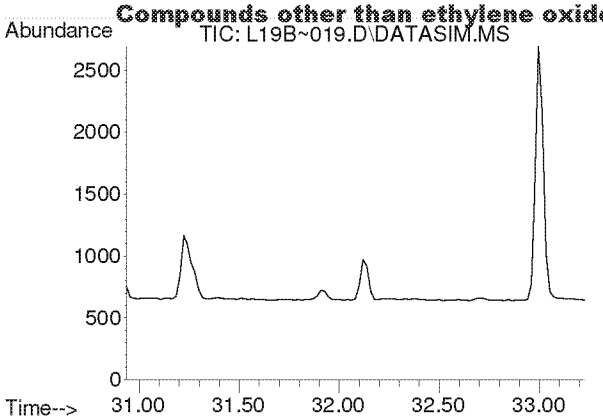
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

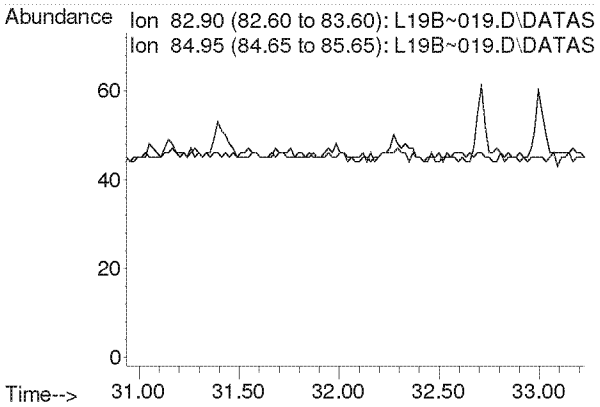


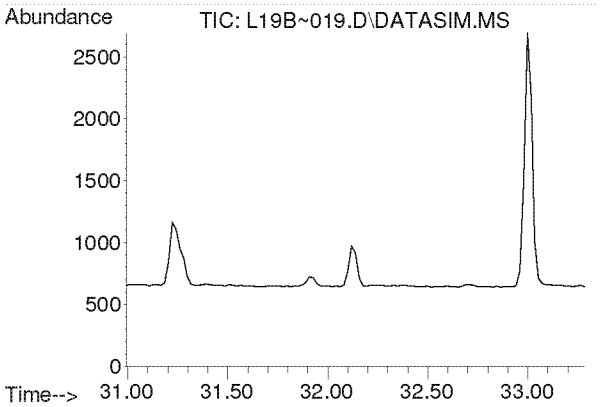
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



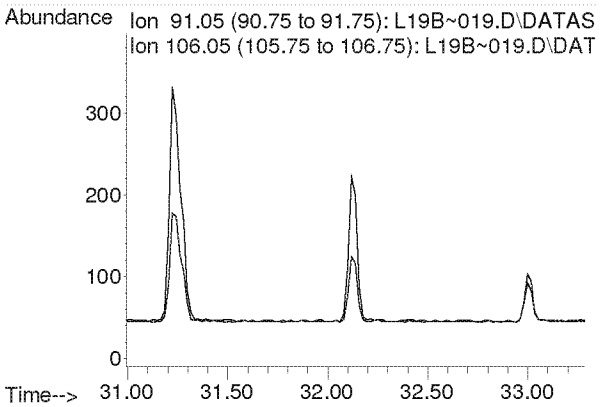


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

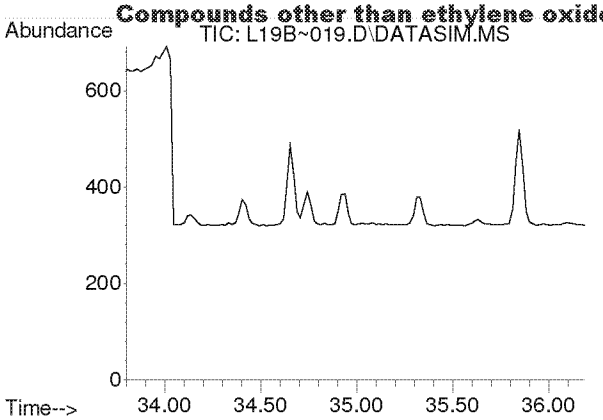
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

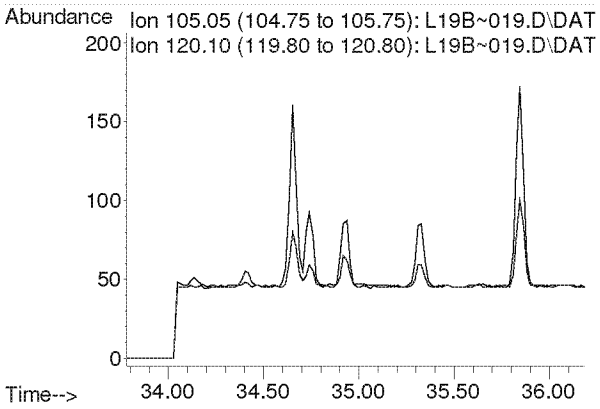


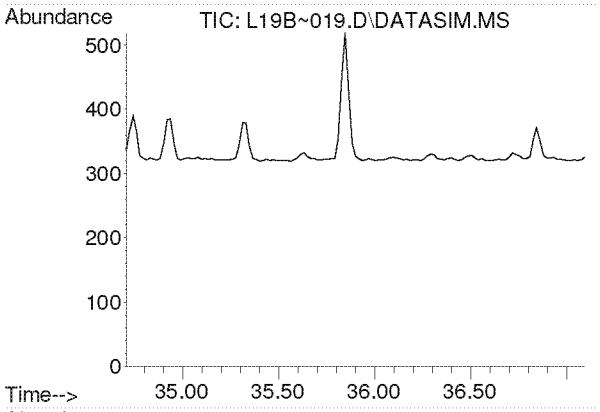
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



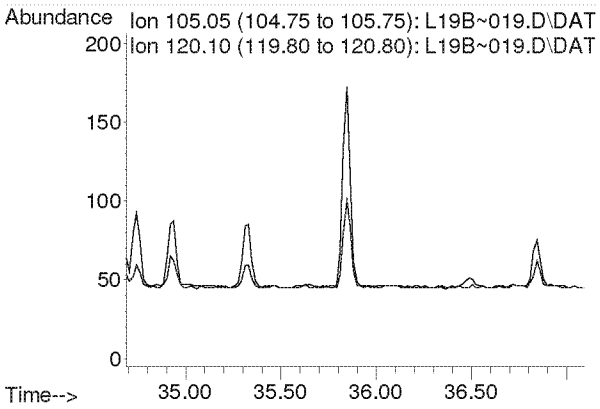


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

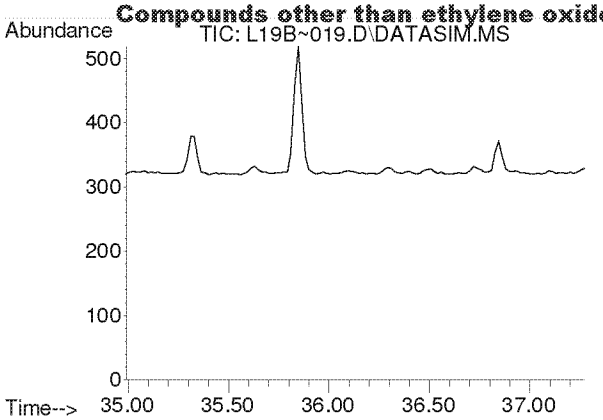
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

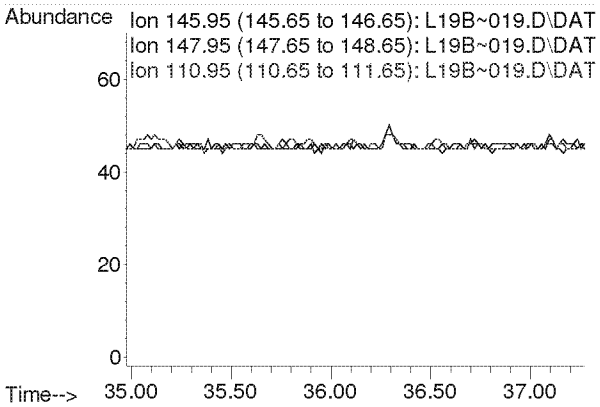


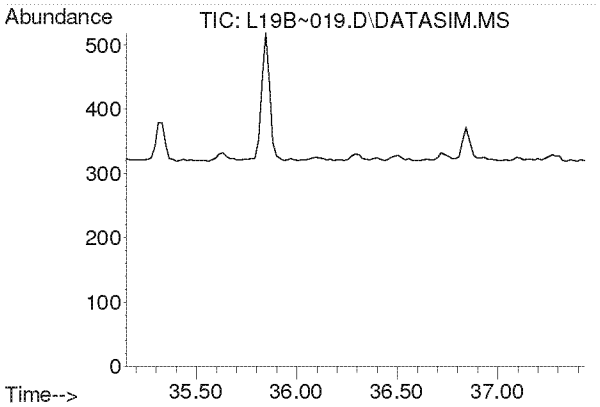
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



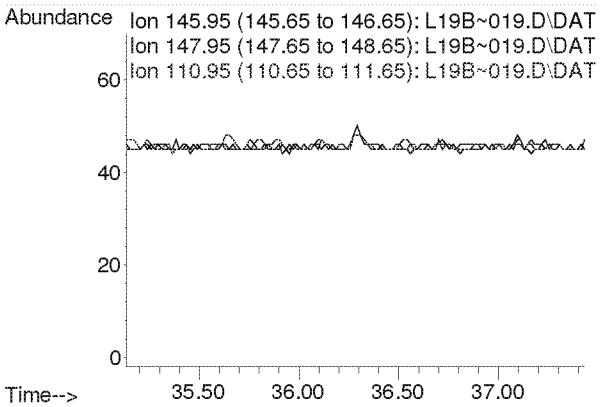


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

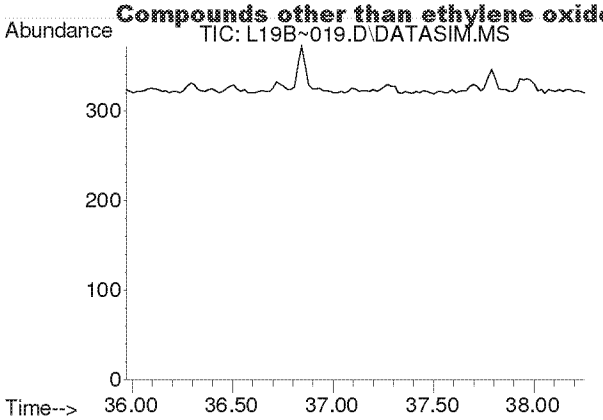
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

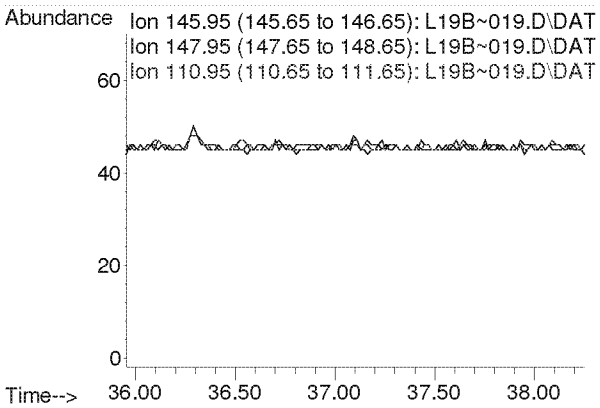


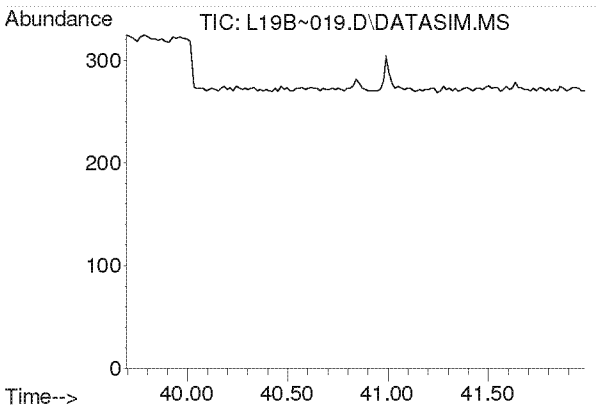
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



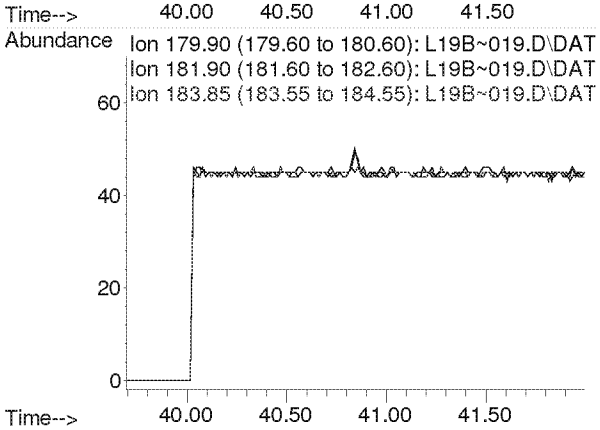


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

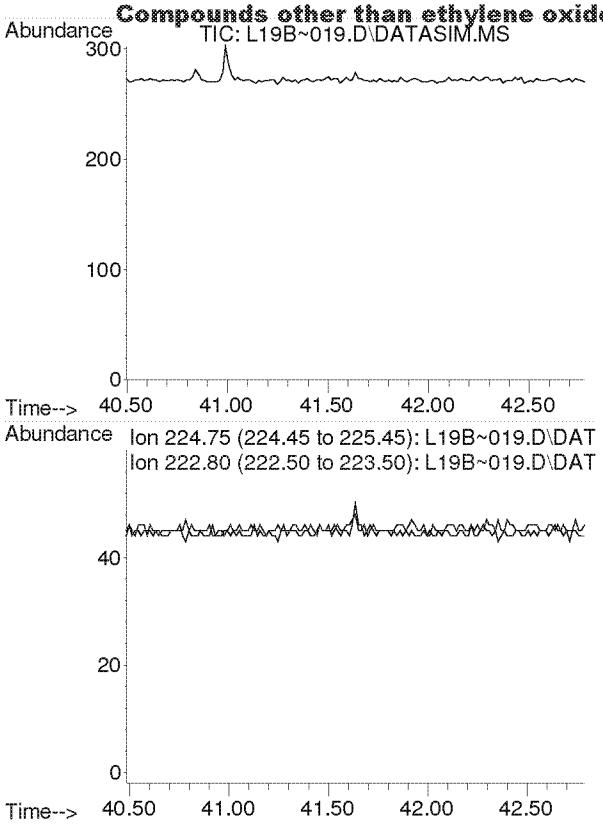
Lab File: L19B~019.D
Acq: 28 Feb 2019 5:38 am

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: L19B~019.D
Acq: 28 Feb 2019 5:38 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Duplicate Samples					
		D1	D2		
File ID		L19B~020.D	L19B~021.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022616-09	9022616-10		
Mics Comments		EPA WB WAREHO	EPA WB WAREHOUSE C2 2/24/19		
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	0.073	0	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.

Duplicate Comparison Check

Comparison of Replicate Analyses

		D1	R1		
File ID		L19B~020.D	L19B~022.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022616-09	B9B2705-DUP7		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE 2/24/19		
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	0.073	0.095	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		L19B~021.D	L19B~023.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9022616-10	B9B2705-DUP8		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE 2/24/19		
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	0.046	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\L19B~\
Data File : L19B~020.D
Acq On : 28 Feb 2019 6:38 am
Operator : MAH
Sample : 9022616-09
Misc : EPA WB WAREHOUSE C1 2/24/19
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 28 12:55:33 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

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	45329	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	113671	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	80161	4.7400 ppbv	0.00

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	190m	0.0733 ppbv	RJB 3/5/19
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~020.D
Acq On : 28 Feb 2019 6:38 am
Operator : MAH
Sample : 9022616-09
Misc : EPA WB WAREHOUSE C1 2/24/19
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 28 12:55:33 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

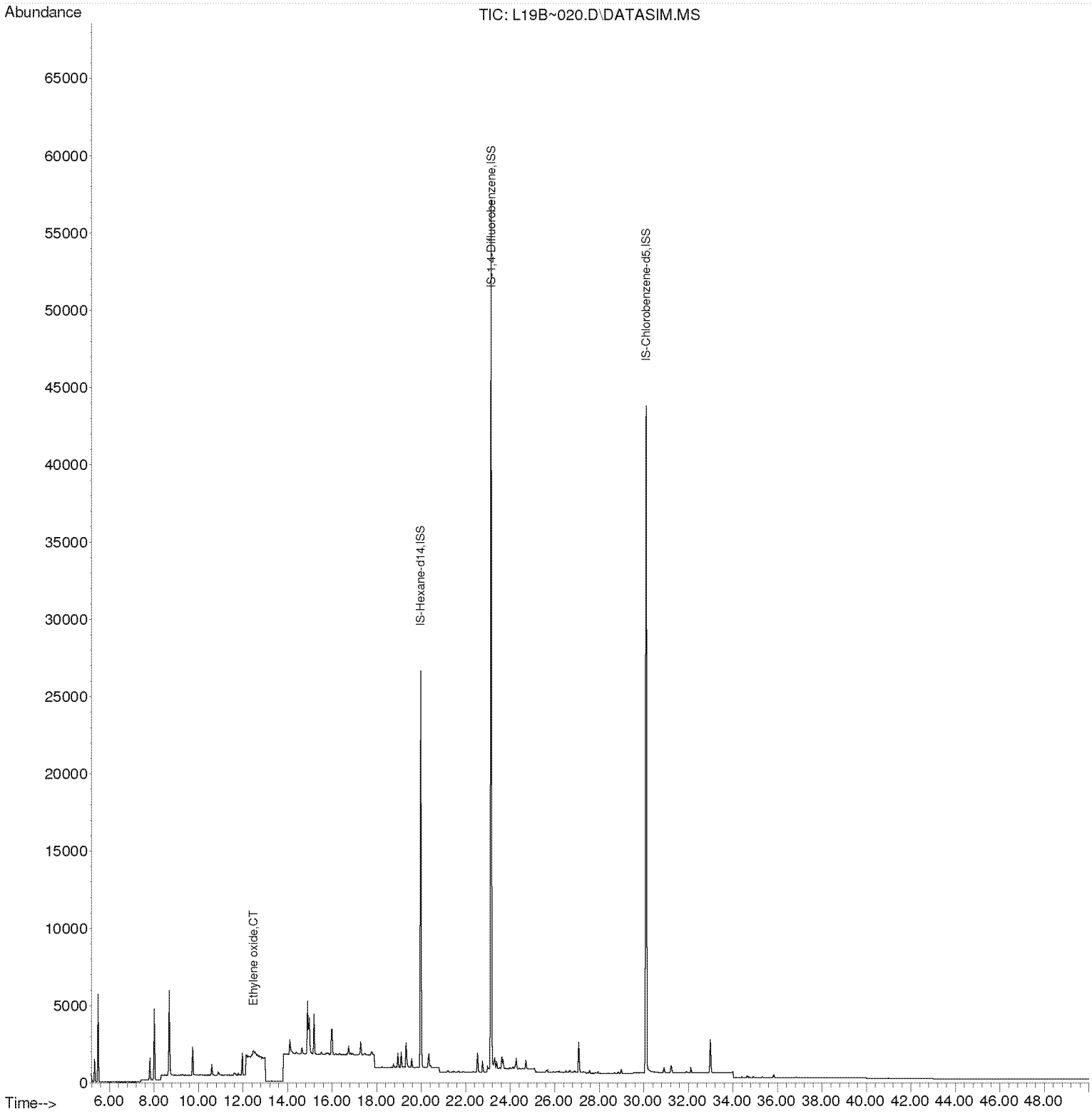
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	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

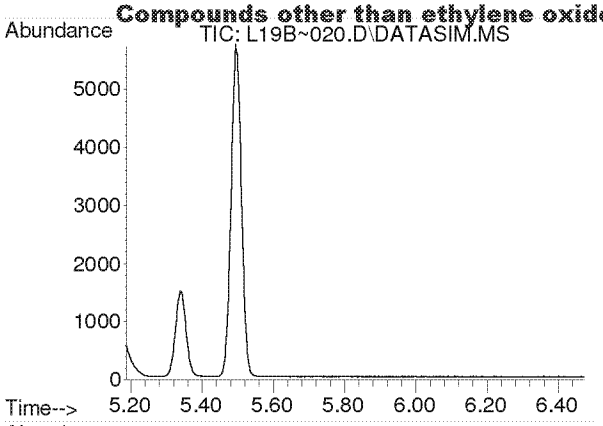
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~020.D
Acq On : 28 Feb 2019 6:38 am
Operator : MAH
Sample : 9022616-09
Misc : EPA WB WAREHOUSE C1 2/24/19
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 28 12:55:33 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



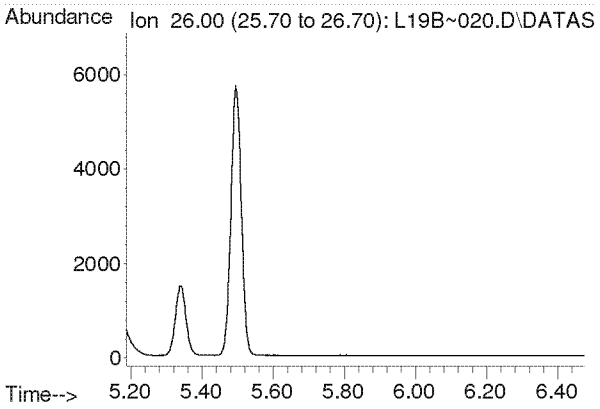
Compounds other than ethylene oxide were not quantitated.

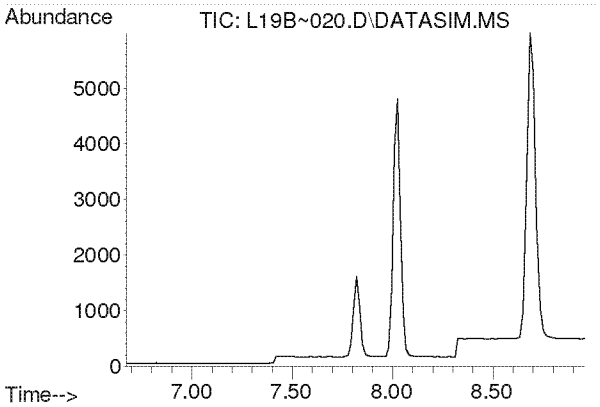


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 26



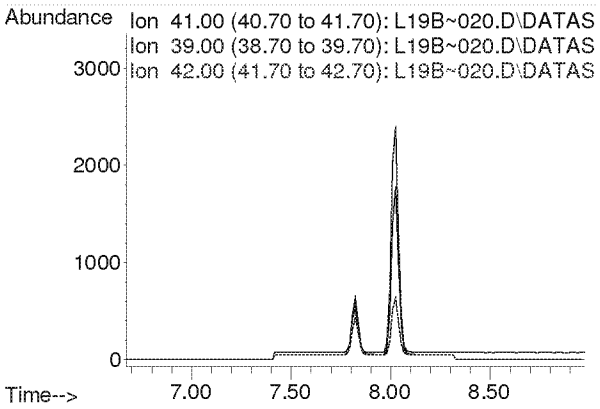


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

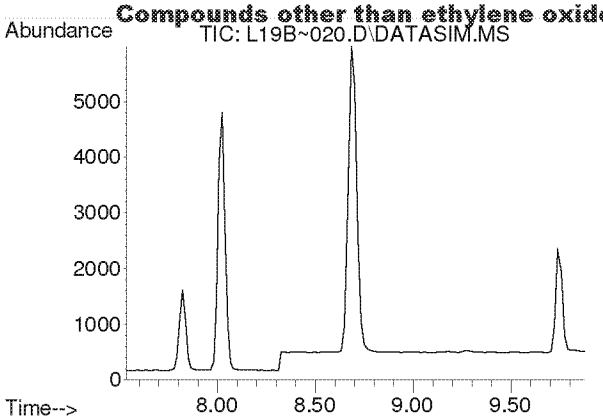
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

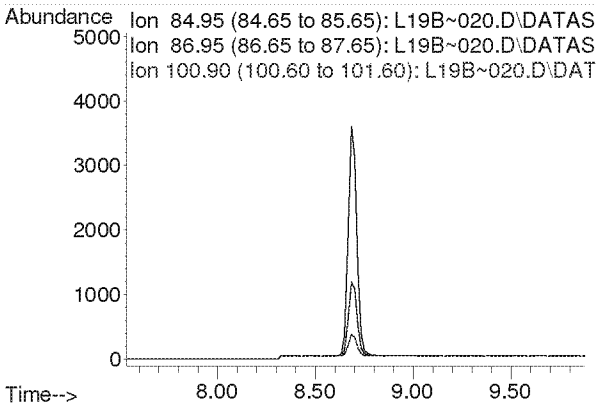


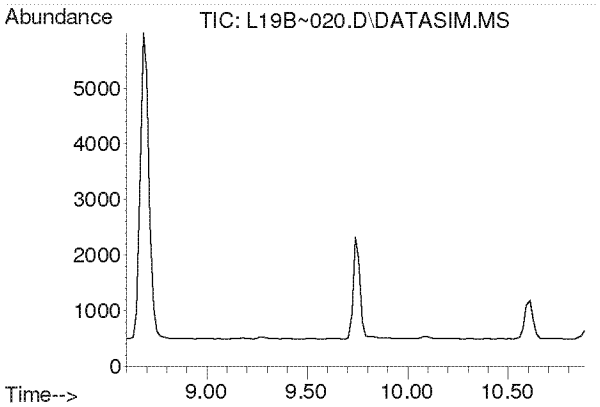
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



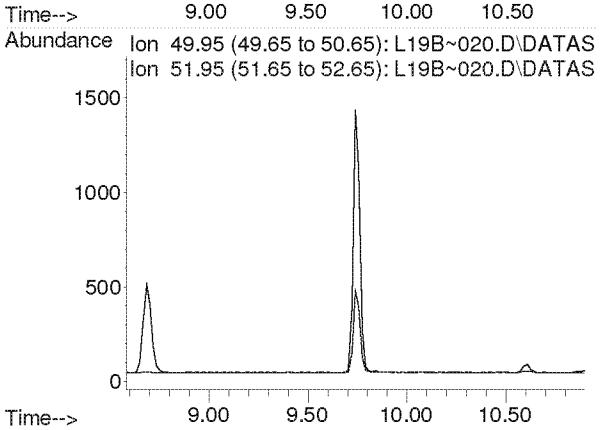


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

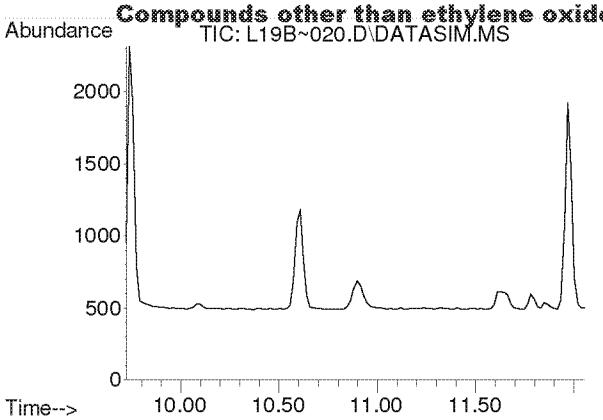
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

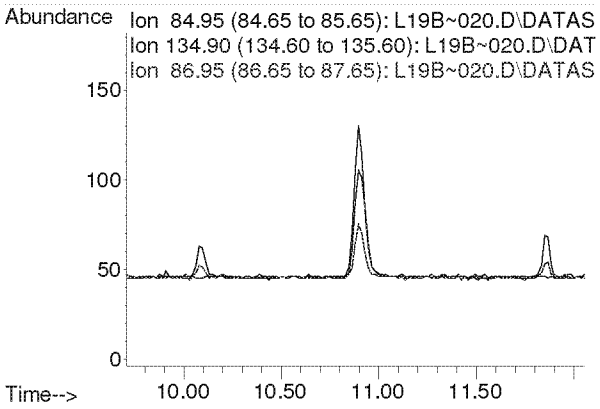


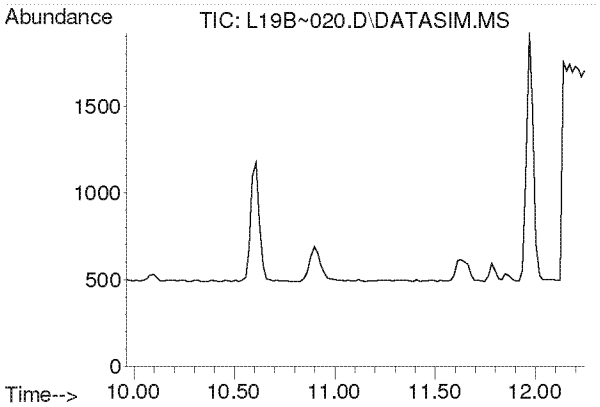
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



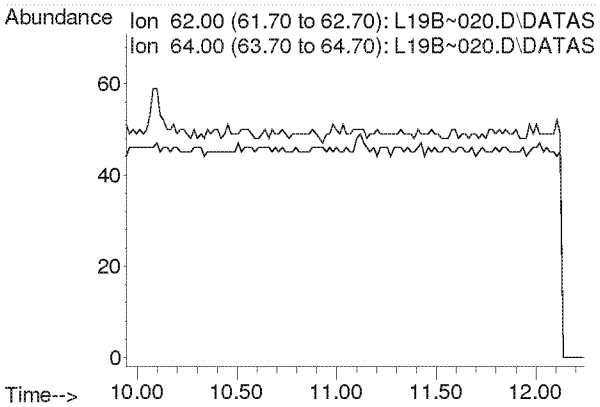


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

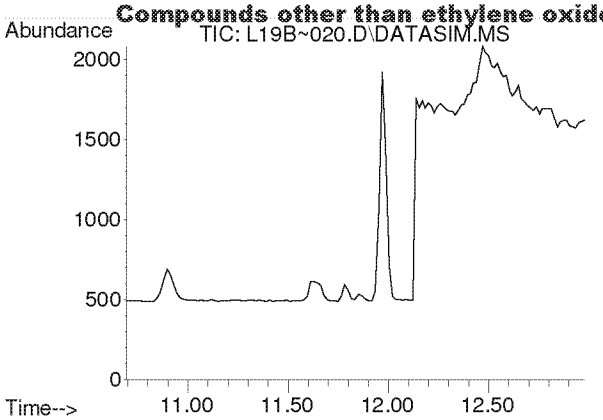
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

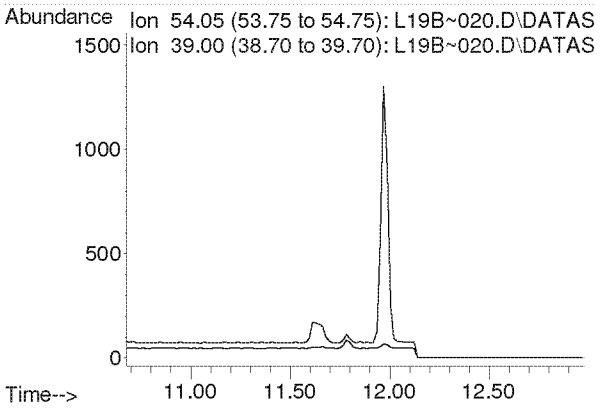


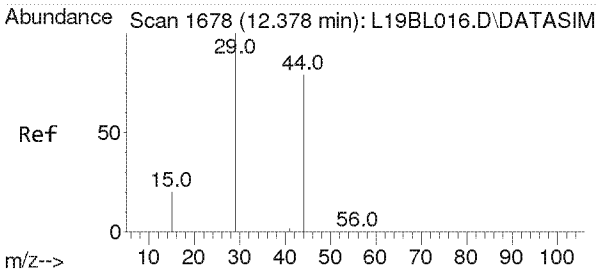
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

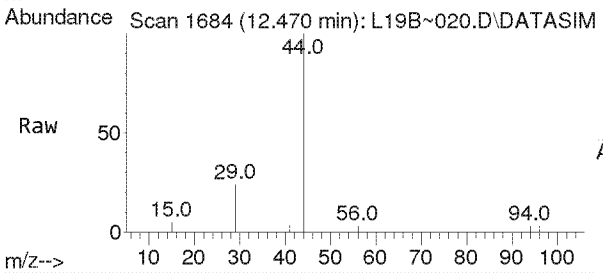


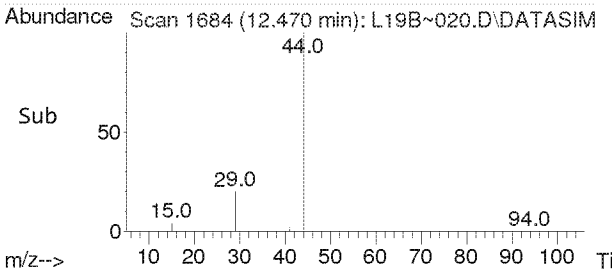


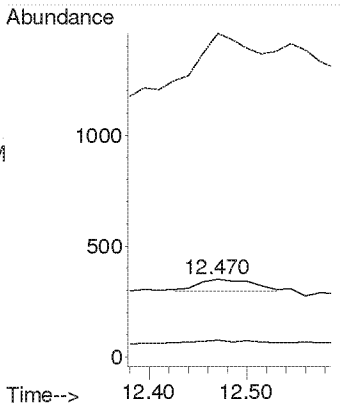
#9
Ethylene oxide
Concen: 0.073 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.020 min
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 29 Resp: 190

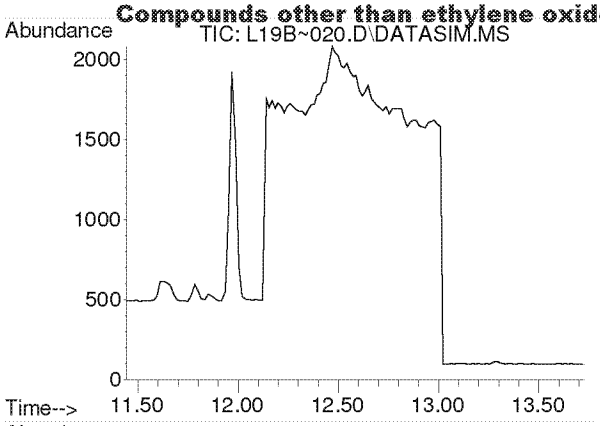
Ion	Ratio	Lower	Upper
29	100		
15	45.8	16.0	24.0#
44	1190.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

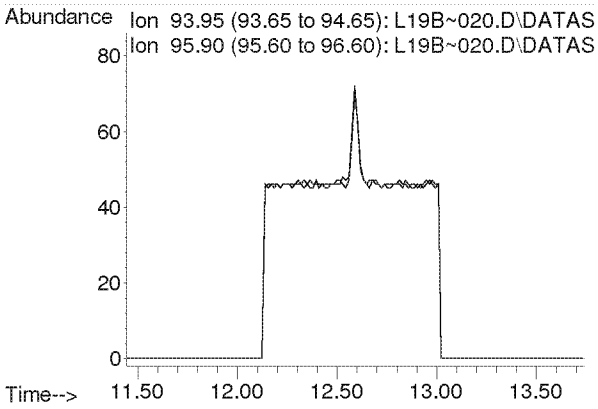


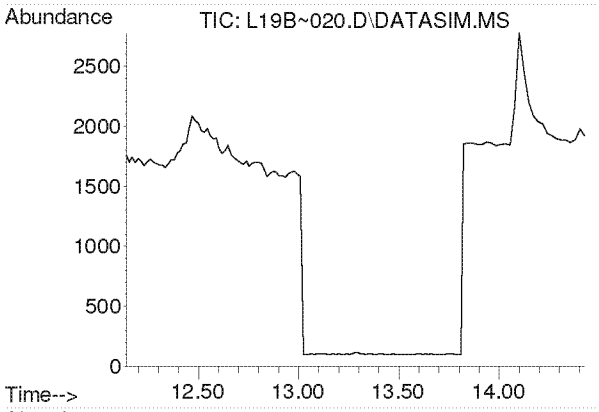
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



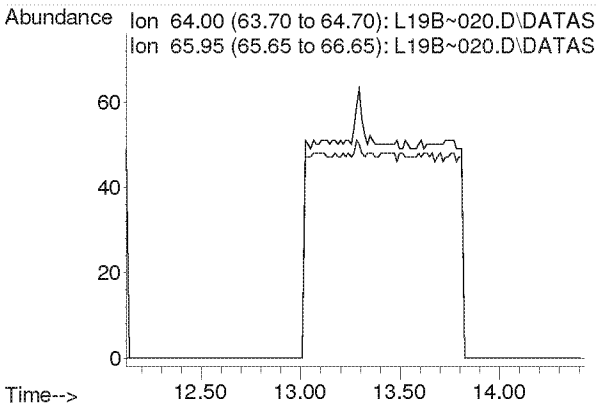


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

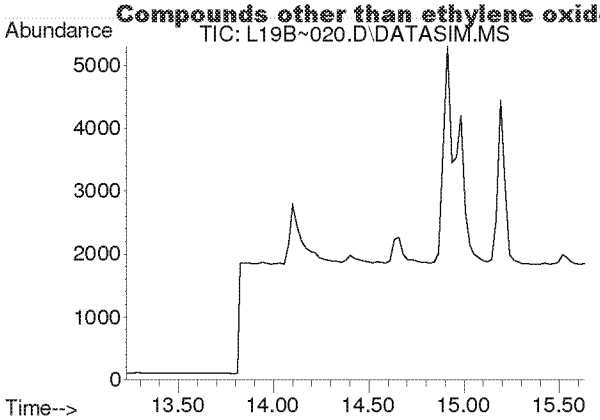
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

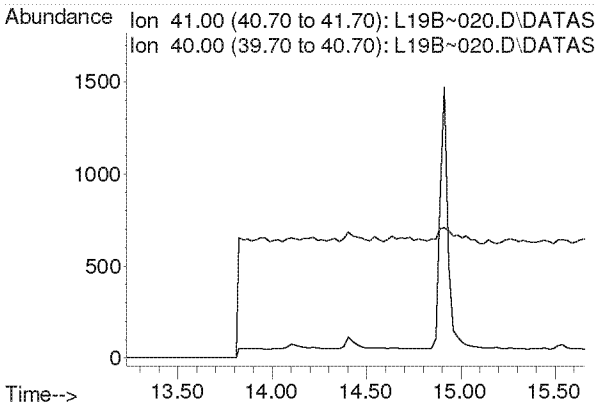


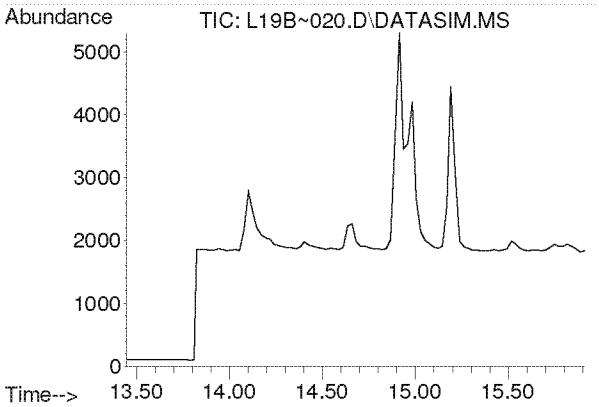
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



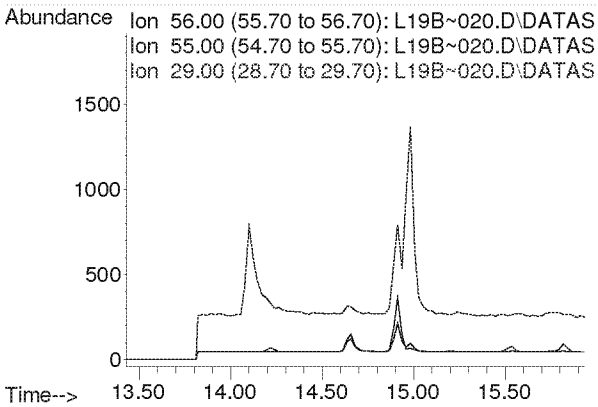


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

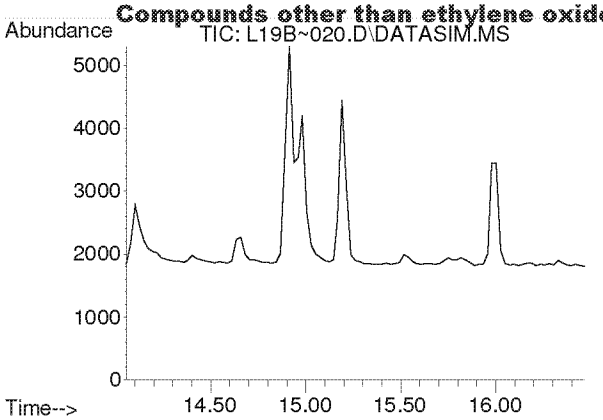
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

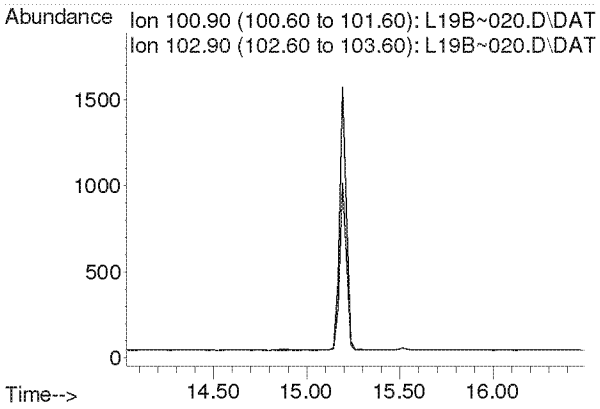


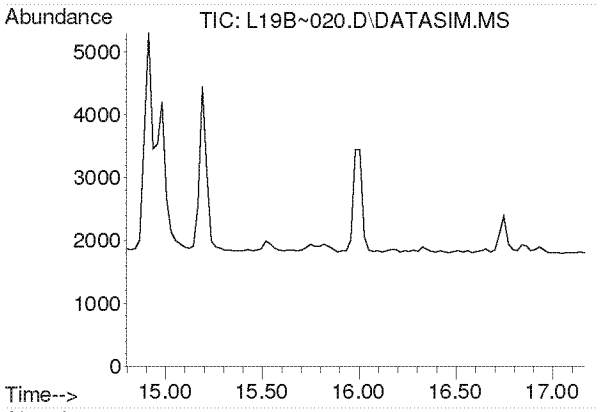
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



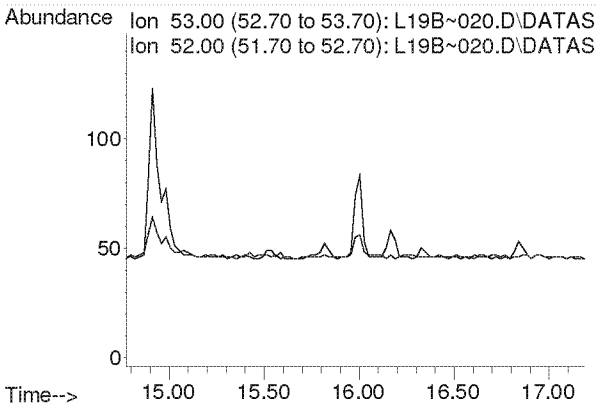


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

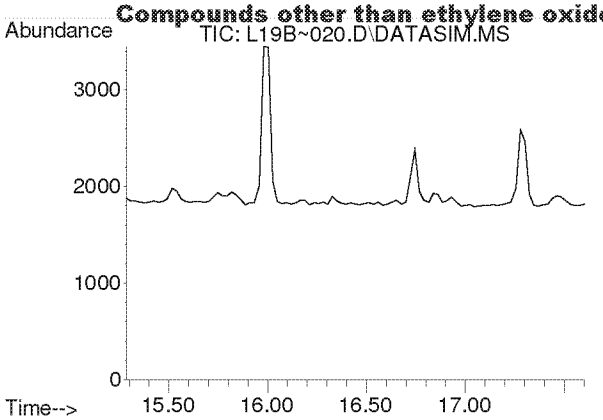
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

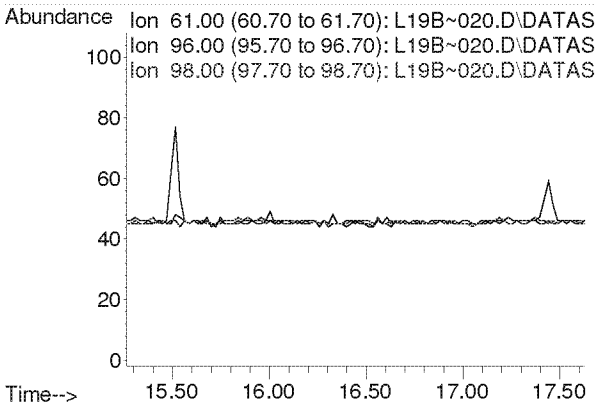


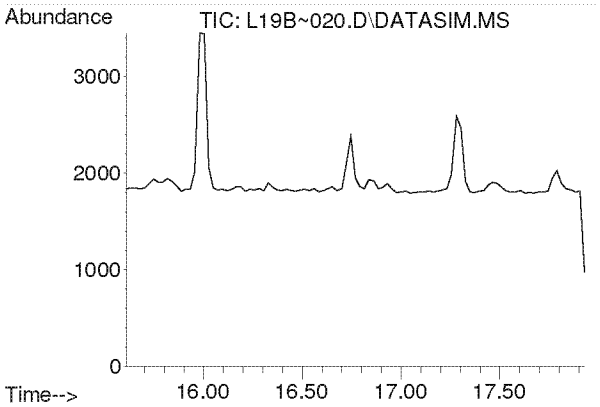
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



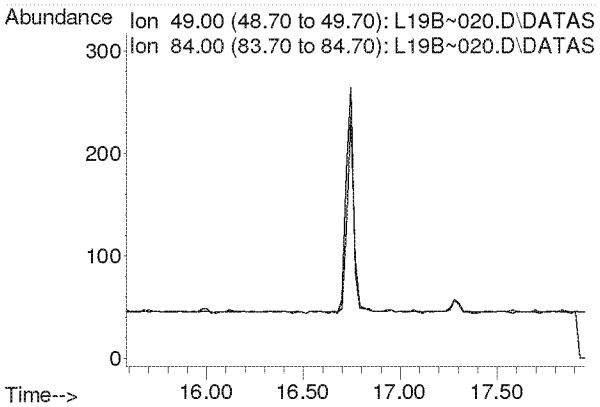


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

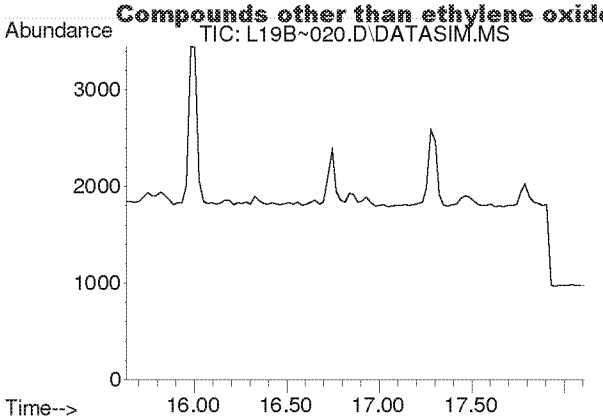
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

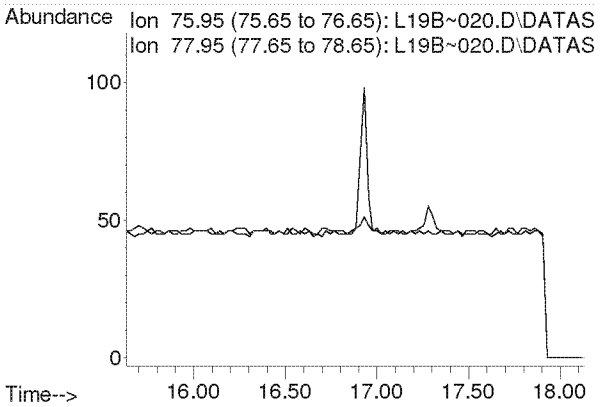


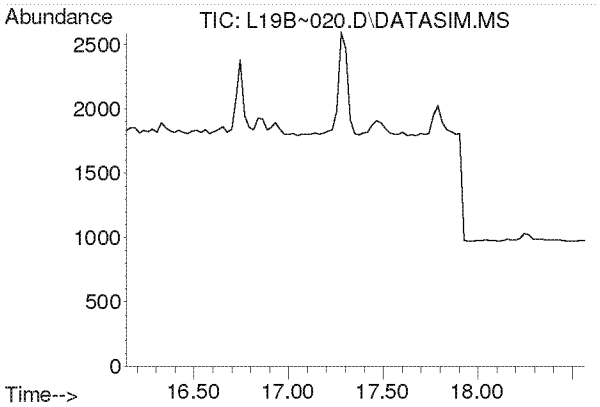
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



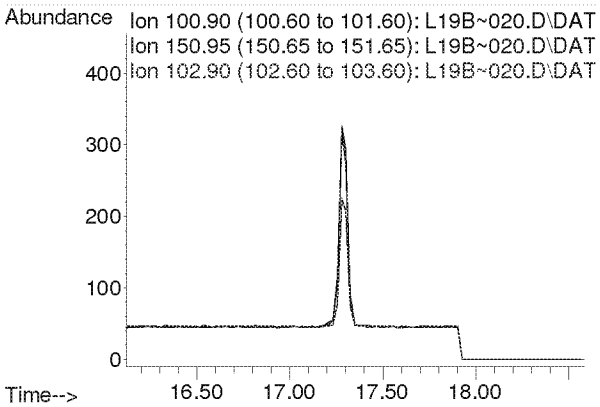


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

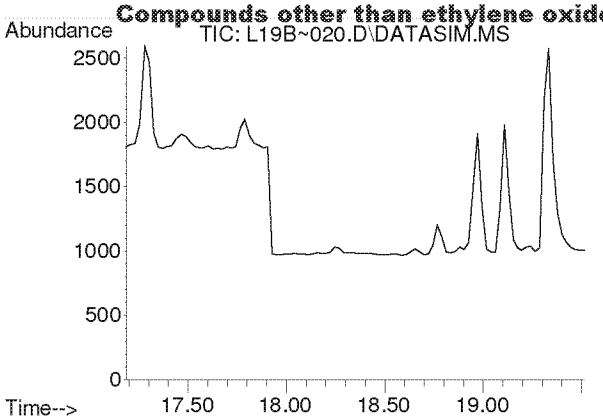
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

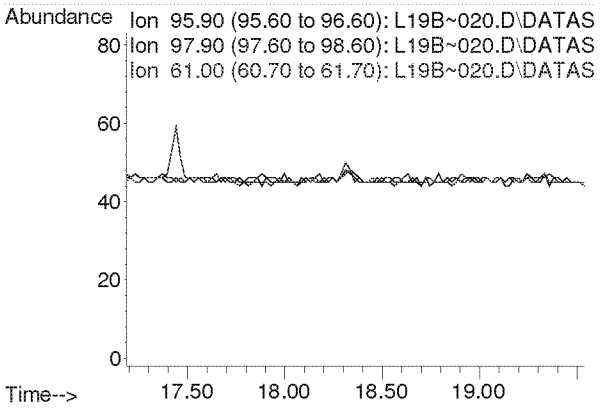


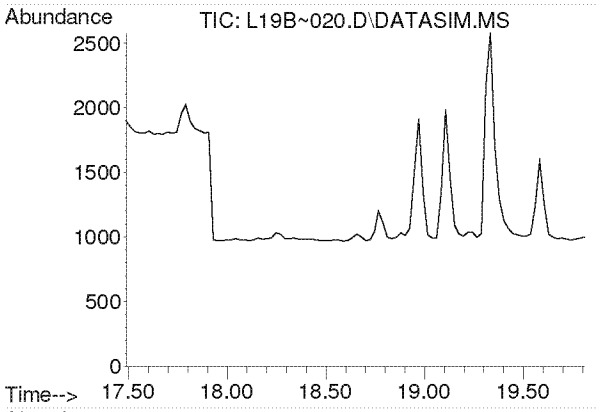
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



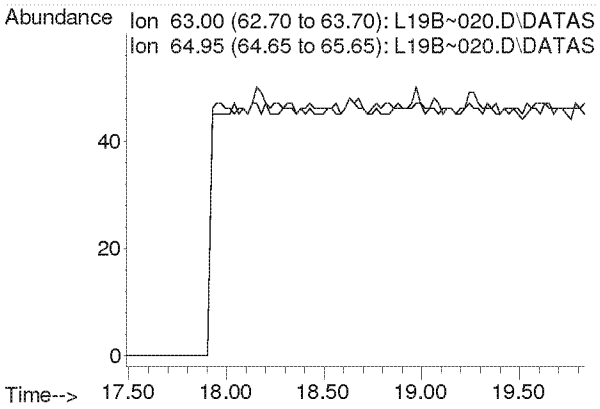


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

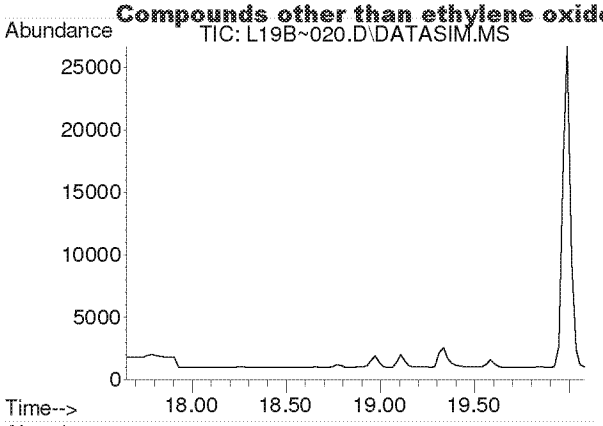
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

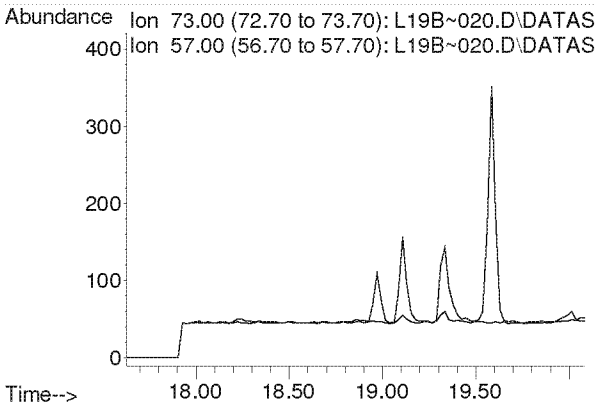


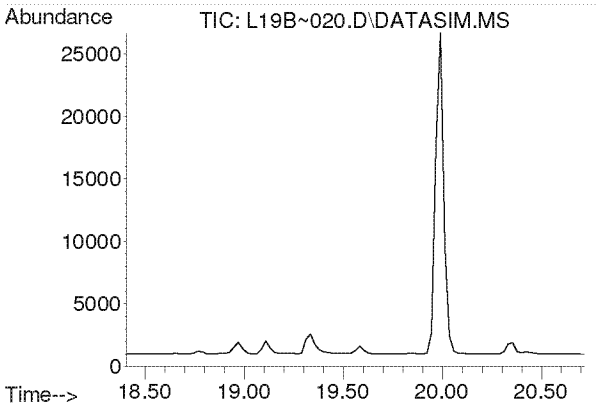
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



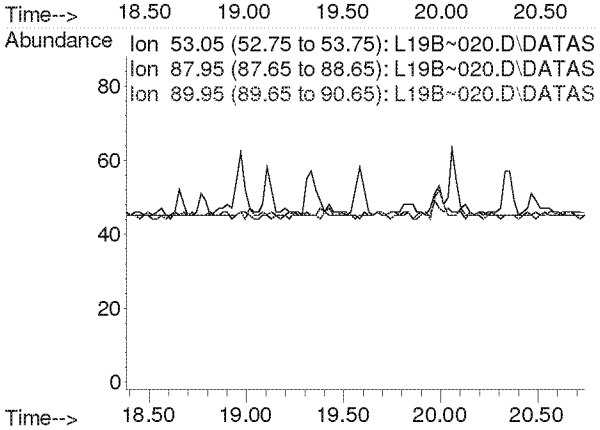


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

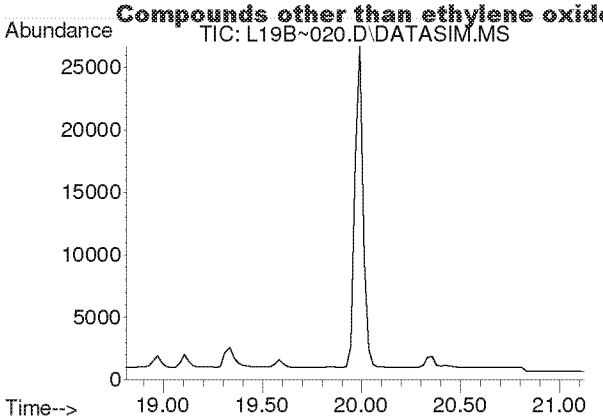
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

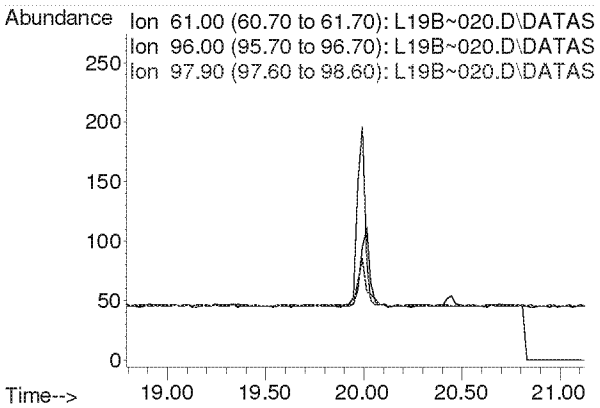


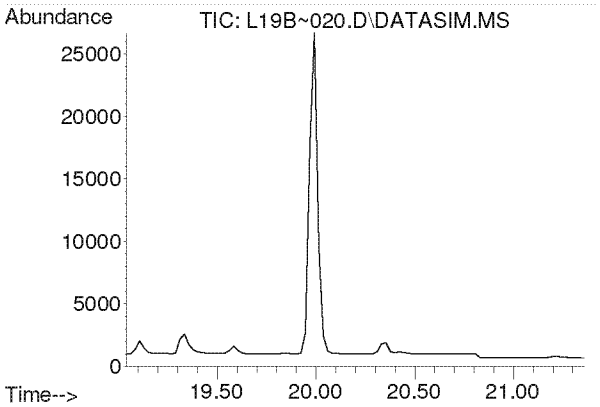
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



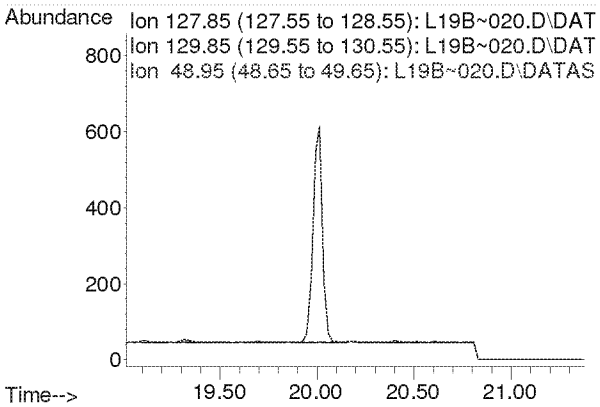


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

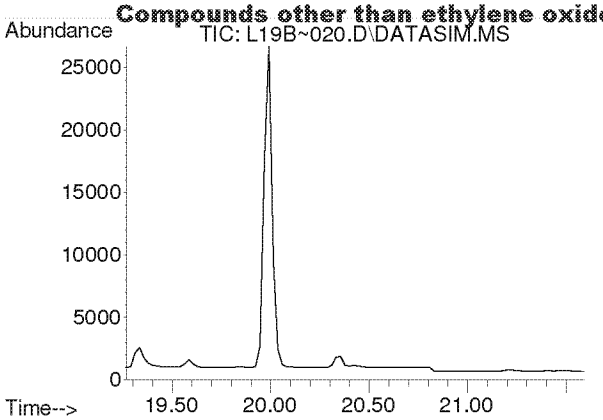
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

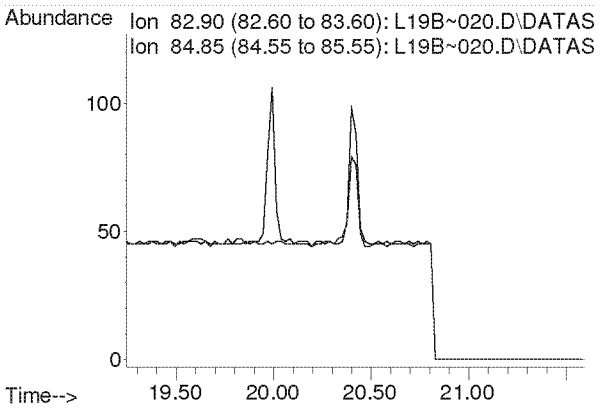


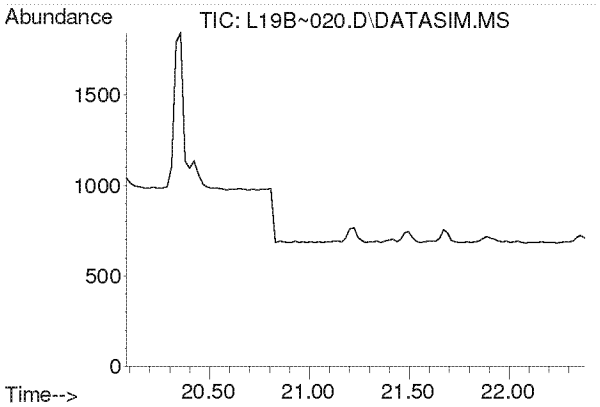
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



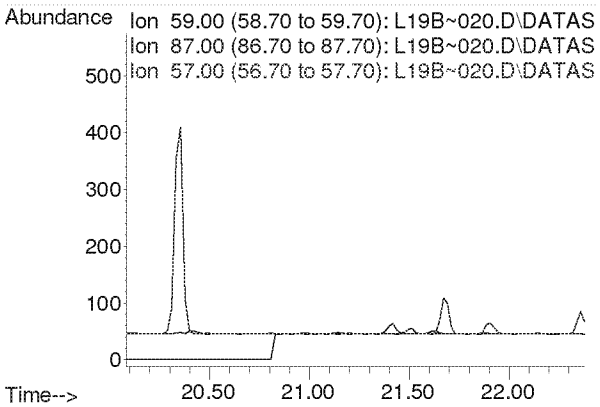


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

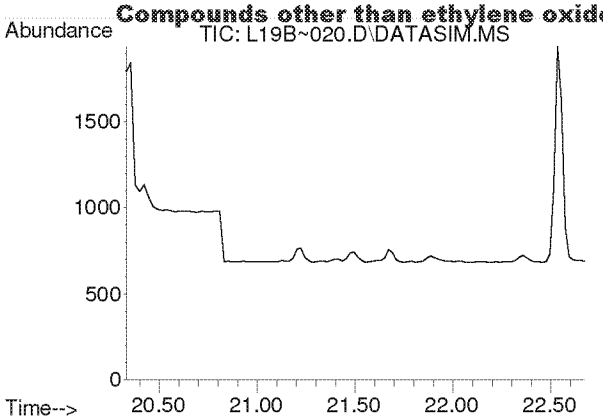
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

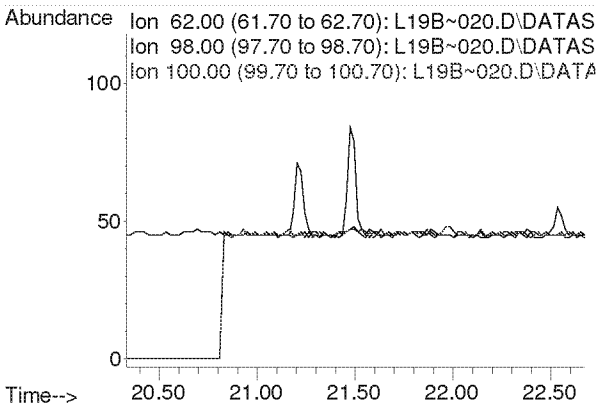


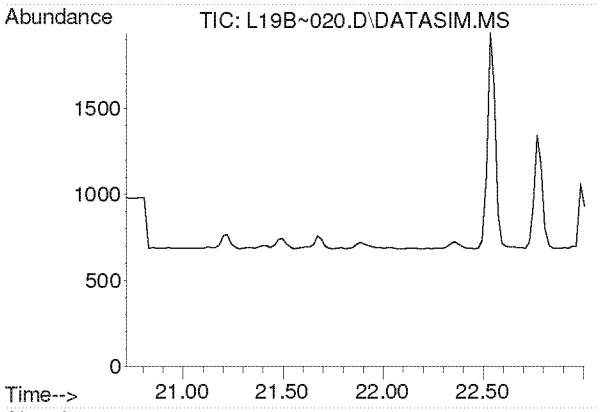
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



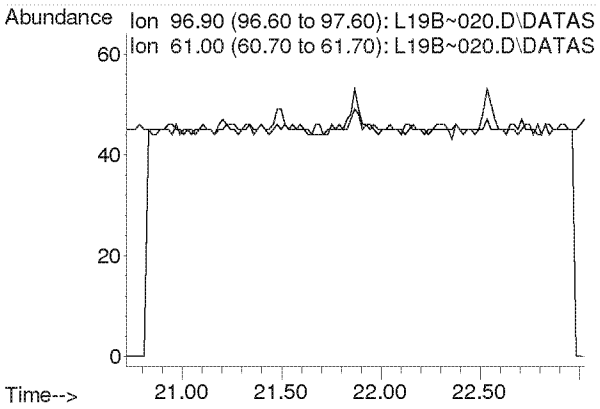


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

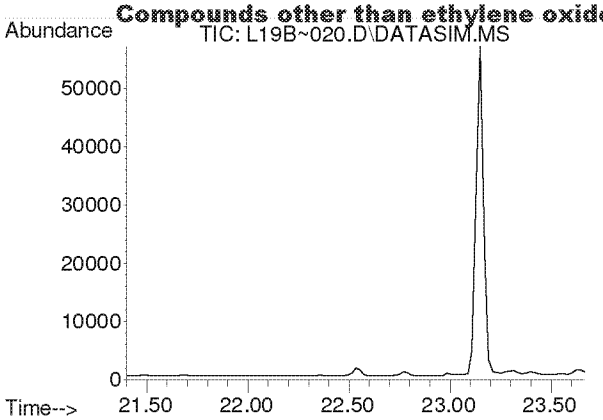
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

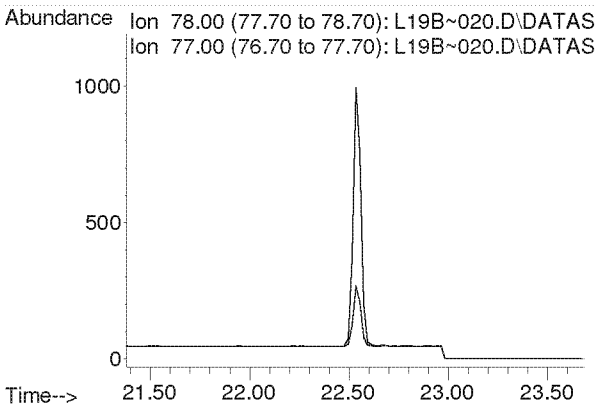


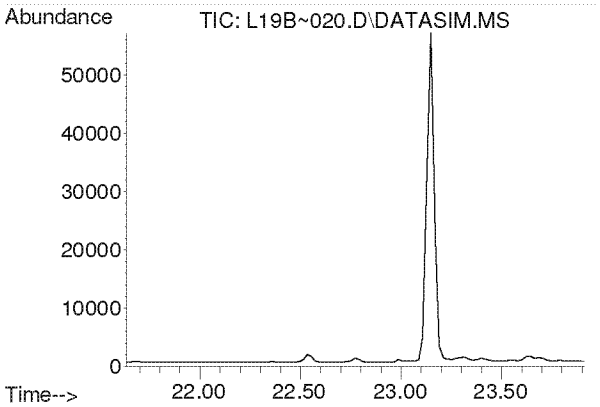
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



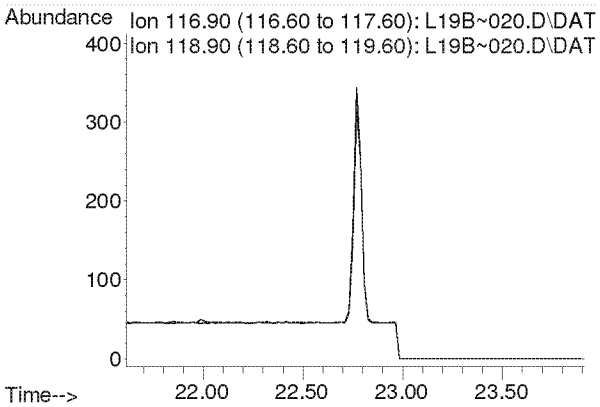


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

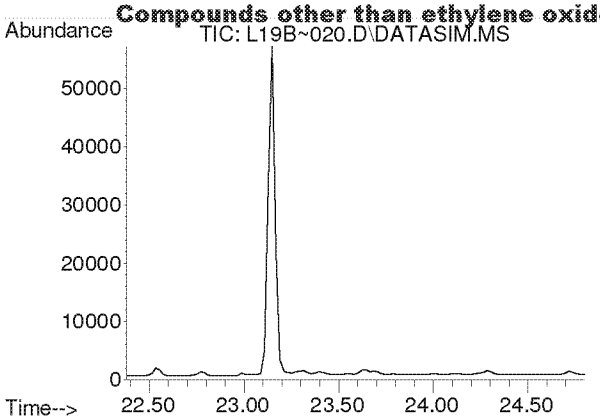
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

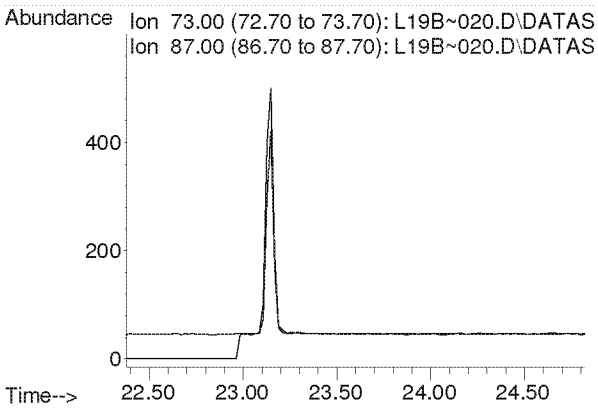


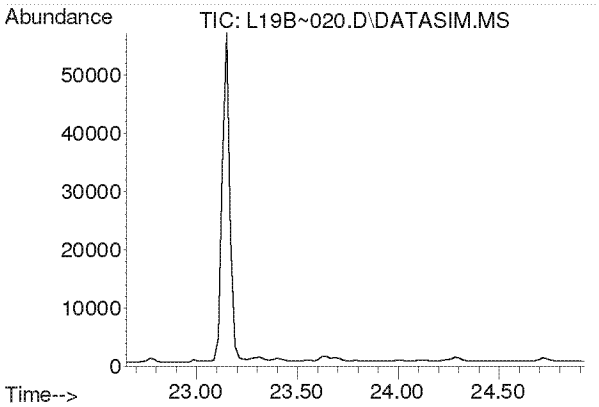
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



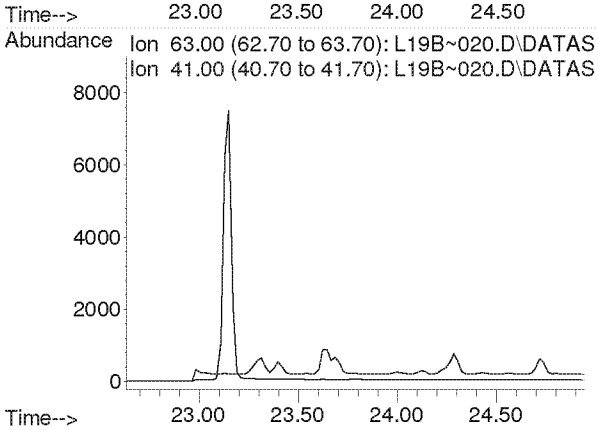


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

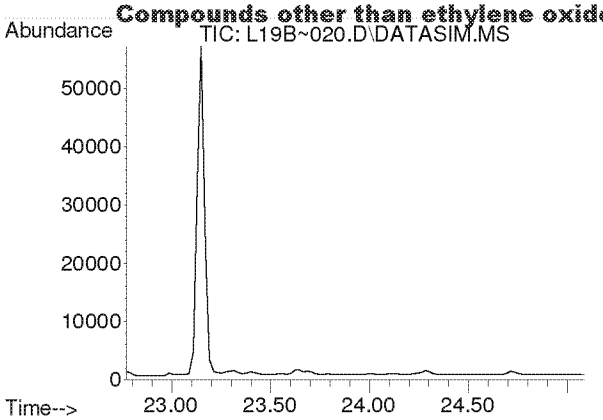
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

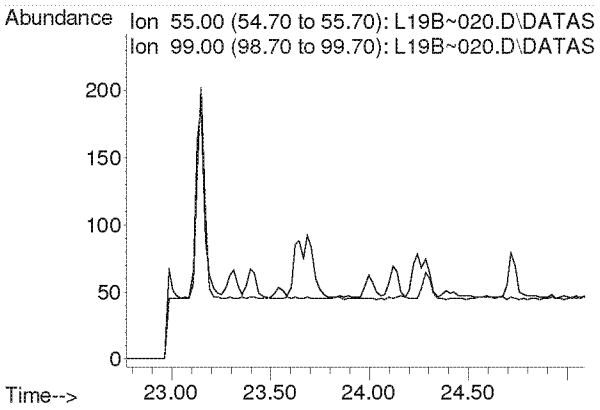


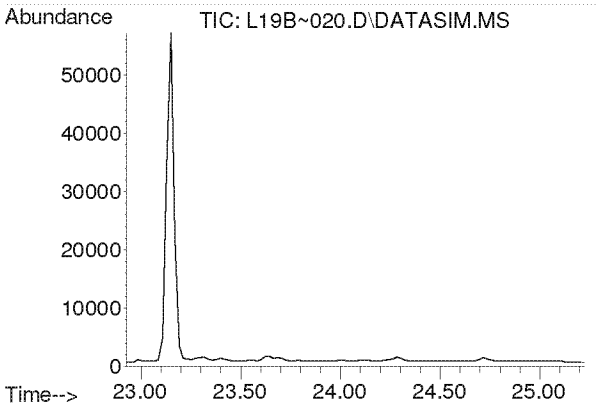
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



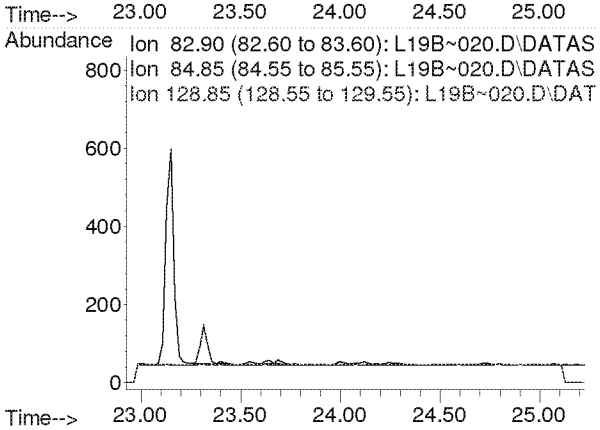


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

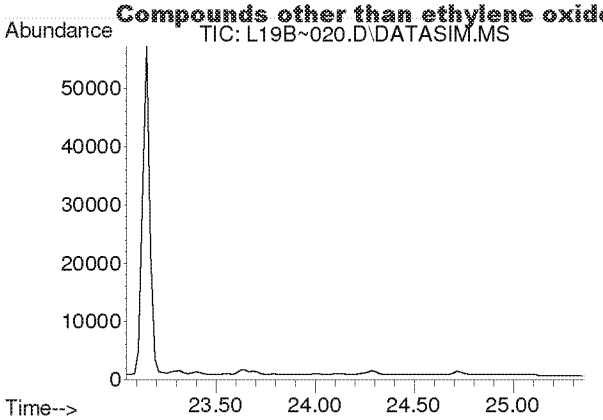
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

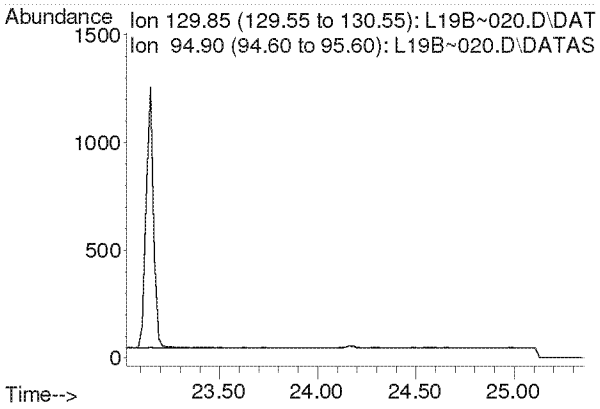


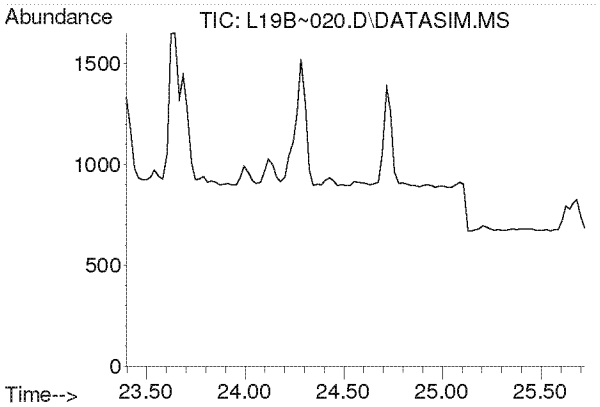
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



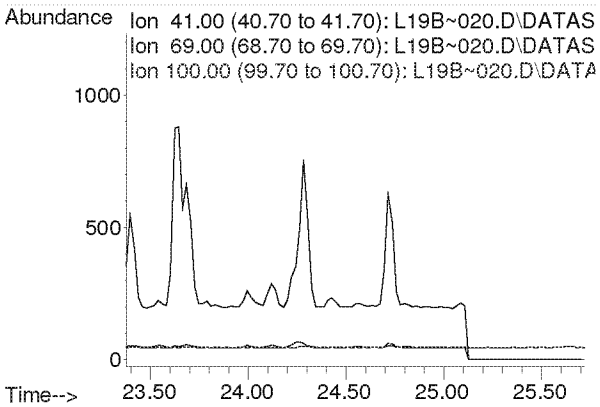


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

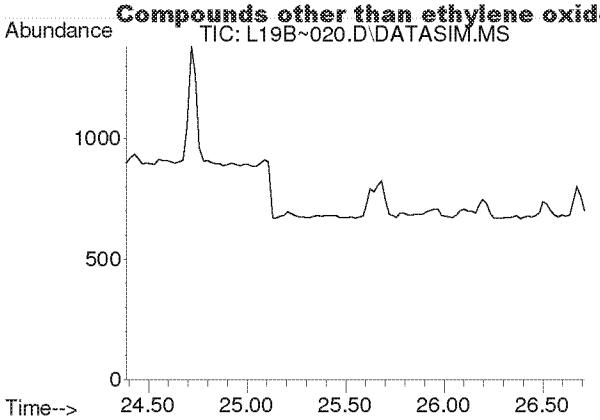
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

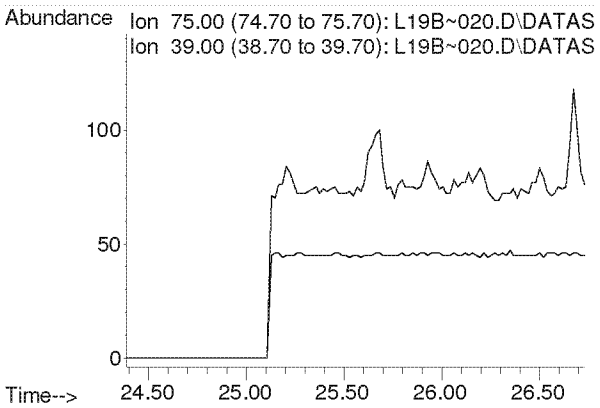


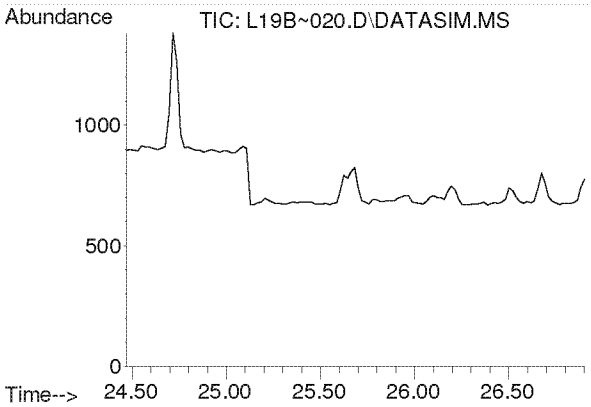
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



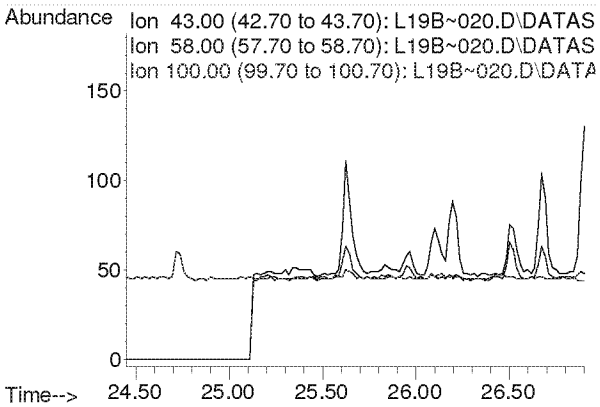


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

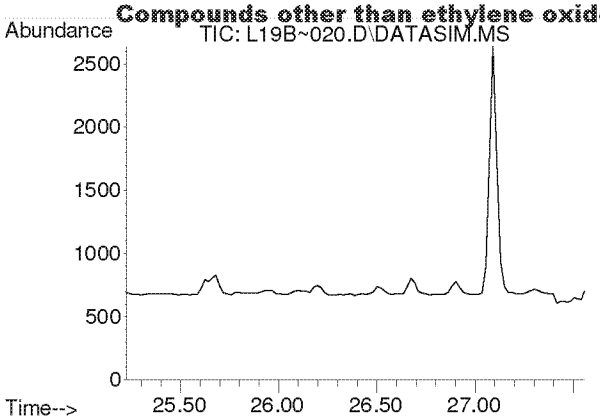
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

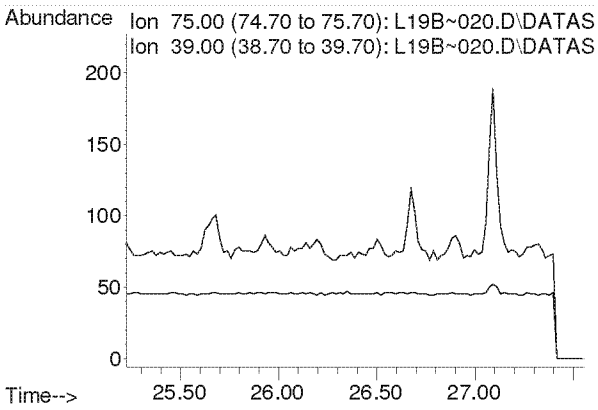


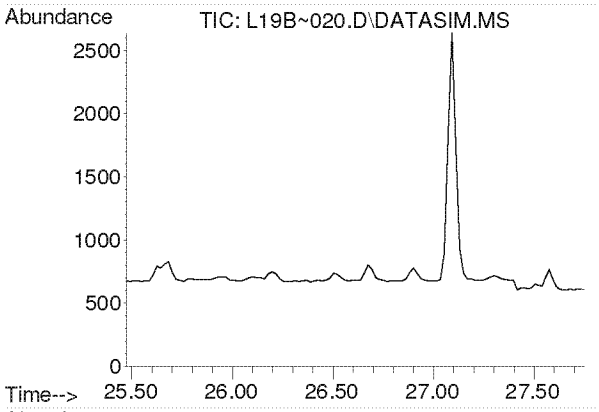
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



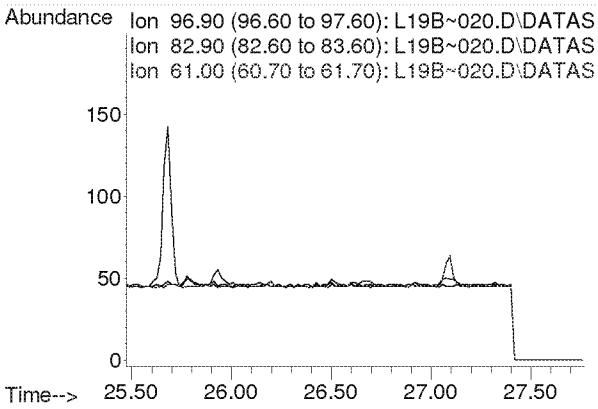


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

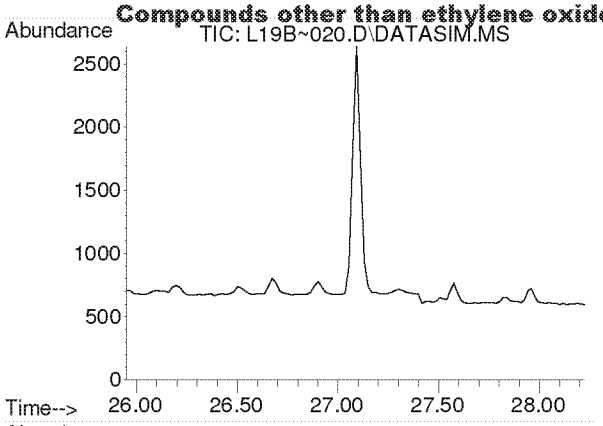
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

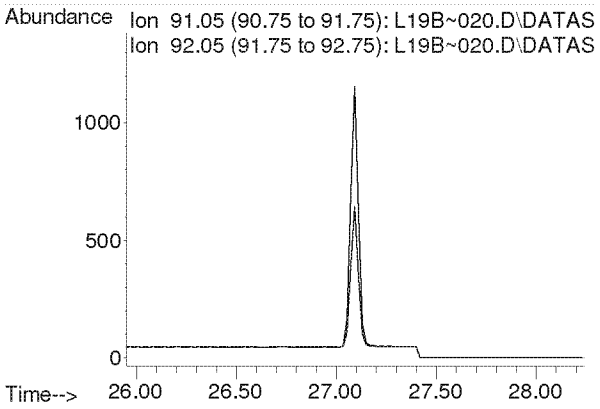


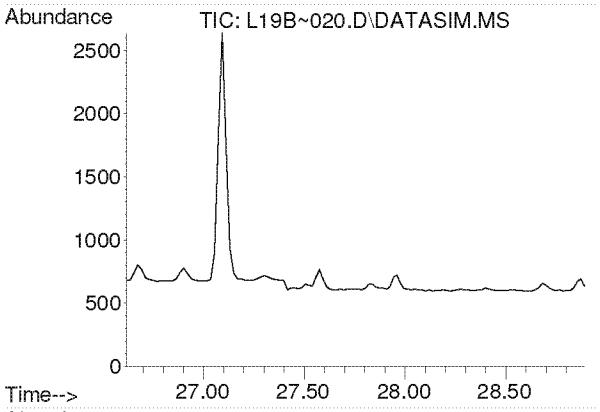
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



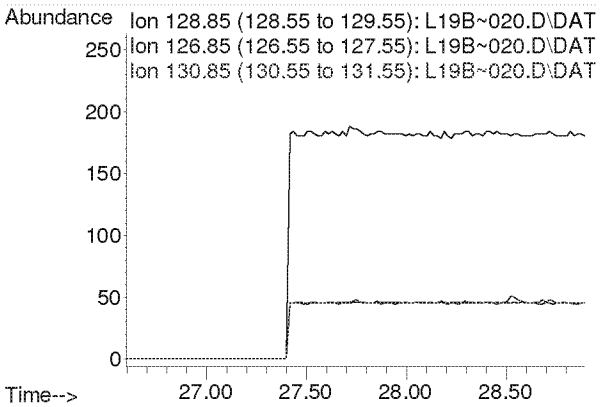


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

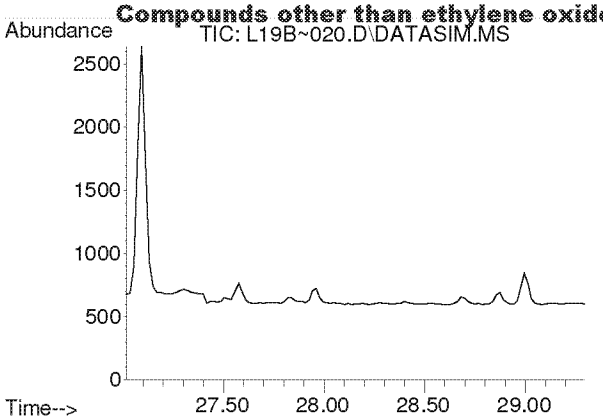
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

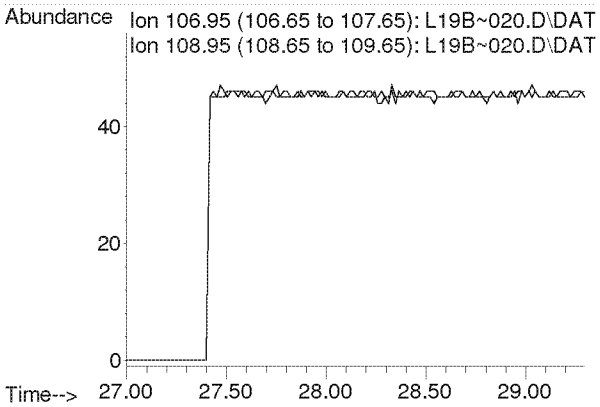


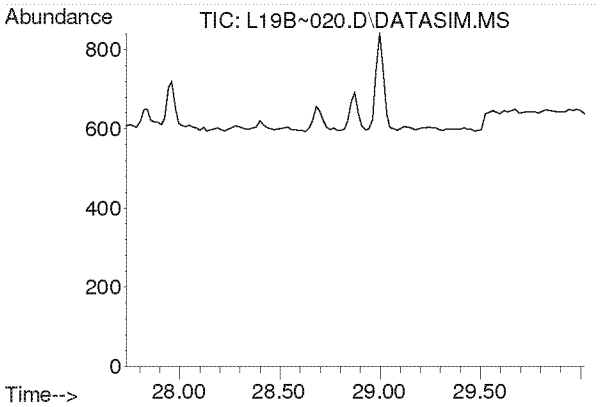
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



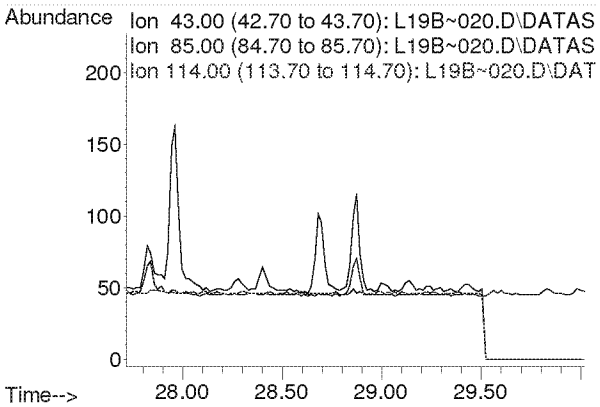


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

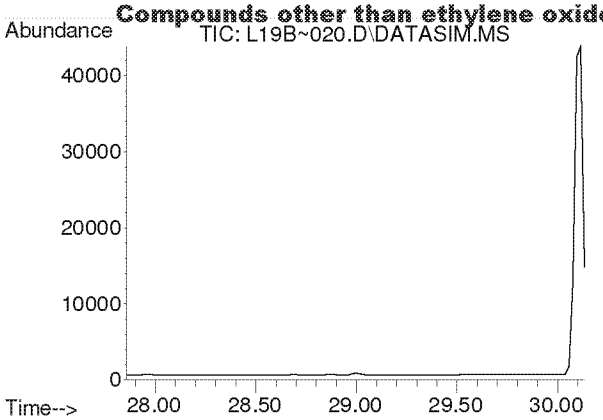
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

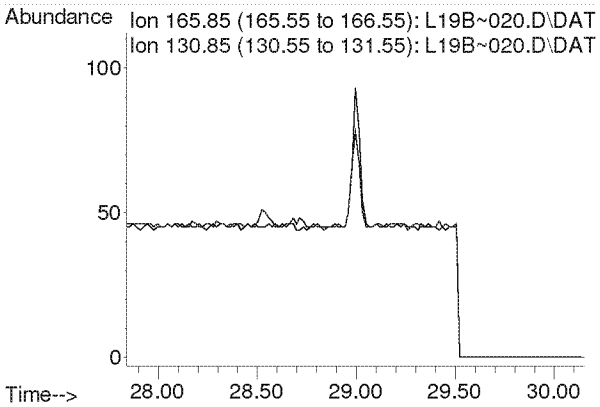


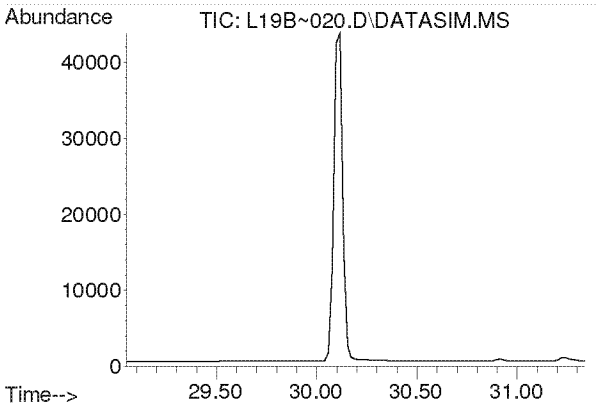
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



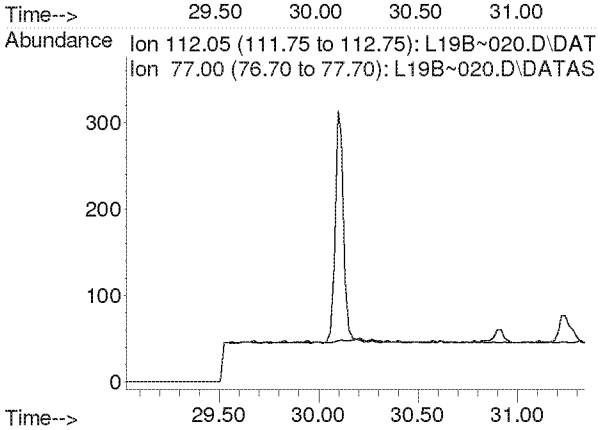


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

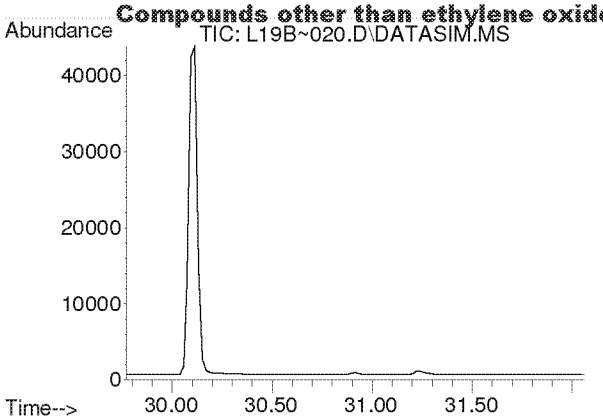
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

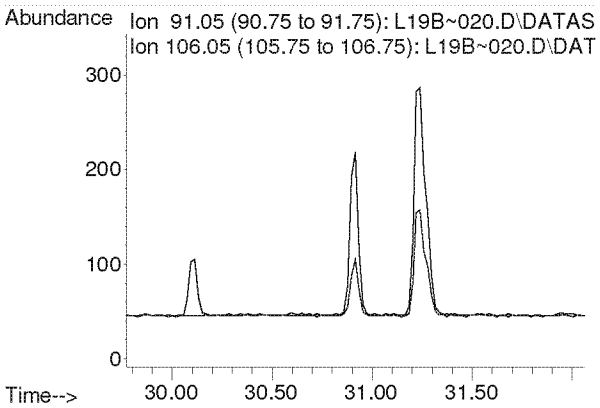


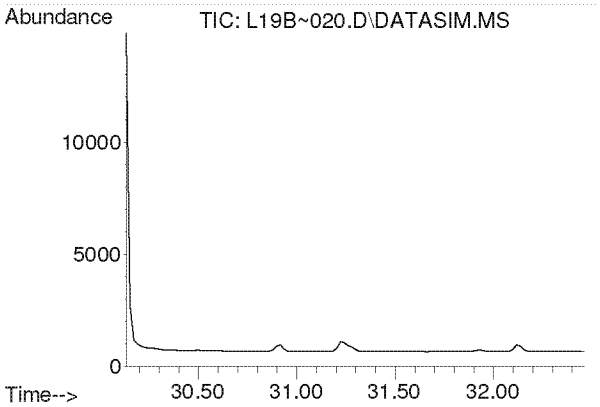
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



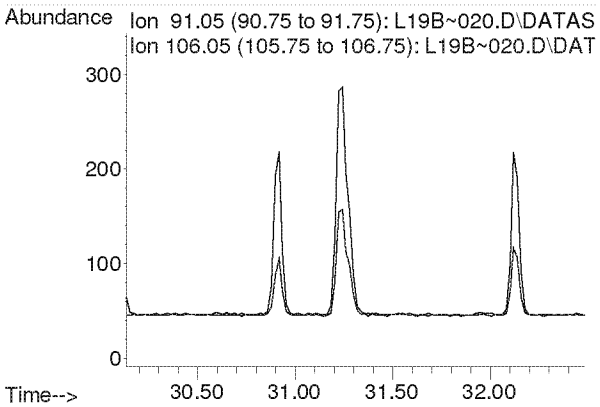


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

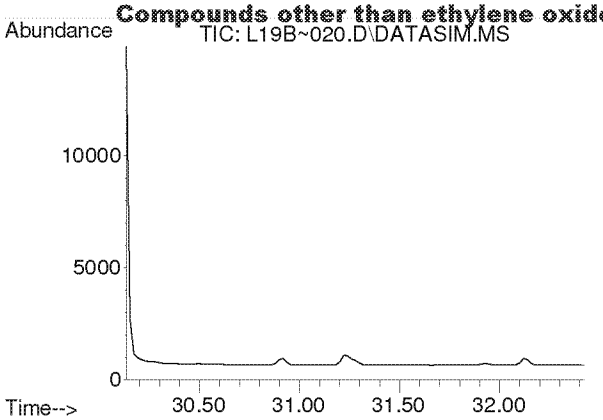
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

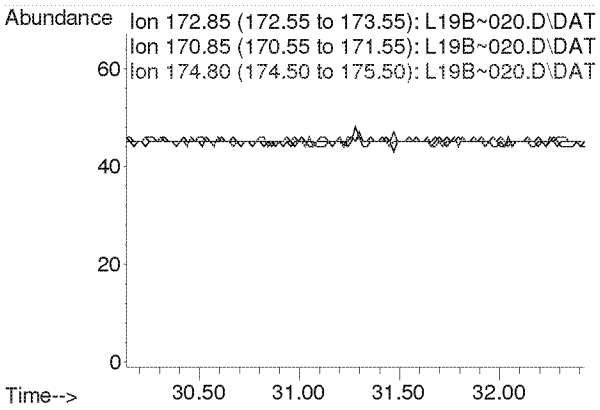


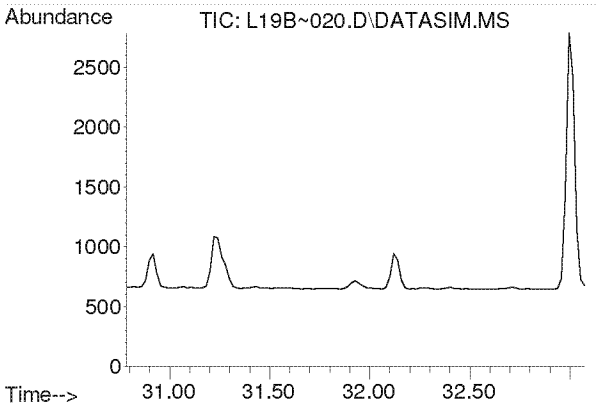
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



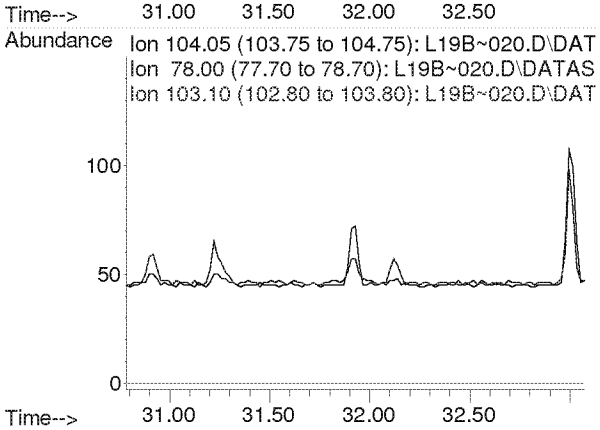


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

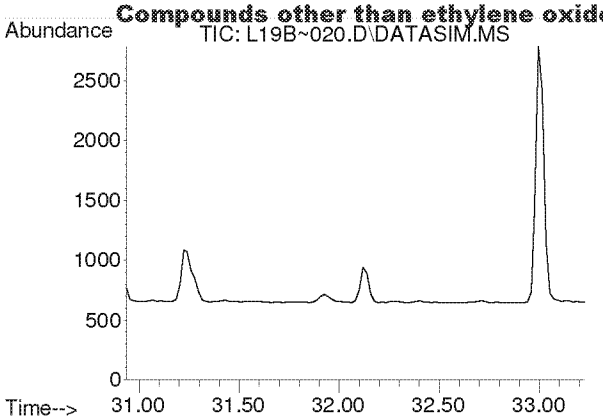
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

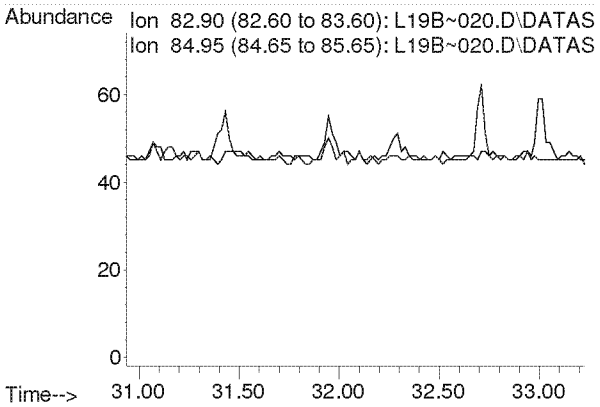


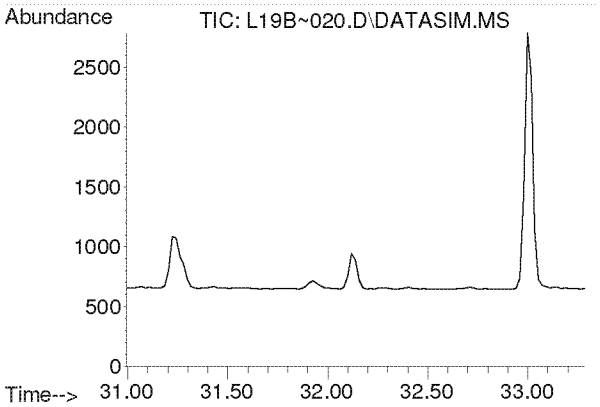
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



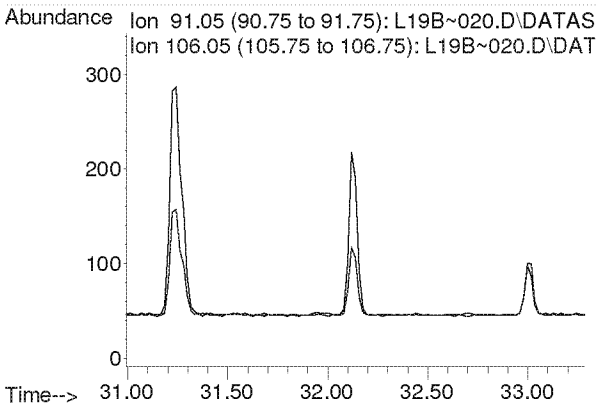


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

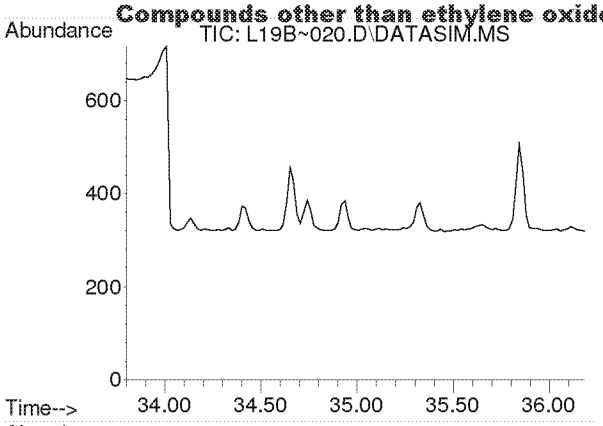
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

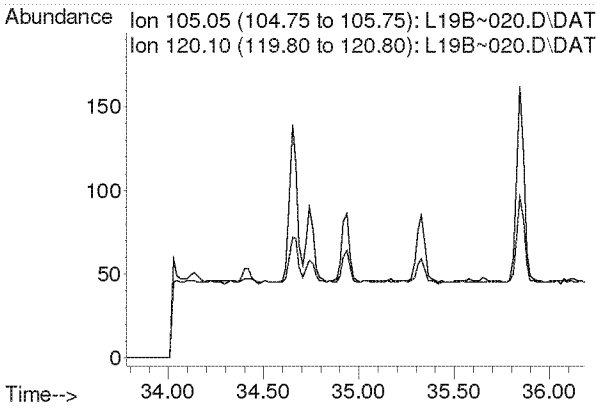


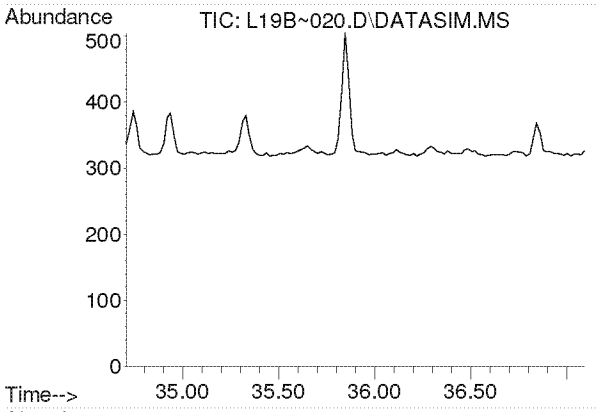
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



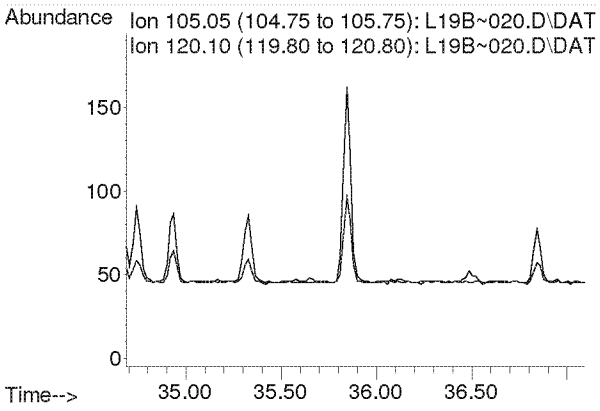


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

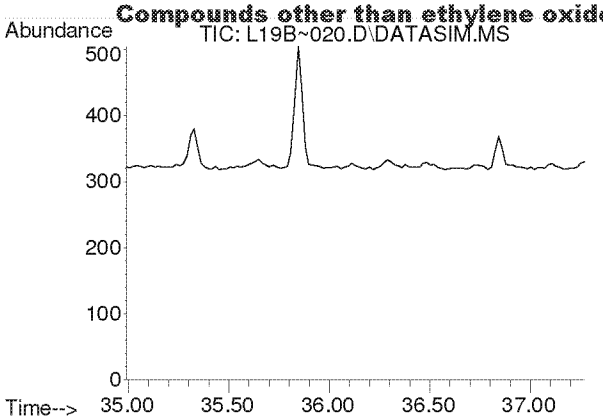
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

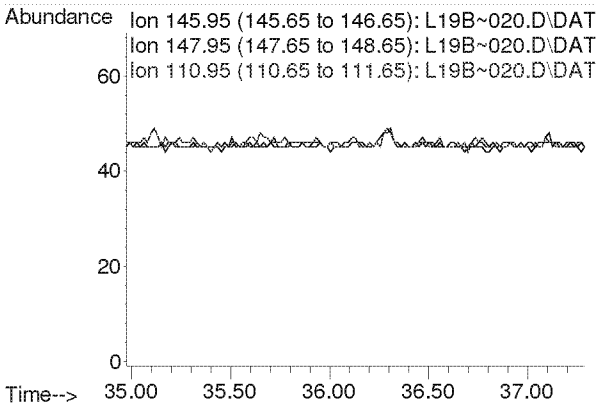


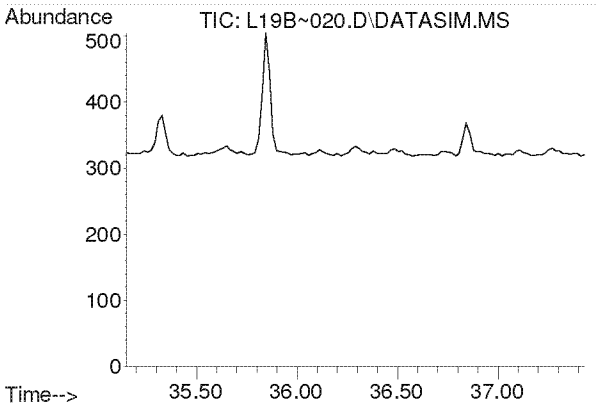
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



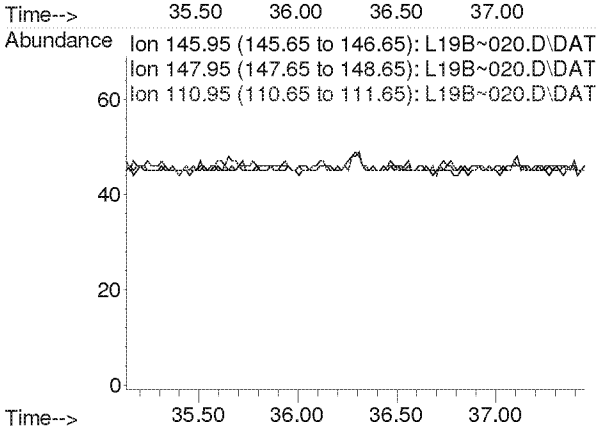


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

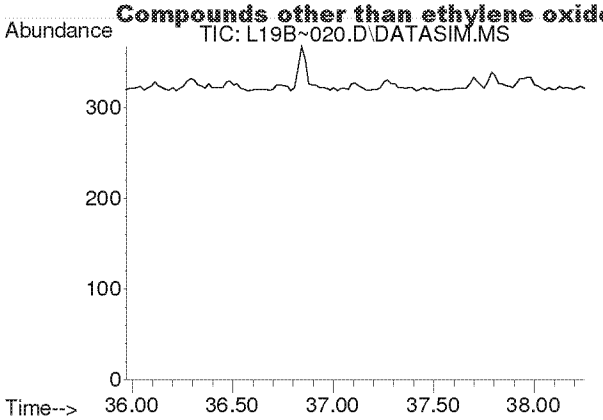
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

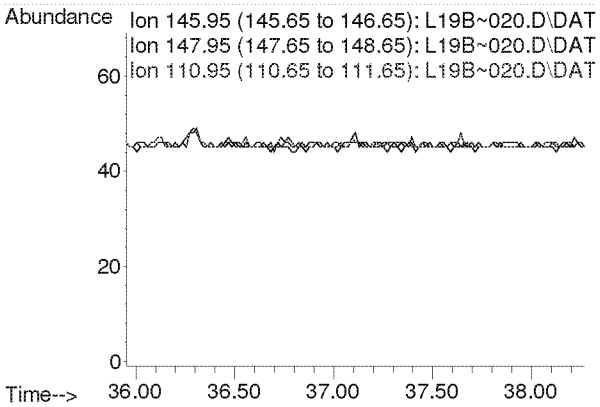


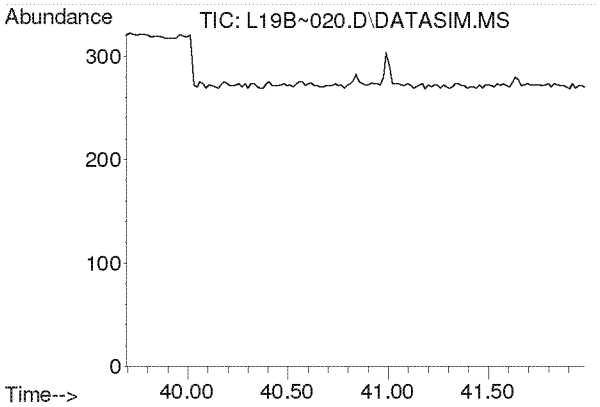
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



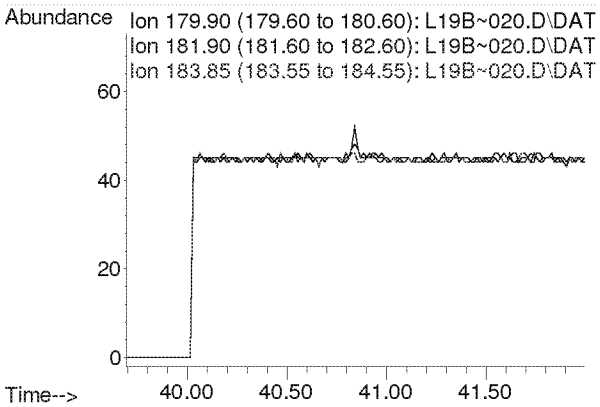


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

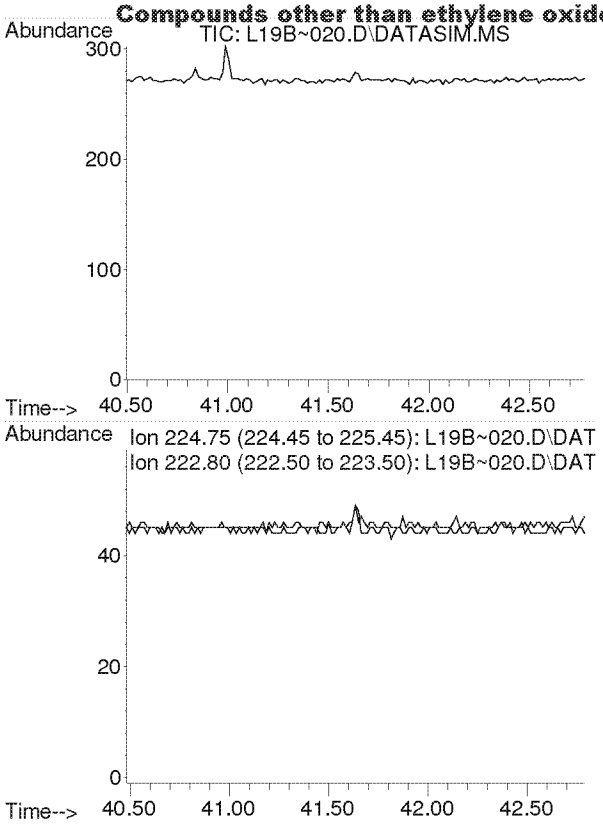
Lab File: L19B~020.D
Acq: 28 Feb 2019 6:38 am

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: L19B~020.D
Acq: 28 Feb 2019 6:38 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\L19B~\
Data File : L19B~021.D
Acq On : 28 Feb 2019 7:39 am
Operator : MAH
Sample : 9022616-10
Misc : EPA WB WAREHOUSE C2 2/24/19
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 05 06:57:10 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

EtOt only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	43779	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	109864	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	77356	4.7400 ppbv	0.00

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 SW	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
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\L19B~\
Data File : L19B~021.D
Acq On : 28 Feb 2019 7:39 am
Operator : MAH
Sample : 9022616-10
Misc : EPA WB WAREHOUSE C2 2/24/19
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 05 06:57:10 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

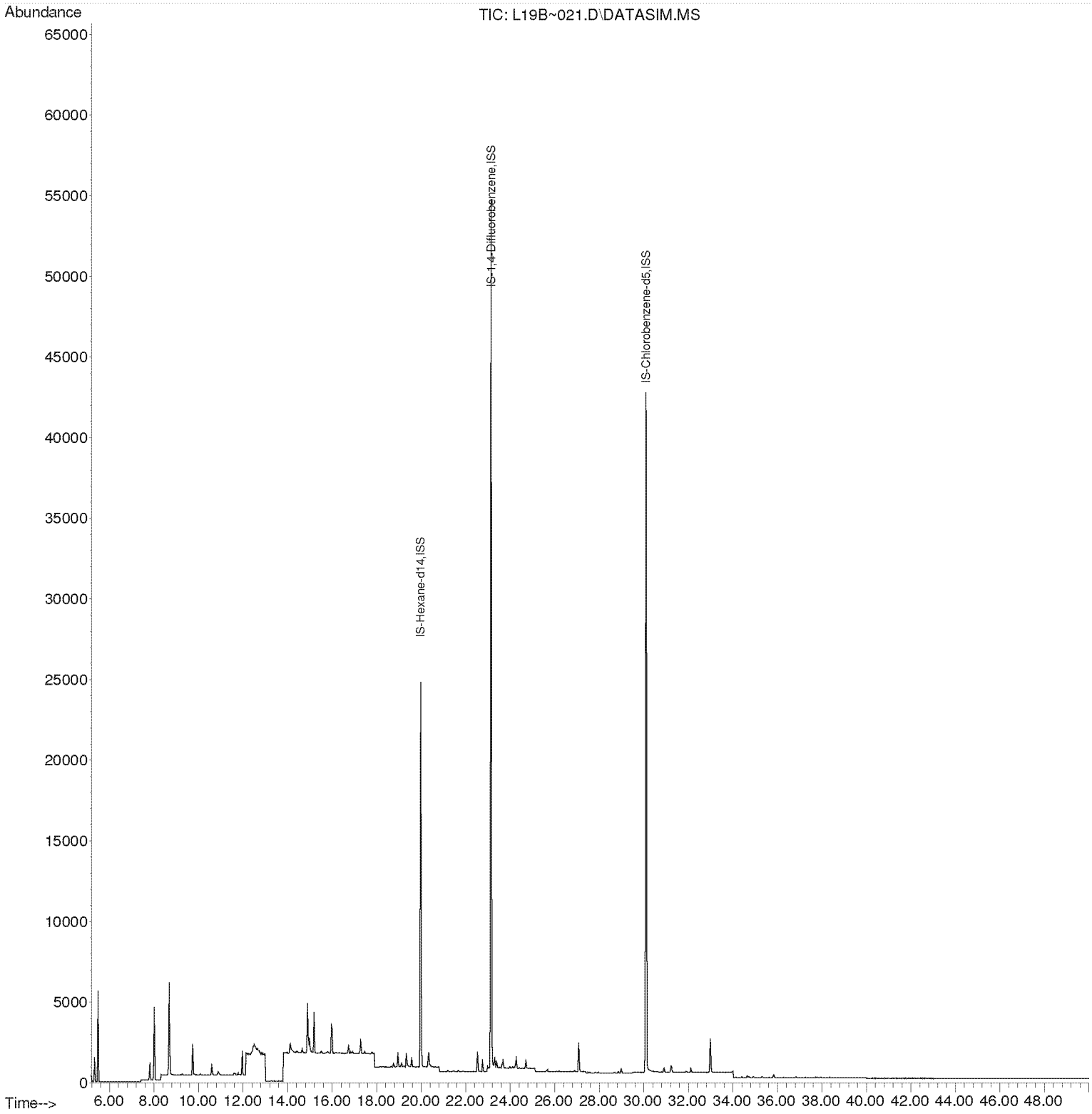
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	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

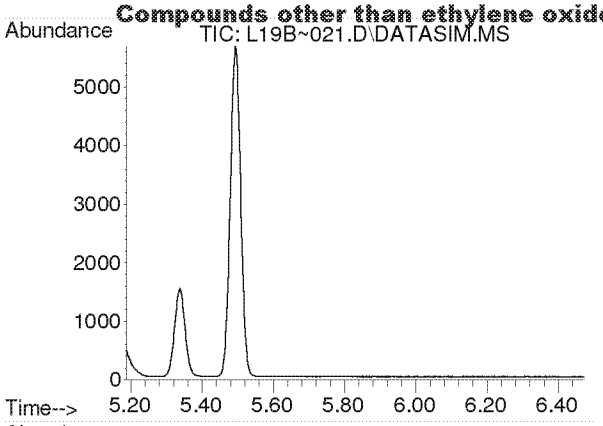
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~021.D
Acq On : 28 Feb 2019 7:39 am
Operator : MAH
Sample : 9022616-10
Misc : EPA WB WAREHOUSE C2 2/24/19
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 28 12:55:40 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



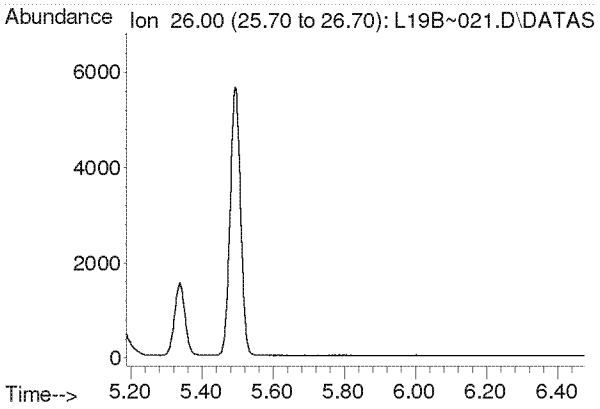
Compounds other than ethylene oxide were not quantitated.

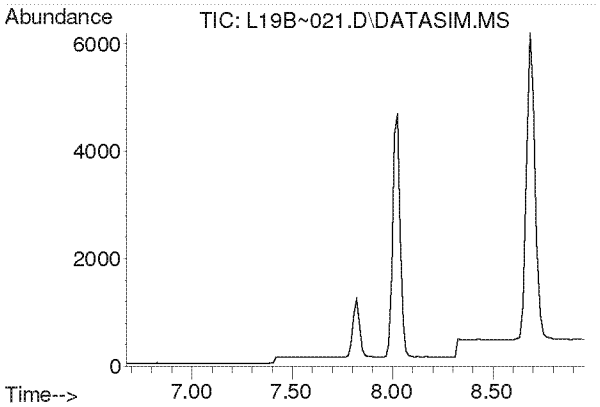


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 26



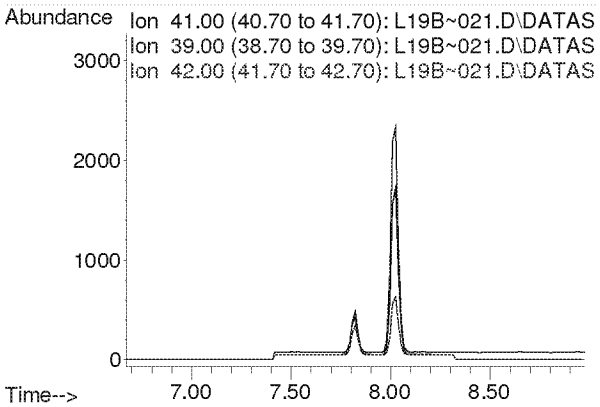


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

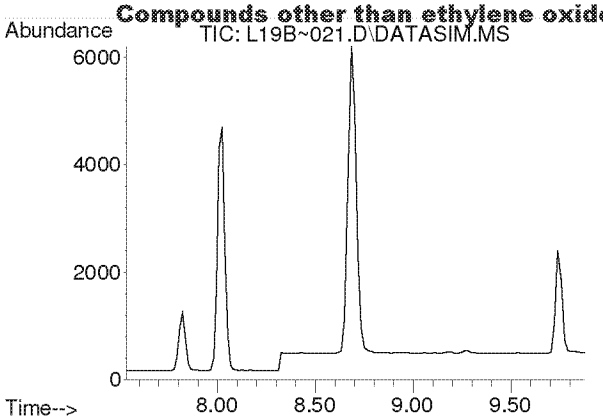
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

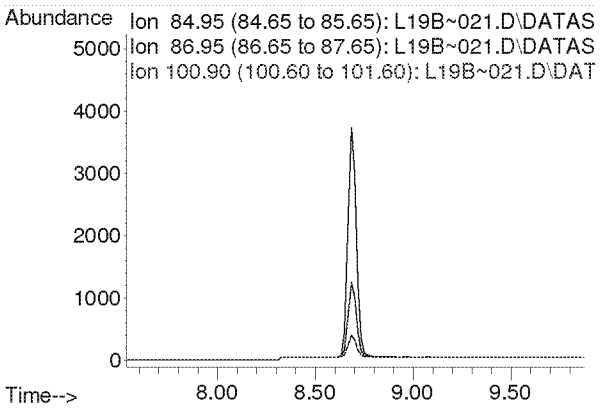


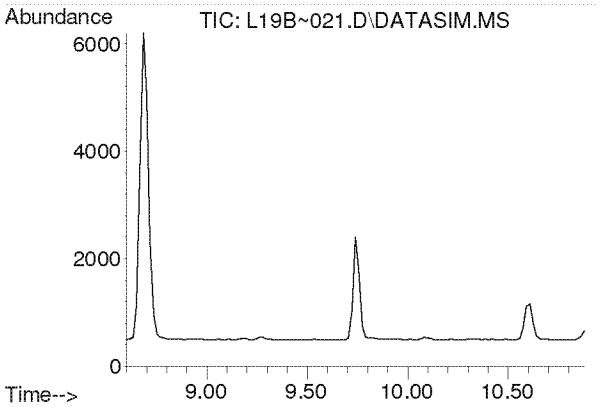
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



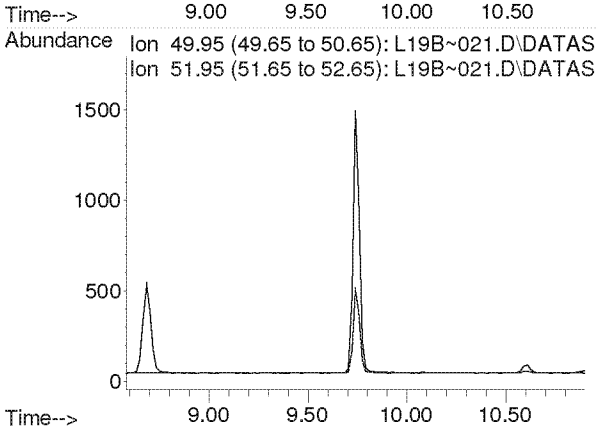


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

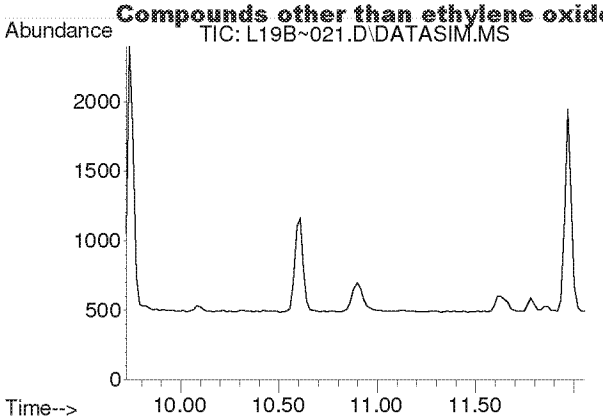
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

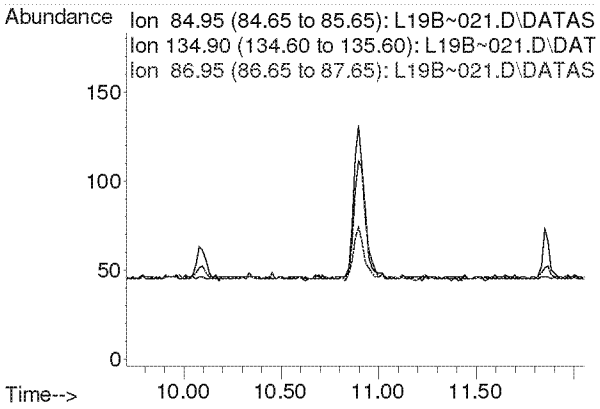


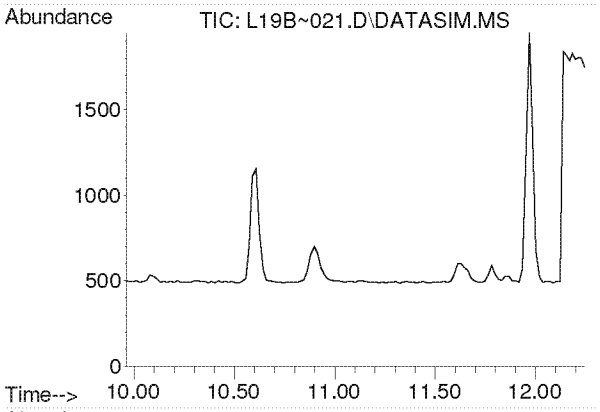
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



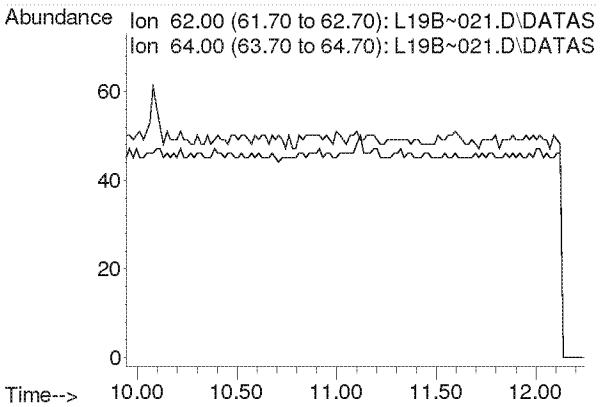


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

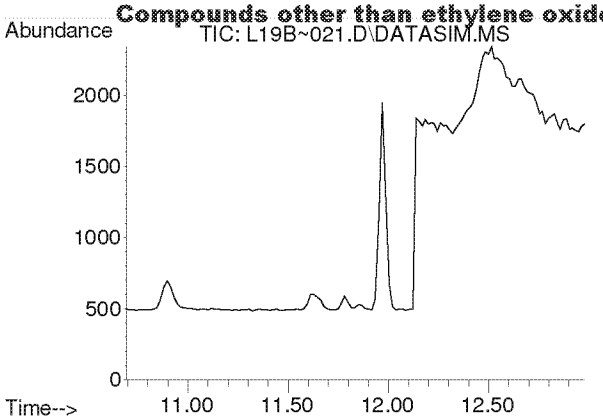
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

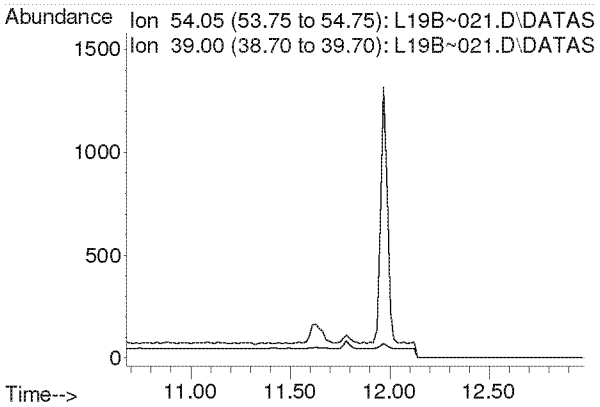


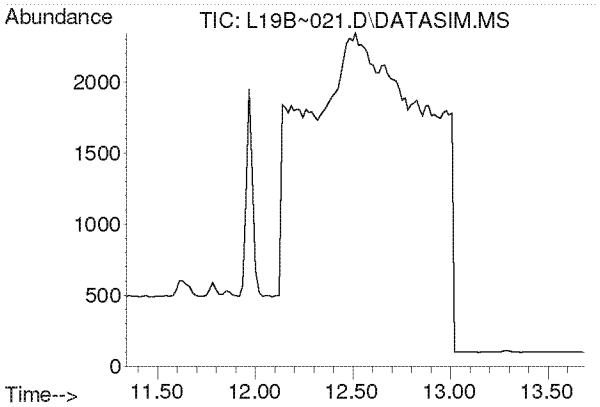
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



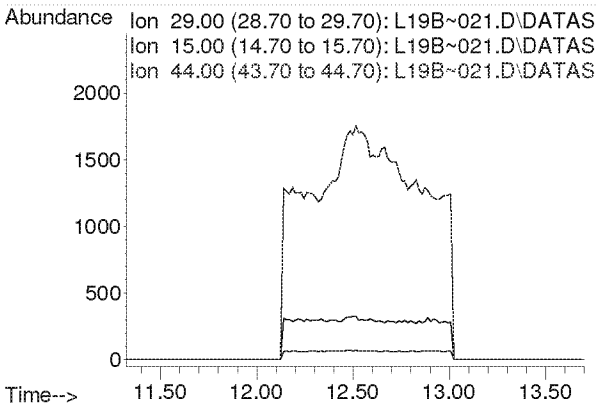


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

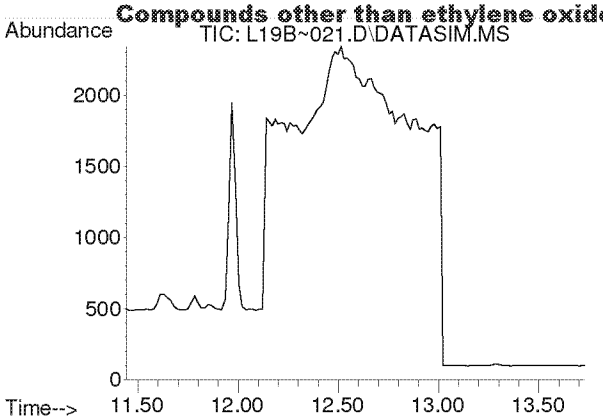
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

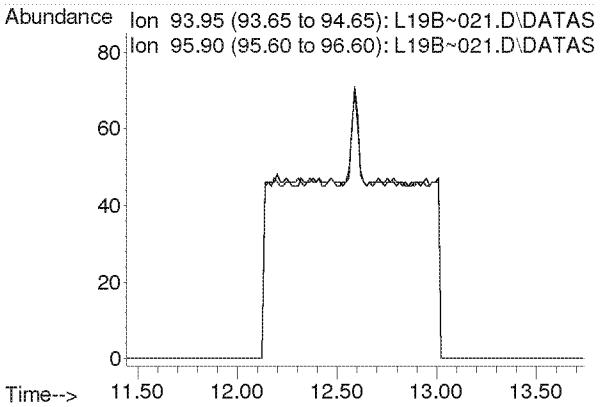


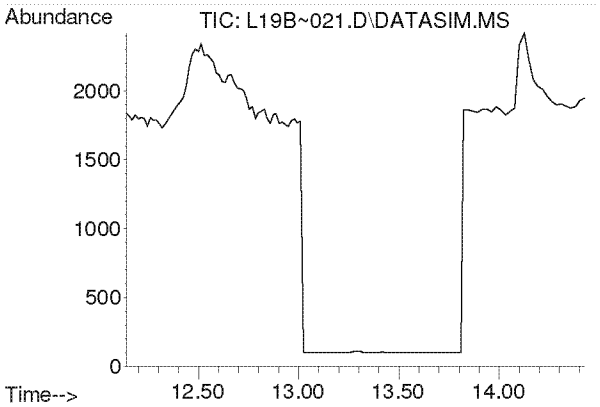
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



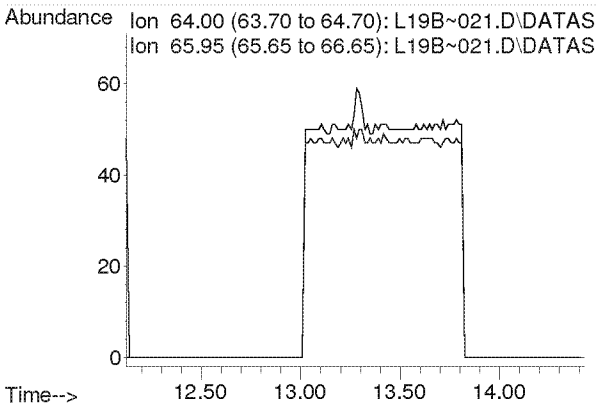


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

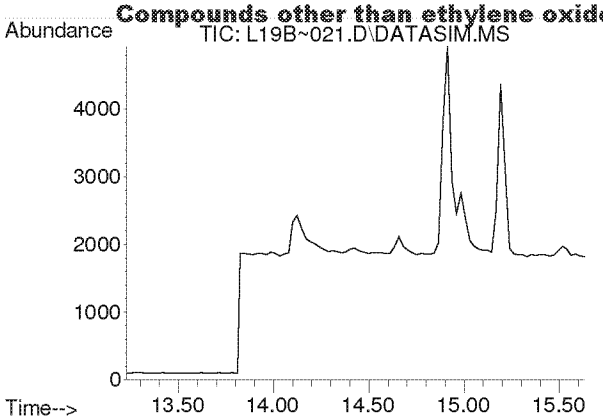
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

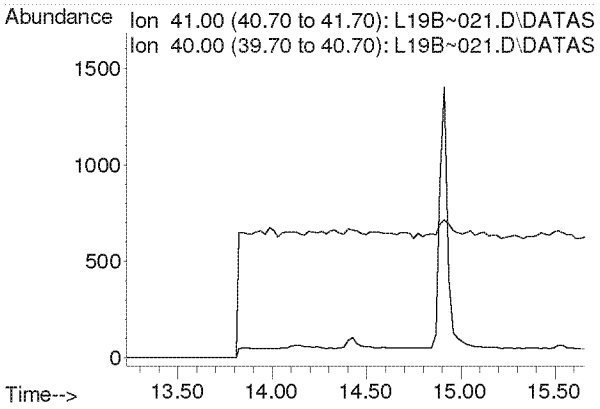


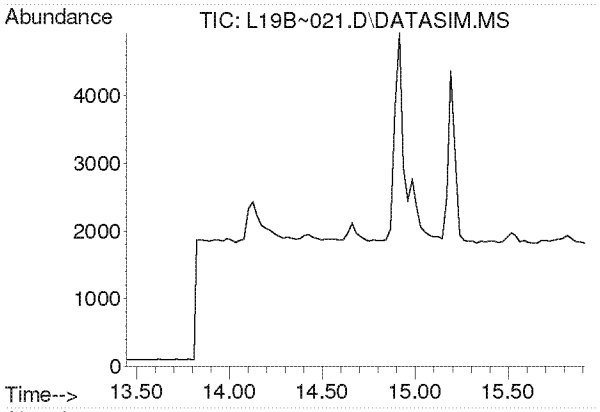
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



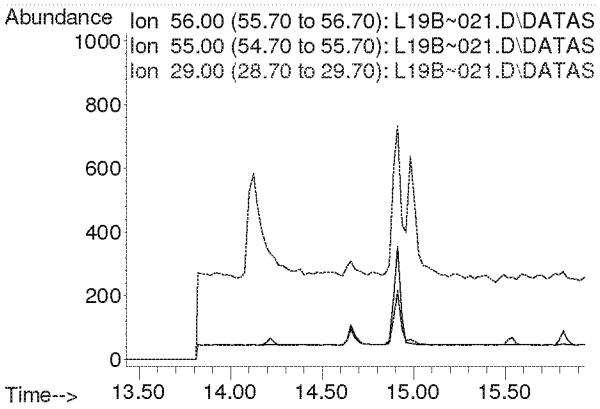


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

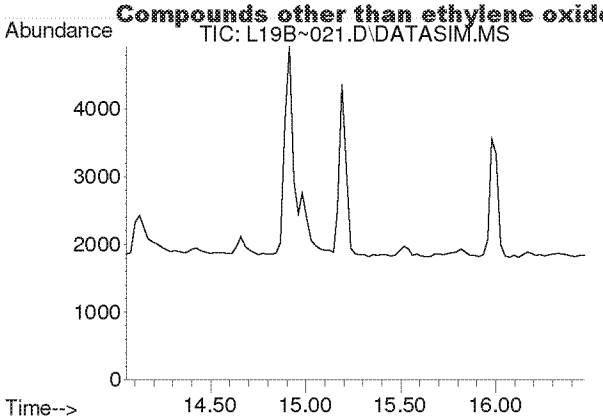
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

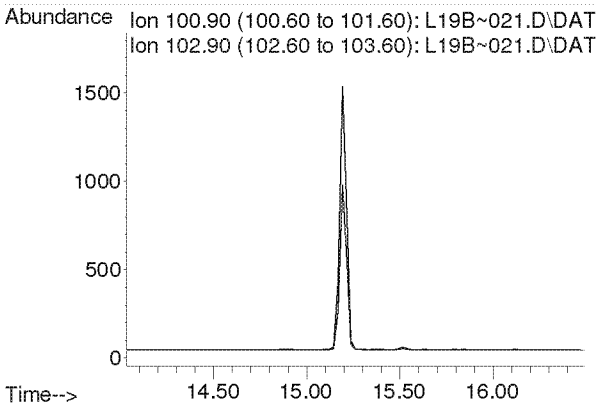


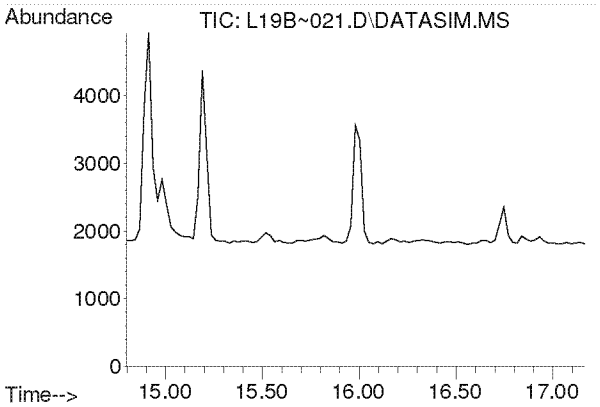
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



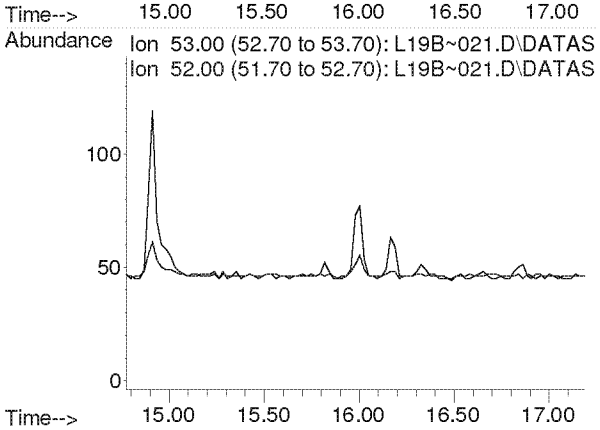


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

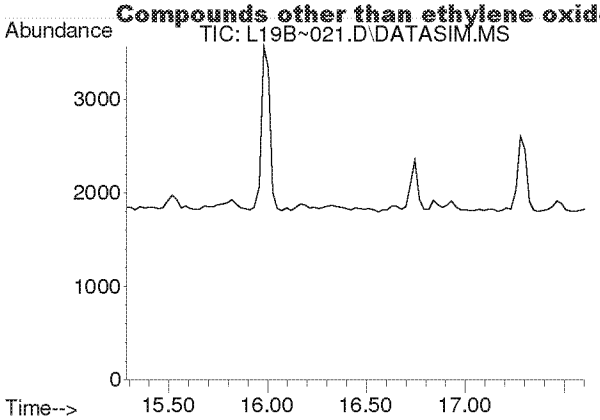
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

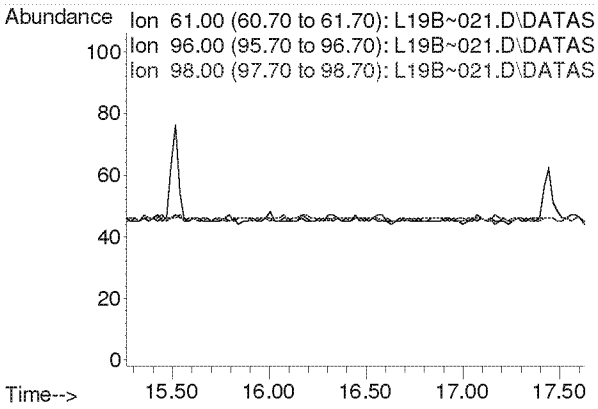


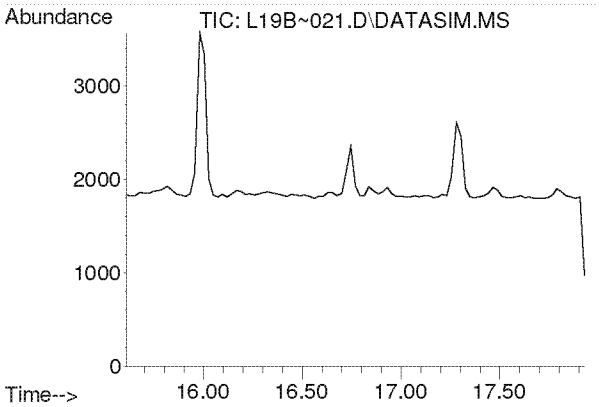
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



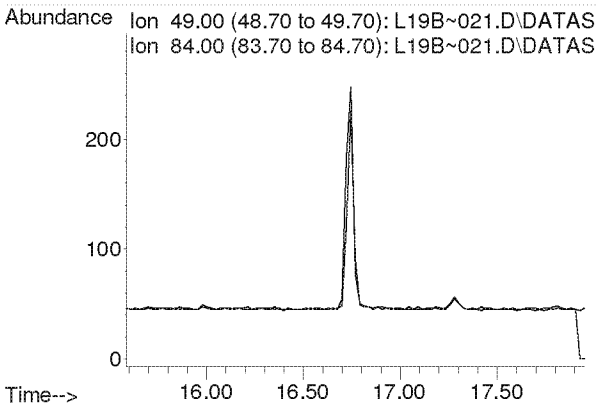


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

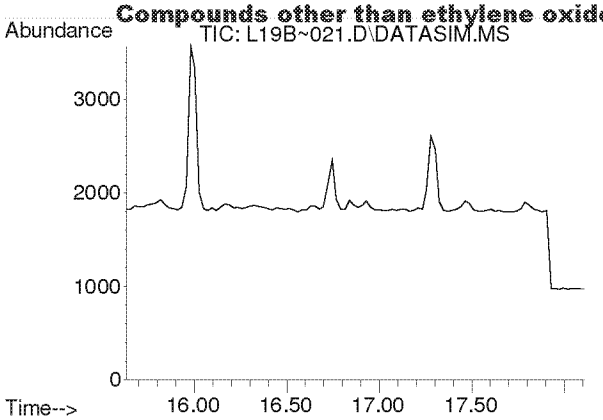
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

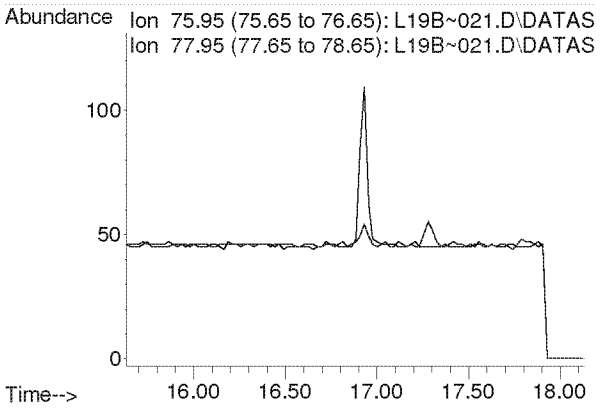


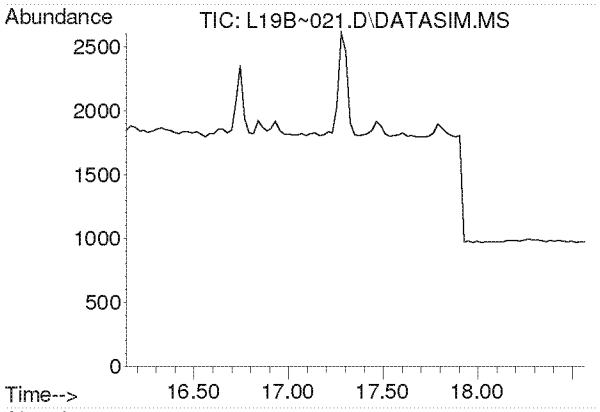
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



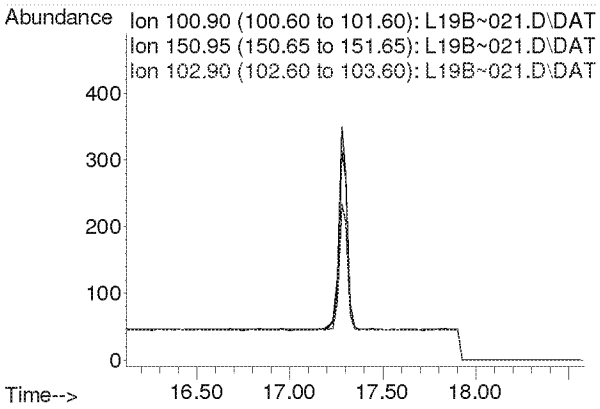


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

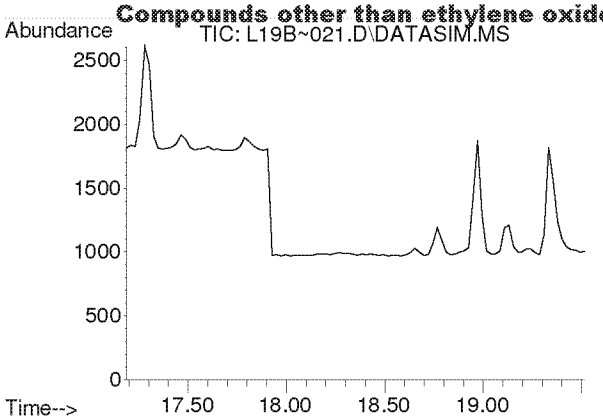
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

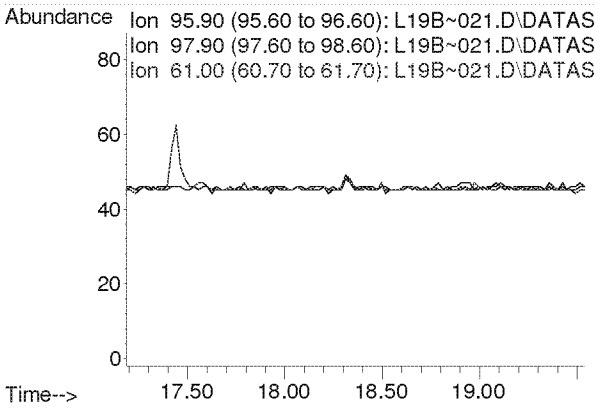


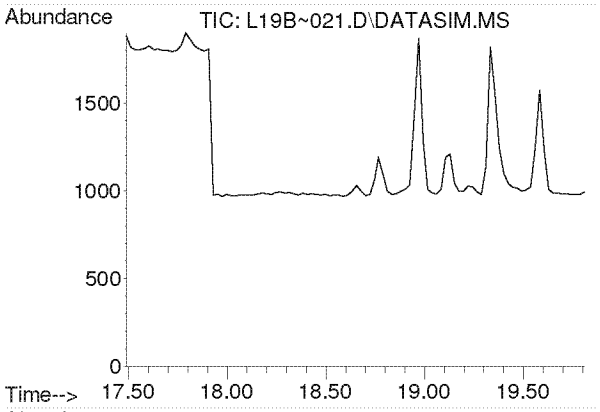
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



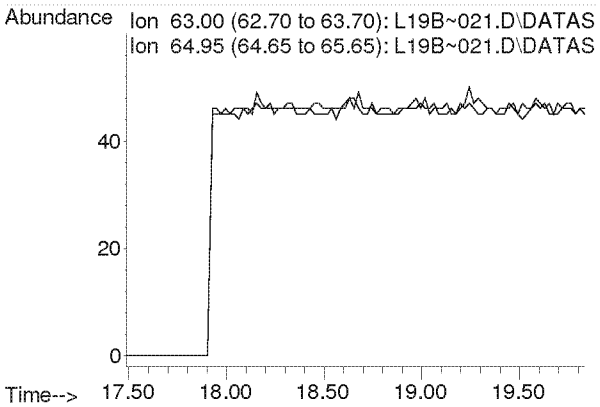


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

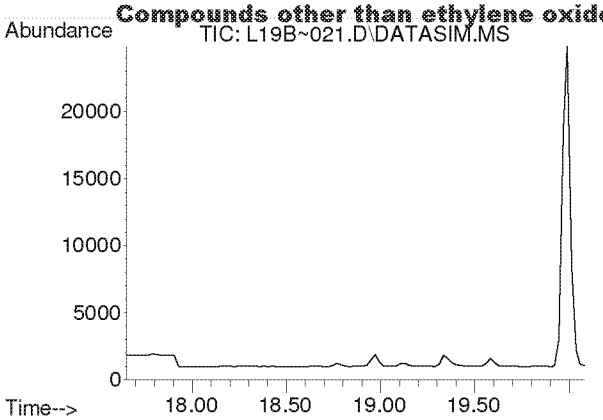
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

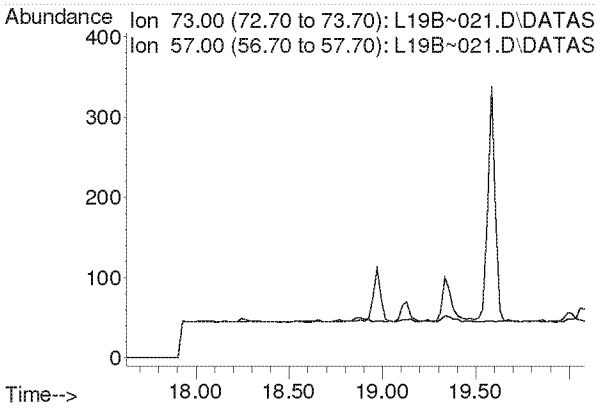


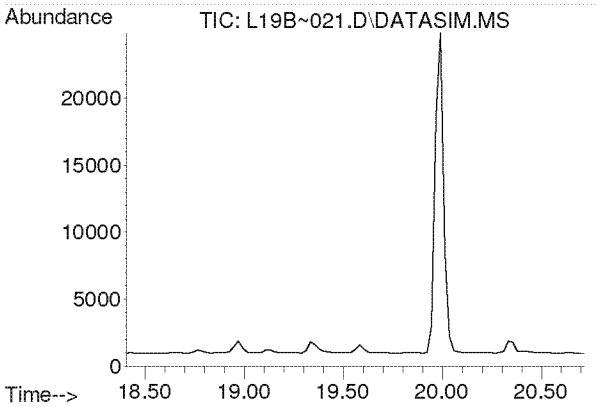
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



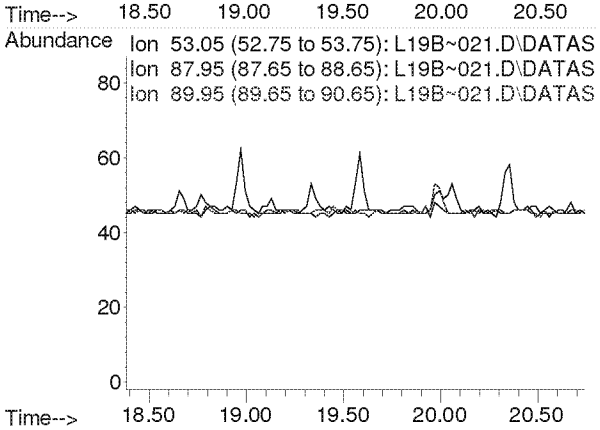


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

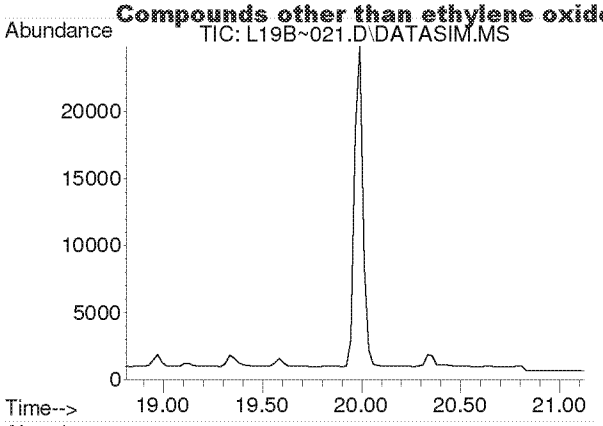
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

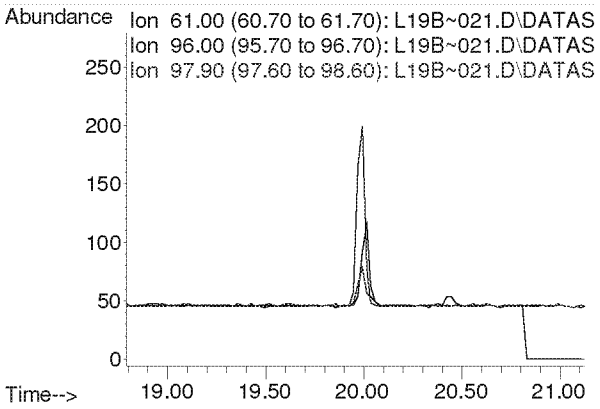


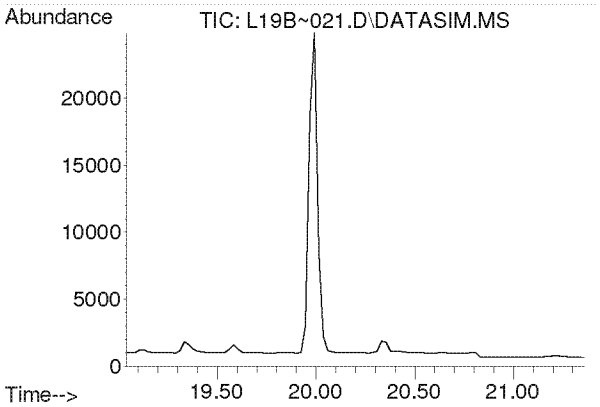
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



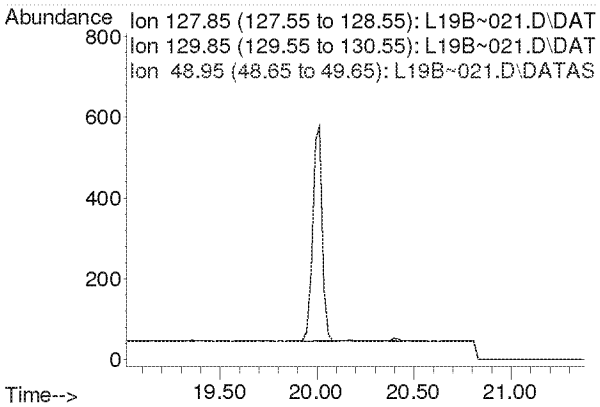


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

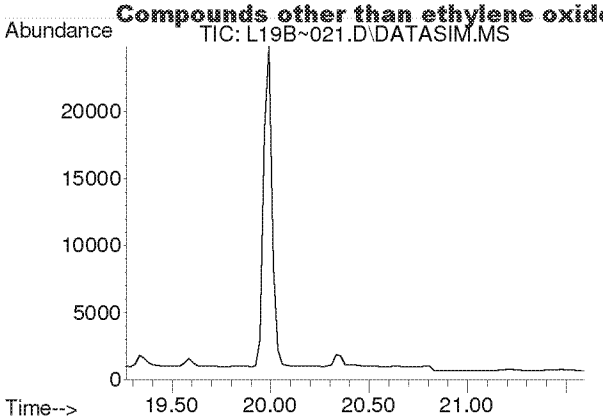
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

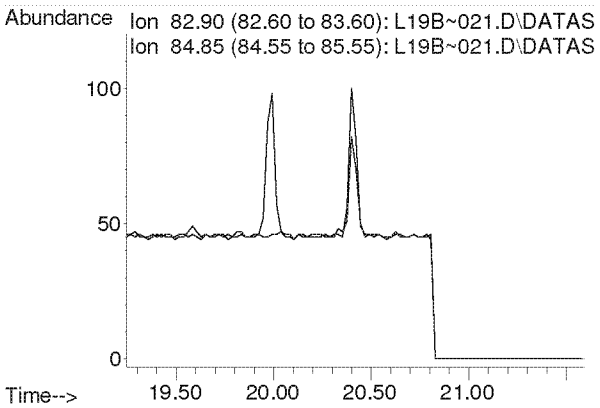


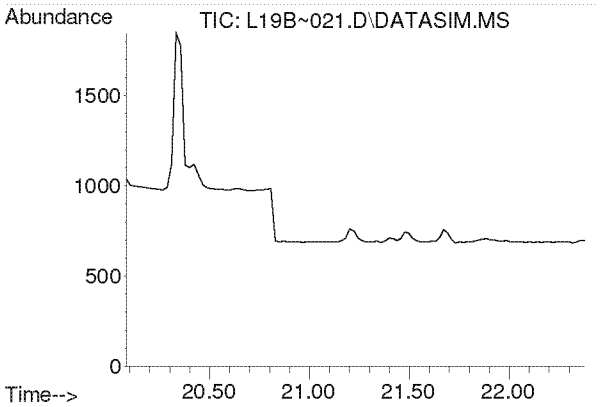
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



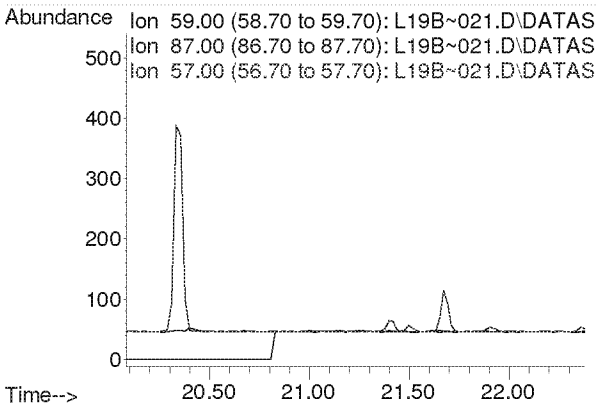


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

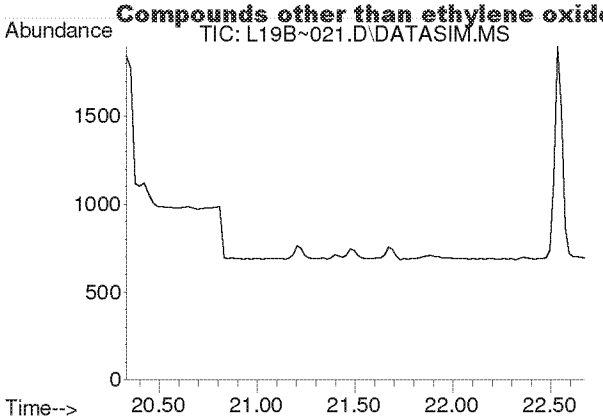
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

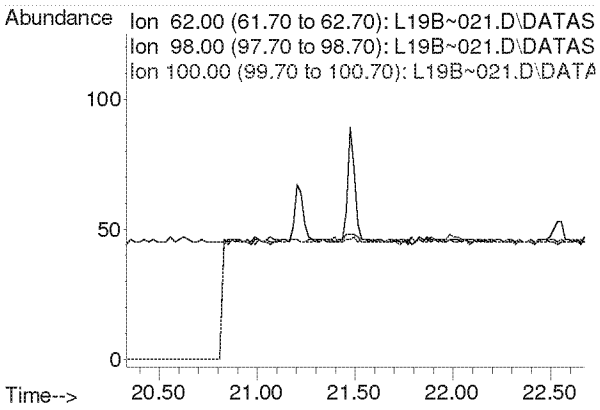


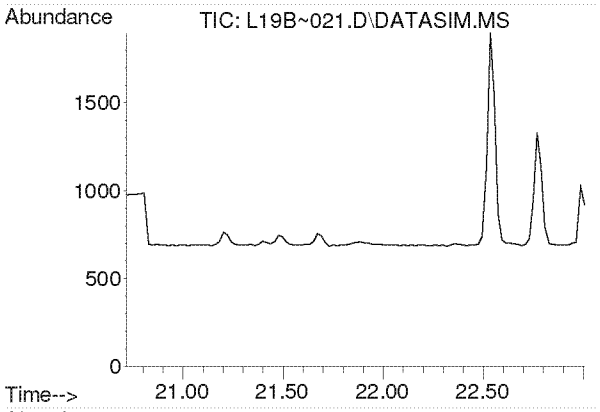
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



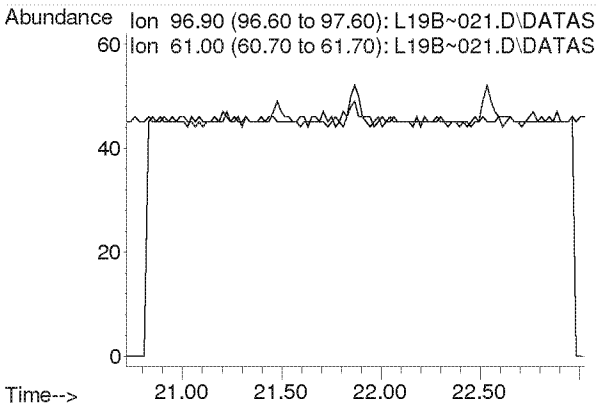


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

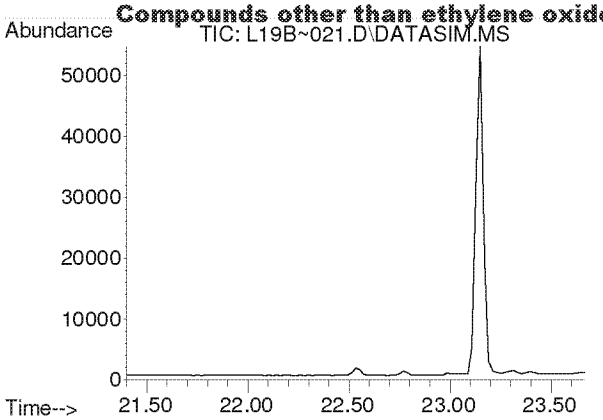
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

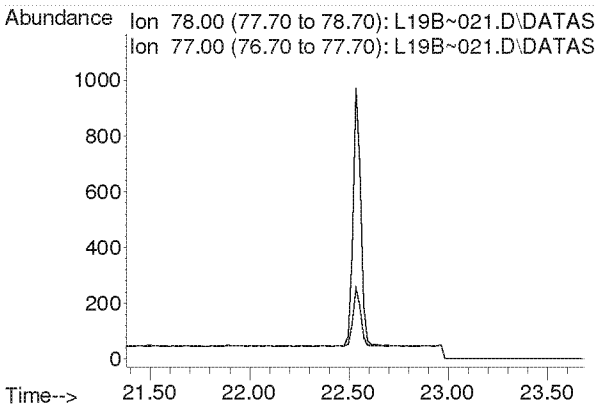


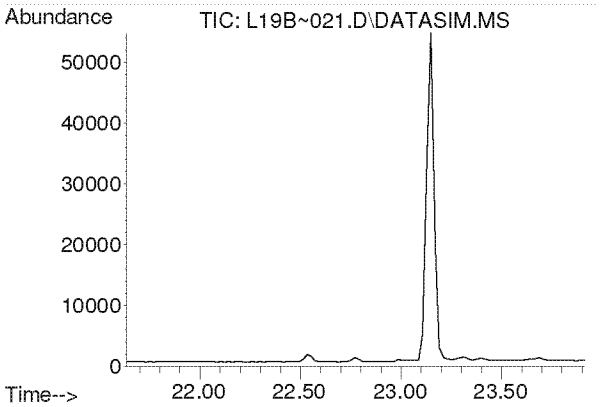
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



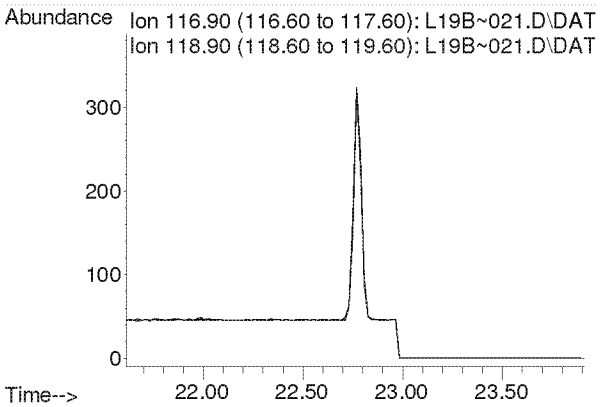


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

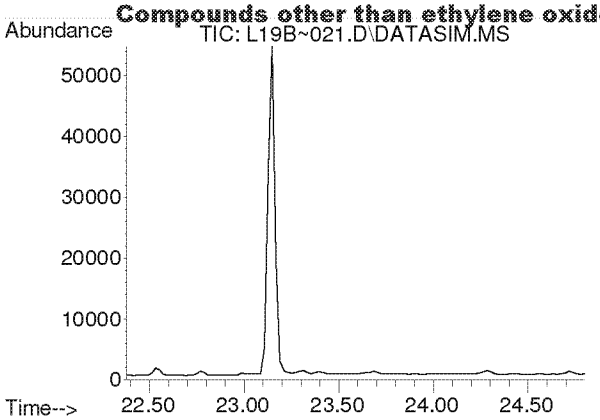
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

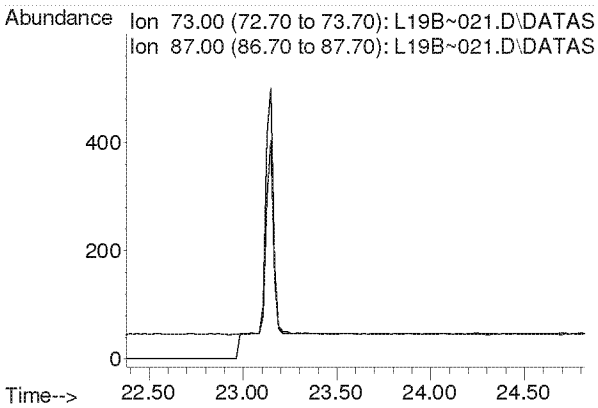


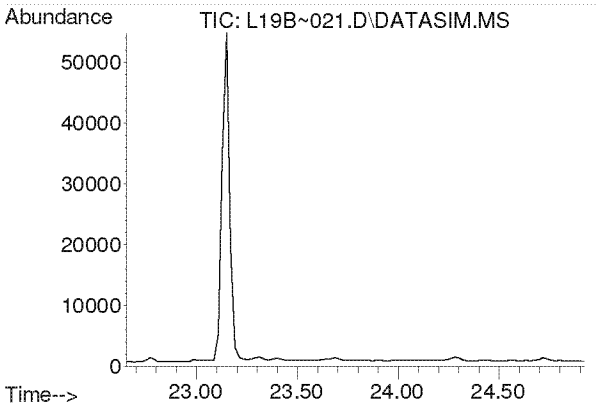
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



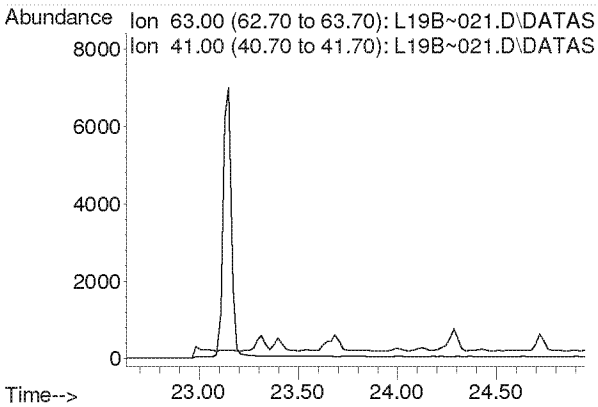


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

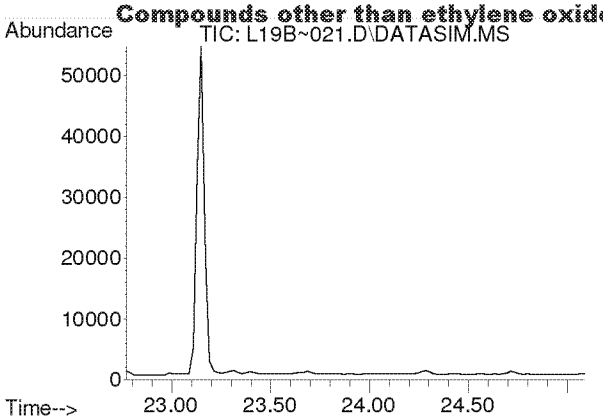
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

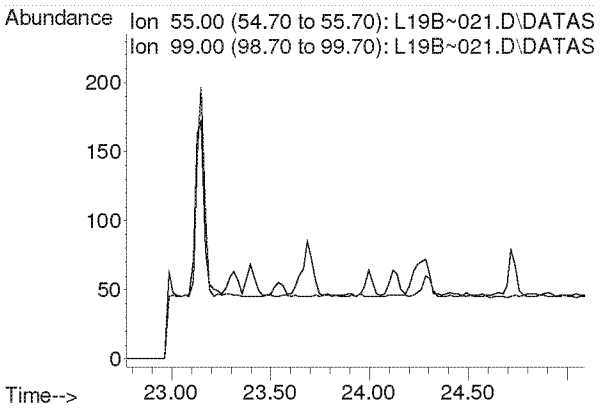


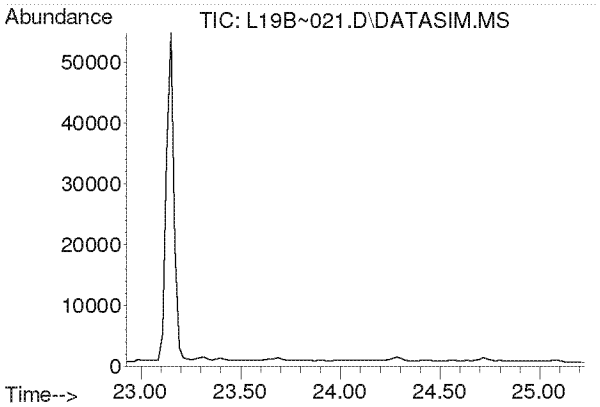
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



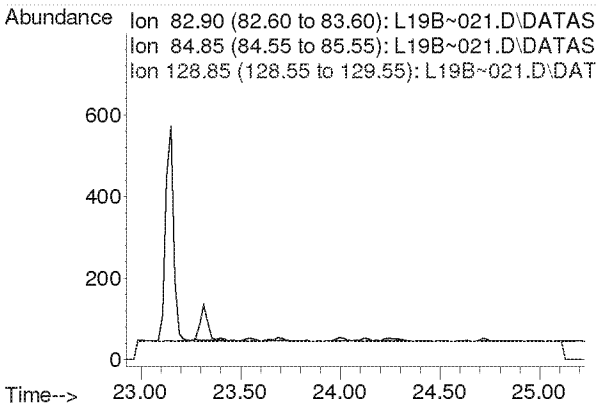


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

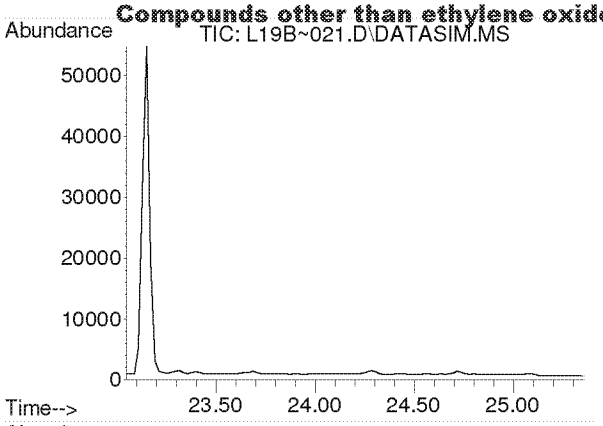
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

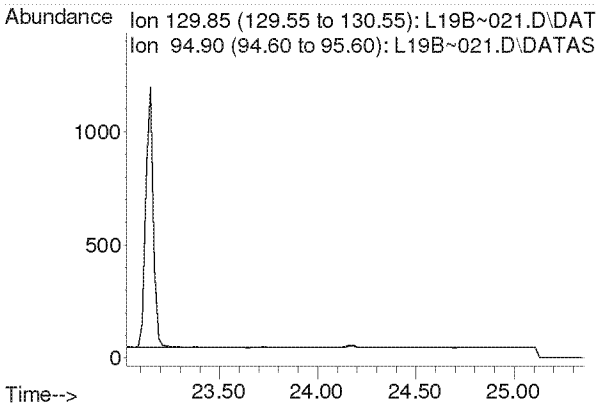


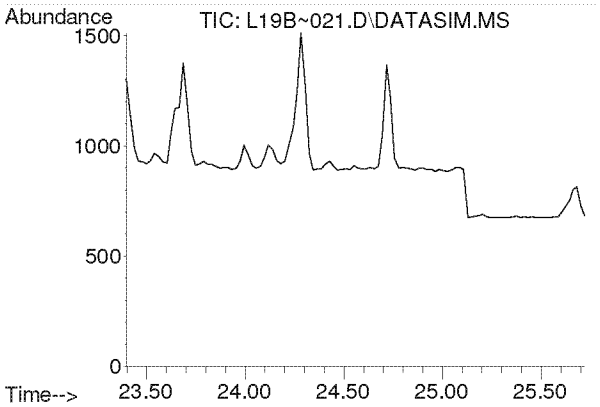
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



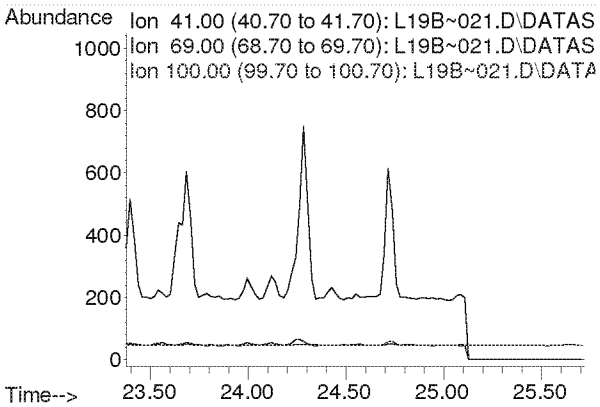


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

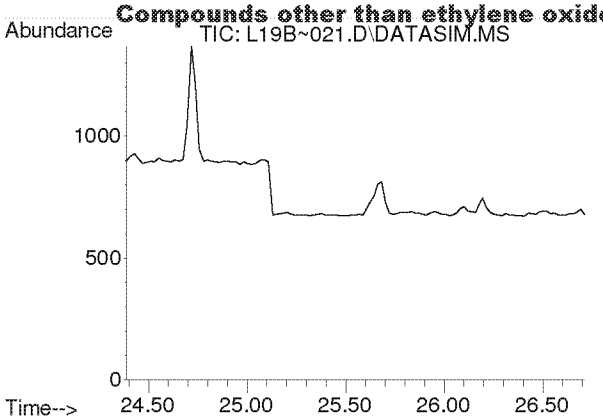
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

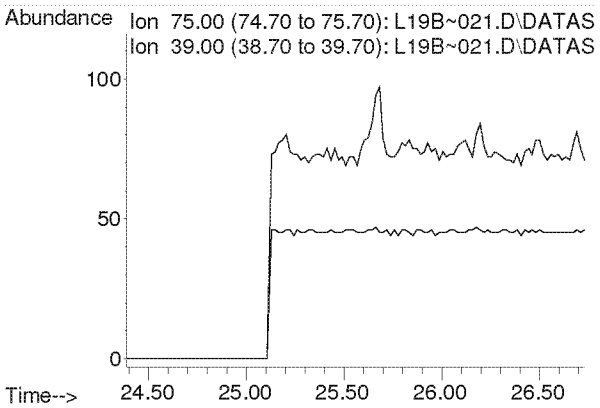


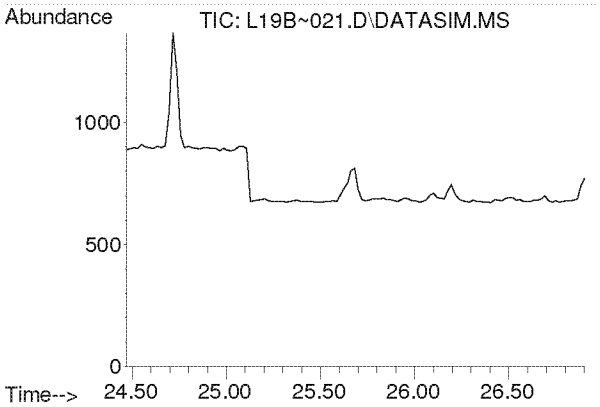
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



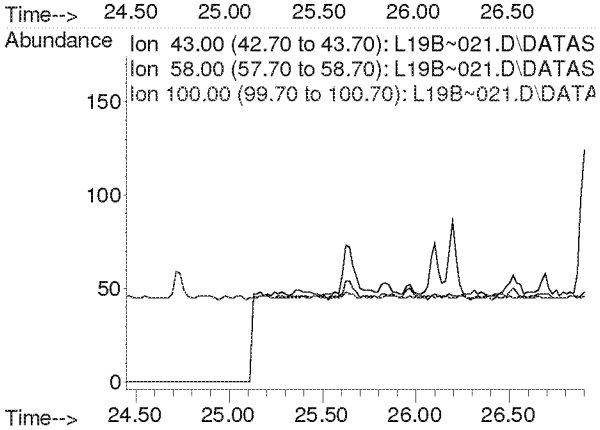


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

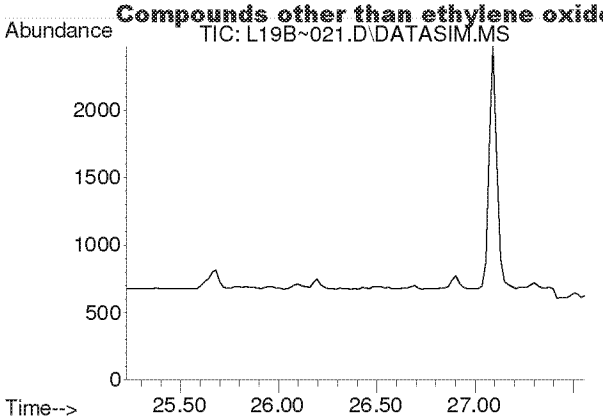
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

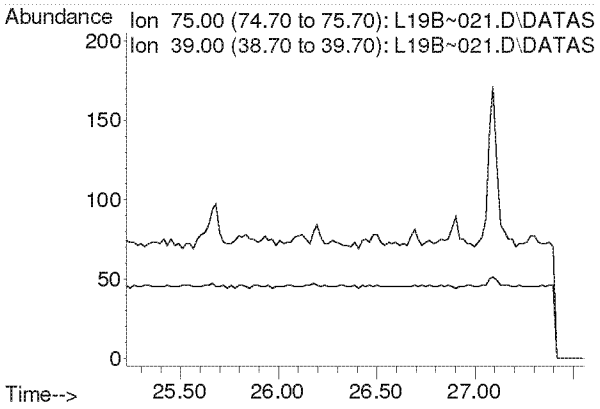


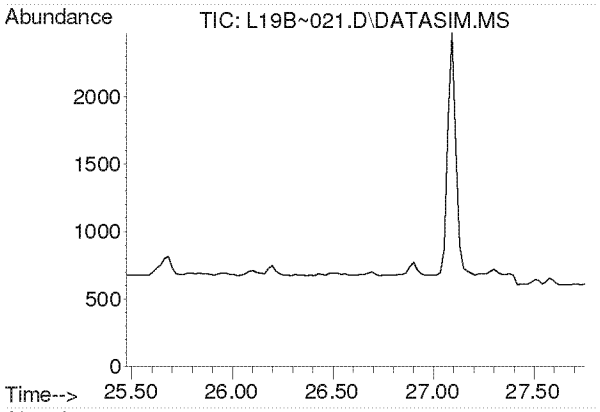
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



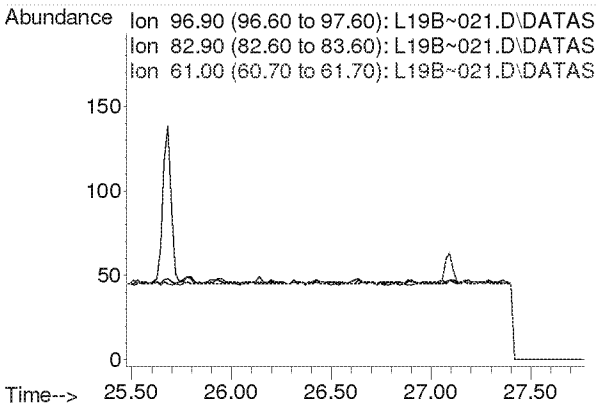


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

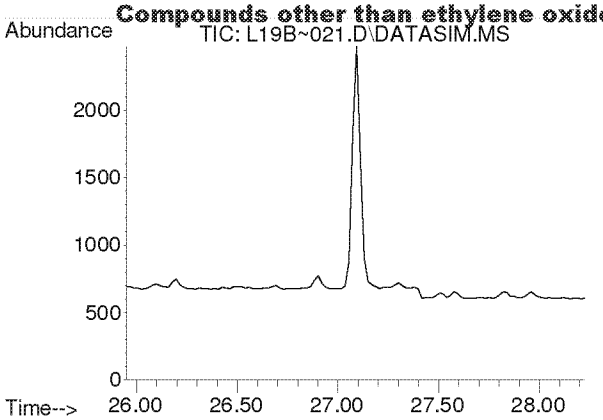
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

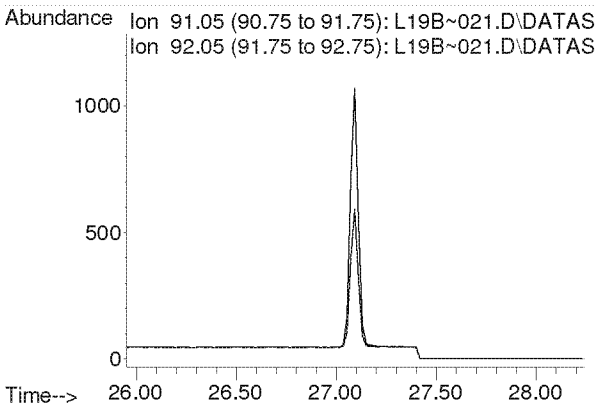


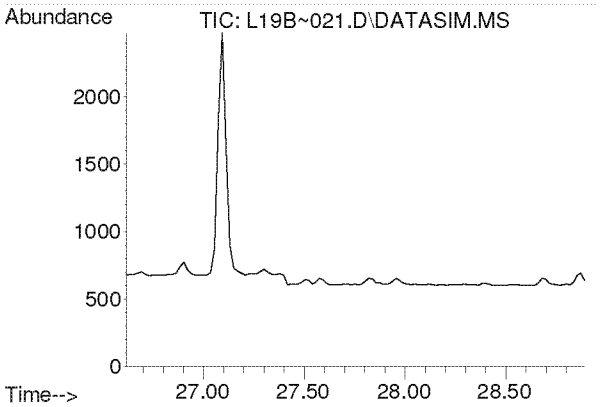
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



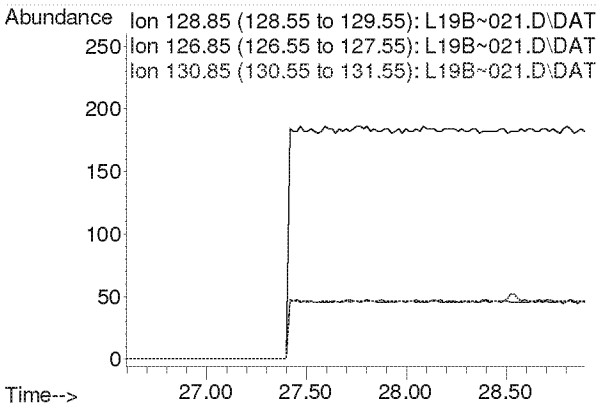


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

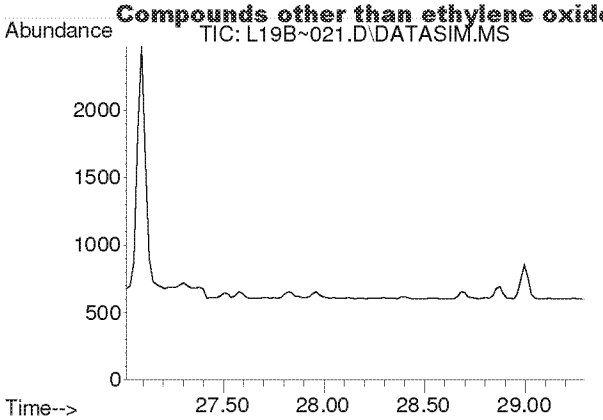
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

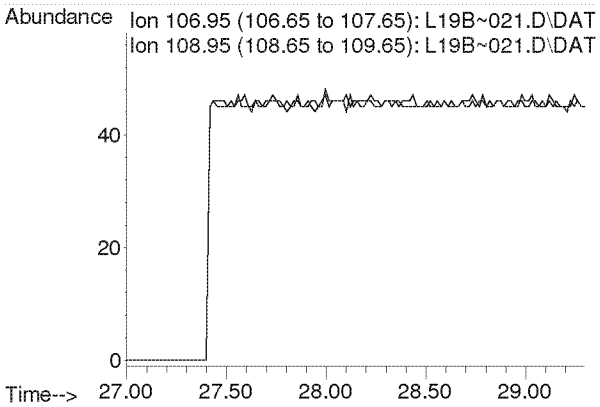


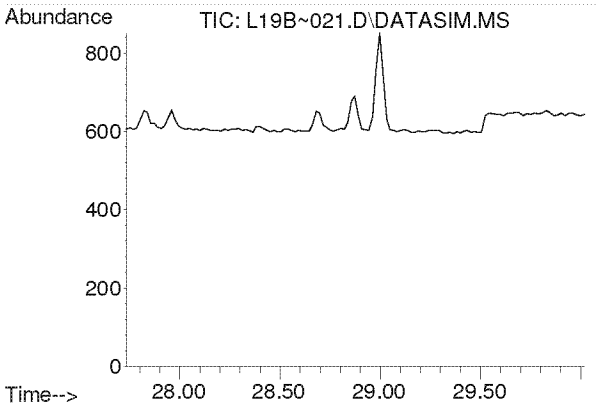
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



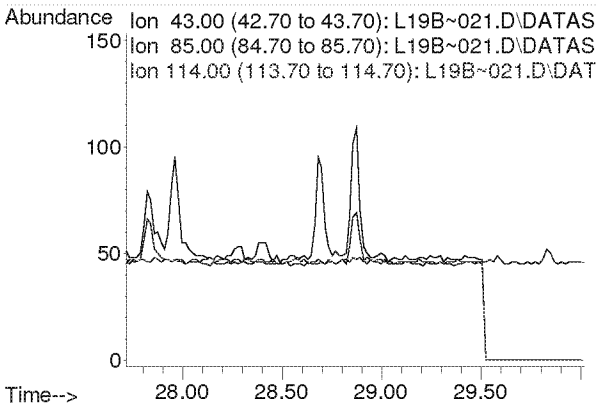


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

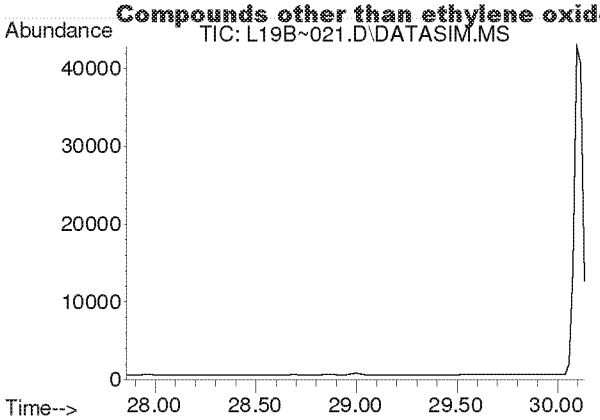
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

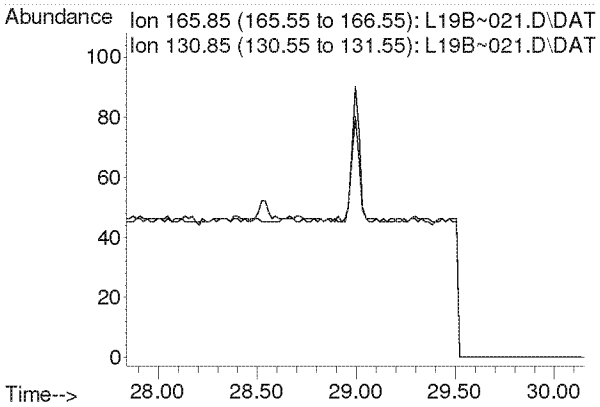


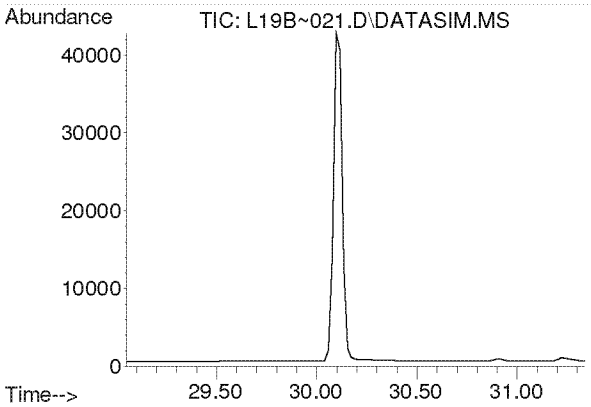
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



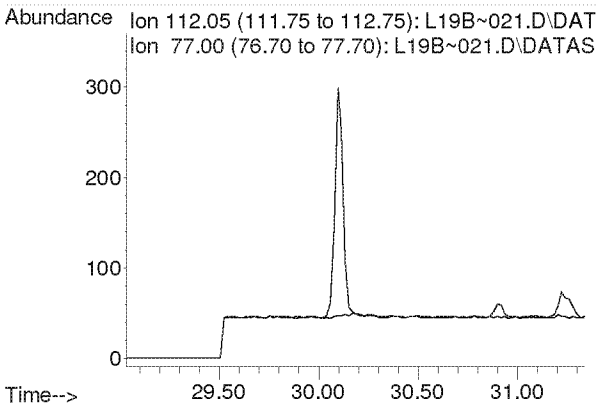


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

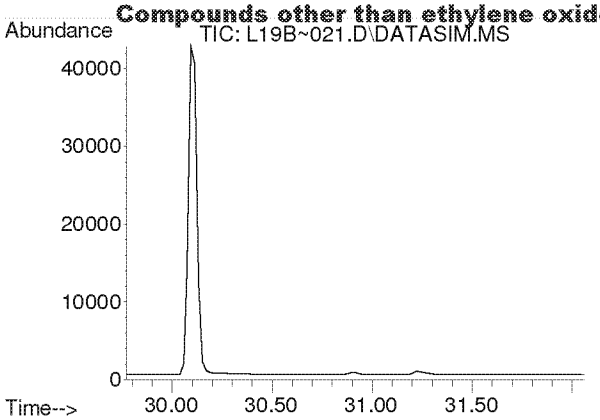
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

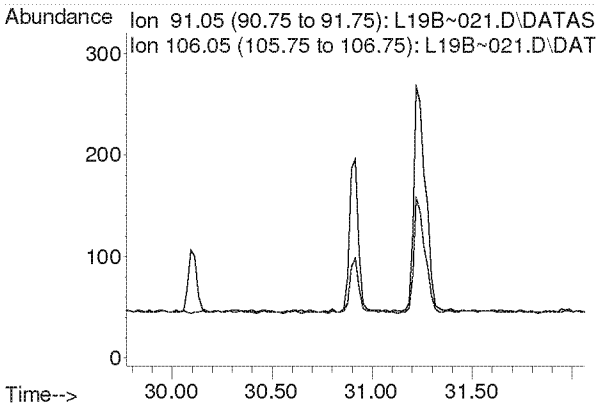


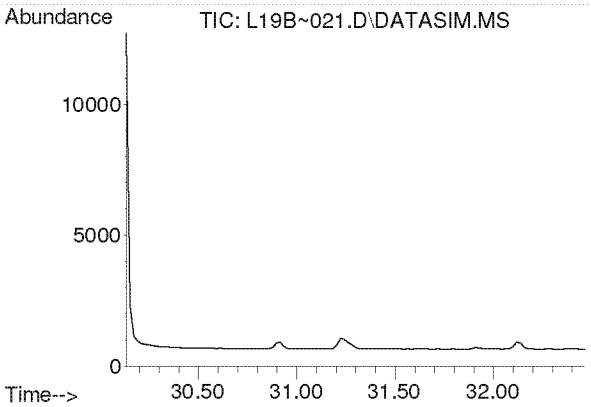
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



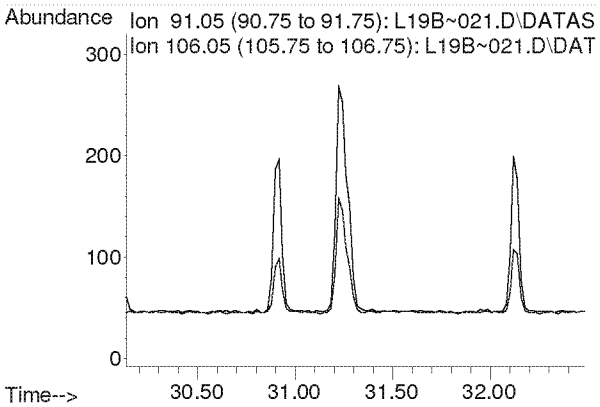


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

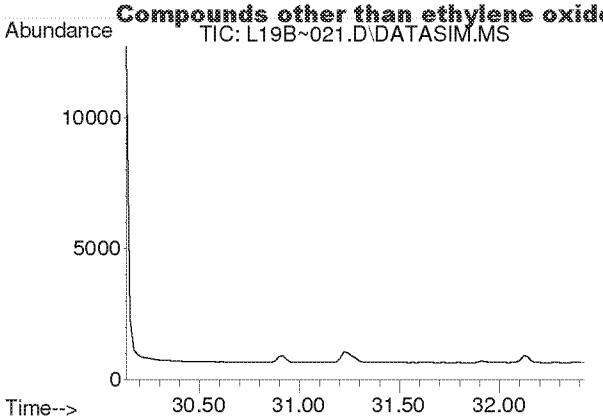
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

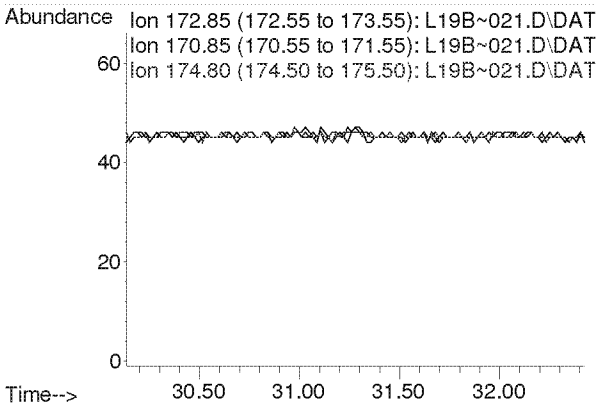


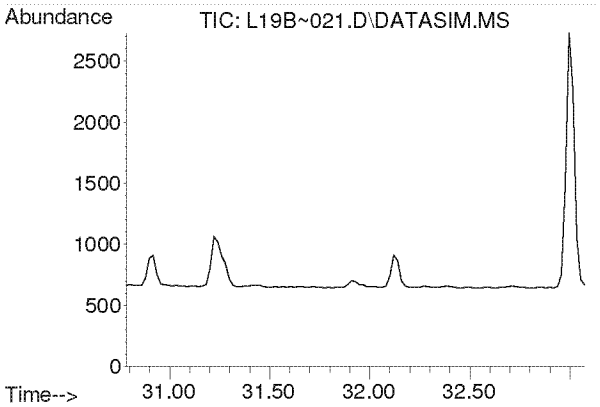
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



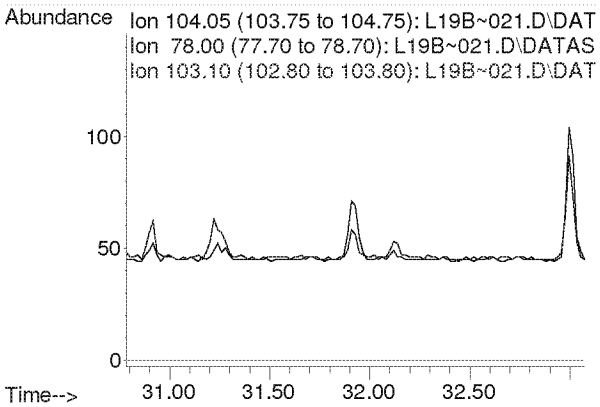


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

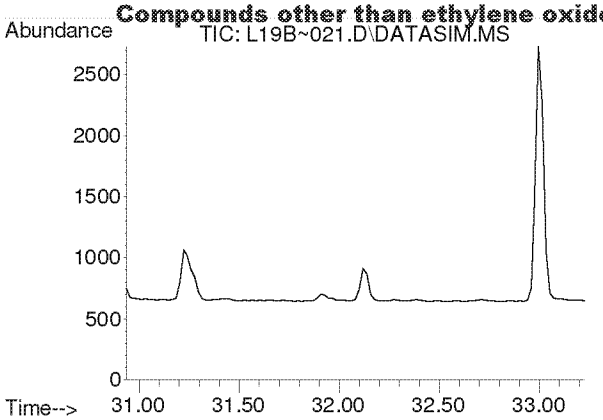
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

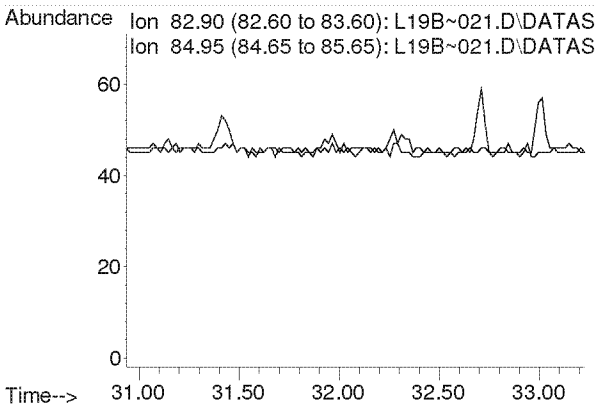


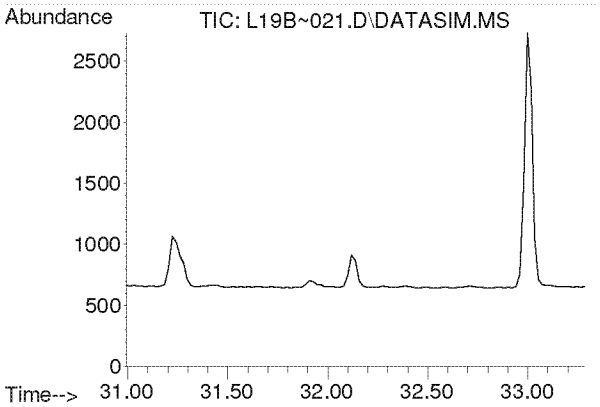
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



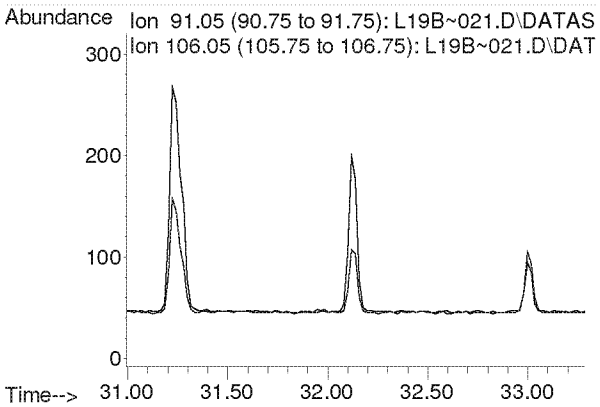


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

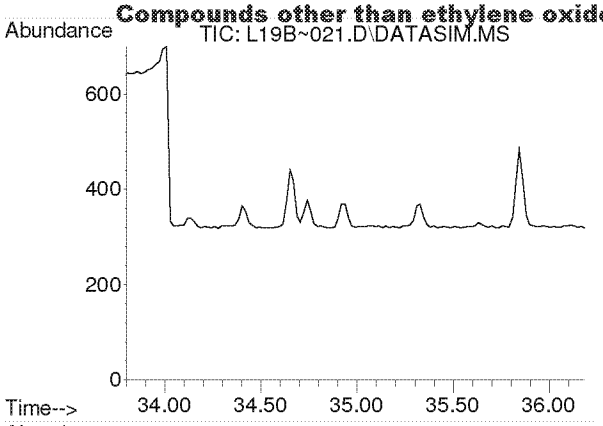
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

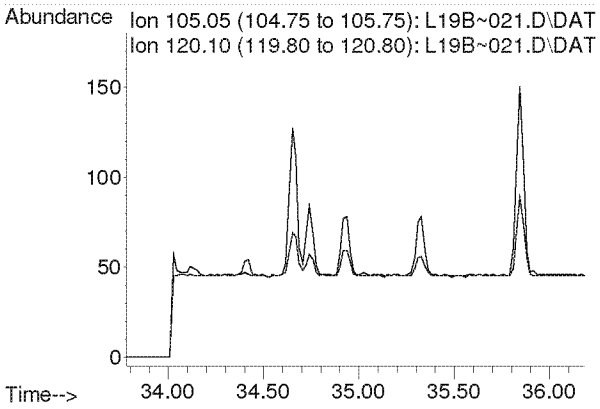


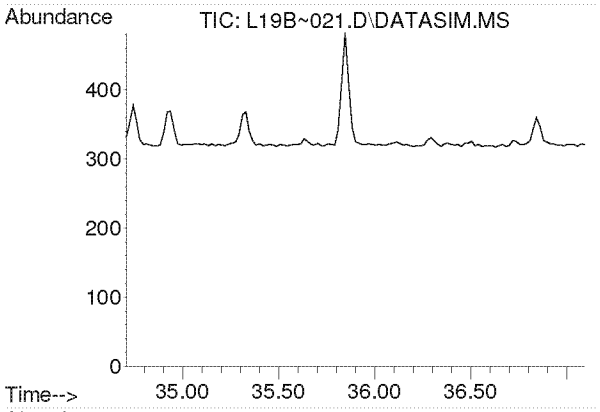
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



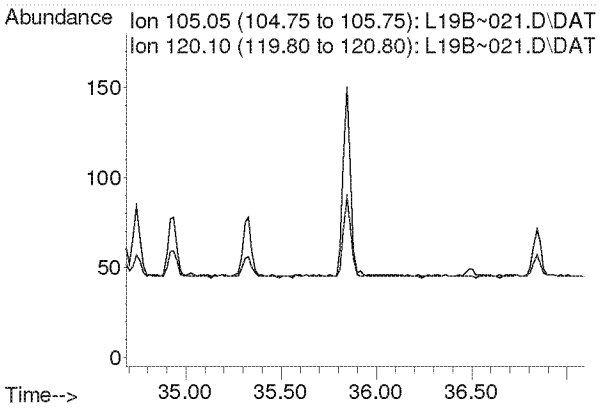


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

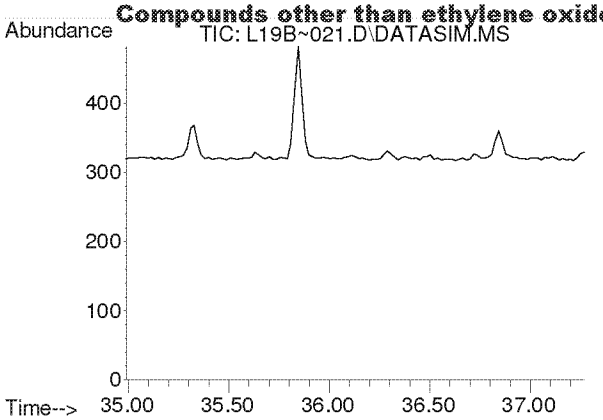
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

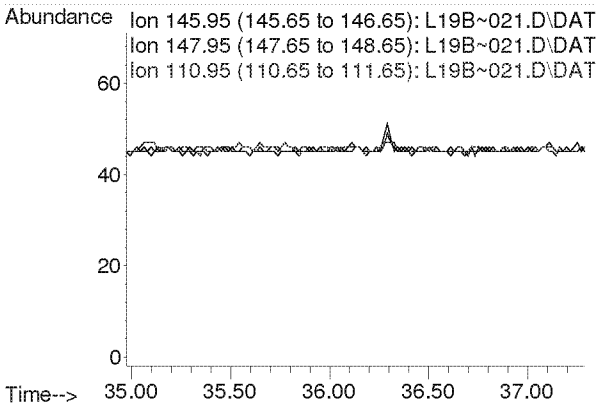


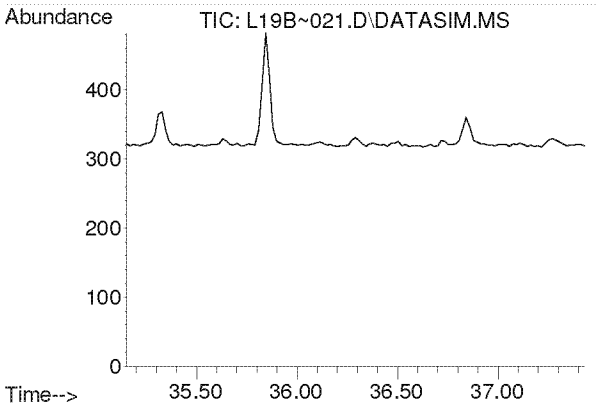
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



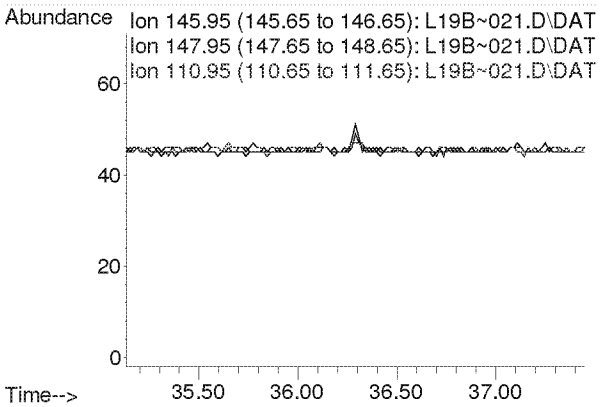


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

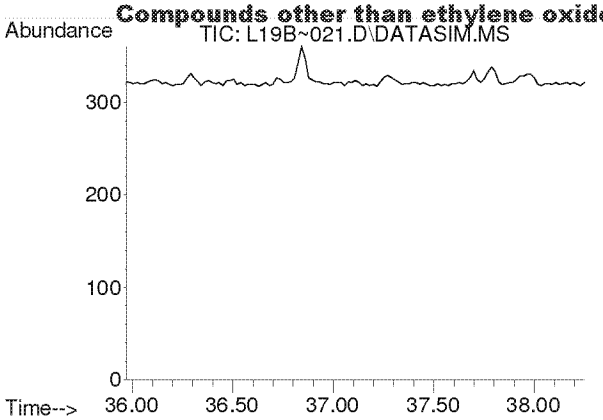
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

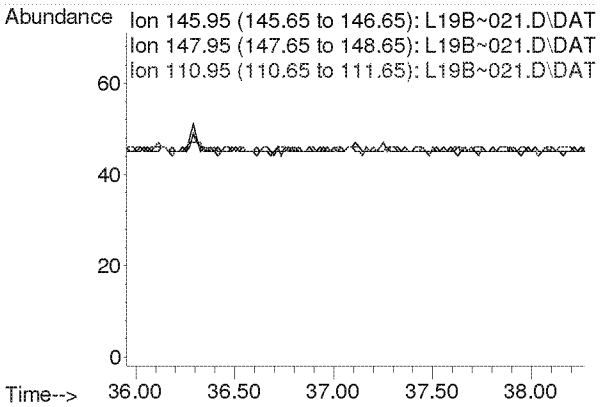


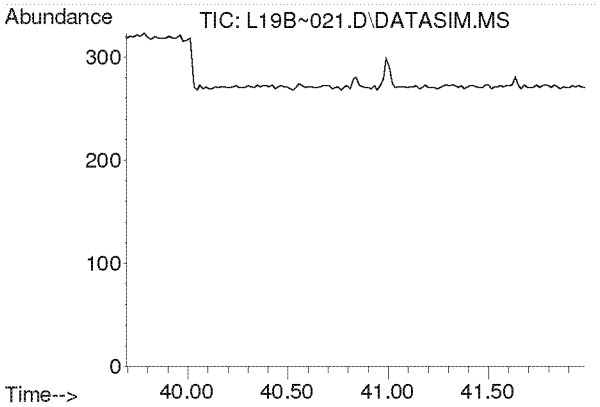
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



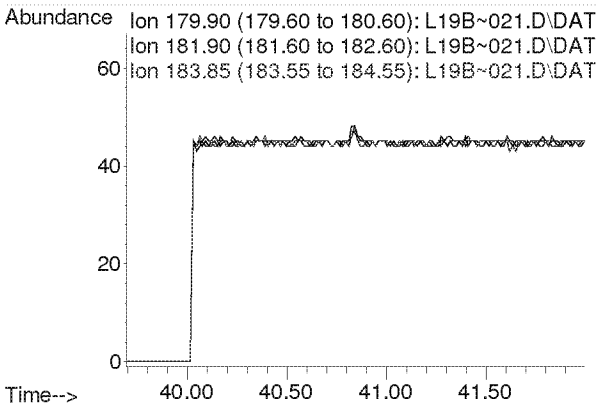


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

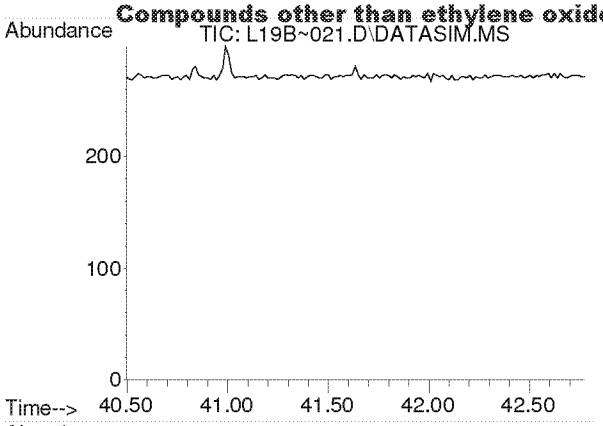
Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

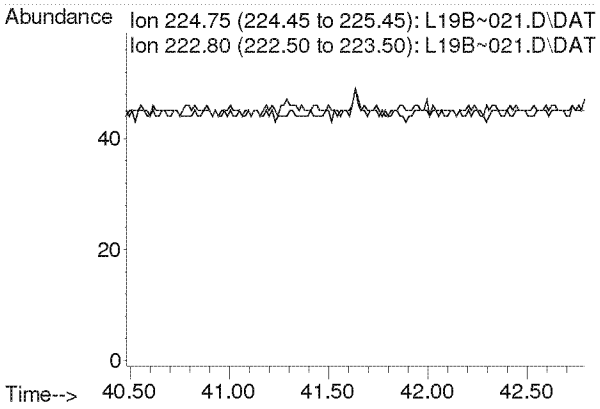


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19B~021.D
Acq: 28 Feb 2019 7:39 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\L19B~\
Data File : L19B~022.D
Acq On : 28 Feb 2019 8:39 am
Operator : MAH
Sample : B9B2705-DUP7
Misc : EPA WB WAREHOUSE 2/24/19
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 28 12:55:47 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	43331	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	106358	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	77098	4.7400 ppbv	0.00

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	236m	0.0952 ppbv	3/5/19
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~022.D
Acq On : 28 Feb 2019 8:39 am
Operator : MAH
Sample : B9B2705-DUP7
Misc : EPA WB WAREHOUSE 2/24/19
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 28 12:55:47 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

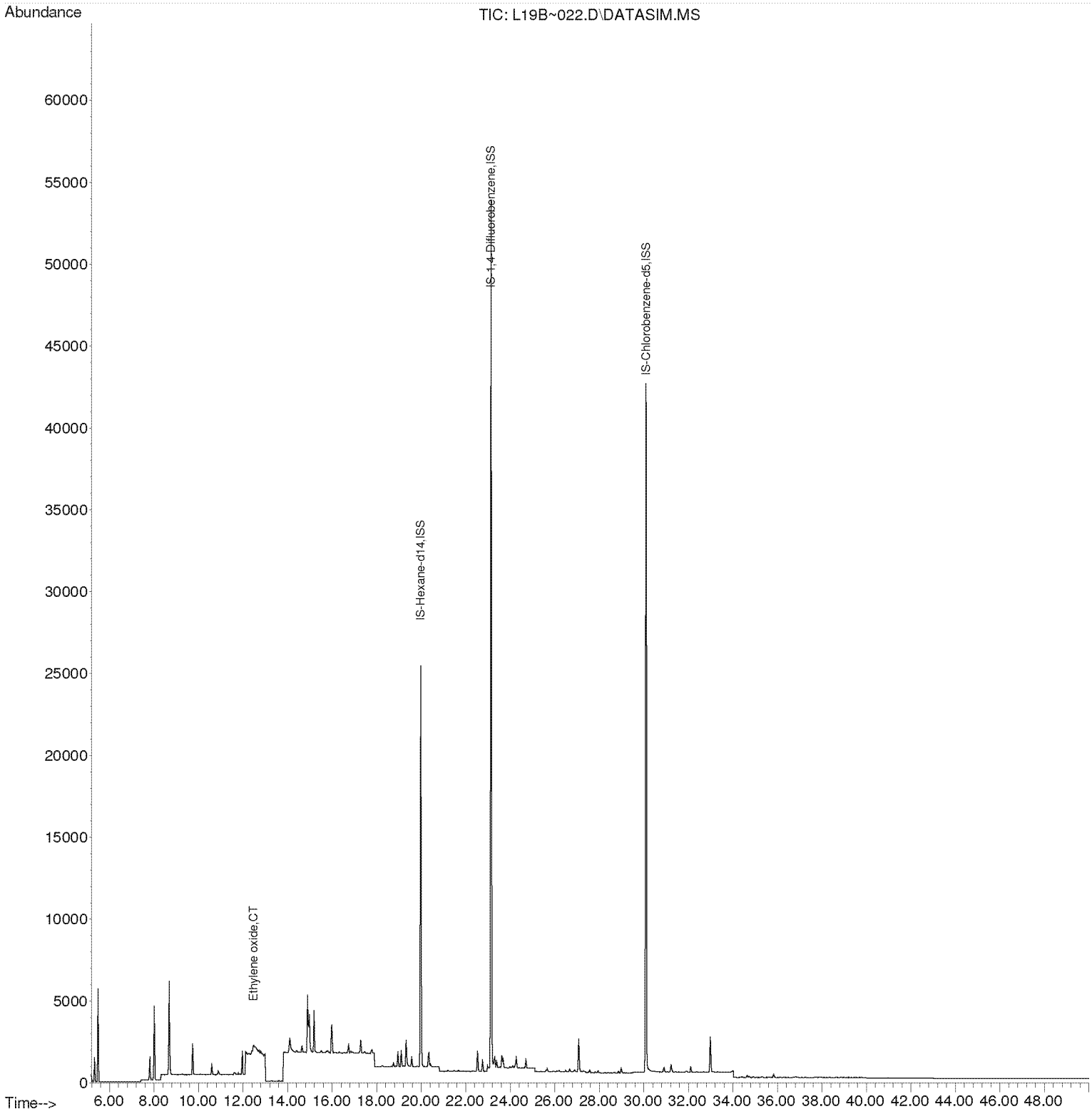
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	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

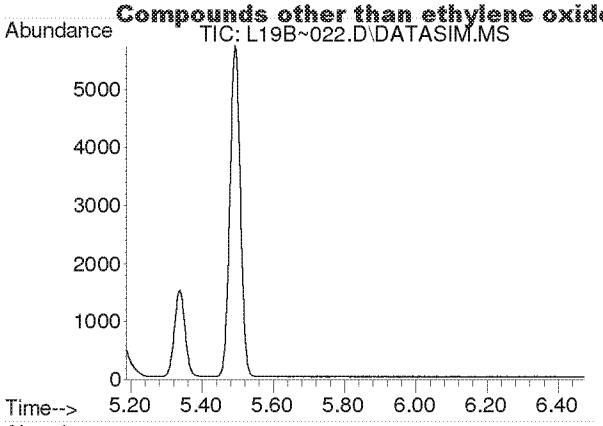
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~022.D
Acq On : 28 Feb 2019 8:39 am
Operator : MAH
Sample : B9B2705-DUP7
Misc : EPA WB WAREHOUSE 2/24/19
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 28 12:55:47 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



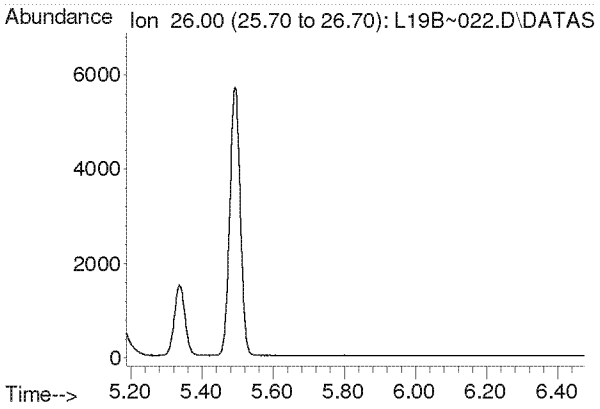
Compounds other than ethylene oxide were not quantitated.

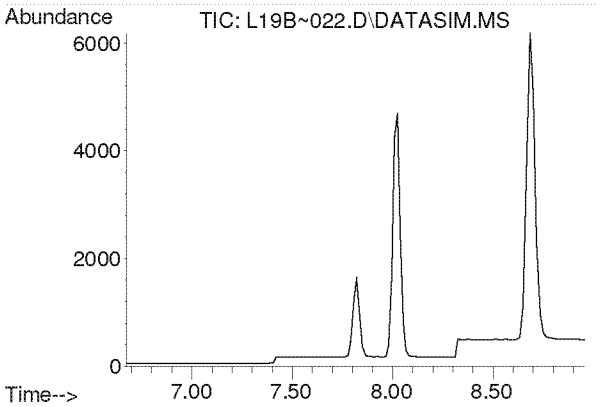


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 26



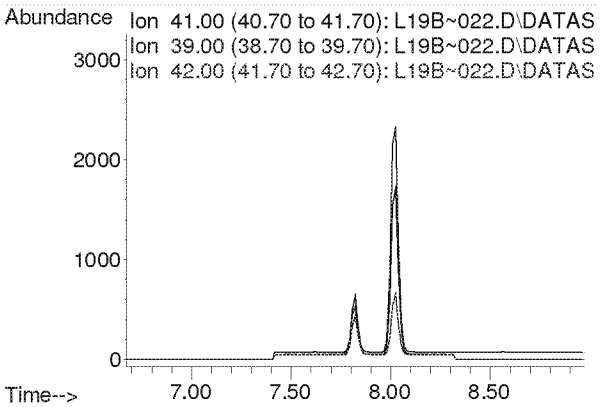


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

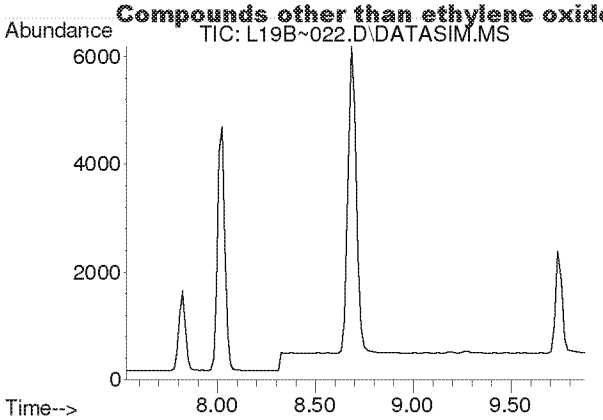
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

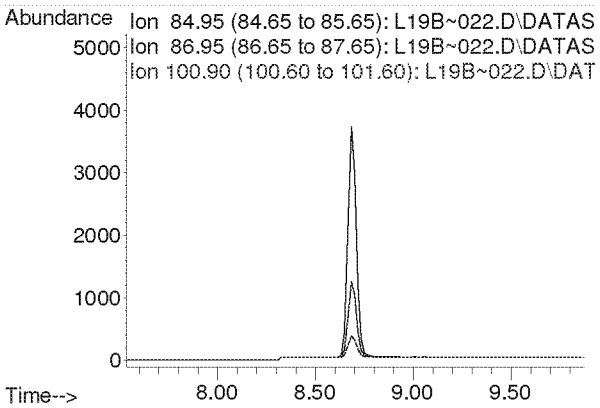


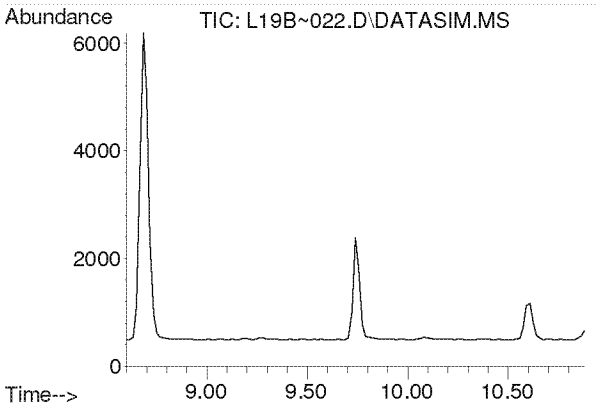
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



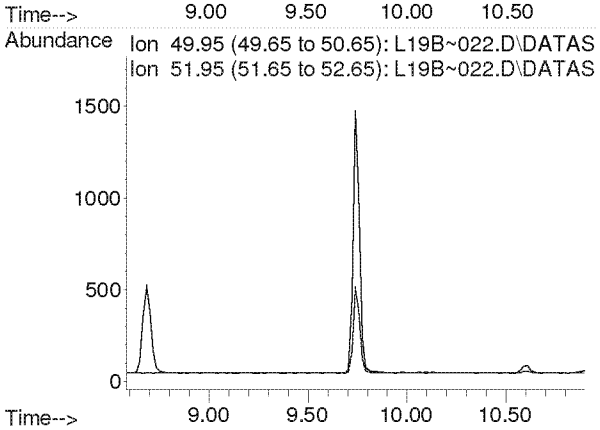


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

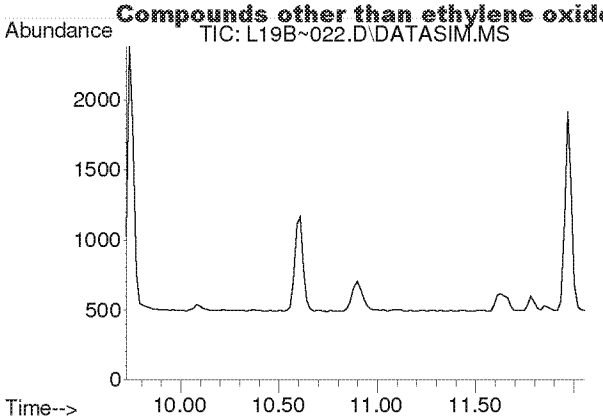
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

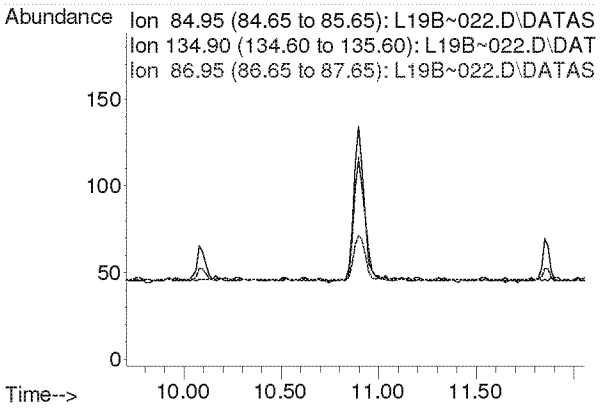


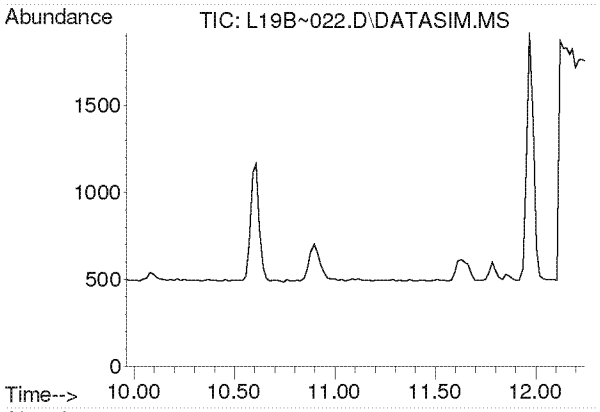
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



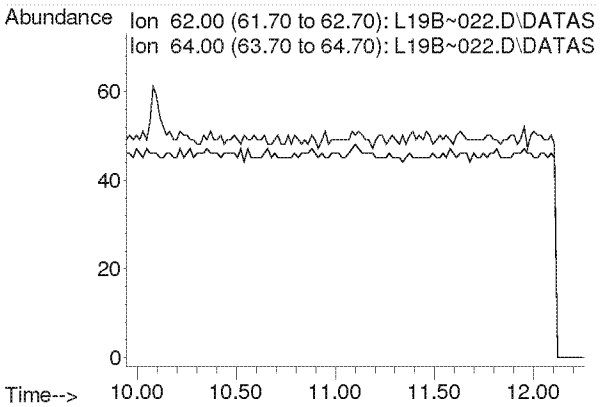


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

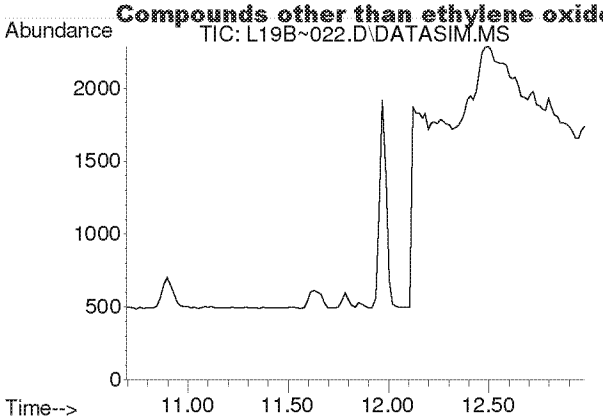
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

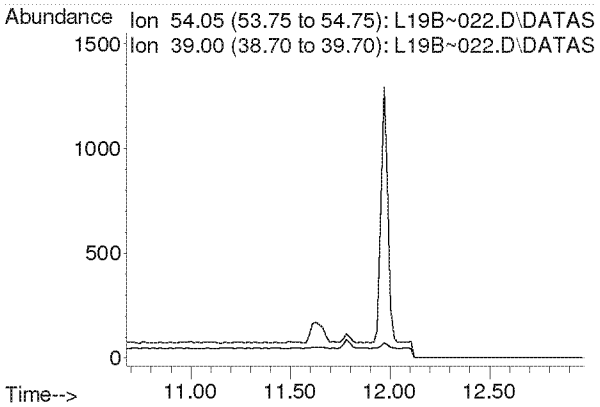


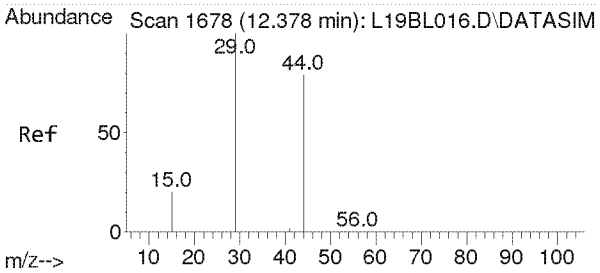
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

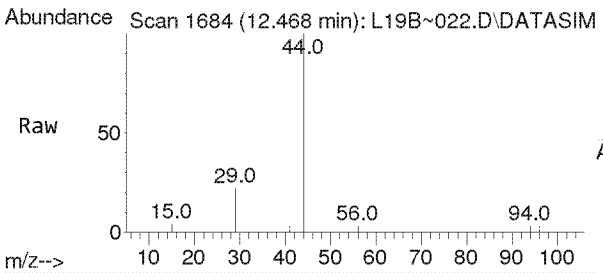


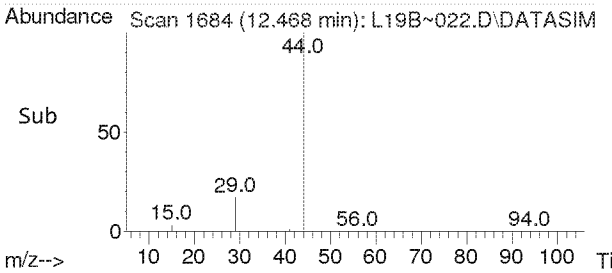


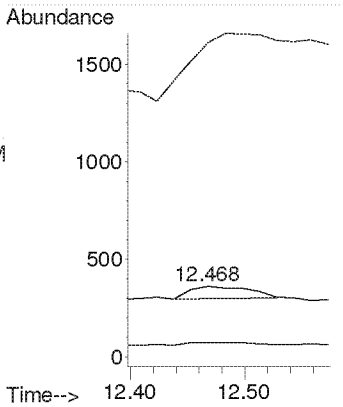
#9
Ethylene oxide
Concen: 0.095 ppbv m
RT: 12.468 min Scan# 1684
Delta R.T. 0.018 min
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 29 Resp: 236

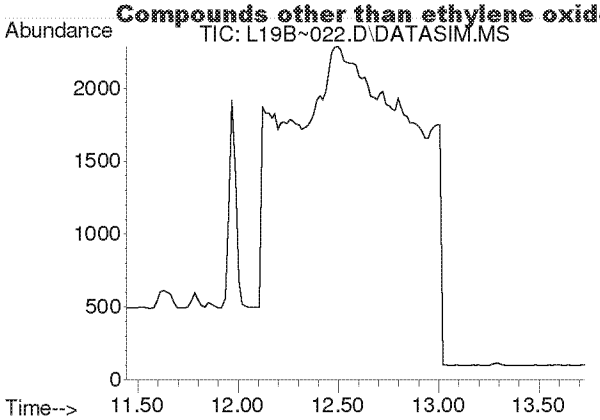
Ion	Ratio	Lower	Upper
29	100		
15	25.4	16.0	24.0#
44	1841.1	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

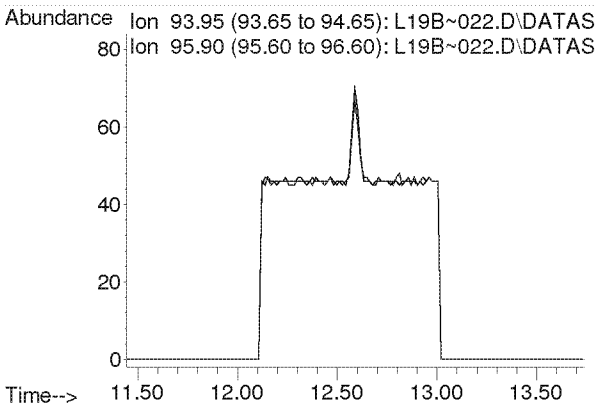


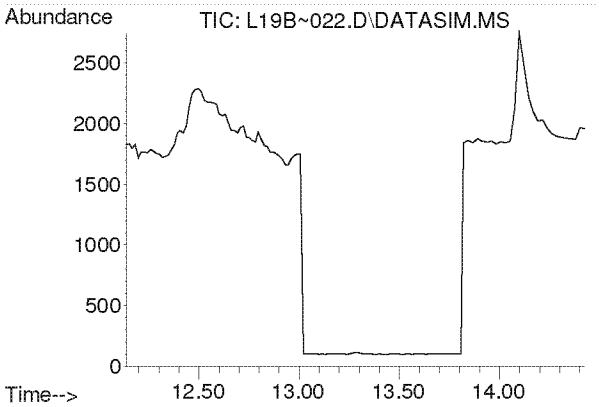
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



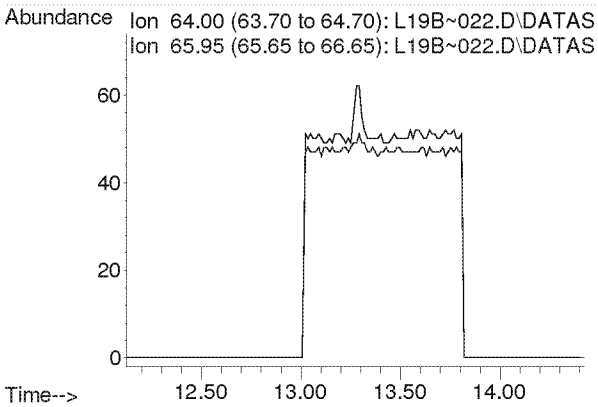


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

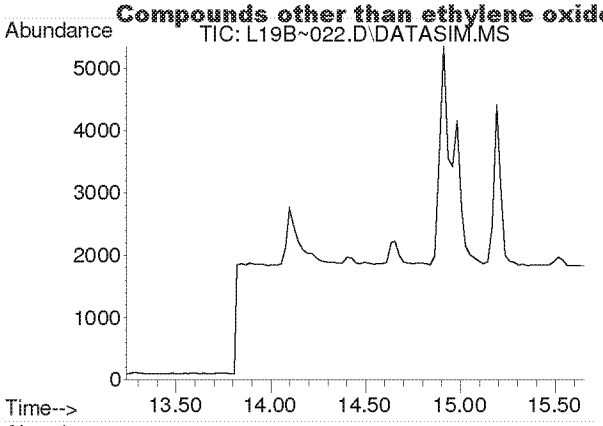
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

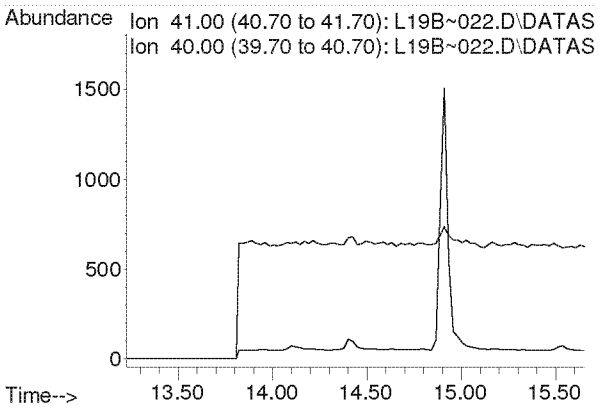


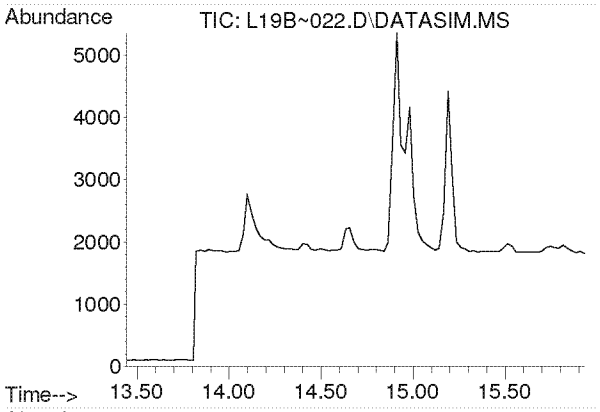
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



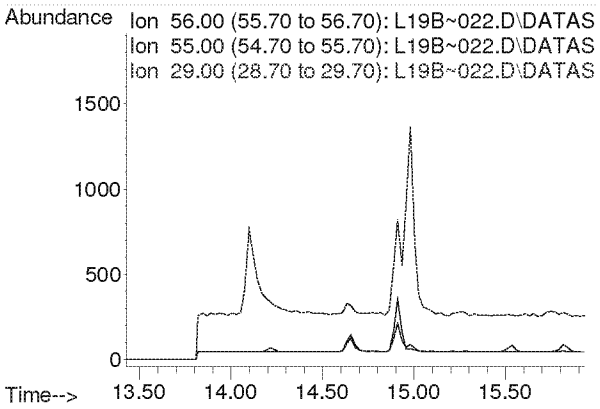


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

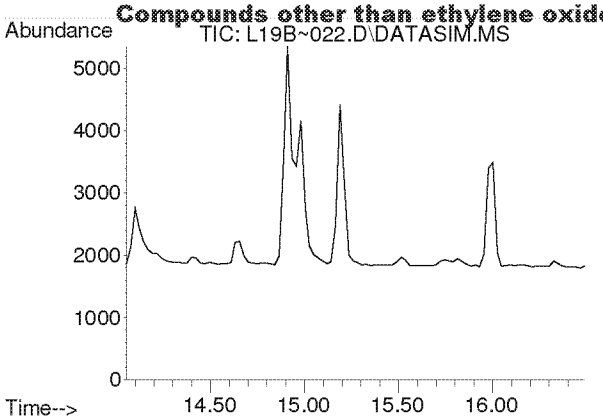
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

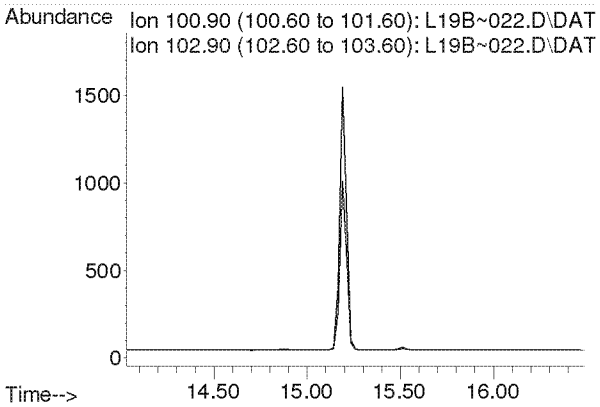


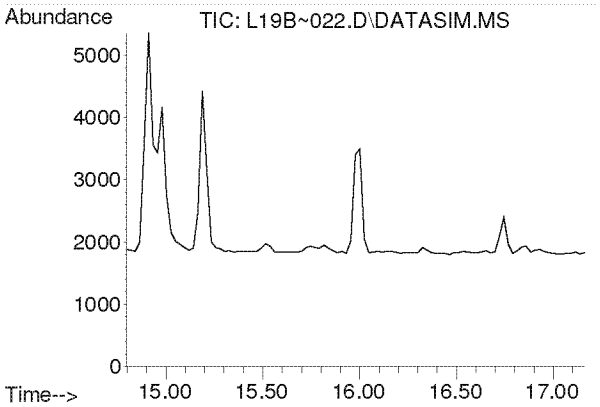
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



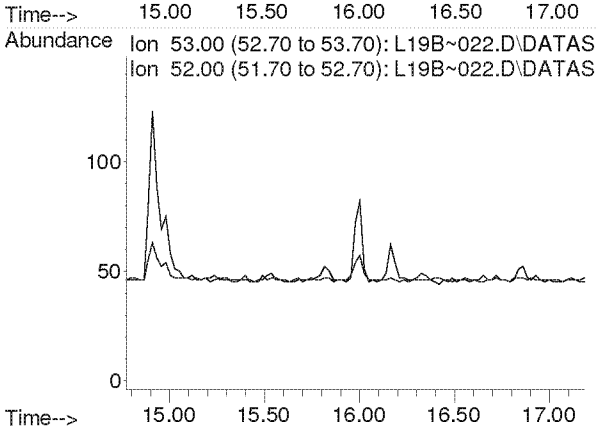


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

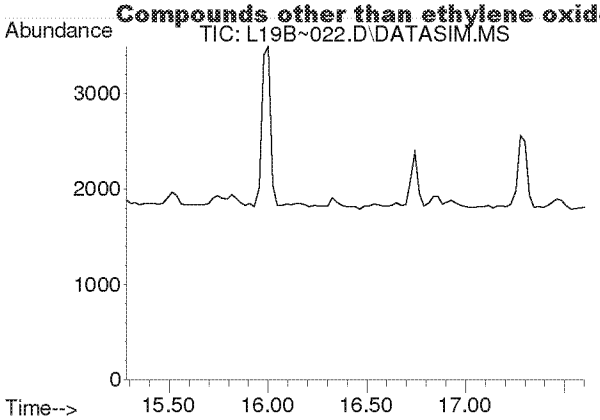
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

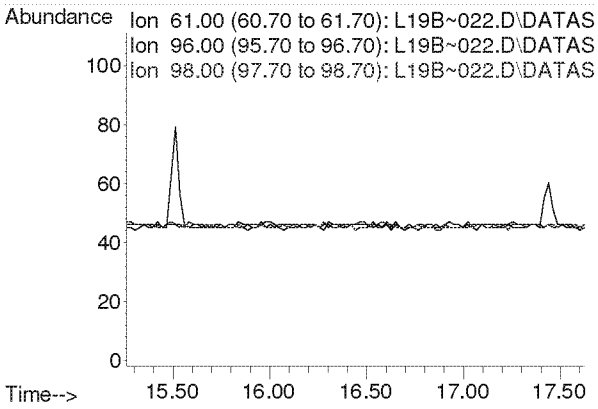


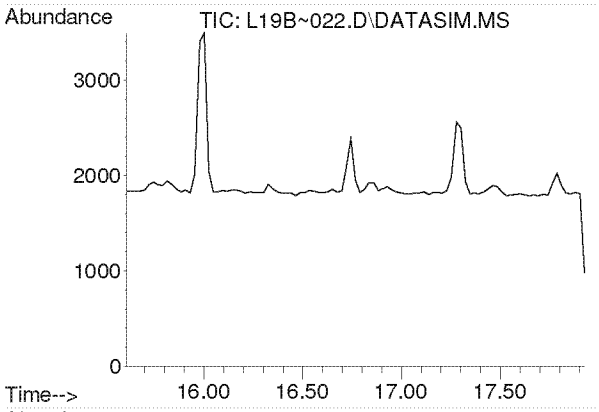
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



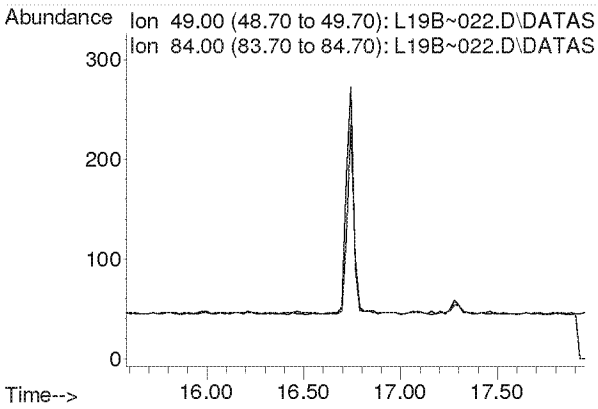


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

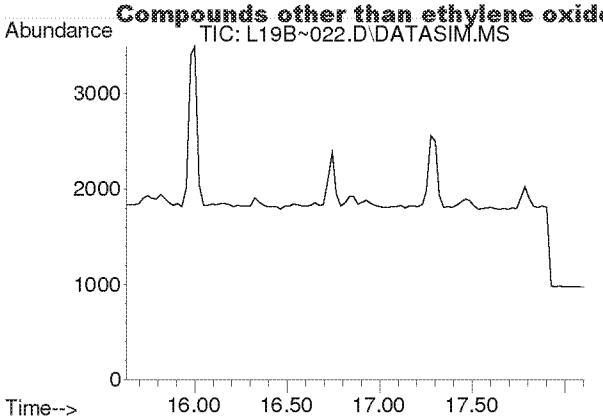
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

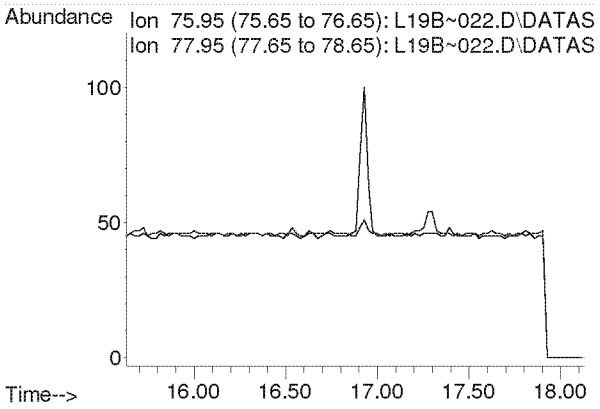


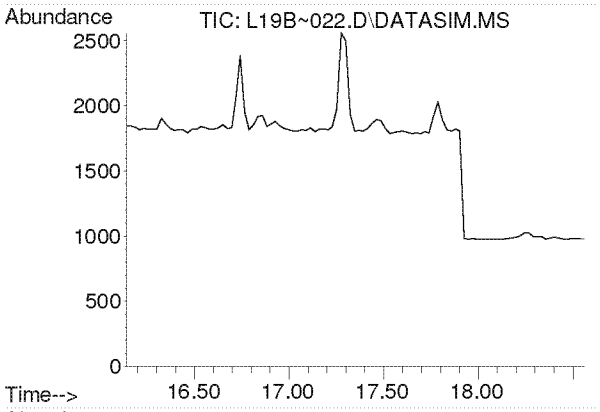
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



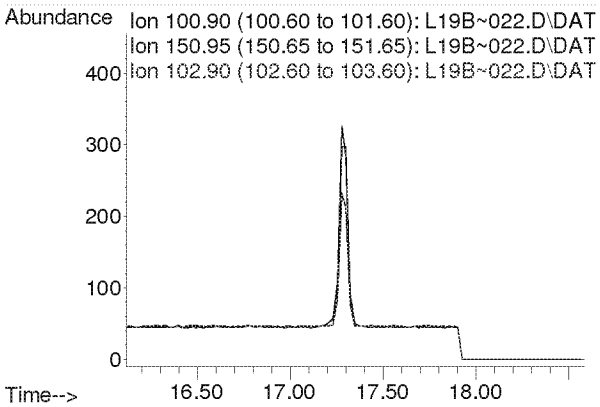


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

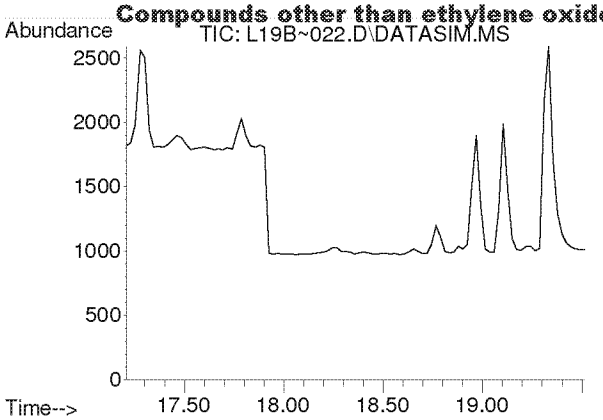
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

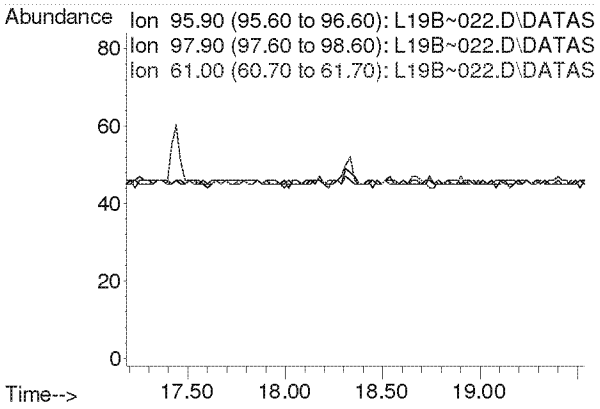


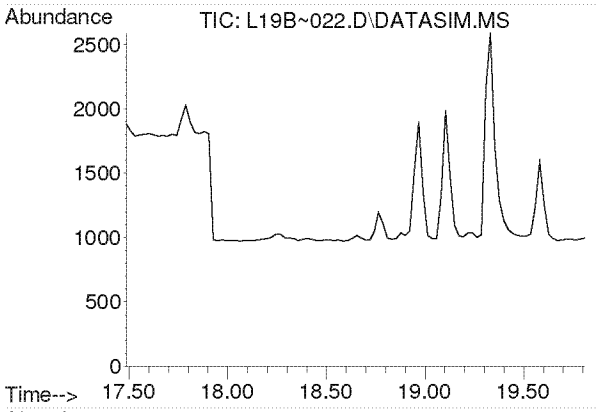
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



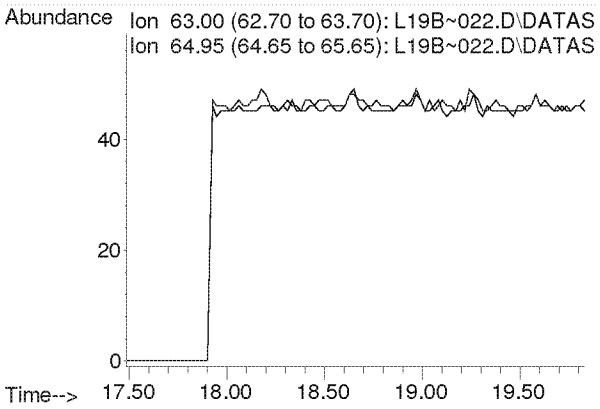


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

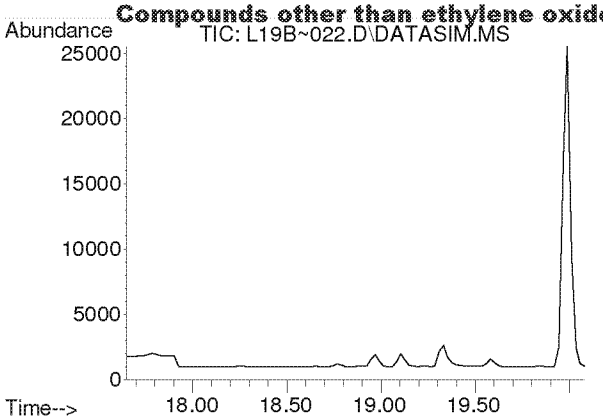
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

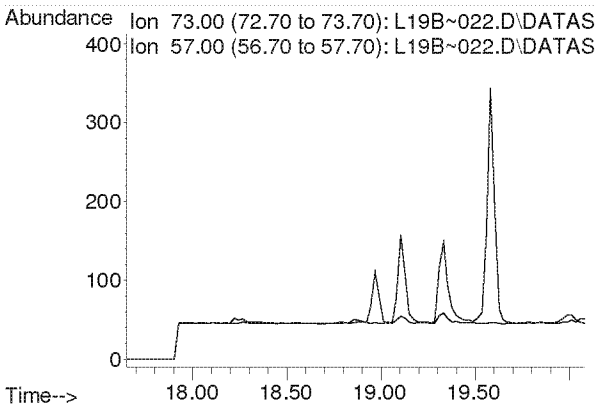


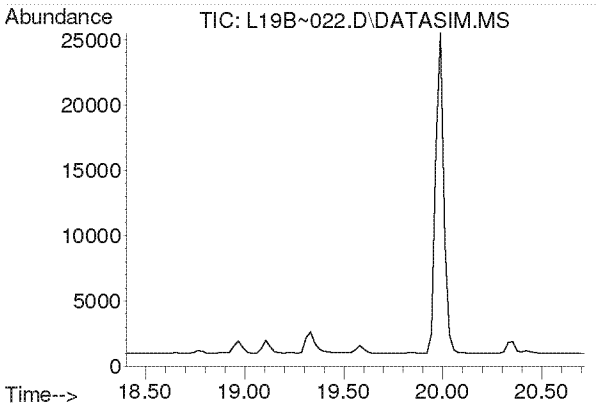
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



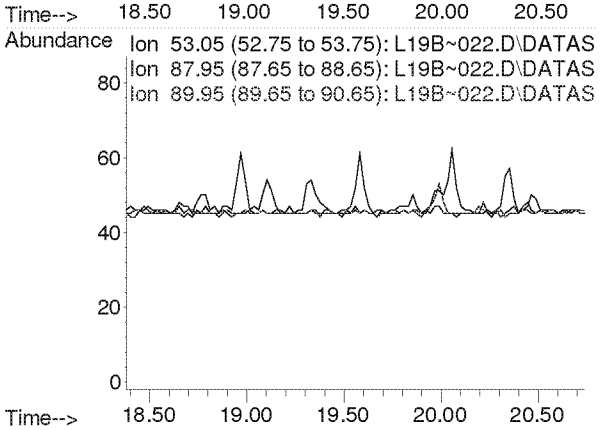


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

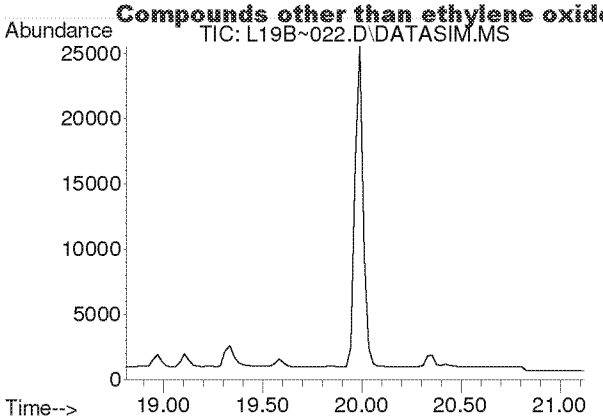
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

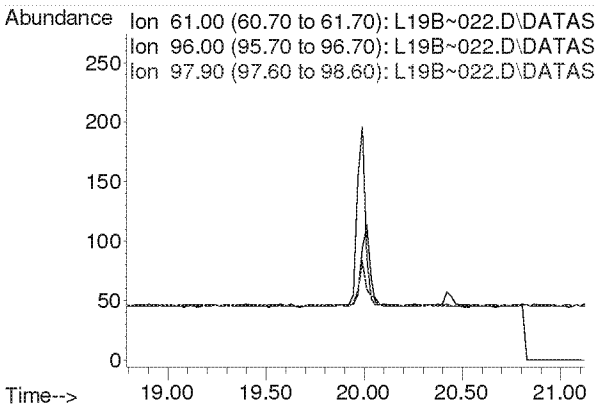


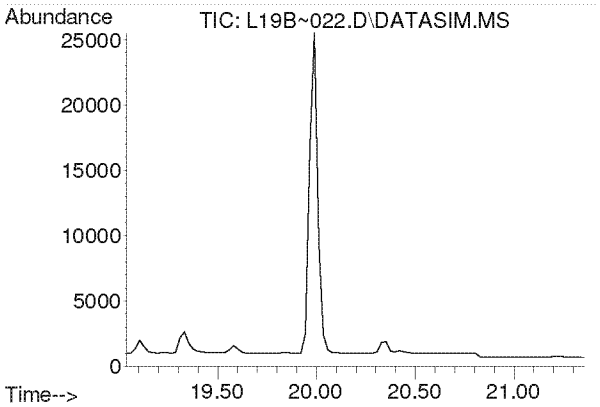
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



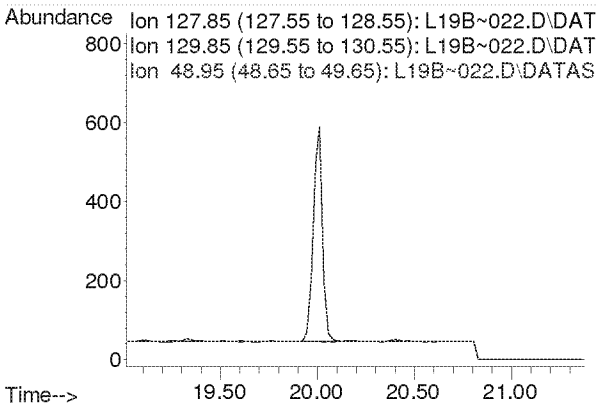


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

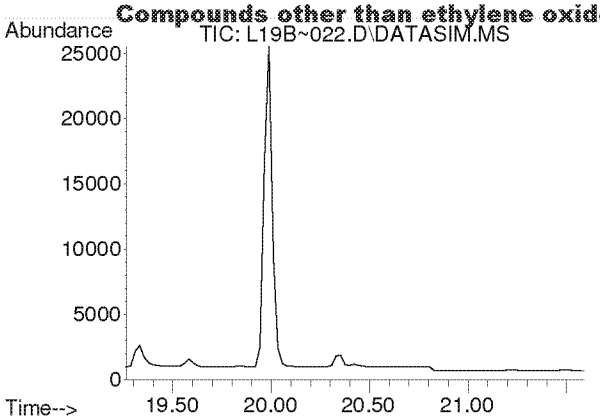
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

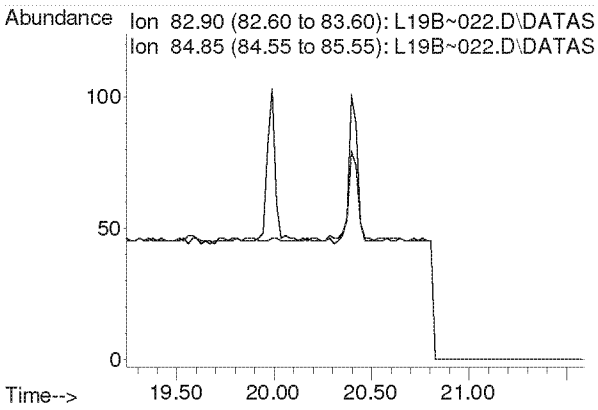


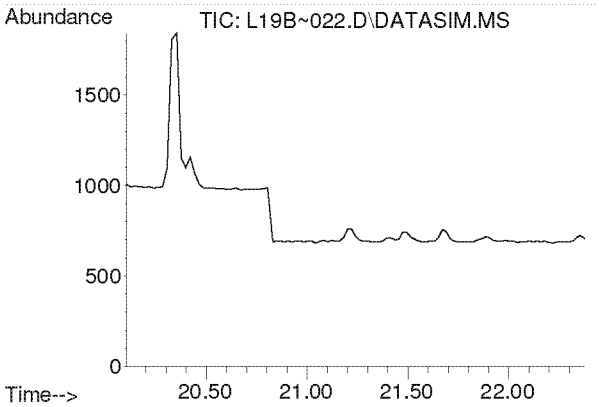
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



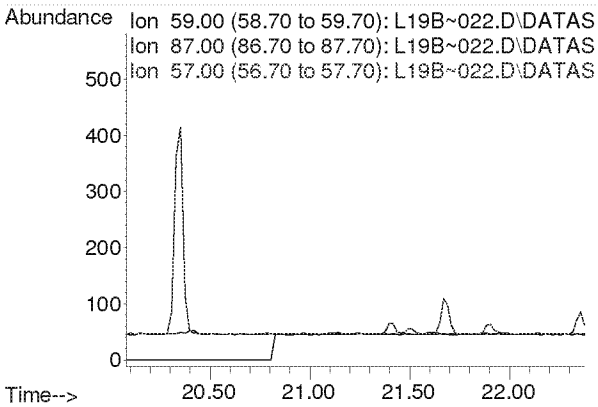


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

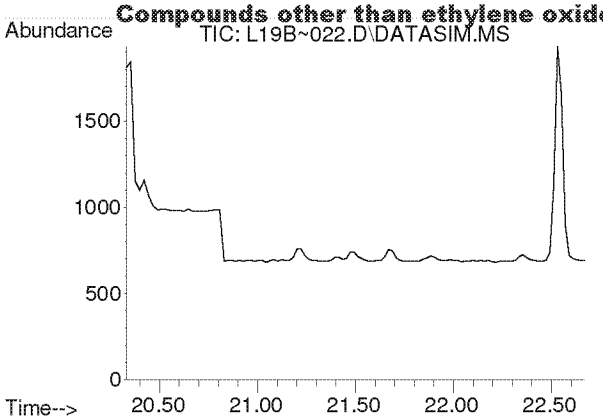
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

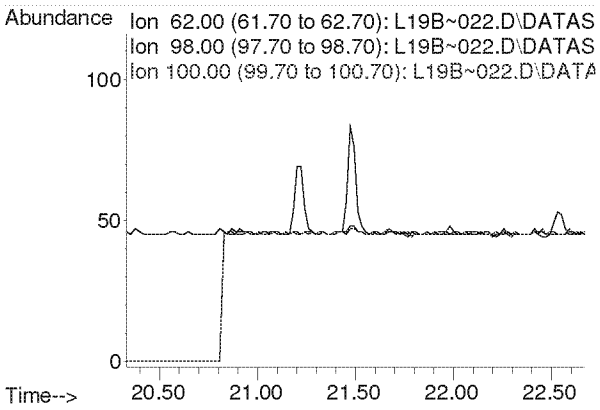


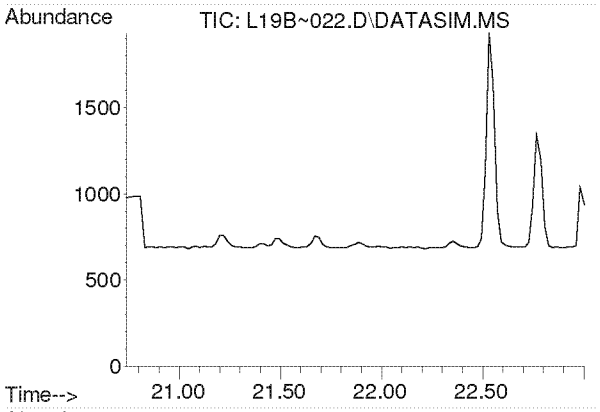
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



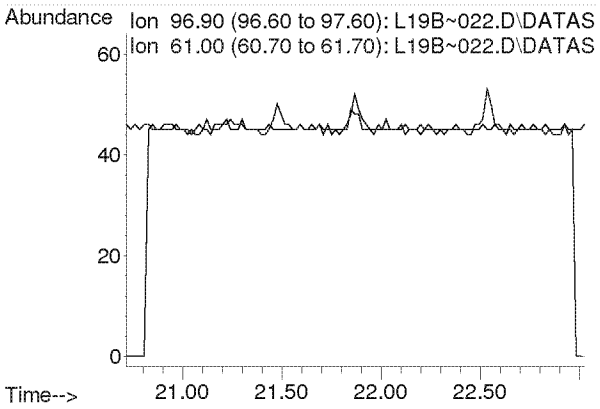


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

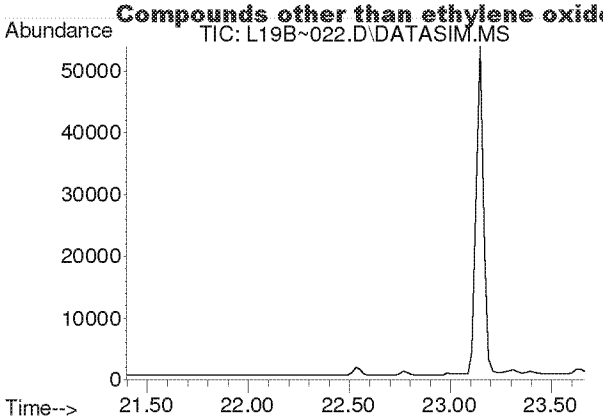
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

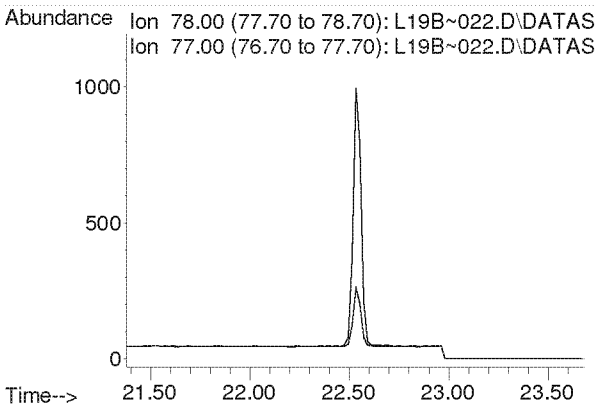


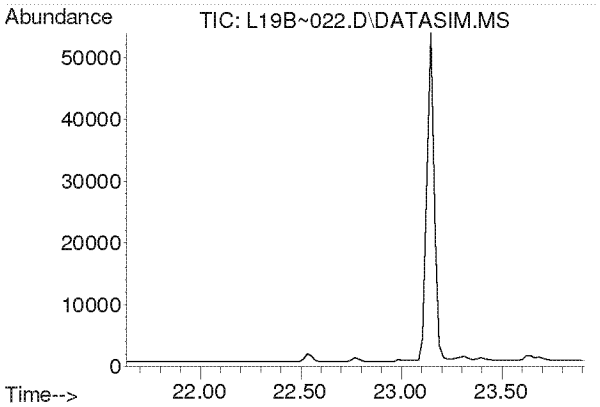
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



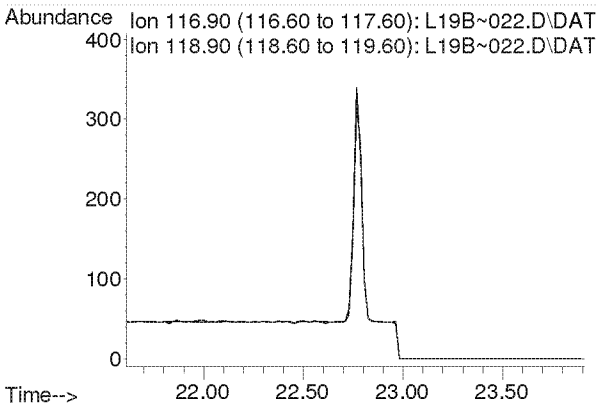


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

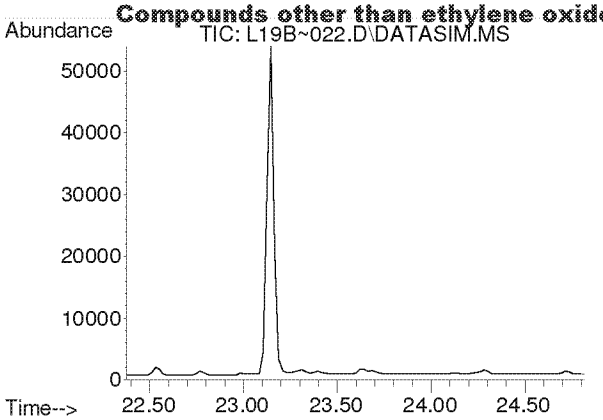
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

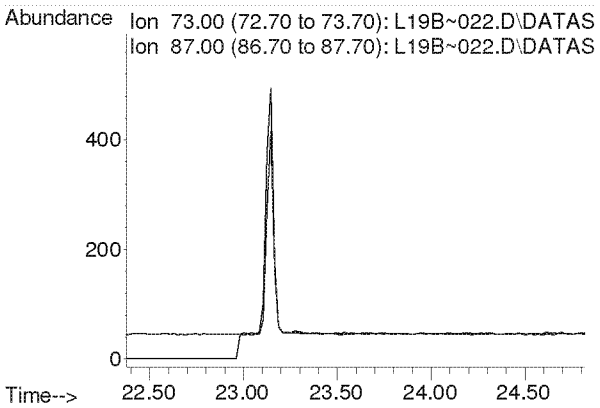


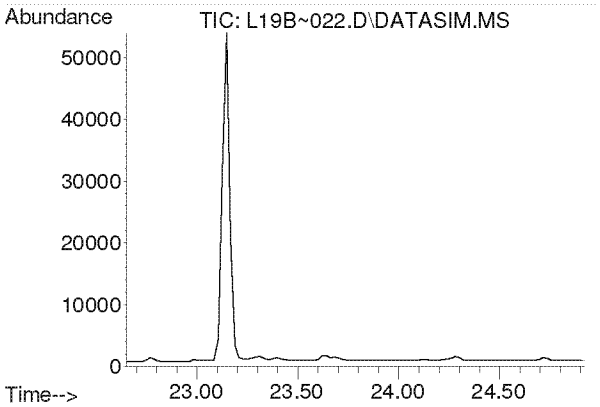
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



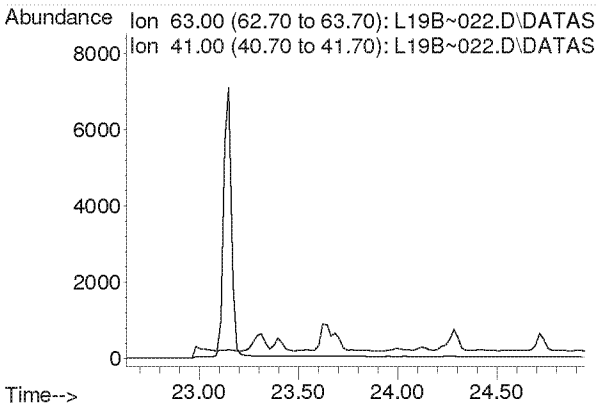


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

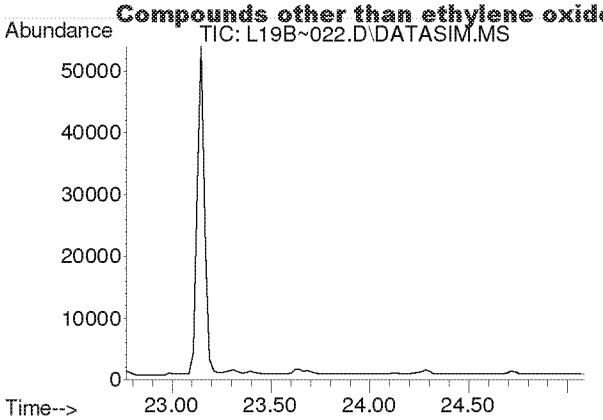
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

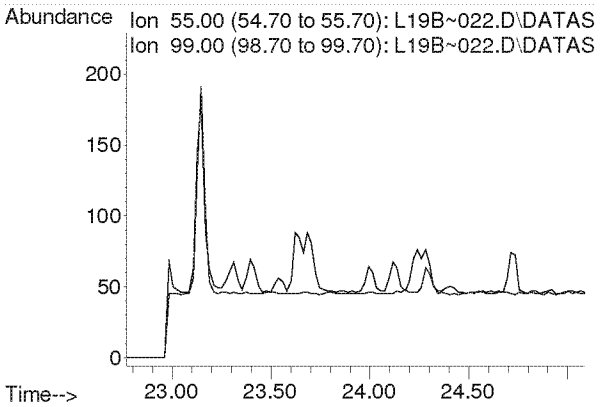


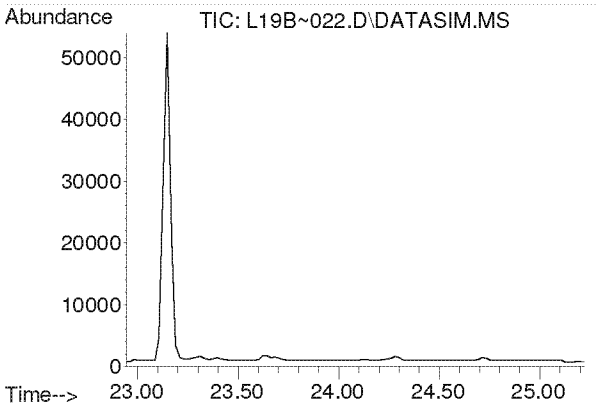
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



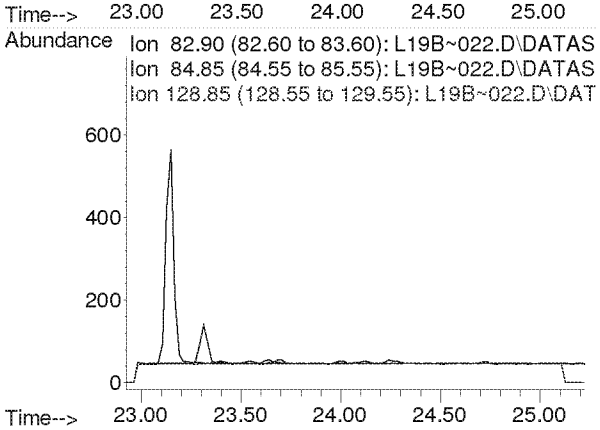


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

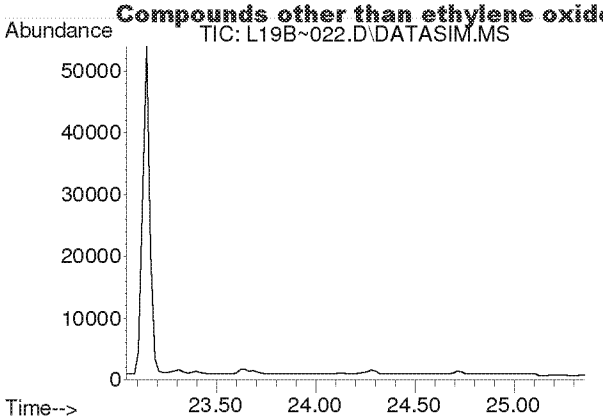
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

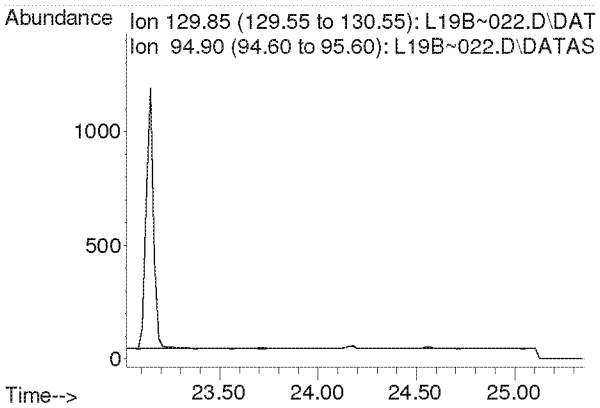


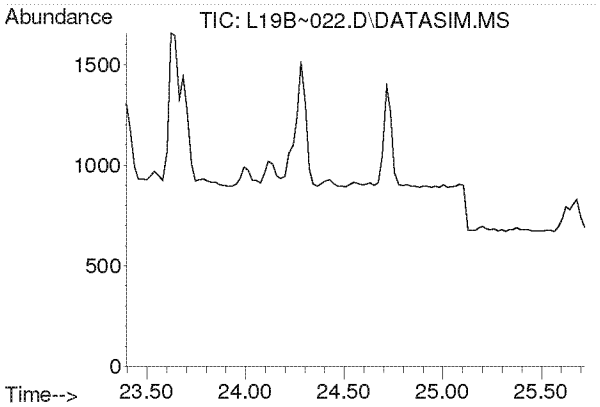
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



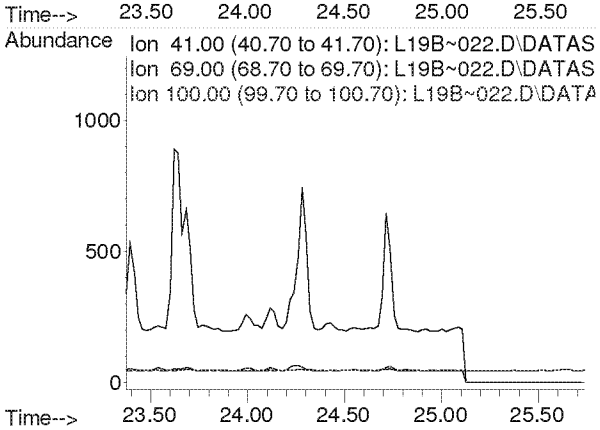


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

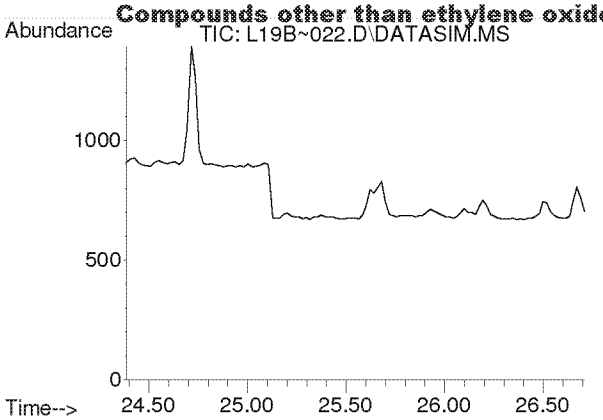
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

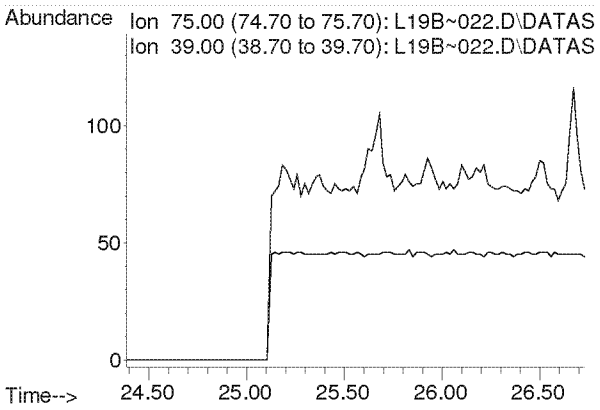


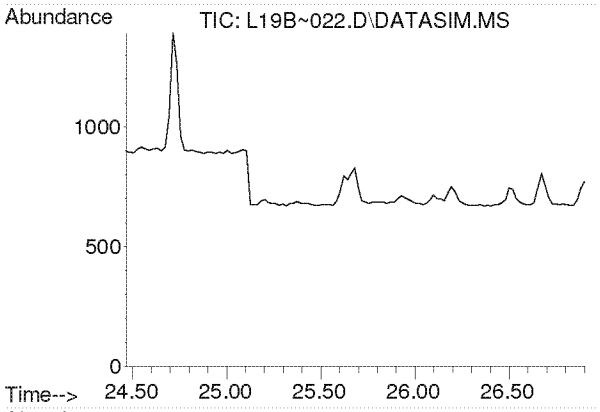
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



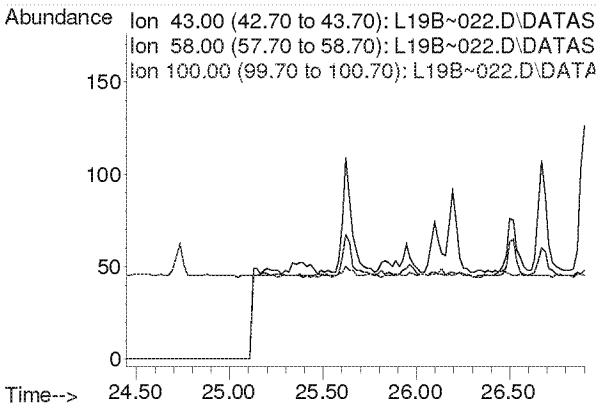


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

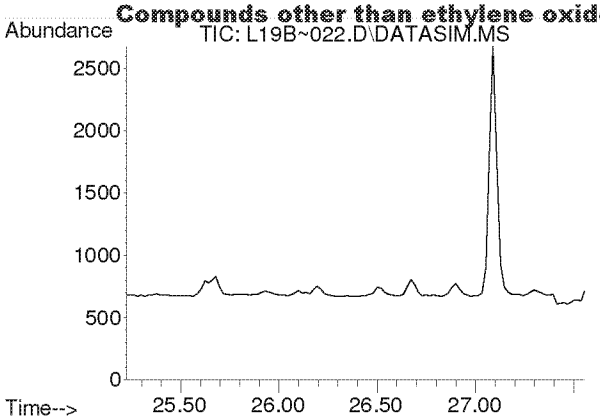
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

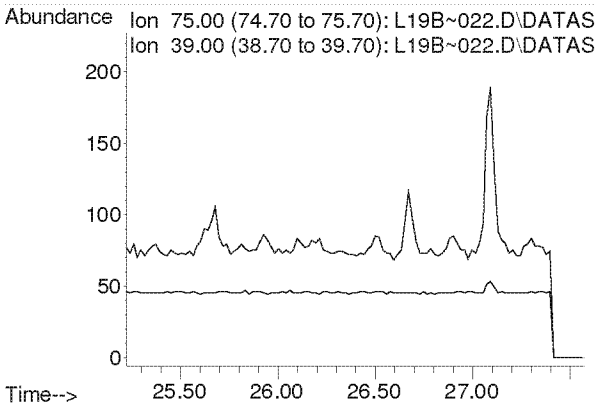


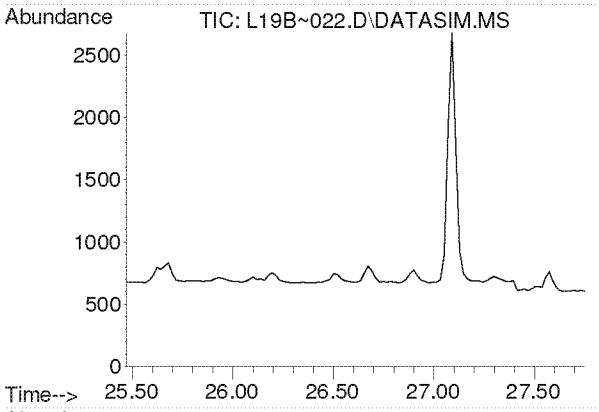
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



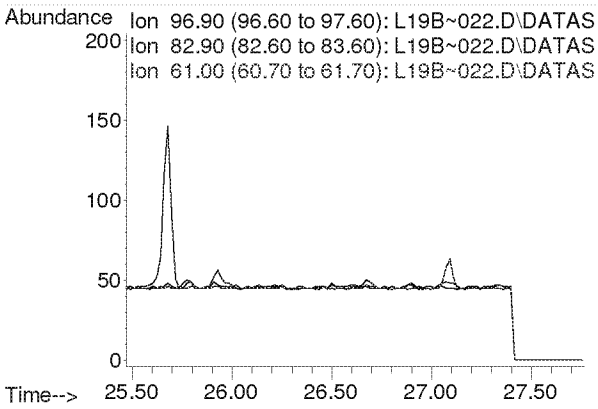


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

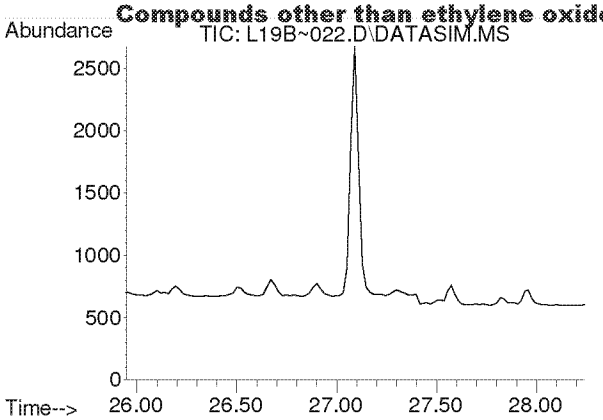
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

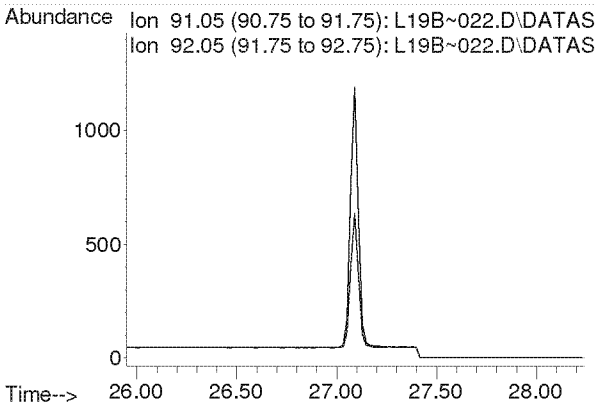


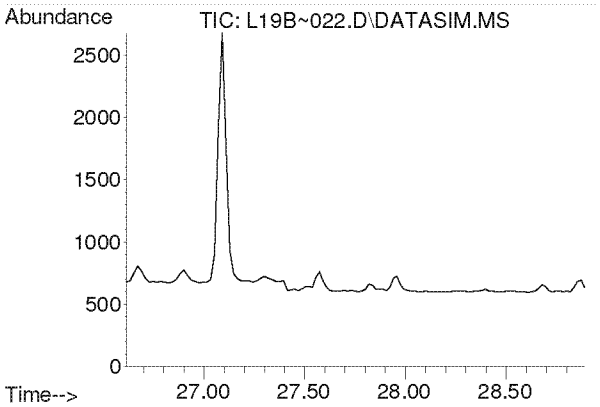
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



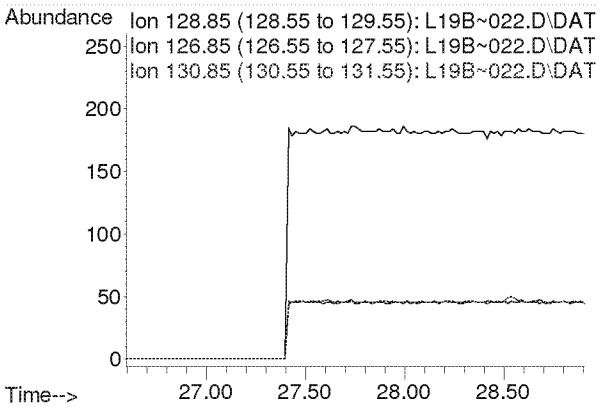


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

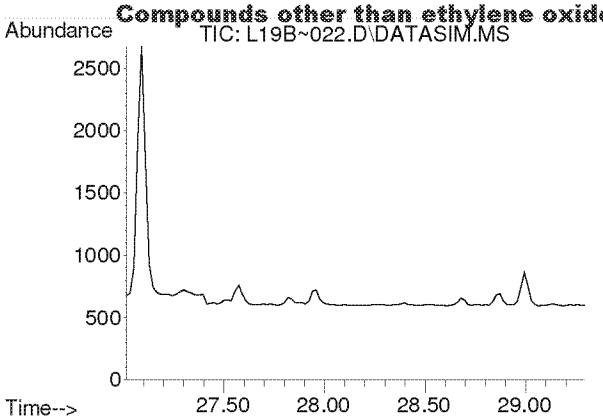
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

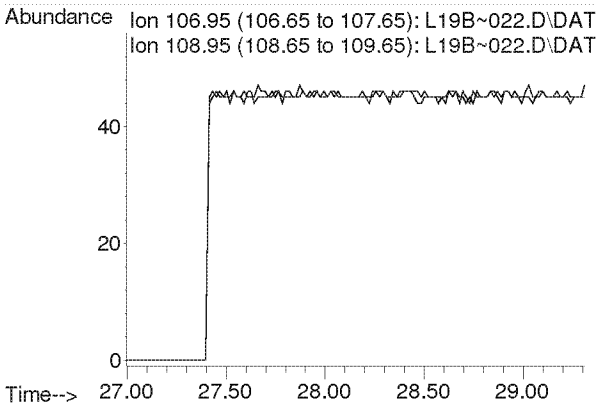


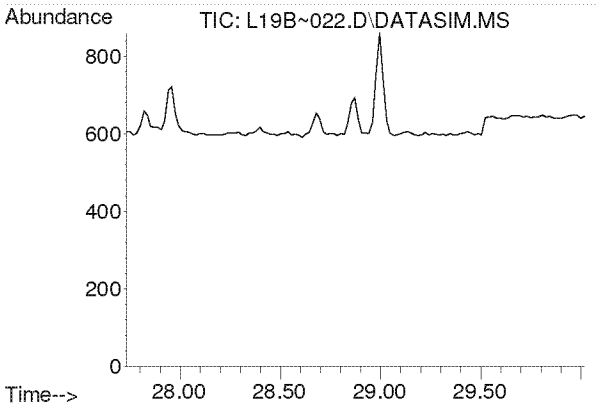
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



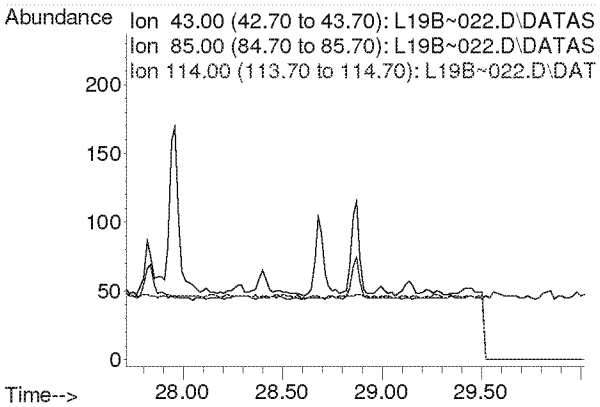


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

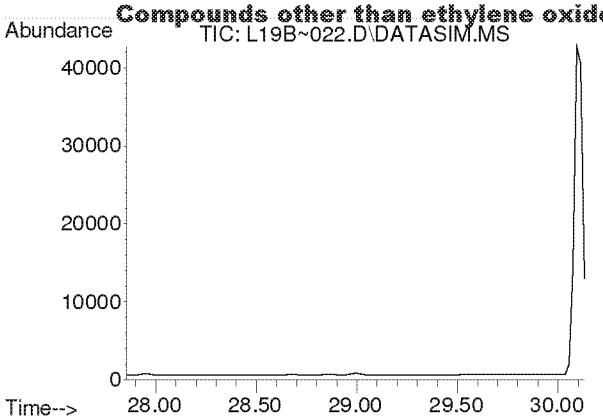
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

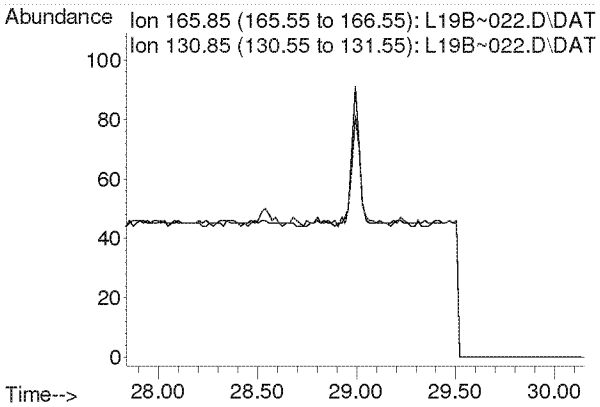


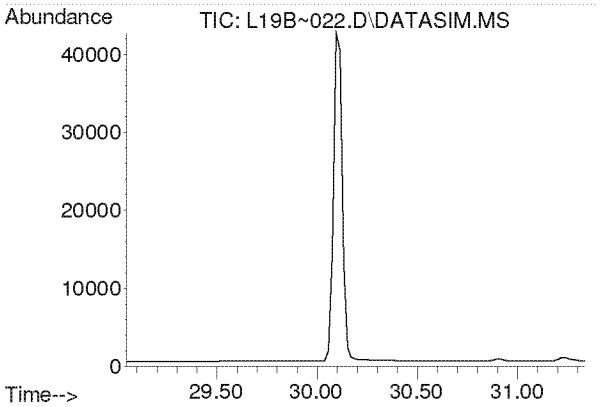
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



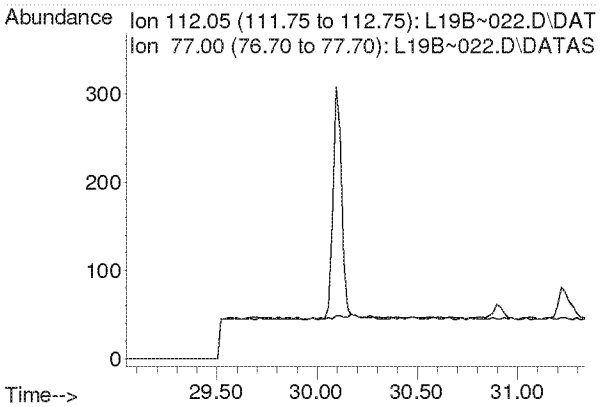


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

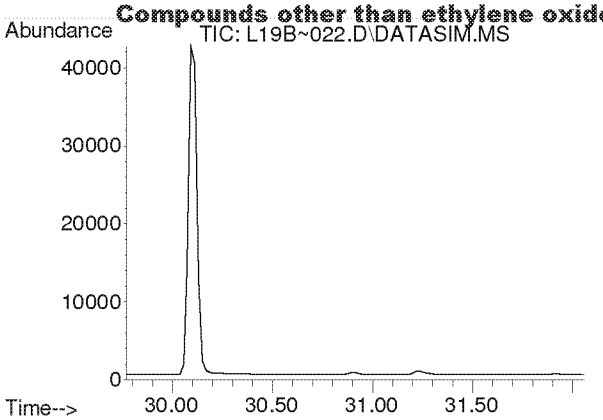
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

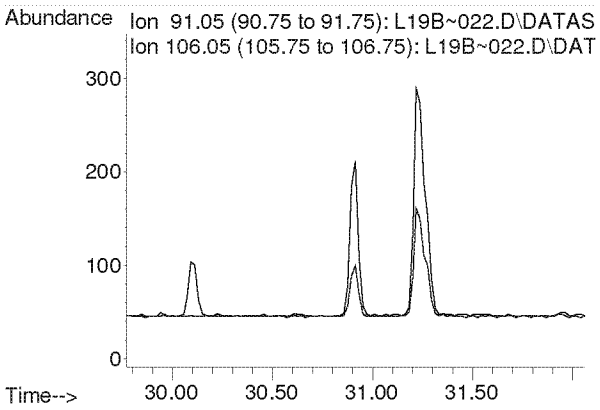


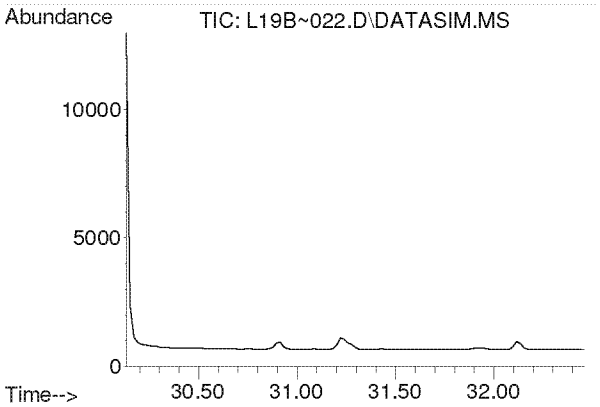
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



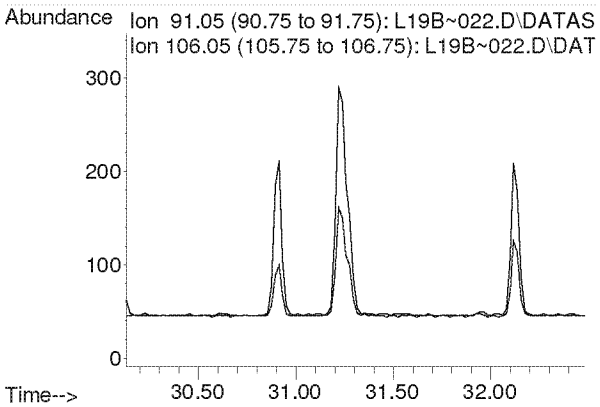


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

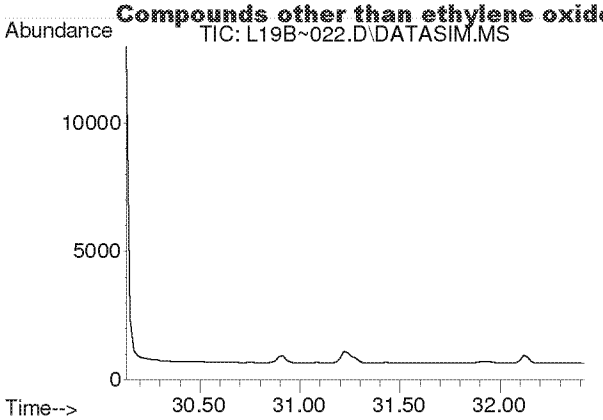
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

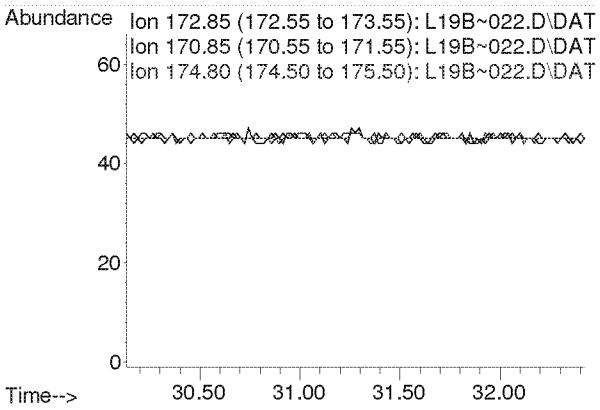


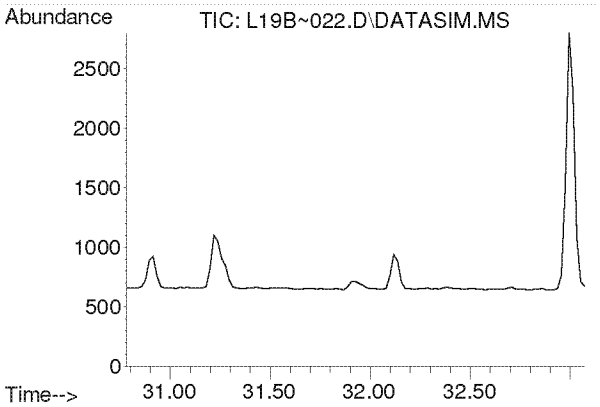
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



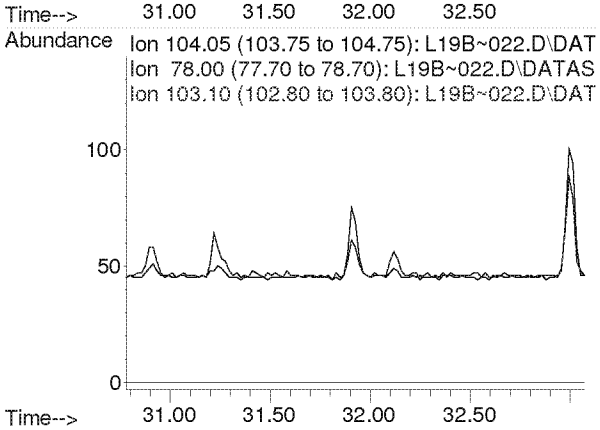


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

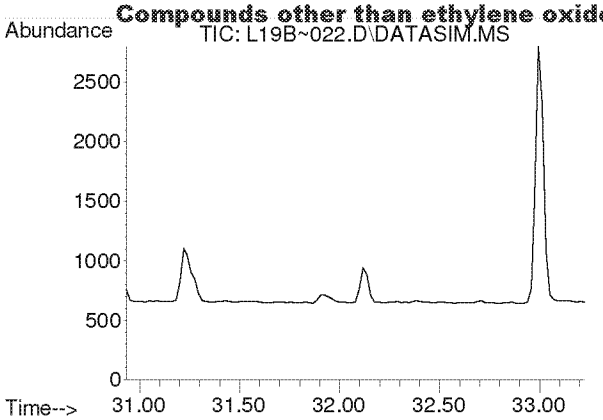
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

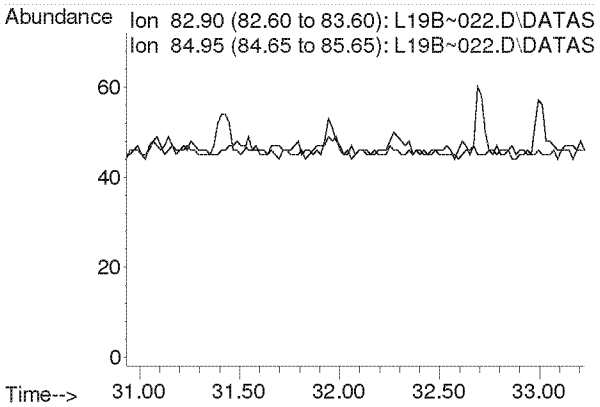


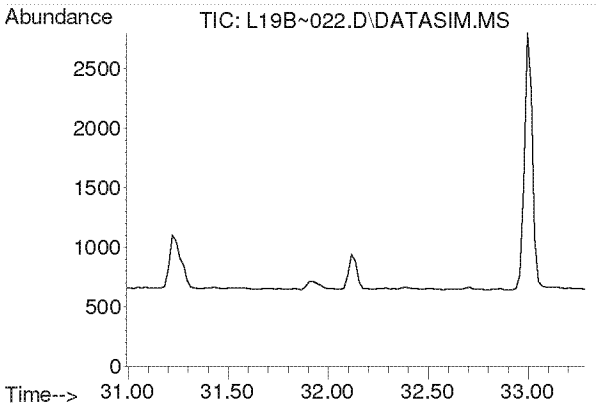
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



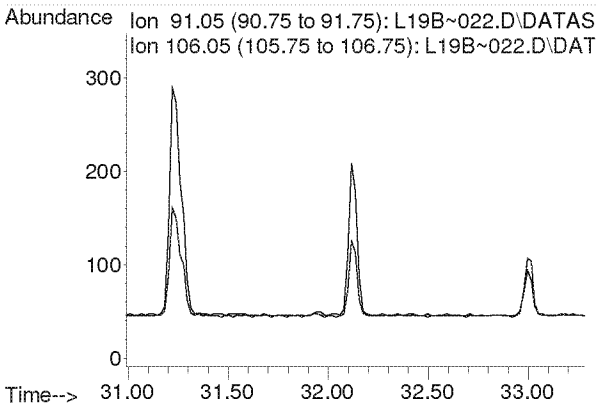


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

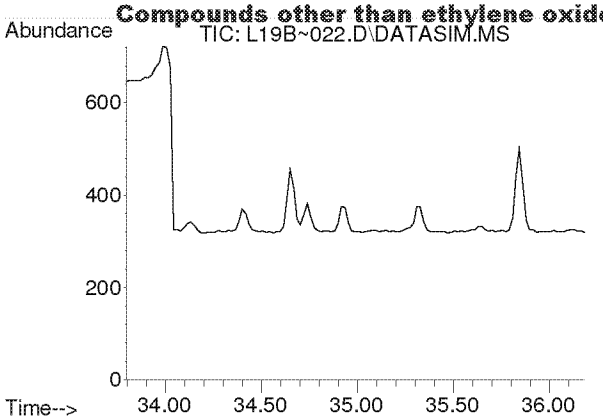
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

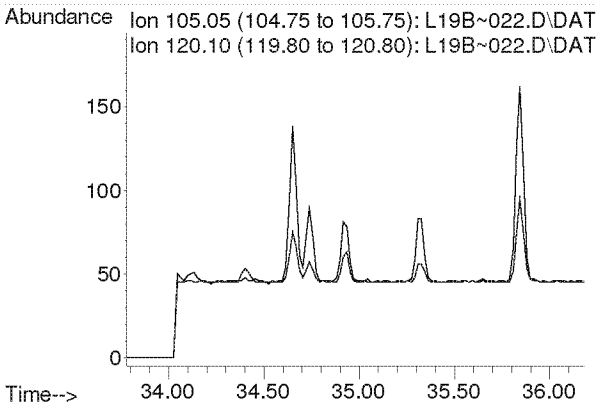


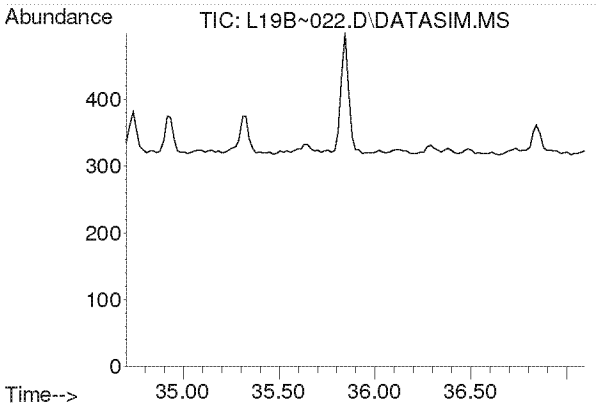
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



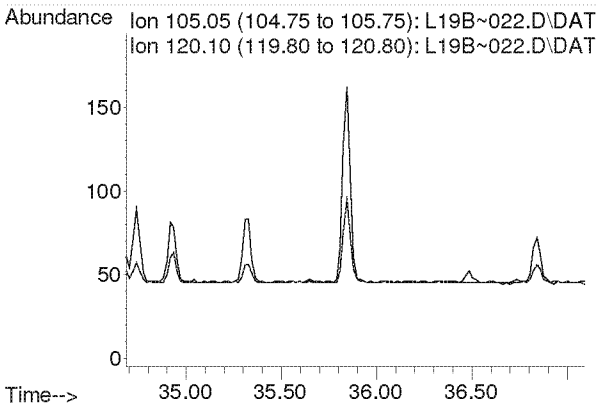


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

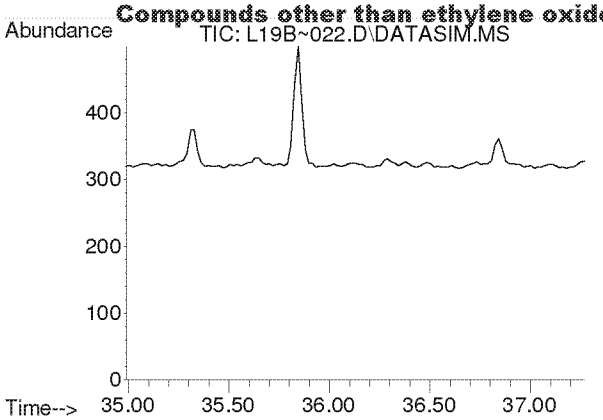
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

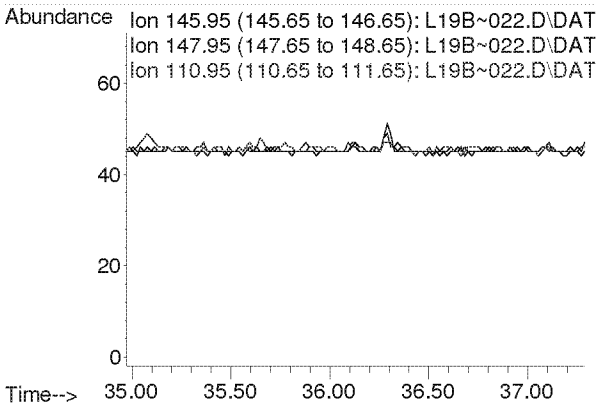


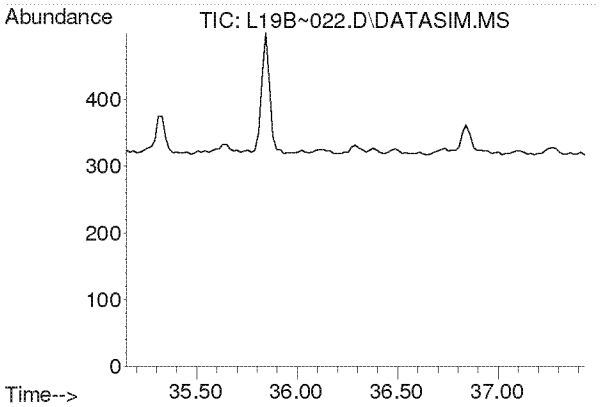
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



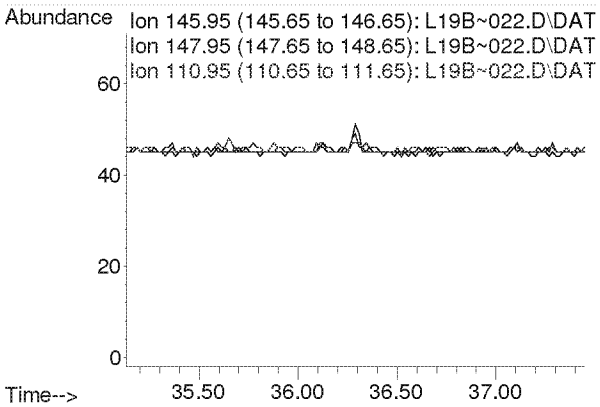


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

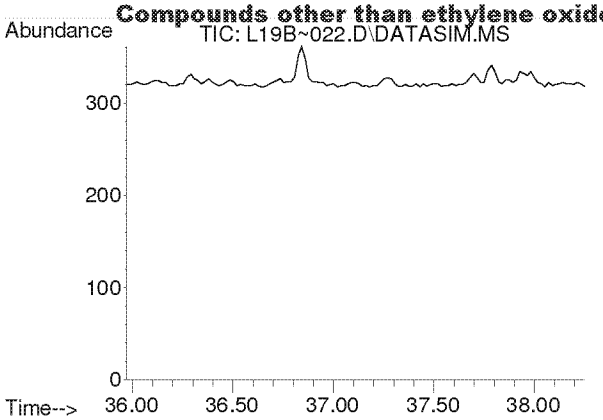
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

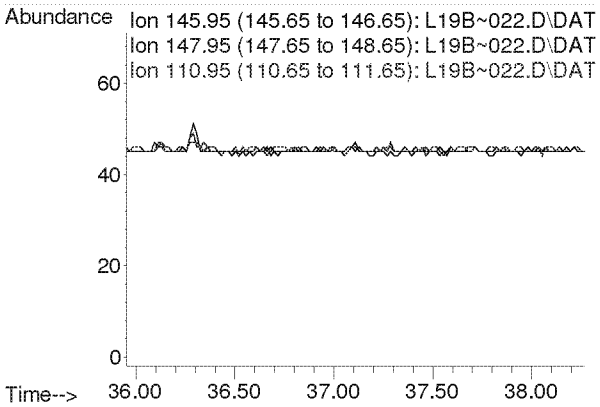


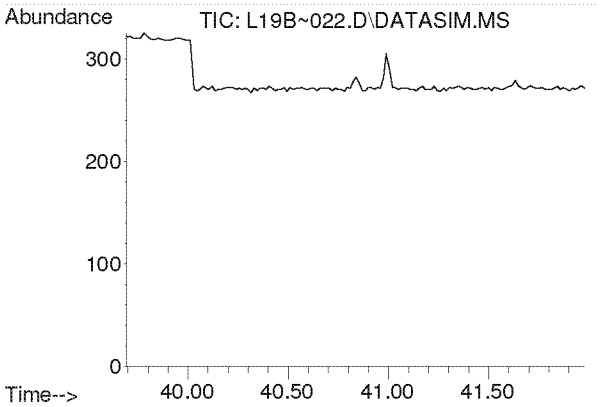
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



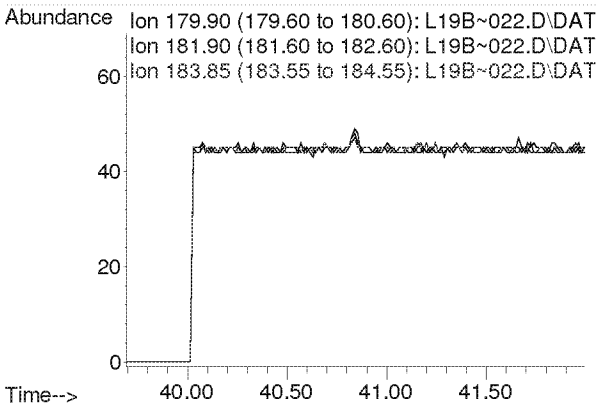


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

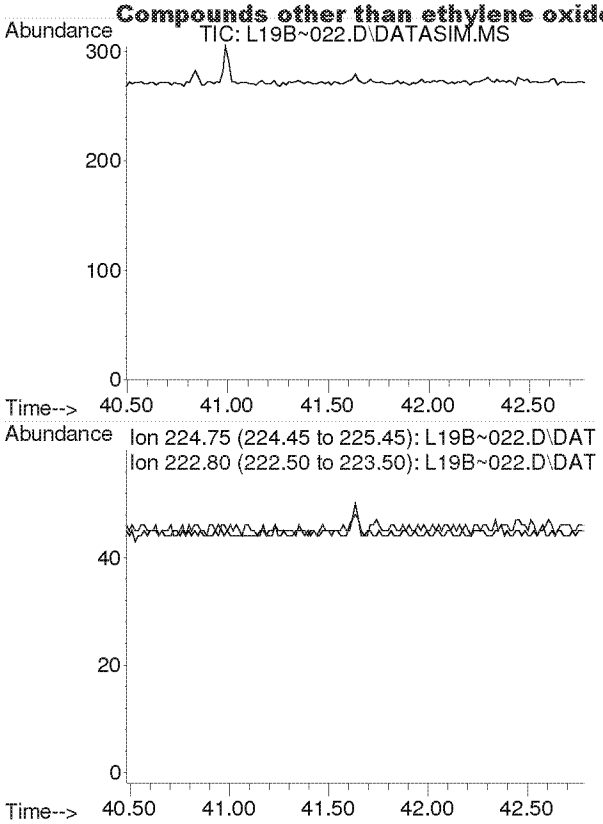
Lab File: L19B~022.D
Acq: 28 Feb 2019 8:39 am

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: L19B~022.D
Acq: 28 Feb 2019 8:39 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\L19B~\
Data File : L19B~023.D
Acq On : 28 Feb 2019 9:39 am
Operator : MAH
Sample : B9B2705-DUP8
Misc : EPA WB WAREHOUSE 2/24/19
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 28 12:55:55 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	42273	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	105773	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	74861	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	116m	0.0480 ppbv	RWB 3/5/19
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.D. d	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D. d	
27) Ethyl tert-Butyl Ether	0.000	59	0	N.D.	
28) 1,2-Dichloroethane	0.000	62	0	N.D. d	
30) 1,1,1-Trichloroethane	0.000	97	0	N.D.	
31) Benzene	0.000	78	0	N.D. d	
32) Carbon Tetrachloride	0.000	117	0	N.D. d	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D. d	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~023.D
Acq On : 28 Feb 2019 9:39 am
Operator : MAH
Sample : B9B2705-DUP8
Misc : EPA WB WAREHOUSE 2/24/19
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 28 12:55:55 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

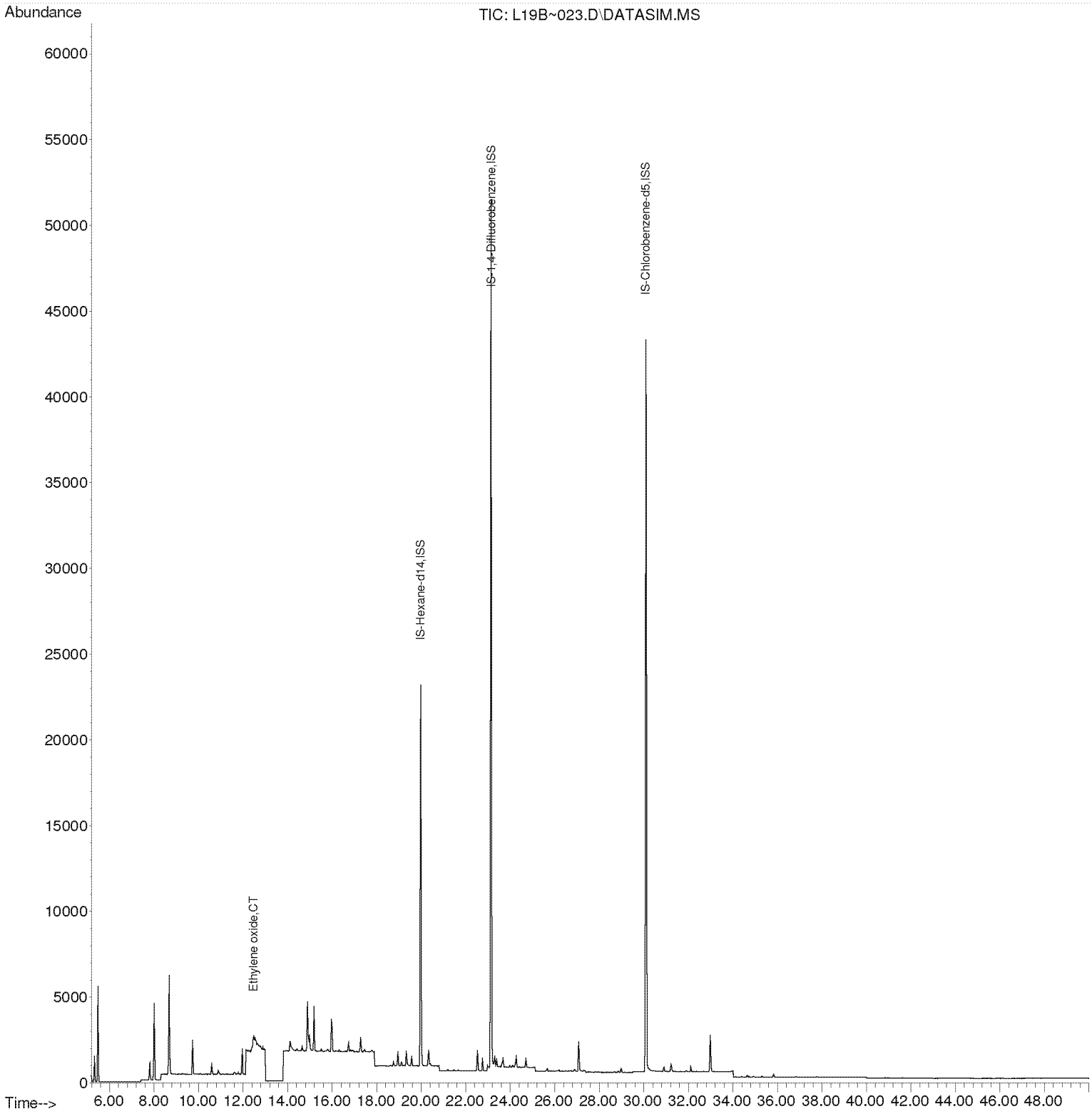
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	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

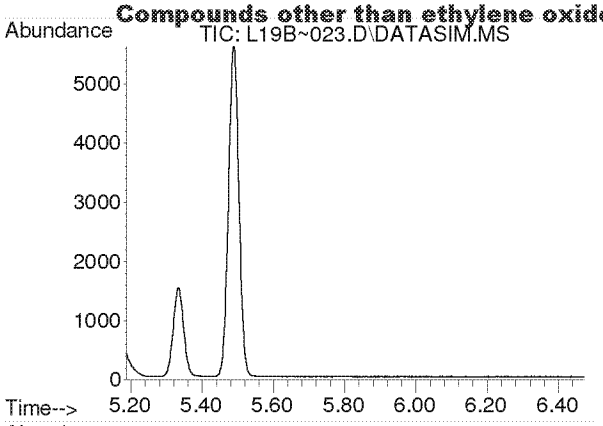
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19B~\
Data File : L19B~023.D
Acq On : 28 Feb 2019 9:39 am
Operator : MAH
Sample : B9B2705-DUP8
Misc : EPA WB WAREHOUSE 2/24/19
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 28 12:55:55 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



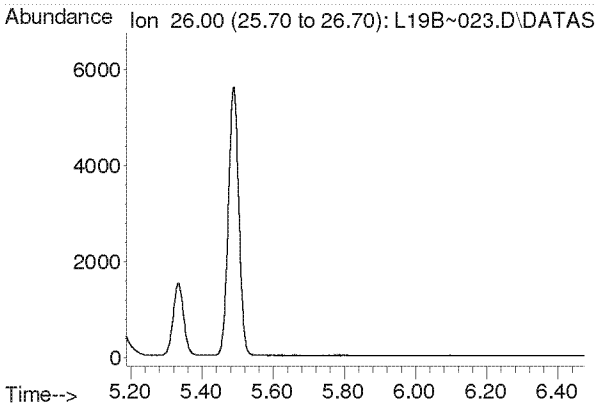
Compounds other than ethylene oxide were not quantitated.

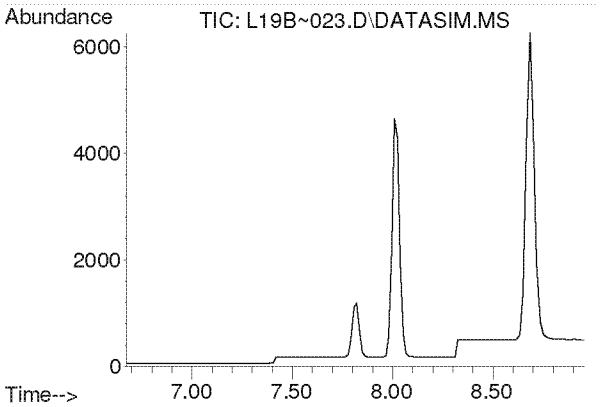


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 26



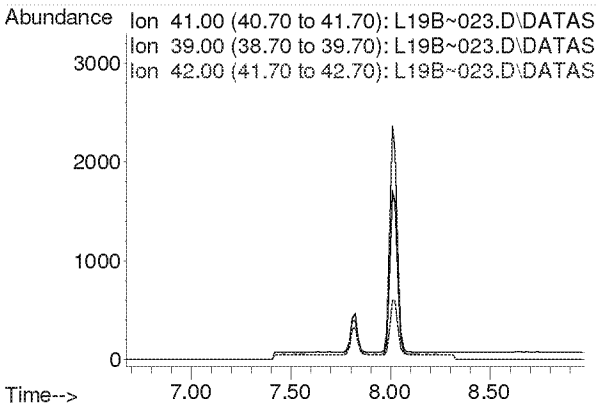


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

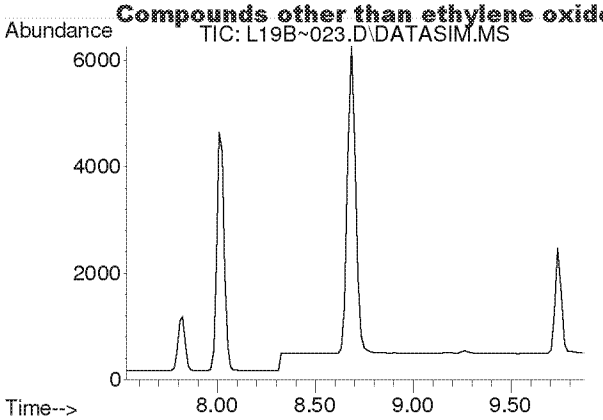
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

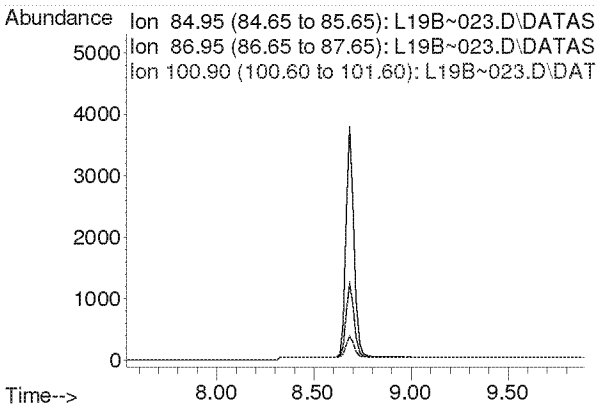


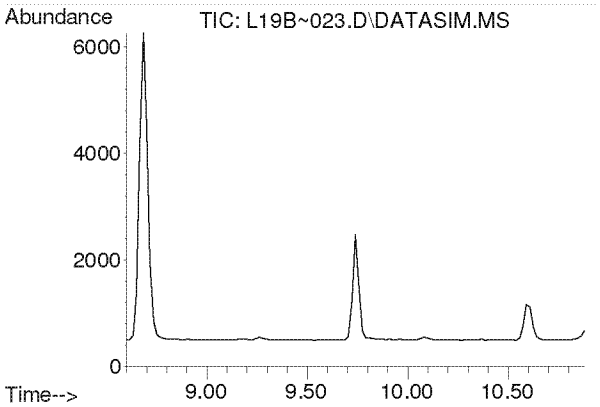
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



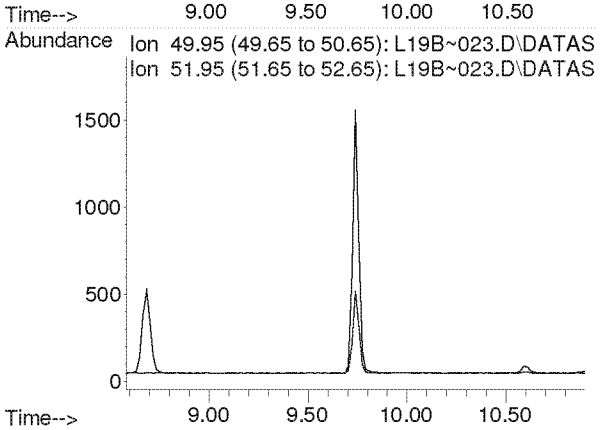


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

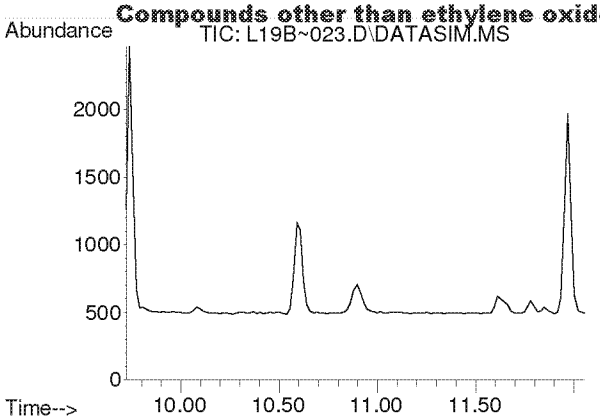
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

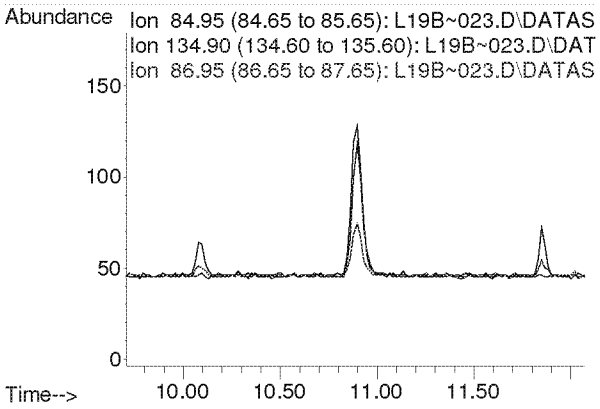


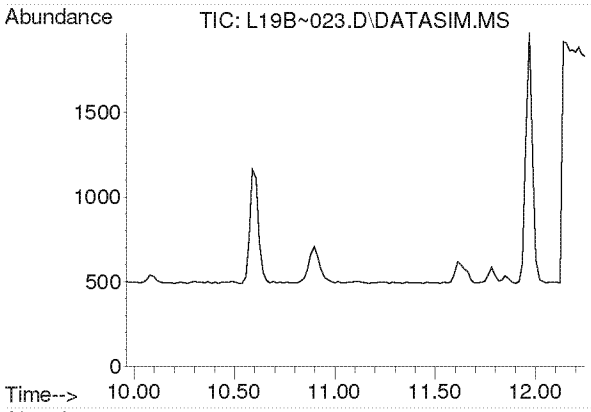
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



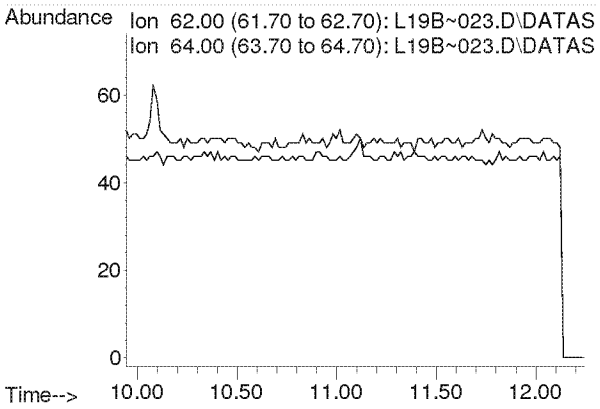


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

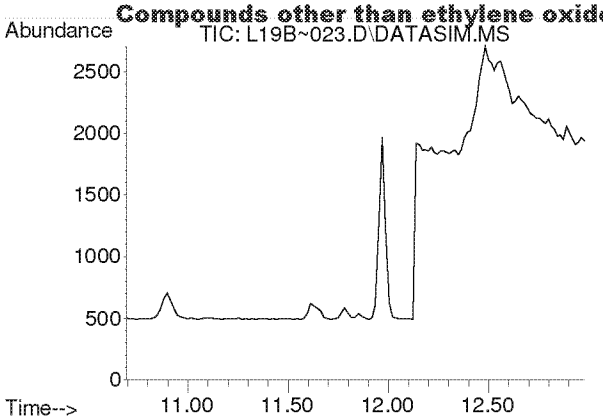
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

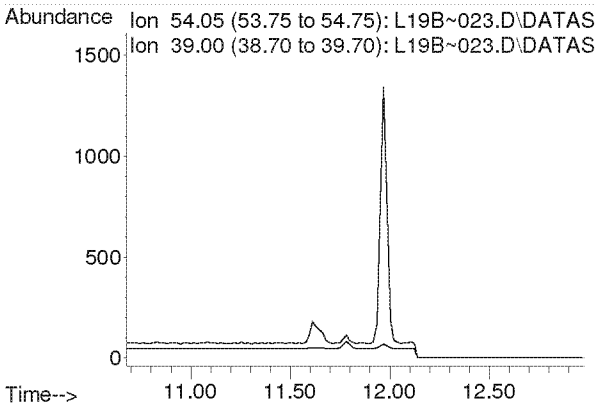


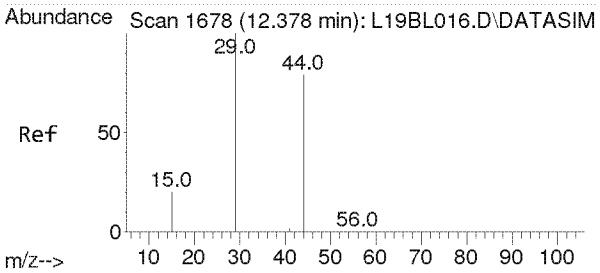
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

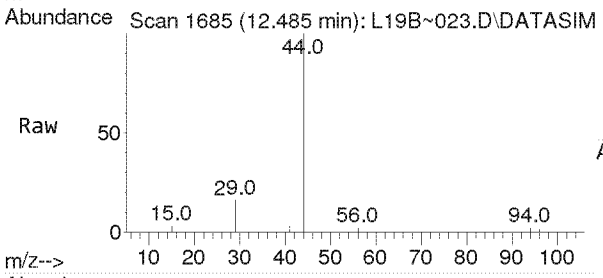


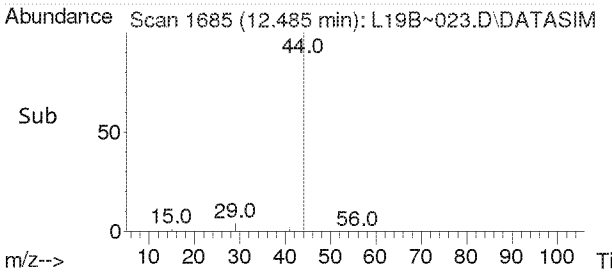


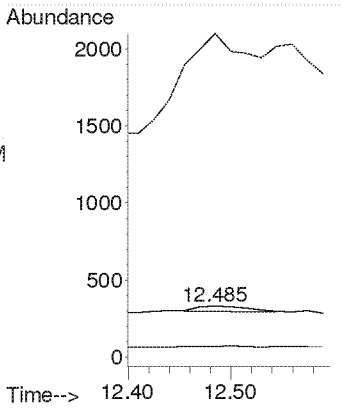
#9
Ethylene oxide
Concen: 0.048 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 29 Resp: 116

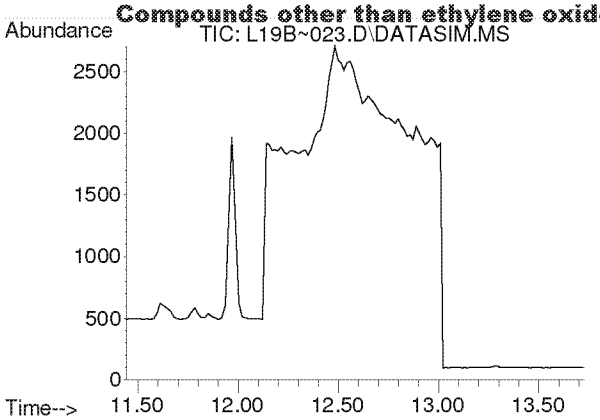
Ion	Ratio	Lower	Upper
29	100		
15	69.0	16.0	24.0#
44	6608.6	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

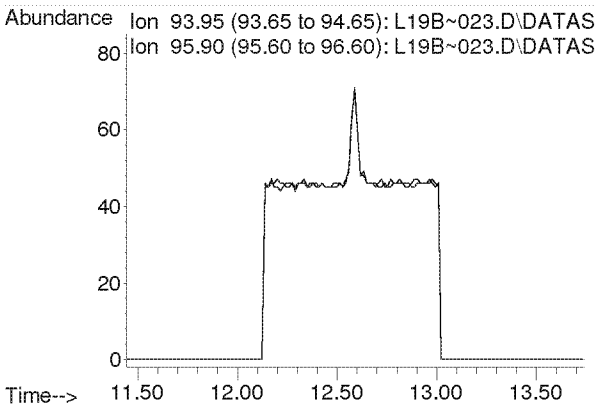


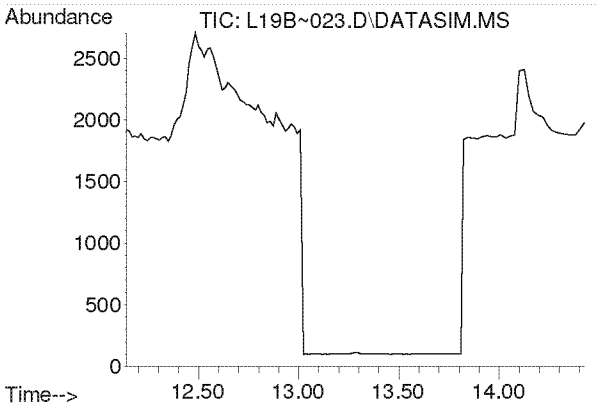
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



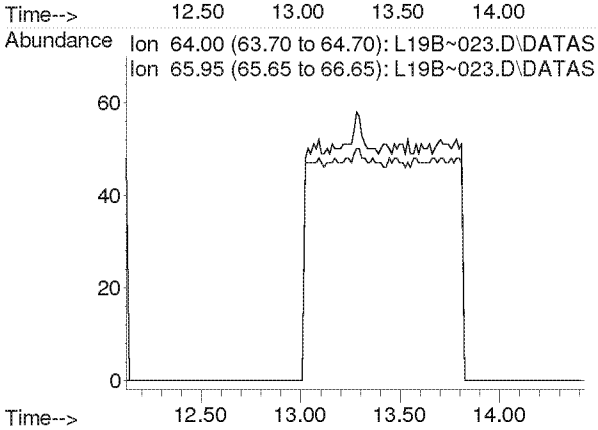


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

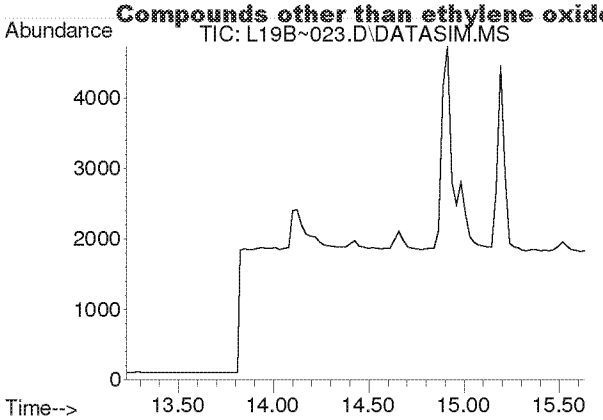
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

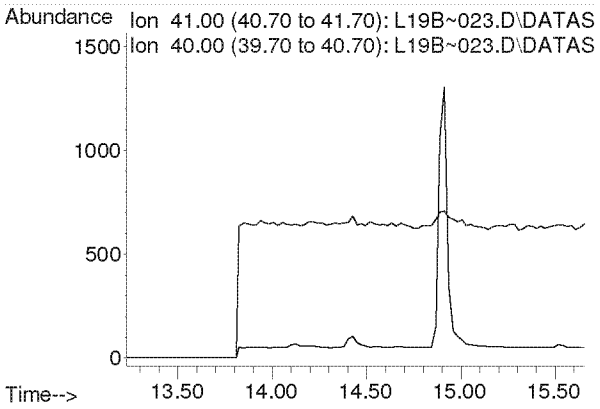


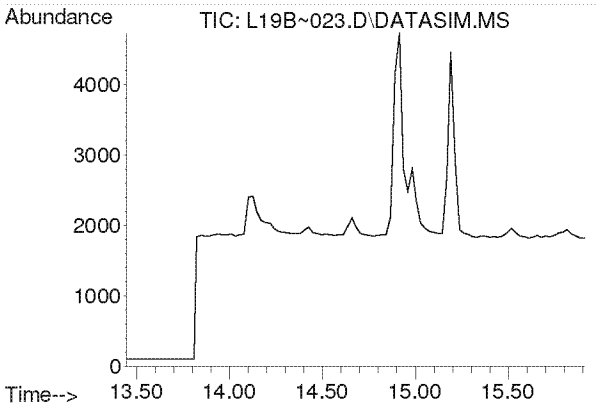
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



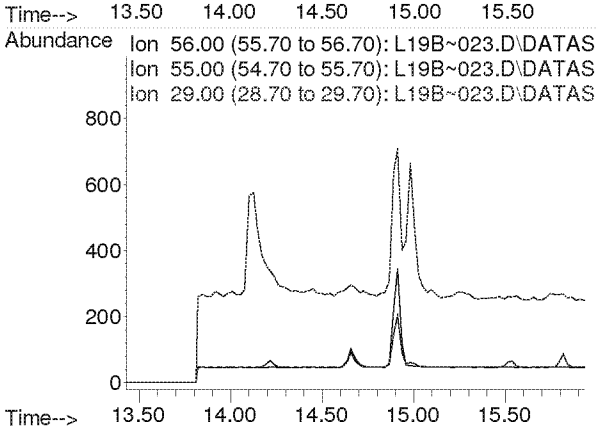


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

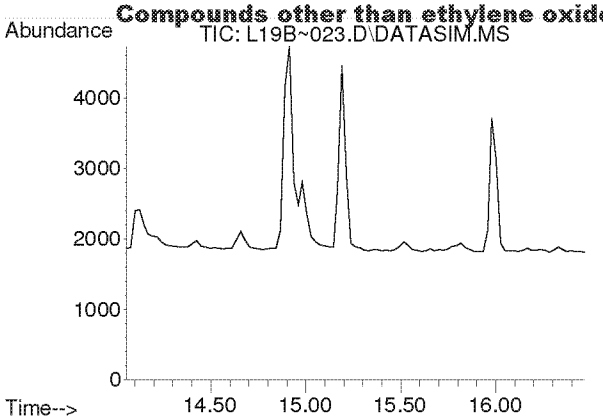
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

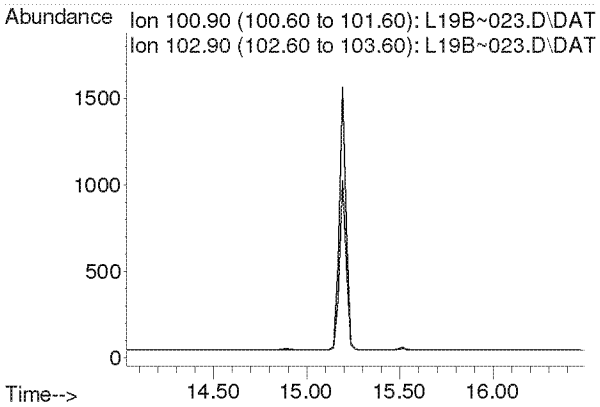


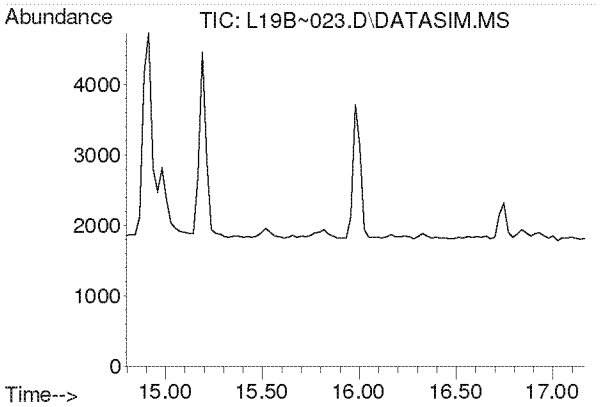
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



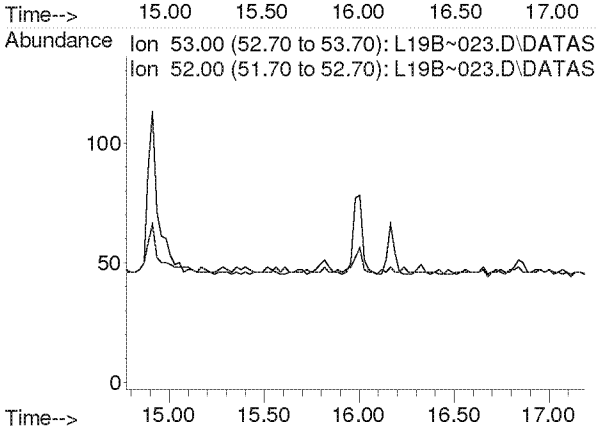


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

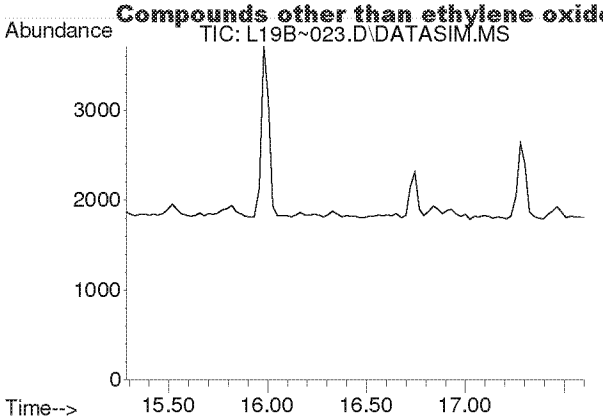
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

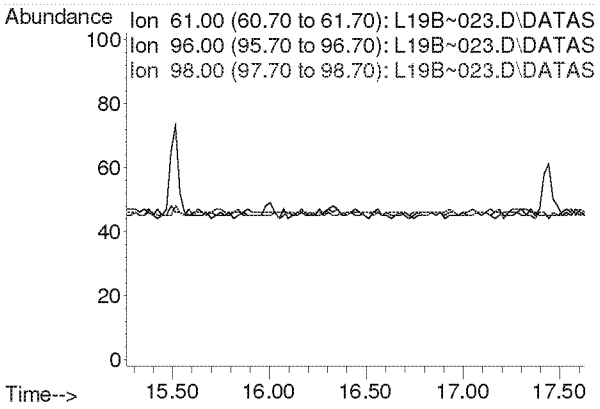


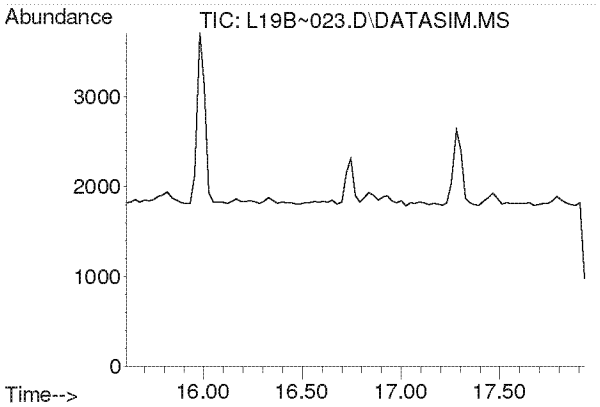
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



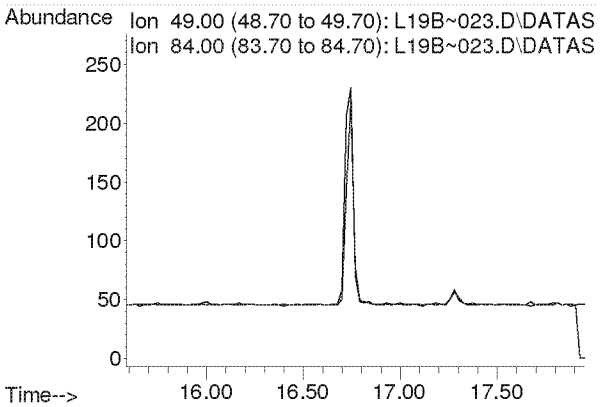


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

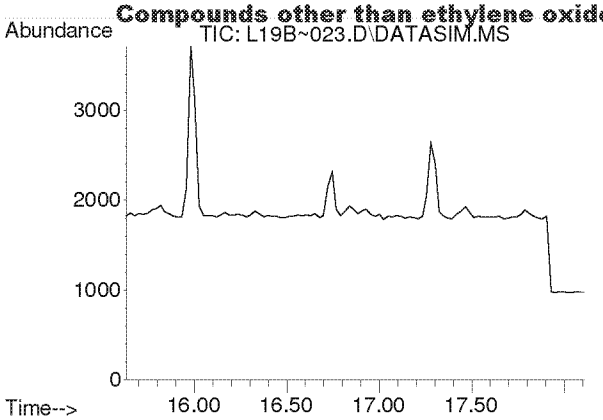
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

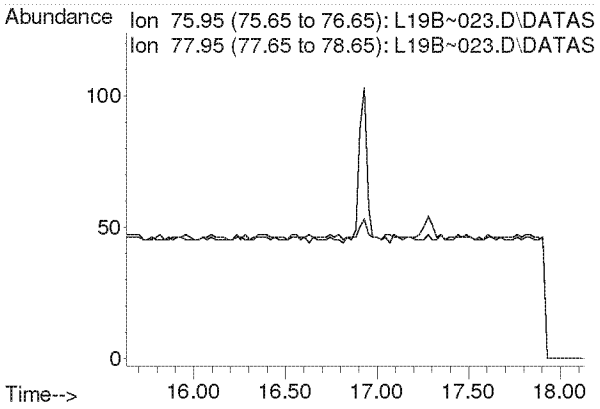


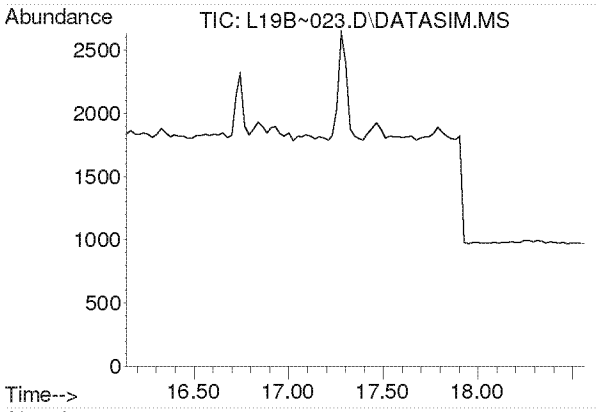
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



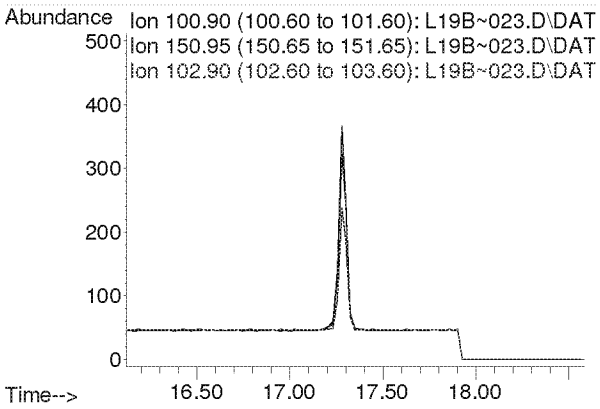


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

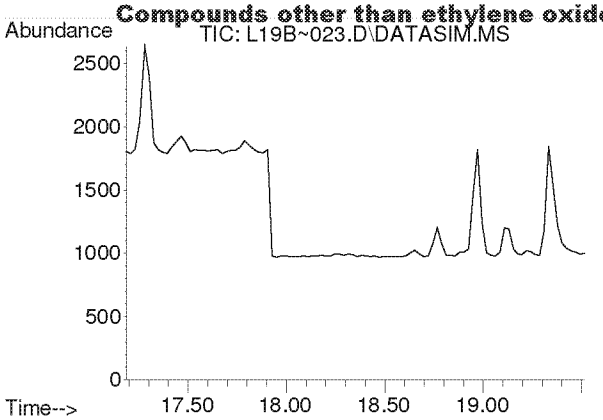
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

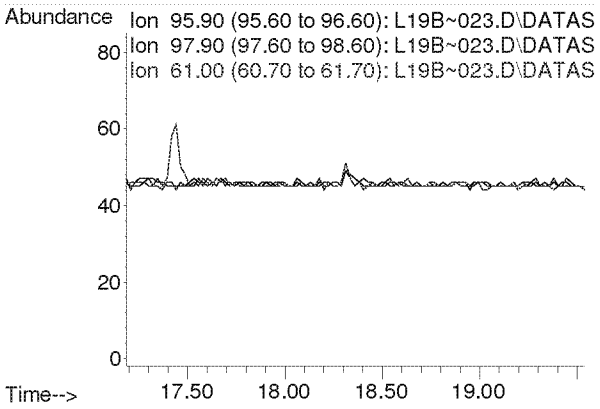


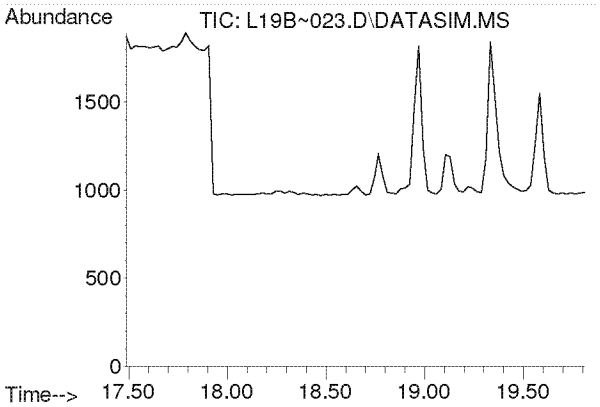
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



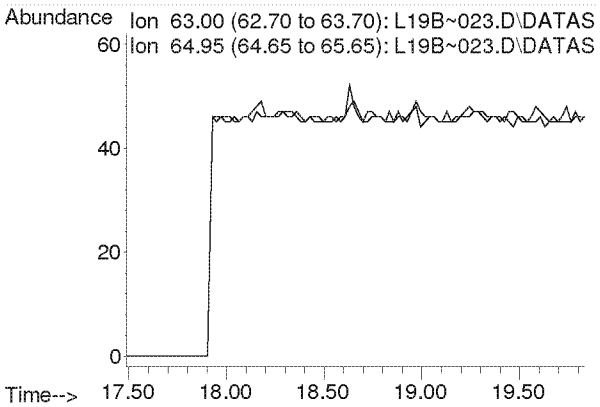


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

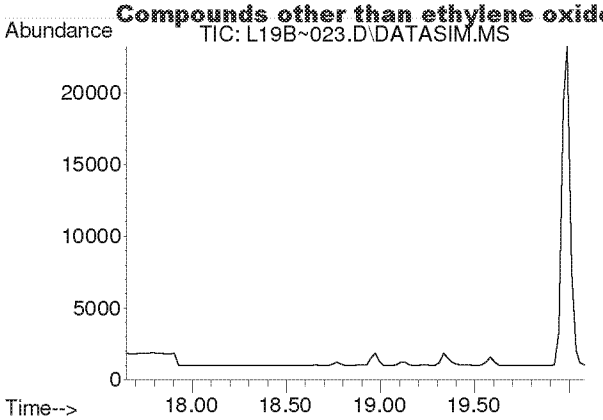
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

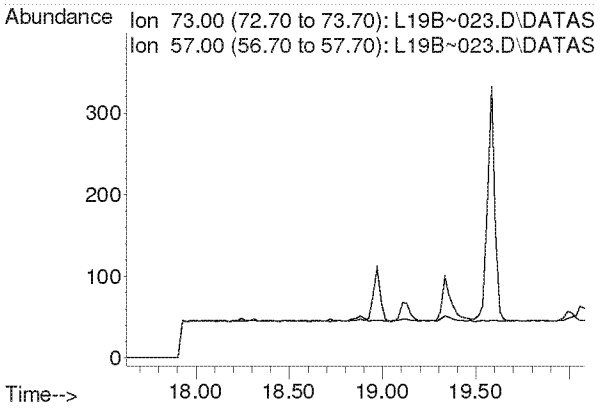


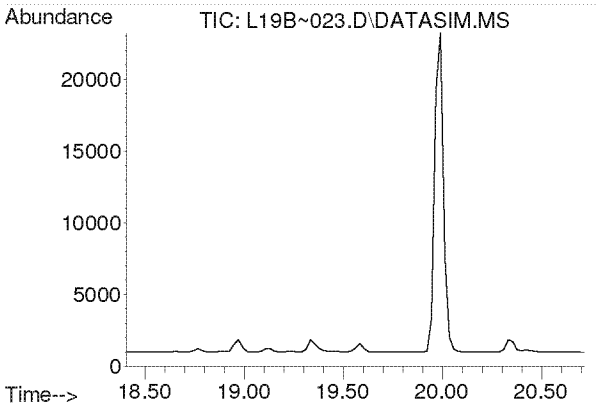
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



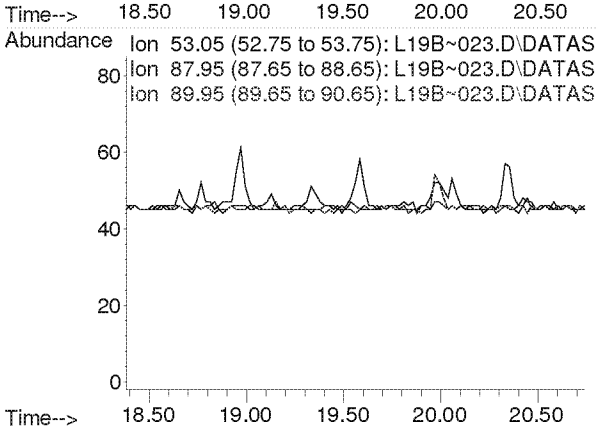


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

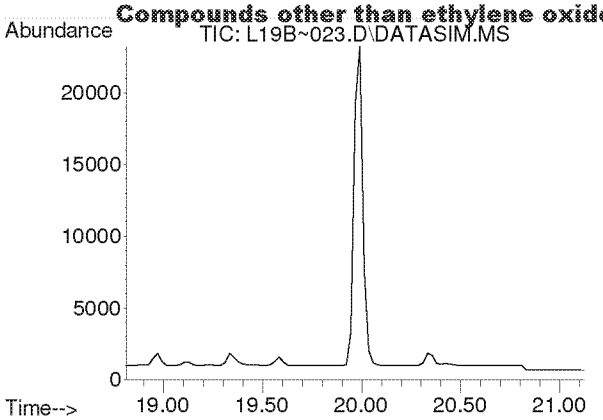
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

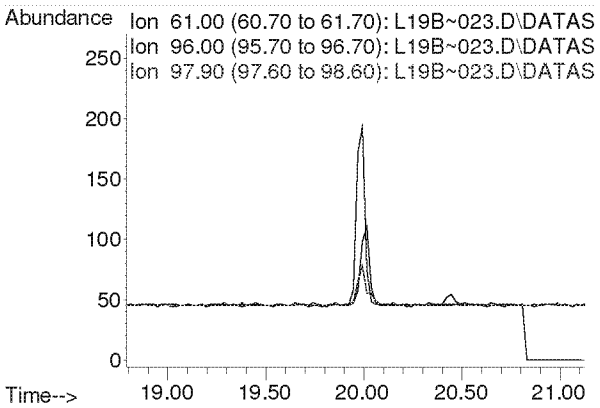


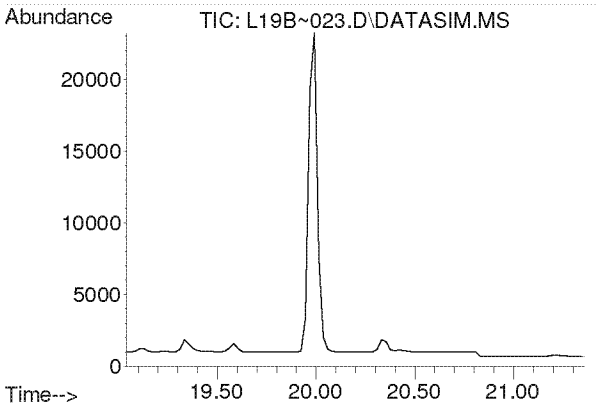
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



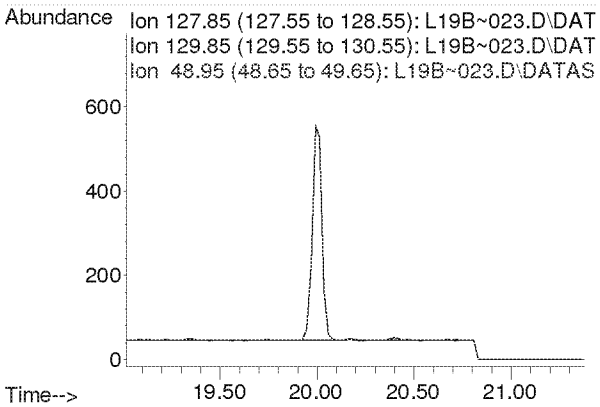


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

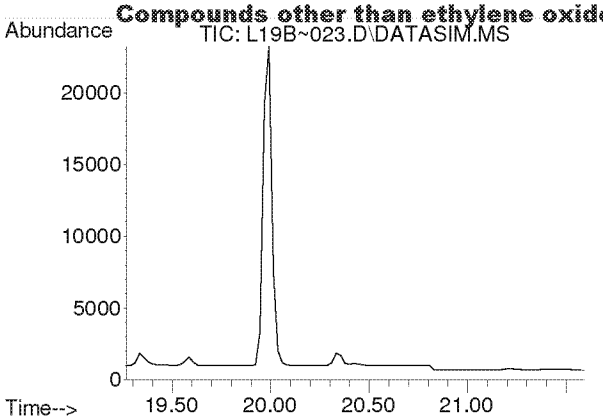
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

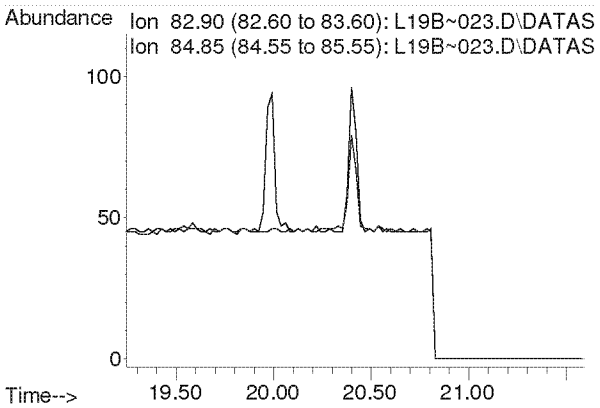


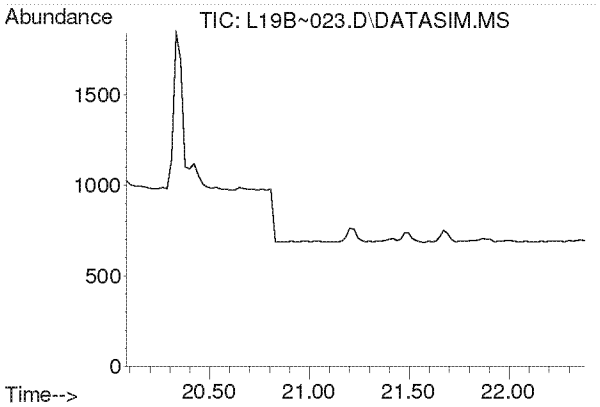
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



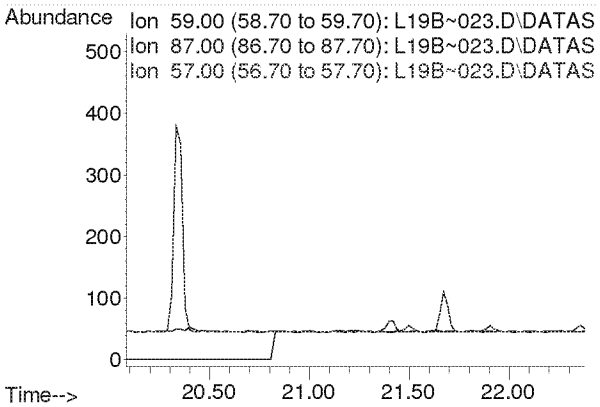


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

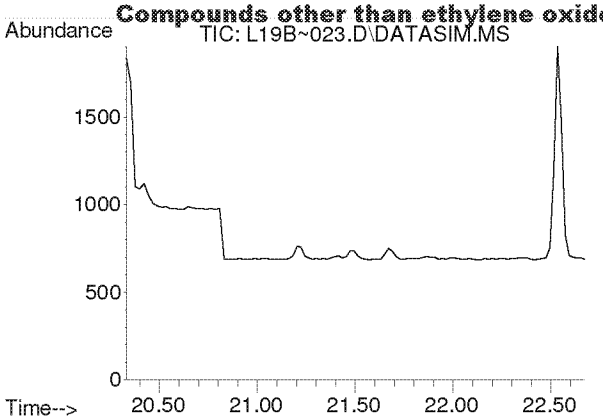
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

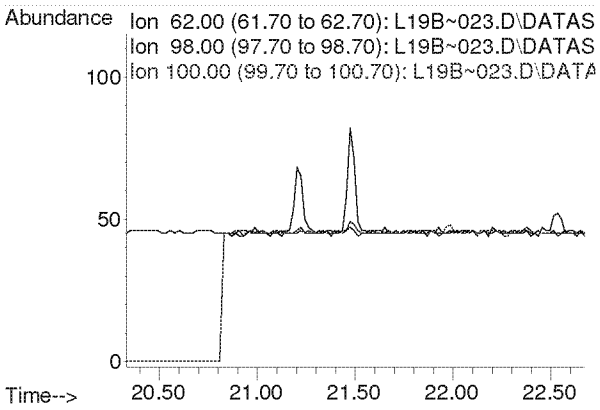


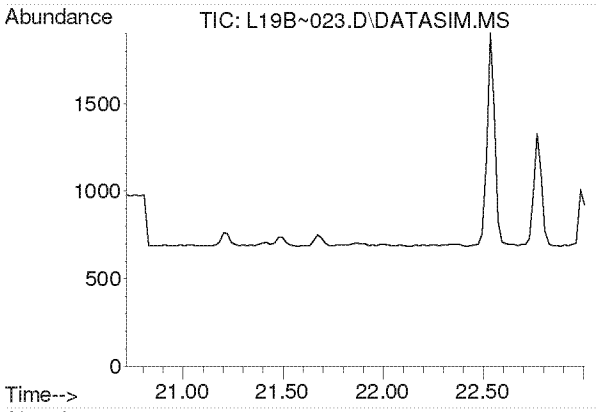
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



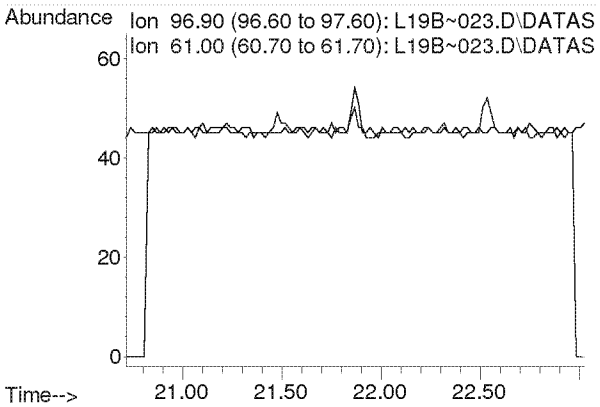


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

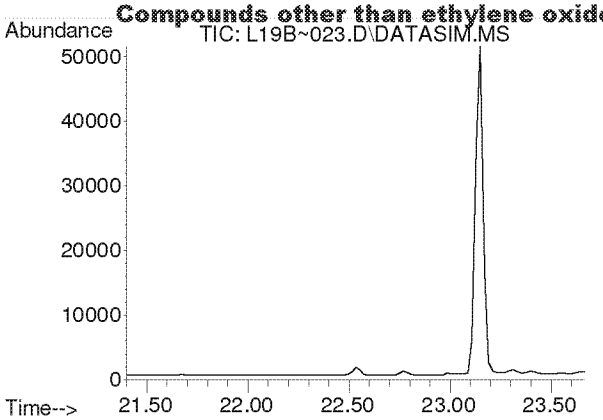
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

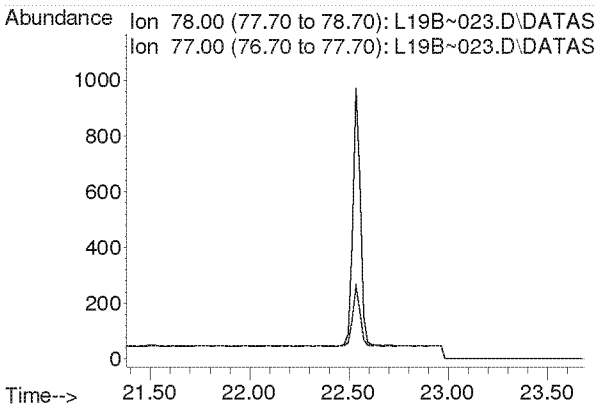


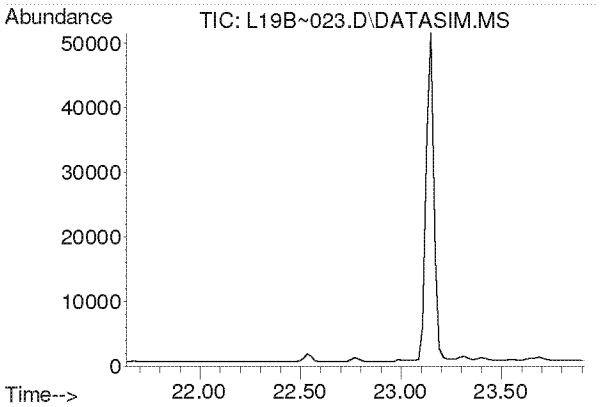
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



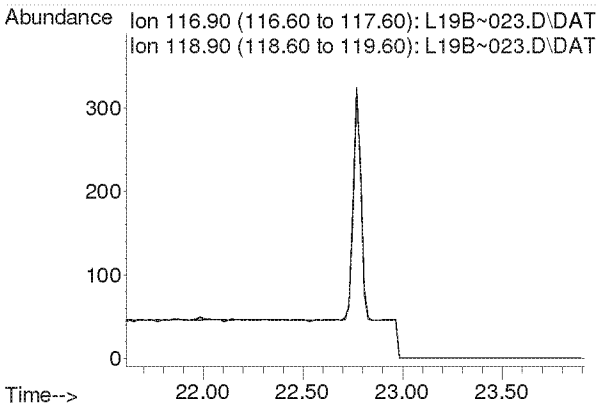


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

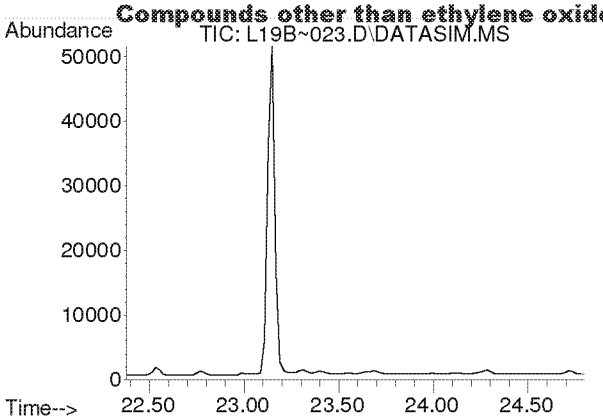
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

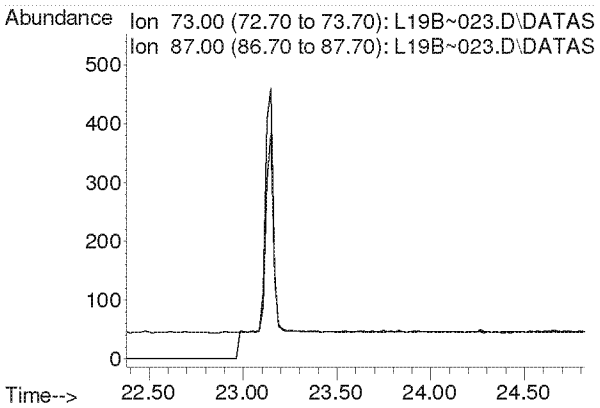


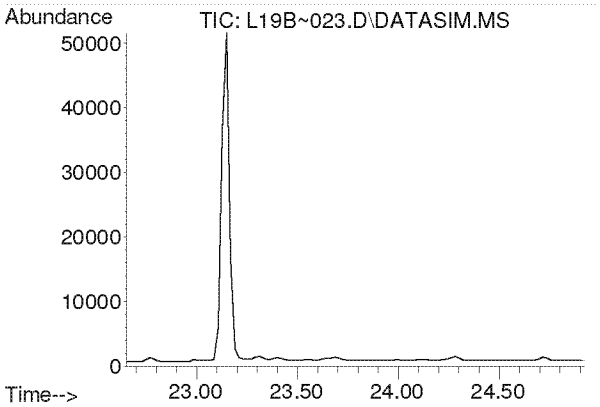
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



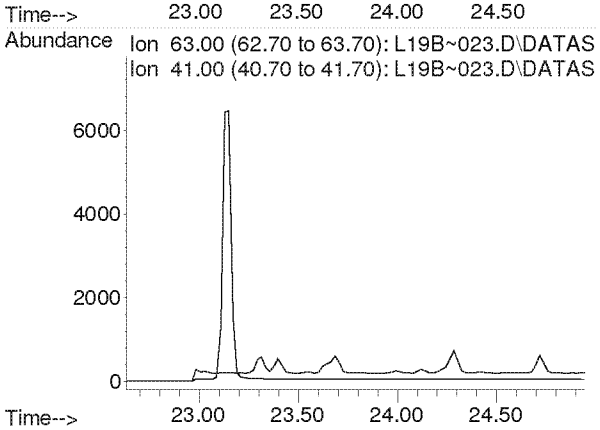


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

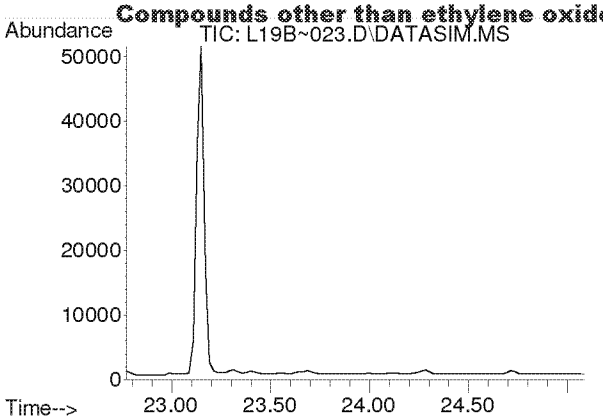
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

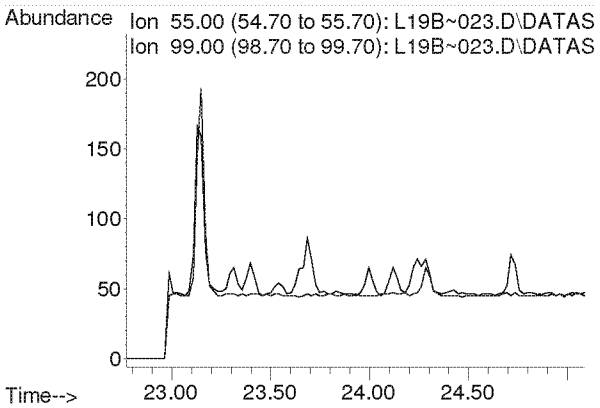


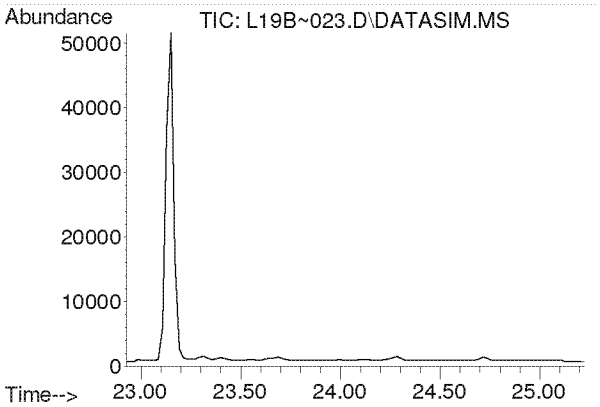
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



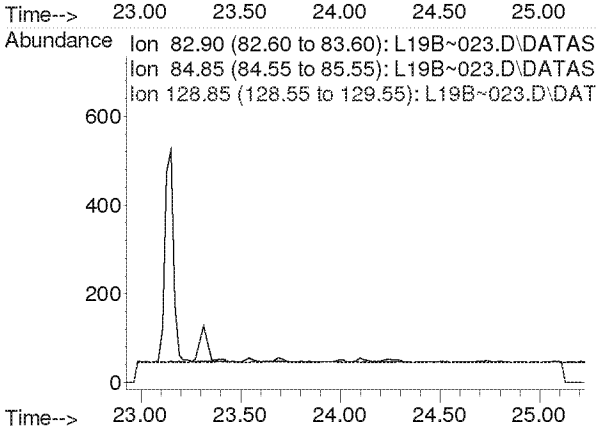


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

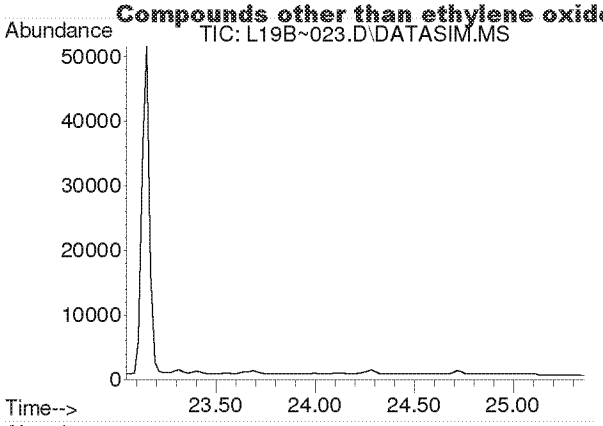
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

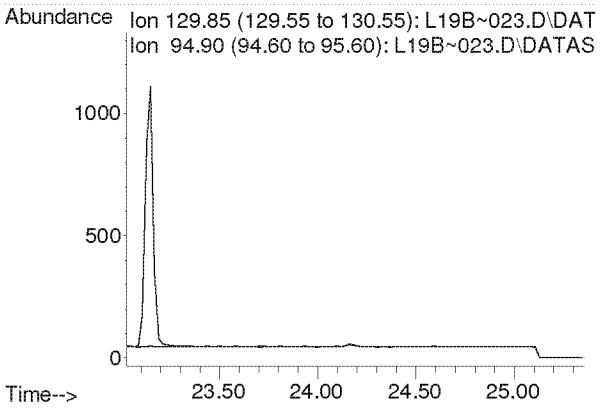


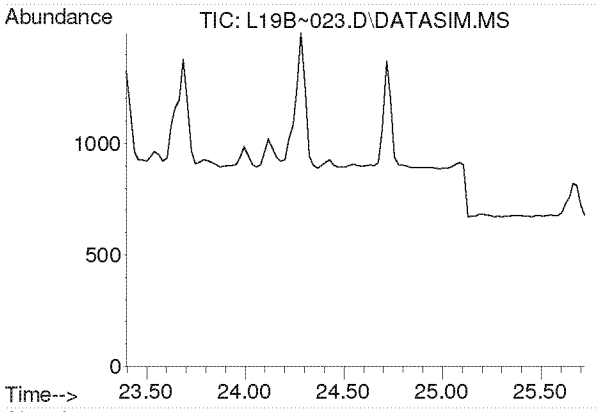
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



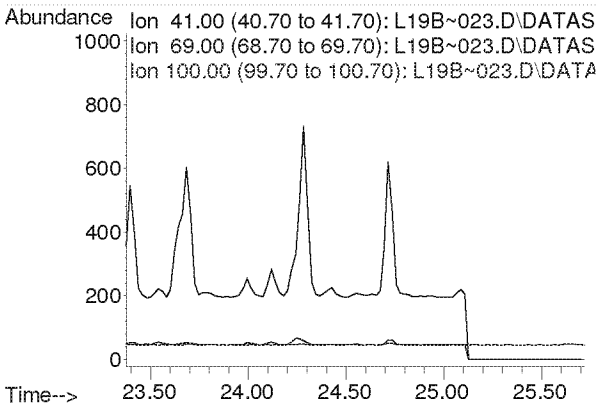


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

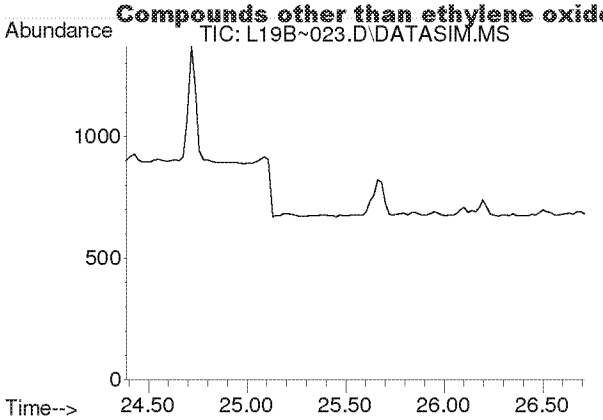
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

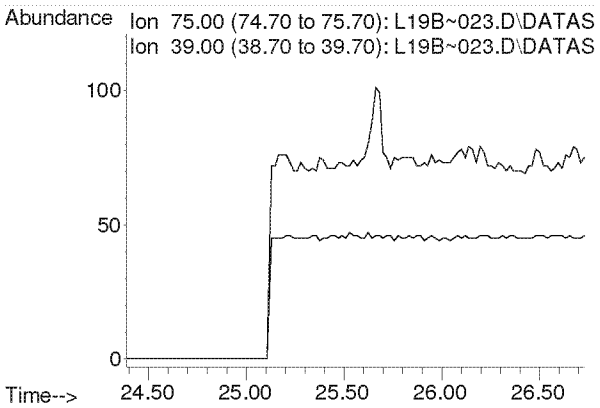


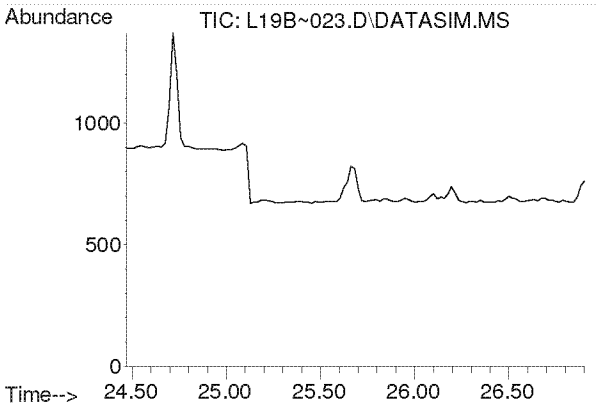
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



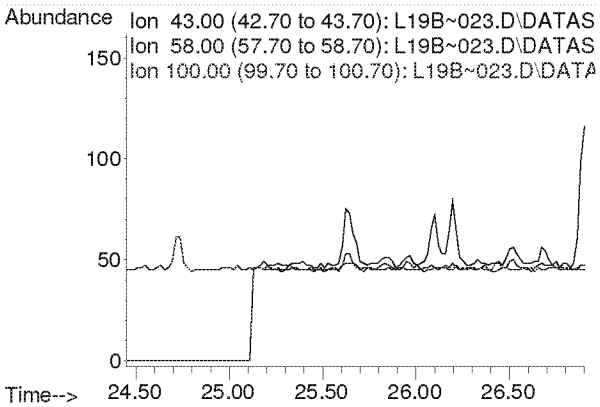


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

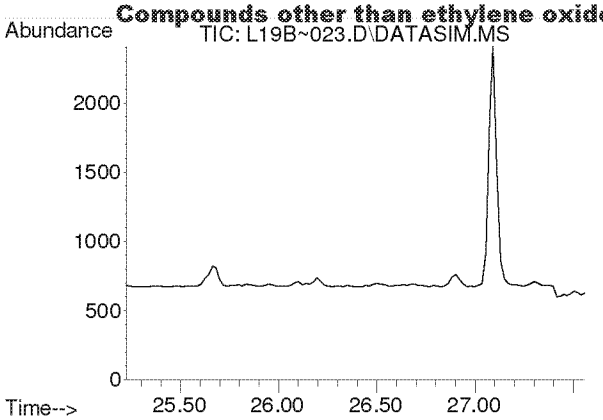
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

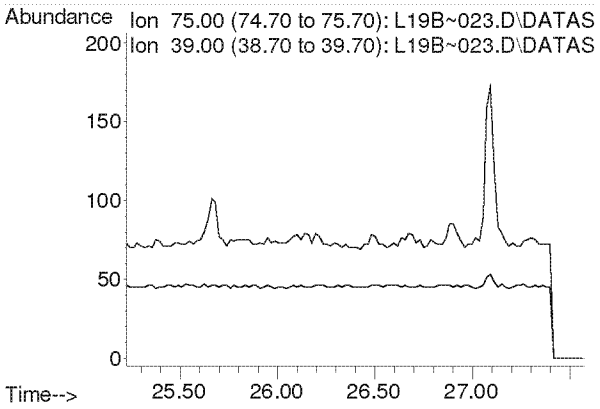


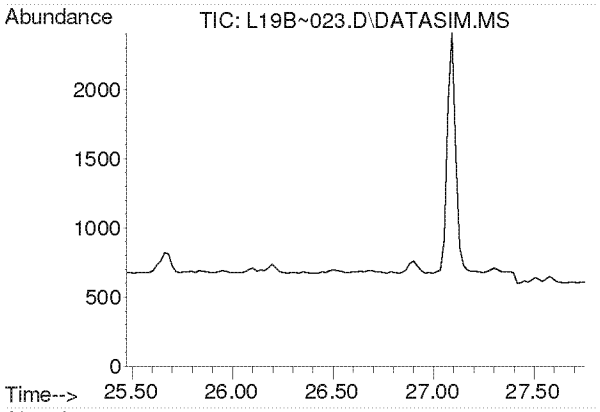
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



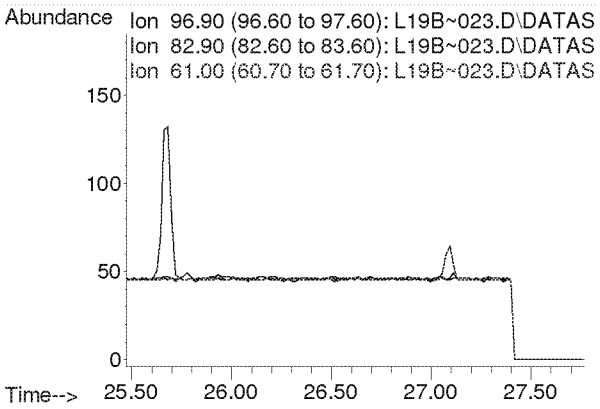


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

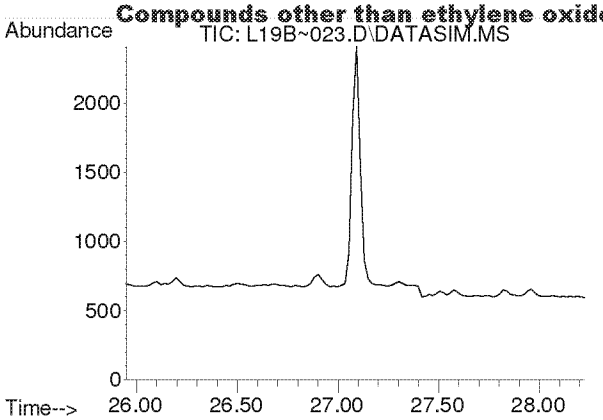
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

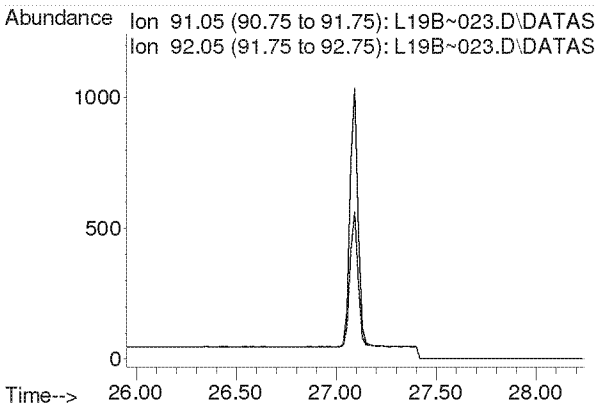


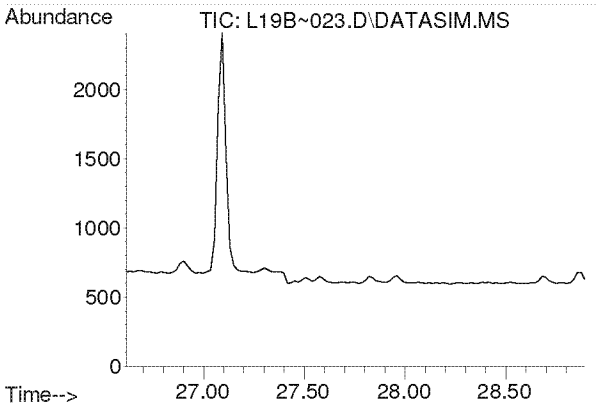
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



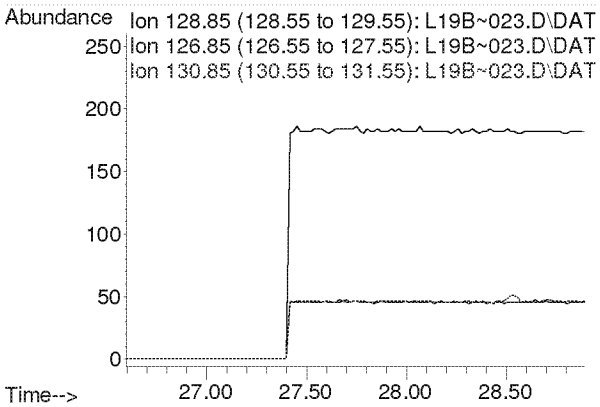


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

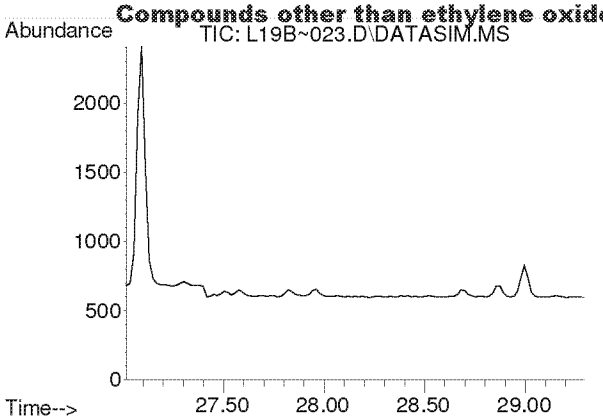
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

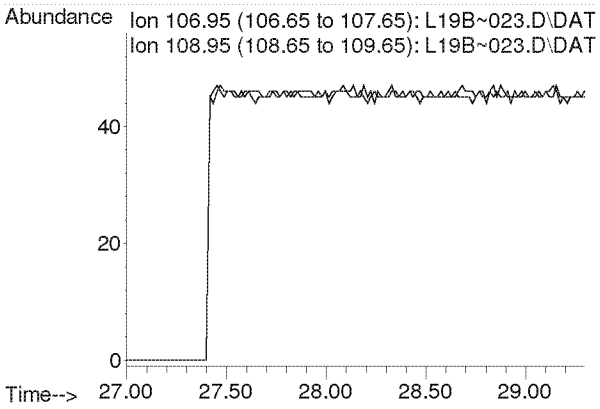


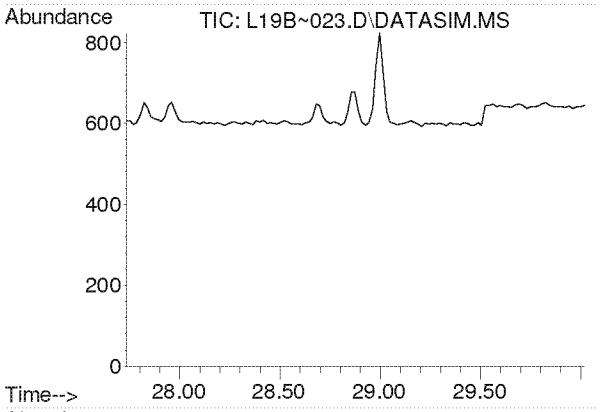
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



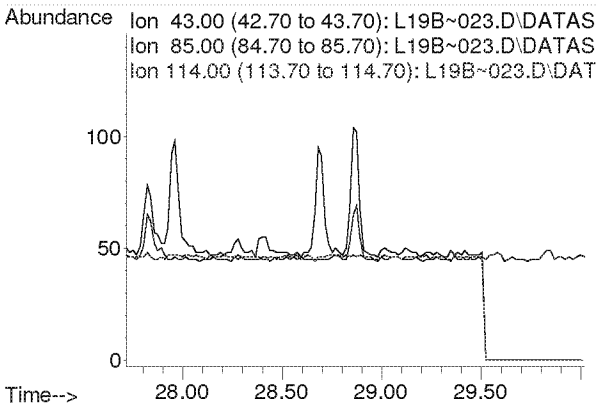


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

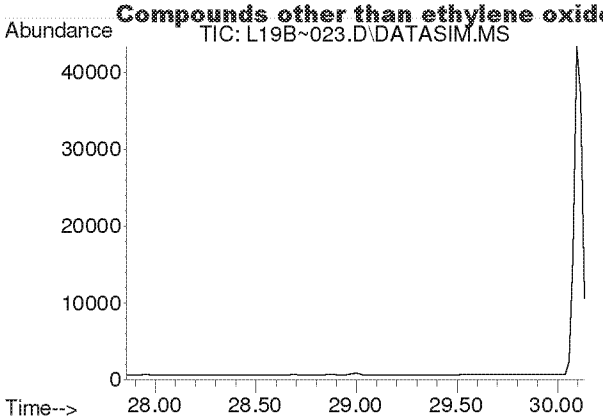
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

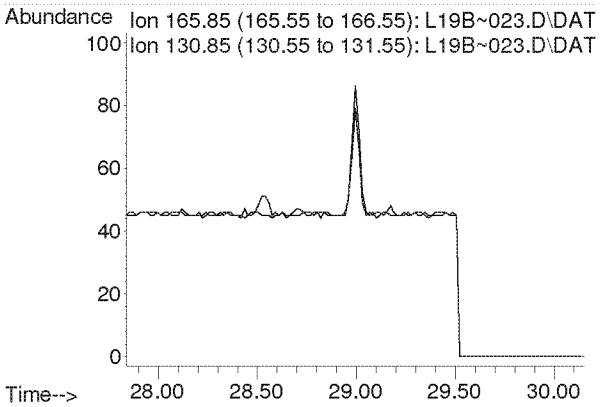


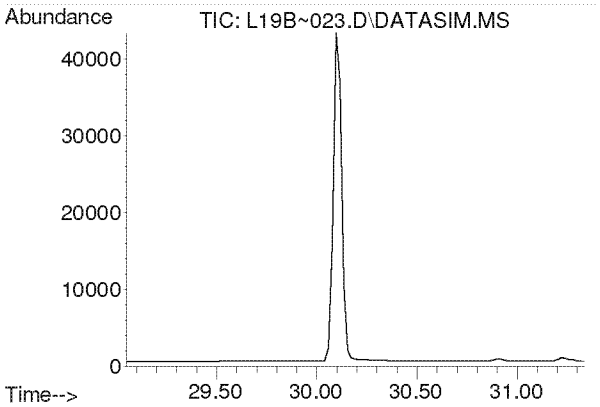
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



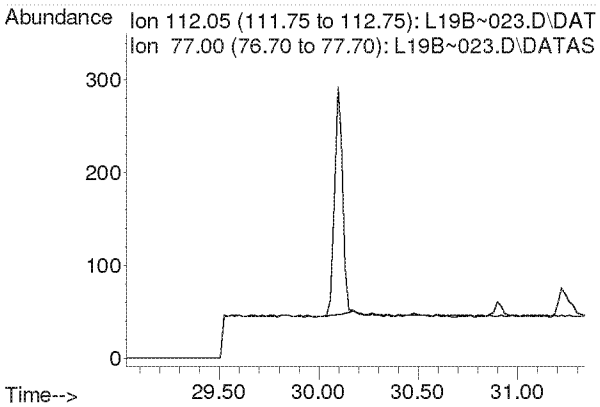


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

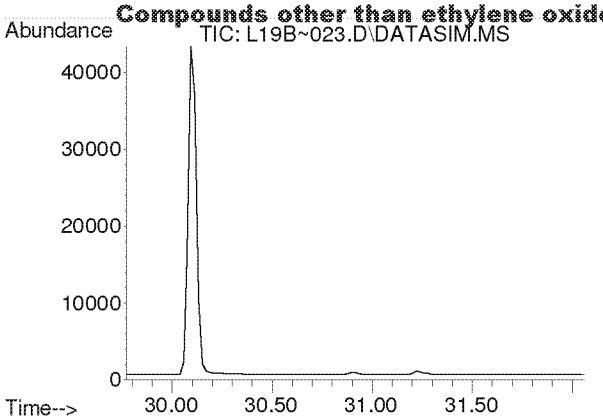
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

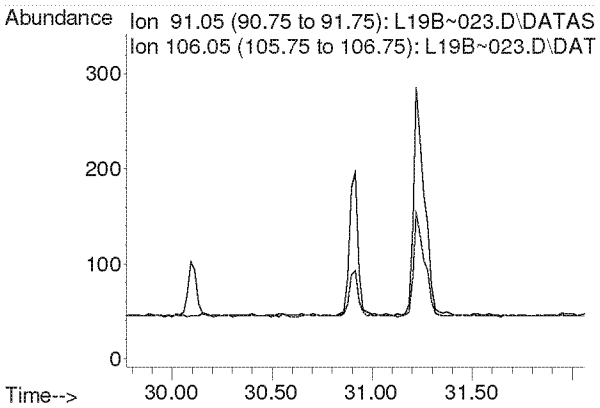


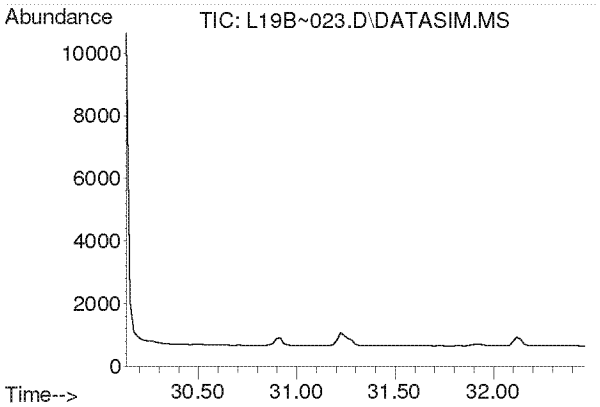
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



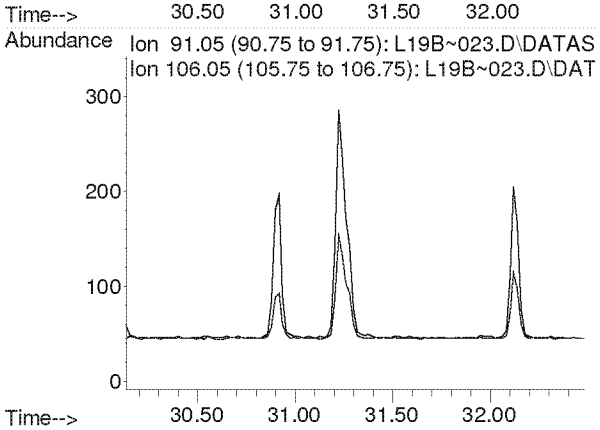


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

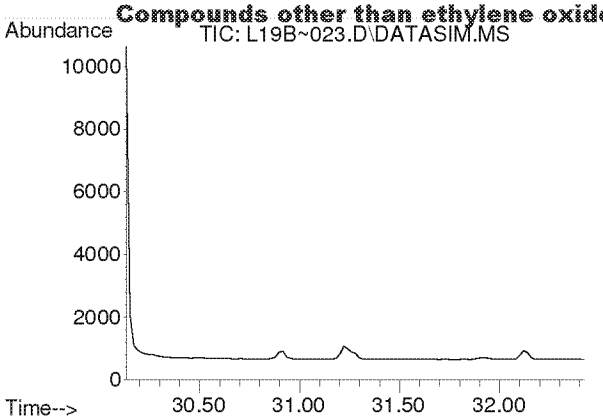
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

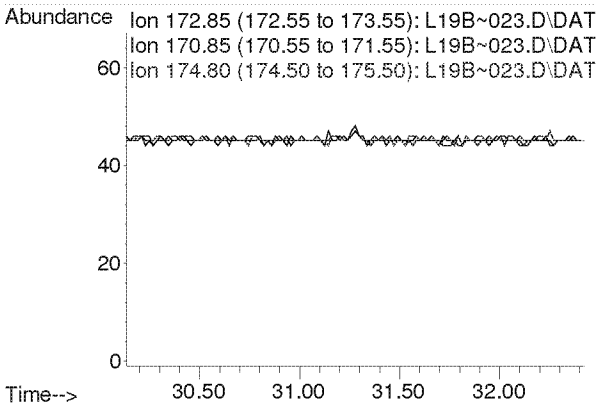


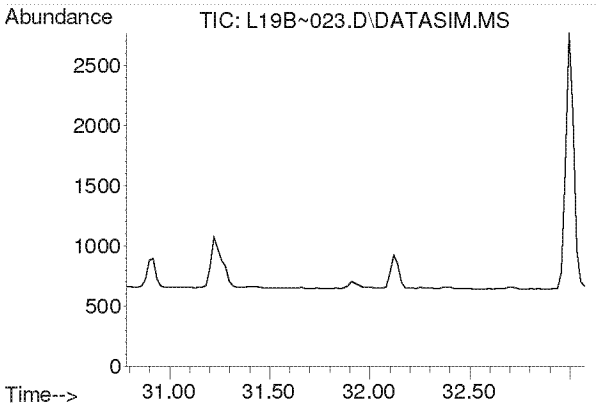
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



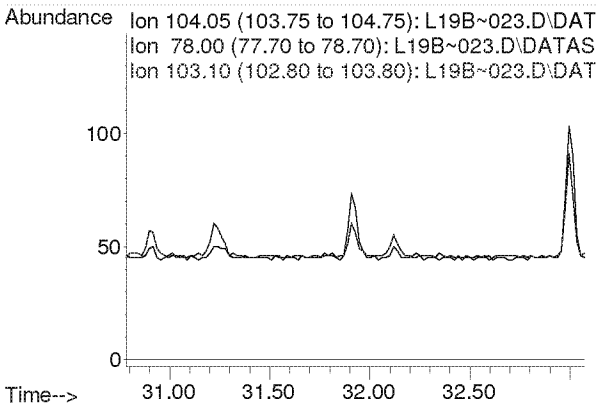


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

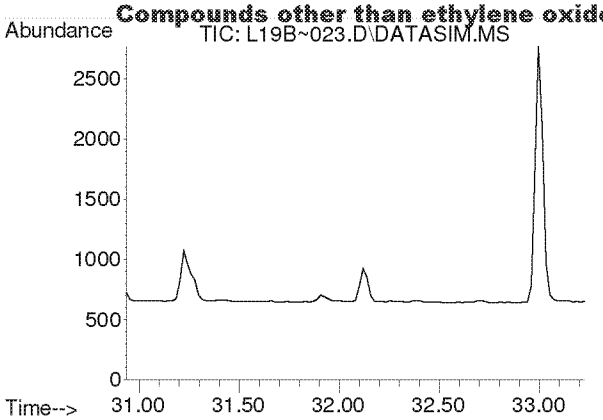
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

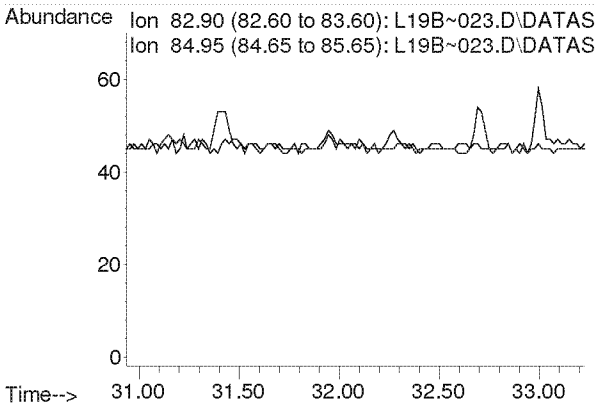


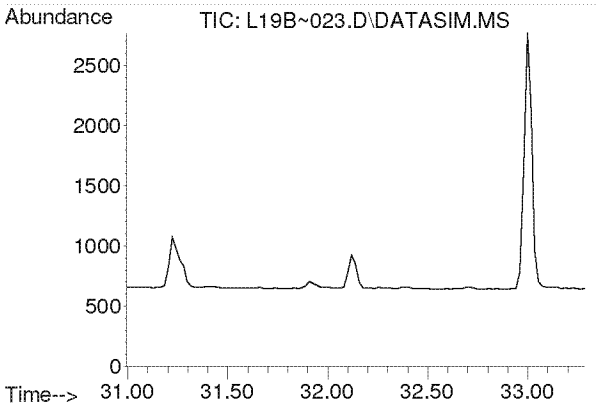
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



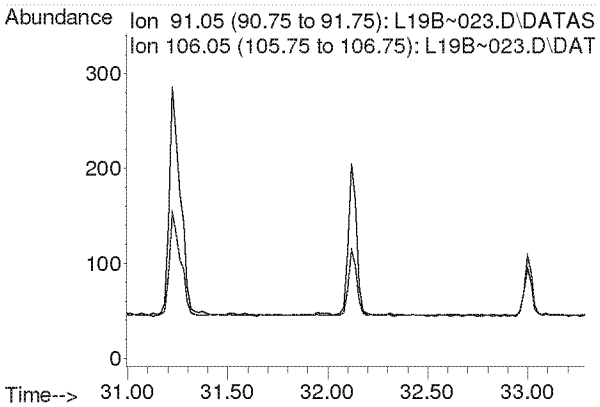


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

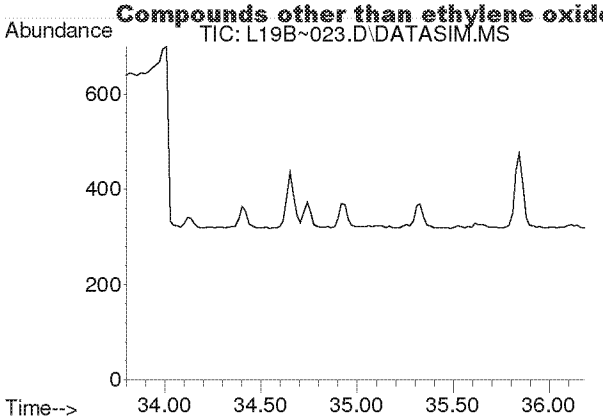
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

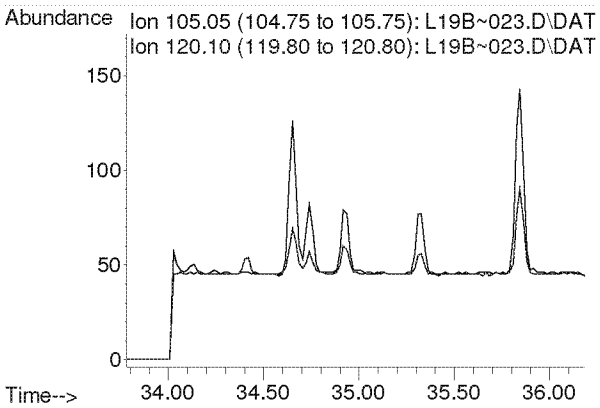


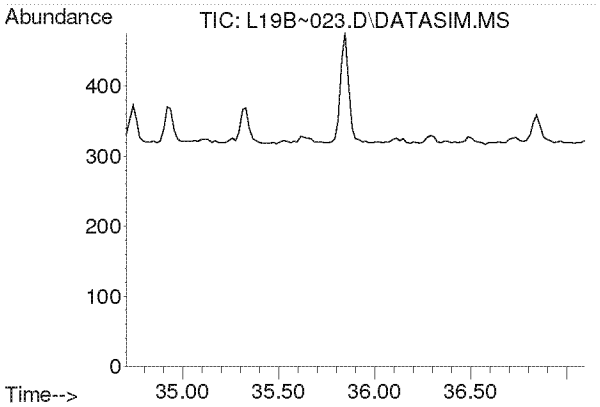
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



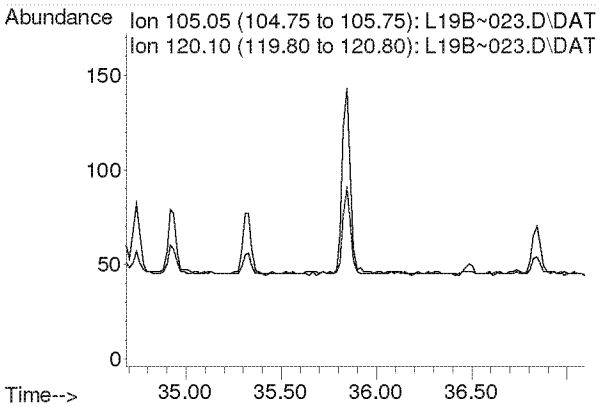


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

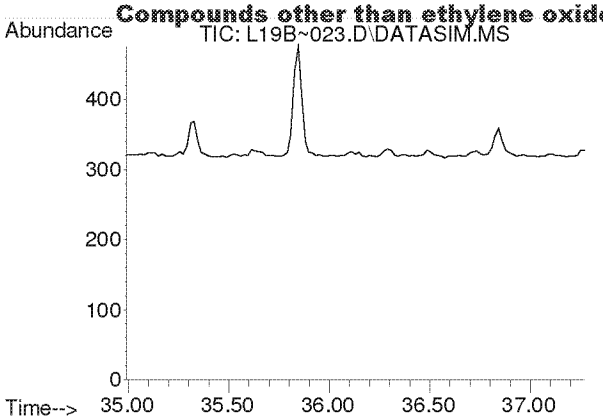
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

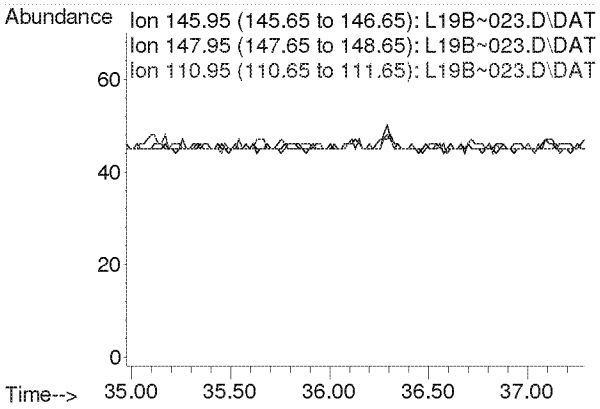


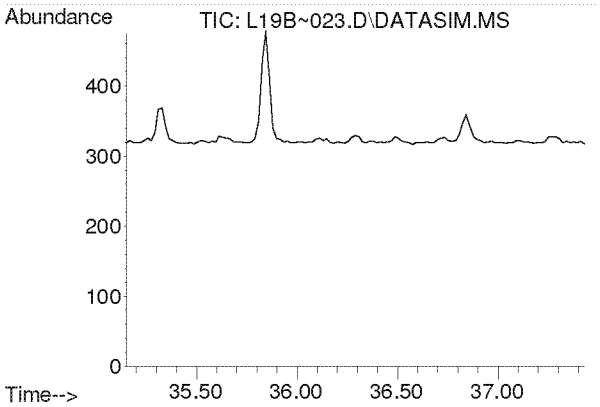
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



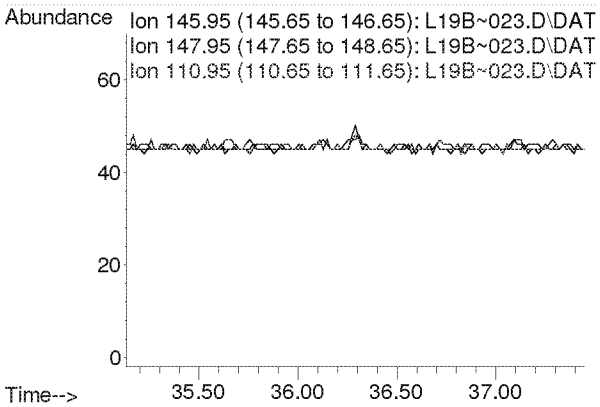


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

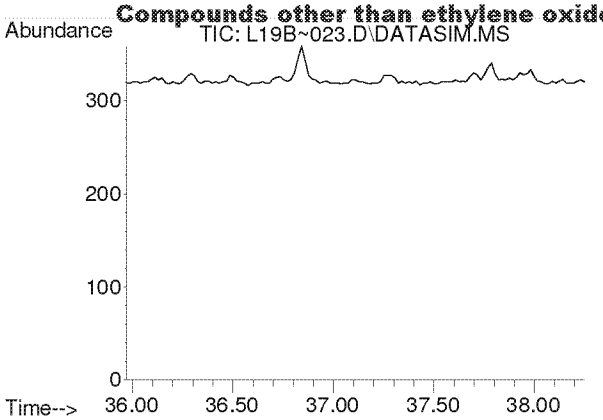
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

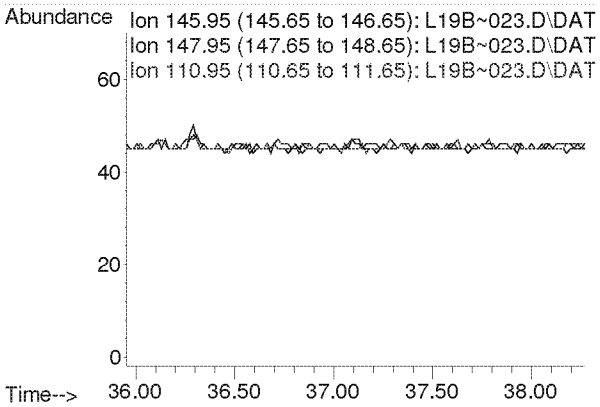


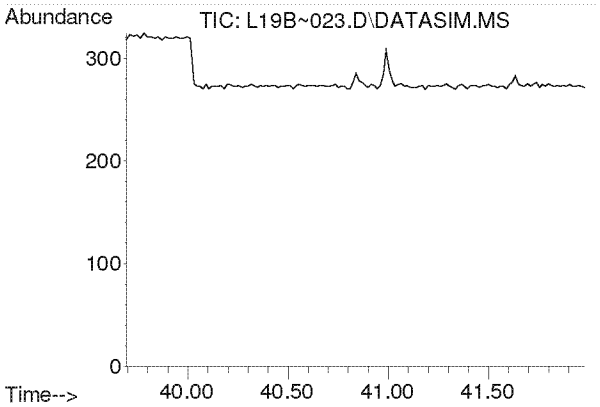
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



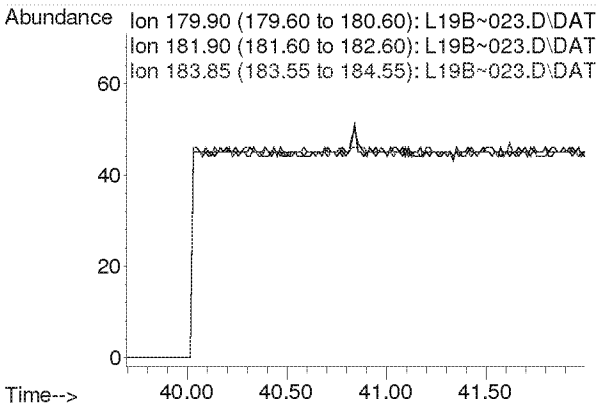


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

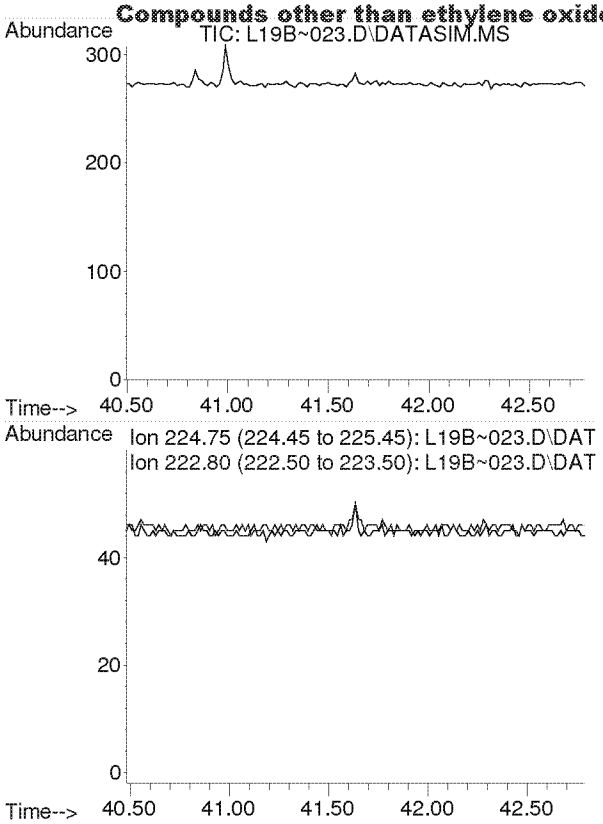
Lab File: L19B~023.D
Acq: 28 Feb 2019 9:39 am

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: L19B~023.D
Acq: 28 Feb 2019 9:39 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9B2705

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **Printed: 2/27/2019 4:40:41PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9022202-18 *TO-15 2019*	02/21/19 09:58	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022202-19 *TO-15 2019*	02/21/19 09:57	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022616-01 *TO-15 2019*	02/22/19 11:15	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022616-02 *TO-15 2019*	02/22/19 11:15	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022616-03 *TO-15 2019*	02/22/19 11:21	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022616-04 *TO-15 2019*	02/24/19 11:53	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022616-05 *TO-15 2019*	02/24/19 11:53	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022616-06 *TO-15 2019*	02/24/19 11:53	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022616-09 *TO-15 2019*	02/24/19 11:53	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
9022616-10 *TO-15 2019*	02/24/19 11:53	250	250	U.S. Environmental Protection Agency - OAQPS		Ethylene Oxide only		Ethylene Oxide only
B9B2705-BLK1	02/25/19 08:00	250	250					
B9B2705-DUP1	02/21/19 09:58	250	250		9022202-18			
B9B2705-DUP2	02/21/19 09:57	250	250		9022202-19			
B9B2705-DUP3	02/22/19 11:15	250	250		9022616-01			
B9B2705-DUP4	02/22/19 11:15	250	250		9022616-02			
B9B2705-DUP5	02/23/19 11:26	250	250		9022616-04			

Spiking Witnessed By/Reviewed By/Approved By Date | Preparation Reviewed By/Approved By 3-5-19 Date | Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET PREPARATION BENCH SHEET PREPA

B9B2705

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **'rinted: 2/27/2019 4:40:41PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
B9B2705-DUP6	02/23/19 11:26	250	250		9022616-05		
B9B2705-DUP7	02/24/19 11:53	250	250		9022616-09		
B9B2705-DUP8	02/24/19 11:53	250	250		9022616-10		

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 2202-18

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA WB Warehouse Duplicate

Canister Number: 5017

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code:

Cleaning Batch # : HZ-560

Collection Date: 2/20/19

Date Can. Cleaned: 2/11/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): Y

TOXICS (Y/N): Y

Duplicate Can # : SAT007

METHANE (Y/N):

Relinquished by: RMB

Date: 2/14/19

Field Setup

Received by: C. Cummings

Date: 2/20/19

Operator: C. Cummings M. Fuoco S. Dutton

MFC Setting:

System #: 10315

Elapsed Timer Reset (Y/N):

Setup Date: 2/20/19

Canister Valve Opened (Y/N): Y @ 9:52 am

Field Initial Can. Press.: ~29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 02/21/19

Sample Duration (3 or 24 hr): 24H

Operator: NW (A)

Elapsed Time: —

Field Final Can. Press.: ~6 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 9:58 am

Relinquished by: Fuoco

Date: 02/21/19

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: 02/21/19: Leak Check 28.9 @ 9:45am ; 28 @ 9:50 am
Temp 31°F
02/21/19: Temp 30°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9022202-19

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Warehouse

Canister Number: SAT007

City/State: Willowbrook IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code:

Cleaning Batch # : H1-560

Collection Date: 2/20/19 - 2/21/19

Date Can. Cleaned: 2/11/19

Options:

SNMOC (Y/N): —

Duplicate Event (Y/N): Y

TOXICS (Y/N): Y

Duplicate Can # : 217

METHANE (Y/N):

Relinquished by: RWB

Date: 2/14/19

Field Setup

Received by: MFuzo

Date: 02/20/19

Operator: Fuzo

MFC Setting:

System #: MFC # 10314

Elapsed Timer Reset (Y/N):

Setup Date: 02/20/19

Canister Valve Opened (Y/N): Y @ 9:45am

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: NL-117

Elapsed Time: —

Field Final Can. Press.: -5.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 9:57am

Relinquished by: NL/A

Date: 2/21/19

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: 02/20/19: Temp. 31°F
Leak check @ 1:13 AM -29.9 "Hg : -29.1 @ 9:48am
02/21/19. Temp:
Online pick up
Ambient Temp @ calibration = 32°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

3

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9022616-01

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA William B Rice Wilmington
City/State: Wilmington PA
AQS Code:
Collection Date: 2/21/19
Options:
SNMOC (Y/N):
TOXICS (Y/N): Y
METHANE (Y/N):
Relinquished by: RWB
Date: 2/13/19

Canister Number: SAT178
Lab Initial Can. Press. ("Hg): 29.7
Cleaning Batch # : H1-558
Date Can. Cleaned: 2/7/19
Duplicate Event (Y/N): Y
Duplicate Can # : 5TC9

Field Setup

Received by: NWIA
Date: 2/21/19
Operator:
System #: 10314
Setup Date: 2/21/19
Field Initial Can. Press.: — psig psia "Hg (Circle one)

MFC Setting: —
Elapsed Timer Reset (Y/N): —
Canister Valve Opened (Y/N): Y @ [illegible]

Field Recovery

Recovery Date: 02/22/19
Operator: NWIA
Field Final Can. Press.: — psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Relinquished by: [illegible]
Date: 2/22/19

Sample Duration (3 or 24 hr): 24
Elapsed Time:
Canister Valve Closed (Y/N): Y 11:15 AM

Lab Recovery

Received by: NC
Date: 2/26/19
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 @ 11:46 AM -29.5 @ 11:51 AM
Ambient temperature @ display = 33°F
" " @ calibration = 35°F

EL 02/22/19

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.

ERG Lab ID # 9022616-02

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: [illegible] - DUPLICATE

Canister Number: 5009

City/State:

Lab Initial Can. Press. ("Hg): 29.7

AQS Code:

Cleaning Batch # : H1-558

Collection Date:

Date Can. Cleaned: 2/7/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): Y

TOXICS (Y/N):

Duplicate Can # : SAT178

METHANE (Y/N):

Relinquished by: RUB

Date: 2/13/19

Field Setup

Received by:

Date:

Operator:

MFC Setting:

System #: 1C315

Elapsed Timer Reset (Y/N):

Setup Date:

Canister Valve Opened (Y/N): Y 11:30 AM

Field Initial Can. Press.: -29.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/22/19

Sample Duration (3 or 24 hr): 24

Operator: N.A.

Elapsed Time:

Field Final Can. Press.: -7 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y 11:15 AM

Relinquished by: DERISIO

Date: ~~2/22/19~~ 2/22/19

Lab Recovery

Received by: NC

Date: 2/26/19

Lab Final Can. Press.: 6.00 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: [illegible] -29 [illegible] 11:15 [illegible] 11:30 AM

temp @ collection 38°F

SA 2/22/19

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Eastern Research Group, Inc.

ERG Lab ID # 9022616-03

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: [illegible]

Canister Number: A21106

City/State: [illegible]

Lab Initial Can. Press. ("Hg): 29.7

AQS Code:

Cleaning Batch # : H1-558

Collection Date: [illegible]

Date Can. Cleaned: 2/7/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N):

TOXICS (Y/N):

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RHB

Date: 2/13/19

Field Setup

Received by: [illegible]

Date: [illegible]

Operator: [illegible]

MFC Setting:

System #: [illegible]

Elapsed Timer Reset (Y/N):

Setup Date: [illegible]

Canister Valve Opened (Y/N): Y 1113am

Field Initial Can. Press.: -29.9 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/22/19

Sample Duration (3 or 24 hr): 24

Operator: NWA

Elapsed Time: —

Field Final Can. Press.: -3 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y 1121AM

Relinquished by: NWA

Date: 2/22/19

Lab Recovery

Received by: M

Date: 2/26/19

Lab Final Can. Press.: 2.00 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: [illegible]

[illegible] -29 [illegible] 1126 [illegible] 5" @ 1113am

temp @ collection = 33°F

[illegible] 02/22/19

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9022616-04

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WDVILLAGE HALL
Canister Number: A21099
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code: —
Cleaning Batch # : H1-558
Collection Date: 2/22/19
Date Can. Cleaned: 2/7/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N Yes
TOXICS (Y/N): Y
Duplicate Can # : 5053
METHANE (Y/N):
Relinquished by: RJB
Date: 2/13/19

Field Setup

Received by: NWIA
Date: 2/22/19
Operator: NWIA
MFC Setting: —
System #: 10314
Elapsed Timer Reset (Y/N): —
Setup Date: 2/22/19
Canister Valve Opened (Y/N): Y @ 12:16 pm
Field Initial Can. Press : -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/23/19
Sample Duration (3 or 24 hr): 24
Operator: Cummings/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 @ 11:26
Relinquished by: C. Cummings
Date: 2/23/19

Lab Recovery

Received by: NL
Date: 2/26/19
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" @ 11:59 am (FAILED) / -28 @ 12:04 / @ 12:04 pm -30" / -24 @ 12:11 pm
temp @ deploy ~ 38°F
" " collection ~ 37°F rain
2/23/19

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

7

ERG Eastern Research Group, Inc.

ERG Lab ID # 9022616-05

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WBVILLAGE HALL - DUPLICATE

Canister Number: 5053

City/State: WILLOW BROOK, IL

Lab Initial Can. Press. ("Hg): 29.7

AQS Code: —

Cleaning Batch # : H1-558

Collection Date: 2/22/19

Date Can. Cleaned: 2/7/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): Y Yes

TOXICS (Y/N): Y

Duplicate Can # : ~~896~~ A21099

METHANE (Y/N):

Relinquished by: RMB

Date: 2/13/19

Field Setup

Received by: NWJA

Date: 2/22/19

Operator: NWJA

MFC Setting: —

System #: 10315

Elapsed Timer Reset (Y/N): —

Setup Date: 2/22/19

Canister Valve Opened (Y/N): Y @ 12:12 pm

Field Initial Can. Press.: -29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/23/19

Sample Duration (3 or 24 hr): 24

Operator: Cummings/Nwa

Elapsed Time:

Field Final Can. Press.: -8 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 11:26

Relinquished by: Cummings

Date: 2/23/19

Lab Recovery

Received by: M

Date: 2/26/19

Lab Final Can. Press.: 7.00 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: -29.5" @ 11:59am / -29 @ 12:04 // -29.5 @ 12:08pm // -29" @ 12:12 pm

Temp @ display = 37°F

" " Outdoor = 37°F, rain

2/23/19

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9022616246

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: ~~NB Village Hall~~ NB WAREHOUSE 2/23/19
Canister Number: 096
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code:
Cleaning Batch # : H2-557
Collection Date: 2/22/19
Date Can. Cleaned: 2/6/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): X no
TOXICS (Y/N): Y
Duplicate Can # : ~~5283~~ 3-5-19
METHANE (Y/N):
Relinquished by: DLB
Date: 2/13/19

Field Setup

Received by: NWIA
Date: 2/22/19
Operator: NWIA
MFC Setting: —
System #: 10313
Elapsed Timer Reset (Y/N): —
Setup Date: 2/22/19
Canister Valve Opened (Y/N): 11:54am
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/23/19
Sample Duration (3 or 24 hr): 24
Operator: Cummings/NWIA
Elapsed Time:
Field Final Can. Press.: -6 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): 11:36
Relinquished by: Cummings
Date: 2/23/19

Lab Recovery

Received by: [illegible]
Date: 2/26/19
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: JLS Sample valid. P difference < 3* "Hg from field JLS

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -29" @ 11:48am / -29" 11:54am
Temp @ display = 38°F
" " outside = 37°F, rain

CEC 2/22/19

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9022616-09

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: EPA WB Warehouse
Canister Number: 5067
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H2-562
Collection Date: 2/23/19
Date Can. Cleaned: 2/14/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): y
TOXICS (Y/N): y
Duplicate Can # : 7775
METHANE (Y/N):
Relinquished by: MR
Date: 2/20/19

Field Setup

Received by: C Cummings
Date: 2/23/19.
Operator: Cummings/Nunez
MFC Setting:
System #: ~~10314~~ CEC 2/24/19 10313
Elapsed Timer Reset (Y/N): —
Setup Date: 2/23/19
Canister Valve Opened (Y/N): y @ 11:49 AM
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/24/19
Sample Duration (3 or 24 hr): 24
Operator: C Cummings/N/A
Elapsed Time: —
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): y @ 11:53 AM
Relinquished by: C Cummings
Date: 2/24/19

Lab Recovery

Received by: M
Date: 2/26/19
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 -28 @ 11:41 am restarted -29 @ 11:43 → -29 @ 11:48
Field Setup 37°F rain
Field Recovery: 28°F, windy
↳ System # 10313 used instead of 10314
~~2/24/19~~

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

-26-10

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 902261 6-10

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA WA Wrecking Depot

Canister Number: 775

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.7

AQS Code:

Cleaning Batch # : H2-557

Collection Date: 2/13/19

Date Can. Cleaned: 2/6/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): Y

TOXICS (Y/N): Y

Duplicate Can # : 5067

METHANE (Y/N):

Relinquished by: RMB

Date: 2/13/19

Field Setup

Received by: C Cummings

Date: 2/13/19

Operator: Cummings/Nash

MFC Setting:

System #: 1015

Elapsed Timer Reset (Y/N):

Setup Date: 2/13/19

Canister Valve Opened (Y/N): Y 11:52 AM

Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 2/14/19

Sample Duration (3 or 24 hr): 24

Operator: Nash Cummings

Elapsed Time:

Field Final Can. Press.: -6 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y 11:53 AM

Relinquished by: C Cummings

Date: 2/14/19

Lab Recovery

Received by: NL

Date: 2/26/19

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: -28"Hg @11:41am Restarted -29 @ 11:43 → -29 @ 11:48

Field Setup: 55°F Cloudy

Field Recovery: 28°F Wind

2/14/19

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy