2018 ETHYLENE OXIDE MS1 MDL Study

File ID	L18AL004	L18AL005	L18AL006	L18AL007	L18AL008	L18AL009	L18AL010	L18AL011	L18AL012	L18AL013				
Name	**MDL1**	**MDL2**	**MDL3**	**MDL4**	**MDL5**	**MDL6**	**MDL7**	**MDL8**	**MDL9**	**MDL10**	**Mean**	**SDEV**	**%RSD**	**% Recovery**
Ethylene Oxide	0.1338	0.1285	0.1444	0.1283	0.1077	0.107	0.0942	0.1012	0.1153	0.127	0.1187	0.0161	13.5	118.7

Student t-Factor (10)	MDL MS1	Conc. (ppbc)	Elution order
2.821	**0.04531**	0.100	1

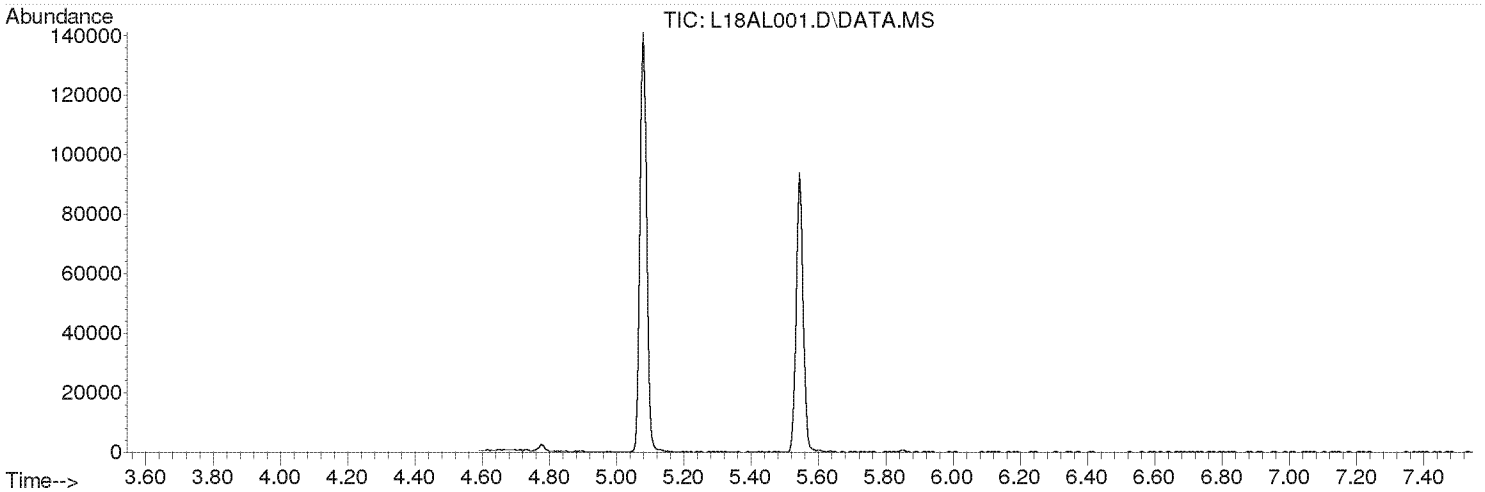
	ROUNDED TO 3 SIG FIGS **2018 ETOX MDL MS1** ***ppbc***
Ethylene Oxide	0.0453

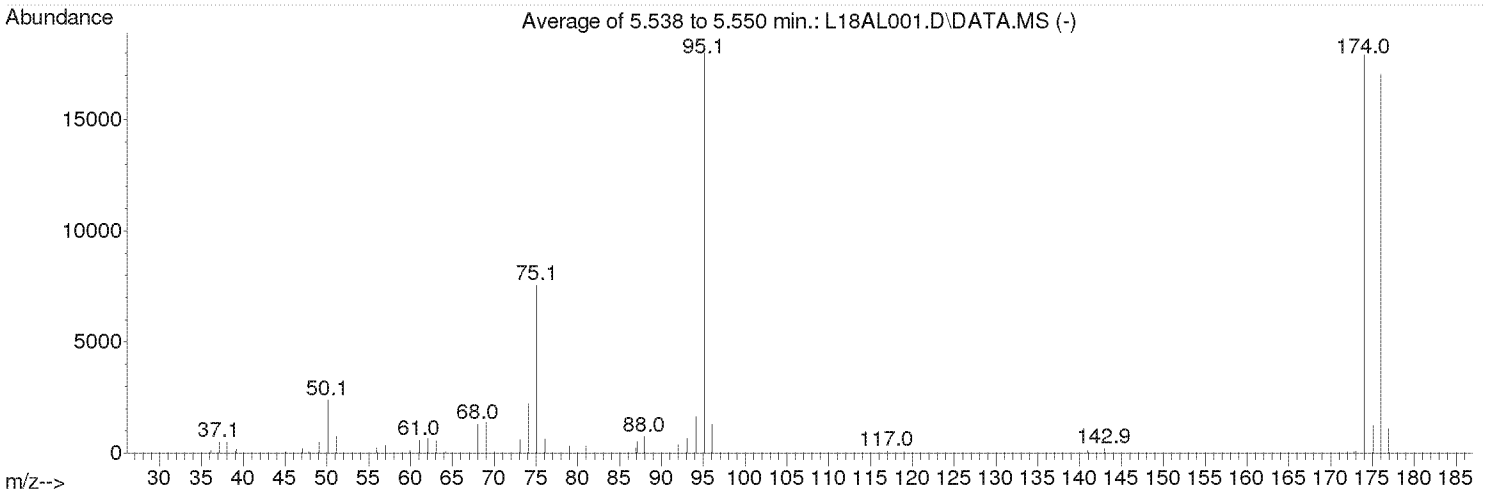
L:\Julie\1-2018\nwia sieffert - EtO\8aug 18\mdl data package\2018 ETHYLENE OXIDE MS1 MDL Study.xlsx

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL001.D
Acq On : 13 Jan 2018 2:33 am
Operator : MAH
Sample : BFB
Misc : 80ML IS 7C09007
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : Y:\MASS SPEC 1 DATA\AIR_METHODS MS1\ETOX_01.M
Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 16 10:06:46 2018





Spectrum Information: Average of 5.538 to 5.550 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.1	2361	PASS
75	95	30	66	41.8	7520	PASS
95	95	100	100	100.0	17971	PASS
96	95	5	9	7.0	1255	PASS
173	174	0.00	2	0.3	45	PASS
174	95	50	120	99.6	17904	PASS
175	174	4	9	6.8	1214	PASS
176	174	93	101	95.1	17026	PASS
177	176	5	9	6.4	1090	PASS

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL004.D
Acq On : 13 Jan 2018 5:27 am
Operator : MAH
Sample : ETOX MDL# 1
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 16 11:14:58 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.076	66	38707	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.239	114	111393	4.9300 ppbv	0.00
43) IS-Chlorobenzene-d5	30.226	117	83370	4.7000 ppbv	0.02

System Monitoring Compounds

Target Compounds					Qvalue
9) Ethylene Oxide	12.564	29	197m	0.1338 ppbv	

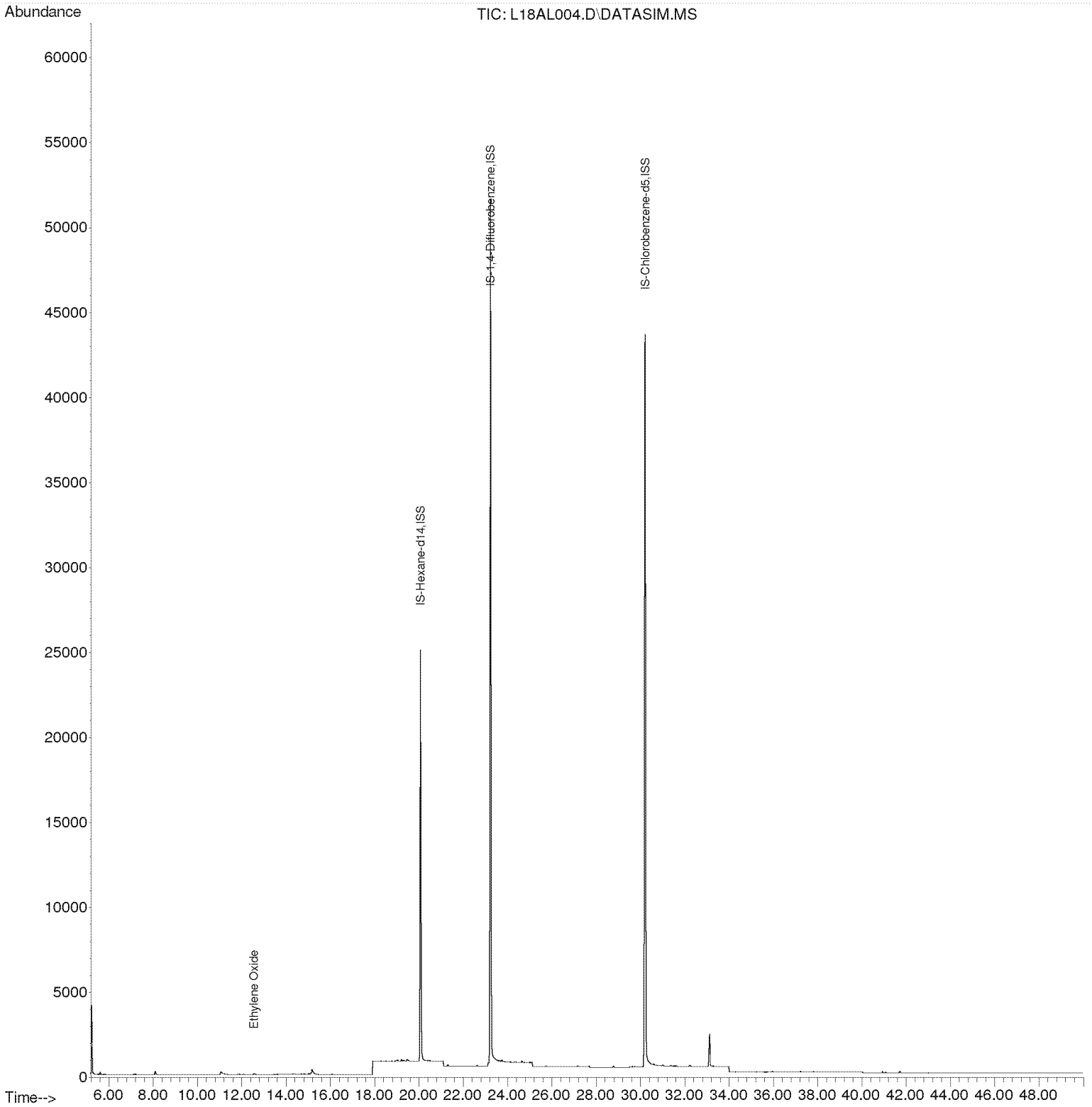
(#) = qualifier out of range (m) = manual integration (+) = signals summed

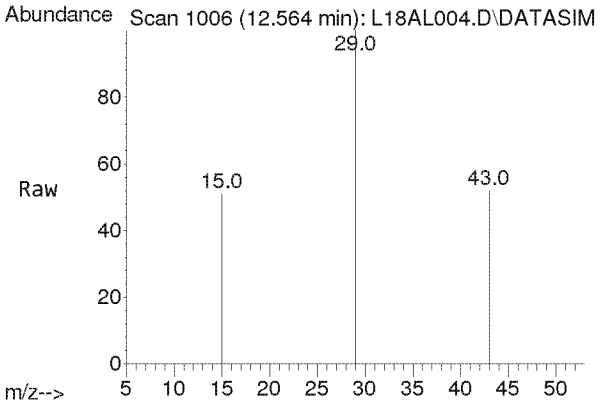
ED_002475_00000168-00003

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL004.D
Acq On : 13 Jan 2018 5:27 am
Operator : MAH
Sample : ETOX MDL# 1
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 16 11:14:58 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

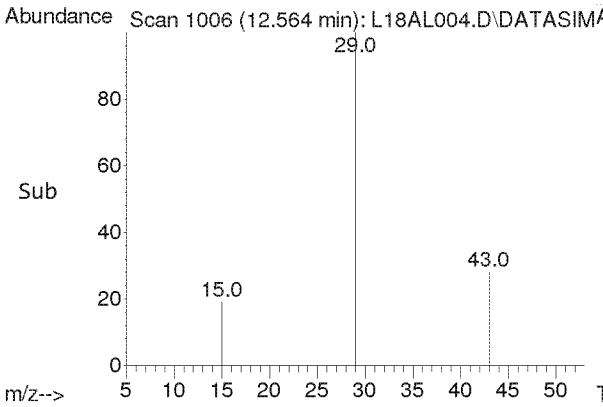


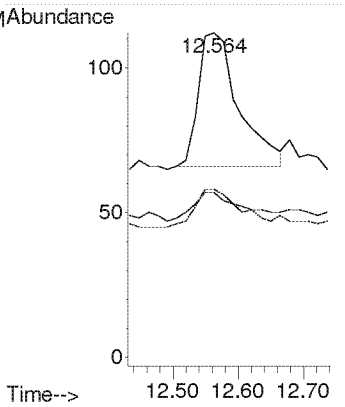


#9
Ethylene Oxide
Concen: 0.134 ppbv m
RT: 12.564 min Scan# 1006
Delta R.T. -0.003 min
Lab File: L18AL004.D
Acq: 13 Jan 2018 5:27 am

Tgt Ion: 29 Resp: 197

Ion	Ratio	Lower	Upper
29	100		
15	39.1	0.0	0.0#
43	37.1	0.0	0.0#





Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL005.D
Acq On : 13 Jan 2018 6:29 am
Operator : MAH
Sample : ETOX MDL# 2
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 16 11:15:32 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.076	66	38896	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.240	114	109227	4.9300 ppbv	0.00
43) IS-Chlorobenzene-d5	30.208	117	82882	4.7000 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
9) Ethylene Oxide	12.563	29	190m	0.1285 ppbv	

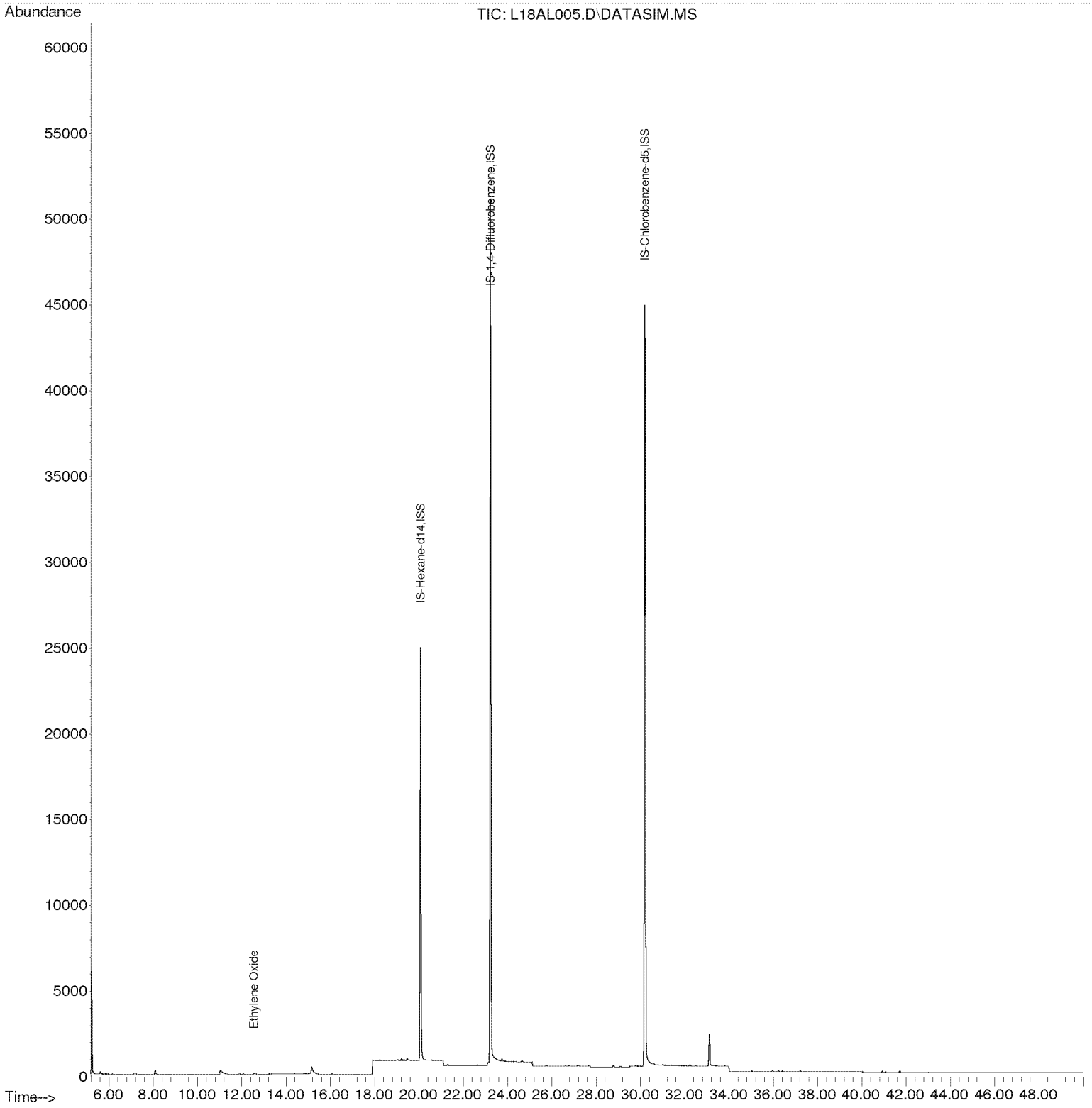
(#) = qualifier out of range (m) = manual integration (+) = signals summed

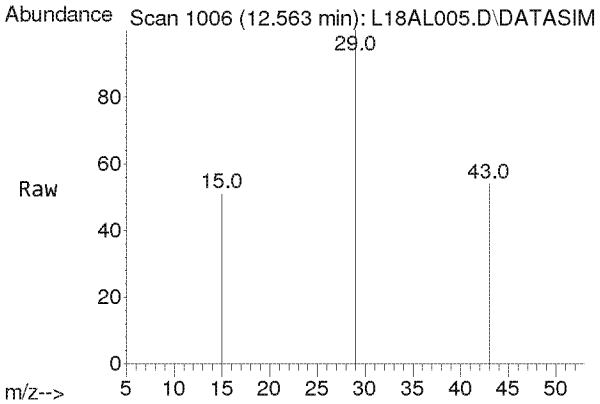
ED_002475_00000168-00006

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL005.D
Acq On : 13 Jan 2018 6:29 am
Operator : MAH
Sample : ETOX MDL# 2
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 16 11:15:32 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

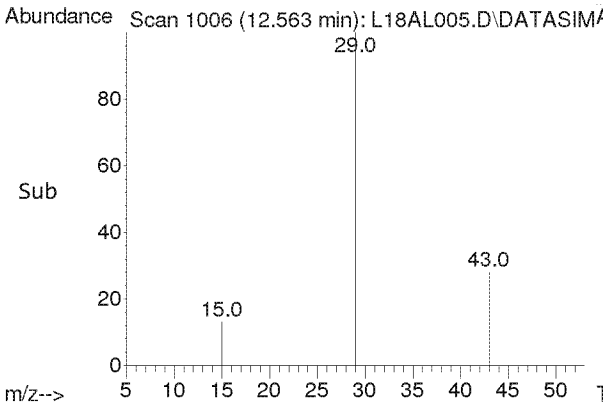


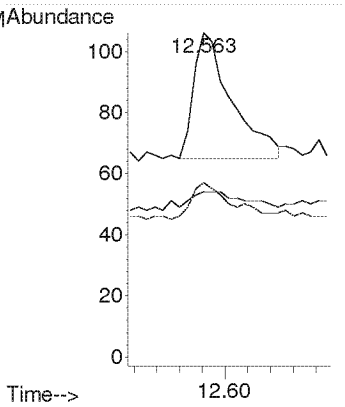


#9
Ethylene Oxide
Concen: 0.128 ppbv m
RT: 12.563 min Scan# 1006
Delta R.T. -0.004 min
Lab File: L18AL005.D
Acq: 13 Jan 2018 6:29 am

Tgt Ion: 29 Resp: 190

Ion	Ratio	Lower	Upper
29	100		
15	23.2	0.0	0.0#
43	36.3	0.0	0.0#





Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL006.D
Acq On : 13 Jan 2018 7:31 am
Operator : MAH
Sample : ETOX MDL# 3
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 16 11:16:03 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.090	66	37873	4.8000 ppbv	0.01
29) IS-1,4-Difluorobenzene	23.255	114	107135	4.9300 ppbv	0.01
43) IS-Chlorobenzene-d5	30.220	117	79548	4.7000 ppbv	0.01

System Monitoring Compounds

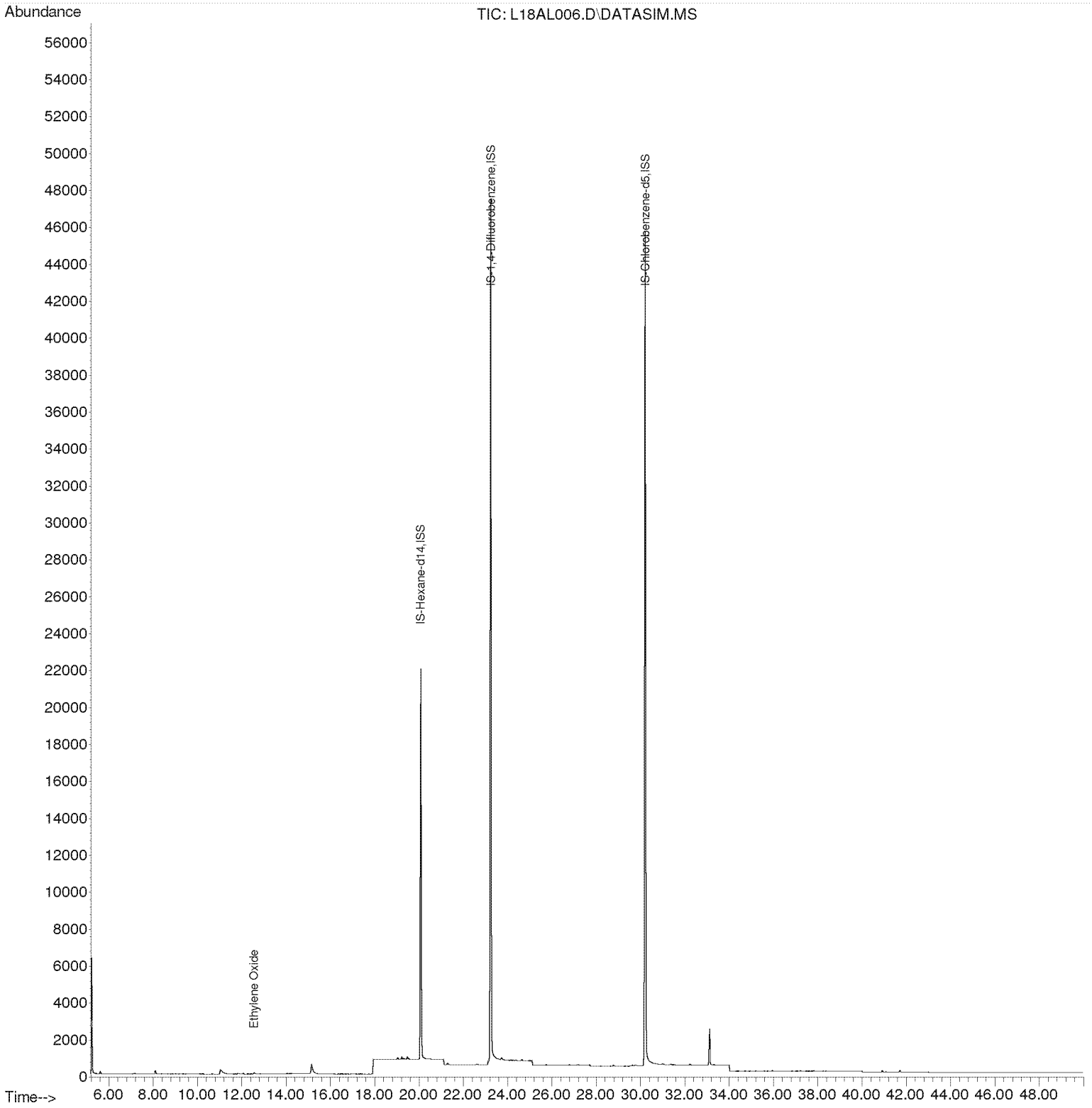
Target Compounds					Qvalue
9) Ethylene Oxide	12.563	29	208m	0.1444 ppbv	

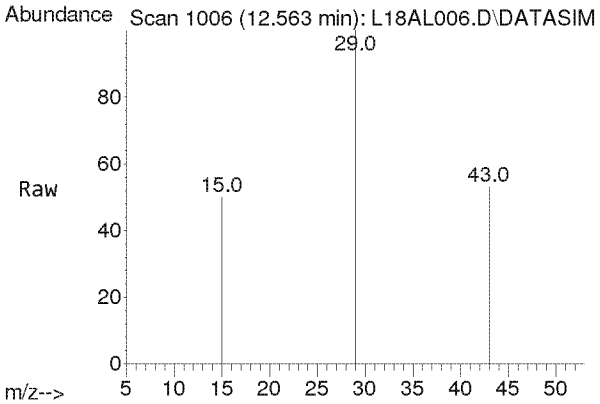
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL006.D
Acq On : 13 Jan 2018 7:31 am
Operator : MAH
Sample : ETOX MDL# 3
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 16 11:16:03 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

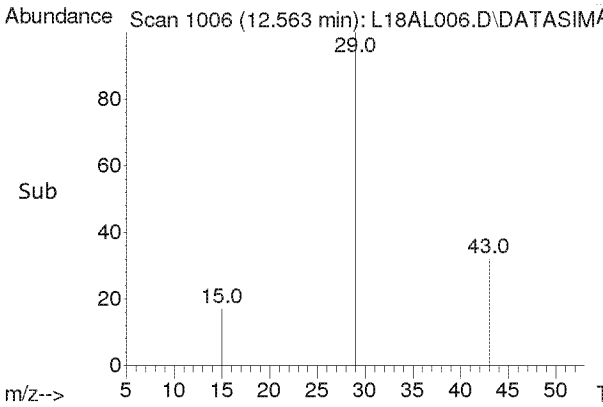


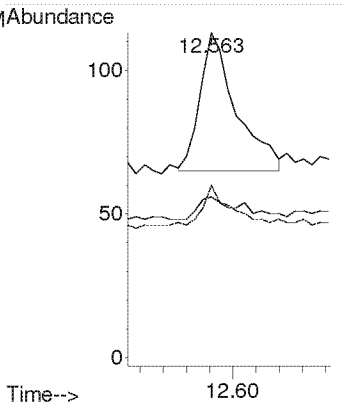


#9
Ethylene Oxide
Concen: 0.144 ppbv m
RT: 12.563 min Scan# 1006
Delta R.T. -0.004 min
Lab File: L18AL006.D
Acq: 13 Jan 2018 7:31 am

Tgt Ion: 29 Resp: 208

Ion	Ratio	Lower	Upper
29	100		
15	29.3	0.0	0.0#
43	24.5	0.0	0.0#





Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL007.D
Acq On : 13 Jan 2018 8:33 am
Operator : MAH
Sample : ETOX MDL# 4
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 16 11:16:24 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.076	66	38952	4.8000 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.239	114	108499	4.9300 ppbv	0.00
43) IS-Chlorobenzene-d5	30.226	117	81568	4.7000 ppbv	0.02

System Monitoring Compounds

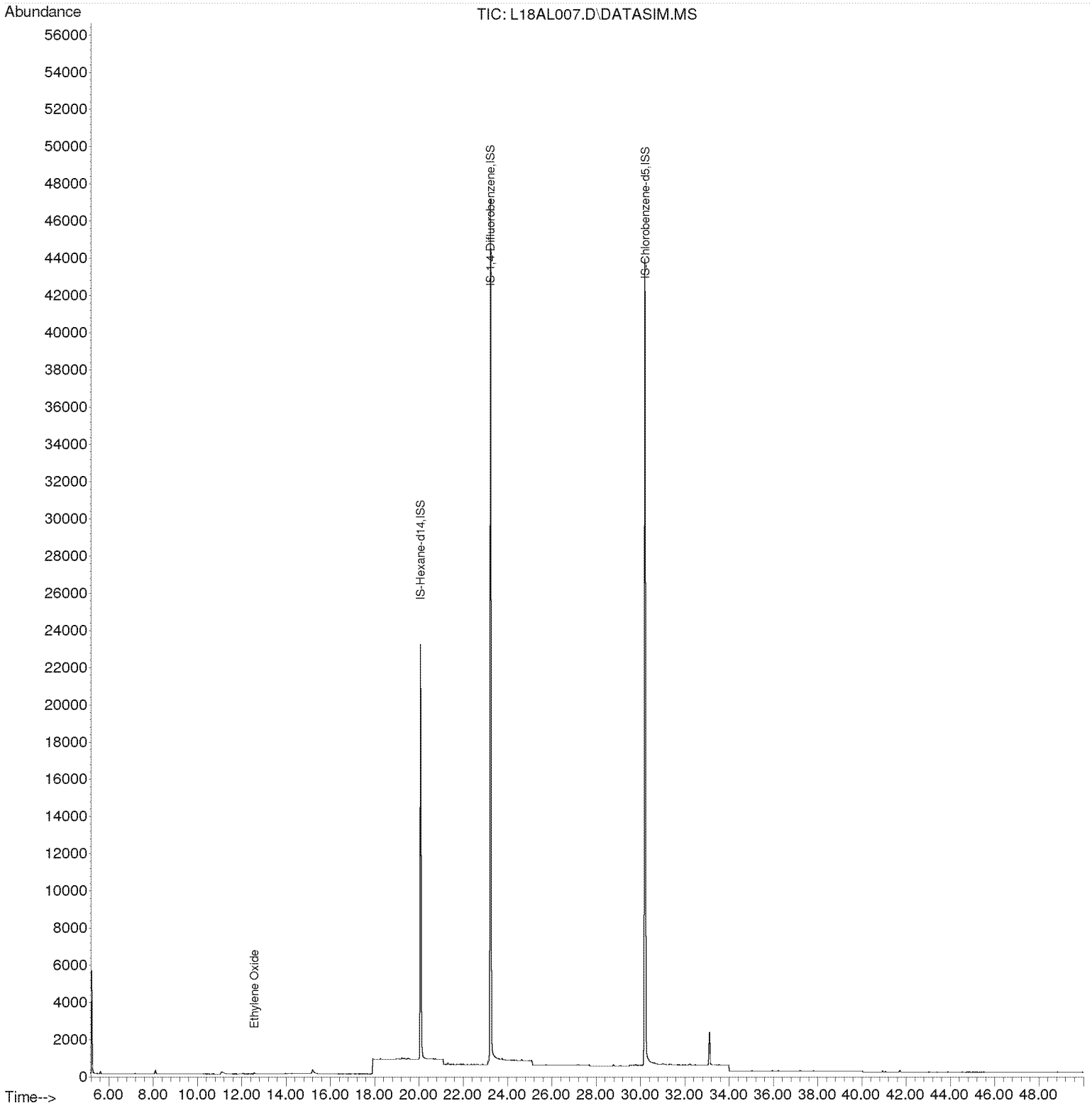
Target Compounds					Qvalue
9) Ethylene Oxide	12.578	29	190m	0.1283 ppbv	

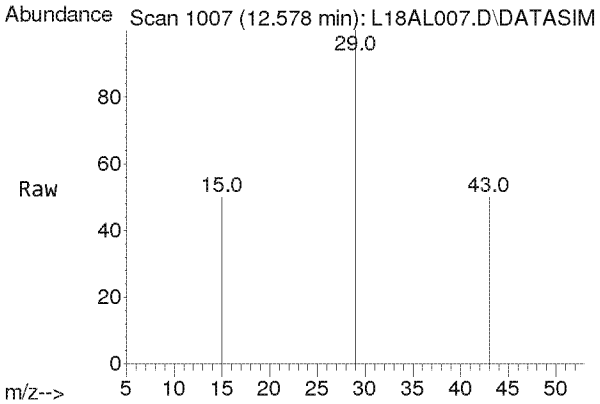
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL007.D
Acq On : 13 Jan 2018 8:33 am
Operator : MAH
Sample : ETOX MDL# 4
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 16 11:16:24 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

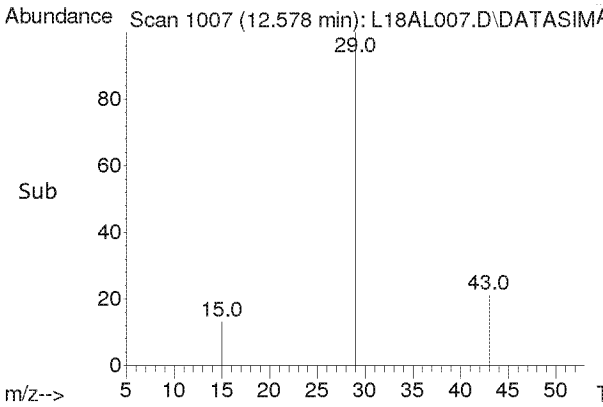


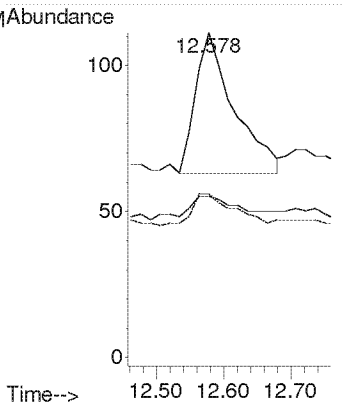


#9
Ethylene Oxide
Concen: 0.128 ppbv m
RT: 12.578 min Scan# 1007
Delta R.T. 0.011 min
Lab File: L18AL007.D
Acq: 13 Jan 2018 8:33 am

Tgt Ion: 29 Resp: 190

Ion	Ratio	Lower	Upper
29	100		
15	37.4	0.0	0.0#
43	30.5	0.0	0.0#





Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL008.D
Acq On : 13 Jan 2018 9:35 am
Operator : MAH
Sample : ETOX MDL# 5
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 16 11:16:51 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.091	66	38087	4.8000 ppbv	0.01
29) IS-1,4-Difluorobenzene	23.255	114	110154	4.9300 ppbv	0.01
43) IS-Chlorobenzene-d5	30.220	117	84269	4.7000 ppbv	0.01

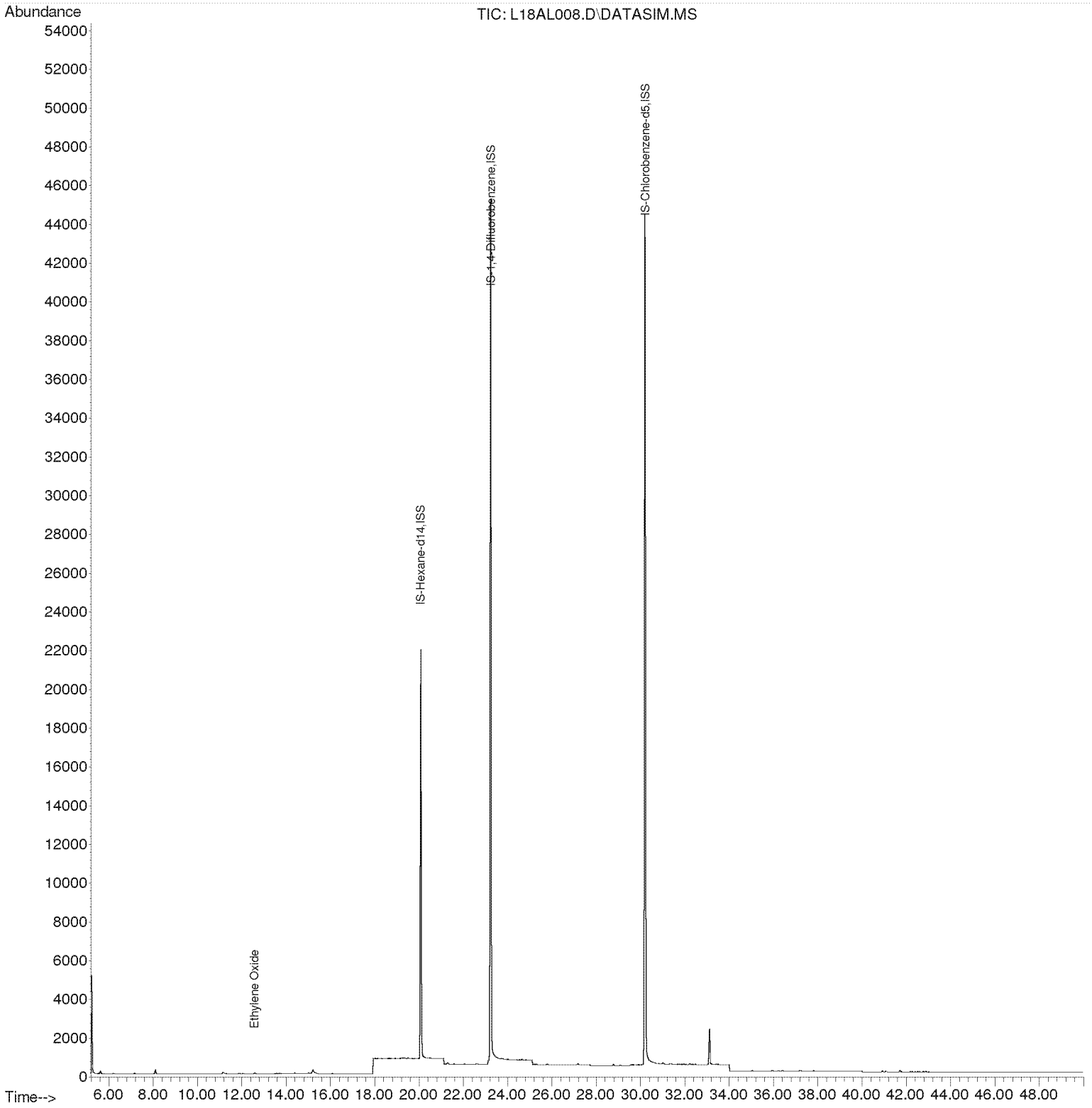
System Monitoring Compounds

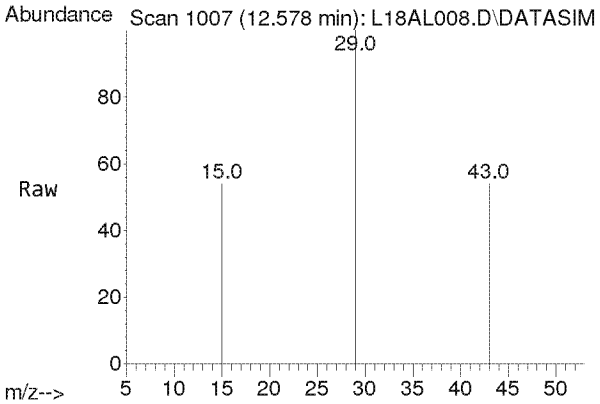
Target Compounds					Qvalue
9) Ethylene Oxide	12.578	29	156m	0.1077 ppbv	

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

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL008.D
Acq On : 13 Jan 2018 9:35 am
Operator : MAH
Sample : ETOX MDL# 5
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 16 11:16:51 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

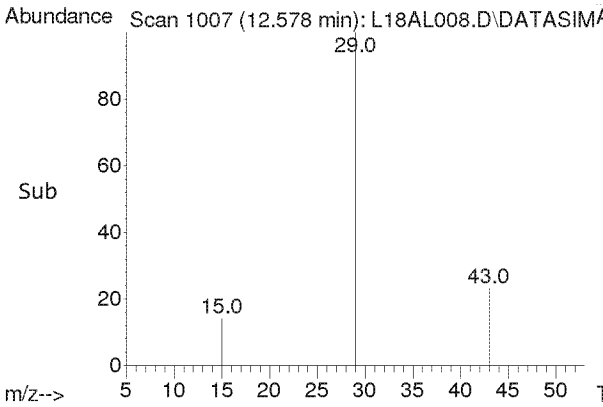


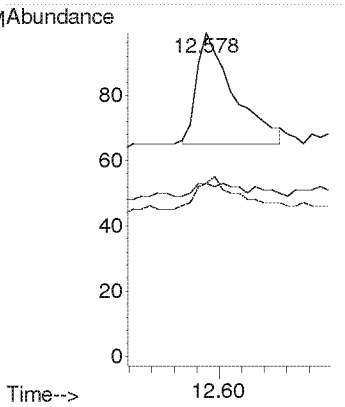


#9
Ethylene Oxide
Concen: 0.108 ppbv m
RT: 12.578 min Scan# 1007
Delta R.T. 0.011 min
Lab File: L18AL008.D
Acq: 13 Jan 2018 9:35 am

Tgt Ion: 29 Resp: 156

Ion	Ratio	Lower	Upper
29	100		
15	0.0	0.0	0.0
43	36.5	0.0	0.0#





Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL009.D
Acq On : 13 Jan 2018 10:37 am
Operator : MAH
Sample : ETOX MDL# 6
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 16 11:17:16 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.090	66	38571	4.8000 ppbv	0.01
29) IS-1,4-Difluorobenzene	23.234	114	108956	4.9300 ppbv	0.00
43) IS-Chlorobenzene-d5	30.201	117	82524	4.7000 ppbv	0.00

System Monitoring Compounds

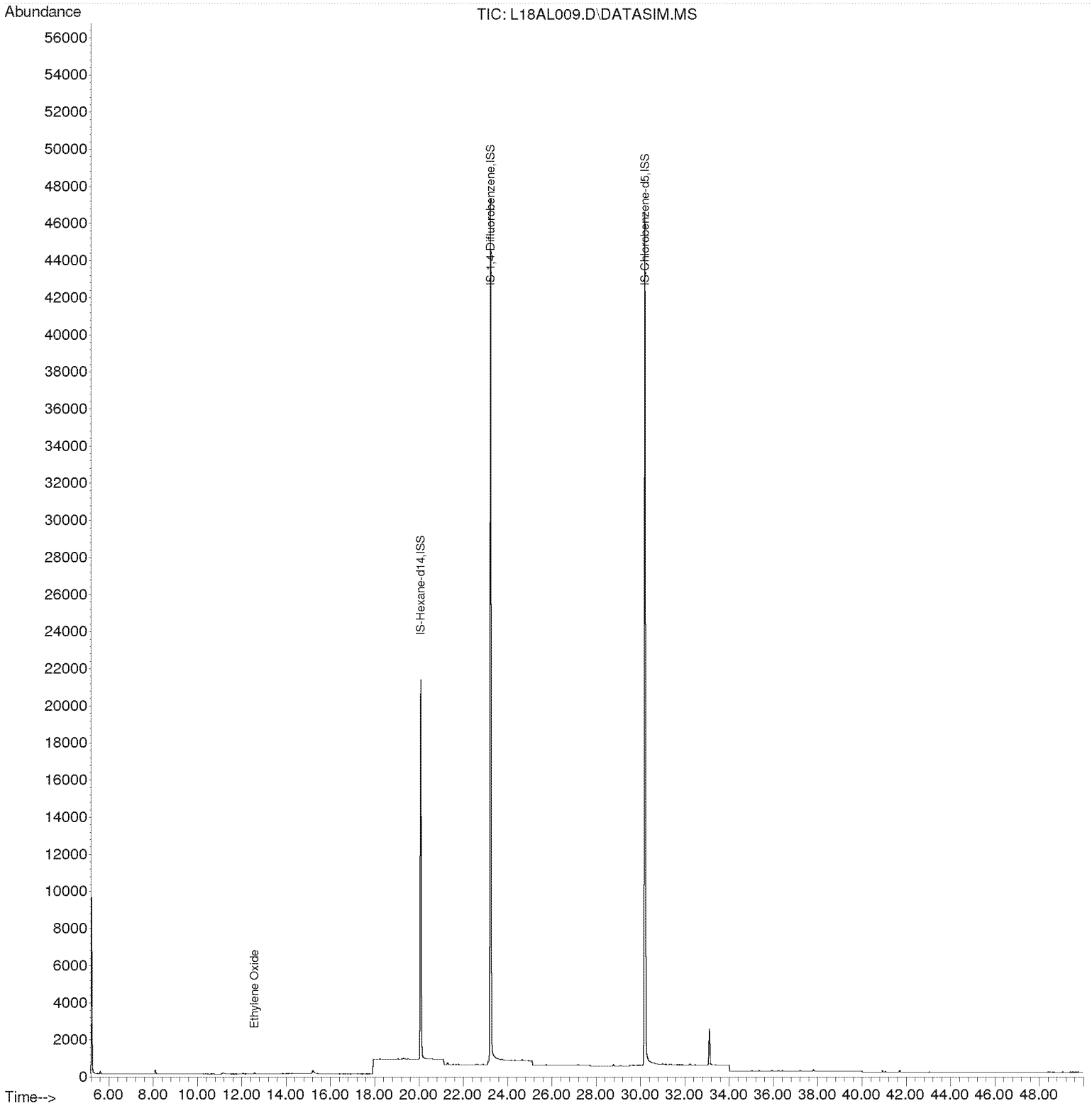
Target Compounds					Qvalue
9) Ethylene Oxide	12.578	29	157m	0.1070 ppbv	

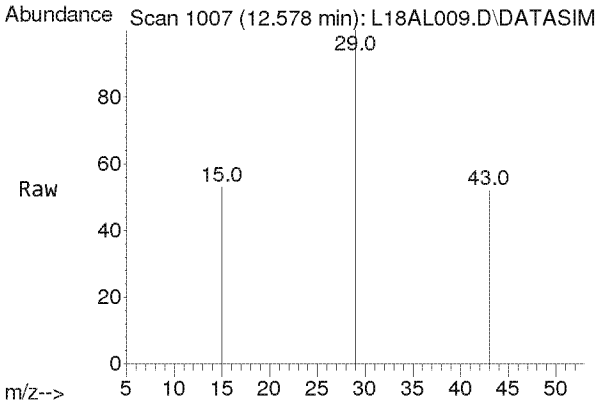
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL009.D
Acq On : 13 Jan 2018 10:37 am
Operator : MAH
Sample : ETOX MDL# 6
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 16 11:17:16 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

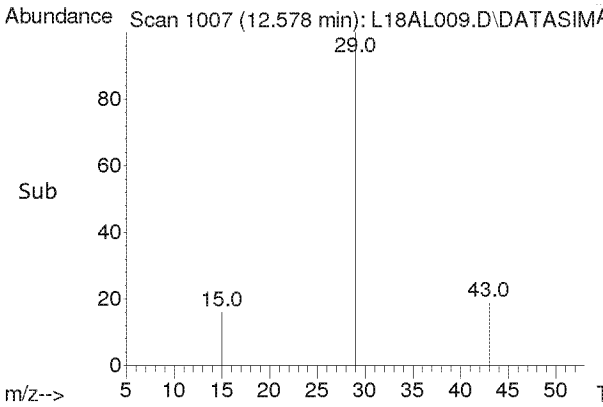


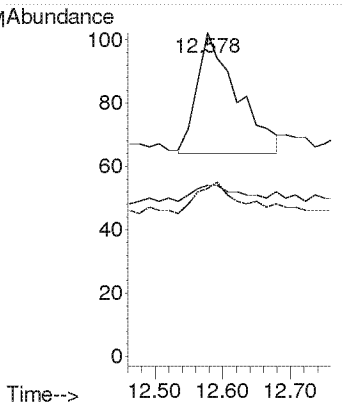


#9
Ethylene Oxide
Concen: 0.107 ppbv m
RT: 12.578 min Scan# 1007
Delta R.T. 0.011 min
Lab File: L18AL009.D
Acq: 13 Jan 2018 10:37 am

Tgt Ion: 29 Resp: 157

Ion	Ratio	Lower	Upper
29	100		
15	0.0	0.0	0.0
43	34.4	0.0	0.0#





Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL010.D
Acq On : 13 Jan 2018 11:40 am
Operator : MAH
Sample : ETOX MDL# 7
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 16 11:17:40 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.090	66	39906	4.8000 ppbv	0.01
29) IS-1,4-Difluorobenzene	23.234	114	115972	4.9300 ppbv	0.00
43) IS-Chlorobenzene-d5	30.200	117	88642	4.7000 ppbv	0.00

System Monitoring Compounds

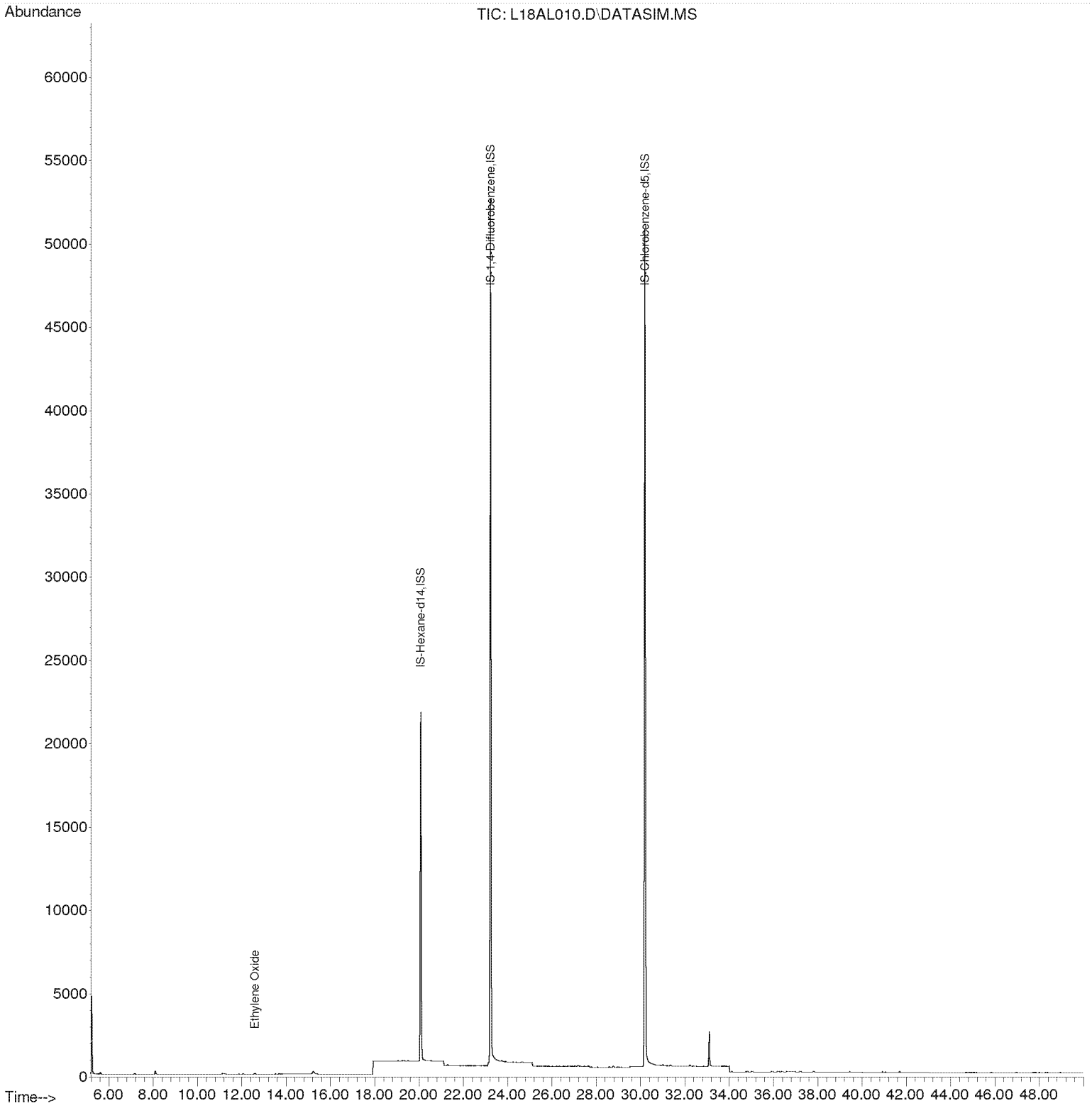
Target Compounds					Qvalue
9) Ethylene Oxide	12.592	29	143m	0.0942 ppbv	

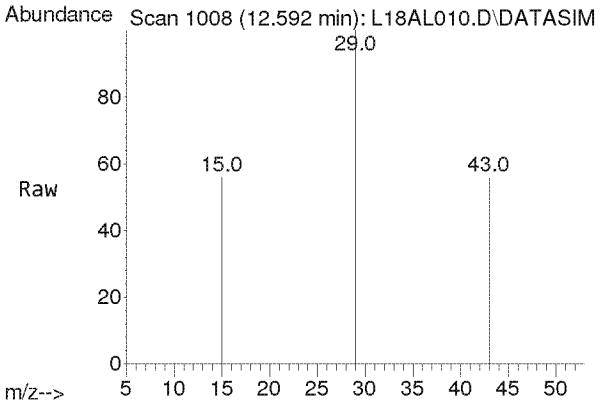
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL010.D
Acq On : 13 Jan 2018 11:40 am
Operator : MAH
Sample : ETOX MDL# 7
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 16 11:17:40 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

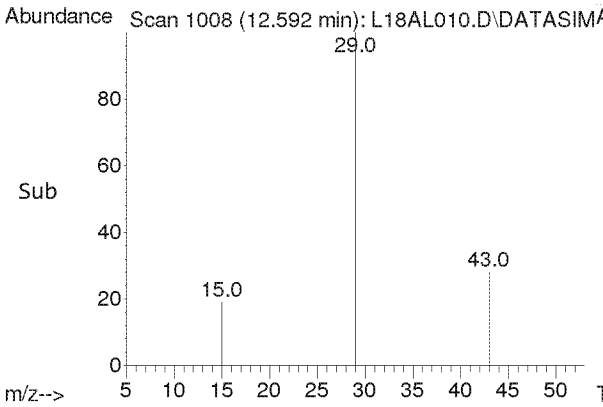


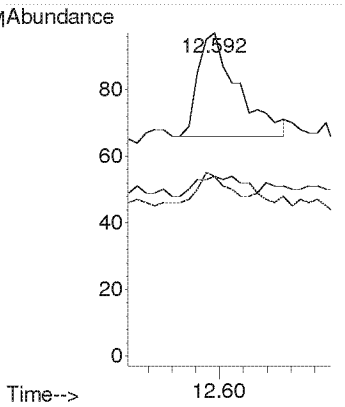


#9
Ethylene Oxide
Concen: 0.094 ppbv m
RT: 12.592 min Scan# 1008
Delta R.T. 0.025 min
Lab File: L18AL010.D
Acq: 13 Jan 2018 11:40 am

Tgt Ion: 29 Resp: 143

Ion	Ratio	Lower	Upper
29	100		
15	23.1	0.0	0.0#
43	33.6	0.0	0.0#





Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL011.D
Acq On : 13 Jan 2018 12:42 pm
Operator : MAH
Sample : ETOX MDL# 8
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 16 11:18:07 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.090	66	37159	4.8000 ppbv	0.01
29) IS-1,4-Difluorobenzene	23.234	114	105658	4.9300 ppbv	0.00
43) IS-Chlorobenzene-d5	30.200	117	81964	4.7000 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
9) Ethylene Oxide	12.592	29	143m	0.1012 ppbv	

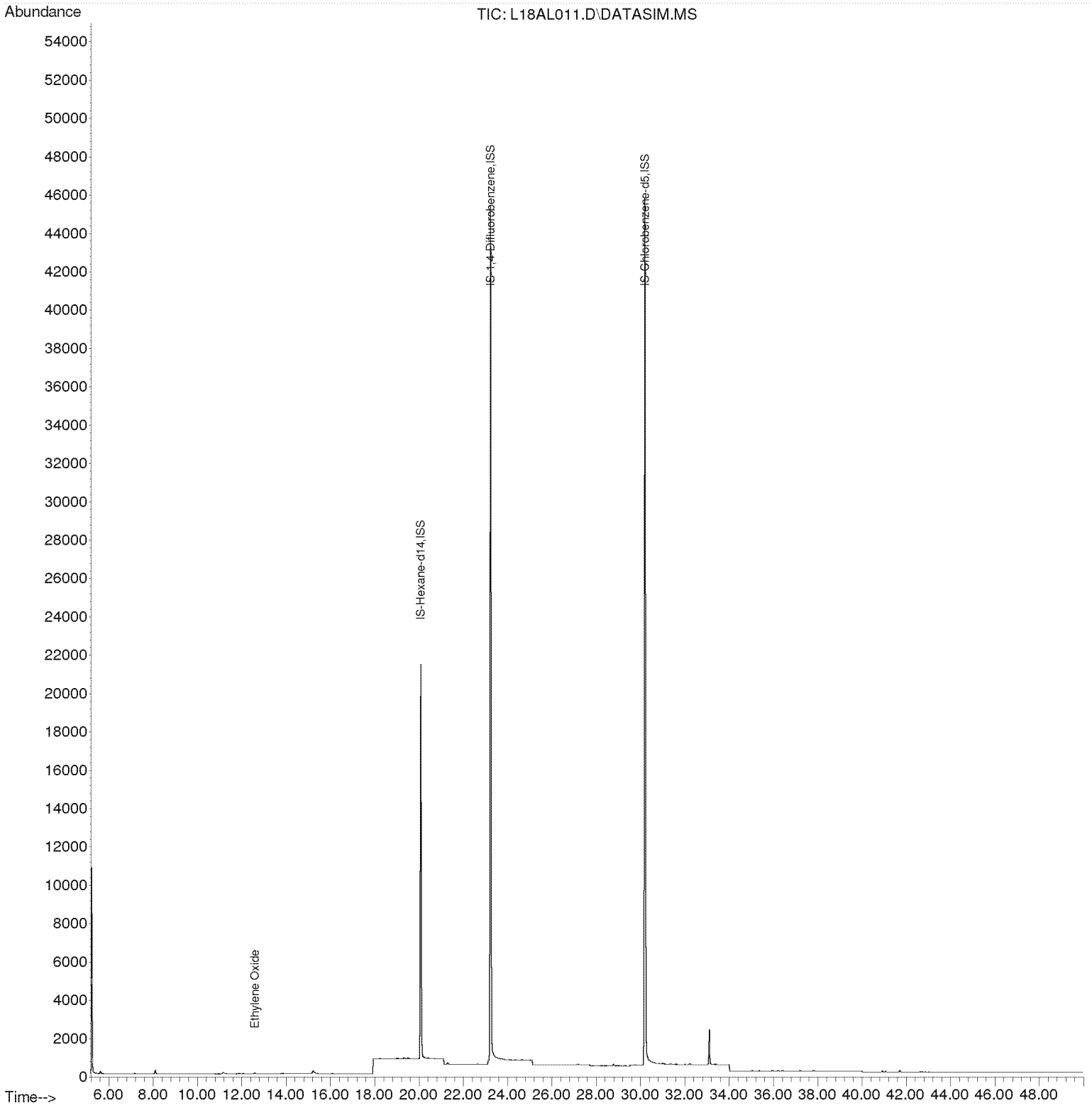
(#) = qualifier out of range (m) = manual integration (+) = signals summed

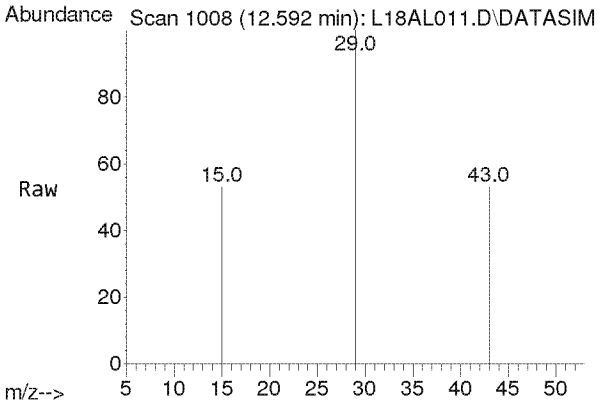
ED_002475_00000168-00024

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL011.D
Acq On : 13 Jan 2018 12:42 pm
Operator : MAH
Sample : ETOX MDL# 8
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 16 11:18:07 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

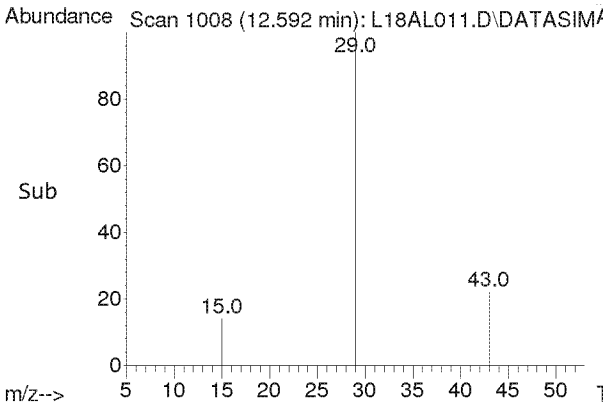


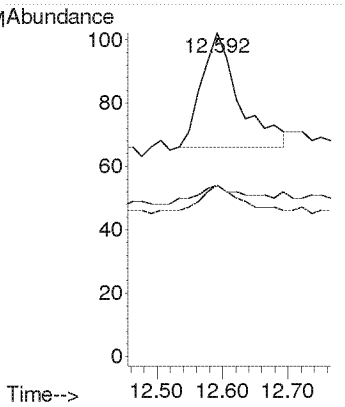


#9
Ethylene Oxide
Concen: 0.101 ppbv m
RT: 12.592 min Scan# 1008
Delta R.T. 0.025 min
Lab File: L18AL011.D
Acq: 13 Jan 2018 12:42 pm

Tgt Ion: 29 Resp: 143

Ion	Ratio	Lower	Upper
29	100		
15	37.1	0.0	0.0#
43	30.8	0.0	0.0#





Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL012.D
Acq On : 13 Jan 2018 1:44 pm
Operator : MAH
Sample : ETOX MDL# 9
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 16 11:18:30 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.090	66	40137	4.8000 ppbv	0.01
29) IS-1,4-Difluorobenzene	23.234	114	115027	4.9300 ppbv	0.00
43) IS-Chlorobenzene-d5	30.201	117	84892	4.7000 ppbv	0.00

System Monitoring Compounds

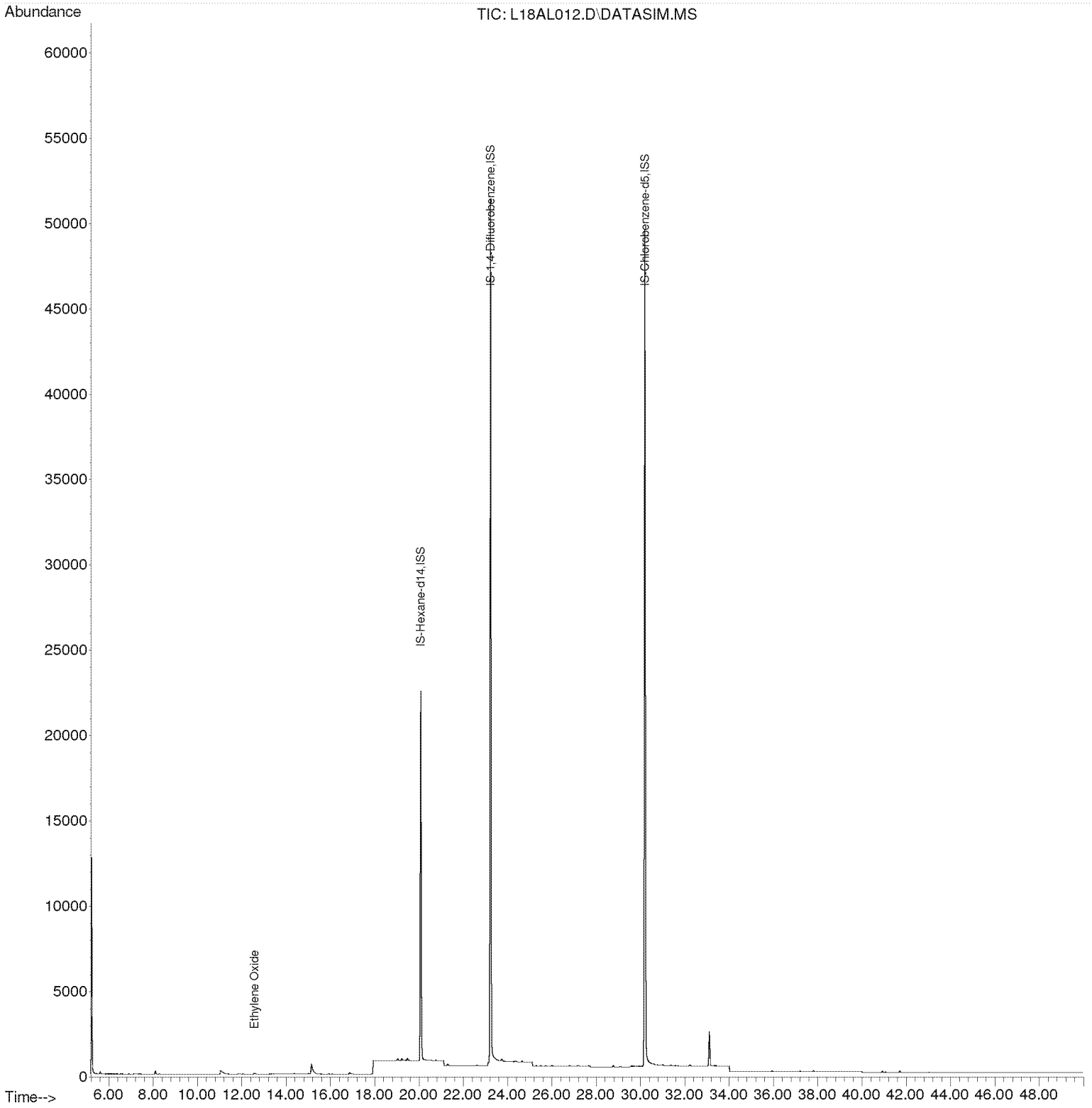
Target Compounds					Qvalue
9) Ethylene Oxide	12.578	29	176m	0.1153 ppbv	

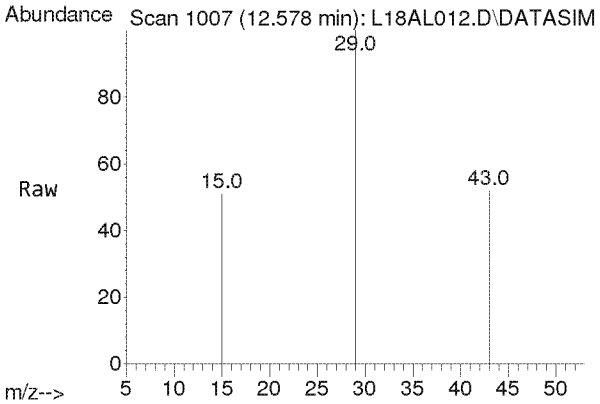
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL012.D
Acq On : 13 Jan 2018 1:44 pm
Operator : MAH
Sample : ETOX MDL# 9
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 16 11:18:30 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

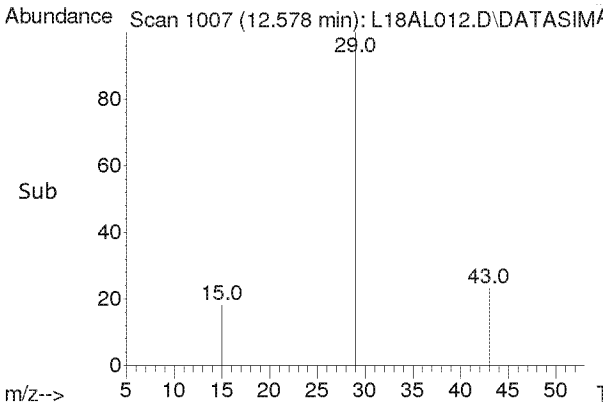


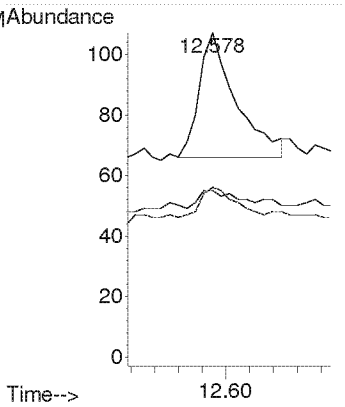


#9
Ethylene Oxide
Concen: 0.115 ppbv m
RT: 12.578 min Scan# 1007
Delta R.T. 0.011 min
Lab File: L18AL012.D
Acq: 13 Jan 2018 1:44 pm

Tgt Ion: 29 Resp: 176

Ion	Ratio	Lower	Upper
29	100		
15	26.1	0.0	0.0#
43	27.3	0.0	0.0#





Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL013.D
Acq On : 13 Jan 2018 2:46 pm
Operator : MAH
Sample : ETOX MDL# 10
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 16 11:19:30 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	20.090	66	36245	4.8000 ppbv	0.01
29) IS-1,4-Difluorobenzene	23.234	114	100947	4.9300 ppbv	0.00
43) IS-Chlorobenzene-d5	30.200	117	82062	4.7000 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
9) Ethylene Oxide	12.578	29	175m	0.1270 ppbv	

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

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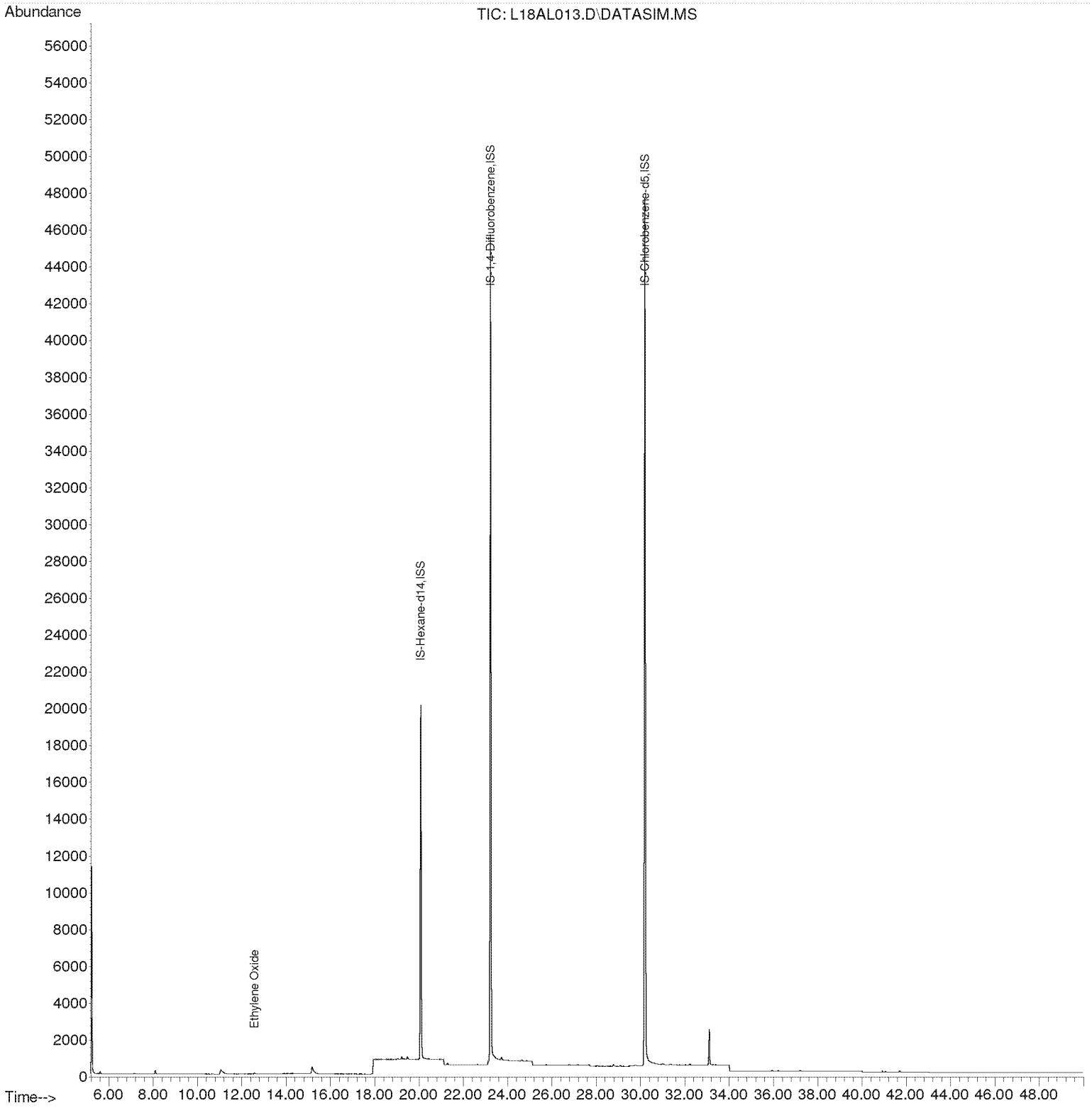
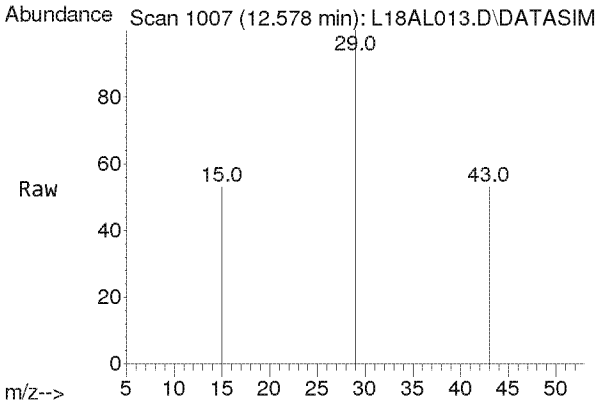
Quantitation Report (QT Reviewed)

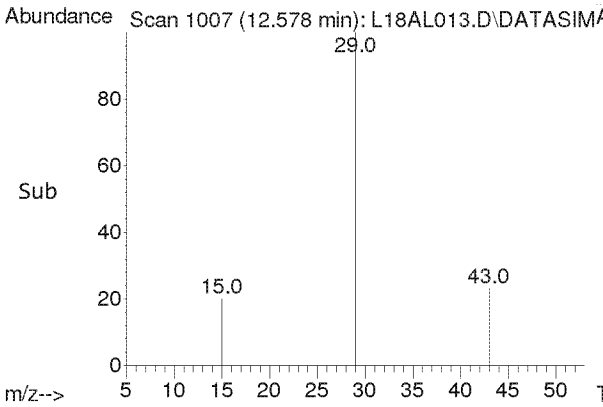
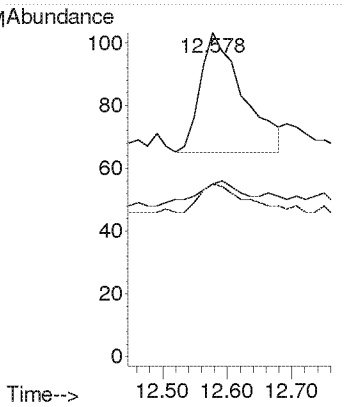
Data Path : Y:\MASS SPEC 1 DATA\L18AL\
Data File : L18AL013.D
Acq On : 13 Jan 2018 2:46 pm
Operator : MAH
Sample : ETOX MDL# 10
Misc : ETHYLENE OXIDE 2018 MDL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 16 11:19:30 2018
Quant Method : C:\msdchem\1\METHODS\ETOX_01.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 16 09:55:15 2018
Response via : Initial Calibration





#9
Ethylene Oxide
Concen: 0.127 ppbv m
RT: 12.578 min Scan# 1007
Delta R.T. 0.011 min
Lab File: L18AL013.D
Acq: 13 Jan 2018 2:46 pm

Tgt Ion: 29 Resp: 175

Ion	Ratio	Lower	Upper
29	100		
15	38.3	0.0	0.0#
43	25.1	0.0	0.0#