

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL070819\
 Data File : VL034012.D
 Acq On : 8 Jul 2019 15:26
 Operator : SY/AP
 Sample : K3591-15 0.1 PPB
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 MDL-MDL-AIR-03-QT3-2019

Manual Integrations
 APPROVED

MMDadoda
 7/10/2019 8:50:03 AM

Quant Time: Jul 09 08:45:52 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL070219AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Jul 09
 QLast Update : Tue Jul 02 19:31:31 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.72	49	998787	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.25	114	2602086	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.19	117	2621354	10.00	ppbv	-0.02

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.52	95	2094939	9.37	ppbv	-0.02	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.70%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.06	85	33012	0.160	ppbv	95
3) Chlorodifluoromethane	2.99	51	17408	0.141	ppbv #	83
4) Chloromethane	3.15	50	9646	0.136	ppbv #	83
5) Vinyl Chloride	3.27	62	10275m	0.129	ppbv	
6) Bromomethane	3.49	94	5543	0.118	ppbv	89
7) Chloroethane	3.58	64	4564m	0.160	ppbv	
8) Dichlorotetrafluoroethane	3.20	85	25970	0.129	ppbv	98
9) Propene	3.01	41	6327m	0.139	ppbv	
10) Heptane	8.20	43	7642m	0.067	ppbv	
11) Trichlorofluoromethane	3.98	101	31315	0.135	ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.53	101	19475m	0.119	ppbv	
13) Ethanol	3.65	45	2993m	0.212	ppbv	
14) Bromoethene	3.77	108	6578	0.107	ppbv #	75
15) Acetone	3.90	43	25777	0.154	ppbv #	87
16) 1,3-Butadiene	3.35	39	6497m	0.110	ppbv	
17) tert-Butyl alcohol	4.36	59	15911m	0.119	ppbv	
18) 1,1-Dichloroethene	4.33	96	8009m	0.110	ppbv	
19) Isopropyl Alcohol	4.02	45	14530m	0.129	ppbv	
20) Methylene Chloride	4.38	84	13384m	0.183	ppbv	
21) Allyl Chloride	4.45	41	12608m	0.120	ppbv	
22) trans-1,2-Dichloroethene	4.93	96	9291m	0.133	ppbv	
23) Vinyl Acetate	5.13	43	16253m	0.097	ppbv	
24) 1,1-Dichloroethane	5.06	63	16555m	0.111	ppbv	
25) Ethyl Acetate	5.75	43	25795m	0.112	ppbv	
26) Hexane	5.74	57	10124m	0.096	ppbv	
27) Carbon Disulfide	4.59	76	17192m	0.096	ppbv	
28) Methyl tert-Butyl Ether	5.11	73	14437m	0.081	ppbv	
29) Chloroform	5.80	83	22693m	0.115	ppbv	
30) Cyclohexane	7.19	84	4617m	0.057	ppbv	
31) cis-1,2-Dichloroethene	5.60	61	11253m	0.111	ppbv	
32) 1,1,1-Trichloroethane	6.58	97	20286m	0.101	ppbv	
34) 2-Butanone	5.32	43	13763m	0.100	ppbv	
35) Carbon Tetrachloride	7.10	117	23307m	0.113	ppbv	
36) Benzene	6.98	78	17637m	0.087	ppbv	
37) 1,2-Dichloroethane	6.38	62	16519m	0.110	ppbv	
38) Trichloroethene	7.91	130	8631m	0.095	ppbv	
39) 1,2-Dichloropropane	7.69	63	7763m	0.103	ppbv	
41) Tetrahydrofuran	6.16	42	5523m	0.082	ppbv	
42) Bromodichloromethane	7.87	83	20960	0.104	ppbv #	80
43) Methyl Methacrylate	8.10	69	5065m	0.066	ppbv	
44) 2,2,4-Trimethylpentane	7.95	57	23328m	0.066	ppbv	

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL070819\
 Data File : VL034012.D
 Acq On : 8 Jul 2019 15:26
 Operator : SY/AP
 Sample : K3591-15 0.1 PPB
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 MDL-MDL-AIR-03-QT3-2019

Manual Integrations
 APPROVED

MMDadoda
 7/10/2019 8:50:03 AM

Quant Time: Jul 09 08:45:52 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL070219AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Jul 09 08:45:52 2019
 QLast Update : Tue Jul 02 19:31:31 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)	
45) t-1,3-Dichloropropene	9.36	75	7250m	0.072	ppbv		
46) cis-1,3-Dichloropropene	8.79	75	9607m	0.082	ppbv		
47) 1,1,2-Trichloroethane	9.57	97	11292m	0.119	ppbv		
48) Dibromochloromethane	10.41	129	16544m	0.091	ppbv		
49) Bromoform	13.15	173	14533m	0.094	ppbv		
50) 4-Methyl-2-Pentanone	8.86	43	13765m	0.067	ppbv		
51) 2-Hexanone	10.26	43	7105m	0.043	ppbv		
52) Tetrachloroethene	11.33	164	8846m	0.101	ppbv		
53) Toluene	9.90	91	15269m	0.066	ppbv		
54) 1,2-Dibromoethane	10.72	107	12603m	0.090	ppbv		
56) 1,1,1,2-Tetrachloroethane	12.23	131	13428m	0.115	ppbv		
57) Chlorobenzene	12.25	112	25035m	0.120	ppbv		
58) Ethyl Benzene	12.81	91	20044m	0.064	ppbv		
59) m/p-Xylene	13.10	91	30942m	0.108	ppbv		
60) o-Xylene	13.80	91	15482m	0.054	ppbv		
61) Styrene	13.63	104	10739m	0.057	ppbv		
62) Isopropylbenzene	14.77	105	27472m	0.063	ppbv		
63) 1,1,2,2-Tetrachloroethane	13.79	83	23171m	0.105	ppbv		
64) n-propylbenzene	15.67	120	5762m	0.051	ppbv		
65) tert-Butylbenzene	16.85	119	18130m	0.049	ppbv		
66) Benzyl Chloride	17.11	91	14320m	0.075	ppbv		
67) sec-Butylbenzene	17.41	105	26204m	0.050	ppbv		
69) p-Isopropyltoluene	17.76	119	20613m	0.048	ppbv		
70) n-Butylbenzene	18.67	91	20439m	0.045	ppbv		
71) 2-Chlorotoluene	15.57	91	17606m	0.055	ppbv		
72) 4-Ethyltoluene	15.96	105	16736m	0.046	ppbv		
73) 1,3,5-Trimethylbenzene	16.11	105	15528m	0.046	ppbv		
74) 1,2,4-Trimethylbenzene	16.87	105	17555m	0.046	ppbv		
75) 1,3-Dichlorobenzene	17.11	146	27982m	0.117	ppbv		
76) 1,4-Dichlorobenzene	17.25	146	23165m	0.102	ppbv		
77) 1,2-Dichlorobenzene	17.95	146	19044m	0.086	ppbv		
78) Hexachloro-1,3-Butadiene	23.51	225	29465m	0.156	ppbv		
79) Naphthalene	22.38	128	15247m	0.048	ppbv		
80) Naphthalene,2-methyl-	25.09	142	9505	0.082	ppbv	#	93
81) 1,2,4-Trichlorobenzene	22.08	180	15656m	0.077	ppbv		

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

