

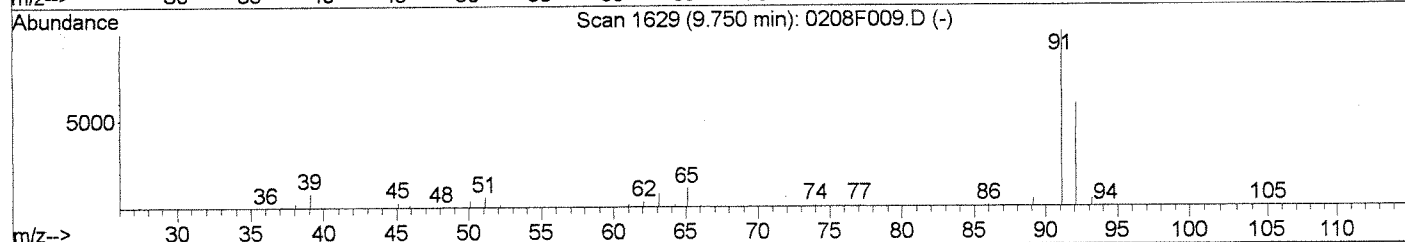
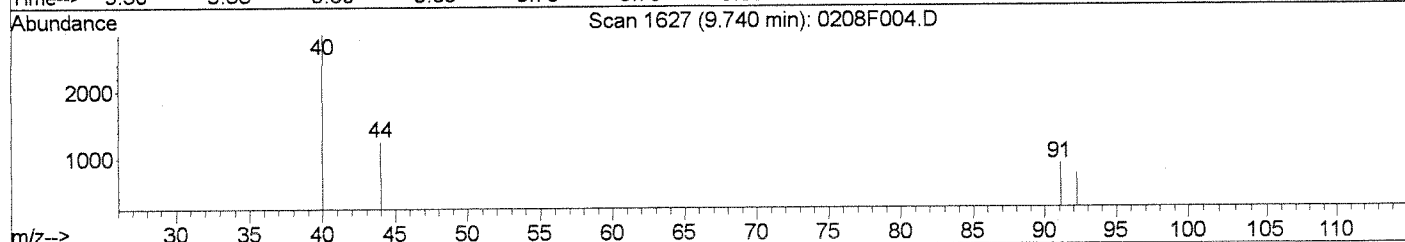
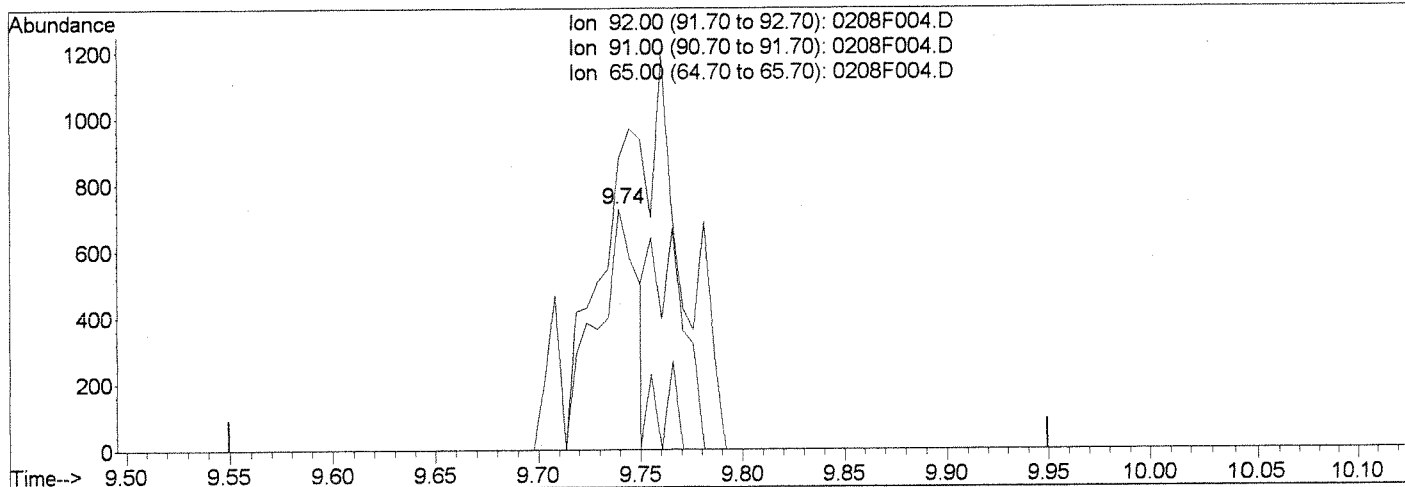
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F004.D  
 Acq On : 8 Feb 2010 3:08 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:05 2010

Vial: 4  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Multiple Level Calibration



TIC: 0208F004.D

(34) Toluene (CMT)

9.74min 0.04PPB

response 1015

Ion	Exp%	Act%
92.00	100	100
91.00	169.70	56.67#
65.00	17.90	0.00
0.00	0.00	0.00

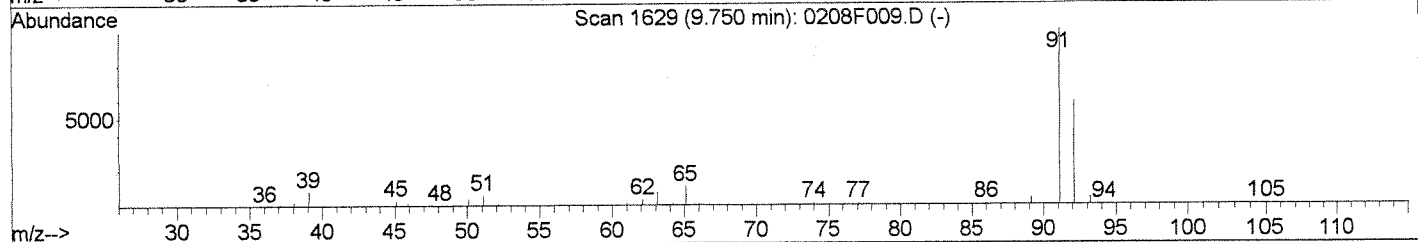
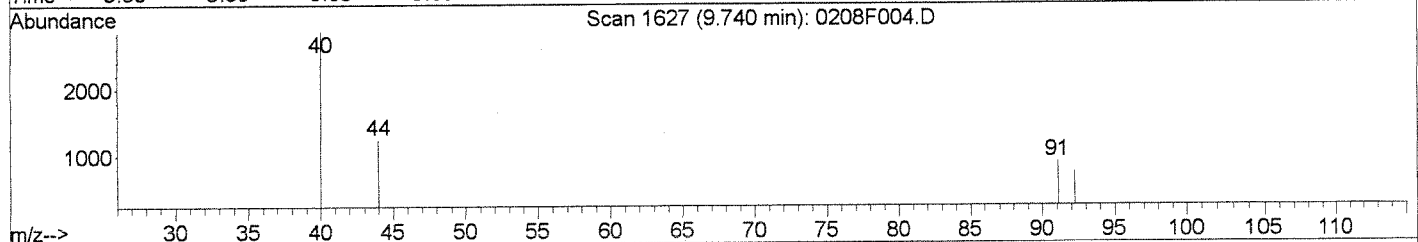
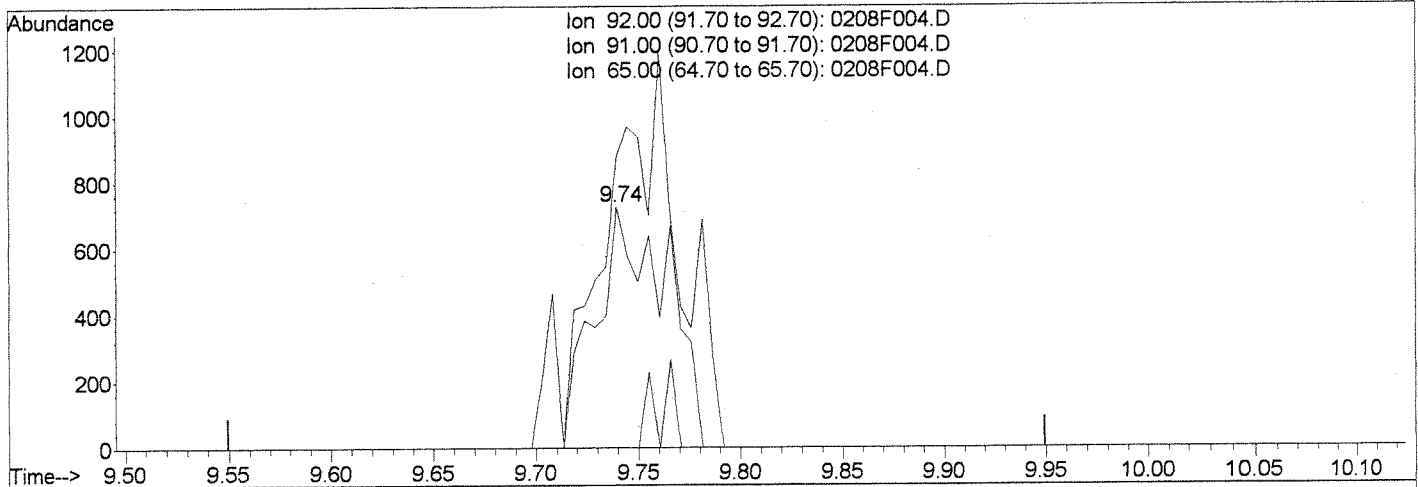
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F004.D  
 Acq On : 8 Feb 2010 3:08 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:06 2010

Vial: 4  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Multiple Level Calibration



TIC: 0208F004.D

(34) Toluene (CMT)  
 9.74min 0.08PPB m  
 response 1761

Ion	Exp%	Act%
92.00	100	100
91.00	169.70	120.77#
65.00	17.90	0.00
0.00	0.00	0.00

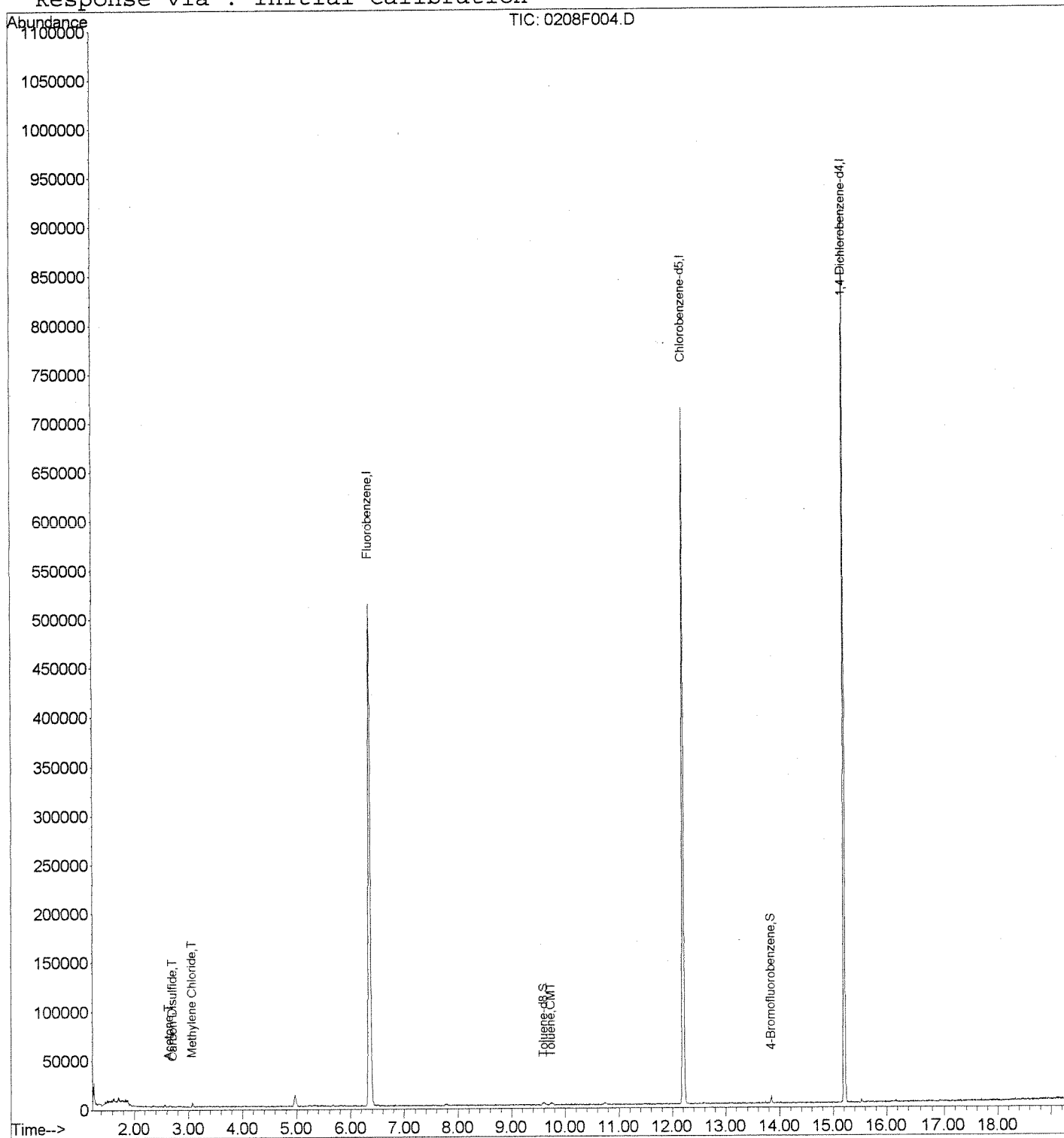
S.P.  
 2/9/10  
 K 2/9/10

Data File : J:\MS13\DATA\020810\_624\0208F004.D  
 Acq On : 8 Feb 2010 3:08 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:06 2010

Vial: 4  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F005.D  
 Acq On : 8 Feb 2010 3:48 pm  
 Sample : 0.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:46 2010

Vial: 5  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*conc 2/9/10*  
*15-2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	710587	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	269642	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	276835	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	34130	3.86	PPB	0.00
Spiked Amount	20.000		Recovery	=	19.30%	
24) 1,2-Dichloroethane-d4	5.88	65	36810	3.80	PPB	0.00
Spiked Amount	20.000		Recovery	=	19.00%	
33) Toluene-d8	9.60	98	127673	3.48	PPB	0.00
Spiked Amount	20.000		Recovery	=	17.40%	
47) 4-Bromofluorobenzene	13.85	95	45244	3.35	PPB	0.00
Spiked Amount	20.000		Recovery	=	16.75%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	5200	0.57	PPB	85
3) Chloromethane	1.43	50	7389	0.64	PPB	99
4) Vinyl Chloride	1.51	62	5522	0.52	PPB	98
5) Bromomethane	1.78	96	2121	0.39	PPB	89
6) Chloroethane	1.87	49	804	0.49	PPB	# 85
7) Trichlorofluoromethane	2.05	101	8341	0.58	PPB	91
8) Acrolein	2.50	56	7892	10.53	PPB	93
9) Trichlorotrifluoroethane	2.50	151	4054	0.53	PPB	90
10) 1,1-Dichloroethene	2.53	96	3797	0.49	PPB	93
11) Acetone	2.65	43	40221	19.94	PPB	97
12) Carbon Disulfide	2.72	76	16638	0.53	PPB	98
13) Methylene Chloride	3.07	84	5417	0.55	PPB	95
14) Acrylonitrile	3.42	53	2406	0.79	PPB	94
15) trans-1,2-Dichloroethene	3.31	96	4733	0.48	PPB	90
16) 1,1-Dichloroethane	3.85	63	7963	0.51	PPB	92
18) cis-1,2-Dichloroethene	4.61	96	4626	0.43	PPB	# 74
19) 2-Butanone	4.69	72	14348	16.07	PPB	# 84
20) Chloroform	5.07	83	7457	0.47	PPB	89
21) 1,1,1-Trichloroethane	5.25	97	5734	0.49	PPB	93
23) Carbon Tetrachloride	5.43	117	5721	0.51	PPB	80
25) Benzene	5.83	78	19450	0.48	PPB	98
26) 1,2-Dichloroethane	6.02	62	5431	0.47	PPB	91
27) Trichloroethene	6.99	95	5114	0.52	PPB	84
28) 1,2-Dichloropropane	7.51	63	4539	0.49	PPB	91
29) Bromodichloromethane	8.07	83	5506	0.47	PPB	86
30) 2-Chloroethyl Vinyl Ether	8.89	63	1981m	0.42	PPB	
31) cis-1,3-Dichloropropene	9.13	75	5200	0.40	PPB	86

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F005.D  
 Acq On : 8 Feb 2010 3:48 pm  
 Sample : 0.5 PPB ICAL  
 Misc :

Vial: 5  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:46 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	36759	13.03	PPB	# 74
34) Toluene	9.74	92	12412	0.48	PPB	# 73
36) trans-1,3-Dichloropropene	10.46	75	4437	0.43	PPB	96
37) 1,1,2-Trichloroethane	10.78	83	2945	0.42	PPB	80
38) Tetrachloroethene	10.75	164	3937	0.46	PPB	88
39) 2-Hexanone	11.26	43	59270	12.70	PPB	96
40) Dibromochloromethane	11.35	129	4023	0.44	PPB	84
41) Chlorobenzene	12.25	112	13277	0.46	PPB	100
42) Ethylbenzene	12.41	106	5373	0.35	PPB	91
43) m,p-Xylenes	12.60	106	14689	0.78	PPB	90
44) o-Xylene	13.13	106	6946	0.39	PPB	85
45) Styrene	13.18	103	5301	0.36	PPB	# 83
46) Bromoform	13.41	173	2325	0.42	PPB	75
49) 1,1,2,2-Tetrachloroethane	14.12	83	4484	0.49	PPB	85
51) 1,3-Dichlorobenzene	15.12	146	9613	0.44	PPB	96
52) 1,4-Dichlorobenzene	15.24	146	10158	0.45	PPB	94
53) 1,2-Dichlorobenzene	15.64	146	9018	0.44	PPB	89

(#) = qualifier out of range (m) = manual integration  
 0208F005.D 020810MS13\_624.M Mon Feb 08 20:09:01 2010

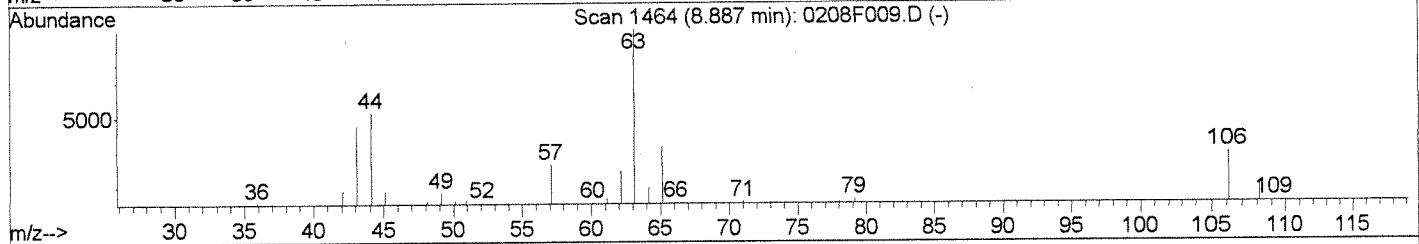
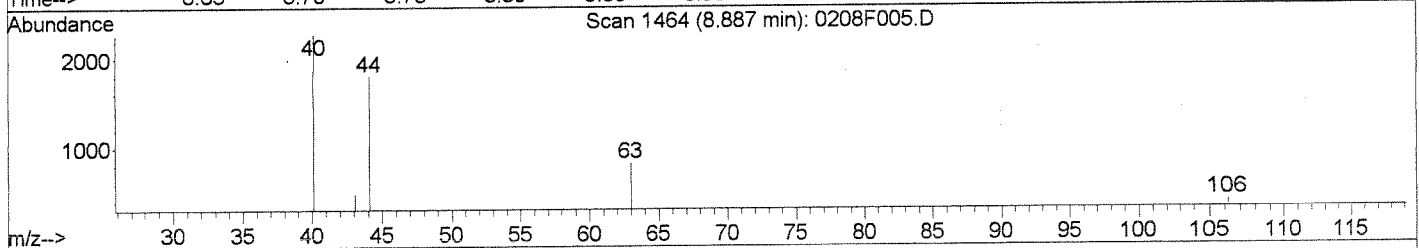
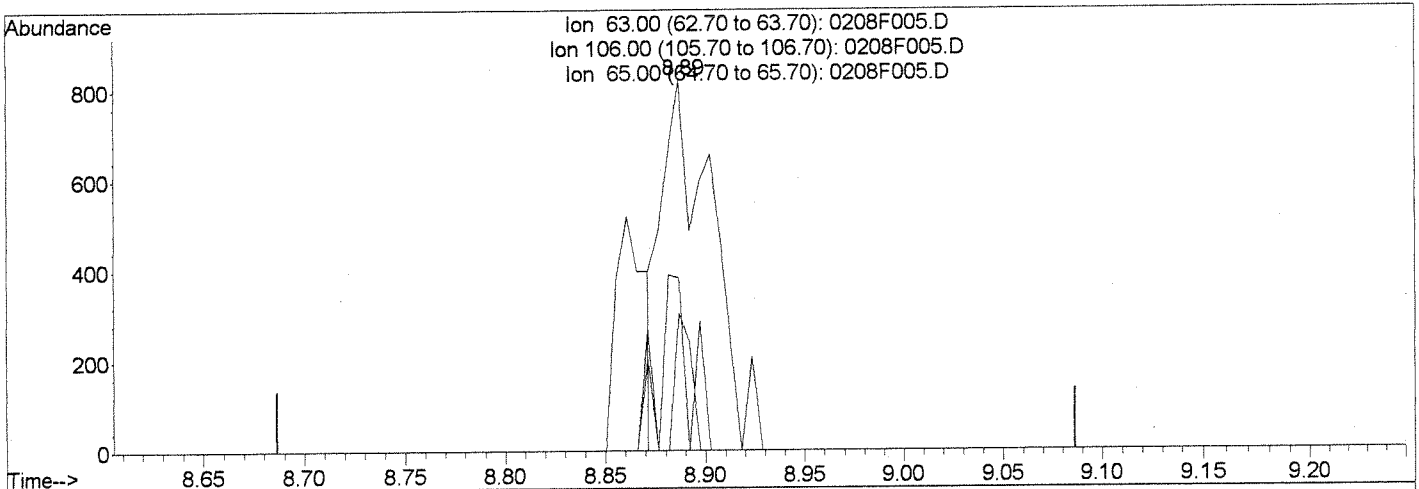
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F005.D  
 Acq On : 8 Feb 2010 3:48 pm  
 Sample : 0.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:58 2010

Vial: 5  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Multiple Level Calibration



(30) 2-Chloroethyl Vinyl Ether (T)

8.89min 0.31PPB

response 1448

Ion	Exp%	Act%
63.00	100	100
106.00	28.80	46.65
65.00	33.10	37.15
0.00	0.00	0.00

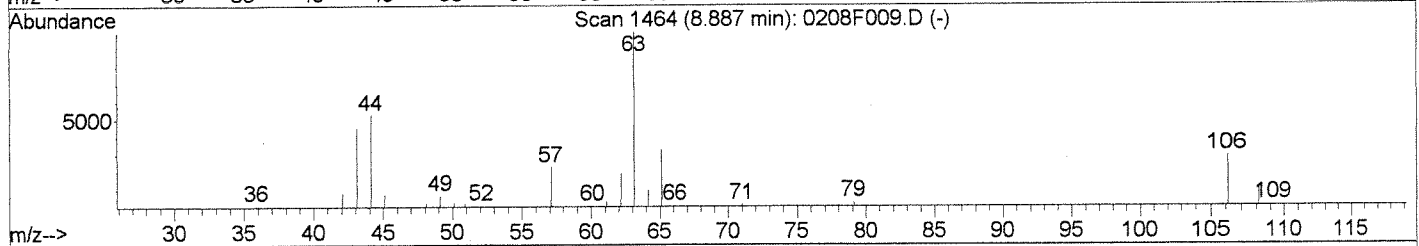
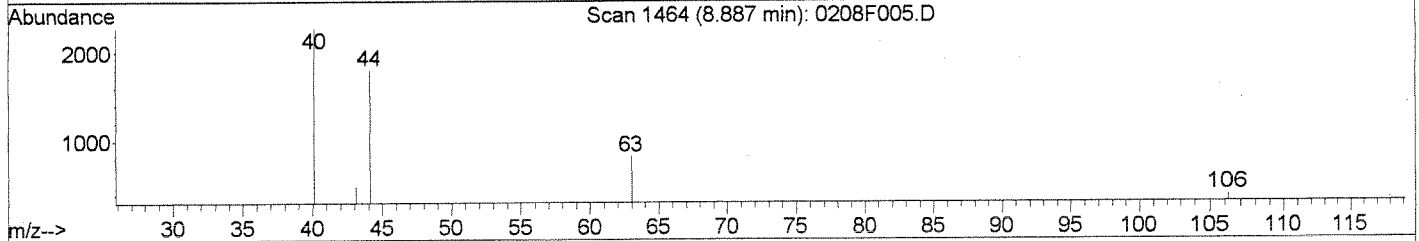
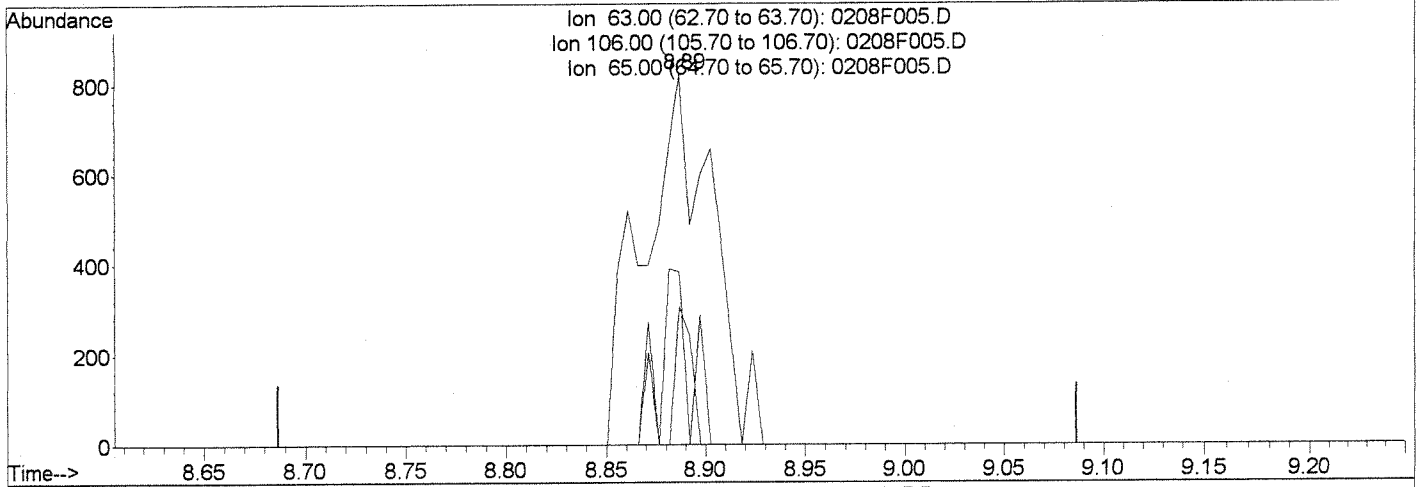
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F005.D  
 Acq On : 8 Feb 2010 3:48 pm  
 Sample : 0.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:59 2010

Vial: 5  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Multiple Level Calibration



(30) 2-Chloroethyl Vinyl Ether (T)

8.89min 0.42PPB m

response 1981

Ion	Exp%	Act%
63.00	100	100
106.00	28.80	46.65
65.00	33.10	37.15
0.00	0.00	0.00

S.P.

2/9/10

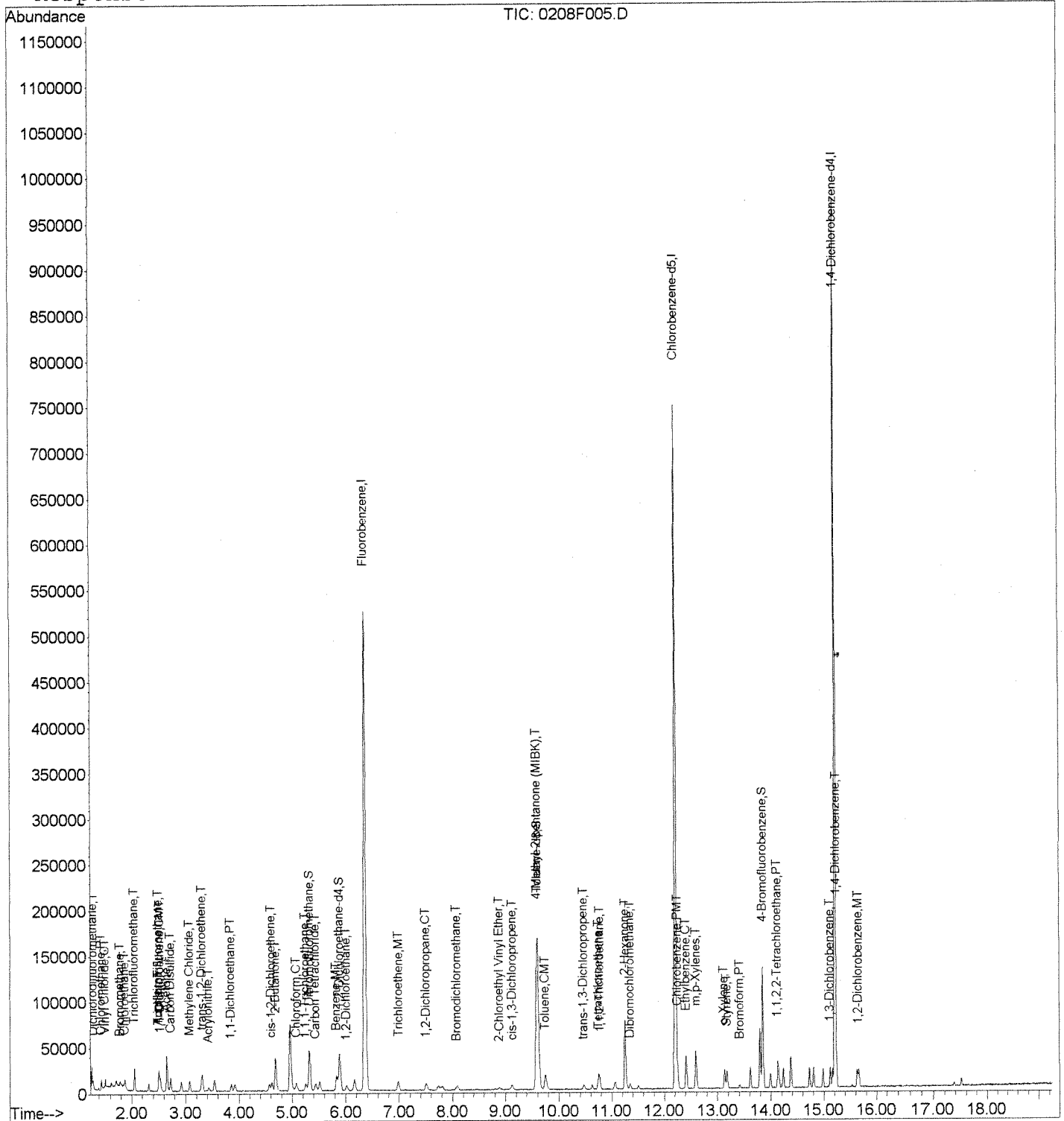
K21112

Data File : J:\MS13\DATA\020810\_624\0208F005.D  
 Acq On : 8 Feb 2010 3:48 pm  
 Sample : 0.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:59 2010

Vial: 5  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration





Data File : J:\MS13\DATA\020810\_624\0208F006.D  
 Acq On : 8 Feb 2010 4:15 pm  
 Sample : 1.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:47 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Ann 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	715763	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	275799	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	282744	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	49355	5.54	PPB	0.00
Spiked Amount	20.000		Recovery	=	27.70%	
24) 1,2-Dichloroethane-d4	5.89	65	55091	5.65	PPB	0.00
Spiked Amount	20.000		Recovery	=	28.25%	
33) Toluene-d8	9.60	98	187104	5.06	PPB	0.00
Spiked Amount	20.000		Recovery	=	25.30%	
47) 4-Bromofluorobenzene	13.85	95	70545	5.11	PPB	0.00
Spiked Amount	20.000		Recovery	=	25.55%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	8734	0.95	PPB	86
3) Chloromethane	1.43	50	11059	0.96	PPB	98
4) Vinyl Chloride	1.51	62	9600	0.91	PPB	92
5) Bromomethane	1.78	96	4559	0.84	PPB	98
6) Chloroethane	1.87	49	1178	0.71	PPB	# 76
7) Trichlorofluoromethane	2.05	101	13880	0.95	PPB	96
8) Acrolein	2.51	56	16088	21.31	PPB	94
9) Trichlorotrifluoroethane	2.50	151	7567	0.99	PPB	93
10) 1,1-Dichloroethene	2.53	96	7356	0.94	PPB	82
11) Acetone	2.65	43	82302	40.51	PPB	99
12) Carbon Disulfide	2.72	76	29099	0.91	PPB	96
13) Methylene Chloride	3.08	84	10627	1.08	PPB	93
14) Acrylonitrile	3.43	53	6034	1.97	PPB	# 65
15) trans-1,2-Dichloroethene	3.31	96	9052	0.92	PPB	92
16) 1,1-Dichloroethane	3.86	63	15125	0.96	PPB	93
17) Vinyl Acetate	3.91	86	2715	1.73	PPB	# 58
18) cis-1,2-Dichloroethene	4.62	96	9774	0.91	PPB	85
19) 2-Butanone	4.69	72	31034	34.50	PPB	96
20) Chloroform	5.07	83	15186	0.95	PPB	98
21) 1,1,1-Trichloroethane	5.25	97	10077	0.86	PPB	90
23) Carbon Tetrachloride	5.43	117	9877	0.87	PPB	84
25) Benzene	5.83	78	35742	0.87	PPB	96
26) 1,2-Dichloroethane	6.02	62	11588	0.99	PPB	kr 97
27) Trichloroethene	6.98	95	9553	0.96	PPB	uato 80
28) 1,2-Dichloropropane	7.51	63	8789	0.94	PPB	94
29) Bromodichloromethane	8.09	83	10879	0.91	PPB	84
30) 2-Chloroethyl Vinyl Ether	8.88	63	3796m	0.80	PPB	

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F006.D  
 Acq On : 8 Feb 2010 4:15 pm  
 Sample : 1.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:47 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.11	75	11066	0.85	PPB	91
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	86849	30.56	PPB #	80
34) Toluene	9.75	92	22736	0.87	PPB #	76
36) trans-1,3-Dichloropropene	10.46	75	8077	0.77	PPB	91
37) 1,1,2-Trichloroethane	10.78	83	6395	0.89	PPB	86
38) Tetrachloroethene	10.75	164	7674	0.88	PPB	93
39) 2-Hexanone	11.25	43	143299	30.01	PPB	99
40) Dibromochloromethane	11.35	129	8884	0.95	PPB	86
41) Chlorobenzene	12.25	112	27872	0.94	PPB	96
42) Ethylbenzene	12.41	106	12370	0.78	PPB	94
43) m,p-Xylenes	12.60	106	29487	1.52	PPB	90
44) o-Xylene	13.13	106	13618	0.75	PPB	91
45) Styrene	13.18	103	10538	0.70	PPB	87
46) Bromoform	13.41	173	5066	0.90	PPB	92
49) 1,1,2,2-Tetrachloroethane	14.12	83	8979	0.97	PPB	88
51) 1,3-Dichlorobenzene	15.12	146	19002	0.86	PPB	89
52) 1,4-Dichlorobenzene	15.24	146	21188	0.92	PPB	100
53) 1,2-Dichlorobenzene	15.65	146	18772	0.90	PPB	90

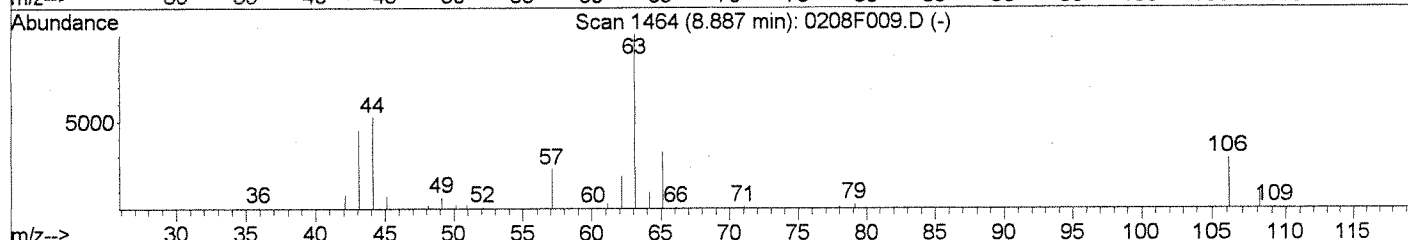
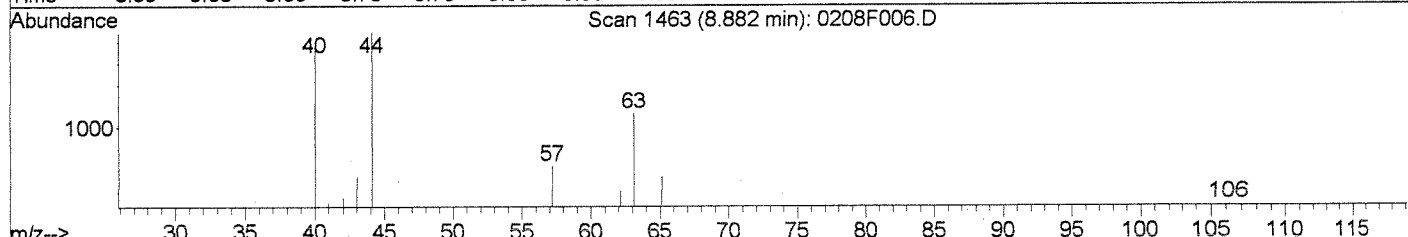
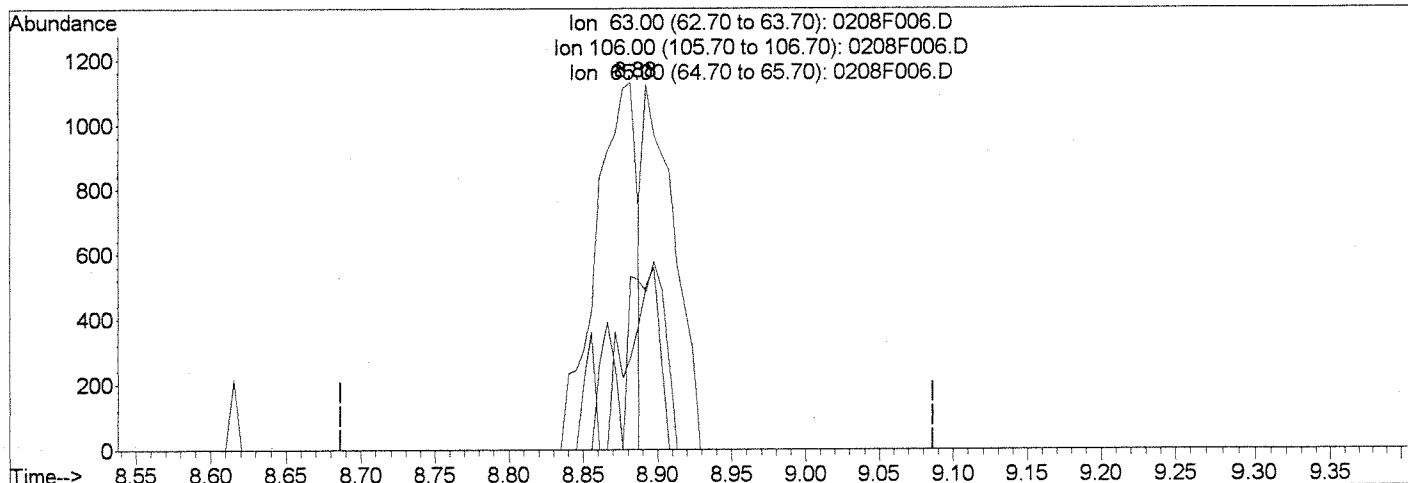
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F006.D  
 Acq On : 8 Feb 2010 4:15 pm  
 Sample : 1.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:57 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:00:10 2010  
 Response via : Multiple Level Calibration



TIC: 0208F006.D

(30) 2-Chloroethyl Vinyl Ether (T)

8.88min 0.46PPB

response 2172

Ion	Exp%	Act%
63.00	100	100
106.00	28.80	24.71
65.00	33.10	47.12
0.00	0.00	0.00

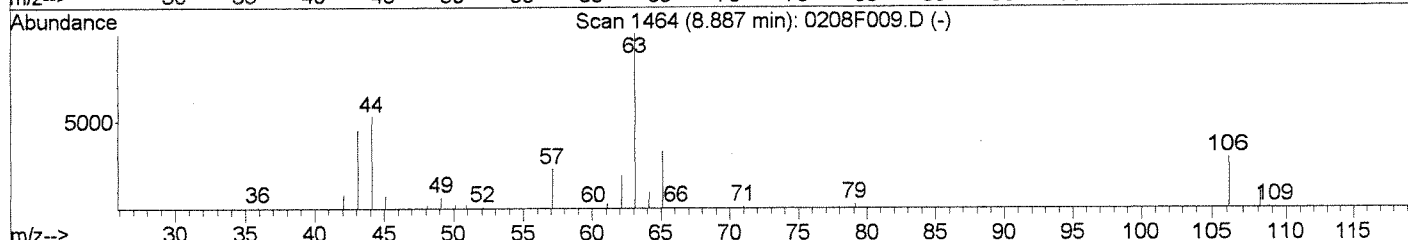
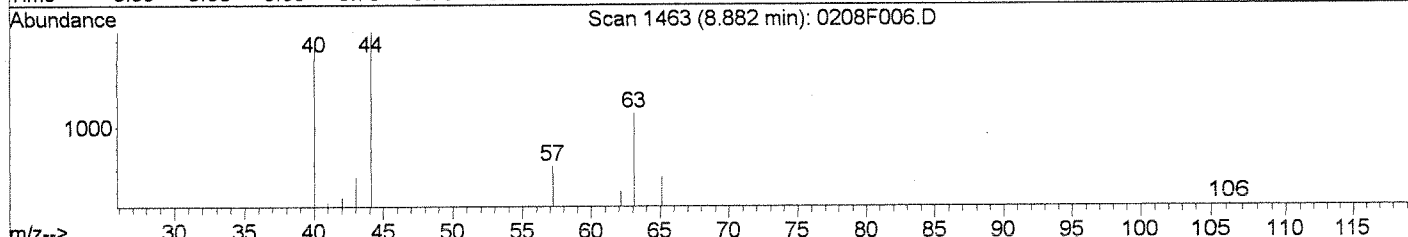
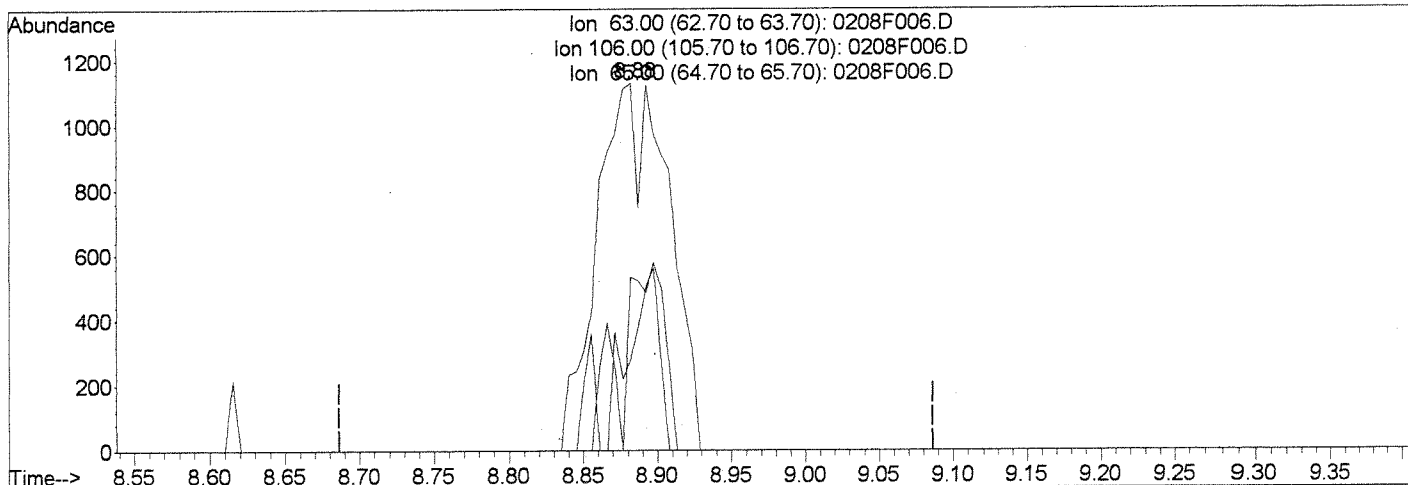
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F006.D  
 Acq On : 8 Feb 2010 4:15 pm  
 Sample : 1.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:00 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:00:10 2010  
 Response via : Multiple Level Calibration



(30) 2-Chloroethyl Vinyl Ether (T)

8.88min 0.80PPB m

response 3796

Ion	Exp%	Act%
63.00	100	100
106.00	28.80	24.71
65.00	33.10	47.12
0.00	0.00	0.00

S.P.

Done 2/9/10

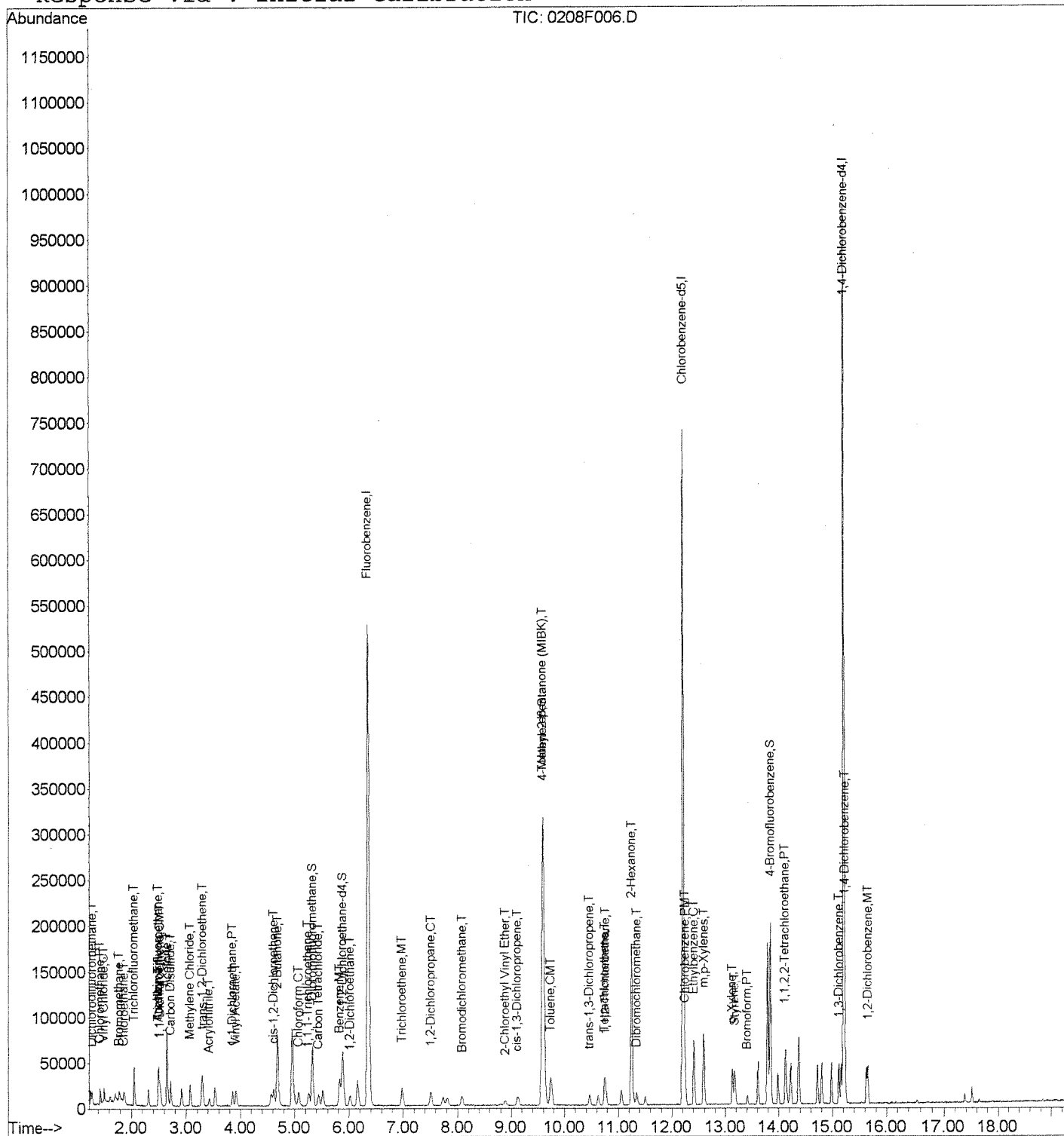
W 2/9/10

Data File : J:\MS13\DATA\020810\_624\0208F006.D  
 Acq On : 8 Feb 2010 4:15 pm  
 Sample : 1.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:00 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F007.D  
 Acq On : 8 Feb 2010 4:43 pm  
 Sample : 2.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:47 2010

Vial: 7  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Sum 2/1/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	729207	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	277276	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	284897	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	70961	7.81	PPB	0.00
Spiked Amount	20.000		Recovery	=	39.05%	
24) 1,2-Dichloroethane-d4	5.89	65	79031	7.96	PPB	0.00
Spiked Amount	20.000		Recovery	=	39.80%	
33) Toluene-d8	9.60	98	282211	7.50	PPB	0.00
Spiked Amount	20.000		Recovery	=	37.50%	
47) 4-Bromofluorobenzene	13.85	95	105258	7.58	PPB	0.00
Spiked Amount	20.000		Recovery	=	37.90%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	20056	2.14	PPB	94
3) Chloromethane	1.43	50	26204	2.23	PPB	97
4) Vinyl Chloride	1.51	62	21265	1.97	PPB	92
5) Bromomethane	1.78	96	9905	1.78	PPB	95
6) Chloroethane	1.87	49	3594	2.13	PPB	# 84
7) Trichlorofluoromethane	2.05	101	30362	2.04	PPB	97
8) Acrolein	2.51	56	38096	49.52	PPB	97
9) Trichlorotrifluoroethane	2.50	151	16295	2.09	PPB	97
10) 1,1-Dichloroethene	2.53	96	15626	1.96	PPB	81
11) Acetone	2.65	43	203711	98.42	PPB	99
12) Carbon Disulfide	2.72	76	65545	2.02	PPB	99
13) Methylene Chloride	3.07	84	23824	2.37	PPB	93
14) Acrylonitrile	3.43	53	14679	4.71	PPB	99
15) trans-1,2-Dichloroethene	3.31	96	20350	2.02	PPB	87
16) 1,1-Dichloroethane	3.85	63	34058	2.12	PPB	97
17) Vinyl Acetate	3.92	86	6705	4.20	PPB	# 86
18) cis-1,2-Dichloroethene	4.61	96	23107	2.11	PPB	95
19) 2-Butanone	4.69	72	83932	91.60	PPB	99
20) Chloroform	5.07	83	37002	2.26	PPB	90
21) 1,1,1-Trichloroethane	5.25	97	24122	2.02	PPB	99
23) Carbon Tetrachloride	5.43	117	24110	2.08	PPB	82
25) Benzene	5.83	78	85901	2.05	PPB	99
26) 1,2-Dichloroethane	6.01	62	28021	2.35	PPB	96
27) Trichloroethene	6.97	95	21196	2.08	PPB	94
28) 1,2-Dichloropropane	7.50	63	20694	2.16	PPB	88
29) Bromodichloromethane	8.08	83	26857	2.22	PPB	100
30) 2-Chloroethyl Vinyl Ether	8.89	63	9622	1.98	PPB	90

*kr*  
*2/1/10*

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F007.D  
 Acq On : 8 Feb 2010 4:43 pm  
 Sample : 2.5 PPB ICAL  
 Misc :

Vial: 7  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:47 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.12	75	25730	1.94	PPB	89
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	250308	86.45	PPB	94
34) Toluene	9.75	92	54315	2.04	PPB	99
36) trans-1,3-Dichloropropene	10.46	75	21736	2.06	PPB	95
37) 1,1,2-Trichloroethane	10.77	83	15917	2.19	PPB	95
38) Tetrachloroethene	10.75	164	18492	2.11	PPB	80
39) 2-Hexanone	11.25	43	400242	83.38	PPB	99
40) Dibromochloromethane	11.36	129	21476	2.28	PPB	96
41) Chlorobenzene	12.25	112	66459	2.23	PPB	93
42) Ethylbenzene	12.41	106	30461	1.92	PPB	98
43) m,p-Xylenes	12.60	106	74010	3.80	PPB	98
44) o-Xylene	13.13	106	33258	1.82	PPB	83
45) Styrene	13.18	103	28558	1.90	PPB	95
46) Bromoform	13.41	173	12543	2.22	PPB	97
49) 1,1,2,2-Tetrachloroethane	14.12	83	22001	2.36	PPB	96
51) 1,3-Dichlorobenzene	15.12	146	47529	2.12	PPB	95
52) 1,4-Dichlorobenzene	15.24	146	49718	2.15	PPB	92
53) 1,2-Dichlorobenzene	15.65	146	46305	2.21	PPB	93

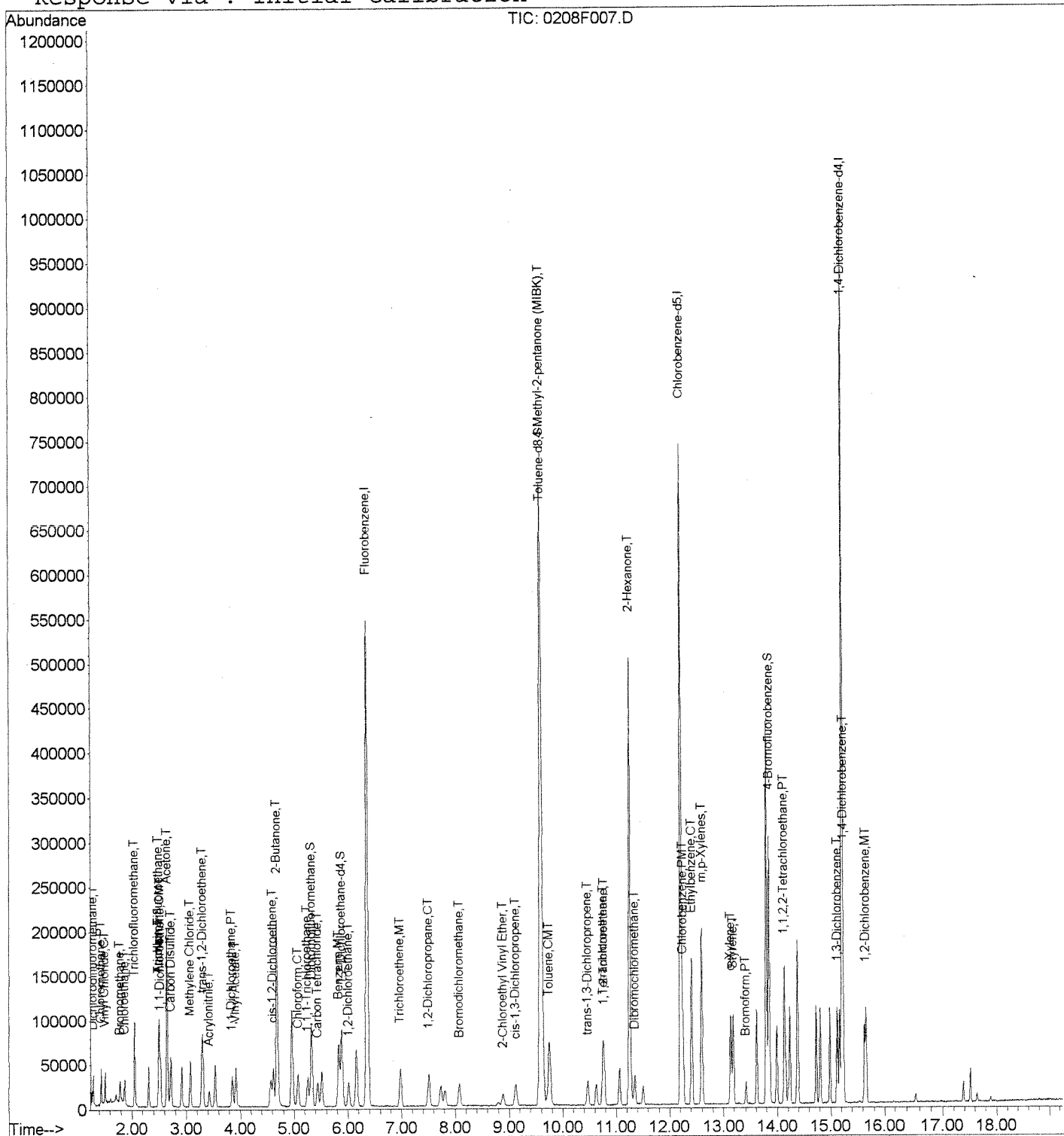
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F007.D  
 Acq On : 8 Feb 2010 4:43 pm  
 Sample : 2.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:57 2010

Vial: 7  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration





Data File : J:\MS13\DATA\020810\_624\0208F008.D  
 Acq On : 8 Feb 2010 5:11 pm  
 Sample : 5.0 PPB ICAL  
 Misc :

Vial: 8  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:48 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Curve 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	6.36	96	745166	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	283413	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	297098	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	90961	9.80	PPB	0.00
Spiked Amount	20.000		Recovery	=	49.00%	
24) 1,2-Dichloroethane-d4	5.89	65	100748	9.93	PPB	0.00
Spiked Amount	20.000		Recovery	=	49.65%	
33) Toluene-d8	9.60	98	369438	9.60	PPB	0.00
Spiked Amount	20.000		Recovery	=	48.00%	
47) 4-Bromofluorobenzene	13.85	95	136840	9.65	PPB	0.00
Spiked Amount	20.000		Recovery	=	48.25%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	40572	4.23	PPB	97
3) Chloromethane	1.43	50	53881	4.48	PPB	96
4) Vinyl Chloride	1.51	62	45051	4.08	PPB	99
5) Bromomethane	1.78	96	21969	3.87	PPB	93
6) Chloroethane	1.87	49	7089	4.11	PPB	# 81
7) Trichlorofluoromethane	2.05	101	64760	4.26	PPB	98
8) Acrolein	2.51	56	81291	103.42	PPB	98
9) Trichlorotrifluoroethane	2.50	151	34689	4.35	PPB	91
10) 1,1-Dichloroethene	2.53	96	33819	4.16	PPB	97
11) Acetone	2.65	43	419710	198.43	PPB	99
12) Carbon Disulfide	2.72	76	138286	4.18	PPB	97
13) Methylene Chloride	3.07	84	48196	4.70	PPB	89
14) Acrylonitrile	3.43	53	31626	9.93	PPB	97
15) trans-1,2-Dichloroethene	3.31	96	45399	4.41	PPB	96
16) 1,1-Dichloroethane	3.86	63	69357	4.22	PPB	98
17) Vinyl Acetate	3.92	86	14021	8.60	PPB	93
18) cis-1,2-Dichloroethene	4.62	96	51315	4.59	PPB	94
19) 2-Butanone	4.68	72	182882	195.31	PPB	99
20) Chloroform	5.07	83	74981	4.49	PPB	99
21) 1,1,1-Trichloroethane	5.26	97	52050	4.26	PPB	98
23) Carbon Tetrachloride	5.43	117	47870	4.03	PPB	94
25) Benzene	5.83	78	184607	4.31	PPB	100
26) 1,2-Dichloroethane	6.02	62	56124	4.60	PPB	99
27) Trichloroethene	6.98	95	44531	4.28	PPB	92
28) 1,2-Dichloropropane	7.51	63	43466	4.44	PPB	95
29) Bromodichloromethane	8.08	83	55278	4.46	PPB	95
30) 2-Chloroethyl Vinyl Ether	8.89	63	20870	4.21	PPB	92

*KS  
2/11/10*

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F008.D  
 Acq On : 8 Feb 2010 5:11 pm  
 Sample : 5.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:48 2010

Vial: 8  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

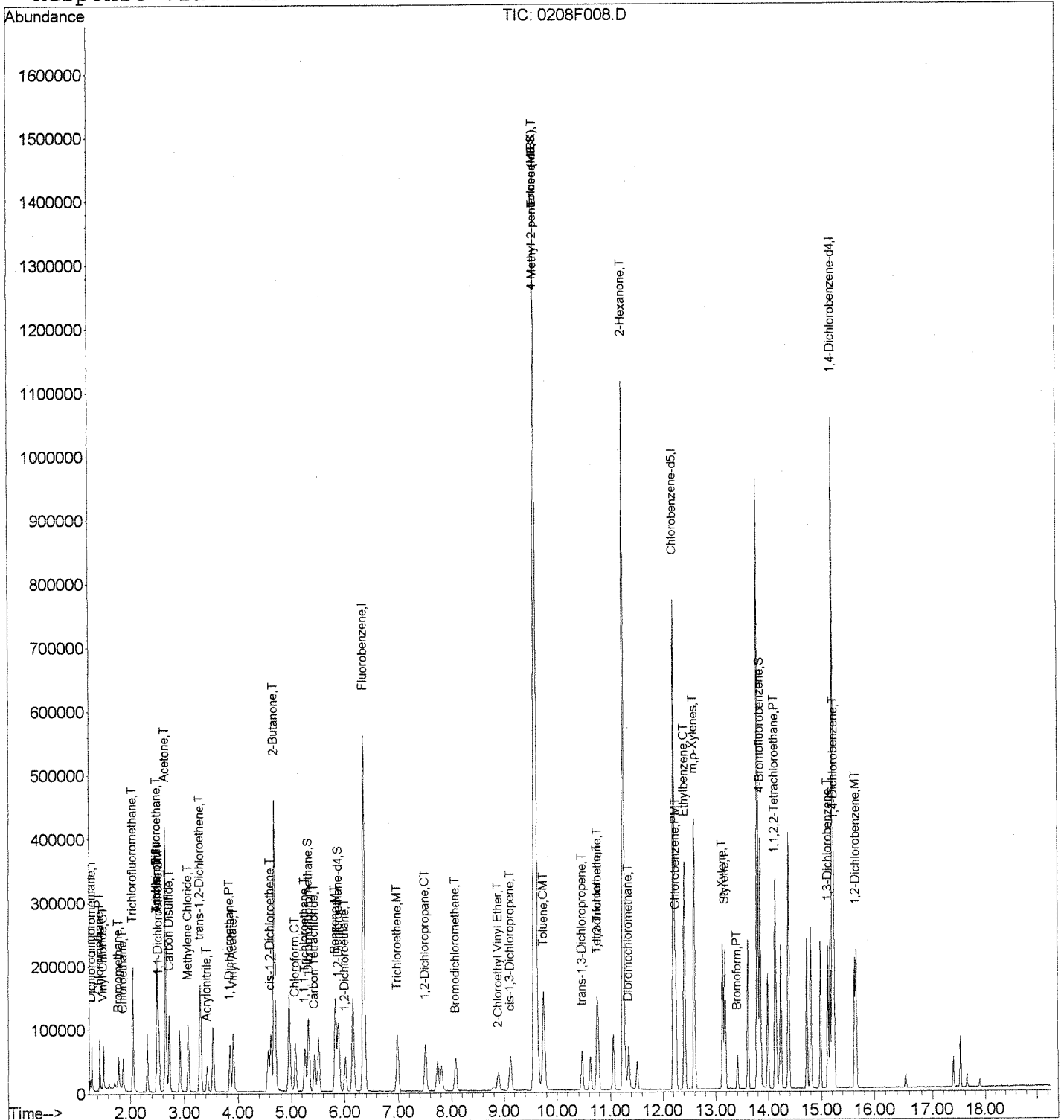
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.12	75	55778	4.12	PPB	93
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	559032	188.93	PPB	99
34) Toluene	9.75	92	119751	4.41	PPB	95
36) trans-1,3-Dichloropropene	10.47	75	45065	4.18	PPB	94
37) 1,1,2-Trichloroethane	10.77	83	33574	4.53	PPB	95
38) Tetrachloroethene	10.75	164	35887	4.00	PPB	90
39) 2-Hexanone	11.25	43	898962	183.22	PPB	99
40) Dibromochloromethane	11.35	129	42387	4.41	PPB	98
41) Chlorobenzene	12.25	112	133564	4.38	PPB	96
42) Ethylbenzene	12.41	106	66379	4.09	PPB	99
43) m,p-Xylenes	12.59	106	163208	8.20	PPB	94
44) o-Xylene	13.13	106	75753	4.06	PPB	96
45) Styrene	13.18	103	62513	4.07	PPB	97
46) Bromoform	13.41	173	27061	4.69	PPB	97
49) 1,1,2,2-Tetrachloroethane	14.12	83	46797	4.81	PPB	93
51) 1,3-Dichlorobenzene	15.12	146	99727	4.27	PPB	99
52) 1,4-Dichlorobenzene	15.24	146	105897	4.39	PPB	94
53) 1,2-Dichlorobenzene	15.65	146	95741	4.39	PPB	96

Data File : J:\MS13\DATA\020810\_624\0208F008.D  
 Acq On : 8 Feb 2010 5:11 pm  
 Sample : 5.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:57 2010

Vial: 8  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F009.D  
 Acq On : 8 Feb 2010 5:38 pm  
 Sample : 20 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:56:55 2010

Vial: 9  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:56:17 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Conv 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	782787	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	292855	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	304962	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	195037	20.00	PPB	0.00
Spiked Amount	20.000		Recovery	=	100.00%	
24) 1,2-Dichloroethane-d4	5.88	65	213156	20.00	PPB	0.00
Spiked Amount	20.000		Recovery	=	100.00%	
33) Toluene-d8	9.60	98	808165	20.00	PPB	0.00
Spiked Amount	20.000		Recovery	=	100.00%	
47) 4-Bromofluorobenzene	13.85	95	293205	20.00	PPB	0.00
Spiked Amount	20.000		Recovery	=	100.00%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.29	85	201347	20.00	PPB	100
3) Chloromethane	1.43	50	252593	20.00	PPB	100
4) Vinyl Chloride	1.51	62	231933	20.00	PPB	100
5) Bromomethane	1.78	96	119301	20.00	PPB	100
6) Chloroethane	1.87	49	36250	20.00	PPB	100
7) Trichlorofluoromethane	2.05	101	319259	20.00	PPB	100
8) Acrolein	2.51	56	330300	400.00	PPB	100
9) Trichlorotrifluoroethane	2.50	151	167357	20.00	PPB	100
10) 1,1-Dichloroethene	2.53	96	170927	20.00	PPB	100
11) Acetone	2.65	43	888797	400.00	PPB	100
12) Carbon Disulfide	2.72	76	695784	20.00	PPB	100
13) Methylene Chloride	3.07	84	215668	20.00	PPB	100
14) Acrylonitrile	3.43	53	133885	40.00	PPB	100
15) trans-1,2-Dichloroethene	3.31	96	216292	20.00	PPB	100
16) 1,1-Dichloroethane	3.86	63	345336	20.00	PPB	100
17) Vinyl Acetate	3.92	86	68502	40.00	PPB	100
18) cis-1,2-Dichloroethene	4.62	96	234948	20.00	PPB	100
19) 2-Butanone	4.68	72	393457	400.00	PPB	100
20) Chloroform	5.07	83	350776	20.00	PPB	100
21) 1,1,1-Trichloroethane	5.26	97	256537	20.00	PPB	100
23) Carbon Tetrachloride	5.43	117	249408	20.00	PPB	100
25) Benzene	5.83	78	899480	20.00	PPB	100
26) 1,2-Dichloroethane	6.01	62	256152	20.00	PPB	100
27) Trichloroethene	6.98	95	218524	20.00	PPB	100
28) 1,2-Dichloropropane	7.51	63	205550	20.00	PPB	100
29) Bromodichloromethane	8.08	83	260279	20.00	PPB	100
30) 2-Chloroethyl Vinyl Ether	8.89	63	104146	20.00	PPB	100

*hr*

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F009.D  
 Acq On : 8 Feb 2010 5:38 pm  
 Sample : 20 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:56:55 2010

Vial: 9  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:56:17 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

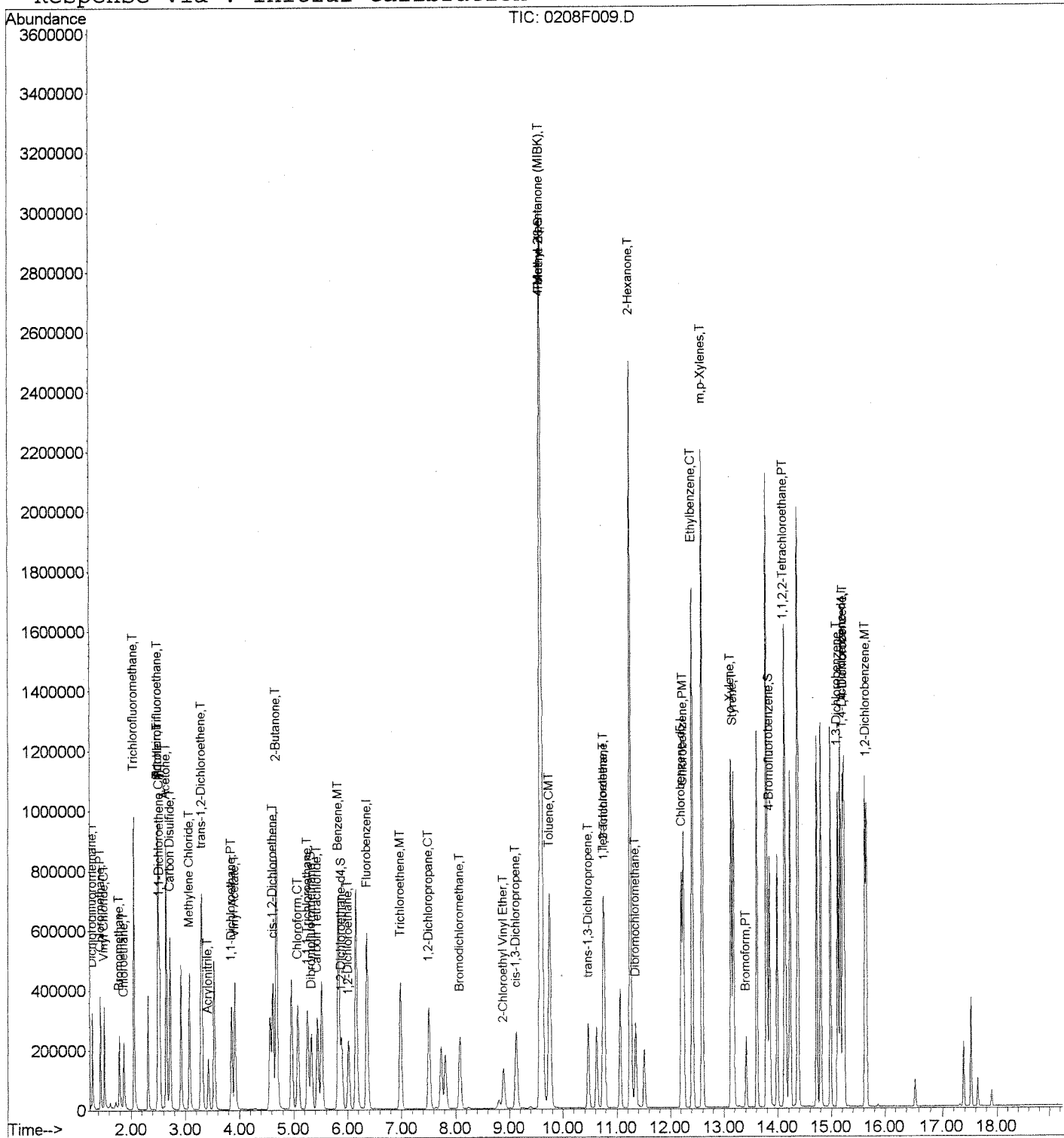
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.12	75	284351	20.00	PPB	100
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	1243307	400.00	PPB	100
34) Toluene	9.75	92	570497	20.00	PPB	100
36) trans-1,3-Dichloropropene	10.47	75	223016	20.00	PPB	100
37) 1,1,2-Trichloroethane	10.77	83	153182	20.00	PPB	100
38) Tetrachloroethene	10.75	164	185268	20.00	PPB	100
39) 2-Hexanone	11.25	43	2027981	400.00	PPB	100
40) Dibromochloromethane	11.35	129	198639	20.00	PPB	100
41) Chlorobenzene	12.25	112	630374	20.00	PPB	100
42) Ethylbenzene	12.41	106	335365	20.00	PPB	100
43) m,p-Xylenes	12.60	106	822451	40.00	PPB	100
44) o-Xylene	13.13	106	385391	20.00	PPB	100
45) Styrene	13.18	103	317686	20.00	PPB	100
46) Bromoform	13.41	173	119310	20.00	PPB	100
49) 1,1,2,2-Tetrachloroethane	14.12	83	199642	20.00	PPB	100
51) 1,3-Dichlorobenzene	15.12	146	478910	20.00	PPB	100
52) 1,4-Dichlorobenzene	15.24	146	495493	20.00	PPB	100
53) 1,2-Dichlorobenzene	15.65	146	448068	20.00	PPB	100

Data File : J:\MS13\DATA\020810\_624\0208F009.D  
 Acq On : 8 Feb 2010 5:38 pm  
 Sample : 20 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:57 2010

Vial: 9  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F010.D  
 Acq On : 8 Feb 2010 6:06 pm  
 Sample : 40 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:48 2010

Vial: 10  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Conc 2/4/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	809591	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	303738	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	316651	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	389777	38.65	PPB	0.00
Spiked Amount	20.000		Recovery	=	193.25%	
24) 1,2-Dichloroethane-d4	5.88	65	430835	39.09	PPB	0.00
Spiked Amount	20.000		Recovery	=	195.45%	
33) Toluene-d8	9.60	98	1684446	40.31	PPB	0.00
Spiked Amount	20.000		Recovery	=	201.55%	
47) 4-Bromofluorobenzene	13.85	95	591730	38.92	PPB	0.00
Spiked Amount	20.000		Recovery	=	194.60%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	410919	39.47	PPB	100
3) Chloromethane	1.43	50	510833	39.11	PPB	99
4) Vinyl Chloride	1.51	62	470495	39.23	PPB	99
5) Bromomethane	1.78	96	258807	41.95	PPB	96
6) Chloroethane	1.87	49	71742	38.27	PPB	92
7) Trichlorofluoromethane	2.05	101	658063	39.86	PPB	99
8) Acrolein	2.50	56	674738	790.07	PPB	96
9) Trichlorotrifluoroethane	2.50	151	339526	39.23	PPB	93
10) 1,1-Dichloroethene	2.53	96	349840	39.58	PPB	98
11) Acetone	2.65	43	1813780	789.26	PPB	100
12) Carbon Disulfide	2.72	76	1425492	39.62	PPB	100
13) Methylene Chloride	3.07	84	444580	39.86	PPB	97
14) Acrylonitrile	3.43	53	273915	79.13	PPB	99
15) trans-1,2-Dichloroethene	3.31	96	438283	39.19	PPB	95
16) 1,1-Dichloroethane	3.86	63	718916	40.26	PPB	97
17) Vinyl Acetate	3.92	86	135028	76.24	PPB	94
18) cis-1,2-Dichloroethene	4.62	96	487275	40.11	PPB	97
19) 2-Butanone	4.68	72	814390	800.52	PPB	97
20) Chloroform	5.07	83	717221	39.54	PPB	97
21) 1,1,1-Trichloroethane	5.26	97	546121	41.17	PPB	99
23) Carbon Tetrachloride	5.44	117	526827	40.85	PPB	94
25) Benzene	5.83	78	1842654	39.62	PPB	99
26) 1,2-Dichloroethane	6.02	62	514499	38.84	PPB	98
27) Trichloroethene	6.98	95	449580	39.78	PPB	93
28) 1,2-Dichloropropane	7.51	63	433502	40.78	PPB	99
29) Bromodichloromethane	8.08	83	545297	40.51	PPB	97
30) 2-Chloroethyl Vinyl Ether	8.88	63	222979	41.40	PPB	97

*ka*  
*2/4/10*

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F010.D Vial: 10  
 Acq On : 8 Feb 2010 6:06 pm Operator: CMK  
 Sample : 40 PPB ICAL Inst : MS13  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:48 2010 Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.13	75	600778	40.86	PPB	99
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	2598380	808.28	PPB	96
34) Toluene	9.75	92	1167643	39.58	PPB	98
36) trans-1,3-Dichloropropene	10.47	75	490792	42.44	PPB	97
37) 1,1,2-Trichloroethane	10.78	83	307213	38.67	PPB	98
38) Tetrachloroethene	10.75	164	378794	39.43	PPB	98
39) 2-Hexanone	11.25	43	4274793	812.95	PPB	99
40) Dibromochloromethane	11.35	129	407884	39.60	PPB	100
41) Chlorobenzene	12.25	112	1298097	39.71	PPB	99
42) Ethylbenzene	12.41	106	698086	40.14	PPB	97
43) m,p-Xylenes	12.60	106	1702632	79.84	PPB	98
44) o-Xylene	13.13	106	808715	40.46	PPB	99
45) Styrene	13.18	103	654877	39.75	PPB	98
46) Bromoform	13.41	173	241646	39.06	PPB	99
49) 1,1,2,2-Tetrachloroethane	14.12	83	400421	38.63	PPB	97
51) 1,3-Dichlorobenzene	15.12	146	977963	39.33	PPB	98
52) 1,4-Dichlorobenzene	15.24	146	1001228	38.92	PPB	97
53) 1,2-Dichlorobenzene	15.65	146	909596	39.10	PPB	99

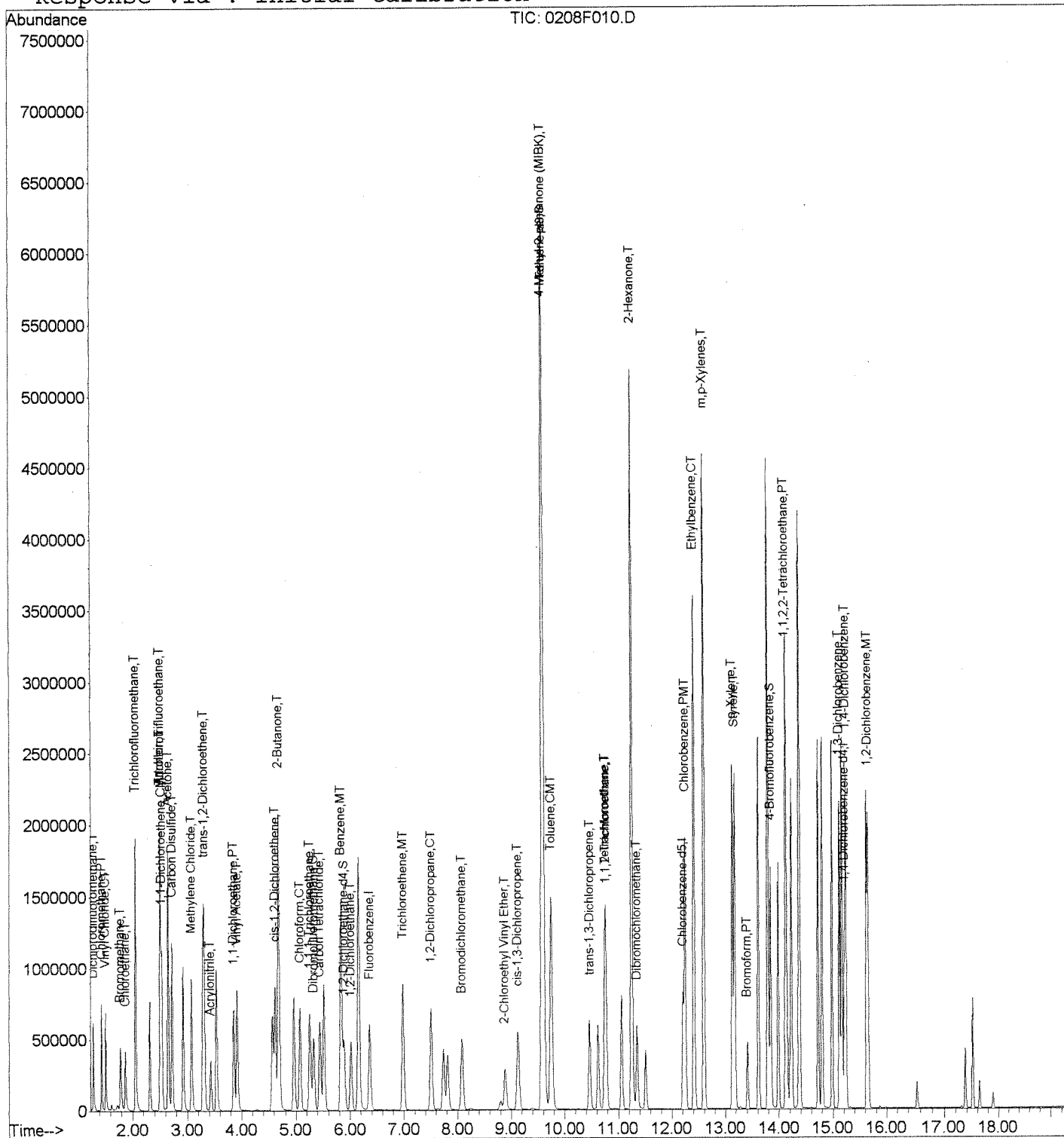


Data File : J:\MS13\DATA\020810\_624\0208F010.D  
 Acq On : 8 Feb 2010 6:06 pm  
 Sample : 40 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:04 2010

Vial: 10  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F011.D  
 Acq On : 8 Feb 2010 6:33 pm  
 Sample : 80 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:49 2010

Vial: 11  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Ann 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	839580	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	315199	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	328411	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	494660	47.29	PPB	0.00
Spiked Amount	20.000		Recovery	=	236.45%	
24) 1,2-Dichloroethane-d4	5.88	65	541188	47.34	PPB	0.00
Spiked Amount	20.000		Recovery	=	236.70%	
33) Toluene-d8	9.61	98	2094856	48.34	PPB	0.00
Spiked Amount	20.000		Recovery	=	241.70%	
47) 4-Bromofluorobenzene	13.85	95	741303	46.98	PPB	0.00
Spiked Amount	20.000		Recovery	=	234.90%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	787737	72.95	PPB	99
3) Chloromethane	1.43	50	1004817	74.18	PPB	99
4) Vinyl Chloride	1.51	62	917424	73.76	PPB	98
5) Bromomethane	1.77	96	548965	85.80	PPB	97
6) Chloroethane	1.86	49	143005	73.56	PPB	96
7) Trichlorofluoromethane	2.05	101	1285791	75.10	PPB	98
8) Acrolein	2.50	56	1425587	1609.63	PPB	97
9) Trichlorotrifluoroethane	2.50	151	666785	74.29	PPB	95
10) 1,1-Dichloroethene	2.53	96	701432	76.52	PPB	99
11) Acetone	2.65	43	3780965	1586.51	PPB	100
12) Carbon Disulfide	2.72	76	2828494	75.80	PPB	99
13) Methylene Chloride	3.07	84	894641	77.35	PPB	98
14) Acrylonitrile	3.43	53	574484	160.02	PPB	99
15) trans-1,2-Dichloroethene	3.31	96	888196	76.57	PPB	98
16) 1,1-Dichloroethane	3.86	63	1474143	79.60	PPB	97
17) Vinyl Acetate	3.92	86	319673	174.04	PPB	95
18) cis-1,2-Dichloroethene	4.62	96	984629	78.15	PPB	97
19) 2-Butanone	4.68	72	1722007	1632.22	PPB	94
20) Chloroform	5.08	83	1463182	77.78	PPB	97
21) 1,1,1-Trichloroethane	5.26	97	1121929	81.55	PPB	96
23) Carbon Tetrachloride	5.44	117	1051415	78.61	PPB	93
25) Benzene	5.83	78	3725343	77.23	PPB	99
26) 1,2-Dichloroethane	6.02	62	1051268	76.53	PPB	99
27) Trichloroethene	6.98	95	902170	76.98	PPB	94
28) 1,2-Dichloropropane	7.51	63	902126	81.84	PPB	99
29) Bromodichloromethane	8.08	83	1115627	79.93	PPB	98
30) 2-Chloroethyl Vinyl Ether	8.88	63	491913	88.08	PPB	98

*Kr*  
*Mat*

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F011.D  
 Acq On : 8 Feb 2010 6:33 pm  
 Sample : 80 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:49 2010

Vial: 11  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.13	75	1308210	85.79	PPB	97
32) 4-Methyl-2-pentanone (MIBK)	9.59	58	5550788	1665.01	PPB	96
34) Toluene	9.75	92	2373313	77.57	PPB	100
36) trans-1,3-Dichloropropene	10.47	75	1069071	89.08	PPB	98
37) 1,1,2-Trichloroethane	10.78	83	632033	76.67	PPB	93
38) Tetrachloroethene	10.75	164	757344	75.96	PPB	97
39) 2-Hexanone	11.25	43	9152254	1677.23	PPB	99
40) Dibromochloromethane	11.36	129	847696	79.30	PPB	100
41) Chlorobenzene	12.25	112	2610712	76.96	PPB	99
42) Ethylbenzene	12.41	106	1405323	77.87	PPB	99
43) m,p-Xylenes	12.60	106	3445523	155.69	PPB	98
44) o-Xylene	13.13	106	1638145	78.99	PPB	99
45) Styrene	13.18	103	1353421	79.16	PPB	99
46) Bromoform	13.41	173	519550	80.92	PPB	96
49) 1,1,2,2-Tetrachloroethane	14.12	83	834775	77.66	PPB	97
51) 1,3-Dichlorobenzene	15.12	146	1988970	77.13	PPB	97
52) 1,4-Dichlorobenzene	15.24	146	2031947	76.16	PPB	99
53) 1,2-Dichlorobenzene	15.65	146	1872255	77.60	PPB	99

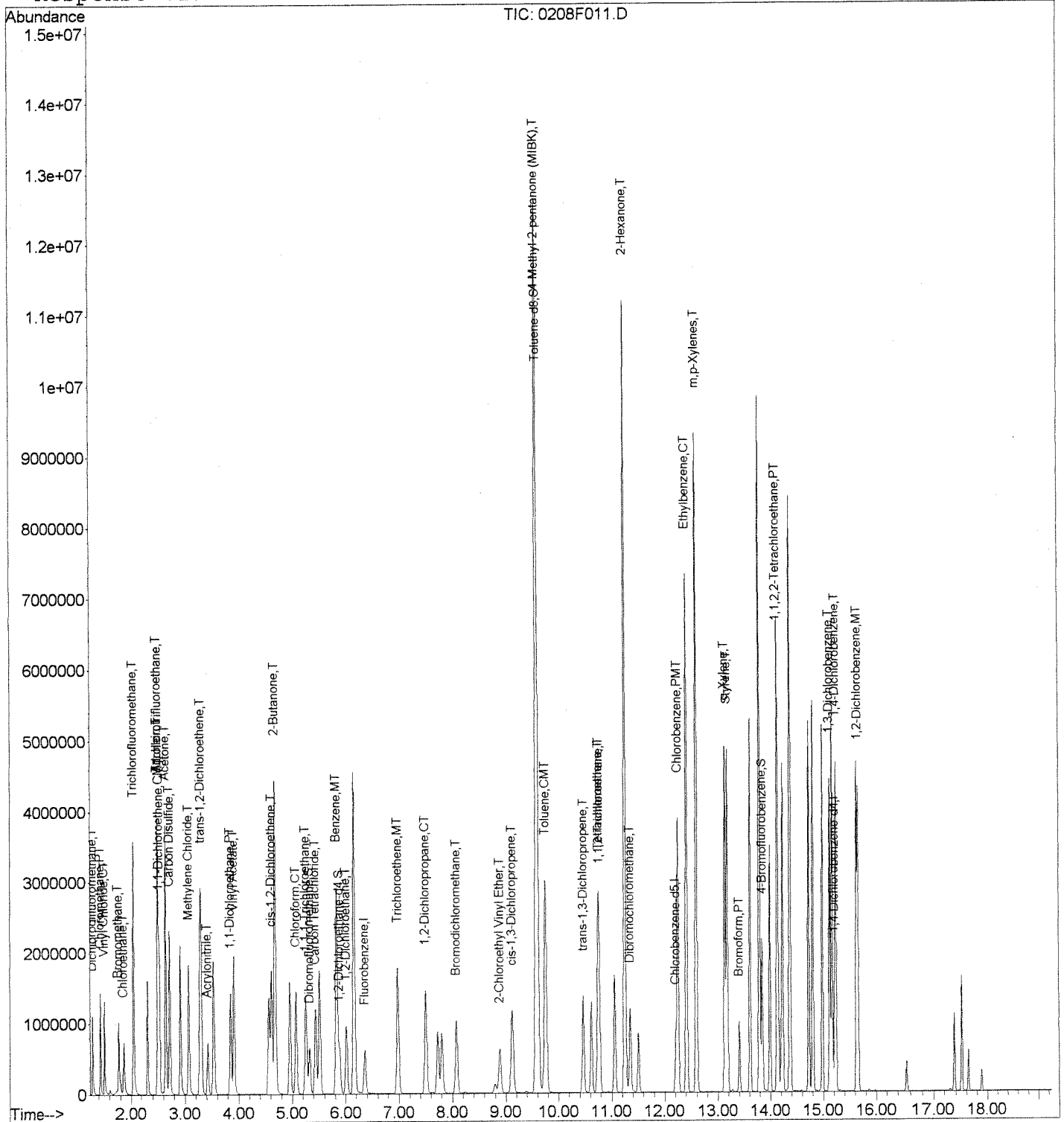
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\020810\_624\0208F011.D  
Acq On : 8 Feb 2010 6:33 pm  
Sample : 80 PPB ICAL  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Feb 8 20:04 2010

Vial: 11  
Operator: CMK  
Inst : MS13  
Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
Title : VOA MS13 EPA Method 8260B  
Last Update : Mon Feb 08 20:05:04 2010  
Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F012.D  
 Acq On : 8 Feb 2010 7:01 pm  
 Sample : 120 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:49 2010

Vial: 12  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Conc 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	865220	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	326403	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	329512	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	614185	56.98	PPB	0.00
Spiked Amount	20.000		Recovery	= 284.90%		
24) 1,2-Dichloroethane-d4	5.88	65	670487	56.92	PPB	0.00
Spiked Amount	20.000		Recovery	= 284.60%		
33) Toluene-d8	9.61	98	2614057	58.53	PPB	0.00
Spiked Amount	20.000		Recovery	= 292.65%		
47) 4-Bromofluorobenzene	13.85	95	913502	55.91	PPB	0.00
Spiked Amount	20.000		Recovery	= 279.55%		

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	1179501	106.00	PPB	100
3) Chloromethane	1.43	50	1551317	111.13	PPB	99
4) Vinyl Chloride	1.51	62	1427141	111.34	PPB	98
5) Bromomethane	1.77	96	872645	132.36	PPB	97
6) Chloroethane	1.86	49	219143	109.39	PPB	99
7) Trichlorofluoromethane	2.05	101	1981122	112.28	PPB	99
8) Acrolein	2.51	56	2134958	2339.15	PPB	99
9) Trichlorotrifluoroethane	2.50	151	1028289	111.18	PPB	95
10) 1,1-Dichloroethene	2.53	96	1069001	113.17	PPB	97
11) Acetone	2.65	43	5656574	2303.18	PPB	100
12) Carbon Disulfide	2.72	76	4382332	113.97	PPB	100
13) Methylene Chloride	3.07	84	1374581	115.33	PPB	99
14) Acrylonitrile	3.43	53	866294	234.16	PPB	98
15) trans-1,2-Dichloroethene	3.31	96	1370607	114.66	PPB	97
16) 1,1-Dichloroethane	3.86	63	2295021	120.25	PPB	98
17) Vinyl Acetate	3.92	86	512430	270.71	PPB	# 88
18) cis-1,2-Dichloroethene	4.62	96	1509796	116.28	PPB	99
19) 2-Butanone	4.68	72	2577360	2370.58	PPB	94
20) Chloroform	5.07	83	2262514	116.71	PPB	97
21) 1,1,1-Trichloroethane	5.26	97	1776040	125.27	PPB	95
23) Carbon Tetrachloride	5.44	117	1641359	119.08	PPB	95
25) Benzene	5.84	78	5773211	116.14	PPB	99
26) 1,2-Dichloroethane	6.02	62	1606093	113.45	PPB	98
27) Trichloroethene	6.98	95	1402519	116.13	PPB	95
28) 1,2-Dichloropropane	7.51	63	1420062	125.01	PPB	96
29) Bromodichloromethane	8.08	83	1733520	120.51	PPB	98
30) 2-Chloroethyl Vinyl Ether	8.89	63	754004	131.00	PPB	99

*1/2  
2/11/10*

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F012.D  
 Acq On : 8 Feb 2010 7:01 pm  
 Sample : 120 PPB ICAL  
 Misc :

Vial: 12  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:49 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.13	75	2068250	131.61	PPB	97
32) 4-Methyl-2-pentanone (MIBK)	9.59	58	8314078	2419.99	PPB	95
34) Toluene	9.76	92	3655785	115.95	PPB	99
36) trans-1,3-Dichloropropene	10.47	75	1684872	135.57	PPB	98
37) 1,1,2-Trichloroethane	10.77	83	973573	114.05	PPB	95
38) Tetrachloroethene	10.75	164	1154012	111.77	PPB	98
39) 2-Hexanone	11.25	43	13445595	2379.44	PPB	99
40) Dibromochloromethane	11.36	129	1290222	116.55	PPB	99
41) Chlorobenzene	12.25	112	4004969	114.01	PPB	99
42) Ethylbenzene	12.41	106	2182549	116.78	PPB	99
43) m,p-Xylenes	12.60	106	5300587	231.30	PPB	98
44) o-Xylene	13.13	106	2541036	118.31	PPB	96
45) Styrene	13.18	103	2082592	117.63	PPB	98
46) Bromoform	13.41	173	787101	118.38	PPB	98
49) 1,1,2,2-Tetrachloroethane	14.12	83	1242115	115.16	PPB	97
51) 1,3-Dichlorobenzene	15.12	146	3056505	118.13	PPB	98
52) 1,4-Dichlorobenzene	15.24	146	3107976	116.10	PPB	99
53) 1,2-Dichlorobenzene	15.65	146	2831359	116.96	PPB	98

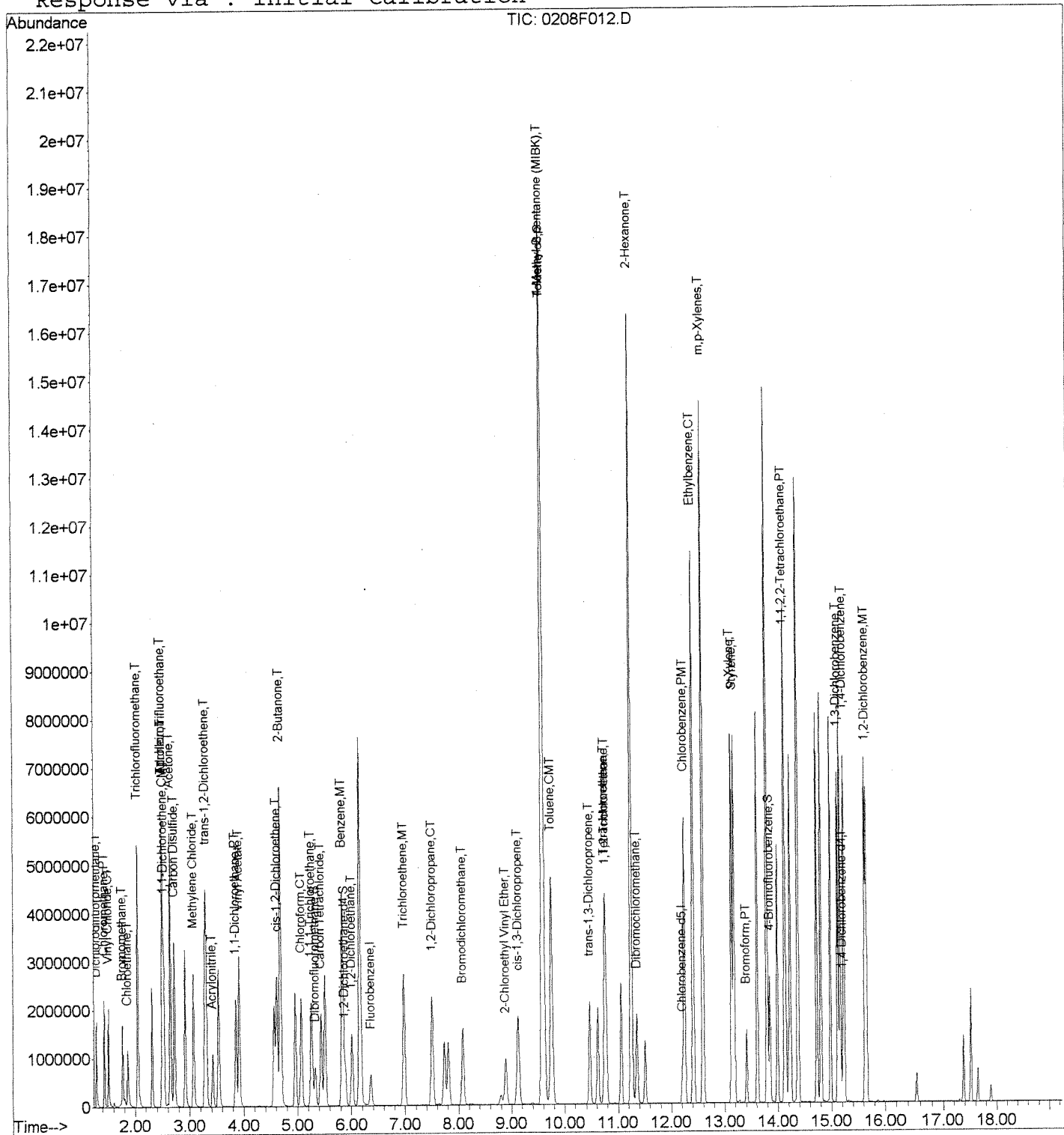
(#) = qualifier out of range (m) = manual integration  
 0208F012.D 020810MS13\_624.M Mon Feb 08 20:09:07 2010

Data File : J:\MS13\DATA\020810\_624\0208F012.D  
Acq On : 8 Feb 2010 7:01 pm  
Sample : 120 PPB ICAL  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Feb 8 20:04 2010

Vial: 12  
Operator: CMK  
Inst : MS13  
Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
Title : VOA MS13 EPA Method 8260B  
Last Update : Mon Feb 08 20:05:04 2010  
Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 09 10:14:00 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Ann 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	771682	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	291896	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	291008	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	171747	18.55	PPB	0.00
Spiked Amount	20.000		Recovery	=	92.75%	
24) 1,2-Dichloroethane-d4	5.88	65	187642	18.43	PPB	0.00
Spiked Amount	20.000		Recovery	=	92.15%	
33) Toluene-d8	9.60	98	733802	19.49	PPB	0.00
Spiked Amount	20.000		Recovery	=	97.45%	
47) 4-Bromofluorobenzene	13.85	95	254625	18.72	PPB	0.00
Spiked Amount	20.000		Recovery	=	93.60%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
7) Trichlorofluoromethane	2.05	101	722	0.05	PPB	93
9) Trichlorotrifluoroethane	2.50	151	927	0.12	PPB	# 77
11) Acetone	2.65	43	2451	1.13	PPB	72
12) Carbon Disulfide	2.73	76	2753	0.09	PPB	79
13) Methylene Chloride	3.07	84	2302	0.22	PPB	84
25) Benzene	5.83	78	1372m	0.03	PPB	
34) Toluene	9.76	92	3344m	0.13	PPB	
38) Tetrachloroethene	10.74	164	954	0.11	PPB	# 49
39) 2-Hexanone	11.25	43	1920	0.42	PPB	63
41) Chlorobenzene	12.26	112	1918	0.06	PPB	73
42) Ethylbenzene	12.41	106	828	0.06	PPB	# 53
43) m,p-Xylenes	12.61	106	2626	0.15	PPB	# 42
44) o-Xylene	13.13	106	1448	0.09	PPB	92
49) 1,1,2,2-Tetrachloroethane	14.12	83	1160	0.13	PPB	93
51) 1,3-Dichlorobenzene	15.12	146	3188	0.15	PPB	94
52) 1,4-Dichlorobenzene	15.24	146	4107	0.19	PPB	85
53) 1,2-Dichlorobenzene	15.65	146	5053	0.25	PPB	96

*(All < MRL)*

*[Handwritten signature]*

(#) = qualifier out of range (m) = manual integration



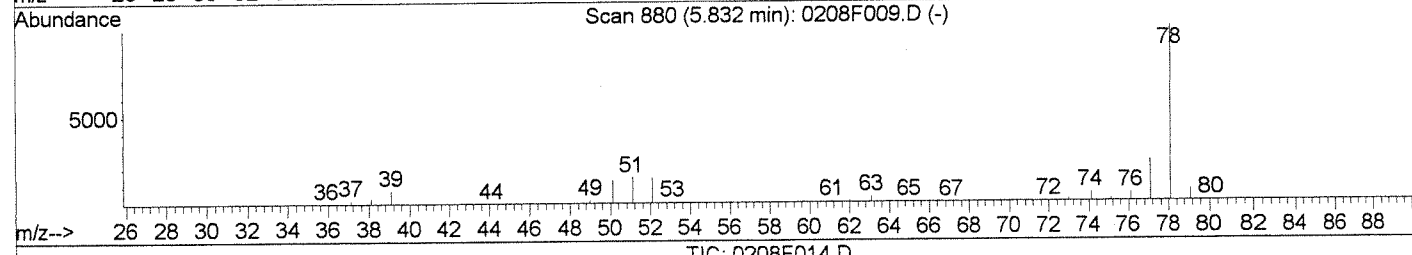
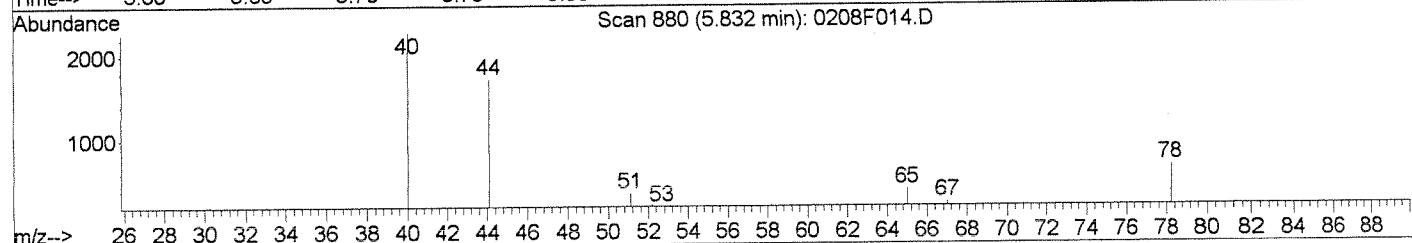
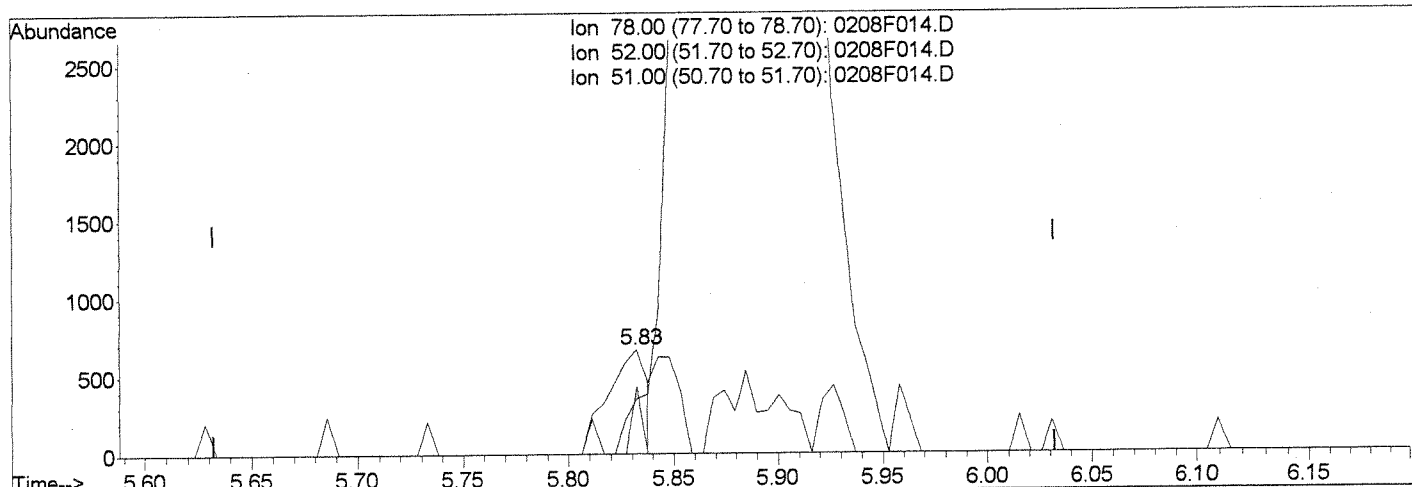
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:53 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Multiple Level Calibration



(25) Benzene (MT)

5.83min 0.02PPB

response 860

Ion	Exp%	Act%
78.00	100	100
52.00	14.50	94.89#
51.00	14.50	53.15#
0.00	0.00	0.00

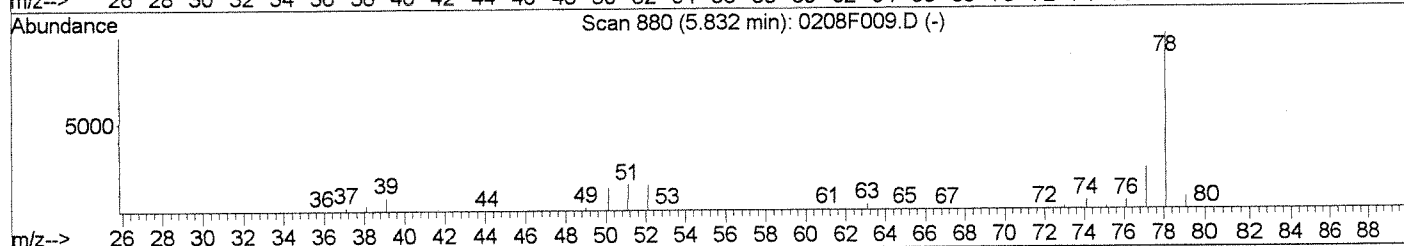
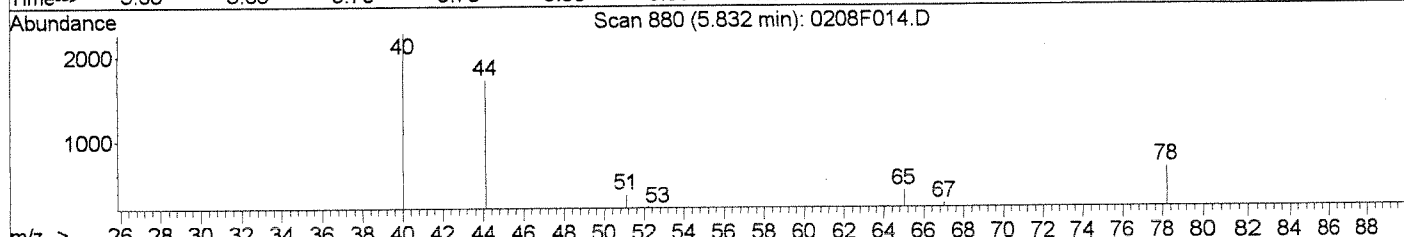
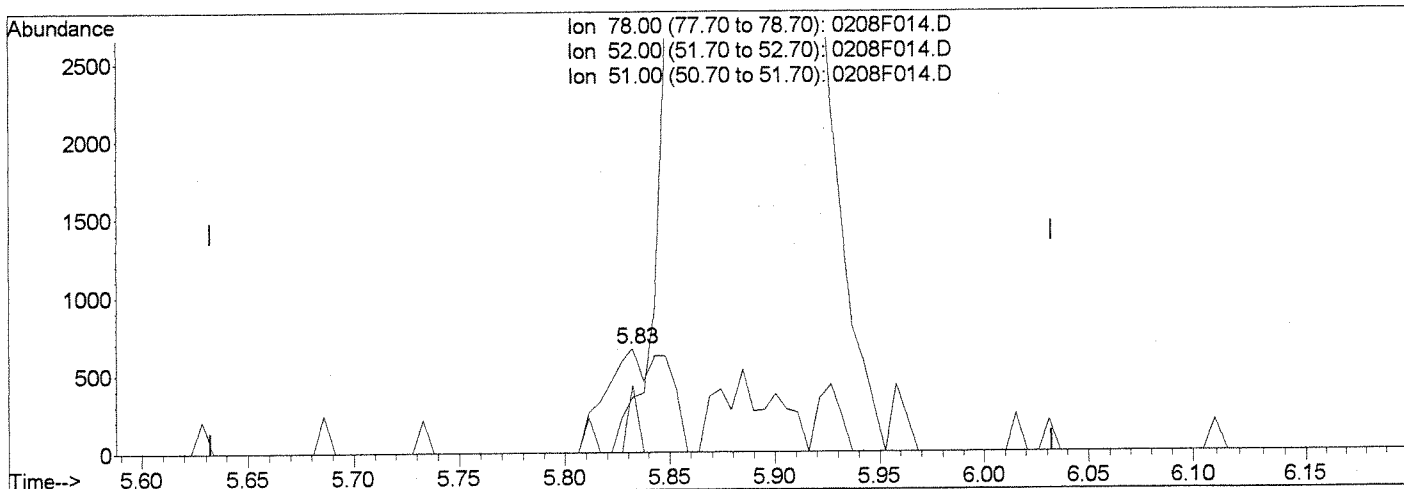
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:53 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Multiple Level Calibration



(25) Benzene (MT)  
 5.83min 0.03PPB m  
 response 1372

Ion	Exp%	Act%
78.00	100	100
52.00	14.50	33.78
51.00	14.50	53.15#
0.00	0.00	0.00

S.P.  
 2/9/10

*Handwritten signature*

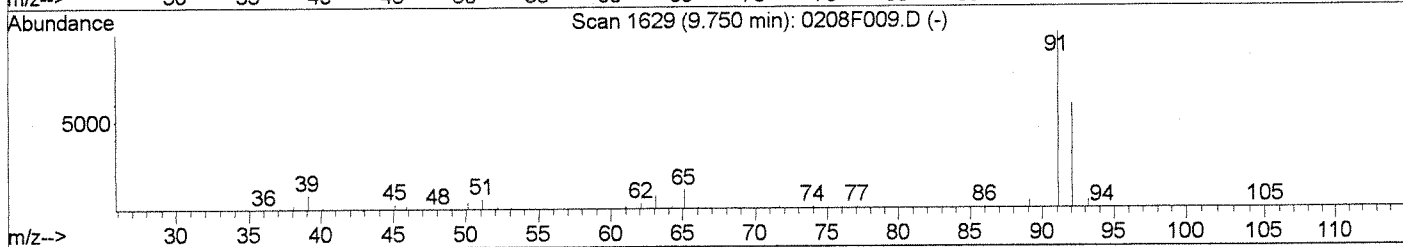
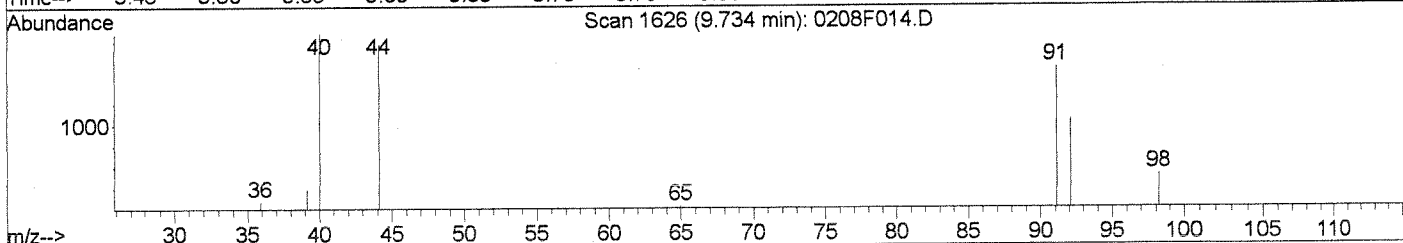
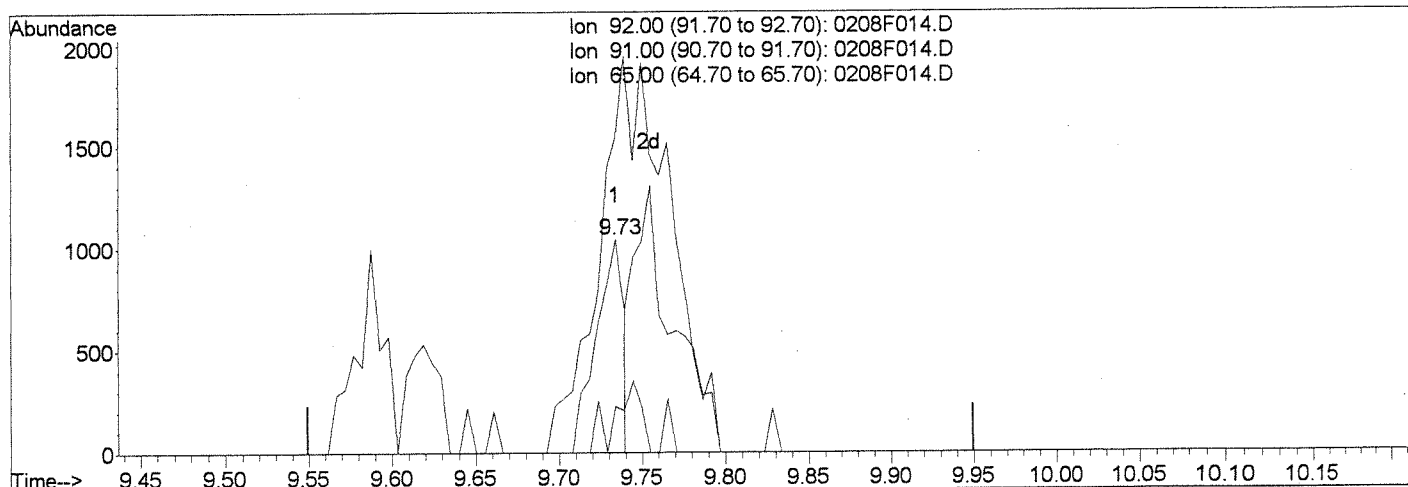
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:54 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Multiple Level Calibration



TIC: 0208F014.D

(34) Toluene (CMT)

9.73min 0.05PPB

response 1213

Ion	Exp%	Act%
92.00	100	100
91.00	169.70	121.93#
65.00	17.90	21.55
0.00	0.00	0.00

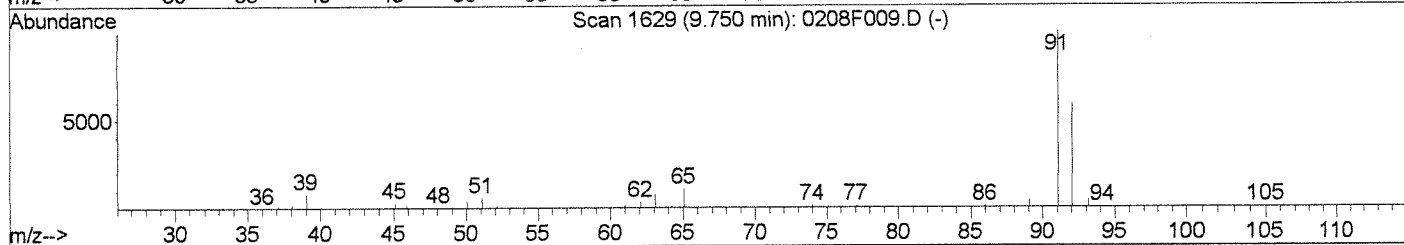
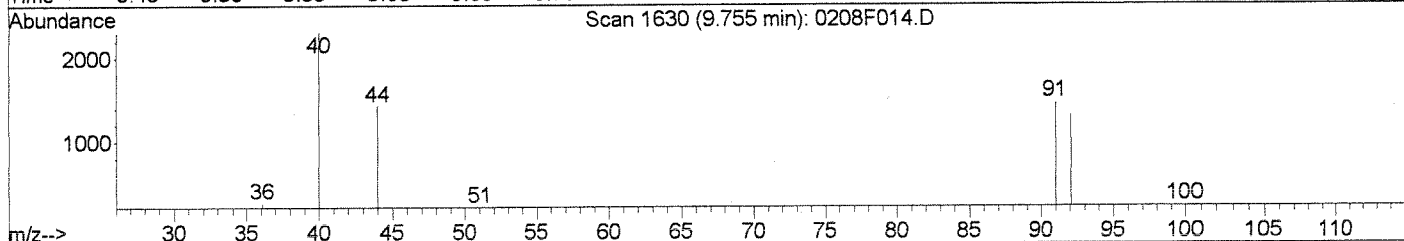
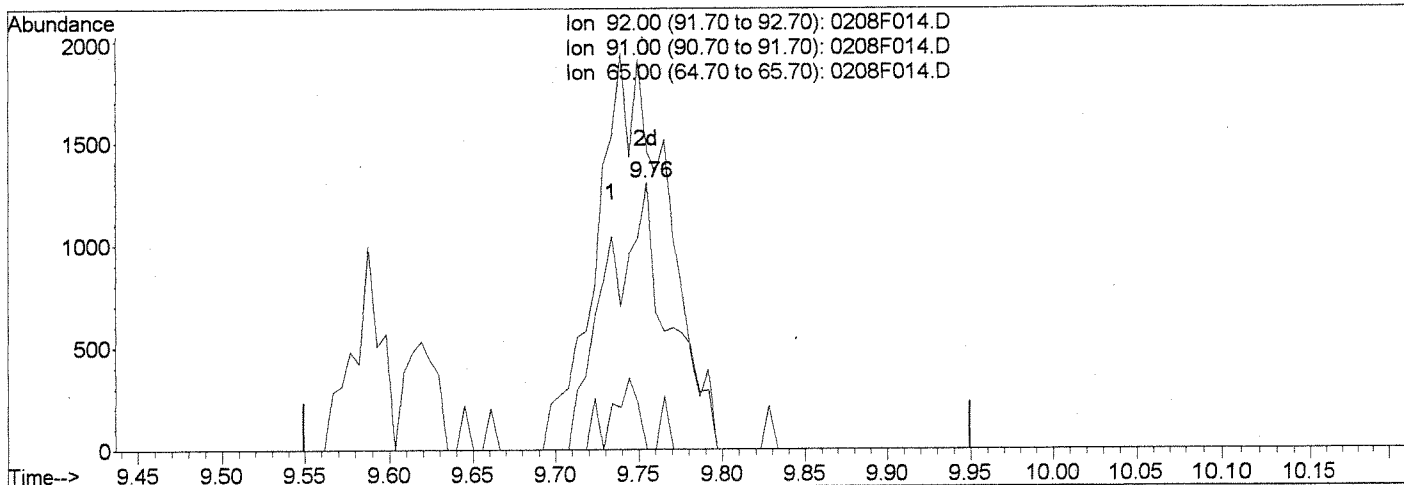
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:54 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Multiple Level Calibration



TIC: 0208F014.D

(34) Toluene (CMT)		
9.76min 0.13PPB m		
response 3344		
Ion	Exp%	Act%
92.00	100	100
91.00	169.70	111.57#
65.00	17.90	0.00
0.00	0.00	0.00

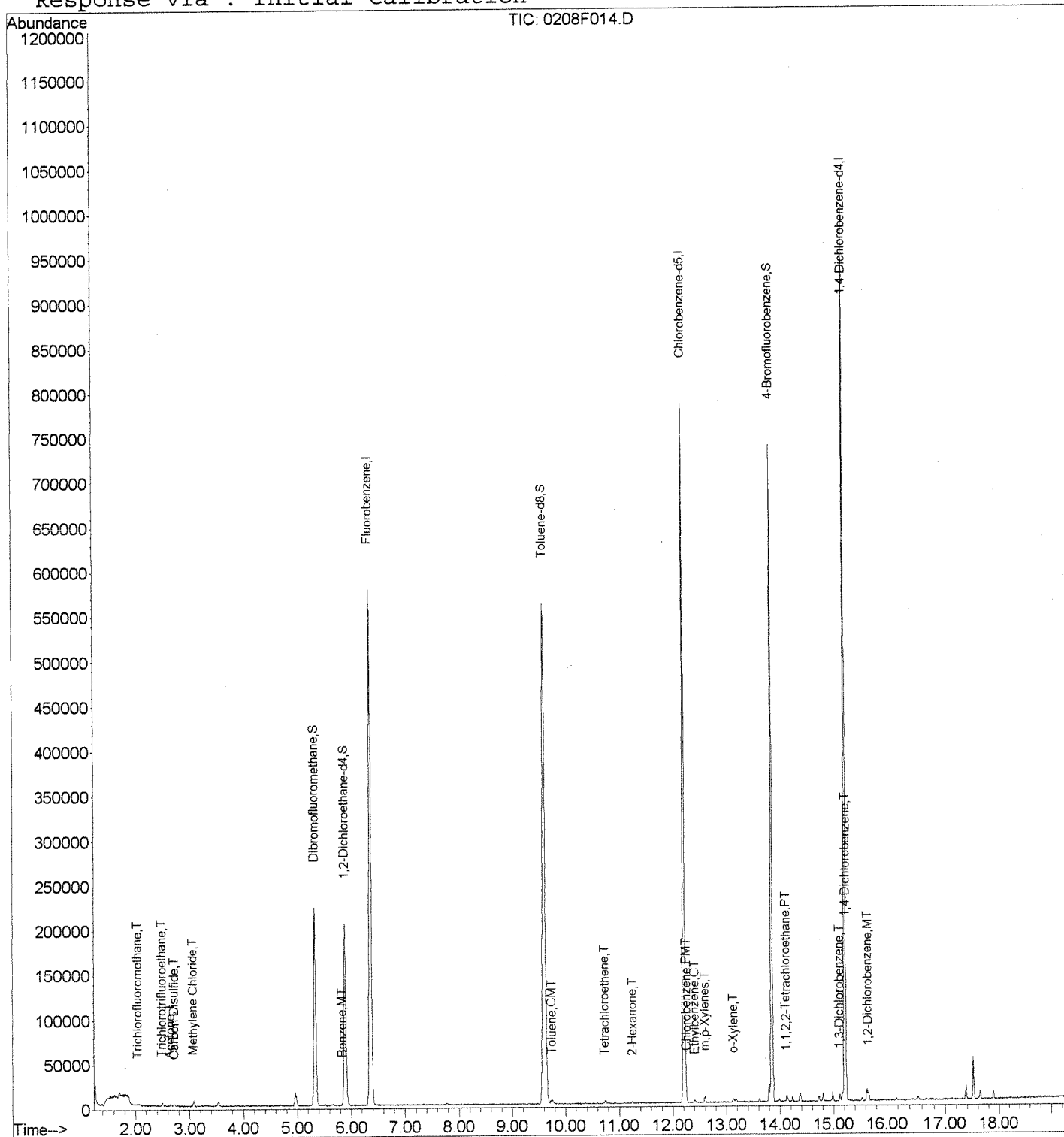
*S.P.*  
*um 2/9/10*  
*Kr...*

Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:54 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F015.D  
 Acq On : 8 Feb 2010 8:23 pm  
 Sample : ICV  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 09 10:08:33 2010

Vial: 15  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Cum 2/9/10* *LS 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	6.36	96	785142	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	295199	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	304325	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	179299	19.03	PPB	0.00
Spiked Amount	20.000		Recovery	=	95.15%	
24) 1,2-Dichloroethane-d4	5.89	65	189982	18.34	PPB	0.00
Spiked Amount	20.000		Recovery	=	91.70%	
33) Toluene-d8	9.60	98	769891	20.10	PPB	0.00
Spiked Amount	20.000		Recovery	=	100.50%	
47) 4-Bromofluorobenzene	13.85	95	270217	19.65	PPB	0.00
Spiked Amount	20.000		Recovery	=	98.25%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	276891	27.72	PPB	100
3) Chloromethane	1.43	50	289898	23.28	PPB	100
4) Vinyl Chloride	1.52	62	262937	24.48	PPB	98
5) Bromomethane	1.78	96	129129	23.55	PPB	97
6) Chloroethane	1.87	49	36747	22.62	PPB	93
7) Trichlorofluoromethane	2.05	101	291470	19.06	PPB	97
8) Acrolein	2.51	56	127143	151.41	PPB	96
9) Trichlorotrifluoroethane	2.50	151	158186	19.84	PPB	92
10) 1,1-Dichloroethene	2.53	96	176255	22.15	PPB	98
11) Acetone	2.65	43	201629	91.34	PPB	99
12) Carbon Disulfide	2.73	76	1269582	38.81	PPB	99
13) Methylene Chloride	3.08	84	237357	21.95	PPB	99
14) Acrylonitrile	3.43	53	59366	18.43	PPB	98
15) trans-1,2-Dichloroethene	3.31	96	206767	20.44	PPB	99
16) 1,1-Dichloroethane	3.86	63	332533	20.03	PPB	96
17) Vinyl Acetate	3.92	86	44011	26.63	PPB	# 77
18) cis-1,2-Dichloroethene	4.62	96	223063	20.22	PPB	97
19) 2-Butanone	4.69	72	85126	91.22	PPB	93
20) Chloroform	5.07	83	344811	20.58	PPB	98
21) 1,1,1-Trichloroethane	5.26	97	252904	20.70	PPB	98
23) Carbon Tetrachloride	5.44	117	237785	20.25	PPB	94
25) Benzene	5.83	78	876884	20.94	PPB	99
26) 1,2-Dichloroethane	6.02	62	243284	19.79	PPB	99
27) Trichloroethene	6.98	95	207426	19.92	PPB	92
28) 1,2-Dichloropropane	7.51	63	200240	20.06	PPB	96
29) Bromodichloromethane	8.08	83	247348	19.84	PPB	98
30) 2-Chloroethyl Vinyl Ether	8.89	63	98924	20.21	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F015.D  
 Acq On : 8 Feb 2010 8:23 pm  
 Sample : ICV  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 09 10:08:33 2010

Vial: 15  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

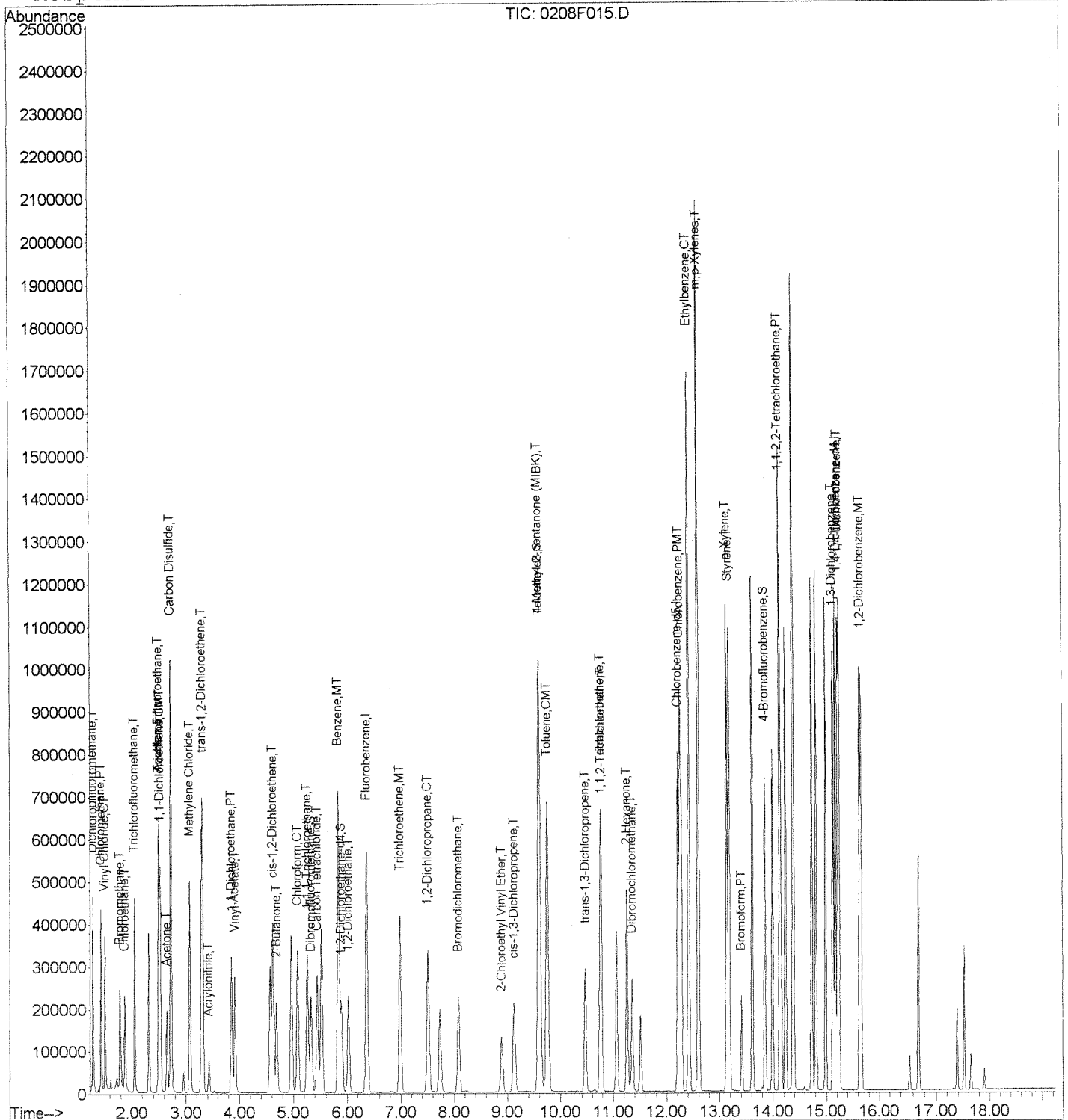
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.12	75	225521	16.98	PPB	95
32) 4-Methyl-2-pentanone (MIBK)	9.59	58	253425	89.28	PPB #	70
34) Toluene	9.75	92	549329	20.60	PPB	96
36) trans-1,3-Dichloropropene	10.46	75	232545	21.79	PPB	99
37) 1,1,2-Trichloroethane	10.78	83	144541	20.29	PPB	96
38) Tetrachloroethene	10.75	164	173867	20.37	PPB	96
39) 2-Hexanone	11.25	43	392296	85.40	PPB	99
40) Dibromochloromethane	11.35	129	182633	19.26	PPB	97
41) Chlorobenzene	12.25	112	611073	20.45	PPB	99
42) Ethylbenzene	12.41	106	318165	21.47	PPB	96
43) m,p-Xylenes	12.60	106	786032	43.02	PPB	98
44) o-Xylene	13.13	106	386548	22.55	PPB	95
45) Styrene	13.18	103	306271	21.97	PPB	99
46) Bromoform	13.41	173	116709	20.57	PPB	100
49) 1,1,2,2-Tetrachloroethane	14.12	83	180423	18.67	PPB	99
51) 1,3-Dichlorobenzene	15.12	146	467310	21.21	PPB	99
52) 1,4-Dichlorobenzene	15.24	146	476718	20.69	PPB	97
53) 1,2-Dichlorobenzene	15.65	146	427149	20.45	PPB	98

Data File : J:\MS13\DATA\020810\_624\0208F015.D  
 Acq On : 8 Feb 2010 8:23 pm  
 Sample : ICV  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:08 2010

Vial: 15  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Initial Calibration





COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar - Kronquist/0907194.000.0601

Service Request: K1004934  
 Date Analyzed: 05/28/2010

Continuing Calibration Verification Summary  
 Volatile Organic Compounds

Calibration Type: Internal Standard  
 Analysis Method: 624

Calibration Date: 02/08/2010  
 Calibration ID: CAL9204  
 Analysis Lot: KWG1005070  
 Units: PPB

File ID: J:\MS13\DATA\052810-624\0528F107.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Chloromethane	20	20	0.01	0.317	0.321	1	NA	± 104 %	AverageRF
Vinyl Chloride	20	20	0.01	0.274	0.267	-2	NA	± 96 %	AverageRF
Bromomethane	20	21	0.01	0.140	0.150	7	NA	± 86 %	AverageRF
Chloroethane	20	22	0.01	0.0414	0.0454	10	NA	± 62 %	AverageRF
Trichlorofluoromethane	20	24	0.01	0.390	0.474	22	NA	± 52 %	AverageRF
1,1-Dichloroethene	20	22	0.01	0.203	0.226	11	NA	± 49 %	AverageRF
Methylene Chloride	20	20	0.01	0.275	0.280	2	NA	± 39 %	AverageRF
trans-1,2-Dichloroethene	20	22	0.01	0.258	0.278	8	NA	± 30 %	AverageRF
1,1-Dichloroethane	20	22	0.01	0.423	0.466	10	NA	± 27 %	AverageRF
Chloroform	20	22	0.01	0.427	0.464	9	NA	± 32 %	AverageRF
1,1,1-Trichloroethane (TCA)	20	22	0.01	0.311	0.338	9	NA	± 25 %	AverageRF
Carbon Tetrachloride	20	23	0.01	0.299	0.349	17	NA	± 27 %	AverageRF
Benzene	20	22	0.01	1.07	1.16	9	NA	± 36 %	AverageRF
1,2-Dichloroethane (EDC)	20	24	0.01	0.313	0.370	18	NA	± 32 %	AverageRF
Trichloroethene (TCE)	20	21	0.01	0.265	0.279	5	NA	± 33 %	AverageRF
1,2-Dichloropropane	20	20	0.01	0.254	0.258	1	NA	± 66 %	AverageRF
Bromodichloromethane	20	22	0.01	0.318	0.343	8	NA	± 34 %	AverageRF
2-Chloroethyl Vinyl Ether	20	22	0.01	0.125	0.137	9	NA	± 124 %	AverageRF
trans-1,3-Dichloropropene	20	18	0.01	0.723	0.649	-10	NA	± 50 %	AverageRF
Toluene	20	21	0.01	0.679	0.710	5	NA	± 25 %	AverageRF
cis-1,3-Dichloropropene	20	20	0.01	0.338	0.330	-3	NA	± 76 %	AverageRF
1,1,2-Trichloroethane	20	19	0.01	0.483	0.468	-3	NA	± 29 %	AverageRF
Tetrachloroethene (PCE)	20	19	0.01	0.578	0.549	-5	NA	± 26 %	AverageRF
Dibromochloromethane	20	19	0.01	0.642	0.598	-7	NA	± 32 %	AverageRF
Chlorobenzene	20	19	0.01	2.02	1.90	-6	NA	± 34 %	AverageRF
Ethylbenzene	20	21	0.01	1.00	1.04	4	NA	± 41 %	AverageRF
Bromoform	20	17	0.01	0.384	0.324	-16	NA	± 29 %	AverageRF
1,1,2,2-Tetrachloroethane	20	21	0.01	0.635	0.670	6	NA	± 39 %	AverageRF
1,3-Dichlorobenzene	20	21	0.01	1.45	1.51	4	NA	± 27 %	AverageRF
1,4-Dichlorobenzene	20	20	0.01	1.51	1.54	2	NA	± 37 %	AverageRF
1,2-Dichlorobenzene	20	21	0.01	1.37	1.43	4	NA	± 37 %	AverageRF
Acrolein	400	630	0.01	0.0214	0.0336	57	NA	± 80 %	AverageRF
Acrylonitrile	40	44	0.01	0.0821	0.0897	9	NA	± 40 %	AverageRF
Toluene-d8	20	20	0.01	0.976	0.967	-1	NA	± 30 %	AverageRF
4-Bromofluorobenzene	20	19	0.01	0.932	0.882	-5	NA	± 30 %	AverageRF
Dibromofluoromethane	20	18	0.01	0.240	0.221	-8	NA	± 30 %	AverageRF
m,p-Xylenes	40	41	0.01	1.24	1.27	3	NA	± 40 %	AverageRF
o-Xylene	20	21	0.01	1.16	1.19	3	NA	± 40 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

‡ SPCC Compound

‡ CCC Compound

## Exception Report

**Data File:** J:\MS13\DATA\052810-624\0528F107.D  
**Lab ID:** KWG1005070-2  
**RunType:** CCV  
**Matrix:** WATER

**Date Acquired:** 05/28/2010 20:19  
**Date Quantitated:** 05/28/2010 20:38  
**Batch ID:** KWG1005070  
**Analysis Method:** 624  
**MethodJoinID:** MJ158

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: Ann 5/28/10  
 Secondary Review: HB6-170

# Quantitation Report

<b>Bottle ID:</b> Prod Code: 624 VOC_FP	<b>Tier:</b> Collect Date:	<b>Matrix:</b> WATER Receive Date: 05/28/2010
<b>Analysis Lot:</b> KWG1005070 <b>Analysis Method:</b> 624 <b>Prep Ref:</b>	<b>Prep Lot:</b> <b>Prep Method:</b> <b>Prep Date:</b>	<b>Report Group:</b>
<b>Quant Method:</b> J:\MS13\METHODS\020810MS13_6 <b>Title:</b> <b>Tune Ref:</b> J:\MS13\DATA\052810-624\0528F106.D <b>MB Ref:</b>	<b>Calibration ID:</b> CAL9204 <b>Method ID:</b> MJ158 <b>Quant based on Method</b>	
<b>Data File:</b> J:\MS13\DATA\052810-624\0528F107.D <b>Acqu Date:</b> 05/28/2010 20:19 <b>Run Type:</b> CCV <b>Lab ID:</b> KWG1005070-2	<b>Quant Date:</b> 05/28/2010 20:38	<b>Instrument:</b> MS13 <b>Vial:</b> 3 <b>Dilution:</b> 1.0 <b>Soln Conc. Units:</b> PPB

### Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	-0.24	96	606960	20.00	OK
2	Chlorobenzene-d5	12.04	-0.17	82	238587	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	-0.13	152	217420	20.00	OK

### Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.12			113	134264	18.44		86-124	NA
1	1,2-Dichloroethane-d4	5.66			65	168428	21.03		70-130	NA
1	Toluene-d8	9.30			98	587146	19.83		79-131	NA
2	4-Bromofluorobenzene	13.70			95	210523	18.94		91-121	NA

### Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.23			85	216769	28.08			
1	Chloromethane	1.37			50	194759	20.23			
1	Vinyl Chloride	1.44			62	162206	19.53			
1	Bromomethane	1.70			96	90928	21.46			
1	Chloroethane	1.78			49	27574	21.96			
1	Trichlorofluoromethane	1.95			101	287975	24.36			
1	Acrolein	2.39			56	408028	628.54			
1	Trichlorotrifluoroethane	2.38			151	131742	21.37			
1	1,1-Dichloroethene	2.41			96	136994	22.27			
1	Acetone	2.52			43	719742	421.77			
1	Carbon Disulfide	2.59			76	544792	21.54			
1	Methylene Chloride	2.93			84	170242	20.37			
1	Acrylonitrile	3.27			53	108935	43.74			
1	trans-1,2-Dichloroethene	3.16			96	168549	21.55			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS13\DATA\052810-624\0528F107.D

Acqu Date: 05/28/2010 20:19

Quant Date: 05/28/2010 20:38

Instrument: MS13

Run Type: CCV

Vial: 3

Lab ID: KWG1005070-2

Dilution: 1.0

Soln Conc. Units: PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,1-Dichloroethane	3.68			63	282912	22.04			
1	Vinyl Acetate	3.75			86	50288	39.35			
1	cis-1,2-Dichloroethene	4.42			96	180012	21.11			
1	2-Butanone (MEK)	4.49			72	272034	377.08			
1	Chloroform	4.87			83	281568	21.73			
1	1,1,1-Trichloroethane (TCA)	5.05			97	205400	21.75			
1	Carbon Tetrachloride	5.23			117	211968	23.35			
1	Benzene	5.60			78	703582	21.73			
1	1,2-Dichloroethane (EDC)	5.78			62	224559	23.63			
1	Trichloroethene (TCE)	6.73			95	169524	21.06			
1	1,2-Dichloropropane	7.25			63	156386	20.27			
1	Bromodichloromethane	7.81			83	208379	21.62			
1	2-Chloroethyl Vinyl Ether	8.60			63	82869	21.90			
1	cis-1,3-Dichloropropene	8.83			75	200158	19.50			
1	4-Methyl-2-pentanone (MIBK)	9.29			58	868292	395.70			
1	Toluene	9.46			92	430937	20.91			
2	trans-1,3-Dichloropropene	10.24			75	154960	17.96			
2	1,1,2-Trichloroethane	10.55			83	111625	19.39			
2	Tetrachloroethene (PCE)	10.52			164	131001	18.99			
2	2-Hexanone	11.06			43	1517074	408.61			
2	Dibromochloromethane	11.16			129	142679	18.62			
2	Chlorobenzene	12.07			112	453278	18.77			
2	Ethylbenzene	12.24			106	248165	20.72			
2	m,p-Xylenes	12.43			106	607300	41.12			
2	o-Xylene	12.98			106	284243	20.52			
2	Styrene	13.02			103	235451	20.90			
2	Bromoform	13.26			173	77275	16.85			
3	1,1,2,2-Tetrachloroethane	13.99			83	145703	21.10			
3	1,3-Dichlorobenzene	14.98			146	328221	20.85			
3	1,4-Dichlorobenzene	15.11			146	335602	20.39			
3	1,2-Dichlorobenzene	15.52			146	311538	20.87			

U: Undetected at or above MDL  
 F: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

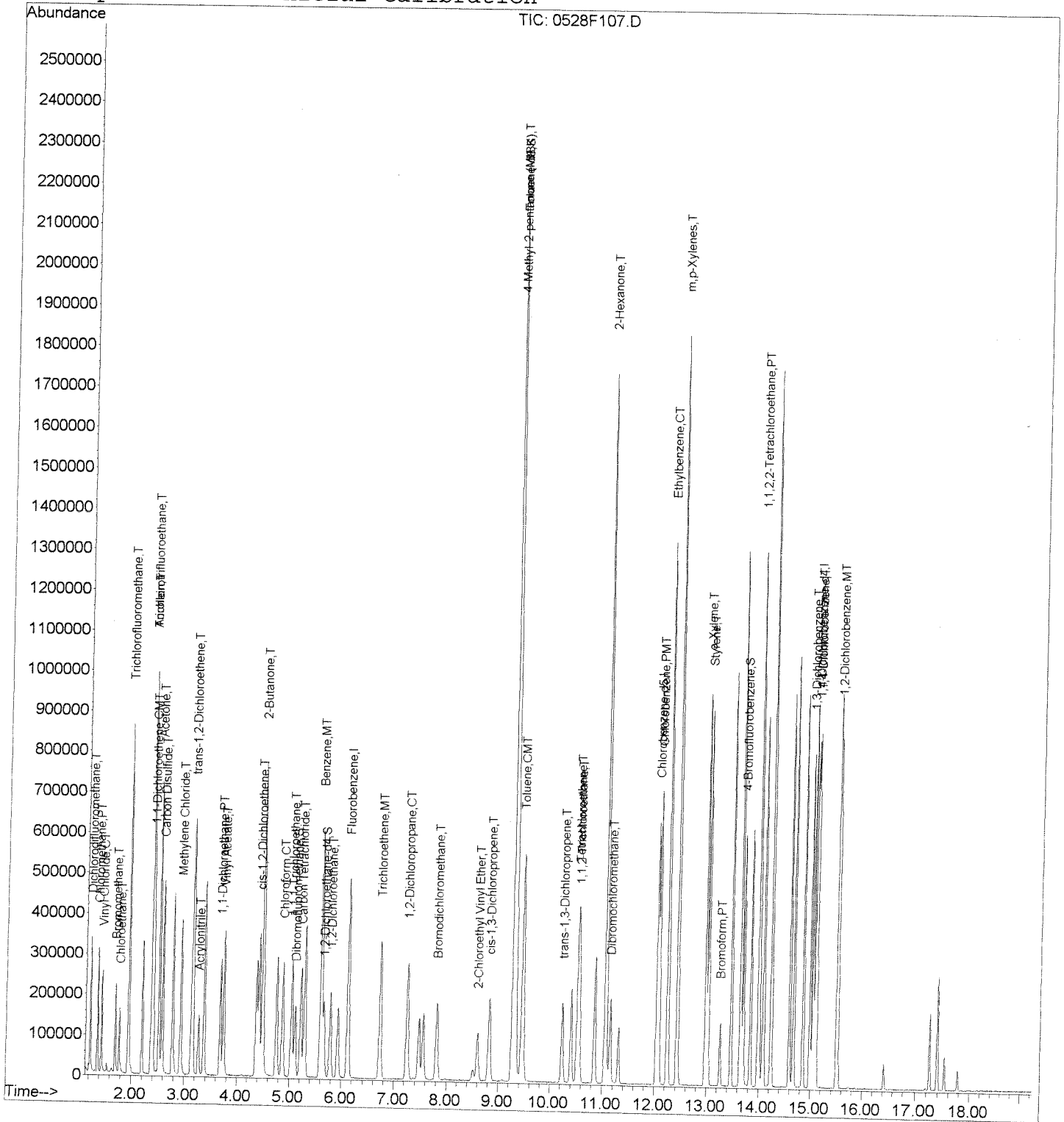
\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS13\DATA\052810-624\0528F107.D  
 Acq On : 28 May 2010 8:19 pm  
 Sample : 624 CCV  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: May 28 20:38 2010

Vial: 3  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Fri May 28 16:56:35 2010  
 Response via : Initial Calibration



Organic Analysis:  
Volatile Organic Compounds

Validation Package

Sample Prep and Screen Data

Date: 5/28/10

Columbia Analytical Services, Inc. Tune File: BFB.I.U

By: cmk

### Injection Log

New Tune: yes

IS/SS Std. ID: 56VDA-74B

MS13 - Agilent 5973

RUN #: 202798

CCV Std ID: 56VDA-76A/21B

ICAL Date: 2/8/10 #9204

MS/DMS/LCS/ICV Std ID: 56VDA-76C/74E

Second RV: HB02W

BFB Std. ID: 56VDA-42B

LIMS ID: KWG1005070A/5071P

	Sample Name	File Name	Method	Dilution	pH	R	Comments
1	IB	0528F101	8260W5				
2	BFB	2		8.8ul/44ml			NR IS. responses too low
3	G24CCV	3		20+10ul/50ml			
4	LCS	4		20+50ul/50ml			
5	BFB	5		8.8ul/44ml			New Tune (NR)
6	BFB (R)	6					
7	G24CCV	7		20+10ul/50ml			
8	MB	8					
9	K4934-5	9			≤2		
10	-6	10					
11	-7	11					
12	-8	12					
13	-9	13					TB# 42439
14	LCS	14		20+50ul/50ml			
15	K4934-6 MS	15		17.6+44ul/44ml	≤2		(NR) Wrong IS/SS
16	DMS	16					
17	Cream Puff S.B.	17			6		5/24/10
18	K5067-2	18			≤2		
19	K4934-6 MS (R)	19		17.6+44ul/44ml			
20	Cream Puff S.B. (R)	20			6		5/24/10
21	K4934-6 DMS (R)	201		17.6+44ul/44ml	≤2		
22	IB	202					
23	K5067-2 (R)	2123			≤2		
24	-3	2224					
25	-4	2325					
26	-5	2426					TB# 42436
27	K5225-1	2527					

K5227-1

IB x 5

2628

29-33

27-31

cmk52910

R:\VOA\Injection Logs\INJLOG\_MS13\_Rev1

771 ★ All samples negative for free Cl<sub>2</sub>

July 1, 2010

Analytical Report for Service Request No: K1005067

Melissa Kleven  
Exponent  
15375 Southeast 30th Place, Suite 250  
Bellevue, WA 98007

**RE: Heglar-Kronquist/0907194.000.0601**

Dear Melissa:

Enclosed are the additional pages for the samples submitted to our laboratory on May 19, 2010. For your reference, these analyses have been assigned our service request number K1005067.

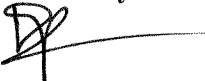
Results for "Phosphate as Orthophosphate" enclosed.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3281. You may also contact me via Email at [PDivvela@caslab.com](mailto:PDivvela@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Pradeep Divvela  
Project Chemist

PD/lb

Page 1 of 4



**COLUMBIA ANALYTICAL SERVICES, INC.**

**Client:** Exponent  
**Project:** Heglar-Kronquist  
**Sample Matrix:** Water  
**Service Request No.:** K1005067  
**Date Received:** 05/19/10

**CASE NARRATIVE**

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

**Sample Receipt**

Four field samples and one trip blank were received for analysis at Columbia Analytical Services on 05/19/10. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

**General Chemistry Parameters**

Per client's instructions, a field filtered container was used for the measurement of Chloride, Fluoride, Sulfate, Nitrate, Nitrite and Ortho Phosphate for samples 3bcd-2, 3ddd and EB-051710. Ortho Phosphate for sample SW-7 was analyzed from a field filtered container.

No anomalies associated with the analysis of these samples were observed.

**Total and Dissolved Metals**

**Matrix Spike Recovery Exceptions:**

The control criteria for matrix spike recovery of Zinc for the Batch QC6 sample were not applicable. The analyzed concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

**PCBs by EPA Method 608**

No anomalies associated with the analysis of these samples were observed.

**Volatile Organic Compounds by EPA Method 624**

No anomalies associated with the analysis of these samples were observed.

**Semivolatile Organic Compounds by EPA Method 625**

**Second Source Exceptions:**

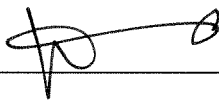
The upper control criterion was exceeded for Benzidine in Initial Calibration Verification (ICV) MS07/0602F016.D. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Approved by \_\_\_\_\_ Date 06/30/10

**Calibration Verification (CCV) Exceptions:**

The upper control criterion was exceeded for Benzidine in CCV MS07\0603F002D. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem indicated a potential high bias, the data quality was not affected. No further corrective action was required.

No other anomalies associated with the analysis of these samples were observed.

Approved by \_\_\_\_\_  \_\_\_\_\_ Date 06/30/10

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Phosphate as Orthophosphate

Analysis Method : 365.3  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
SW-7	K1005067-001	0.031	0.013	1	05/19/10 12:30	0.454	
3bcd-2	K1005067-002	0.031	0.013	1	05/19/10 12:30	0.227	
3ddd	K1005067-003	0.031	0.013	1	05/19/10 12:30	0.239	
EB-051710	K1005067-004	0.031	0.013	1	05/19/10 12:30	ND	
Method Blank	K1005067-MB	0.031	0.013	1	05/19/10 12:30	ND	

June 17, 2010

Analytical Report for Service Request No: K1005067

Melissa Kleven  
Exponent  
15375 Southeast 30th Place, Suite 250  
Bellevue, WA 98007

**RE: Heglar-Kronquist/0907194.000.0601**

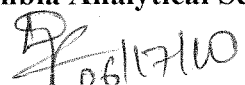
Dear Melissa:

Enclosed are the results of the samples submitted to our laboratory on May 19, 2010. For your reference, these analyses have been assigned our service request number K1005067.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3281. You may also contact me via Email at [PDivvela@caslab.com](mailto:PDivvela@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**  
Pradeep Divvela  
Project Chemist

PD/ln

Page 1 of 1319

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

### Inorganic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value that was detected outside the quantitation range.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.1 definition:* Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value that was detected outside the quantitation range.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.1 definition:* Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### Organic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value that was detected outside the quantitation range.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.1 definition:* Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**Columbia Analytical Services, Inc.**  
**Kelso, WA**  
**State Certifications, Accreditations, and Licenses**

<b>Program</b>	<b>Number</b>
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Colorado DPHE	-
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DHS	WA200001
South Carolina DHEC	61002
Utah DOH	COLU
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-



## **Case Narrative**



COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Exponent  
**Project:** Heglar-Kronquist  
**Sample Matrix:** Water

**Service Request No.:** K1005067  
**Date Received:** 05/19/10

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Four field samples and one trip blank were received for analysis at Columbia Analytical Services on 05/19/10. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

Per client's instructions, a field filtered container was used for the measurement of Chloride, Fluoride, Sulfate, Nitrate, Nitrite and Ortho Phosphate for samples 3bcd-2, 3ddd and EB-051710.

No anomalies associated with the analysis of these samples were observed.

Total and Dissolved Metals

**Matrix Spike Recovery Exceptions:**

The control criteria for matrix spike recovery of Zinc for the Batch QC6 sample were not applicable. The analyzed concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

PCBs by EPA Method 608

No anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 624

No anomalies associated with the analysis of these samples were observed.

Semivolatile Organic Compounds by EPA Method 625

**Second Source Exceptions:**

The upper control criterion was exceeded for Benzidine in Initial Calibration Verification (ICV) MS07/0602F016.D. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Approved by \_\_\_\_\_ Date 06/21/10

**Calibration Verification (CCV) Exceptions:**

The upper control criterion was exceeded for Benzidine in CCV MS07\0603F002D. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem indicated a potential high bias, the data quality was not affected. No further corrective action was required.

No other anomalies associated with the analysis of these samples were observed.

Approved by \_\_\_\_\_



Date \_\_\_\_\_

06/21/10

## **Chain of Custody**



# CHAIN OF CUSTODY

1317 South 13th Ave, Kelso, WA 98626 | 360.577.7222 | 800.695.7222 | 360.636.1068 (fax)

SR#: K1005067

PAGE 1 OF 2

COC #

PROJECT NAME: Heglar - Krangquist  
 PROJECT NUMBER: 0907194.000.0601  
 PROJECT MANAGER: Melissa Kleven  
 COMPANY ADDRESS: 15375 SE 30th PI  
Suite 250  
 CITY/STATE/ZIP: Bellevue, WA 98007  
 E-MAIL ADDRESS: mkleven@exponent.com  
 PHONE # (425) 519.8774 FAX: (425) 519.8799  
 SAMPLER'S SIGNATURE: [Signature]

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	REMARKS
SW-7	5-10-10	1945	L5			run NO <sub>3</sub> , NO <sub>2</sub> , and ortho within 48 hrs

Circle which metals are to be analyzed:  
 Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg (Na) Ni (K) Ag Se Sr Ti Sn V Zn Hg  
 Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

\*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: \_\_\_\_\_ (CIRCLE ONE)  
 SPECIAL INSTRUCTIONS/COMMENTS:  
 - 500 mL PO17  
 unpressurized  
 is field filtered  
 Container supply #17718  
 Bar code # T022894

REPORT REQUIREMENTS  
 I. Routine Report: Method Blank, Surrogate, as required  
 II. Report Dup., MS, MSD as required  
 X III. Data Validation Report (includes all raw data)  
 IV. CLP Deliverable Report  
 X V. EDD

INVOICE INFORMATION  
 P.O. # \_\_\_\_\_  
 Bill To: same as above

TURNAROUND REQUIREMENTS  
 24 hr. \_\_\_\_\_ 48 hr. \_\_\_\_\_  
 5 Day \_\_\_\_\_  
 X Standard (10-15 working days)  
 Provide FAX Results \_\_\_\_\_

Requested Report Date \_\_\_\_\_

RECEIVED BY: [Signature] Date/Time: 5-19-10  
 RELINQUISHED BY: [Signature] Date/Time: (4)  
 Signature: [Signature] Printed Name: [Name]  
 Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Firm: \_\_\_\_\_

Sample Shipment contains USDA regulated soil samples (check box if applicable)

**CHAIN OF CUSTODY**

SR#: \_\_\_\_\_ PAGE 2 OF 2 COC # \_\_\_\_\_

PROJECT NAME: <u>Heglar - Kronquist</u> PROJECT NUMBER: <u>0907194.000-0601</u> PROJECT MANAGER: <u>Melissa Kiven</u> COMPANY ADDRESS: <u>15375 SE 30th PI</u> <u>Suite 250</u> CITY/STATE/ZIP: <u>Bellevue, WA 98007</u> E MAIL ADDRESS: <u>mkiven@exponent.com</u> PHONE: <u>(425) 519-8774</u> FAX: <u>(425) 519-8797</u> SAMPLER'S SIGNATURE: <u>[Signature] / Keri Whetter</u>		NUMBER OF CONTAINERS: _____			
SAMPLE I/D	DATE	TIME	LAB I.D.	MATRIX	REMARKS
3bcd-2	5/17/10	1405*		L 12	run
3ddd	5/17/10	1530		L 12	NO2, NO3 and
EB-051710	5/17/10	1700		L 12	ortho poly
trip blank	-	-		L 2	ASAP, within
					48-hr hold

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg  
 Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

\*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: \_\_\_\_\_ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS: CONTAINER SUPPLY # 17718  
 BAR CODE # T022894

- 500 mL POLY W/ H2SO4, 1L POLY UNPRESERVED, and 500 mL W/ HNO3 are FIELD-FILTERED  
 \* Transferred times from bottles for 5-19-10  
 Sample Shipment contains USDA regulated soil samples (check box if applicable)

**REPORT REQUIREMENTS**

I. Routine Report: Method Blank, Surrogate, as required

II. Report Dup., MS, MSD as required

III. Data Validation Report (includes all raw data)

IV. CLP Deliverable Report

V. EDD

**INVOICE INFORMATION**

P.O. # \_\_\_\_\_  
 Bill To: same  
as  
above

**TURNAROUND REQUIREMENTS**

24 hr. \_\_\_\_\_ 48 hr. \_\_\_\_\_  
 5 Day  
 Standard (10-15 working days)  
 Provide FAX Results  
 Requested Report Date \_\_\_\_\_

**RELIQUISHED BY:**

Signature: [Signature] Date/Time: 5-18-10/1700  
 Printed Name: Keri Whetter Firm: Exponent

**RECEIVED BY:**

Signature: [Signature] Date/Time: 5-19-10  
 Printed Name: Basalman Firm: cas

**Columbia Analytical Services, Inc.  
Cooler Receipt and Preservation Form**

PC PD

Client / Project: Exponent Service Request K10 5067

Received: 5-19-10 Opened: 5-19-10 By: Brad

1. Samples were received via? *Mail*  *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle)  *Cooler* *Box* *Envelope* *Other* \_\_\_\_\_ *NA*
3. Were custody seals on coolers? *NA*  *Y* *N* If yes, how many and where? 1 front
- If present, were custody seals intact?  *Y* *N* If present, were they signed and dated?  *Y* *N*

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID	NA	Tracking Number	NA	Filed
0.0	2.8	265					X
1.5	1.9	258					X

7. Packing material used.  *Inserts* *Baggies*  *Bubble Wrap* *Gel Packs*  *Wet Ice* *Sleeves* *Other* \_\_\_\_\_
8. Were custody papers properly filled out (ink, signed, etc.)? *NA*  *Y* *N*
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* *NA*  *Y* *N*
10. Were all sample labels complete (i.e analysis, preservation, etc.)? *NA*  *Y* *N*
11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* *NA*  *Y* *N*
12. Were appropriate bottles/containers and volumes received for the tests indicated? *NA*  *Y* *N*
13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* *NA*  *Y* *N*
14. Were VOA vials received without headspace? *Indicate in the table below.* *NA*  *Y* *N*
15. Was C12/Res negative?  *NA* *Y* *N*

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## **General Chemistry Parameters**

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Chloride

Analysis Method : 300.0  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SW-7	K1005067-001	0.20	0.06	2	06/03/10	8.30	
3bcd-2	K1005067-002	4.0	0.6	20	06/03/10	54.6	
3ddd	K1005067-003	2.0	0.3	10	06/03/10	57.9	
EB-051710	K1005067-004	0.20	0.03	1	06/03/10	0.43	
Method Blank	K1005067-MB	0.20	0.03	1	06/03/10	ND	



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 06/03/10

Duplicate Summary  
Inorganic Parameters

Sample Name : Batch QC  
Lab Code : K1005346-001DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chloride	300.0	0.20	0.82	0.87	0.85	6	

**COLUMBIA ANALYTICAL SERVICES, INC.**  
QA/QC Report

**Client :** Exponent  
**Project Name :** Heglar-Kronquist  
**Project Number :** 0907194.000.0601  
**Sample Matrix :** WATER

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA  
**Date Prepared :** NA  
**Date Analyzed :** 06/03/10

Matrix Spike/Duplicate Matrix Spike Summary

Sample Name : Batch QC Units : mg/L  
 Lab Code : K1005346-001MS K1005346-001DMS Basis : NA  
 Test Notes :

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Spike Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
Chloride	NONE	300.0	0.20	3.00	3.00	0.82	3.63	3.69	94	95	80-120	2	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 06/03/10

Laboratory Control Sample Summary  
Inorganic Parameters

Sample Name : Lab Control Sample  
Lab Code : K1005067-LCS  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Result Notes
						Percent Recovery Acceptance Limits	
Chloride	NONE	300.0	5.00	4.83	97	90-110	

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Chloride  
300.0  
Units: mg/L

## CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	6/3/2010	5.00	4.93	99
CCV2 Result	6/3/2010	5.00	4.88	98
CCV3 Result	6/3/2010	5.00	4.93	99
CCV4 Result	6/3/2010	5.00	4.98	100
CCV5 Result	6/3/2010	5.00	4.87	97
CCV6 Result	6/3/2010	5.00	4.91	98
CCV7 Result	6/3/2010	5.00	4.89	98
CCV8 Result	6/3/2010	5.00	4.92	98

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project : Heglar-Kronquist

Service Request : K1005067  
Date Collected : NA  
Date Received : NA

Chloride  
300.0  
Units: mg/L

## CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	6/3/2010	0.20	ND
CCB2 Result	6/3/2010	0.20	ND
CCB3 Result	6/3/2010	0.20	ND
CCB4 Result	6/3/2010	0.20	ND
CCB5 Result	6/3/2010	0.20	ND
CCB6 Result	6/3/2010	0.20	ND
CCB7 Result	6/3/2010	0.20	ND
CCB8 Result	6/3/2010	0.20	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Fluoride

Analysis Method : 300.0  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SW-7	K1005067-001	0.20	0.01	2	06/03/10	0.22	
3bcd-2	K1005067-002	0.20	0.01	2	06/03/10	0.27	
3ddd	K1005067-003	0.20	0.01	2	06/03/10	0.23	
EB-051710	K1005067-004	0.20	0.003	1	06/03/10	ND	
Method Blank	K1005067-MB	0.20	0.003	1	06/03/10	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 06/03/10

Duplicate Summary  
Inorganic Parameters

Sample Name : Batch QC  
Lab Code : K1005682-003DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Fluoride	300.0	2.0	0.86	0.87	0.87	1	J

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client :** Exponent  
**Project Name :** Heglar-Kronquist  
**Project Number :** 0907194.000.0601  
**Sample Matrix :** WATER

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA  
**Date Prepared :** NA  
**Date Analyzed :** 06/03/10

Matrix Spike/Duplicate Matrix Spike Summary

Sample Name : Batch QC Units : mg/L  
 Lab Code : K1005682-003MS K1005682-003DMS Basis : NA  
 Test Notes :

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Spike Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
Fluoride	NONE	300.0	2.0	15.0	15.0	0.86	16.4	15.6	104	98	80-120	5	



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 06/03/10

Laboratory Control Sample Summary  
Inorganic Parameters

Sample Name : Lab Control Sample  
Lab Code : K1005067-LCS  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Fluoride	NONE	300.0	13.5	13.5	100	90-110	

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Fluoride  
300.0  
Units: mg/L

## CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	6/3/2010	5.00	4.90	98
CCV2 Result	6/3/2010	5.00	4.83	97
CCV3 Result	6/3/2010	5.00	4.97	99
CCV4 Result	6/3/2010	5.00	5.03	101
CCV5 Result	6/3/2010	5.00	4.91	98
CCV6 Result	6/3/2010	5.00	4.93	99
CCV7 Result	6/3/2010	5.00	4.92	98
CCV8 Result	6/3/2010	5.00	4.98	100

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Fluoride  
300.0  
Units: mg/L

## CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	6/3/2010	0.20	ND
CCB2 Result	6/3/2010	0.20	ND
CCB3 Result	6/3/2010	0.20	ND
CCB4 Result	6/3/2010	0.20	ND
CCB5 Result	6/3/2010	0.20	ND
CCB6 Result	6/3/2010	0.20	ND
CCB7 Result	6/3/2010	0.20	ND
CCB8 Result	6/3/2010	0.20	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Sulfate

Analysis Method : 300.0  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SW-7	K1005067-001	0.20	0.02	2	06/03/10	18.4	
3bcd-2	K1005067-002	4.0	0.2	20	06/03/10	33.5	
3ddd	K1005067-003	2.0	0.1	10	06/03/10	34.7	
EB-051710	K1005067-004	0.20	0.01	1	06/03/10	ND	
Method Blank	K1005067-MB	0.20	0.01	1	06/03/10	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 06/03/10

Duplicate Summary  
Inorganic Parameters

Sample Name : Batch QC  
Lab Code : K1005682-003DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Sulfate	300.0	40	585	586	586	<1	

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client :** Exponent  
**Project Name :** Heglar-Kronquist  
**Project Number :** 0907194.000.0601  
**Sample Matrix :** WATER

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA  
**Date Prepared :** NA  
**Date Analyzed :** 06/03/10

Matrix Spike/Duplicate Matrix Spike Summary

**Sample Name :** Batch QC Units : mg/L  
**Lab Code :** K1005682-003MS K1005682-003DMS Basis : NA  
**Test Notes :**

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Spike Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
Sulfate	NONE	300.0	40	300	300	585	902	901	106	105	80-120	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 06/03/10

Laboratory Control Sample Summary  
Inorganic Parameters

Sample Name : Lab Control Sample  
Lab Code : K1005067-LCS  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sulfate	NONE	300.0	5.00	4.84	97	90-110	

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Sulfate  
300.0  
Units: mg/L

## CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	6/3/2010	5.00	4.96	99
CCV2 Result	6/3/2010	5.00	4.96	99
CCV3 Result	6/3/2010	5.00	4.98	100
CCV4 Result	6/3/2010	5.00	5.02	100
CCV5 Result	6/3/2010	5.00	4.93	99
CCV6 Result	6/3/2010	5.00	4.95	99
CCV7 Result	6/3/2010	5.00	4.97	99
CCV8 Result	6/3/2010	5.00	4.96	99



# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Sulfate  
300.0  
Units: mg/L

## CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	6/3/2010	0.20	ND
CCB2 Result	6/3/2010	0.20	ND
CCB3 Result	6/3/2010	0.20	ND
CCB4 Result	6/3/2010	0.20	ND
CCB5 Result	6/3/2010	0.20	ND
CCB6 Result	6/3/2010	0.20	ND
CCB7 Result	6/3/2010	0.20	ND
CCB8 Result	6/3/2010	0.20	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Ammonia as Nitrogen, Dissolved

Analysis Method : 350.1  
Test Notes :

Units : mg/L

Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
3bcd-2	K1005067-002	0.050	0.020	1	05/26/10	0.070	
3ddd	K1005067-003	0.050	0.020	1	05/26/10	0.069	
EB-051710	K1005067-004	0.050	0.020	1	05/26/10	0.020	J
Method Blank	K1005067-MB	0.050	0.020	1	05/26/10	0.029	J

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client :** Exponent  
**Project Name :** Heglar-Kronquist  
**Project Number :** 0907194.000.0601  
**Sample Matrix :** WATER

**Service Request :** K1005067  
**Date Collected :** 05/17/10  
**Date Received :** 05/19/10

Ammonia as Nitrogen

**Analysis Method :** 350.1  
**Test Notes :**

**Units :** mg/L  
**Basis :** NA

<b>Sample Name</b>	<b>Lab Code</b>	<b>MRL</b>	<b>MDL</b>	<b>Dilution Factor</b>	<b>Date Analyzed</b>	<b>Result</b>	<b>Result Notes</b>
SW-7	K1005067-001	0.050	0.020	1	05/26/10	0.042	J
Method Blank	K1005067-MB	0.050	0.020	1	05/26/10	0.029	J

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 5/17/2010  
Date Received : 5/19/2010  
Date Prepared : NA  
Date Analyzed : 05/26/10

Duplicate Summary  
Inorganic Parameters

Sample Name : SW-7  
Lab Code : K1005067-001DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Ammonia as Nitrogen	350.1	0.050	0.042	0.044	0.043	5	J

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client :** Exponent  
**Project Name :** Heglar-Kronquist  
**Project Number :** 0907194.000.0601  
**Sample Matrix :** WATER

**Service Request :** K1005067  
**Date Collected :** 5/17/2010  
**Date Received :** 5/19/2010  
**Date Prepared :** NA  
**Date Analyzed :** 05/26/10

Matrix Spike/Duplicate Matrix Spike Summary

**Sample Name :** SW-7 Units : mg/L  
**Lab Code :** K1005067-001MS K1005067-001DMS Basis : NA  
**Test Notes :**

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Spike Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
Ammonia as Nitrogen	NONE	350.1	0.050	2.00	2.00	0.042	2.07	2.07	102	101	90-112	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 05/26/10

Laboratory Control Sample Summary  
Inorganic Parameters

Sample Name : Lab Control Sample  
Lab Code : K1005067-LCS  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	NONE	350.1	14.3	14.8	103	90-112	

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project : Heglar-Kronquist

Service Request : K1005067  
Date Collected : NA  
Date Received : NA

Ammonia as Nitrogen  
350.1  
Units: mg/L

## CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	5/26/2010	2.00	1.83	92
CCV2 Result	5/26/2010	2.00	1.94	97
CCV3 Result	5/26/2010	2.00	1.93	97
CCV4 Result	5/26/2010	2.00	1.93	97
CCV5 Result	5/26/2010	2.00	1.93	97
CCV6 Result	5/26/2010	2.00	1.93	97
CCV7 Result	5/26/2010	2.00	1.93	97
CCV8 Result	5/26/2010	2.00	1.93	97
CCV9 Result	5/26/2010	2.00	1.93	97

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Ammonia as Nitrogen  
350.1  
Units: mg/L

## CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	5/26/2010	0.050	ND
CCB2 Result	5/26/2010	0.050	0.035 J
CCB3 Result	5/26/2010	0.050	ND
CCB4 Result	5/26/2010	0.050	0.023 J
CCB5 Result	5/26/2010	0.050	0.029 J
CCB6 Result	5/26/2010	0.050	0.021 J
CCB7 Result	5/26/2010	0.050	0.027 J
CCB8 Result	5/26/2010	0.050	0.025 J
CCB9 Result	5/26/2010	0.050	0.024 J



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Nitrite as Nitrogen

Analysis Method : 353.2  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
SW-7	K1005067-001	0.050	0.005	1	05/19/10 13:30	0.043	J
3bcd-2	K1005067-002	0.050	0.005	1	05/19/10 13:30	0.049	J
3ddd	K1005067-003	0.050	0.005	1	05/19/10 13:30	0.049	J
EB-051710	K1005067-004	0.050	0.005	1	05/19/10 13:30	0.024	J
Method Blank	K1005067-MB	0.050	0.005	1	05/19/10 13:30	0.023	J

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 5/17/2010  
Date Received : 5/19/2010  
Date Prepared : NA  
Date Analyzed : 05/19/10

Duplicate Summary  
Inorganic Parameters

Sample Name : SW-7  
Lab Code : K1005067-001DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Nitrite as Nitrogen	353.2	0.050	0.043	0.039	0.041	10	J

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client :** Exponent  
**Project Name :** Heglar-Kronquist  
**Project Number :** 0907194.000.0601  
**Sample Matrix :** WATER

**Service Request :** K1005067  
**Date Collected :** 5/17/2010  
**Date Received :** 5/19/2010  
**Date Prepared :** NA  
**Date Analyzed :** 05/19/10

Matrix Spike/Duplicate Matrix Spike Summary

Sample Name : SW-7 Units : mg/L  
 Lab Code : K1005067-001MS K1005067-001DMS Basis : NA  
 Test Notes :

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Spike Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
Nitrite as Nitrogen	NONE	353.2	0.050	2.00	2.00	0.043	2.01	2.00	98	98	90-110	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 05/19/10

Laboratory Control Sample Summary  
Inorganic Parameters

Sample Name : Lab Control Sample  
Lab Code : K1005067-LCS  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Nitrite as Nitrogen	NONE	353.2	4.00	3.94	99	90-110	

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project : Heglar-Kronquist

Service Request : K1005067  
Date Collected : NA  
Date Received : NA

Nitrite as Nitrogen  
353.2  
Units: mg/L

## CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	5/19/2010	2.00	1.91	96
CCV2 Result	5/19/2010	2.00	1.95	98
CCV3 Result	5/19/2010	2.00	1.92	96

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Nitrite as Nitrogen  
353.2  
Units: mg/L

## CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	5/19/2010	0.050	0.020 J
CCB2 Result	5/19/2010	0.050	0.020 J
CCB3 Result	5/19/2010	0.050	0.018 J

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Nitrate as Nitrogen

Analysis Method : 353.2  
Test Notes :

Units : mg/L

Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SW-7	K1005067-001	0.050	0.009	1	05/22/10	1.63	
3bcd-2	K1005067-002	0.50	0.09	10	05/22/10	15.7	
3ddd	K1005067-003	0.50	0.09	10	05/22/10	15.9	
EB-051710	K1005067-004	0.050	0.009	1	05/22/10	ND	
Method Blank	K1005067-MB	0.050	0.009	1	05/22/10	0.033	J

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 5/17/2010  
Date Received : 5/19/2010  
Date Prepared : NA  
Date Analyzed : 05/22/10

Duplicate Summary  
Inorganic Parameters

Sample Name : SW-7  
Lab Code : K1005067-001DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Nitrate as Nitrogen	353.2	0.050	1.63	1.64	1.64	<1	



**COLUMBIA ANALYTICAL SERVICES, INC.**  
QA/QC Report

**Client :** Exponent  
**Project Name :** Heglar-Kronquist  
**Project Number :** 0907194.000.0601  
**Sample Matrix :** WATER

**Service Request :** K1005067  
**Date Collected :** 5/17/2010  
**Date Received :** 5/19/2010  
**Date Prepared :** NA  
**Date Analyzed :** 05/22/10

Matrix Spike/Duplicate Matrix Spike Summary

**Sample Name :** SW-7 Units : mg/L  
**Lab Code :** K1005067-001MS K1005067-001DMS Basis : NA  
**Test Notes :**

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Spike Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
Nitrate as Nitrogen	NONE	353.2	0.050	2.00	2.00	1.63	3.74	3.74	106	106	86-117	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 05/22/10

Laboratory Control Sample Summary  
Inorganic Parameters

Sample Name : Lab Control Sample  
Lab Code : K1005067-LCS  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Nitrate as Nitrogen	NONE	353.2	14.8	14.6	99	88-110	

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Nitrate as Nitrogen  
353.2  
Units: mg/L

## CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	5/22/2010	2.00	1.90	95
CCV2 Result	5/22/2010	2.00	1.88	94
CCV3 Result	5/22/2010	2.00	1.92	96
CCV4 Result	5/22/2010	2.00	1.90	95
CCV5 Result	5/22/2010	2.00	1.90	95
CCV6 Result	5/22/2010	2.00	1.90	95
CCV7 Result	5/22/2010	2.00	1.90	95
CCV8 Result	5/22/2010	2.00	1.87	94
CCV9 Result	5/22/2010	2.00	1.88	94

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Nitrate as Nitrogen  
353.2  
Units: mg/L

## CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	5/22/2010	0.050	0.024 J
CCB2 Result	5/22/2010	0.050	0.024 J
CCB3 Result	5/22/2010	0.050	0.026 J
CCB4 Result	5/22/2010	0.050	0.028 J
CCB5 Result	5/22/2010	0.050	0.018 J
CCB6 Result	5/22/2010	0.050	0.025 J
CCB7 Result	5/22/2010	0.050	0.023 J
CCB8 Result	5/22/2010	0.050	0.033 J
CCB9 Result	5/22/2010	0.050	0.022 J

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Orthophosphate as Phosphorus

Analysis Method : 365.3  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
SW-7	K1005067-001	0.010	0.004	1	05/19/10 12:30	0.148	
3bcd-2	K1005067-002	0.010	0.004	1	05/19/10 12:30	0.074	
3ddd	K1005067-003	0.010	0.004	1	05/19/10 12:30	0.078	
EB-051710	K1005067-004	0.010	0.004	1	05/19/10 12:30	ND	
Method Blank	K1005067-MB	0.010	0.004	1	05/19/10 12:30	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 5/17/2010  
Date Received : 5/19/2010  
Date Prepared : NA  
Date Analyzed : 05/19/10

Duplicate Summary  
Inorganic Parameters

Sample Name : 3bcd-2  
Lab Code : K1005067-002DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Orthophosphate as Phosphorus	365.3	0.010	0.074	0.074	0.074	<1	

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client :** Exponent  
**Project Name :** Heglar-Kronquist  
**Project Number :** 0907194.000.0601  
**Sample Matrix :** WATER

**Service Request :** K1005067  
**Date Collected :** 5/17/2010  
**Date Received :** 5/19/2010  
**Date Prepared :** NA  
**Date Analyzed :** 05/19/10

Matrix Spike/Duplicate Matrix Spike Summary

Sample Name : 3bcd-2 Units : mg/L  
 Lab Code : K1005067-002MS K1005067-002DMS Basis : NA  
 Test Notes :

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Spike Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
Orthophosphate as Phosphorus	NONE	365.3	0.010	0.200	0.400	0.074	0.272	0.471	99	99	81-119	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 05/19/10

Laboratory Control Sample Summary  
Inorganic Parameters

Sample Name : Lab Control Sample  
Lab Code : K1005067-LCS  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Result Notes
						Percent Recovery Acceptance Limits	
Orthophosphate as Phosphorus	NONE	365.3	3.57	3.61	101	89-118	



# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Orthophosphate as Phosphorus

365.3

Units: mg/L

## CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	5/19/2010	0.500	0.502	100
CCV2 Result	5/19/2010	0.500	0.503	101

# COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client :** Exponent  
**Project :** Heglar-Kronquist

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA

Orthophosphate as Phosphorus  
365.3  
Units: mg/L

## CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	5/19/2010	0.010	ND
CCB2 Result	5/19/2010	0.010	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Alkalinity as CaCO<sub>3</sub>, Total

Analysis Method : SM 2320 B  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SW-7	K1005067-001	9.0	3.0	1	05/25/10	162	
3bcd-2	K1005067-002	9.0	3.0	1	05/25/10	311	
3ddd	K1005067-003	9.0	3.0	1	05/25/10	302	
EB-051710	K1005067-004	2.0	1.0	1	05/28/10	ND	
Method Blank	K1005067-MB	9.0	3.0	1	05/25/10	ND	
Method Blank	K1005067-MB	2.0	1.0	1	05/28/10	ND	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 05/25/10

Duplicate Summary  
Inorganic Parameters

Sample Name : Batch QC  
Lab Code : K1004970-001DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Alkalinity as CaCO <sub>3</sub> , Total	SM 2320 B	9.0	274	300	287	9	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

Client : Exponent  
 Project Name : Heglar-Kronquist  
 Project Number : 0907194.000.0601  
 Sample Matrix : WATER

Service Request : K1005067  
 Date Collected : NA  
 Date Received : NA  
 Date Prepared : NA  
 Date Analyzed : 05/25/10

Laboratory Control Sample Summary  
 Inorganic Parameters

Sample Name : Lab Control Sample  
 Lab Code : K1005067-LCS  
 Test Notes :

Units : mg/L  
 Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Result Notes
						Percent Recovery Acceptance Limits	
Alkalinity as CaCO <sub>3</sub> , Total	NONE	SM 2320 B	67.9	66.6	98	94-106	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client :** Exponent  
**Project Name :** Heglar-Kronquist  
**Project Number :** 0907194.000.0601  
**Sample Matrix :** WATER

**Service Request :** K1005067  
**Date Collected :** NA  
**Date Received :** NA  
**Date Prepared :** NA  
**Date Analyzed :** 05/28/10

Laboratory Control Sample Summary  
 Inorganic Parameters

**Sample Name :** Lab Control Sample  
**Lab Code :** K1005067-LCS  
**Test Notes :**

**Units :** mg/L  
**Basis :** NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Result Notes
						Percent Recovery Acceptance Limits	
Alkalinity as CaCO <sub>3</sub> , Total	NONE	SM 2320 B	67.9	67.4	99	94-106	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Bicarbonate Alkalinity as CaCO3

Analysis Method : SM 2320 B  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SW-7	K1005067-001	9.0	3.0	1	05/25/10	162	
3bcd-2	K1005067-002	9.0	3.0	1	05/25/10	311	
3ddd	K1005067-003	9.0	3.0	1	05/25/10	302	
EB-051710	K1005067-004	2.0	1.0	1	05/28/10	ND	
Method Blank	K1005067-MB	9.0	3.0	1	05/28/10	ND	
Method Blank	K1005067-MB	2.0	1.0	1	05/25/10	ND	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 05/25/10

Duplicate Summary  
Inorganic Parameters

Sample Name : Batch QC  
Lab Code : K1004970-001DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Bicarbonate Alkalinity as CaCO <sub>3</sub>	SM 2320 B	9.0	274	300	287	9	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Carbonate Alkalinity as CaCO<sub>3</sub>

Analysis Method : SM 2320 B  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SW-7	K1005067-001	9.0	3.0	1	05/25/10	ND	
3bcd-2	K1005067-002	9.0	3.0	1	05/25/10	ND	
3ddd	K1005067-003	9.0	3.0	1	05/25/10	ND	
EB-051710	K1005067-004	2.0	1.0	1	05/28/10	ND	
Method Blank	K1005067-MB	2.0	1.0	1	05/25/10	ND	
Method Blank	K1005067-MB	9.0	3.0	1	05/28/10	ND	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 05/25/10

Duplicate Summary  
Inorganic Parameters

Sample Name : Batch QC  
Lab Code : K1004934-003DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Carbonate Alkalinity as CaCO3	SM 2320 B	9.0	ND	ND	ND	-	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Hydroxide Alkalinity as CaCO3

Analysis Method : SM 2320 B  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SW-7	K1005067-001	9.0	3.0	1	05/25/10	ND	
3bcd-2	K1005067-002	9.0	3.0	1	05/25/10	ND	
3ddd	K1005067-003	9.0	3.0	1	05/25/10	ND	
EB-051710	K1005067-004	2.0	1.0	1	05/28/10	ND	
Method Blank	K1005067-MB	2.0	1.0	1	05/28/10	ND	
Method Blank	K1005067-MB	9.0	3.0	1	05/25/10	ND	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 05/25/10

Duplicate Summary  
Inorganic Parameters

Sample Name : Batch QC  
Lab Code : K1004934-003DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Hydroxide Alkalinity as CaCO3	SM 2320 B	9.0	ND	ND	ND	-	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 05/17/10  
Date Received : 05/19/10

Solids, Total Dissolved

Analysis Method : SM 2540 C  
Test Notes :

Units : mg/L  
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SW-7	K1005067-001	5.0	5.0	1	05/21/10	261	
3bcd-2	K1005067-002	5.0	5.0	1	05/21/10	549	
3ddd	K1005067-003	5.0	5.0	1	05/21/10	563	
EB-051710	K1005067-004	5.0	5.0	1	05/21/10	ND	
Method Blank	K1005067-MB	5.0	5.0	1	05/21/10	ND	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : 5/17/2010  
Date Received : 5/19/2010  
Date Prepared : NA  
Date Analyzed : 05/21/10

Duplicate Summary  
Inorganic Parameters

Sample Name : SW-7  
Lab Code : K1005067-001DUP  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Solids, Total Dissolved	SM 2540 C	5.0	261	276	269	6	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Exponent  
Project Name : Heglar-Kronquist  
Project Number : 0907194.000.0601  
Sample Matrix : WATER

Service Request : K1005067  
Date Collected : NA  
Date Received : NA  
Date Prepared : NA  
Date Analyzed : 05/21/10

Laboratory Control Sample Summary  
Inorganic Parameters

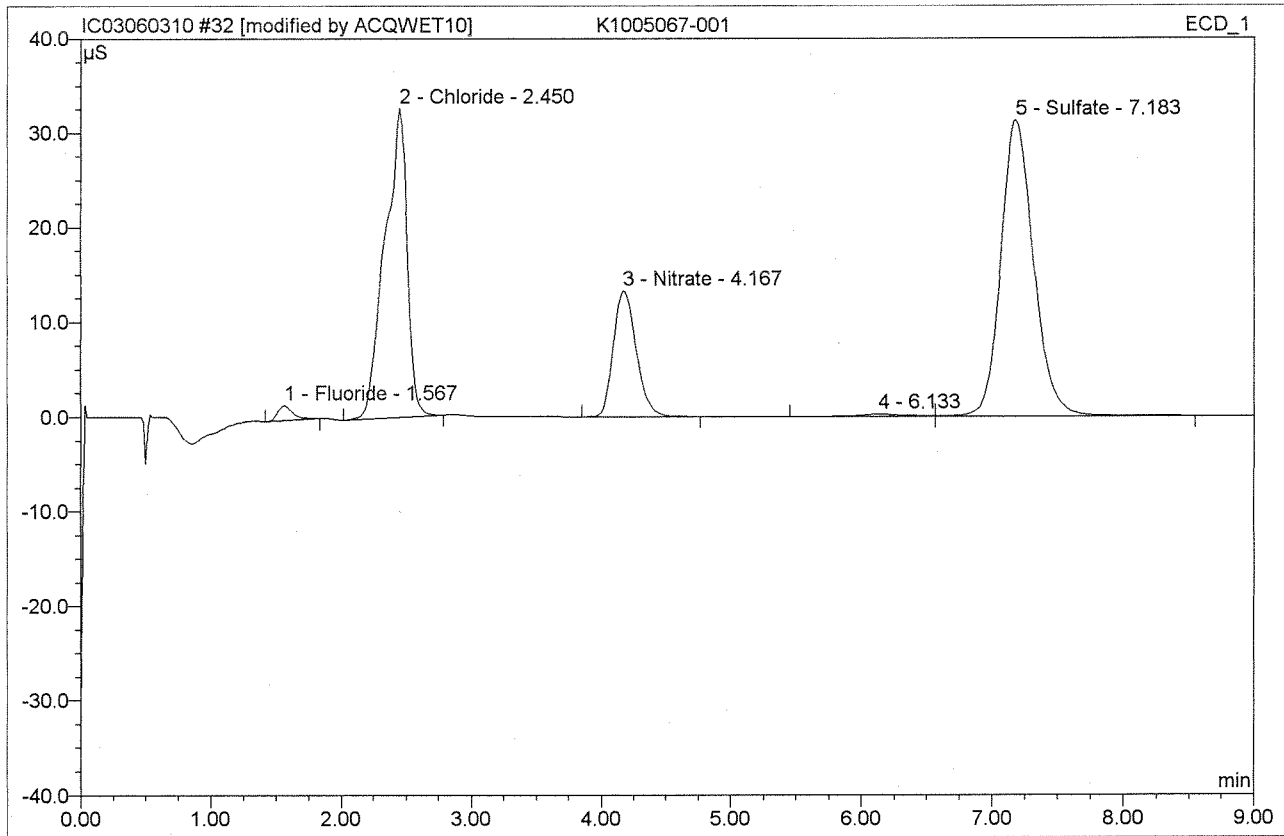
Sample Name : Lab Control Sample  
Lab Code : K1005067-LCS  
Test Notes :

Units : mg/L  
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Result Notes
						Percent Recovery Acceptance Limits	
Solids, Total Dissolved	NONE	SM 2540 C	750	772	103	83-117	

SM Standard Methods for the Examination of Water and Wastewater, 20th Ed., 1998.

<b>32 K1005067-001</b>			
Sample Name:	K1005067-001	Injection Volume:	200.0
Vial Number:	29	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 13:35	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	1.57	Fluoride	1.571	0.210	1.13	0.219	BMB*
2	2.45	Chloride	32.583	6.475	34.89	8.304	BMB
3	4.17	Nitrate	13.235	2.703	14.56	1.467	BMB
4	6.13	n.a.	0.261	0.105	0.57	n.a.	BM
5	7.18	Sulfate	31.265	9.069	48.86	18.432	MB
<b>Total:</b>			78.915	18.562	100.00	28.422	

After Initials MB

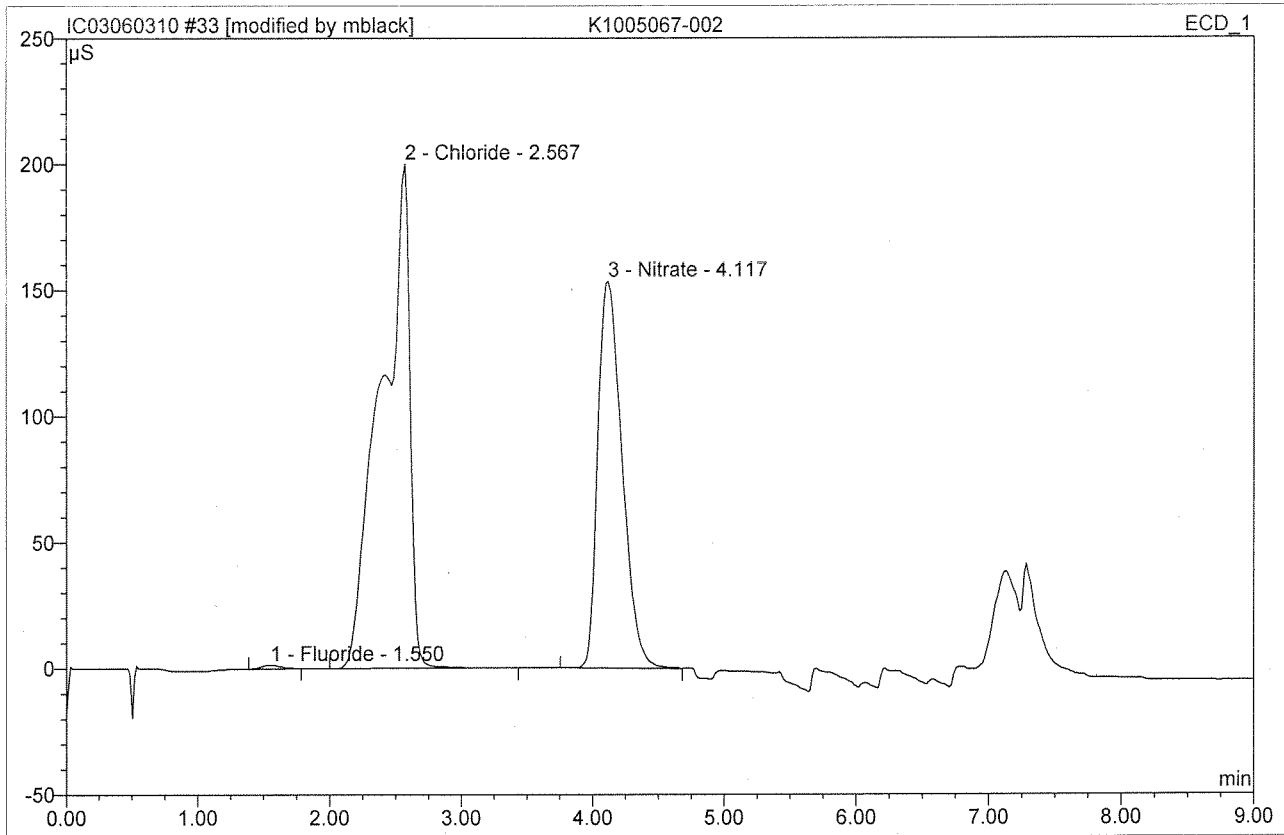
JUN 03 2010

06/04/10



**33 K1005067-002**

Sample Name:	K1005067-002	Injection Volume:	200.0
Vial Number:	30	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 13:47	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.55	Fluoride	1.507	0.255	0.31	0.267	BMB*
2	2.57	Chloride	200.275	50.277	60.30	64.476	BMB*
3	4.12	Nitrate	153.595	32.841	39.39	17.829	BMB*
<b>Total:</b>			355.377	83.373	100.00	82.573	

After Initials

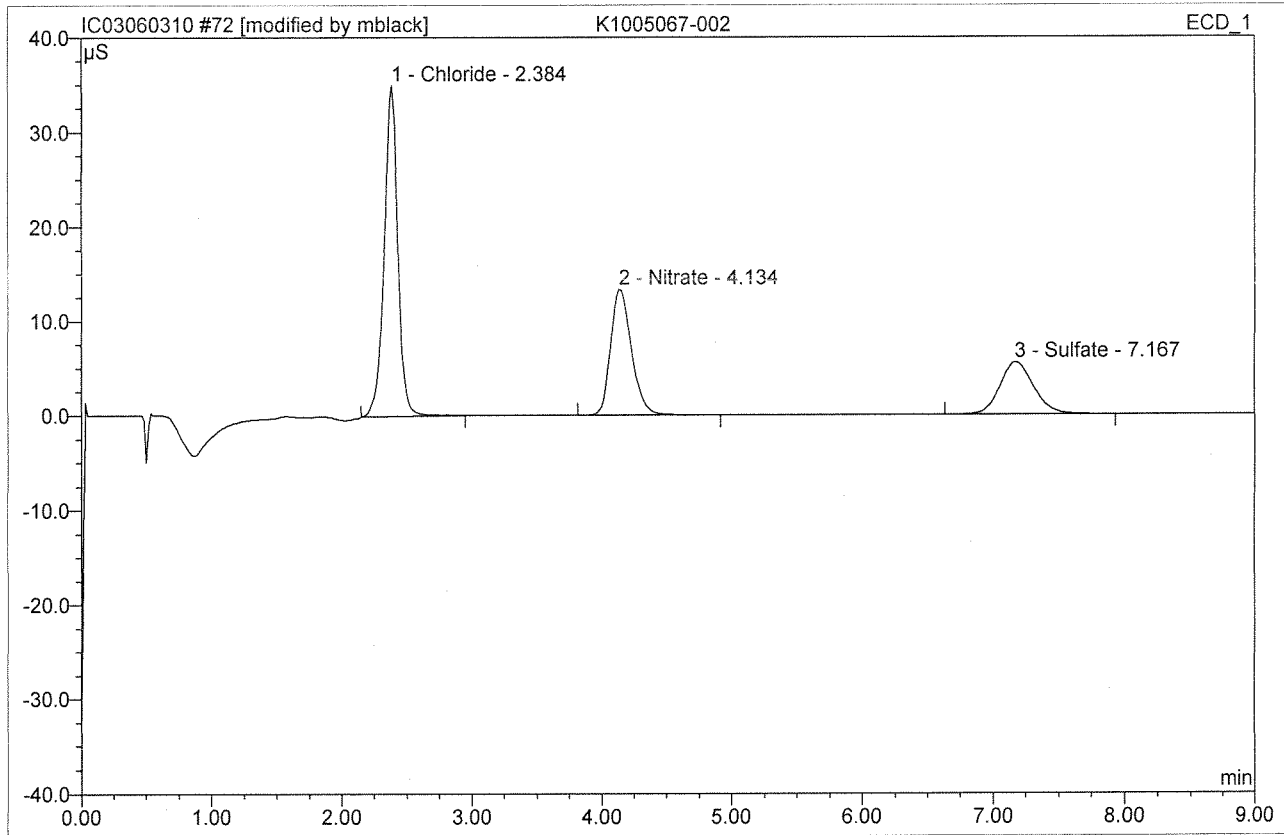
*MB*

JUN 03 2010

*MB 6/4/10*

**72 K1005067-002**

Sample Name:	<b>K1005067-002</b>	Injection Volume:	<b>200.0</b>
Vial Number:	<b>69</b>	Channel:	<b>ECD_1</b>
Sample Type:	<b>unknown</b>	Wavelength:	<b>n.a.</b>
Control Program:	<b>epa300</b>	Bandwidth:	<b>n.a.</b>
Quantif. Method:	<b>epa300</b>	Dilution Factor:	<b>20.0000</b>
Recording Time:	<b>6/3/2010 21:14</b>	Sample Weight:	<b>1.0000</b>
Run Time (min):	<b>9.00</b>	Sample Amount:	<b>1.0000</b>



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.38	Chloride	35.026	4.257	50.74	54.598	BMB*
2	4.13	Nitrate	13.315	2.486	29.63	13.497	BMB*
3	7.17	Sulfate	5.555	1.647	19.63	33.471	BMB
<b>Total:</b>			53.896	8.391	100.00	101.567	

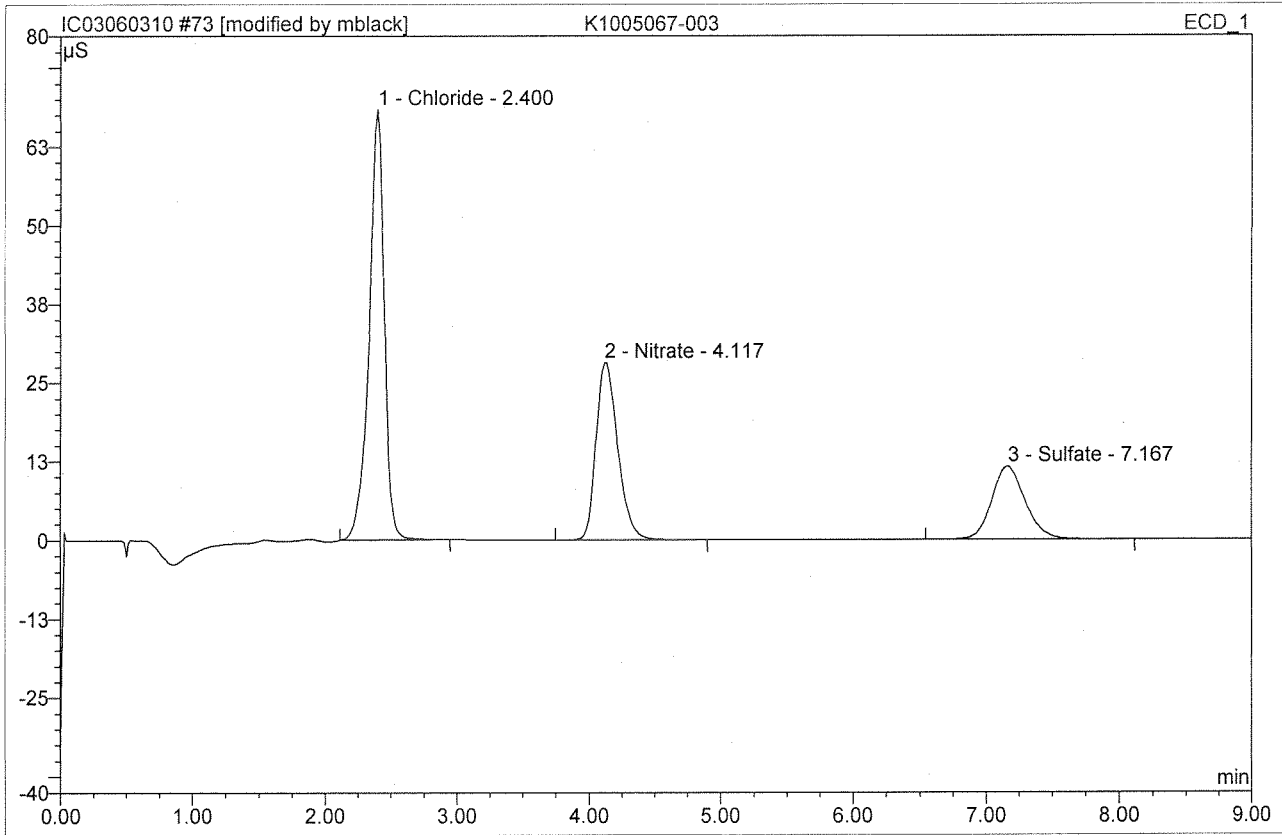
After Initials

*MB*

JUN 04 2010

*6/4/10*

<b>73 K1005067-003</b>			
Sample Name:	K1005067-003	Injection Volume:	200.0
Vial Number:	70	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	6/3/2010 21:25	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.40	Chloride	68.407	9.036	50.69	57.943	BMB*
2	4.12	Nitrate	28.144	5.380	30.18	14.603	BMB
3	7.17	Sulfate	11.616	3.411	19.13	34.658	BMB
<b>Total:</b>			108.167	17.827	100.00	107.204	

After Initial MB

JUN 04 2010

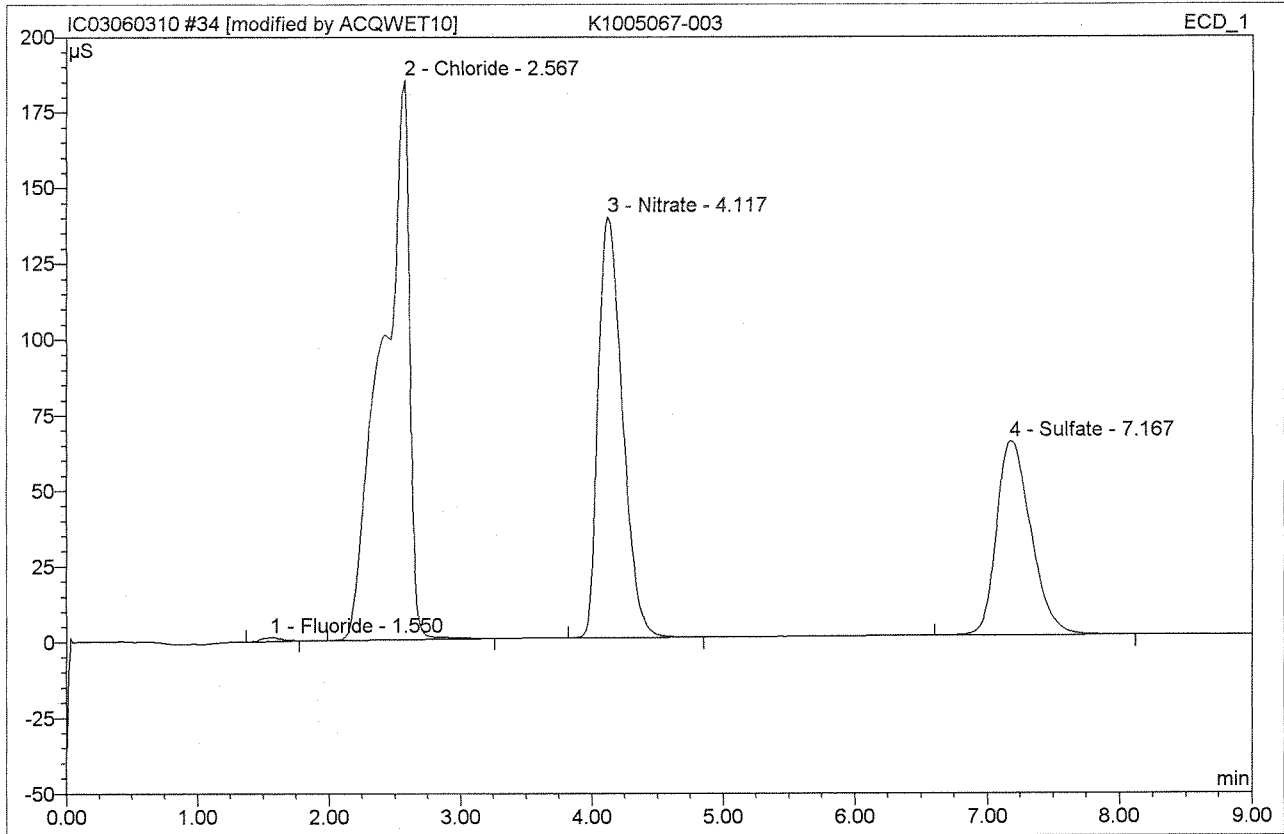
*MB 6/4/10*

default/Integration

Wrong Peak/Peak not Found  
 Baseline/shoulder incorrect  
 Other 72

**34 K1005067-003**

Sample Name:	K1005067-003	Injection Volume:	200.0
Vial Number:	31	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 13:58	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	1.55	Fluoride	1.268	0.221	0.24	0.231	BMB*
2	2.57	Chloride	184.697	44.045	47.17	56.485	BMB
3	4.12	Nitrate	138.843	29.746	31.85	16.149	BMB
4	7.17	Sulfate	64.077	19.371	20.74	39.368	BMB
<b>Total:</b>			388.885	93.383	100.00	112.233	

After Initials

MB

206/4/10

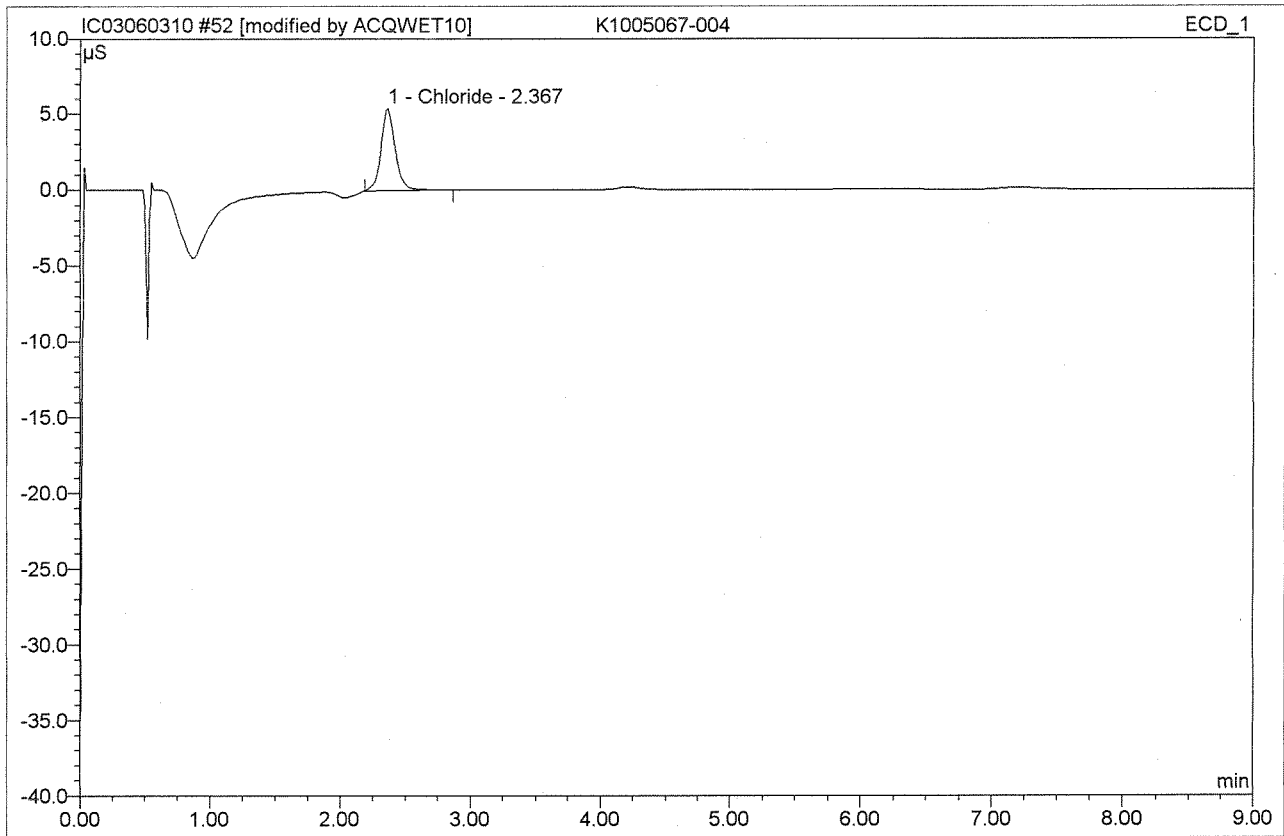
JUN 03 2010

default/Integration

Wrong Peak/Peak not Found  
 Baseline/shoulder incor  
 Other

73

<b>52 K1005067-004</b>			
Sample Name:	K1005067-004	Injection Volume:	200.0
Vial Number:	49	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 17:25	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	2.37	Chloride	5.384	0.676	100.00	0.434	BMB*
<b>Total:</b>			5.384	0.676	100.00	0.434	

Fluoride = ND < 0.003

Sulfate = ND < 0.01

After Initials

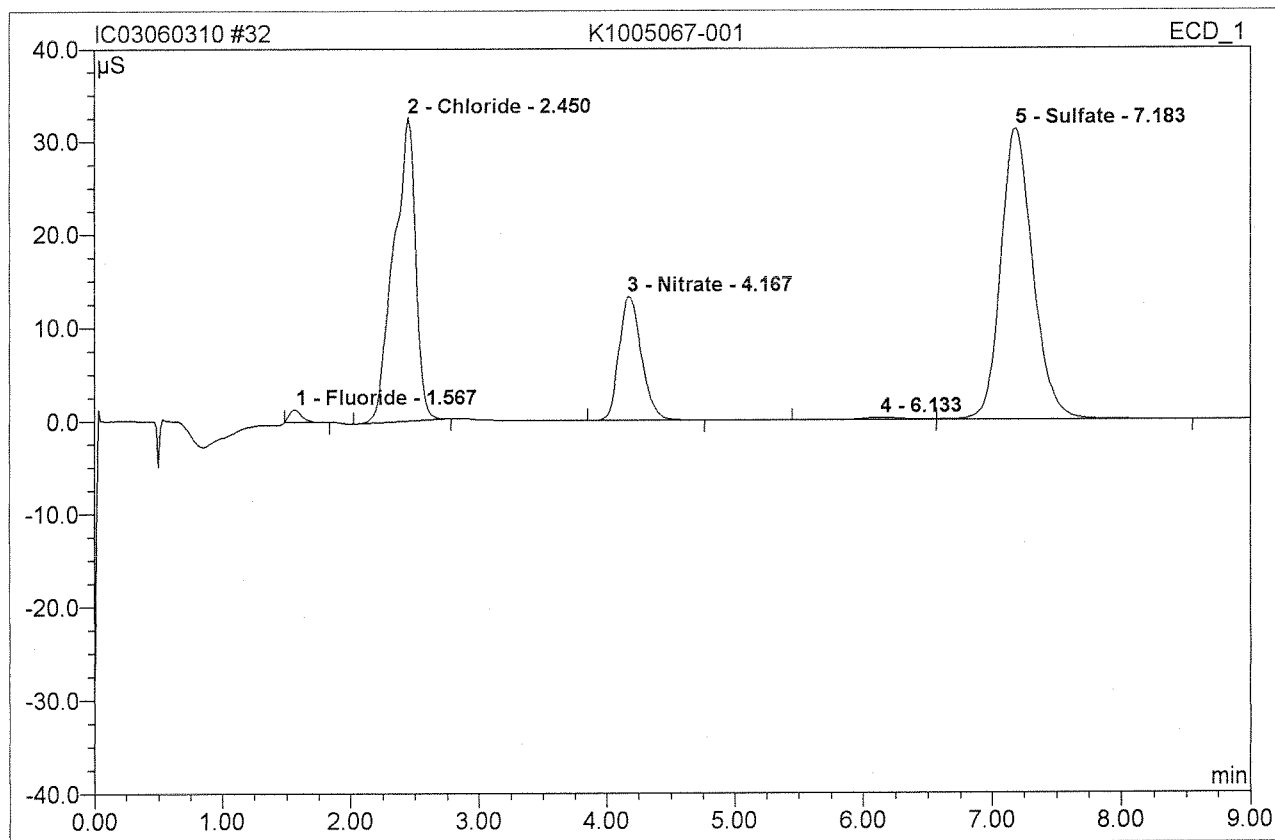
*LB*

06/04/10

JUN 03 2010

**32 K1005067-001**

Sample Name:	K1005067-001	Injection Volume:	200.0
Vial Number:	29	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 13:35	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



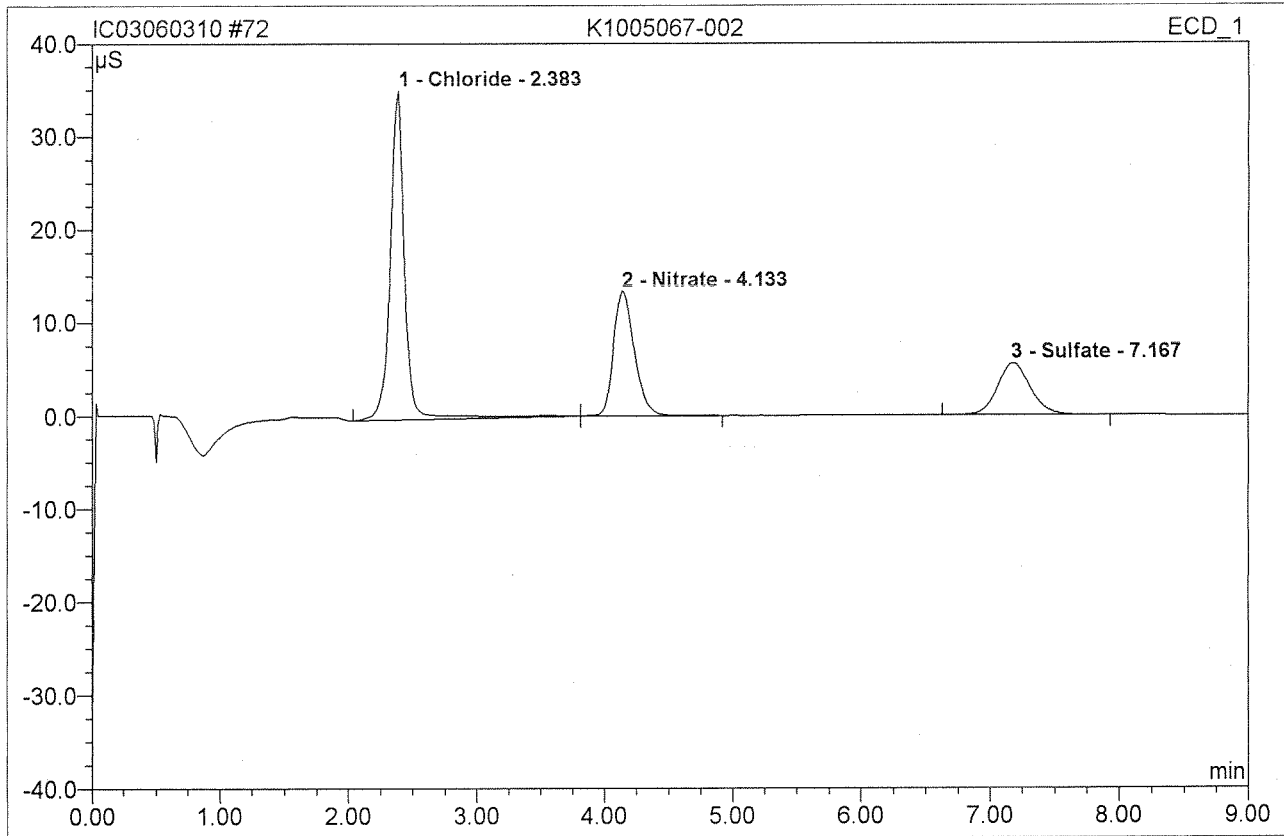
No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	1.57	Fluoride	1.319	0.147	0.79	0.154	BMB
2	2.45	Chloride	32.583	6.475	35.00	8.304	BMB
3	4.17	Nitrate	13.235	2.703	14.61	1.467	BMB
4	6.13	n.a.	0.261	0.105	0.57	n.a.	BM
5	7.18	Sulfate	31.265	9.069	49.02	18.432	MB
<b>Total:</b>			78.663	18.499	100.00	28.357	

Before

JUN 03 2010

**72 K1005067-002**

Sample Name:	K1005067-002	Injection Volume:	200.0
Vial Number:	69	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	20.0000
Recording Time:	6/3/2010 21:14	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



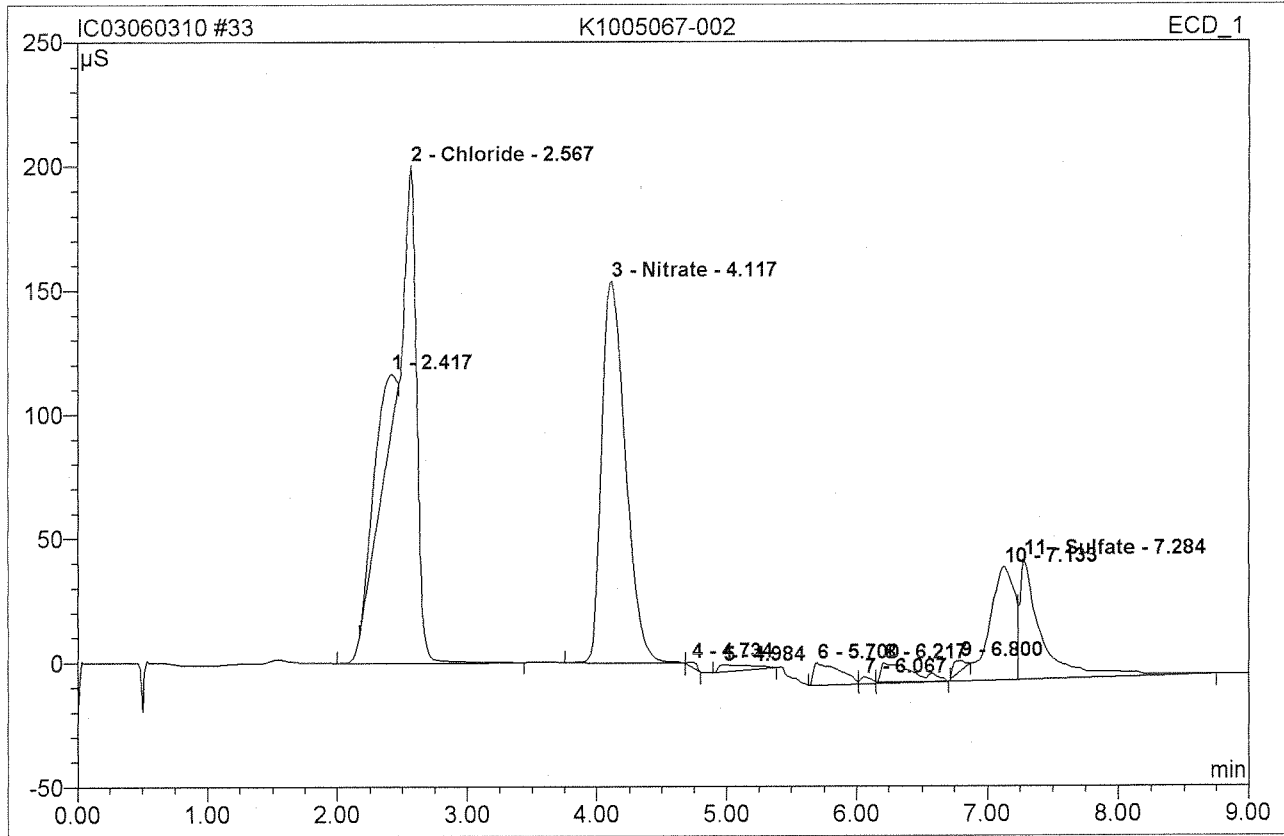
No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.38	Chloride	35.336	4.622	52.79	59.280	BMB
2	4.13	Nitrate	13.315	2.486	28.40	13.497	bMB
3	7.17	Sulfate	5.555	1.647	18.81	33.471	BMB
<b>Total:</b>			54.206	8.756	100.00	106.249	

Before

JUN 04 2010

**33 K1005067-002**

Sample Name:	K1005067-002	Injection Volume:	200.0
Vial Number:	30	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 13:47	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



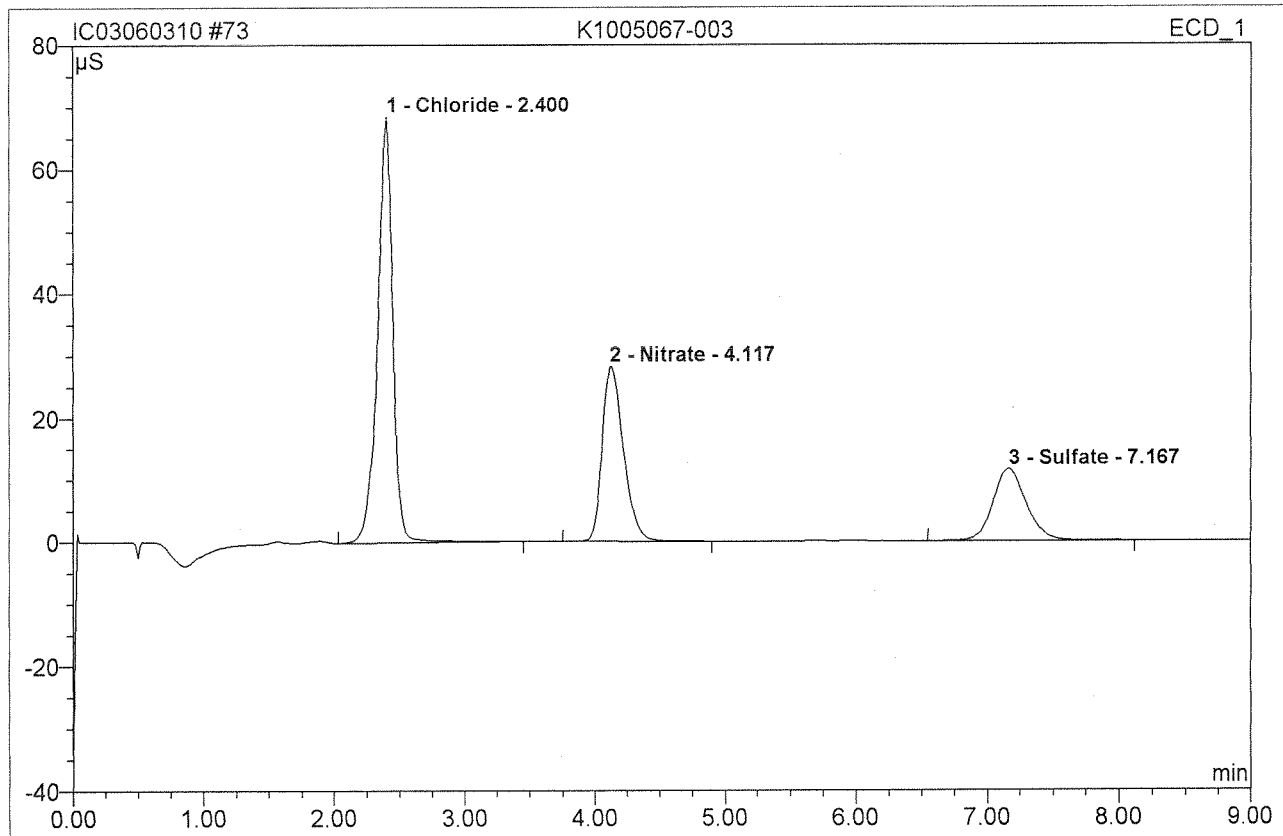
No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	2.42	n.a.	20.865	5.792	5.30	n.a.	Ru
2	2.57	Chloride	200.275	44.485	40.74	57.048	BMB
3	4.12	Nitrate	153.595	32.841	30.08	17.829	BMB
4	4.73	n.a.	1.983	0.163	0.15	n.a.	bMB
5	4.98	n.a.	2.764	0.756	0.69	n.a.	BMB
6	5.70	n.a.	9.045	2.117	1.94	n.a.	BM
7	6.07	n.a.	2.816	0.275	0.25	n.a.	M
8	6.22	n.a.	7.661	2.119	1.94	n.a.	Ru
9	6.80	n.a.	3.836	0.462	0.42	n.a.	Ru
10	7.13	n.a.	45.639	10.689	9.79	n.a.	M
11	7.28	Sulfate	48.495	9.493	8.69	19.294	MB

*Before @ 6/3/10*



**73 K1005067-003**

Sample Name:	K1005067-003	Injection Volume:	200.0
Vial Number:	70	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	6/3/2010 21:25	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



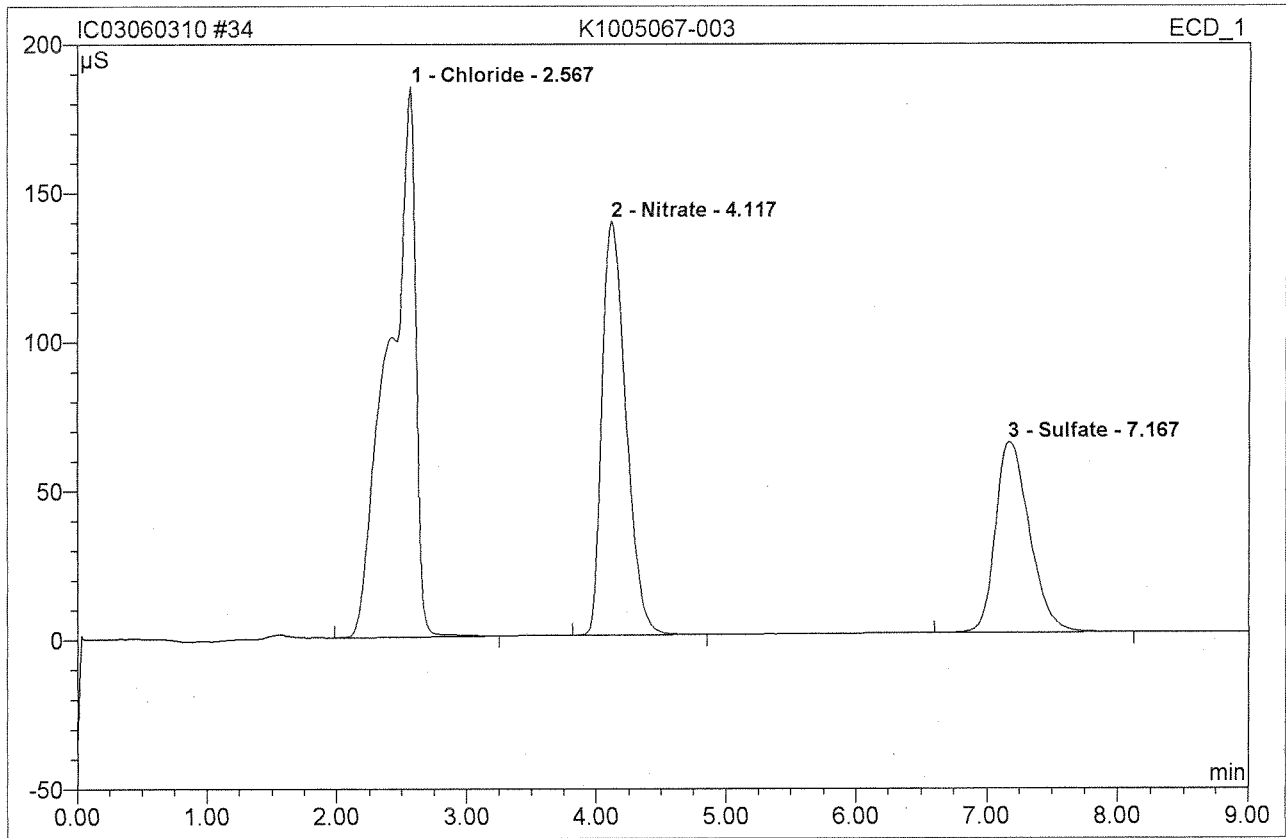
No.	Ret. Time min	Peak Name	Height $\mu\text{S}$	Area $\mu\text{S}\cdot\text{min}$	Rel. Area %	Amount	Type
1	2.40	Chloride	68.607	9.233	51.23	59.202	BMB
2	4.12	Nitrate	28.144	5.380	29.85	14.603	BMB
3	7.17	Sulfate	11.616	3.411	18.92	34.658	BMB
<b>Total:</b>			108.367	18.023	100.00	108.463	

Before

JUN 04 2010

**34 K1005067-003**

Sample Name:	K1005067-003	Injection Volume:	200.0
Vial Number:	31	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 13:58	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



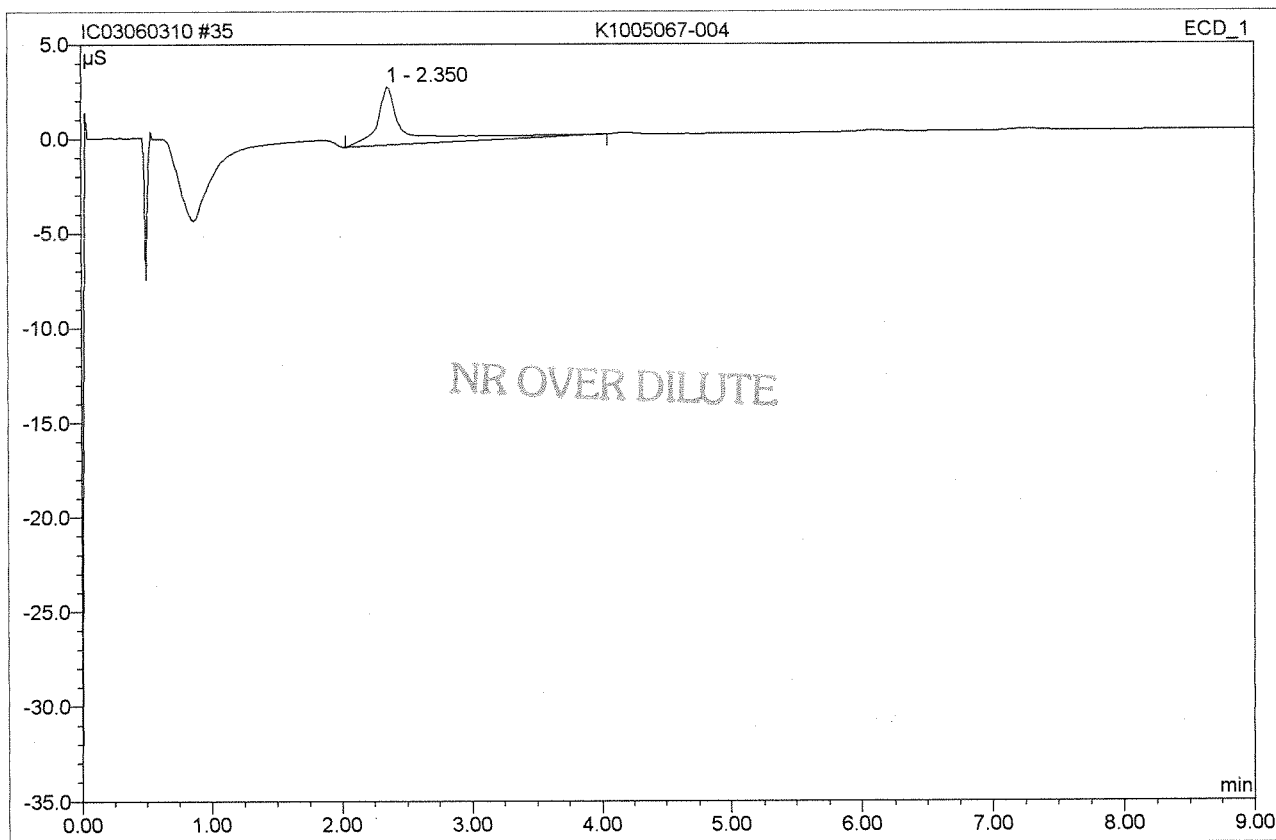
No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.57	Chloride	184.697	44.045	47.28	56.485	BMB
2	4.12	Nitrate	138.843	29.746	31.93	16.149	BMB
3	7.17	Sulfate	64.077	19.371	20.79	39.368	BMB
<b>Total:</b>			387.617	93.162	100.00	112.002	

Before

JUN 03 2010

**35 K1005067-004**

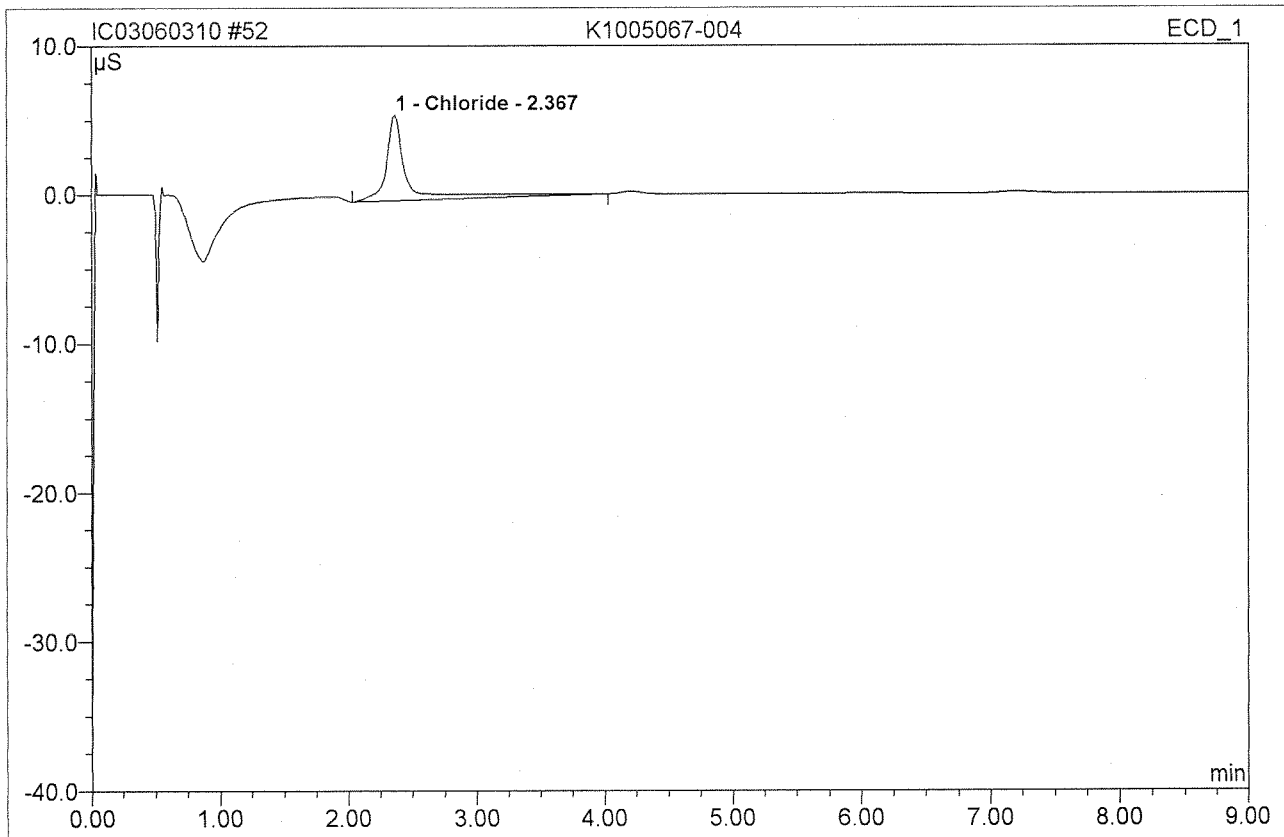
Sample Name:	K1005067-004	Injection Volume:	200.0
Vial Number:	32	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 14:10	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	2.35	n.a.	3.065	0.823	100.00	n.a.	BMB
<b>Total:</b>			3.065	0.823	100.00	0.000	

**52 K1005067-004**

Sample Name:	K1005067-004	Injection Volume:	200.0
Vial Number:	49	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 17:25	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

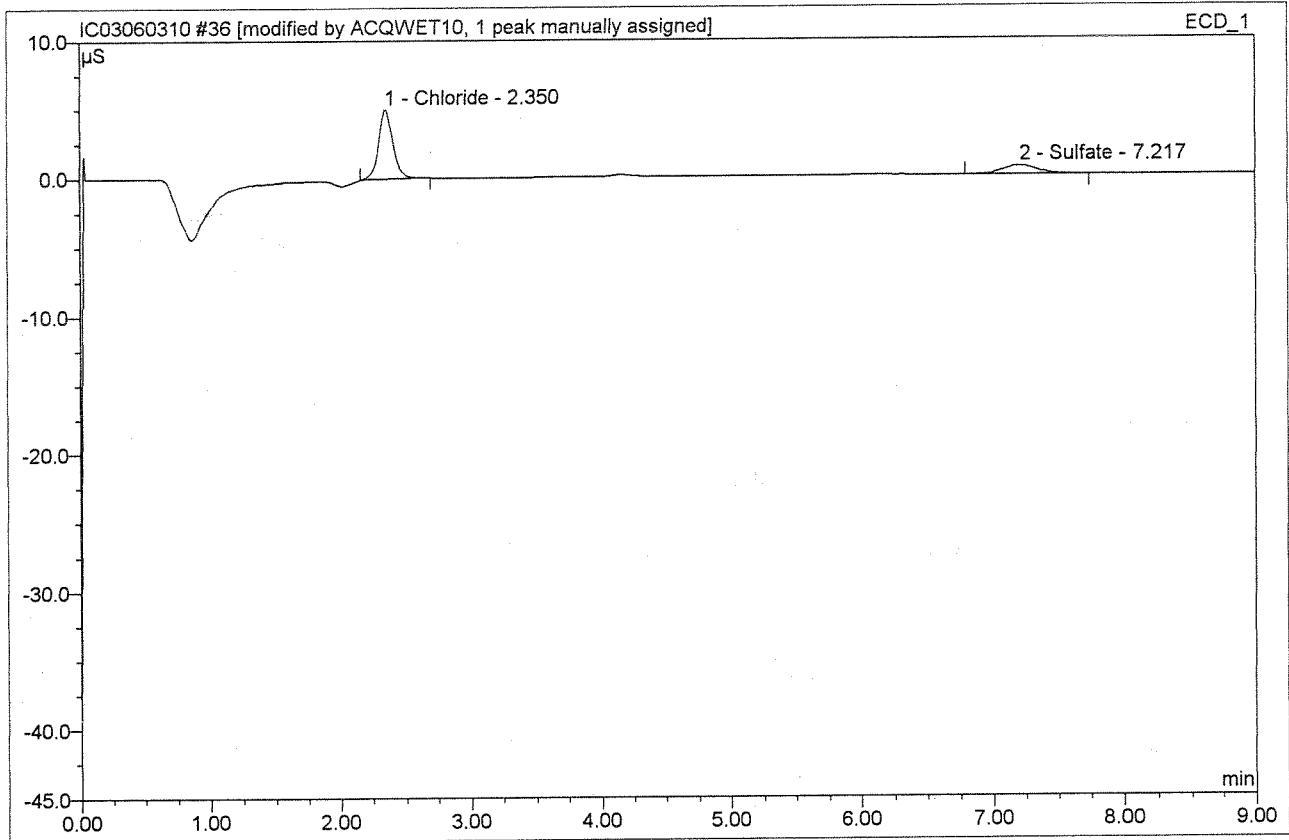


No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	2.37	Chloride	5.768	1.125	100.00	0.721	BMB
<b>Total:</b>			5.768	1.125	100.00	0.721	

Before

JUN 03 2010

<b>36 K1005346-001</b>			
Sample Name:	K1005346-001	Injection Volume:	200.0
Vial Number:	33	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 14:21	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



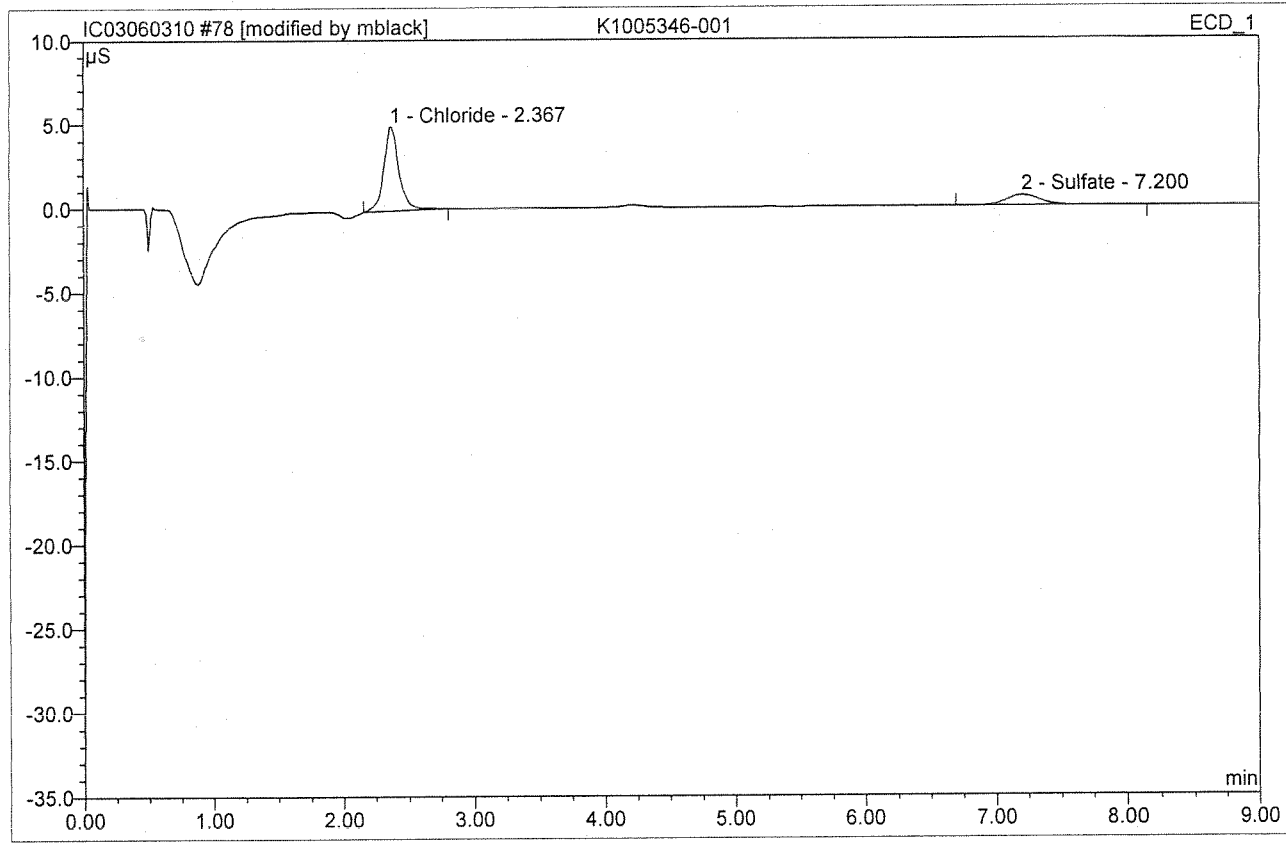
No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.35	Chloride <i>20.85 #10 = 6%</i>	5.028	0.643	77.40	0.824	BMB*^
2	7.22	Sulfate	0.621	0.188	22.60	0.381	BMB
<b>Total:</b>			5.649	0.830	100.00	1.206	

After Initial *MB*

*6/4/10*

JUL 03 2010

<b>78 K1005346-001</b>			
<b>5346-1D</b>			
Sample Name:	K1005346-001	Injection Volume:	200.0
Vial Number:	75	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 22:23	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



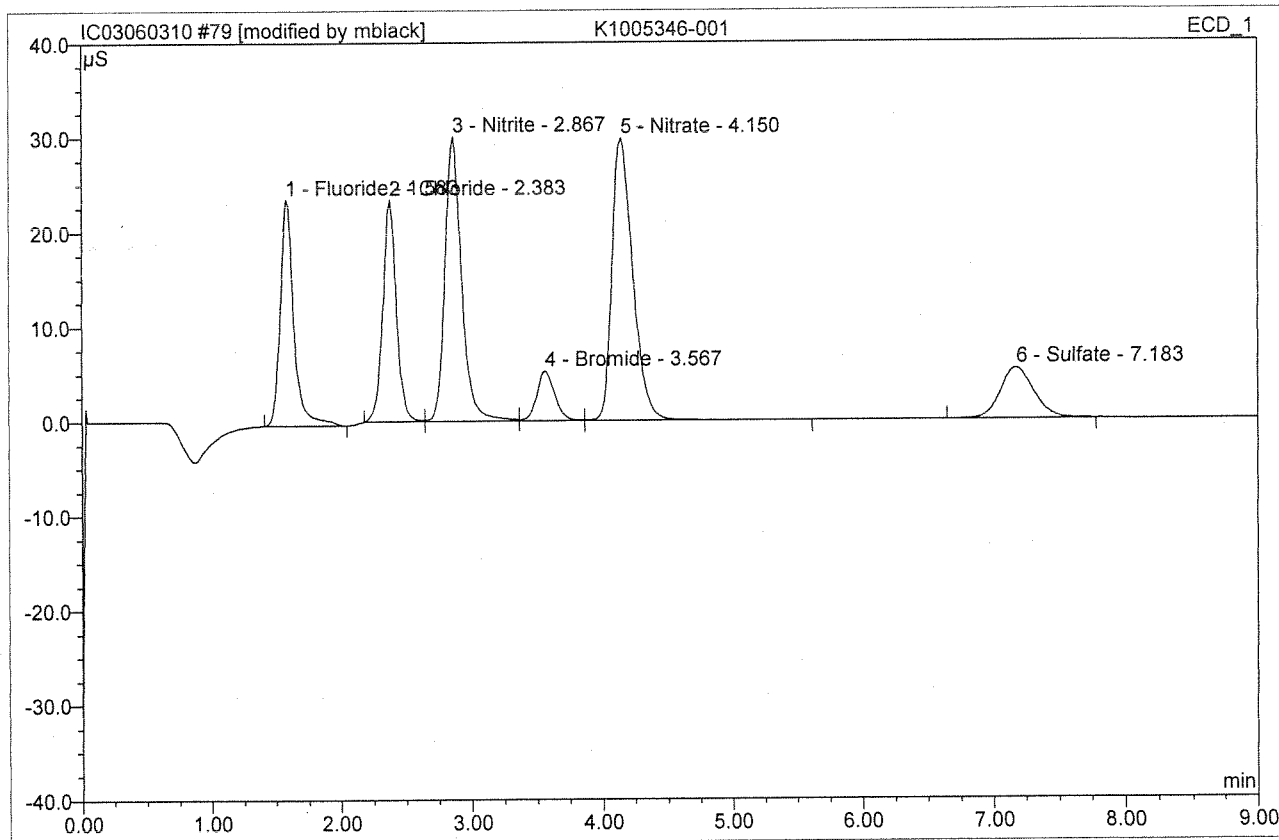
No.	Ret.Time min	Peak Name	Height $\mu$ S	Area $\mu$ S*min	Rel.Area %	Amount	Type
1	2.37	Chloride	4.993	0.678	77.66	0.870	BMB*
2	7.20	Sulfate	0.623	0.195	22.34	0.396	BMB
<b>Total:</b>			5.616	0.873	100.00	1.266	

After initials MB

*Handwritten signature*  
6/4/10

JUN 04 2010

<b>79 K1005346-001</b>			
<b>5346-1MS</b>			
Sample Name:	K1005346-001	Injection Volume:	200.0
Vial Number:	76	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 22:34	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	23.857	2.940	16.16	3.073102?	BMB*
2	2.38	Chloride	23.420	2.833	15.57	3.63394?	BM *
3	2.87	Nitrite	30.049	4.466	24.55	3.093103?	M *
4	3.57	Bromide	5.274	0.850	4.67	3.171106?	M *
5	4.15	Nitrate	29.843	5.504	30.26	2.988100?	MB*
6	7.18	Sulfate	5.399	1.599	8.79	3.25096?	BMB
<b>Total:</b>			117.842	18.190	100.00	19.207	

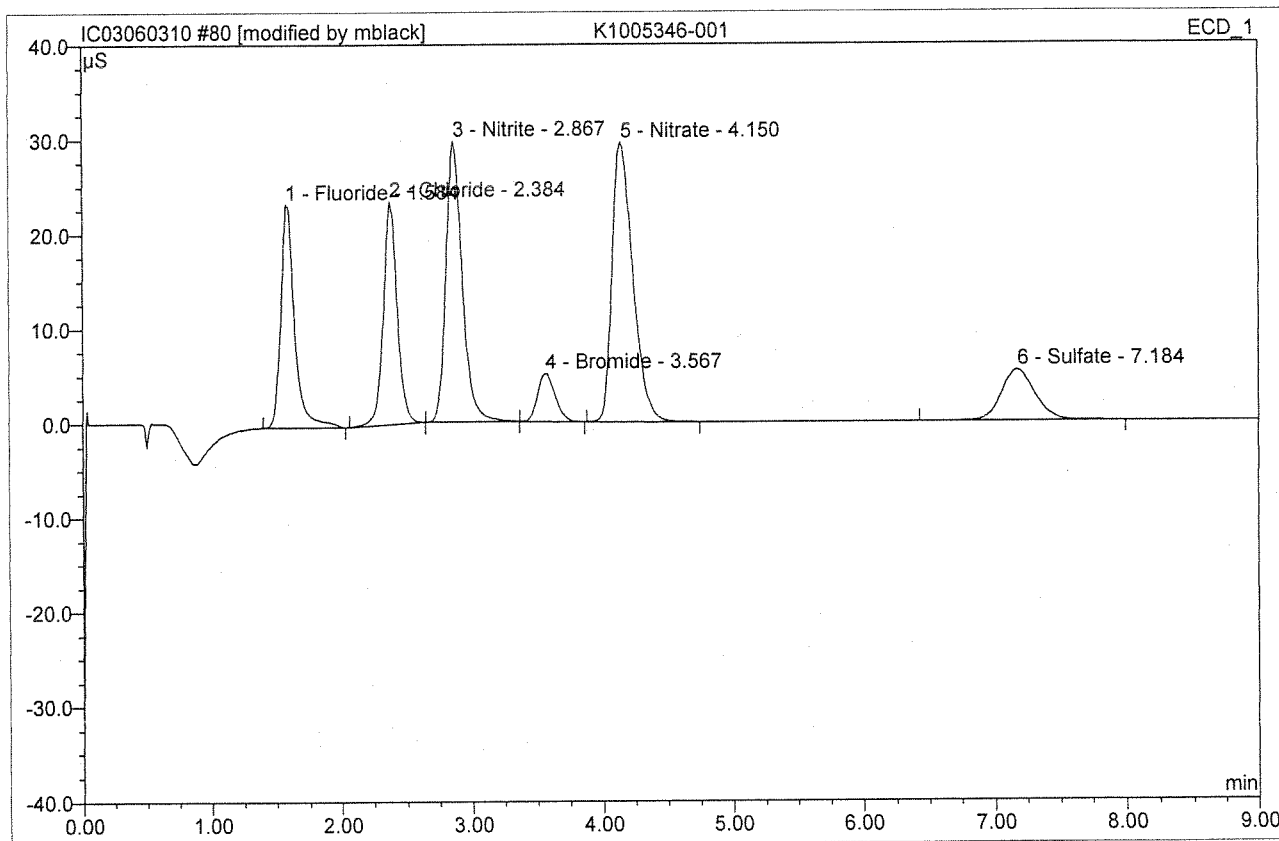
After Initials

*(Signature)*

6/4/10

JUN 04 2010

<b>80 K1005346-001</b>			
<b>5346-1MSD</b>			
Sample Name:	K1005346-001	Injection Volume:	200.0
Vial Number:	77	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 22:46	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	23.631	2.932	16.32	3.064162%	BMB*
2	2.38	Chloride	23.556	2.876	16.01	3.68876%	BMB
3	2.87	Nitrite	29.700	4.332	24.11	3.000100%	bMB
4	3.57	Bromide	5.093	0.787	4.38	2.93948%	bMB
5	4.15	Nitrate	29.577	5.429	30.22	2.94775%	BMB
6	7.18	Sulfate	5.396	1.609	8.96	3.27046%	BMB
<b>Total:</b>			116.953	17.965	100.00	18.910	

After Initials

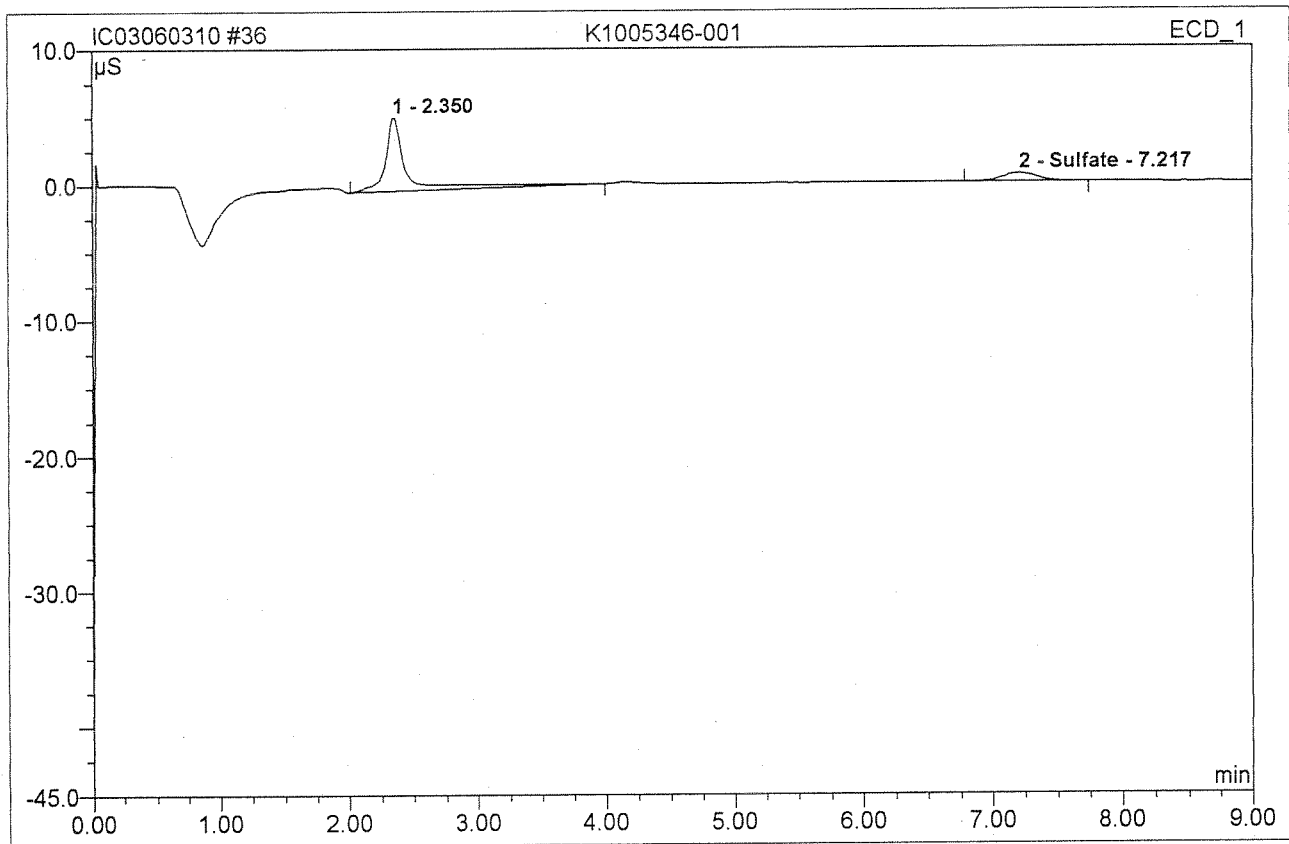
*MB*

JUN 04 2010

*206/4/10*



<b>36 K1005346-001</b>			
Sample Name:	K1005346-001	Injection Volume:	200.0
Vial Number:	33	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 14:21	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

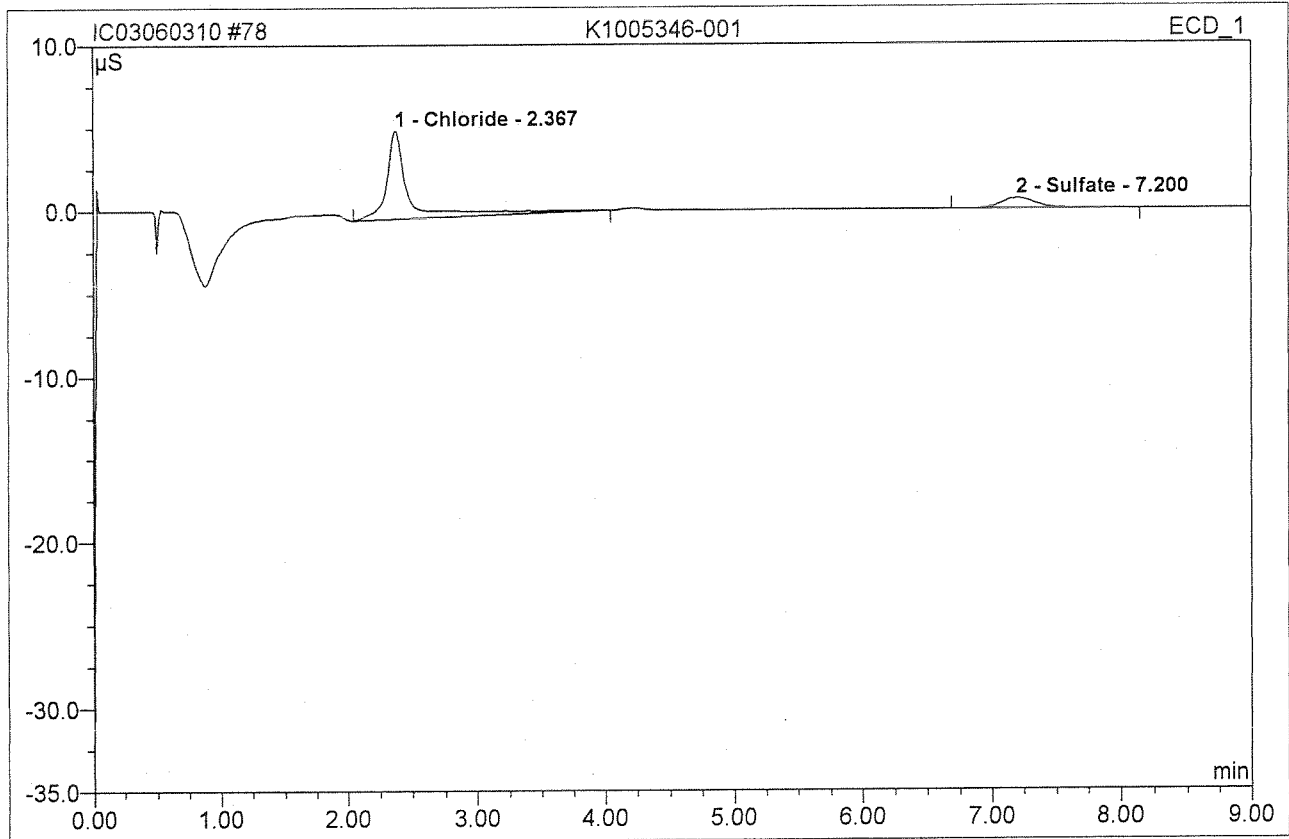


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.35	n.a.	5.418	1.107	85.51	n.a.	BMB
2	7.22	Sulfate	0.621	0.188	14.49	0.381	BMB
<b>Total:</b>			6.038	1.295	100.00	0.381	

Before

JUN 03 2010

<b>78 K1005346-001</b>			
<b>5346-1D</b>			
Sample Name:	K1005346-001	Injection Volume:	200.0
Vial Number:	75	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 22:23	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.37	Chloride	5.318	1.114	85.10	1.428	BMB
2	7.20	Sulfate	0.623	0.195	14.90	0.396	BMB
<b>Total:</b>			5.941	1.309	100.00	1.825	

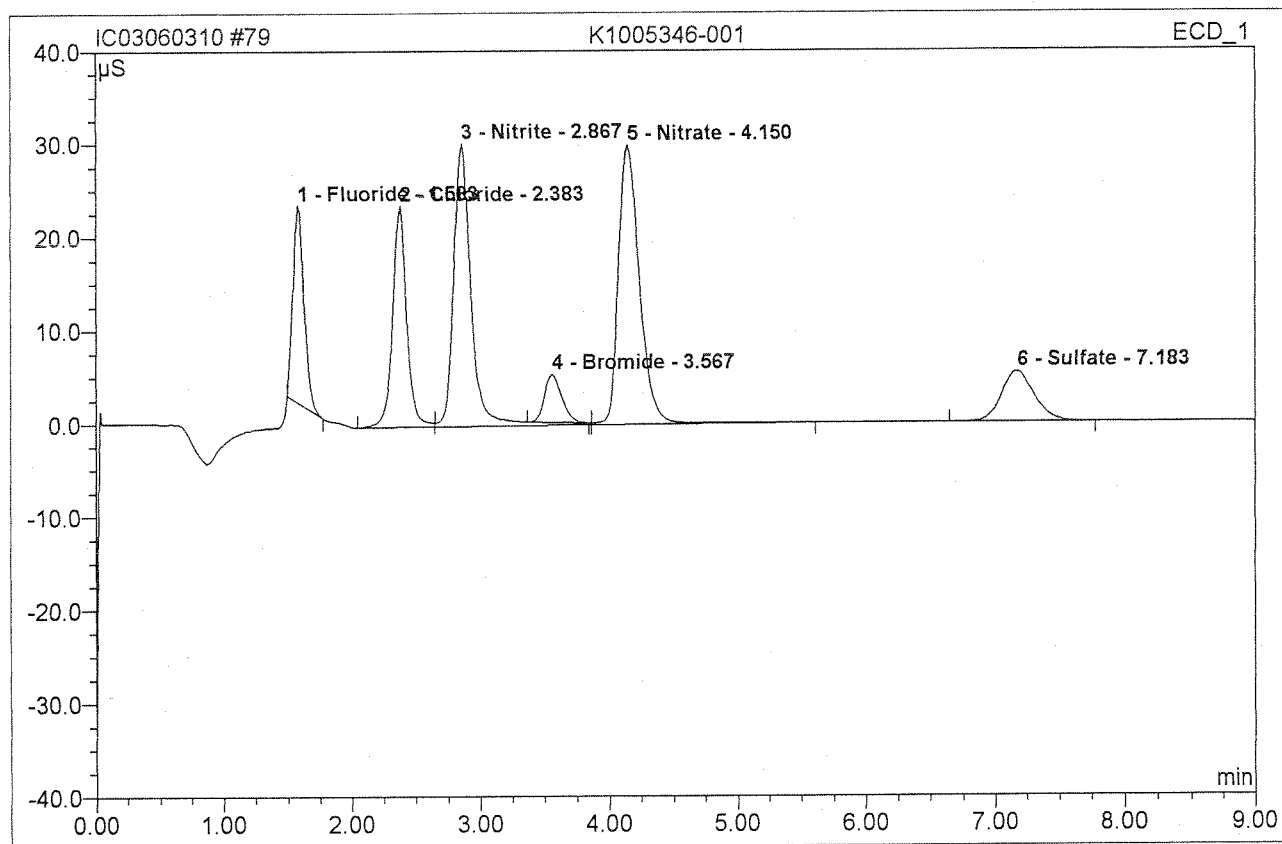
Before

JUN 04 2010

**79 K1005346-001**

**5346-1MS**

Sample Name:	K1005346-001	Injection Volume:	200.0
Vial Number:	76	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 22:34	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

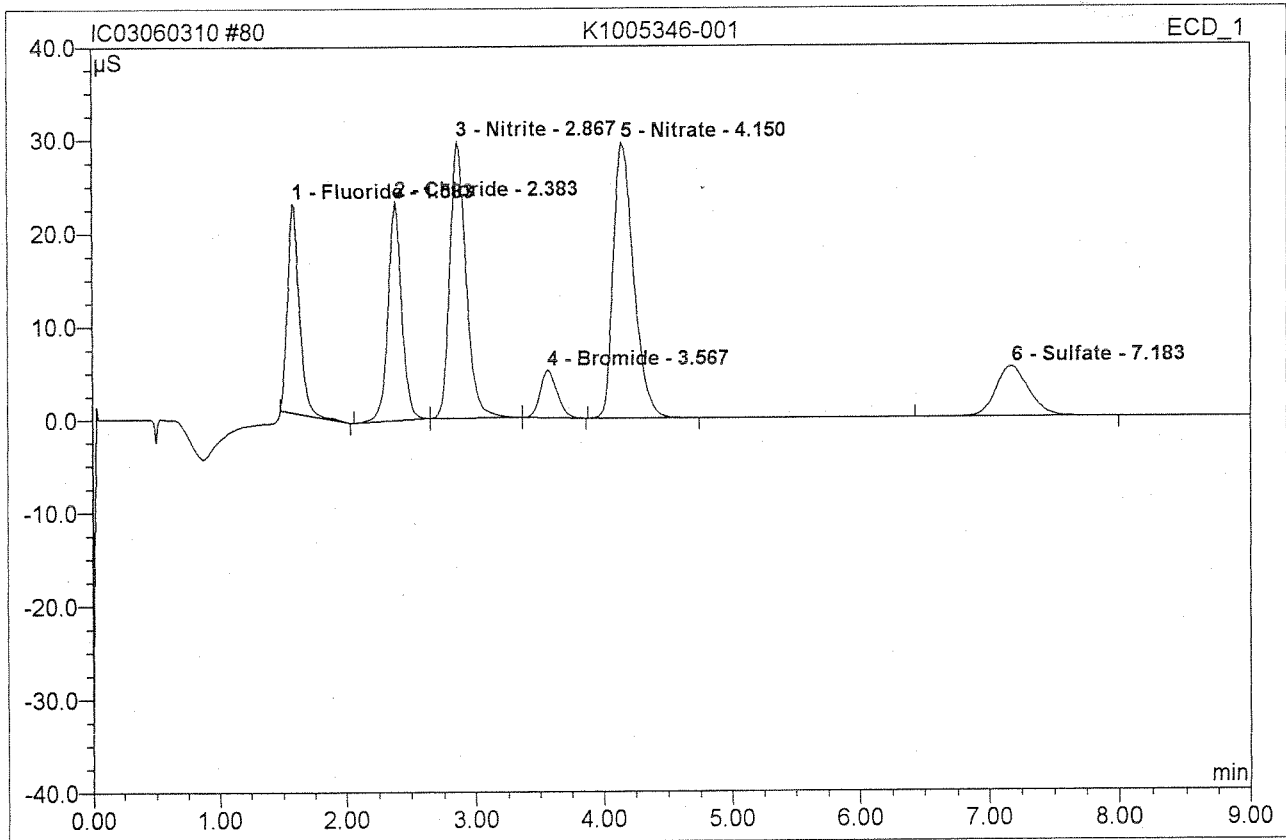


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	21.150	2.127	11.81	2.223	BMB
2	2.38	Chloride	23.759	3.007	16.69	3.857	BM
3	2.87	Nitrite	30.337	4.825	26.79	3.342	M
4	3.57	Bromide	5.146	0.791	4.39	2.954	Rd
5	4.15	Nitrate	29.997	5.665	31.45	3.075	MB
6	7.18	Sulfate	5.399	1.599	8.88	3.250	BMB
<b>Total:</b>			115.789	18.014	100.00	18.700	

Before

JUN 04 2010

<b>80 K1005346-001</b>			
<b>5346-1MSD</b>			
Sample Name:	K1005346-001	Injection Volume:	200.0
Vial Number:	77	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 22:46	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



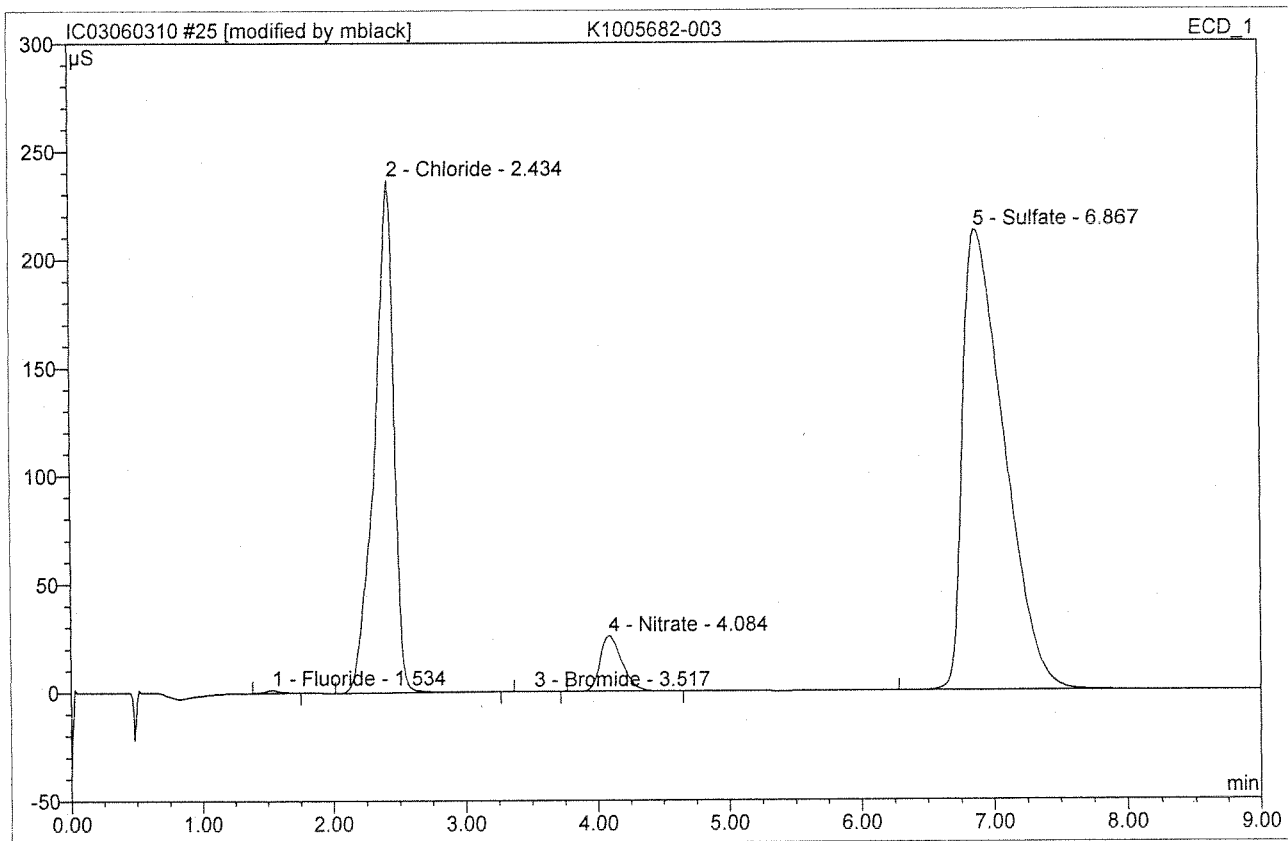
No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	1.58	Fluoride	22.460	2.513	14.32	2.627	BMB
2	2.38	Chloride	23.556	2.876	16.39	3.688	BMb
3	2.87	Nitrite	29.700	4.332	24.69	3.000	bMb
4	3.57	Bromide	5.093	0.787	4.49	2.939	bMB
5	4.15	Nitrate	29.577	5.429	30.94	2.947	BMB
6	7.18	Sulfate	5.396	1.609	9.17	3.270	BMB
<b>Total:</b>			115.782	17.547	100.00	18.472	

Before

JUN 04 2010

Chromleon (c) Dionex 1996-2001  
Version 6.50 SP1 Build 956

<b>25 K1005682-003</b>			
Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	22	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	6/3/2010 12:10	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.53	Fluoride	1.231	0.164	0.13	0.858	BMB*
2	2.43	Chloride	236.653	39.892	32.55	255.790	BMB*
3	3.52	Bromide	0.217	0.035	0.03	0.651	BMB*
4	4.08	Nitrate	25.726	4.974	4.06	13.502	BMB
5	6.87	Sulfate	212.650	77.487	63.23	787.408	BMB
<b>Total:</b>			476.477	122.552	100.00	1058.209	

Nitrate = ND < 1.00 Elevated MRL due to high chloride and sulfate

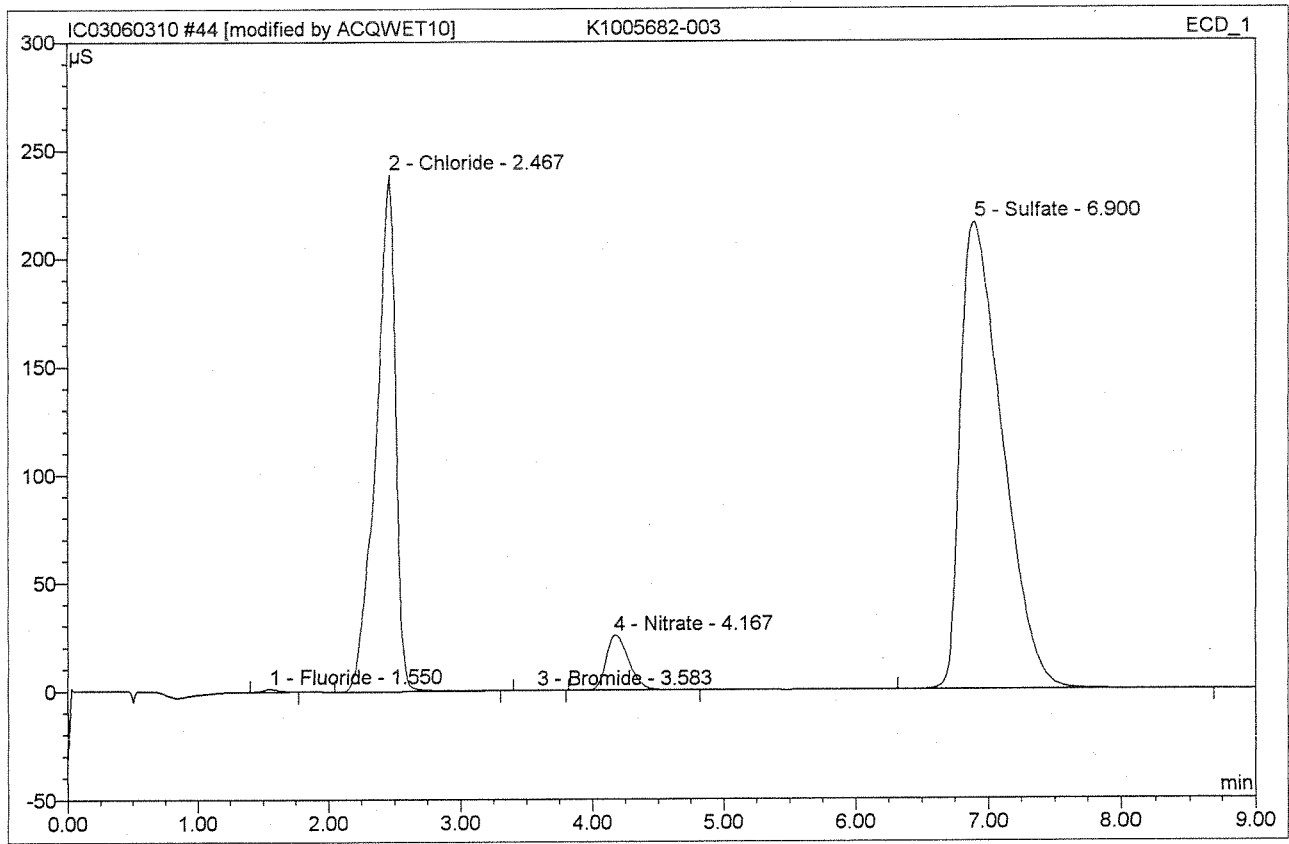
$\bar{x} = ND \text{ RPD} = \text{---}$

After Initial **KB**

2006/4/10

JUN 03 2010

<b>44 K1005682-003</b>			
<b>5682-3D</b>			
Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	41	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	6/3/2010 15:53	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	1.55	Fluoride	1.256	0.167	0.13	0.871	BMB*
2	2.47	Chloride	238.727	40.614	32.56	260.423	BMB*
3	3.58	Bromide	0.211	0.035	0.03	0.650	BMB*
4	4.17	Nitrate	25.418	5.065	4.06	13.749	BMB
5	6.90	Sulfate	215.652	78.853	63.22	801.289	BMB
<b>Total:</b>			481.265	124.733	100.00	1076.982	

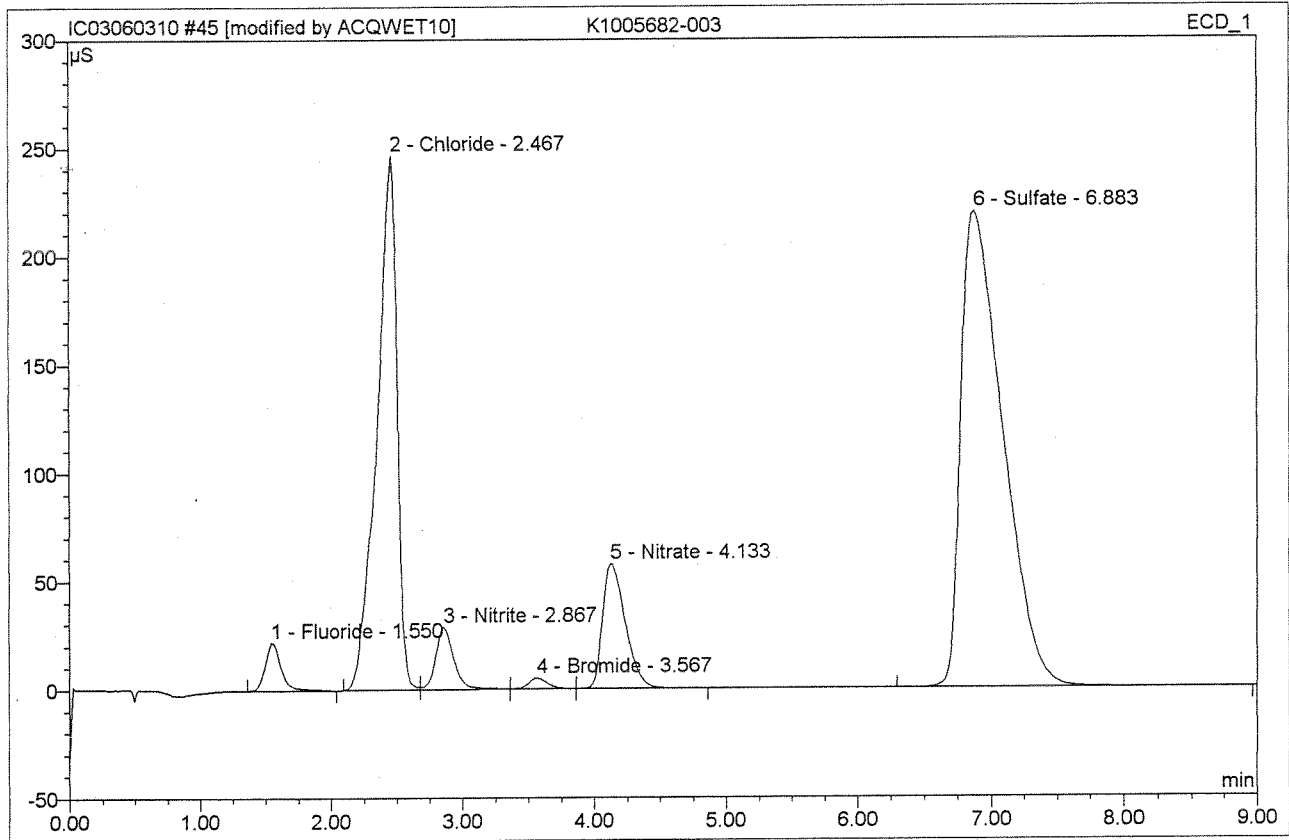
Nitrate = ND 400

After Initial **NB**

6/4/10

JUN 03 2010

<b>45 K1005682-003</b>			
<b>5682-3MS</b>			
Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	42	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	6/3/2010 16:04	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	1.55	Fluoride	21.959	3.146	2.20	16.442109%	BMB*
2	2.47	Chloride	246.406	42.891	30.01	275.026	BM *
3	2.87	Nitrite	28.432	4.472	3.13	15.489163%	Mb*
4	3.57	Bromide	4.925	0.821	0.57	15.328102%	bMb*
5	4.13	Nitrate	57.520	11.521	8.06	31.274119%	bMB*
6	6.88	Sulfate	219.603	80.086	56.03	813.818	BMB
<b>Total:</b>			578.845	142.938	100.00	1167.377	

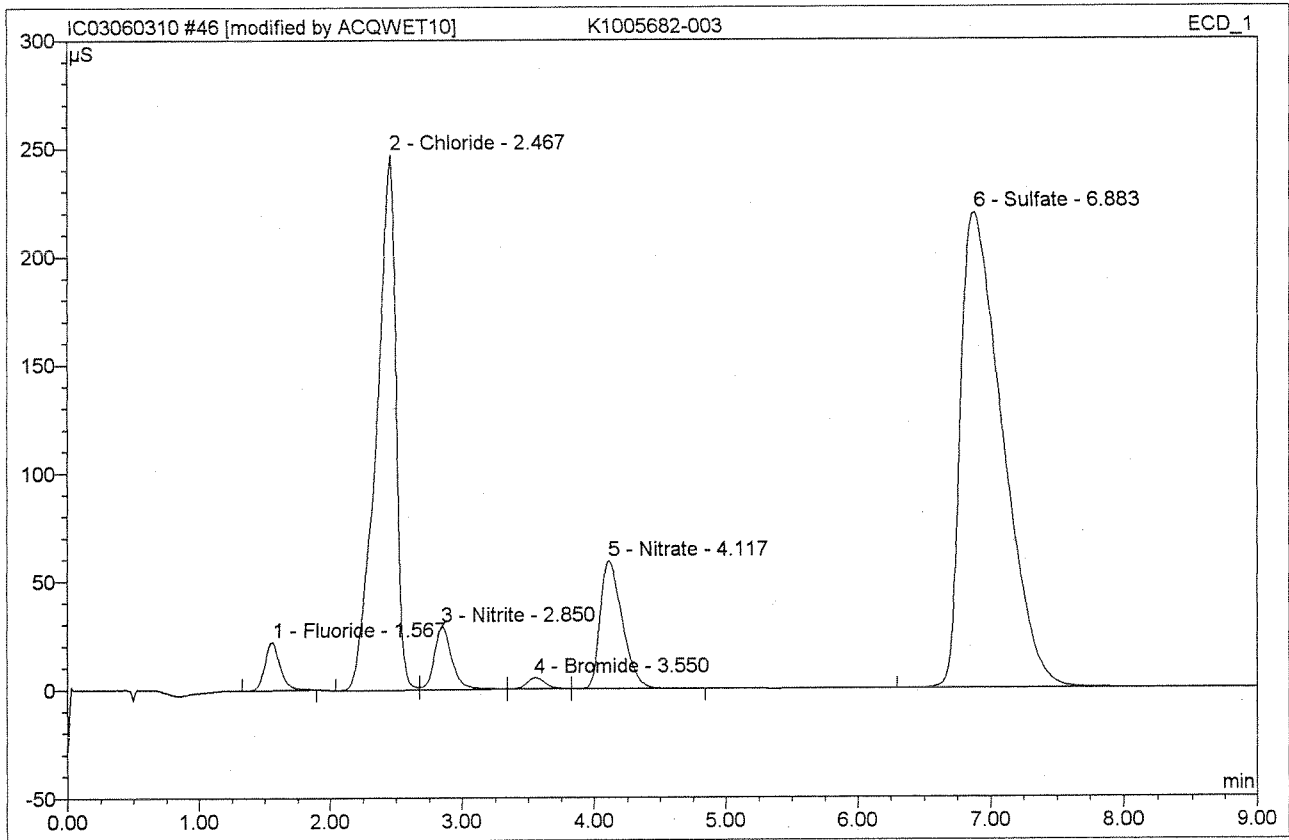
TV=15.0

After Initial MB

206/4/10

JUN 03 2010

<b>46 K1005682-003</b>			
<b>5682-3MSD</b>			
Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	43	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	6/3/2010 16:16	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	1.57	Fluoride	22.058	2.985	2.10	15.601104%	BMB*
2	2.47	Chloride	247.067	42.358	29.78	271.603	BM *
3	2.85	Nitrite	28.848	4.481	3.15	15.520153%	Mb*
4	3.55	Bromide	4.981	0.808	0.57	15.076101%	bM *
5	4.12	Nitrate	58.872	11.460	8.06	31.107117%	MB*
6	6.88	Sulfate	219.668	80.158	56.35	814.549	BMB
<b>Total:</b>			581.493	142.249	100.00	1163.457	

TV=15.0

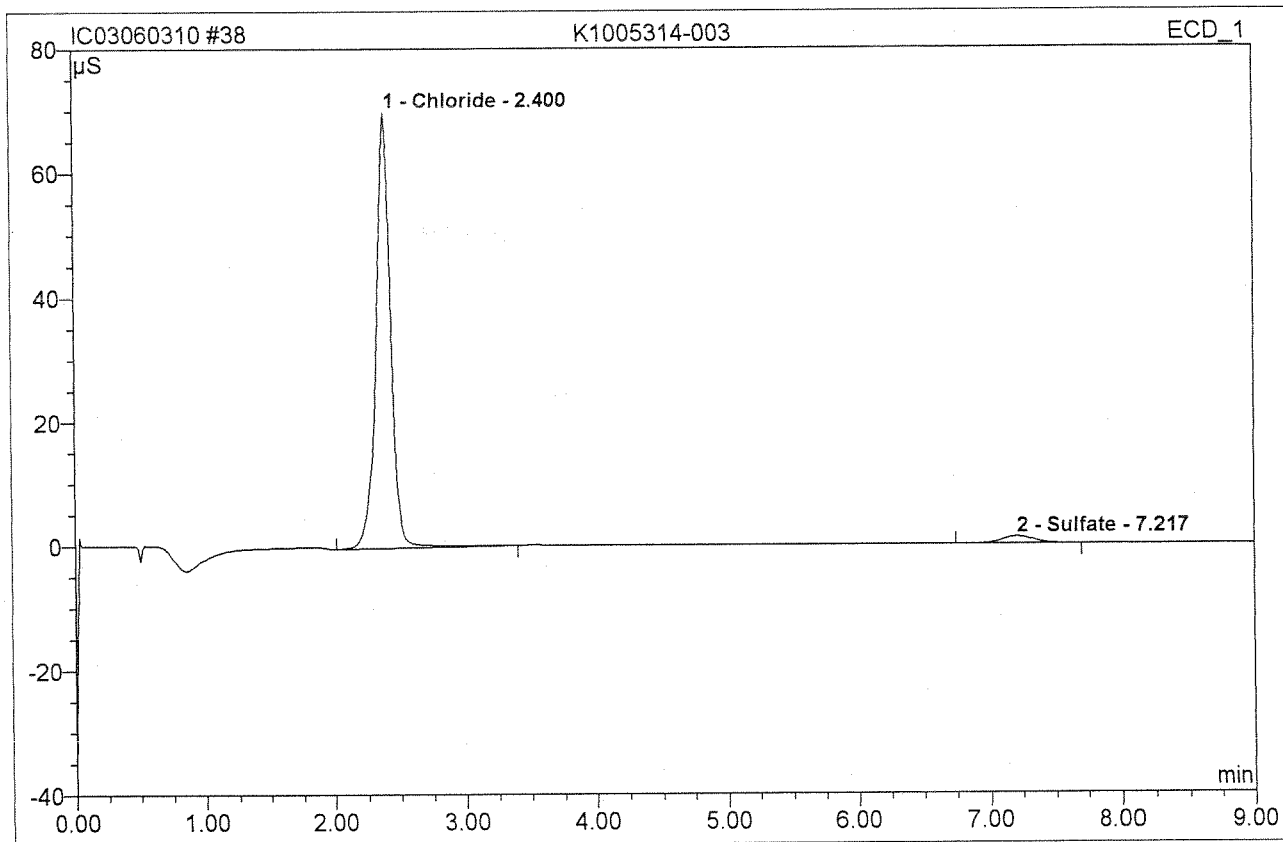
After Initials 43

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JUN 03 2010



<b>38 K1005314-003</b>			
Sample Name:	K1005314-003	Injection Volume:	200.0
Vial Number:	35	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	50.0000
Recording Time:	6/3/2010 14:44	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.40	Chloride	70.133	9.075	96.42	290.965	BMB
2	7.22	Sulfate	1.131	0.337	3.58	17.113	BMB
<b>Total:</b>			71.264	9.412	100.00	308.078	

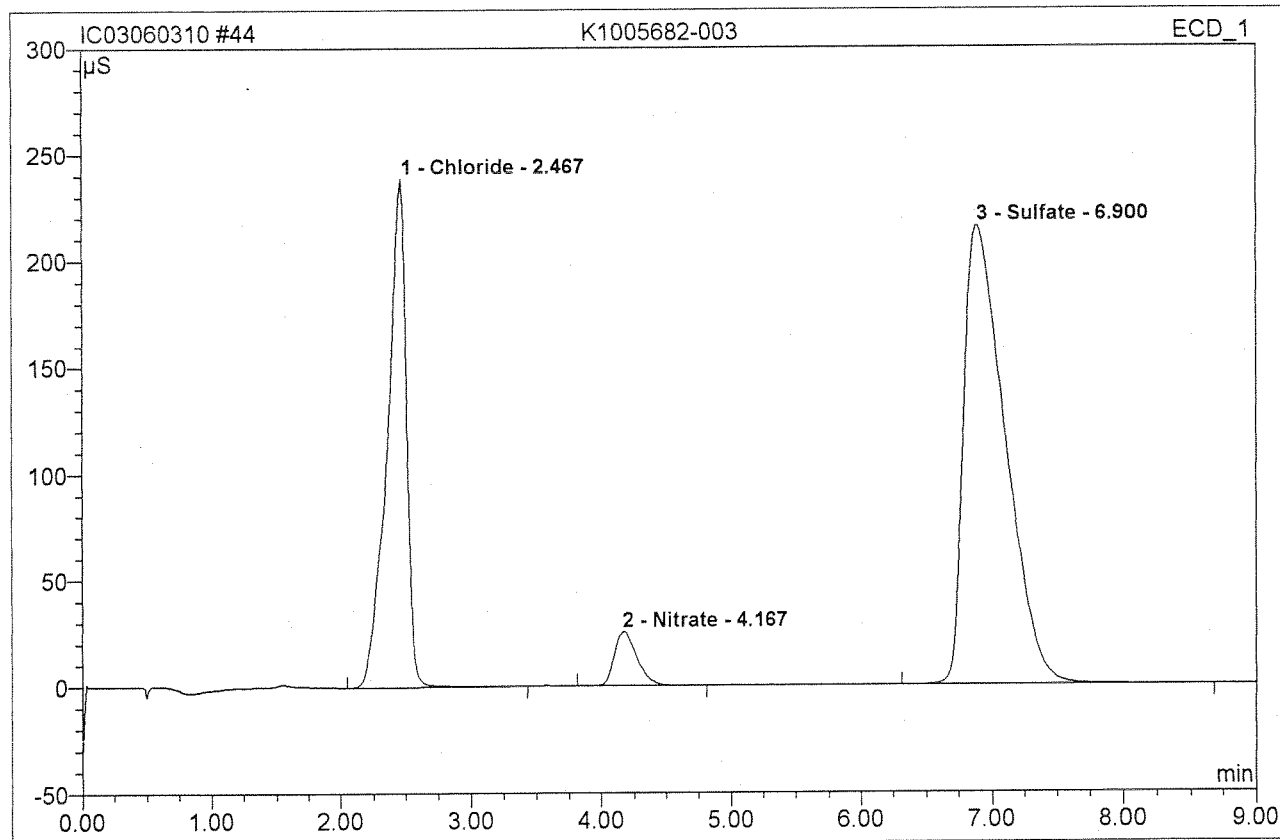
Before

JUN 03 2010

### 44 K1005682-003

#### 5682-3D

Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	41	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	6/3/2010 15:53	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

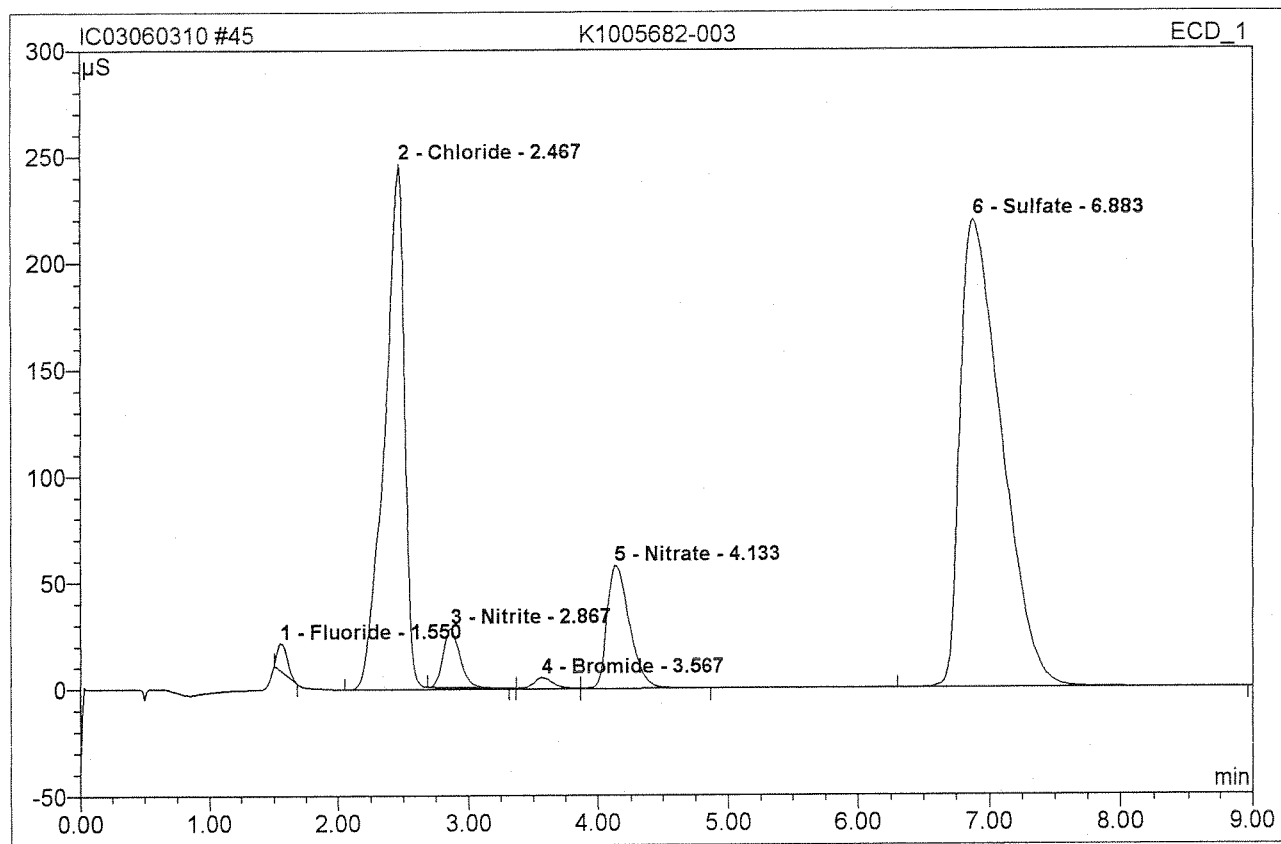


No.	Ret. Time min	Peak Name	Height $\mu\text{S}$	Area $\mu\text{S}\cdot\text{min}$	Rel. Area %	Amount	Type
1	2.47	Chloride	238.744	40.648	32.63	260.643	BMB
2	4.17	Nitrate	25.418	5.065	4.07	13.749	BMB
3	6.90	Sulfate	215.652	78.853	63.30	801.289	BMB
<b>Total:</b>			479.814	124.566	100.00	1075.681	

06/03/2010

JUN 03 2010

<b>45 K1005682-003</b>			
<b>5682-3MS</b>			
Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	42	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	6/3/2010 16:04	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.55	Fluoride	12.627	1.177	0.83	6.152	BMB
2	2.47	Chloride	246.632	43.585	30.79	279.471	BM
3	2.87	Nitrite	27.691	4.131	2.92	14.306	Rd
4	3.57	Bromide	5.244	0.972	0.69	18.132	M
5	4.13	Nitrate	57.672	11.625	8.21	31.556	MB
6	6.88	Sulfate	219.603	80.086	56.57	813.818	BMB
<b>Total:</b>			569.470	141.575	100.00	1163.436	

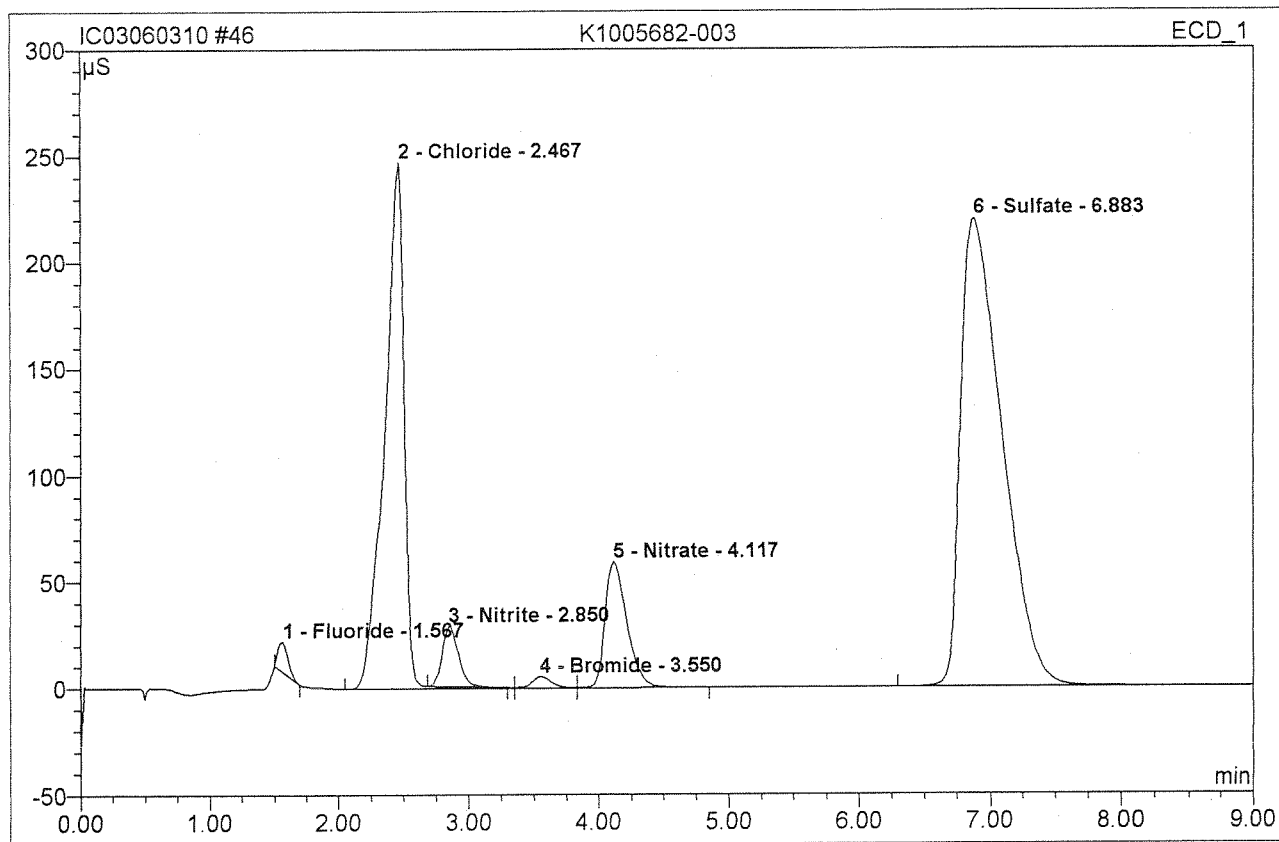
Before

JUN 03 2010

**46 K1005682-003****5682-3MSD**

Sample Name: K1005682-003  
 Vial Number: 43  
 Sample Type: unknown  
 Control Program: epa300  
 Quantif. Method: epa300  
 Recording Time: 6/3/2010 16:16  
 Run Time (min): 9.00

Injection Volume: 200.0  
 Channel: ECD\_1  
 Wavelength: n.a.  
 Bandwidth: n.a.  
 Dilution Factor: 10.0000  
 Sample Weight: 1.0000  
 Sample Amount: 1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.57	Fluoride	14.154	1.279	0.91	6.682	BMB
2	2.47	Chloride	247.192	42.969	30.46	275.522	BM
3	2.85	Nitrite	28.033	4.123	2.92	14.281	Rd
4	3.55	Bromide	5.318	0.966	0.68	18.026	M
5	4.12	Nitrate	59.062	11.594	8.22	31.471	MB
6	6.88	Sulfate	219.668	80.158	56.81	814.549	BMB
<b>Total:</b>			573.427	141.088	100.00	1160.532	

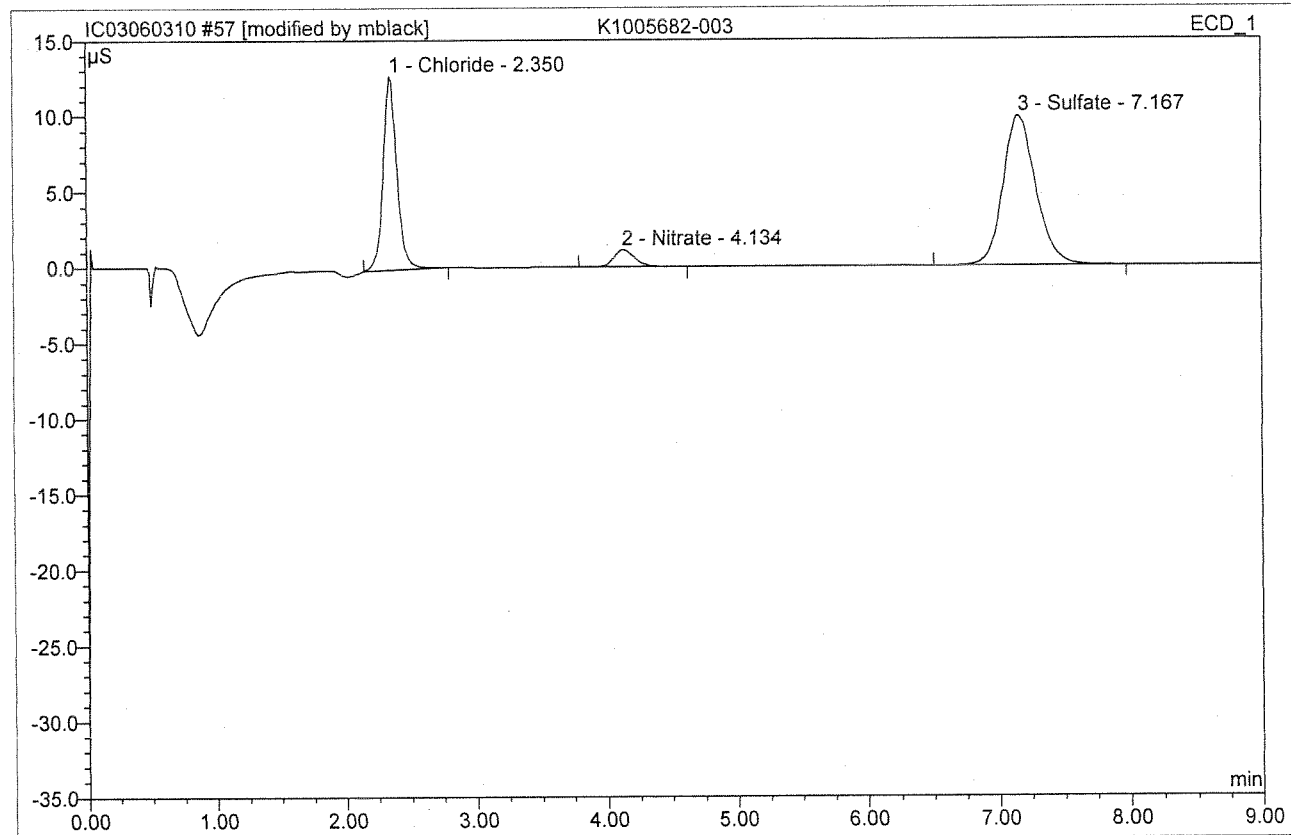
Before

JUN 03 2010

 Chromeleon (c) Dionex 1996-2001  
 Version 6.50 SP1 Build 956

**57 K1005682-003**

Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	54	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	200.0000
Recording Time:	6/3/2010 18:22	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



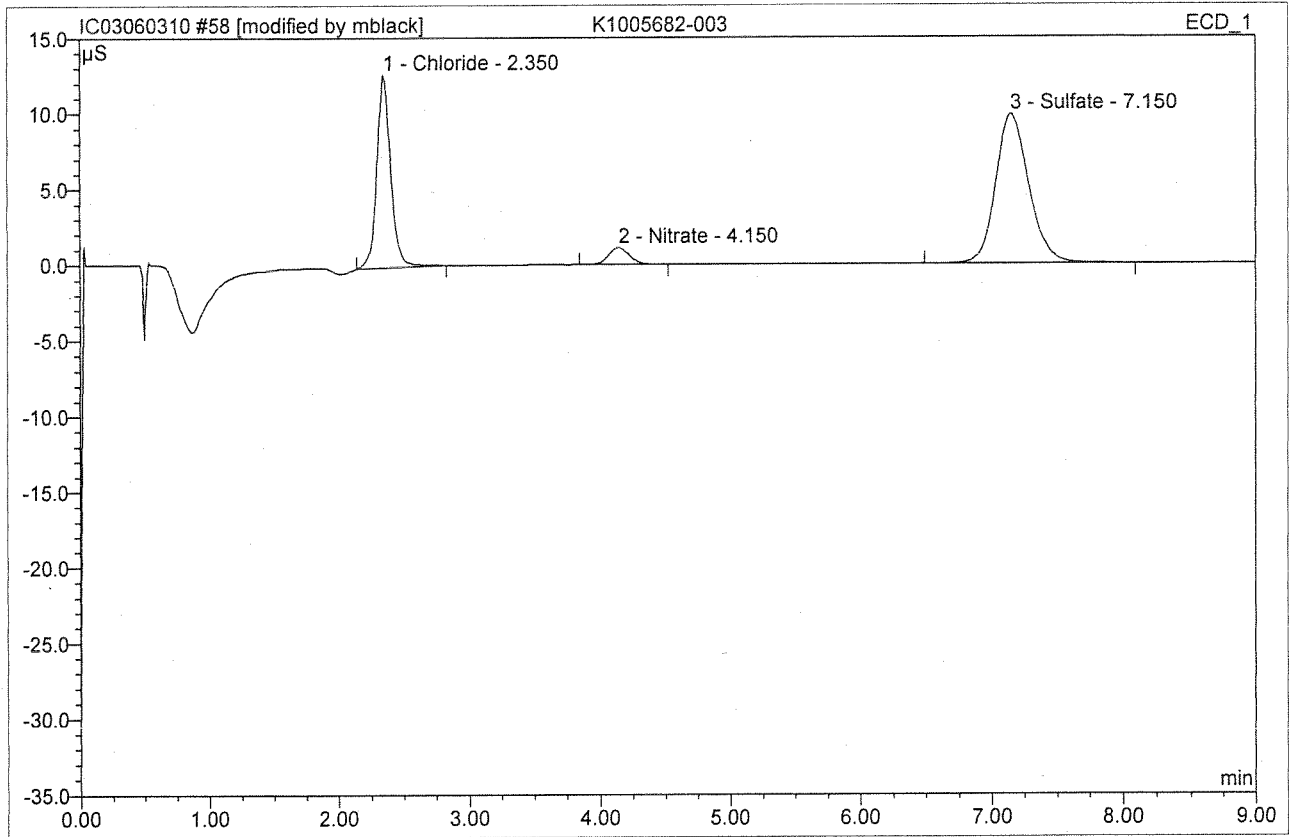
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.35	Chloride $\bar{x} = 200$ $RPD = 41\%$	12.776	1.556	33.50	199.501	BMB*
2	4.13	Nitrate	1.119	0.211	4.55	11.481	BMB*
3	7.17	Sulfate $\bar{x} = 586$ $RPD = 41\%$	9.871	2.876	61.94	584.556	BMB
<b>Total:</b>			23.765	4.643	100.00	795.537	

After Initials MB

*MB* 6/4/10

JUN 04 2010

<b>58 K1005682-003</b>			
<b>5682-3D</b>			
Sample Name:	<b>K1005682-003</b>	Injection Volume:	<b>200.0</b>
Vial Number:	<b>55</b>	Channel:	<b>ECD_1</b>
Sample Type:	<b>unknown</b>	Wavelength:	<b>n.a.</b>
Control Program:	<b>epa300</b>	Bandwidth:	<b>n.a.</b>
Quantif. Method:	<b>epa300</b>	Dilution Factor:	<b>200.0000</b>
Recording Time:	<b>6/3/2010 18:33</b>	Sample Weight:	<b>1.0000</b>
Run Time (min):	<b>9.00</b>	Sample Amount:	<b>1.0000</b>



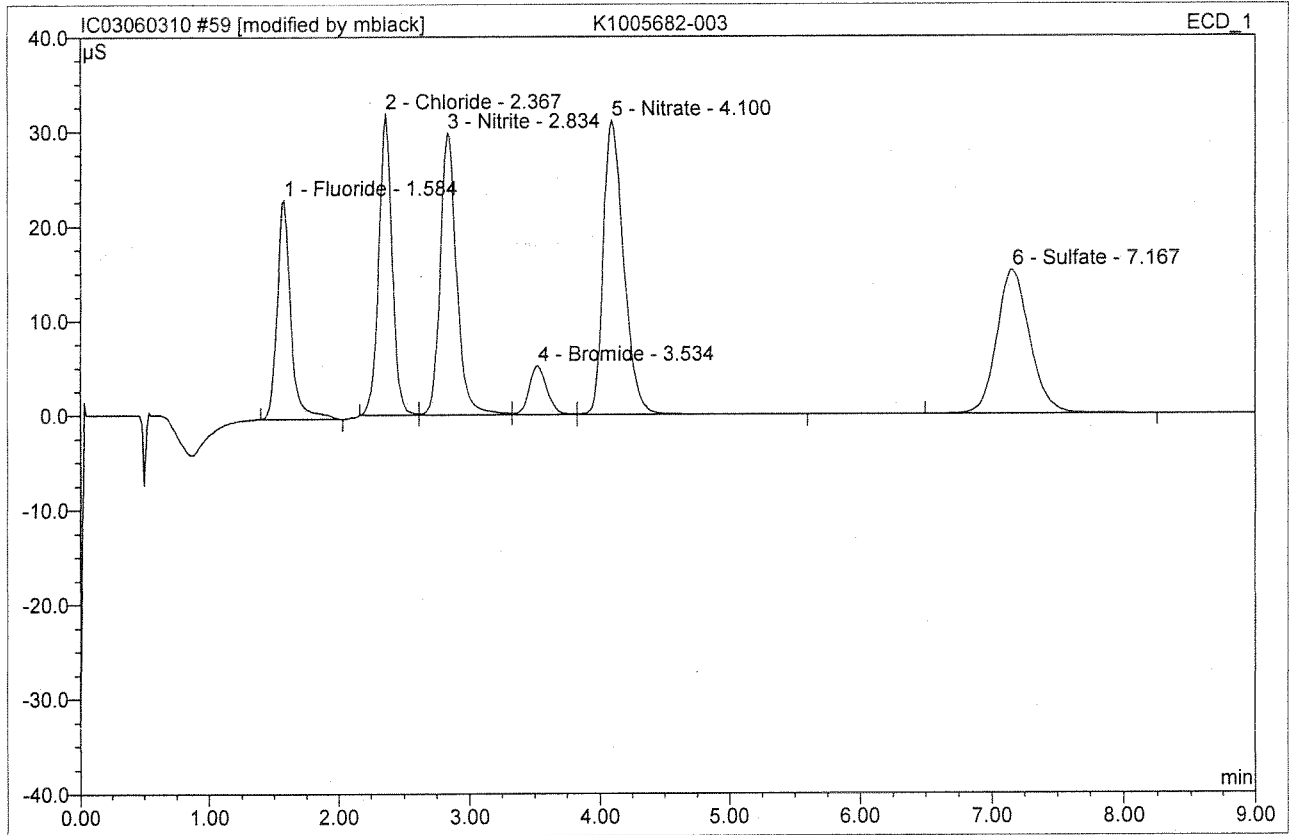
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.35	Chloride	12.746	1.553	33.47	199.175	BMB*
2	4.15	Nitrate	1.113	0.206	4.44	11.183	BMB*
3	7.15	Sulfate	9.886	2.882	62.10	585.707	BMB
<b>Total:</b>			23.745	4.641	100.00	796.065	

After Initials MB

*MB* 6/4/10

JUN 04 2010

<b>59 K1005682-003</b>			
<b>5682-3MS</b>			
Sample Name:	<b>K1005682-003</b>	Injection Volume:	<b>200.0</b>
Vial Number:	<b>56</b>	Channel:	<b>ECD_1</b>
Sample Type:	<b>unknown</b>	Wavelength:	<b>n.a.</b>
Control Program:	<b>epa300</b>	Bandwidth:	<b>n.a.</b>
Quantif. Method:	<b>epa300</b>	Dilution Factor:	<b>200.0000</b>
Recording Time:	<b>6/3/2010 18:45</b>	Sample Weight:	<b>1.0000</b>
Run Time (min):	<b>9.00</b>	Sample Amount:	<b>1.0000</b>



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	23.183	2.882	13.14	301.211	BMB*
2	2.37	Chloride	31.941	3.764	17.16	482.672 <sup>94%</sup>	BM *
3	2.83	Nitrite	29.873	4.373	19.93	302.897	M *
4	3.53	Bromide	5.222	0.837	3.82	312.411	M *
5	4.10	Nitrate	31.136	5.643	25.72	306.332	MB*
6	7.17	Sulfate	15.262	4.438	20.23	902.061 <sup>106%</sup>	BMB
<b>Total:</b>			136.617	21.936	100.00	2607.584	

TV=300

After Initials

*MB*

JUN 04 2010

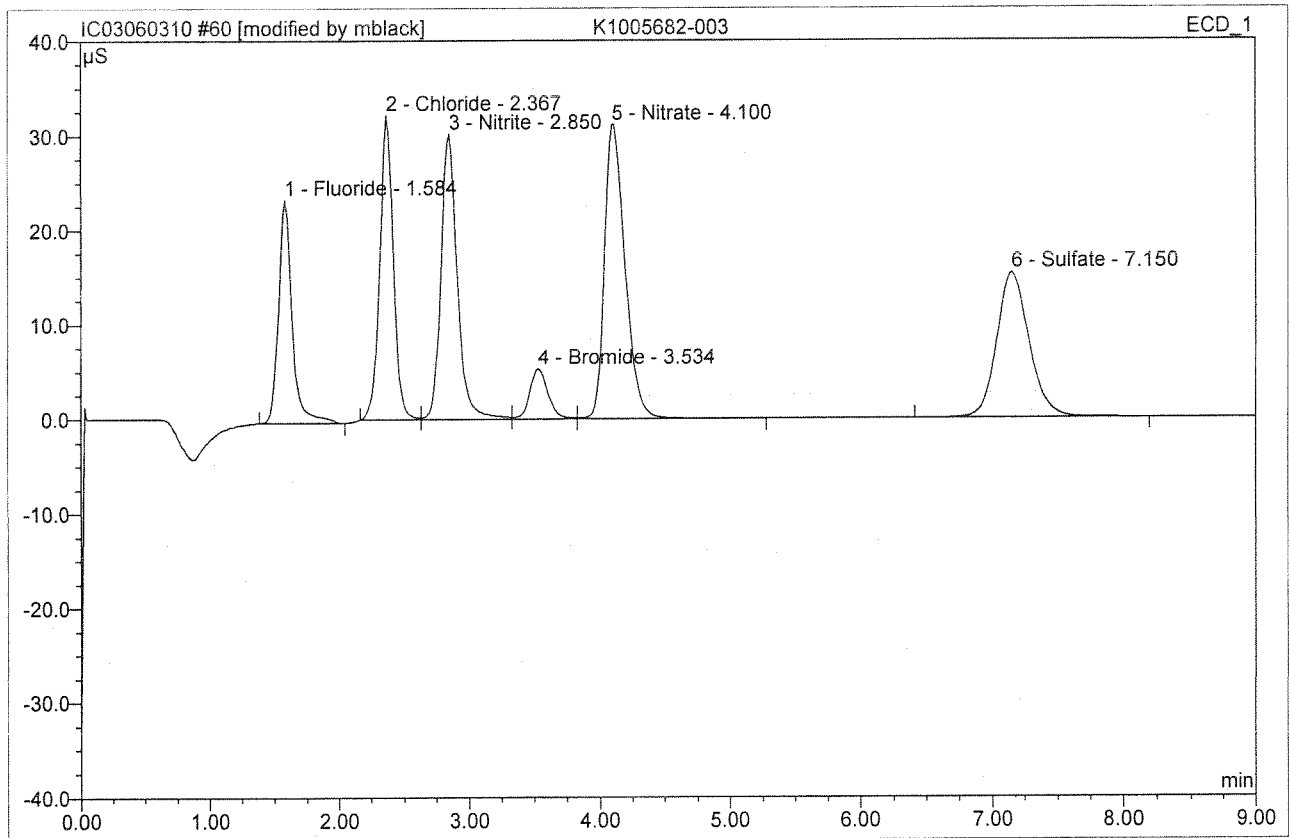
*6/4/10*

default/Integration

Wrong Peak/Peak not Found  
 Peak(s) in/out of integration  
 Other

100

<b>60 K1005682-003</b>			
<b>5682-3MSD</b>			
Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	57	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	200.0000
Recording Time:	6/3/2010 18:56	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	23.688	2.910	13.16	304.162	BMB*
2	2.37	Chloride	32.204	3.820	17.27	489.841979	BM *
3	2.85	Nitrite	30.189	4.429	20.03	306.808	M *
4	3.53	Bromide	5.302	0.853	3.86	318.449	M *
5	4.10	Nitrate	31.163	5.673	25.65	307.997	MB*
6	7.15	Sulfate	15.369	4.433	20.04	900.928157	BMB
<b>Total:</b>			137.915	22.118	100.00	2628.186	

TV=300

After Initials MB

JUN 04 2010

6/4/10

Chromeleon (c) Dionex 1996-2001  
Version 6.80 SP1 Build 2238

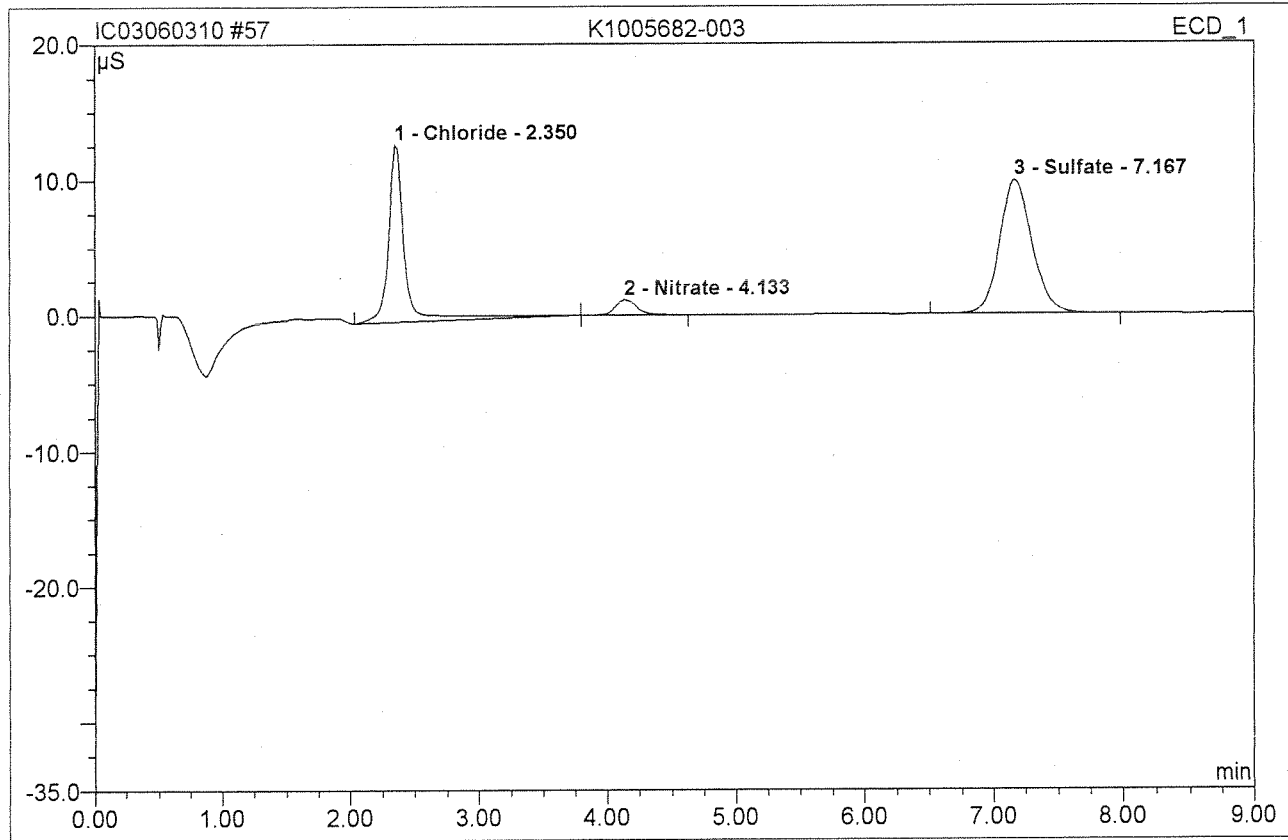
default/Integration

Work: Peak not found  
101



**57 K1005682-003**

Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	54	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	200.0000
Recording Time:	6/3/2010 18:22	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

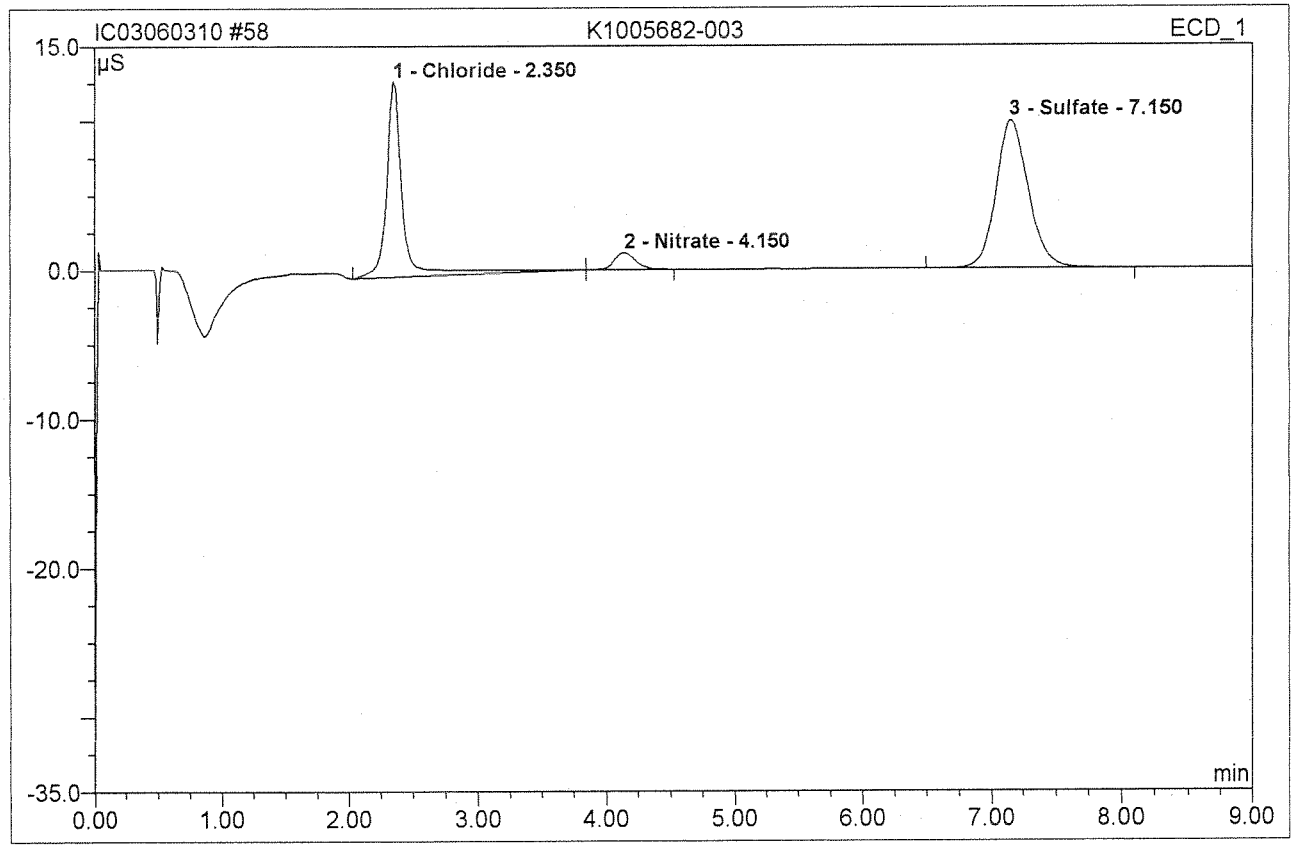


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.35	Chloride	13.098	1.946	38.66	249.535	BMB
2	4.13	Nitrate	1.119	0.211	4.20	11.481	bMB
3	7.17	Sulfate	9.871	2.876	57.14	584.556	BMB
<b>Total:</b>			24.087	5.034	100.00	845.572	

Before

JUN 04 2010

<b>58 K1005682-003</b>			
<b>5682-3D</b>			
Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	55	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	200.0000
Recording Time:	6/3/2010 18:33	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.35	Chloride	13.065	1.949	38.69	249.946	BMB
2	4.15	Nitrate	1.113	0.206	4.09	11.183	bMB
3	7.15	Sulfate	9.886	2.882	57.22	585.707	BMB
<b>Total:</b>			24.065	5.037	100.00	846.836	

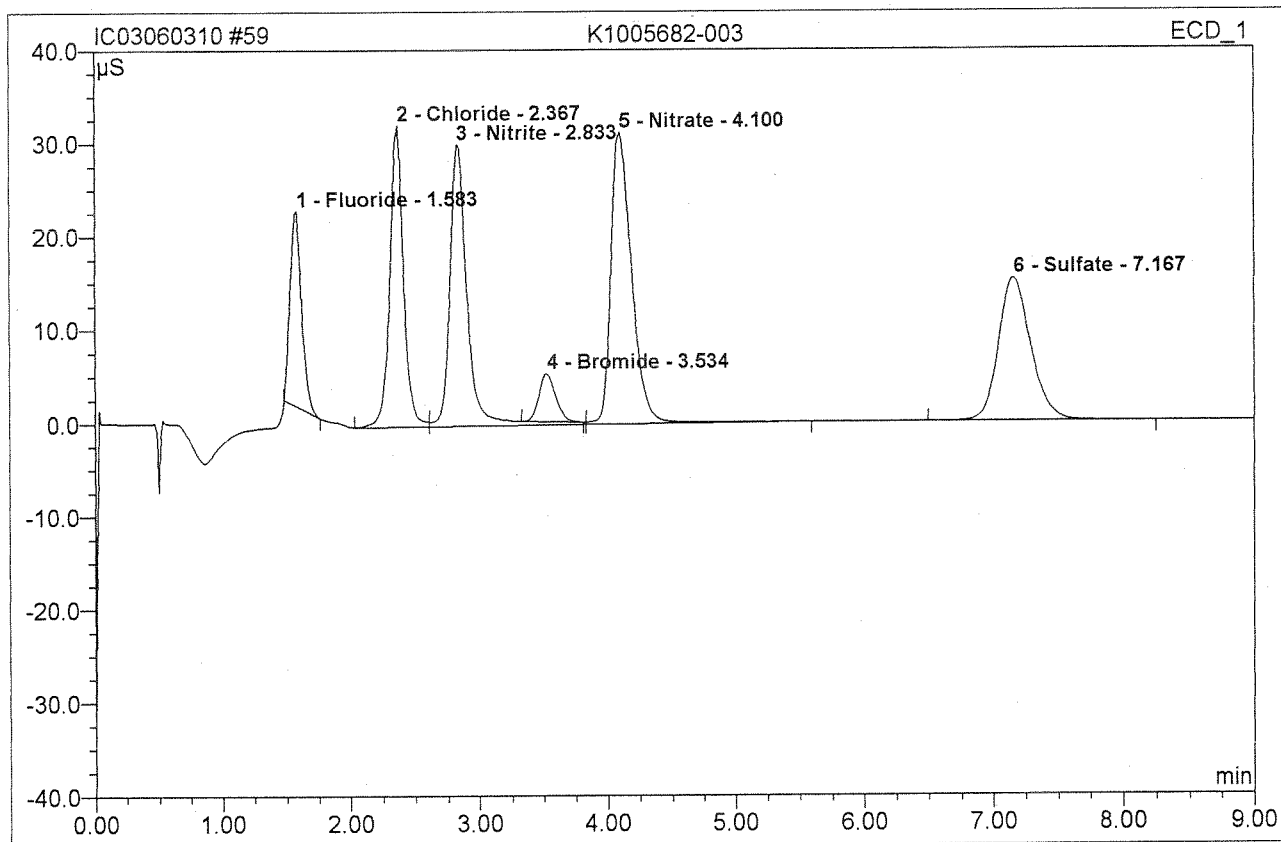
Before

JUN 04 2010

**59 K1005682-003**

**5682-3MS**

Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	56	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	200.0000
Recording Time:	6/3/2010 18:45	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

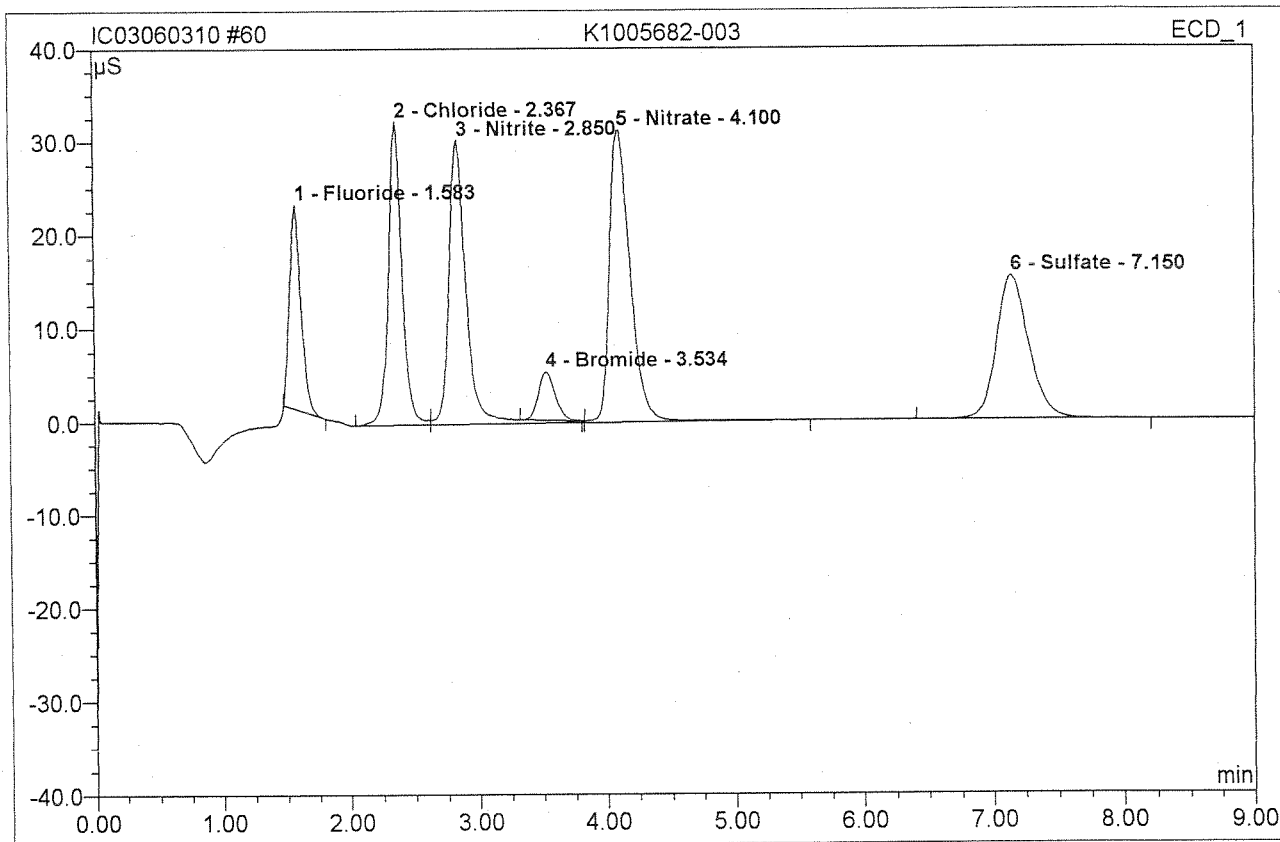


No.	Ret. Time min	Peak Name	Height $\mu\text{S}$	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %	Amount	Type
1	1.58	Fluoride	20.956	2.150	9.82	224.714	BMB
2	2.37	Chloride	32.305	3.944	18.02	505.816	BM
3	2.83	Nitrite	30.185	4.757	21.74	329.519	M
4	3.53	Bromide	5.093	0.778	3.55	290.258	Rd
5	4.10	Nitrate	31.304	5.818	26.58	315.860	MB
6	7.17	Sulfate	15.262	4.438	20.28	902.061	BMB
<b>Total:</b>			135.105	21.885	100.00	2568.228	

Before

JUN 04 2010

<b>60 K1005682-003</b>			
<b>5682-3MSD</b>			
Sample Name:	K1005682-003	Injection Volume:	200.0
Vial Number:	57	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	200.0000
Recording Time:	6/3/2010 18:56	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	21.860	2.266	10.26	236.890	BMB
2	2.37	Chloride	32.533	3.987	18.05	511.361	BM
3	2.85	Nitrite	30.469	4.787	21.67	331.583	M
4	3.53	Bromide	5.154	0.784	3.55	292.671	Rd
5	4.10	Nitrate	31.314	5.829	26.39	316.454	MB
6	7.15	Sulfate	15.369	4.433	20.07	900.928	BMB
<b>Total:</b>			136.699	22.087	100.00	2589.887	

Before

JUN 04 2010

1. Holding times met for all samples analyzed? (yes/no/NA)
2. Are dilutions within upper limits of the curve? (yes/no/NA)
3. Are analysis/extraction stickers included on report? (yes/no/NA)
4. Are detection limits reported correctly? (yes/no/NA)
5. Are all quality control criteria met? (yes/no/NA)
  - a. Method Blanks, CCV's, CCB's, LCS's, Dups, and Spikes analyzed at the proper frequency? (yes/no/NA)
  - b. Are CCV's and CCB's all within acceptance limits? (yes/no/NA)
  - c. Are results for Method Blanks all ND? (yes/no/NA)
  - d. Are all QC samples within acceptance criteria? (yes/no/NA)  
(LCS% rec, MS% rec, Duplicate RPD's, etc.)
  - e. Are all exceptions explained? (yes/no/NA)
6. Are all samples labelled correctly? (yes/no/NA)

CAS Standard Identification Codes and Abbreviated Footnotes for Chromatograms

- G1 Sample was analyzed past the end of recommended holding time. See Nonconformity sheet.  
 G2 Sample was reanalyzed past holding time. Initial analysis was performed within recommended holding time.  
 G4 Sample was received past the end of recommended holding time.  
 R1 High RPD is because the duplicate sample results are less than three times the method reporting limit.  
 i MRL is elevated because of matrix interferences and the sample required diluting.  
 F Sample filtered primary to analysis.

LCS			
Fluoride	True Value = 13.5 ppm	CAS ID # = <u>AN1-33-D</u>	Expires: <u>7/19/10</u>
Chloride	True Value = 5.0ppm	CAS ID # = <u>ERA#0107-10-02</u>	Expires: <u>8/10</u>
Nitrite	True Value = 100 ppm	CAS ID # = <u>AN1-28-E</u>	Expires: <u>6/3/10</u>
Bromide	True Value = 4.0 ppm	CAS ID # = <u>AN1-33-L</u>	Expires: <u>10/28/10</u>
Nitrate	True Value = 21.0 ppm	CAS ID # = <u>AN1-33-E</u>	Expires: <u>7/21/10</u>
Sulfate	True Value = 5.0 ppm	CAS ID # = <u>ERA#0107-10-02</u>	Expires: <u>8/10</u>

CCV	CAS ID # = <u>AN1-20-R</u>	Expires <u>6/3/10</u>	
Fluoride	True Value = 5.0 ppm	10K CAS ID # = <u>AN1-33-M</u>	Expires: <u>10/25/10</u>
Chloride	True Value = 5.0 ppm	10K CAS ID # = <u>AN1-33-F</u>	Expires: <u>8/5/10</u>
Nitrite	True Value = 2.0 ppm	10K CAS ID # = <u>AN1-33-N</u>	Expires: <u>10/28/10</u>
Bromide	True Value = 2.0 ppm	10K CAS ID # = <u>AN1-20-DD</u>	Expires: <u>6/21/10</u>
Nitrate	True Value = 2.0 ppm	10K CAS ID # = <u>AN1-33-I</u>	Expires: <u>7/9/10</u>
Sulfate	True Value = 5.0 ppm	10K CAS ID # = <u>AN1-33-G</u>	Expires: <u>8/5/10</u>

Spike			
1.5ppm X dilution factor	CAS ID# = <u>AN1-10-W</u>	Expires <u>6/3/10</u>	
Fluoride	10K CAS ID # = <u>AN1-33-M</u>	Expires: _____	} see 10K CCV IDs
Chloride	10K CAS ID # = <u>AN1-33-F</u>	Expires: _____	
Nitrite	10K CAS ID # = <u>AN1-33-N</u>	Expires: _____	
Bromide	10K CAS ID # = <u>AN1-20-DD</u>	Expires: _____	
Nitrate	10K CAS ID # = <u>AN1-33-I</u>	Expires: _____	
Sulfate	10K CAS ID # = <u>AN1-33-G</u>	Expires: _____	

Analyst: AB Date: 6/3/10  
 First Review: AB Date: 6/3/10  
 Final Review: M Date: 6/4/10

Service Request	Tier	QC	Hold Time	Due Date	Anion	Initial	Final	QC DILUTION	Done?
K4934-5					F				
					CL		0.5/5		✓
					NO2				
					Br				
					NO3				
					SO4		0.5/5		✓
-6					F				
					CL		0.1/5		✓
					NO2				
					Br				
					NO3				
					SO4		0.5/5		✓
-7					F				
					CL		0.5/5		✓
					NO2				
					Br				
					NO3				
					SO4		0.5/5		✓
K5214-1					F				
GC Part					CL		0.5/5		✓
					NO2				
					Br				
					NO3				
					SO4		0.5/5		✓
K5533-3					F				
					CL		1/5		✓
					NO2				
					Br				
					NO3				
					SO4		1/5		✓
-2					F				
					CL		0.25/5		✓
					NO2				
					Br				
					NO3				
					SO4		0.25/5		✓
K5676-1	II			6/14	F				
(near Alaska)					CL				
					NO2				
					Br				
					NO3				
					SO4	0.25/5			✓
-2					CL	2.5/5			✓
					CL	2.5/5			✓
					NO2				
					Br				
					NO3	2.5/5			✓
					SO4	0.25/5			✓
K5682-1	II		6/4	6/11	F	0.5/5			✓
Flint Hills					CL	0.5/100			✓
					NO2	0.5/5			✓
					Br				✓
					NO3				✓
					SO4	0.5/100			✓
-3		X			F				✓
					CL			10X	✓
					NO2				✓
					Br			200X	✓
					NO3				✓
					SO4				✓

Service Request	Tier	QC	Hold Time	Due Date	Anion	Initial	Final	QC DILUTION	Done?
K 5682-4	II		6/4	6/15	F	0.5/5			✓
					CL	0.5/100			✓
					NO2	0.5/5			✓
					Br				✓
					NO3				✓
					SO4	0.5/100			✓
-8					F				✓
					CL				✓
					NO2				✓
					Br				✓
					NO3				✓
					SO4				✓
-9					F				✓
					CL				✓
					NO2				✓
					Br				✓
					NO3				✓
					SO4				✓
-10					F	5/5			✓
					CL				✓
					NO2				✓
					Br				✓
					NO3				✓
					SO4				✓
K 5067-1	III			6/10	F	2.5/5			✓
Exponent					CL				✓
(NDE)					NO2				✓
					Br				✓
					NO3				✓
					SO4				✓
-2					F	2.5/5		0.25	✓
					CL				✓
					NO2				✓
					Br				✓
					NO3				✓
					SO4			0.25	✓
-3					F	2.5/5			✓
					CL			0.5/5	✓
					NO2				✓
					Br				✓
					NO3				✓
					SO4			0.5/5	✓
-4					F	2.5/5	5/5		✓
					CL				✓
					NO2				✓
					Br				✓
					NO3				✓
					SO4				✓
K 5314-2	II			6/11	F				✓
Legacy Waste					CL	0.1/5			✓
					NO2				✓
					Br				✓
					NO3				✓
					SO4				✓
-3					F				✓
					CL	0.1/5			✓
					NO2				✓
					Br				✓
					NO3				✓
					SO4				✓





Sequence: IC03060310  
Operator: mblack

Title:  
Datasource: ACQWET10\_local  
Location: DX120A  
Timebase: DX120  
#Samples: 84

Created: 6/3/2010 8:14:28 AM by ACQWET10  
Last Update: 6/3/2010 6:12:25 PM by ACQWET10

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	std2/IV2	Standard	1	200.0	epa300	epa300	Finished	4/26/2010 8:54:58 AM
2	std3/IV3	Standard	2	200.0	epa300	epa300	Finished	4/26/2010 9:12:26 AM
3	std4/IV4	Standard	3	200.0	epa300	epa300	Finished	4/26/2010 9:25:24 AM
4	std5/IV5	Standard	4	200.0	epa300	epa300	Finished	4/26/2010 9:38:21 AM
5	std6/IV6	Standard	5	200.0	epa300	epa300	Finished	4/26/2010 9:51:19 AM
6	std7/IV7	Standard	6	200.0	epa300	epa300	Finished	4/26/2010 10:04:17 AM
7	std1/IV1	Standard	7	200.0	epa300	epa300	Finished	4/26/2010 10:17:14 AM
8	CCV AN11-20-R	Unknown	8	200.0	epa300	epa300	Finished	6/3/2010 8:42:02 AM
9	CCB	Unknown	9	200.0	epa300	epa300	Finished	6/3/2010 8:53:31 AM
10	NO2 AN11-28-E	Unknown	10	200.0	epa300	epa300	Finished	6/3/2010 9:04:59 AM
11	MB	Unknown	11	200.0	epa300	epa300	Finished	6/3/2010 9:16:27 AM
12	NO3 AN1-33-E	Unknown	11	200.0	epa300	epa300	Finished	6/3/2010 9:27:55 AM
13	CLSO4 ERA# 0107-10-02	Unknown	12	200.0	epa300	epa300	Finished	6/3/2010 9:39:23 AM
14	K1005214-001	Unknown	13	200.0	epa300	epa300	Finished	6/3/2010 10:04:35 AM
15	F AN1-33-D	Unknown	13	200.0	epa300	epa300	Finished	6/3/2010 10:16:02 AM
16	Br AN1-33-L	Unknown	14	200.0	epa300	epa300	Finished	6/3/2010 10:27:30 AM
17	SPK AN11-10-W	Unknown	16	200.0	epa300	epa300	Finished	6/3/2010 10:38:58 AM
18	CCV2	Unknown	15	200.0	epa300	epa300	Finished	6/3/2010 10:50:26 AM
19	CCB2	Unknown	16	200.0	epa300	epa300	Finished	6/3/2010 11:01:53 AM
20	K1005676-002	Unknown	17	200.0	epa300	epa300	Finished	6/3/2010 11:13:21 AM
21	K1005676-002	Unknown	18	200.0	epa300	epa300	Finished	6/3/2010 11:24:49 AM
22	K1005676-001	Unknown	19	200.0	epa300	epa300	Finished	6/3/2010 11:36:17 AM
23	K1005682-010	Unknown	20	200.0	epa300	epa300	Finished	6/3/2010 11:47:44 AM
24	K1005682-001	Unknown	21	200.0	epa300	epa300	Finished	6/3/2010 11:59:13 AM
25	K1005682-003	Unknown	22	200.0	epa300	epa300	Finished	6/3/2010 12:10:40 PM
26	K1005682-004	Unknown	23	200.0	epa300	epa300	Finished	6/3/2010 12:22:09 PM
27	K1005682-008	Unknown	24	200.0	epa300	epa300	Finished	6/3/2010 12:33:36 PM
28	K1005682-009	Unknown	25	200.0	epa300	epa300	Finished	6/3/2010 12:45:04 PM
29	RB	Unknown	26	200.0	epa300	epa300	Finished	6/3/2010 12:56:31 PM
30	CCV3	Unknown	27	200.0	epa300	epa300	Finished	6/3/2010 1:07:59 PM
31	CCB3	Unknown	28	200.0	epa300	epa300	Finished	6/3/2010 1:19:26 PM
32	K1005067-001	Unknown	29	200.0	epa300	epa300	Finished	6/3/2010 1:35:55 PM
33	K1005067-002	Unknown	30	200.0	epa300	epa300	Finished	6/3/2010 1:47:22 PM
34	K1005067-003	Unknown	31	200.0	epa300	epa300	Finished	6/3/2010 1:58:50 PM
35	K1005067-004	Unknown	32	200.0	epa300	epa300	Finished	6/3/2010 2:10:18 PM
36	K1005346-001	Unknown	33	200.0	epa300	epa300	Finished	6/3/2010 2:21:45 PM
37	K1005314-002	Unknown	34	200.0	epa300	epa300	Finished	6/3/2010 2:33:13 PM
38	K1005314-003	Unknown	35	200.0	epa300	epa300	Finished	6/3/2010 2:44:41 PM
39	K1005314-004	Unknown	36	200.0	epa300	epa300	Finished	6/3/2010 2:56:08 PM
40	K1005314-005	Unknown	37	200.0	epa300	epa300	Finished	6/3/2010 3:07:36 PM
41	RB	Unknown	38	200.0	epa300	epa300	Finished	6/3/2010 3:19:04 PM
42	CCV4	Unknown	39	200.0	epa300	epa300	Finished	6/3/2010 3:30:31 PM

Sequence: IC03060310  
Operator: mblack

Page 2 of 4  
Printed: 6/4/2010 11:32:57 AM

Title:  
Datasource: ACQWET10\_local  
Location: DX120A  
Timebase: DX120  
#Samples: 84

Created: 6/3/2010 8:14:28 AM by ACQWET10  
Last Update: 6/3/2010 6:12:25 PM by ACQWET10

No.	Name	Dil. Factor	Comment
1	std2/lvl2	1.0000	
2	std3/lvl3	1.0000	
3	std4/lvl4	1.0000	
4	std5/lvl5	1.0000	
5	std6/lvl6	1.0000	
6	std7/lvl7	1.0000	
7	std1/lvl1	1.0000	
8	CCV AN11-20-R	1.0000	CCV1
9	CCB	1.0000	CCB1
10	NO2 AN11-28-E	25.0000	NO2
11	MB	1.0000	MB
12	NO3 AN1-33-E	20.0000	NO3
13	CLSO4 ERA# 0107-10-02	1.0000	CLSO4
14	K1005214-001	10.0000	
15	F AN1-33-D	2.0000	F
16	Br AN1-33-L	1.0000	Br
17	SPK AN11-10-W	1.0000	SPK
18	CCV2	1.0000	CCV2
19	CCB2	1.0000	CCB2
20	K1005676-002	2.0000	
21	K1005676-002	20.0000	
22	K1005676-001	20.0000	
23	K1005682-010	1.0000	
24	K1005682-001	10.0000	
25	K1005682-003	10.0000	
26	K1005682-004	10.0000	
27	K1005682-008	10.0000	
28	K1005682-009	10.0000	
29	RB	1.0000	
30	CCV3	1.0000	CCV3
31	CCB3	1.0000	CCB3
32	K1005067-001	2.0000	
33	K1005067-002	2.0000	
34	K1005067-003	2.0000	
35	K1005067-004	2.0000	
36	K1005346-001	2.0000	
37	K1005314-002	50.0000	
38	K1005314-003	50.0000	
39	K1005314-004	50.0000	
40	K1005314-005	10.0000	
41	RB	1.0000	
42	CCV4	1.0000	CCV4

Sequence: IC03060310  
Operator: mblack

Title:  
Datasource: ACQWET10\_local  
Location: DX120A  
Timebase: DX120  
#Samples: 84

Created: 6/3/2010 8:14:28 AM by ACQWET10  
Last Update: 6/3/2010 6:12:25 PM by ACQWET10

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
43	CCB4	Unknown	40	200.0	epa300	epa300	Finished	6/3/2010 3:41:59 PM
44	K1005682-003	Unknown	41	200.0	epa300	epa300	Finished	6/3/2010 3:53:26 PM
45	K1005682-003	Unknown	42	200.0	epa300	epa300	Finished	6/3/2010 4:04:54 PM
46	K1005682-003	Unknown	43	200.0	epa300	epa300	Finished	6/3/2010 4:16:22 PM
47	K1005713-001	Unknown	44	200.0	epa300	epa300	Finished	6/3/2010 4:27:50 PM
48	K1004934-005	Unknown	45	200.0	epa300	epa300	Finished	6/3/2010 4:39:18 PM
49	K1004934-006	Unknown	46	200.0	epa300	epa300	Finished	6/3/2010 4:50:45 PM
50	K1004934-006	Unknown	47	200.0	epa300	epa300	Finished	6/3/2010 5:02:13 PM
51	K1004934-007	Unknown	48	200.0	epa300	epa300	Finished	6/3/2010 5:13:41 PM
52	K1005067-004	Unknown	49	200.0	epa300	epa300	Finished	6/3/2010 5:25:09 PM
53	RB	Unknown	50	200.0	epa300	epa300	Finished	6/3/2010 5:36:37 PM
54	CCV5	Unknown	51	200.0	epa300	epa300	Finished	6/3/2010 5:48:04 PM
55	CCB5	Unknown	52	200.0	epa300	epa300	Finished	6/3/2010 5:59:32 PM
56	K1005682-001	Unknown	53	200.0	epa300	epa300	Finished	6/3/2010 6:11:00 PM
57	K1005682-003	Unknown	54	200.0	epa300	epa300	Finished	6/3/2010 6:22:27 PM
58	K1005682-003	Unknown	55	200.0	epa300	epa300	Finished	6/3/2010 6:33:55 PM
59	K1005682-003	Unknown	56	200.0	epa300	epa300	Finished	6/3/2010 6:45:22 PM
60	K1005682-003	Unknown	57	200.0	epa300	epa300	Finished	6/3/2010 6:56:50 PM
61	K1005682-004	Unknown	58	200.0	epa300	epa300	Finished	6/3/2010 7:08:17 PM
62	K1005682-008	Unknown	59	200.0	epa300	epa300	Finished	6/3/2010 7:19:45 PM
63	K1005682-009	Unknown	60	200.0	epa300	epa300	Finished	6/3/2010 7:31:13 PM
64	K1005533-003	Unknown	61	200.0	epa300	epa300	Finished	6/3/2010 7:42:40 PM
65	RB	Unknown	62	200.0	epa300	epa300	Finished	6/3/2010 7:54:09 PM
66	CCV6	Unknown	63	200.0	epa300	epa300	Finished	6/3/2010 8:05:37 PM
67	CCB6	Unknown	64	200.0	epa300	epa300	Finished	6/3/2010 8:17:04 PM
68	MB 2	Unknown	65	200.0	epa300	epa300	Finished	6/3/2010 8:28:33 PM
69	CLSO4 2	Unknown	66	200.0	epa300	epa300	Finished	6/3/2010 8:40:00 PM
70	K1005533-002	Unknown	67	200.0	epa300	epa300	Finished	6/3/2010 8:51:29 PM
71	K1005314-005	Unknown	68	200.0	epa300	epa300	Finished	6/3/2010 9:02:56 PM
72	K1005067-002	Unknown	69	200.0	epa300	epa300	Finished	6/3/2010 9:14:24 PM
73	K1005067-003	Unknown	70	200.0	epa300	epa300	Finished	6/3/2010 9:25:51 PM
74	K1004967-001	Unknown	71	200.0	epa300	epa300	Finished	6/3/2010 9:37:19 PM
75	RB	Unknown	72	200.0	epa300	epa300	Finished	6/3/2010 9:48:46 PM
76	CCV7	Unknown	73	200.0	epa300	epa300	Finished	6/3/2010 10:00:15 PM
77	CCB7	Unknown	74	200.0	epa300	epa300	Finished	6/3/2010 10:11:43 PM
78	K1005346-001	Unknown	75	200.0	epa300	epa300	Finished	6/3/2010 10:23:11 PM
79	K1005346-001	Unknown	76	200.0	epa300	epa300	Finished	6/3/2010 10:34:38 PM
80	K1005346-001	Unknown	77	200.0	epa300	epa300	Finished	6/3/2010 10:46:06 PM
81	RB	Unknown	78	200.0	epa300	epa300	Finished	6/3/2010 10:57:33 PM
82	CCV8	Unknown	79	200.0	epa300	epa300	Finished	6/3/2010 11:09:01 PM
83	CCB8	Unknown	80	200.0	epa300	epa300	Finished	6/3/2010 11:20:29 PM
84	SHUTDOWN	Unknown	81	200.0	shutdown 120	epa300	Finished	6/3/2010 11:31:57 PM

Sequence: IC03060310  
Operator: mblack

Page 4 of 4  
Printed: 6/4/2010 11:32:57 AM

Title:  
Datasource: ACQWET10\_local  
Location: DX120A  
Timebase: DX120  
#Samples: 84

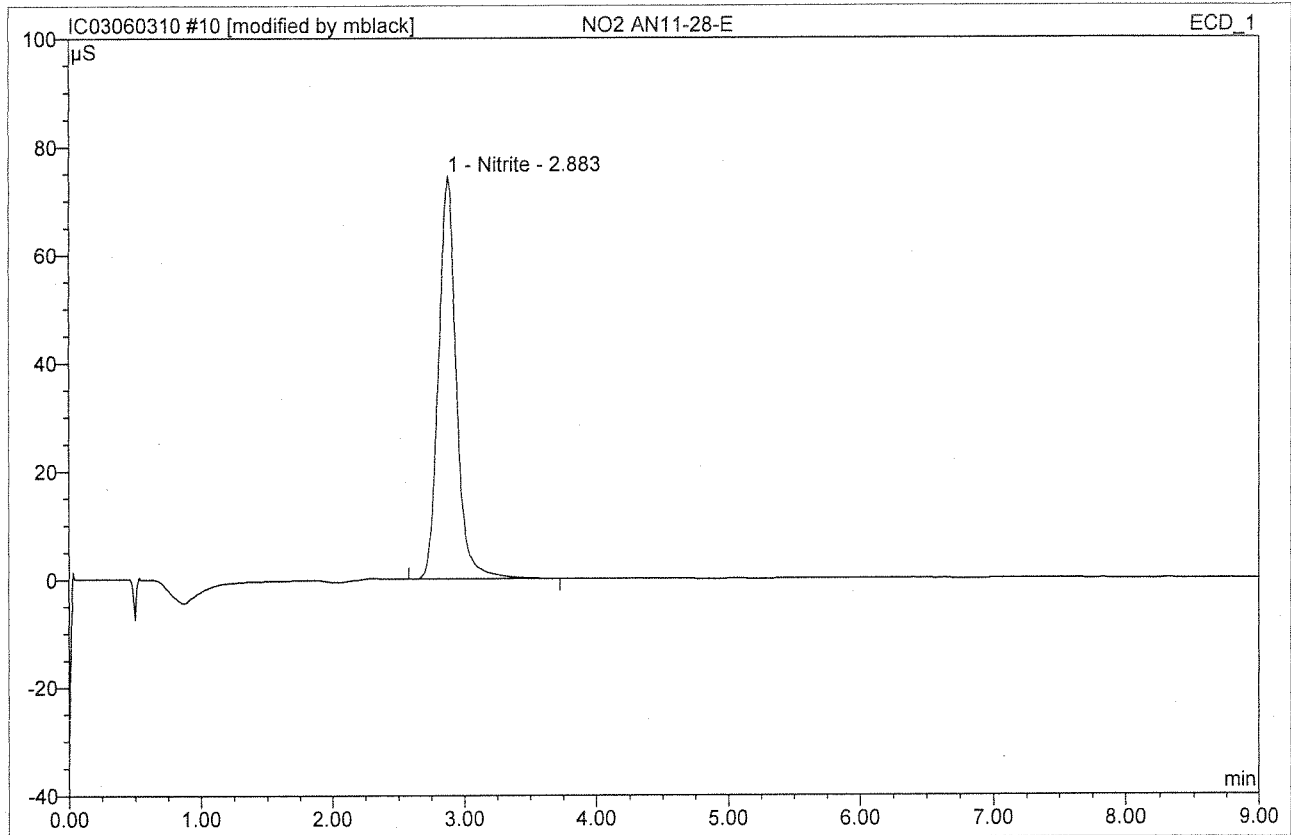
Created: 6/3/2010 8:14:28 AM by ACQWET10  
Last Update: 6/3/2010 6:12:25 PM by ACQWET10

No.	Name	Dil. Factor	Comment
43	CCB4	1.0000	CCB4
44	K1005682-003	10.0000	5682-3D
45	K1005682-003	10.0000	5682-3MS
46	K1005682-003	10.0000	5682-3MSD
47	K1005713-001	10.0000	
48	K1004934-005	10.0000	
49	K1004934-006	50.0000	
50	K1004934-006	10.0000	
51	K1004934-007	10.0000	
52	K1005067-004	1.0000	
53	RB	1.0000	
54	CCV5	1.0000	CCV5
55	CCB5	1.0000	CCB5
56	K1005682-001	200.0000	
57	K1005682-003	200.0000	
58	K1005682-003	200.0000	5682-3D
59	K1005682-003	200.0000	5682-3MS
60	K1005682-003	200.0000	5682-3MSD
61	K1005682-004	200.0000	
62	K1005682-008	200.0000	
63	K1005682-009	200.0000	
64	K1005533-003	5.0000	
65	RB	1.0000	
66	CCV6	1.0000	CCV6
67	CCB6	1.0000	CCB6
68	MB 2	1.0000	MB 2
69	CLSO4 2	1.0000	CLSO4 2
70	K1005533-002	20.0000	
71	K1005314-005	50.0000	
72	K1005067-002	20.0000	
73	K1005067-003	10.0000	
74	K1004967-001	1.0000	
75	RB	1.0000	
76	CCV7	1.0000	CCV7
77	CCB7	1.0000	CCB7
78	K1005346-001	2.0000	5346-1D
79	K1005346-001	2.0000	5346-1MS
80	K1005346-001	2.0000	5346-1MSD
81	RB	1.0000	
82	CCV8	1.0000	CCV8
83	CCB8	1.0000	CCB8
84	SHUTDOWN	1.0000	

# 10 NO2 AN11-28-E

## NO2

Sample Name:	NO2 AN11-28-E	Injection Volume:	200.0
Vial Number:	10	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	25.0000
Recording Time:	6/3/2010 9:04	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.88	Nitrite	74.594	11.742	100.00	101.668	102% BMB*
<b>Total:</b>			74.594	11.742	100.00	101.668	

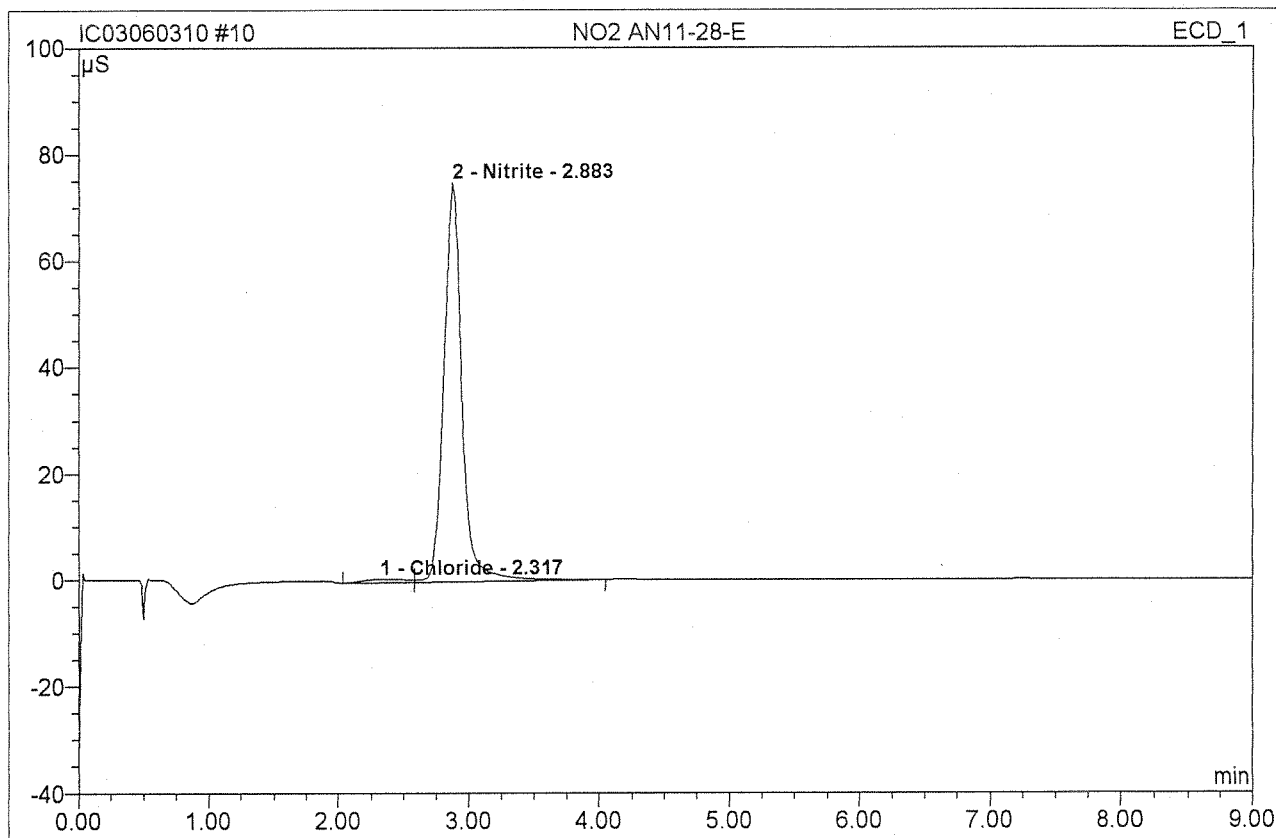
Aditya  
10/10/10 **MB**

2/6/4/10

JUN 03 2010

**10 NO2 AN11-28-E****NO2**

Sample Name:	NO2 AN11-28-E	Injection Volume:	200.0
Vial Number:	10	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	25.0000
Recording Time:	6/3/2010 9:04	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

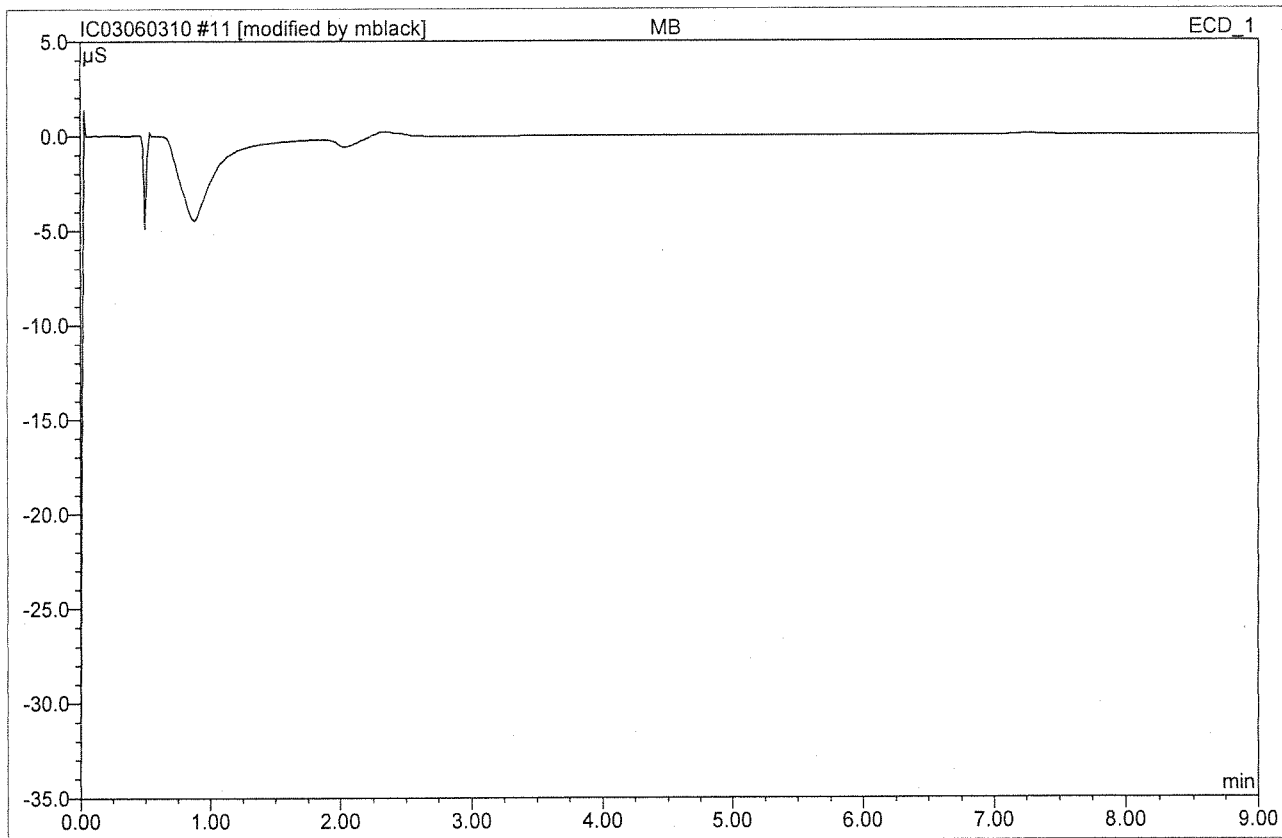


No.	Ret. Time min	Peak Name	Height $\mu\text{S}$	Area $\mu\text{S}\cdot\text{min}$	Rel. Area %	Amount	Type
1	2.32	Chloride	0.658	0.242	1.96	3.879	BM
2	2.88	Nitrite	74.945	12.081	98.04	104.607	MB
<b>Total:</b>			75.604	12.323	100.00	108.486	

Before

JUN 03 2010

<b>11 MB</b>			
<b>MB</b>			
Sample Name:	<b>MB</b>	Injection Volume:	<b>200.0</b>
Vial Number:	<b>11</b>	Channel:	<b>ECD_1</b>
Sample Type:	<b>unknown</b>	Wavelength:	<b>n.a.</b>
Control Program:	<b>epa300</b>	Bandwidth:	<b>n.a.</b>
Quantif. Method:	<b>epa300</b>	Dilution Factor:	<b>1.0000</b>
Recording Time:	<b>6/3/2010 9:16</b>	Sample Weight:	<b>1.0000</b>
Run Time (min):	<b>9.00</b>	Sample Amount:	<b>1.0000</b>



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
<b>Total:</b>			0.000	0.000	0.00	0.000	

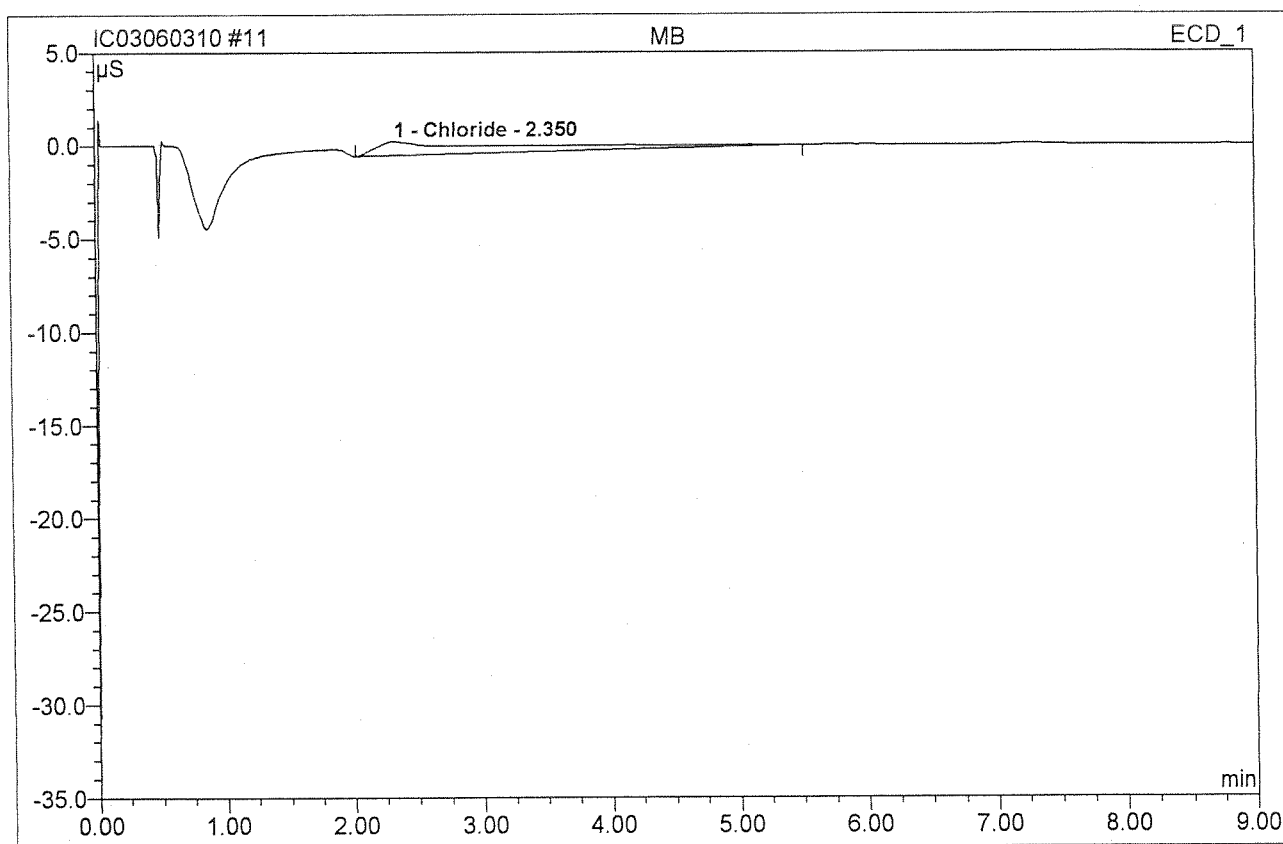
After  
initials

**MB**

6/4/10

JUN 03 2010

<b>11 MB</b>			
<b>MB</b>			
Sample Name:	MB	Injection Volume:	200.0
Vial Number:	11	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 9:16	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



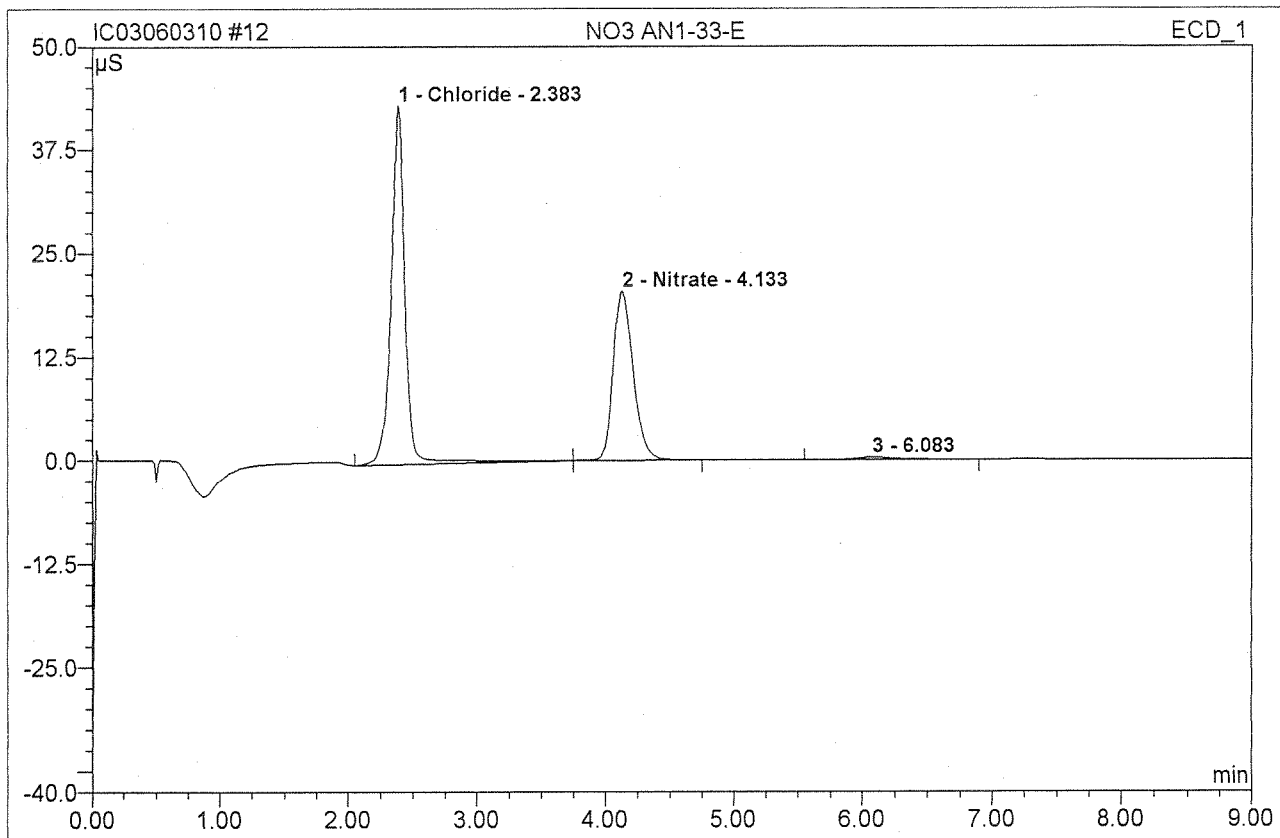
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.35	Chloride	0.752	0.970	100.00	0.622	BMB
<b>Total:</b>			0.752	0.970	100.00	0.622	

Before

JUN 03 2010



<b>12 NO3 AN1-33-E</b>			
<b>NO3</b>			
Sample Name:	NO3 AN1-33-E	Injection Volume:	200.0
Vial Number:	11	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	20.0000
Recording Time:	6/3/2010 9:27	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

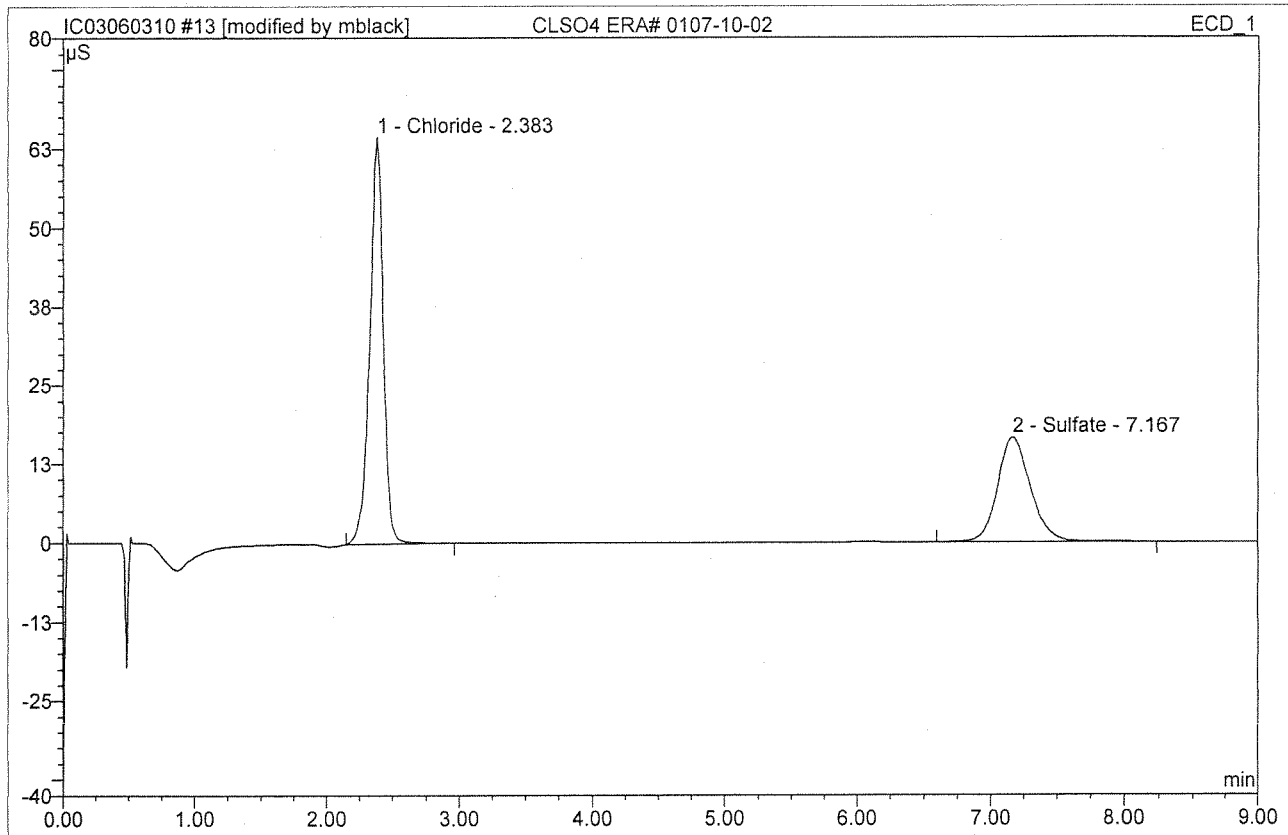


No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.38	Chloride	43.296	5.399	58.98	69.244	BMB
2	4.13	Nitrate	20.347	3.626	39.61	19.688947	bMB
3	6.08	n.a.	0.342	0.129	1.41	n.a.	BMB
<b>Total:</b>			63.984	9.155	100.00	88.932	

**13 CLSO4 ERA# 0107-10-02**

**CLSO4**

Sample Name:	CLSO4 ERA# 0107-10-02	Injection Volume:	200.0
Vial Number:	12	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 9:39	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



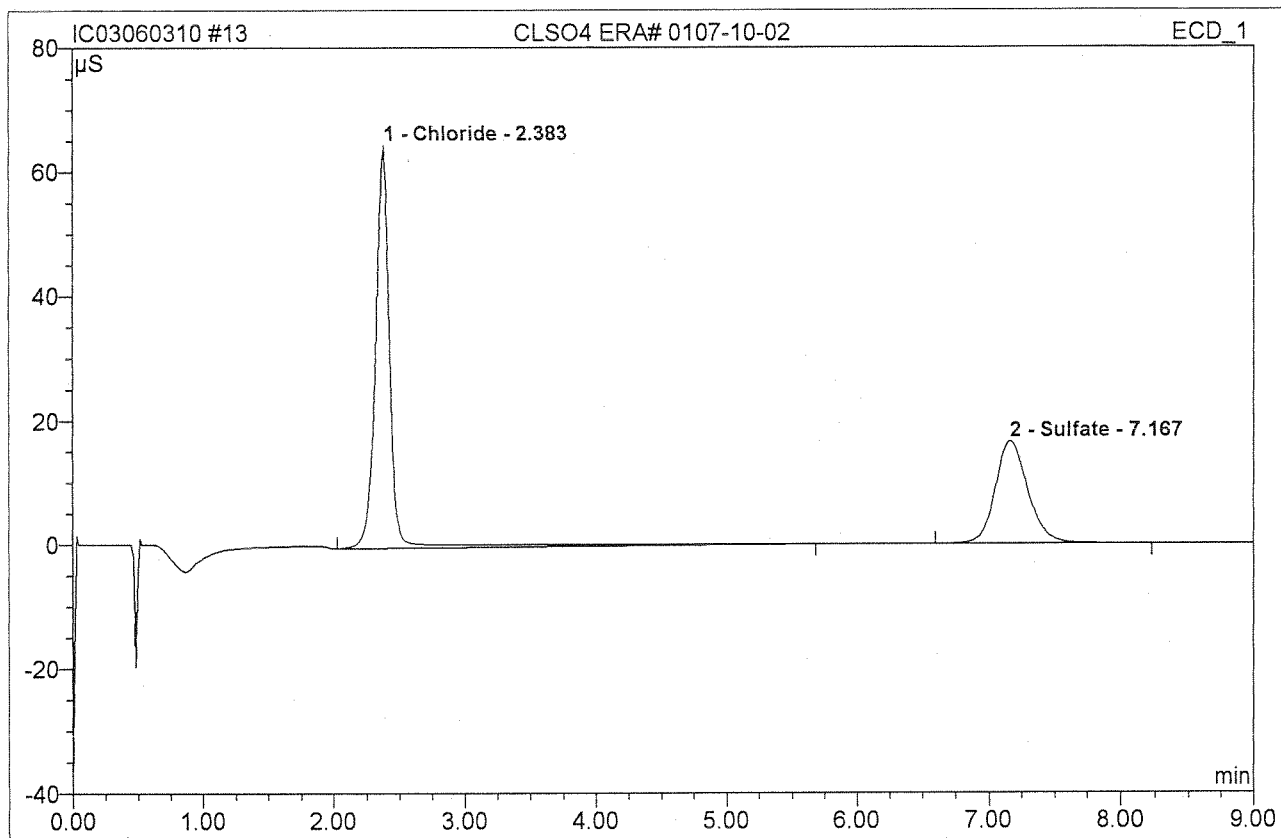
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.38	Chloride	64.439	7.533	61.26	4.83097%	BMB*
2	7.17	Sulfate	16.577	4.763	38.74	4.84097%	BMB
<b>Total:</b>			81.016	12.296	100.00	9.671	

After Initials MB

*JG/A/10*

JUN 03 2010

13 CLSO4 ERA# 0107-10-02			
CLSO4			
Sample Name:	CLSO4 ERA# 0107-10-02	Injection Volume:	200.0
Vial Number:	12	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 9:39	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

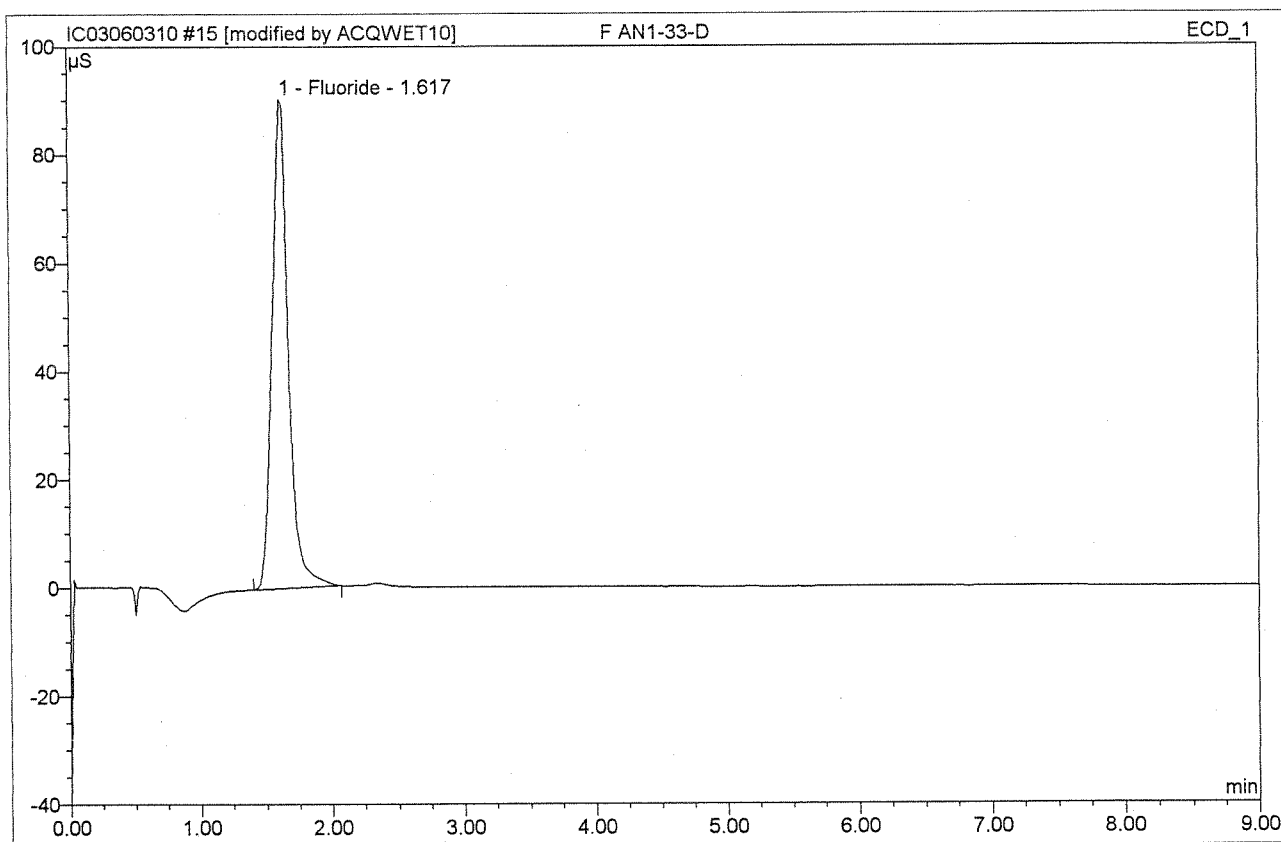


No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.38	Chloride	64.849	8.467	64.00	5.429	BMB
2	7.17	Sulfate	16.577	4.763	36.00	4.840	BMB
<b>Total:</b>			81.426	13.230	100.00	10.269	

Before

JUN 03 2010

<b>15 F AN1-33-D</b>			
<b>F</b>			
Sample Name:	F AN1-33-D	Injection Volume:	200.0
Vial Number:	13	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 10:16	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	90.277	12.908	100.00	13.492	BMB*
<b>Total:</b>			90.277	12.908	100.00	13.492	

MB

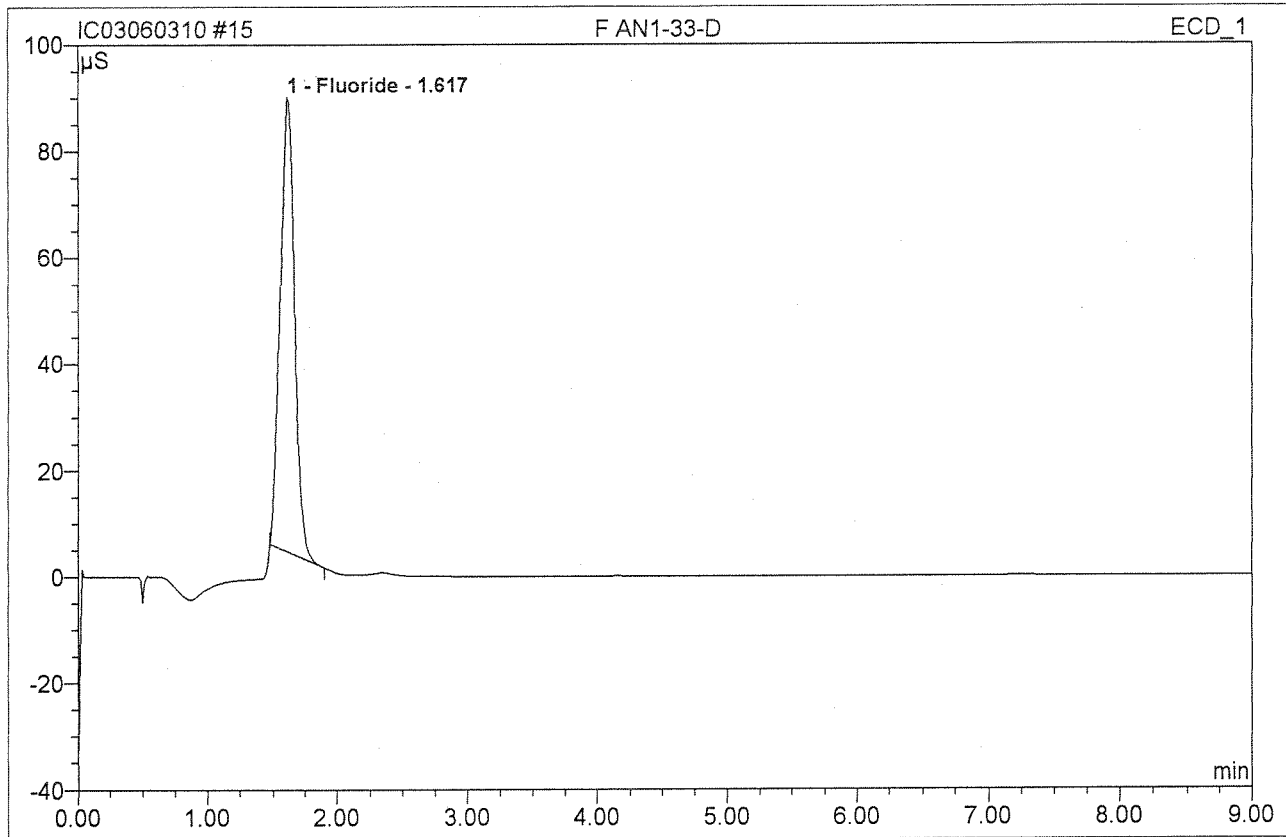
06/04/10

6/3 2010

**15 F AN1-33-D**

**F**

Sample Name:	F AN1-33-D	Injection Volume:	200.0
Vial Number:	13	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	6/3/2010 10:16	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	85.361	10.992	100.00	11.489	BMB
<b>Total:</b>			85.361	10.992	100.00	11.489	

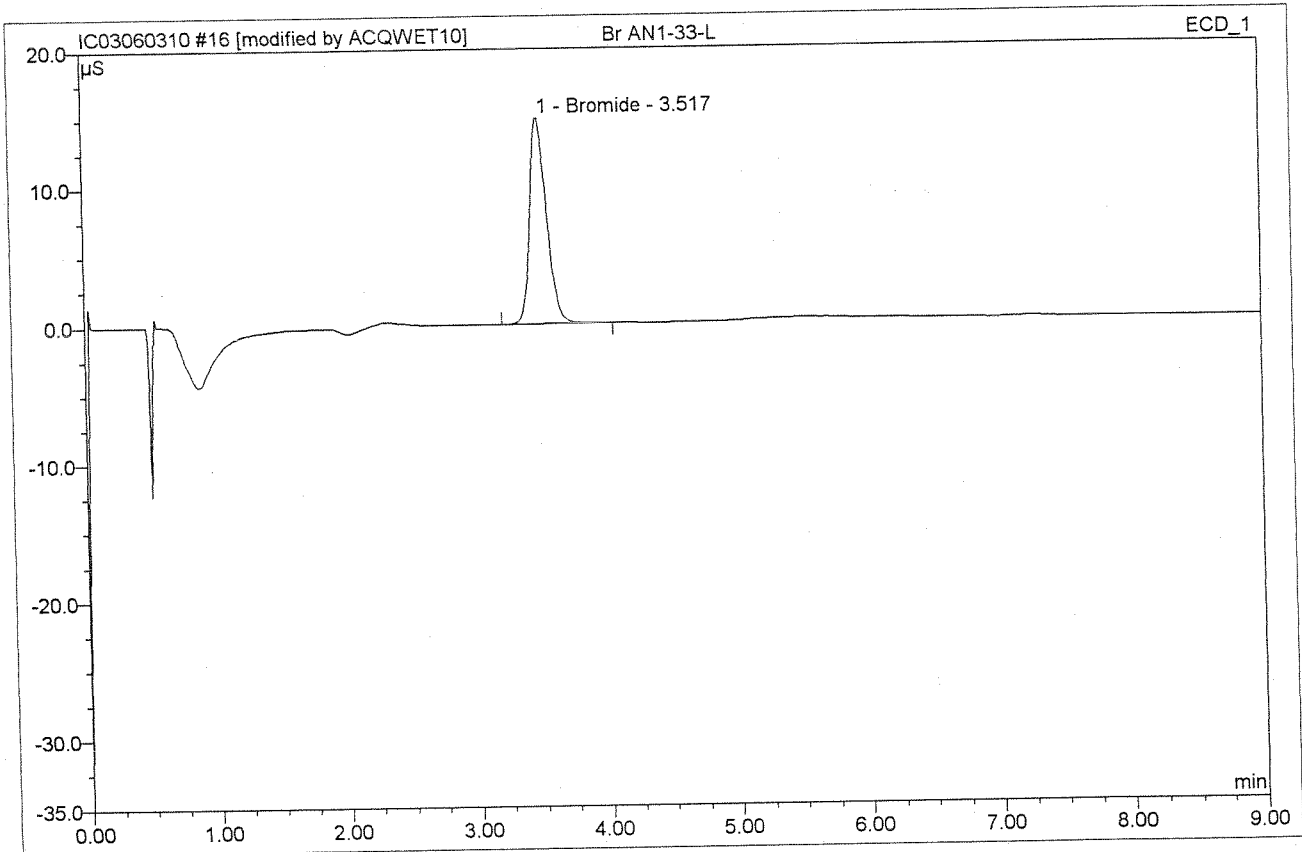
Before

JUN 03 2010

**16 Br AN1-33-L**

**Br**

Sample Name:	Br AN1-33-L	Injection Volume:	200.0
Vial Number:	14	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 10:27	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.52	Bromide	14.927	2.247	100.00	4.19410572	BMB*
<b>Total:</b>			14.927	2.247	100.00	4.194	

After Initials

*AB*

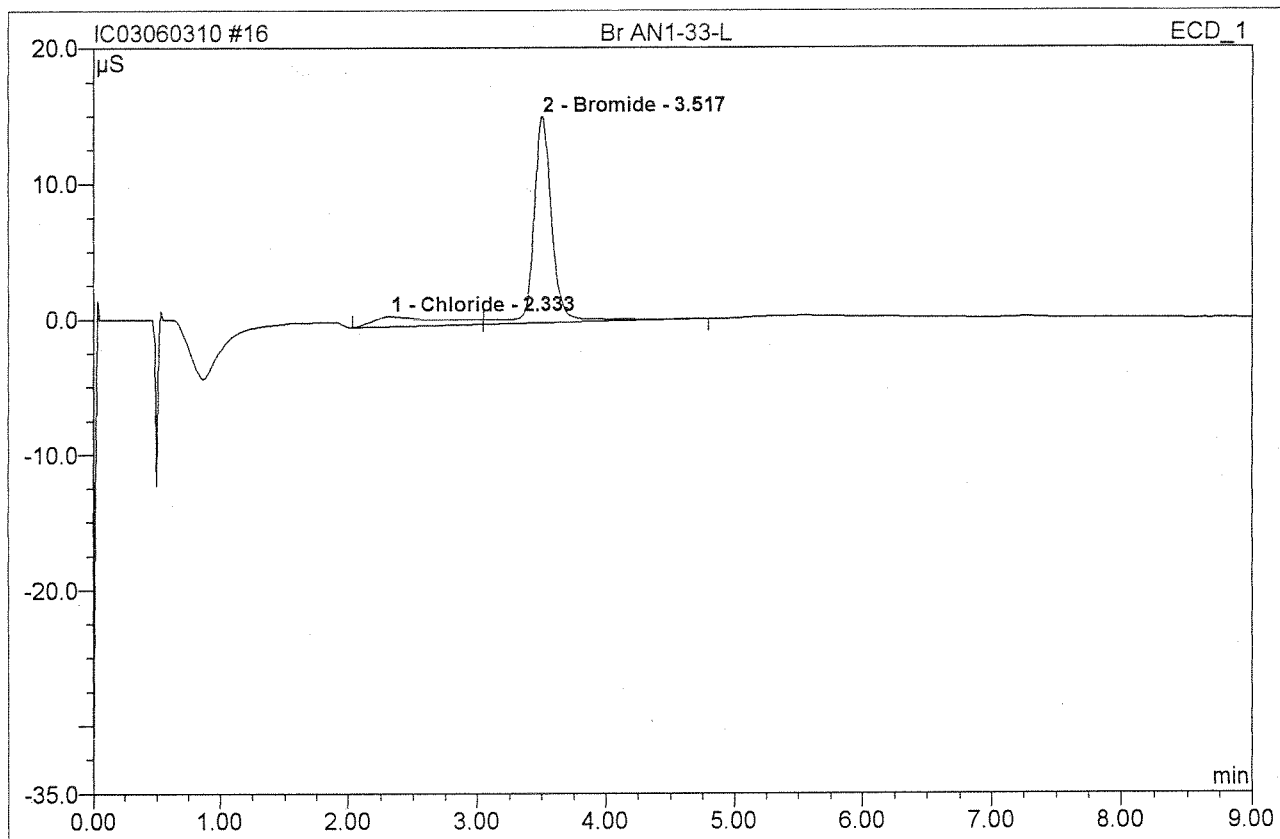
JUN 03 2010

*06/04/10*

# 16 Br AN1-33-L

Br

Sample Name:	Br AN1-33-L	Injection Volume:	200.0
Vial Number:	14	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 10:27	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

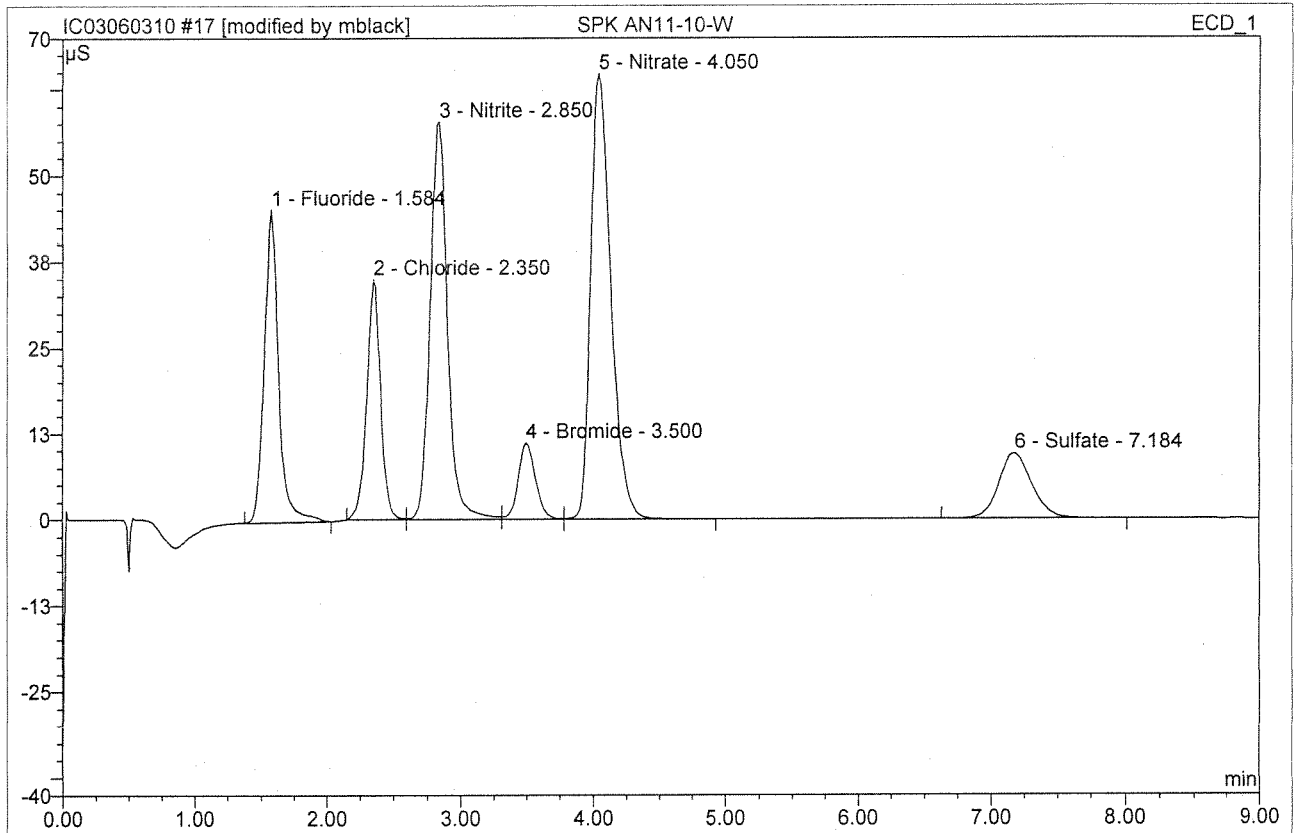


No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.33	Chloride	0.755	0.453	15.14	0.291	BM
2	3.52	Bromide	15.175	2.541	84.86	4.743	MB
<b>Total:</b>			15.930	2.995	100.00	5.033	

Before

JUN 03 2010

<b>17 SPK AN11-10-W</b>			
<b>SPK</b>			
Sample Name:	SPK AN11-10-W	Injection Volume:	200.0
Vial Number:	16	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 10:38	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.58	Fluoride	45.431	5.733	16.57	2.996	BMB*
2	2.35	Chloride	34.868	4.189	12.11	2.686	BM *
3	2.85	Nitrite	57.717	8.723	25.21	3.021	M *
4	3.50	Bromide	11.098	1.671	4.83	3.119	M *
5	4.05	Nitrate	64.768	11.534	33.34	3.131	MB*
6	7.18	Sulfate	9.512	2.749	7.95	2.794	BMB
<b>Total:</b>			223.393	34.600	100.00	17.747	

TV=3.00

After initials MB

JUN 03 2010

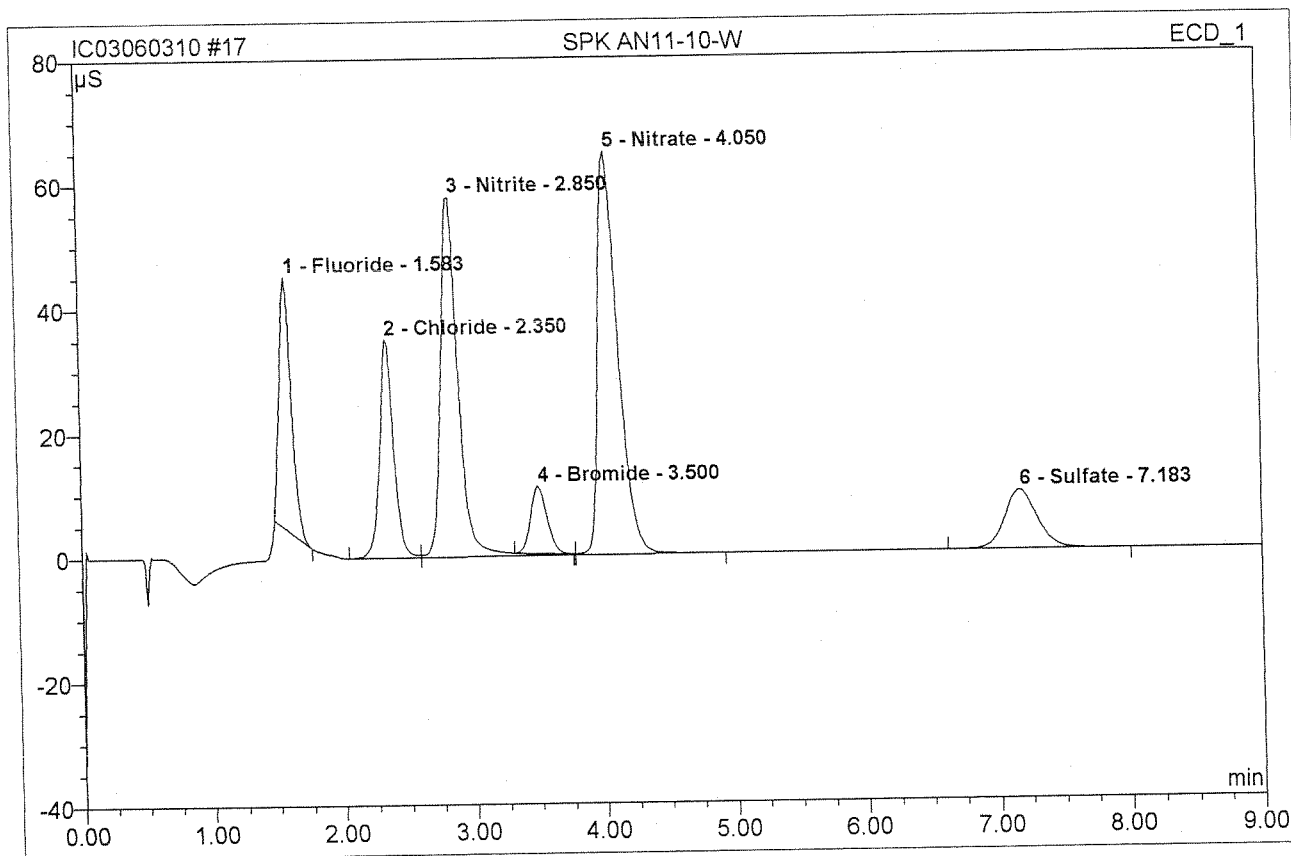
206/4/10



### 17 SPK AN11-10-W

#### SPK

Sample Name:	SPK AN11-10-W	Injection Volume:	200.0
Vial Number:	16	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 10:38	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

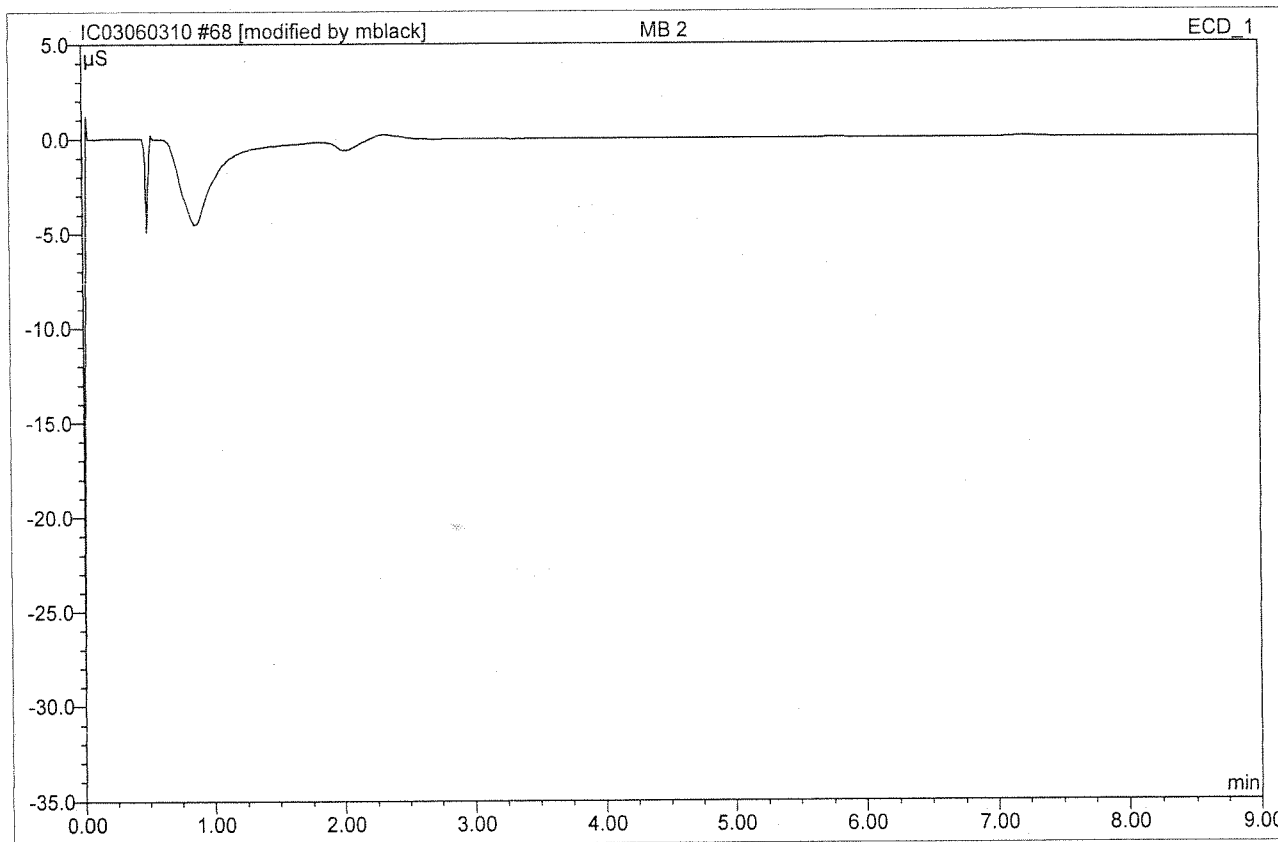


No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	1.58	Fluoride	40.645	4.243	12.67	2.217	BMB
2	2.35	Chloride	35.119	4.310	12.87	2.764	BM
3	2.85	Nitrite	57.919	9.019	26.93	3.124	M
4	3.50	Bromide	10.866	1.576	4.70	2.941	Rd
5	4.05	Nitrate	64.853	11.598	34.63	3.148	MB
6	7.18	Sulfate	9.512	2.749	8.21	2.794	BMB
<b>Total:</b>			218.915	33.496	100.00	16.988	

Before

JUN 03 2010

<b>68 MB 2</b>			
<b>MB 2</b>			
Sample Name:	MB 2	Injection Volume:	200.0
Vial Number:	65	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 20:28	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
<b>Total:</b>			0.000	0.000	0.00	0.000	

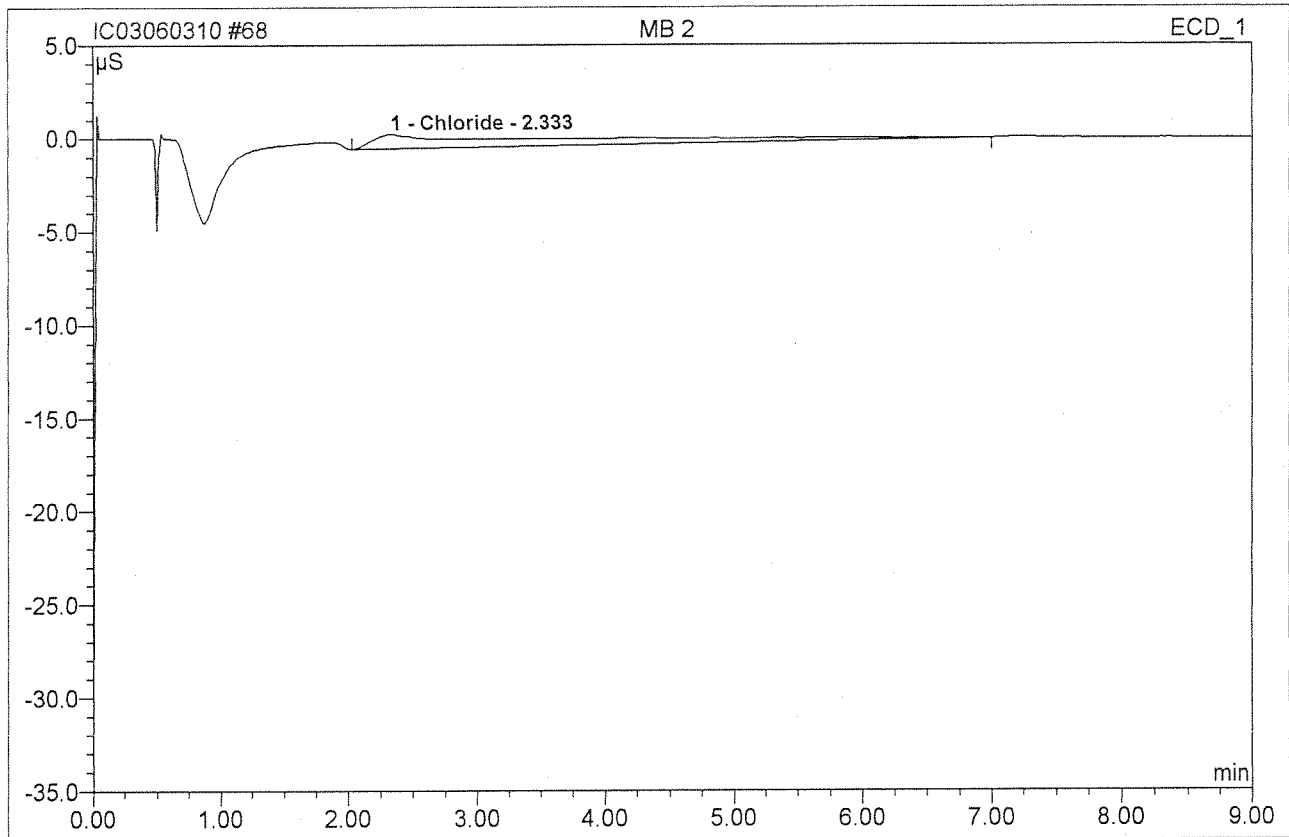
ADAP  
Intdata

FB

6/4/10

JUN 04 2010

<b>68 MB 2</b>			
<b>MB 2</b>			
Sample Name:	MB 2	Injection Volume:	200.0
Vial Number:	65	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 20:28	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

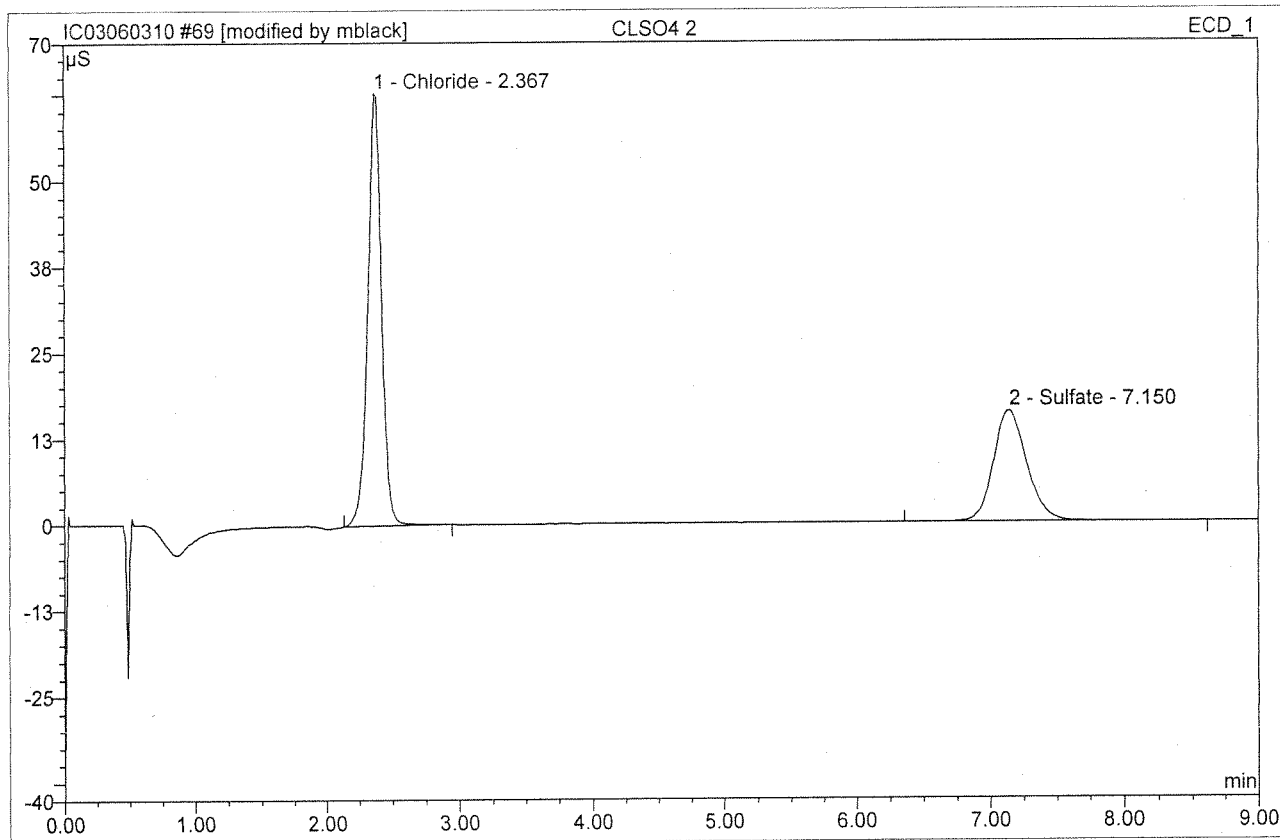


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.33	Chloride	0.780	1.432	100.00	0.918	BMB
<b>Total:</b>			0.780	1.432	100.00	0.918	

Before

JUN 04 2010

<b>69 CLSO4 2</b>			
<b>CLSO4 2</b>			
Sample Name:	CLSO4 2	Injection Volume:	200.0
Vial Number:	66	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 20:40	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	2.37	Chloride	62.837	7.562	61.54	4.849	97% BMB*
2	7.15	Sulfate	16.194	4.726	38.46	4.802	96% BMB*
<b>Total:</b>			79.031	12.287	100.00	9.651	

After Initials

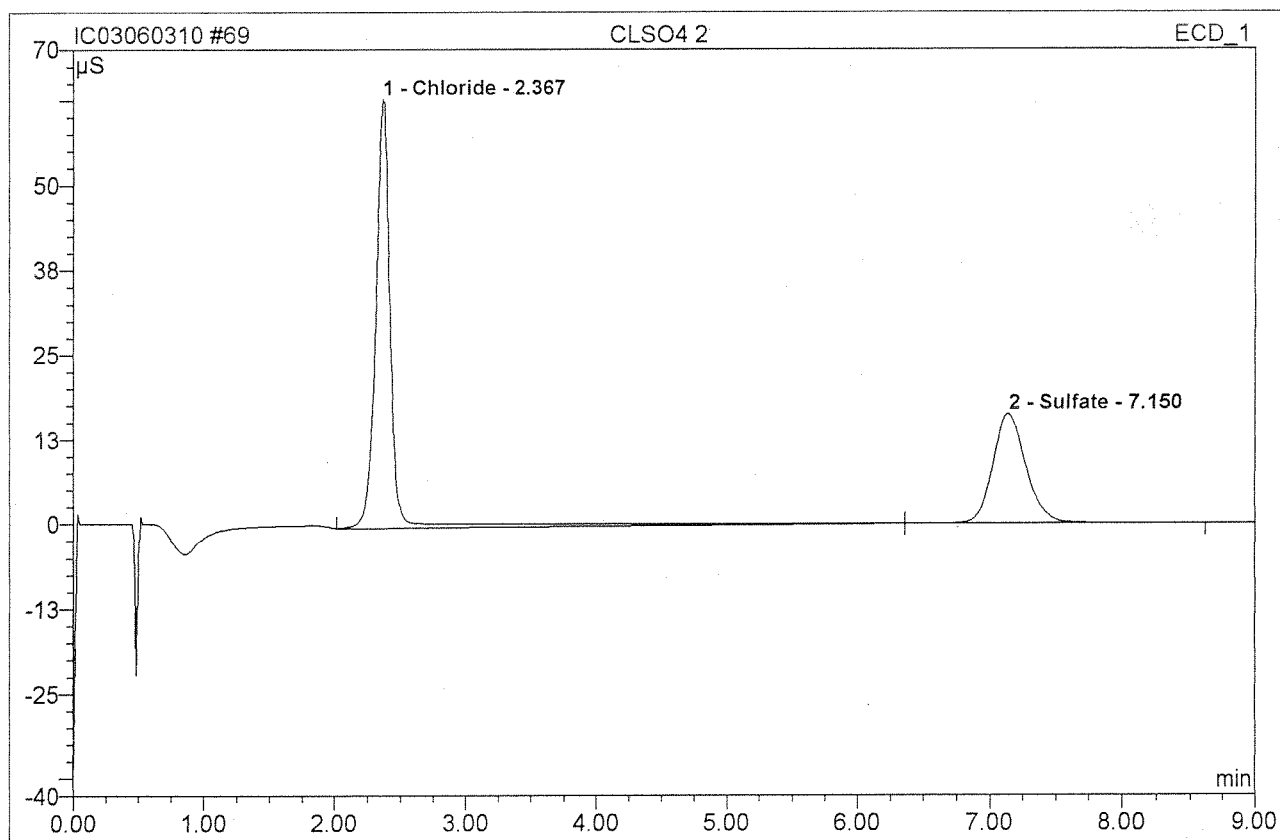
*WJ*

*6/4/10*

JUN 04 2010

**69 CLSO4 2****CLSO4 2**

Sample Name:	CLSO4 2	Injection Volume:	200.0
Vial Number:	66	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 20:40	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

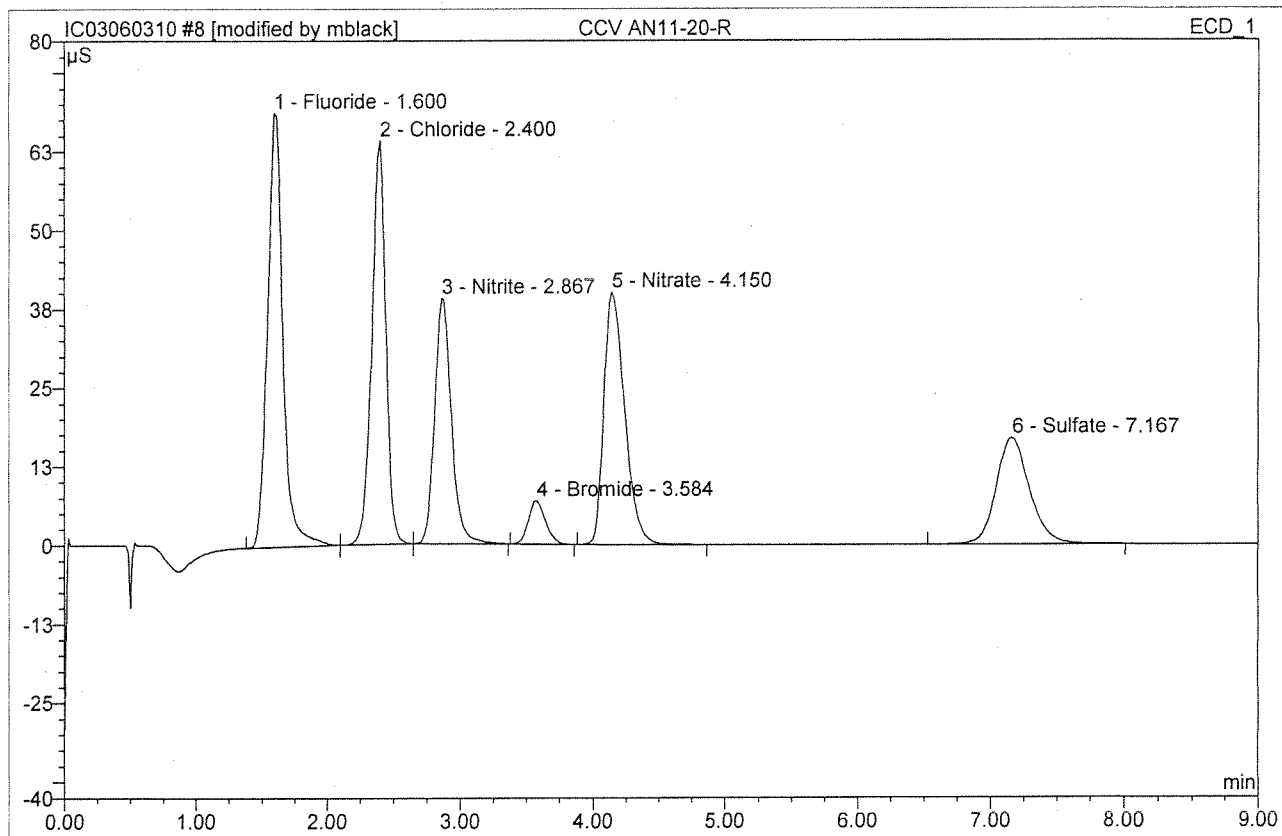


No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.37	Chloride	63.217	8.697	64.79	5.577	BMB
2	7.15	Sulfate	16.194	4.726	35.21	4.802	bMB
<b>Total:</b>			79.411	13.423	100.00	10.379	

Before

JUN 04 2010

<b>8 CCV AN11-20-R</b>			
<b>CCV1</b>			
Sample Name:	CCV AN11-20-R	Injection Volume:	200.0
Vial Number:	8	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 8:42	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	68.899	9.384	26.11	4.904982	BMb*
2	2.40	Chloride	64.075	7.692	21.40	4.932442	bMb*
3	2.87	Nitrite	38.919	5.671	15.78	1.964982	bMB
4	3.58	Bromide	6.855	1.038	2.89	1.937972	BMB
5	4.15	Nitrate	40.082	7.276	20.25	1.975992	BMB
6	7.17	Sulfate	16.893	4.879	13.58	4.958992	BMB
<b>Total:</b>			235.722	35.940	100.00	20.671	

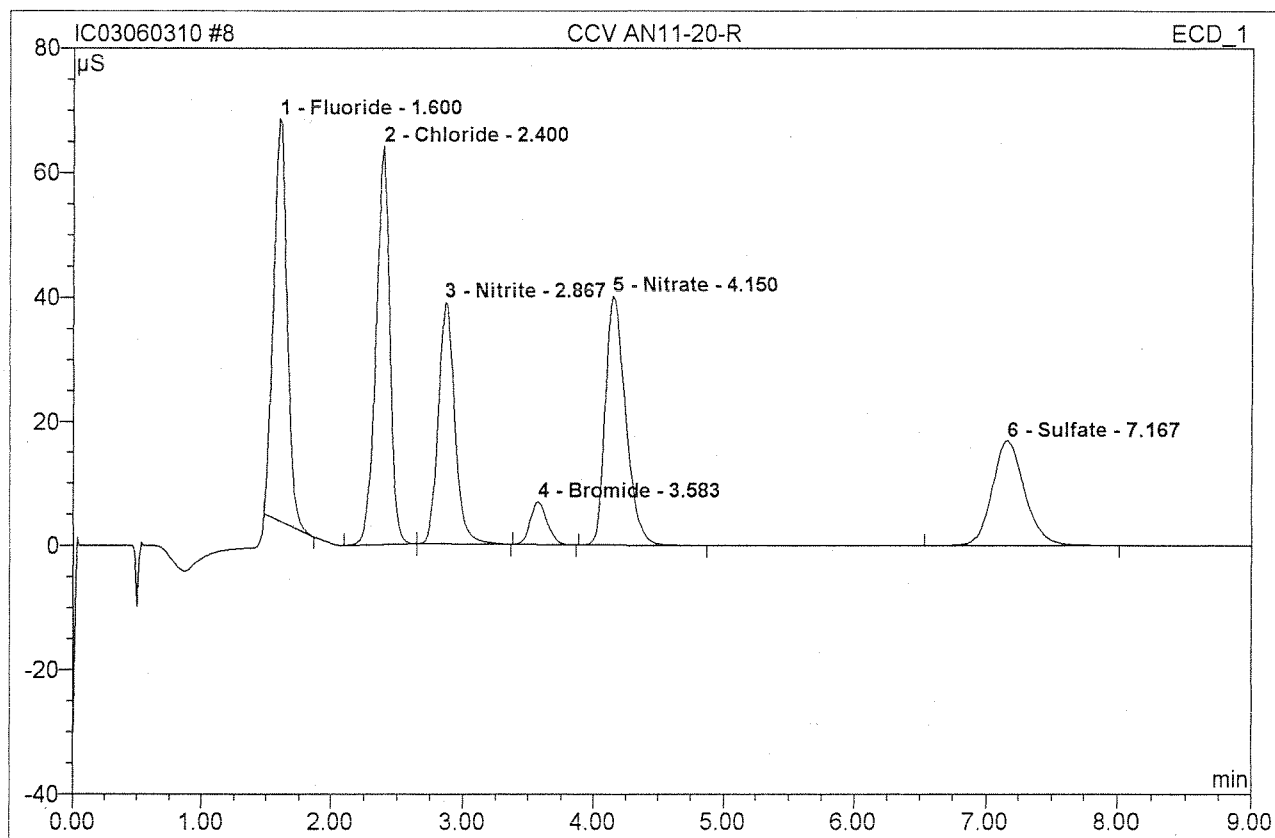
After  
Initials

*MB*

*6/4/10*

JUN 03 2010

<b>8 CCV AN11-20-R</b>			
<b>CCV1</b>			
Sample Name:	CCV AN11-20-R	Injection Volume:	200.0
Vial Number:	8	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 8:42	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



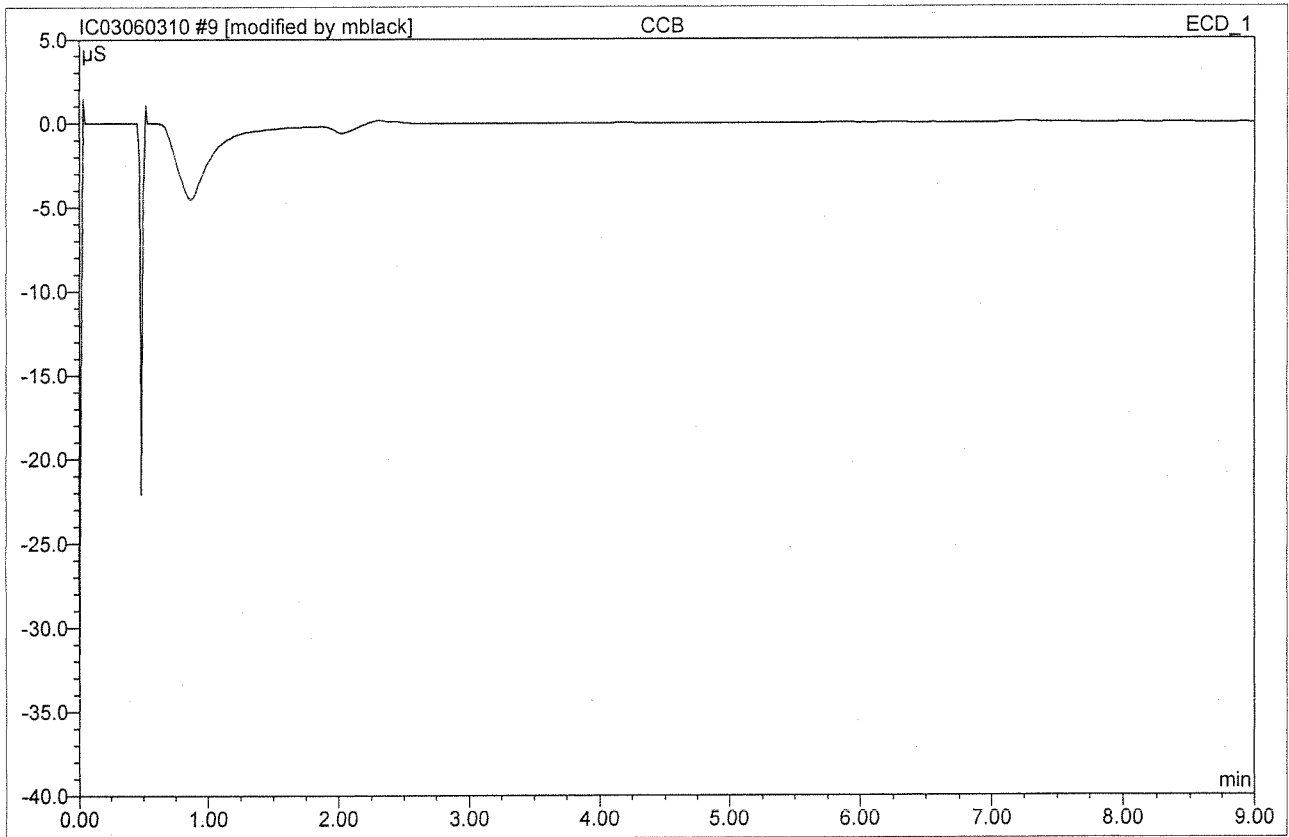
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	64.671	7.816	22.74	4.085	BMB
2	2.40	Chloride	64.075	7.692	22.38	4.932	BMB
3	2.87	Nitrite	38.919	5.671	16.50	1.964	bMB
4	3.58	Bromide	6.855	1.038	3.02	1.937	BMB
5	4.15	Nitrate	40.082	7.276	21.17	1.975	BMB
6	7.17	Sulfate	16.893	4.879	14.20	4.958	BMB
<b>Total:</b>			231.495	34.373	100.00	19.852	

Before

JUN 03 2010

**9 CCB**  
**CCB1**

Sample Name:	CCB	Injection Volume:	200.0
Vial Number:	9	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 8:53	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
<b>Total:</b>			0.000	0.000	0.00	0.000	

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12

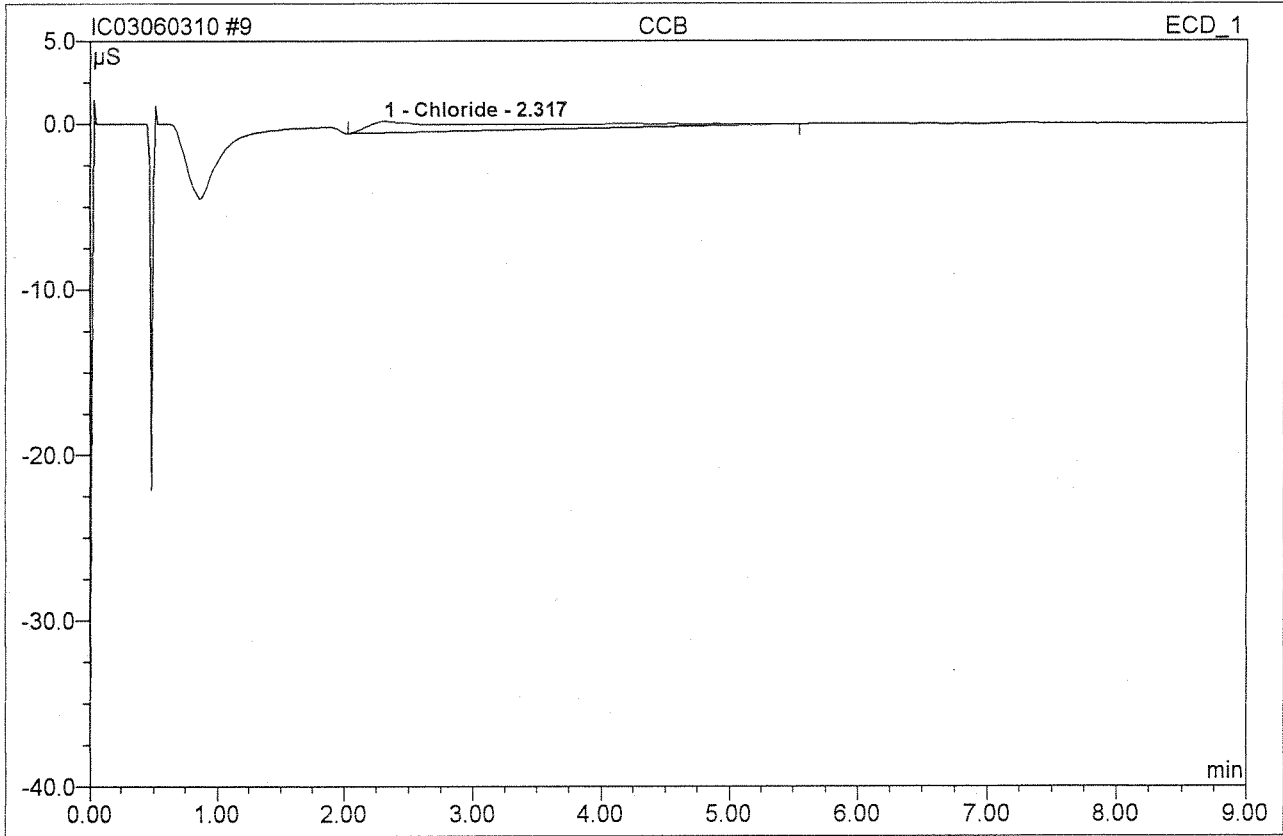
6/4/10



**9 CCB**

**CCB1**

Sample Name:	CCB	Injection Volume:	200.0
Vial Number:	9	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 8:53	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

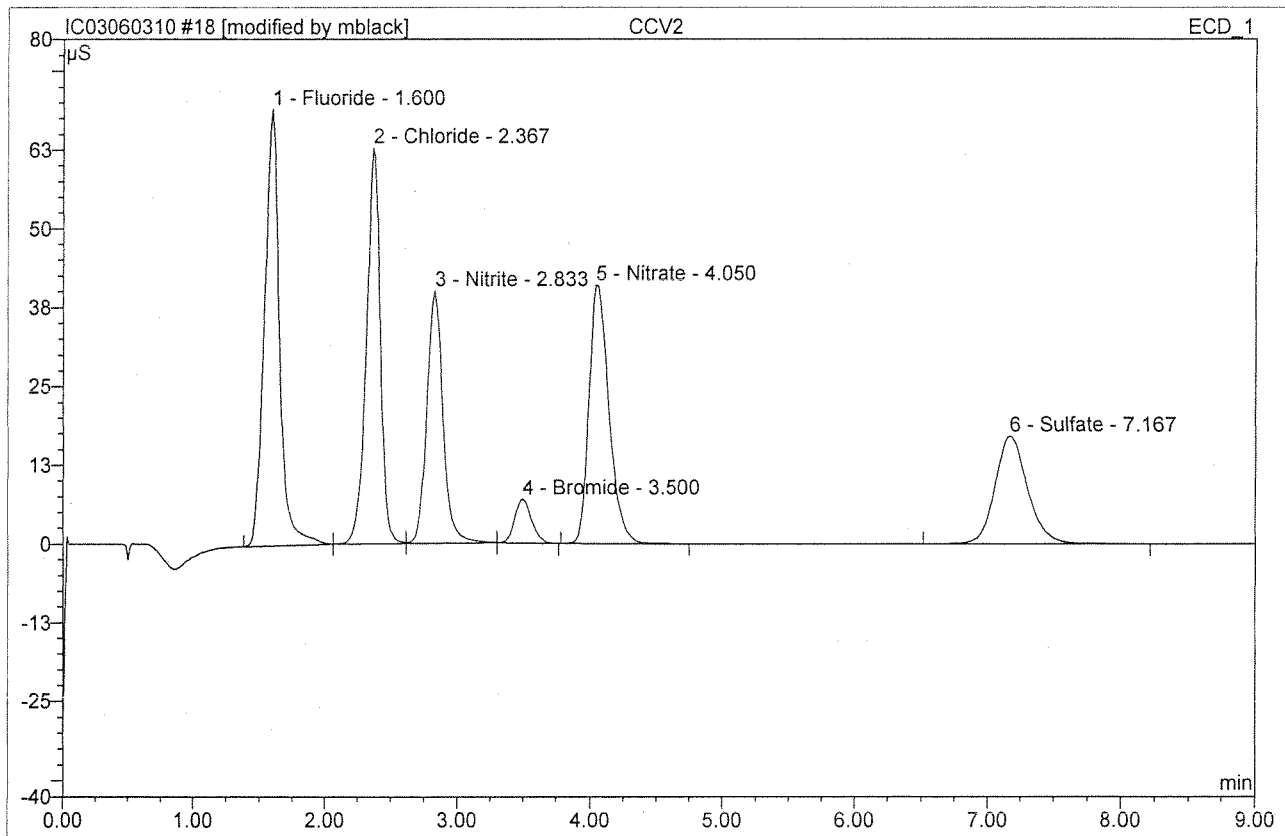


No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	2.32	Chloride	0.698	0.980	100.00	0.628	BMB
<b>Total:</b>			0.698	0.980	100.00	0.628	

Before

JUN 03 2010

<b>18 CCV2</b>			
<b>CCV2</b>			
Sample Name:	CCV2	Injection Volume:	200.0
Vial Number:	15	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 10:50	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



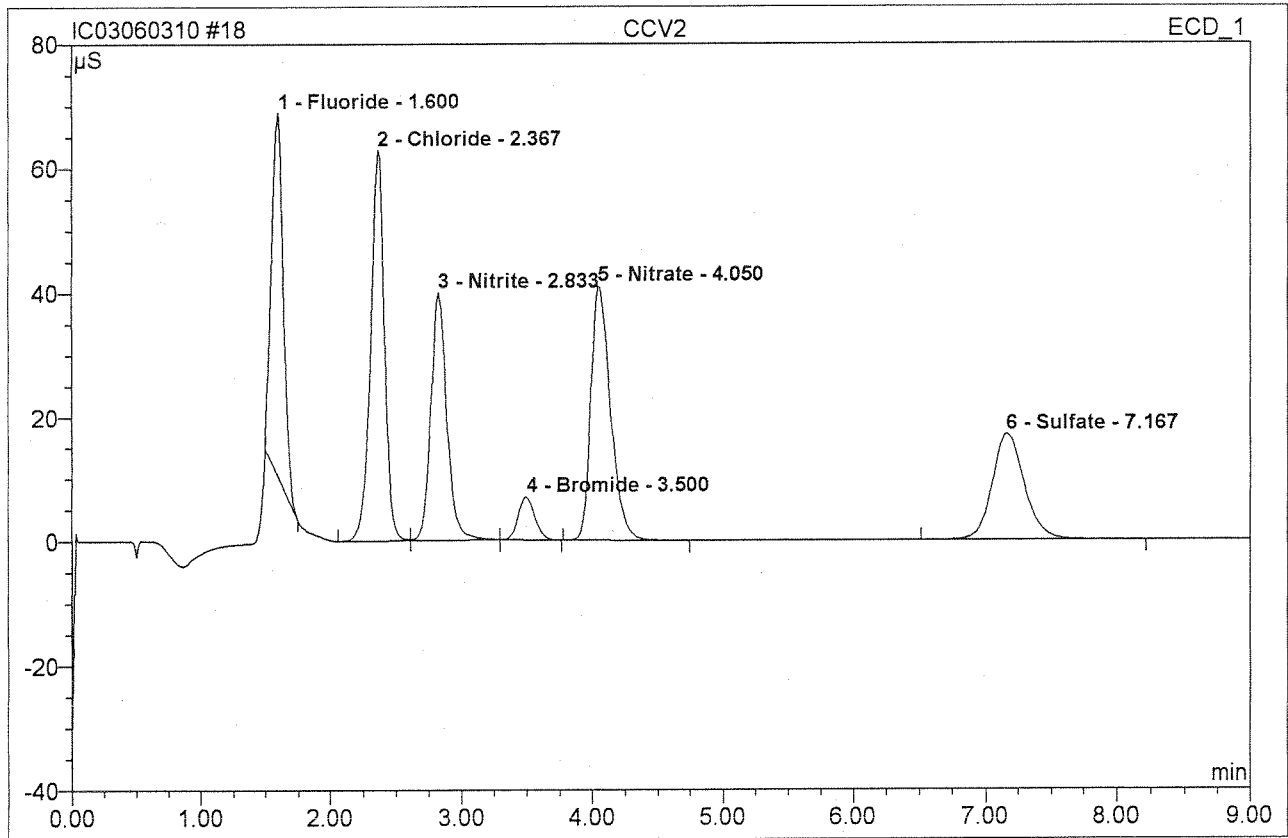
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	69.207	9.237	25.95	4.828 <sup>77%</sup>	BMB*
2	2.37	Chloride	62.872	7.615	21.39	4.883 <sup>85%</sup>	bM *
3	2.83	Nitrite	39.920	5.649	15.87	1.956 <sup>95%</sup>	Mb
4	3.50	Bromide	6.970	1.026	2.88	1.916 <sup>96%</sup>	bMB
5	4.05	Nitrate	40.984	7.183	20.18	1.950 <sup>88%</sup>	BMB
6	7.17	Sulfate	17.124	4.884	13.72	4.963 <sup>99%</sup>	BMB
<b>Total:</b>			237.077	35.593	100.00	20.495	

After  
initials MB

JUN 03 2010

MB 6/4/10

<b>18 CCV2</b>			
<b>CCV2</b>			
Sample Name:	CCV2	Injection Volume:	200.0
Vial Number:	15	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 10:50	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

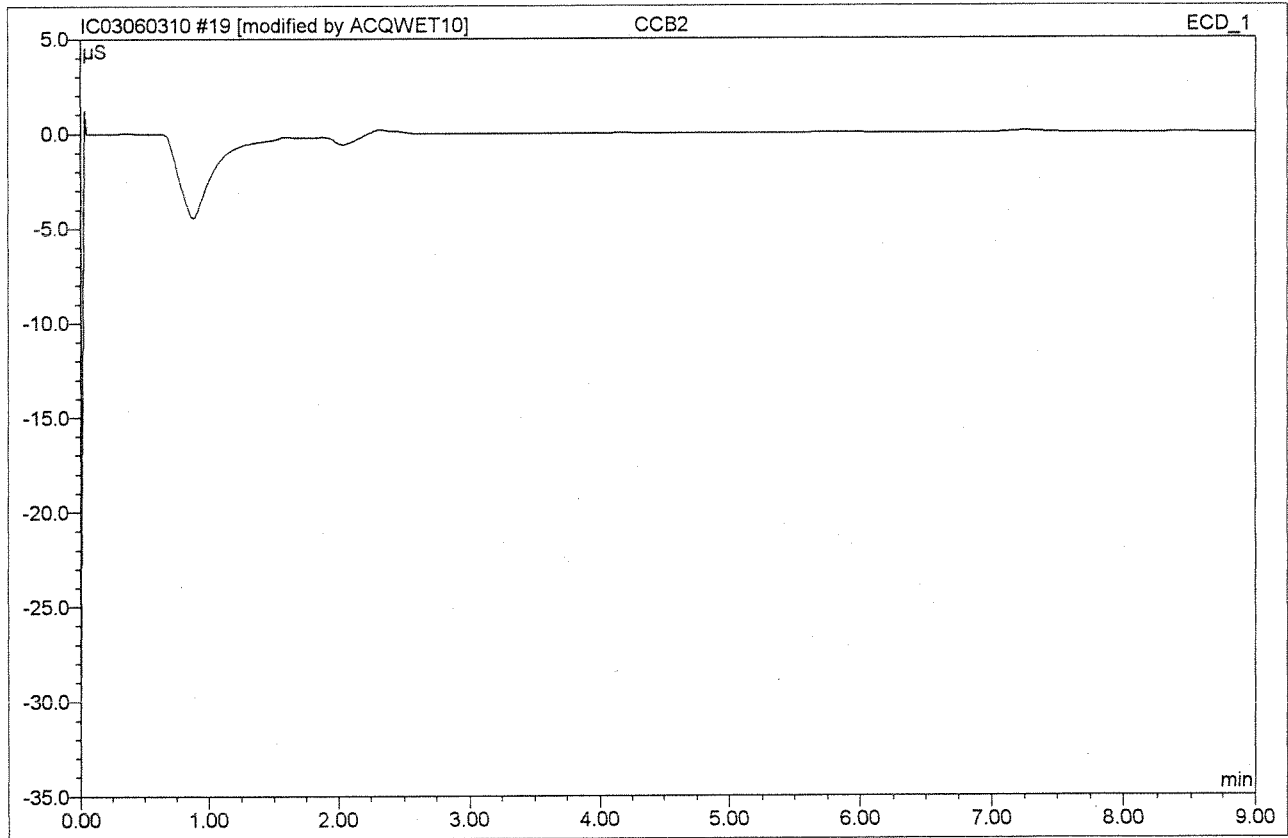


No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	1.60	Fluoride	58.594	6.141	18.90	3.209	BMB
2	2.37	Chloride	62.872	7.615	23.43	4.883	BM
3	2.83	Nitrite	39.920	5.649	17.38	1.956	Mb
4	3.50	Bromide	6.970	1.026	3.16	1.916	bMB
5	4.05	Nitrate	40.984	7.183	22.10	1.950	BMB
6	7.17	Sulfate	17.124	4.884	15.03	4.963	BMB
<b>Total:</b>			226.465	32.497	100.00	18.876	

Before

JUN 03 2010

<b>19 CCB2</b>			
<b>CCB2</b>			
Sample Name:	CCB2	Injection Volume:	200.0
Vial Number:	16	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 11:01	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



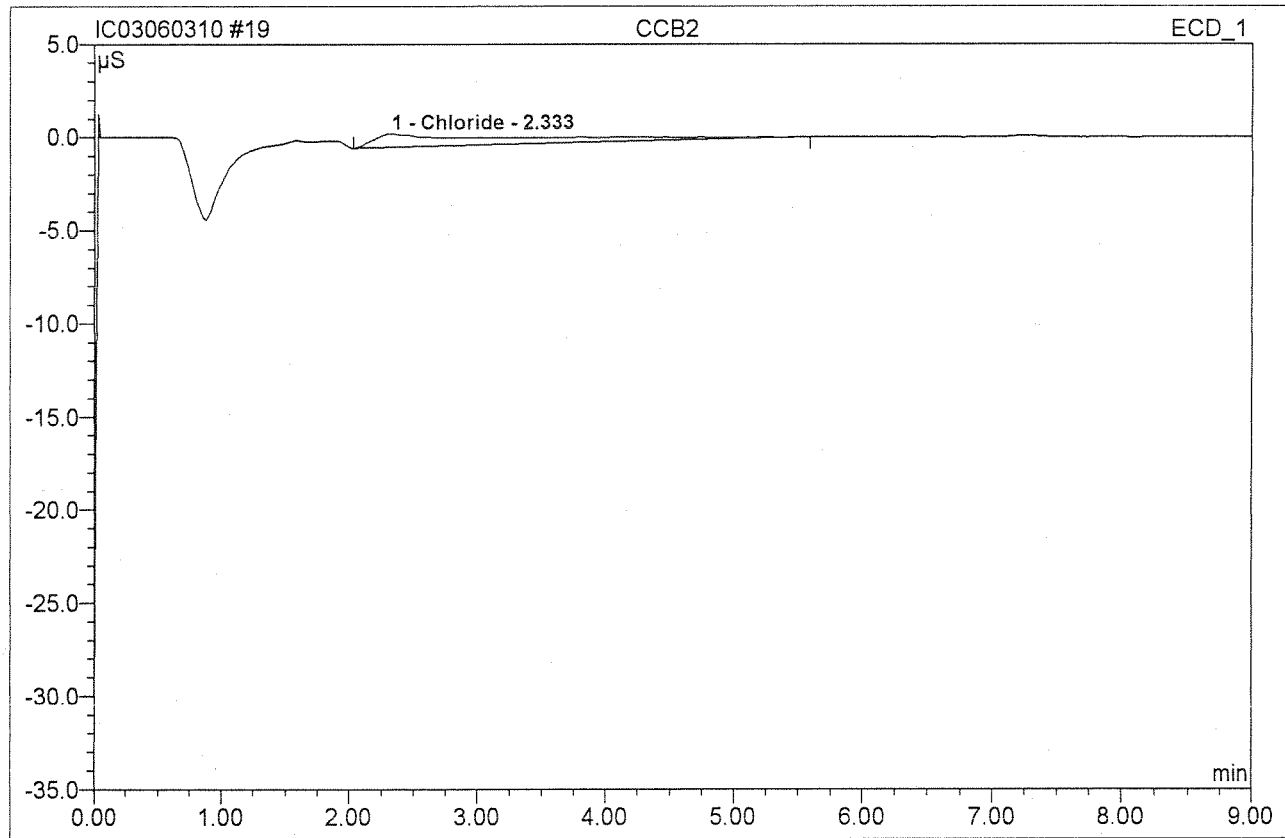
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

Alter  
Initials AB

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JUN 03 2010

<b>19 CCB2</b>			
<b>CCB2</b>			
Sample Name:	CCB2	Injection Volume:	200.0
Vial Number:	16	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 11:01	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

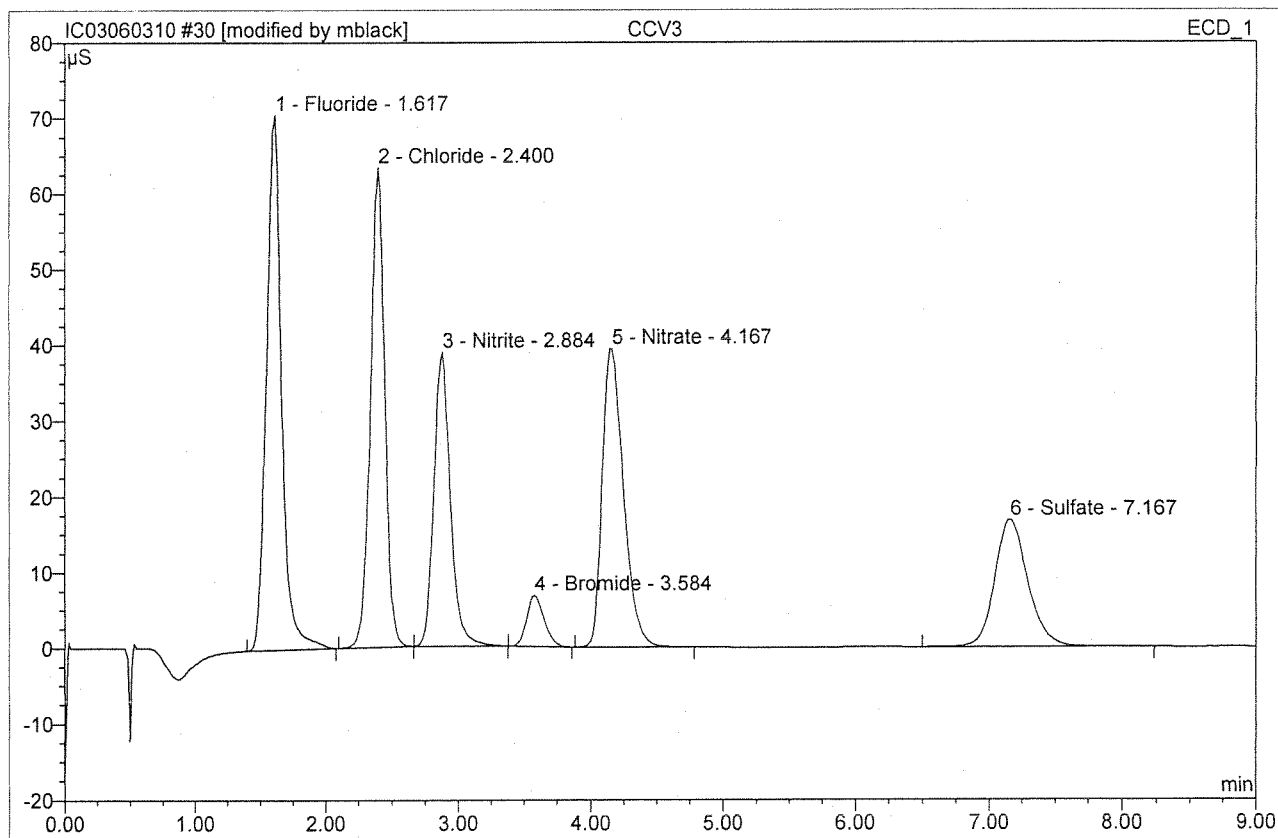


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.33	Chloride	0.729	0.996	100.00	0.639	BMB
<b>Total:</b>			0.729	0.996	100.00	0.639	

Before

JUN 03 2010

<b>30 CCV3</b>			
<b>CCV3</b>			
Sample Name:	CCV3	Injection Volume:	200.0
Vial Number:	27	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 13:07	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



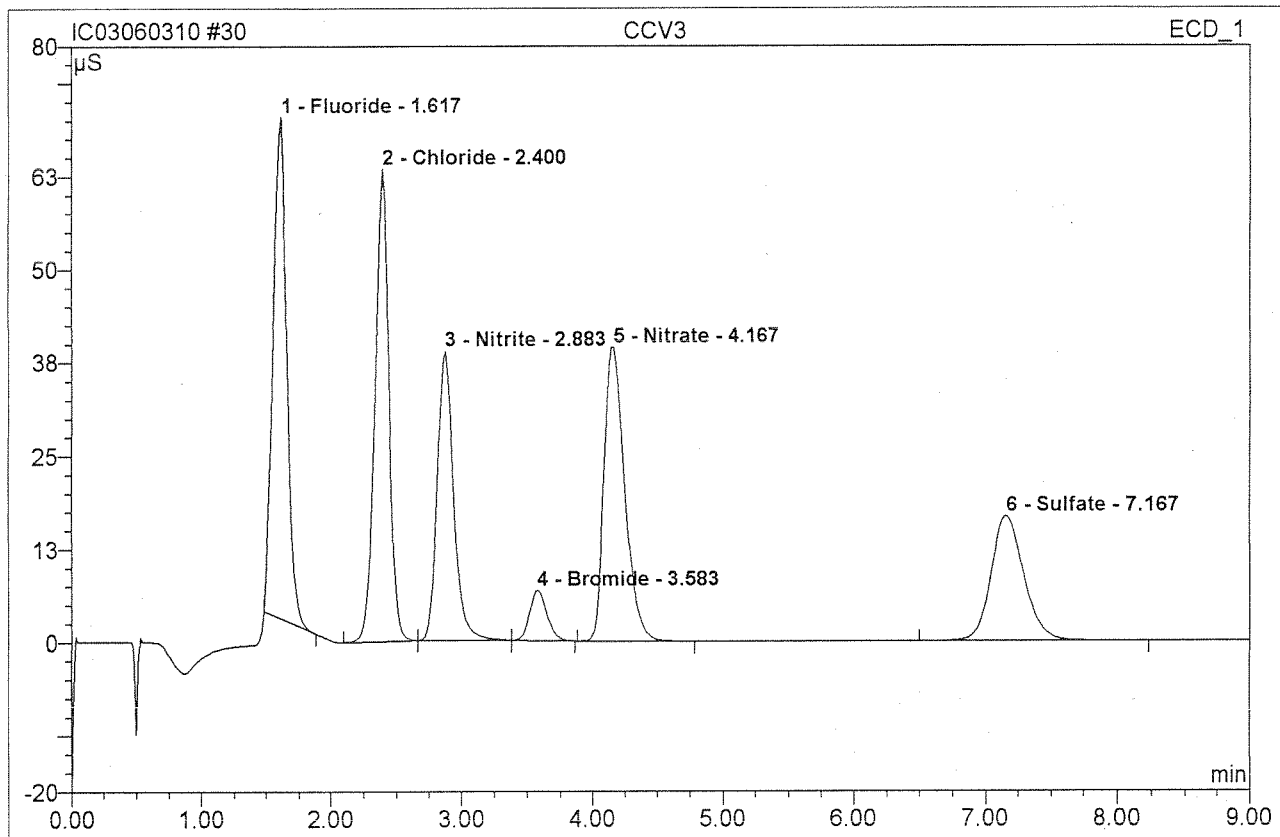
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	70.714	9.517	26.37	4.974 <sup>992</sup>	BMB*
2	2.40	Chloride	63.381	7.693	21.32	4.933 <sup>992</sup>	BMB
3	2.88	Nitrite	38.800	5.644	15.64	1.955 <sup>987</sup>	bMB
4	3.58	Bromide	6.817	1.039	2.88	1.940 <sup>992</sup>	bMB
5	4.17	Nitrate	39.424	7.287	20.19	1.978 <sup>992</sup>	BMB
6	7.17	Sulfate	16.840	4.905	13.59	4.984 <sup>1002</sup>	BMB
<b>Total:</b>			235.976	36.086	100.00	20.764	

After Intake **123**

JUN 03 2010

*mblack*

<b>30 CCV3</b>			
<b>CCV3</b>			
Sample Name:	CCV3	Injection Volume:	200.0
Vial Number:	27	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 13:07	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

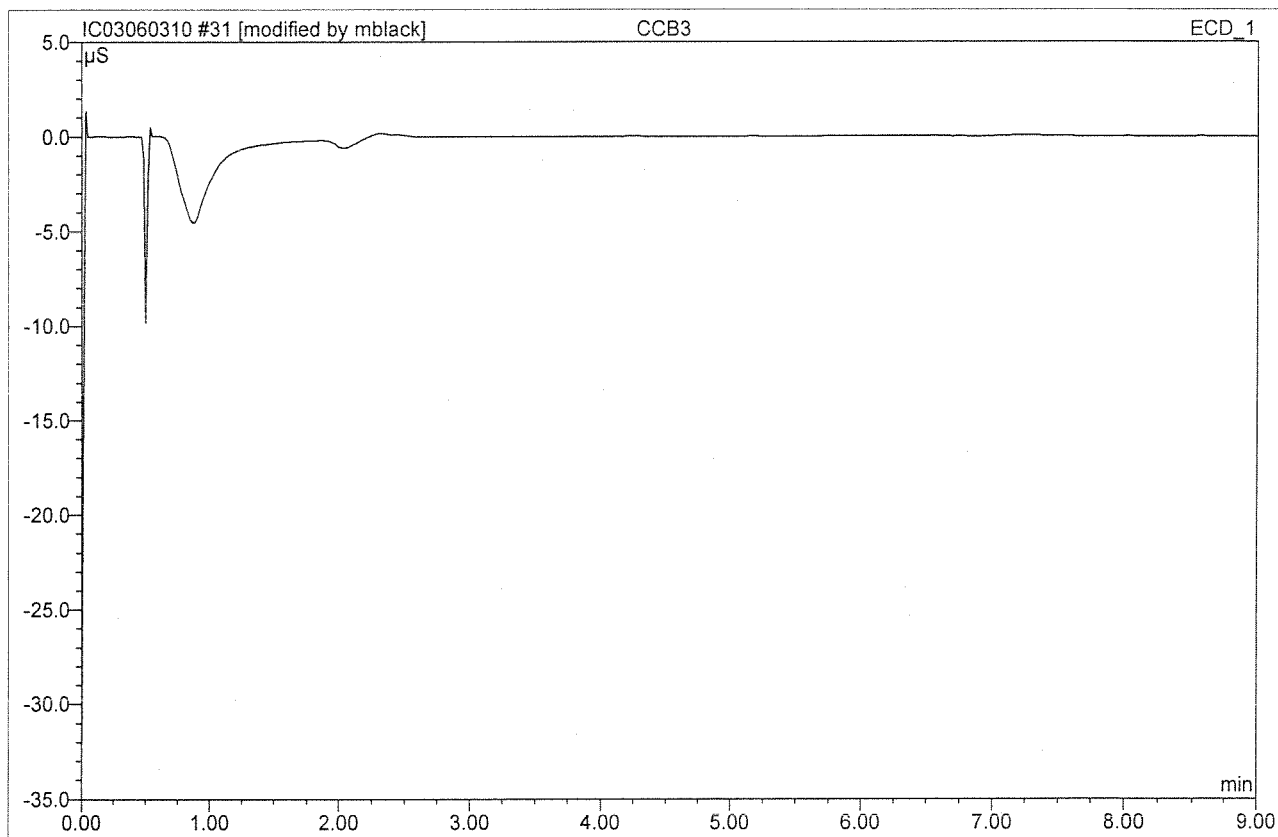


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	67.247	8.161	23.50	4.265	BMB
2	2.40	Chloride	63.381	7.693	22.15	4.933	BMb
3	2.88	Nitrite	38.800	5.644	16.25	1.955	bMb
4	3.58	Bromide	6.817	1.039	2.99	1.940	bMB
5	4.17	Nitrate	39.424	7.287	20.98	1.978	BMB
6	7.17	Sulfate	16.840	4.905	14.12	4.984	BMB
<b>Total:</b>			232.509	34.730	100.00	20.055	

Before

JUN 03 2010

<b>31 CCB3</b>			
<b>CCB3</b>			
Sample Name:	CCB3	Injection Volume:	200.0
Vial Number:	28	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 13:19	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
<b>Total:</b>			0.000	0.000	0.00	0.000	

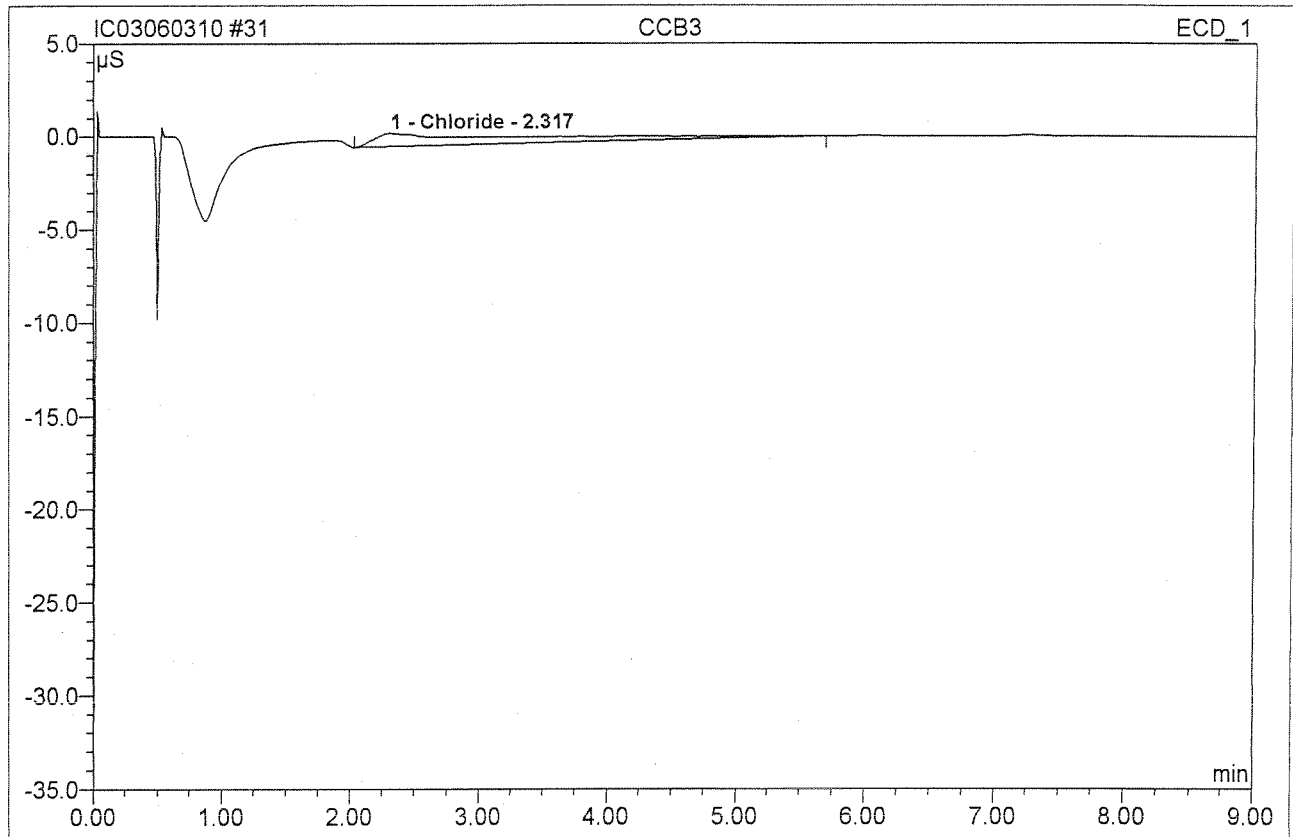
ANALYST  
mblack

JUN 03 2010

DL



<b>31 CCB3</b>			
<b>CCB3</b>			
Sample Name:	CCB3	Injection Volume:	200.0
Vial Number:	28	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 13:19	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

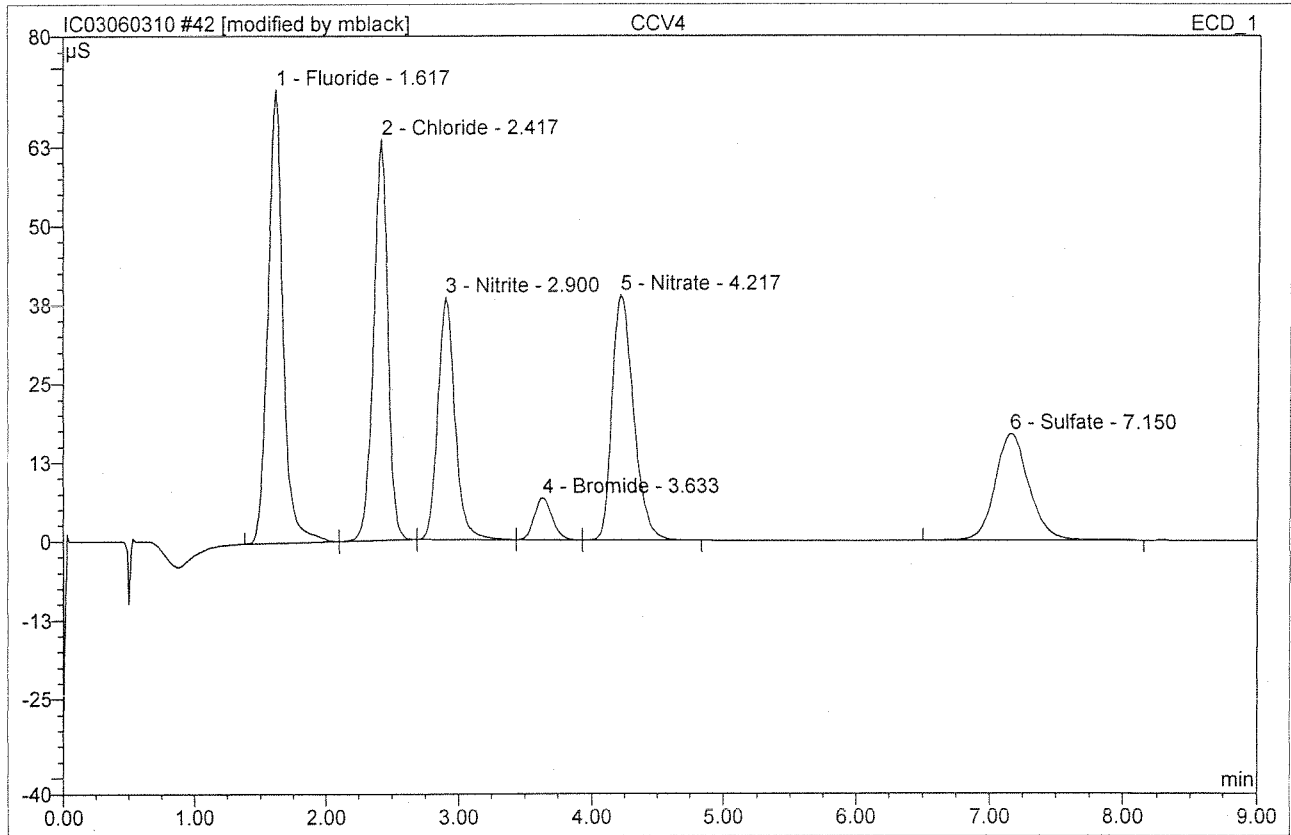


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.32	Chloride	0.715	1.022	100.00	0.656	BMB
<b>Total:</b>			0.715	1.022	100.00	0.656	

Before

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<b>42 CCV4</b>			
<b>CCV4</b>			
Sample Name:	CCV4	Injection Volume:	200.0
Vial Number:	39	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 15:30	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



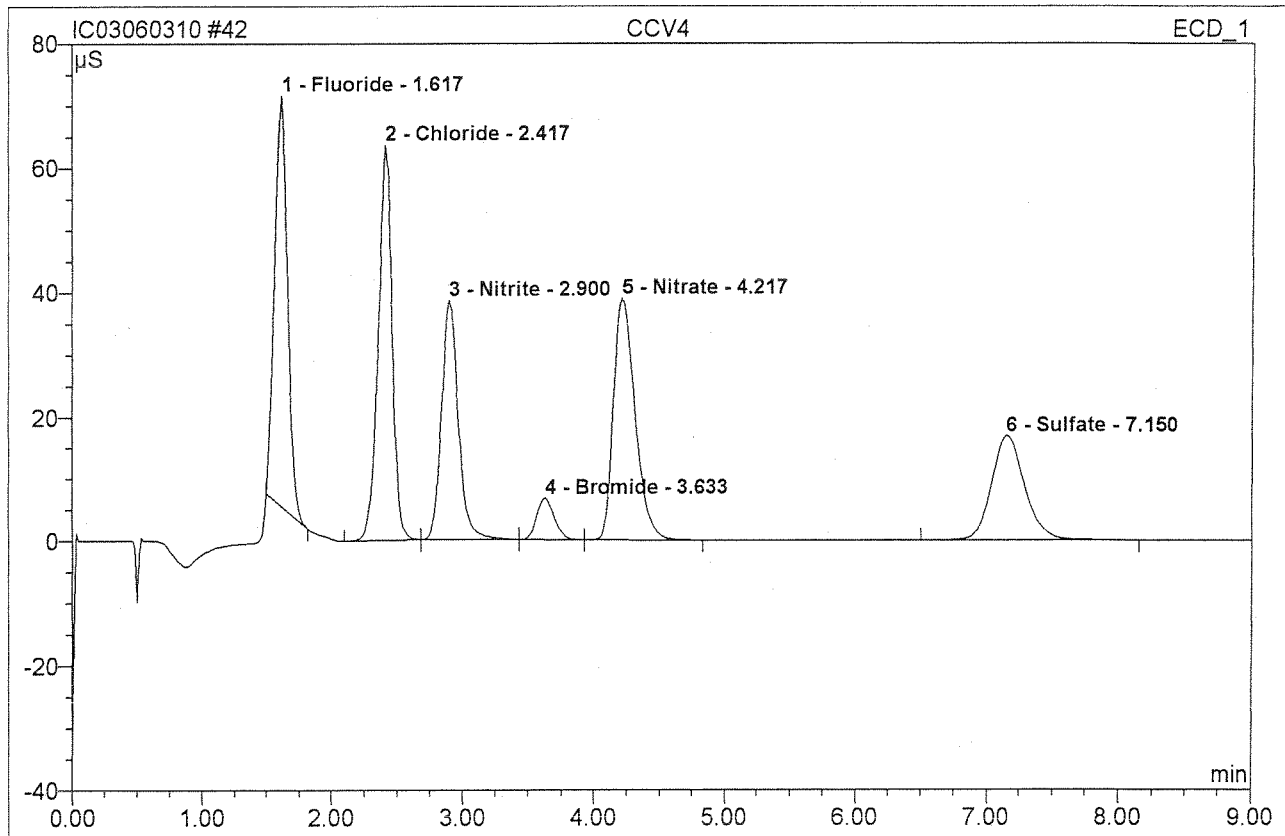
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.62	Fluoride	71.893	9.624	26.43	5.030/101%	BMB*
2	2.42	Chloride	63.571	7.768	21.33	4.981/100%	bMb*
3	2.90	Nitrite	38.473	5.711	15.69	1.978/99%	bMb
4	3.63	Bromide	6.726	1.052	2.89	1.964/82%	bMb
5	4.22	Nitrate	38.934	7.318	20.10	1.986/100%	bMB
6	7.15	Sulfate	16.893	4.939	13.56	5.019/100%	BMB
<b>Total:</b>			236.490	36.412	100.00	20.957	

After  
mblack  
18  
JUN 03 2010

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**42 CCV4****CCV4**

Sample Name:	CCV4	Injection Volume:	200.0
Vial Number:	39	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 15:30	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	1.62	Fluoride	65.994	7.598	22.10	3.971	BMB
2	2.42	Chloride	63.571	7.768	22.59	4.981	BMb
3	2.90	Nitrite	38.473	5.711	16.61	1.978	bMb
4	3.63	Bromide	6.726	1.052	3.06	1.964	bMb
5	4.22	Nitrate	38.934	7.318	21.28	1.986	bMB
6	7.15	Sulfate	16.893	4.939	14.36	5.019	BMB
<b>Total:</b>			230.590	34.386	100.00	19.899	

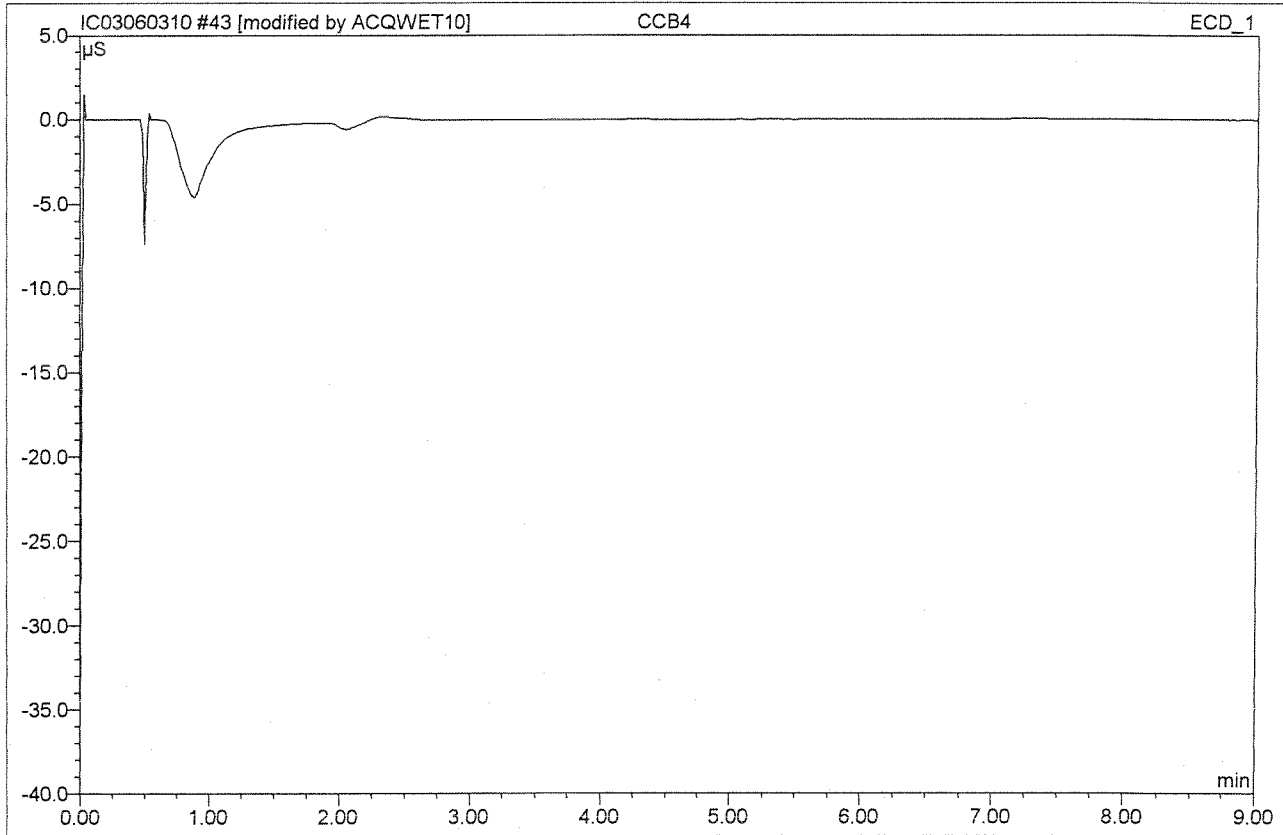
Before

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**43 CCB4**

**CCB4**

Sample Name:	CCB4	Injection Volume:	200.0
Vial Number:	40	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 15:41	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

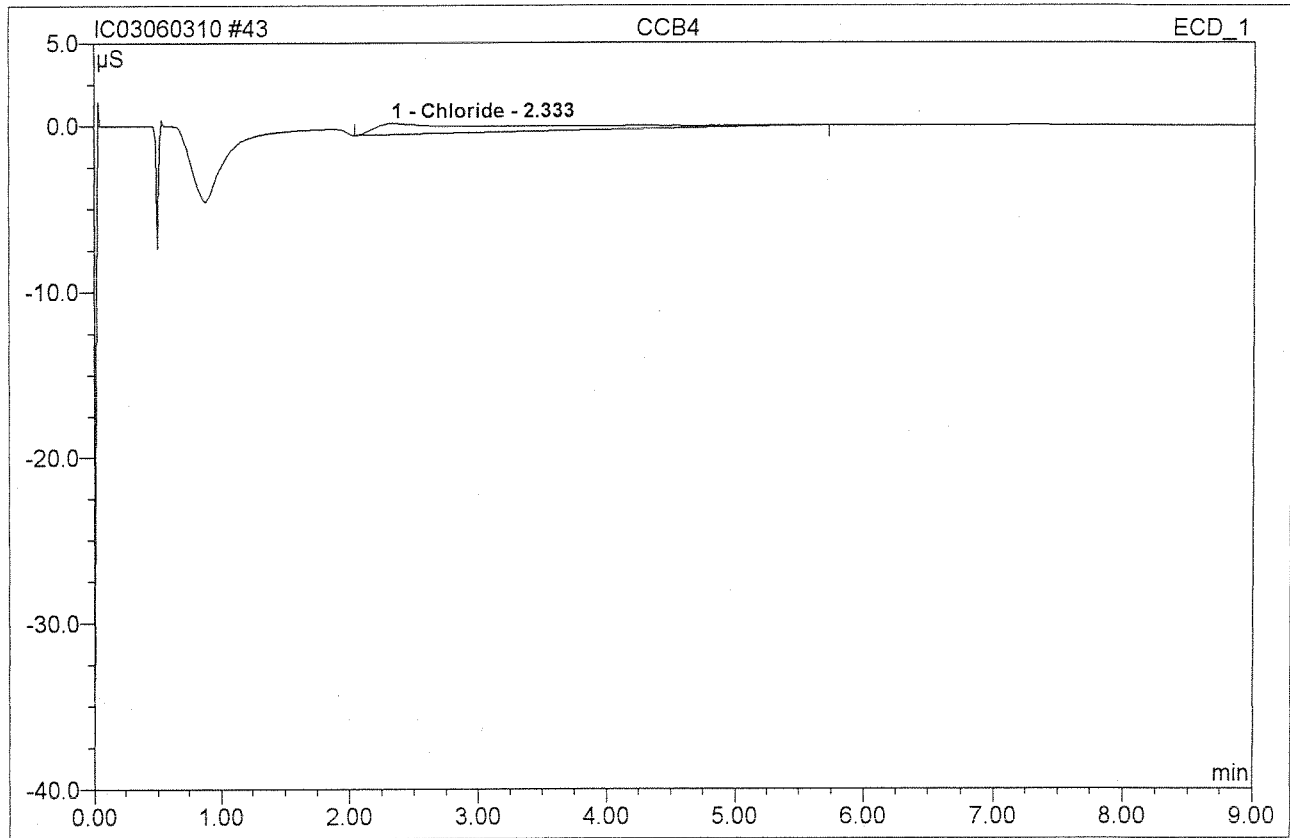
ACQWET10

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JUN 03 2010

*26/4/10*

<b>43 CCB4</b>			
<b>CCB4</b>			
Sample Name:	CCB4	Injection Volume:	200.0
Vial Number:	40	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 15:41	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

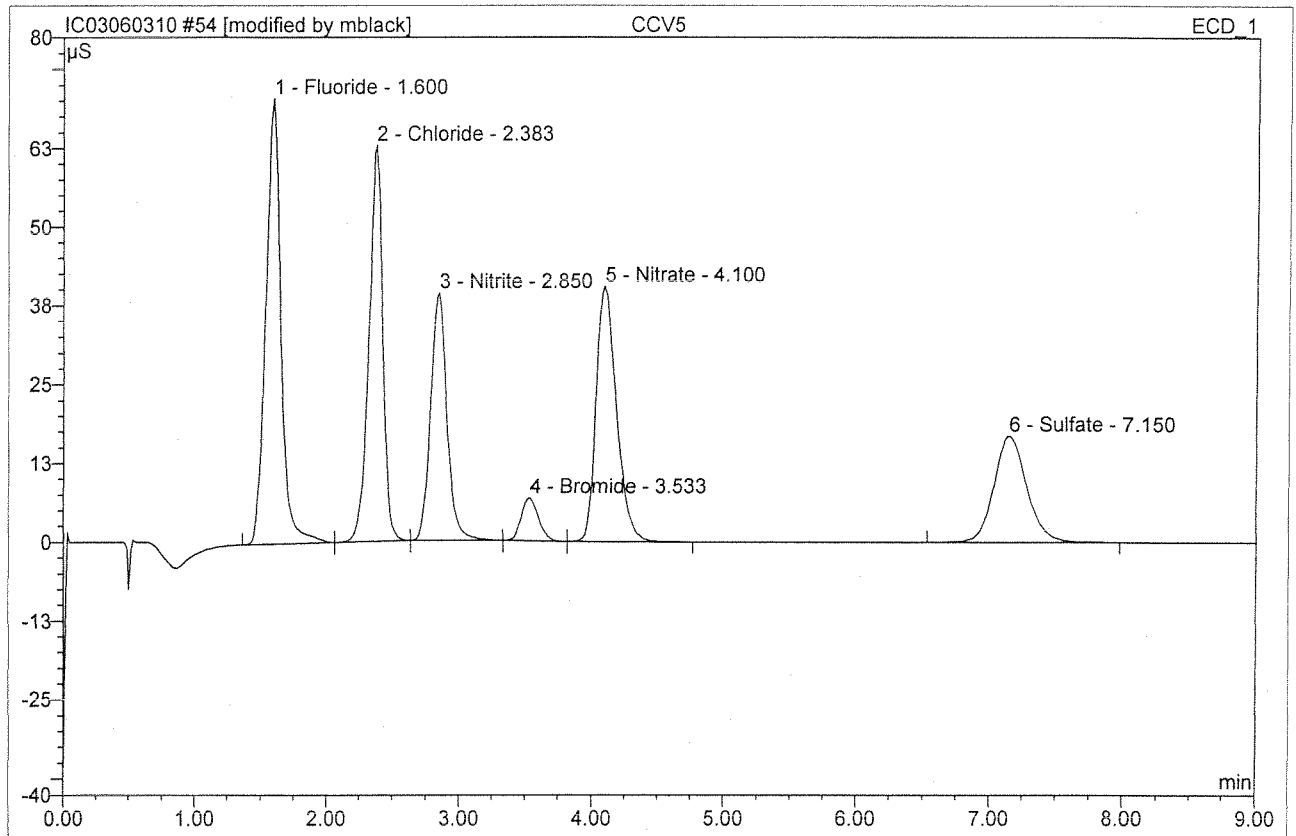


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.33	Chloride	0.712	1.000	100.00	0.641	BMB
<b>Total:</b>			0.712	1.000	100.00	0.641	

Before

JUN 03 2010

<b>54 CCV5</b>			
<b>CCV5</b>			
Sample Name:	CCV5	Injection Volume:	200.0
Vial Number:	51	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 17:48	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



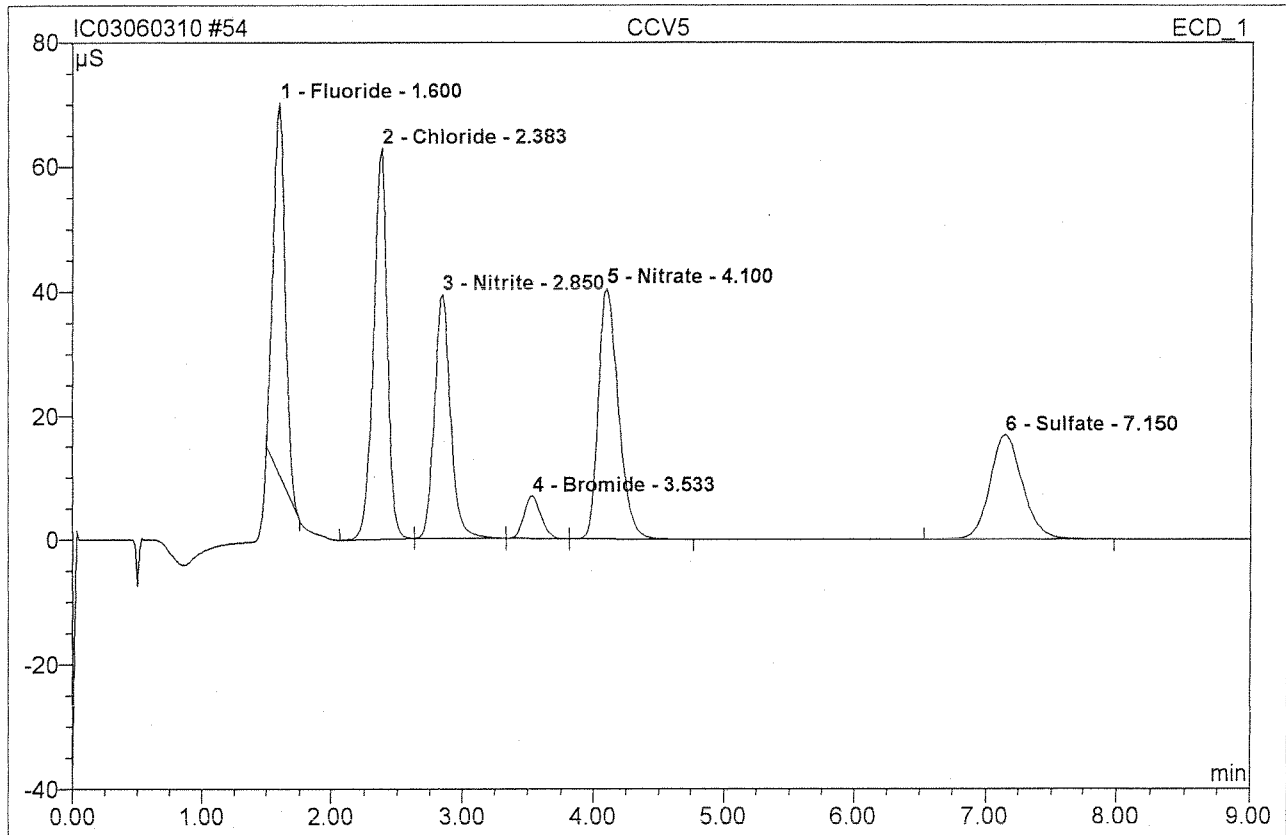
No.	Ret.Time min	Peak Name	Height $\mu\text{S}$	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount	Type
1	1.60	Fluoride	70.654	9.394	26.29	4.909 <sup>782</sup>	BMB*
2	2.38	Chloride	62.876	7.590	21.24	4.867 <sup>779</sup>	bMb*
3	2.85	Nitrite	39.292	5.640	15.79	1.953 <sup>787</sup>	bMb
4	3.53	Bromide	6.905	1.032	2.89	1.926 <sup>778</sup>	bMb
5	4.10	Nitrate	40.464	7.224	20.22	1.961 <sup>787</sup>	bMB
6	7.15	Sulfate	16.866	4.850	13.57	4.928 <sup>779</sup>	BMB
<b>Total:</b>			237.057	35.729	100.00	20.544	

After Initials MB

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<b>54 CCV5</b>			
<b>CCV5</b>			
Sample Name:	CCV5	Injection Volume:	200.0
Vial Number:	51	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 17:48	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

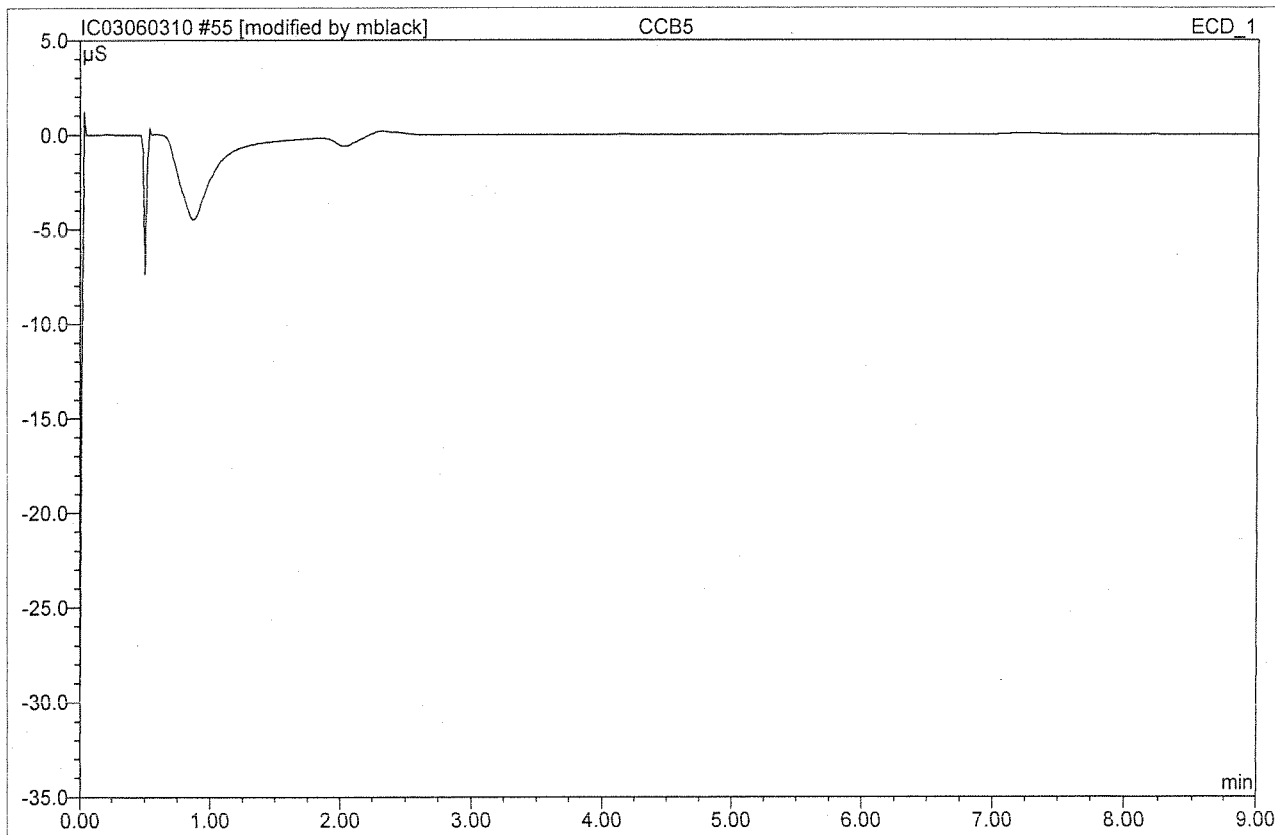


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	59.890	6.280	19.25	3.282	BMB
2	2.38	Chloride	62.876	7.590	23.27	4.867	BMb
3	2.85	Nitrite	39.292	5.640	17.29	1.953	bMb
4	3.53	Bromide	6.905	1.032	3.16	1.926	bMb
5	4.10	Nitrate	40.464	7.224	22.15	1.961	bMB
6	7.15	Sulfate	16.866	4.850	14.87	4.928	BMB
<b>Total:</b>			226.293	32.615	100.00	18.917	

Before

JUN 04 2010

<b>55 CCB5</b>			
<b>CCB5</b>			
Sample Name:	CCB5	Injection Volume:	200.0
Vial Number:	52	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 17:59	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

After Initials

B

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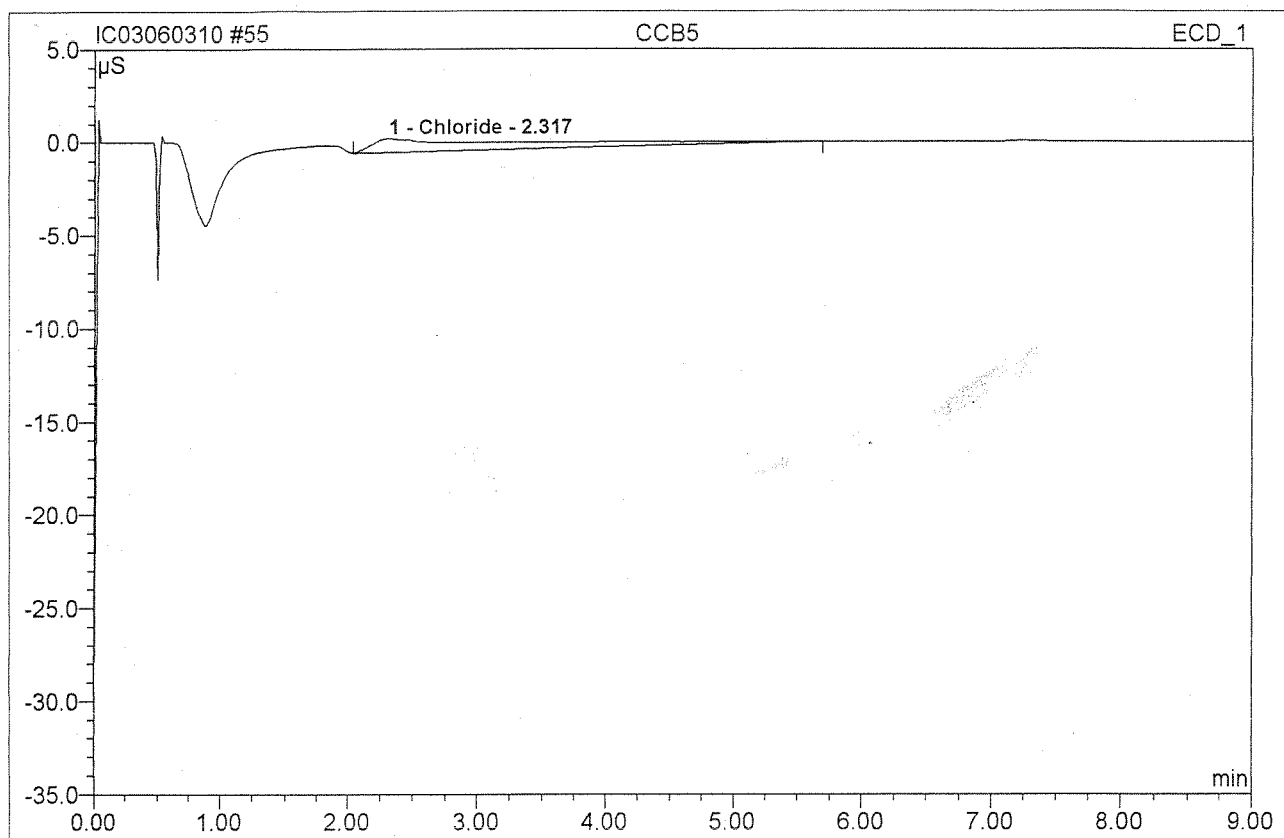
JUN 04 2010



### 55 CCB5

#### CCB5

Sample Name:	CCB5	Injection Volume:	200.0
Vial Number:	52	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 17:59	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

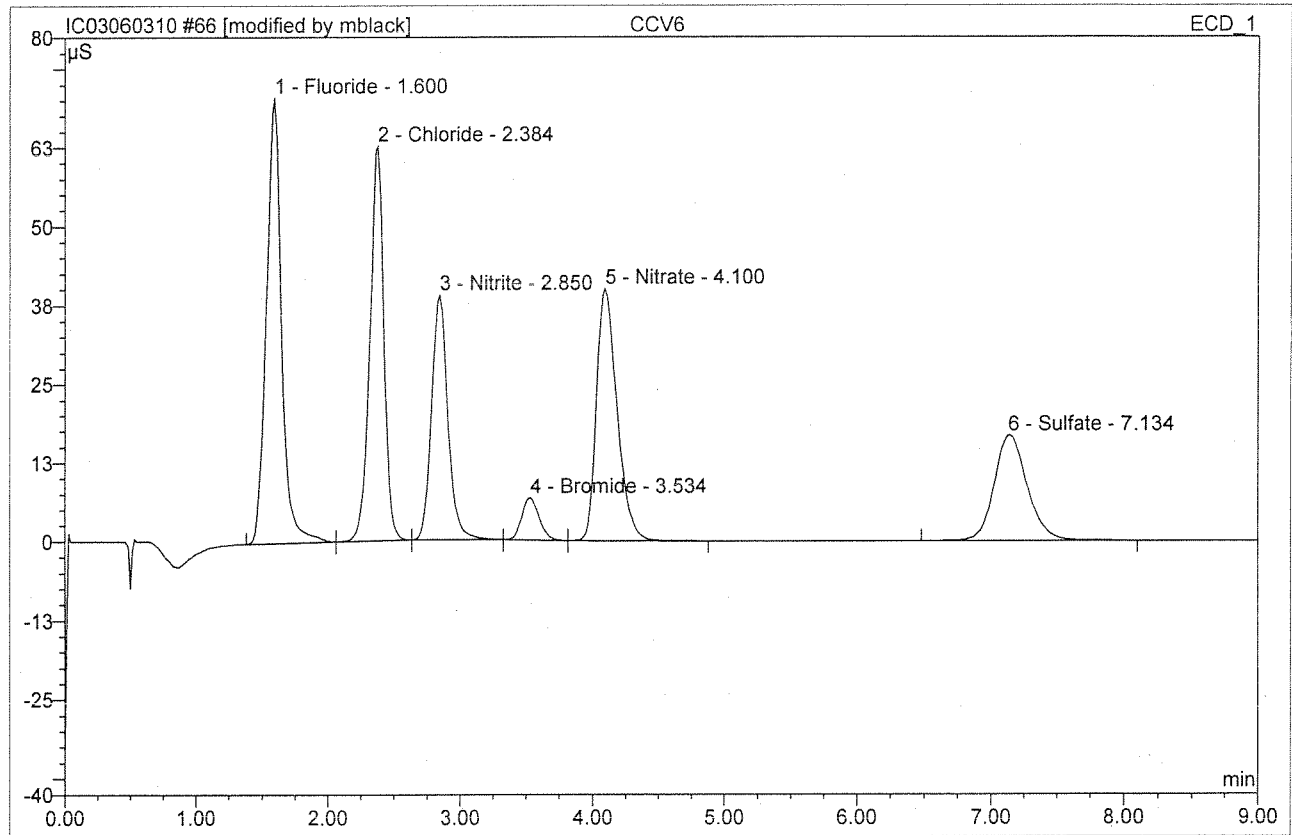


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.32	Chloride	0.739	1.036	100.00	0.664	BMB
<b>Total:</b>			0.739	1.036	100.00	0.664	

Before

JUN 04 2010

<b>66 CCV6</b>			
<b>CCV6</b>			
Sample Name:	CCV6	Injection Volume:	200.0
Vial Number:	63	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 20:05	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	70.721	9.430	26.29	4.928 <sup>97?</sup>	BMB*
2	2.38	Chloride	62.656	7.661	21.36	4.912 <sup>98?</sup>	bMB*
3	2.85	Nitrite	38.964	5.625	15.68	1.948 <sup>95?</sup>	bMb
4	3.53	Bromide	6.833	1.032	2.88	1.926 <sup>97?</sup>	bMb
5	4.10	Nitrate	40.035	7.253	20.22	1.969 <sup>97?</sup>	bMB
6	7.13	Sulfate	16.806	4.872	13.58	4.951 <sup>99?</sup>	BMB
<b>Total:</b>			236.015	35.872	100.00	20.634	

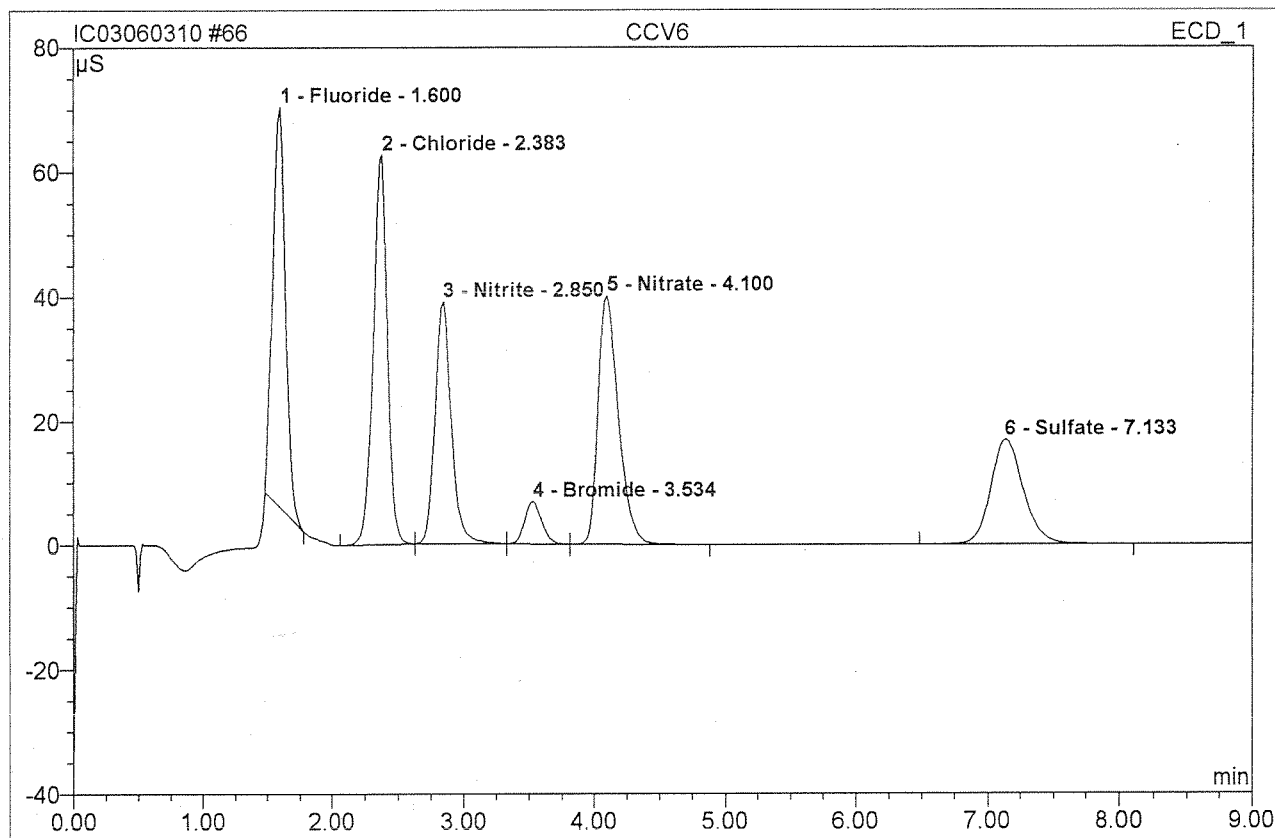
After Initials

MB

*6/4/10*

JUN 04 2010

<b>66 CCV6</b>			
<b>CCV6</b>			
Sample Name:	CCV6	Injection Volume:	200.0
Vial Number:	63	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 20:05	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

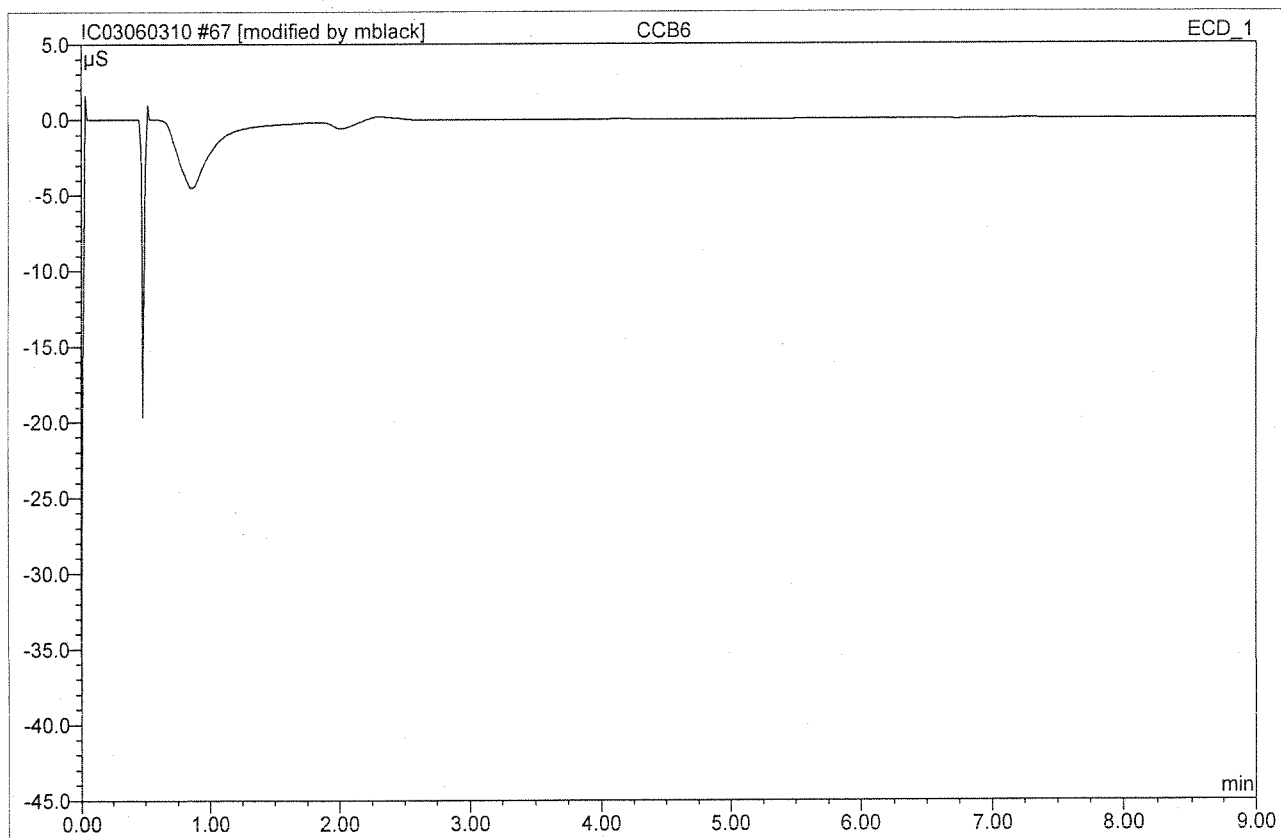


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	64.296	7.288	21.61	3.809	BMB
2	2.38	Chloride	62.656	7.661	22.71	4.912	BMB
3	2.85	Nitrite	38.964	5.625	16.68	1.948	bMb
4	3.53	Bromide	6.833	1.032	3.06	1.926	bMb
5	4.10	Nitrate	40.035	7.253	21.50	1.969	bMB
6	7.13	Sulfate	16.806	4.872	14.45	4.951	BMB
<b>Total:</b>			229.591	33.730	100.00	19.515	

Before

JUN 04 2010

<b>67 CCB6</b>			
<b>CCB6</b>			
Sample Name:	CCB6	Injection Volume:	200.0
Vial Number:	64	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 20:17	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
<b>Total:</b>			0.000	0.000	0.00	0.000	

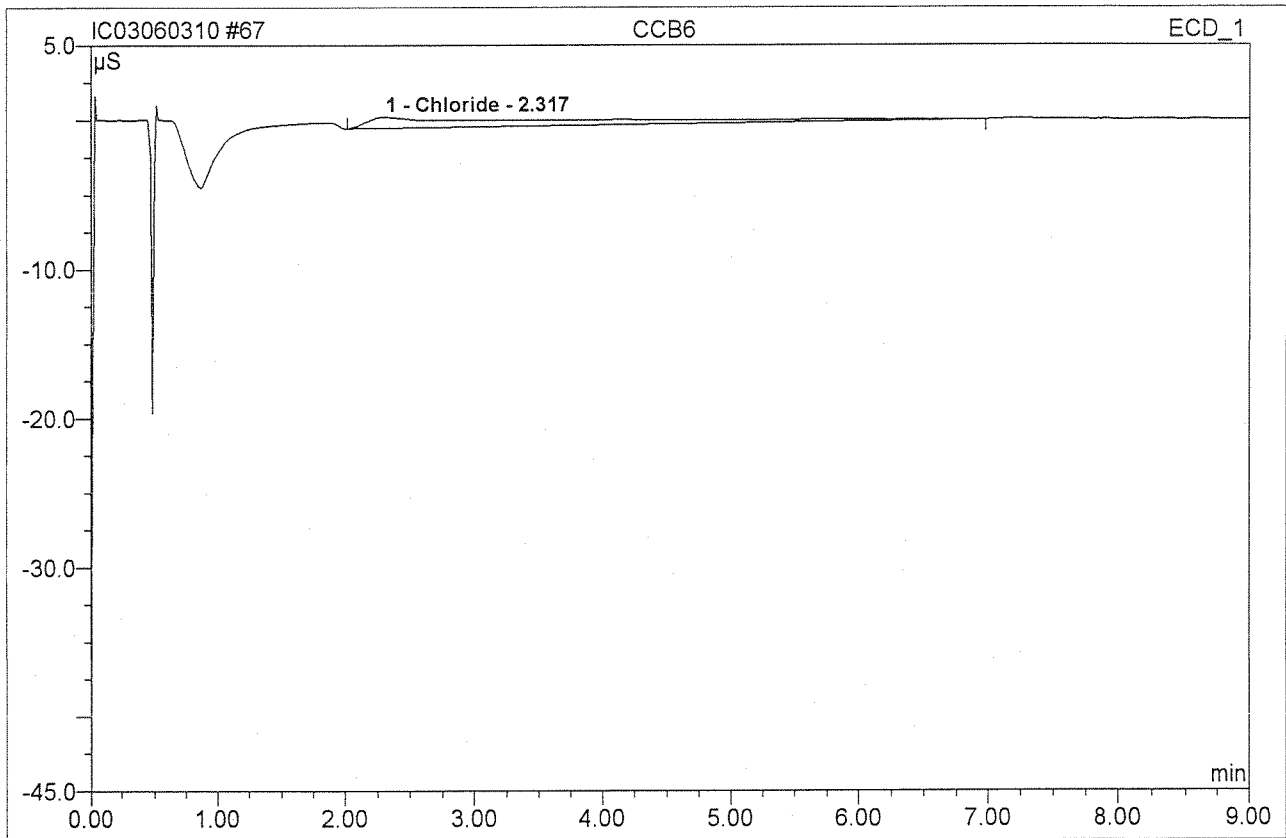
After Initials

MB

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<b>67 CCB6</b>			
<b>CCB6</b>			
Sample Name:	CCB6	Injection Volume:	200.0
Vial Number:	64	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 20:17	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

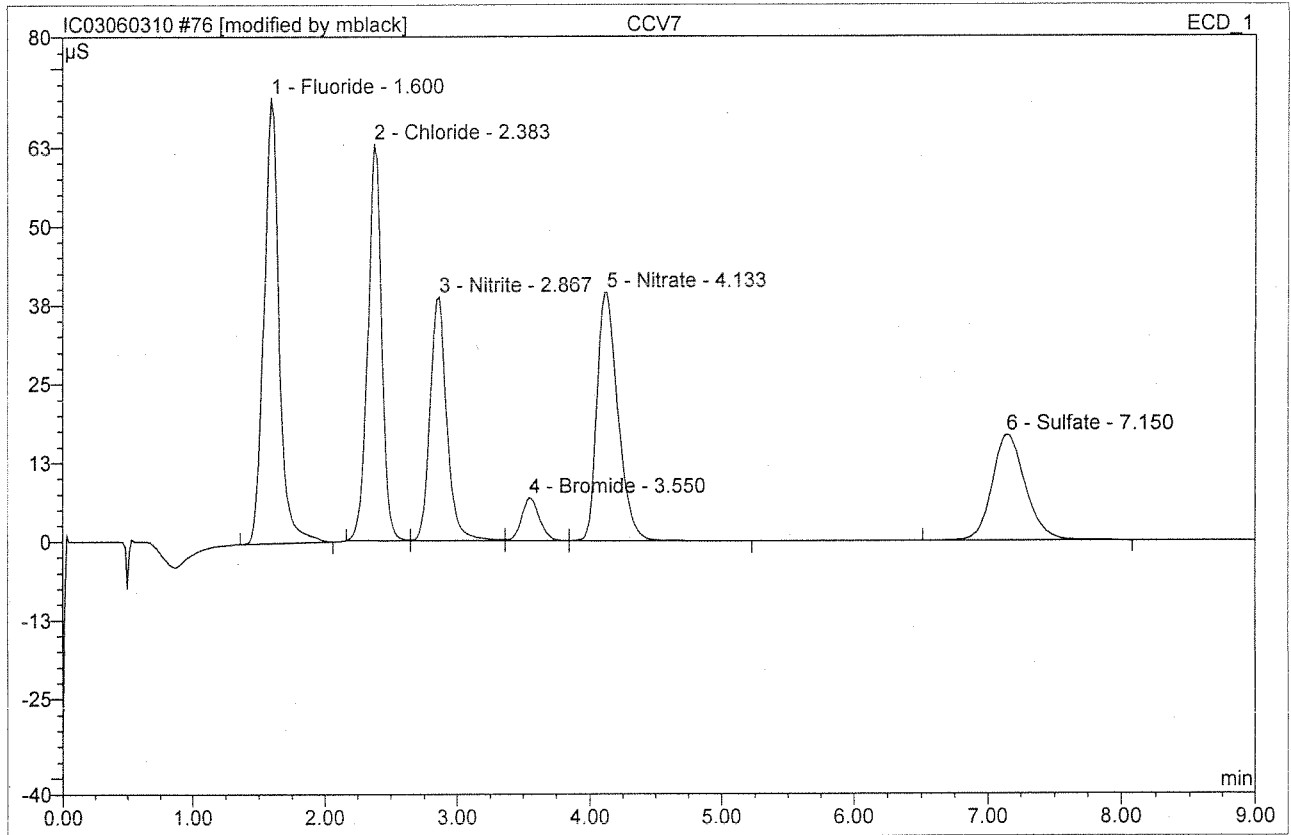


No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	2.32	Chloride	0.758	1.419	100.00	0.910	BMB
<b>Total:</b>			0.758	1.419	100.00	0.910	

Before

JUN 04 2010

<b>76 CCV7</b>			
<b>CCV7</b>			
Sample Name:	CCV7	Injection Volume:	200.0
Vial Number:	73	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 22:00	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



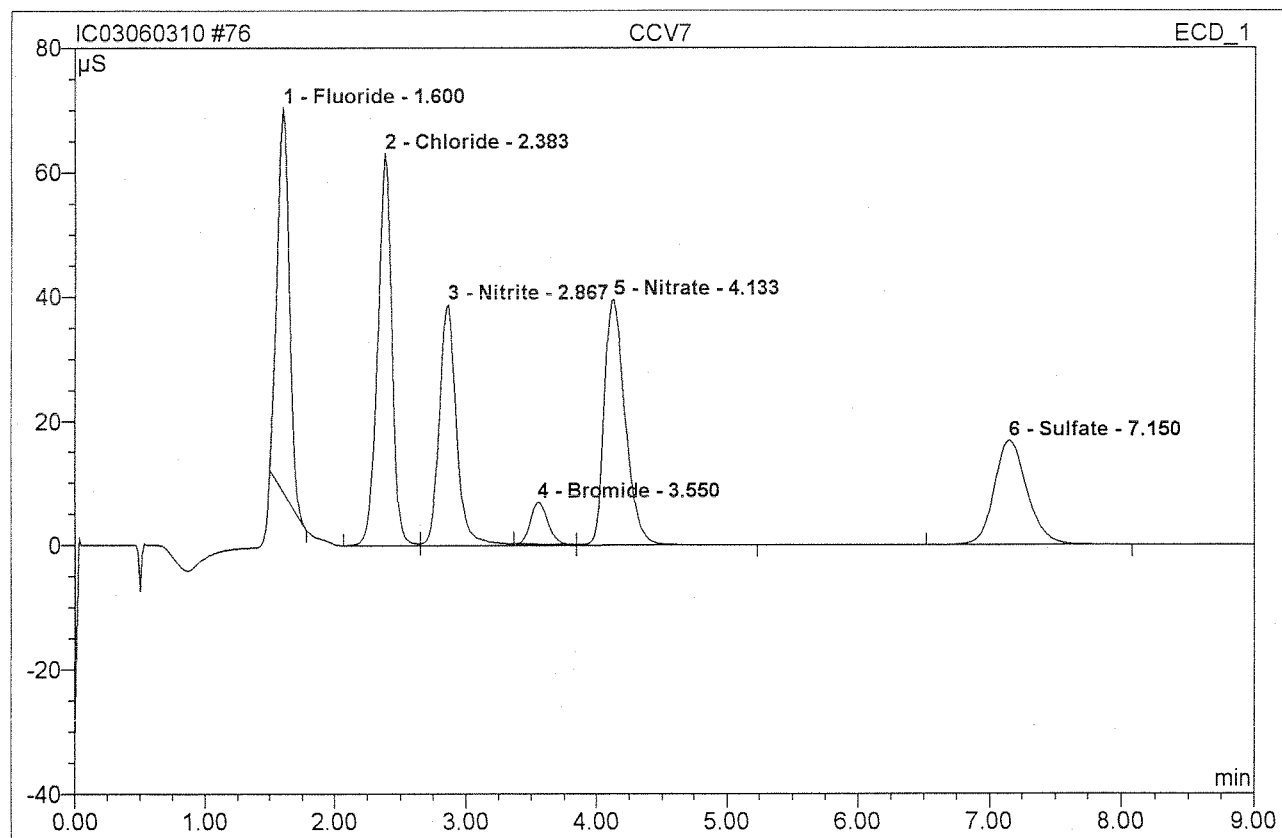
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	70.698	9.415	26.17	4.921 <sup>98%</sup>	BMB*
2	2.38	Chloride	62.931	7.631	21.21	4.893 <sup>98%</sup>	BM*
3	2.87	Nitrite	38.630	5.729	15.92	1.984 <sup>99%</sup>	M*
4	3.55	Bromide	6.847	1.064	2.96	1.986 <sup>100%</sup>	M*
5	4.13	Nitrate	39.447	7.249	20.15	1.968 <sup>99%</sup>	MB*
6	7.15	Sulfate	16.828	4.890	13.59	4.969 <sup>99%</sup>	BMB
<b>Total:</b>			235.381	35.979	100.00	20.721	

After Intols MB

JUN 04 2010

MB 6/4/10

<b>76 CCV7</b>			
<b>CCV7</b>			
Sample Name:	CCV7	Injection Volume:	200.0
Vial Number:	73	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 22:00	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

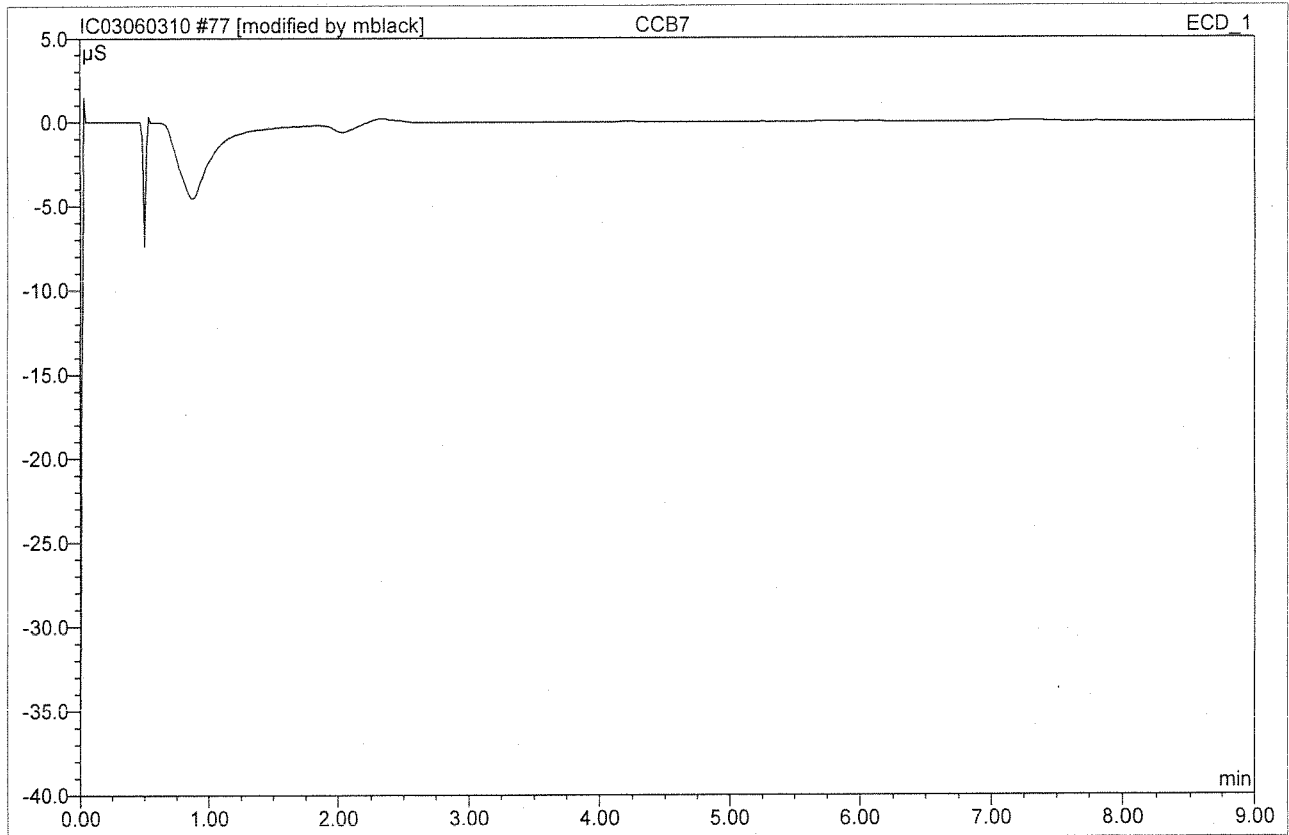


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	61.679	6.713	19.95	3.509	BMB
2	2.38	Chloride	63.156	7.746	23.02	4.967	BM
3	2.87	Nitrite	38.817	5.946	17.67	2.059	M
4	3.55	Bromide	6.774	1.036	3.08	1.933	Rd
5	4.13	Nitrate	39.534	7.325	21.76	1.988	MB
6	7.15	Sulfate	16.828	4.890	14.53	4.969	BMB
<b>Total:</b>			226.787	33.656	100.00	19.425	

Before

JUN 04 2010

<b>77 CCB7</b>			
<b>CCB7</b>			
Sample Name:	CCB7	Injection Volume:	200.0
Vial Number:	74	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 22:11	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
<b>Total:</b>			0.000	0.000	0.00	0.000	

After Initials

*MB*

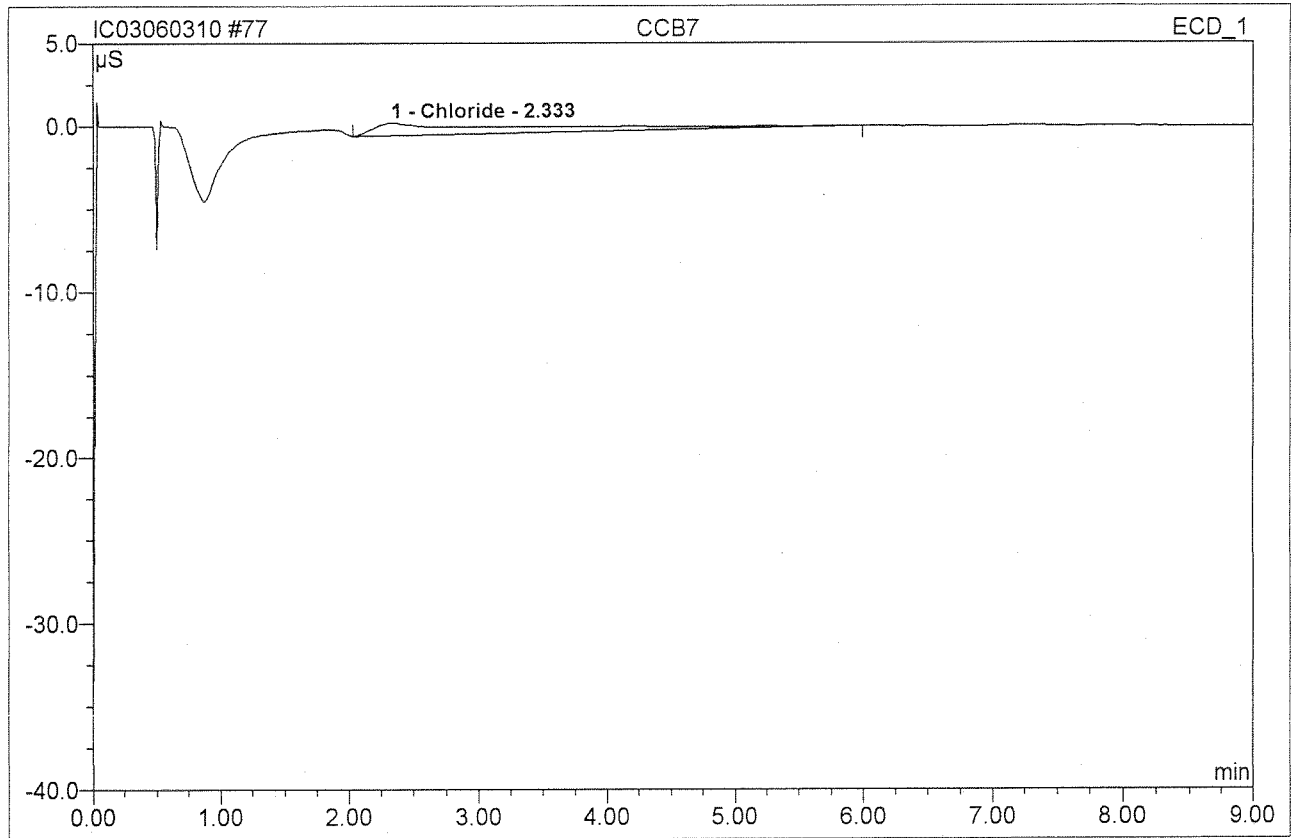
JUN 04 2010

*Signature*  
When a peak is not found  
 the following information is printed

*6/4/10*



<b>77 CCB7</b>			
<b>CCB7</b>			
Sample Name:	CCB7	Injection Volume:	200.0
Vial Number:	74	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 22:11	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

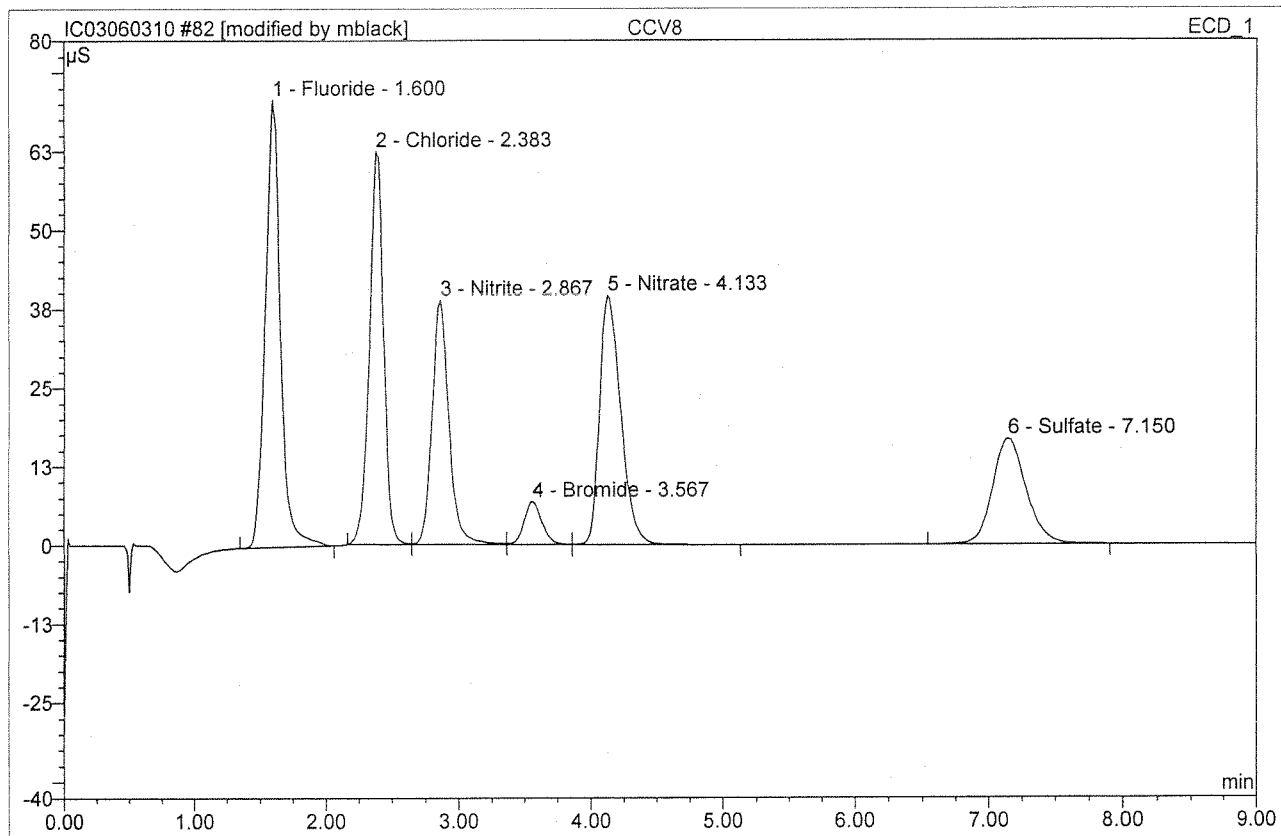


No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	2.33	Chloride	0.760	1.106	100.00	0.709	BMB
<b>Total:</b>			0.760	1.106	100.00	0.709	

Before

JUN 04 2010

<b>82 CCV8</b>			
<b>CCV8</b>			
Sample Name:	CCV8	Injection Volume:	200.0
Vial Number:	79	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 23:09	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
1	1.60	Fluoride	70.996	9.525	26.34	4.978 <sup>100%</sup>	BMB*
2	2.38	Chloride	62.314	7.673	21.22	4.920 <sup>95%</sup>	BM *
3	2.87	Nitrite	38.738	5.727	15.84	1.984 <sup>99%</sup>	M *
4	3.57	Bromide	6.835	1.072	2.96	2.001 <sup>100%</sup>	M *
5	4.13	Nitrate	39.506	7.291	20.16	1.979 <sup>99%</sup>	MB*
6	7.15	Sulfate	16.823	4.879	13.49	4.958 <sup>99%</sup>	BMB
<b>Total:</b>			235.213	36.168	100.00	20.821	

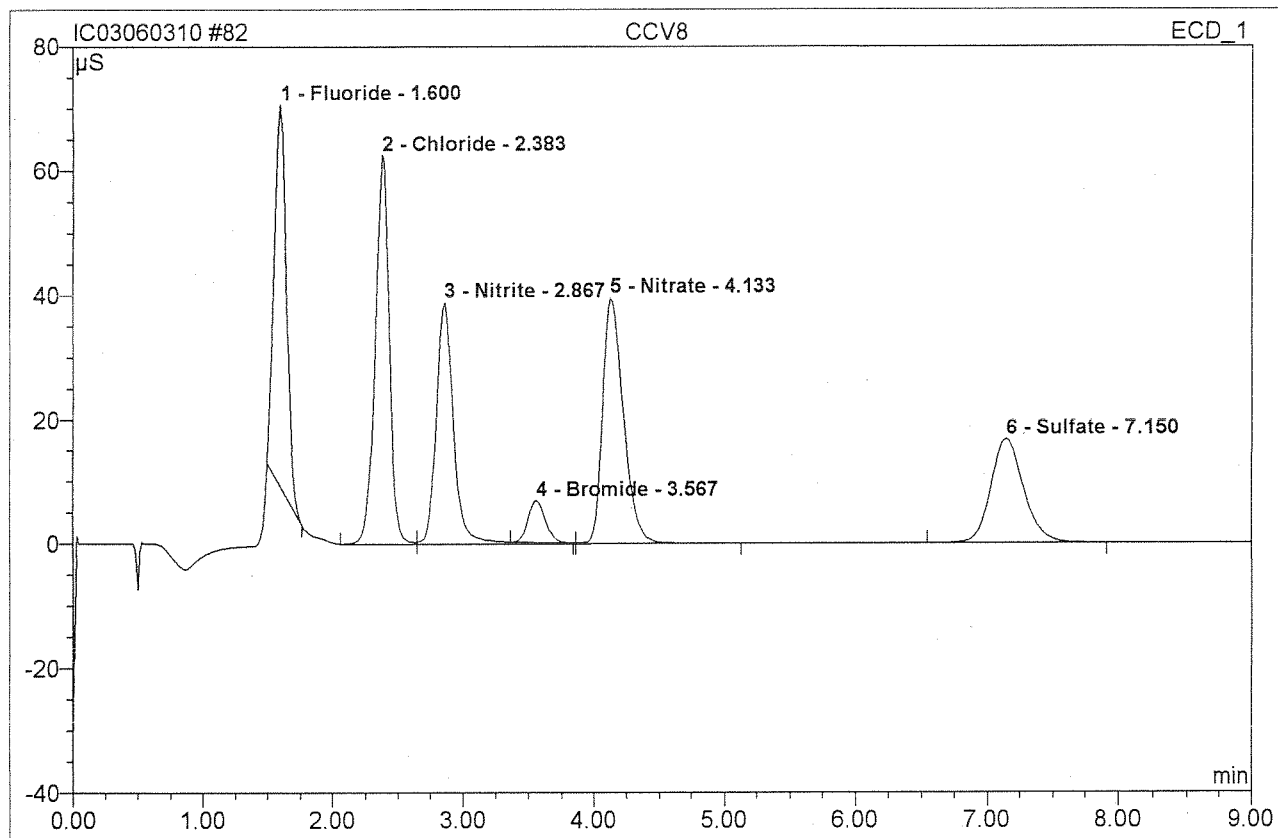
After Initial

*MB*

JUN 04 2010

*206/4/10*

<b>82 CCV8</b>			
<b>CCV8</b>			
Sample Name:	CCV8	Injection Volume:	200.0
Vial Number:	79	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 23:09	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000

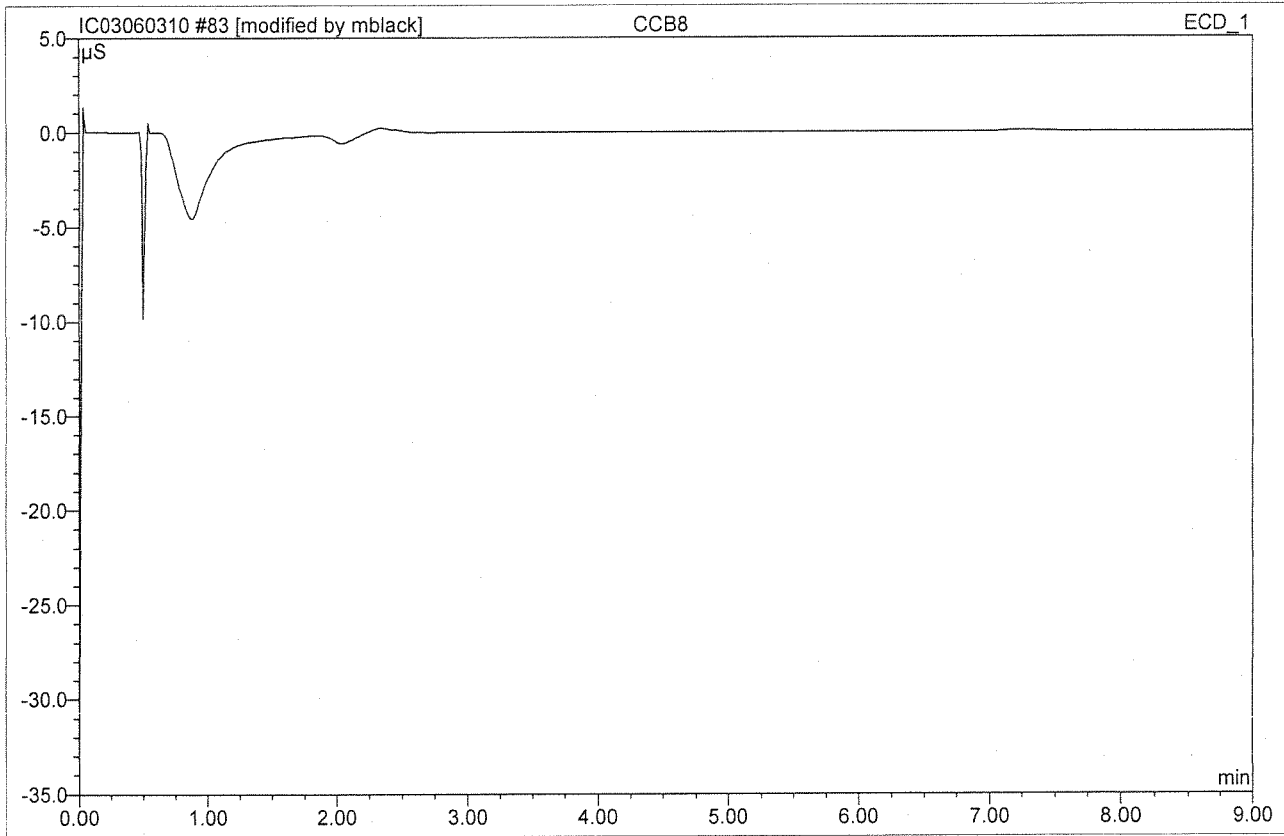


No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	1.60	Fluoride	61.399	6.668	19.82	3.485	BMB
2	2.38	Chloride	62.515	7.776	23.12	4.986	BM
3	2.87	Nitrite	38.903	5.928	17.62	2.053	M
4	3.57	Bromide	6.754	1.038	3.09	1.938	Rd
5	4.13	Nitrate	39.579	7.349	21.85	1.995	MB
6	7.15	Sulfate	16.823	4.879	14.50	4.958	BMB
<b>Total:</b>			225.973	33.638	100.00	19.415	

Before

JUN 04 2010

<b>83 CCB8</b>			
<b>CCB8</b>			
Sample Name:	CCB8	Injection Volume:	200.0
Vial Number:	80	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 23:20	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
<b>Total:</b>			0.000	0.000	0.00	0.000	

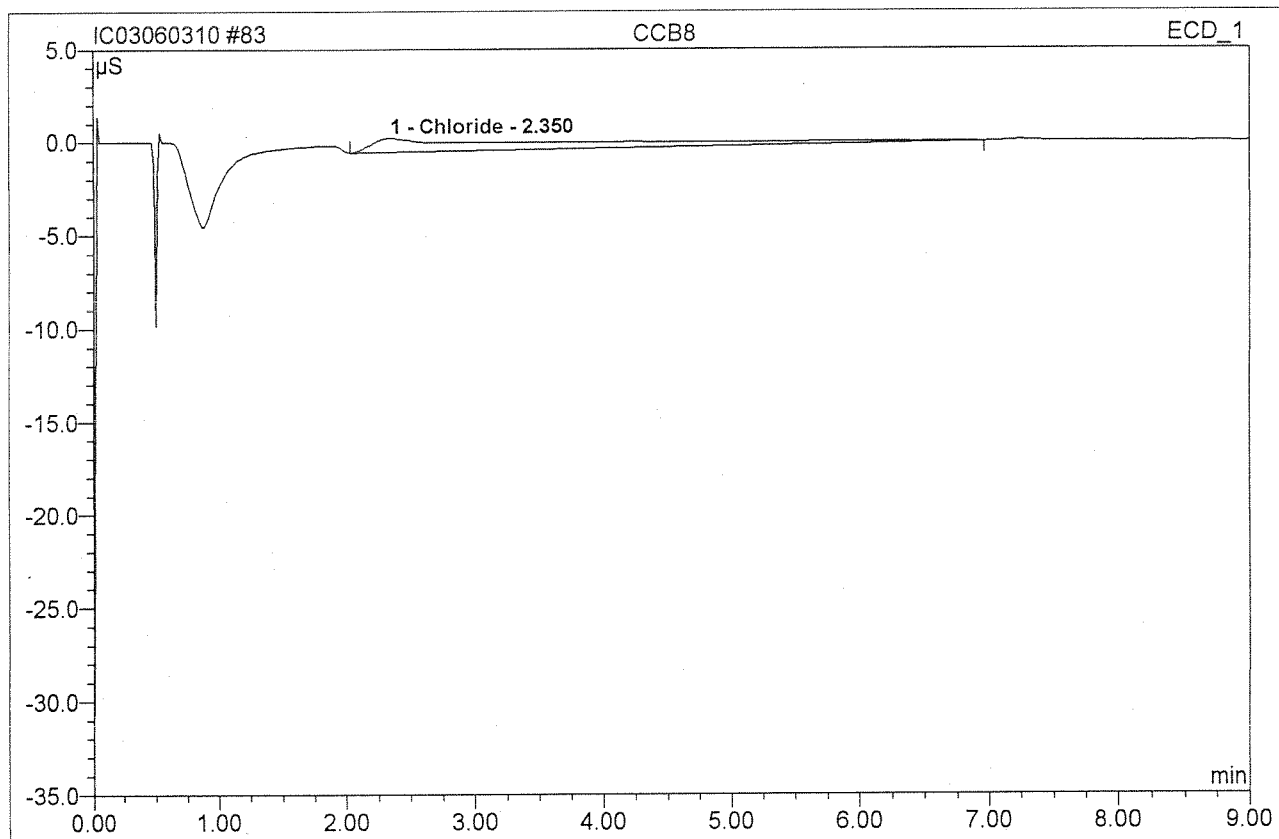
After  
initials

*MB*

JUN 04 2010

*26/4/10*

<b>83 CCB8</b>			
<b>CCB8</b>			
Sample Name:	CCB8	Injection Volume:	200.0
Vial Number:	80	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	6/3/2010 23:20	Sample Weight:	1.0000
Run Time (min):	9.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	2.35	Chloride	0.768	1.391	100.00	0.892	BMB
<b>Total:</b>			0.768	1.391	100.00	0.892	

Before

JUN 04 2010

COLUMBIA ANALYTICAL SERVICES, INC.

Ion Chromatography Calibration Data

Sequence: IC03042610

Date: 04/26/10

Anion	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Corr.Coeff.	Slope
F	0.0	0.2	0.5	1.0	5.0	7.5	10.0	99.9846	1.9134
Cl	0.0	0.2	0.5	1.0	5.0	7.5	10.0	99.9661	1.5595
NO2	0.0	0.1	0.5	1.0	2.0	5.0	-	99.9925	2.8873
Br	0.0	0.1	0.5	1.0	2.0	5.0	-	99.9591	0.5358
NO3	0.0	0.1	0.5	1.0	2.0	5.0	-	99.9043	3.6839
SO4	0.0	0.2	0.5	1.0	5.0	7.5	10.0	99.9690	0.9841

All calibration standard concentrations are in mg/L unless otherwise noted.  
Zero point forced through zero.

6/11/10

COLUMBIA ANALYTICAL SERVICES, INC.

Ion Chromatography Calibration Data

Sequence: IC03042610

Date: 04/26/10

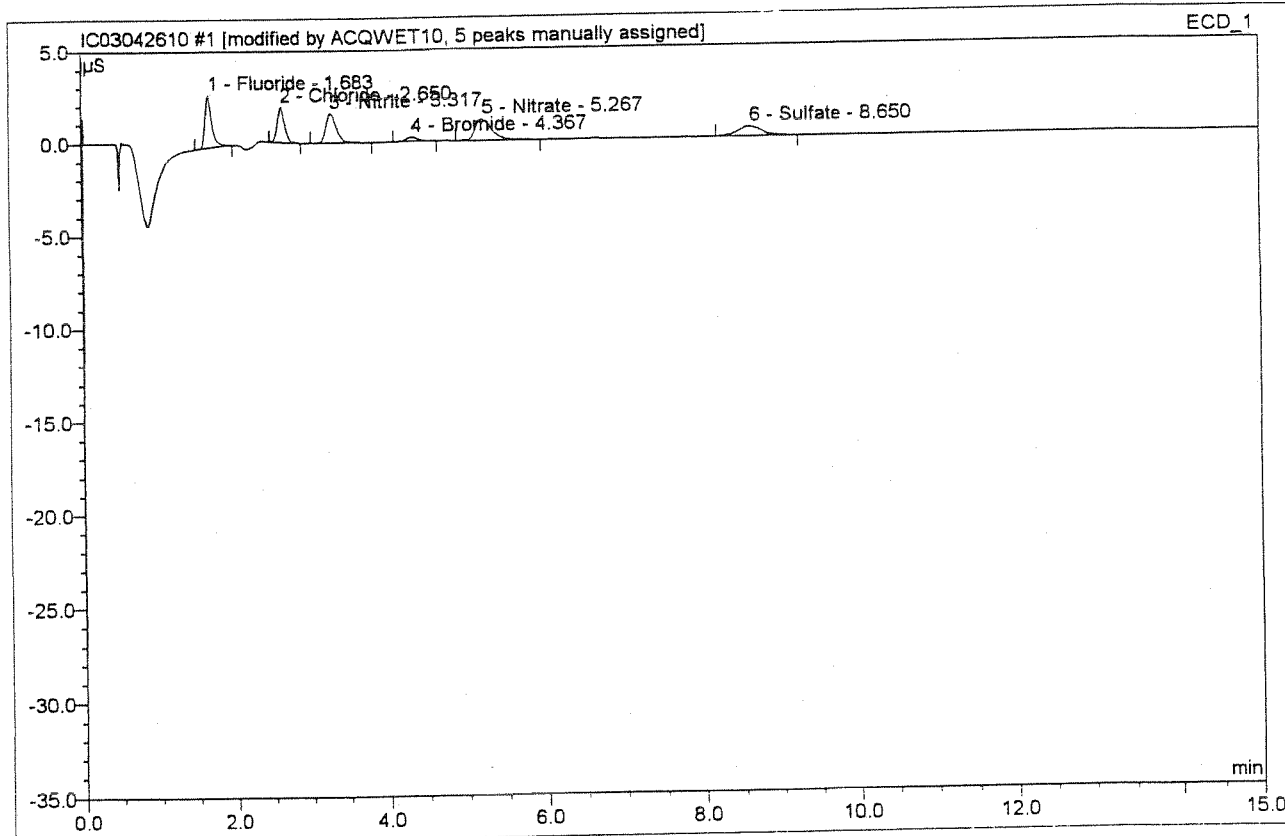
Anion	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Corr.Coeff.	Slope
F	0.0	0.2	0.5	1.0	5.0	7.5	10.0	99.9846	1.9134
Cl	0.0	0.2	0.5	1.0	5.0	7.5	10.0	99.9661	1.5595
NO2	0.0	0.1	0.5	1.0	2.0	5.0	-	99.9925	2.8873
Br	0.0	0.1	0.5	1.0	2.0	5.0	-	99.9591	0.5358
NO3	0.0	0.1	0.5	1.0	2.0	5.0	-	99.9043	3.6839
SO4	0.0	0.2	0.5	1.0	5.0	7.5	10.0	99.9690	0.9841

All calibration standard concentrations are in mg/L unless otherwise noted.  
Zero point forced through zero.

6/14/10

1 std2/lvl2

Sample Name:	std2/lvl2	Injection Volume:	200.0
Vial Number:	1	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 8:54	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height $\mu$ S	Area $\mu$ S*min	Rel.Area %	Amount	Type
1	1.68	Fluoride	2.860	0.324	24.73	0.169	BMB*
2	2.65	Chloride	1.892	0.229	17.47	0.147	BMB^
3	3.32	Nitrite	1.586	0.259	19.78	0.090	BMB^
4	4.37	Bromide	0.244	0.043	3.25	0.080	BMB*^
5	5.27	Nitrate	1.144	0.279	21.26	0.076	BMB^
6	8.65	Sulfate	0.507	0.177	13.51	0.180	BMB^
<b>Total:</b>			8.233	1.311	100.00	0.742	

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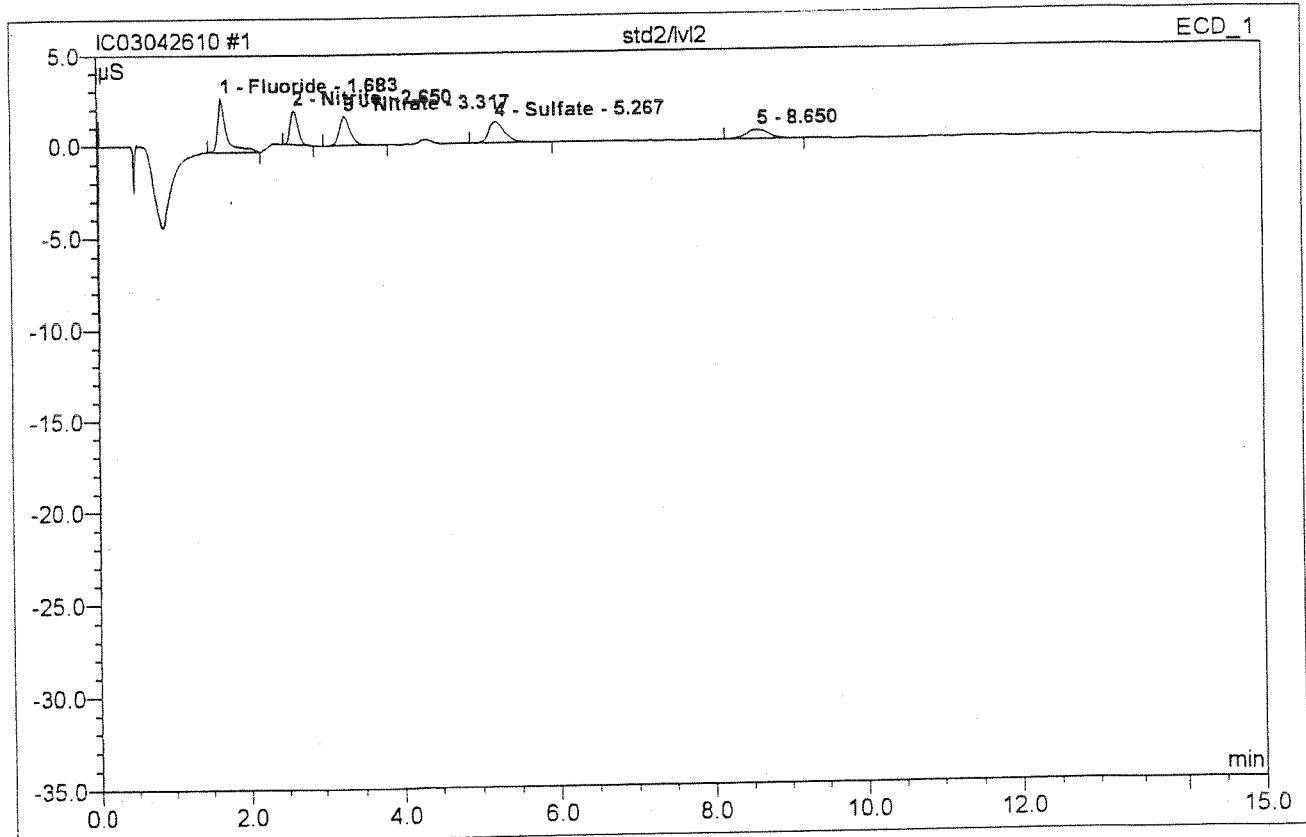
Chromeleon (c) Dionex 1996-2001  
Version 6.50 SP1 Build 956

default/integration



**1 std2/lvl2**

Sample Name:	std2/lvl2	Injection Volume:	200.0
Vial Number:	1	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 8:54	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height $\mu\text{S}$	Area $\mu\text{S}\cdot\text{min}$	Rel. Area %	Amount	Type
1	1.68	Fluoride	2.953	0.421	30.83	0.200	BMB
2	2.65	Nitrite	1.892	0.229	16.78	0.100	BMB
3	3.32	Nitrate	1.586	0.259	19.00	0.100	BMB
4	5.27	Sulfate	1.144	0.279	20.42	0.200	BMB
5	8.65	n.a.	0.507	0.177	12.97	n.a.	BMB
<b>Total:</b>			8.081	1.366	100.00	0.600	

Before

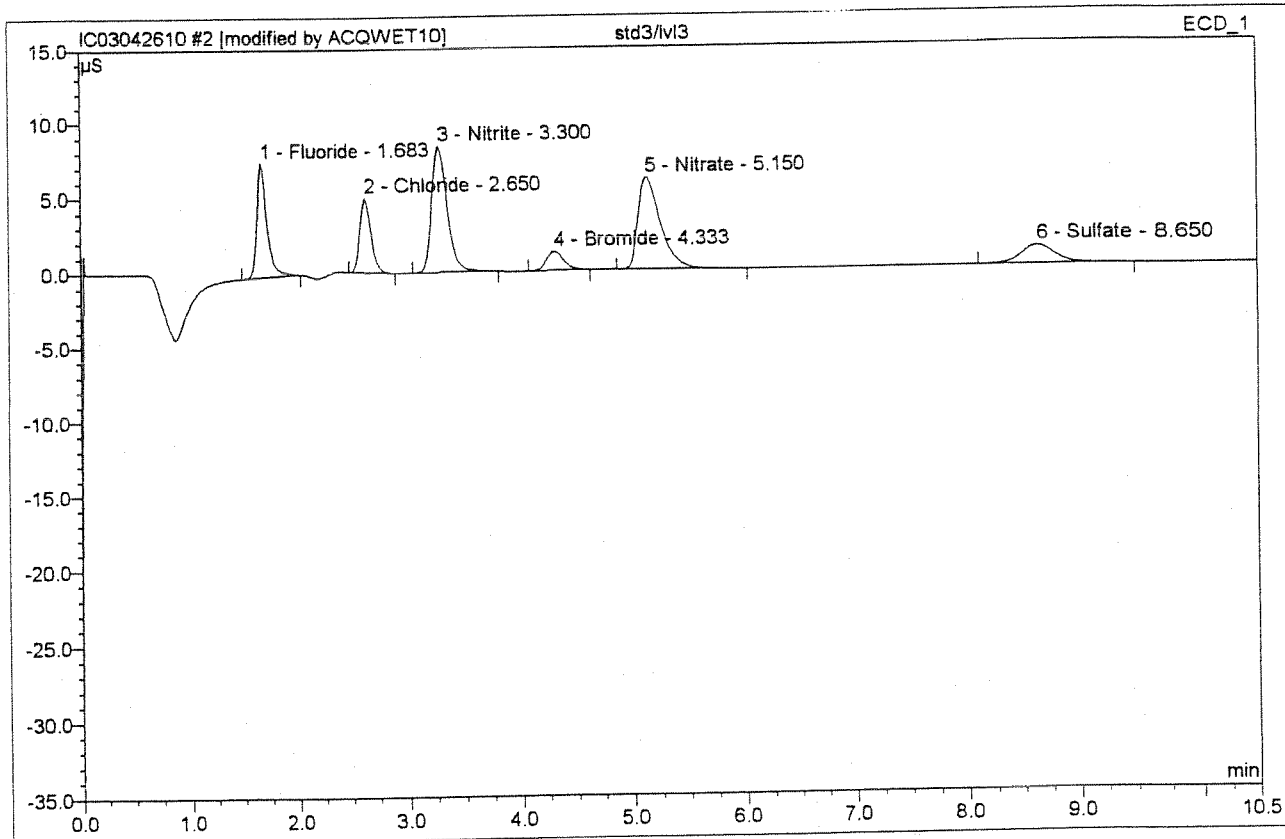
APR 26 2010

Chromeleon (c) Dionex 1996-2001  
Version 6.50 SP1 Build 956

default/integration

**2 std3/lvl3**

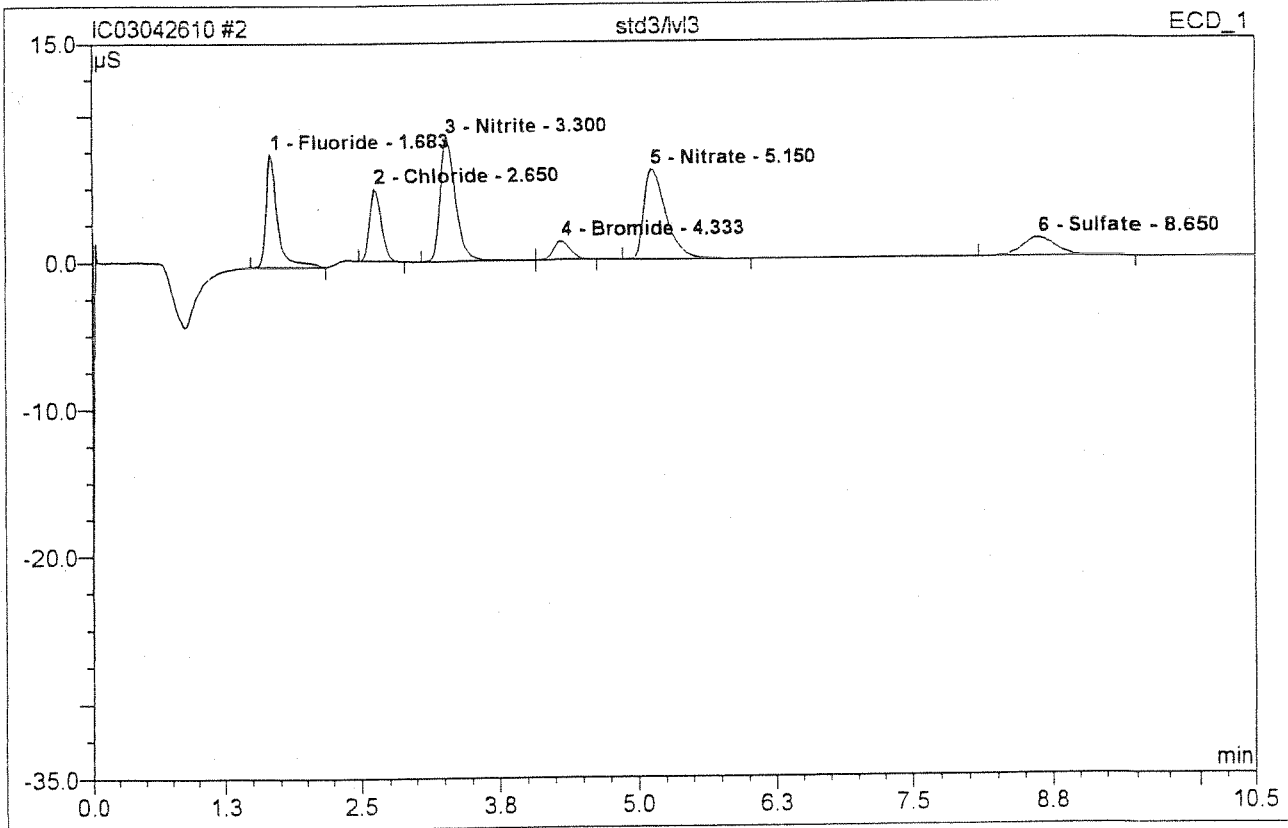
Sample Name:	std3/lvl3	Injection Volume:	200.0
Vial Number:	2	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 9:12	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height $\mu\text{S}$	Area $\mu\text{S}\cdot\text{min}$	Rel. Area %	Amount	Type
1	1.68	Fluoride	7.622	0.844	17.37	0.441	BMB*
2	2.65	Chloride	4.937	0.589	12.12	0.378	BMB
3	3.30	Nitrite	8.365	1.329	27.34	0.460	BMB*
4	4.33	Bromide	1.271	0.229	4.72	0.428	BMB*
5	5.15	Nitrate	6.087	1.425	29.30	0.387	BMB
6	8.65	Sulfate	1.253	0.445	9.16	0.452	BMB
<b>Total:</b>			29.536	4.862	100.00	2.547	

**2 std3/lvl3**

Sample Name:	std3/lvl3	Injection Volume:	200.0
Vial Number:	2	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 9:12	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.68	Fluoride	7.720	0.949	19.04	0.510	BMB
2	2.65	Chloride	4.937	0.589	11.82	0.502	BMB
3	3.30	Nitrite	8.377	1.347	27.02	0.501	BMB
4	4.33	Bromide	1.271	0.229	4.60	0.501	bMB
5	5.15	Nitrate	6.087	1.425	28.59	0.500	BMB
6	8.65	Sulfate	1.253	0.445	8.93	0.500	BMB
<b>Total:</b>			29.644	4.984	100.00	3.015	

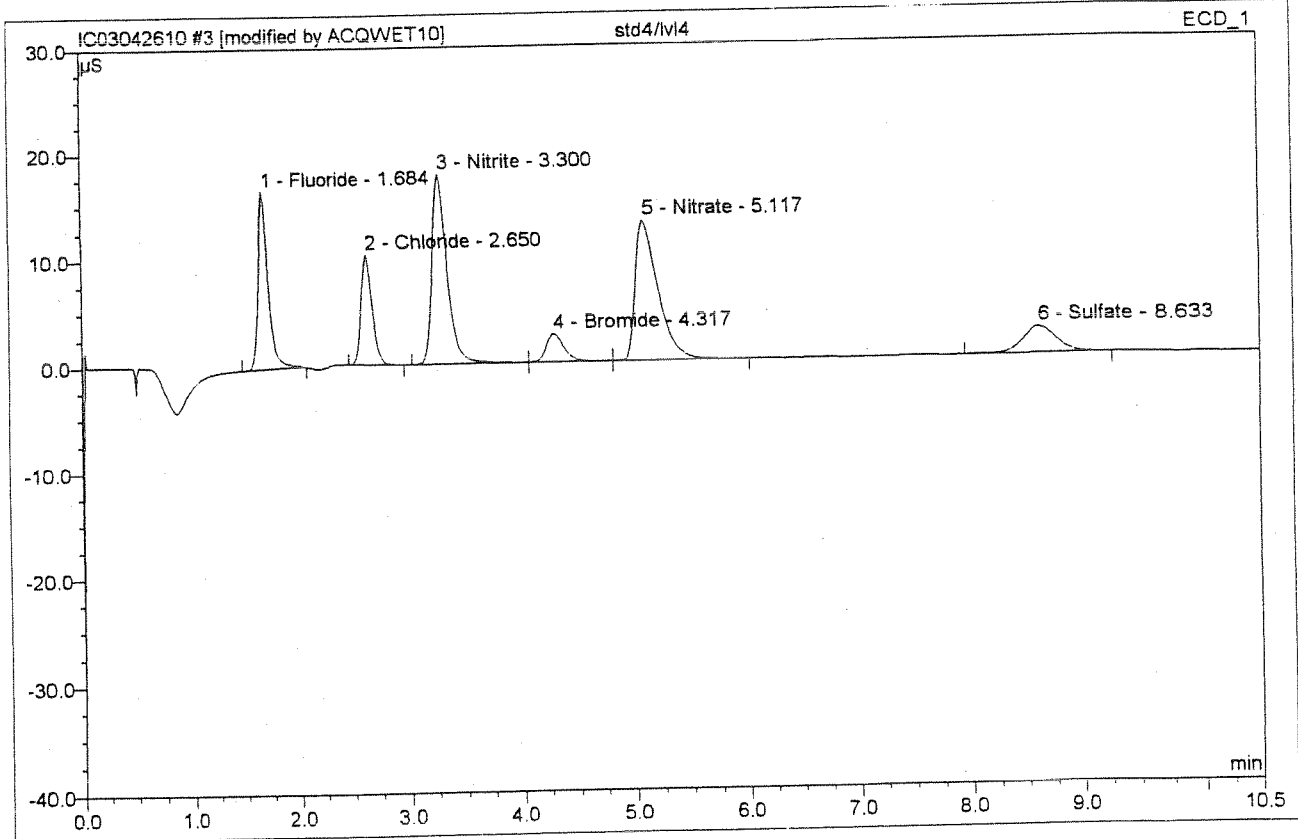
Before

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Chromleon (c) Dionex 1996-2001  
Version 6.50 SP1 Build 956

default/integration

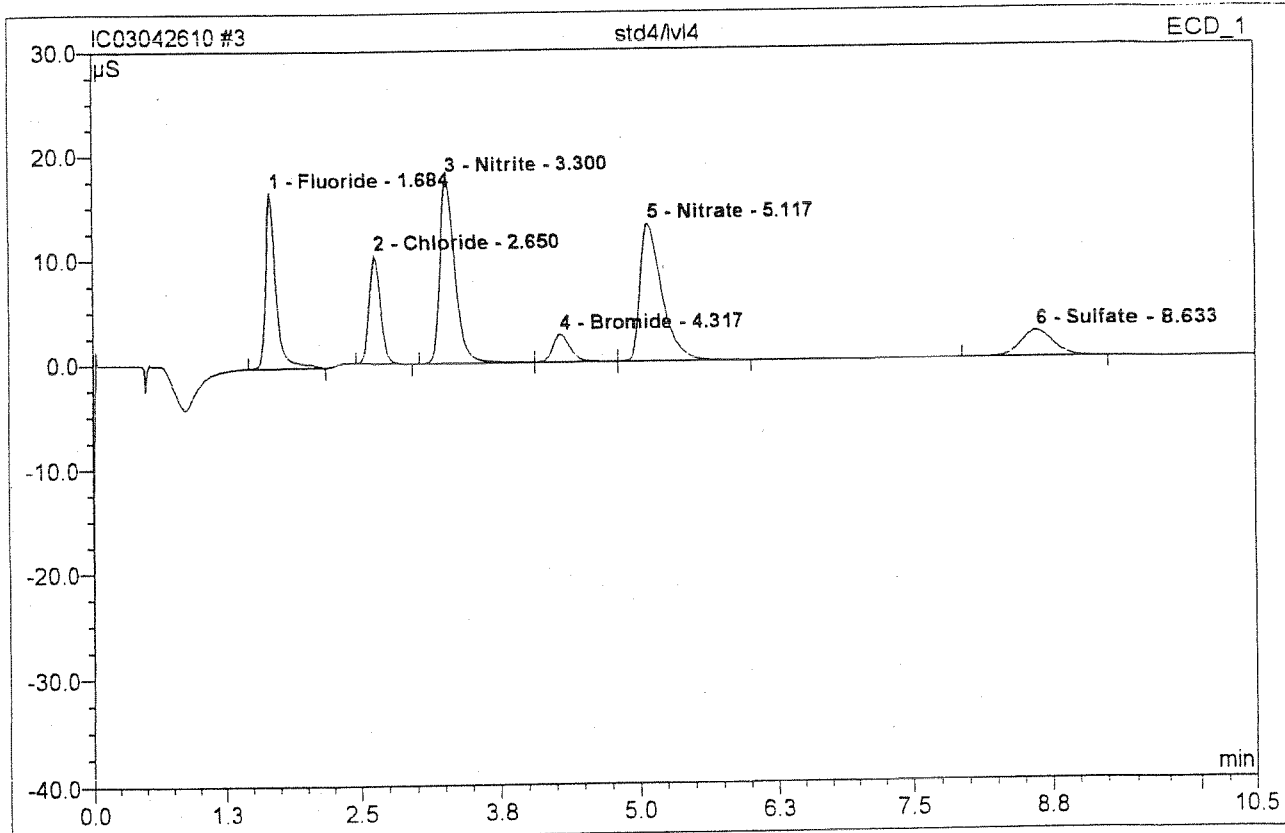
<b>3 std4/lvl4</b>			
Sample Name:	std4/lvl4	Injection Volume:	200.0
Vial Number:	3	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 9:25	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	1.68	Fluoride	16.676	1.811	17.64	0.947	BMB*
2	2.65	Chloride	10.365	1.223	11.91	0.784	BMB
3	3.30	Nitrite	17.874	2.814	27.40	0.975	BMB
4	4.32	Bromide	2.661	0.487	4.74	0.908	bMB
5	5.12	Nitrate	13.149	3.046	29.66	0.827	bMB
6	8.63	Sulfate	2.522	0.888	8.65	0.903	BMB
<b>Total:</b>			63.248	10.270	100.00	5.343	

**3 std4/lvl4**

Sample Name:	std4/lvl4	Injection Volume:	200.0
Vial Number:	3	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 9:25	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height $\mu$ S	Area $\mu$ S*min	Rel. Area %	Amount	Type
1	1.68	Fluoride	16.774	1.915	18.46	1.007	BMB
2	2.65	Chloride	10.365	1.223	11.79	1.009	BMB
3	3.30	Nitrite	17.874	2.814	27.13	1.009	BMB
4	4.32	Bromide	2.661	0.487	4.69	1.012	bMB
5	5.12	Nitrate	13.149	3.046	29.36	1.014	bMB
6	8.63	Sulfate	2.522	0.888	8.56	1.000	BMB
<b>Total:</b>			63.346	10.374	100.00	6.051	

Before

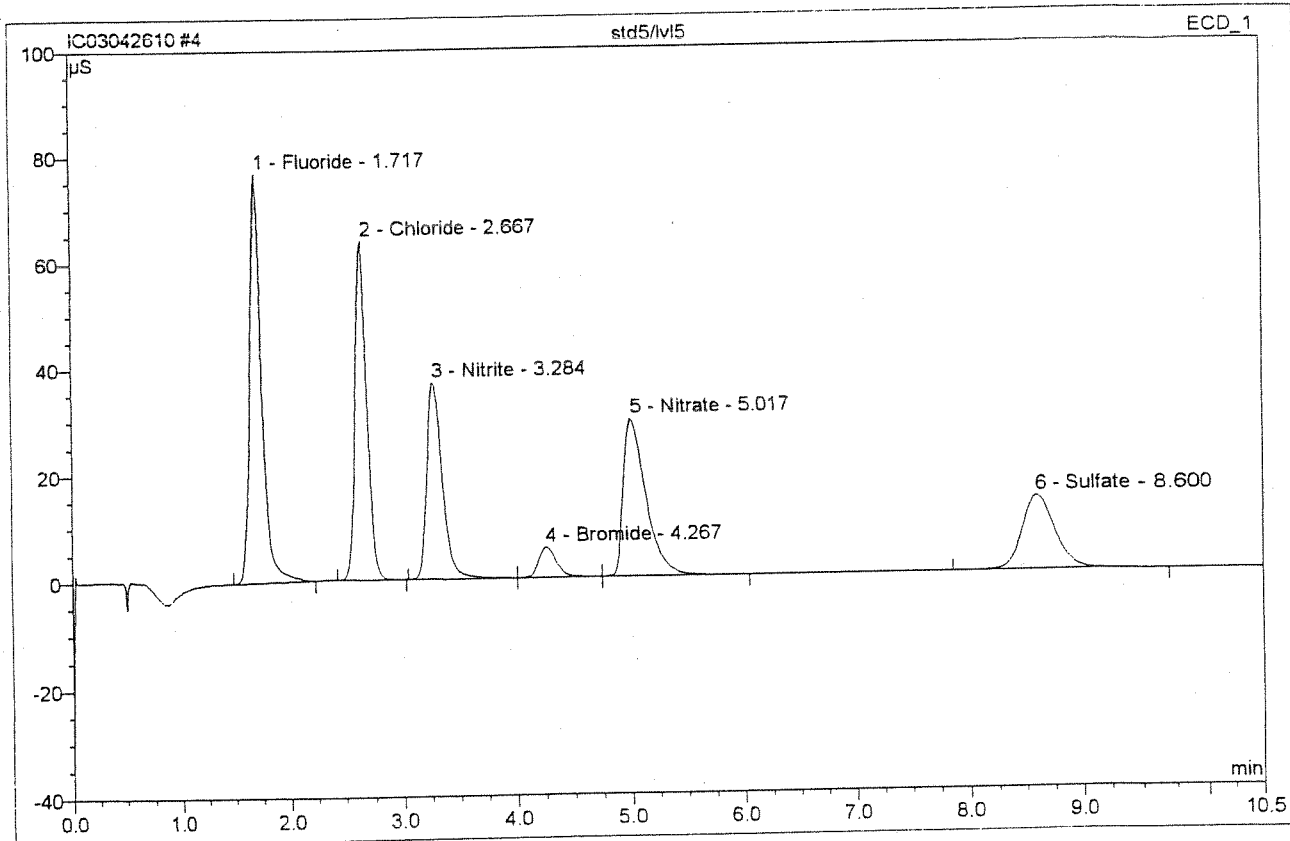
APR 26 2010

Chromeleon (c) Dionex 1996-2001  
Version 6.50 SP1 Build 956

default/Integration

**4 std5/lvl5**

Sample Name:	std5/lvl5	Injection Volume:	200.0
Vial Number:	4	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 9:38	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.72	Fluoride	76.994	9.731	27.38	5.086	BMB
2	2.67	Chloride	63.721	7.472	21.02	4.791	BMB
3	3.28	Nitrite	36.986	5.862	16.49	2.030	BMB
4	4.27	Bromide	5.677	1.007	2.83	1.879	bMB
5	5.02	Nitrate	29.541	6.754	19.00	1.833	bMB
6	8.60	Sulfate	13.884	4.718	13.27	4.795	BMB
<b>Total:</b>			226.803	35.544	100.00	20.415	

default/Integration

APR 26 2010

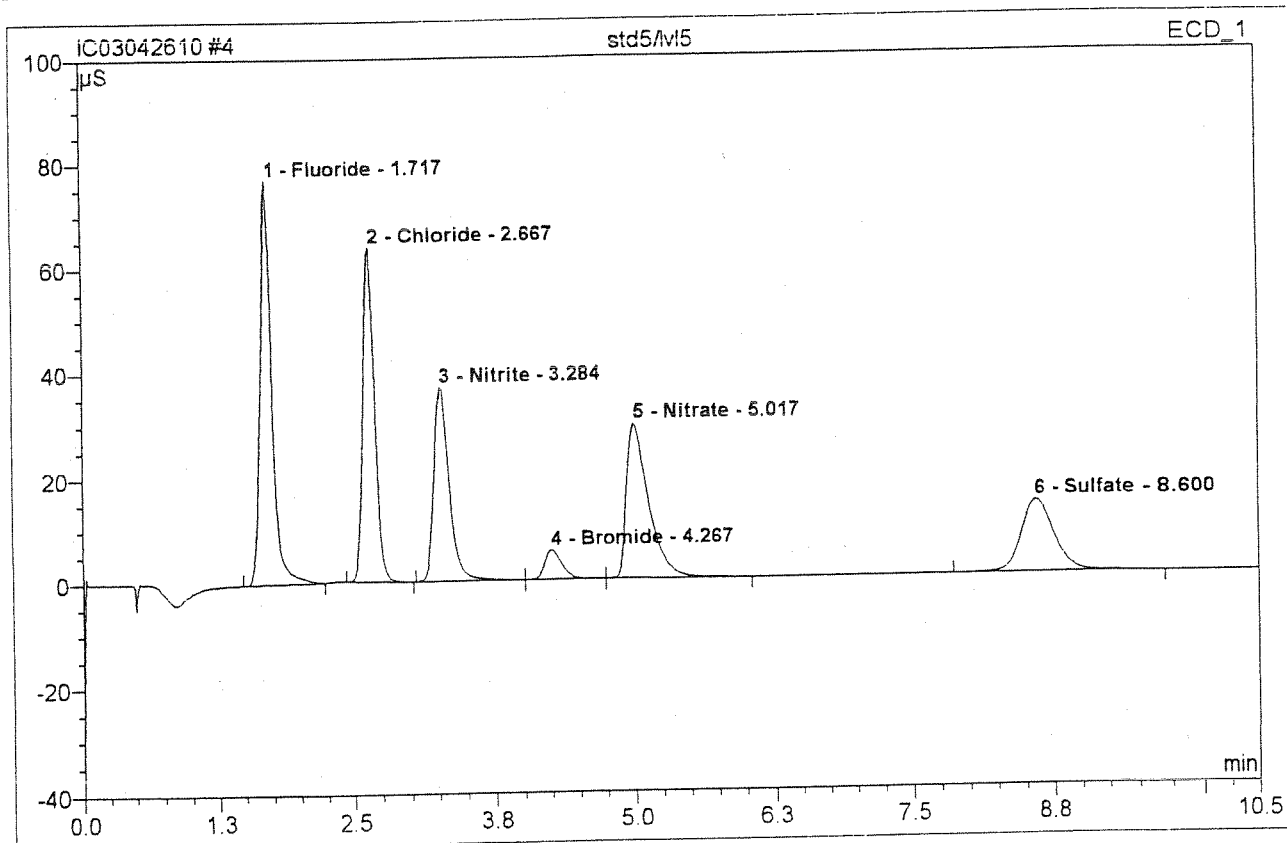
APR 26 2010

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6-1108114

**4 std5/lvl5**

Sample Name:	std5/lvl5	Injection Volume:	200.0
Vial Number:	4	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 9:38	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height $\mu\text{S}$	Area $\mu\text{S}\cdot\text{min}$	Rel.Area %	Amount	Type
1	1.72	Fluoride	76.994	9.731	27.38	5.005	BMB
2	2.67	Chloride	63.721	7.472	21.02	5.047	BMB
3	3.28	Nitrite	36.986	5.862	16.49	2.024	BMb
4	4.27	Bromide	5.677	1.007	2.83	2.022	bMb
5	5.02	Nitrate	29.541	6.754	19.00	2.054	bMB
6	8.60	Sulfate	13.884	4.718	13.27	5.014	BMB
<b>Total:</b>			226.803	35.544	100.00	21.166	

Before

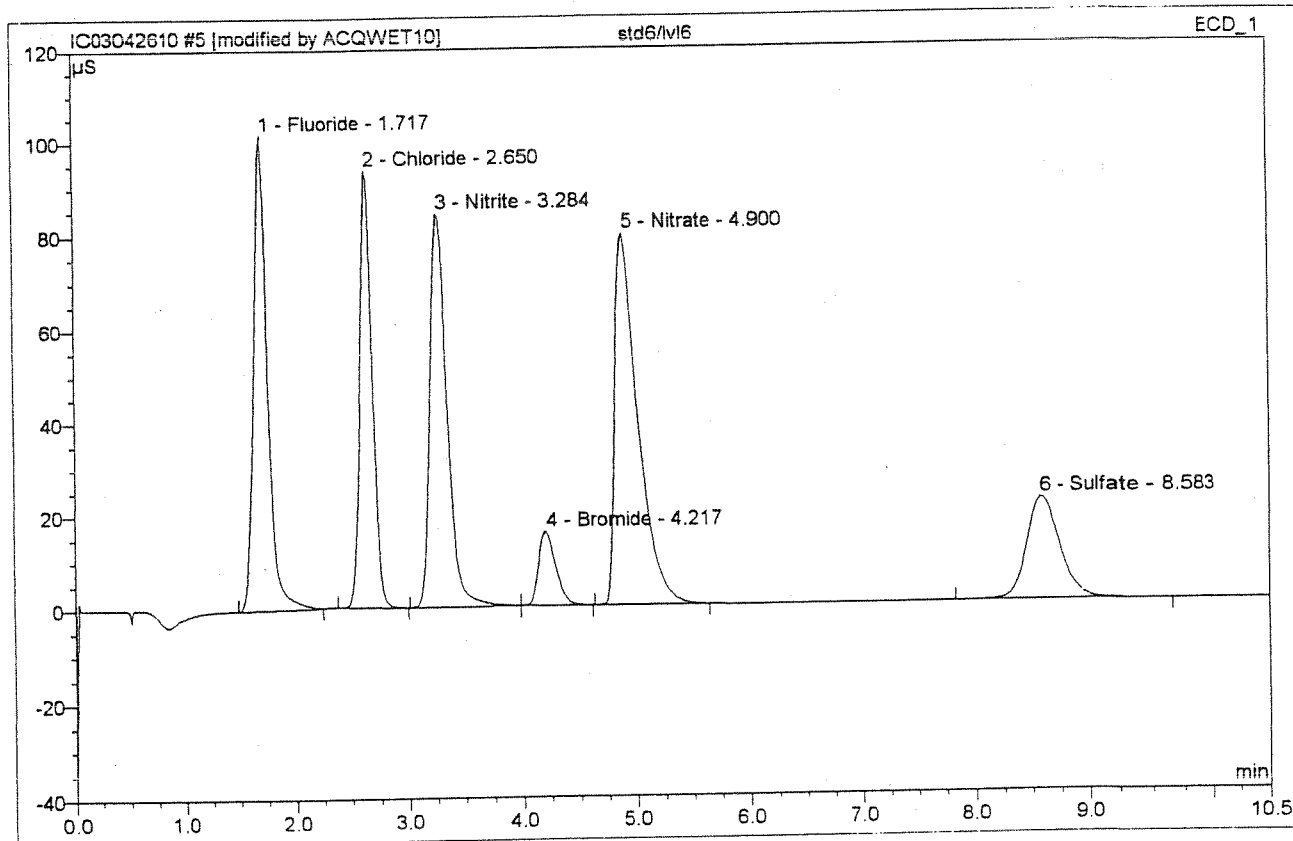
APR 26 2010

Chromeleon (c) Dionex 1996-2001  
Version 6.50 SP1 Build 956

default/Integration

### 5 std6/lvl6

Sample Name:	std6/lvl6	Injection Volume:	200.0
Vial Number:	5	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 9:51	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.72	Fluoride	101.686	14.494	20.88	7.575	BMB*
2	2.65	Chloride	93.434	11.601	16.71	7.439	BMB*
3	3.28	Nitrite	84.060	14.428	20.79	4.997	BMb
4	4.22	Bromide	15.785	2.719	3.92	5.074	bMB
5	4.90	Nitrate	79.649	18.837	27.14	5.113	BMB*
6	8.58	Sulfate	21.861	7.333	10.56	7.452	BMB
<b>Total:</b>			396.475	69.412	100.00	37.650	

default/Integration

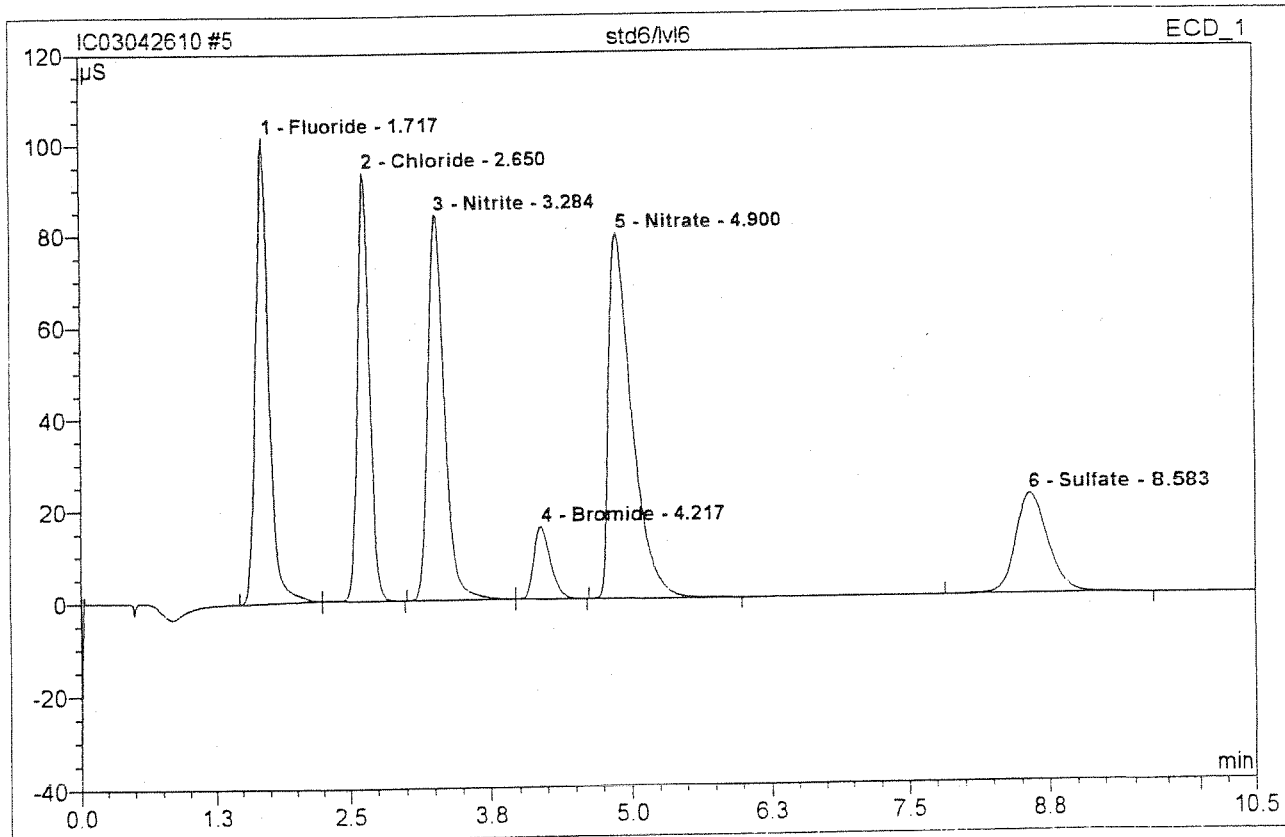
APR 26 2010

65-11511  
Chromleon (c) Dionex 1996-2001  
Version 6.50 SP1 Build 956



**5 std6/lvl6**

Sample Name:	std6/lvl6	Injection Volume:	200.0
Vial Number:	5	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 9:51	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount	Type
1	1.72	Fluoride	101.686	14.494	20.85	7.486	BMB
2	2.65	Chloride	93.503	11.647	16.75	7.613	bMB
3	3.28	Nitrite	84.060	14.428	20.76	4.997	BMB
4	4.22	Bromide	15.785	2.719	3.91	5.074	bMB
5	4.90	Nitrate	79.672	18.892	27.18	5.115	BMB
6	8.58	Sulfate	21.861	7.333	10.55	7.591	BMB
<b>Total:</b>			396.568	69.512	100.00	37.876	

Before

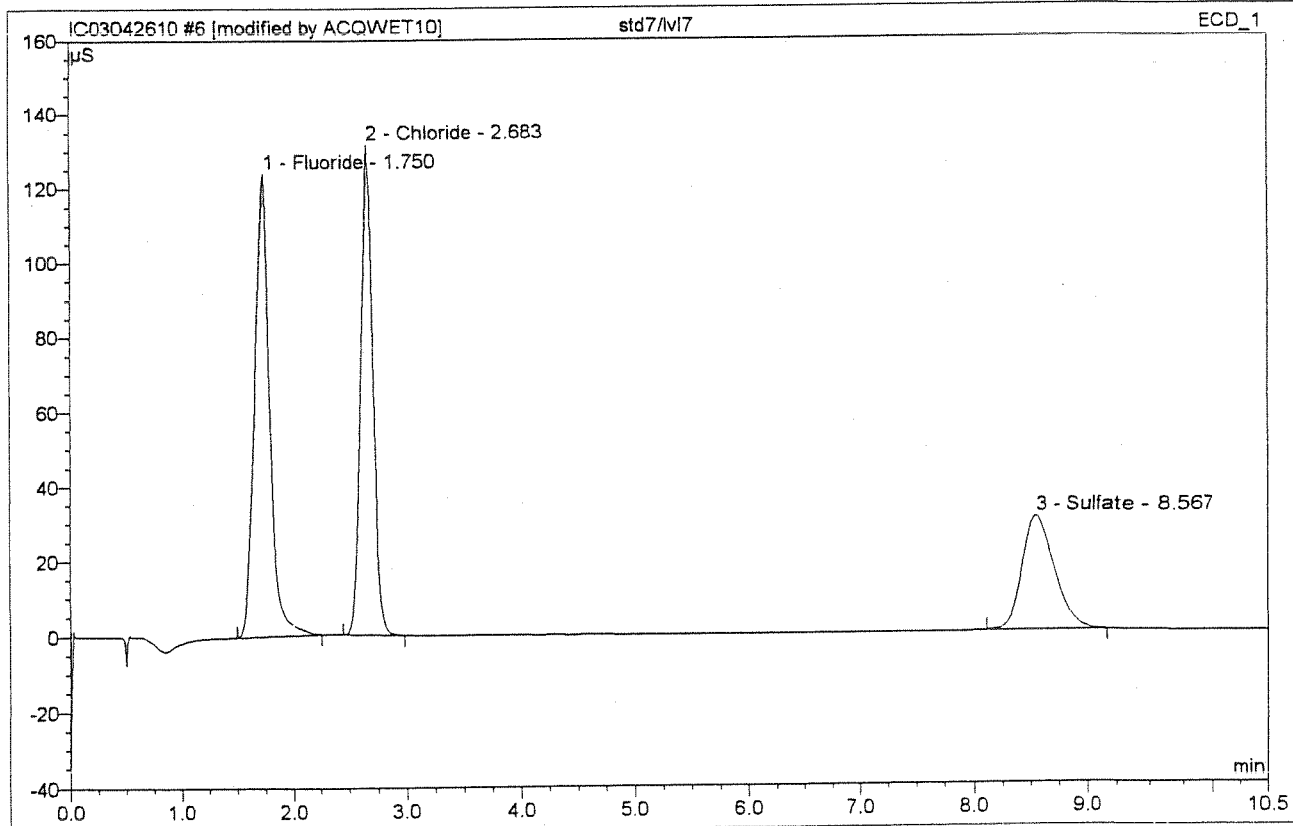
APR 26 2010

Chromeleon (c) Dionex 1996-2001  
Version 6.50 SP1 Build 956

default/Integration

**6 std7/lvl7**

Sample Name:	std7/lvl7	Injection Volume:	200.0
Vial Number:	6	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 10:04	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.75	Fluoride	123.905	18.962	42.30	9.910	BMB*
2	2.68	Chloride	131.265	15.874	35.41	10.179	BMB*
3	8.57	Sulfate	30.278	9.990	22.29	10.151	BMB*
<b>Total:</b>			285.448	44.826	100.00	30.240	

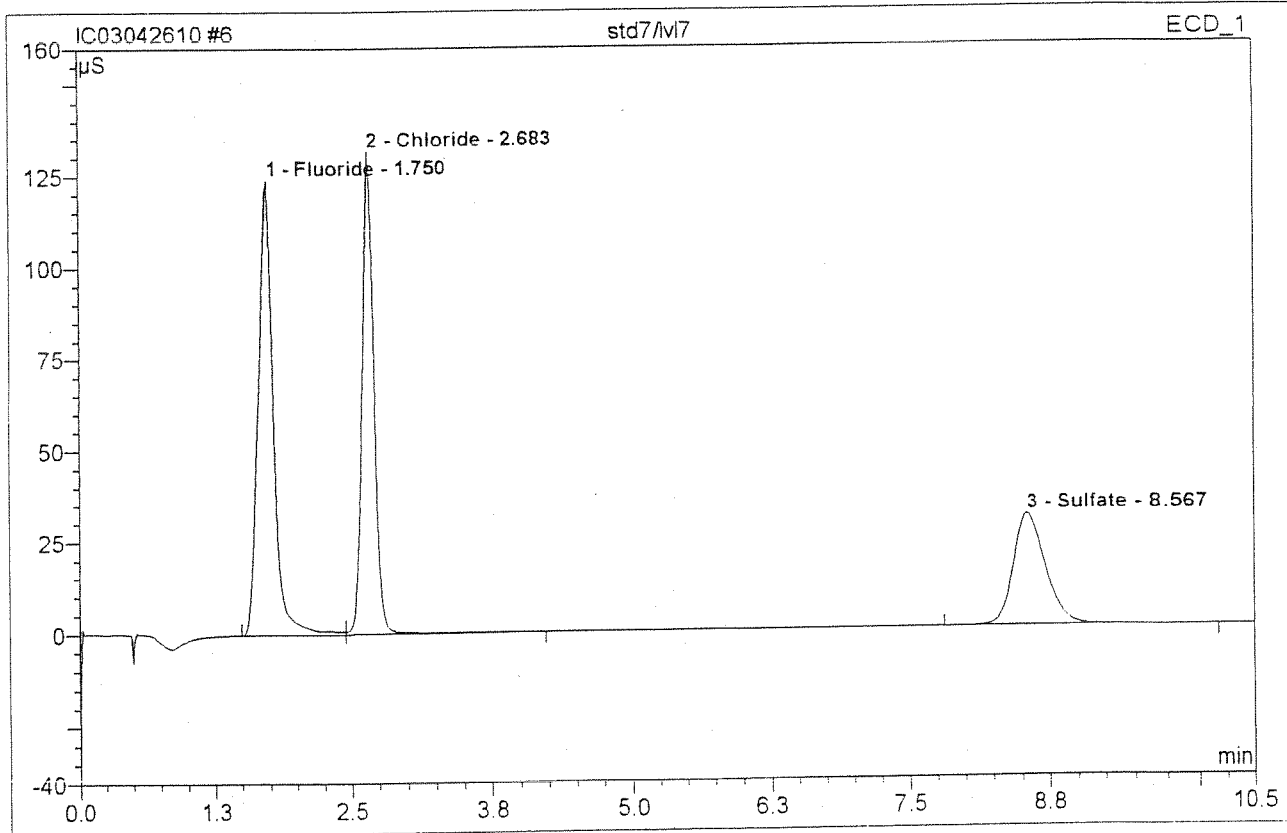
*MS*

6-11-10

APR 26 2010

**6 std7/lvl7**

Sample Name:	std7/lvl7	Injection Volume:	200.0
Vial Number:	6	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 10:04	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height $\mu\text{S}$	Area $\mu\text{S}\cdot\text{min}$	Rel. Area %	Amount	Type
1	1.75	Fluoride	124.185	19.437	42.28	10.022	BM
2	2.68	Chloride	131.836	16.307	35.47	10.300	MB
3	8.57	Sulfate	30.454	10.233	22.26	10.259	BMB
<b>Total:</b>			286.475	45.977	100.00	30.581	

Before

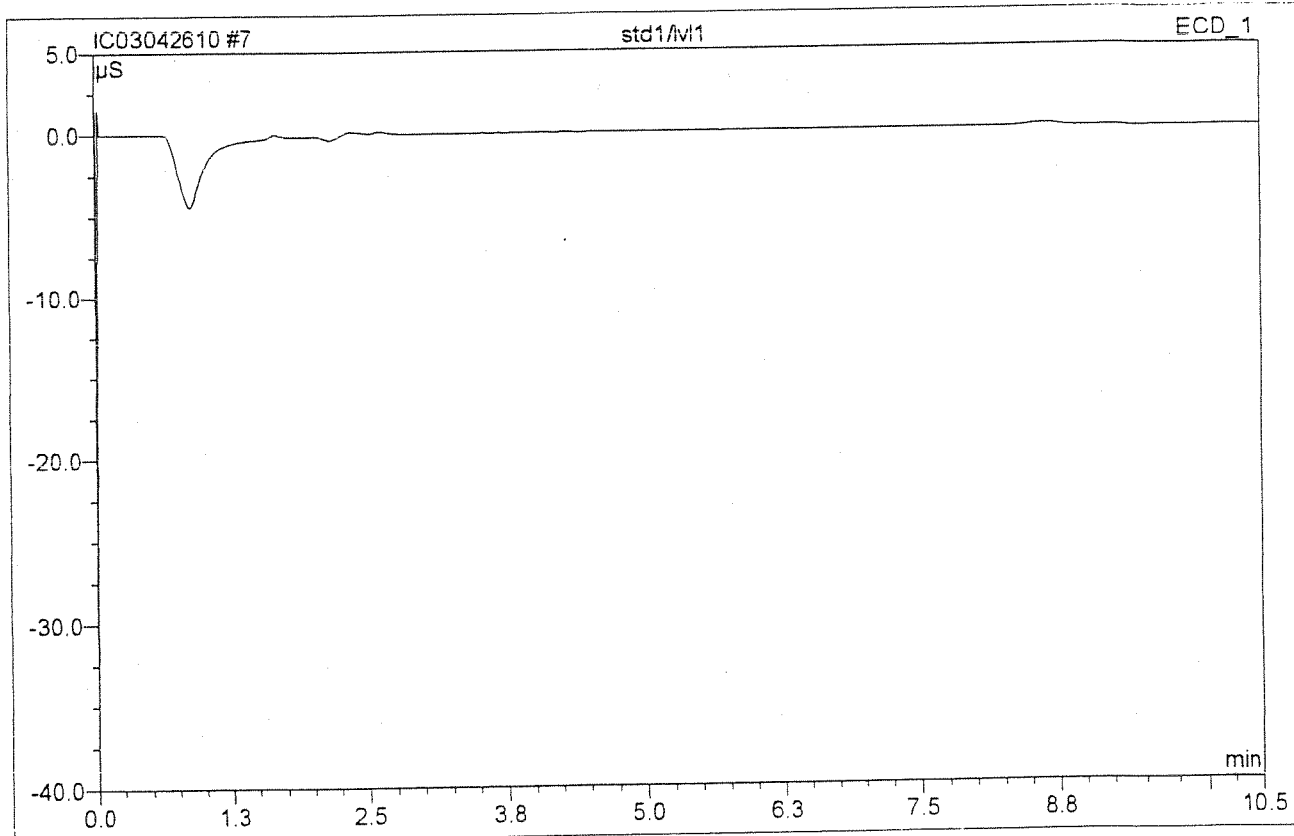
APR 26 2010

Chromeleon (c) Dionex 1996-2001  
Version 6.50 SP1 Build 956

default/Integration

**7 std1/lvl1**

Sample Name:	std1/lvl1	Injection Volume:	200.0
Vial Number:	7	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 10:17	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000

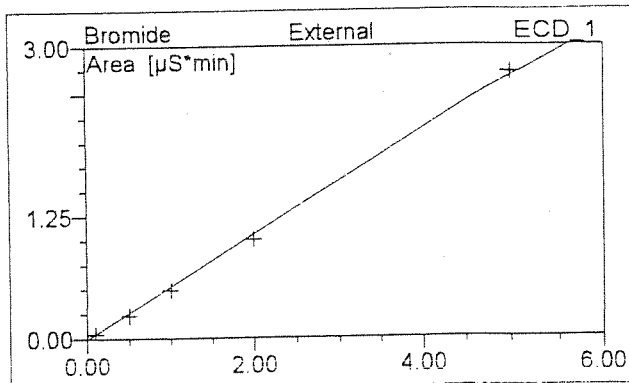
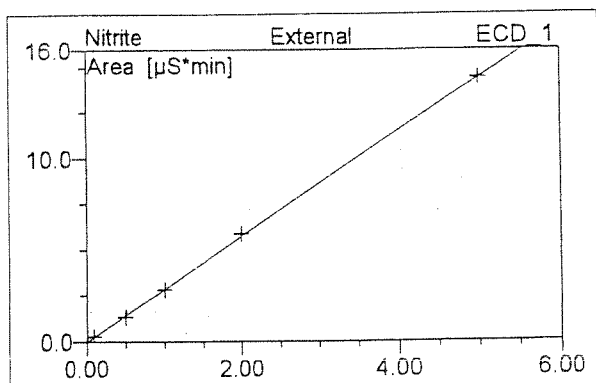
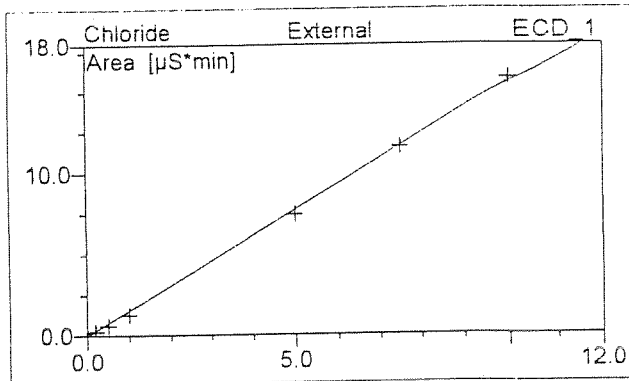
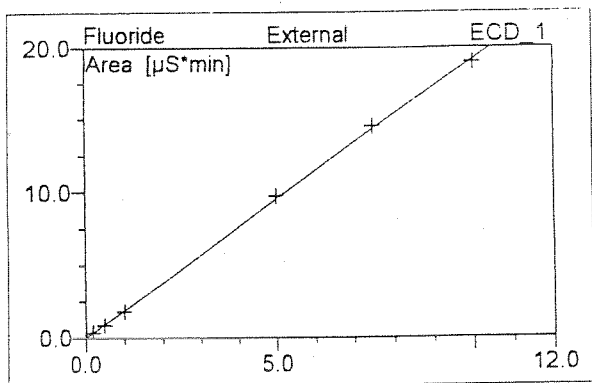


No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount	Type
Total:			0.000	0.000	0.00	0.000	

7 std1/lvl1

Sample Name: std1/lvl1  
 Vial Number: 7  
 Sample Type: standard  
 Control Program: epa300  
 Quantif. Method: epa300  
 Recording Time: 4/26/2010 10:17  
 Run Time (min): 10.50

Injection Volume: 200.0  
 Channel: ECD\_1  
 Wavelength: n.a.  
 Bandwidth: n.a.  
 Dilution Factor: 1.0000  
 Sample Weight: 1.0000  
 Sample Amount: 1.0000



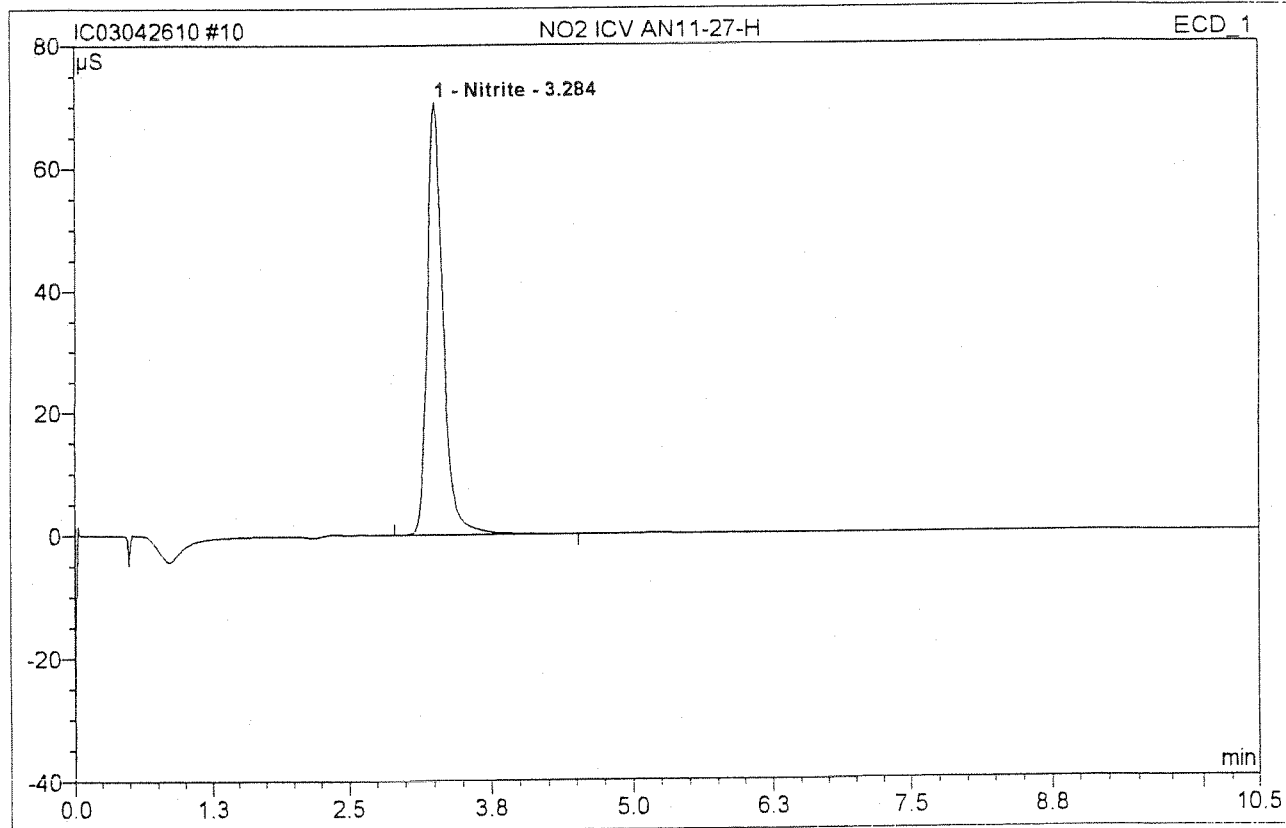
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
Average:					n.a.	n.a.	n.a.	n.a.

6/2/10 10:30 AM

# 10 NO2 ICV AN11-27-H

## NO2 ICV

Sample Name:	NO2 ICV AN11-27-H	Injection Volume:	200.0
Vial Number:	10	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	25.0000
Recording Time:	4/26/2010 11:05	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000

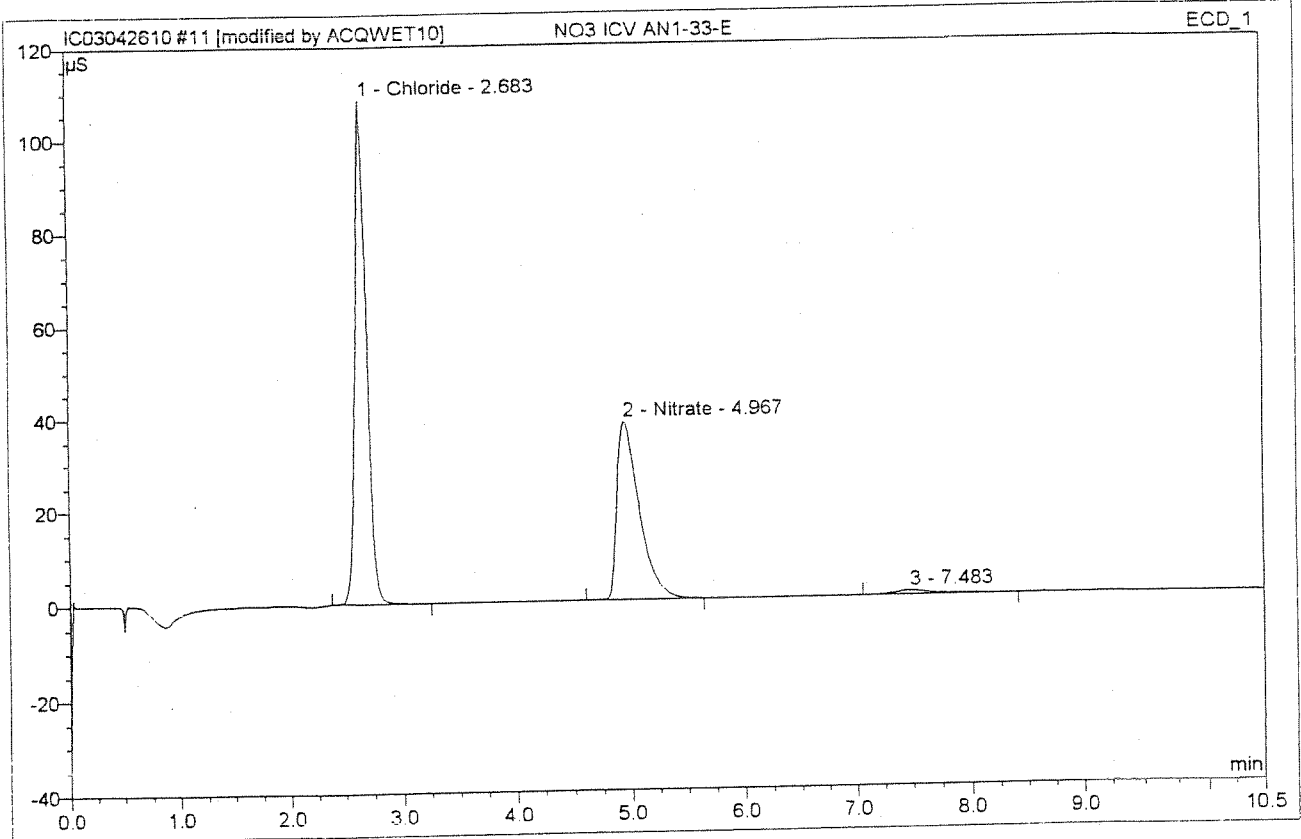


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.28	Nitrite	70.856	11.827	100.00	102.405	BMB
<b>Total:</b>			70.856	11.827	100.00	102.405	

# 11 NO3 ICV AN1-33-E

## NO3 ICV

Sample Name:	NO3 ICV AN1-33-E	Injection Volume:	200.0
Vial Number:	11	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	4/26/2010 11:18	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000

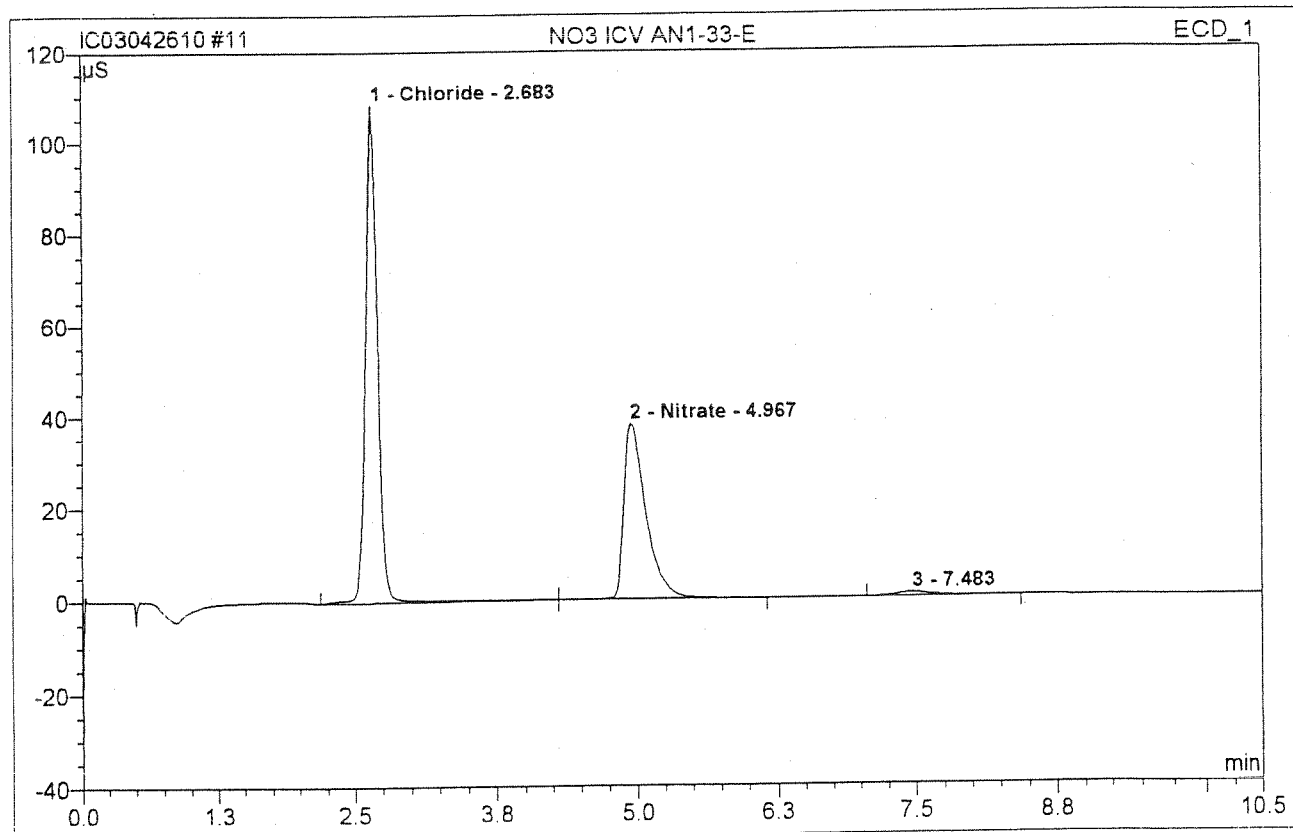


No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.68	Chloride	108.172	12.864	59.17	82.484	BMB*
2	4.97	Nitrate	38.103	8.551	39.33	23.211110%	BMB*
3	7.48	n.a.	0.823	0.326	1.50	n.a.	BMB
<b>Total:</b>			147.098	21.741	100.00	105.695	

*(Handwritten initials)*

**11 NO3 ICV AN1-33-E****NO3 ICV**

Sample Name:	NO3 ICV AN1-33-E	Injection Volume:	200.0
Vial Number:	11	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	10.0000
Recording Time:	4/26/2010 11:18	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.68	Chloride	108.576	13.345	59.83	85.571	BMB
2	4.97	Nitrate	38.156	8.633	38.70	23.433	bMB
3	7.48	n.a.	0.823	0.326	1.46	n.a.	BMB
<b>Total:</b>			147.556	22.304	100.00	109.004	

Before

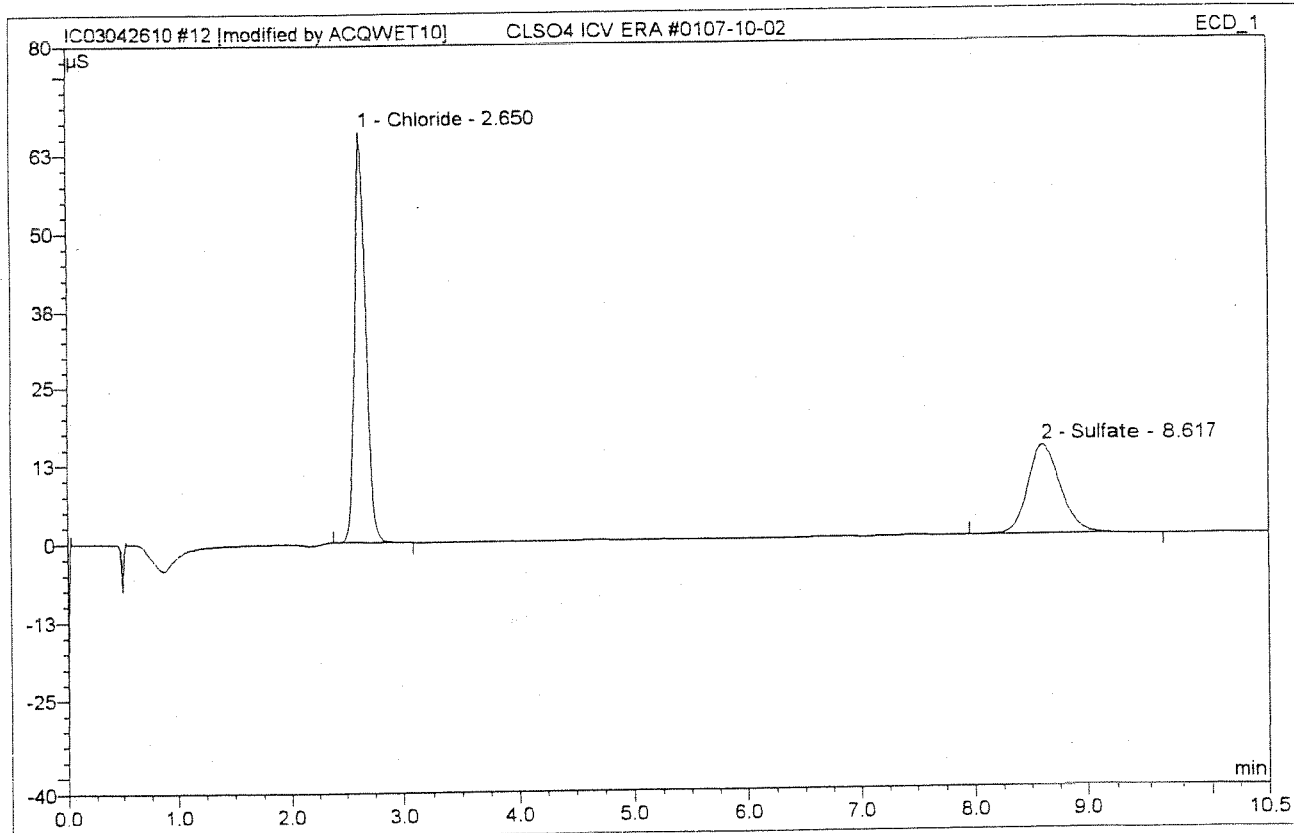
APR 26 2010

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Version 6.50 SP1 Build 956

default/Integration



<b>12 CLSO4 ICV ERA #0107-10-02</b>			
<b>CLSO4 ICV</b>			
Sample Name:	CLSO4 ICV ERA #0107-10-02	Injection Volume:	200.0
Vial Number:	12	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 11:30	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.65	Chloride	65.962	7.498	61.00	4.808962	BMB*
2	8.62	Sulfate	14.257	4.794	39.00	4.871972	BMB
<b>Total:</b>			80.219	12.292	100.00	9.679	

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12

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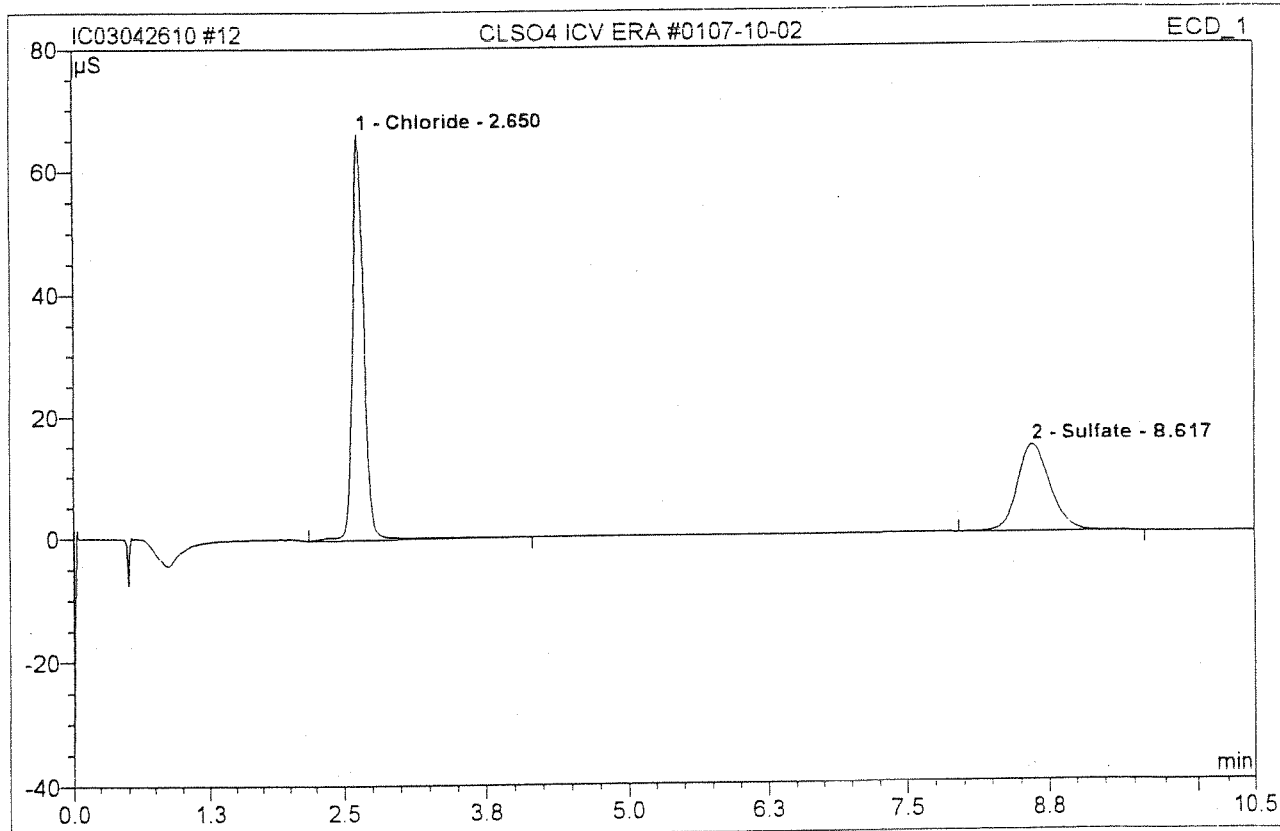
Chromeleon (c) Dionex 1996-2001  
Version 6.50 SP1 Build 956

default/integration

**12 CLSO4 ICV ERA #0107-10-02**

**CLSO4 ICV**

Sample Name:	CLSO4 ICV ERA #0107-10-02	Injection Volume:	200.0
Vial Number:	12	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 11:30	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000

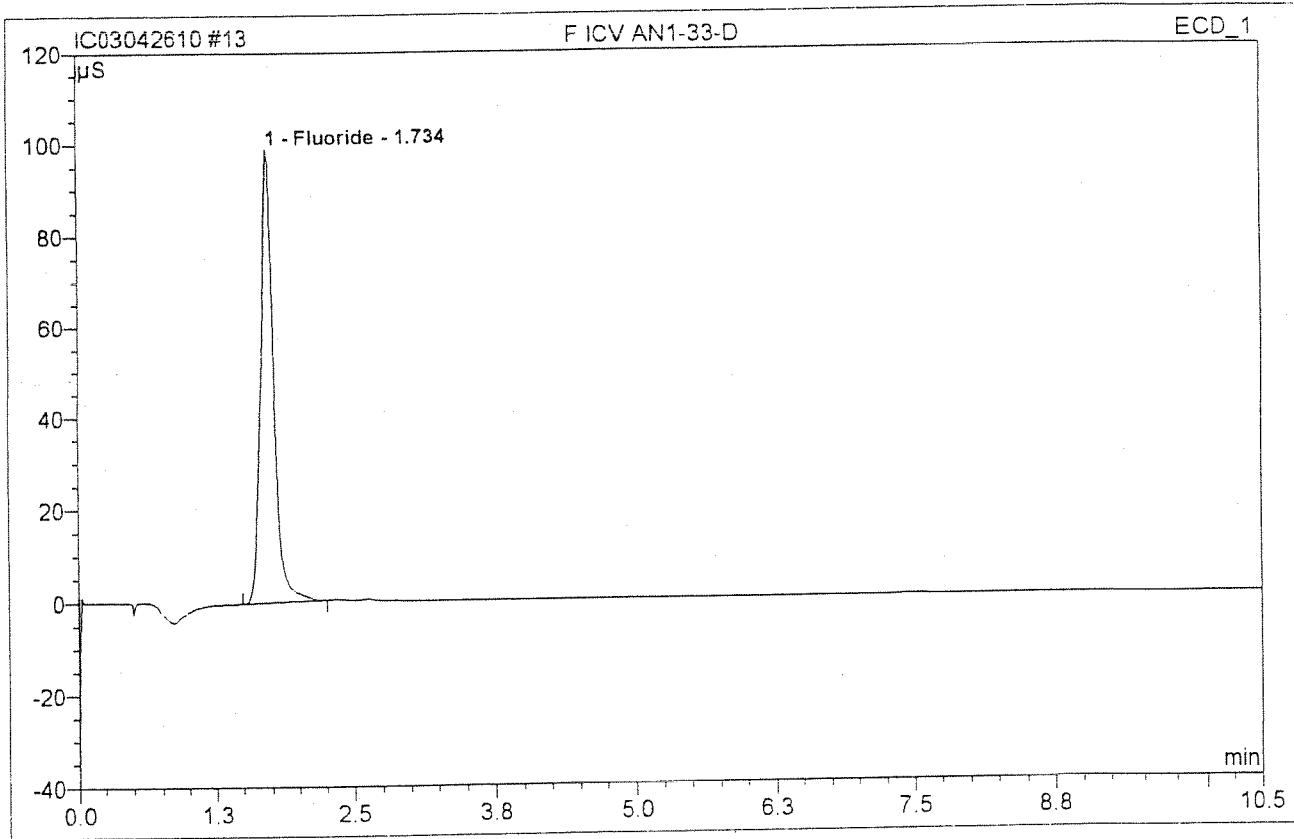


No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount	Type
1	2.65	Chloride	66.369	7.929	62.32	5.084	BMB
2	8.62	Sulfate	14.257	4.794	37.68	4.871	BMB
<b>Total:</b>			80.625	12.723	100.00	9.956	

Before

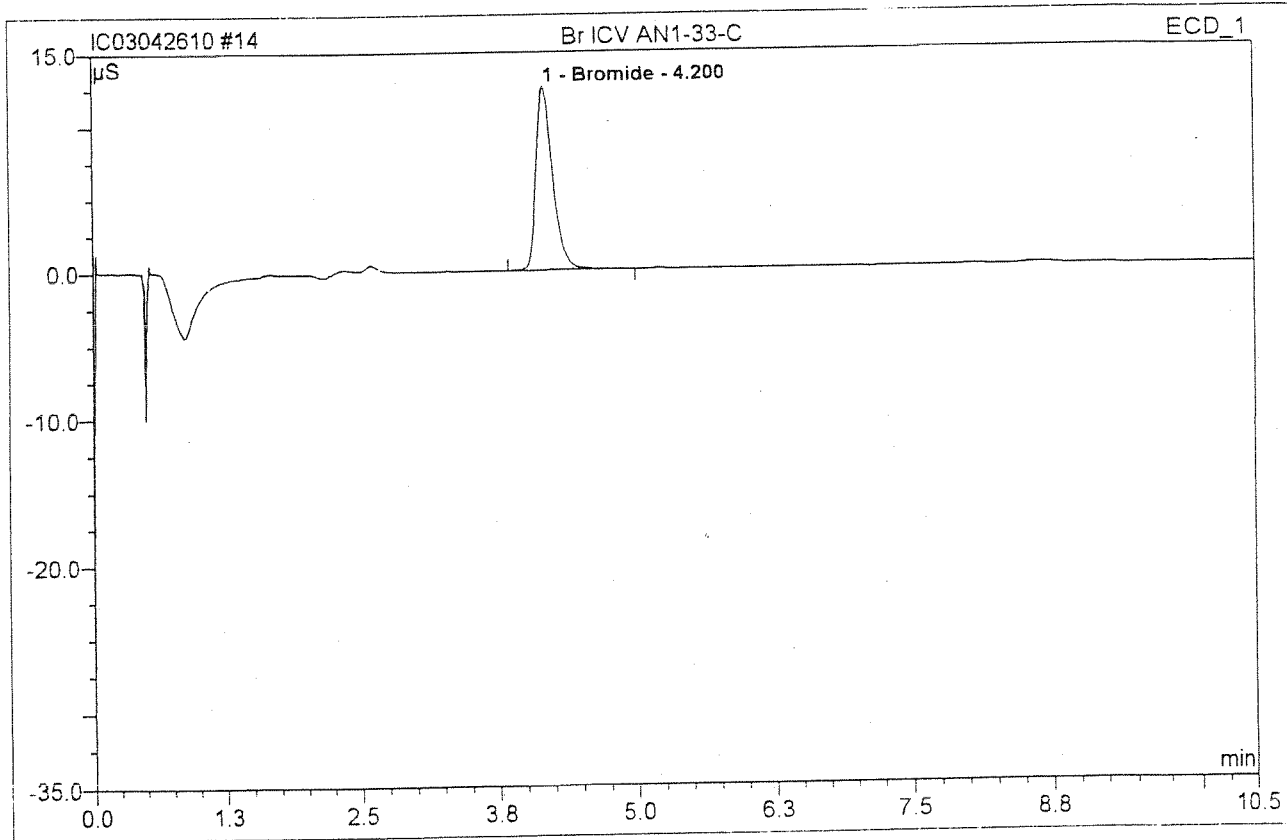
APR 26 2010

<b>13 F ICV AN1-33-D</b>			
<b>F ICV</b>			
Sample Name:	F ICV AN1-33-D	Injection Volume:	200.0
Vial Number:	13	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	2.0000
Recording Time:	4/26/2010 11:43	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	1.73	Fluoride	98.959	13.315	100.00	13.9171032	BMB
<b>Total:</b>			98.959	13.315	100.00	13.917	

<b>14 Br ICV AN1-33-C</b>			
<b>Br ICV</b>			
Sample Name:	Br ICV AN1-33-C	Injection Volume:	200.0
Vial Number:	14	Channel:	ECD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	epa300	Bandwidth:	n.a.
Quantif. Method:	epa300	Dilution Factor:	1.0000
Recording Time:	4/26/2010 11:56	Sample Weight:	1.0000
Run Time (min):	10.50	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.20	Bromide	12.583	2.210	100.00	4.1241037	BMB
<b>Total:</b>			12.583	2.210	100.00	4.124	

Work Request # (K4911) K5005 K5055 K5061 K5069 K5150 K5250 11  
 Tier: I I III III III II A II  
 Date Analyzed: 05/26/10  
 Analyst: Stammy K5249 K5251 K5314  
 Analysis: NH<sub>3</sub> - 350.1 / SM 4500 - NH<sub>3</sub> (S) II II II

202 336

**DATA QUALITY REPORT  
INORGANICS**

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate?  yes/no/NA
2. Holding times met for all analyses and for all samples?  yes/no/NA
3. Are calculations correct?  yes/no/NA
4. Is the reporting basis correct? (Dry Weight)  yes/no/NA
5. All quality control criteria met?  yes/no/NA
  - a. Is the calibration curve correlation coefficient  $\geq 0.995$ ?  yes/no/NA
  - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency?  yes/no/NA
  - c. Are ICVs, CCVs, and CCBs all within acceptance limits?  yes/no/NA
  - d. Are results for methods blanks all ND?  yes/no/NA
  - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.)  yes/no/NA
  - f. Are all exceptions explained?  yes/no/NA
6. Are all service requests that apply attached?  yes/no/NA
7. Are all samples labelled correctly?  yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample)  yes/no/NA
9. Are detection limits and units reported correctly?  yes/no/NA
10. Are proper Analysis/Extraction stickers included on report?  yes/no/NA
11. Is the unused space on the benchsheet crossed out?  yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#)  yes/no/NA

**COMMENTS:**

5.e. K5055 - 8/8d RPD = 24%  
 K5069 - 1/1d RPD = 35%  
 K5258 - 2/2d RPD = 21%  
 High RPD due to sample conc. < MRL

Final Approved by: [Signature] Date: 5/26/10 DQREPORT  
 OTH 05/26/10

I K4911, K5005, II K5055, K5067, K5069, III K5150, K5258, K5261, K5249, IV K5251, K5314

BRAN+LUEBBE AACE 6.02

Post-run Report

# BRAN+LUEBBE

Post-run report

Name of Run : 100526C  
 Date of Report : 5/26/2010  
 Date of Run : 5/26/2010  
 Operator :  
 Comment :

Name of Analysis : Ammonia  
 System No. : 1  
 Type of System : AA3  
 Start/Stop time : 12:46 - 14:51

Channel :  
 Method :  
 Unit : mg/L  
 Calibr. Fit : Linear  
 Corr. Coeff. : 0.9991  
 Base : -19680  
 Gain : 20  
 Sensitivity : 0.4458  
 Sample Limit 1 :  
 Sample Limit 2 :

LCS ID#: B+LNH<sub>3</sub>/-34-I T.V.=14.3  
 Spike ID#: B+LNH<sub>3</sub>/-85-F T.V.=2.00  
 Curve, CCV ID#: B+LNH<sub>3</sub>/-55-AA T.V.=2.00  
 MBMS=2.00

Pk	Cup	Sample Id	Value
0	0	B Baseline	0.0200
1	1	P Primer	5.0474
2	1	D Drift	5.0434
3	1	C 5.00	5.0532
4	2	C 2.00	1.8439
5	3	C 0.50	0.5235
6	4	C 0.05	0.1086
7	5	C 0	0.0208
8	0	B Baseline	0.0200
9	1	H1 High	5.0321
10	0	L1 Low	0.0234
11	0	L1 Low	0.0235
12	5	QC2 CCB1	0.0198
13	2	QC1 CCV1	1.8336
14	10	QC3 LCS1*10	1.4760
15	11	S MB MS	2.0588
16	0	N Null	0.0268N
17	5	QC2 MB1	0.0294
18	12	S k1004911-002	16.7306*
19	13	S k1005005-001	0.1019
20	14	S k1005055-001	0.0443
21	15	S k1005055-002	0.0296
22	16	S k1005055-003	0.0296
23	0	B baseline	0.0200
24	5	QC2 CCB2	0.0347
25	2	QC1 CCV2	1.9392
26	17	S k1005055-004	0.0401

0.0207  
 1.83 92%  
 17.8 100%  
 2.06 103%

0.0297  
 16.7306\* } NR  
 0.0447  
 0.0307  
 0.0307  
 0.0357 97%  
 1.94  
 0.0407

Small  
 5/26/10

05/26/10  
 Hanger

27	18	S	k1005055-005	0.0290	0.029 J	
28	19	S	k1005055-006	0.0336	0.034 J	
29	20	S	k1005055-007	0.0357	0.036 J	
30	21	S	k1005055-008	0.0289	0.029 J	$\bar{x} = 0.033$ RPD = 24%
31	22	S	k1005055-008d	0.0367	0.037 J	(sample conc. < MRL)
32	23	S	k1005055-008ms	2.0375	2.04	101%
33	24	S	k1005055-008msd	2.0489	2.05	101%
34	25	S	k1005055-009	0.0295	0.030 J	
35	0	B	Baseline	0.0200		
36	5	QC2	CCB-3	0.0198	0.020 J	
37	2	QC1	CCV-3	1.9323	1.93	97%
38	26	S	k1005067-001	0.0419	0.042	$\bar{x} = 0.043$ RPD = 5%
39	27	S	k1005067-001d	0.0443	0.044	
40	28	S	k1005067-001ms	2.0724	2.07	101%
41	29	S	k1005067-001msd	2.0687	2.07	101%
42	30	S	k1005067-002	0.0702	0.070	
43	31	S	k1005067-003	0.0691	0.069	
44	32	S	k1005067-004	0.0203	0.020 J	
45	33	S	k1005069-001	0.0584		
46	34	S	k1005069-001d	0.0287	} NR	
47	0	B	Baseline	0.0200		
48	5	QC2	CCB4	0.0232	0.023 J	97%
49	2	QC1	CCV4	1.9345	1.93	
50	10	QC3	LCS2*10	1.4951	15.0	101%
51	10	QC3	LCS2dup*10	1.4757	14.8	100%
52	0	N	Null	0.0259N		
53	5	QC2	MB2	0.0292	0.029 J	
54	35	S	k1005069-001ms	2.0794	2.08	103%
55	36	S	k1005069-001msd	2.0550	2.06	102%
56	37	S	k1005069-002	0.0246	0.025 J	
57	38	S	k1005150-001	0.0856	0.086	
58	39	S	k1005258-001	0.0360	NR	
59	0	B	Baseline	0.0200		
60	5	QC2	CCB5	0.0291	0.029 J	
61	2	QC1	CCV5	1.9329	1.93	97%
62	40	S	k1005258-001d	0.0517	NR	
63	41	S	k1005258-001ms	2.1494	2.15	106%
64	42	S	k1005258-001msd	2.1434	2.14	106%
65	43	S	k1005258-002	0.0369	0.037	$\bar{x} = 0.034$ RPD = 21%
66	44	S	k1005258-002d	0.0299	0.030	(sample conc. < MRL)
67	45	S	k1005258-002ms	2.0876	2.09	103%
68	46	S	k1005258-002msd	2.0740	2.07	102%
69	47	S	k1005258-003	0.0291	0.029 J	
70	48	S	k1005258-004	0.0394	0.039 J	
71	0	B	Baseline	0.0200		
72	5	QC2	CCB6	0.0206	0.021 J	97%
73	2	QC1	CCV6	1.9322	1.93	
74	49	S	k1005258-005	0.0524	0.052	
75	50	S	k1005258-006	0.0318	0.032 J	
76	51	S	k1005261-001	0.0716	0.072	
77	52	S	k1005261-002	0.0456	0.046 J	
78	53	S	k1005261-003	0.0271	0.027 J	

5711  
5/26/10

05/26/10  
Hougeny

79	54	S	k1005261-004	0.0298	0.0307	
80	55	S	k1005249-001	0.0325	0.0337	
81	56	S	k1005249-002	0.0349	0.0357	
82	57	S	k1005251-002	1.1271	1.13	
83	0	B	Baseline	0.0200		
84	5	QC2	<del>WB7</del> CCB7	0.0270	0.0277	97%
85	2	QC1	CCV7	1.9336	1.93	97%
86	58	S	k1005251-004	0.9692	0.969	
87	59	S	k1005314-001	0.0268	<0.050	
88	60	S	k1005314-002	0.0233	<0.050	
89	61	S	k1005314-003	0.0222	<0.050	
90	62	S	rinse	0.0273		
91	63	S	k1005069-001	0.0209	0.021	$\bar{x} = 0.026$ RPD=35%
92	64	S	k1005069-001d	0.0296	0.030	(sample conc < MRL)
93	65	S	k1005005-001	0.0906	0.091	
94	66	S	k1004911-001*10	1.8023	18.0	
95	0	B	Baseline	0.0200		
96	5	QC2	CCB8	0.0252	0.0257	97%
97	2	QC1	CCV8	1.9292	1.93	97%
98	67	S	rinse	0.0323		
99	68	S	k1005258-001	0.0300	0.0307	$\bar{x} = 0.029$ RPD=10%
100	69	S	k1005258-001d	0.0269	0.0277	
101	0	B	Baseline	0.0200		
102	5	QC2	CCB9	0.0236	0.0247	97%
103	2	QC1	CCV9	1.9343	1.93	97%
104	1	D	Drift	5.0434		
105	0	B	Baseline	0.0200		
106	0	B	FinalBase	0.0200		

TH 05/26/10

QC Limits

Channel	:	2
QC 1	:	Unused
QC 2	:	Unused
QC 3	:	Unused
QC 4	:	Unused
QC 5	:	Unused
QC 6	:	Unused
QC 7	:	Unused
QC 8	:	Unused
QC 9	:	Unused
QC10	:	Unused

5/26/10

CORRECTIONS

Channel	:	2
Baseline	:	Yes
Drift	:	Yes
Carry over	:	Yes
%:	:	0.3

05/26/10  
Honeyman



BRAN+LUEBBE AACE 6.02

Post-run Report

\* ... Sample offscale  
+ ... Result higher than sample limit  
- ... Result lower than sample limit  
P ... Standard passed  
F ... Standard failed  
N ... Value not calculated or not used  
R ... Resample after offscale  
M ... Peak marker moved manually  
D ... Diluted sample

\*\* <END OF REPORT> \*\*

*5/26/10*

*05/26/10  
Hewyer*

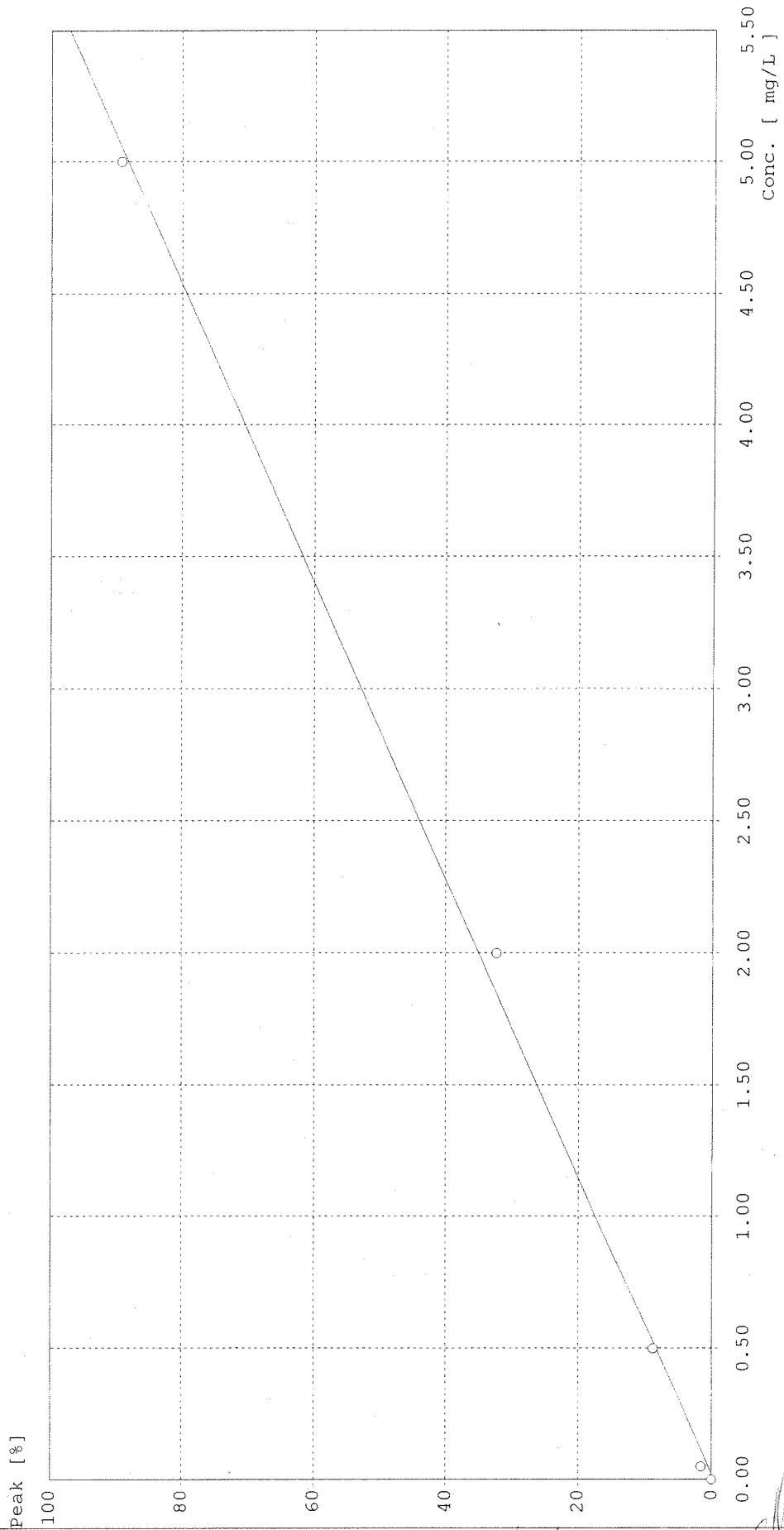
# BRAN+LUEBBE

Calibration Curve

Name of run : 100526C.run  
Comment :

Name of analysis : Ammonia

Channel : 2  
Method : Method 2  
Curve fit : linear      a=-2.3073E-001    b=8.6045E-005  
Corr. coeff. : 0.9991



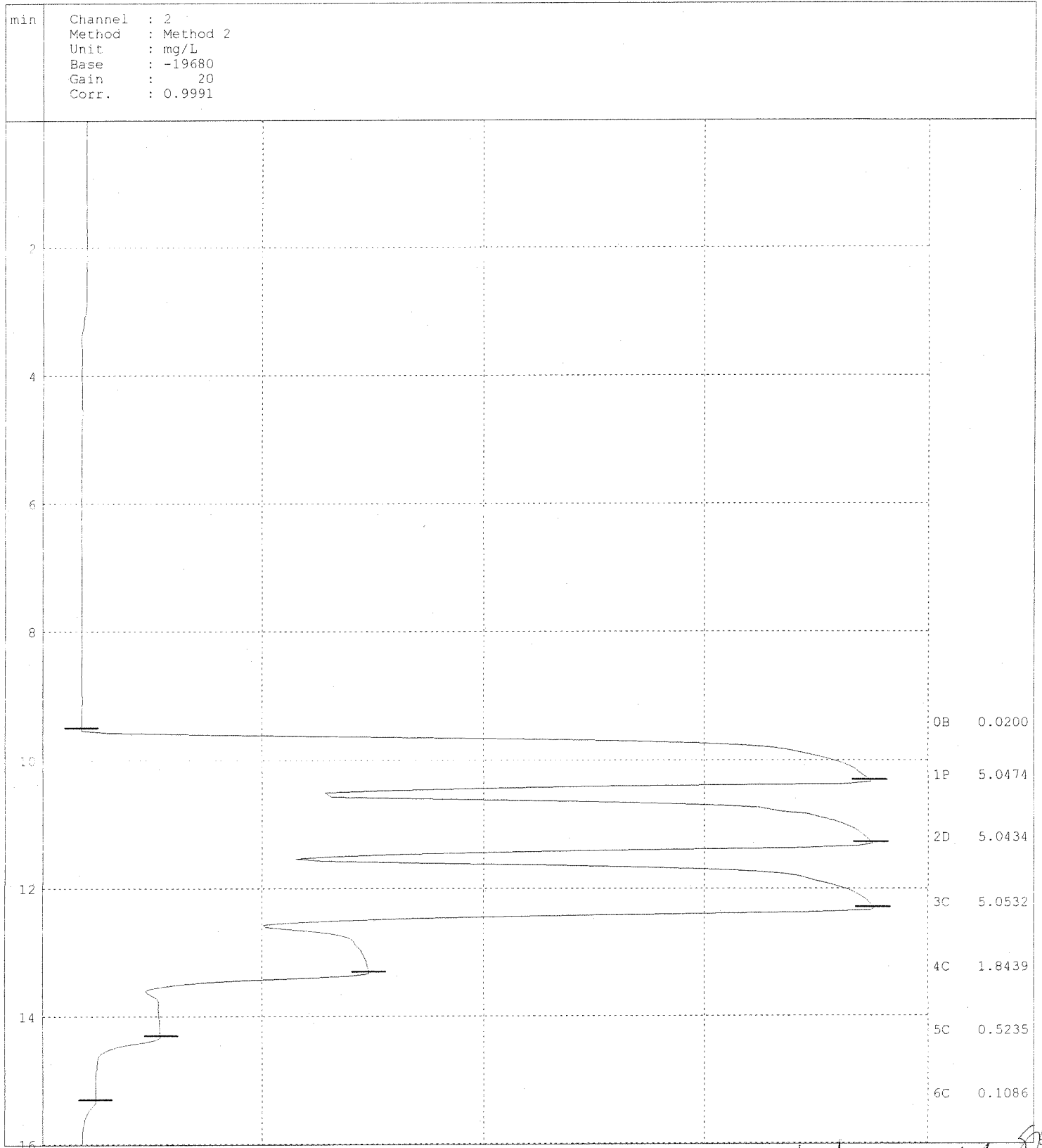
*05/26/10*  
*Heupel*  
*5/26/10*

# BRAN+LUEBBE

Post-run chart

Name of run : 100526C.RUN  
Comment :

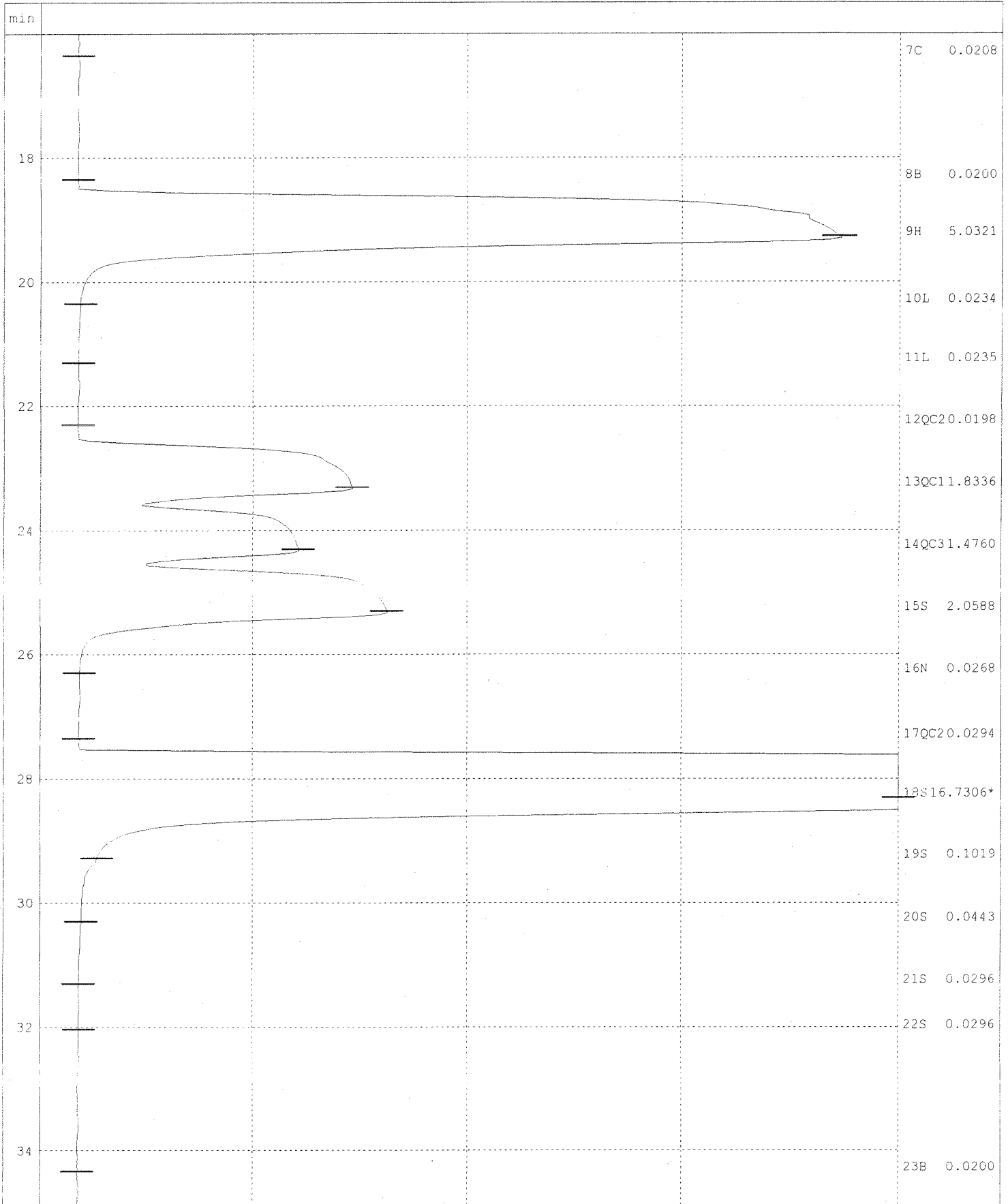
Name of analysis : Ammonia



05/26/10  
Hauger  
Fall  
2/26/10

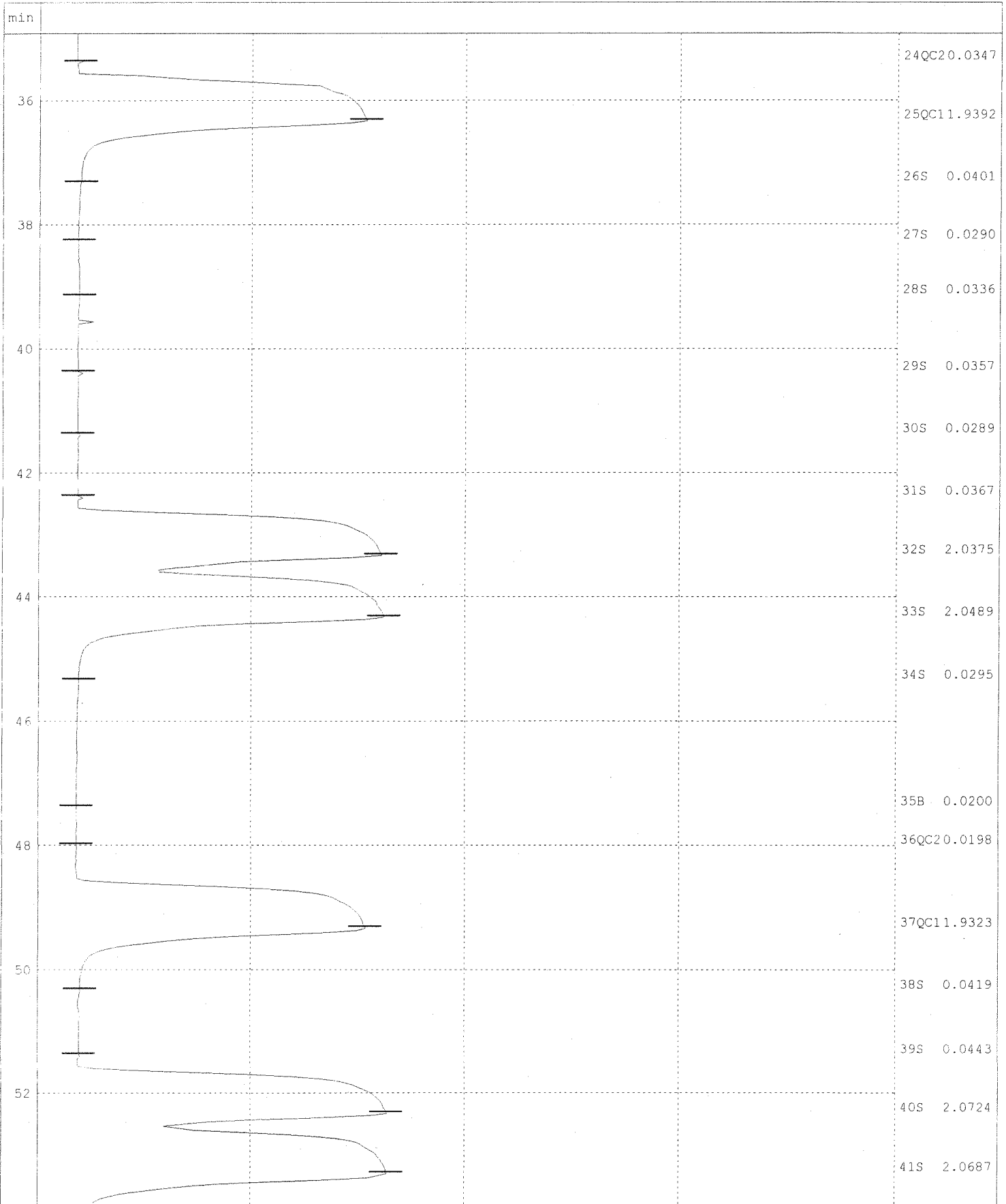
Name of run :100526C.RUN  
Comment :

Name of analysis :Ammonia



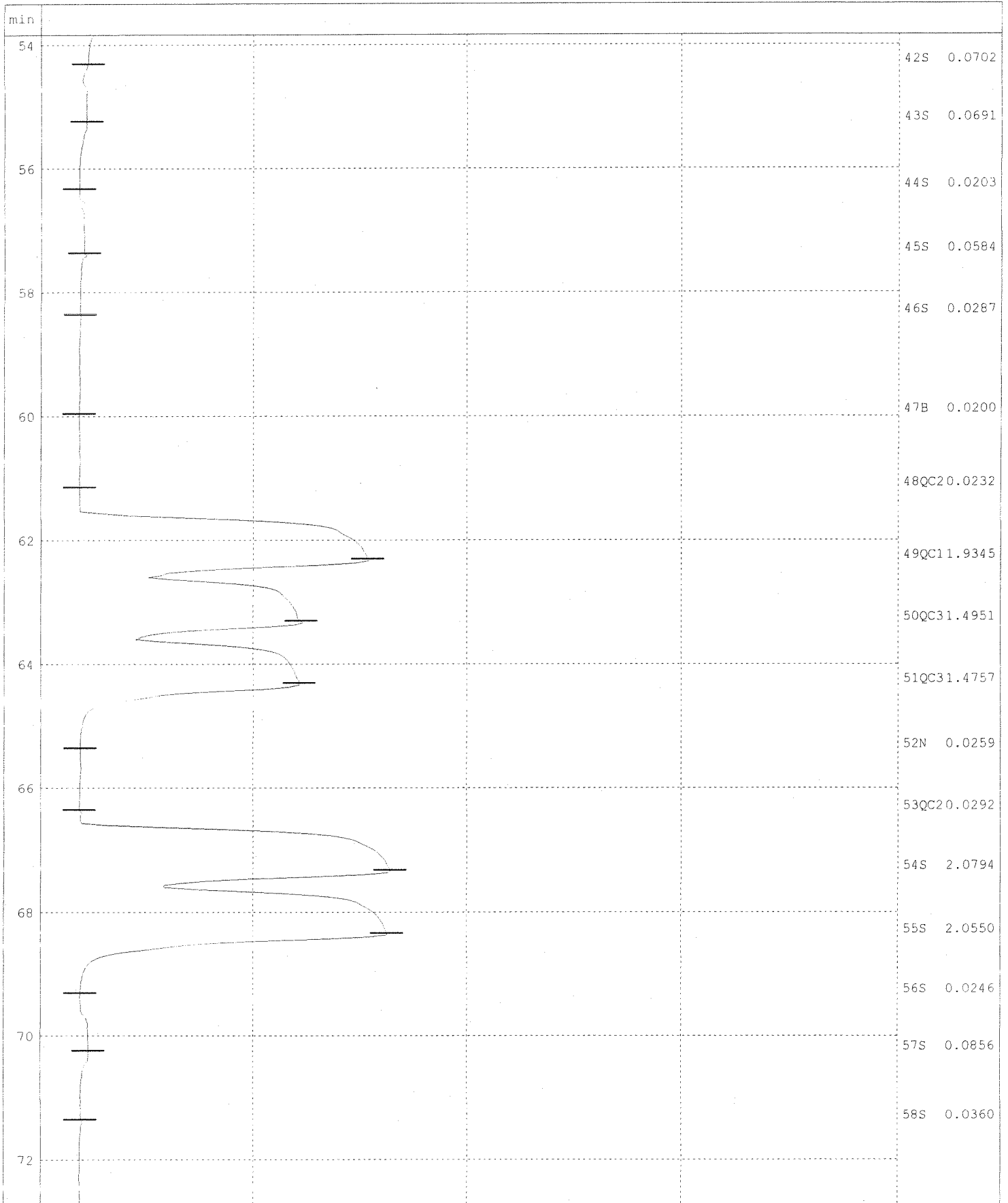
Name of run :100526C.RUN  
Comment :

Name of analysis :Ammonia



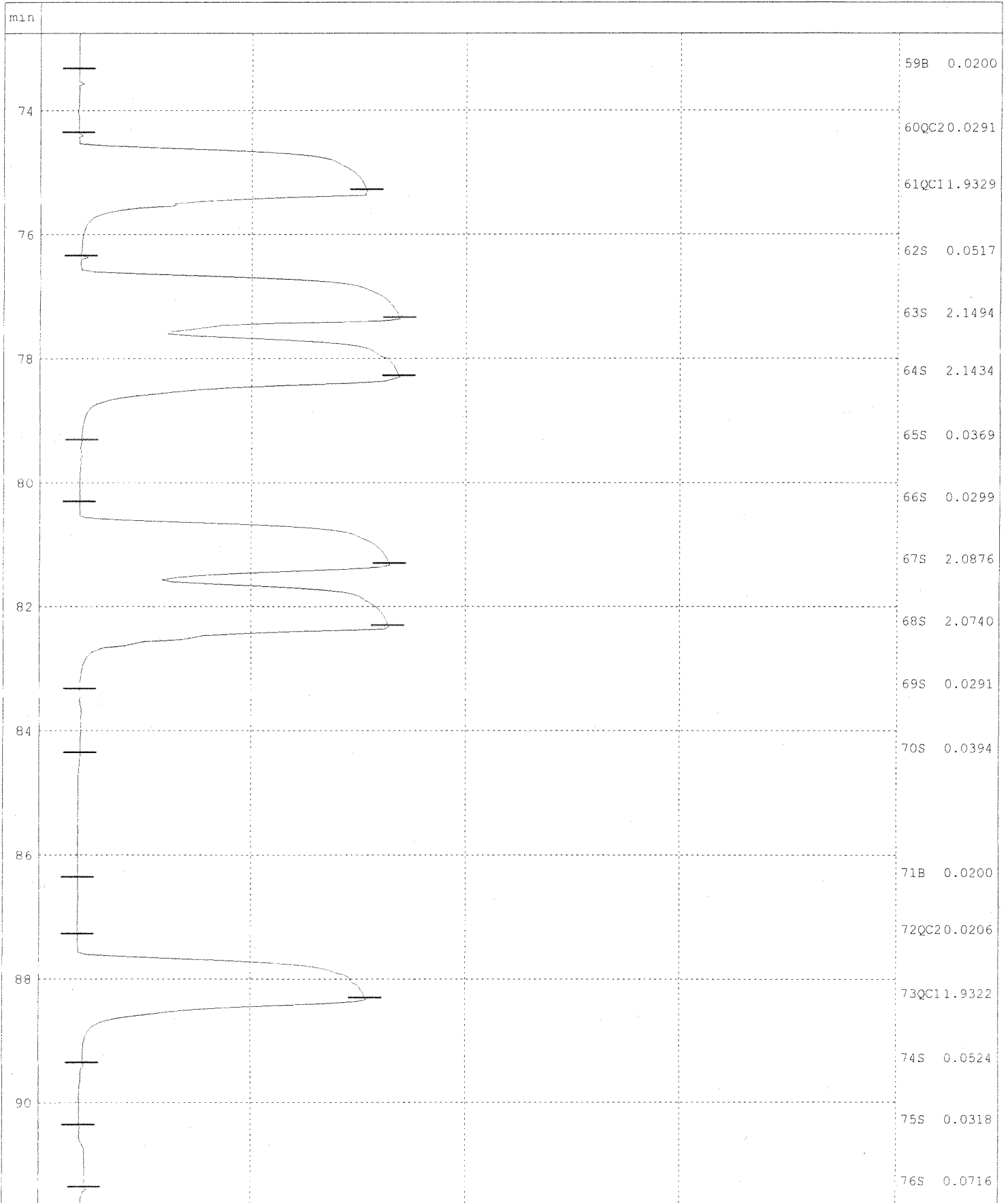
Name of run :100526C.RUN  
Comment :

Name of analysis :Ammonia



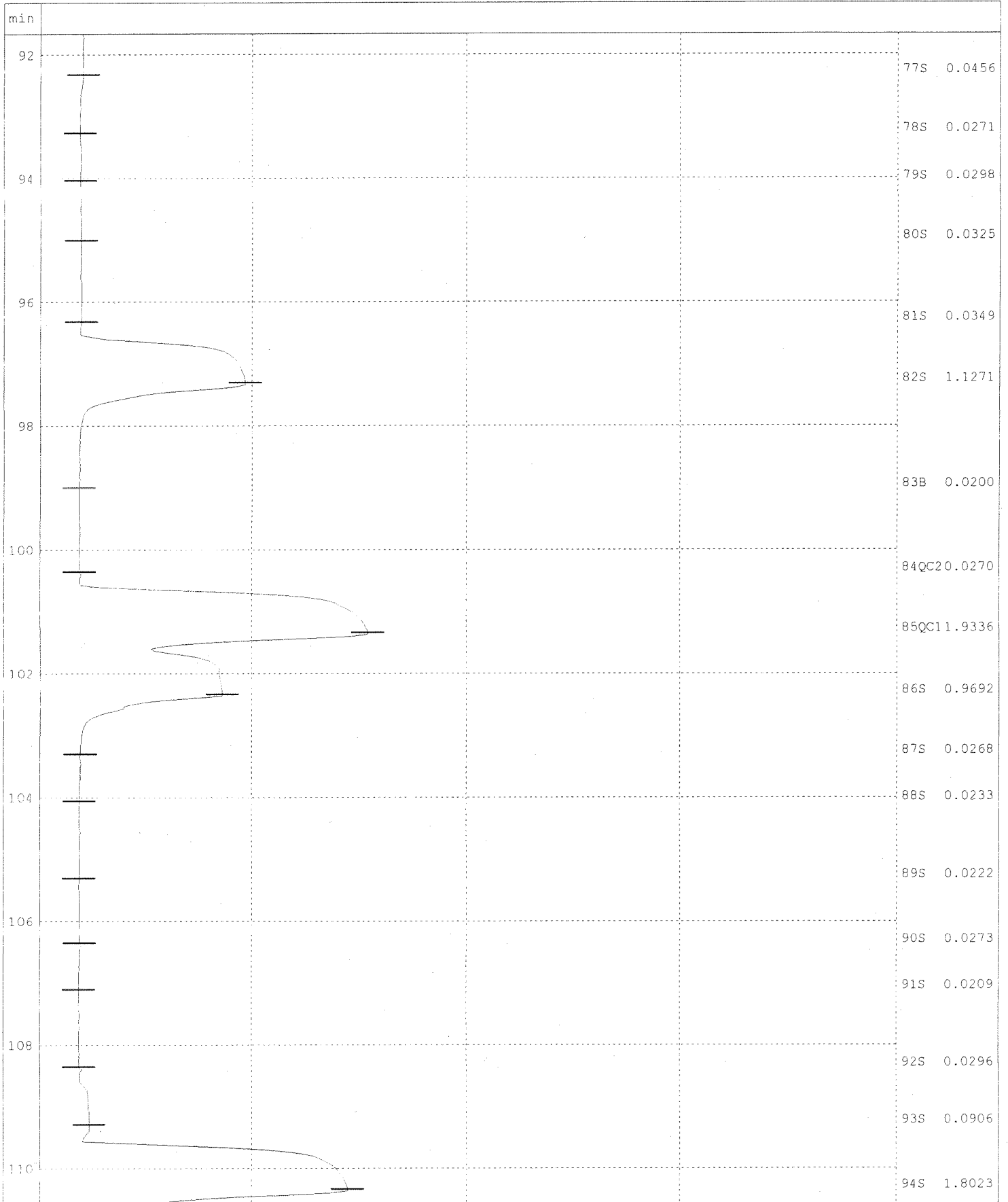
Name of run :100526C.RUN  
Comment :

Name of analysis :Ammonia



Name of run :100526C.RUN  
 Comment :

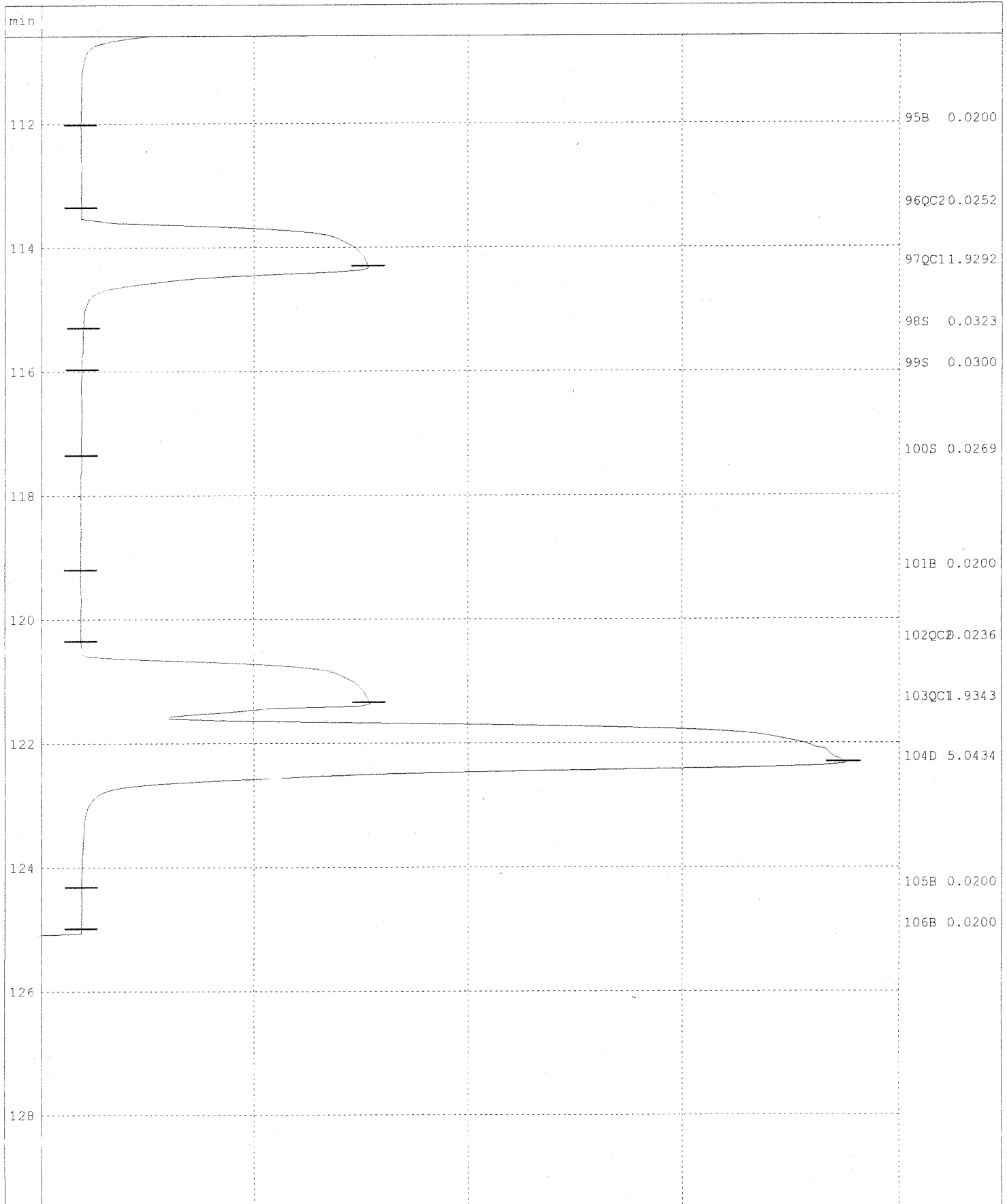
Name of analysis :Ammonia





Name of run :100526C.RUN  
Comment :

Name of analysis :Ammonia



63	41	S	k1005258-001ms
64	42	S	k1005258-001msd
65	43	S	k1005258-002
66	44	S	k1005258-002d
67	45	S	k1005258-002ms
68	46	S	k1005258-002msd
69	47	S	k1005258-003
70	48	S	k1005258-004
71	0	B	Baseline
72	5	QC2	CCB6
73	2	QC1	CCV6
74	49	S	k1005258-005
75	50	S	k1005258-006
76	51	S	k1005261-001
77	52	S	k1005261-002
78	53	S	k1005261-003
79	54	S	k1005261-004
80	55	S	k1005249-001
81	56	S	k1005249-002
82	57	S	k1005251-002
83	0	B	Baseline
84	5	QC2	VVB7
85	2	QC1	CCV7
86	58	S	k1005251-004
87	59	S	k1005314-001
88	60	S	k1005314-002
89	61	S	k1005314-003
90	0	B	Baseline
91	5	QC2	CCB8
92	2	QC1	CCV8
93	1	D	Drift
94	0	B	Baseline
95	0	E	End

22	16	S	k1005055-003
23	0	B	baseline
24	5	QC2	CCB2
25	2	QC1	CCV2
26	17	S	k1005055-004
27	18	S	k1005055-005
28	19	S	k1005055-006
29	20	S	k1005055-007
30	21	S	k1005055-008
31	22	S	k1005055-008d
32	23	S	k1005055-008ms
33	24	S	k1005055-008msd
34	25	S	k1005055-009
35	0	B	Baseline
36	5	QC2	CCB-3
37	2	QC1	CCV-3
38	26	S	k1005067-001
39	27	S	k1005067-001d
40	28	S	k1005067-001ms
41	29	S	k1005067-001msd
42	30	S	k1005067-002
43	31	S	k1005067-003
44	32	S	k1005067-004
45	33	S	k1005069-001
46	34	S	k1005069-001d
47	0	B	Baseline
48	5	QC2	CCB4
49	2	QC1	CCV4
50	10	QC3	LCS2*10
51	10	QC3	LCS2dup*10
52	0	N	Null
53	5	QC2	MB2
54	35	S	k1005069-001ms
55	36	S	k1005069-001msd
56	37	S	k1005069-002
57	38	S	k1005150-001
58	39	S	k1005258-001
59	0	B	Baseline
60	5	QC2	CCB5
61	2	QC1	CCV5
62	40	S	k1005258-001d

---

QC Limits

Channel

2

QC 1	Unused
QC 2	Unused
QC 3	Unused
QC 4	Unused
QC 5	Unused
QC 6	Unused
QC 7	Unused
QC 8	Unused
QC 9	Unused
QC10	Unused

---

## Tray / Cups

Number of Cups : 57

Number of Samples : 51

No Cup Type Sample Id

1	1	P	Primer
2	1	D	Drift
3	1	C	5.00
4	2	C	2.00
5	3	C	0.50
6	4	C	0.05
7	5	C	0
8	0	B	Baseline
9	1	H1	High
10	0	L1	Low
11	0	L1	Low
12	5	QC2	CCB1
13	2	QC1	CCV1
14	10	QC3	LCS1*10
15	11	S	MB MS
16	0	N	Null
17	5	QC2	MB1
18	12	S	k1004911-002
19	13	S	k1005005-001
20	14	S	k1005055-001
21	15	S	k1005055-002

Original  
 Work Request # (K5067)  
 Tier: 1  
 Date Analyzed: 05/19/10  
 Analyst: [Signature]  
 Analysis: ND<sub>2</sub> - 393.2 201352

**DATA QUALITY REPORT  
 INORGANICS**

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate? yes/no/NA
2. Holding times met for all analyses and for all samples? yes/no/NA
3. Are calculations correct? yes/no/NA
4. Is the reporting basis correct? (Dry Weight) yes/no/NA
5. All quality control criteria met? yes/no/NA
  - a. Is the calibration curve correlation coefficient  $\geq 0.995$ ? yes/no/NA
  - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? yes/no/NA
  - c. Are ICVs, CCVs, and CCBs all within acceptance limits? yes/no/NA
  - d. Are results for methods blanks all ND? yes/no/NA
  - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) yes/no/NA
  - f. Are all exceptions explained? yes/no/NA
6. Are all service requests that apply attached? yes/no/NA
7. Are all samples labelled correctly? yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample) yes/no/NA
9. Are detection limits and units reported correctly? yes/no/NA
10. Are proper Analysis/Extraction stickers included on report? yes/no/NA
11. Is the unused space on the benchsheet crossed out? yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#) yes/no/NA

**COMMENTS:**

Final Approved by: [Signature] Date: 5/19/10 DQREPORT

V.  
K5067

# BRAN+LUEBBE

## Post-run report

Name of Run : 100519C  
Date of Report : 5/19/2010  
Date of Run : 5/19/2010  
Operator :  
Comment :

Name of Analysis : Nitrite.ANL  
System No. : 1  
Type of System : AA3  
Start/Stop time : 13:30 - 14:13

Channel : 2  
Method : Method 2  
Unit :  
Calibr. Fit : Linear  
Corr. Coeff. : 0.9998  
Base : -20572  
Gain : 5  
Sensitivity : 1.7090  
Sample Limit 1 :  
Sample Limit 2 :

LCS ID# : AN/11-27-BB T.V.=4.00  
(0.4ml x 100ppm/10ml = 4.00)  
Spike ID# : B+L NO<sub>3</sub>/1-94-CC T.V.=2.00  
Curve, CCV ID# : B+L NO<sub>3</sub>/1-80-V T.V.=2.00

Pk	Cup	Sample Id	Value
0	0	B Baseline	0.0171
1	1	P Primer	4.9985
2	1	D Drift	5.0245
3	1	C 5.00	5.0255
4	2	C 2.00	1.9319
5	3	C 0.50	0.5033
6	4	C 0.05	0.0664
7	5	C 0	0.0228
8	1	H1 High	4.9947
9	0	L1 Low	0.0342
10	0	L1 Low	0.0221
11	5	QC2 CCB1	0.0200
12	2	QC1 CCV1	1.9091
13	10	QC3 LCS1	3.9367
14	0	N Null	0.0321N
15	5	QC2 MB1	0.0230
16	11	S k1005067-001	0.0429
17	12	S k1005067-001d	0.0394
18	13	S k1005067-001ms	2.0076
19	14	S k1005067-001msd	2.0021
20	15	S k1005067-002	0.0486
21	16	S k1005067-003	0.0486
22	0	B Baseline	0.0181
23	5	QC2 CCB2	0.0196
24	2	QC1 CCV2	1.9456
25	17	S k1005067-004	0.0240
26	0	B Baseline	0.0163

0.020 J  
1.91 96%  
3.94 99%

0.023 J  
0.043 J  
0.039 J  
2.01 98%  
2.00 98%

0.020 J  
1.95 98%  
0.024 J  
0.016 J NR

5/19/10

5/19/10  
Fougeron

BRAN+LUEBBE AACE 6.02

Post-run Report

27	5	QC2	CCB3	0.0175	<i>0.0187</i>
28	2	QC1	CCV3	1.9244	<i>1.92 96%</i>
29	1	D	Drift	5.0190	
30	0	B	Baseline	0.0209	
31	0	B	FinalBase	0.0192	

QC Limits

Channel	:	2
QC 1	Unused	
QC 2	Unused	
QC 3	Unused	
QC 4	Unused	
QC 5	Unused	
QC 6	Unused	
QC 7	Unused	
QC 8	Unused	
QC 9	Unused	
QC10	Unused	

CORRECTIONS

Channel	:	2
Baseline	:	No
Drift	:	No
Carry over	:	No
%:		0.0

\* ... Sample offscale  
+ ... Result higher than sample limit  
- ... Result lower than sample limit  
P ... Standard passed  
F ... Standard failed  
N ... Value not calculated or not used  
R ... Resample after offscale  
M ... Peak marker moved manually  
D ... Diluted sample

\*\* <END OF REPORT> \*\*

*5/19/10*  
*5/19/10*  
*Frangy*

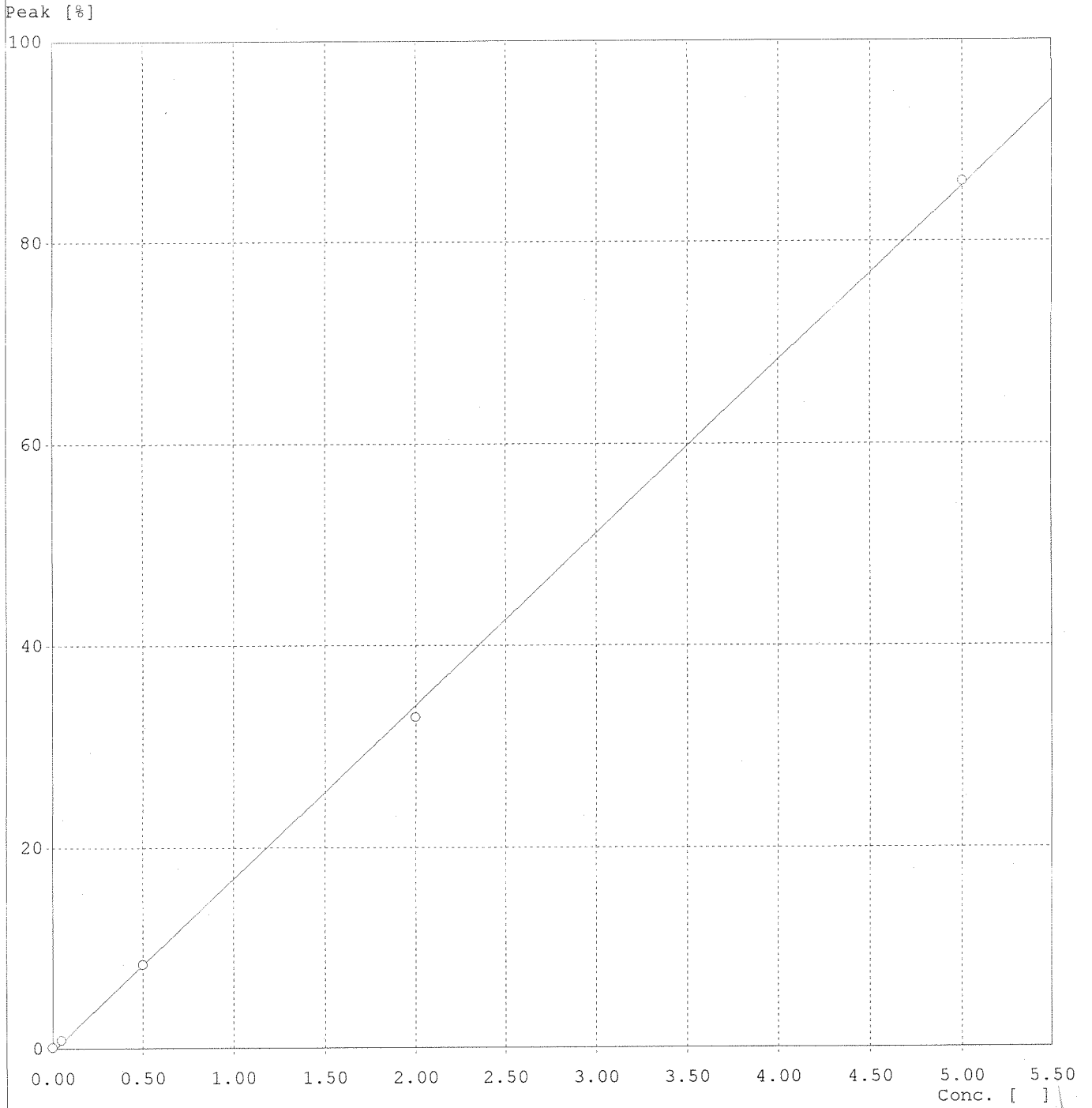
# BRAN+LUEBBE

## Calibration Curve

Name of run :100519C.run  
Comment :

Name of analysis :Nitrite.ANL

Channel :2  
Method :Method 2  
Curve fit :linear a=-2.7203E-001 b=8.8952E-005  
Corr. coeff. :0.9998



05/19/10  
Hansen  
5/19/10

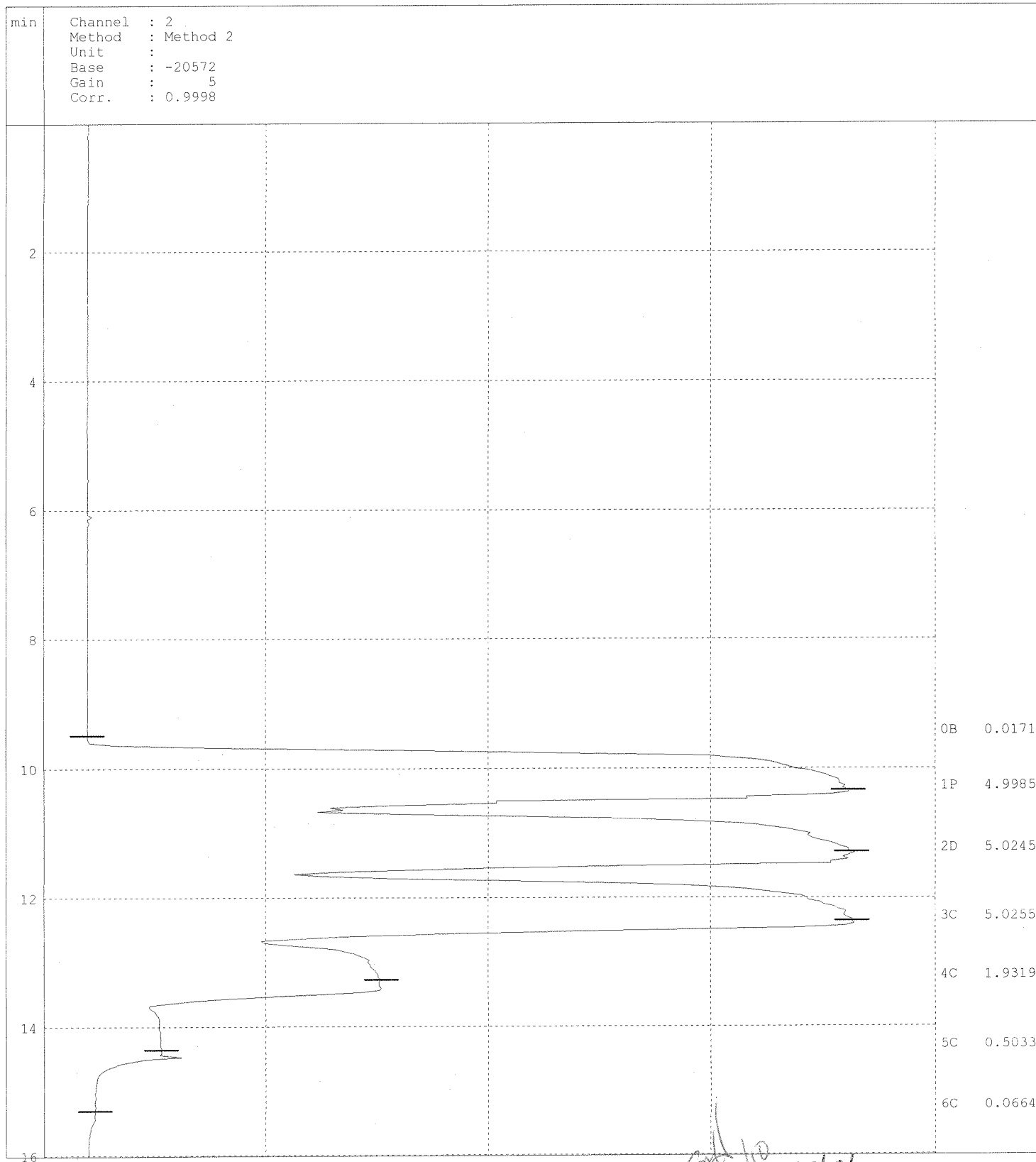


# BRAN+LUEBBE

Post-run chart

Name of run :100519C.RUN  
Comment :

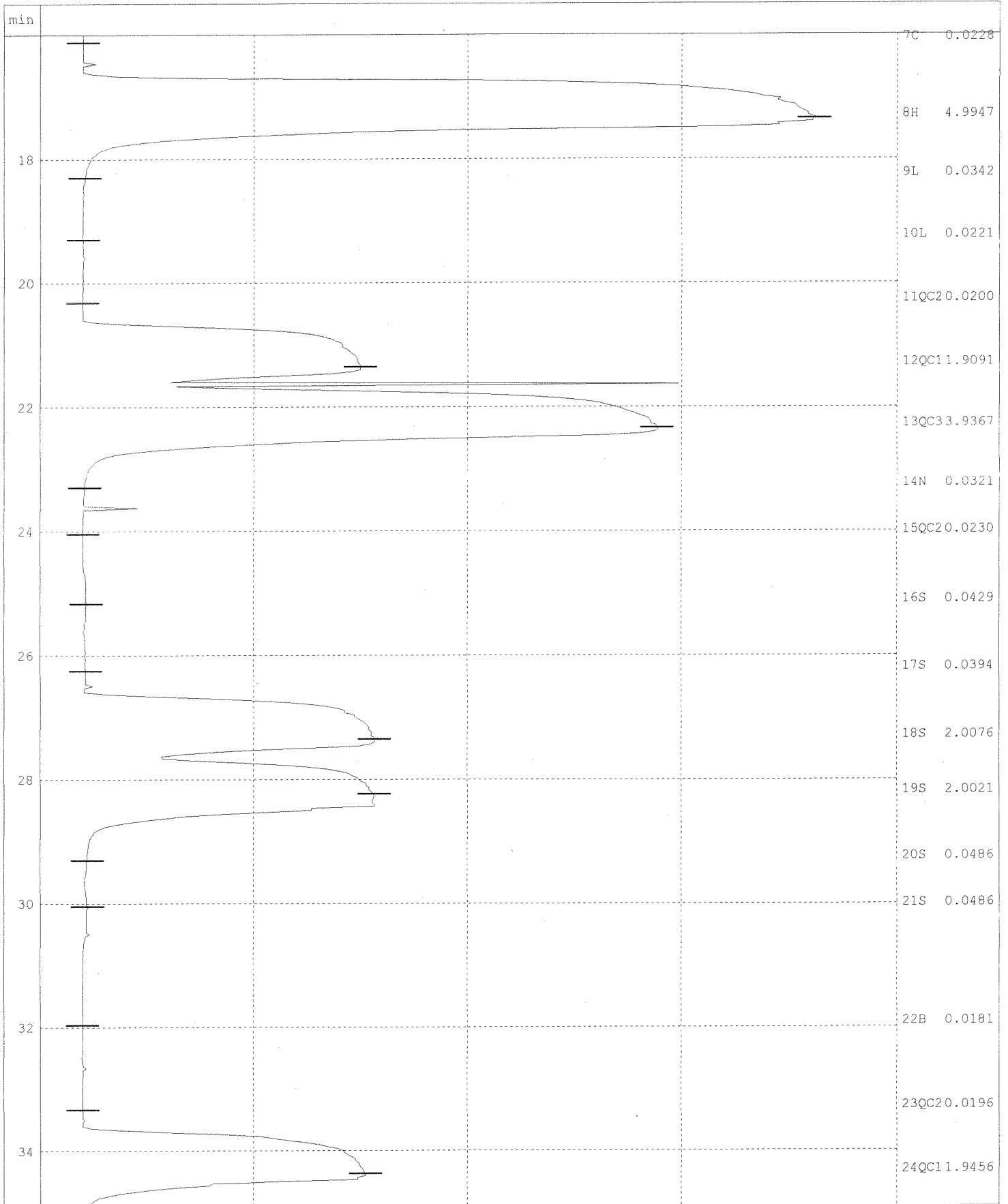
Name of analysis :Nitrite.ANL



*Handwritten notes:*  
6/19/10  
05/19/10  
Hewlett

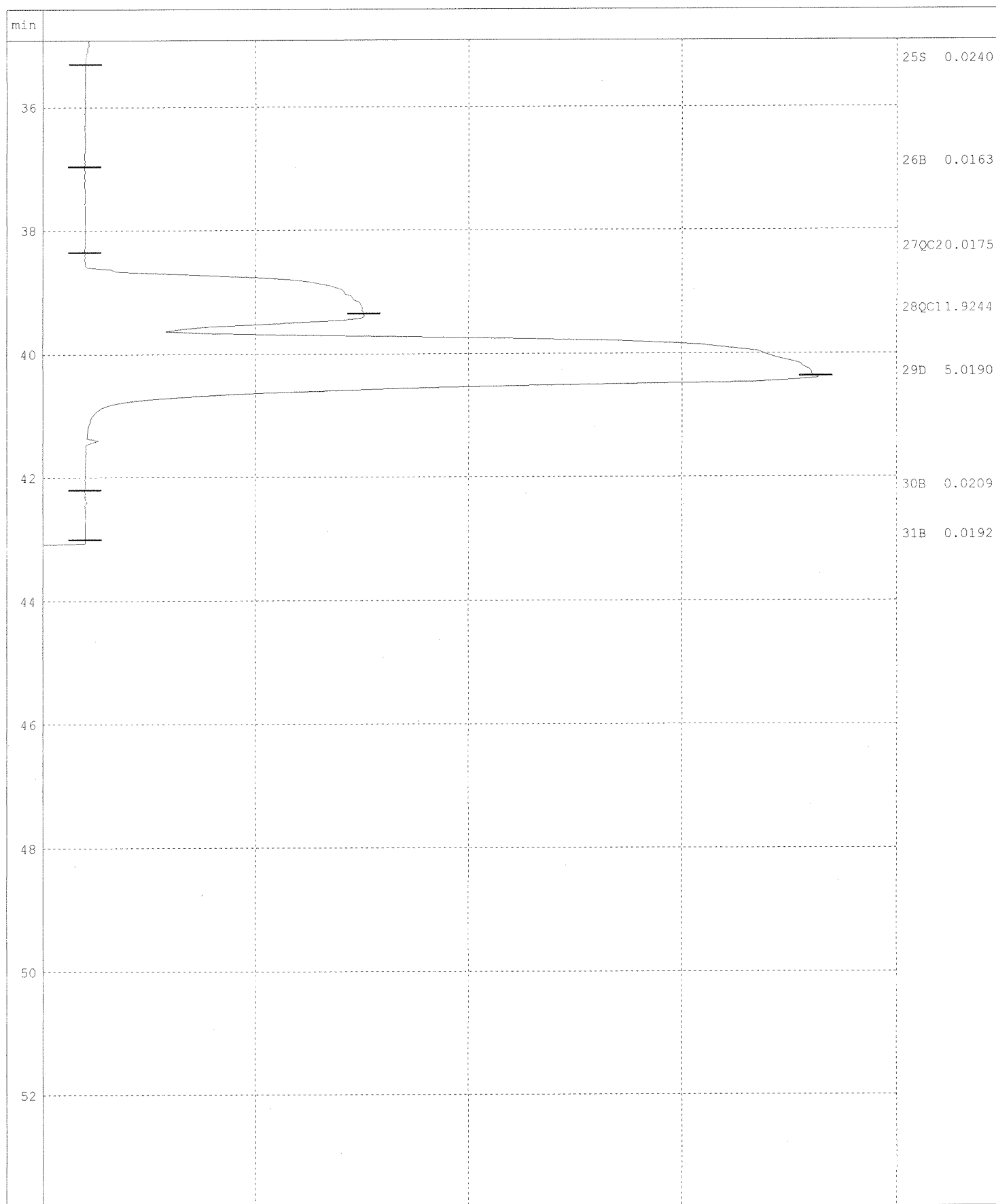
Name of run :100519C.RUN  
Comment :

Name of analysis :Nitrite.ANL



Name of run :100519C.RUN  
Comment :

Name of analysis :Nitrite.ANL



Work Request # <sup>Original</sup> (K4936) K5035 K5056 K5067 K5179 K5182 K5256 K5261  
 Tier: III II III III V V V II  
 Date Analyzed: 05/22/10  
 Analyst: Temporally  
 Analysis: NO<sub>2</sub>/NO<sub>3</sub> - 353.2 201866

**DATA QUALITY REPORT  
INORGANICS**

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate?  yes/no/NA
2. Holding times met for all analyses and for all samples?  yes/no/NA
3. Are calculations correct?  yes/no/NA
4. Is the reporting basis correct? (Dry Weight)  yes/no/NA
5. All quality control criteria met?  yes/no/NA
  - a. Is the calibration curve correlation coefficient  $\geq 0.995$ ?  yes/no/NA
  - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency?  yes/no/NA
  - c. Are ICVs, CCVs, and CCBs all within acceptance limits?  yes/no/NA
  - d. Are results for methods blanks all ND?  yes/no/NA
  - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.)  yes/no/NA
  - f. Are all exceptions explained?  yes/no/NA
6. Are all service requests that apply attached?  yes/no/NA
7. Are all samples labelled correctly?  yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample)  yes/no/NA
9. Are detection limits and units reported correctly?  yes/no/NA
10. Are proper Analysis/Extraction stickers included on report?  yes/no/NA
11. Is the unused space on the benchsheet crossed out?  yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#)  yes/no/NA

COMMENTS: K5179, K5182 - Rusli due date 05/30/10

Final Approved by: [Signature] Date: 5/24/10 DQREPORT

<sup>III</sup> K4936, <sup>II</sup> K5030, K5035, <sup>III</sup> K5055, <sup>IV</sup> K5067, <sup>V</sup> K5179, <sup>V</sup> K5182, <sup>VI</sup> K5256, <sup>VI</sup> K5261  
 NR, Rush(05/30), Rush(05/30)

BRAN+LUEBBE AACE 6.02

Post-run Report

# BRAN+LUEBBE

Post-run report

Name of Run : 100522A  
 Date of Report : 5/22/2010  
 Date of Run : 5/22/2010  
 Operator :  
 Comment :

Name of Analysis : NO2+NO3  
 System No. : 1  
 Type of System : AA3  
 Start/Stop time : 09:57 - 12:05

Channel	:	2	LCS ID#: B+LNH <sub>2</sub> /-34-J	T.V. = 14.8
Method	:	Method 2	Spike ID#: B+LNO <sub>2</sub> /-94-EE	T.V. = 2.00
Unit	:	mg/L	Curve, CCV ID#: B+LNO <sub>2</sub> /-85-Y	T.V. = 2.00
Calibr. Fit	:	Linear	ICV ID#: B+LNO <sub>2</sub> /-80-V	T.V. = 2.00
Corr. Coeff.	:	0.9998	MB MS = 2.00	
Base	:	-20611		
Gain	:	5		
Sensitivity	:	1.6587		
Sample Limit 1	:			
Sample Limit 2	:			

Pk	Cup	Sample Id	Value
0	0	B Baseline	0.0161
1	1	P primer	4.9938
2	1	D Drift	5.0104
3	1	C 5.00	5.0260
4	2	C 2.00	1.9310
5	3	C 0.50	0.5016
6	4	C 0.05	0.0687
7	5	C 0	0.0228
8	1	H1 High	4.9787
9	0	L1 Low	0.0310
10	0	L1 Low	0.0310
11	9	QC3 ICV	1.9194
12	5	QC2 ICB	0.0263
13	5	QC2 CCB1	0.0243
14	2	QC1 CCV1	1.9010
15	10	QC4 LCS1*10	1.4647
16	11	S MB MS	1.9318
17	0	N Null	0.0248N
18	5	QC2 MB1	0.0246
19	12	S k1004936-001	2.3053
20	13	S k1004936-003	0.8346
21	14	S k1004936-004	0.1428
22	15	S k1004936-005	0.4469
23	16	S k1004936-006	1.2589
24	0	B Baseline	0.0161
25	5	QC2 CCB2	0.0235
26	2	QC1 CCV2	1.8845

1.92 96%  
 0.026 J  
 0.024 J  
 1.90 95%  
 14.6 99%  
 1.93 97%  
 0.025 J  
 2.301  
 0.835  
 0.143  
 0.447  
 1.26  
 0.024 J  
 1.88 94%

SAH  
 5/24/10

05/22/10  
 Hengouy

27	17	S	k1004936-007	0.5043	0.504	$\bar{x} = 0.498$	RPD = 2%
28	18	S	k1004937-007d	0.4915	0.492		
29	19	S	k1004936-007ms	2.5472	2.55	102%	
30	20	S	k1004936-007msd	2.5485	2.55	102%	
31	21	S	k1004972-001	1.5411			
32	22	S	k1004973-001	15.4999		} NIR	
33	23	S	k1005030-001	0.1414			
34	24	S	k1005035-001	0.5208	0.521		
35	25	S	k1005035-002	0.4924	0.492		
36	0	B	Baseline	0.0161			
37	5	QC2	CCB3	0.0263	0.0267		
38	2	QC1	CCV3	1.9184	1.92	96%	
39	26	S	k1005055-001	0.0340	0.0347		
40	27	S	k1005055-002	0.0392	0.0397		
41	28	S	k1005055-003	0.0430	0.0437		
42	29	S	k1005055-004	0.0341	0.0347		
43	30	S	k1005055-005	0.0329	0.0337		
44	31	S	k1005055-006	0.0291	0.0297		
45	32	S	k1005055-007	0.0245	0.0257		
46	33	S	k1005055-008	0.0260	0.0267	$\bar{x} = 0.028$	RPD = 11%
47	34	S	k1005055-008d	0.0293	0.0297		
48	0	B	Baseline	0.0161			
49	5	QC2	CCB4	0.0280	0.0287		
50	2	QC1	CCV4	1.8952	1.90	95%	
51	10	QC4	LCS2*10	1.4584	14.6	99%	
52	0	N	Null	0.0250N			
53	5	QC2	MB2	0.0327	0.0337		
54	35	S	k1005055-008ms	2.0779	2.08	103%	
55	36	S	k1005055-008msd	2.0531	2.05	101%	
56	37	S	k1005055-009	0.0329	0.0337		
57	38	S	k1005067-001	1.6680	1.67	$\bar{x} = 1.67$	RPD < 1%
58	39	S	k1005067-001d	1.6749	1.67		
59	40	S	k1005067-001ms	3.7393	3.74	104%	
60	0	B	Baseline	0.0161			
61	5	QC2	CCB5	0.0178	0.0187		
62	2	QC1	CCV5	1.9028	1.90	95%	
63	41	S	k1005067-001msd	3.7368	3.74	104%	
64	42	S	k1005067-002	15.4321*		} NIR	
65	43	S	k1005067-003	15.4280*			
66	44	S	k1005067-004	0.0854			
67	45	S	k1005179-001	0.0406	0.041	$\bar{x} = 0.042$	RPD = 5%
68	46	S	k1005179-001d	0.0433	0.043		
69	47	S	k1005179-001ms	2.0337	2.03	99%	
70	48	S	k1005179-001msd	2.0384	2.04	100%	
71	49	S	k1005179-002	0.1092	0.109		
72	0	B	Baseline	0.0161			
73	5	QC2	CCB6	0.0253	0.0257		
74	2	QC1	CCV6	1.8965	1.90	95%	
75	50	S	k1005179-003	0.0334	0.0337		
76	51	S	k1005179-004	0.0857	0.086		
77	52	S	k1005182-001	0.0434	0.0437	$\bar{x} = 0.043$	RPD < 1%
78	53	S	k1005182-001d	0.0426	0.0437		

OTH 05/22/10

5/24/10

05/22/10  
Flanagan

BRAN+LUEBBE AACE 6.02

79	54	S	k1005182-001ms	2.0630	2.06	101%
80	55	S	k1005182-001msd	2.0519	2.05	100%
81	56	S	k1005182-002	0.0321	0.0327	
82	57	S	k1005182-003	0.0367	0.0377	
83	0	B	Baseline	0.0161		
84	5	QC2	CCB7	0.0232	0.0237	
85	2	QC1	CCV7	1.9017	1.90	95%
86	58	S	k1004972-001*10	15.3880*		NR
87	59	S	k1004973-001	0.2105		
88	60	S	k1005067-004	0.0328	0.0337	
89	61	S	k1005067-002*10	1.5774	15.8	
90	62	S	k1005067-003*10	1.5981	16.0	
91	63	S	rinse	0.0347		
92	64	S	k5256-001	0.3738	0.374	
93	65	S	k1005256-002	0.3886	0.389	
94	66	S	k1005261-001	0.0361	<0.050	
95	0	B	Baseline	0.0161		
96	5	QC2	CCB8	0.0334	0.0337	
97	2	QC1	CCV8	1.8729	1.87	94%
98	67	S	k1005261-002	0.1338	0.134	
99	68	S	k1005261-003	0.0411	<0.050	
100	69	S	k1005261-004	0.0459	<0.050	
101	70	S	k1004973-001	15.3568*		NR
102	71	S	k1004972-001*25	0.1122		
103	72	S	rinse	0.0372		
104	0	B	Baseline	0.0161		
105	5	QC2	CCB9	0.0218	0.0227	
106	2	QC1	CCV9	1.8776	1.88	94%
107	1	D	Drift	5.0104		
108	0	B	Baseline	0.0161		
109	0	B	FinalBase	0.0161		

QC Limits

Channel	:	2
QC 1	Unused	
QC 2	Unused	
QC 3	Unused	
QC 4	Unused	
QC 5	Unused	
QC 6	Unused	
QC 7	Unused	
QC 8	Unused	
QC 9	Unused	
QC10	Unused	

*SMA*  
5/24/10

CORRECTIONS

Channel	:	2
Baseline	:	Yes
Drift	:	Yes
Carry over	:	Yes

05/22/10  
*Houjuru*

⊘:

0.0

---

\* ... Sample offscale  
+ ... Result higher than sample limit  
- ... Result lower than sample limit  
P ... Standard passed  
F ... Standard failed  
N ... Value not calculated or not used  
R ... Resample after offscale  
M ... Peak marker moved manually  
D ... Diluted sample

\*\* <END OF REPORT> \*\*

*Sat*  
*5/24/10*

*05/22/10*  
*Haugen*



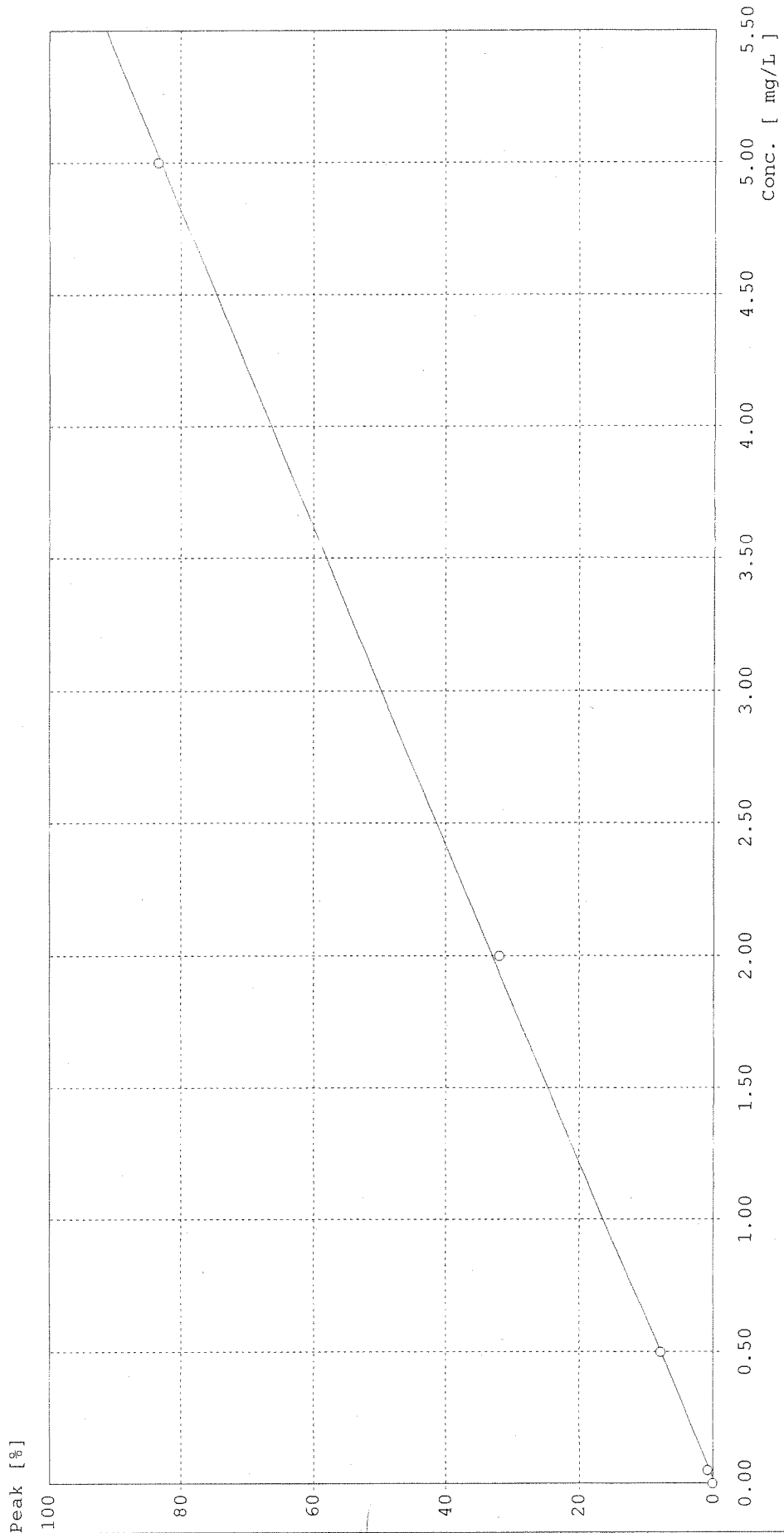
# BRAN+LUEBBE

Calibration Curve

Name of run : 100522A.run  
Comment :

Name of analysis : NO2+NO3

Channel : 2  
Method : Method 2  
Curve fit : linear      a=-2.6535E-001      b=9.1586E-005  
Corr. coeff. : 0.9998



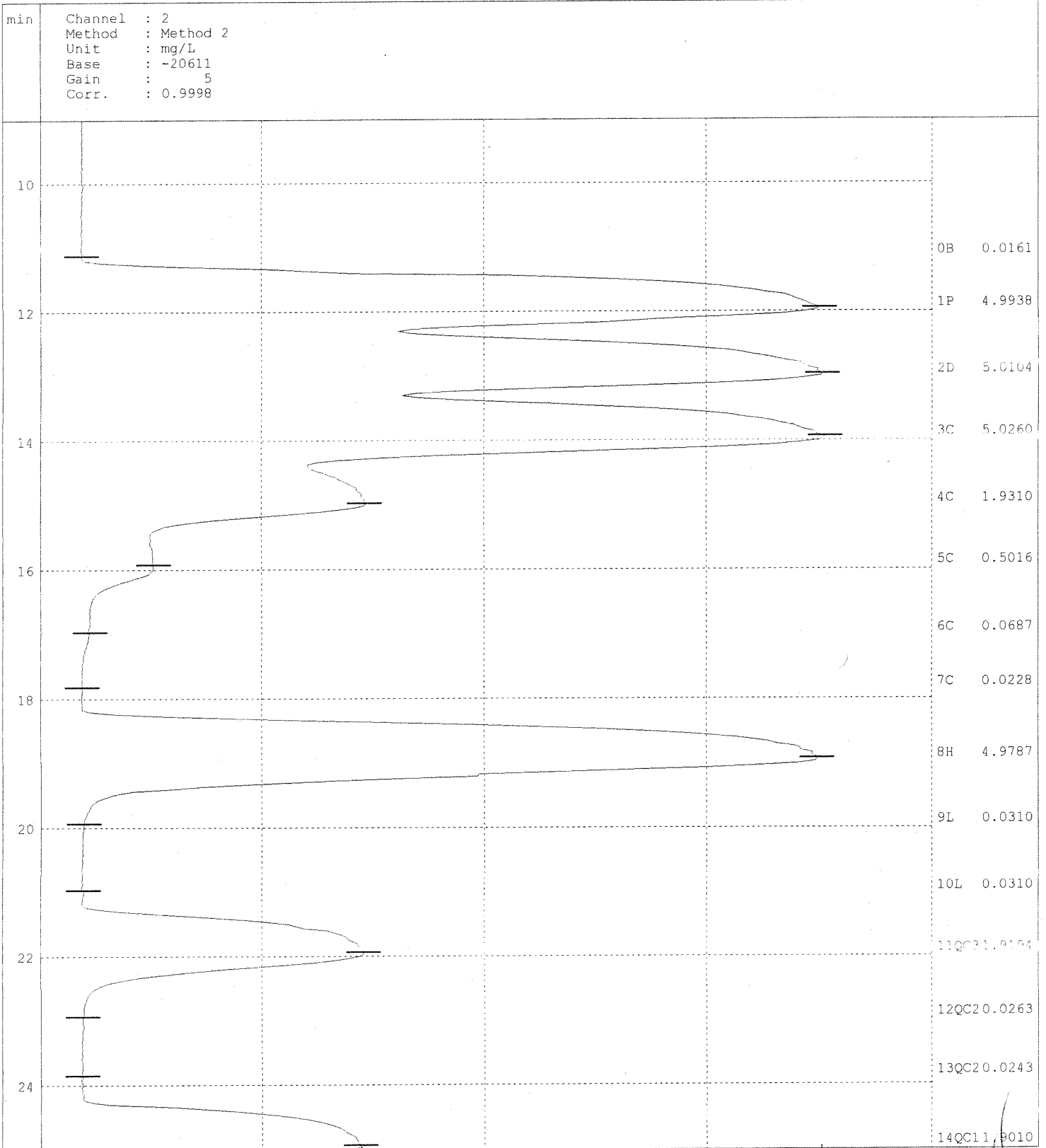
*SAH*  
*5/24/10*  
*05/22/10*  
*Hawkins*

# BRAN+LUEBBE

Post-run chart

Name of run :100522A.RUN  
Comment :

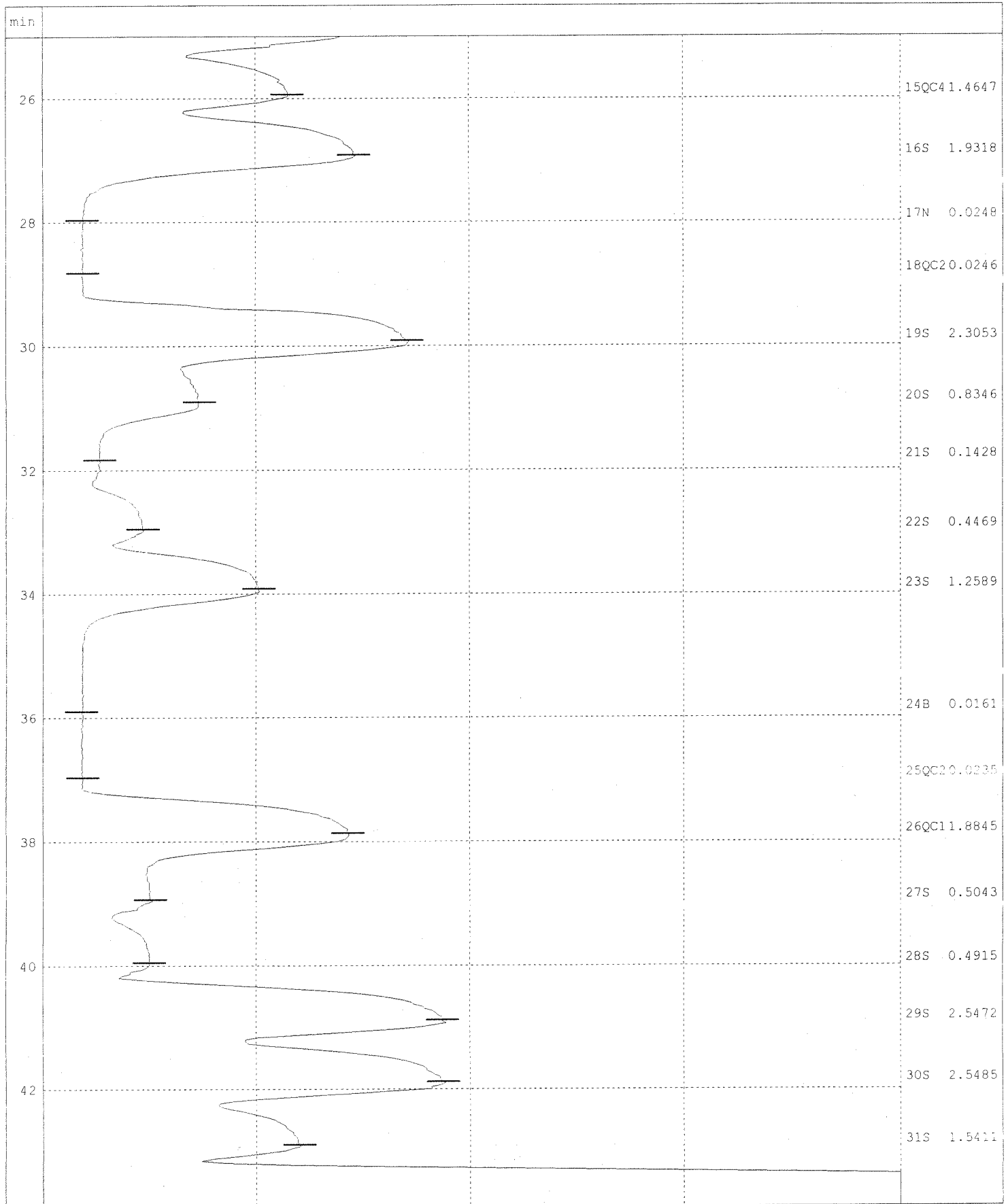
Name of analysis :NO2+NO3



05/22/10  
Freyer  
5/24/10

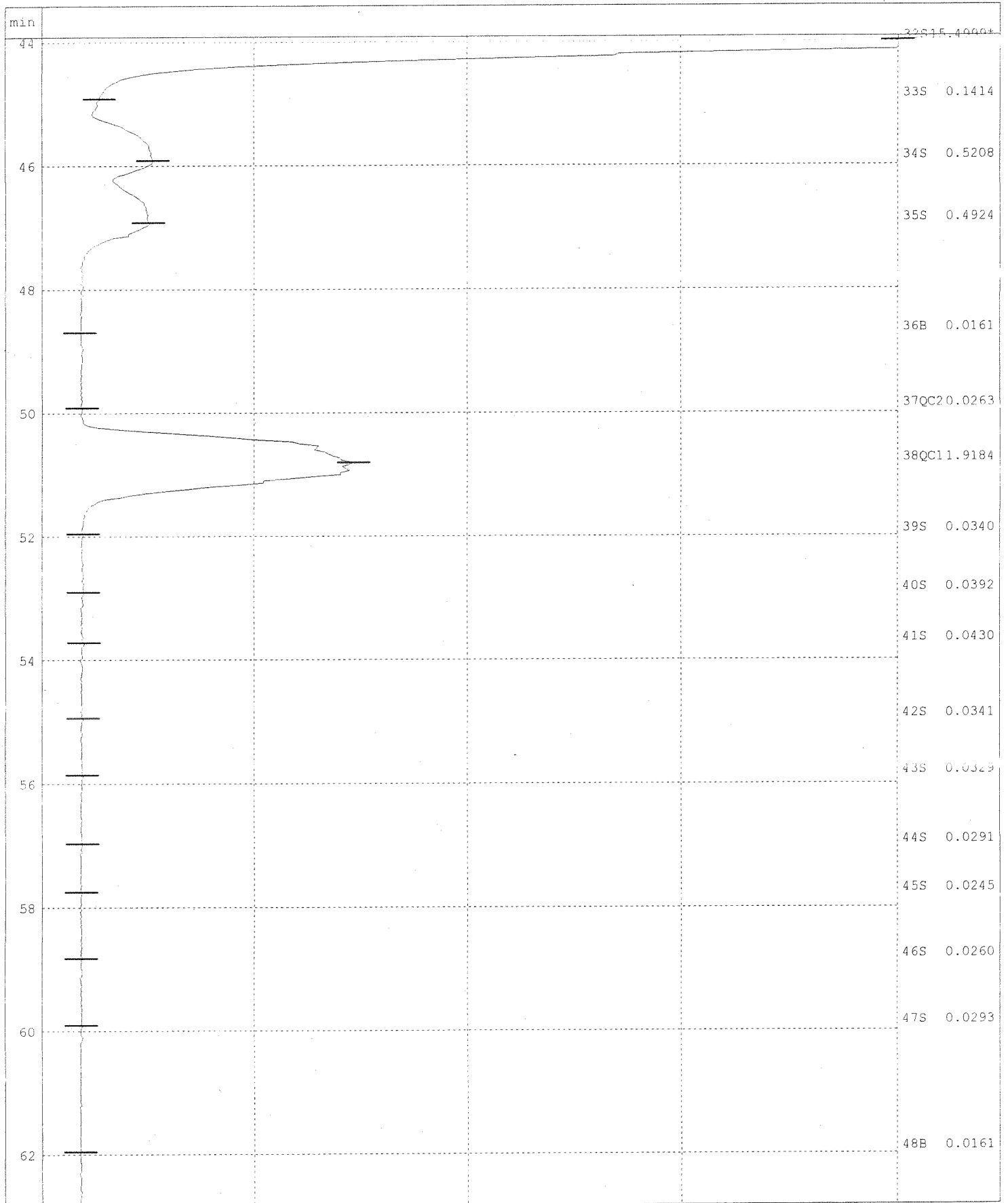
Name of run :100522A.RUN  
Comment :

Name of analysis :NO2+NO3



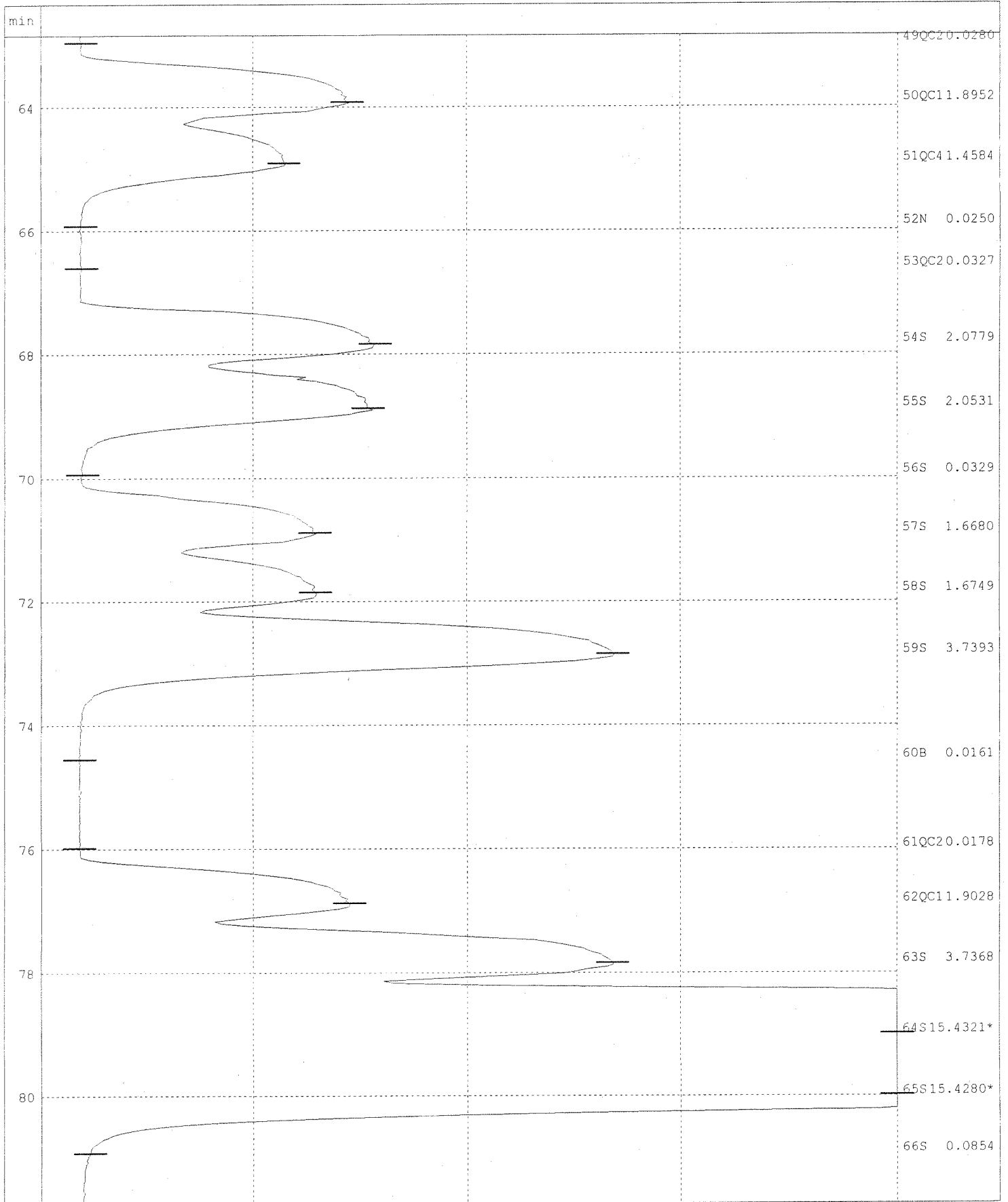
Name of run :100522A.RUN  
Comment :

Name of analysis :NO2+NO3



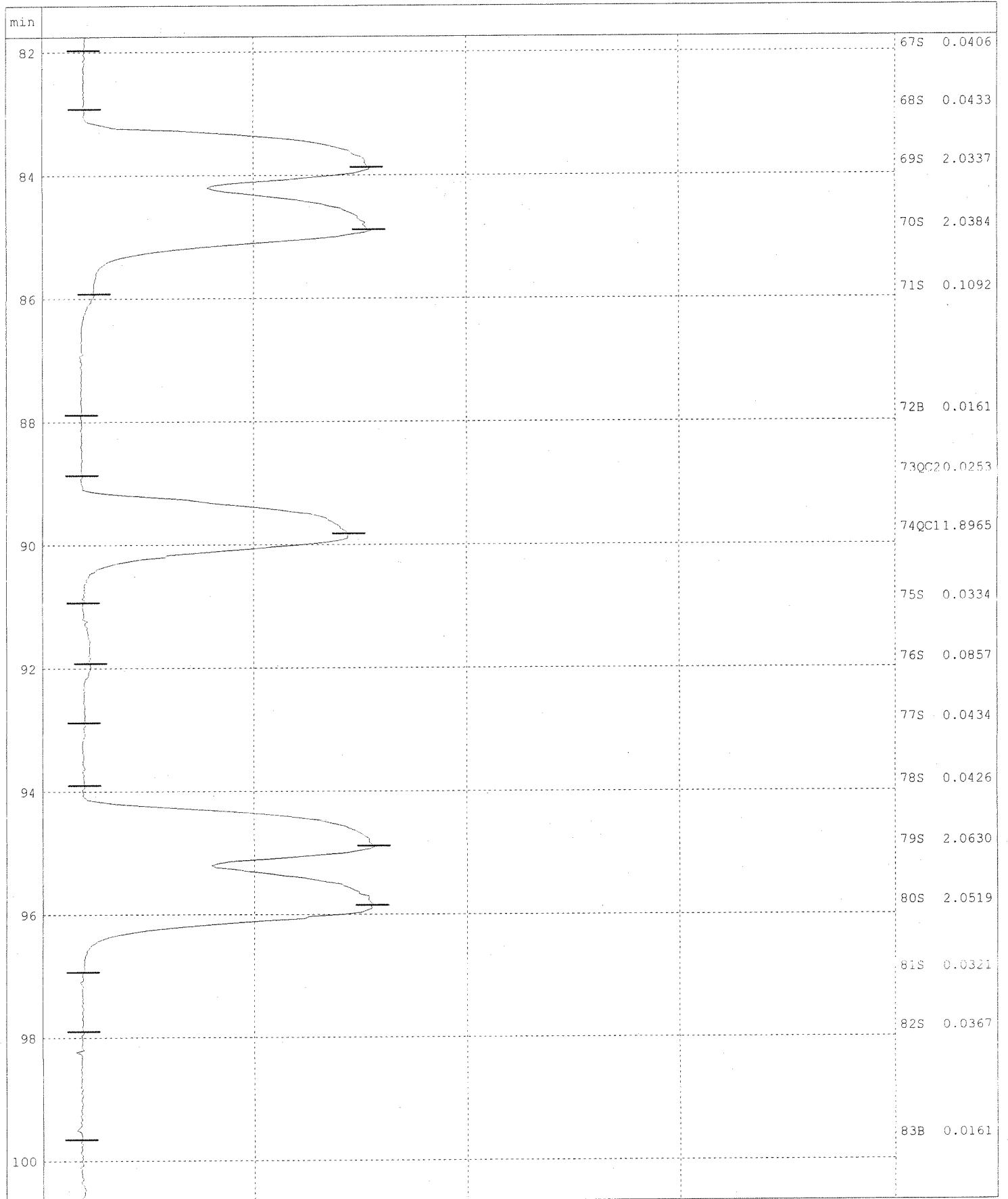
Name of run :100522A.RUN  
Comment :

Name of analysis :NO2+NO3



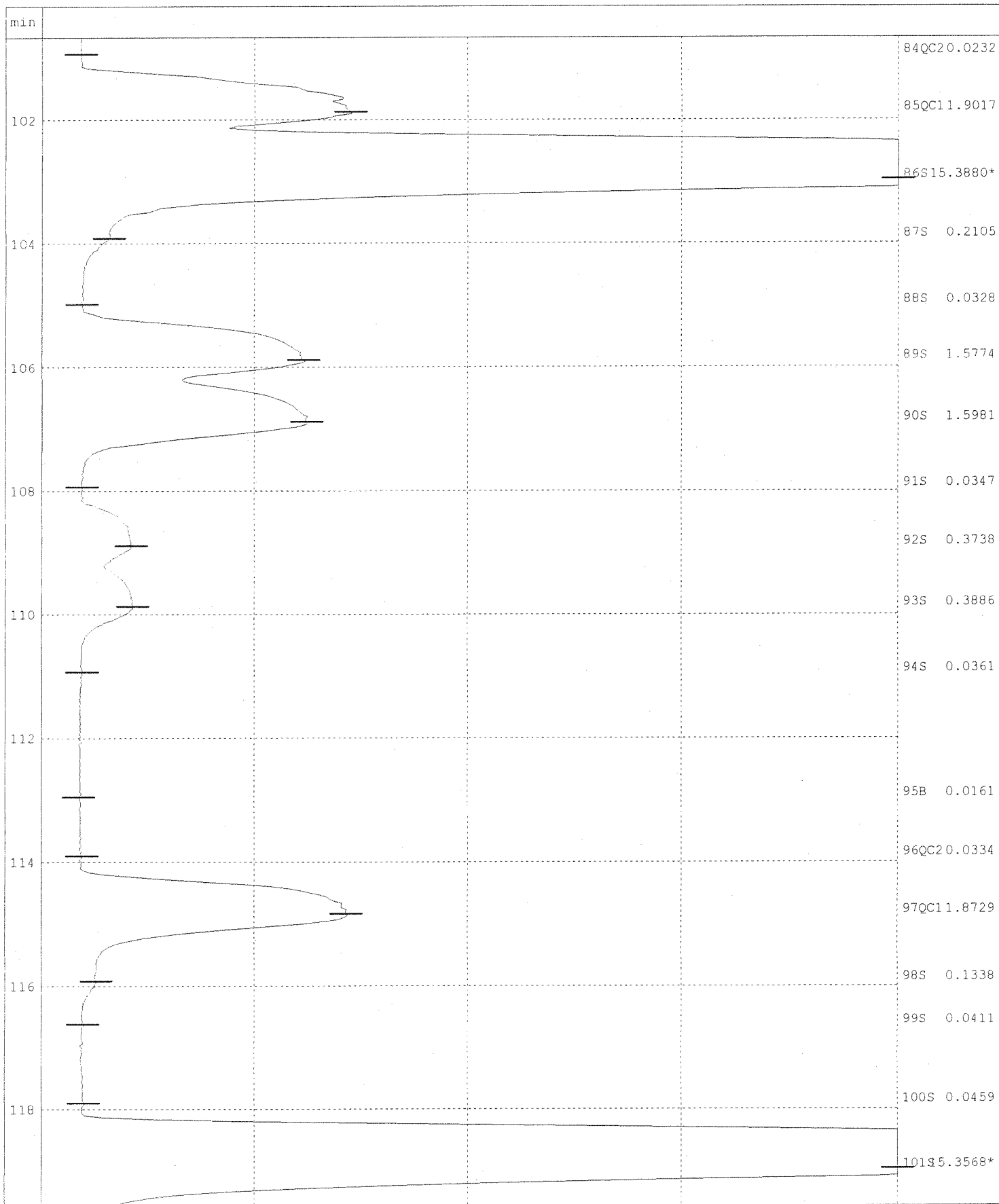
Name of run :100522A.RUN  
Comment :

Name of analysis :NO2+NO3



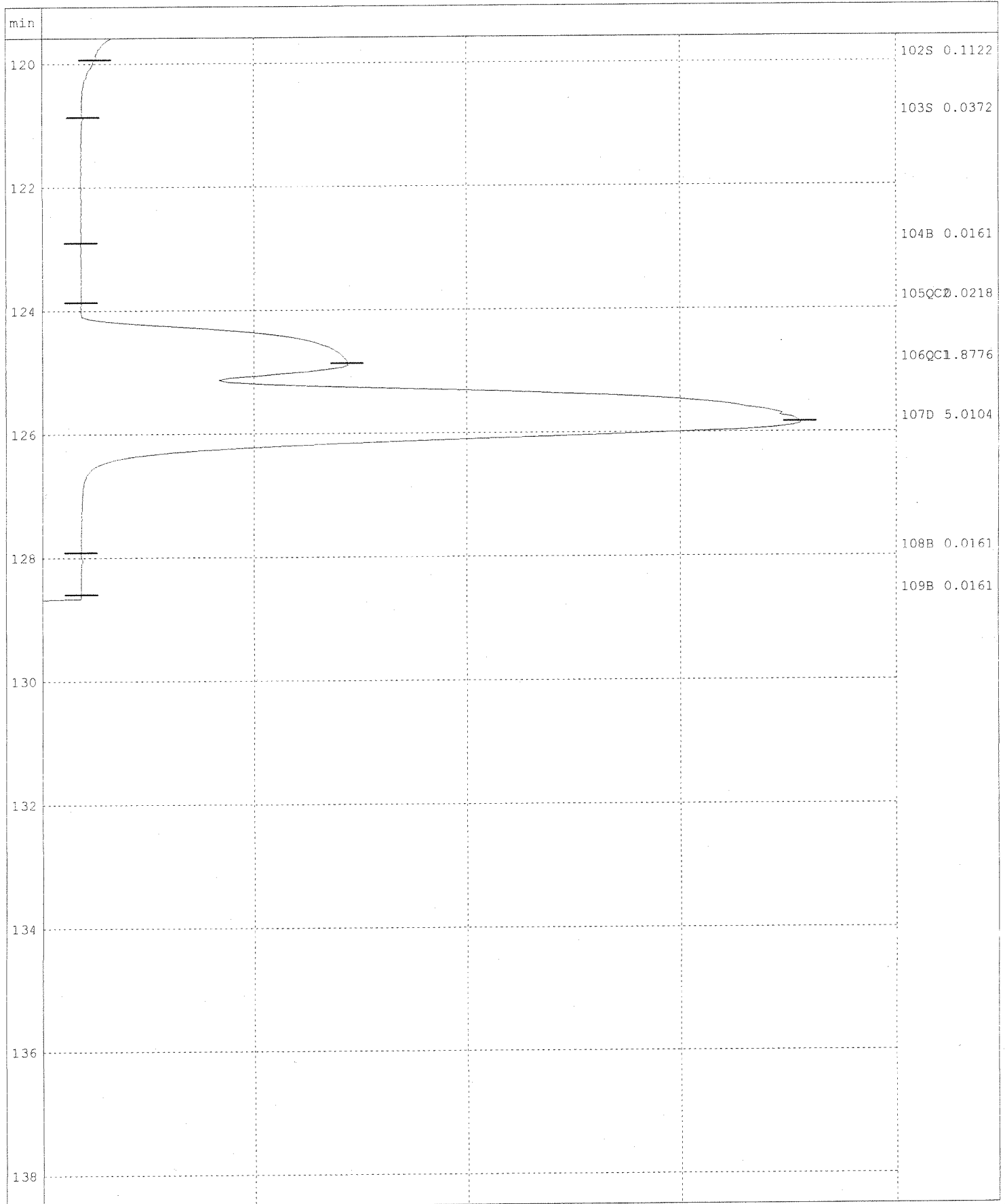
Name of run :100522A.RUN  
Comment :

Name of analysis :NO2+NO3



Name of run :100522A.RUN  
Comment :

Name of analysis :NO2+NO3





Work Request # <sup>Original</sup> (K4343, K5067)  
 Tier: I V  
 Date Analyzed: 5/19/10  
 Analyst: SS  
 Analysis: Ophos (H<sub>2</sub>O)

201345

**DATA QUALITY REPORT  
 INORGANICS**

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate? yes/no/NA
2. Holding times met for all analyses and for all samples? yes/no/NA
3. Are calculations correct? yes/no/NA
4. Is the reporting basis correct? (Dry Weight) yes/no/NA
5. All quality control criteria met? yes/no/NA
  - a. Is the calibration curve correlation coefficient  $\geq 0.995$ ? yes/no/NA
  - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? yes/no/NA
  - c. Are ICVs, CCVs, and CCBs all within acceptance limits? yes/no/NA
  - d. Are results for methods blanks all ND? yes/no/NA
  - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) yes/no/NA
  - f. Are all exceptions explained? yes/no/NA
6. Are all service requests that apply attached? yes/no/NA
7. Are all samples labelled correctly? yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample) yes/no/NA
9. Are detection limits and units reported correctly? yes/no/NA
10. Are proper Analysis/Extraction stickers included on report? yes/no/NA
11. Is the unused space on the benchsheet crossed out? yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#) yes/no/NA

**COMMENTS:**

Final Approved by: [Signature] Date: 5/19/10

# Analytical Results Summary

Instrument Name: K-UV-VIS-01

Analyst: SSINHA

Analysis Lot: 201345

Method/Testcode: 365.3/O Phos T

b Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	MDL	POL	% Rec	% RSD	Date Analyzed	QC? Tier
004343-043	Orthophosphate as Phosphorus	N/A		Water	0.51 mg/L	25 mL	1.02 mg/L	1	0.008	0.020			5/19/10 12:30:00	N I
005067-001	Orthophosphate as Phosphorus	N/A		Water	0.15 mg/L	50 mL	0.148 mg/L	1	0.004	0.010			5/19/10 12:30:00	N V
005067-002	Orthophosphate as Phosphorus	N/A		Water	0.07 mg/L	50 mL	0.074 mg/L	1	0.004	0.010			5/19/10 12:30:00	N V
005067-003	Orthophosphate as Phosphorus	N/A		Water	<del>0.78</del> <sup>0.68</sup> mg/L	50 mL	<del>0.776</del> <sup>0.678</sup> mg/L	1	0.004	0.010			5/19/10 12:30:00	N V
005067-004	Orthophosphate as Phosphorus	N/A		Water	0.00 mg/L	50 mL	0.010 mg/L	U 1	0.004	0.010			5/19/10 12:30:00	N V
21004528-01	Orthophosphate as Phosphorus	CCB		Water	0.00 mg/L	50 mL	0.010 mg/L	U 1	0.004	0.010			5/19/10 12:30:00	N I
21004528-02	Orthophosphate as Phosphorus	CCB		Water	0.00 mg/L	50 mL	0.010 mg/L	U 1	0.004	0.010			5/19/10 12:30:00	N I
21004528-03	Orthophosphate as Phosphorus	CCV		Water	0.50 mg/L	50 mL	0.502 mg/L	1	0.004	0.010	100		5/19/10 12:30:00	N I
21004528-04	Orthophosphate as Phosphorus	CCV		Water	0.50 mg/L	50 mL	0.503 mg/L	1	0.004	0.010	101		5/19/10 12:30:00	N I
21004528-05	Orthophosphate as Phosphorus	MB		Water	0.00 mg/L	50 mL	0.010 mg/L	U 1	0.004	0.010			5/19/10 12:30:00	N I
21004528-06	Orthophosphate as Phosphorus	LCS		Water	0.36 mg/L	5 mL	3.61 mg/L	1	0.04	0.10	101		5/19/10 12:30:00	N I
21004528-07	Orthophosphate as Phosphorus	DLCS		Water	0.36 mg/L	5 mL	3.62 mg/L	1	0.04	0.10	101	0	5/19/10 12:30:00	N I
21004528-08	Orthophosphate as Phosphorus	MS	K1005067-002	Water	0.27 mg/L	50 mL	0.272 mg/L	1	0.004	0.010	99		5/19/10 12:30:00	N V
21004528-09	Orthophosphate as Phosphorus	DMS	K1005067-002	Water	0.47 mg/L	50 mL	0.471 mg/L	1	0.004	0.010	99	53*	5/19/10 12:30:00	N V
21004528-10	Orthophosphate as Phosphorus	DUP	K1005067-002	Water	0.07 mg/L	50 mL	0.074 mg/L	1	0.004	0.010		<1	5/19/10 12:30:00	N V

spike = 0.1 mL x 100 ppm / 50 = 0.2 mg/L  
 spike dup = 0.2 mL x 100 ppm / 50 = 0.4 mg/L  
 LC STN = 3.57 mg/L

CUW = P03/B-24-M  
 CUWE = P03/B-4-M  
 LES = P03/B-79-B  
 Spike = P03/B-77-C

5/19/10

OS 5/19/10 RLE

223

Indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Opnos 1.12  
 SS  
 5/19/10  
 12:30

DU520 S/N: 0112U2001732 1.03  
 19-MAY-10 13:21:51 SCA Group 0842  
 Wavelength: 650.0 nm  
 Formula: A=a+bC a: 0.0025 b: 1.9996

Sample	Net A	Dil X	mg/L
0001	CUB 0.000	1.0000	-0.0012
0002	CWT 1.006	1.0000	0.5017
0003	MB 0.001	1.0000	-0.0006
0004	CS 0.725 S/10	1.0000	0.3614
0005	dup CS 0.726 S/10	1.0000	0.3618
0006	K4343-43 1.025 Y2	1.0000	0.5115
0007	K 5067 -1 0.299	1.0000	0.1482
0008	-2 0.150	1.0000	0.0736
0009	-2d 0.150	1.0000	0.0736
0010	-2ms 0.547	1.0000	0.2724
0011	-2msd 0.944	1.0000	0.4707
0012	-3 0.158	1.0000	0.0776
0013	-4 0.005	1.0000	0.0012
0014	CUB 2 0.005	1.0000	0.0012
0015	CWT 1.008	1.0000	0.5027

5/19/10

OPHOS (H<sub>2</sub>O)  
SS  
5/19/10  
12:30

DU520 S/N: 0112U2001732 1.03  
19-MAY-10 13:21:41 SCA  
Wavelength: 650.0 nm  
Formula: A=a+bC a: 0.0025 b: 1.9996

mg/L	Net A	r <sup>2</sup> =1.000	Var=0.0000
0.0000	-0.000		
0.0100	0.021		
0.0500	0.105		
0.1000	0.207		
0.2000	0.399		
0.5000	1.005		
0.7000	1.401		

Full  
5/19/10

Work Request # (4848) 4930 4934 5055 4970 5067 5112 200010  
 Tier: 11 1 V V V V 11  
 Date Analyzed: 5/25/10  
 Analyst: nb  
 Analysis: alt, bicarb, carb, OH

**DATA QUALITY REPORT  
INORGANICS**

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

- |     |   |           |
|-----|---|-----------|
| 1.  | Is the method name and number correct and appropriate?  | yes/no/NA |
| 2.  | Holding times met for all analyses and for all samples?   | yes/no/NA |
| 3.  | Are calculations correct?   | yes/no/NA |
| 4.  | Is the reporting basis correct? (Dry Weight)  | yes/no/NA |
| 5.  | All quality control criteria met?   | yes/no/NA |
| a.  | Is the calibration curve correlation coefficient $\geq 0.995$ ?   | yes/no/NA |
| b.  | MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency?                                      | yes/no/NA |
| c.  | Are ICVs, CCVs, and CCBs all within acceptance limits?  | yes/no/NA |
| d.  | Are results for methods blanks all ND?  | yes/no/NA |
| e.  | Are all QC samples within acceptance criteria?<br>(LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.)       | yes/no/NA |
| f.  | Are all exceptions explained?   | yes/no/NA |
| 6.  | Are all service requests that apply attached?   | yes/no/NA |
| 7.  | Are all samples labelled correctly?   | yes/no/NA |
| 8.  | Have all instructions on the service request been followed?<br>(e.g. Special MRLs, QC on a specific sample) | yes/no/NA |
| 9.  | Are detection limits and units reported correctly?  | yes/no/NA |
| 10. | Are proper Analysis/Extraction stickers included on report?   | yes/no/NA |
| 11. | Is the unused space on the benchsheet crossed out?  | yes/no/NA |
| 12. | Was analysis turned in by the due date? (n-2) (If not record SR#)   | yes/no/NA |

**COMMENTS:**

-1934-8, 5055-9, 5067-4, 5112-5 reanalyze for LL

Final Approved by: [Signature] Date: 6/1/10 DQREPORT

Analyte: Alkalinity  
Method: 310.1 / SM20 2320 B

Regular Level X  
High Level \_\_\_\_\_

Analyst: nb  
Pipette: \_\_\_\_\_

Date: 5/27/10  
Time: \_\_\_\_\_

Table 403.1 Alkalinity Relationships

Result of titration	Hydroxide Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Bicarbonate Concentration as CaCO3
P = 0	0.0	0.0	T
P < 1/2T	0.0	2P	T - 2P
P = 1/2T	0.0	2P	0
P > 1/2T	2P - T	2(T - P)	0
P = T	T	0.0	0

P = Phenolphthalein Alkalinity

T = Total Alkalinity

Phenolphthalein alkalinity = the quantity measured by titration to pH 8.3

Alkalinity, mg CaCO3 /L = (A<sub>(mL acid used)</sub> × N<sub>(H2SO4)</sub> × 50,000) /mL sample

pH meter cal:

4.0 \_\_\_\_\_  
7.0 \_\_\_\_\_  
10.0 \_\_\_\_\_

Buffer Lot #:

Cond/1-75-L  
Cond/1-70-K

Reagents: Concentration

HCl & H2SO4: 0.020 N

Log #

PCC 1002358

Reg Level Reference: 50 mg/L

High Level Reference: 5000 mg/L

LCS/MS Solution: 1000 mg/L

ERA 5161-608

\* Soils - 1g of sample diluted to 100mLs in DI

Folder #	Order #	Sample Vol (mL)	pH Initial	Titrant Volume Initial (mL)	Vol to pH 4.5	Vol to pH 8.3	Phen. Alk.	OH-Alk.	Carb Alk.	Bicarb Alk.	Total Alk.
1	MB	30.0	7.63		0.10						3.2
2	%REC=103	LCS	30.0		2.09						69.7
3	4843-4	5.0	7.00		6.88				<u>Onb 5/27</u>		1377
4	4930-4	10.0	7.59		15.05				<u>9/27</u>	<u>1510</u>	1505
5	4930-5	10.0	7.50		15.06				<u>9/27</u>	<u>1510</u>	1506
6	X=224	4934-3	30.0		6.48		<9	<9		216	216
7	RPD=7	4934-3d	30.0		6.93		<9	<9		231	231
8		4934-5	30.0		7.10		<9	<9		237	237
9		4934-6	30.0		6.85		<9	<9		228	228
10		4934-7	30.0		6.78		<9	<9		226	226
11	LL	4934-8	30.0		0.08						2.5
12		5055-1	30.0		5.32						177
13		5055-2	30.0		6.11						204
14		5055-3	30.0		12.29						410
15		5055-4	30.0		4.94						165
16		5055-5	30.0		2.00						66.5
16		5055-6	30.0		1.80						60.0
17		5055-7	30.0		2.27						75.6
18	X=<9	5055-8	30.0		<4.5						0.0
19	RPD--	5055-8d	30.0		<4.5						0.0
20	LL	5055-9	30.0		0.04						1.3
21		MB2	30.0		0.08						2.7
22	%REC=98	LCS2	30.0		2.00						66.6
23	X=287	4970-1	30.0		8.23					271	274
24	RPD=9	4970-1d	30.0		9.01					300	300
25		4970-2	30.0		9.56					319	319
26		4970-3	30.0		7.62	1.02	34.1	0.0	68.1	185.8	254
27		4970-4	15.0		1.02					68.0	68.0
28		4970-5	30.0		7.53	1.03	34.3	0.0	68.7	182.3	251
29		4970-6	30.0		6.87	0.98	32.7	0.0	65.3	163.6	229
30		5067-1	30.0		4.86			<9	<9	162	162
31		5067-2	30.0		9.32			<9	<9	311	311
32		5067-3	30.0		9.06			<9	<9	302	302
33	LL	5067-4	30.0		0.09						2.9
34		5112-1	30.0		0.75				<9	25.0	25.0
35		5112-2	30.0		0.77				<9	25.7	25.7
36		5112-3	30.0		0.61				<9	20.4	20.4

Analyte: Alkalinity  
 Method: 310.1 / SM20 2320 B

Regular Level X  
 High Level \_\_\_\_\_

Analyst: \_\_\_\_\_  
 Pipette: \_\_\_\_\_

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Table 403.1 Alkalinity Relationships

Result of titration	Hydroxide Alkalinity as CaCO <sub>3</sub>	Carbonate Alkalinity as CaCO <sub>3</sub>	Bicarbonate Concentration as CaCO <sub>3</sub>
P = 0	0.0	0.0	T
P < 1/2T	0.0	2P	T - 2P
P = 1/2T	0.0	2P	0
P > 1/2T	2P - T	2(T - P)	0
P = T	T	0.0	0

P = Phenolphthalein Alkalinity      T = Total Alkalinity  
 Phenolphthalein alkalinity = the quantity measured by titration to pH 8.3

Alkalinity, mg CaCO<sub>3</sub> / L = (A<sub>(mL acid used)</sub> × N<sub>(H<sub>2</sub>SO<sub>4</sub>)</sub> × 50,000) / mL sample

pH meter cal:

4.0 \_\_\_\_\_  
 7.0 \_\_\_\_\_  
 10.0 \_\_\_\_\_

Buffer Lot #:

Reagents: Concentration  
 H<sub>2</sub>SO<sub>4</sub>: 0.020 N  
 Reg Level Reference: 50 mg/L  
 High Level Reference: 5000 mg/L  
 LCS/MS Solution: 1000 mg/L

Log #

\* Soils - 1g of sample diluted to 100mLs in DI

Folder #	Order #	Sample Vol (mL)	pH Initial	Titrant Volume Initial (mL)	Vol to pH 4.5	Vol to pH 8.3	Phen. Alk.	OH-Alk.	Carb Alk.	Bicarb Alk.	Total Alk.
37	5112-4	30.0	7.24		1.96				29	65.3	65.3
38	X=24 LL 5112-5	30.0	6.62		0.59						19.7
39	RPD=36 ok b/c <5X MR 5112-5d	30.0	6.60		0.85						28.3
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Date: 05/26/2010  
 RunID = Z0525101543  
 InstrumentID = SN=1234A  
 Site Name = Your Company Name Here  
 Analyst = ACQWE  
 Test Name/ID = alkalinity.5.25  
 Titrant Name/ID = 0.02N HCL  
 Standard(s) Name/ID =

202370

5/26/10  
 ACQWE

Test ID	LIMS ID	Meth ID	Smpl ID	pH	Smpl Vol	Tot Vol	Smpl Results	Units	Recv %	End Pt	Slope (m)	Calc C	Date	Time	Analyst	Run ID	Inst ID
alk-alknlt	MB	0	1	7.63	30		3.1858	ppm/l		145.9 mV	57.99	03345	05-25-10	16:24	ACQWE	Z0525101543	SN=123
alk-alknlt	LCS	0	2	9.16	30		45.093	ppm/l		74.4 mV	57.99	03345	05-25-10	16:27	ACQWE	Z0525101543	SN=123
alk-alknlt	LCS	0	2	9.16	30		69.800	ppm/l		145.9 mV	57.99	03345	05-25-10	16:27	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004930-004 6X	0	3	7.00	30		229.64	ppm/l		145.9 mV	57.99	03345	05-25-10	16:36	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004930-004 3X	0	4	7.59	30		502.11	ppm/l		145.9 mV	57.99	03345	05-25-10	16:42	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004930-005 3X	0	5	7.50	30		502.30	ppm/l		145.9 mV	57.99	03345	05-25-10	16:51	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004934-003 10	0	6	8.27	30		216.11	ppm/l		145.9 mV	57.99	03345	05-25-10	17:00	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004934-003 10	0	7	8.26	30		231.14	ppm/l		145.9 mV	57.99	03345	05-25-10	17:09	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004934-005 10	0	8	7.08	30		236.90	ppm/l		145.9 mV	57.99	03345	05-25-10	17:17	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004934-006 10	0	9	6.92	30		228.52	ppm/l		145.9 mV	57.99	03345	05-25-10	17:22	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004934-007 10	0	10	7.05	30		226.09	ppm/l		145.9 mV	57.99	03345	05-25-10	17:31	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004934-008 10	0	11	5.69	30		2.5032	ppm/l		145.9 mV	57.99	03345	05-25-10	17:36	ACQWE	Z0525101543	SN=123
alk-alknlt	K1005055-001 01	0	12	7.95	30		177.39	ppm/l		145.9 mV	57.99	03345	05-25-10	17:39	ACQWE	Z0525101543	SN=123
alk-alknlt	K1005055-002 01	0	13	8.09	30		203.79	ppm/l		145.9 mV	57.99	03345	05-25-10	17:46	ACQWE	Z0525101543	SN=123
alk-alknlt	K1005055-003 01	0	14	8.68	30		18.428	ppm/l		74.4 mV	57.99	03345	05-25-10	17:55	ACQWE	Z0525101543	SN=123
alk-alknlt	K1005055-004 01	0	14	8.68	30		410.09	ppm/l		145.9 mV	57.99	03345	05-25-10	17:55	ACQWE	Z0525101543	SN=123
alk-alknlt	K1005055-005 01	0	15	7.94	30		164.81	ppm/l		145.9 mV	57.99	03345	05-25-10	18:05	ACQWE	Z0525101543	SN=123
alk-alknlt	K1005055-006 01	0	16	6.87	30		66.560	ppm/l		145.9 mV	57.99	03345	05-25-10	18:14	ACQWE	Z0525101543	SN=123
alk-alknlt	K1005055-006 01	0	17	6.90	30		60.005	ppm/l		145.9 mV	57.99	03345	05-25-10	18:18	ACQWE	Z0525101543	SN=123
alk-alknlt	K1005055-007 01	0	18	6.68	30		75.657	ppm/l		145.9 mV	57.99	03345	05-25-10	18:22	ACQWE	Z0525101543	SN=123
alk-alknlt	K1005055-008 01	0	19	7.4 5	30						03345	05-25-10	18:27	ACQWE	Z0525101543	SN=123	
alk-alknlt	K1005055-008 01	0	20	7.4 5	30						03345	05-25-10	18:29	ACQWE	Z0525101543	SN=123	
alk-alknlt	K1005055-009 01	0	21	4.76	30		1.2784	ppm/l		145.9 mV	57.99	03345	05-25-10	18:31	ACQWE	Z0525101543	SN=123
alk-alknlt	MB2	0	22	5.93	30		2.6746	ppm/l		145.9 mV	57.99	03345	05-25-10	18:33	ACQWE	Z0525101543	SN=123
alk-alknlt	LCS2	0	23	9.05	30		39.590	ppm/l		74.4 mV	57.99	03345	05-25-10	18:37	ACQWE	Z0525101543	SN=123
alk-alknlt	LCS2	0	23	9.05	30		66.696	ppm/l		145.9 mV	57.99	03345	05-25-10	18:37	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004970-001 03	0	24	7.50	30		274.64	ppm/l		145.9 mV	57.99	03345	05-25-10	18:45	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004970-001 03	0	25	7.61	30		300.64	ppm/l		145.9 mV	57.99	03345	05-25-10	18:54	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004970-002 03	0	26	6.71	30		318.91	ppm/l		145.9 mV	57.99	03345	05-25-10	19:04	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004970-003 03	0	27	9.27	30		34.090	ppm/l		74.4 mV	57.99	03345	05-25-10	19:11	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004970-003 03	0	27	9.27	30		254.15	ppm/l		145.9 mV	57.99	03345	05-25-10	19:11	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004970-004 2X	0	28	6.62	30		34.021	ppm/l		145.9 mV	57.99	03345	05-25-10	19:23	ACQWE	Z0525101543	SN=123
alk-alknlt	K1004970-005 03	0	29	9.32	30		34.369	ppm/l		74.4 mV	57.99	03345	05-25-10	19:27	ACQWE	Z0525101543	SN=123



Test ID	LIMS ID	Meth ID	Smpl ID	pH	SmplVol	Tot Vol	SmplResults	Units	Recv %	End Pt	Slope (r	Calc C	Date	Time	Analyst	Run ID	Instr ID
Z1	alk:alint K1004970-006.03	0	29	9.32	30		251.24	ppmf		145.9 mV	57.99	03345	05-25-10	19:27	ACQWE	Z0525101543	SN=123
Z1	alk:alint K1004970-006.03	0	30	9.39	30		32.686	ppmf		-74.4 mV	57.99	03345	05-25-10	19:38	ACQWE	Z0525101543	SN=123
Z2	alk:alint K1004970-006.03	0	30	9.39	30		229.18	ppmf		145.9 mV	57.99	03345	05-25-10	19:38	ACQWE	Z0525101543	SN=123
Z3	alk:alint K1005067-001.10	0	31	7.78	30		162.10	ppmf		145.9 mV	57.99	03345	05-25-10	19:49	ACQWE	Z0525101543	SN=123
Z4	alk:alint K1005067-002.10	0	32	7.46	30		310.96	ppmf		145.9 mV	57.99	03345	05-25-10	19:54	ACQWE	Z0525101543	SN=123
Z5	alk:alint K1005067-003.10	0	33	7.47	30		302.30	ppmf		145.9 mV	57.99	03345	05-25-10	20:03	ACQWE	Z0525101543	SN=123
Z6	alk:alint K1005067-004.10	0	34	6.10	30		2.8659	ppmf		145.9 mV	57.99	03345	05-25-10	20:13	ACQWE	Z0525101543	SN=123
Z7	alk:alint K1005112-001.14	0	35	6.50	30		25.059	ppmf		145.9 mV	57.99	03345	05-25-10	20:16	ACQWE	Z0525101543	SN=123
Z8	alk:alint K1005112-002.14	0	36	6.68	30		25.751	ppmf		145.9 mV	57.99	03345	05-25-10	20:20	ACQWE	Z0525101543	SN=123
Z9	alk:alint K1005112-003.09	0	37	6.64	30		20.429	ppmf		145.9 mV	57.99	03345	05-25-10	20:24	ACQWE	Z0525101543	SN=123
Z9	alk:alint K1005112-004.09	0	38	7.24	30		65.407	ppmf		145.9 mV	57.99	03345	05-25-10	20:27	ACQWE	Z0525101543	SN=123
Z9	alk:alint K1005112-005.09	0	39	6.62	30		19.672	ppmf		145.9 mV	57.99	03345	05-25-10	20:31	ACQWE	Z0525101543	SN=123
Z9	alk:alint K1005112-005D	0	40	6.60	30		28.276	ppmf		145.9 mV	57.99	03345	05-25-10	20:34	ACQWE	Z0525101543	SN=123

*Handwritten signature and date:*  
 [Signature]  
 5/26/10

Work Request # <sup>Original</sup> (5069) 5067 5082 5112 5346  
 Tier: ✓ ✓ ✓ // //  
 Date Analyzed: 5.28.10  
 Analyst: nb  
 Analysis: alk, bicarb, carb, OH<sup>-</sup>

202779

**DATA QUALITY REPORT  
INORGANICS**

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

- |     |   |           |
|-----|---|-----------|
| 1.  | Is the method name and number correct and appropriate?  | yes/no/NA |
| 2.  | Holding times met for all analyses and for all samples?   | yes/no/NA |
| 3.  | Are calculations correct?   | yes/no/NA |
| 4.  | Is the reporting basis correct? (Dry Weight)  | yes/no/NA |
| 5.  | All quality control criteria met?   | yes/no/NA |
|     | a. Is the calibration curve correlation coefficient $\geq 0.995$ ?  | yes/no/NA |
|     | b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency?                                   | yes/no/NA |
|     | c. Are ICVs, CCVs, and CCBs all within acceptance limits?   | yes/no/NA |
|     | d. Are results for methods blanks all ND?   | yes/no/NA |
|     | e. Are all QC samples within acceptance criteria?<br>(LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.)    | yes/no/NA |
|     | f. Are all exceptions explained?  | yes/no/NA |
| 6.  | Are all service requests that apply attached?   | yes/no/NA |
| 7.  | Are all samples labelled correctly?   | yes/no/NA |
| 8.  | Have all instructions on the service request been followed?<br>(e.g. Special MRLs, QC on a specific sample) | yes/no/NA |
| 9.  | Are detection limits and units reported correctly?  | yes/no/NA |
| 10. | Are proper Analysis/Extraction stickers included on report?   | yes/no/NA |
| 11. | Is the unused space on the benchsheet crossed out?  | yes/no/NA |
| 12. | Was analysis turned in by the due date? (n-2) (If not record SR#)   | yes/no/NA |

**COMMENTS:**

Final Approved by: [Signature] Date: 6/1/10 DQREPORT

Request #: \_\_\_\_\_ Method: EPA 310.1 / SM 2320B

Analysis For: Alkalinity as CaCO<sub>3</sub> : Total / Bicarbonate / Carbonate / Hydroxide

pH Meter Calibration	Sample #	MS	LCS	LCS-D	5069-1	5069-1d	5069-2	5067-4
pH 12.45	Initial pH	5.21	8.88	8.94	7.47	7.44	5.69	5.89
	Titrant used to pH 8.3							
pH 10.00	Titrant used to pH 4.5	0.11	3.37	3.34	2.58	2.66	0.21	0.19
10.00	Titrant used to pH 4.2	0.21					0.48	0.39
pH 7.00	Sample Volume	100	50	50	50	50	100	100
7.00	Alkalinity	67	67.4	66.8	51.6	53.2	<2	67
pH 4.00	Bicarbonate						<2	<2
4.00	Carbonate						12	22
pH 4.00 Chk.	Hydroxide						<2	<2
4.00								

Sample #	9002-7	5112-5	5346-1	BN				
Initial pH	6.96	7.04	6.56	4.03				
Titrant used to pH 8.3				7				
Titrant used to pH 4.5	1.89	1.08	0.91					
Titrant used to pH 4.2			1.17					
Sample Volume	50	50	100					
Alkalinity	57.8	21.6	6.5					
Bicarbonate	57.8	21.6						
Carbonate		<2						
Hydroxide								

CS: <sup>EM</sup>APG = \_\_\_\_\_ Lot # = 5161-698 True Value = 67.9 % Rec. = 99.98%

Probe ID#: NU1 Titrant Manf: RCL 1909615

Calculations: Alkalinity =  $\frac{A \times N \times 50,000}{\text{Volume (mls)}}$  A = mls standard titrant used  
N = Normality of standard acid 0.02 / 0.1 N(HCL)

Comments: 0.26 5.28 5069-111d E=52.4' RAD=3'

Analyzed By: <i>ib</i>	Date: 5.28.10 11/15
Received By: <i>[Signature]</i>	Date: 6/1/10


Work Request # (Original) 5067, 5062, 5069, 5149, 5150, 5161, 5179, 5182, 5112  
 Tier: III II III II II II III III II  
 Date Analyzed: 5/27/10  
 Analyst: CCS/  
 Analysis: TDS 201829

**DATA QUALITY REPORT  
INORGANICS**

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1. Is the method name and number correct and appropriate? yes/no/NA
2. Holding times met for all analyses and for all samples? yes/no/NA
3. Are calculations correct? yes/no/NA
4. Is the reporting basis correct? (Dry Weight) yes/no/NA
5. All quality control criteria met? yes/no/NA
  - a. Is the calibration curve correlation coefficient  $\geq 0.995$ ? yes/no/NA
  - b. MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency? yes/no/NA
  - c. Are ICVs, CCVs, and CCBs all within acceptance limits? yes/no/NA
  - d. Are results for methods blanks all ND? yes/no/NA
  - e. Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.) yes/no/NA
  - f. Are all exceptions explained? yes/no/NA
6. Are all service requests that apply attached? yes/no/NA
7. Are all samples labelled correctly? yes/no/NA
8. Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample) yes/no/NA
9. Are detection limits and units reported correctly? yes/no/NA
10. Are proper Analysis/Extraction stickers included on report? yes/no/NA
11. Is the unused space on the benchsheet crossed out? yes/no/NA
12. Was analysis turned in by the due date? (n-2) (If not record SR#) yes/no/NA

**COMMENTS:**

Final Approved by:  Date: 5/24/10 DQREPORT

# Analytical Results Summary

Instrument Name: K-Balance-31

Analyst: NBAKOTICH

Analysis Lot:

201829

Method/Testcode: SM 2540 C/TDS

ab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
1005062-001	Solids, Total Dissolved	N/A		Water	115.00 mg/L	100 ml	115 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005062-002	Solids, Total Dissolved	N/A		Water	231.00 mg/L	100 ml	231 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005062-003	Solids, Total Dissolved	N/A		Water	184.00 mg/L	100 ml	184 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005062-004	Solids, Total Dissolved	N/A		Water	156.00 mg/L	100 ml	156 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005062-005	Solids, Total Dissolved	N/A		Water	146.00 mg/L	100 ml	146 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005062-006	Solids, Total Dissolved	N/A		Water	191.00 mg/L	100 ml	191 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005062-007	Solids, Total Dissolved	N/A		Water	107.00 mg/L	100 ml	107 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005067-001	Solids, Total Dissolved	N/A		Water	261.00 mg/L	100 ml	261 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005067-002	Solids, Total Dissolved	N/A		Water	549.00 mg/L	100 ml	549 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005067-003	Solids, Total Dissolved	N/A		Water	563.00 mg/L	100 ml	563 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005067-004	Solids, Total Dissolved	N/A		Water	2.00 mg/L	200 ml	5.0 mg/L	U	5.0	5.0	5.0		5/21/10 10:30	N	V
1005069-001	Solids, Total Dissolved	N/A		Water	64.00 mg/L	100 ml	64.0 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005069-002	Solids, Total Dissolved	N/A		Water	2.50 mg/L	200 ml	5.0 mg/L	U	5.0	5.0	5.0		5/21/10 10:30	N	V
1005112-001	Solids, Total Dissolved	N/A		Dinking Water	51.00 mg/L	200 ml	51.0 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	II
1005112-002	Solids, Total Dissolved	N/A		Dinking Water	54.00 mg/L	200 ml	54.0 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	II
1005149-001	Solids, Total Dissolved	N/A		Water	191.00 mg/L	100 ml	191 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005149-002	Solids, Total Dissolved	N/A		Water	235.00 mg/L	100 ml	235 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005150-001	Solids, Total Dissolved	N/A		Water	1494.70 mg/L	75 ml	1490 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005161-001	Solids, Total Dissolved	N/A		Water	63.00 mg/L	100 ml	63.0 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005161-002	Solids, Total Dissolved	N/A		Water	67.00 mg/L	100 ml	67.0 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005179-001	Solids, Total Dissolved	N/A		Water	62.00 mg/L	100 ml	62.0 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005179-002	Solids, Total Dissolved	N/A		Water	189.00 mg/L	100 ml	189 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005179-003	Solids, Total Dissolved	N/A		Water	5.00 mg/L	200 ml	5.0 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005179-004	Solids, Total Dissolved	N/A		Water	204.00 mg/L	100 ml	204 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005182-001	Solids, Total Dissolved	N/A		Water	194.00 mg/L	100 ml	194 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005182-002	Solids, Total Dissolved	N/A		Water	155.00 mg/L	100 ml	155 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
1005182-003	Solids, Total Dissolved	N/A		Water	315.00 mg/L	100 ml	315 mg/L	1	5.0	5.0	5.0		5/21/10 10:30	N	V
Q1004762-01	Solids, Total Dissolved	MB		Water	2.00 mg/L	200 ml	5.0 mg/L	U	5.0	5.0	5.0		5/21/10 10:30	N	V
Q1004762-02	Solids, Total Dissolved	MB		Water	-0.50 mg/L	200 ml	5.0 mg/L	U	5.0	5.0	5.0		5/21/10 10:30	N	V
Q1004762-03	Solids, Total Dissolved	MB		Water	0.00 mg/L	200 ml	5.0 mg/L	U	5.0	5.0	5.0		5/21/10 10:30	N	V
Q1004762-04	Solids, Total Dissolved	LCS		Water	772.00 mg/L	50 ml	772 mg/L	1	5.0	5.0	103		5/21/10 10:30	N	V
Q1004762-05	Solids, Total Dissolved	DLCS		Water	740.00 mg/L	50 ml	740 mg/L	1	5.0	5.0	99		5/21/10 10:30	N	V
Q1004762-06	Solids, Total Dissolved	LCS		Water	728.00 mg/L	50 ml	728 mg/L	1	5.0	5.0	97		5/21/10 10:30	N	V
Q1004762-07	Solids, Total Dissolved	DUP	K1005067-001	Water	276.00 mg/L	100 ml	276 mg/L	1	5.0	5.0			5/21/10 10:30	N	V
Q1004762-08	Solids, Total Dissolved	DUP	K1005062-002	Water	235.00 mg/L	100 ml	235 mg/L	1	5.0	5.0			5/21/10 10:30	N	V
Q1004762-09	Solids, Total Dissolved	DUP	K1005150-001	Water	1549.30 mg/L	75 ml	1550 mg/L	1	5.0	5.0			5/21/10 10:30	N	V

indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Printed 5/27/10 12:53

Results Summary

*5/27/10*

*5/27/10*

COLUMBIA ANALYTICAL SERVICES, INC.

Work Order #.: \_\_\_\_\_

Method: EPA SM 2540 C

Analysis: Total Dissolved Solids

201829

Sample #	Crucible #	Conductivity	Sample Volume (ml)	Wt, Cru. + Dry sample (1) (g)	Wt, Cru. + Dry sample (2) (g)	Wt, Cru. + Dry sample (3) (g)	Wt. Crucible (g)	Wt. Dry Sample (g)	TDS (mg/L)	TDS (mg/L) reported
MB1	yo		200	121.6385	121.6382		121.6381	0.0004	2	<5.0
MB2	3A S		200	130.1716	130.1720		130.1717	-0.0001	-1	<5.0
MB3	21A S		200	127.9214	127.9209		127.9214	0.0000	0	<5.0
LCS	syd		50	69.3331	69.3327		69.2945	0.0386	772	772
LCSD	13 S		50	75.7351	75.7352		75.6981	0.0370	740	740
LCS2	22 S		50	72.3929	72.3924		72.3565	0.0364	728	728
K1005067-001	Mini	430	100	76.2645	76.2642		76.2384	0.0261	261	261
K1005067-002	J16	978	100	75.1251	75.1247		75.0702	0.0549	549	549
K1005067-003	7 S	917	100	70.2312	70.2310		70.1749	0.0563	563	563
K1005067-004	C 6	<2	200	83.7487	83.7483		83.7483	0.0004	2	<5.0
K1005062-001	46 S	157	100	77.6129	77.6125		77.6014	0.0115	115	115
K1005062-002	S17	386	100	82.3639	82.3636		82.3408	0.0231	231	231
K1005062-003	duck	277	100	68.6064	68.6062		68.5880	0.0184	184	184
K1005062-004	19 S	228	100	71.2460	71.2460		71.2304	0.0156	156	156
K1005062-005	troc	212	100	65.0847	65.0847		65.0701	0.0146	146	146
K1005062-006	XX	310	100	74.7613	74.7608		74.7422	0.0191	191	191
K1005062-007	9 C	123	100	77.4350	77.4352		77.4243	0.0107	107	107
K1005069-001	R10	131	100	80.1475	80.1478		80.1411	0.0064	64	64.0
K1005069-002	horse	<2	200	76.2271	76.2267		76.2266	0.0005	3	<5.0
K1005149-001	delta 4	327	100	70.9587	70.9590		70.9396	0.0191	191	191
K1005149-002	41 S	371	100	75.6714	75.6719		75.6479	0.0235	235	235
K1005150-001	22A	1900	75	77.8254	77.8259		77.7133	0.1121	1495	1500
K1005161-001	26 S	98	100	78.6741	78.6744		78.6678	0.0063	63	63.0
K1005161-002	March	100	100	80.6021	80.6024		80.5954	0.0067	67	67.0
K1005179-001	Blue	97	100	72.6359	72.6356		72.6297	0.0062	62	62.0

Calculation: Dissolved Solids (mg/L) = Wt. Dry Sample (g) x 1000 x 1000 / Volume (ml)

Balance#31

APG #:4033

Lot# 041109

ID#TDS/1-25-H

T.V. =750

% Rec =

Wt (1) Start	1400		Wt (2) Start	835		Wt (3) Start	1445	
Stop	835	5.24	5/26/10 Stop	1215		5/27/10 Stop	1015	
Wt (1) Start	105		Wt (2) Start	180		Wt (3) Start	180	
Temp Stop	105		Temp Stop	180		Temp Stop	180	
							date	time

Analyzed By: *CES*

Date Analyzed:

5/21/2010

10:30

Reviewed By: *[Signature]*

Date Reviewed:

5/27/10

COLUMBIA ANALYTICAL SERVICES, INC.

Work Order #.: \_\_\_\_\_

Method: EPA SM 2540 C

Analysis: Total Dissolved Solids

201829

Sample #	Crucible #	Conductivity	Sample Volume (ml)	Wt, Cru. + Dry sample (1) (g)	Wt, Cru. + Dry sample (2) (g)	Wt, Cru. + Dry sample (3) (g)	Wt. Crucible (g)	Wt. Dry Sample (g)	TDS (mg/L)	TDS (mg/L.) reported
K1005179-002	45 S	327	100	75.9364	75.9361		75.9175	0.0189	189	189
K1005179-003	3 S	<2	200	77.1631	77.1629		77.1621	0.0010	5	5.00
K1005179-004	13 C	331	100	73.0698	73.0703		73.0494	0.0204	204	204
K1005182-001	24 C	326	100	70.3328	70.3332		70.3134	0.0194	194	194
K1005182-002	34 S	272	100	74.5300	74.5303		74.5145	0.0155	155	155
K1005182-003	6 S	466	100	72.2348	72.2351		72.2033	0.0315	315	315
K1005112-001	C	63	200	73.0308	73.0306		73.0206	0.0102	51	51.0
K1005112-002	36 S	66	200	76.8484	76.8479		76.8376	0.0108	54	54.0
K1005067-001d	NC 3	430	100	72.9121	72.9118		72.8845	0.0276	276	276
K1005062-002d	Critter	386	100	70.7991	70.7989		70.7756	0.0235	235	235
K1005150-001d	10 S	1900	75	69.6728	69.6729		69.5566	0.1162	1549	1550
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!
								0.0000	#DIV/0!	#DIV/0!

CEC  
5/27/10

Calculation: Dissolved Solids (mg/L) = Wt. Dry Sample (g) x 1000 x 1000 / Volume (ml)

Analyzed By: <u>CEC</u>	Date Analyzed: <u>5/21/2010</u> 10:30
	Date Reviewed: <u>5/27/10</u>

## **Metals**



Columbia Analytical Services

- Cover Page -  
INORGANIC ANALYSIS DATA PACKAGE

Client: Exponent  
Project Name: Heglar-Kronquist  
Project No.: 0907194.000.0601

Service Request: K1005067

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<u>Sample Name:</u>	<u>Lab Code:</u>
Batch QC1D	K1004870-003D DISS
Batch QC1S	K1004870-003S DISS
Batch QC2D	K1004870-004D
Batch QC2S	K1004870-004S
Batch QC3D	K1004934-005D
Batch QC3S	K1004934-005S
Batch QC4D	K1004936-006D
Batch QC4S	K1004936-006S
Batch QC5D	K1005015-001D
Batch QC5S	K1005015-001S
SW-7	K1005067-001
3bcd-2	K1005067-002 DISS
3ddd	K1005067-003 DISS
EB-051710	K1005067-004 DISS
Method Blank	K1005067-MB
Batch QC6D	K1005117-001D
Batch QC6S	K1005117-001S

Comments:

Approved By: 3C

Date: 6/10/10

**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent Service Request: K1005067  
 Project No.: 0907194.000.0601 Date Collected: 05/17/10  
 Project Name: Heglar-Kronquist Date Received: 05/19/10  
 Matrix: WATER Units: ug/L  
 Basis: N/A

Sample Name: SW-7 Lab Code: K1005067-001

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	200.7	50.0	6.0	1.0	05/27/10	06/04/10	48400		
Magnesium	200.7	20.0	0.3	1.0	05/27/10	06/04/10	13500		
Potassium	200.7	400	40	1.0	05/27/10	06/04/10	3140		
Sodium	200.7	100	20	1.0	05/27/10	06/04/10	17000		

% Solids: 0.0

Comments:

**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent Service Request: K1005067  
 Project No.: 0907194.000.0601 Date Collected: 05/17/10  
 Project Name: Heglar-Kronquist Date Received: 05/19/10  
 Matrix: WATER Units: ug/L  
 Basis: N/A

Sample Name: 3bcd-2 Lab Code: K1005067-002 DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	05/27/10	06/04/10	59		
Antimony	200.8	0.05	0.02	1.0	05/27/10	06/04/10	0.11		
Arsenic	200.8	0.50	0.07	1.0	05/27/10	06/04/10	0.30	J	
Barium	200.7	5.0	0.6	1.0	05/27/10	06/04/10	54.8		
Beryllium	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.009	J	
Cadmium	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.038		
Calcium	200.7	50.0	6.0	1.0	05/27/10	06/04/10	80600		
Chromium	200.8	0.20	0.04	1.0	05/27/10	06/04/10	0.50		
Cobalt	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.211		
Copper	200.8	0.10	0.02	1.0	05/27/10	06/04/10	1.73		
Iron	200.7	20.0	0.8	1.0	05/27/10	06/04/10	723		
Lead	200.8	0.020	0.005	1.0	05/27/10	06/04/10	0.154		
Magnesium	200.7	20.0	0.3	1.0	05/27/10	06/04/10	35600		
Manganese	200.7	5.0	0.2	1.0	05/27/10	06/04/10	38.4		
Mercury	245.1	0.20	0.02	1.0	05/28/10	06/02/10	0.02	U	
Nickel	200.8	0.20	0.03	1.0	05/27/10	06/04/10	3.40		
Potassium	200.7	400	40	1.0	05/27/10	06/04/10	7580		
Selenium	200.8	1.0	0.3	1.0	05/27/10	06/04/10	0.7	J	
Silver	200.8	0.020	0.004	1.0	05/27/10	06/04/10	0.004	U	
Sodium	200.7	100	20	1.0	05/27/10	06/04/10	59400		
Thallium	200.8	0.020	0.002	1.0	05/27/10	06/04/10	0.043		
Vanadium	200.8	0.20	0.03	1.0	05/27/10	06/04/10	0.50		
Zinc	200.8	0.50	0.20	1.0	05/27/10	06/04/10	2.10		

% Solids: 0.0

Comments:

**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent Service Request: K1005067  
 Project No.: 0907194.000.0601 Date Collected: 05/17/10  
 Project Name: Heglar-Kronquist Date Received: 05/19/10  
 Matrix: WATER Units: ug/L  
 Basis: N/A

Sample Name: 3ddd Lab Code: K1005067-003 DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	05/27/10	06/04/10	30	U	
Antimony	200.8	0.05	0.02	1.0	05/27/10	06/04/10	0.10		
Arsenic	200.8	0.50	0.07	1.0	05/27/10	06/04/10	0.30	J	
Barium	200.7	5.0	0.6	1.0	05/27/10	06/04/10	51.2		
Beryllium	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.004	J	
Cadmium	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.034		
Calcium	200.7	50.0	6.0	1.0	05/27/10	06/04/10	78700		
Chromium	200.8	0.20	0.04	1.0	05/27/10	06/04/10	0.38		
Cobalt	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.168		
Copper	200.8	0.10	0.02	1.0	05/27/10	06/04/10	1.26		
Iron	200.7	20.0	0.8	1.0	05/27/10	06/04/10	226		
Lead	200.8	0.020	0.005	1.0	05/27/10	06/04/10	0.086		
Magnesium	200.7	20.0	0.3	1.0	05/27/10	06/04/10	35600		
Manganese	200.7	5.0	0.2	1.0	05/27/10	06/04/10	28.5		
Mercury	245.1	0.20	0.02	1.0	05/28/10	06/02/10	0.02	U	
Nickel	200.8	0.20	0.03	1.0	05/27/10	06/04/10	2.58		
Potassium	200.7	400	40	1.0	05/27/10	06/04/10	7590		
Selenium	200.8	1.0	0.3	1.0	05/27/10	06/04/10	0.7	J	
Silver	200.8	0.020	0.004	1.0	05/27/10	06/04/10	0.004	U	
Sodium	200.7	100	20	1.0	05/27/10	06/04/10	59200		
Thallium	200.8	0.020	0.002	1.0	05/27/10	06/04/10	0.042		
Vanadium	200.8	0.20	0.03	1.0	05/27/10	06/04/10	0.43		
Zinc	200.8	0.50	0.20	1.0	05/27/10	06/04/10	1.63		

% Solids: 0.0

Comments:

**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: Exponent Service Request: K1005067  
 Project No.: 0907194.000.0601 Date Collected: 05/17/10  
 Project Name: Heglar-Kronquist Date Received: 05/19/10  
 Matrix: WATER Units: ug/L  
 Basis: N/A

Sample Name: EB-051710 Lab Code: K1005067-004 DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	05/27/10	06/04/10	30	U	
Antimony	200.8	0.05	0.02	1.0	05/27/10	06/04/10	0.02	J	
Arsenic	200.8	0.50	0.07	1.0	05/27/10	06/04/10	0.10	J	
Barium	200.7	5.0	0.6	1.0	05/27/10	06/04/10	0.6	U	
Beryllium	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.003	U	
Cadmium	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.030		
Calcium	200.7	50.0	6.0	1.0	05/27/10	06/04/10	18.5	J	
Chromium	200.8	0.20	0.04	1.0	05/27/10	06/04/10	0.37		
Cobalt	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.047		
Copper	200.8	0.10	0.02	1.0	05/27/10	06/04/10	0.19		
Iron	200.7	20.0	0.8	1.0	05/27/10	06/04/10	12.4	J	
Lead	200.8	0.020	0.005	1.0	05/27/10	06/04/10	0.096		
Magnesium	200.7	20.0	0.3	1.0	05/27/10	06/04/10	2.7	J	
Manganese	200.7	5.0	0.2	1.0	05/27/10	06/04/10	1.2	J	
Mercury	245.1	0.20	0.02	1.0	05/28/10	06/02/10	0.03	J	
Nickel	200.8	0.20	0.03	1.0	05/27/10	06/04/10	0.96		
Potassium	200.7	400	40	1.0	05/27/10	06/04/10	40	U	
Selenium	200.8	1.0	0.3	1.0	05/27/10	06/04/10	0.3	U	
Silver	200.8	0.020	0.004	1.0	05/27/10	06/04/10	0.004	U	
Sodium	200.7	100	20	1.0	05/27/10	06/04/10	37	J	
Thallium	200.8	0.020	0.002	1.0	05/27/10	06/04/10	0.043		
Vanadium	200.8	0.20	0.03	1.0	05/27/10	06/04/10	0.10	J	
Zinc	200.8	0.50	0.20	1.0	05/27/10	06/04/10	1.90		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Exponent Service Request: K1005067  
 Project No.: 0907194.000.0601 Date Collected:  
 Project Name: Heglar-Kronquist Date Received:  
 Matrix: WATER Units: ug/L  
 Basis: N/A

Sample Name: Method Blank Lab Code: K1005067-MB

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.7	50	30	1.0	05/27/10	06/04/10	30	U	
Antimony	200.8	0.05	0.02	1.0	05/27/10	06/04/10	0.02	U	
Arsenic	200.8	0.50	0.07	1.0	05/27/10	06/04/10	0.07	U	
Barium	200.7	5.0	0.6	1.0	05/27/10	06/04/10	0.6	U	
Beryllium	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.003	U	
Cadmium	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.003	U	
Calcium	200.7	50.0	6.0	1.0	05/27/10	06/04/10	6.0	U	
Chromium	200.8	0.20	0.04	1.0	05/27/10	06/04/10	0.10	J	
Cobalt	200.8	0.020	0.003	1.0	05/27/10	06/04/10	0.003	U	
Copper	200.8	0.10	0.02	1.0	05/27/10	06/04/10	0.02	U	
Iron	200.7	20.0	0.8	1.0	05/27/10	06/04/10	1.5	J	
Lead	200.8	0.020	0.005	1.0	05/27/10	06/04/10	0.005	U	
Magnesium	200.7	20.0	0.3	1.0	05/27/10	06/04/10	0.5	J	
Manganese	200.7	5.0	0.2	1.0	05/27/10	06/04/10	0.2	U	
Mercury	245.1	0.20	0.02	1.0	05/28/10	06/02/10	0.02	U	
Nickel	200.8	0.20	0.03	1.0	05/27/10	06/04/10	0.03	U	
Potassium	200.7	400	40	1.0	05/27/10	06/04/10	40	U	
Selenium	200.8	1.0	0.3	1.0	05/27/10	06/04/10	0.3	U	
Silver	200.8	0.020	0.004	1.0	05/27/10	06/04/10	0.004	U	
Sodium	200.7	100	20	1.0	05/27/10	06/04/10	20	U	
Thallium	200.8	0.020	0.002	1.0	05/27/10	06/04/10	0.002	U	
Vanadium	200.8	0.20	0.03	1.0	05/27/10	06/04/10	0.03	J	
Zinc	200.8	0.50	0.20	1.0	05/27/10	06/04/10	0.20	U	

% Solids: 0.0

Comments:

## Metals

- 2a -

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Hegljar-Kronquist

ICV Source: Inorganic Ventures

CCV Source: CAS MIXED

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					Method
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum	5000	5048	101	5000	5017	100	5108	102	200.7
Antimony	25.0	23.7	95	25.0	24.5	98	24.7	99	200.8
Arsenic	25.0	25.0	100	25.0	25.0	100	24.9	100	200.8
Barium	5000	5183	104	2500	2509	100	2509	100	200.7
Beryllium	2.5	2.6	104	25.0	25.5	102	24.0	96	200.8
Cadmium	12.5	12.3	98	25.0	25.1	100	24.8	99	200.8
Calcium	5000	5075	102	2500	2477	99	2476	99	200.7
Calcium	12500	12693	102	25000	25425	102	25578	102	200.7
Chromium	10.0	9.9	99	25.0	24.7	99	24.5	98	200.8
Cobalt	25.0	24.9	100	25.0	25.8	103	24.3	97	200.8
Copper	12.5	12.5	100	25.0	25.5	102	24.2	97	200.8
Iron	2500	2468	99	500	485	97	505	101	200.7
Iron	10000	10123	101	25000	25207	101	25270	101	200.7
Lead	25.0	25.1	100	25.0	24.2	97	25.1	100	200.8
Magnesium	5000	4987	100	2000	1967	98	1982	99	200.7
Magnesium	12500	12461	100	25000	25093	100	25135	101	200.7
Manganese	1250	1208	97	1000	969	97	964	96	200.7
Manganese	10000	9996	100	5000	4988	100	4980	100	200.7
Mercury	5.00	4.89	98	5.00	4.92	98	4.94	99	245.1
Nickel	25.0	24.9	100	25.0	25.1	100	24.2	97	200.8
Potassium	12500	12384	99	10000	9960	100	9900	99	200.7
Selenium	25.0	24.7	99	25.0	24.9	100	24.7	99	200.8
Silver	12.5	12.3	98	25.0	24.9	100	24.1	96	200.8
Sodium	12500	12021	96	10000	9748	97	9693	97	200.7
Thallium	25.0	24.8	99	25.0	24.2	97	24.8	99	200.8
Vanadium	25.0	25.7	103	25.0	25.1	100	24.7	99	200.8
Zinc	25.0	26.4	106	25.0	24.7	99	24.8	99	200.8

## Metals

- 2a -

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Hegljar-Kronquist

ICV Source: Inorganic Ventures

CCV Source: CAS MIXED

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					Method
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum				5000	5064	101	5025	100	200.7
Antimony				25.0	24.4	98			200.8
Arsenic				25.0	25.0	100			200.8
Barium				2500	2496	100	2513	101	200.7
Beryllium				25.0	25.4	102			200.8
Cadmium				25.0	24.8	99			200.8
Calcium				2500	2489	100	2482	99	200.7
Calcium				25000	25882	104	25807	103	200.7
Chromium				25.0	24.9	100			200.8
Cobalt				25.0	24.5	98			200.8
Copper				25.0	24.4	98			200.8
Iron				500	505	101	507	101	200.7
Iron				25000	25306	101	25317	101	200.7
Lead				25.0	24.8	99			200.8
Magnesium				2000	1986	99	2000	100	200.7
Magnesium				25000	25351	101	25064	100	200.7
Manganese				1000	964	96	967	97	200.7
Manganese				5000	4958	99	4964	99	200.7
Mercury				5.00	4.95	99	5.00	100	245.1
Nickel				25.0	24.0	96			200.8
Potassium				10000	9949	99	9841	98	200.7
Selenium				25.0	24.8	99			200.8
Silver				25.0	24.3	97			200.8
Sodium				10000	9755	98	9742	97	200.7
Thallium				25.0	24.8	99			200.8
Vanadium				25.0	25.0	100			200.8
Zinc				25.0	24.5	98			200.8



Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Hegljar-Kronquist

ICV Source: Inorganic Ventures

CCV Source: CAS MIXED

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					Method
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum				5000	5134	103			200.7
Barium				2500	2545	102			200.7
Calcium				2500	2550	102			200.7
Calcium				25000	25680	103			200.7
Iron				500	520	104			200.7
Iron				25000	25269	101			200.7
Magnesium				2000	2030	102			200.7
Magnesium				25000	25604	102			200.7
Manganese				1000	975	98			200.7
Manganese				5000	5063	101			200.7
Mercury				5.00	5.00	100	5.05	101	245.1
Potassium				10000	10074	101			200.7
Sodium				10000	9865	99			200.7

## Metals

- 2a -

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Hegljar-Kronquist

ICV Source: Inorganic Ventures

CCV Source: CAS MIXED

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					Method
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum	5000	4935	99	10000	9909	99	10300	103	200.7
Antimony	25.0	25.1	100	25.0	25.1	100	24.9	100	200.8
Arsenic	25.0	24.7	99	25.0	24.6	98	25.1	100	200.8
Barium	5000	5050	101	10000	10190	102	10480	105	200.7
Beryllium	2.5	2.7	108	25.0	25.1	100	26.1	104	200.8
Cadmium	12.5	12.9	103	25.0	24.8	99	24.5	98	200.8
Calcium	12500	12390	99	10000	10040	100	10370	104	200.7
Chromium	10.0	10.2	102	25.0	25.2	101	26.6	106	200.8
Cobalt	25.0	24.7	99	25.0	24.8	99	26.1	104	200.8
Copper	12.5	12.6	101	25.0	24.7	99	25.8	103	200.8
Iron	2500	2480	99	10000	10010	100	10280	103	200.7
Lead	25.0	25.9	104	25.0	25.2	101	25.0	100	200.8
Magnesium	12500	12470	100	10000	10050	100	10310	103	200.7
Magnesium	12500	12520	100	10000	9905	99	9972	100	200.7
Manganese	1250	1229	98	250	246	98	251	100	200.7
Manganese	1250	1255	100	250	247	99	247	99	200.7
Nickel	25.0	25.3	101	25.0	24.9	100	26.0	104	200.8
Potassium	12500	12620	101	10000	10010	100	10230	102	200.7
Selenium	25.0	25.5	102	25.0	24.5	98	24.8	99	200.8
Silver	12.5	13.3	106	25.0	24.8	99	25.1	100	200.8
Sodium	12500	12510	100	10000	9888	99	10060	101	200.7
Thallium	25.0	26.4	106	25.0	25.4	102	25.4	102	200.8
Vanadium	25.0	25.3	101	25.0	24.5	98	26.1	104	200.8
Zinc	25.0	26.2	105	25.0	24.9	100	25.0	100	200.8

## Metals

- 2a -

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICV Source: Inorganic Ventures

CCV Source: CAS MIXED

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					Method
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum				10000	10030	100			200.7
Antimony				25.0	25.4	102			200.8
Arsenic				25.0	24.9	100			200.8
Barium				10000	10210	102			200.7
Beryllium				25.0	26.1	104			200.8
Cadmium				25.0	24.7	99			200.8
Calcium				10000	9991	100			200.7
Chromium				25.0	26.6	106			200.8
Cobalt				25.0	25.2	101			200.8
Copper				25.0	25.1	100			200.8
Iron				10000	9926	99			200.7
Lead				25.0	25.4	102			200.8
Magnesium				10000	10060	101			200.7
Magnesium				10000	9735	97			200.7
Manganese				250	254	102			200.7
Manganese				250	243	97			200.7
Nickel				25.0	25.3	101			200.8
Potassium				10000	9873	99			200.7
Selenium				25.0	24.4	98			200.8
Silver				25.0	25.4	102			200.8
Sodium				10000	9802	98			200.7
Thallium				25.0	25.5	102			200.8
Vanadium				25.0	25.6	102			200.8
Zinc				25.0	24.9	100			200.8

Metals

- 2b -

CRDL STANDARD FOR AA AND ICP

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
	True	Found	%R	True	Found	%R	Found	%R
Aluminum				50.00	49.75	100		
Antimony				0.05	0.06	120		
Arsenic				0.50	0.53	106		
Barium				5.00	5.06	101		
Beryllium				0.020	0.016	80		
Cadmium				0.020	0.020	100		
Calcium				50.00	46.24	92		
Chromium				0.20	0.21	105		
Cobalt				0.020	0.020	100		
Copper				0.10	0.11	110		
Iron				20.00	21.99	110		
Lead				0.020	0.022	110		
Magnesium				20.00	17.81	89		
Manganese				5.00	4.90	98		
Mercury	0.20	0.19	95					
Nickel				0.20	0.19	95		
Potassium				400.00	376.77	94		
Selenium				1.0	1.1	110		
Silver				0.020	0.021	105		
Sodium				200.00	205.85	103		
Thallium				0.020	0.011	55		
Vanadium				0.20	0.20	100		
Zinc				0.50	0.47	94		

Metals

- 2b -

CRDL STANDARD FOR AA AND ICP

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
	True	Found	%R	True	Found	%R	Found	%R
Aluminum				50.0	42.9	86		
Antimony				0.05	0.05	100		
Arsenic				0.50	0.59	118		
Barium				5.0	5.7	114		
Beryllium				0.020	0.018	90		
Cadmium				0.020	0.018	90		
Calcium				50.0	53.0	106		
Chromium				0.20	0.20	100		
Cobalt				0.020	0.020	100		
Copper				0.10	0.13	130		
Iron				20.0	13.4	67		
Lead				0.020	0.023	115		
Magnesium				20.0	13.1	66		
Manganese				5.0	5.0	100		
Nickel				0.20	0.24	120		
Potassium				400.0	394.6	99		
Selenium				1.0	1.1	110		
Silver				0.020	0.016	80		
Sodium				200.0	169.0	84		
Thallium				0.020	0.022	110		
Vanadium				0.20	0.21	105		
Zinc				0.50	0.56	112		

Metals

- 3 -

BLANKS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank						Method
		C	1	C	2	C	3	C	
Aluminum	30	U	30	U	30	U	30	U	200.7
Antimony	0.020	U	0.020	U	0.020	U	0.020	U	200.8
Arsenic	0.07	U	0.07	U	0.07	U	0.07	U	200.8
Barium	0.6	U	0.6	U	0.9	J	0.6	U	200.7
Beryllium	0.003	U	0.003	U	0.003	J	0.005	J	200.8
Cadmium	0.003	U	0.003	U	0.003	J	0.004	J	200.8
Calcium	6.0	U	7.6	J	-7.3	J	6.0	U	200.7
Chromium	0.04	U	0.04	U	0.04	U	0.04	U	200.8
Cobalt	0.003	U	0.003	U	0.003	J	0.004	J	200.8
Copper	0.02	U	0.02	U	0.02	U	0.02	U	200.8
Iron	5.4	J	1.1	J	3.3	J	3.8	J	200.7
Lead	0.005	U	0.005	U	0.005	U	0.005	U	200.8
Magnesium	0.3	U	0.3	U	0.3	J	2.7	J	200.7
Manganese	1.2	J	0.7	J	0.8	J	0.8	J	200.7
Mercury	0.02	U	-0.02	J	-0.02	J	0.02	U	245.1
Nickel	0.03	U	0.03	U	-0.05	J	-0.04	J	200.8
Potassium	40	U	40	U	40	U	40	U	200.7
Selenium	0.3	U	0.3	U	0.3	U	0.3	U	200.8
Silver	0.004	U	0.004	U	0.006	J	0.006	J	200.8
Sodium	20	U	20	U	20	U	20	U	200.7
Thallium	-0.005	J	-0.007	J	0.002	U	0.003	J	200.8
Vanadium	0.03	U	0.03	U	0.03	U	0.03	U	200.8
Zinc	0.2	U	0.2	U	0.2	U	0.2	U	200.8

**Metals**

- 3 -

**BLANKS**

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Hegljar-Kronquist

Concentration Units: ug/L

Analyte	Initial Calib. Blank	Continuing Calibration Blank						Method	
		C	1	C	2	C	3		C
Aluminum			-32	J	30	U			200.7
Barium			0.6	U	0.6	U			200.7
Calcium			6.0	U	6.0	U			200.7
Iron			4.9	J	6.0	J			200.7
Magnesium			4.3	J	5.0	J			200.7
Manganese			0.9	J	1.0	J			200.7
Mercury			0.02	U	0.02	U	0.02	U	245.1
Potassium			40	U	40	U			200.7
Sodium			20	U	20	U			200.7

Metals

- 3 -

BLANKS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank						Method
		C	1	C	2	C	3	C	
Aluminum	-5.1	J	-5.1	J	-5.8	J	-4.5	J	200.7
Antimony	0.020	U	0.020	U	0.020	U	0.020	U	200.8
Arsenic	0.07	U	0.07	U	0.07	U	0.07	U	200.8
Barium	0.4	U	0.4	U	0.4	U	0.4	J	200.7
Beryllium	0.003	U	0.003	U	0.003	U	0.003	U	200.8
Cadmium	0.003	U	0.003	U	0.003	U	0.003	U	200.8
Calcium	6.0	U	6.0	U	6.0	U	6.0	U	200.7
Chromium	0.04	U	-0.05	J	0.05	J	0.04	U	200.8
Cobalt	0.003	U	0.003	U	0.003	U	-0.005	J	200.8
Copper	0.02	U	0.02	U	0.03	J	0.02	U	200.8
Iron	-6.1	J	-4.3	J	3.0	U	-3.0	J	200.7
Lead	0.005	U	0.005	U	0.005	U	0.005	U	200.8
Magnesium	-4.5	J	-6.6	J	-2.5	J	-5.0	J	200.7
Manganese	0.6	J	0.2	U	0.2	U	0.2	J	200.7
Nickel	0.03	U	0.03	U	0.03	U	0.03	U	200.8
Potassium	50	U	50	U	-73	J	50	U	200.7
Selenium	0.3	U	0.3	U	0.3	U	0.3	U	200.8
Silver	0.006	J	0.004	U	0.004	U	0.004	U	200.8
Sodium	20.0	U	20.0	U	-28.9	J	-26.0	J	200.7
Thallium	0.002	U	0.002	U	0.003	J	-0.002	J	200.8
Vanadium	0.03	U	0.03	U	0.03	U	0.03	U	200.8
Zinc	0.2	U	0.2	U	0.2	U	0.2	U	200.8



Metals

- 4 -

ICP INTERFERENCE CHECK SAMPLE

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglär-Kronquist

ICP ID Number: K-ICP-AES-02

ICS Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Aluminum	500000	500000	509194	506867.7	101.4			
Barium		500	0	475.1	95.0			
Calcium	500000	500000	494577	488159.1	97.6			
Iron	200000	200000	202253	199299.5	99.6			
Magnesium	500000	500000	526613	518210.0	103.6			
Manganese		500	14	475.0	95.0			
Potassium			-36	-61.2				
Sodium			107	47.0				

80-120% control criteria is not applicable to interfering elements (Al, Ca, Fe, Mg).

Metals

- 4 -

ICP INTERFERENCE CHECK SAMPLE

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-03

ICS Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Aluminum	500000	500000	437200	444500	89			
Barium		500	1	520	104			
Calcium	500000	500000	468300	473400	95			
Iron	200000	200000	180800	180800	90			
Magnesium	500000	500000	514000	521700	104			
Manganese		500	3	513	103			
Potassium			-21	-117				
Sodium			21	-2				

80-120% control criteria is not applicable to interfering elements (Al,Ca,Fe,Mg).

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: Exponent Service Request: K1005067  
 Project No.: 0907194.000.0601 Units: UG/L  
 Project Name: Heglar-Kronquist Basis: N/A  
 Matrix: WATER % Solids: 0.0

Sample Name: Batch QC1S

Lab Code: K1004870-003S DISS

Analyte	Control Limit %R	Spike Result C	Sample Result C	Spike Added	%R	Q	Method
Mercury	70 - 130	1.14	0.02 U	1.00	114.0		245.1

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Units: UG/L

Project Name: Heglar-Kronquist

Basis: N/A

Matrix: WATER

% Solids: 0.0

Sample Name: Batch QC2S

Lab Code: K1004870-004S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Aluminum	70 - 130	1980		30	U	2000.00	99.0		200.7
Barium	70 - 130	2130		55.9		2000.00	103.7		200.7
Iron	70 - 130	1090		102		1000.00	98.8		200.7
Manganese	70 - 130	490		21.4		500.00	93.7		200.7

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Units: UG/L

Project Name: Heglar-Kronquist

Basis: N/A

Matrix: WATER

% Solids: 0.0

Sample Name: Batch QC3S

Lab Code: K1004934-005S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Antimony	70 - 130	20.2		0.10		20.00	100.5		200.8
Arsenic	70 - 130	23.3		2.53		20.00	103.8		200.8
Beryllium	70 - 130	18.8		0.003	J	20.00	94.0		200.8
Cadmium	70 - 130	20.1		0.024		20.00	100.4		200.8
Chromium	70 - 130	18.3		0.76		20.00	87.7		200.8
Cobalt	70 - 130	18.4		0.077		20.00	91.6		200.8
Copper	70 - 130	18.4		0.53		20.00	89.4		200.8
Lead	70 - 130	18.1		0.046		20.00	90.3		200.8
Nickel	70 - 130	18.4		1.17		20.00	86.2		200.8
Selenium	70 - 130	21.3		0.7	J	20.00	103.0		200.8
Silver	70 - 130	19.6		0.004	U	20.00	98.0		200.8
Thallium	70 - 130	18.8		0.050		20.00	93.8		200.8
Vanadium	70 - 130	24.5		6.46		20.00	90.2		200.8
Zinc	70 - 130	21.3		2.37		20.00	94.6		200.8

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Units: UG/L

Project Name: Heglar-Kronquist

Basis: N/A

Matrix: WATER

% Solids: 0.0

Sample Name: Batch QC4S

Lab Code: K1004936-006S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Mercury	70 - 130	1.15		0.02	U	1.00	115.0		245.1

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: Exponent  
 Project No.: 0907194.000.0601  
 Project Name: Heglar-Kronquist  
 Matrix: WATER

Service Request: K1005067  
 Units: UG/L  
 Basis: N/A  
 % Solids: 0.0

Sample Name: Batch QC5S

Lab Code: K1005015-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Aluminum	70 - 130	2060		25.0	J	2000.00	101.8		200.7
Barium	70 - 130	2100		0.9	J	2000.00	105.0		200.7
Iron	70 - 130	1040		26.9		1000.00	101.3		200.7
Manganese	70 - 130	503		2.6	J	500.00	100.1		200.7

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: Exponent  
 Project No.: 0907194.000.0601  
 Project Name: Heglar-Kronquist  
 Matrix: WATER

Service Request: K1005067  
 Units: UG/L  
 Basis: N/A  
 % Solids: 0.0

Sample Name: Batch QC6S

Lab Code: K1005117-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Antimony	70 - 130	20.0		0.38		20.00	98.1		200.8
Arsenic	70 - 130	23.7		3.84		20.00	99.3		200.8
Beryllium	70 - 130	19.8		0.008	J	20.00	99.0		200.8
Cadmium	70 - 130	20.0		0.144		20.00	99.3		200.8
Chromium	70 - 130	21.1		0.70		20.00	102.0		200.8
Cobalt	70 - 130	21.0		1.470		20.00	97.6		200.8
Copper	70 - 130	25.3		6.08		20.00	96.1		200.8
Lead	70 - 130	21.7		2.530		20.00	95.8		200.8
Nickel	70 - 130	23.3		3.26		20.00	100.2		200.8
Selenium	70 - 130	20.1		0.3	U	20.00	100.5		200.8
Silver	70 - 130	20.0		0.005	J	20.00	100.0		200.8
Thallium	70 - 130	19.8		0.057		20.00	98.7		200.8
Vanadium	70 - 130	21.6		2.10		20.00	97.5		200.8
Zinc		178		161		20.00	85.0		200.8

An empty field in the Control Limit column indicates the control limit is not applicable



Metals

- 5B -

POST SPIKE SAMPLE RECOVERY

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Units: UG/L

Project Name: Heglar-Kronquist

Basis: N/A

Matrix: WATER

Sample Name: Batch QC1A

Lab Code: K1004936-006A

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Mercury	85 - 115	1.13		0.02	U	1.00	113		245.1

Metals

- 6 -

DUPLICATES

Client: Exponent Service Request: K1005067  
Project No.: 0907194.000.0601 Units: UG/L  
Project Name: Heglar-Kronquist Basis: N/A  
Matrix: WATER % Solids: 0.0

Sample Name: Batch QC1D

Lab Code: K1004870-003D DISS

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury		0.02	U	0.02	U			245.1

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

- 6 -

DUPLICATES

Client: Exponent Service Request: K1005067  
 Project No.: 0907194.000.0601 Units: UG/L  
 Project Name: Heglar-Kronquist Basis: N/A  
 Matrix: WATER % Solids: 0.0

Sample Name: Batch QC2D

Lab Code: K1004870-004D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum		30	U	30	U			200.7
Barium	20	55.9		55.4		0.9		200.7
Calcium	20	22100		22000		0.5		200.7
Iron		102		100		2.0		200.7
Magnesium	20	9210		9170		0.4		200.7
Manganese		21.4		21.2		0.9		200.7
Potassium	20	3320		3310		0.3		200.7
Sodium	20	11300		11300		0.0		200.7

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

- 6 -

DUPLICATES

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Units: UG/L

Project Name: Heglar-Kronquist

Basis: N/A

Matrix: WATER

% Solids: 0.0

Sample Name: Batch QC3D

Lab Code: K1004934-005D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Antimony		0.10		0.09		10.5		200.8
Arsenic		2.53		2.48		2.0		200.8
Beryllium		0.003	J	0.004	J	28.6		200.8
Cadmium		0.024		0.028		15.4		200.8
Chromium		0.76		0.74		2.7		200.8
Cobalt		0.077		0.079		2.6		200.8
Copper		0.53		0.50		5.8		200.8
Lead		0.046		0.047		2.2		200.8
Nickel	20	1.17		1.26		7.4		200.8
Selenium		0.7	J	0.6	J	15.4		200.8
Silver		0.004	U	0.004	U			200.8
Thallium		0.050		0.042		17.4		200.8
Vanadium	20	6.46		6.43		0.5		200.8
Zinc		2.37		2.40		1.3		200.8

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

- 6 -

DUPLICATES

Client: Exponent Service Request: K1005067  
 Project No.: 0907194.000.0601 Units: UG/L  
 Project Name: Heglar-Kronquist Basis: N/A  
 Matrix: WATER % Solids: 0.0

Sample Name: Batch QC4D

Lab Code: K1004936-006D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury		0.02	U	0.02	U			245.1

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

- 6 -

DUPLICATES

Client: Exponent Service Request: K1005067  
 Project No.: 0907194.000.0601 Units: UG/L  
 Project Name: Heglar-Kronquist Basis: N/A  
 Matrix: WATER % Solids: 0.0

Sample Name: Batch QC5D

Lab Code: K1005015-001D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum		25.0	J	29.4	J	16.2		200.7
Barium		0.9	J	0.8	J	11.8		200.7
Calcium	20	1490		1470		1.4		200.7
Iron		26.9		25.6		5.0		200.7
Magnesium	20	568		566		0.4		200.7
Manganese		2.6	J	2.5	J	3.9		200.7
Potassium		117	J	115	J	1.7		200.7
Sodium	20	1150		1140		0.9		200.7

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

- 6 -

DUPLICATES

Client: Exponent Service Request: K1005067  
 Project No.: 0907194.000.0601 Units: UG/L  
 Project Name: Heglar-Kronquist Basis: N/A  
 Matrix: WATER % Solids: 0.0

Sample Name: Batch QC6D

Lab Code: K1005117-001D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Antimony	20	0.38		0.46		19.0		200.8
Arsenic	20	3.84		3.98		3.6		200.8
Beryllium		0.008	J	0.006	J	28.6		200.8
Cadmium	20	0.144		0.142		1.4		200.8
Chromium		0.70		0.72		2.8		200.8
Cobalt	20	1.470		1.480		0.7		200.8
Copper	20	6.08		6.12		0.7		200.8
Lead	20	2.530		2.550		0.8		200.8
Nickel	20	3.26		3.34		2.4		200.8
Selenium		0.3	U	0.3	U			200.8
Silver		0.005	J	0.004	U	200.0		200.8
Thallium		0.057		0.057		0.0		200.8
Vanadium	20	2.10		2.13		1.4		200.8
Zinc	20	161		165		2.5		200.8

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

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LABORATORY CONTROL SAMPLE

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Aqueous LCS Source: CAS MIXED

Solid LCS Source:

Analyte	Aqueous: ug/L			Solid: mg/kg				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum	5000	5020	100.4					
Antimony	20	20.0	100.0					
Arsenic	20	20.2	101.0					
Barium	5000	5080	101.6					
Beryllium	20	20.6	103.0					
Cadmium	20	20.4	102.0					
Calcium	12500	12300	98.4					
Chromium	20	20.6	103.0					
Cobalt	20	20.3	101.5					
Copper	20	20.4	102.0					
Iron	2500	2470	98.8					
Lead	20	20.4	102.0					
Magnesium	12500	11500	92.0					
Manganese	1250	1230	98.4					
Mercury	5	5.36	107.2					
Nickel	20	19.7	98.5					
Potassium	12500	12500	100.0					
Selenium	20	20.0	100.0					
Silver	20	20.9	104.5					
Sodium	12500	12400	99.2					
Thallium	20	20.6	103.0					
Vanadium	20	20.4	102.0					
Zinc	20	20.3	101.5					



Metals

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ICP SERIAL DILUTIONS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Units: UG/L

Project Name: Heglar-Kronquist

Sample Name: Batch QC1L

Lab Code: K1004870-004L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Difference	Q	M
		C		C			
Aluminum	30.00	U	150.00	U			P
Barium	55.90		58.10		3.9		P
Calcium	22067.70		21311.40		3.4		P
Iron	101.56		115.75		14.0	E	P
Magnesium	9208.33		9068.70		1.5		P
Manganese	21.37		21.45	J	0.4		P
Potassium	3322		3072		8		P
Sodium	11307.08		10658.95		5.7		P

Metals

- 10 -

DETECTION LIMITS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP/ICP-MS ID #: K-ICP-AES-02

GFAA ID #:

AA ID #:

Analyte	Wave-length (nm)	Back-ground	MRL ug/L	MDL ug/L	M
Aluminum	237.3		50	30.0	P
Barium	233.5		5	0.6	P
Calcium	211.2		50	6.0	P
Iron	259.90		20	0.8	P
Magnesium	202.5		20	0.3	P
Manganese	257.61		5	0.2	P
Potassium	766.49		400	40.0	P
Sodium	330.23		100	20.0	P

Comments:

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Metals

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DETECTION LIMITS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP/ICP-MS ID #: K-ICP-MS-02

GFAA ID #:

AA ID #:

Analyte	Isotope	Back-ground	MRL ug/L	MDL ug/L	M
Antimony	123		0.05	0.02	MS
Arsenic	75		0.5	0.07	MS
Beryllium	9		0.02	0.003	MS
Cadmium	111		0.02	0.003	MS
Chromium	52		0.2	0.04	MS
Cobalt	59		0.02	0.003	MS
Copper	65		0.1	0.02	MS
Lead	208		0.02	0.005	MS
Nickel	60		0.2	0.03	MS
Selenium	82		1.0	0.3	MS
Silver	107		0.02	0.004	MS
Thallium	205		0.02	0.002	MS
Vanadium	51		0.2	0.03	MS
Zinc	66		0.5	0.20	MS

Comments:

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Metals

- 10 -

DETECTION LIMITS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP/ICP-MS ID #:

GFAA ID #:

AA ID #:

Analyte	Wave-length (nm)	Back-ground	MRL ug/L	MDL ug/L	M
Aluminum	394.4		50	2.0	P
Barium	455.4		5.0	0.4	P
Calcium	315.8		50	6.0	P
Iron	259.9		20	3.0	P
Magnesium	285.2		20	2.0	P
Manganese	257.6		5.0	0.2	P
Potassium	766.5		400	50	P
Sodium	589.5		200	20.0	P

Comments:

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Metals

- 10 -

DETECTION LIMITS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP/ICP-MS ID #:

GFAA ID #:

AA ID #: K-CVAA-01

Analyte	Wave-length (nm)	Back-ground	MRL ug/L	MDL ug/L	M
Mercury	253.70		0.2	0.02	CV

Comments:

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Metals

- 11A -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	As
Aluminum	308.215	0.0000000	0.0000000	-0.0004100	0.0000000	0.0000000
Aluminum	308.215	0.0000000	0.0000000	-0.0004100	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.0000000	-0.0001100	-0.0000900	0.0000000
Arsenic	189.042	0.0000000	0.0000000	-0.0001100	-0.0000900	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	-0.0005800	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	-0.0005800	0.0000000	0.0000000
Cadmium	228.802	0.0000000	0.0000000	0.0000900	0.0000000	0.0000000
Cadmium	228.802	0.0000000	0.0000000	0.0000900	0.0000000	0.0000000
Calcium	211.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	211.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000200	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000200	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	-0.0000200	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	-0.0000200	0.0000000	0.0000000
Iron	271.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0001200	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0001200	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	202.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	202.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	293.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	293.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	-0.0000100	0.0000000	-0.0000100	-0.0000100	0.0000000

Comments:

Metals

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Co	Cr	Cu	Mn	Mo
Aluminum	308.215	-0.0052000	-0.0034300	0.0000000	0.0000000	0.0000000
Aluminum	308.215	-0.0052000	-0.0034300	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0002400	0.0080100	0.0000000	-0.0001500	-0.0184200
Antimony	206.838	0.0002400	0.0080100	0.0000000	-0.0001500	-0.0184200
Arsenic	189.042	0.0000000	0.0004000	0.0000000	0.0000000	0.0005700
Arsenic	189.042	0.0000000	0.0004000	0.0000000	0.0000000	0.0005700
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000800
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000800
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	-0.0001000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	-0.0001000	0.0000000	0.0000000	0.0000000
Cadmium	228.802	-0.0000500	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.802	-0.0000500	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	211.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	211.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0006000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0006000
Copper	324.754	0.0000000	-0.0000500	0.0000000	0.0000000	0.0002700
Copper	324.754	0.0000000	-0.0000500	0.0000000	0.0000000	0.0002700
Iron	271.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0003800	-0.0002100	0.0000000	0.0000000	-0.0016500
Lead	220.353	0.0003800	-0.0002100	0.0000000	0.0000000	-0.0016500
Magnesium	202.5	0.3183600	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	202.5	0.3183600	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	293.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	293.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	-0.0001200	0.0000000	0.0000000	-0.0000900	0.0000000

Comments:

Metals

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Wave-length (nm)	Interelement Correction Factors for:			
		Ni	P	Ti	V
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.838	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	-0.0014400
Barium	493.409	0.0000000	0.0000000	0.0000000	-0.0014400
Beryllium	313.042	0.0000000	0.0000000	-0.0000200	0.0016600
Beryllium	313.042	0.0000000	0.0000000	-0.0000200	0.0016600
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.802	-0.0000900	0.0000000	0.0000500	0.0000000
Cadmium	228.802	-0.0000900	0.0000000	0.0000500	0.0000000
Calcium	211.2	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	211.2	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000200	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000200	0.0000000	0.0000000
Cobalt	228.616	0.0001300	0.0000000	0.0012500	0.0000000
Cobalt	228.616	0.0001300	0.0000000	0.0012500	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	-0.0008400
Copper	324.754	0.0000000	0.0000000	0.0000000	-0.0008400
Iron	271.4	0.0000000	0.0000000	0.0000000	-0.0315100
Iron	271.4	0.0000000	0.0000000	0.0000000	-0.0315100
Lead	220.353	0.0003800	0.0000000	-0.0006200	0.0000000
Lead	220.353	0.0003800	0.0000000	-0.0006200	0.0000000
Magnesium	202.5	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	202.5	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	293.9	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	293.9	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	-0.0000500	0.0000000	0.0000000	0.0000000

Comments:



Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Co
Aluminum	394.401	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Aluminum	394.401	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	-0.0000650	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	-0.0000650	0.0000000	0.0000000
Arsenic	189.042	0.0000430	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000430	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.403	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.403	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000080	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000080	0.0000000	0.0000000
Boron	249.678	0.0000000	0.0000000	-0.0001930	0.0000000	0.0019780
Boron	249.678	0.0000000	0.0000000	-0.0001930	0.0000000	0.0019780
Cadmium	226.502	0.0000000	0.0000000	0.0000910	0.0000000	-0.0001330
Cadmium	226.502	0.0000000	0.0000000	0.0000910	0.0000000	-0.0001330
Calcium	393.366	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	393.366	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000070	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000070	0.0000000
Cobalt	230.786	0.0000000	0.0000000	0.0000140	0.0000000	0.0000000
Cobalt	230.786	0.0000000	0.0000000	0.0000140	0.0000000	0.0000000
Copper	327.396	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	327.396	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	259.94	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	259.94	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000370	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000370	0.0000000	0.0000000	0.0000000	0.0000000
Lithium	670.784	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lithium	670.784	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	285.213	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	285.213	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

Metals

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Cr	Mn	Mo	Ni	Si
Aluminum	394.401	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Aluminum	394.401	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0126720	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0126720	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0005400	0.0000000	0.0004600	0.0000000	0.0000000
Arsenic	189.042	0.0005400	0.0000000	0.0004600	0.0000000	0.0000000
Barium	455.403	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	455.403	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	-0.0000220	-0.0001550	-0.0000290	0.0000000
Beryllium	234.861	0.0000000	-0.0000220	-0.0001550	-0.0000290	0.0000000
Boron	249.678	0.0002310	0.0000000	-0.0008330	0.0000000	0.0000000
Boron	249.678	0.0002310	0.0000000	-0.0008330	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000360	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000360	0.0000000	0.0000000
Calcium	393.366	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	393.366	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000920	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000920	0.0000000	0.0000000	0.0000000
Cobalt	230.786	-0.0000550	0.0000310	-0.0082200	0.0004230	0.0000000
Cobalt	230.786	-0.0000550	0.0000310	-0.0082200	0.0004230	0.0000000
Copper	327.396	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	327.396	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	259.94	0.0000000	0.0000000	-0.0002380	0.0000000	0.0000000
Iron	259.94	0.0000000	0.0000000	-0.0002380	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	-0.0064070	0.0000000	0.0001690
Lead	220.353	0.0000000	0.0000000	-0.0064070	0.0000000	0.0001690
Lithium	670.784	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lithium	670.784	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	285.213	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	285.213	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

Metals

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Wave-length (nm)	Interelement Correction Factors for:			
		Ti	V		
Aluminum	394.401	0.0000000	0.0006800		
Aluminum	394.401	0.0000000	0.0006800		
Antimony	206.833	0.0002810	0.0000000		
Antimony	206.833	0.0002810	0.0000000		
Arsenic	189.042	0.0000000	0.0000000		
Arsenic	189.042	0.0000000	0.0000000		
Barium	455.403	0.0000000	0.0000000		
Barium	455.403	0.0000000	0.0000000		
Beryllium	234.861	0.0000000	0.0000000		
Beryllium	234.861	0.0000000	0.0000000		
Boron	249.678	0.0000000	0.0000000		
Boron	249.678	0.0000000	0.0000000		
Cadmium	226.502	0.0000300	0.0000000		
Cadmium	226.502	0.0000300	0.0000000		
Calcium	393.366	0.0000000	0.0000000		
Calcium	393.366	0.0000000	0.0000000		
Chromium	267.716	0.0000000	-0.0000780		
Chromium	267.716	0.0000000	-0.0000780		
Cobalt	230.786	0.0000000	0.0000000		
Cobalt	230.786	0.0000000	0.0000000		
Copper	327.396	0.0000840	-0.0000420		
Copper	327.396	0.0000840	-0.0000420		
Iron	259.94	0.0000000	0.0000000		
Iron	259.94	0.0000000	0.0000000		
Lead	220.353	-0.0005950	0.0000000		
Lead	220.353	-0.0005950	0.0000000		
Lithium	670.784	0.0000000	0.0000000		
Lithium	670.784	0.0000000	0.0000000		
Magnesium	285.213	0.0000000	0.0000000		
Magnesium	285.213	0.0000000	0.0000000		
Manganese	257.61	0.0000000	0.0000000		

Comments:

Metals

- 11A -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-03

Molybdenum	202.03	-0.0000100	0.0000000	-0.0000100	-0.0000100	0.0000000
Nickel	231.604	0.0000000	0.0000000	-0.0000700	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	-0.0000700	0.0000000	0.0000000
Phosphorus	214.9	-0.0002000	0.0000000	0.0004400	0.0000000	0.0000000
Phosphorus	214.9	-0.0002000	0.0000000	0.0004400	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	-0.0000600	0.0000000	-0.0000600	0.0000000	0.0000000
Selenium	196.026	-0.0000600	0.0000000	-0.0000600	0.0000000	0.0000000
Silicon	228.158	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	228.158	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.995	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.995	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0001100	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0001100	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000000	0.0000000	-0.0001900	-0.0000900	0.0000000
Thallium	190.864	0.0000000	0.0000000	-0.0001900	-0.0000900	0.0000000
Tin	189.989	0.0000000	0.0000000	-0.0000400	0.0000000	0.0000000
Tin	189.989	0.0000000	0.0000000	-0.0000400	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.856	-0.0000100	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.856	-0.0000100	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

Metals

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-03

Molybdenum	202.03	-0.0001200	0.0000000	0.0000000	-0.0000900	0.0000000
Nickel	231.604	0.0000700	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000700	0.0000000	0.0000000	0.0000000	0.0000000
Phosphorus	214.9	0.0000000	0.0010100	-0.0810500	0.0000000	0.0038000
Phosphorus	214.9	0.0000000	0.0010100	-0.0810500	0.0000000	0.0038000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	-0.0003600	-0.0003700	0.0000000	0.0000000	0.0000000
Selenium	196.026	-0.0003600	-0.0003700	0.0000000	0.0000000	0.0000000
Silicon	228.158	0.0000000	0.0000000	0.0000000	-0.0026300	0.0090100
Silicon	228.158	0.0000000	0.0000000	0.0000000	-0.0026300	0.0090100
Silver	328.068	0.0000000	0.0000800	0.0000000	0.0000000	-0.0005600
Silver	328.068	0.0000000	0.0000800	0.0000000	0.0000000	-0.0005600
Sodium	588.995	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.995	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0073700	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0073700	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.989	-0.0002500	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.989	-0.0002500	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	-0.0000900	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	-0.0000900	0.0000000	0.0000000	0.0000000
Zinc	213.856	0.0000000	-0.0012600	0.0000000	0.0000000	-0.0001000
Zinc	213.856	0.0000000	-0.0012600	0.0000000	0.0000000	-0.0001000

Comments:

Metals

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-03

Molybdenum	202.03	-0.0000500	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000
Phosphorus	214.9	0.0000000	0.0000000	0.0000000	-0.0020400
Phosphorus	214.9	0.0000000	0.0000000	0.0000000	-0.0020400
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	-0.0007900	0.0000000	0.0000000	0.0004900
Selenium	196.026	-0.0007900	0.0000000	0.0000000	0.0004900
Silicon	228.158	0.0000000	0.0000000	0.0753200	0.0000000
Silicon	228.158	0.0000000	0.0000000	0.0753200	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0007300	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0007300	0.0000000
Sodium	588.995	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.995	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.864	0.0000000	0.0000000	-0.0015400	0.0000000
Thallium	190.864	0.0000000	0.0000000	-0.0015400	0.0000000
Tin	189.989	0.0000000	0.0000000	-0.0015800	0.0000000
Tin	189.989	0.0000000	0.0000000	-0.0015800	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.856	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.856	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

Metals

- 11A -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-03

Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	221.647	0.0000060	0.0000000	0.0000130	0.0000000	0.0000000
Nickel	221.647	0.0000060	0.0000000	0.0000130	0.0000000	0.0000000
Phosphorus	214.914	-0.0008250	0.0000000	0.0009490	0.0000000	0.0000000
Phosphorus	214.914	-0.0008250	0.0000000	0.0009490	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	251.611	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	251.611	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	407.771	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	407.771	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0016260
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0016260
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	336.121	0.0000000	0.0000000	0.0000000	0.0000000	0.0000280
Titanium	336.121	0.0000000	0.0000000	0.0000000	0.0000000	0.0000280
Vanadium	292.402	0.0000000	0.0000000	0.0000220	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000220	0.0000000	0.0000000
Zinc	206.2	0.0000000	0.0000000	-0.0000570	0.0000000	0.0000000
Zinc	206.2	0.0000000	0.0000000	-0.0000570	0.0000000	0.0000000

Comments:

Metals

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Hegljar-Kronquist

ICP ID Number: K-ICP-AES-03

Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000490	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000490	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	221.647	-0.0002770	0.0000000	0.0000000	0.0000000	0.0002490
Nickel	221.647	-0.0002770	0.0000000	0.0000000	0.0000000	0.0002490
Phosphorus	214.914	0.0000000	-0.0011200	0.0084760	0.0000000	0.0000000
Phosphorus	214.914	0.0000000	-0.0011200	0.0084760	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0010370	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0010370	0.0000000	0.0000000	0.0000000
Silicon	251.611	0.0000000	0.0000000	0.0078910	0.0000000	0.0000000
Silicon	251.611	0.0000000	0.0000000	0.0078910	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	407.771	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	407.771	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0002230	0.0007110	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0002230	0.0007110	0.0000000	0.0000000	0.0000000
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	336.121	0.0000000	0.0000000	0.0000380	0.0001210	0.0000000
Titanium	336.121	0.0000000	0.0000000	0.0000380	0.0001210	0.0000000
Vanadium	292.402	0.0000000	0.0000000	-0.0078980	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	-0.0078980	0.0000000	0.0000000
Zinc	206.2	-0.0001370	0.0000000	0.0005030	0.0000000	0.0000000
Zinc	206.2	-0.0001370	0.0000000	0.0005030	0.0000000	0.0000000

Comments:



Metals

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-03

Manganese	257.61	0.0000000	0.0000000		
Molybdenum	202.03	0.0000000	0.0000000		
Molybdenum	202.03	0.0000000	0.0000000		
Nickel	221.647	-0.0006910	0.0000000		
Nickel	221.647	-0.0006910	0.0000000		
Phosphorus	214.914	0.0000000	-0.0043120		
Phosphorus	214.914	0.0000000	-0.0043120		
Potassium	766.491	0.0000000	0.0000000		
Potassium	766.491	0.0000000	0.0000000		
Selenium	196.0	0.0000000	0.0000000		
Selenium	196.0	0.0000000	0.0000000		
Silicon	251.611	0.0000000	0.0000000		
Silicon	251.611	0.0000000	0.0000000		
Silver	328.068	-0.0001050	0.0000730		
Silver	328.068	-0.0001050	0.0000730		
Sodium	589.592	0.0000000	0.0000000		
Sodium	589.592	0.0000000	0.0000000		
Strontium	407.771	0.0000000	0.0000000		
Strontium	407.771	0.0000000	0.0000000		
Thallium	190.856	-0.0008150	-0.0087710		
Thallium	190.856	-0.0008150	-0.0087710		
Tin	189.989	-0.0012350	0.0000000		
Tin	189.989	-0.0012350	0.0000000		
Titanium	336.121	0.0000000	0.0000000		
Titanium	336.121	0.0000000	0.0000000		
Vanadium	292.402	0.0003520	0.0000000		
Vanadium	292.402	0.0003520	0.0000000		
Zinc	206.2	0.0000000	0.0000000		
Zinc	206.2	0.0000000	0.0000000		

Comments:

Metals

-12-

ICP LINEAR RANGES (QUARTERLY)

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-02

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Aluminum	5.000	900000	200.7
Barium	5.000	45000	200.7
Calcium	5.000	1800000	200.7
Iron	5.000	900000	200.7
Magnesium	5.000	900000	200.7
Manganese	5.000	180000	200.7
Potassium	5.000	450000	200.7
Sodium	5.000	180000	200.7

Comments:

Metals

-12-

ICP LINEAR RANGES (QUARTERLY)

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-AES-03

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Aluminum	15.000	900000	200.7
Barium	15.000	45000	200.7
Calcium	15.000	900000	200.7
Iron	15.000	360000	200.7
Magnesium	15.000	540000	200.7
Manganese	15.000	180000	200.7
Potassium	15.000	900000	200.7
Sodium	15.000	900000	200.7

Comments:

Metals

-12-

ICP LINEAR RANGES (QUARTERLY)

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

ICP ID Number: K-ICP-MS-02

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Antimony	15.000	900	200.8
Arsenic	15.000	900	200.8
Beryllium	15.000	450	200.8
Cadmium	15.000	900	200.8
Chromium	15.000	900	200.8
Cobalt	15.000	900	200.8
Copper	15.000	900	200.8
Lead	15.000	900	200.8
Nickel	15.000	900	200.8
Selenium	15.000	900	200.8
Silver	15.000	270	200.8
Thallium	15.000	450	200.8
Vanadium	15.000	900	200.8
Zinc	15.000	900	200.8

Comments:

Metals  
-13-  
PREPARATION LOG

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Method: P

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
K1004870-004D	05/27/10	50.0	50.0
K1004870-004S	05/27/10	50.0	50.0
K1005015-001D	05/27/10	50.0	50.0
K1005015-001S	05/27/10	50.0	50.0
K1005067-001	05/27/10	50.0	50.0
K1005067-002 DISS	05/27/10	50.0	50.0
K1005067-003 DISS	05/27/10	50.0	50.0
K1005067-004 DISS	05/27/10	50.0	50.0
K1005067-MB	05/27/10	50.0	50.0
LCSW	05/27/10	50.0	50.0

Metals  
-13-  
PREPARATION LOG

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Method: MS

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
K1004934-005D	05/27/10	50.0	50.0
K1004934-005S	05/27/10	50.0	50.0
K1005067-002 DISS	05/27/10	50.0	50.0
K1005067-003 DISS	05/27/10	50.0	50.0
K1005067-004 DISS	05/27/10	50.0	50.0
K1005067-MB	05/27/10	50.0	50.0
K1005117-001D	05/27/10	50.0	50.0
K1005117-001S	05/27/10	50.0	50.0
LCSW	05/27/10	50.0	50.0

Metals  
-13-  
PREPARATION LOG

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Method: CV

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
K1004870-003D DISS	05/28/10	100.0	100.0
K1004870-003S DISS	05/28/10	100.0	100.0
K1004936-006D	05/28/10	100.0	100.0
K1004936-006S	05/28/10	100.0	100.0
K1005067-002 DISS	05/28/10	100.0	100.0
K1005067-003 DISS	05/28/10	100.0	100.0
K1005067-004 DISS	05/28/10	100.0	100.0
K1005067-MB	05/28/10	100.0	100.0
LCSW	05/28/10	100.0	100.0

Metals  
- 14 -  
ANALYSIS RUN LOG

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Instrument ID Number: K-ICP-AES-02

Method: P

Start Date: 06/04/10

End Date: 06/04/10

Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A A	N L	T V	Z N	C N			
Blank	1	08:26		X		X		X				X	X	X				X		X									
STDB	1	08:29		X		X		X				X	X	X				X		X									
STDA	1	08:32						X				X	X	X															
ICV1	1	08:35		X		X		X				X	X	X				X		X									
ICV1	1	08:38						X				X	X	X															
ICB1	1	08:41		X		X		X				X	X	X				X		X									
CCV1	1	08:50		X		X		X				X	X	X				X		X									
CCV1	1	08:58						X				X	X	X															
CCB1	1	09:04		X		X		X				X	X	X				X		X									
CRA1	1	09:07		X		X		X				X	X	X				X		X									
ICS-A1	1	09:10		X		X		X				X	X	X				X		X									
ICS-AB1	1	09:13		X		X		X				X	X	X				X		X									
ZZZZZZ	1	09:16																											
CCV2	1	09:19		X		X		X				X	X	X				X		X									
CCV2	1	09:22						X				X	X	X															
CCB2	1	09:25		X		X		X				X	X	X				X		X									
K1005067-MB	1	09:31		X		X		X				X	X	X				X		X									
LCSW	1	09:34		X		X		X				X	X	X				X		X									
ZZZZZZ	1	09:37																											
K1004870-004D	1	09:40		X		X		X				X	X	X				X		X									
K1004870-004L	5	09:43		X		X		X				X	X	X				X		X									
K1004870-004S	1	09:46		X		X						X		X															
ZZZZZZ	1	09:49																											
ZZZZZZ	1	09:52																											
ZZZZZZ	1	09:55																											
ZZZZZZ	1	09:58																											
CCV3	1	10:01		X		X		X				X	X	X				X		X									
CCV3	1	10:04						X				X	X	X															
CCB3	1	10:07		X		X		X				X	X	X				X		X									
ZZZZZZ	1	10:10																											
ZZZZZZ	1	10:13																											
ZZZZZZ	1	10:16																											

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14



Metals  
- 14 -  
ANALYSIS RUN LOG

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Instrument ID Number: K-ICP-AES-02

Method: P

Start Date: 06/04/10

End Date: 06/04/10

Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
ZZZZZZ	1	10:19																											
ZZZZZZ	1	10:22																											
ZZZZZZ	1	10:25																											
ZZZZZZ	1	10:28																											
ZZZZZZ	1	10:31																											
K1005067-001	1	10:34							X						X				X			X							
K1005067-002 DISS	1	10:37		X			X		X				X		X	X			X			X							
CCV4	1	10:40		X			X		X				X		X	X			X			X							
CCV4	1	10:43							X				X		X	X													
CCB4	1	10:46		X			X		X				X		X	X			X			X							
K1005067-003 DISS	1	10:49		X			X		X				X		X	X			X			X							
K1005067-004 DISS	1	10:52		X			X		X				X		X	X			X			X							
ZZZZZZ	1	10:55																											
ZZZZZZ	1	10:58																											
ZZZZZZ	1	11:01																											
ZZZZZZ	1	11:04																											
ZZZZZZ	1	11:07																											
ZZZZZZ	1	11:10																											
ZZZZZZ	1	11:13																											
ZZZZZZ	1	11:16																											
CCV5	1	11:19		X			X		X				X		X	X			X			X							
CCV5	1	11:22							X				X		X	X													
CCB5	1	11:25		X			X		X				X		X	X			X			X							

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

**Metals**  
- 14 -  
**ANALYSIS RUN LOG**

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Instrument ID Number: K-ICP-MS-02

Method: MS

Start Date: 06/04/10

End Date: 06/04/10

Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V N	Z N	C N				
Cal. Blk	1	17:43			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
Cal Std	1	17:47			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
ICV1	1	17:56			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
CCV1	1	17:59			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
ICB1	1	18:13			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
CCB1	1	18:17			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
CRA1	1	18:21			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
K1005067-MB	1	18:25			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
LCSW	1	18:29			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
ZZZZZZ	1	18:38																													
K1004934-005D	1	18:42			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
K1004934-005S	1	18:47			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
ZZZZZZ	1	19:01																													
ZZZZZZ	1	19:07																													
ZZZZZZ	1	19:13																													
CCV2	1	19:17			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
CCB2	1	19:26			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
ZZZZZZ	1	19:30																													
ZZZZZZ	1	19:35																													
ZZZZZZ	1	19:40																													
ZZZZZZ	1	19:45																													
K1005067-002 DISS	1	19:50			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
K1005067-003 DISS	1	19:55			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
K1005067-004 DISS	1	20:00			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
CCV3	1	20:04			X	X		X	X		X	X	X		X				X		X	X		X	X	X					
CCB3	1	20:13			X	X		X	X		X	X	X		X				X		X	X		X	X	X					

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals  
- 14 -  
ANALYSIS RUN LOG

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Instrument ID Number: K-ICP-MS-02

Method: MS

Start Date: 06/07/10

End Date: 06/07/10

Sample No.	D/F	Time	% R	Analytes																						
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N
Cal. Blk	1	11:41			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
Cal. Stn	1	11:46			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
ICV2	1	11:51			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
CCV1	1	11:56			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
ICB2	1	12:06			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
CCB1	1	12:17			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
CRA2	1	12:21			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
ZZZZZZ	1	12:38																								
ZZZZZZ	1	12:42																								
ZZZZZZ	1	12:47																								
ZZZZZZ	1	12:51																								
ZZZZZZ	1	12:56																								
ZZZZZZ	1	13:01																								
ZZZZZZ	1	13:10																								
ZZZZZZ	1	13:19																								
ZZZZZZ	1	13:25																								
ZZZZZZ	1	13:31																								
CCV2	1	13:38			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
CCB2	1	13:46			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
ZZZZZZ	1	13:51																								
K1005117-001D	1	13:57			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
K1005117-001S	1	14:03			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
CCV3	1	14:12			X	X		X	X		X	X	X		X				X	X	X		X	X	X	
CCB3	1	14:20			X	X		X	X		X	X	X		X				X	X	X		X	X	X	

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals  
- 14 -  
ANALYSIS RUN LOG

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Instrument ID Number: K-ICP-AES-03

Method: P

Start Date: 06/07/10

End Date: 06/07/10

Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A G	A L	N T	V L	Z N	C N				
BLK	1	18:24		X		X		X			X	X	X			X			X		X										
STD A	1	18:27													X																
STD B	1	18:30		X		X		X			X	X				X			X		X										
ICV2	1	18:34		X		X		X			X	X	X			X			X		X										
ICV2	1	18:38																													
ZZZZZZ	1	18:41																													
ICB2	1	18:44		X		X		X			X	X	X			X			X		X										
CCV1	1	18:47													X																
CCV1	1	18:56		X		X		X			X	X				X			X		X										
CCB1	1	19:24		X		X		X			X	X	X			X			X		X										
CRA2	1	19:26		X		X		X			X	X	X			X			X		X										
ZZZZZZ	1	19:29																													
ICS-A2	1	19:32		X		X		X			X	X	X			X			X		X										
ICS-AB2	1	19:36		X		X		X			X	X	X			X			X		X										
ZZZZZZ	1	19:43																													
ZZZZZZ	1	19:46																													
ZZZZZZ	1	19:49																													
ZZZZZZ	1	19:53																													
ZZZZZZ	1	19:57																													
K1005015-001D	1	20:00		X		X		X			X	X	X			X			X		X										
CCV2	1	20:03													X																
CCV2	1	20:06		X		X		X			X	X				X			X		X										
CCB2	1	20:10		X		X		X			X	X	X			X			X		X										
ZZZZZZ	5	20:12																													
ZZZZZZ	1	20:15																													
K1005015-001S	1	20:19		X		X					X		X																		
ZZZZZZ	1	20:23																													
ZZZZZZ	1	20:26																													
ZZZZZZ	1	20:30																													
ZZZZZZ	1	20:33																													
ZZZZZZ	1	20:37																													
ZZZZZZ	1	20:41																													

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

**Metals**  
- 14 -  
**ANALYSIS RUN LOG**

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Instrument ID Number: K-ICP-AES-03

Method: P

Start Date: 06/07/10

End Date: 06/07/10

Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
ZZZZZZ	1	20:45																											
CCV3	1	20:49																											
CCV3	1	20:52		X			X			X				X		X				X						X			
CCB3	1	20:56		X			X			X				X		X	X			X						X			

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals  
- 14 -  
ANALYSIS RUN LOG

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Instrument ID Number: K-CVAA-01

Method: CV

Start Date: 06/02/10

End Date: 06/02/10

Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
Standard #1	1	11:14																										X	
Standard #2	1	11:15																										X	
Standard #3	1	11:17																										X	
Standard #4	1	11:19																										X	
Standard #5	1	11:21																										X	
ICV1	1	11:22																										X	
ICB1	1	11:24																										X	
CCV1	1	11:26																										X	
CCB1	1	11:28																										X	
CRA1	1	11:29																										X	
ZZZZZZ	1	11:31																											
ZZZZZZ	1	11:33																											
ZZZZZZ	1	11:35																											
ZZZZZZ	1	11:37																											
ZZZZZZ	1	11:38																											
ZZZZZZ	1	11:40																											
ZZZZZZ	1	11:42																											
ZZZZZZ	1	11:44																											
ZZZZZZ	1	11:45																											
CCV2	1	11:47																										X	
CCB2	1	11:49																										X	
ZZZZZZ	1	11:51																											
ZZZZZZ	1	11:53																											
ZZZZZZ	1	11:54																											
ZZZZZZ	1	11:56																											
ZZZZZZ	1	11:58																											
ZZZZZZ	1	12:00																											
ZZZZZZ	1	12:01																											
ZZZZZZ	1	12:03																											
ZZZZZZ	1	12:05																											
ZZZZZZ	1	12:07																											
CCV3	1	12:09																										X	

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals  
- 14 -  
ANALYSIS RUN LOG

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Instrument ID Number: K-CVAA-01

Method: CV

Start Date: 06/02/10

End Date: 06/02/10

Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	A L	T	V	Z N	C N		
CCB3	1	12:10																X											
ZZZZZZ	1	12:12																											
K1005067-MB	1	12:15																X											
LCSW	1	12:17																X											
ZZZZZZ	1	12:19																											
ZZZZZZ	1	12:21																											
ZZZZZZ	1	12:22																											
ZZZZZZ	1	12:24																											
K1004936-006A	1	12:26																X											
K1004936-006D	1	12:28																X											
K1004936-006S	1	12:30																X											
CCV4	1	12:31																X											
CCB4	1	12:33																X											
ZZZZZZ	1	12:35																											
ZZZZZZ	1	12:37																											
ZZZZZZ	1	12:38																											
ZZZZZZ	1	12:40																											
ZZZZZZ	1	12:42																											
ZZZZZZ	1	12:44																											
ZZZZZZ	1	12:46																											
ZZZZZZ	1	12:47																											
ZZZZZZ	1	12:49																											
ZZZZZZ	1	12:51																											
CCV5	1	12:53																X											
CCB5	1	12:55																X											
K1004870-003D DISS	1	12:56																X											
K1004870-003S DISS	1	12:58																X											
ZZZZZZ	1	13:00																											
K1005067-002 DISS	1	13:02																X											
K1005067-003 DISS	1	13:04																X											
K1005067-004 DISS	1	13:06																X											
CCV6	1	13:08																X											

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

**Metals**  
- 14 -  
**ANALYSIS RUN LOG**

Client: Exponent

Service Request: K1005067

Project No.: 0907194.000.0601

Project Name: Heglar-Kronquist

Instrument ID Number: K-CVAA-01

Method: CV

Start Date: 06/02/10

End Date: 06/02/10

Sample No.	D/F	Time	% R	Analytes																												
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N					
CCB6	1	13:10																X														

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14




**Columbia Analytical Services** Preparation Information Benchsheet

**Prep Workflow:** MetDigAqMS **Status:** Prepped  
**Prep Run:** 112433 **Current Step:** Digestion  
**Team:** Metals **Prep Method:** EPA CLP-METALS  
**Analyst:** WSchumann **ILM04.0,EPA CLP-METALS ILM05.3**  
**Rush/NPDES:** N/A

**Prep Date:** 05/27/2010 04:15  
**Due Date:** 05/30/2010

Lab Code	Client ID	Bottle #	Initial Amt	Final Volume	Spike Amt	Spike ID	TestNo List	Comments
KQ1004909-01	Method Blank		50 mL	50 mL			Metals D, Metals T	1% HNO3
KQ1004909-02	Lab Control Sample		50 mL	50 mL	1 mL 1 mL	11605 17425	Metals D, Metals T	1% HNO3
K1004870-001	BH-6	.05	50 mL	50 mL			Metals D	1% HNO3
K1004870-002	BH-7	.05	50 mL	50 mL			Metals D	1% HNO3
K1004870-003	BH-15	.05	50 mL	50 mL			Metals D	1% HNO3
K1004870-004	4aad	.05	50 mL	50 mL			Metals T	1% HNO3
K1004934-005	SW-2	.12	50 mL	50 mL			Metals T	1% HNO3
K1004934-005; KQ1004909-05	Duplicate	.12	50 mL	50 mL			Metals T	1% HNO3
K1004934-005; KQ1004909-06	Matrix Spike	.12	50 mL	50 mL	1 mL 1 mL	11605 17425	Metals T	1% HNO3
K1004934-006	SW-3	.12	50 mL	50 mL			Metals T	1% HNO3
K1004934-007	SW-9	.12	50 mL	50 mL			Metals T	1% HNO3
K1004934-008	FB-051410	.12	50 mL	50 mL			Metals T	1% HNO3
K1005015-001	BRUVPilot1:BA92933	.03	50 mL	50 mL			Metals T	1% HNO3
K1005067-002	3bcd-2	.20	50 mL	50 mL			Metals D	1% HNO3
K1005067-003	3ddd	.20	50 mL	50 mL			Metals D	1% HNO3
K1005067-004	EB-051710	.20	50 mL	50 mL			Metals D	1% HNO3
K1005117-001	MS	.04	50 mL	50 mL			Metals T	1% HNO3
K1005117-001; KQ1004909-03	Duplicate	.04	50 mL	50 mL			Metals T	1% HNO3
K1005117-001; KQ1004909-04	Matrix Spike	.04	50 mL	50 mL	1 mL 1 mL	11605 17425	Metals T	1% HNO3
K1005117-002	MS-Roof	.04	50 mL	50 mL			Metals T	1% HNO3
K1005117-003	Pipe Under Tracks	.04	50 mL	50 mL			Metals T	1% HNO3

21 Total Samples consisting of 15 Client Samples, 4 Client QC Samples, 2 Batch QC Samples associated with the current Prep Run.

### Spiking Solutions

Name	Type	ID	Expires	Name	Type	ID	Expires
K-MET 200.8 1000ug/L Stock	Spike	17425	10/24/2010	K-MET Ag 1000 ppb Stock	Spike	11605	8/17/2010

**Preparation Materials**

Step	Name	ID	Step	Name	ID
Digestion	K-MET HN03 ULTREX	16811	Digestion	K-MET 50ml Centrifuge Tube	16850

**Preparation Hardware / Equipment**

Step	Name	Property	Value	
Digestion	K-BlockDigester-06	Temperature	95	deg C

**Preparation Steps**

Step	Started	Finished	By	Assisted By	Training?	Comments
Digestion	27-MAY-10 04:15	27-MAY-10 07:15	WSchumann		N	

**Comments****Review**

Reviewed by: BS Date: 5/27/10

**Columbia Analytical Services** Preparation Information Benchsheet

**Prep Workflow:** MetDigAqICP **Status:** Prepped **Prep Date:** 05/27/2010  
**Prep Run:** 112427 **EPA** **Current Step:** Digestion **04:15**  
**Team:** Metals **Prep Method:** 3010A,EPA **Due Date:** 06/04/2010  
**Analyst:** WSchumann **ILM04.0**  
**Rush/NPDES:** N/A

Lab Code	Client ID	Bottle #	Initial Amt	Final Volume	Spike Amt	Spike ID	TestNo List	Comments
KQ1004904-01	Method Blank		50 mL	50 mL			Metals D, Metals T, Metals T	1% HNO3 5% HCL
KQ1004904-02	Lab Control Sample		50 mL	50 mL	0.25 mL 0.25 mL 0.25 mL	12778 14972 18109	Metals D, Metals T, Metals T	1% HNO3 5% HCL
KQ1004904-03	Lab Control Sample		50 mL	50 mL	0.5 mL	15209	Metals D, Metals T, Metals T	1% HNO3 5% HCL
K1004870-001	BH-6	.05	50 mL	50 mL			Metals D	1% HNO3 5% HCL
K1004870-002	BH-7	.05	50 mL	50 mL			Metals D	1% HNO3 5% HCL
K1004870-003	BH-15	.05	50 mL	50 mL			Metals D	1% HNO3 5% HCL
K1004870-004	4aad	.05	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1004870-004; KQ1004904-06	Duplicate	.05	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1004870-004; KQ1004904-07	Matrix Spike	.05	50 mL	50 mL	0.5 mL 0.5 mL 0.5 mL 0.5 mL	15209 17064 17544 17867 18003	Metals T	1% HNO3 5% HCL
K1004870-005	SW-8	.05	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1004934-001	SW-1	.12	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1004934-002	SW-4	.12	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1004934-003	SW-5	.12	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1004934-004	SW-6	.12	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1004934-005	SW-2	.12	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1004934-006	SW-3	.12	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1004934-007	SW-9	.12	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1004934-008	FB-051410	.12	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1005015-001	BRUVPIlot1:BA92933	.03	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1005015-001; KQ1004904-04	Duplicate	.03	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1005015-001; KQ1004904-05	Matrix Spike	.03	50 mL	50 mL	0.5 mL 0.5 mL 0.5 mL 0.5 mL	15209 17064 17544 17867	Metals T	1% HNO3 5% HCL

					0.5 mL	18003		
K1005067-001	SW-7	.12	50 mL	50 mL			Metals T	1% HNO3 5% HCL
K1005067-002	3bcd-2	.20	50 mL	50 mL			Metals D	1% HNO3 5% HCL
K1005067-003	3ddd	.20	50 mL	50 mL			Metals D	1% HNO3 5% HCL
K1005067-004	EB-051710	.20	50 mL	50 mL			Metals D	1% HNO3 5% HCL

25 Total Samples consisting of 18 Client Samples, 4 Client QC Samples, 3 Batch QC Samples associated with the current Prep Run.

**Spiking Solutions**

Name	Type	ID	Expires	Name	Type	ID	Expires
K-MET QCP-CICV-1	Spike	18109	6/1/2011	K-MET SS3	Spike	17064	12/1/2010
K-MET QCP-CICV-2	Spike	12778	7/1/2010	K-MET SS4	Spike	17867	12/1/2010
K-MET QCP-CICV-3	Spike	14972	1/28/2011	K-MET SS5	Spike	18003	11/20/2010
K-MET SS1	Spike	17544	9/11/2010	Silicon 1000 ug/mL Si	Spike	15209	10/26/2010

**Preparation Materials**

Step	Name	ID	Step	Name	ID
Digestion	K-MET HNO3	15193	Digestion	K-MET 50ml Centrifuge Tube	16850
Digestion	K-MET HCL	16810			

**Preparation Hardware / Equipment**

Step	Name	Property	Value
Digestion	K-BlockDigester-08	Temperature	95 deg C

**Preparation Steps**

Step	Started	Finished	By	Assisted By	Training?	Comments
Digestion	27-MAY-10 04:15	27-MAY-10 07:15	WSchumann		N	

**Comments**

**Review**

Reviewed by: BSJ Date: 5/27/10

METALS SPIKING SOLUTIONS CONCENTRATIONS FORM

Solution Name	Element	mLs of 1000ppm Solution	Final Volume	Solution Conc. mg/L	Enter mls Added
K-MET SS1	HNO3	50.0	1000ml	-	0.50
	Al	100*	1000ml	200	
	Ag	100*	1000ml	5	
	Ba	100*	1000ml	200	
	Be	100*	1000ml	5	
	Cd	100*	1000ml	5	
	Co	100*	1000ml	50	
	Cr	100*	1000ml	20	
	Cu	100*	1000ml	25	
	Fe	100*	1000ml	100	
	Pb	100*	1000ml	50	
	Mn	100*	1000ml	50	
	Ni	100*	1000ml	50	
	Sb	50	1000ml	50	
V	100*	1000ml	50		
Zn	100*	1000ml	50		
K-MET SS2	HNO3	25.0	500ml	-	
	As	2.0	500ml	4	
	Cd	2.0	500ml	4	
	Pb	2.0	500ml	4	
	Se	2.0	500ml	4	
	Tl	2.0	500ml	4	
	Cu	2.0	500ml	4	
K-MET SS3	HNO3	25.0	500ml	-	0.50
	As	50.0	500ml	100	
	Se	50.0	500ml	100	
	Tl	50.0	500ml	100	
K-MET SS4	HNO3	25	500ml	-	0.50
	B	50	500ml	100	
	Mo	50	500ml	100	
K-MET SS5	HNO3	10.0	200ml	-	0.5
	K**	20	200ml	1000	
	Na**	20	200ml	1000	
	Mg**	20	200ml	1000	
	Ca**	20	200ml	1000	

K-MET GFLCSW	HNO3	10.0	1000ml	-	
	As, Pb, Se, Tl	5.0	1000ml	2.5	
	Cd	-	-	1.25	
	Cu	2.5	1000ml	2.5	
K-MET QCP-CICV-1	Ca, Mg, Na, K	no dilution	-	2500	0.25
	Al, Ba	no dilution	-	1000	
	Fe	no dilution	-	500	
	Co, Mn, Ni, V, Zn	no dilution	-	250	
	Cu, Ag	no dilution	-	125	
	Cr	no dilution	-	100	
	Be	no dilution	-	25	
K-MET QCP-CICV-2	Sb	no dilution	-	500	0.25
K-MET QCP-CICV-3	As, Pb, Se, Tl	no dilution	-	500	0.25
	Cd	no dilution	-	250	

\* Denotes volume of mixed stock standard.  
 \*\* Denotes 10,000 ppm individual stock standards.

Standard	mls of standard	ppm	Logbook #	Exp. Date
S1	0.5	1000	MET-73-0	6/10/10

## CVAA Mercury Data Review Form

Element:     Hg    

Analysis Lot #:     203136    

Cal. STD/CCV Source:     HG1-92-J    

Service Request Numbers:

    K1004814, K1005137, K1004936, K1004870, K1005067    

	Yes	No	NA
1) Appropriate standardization completed	<u>    X    </u>	<u>          </u>	<u>          </u>
2) ICV within 10% of true value	<u>    X    </u>	<u>          </u>	<u>          </u>
3) CCVs in control	<u>    X    </u>	<u>          </u>	<u>          </u>
4) CCBs and or ICBs below MRL	<u>    X    </u>	<u>          </u>	<u>          </u>
5) All reported samples within calibration range	<u>    X    </u>	<u>          </u>	<u>          </u>
6) Calculations correct	<u>    X    </u>	<u>          </u>	<u>          </u>

Comments:

Data reviewed against service request(s) to ensure no samples were omitted:     MS     (initials)

Primary Reviewed By:     MAS    

Date:     6/2/10    

Secondary Reviewed By:     JOB    

Date:     6/2/10

Method: (Circle One) 7470A 7471A <b>245.1</b>	Service Request # : K1004814, K1005137, K1004936, K1004870, K1005067
Analysis For: Hg	

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	Measured (µg/L)	Sample Actual (mg/kg)	Sample Actual (µg/L)
1	ICV1	~	~	~	4.89		98%
2	ICB1	~	~	~	-0.01		< 0.2
3	CCV1	~	~	~	4.92		98%
4	CCB1	~	~	~	-0.02		< 0.2
5	CRA1	~	~	~	0.19		95%
6	K1004814-MB	100	100	~	0.00		0.00
7	LCSW K1004814	100	100	~	5.19		104%
8	K1004814-001	100	100	~	0.00		0.00
9	K1004814-002	100	100	~	0.01		0.01
10	K1004814-003	100	100	~	0.00		0.00
11	K1004814-004	100	100	~	0.00		0.00
12	K1004814-004A	100	100	~	1.08		108%
13	K1004814-004D	100	100	~	0.01		0.01
14	K1004814-004S	100	100	~	1.08		108%
15	CCV2	~	~	~	4.94		99%
16	CCB2	~	~	~	-0.02		< 0.2
17	K1004814-005	100	100	~	0.00		0.00
18	K1004814-006	100	100	~	0.00		0.00
19	K1005137-003	100	100	~	0.00		0.00
20	K1005137-003D	100	100	~	0.00		0.00
21	K1005137-003S	100	100	~	1.13		113%
22	K1005137-001 DISS	100	100	~	0.00		0.00
23	K1005137-002 DISS	100	100	~	0.00		0.00
24	K1005137-003 DISS	100	100	~	0.00		0.00
25	K1005137-004 DISS	100	100	~	0.00		0.00

Comments: Reporting Levels:

Soil/Tissue Spike Level:

Post Spike Level: 1.0 ppb

Method	Spike Level	MRL	LCS Limit	MS Limit	RPD
7470A Water	1.0 µg/L	0.2 µg/L	83-117%	76-126%	20%
245.1 Water	1.0 µg/L	0.2 µg/L	85-115%	70-130%	20%
7470A TCLP	5.0 µg/L	1.0 µg/L	85-115%	75-125%	20%
7471A Soil LCSS	6.80 mg/kg	0.02 mg/kg	72-128%	60-130%	30%
7471A Tissue Tort	0.27 mg/kg	0.02 mg/kg	63-130%	60-130%	30%

Analyst: <i>N. Wallace</i>	Date: <i>6/2/10</i>	Page Number: 1
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Method: (Circle One) 7470A 7471A <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">245.1</span>	Service Request # :
Analysis For: Hg	

**DATA**

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	Measured (µg/L)	Sample Actual (mg/kg)	Sample Actual (µg/L)
26	K1005137-005 DISS	100	100	~	0.00		0.00
27	CCV3	~	~	~	4.95		99%
28	CCB3	~	~	~	0.00		< 0.2
29	K1005137-006 DISS	100	100	~	0.00		0.00
30	K1004936-MB	100	100	~	0.00		0.00
31	LCSW K1004936	100	100	~	5.36		107%
32	K1004936-003	100	100	~	0.08		0.08
33	K1004936-004	100	100	~	0.01		0.01
34	K1004936-005	100	100	~	0.16		0.16
35	K1004936-006	100	100	~	0.01		0.01
36	K1004936-006A	100	100	~	1.13		112%
37	K1004936-006D	100	100	~	0.01		0.01
38	K1004936-006S	100	100	~	1.15		115%
39	CCV4	~	~	~	5.00		100%
40	CCB4	~	~	~	0.00		< 0.2
41	K1004936-007	100	100	~	0.05		0.05
42	K1004936-001 DISS	100	100	~	0.01		0.01
43	K1004936-003 DISS	100	100	~	0.00		0.00
44	K1004936-004 DISS	100	100	~	0.00		0.00
45	K1004936-005 DISS	100	100	~	0.00		0.00
46	K1004936-006 DISS	100	100	~	0.00		0.00
47	K1004936-007 DISS	100	100	~	0.00		0.00
48	K1004870-001	100	100	~	0.00		0.00
49	K1004870-002	100	100	~	0.02		0.02
50	K1004870-003	100	100	~	0.00		0.00

**Comments: Reporting Levels:**

Soil/Tissue Spike Level:

Post Spike Level:

Method	Spike Level	MRL	LCS Limit	MS Limit	RPD
7470A Water	1.0 µg/L	0.2 µg/L	83-117%	76-126%	20%
245.1 Water	1.0 µg/L	0.2 µg/L	85-115%	70-130%	20%
7470A TCLP	5.0 µg/L	1.0 µg/L	85-115%	75-125%	20%
7471A Soil LCSS	6.80 mg/kg	0.02 mg/kg	72-128%	60-130%	30%
7471A Tissue Tort	0.27 mg/kg	0.02 mg/kg	63-130%	60-130%	30%

Analyst: <i>Nelma A. C. H.</i>	Date: <i>6/2/10</i>	Page Number: 2
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Method: (Circle One) 7470A 7471A <u>245.1</u>	Service Request # :
Analysis For: Hg	

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	Measured (µg/L)	Sample Actual (mg/kg)	Sample Actual (µg/L)
51	CCV5	~	~	~	5.00		100%
52	CCB5	~	~	~	-0.01		< 0.2
53	K1004870-003D	100	100	~	0.00		0.00
54	K1004870-003S	100	100	~	1.14		114%
55	K1004870-004	100	100	~	0.00		0.00
56	K1005067-002	100	100	~	0.00		0.00
57	K1005067-003	100	100	~	0.00		0.00
58	K1005067-004	100	100	~	0.03		0.03
59	CCV6	~	~	~	5.05		101%
60	CCB6	~	~	~	0.00		< 0.2
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							

MS 6/2/10

Comments: Reporting Levels:

Soil/Tissue Spike Level:

Post Spike Level:

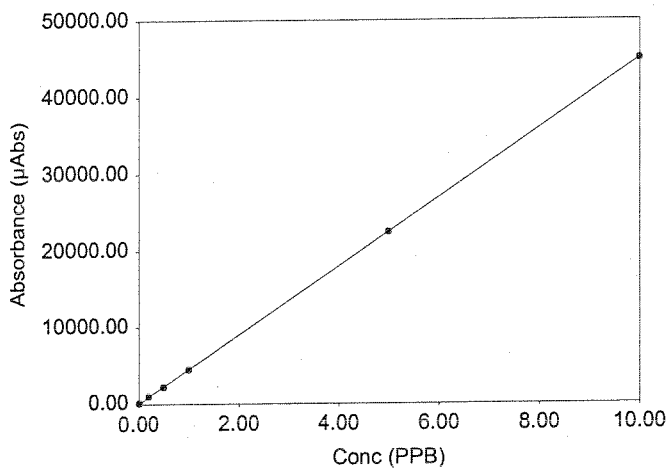
Method	Spike Level	MRL	LCS Limit	MS Limit	RPD
7470A Water	1.0 µg/L	0.2 µg/L	83-117%	76-126%	20%
245.1 Water	1.0 µg/L	0.2 µg/L	85-115%	70-130%	20%
7470A TCLP	5.0 µg/L	1.0 µg/L	85-115%	75-125%	20%
7471A Soil LCSS	6.80 mg/kg	0.02 mg/kg	72-128%	60-130%	30%
7471A Tissue Tort	0.27 mg/kg	0.02 mg/kg	63-130%	60-130%	30%

Analyst: <i>Nulwa 099</i>	Date: <i>10/2/10</i>	Page Number: 3
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Analyst M SMITH  
 Date Started Wednesday, June 02, 2010, 11:12:19  
 Worksheet Hg 060210B  
 Comment K-CVAA-01

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	02-Jun-2010, 11:12	0.00	0.77	110.00	111	111	109	110	
Standard #1	02-Jun-2010, 11:14	0.20	0.69	969.00	968	961	970	977	
Standard #2	02-Jun-2010, 11:15	0.50	0.90	2210.00	2190	2190	2212	2231	
Standard #3	02-Jun-2010, 11:17	1.00	0.66	4440.00	4411	4418	4458	4470	
Standard #4	02-Jun-2010, 11:19	5.00	0.62	22500.00	22321	22396	22533	22634	
Standard #5	02-Jun-2010, 11:21	10.00	1.32	44900.00	44222	44649	45203	45560	

Calibration Data



Int. Slope 0.000  
 4491.024

Correlation 0.99999

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
ICV1	02-Jun-2010, 11:22	4.89	1.27	22000.00	22032	22192	22070	21559	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
ICB1	02-Jun-2010, 11:24	-0.01	13.00	-53.00	-47	-49	-62	-54	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCV1	02-Jun-2010, 11:26	4.92	0.69	22100.00	21956	22001	22189	22280	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCB1	02-Jun-2010, 11:28	-0.02	6.26	-87.80	-92	-91	-80	-87	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CRA1	02-Jun-2010, 11:29	0.19	1.33	831.00	817	830	844	833	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings					Flags
K1004814-MB	02-Jun-2010, 11:31	0.00	19.30	4.72	4	4	6	5		
LCSW K1004814	02-Jun-2010, 11:33	5.19	0.29	23300.00	23290	23277	23305	23423		
K1004814-001	02-Jun-2010, 11:35	-0.00	88.00	-7.45	-9	-8	1	-15		
K1004814-002	02-Jun-2010, 11:37	0.01	16.50	24.70	19	28	28	24		
K1004814-003	02-Jun-2010, 11:38	0.00	15.00	18.40	16	20	22	17		
K1004814-004	02-Jun-2010, 11:40	0.00	38.00	16.90	8	22	21	17		
K1004814-004A	02-Jun-2010, 11:42	1.08	0.93	4850.00	4795	4836	4894	4881		
K1004814-004D	02-Jun-2010, 11:44	0.01	32.20	24.10	18	33	17	28		
K1004814-004S	02-Jun-2010, 11:45	1.08	1.22	4850.00	4811	4794	4882	4920		

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCV2	02-Jun-2010, 11:47	4.94	0.78	22200.00	22078	22005	22217	22400	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCB2	02-Jun-2010, 11:49	-0.02	4.62	-93.40	-89	-95	-91	-98	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
K1004814-005	02-Jun-2010, 11:51	0.00	217.00	1.49	5	-1	3	-2	
K1004814-006	02-Jun-2010, 11:53	-0.00	168.00	-4.89	-9	-5	-12	7	
K1005137-003	02-Jun-2010, 11:54	0.00	191.00	7.80	-15	16	16	14	
K1005137-003D	02-Jun-2010, 11:56	0.00	44.20	12.30	12	15	18	5	
K1005137-003S	02-Jun-2010, 11:58	1.13	0.17	5070.00	5065	5062	5081	5073	

Analyst M SMITH  
 Date Started Wednesday, June 02, 2010, 12:00:09  
 Worksheet Hg 060210B  
 Comment K-CVAA-01

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
K1005137-001 DISS	02-Jun-2010, 12:00	-0.00	829.00	-1.08	-14	4	1	5	
K1005137-002 DISS	02-Jun-2010, 12:01	0.00	204.00	4.80	-10	12	7	10	
K1005137-003 DISS	02-Jun-2010, 12:03	-0.00	186.00	-7.36	-25	6	1	-12	
K1005137-004 DISS	02-Jun-2010, 12:05	0.00	28.90	13.40	16	12	17	9	
K1005137-005 DISS	02-Jun-2010, 12:07	0.00	20300.00	0.04	-5	-3	-3	11	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCV3	02-Jun-2010, 12:09	4.95	0.91	22200.00	22006	22132	22361	22443	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCB3	02-Jun-2010, 12:10	-0.00	106.00	-9.32	-9	-17	5	-16	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
K1005137-006 DISS	02-Jun-2010, 12:12	0.00	44.50	12.60	4	14	15	17	
K1004936-MB	02-Jun-2010, 12:15	-0.00	160.00	-0.57	-1	-2	-1	1	
LCSW K1004936	02-Jun-2010, 12:17	5.36	0.71	24100.00	23923	23968	24183	24280	
K1004936-003	02-Jun-2010, 12:19	0.08	0.40	350.00	348	350	351	349	
K1004936-004	02-Jun-2010, 12:21	0.01	17.00	39.60	35	34	41	49	
K1004936-005	02-Jun-2010, 12:22	0.16	1.04	717.00	707	721	724	715	
K1004936-006	02-Jun-2010, 12:24	0.01	31.00	24.50	14	25	29	31	
K1004936-006A	02-Jun-2010, 12:26	1.13	1.05	5060.00	4988	5084	5111	5057	
K1004936-006D	02-Jun-2010, 12:28	0.01	15.80	43.80	50	49	39	36	
K1004936-006S	02-Jun-2010, 12:30	1.15	0.22	5160.00	5157	5160	5180	5156	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCV4	02-Jun-2010, 12:31	5.00	0.65	22500.00	22253	22436	22574	22543	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCB4	02-Jun-2010, 12:33	-0.00	6.12	-16.70	-17	-18	-17	-15	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
K1004936-007	02-Jun-2010, 12:35	0.05	2.61	216.00	208	216	221	217	
K1004936-001 DISS	02-Jun-2010, 12:37	0.01	26.30	32.40	28	25	33	44	
K1004936-003 DISS	02-Jun-2010, 12:38	0.00	193.00	2.05	-2	-1	5	6	
K1004936-004 DISS	02-Jun-2010, 12:40	0.00	82.70	15.00	-3	23	23	17	
K1004936-005 DISS	02-Jun-2010, 12:42	0.00	85.90	11.90	-2	22	12	16	
K1004936-006 DISS	02-Jun-2010, 12:44	0.00	49.70	15.10	7	24	18	11	
K1004936-007 DISS	02-Jun-2010, 12:46	0.00	613.00	2.78	-22	11	16	6	
K1004870-001	02-Jun-2010, 12:47	-0.00	1970.00	-0.60	-18	5	5	5	
K1004870-002	02-Jun-2010, 12:49	0.02	10.10	72.80	69	73	66	83	
K1004870-003	02-Jun-2010, 12:51	0.00	104.00	6.13	12	11	-1	3	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCV5	02-Jun-2010, 12:53	5.00	0.75	22500.00	22293	22377	22580	22651	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCB5	02-Jun-2010, 12:55	-0.01	11.20	-28.10	-29	-32	-28	-24	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
K1004870-003D	02-Jun-2010, 12:56	-0.00	23.60	-14.40	-19	-13	-11	-14	
K1004870-003S	02-Jun-2010, 12:58	1.14	0.12	5110.00	5103	5106	5117	5111	
K1004870-004	02-Jun-2010, 13:00	0.00	56.90	8.35	2	8	14	9	
K1005067-002	02-Jun-2010, 13:02	-0.00	950.00	-1.23	-16	-4	7	9	
K1005067-003	02-Jun-2010, 13:04	0.00	59.60	16.00	2	17	24	21	
K1005067-004	02-Jun-2010, 13:06	0.03	8.23	114.00	122	119	113	101	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCV6	02-Jun-2010, 13:08	5.05	0.92	22700.00	22482	22563	22817	22926	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCB6	02-Jun-2010, 13:10	-0.00	38.30	-21.00	-25	-12	-17	-30	



Columbia Analytical Services  
EPA METHOD 245.1

Service Request Number(s): 112652  
PREP RUN:

Sample	Initial Volume	Final Volume	Sample	Initial Volume	Final Volume
MB	100	100			
LCSW	100	100			
K1004936-003	100	100			
K1004936-004	100	100			
K1004936-005	100	100			
K1004936-006	100	100			
K1004936-006D	100	100			
K1004936-006S	100	100			
K1004936-007	100	100			
K1004936-001 DISS	100	100			
K1004936-003 DISS	100	100			
K1004936-004 DISS	100	100			
K1004936-005 DISS	100	100			
K1004936-006 DISS	100	100			
K1004936-007 DISS	100	100			
K1004870-001	100	100			
K1004870-002	100	100			
K1004870-003	100	100			
K1004870-003D	100	100			
K1004870-003S	100	100			
K1004870-004	100	100			
K1005067-001 <sup>2</sup>	100	100			
K1005067-002 <sup>3</sup>	100	100			
K1005067-003 <sup>4</sup> <sub>ms</sub>	100	100			
Std. 0.2	0.1 *				50
Std. 0.5	0.25 *				50
Std. 1.0	0.5 *				50
Std. 5.0	2.5 *				50
Std. 10.0	5.0 *				50
ICV	0.25 **				50

*JB*  
*5/22/10*

Start Time: 9:00 Finish Time: 3:00 Waterbath Temp.: 95° C  
Balance#: 1

Lot # of Reagents Used:		
HNO <sub>3</sub> : H14024	K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> : H02H06	NaCl : G28620
H <sub>2</sub> SO <sub>4</sub> : 49160	KMnO <sub>4</sub> : H24584	NH <sub>2</sub> OH-HCL: H51598
HCL: 201009101	SnCl <sub>2</sub> : J14618	ERA CLP Soil: D065540

\* Source Standard: H61-92-J 100 ppb Spike = 1.0 ml \* Source Standard  
 \*\*Source Standard: ICV H61-91-P 1000 ppb LCSW= 0.5 ml ICV \*\*Source Standard

Comments:

Analyst: John P. Bink / Michael C. H. Date: 5/28/10

Service Request # K1005067  
Instrument ID# K-ICP-AES-02

## ICP-OES Data Review Form

	Yes	No
1. Standardization completed	<u>✓</u>	<u>    </u>
2. ICV within 10 % of true value	<u>✓</u>	<u>    </u>
3. ICB below MRL	<u>✓</u>	<u>    </u>
4. CRI standard analyzed.	<u>✓</u>	<u>    </u>
5. ICS standards within 20% of true value	<u>✓</u>	<u>    </u>
6. All preceding CCVs within 10 % of true value	<u>✓</u>	<u>    </u>
7. Following CCV within 10 % of true value	<u>✓</u>	<u>    </u>
8. Bracketing CCBs below MRL	<u>✓</u>	<u>    </u>
9. Method Blank below MRL	<u>✓</u>	<u>    </u>
10. MS-MSD or Dup-MS and LCS within CAS control limits	<u>✓</u>	<u>    </u>
11. All analytes within instrument linear range	<u>✓</u>	<u>    </u>
12. Adequate rinse out time allowed between samples to eliminate memory effect	<u>✓</u>	<u>    </u>

Comments:

File Name: 060410AICP02

Star Lims: 203476

Primary Review by   3C  

Date   6/4/10  

Secondary Review by   LMMR  

Date   6/4/10

Method: 2010A Sample Name: Blank

Operator:

Comment:

Run Time: 06/04/10 08:26 Type: Std Mode: IR Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335
Line	237.312 {141}	206.833 {162}	189.042 {177}	233.527 {144}
Avg	.1733	.0485	.0430	-.00015
Stddev	.0176	.0098	.0235	.00018
%RSD	10.18	20.21	54.74	118.93

#1	.1608	.0554	.0263	-.00002
#2	.1857	.0416	.0596	-.00027

Elem	Be3130	B_2497	Cd2265	Ca2112
Line	313.042 {107}	249.773 {134}	226.502 {148}	211.276 {159}
Avg	-.00315	.3791	.0001	.3673
Stddev	.00031	.0441	.0001	.0059
%RSD	9.8926	11.64	120.6	1.596

#1	-.00293	.4103	.0002	.3632
#2	-.00337	.3479	.0000	.3715

Elem	Ca3179	Cr2677	Co2286	Cu3247
Line	317.933 {105}	267.716 {125}	228.616 {147}	324.754 {103}
Avg	-.0912	-.0002	.0003	.0442
Stddev	.0078	.0001	.0000	.0625
%RSD	8.594	36.46	8.184	141.4

#1	-.0968	-.0003	.0003	.0000
#2	-.0857	-.0002	.0003	.0884

Elem	Fe2599	Fe2714	Pb2203	Mg2025
Line	259.940 {129}	271.441 {124}	220.353 {152}	202.582 {166}
Avg	.0013	.0004	.0002	.1053
Stddev	.0002	.0002	.0000	.0235
%RSD	16.07	55.46	6.903	22.33

#1	.0015	.0006	.0002	.1220
#2	.0012	.0003	.0002	.0887

Elem	Mg2795	Mn2576	Mn2939	Mo2020
Line	279.553 {120}	257.610 {131}	293.930 {114}	202.030 {166}
Avg	.00967	.00101	-.0002	.0002
Stddev	.02150	.00010	.0000	.0000
%RSD	222.27	10.405	14.08	24.43

#1	-.00553	.00108	-.0002	.0002
#2	.02487	.00093	-.0002	.0002

Elem	Ni2316	K_7664	Se1960	Ag3280
Line	231.604 {145}	766.490 {44}	196.090 {171}	328.068 {102}
Avg	.0000	.8957	-.0125	-.0553
Stddev	.0002	.1918	.0020	.0625
%RSD	964.6	21.41	15.71	113.1

#1	.0001	1.031	-.0111	-.0111
#2	-.0001	.7601	-.0139	-.0995

Sample Name: Blank Run Time: 06/04/10 08:26

Elem	Na5895	Sn1899	V_3102	Zn2062
Line	589.592 { 57}	189.989 {176}	310.230 {108}	206.200 {163}
Avg	.0052	.0006	.0080	.0010
Stddev	.0004	.0001	.0002	.0002
%RSD	7.463	17.60	3.022	16.74

#1	.0049	.0005	.0082	.0011
#2	.0055	.0007	.0079	.0009

Elem	P_2149	Si2516	Ti3234	Tl1908
Line	214.914 {156}	251.612 {134}	323.452 {104}	190.864 {176}
Avg	.0256	.2065	.00371	.0000
Stddev	.0206	.0020	.00009	.000
%RSD	80.27	.9446	2.3987	27.76

#1	.0402	.2052	.00365	.0000
#2	.0111	.2079	.00378	.0000

Elem	Li6707	Sr4077
Line	670.784 { 50}	407.771 { 82}
Avg	-.01242	.00283
Stddev	.11140	.00040
%RSD	896.59	14.209

#1	.06635	.00254
#2	-.09119	.00311

Int. Std.	Sc3572
Line	357.253 { 94}
Avg	177.94
Stddev	.96
%RSD	.53714

#1	177.27
#2	178.62

*Jan*  
6/4/10  
WARR  
6/4/10



Method: 2010A Sample Name: STDB

Operator:

Comment:

ICP-41-B

Run Time: 06/04/10 08:29 Type: Std

Mode: IR

Corr.Fact: 1.000000

Elem	Al2373	Ba2335	Be3130	Ca2112
Line	237.312 {141}	233.527 {144}	313.042 {107}	211.276 {159}
Avg	18.02	2.9166	.45395	37.30
Stddev	.09	.0113	.00031	.46
%RSD	.5014	.38882	.06865	1.220

#1	17.96	2.9246	.45417	36.98
#2	18.09	2.9086	.45373	37.62

Elem	Fe2714	Mg2025	Mn2939	K_7664
Line	271.441 {124}	202.582 {166}	293.930 {114}	766.490 {44}
Avg	.7684	53.65	.6576	173.8
Stddev	.0020	.12	.0010	1.0
%RSD	.2632	.2168	.1490	.5656

#1	.7670	53.57	.6583	174.5
#2	.7699	53.73	.6569	173.1

Elem	Na5895	P_2149	Si2516	Li6707
Line	589.592 {57}	214.914 {156}	251.612 {134}	670.784 {50}
Avg	3.984	42.24	87.10	325.16
Stddev	.032	.22	.37	1.73
%RSD	.7899	.5278	.4220	.53283

#1	4.007	42.08	86.84	326.38
#2	3.962	42.40	87.36	323.93

Elem	Sr4077
Line	407.771 {82}
Avg	7.5980
Stddev	.0096
%RSD	.12641

#1	7.6048
#2	7.5912

Int. Std.	Sc3572
Line	357.253 {94}
Avg	176.46
Stddev	.82
%RSD	.46644

#1	175.88
#2	177.04

Method: 2010A      Sample Name: STDA **JCPM-36-A**      Operator:  
 Comment:  
 Run Time: 06/04/10 08:32 Type: Std      Mode: IR      Corr.Fact: 1.000000

Elem	Sb2068	As1890	B_2497	Cd2265
Line	206.833 {162}	189.042 {177}	249.773 {134}	226.502 {148}
Avg	14.72	10.58	41.99	.2946
Stddev	.15	.07	.22	.0018
%RSD	1.048	.6351	.5302	.6077

#1	14.61	10.53	41.83	.2933
#2	14.83	10.63	42.15	.2959

Elem	Ca3179	Cr2677	Co2286	Cu3247
Line	317.933 {105}	267.716 {125}	228.616 {147}	324.754 {103}
Avg	28.30	.1167	.1896	16.68
Stddev	.26	.0008	.0012	.03
%RSD	.9263	.6828	.6072	.2047

#1	28.12	.1162	.1887	16.66
#2	28.49	.1173	.1904	16.71

Elem	Fe2599	Pb2203	Mg2795	Mn2576
Line	259.940 {129}	220.353 {152}	279.553 {120}	257.610 {131}
Avg	.4072	.0897	1288.5	3.1254
Stddev	.0100	.0005	4.1	.0034
%RSD	2.450	.5621	.32068	.10904

#1	.4142	.0894	1285.6	3.1278
#2	.4001	.0901	1291.5	3.1230

Elem	Mo2020	Ni2316	Se1960	Ag3280
Line	202.030 {166}	231.604 {145}	196.090 {171}	328.068 {102}
Avg	.1548	.1734	9.288	16.38
Stddev	.0015	.0007	.014	.18
%RSD	.9580	.3822	.1522	1.092

#1	.1537	.1729	9.298	16.26
#2	.1558	.1739	9.278	16.51

Elem	Sn1899	V_3102	Zn2062	Ti3234
Line	189.989 {176}	310.230 {108}	206.200 {163}	323.452 {104}
Avg	.0846	.1448	.1577	.16661
Stddev	.0001	.0008	.0008	.00027
%RSD	.1740	.5684	.4904	.16400

#1	.0845	.1442	.1571	.16680
#2	.0847	.1454	.1582	.16642

Elem	Tl1908
Line	190.864 {176}
Avg	.0802
Stddev	.0004
%RSD	.5394

#1	.0798
#2	.0805

Sample Name: STDA Run Time: 06/04/10 08:32

Int. Std.	Sc3572
Line	357.253 { 94}
Avg	180.02
Stddev	.07
%RSD	.04047

#1	179.97
#2	180.08

Method: 2010A Sample Name: ICV1

ICP7-37C Operator:

Comment:

Run Time: 06/04/10 08:35 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.048	2.538	2.561	5.1829	.12319	.0001
Stddev	.014	.020	.009	.1369	.00018	.0003
%RSD	.2835	.7972	.3444	2.6417	.14875	570.5

#1	5.038	2.552	2.555	5.0861	.12332	.0003
#2	5.058	2.523	2.568	5.2797	.12306	-.0002

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	None
Value	5.000	2.500	2.500	5.0000	.12500	
Range	5.000%	5.000%	5.000%	5.0000%	5.0000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.265	12.69	.5127	1.255	.6152	2.468
Stddev	.007	.02	.0058	.006	.0011	.015
%RSD	.5192	.1459	1.136	.4774	.1711	.5959

#1	1.261	12.68	.5086	1.251	.6144	2.458
#2	1.270	12.71	.5168	1.259	.6159	2.479

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.250	12.50	.5000	1.250	.6250	2.500
Range	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.551	12.46	1.2076	2.058	1.250	12.38
Stddev	.006	.07	.0065	.022	.009	.05
%RSD	.2401	.5570	.54138	1.078	.6902	.4343

#1	2.556	12.41	1.2030	2.043	1.244	12.42
#2	2.547	12.51	1.2122	2.074	1.256	12.35

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	2.500	12.50	1.2500	2.000	1.250	12.50
Range	5.000%	5.000%	5.0000%	5.000%	5.000%	5.000%

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.541	.6250	12.02	.0138	1.251	1.271
Stddev	.020	.0045	.07	.0013	.013	.009
%RSD	.7874	.7233	.5798	9.536	1.038	.6956

#1	2.527	.6281	12.07	.0128	1.242	1.264
#2	2.555	.6218	11.97	.0147	1.260	1.277

Check ?	QC Pass	QC Pass	QC Pass	None	QC Pass	QC Pass
Value	2.500	.6250	12.50		1.250	1.250
Range	5.000%	5.000%	5.000%		5.000%	5.000%

Sample Name: ICV1 Run Time: 06/04/10 08:35

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0049	-.1457	2.0083	2.533	.00073	.00737
Stddev	.0009	.0017	.0060	.027	.00066	.00008
%RSD	18.52	1.188	.30019	1.066	89.626	1.0344

#1	-.0043	-.1470	2.0040	2.552	.00119	.00742
#2	-.0056	-.1445	2.0126	2.514	.00027	.00731

Check ?	None	None	QC Pass	QC Pass	None	None
Value			2.0000	2.500		
Range			5.0000%	5.000%		

Int. Std.	Sc3572
Units	Cts/S
Avg	179.80
Stddev	.02
%RSD	.00924

#1	179.81
#2	179.79

Method: 2010A Sample Name: ICVB1 **ICP743-D** Operator:  
 Comment:  
 Run Time: 06/04/10 08:38 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9878	.0246	.0068	.00134	.00001	2.020
Stddev	.0175	.0120	.0000	.00057	.00003	.003
%RSD	1.777	49.00	.0988	42.503	311.15	.1289
#1	1.000	.0331	.0068	.00174	.00003	2.022
#2	.9754	.0161	.0068	.00093	-.00001	2.018
Check ?	None	None	None	None	None	QC Pass
Value						2.000
Range						5.000%

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016	5.075	.0050	.0012	-.0001	10.12
Stddev	.0000	.020	.0003	.0007	.0002	.04
%RSD	.0229	.3868	5.354	56.00	177.0	.4054
#1	.0016	5.061	.0052	.0016	.0000	10.09
#2	.0016	5.089	.0048	.0007	-.0003	10.15
Check ?	None	QC Pass	None	None	None	QC Pass
Value		5.000				10.00
Range		5.000%				5.000%

Elem	Pb2203	Mg2795	Mn2939	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066	4.9873	9.996	.0067	-.0010	.0048
Stddev	.0067	.0112	.013	.0051	.0010	.0036
%RSD	100.8	.22433	.1291	76.55	96.91	75.19
#1	.0113	4.9952	10.01	.0103	-.0003	.0074
#2	.0019	4.9793	9.987	.0031	-.0017	.0022
Check ?	None	QC Pass	QC Pass	None	None	None
Value		5.0000	10.00			
Range		5.0000%	5.000%			

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0156	.0029	.0017	5.058	-.0020	.0007
Stddev	.0095	.0045	.0036	.000	.0009	.0018
%RSD	60.90	157.9	212.8	.0058	42.74	247.9
#1	.0089	-.0003	.0042	5.058	-.0014	.0019
#2	.0223	.0061	-.0009	5.058	-.0026	-.0005
Check ?	None	None	None	QC Pass	None	None
Value				5.000		
Range				5.000%		

Sample Name: ICVB1 Run Time: 06/04/10 08:38

Elem	P_2149	Si2516	Ti3234	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.955	5.145	.00054	.0053	2.0214	1.9663
Stddev	.028	.000	.00057	.0135	.0002	.0024
%RSD	.5623	.0087	104.33	255.9	.01106	.11987
#1	4.935	5.145	.00014	.0149	2.0212	1.9680
#2	4.975	5.145	.00095	-.0043	2.0215	1.9647
Check ?	QC Pass	QC Pass	None	None	QC Pass	QC Pass
Value	5.000	5.000			2.0000	2.0000
Range	5.000%	5.000%			5.0000%	5.0000%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	180.41					
Stddev	.26					
%RSD	.14591					
#1	180.59					
#2	180.22					

Method: 2010A Sample Name: ICB Operator:  
 Comment:  
 Run Time: 06/04/10 08:41 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047	-.0014	.0092	.00015	.00001	.0006
Stddev	.0033	.0066	.0028	.00002	.00004	.0004
%RSD	70.28	472.7	30.28	12.361	348.03	67.63

#1	.0024	.0033	.0072	.00014	.00004	.0009
#2	.0070	-.0061	.0112	.00017	-.00002	.0003

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000	.0000
Range	±.0500	±.0500	±.1000	±.00500	±.00500	±.0500

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0002	.0008	.0003	.0002	.0054
Stddev	.0001	.0072	.0001	.0002	.0014	.0073
%RSD	18.58	2975.	11.44	59.57	858.1	135.1

#1	.0005	-.0049	.0009	.0004	-.0008	.0105
#2	.0007	.0053	.0008	.0002	.0012	.0002

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000
Range	±.0050	±.0500	±.0050	±.0100	±.0100	±.0200

Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	-.00007	.00124	.0005	-.0013	-.0083
Stddev	.0015	.00009	.00149	.0006	.0010	.0077
%RSD	183.0	132.65	120.59	105.3	81.57	93.42

#1	.0019	-.00013	.00229	.0001	-.0020	-.0138
#2	-.0002	.00000	.00018	.0010	-.0005	-.0028

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.00000	.00000	.0000	.0000	.0000
Range	±.0500	±.02000	±.00500	±.0100	±.0200	±.4000

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0022	.0017	-.0038	.0022	-.0036	-.0011
Stddev	.0021	.0010	.0018	.0052	.0003	.0006
%RSD	94.32	56.56	47.55	235.6	8.315	56.88

#1	-.0037	.0024	-.0051	.0058	-.0038	-.0015
#2	-.0007	.0010	-.0025	-.0015	-.0034	-.0006

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000	.0000
Range	±.1000	±.0100	±.2000	±.0500	±.0100	±.0100



Sample Name: ICB Run Time: 06/04/10 08:41

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066	-.0016	-.00037	.0039	.00113	-.00004
Stddev	.0052	.0008	.00182	.0041	.00044	.00012
%RSD	79.52	48.89	493.98	106.0	39.144	322.60

#1	.0029	-.0022	.00092	.0068	.00145	.00005
#2	.0103	-.0011	-.00166	.0010	.00082	-.00012

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.2000	±.01000	±.2000	±.01000	±.01000

Int. Std.	Sc3572
Units	Cts/S
Avg	178.63
Stddev	.35
%RSD	.19352

#1	178.88
#2	178.39

Method: 2010A      Sample Name: CCVB      Operator:  
 Comment:  
 Run Time: 06/04/10 08:50 Type: QC      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.017	.0146	.0029	2.5088	.04979	-.0150
Stddev	.052	.0036	.0091	.0155	.00022	.0007
%RSD	1.046	24.94	316.9	.61641	.43639	4.669

#1	4.947	.0143	.0011	2.4971	.04948	-.0156
#2	5.023	.0096	-.0042	2.4939	.04996	-.0150
#3	5.025	.0181	-.0015	2.5207	.04991	-.0155
#4	5.074	.0162	.0162	2.5234	.04980	-.0140

Check ?	QC Pass	None	None	QC Pass	QC Pass	None
Value	5.000			2.5000	.05000	
Range	5.000%			5.0000%	5.0000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027	25.43	.0032	-.0012	-.0008	25.21
Stddev	.0003	.24	.0014	.0010	.0019	.12
%RSD	10.78	.9614	42.55	83.58	235.0	.4612

#1	.0028	25.06	.0038	-.0017	-.0017	25.06
#2	.0029	25.54	.0046	-.0004	.0010	25.26
#3	.0029	25.60	.0031	-.0003	-.0031	25.17
#4	.0023	25.50	.0014	-.0024	.0005	25.33

Check ?	None	QC Pass	None	None	None	QC Pass
Value		25.00				25.00
Range		5.000%				5.000%

Elem	Pb2203	Mg2025	Mn2939	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0041	25.09	4.988	-.0001	-.0026	9.960
Stddev	.0076	.09	.018	.0008	.0008	.047
%RSD	185.9	.3465	.3590	717.9	32.87	.4763

#1	-.0092	24.99	4.961	-.0012	-.0032	9.995
#2	.0056	25.06	4.993	.0006	-.0021	9.920
#3	-.0109	25.20	4.994	.0003	-.0016	9.918
#4	-.0018	25.12	5.001	-.0002	-.0033	10.01

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		25.00	5.000			10.00
Range		5.000%	5.000%			5.000%

Sample Name: CCVB Run Time: 06/04/10 08:50

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0038	.0023	9.748	.0018	.0002	.0005
Stddev	.0153	.0027	.051	.0022	.0012	.0011
%RSD	407.0	120.1	.5283	119.5	575.2	231.6

#1	.0011	.0054	9.807	-.0012	-.0007	.0000
#2	.0100	-.0003	9.740	.0029	.0015	-.0008
#3	-.0004	.0037	9.683	.0037	.0009	.0009
#4	-.0257	.0003	9.762	.0018	-.0009	.0018

Check ?	None	None	QC Pass	None	None	None
Value			10.00			
Range			5.000%			

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.05	2.504	.00157	-.0192	.49280	.50129
Stddev	.06	.014	.00086	.0070	.00176	.00046
%RSD	.5962	.5684	54.925	36.43	.35787	.09078

#1	9.968	2.485	.00206	-.0290	.49508	.50080
#2	10.05	2.503	.00069	-.0134	.49274	.50136
#3	10.10	2.509	.00100	-.0152	.49078	.50189
#4	10.09	2.519	.00252	-.0191	.49260	.50113

Check ?	QC Pass	QC Pass	None	None	QC Pass	QC Pass
Value	10.00	2.500			.50000	.50000
Range	5.000%	5.000%			5.0000%	5.0000%

Int. Std.	Sc3572
Units	Cts/S
Avg	178.02
Stddev	.43
%RSD	.24237

#1	177.51
#2	177.82
#3	178.33
#4	178.42

Method: 2010A Sample Name: CCVA

Operator:

Comment:

Run Time: 06/04/10 08:58 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4561	2.450	2.434	.46133	.52499	.5002
Stddev	.0181	.026	.012	.00280	.00092	.0009
%RSD	3.977	1.059	.4990	.60717	.17595	.1844
#1	.4620	2.422	2.438	.45859	.52566	.5003
#2	.4448	2.441	2.443	.46008	.52362	.5000
#3	.4386	2.484	2.440	.46512	.52530	.5014
#4	.4789	2.453	2.416	.46153	.52536	.4991
Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		2.500	2.500			.5000
Range		5.000%	5.000%			5.000%

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4957	2.477	.4958	.4947	.4986	.4851
Stddev	.0028	.023	.0027	.0015	.0014	.0017
%RSD	.5653	.9249	.5434	.3033	.2798	.3581
#1	.4929	2.446	.4938	.4936	.4978	.4849
#2	.4940	2.484	.4974	.4933	.4998	.4830
#3	.4990	2.476	.4988	.4963	.4998	.4872
#4	.4971	2.501	.4934	.4956	.4971	.4855
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	2.500	.5000	.5000	.5000	.5000
Range	5.000%	5.000%	5.000%	5.000%	5.000%	5.000%

Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.460	1.9665	.96876	.9881	.4942	4.888
Stddev	.025	.0086	.00912	.0052	.0026	.026
%RSD	.9951	.43719	.94092	.5241	.5325	.5337
#1	2.428	1.9578	.95552	.9832	.4903	4.903
#2	2.455	1.9764	.97064	.9850	.4958	4.870
#3	2.479	1.9612	.97615	.9948	.4957	4.916
#4	2.480	1.9708	.97272	.9893	.4949	4.862
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	None
Value	2.500	2.0000	1.0000	1.000	.5000	
Range	5.000%	5.0000%	5.0000%	5.000%	5.000%	

Sample Name: CCVA Run Time: 06/04/10 08:58

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.439	.4974	.4682	2.426	.4950	.4947
Stddev	.024	.0051	.0017	.021	.0026	.0043
%RSD	.9941	1.029	.3677	.8880	.5242	.8741
#1	2.456	.4999	.4685	2.412	.4924	.4892
#2	2.457	.5029	.4657	2.403	.4936	.4955
#3	2.405	.4959	.4696	2.440	.4955	.4997
#4	2.440	.4911	.4689	2.448	.4984	.4945
Check ?	QC Pass	QC Pass	None	QC Pass	QC Pass	QC Pass
Value	2.500	.5000		2.500	.5000	.5000
Range	5.000%	5.000%		5.000%	5.000%	5.000%

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0165	.2570	.48793	4.883	.00090	.00175
Stddev	.0118	.0012	.00214	.027	.00064	.00001
%RSD	71.85	.4553	.43912	.5471	70.989	.77211
#1	-.0008	.2586	.48927	4.876	.00140	.00175
#2	-.0203	.2561	.48521	4.915	.00113	.00176
#3	-.0158	.2570	.48998	4.892	-.00004	.00175
#4	-.0291	.2561	.48728	4.851	.00112	.00173
Check ?	None	None	QC Pass	QC Pass	None	None
Value			.50000	5.000		
Range			5.0000%	5.000%		

Int. Std.	Sc3572
Units	Cts/S
Avg	181.70
Stddev	.43
%RSD	.23409
#1	181.45
#2	182.29
#3	181.34
#4	181.73

Method: 2010A

Sample Name: CCB

Operator:

Comment:

Run Time: 06/04/10

09:04 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0109	.0179	.0079	.00047	.00007
Stddev	.0209	.0073	.0046	.00029	.00001
%RSD	191.9	40.91	58.88	61.064	15.793

#1	-.0256	.0230	.0112	.00067	.00007
#2	.0039	.0127	.0046	.00027	.00006

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0500	±.0500	±.1000	±.00500	±.00500

Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0009	.0005	.0075	-.0005	-.0001
Stddev	.0003	.0004	.0003	.0001	.0004
%RSD	28.33	72.49	4.543	10.44	531.2

#1	.0011	.0008	.0078	-.0005	.0002
#2	.0007	.0002	.0073	-.0006	-.0003

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0500	±.0050	±.0500	±.0050	±.0100

Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0003	.0011	.0045	.00010	.00070
Stddev	.0012	.0020	.0012	.00005	.00044
%RSD	352.9	178.4	26.16	49.087	63.098

#1	-.0012	.0026	.0053	.00006	.00102
#2	.0005	-.0003	.0036	.00013	.00039

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0100	±.0200	±.0500	±.02000	±.00500

Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0013	-.0001	-.0022	.0045	.0003
Stddev	.0006	.0010	.0027	.0137	.0033
%RSD	48.53	1433.	121.6	306.3	990.0

#1	.0017	-.0008	-.0003	-.0052	-.0020
#2	.0008	.0006	-.0042	.0142	.0027

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0100	±.0200	±.4000	±.1000	±.0100

Sample Name: CCB Run Time: 06/04/10 09:04

Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0029	-.0027	-.0011	-.0001	.0036
Stddev	.0051	.0087	.0024	.0015	.0029
%RSD	175.5	319.2	216.4	1717.	81.03

#1	-.0065	.0034	-.0028	-.0011	.0015
#2	.0007	-.0089	.0006	.0009	.0056

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.2000	±.0500	±.0100	±.0100	±.2000

Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0043	.00026	-.0106	.00022	.00002
Stddev	.0018	.00007	.0028	.00038	.00007
%RSD	42.12	27.641	26.18	177.51	388.50

#1	-.0030	.00031	-.0086	-.00006	-.00007
#2	-.0055	.00021	-.0126	.00049	-.00003

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.01000	±.2000	±.01000	±.01000

Int. Std.	Sc3572
Units	Cts/S
Avg	178.89
Stddev	.51
%RSD	.28785

#1	179.25
#2	178.53

Method: 2010A      Sample Name: CRI *ICPM-41-A*      Operator:  
 Comment:  
 Run Time: 06/04/10 09:07 Type: QC      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0498	.0485	.0766	.00506	.00450	.0487
Stddev	.0363	.0040	.0051	.00025	.00004	.0011
%RSD	73.04	8.325	6.594	4.8957	.85186	2.257

#1	.0241	.0456	.0802	.00523	.00447	.0479
#2	.0754	.0513	.0731	.00488	.00453	.0494

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0500	.0500	.1000	.00500	.00500	.0500
Range	30.00%	100.0%	100.0%	100.00%	100.00%	100.0%

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055	.0462	.0050	.0097	.0100	.0220
Stddev	.0006	.0048	.0015	.0006	.0014	.0008
%RSD	11.10	10.41	29.46	5.972	14.12	3.737

#1	.0051	.0428	.0040	.0093	.0090	.0214
#2	.0060	.0496	.0061	.0102	.0110	.0226

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0050	.0500	.0050	.0100	.0100	.0200
Range	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0504	.01781	.00490	.0082	.0191	.3768
Stddev	.0045	.00028	.00009	.0011	.0001	.0128
%RSD	8.905	1.5584	1.9321	12.94	.5748	3.408

#1	.0536	.01761	.00484	.0075	.0192	.3677
#2	.0472	.01800	.00497	.0090	.0190	.3859

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0500	.02000	.00500	.0100	.0200	.4000
Range	100.0%	100.00%	100.00%	100.0%	100.0%	100.0%

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0797	.0108	.2059	.0347	.0045	.0091
Stddev	.0042	.0000	.0024	.0045	.0002	.0002
%RSD	5.221	.0087	1.158	12.87	3.434	1.748

#1	.0827	.0108	.2075	.0378	.0046	.0092
#2	.0768	.0108	.2042	.0315	.0044	.0089

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.1000	.0100	.2000	.0500	.0100	.0100
Range	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



Sample Name: CRI Run Time: 06/04/10 09:07

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1807	.3858	.00898	.1552	.01035	.00876
Stddev	.0081	.0067	.00106	.0012	.00014	.00008
%RSD	4.503	1.741	11.857	.7973	1.3267	.94698
#1	.1749	.3810	.00823	.1560	.01026	.00871
#2	.1864	.3905	.00973	.1543	.01045	.00882
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.2000	.4000	.01000	.2000	.01000	.01000
Range	100.0%	100.0%	100.00%	100.0%	100.00%	100.00%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	180.53					
Stddev	.02					
%RSD	.01306					
#1	180.55					
#2	180.52					

Method: 2010A Sample Name: ICSEA

ICP7-43-B Operator:

Comment:

Run Time: 06/04/10 09:10 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	509.2	.0602	-.0057	-.00021	.00009	-.1592
Stddev	1.1	.0179	.0207	.00005	.00016	.0093
%RSD	.2207	29.72	364.3	26.079	172.91	5.855

#1	508.4	.0475	-.0203	-.00017	-.00002	-.1526
#2	510.0	.0728	.0090	-.00025	.00021	-.1658

Check ?	QC Pass	None	None	None	None	None
Value	500.0					
Range	20.00%					

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0093	494.6	-.0006	.0005	.0012	202.3
Stddev	.0005	3.1	.0007	.0001	.0022	5.8
%RSD	5.401	.6242	122.1	23.00	182.8	2.869

#1	.0097	492.4	-.0001	.0004	-.0004	198.1
#2	.0090	496.8	-.0011	.0006	.0028	206.4

Check ?	None	QC Pass	None	None	None	QC Pass
Value		500.0				200.0
Range		20.00%				20.00%

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	526.6	.00403	.0053	-.0043	-.0360
Stddev	.0003	.8	.00060	.0024	.0007	.0077
%RSD	29.44	.1526	14.985	45.54	16.07	21.36

#1	.0011	526.0	.00360	.0070	-.0038	-.0415
#2	.0007	527.2	.00446	.0036	-.0048	-.0306

Check ?	None	QC Pass	None	None	None	None
Value		500.0				
Range		20.00%				

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0419	-.0030	.1073	-.0166	.0002	.0059
Stddev	.0004	.0014	.0016	.0150	.0020	.0015
%RSD	.9915	47.03	1.501	90.02	842.0	25.99

#1	.0416	-.0020	.1062	-.0272	.0016	.0048
#2	.0422	-.0041	.1085	-.0060	-.0012	.0070

Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: ICSEA Run Time: 06/04/10 09:10

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0215	-.0124	.01224	-.0515	.01268	.02751
Stddev	.0379	.0011	.00224	.0217	.00054	.00150
%RSD	176.6	8.799	18.289	42.12	4.2665	5.4371

#1	.0482	-.0132	.01066	-.0668	.01230	.02645
#2	-.0053	-.0117	.01382	-.0362	.01307	.02856

Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Sc3572
Units	Cts/S
Avg	165.11
Stddev	3.70
%RSD	2.2401

#1	167.72
#2	162.49

Method: 2010A      Sample Name: ICSAB *ICP7-38-C*      Operator:  
 Comment:  
 Run Time: 06/04/10 09:13    Type: QC      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	506.9	1.078	-.0014	.47506	.53428	-.1546
Stddev	.1	.014	.0027	.00075	.00153	.0007
%RSD	.0117	1.292	196.1	.15724	.28549	.4333

#1	506.8	1.068	.0005	.47454	.53536	-.1551
#2	506.9	1.087	-.0033	.47559	.53320	-.1542

Check ?	None	QC Pass	None	QC Pass	QC Pass	None
Value		1.000		.50000	.50000	
Range		20.00%		20.000%	20.000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9792	488.2	.4970	.4864	.4701	199.3
Stddev	.0017	2.6	.0017	.0010	.0020	1.4
%RSD	.1748	.5279	.3412	.2135	.4195	.6923

#1	.9804	486.3	.4958	.4857	.4687	200.3
#2	.9780	490.0	.4982	.4871	.4715	198.3

Check ?	QC Pass	None	QC Pass	QC Pass	QC Pass	None
Value	1.000		.5000	.5000	.5000	
Range	20.00%		20.00%	20.00%	20.00%	

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.006	518.2	.45969	.0044	.9552	-.0612
Stddev	.021	2.7	.00043	.0000	.0014	.0129
%RSD	2.079	.5277	.09369	.8862	.1492	21.05

#1	1.021	516.3	.45938	.0043	.9542	-.0521
#2	.9913	520.1	.45999	.0044	.9562	-.0703

Check ?	QC Pass	None	QC Pass	None	QC Pass	None
Value	1.000		.50000		1.000	
Range	20.00%		20.000%		20.00%	

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015	.9856	.0470	-.0117	.5057	.9641
Stddev	.0473	.0043	.0026	.0104	.0003	.0043
%RSD	3092.	.4350	5.537	88.92	.0512	.4499

#1	-.0319	.9825	.0451	-.0043	.5056	.9610
#2	.0350	.9886	.0488	-.0191	.5059	.9672

Check ?	None	QC Pass	None	None	QC Pass	QC Pass
Value		1.000			.5000	1.000
Range		20.00%			20.00%	20.00%

Sample Name: ICSAB Run Time: 06/04/10 09:13

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0130	-.0028	.01354	-.0624	.01245	.02924
Stddev	.0203	.0020	.00279	.0098	.00001	.00064
%RSD	155.6	72.90	20.598	15.66	.09607	2.2052
#1	-.0274	-.0014	.01551	-.0555	.01246	.02969
#2	.0013	-.0042	.01157	-.0693	.01244	.02878
Check ?	None	None	None	None	None	None
Value						
Range						
Int. Std.	Sc3572					
Units	Cts/S					
Avg	164.49					
Stddev	.74					
%RSD	.44743					
#1	163.96					
#2	165.01					

Method: 2010A Sample Name: ICSAB

Operator:

Comment:

Run Time: 06/04/10 09:16 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	508.0	1.073	.0004	.47300	.53387	-.1571
Stddev	1.3	.016	.0117	.00297	.00156	.0035
%RSD	.2539	1.477	3160.	.62875	.29189	2.238

#1	507.1	1.062	-.0079	.47090	.53277	-.1547
#2	508.9	1.084	.0087	.47510	.53140	-.1596

Check ?	None	QC Pass	None	QC Pass	QC Pass	None
Value		1.000		.50000	.50000	
Range		20.00%		20.000%	20.000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9779	487.7	.5005	.4879	.4733	198.8
Stddev	.0058	2.5	.0097	.0036	.0029	2.7
%RSD	.5957	.5105	1.931	.7466	.6222	1.345

#1	.9737	486.0	.4936	.4853	.4754	196.9
#2	.9820	489.5	.5073	.4905	.4712	200.7

Check ?	QC Pass	None	QC Pass	QC Pass	QC Pass	None
Value	1.000		.5000	.5000	.5000	
Range	20.00%		20.00%	20.00%	20.00%	

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9971	519.9	.45936	.0029	.9472	-.0692
Stddev	.0163	2.1	.00157	.0030	.0077	.0142
%RSD	1.630	.3999	.34106	101.7	.8087	20.58

#1	.9857	521.4	.45825	.0008	.9418	-.0793
#2	1.009	518.4	.46047	.0051	.9526	-.0591

Check ?	QC Pass	None	QC Pass	None	QC Pass	None
Value	1.000		.50000		1.000	
Range	20.00%		20.000%		20.00%	

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0105	.9919	.0476	-.0190	.5038	.9562
Stddev	.0261	.0077	.0059	.0001	.0090	.0071
%RSD	248.3	.7771	12.40	.7008	1.786	.7455

#1	.0289	.9865	.0434	-.0191	.4974	.9512
#2	.0079	.9974	.0517	-.0190	.5102	.9613

Check ?	None	QC Pass	None	None	QC Pass	QC Pass
Value		1.000			.5000	1.000
Range		20.00%			20.00%	20.00%

3L  
6/11/10

Sample Name: ICSAB Run Time: 06/04/10 09:16

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067	-.0057	.01487	-.0870	.01304	.02898
Stddev	.0123	.0020	.00329	.0251	.00012	.00003
%RSD	183.7	34.53	22.145	28.84	.91207	.08966

#1	.0154	-.0043	.01254	-.1048	.01312	.02896
#2	-.0020	-.0071	.01720	-.0693	.01295	.02900

Check ?	None	None	None	None	None	None
Value						
Range						

Int. Std.	Sc3572
Units	Cts/S
Avg	164.98
Stddev	.39
%RSD	.23391

#1	165.25
#2	164.71

*3C  
6/4/10*

Method: 2010A      Sample Name: CCVB      Operator:  
 Comment:  
 Run Time: 06/04/10 09:19 Type: QC      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.108	.0082	.0044	2.5092	.04974	-.0153
Stddev	.004	.0007	.0009	.0027	.00030	.0003
%RSD	.0854	8.442	20.72	.10547	.60010	1.706

#1	5.105	.0087	.0050	2.5111	.04953	-.0155
#2	5.112	.0077	.0037	2.5073	.04995	-.0151

Check ?	QC Pass	None	None	QC Pass	QC Pass	None
Value	5.000			2.5000	.05000	
Range	10.00%			10.000%	10.000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021	25.58	.0040	-.0018	.0000	25.27
Stddev	.0000	.13	.0004	.0008	.0031	.08
%RSD	1.190	.5225	9.308	44.39	33320.	.3245

#1	.0021	25.48	.0043	-.0024	-.0022	25.21
#2	.0021	25.67	.0038	-.0013	.0022	25.33

Check ?	None	QC Pass	None	None	None	QC Pass
Value		25.00				25.00
Range		10.00%				10.00%

Elem	Pb2203	Mg2025	Mn2939	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0096	25.14	4.980	-.0015	-.0042	9.900
Stddev	.0123	.15	.007	.0017	.0010	.068
%RSD	127.7	.6020	.1360	116.3	23.81	.6820

#1	-.0183	25.03	4.976	-.0003	-.0035	9.947
#2	-.0009	25.24	4.985	-.0027	-.0050	9.852

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		25.00	5.000			10.00
Range		10.00%	10.00%			10.00%

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	-.0019	9.693	.0016	.0005	.0011
Stddev	.0147	.0012	.134	.0075	.0029	.0004
%RSD	3577.	64.16	1.382	461.3	638.6	34.14

#1	-.0108	-.0010	9.788	-.0037	-.0016	.0014
#2	.0100	-.0027	9.598	.0070	.0025	.0009

Check ?	None	None	QC Pass	None	None	None
Value			10.00			
Range			10.00%			



Sample Name: CCVB Run Time: 06/04/10 09:19

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.04	2.508	.00158	-.0075	.49140	.48661
Stddev	.01	.017	.00000	.0028	.00482	.00077
%RSD	.1397	.6925	.03423	37.06	.98159	.15819
#1	10.03	2.496	.00158	-.0094	.49481	.48606
#2	10.05	2.520	.00158	-.0055	.48798	.48715
Check ?	QC Pass	QC Pass	None	None	QC Pass	QC Pass
Value	10.00	2.500			.50000	.50000
Range	10.00%	10.00%			10.000%	10.000%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	178.34					
Stddev	.03					
%RSD	.01719					
#1	178.36					
#2	178.32					

Method: 2010A Sample Name: CCVA

Operator:

Comment:

Run Time: 06/04/10 09:22 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4743	2.451	2.431	.46105	.52559	.5009
Stddev	.0086	.054	.004	.00026	.00115	.0039
%RSD	1.812	2.200	.1777	.05665	.21894	.7797

#1	.4682	2.413	2.428	.46086	.52640	.4981
#2	.4804	2.489	2.434	.46123	.52478	.5036

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		2.500	2.500			.5000
Range		10.00%	10.00%			10.00%

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4942	2.476	.4933	.4947	.4975	.5049
Stddev	.0008	.029	.0006	.0005	.0037	.0206
%RSD	.1558	1.155	.1267	.1023	.7340	4.081

#1	.4948	2.496	.4929	.4951	.5001	.5195
#2	.4937	2.456	.4938	.4944	.4950	.4903

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	2.500	.5000	.5000	.5000	.5000
Range	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.454	1.9815	.96444	.9818	.4930	4.898
Stddev	.010	.0027	.00518	.0138	.0017	.045
%RSD	.3980	.13428	.53667	1.401	.3497	.9266

#1	2.447	1.9797	.96078	.9720	.4918	4.866
#2	2.461	1.9834	.96810	.9915	.4942	4.930

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	None
Value	2.500	2.0000	1.0000	1.000	.5000	
Range	10.00%	10.000%	10.000%	10.00%	10.00%	

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.455	.4977	.4664	2.407	.4932	.4933
Stddev	.020	.0012	.0001	.018	.0017	.0027
%RSD	.8262	.2406	.0174	.7503	.3540	.5532

#1	2.441	.4968	.4663	2.394	.4944	.4913
#2	2.470	.4985	.4664	2.419	.4920	.4952

Check ?	QC Pass	QC Pass	None	QC Pass	QC Pass	QC Pass
Value	2.500	.5000		2.500	.5000	.5000
Range	10.00%	10.00%		10.00%	10.00%	10.00%

Sample Name: CCVA Run Time: 06/04/10 09:22

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0228	.2530	.49053	4.854	.00082	.00178
Stddev	.0001	.0003	.00842	.015	.00082	.00000
%RSD	.6058	.0994	1.7175	.3113	99.659	.15291

#1	-.0229	.2532	.49649	4.843	.00140	.00177
#2	-.0227	.2529	.48458	4.865	.00024	.00178

Check ?	None	None	QC Pass	QC Pass	None	None
Value			.50000	5.000		
Range			10.000%	10.00%		

Int. Std.	Sc3572
Units	Cts/S
Avg	182.29
Stddev	.89
%RSD	.48578

#1	181.66
#2	182.92

Method: 2010A	Sample Name: CCB		Operator:		
Comment:	Run Time: 06/04/10 09:25 Type: QC		Mode: CONC	Corr.Fact: 1.000000	
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0148	.0029	.0046	.00086	.00010
Stddev	.0022	.0180	.0046	.00018	.00009
%RSD	14.73	629.3	101.0	21.172	93.430
#1	-.0132	.0156	.0079	.00098	.00003
#2	-.0163	-.0098	.0013	.00073	.00017
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0500	±.0500	±.1000	±.00500	±.00500
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0006	-.0073	.0012	-.0007
Stddev	.0004	.0001	.0076	.0002	.0008
%RSD	151.8	20.55	103.7	14.86	108.1
#1	.0006	.0006	-.0019	.0014	-.0013
#2	.0000	.0005	-.0127	.0011	-.0002
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0500	±.0050	±.0500	±.0050	±.0100
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	.0033	-.0014	.00034	.00075
Stddev	.0016	.0011	.0040	.00015	.00022
%RSD	330.6	31.75	296.6	42.992	29.772
#1	-.0017	.0041	.0015	.00024	.00091
#2	.0007	.0026	-.0042	.00044	.00059
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0100	±.0200	±.0500	±.02000	±.00500
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0028	-.0008	-.0355	-.0134	.0015
Stddev	.0019	.0008	.0245	.0011	.0021
%RSD	69.24	99.33	68.99	7.893	141.6
#1	.0042	-.0002	-.0527	-.0127	.0030
#2	.0014	-.0013	-.0182	-.0142	.0000
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0100	±.0200	±.4000	±.1000	±.0100

Sample Name: CCB Run Time: 06/04/10 09:25

Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0030	.0030	-.0012	-.0005	.0058
Stddev	.0013	.0015	.0001	.0006	.0031
%RSD	42.01	48.50	5.816	128.5	53.11

#1	-.0040	.0041	-.0012	.0000	.0080
#2	-.0021	.0020	-.0013	-.0009	.0037

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.2000	±.0500	±.0100	±.0100	±.2000

Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0007	-.00107	.0058	.00086	.00000
Stddev	.0004	.00085	.0068	.00037	.0000
%RSD	51.62	79.721	117.1	43.155	938.31

#1	-.0005	-.00167	.0107	.00113	.00001
#2	-.0010	-.00047	.0010	.00060	-.00001

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.01000	±.2000	±.01000	±.01000

Int. Std.	Sc3572
Units	Cts/S
Avg	178.97
Stddev	.80
%RSD	.44837

#1	178.41
#2	179.54

Method: 2010A      Sample Name: K1004870-MB      Operator: JC  
 Comment:      (203476) (060410A)  
 Run Time: 06/04/10 09:31 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0024	-.0066	-.0010	.00033	.00000
#1	-.0179	-.0080	.0000	.00018	-.00004
#2	.0131	-.0052	-.0020	.00048	.00004
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	.0004	.0024	.0008	-.0003
#1	-.0008	.0009	-.0019	.0008	-.0001
#2	.0000	-.0001	.0068	.0008	-.0006
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0015	.0029	.00045	.00001
#1	-.0003	.0020	.0079	.00027	.00001
#2	.0013	.0011	-.0020	.00063	.00001
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0016	-.0012	-.0224	.0030	-.0007
#1	-.0020	-.0006	-.0201	.0022	.0007
#2	-.0013	-.0017	-.0246	.0037	-.0020
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0098	-.0033	-.0037	-.0016	.2567
#1	-.0100	-.0003	-.0036	-.0013	.2662
#2	-.0097	-.0062	-.0039	-.0020	.2471
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0028	.00015	.0076	.00074	-.00008
#1	-.0018	.00217	.0068	.00118	-.00011
#2	-.0038	-.00186	.0084	.00029	-.00005
Int. Std.	Sc3572				
Units	Cts/S				
Avg	186.21				
#1	179.49				
#2	192.94				

Method: 2010A      Sample Name: LCSW      Operator: JC  
 Comment: K1004870      (203476) (060410A)  
 Run Time: 06/04/10 09:34 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.024	2.640	2.550	5.0842	.12305	1.028
#1	5.019	2.647	2.545	5.0974	.12307	1.027
#2	5.030	2.633	2.555	5.0709	.12303	1.028
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.256	12.61	.5144	1.254	.6230	2.465
#1	1.254	12.59	.5148	1.253	.6265	2.465
#2	1.257	12.63	.5140	1.255	.6194	2.466
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.495	12.51	1.2289	1.003	1.247	12.45
#1	2.485	12.55	1.2239	.9998	1.247	12.46
#2	2.504	12.48	1.2340	1.007	1.246	12.45
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.531	.6264	12.35	-.0024	1.242	1.262
#1	2.509	.6220	12.35	-.0030	1.240	1.258
#2	2.552	.6308	12.35	-.0017	1.244	1.265
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2048	.0111	.00089	2.468	.00077	.00747
#1	.2022	.0105	.00014	2.443	.00064	.00748
#2	.2075	.0117	.00163	2.494	.00091	.00747
Int. Std.	Sc3572					
Units	Cts/S					
Avg	179.24					
#1	179.13					
#2	179.36					

Method: 2010A      Sample Name: K1004870-004      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 09:37 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0094	-.0004	-.0058	.05590	.00001	.0040

#1	.0163	-.0004	-.0038	.05597	.00002	.0039
#2	.0024	-.0004	-.0077	.05583	.00000	.0040

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	22.07	.0001	.0004	.0004	.1016

#1	.0007	21.99	.0003	.0003	.0015	.1023
#2	.0004	22.15	-.0001	.0004	-.0007	.1008

Elem	Pb2203	Mg2025	Mg2795	Mn2576	Mo2020	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028	9.208	8.8621	.02137	.0053	-.0007

#1	.0055	9.223	8.8543	.02127	.0058	-.0001
#2	.0000	9.194	8.8718	.02148	.0049	-.0014

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Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_3102
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.322	.0030	.0024	11.31	-.0057	-.0012

#1	3.331	.0112	.0040	11.31	-.0062	-.0016
#2	3.313	-.0052	.0007	11.31	-.0051	-.0008

Elem	Zn2062	P_2149	Si2516	Ti3234	Tl1908	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021	.2751	38.14	.00174	.0076	.01038

#1	.0025	.2715	38.05	.00186	.0095	.01024
#2	.0018	.2787	38.22	.00161	.0057	.01051

Elem	Sr4077
Units	ppm
Avg	.09767

#1	.09747
#2	.09788

Int. Std.	Sc3572
Units	Cts/S
Avg	181.33

#1	181.78
#2	180.89



Method: 2010A Sample Name: K1004870-004D Operator: JC  
 Comment: (203476) (060410A)  
 Run Time: 06/04/10 09:40 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0054	-.0079	-.0054	.05543	-.00002

#1	-.0038	-.0145	-.0051	.05482	-.00003
#2	-.0069	-.0013	-.0058	.05605	-.00002

Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0026	.0008	22.02	-.0016	.0011

#1	.0027	.0006	21.93	-.0013	.0013
#2	.0026	.0010	22.11	-.0018	.0008

Elem	Cu3247	Fe2599	Pb2203	Mg2025	Mg2795
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0019	.1002	.0101	9.174	8.7707

#1	-.0027	.1011	.0112	9.145	8.7440
#2	-.0012	.0993	.0090	9.202	8.7975

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Elem	Mn2576	Mo2020	Ni2316	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02123	.0035	-.0019	3.314	.0007

#1	.02118	.0028	-.0017	3.341	.0037
#2	.02129	.0043	-.0021	3.287	-.0022

Elem	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0020	11.34	-.0110	-.0020	.0006

#1	.0007	11.42	-.0124	-.0013	.0005
#2	.0034	11.26	-.0097	-.0026	.0007

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707
Units	ppm	ppm	ppm	ppm	ppm
Avg	.2730	37.89	.00183	-.0001	.01115

#1	.2785	37.74	.00073	.0038	.01176
#2	.2675	38.04	.00292	-.0039	.01054

Elem	Sr4077
Units	ppm
Avg	.09708

#1	.09713
#2	.09704

Int. Std.	Sc3572
Units	Cts/S
Avg	180.65

#1	180.40
#2	180.90

Method: 2010A      Sample Name: K1004870-004L      Operator: JC  
 Comment:      1/5      (203476) (060410A)  
 Run Time: 06/04/10 09:43 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0210	.0042	-.0035	.01162	.00002
#1	-.0101	.0004	.0028	.01174	.00000
#2	-.0318	.0080	-.0097	.01150	.00004
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0003	4.262	.0018	.0003
#1	-.0009	.0003	4.264	.0018	.0001
#2	.0008	.0003	4.260	.0018	.0005
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0231	-.0021	1.8137	.00429
#1	.0002	.0238	.0005	1.8163	.00439
#2	.0002	.0225	-.0047	1.8111	.00419
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0006	-.0015	.6143	.0052	-.0027
#1	-.0009	-.0013	.6222	.0022	.0003
#2	-.0004	-.0016	.6065	.0082	-.0057
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.132	-.0047	-.0031	.0005	.0670
#1	2.136	-.0073	-.0019	.0005	.0516
#2	2.127	-.0021	-.0043	.0004	.0824
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.990	.00069	.0156	.00221	.01969
#1	6.980	.00190	.0299	.00211	.01971
#2	7.000	-.00052	.0012	.00231	.01967
Int. Std.	Sc3572				
Units	Cts/S				
Avg	181.16				
#1	180.53				
#2	181.78				

Method: 2010A      Sample Name: K1004870-004S      Operator: JC  
 Comment:      (203476) (060410A)  
 Run Time: 06/04/10 09:46 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.977	.4789	.9998	2.1327	.04885	1.027
#1	1.961	.4746	.9892	2.1419	.04896	1.026
#2	1.994	.4832	1.010	2.1236	.04873	1.028
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0517	32.06	.2058	.5022	.2394	1.090
#1	.0518	32.03	.2054	.5019	.2384	1.091
#2	.0517	32.08	.2062	.5024	.2405	1.089
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5026	19.17	.48996	1.016	.4967	13.08
#1	.4997	19.11	.48981	1.010	.4946	13.07
#2	.5056	19.22	.49012	1.022	.4989	13.10
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9710	.0488	37.77	.0060	.5014	.5151
#1	.9576	.0496	37.77	.0016	.4962	.5151
#2	.9845	.0480	37.76	.0103	.5067	.5151
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2936	48.95	.00202	.9616	.01096	.10060
#1	.2909	48.80	.00015	.9630	.01050	.10073
#2	.2963	49.11	.00389	.9601	.01143	.10048
Int. Std.	Sc3572					
Units	Cts/S					
Avg	177.86					
#1	177.59					
#2	178.13					

Method: 2010A	Sample Name: K1004870-001	Operator: JC			
Comment:	(203476) (060410A)				
Run Time: 06/04/10 09:49	Type: Unk	Mode: CONC	Corr.Fact: 1.000000		
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0020	-.0020	.0068	.15086	.00007
#1	-.0012	-.0019	.0025	.15089	.00011
#2	-.0027	-.0020	.0111	.15084	.00003
Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0018	.0014	29.28	.0002	.0000
#1	.0023	.0009	29.22	-.0003	-.0003
#2	.0013	.0018	29.33	.0008	.0002
Elem	Cu3247	Fe2599	Pb2203	Mg2025	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	6.570	-.0048	12.72	.73986
#1	.0008	6.530	-.0124	12.74	.74131
#2	-.0015	6.609	.0027	12.69	.73840
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0151	.0001	6.408	.0071	-.0055
#1	.0174	.0013	6.369	.0190	-.0060
#2	.0127	-.0010	6.447	-.0048	-.0050
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.07	.0028	-.0010	.0055	.2369
#1	17.03	.0017	-.0012	.0050	.2351
#2	17.11	.0040	-.0008	.0060	.2388
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	27.61	.00003	-.0216	.01656	.14705
#1	27.56	.00002	-.0043	.01656	.14688
#2	27.66	.00003	-.0389	.01657	.14722
Int. Std.	Sc3572				
Units	Cts/S				
Avg	180.03				
#1	180.06				
#2	180.01				

Method: 2010A Sample Name: K1004870-002 Operator: JC  
 Comment: (203476) (060410A)  
 Run Time: 06/04/10 09:52 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5290	-.0035	-.0158	.05526	.00012	.0053

#1	.5111	-.0086	-.0194	.05506	.00007	.0050
#2	.5469	.0017	-.0121	.05546	.00017	.0057

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	29.63	.0027	.0034	.0007	1.727

#1	.0008	29.57	.0018	.0036	.0007	1.725
#2	.0007	29.69	.0037	.0033	.0007	1.729

Elem	Pb2203	Mg2025	Mg2795	Mn2576	Mo2020	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017	9.437	8.9636	.15014	.0162	.0093

#1	.0092	9.390	8.9494	.15000	.0158	.0082
#2	-.0059	9.484	8.9778	.15029	.0165	.0105

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_3102
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.878	.0061	.0003	16.99	.0005	.0025

#1	3.853	.0113	.0003	16.94	.0024	.0005
#2	3.903	.0009	.0003	17.03	-.0013	.0044

Elem	Zn2062	P_2149	Si2516	Ti3234	Tl1908	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0100	.2703	34.89	.01118	-.0084	.01453

#1	.0093	.2690	34.81	.01189	-.0074	.01429
#2	.0108	.2716	34.97	.01048	-.0093	.01477

Elem	Sr4077
Units	ppm
Avg	.13667

#1	.13729
#2	.13606

Int. Std.	Sc3572
Units	Cts/S
Avg	180.36

#1	180.14
#2	180.58

Method:	2010A	Sample Name:	K1004870-003	Operator:	JC
Comment:		(203476)	(060410A)		
Run Time:	06/04/10	09:55	Type: Unk	Mode: CONC	Corr.Fact: 1.000000
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0139	.0062	.0312	.17851	-.00003
#1	.0008	.0034	.0355	.17724	-.00002
#2	-.0287	.0090	.0270	.17977	-.00004
Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0028	.0015	73.77	.0013	-.0005
#1	.0028	.0009	73.53	.0016	-.0012
#2	.0028	.0020	74.00	.0010	.0001
Elem	Cu3247	Fe2599	Pb2203	Mg2025	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0015	.0299	-.0003	29.11	.02865
#1	-.0008	.0307	-.0058	28.96	.02850
#2	-.0022	.0292	.0051	29.25	.02880
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0562	-.0013	6.037	.0097	-.0025
#1	.0554	-.0009	6.039	.0186	-.0003
#2	.0571	-.0017	6.035	.0007	-.0047
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	49.56	-.0048	-.0005	.0001	.2342
#1	49.80	-.0083	-.0011	.0002	.2392
#2	49.32	-.0014	.0002	.0000	.2292
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.77	-.00038	-.0032	.01207	.38975
#1	23.68	.00015	-.0062	.01208	.39030
#2	23.85	-.00090	-.0003	.01206	.38920
Int. Std.	Sc3572				
Units	Cts/S				
Avg	177.98				
#1	177.63				
#2	178.34				

Method: 2010A      Sample Name: K1004870-005      Operator: JC  
 Comment:      (203476) (060410A)  
 Run Time: 06/04/10 09:58 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2004	-.0047	-.0010	.16874	.00002	.0149
#1	.2074	-.0051	-.0013	.16917	.00007	.0147
#2	.1935	-.0042	-.0006	.16832	-.00002	.0152
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	108.1	.0007	-.0003	-.0010	.2592
#1	.0017	107.8	.0007	-.0012	-.0017	.2603
#2	.0011	108.4	.0007	.0006	-.0003	.2581
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0030	36.60	.02848	.0017	-.0012	9.059
#1	-.0062	36.55	.02857	.0013	-.0019	9.109
#2	.0003	36.65	.02838	.0020	-.0006	9.009
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038	.0005	84.92	.0025	.0014	.0015
#1	-.0037	.0007	85.71	.0000	.0031	.0008
#2	.0112	.0003	84.12	.0051	-.0002	.0021
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2733	19.82	.01071	-.0025	.01226	.51550
#1	.2771	19.86	.01077	.0063	.01228	.51731
#2	.2694	19.79	.01065	-.0112	.01224	.51369
Int. Std.	Sc3572					
Units	Cts/S					
Avg	177.00					
#1	176.02					
#2	177.97					

Method: 2010A Sample Name: CCVB

Operator:

Comment:

Run Time: 06/04/10 10:01 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.064	.0054	.0103	2.4965	.04958	-.0155
Stddev	.005	.0113	.0009	.0231	.00020	.0009
%RSD	.1092	207.8	8.813	.92681	.39925	5.785

#1	5.060	.0134	.0110	2.4801	.04972	-.0148
#2	5.068	-.0026	.0097	2.5128	.04944	-.0161

Check ?	QC Pass	None	None	QC Pass	QC Pass	None
Value	5.000			2.5000	.05000	
Range	10.00%			10.000%	10.000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	25.88	.0021	-.0022	-.0028	25.31
Stddev	.0005	.26	.0027	.0009	.0023	.17
%RSD	21.37	1.009	124.5	39.21	83.30	.6519

#1	.0020	25.70	.0003	-.0028	-.0012	25.19
#2	.0027	26.07	.0040	-.0016	-.0045	25.42

Check ?	None	QC Pass	None	None	None	QC Pass
Value		25.00				25.00
Range		10.00%				10.00%

Elem	Pb2203	Mg2025	Mn2939	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0034	25.35	4.958	.0011	-.0042	9.949
Stddev	.0101	.05	.013	.0005	.0003	.117
%RSD	298.2	.1858	.2732	45.87	6.355	1.171

#1	-.0105	25.32	4.948	.0007	-.0044	9.867
#2	.0037	25.38	4.967	.0014	-.0040	10.03

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		25.00	5.000			10.00
Range		10.00%	10.00%			10.00%

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	.0020	9.755	.0088	-.0018	.0012
Stddev	.0042	.0038	.046	.0010	.0002	.0002
%RSD	1025.	188.8	.4701	10.93	10.74	14.70

#1	-.0034	-.0007	9.723	.0081	-.0017	.0011
#2	.0026	.0047	9.788	.0094	-.0020	.0013

Check ?	None	None	QC Pass	None	None	None
Value			10.00			
Range			10.00%			



Method: 2010A Sample Name: CCVA

Operator:

Comment:

Run Time: 06/04/10 10:04 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4448	2.458	2.453	.46133	.52543	.5002
Stddev	.0043	.019	.033	.00217	.00015	.0021
%RSD	.9663	.7730	1.342	.47082	.02811	.4221
#1	.4479	2.445	2.430	.45980	.52533	.4987
#2	.4418	2.472	2.477	.46287	.52554	.5017
Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		2.500	2.500			.5000
Range		10.00%	10.00%			10.00%
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4958	2.489	.4960	.4945	.4955	.5053
Stddev	.0032	.039	.0032	.0027	.0053	.0188
%RSD	.6441	1.576	.6439	.5378	1.065	3.725
#1	.4936	2.461	.4938	.4926	.4918	.5186
#2	.4981	2.517	.4983	.4964	.4993	.4920
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	2.500	.5000	.5000	.5000	.5000
Range	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.442	1.9863	.96368	.9806	.4945	4.898
Stddev	.045	.0075	.00517	.0043	.0018	.006
%RSD	1.840	.37606	.53623	.4429	.3623	.1210
#1	2.410	1.9810	.96734	.9775	.4933	4.902
#2	2.474	1.9916	.96003	.9836	.4958	4.893
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	None
Value	2.500	2.0000	1.0000	1.000	.5000	
Range	10.00%	10.000%	10.000%	10.00%	10.00%	
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.463	.4928	.4671	2.416	.4909	.4912
Stddev	.007	.0067	.0059	.009	.0001	.0012
%RSD	.2712	1.351	1.263	.3601	.0114	.2420
#1	2.458	.4881	.4713	2.410	.4908	.4921
#2	2.468	.4975	.4630	2.422	.4909	.4904
Check ?	QC Pass	QC Pass	None	QC Pass	QC Pass	QC Pass
Value	2.500	.5000		2.500	.5000	.5000
Range	10.00%	10.00%		10.00%	10.00%	10.00%

Sample Name: CCVA Run Time: 06/04/10 10:04

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0253	.2629	.49103	4.872	.00062	.00191
Stddev	.0032	.0045	.00080	.022	.00001	.00001
%RSD	12.65	1.696	.16239	.4614	1.9514	.30360

#1	-.0275	.2661	.49159	4.856	.00062	.00191
#2	-.0230	.2598	.49046	4.888	.00061	.00191

Check ?	None	None	QC Pass	QC Pass	None	None
Value			.50000	5.000		
Range			10.000%	10.00%		

Int. Std.	Sc3572
Units	Cts/S
Avg	182.41
Stddev	.19
%RSD	.10302

#1	182.28
#2	182.54

Method:	2010A	Sample Name:	CCB	Operator:		
Comment:						
Run Time:	06/04/10 10:07	Type:	QC	Mode:	CONC	Corr.Fact: 1.000000
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	
Units	ppm	ppm	ppm	ppm	ppm	
Avg	-.0031	.0038	-.0010	.00059	.00011	
Stddev	.0121	.0047	.0042	.00007	.00004	
%RSD	384.3	124.0	420.9	12.034	33.577	
#1	.0054	.0071	-.0040	.00064	.00014	
#2	-.0117	.0005	.0020	.00054	.00008	
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	
Value	.0000	.0000	.0000	.00000	.00000	
Range	±.0500	±.0500	±.1000	±.00500	±.00500	
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286	
Units	ppm	ppm	ppm	ppm	ppm	
Avg	.0000	.0006	-.0044	.0008	-.0003	
Stddev	.001	.0001	.0007	.0007	.0009	
%RSD	1683.	18.72	15.53	78.38	321.0	
#1	.0005	.0007	-.0049	.0004	-.0009	
#2	-.0006	.0005	-.0039	.0013	.0004	
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	
Value	.0000	.0000	.0000	.0000	.0000	
Range	±.0500	±.0050	±.0500	±.0050	±.0100	
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576	
Units	ppm	ppm	ppm	ppm	ppm	
Avg	.0002	.0037	-.0068	.00268	.00082	
Stddev	.0018	.0019	.0073	.00032	.00006	
%RSD	712.6	50.26	107.6	12.052	7.4675	
#1	-.0010	.0051	-.0120	.00245	.00087	
#2	.0015	.0024	-.0016	.00290	.00078	
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	
Value	.0000	.0000	.0000	.00000	.00000	
Range	±.0100	±.0200	±.0500	±.02000	±.00500	
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280	
Units	ppm	ppm	ppm	ppm	ppm	
Avg	.0023	-.0003	-.0325	-.0067	.0017	
Stddev	.0023	.0003	.0133	.0063	.0038	
%RSD	97.54	84.08	40.99	94.33	225.9	
#1	.0040	-.0001	-.0231	-.0022	-.0010	
#2	.0007	-.0005	-.0419	-.0112	.0044	
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	
Value	.0000	.0000	.0000	.0000	.0000	
Range	±.0100	±.0200	±.4000	±.1000	±.0100	

Sample Name: CCB Run Time: 06/04/10 10:07

Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0025	.0099	-.0022	-.0004	.0069
Stddev	.0010	.0008	.0026	.0002	.0036
%RSD	38.38	8.273	117.8	45.36	51.78

#1	-.0018	.0105	-.0004	-.0005	.0094
#2	-.0032	.0093	-.0040	-.0003	.0044

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.2000	±.0500	±.0100	±.0100	±.2000

Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0025	.00023	.0116	.00154	.00009
Stddev	.0027	.00086	.0150	.00014	.00005
%RSD	109.5	376.19	129.2	8.9466	56.574

#1	-.0006	-.00038	.0223	.00164	.00012
#2	-.0045	.00084	.0010	.00144	.00005

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.01000	±.2000	±.01000	±.01000

Int. Std.	Sc3572
Units	Cts/S
Avg	179.10
Stddev	.67
%RSD	.37426

#1	178.63
#2	179.57

Method: 2010A Sample Name: K1004934-001 Operator: JC  
 Comment: (203476) (060410A)  
 Run Time: 06/04/10 10:10 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0092	.0033	-.0036	.11692	-.00002

#1	-.0116	-.0052	.0023	.11656	-.00001
#2	-.0069	.0118	-.0096	.11729	-.00002

Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0065	.0010	70.61	.0018	.0001

#1	.0065	.0012	70.19	.0012	.0005
#2	.0065	.0009	71.04	.0025	-.0003

Elem	Cu3247	Fe2599	Pb2203	Mg2025	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0101	-.0061	25.16	-.00073

#1	.0020	.0101	-.0067	25.05	-.00084
#2	-.0017	.0101	-.0054	25.28	-.00063

Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0020	-.0012	4.464	-.0008	.0042

#1	.0005	-.0015	4.454	.0007	.0050
#2	.0035	-.0010	4.475	-.0022	.0034

Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.18	-.0019	.0034	-.0003	.3213

#1	25.12	-.0037	.0023	-.0012	.3139
#2	25.23	.0000	.0044	.0006	.3287

Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.57	.00094	-.0084	.00875	.32958

#1	23.54	.00197	-.0142	.00852	.32969
#2	23.61	-.00009	-.0026	.00897	.32948

Int. Std.	Sc3572
Units	Cts/S
Avg	178.29

#1	178.26
#2	178.32

Method: 2010A      Sample Name: K1004934-002      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:13 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0545	.0085	-.0121	.02171	.00007	.0029
#1	.0568	.0146	-.0161	.02135	.00012	.0031
#2	.0522	.0024	-.0082	.02208	.00003	.0027
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	64.95	.0009	.0006	-.0011	.1353
#1	.0010	64.74	.0010	.0003	.0008	.1350
#2	.0014	65.16	.0008	.0010	-.0030	.1356
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0007	18.49	.00495	.0024	-.0011	3.345
#1	.0010	18.39	.00491	.0029	-.0013	3.330
#2	-.0024	18.59	.00499	.0019	-.0009	3.360
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0030	-.0027	17.22	-.0066	.0030	.0002
#1	-.0127	-.0040	17.16	-.0066	.0025	.0003
#2	.0067	-.0014	17.27	-.0065	.0035	.0000
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2890	24.08	.00588	-.0128	.00558	.31648
#1	.2881	24.00	.00547	-.0263	.00611	.31519
#2	.2899	24.16	.00630	.0007	.00505	.31777
Int. Std.	Sc3572					
Units	Cts/S					
Avg	178.79					
#1	179.00					
#2	178.58					

Method: 2010A      Sample Name: K1004934-003      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:16 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1834	-.0019	.0000	.15511	.00002	.0176
#1	.1749	.0014	.0013	.15403	.00000	.0178
#2	.1919	-.0052	-.0013	.15619	.00004	.0174
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013	104.3	.0015	.0004	-.0057	.2872
#1	.0010	103.7	.0005	.0005	-.0063	.2848
#2	.0016	104.9	.0025	.0004	-.0051	.2895
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055	36.33	.00908	.0004	-.0004	10.07
#1	.0033	36.17	.00911	.0007	-.0007	10.08
#2	.0077	36.49	.00905	.0001	-.0002	10.06
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0082	.0010	96.12	-.0069	.0041	.0011
#1	-.0112	-.0003	96.02	-.0046	.0033	.0009
#2	-.0052	.0023	96.23	-.0091	.0048	.0013
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2641	19.44	.01332	.0082	.01274	.52942
#1	.2756	19.35	.01193	.0043	.01248	.52885
#2	.2526	19.53	.01470	.0121	.01300	.53000
Int. Std.	Sc3572					
Units	Cts/S					
Avg	177.71					
#1	177.97					
#2	177.45					

Method: 2010A Sample Name: K1004934-004 Operator: JC  
 Comment: (203476) (060410A)  
 Run Time: 06/04/10 10:19 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2276	-.0037	.0028	.01280	.00012	.0022

#1	.2090	.0024	.0028	.01260	.00011	.0025
#2	.2463	-.0099	.0028	.01299	.00013	.0019

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	4.836	.0011	.0003	.0017	.2652

#1	.0005	4.819	.0009	.0003	.0020	.2654
#2	.0008	4.854	.0014	.0003	.0013	.2650

Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0003	1.0603	.01719	.0009	-.0005	.8506

#1	.0041	1.0566	.01708	.0011	-.0001	.8738
#2	-.0046	1.0640	.01730	.0008	-.0008	.8273

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030	-.0039	4.510	-.0041	.0001	.0003

#1	.0052	-.0030	4.530	.0008	.0005	.0001
#2	.0008	-.0047	4.489	-.0090	-.0002	.0006

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3142	12.13	.01053	-.0027	.00336	.04437

#1	.3123	12.06	.00907	.0031	.00374	.04433
#2	.3162	12.20	.01199	-.0085	.00299	.04441

Int. Std.	Sc3572
Units	Cts/S
Avg	179.28

#1	178.97
#2	179.59



Method: 2010A      Sample Name: K1004934-005      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:22 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032	-.0037	-.0035	.11867	.00001	.0066
#1	-.0256	-.0014	-.0048	.11809	-.00003	.0064
#2	.0319	-.0061	-.0022	.11926	.00005	.0069
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	74.03	.0023	-.0008	-.0039	.0253
#1	.0008	73.64	.0010	.0001	-.0043	.0253
#2	.0006	74.42	.0036	-.0018	-.0035	.0253
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0063	26.53	-.00033	.0019	-.0024	4.880
#1	-.0141	26.47	-.00030	.0010	-.0027	4.876
#2	.0016	26.59	-.00037	.0027	-.0021	4.884
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022	-.0030	27.49	-.0041	.0020	.0019
#1	.0067	-.0013	27.53	-.0003	-.0009	.0021
#2	-.0022	-.0047	27.45	-.0078	.0050	.0017
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3542	24.23	.00301	-.0113	.00872	.34538
#1	.3568	24.17	.00264	-.0259	.00823	.34550
#2	.3516	24.30	.00338	.0034	.00920	.34526
Int. Std.	Sc3572					
Units	Cts/S					
Avg	177.64					
#1	177.56					
#2	177.72					

Method: 2010A      Sample Name: K1004934-006      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:25 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031	.0010	-.0063	.21056	-.00003	.0189

#1	.0132	.0042	.0009	.20794	-.00002	.0193
#2	-.0069	-.0023	-.0135	.21317	-.00005	.0185

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	118.0	.0013	-.0004	-.0021	.0188

#1	.0006	116.9	.0014	.0000	.0007	.0188
#2	.0005	119.1	.0012	-.0008	-.0048	.0189

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	39.60	-.00086	.0018	-.0012	11.31

#1	.0016	39.31	-.00088	.0009	-.0011	11.27
#2	.0013	39.89	-.00084	.0027	-.0013	11.35

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067	.0045	110.7	-.0076	.0042	.0001

#1	.0112	.0061	110.1	-.0063	.0043	.0010
#2	.0022	.0030	111.3	-.0089	.0041	-.0008

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3423	23.83	.00156	-.0112	.01415	.58859

#1	.3352	23.75	.00078	-.0053	.01394	.58758
#2	.3495	23.92	.00235	-.0171	.01436	.58959

Int. Std.	Sc3572
Units	Cts/S
Avg	176.53

#1	177.17
#2	175.89

Method: 2010A      Sample Name: K1004934-007      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:28 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	.0038	.0063	.11385	.00005	.0064

#1	-.0101	.0024	.0056	.11344	.00005	.0065
#2	.0116	.0052	.0069	.11426	.00005	.0062

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	71.18	.0005	-.0007	.0003	.0228

#1	.0008	70.71	.0001	-.0005	.0043	.0231
#2	.0001	71.65	.0010	-.0008	-.0036	.0226

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013	25.63	-.00045	.0028	-.0018	4.715

#1	-.0024	25.59	-.00051	.0022	-.0024	4.716
#2	.0050	25.68	-.00040	.0034	-.0012	4.713

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067	.0002	26.63	-.0041	.0059	.0006

#1	-.0008	.0010	26.64	-.0060	.0045	.0007
#2	.0142	-.0007	26.61	-.0023	.0074	.0006

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3782	23.47	.00059	-.0045	.00877	.33236

#1	.3672	23.43	-.00121	-.0084	.00832	.33225
#2	.3893	23.50	.00238	-.0006	.00923	.33246

Int. Std.	Sc3572
Units	Cts/S
Avg	177.87

#1	177.75
#2	178.00

Method: 2010A      Sample Name: K1004934-008      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:31 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0202	-.0005	.0079	.00026	.00004

#1	.0085	.0004	.0007	.00026	.00007
#2	-.0489	-.0014	.0151	.00026	.00001

Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0004	-.0017	.0011	.0001

#1	.0004	.0004	.0039	.0014	.0000
#2	.0003	.0004	-.0073	.0009	.0002

Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0001	.0086	.00030	.00012

#1	.0003	.0000	.0057	.00054	.00002
#2	.0012	.0002	.0115	.00007	.00023

Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0003	-.0002	-.0096	.0127	.0010

#1	-.0005	-.0004	-.0029	.0216	.0013
#2	.0011	.0000	-.0163	.0037	.0007

Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0019	-.0028	-.0030	-.0005	.2959

#1	.0006	-.0036	-.0039	-.0004	.2906
#2	-.0044	-.0020	-.0020	-.0005	.3012

Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0055	.00109	-.0018	.00062	-.00006

#1	.0063	.00248	.0010	.00028	-.00001
#2	.0047	-.00030	-.0047	.00096	-.00011

Int. Std.	Sc3572
Units	Cts/S
Avg	180.57

#1	179.99
#2	181.15

Method: 2010A      Sample Name: K1005067-001      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:34 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1618	-.0037	-.0119	.10483	-.00001	.0111
#1	.1595	.0099	-.0119	.10507	-.00002	.0108
#2	.1641	-.0173	-.0119	.10458	.00001	.0114
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	48.44	-.0019	.0001	-.0008	.2000
#1	.0005	48.33	-.0015	-.0001	.0003	.1996
#2	.0000	48.55	-.0023	.0002	-.0020	.2003
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	13.47	.01651	.0027	-.0012	3.140
#1	-.0015	13.48	.01643	.0020	-.0008	3.180
#2	.0006	13.47	.01659	.0033	-.0016	3.101
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037	-.0003	16.96	-.0018	.0028	.0009
#1	-.0022	-.0054	17.18	-.0050	.0014	.0009
#2	.0097	.0047	16.73	.0013	.0041	.0008
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4359	22.85	.00960	-.0143	.00495	.31816
#1	.4143	22.81	.01048	-.0153	.00527	.32083
#2	.4575	22.89	.00872	-.0132	.00462	.31549
Int. Std.	Sc3572					
Units	Cts/S					
Avg	178.16					
#1	177.47					
#2	178.84					

Method: 2010A      Sample Name: K1005067-002      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:37 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0593	-.0014	.0013	.05480	.00002	.0047
#1	.0492	-.0090	.0026	.05572	-.00001	.0044
#2	.0694	.0061	.0000	.05388	.00005	.0049
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	80.58	.0014	-.0003	-.0043	.7226
#1	.0016	80.63	.0023	-.0013	-.0026	.7259
#2	.0007	80.52	.0004	.0006	-.0060	.7193
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0006	35.59	.03836	-.0003	.0010	7.581
#1	-.0036	35.52	.03869	-.0014	.0015	7.594
#2	.0023	35.66	.03804	.0007	.0006	7.568
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	-.0014	59.41	-.0074	-.0010	.0008
#1	.0008	-.0027	59.76	-.0128	-.0016	.0006
#2	-.0007	.0000	59.05	-.0019	-.0003	.0010
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3418	18.41	.00833	-.0102	.01320	.44923
#1	.3387	18.36	.00734	.0063	.01352	.45122
#2	.3449	18.45	.00932	-.0266	.01289	.44725
Int. Std.	Sc3572					
Units	Cts/S					
Avg	177.77					
#1	176.90					
#2	178.65					

Method: 2010A Sample Name: CCVB

Operator:

Comment:

Run Time: 06/04/10 10:40 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.025	.0134	.0034	2.5131	.04976	-.0152
Stddev	.041	.0040	.0079	.0197	.00015	.0001
%RSD	.8119	29.71	232.1	.78175	.31041	.3465

#1	4.997	.0162	.0090	2.4992	.04965	-.0152
#2	5.054	.0106	-.0022	2.5270	.04987	-.0151

Check ?	QC Pass	None	None	QC Pass	QC Pass	None
Value	5.000			2.5000	.05000	
Range	10.00%			10.000%	10.000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024	25.81	.0030	-.0007	-.0012	25.32
Stddev	.0002	.21	.0008	.0001	.0002	.12
%RSD	7.043	.8302	24.89	21.19	20.61	.4830

#1	.0023	25.66	.0036	-.0008	-.0013	25.23
#2	.0025	25.96	.0025	-.0006	-.0010	25.40

Check ?	None	QC Pass	None	None	None	QC Pass
Value		25.00				25.00
Range		10.00%				10.00%

Elem	Pb2203	Mg2025	Mn2939	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0012	25.06	4.964	-.0004	-.0034	9.841
Stddev	.0131	.30	.017	.0001	.0004	.012
%RSD	1092.	1.200	.3446	37.39	10.71	.1205

#1	-.0105	24.85	4.951	-.0003	-.0032	9.850
#2	.0081	25.28	4.976	-.0005	-.0037	9.833

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		25.00	5.000			10.00
Range		10.00%	10.00%			10.00%

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018	-.0019	9.742	-.0010	.0003	.0015
Stddev	.0011	.0045	.058	.0020	.0012	.0001
%RSD	58.32	243.5	.5966	192.4	421.6	4.185

#1	.0011	-.0051	9.783	.0004	-.0005	.0014
#2	.0026	.0013	9.700	-.0024	.0011	.0015

Check ?	None	None	QC Pass	None	None	None
Value			10.00			
Range			10.00%			

Sample Name: CCVB Run Time: 06/04/10 10:40

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.10	2.509	.00188	-.0093	.48992	.49912
Stddev	.11	.016	.00049	.0219	.00018	.00023
%RSD	1.041	.6411	25.905	235.0	.03772	.04554
#1	10.03	2.497	.00154	-.0248	.49005	.49928
#2	10.17	2.520	.00223	.0062	.48979	.49896
Check ?	QC Pass	QC Pass	None	None	QC Pass	QC Pass
Value	10.00	2.500			.50000	.50000
Range	10.00%	10.00%			10.000%	10.000%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	178.99					
Stddev	.19					
%RSD	.10360					
#1	178.85					
#2	179.12					



Method: 2010A Sample Name: CCVA Operator:  
 Comment:  
 Run Time: 06/04/10 10:43 Type: QC Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4628	2.467	2.469	.46423	.52924	.5022
Stddev	.0186	.023	.011	.00347	.00176	.0016
%RSD	4.020	.9335	.4349	.74708	.33326	.3122
#1	.4496	2.450	2.476	.46178	.52799	.5011
#2	.4759	2.483	2.461	.46668	.53048	.5033
Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		2.500	2.500			.5000
Range		10.00%	10.00%			10.00%
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5002	2.482	.4988	.4992	.4980	.5070
Stddev	.0024	.008	.0075	.0028	.0004	.0092
%RSD	.4860	.3251	1.499	.5674	.0802	1.810
#1	.4985	2.476	.4935	.4972	.4983	.5135
#2	.5019	2.487	.5041	.5012	.4977	.5005
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	2.500	.5000	.5000	.5000	.5000
Range	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.471	2.0004	.96676	.9873	.4970	4.880
Stddev	.014	.0039	.00427	.0175	.0014	.000
%RSD	.5685	.19403	.44218	1.769	.2794	.0058
#1	2.461	1.9977	.96374	.9750	.4960	4.880
#2	2.481	2.0032	.96978	.9997	.4980	4.880
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	None
Value	2.500	2.0000	1.0000	1.000	.5000	
Range	10.00%	10.000%	10.000%	10.00%	10.00%	
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.466	.4958	.4748	2.449	.4906	.4980
Stddev	.027	.0061	.0009	.025	.0030	.0057
%RSD	1.092	1.240	.1817	1.007	.6148	1.149
#1	2.447	.4915	.4742	2.431	.4927	.4939
#2	2.485	.5002	.4754	2.466	.4885	.5020
Check ?	QC Pass	QC Pass	None	QC Pass	QC Pass	QC Pass
Value	2.500	.5000		2.500	.5000	.5000
Range	10.00%	10.00%		10.00%	10.00%	10.00%

Sample Name: CCVA Run Time: 06/04/10 10:43

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0142	.2619	.48986	4.861	.00054	.00192
Stddev	.0052	.0021	.00559	.054	.00072	.00005
%RSD	36.54	.7938	1.1412	1.110	133.64	2.8281

#1	-.0106	.2604	.48591	4.823	.00105	.00188
#2	-.0179	.2633	.49381	4.899	.00003	.00196

Check ?	None	None	QC Pass	QC Pass	None	None
Value			.50000	5.000		
Range			10.000%	10.00%		

Int. Std.	Sc3572
Units	Cts/S
Avg	182.45
Stddev	.10
%RSD	.05632

#1	182.38
#2	182.53

Method: 2010A      Sample Name: CCB      Operator:  
 Comment:  
 Run Time: 06/04/10 10:46 Type: QC      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0319	.0094	.0039	.00056	.00014
Stddev	.0087	.0219	.0019	.00005	.00005
%RSD	27.42	232.3	47.59	8.2000	35.328

#1	-.0257	.0249	.0026	.00059	.00017
#2	-.0380	-.0061	.0053	.00053	.00010

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0500	±.0500	±.1000	±.00500	±.00500

Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0004	.0039	-.0005	.0000
Stddev	.0001	.0006	.0028	.0002	.001
%RSD	22.66	130.7	70.79	34.50	1777.

#1	.0005	.0008	.0019	-.0007	-.0005
#2	.0006	.0000	.0058	-.0004	.0004

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0500	±.0050	±.0500	±.0050	±.0100

Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0016	.0049	.0046	.00429	.00093
Stddev	.0032	.0010	.0009	.00028	.00012
%RSD	200.9	20.60	19.59	6.5298	12.592

#1	.0007	.0056	.0052	.00449	.00101
#2	-.0038	.0042	.0039	.00410	.00084

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0100	±.0200	±.0500	±.02000	±.00500

Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0023	-.0015	-.0011	.0037	-.0013
Stddev	.0001	.0014	.0133	.0000	.0000
%RSD	6.334	95.40	1179.	.0333	.0024

#1	.0022	-.0025	-.0105	.0037	-.0013
#2	.0024	-.0005	.0083	.0037	-.0013

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0100	±.0200	±.4000	±.1000	±.0100

Sample Name: CCB Run Time: 06/04/10 10:46

Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0041	-.0046	-.0012	.0000	-.0067
Stddev	.0005	.0013	.0002	.001	.0132
%RSD	13.18	27.38	13.32	2700.	196.8

#1	-.0037	-.0037	-.0013	.0007	-.0160
#2	-.0045	-.0055	-.0011	-.0008	.0026

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.2000	±.0500	±.0100	±.0100	±.2000

Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0017	-.00171	.0144	.00070	.00007
Stddev	.0005	.00213	.0027	.00038	.00007
%RSD	30.21	124.48	18.83	54.835	89.677

#1	-.0021	-.00322	.0125	.00043	.00012
#2	-.0014	-.00021	.0164	.00097	.00003

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.01000	±.2000	±.01000	±.01000

Int. Std.	Sc3572
Units	Cts/S
Avg	180.33
Stddev	.07
%RSD	.04044

#1	180.38
#2	180.28

Method: 2010A      Sample Name: K1005067-003      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:49 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0164	.0061	-.0024	.05116	.00003	.0046
#1	.0257	.0089	.0058	.05111	.00003	.0039
#2	.0071	.0033	-.0106	.05121	.00002	.0052
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016	78.73	.0018	-.0006	-.0017	.2260
#1	.0021	77.77	.0028	-.0011	-.0015	.2241
#2	.0012	79.68	.0008	-.0001	-.0018	.2279
Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047	35.60	.02854	.0004	-.0007	7.595
#1	-.0007	35.51	.02859	.0010	-.0006	7.609
#2	.0102	35.69	.02849	-.0002	-.0007	7.581
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112	-.0024	59.23	-.0003	-.0035	.0000
#1	.0052	-.0013	59.42	-.0006	-.0032	-.0004
#2	.0172	-.0034	59.03	-.0001	-.0037	.0004
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3980	18.20	.00203	-.0064	.01337	.44734
#1	.4085	18.11	.00136	.0062	.01347	.44774
#2	.3875	18.29	.00271	-.0190	.01328	.44694
Int. Std.	Sc3572					
Units	Cts/S					
Avg	178.49					
#1	178.57					
#2	178.41					

Method: 2010A      Sample Name: K1005067-004      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:52 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0256	-.0108	-.0020	.00058	.00006
#1	-.0272	-.0127	-.0033	.00059	.00007
#2	-.0241	-.0089	-.0007	.00057	.00005
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0003	.0185	.0004	-.0001
#1	.0003	.0005	.0209	.0010	.0003
#2	.0006	.0002	.0161	-.0002	-.0006
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.0124	-.0012	.00267	.00116
#1	.0003	.0126	-.0008	.00307	.00119
#2	.0020	.0121	-.0017	.00228	.00114
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0007	.0000	.0021	-.0037	.0000
#1	-.0011	-.0005	.0208	-.0037	-.0007
#2	-.0003	.0006	-.0166	-.0037	.0007
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0365	-.0046	.0012	.0004	.3503
#1	.0403	-.0114	.0041	.0002	.3405
#2	.0327	.0023	-.0017	.0006	.3600
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0040	-.00179	-.0057	.00077	.00006
#1	.0037	-.00152	-.0009	.00040	.00004
#2	.0042	-.00207	-.0105	.00114	.00008
Int. Std.	Sc3572				
Units	Cts/S				
Avg	180.21				
#1	180.25				
#2	180.16				

Method: 2010A      Sample Name: RB      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:55 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0225	.0019	.0003	.00025	.00005

#1	-.0085	.0033	.0000	.00045	.00009
#2	-.0365	.0004	.0007	.00005	.00001

Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	.0010	-.0037	-.0004	-.0008

#1	-.0001	.0007	-.0029	.0003	-.0010
#2	-.0009	.0013	-.0044	-.0010	-.0005

Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0021	.0006	.0025	.00014	.00009

#1	-.0018	.0009	.0040	.00020	-.00001
#2	-.0023	.0004	.0009	.00008	.00019

Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0017	-.0004	-.0142	-.0134	-.0003

#1	-.0017	-.0005	.0010	-.0201	-.0010
#2	-.0017	-.0004	-.0294	-.0067	.0003

Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0048	-.0001	.0000	-.0010	-.0012

#1	-.0032	.0020	.0003	-.0013	.0008
#2	-.0065	-.0022	-.0003	-.0007	-.0031

Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0028	.00186	-.0057	.00132	-.00010

#1	-.0027	.00123	-.0086	.00106	-.00008
#2	-.0028	.00249	-.0028	.00158	-.00012

Int. Std.	Sc3572
Units	Cts/S
Avg	179.69

#1	179.49
#2	179.90

Method: 2010A      Sample Name: K1005395-MB      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 10:58 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0163	-.0010	-.0046	.00018	.00003
#1	-.0210	-.0042	-.0092	.00004	-.00003
#2	-.0117	.0023	.0000	.00031	.00008
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0003	-.0017	.0013	.0002
#1	-.0001	.0003	-.0010	.0011	-.0005
#2	.0007	.0003	-.0024	.0015	.0009
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0006	-.0012	.0011	-.00009	-.00001
#1	.0007	-.0015	-.0042	-.00018	-.00004
#2	.0005	-.0009	.0065	.00001	.00003
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0015	-.0014	-.0251	-.0037	.0005
#1	-.0006	-.0016	-.0313	-.0082	.0003
#2	-.0024	-.0012	-.0188	.0007	.0007
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0054	.0048	-.0034	.0001	.2065
#1	-.0023	.0069	-.0015	.0002	.2111
#2	-.0085	.0027	-.0053	-.0001	.2019
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0028	-.00074	.0125	.00096	-.00007
#1	-.0045	-.00036	.0049	.00063	-.00008
#2	-.0011	-.00113	.0202	.00129	-.00005
Int. Std.	Sc3572				
Units	Cts/S				
Avg	180.20				
#1	180.15				
#2	180.25				



Method: 2010A Sample Name: LCSW Operator: JC  
 Comment: K1005395 (203476) (060410A)  
 Run Time: 06/04/10 11:01 Type: Unk Mode: CONC Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.006	2.735	2.519	5.1448	.12437	1.041

#1	4.944	2.726	2.506	5.0599	.12425	1.038
#2	5.067	2.744	2.533	5.2297	.12450	1.044

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.258	12.42	.5114	1.258	.6105	2.475

#1	1.255	12.36	.5086	1.254	.6089	2.470
#2	1.262	12.48	.5142	1.263	.6122	2.479

Elem	Pb2203	Mg2025	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.539	12.40	1.2230	1.017	1.249	12.41

#1	2.521	12.35	1.2232	1.008	1.245	12.46
#2	2.557	12.45	1.2228	1.025	1.253	12.36

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.552	.6187	12.20	.0058	1.244	1.259

#1	2.540	.6145	12.29	.0082	1.242	1.254
#2	2.563	.6229	12.11	.0033	1.246	1.265

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1834	.0108	.00131	2.464	.00098	.00704

#1	.1790	.0097	.00024	2.479	.00088	.00701
#2	.1878	.0119	.00237	2.448	.00108	.00707

Int. Std.	Sc3572
Units	Cts/S
Avg	178.88

#1	178.33
#2	179.44

Method: 2010A      Sample Name: K1005395-002      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 11:04 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0500	.0081	-.0053	.01021	.00001	.1361
#1	.0538	.0053	.0082	.01101	-.00001	.1367
#2	.0461	.0109	-.0187	.00941	.00003	.1355
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	20.07	.0012	-.0005	.0081	34.82
#1	.0023	19.84	.0029	-.0002	.0045	34.62
#2	.0023	20.31	-.0005	-.0008	.0117	35.01
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0048	4.9551	.49086	.0049	.0198	15.74
#1	-.0111	4.9658	.48903	.0072	.0212	15.76
#2	.0015	4.9444	.49269	.0025	.0184	15.73
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0009	-.0012	26.50	.0002	.0023	.0506
#1	-.0121	-.0024	26.49	-.0009	.0010	.0493
#2	.0103	.0000	26.52	.0013	.0036	.0518
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7570	28.84	.00539	-.0269	.01320	.13569
#1	.7384	28.71	.00409	-.0250	.01360	.13589
#2	.7756	28.97	.00669	-.0287	.01280	.13549
Int. Std.	Sc3572					
Units	Cts/S					
Avg	178.28					
#1	178.08					
#2	178.49					

Method: 2010A      Sample Name: K1005395-002D      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 11:07 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0067	.0128	.0000	.00962	.00005
#1	-.0191	.0071	.0056	.00978	.00004
#2	.0058	.0184	-.0056	.00946	.00006
Elem	B_2497	Cd2265	Ca2112	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.1350	.0017	19.97	.0015	.0001
#1	.1338	.0019	19.85	.0010	.0001
#2	.1361	.0015	20.09	.0020	.0001
Elem	Cu3247	Fe2714	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0063	34.97	-.0048	4.9535	.49144
#1	.0068	34.93	-.0098	4.9366	.49064
#2	.0058	35.00	.0001	4.9705	.49224
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0015	.0226	15.76	.0088	.0008
#1	.0008	.0227	15.77	.0088	.0020
#2	.0023	.0226	15.74	.0088	-.0003
Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.60	-.0010	.0019	.0513	.6905
#1	26.75	.0000	.0026	.0505	.6859
#2	26.44	-.0021	.0012	.0521	.6950
Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	28.81	.00457	-.0451	.01271	.13610
#1	28.63	.00430	-.0405	.01298	.13632
#2	28.99	.00484	-.0497	.01244	.13589
Int. Std.	Sc3572				
Units	Cts/S				
Avg	178.65				
#1	177.93				
#2	179.38				

Method: 2010A      Sample Name: K1005395-002S      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 11:10 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.019	.4803	.9865	2.0646	.04972	1.173
#1	2.000	.4812	.9897	2.0633	.04962	1.170
#2	2.039	.4794	.9832	2.0659	.04982	1.176
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0512	19.83	.2051	.4969	.2500	35.77
#1	.0513	19.72	.2046	.4945	.2497	35.75
#2	.0510	19.93	.2056	.4993	.2504	35.80
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4847	4.9119	1.0035	1.012	.5184	15.71
#1	.4903	4.9077	.99720	1.010	.5188	15.65
#2	.4791	4.9161	1.0097	1.013	.5180	15.76
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9873	.0478	26.54	.0022	.5022	.5510
#1	1.004	.0476	26.53	.0038	.5000	.5487
#2	.9702	.0480	26.55	.0006	.5045	.5532
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7010	28.74	.00625	.9259	.01264	.13472
#1	.7026	28.82	.00466	.9383	.01208	.13485
#2	.6994	28.66	.00784	.9135	.01319	.13458
Int. Std.	Sc3572					
Units	Cts/S					
Avg	178.28					
#1	178.12					
#2	178.43					

Method: 2010A      Sample Name: K1005395-003      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 11:13 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0218	.0128	-.0111	.00947	-.00002	.1353
#1	.0342	.0147	-.0151	.00931	-.00002	.1363
#2	.0094	.0109	-.0072	.00962	-.00002	.1343
Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018	20.11	.0021	-.0007	.0009	32.36
#1	.0015	19.98	.0021	-.0009	.0005	32.24
#2	.0021	20.23	.0021	-.0004	.0013	32.48
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0102	4.9495	.49319	.0030	-.0044	15.78
#1	-.0068	4.9537	.49106	.0037	-.0049	15.72
#2	-.0137	4.9452	.49532	.0024	-.0040	15.83
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0010	-.0025	26.34	.0008	.0006	.0012
#1	.0042	-.0003	26.23	.0074	.0032	.0019
#2	-.0062	-.0047	26.45	-.0058	-.0021	.0004
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7082	28.33	.00419	-.0281	.01245	.13441
#1	.6991	28.23	.00578	-.0329	.01254	.13435
#2	.7174	28.43	.00260	-.0233	.01236	.13448
Int. Std.	Sc3572					
Units	Cts/S					
Avg	179.33					
#1	179.45					
#2	179.20					

Method: 2010A      Sample Name: RB      Operator: JC  
 Comment:            (203476) (060410A)  
 Run Time: 06/04/10 11:16 Type: Unk      Mode: CONC      Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031	-.0047	.0082	.00044	.00003	.0006
#1	.0023	-.0061	.0072	.00038	.00006	.0006
#2	.0039	-.0033	.0092	.00050	.00000	.0005
Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-.0037	.0007	-.0012	-.0003	.0206
#1	.0005	-.0058	.0011	-.0010	.0005	.0373
#2	.0004	-.0015	.0004	-.0015	-.0012	.0039
Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048	.00018	.00026	-.0002	-.0001	-.0161
#1	.0031	.00021	.00028	-.0001	-.0006	-.0234
#2	.0066	.00015	.00024	-.0004	.0004	-.0089
Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0119	-.0015	-.0022	.0013	-.0021	-.0011
#1	-.0156	.0000	-.0040	.0004	-.0020	-.0007
#2	-.0082	-.0030	-.0003	.0021	-.0021	-.0015
Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059	.0009	-.00108	.0067	.00062	-.00007
#1	-.0023	.0017	-.00096	.0221	.00084	-.00009
#2	.0140	.0000	-.00119	-.0086	.00040	-.00004
Int. Std.	Sc3572					
Units	Cts/S					
Avg	179.77					
#1	180.34					
#2	179.19					

Method: 2010A Sample Name: CCVB

Operator:

Comment:

Run Time: 06/04/10 11:19 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.134	.0096	.0018	2.5453	.05104	-.0144
Stddev	.016	.0159	.0046	.0094	.00032	.0005
%RSD	.3181	165.2	259.6	.37097	.62657	3.128

#1	5.122	.0208	-.0015	2.5520	.05126	-.0147
#2	5.146	-.0016	.0051	2.5387	.05081	-.0141

Check ?	QC Pass	None	None	QC Pass	QC Pass	None
Value	5.000			2.5000	.05000	
Range	10.00%			10.000%	10.000%	

Elem	Cd2265	Ca2112	Cr2677	Co2286	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026	25.68	.0025	-.0002	-.0027	25.27
Stddev	.0005	.26	.0018	.0009	.0006	.09
%RSD	18.72	1.021	72.15	449.7	21.44	.3369

#1	.0029	25.49	.0038	.0004	-.0023	25.33
#2	.0022	25.87	.0012	-.0008	-.0031	25.21

Check ?	None	QC Pass	None	None	None	QC Pass
Value		25.00				25.00
Range		10.00%				10.00%

Elem	Pb2203	Mg2025	Mn2939	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	25.60	5.063	-.0020	-.0051	10.07
Stddev	.0001	.01	.021	.0019	.0011	.05
%RSD	18.06	.0422	.4162	95.29	20.94	.5243

#1	-.0004	25.60	5.078	-.0034	-.0058	10.11
#2	-.0006	25.61	5.049	-.0007	-.0043	10.04

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		25.00	5.000			10.00
Range		10.00%	10.00%			10.00%

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0071	.0012	9.865	-.0012	.0002	.0020
Stddev	.0011	.0007	.177	.0098	.0048	.0001
%RSD	14.89	60.99	1.792	796.9	2030.	5.360

#1	-.0064	.0007	9.990	-.0082	-.0031	.0021
#2	-.0079	.0017	9.740	.0057	.0036	.0019

Check ?	None	None	QC Pass	None	None	None
Value			10.00			
Range			10.00%			

Sample Name: CCVB Run Time: 06/04/10 11:19

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.29	2.566	.00126	-.0112	.50698	.51297
Stddev	.03	.002	.00115	.0162	.00415	.00443
%RSD	.3140	.0803	90.859	145.0	.81851	.86452
#1	10.26	2.568	.00207	.0003	.50991	.51611
#2	10.31	2.565	.00045	-.0227	.50404	.50983
Check ?	QC Pass	QC Pass	None	None	QC Pass	QC Pass
Value	10.00	2.500			.50000	.50000
Range	10.00%	10.00%			10.000%	10.000%
Int. Std.	Sc3572					
Units	Cts/S					
Avg	178.59					
Stddev	1.53					
%RSD	.85578					
#1	177.51					
#2	179.67					



Method: 2010A

Sample Name: CCVA

Operator:

Comment:

Run Time: 06/04/10 11:22 Type: QC

Mode: CONC

Corr.Fact: 1.000000

Elem	Al2373	Sb2068	As1890	Ba2335	Be3130	B_2497
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4681	2.474	2.461	.46631	.53825	.5085
Stddev	.0108	.013	.040	.00148	.00065	.0036
%RSD	2.317	.5110	1.643	.31736	.12138	.7176

#1	.4758	2.465	2.490	.46526	.53779	.5059
#2	.4605	2.483	2.433	.46735	.53871	.5111

Check ?	None	QC Pass	QC Pass	None	None	QC Pass
Value		2.500	2.500			.5000
Range		10.00%	10.00%			10.00%

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4999	2.550	.4979	.4997	.4970	.5198
Stddev	.0007	.004	.0027	.0028	.0068	.0149
%RSD	.1395	.1760	.5515	.5580	1.371	2.872

#1	.5004	2.547	.4960	.4978	.4921	.5304
#2	.4994	2.553	.4999	.5017	.5018	.5092

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	2.500	.5000	.5000	.5000	.5000
Range	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

Elem	Pb2203	Mg2795	Mn2576	Mo2020	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.485	2.0297	.97472	.9904	.5000	4.957
Stddev	.009	.0021	.00286	.0108	.0014	.035
%RSD	.3406	.10094	.29379	1.088	.2752	.7028

#1	2.479	2.0282	.97270	.9828	.4990	4.933
#2	2.491	2.0311	.97675	.9980	.5010	4.982

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	None
Value	2.500	2.0000	1.0000	1.000	.5000	
Range	10.00%	10.000%	10.000%	10.00%	10.00%	

Elem	Se1960	Ag3280	Na5895	Sn1899	V_3102	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.530	.5019	.4721	2.471	.4958	.4996
Stddev	.002	.0005	.0051	.019	.0054	.0018
%RSD	.0626	.0932	1.084	.7698	1.094	.3665

#1	2.531	.5022	.4685	2.485	.4920	.4983
#2	2.529	.5016	.4757	2.458	.4996	.5009

Check ?	QC Pass	QC Pass	None	QC Pass	QC Pass	QC Pass
Value	2.500	.5000		2.500	.5000	.5000
Range	10.00%	10.00%		10.00%	10.00%	10.00%

Sample Name: CCVA Run Time: 06/04/10 11:22

Elem	P_2149	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0101	.2663	.49638	4.880	.00106	.00188
Stddev	.0069	.0010	.00036	.062	.00041	.00003
%RSD	68.69	.3576	.07345	1.265	38.625	1.6174

#1	-.0052	.2669	.49612	4.837	.00135	.00190
#2	-.0149	.2656	.49663	4.924	.00077	.00186

Check ?	None	None	QC Pass	QC Pass	None	None
Value			.50000	5.000		
Range			10.000%	10.00%		

Int. Std.	Sc3572
Units	Cts/S
Avg	183.08
Stddev	.43
%RSD	.23323

#1	182.78
#2	183.38

Method: 2010A	Sample Name: CCB	Operator:			
Comment:					
Run Time: 06/04/10 11:25	Type: QC	Mode: CONC	Corr.Fact: 1.000000		
Elem	Al2373	Sb2068	As1890	Ba2335	Be3130
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0101	.0024	.0030	.00048	.00011
Stddev	.0154	.0027	.0005	.00000	.00002
%RSD	152.3	115.9	15.85	.66521	15.892
#1	-.0209	.0043	.0033	.00048	.00010
#2	.0008	.0004	.0026	.00048	.00012
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0500	±.0500	±.1000	±.00500	±.00500
Elem	B_2497	Cd2265	Ca3179	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0005	.0051	.0014	.0000
Stddev	.0006	.0002	.0003	.0013	.000
%RSD	478.4	34.94	6.748	90.06	872.6
#1	.0005	.0007	.0054	.0005	-.0002
#2	-.0003	.0004	.0049	.0023	.0002
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0500	±.0050	±.0500	±.0050	±.0100
Elem	Cu3247	Fe2599	Pb2203	Mg2795	Mn2576
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0003	.0060	.0010	.00498	.00096
Stddev	.0026	.0003	.0006	.00003	.00003
%RSD	777.4	4.703	62.97	.61322	3.4511
#1	.0015	.0062	.0015	.00496	.00093
#2	-.0022	.0058	.0006	.00501	.00098
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.00000	.00000
Range	±.0100	±.0200	±.0500	±.02000	±.00500
Elem	Mo2020	Ni2316	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.0001	.0001	.0045	-.0003
Stddev	.0035	.0011	.0142	.0095	.0019
%RSD	286.0	1007.	10310.	212.2	567.2
#1	.0037	.0009	.0102	-.0022	-.0017
#2	-.0013	-.0007	-.0099	.0112	.0010
Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.0100	±.0200	±.4000	±.1000	±.0100

Sample Name: CCB Run Time: 06/04/10 11:25

Elem	Na5895	Sn1899	V_3102	Zn2062	P_2149
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0045	.0083	.0001	.0008	.0072
Stddev	.0078	.0055	.0018	.0002	.0123
%RSD	172.1	65.95	3020.	26.11	171.7

#1	-.0100	.0044	.0013	.0006	-.0015
#2	.0010	.0122	-.0012	.0009	.0159

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.0000	.0000	.0000	.0000
Range	±.2000	±.0500	±.0100	±.0100	±.2000

Elem	Si2516	Ti3234	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0025	-.00024	.0068	.00058	.00004
Stddev	.0013	.00243	.0137	.00001	.00002
%RSD	49.31	1004.0	201.0	2.0692	46.679

#1	-.0017	.00148	.0165	.00057	.00006
#2	-.0034	-.00196	-.0029	.00059	.00003

Check ?	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.0000	.00000	.0000	.00000	.00000
Range	±.2000	±.01000	±.2000	±.01000	±.01000

Int. Std.	Sc3572
Units	Cts/S
Avg	179.09
Stddev	.18
%RSD	.10171

#1	178.96
#2	179.22

Service Request # K1005067 BQL  
Instrument ID# K-ICP-AES-03

## ICP-OES Data Review Form

	Yes	No
1. Standardization completed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. ICV within 10 % of true value	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. ICB below MRL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. CRI standard analyzed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. ICS standards within 20% of true value	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. All preceding CCVs within 10 % of true value	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Following CCV within 10 % of true value	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Bracketing CCBs below MRL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Method Blank below MRL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. MS-MSD or Dup-MS and LCS within CAS control limits	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. All analytes within instrument linear range	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Adequate rinse out time allowed between samples to eliminate memory effect	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments:

StarLIMS Run # 203750      Saved under 060710DICP03  
NR LL Al, Ca, Fe, Mg. NR Cu2247.  
Report Al3944, Ca3158, Cu3273, Mg2852, Zn2062.

Primary Review by mmr      Date 6/8/10

Secondary Review by SL      Date 6/8/10

Sample Name: BLK      Acquired: 6/7/2010 18:24:28      Type: Cal

Method: 2010b2007(v6)      Mode: IR      Corr. Factor: 1.000000

Jser: admin      :      :      :

Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0021	-42.14	2.778	3.417	.0077	1.7999	R 29.85
Stddev	.0004	18.15	1.002	.207	.0009	2.3336	2.83
%RSD	16.93	43.08	36.07	6.055	11.10	129.65	9.487

#1	.0019	-29.30	2.069	3.563	.0083	3.4500	27.85
#2	.0024	-54.97	3.486	3.271	.0071	.14979	31.86

Elem	Cd2144	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.0009	-.0001	2.428	.0019	.0826	.0001	.0005
Stddev	.0004	.0001	1.088	.0002	.0019	.0000	.0001
%RSD	49.04	155.3	44.82	11.30	2.315	24.14	17.45

#1	-.0006	-.0002	1.658	.0018	.0839	.0001	.0006
#2	-.0012	.0000	3.197	.0021	.0812	.0001	.0005

Elem	Cu2247	Cu3273	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.0023	43.77	.0019	.0010	.0001	.0370	R 44.88
Stddev	.0001	1.81	.0002	.0005	.0001	.0008	1.27
%RSD	5.754	4.135	8.617	49.94	121.4	2.155	2.840

#1	-.0024	45.05	.0020	.0007	.0000	.0376	45.78
#2	-.0022	42.49	.0018	.0014	.0002	.0365	43.97

Elem	Mn2576	Mn2605	Mo2020	Ni2216	K_7664	Se1960	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0001	.0000	.0001	.0002	147.5	1.280	-28.61
Stddev	.0000	.0000	.0001	.0003	5.5	.293	18.01
%RSD	37.18	2.995	107.5	104.8	3.703	22.92	62.95

#1	.0001	.0000	.0002	.0001	143.6	1.487	-41.35
#2	.0000	.0000	.0000	.0004	151.3	1.072	-15.88

Sample Name: BLK      Acquired: 6/7/2010 18:24:28      Type: Cal  
 Method: 2010b2007(v6)      Mode: IR      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Jnits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	46.03	.0024	.0002	.0003	7.101	2.261	23.11
Stddev	38.50	.0011	.0001	.0008	1.508	2.040	2.23
%RSD	83.64	47.04	28.27	278.0	21.24	90.19	9.650

#1	73.25	.0016	.0003	.0009	6.034	.8192	21.53
#2	18.80	.0032	.0002	-.0003	8.167	3.704	24.69

Elem	Ti3361	Ti1908	Li6707	Sr4077
Jnits	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0018	-.0061	-51.77	-.00187
Stddev	.0000	.0005	18.07	.00031
%RSD	2.189	7.458	34.90	16.543

#1	.0019	-.0064	-64.55	-.00165
#2	.0018	-.0058	-38.99	-.00208

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 u/s/10*

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9953.0	224540.	18394.	914.13
Stddev	12.9	110.	121.	1.24
%RSD	.12942	.04907	.65599	.13588

#1	9962.1	224620.	18308.	915.01
#2	9943.9	224460.	18479.	913.26

Sample Name: STD A      Acquired: 6/7/2010 18:27:39      Type: Cal  
 Method: 2010b2007(v6)      Mode: IR      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D ICP7-44-B

Elem	Al1670	Sb2068	Be2348	B_2496	Cd2144	Cd2265	Cd2288
Jnits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.2383	537.4	64144.	R 4004.	19.74	1.617	7724.
Stddev	.0008	.8	165.	12.	.00	.003	2.
%RSD	.3198	.1529	.25695	.2919	.0202	.1847	.0201

#1	.2377	538.0	64027.	3995.	19.74	1.615	7725.
#2	.2388	536.9	64260.	4012.	19.74	1.620	7723.

Elem	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Pb2203	Mg2795
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.409	.0681	.4992	2.823	14450.	1.319	2.998
Stddev	.037	.0001	.0005	.008	17.	.002	.013
%RSD	.4445	.1003	.1101	.2771	.1181	.1357	.4395

#1	8.383	.0681	.4988	2.828	14440.	1.321	2.988
#2	8.436	.0680	.4996	2.817	14460.	1.318	3.007

Elem	Mn2576	Mn2605	Mo2020	Ni2216	Se1960	Ag3280	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.3446	.0100	.3967	.5825	391.7	15950.	.8756
Stddev	.0007	.0001	.0017	.0015	1.0	69.	.0006
%RSD	.2122	.9987	.4288	.2490	.2631	.4347	.0661

#1	.3441	.0100	.3955	.5815	391.0	15900.	.8752
#2	.3451	.0099	.3979	.5836	392.5	16000.	.8760

Elem	V_2924	Zn2062	Zn2138	Ti3361	Ti1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0727	5.561	R 12140.	.2693	.7743
Stddev	.0003	.005	14.	.0006	.0015
%RSD	.3809	.0977	.1185	.2410	.1912

#1	.0725	5.565	12130.	.2689	.7753
#2	.0729	5.557	12150.	.2698	.7732



Sample Name: STD A      Acquired: 6/7/2010 18:27:39      Type: Cal  
Method: 2010b2007(v6)      Mode: IR      Corr. Factor: 1.000000  
Jser: admin      :      :      :  
Comment: 060710D ICP7-44-B

nt. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Jnits	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9879.7	223330.	18298.	914.50
Stddev	8.8	420.	94.	2.37
%RSD	.08953	.18797	.51283	.25919
#1	9886.0	223030.	18364.	912.82
#2	9873.4	223630.	18231.	916.18

Sample Name: STD B      Acquired: 6/7/2010 18:30:30      Type: Cal  
 Method: 2010b2007(v6)      Mode: IR      Corr. Factor: 1.000000  
 User: admin      :      :      :  
 Comment: 060710D ICP7-45-C

Elem	Al3944	As1890	Ba4554	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	R 150000.	1499.	R 81.17	2.237	2.708	.3813
Stddev	1189.	2.	.91	.008	.010	.0004
%RSD	.7926	.1018	1.121	.3678	.3540	.1067

#1	150900.	1498.	80.52	2.231	2.701	.3810
#2	149200.	1501.	81.81	2.243	2.715	.3815

Elem	Mg2852	K_7664	Na5895	P_2149	Si2516	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	R 91110.	16640.	45970.	12700.	11440.	34970.
Stddev	91.	8.	22.	17.	18.	21.
%RSD	.1002	.0497	.0473	.1342	.1568	.0610

#1	91050.	16640.	45960.	12690.	11450.	34950.
#2	91180.	16650.	45990.	12710.	11420.	34980.

Elem	Sr4077
Units	Cts/S
Avg	16.349
Stddev	.030
%RSD	.18447

#1	16.327
#2	16.370

Int. Std.	Y_2243	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S
Avg	9718.6	18079.	866.40
Stddev	8.8	74.	.01
%RSD	.09060	.41088	.00147

#1	9712.4	18131.	866.40
#2	9724.8	18026.	866.41

Sample Name: ICV1      Acquired: 6/7/2010 18:34:04      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D ICP7-48-A

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.007	4.935	2.435	2.522	5.050	.12564	.0008	1.251	1.230
Stddev	.010	.041	.002	.004	.064	.00003	.0008	.000	.002
%RSD	.2463	.8235	.0852	.1453	1.275	.02442	97.05	.0268	.1821
#1	4.000	4.906	2.437	2.519	5.004	.12567	.0014	1.252	1.228
#2	4.014	4.964	2.434	2.524	5.095	.12562	.0003	1.251	1.232

Check ?      None   Chk Pass   Chk Pass   Chk Pass   Chk Pass   Chk Pass      None   Chk Pass   Chk Pass  
 Value  
 Range

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.237	12.39	11.61	.4989	1.224	.6320	.6175	2.480	2.483
Stddev	.000	.10	.11	.0015	.001	.0003	.0009	.010	.002
%RSD	.0154	.7877	.9130	.2972	.0737	.0418	.1488	.4026	.0775
#1	1.237	12.32	11.54	.4979	1.224	.6318	.6168	2.473	2.481
#2	1.237	12.46	11.69	.5000	1.225	.6322	.6181	2.487	2.484

Check ?      Chk Pass   Chk Pass      None   Chk Pass   Chk Pass   Chk Pass   Chk Pass   Chk Pass   Chk Pass  
 Value  
 Range

Elem	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.47	11.83	12.52	1.229	1.255	2.010	1.218	12.62	2.484
Stddev	.17	.11	.01	.003	.007	.003	.002	.05	.000
%RSD	1.377	.9188	.0729	.2133	.5429	.1615	.1356	.3630	.0057
#1	12.35	11.76	12.53	1.227	1.250	2.007	1.217	12.59	2.484
#2	12.60	11.91	12.52	1.231	1.260	2.012	1.220	12.65	2.484

Check ?      Chk Pass      None   Chk Pass   Chk Pass   Chk Pass   Chk Pass   Chk Pass   Chk Pass   Chk Pass  
 Value  
 Range

Sample Name: ICV1      Acquired: 6/7/2010 18:34:04      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D ICP7-48-A

Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6230	12.51	.0005	1.254	1.253	1.223	-.0041	-.0038	2.021
Stddev	.0029	.02	.0005	.005	.000	.000	.0029	.0058	.002
%RSD	.4654	.1258	96.69	.3975	.0114	.0038	72.01	152.1	.0804
#1	.6209	12.52	.0001	1.250	1.253	1.223	-.0020	.0003	2.020
#2	.6250	12.50	.0008	1.257	1.253	1.223	-.0061	-.0080	2.022
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
Value Range									

Elem	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.510	.0028	.00075
Stddev	.003	.0011	.00010
%RSD	.1175	38.08	13.878
#1	2.512	.0020	.00083
#2	2.508	.0035	.00068

Check ?	Chk Pass	None	None
Value Range			

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9803.4	221110.	18324.	888.91
Stddev	8.0	312.	110.	1.15
%RSD	.08120	.14088	.60292	.12889
#1	9809.0	221330.	18402.	888.10
#2	9797.7	220890.	18246.	889.72

Sample Name: ICVB1      Acquired: 6/7/2010 18:38:05      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :      :  
 Comment: 060710D ICP7-43-D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9741	.9733	.0047	.0039	.0016	-.00010	1.987	-.0001
Stddev	.0006	.0007	.0004	.0004	.0001	.00001	.013	.0001
%RSD	.0666	.0670	8.411	10.89	8.812	13.729	.6449	92.86
#1	.9736	.9737	.0044	.0036	.0017	-.00011	1.978	-.0001
#2	.9746	.9728	.0050	.0042	.0015	-.00009	1.996	.0000
Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None
Value Range								

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0000	5.121	4.893	.0002	.0001	.0086	-.0004
Stddev	.0000	.0000	.018	.024	.0004	.0000	.0001	.0002
%RSD	5.690	142.3	.3587	.4946	256.4	26.30	1.366	55.51
#1	.0003	.0000	5.108	4.876	.0005	.0001	.0085	-.0002
#2	.0003	.0001	5.134	4.910	-.0001	.0001	.0086	-.0006
Check ?	None	None	None	Chk Pass	None	None	None	None
Value Range								

Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.877	.0011	4.991	4.882	5.017	9.378	10.07	.0005
Stddev	.042	.0005	.039	.033	.015	.004	.03	.0002
%RSD	.4199	44.59	.7787	.6757	.3025	.0385	.2854	42.69
#1	9.848	.0014	4.964	4.905	5.006	9.380	10.05	.0007
#2	9.907	.0007	5.019	4.859	5.028	9.375	10.09	.0004
Check ?	None	None	None	Chk Pass	None	None	None	None
Value Range								

Sample Name: ICVB1      Acquired: 6/7/2010 18:38:05      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Operator: admin  
 Comment: 060710D ICP7-43-D

Element	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0498	-.0001	-.0001	.0015	5.016	-.0117	-.0001
Stddev	.0000	.0741	.0015	.0007	.0105	.007	.0003	.0001
%RSD	10.33	148.7	1341.	491.6	717.9	.1498	2.555	121.7

1	.0004	-.0026	-.0012	.0004	.0089	5.022	-.0115	-.0002
2	.0004	.1022	.0009	-.0006	-.0060	5.011	-.0120	.0000

Check ?	None	None	None	None	None	Chk Pass	None	None
Value								
Range								

Element	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	5.051	5.077	.0004	-.0019	2.020	2.0277
Stddev	.0001	.001	.057	.0002	.0003	.006	.0007
%RSD	21.79	.0192	1.128	49.91	13.98	.2811	.03600

1	.0003	5.050	5.036	.0006	-.0021	2.016	2.0282
2	.0002	5.052	5.117	.0003	-.0017	2.024	2.0272

Check ?	None	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9806.0	220950.	18156.	898.26
Stddev	17.9	408.	30.	1.78
%RSD	.18213	.18451	.16269	.19764

#1	9818.6	220660.	18136.	897.00
#2	9793.3	221240.	18177.	899.51

Sample Name: ICB      Acquired: 6/7/2010 18:41:35      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0026	-.0011	-.0002	.0012	.0004	.00003	.0067	.0001
Stddev	.0001	.0002	.0006	.0012	.0002	.00001	.0003	.0000
%RSD	2.397	17.68	332.8	98.94	46.04	42.717	4.065	44.13

#1	-.0026	-.0012	-.0006	.0021	.0005	.00004	.0065	.0001
#2	-.0027	-.0010	.0002	.0004	.0003	.00002	.0068	.0000

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0020							
Low Limit	-.0020							

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	.0029	-.0011	-.0003	-.0002	-.0005	.0002
Stddev	.0000	.0001	.0013	.0001	.0001	.0000	.0004	.0005
%RSD	36.73	96.51	44.78	8.309	22.76	14.07	90.17	214.0

#1	.0000	.0001	.0020	-.0011	-.0003	-.0002	-.0008	-.0001
#2	.0001	.0000	.0038	-.0012	-.0002	-.0002	-.0002	.0006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0041	.0004	-.0138	F -.0029	-.0036	F .0010	.0020	.0001
Stddev	.0017	.0002	.0037	.0001	.0012	.0000	.0004	.0002
%RSD	42.23	58.97	26.90	3.791	31.91	4.249	19.15	230.6

#1	-.0029	.0005	-.0165	-.0029	-.0045	.0010	.0022	.0002
#2	-.0053	.0002	-.0112	-.0030	-.0028	.0009	.0017	.0000

Check ?	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				.0020		.0006		
Low Limit				-.0020		-.0006		

*Review  
 values  
 6/8/10*

Sample Name: ICB      Acquired: 6/7/2010 18:41:35      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0256	-.0002	-.0006	-.0165	-.0001	.0001	.0001
Stddev	.0003	.0211	.0011	.0001	.0075	.0001	.0003	.0001
%RSD	585.4	82.59	476.2	16.56	45.27	114.0	436.6	142.3

#1	.0003	.0106	-.0010	-.0007	-.0218	.0000	.0003	.0002
#2	-.0002	.0405	.0006	-.0005	-.0112	-.0002	-.0001	.0000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0023	-.0032	.0003	.0005	.0002	.00008
Stddev	.000	.0026	.0133	.0001	.0007	.0012	.00005
%RSD	152.6	113.0	411.4	17.84	130.5	497.2	59.287

#1	-.0001	.0005	-.0126	.0004	.0010	.0011	.00005
#2	.0000	.0042	.0062	.0003	.0000	-.0006	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9837.9	222470.	18182.	905.59
Stddev	.9	592.	126.	1.58
%RSD	.00879	.26622	.69130	.17493

#1	9837.3	222060.	18094.	904.47
#2	9838.5	222890.	18271.	906.71

*Sample  
6/18/10*



Sample Name: ICB      Acquired: 6/7/2010 18:44:31      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :      :  
 Comment: 060710D RERUN

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0039	-.0051	.0015	.0000	-.0001	.00005	.0017	.0000
Stddev	.0001	.0011	.0005	.000	.0002	.00000	.0003	.0000
%RSD	1.598	21.18	31.30	3317.	336.5	8.1457	15.82	23.22

#1	-.0039	-.0043	.0011	.0003	-.0002	.00006	.0019	.0000
#2	-.0038	-.0058	.0018	-.0003	.0001	.00005	.0015	.0000

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0020							
Low Limit	-.0020							

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0001	.0031	-.0029	-.0004	-.0001	-.0001	.0003
Stddev	.0001	.0000	.0010	.0000	.0005	.0000	.0002	.0001
%RSD	1089.	29.06	32.88	.0577	124.7	54.65	366.4	21.04

#1	.0000	.0002	.0024	-.0029	.0000	-.0001	-.0002	.0003
#2	.0000	.0001	.0038	-.0029	-.0007	.0000	.0001	.0004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0061	-.0003	-.0061	F -.0044	-.0045	.0006	.0001	.0000
Stddev	.0015	.0018	.0041	.0000	.0008	.0000	.0003	.0001
%RSD	25.51	593.4	67.90	.2542	17.22	.8137	346.0	254.0

#1	-.0050	.0010	-.0090	-.0044	-.0040	.0006	-.0001	.0001
#2	-.0072	-.0016	-.0032	-.0044	-.0051	.0006	.0003	.0000

Check ?	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0020				
Low Limit				-.0020				

Sample Name: ICB    Acquired: 6/7/2010 18:44:31    Type: QC  
 Method: 2010b2007(v6)    Mode: CONC    Corr. Factor: 1.000000  
 User: admin    :    :    :  
 Comment: 060710D RERUN

Elem	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	-.0205	-.0022	.0003	.0045	.0005	-.0001	-.0001
Stddev	.0001	.0516	.0002	.0003	.0081	.0003	.0004	.0001
%RSD	68.98	251.9	7.352	111.5	180.8	63.33	344.1	174.9

#1	-.0002	.0160	-.0023	.0005	-.0012	.0008	-.0004	.0000
#2	-.0001	-.0570	-.0021	.0001	.0102	.0003	.0002	-.0001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0051	-.0042	.0000	.0013	.0012	.00005
Stddev	.0001	.0025	.0038	.0001	.0007	.0012	.00005
%RSD	38.83	48.43	89.55	520.0	57.83	104.3	96.157

#1	-.0001	.0068	-.0015	.0001	.0018	.0003	.00002
#2	-.0002	.0033	-.0069	-.0001	.0007	.0020	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9840.6	222580.	18146.	902.94
Stddev	8.8	67.	98.	1.58
%RSD	.08919	.03024	.53801	.17531

#1	9846.8	222530.	18077.	904.06
#2	9834.4	222630.	18215.	901.82

Sample Name: CCVA1      Acquired: 6/7/2010 18:47:20      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2462	.2369	.2487	.2511	.2523	.24889	.2507	.2465	.2463
Stddev	.0003	.0006	.0010	.0033	.0007	.00058	.0020	.0009	.0001
%RSD	.1173	.2453	.4076	1.308	.2712	.23149	.7952	.3450	.0607
#1	.2458	.2364	.2482	.2492	.2527	.24848	.2496	.2456	.2464
#2	.2463	.2377	.2494	.2558	.2516	.24896	.2535	.2460	.2463
#3	.2461	.2368	.2496	.2485	.2518	.24843	.2490	.2475	.2462
#4	.2465	.2365	.2474	.2510	.2530	.24967	.2508	.2467	.2466

Check ?	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Value	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Range									

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2497	.2426	.2427	.2459	.2463	.2462	.2486	.2422	.2446
Stddev	.0002	.0034	.0006	.0011	.0003	.0008	.0006	.0013	.0015
%RSD	.0611	1.383	.2670	.4400	.1170	.3185	.2299	.5467	.6258
#1	.2498	.2465	.2427	.2472	.2460	.2458	.2478	.2419	.2442
#2	.2498	.2393	.2418	.2451	.2463	.2458	.2490	.2423	.2442
#3	.2495	.2403	.2431	.2449	.2466	.2474	.2486	.2438	.2468
#4	.2496	.2442	.2432	.2462	.2464	.2458	.2489	.2406	.2433

Check ?	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Value	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Range									

Sample Name: CCVA1      Acquired: 6/7/2010 18:47:20      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Elem	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216	K_7664	Se1960
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2452	.2423	.2451	.2463	.2473	.2458	.2472	2.534	.2505
Stddev	.0100	.0004	.0027	.0009	.0009	.0004	.0003	.054	.0010
%RSD	4.085	.1805	1.107	.3712	.3738	.1679	.1329	2.115	.4023
#1	.2398	.2424	.2415	.2466	.2466	.2460	.2473	2.571	.2507
#2	.2516	.2418	.2452	.2450	.2466	.2453	.2468	2.523	.2494
#3	.2555	.2421	.2453	.2464	.2485	.2456	.2472	2.463	.2501
#4	.2341	.2429	.2482	.2472	.2474	.2462	.2476	2.580	.2518

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2494	.2250	.2453	.2471	.2462	.2503	.0015	.1263	.2461
Stddev	.0007	.0036	.0011	.0007	.0008	.0002	.0022	.0016	.0004
%RSD	.2750	1.615	.4493	.2768	.3223	.0682	142.8	1.270	.1781
#1	.2484	.2215	.2459	.2476	.2456	.2503	.0000	.1242	.2465
#2	.2501	.2236	.2449	.2462	.2455	.2504	-.0001	.1274	.2461
#3	.2494	.2301	.2464	.2469	.2472	.2500	.0017	.1257	.2455
#4	.2496	.2247	.2439	.2476	.2464	.2503	.0046	.1277	.2463

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
Value									
Range									

Sample Name: CCVA1      Acquired: 6/7/2010 18:47:20      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Element	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2465	-.0005	.00003
Stddev	.0011	.0010	.00005
%RSD	.4578	180.8	194.31

1	.2465	.0007	.00009
2	.2449	-.0012	-.00003
3	.2475	-.0014	.00003
4	.2470	-.0003	.00001

Check ?	Chk Pass	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10002.	225820.	18472.	927.81
Stddev	17.	586.	39.	3.63
%RSD	.17377	.25967	.21068	.39076
1	10020.	225050.	18431.	931.04
2	10011.	226350.	18499.	929.36
3	9981.0	225690.	18511.	922.67
4	9995.6	226190.	18447.	928.17

Sample Name: CCVB1      Acquired: 6/7/2010 18:56:22      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.594	9.909	.0026	1.003	10.19	.00003	.0031	-.0001	.0001
Stddev	.009	.068	.0013	.002	.14	.00002	.0013	.0000	.0000
%RSD	.1352	.6870	52.40	.1494	1.363	59.175	41.48	31.76	50.32
#1	6.590	9.899	.0034	1.003	10.38	.00001	.0018	-.0001	.0001
#2	6.583	9.966	.0036	1.001	10.13	.00003	.0029	-.0001	.0000
#3	6.599	9.817	.0007	1.002	10.06	.00002	.0049	-.0001	.0002
#4	6.603	9.954	.0024	1.005	10.18	.00005	.0027	-.0002	.0001

Check ?      None Chk Pass      None Chk Pass      Chk Pass      None      None      None      None  
 Value  
 Range

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045	10.04	9.523	-.0005	.0001	.0085	-.0001	10.01	.0007
Stddev	.0000	.02	.049	.0002	.0001	.0003	.0002	.03	.0008
%RSD	1.098	.2146	.5095	47.16	135.9	3.661	202.9	.2679	110.1
#1	.0045	10.04	9.574	-.0003	.0000	.0086	.0001	10.03	.0017
#2	.0045	10.04	9.493	-.0006	.0001	.0088	.0001	10.04	.0006
#3	.0046	10.01	9.554	-.0003	.0001	.0084	-.0003	9.979	.0007
#4	.0046	10.06	9.473	-.0008	.0000	.0081	-.0003	10.00	-.0002

Check ?      None Chk Pass      None      None      None      None      None Chk Pass      None  
 Value  
 Range

Sample Name: CCVB1      Acquired: 6/7/2010 18:56:22      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Operator: admin      :      :  
 Comment: 060710D

Element	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.05	9.719	9.905	.0004	-.0003	.0001	.0000	10.01	-.0015
Stddev	.04	.064	.087	.0000	.0006	.0001	.000	.06	.0006
%RSD	.3676	.6579	.8760	9.246	170.7	229.5	31230.	.6483	39.87
1	10.00	9.798	9.811	.0003	-.0011	.0002	-.0001	9.980	-.0013
2	10.06	9.735	9.874	.0004	-.0003	-.0001	.0001	10.05	-.0022
3	10.05	9.646	10.02	.0004	.0003	.0002	-.0001	10.09	-.0018
4	10.09	9.698	9.916	.0004	-.0003	.0000	.0001	9.944	-.0008

Check ?	Value	Range
1	10.00	9.798 - 9.811
2	10.06	9.735 - 9.874
3	10.05	9.646 - 10.02
4	10.09	9.698 - 9.916

Element	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	9.888	-.0002	.0002	-.0002	-.0002	10.06	9.931	.0003
Stddev	.0003	.078	.0004	.0003	.0001	.0001	.02	.077	.0001
%RSD	72.70	.7845	180.5	167.2	45.79	32.23	.1825	.7746	48.66
1	-.0008	9.808	-.0005	-.0002	-.0004	-.0002	10.06	9.858	.0001
2	-.0003	9.847	.0000	.0005	-.0001	-.0001	10.06	9.898	.0003
3	-.0001	9.985	.0002	.0002	-.0003	-.0002	10.09	10.04	.0004
4	-.0006	9.911	-.0007	.0003	-.0002	-.0001	10.04	9.929	.0002

Check ?	Value	Range
1	-.0008	9.808 - 9.811
2	-.0003	9.735 - 9.874
3	-.0001	9.646 - 10.02
4	-.0006	9.698 - 9.916

Sample Name: CCVB1      Acquired: 6/7/2010 18:56:22      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Tl1908	Li6707	Sr4077
Jnits	ppm	ppm	ppm
Avg	.0006	.9835	1.0096
Stddev	.0004	.0048	.0014
%RSD	78.50	.4867	.13441

#1	.0001	.9771	1.0086
#2	.0006	.9838	1.0104
#3	.0012	.9887	1.0083
#4	.0004	.9843	1.0110

Check ?      None    Chk Pass    Chk Pass  
 Value  
 Range

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9749.2	219490.	17917.	884.74
Stddev	3.1	1083.	118.	1.93
%RSD	.03171	.49322	.65892	.21859
#1	9745.0	219390.	17812.	883.96
#2	9752.3	219970.	17869.	882.71
#3	9749.2	218030.	18085.	885.01
#4	9750.3	220560.	17900.	887.27



Sample Name: CCB1      Acquired: 6/7/2010 19:24:23      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0039	-.0051	.0006	.0019	-.0003	.00002	.0009	.0000
Stddev	.0000	.0017	.0005	.0009	.0000	.00001	.0007	.0000
%RSD	1.207	32.23	92.45	50.17	11.30	75.384	69.12	9.560
#1	-.0039	-.0040	.0009	.0012	-.0003	.00003	.0014	.0000
#2	-.0039	-.0063	.0002	.0026	-.0003	.00001	.0005	.0000

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0020							
Low Limit	-.0020							

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	.0008	-.0029	-.0003	-.0002	-.0002	.0004
Stddev	.0001	.000	.0023	.0001	.0002	.0001	.0003	.0002
%RSD	424.9	281.5	291.2	2.523	73.81	55.44	122.5	40.51
#1	-.0001	-.0001	-.0008	-.0029	-.0004	-.0001	.0000	.0003
#2	.0001	.0000	.0024	-.0030	-.0001	-.0003	-.0004	.0005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0043	.0006	-.0097	F -.0053	-.0066	.0001	.0004	-.0001
Stddev	.0027	.0004	.0022	.0001	.0003	.0000	.0005	.0001
%RSD	64.30	69.55	22.57	2.168	4.072	5.601	114.6	43.31
#1	-.0062	.0010	-.0081	-.0052	-.0064	.0001	.0008	-.0001
#2	-.0023	.0003	-.0112	-.0053	-.0068	.0001	.0001	-.0002

Check ?	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0020				
Low Limit				-.0020				

Sample Name: CCB1      Acquired: 6/7/2010 19:24:23      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Elem	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	-.0079	-.0022	-.0001	-.0175	-.0001	.0002	.0000
Stddev	.0000	.0065	.0007	.0002	.0136	.0001	.0001	.0000
%RSD	21.59	82.09	33.49	180.1	77.53	86.73	52.16	123.5
#1	-.0001	-.0125	-.0028	.0000	-.0271	-.0002	.0002	.0000
#2	-.0001	-.0033	-.0017	-.0003	-.0079	.0000	.0001	.0000

Check ?      Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass  
 High Limit  
 Low Limit

Elem	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0028	.0001	.0000	.0007	-.0005	.00000
Stddev	.0000	.0032	.0141	.000	.0007	.0005	.00007
%RSD	40.26	113.8	17410.	67.60	98.53	103.5	2293.2
#1	-.0001	.0006	-.0099	.0000	.0012	-.0008	-.00004
#2	-.0001	.0051	.0101	.0000	.0002	-.0001	.00005

Check ?      Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass  
 High Limit  
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9838.3	222030.	18072.	913.94
Stddev	14.6	1071.	138.	2.24
%RSD	.14873	.48237	.76273	.24466
#1	9848.6	221270.	17975.	915.52
#2	9828.0	222790.	18170.	912.36

Sample Name: CRI      Acquired: 6/7/2010 19:26:49      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :      :  
 Comment: 060710D ICP7-41-A

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0478	.0429	.0510	.0986	.0057	.00471	.0484	.0051
Stddev	.0003	.0007	.0002	.0001	.0001	.00004	.0001	.0000
%RSD	.5719	1.556	.4782	.0894	1.653	.89276	.2787	.7935
#1	.0476	.0424	.0508	.0986	.0058	.00474	.0483	.0050
#2	.0480	.0433	.0511	.0987	.0056	.00469	.0485	.0051

Check ?      None   Chk Pass   Chk Pass   Chk Pass   Chk Pass   Chk Pass   Chk Pass   Chk Pass  
 Value  
 Range

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051	.0057	.0530	.0470	.0049	.0100	.0095	.0090
Stddev	.0001	.0001	.0092	.0002	.0001	.0001	.0000	.0001
%RSD	1.718	1.347	17.26	.4166	1.852	1.173	.0613	1.284
#1	.0051	.0057	.0466	.0468	.0048	.0099	.0095	.0091
#2	.0050	.0056	.0595	.0471	.0050	.0100	.0095	.0089

Check ?      Chk Pass   Chk Pass   Chk Pass      None   Chk Pass   Chk Pass   Chk Pass   Chk Pass  
 Value  
 Range

Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0134	.0467	.0126	.0146	F .0131	.0050	.0057	.0094
Stddev	.0011	.0002	.0027	.0001	.0010	.0000	.0008	.0001
%RSD	8.359	.3234	21.41	.5274	7.463	.6384	13.18	1.577
#1	.0126	.0466	.0145	.0146	.0124	.0050	.0063	.0095
#2	.0142	.0468	.0107	.0147	.0138	.0050	.0052	.0093

Check ?      Chk Fail   Chk Pass      None      None   Chk Fail   Chk Pass      None   Chk Pass  
 Value  
 Range      .0200      -20.00%      .0200      -20.00%

*\* Chk Pass for Non-DOD work 6/8/10*

Sample Name: CRI      Acquired: 6/7/2010 19:26:49      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :      :  
 Comment: 060710D ICP7-41-A

Elem	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0193	.3946	.0971	.0094	.1690	.0480	.0096	.0094
Stddev	.0002	.0491	.0003	.0003	.0013	.0012	.0005	.0001
%RSD	.8551	12.44	.3583	2.818	.7684	2.427	5.428	.9951
#1	.0192	.3599	.0968	.0096	.1681	.0471	.0100	.0094
#2	.0194	.4293	.0973	.0092	.1699	.0488	.0092	.0095

Check ?      Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass  
 Value  
 Range

Elem	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096	.1992	.3841	.0099	.1904	.0100	.00975
Stddev	.0000	.0029	.0055	.0001	.0001	.0006	.00008
%RSD	.1233	1.464	1.438	.7106	.0372	5.767	.85331
#1	.0096	.2012	.3880	.0099	.1903	.0096	.00969
#2	.0096	.1971	.3802	.0098	.1904	.0104	.00981

Check ?      Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass    Chk Pass  
 Value  
 Range

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9852.1	221100.	17936.	924.01
Stddev	18.6	333.	19.	3.94
%RSD	.18859	.15081	.10569	.42642
#1	9865.3	221340.	17949.	926.80
#2	9839.0	220860.	17923.	921.23

Sample Name: CRI      Acquired: 6/7/2010 19:29:49      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :      :  
 Comment: 060710D ICAP ICP7-39-B 0.1/10

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0012	-.0008	.0099	.0110	.0019	.00017	.0109	.0005
Stddev	.0001	.0029	.0006	.0010	.0001	.00000	.0010	.0000
%RSD	6.833	369.1	6.076	8.966	7.539	1.9535	9.581	5.852

#1	-.0011	.0013	.0095	.0103	.0020	.00018	.0102	.0006
#2	-.0013	-.0029	.0104	.0117	.0018	.00017	.0116	.0005

Check ?	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.0020							
Range	-50.00%							

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0007	.0040	F .0019	.0018	.0008	.0020	.0022
Stddev	.0000	.0001	.0003	.0001	.0002	.0002	.0002	.0005
%RSD	2.950	10.85	8.482	3.278	11.16	21.44	10.88	20.70

#1	.0005	.0008	.0037	.0020	.0017	.0007	.0022	.0019
#2	.0006	.0007	.0042	.0019	.0019	.0009	.0019	.0026

Check ?	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0040				
Range				-50.00%				

Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0028	.0094	-.0040	F -.0029	-.0026	.0006	.0011	.0020
Stddev	.0025	.0009	.0093	.0001	.0001	.0000	.0004	.0003
%RSD	90.87	9.294	230.7	2.055	3.895	3.702	36.38	17.09

#1	.0046	.0100	.0025	-.0028	-.0026	.0007	.0008	.0018
#2	.0010	.0088	-.0106	-.0029	-.0027	.0006	.0014	.0022

Check ?	Chk Fail	Chk Pass	None	Chk Fail	None	Chk Pass	None	Chk Pass
Value	.0100			.0020				
Range	-50.00%			-50.00%				

Sample Name: CRI      Acquired: 6/7/2010 19:29:49      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :      :  
 Comment: 060710D ICAP ICP7-39-B 0.1/10

Elem	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021	.0881	.0172	.0019	.1652	.0093	.0022	.0019
Stddev	.0001	.0229	.0006	.0001	.0113	.0004	.0000	.0000
%RSD	5.273	26.02	3.693	3.852	6.865	4.298	.2610	2.031

#1	.0022	.1043	.0167	.0019	.1572	.0090	.0022	.0019
#2	.0021	.0719	.0176	.0018	.1732	.0096	.0022	.0019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019	.0227	.0457	.0010	.0108	.0093	.00033
Stddev	.0000	.0008	.0054	.0000	.0001	.0011	.00008
%RSD	1.259	3.307	11.80	3.576	.8551	11.80	23.824

#1	.0020	.0222	.0495	.0010	.0107	.0100	.00027
#2	.0019	.0233	.0418	.0010	.0108	.0085	.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9750.4	219950.	17813.	910.39
Stddev	12.7	488.	84.	3.90
%RSD	.13005	.22176	.47125	.42826

#1	9759.4	220300.	17754.	913.14
#2	9741.5	219610.	17873.	907.63

Sample Name: ICSA      Acquired: 6/7/2010 19:32:16      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :      :  
 Comment: 060710D ICP7-43-B

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.61	437.2	.0217	-.0101	.0008	-.00051	.0172	-.0025
Stddev	.04	2.7	.0002	.0006	.0003	.00001	.0004	.0002
%RSD	.2481	.6279	.8387	5.787	35.14	1.1613	2.261	8.662
#1	15.58	439.2	.0218	-.0097	.0006	-.00051	.0175	-.0023
#2	15.64	435.3	.0216	-.0105	.0010	-.00050	.0170	-.0026
Check ?	None	Chk Pass	None	None	None	None	None	None
Value Range								
Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033	-.0013	468.3	*****	-.0005	-.0016	.1653	.0001
Stddev	.0000	.0003	2.4	----	.0003	.0000	.0004	.0008
%RSD	1.451	21.65	.5164	----	53.86	1.007	.2439	754.6
#1	.0034	-.0011	466.6	----	-.0003	-.0016	.1650	-.0004
#2	.0033	-.0015	470.0	----	-.0008	-.0016	.1656	.0006
Check ?	None	None	Chk Pass	None	None	None	None	None
Value Range								
Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	180.8	.0056	514.0	*****	415.9	.0178	.0029	.0002
Stddev	1.3	.0005	.9	----	3.0	.0001	.0010	.0006
%RSD	.7006	8.382	.1699	----	.7319	.8434	35.51	237.9
#1	179.9	.0053	513.4	----	413.8	.0179	.0021	.0006
#2	181.7	.0059	514.6	----	418.1	.0177	.0036	-.0002
Check ?	Chk Pass	None	Chk Pass	None	None	None	None	None
Value Range								

Sample Name: ICSA      Acquired: 6/7/2010 19:32:16      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D ICP7-43-B

Elem	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027	-.0213	-.0127	-.0002	.0210	.0020	.0010	-.0037
Stddev	.0001	.0044	.0033	.0004	.0146	.0000	.0001	.0001
%RSD	2.744	20.89	26.20	220.7	69.79	2.080	6.053	2.228
#1	.0026	-.0244	-.0150	.0001	.0106	.0019	.0010	-.0037
#2	.0027	-.0182	-.0103	-.0004	.0313	.0020	.0011	-.0038
Check ?	None	None	None	None	None	None	None	None
Value Range								

Elem	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0018	.0252	-.0137	.0040	-.0017	-.0009	-.00087
Stddev	.0001	.0004	.0065	.0001	.0031	.0012	.00021
%RSD	4.161	1.613	47.68	1.766	181.4	132.2	24.152
#1	-.0017	.0249	-.0091	.0040	.0005	-.0018	-.00072
#2	-.0018	.0255	-.0183	.0041	-.0039	-.0001	-.00101
Check ?	None	None	None	None	None	None	None
Value Range							

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8947.7	196600.	17230.	763.56
Stddev	9.8	1961.	95.	2.11
%RSD	.10987	.99766	.55062	.27663
#1	8940.8	197980.	17297.	762.07
#2	8954.7	195210.	17163.	765.06



Sample Name: ICSAB      Acquired: 6/7/2010 19:36:30      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :      :  
 Comment: 060710D ICP7-38-C

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.53	444.5	.9307	-.0061	.5199	.47961	.0148	.9856
Stddev	.04	.8	.0002	.0004	.0003	.00272	.0009	.0004
%RSD	.2833	.1871	.0217	7.183	.0565	.56733	6.355	.0414
#1	15.50	443.9	.9309	-.0058	.5197	.47769	.0155	.9859
#2	15.56	445.1	.9306	-.0064	.5201	.48154	.0141	.9853
Check ?	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass
Value Range								

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9023	.9016	473.4	*****	.4869	.4477	F .6471	.4656
Stddev	.0026	.0008	4.1	----	.0016	.0012	.0020	.0026
%RSD	.2900	.0864	.8699	----	.3243	.2739	.3154	.5666
#1	.9005	.9022	470.5	----	.4880	.4468	.6486	.4638
#2	.9042	.9011	476.4	----	.4857	.4486	.6457	.4675
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value Range							.5000 20.00%	

Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	180.8	.9664	521.7	*****	424.6	.4913	.5131	-.0001
Stddev	1.7	.0014	2.8	----	3.7	.0015	.0007	.0000
%RSD	.9311	.1469	.5428	----	.8774	.3122	.1425	38.64
#1	179.6	.9674	519.7	----	421.9	.4924	.5136	-.0001
#2	182.0	.9654	523.7	----	427.2	.4902	.5126	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	None
Value Range								

Sample Name: ICSAB      Acquired: 6/7/2010 19:36:30      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :      :  
 Comment: 060710D ICP7-38-C

Elem	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8815	-.1166	-.0165	.9714	-.0019	.0020	.4944	.9780
Stddev	.0030	.0458	.0032	.0033	.0124	.0010	.0009	.0022
%RSD	.3357	39.26	19.57	.3412	635.0	47.84	.1883	.2249
#1	.8794	-.0842	-.0188	.9691	.0068	.0027	.4951	.9796
#2	.8836	-.1489	-.0142	.9738	-.0107	.0013	.4938	.9765
Check ?	Chk Pass	None	None	Chk Pass	None	None	Chk Pass	Chk Pass
Value Range								

Elem	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8789	.0177	.0143	.0038	-.0032	-.0019	-.00668
Stddev	.0007	.0038	.0009	.0002	.0030	.0008	.00008
%RSD	.0831	21.17	5.951	5.728	92.98	40.55	1.2602
#1	.8784	.0204	.0149	.0039	-.0054	-.0025	-.00662
#2	.8794	.0151	.0137	.0036	-.0011	-.0014	-.00674
Check ?	Chk Pass	None	None	None	None	None	None
Value Range							

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8995.5	198490.	17365.	759.31
Stddev	15.3	1128.	58.	1.49
%RSD	.16981	.56835	.33600	.19652
#1	9006.3	197690.	17407.	758.26
#2	8984.7	199290.	17324.	760.37

Sample Name: RB      Acquired: 6/7/2010 19:43:14      Type: Unk  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0168	F .0179	.0011	.0001	F -.0002	.00007	F -.0004	.0000
#1	.0167	.0170	.0017	-.0002	-.0002	.00005	-.0004	.0000
#2	.0168	.0187	.0005	.0003	-.0003	.00008	-.0004	.0001

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	.0224	.0225	F -.0001	-.0003	.0001	.0007
#1	.0001	.0000	.0277	.0233	.0002	-.0004	.0003	.0007
#2	.0000	.0001	.0172	.0216	-.0003	-.0001	.0000	.0007

Elem	Fe2599	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0190	.0003	.0522	.0512	.0001	-.0001	.0001	F -.0409
#1	.0189	-.0005	.0512	.0513	.0000	-.0002	.0002	-.0205
#2	.0192	.0012	.0532	.0511	.0001	.0000	.0000	-.0614

Elem	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0010	.0001	F -.0375	-.0005	.0000	F .0002	F .0000	.0049
#1	-.0008	.0002	-.0386	-.0009	.0000	.0003	.0001	.0039
#2	-.0011	.0001	-.0363	.0000	-.0001	.0001	.0000	.0058

Elem	Si2516	Ti3361	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0045	.0000	.0002	-.0019	.00006
#1	.0035	.0001	.0004	-.0014	.00006
#2	-.0125	.0000	-.0001	-.0024	.00006

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10036.	225510.	18239.	920.18
#1	10038.	226130.	18301.	920.14
#2	10034.	224900.	18176.	920.21

Sample Name: K1005015-MB      Acquired: 6/7/2010 19:46:18      Type: Unk

Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000

Jser: admin      :      :      :

Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0105	.0125	.0014	.0000	-.0002	-.00001	.0017	.0000
#1	.0108	.0132	.0015	-.0002	-.0002	.00000	.0016	.0000
#2	.0102	.0119	.0013	.0002	-.0002	-.00003	.0017	.0000
Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	.0162	F .0138	-.0002	-.0001	.0000	-.0003
#1	.0001	.0003	.0196	.0140	-.0001	-.0002	.0001	-.0001
#2	.0001	.0000	.0128	.0136	-.0003	-.0001	.0000	-.0004
Elem	Fe2599	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0092	-.0005	F .0466	F .0448	.0001	.0000	.0001	-.1000
#1	.0091	-.0008	.0463	.0440	.0001	-.0001	.0002	-.1142
#2	.0093	-.0003	.0469	.0456	.0001	.0000	.0001	-.0857
Elem	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0010	.0000	-.0450	-.0003	-.0005	.0001	.0001	F .2854
#1	-.0002	-.0002	-.0498	-.0004	-.0004	.0002	.0001	.2857
#2	-.0018	.0002	-.0402	-.0002	-.0005	.0000	.0001	.2852
Elem	Si2516	Ti3361	Tl1908	Li6707	Sr4077			
Units	ppm	ppm	ppm	ppm	ppm			
Avg	-.0168	.0001	.0008	.0010	.00006			
#1	-.0195	.0000	.0001	.0006	.00010			
#2	-.0141	.0001	.0014	.0015	.00001			
Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	10069.	226060.	18206.	930.81				
#1	10078.	225330.	18261.	932.05				
#2	10061.	226800.	18151.	929.57				

*Review w/ K10050151  
JWW/K  
6/8/10*

Sample Name: LCSW      Acquired: 6/7/2010 19:49:22      Type: Unk  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265	Cd2288
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.990	2.601	2.550	5.186	.12633	1.001	1.247	1.215	1.237

#1	4.986	2.602	2.551	5.159	.12605	1.002	1.242	1.213	1.237
#2	4.993	2.601	2.548	5.212	.12660	.9994	1.252	1.217	1.238

Elem	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203	Mg2852
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.48	11.85	.5044	1.223	.6335	.6233	2.520	2.479	12.29

#1	12.42	11.73	.5039	1.223	.6308	.6244	2.513	2.474	12.31
#2	12.54	11.98	.5049	1.223	.6362	.6223	2.527	2.484	12.26

Elem	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.260	.9915	1.221	12.68	2.434	.6241	12.37	.0000	1.269

#1	1.259	.9892	1.220	12.70	2.435	.6258	12.42	-.0002	1.269
#2	1.261	.9938	1.223	12.66	2.433	.6225	12.33	.0002	1.268

Elem	Zn2062	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.242	1.230	.2180	.0058	.0000	2.491	-.0006	.00029

#1	1.239	1.230	.2199	.0104	.0000	2.489	-.0024	.00028
#2	1.246	1.231	.2161	.0012	.0000	2.493	.0011	.00029

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9973.2	222210.	18101.	900.34

#1	9982.4	222130.	18198.	902.70
#2	9964.0	222300.	18004.	897.98

*Checked  
6/8/10*

Sample Name: LCSW      Acquired: 6/7/2010 19:53:21      Type: Unk  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin  
 Comment: 060710D SILICON

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026	F .0017	.0019	.0007	F .0003	.00004	F .0022	.0002
#1	.0021	.0010	.0024	.0004	.0003	.00003	.0016	.0002
#2	.0030	.0023	.0014	.0011	.0003	.00005	.0029	.0002
Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0001	F .0090	.0048	F .0001	.0000	.0002	.0004
#1	.0002	.0002	.0050	.0048	-.0002	-.0001	.0002	.0004
#2	.0003	.0001	.0129	.0047	.0003	.0002	.0002	.0004
Elem	Fe2599	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0042	.0007	.0119	F .0113	.0034	.0001	.0003	F -.0153
#1	.0049	.0009	.0118	.0116	.0034	.0002	.0004	-.0289
#2	.0035	.0004	.0120	.0111	.0033	.0001	.0003	-.0016
Elem	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0000	F 16.53	-.0004	.0000	F .0002	F .0001	.2436
#1	.0000	-.0004	16.45	-.0003	.0001	.0002	.0001	.2451
#2	-.0001	.0003	16.62	-.0005	-.0001	.0002	.0001	.2421
Elem	Si2516	Ti3361	Ti1908	Li6707	Sr4077			
Units	ppm	ppm	ppm	ppm	ppm			
Avg	9.909	.0005	.0016	-.0005	-.00005			
#1	9.883	.0004	.0020	-.0007	-.00006			
#2	9.935	.0005	.0011	-.0004	-.00004			
Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	10049.	225550.	18362.	927.70				
#1	10052.	225220.	18390.	928.64				
#2	10047.	225880.	18334.	926.75				

*Handwritten:* 6/18/10

Sample Name: K1005015-001      Acquired: 6/7/2010 19:57:11      Type: Unk

Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000

User: admin

Comment: 060710D

*BQC for K1005007, K1004934*

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0299	.0250	.0016	.0000	F .0009	.00004	F .0032	.0001

#1	.0291	.0248	.0007	.0013	.0011	.00003	.0027	.0001
#2	.0306	.0252	.0025	-.0013	.0008	.00006	.0037	.0001

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0002	1.486	1.457	F -.0006	-.0002	.0132	.0141

#1	.0001	.0003	1.483	1.450	-.0005	-.0002	.0133	.0141
#2	.0001	.0001	1.489	1.464	-.0007	-.0002	.0131	.0142

Elem	Fe2599	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0269	.0001	.5666	.5679	.0026	.0000	.0000	F .1174

#1	.0273	.0001	.5646	.5690	.0026	-.0001	.0000	.1160
#2	.0266	.0001	.5686	.5669	.0025	.0001	.0001	.1188

Elem	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-.0005	1.150	-.0001	.0003	F .0005	F .0005	.3340

#1	.0004	.0000	1.149	.0005	.0002	.0006	.0004	.3289
#2	-.0001	-.0009	1.152	-.0007	.0003	.0005	.0005	.3391

Elem	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.686	.0004	.0000	-.0013	.01244

#1	3.698	.0002	-.0002	-.0009	.01235
#2	3.674	.0005	.0002	-.0017	.01252

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10048.	225560.	18303.	933.01

#1	10026.	226360.	18418.	930.42
#2	10070.	224760.	18187.	935.59

Sample Name: K1005015-001D      Acquired: 6/7/2010 20:00:19      Type: Unk  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0301	.0294	.0008	.0001	F .0008	-.00002	F .0012	.0000

#1	.0299	.0305	.0008	.0017	.0009	.00000	.0019	.0000
#2	.0304	.0283	.0009	-.0014	.0007	-.00004	.0006	.0000

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	1.473	1.457	F .0002	-.0004	.0131	.0135

#1	.0001	.0000	1.467	1.460	.0005	-.0004	.0133	.0136
#2	.0000	.0001	1.480	1.453	-.0001	-.0004	.0129	.0134

Elem	Fe2599	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0256	-.0005	.5644	.5662	.0025	-.0001	.0002	F .1152

#1	.0264	-.0006	.5612	.5585	.0025	.0000	.0003	.1176
#2	.0247	-.0003	.5675	.5740	.0024	-.0001	.0000	.1128

Elem	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	-.0001	1.139	.0001	.0007	F .0004	F .0004	.3215

#1	.0001	-.0003	1.126	-.0002	.0007	.0003	.0004	.3200
#2	-.0012	.0000	1.151	.0004	.0008	.0004	.0004	.3231

Elem	Si2516	Ti3361	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.655	.0005	-.0004	-.0005	.01238

#1	3.630	.0006	.0002	.0007	.01230
#2	3.681	.0003	-.0009	-.0016	.01245

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10042.	226200.	18316.	933.91

#1	10053.	226010.	18267.	934.99
#2	10032.	226380.	18366.	932.83



Sample Name: CCVA2      Acquired: 6/7/2010 20:03:28      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2555	.2429	.2526	.2590	.2582	.25257	.2541	.2534
Stddev	.0004	.0013	.0030	.0006	.0012	.00077	.0007	.0010
%RSD	.1724	.5459	1.186	.2148	.4464	.30335	.2791	.4063
#1	.2552	.2438	.2504	.2586	.2574	.25203	.2536	.2527
#2	.2558	.2420	.2547	.2594	.2590	.25311	.2546	.2542

Check ?	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2530	.2559	.2516	.2504	.2521	.2507	.2523	.2516
Stddev	.0004	.0004	.0041	.0021	.0003	.0008	.0012	.0006
%RSD	.1499	.1527	1.616	.8469	.1225	.3165	.4816	.2289
#1	.2527	.2561	.2487	.2489	.2519	.2502	.2515	.2512
#2	.2533	.2556	.2545	.2519	.2523	.2513	.2532	.2520

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2575	.2506	.2517	.2522	.2481	.2514	.2471	.2514
Stddev	.0003	.0000	.0075	.0019	.0008	.0004	.0000	.0002
%RSD	.1242	.0174	2.989	.7347	.3259	.1528	.0105	.0621
#1	.2573	.2505	.2570	.2509	.2486	.2511	.2471	.2513
#2	.2578	.2506	.2464	.2535	.2475	.2517	.2471	.2515

Check ?	None	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVA2      Acquired: 6/7/2010 20:03:28      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2530	2.496	.2586	.2557	.2086	.2490	.2520	.2524
Stddev	.0005	.027	.0015	.0009	.0028	.0012	.0002	.0007
%RSD	.1855	1.082	.5867	.3414	1.365	.4707	.0717	.2728
#1	.2526	2.477	.2575	.2551	.2107	.2481	.2521	.2519
#2	.2533	2.515	.2597	.2564	.2066	.2498	.2518	.2529

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2559	.0049	.1204	.2505	.2501	.0002	-.00001
Stddev	.0001	.0005	.0082	.0001	.0022	.0010	.00002
%RSD	.0584	10.94	6.807	.0254	.8952	431.7	285.53
#1	.2558	.0045	.1146	.2506	.2485	.0010	.00001
#2	.2560	.0053	.1262	.2505	.2517	-.0005	-.00002

Check ?	Chk Pass	None	None	Chk Pass	Chk Pass	None	None
Value							
Range							

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9982.2	224680.	18000.	929.34
Stddev	9.4	596.	19.	2.07
%RSD	.09395	.26507	.10296	.22242
#1	9988.9	224260.	18013.	930.80
#2	9975.6	225100.	17987.	927.88

Sample Name: CCVB2      Acquired: 6/7/2010 20:06:19      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.803	10.30	.0017	1.054	10.48	.00003	.0034	-.0001	.0002
Stddev	.006	.09	.0010	.002	.22	.00000	.0006	.0000	.0001
%RSD	.0852	.8265	56.02	.1426	2.080	.60628	16.92	45.92	46.78
#1	6.807	10.36	.0010	1.052	10.33	.00003	.0038	-.0001	.0001
#2	6.799	10.24	.0024	1.055	10.64	.00003	.0030	.0000	.0002
Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	None
Value Range									

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050	10.37	9.754	-.0006	.0001	.0087	.0000	10.28	.0002
Stddev	.0001	.07	.195	.0000	.0001	.0004	.000	.08	.0008
%RSD	1.057	.6707	1.994	8.084	57.14	4.585	1318.	.7553	362.7
#1	.0050	10.32	9.617	-.0006	.0001	.0090	.0002	10.23	.0008
#2	.0049	10.42	9.892	-.0006	.0001	.0084	-.0003	10.34	-.0003
Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None
Value Range									

Elem	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.31	9.961	9.972	.0003	.0004	.0000	.0003	10.23	-.0007
Stddev	.01	.159	.013	.0000	.0009	.000	.0001	.00	.0005
%RSD	.1308	1.593	.1291	11.40	206.5	2251.	30.81	.0264	69.17
#1	10.30	9.849	9.963	.0003	-.0002	.0000	.0003	10.23	-.0003
#2	10.32	10.07	9.981	.0003	.0011	.0000	.0004	10.23	-.0010
Check ?	Chk Pass	None	Chk Pass	None	None	None	None	Chk Pass	None
Value Range									

Sample Name: CCVB2      Acquired: 6/7/2010 20:06:19      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	10.06	-.0006	-.0001	-.0002	-.0001	10.53	10.01	.0002
Stddev	.0006	.00	.0001	.0008	.0000	.0001	.00	.04	.0000
%RSD	94.04	.0224	11.06	778.2	22.91	66.16	.0251	.4115	12.99
#1	.0002	10.06	-.0007	.0005	-.0001	.0000	10.53	9.980	.0002
#2	.0011	10.06	-.0006	-.0007	-.0002	-.0001	10.53	10.04	.0002
Check ?	None	Chk Pass	None	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0002	1.009	1.0384
Stddev	.0003	.002	.0043
%RSD	162.9	.2058	.41807
#1	.0000	1.007	1.0353
#2	.0004	1.010	1.0415

Check ?	None	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9907.8	220720.	17821.	898.55
Stddev	16.2	1483.	43.	1.60
%RSD	.16393	.67188	.24154	.17758
#1	9919.3	221770.	17851.	899.68
#2	9896.3	219670.	17790.	897.42

Sample Name: CCB2      Acquired: 6/7/2010 20:10:24      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0036	-.0058	.0019	.0011	.0002	.00002	.0004	.0001
Stddev	.0000	.0014	.0014	.0005	.0004	.00000	.0011	.0000
%RSD	.3980	24.10	77.65	45.74	276.3	15.816	256.2	45.53

#1	-.0036	-.0049	.0029	.0007	.0004	.00002	.0012	.0000
#2	-.0036	-.0068	.0008	.0014	-.0001	.00003	-.0004	.0001

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0020							
Low Limit	-.0020							

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0000	-.0008	-.0027	-.0002	-.0002	.0000	.0005
Stddev	.0000	.0000	.0023	.0000	.0000	.0001	.000	.0002
%RSD	85.62	82.93	291.2	1.457	20.45	39.64	1388.	44.97

#1	.0001	.0000	.0008	-.0026	-.0001	-.0002	.0003	.0004
#2	.0000	.0000	-.0025	-.0027	-.0002	-.0003	-.0003	.0007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	-.0008	-.0015	-.0018	-.0025	.0001	.0009	.0001
Stddev	.0016	.0002	.0006	.0002	.0020	.0000	.0011	.0001
%RSD	335.0	24.79	38.31	10.37	81.66	14.68	112.9	229.9

#1	-.0007	-.0010	-.0011	-.0020	-.0039	.0001	.0002	.0002
#2	.0016	-.0007	-.0019	-.0017	-.0011	.0001	.0017	.0000

Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB2      Acquired: 6/7/2010 20:10:24      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-.0734	-.0025	.0006	-.0289	-.0009	-.0001	.0001
Stddev	.0002	.0036	.0015	.0000	.0125	.0009	.0001	.0000
%RSD	129.7	4.903	57.68	3.042	43.24	96.52	207.2	41.51

#1	.0000	-.0708	-.0036	.0006	-.0378	-.0003	.0000	.0001
#2	.0002	-.0759	-.0015	.0006	-.0201	-.0015	-.0002	.0001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0051	-.0009	.0001	.0004	-.0025	-.00005
Stddev	.0000	.0008	.0017	.0000	.0004	.0015	.00000
%RSD	21.52	15.38	201.7	23.75	101.5	57.97	8.6207

#1	-.0001	.0056	.0004	.0001	.0001	-.0015	-.00004
#2	-.0001	.0045	-.0021	.0002	.0007	-.0036	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9958.2	222350.	17910.	917.67
Stddev	5.4	83.	134.	.21
%RSD	.05394	.03733	.75022	.02263

#1	9954.4	222410.	18005.	917.82
#2	9962.0	222290.	17815.	917.52

Sample Name: K1005015-001L      Acquired: 6/7/2010 20:12:52      Type: Unk

Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000

User: admin      :      :      :

Comment: 060710D 1/5

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034	F .0026	.0022	.0003	F .0004	.00001	F .0015	.0000

#1	.0034	.0047	.0028	.0000	.0004	.00001	.0016	.0000
#2	.0034	.0006	.0017	.0006	.0004	.00000	.0015	.0000

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0001	.3037	.2949	F .0001	-.0002	.0028	.0026

#1	.0001	.0000	.3027	.2942	.0002	.0000	.0031	.0026
#2	.0000	.0001	.3048	.2955	-.0001	-.0003	.0026	.0027

Elem	Fe2599	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0039	-.0002	.1133	.1096	.0008	-.0001	.0002	F -.0260

#1	.0041	.0006	.1134	.1083	.0008	-.0001	.0001	-.0235
#2	.0038	-.0010	.1132	.1109	.0008	-.0002	.0002	-.0284

Elem	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	.0002	.2051	.0000	-.0002	F .0000	F .0001	.0690

#1	-.0002	.0001	.2012	.0004	-.0003	.0000	.0000	.0710
#2	-.0009	.0002	.2090	-.0004	-.0001	.0001	.0001	.0670

Elem	Si2516	Ti3361	Tl1908	Li6707	Sr4077			
Units	ppm	ppm	ppm	ppm	ppm			
Avg	.7229	.0002	.0011	.0005	.00253			

#1	.7180	.0002	.0007	.0022	.00250			
#2	.7277	.0002	.0014	-.0012	.00256			

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	10056.	225360.	18063.	934.89				

#1	10075.	225280.	17997.	936.31				
#2	10037.	225450.	18128.	933.47				

Sample Name: K1005015-001D    Acquired: 6/7/2010 20:15:57    Type: Unk  
 Method: 2010b2007(v6)    Mode: CONC    Corr. Factor: 1.000000  
 Jser: admin  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0275	.0258	.0009	.0001	F .0013	-.00004	F .0019	.0000
#1	.0270	.0263	.0002	.0000	.0014	.00001	.0014	.0000
#2	.0281	.0253	.0015	.0002	.0011	-.00008	.0025	.0000
Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	1.466	1.444	F .0000	-.0001	.0132	.0140
#1	.0001	.0002	1.462	1.446	-.0002	-.0002	.0128	.0137
#2	.0001	.0000	1.470	1.441	.0003	-.0001	.0136	.0142
Elem	Fe2599	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0225	.0001	.5578	.5522	.0025	.0000	.0000	F .0901
#1	.0241	-.0002	.5570	.5503	.0025	-.0001	.0001	.1000
#2	.0208	.0004	.5587	.5540	.0025	.0001	-.0001	.0803
Elem	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-.0002	1.115	-.0003	.0002	F .0004	F .0004	.3270
#1	.0013	-.0003	1.108	.0000	.0001	.0005	.0005	.3259
#2	-.0012	-.0002	1.123	-.0005	.0003	.0004	.0003	.3280
Elem	Si2516	Ti3361	Ti1908	Li6707	Sr4077			
Units	ppm	ppm	ppm	ppm	ppm			
Avg	3.608	.0004	-.0004	-.0007	.01245			
#1	3.597	.0004	-.0009	.0001	.01237			
#2	3.619	.0004	.0002	-.0015	.01253			
Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	10042.	225470.	18126.	938.22				
#1	10056.	226460.	18090.	939.54				
#2	10028.	224480.	18162.	936.90				

*not needed  
 changed  
 6/8/10*



Sample Name: K1005015-001S      Acquired: 6/7/2010 20:19:05      Type: Unk

Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000

User: admin      :      :      :

Comment: 060710D

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.061	.4952	1.034	2.102	.05057	1.018	.0505	.0492

#1	2.054	.4967	1.036	2.098	.05031	1.015	.0503	.0492
#2	2.068	.4937	1.033	2.106	.05083	1.021	.0506	.0492

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0534	F 11.60	11.07	.2029	.4923	.2639	.2628	1.041

#1	.0536	11.57	11.14	.2031	.4919	.2632	.2623	1.041
#2	.0533	11.63	11.00	.2027	.4928	.2646	.2633	1.042

Elem	Pb2203	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4959	F 10.40	.5034	1.002	.4925	F 10.22	.9689	.0504

#1	.4952	10.35	.5035	1.001	.4918	10.18	.9670	.0497
#2	.4966	10.46	.5032	1.003	.4932	10.27	.9707	.0510

Elem	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.71	-.0003	.5201	.5066	F .4992	.3126	13.86	.0013

#1	27.56	-.0008	.5198	.5058	.4991	.3117	13.83	.0013
#2	27.86	.0003	.5204	.5075	.4992	.3135	13.90	.0014

Elem	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.006	.0002	.01272

#1	1.006	.0000	.01271
#2	1.006	.0003	.01273

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9903.0	221550.	17930.	899.31

#1	9907.7	221130.	17894.	900.12
#2	9898.4	221970.	17965.	898.50

Sample Name: K1004880-MB      Acquired: 6/7/2010 20:23:41      Type: Unk

Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000

User: admin      :      :      :

Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0026	-.0053	.0020	-.0009	-.0003	-.00002	.0031	.0000

#1	-.0026	-.0054	.0013	-.0013	-.0002	-.00001	.0033	.0000
#2	-.0025	-.0052	.0028	-.0005	-.0004	-.00004	.0030	.0000

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	-.0007	-.0003	-.0001	-.0003	-.0002	.0000

#1	.0001	.0001	.0017	-.0003	.0000	-.0002	-.0004	-.0003
#2	.0001	.0001	-.0032	-.0003	-.0003	-.0005	.0001	.0003

Elem	Fe2599	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0037	-.0002	-.0018	-.0036	.0000	.0000	.0001	-.0245

#1	-.0040	.0003	-.0018	-.0043	.0000	.0000	.0002	-.0277
#2	-.0035	-.0008	-.0017	-.0029	.0001	.0000	.0000	-.0213

Elem	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	-.0003	.0212	-.0006	-.0001	.0002	.0002	F .2411

#1	-.0013	.0000	.0170	-.0009	-.0006	.0001	.0002	.2427
#2	.0003	-.0005	.0255	-.0002	.0004	.0003	.0001	.2396

Elem	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.0059	-.0001	.0008	-.0008	.00001

#1	-.0068	-.0001	.0008	-.0011	.00003
#2	-.0051	.0000	.0007	-.0004	-.00001

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10022.	225790.	18062.	931.98

#1	10032.	225760.	18088.	931.80
#2	10012.	225820.	18036.	932.16

*\* Reman  
mined  
6/8/10*

Sample Name: LCSW      Acquired: 6/7/2010 20:26:09      Type: Unk  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.054	2.606	2.567	5.210	.12732	F .0017	1.270	1.235
#1	5.070	2.603	2.565	5.224	.12743	.0013	1.268	1.234
#2	5.039	2.609	2.568	5.196	.12722	.0020	1.272	1.236

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.248	12.70	11.95	.5143	1.242	.6439	.6306	2.528
#1	1.247	12.69	11.87	.5129	1.240	.6433	.6316	2.527
#2	1.249	12.71	12.02	.5158	1.244	.6446	.6297	2.530

Elem	Pb2203	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.522	12.50	1.280	F .0000	1.243	12.78	2.447	.6341
#1	2.520	12.47	1.279	.0000	1.241	12.80	2.443	.6337
#2	2.524	12.53	1.281	-.0001	1.245	12.75	2.451	.6346

Elem	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.62	-.0005	1.283	1.268	1.241	.1764	-.0027	.0000
#1	12.59	-.0002	1.282	1.268	1.240	.1755	-.0012	.0002
#2	12.65	-.0007	1.284	1.268	1.242	.1774	-.0042	-.0001

Elem	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.529	-.0006	.00020
#1	2.530	-.0004	.00017
#2	2.528	-.0007	.00023

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9910.2	221440.	18034.	893.30
#1	9913.8	221800.	18008.	893.47
#2	9906.5	221070.	18059.	893.12

Sample Name: LCSW      Acquired: 6/7/2010 20:30:09      Type: Unk  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :      :  
 Comment: 060710D SILICON

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0030	F -.0015	.0016	.0012	F -.0002	-.00003	F .0014	.0000

#1	-.0032	-.0022	.0007	.0005	-.0001	.00002	.0011	.0000
#2	-.0029	-.0008	.0025	.0018	-.0002	-.00008	.0016	.0000

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	F .0032	-.0006	F -.0002	.0000	.0000	.0002

#1	.0001	.0001	-.0008	-.0005	-.0002	.0000	.0001	.0009
#2	.0000	.0000	.0071	-.0007	-.0002	.0000	-.0002	-.0006

Elem	Fe2599	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0031	-.0009	-.0030	F -.0041	.0001	.0000	.0003	F -.0704

#1	-.0032	-.0003	-.0029	-.0033	.0001	.0000	.0003	-.0796
#2	-.0030	-.0014	-.0030	-.0048	.0001	.0000	.0004	-.0612

Elem	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.0001	F 16.76	-.0003	.0004	F .0006	F .0005	.1878

#1	.0021	.0000	16.77	-.0006	.0002	.0006	.0005	.1846
#2	.0004	.0001	16.76	-.0001	.0005	.0006	.0006	.1909

Elem	Si2516	Ti3361	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.07	.0005	.0004	-.0009	-.00002

#1	10.05	.0005	.0006	-.0005	-.00006
#2	10.08	.0005	.0002	-.0012	.00001

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9981.6	224710.	18085.	924.68

#1	9977.6	224600.	18096.	924.02
#2	9985.5	224830.	18074.	925.33

Sample Name: K1004880-001      Acquired: 6/7/2010 20:33:59      Type: Unk

Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000

Jser: admin      :      :      :

Comment: 060710D

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.80	.0041	.0112	.2082	.00073	F .0090	-.0003	.0009

#1	16.77	.0042	.0127	.2085	.00070	.0096	-.0004	.0009
#2	16.83	.0040	.0097	.2079	.00076	.0084	-.0003	.0009

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	F 13.18	12.45	.0207	.0147	.0892	.0542	F 42.41

#1	.0001	13.24	12.49	.0213	.0146	.0887	.0542	42.52
#2	.0001	13.12	12.42	.0202	.0148	.0897	.0542	42.31

Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0184	9.300	F 9.639	1.512	.0004	.0151	2.320	-.0033

#1	.0183	9.364	9.632	1.518	.0005	.0152	2.348	-.0030
#2	.0185	9.236	9.646	1.506	.0004	.0150	2.293	-.0036

Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	F 9.185	.0008	.0713	.0710	F .0724	.9591	40.27

#1	-.0001	9.195	.0012	.0714	.0707	.0725	.9570	40.11
#2	-.0002	9.175	.0005	.0712	.0713	.0723	.9611	40.43

Elem	Ti3361	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm
Avg	.9814	.0003	.0087	.06733

#1	.9817	.0001	.0078	.06750
#2	.9811	.0005	.0095	.06716

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10038.	223650.	18205.	912.56

#1	10032.	223120.	18115.	913.79
#2	10044.	224190.	18294.	911.34

Sample Name: K1004880-001D      Acquired: 6/7/2010 20:37:57      Type: Unk

Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000

Jser: admin      :      :      :

Comment: 060710D

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 23.33	.0016	.0128	.2221	.00089	F .0096	-.0005	.0010

#1	23.26	.0018	.0121	.2218	.00089	.0087	-.0005	.0010
#2	23.40	.0014	.0134	.2224	.00089	.0106	-.0005	.0010

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	F 13.25	12.52	.0272	.0170	.1016	.0624	F 49.84

#1	.0003	13.24	12.54	.0271	.0169	.1018	.0623	49.69
#2	.0001	13.26	12.50	.0273	.0172	.1013	.0624	49.99

Elem	Pb2203	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0214	F 10.73	1.529	.0007	.0197	2.783	-.0041	.0003

#1	.0211	10.75	1.531	.0005	.0197	2.766	-.0029	.0005
#2	.0218	10.71	1.527	.0008	.0198	2.800	-.0054	.0001

Elem	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.272	.0014	.0877	.0838	F .0858	1.108	48.21	1.346

#1	9.282	.0007	.0880	.0840	.0857	1.108	48.12	1.345
#2	9.261	.0022	.0874	.0836	.0859	1.108	48.31	1.347

Elem	Tl1908	Li6707	Sr4077					
Units	ppm	ppm	ppm					
Avg	.0006	.0110	.06998					

#1	.0004	.0116	.06990					
#2	.0007	.0104	.07006					

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	10106.	225900.	18316.	917.89				

#1	10100.	225990.	18305.	914.18				
#2	10112.	225810.	18327.	921.61				

Sample Name: K1004880-001S      Acquired: 6/7/2010 20:41:49      Type: Unk

Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000

Jser: admin      :      :      :

Comment: 060710D

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.89	.3803	.9844	2.243	.05049	.9918	.0492	.0481

#1	27.81	.3800	.9868	2.230	.05057	.9925	.0491	.0482
#2	27.97	.3806	.9821	2.255	.05041	.9912	.0493	.0480

Elem	Cd2288	Ca3158	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0518	F 22.33	.2239	.4927	.3470	.3066	F 48.32	.5071

#1	.0518	22.21	.2243	.4919	.3460	.3049	48.15	.5056
#2	.0519	22.45	.2234	.4934	.3479	.3083	48.49	.5086

Elem	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.37	1.930	.9186	.4912	F 12.29	.8886	.0489	F 35.16

#1	20.30	1.935	.9173	.4904	12.28	.8903	.0492	35.05
#2	20.45	1.925	.9200	.4920	12.30	.8869	.0486	35.27

Elem	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	Ti1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.5826	.5851	.5657	1.072	52.80	1.233	.9705

#1	.0015	.5839	.5833	.5654	1.071	52.81	1.234	.9675
#2	.0010	.5813	.5870	.5659	1.073	52.79	1.231	.9734

Elem	Li6707	Sr4077
Units	ppm	ppm
Avg	.0124	.06608

#1	.0141	.06578
#2	.0108	.06637

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9962.3	223640.	18211.	883.78

#1	9968.8	223450.	18264.	885.34
#2	9955.9	223830.	18158.	882.21

Sample Name: K1004880-002      Acquired: 6/7/2010 20:45:39      Type: Unk

Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000

User: admin      :      :      :

Comment: 060710D

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 39.45	.0045	.0048	.2871	.00212	F .0124	.0004	.0019

#1	39.56	.0039	.0035	.2866	.00214	.0113	.0004	.0018
#2	39.34	.0051	.0061	.2877	.00211	.0134	.0005	.0019

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010	F 14.19	13.38	.0475	.0180	.1016	.0567	F 53.38

#1	.0010	14.15	13.22	.0478	.0180	.1018	.0570	53.24
#2	.0009	14.23	13.53	.0472	.0179	.1014	.0563	53.52

Elem	Pb2203	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0360	F 11.16	.5451	.0003	.0324	2.770	-.0039	.0001

#1	.0360	11.15	.5458	.0003	.0325	2.790	-.0033	.0004
#2	.0359	11.17	.5444	.0003	.0323	2.749	-.0046	-.0002

Elem	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.662	.0029	.1612	.1199	F .1221	1.442	50.64	2.028

#1	5.661	.0029	.1616	.1199	.1221	1.442	50.70	2.029
#2	5.662	.0029	.1608	.1198	.1221	1.442	50.59	2.026

Elem	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005	.0223	.12358

#1	.0000	.0225	.12336
#2	.0010	.0222	.12381

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10302.	228300.	18610.	913.65

#1	10310.	228560.	18684.	913.25
#2	10294.	228030.	18536.	914.05



Sample Name: CCVA3      Acquired: 6/7/2010 20:49:35      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2533	.2423	.2528	.2583	.2579	.25286	.2535	.2521	.2519
Stddev	.0004	.0007	.0006	.0001	.0013	.00130	.0014	.0011	.0002
%RSD	.1620	.2781	.2221	.0505	.5134	.51381	.5677	.4196	.0934
#1	.2536	.2428	.2524	.2582	.2589	.25378	.2546	.2514	.2518
#2	.2530	.2419	.2532	.2584	.2570	.25195	.2525	.2529	.2521

Check ?	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2545	.2550	.2516	.2536	.2520	.2513	.2517	.2565	.2494
Stddev	.0004	.0004	.0007	.0008	.0000	.0006	.0014	.0003	.0016
%RSD	.1453	.1575	.2928	.3213	.0044	.2580	.5464	.1285	.6387
#1	.2542	.2547	.2521	.2531	.2520	.2508	.2526	.2563	.2483
#2	.2547	.2553	.2510	.2542	.2520	.2517	.2507	.2568	.2505

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value Range									

Elem	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2449	.2474	.2392	.2541	.2431	.2509	.2527	2.474	.2551
Stddev	.0121	.0012	.0003	.0003	.0030	.0002	.0005	.012	.0012
%RSD	4.944	.4964	.1129	.1084	1.233	.0654	.1989	.4664	.4755
#1	.2363	.2482	.2394	.2543	.2409	.2510	.2524	2.483	.2559
#2	.2534	.2465	.2390	.2539	.2452	.2508	.2531	2.466	.2542

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value Range									

Sample Name: CCVA3      Acquired: 6/7/2010 20:49:35      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2527	.2105	.2515	.2539	.2523	.2548	.0012	.1227	.2530
Stddev	.0019	.0122	.0004	.0004	.0010	.0003	.0011	.0150	.0004
%RSD	.7637	5.786	.1686	.1450	.4100	.1132	94.33	12.26	.1658
#1	.2541	.2191	.2512	.2541	.2516	.2546	.0020	.1120	.2527
#2	.2514	.2018	.2518	.2536	.2531	.2550	.0004	.1333	.2533

Check ?	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Value	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
Range									

Elem	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2501	.0006	.00001
Stddev	.0014	.0005	.00006
%RSD	.5591	83.40	930.67
#1	.2491	.0003	-.00004
#2	.2510	.0010	.00005

Check ?	Tl1908	Li6707	Sr4077
Value	Chk Pass	None	None
Range			

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9961.7	223230.	17713.	927.09
Stddev	18.2	1223.	109.	2.39
%RSD	.18245	.54780	.61451	.25749
#1	9948.8	224090.	17636.	928.77
#2	9974.5	222360.	17790.	925.40

Sample Name: CCVB3      Acquired: 6/7/2010 20:52:27      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.585	10.03	.0018	1.015	10.21	.00005	.0032	-.0001	.0002
Stddev	.004	.08	.0012	.002	.02	.00003	.0001	.0000	.0000
%RSD	.0602	.7666	69.13	.1697	.1677	67.710	2.304	34.10	16.69

#1	6.588	9.977	.0027	1.014	10.20	.00007	.0033	-.0001	.0002
#2	6.582	10.09	.0009	1.016	10.22	.00003	.0031	-.0001	.0002

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	None
Value Range									

Elem	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044	9.991	9.491	-.0005	.0000	.0087	-.0002	9.926	.0003
Stddev	.0002	.087	.013	.0001	.0001	.0006	.0001	.026	.0004
%RSD	3.450	.8682	.1327	16.58	787.0	6.913	51.49	.2617	143.4

#1	.0045	9.930	9.482	-.0005	.0001	.0083	-.0001	9.908	.0005
#2	.0043	10.05	9.500	-.0006	-.0001	.0092	-.0002	9.945	.0000

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None
Value Range									

Elem	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.06	9.664	9.735	.0004	-.0001	.0002	.0004	9.873	-.0030
Stddev	.05	.010	.070	.0001	.0002	.0002	.0002	.072	.0005
%RSD	.5199	.1003	.7245	19.27	253.1	92.37	43.45	.7340	16.78

#1	10.03	9.671	9.686	.0004	.0001	.0001	.0005	9.822	-.0027
#2	10.10	9.658	9.785	.0005	-.0003	.0003	.0003	9.925	-.0034

Check ?	Chk Pass	None	Chk Pass	None	None	None	None	Chk Pass	None
Value Range									

Sample Name: CCVB3      Acquired: 6/7/2010 20:52:27      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	9.802	-.0008	.0001	-.0002	.0000	10.22	9.774	.0003
Stddev	.0004	.083	.0008	.0000	.0000	.000	.01	.027	.0001
%RSD	152.5	.8437	95.50	56.87	3.033	909.4	.1455	.2786	54.84
#1	.0000	9.744	-.0014	.0001	-.0002	.0000	10.21	9.755	.0002
#2	.0005	9.861	-.0003	.0000	-.0002	.0000	10.23	9.793	.0003
Check ?	None	Chk Pass	None	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Tl1908	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0004	.9746	.99974
Stddev	.0003	.0106	.00721
%RSD	74.18	1.087	.72089
#1	.0002	.9671	.99465
#2	.0007	.9821	1.0048
Check ?	None	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9909.4	221010.	17698.	892.72
Stddev	5.4	971.	7.	4.00
%RSD	.05470	.43949	.04172	.44828
#1	9913.3	220320.	17703.	895.55
#2	9905.6	221700.	17693.	889.89

Sample Name: CCB3      Acquired: 6/7/2010 20:56:32      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 User: admin      :      :  
 Comment: 060710D

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0036	-.0045	.0018	.0015	.0004	.00003	.0010	.0000
Stddev	.0001	.0010	.0002	.0010	.0001	.00001	.0001	.0000
%RSD	2.977	21.28	12.29	65.96	24.38	33.853	9.271	27.30
#1	-.0035	-.0051	.0020	.0008	.0005	.00002	.0011	.0000
#2	-.0036	-.0038	.0017	.0022	.0004	.00004	.0009	.0000

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0020							
Low Limit	-.0020							

Elem	Cd2265	Cd2288	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	.0007	-.0025	-.0005	-.0002	-.0002	.0000
Stddev	.0000	.0000	.0035	.0000	.0003	.0001	.0002	.0000
%RSD	88.11	6.630	536.0	1.870	62.68	30.57	105.8	36.32
#1	.0000	.0000	-.0018	-.0025	-.0008	-.0002	.0000	.0000
#2	.0000	.0000	.0032	-.0026	-.0003	-.0001	-.0003	.0000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0030	.0001	-.0041	F -.0045	-.0050	.0002	.0009	.0000
Stddev	.0014	.0000	.0107	.0001	.0004	.0000	.0001	.000
%RSD	45.47	65.38	262.7	1.334	8.636	11.50	12.14	518.8
#1	-.0020	.0000	-.0116	-.0044	-.0053	.0002	.0009	-.0002
#2	-.0040	.0001	.0035	-.0045	-.0047	.0001	.0008	.0001

Check ?	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0020				
Low Limit				-.0020				

Sample Name: CCB3      Acquired: 6/7/2010 20:56:32      Type: QC  
 Method: 2010b2007(v6)      Mode: CONC      Corr. Factor: 1.000000  
 Jser: admin      :      :  
 Comment: 060710D

Elem	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062
Jnits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-.0378	.0000	.0003	-.0260	-.0003	-.0002	.0000
Stddev	.0000	.0171	.002	.0006	.0048	.0001	.0002	.0001
%RSD	27.32	45.21	103700.	180.4	18.31	37.15	76.67	712.3

#1	.0001	-.0257	-.0016	.0007	-.0227	-.0002	-.0003	.0001
#2	.0001	-.0499	.0016	-.0001	-.0294	-.0003	-.0001	.0000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Zn2138	P_2149	Si2516	Ti3361	Ti1908	Li6707	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0031	-.0067	.0000	.0007	.0013	-.00004
Stddev	.0001	.0007	.0072	.000	.0007	.0001	.00005
%RSD	70.87	21.60	106.0	844.9	98.30	9.719	143.70

#1	-.0001	.0035	-.0118	-.0001	.0002	.0014	.00000
#2	-.0002	.0026	-.0017	.0000	.0011	.0012	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9886.1	222700.	17701.	910.68
Stddev	2.8	286.	9.	1.84
%RSD	.02865	.12860	.05289	.20173

#1	9888.1	222490.	17694.	911.98
#2	9884.1	222900.	17707.	909.39

Service Request K1005067 \_\_\_\_\_  
 Calibration 060410D \_\_\_\_\_  
 QC in calibration 060410D \_\_\_\_\_  
 QC Service Request # K1004934 \_\_\_\_\_  
 STARLIMS Batch # 203621 \_\_\_\_\_

## ICP-MS Data Review Form

	Yes	No	NA
1. Appropriate standardization completed	<u>  X  </u>	<u>      </u>	<u>      </u>
2. ICV within 10 % of true value	<u>  X  </u>	<u>      </u>	<u>      </u>
3. CCV's in control	<u>  X  </u>	<u>      </u>	<u>      </u>
4. CCB's and/or ICB's below MRL	<u>  X  </u>	<u>      </u>	<u>      </u>
5. Method blank below MRL	<u>  X  </u>	<u>      </u>	<u>      </u>
6. LCS in control	<u>  X  </u>	<u>      </u>	<u>      </u>
7. Spike and duplicate in control	<u>  X  </u>	<u>      </u>	<u>      </u>
8. All analytes within instrument linear range	<u>  X  </u>	<u>      </u>	<u>      </u>
9. Adequate rinse out time allowed	<u>  X  </u>	<u>      </u>	<u>      </u>
10. Internal standards in control	<u>  X  </u>	<u>      </u>	<u>      </u>
11. Interferences checked	<u>  X  </u>	<u>      </u>	<u>      </u>
12. Se over MRL	<u>      </u>	<u>  X  </u>	<u>      </u>
13. CRA run	<u>  X  </u>	<u>      </u>	<u>      </u>
14. ICSA and ICSAB in control	<u>      </u>	<u>      </u>	<u>  X  </u>
15. Serial dilution run	<u>      </u>	<u>      </u>	<u>  X  </u>
16. Post spike in control	<u>      </u>	<u>      </u>	<u>  X  </u>

Comments: BQC 060710B

Primary Review by   B  

Date 6/7/10

Secondary Review by   JPB  

Date 6/7/10

R:\icp\misc\data review forms\PQ ExCell review form

## Sample List

Num	Label	Type	Weight	Volume	Dilution	Rack	Row	Column	Height
1	Cal. Blk	Blank	0 kg	0 ml	1.00	0	1	1	145
2	Cal Std	Fully Quant Standard	0 kg	0 ml	1.00	0	1	2	145
3	ICV1	Unknown	0 kg	0 ml	1.00	0	1	3	145
4	CCV1	Unknown	0 kg	0 ml	1.00	0	1	2	145
5	ICB1	Unknown	0 kg	0 ml	1.00	0	1	1	145
6	CCB1	Unknown	0 kg	0 ml	1.00	0	1	1	145
7	SOIL CRA	Unknown	0 kg	0 ml	1.00	0	1	4	145
8	K1004934-MB	Unknown	0 kg	0 ml	1.00	1	1	1	145
9	LCSW K1004934	Unknown	0 kg	0 ml	1.00	1	1	2	145
10	K1004934-005	Unknown	0 kg	0 ml	1.00	1	1	3	145
11	K1004934-005D	Unknown	0 kg	0 ml	1.00	1	1	4	145
12	K1004934-005S	Unknown	0 kg	0 ml	1.00	1	1	5	145
13	K1004934-006	Unknown	0 kg	0 ml	1.00	1	1	6	145
14	K1004934-007	Unknown	0 kg	0 ml	1.00	1	1	7	145
15	K1004934-008	Unknown	0 kg	0 ml	1.00	1	1	8	145
16	CCV2	Unknown	0 kg	0 ml	1.00	0	1	2	145
17	CCB2	Unknown	0 kg	0 ml	1.00	0	1	1	145
18	K1004870-001	Unknown	0 kg	0 ml	1.00	1	1	9	145
19	K1004870-002	Unknown	0 kg	0 ml	1.00	1	1	10	145
20	K1004870-003	Unknown	0 kg	0 ml	1.00	1	1	11	145
21	K1004870-004	Unknown	0 kg	0 ml	1.00	1	1	12	145
22	K1005067-002	Unknown	0 kg	0 ml	1.00	1	2	1	145
23	K1005067-003	Unknown	0 kg	0 ml	1.00	1	2	2	145
24	K1005067-004	Unknown	0 kg	0 ml	1.00	1	2	3	145
25	CCV3	Unknown	0 kg	0 ml	1.00	0	1	2	145
26	CCB3	Unknown	0 kg	0 ml	1.00	0	1	1	145



### Instrument Setup - Sample Configuration

Sample	Configuration	Date
All Samples	acqmet11	17:39:30 6/4/10

### Instrument Setup - Configurations

Configuration Name - acqmet11  
 Description - PQExcell CCT Sim Default  
 Date - 17:39:30 6/4/10  
 Maximum Uptake Time - 0  
 Maximum Washout Time - 0  
 S-Option Pump Running - No  
 Plasma Screen Forward - No  
 Makeup Gas On - No  
 Use CCT - No  
 Use Accessory Gas - No

Setting	Value
Extraction	-450.00
Lens1	5.00
Lens2	-60.00
Lens3	-25.00
Pole Bias	5.00
Sampling Depth	400.00
Horizontal	-40.00
Vertical	105.00
C1	13.00
Auxiliary	0.80
Nebuliser	0.82
Forward power	1,365.00
HT1 Voltage	1,900.00
HT2 Voltage	2,600.00
D1	-40.00
Focus	8.00

Mass	Mass DAC	Peak Width (AMU)	Error (AMU)	Include	Masses in Tune Solution
6.015	1303	0.715	0.015	TRUE	
7.016	1550	0.715	-0.015	TRUE	Li-7
9.012	2057	0.715	-0.019	TRUE	Be-9
23.985	5876	0.715	0.015	TRUE	Mg-24
24.986	6129	0.664	0.009	TRUE	Co-59
25.983	6383	0.715	0.01	TRUE	In-115
26.982	6636	0.664	0.005	TRUE	Ce-140
43.956	10966	0.715	0.042	TRUE	Pb-208
45.953	11460	0.715	-0.015	TRUE	Bi-209
51.94	12987	0.766	-0.004	TRUE	U-238
53.949	13501	0.715	0.006	TRUE	
55.935	14008	0.715	0.012	TRUE	
56.935	14255	0.715	-0.018	TRUE	
57.934	14515	0.715	0.004	TRUE	
58.933	14762	0.715	-0.025	TRUE	
65.926	16543	0.715	-0.023	TRUE	
75.92	19091	0.715	-0.011	TRUE	
112.904	28505	0.714	-0.036	TRUE	
114.904	29018	0.663	-0.022	TRUE	
128.905	32593	0.663	0.008	TRUE	
130.905	33107	0.612	0.025	TRUE	
131.905	33360	0.663	0.018	TRUE	
139.905	35401	0.663	0.026	TRUE	
141.908	35908	0.663	0.013	TRUE	
155.923	39477	0.612	0.001	TRUE	
157.924	39984	0.612	-0.011	TRUE	
203.973	51729	0.561	0.004	TRUE	
205.974	52236	0.561	-0.01	TRUE	
206.976	52496	0.561	0.008	TRUE	
207.977	52750	0.612	0.003	TRUE	
208.98	53003	0.561	-0.009	TRUE	
238.051	60420	0.51	-0.005	TRUE	

Run	Label	TimeStamp	59Fe	7Li	9Be	59Co	115In	208Pb
1	Stability 06-04-2010	6/4/2010 7:33:36 AM	(P)0.167	(P)29496.589	(P)5950.906	(P)39276.923	(P)92108.524	(P)46202.597
2	Stability 06-04-2010	6/4/2010 7:34:52 AM	(P)0.333	(P)29334.755	(P)5919.393	(P)39982.877	(P)92887.192	(P)46964.743
3	Stability 06-04-2010	6/4/2010 7:36:07 AM	(P)0.333	(P)29629.195	(P)5989.589	(P)40965.491	(P)94234.119	(P)46997.688
4	Stability 06-04-2010	6/4/2010 7:37:22 AM	(P)0.333	(P)29623.182	(P)6048.947	(P)41215.041	(P)94785.600	(P)47413.222
5	Stability 06-04-2010	6/4/2010 7:38:37 AM	(P)0.333	(P)30026.357	(P)5890.881	(P)41029.011	(P)94505.403	(P)47220.920
	Mean of Stability 06-04	6/4/2010 7:33:36 AM	(P)0.300	(P)29622.016	(P)5959.943	(P)40493.868	(P)93704.168	(P)46959.834
	SD of Stability 06-04-20		(P)0.075	(P)255.830	(P)61.839	(P)832.311	(P)1151.722	(P)460.595
	%RSD of Stability 06		(P)24.845	(P)0.864	(P)1.038	(P)2.055	(P)1.229	(P)0.981

Run	Label	TimeStamp	209Bi	238U
1	Stability 06-04-2010	6/4/2010 7:33:36 AM	(P)75278.990	(P)0.333 (P)72823.022
2	Stability 06-04-2010	6/4/2010 7:34:52 AM	(P)76036.666	(P)0.000 (P)73955.302
3	Stability 06-04-2010	6/4/2010 7:36:07 AM	(P)76369.601	(P)0.000 (P)74474.170
4	Stability 06-04-2010	6/4/2010 7:37:22 AM	(P)76620.946	(P)0.000 (P)75370.876
5	Stability 06-04-2010	6/4/2010 7:38:37 AM	(P)76709.750	(P)0.500 (P)75509.881
	Mean of Stability 06-04	6/4/2010 7:33:36 AM	(P)76203.191	(P)0.167 (P)74426.650
	SD of Stability 06-04-20		(P)578.941	(P)0.236 (P)1102.384
	%RSD of Stability 06		(P)0.760	(P)141.421 (P)1.481

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	Cal. Blk			Mean	SD	%RSD
TimeStamp	6/4/10 17:43					
Antimony 121	-0.0012	0.0003	0.0008	0	0.001	0
Antimony 123	0.0006	-0.0001	-0.0005	0	0.0006	0
Arsenic 75	-0.0414	0.0638	-0.0225	0	0.0561	0
Beryllium 9	0.0003	-0.0004	0.0001	0	0.0004	0
Cadmium 111	-0.0002	-0.0005	0.0007	0	0.0006	0
Cadmium 114	0.001	-0.0005	-0.0006	0	0.0009	0
Chromium 52	-0.0059	0.0007	0.0052	0	0.0056	0
Chromium 53	0.0008	0.0021	-0.0029	0	0.0026	0
Cobalt 59	-0.0003	0.0003	0	0	0.0003	0
Copper 63	-0.0078	0.0007	0.0071	0	0.0075	0
Copper 65	-0.0011	0.0041	-0.0031	0	0.0037	0
Lead 206	-0.0003	0.0014	-0.0011	0	0.0013	0
Lead 207	0.0005	0.0009	-0.0013	0	0.0012	0
Lead 208	-0.0001	0.0002	-0.0002	0	0.0002	0
Molybdenum 95	-0.0009	0.0011	-0.0002	0	0.001	0
Molybdenum 97	-0.0009	-0.0002	0.001	0	0.0009	0
Molybdenum 98	-0.0002	0.0009	-0.0006	0	0.0008	0
Nickel 60	-0.0077	0.0101	-0.0024	0	0.0092	0
Nickel 62	-0.0363	0.0396	-0.0033	0	0.038	0
Selenium 77	-0.0408	0.0264	0.0144	0	0.0359	0
Selenium 78	-0.007	0.0342	-0.0272	0	0.0313	0
Selenium 82	-0.175	0.2338	-0.0589	0	0.2107	0
Silver 107	0.0016	-0.001	-0.0006	0	0.0014	0
Silver 109	-0.0004	-0.0002	0.0006	0	0.0006	0
Thallium 203	0.0023	-0.0008	-0.0016	0	0.0021	0
Thallium 205	0.0022	-0.0014	-0.0007	0	0.0019	0
Vanadium 51	-0.003	-0.0015	0.0045	0	0.004	0
Zinc 66	0.0058	0.0028	-0.0086	0	0.0076	0
Zinc 67	-0.0348	0.0104	0.0244	0	0.031	0
Zinc 68	0.006	-0.0088	0.0027	0	0.0078	0

**Internal Standard Factors:**

Lithium 6	0.944	1.009	1.053	<b>0.944</b> n/a	n/a
Scandium 45	0.944	1.026	1.035	<b>0.944</b> n/a	n/a
Gallium 71	0.935	1.043	1.029	<b>0.935</b> n/a	n/a
Rhodium 103	0.977	1.004	1.02	<b>0.977</b> n/a	n/a
Indium 115	0.969	1.016	1.017	<b>0.969</b> n/a	n/a
Lutetium 175	0.983	0.996	1.022	<b>0.983</b> n/a	n/a

Instrument ID: K-ICP-MS-02

Experiment: 06-04-10D

Units: µg/L (ppb)

Method: EPA 200.8

Analyst: Greg Jasper

STARLIMS #203621

Sample Name:	Cal Std	Mean	SD	%RSD			
TimeStamp	6/4/10 17:47						
Antimony	121	24.59	24.98	25.43	25	0.4226	1.691
Antimony	123	24.83	24.97	25.2	25	0.1853	0.7413
Arsenic	75	25.41	24.91	24.67	25	0.379	1.516
Beryllium	9	24.86	24.94	25.21	25	0.1821	0.7285
Cadmium	111	24.66	25.24	25.11	25	0.3039	1.216
Cadmium	114	24.78	24.53	25.69	25	0.6102	2.441
Chromium	52	25.08	25.01	24.91	25	0.083	0.3318
Chromium	53	25.33	24.78	24.89	25	0.2878	1.151
Cobalt	59	24.69	25.21	25.09	25	0.2717	1.087
Copper	63	25.45	24.24	25.31	25	0.6629	2.651
Copper	65	25.71	24.79	24.5	25	0.6338	2.535
Lead	206	24.98	24.99	25.03	25	0.0266	0.1064
Lead	207	24.34	25.55	25.11	25	0.6155	2.462
Lead	208	24.72	25.04	25.24	25	0.2635	1.054
Molybdenum	95	25.22	24.99	24.79	25	0.2166	0.8664
Molybdenum	97	24.89	25.33	24.78	25	0.2893	1.157
Molybdenum	98	25.44	24.7	24.86	25	0.3912	1.565
Nickel	60	25.21	24.84	24.95	25	0.1878	0.7514
Nickel	62	25.17	24.75	25.08	25	0.2221	0.8884
Selenium	77	25.39	24.82	24.78	25	0.3406	1.362
Selenium	78	25.4	24.83	24.76	25	0.3498	1.399
Selenium	82	25.64	25.22	24.14	25	0.7772	3.109
Silver	107	25.03	25.21	24.76	25	0.2308	0.923
Silver	109	24.74	25.22	25.04	25	0.2394	0.9575
Thallium	203	24.95	25.13	24.92	25	0.1112	0.4448
Thallium	205	25.08	24.92	25	25	0.0764	0.3057
Vanadium	51	25.04	24.93	25.03	25	0.0574	0.2295
Zinc	66	25.34	25.17	24.49	25	0.4495	1.798
Zinc	67	24.8	25.71	24.49	25	0.6318	2.527
Zinc	68	25.18	24.5	25.32	25	0.4392	1.757

## Internal Standard

## Factors:

Lithium	6	0.999	1.003	1.034	0.999	n/a	n/a
Scandium	45	0.973	1.037	1.081	0.973	n/a	n/a
Gallium	71	0.979	1.017	1.009	0.979	n/a	n/a
Rhodium	103	0.974	1.024	1.03	0.974	n/a	n/a
Indium	115	0.969	1.012	1.039	0.969	n/a	n/a
Lutetium	175	0.985	1.015	1.022	0.985	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	ICV1	Mean	SD	%RSD
TimeStamp	6/4/10 17:56			
Antimony 121	23.06	24.91	24.14	<b>24.04</b> 0.9289 3.865
Antimony 123	23.63	23.83	23.68	<b>23.72</b> 0.1056 0.4454
Arsenic 75	24.48	25.56	24.85	<b>24.96</b> 0.5495 2.201
Beryllium 9	2.676	2.611	2.462	<b>2.583</b> 0.11 4.26
Cadmium 111	12.15	12.44	12.29	<b>12.29</b> 0.1413 1.149
Cadmium 114	13.31	13.38	13.11	<b>13.27</b> 0.1448 1.091
Chromium 52	10.08	9.795	9.8	<b>9.892</b> 0.1634 1.652
Chromium 53	11.34	11.39	10.66	<b>11.13</b> 0.4062 3.649
Cobalt 59	25.3	25.22	24.24	<b>24.92</b> 0.5901 2.368
Copper 63	12.71	12.8	12.77	<b>12.76</b> 0.0434 0.3401
Copper 65	12.49	12.78	12.17	<b>12.48</b> 0.3055 2.447
Lead 206	24.05	23.56	24.1	<b>23.9</b> 0.2982 1.248
Lead 207	25.89	26.15	25.36	<b>25.8</b> 0.4021 1.558
Lead 208	25.45	24.91	24.96	<b>25.1</b> 0.2977 1.186
Molybdenum 95	24	26.05	24.7	<b>24.92</b> 1.043 4.184
Molybdenum 97	24.31	25.1	24.95	<b>24.79</b> 0.4167 1.681
Molybdenum 98	23.91	25.27	24.24	<b>24.47</b> 0.7099 2.901
Nickel 60	25.17	24.76	24.64	<b>24.86</b> 0.2826 1.137
Nickel 62	24.69	25.61	24.4	<b>24.9</b> 0.6331 2.542
Selenium 77	25.33	25.45	25.41	<b>25.4</b> 0.059 0.2323
Selenium 78	25.32	25.27	26.26	<b>25.62</b> 0.5593 2.183
Selenium 82	23.56	25.4	25.24	<b>24.73</b> 1.021 4.128
Silver 107	11.83	12.81	12.29	<b>12.31</b> 0.4918 3.995
Silver 109	12.78	13.21	12.8	<b>12.93</b> 0.245 1.895
Thallium 203	25.35	24.52	24.81	<b>24.89</b> 0.4208 1.691
Thallium 205	24.94	25.35	24.05	<b>24.78</b> 0.6613 2.669
Vanadium 51	26.38	25.13	25.61	<b>25.71</b> 0.6289 2.446
Zinc 66	26.95	26.09	26.06	<b>26.37</b> 0.5082 1.927
Zinc 67	28.24	28.81	28.48	<b>28.51</b> 0.2859 1.003
Zinc 68	28.85	28.7	28.98	<b>28.84</b> 0.1365 0.4732

**Internal Standard Factors:**

Lithium 6	0.989	1.059	1.04	<b>0.989</b> n/a n/a
Scandium 45	1.01	1.072	1.082	<b>1.01</b> n/a n/a
Gallium 71	0.951	1.02	1.041	<b>0.951</b> n/a n/a
Rhodium 103	0.948	1.061	1.033	<b>0.948</b> n/a n/a
Indium 115	0.967	1.036	1.021	<b>0.967</b> n/a n/a
Lutetium 175	0.987	1.008	1.009	<b>0.987</b> n/a n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	CCV1	Mean	SD	%RSD			
TimeStamp	6/4/10 17:59						
Antimony	121	26.25	25.8	23.68	<b>25.24</b>	1.373	5.44
Antimony	123	24.18	24.4	24.99	<b>24.52</b>	0.4207	1.716
Arsenic	75	25.83	25.68	23.5	<b>25.01</b>	1.306	5.224
Beryllium	9	27.13	25.18	24.07	<b>25.46</b>	1.548	6.082
Cadmium	111	24.56	25.68	25.08	<b>25.11</b>	0.5622	2.239
Cadmium	114	25.97	26.2	23.31	<b>25.16</b>	1.603	6.37
Chromium	52	24.19	25.49	24.52	<b>24.73</b>	0.6731	2.721
Chromium	53	25.8	25.76	24.08	<b>25.22</b>	0.9809	3.89
Cobalt	59	26.11	26.68	24.46	<b>25.75</b>	1.153	4.476
Copper	63	25.45	25.09	23.84	<b>24.79</b>	0.8415	3.394
Copper	65	25.43	25.61	25.3	<b>25.45</b>	0.1544	0.6068
Lead	206	24.07	23.45	24.62	<b>24.05</b>	0.5834	2.426
Lead	207	23.67	24.65	25.94	<b>24.75</b>	1.138	4.597
Lead	208	24.03	23.95	24.62	<b>24.2</b>	0.3657	1.511
Molybdenum	95	24.87	25.3	24.94	<b>25.03</b>	0.2302	0.9194
Molybdenum	97	25.13	24.78	24.93	<b>24.95</b>	0.176	0.7054
Molybdenum	98	24.67	25.28	25.37	<b>25.11</b>	0.3799	1.513
Nickel	60	25.33	25.37	24.51	<b>25.07</b>	0.488	1.947
Nickel	62	25.31	25.43	24.22	<b>24.99</b>	0.6635	2.655
Selenium	77	25.11	25.12	25.41	<b>25.22</b>	0.1717	0.681
Selenium	78	26.02	24.51	24.88	<b>25.14</b>	0.7879	3.134
Selenium	82	24.99	25.47	24.31	<b>24.92</b>	0.5822	2.336
Silver	107	24.55	25.08	24.92	<b>24.85</b>	0.2714	1.092
Silver	109	26.02	25.44	24.28	<b>25.25</b>	0.8836	3.5
Thallium	203	23.49	23.32	24.17	<b>23.66</b>	0.4514	1.908
Thallium	205	23.25	24.44	24.76	<b>24.15</b>	0.7975	3.302
Vanadium	51	25.31	25.83	24.27	<b>25.14</b>	0.7912	3.147
Zinc	66	25.68	25.04	23.51	<b>24.74</b>	1.111	4.492
Zinc	67	25.13	25.33	25.39	<b>25.28</b>	0.1373	0.5432
Zinc	68	26.39	25.56	23.63	<b>25.19</b>	1.418	5.628

**Internal Standard Factors:**

Lithium	6	1.008	1.019	1.01	<b>1.008</b>	n/a	n/a
Scandium	45	1.024	1.103	1.054	<b>1.024</b>	n/a	n/a
Gallium	71	0.995	1.036	1.001	<b>0.995</b>	n/a	n/a
Rhodium	103	1.009	1.048	1.063	<b>1.009</b>	n/a	n/a
Indium	115	0.997	1.052	0.993	<b>0.997</b>	n/a	n/a
Lutetium	175	0.945	0.973	1.003	<b>0.945</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	ICB1	Mean	SD	%RSD
TimeStamp	6/4/10 18:13			
Antimony 121	0.0105	0.0098	0.0093	<b>0.0099</b> 0.0006 6.102
Antimony 123	0.0096	0.0131	0.0093	<b>0.0107</b> 0.0021 19.54
Arsenic 75	-0.0199	-0.0301	-0.0168	<b>-0.0223</b> 0.007 31.36
Beryllium 9	0.0011	0.0012	0.0018	<b>0.0014</b> 0.0004 26.08
Cadmium 111	0.001	0.0007	0.0007	<b>0.0008</b> 0.0002 25.48
Cadmium 114	0.0004	0.0004	0.0013	<b>0.0007</b> 0.0005 78.33
Chromium 52	0.0173	-0.0085	0.0198	<b>0.0095</b> 0.0157 164.3
Chromium 53	0.0031	0.0157	0.002	<b>0.0069</b> 0.0076 109.6
Cobalt 59	-0.0001	0.0009	0.0027	<b>0.0012</b> 0.0014 123.1
Copper 63	-0.0042	0.0037	0.0005	<b>0</b> 0.004 12790
Copper 65	0.001	0.0053	-0.0009	<b>0.0018</b> 0.0032 176
Lead 206	0.0016	0.0025	0.0009	<b>0.0017</b> 0.0008 48.16
Lead 207	0.0045	0.0057	0.0016	<b>0.0039</b> 0.0021 53.89
Lead 208	0.0025	0.0033	0.0012	<b>0.0023</b> 0.0011 46.13
Molybdenum 95	0.0004	0.0002	0.0012	<b>0.0006</b> 0.0005 90.24
Molybdenum 97	-0.0013	-0.0016	-0.0005	<b>-0.0011</b> 0.0006 53.81
Molybdenum 98	0	0.0006	-0.0006	<b>0</b> 0.0006 2637
Nickel 60	-0.0032	-0.0015	-0.0197	<b>-0.0081</b> 0.01 122.8
Nickel 62	-0.0314	-0.0008	-0.0217	<b>-0.018</b> 0.0156 87.07
Selenium 77	0.0572	0.1038	0.0485	<b>0.0699</b> 0.0298 42.62
Selenium 78	-0.2011	-0.1437	-0.0767	<b>-0.1405</b> 0.0622 44.3
Selenium 82	-0.0204	0.0006	-0.0209	<b>-0.0136</b> 0.0123 90.31
Silver 107	0.003	0.0028	0.003	<b>0.0029</b> 0.0001 3.356
Silver 109	0.0039	0.0024	0.0029	<b>0.003</b> 0.0008 25.16
Thallium 203	-0.0046	-0.0014	-0.0043	<b>-0.0034</b> 0.0018 51.71
Thallium 205	-0.0041	-0.0046	-0.0055	<b>-0.0047</b> 0.0007 14.92
Vanadium 51	0.0089	-0.0064	0.0103	<b>0.0043</b> 0.0092 216.1
Zinc 66	0.0021	0.0109	0.0108	<b>0.0079</b> 0.005 63.71
Zinc 67	0.0084	-0.0153	-0.0438	<b>-0.0169</b> 0.0261 154.7
Zinc 68	0.0173	0.0406	0.0119	<b>0.0232</b> 0.0153 65.81

**Internal Standard Factors:**

Lithium 6	0.83	0.933	0.975	<b>0.83</b> n/a n/a
Scandium 45	0.879	1.004	1.036	<b>0.879</b> n/a n/a
Gallium 71	0.893	0.994	1.009	<b>0.893</b> n/a n/a
Rhodium 103	0.912	1.012	1.023	<b>0.912</b> n/a n/a
Indium 115	0.919	0.984	0.991	<b>0.919</b> n/a n/a
Lutetium 175	0.91	0.975	0.961	<b>0.91</b> n/a n/a



Instrument ID: K-ICP-MS-02

Experiment: 06-04-10D

Units: µg/L (ppb)

Method: EPA 200.8

Analyst: Greg Jasper

STARLIMS #203621

Sample Name:		CCB1			Mean	SD	%RSD
TimeStamp		6/4/10 18:17					
Antimony	121	0.0074	0.0054	0.0072	<b>0.0067</b>	0.0011	17.07
Antimony	123	0.0089	0.005	0.0058	<b>0.0066</b>	0.0021	31.44
Arsenic	75	0.0022	0.0111	0.0586	<b>0.0239</b>	0.0303	126.6
Beryllium	9	0.0014	0.0028	0.0002	<b>0.0015</b>	0.0013	90.73
Cadmium	111	0.0018	0.0004	0.0013	<b>0.0012</b>	0.0007	58.18
Cadmium	114	0.0004	0.0008	0.0025	<b>0.0012</b>	0.0011	86.93
Chromium	52	0.0085	0.033	0.0336	<b>0.025</b>	0.0143	57.15
Chromium	53	0.0005	0.0053	0.0113	<b>0.0057</b>	0.0054	94.31
Cobalt	59	0.0009	-0.0012	0.0017	<b>0.0005</b>	0.0015	299.9
Copper	63	-0.0021	-0.0047	0.0004	<b>-0.0021</b>	0.0026	121.2
Copper	65	0.0061	-0.002	0.0111	<b>0.005</b>	0.0066	131.2
Lead	206	-0.0005	0.0007	0.0046	<b>0.0016</b>	0.0027	167.4
Lead	207	-0.0011	0.0013	0.004	<b>0.0014</b>	0.0025	182
Lead	208	-0.0003	0.001	0.0037	<b>0.0015</b>	0.002	137.9
Molybdenum	95	-0.001	-0.0016	0.0012	<b>-0.0005</b>	0.0014	310.7
Molybdenum	97	-0.0033	-0.0026	-0.001	<b>-0.0023</b>	0.0012	52.62
Molybdenum	98	-0.0015	-0.0004	-0.0012	<b>-0.001</b>	0.0005	53.13
Nickel	60	-0.0023	-0.0145	0.0014	<b>-0.0051</b>	0.0083	161.7
Nickel	62	0.0324	0.0103	0.0909	<b>0.0445</b>	0.0416	93.54
Selenium	77	0.1246	0.013	0.0323	<b>0.0566</b>	0.0597	105.3
Selenium	78	-0.3303	-0.1066	-0.06	<b>-0.1656</b>	0.1445	87.23
Selenium	82	0.105	0.0286	0.2123	<b>0.1153</b>	0.0923	80.02
Silver	107	0.0012	0.0009	0	<b>0.0007</b>	0.0006	84.18
Silver	109	0.0007	0.0002	0.0011	<b>0.0007</b>	0.0005	72.28
Thallium	203	-0.0055	-0.0042	-0.0048	<b>-0.0048</b>	0.0006	13.4
Thallium	205	-0.0062	-0.0074	-0.0066	<b>-0.0067</b>	0.0006	9.056
Vanadium	51	0.0052	0.0123	0.012	<b>0.0098</b>	0.004	40.55
Zinc	66	-0.0078	-0.0143	0.0265	<b>0.0014</b>	0.0219	1530
Zinc	67	-0.0238	-0.0248	0.0169	<b>-0.0106</b>	0.0238	225.5
Zinc	68	0.019	0.015	0.0501	<b>0.028</b>	0.0192	68.51

## Internal Standard

## Factors:

Lithium	6	0.923	0.991	0.982	<b>0.923</b>	n/a	n/a
Scandium	45	0.95	1.008	1.046	<b>0.95</b>	n/a	n/a
Gallium	71	0.939	0.991	1.051	<b>0.939</b>	n/a	n/a
Rhodium	103	0.967	1.036	1.051	<b>0.967</b>	n/a	n/a
Indium	115	0.972	1.009	1	<b>0.972</b>	n/a	n/a
Lutetium	175	0.948	0.982	0.989	<b>0.948</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		SOIL CRA			Mean	SD	%RSD
TimeStamp		6/4/10 18:21					
Antimony	121	0.0524	0.0567	0.0519	<b>0.0537</b>	0.0026	4.9
Antimony	123	0.0556	0.0555	0.0554	<b>0.0555</b>	0.0001	0.141
Arsenic	75	0.5633	0.4813	0.5331	<b>0.5259</b>	0.0415	7.881
Beryllium	9	0.0159	0.0182	0.0141	<b>0.0161</b>	0.0021	12.78
Cadmium	111	0.0197	0.0238	0.0178	<b>0.0204</b>	0.0031	15.11
Cadmium	114	0.018	0.0234	0.0208	<b>0.0207</b>	0.0027	12.88
Chromium	52	0.2324	0.2165	0.1907	<b>0.2132</b>	0.0211	9.886
Chromium	53	0.208	0.2094	0.2181	<b>0.2118</b>	0.0055	2.573
Cobalt	59	0.0199	0.0204	0.0209	<b>0.0204</b>	0.0005	2.401
Copper	63	0.1091	0.1074	0.0994	<b>0.1053</b>	0.0052	4.921
Copper	65	0.1007	0.0986	0.118	<b>0.1058</b>	0.0106	10.05
Lead	206	0.0227	0.0221	0.0246	<b>0.0231</b>	0.0013	5.57
Lead	207	0.0179	0.0246	0.0215	<b>0.0213</b>	0.0034	15.88
Lead	208	0.0209	0.0237	0.0212	<b>0.0219</b>	0.0015	7.042
Molybdenum	95	0.0485	0.0515	0.0423	<b>0.0474</b>	0.0047	9.917
Molybdenum	97	0.0452	0.0446	0.0478	<b>0.0459</b>	0.0017	3.663
Molybdenum	98	0.0407	0.0469	0.0442	<b>0.0439</b>	0.0031	7.122
Nickel	60	0.2026	0.1812	0.1869	<b>0.1902</b>	0.0111	5.842
Nickel	62	0.2076	0.2273	0.2132	<b>0.216</b>	0.0102	4.716
Selenium	77	1.022	1.128	1.048	<b>1.066</b>	0.0555	5.209
Selenium	78	1.111	0.993	0.7752	<b>0.9598</b>	0.1704	17.76
Selenium	82	1.246	0.9381	1.038	<b>1.074</b>	0.157	14.62
Silver	107	0.0198	0.0212	0.0208	<b>0.0206</b>	0.0007	3.509
Silver	109	0.0227	0.0203	0.0198	<b>0.021</b>	0.0015	7.337
Thallium	203	0.0142	0.0171	0.0172	<b>0.0162</b>	0.0017	10.76
Thallium	205	0.0106	0.0105	0.0116	<b>0.0109</b>	0.0006	5.5
Vanadium	51	0.2165	0.2048	0.189	<b>0.2034</b>	0.0138	6.796
Zinc	66	0.492	0.4608	0.4658	<b>0.4729</b>	0.0168	3.547
Zinc	67	0.4586	0.4942	0.4597	<b>0.4708</b>	0.0202	4.294
Zinc	68	0.4471	0.494	0.4929	<b>0.478</b>	0.0268	5.598

**Internal Standard Factors:**

Lithium	6	0.935	0.98	1.012	<b>0.935</b> n/a	n/a
Scandium	45	0.977	1.046	1.027	<b>0.977</b> n/a	n/a
Gallium	71	0.959	1.006	1.009	<b>0.959</b> n/a	n/a
Rhodium	103	0.994	1.009	1.023	<b>0.994</b> n/a	n/a
Indium	115	0.961	1.009	0.999	<b>0.961</b> n/a	n/a
Lutetium	175	0.972	0.994	1.007	<b>0.972</b> n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1004934-MB			Mean	SD	%RSD
TimeStamp		6/4/10 18:25					
Antimony	121	0.0029	0.003	0.0035	<b>0.0031</b>	0.0004	11.72
Antimony	123	0.0037	0.0023	0.0035	<b>0.0032</b>	0.0008	23.68
Arsenic	75	0.0382	0.0169	0.0026	<b>0.0192</b>	0.0179	93.31
Beryllium	9	-0.0007	0.0017	0.0007	<b>0.0006</b>	0.0012	211.5
Cadmium	111	0.0001	-0.0014	0.0004	<b>-0.0003</b>	0.001	319.2
Cadmium	114	-0.001	-0.0006	-0.0003	<b>-0.0007</b>	0.0003	51.6
Chromium	52	0.1164	0.1098	0.067	<b>0.0978</b>	0.0268	27.43
Chromium	53	0.0124	0.0045	0.0138	<b>0.0102</b>	0.005	49.33
Cobalt	59	-0.0021	-0.0002	0.0006	<b>-0.0006</b>	0.0014	231.9
Copper	63	-0.0178	-0.0166	-0.0143	<b>-0.0162</b>	0.0018	11.1
Copper	65	-0.0081	-0.0132	-0.0063	<b>-0.0092</b>	0.0036	38.74
Lead	206	-0.0021	-0.0011	-0.0004	<b>-0.0012</b>	0.0009	71.54
Lead	207	-0.0016	0	-0.0036	<b>-0.0017</b>	0.0018	104.9
Lead	208	-0.0021	-0.0019	-0.0026	<b>-0.0022</b>	0.0003	14.59
Molybdenum	95	-0.0013	-0.0015	-0.0032	<b>-0.002</b>	0.001	51.51
Molybdenum	97	-0.0042	-0.0052	-0.0044	<b>-0.0046</b>	0.0005	10.7
Molybdenum	98	-0.0017	-0.0018	-0.0031	<b>-0.0022</b>	0.0008	34.5
Nickel	60	-0.0253	-0.0224	-0.0379	<b>-0.0285</b>	0.0082	28.9
Nickel	62	-0.0571	0.0055	0.0126	<b>-0.013</b>	0.0384	295.1
Selenium	77	-0.0061	0.0606	0.0699	<b>0.0415</b>	0.0414	99.86
Selenium	78	-0.1098	0.0042	0.0055	<b>-0.0334</b>	0.0662	198.4
Selenium	82	0.1165	0.1086	0.0724	<b>0.0992</b>	0.0235	23.73
Silver	107	-0.0031	-0.0032	-0.0033	<b>-0.0032</b>	0.0001	2.778
Silver	109	-0.004	-0.0035	-0.004	<b>-0.0038</b>	0.0003	7.873
Thallium	203	-0.0086	-0.0096	-0.0098	<b>-0.0093</b>	0.0007	7.118
Thallium	205	-0.0097	-0.0103	-0.0108	<b>-0.0103</b>	0.0006	5.406
Vanadium	51	0.0386	0.0404	0.0221	<b>0.0337</b>	0.0101	29.9
Zinc	66	-0.0612	-0.0534	-0.0625	<b>-0.059</b>	0.0049	8.333
Zinc	67	-0.0751	-0.0457	-0.0731	<b>-0.0646</b>	0.0164	25.42
Zinc	68	-0.0322	-0.0263	-0.0309	<b>-0.0298</b>	0.0031	10.39

**Internal Standard Factors:**

Lithium	6	0.94	1.026	1.02	<b>0.94</b> n/a	n/a
Scandium	45	0.952	1.023	1.026	<b>0.952</b> n/a	n/a
Gallium	71	0.965	1.031	1.032	<b>0.965</b> n/a	n/a
Rhodium	103	0.997	1.028	1.025	<b>0.997</b> n/a	n/a
Indium	115	0.981	0.993	1.007	<b>0.981</b> n/a	n/a
Lutetium	175	0.969	1.02	1.004	<b>0.969</b> n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		LCSW K1004934			Mean	SD	%RSD
TimeStamp		6/4/10 18:29					
Antimony	121	20.2	20.42	19.98	<b>20.2</b>	0.2233	1.105
Antimony	123	19.77	20.28	19.79	<b>19.95</b>	0.2935	1.471
Arsenic	75	20.52	19.86	20.07	<b>20.15</b>	0.3373	1.674
Beryllium	9	20.59	20.64	20.65	<b>20.63</b>	0.0318	0.1539
Cadmium	111	20.14	20.68	20.3	<b>20.37</b>	0.277	1.359
Cadmium	114	20.23	20.86	19.89	<b>20.33</b>	0.4918	2.42
Chromium	52	20.49	20.98	20.34	<b>20.6</b>	0.3356	1.629
Chromium	53	20.43	20.47	20.17	<b>20.36</b>	0.163	0.8005
Cobalt	59	20.44	20.09	20.41	<b>20.31</b>	0.1945	0.9578
Copper	63	19.94	19.72	19.93	<b>19.86</b>	0.1191	0.5995
Copper	65	19.7	20.83	20.59	<b>20.37</b>	0.5933	2.912
Lead	206	21.01	19.57	19.77	<b>20.12</b>	0.782	3.887
Lead	207	20.86	20.52	20.75	<b>20.71</b>	0.1776	0.8577
Lead	208	20.98	20.05	20.24	<b>20.42</b>	0.4921	2.409
Molybdenum	95	20.29	20.68	20.61	<b>20.53</b>	0.2111	1.028
Molybdenum	97	20.5	20.77	20.21	<b>20.49</b>	0.282	1.376
Molybdenum	98	19.9	20.3	20.21	<b>20.14</b>	0.21	1.043
Nickel	60	19.59	19.56	19.88	<b>19.68</b>	0.1758	0.8933
Nickel	62	19.4	19.51	19.57	<b>19.49</b>	0.0857	0.4395
Selenium	77	19.68	19.78	20.02	<b>19.83</b>	0.1735	0.8751
Selenium	78	20.71	20.5	20.6	<b>20.61</b>	0.1045	0.5073
Selenium	82	20.2	19.9	19.85	<b>19.98</b>	0.1895	0.9482
Silver	107	20.9	20.83	21.04	<b>20.92</b>	0.1095	0.5235
Silver	109	20.55	20.99	20.12	<b>20.55</b>	0.434	2.112
Thallium	203	20.49	20.04	20	<b>20.18</b>	0.2679	1.328
Thallium	205	21.14	20.01	20.67	<b>20.61</b>	0.5634	2.734
Vanadium	51	20.85	20.14	20.24	<b>20.41</b>	0.3858	1.89
Zinc	66	20.49	19.91	20.39	<b>20.26</b>	0.3081	1.52
Zinc	67	20.48	19.55	20.99	<b>20.34</b>	0.7292	3.585
Zinc	68	21.11	20.07	20.61	<b>20.6</b>	0.5199	2.524

**Internal Standard  
Factors:**

Lithium	6	0.949	1.01	1.029	<b>0.949</b> n/a	n/a
Scandium	45	0.953	1.033	1.036	<b>0.953</b> n/a	n/a
Gallium	71	0.937	0.967	0.997	<b>0.937</b> n/a	n/a
Rhodium	103	0.971	1.031	1.017	<b>0.971</b> n/a	n/a
Indium	115	0.946	0.999	0.998	<b>0.946</b> n/a	n/a
Lutetium	175	0.978	0.981	0.989	<b>0.978</b> n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1004934-005			Mean	SD	%RSD
TimeStamp		6/4/10 18:38					
Antimony	121	0.1061	0.1094	0.0992	<b>0.1049</b>	0.0052	4.988
Antimony	123	0.099	0.0937	0.0936	<b>0.0954</b>	0.0031	3.258
Arsenic	75	2.466	2.536	2.578	<b>2.527</b>	0.0567	2.246
Beryllium	9	0.0046	0.0019	0.0033	<b>0.0032</b>	0.0013	40.76
Cadmium	111	0.0241	0.0234	0.0259	<b>0.0245</b>	0.0013	5.274
Cadmium	114	0.0263	0.0212	0.0247	<b>0.0241</b>	0.0027	11.02
Chromium	52	0.6882	0.7998	0.776	<b>0.7547</b>	0.0588	7.787
Chromium	53	1.201	1.32	1.383	<b>1.301</b>	0.0927	7.122
Cobalt	59	0.0731	0.077	0.0812	<b>0.0771</b>	0.0041	5.272
Copper	63	0.6536	0.6477	0.6735	<b>0.6582</b>	0.0135	2.056
Copper	65	0.5182	0.5422	0.5339	<b>0.5314</b>	0.0122	2.296
Lead	206	0.0433	0.0404	0.0383	<b>0.0407</b>	0.0025	6.074
Lead	207	0.0439	0.0415	0.0519	<b>0.0458</b>	0.0054	11.87
Lead	208	0.0462	0.0451	0.0454	<b>0.0455</b>	0.0006	1.268
Molybdenum	95	0.8024	0.8069	0.8192	<b>0.8095</b>	0.0087	1.076
Molybdenum	97	0.7807	0.8266	0.8022	<b>0.8031</b>	0.023	2.859
Molybdenum	98	0.8104	0.7867	0.7965	<b>0.7979</b>	0.0119	1.494
Nickel	60	1.126	1.271	1.103	<b>1.167</b>	0.0909	7.793
Nickel	62	0.2215	0.2056	0.2703	<b>0.2325</b>	0.0337	14.51
Selenium	77	0.5968	0.5888	0.6013	<b>0.5956</b>	0.0063	1.063
Selenium	78	0.5198	0.6003	0.5419	<b>0.554</b>	0.0416	7.505
Selenium	82	0.5865	0.71	0.8325	<b>0.7097</b>	0.123	17.33
Silver	107	0.0034	0.005	0.0033	<b>0.0039</b>	0.001	24.76
Silver	109	0.0045	0.003	0.0027	<b>0.0034</b>	0.001	27.86
Thallium	203	0.0487	0.0481	0.0478	<b>0.0482</b>	0.0005	0.9943
Thallium	205	0.0517	0.0479	0.0491	<b>0.0496</b>	0.002	3.976
Vanadium	51	6.327	6.584	6.467	<b>6.459</b>	0.1284	1.987
Zinc	66	2.365	2.427	2.317	<b>2.37</b>	0.0556	2.346
Zinc	67	6.742	6.787	6.475	<b>6.668</b>	0.1685	2.527
Zinc	68	5.753	5.902	5.737	<b>5.797</b>	0.091	1.57

**Internal Standard Factors:**

Lithium	6	1.056	1.134	1.166	<b>1.056</b> n/a	n/a
Scandium	45	0.85	0.983	1.029	<b>0.85</b> n/a	n/a
Gallium	71	1.081	1.226	1.234	<b>1.081</b> n/a	n/a
Rhodium	103	1.144	1.216	1.268	<b>1.144</b> n/a	n/a
Indium	115	1.097	1.173	1.197	<b>1.097</b> n/a	n/a
Lutetium	175	1.045	1.086	1.109	<b>1.045</b> n/a	n/a

Instrument ID: K-ICP-MS-02

Experiment: 06-04-10D

Units: µg/L (ppb)

Method: EPA 200.8

Analyst: Greg Jasper

STARLIMS #203621

Sample Name:		K1004934-005D			Mean	SD	%RSD
TimeStamp		6/4/10 18:42					
Antimony	121	0.0946	0.0921	0.0989	<b>0.0952</b>	0.0034	3.592
Antimony	123	0.0892	0.0975	0.092	<b>0.0929</b>	0.0042	4.525
Arsenic	75	2.485	2.441	2.531	<b>2.485</b>	0.0451	1.815
Beryllium	9	0.0059	0.0018	0.0031	<b>0.0036</b>	0.0021	59.22
Cadmium	111	0.0281	0.0288	0.0288	<b>0.0285</b>	0.0004	1.378
Cadmium	114	0.0265	0.0261	0.0277	<b>0.0268</b>	0.0009	3.24
Chromium	52	0.7399	0.7421	0.7515	<b>0.7445</b>	0.0062	0.829
Chromium	53	1.39	1.32	1.352	<b>1.354</b>	0.035	2.588
Cobalt	59	0.0777	0.0816	0.0789	<b>0.0794</b>	0.002	2.485
Copper	63	0.658	0.6668	0.6311	<b>0.652</b>	0.0186	2.856
Copper	65	0.5021	0.5152	0.48	<b>0.4991</b>	0.0178	3.559
Lead	206	0.0444	0.0419	0.043	<b>0.0431</b>	0.0012	2.833
Lead	207	0.0498	0.0499	0.0532	<b>0.051</b>	0.0019	3.796
Lead	208	0.0479	0.0448	0.0487	<b>0.0471</b>	0.0021	4.41
Molybdenum	95	0.8399	0.8047	0.7987	<b>0.8144</b>	0.0222	2.729
Molybdenum	97	0.792	0.8491	0.8131	<b>0.8181</b>	0.0289	3.53
Molybdenum	98	0.7834	0.7909	0.8212	<b>0.7985</b>	0.02	2.507
Nickel	60	1.35	1.182	1.237	<b>1.256</b>	0.0858	6.83
Nickel	62	0.105	0.1546	0.1495	<b>0.1364</b>	0.0273	20.03
Selenium	77	0.6592	0.5464	0.4698	<b>0.5584</b>	0.0952	17.06
Selenium	78	0.5154	0.5096	0.458	<b>0.4943</b>	0.0316	6.386
Selenium	82	0.5884	0.5596	0.7816	<b>0.6432</b>	0.1207	18.77
Silver	107	0	0.0014	0.002	<b>0.0012</b>	0.001	90.78
Silver	109	0.0001	-0.0005	0.0011	<b>0.0002</b>	0.0008	335.2
Thallium	203	0.0489	0.0423	0.0394	<b>0.0435</b>	0.0049	11.16
Thallium	205	0.0429	0.0398	0.0422	<b>0.0416</b>	0.0016	3.876
Vanadium	51	6.615	6.262	6.418	<b>6.431</b>	0.1773	2.757
Zinc	66	2.414	2.357	2.422	<b>2.398</b>	0.0356	1.484
Zinc	67	6.625	7.013	6.496	<b>6.711</b>	0.2691	4.009
Zinc	68	5.568	5.864	5.679	<b>5.704</b>	0.1498	2.627

## Internal Standard

## Factors:

Lithium	6	1.085	1.182	1.198	<b>1.085</b>	n/a	n/a
Scandium	45	0.936	0.986	1.007	<b>0.936</b>	n/a	n/a
Gallium	71	1.154	1.237	1.237	<b>1.154</b>	n/a	n/a
Rhodium	103	1.176	1.25	1.245	<b>1.176</b>	n/a	n/a
Indium	115	1.119	1.183	1.184	<b>1.119</b>	n/a	n/a
Lutetium	175	1.062	1.099	1.094	<b>1.062</b>	n/a	n/a

Instrument ID: K-ICP-MS-02

Experiment: 06-04-10D

Units: µg/L (ppb)

Method: EPA 200.8

Analyst: Greg Jasper

STARLIMS #203621

Sample Name:		K1004934-005S			Mean	SD	%RSD
TimeStamp		6/4/10 18:47					
Antimony	121	19.92	20	20.46	<b>20.13</b>	0.2875	1.428
Antimony	123	19.77	20.37	20.37	<b>20.17</b>	0.3469	1.72
Arsenic	75	23.34	23.52	22.99	<b>23.29</b>	0.2691	1.156
Beryllium	9	18.27	19.06	19.13	<b>18.82</b>	0.4779	2.539
Cadmium	111	20.29	20.3	19.77	<b>20.12</b>	0.3015	1.498
Cadmium	114	19.22	19.95	19.91	<b>19.69</b>	0.409	2.077
Chromium	52	18.23	18.38	18.2	<b>18.27</b>	0.0944	0.5169
Chromium	53	19.5	19.37	18.65	<b>19.17</b>	0.4554	2.375
Cobalt	59	18.31	18.99	17.9	<b>18.4</b>	0.552	3
Copper	63	17.62	18.61	17.89	<b>18.04</b>	0.5123	2.84
Copper	65	18.69	18.83	17.72	<b>18.41</b>	0.6051	3.286
Lead	206	17.77	17.72	17.97	<b>17.82</b>	0.1338	0.751
Lead	207	18.3	18.02	18.31	<b>18.21</b>	0.1632	0.8964
Lead	208	18.07	17.76	18.3	<b>18.05</b>	0.2706	1.499
Molybdenum	95	23.32	23.41	22.7	<b>23.14</b>	0.3889	1.681
Molybdenum	97	23.2	23.35	22.85	<b>23.14</b>	0.2547	1.101
Molybdenum	98	22.69	23.53	22.64	<b>22.95</b>	0.4998	2.177
Nickel	60	17.92	18.82	18.3	<b>18.35</b>	0.4532	2.47
Nickel	62	17.41	18.11	17.32	<b>17.62</b>	0.4347	2.468
Selenium	77	20.5	21.65	20.71	<b>20.96</b>	0.6115	2.918
Selenium	78	20.91	21.72	21.65	<b>21.43</b>	0.4473	2.088
Selenium	82	21.3	21.49	20.99	<b>21.26</b>	0.2566	1.207
Silver	107	19.47	20.08	19.34	<b>19.63</b>	0.3954	2.014
Silver	109	19.39	19.39	19.47	<b>19.42</b>	0.045	0.2318
Thallium	203	18.31	17.98	18.73	<b>18.34</b>	0.3742	2.04
Thallium	205	19.28	18.82	18.26	<b>18.79</b>	0.509	2.709
Vanadium	51	23.94	24.84	24.66	<b>24.48</b>	0.473	1.932
Zinc	66	21.13	21.35	21.42	<b>21.3</b>	0.1496	0.7025
Zinc	67	24.87	25.89	24.95	<b>25.24</b>	0.5678	2.249
Zinc	68	24.2	24.85	24.45	<b>24.5</b>	0.3256	1.329

#### Internal Standard Factors:

Lithium	6	1.091	1.167	1.24	<b>1.091</b>	n/a	n/a
Scandium	45	0.895	1.013	0.996	<b>0.895</b>	n/a	n/a
Gallium	71	1.121	1.21	1.194	<b>1.121</b>	n/a	n/a
Rhodium	103	1.177	1.249	1.234	<b>1.177</b>	n/a	n/a
Indium	115	1.087	1.15	1.178	<b>1.087</b>	n/a	n/a
Lutetium	175	1.016	1.018	1.052	<b>1.016</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1004934-006			Mean	SD	%RSD
TimeStamp		6/4/10 19:01					
Antimony	121	0.0805	0.089	0.0904	<b>0.0866</b>	0.0053	6.152
Antimony	123	0.0862	0.088	0.0865	<b>0.0869</b>	0.001	1.108
Arsenic	75	2.146	2.089	2.015	<b>2.083</b>	0.0657	3.152
Beryllium	9	0.0014	0.0049	0.002	<b>0.0028</b>	0.0019	68.28
Cadmium	111	0.0275	0.0273	0.0252	<b>0.0267</b>	0.0013	4.904
Cadmium	114	0.021	0.0262	0.03	<b>0.0257</b>	0.0045	17.63
Chromium	52	0.7903	0.7216	0.8081	<b>0.7733</b>	0.0457	5.905
Chromium	53	4.43	4.427	4.648	<b>4.501</b>	0.1265	2.811
Cobalt	59	0.1119	0.1116	0.1109	<b>0.1115</b>	0.0005	0.4903
Copper	63	1.266	1.268	1.281	<b>1.272</b>	0.0081	0.6367
Copper	65	0.474	0.4614	0.4701	<b>0.4685</b>	0.0064	1.371
Lead	206	0.0357	0.039	0.0386	<b>0.0377</b>	0.0018	4.713
Lead	207	0.0385	0.0473	0.054	<b>0.0466</b>	0.0078	16.68
Lead	208	0.0385	0.0409	0.042	<b>0.0405</b>	0.0018	4.523
Molybdenum	95	0.6398	0.6146	0.6853	<b>0.6465</b>	0.0358	5.541
Molybdenum	97	0.6283	0.6568	0.6616	<b>0.6489</b>	0.018	2.779
Molybdenum	98	0.642	0.6475	0.627	<b>0.6388</b>	0.0106	1.66
Nickel	60	1.601	1.814	1.742	<b>1.719</b>	0.1086	6.318
Nickel	62	0.4419	0.4693	0.2847	<b>0.3986</b>	0.0996	24.99
Selenium	77	2.519	2.618	2.572	<b>2.57</b>	0.0498	1.94
Selenium	78	0.4828	0.7377	0.4186	<b>0.5464</b>	0.1688	30.89
Selenium	82	1.092	0.9468	0.7851	<b>0.9414</b>	0.1537	16.32
Silver	107	0.0185	0.022	0.0225	<b>0.021</b>	0.0022	10.44
Silver	109	0.018	0.0183	0.0211	<b>0.0191</b>	0.0017	8.974
Thallium	203	0.0472	0.0405	0.0401	<b>0.0426</b>	0.004	9.405
Thallium	205	0.0421	0.043	0.0439	<b>0.043</b>	0.0009	2.041
Vanadium	51	5.289	5.089	5.386	<b>5.255</b>	0.1512	2.877
Zinc	66	0.961	0.9458	0.9759	<b>0.9609</b>	0.0151	1.567
Zinc	67	8.187	8.508	8.454	<b>8.383</b>	0.1719	2.051
Zinc	68	6.575	6.711	6.704	<b>6.663</b>	0.0768	1.152

**Internal Standard Factors:**

Lithium	6	1.181	1.366	1.316	<b>1.181</b> n/a	n/a
Scandium	45	0.909	1.012	1.047	<b>0.909</b> n/a	n/a
Gallium	71	1.239	1.356	1.355	<b>1.239</b> n/a	n/a
Rhodium	103	1.307	1.359	1.411	<b>1.307</b> n/a	n/a
Indium	115	1.19	1.297	1.317	<b>1.19</b> n/a	n/a
Lutetium	175	1.057	1.132	1.144	<b>1.057</b> n/a	n/a



Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1004934-007			Mean	SD	%RSD
TimeStamp		6/4/10 19:07					
Antimony	121	0.1005	0.092	0.0925	<b>0.095</b>	0.0048	5.025
Antimony	123	0.1007	0.0922	0.0948	<b>0.0959</b>	0.0044	4.566
Arsenic	75	2.462	2.32	2.428	<b>2.403</b>	0.074	3.078
Beryllium	9	0.0036	0.0059	0.004	<b>0.0045</b>	0.0013	28.27
Cadmium	111	0.0341	0.0237	0.0241	<b>0.0273</b>	0.0059	21.64
Cadmium	114	0.0313	0.0292	0.0256	<b>0.0287</b>	0.0029	10.12
Chromium	52	0.7385	0.7061	0.7069	<b>0.7172</b>	0.0185	2.578
Chromium	53	1.435	1.47	1.452	<b>1.452</b>	0.0173	1.191
Cobalt	59	0.0723	0.0722	0.0739	<b>0.0728</b>	0.001	1.341
Copper	63	0.6274	0.6046	0.5891	<b>0.607</b>	0.0192	3.168
Copper	65	0.442	0.4807	0.4591	<b>0.4606</b>	0.0194	4.211
Lead	206	0.0395	0.0483	0.0425	<b>0.0434</b>	0.0045	10.26
Lead	207	0.0486	0.0525	0.0501	<b>0.0504</b>	0.0019	3.859
Lead	208	0.0464	0.051	0.0486	<b>0.0487</b>	0.0023	4.649
Molybdenum	95	0.7882	0.7853	0.7999	<b>0.7912</b>	0.0077	0.9782
Molybdenum	97	0.7795	0.8346	0.8021	<b>0.8054</b>	0.0277	3.436
Molybdenum	98	0.8115	0.7986	0.8127	<b>0.8076</b>	0.0078	0.9659
Nickel	60	1.124	1.028	1.099	<b>1.084</b>	0.0496	4.572
Nickel	62	0.1243	0.1666	0.1558	<b>0.1489</b>	0.022	14.77
Selenium	77	0.7006	0.6787	0.485	<b>0.6214</b>	0.1187	19.1
Selenium	78	0.413	0.4907	0.3677	<b>0.4238</b>	0.0622	14.67
Selenium	82	0.5365	0.3904	0.6347	<b>0.5205</b>	0.1229	23.62
Silver	107	0.0172	0.0174	0.0183	<b>0.0176</b>	0.0006	3.198
Silver	109	0.0164	0.0149	0.0163	<b>0.0159</b>	0.0008	5.131
Thallium	203	0.0422	0.0461	0.0408	<b>0.043</b>	0.0027	6.335
Thallium	205	0.0425	0.0428	0.041	<b>0.0421</b>	0.0009	2.207
Vanadium	51	6.194	6.244	5.924	<b>6.121</b>	0.1721	2.812
Zinc	66	2.306	2.26	2.326	<b>2.298</b>	0.034	1.481
Zinc	67	6.592	6.346	6.262	<b>6.4</b>	0.1714	2.678
Zinc	68	5.621	5.568	5.505	<b>5.564</b>	0.0583	1.048

**Internal Standard Factors:**

Lithium	6	1.11	1.17	1.162	<b>1.11</b> n/a	n/a
Scandium	45	0.872	0.948	0.958	<b>0.872</b> n/a	n/a
Gallium	71	1.112	1.191	1.211	<b>1.112</b> n/a	n/a
Rhodium	103	1.136	1.198	1.265	<b>1.136</b> n/a	n/a
Indium	115	1.087	1.129	1.147	<b>1.087</b> n/a	n/a
Lutetium	175	0.986	1.03	1.033	<b>0.986</b> n/a	n/a

Sample Name:		K1004934-008			Mean	SD	%RSD
TimeStamp		6/4/10 19:13					
Antimony	121	0.0187	0.0223	0.0184	<b>0.0198</b>	0.0022	11.1
Antimony	123	0.021	0.0212	0.0191	<b>0.0204</b>	0.0012	5.815
Arsenic	75	0.0567	0.0778	0.0408	<b>0.0585</b>	0.0186	31.8
Beryllium	9	-0.0003	0.0013	-0.0021	<b>0.001</b>	0.0012	118.3
Cadmium	111	0.0268	0.0209	0.0211	<b>0.023</b>	0.0034	14.64
Cadmium	114	0.0231	0.0224	0.0204	<b>0.022</b>	0.0014	6.572
Chromium	52	0.0947	0.1353	0.1086	<b>0.1129</b>	0.0206	18.28
Chromium	53	0.1394	0.1294	0.1368	<b>0.1352</b>	0.0052	3.845
Cobalt	59	0.0048	0.0028	0.0061	<b>0.0045</b>	0.0016	36.31
Copper	63	0.0353	0.0367	0.0374	<b>0.0365</b>	0.001	2.854
Copper	65	0.0072	0.006	0.0179	<b>0.0104</b>	0.0066	63.52
Lead	206	0.0366	0.039	0.0355	<b>0.037</b>	0.0018	4.809
Lead	207	0.0432	0.0472	0.0392	<b>0.0432</b>	0.004	9.291
Lead	208	0.0396	0.0437	0.0381	<b>0.0404</b>	0.0029	7.12
Molybdenum	95	0.0018	0.0029	0.0026	<b>0.0024</b>	0.0006	23.25
Molybdenum	97	-0.0007	0.0063	-0.0008	<b>0.0016</b>	0.0041	254.1
Molybdenum	98	0.0008	0.0033	0.0028	<b>0.0023</b>	0.0013	55.89
Nickel	60	-0.048	-0.0535	-0.0474	<b>-0.0496</b>	0.0033	6.713
Nickel	62	-0.1155	-0.1155	-0.1052	<b>-0.112</b>	0.006	5.318
Selenium	77	0.0915	0.1101	0.0893	<b>0.097</b>	0.0114	11.77
Selenium	78	-0.0589	-0.1729	0.0764	<b>-0.0518</b>	0.1248	240.9
Selenium	82	0.0982	0.1952	0.0735	<b>0.1223</b>	0.0643	52.6
Silver	107	0.0023	0.0012	0.0018	<b>0.0018</b>	0.0006	33.15
Silver	109	0.001	0.0009	0.0015	<b>0.0011</b>	0.0003	26.76
Thallium	203	0.0413	0.0472	0.0411	<b>0.0432</b>	0.0034	7.958
Thallium	205	0.0422	0.0442	0.0389	<b>0.0418</b>	0.0027	6.382
Vanadium	51	0.0247	0.0444	0.0322	<b>0.0338</b>	0.01	29.48
Zinc	66	0.4323	0.3732	0.3738	<b>0.3931</b>	0.0339	8.629
Zinc	67	0.4101	0.4279	0.3395	<b>0.3925</b>	0.0468	11.91
Zinc	68	0.4031	0.3772	0.4263	<b>0.4022</b>	0.0246	6.108

## Internal Standard

## Factors:

Lithium	6	0.96	0.969	1.04	<b>0.96</b> n/a	n/a
Scandium	45	0.859	0.919	0.948	<b>0.859</b> n/a	n/a
Gallium	71	0.881	0.913	0.951	<b>0.881</b> n/a	n/a
Rhodium	103	0.912	0.97	0.984	<b>0.912</b> n/a	n/a
Indium	115	0.876	0.923	0.945	<b>0.876</b> n/a	n/a
Lutetium	175	0.853	0.914	0.866	<b>0.853</b> n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	CCV2	Mean	SD	%RSD
TimeStamp	6/4/10 19:17			
Antimony 121	24.8	24.43	25.12	<b>24.78</b> 0.3473 1.401
Antimony 123	24.76	24.23	25.07	<b>24.68</b> 0.4234 1.716
Arsenic 75	25.25	24.68	24.77	<b>24.9</b> 0.3109 1.249
Beryllium 9	24.58	24.21	23.18	<b>23.99</b> 0.7251 3.022
Cadmium 111	24.51	24.73	25.02	<b>24.75</b> 0.2522 1.019
Cadmium 114	25.22	24.97	24.69	<b>24.96</b> 0.2637 1.056
Chromium 52	24.15	24.5	24.77	<b>24.47</b> 0.3103 1.268
Chromium 53	25.18	24.61	24.99	<b>24.93</b> 0.2892 1.16
Cobalt 59	24.81	23.75	24.37	<b>24.31</b> 0.5348 2.2
Copper 63	24.9	24.54	25.3	<b>24.91</b> 0.3795 1.523
Copper 65	24.72	23.97	23.97	<b>24.22</b> 0.435 1.796
Lead 206	24.71	25.31	25.58	<b>25.2</b> 0.4408 1.749
Lead 207	25.02	24.91	25.79	<b>25.24</b> 0.4789 1.897
Lead 208	24.64	24.96	25.66	<b>25.08</b> 0.5206 2.075
Molybdenum 95	24.59	24.5	25.06	<b>24.72</b> 0.302 1.222
Molybdenum 97	24.04	24.85	24.42	<b>24.44</b> 0.4066 1.664
Molybdenum 98	24.01	24.95	24.42	<b>24.46</b> 0.4728 1.933
Nickel 60	24.39	24.5	23.77	<b>24.22</b> 0.3953 1.632
Nickel 62	24.07	23.4	23.5	<b>23.66</b> 0.3641 1.539
Selenium 77	24.64	23.86	23.83	<b>24.11</b> 0.4637 1.923
Selenium 78	25.23	24.8	25.63	<b>25.22</b> 0.4149 1.645
Selenium 82	24.89	24.12	25.08	<b>24.7</b> 0.5048 2.044
Silver 107	24.3	24.04	23.96	<b>24.1</b> 0.1785 0.7408
Silver 109	24.72	24.77	25.11	<b>24.87</b> 0.2114 0.8504
Thallium 203	24.19	24.63	25.48	<b>24.77</b> 0.654 2.64
Thallium 205	24.29	24.35	25.68	<b>24.77</b> 0.7854 3.171
Vanadium 51	24.03	24.56	25.42	<b>24.67</b> 0.7005 2.839
Zinc 66	25.38	24.65	24.34	<b>24.79</b> 0.5344 2.156
Zinc 67	25.59	24.64	23.39	<b>24.54</b> 1.105 4.502
Zinc 68	24.89	24.87	24.96	<b>24.91</b> 0.0442 0.1774

**Internal Standard Factors:**

Lithium 6	0.95	1.002	1.006	<b>0.95</b> n/a n/a
Scandium 45	0.885	0.957	0.999	<b>0.885</b> n/a n/a
Gallium 71	0.91	0.939	0.967	<b>0.91</b> n/a n/a
Rhodium 103	0.883	0.957	0.96	<b>0.883</b> n/a n/a
Indium 115	0.893	0.916	0.959	<b>0.893</b> n/a n/a
Lutetium 175	0.847	0.875	0.915	<b>0.847</b> n/a n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	CCB2	Mean	SD	%RSD			
TimeStamp	6/4/10 19:26						
Antimony	121	0.0021	0.0033	0	<b>0.0018</b>	0.0017	93.54
Antimony	123	0.0044	0.0025	0.0024	<b>0.0031</b>	0.0011	35.67
Arsenic	75	0.0833	-0.0317	0.0638	<b>0.0385</b>	0.0615	160.1
Beryllium	9	0.0027	0.0071	-0.0007	<b>0.003</b>	0.0039	129.8
Cadmium	111	0.0045	0.0035	0.0009	<b>0.003</b>	0.0018	61.95
Cadmium	114	0.0028	0.004	0.0025	<b>0.0031</b>	0.0008	24.9
Chromium	52	0.0143	0.0119	0.0237	<b>0.0167</b>	0.0062	37.41
Chromium	53	0.0619	0.062	0.0585	<b>0.0608</b>	0.002	3.222
Cobalt	59	0.0033	0.0046	0.0018	<b>0.0032</b>	0.0014	42.51
Copper	63	0.0283	0.0347	0.0339	<b>0.0323</b>	0.0035	10.8
Copper	65	0.0066	0.0022	0.003	<b>0.0039</b>	0.0023	59.36
Lead	206	0.0049	0.0061	0.0022	<b>0.0044</b>	0.002	44.69
Lead	207	0.0054	0.003	0.0017	<b>0.0034</b>	0.0019	56.78
Lead	208	0.0041	0.0054	0.0022	<b>0.0039</b>	0.0016	41.22
Molybdenum	95	0.003	0.0041	0.0039	<b>0.0036</b>	0.0006	15.67
Molybdenum	97	0.0009	0.0075	0.004	<b>0.0041</b>	0.0033	79.96
Molybdenum	98	0.0037	0.0054	0.0003	<b>0.0031</b>	0.0026	83.43
Nickel	60	-0.0422	-0.0484	-0.0493	<b>-0.0466</b>	0.0038	8.213
Nickel	62	-0.0625	-0.0742	-0.1087	<b>-0.0818</b>	0.024	29.38
Selenium	77	-0.0333	-0.0226	-0.0049	<b>-0.0203</b>	0.0143	70.61
Selenium	78	-0.249	-0.1341	-0.1442	<b>-0.1757</b>	0.0636	36.2
Selenium	82	0.2352	-0.1347	0.1847	<b>0.0951</b>	0.2006	211
Silver	107	0.0078	0.0069	0.0041	<b>0.0063</b>	0.0019	30.31
Silver	109	0.0065	0.0073	0.0032	<b>0.0056</b>	0.0022	38.76
Thallium	203	0.0044	0.0043	-0.001	<b>0.0026</b>	0.0031	119.6
Thallium	205	0.0036	0.0029	-0.0012	<b>0.0018</b>	0.0026	144.6
Vanadium	51	0.0124	0.0065	0.009	<b>0.0093</b>	0.0029	31.56
Zinc	66	-0.0129	0.0009	-0.0035	<b>-0.0052</b>	0.0071	137
Zinc	67	-0.0122	-0.01	-0.033	<b>-0.0184</b>	0.0127	68.94
Zinc	68	0.0174	-0.0095	-0.0111	<b>-0.0011</b>	0.016	1486

**Internal Standard Factors:**

Lithium	6	0.894	0.994	1.014	<b>0.894</b>	n/a	n/a
Scandium	45	0.881	0.977	0.997	<b>0.881</b>	n/a	n/a
Gallium	71	0.88	0.951	0.961	<b>0.88</b>	n/a	n/a
Rhodium	103	0.909	0.999	0.97	<b>0.909</b>	n/a	n/a
Indium	115	0.895	0.966	0.974	<b>0.895</b>	n/a	n/a
Lutetium	175	0.867	0.898	0.922	<b>0.867</b>	n/a	n/a

Sample Name:		K1004870-001			Mean	SD	%RSD
TimeStamp		6/4/10 19:30					
Antimony	121	0.2671	0.2637	0.26	<b>0.2636</b>	0.0035	1.341
Antimony	123	0.2755	0.2661	0.2496	<b>0.2637</b>	0.0131	4.979
Arsenic	75	1.028	1.069	1.098	<b>1.065</b>	0.0356	3.338
Beryllium	9	0.0082	0.0159	0.0147	<b>0.0129</b>	0.0041	32.02
Cadmium	111	0.0661	0.0629	0.0635	<b>0.0641</b>	0.0017	2.688
Cadmium	114	0.047	0.0564	0.0484	<b>0.0506</b>	0.0051	10.01
Chromium	52	0.0027	0.0122	0.0126	<b>0.0091</b>	0.0056	60.96
Chromium	53	0.2751	0.2817	0.2765	<b>0.2778</b>	0.0035	1.26
Cobalt	59	0.4304	0.4301	0.4308	<b>0.4304</b>	0.0003	0.0737
Copper	63	0.4372	0.4389	0.4184	<b>0.4315</b>	0.0114	2.643
Copper	65	0.3266	0.3237	0.3296	<b>0.3266</b>	0.0029	0.896
Lead	206	0.0455	0.0506	0.0536	<b>0.0499</b>	0.0041	8.261
Lead	207	0.0591	0.0568	0.0633	<b>0.0597</b>	0.0033	5.485
Lead	208	0.0525	0.0547	0.0567	<b>0.0546</b>	0.0021	3.834
Molybdenum	95	12.6	12.85	13.07	<b>12.84</b>	0.2335	1.818
Molybdenum	97	12.83	13.12	13.25	<b>13.07</b>	0.2138	1.636
Molybdenum	98	12.59	12.94	13.12	<b>12.88</b>	0.2662	2.066
Nickel	60	2.55	2.591	2.558	<b>2.567</b>	0.0219	0.8532
Nickel	62	2.151	2.205	2.277	<b>2.211</b>	0.0634	2.866
Selenium	77	0.1652	0.1258	0.0833	<b>0.1248</b>	0.041	32.87
Selenium	78	0.0815	0.2419	-0.0233	<b>0.1</b>	0.1336	133.5
Selenium	82	0.156	0.2041	0.3395	<b>0.2332</b>	0.0951	40.79
Silver	107	0.0202	0.0164	0.0209	<b>0.0192</b>	0.0024	12.78
Silver	109	0.0159	0.0207	0.0172	<b>0.0179</b>	0.0025	13.94
Thallium	203	0.057	0.0583	0.0452	<b>0.0535</b>	0.0072	13.54
Thallium	205	0.0549	0.052	0.0519	<b>0.053</b>	0.0017	3.13
Vanadium	51	0.0669	0.0716	0.0742	<b>0.0709</b>	0.0037	5.22
Zinc	66	4.863	5.13	5.144	<b>5.046</b>	0.1585	3.142
Zinc	67	10.23	10.36	10.3	<b>10.3</b>	0.0635	0.6166
Zinc	68	8.921	9.555	9.044	<b>9.173</b>	0.3361	3.664

## Internal Standard

## Factors:

Lithium	6	1.069	1.147	1.166	<b>1.069</b>	n/a	n/a
Scandium	45	0.876	0.924	0.961	<b>0.876</b>	n/a	n/a
Gallium	71	1.087	1.196	1.162	<b>1.087</b>	n/a	n/a
Rhodium	103	1.151	1.24	1.228	<b>1.151</b>	n/a	n/a
Indium	115	1.1	1.121	1.133	<b>1.1</b>	n/a	n/a
Lutetium	175	0.981	1.021	1.035	<b>0.981</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1004870-002			Mean	SD	%RSD
TimeStamp		6/4/10 19:35					
Antimony	121	0.1156	0.1211	0.1181	<b>0.1183</b>	0.0028	2.33
Antimony	123	0.1105	0.1076	0.1092	<b>0.1091</b>	0.0015	1.339
Arsenic	75	0.468	0.5386	0.5083	<b>0.5049</b>	0.0354	7.017
Beryllium	9	0.1082	0.0953	0.1111	<b>0.1049</b>	0.0084	8.025
Cadmium	111	0.0874	0.0963	0.0936	<b>0.0924</b>	0.0045	4.896
Cadmium	114	0.0778	0.0854	0.0849	<b>0.0827</b>	0.0042	5.139
Chromium	52	1.447	1.202	1.2	<b>1.283</b>	0.1419	11.06
Chromium	53	1.703	1.587	1.549	<b>1.613</b>	0.0804	4.987
Cobalt	59	3.243	3.461	3.343	<b>3.349</b>	0.1093	3.263
Copper	63	1.077	1.085	1.034	<b>1.066</b>	0.0275	2.58
Copper	65	0.9751	1.015	0.944	<b>0.9779</b>	0.0354	3.617
Lead	206	1.103	0.9885	1.072	<b>1.055</b>	0.0594	5.635
Lead	207	1.161	1.144	1.152	<b>1.152</b>	0.0085	0.7407
Lead	208	1.145	1.076	1.118	<b>1.113</b>	0.0349	3.133
Molybdenum	95	15.37	15.7	15.41	<b>15.5</b>	0.1795	1.158
Molybdenum	97	15.1	15.62	15.71	<b>15.48</b>	0.3316	2.142
Molybdenum	98	14.81	15.5	15.51	<b>15.27</b>	0.4031	2.639
Nickel	60	9.551	9.779	9.663	<b>9.664</b>	0.1139	1.178
Nickel	62	9.24	9.76	9.43	<b>9.476</b>	0.2632	2.778
Selenium	77	1.529	1.682	1.52	<b>1.577</b>	0.0909	5.764
Selenium	78	1.443	1.596	1.26	<b>1.433</b>	0.1684	11.75
Selenium	82	1.496	1.806	1.559	<b>1.62</b>	0.1642	10.13
Silver	107	0.0037	0.0043	0.0038	<b>0.0039</b>	0.0003	8.102
Silver	109	0.0023	0.0019	0.0034	<b>0.0025</b>	0.0008	30.94
Thallium	203	0.0714	0.0669	0.0656	<b>0.068</b>	0.003	4.45
Thallium	205	0.0639	0.062	0.0621	<b>0.0627</b>	0.001	1.65
Vanadium	51	1.465	1.419	1.413	<b>1.432</b>	0.0283	1.975
Zinc	66	10.59	11.05	10.32	<b>10.66</b>	0.3678	3.452
Zinc	67	12.22	12.46	12.32	<b>12.33</b>	0.1204	0.9765
Zinc	68	12.77	12.65	12.01	<b>12.48</b>	0.4114	3.297

**Internal Standard Factors:**

Lithium	6	1.047	1.137	1.171	<b>1.047</b>	n/a	n/a
Scandium	45	0.849	0.89	0.899	<b>0.849</b>	n/a	n/a
Gallium	71	1.06	1.163	1.138	<b>1.06</b>	n/a	n/a
Rhodium	103	1.12	1.199	1.213	<b>1.12</b>	n/a	n/a
Indium	115	1.046	1.11	1.11	<b>1.046</b>	n/a	n/a
Lutetium	175	0.996	1.014	1.03	<b>0.996</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1004870-003			Mean	SD	%RSD
TimeStamp		6/4/10 19:40					
Antimony	121	6.833	6.648	7.199	<b>6.893</b>	0.2808	4.073
Antimony	123	6.633	6.787	6.982	<b>6.801</b>	0.175	2.574
Arsenic	75	35.14	34.73	36.4	<b>35.42</b>	0.8705	2.458
Beryllium	9	0.012	0.0058	0.0122	<b>0.01</b>	0.0036	36.56
Cadmium	111	0.1162	0.0968	0.1127	<b>0.1086</b>	0.0104	9.534
Cadmium	114	0.0908	0.0885	0.0805	<b>0.0866</b>	0.0054	6.287
Chromium	52	0.0574	0.0858	0.0729	<b>0.072</b>	0.0143	19.8
Chromium	53	0.8666	0.8337	0.894	<b>0.8648</b>	0.0302	3.494
Cobalt	59	0.3421	0.3464	0.3657	<b>0.3514</b>	0.0126	3.572
Copper	63	0.7267	0.7832	0.7501	<b>0.7534</b>	0.0284	3.766
Copper	65	0.458	0.431	0.4366	<b>0.4419</b>	0.0142	3.223
Lead	206	0.0538	0.0556	0.057	<b>0.0555</b>	0.0016	2.875
Lead	207	0.0651	0.0644	0.0623	<b>0.0639</b>	0.0015	2.336
Lead	208	0.06	0.0604	0.059	<b>0.0598</b>	0.0007	1.152
Molybdenum	95	67.98	67.43	69.21	<b>68.21</b>	0.9111	1.336
Molybdenum	97	66.73	68.65	67.93	<b>67.77</b>	0.9736	1.437
Molybdenum	98	67.44	67.12	67.96	<b>67.51</b>	0.4226	0.626
Nickel	60	1.649	1.606	1.721	<b>1.659</b>	0.058	3.499
Nickel	62	0.9006	0.9028	0.8435	<b>0.8823</b>	0.0336	3.811
Selenium	77	0.4757	0.444	0.3809	<b>0.4335</b>	0.0483	11.13
Selenium	78	0.5401	0.4077	0.3714	<b>0.4397</b>	0.0888	20.19
Selenium	82	0.5568	0.6547	0.709	<b>0.6402</b>	0.0771	12.05
Silver	107	0.0085	0.0094	0.0084	<b>0.0087</b>	0.0006	6.766
Silver	109	0.006	0.0047	0.0074	<b>0.006</b>	0.0014	22.61
Thallium	203	0.0447	0.0462	0.0448	<b>0.0452</b>	0.0008	1.817
Thallium	205	0.0442	0.0434	0.0426	<b>0.0434</b>	0.0008	1.846
Vanadium	51	1.481	1.414	1.471	<b>1.455</b>	0.036	2.475
Zinc	66	1.049	1.127	1.181	<b>1.119</b>	0.0662	5.916
Zinc	67	7.548	7.617	7.638	<b>7.601</b>	0.0469	0.6171
Zinc	68	5.806	6.017	6.07	<b>5.964</b>	0.1396	2.341

**Internal Standard Factors:**

Lithium	6	1.112	1.199	1.239	<b>1.112</b>	n/a	n/a
Scandium	45	0.887	0.934	0.968	<b>0.887</b>	n/a	n/a
Gallium	71	1.144	1.222	1.24	<b>1.144</b>	n/a	n/a
Rhodium	103	1.211	1.273	1.258	<b>1.211</b>	n/a	n/a
Indium	115	1.134	1.163	1.226	<b>1.134</b>	n/a	n/a
Lutetium	175	1.013	1.063	1.068	<b>1.013</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1004870-004			Mean	SD	%RSD
TimeStamp		6/4/10 19:45					
Antimony	121	0.0514	0.0533	0.049	<b>0.0512</b>	0.0021	4.157
Antimony	123	0.0478	0.0542	0.0469	<b>0.0497</b>	0.004	8.067
Arsenic	75	0.815	0.7619	0.7829	<b>0.7866</b>	0.0267	3.399
Beryllium	9	0.006	0.0082	0.0016	<b>0.0053</b>	0.0034	63.41
Cadmium	111	0.032	0.0349	0.0327	<b>0.0332</b>	0.0015	4.646
Cadmium	114	0.0371	0.0353	0.0323	<b>0.0349</b>	0.0024	7.003
Chromium	52	0.1011	0.0907	0.048	<b>0.0799</b>	0.0281	35.22
Chromium	53	0.3199	0.2947	0.2474	<b>0.2873</b>	0.0368	12.8
Cobalt	59	0.358	0.372	0.364	<b>0.3647</b>	0.007	1.923
Copper	63	0.307	0.3339	0.2991	<b>0.3133</b>	0.0183	5.823
Copper	65	0.2383	0.2471	0.225	<b>0.2368</b>	0.0111	4.702
Lead	206	0.0926	0.0911	0.0867	<b>0.0902</b>	0.0031	3.396
Lead	207	0.0973	0.1025	0.0929	<b>0.0976</b>	0.0048	4.949
Lead	208	0.0948	0.0963	0.0942	<b>0.0951</b>	0.0011	1.138
Molybdenum	95	1.131	1.162	1.149	<b>1.147</b>	0.0154	1.342
Molybdenum	97	1.108	1.14	1.13	<b>1.126</b>	0.0166	1.477
Molybdenum	98	1.129	1.143	1.134	<b>1.135</b>	0.0073	0.6411
Nickel	60	0.4945	0.5606	0.5113	<b>0.5221</b>	0.0344	6.581
Nickel	62	0.1869	0.2433	0.2407	<b>0.2236</b>	0.0318	14.22
Selenium	77	0.1342	0.233	0.1881	<b>0.1851</b>	0.0495	26.72
Selenium	78	0.1006	0.2237	0.1032	<b>0.1425</b>	0.0703	49.34
Selenium	82	0.4956	0.4609	0.3485	<b>0.435</b>	0.0769	17.67
Silver	107	0.0316	0.0331	0.0301	<b>0.0316</b>	0.0015	4.727
Silver	109	0.0315	0.0329	0.0341	<b>0.0329</b>	0.0013	3.944
Thallium	203	0.0408	0.045	0.041	<b>0.0423</b>	0.0024	5.608
Thallium	205	0.0438	0.0428	0.044	<b>0.0435</b>	0.0006	1.431
Vanadium	51	1.86	1.892	1.774	<b>1.842</b>	0.061	3.313
Zinc	66	2.361	2.456	2.325	<b>2.381</b>	0.0674	2.832
Zinc	67	4.234	4.4	4.253	<b>4.296</b>	0.0904	2.104
Zinc	68	4.086	4.136	4.02	<b>4.081</b>	0.0583	1.43

**Internal Standard Factors:**

Lithium	6	1.034	1.074	1.093	<b>1.034</b> n/a	n/a
Scandium	45	0.78	0.842	0.815	<b>0.78</b> n/a	n/a
Gallium	71	0.997	1.087	1.08	<b>0.997</b> n/a	n/a
Rhodium	103	1.044	1.109	1.118	<b>1.044</b> n/a	n/a
Indium	115	0.995	1.066	1.06	<b>0.995</b> n/a	n/a
Lutetium	175	0.924	0.954	0.973	<b>0.924</b> n/a	n/a



Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005067-002			Mean	SD	%RSD
TimeStamp		6/4/10 19:50					
Antimony	121	0.1104	0.1114	0.1099	<b>0.1106</b>	0.0008	0.6844
Antimony	123	0.1119	0.1042	0.1042	<b>0.1068</b>	0.0044	4.143
Arsenic	75	0.2908	0.3114	0.3102	<b>0.3041</b>	0.0116	3.808
Beryllium	9	0.0067	0.0099	0.0092	<b>0.0086</b>	0.0017	19.85
Cadmium	111	0.0385	0.0403	0.0357	<b>0.0382</b>	0.0023	6.057
Cadmium	114	0.0391	0.041	0.036	<b>0.0387</b>	0.0025	6.578
Chromium	52	0.5003	0.5097	0.503	<b>0.5043</b>	0.0049	0.9657
Chromium	53	2.004	1.686	1.696	<b>1.795</b>	0.1804	10.05
Cobalt	59	0.2127	0.2085	0.2124	<b>0.2112</b>	0.0023	1.111
Copper	63	2.164	2.114	2.142	<b>2.14</b>	0.0252	1.177
Copper	65	1.727	1.74	1.733	<b>1.733</b>	0.0063	0.3633
Lead	206	0.1461	0.143	0.1482	<b>0.1458</b>	0.0026	1.782
Lead	207	0.1597	0.1465	0.1684	<b>0.1582</b>	0.011	6.954
Lead	208	0.1581	0.1481	0.1569	<b>0.1544</b>	0.0055	3.54
Molybdenum	95	0.4457	0.4578	0.4251	<b>0.4429</b>	0.0166	3.738
Molybdenum	97	0.4517	0.4346	0.4181	<b>0.4348</b>	0.0169	3.875
Molybdenum	98	0.4284	0.419	0.4281	<b>0.4252</b>	0.0053	1.256
Nickel	60	3.486	3.316	3.383	<b>3.395</b>	0.0857	2.523
Nickel	62	2.681	2.447	2.56	<b>2.563</b>	0.1169	4.56
Selenium	77	0.8205	0.7941	0.8292	<b>0.8146</b>	0.0183	2.242
Selenium	78	0.4764	0.4627	0.5121	<b>0.4837</b>	0.0255	5.273
Selenium	82	0.6603	0.7973	0.7199	<b>0.7258</b>	0.0687	9.459
Silver	107	-0.0009	-0.0008	-0.0011	<b>-0.0009</b>	0.0002	16.31
Silver	109	-0.0012	-0.0021	-0.0003	<b>-0.0012</b>	0.0009	75.82
Thallium	203	0.0423	0.0424	0.0398	<b>0.0415</b>	0.0015	3.587
Thallium	205	0.0429	0.0405	0.0461	<b>0.0432</b>	0.0028	6.429
Vanadium	51	0.4745	0.4898	0.5302	<b>0.4982</b>	0.0288	5.776
Zinc	66	2.152	2.055	2.08	<b>2.095</b>	0.0503	2.402
Zinc	67	3.915	3.76	4.018	<b>3.898</b>	0.1302	3.339
Zinc	68	3.683	3.586	3.584	<b>3.618</b>	0.0563	1.557

**Internal Standard Factors:**

Lithium	6	1.168	1.216	1.225	<b>1.168</b> n/a	n/a
Scandium	45	0.916	0.946	0.991	<b>0.916</b> n/a	n/a
Gallium	71	1.162	1.228	1.237	<b>1.162</b> n/a	n/a
Rhodium	103	1.218	1.283	1.257	<b>1.218</b> n/a	n/a
Indium	115	1.138	1.184	1.185	<b>1.138</b> n/a	n/a
Lutetium	175	1.023	1.037	1.061	<b>1.023</b> n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005067-003			Mean	SD	%RSD
TimeStamp		6/4/10 19:55					
Antimony	121	0.1001	0.1	0.0964	<b>0.0988</b>	0.0021	2.142
Antimony	123	0.1017	0.1031	0.1004	<b>0.1017</b>	0.0014	1.339
Arsenic	75	0.2816	0.283	0.3348	<b>0.2998</b>	0.0303	10.11
Beryllium	9	0.0053	0.0011	0.0065	<b>0.0043</b>	0.0028	66.21
Cadmium	111	0.0285	0.0374	0.0353	<b>0.0338</b>	0.0046	13.76
Cadmium	114	0.026	0.0343	0.0322	<b>0.0308</b>	0.0043	14.02
Chromium	52	0.3861	0.34	0.4036	<b>0.3766</b>	0.0329	8.732
Chromium	53	1.561	1.491	1.493	<b>1.515</b>	0.0396	2.611
Cobalt	59	0.1702	0.1703	0.1637	<b>0.1681</b>	0.0038	2.232
Copper	63	1.687	1.686	1.617	<b>1.664</b>	0.0401	2.411
Copper	65	1.262	1.262	1.261	<b>1.262</b>	0.0005	0.0365
Lead	206	0.0817	0.0751	0.079	<b>0.0786</b>	0.0033	4.213
Lead	207	0.0906	0.093	0.0936	<b>0.0924</b>	0.0016	1.729
Lead	208	0.0885	0.0855	0.085	<b>0.0863</b>	0.0019	2.175
Molybdenum	95	0.4211	0.411	0.4189	<b>0.417</b>	0.0053	1.268
Molybdenum	97	0.4127	0.3988	0.4225	<b>0.4113</b>	0.0119	2.888
Molybdenum	98	0.4217	0.4362	0.4333	<b>0.4304</b>	0.0077	1.789
Nickel	60	2.602	2.654	2.483	<b>2.58</b>	0.0873	3.383
Nickel	62	1.75	1.748	1.652	<b>1.717</b>	0.0562	3.27
Selenium	77	0.7129	0.6975	0.6477	<b>0.686</b>	0.034	4.96
Selenium	78	0.5134	0.6106	0.6202	<b>0.5814</b>	0.0591	10.16
Selenium	82	0.6311	0.6122	0.7969	<b>0.6801</b>	0.1016	14.94
Silver	107	-0.0001	-0.0003	0.0011	<b>0.0002</b>	0.0008	346.8
Silver	109	-0.0018	-0.0022	-0.0017	<b>-0.0019</b>	0.0002	12.06
Thallium	203	0.0403	0.0449	0.0397	<b>0.0416</b>	0.0028	6.814
Thallium	205	0.0416	0.0422	0.0409	<b>0.0416</b>	0.0007	1.574
Vanadium	51	0.4137	0.4059	0.4627	<b>0.4274</b>	0.0308	7.205
Zinc	66	1.658	1.638	1.596	<b>1.631</b>	0.0317	1.942
Zinc	67	3.371	3.496	3.419	<b>3.429</b>	0.0627	1.829
Zinc	68	3.115	3.186	3.076	<b>3.126</b>	0.0561	1.795

**Internal Standard Factors:**

Lithium	6	1.145	1.203	1.233	<b>1.145</b> n/a	n/a
Scandium	45	0.915	0.944	0.976	<b>0.915</b> n/a	n/a
Gallium	71	1.143	1.216	1.206	<b>1.143</b> n/a	n/a
Rhodium	103	1.185	1.235	1.237	<b>1.185</b> n/a	n/a
Indium	115	1.12	1.175	1.177	<b>1.12</b> n/a	n/a
Lutetium	175	1.027	1.049	1.047	<b>1.027</b> n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005067-004			Mean	SD	%RSD
TimeStamp		6/4/10 20:00					
Antimony	121	0.024	0.0237	0.0252	<b>0.0243</b>	0.0008	3.22
Antimony	123	0.0221	0.0253	0.0243	<b>0.0239</b>	0.0016	6.737
Arsenic	75	0.0785	0.1406	0.0818	<b>0.1003</b>	0.0349	34.85
Beryllium	9	0.0016	-0.0002	0.0023	<b>0.0012</b>	0.0013	105.6
Cadmium	111	0.0286	0.0322	0.0282	<b>0.0297</b>	0.0022	7.477
Cadmium	114	0.0286	0.0235	0.0272	<b>0.0264</b>	0.0026	9.832
Chromium	52	0.3759	0.3699	0.3726	<b>0.3728</b>	0.003	0.8053
Chromium	53	0.4394	0.4508	0.4248	<b>0.4383</b>	0.013	2.973
Cobalt	59	0.0458	0.0464	0.0494	<b>0.0472</b>	0.0019	4.059
Copper	63	0.231	0.2342	0.2307	<b>0.232</b>	0.0019	0.8252
Copper	65	0.1965	0.1896	0.1921	<b>0.1927</b>	0.0035	1.827
Lead	206	0.0885	0.0904	0.0864	<b>0.0884</b>	0.002	2.283
Lead	207	0.1041	0.0975	0.1032	<b>0.1016</b>	0.0035	3.489
Lead	208	0.0978	0.0941	0.0969	<b>0.0963</b>	0.0019	1.97
Molybdenum	95	0.0921	0.0987	0.0924	<b>0.0944</b>	0.0038	3.991
Molybdenum	97	0.0964	0.0929	0.0886	<b>0.0926</b>	0.0039	4.233
Molybdenum	98	0.0938	0.0914	0.0983	<b>0.0945</b>	0.0035	3.711
Nickel	60	0.9274	0.9803	0.971	<b>0.9596</b>	0.0282	2.943
Nickel	62	0.9451	1.021	0.9913	<b>0.9858</b>	0.0382	3.872
Selenium	77	0.0672	0.0641	0.0388	<b>0.0567</b>	0.0156	27.53
Selenium	78	-0.0913	0.0449	0.0766	<b>0.0101</b>	0.0892	887.3
Selenium	82	0.1299	0.3403	0.1138	<b>0.1947</b>	0.1264	64.91
Silver	107	0.0005	0.0001	0.0008	<b>0.0004</b>	0.0004	81.38
Silver	109	-0.0008	0	0	<b>-0.0002</b>	0.0005	190.7
Thallium	203	0.0399	0.0379	0.0429	<b>0.0402</b>	0.0025	6.263
Thallium	205	0.0432	0.0432	0.0416	<b>0.0427</b>	0.0009	2.123
Vanadium	51	0.1063	0.0988	0.1091	<b>0.1048</b>	0.0053	5.088
Zinc	66	1.898	1.865	1.939	<b>1.901</b>	0.0371	1.953
Zinc	67	1.88	1.806	2.007	<b>1.898</b>	0.1012	5.334
Zinc	68	1.966	1.905	1.931	<b>1.934</b>	0.0308	1.595

**Internal Standard Factors:**

Lithium	6	0.917	0.98	1.019	<b>0.917</b> n/a	n/a
Scandium	45	0.825	0.901	0.927	<b>0.825</b> n/a	n/a
Gallium	71	0.864	0.936	0.957	<b>0.864</b> n/a	n/a
Rhodium	103	0.893	0.95	0.954	<b>0.893</b> n/a	n/a
Indium	115	0.88	0.926	0.945	<b>0.88</b> n/a	n/a
Lutetium	175	0.863	0.88	0.889	<b>0.863</b> n/a	n/a

Instrument ID: K-ICP-MS-02

Experiment: 06-04-10D

Units: µg/L (ppb)

Method: EPA 200.8

Analyst: Greg Jasper

STARLIMS #203621

Sample Name:	CCV3				Mean	SD	%RSD
TimeStamp	6/4/10 20:04						
Antimony	121	24.91	24.36	24.89	<b>24.72</b>	0.3138	1.27
Antimony	123	24.48	24.55	24.21	<b>24.41</b>	0.1785	0.7309
Arsenic	75	25.5	25.06	24.45	<b>25</b>	0.5268	2.107
Beryllium	9	24.86	25.22	26.04	<b>25.37</b>	0.6048	2.384
Cadmium	111	24.65	24.86	24.86	<b>24.79</b>	0.1232	0.497
Cadmium	114	24.89	24.28	25	<b>24.72</b>	0.3862	1.562
Chromium	52	24.77	24.72	25.09	<b>24.86</b>	0.2012	0.8091
Chromium	53	25.71	24.61	25.88	<b>25.4</b>	0.6923	2.726
Cobalt	59	25.37	23.81	24.32	<b>24.5</b>	0.7952	3.246
Copper	63	24.92	24.85	24.08	<b>24.61</b>	0.4677	1.9
Copper	65	24.31	23.95	25.01	<b>24.43</b>	0.5392	2.207
Lead	206	25	25.39	24.35	<b>24.91</b>	0.5258	2.111
Lead	207	24.74	24.98	25.01	<b>24.91</b>	0.1474	0.5918
Lead	208	24.86	25.35	24.28	<b>24.83</b>	0.5331	2.147
Molybdenum	95	24.53	25.5	25.56	<b>25.2</b>	0.5804	2.303
Molybdenum	97	24.43	25.69	25.49	<b>25.2</b>	0.6771	2.687
Molybdenum	98	24.81	25.53	25.24	<b>25.19</b>	0.3627	1.44
Nickel	60	23.96	23.87	24.07	<b>23.97</b>	0.1031	0.43
Nickel	62	24.73	24.39	24.41	<b>24.51</b>	0.1926	0.7859
Selenium	77	24.38	23.93	23.94	<b>24.08</b>	0.2572	1.068
Selenium	78	25.09	25.3	25.26	<b>25.22</b>	0.1126	0.4465
Selenium	82	25.05	24.64	24.81	<b>24.83</b>	0.2053	0.8268
Silver	107	23.92	24.25	24.77	<b>24.31</b>	0.4296	1.767
Silver	109	25.19	24.94	24.95	<b>25.03</b>	0.1421	0.5679
Thallium	203	23.84	24.87	23.89	<b>24.2</b>	0.5788	2.392
Thallium	205	24.19	25.47	24.75	<b>24.8</b>	0.6456	2.603
Vanadium	51	25.08	25.07	24.87	<b>25.01</b>	0.118	0.4717
Zinc	66	24.87	24.73	23.83	<b>24.48</b>	0.564	2.304
Zinc	67	25.23	24.45	24.33	<b>24.67</b>	0.489	1.982
Zinc	68	25.47	24.71	24.8	<b>24.99</b>	0.4175	1.67

## Internal Standard

## Factors:

Lithium	6	0.927	1.016	1.049	<b>0.927</b>	n/a	n/a
Scandium	45	0.888	0.941	0.965	<b>0.888</b>	n/a	n/a
Gallium	71	0.883	0.936	0.937	<b>0.883</b>	n/a	n/a
Rhodium	103	0.891	0.967	0.981	<b>0.891</b>	n/a	n/a
Indium	115	0.88	0.918	0.93	<b>0.88</b>	n/a	n/a
Lutetium	175	0.844	0.896	0.87	<b>0.844</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-04-10D  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	CCB3	Mean	SD	%RSD		
TimeStamp	6/4/10 20:13					
Antimony 121	0.0065	0.0039	0.0029	<b>0.0045</b>	0.0018	40.68
Antimony 123	0.0106	0.008	0.0018	<b>0.0068</b>	0.0045	66.35
Arsenic 75	0.0345	0.0534	-0.0061	<b>0.0273</b>	0.0304	111.5
Beryllium 9	0.0075	0.0065	0.0021	<b>0.0054</b>	0.0029	53.97
Cadmium 111	0.0041	0.0059	0.0026	<b>0.0042</b>	0.0017	39.27
Cadmium 114	0.0038	0.0051	0.0017	<b>0.0036</b>	0.0017	48.74
Chromium 52	-0.0075	0.0052	0.0102	<b>0.0027</b>	0.0091	342
Chromium 53	0.057	0.0465	0.0493	<b>0.0509</b>	0.0054	10.69
Cobalt 59	0.0044	0.0068	0.0018	<b>0.0043</b>	0.0025	57.55
Copper 63	0.0323	0.0474	0.0403	<b>0.04</b>	0.0076	18.94
Copper 65	0.0012	0.0055	-0.0059	<b>0.0003</b>	0.0058	1983
Lead 206	0.0055	0.0051	0.0018	<b>0.0042</b>	0.002	48.46
Lead 207	0.0056	0.0072	0.0035	<b>0.0054</b>	0.0019	34.01
Lead 208	0.0052	0.0055	0.0028	<b>0.0045</b>	0.0015	33.73
Molybdenum 95	0.0092	0.0066	0.0024	<b>0.0061</b>	0.0034	56.59
Molybdenum 97	0.0047	0.0105	0.002	<b>0.0057</b>	0.0043	75.25
Molybdenum 98	0.0063	0.0059	0.003	<b>0.0051</b>	0.0018	35.11
Nickel 60	-0.0518	-0.0454	-0.0338	<b>-0.0437</b>	0.0091	20.9
Nickel 62	-0.079	-0.0538	-0.081	<b>-0.0712</b>	0.0152	21.26
Selenium 77	-0.0031	-0.0002	0.0248	<b>0.0072</b>	0.0153	213.9
Selenium 78	-0.0888	0.0393	-0.0374	<b>-0.029</b>	0.0644	222.6
Selenium 82	0.0818	0.1445	0.0009	<b>0.0757</b>	0.072	95.1
Silver 107	0.0083	0.0072	0.0023	<b>0.0059</b>	0.0032	54.02
Silver 109	0.0083	0.0053	0.0034	<b>0.0057</b>	0.0025	43.98
Thallium 203	0.0054	0.0026	-0.0005	<b>0.0025</b>	0.003	119.3
Thallium 205	0.0068	0.0015	-0.0009	<b>0.0025</b>	0.004	160.3
Vanadium 51	0.0025	0.0078	0.0031	<b>0.0045</b>	0.0029	65.23
Zinc 66	0.0235	0.0261	0.015	<b>0.0215</b>	0.0058	26.92
Zinc 67	0.0066	0.0143	-0.0018	<b>0.0064</b>	0.0081	127.1
Zinc 68	0.0004	0.0121	0.0121	<b>0.0082</b>	0.0067	82.22

**Internal Standard Factors:**

Lithium 6	0.902	1	1.033	<b>0.902</b>	n/a	n/a
Scandium 45	0.826	0.937	0.971	<b>0.826</b>	n/a	n/a
Gallium 71	0.865	0.974	0.973	<b>0.865</b>	n/a	n/a
Rhodium 103	0.91	0.981	0.977	<b>0.91</b>	n/a	n/a
Indium 115	0.878	0.925	0.952	<b>0.878</b>	n/a	n/a
Lutetium 175	0.859	0.884	0.904	<b>0.859</b>	n/a	n/a

## Sample List

Num	Label	Type	Weight	Volume	Dilution	Rack	Row	Column	Height
1	Cal. Blk	Blank	0 kg	0 ml	1.00	0	1	1	145
2	Cal. Stn	Fully Quant Standard	0 kg	0 ml	1.00	0	1	2	145
3	ICV1	Unknown	0 kg	0 ml	1.00	0	1	3	145
4	CCV1	Unknown	0 kg	0 ml	1.00	0	1	2	145
5	ICB1	Unknown	0 kg	0 ml	1.00	0	1	1	145
6	CCB1	Unknown	0 kg	0 ml	1.00	0	1	1	145
7	WATER CRA	Unknown	0 kg	0 ml	1.00	0	1	4	145
8	K1005055-MB	Unknown	0 kg	0 ml	1.00	1	1	1	145
9	K1005055-008	Unknown	0 kg	0 ml	1.00	1	1	4	145
10	K1005055-008S	Unknown	0 kg	0 ml	1.00	1	1	5	145
11	K1005055-008SD	Unknown	0 kg	0 ml	1.00	1	1	6	145
12	LCSW K1005055	Unknown	0 kg	0 ml	1.00	1	1	2	145
13	LCSW K1005055D	Unknown	0 kg	0 ml	1.00	1	1	3	145
14	K1005055-001	Unknown	0 kg	0 ml	1.00	1	1	7	145
15	K1005055-002	Unknown	0 kg	0 ml	1.00	1	1	8	145
16	K1005055-003	Unknown	0 kg	0 ml	1.00	1	1	9	145
17	K1005055-004	Unknown	0 kg	0 ml	1.00	1	1	10	145
18	CCV2	Unknown	0 kg	0 ml	1.00	0	1	2	145
19	CCB2	Unknown	0 kg	0 ml	1.00	0	1	1	145
20	K1005117-001	Unknown	0 kg	0 ml	1.00	2	1	10	145
21	K1005117-001D	Unknown	0 kg	0 ml	1.00	2	1	11	145
22	K1005117-001S	Unknown	0 kg	0 ml	1.00	2	1	12	145
23	CCV3	Unknown	0 kg	0 ml	1.00	0	1	2	145
24	CCB3	Unknown	0 kg	0 ml	1.00	0	1	1	145
25	K1005055-005	Unknown	0 kg	0 ml	1.00	1	1	11	145
26	K1005055-006	Unknown	0 kg	0 ml	1.00	1	1	12	145
27	K1005055-007	Unknown	0 kg	0 ml	1.00	1	2	1	145
28	K1005055-009	Unknown	0 kg	0 ml	1.00	1	2	2	145
29	K1005055-010	Unknown	0 kg	0 ml	1.00	1	2	3	145
30	K1005055-001 DISS	Unknown	0 kg	0 ml	1.00	1	2	4	145
31	K1005055-002 DISS	Unknown	0 kg	0 ml	1.00	1	2	5	145
32	K1005055-003 DISS	Unknown	0 kg	0 ml	1.00	1	2	6	145
33	K1005055-004 DISS	Unknown	0 kg	0 ml	1.00	1	2	7	145
34	K1005055-005 DISS	Unknown	0 kg	0 ml	1.00	1	2	8	145
35	CCV4	QC Sample	0 kg	0 ml	1.00	0	1	2	145
36	CCB4	QC Sample	0 kg	0 ml	1.00	0	1	1	145
37	K1005055-006 DISS	Unknown	0 kg	0 ml	1.00	1	2	9	145
38	K1005055-007 DISS	Unknown	0 kg	0 ml	1.00	1	2	10	145
39	K1005055-008 DISS	Unknown	0 kg	0 ml	1.00	1	2	11	145
40	K1005055-008 DISSS	Unknown	0 kg	0 ml	1.00	1	2	12	145
41	K1005055-008 DISSSD	Unknown	0 kg	0 ml	1.00	1	3	1	145
42	K1005055-009 DISS	Unknown	0 kg	0 ml	1.00	1	3	2	145
43	K1005055-011 DISS	Unknown	0 kg	0 ml	1.00	1	3	3	145
44	K1005258-MB	Unknown	0 kg	0 ml	1.00	1	3	4	145
45	LCSW K1005258	Unknown	0 kg	0 ml	1.00	1	3	5	145
46	LCSW K1005258D	Unknown	0 kg	0 ml	1.00	1	3	6	145
47	CCV5	QC Sample	0 kg	0 ml	1.00	0	1	2	145
48	CCB5	QC Sample	0 kg	0 ml	1.00	0	1	1	145

49	K1005055-013	Unknown	0 kg	0 ml	1.00	1	3	7	145
50	K1005258-001	Unknown	0 kg	0 ml	1.00	1	3	8	145
51	K1005258-001S	Unknown	0 kg	0 ml	1.00	1	3	9	145
52	K1005258-001SD	Unknown	0 kg	0 ml	1.00	1	3	10	145
53	K1005258-002	Unknown	0 kg	0 ml	1.00	1	3	11	145
54	K1005258-002S	Unknown	0 kg	0 ml	1.00	1	3	12	145
55	K1005258-002SD	Unknown	0 kg	0 ml	1.00	1	4	1	145
56	K1005258-003	Unknown	0 kg	0 ml	1.00	1	4	2	145
57	K1005258-004	Unknown	0 kg	0 ml	1.00	1	4	3	145
58	K1005258-005	Unknown	0 kg	0 ml	1.00	1	4	4	145
59	CCV6	QC Sample	0 kg	0 ml	1.00	0	1	2	145
60	CCB6	QC Sample	0 kg	0 ml	1.00	0	1	1	145
61	K1005258-006	Unknown	0 kg	0 ml	1.00	1	4	5	145
62	K1005258-007	Unknown	0 kg	0 ml	1.00	1	4	6	145
63	K1005258-009	Unknown	0 kg	0 ml	1.00	1	4	7	145
64	K1005258-001 DISS	Unknown	0 kg	0 ml	1.00	1	4	8	145
65	K1005258-001 DISSS	Unknown	0 kg	0 ml	1.00	1	4	9	145
66	K1005258-001 DISSSD	Unknown	0 kg	0 ml	1.00	1	4	10	145
67	K1005258-002 DISS	Unknown	0 kg	0 ml	1.00	1	4	11	145
68	K1005258-002 DISSS	Unknown	0 kg	0 ml	1.00	1	4	12	145
69	K1005258-002 DISSSD	Unknown	0 kg	0 ml	1.00	1	5	1	145
70	CCV7	QC Sample	0 kg	0 ml	1.00	0	1	2	145
71	CCB7	QC Sample	0 kg	0 ml	1.00	0	1	1	145
72	K1005258-003 DISS	Unknown	0 kg	0 ml	1.00	1	5	2	145
73	K1005258-004 DISS	Unknown	0 kg	0 ml	1.00	1	5	3	145
74	K1005258-005 DISS	Unknown	0 kg	0 ml	1.00	1	5	4	145
75	K1005258-006 DISS	Unknown	0 kg	0 ml	1.00	1	5	5	145
76	K1005258-010 DISS	Unknown	0 kg	0 ml	1.00	1	5	6	145
77	K1005258-011 DISS	Unknown	0 kg	0 ml	1.00	1	5	7	145
78	K1005055-008 1/50	Unknown	0 kg	0 ml	1.00	1	5	8	145
79	K1005055-008 1/50D	Unknown	0 kg	0 ml	1.00	1	5	9	145
80	K1005055-008 1/50S	Unknown	0 kg	0 ml	1.00	1	5	10	145
81	K1005055-009 1/20	Unknown	0 kg	0 ml	1.00	1	5	11	145
82	CCV8	QC Sample	0 kg	0 ml	1.00	0	1	2	145
83	CCB8	QC Sample	0 kg	0 ml	1.00	0	1	1	145
84	K1005055-008 DISS	Unknown	0 kg	0 ml	1.00	1	5	12	145
85	<sup>1/50</sup> K1005055-008 DISS	Unknown	0 kg	0 ml	1.00	2	1	1	145
86	<sup>1/50D</sup> K1005055-008 DISS	Unknown	0 kg	0 ml	1.00	2	1	2	145
87	<sup>1/50S</sup> K1005055-009 DISS	Unknown	0 kg	0 ml	1.00	2	1	3	145
88	<sup>1/20</sup> K1005258-001 1/10	Unknown	0 kg	0 ml	1.00	2	1	4	145
89	K1005258-001 1/10S	Unknown	0 kg	0 ml	1.00	2	1	5	145
90	K1005258-001 1/10SD	Unknown	0 kg	0 ml	1.00	2	1	6	145
91	K1005258-002 1/10	Unknown	0 kg	0 ml	1.00	2	1	7	145
92	K1005258-002 1/10S	Unknown	0 kg	0 ml	1.00	2	1	8	145
93	K1005258-002 1/10SD	Unknown	0 kg	0 ml	1.00	2	1	9	145
94	CCV9	QC Sample	0 kg	0 ml	1.00	0	1	2	145
95	CCB9	QC Sample	0 kg	0 ml	1.00	0	1	1	145
96	K1004672-MB 1/5	Unknown	0 kg	0 ml	1.00	2	2	1	145
97	LCSW K1004672 1/25	Unknown	0 kg	0 ml	1.00	2	2	2	145
98	K1004672-001 1/5	Unknown	0 kg	0 ml	1.00	2	2	3	145
99	K1004672-001 1/5D	Unknown	0 kg	0 ml	1.00	2	2	4	145

100	K1004672-001 1/25S	Unknown	0 kg	0 ml	1.00	2	2	5	145
101	CCV10	QC Sample	0 kg	0 ml	1.00	0	1	2	145
102	CCB10	QC Sample	0 kg	0 ml	1.00	0	1	1	145



### Instrument Setup - Configurations

Configuration Name - acqmet11  
 Description - PQExcell CCT Sim Default  
 Date - 7:55:02 6/7/10  
 Maximum Uptake Time - 0  
 Maximum Washout Time - 0  
 S-Option Pump Running - No  
 Plasma Screen Forward - No  
 Makeup Gas On - No  
 Use CCT - No  
 Use Accessory Gas - No

Setting	Value
Extraction	-650.00
Lens1	5.00
Lens2	-60.00
Lens3	-25.00
Pole Bias	5.00
Sampling Depth	400.00
Horizontal	0.00
Vertical	95.00
Cool	13.00
Auxiliary	0.80
Nebuliser	0.82
Forward power	1,365.00
HT1 Voltage	1,900.00
HT2 Voltage	2,600.00
D1	-42.00
Focus	8.00

Configuration Name - acqmet11  
 Description - PQExcell CCT Sim Default  
 Date - 7:55:02 6/7/10  
 Maximum Uptake Time - 0  
 Maximum Washout Time - 0  
 S-Option Pump Running - No  
 Plasma Screen Forward - No  
 Makeup Gas On - No  
 Use CCT - No  
 Use Accessory Gas - No

Setting	Value
Extraction	-650.00
Lens1	5.00
Lens2	-60.00
Lens3	-25.00
Pole Bias	5.00
Sampling Depth	400.00
Horizontal	0.00
Vertical	95.00
Cool	13.00
Auxiliary	0.80

Mass	Mass DAC	Peak Width (AMU)	Error (AMU)	Include	Masses in Tune Solution
6.015	1297	0.664	0	TRUE	
7.016	1551	0.715	-0.003	TRUE	Li-7
9.012	2058	0.715	-0.007	TRUE	Be-9
23.985	5879	0.715	0.031	TRUE	Mg-24
24.986	6126	0.715	0.001	TRUE	Co-59
25.983	6386	0.715	0.026	TRUE	In-115
26.982	6633	0.715	-0.003	TRUE	Ce-140
51.94	12990	0.766	0.006	TRUE	Pb-208
53.949	13497	0.766	-0.011	TRUE	Bi-209
55.935	14004	0.766	-0.006	TRUE	U-238
56.935	14264	0.766	0.015	TRUE	
57.934	14511	0.766	-0.014	TRUE	
58.933	14765	0.715	-0.016	TRUE	
62.93	15779	0.715	-0.03	TRUE	
63.929	16039	0.715	-0.008	TRUE	
75.92	19087	0.766	-0.032	TRUE	
112.904	28510	0.714	-0.025	TRUE	
114.904	29017	0.714	-0.035	TRUE	
118.903	30070	0.714	0.098	TRUE	
128.905	32598	0.663	0.017	TRUE	
130.905	33105	0.663	0.007	TRUE	
131.905	33359	0.612	0.004	TRUE	
133.905	33872	0.663	0.016	TRUE	
135.906	34379	0.663	0.005	TRUE	
137.906	34886	0.663	-0.006	TRUE	
139.905	35400	0.612	0.012	TRUE	
141.908	35907	0.612	-0.002	TRUE	
155.923	39475	0.663	-0.018	TRUE	
157.924	39989	0.612	-0.003	TRUE	
203.973	51728	0.612	-0.01	TRUE	
205.974	52241	0.561	0	TRUE	
206.976	52495	0.612	-0.005	TRUE	
207.977	52748	0.561	-0.014	TRUE	
208.98	53008	0.561	0.002	TRUE	
238.051	60425	0.51	0.009	TRUE	

Excluded In Calib	Excluded In Results	Multi Element	Standard Addition	Internal Standard	Standard Addition			
Uncorrected ICPS Per Mass		S-Calibration Has Edited Standard F-Interference Correction Failed	E-Calibration Edited T-Tripped	I-Invalid Calibration P-Pulse Counting	V-Valley Integration Failed M-Result Over Max			
Run	Label	TimeStamp	7Li	9Be	59Co	115In	208Pb	
1	Stability 06-07-2010	6/7/2010 8:10:33 AM	(P)1.667	(P)24576.624	(P)5766.164	(P)63156.393	(P)121051.420	(P)58993.409
2	Stability 06-07-2010	6/7/2010 8:11:48 AM	(P)1.000	(P)24102.485	(P)5686.965	(P)61869.073	(P)117841.230	(P)56990.663
3	Stability 06-07-2010	6/7/2010 8:13:03 AM	(P)0.833	(P)24575.456	(P)5837.693	(P)62278.167	(P)117896.740	(P)55644.574
4	Stability 06-07-2010	6/7/2010 8:14:19 AM	(P)0.167	(P)25095.858	(P)5940.235	(P)62326.230	(P)119009.380	(P)57039.712
5	Stability 06-07-2010	6/7/2010 8:15:34 AM	(P)0.333	(P)24753.434	(P)5865.538	(P)62329.225	(P)119470.620	(P)55685.874
	Mean of Stability 06-07	6/7/2010 8:10:33 AM	(P)0.800	(P)24620.771	(P)5819.319	(P)62391.818	(P)119053.880	(P)56870.846
	SD of Stability 06-07-20		(P)0.594	(P)359.142	(P)96.744	(P)468.768	(P)1320.543	(P)1365.288
	%RSD of Stability 06		(P)74.244	(P)1.459	(P)1.662	(P)0.751	(P)1.109	(P)2.401

Run	Label	TimeStamp	209Bi	238U
1	Stability 06-07-2010	6/7/2010 8:10:33 AM	(P)95984.882	(P)92165.818
2	Stability 06-07-2010	6/7/2010 8:11:48 AM	(P)93402.705	(P)90879.262
3	Stability 06-07-2010	6/7/2010 8:13:03 AM	(P)90342.134	(P)87492.038
4	Stability 06-07-2010	6/7/2010 8:14:19 AM	(P)92395.356	(P)89656.487
5	Stability 06-07-2010	6/7/2010 8:15:34 AM	(P)90788.303	(P)91157.885
	Mean of Stability 06-07	6/7/2010 8:10:33 AM	(P)92582.676	(P)90270.298
	SD of Stability 06-07-20		(P)2265.080	(P)1792.145
	%RSD of Stability 06		(P)2.447	(P)1.985

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621



Sample Name:	Cal. Blk				Mean	SD	%RSD
TimeStamp	6/7/10 11:41						
Aluminum	27	-0.005	0.0064	-0.0015	0	0.0058	0
Antimony	121	0	0.0001	-0.0001	0	0.0001	0
Antimony	123	-0.0004	0.002	-0.0016	0	0.0018	0
Arsenic	75	0.0002	-0.0055	0.0052	0	0.0053	0
Barium	137	0.0003	0.0023	-0.0025	0	0.0024	0
Barium	138	0.0015	-0.0004	-0.0011	0	0.0013	0
Beryllium	9	0.0006	0.0015	-0.0022	0	0.002	0
Bismuth	209	0.0012	0.0001	-0.0013	0	0.0012	0
Boron	10	-0.0118	0.0056	0.0063	0	0.0103	0
Boron	11	0.0082	-0.0039	-0.0043	0	0.0071	0
Cadmium	111	-0.0018	0.0006	0.0012	0	0.0016	0
Cadmium	114	0.0018	-0.0004	-0.0014	0	0.0016	0
Chromium	52	-0.016	0.0192	-0.0032	0	0.0178	0
Chromium	53	-0.0057	-0.0035	0.0092	0	0.0081	0
Cobalt	59	0.0036	-0.0014	-0.0023	0	0.0032	0
Copper	63	-0.0088	0.0066	0.0023	0	0.0079	0
Copper	65	-0.0007	0.0028	-0.0021	0	0.0025	0
Lead	206	-0.0002	0.0021	-0.0019	0	0.002	0
Lead	207	0.0013	0.0016	-0.0029	0	0.0025	0
Lead	208	0.0003	0.0016	-0.002	0	0.0018	0
Manganese	55	0.0007	0.0002	-0.0009	0	0.0008	0
Molybdenum	95	0.0008	0.0007	-0.0015	0	0.0013	0
Molybdenum	97	0.0015	0.0027	-0.0042	0	0.0037	0
Molybdenum	98	0.0005	-0.0007	0.0002	0	0.0006	0
Nickel	60	0.004	0.0016	-0.0056	0	0.005	0
Nickel	62	-0.1626	0.2415	-0.0789	0	0.2133	0
Selenium	77	-0.0533	0.0511	0.0022	0	0.0522	0
Selenium	78	-0.136	0.0361	0.1	0	0.1221	0
Selenium	82	-0.0525	0.0354	0.017	0	0.0464	0
Silver	107	0.0008	0	-0.0008	0	0.0008	0
Silver	109	0.002	0.0011	-0.0031	0	0.0027	0
Thallium	203	0.0001	0.0002	-0.0003	0	0.0003	0
Thallium	205	0.0011	-0.0002	-0.0009	0	0.001	0
Tin	118	0.0001	-0.0004	0.0003	0	0.0004	0
Tin	120	-0.0007	0.0016	-0.0009	0	0.0014	0
Vanadium	51	-0.003	0.0075	-0.0045	0	0.0065	0
Zinc	66	-0.0087	0.0072	0.0015	0	0.0081	0
Zinc	68	0.0046	0.0041	-0.0087	0	0.0075	0

**Internal Standard**

**Factors:**

Lithium	6	0.977	1.015	1.009	<b>0.977</b> n/a	n/a
Gallium	71	0.976	1.012	1.013	<b>0.976</b> n/a	n/a
Rhodium	103	0.966	1.016	1.02	<b>0.966</b> n/a	n/a
Indium	115	0.971	1.023	1.008	<b>0.971</b> n/a	n/a
Lutetium	175	0.987	1.009	1.004	<b>0.987</b> n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	Cal. Stn	Mean	SD	%RSD			
TimeStamp	6/7/10 11:46						
Aluminum	27	24.71	25.22	25.07	25	0.2609	1.044
Antimony	121	24.73	24.97	25.31	25	0.2918	1.167
Antimony	123	25.32	24.25	25.43	25	0.6535	2.614
Arsenic	75	24.91	24.92	25.17	25	0.1452	0.5809
Barium	137	24.8	25.26	24.94	25	0.2329	0.9318
Barium	138	24.85	25.25	24.9	25	0.2193	0.8774
Beryllium	9	24.36	25.64	25	25	0.639	2.556
Bismuth	209	24.02	25.4	25.58	25	0.8562	3.425
Boron	10	23.98	26.09	24.94	25	1.055	4.221
Boron	11	23.63	26.23	25.13	25	1.304	5.215
Cadmium	111	25.04	24.8	25.16	25	0.1846	0.7383
Cadmium	114	25.04	24.78	25.18	25	0.2016	0.8065
Chromium	52	24.51	25.05	25.44	25	0.4643	1.857
Chromium	53	24.65	25.01	25.33	25	0.3406	1.362
Cobalt	59	24.73	25.12	25.16	25	0.2372	0.9488
Copper	63	24.82	25.13	25.05	25	0.1581	0.6322
Copper	65	24.86	24.88	25.26	25	0.2294	0.9176
Lead	206	25.08	24.9	25.01	25	0.0905	0.3618
Lead	207	24.59	25.51	24.9	25	0.4711	1.884
Lead	208	24.69	25.16	25.16	25	0.2727	1.091
Manganese	55	24.62	24.88	25.51	25	0.4564	1.826
Molybdenum	95	25.27	24.77	24.96	25	0.2509	1.004
Molybdenum	97	24.86	25.32	24.82	25	0.2779	1.112
Molybdenum	98	24.77	25.17	25.06	25	0.2048	0.8192
Nickel	60	24.79	25.15	25.06	25	0.1865	0.7461
Nickel	62	25.14	25.09	24.78	25	0.1954	0.7817
Selenium	77	24.93	25.25	24.82	25	0.2228	0.8913
Selenium	78	24.89	24.62	25.49	25	0.4414	1.766
Selenium	82	24.87	25.09	25.04	25	0.1172	0.4689
Silver	107	24.95	25.09	24.96	25	0.0802	0.3208
Silver	109	25	24.77	25.24	25	0.2349	0.9394
Thallium	203	24.93	24.83	25.25	25	0.2193	0.8773
Thallium	205	24.62	25.19	25.19	25	0.3328	1.331
Tin	118	25.02	24.82	25.17	25	0.1763	0.705
Tin	120	24.62	24.82	25.56	25	0.4949	1.979
Vanadium	51	24.57	25.52	24.91	25	0.4815	1.926
Zinc	66	24.64	25.15	25.21	25	0.3109	1.244
Zinc	68	24.94	24.95	25.1	25	0.0892	0.357

**Internal Standard**

**Factors:**

Lithium	6	0.937	1.02	1.007	0.937	n/a	n/a
Gallium	71	1.006	1.041	1.052	1.006	n/a	n/a
Rhodium	103	1.001	1.029	1.037	1.001	n/a	n/a
Indium	115	0.985	1.033	1.036	0.985	n/a	n/a
Lutetium	175	0.981	1.035	1.037	0.981	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	ICV1	Mean	SD	%RSD			
TimeStamp	6/7/10 11:51						
Aluminum	27	98.64	98.64	101.4	<b>98.38</b>	3.176	3.228
Antimony	121	24.71	24.81	25.36	<b>24.96</b>	0.3465	1.388
Antimony	123	24.85	25.09	25.2	<b>25.05</b>	0.1788	0.7138
Arsenic	75	24.84	24.73	24.36	<b>24.65</b>	0.2498	1.014
Barium	137	106.2	106.6	107	<b>106.6</b>	0.3742	0.351
Barium	138	109.8	108.6	109	<b>109.1</b>	0.6033	0.5529
Beryllium	9	2.66	2.735	2.708	<b>2.701</b>	0.0379	1.402
Bismuth	209	24.88	25.58	24.39	<b>24.95</b>	0.5988	2.4
Boron	10	25.32	27.22	26.6	<b>26.38</b>	0.97	3.677
Boron	11	26.39	26.17	26.92	<b>26.49</b>	0.3861	1.458
Cadmium	111	12.8	12.9	13.09	<b>12.93</b>	0.1474	1.14
Cadmium	114	13.14	13.6	13.33	<b>13.36</b>	0.2288	1.713
Chromium	52	10.22	10.09	10.37	<b>10.23</b>	0.1374	1.343
Chromium	53	10.7	10.95	10.69	<b>10.78</b>	0.1466	1.36
Cobalt	59	24.18	24.85	24.97	<b>24.67</b>	0.4255	1.725
Copper	63	12.88	12.64	12.61	<b>12.71</b>	0.1481	1.165
Copper	65	12.62	12.51	12.66	<b>12.59</b>	0.0765	0.6077
Lead	206	24.04	24.69	23.99	<b>24.24</b>	0.3908	1.612
Lead	207	27.17	26.67	27.19	<b>27.01</b>	0.2971	1.1
Lead	208	25.89	25.97	25.92	<b>25.93</b>	0.0421	0.1623
Manganese	55	25	25.18	25.85	<b>25.34</b>	0.4487	1.771
Molybdenum	95	25.03	25.56	25.56	<b>25.38</b>	0.3105	1.223
Molybdenum	97	24.84	24.93	25.78	<b>25.18</b>	0.5194	2.063
Molybdenum	98	25.15	25.34	26.28	<b>25.59</b>	0.6043	2.362
Nickel	60	25.64	25.13	25.04	<b>25.27</b>	0.3224	1.276
Nickel	62	25.3	24.72	24.65	<b>24.89</b>	0.3559	1.43
Selenium	77	25.37	25.64	26.03	<b>25.68</b>	0.3311	1.289
Selenium	78	24.72	25.34	25.3	<b>25.12</b>	0.3451	1.374
Selenium	82	25.08	25.76	25.66	<b>25.5</b>	0.3643	1.429
Silver	107	13.56	12.84	13.4	<b>13.27</b>	0.3813	2.874
Silver	109	13.25	13.14	13.22	<b>13.2</b>	0.0587	0.4443
Thallium	203	26.13	26.09	26.55	<b>26.25</b>	0.2562	0.9758
Thallium	205	26.02	26.3	26.79	<b>26.37</b>	0.3868	1.467
Tin	118	24.42	24.54	24.52	<b>24.49</b>	0.0644	0.263
Tin	120	24.21	24.39	24.54	<b>24.38</b>	0.1636	0.6712
Vanadium	51	25.15	24.98	25.85	<b>25.33</b>	0.4586	1.811
Zinc	66	25.91	26.37	26.28	<b>26.19</b>	0.2478	0.9463
Zinc	68	27.71	27.92	28	<b>27.88</b>	0.1459	0.5235

**Internal Standard**

**Factors:**

Lithium	6	0.967	1.007	1.03	<b>0.967</b>	n/a	n/a
Gallium	71	1.018	1.029	1.031	<b>1.018</b>	n/a	n/a
Rhodium	103	1.006	1.039	1.06	<b>1.006</b>	n/a	n/a
Indium	115	1.012	1.044	1.046	<b>1.012</b>	n/a	n/a
Lutetium	175	1.002	1.041	1.044	<b>1.002</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	CCV1	Mean	SD	%RSD
TimeStamp	6/7/10 11:56			
Aluminum 27	23.57	25.48	24.45	<b>24.5</b> 0.956 3.903
Antimony 121	25.07	24.66	25.1	<b>24.94</b> 0.2475 0.9923
Antimony 123	25.37	25.06	25	<b>25.14</b> 0.1946 0.7738
Arsenic 75	24.76	24.38	24.61	<b>24.59</b> 0.1908 0.7759
Barium 137	25.38	25.61	24.73	<b>25.24</b> 0.4585 1.816
Barium 138	24.8	24.8	24.6	<b>24.73</b> 0.1165 0.4708
Beryllium 9	24.88	24.67	25.61	<b>25.05</b> 0.491 1.96
Bismuth 209	24.58	25.33	24.94	<b>24.95</b> 0.3756 1.505
Boron 10	24.38	25.25	26.76	<b>25.46</b> 1.203 4.723
Boron 11	24.9	24.9	25.55	<b>25.12</b> 0.3744 1.491
Cadmium 111	25.45	24.73	24.23	<b>24.8</b> 0.6102 2.46
Cadmium 114	24.6	24.93	24.45	<b>24.66</b> 0.2436 0.9878
Chromium 52	25.01	25.11	25.34	<b>25.15</b> 0.1694 0.6733
Chromium 53	25.28	24.72	25.48	<b>25.16</b> 0.3936 1.564
Cobalt 59	24.85	24.73	24.84	<b>24.8</b> 0.0668 0.2695
Copper 63	25.17	24.2	24.82	<b>24.73</b> 0.4929 1.993
Copper 65	24.82	24.36	24.88	<b>24.69</b> 0.2821 1.143
Lead 206	25.01	25.46	24.66	<b>25.05</b> 0.4004 1.599
Lead 207	24.67	25.51	24.65	<b>24.94</b> 0.4901 1.965
Lead 208	24.92	25.67	24.98	<b>25.19</b> 0.4128 1.639
Manganese 55	25.39	24.7	25.04	<b>25.04</b> 0.3428 1.369
Molybdenum 95	25.18	24.62	25.04	<b>24.95</b> 0.2883 1.156
Molybdenum 97	25.06	24.27	24.63	<b>24.65</b> 0.3958 1.606
Molybdenum 98	25.64	24.6	24.68	<b>24.98</b> 0.5768 2.31
Nickel 60	25.01	24.84	24.7	<b>24.85</b> 0.1578 0.635
Nickel 62	25.63	24.69	25.11	<b>25.14</b> 0.4726 1.88
Selenium 77	25.12	24.3	24.72	<b>24.71</b> 0.4088 1.654
Selenium 78	26.26	25.53	25.1	<b>25.63</b> 0.5898 2.301
Selenium 82	24.35	24.43	24.78	<b>24.52</b> 0.227 0.9257
Silver 107	24.84	24.75	24.86	<b>24.81</b> 0.0588 0.2368
Silver 109	25.31	24.8	25.3	<b>25.14</b> 0.2902 1.154
Thallium 203	24.79	25.59	24.69	<b>25.02</b> 0.4939 1.974
Thallium 205	25.25	26.07	24.99	<b>25.44</b> 0.5605 2.204
Tin 118	25.7	25.04	24.79	<b>25.18</b> 0.4729 1.878
Tin 120	25.08	25.2	25.09	<b>25.12</b> 0.0671 0.267
Vanadium 51	24.92	23.9	24.52	<b>24.45</b> 0.5151 2.107
Zinc 66	25.35	24.38	25.04	<b>24.92</b> 0.4978 1.997
Zinc 68	25.36	24.49	24.99	<b>24.95</b> 0.4395 1.762

**Internal Standard Factors:**

Lithium 6	0.953	0.991	1.033	<b>0.953</b> n/a n/a
Gallium 71	1.047	1.047	1.051	<b>1.047</b> n/a n/a
Rhodium 103	1.035	1.049	1.043	<b>1.035</b> n/a n/a
Indium 115	1.013	1.031	1.034	<b>1.013</b> n/a n/a
Lutetium 175	0.997	1.045	1.028	<b>0.997</b> n/a n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	ICB1	Mean	SD	%RSD			
TimeStamp	6/7/10 12:06						
Aluminum	27	0.0075	0.025	0.0131	<b>0.0152</b>	0.0089	58.67
Antimony	121	0.0132	0.0138	0.0103	<b>0.0124</b>	0.0019	15.39
Antimony	123	0.0173	0.0142	0.0133	<b>0.0149</b>	0.0021	14.02
Arsenic	75	0.0057	-0.0281	-0.0241	<b>-0.0155</b>	0.0185	118.9
Barium	137	-0.0014	-0.0019	-0.0013	<b>-0.0015</b>	0.0003	22.13
Barium	138	0.0006	0.0006	0.002	<b>0.0011</b>	0.0008	77.96
Beryllium	9	0.0017	-0.0013	-0.0028	<b>-0.0008</b>	0.0023	288.8
Bismuth	209	0.0027	0.0037	0.0014	<b>0.0026</b>	0.0011	44.71
Boron	10	0.0472	0.0222	0.0255	<b>0.0316</b>	0.0135	42.79
Boron	11	0.0297	0.0268	0.0294	<b>0.0286</b>	0.0016	5.468
Cadmium	111	0.0026	0.0013	0.0025	<b>0.0021</b>	0.0008	35.39
Cadmium	114	0.0003	-0.0008	-0.0006	<b>-0.0004</b>	0.0006	161.3
Chromium	52	-0.0601	-0.0294	0.0002	<b>-0.0298</b>	0.0302	101.3
Chromium	53	0.0285	0.0483	0.0349	<b>0.0372</b>	0.0101	27.18
Cobalt	59	0.0057	0.0018	-0.0004	<b>0.0024</b>	0.0031	131
Copper	63	-0.0299	-0.024	-0.0105	<b>-0.0215</b>	0.01	46.41
Copper	65	-0.0001	0.0001	0.0077	<b>0.0026</b>	0.0044	172.2
Lead	206	0.0015	-0.0005	-0.0014	<b>-0.0002</b>	0.0015	975.8
Lead	207	0.0024	0.0006	0.0043	<b>0.0024</b>	0.0019	76.72
Lead	208	0	0.0009	0.0002	<b>0.0004</b>	0.0005	122.7
Manganese	55	-0.0032	-0.0009	0.0033	<b>-0.0003</b>	0.0033	1290
Molybdenum	95	0.0036	0.0059	0.0045	<b>0.0047</b>	0.0012	24.94
Molybdenum	97	0.0059	0.0054	0.006	<b>0.0057</b>	0.0003	5.462
Molybdenum	98	0.0086	0.0059	0.0075	<b>0.0073</b>	0.0014	18.53
Nickel	60	-0.0291	0.0159	0.0025	<b>-0.0036</b>	0.0231	651.5
Nickel	62	-0.1986	-0.1883	0.0623	<b>-0.1082</b>	0.1477	136.5
Selenium	77	-0.0849	0.0174	0.0338	<b>-0.0112</b>	0.0644	573.8
Selenium	78	0.0202	0.085	-0.0708	<b>0.0115</b>	0.0783	682.5
Selenium	82	-0.0383	-0.0955	-0.0422	<b>-0.0587</b>	0.032	54.53
Silver	107	0.0073	0.0043	0.006	<b>0.0059</b>	0.0015	25.94
Silver	109	0.0064	0.0058	0.0038	<b>0.0053</b>	0.0014	26.3
Thallium	203	0.0033	0.0018	0.0027	<b>0.0026</b>	0.0008	29.71
Thallium	205	0.0013	0.0018	0.0018	<b>0.0016</b>	0.0003	19.23
Tin	118	0.0126	0.0119	0.0122	<b>0.0122</b>	0.0003	2.828
Tin	120	0.013	0.012	0.0071	<b>0.0107</b>	0.0031	29.22
Vanadium	51	-0.0163	-0.012	0.0019	<b>-0.0088</b>	0.0095	108.2
Zinc	66	-0.022	-0.0253	-0.0129	<b>-0.0201</b>	0.0064	31.91
Zinc	68	-0.0267	-0.005	-0.0174	<b>-0.0164</b>	0.0109	66.36

**Internal Standard Factors:**

Lithium	6	0.932	0.986	1.001	<b>0.932</b>	n/a	n/a
Gallium	71	1.004	1.048	1.037	<b>1.004</b>	n/a	n/a
Rhodium	103	0.99	1.04	1.025	<b>0.99</b>	n/a	n/a
Indium	115	0.976	1.019	1.017	<b>0.976</b>	n/a	n/a
Lutetium	175	0.978	0.993	1.012	<b>0.978</b>	n/a	n/a



Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	CCB1	Mean	SD	%RSD			
TimeStamp	6/7/10 12:17						
Aluminum	27	-0.0182	0.0061	-0.0067	<b>-0.0062</b>	0.0121	194.3
Antimony	121	0.0031	0.0061	0.0045	<b>0.0046</b>	0.0015	32.95
Antimony	123	0.0056	0.0071	0.0054	<b>0.006</b>	0.0009	15.08
Arsenic	75	-0.0437	-0.0372	0.0298	<b>-0.017</b>	0.0407	239.3
Barium	137	0.0024	-0.0014	0.0011	<b>0.0007</b>	0.0019	277.7
Barium	138	-0.0002	0.0019	0.0013	<b>0.001</b>	0.0011	105.6
Beryllium	9	-0.0029	0.0014	0.001	<b>-0.0002</b>	0.0024	1354
Bismuth	209	-0.0024	-0.0015	-0.0024	<b>-0.0021</b>	0.0005	24.29
Boron	10	-0.0132	-0.0104	-0.0213	<b>-0.015</b>	0.0057	37.76
Boron	11	-0.0172	-0.007	-0.0315	<b>-0.0186</b>	0.0123	66.31
Cadmium	111	0.0035	0.0012	0.0015	<b>0.0021</b>	0.0013	61.23
Cadmium	114	0.0003	0.0001	-0.0002	<b>0.0001</b>	0.0003	387.7
Chromium	52	-0.0661	-0.0341	-0.0497	<b>-0.05</b>	0.016	32
Chromium	53	0.0052	0.0116	0.0039	<b>0.0069</b>	0.0041	59.58
Cobalt	59	0.0029	0.0002	-0.0031	<b>0</b>	0.003	25970
Copper	63	-0.0201	-0.0242	-0.0305	<b>-0.025</b>	0.0052	20.98
Copper	65	-0.0017	-0.0019	-0.0104	<b>-0.0046</b>	0.005	106.8
Lead	206	0	0.0009	0.0006	<b>0.0005</b>	0.0005	91.29
Lead	207	0.0028	0.002	0.0012	<b>0.002</b>	0.0008	38.54
Lead	208	0.0005	0.0008	0.001	<b>0.0007</b>	0.0003	34.95
Manganese	55	-0.0033	-0.0009	-0.0004	<b>-0.0015</b>	0.0016	102
Molybdenum	95	-0.001	-0.0023	0.0002	<b>-0.001</b>	0.0012	117.7
Molybdenum	97	0.002	0.0022	0.0046	<b>0.0029</b>	0.0015	50.24
Molybdenum	98	0.0011	0.0032	0.0029	<b>0.0024</b>	0.0011	45.91
Nickel	60	-0.0076	0.0092	-0.0046	<b>-0.001</b>	0.0089	882.6
Nickel	62	-0.146	-0.1791	-0.2629	<b>-0.196</b>	0.0602	30.73
Selenium	77	-0.054	-0.0134	-0.0522	<b>-0.0399</b>	0.023	57.63
Selenium	78	0.0016	-0.0628	-0.2121	<b>-0.0911</b>	0.1096	120.4
Selenium	82	-0.1801	-0.1238	0.0453	<b>-0.0862</b>	0.1173	136.1
Silver	107	-0.0002	-0.0008	-0.0022	<b>-0.001</b>	0.0011	101
Silver	109	-0.0026	-0.001	-0.002	<b>-0.0019</b>	0.0008	42.32
Thallium	203	0.0009	0.0009	0.0024	<b>0.0014</b>	0.0008	59.72
Thallium	205	0.0002	0.0004	0.0002	<b>0.0003</b>	0.0001	34.03
Tin	118	0.0038	0.0037	0.0013	<b>0.0029</b>	0.0014	48.2
Tin	120	0.0007	0.003	0.0009	<b>0.0015</b>	0.0013	82.18
Vanadium	51	-0.0226	-0.0144	-0.0181	<b>-0.0184</b>	0.0041	22.25
Zinc	66	-0.0183	-0.0293	-0.0287	<b>-0.0255</b>	0.0062	24.34
Zinc	68	-0.0146	-0.029	-0.0302	<b>-0.0246</b>	0.0087	35.21

**Internal Standard**

**Factors:**

Lithium	6	0.9	0.949	0.957	<b>0.9</b> n/a	n/a
Gallium	71	1.016	1.037	0.992	<b>1.016</b> n/a	n/a
Rhodium	103	0.971	0.989	1.014	<b>0.971</b> n/a	n/a
Indium	115	0.978	1.016	1.008	<b>0.978</b> n/a	n/a
Lutetium	175	0.948	0.979	0.983	<b>0.948</b> n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		WATER CRA			Mean	SD	%RSD
TimeStamp		6/7/10 12:21					
Aluminum	27	2.237	2.407	2.229	<b>2.291</b>	0.1008	4.4
Antimony	121	0.0591	0.0611	0.0524	<b>0.0575</b>	0.0045	7.902
Antimony	123	0.0574	0.0572	0.0486	<b>0.0544</b>	0.005	9.27
Arsenic	75	0.5482	0.6015	0.6281	<b>0.5926</b>	0.0406	6.86
Barium	137	0.0498	0.0608	0.05	<b>0.0536</b>	0.0063	11.77
Barium	138	0.0596	0.0593	0.0526	<b>0.0571</b>	0.0039	6.885
Beryllium	9	0.0123	0.023	0.0179	<b>0.0177</b>	0.0053	29.94
Bismuth	209	0.0511	0.0579	0.0467	<b>0.0519</b>	0.0056	10.88
Boron	10	0.5833	0.6158	0.6022	<b>0.6004</b>	0.0163	2.717
Boron	11	0.5628	0.5744	0.6082	<b>0.5818</b>	0.0236	4.059
Cadmium	111	0.0171	0.0192	0.0168	<b>0.0177</b>	0.0013	7.304
Cadmium	114	0.0203	0.02	0.0218	<b>0.0207</b>	0.0009	4.498
Chromium	52	0.1632	0.2301	0.2093	<b>0.2009</b>	0.0343	17.06
Chromium	53	0.1954	0.2055	0.18	<b>0.1936</b>	0.0129	6.651
Cobalt	59	0.0194	0.0224	0.019	<b>0.0203</b>	0.0019	9.296
Copper	63	0.0999	0.1149	0.0965	<b>0.1038</b>	0.0097	9.387
Copper	65	0.1404	0.1268	0.1314	<b>0.1329</b>	0.0069	5.188
Lead	206	0.0225	0.024	0.0181	<b>0.0215</b>	0.0031	14.26
Lead	207	0.0264	0.0283	0.0235	<b>0.0261</b>	0.0024	9.212
Lead	208	0.0245	0.0254	0.0203	<b>0.0234</b>	0.0027	11.66
Manganese	55	0.0544	0.0615	0.0575	<b>0.0578</b>	0.0036	6.193
Molybdenum	95	0.044	0.0555	0.041	<b>0.0468</b>	0.0076	16.34
Molybdenum	97	0.0576	0.0537	0.0502	<b>0.0538</b>	0.0037	6.81
Molybdenum	98	0.0508	0.0573	0.0499	<b>0.0527</b>	0.004	7.657
Nickel	60	0.2458	0.2413	0.2438	<b>0.2436</b>	0.0023	0.9333
Nickel	62	-0.1362	0.0689	-0.0853	<b>-0.0509</b>	0.1068	210
Selenium	77	0.8895	0.9722	1.001	<b>0.9542</b>	0.0578	6.062
Selenium	78	0.9472	1.102	0.936	<b>0.995</b>	0.0926	9.307
Selenium	82	0.9329	1.049	1.21	<b>1.064</b>	0.1393	13.09
Silver	107	0.0156	0.0167	0.017	<b>0.0164</b>	0.0008	4.591
Silver	109	0.016	0.0151	0.0173	<b>0.0161</b>	0.0011	7.068
Thallium	203	0.0205	0.0226	0.0195	<b>0.0209</b>	0.0016	7.516
Thallium	205	0.0225	0.0212	0.0211	<b>0.0216</b>	0.0008	3.595
Tin	118	0.055	0.0617	0.0494	<b>0.0554</b>	0.0062	11.14
Tin	120	0.0593	0.0602	0.051	<b>0.0568</b>	0.005	8.883
Vanadium	51	0.1822	0.2307	0.216	<b>0.2096</b>	0.0249	11.88
Zinc	66	0.5306	0.5828	0.5663	<b>0.5599</b>	0.0267	4.763
Zinc	68	0.5669	0.6191	0.5802	<b>0.5887</b>	0.0271	4.603

**Internal Standard Factors:**

Lithium	6	0.906	0.969	0.954	<b>0.906</b>	n/a	n/a
Gallium	71	0.985	1.037	1.003	<b>0.985</b>	n/a	n/a
Rhodium	103	0.955	1.02	0.98	<b>0.955</b>	n/a	n/a
Indium	115	0.985	1.028	0.972	<b>0.985</b>	n/a	n/a
Lutetium	175	0.969	1.037	0.977	<b>0.969</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005055-MB			Mean	SD	%RSD
TimeStamp		6/7/10 12:38					
Aluminum	27	-0.0074	-0.0182	0.009	<b>-0.0055</b>	0.0137	247.8
Antimony	121	-0.0025	-0.0042	-0.0038	<b>-0.0035</b>	0.0009	26.26
Antimony	123	-0.0018	-0.0012	-0.0018	<b>-0.0016</b>	0.0004	23.25
Arsenic	75	-0.0298	0.034	-0.0292	<b>-0.0083</b>	0.0367	439.8
Barium	137	-0.0057	-0.0067	-0.0051	<b>-0.0058</b>	0.0008	14.07
Barium	138	-0.0046	-0.005	-0.0052	<b>-0.0049</b>	0.0003	6.386
Beryllium	9	-0.0065	-0.0035	-0.0015	<b>-0.0038</b>	0.0025	64.45
Bismuth	209	-0.0088	-0.0074	-0.0074	<b>-0.0079</b>	0.0008	10.24
Boron	10	-0.0271	-0.0245	-0.0066	<b>-0.0194</b>	0.0112	57.45
Boron	11	-0.0349	-0.0235	-0.0269	<b>-0.0285</b>	0.0059	20.57
Cadmium	111	-0.0024	-0.003	-0.001	<b>-0.0021</b>	0.001	48.98
Cadmium	114	-0.0025	-0.0033	-0.0029	<b>-0.0029</b>	0.0004	13.21
Chromium	52	-0.0617	-0.0344	-0.0279	<b>-0.0413</b>	0.018	43.43
Chromium	53	-0.0269	-0.0241	-0.0169	<b>-0.0226</b>	0.0051	22.72
Cobalt	59	-0.0016	-0.0013	-0.0012	<b>-0.0014</b>	0.0002	15.96
Copper	63	-0.0172	-0.0345	-0.0277	<b>-0.0265</b>	0.0087	32.88
Copper	65	0.005	-0.0052	-0.006	<b>-0.0021</b>	0.0061	293.9
Lead	206	-0.0047	-0.0026	-0.0027	<b>-0.0033</b>	0.0012	34.73
Lead	207	-0.0004	-0.0003	-0.0018	<b>-0.0009</b>	0.0008	96.1
Lead	208	-0.0033	-0.0026	-0.0037	<b>-0.0032</b>	0.0006	17.07
Manganese	55	-0.0088	-0.0074	-0.0072	<b>-0.0078</b>	0.0009	11.09
Molybdenum	95	-0.004	-0.0041	-0.0056	<b>-0.0046</b>	0.0009	20.04
Molybdenum	97	-0.002	-0.0034	-0.0054	<b>-0.0036</b>	0.0017	47.6
Molybdenum	98	-0.002	-0.0023	-0.0027	<b>-0.0023</b>	0.0003	14.98
Nickel	60	-0.0058	-0.0008	0.0074	<b>0.0003</b>	0.0066	2552
Nickel	62	-0.381	-0.4011	-0.1986	<b>-0.3269</b>	0.1116	34.13
Selenium	77	-0.0464	-0.0424	-0.028	<b>-0.0389</b>	0.0097	24.82
Selenium	78	-0.0112	0.0239	0.1397	<b>0.0508</b>	0.079	155.4
Selenium	82	-0.1232	0.0743	-0.1169	<b>-0.0553</b>	0.1122	203
Silver	107	-0.0104	-0.0114	-0.0102	<b>-0.0107</b>	0.0006	5.897
Silver	109	-0.0108	-0.0104	-0.0109	<b>-0.0107</b>	0.0003	2.573
Thallium	203	-0.003	-0.0032	-0.0026	<b>-0.0029</b>	0.0003	11.1
Thallium	205	-0.0037	-0.0038	-0.0035	<b>-0.0036</b>	0.0002	4.763
Tin	118	-0.0073	-0.0086	-0.0074	<b>-0.0078</b>	0.0007	8.991
Tin	120	-0.008	-0.0107	-0.0104	<b>-0.0097</b>	0.0015	15.06
Vanadium	51	-0.0186	-0.0119	-0.0097	<b>-0.0134</b>	0.0047	34.8
Zinc	66	-0.0085	-0.0183	-0.0107	<b>-0.0125</b>	0.0052	41.44
Zinc	68	-0.0014	-0.0009	0.0026	<b>0.0001</b>	0.0022	1824

**Internal Standard**

**Factors:**

Lithium	6	0.993	0.962	1.026	<b>0.993</b> n/a	n/a
Gallium	71	1.022	1.032	1.033	<b>1.022</b> n/a	n/a
Rhodium	103	0.998	1.032	1.017	<b>0.998</b> n/a	n/a
Indium	115	1.005	1.025	1.062	<b>1.005</b> n/a	n/a
Lutetium	175	1	1.056	1.052	<b>1</b> n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005055-008			Mean	SD	%RSD
TimeStamp		6/7/10 12:42					
Aluminum	27	391.9	396.7	399.2	<b>395.9</b>	3.676	0.9286
Antimony	121	0.0613	0.0602	0.0477	<b>0.0564</b>	0.0076	13.44
Antimony	123	0.062	0.0578	0.0554	<b>0.0584</b>	0.0033	5.735
Arsenic	75	0.464	0.5416	0.6051	<b>0.5369</b>	0.0707	13.16
Barium	137	1.872	1.876	1.845	<b>1.864</b>	0.0171	0.9196
Barium	138	1.878	1.853	1.871	<b>1.867</b>	0.0128	0.6845
Beryllium	9	0.936	0.9763	0.9691	<b>0.9605</b>	0.0215	2.238
Bismuth	209	-0.0064	-0.0069	-0.0068	<b>-0.0067</b>	0.0003	4.043
Boron	10	12.24	12.62	12.48	<b>12.45</b>	0.1918	1.54
Boron	11	12.54	12.58	12.69	<b>12.6</b>	0.073	0.5793
Cadmium	111	1.421	1.424	1.357	<b>1.401</b>	0.0382	2.726
Cadmium	114	1.376	1.397	1.382	<b>1.385</b>	0.0109	0.7897
Chromium	52	0.2579	0.2574	0.291	<b>0.2688</b>	0.0193	7.168
Chromium	53	0.1638	0.1947	0.1758	<b>0.1781</b>	0.0156	8.759
Cobalt	59	25.07	25.78	25.16	<b>25.34</b>	0.3861	1.524
Copper	63	2983	2999	2962	<b>2981</b>	18.33	0.6148
Copper	65	3007	2965	3006	<b>2992</b>	23.88	0.7979
Lead	206	1.574	1.672	1.664	<b>1.637</b>	0.0545	3.328
Lead	207	1.726	1.866	1.864	<b>1.819</b>	0.0804	4.421
Lead	208	1.69	1.808	1.778	<b>1.759</b>	0.0612	3.482
Manganese	55	1492	1537	1522	<b>1517</b>	22.82	1.505
Molybdenum	95	0.0201	0.0191	0.028	<b>0.0224</b>	0.0049	21.68
Molybdenum	97	0.0034	0.0053	0.0033	<b>0.004</b>	0.0011	27.9
Molybdenum	98	0.0117	0.0104	0.0079	<b>0.01</b>	0.0019	19.29
Nickel	60	82.07	84.81	80.34	<b>82.41</b>	2.256	2.737
Nickel	62	81.33	82.77	83.06	<b>82.39</b>	0.9264	1.124
Selenium	77	6.602	6.447	6.348	<b>6.465</b>	0.1279	1.979
Selenium	78	6.882	6.757	6.785	<b>6.808</b>	0.0657	0.9653
Selenium	82	6.386	6.439	6.657	<b>6.494</b>	0.1439	2.215
Silver	107	0.0019	0.0038	0.0037	<b>0.0031</b>	0.001	33.34
Silver	109	0.003	0.0038	-0.0001	<b>0.0022</b>	0.0021	91.39
Thallium	203	0.3657	0.3701	0.3777	<b>0.3712</b>	0.006	1.622
Thallium	205	0.367	0.3663	0.3657	<b>0.3663</b>	0.0006	0.1731
Tin	118	0.0136	0.0129	0.0106	<b>0.0124</b>	0.0016	12.99
Tin	120	0.008	0.0097	0.0104	<b>0.0093</b>	0.0012	13.34
Vanadium	51	0.0304	0.0227	0.0352	<b>0.0294</b>	0.0063	21.55
Zinc	66	186.1	185.3	183	<b>184.8</b>	1.613	0.8729
Zinc	68	192.6	195.3	188.9	<b>192.3</b>	3.218	1.674

**Internal Standard Factors:**

Lithium	6	1.056	1.12	1.134	<b>1.056</b>	n/a	n/a
Gallium	71	1.146	1.176	1.156	<b>1.146</b>	n/a	n/a
Rhodium	103	1.108	1.162	1.141	<b>1.108</b>	n/a	n/a
Indium	115	1.081	1.136	1.113	<b>1.081</b>	n/a	n/a
Lutetium	175	1.044	1.093	1.09	<b>1.044</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005055-008S			Mean	SD	%RSD
TimeStamp		6/7/10 12:47					
Aluminum	27	435.1	431.1	435.5	<b>433.9</b>	2.441	0.5627
Antimony	121	21.25	20.91	20.26	<b>20.81</b>	0.5012	2.409
Antimony	123	20.56	20.97	21.06	<b>20.86</b>	0.2686	1.287
Arsenic	75	21.88	20.94	21.24	<b>21.36</b>	0.481	2.252
Barium	137	23.23	22.68	22.17	<b>22.7</b>	0.5293	2.332
Barium	138	22.56	22.81	22.31	<b>22.56</b>	0.2518	1.116
Beryllium	9	21.07	22.2	21.42	<b>21.56</b>	0.5762	2.672
Bismuth	209	19.67	19.61	19.25	<b>19.51</b>	0.23	1.179
Boron	10	32.19	33.17	31.69	<b>32.35</b>	0.7532	2.328
Boron	11	32.71	33.29	32.22	<b>32.74</b>	0.5335	1.629
Cadmium	111	22.06	21.97	21.58	<b>21.87</b>	0.2573	1.176
Cadmium	114	21.77	22.16	21.68	<b>21.87</b>	0.2536	1.159
Chromium	52	20.72	21.13	20.62	<b>20.82</b>	0.2712	1.302
Chromium	53	19.97	20.88	20.95	<b>20.6</b>	0.5477	2.659
Cobalt	59	45.95	45.91	45.74	<b>45.87</b>	0.1105	0.2409
Copper	63	2971	3080	2994	<b>3015</b>	57.55	1.909
Copper	65	2934	3034	3025	<b>2998</b>	55.17	1.84
Lead	206	21.63	21.39	21.05	<b>21.36</b>	0.2903	1.359
Lead	207	21.01	21.24	21.62	<b>21.29</b>	0.3116	1.464
Lead	208	21.37	21.37	21.2	<b>21.31</b>	0.098	0.46
Manganese	55	1510	1608	1586	<b>1568</b>	51.28	3.27
Molybdenum	95	20.96	21.16	20.74	<b>20.95</b>	0.2058	0.982
Molybdenum	97	20.84	20.76	20.75	<b>20.78</b>	0.0506	0.2434
Molybdenum	98	21.12	21.69	21.52	<b>21.44</b>	0.2957	1.379
Nickel	60	103.5	102	102.8	<b>102.8</b>	0.7672	0.7464
Nickel	62	100	103.7	103	<b>102.3</b>	1.967	1.923
Selenium	77	26.61	27.6	27.64	<b>27.29</b>	0.584	2.14
Selenium	78	27.31	27.5	26.89	<b>27.24</b>	0.3091	1.135
Selenium	82	27.96	26.26	27.39	<b>27.2</b>	0.8633	3.174
Silver	107	20.37	20.2	19.79	<b>20.12</b>	0.2949	1.466
Silver	109	19.95	20.42	20.45	<b>20.27</b>	0.2794	1.378
Thallium	203	20.44	20.42	20.37	<b>20.41</b>	0.0371	0.1816
Thallium	205	20.77	20.13	20.88	<b>20.59</b>	0.402	1.952
Tin	118	21.07	20.21	21.01	<b>20.76</b>	0.4804	2.314
Tin	120	21.7	20.77	21.07	<b>21.18</b>	0.478	2.257
Vanadium	51	20.03	20.54	20.06	<b>20.21</b>	0.2844	1.407
Zinc	66	210.4	201.3	199.6	<b>203.8</b>	5.772	2.832
Zinc	68	206.7	207.8	210.9	<b>208.4</b>	2.152	1.032

**Internal Standard Factors:**

Lithium	6	1.077	1.163	1.116	<b>1.077</b>	n/a	n/a
Gallium	71	1.161	1.179	1.172	<b>1.161</b>	n/a	n/a
Rhodium	103	1.107	1.165	1.14	<b>1.107</b>	n/a	n/a
Indium	115	1.118	1.14	1.132	<b>1.118</b>	n/a	n/a
Lutetium	175	1.055	1.085	1.092	<b>1.055</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005055-008SD			Mean	SD	%RSD
TimeStamp		6/7/10 12:51					
Aluminum	27	417.8	431.4	406.5	<b>418.5</b>	12.45	2.975
Antimony	121	20.65	20.1	20.12	<b>20.29</b>	0.3153	1.554
Antimony	123	20.38	20.1	20.26	<b>20.24</b>	0.1404	0.6937
Arsenic	75	21.4	21.38	20.9	<b>21.22</b>	0.2826	1.331
Barium	137	22.77	22.54	21.84	<b>22.38</b>	0.4797	2.143
Barium	138	22.21	22.08	22.04	<b>22.11</b>	0.0885	0.4004
Beryllium	9	21.39	21.72	20.77	<b>21.29</b>	0.4775	2.243
Bismuth	209	19.03	19.05	19.1	<b>19.06</b>	0.0365	0.1912
Boron	10	31.24	33.12	32.77	<b>32.37</b>	0.9968	3.079
Boron	11	32.27	33.61	32.74	<b>32.87</b>	0.6804	2.07
Cadmium	111	20.45	21.29	21.09	<b>20.94</b>	0.438	2.091
Cadmium	114	21.61	20.99	20.86	<b>21.15</b>	0.4013	1.897
Chromium	52	20.39	20.53	20.05	<b>20.32</b>	0.2499	1.229
Chromium	53	19.78	19.76	20.1	<b>19.88</b>	0.1911	0.9612
Cobalt	59	44.92	44.41	44.75	<b>44.69</b>	0.2569	0.5747
Copper	63	2997	2964	2971	<b>2977</b>	17.52	0.5884
Copper	65	3012	2984	2921	<b>2972</b>	46.66	1.57
Lead	206	20.96	21.16	21.04	<b>21.05</b>	0.0982	0.4663
Lead	207	21.02	20.98	20.7	<b>20.9</b>	0.1773	0.8484
Lead	208	21.06	21.34	21.06	<b>21.16</b>	0.1596	0.7544
Manganese	55	1476	1554	1488	<b>1506</b>	41.62	2.763
Molybdenum	95	20.91	20.64	20.6	<b>20.72</b>	0.1718	0.8292
Molybdenum	97	20.72	20.56	20.07	<b>20.45</b>	0.3374	1.65
Molybdenum	98	20.7	21.09	20.54	<b>20.78</b>	0.2855	1.374
Nickel	60	99.16	101	98.85	<b>99.67</b>	1.168	1.172
Nickel	62	99.89	101.5	99.71	<b>100.4</b>	0.965	0.9616
Selenium	77	26.65	25.99	26.38	<b>26.34</b>	0.3322	1.261
Selenium	78	26.96	26.92	26.72	<b>26.87</b>	0.1289	0.4798
Selenium	82	26.95	25.86	26.5	<b>26.43</b>	0.5485	2.075
Silver	107	20.45	20.42	20.21	<b>20.36</b>	0.1318	0.6476
Silver	109	20.16	19.93	20.02	<b>20.04</b>	0.1174	0.586
Thallium	203	19.9	19.94	20.25	<b>20.03</b>	0.1913	0.9551
Thallium	205	20.23	19.64	20.35	<b>20.07</b>	0.3777	1.881
Tin	118	20.48	20.12	20.43	<b>20.34</b>	0.1938	0.9526
Tin	120	20.74	20.25	20.17	<b>20.39</b>	0.3069	1.505
Vanadium	51	19.44	20.32	19.26	<b>19.67</b>	0.57	2.897
Zinc	66	202.8	195.9	200.9	<b>199.9</b>	3.553	1.778
Zinc	68	206.2	203.4	206.1	<b>205.2</b>	1.57	0.7652

**Internal Standard**

**Factors:**

Lithium	6	1.086	1.119	1.114	<b>1.086</b>	n/a	n/a
Gallium	71	1.128	1.145	1.131	<b>1.128</b>	n/a	n/a
Rhodium	103	1.106	1.128	1.115	<b>1.106</b>	n/a	n/a
Indium	115	1.077	1.085	1.099	<b>1.077</b>	n/a	n/a
Lutetium	175	1.025	1.028	1.075	<b>1.025</b>	n/a	n/a

Instrument ID: K-ICP-MS-02

Experiment: 06-07-10B

Units: µg/L (ppb)

Method: EPA 200.8

Analyst: Greg Jasper

STARLIMS #203621

Sample Name:		LCSW K1005055			Mean	SD	%RSD
TimeStamp		6/7/10 12:56					
Aluminum	27	20.01	20.65	20.48	<b>20.38</b>	0.3328	1.633
Antimony	121	20.19	20.25	20.18	<b>20.21</b>	0.0418	0.2067
Antimony	123	20.29	20.36	20.81	<b>20.48</b>	0.2851	1.392
Arsenic	75	19.7	20.12	19.29	<b>19.7</b>	0.4128	2.095
Barium	137	20.61	20.87	20.74	<b>20.74</b>	0.1306	0.6297
Barium	138	20.3	20.67	20.63	<b>20.53</b>	0.2038	0.9928
Beryllium	9	19.88	21.15	20.86	<b>20.63</b>	0.6666	3.231
Bismuth	209	20.82	20.83	21.63	<b>21.09</b>	0.4644	2.202
Boron	10	19.46	20.65	20.95	<b>20.35</b>	0.7894	3.878
Boron	11	20.12	20.1	19.99	<b>20.07</b>	0.0697	0.3471
Cadmium	111	19.95	20.27	20.59	<b>20.27</b>	0.3215	1.586
Cadmium	114	20.22	20.52	20.8	<b>20.51</b>	0.2919	1.423
Chromium	52	20.31	21.33	20.56	<b>20.73</b>	0.531	2.561
Chromium	53	20.04	20.32	19.48	<b>19.95</b>	0.4291	2.151
Cobalt	59	19.91	19.97	19.83	<b>19.9</b>	0.0675	0.3389
Copper	63	20.41	20.87	20.1	<b>20.46</b>	0.3852	1.882
Copper	65	20.86	20.23	19.76	<b>20.29</b>	0.5498	2.71
Lead	206	20.46	20.54	21.05	<b>20.68</b>	0.3193	1.544
Lead	207	20.31	21.31	21.03	<b>20.88</b>	0.5185	2.483
Lead	208	20.61	20.8	21.38	<b>20.93</b>	0.3999	1.911
Manganese	55	19.76	20.68	19.95	<b>20.13</b>	0.4866	2.417
Molybdenum	95	20.3	19.82	19.98	<b>20.03</b>	0.2427	1.211
Molybdenum	97	20.29	20.16	19.62	<b>20.02</b>	0.3555	1.776
Molybdenum	98	20.29	20.46	20.12	<b>20.29</b>	0.1692	0.8338
Nickel	60	20.37	20.23	20	<b>20.2</b>	0.1876	0.9283
Nickel	62	19.76	19.92	19.66	<b>19.78</b>	0.1287	0.6504
Selenium	77	20.34	21.13	20.14	<b>20.54</b>	0.5228	2.546
Selenium	78	20.39	20.75	20	<b>20.38</b>	0.3752	1.841
Selenium	82	20.26	20.96	20.01	<b>20.41</b>	0.4929	2.415
Silver	107	20.63	20.66	20.64	<b>20.64</b>	0.0166	0.0802
Silver	109	20.6	20.77	20.58	<b>20.65</b>	0.1053	0.5099
Thallium	203	20.69	21.42	21.22	<b>21.11</b>	0.3793	1.796
Thallium	205	21.15	21.18	21.45	<b>21.26</b>	0.1645	0.7739
Tin	118	20.48	20.61	21.1	<b>20.73</b>	0.3277	1.581
Tin	120	20.52	20.59	21.05	<b>20.72</b>	0.292	1.409
Vanadium	51	20.01	20.64	20.02	<b>20.22</b>	0.3638	1.799
Zinc	66	20.57	20.37	19.69	<b>20.21</b>	0.4635	2.294
Zinc	68	20.85	20.68	19.87	<b>20.47</b>	0.5211	2.546

## Internal Standard

## Factors:

Lithium	6	0.951	1.023	1.026	<b>0.951</b>	n/a	n/a
Gallium	71	0.991	1.019	0.986	<b>0.991</b>	n/a	n/a
Rhodium	103	0.969	1.001	0.989	<b>0.969</b>	n/a	n/a
Indium	115	0.947	0.993	1.003	<b>0.947</b>	n/a	n/a
Lutetium	175	0.961	1.002	1.014	<b>0.961</b>	n/a	n/a

Instrument ID: K-ICP-MS-02

Experiment: 06-07-10B

Units: µg/L (ppb)

Method: EPA 200.8

Analyst: Greg Jasper

STARLIMS #203621

Sample Name:		LCSW K1005055D			Mean	SD	%RSD
TimeStamp		6/7/10 13:01					
Aluminum	27	20.29	20.71	19.7	<b>20.24</b>	0.5064	2.503
Antimony	121	20.31	20.21	21.06	<b>20.53</b>	0.4607	2.244
Antimony	123	20.66	19.99	21.44	<b>20.69</b>	0.7265	3.511
Arsenic	75	19.91	19.67	20.26	<b>19.95</b>	0.3	1.504
Barium	137	20.35	20.9	21.09	<b>20.78</b>	0.385	1.852
Barium	138	20.53	20.76	20.58	<b>20.63</b>	0.121	0.5868
Beryllium	9	21.33	21.69	20.46	<b>21.16</b>	0.63	2.977
Bismuth	209	21.02	21.79	20.96	<b>21.26</b>	0.4613	2.17
Boron	10	21.18	21.2	20.67	<b>21.02</b>	0.3036	1.444
Boron	11	20.83	20.68	20.63	<b>20.71</b>	0.101	0.4876
Cadmium	111	20.02	19.77	20.92	<b>20.24</b>	0.6073	3.001
Cadmium	114	20.42	20.22	20.98	<b>20.54</b>	0.3965	1.93
Chromium	52	21.03	20.73	20.91	<b>20.89</b>	0.1538	0.7363
Chromium	53	19.68	20.07	20.06	<b>19.94</b>	0.2201	1.104
Cobalt	59	20.24	20.04	19.73	<b>20</b>	0.261	1.305
Copper	63	20.27	20.33	20.08	<b>20.23</b>	0.135	0.6676
Copper	65	20.41	20.31	19.72	<b>20.15</b>	0.372	1.847
Lead	206	20.83	21.4	20.7	<b>20.97</b>	0.3701	1.764
Lead	207	20.28	20.91	20.31	<b>20.5</b>	0.353	1.722
Lead	208	20.78	21.27	20.71	<b>20.92</b>	0.3044	1.455
Manganese	55	19.91	20.18	19.71	<b>19.93</b>	0.2352	1.18
Molybdenum	95	20.31	19.52	20.48	<b>20.1</b>	0.5159	2.566
Molybdenum	97	20.52	19.61	19.82	<b>19.98</b>	0.4785	2.395
Molybdenum	98	20.09	20.12	20.34	<b>20.18</b>	0.1356	0.6721
Nickel	60	20.42	20.49	20.56	<b>20.49</b>	0.0693	0.338
Nickel	62	20.06	19.6	20.12	<b>19.93</b>	0.283	1.42
Selenium	77	19.97	20.5	19.61	<b>20.03</b>	0.4498	2.246
Selenium	78	20.57	20.31	20.55	<b>20.48</b>	0.1437	0.7017
Selenium	82	19.81	20.2	20.37	<b>20.13</b>	0.2892	1.437
Silver	107	20.64	20.32	21.32	<b>20.76</b>	0.5116	2.465
Silver	109	20.56	20.57	20.78	<b>20.64</b>	0.1223	0.5925
Thallium	203	20.64	20.91	20.2	<b>20.58</b>	0.3586	1.742
Thallium	205	21.04	21.33	20.88	<b>21.08</b>	0.2258	1.071
Tin	118	20.59	20.67	21.29	<b>20.85</b>	0.3844	1.843
Tin	120	20.72	20.71	21.77	<b>21.07</b>	0.6074	2.883
Vanadium	51	20.38	20.43	20.38	<b>20.4</b>	0.0285	0.1397
Zinc	66	20.04	20.17	20.05	<b>20.09</b>	0.0743	0.3699
Zinc	68	20.79	20.04	20.55	<b>20.46</b>	0.3821	1.868

## Internal Standard

## Factors:

Lithium	6	1.019	1.038	1.005	<b>1.019</b>	n/a	n/a
Gallium	71	0.983	1.005	0.998	<b>0.983</b>	n/a	n/a
Rhodium	103	0.987	0.982	1.007	<b>0.987</b>	n/a	n/a
Indium	115	0.965	0.987	1.025	<b>0.965</b>	n/a	n/a
Lutetium	175	0.971	1.007	0.998	<b>0.971</b>	n/a	n/a



Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005055-001			Mean	SD	%RSD
TimeStamp		6/7/10 13:10					
Aluminum	27	24.49	24.54	24.36	<b>24.46</b>	0.0926	0.3787
Antimony	121	0.1155	0.1101	0.1209	<b>0.1155</b>	0.0054	4.659
Antimony	123	0.124	0.1302	0.1169	<b>0.1237</b>	0.0066	5.36
Arsenic	75	0.5511	0.436	0.5152	<b>0.5008</b>	0.0589	11.76
Barium	137	6.48	6.408	6.485	<b>6.457</b>	0.0432	0.6687
Barium	138	6.488	6.328	6.434	<b>6.417</b>	0.0814	1.268
Beryllium	9	-0.0005	0.0033	-0.0014	<b>0.0005</b>	0.0025	529.6
Bismuth	209	0.0031	0.002	0.0016	<b>0.0022</b>	0.0008	37.11
Boron	10	30.27	31.47	32.86	<b>31.54</b>	1.297	4.113
Boron	11	30.31	31.37	33.49	<b>31.72</b>	1.62	5.108
Cadmium	111	0.0117	0.0117	0.0123	<b>0.0119</b>	0.0004	2.977
Cadmium	114	0.0087	0.0074	0.0087	<b>0.0083</b>	0.0008	9.179
Chromium	52	0.3493	0.376	0.4172	<b>0.3808</b>	0.0342	8.989
Chromium	53	0.229	0.2428	0.2494	<b>0.2404</b>	0.0104	4.341
Cobalt	59	0.0725	0.0731	0.0778	<b>0.0745</b>	0.0029	3.961
Copper	63	1.84	1.939	1.951	<b>1.91</b>	0.0609	3.188
Copper	65	0.7041	0.7011	0.7093	<b>0.7048</b>	0.0042	0.5939
Lead	206	0.0138	0.0166	0.0165	<b>0.0156</b>	0.0016	9.955
Lead	207	0.0194	0.0233	0.0171	<b>0.0199</b>	0.0031	15.77
Lead	208	0.0169	0.018	0.017	<b>0.0173</b>	0.0006	3.621
Manganese	55	6.102	6.029	6.212	<b>6.114</b>	0.092	1.505
Molybdenum	95	3.476	3.529	3.549	<b>3.518</b>	0.038	1.079
Molybdenum	97	3.508	3.558	3.604	<b>3.557</b>	0.0479	1.346
Molybdenum	98	3.511	3.666	3.546	<b>3.575</b>	0.0814	2.277
Nickel	60	0.1789	0.1847	0.188	<b>0.1839</b>	0.0046	2.528
Nickel	62	1.023	1.164	1.22	<b>1.136</b>	0.1016	8.948
Selenium	77	0.2335	0.356	0.4097	<b>0.3331</b>	0.0903	27.12
Selenium	78	0.6052	0.6493	0.6771	<b>0.6439</b>	0.0362	5.625
Selenium	82	0.3385	0.127	0.4357	<b>0.3004</b>	0.1579	52.55
Silver	107	-0.0012	-0.0014	-0.0025	<b>-0.0017</b>	0.0007	41.7
Silver	109	-0.0003	-0.0013	-0.0044	<b>-0.002</b>	0.0021	106.9
Thallium	203	0.0018	0.0027	0.0032	<b>0.0026</b>	0.0008	29.14
Thallium	205	0.0017	0.0018	0.0005	<b>0.0013</b>	0.0007	54.69
Tin	118	0.0273	0.0242	0.027	<b>0.0262</b>	0.0017	6.508
Tin	120	0.0199	0.0227	0.022	<b>0.0215</b>	0.0014	6.657
Vanadium	51	0.1003	0.1028	0.1155	<b>0.1062</b>	0.0082	7.698
Zinc	66	3.574	3.616	3.599	<b>3.597</b>	0.0212	0.5896
Zinc	68	3.709	3.769	3.742	<b>3.74</b>	0.0302	0.8064

**Internal Standard**

**Factors:**

Lithium	6	1.015	1.024	1.052	<b>1.015</b>	n/a	n/a
Gallium	71	1.101	1.095	1.083	<b>1.101</b>	n/a	n/a
Rhodium	103	1.042	1.067	1.043	<b>1.042</b>	n/a	n/a
Indium	115	1.02	1.035	1.044	<b>1.02</b>	n/a	n/a
Lutetium	175	0.991	1.022	1.045	<b>0.991</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005055-002			Mean	SD	%RSD
TimeStamp		6/7/10 13:19					
Aluminum	27	56.64	60.07	58.5	<b>58.4</b>	1.718	2.941
Antimony	121	0.1387	0.1368	0.1303	<b>0.1353</b>	0.0044	3.27
Antimony	123	0.1435	0.1407	0.1508	<b>0.145</b>	0.0052	3.614
Arsenic	75	0.6355	0.5565	0.6111	<b>0.601</b>	0.0405	6.735
Barium	137	7.706	7.518	7.418	<b>7.547</b>	0.1464	1.94
Barium	138	7.555	7.475	7.32	<b>7.45</b>	0.1195	1.604
Beryllium	9	0.0012	0.0002	-0.0012	<b>0.0001</b>	0.0012	2286
Bismuth	209	-0.0022	-0.0022	-0.0029	<b>-0.0025</b>	0.0004	16.95
Boron	10	35.89	39.39	38.53	<b>37.94</b>	1.825	4.81
Boron	11	37.34	38.15	38.98	<b>38.16</b>	0.8215	2.153
Cadmium	111	0.0106	0.0051	0.0105	<b>0.0088</b>	0.0031	35.82
Cadmium	114	0.0066	0.0064	0.0081	<b>0.007</b>	0.0009	12.89
Chromium	52	0.2995	0.3645	0.3017	<b>0.3219</b>	0.0369	11.46
Chromium	53	0.1711	0.1854	0.1767	<b>0.1777</b>	0.0072	4.041
Cobalt	59	0.0881	0.0864	0.0904	<b>0.0883</b>	0.002	2.264
Copper	63	2.067	2.12	2.132	<b>2.106</b>	0.0347	1.648
Copper	65	0.6942	0.7271	0.7122	<b>0.7112</b>	0.0165	2.32
Lead	206	0.0175	0.0226	0.0179	<b>0.0193</b>	0.0028	14.65
Lead	207	0.0234	0.0232	0.0232	<b>0.0233</b>	0.0001	0.4894
Lead	208	0.022	0.0222	0.0228	<b>0.0224</b>	0.0004	1.908
Manganese	55	7.646	7.842	7.487	<b>7.659</b>	0.1781	2.326
Molybdenum	95	4.177	4.12	4.191	<b>4.162</b>	0.0377	0.9066
Molybdenum	97	4.146	4.074	4.072	<b>4.097</b>	0.0421	1.027
Molybdenum	98	4.21	4.255	4.126	<b>4.197</b>	0.0659	1.571
Nickel	60	0.181	0.2136	0.1949	<b>0.1965</b>	0.0164	8.337
Nickel	62	1.899	1.957	1.846	<b>1.901</b>	0.0557	2.93
Selenium	77	0.3908	0.5187	0.3264	<b>0.412</b>	0.0979	23.75
Selenium	78	0.7041	0.877	0.688	<b>0.7564</b>	0.1048	13.85
Selenium	82	0.4304	0.3174	0.2891	<b>0.3457</b>	0.0747	21.63
Silver	107	-0.0061	-0.0066	-0.0058	<b>-0.0062</b>	0.0004	6.283
Silver	109	-0.0061	-0.0064	-0.0069	<b>-0.0065</b>	0.0004	6.506
Thallium	203	0.0071	0.0044	0.0055	<b>0.0057</b>	0.0013	23.52
Thallium	205	0.0053	0.0042	0.005	<b>0.0048</b>	0.0006	11.66
Tin	118	0.018	0.0172	0.0155	<b>0.0169</b>	0.0013	7.528
Tin	120	0.0198	0.0146	0.0175	<b>0.0173</b>	0.0026	15.21
Vanadium	51	0.1097	0.1255	0.1116	<b>0.1156</b>	0.0086	7.466
Zinc	66	4.151	4.424	4.19	<b>4.255</b>	0.1476	3.468
Zinc	68	4.355	4.401	4.435	<b>4.397</b>	0.0404	0.9183

**Internal Standard Factors:**

Lithium	6	1.03	1.108	1.068	<b>1.03</b>	n/a	n/a
Gallium	71	1.076	1.101	1.08	<b>1.076</b>	n/a	n/a
Rhodium	103	1.047	1.065	1.061	<b>1.047</b>	n/a	n/a
Indium	115	1.041	1.057	1.056	<b>1.041</b>	n/a	n/a
Lutetium	175	0.984	1.019	1.05	<b>0.984</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005055-003			Mean	SD	%RSD
TimeStamp		6/7/10 13:25					
Aluminum	27	5.11	5.275	5.199	<b>5.195</b>	0.0823	1.585
Antimony	121	0.2885	0.2837	0.2734	<b>0.2819</b>	0.0077	2.747
Antimony	123	0.2887	0.2783	0.2936	<b>0.2869</b>	0.0078	2.728
Arsenic	75	0.4312	0.4388	0.4576	<b>0.4425</b>	0.0136	3.069
Barium	137	22.94	22.17	22.82	<b>22.64</b>	0.4163	1.838
Barium	138	22.66	22.69	22.56	<b>22.64</b>	0.0648	0.286
Beryllium	9	-0.003	-0.0002	0.0009	<b>-0.0008</b>	0.002	263
Bismuth	209	-0.0053	-0.0073	-0.0055	<b>-0.006</b>	0.0011	17.98
Boron	10	60.87	65.7	66.44	<b>64.33</b>	3.025	4.702
Boron	11	62.22	66.06	66.13	<b>64.81</b>	2.237	3.452
Cadmium	111	0.0125	0.0133	0.0174	<b>0.0144</b>	0.0027	18.53
Cadmium	114	0.0103	0.0107	0.0121	<b>0.011</b>	0.001	8.885
Chromium	52	0.3266	0.3779	0.4062	<b>0.3703</b>	0.0404	10.9
Chromium	53	0.1795	0.1633	0.1818	<b>0.1749</b>	0.0101	5.766
Cobalt	59	0.1946	0.1893	0.19	<b>0.1913</b>	0.0029	1.508
Copper	63	4.009	4.135	4.144	<b>4.096</b>	0.0756	1.845
Copper	65	1.143	1.106	1.139	<b>1.129</b>	0.0204	1.811
Lead	206	0.0125	0.0151	0.0114	<b>0.013</b>	0.0019	14.66
Lead	207	0.0225	0.0223	0.0207	<b>0.0218</b>	0.001	4.567
Lead	208	0.0162	0.0153	0.0171	<b>0.0162</b>	0.0009	5.775
Manganese	55	23.79	23.49	24.14	<b>23.8</b>	0.3252	1.366
Molybdenum	95	5.993	5.829	5.956	<b>5.926</b>	0.0858	1.448
Molybdenum	97	5.898	5.978	5.818	<b>5.898</b>	0.0804	1.363
Molybdenum	98	6.027	6.082	5.871	<b>5.993</b>	0.1093	1.823
Nickel	60	0.3302	0.3425	0.3253	<b>0.3326</b>	0.0088	2.659
Nickel	62	2.62	3.256	3.173	<b>3.017</b>	0.3459	11.47
Selenium	77	2.287	2.052	2.118	<b>2.152</b>	0.1214	5.641
Selenium	78	2.702	2.611	2.423	<b>2.579</b>	0.1423	5.52
Selenium	82	2.111	2.023	2.046	<b>2.06</b>	0.0454	2.202
Silver	107	-0.0089	-0.0097	-0.0081	<b>-0.0089</b>	0.0008	8.572
Silver	109	-0.0082	-0.0086	-0.0085	<b>-0.0084</b>	0.0002	2.711
Thallium	203	0.0216	0.017	0.0149	<b>0.0179</b>	0.0034	19.03
Thallium	205	0.0176	0.0165	0.0165	<b>0.0169</b>	0.0006	3.844
Tin	118	0.0131	0.0097	0.0073	<b>0.0101</b>	0.0029	28.74
Tin	120	0.0058	0.0045	0.0062	<b>0.0055</b>	0.0009	15.95
Vanadium	51	0.0908	0.1168	0.1209	<b>0.1095</b>	0.0163	14.91
Zinc	66	5.678	5.578	5.549	<b>5.601</b>	0.0679	1.213
Zinc	68	6.07	5.977	6.158	<b>6.068</b>	0.0908	1.497

**Internal Standard**

**Factors:**

Lithium	6	1.056	1.123	1.122	<b>1.056</b>	n/a	n/a
Gallium	71	1.17	1.157	1.159	<b>1.17</b>	n/a	n/a
Rhodium	103	1.152	1.157	1.131	<b>1.152</b>	n/a	n/a
Indium	115	1.112	1.117	1.119	<b>1.112</b>	n/a	n/a
Lutetium	175	1.086	1.09	1.11	<b>1.086</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005055-004			Mean	SD	%RSD
TimeStamp		6/7/10 13:31					
Aluminum	27	42.09	40.82	41.78	<b>41.56</b>	0.6632	1.596
Antimony	121	1.132	1.127	1.111	<b>1.123</b>	0.0111	0.9876
Antimony	123	1.112	1.111	1.128	<b>1.117</b>	0.0092	0.8252
Arsenic	75	1.28	1.249	1.115	<b>1.215</b>	0.0876	7.208
Barium	137	9.819	9.832	9.752	<b>9.801</b>	0.043	0.4384
Barium	138	9.856	9.809	9.795	<b>9.82</b>	0.0323	0.3294
Beryllium	9	0.0032	-0.0013	0.0046	<b>0.0022</b>	0.0031	141.1
Bismuth	209	-0.0063	-0.0066	-0.0068	<b>-0.0066</b>	0.0003	3.894
Boron	10	39.83	40.94	38.98	<b>39.92</b>	0.984	2.465
Boron	11	40.19	40.97	40.64	<b>40.6</b>	0.3939	0.9702
Cadmium	111	0.0354	0.0308	0.0303	<b>0.0322</b>	0.0028	8.651
Cadmium	114	0.031	0.029	0.0269	<b>0.029</b>	0.0021	7.183
Chromium	52	0.4431	0.4305	0.4298	<b>0.4345</b>	0.0075	1.723
Chromium	53	0.1917	0.2366	0.2161	<b>0.2148</b>	0.0225	10.46
Cobalt	59	0.1023	0.1084	0.1008	<b>0.1038</b>	0.004	3.865
Copper	63	1.62	1.622	1.641	<b>1.628</b>	0.0118	0.7253
Copper	65	0.511	0.498	0.5046	<b>0.5045</b>	0.0065	1.292
Lead	206	0.042	0.0428	0.0415	<b>0.0421</b>	0.0007	1.562
Lead	207	0.0482	0.045	0.0449	<b>0.0461</b>	0.0019	4.045
Lead	208	0.0448	0.0458	0.0438	<b>0.0448</b>	0.001	2.234
Manganese	55	2.855	2.87	2.801	<b>2.842</b>	0.0365	1.283
Molybdenum	95	29.41	28.35	29.43	<b>29.06</b>	0.6167	2.122
Molybdenum	97	28.94	29.24	29.01	<b>29.07</b>	0.1564	0.538
Molybdenum	98	29.64	29.38	29.14	<b>29.39</b>	0.2473	0.8414
Nickel	60	0.4156	0.3961	0.3703	<b>0.394</b>	0.0227	5.77
Nickel	62	2.194	2.532	2.506	<b>2.411</b>	0.1882	7.808
Selenium	77	3.423	3.221	3.726	<b>3.457</b>	0.2541	7.35
Selenium	78	3.893	3.557	3.757	<b>3.736</b>	0.1694	4.534
Selenium	82	3.584	3.281	3.299	<b>3.388</b>	0.17	5.019
Silver	107	-0.0098	-0.0084	-0.0085	<b>-0.0089</b>	0.0008	8.908
Silver	109	-0.0103	-0.0099	-0.0102	<b>-0.0101</b>	0.0002	2.293
Thallium	203	0.0187	0.0189	0.0158	<b>0.0178</b>	0.0017	9.736
Thallium	205	0.0142	0.0158	0.0156	<b>0.0152</b>	0.0008	5.496
Tin	118	0.0053	0.0076	0.0057	<b>0.0062</b>	0.0012	19.79
Tin	120	0.0023	0.0032	-0.0006	<b>0.0016</b>	0.0019	120.3
Vanadium	51	0.2168	0.2064	0.2002	<b>0.2078</b>	0.0084	4.027
Zinc	66	2.323	2.333	2.361	<b>2.339</b>	0.0196	0.8399
Zinc	68	2.431	2.46	2.342	<b>2.411</b>	0.0616	2.556

**Internal Standard Factors:**

Lithium	6	1.016	1.066	1.048	<b>1.016</b>	n/a	n/a
Gallium	71	1.023	1.029	1.028	<b>1.023</b>	n/a	n/a
Rhodium	103	0.991	0.999	0.996	<b>0.991</b>	n/a	n/a
Indium	115	0.988	1.006	1.026	<b>0.988</b>	n/a	n/a
Lutetium	175	0.985	1.014	1.019	<b>0.985</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	CCV2	Mean	SD	%RSD			
TimeStamp	6/7/10 13:38						
Aluminum	27	25.9	26.07	27.82	<b>26.6</b>	1.067	4.01
Antimony	121	24.52	24.97	24.27	<b>24.58</b>	0.3546	1.443
Antimony	123	25.21	24.96	24.4	<b>24.86</b>	0.4117	1.656
Arsenic	75	24.59	25.07	25.49	<b>25.05</b>	0.4491	1.793
Barium	137	25.69	25.58	25.37	<b>25.55</b>	0.1591	0.6227
Barium	138	25.75	25.19	24.74	<b>25.23</b>	0.5014	1.988
Beryllium	9	25.68	26.52	26.21	<b>26.14</b>	0.4276	1.636
Bismuth	209	24.84	25.49	25.39	<b>25.24</b>	0.35	1.387
Boron	10	24.86	26.44	26.67	<b>25.99</b>	0.9857	3.792
Boron	11	24.59	26.64	26.97	<b>26.07</b>	1.289	4.943
Cadmium	111	23.98	25.08	24.44	<b>24.5</b>	0.5535	2.259
Cadmium	114	24.81	24.97	24.47	<b>24.75</b>	0.2582	1.043
Chromium	52	26.4	26	27.24	<b>26.55</b>	0.6344	2.389
Chromium	53	26.66	26.47	26.05	<b>26.39</b>	0.3117	1.181
Cobalt	59	26.07	25.9	26.41	<b>26.13</b>	0.2606	0.9976
Copper	63	25.92	25.65	26.05	<b>25.87</b>	0.2058	0.7955
Copper	65	26.11	25.53	25.7	<b>25.78</b>	0.2943	1.142
Lead	206	25.4	24.94	25.02	<b>25.12</b>	0.2475	0.9851
Lead	207	24.76	24.05	25.43	<b>24.75</b>	0.6917	2.795
Lead	208	25.46	24.61	24.95	<b>25</b>	0.4304	1.721
Manganese	55	25.82	25.49	25.84	<b>25.71</b>	0.1981	0.7704
Molybdenum	95	25.11	25.3	25.57	<b>25.33</b>	0.2297	0.9069
Molybdenum	97	24.65	25.04	25.17	<b>24.95</b>	0.2742	1.099
Molybdenum	98	24.88	25.16	25.23	<b>25.09</b>	0.189	0.7534
Nickel	60	26.17	25.42	26.34	<b>25.98</b>	0.4889	1.882
Nickel	62	26.38	25.75	26.64	<b>26.25</b>	0.4599	1.752
Selenium	77	24.67	25.71	25.67	<b>25.35</b>	0.5916	2.334
Selenium	78	25.55	24.93	26.12	<b>25.54</b>	0.595	2.33
Selenium	82	24	24.99	25.41	<b>24.8</b>	0.7244	2.921
Silver	107	24.55	25.68	24.92	<b>25.05</b>	0.5753	2.297
Silver	109	25.5	25.54	25.01	<b>25.35</b>	0.2991	1.18
Thallium	203	25.33	25.33	24.95	<b>25.2</b>	0.2168	0.8602
Thallium	205	25.18	25.35	25.59	<b>25.37</b>	0.204	0.8039
Tin	118	24.24	25.25	24.43	<b>24.64</b>	0.5381	2.184
Tin	120	25.22	24.79	24.37	<b>24.79</b>	0.4213	1.7
Vanadium	51	25.93	25.54	26.82	<b>26.1</b>	0.657	2.518
Zinc	66	24.77	25	25.28	<b>25.02</b>	0.2592	1.036
Zinc	68	25.43	25.01	25.18	<b>25.21</b>	0.2129	0.8444

**Internal Standard Factors:**

Lithium	6	0.934	0.999	1.008	<b>0.934</b>	n/a	n/a
Gallium	71	0.905	0.929	0.954	<b>0.905</b>	n/a	n/a
Rhodium	103	0.882	0.944	0.953	<b>0.882</b>	n/a	n/a
Indium	115	0.887	0.933	0.923	<b>0.887</b>	n/a	n/a
Lutetium	175	0.947	0.978	0.996	<b>0.947</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	CCB2				Mean	SD	%RSD
TimeStamp	6/7/10 13:46						
Aluminum	27	-0.0138	-0.0063	0.0004	<b>-0.0066</b>	0.0071	108.4
Antimony	121	0.0027	0.0005	-0.0006	<b>0.0009</b>	0.0017	189.8
Antimony	123	0.0055	0.0021	-0.0009	<b>0.0022</b>	0.0032	141.5
Arsenic	75	-0.0257	-0.0268	-0.0244	<b>-0.0257</b>	0.0012	4.696
Barium	137	0.0007	0.0025	0.0012	<b>0.0015</b>	0.0009	63.48
Barium	138	0.0025	0.003	0.0008	<b>0.0021</b>	0.0011	53.73
Beryllium	9	-0.0024	0.0065	0.002	<b>0.002</b>	0.0044	219.3
Bismuth	209	0.0047	0.0031	0.0031	<b>0.0036</b>	0.0009	25.05
Boron	10	0.0912	0.113	0.0939	<b>0.0994</b>	0.0119	11.98
Boron	11	0.136	0.1109	0.1041	<b>0.117</b>	0.0168	14.36
Cadmium	111	0.0015	0.0023	-0.001	<b>0.0009</b>	0.0017	178.5
Cadmium	114	0.0011	0.0011	-0.0015	<b>0.0002</b>	0.0015	663.1
Chromium	52	0.0408	0.058	0.0539	<b>0.0509</b>	0.0089	17.58
Chromium	53	0.0076	0.0147	-0.0108	<b>0.0038</b>	0.0132	344.6
Cobalt	59	0.0031	-0.0028	-0.0006	<b>-0.0001</b>	0.003	3000
Copper	63	0.0468	0.0441	0.0267	<b>0.0392</b>	0.0109	27.92
Copper	65	0.0275	0.0327	0.0216	<b>0.0273</b>	0.0056	20.39
Lead	206	0.0011	-0.0008	0.0021	<b>0.0008</b>	0.0014	179.2
Lead	207	0.0013	0.0033	0.0007	<b>0.0018</b>	0.0013	75.79
Lead	208	0.0002	0.001	0.0071	<b>0.0028</b>	0.0037	134.5
Manganese	55	0.0102	0.0095	0.0091	<b>0.0096</b>	0.0006	5.718
Molybdenum	95	0.0066	0.0049	0.0058	<b>0.0058</b>	0.0009	14.98
Molybdenum	97	0.0123	0.0064	0.0055	<b>0.0081</b>	0.0037	45.97
Molybdenum	98	0.0081	0.0061	0.0075	<b>0.0072</b>	0.001	14.08
Nickel	60	-0.0053	0.0073	0.0033	<b>0.0018</b>	0.0064	361.7
Nickel	62	0.0951	0.0527	0.0963	<b>0.0814</b>	0.0249	30.57
Selenium	77	0.0204	-0.0107	-0.0132	<b>-0.0012</b>	0.0187	1597
Selenium	78	0.1791	0.1407	0.1215	<b>0.1471</b>	0.0293	19.91
Selenium	82	-0.0645	-0.1092	-0.1018	<b>-0.0918</b>	0.024	26.11
Silver	107	0.0045	0.0028	0.0014	<b>0.0029</b>	0.0016	54.46
Silver	109	0.0039	0.0018	-0.0013	<b>0.0014</b>	0.0026	178.9
Thallium	203	0.0042	0.0039	0.0047	<b>0.0043</b>	0.0004	10.1
Thallium	205	0.0026	0.0035	0.0018	<b>0.0026</b>	0.0009	32.67
Tin	118	0.0163	0.0129	0.0104	<b>0.0132</b>	0.003	22.69
Tin	120	0.0102	0.0095	0.0094	<b>0.0097</b>	0.0004	4.542
Vanadium	51	0.0145	0.0163	0.0251	<b>0.0186</b>	0.0056	30.3
Zinc	66	-0.0175	-0.007	-0.014	<b>-0.0128</b>	0.0053	41.64
Zinc	68	-0.0021	-0.0076	-0.0161	<b>-0.0086</b>	0.007	81.88

**Internal Standard**

**Factors:**

Lithium	6	0.906	0.96	0.966	<b>0.906</b>	n/a	n/a
Gallium	71	0.922	0.931	0.924	<b>0.922</b>	n/a	n/a
Rhodium	103	0.891	0.93	0.918	<b>0.891</b>	n/a	n/a
Indium	115	0.91	0.925	0.941	<b>0.91</b>	n/a	n/a
Lutetium	175	0.957	0.967	0.999	<b>0.957</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005117-001			Mean	SD	%RSD
TimeStamp		6/7/10 13:51					
Aluminum	27	298.5	298	312.5	<b>303</b>	8.256	2.725
Antimony	121	0.3887	0.3794	0.3789	<b>0.3823</b>	0.0055	1.439
Antimony	123	0.3771	0.3718	0.3835	<b>0.3774</b>	0.0059	1.555
Arsenic	75	3.841	3.769	3.918	<b>3.843</b>	0.0746	1.941
Barium	137	25.45	25.38	25.53	<b>25.45</b>	0.0785	0.3084
Barium	138	24.94	24.8	24.57	<b>24.77</b>	0.1875	0.7572
Beryllium	9	0.009	0.0075	0.0087	<b>0.0084</b>	0.0008	9.084
Bismuth	209	0.0002	0.0017	0.0027	<b>0.0015</b>	0.0012	80.36
Boron	10	21.21	21.99	22.8	<b>22</b>	0.7942	3.611
Boron	11	21.59	22.94	24.22	<b>22.92</b>	1.319	5.754
Cadmium	111	0.1421	0.1477	0.1433	<b>0.1444</b>	0.003	2.051
Cadmium	114	0.1368	0.1372	0.1436	<b>0.1392</b>	0.0038	2.731
Chromium	52	0.6725	0.7017	0.7143	<b>0.6961</b>	0.0215	3.082
Chromium	53	0.8605	0.837	0.8687	<b>0.8554</b>	0.0164	1.922
Cobalt	59	1.481	1.448	1.494	<b>1.474</b>	0.0237	1.61
Copper	63	6.148	6.205	6.186	<b>6.18</b>	0.029	0.4687
Copper	65	6.081	5.997	6.157	<b>6.078</b>	0.0802	1.319
Lead	206	2.33	2.369	2.303	<b>2.334</b>	0.0328	1.405
Lead	207	2.643	2.667	2.557	<b>2.622</b>	0.0577	2.2
Lead	208	2.552	2.542	2.5	<b>2.531</b>	0.0278	1.1
Manganese	55	412.9	402.5	421.8	<b>412.4</b>	9.66	2.342
Molybdenum	95	3.118	3.064	3.048	<b>3.077</b>	0.037	1.203
Molybdenum	97	3.048	3.075	3.05	<b>3.058</b>	0.0152	0.4983
Molybdenum	98	3.081	3.1	3.145	<b>3.109</b>	0.0326	1.05
Nickel	60	3.291	3.166	3.329	<b>3.262</b>	0.0854	2.618
Nickel	62	2.841	2.728	2.824	<b>2.798</b>	0.061	2.181
Selenium	77	0.2208	0.1651	0.3423	<b>0.2427</b>	0.0906	37.33
Selenium	78	0.2627	0.295	0.289	<b>0.2822</b>	0.0171	6.072
Selenium	82	0.1651	0.2756	0.2239	<b>0.2215</b>	0.0553	24.97
Silver	107	0.0074	0.0035	0.0035	<b>0.0048</b>	0.0023	47.53
Silver	109	0.001	0.0022	0.0025	<b>0.0019</b>	0.0008	41.21
Thallium	203	0.0593	0.064	0.0509	<b>0.0581</b>	0.0067	11.46
Thallium	205	0.0579	0.0582	0.0559	<b>0.0573</b>	0.0013	2.179
Tin	118	0.1459	0.1494	0.1451	<b>0.1468</b>	0.0023	1.575
Tin	120	0.1488	0.1522	0.1442	<b>0.1484</b>	0.004	2.688
Vanadium	51	2.064	2.084	2.14	<b>2.096</b>	0.0394	1.878
Zinc	66	163.1	157.7	163.1	<b>161.3</b>	3.106	1.926
Zinc	68	164.4	164.3	166.7	<b>165.1</b>	1.388	0.8403

**Internal Standard Factors:**

Lithium	6	1.014	1.061	1.101	<b>1.014</b>	n/a	n/a
Gallium	71	1.014	1.019	1.058	<b>1.014</b>	n/a	n/a
Rhodium	103	1.023	1.045	1.066	<b>1.023</b>	n/a	n/a
Indium	115	1	1.047	1.068	<b>1</b>	n/a	n/a
Lutetium	175	1.027	1.075	1.063	<b>1.027</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005117-001D			Mean	SD	%RSD
TimeStamp		6/7/10 13:57					
Aluminum	27	317.2	333.2	319	<b>323.1</b>	8.768	2.714
Antimony	121	0.4663	0.4524	0.4456	<b>0.4548</b>	0.0106	2.325
Antimony	123	0.4549	0.4466	0.474	<b>0.4585</b>	0.0141	3.067
Arsenic	75	3.925	4.104	3.897	<b>3.975</b>	0.1124	2.828
Barium	137	25.22	25.67	25.27	<b>25.39</b>	0.2459	0.9685
Barium	138	25.39	24.79	24.44	<b>24.87</b>	0.4794	1.927
Beryllium	9	0.0076	0.0016	0.0083	<b>0.0059</b>	0.0037	63.7
Bismuth	209	-0.0001	-0.0012	0.0022	<b>0.0003</b>	0.0017	602.7
Boron	10	22.78	23.05	23.05	<b>22.96</b>	0.1561	0.6799
Boron	11	22.54	23.5	23.59	<b>23.21</b>	0.5835	2.514
Cadmium	111	0.1507	0.1389	0.1378	<b>0.1425</b>	0.0071	5.003
Cadmium	114	0.1421	0.1488	0.1541	<b>0.1483</b>	0.006	4.027
Chromium	52	0.7122	0.7335	0.7052	<b>0.717</b>	0.0147	2.057
Chromium	53	0.8351	0.8555	0.8051	<b>0.8319</b>	0.0254	3.047
Cobalt	59	1.503	1.519	1.416	<b>1.479</b>	0.0554	3.745
Copper	63	6.154	6.267	5.883	<b>6.101</b>	0.1976	3.238
Copper	65	6.269	6.246	5.829	<b>6.115</b>	0.2479	4.054
Lead	206	2.367	2.423	2.422	<b>2.404</b>	0.032	1.329
Lead	207	2.688	2.632	2.612	<b>2.644</b>	0.0391	1.481
Lead	208	2.546	2.531	2.572	<b>2.55</b>	0.0208	0.8158
Manganese	55	411.9	425.1	411.2	<b>416</b>	7.839	1.884
Molybdenum	95	3.129	3.153	3.088	<b>3.123</b>	0.0327	1.048
Molybdenum	97	2.985	3.159	3.164	<b>3.102</b>	0.1021	3.291
Molybdenum	98	3.169	3.199	3.112	<b>3.16</b>	0.0442	1.397
Nickel	60	3.424	3.331	3.266	<b>3.34</b>	0.0797	2.387
Nickel	62	2.643	2.612	2.752	<b>2.669</b>	0.0736	2.757
Selenium	77	0.2102	0.134	0.1728	<b>0.1723</b>	0.0381	22.09
Selenium	78	0.2404	0.304	0.3221	<b>0.2889</b>	0.0429	14.86
Selenium	82	0.276	0.2439	0.2757	<b>0.2652</b>	0.0185	6.957
Silver	107	-0.0003	0.0002	0.0001	<b>0</b>	0.0003	1879
Silver	109	-0.0028	-0.0008	-0.0035	<b>-0.0024</b>	0.0014	59.36
Thallium	203	0.0515	0.055	0.0567	<b>0.0544</b>	0.0027	4.919
Thallium	205	0.0553	0.0591	0.0552	<b>0.0566</b>	0.0022	3.956
Tin	118	0.156	0.165	0.1546	<b>0.1585</b>	0.0057	3.58
Tin	120	0.164	0.1535	0.1503	<b>0.156</b>	0.0071	4.58
Vanadium	51	2.089	2.153	2.155	<b>2.132</b>	0.0374	1.755
Zinc	66	164.5	169.1	162.7	<b>165.4</b>	3.269	1.976
Zinc	68	168.9	174.1	165	<b>169.3</b>	4.599	2.716

**Internal Standard Factors:**

Lithium	6	1.031	1.069	1.075	<b>1.031</b>	n/a	n/a
Gallium	71	1.046	1.093	1.048	<b>1.046</b>	n/a	n/a
Rhodium	103	1.033	1.096	1.065	<b>1.033</b>	n/a	n/a
Indium	115	1.036	1.064	1.064	<b>1.036</b>	n/a	n/a
Lutetium	175	1.026	1.058	1.08	<b>1.026</b>	n/a	n/a



Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005117-001S			Mean	SD	%RSD
TimeStamp		6/7/10 14:03					
Aluminum	27	330.1	334.4	330.3	<b>331.6</b>	2.439	0.7355
Antimony	121	20.56	19.8	20.26	<b>20.21</b>	0.3849	1.905
Antimony	123	20.49	19.53	19.83	<b>19.95</b>	0.4911	2.461
Arsenic	75	24.19	23.32	23.67	<b>23.73</b>	0.4385	1.848
Barium	137	46.02	43.98	44.86	<b>44.96</b>	1.023	2.276
Barium	138	50.7	47.05	48.55	<b>48.77</b>	1.834	3.76
Beryllium	9	19.2	20.47	19.82	<b>19.83</b>	0.6347	3.201
Bismuth	209	0.0015	0.0002	0.0003	<b>0.0007</b>	0.0007	107.3
Boron	10	19.64	21.64	20.8	<b>20.69</b>	1.003	4.846
Boron	11	21.24	22.7	22.2	<b>22.05</b>	0.7417	3.364
Cadmium	111	20.09	19.76	20	<b>19.95</b>	0.1737	0.8705
Cadmium	114	19.37	19.16	19.26	<b>19.27</b>	0.1029	0.5339
Chromium	52	21.38	20.69	21.26	<b>21.11</b>	0.3702	1.754
Chromium	53	20.24	20.44	20.52	<b>20.4</b>	0.1427	0.6995
Cobalt	59	21.23	21.11	20.79	<b>21.04</b>	0.2288	1.087
Copper	63	25.25	24.96	25.13	<b>25.12</b>	0.1491	0.5938
Copper	65	25.43	25.47	25.01	<b>25.3</b>	0.2535	1.002
Lead	206	21.41	21.53	21.58	<b>21.51</b>	0.0901	0.419
Lead	207	21.73	21.81	21.6	<b>21.71</b>	0.1096	0.5046
Lead	208	21.57	21.75	21.63	<b>21.65</b>	0.0882	0.4075
Manganese	55	410.5	417.8	418	<b>415.4</b>	4.28	1.03
Molybdenum	95	23.49	23.53	23.43	<b>23.48</b>	0.0508	0.2165
Molybdenum	97	23.41	23.09	23.67	<b>23.39</b>	0.292	1.248
Molybdenum	98	23.44	23.08	23.97	<b>23.5</b>	0.4517	1.922
Nickel	60	23.68	23.19	22.98	<b>23.28</b>	0.36	1.546
Nickel	62	22.29	21.85	21.34	<b>21.83</b>	0.4742	2.172
Selenium	77	21.08	20.12	19.59	<b>20.26</b>	0.7552	3.727
Selenium	78	20.73	20.82	19.98	<b>20.51</b>	0.4631	2.258
Selenium	82	20.72	19.95	19.57	<b>20.08</b>	0.5862	2.92
Silver	107	19.77	20.03	20.07	<b>19.95</b>	0.163	0.8169
Silver	109	20.42	19.9	20.32	<b>20.21</b>	0.2771	1.371
Thallium	203	19.4	19.02	19.48	<b>19.3</b>	0.2471	1.28
Thallium	205	19.73	19.84	19.87	<b>19.81</b>	0.0753	0.3799
Tin	118	0.1632	0.1479	0.1531	<b>0.1547</b>	0.0078	5.025
Tin	120	0.1586	0.1521	0.1442	<b>0.1516</b>	0.0072	4.758
Vanadium	51	21.98	21.36	21.36	<b>21.57</b>	0.3571	1.656
Zinc	66	181.7	176.4	175.3	<b>177.8</b>	3.383	1.903
Zinc	68	186.2	179.4	177.9	<b>181.2</b>	4.416	2.438

**Internal Standard Factors:**

Lithium	6	0.99	1.074	1.053	<b>0.99</b> n/a	n/a
Gallium	71	1.051	1.053	1.043	<b>1.051</b> n/a	n/a
Rhodium	103	1.035	1.076	1.093	<b>1.035</b> n/a	n/a
Indium	115	1.039	1.045	1.062	<b>1.039</b> n/a	n/a
Lutetium	175	1.02	1.051	1.069	<b>1.02</b> n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	CCV3	Mean	SD	%RSD			
TimeStamp	6/7/10 14:12						
Aluminum	27	24.72	25.52	26.01	<b>25.42</b>	0.6516	2.564
Antimony	121	25.38	24.86	25.18	<b>25.14</b>	0.261	1.038
Antimony	123	25.57	25.12	25.36	<b>25.35</b>	0.2267	0.8944
Arsenic	75	24.55	24.94	25.06	<b>24.85</b>	0.2666	1.073
Barium	137	26.34	24.92	25.61	<b>25.62</b>	0.7085	2.765
Barium	138	25.29	25.17	24.89	<b>25.12</b>	0.2068	0.8233
Beryllium	9	25.51	25.89	26.94	<b>26.12</b>	0.7405	2.835
Bismuth	209	24.96	25.54	25.99	<b>25.5</b>	0.5156	2.022
Boron	10	24.79	24.95	25.74	<b>25.16</b>	0.5066	2.014
Boron	11	23.86	25.39	26.91	<b>25.39</b>	1.527	6.013
Cadmium	111	24.98	24.69	24.43	<b>24.7</b>	0.274	1.109
Cadmium	114	25.38	24.68	25.34	<b>25.13</b>	0.3924	1.561
Chromium	52	26.08	26.27	27.32	<b>26.56</b>	0.6678	2.515
Chromium	53	24.73	25.54	26.02	<b>25.43</b>	0.6542	2.572
Cobalt	59	24.91	24.7	25.92	<b>25.18</b>	0.6555	2.604
Copper	63	25.22	24.95	26.19	<b>25.45</b>	0.6519	2.562
Copper	65	25.34	24.84	25.23	<b>25.14</b>	0.2613	1.039
Lead	206	25.27	25.24	25.85	<b>25.46</b>	0.3446	1.354
Lead	207	25.23	25.12	25.9	<b>25.41</b>	0.4237	1.667
Lead	208	25.45	24.88	25.74	<b>25.36</b>	0.4398	1.735
Manganese	55	24.62	25.12	25.95	<b>25.23</b>	0.6675	2.646
Molybdenum	95	24.46	24.71	24.94	<b>24.7</b>	0.2409	0.9749
Molybdenum	97	24.74	24.92	24.74	<b>24.8</b>	0.1053	0.4246
Molybdenum	98	24.49	24.96	24.95	<b>24.8</b>	0.2684	1.082
Nickel	60	25.36	24.8	25.81	<b>25.32</b>	0.5059	1.998
Nickel	62	23.93	24.52	25.64	<b>24.7</b>	0.8659	3.506
Selenium	77	24.23	24.77	25.28	<b>24.76</b>	0.5227	2.111
Selenium	78	25.23	24.47	25.45	<b>25.05</b>	0.5122	2.045
Selenium	82	24.27	24.48	24.44	<b>24.4</b>	0.1103	0.4521
Silver	107	25.38	25.65	25.15	<b>25.4</b>	0.2462	0.9696
Silver	109	25.49	25.22	25.55	<b>25.42</b>	0.1754	0.69
Thallium	203	25.29	25.21	25.75	<b>25.42</b>	0.2902	1.142
Thallium	205	25.97	24.97	25.51	<b>25.48</b>	0.5026	1.972
Tin	118	25.65	25.34	25.38	<b>25.46</b>	0.1712	0.6723
Tin	120	25.09	25.37	25.54	<b>25.33</b>	0.2311	0.9124
Vanadium	51	25.11	25.18	26.5	<b>25.6</b>	0.7835	3.061
Zinc	66	24.92	24.34	25.38	<b>24.88</b>	0.5198	2.089
Zinc	68	24.21	24.62	25.08	<b>24.63</b>	0.4387	1.781

**Internal Standard Factors:**

Lithium	6	0.945	0.981	1.015	<b>0.945</b>	n/a	n/a
Gallium	71	0.956	0.973	0.99	<b>0.956</b>	n/a	n/a
Rhodium	103	0.937	0.972	0.971	<b>0.937</b>	n/a	n/a
Indium	115	0.956	0.973	0.977	<b>0.956</b>	n/a	n/a
Lutetium	175	0.97	0.987	1.027	<b>0.97</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:	CCB3	Mean	SD	%RSD
TimeStamp	6/7/10 14:20			
Aluminum 27	-0.0427	0.0238	-0.0137	<b>-0.0109</b> 0.0333 307.2
Antimony 121	-0.0019	-0.0028	-0.005	<b>-0.0032</b> 0.0016 49.57
Antimony 123	-0.0018	-0.002	-0.0027	<b>-0.0022</b> 0.0005 22.5
Arsenic 75	-0.0333	0.0026	-0.0552	<b>-0.0286</b> 0.0292 102
Barium 137	-0.0028	-0.0051	-0.0051	<b>-0.0043</b> 0.0014 31.3
Barium 138	-0.0043	-0.004	-0.0046	<b>-0.0043</b> 0.0003 6.957
Beryllium 9	-0.001	-0.0039	0.0001	<b>-0.0016</b> 0.0021 127
Bismuth 209	-0.0009	-0.0031	-0.0043	<b>-0.0028</b> 0.0017 62.52
Boron 10	0.0688	0.0705	0.0287	<b>0.056</b> 0.0237 42.23
Boron 11	0.0575	0.0457	0.0232	<b>0.0421</b> 0.0174 41.35
Cadmium 111	-0.0021	-0.0012	-0.0018	<b>-0.0017</b> 0.0005 28.73
Cadmium 114	-0.0023	-0.0025	-0.0027	<b>-0.0025</b> 0.0002 8.477
Chromium 52	-0.0075	0.0264	0.0311	<b>0.0167</b> 0.0211 126.4
Chromium 53	0.0216	0.0144	-0.0088	<b>0.0091</b> 0.0159 175.2
Cobalt 59	-0.0032	-0.006	-0.0065	<b>-0.0053</b> 0.0018 33.84
Copper 63	-0.0168	-0.0199	-0.0182	<b>-0.0183</b> 0.0015 8.233
Copper 65	-0.0026	-0.0033	0.0064	<b>0.0002</b> 0.0054 3314
Lead 206	-0.0039	-0.0002	-0.0034	<b>-0.0025</b> 0.002 80.13
Lead 207	-0.0013	0.0025	-0.0038	<b>-0.0009</b> 0.0032 368.6
Lead 208	-0.0011	-0.0006	-0.0029	<b>-0.0015</b> 0.0012 77.5
Manganese 55	0.0001	0.0016	-0.0016	<b>0</b> 0.0016 4576
Molybdenum 95	0.0051	0.0011	-0.0009	<b>0.0018</b> 0.0031 173.9
Molybdenum 97	0.0001	-0.001	0.0025	<b>0.0005</b> 0.0018 331.1
Molybdenum 98	0.0029	0.0021	0.0026	<b>0.0025</b> 0.0004 16.57
Nickel 60	-0.0007	-0.0076	0.007	<b>-0.0004</b> 0.0073 1733
Nickel 62	-0.3416	-0.3574	-0.2808	<b>-0.3266</b> 0.0405 12.39
Selenium 77	0.017	-0.0427	0.0091	<b>-0.0055</b> 0.0324 585
Selenium 78	-0.1096	0.0332	0.147	<b>0.0235</b> 0.1286 546.9
Selenium 82	-0.0901	-0.0452	-0.176	<b>-0.1038</b> 0.0665 64.04
Silver 107	-0.002	-0.0032	-0.0036	<b>-0.0029</b> 0.0008 27.14
Silver 109	-0.0018	-0.0032	-0.0042	<b>-0.0031</b> 0.0012 38.89
Thallium 203	0.0001	-0.0011	-0.0014	<b>-0.0008</b> 0.0008 95.87
Thallium 205	-0.0019	-0.0019	-0.0021	<b>-0.002</b> 0.0001 6.942
Tin 118	0.0076	0.0002	0.0007	<b>0.0028</b> 0.0041 143.4
Tin 120	0.0028	0.0016	-0.0019	<b>0.0008</b> 0.0025 299.2
Vanadium 51	-0.0065	0.0085	0.0173	<b>0.0064</b> 0.012 186.6
Zinc 66	-0.0145	-0.0177	-0.0299	<b>-0.0207</b> 0.0081 39.08
Zinc 68	-0.0102	-0.0084	0.0004	<b>-0.0061</b> 0.0057 93.58

**Internal Standard**

**Factors:**

Lithium 6	0.899	0.982	0.971	<b>0.899</b> n/a n/a
Gallium 71	0.962	0.977	0.981	<b>0.962</b> n/a n/a
Rhodium 103	0.938	0.982	0.953	<b>0.938</b> n/a n/a
Indium 115	0.937	0.957	0.969	<b>0.937</b> n/a n/a
Lutetium 175	0.982	0.993	0.979	<b>0.982</b> n/a n/a

Instrument ID: K-ICP-MS-02  
 Experiment: 06-07-10B  
 Units: µg/L (ppb)

Method: EPA 200.8  
 Analyst: Greg Jasper  
 STARLIMS #203621

Sample Name:		K1005055-005			Mean	SD	%RSD
TimeStamp		6/7/10 14:27					
Aluminum	27	13.14	13.72	13.53	<b>13.46</b>	0.2963	2.201
Antimony	121	0.4889	0.495	0.4773	<b>0.4871</b>	0.009	1.846
Antimony	123	0.5051	0.4981	0.4853	<b>0.4962</b>	0.01	2.019
Arsenic	75	1.645	1.732	1.645	<b>1.674</b>	0.0503	3.004
Barium	137	17.84	17.5	17.56	<b>17.64</b>	0.1796	1.018
Barium	138	17.63	17.13	17.46	<b>17.41</b>	0.2548	1.464
Beryllium	9	0.0008	-0.0051	0	<b>-0.0014</b>	0.0032	223.3
Bismuth	209	-0.0035	-0.0045	-0.0038	<b>-0.0039</b>	0.0005	13.25
Boron	10	13.49	14.68	14.4	<b>14.19</b>	0.6236	4.394
Boron	11	13.62	14.57	14.56	<b>14.25</b>	0.5483	3.848
Cadmium	111	0.0606	0.0443	0.0624	<b>0.0558</b>	0.01	17.89
Cadmium	114	0.0445	0.0468	0.0436	<b>0.045</b>	0.0016	3.587
Chromium	52	0.3793	0.4399	0.4359	<b>0.4183</b>	0.0339	8.101
Chromium	53	0.2729	0.2367	0.2766	<b>0.2621</b>	0.0221	8.419
Cobalt	59	0.026	0.0322	0.0244	<b>0.0275</b>	0.0041	14.82
Copper	63	1.187	1.24	1.213	<b>1.213</b>	0.0267	2.197
Copper	65	0.9472	1.02	1.006	<b>0.9913</b>	0.0388	3.915
Lead	206	0.0607	0.0564	0.0578	<b>0.0583</b>	0.0021	3.681
Lead	207	0.0664	0.0742	0.0675	<b>0.0694</b>	0.0042	6.083
Lead	208	0.0653	0.0658	0.0634	<b>0.0648</b>	0.0013	1.965
Manganese	55	7.962	8.365	8.016	<b>8.114</b>	0.2186	2.695
Molybdenum	95	36.95	36.71	36.59	<b>36.75</b>	0.1821	0.4954
Molybdenum	97	37.08	37.58	36.33	<b>37</b>	0.626	1.692
Molybdenum	98	37.23	37.54	36.33	<b>37.03</b>	0.6277	1.695
Nickel	60	0.2644	0.3266	0.2743	<b>0.2884</b>	0.0334	11.59
Nickel	62	-0.1213	-0.125	-0.2784	<b>-0.1749</b>	0.0897	51.27
Selenium	77	0.7752	0.8265	0.8884	<b>0.83</b>	0.0566	6.825
Selenium	78	0.9989	1.099	1.036	<b>1.045</b>	0.0505	4.839
Selenium	82	0.6988	0.8528	0.6945	<b>0.7487</b>	0.0902	12.04
Silver	107	-0.0026	-0.0015	-0.0037	<b>-0.0026</b>	0.0011	41.79
Silver	109	0.0006	-0.003	-0.0038	<b>-0.0021</b>	0.0024	112.7
Thallium	203	0.0218	0.0195	0.0216	<b>0.0209</b>	0.0013	6.005
Thallium	205	0.0213	0.0226	0.022	<b>0.022</b>	0.0007	2.958
Tin	118	0.02	0.0214	0.0165	<b>0.0193</b>	0.0025	12.87
Tin	120	0.0167	0.0138	0.0121	<b>0.0142</b>	0.0023	16.27
Vanadium	51	0.4313	0.4955	0.4633	<b>0.4633</b>	0.0321	6.929
Zinc	66	10.9	11.01	11.1	<b>11</b>	0.0964	0.8765
Zinc	68	11.18	11.45	11.43	<b>11.35</b>	0.1523	1.341

**Internal Standard Factors:**

Lithium	6	0.891	0.935	0.911	<b>0.891</b>	n/a	n/a
Gallium	71	1.005	1.004	0.982	<b>1.005</b>	n/a	n/a
Rhodium	103	0.985	0.982	0.944	<b>0.985</b>	n/a	n/a
Indium	115	1.008	0.977	0.963	<b>1.008</b>	n/a	n/a
Lutetium	175	0.986	1.003	1.008	<b>0.986</b>	n/a	n/a

Instrument ID: K-ICP-MS-02  
Experiment: 06-07-10B  
Units: µg/L (ppb)

Method: EPA 200.8  
Analyst: Greg Jasper  
STARLIMS #203621

**Sample Name:**  
**TimeStamp**

Aluminum	27
Antimony	121
Antimony	123
Arsenic	75
Barium	137
Barium	138
Beryllium	9
Bismuth	209
Boron	10
Boron	11
Cadmium	111
Cadmium	114
Chromium	52
Chromium	53
Cobalt	59
Copper	63
Copper	65
Lead	206
Lead	207
Lead	208
Manganese	55
Molybdenum	95
Molybdenum	97
Molybdenum	98
Nickel	60
Nickel	62
Selenium	77
Selenium	78
Selenium	82
Silver	107
Silver	109
Thallium	203
Thallium	205
Tin	118
Tin	120
Vanadium	51
Zinc	66
Zinc	68

**Internal Standard**

**Factors:**

Lithium	6
Gallium	71
Rhodium	103
Indium	115
Lutetium	175

## **Organochlorine Pesticides and Polychlorinated Biphenyls**

Organic Analysis:  
Organochlorine Pesticides and Polychlorinated  
Biphenyls

Summary Package

Sample and QC Results

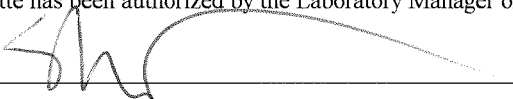
Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067

**Cover Page - Organic Analysis Data Package  
Organochlorine Pesticides and Polychlorinated Biphenyls**

Sample Name	Lab Code	Date Collected	Date Received
3bcd-2	K1005067-002	05/17/2010	05/19/2010
3ddd	K1005067-003	05/17/2010	05/19/2010
EB-051710	K1005067-004	05/17/2010	05/19/2010

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature:   
Date: 5/21/10

Name: Sharon Mung  
Title: \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** 3bcd-2  
**Lab Code:** K1005067-002  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.48	0.043	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1221	ND	U	0.48	0.058	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1232	ND	U	0.48	0.049	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1242	ND	U	0.48	0.018	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1248	ND	U	0.48	0.035	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1254	ND	U	0.48	0.029	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1260	ND	U	0.48	0.053	1	05/20/10	05/24/10	KWG1004759	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	81	10-133	05/24/10	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** 3ddd  
**Lab Code:** K1005067-003  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.48	0.043	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1221	ND	U	0.48	0.058	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1232	ND	U	0.48	0.049	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1242	ND	U	0.48	0.018	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1248	ND	U	0.48	0.035	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1254	ND	U	0.48	0.029	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1260	ND	U	0.48	0.053	1	05/20/10	05/24/10	KWG1004759	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	89	10-133	05/24/10	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** EB-051710  
**Lab Code:** K1005067-004  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.48	0.043	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1221	ND	U	0.48	0.058	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1232	ND	U	0.48	0.049	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1242	ND	U	0.48	0.018	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1248	ND	U	0.48	0.035	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1254	ND	U	0.48	0.029	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1260	ND	U	0.48	0.053	1	05/20/10	05/24/10	KWG1004759	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	77	10-133	05/24/10	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Method Blank  
**Lab Code:** KWG1004759-3

**Units:** ug/L  
**Basis:** NA

**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.48	0.043	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1221	ND	U	0.48	0.058	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1232	ND	U	0.48	0.049	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1242	ND	U	0.48	0.018	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1248	ND	U	0.48	0.035	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1254	ND	U	0.48	0.029	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1260	ND	U	0.48	0.053	1	05/20/10	05/24/10	KWG1004759	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	80	10-133	05/24/10	Acceptable

**Comments:** \_\_\_\_\_

Client: Exponent  
Project: Heglur-Kronquist/0907194.000.0601  
Sample Matrix: Water

Service Request: K1005067

Surrogate Recovery Summary  
Organochlorine Pesticides and Polychlorinated Biphenyls

Extraction Method: EPA 3520C  
Analysis Method: 608M

Units: PERCENT  
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
3bcd-2	K1005067-002	81
3ddd	K1005067-003	89
EB-051710	K1005067-004	77
Method Blank	KWG1004759-3	80
Lab Control Sample	KWG1004759-1	86
Duplicate Lab Control Sample	KWG1004759-2	99

Surrogate Recovery Control Limits (%)

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Sur1 = Decachlorobiphenyl 10-133

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Results flagged with an asterisk (\*) indicate values outside control criteria.  
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 05/24/2010  
 Time Analyzed: 18:03

Internal Standard Area and RT Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls

File ID: J:\GC33\DATA\052410-608\05240002.D  
 Instrument ID: GC33  
 Analysis Method: 608M

Lab Code: KWG1004915-1  
 Analysis Lot: KWG1004915  
 Column : RTX-CLP

Pentachloronitrobenzene (P)

	Area	RT
ICAL Average ==>	31,854,712	13.00
Upper Limit ==>	63,709,424	13.50
Lower Limit ==>	15,927,356	12.50

Associated Analyses

		Area	RT
Continuing Calibration Verificati	KWG1004915-1	39,444,604	12.89
Lab Control Sample	KWG1004759-1	35,309,752	12.89
Duplicate Lab Control Sample	KWG1004759-2	35,884,404	12.89
Method Blank	KWG1004759-3	32,296,252	12.89
3bcd-2	K1005067-002	32,574,620	12.89
3ddd	K1005067-003	34,274,000	12.89
EB-051710	K1005067-004	29,840,576	12.89

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 18:03

**Internal Standard Area and RT Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-608\05240002.D\05240002C.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-1  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP2

Pentachloronitrobenzene (P)

	<u>Area</u>	<u>RT</u>
<b>ICAL Average ==&gt;</b>	45,770,624	12.00
<b>Upper Limit ==&gt;</b>	91,541,248	12.50
<b>Lower Limit ==&gt;</b>	22,885,312	11.50

*Associated Analyses*

		<u>Area</u>	<u>RT</u>
Continuing Calibration Verificati	KWG1004915-1	53,176,340	11.81
Lab Control Sample	KWG1004759-1	51,269,968	11.82
Duplicate Lab Control Sample	KWG1004759-2	51,463,700	11.82
Method Blank	KWG1004759-3	44,369,800	11.82
3bcd-2	K1005067-002	45,366,520	11.82
3ddd	K1005067-003	46,837,388	11.82
EB-051710	K1005067-004	41,713,380	11.82

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 18:29

**Internal Standard Area and RT Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-PCB1\05240003.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-2  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP

	<u>Pentachloronitrobenzene (P)</u>	
	<u>Area</u>	<u>RT</u>
<b>ICAL Average ==&gt;</b>	44,584,772	12.98
<b>Upper Limit ==&gt;</b>	89,169,544	13.48
<b>Lower Limit ==&gt;</b>	22,292,386	12.48

***Associated Analyses***

Continuing Calibration Verificati	KWG1004915-2	31,044,772	12.89
Lab Control Sample	KWG1004759-1	35,309,752	12.89
Lab Control Sample	KWG1004759-1	35,309,752	12.89
Duplicate Lab Control Sample	KWG1004759-2	35,884,404	12.89
Duplicate Lab Control Sample	KWG1004759-2	35,884,404	12.89
Method Blank	KWG1004759-3	32,296,252	12.89
Method Blank	KWG1004759-3	32,296,252	12.89
3bcd-2	K1005067-002	32,574,620	12.89
3bcd-2	K1005067-002	32,574,620	12.89
3ddd	K1005067-003	34,274,000	12.89
3ddd	K1005067-003	34,274,000	12.89
EB-051710	K1005067-004	29,840,576	12.89
EB-051710	K1005067-004	29,840,576	12.89

Results flagged with an asterisk (\*) indicate values outside control criteria.



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 18:29

**Internal Standard Area and RT Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-PCB1\05240003.D\05240003C.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-2  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP2

	<u>Pentachloronitrobenzene (P)</u>	
	<u>Area</u>	<u>RT</u>
<b>ICAL Average ==&gt;</b>	60,401,244	11.96
<b>Upper Limit ==&gt;</b>	120,802,488	12.46
<b>Lower Limit ==&gt;</b>	30,200,622	11.46

*Associated Analyses*

		<u>Area</u>	<u>RT</u>
Continuing Calibration Verificati	KWG1004915-2	42,142,304	11.82
Lab Control Sample	KWG1004759-1	51,269,968	11.82
Lab Control Sample	KWG1004759-1	51,269,968	11.82
Duplicate Lab Control Sample	KWG1004759-2	51,463,700	11.82
Duplicate Lab Control Sample	KWG1004759-2	51,463,700	11.82
Method Blank	KWG1004759-3	44,369,800	11.82
Method Blank	KWG1004759-3	44,369,800	11.82
3bcd-2	K1005067-002	45,366,520	11.82
3bcd-2	K1005067-002	45,366,520	11.82
3ddd	K1005067-003	46,837,388	11.82
3ddd	K1005067-003	46,837,388	11.82
EB-051710	K1005067-004	41,713,380	11.82
EB-051710	K1005067-004	41,713,380	11.82

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010  
**Time Analyzed:** 00:32

**Internal Standard Area and RT Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-608\05240017.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-3  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP

	<u>Pentachloronitrobenzene (P</u>	
	<u>Area</u>	<u>RT</u>
ICAL Average ==>	31,854,712	13.00
Upper Limit ==>	63,709,424	13.50
Lower Limit ==>	15,927,356	12.50

Associated Analyses

Continuing Calibration Verificati	KWG1004915-3	38,462,564	12.89
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Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010  
**Time Analyzed:** 00:32

**Internal Standard Area and RT Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-608\05240017.D\05240017C.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-3  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP2

	Pentachloronitrobenzene (P)	
	<u>Area</u>	<u>RT</u>
<b>ICAL Average ==&gt;</b>	45,770,624	12.00
<b>Upper Limit ==&gt;</b>	91,541,248	12.50
<b>Lower Limit ==&gt;</b>	22,885,312	11.50

*Associated Analyses*

Continuing Calibration Verificati	KWG1004915-3	52,946,184	11.82

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010  
**Time Analyzed:** 01:23

**Internal Standard Area and RT Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-PCB1\05240019.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-4  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP

	Pentachloronitrobenzene (P)	
	<u>Area</u>	<u>RT</u>
<b>ICAL Average ==&gt;</b>	44,584,772	12.98
<b>Upper Limit ==&gt;</b>	89,169,544	13.48
<b>Lower Limit ==&gt;</b>	22,292,386	12.48

*Associated Analyses*

Continuing Calibration Verificati	KWG1004915-4	29,998,456	12.89
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Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010  
**Time Analyzed:** 01:23

**Internal Standard Area and RT Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-PCB1\05240019.D\05240019C.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-4  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP2

	<u>Pentachloronitrobenzene (P)</u>	
	<u>Area</u>	<u>RT</u>
ICAL Average ==>	60,401,244	11.96
Upper Limit ==>	120,802,488	12.46
Lower Limit ==>	30,200,622	11.46

*Associated Analyses*

		<u>Area</u>	<u>RT</u>
Continuing Calibration Verificati	KWG1004915-4	41,027,800	11.82

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010

**Lab Control Spike/Duplicate Lab Control Spike Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1004759

Analyte Name	Lab Control Sample KWG1004759-1 Lab Control Spike			Duplicate Lab Control Sample KWG1004759-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
Aroclor 1016	1.84	2.00	92	1.80	2.00	90	41-125	3	30
Aroclor 1260	2.32	2.00	116	2.25	2.00	113	43-138	3	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601  
Sample Matrix: Water

Service Request: K1005067  
Date Extracted: 05/20/2010  
Date Analyzed: 05/24/2010  
Time Analyzed: 21:30

Method Blank Summary  
Organochlorine Pesticides and Polychlorinated Biphenyls

Sample Name: Method Blank  
Lab Code: KWG1004759-3

File ID: J:\GC33\DATA\052410-608\05240010.D  
Instrument ID: GC33

Extraction Method: EPA 3520C  
Analysis Method: 608M

Level: Low  
Extraction Lot: KWG1004759

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1004759-1	J:\GC33\DATA\052410-608\05240008.D	05/24/10	20:38
Duplicate Lab Control Sample	KWG1004759-2	J:\GC33\DATA\052410-608\05240009.D	05/24/10	21:04
3bcd-2	K1005067-002	J:\GC33\DATA\052410-608\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-608\05240012.D	05/24/10	22:22
EB-051710	K1005067-004	J:\GC33\DATA\052410-608\05240013.D	05/24/10	22:48

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601  
Sample Matrix: Water

Service Request: K1005067  
Date Extracted: 05/20/2010  
Date Analyzed: 05/24/2010  
Time Analyzed: 21:30

Method Blank Summary  
Organochlorine Pesticides and Polychlorinated Biphenyls

Sample Name: Method Blank  
Lab Code: KWG1004759-3  
Extraction Method: EPA 3520C  
Analysis Method: 608M  
File ID: J:\GC33\DATA\052410-PCB1\05240010.D  
Instrument ID: GC33  
Level: Low  
Extraction Lot: KWG1004759

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1004759-1	J:\GC33\DATA\052410-PCB1\05240008.D	05/24/10	20:38
Duplicate Lab Control Sample	KWG1004759-2	J:\GC33\DATA\052410-PCB1\05240009.D	05/24/10	21:04
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB1\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB1\05240012.D	05/24/10	22:22
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB1\05240013.D	05/24/10	22:48



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 21:30

**Method Blank Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Method Blank  
**Lab Code:** KWG1004759-3  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**File ID:** J:\GC33\DATA\052410-PCB2\05240010.D  
**Instrument ID:** GC33  
**Level:** Low  
**Extraction Lot:** KWG1004759

This Method Blank applies to the following analyses:

<b>Sample Name</b>	<b>Lab Code</b>	<b>File ID</b>	<b>Date Analyzed</b>	<b>Time Analyzed</b>
Lab Control Sample	KWG1004759-1	J:\GC33\DATA\052410-PCB2\05240008.D	05/24/10	20:38
Duplicate Lab Control Sample	KWG1004759-2	J:\GC33\DATA\052410-PCB2\05240009.D	05/24/10	21:04
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB2\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB2\05240012.D	05/24/10	22:22
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB2\05240013.D	05/24/10	22:48

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglur-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 20:38

**Lab Control Sample Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1004759-1  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**File ID:** J:\GC33\DATA\052410-608\05240008.D  
**Instrument ID:** GC33  
**Level:** Low  
**Extraction Lot:** KWG1004759

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-608\05240010.D	05/24/10	21:30
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB1\05240010.D	05/24/10	21:30
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB2\05240010.D	05/24/10	21:30
3bcd-2	K1005067-002	J:\GC33\DATA\052410-608\05240011.D	05/24/10	21:56
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB1\05240011.D	05/24/10	21:56
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB2\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-608\05240012.D	05/24/10	22:22
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB1\05240012.D	05/24/10	22:22
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB2\05240012.D	05/24/10	22:22
EB-051710	K1005067-004	J:\GC33\DATA\052410-608\05240013.D	05/24/10	22:48
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB1\05240013.D	05/24/10	22:48
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB2\05240013.D	05/24/10	22:48

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 20:38

**Lab Control Sample Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1004759-1  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**File ID:** J:\GC33\DATA\052410-PCB1\05240008.D  
**Instrument ID:** GC33  
**Level:** Low  
**Extraction Lot:** KWG1004759

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-608\05240010.D	05/24/10	21:30
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB1\05240010.D	05/24/10	21:30
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB2\05240010.D	05/24/10	21:30
3bcd-2	K1005067-002	J:\GC33\DATA\052410-608\05240011.D	05/24/10	21:56
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB1\05240011.D	05/24/10	21:56
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB2\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-608\05240012.D	05/24/10	22:22
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB1\05240012.D	05/24/10	22:22
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB2\05240012.D	05/24/10	22:22
EB-051710	K1005067-004	J:\GC33\DATA\052410-608\05240013.D	05/24/10	22:48
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB1\05240013.D	05/24/10	22:48
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB2\05240013.D	05/24/10	22:48

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 20:38

**Lab Control Sample Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

<b>Sample Name:</b> Lab Control Sample	<b>File ID:</b> J:\GC33\DATA\052410-PCB2\05240008.D
<b>Lab Code:</b> KWG1004759-1	<b>Instrument ID:</b> GC33
<b>Extraction Method:</b> EPA 3520C	<b>Level:</b> Low
<b>Analysis Method:</b> 608M	<b>Extraction Lot:</b> KWG1004759

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB1\05240013.D	05/24/10	22:48
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB2\05240013.D	05/24/10	22:48
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB1\05240010.D	05/24/10	21:30
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB2\05240010.D	05/24/10	21:30
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB1\05240011.D	05/24/10	21:56
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB2\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB1\05240012.D	05/24/10	22:22
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB2\05240012.D	05/24/10	22:22

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9230  
**Instrument ID:** GC33

**Column:** RTX-CLP

Level ID	File ID	Level ID	File ID
A	J:\GC33\Data\022010-PCB1\02200002.D	H	J:\GC33\Data\022010-PCB1\02200010.D
B	J:\GC33\Data\022010-PCB1\02200003.D	I	J:\GC33\Data\022010-PCB1\02200011.D
C	J:\GC33\Data\022010-PCB1\02200004.D	J	J:\GC33\Data\022010-PCB1\02200012.D
D	J:\GC33\Data\022010-PCB1\02200005.D	K	J:\GC33\Data\022010-PCB1\02200013.D
E	J:\GC33\Data\022010-PCB1\02200006.D	L	J:\GC33\Data\022010-PCB1\02200014.D
F	J:\GC33\Data\022010-PCB1\02200007.D		
G	J:\GC33\Data\022010-PCB1\02200009.D		

Analyte Name	Level			Level			Level			Level					
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF			
Aroclor 1016	A	25	0.0976	B	50	0.0900	C	250	0.0760	D	500	0.0764	E	1000	0.0723
	F	2000	0.0711												
Aroclor 1221				G	50	0.0551	H	100	0.0527	I	250	0.0516	J	500	0.0466
	K	750	0.0455	L	1000	0.0440									
Aroclor 1254				G	50	0.170	H	100	0.157	I	250	0.154	J	500	0.145
	K	750	0.144	L	1000	0.142									
Aroclor 1260	A	25	0.138	B	50	0.136	C	250	0.130	D	500	0.142	E	1000	0.132
	F	2000	0.132												

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9230  
**Instrument ID:** GC33

**Column:** RTX-CLP

Analyte Name	Compound Type	Calibration Evaluation				RRF Evaluation			
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Aroclor 1016	MS	Linear	R2	1.000		≥ 0.990	0.0806		
Aroclor 1221	TRG	AverageRF	% RSD	9.1		≤ 10	0.0493		
Aroclor 1254	TRG	AverageRF	% RSD	7.0		≤ 10	0.152		
Aroclor 1260	MS	AverageRF	% RSD	3.5		≤ 10	0.135		

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010  
**Date Analyzed:** 02/20/2010

**Second Source Calibration Verification**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration ID:** CAL9230  
**Units:** ug/L

**File ID:** J:\GC33\Data\022010-PCB1\02200008.D  
 J:\GC33\Data\022010-PCB1\02200015.D

**Column ID:** RTX-CLP

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	220	0.0806	0.0682	NA	-11	± 30 %	Linear
Aroclor 1221	250	270	0.0493	0.0522	6	NA	± 30 %	AverageRF
Aroclor 1254	250	240	0.152	0.144	-5	NA	± 30 %	AverageRF
Aroclor 1260	250	280	0.135	0.150	11	NA	± 30 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9230  
**Instrument ID:** GC33

**Column:** RTX-CLP2

Level ID	File ID	Level ID	File ID
A	J:\GC33\Data\022010-PCB1\02200002.D\02200002c.d	H	J:\GC33\Data\022010-PCB1\02200010.D\02200010c.d
B	J:\GC33\Data\022010-PCB1\02200003.D\02200003c.d	I	J:\GC33\Data\022010-PCB1\02200011.D\02200011c.d
C	J:\GC33\Data\022010-PCB1\02200004.D\02200004c.d	J	J:\GC33\Data\022010-PCB1\02200012.D\02200012c.d
D	J:\GC33\Data\022010-PCB1\02200005.D\02200005c.d	K	J:\GC33\Data\022010-PCB1\02200013.D\02200013c.d
E	J:\GC33\Data\022010-PCB1\02200006.D\02200006c.d	L	J:\GC33\Data\022010-PCB1\02200014.D\02200014c.d
F	J:\GC33\Data\022010-PCB1\02200007.D\02200007c.d		
G	J:\GC33\Data\022010-PCB1\02200009.D\02200009c.d		

Analyte Name	Level ID			Level ID			Level ID			Level ID					
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF			
Aroclor 1016	A	25	0.0862	B	50	0.0831	C	250	0.0728	D	500	0.0736	E	1000	0.0702
	F	2000	0.0682												
Aroclor 1221				G	50	0.0494	H	100	0.0477	I	250	0.0466	J	500	0.0429
	K	750	0.0397	L	1000	0.0398									
Aroclor 1254				G	50	0.140	H	100	0.132	I	250	0.129	J	500	0.120
	K	750	0.121	L	1000	0.118									
Aroclor 1260	A	25	0.130	B	50	0.124	C	250	0.113	D	500	0.119	E	1000	0.110
	F	2000	0.106												

Results flagged with an asterisk (\*) indicate values outside control criteria.



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9230  
**Instrument ID:** GC33

**Column:** RTX-CLP2

Analyte Name	Compound Type	Calibration Evaluation				RRF Evaluation			
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Aroclor 1016	MS	AverageRF	% RSD	9.6		≤ 10	0.0757		
Aroclor 1221	TRG	AverageRF	% RSD	9.3		≤ 10	0.0444		
Aroclor 1254	TRG	AverageRF	% RSD	6.9		≤ 10	0.127		
Aroclor 1260	MS	AverageRF	% RSD	7.6		≤ 10	0.117		

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Calibration Date: 02/20/2010  
 Date Analyzed: 02/20/2010

Second Source Calibration Verification  
 Organochlorine Pesticides and Polychlorinated Biphenyls

Calibration Type: Internal Standard  
 Analysis Method: 608M

Calibration ID: CAL9230  
 Units: ug/L

File ID: J:\GC33\Data\022010-PCB1\02200008.D\02200008c.d  
 J:\GC33\Data\022010-PCB1\02200015.D\02200015c.d

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	210	0.0757	0.0650	-14	NA	± 30 %	AverageRF
Aroclor 1221	250	260	0.0444	0.0465	5	NA	± 30 %	AverageRF
Aroclor 1254	250	240	0.127	0.120	-5	NA	± 30 %	AverageRF
Aroclor 1260	250	270	0.117	0.128	10	NA	± 30 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 12/12/2009

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9310  
**Instrument ID:** GC33

**Column:** RTX-CLP

Level ID	File ID	Level ID	File ID
A	J:\GC33\Data\121109-508\12110047.D	K	J:\GC33\Data\121109-508\12110058.D
B	J:\GC33\Data\121109-508\12110048.D	L	J:\GC33\Data\121109-508\12110059.D
C	J:\GC33\Data\121109-508\12110049.D	M	J:\GC33\Data\032210-608\03220004.D
D	J:\GC33\Data\121109-508\12110050.D	N	J:\GC33\Data\032210-608\03220005.D
E	J:\GC33\Data\121109-508\12110051.D	O	J:\GC33\Data\032210-608\03220006.D
F	J:\GC33\Data\121109-508\12110052.D	P	J:\GC33\Data\032210-608\03220007.D
G	J:\GC33\Data\121109-508\12110054.D	Q	J:\GC33\Data\032210-608\03220008.D
H	J:\GC33\Data\121109-508\12110055.D	R	J:\GC33\Data\032210-608\03220009.D
I	J:\GC33\Data\121109-508\12110056.D	S	J:\GC33\Data\032210-608\03220010.D
J	J:\GC33\Data\121109-508\12110057.D		

Analyte Name	Level ID			Level ID			Level ID			Level ID			Level ID		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Decachlorobiphenyl							M	2.0	0.610	N	5.0	0.618	O	20	0.558
				Q	75	0.530	R	100	0.526	S	200	0.529			

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 12/12/2009

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9310  
**Instrument ID:** GC33

**Column:** RTX-CLP

Analyte Name	Compound Type	Calibration Evaluation				RRF Evaluation			
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Decachlorobiphenyl	SURR	AverageRF	% RSD	7.2		≤ 10	0.557		

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 12/12/2009

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9310  
**Instrument ID:** GC33

**Column:** RTX-CLP2

Level ID	File ID	Level ID	File ID
A	J:\GC33\Data\121109-508\12110047.D\12110047c.d	K	J:\GC33\Data\121109-508\12110058.D\12110058c.d
B	J:\GC33\Data\121109-508\12110048.D\12110048c.d	L	J:\GC33\Data\121109-508\12110059.D\12110059c.d
C	J:\GC33\Data\121109-508\12110049.D\12110049c.d	M	J:\GC33\Data\032210-608\03220004.D\03220004c.d
D	J:\GC33\Data\121109-508\12110050.D\12110050c.d	N	J:\GC33\Data\032210-608\03220005.D\03220005c.d
E	J:\GC33\Data\121109-508\12110051.D\12110051c.d	O	J:\GC33\Data\032210-608\03220006.D\03220006c.d
F	J:\GC33\Data\121109-508\12110052.D\12110052c.d	P	J:\GC33\Data\032210-608\03220007.D\03220007c.d
G	J:\GC33\Data\121109-508\12110054.D\12110054c.d	Q	J:\GC33\Data\032210-608\03220008.D\03220008c.d
H	J:\GC33\Data\121109-508\12110055.D\12110055c.d	R	J:\GC33\Data\032210-608\03220009.D\03220009c.d
I	J:\GC33\Data\121109-508\12110056.D\12110056c.d	S	J:\GC33\Data\032210-608\03220010.D\03220010c.d
J	J:\GC33\Data\121109-508\12110057.D\12110057c.d		

Analyte Name	Level ID			Level ID			Level ID			Level ID			Level ID		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Decachlorobiphenyl							M	2.0	0.516	N	5.0	0.515	O	20	0.447
	P	50	0.425	Q	75	0.423	R	100	0.414	S	200	0.426			

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 12/12/2009

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9310  
**Instrument ID:** GC33

**Column:** RTX-CLP2

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Decachlorobiphenyl	SURR	AverageRF	% RSD	9.8		≤ 10	0.452		

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Date Analyzed: 05/24/2010

Continuing Calibration Verification Summary  
Organochlorine Pesticides and Polychlorinated Biphenyls

Calibration Type: Internal Standard  
Analysis Method: 608M

Calibration Date: 12/12/2009  
Calibration ID: CAL9310  
Analysis Lot: KWG1004915  
Units: ug/L  
Column ID: RTX-CLP

File ID: J:\GC33\DATA\052410-608\05240002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	50	52		0.557	0.580	4	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/24/2010

**Continuing Calibration Verification Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 12/12/2009  
**Calibration ID:** CAL9310  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP2

**File ID:** J:\GC33\DATA\052410-608\05240002.D\05240002C.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	50	48		0.452	0.430	-5	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Date Analyzed: 05/24/2010

Continuing Calibration Verification Summary  
Organochlorine Pesticides and Polychlorinated Biphenyls

Calibration Type: Internal Standard  
Analysis Method: 608M

Calibration Date: 02/20/2010  
Calibration ID: CAL9230  
Analysis Lot: KWG1004915  
Units: ug/L  
Column ID: RTX-CLP

File ID: J:\GC33\DATA\052410-PCB1\05240003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	220		0.0806	0.0669	NA	-13	± 15 %	Linear
Aroclor 1260	250	240		0.135	0.131	-3	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/24/2010

**Continuing Calibration Verification Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 02/20/2010  
**Calibration ID:** CAL9230  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP2

**File ID:** J:\GC33\DATA\052410-PCB1\05240003.D\05240003C.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	220		0.0757	0.0658	-13	NA	± 15 %	AverageRF
Aroclor 1260	250	220		0.117	0.105	-10	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Date Analyzed: 05/25/2010

Continuing Calibration Verification Summary  
Organochlorine Pesticides and Polychlorinated Biphenyls

Calibration Type: Internal Standard  
Analysis Method: 608M

Calibration Date: 12/12/2009  
Calibration ID: CAL9310  
Analysis Lot: KWG1004915  
Units: ug/L  
Column ID: RTX-CLP

File ID: J:\GC33\DATA\052410-608\05240017.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	50	53		0.557	0.587	5	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010

**Continuing Calibration Verification Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 12/12/2009  
**Calibration ID:** CAL9310  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP2

**File ID:** J:\GC33\DATA\052410-608\05240017.D\05240017C.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	50	49		0.452	0.445	-2	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010

**Continuing Calibration Verification Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 02/20/2010  
**Calibration ID:** CAL9230  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP

**File ID:** J:\GC33\DATA\052410-PCB1\05240019.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	220		0.0806	0.0677	NA	-12	± 15 %	Linear
Aroclor 1260	250	250		0.135	0.136	1	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010

**Continuing Calibration Verification Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 02/20/2010  
**Calibration ID:** CAL9230  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP2

**File ID:** J:\GC33\DATA\052410-PCB1\05240019.D\05240019C.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	220		0.0757	0.0660	-13	NA	± 15 %	AverageRF
Aroclor 1260	250	230		0.117	0.109	-7	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067

Analysis Run Log  
 Organochlorine Pesticides and Polychlorinated Biphenyls

Analysis Method: 608M

Analysis Lot: KWG1004915  
 Instrument ID: GC33  
 Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
05240009.D	Duplicate Lab Control Sample	KWG1004759-2	05/24/2010	21:04		05/24/2010	21:26
05240009.D	Duplicate Lab Control Sample	KWG1004759-2	05/24/2010	21:04		05/24/2010	21:26
05240010.D	Method Blank	KWG1004759-3	05/24/2010	21:30		05/24/2010	21:52
05240010.D	Method Blank	KWG1004759-3	05/24/2010	21:30		05/24/2010	21:52
05240010.D	Method Blank	KWG1004759-3	05/24/2010	21:30		05/24/2010	21:52
05240011.D	3bcd-2	K1005067-002	05/24/2010	21:56		05/24/2010	22:18
05240011.D	3bcd-2	K1005067-002	05/24/2010	21:56		05/24/2010	22:18
05240011.D	3bcd-2	K1005067-002	05/24/2010	21:56		05/24/2010	22:18
05240012.D	3ddd	K1005067-003	05/24/2010	22:22		05/24/2010	22:44
05240012.D	3ddd	K1005067-003	05/24/2010	22:22		05/24/2010	22:44
05240012.D	3ddd	K1005067-003	05/24/2010	22:22		05/24/2010	22:44
05240013.D	EB-051710	K1005067-004	05/24/2010	22:48		05/24/2010	23:10
05240013.D	EB-051710	K1005067-004	05/24/2010	22:48		05/24/2010	23:10
05240013.D	EB-051710	K1005067-004	05/24/2010	22:48		05/24/2010	23:10
05240002.D	Continuing Calibration Verification	KWG1004915-1	05/24/2010	18:03		05/24/2010	18:25
05240003.D	Continuing Calibration Verification	KWG1004915-2	05/24/2010	18:29		05/24/2010	18:51
05240004.D	ZZZZZZ	ZZZZZZ	05/24/2010	18:55		05/24/2010	19:16
05240005.D	ZZZZZZ	ZZZZZZ	05/24/2010	19:21		05/24/2010	19:42
05240006.D	ZZZZZZ	ZZZZZZ	05/24/2010	19:46		05/24/2010	20:08
05240006.D	ZZZZZZ	ZZZZZZ	05/24/2010	19:46		05/24/2010	20:08
05240006.D	ZZZZZZ	ZZZZZZ	05/24/2010	19:46		05/24/2010	20:08
05240007.D	ZZZZZZ	ZZZZZZ	05/24/2010	20:13		05/24/2010	20:34
05240007.D	ZZZZZZ	ZZZZZZ	05/24/2010	20:13		05/24/2010	20:34
05240007.D	ZZZZZZ	ZZZZZZ	05/24/2010	20:13		05/24/2010	20:34
05240008.D	Lab Control Sample	KWG1004759-1	05/24/2010	20:38		05/24/2010	21:00
05240008.D	Lab Control Sample	KWG1004759-1	05/24/2010	20:38		05/24/2010	21:00
05240008.D	Lab Control Sample	KWG1004759-1	05/24/2010	20:38		05/24/2010	21:00
05240009.D	Duplicate Lab Control Sample	KWG1004759-2	05/24/2010	21:04		05/24/2010	21:26
05240017.D	Continuing Calibration Verification	KWG1004915-3	05/25/2010	00:32		05/25/2010	00:53
05240019.D	Continuing Calibration Verification	KWG1004915-4	05/25/2010	01:23		05/25/2010	01:45
05240022.D	ZZZZZZ	ZZZZZZ	05/25/2010	02:41		05/25/2010	03:03
05240022.D	ZZZZZZ	ZZZZZZ	05/25/2010	02:41		05/25/2010	03:03
05240022.D	ZZZZZZ	ZZZZZZ	05/25/2010	02:41		05/25/2010	03:03
05240023.D	ZZZZZZ	ZZZZZZ	05/25/2010	03:07		05/25/2010	03:29

Results flagged with an asterisk (\*) indicate the holding time was exceeded for the analysis

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067

**Analysis Run Log  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Analysis Method:** 608M

**Analysis Lot:** KWG1004915  
**Instrument ID:** GC33  
**Column:** RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
05240024.D	ZZZZZZ	ZZZZZZ	05/25/2010	03:33		05/25/2010	03:55
05240024.D	ZZZZZZ	ZZZZZZ	05/25/2010	03:33		05/25/2010	03:55
05240025.D	ZZZZZZ	ZZZZZZ	05/25/2010	03:59		05/25/2010	04:20
05240025.D	ZZZZZZ	ZZZZZZ	05/25/2010	03:59		05/25/2010	04:20
05240025.D	ZZZZZZ	ZZZZZZ	05/25/2010	03:59		05/25/2010	04:20
05240026.D	ZZZZZZ	ZZZZZZ	05/25/2010	04:25		05/25/2010	04:46
05240027.D	ZZZZZZ	ZZZZZZ	05/25/2010	04:50		05/25/2010	05:12
05240027.D	ZZZZZZ	ZZZZZZ	05/25/2010	04:50		05/25/2010	05:12
05240027.D	ZZZZZZ	ZZZZZZ	05/25/2010	04:50		05/25/2010	05:12
05240028.D	ZZZZZZ	ZZZZZZ	05/25/2010	05:16		05/25/2010	05:38
05240028.D	ZZZZZZ	ZZZZZZ	05/25/2010	05:16		05/25/2010	05:38
05240028.D	ZZZZZZ	ZZZZZZ	05/25/2010	05:16		05/25/2010	05:38
05240029.D	ZZZZZZ	ZZZZZZ	05/25/2010	05:42		05/25/2010	06:04
05240029.D	ZZZZZZ	ZZZZZZ	05/25/2010	05:42		05/25/2010	06:04
05240029.D	ZZZZZZ	ZZZZZZ	05/25/2010	05:42		05/25/2010	06:04
05240030.D	ZZZZZZ	ZZZZZZ	05/25/2010	06:08		05/25/2010	06:30
05240030.D	ZZZZZZ	ZZZZZZ	05/25/2010	06:08		05/25/2010	06:30
05240030.D	ZZZZZZ	ZZZZZZ	05/25/2010	06:08		05/25/2010	06:30
05240031.D	ZZZZZZ	ZZZZZZ	05/25/2010	06:34		05/25/2010	06:56
05240031.D	ZZZZZZ	ZZZZZZ	05/25/2010	06:34		05/25/2010	06:56
05240031.D	ZZZZZZ	ZZZZZZ	05/25/2010	06:34		05/25/2010	06:56
05240033.D	ZZZZZZ	ZZZZZZ	05/25/2010	07:26		05/25/2010	07:48
05240033.D	ZZZZZZ	ZZZZZZ	05/25/2010	07:26		05/25/2010	07:48
05240033.D	ZZZZZZ	ZZZZZZ	05/25/2010	07:26		05/25/2010	07:48
05240035.D	Continuing Calibration Verification	KWG1004915-5	05/25/2010	08:18		05/25/2010	08:39
05240038.D	Continuing Calibration Verification	KWG1004915-6	05/25/2010	09:36		05/25/2010	09:57

Results flagged with an asterisk (\*) indicate the holding time was exceeded for the analysis



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010

**Extraction Prep Log  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Extraction Lot:** KWG1004759  
**Level:** Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
3bcd-2	K1005067-002	05/17/10	05/19/10	1050mL	2mL	NA	
3ddd	K1005067-003	05/17/10	05/19/10	1050mL	2mL	NA	
EB-051710	K1005067-004	05/17/10	05/19/10	1050mL	2mL	NA	
Method Blank	KWG1004759-3	NA	NA	1050mL	2mL	NA	
Lab Control Sample	KWG1004759-1	NA	NA	1000mL	2mL	NA	
Duplicate Lab Control Sample	KWG1004759-2	NA	NA	1000mL	2mL	NA	

Results flagged with an asterisk (\*) indicate the holding time was exceeded for the analysis

Organic Analysis:  
Organochlorine Pesticides and Polychlorinated  
Biphenyls  
Validation Package

Organic Analysis:  
Organochlorine Pesticides and Polychlorinated  
Biphenyls  
Validation Package

QC Reports

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067

**Surrogate Recovery Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Units:** PERCENT  
**Level:** Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
3bcd-2	K1005067-002	81
3ddd	K1005067-003	89
EB-051710	K1005067-004	77
Method Blank	KWG1004759-3	80
Lab Control Sample	KWG1004759-1	86
Duplicate Lab Control Sample	KWG1004759-2	99

**Surrogate Recovery Control Limits (%)**

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Sur1 = Decachlorobiphenyl 10-133

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Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 05/24/2010  
 Time Analyzed: 18:03

Internal Standard Area and RT Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls

File ID: J:\GC33\DATA\052410-608\05240002.D  
 Instrument ID: GC33  
 Analysis Method: 608M

Lab Code: KWG1004915-1  
 Analysis Lot: KWG1004915  
 Column: RTX-CLP

Pentachloronitrobenzene (P)

	Area	RT
ICAL Average ==>	31,854,712	13.00
Upper Limit ==>	63,709,424	13.50
Lower Limit ==>	15,927,356	12.50

Associated Analyses

		Area	RT
Continuing Calibration Verificati	KWG1004915-1	39,444,604	12.89
Lab Control Sample	KWG1004759-1	35,309,752	12.89
Duplicate Lab Control Sample	KWG1004759-2	35,884,404	12.89
Method Blank	KWG1004759-3	32,296,252	12.89
3bcd-2	K1005067-002	32,574,620	12.89
3ddd	K1005067-003	34,274,000	12.89
EB-051710	K1005067-004	29,840,576	12.89

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 05/24/2010  
 Time Analyzed: 18:03

Internal Standard Area and RT Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls

File ID: J:\GC33\DATA\052410-608\05240002.D\05240002C.D  
 Instrument ID: GC33  
 Analysis Method: 608M

Lab Code: KWG1004915-1  
 Analysis Lot: KWG1004915  
 Column: RTX-CLP2

Pentachloronitrobenzene (P)

	Area	RT
ICAL Average ==>	45,770,624	12.00
Upper Limit ==>	91,541,248	12.50
Lower Limit ==>	22,885,312	11.50

Associated Analyses

		Area	RT
Continuing Calibration Verificati	KWG1004915-1	53,176,340	11.81
Lab Control Sample	KWG1004759-1	51,269,968	11.82
Duplicate Lab Control Sample	KWG1004759-2	51,463,700	11.82
Method Blank	KWG1004759-3	44,369,800	11.82
3bcd-2	K1005067-002	45,366,520	11.82
3ddd	K1005067-003	46,837,388	11.82
EB-051710	K1005067-004	41,713,380	11.82

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 18:29

**Internal Standard Area and RT Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-PCB1\05240003.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-2  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP

Pentachloronitrobenzene (P)

	<u>Area</u>	<u>RT</u>
<b>ICAL Average ==&gt;</b>	44,584,772	12.98
<b>Upper Limit ==&gt;</b>	89,169,544	13.48
<b>Lower Limit ==&gt;</b>	22,292,386	12.48

*Associated Analyses*

		<u>Area</u>	<u>RT</u>
Continuing Calibration Verificati	KWG1004915-2	31,044,772	12.89
Lab Control Sample	KWG1004759-1	35,309,752	12.89
Lab Control Sample	KWG1004759-1	35,309,752	12.89
Duplicate Lab Control Sample	KWG1004759-2	35,884,404	12.89
Duplicate Lab Control Sample	KWG1004759-2	35,884,404	12.89
Method Blank	KWG1004759-3	32,296,252	12.89
Method Blank	KWG1004759-3	32,296,252	12.89
3bcd-2	K1005067-002	32,574,620	12.89
3bcd-2	K1005067-002	32,574,620	12.89
3ddd	K1005067-003	34,274,000	12.89
3ddd	K1005067-003	34,274,000	12.89
EB-051710	K1005067-004	29,840,576	12.89
EB-051710	K1005067-004	29,840,576	12.89

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 05/24/2010  
 Time Analyzed: 18:29

Internal Standard Area and RT Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls

File ID: J:\GC33\DATA\052410-PCB1\05240003.D\05240003C.D  
 Instrument ID: GC33  
 Analysis Method: 608M

Lab Code: KWG1004915-2  
 Analysis Lot: KWG1004915  
 Column: RTX-CLP2

Pentachloronitrobenzene (P)

	Area	RT
ICAL Average ==>	60,401,244	11.96
Upper Limit ==>	120,802,488	12.46
Lower Limit ==>	30,200,622	11.46

Associated Analyses

		Area	RT
Continuing Calibration Verificati	KWG1004915-2	42,142,304	11.82
Lab Control Sample	KWG1004759-1	51,269,968	11.82
Lab Control Sample	KWG1004759-1	51,269,968	11.82
Duplicate Lab Control Sample	KWG1004759-2	51,463,700	11.82
Duplicate Lab Control Sample	KWG1004759-2	51,463,700	11.82
Method Blank	KWG1004759-3	44,369,800	11.82
Method Blank	KWG1004759-3	44,369,800	11.82
3bcd-2	K1005067-002	45,366,520	11.82
3bcd-2	K1005067-002	45,366,520	11.82
3ddd	K1005067-003	46,837,388	11.82
3ddd	K1005067-003	46,837,388	11.82
EB-051710	K1005067-004	41,713,380	11.82
EB-051710	K1005067-004	41,713,380	11.82

Results flagged with an asterisk (\*) indicate values outside control criteria.



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010  
**Time Analyzed:** 00:32

**Internal Standard Area and RT Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-608\05240017.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-3  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP

Pentachloronitrobenzene (P)

	<u>Area</u>	<u>RT</u>
<b>ICAL Average ==&gt;</b>	31,854,712	13.00
<b>Upper Limit ==&gt;</b>	63,709,424	13.50
<b>Lower Limit ==&gt;</b>	15,927,356	12.50

Associated Analyses

Continuing Calibration Verificati	KWG1004915-3	38,462,564	12.89
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Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010  
**Time Analyzed:** 00:32

**Internal Standard Area and RT Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-608\05240017.D\05240017C.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-3  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP2

Pentachloronitrobenzene (P)

	<u>Area</u>	<u>RT</u>
ICAL Average ==>	45,770,624	12.00
Upper Limit ==>	91,541,248	12.50
Lower Limit ==>	22,885,312	11.50

*Associated Analyses*

Continuing Calibration Verificati	KWG1004915-3	52,946,184	11.82
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Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010  
**Time Analyzed:** 01:23

**Internal Standard Area and RT Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-PCB1\05240019.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-4  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP

Pentachloronitrobenzene (P)

	<u>Area</u>	<u>RT</u>
ICAL Average ==>	44,584,772	12.98
Upper Limit ==>	89,169,544	13.48
Lower Limit ==>	22,292,386	12.48

*Associated Analyses*

Continuing Calibration Verificati	KWG1004915-4	29,998,456	12.89
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Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010  
**Time Analyzed:** 01:23

**Internal Standard Area and RT Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**File ID:** J:\GC33\DATA\052410-PCB1\05240019.D\05240019C.D  
**Instrument ID:** GC33  
**Analysis Method:** 608M

**Lab Code:** KWG1004915-4  
**Analysis Lot:** KWG1004915  
**Column :** RTX-CLP2

Pentachloronitrobenzene (P)

	<u>Area</u>	<u>RT</u>
ICAL Average ==>	60,401,244	11.96
Upper Limit ==>	120,802,488	12.46
Lower Limit ==>	30,200,622	11.46

*Associated Analyses*

Continuing Calibration Verificati	KWG1004915-4	41,027,800	11.82
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Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010

**Lab Control Spike/Duplicate Lab Control Spike Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1004759

Analyte Name	Lab Control Sample KWG1004759-1 Lab Control Spike			Duplicate Lab Control Sample KWG1004759-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
Aroclor 1016	1.84	2.00	92	1.80	2.00	90	41-125	3	30
Aroclor 1260	2.32	2.00	116	2.25	2.00	113	43-138	3	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 21:30

**Method Blank Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Method Blank  
**Lab Code:** KWG1004759-3

**File ID:** J:\GC33\DATA\052410-608\05240010.D  
**Instrument ID:** GC33

**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Level:** Low  
**Extraction Lot:** KWG1004759

This Method Blank applies to the following analyses:

<b>Sample Name</b>	<b>Lab Code</b>	<b>File ID</b>	<b>Date Analyzed</b>	<b>Time Analyzed</b>
Lab Control Sample	KWG1004759-1	J:\GC33\DATA\052410-608\05240008.D	05/24/10	20:38
Duplicate Lab Control Sample	KWG1004759-2	J:\GC33\DATA\052410-608\05240009.D	05/24/10	21:04
3bcd-2	K1005067-002	J:\GC33\DATA\052410-608\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-608\05240012.D	05/24/10	22:22
EB-051710	K1005067-004	J:\GC33\DATA\052410-608\05240013.D	05/24/10	22:48

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 21:30

**Method Blank Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Method Blank  
**Lab Code:** KWG1004759-3  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**File ID:** J:\GC33\DATA\052410-PCB1\05240010.D  
**Instrument ID:** GC33  
**Level:** Low  
**Extraction Lot:** KWG1004759

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1004759-1	J:\GC33\DATA\052410-PCB1\05240008.D	05/24/10	20:38
Duplicate Lab Control Sample	KWG1004759-2	J:\GC33\DATA\052410-PCB1\05240009.D	05/24/10	21:04
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB1\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB1\05240012.D	05/24/10	22:22
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB1\05240013.D	05/24/10	22:48

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 21:30

**Method Blank Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

<b>Sample Name:</b> Method Blank	<b>File ID:</b> J:\GC33\DATA\052410-PCB2\05240010.D
<b>Lab Code:</b> KWG1004759-3	<b>Instrument ID:</b> GC33
<b>Extraction Method:</b> EPA 3520C	<b>Level:</b> Low
<b>Analysis Method:</b> 608M	<b>Extraction Lot:</b> KWG1004759

This Method Blank applies to the following analyses:

<b>Sample Name</b>	<b>Lab Code</b>	<b>File ID</b>	<b>Date Analyzed</b>	<b>Time Analyzed</b>
Lab Control Sample	KWG1004759-1	J:\GC33\DATA\052410-PCB2\05240008.D	05/24/10	20:38
Duplicate Lab Control Sample	KWG1004759-2	J:\GC33\DATA\052410-PCB2\05240009.D	05/24/10	21:04
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB2\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB2\05240012.D	05/24/10	22:22
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB2\05240013.D	05/24/10	22:48



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 20:38

**Lab Control Sample Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1004759-1  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**File ID:** J:\GC33\DATA\052410-608\05240008.D  
**Instrument ID:** GC33  
**Level:** Low  
**Extraction Lot:** KWG1004759

This Lab Control Sample applies to the following analyses:

<b>Sample Name</b>	<b>Lab Code</b>	<b>File ID</b>	<b>Date Analyzed</b>	<b>Time Analyzed</b>
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-608\05240010.D	05/24/10	21:30
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB1\05240010.D	05/24/10	21:30
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB2\05240010.D	05/24/10	21:30
3bcd-2	K1005067-002	J:\GC33\DATA\052410-608\05240011.D	05/24/10	21:56
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB1\05240011.D	05/24/10	21:56
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB2\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-608\05240012.D	05/24/10	22:22
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB1\05240012.D	05/24/10	22:22
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB2\05240012.D	05/24/10	22:22
EB-051710	K1005067-004	J:\GC33\DATA\052410-608\05240013.D	05/24/10	22:48
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB1\05240013.D	05/24/10	22:48
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB2\05240013.D	05/24/10	22:48

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 20:38

**Lab Control Sample Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

<b>Sample Name:</b> Lab Control Sample	<b>File ID:</b> J:\GC33\DATA\052410-PCB1\05240008.D
<b>Lab Code:</b> KWG1004759-1	<b>Instrument ID:</b> GC33
<b>Extraction Method:</b> EPA 3520C	<b>Level:</b> Low
<b>Analysis Method:</b> 608M	<b>Extraction Lot:</b> KWG1004759

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-608\05240010.D	05/24/10	21:30
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB1\05240010.D	05/24/10	21:30
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB2\05240010.D	05/24/10	21:30
3bcd-2	K1005067-002	J:\GC33\DATA\052410-608\05240011.D	05/24/10	21:56
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB1\05240011.D	05/24/10	21:56
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB2\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-608\05240012.D	05/24/10	22:22
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB1\05240012.D	05/24/10	22:22
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB2\05240012.D	05/24/10	22:22
EB-051710	K1005067-004	J:\GC33\DATA\052410-608\05240013.D	05/24/10	22:48
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB1\05240013.D	05/24/10	22:48
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB2\05240013.D	05/24/10	22:48

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/20/2010  
**Date Analyzed:** 05/24/2010  
**Time Analyzed:** 20:38

**Lab Control Sample Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1004759-1  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**File ID:** J:\GC33\DATA\052410-PCB2\05240008.D  
**Instrument ID:** GC33  
**Level:** Low  
**Extraction Lot:** KWG1004759

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB1\05240013.D	05/24/10	22:48
EB-051710	K1005067-004	J:\GC33\DATA\052410-PCB2\05240013.D	05/24/10	22:48
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB1\05240010.D	05/24/10	21:30
Method Blank	KWG1004759-3	J:\GC33\DATA\052410-PCB2\05240010.D	05/24/10	21:30
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB1\05240011.D	05/24/10	21:56
3bcd-2	K1005067-002	J:\GC33\DATA\052410-PCB2\05240011.D	05/24/10	21:56
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB1\05240012.D	05/24/10	22:22
3ddd	K1005067-003	J:\GC33\DATA\052410-PCB2\05240012.D	05/24/10	22:22

Organic Analysis:  
Organochlorine Pesticides and Polychlorinated  
Biphenyls  
Validation Package

Raw Data

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** 3bcd-2  
**Lab Code:** K1005067-002  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.48	0.043	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1221	ND	U	0.48	0.058	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1232	ND	U	0.48	0.049	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1242	ND	U	0.48	0.018	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1248	ND	U	0.48	0.035	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1254	ND	U	0.48	0.029	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1260	ND	U	0.48	0.053	1	05/20/10	05/24/10	KWG1004759	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	81	10-133	05/24/10	Acceptable

**Comments:** \_\_\_\_\_

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 608 Modified PC	Collect Date: 05/17/2010	Receive Date: 05/19/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group: K1005067
Analysis Method: 608M	Prep Method: EPA 3520C	
Prep Ref: 910413	Prep Date: 05/20/2010	

Quant Method: J:\GC33\METHODS\032210_508.M	Calibration ID: CAL9310
Title: Organochlorine Pesticides and Polychlorinated Biphenyls	Report List ID: LJ10139
MB Ref: J:\GC33\DATA\052410-608\05240010.D	Method ID: MJ1031
	<b>Quant based on Report List</b>

Data File #1: J:\GC33\DATA\052410-608\05240011.D	Instrument: GC33
Data File #2: J:\GC33\DATA\052410-608\05240011.D\05240011c.d	Vial: 13
Acqu Date: 05/24/2010 21:56	Quant Date: 05/25/2010 17:41
Run Type: SMPL	Dilution: 1.0
Lab ID: K1005067-002	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

### Internal Standard Compounds

IS # Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1 Pentachloronitrobenzene (PCN)	12.89? <sup>-0.11</sup>	11.82? <sup>-0.18</sup>	32574620	45366522	50.00	50.00

### Surrogate Compounds

IS # Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	Rpt
1 Decachlorobiphenyl	19.77	19.05 <sup>+0.01</sup>	29561670	29613311	81.41	72.19	81OK /
%Recovery =					81OK	72OK	Limits = 10-133

### Target Compounds

IS # Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:				Rpt
					#1	#2	#1	#2	
					ccv	ccv			

*Handwritten signature*  
05/25/2010

U: Undetected at or above MDL  
 F: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\GC33\Data\052410-608\05240011.D  
 Acq On : 24-May-2010, 21:56:31  
 Acq Meth : 508.M  
 Sample : K1005087-002  
 Misc :  
 Quant Time : May 25 17:41:56 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\032210\_508.M  
 Quant Title : CAL9310 aka032210\_508.m | MJ492  
 QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
 Vial : 13  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP                      Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um                Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	32574620	45366522	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.49	9.40	41788040	57725701	75.132	78.131
25) Decachlorobiphenyl	19.77	19.05	29561670	29613311	81.414	72.185
Target Compounds						
-----						

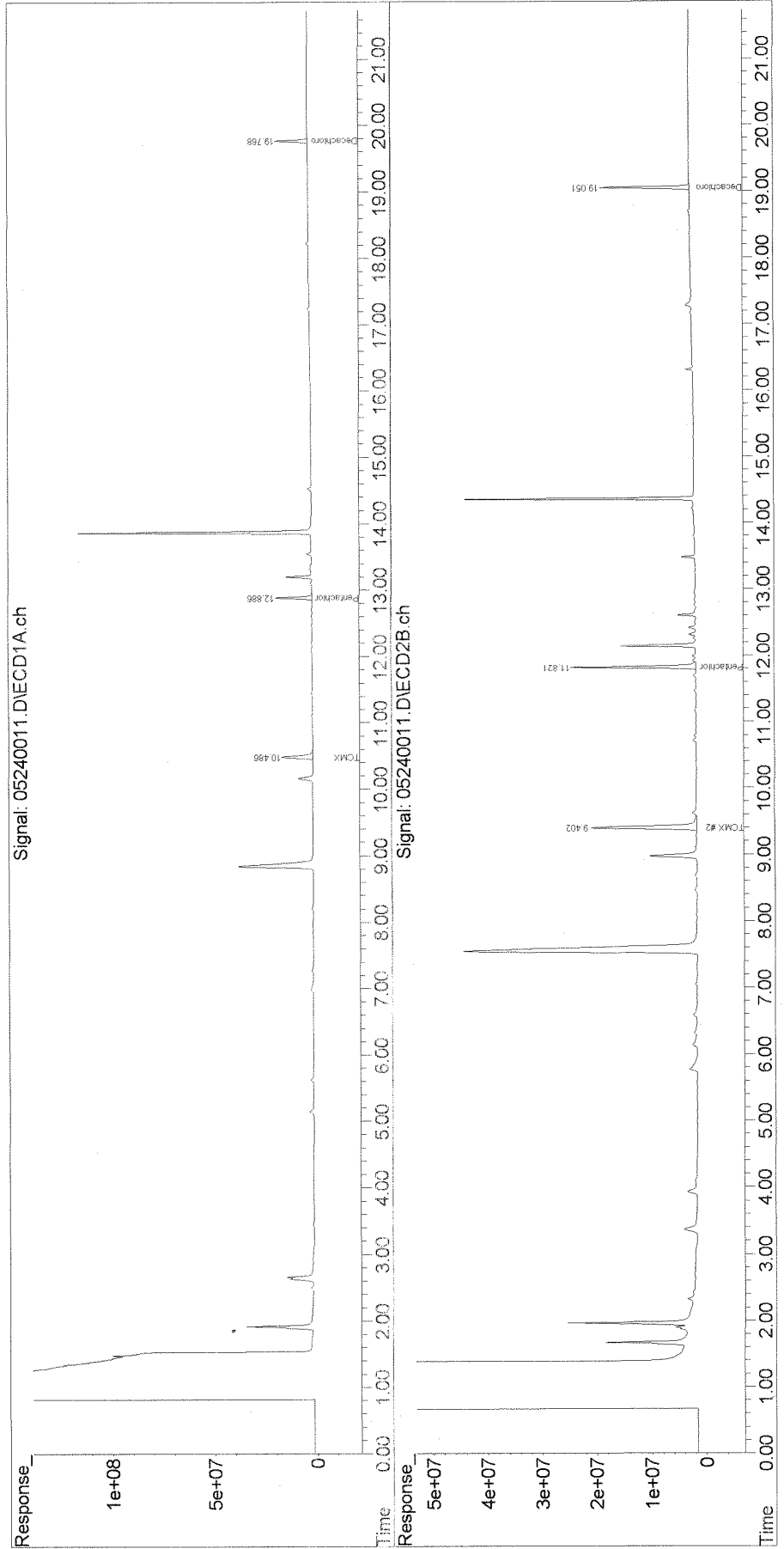
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240011.D  
Acq On : 24-May-2010, 21:56:31  
Acq Meth : 508.M  
Sample : K1005087-002  
Misc :  
Quant Time : May 25 17:41:56 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\032210\_508.M  
Quant Title : CAL9310 aka032210\_508.m | MJ492  
QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
Vial : 13  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um





## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB1\05240011.D  
**Lab ID:** K1005067-002  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 21:56  
**Date Quantitated:** 05/25/2010 17:28  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: \_\_\_\_\_

Secondary Review: \_\_\_\_\_

*[Handwritten signatures]*

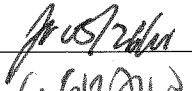
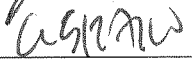
## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB1\05240011.D\05240011C.D  
**Lab ID:** K1005067-002  
**Run Type:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 21:56  
**Date Quantitated:** 05/25/2010 17:28  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:   
 Secondary Review: 

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>	V	<b>Matrix:</b>	WATER
<b>Prod Code:</b>	608 Modified PC	<b>Collect Date:</b>	05/17/2010	<b>Receive Date:</b>	05/19/2010

<b>Analysis Lot:</b>	KWG1004915	<b>Prep Lot:</b>	KWG1004759	<b>Report Group:</b>	K1005067
<b>Analysis Method:</b>	608M	<b>Prep Method:</b>	EPA 3520C		
<b>Prep Ref:</b>	910413	<b>Prep Date:</b>	05/20/2010		

<b>Quant Method:</b>	J:\GC33\METHODS\022010_PCB1	<b>Calibration ID:</b>	CAL9230
<b>Title:</b>	Organochlorine Pesticides and Polychlorinated Biphenyls	<b>Report List ID:</b>	LJ10139
<b>MB Ref:</b>	J:\GC33\DATA\052410-PCB1\05240010.D	<b>Method ID:</b>	MJ1031
			<b>Quant based on Report List</b>

<b>Data File #1:</b>	J:\GC33\DATA\052410-PCB1\05240011.D	<b>Instrument:</b>	GC33
<b>Data File #2:</b>	J:\GC33\DATA\052410-PCB1\05240011.D\05240011c.d	<b>Vial:</b>	13
<b>Acqu Date:</b>	05/24/2010 21:56	<b>Quant Date:</b>	05/25/2010 17:28
<b>Run Type:</b>	SMPL	<b>Dilution:</b>	1.0
<b>Lab ID:</b>	K1005067-002	<b>Soln Conc. Units:</b>	ug/L
<b>Signal #1:</b>	RTX-CLP	<b>Signal #2:</b>	RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	32574620	45366522	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	#1	#2	Rpt
						ccv	ccv	
				%Recovery =		Limits =		

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	ug/L #1	ug/L #2	Rpt
1	Aroclor 1016			0d	0d	0.0000	0.0000	0.043U	0.043U	0.043U
1	Aroclor 1260			0d	0d	0.0000 <sup>ccv</sup>	0.0000 <sup>ccv</sup>	0.053U	0.053U	0.053U
1	Aroclor 1221			0d	0d	0.0000	0.0000	0.058U	0.058U	0.058U
1	Aroclor 1254			0d	0d	0.0000	0.0000	0.029U	0.029U	0.029U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1050 mL                      Dilution: 1.0  
 Prep Final Vol: 2 mL                      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\GC33\Data\052410-PCB1\05240011.D  
 Acq On : 24-May-2010, 21:56:31 Operator : PM  
 Acq Meth : 508.M Vial : 13  
 Sample : K1005087-002 Multiplier : 1.00  
 Misc :  
 Quant Time : May 25 17:28:13 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	32574620	45366522	50.000	50.000

Target Compounds

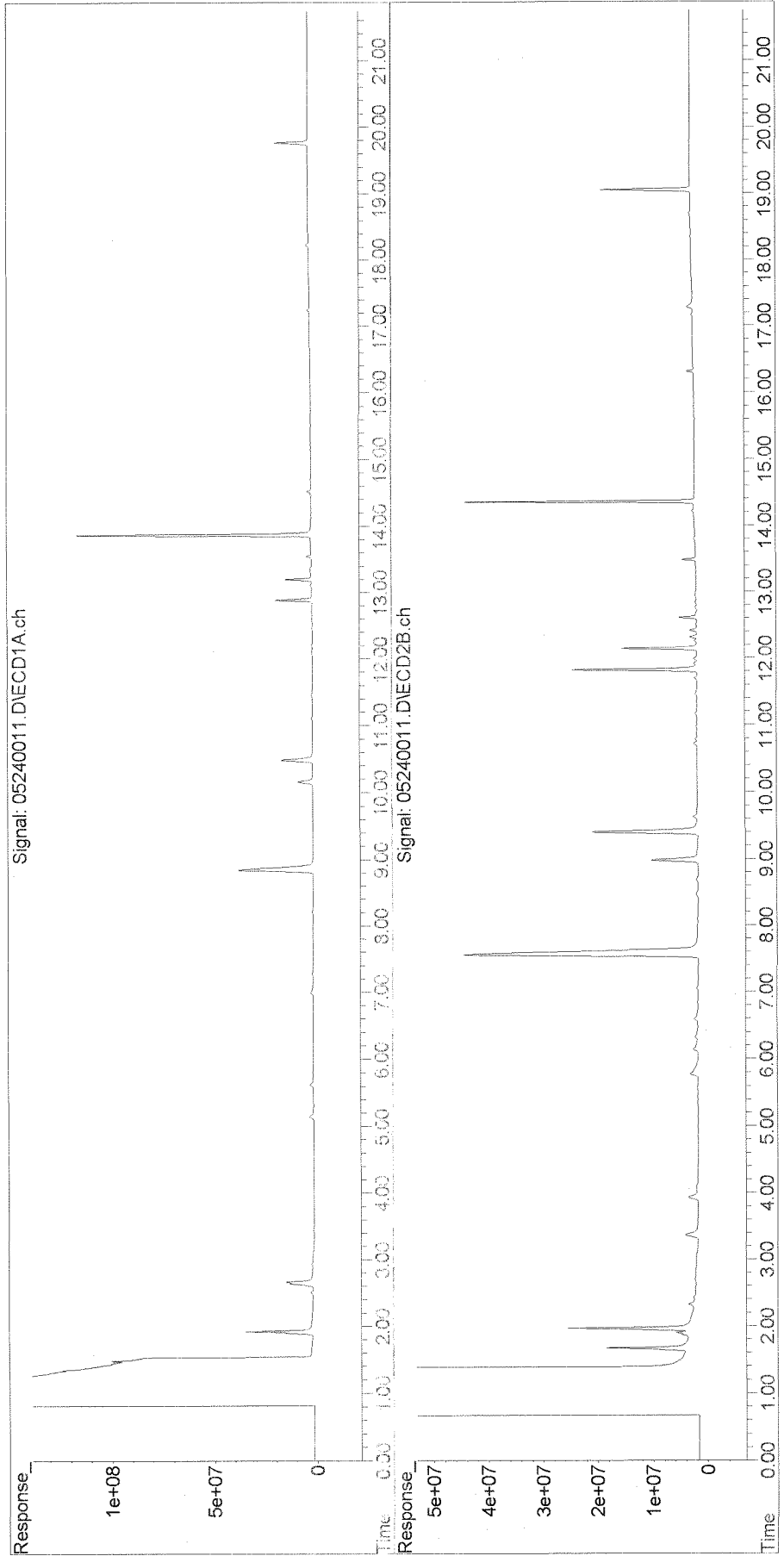
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(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240011.D  
Acq On : 24-May-2010, 21:56:31 Operator : PM  
Acq Meth : 508.M Vial : 13  
Sample : K1005087-002 Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:28:13 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL9230 aka022010\_PCB1\_1016,1260,1221,1254  
QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase : RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB2\05240011.D  
**Lab ID:** K1005067-002  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 21:56  
**Date Quantitated:** 05/25/2010 17:47  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *J. S. P. 05/25/10*  
 Secondary Review: *C. S. 05/25/10*

## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB2\05240011.D\05240011C.D  
**Lab ID:** K1005067-002  
**Run Type:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 21:56  
**Date Quantitated:** 05/25/2010 17:47  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *J. J. [Signature]*  
 Secondary Review: *C. S. [Signature]*

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>	V	<b>Matrix:</b>	WATER
<b>Prod Code:</b>	608 Modified PC	<b>Collect Date:</b>	05/17/2010	<b>Receive Date:</b>	05/19/2010

<b>Analysis Lot:</b>	KWG1004915	<b>Prep Lot:</b>	KWG1004759	<b>Report Group:</b>	K1005067
<b>Analysis Method:</b>	608M	<b>Prep Method:</b>	EPA 3520C		
<b>Prep Ref:</b>	910413	<b>Prep Date:</b>	05/20/2010		

<b>Quant Method:</b>	J:\GC33\METHODS\022010_PCB2.	<b>Calibration ID:</b>	CAL9231
<b>Title:</b>	Organochlorine Pesticides and Polychlorinated Biphenyls	<b>Report List ID:</b>	LJ10139
<b>MB Ref:</b>	J:\GC33\DATA\052410-PCB2\05240010.D	<b>Method ID:</b>	MJ1031
<b>Quant based on Report List</b>			

<b>Data File #1:</b>	J:\GC33\DATA\052410-PCB2\05240011.D	<b>Instrument:</b>	GC33
<b>Data File #2:</b>	J:\GC33\DATA\052410-PCB2\05240011.D\05240011c.d	<b>Vial:</b>	13
<b>Acqu Date:</b>	05/24/2010 21:56	<b>Quant Date:</b>	05/25/2010 17:47
<b>Run Type:</b>	SMPL	<b>Dilution:</b>	1.0
<b>Lab ID:</b>	K1005067-002	<b>Soln Conc. Units:</b>	ug/L
<b>Signal #1:</b>	RTX-CLP	<b>Signal #2:</b>	RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	32574620	45366522	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	Rpt
						ccv	ccv	
				%Recovery =		Limits =		

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:		Rpt
						ug/L #1	ug/L #2	
1	Aroclor 1232			0d	0d	0.0000	0.0000	0.049U
1	Aroclor 1242			0d	0d	0.0000	0.0000	0.018U
1	Aroclor 1248			0d	0d	0.0000	0.0000	0.035U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1050 mL                      Dilution: 1.0  
 Prep Final Vol: 2 mL                      Unit Factor: 1

**Final Concentration =** ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 F: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution



Data File : J:\GC33\Data\052410-PCB2\05240011.D  
 Acq On : 24-May-2010, 21:56:31 Operator : PM  
 Acq Meth : 508.M Vial : 13  
 Sample : K1005087-002 Multiplier : 1.00  
 Misc :  
 Quant Time : May 25 17:47:43 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB2.M  
 Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
 QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	32574620	45366522	50.000	50.000

Target Compounds

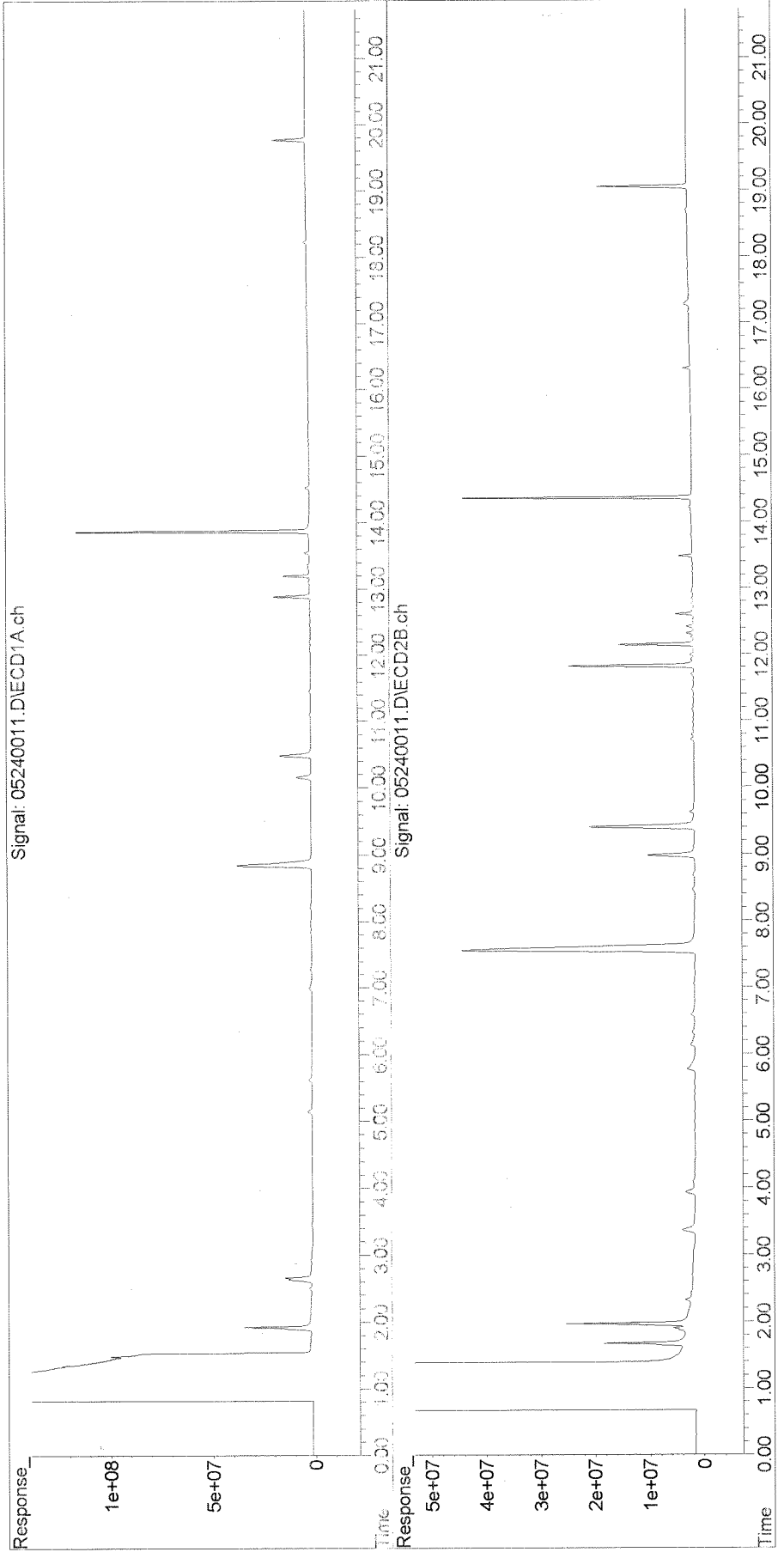
-----

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB2\05240011.D  
Acq On : 24-May-2010, 21:56:31 Operator : PM  
Acq Meth : 508.M Vial : 13  
Sample : K1005087-002 Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:47:43 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB2.M  
Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** 3ddd  
**Lab Code:** K1005067-003  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.48	0.043	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1221	ND	U	0.48	0.058	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1232	ND	U	0.48	0.049	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1242	ND	U	0.48	0.018	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1248	ND	U	0.48	0.035	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1254	ND	U	0.48	0.029	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1260	ND	U	0.48	0.053	1	05/20/10	05/24/10	KWG1004759	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	89	10-133	05/24/10	Acceptable

Comments: \_\_\_\_\_

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>	V	<b>Matrix:</b>	WATER
<b>Prod Code:</b>	608 Modified PC	<b>Collect Date:</b>	05/17/2010	<b>Receive Date:</b>	05/19/2010

<b>Analysis Lot:</b>	KWG1004915	<b>Prep Lot:</b>	KWG1004759	<b>Report Group:</b>	K1005067
<b>Analysis Method:</b>	608M	<b>Prep Method:</b>	EPA 3520C		
<b>Prep Ref:</b>	910414	<b>Prep Date:</b>	05/20/2010		

<b>Quant Method:</b>	J:\GC33\METHODS\032210_508.M	<b>Calibration ID:</b>	CAL9310
<b>Title:</b>	Organochlorine Pesticides and Polychlorinated Biphenyls	<b>Report List ID:</b>	LJ10139
<b>MB Ref:</b>	J:\GC33\DATA\052410-608\05240010.D	<b>Method ID:</b>	MJ1031
<b>Quant based on Report List</b>			

<b>Data File #1:</b>	J:\GC33\DATA\052410-608\05240012.D	<b>Instrument:</b>	GC33
<b>Data File #2:</b>	J:\GC33\Data\052410-608\05240012.D\05240012c.d	<b>Vial:</b>	14
<b>Acqu Date:</b>	05/24/2010 22:22	<b>Quant Date:</b>	05/25/2010 17:42
<b>Run Type:</b>	SMPL	<b>Dilution:</b>	1.0
<b>Lab ID:</b>	K1005067-003	<b>Soln Conc. Units:</b>	ug/L
<b>Signal #1:</b>	RTX-CLP	<b>Signal #2:</b>	RTX-CLP2

### Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.11</sup>	11.82? <sup>-0.18</sup>	34274001	46837389	50.00	50.00

### Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ug/L #1	ug/L #2	Rpt
1	Decachlorobiphenyl	19.77	19.06 <sup>+0.02</sup>	33816211	34212034	88.51	80.78	89OK
%Recovery =						89OK	81OK	Limits = 10-133

### Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:				Rpt
						#1	#2	#1	#2	
						ccv	ccv			

*John W. ...*  
*05/20/10*

U: Undetected at or above MDL  
 F: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\GC33\Data\052410-608\05240012.D  
 Acq On : 24-May-2010, 22:22:38  
 Acq Meth : 508.M  
 Sample : K1005087-003  
 Misc :  
 Quant Time : May 25 17:42:24 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\032210\_508.M  
 Quant Title : CAL9310 aka032210\_508.m | MJ492  
 QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
 Vial : 14  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP                      Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um                Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	34274001	46837389	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.49	9.40	43610537	59723624	74.521	78.296
25) Decachlorobiphenyl	19.77	19.06	33816211	34212034	88.514	80.776
Target Compounds						
-----						

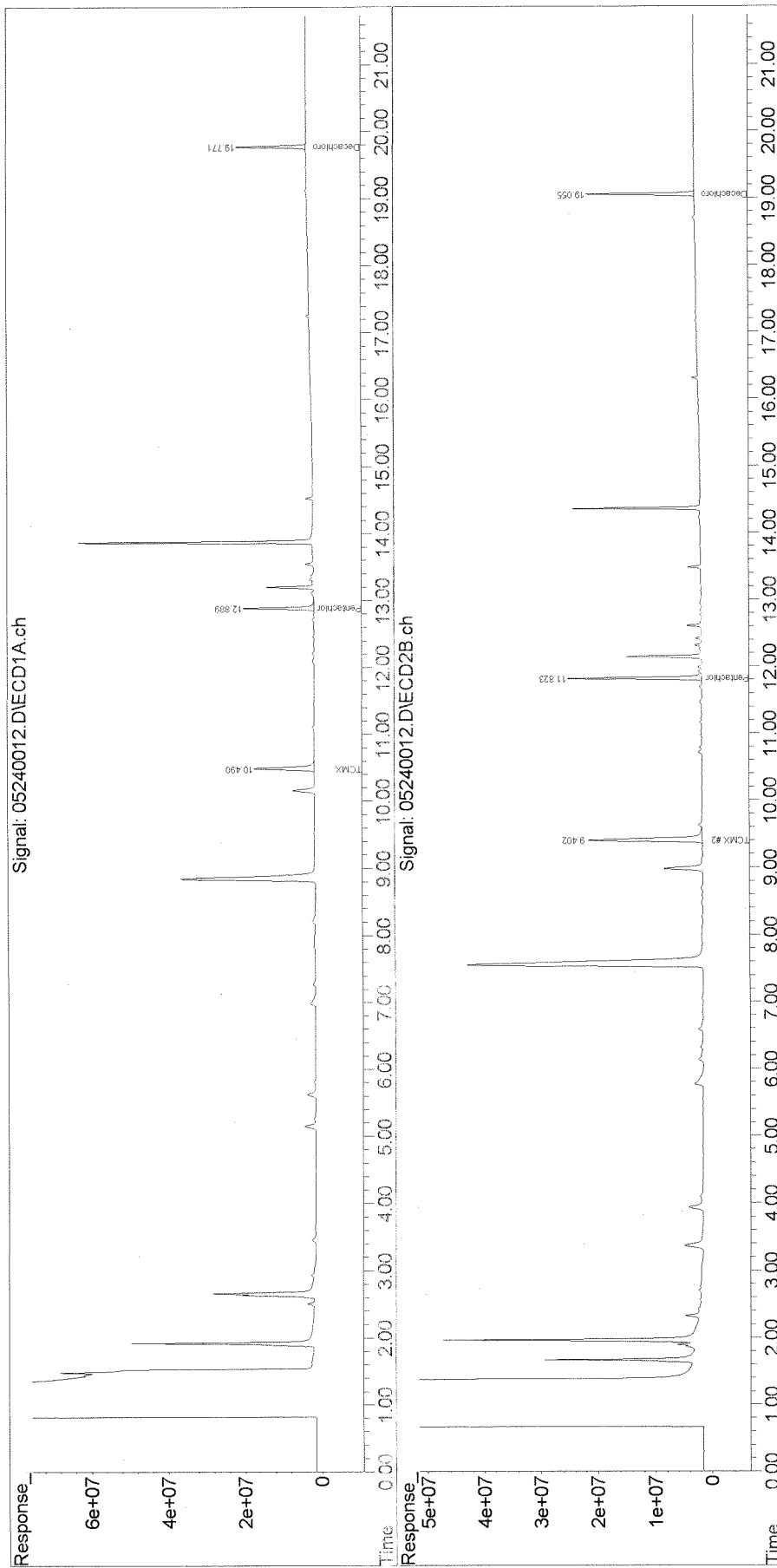
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240012.D  
Acq On : 24-May-2010, 22:22:38  
Acq Meth : 508.M  
Sample : K1005087-003  
Misc :  
Quant Time : May 25 17:42:24 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\032210\_508.M  
Quant Title : CAL9310 aka032210\_508.m | MJ492  
QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
Vial : 14  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



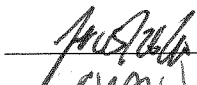
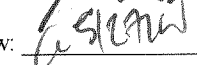
## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB1\05240012.D  
**Lab ID:** K1005067-003  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 22:22  
**Date Quantitated:** 05/25/2010 17:28  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:   
 Secondary Review: 

## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB1\05240012.D\05240012C.D  
**Lab ID:** K1005067-003  
**Run Type:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 22:22  
**Date Quantitated:** 05/25/2010 17:28  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

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Analytical Holding Time	NA	NA	NA	x	
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ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *[Signature]*  
 Secondary Review: *[Signature]*



# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>	V	<b>Matrix:</b>	WATER
<b>Prod Code:</b>	608 Modified PC	<b>Collect Date:</b>	05/17/2010	<b>Receive Date:</b>	05/19/2010

<b>Analysis Lot:</b>	KWG1004915	<b>Prep Lot:</b>	KWG1004759	<b>Report Group:</b>	K1005067
<b>Analysis Method:</b>	608M	<b>Prep Method:</b>	EPA 3520C		
<b>Prep Ref:</b>	910414	<b>Prep Date:</b>	05/20/2010		

<b>Quant Method:</b>	J:\GC33\METHODS\022010_PCB1	<b>Calibration ID:</b>	CAL9230
<b>Title:</b>	Organochlorine Pesticides and Polychlorinated Biphenyls	<b>Report List ID:</b>	LJ10139
<b>MB Ref:</b>	J:\GC33\DATA\052410-PCB1\05240010.D	<b>Method ID:</b>	MJ1031
<b>Quant based on Report List</b>			

<b>Data File #1:</b>	J:\GC33\DATA\052410-PCB1\05240012.D	<b>Instrument:</b>	GC33
<b>Data File #2:</b>	J:\GC33\DATA\052410-PCB1\05240012.D\05240012c.d	<b>Vial:</b>	14
<b>Acqu Date:</b>	05/24/2010 22:22	<b>Quant Date:</b>	05/25/2010 17:28
<b>Run Type:</b>	SMPL	<b>Dilution:</b>	1.0
<b>Lab ID:</b>	K1005067-003	<b>Soln Conc. Units:</b>	ug/L
<b>Signal #1:</b>	RTX-CLP	<b>Signal #2:</b>	RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	34274001	46837389	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	Rpt
						ccv	ccv	
				%Recovery =		Limits =		

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	ug/L #1	ug/L #2	Rpt
1	Aroclor 1016			0d	0d	0.0000	0.0000	0.043U	0.043U	0.043U
1	Aroclor 1260			0d	0d	0.0000 <sup>ccv</sup>	0.0000 <sup>ccv</sup>	0.053U	0.053U	0.053U
1	Aroclor 1221			0d	0d	0.0000	0.0000	0.058U	0.058U	0.058U
1	Aroclor 1254			0d	0d	0.0000	0.0000	0.029U	0.029U	0.029U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1050 mL                      Dilution: 1.0  
 Prep Final Vol: 2 mL                      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240012.D  
 Acq On : 24-May-2010, 22:22:38 Operator : PM  
 Acq Meth : 508.M Vial : 14  
 Sample : K1005087-003 Multiplier : 1.00  
 Misc :  
 Quant Time : May 25 17:28:41 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	34274001	46837389	50.000	50.000

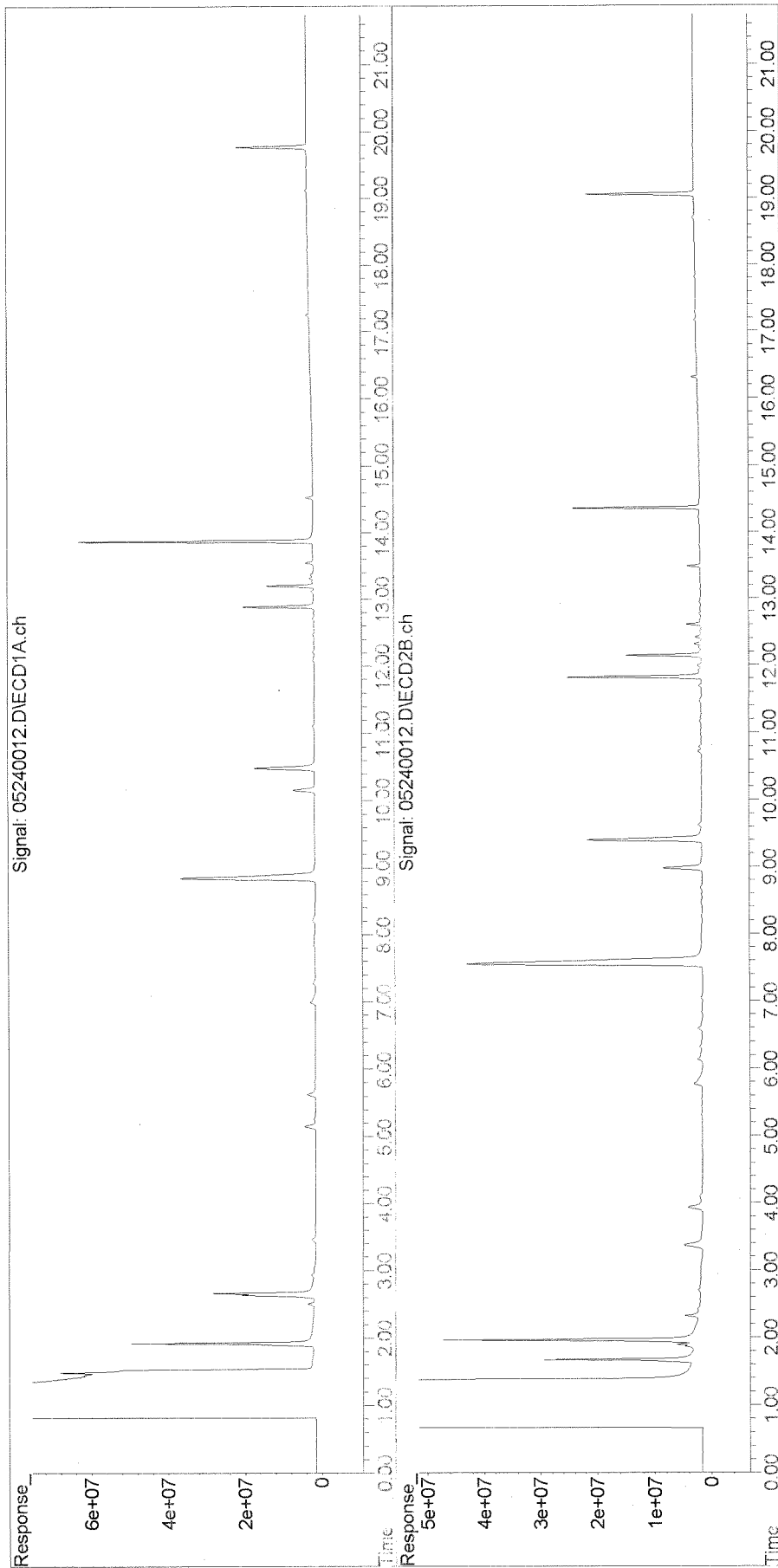
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240012.D  
Acq On : 24-May-2010, 22:22:38 Operator : PM  
Acq Meth : 508.M Vial : 14  
Sample : K1005087-003 Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:28:41 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL9230 aka022010\_PCB1\_1016,1260,1221,1254  
QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



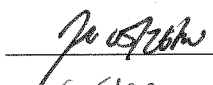

## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB2\05240012.D  
**Lab ID:** K1005067-003  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 22:22  
**Date Quantitated:** 05/25/2010 17:48  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:   
 Secondary Review: 

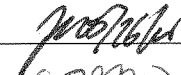

## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB2\05240012.D\05240012C.D  
**Lab ID:** K1005067-003  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 22:22  
**Date Quantitated:** 05/25/2010 17:48  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:   
 Secondary Review: 

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 608 Modified PC	Collect Date: 05/17/2010	Receive Date: 05/19/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group: K1005067
Analysis Method: 608M	Prep Method: EPA 3520C	
Prep Ref: 910414	Prep Date: 05/20/2010	

Quant Method: J:\GC33\METHODS\022010_PCB2	Calibration ID: CAL9231
Title: Organochlorine Pesticides and Polychlorinated Biphenyls	Report List ID: LJ10139
MB Ref: J:\GC33\DATA\052410-PCB2\05240010.D	Method ID: MJ1031
<b>Quant based on Report List</b>	

Data File #1: J:\GC33\DATA\052410-PCB2\05240012.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB2\05240012.D\05240012.c.d	Vial: 14
Acqu Date: 05/24/2010 22:22	Quant Date: 05/25/2010 17:48
Run Type: SMPL	Dilution: 1.0
Lab ID: K1005067-003	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	34274001	46837389	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ug/L #1	ug/L #2	Rpt
						ccv	ccv	
%Recovery =						Limits =		

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units: ug/L				Rpt
						ug/L #1	ug/L #2	ug/L #1	ug/L #2	
1	Aroclor 1232			0d	0d	0.0000	0.0000	0.012U	0.012U	0.012U
1	Aroclor 1242			0d	0d	0.0000	0.0000	0.012U	0.012U	0.012U
1	Aroclor 1248			0d	0d	0.0000	0.0000	0.015U	0.015U	0.015U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1050 mL      Dilution: 1.0  
 Prep Final Vol: 2 mL      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 F: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\GC33\Data\052410-PCB2\05240012.D  
 Acq On : 24-May-2010, 22:22:38 Operator : PM  
 Acq Meth : 508.M  
 Sample : K1005087-003 Vial : 14  
 Misc : Multiplier : 1.00  
 Quant Time : May 25 17:48:06 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB2.M  
 Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
 QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	34274001	46837389	50.000	50.000

Target Compounds

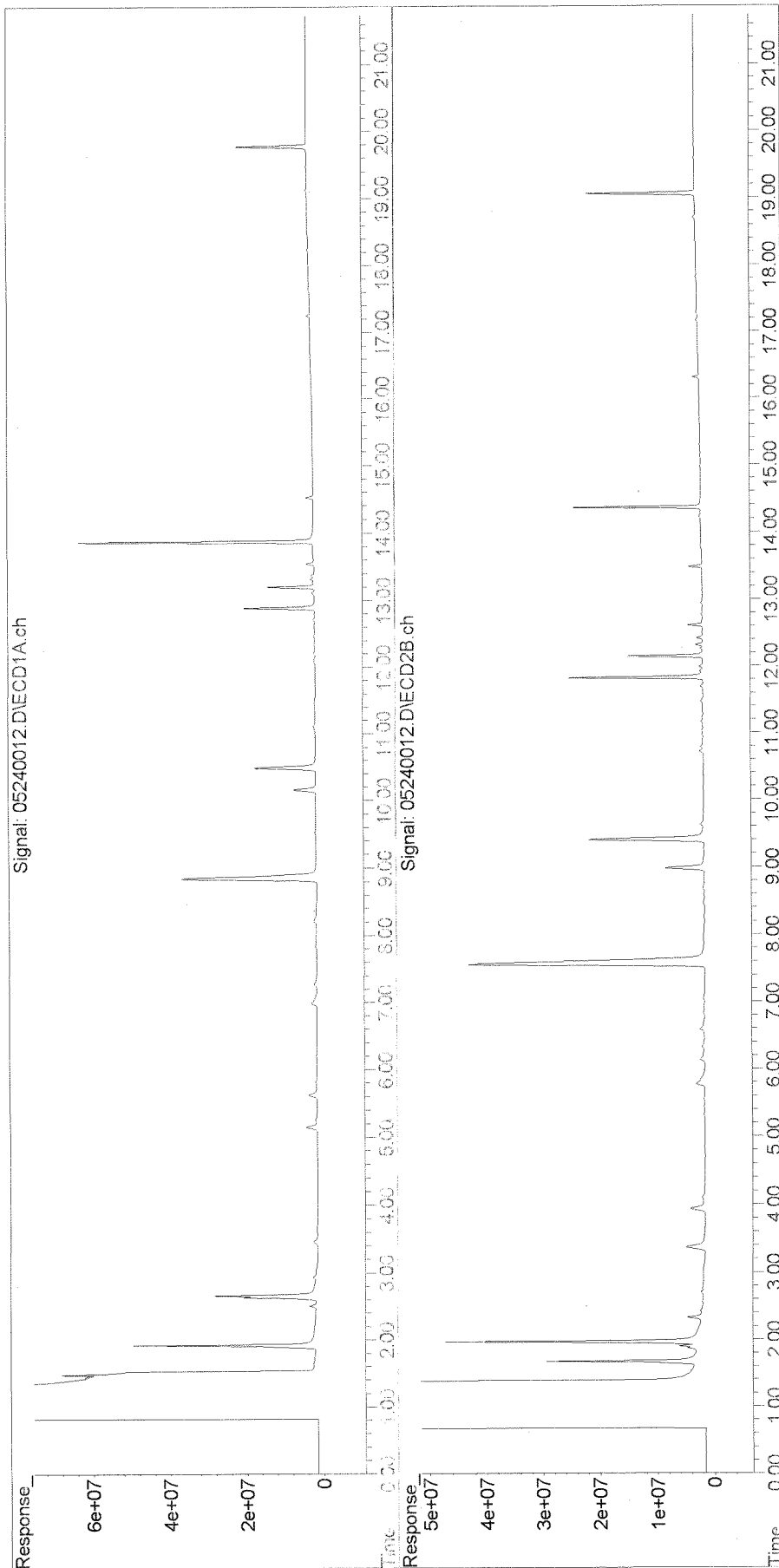
-----

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB2\05240012.D  
Acq On : 24-May-2010, 22:22:38 Operator : PM  
Acq Meth : 508.M Vial : 14  
Sample : K1005087-003 Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:48:06 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB2.M  
Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um





**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** EB-051710  
**Lab Code:** K1005067-004  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.48	0.043	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1221	ND	U	0.48	0.058	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1232	ND	U	0.48	0.049	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1242	ND	U	0.48	0.018	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1248	ND	U	0.48	0.035	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1254	ND	U	0.48	0.029	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1260	ND	U	0.48	0.053	1	05/20/10	05/24/10	KWG1004759	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	77	10-133	05/24/10	Acceptable

**Comments:** \_\_\_\_\_

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 608 Modified PC	Collect Date: 05/17/2010	Receive Date: 05/19/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group: K1005067
Analysis Method: 608M	Prep Method: EPA 3520C	
Prep Ref: 910415	Prep Date: 05/20/2010	

Quant Method: J:\GC33\METHODS\032210_508.M	Calibration ID: CAL9310
Title: Organochlorine Pesticides and Polychlorinated Biphenyls	Report List ID: LJ10139
MB Ref: J:\GC33\DATA\052410-608\05240010.D	Method ID: MJ1031
	<b>Quant based on Report List</b>

Data File #1: J:\GC33\DATA\052410-608\05240013.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-608\05240013.D\05240013c.d	Vial: 15
Acqu Date: 05/24/2010 22:48	Quant Date: 05/25/2010 17:43
Run Type: SMPL	Dilution: 1.0
Lab ID: K1005067-004	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

### Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.11</sup>	11.82? <sup>-0.18</sup>	29840575	41713379	50.00	50.00

### Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ug/L #1	ug/L #2	Rpt
1	Decachlorobiphenyl	19.77	19.05 <sup>+0.01</sup>	25524685	25496883	76.74	67.59	77OK ✓
%Recovery =						77OK	68OK	Limits = 10-133

### Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:				Rpt
						#1	#2	#1	#2	
						ccv	ccv			



U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\GC33\Data\052410-608\05240013.D  
 Acq On : 24-May-2010, 22:48:43  
 Acq Meth : 508.M  
 Sample : K1005087-004  
 Misc :  
 Quant Time : May 25 17:43:03 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\032210\_508.M  
 Quant Title : CAL9310 aka032210\_508.m | MJ492  
 QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
 Vial : 15  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP                      Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um                Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	29840575	41713379	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.49	9.40	44742323	62264123	87.813	91.654
25) Decachlorobiphenyl	19.77	19.05	25524685	25496883	76.737	67.594
Target Compounds						
-----						

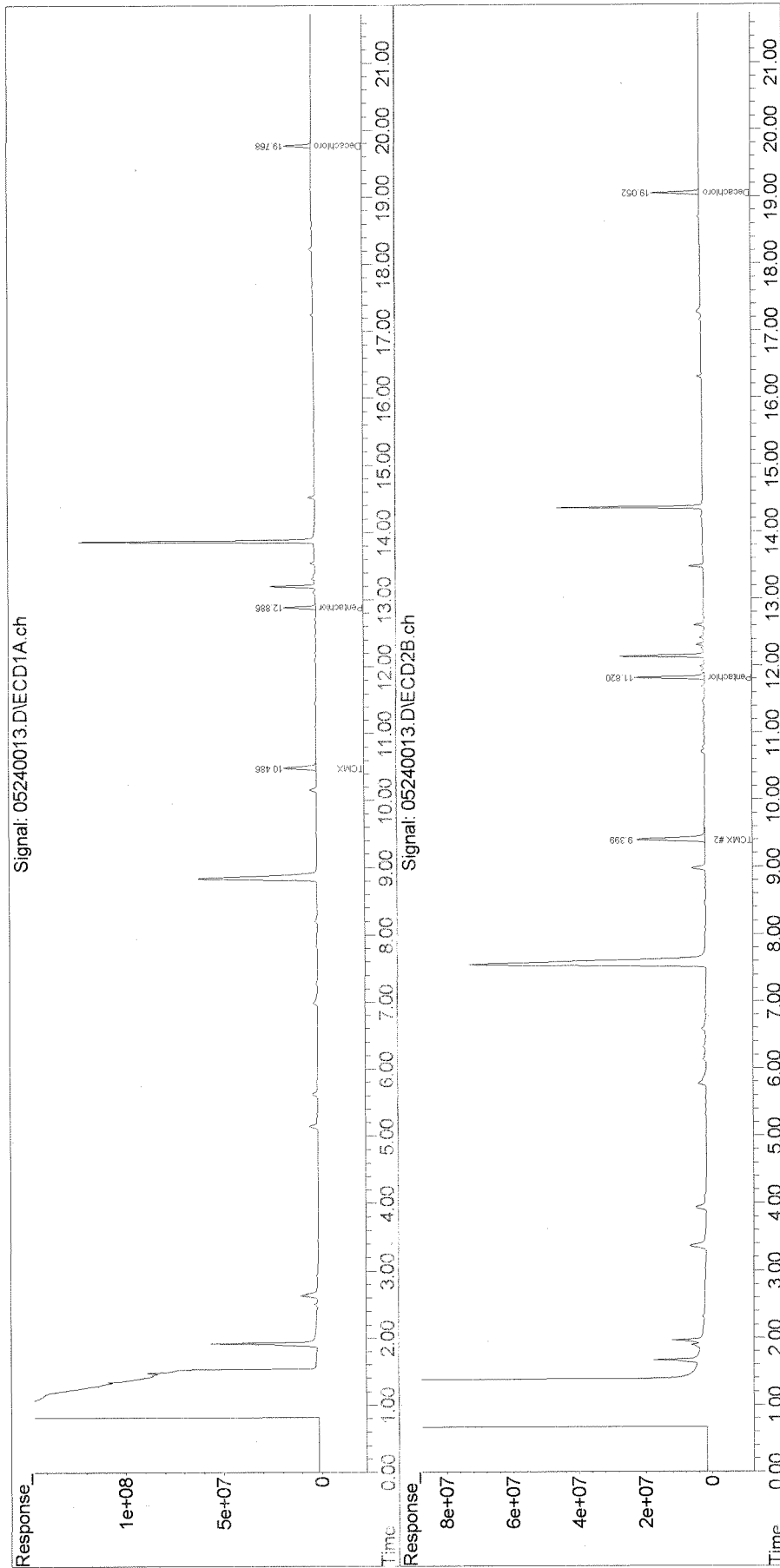
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240013.D  
Acq On : 24-May-2010, 22:48:43  
Acq Meth : 508.M  
Sample : K1005087-004  
Misc :  
Quant Time : May 25 17:43:03 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\032210\_508.M  
Quant Title : CAL9310 aka032210\_508.m | MJ492  
QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
Vial : 15  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP  
Signal #1 Info : 320 x 0.50 um  
Signal #2 Phase : RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB1\05240013.D  
**Lab ID:** K1005067-004  
**RunType:** SMPL  
**Matrix:** WATER

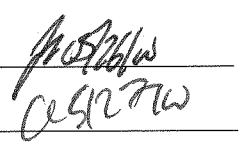
**Date Acquired:** 05/24/2010 22:48  
**Date Quantitated:** 05/25/2010 17:29  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: \_\_\_\_\_

Secondary Review: \_\_\_\_\_



## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB1\05240013.D\05240013C.D  
**Lab ID:** K1005067-004  
**Run Type:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 22:48  
**Date Quantitated:** 05/25/2010 17:29  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 608 Modified PC	V	WATER
Collect Date: 05/17/2010	Receive Date: 05/19/2010	

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group: K1005067
Analysis Method: 608M	Prep Method: EPA 3520C	
Prep Ref: 910415	Prep Date: 05/20/2010	

Quant Method: J:\GC33\METHODS\022010_PCB1	Calibration ID: CAL9230
Title: Organochlorine Pesticides and Polychlorinated Biphenyls	Report List ID: LJ10139
MB Ref: J:\GC33\DATA\052410-PCB1\05240010.D	Method ID: MJ1031
	<b>Quant based on Report List</b>

Data File #1: J:\GC33\DATA\052410-PCB1\05240013.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB1\05240013.D\05240013c.d	Vial: 15
Acqu Date: 05/24/2010 22:48	Quant Date: 05/25/2010 17:29
Run Type: SMPL	Dilution: 1.0
Lab ID: K1005067-004	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

### Internal Standard Compounds

IS # Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1 Pentachloronitrobenzene (PCN	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	29840575	41713379	50.00	50.00

### Surrogate Compounds

IS # Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	Rpt
					ccv	ccv	
			%Recovery =		Limits =		

### Target Compounds

IS # Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units: ug/L				Rpt
					ug/L #1	ug/L #2	ug/L #1	ug/L #2	
1 Aroclor 1016			0d	0d	0.0000	0.0000	0.043U	0.043U	0.043U
1 Aroclor 1260			0d	0d	0.0000 <sup>ccv</sup>	0.0000 <sup>ccv</sup>	0.053U	0.053U	0.053U
1 Aroclor 1221			0d	0d	0.0000	0.0000	0.058U	0.058U	0.058U
1 Aroclor 1254			0d	0d	0.0000	0.0000	0.029U	0.029U	0.029U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1050 mL                      Dilution: 1.0  
 Prep Final Vol: 2 mL                      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240013.D  
 Acq On : 24-May-2010, 22:48:43 Operator : PM  
 Acq Meth : 508.M Vial : 15  
 Sample : K1005087-004 Multiplier : 1.00  
 Misc :  
 Quant Time : May 25 17:29:31 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	29840575	41713379	50.000	50.000

Target Compounds

-----

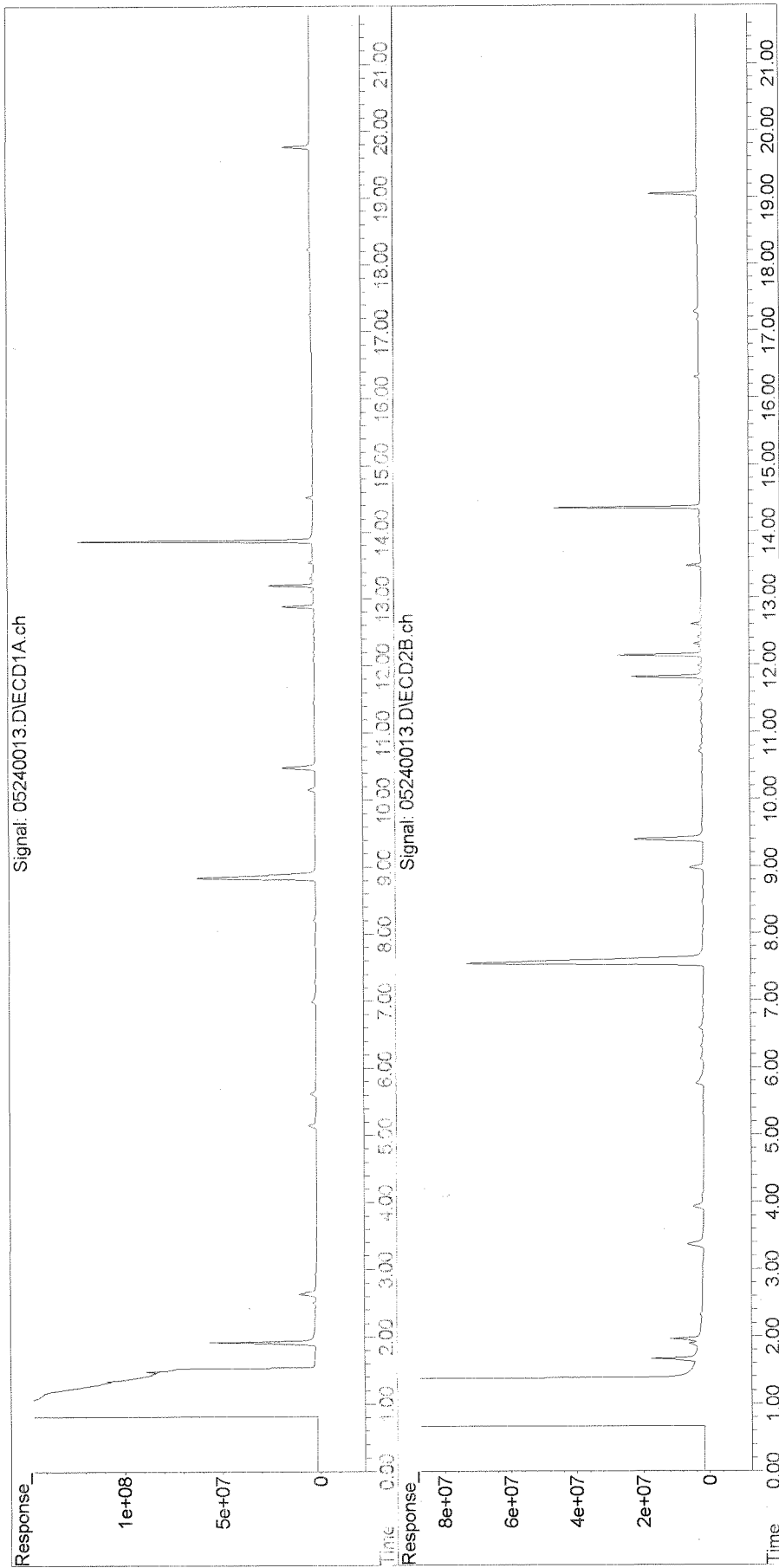
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240013.D  
Acq On : 24-May-2010, 22:48:43 Operator : PM  
Acq Meth : 508.M Vial : 15  
Sample : K1005087-004 Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:29:31 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010 PCB1.M  
Quant Title : CAL9230 aka022010\_PCB1\_1016,1260,1221,1254  
QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um




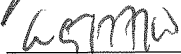
## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB2\05240013.D  
**Lab ID:** K1005067-004  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 22:48  
**Date Quantitated:** 05/25/2010 17:48  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:   
 Secondary Review: 

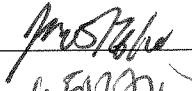
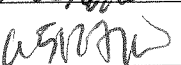
## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB2\05240013.D\05240013C.D  
**Lab ID:** K1005067-004  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 22:48  
**Date Quantitated:** 05/25/2010 17:48  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:   
 Secondary Review: 

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 608 Modified PC	Collect Date: 05/17/2010	Receive Date: 05/19/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group: K1005067
Analysis Method: 608M	Prep Method: EPA 3520C	
Prep Ref: 910415	Prep Date: 05/20/2010	

Quant Method: J:\GC33\METHODS\022010_PCB2.	Calibration ID: CAL9231
Title: Organochlorine Pesticides and Polychlorinated Biphenyls	Report List ID: LJ10139
MB Ref: J:\GC33\DATA\052410-PCB2\05240010.D	Method ID: MJ1031
	<b>Quant based on Report List</b>

Data File #1: J:\GC33\DATA\052410-PCB2\05240013.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB2\05240013.D\05240013c.d	Vial: 15
Acqu Date: 05/24/2010 22:48	Quant Date: 05/25/2010 17:48
Run Type: SMPL	Dilution: 1.0
Lab ID: K1005067-004	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

### Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	29840575	41713379	50.00	50.00

### Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	Rpt
						ccv	ccv	
				%Recovery =	Limits =			

### Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:		Rpt
						ug/L #1	ug/L #2	
1	Aroclor 1232			0d	0d	0.0000	0.0000	0.049U
1	Aroclor 1242			0d	0d	0.0000	0.0000	0.018U
1	Aroclor 1248			0d	0d	0.0000	0.0000	0.035U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1050 mL                      Dilution: 1.0  
 Prep Final Vol: 2 mL                      Unit Factor: 1

**Final Concentration =** ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 F: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\GC33\Data\052410-PCB2\05240013.D  
 Acq On : 24-May-2010, 22:48:43 Operator : PM  
 Acq Meth : 508.M Vial : 15  
 Sample : K1005087-004 Multiplier : 1.00  
 Misc :  
 Quant Time : May 25 17:48:29 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB2.M  
 Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
 QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	29840575	41713379	50.000	50.000

Target Compounds

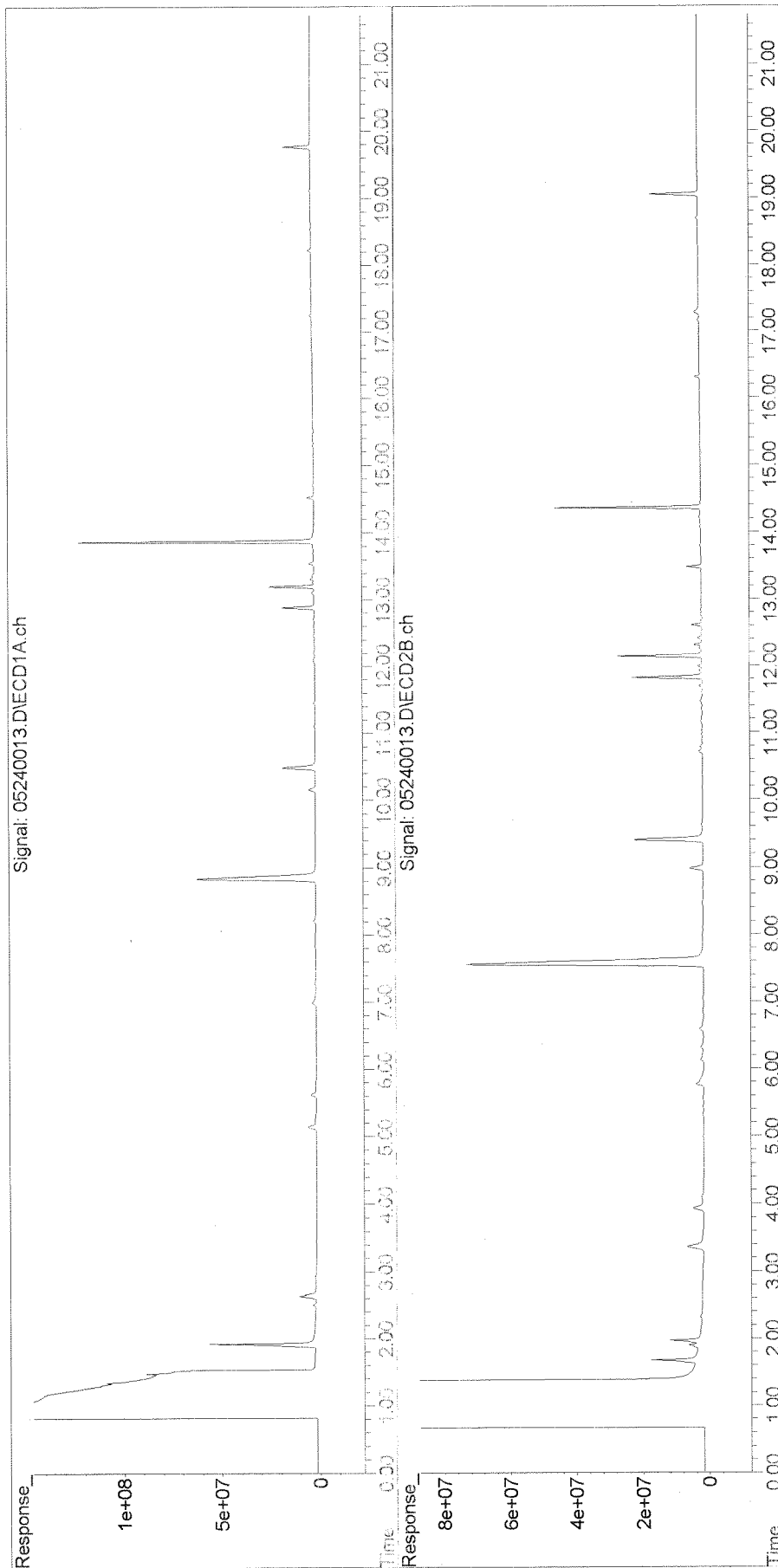
-----

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB2\05240013.D  
Acq On : 24-May-2010, 22:48:43 Operator : PM  
Acq Meth : 508.M Vial : 15  
Sample : K1005087-004 Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:48:29 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB2.M  
Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL Signal #2 Phase: RTX-CLP2  
Signal #1 Phase : RTX-CLP Signal #2 Info : 320 x 0.25 um  
Signal #1 Info : 320 x 0.50 um



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Method Blank  
**Lab Code:** KWG1004759-3

**Units:** ug/L  
**Basis:** NA

**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.48	0.043	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1221	ND	U	0.48	0.058	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1232	ND	U	0.48	0.049	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1242	ND	U	0.48	0.018	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1248	ND	U	0.48	0.035	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1254	ND	U	0.48	0.029	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1260	ND	U	0.48	0.053	1	05/20/10	05/24/10	KWG1004759	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	80	10-133	05/24/10	Acceptable

**Comments:** \_\_\_\_\_

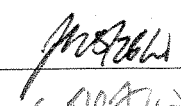

# Exception Report

Data File: J:\GC33\DATA\052410-PCB1\05240010.D  
Lab ID: KWG1004759-3  
RunType: MB  
Matrix: WATER

Date Acquired: 05/24/2010 21:30  
Date Quantitated: 05/25/2010 17:27  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:   
Secondary Review: 




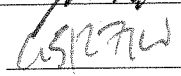
# Exception Report

Data File: J:\GC33\DATA\052410-PCB1\05240010.D\05240010C.D  
Lab ID: KWG1004759-3  
RunType: MB  
Matrix: WATER

Date Acquired: 05/24/2010 21:30  
Date Quantitated: 05/25/2010 17:27  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:   
Secondary Review: 

# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 608 Modified PC	Collect Date:	Receive Date:	05/21/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group:
Analysis Method: 608M	Prep Method: EPA 3520C	
Prep Ref: 910418	Prep Date: 05/20/2010	

Quant Method: J:\GC33\METHODS\022010_PCB1.	Calibration ID: CAL9230
Title:	Method ID: MJ1031
MB Ref:	Quant based on Method

Data File #1: J:\GC33\DATA\052410-PCB1\05240010.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB1\05240010.D\05240010c.d	Vial: 12
Acqu Date: 05/24/2010 21:30	Quant Date: 05/25/2010 17:27
Run Type: MB	Dilution: 1.0
Lab ID: KWG1004759-3	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89 <sup>?</sup> -0.09	11.82 <sup>?</sup> -0.14	32296252	44369799	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	#1	#2	Rpt
						ccv	ccv	
				%Recovery =		Limits =		

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	ug/L #1	ug/L #2	Rpt
1	Aroclor 1016			0d	0d	0.0000	0.0000	0.043U	0.043U	0.043U
1	Aroclor 1260			0d	0d	0.0000 <sup>ccv</sup>	0.0000 <sup>ccv</sup>	0.053U	0.053U	0.053U
1	Aroclor 1221			0d	0d	0.0000	0.0000	0.058U	0.058U	0.058U
1	Aroclor 1254			0d	0d	0.0000	0.0000	0.029U	0.029U	0.029U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1050 mL      Dilution: 1.0  
 Prep Final Vol: 2 mL      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 c: Result >= MRL, but MRL less than low point of ICAL  
 cc: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240010.D  
 Acq On : 24-May-2010, 21:30:41 Operator : PM  
 Acq Meth : 508.M Vial : 12  
 Sample : KQ4601-MB Multiplier : 1.00  
 Misc :  
 Quant Time : May 25 17:27:45 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	32296252	44369799	50.000	50.000

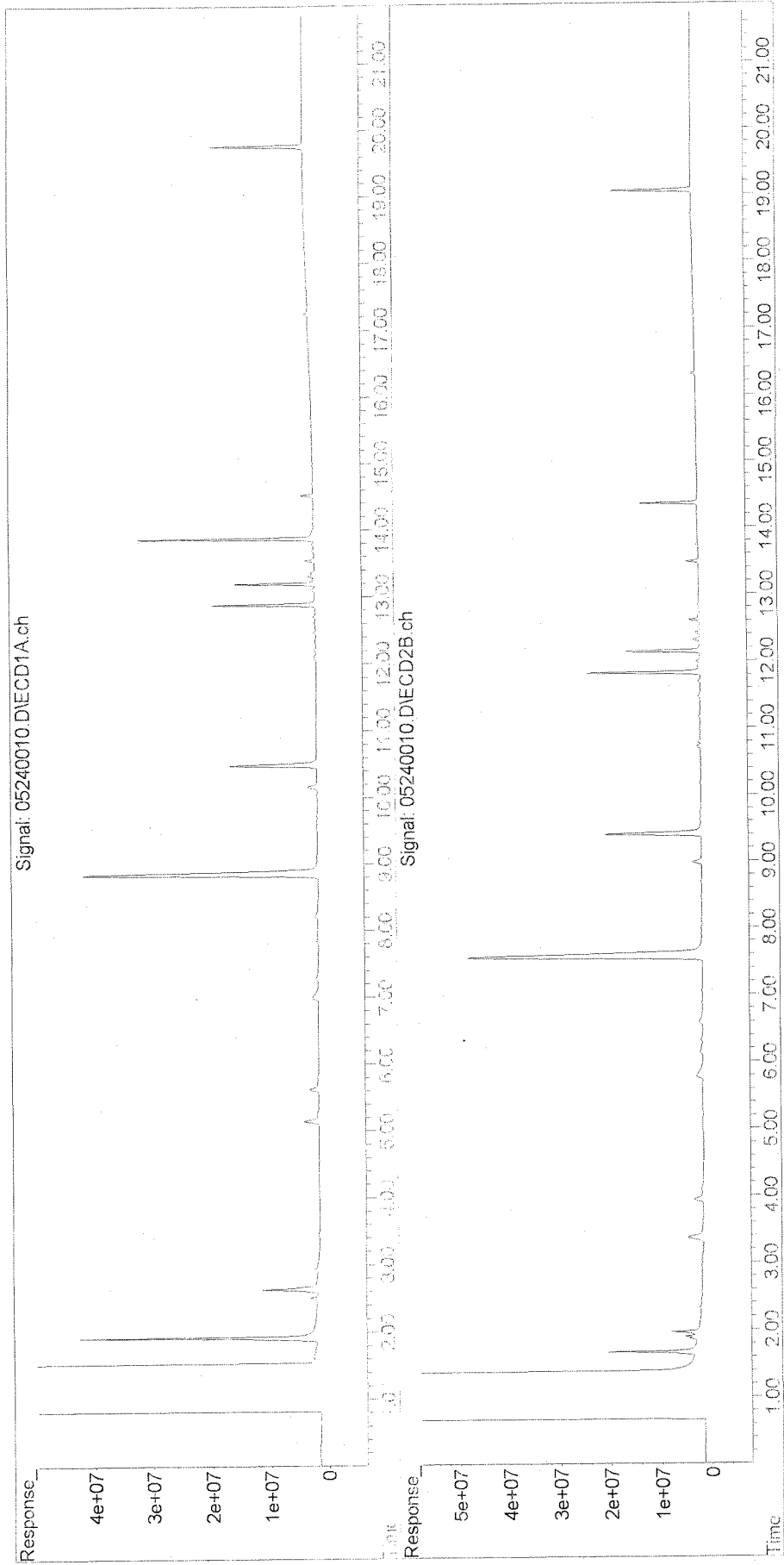
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240010.D  
Acq On : 24-May-2010, 21:30:41 Operator : PM  
Acq Meth : 508.M Vial : 12  
Sample : KQ4601-MB Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:27:45 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254  
QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB2\05240010.D  
**Lab ID:** KWG1004759-3  
**RunType:** MB  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 21:30  
**Date Quantitated:** 05/25/2010 17:47  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: \_\_\_\_\_

Secondary Review: \_\_\_\_\_

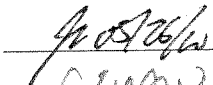
# Exception Report

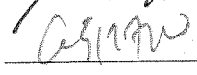
Data File: J:\GC33\DATA\052410-PCB2\05240010.D\05240010C.D  
Lab ID: KWG1004759-3  
RunType: MB  
Matrix: WATER

Date Acquired: 05/24/2010 21:30  
Date Quantitated: 05/25/2010 17:47  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 

Secondary Review: 

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 608 Modified PC	Collect Date:	WATER
		Receive Date: 05/21/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group:
Analysis Method: 608M	Prep Method: EPA 3520C	
Prep Ref: 910418	Prep Date: 05/20/2010	

Quant Method: J:\GC33\METHODS\022010_PCB2.	Calibration ID: CAL9231
Title:	Method ID: MJ1031
MB Ref:	Quant based on Method

Data File #1: J:\GC33\DATA\052410-PCB2\05240010.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB2\05240010.D\05240010.c.d	Vial: 12
Acqu Date: 05/24/2010 21:30	Quant Date: 05/25/2010 17:47
Run Type: MB	Dilution: 1.0
Lab ID: KWG1004759-3	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

### Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	32296252	44369799	50.00	50.00

### Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	#1	#2	Rpt
						ccv	ccv	
				%Recovery =		Limits =		

### Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:		Rpt
						ug/L #1	ug/L #2	
1	Aroclor 1232			0d	0d	0.0000	0.0000	0.049U
1	Aroclor 1242			0d	0d	0.0000	0.0000	0.018U
1	Aroclor 1248			0d	0d	0.0000	0.0000	0.035U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1050 mL      Dilution: 1.0  
 Prep Final Vol: 2 mL      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL, also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 b: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB2\05240010.D  
 Acq On : 24-May-2010, 21:30:41 Operator : PM  
 Acq Meth : 508.M Vial : 12  
 Sample : KQ4601-MB Multiplier : 1.00  
 Misc :  
 Quant Time : May 25 17:47:22 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB2.M  
 Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
 QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	32296252	44369799	50.000	50.000

Target Compounds

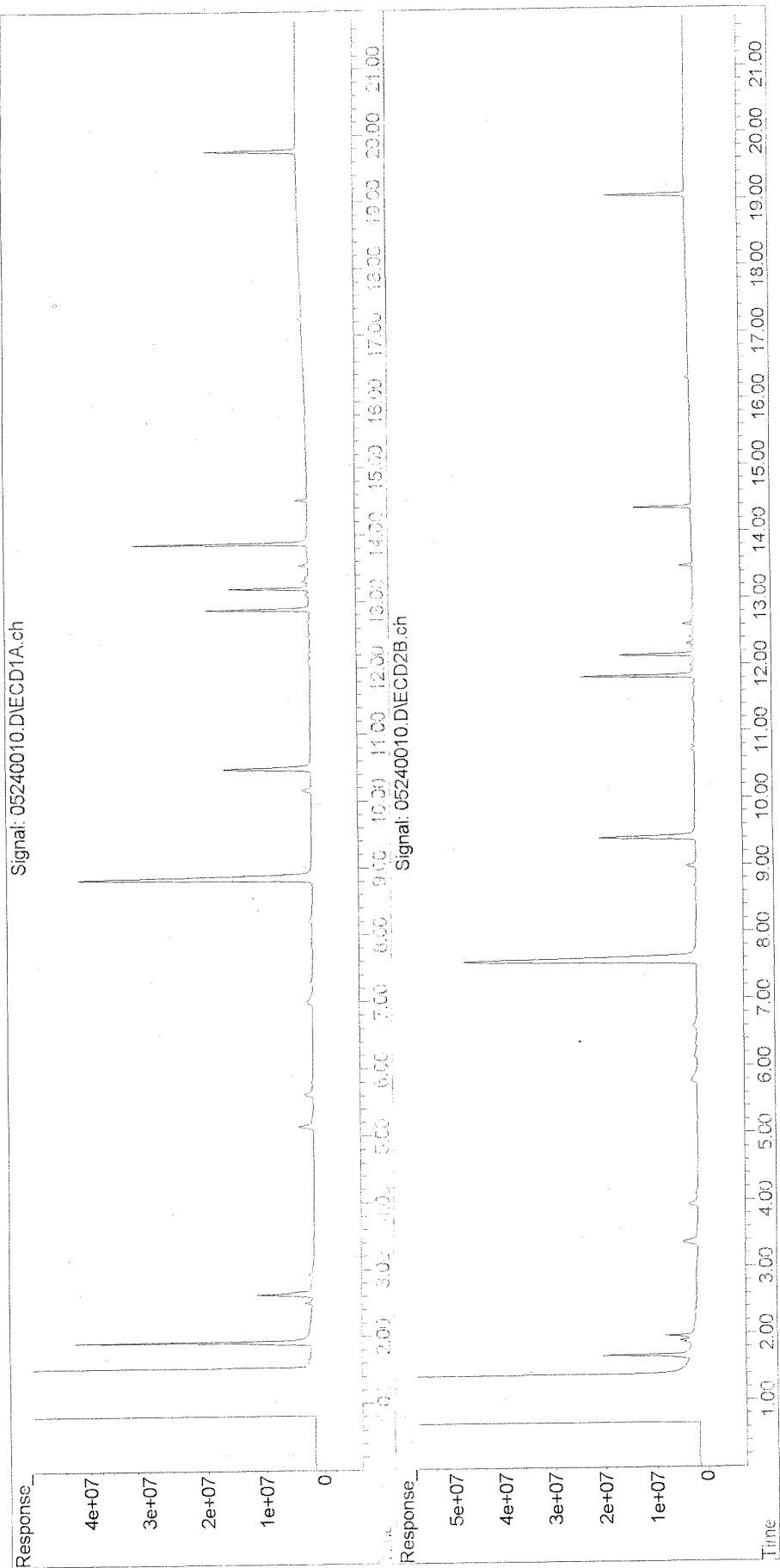
-----  
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB2\05240010.D  
Acq On : 24-May-2010, 21:30:41 Operator : PM  
Acq Meth : 508.M Vial : 12  
Sample : KQ4601-MB Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:47:22 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB2.M  
Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1004759-1

**Units:** ug/L  
**Basis:** NA

**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	1.84		0.50	0.043	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1221	ND	U	0.50	0.058	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1232	ND	U	0.50	0.049	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1242	ND	U	0.50	0.018	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1248	ND	U	0.50	0.035	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1254	ND	U	0.50	0.029	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1260	2.32		0.50	0.053	1	05/20/10	05/24/10	KWG1004759	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	86	10-133	05/24/10	Acceptable

Comments: \_\_\_\_\_

## Exception Report

**Data File:** J:\GC33\DATA\052410-608\05240008.D  
**Lab ID:** KWG1004759-1  
**RunType:** LCS  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 20:38  
**Date Quantitated:** 05/25/2010 17:40  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: \_\_\_\_\_

Secondary Review: \_\_\_\_\_

## Exception Report

**Data File:** J:\GC33\DATA\052410-608\05240008.D\05240008C.D  
**Lab ID:** KWG1004759-1  
**RunType:** LCS  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 20:38  
**Date Quantitated:** 05/25/2010 17:40  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: \_\_\_\_\_

Secondary Review: \_\_\_\_\_

# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 608 Modified PC	Collect Date:	Receive Date:	05/21/2010
Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group:	
Analysis Method: 608M	Prep Method: EPA 3520C		
Prep Ref: 910416	Prep Date: 05/20/2010		
Quant Method: J:\GC33\METHODS\032210_508.M		Calibration ID:	CAL9310
Title:		Method ID:	MJ1031
MB Ref: J:\GC33\DATA\052410-608\05240010.D		Quant based on Method	
Data File #1: J:\GC33\DATA\052410-608\05240008.D		Instrument:	GC33
Data File #2: J:\GC33\Data\052410-608\05240008.D\05240008c.d		Vial:	10
Acqu Date: 05/24/2010 20:38	Quant Date: 05/25/2010 17:40	Dilution:	1.0
Run Type: LCS		Soln Conc. Units:	ug/L
Lab ID: KWG1004759-1			
Signal #1: RTX-CLP	Signal #2: RTX-CLP2		

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.11</sup>	11.82? <sup>-0.18</sup>	35309751	51269969	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ug/L #1	ug/L #2	Rpt
1	Decachlorobiphenyl	19.77	19.05 <sup>+0.01</sup>	33654917	33915925	85.51	73.15	86OK
%Recovery =						86OK	73OK	Limits = 10-133

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units: ug/L				Rpt
						ug/L #1	ug/L #2	ug/L #1	ug/L #2	
1	Toxaphene			0d	0d	0.0000	0.0000	0.079U	0.079U	0.079U
1	Chlordane			0d	0d	0.0000	0.0000	0.019U	0.019U	0.019U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1000 mL      Dilution: 1.0  
 Prep Final Vol: 2 mL      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240008.D  
 Acq On : 24-May-2010, 20:38:56  
 Acq Meth : 508.M  
 Sample : KQ4601-LCS  
 Misc :  
 Quant Time : May 25 17:40:03 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\032210\_508.M  
 Quant Title : CAL9310 aka032210\_508.m | MJ492  
 QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
 Vial : 10  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase : RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	35309751	51269969	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.49	9.40	40204939	56007825	66.686	67.077
25) Decachlorobiphenyl	19.77	19.05	33654917	33915925	85.508	73.154
Target Compounds						
-----						

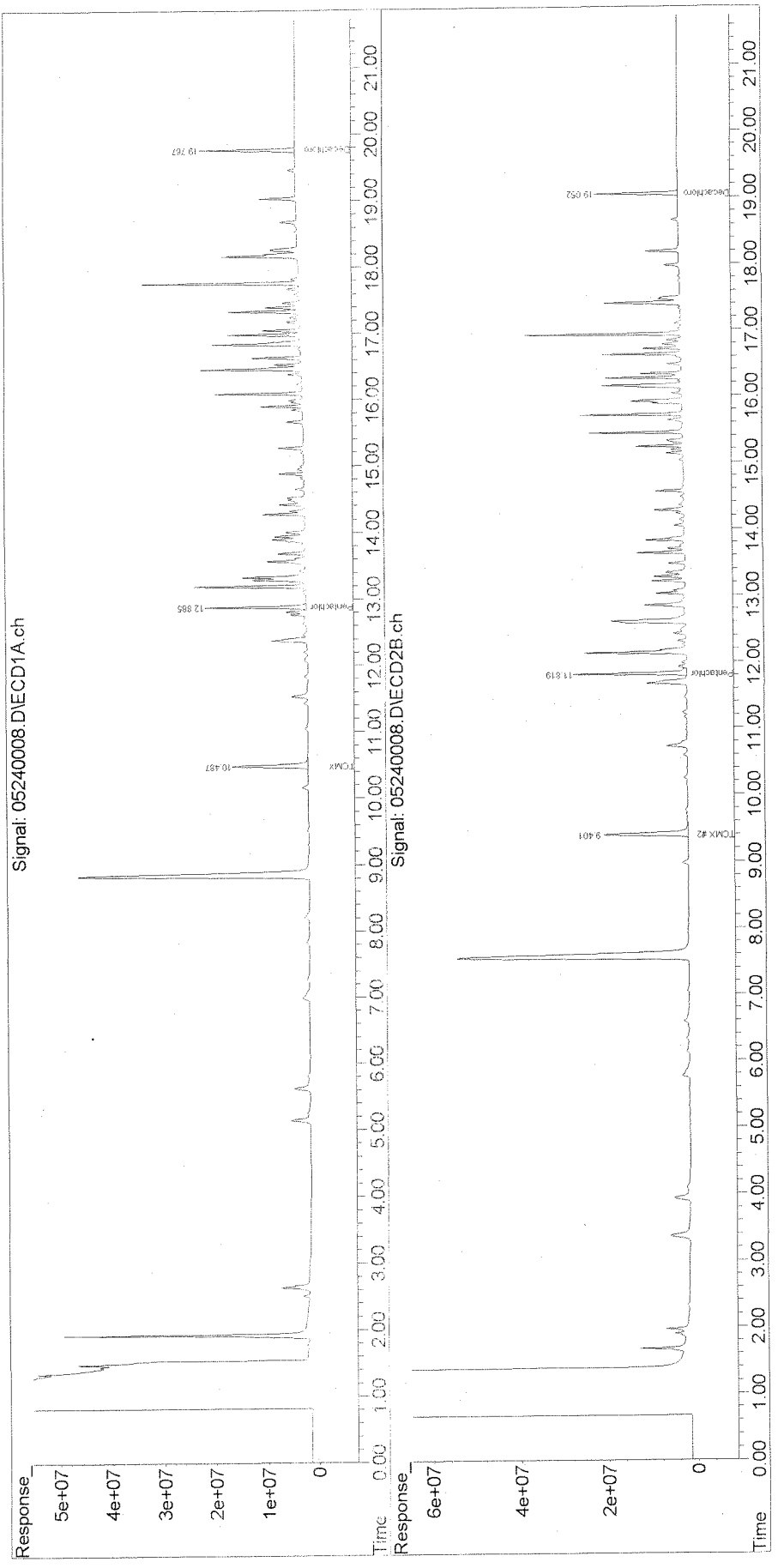
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240008.D  
Acq On : 24-May-2010, 20:38:56  
Acq Meth : 508.M  
Sample : KQ4601-LCS  
Misc :  
Quant Time : May 25 17:40:03 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\032210\_508.M  
Quant Title : CAL9310 aka032210\_508.m | MJ492  
QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
Vial : 10  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB1\05240008.D  
**Lab ID:** KWG1004759-1  
**RunType:** LCS  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 20:38  
**Date Quantitated:** 05/25/2010 17:25  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *[Signature]*  
 Secondary Review: *[Signature]*



## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB1\05240008.D\05240008C.D  
**Lab ID:** KWG1004759-1  
**Run Type:** LCS  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 20:38  
**Date Quantitated:** 05/25/2010 17:25  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*

# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 608 Modified PC	Collect Date:	Receive Date:	05/21/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group:
Analysis Method: 608M	Prep Method: EPA 3520C	
Prep Ref: 910416	Prep Date: 05/20/2010	

Quant Method: J:\GC33\METHODS\022010_PCB1.	Calibration ID: CAL9230
Title:	Method ID: MJ1031
MB Ref: J:\GC33\DATA\052410-PCB1\05240010.D	Quant based on Method

Data File #1: J:\GC33\DATA\052410-PCB1\05240008.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB1\05240008.D\05240008c.d	Vial: 10
Acqu Date: 05/24/2010 20:38	Quant Date: 05/25/2010 17:25
Run Type: LCS	Dilution: 1.0
Lab ID: KWG1004759-1	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

### Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	35309751	51269969	50.00	50.00

### Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	#1	#2	Rpt
						ccv	ccv	

%Recovery = \_\_\_\_\_ Limits = \_\_\_\_\_

### Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:		ug/L #1	ug/L #2	Rpt
						ug/L #1	ug/L #2			
1	Aroclor 1016			47025828m	62729393m	922.48	808.51	1.84	1.62	1.84
1	Aroclor 1260			110671579m	120938556m	1,162	1,008	2.32	2.02	2.32
1	Aroclor 1221			0d	0d	0.0000	0.0000	0.058U	0.058U	0.058U
1	Aroclor 1254			0d	0d	0.0000	0.0000	0.029U	0.029U	0.029U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1000 mL      Dilution: 1.0  
 Prep Final Vol: 2 mL      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240008.D  
 Acq On : 24-May-2010, 20:38:56 Operator : PM  
 Acq Meth : 508.M Vial : 10  
 Sample : KQ4601-LCS Multiplier : 1.00  
 Misc :  
 Quant Time : May 25 17:25:55 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Sun May 23 17:12:24 2010

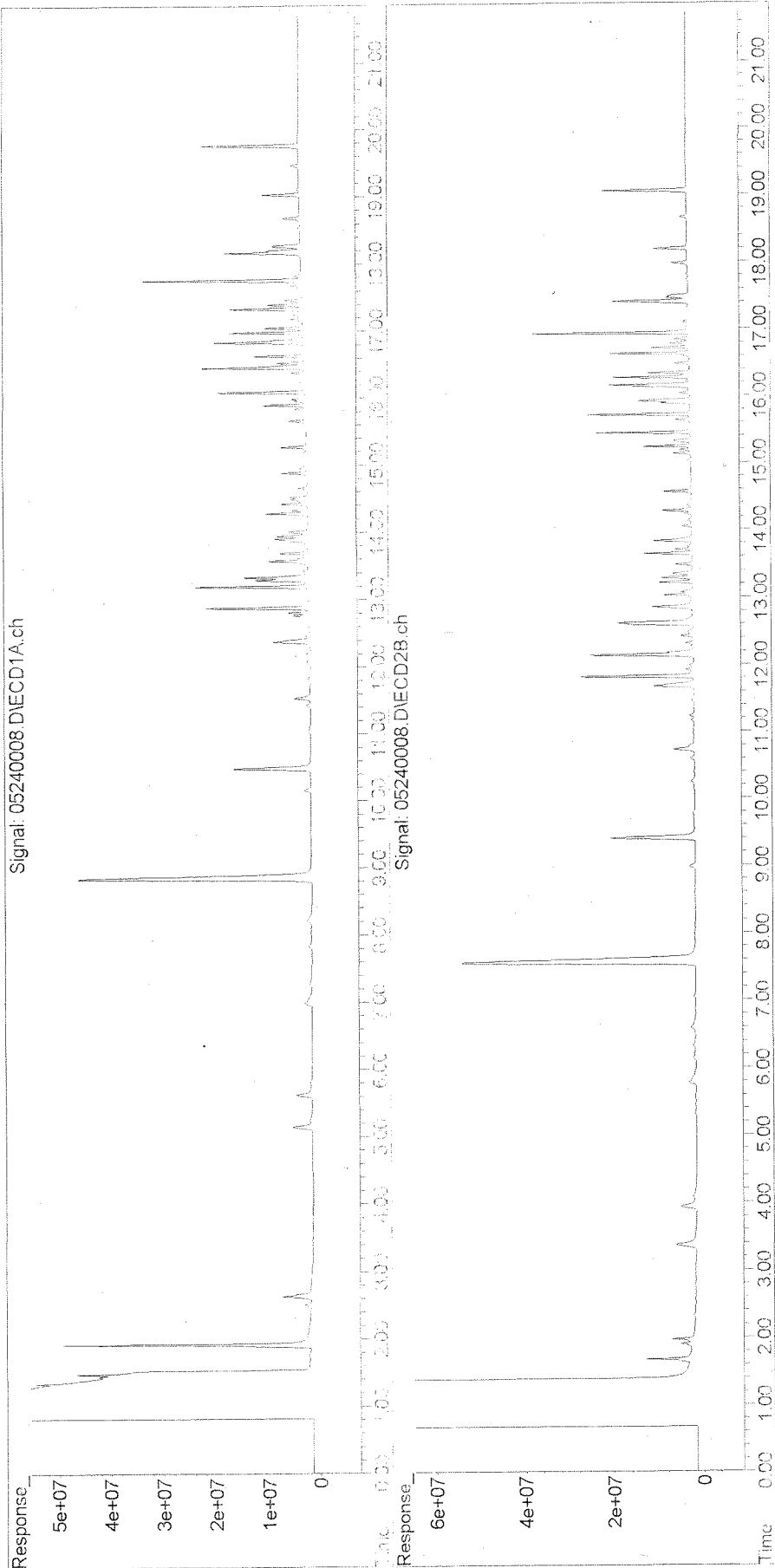
Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	35309751	51269969	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.54	10.73	7934956	12467554	758.380	791.406
3) Aroclor 1016 {2}	13.57	12.85	14550605	21532763	956.132m	840.649
4) Aroclor 1016 {3}	13.69	13.03	10705604	11222566	991.932	734.121 #
5) Aroclor 1016 {4}	14.28	13.64	13834663	17506510	949.801	836.378
6) Aroclor 1016 - TOTAL	0.00	0.00	47025828	62729393	922.481T	808.509T
7) Aroclor 1260	16.99	16.27	22903410	26886171	1142.275	1057.323
8) Aroclor 1260 {2}	17.34	16.63	24036706	26697222	1164.663	998.860
9) Aroclor 1260 {3}	17.77	16.93	51348806	54942837	1155.679	983.837
10) Aroclor 1260 {4}	19.04	18.19	12382657	12412326	1222.137	1036.476
11) Aroclor 1260 - TOTAL	0.00	0.00	110.7E6	120.9E6	1161.873T	1008.013T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : J:\GC33\Data\052410-PCB1\05240008.D  
Acq On : 24-May-2010, 20:38:56 Operator : PM  
Acq Meth : 508.M Vial : 10  
Sample : KQ4601-LCS Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:25:55 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254  
QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Quantitation Report (Qedit)

Data File : J:\GC33\Data\052410-PCB1\05240008.D

Acq On : 24-May-2010, 20:38:56

Acq Meth : 508.M

Sample : KQ4601-LCS

Misc :

Operator : PM

Vial : 10

Multiplier : 1.00

Quant Time : May 25 17:21:12 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254

QLast Update : Sun May 23 17:12:24 2010

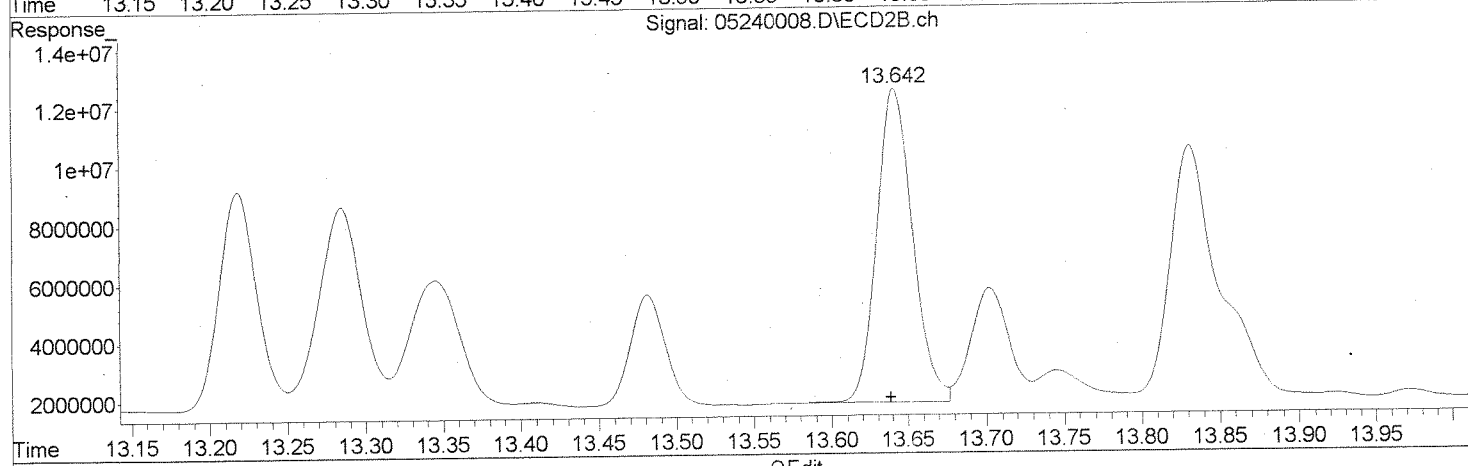
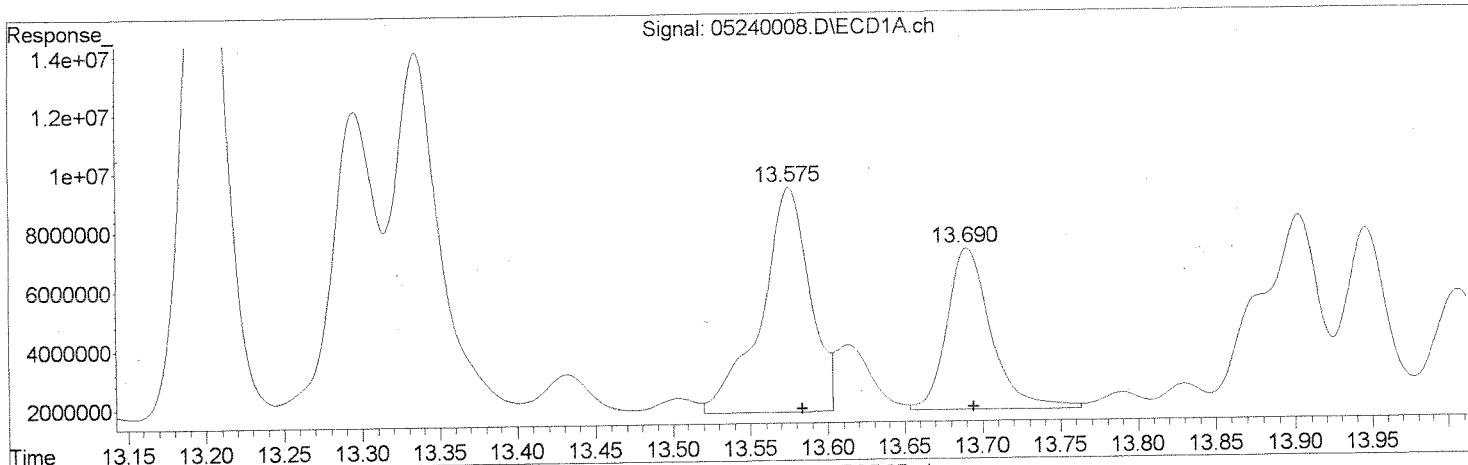
Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #1 Info : 320 x 0.50 um

Signal #2 Phase: RTX-CLP2

Signal #2 Info : 320 x 0.25 um



QEdit

(2) Aroclor 1016 (L3)

R.T.	Response	Conc
11.54	7934956	758.38
13.57	16719643	1100.87
13.69	10705604	991.93
14.28	13834663	949.80

(2) Aroclor 1016 #2 (L3)

R.T.	Response	Conc
10.73	12467554	791.41
12.85	21532763	840.65
13.03	11222566	734.12
13.64	17506510	836.38

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data File : J:\GC33\Data\052410-PCB1\05240008.D

Acq On : 24-May-2010, 20:38:56

Acq Meth : 508.M

Sample : KQ4601-LCS

Misc :

Operator : PM

Vial : 10

Multiplier : 1.00

Quant Time : May 25 17:21:12 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254

QLast Update : Sun May 23 17:12:24 2010

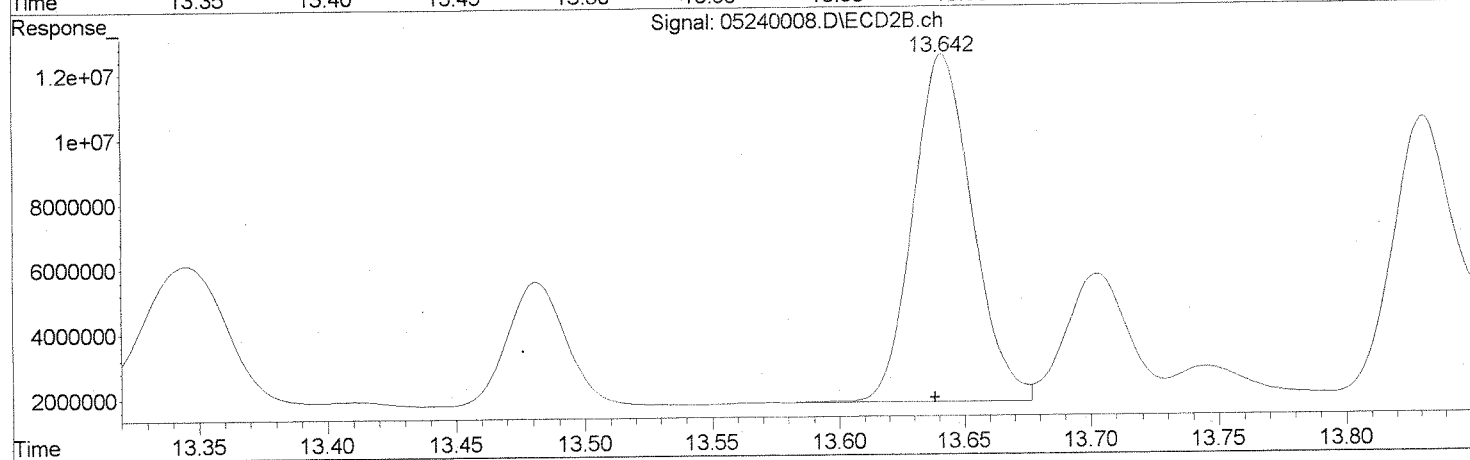
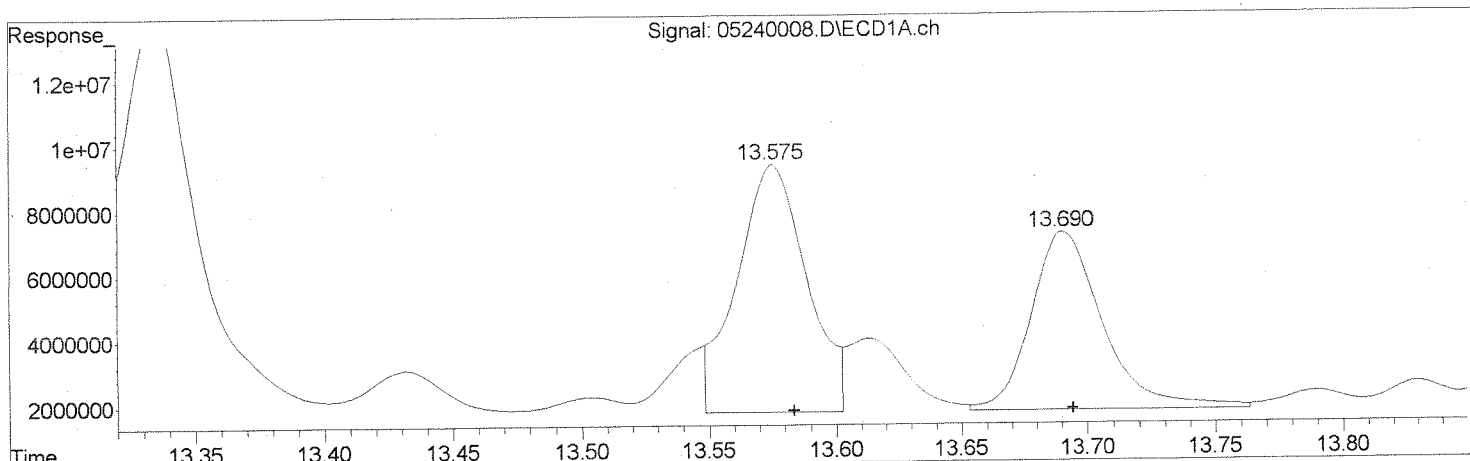
Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #1 Info : 320 x 0.50 um

Signal #2 Phase: RTX-CLP2

Signal #2 Info : 320 x 0.25 um



(2) Aroclor 1016 #2 (L3)

R.T.	Response	Conc
11.54	7934956	758.38
13.58	14550605	956.13
13.69	10705604	991.93
14.28	13834663	949.80

(2) Aroclor 1016 #2 (L3)

R.T.	Response	Conc
10.73	12467554	791.41
12.85	21532763	840.65
13.03	11222566	734.12
13.64	17506510	836.38

*Shoulder*  
*at 13.642*  
*05/27/10*

(+) = Expected Retention Time

022010\_PCB1.M Tue May 25 17:25:07 2010

## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB2\05240008.D  
**Lab ID:** KWG1004759-1  
**RunType:** LCS  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 20:38  
**Date Quantitated:** 05/25/2010 17:46  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*

# Exception Report

Data File: J:\GC33\DATA\052410-PCB2\05240008.D\05240008C.D  
Lab ID: KWG1004759-1  
Run Type: LCS  
Matrix: WATER

Date Acquired: 05/24/2010 20:38  
Date Quantitated: 05/25/2010 17:46  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*



# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 608 Modified PC	Collect Date:	Receive Date:	05/21/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group:	
Analysis Method: 608M	Prep Method: EPA 3520C		
Prep Ref: 910416	Prep Date: 05/20/2010		

Quant Method: J:\GC33\METHODS\022010_PCB2.	Calibration ID: CAL9231
Title:	Method ID: MJ1031
MB Ref: J:\GC33\DATA\052410-PCB2\05240010.D	Quant based on Method

Data File #1: J:\GC33\DATA\052410-PCB2\05240008.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB2\05240008.D\05240008c.d	Vial: 10
Acqu Date: 05/24/2010 20:38	Quant Date: 05/25/2010 17:46
Run Type: LCS	Dilution: 1.0
Lab ID: KWG1004759-1	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	35309751	51269969	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	#1	#2	Rpt
						ccv	ccv	
				%Recovery =		Limits =		

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	ug/L #1	ug/L #2	Rpt
1	Aroclor 1232			0d	0d	0.0000	0.0000	0.049U	0.049U	0.049U
1	Aroclor 1242			0d	0d	0.0000	0.0000	0.018U	0.018U	0.018U
1	Aroclor 1248			0d	0d	0.0000	0.0000	0.035U	0.035U	0.035U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1000 mL      Dilution: 1.0  
 Prep Final Vol: 2 mL      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB2\05240008.D  
 Acq On : 24-May-2010, 20:38:56 Operator : PM  
 Acq Meth : 508.M Vial : 10  
 Sample : KQ4601-LCS Multiplier : 1.00  
 Misc :  
 Quant Time : May 25 17:46:46 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB2.M  
 Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
 QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	35309751	51269969	50.000	50.000

Target Compounds

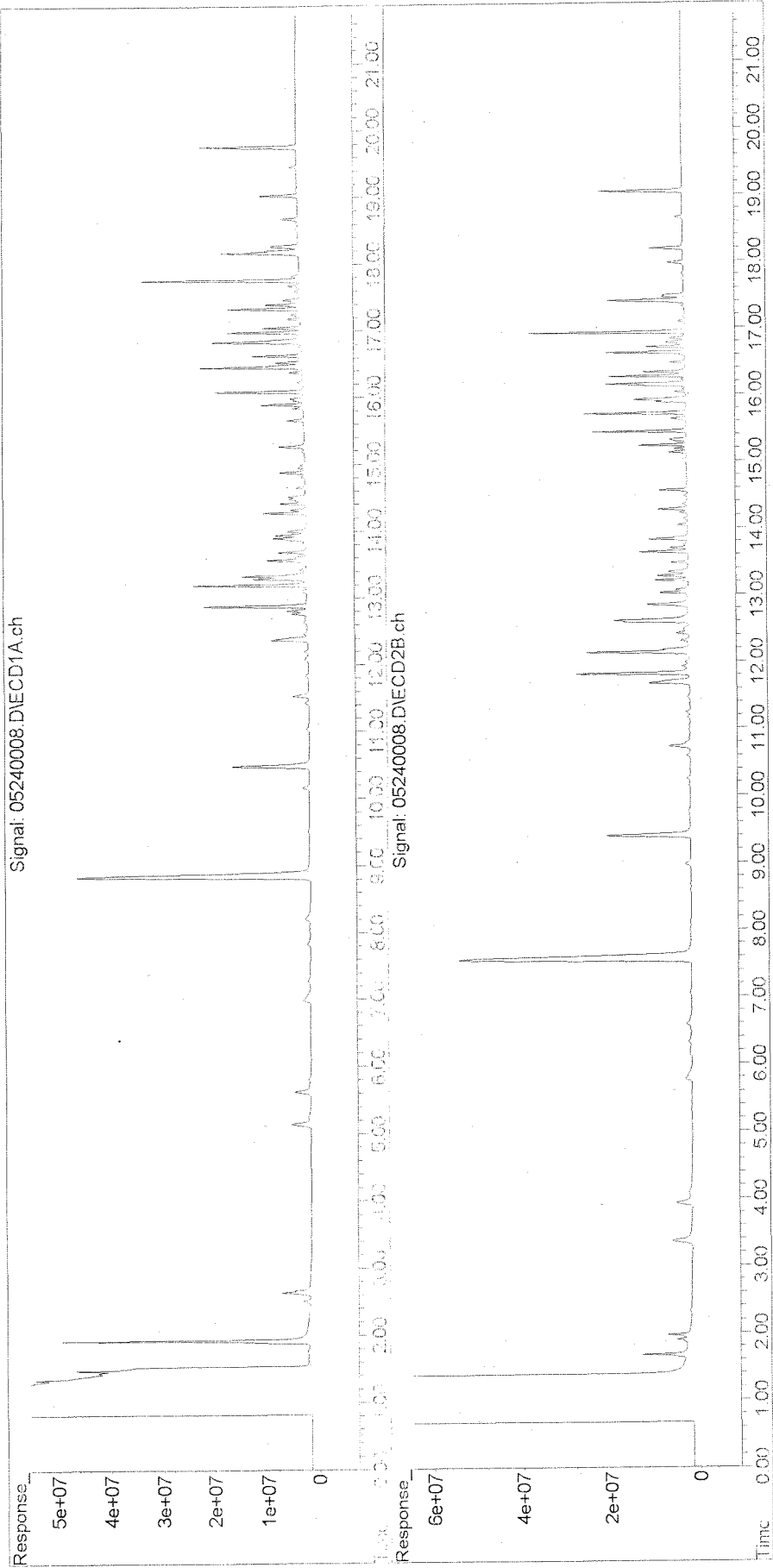
-----

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB2\05240008.D  
Acq On : 24-May-2010, 20:38:56 Operator : PM  
Acq Meth : 508.M Vial : 10  
Sample : KQ4601-LCS Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:46:46 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB2.M  
Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Sample Name:** Duplicate Lab Control Sample  
**Lab Code:** KWG1004759-2  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 608M

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	1.80		0.50	0.043	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1221	ND	U	0.50	0.058	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1232	ND	U	0.50	0.049	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1242	ND	U	0.50	0.018	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1248	ND	U	0.50	0.035	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1254	ND	U	0.50	0.029	1	05/20/10	05/24/10	KWG1004759	
Aroclor 1260	2.25		0.50	0.053	1	05/20/10	05/24/10	KWG1004759	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	99	10-133	05/24/10	Acceptable

**Comments:** \_\_\_\_\_

## Exception Report

**Data File:** J:\GC33\DATA\052410-608\05240009.D  
**Lab ID:** KWG1004759-2  
**RunType:** DLCS  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 21:04  
**Date Quantitated:** 05/25/2010 17:40  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*

# Exception Report

Data File: J:\GC33\DATA\052410-608\05240009.D\05240009C.D  
Lab ID: KWG1004759-2  
RunType: DLCS  
Matrix: WATER

Date Acquired: 05/24/2010 21:04  
Date Quantitated: 05/25/2010 17:40  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *JW 5/25/10*

Secondary Review: *W 5/25/10*

# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 608 Modified PC	Collect Date:	Receive Date:	05/21/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group:	
Analysis Method: 608M	Prep Method: EPA 3520C		
Prep Ref: 910417	Prep Date: 05/20/2010		

Quant Method: J:\GC33\METHODS\032210_508.M	Calibration ID: CAL9310
Title:	
MB Ref: J:\GC33\DATA\052410-608\05240010.D	Method ID: MJ1031
	Quant based on Method

Data File #1: J:\GC33\DATA\052410-608\05240009.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-608\05240009.D\05240009c.d	Vial: 11
Acqu Date: 05/24/2010 21:04	Quant Date: 05/25/2010 17:40
Run Type: DLCS	Dilution: 1.0
Lab ID: KWG1004759-2	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.11</sup>	11.82? <sup>-0.18</sup>	35884405	51463700	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ug/L #1	ug/L #2	Rpt
1	Decachlorobiphenyl	19.77	19.05 <sup>+0.01</sup>	39720303	40148764	99.30	86.27	99OK ✓
%Recovery =						99OK	86OK	Limits = 10-133

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units: ug/L		Rpt
						ug/L #1	ug/L #2	
1	Toxaphene			0d	0d	0.0000	0.0000	0.079U
1	Chlordane			0d	0d	0.0000	0.0000	0.019U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1000 mL      Dilution: 1.0  
 Prep Final Vol: 2 mL      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240009.D  
 Acq On : 24-May-2010, 21:04:46  
 Acq Meth : 508.M  
 Sample : KQ4601-DLCS  
 Misc :  
 Quant Time : May 25 17:40:30 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\032210\_508.M  
 Quant Title : CAL9310 aka032210\_508.m | MJ492  
 QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
 Vial : 11  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase: RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	35884405	51463700	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.49	9.40	43740648	59688239	71.389	71.216
25) Decachlorobiphenyl	19.77	19.05	39720303	40148764	99.302	86.272

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

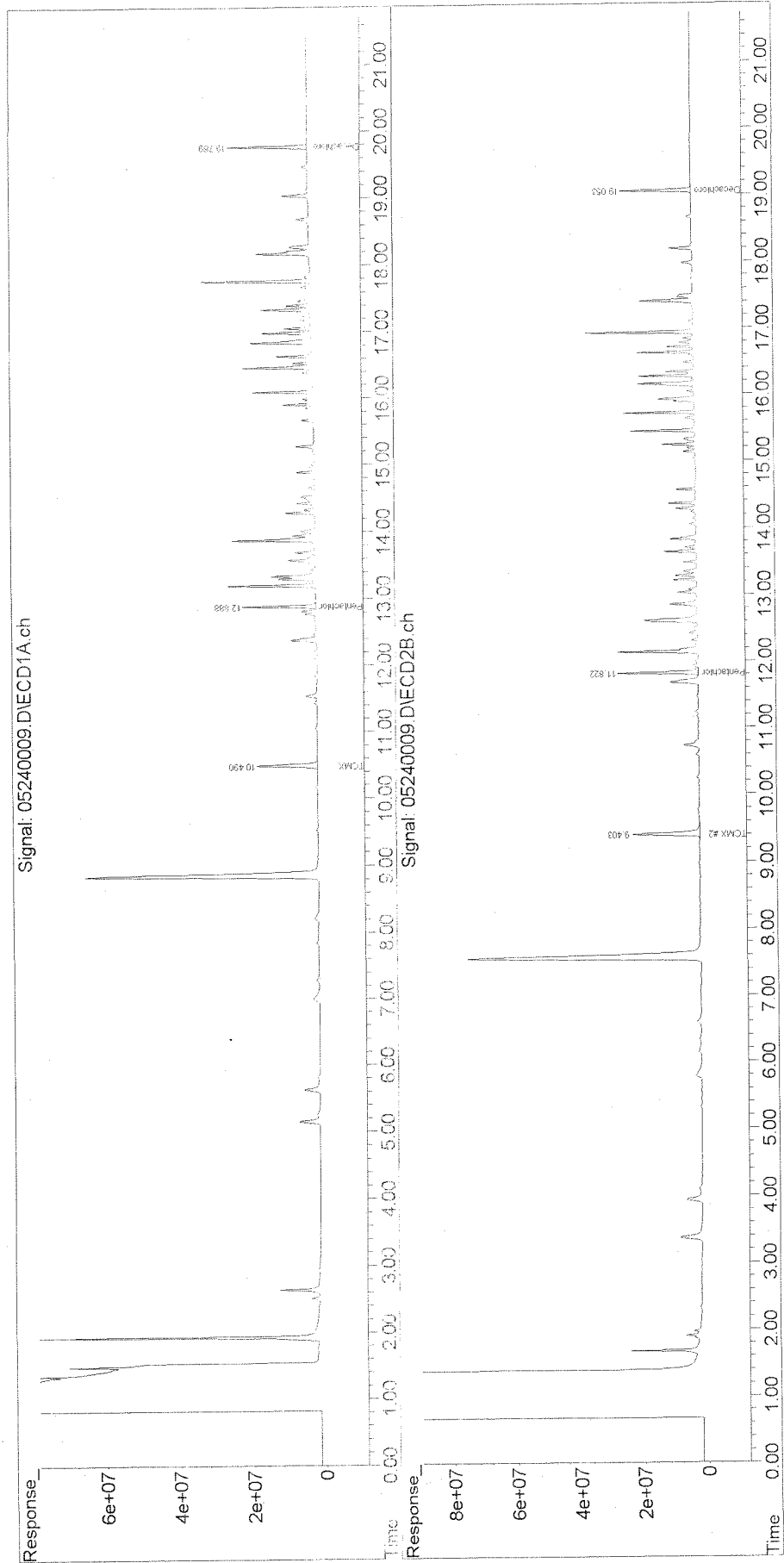


Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240009.D  
Acq On : 24-May-2010, 21:04:46  
Acq Meth : 508.M  
Sample : KQ4601-DLCS  
Misc :  
Quant Time : May 25 17:40:30 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\032210\_508.M  
Quant Title : CAL9310 aka032210\_508.m | MJ492  
QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
Vial : 11  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um




# Exception Report

Data File: J:\GC33\DATA\052410-PCB1\05240009.D  
Lab ID: KWGI004759-2  
Run Type: DLCS  
Matrix: WATER

Date Acquired: 05/24/2010 21:04  
Date Quantitated: 05/25/2010 17:27  
Batch ID: KWGI004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 

Secondary Review: 

# Exception Report

Data File: J:\GC33\DATA\052410-PCB1\05240009.D\05240009C.D  
Lab ID: KWG1004759-2  
Run Type: DLCS  
Matrix: WATER

Date Acquired: 05/24/2010 21:04  
Date Quantitated: 05/25/2010 17:27  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*

# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 608 Modified PC	Collect Date:	Receive Date:	05/21/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group:	
Analysis Method: 608M	Prep Method: EPA 3520C		
Prep Ref: 910417	Prep Date: 05/20/2010		

Quant Method: J:\GC33\METHODS\022010_PCB1	Calibration ID: CAL9230
Title:	Method ID: MJ1031
MB Ref: J:\GC33\DATA\052410-PCB1\05240010.D	Quant based on Method

Data File #1: J:\GC33\DATA\052410-PCB1\05240009.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB1\05240009.D\05240009c.d	Vial: 11
Acqu Date: 05/24/2010 21:04	Quant Date: 05/26/2010 09:57
Run Type: DLCS	Dilution: 1.0
Lab ID: KWG1004759-2	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

### Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	35884405	51463700	50.00	50.00

### Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	#1	#2	Rpt
						ccv	ccv	
				%Recovery =		Limits =		

### Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:		ug/L #1	ug/L #2	Rpt
						ug/L #1	ug/L #2			
1	Aroclor 1016			46586288m	61922659m	898.72	795.11	1.80	1.59	1.80 ✓
1	Aroclor 1260			109075043ml	17249399m	1,127	973.59	2.25	1.95	2.25 ✓
1	Aroclor 1221			0d	0d	0.0000	0.0000	0.058U	0.058U	0.058U
1	Aroclor 1254			0d	0d	0.0000	0.0000	0.029U	0.029U	0.029U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1000 mL      Dilution: 1.0  
 Prep Final Vol: 2 mL      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ? : Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240009.D

Acq On : 24-May-2010, 21:04:46

Operator : PM

Acq Meth : 508.M

Sample : KQ4601-DLCS

Vial : 11

Misc :

Multiplier : 1.00

Quant Time : May 26 09:57:23 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254

QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #2 Phase: RTX-CLP2

Signal #1 Info : 320 x 0.50 um

Signal #2 Info : 320 x 0.25 um

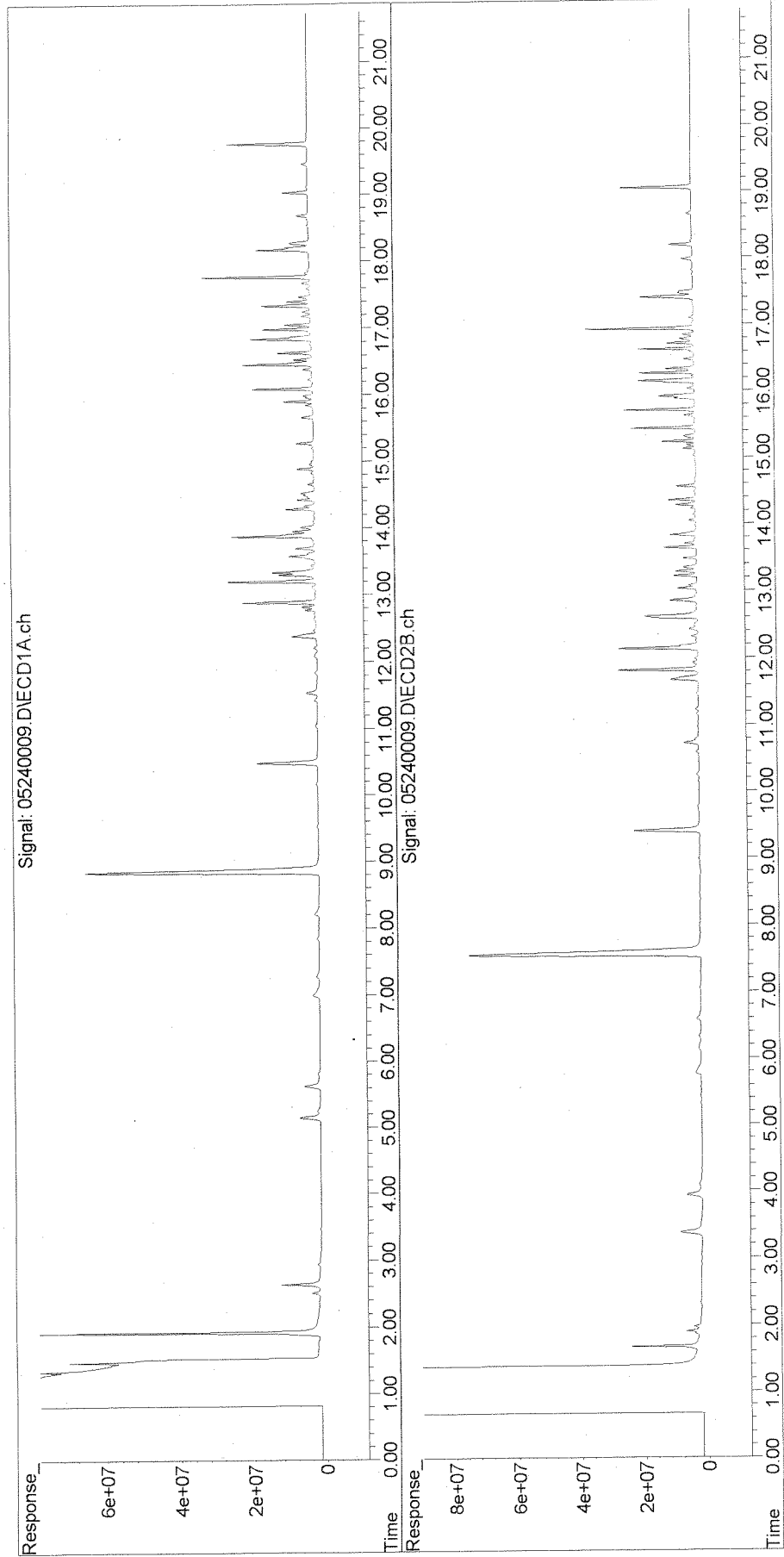
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	35884405	51463700	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.54	10.73	8136571	12585574	765.528	795.890
3) Aroclor 1016 {2}	13.58	12.86	14057635	21244685	908.214m	826.280
4) Aroclor 1016 {3}	13.69	13.03	10854496	10955348	989.606	713.944 #
5) Aroclor 1016 {4}	14.28	13.64	13537586	17137052	913.663	815.645
6) Aroclor 1016 - TOTAL	0.00	0.00	46586288	61922659	898.722T	795.106T
7) Aroclor 1260	16.99	16.27	22610639	24653380	1109.615	965.867
8) Aroclor 1260 {2}	17.34	16.63	23747733	26353921	1132.235	982.304
9) Aroclor 1260 {3}	17.77	16.93	50499640	54029949	1118.366	963.848
10) Aroclor 1260 {4}	19.04	18.19	12217031	12212149	1186.480	1015.922
11) Aroclor 1260 - TOTAL	0.00	0.00	109.1E6	117.2E6	1126.774T	973.585T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240009.D  
Acq On : 24-May-2010, 21:04:46 Operator : PM  
Acq Meth : 508.M Vial : 11  
Sample : KQ4601-DLCS Multiplier : 1.00  
Misc :  
Quant Time : May 26 09:57:23 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254  
QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

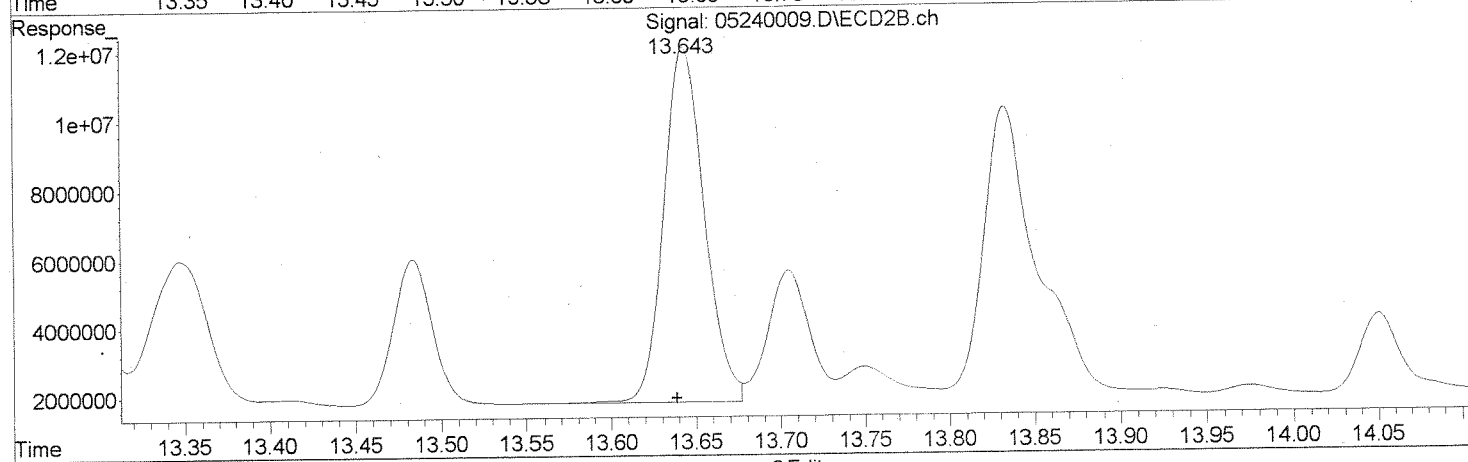
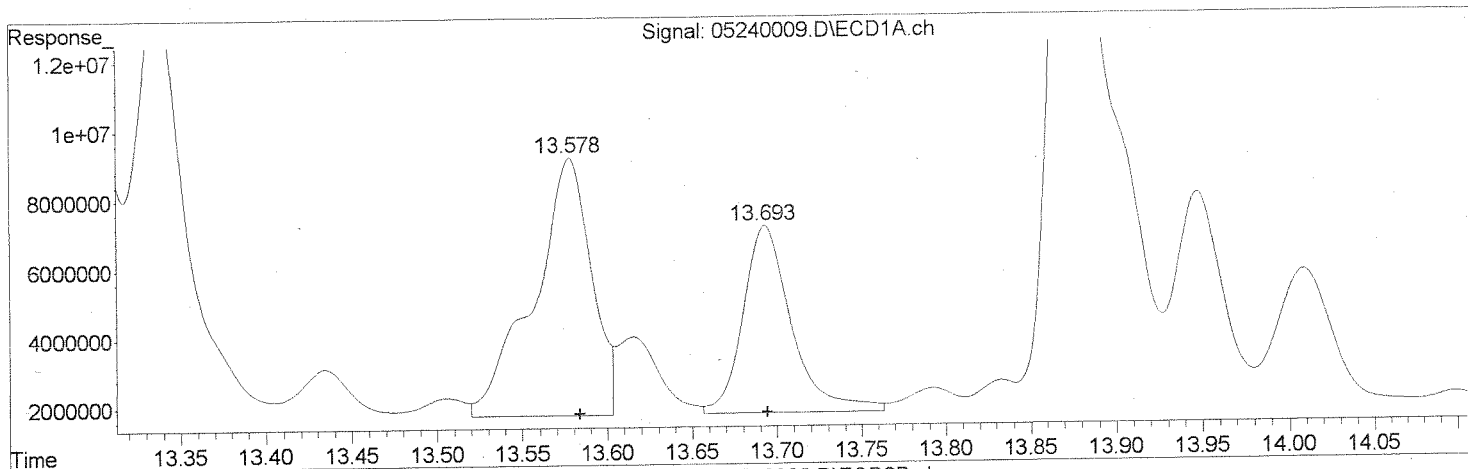


Quantitation Report (Qedit)

Data File : J:\GC33\Data\052410-PCB1\05240009.D  
 Acq On : 24-May-2010, 21:04:46  
 Acq Meth : 508.M  
 Sample : KQ4601-DLCS  
 Misc :  
 Quant Time : May 25 17:21:15 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Sun May 23 17:12:24 2010

Operator : PM  
 Vial : 11  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase: RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um



QEdit

(2) Aroclor 1016 (L3)  
 R.T. Response Conc  
 11.54 8136571 765.53  
 13.58 17694247 1147.00  
 13.69 10854496 989.61  
 14.28 13537586 913.66

(2) Aroclor 1016 #2 (L3)  
 R.T. Response Conc  
 10.73 12585574 795.89  
 12.86 21244685 826.28  
 13.03 10955348 713.94  
 13.64 17137052 815.64

Quantitation Report (Qedit)

Data File : J:\GC33\Data\052410-PCB1\05240009.D

Acq On : 24-May-2010, 21:04:46

Acq Meth : 508.M

Sample : KQ4601-DLCS

Misc :

Operator : PM

Vial : 11

Multiplier : 1.00

Quant Time : May 25 17:21:15 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254

QLast Update : Sun May 23 17:12:24 2010

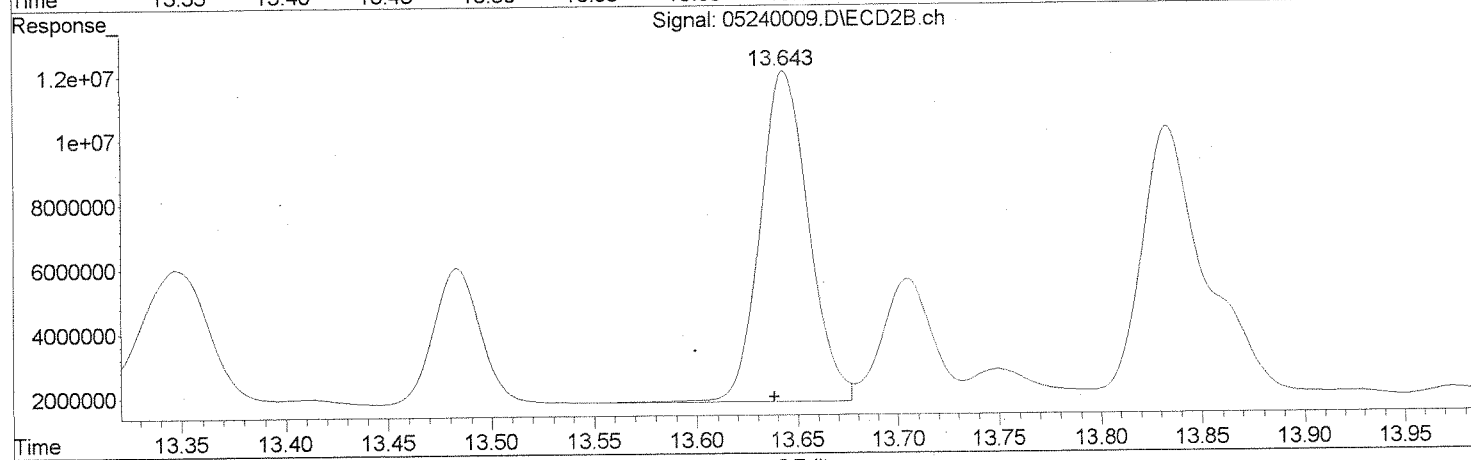
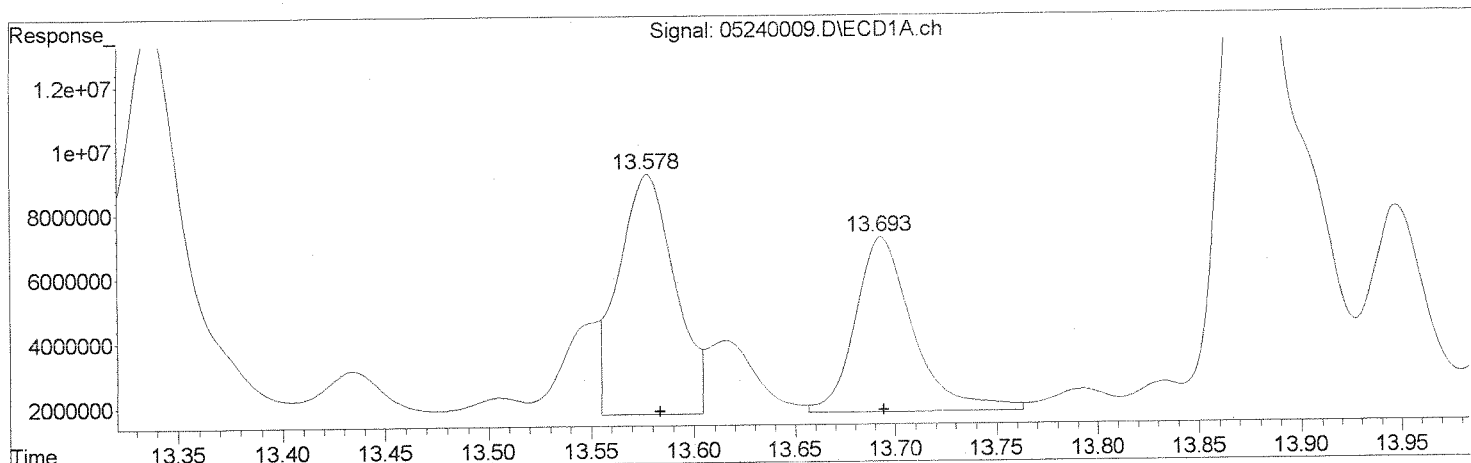
Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #1 Info : 320 x 0.50 um

Signal #2 Phase: RTX-CLP2

Signal #2 Info : 320 x 0.25 um



(2) Aroclor 1016 #2 (L3)

R.T.	Response	Conc
11.54	8136571	765.53
13.58	14057635	908.21
13.69	10854496	989.61
14.28	13537586	913.66

(2) Aroclor 1016 #2 (L3)

R.T.	Response	Conc
10.73	12585574	795.89
12.86	21244685	826.28
13.03	10955348	713.94
13.64	17137052	815.64

*Shankar*  
*05/25/2010*  
*05/27/10*



## Exception Report

**Data File:** J:\GC33\DATA\052410-PCB2\05240009.D  
**Lab ID:** KWG1004759-2  
**Run Type:** DLCS  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 21:04  
**Date Quantitated:** 05/25/2010 17:46  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 

Secondary Review: 


# Exception Report


Data File: J:\GC33\DATA\052410-PCB2\05240009.D\05240009C.D  
Lab ID: KWG1004759-2  
Run Type: DLCS  
Matrix: WATER

Date Acquired: 05/24/2010 21:04  
Date Quantitated: 05/25/2010 17:46  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 

Secondary Review: 

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 608 Modified PC	Collect Date:	WATER
		Receive Date: 05/21/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group:
Analysis Method: 608M	Prep Method: EPA 3520C	
Prep Ref: 910417	Prep Date: 05/20/2010	

Quant Method: J:\GC33\METHODS\022010_PCB2	Calibration ID: CAL9231
Title:	Method ID: MJ1031
MB Ref: J:\GC33\DATA\052410-PCB2\05240010.D	Quant based on Method

Data File #1: J:\GC33\DATA\052410-PCB2\05240009.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB2\05240009.D\05240009c.d	Vial: 11
Acqu Date: 05/24/2010 21:04	Quant Date: 05/25/2010 17:46
Run Type: DLCS	Dilution: 1.0
Lab ID: KWG1004759-2	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

### Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	35884405	51463700	50.00	50.00

### Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ccv #1	ccv #2	Rpt
				%Recovery =		Limits =		

### Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	ug/L #1	ug/L #2	Rpt
1	Aroclor 1232			0d	0d	0.0000	0.0000	0.049U	0.049U	0.049U
1	Aroclor 1242			0d	0d	0.0000	0.0000	0.018U	0.018U	0.018U
1	Aroclor 1248			0d	0d	0.0000	0.0000	0.035U	0.035U	0.035U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1000 mL      Dilution: 1.0  
 Prep Final Vol: 2 mL      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 C: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ? : Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB2\05240009.D  
 Acq On : 24-May-2010, 21:04:46 Operator : PM  
 Acq Meth : 508.M Vial : 11  
 Sample : KQ4601-DLCS Multiplier : 1.00  
 Misc :  
 Quant Time : May 25 17:46:56 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB2.M  
 Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
 QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	35884405	1463700	50.000	50.000

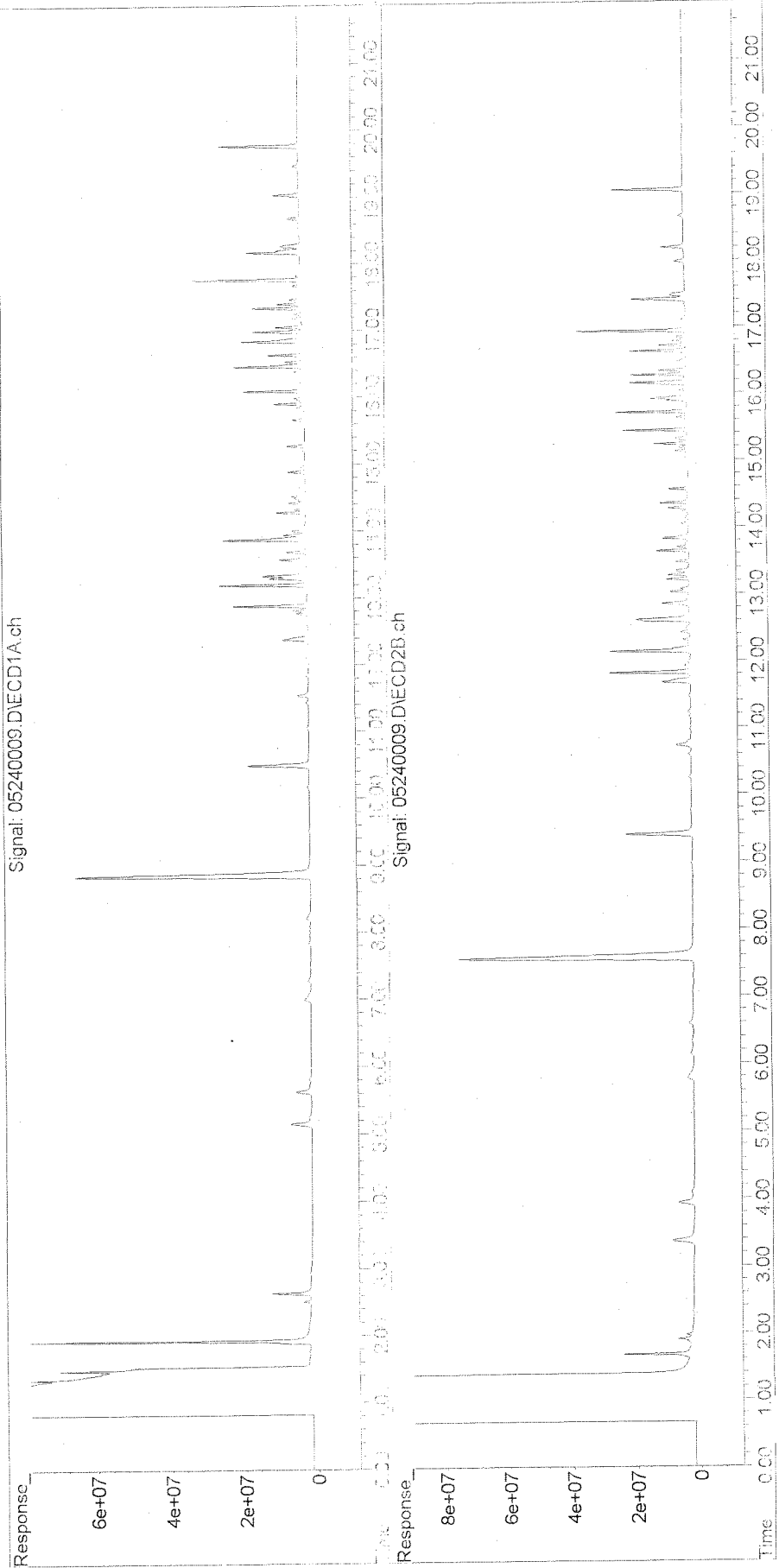
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB2\05240009.D  
Acq On : 24-May-2010, 21:04:46 Operator : PM  
Acq Meth : 508.M Vial : 11  
Sample : KQ4601-DLCS Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:46:56 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB2.M  
Quant Title : CAL9231 aka022010\_PCB2\_1232,1242,1248  
QLast Update : Sun May 23 17:17:59 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



# Exception Report

Data File: J:\GC33\DATA\052410-608\05240010.D  
Lab ID: KWG1004759-3  
RunType: MB  
Matrix: WATER

Date Acquired: 05/24/2010 21:30  
Date Quantitated: 05/25/2010 17:41  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*

## Exception Report

**Data File:** J:\GC33\DATA\052410-608\05240010.D\05240010C.D  
**Lab ID:** KWG1004759-3  
**RunType:** MB  
**Matrix:** WATER

**Date Acquired:** 05/24/2010 21:30  
**Date Quantitated:** 05/25/2010 17:41  
**Batch ID:** KWG1004915  
**Analysis Method:** 608M  
**MethodJoinID:** MJ1028

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: \_\_\_\_\_

Secondary Review: \_\_\_\_\_

# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 608 Modified PC	Collect Date:	Receive Date:	05/21/2010

Analysis Lot: KWG1004915	Prep Lot: KWG1004759	Report Group:
Analysis Method: 608M	Prep Method: EPA 3520C	
Prep Ref: 910418	Prep Date: 05/20/2010	

Quant Method: J:\GC33\METHODS\032210_508.M	Calibration ID: CAL9310
Title:	Method ID: MJ1031
MB Ref:	Quant based on Method

Data File #1: J:\GC33\DATA\052410-608\05240010.D	Instrument: GC33
Data File #2: J:\GC33\DATA\052410-608\05240010.D\05240010c.d	Vial: 12
Acqu Date: 05/24/2010 21:30	Quant Date: 05/25/2010 17:41
Run Type: MB	Dilution: 1.0
Lab ID: KWG1004759-3	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.11</sup>	11.82? <sup>-0.18</sup>	32296252	44369799	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	Rpt
1	Decachlorobiphenyl	19.77	19.05 <sup>+0.01</sup>	28643512	28705652	79.57	71.55	80OK
%Recovery =						80OK	72OK	Limits = 10-133

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units: ug/L				Rpt
						ug/L #1	ug/L #2	ug/L #1	ug/L #2	
1	Toxaphene			0d	0d	0.0000	0.0000	0.079U	0.079U	0.079U
1	Chlordane			0d	0d	0.0000	0.0000	0.019U	0.019U	0.019U

The +/- after Retention Time symbolize the direction of the RT shift

Prep Amount: 1050 mL                      Dilution: 1.0  
 Prep Final Vol: 2 mL                      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution



Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240010.D  
 Acq On : 24-May-2010, 21:30:41  
 Acq Meth : 508.M  
 Sample : KQ4601-MB  
 Misc :  
 Quant Time : May 25 17:41:09 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\032210\_508.M  
 Quant Title : CAL9310 aka032210\_508.m | MJ492  
 QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
 Vial : 12  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	32296252	44369799	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.49	9.40	40091573	55496265	72.703	76.801
25) Decachlorobiphenyl	19.77	19.05	28643512	28705652	79.565	71.545
Target Compounds						
-----						

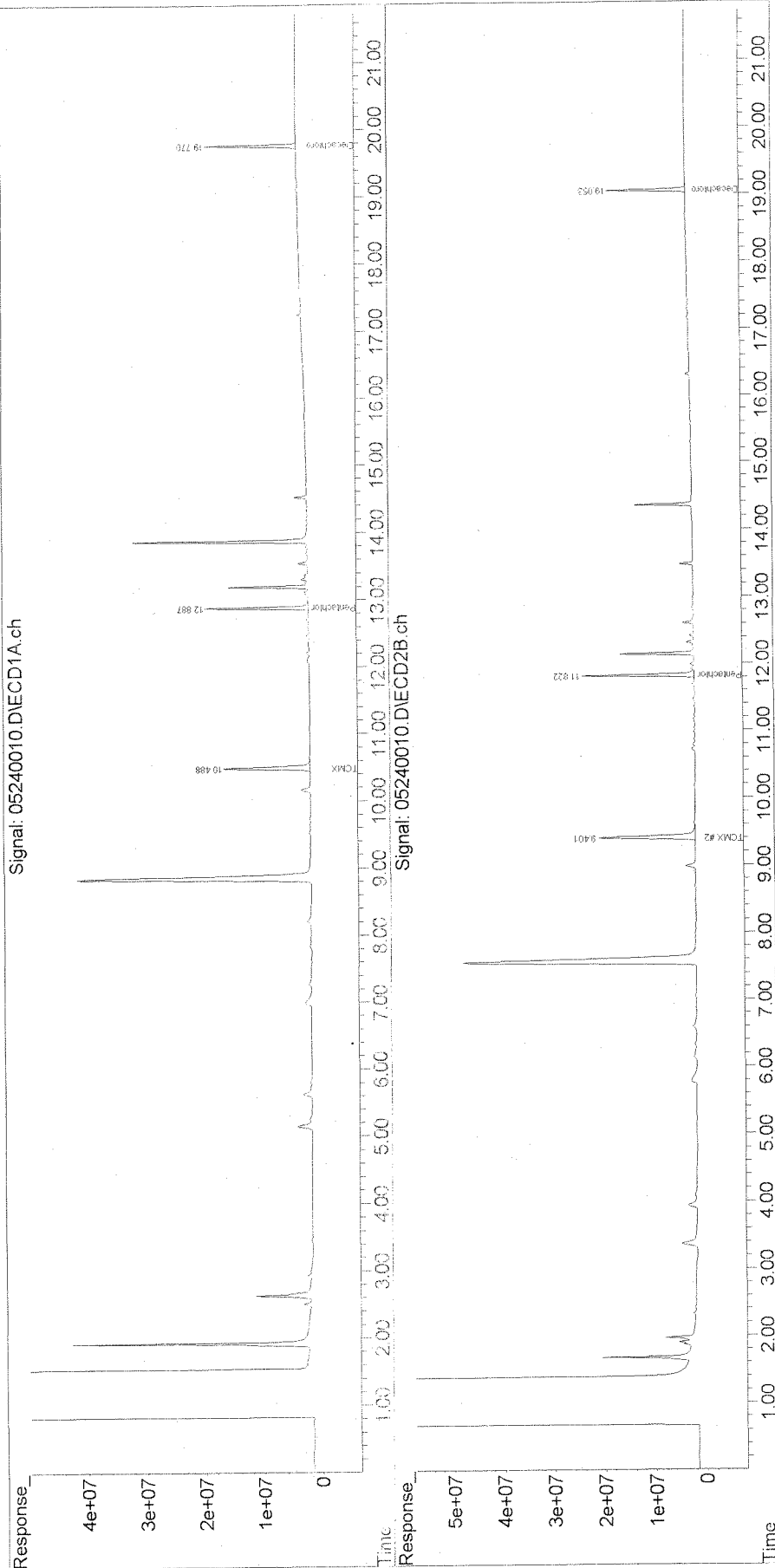
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240010.D  
Acq On : 24-May-2010, 21:30:41  
Acq Meth : 508.M  
Sample : KQ4601-MB  
Misc :  
Quant Time : May 25 17:41:09 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\032210\_508.M  
Quant Title : CAL9310 aka032210\_508.m | MJ492  
QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
Vial : 12  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP  
Signal #1 Info : 320 x 0.50 um  
Signal #2 Phase : RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



Organic Analysis:  
Organochlorine Pesticides and Polychlorinated  
Biphenyls  
Validation Package

Standards Data

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9230  
**Instrument ID:** GC33

**Column:** RTX-CLP

Level ID	File ID	Level ID	File ID
A	J:\GC33\Data\022010-PCB1\02200002.D	H	J:\GC33\Data\022010-PCB1\02200010.D
B	J:\GC33\Data\022010-PCB1\02200003.D	I	J:\GC33\Data\022010-PCB1\02200011.D
C	J:\GC33\Data\022010-PCB1\02200004.D	J	J:\GC33\Data\022010-PCB1\02200012.D
D	J:\GC33\Data\022010-PCB1\02200005.D	K	J:\GC33\Data\022010-PCB1\02200013.D
E	J:\GC33\Data\022010-PCB1\02200006.D	L	J:\GC33\Data\022010-PCB1\02200014.D
F	J:\GC33\Data\022010-PCB1\02200007.D		
G	J:\GC33\Data\022010-PCB1\02200009.D		

Analyte Name	Level			Level			Level			Level					
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF			
Aroclor 1016	A	25	0.0976	B	50	0.0900	C	250	0.0760	D	500	0.0764	E	1000	0.0723
	F	2000	0.0711												
Aroclor 1221				G	50	0.0551	H	100	0.0527	I	250	0.0516	J	500	0.0466
				K	750	0.0455	L	1000	0.0440						
Aroclor 1254				G	50	0.170	H	100	0.157	I	250	0.154	J	500	0.145
				K	750	0.144	L	1000	0.142						
Aroclor 1260	A	25	0.138	B	50	0.136	C	250	0.130	D	500	0.142	E	1000	0.132
	F	2000	0.132												

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9230  
**Instrument ID:** GC33

**Column:** RTX-CLP

Analyte Name	Compound Type	Calibration Evaluation				RRF Evaluation			
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Aroclor 1016	MS	Linear	R2	1.000		≥ 0.990	0.0806		
Aroclor 1221	TRG	AverageRF	% RSD	9.1		≤ 10	0.0493		
Aroclor 1254	TRG	AverageRF	% RSD	7.0		≤ 10	0.152		
Aroclor 1260	MS	AverageRF	% RSD	3.5		≤ 10	0.135		

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010  
**Date Analyzed:** 02/20/2010

**Second Source Calibration Verification  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration ID:** CAL9230  
**Units:** ug/L

**File ID:** J:\GC33\Data\022010-PCB1\02200008.D  
 J:\GC33\Data\022010-PCB1\02200015.D

**Column ID:** RTX-CLP

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	220	0.0806	0.0682	NA	-11	± 30 %	Linear
Aroclor 1221	250	270	0.0493	0.0522	6	NA	± 30 %	AverageRF
Aroclor 1254	250	240	0.152	0.144	-5	NA	± 30 %	AverageRF
Aroclor 1260	250	280	0.135	0.150	11	NA	± 30 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9230  
**Instrument ID:** GC33

**Column:** RTX-CLP2

Level ID	File ID	Level ID	File ID
A	J:\GC33\Data\022010-PCB1\02200002.D\02200002c.d	H	J:\GC33\Data\022010-PCB1\02200010.D\02200010c.d
B	J:\GC33\Data\022010-PCB1\02200003.D\02200003c.d	I	J:\GC33\Data\022010-PCB1\02200011.D\02200011c.d
C	J:\GC33\Data\022010-PCB1\02200004.D\02200004c.d	J	J:\GC33\Data\022010-PCB1\02200012.D\02200012c.d
D	J:\GC33\Data\022010-PCB1\02200005.D\02200005c.d	K	J:\GC33\Data\022010-PCB1\02200013.D\02200013c.d
E	J:\GC33\Data\022010-PCB1\02200006.D\02200006c.d	L	J:\GC33\Data\022010-PCB1\02200014.D\02200014c.d
F	J:\GC33\Data\022010-PCB1\02200007.D\02200007c.d		
G	J:\GC33\Data\022010-PCB1\02200009.D\02200009c.d		

Analyte Name	Level ID			Level ID			Level ID			Level ID					
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF			
Aroclor 1016	A	25	0.0862	B	50	0.0831	C	250	0.0728	D	500	0.0736	E	1000	0.0702
	F	2000	0.0682												
Aroclor 1221				G	50	0.0494	H	100	0.0477	I	250	0.0466	J	500	0.0429
	K	750	0.0397	L	1000	0.0398									
Aroclor 1254				G	50	0.140	H	100	0.132	I	250	0.129	J	500	0.120
	K	750	0.121	L	1000	0.118									
Aroclor 1260	A	25	0.130	B	50	0.124	C	250	0.113	D	500	0.119	E	1000	0.110
	F	2000	0.106												

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9230  
**Instrument ID:** GC33

**Column:** RTX-CLP2

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Aroclor 1016	MS	AverageRF	% RSD	9.6		≤ 10	0.0757		
Aroclor 1221	TRG	AverageRF	% RSD	9.3		≤ 10	0.0444		
Aroclor 1254	TRG	AverageRF	% RSD	6.9		≤ 10	0.127		
Aroclor 1260	MS	AverageRF	% RSD	7.6		≤ 10	0.117		

Results flagged with an asterisk (\*) indicate values outside control criteria.



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 02/20/2010  
**Date Analyzed:** 02/20/2010

**Second Source Calibration Verification  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration ID:** CAL9230  
**Units:** ug/L

**File ID:** J:\GC33\Data\022010-PCB1\02200008.D\02200008c.d  
 J:\GC33\Data\022010-PCB1\02200015.D\02200015c.d

**Column ID:** RTX-CLP2

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	210	0.0757	0.0650	-14	NA	± 30 %	AverageRF
Aroclor 1221	250	260	0.0444	0.0465	5	NA	± 30 %	AverageRF
Aroclor 1254	250	240	0.127	0.120	-5	NA	± 30 %	AverageRF
Aroclor 1260	250	270	0.117	0.128	10	NA	± 30 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

# Initial Calibration - Summary Report

<b>Calibration ID:</b> CAL9230	<b>Instrument ID:</b> GC33
<b>Method ID:</b> MJ492	<b>Column Name:</b> RTX-CLP

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Aroclor 1016	MS	Linear		0.081			0.990	0.9998	OK	-2.65*
Aroclor 1260	TRG	AverageRF		0.135	30	3.5			OK	
Aroclor 1221	TRG	AverageRF		0.049	30	9.1			OK	
Aroclor 1254	TRG	AverageRF		0.152	30	7.0			OK	

*W*  
*2/22/10*

*MJ022310*

*508 + 608*

# Initial Calibration - Summary Report

Calibration ID: CAL9230  
Method ID: MJ492

Instrument ID: GC33  
Column Name: RTX-CLP2

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
Aroclor 1016	MS	AverageRF		0.076	30	9.6			OK	
Aroclor 1260	TRG	AverageRF		0.117	30	7.6			OK	
Aroclor 1221	TRG	AverageRF		0.044	30	9.3			OK	
Aroclor 1254	TRG	AverageRF		0.127	30	6.9			OK	

Response Factor Report GCI

Method Path : J:\GC33\Methods\  
 Method File : 022010\_PCB1.M  
 Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 Last Update : Mon Feb 22 12:26:44 2010  
 Response Via : Initial Calibration

Calibration Files

1 =02200002.D 2 =02200003.D 3 =02200004.D  
 4 =02200005.D 5 =02200006.D 6 =02200007.D

Compound	1	2	3	4	5	6	Avg	%RSD
1) I Pentachloronitroben...	-----ISTD-----							
2) L3 Aroclor 1016	0.022	0.020	0.017	0.016	0.015	0.014	0.017	18.22
3) L3 Aroclor 1016 {2}	0.028	0.026	0.022	0.023	0.022	0.021	0.024	11.27
4) L3 Aroclor 1016 {3}	0.019	0.018	0.015	0.016	0.015	0.015	0.016	10.53
5) L3 Aroclor 1016 {4}	0.028	0.026	0.022	0.022	0.021	0.020	0.023	13.83
6) L3 Aroclor 1016 ...	0.098	0.090	0.076	0.076	0.072	0.071	0.081	<u>13.31</u>
7) L4 Aroclor 1260	0.028	0.027	0.029	0.030	0.028	0.028	0.028	4.04
8) L4 Aroclor 1260 {2}	0.030	0.029	0.028	0.031	0.028	0.028	0.029	3.72
9) L4 Aroclor 1260 {3}	0.066	0.065	0.059	0.065	0.061	0.062	0.063	4.67
10) L4 Aroclor 1260 {4}	0.014	0.015	0.014	0.016	0.014	0.014	0.014	5.05
11) L4 Aroclor 1260 ...	0.138	0.136	0.130	0.142	0.132	0.132	0.135	<u>3.50</u>
12) L5 Aroclor 1221							0.009	11.24
13) L5 Aroclor 1221 {2}							0.010	8.69
14) L5 Aroclor 1221 {3}							0.007	5.37
15) L5 Aroclor 1221 {4}							0.023	10.59
16) L5 Aroclor 1221 ...							0.049	<u>9.11</u>
17) L6 Aroclor 1254							0.029	7.11
18) L6 Aroclor 1254 {2}							0.049	7.91
19) L6 Aroclor 1254 {3}							0.044	5.43
20) L6 Aroclor 1254 {4}							0.030	7.84
21) L6 Aroclor 1254 ...							0.152	<u>6.98</u>

Signal #2 Calibration Files

1 =02200002.D 2 =02200003.D 3 =02200004.D  
 4 =02200005.D 5 =02200006.D 6 =02200007.D

Compound	1	2	3	4	5	6	Avg	%RSD
1) I Pentachloronitroben...	-----ISTD-----							
2) L3 Aroclor 1016	0.018	0.017	0.015	0.014	0.014	0.013	0.015	12.61
3) L3 Aroclor 1016 {2}	0.028	0.027	0.024	0.024	0.023	0.023	0.025	8.43
4) L3 Aroclor 1016 {3}	0.017	0.016	0.014	0.015	0.014	0.014	0.015	9.62
5) L3 Aroclor 1016 {4}	0.023	0.023	0.019	0.020	0.019	0.018	0.020	9.54
6) L3 Aroclor 1016 ...	0.086	0.083	0.073	0.074	0.070	0.068	0.076	<u>9.63</u>
7) L4 Aroclor 1260	0.028	0.027	0.024	0.025	0.023	0.022	0.025	9.41
8) L4 Aroclor 1260 {2}	0.029	0.028	0.025	0.026	0.024	0.023	0.026	8.42
9) L4 Aroclor 1260 {3}	0.060	0.057	0.052	0.056	0.052	0.051	0.054	6.99
10) L4 Aroclor 1260 {4}	0.012	0.012	0.012	0.012	0.011	0.011	0.012	6.06
11) L4 Aroclor 1260 ...	0.130	0.124	0.113	0.119	0.110	0.106	0.117	<u>7.62</u>
12) L5 Aroclor 1221							0.008	11.47
13) L5 Aroclor 1221 {2}							0.009	9.37
14) L5 Aroclor 1221 {3}							0.006	9.70
15) L5 Aroclor 1221 {4}							0.022	8.77
16) L5 Aroclor 1221 ...							0.044	<u>9.32</u>

Response Factor Report GCI

Method Path : J:\GC33\Methods\  
 Method File : 022010\_PCB1.M  
 Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 Last Update : Mon Feb 22 12:26:44 2010  
 Response Via : Initial Calibration

Calibration Files

1	=02200002.D	2	=02200003.D	3	=02200004.D
4	=02200005.D	5	=02200006.D	6	=02200007.D

Compound	1	2	3	4	5	6	Avg	%RSD
17) L6 Aroclor 1254							0.031	8.92
18) L6 Aroclor 1254 {2}							0.032	9.26
19) L6 Aroclor 1254 {3}							0.039	4.64
20) L6 Aroclor 1254 {4}							0.025	5.38
21) L6 Aroclor 1254 ...							0.127	6.85

(#) = Out of Range ### Number of calibration levels exceeded format ###

# Second Source Calibration Verification Summary

CalibrationID: CAL9230  
Method ID: MJ492  
DataFile Location: J:\GC33\DATA\022010-PCB1\02200008.D

Units: ug/L  
Column: RTX-CLP

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1016	179679	Linear	30				250.00	221.5	-11.4
Aroclor 1260	179679	AverageRF	30	0.135	0.150	10.9	250.00	277.2	
Aroclor 1221	179693	AverageRF	30	0.049	0.052	6.0	250.00	265.0	
Aroclor 1254	179693	AverageRF	30	0.152	0.144	-5.3	250.00	236.8	

# Second Source Calibration Verification Summary

CalibrationID: CAL9230  
Method ID: MJ492  
DataFile Location: J:\GC33\DATA\022010-PCB1\02200008.D\02200008C.D

Units: ug/L  
Column: RTX-CLP2

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
Aroclor 1016	179680	AverageRF	30	0.076	0.065	-14.1	250.00	214.7	
Aroclor 1260	179680	AverageRF	30	0.117	0.128	9.6	250.00	274.1	
Aroclor 1221	179694	AverageRF	30	0.044	0.047	4.9	250.00	262.2	
Aroclor 1254	179694	AverageRF	30	0.127	0.120	-5.4	250.00	236.6	

DATA ANALYSIS PARAMETERS

Method Name: J:\GC33\Methods\022010\_PCB1.M

Percent Report Settings

Sort By: Signal

Output Destination

Screen: No  
Printer: Yes  
File: No

Integration Events: Meth Default

Generate Report During Run Method: No

Signal Correlation Window: 0.020

Quantitative Report Settings

Report Type: Summary

Output Destination

Screen: No  
Printer: Yes  
File: No

Generate Report During Run Method: No

CAL aka 022010\_PCB1 1016,1260,1221,1254  
Calibration Last Updated: Mon Feb 22 12:26:44 2010

Reference Window: 2.00 Minutes  
Non-Reference Window: 1.00 Minutes  
Correlation Window: 0.10 minutes  
Default Multiplier: 1.00  
Default Sample Concentration: 0.00

Compound Information

-----  
1) Pentachloronitrobenzene (ISTD)  
Ret. Time 12.975 min., Extract & Integrate from 12.925 to 13.025 min.

Lvl ID Conc (ug/L) Response



1	50.000	45632398
2	50.000	41667271
3	50.000	44417030
4	50.000	57508182
5	50.000	40412668
6	50.000	44152414
7	50.000	41561239
8	50.000	42399932
9	50.000	43113384
10	50.000	43814788
11	50.000	44967463
12	50.000	45370509

ISTD conc: 50.000 ug/L

Curve Fit: Avg. RF

---

2) Aroclor 1016 ( )

Ret. Time 11.627 min., Extract & Integrate from 11.577 to 11.677 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	510725
2	50.000	832215
3	250.000	3674730
4	500.000	9155964
5	1000.000	12137348
6	2000.000	25165948
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Linear

---

3) Aroclor 1016 {2} ( )

Ret. Time 13.656 min., Extract & Integrate from 13.606 to 13.706 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	632160
2	50.000	1087321
3	250.000	4942103
4	500.000	12951513
5	1000.000	17433134
6	2000.000	37675868
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Linear

---

4) Aroclor 1016 {3} ( )

Ret. Time 13.770 min., Extract & Integrate from 13.720 to 13.820 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	25.000	439048
2	50.000	745826
3	250.000	3411016
4	500.000	9110207
5	1000.000	12116980
6	2000.000	26980706
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Linear

---

5) Aroclor 1016 {4} ( )  
 Ret. Time 14.361 min., Extract & Integrate from 14.311 to 14.411 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	644919
2	50.000	1085544
3	250.000	4845890
4	500.000	12733329
5	1000.000	16748472
6	2000.000	35812295
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Linear

---

6) Aroclor 1016 - TOTAL ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	2226852
2	50.000	3750906
3	250.000	16873739
4	500.000	43951013
5	1000.000	58435934
6	2000.000	125634817
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Linear

---

7) Aroclor 1260 ( )  
 Ret. Time 17.069 min., Extract & Integrate from 17.019 to 17.119 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	25.000	644960
2	50.000	1131933
3	250.000	6381703
4	500.000	17523621
5	1000.000	22657406
6	2000.000	48889668
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

8) Aroclor 1260 {2} ( )  
 Ret. Time 17.427 min., Extract & Integrate from 17.377 to 17.477 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	691328
2	50.000	1221825
3	250.000	6319938
4	500.000	17677395
5	1000.000	22935219
6	2000.000	49719905
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

9) Aroclor 1260 {3} ( )  
 Ret. Time 17.851 min., Extract & Integrate from 17.801 to 17.901 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	1506150
2	50.000	2703544
3	250.000	12997560
4	500.000	37509244
5	1000.000	49211502
6	2000.000	109445800
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

10) Aroclor 1260 {4} ( )  
 Ret. Time 19.139 min., Extract & Integrate from 19.089 to 19.189 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	25.000	310583
2	50.000	605520
3	250.000	3119191
4	500.000	9019080
5	1000.000	11539408
6	2000.000	24608581
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

11) Aroclor 1260 - TOTAL ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	3153021
2	50.000	5662822
3	250.000	28818392
4	500.000	81729340
5	1000.000	106343535
6	2000.000	232663954
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

12) Aroclor 1221 ( )  
 Ret. Time 9.033 min., Extract & Integrate from 8.983 to 9.083 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	424874
8	100.000	818274
9	250.000	2090199
10	500.000	3758584
11	750.000	5400882
12	1000.000	7042180

Curve Fit: Avg. RF

---

13) Aroclor 1221 {2} ( )  
 Ret. Time 11.131 min., Extract & Integrate from 11.081 to 11.181 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	460547
8	100.000	904555
9	250.000	2317544
10	500.000	4288139
11	750.000	6172794
12	1000.000	8200375

Curve Fit: Avg. RF

---

14) Aroclor 1221 {3} ( )  
 Ret. Time 11.523 min., Extract & Integrate from 11.473 to 11.573 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	289816
8	100.000	588174
9	250.000	1493627
10	500.000	2762624
11	750.000	4866509
12	1000.000	5782387

Curve Fit: Avg. RF

---

15) Aroclor 1221 {4} ( )  
 Ret. Time 11.629 min., Extract & Integrate from 11.579 to 11.679 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	1114409
8	100.000	2158700
9	250.000	5229146
10	500.000	9607321
11	750.000	14266108
12	1000.000	18856692

Curve Fit: Avg. RF

---

16) Aroclor 1221 - TOTAL ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	2289646
8	100.000	4469703
9	250.000	11130516
10	500.000	20416668
11	750.000	30706293
12	1000.000	39881634

Curve Fit: Avg. RF

---

17) Aroclor 1254 ( )  
 Ret. Time 14.970 min., Extract & Integrate from 14.920 to 15.020 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	1347423
8	100.000	2553461
9	250.000	6499208
10	500.000	12217956
11	750.000	18559000
12	1000.000	24496454

Curve Fit: Avg. RF

---

18) Aroclor 1254 {2} ( )  
 Ret. Time 15.354 min., Extract & Integrate from 15.304 to 15.404 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	2281174
8	100.000	4323538
9	250.000	10660264
10	500.000	20255082
11	750.000	30489827
12	1000.000	41077264

Curve Fit: Avg. RF

---

19) Aroclor 1254 {3} ( )  
 Ret. Time 15.930 min., Extract & Integrate from 15.880 to 15.980 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	2012520
8	100.000	3823402
9	250.000	9546100
10	500.000	18554610
11	750.000	28751820
12	1000.000	38244949

Curve Fit: Avg. RF

---

20) Aroclor 1254 {4} ( )  
 Ret. Time 16.310 min., Extract & Integrate from 16.260 to 16.360 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	1415972
8	100.000	2633677
9	250.000	6464947
10	500.000	12374811
11	750.000	19147728
12	1000.000	25353794

Curve Fit: Avg. RF

---

21) Aroclor 1254 - TOTAL ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	7057089
8	100.000	13334078
9	250.000	33170519
10	500.000	63402459
11	750.000	96948375
12	1000.000	129172461

Curve Fit: Avg. RF

---

22) Signal #2 ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	not used for this compound
2	not used for this compound
3	not used for this compound
4	not used for this compound
5	not used for this compound
6	not used for this compound
7	50.000 -1
8	100.000 -1
9	250.000 -1
10	5000.000 -1
11	750.000 -1
12	1000.000 -1

Curve Fit: Avg. RF

---

23) Pentachloronitrobenzene #2 (ISTD)  
 Ret. Time 11.959 min., Extract & Integrate from 11.909 to 12.009 min.

Lvl ID	Conc (ug/L)	Response
1	50.000	60635045
2	50.000	55137459
3	50.000	59247965
4	50.000	78608074
5	50.000	55056187
6	50.000	61242449
7	50.000	55492915
8	50.000	56410048
9	50.000	58532826
10	50.000	59452407
11	50.000	61868519
12	50.000	63131051

ISTD conc: 50.000 ug/L

Curve Fit: Avg. RF

---

24) Aroclor 1016 #2 ( )  
 Ret. Time 10.869 min., Extract & Integrate from 10.819 to 10.919 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	550428
2	50.000	947599
3	250.000	4539459
4	500.000	11226890
5	1000.000	15464455
6	2000.000	32309529
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

25) Aroclor 1016 {2} #2 ( )  
 Ret. Time 12.978 min., Extract & Integrate from 12.928 to 13.028 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------



1	25.000	860017
2	50.000	1468440
3	250.000	7160448
4	500.000	19235203
5	1000.000	25724122
6	2000.000	56044056
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

26) Aroclor 1016 {3} #2 ( )  
 Ret. Time 13.153 min., Extract & Integrate from 13.103 to 13.203 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	516317
2	50.000	902583
3	250.000	4103229
4	500.000	11456963
5	1000.000	15126659
6	2000.000	34019262
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

27) Aroclor 1016 {4} #2 ( )  
 Ret. Time 13.761 min., Extract & Integrate from 13.711 to 13.811 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	686121
2	50.000	1264115
3	250.000	5761959
4	500.000	15907582
5	1000.000	20929534
6	2000.000	44646077
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

28) Aroclor 1016 - TOTAL #2 ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	25.000	2612883
2	50.000	4582737
3	250.000	21565095
4	500.000	57826638
5	1000.000	77244770
6	2000.000	167018924
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

29) Aroclor 1260 #2 ( )  
 Ret. Time 16.378 min., Extract & Integrate from 16.328 to 16.428 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	853383
2	50.000	1478803
3	250.000	7058449
4	500.000	19608968
5	1000.000	25412906
6	2000.000	53825766
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

30) Aroclor 1260 {2} #2 ( )  
 Ret. Time 16.736 min., Extract & Integrate from 16.686 to 16.786 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	883650
2	50.000	1532075
3	250.000	7543464
4	500.000	20753430
5	1000.000	26931362
6	2000.000	56680221
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

31) Aroclor 1260 {3} #2 ( )  
 Ret. Time 17.042 min., Extract & Integrate from 16.992 to 17.092 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	25.000	1832347
2	50.000	3131983
3	250.000	15308522
4	500.000	43648904
5	1000.000	56936197
6	2000.000	124004984
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

32) Aroclor 1260 {4} #2 ( )  
 Ret. Time 18.310 min., Extract & Integrate from 18.260 to 18.360 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	377369
2	50.000	667818
3	250.000	3474724
4	500.000	9530297
5	1000.000	12159890
6	2000.000	26010179
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

33) Aroclor 1260 - TOTAL #2 ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
1	25.000	3946749
2	50.000	6810679
3	250.000	33385159
4	500.000	93541599
5	1000.000	121440355
6	2000.000	260521150
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

Curve Fit: Avg. RF

---

34) Aroclor 1221 #2 ( )  
 Ret. Time 8.284 min., Extract & Integrate from 8.234 to 8.334 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	488481
8	100.000	979677
9	250.000	2463179
10	500.000	4493760
11	750.000	6489790
12	1000.000	8461648

Curve Fit: Avg. RF

---

35) Aroclor 1221 {2} #2 ( )  
 Ret. Time 10.381 min., Extract & Integrate from 10.331 to 10.431 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	532007
8	100.000	1071832
9	250.000	2771708
10	500.000	5156150
11	750.000	6976691
12	1000.000	10505815

Curve Fit: Avg. RF

---

36) Aroclor 1221 {3} #2 ( )  
 Ret. Time 10.727 min., Extract & Integrate from 10.677 to 10.777 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	380991
8	100.000	751190
9	250.000	1869133
10	500.000	3488739
11	750.000	5198686
12	1000.000	6816636

Curve Fit: Avg. RF

---

37) Aroclor 1221 {4} #2 ( )  
 Ret. Time 10.870 min., Extract & Integrate from 10.820 to 10.920 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	1338143
8	100.000	2577006
9	250.000	6540840
10	500.000	12390589
11	750.000	18223050
12	1000.000	24451952

Curve Fit: Avg. RF

---

38) Aroclor 1221 - TOTAL #2 ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	2739622
8	100.000	5379705
9	250.000	13644860
10	500.000	25529238
11	750.000	36888217
12	1000.000	50236051

Curve Fit: Avg. RF

---

39) Aroclor 1254 #2 ( )  
 Ret. Time 14.393 min., Extract & Integrate from 14.343 to 14.443 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	1914289
8	100.000	3724462
9	250.000	9146096
10	500.000	17360460
11	750.000	26405547
12	1000.000	34758190

Curve Fit: Avg. RF

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40) Aroclor 1254 {2} #2 ( )  
 Ret. Time 14.672 min., Extract & Integrate from 14.622 to 14.722 min.

Lvl ID Conc (ug/L) Response

1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	2034559
8	100.000	3802068
9	250.000	9336242
10	500.000	17933011
11	750.000	27543953
12	1000.000	36378342

Curve Fit: Avg. RF

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41) Aroclor 1254 {3} #2 ( )  
 Ret. Time 15.293 min., Extract & Integrate from 15.243 to 15.343 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	2316133
8	100.000	4517861
9	250.000	11660039
10	500.000	21922449
11	750.000	35584954
12	1000.000	47366877

Curve Fit: Avg. RF

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42) Aroclor 1254 {4} #2 ( )  
 Ret. Time 15.592 min., Extract & Integrate from 15.542 to 15.642 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	1520934
8	100.000	2895228
9	250.000	7562926
10	500.000	14294821
11	750.000	22758429
12	1000.000	30074978

Curve Fit: Avg. RF

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43) Aroclor 1254 - TOTAL #2 ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
--------	-------------	----------

1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	50.000	7785915
8	100.000	14939619
9	250.000	37705303
10	500.000	71510741
11	750.000	112292883
12	1000.000	148578387

Curve Fit: Avg. RF

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END OF DATA ANALYSIS PARAMETERS

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Mon Feb 22 12:42:35 2010

Data File : J:\GC33\Data\022010-PCB1\02200008.D  
 Acq On : 20-Feb-2010, 14:03:56  
 Acq Meth : 508.M  
 Sample : 4-39U ICV 250  
 Misc :  
 Quant Time : Feb 22 12:27:54 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 12:21:17 2010

Operator : PM/LP  
 Vial : 7  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	43524548	58223092	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.63	10.87	3437574	4111549	242.549	229.822
3) Aroclor 1016 {2}	13.66	12.98	4155837	6194235	210.156	212.946
4) Aroclor 1016 {3}	13.78	13.15	3031298	3524060	222.522	202.996
5) Aroclor 1016 {4}	14.37	13.76	4225452	5086348	217.949	213.982
6) Aroclor 1016 - TOTAL	0.00	0.00	14850161	18916192	221.509T	214.692T
7) Aroclor 1260	17.08	16.38	6988128	8183416	282.743	283.388
8) Aroclor 1260 {2}	17.44	16.73	7077998	8419750	278.225	277.399
9) Aroclor 1260 {3}	17.86	17.04	14738018	16760864	269.095	264.287
10) Aroclor 1260 {4}	19.14	18.31	3747371	3982945	300.050	292.872
11) Aroclor 1260 - TOTAL	0.00	0.00	32551515	37346975	277.239T	274.110T
-----						

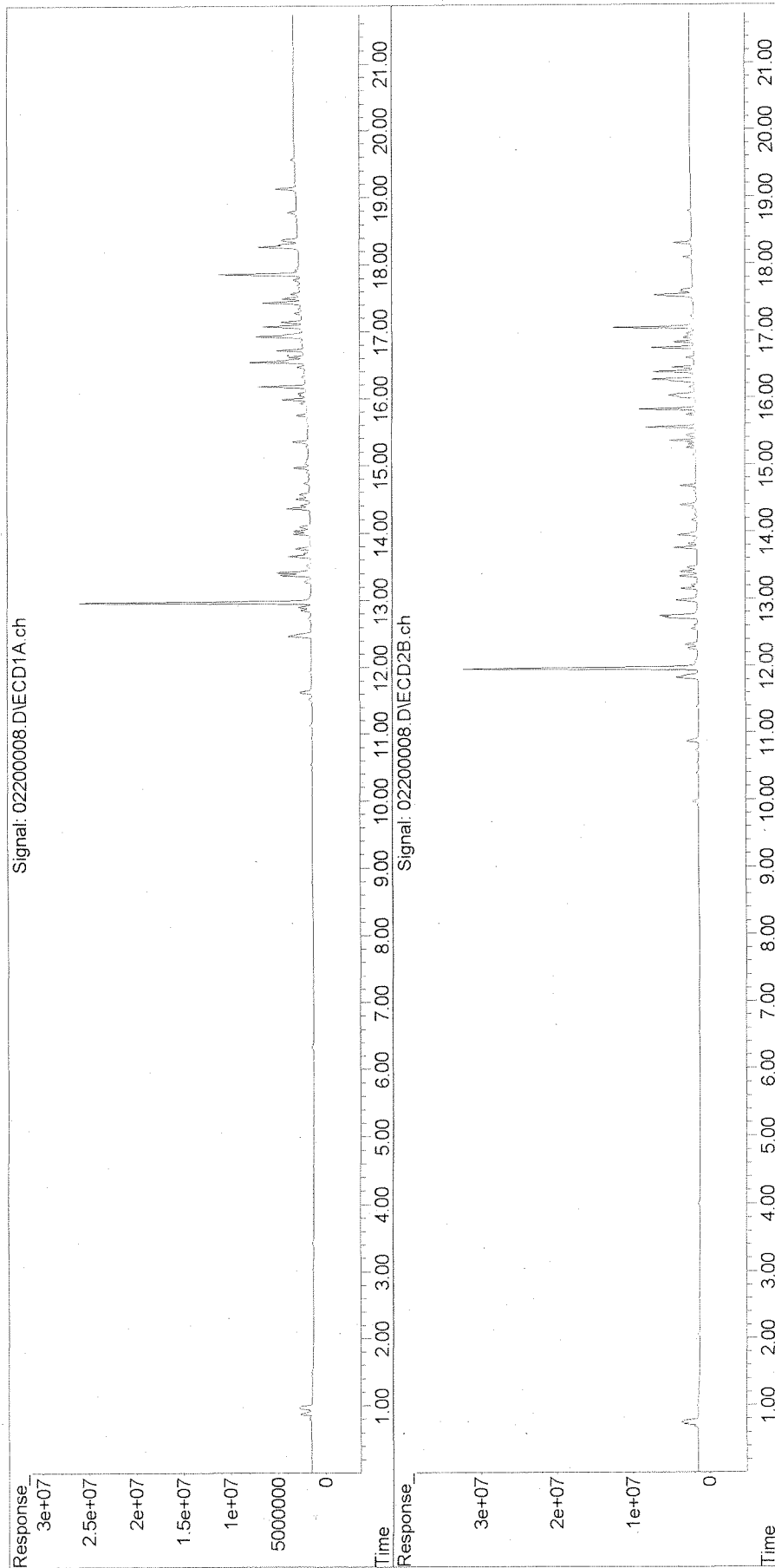
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\022000008.D  
Acq On : 20-Feb-2010, 14:03:56 Operator : PM/JP  
Acq Meth : 508.M Vial : 7  
Sample : 4-39U ICV 250 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:27:54 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 12:21:17 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200015.D  
 Acq On : 20-Feb-2010, 17:08:24  
 Acq Meth : 508.M  
 Sample : 4-480 ICV 250  
 Misc :  
 Quant Time : Feb 22 12:28:35 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 12:21:17 2010

Operator : PM/LP  
 Vial : 14  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

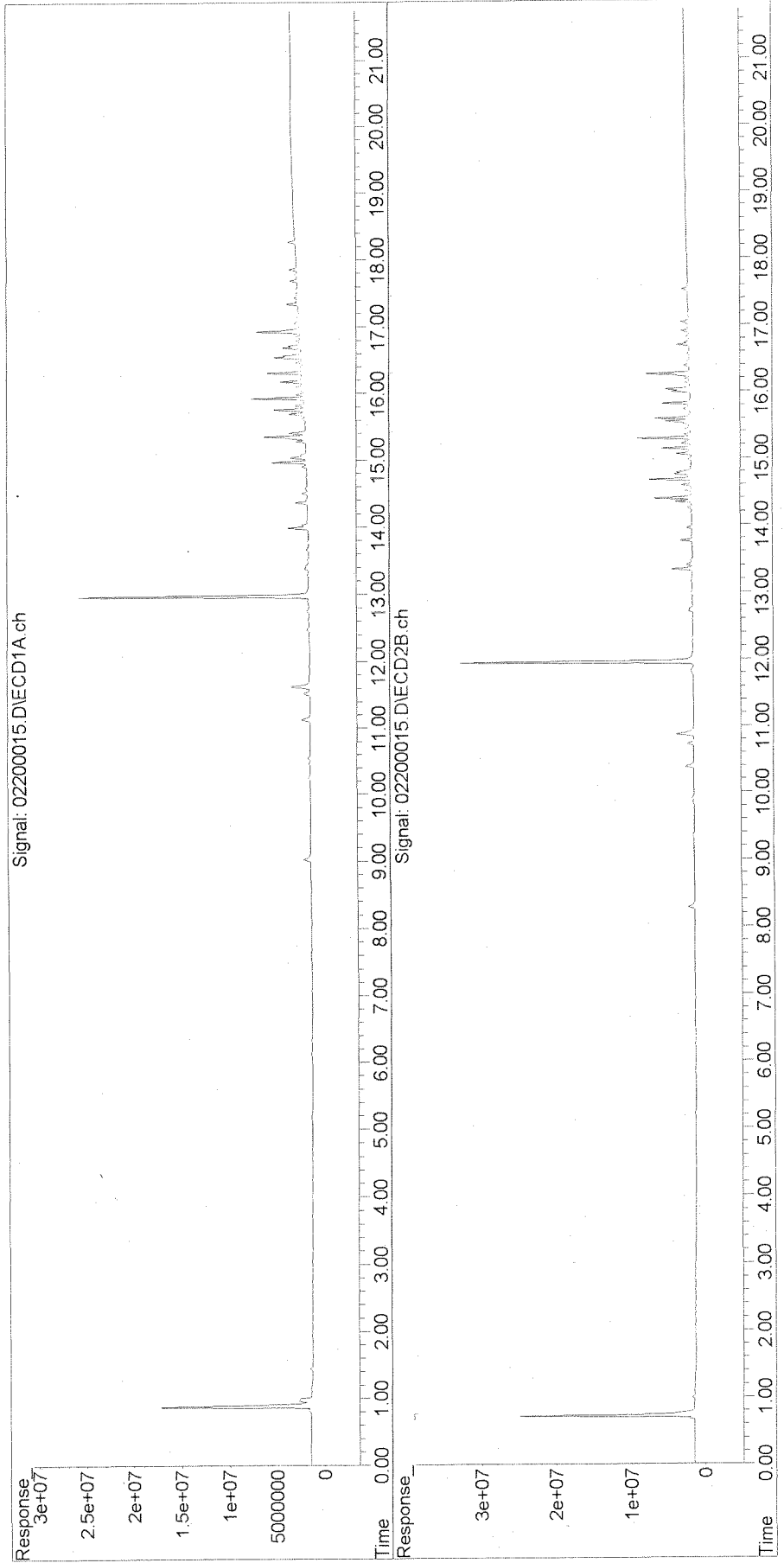
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	42843185	58517291	50.000	50.000
Target Compounds						
12) Aroclor 1221	9.03	8.28	2134570	2483767	277.231	270.030
13) Aroclor 1221 {2}	11.13	10.38	2374830	2799842	274.979	270.476
14) Aroclor 1221 {3}	11.52	10.73	1496733	1864406	257.314	259.881
15) Aroclor 1221 {4}	11.63	10.87	5177626	6461956	258.254	256.515
16) Aroclor 1221 - TOTAL	0.00	0.00	11183759	13609971	265.009T	262.158T
17) Aroclor 1254	14.97	14.39	6046692	8258170	241.840	230.165
18) Aroclor 1254 {2}	15.36	14.67	9856397	8840025	236.340	237.377
19) Aroclor 1254 {3}	15.93	15.29	8821962	10789887	233.183	236.035
20) Aroclor 1254 {4}	16.31	15.59	6108042	7205325	238.023	244.149
21) Aroclor 1254 - TOTAL	0.00	0.00	30833093	35093407	236.811T	236.566T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200015.D  
Acq On : 20-Feb-2010, 17:08:24 Operator : PM/LP  
Acq Meth : 508.M Vial : 14  
Sample : 4-480 ICV 250 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:28:35 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 12:21:17 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200002.D  
 Acq On : 20-Feb-2010, 11:25:32  
 Acq Meth : 508.M  
 Sample : 4-39P 1660 25  
 Misc :  
 Quant Time : Feb 22 12:08:26 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Thu Dec 17 21:16:16 2009

Operator : PM/LP  
 Vial : 1  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

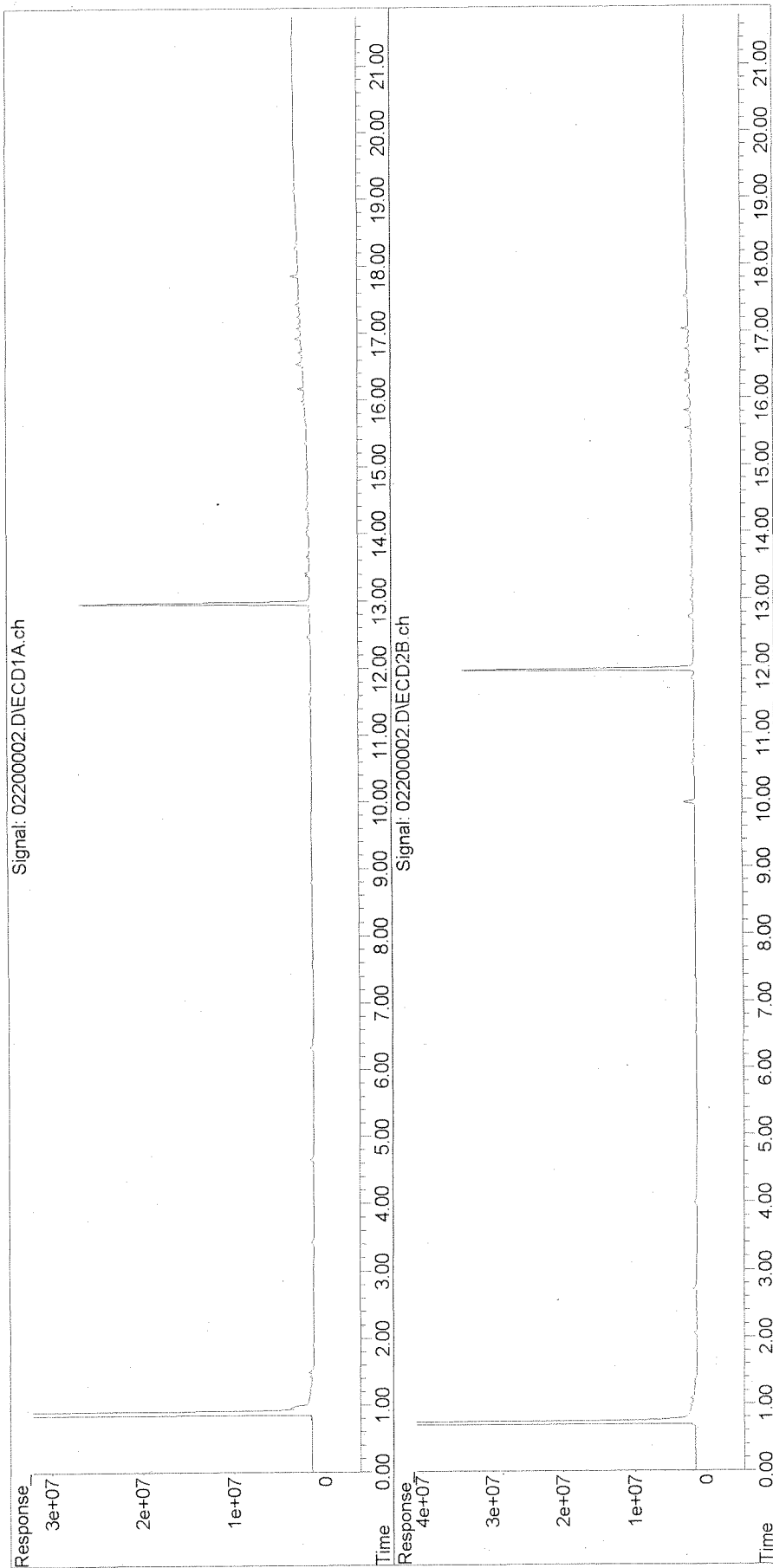
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.97	11.96	45632398	60635045	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.63	10.87	510725	550428	39.841	26.494 #
3) Aroclor 1016 {2}	13.66	12.98	632160	860017	33.886	22.168 #
4) Aroclor 1016 {3}	13.77	13.15	439048	516317	31.942	26.591
5) Aroclor 1016 {4}	14.36	13.76	644919	686121	34.503	20.149 #
6) Aroclor 1016 - TOTAL	0.00	0.00	2226852	2612883	34.843T	23.320T#
7) Aroclor 1260	17.07	16.37	644960	853383	23.054	20.214
8) Aroclor 1260 {2}	17.43	16.73	691328	883650	23.450	19.583
9) Aroclor 1260 {3}	17.86	17.04	1506150	1832347	23.761	19.301
10) Aroclor 1260 {4}	19.13	18.30	310583	377369	21.407	15.491 #
11) Aroclor 1260 - TOTAL	0.00	0.00	3153021	3946749	23.295T	19.137T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200002.D  
Acq On : 20-Feb-2010, 11:25:32 Operator : PM/LP  
Acq Meth : 508.M Vial : 1  
Sample : 4-39P 1660 25 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:08:26 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Thu Dec 17 21:16:16 2009

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200003.D  
 Acq On : 20-Feb-2010, 11:51:50  
 Acq Meth : 508.M  
 Sample : 4-39Q 1660 50  
 Misc :  
 Quant Time : Feb 22 12:08:54 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 08:19:42 2010

Operator : PM/LP  
 Vial : 2  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

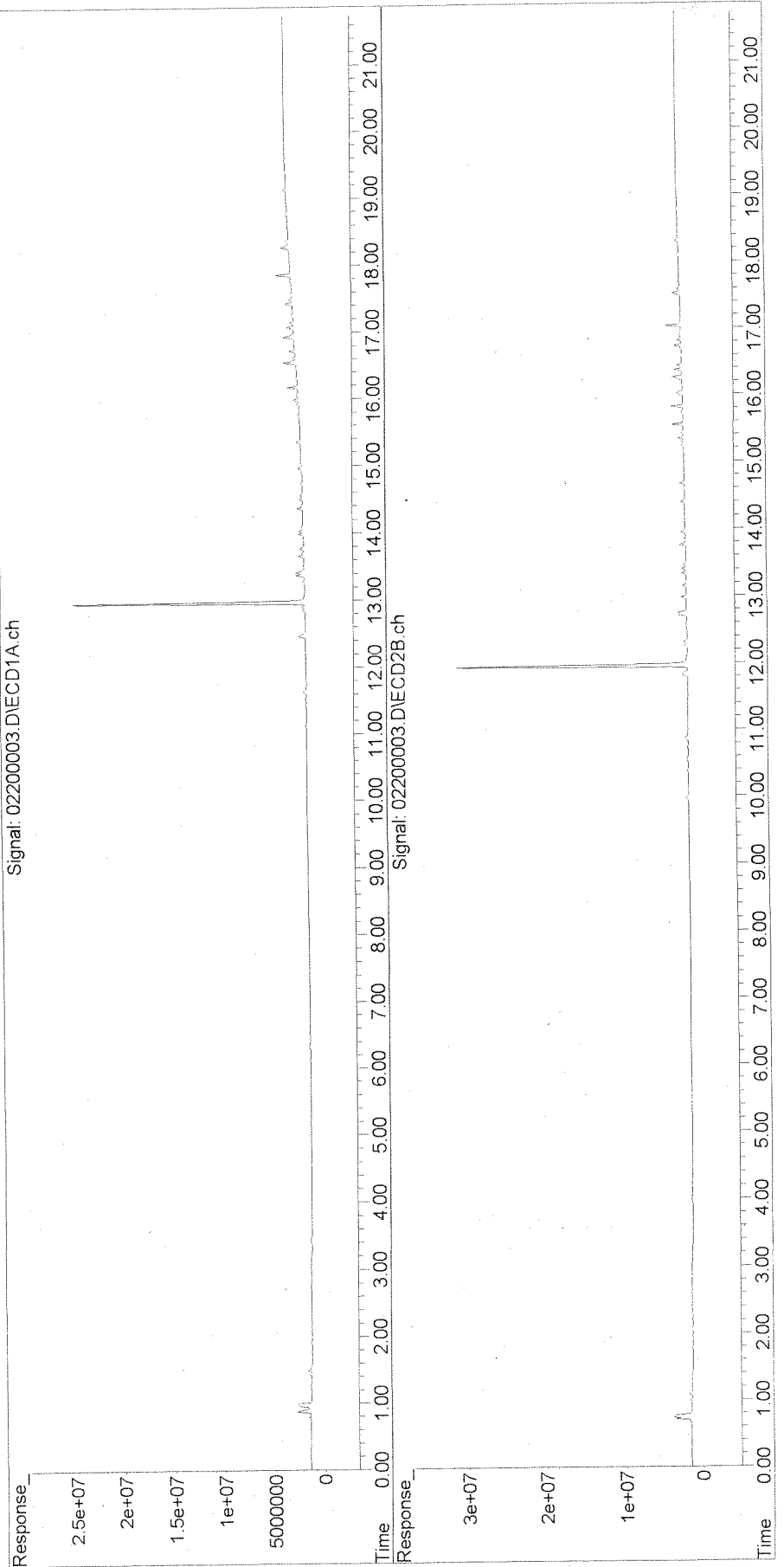
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.97	11.96	41667271	55137459	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.63	10.87	832215	947599	71.097	55.982
3) Aroclor 1016 {2}	13.66	12.98	1087321	1468440	63.831	49.034
4) Aroclor 1016 {3}	13.77	13.15	745826	902583	59.424	56.051
5) Aroclor 1016 {4}	14.36	13.76	1085544	1264115	63.603	50.551
6) Aroclor 1016 - TOTAL	0.00	0.00	3750906	4582737	64.274T	52.178T
7) Aroclor 1260	17.07	16.37	1131933	1478803	44.312	44.851
8) Aroclor 1260 {2}	17.43	16.73	1221825	1532075	45.388	43.442
9) Aroclor 1260 {3}	17.86	17.04	2703544	3131983	46.709	42.231
10) Aroclor 1260 {4}	19.13	18.30	605520	667818	45.707	37.085
11) Aroclor 1260 - TOTAL	0.00	0.00	5662822	6810679	45.818T	42.480T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200003.D  
Acq On : 20-Feb-2010, 11:51:50 Operator : PM/LP  
Acq Meth : 508.M Vial : 2  
Sample : 4-39Q 1660 50 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:08:54 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010 PCB1.M  
Quant Title : CAL aka 022010 PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200004.D

Acq On : 20-Feb-2010, 12:18:11

Operator : PM/LP

Acq Meth : 508.M

Sample : 4-39R 1660 250

Vial : 3

Misc :

Multiplier : 1.00

Quant Time : Feb 22 12:09:24 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254

QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #2 Phase: RTX-CLP2

Signal #1 Info : 320 x 0.50 um

Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	44417030	59247965	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.63	10.87	3674730	4539459	294.501	272.119
3) Aroclor 1016 {2}	13.66	12.98	4942103	7160448	272.162	252.382
4) Aroclor 1016 {3}	13.77	13.15	3411016	4103229	254.949	254.406
5) Aroclor 1016 {4}	14.36	13.76	4845890	5761959	266.346	245.159
6) Aroclor 1016 - TOTAL	0.00	0.00	16873739	21565095	271.240T	254.695T
7) Aroclor 1260	17.07	16.37	6381703	7058449	234.359	223.286
8) Aroclor 1260 {2}	17.43	16.73	6319938	7543464	220.239	223.166
9) Aroclor 1260 {3}	17.86	17.04	12997560	15308522	210.656	216.098
10) Aroclor 1260 {4}	19.13	18.30	3119191	3474724	220.871	207.746
11) Aroclor 1260 - TOTAL	0.00	0.00	28818392	33385159	218.737T	218.237T
-----						

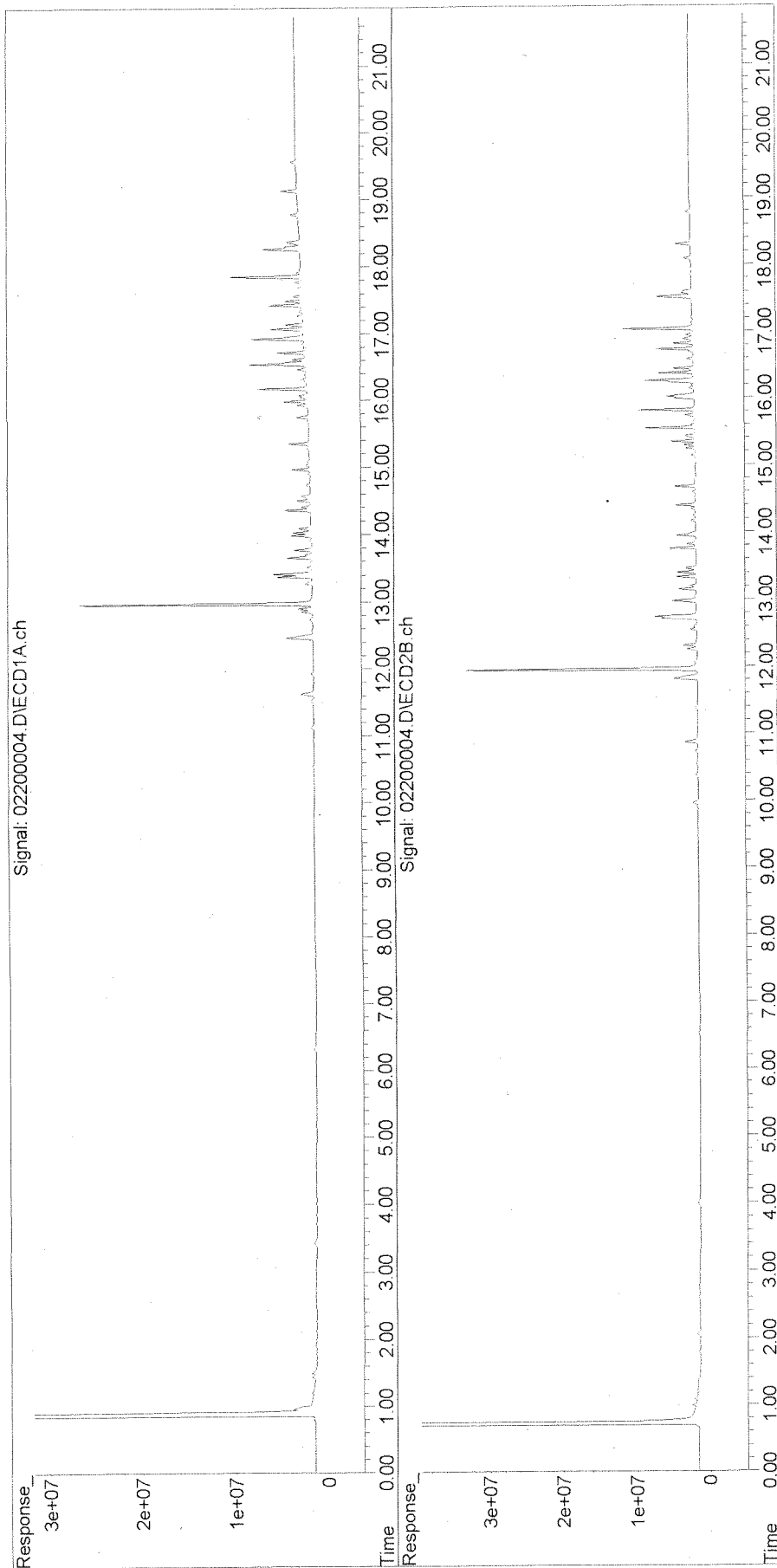
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200004.D  
Acq On : 20-Feb-2010, 12:18:11 Operator : PM/LP  
Acq Meth : 508.M Vial : 3  
Sample : 4-39R 1660 250 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:09:24 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200005.D

Acq On : 20-Feb-2010, 12:44:49

Operator : PM/LP

Acq Meth : 508.M

Sample : 4-39S 1660 500

Vial : 4

Misc :

Multiplier : 1.00

Quant Time : Feb 22 12:09:50 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254

QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #2 Phase: RTX-CLP2

Signal #1 Info : 320 x 0.50 um

Signal #2 Info : 320 x 0.25 um

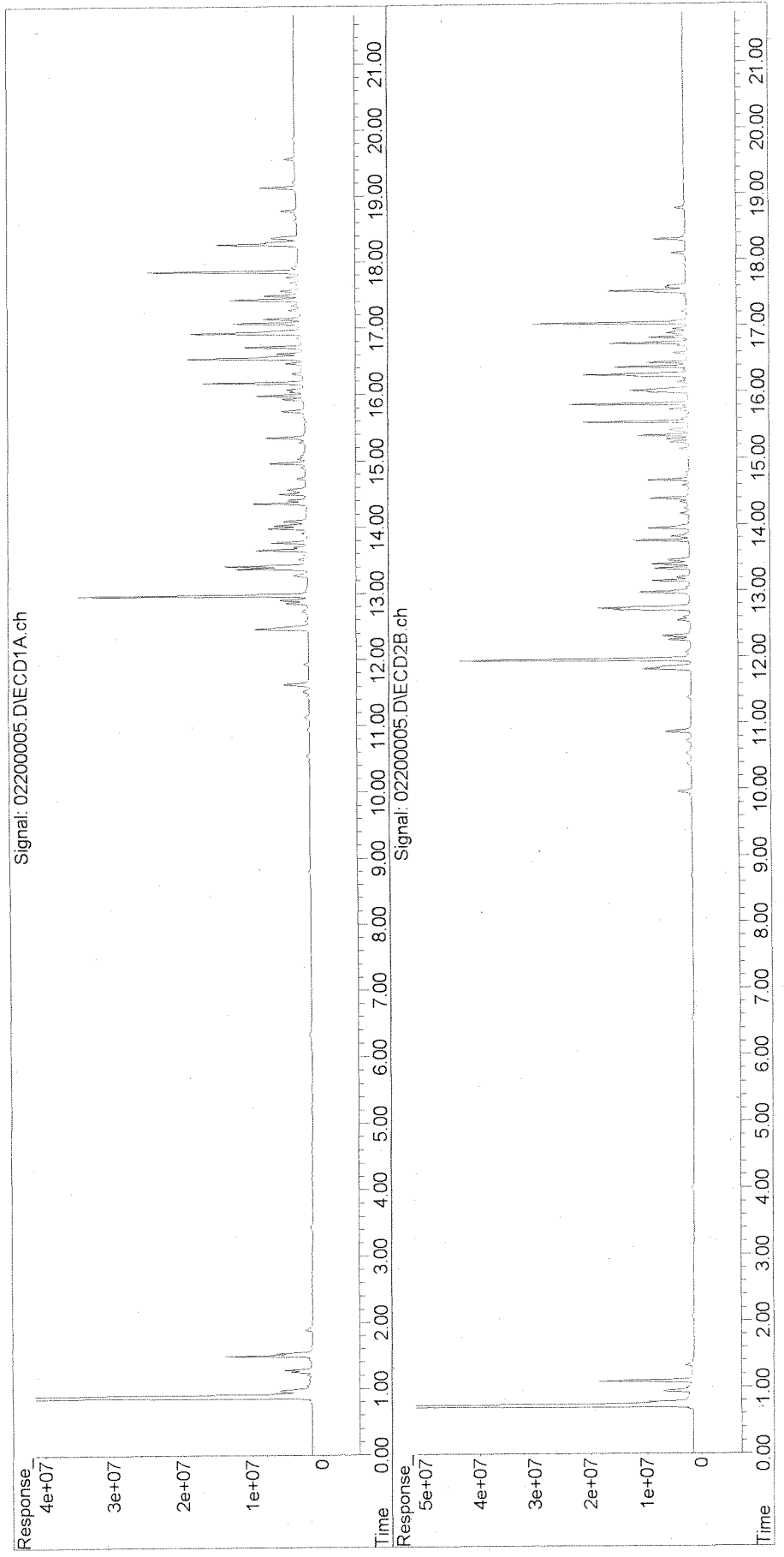
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	57508182	78608074	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.63	10.87	9155964	11226890	566.743	512.882
3) Aroclor 1016 {2}	13.66	12.98	12951513	19235203	550.879	519.653
4) Aroclor 1016 {3}	13.77	13.15	9110207	11456963	525.918	541.303
5) Aroclor 1016 {4}	14.37	13.76	12733329	15907582	540.549	520.383
6) Aroclor 1016 - TOTAL	0.00	0.00	43951013	57826638	545.671T	522.674T
7) Aroclor 1260	17.08	16.37	17523621	19608968	497.038	475.180
8) Aroclor 1260 {2}	17.43	16.73	17677395	20753430	475.795	469.984
9) Aroclor 1260 {3}	17.86	17.04	37509244	43648904	469.538	472.177
10) Aroclor 1260 {4}	19.13	18.31	9019080	9530297	493.262	437.289
11) Aroclor 1260 - TOTAL	0.00	0.00	81729340	93541599	479.127T	468.512T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200005.D  
Acq On : 20-Feb-2010, 12:44:49 Operator : PM/LP  
Acq Meth : 508.M Vial : 4  
Sample : 4-39S 1660 500 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:09:50 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200006.D  
 Acq On : 20-Feb-2010, 13:11:07  
 Acq Meth : 508.M  
 Sample : 4-39T 1660 1000  
 Misc :  
 Quant Time : Feb 22 12:10:21 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 08:19:42 2010

Operator : PM/LP  
 Vial : 5  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase : RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um

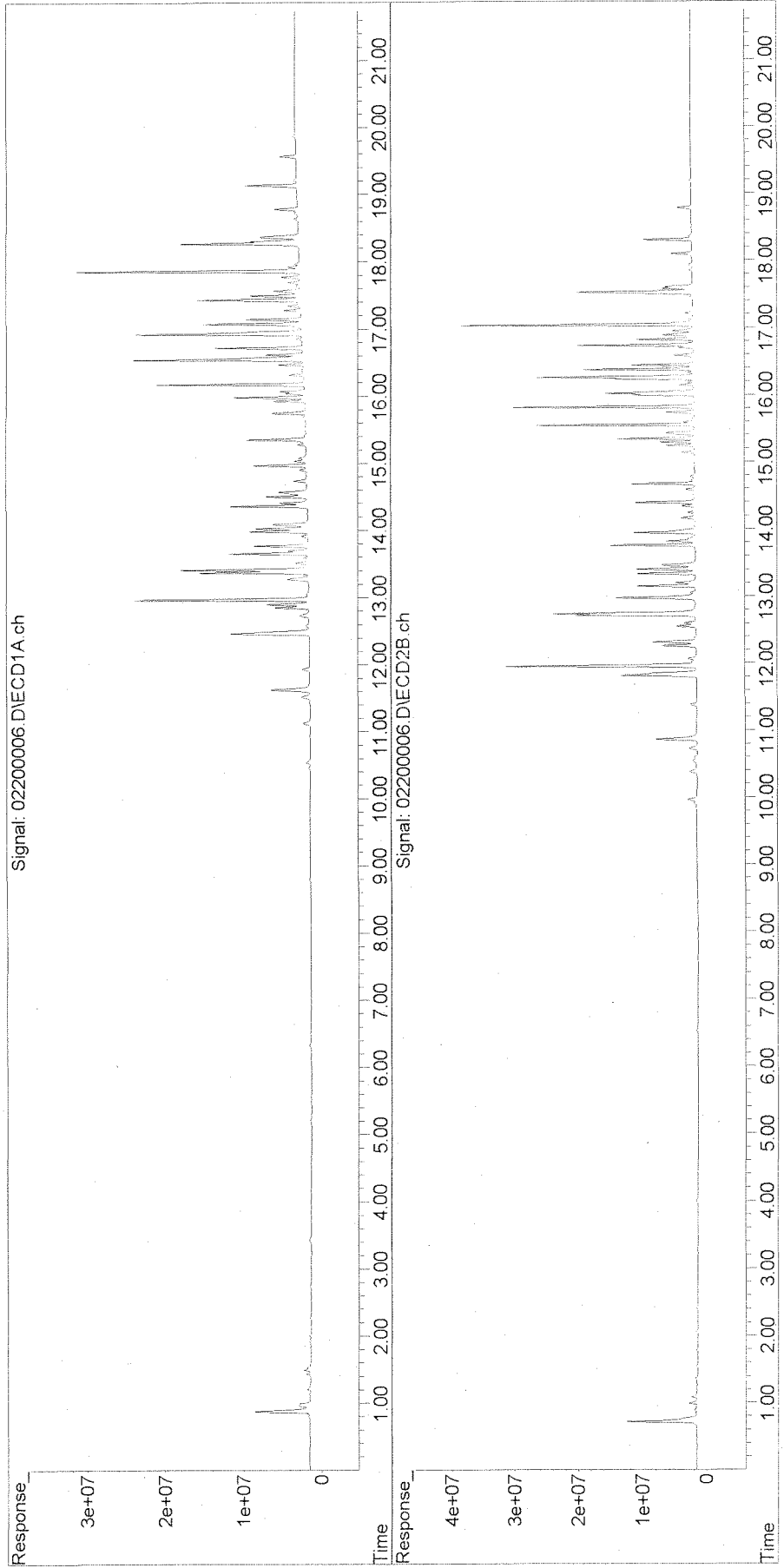
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	40412668	55056187	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.63	10.87	12137348	15464455	1069.099	1014.982
3) Aroclor 1016 {2}	13.66	12.98	17433134	25724122	1055.173	999.920
4) Aroclor 1016 {3}	13.77	13.15	12116980	15126659	995.397	1025.144
5) Aroclor 1016 {4}	14.37	13.76	16748472	20929534	1011.766	985.879
6) Aroclor 1016 - TOTAL	0.00	0.00	58435934	77244770	1032.415T	1003.889T
7) Aroclor 1260	17.08	16.38	22657406	25412906	914.508	885.208
8) Aroclor 1260 {2}	17.43	16.73	22935219	26931362	878.449	876.529
9) Aroclor 1260 {3}	17.86	17.04	49211502	56936197	876.619	885.223
10) Aroclor 1260 {4}	19.14	18.31	11539408	12159890	898.072	802.649
11) Aroclor 1260 - TOTAL	0.00	0.00	106.3E6	121.4E6	887.148T	874.301T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200006.D  
Acq On : 20-Feb-2010, 13:11:07 Operator : PM/LP  
Acq Meth : 508.M Vial : 5  
Sample : 4-39T 1660 1000 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:10:21 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200007.D

Acq On : 20-Feb-2010, 13:37:38

Operator : PM/LP

Acq Meth : 508.M

Sample : 4-22E 1660 2000

Vial : 6

Misc :

Multiplier : 1.00

Quant Time : Feb 22 12:11:02 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254

QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #2 Phase: RTX-CLP2

Signal #1 Info : 320 x 0.50 um

Signal #2 Info : 320 x 0.25 um

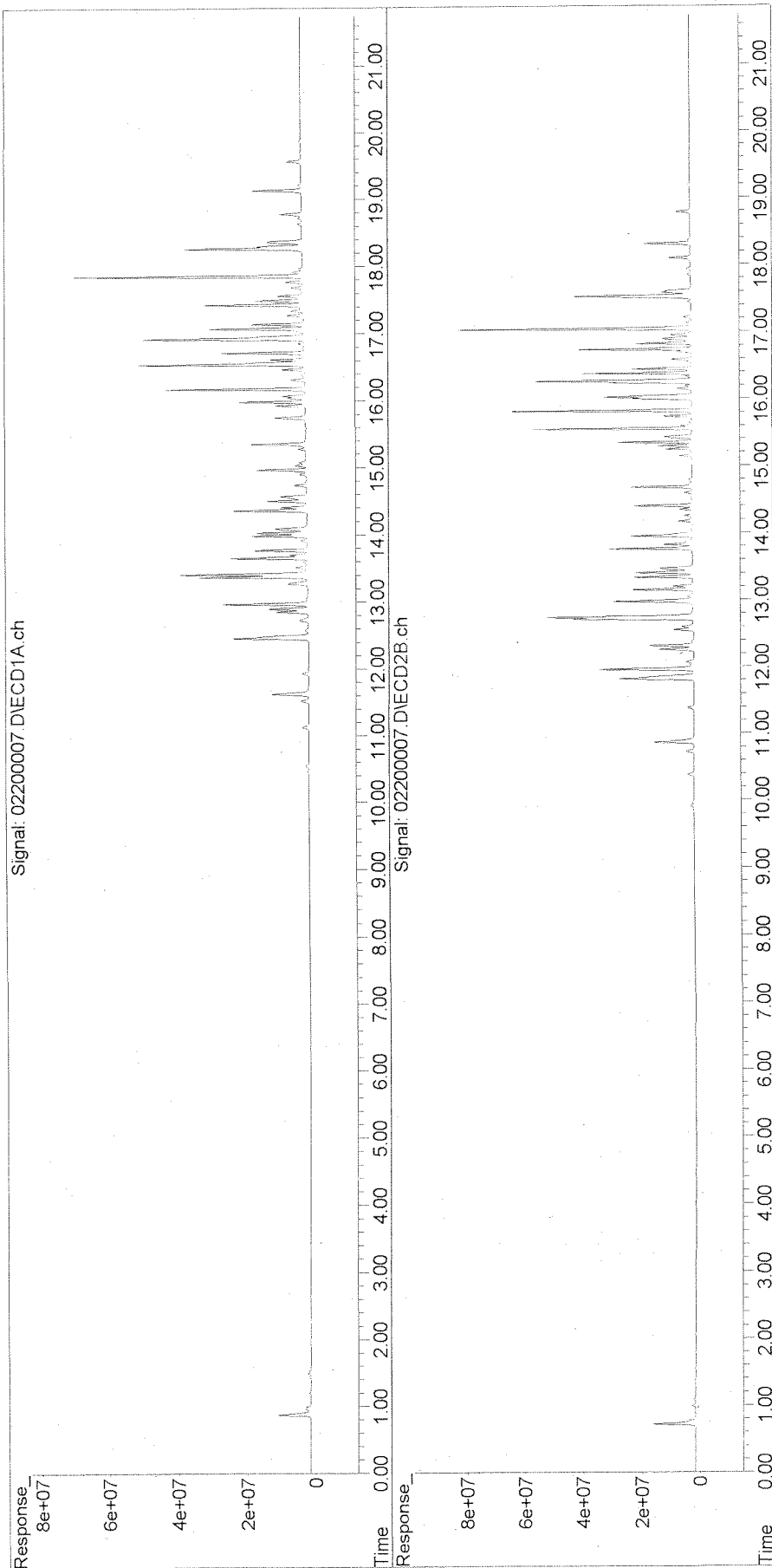
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	44152414	61242449	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.63	10.87	25165948	32309529	2028.945	1912.098
3) Aroclor 1016 {2}	13.66	12.98	37675868	56044056	2087.250	1966.523
4) Aroclor 1016 {3}	13.77	13.15	26980706	34019262	2028.702	2078.085
5) Aroclor 1016 {4}	14.37	13.76	35812295	44646077	1980.159	1899.304
6) Aroclor 1016 - TOTAL	0.00	0.00	125.6E6	167.0E6	2031.644T	1958.668T
7) Aroclor 1260	17.08	16.38	48889668	53825766	1806.166	1691.843
8) Aroclor 1260 {2}	17.43	16.73	49719905	56680221	1743.038	1664.419
9) Aroclor 1260 {3}	17.86	17.04	109.4E6	124.0E6	1784.459	1739.712
10) Aroclor 1260 {4}	19.14	18.31	24608581	26010179	1752.982	1550.220
11) Aroclor 1260 - TOTAL	0.00	0.00	232.7E6	260.5E6	1776.549T	1692.519T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\022000007.D  
Acq On : 20-Feb-2010, 13:37:38 Operator : PM/LP  
Acq Meth : 508.M Vial : 6  
Sample : 4-22E 1660 2000 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:11:02 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200009.D

Acq On : 20-Feb-2010, 14:30:16

Operator : PM/LP

Acq Meth : 508.M

Sample : 4-39J 2154 50

Vial : 8

Misc :

Multiplier : 1.00

Quant Time : Feb 22 12:11:38 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254

QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #2 Phase: RTX-CLP2

Signal #1 Info : 320 x 0.50 um

Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	41561239	55492915	50.000	50.000
Target Compounds						
12) Aroclor 1221	9.03	8.29	424874	488481	58.525	57.824
13) Aroclor 1221 {2}	11.13	10.38	460547	532007	55.745	49.808
14) Aroclor 1221 {3}	11.53	10.73	289816	380991	52.215	57.784
15) Aroclor 1221 {4}	11.63	10.87	1114409	1338143	58.911	55.909
16) Aroclor 1221 - TOTAL	0.00	0.00	2289646	2739622	57.258T	55.171T
17) Aroclor 1254	14.97	14.40	1347423	1914289	32.136	26.223
18) Aroclor 1254 {2}	15.36	14.68	2281174	2034559	35.632	34.513
19) Aroclor 1254 {3}	15.93	15.29	2012520	2316133	43.095	39.716
20) Aroclor 1254 {4}	16.31	15.59	1415972	1520934	35.304	28.786
21) Aroclor 1254 - TOTAL	0.00	0.00	7057089	7785915	37.142T	33.037T
-----						

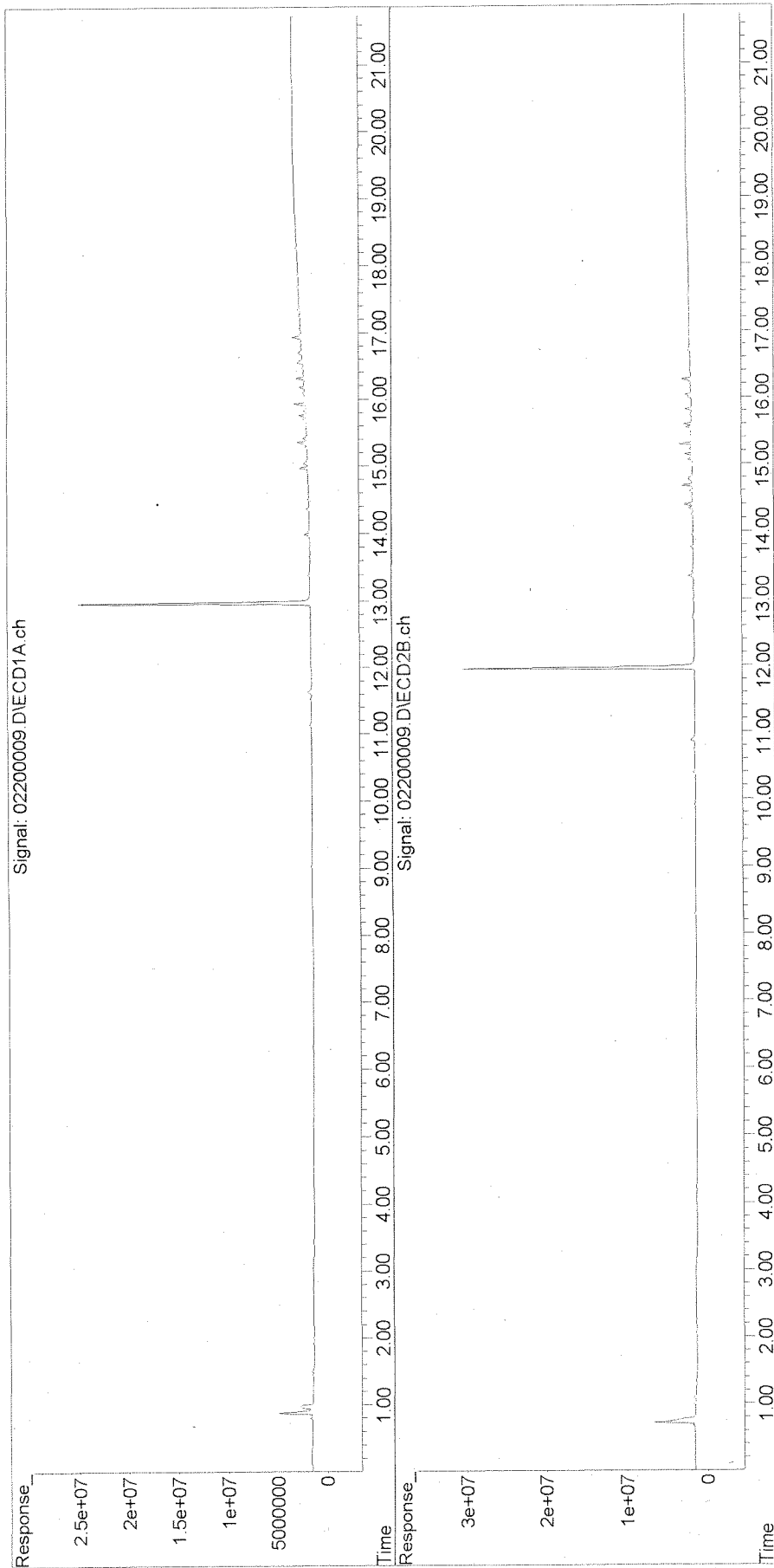
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\022000009.D  
Acq On : 20-Feb-2010, 14:30:16 Operator : PM/LP  
Acq Meth : 508.M Vial : 8  
Sample : 4-39J 2154 50 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:11:38 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200010.D  
 Acq On : 20-Feb-2010, 14:56:36  
 Acq Meth : 508.M  
 Sample : 4-39K 2154 100  
 Misc :  
 Quant Time : Feb 22 12:12:04 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 08:19:42 2010

Operator : PM/LP  
 Vial : 9  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

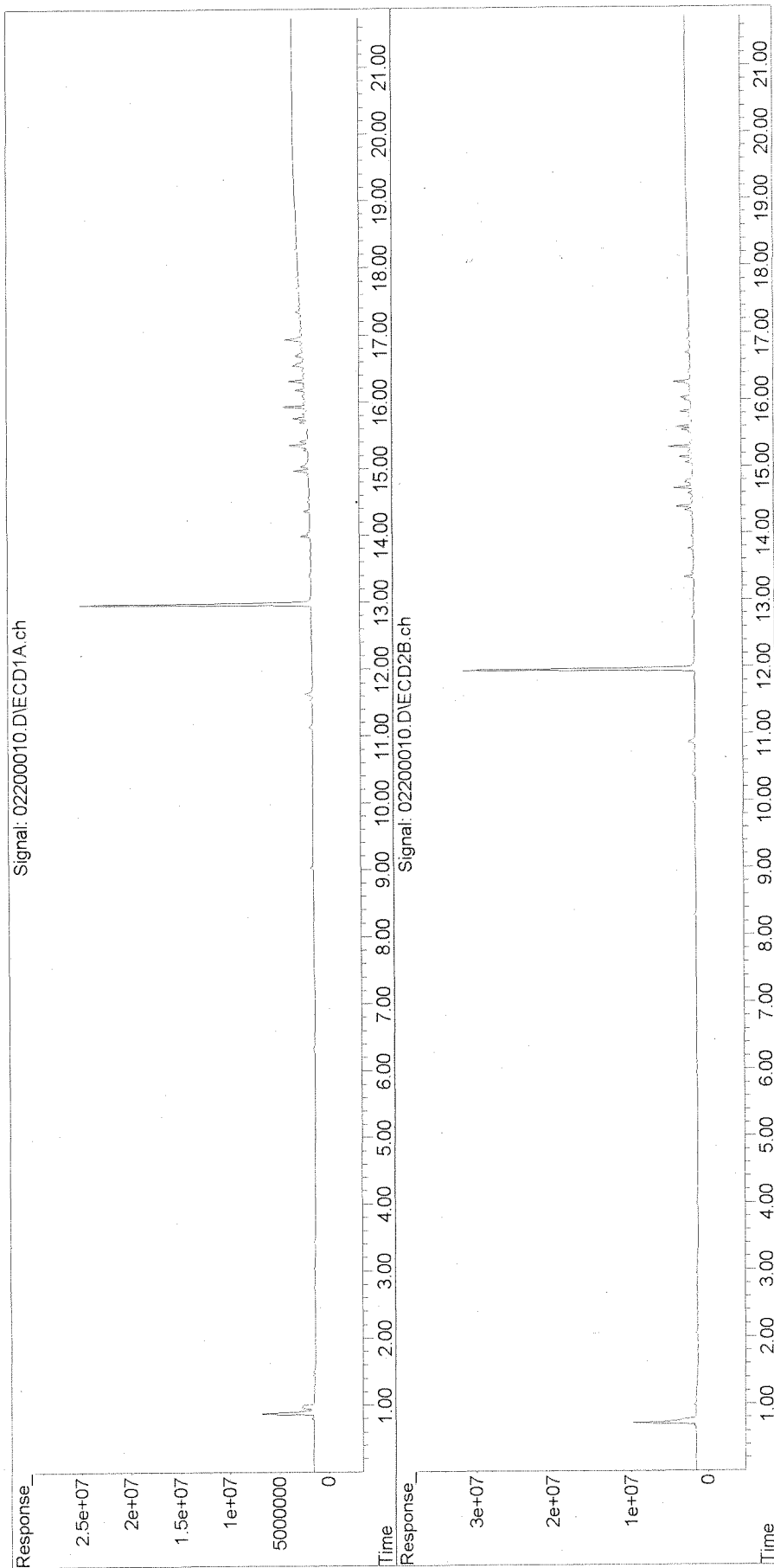
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	42399932	56410048	50.000	50.000
Target Compounds						
12) Aroclor 1221	9.03	8.28	818274	979677	110.486	114.084
13) Aroclor 1221 {2}	11.13	10.38	904555	1071832	107.323	98.717
14) Aroclor 1221 {3}	11.52	10.73	588174	751190	103.873	112.078
15) Aroclor 1221 {4}	11.63	10.87	2158700	2577006	111.859	105.919
16) Aroclor 1221 - TOTAL	0.00	0.00	4469703	5379705	109.564T	106.577T
17) Aroclor 1254	14.97	14.39	2553461	3724462	83.614	82.531
18) Aroclor 1254 {2}	15.36	14.67	4323538	3802068	88.388	88.190
19) Aroclor 1254 {3}	15.93	15.29	3823402	4517861	91.731	90.192
20) Aroclor 1254 {4}	16.31	15.59	2633677	2895228	83.981	77.101
21) Aroclor 1254 - TOTAL	0.00	0.00	13334078	14939619	87.604T	85.201T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200010.D  
Acq On : 20-Feb-2010, 14:56:36 Operator : PM/LP  
Acq Meth : 508.M Vial : 9  
Sample : 4-39K 2154 100 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:12:04 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200011.D  
 Acq On : 20-Feb-2010, 15:22:58  
 Acq Meth : 508.M  
 Sample : 4-39L 2154 250  
 Misc :  
 Quant Time : Feb 22 12:12:30 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 08:19:42 2010

Operator : PM/LP  
 Vial : 10  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

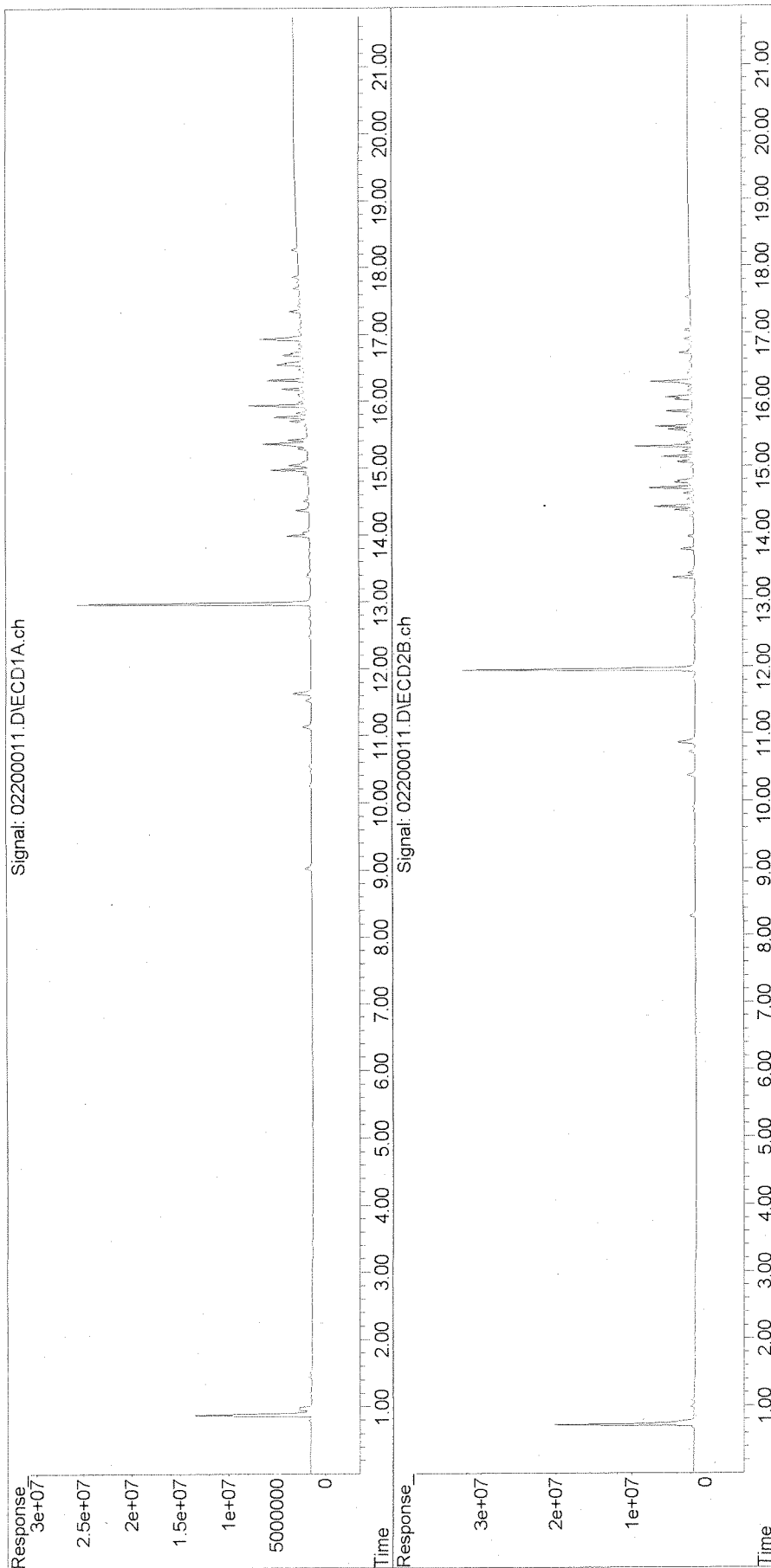
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	43113384	58532826	50.000	50.000
Target Compounds						
12) Aroclor 1221	9.03	8.28	2090199	2463179	277.555	276.437
13) Aroclor 1221 {2}	11.13	10.38	2317544	2771708	270.420	246.019
14) Aroclor 1221 {3}	11.52	10.73	1493627	1869133	259.414	268.762
15) Aroclor 1221 {4}	11.63	10.87	5229146	6540840	266.478	259.089
16) Aroclor 1221 - TOTAL	0.00	0.00	11130516	13644860	268.323T	260.513T
17) Aroclor 1254	14.97	14.39	6499208	9146096	251.220	243.679
18) Aroclor 1254 {2}	15.35	14.67	10660264	9336242	251.185	249.033
19) Aroclor 1254 {3}	15.93	15.29	9546100	11660039	244.615	246.960
20) Aroclor 1254 {4}	16.31	15.59	6464947	7562926	236.436	234.434
21) Aroclor 1254 - TOTAL	0.00	0.00	33170519	37705303	246.261T	244.090T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200011.D  
Acq On : 20-Feb-2010, 15:22:58 Operator : PM/LP  
Acq Meth : 508.M Vial : 10  
Sample : 4-39L 2154 250 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:12:30 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200012.D  
 Acq On : 20-Feb-2010, 15:49:22  
 Acq Meth : 508.M  
 Sample : 4-39M 2154 500  
 Misc :  
 Quant Time : Feb 22 12:12:55 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 08:19:42 2010

Operator : PM/LP  
 Vial : 11  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

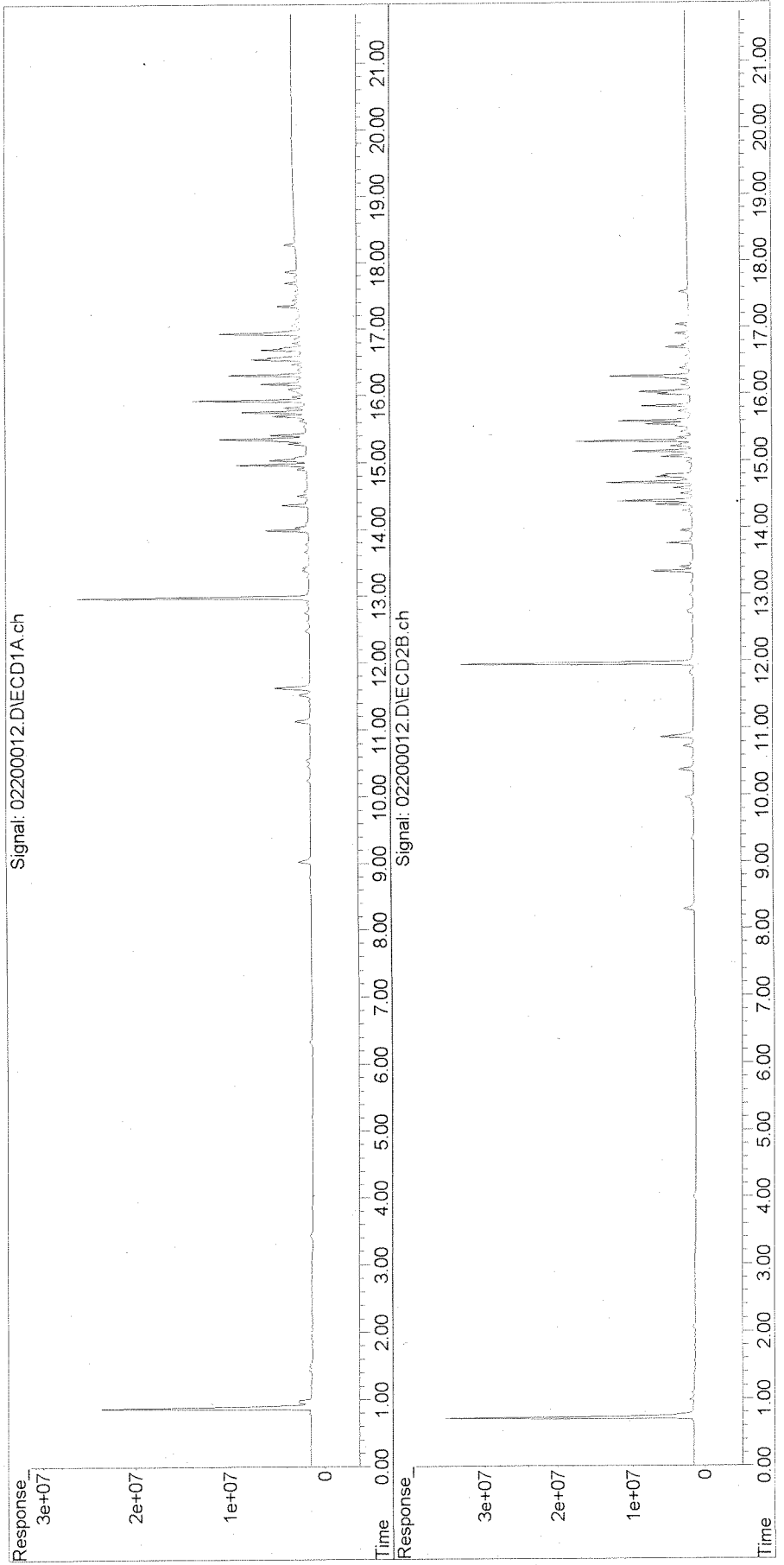
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	43814788	59452407	50.000	50.000
Target Compounds						
12) Aroclor 1221	9.03	8.28	3758584	4493760	491.107	496.523
13) Aroclor 1221 {2}	11.13	10.38	4288139	5156150	492.347	450.584
14) Aroclor 1221 {3}	11.52	10.73	2762624	3488739	472.133	493.885
15) Aroclor 1221 {4}	11.63	10.87	9607321	12390589	481.753	483.212
16) Aroclor 1221 - TOTAL	0.00	0.00	20416668	25529238	484.304T	479.876T
17) Aroclor 1254	14.97	14.39	12217956	17360460	488.414	486.123
18) Aroclor 1254 {2}	15.36	14.67	20255082	17933011	492.120	497.242
19) Aroclor 1254 {3}	15.93	15.29	18554610	21922449	479.993	470.084
20) Aroclor 1254 {4}	16.31	15.59	12374811	14294821	466.380	459.137
21) Aroclor 1254 - TOTAL	0.00	0.00	63402459	71510741	482.618T	478.090T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200012.D  
Acq On : 20-Feb-2010, 15:49:22 Operator : PM/LP  
Acq Meth : 508.M Vial : 11  
Sample : 4-39M 2154 500 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:12:55 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\022010-PCB1\02200013.D

Acq On : 20-Feb-2010, 16:15:49

Operator : PM/LP

Acq Meth : 508.M

Sample : 4-39N 2154 750

Vial : 12

Misc :

Multiplier : 1.00

Quant Time : Feb 22 12:14:04 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254

QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #2 Phase: RTX-CLP2

Signal #1 Info : 320 x 0.50 um

Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	44967463	61868519	50.000	50.000
Target Compounds						
12) Aroclor 1221	9.02	8.28	5400882	6489790	687.605	689.065
13) Aroclor 1221 {2}	11.13	10.38	6172794	6976691	690.568	585.868m
14) Aroclor 1221 {3}	11.52	10.73	4866509	5198686	810.368	707.214
15) Aroclor 1221 {4}	11.63	10.87	14266108	18223050	697.027	682.915
16) Aroclor 1221 - TOTAL	0.00	0.00	30706293	36888217	709.714T	666.313T
17) Aroclor 1254	14.97	14.39	18559000	26405547	736.269	726.860
18) Aroclor 1254 {2}	15.35	14.67	30489827	27543953	733.869	747.952
19) Aroclor 1254 {3}	15.93	15.29	28751820	35584954	731.508	741.768
20) Aroclor 1254 {4}	16.31	15.59	19147728	22758429	715.235	716.520
21) Aroclor 1254 - TOTAL	0.00	0.00	96948375	112.3E6	729.870T	734.520T
-----						

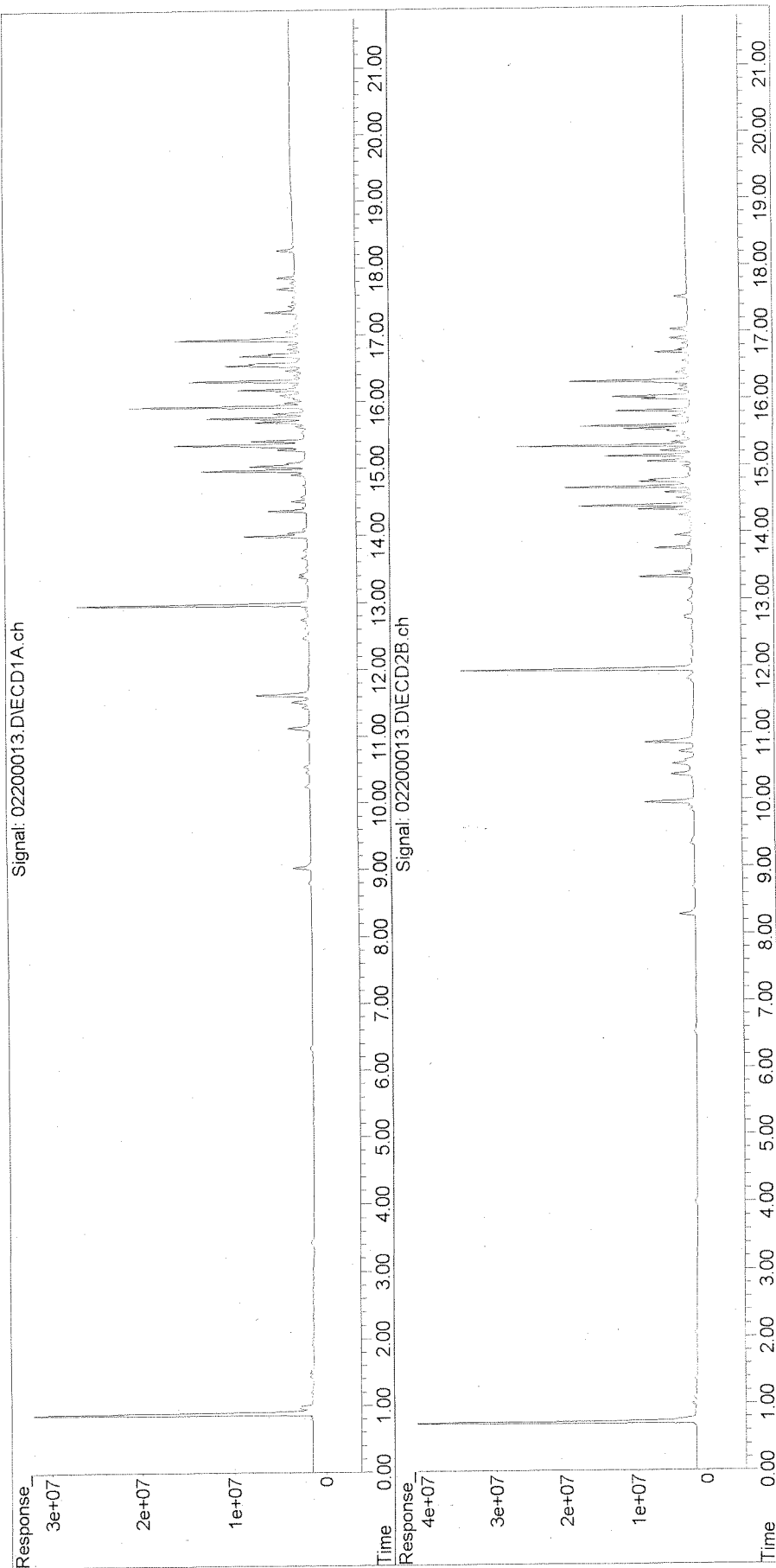
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200013.D  
Acq On : 20-Feb-2010, 16:15:49 Operator : PM/LP  
Acq Meth : 508.M Vial : 12  
Sample : 4-39N 2154 750 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:14:04 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

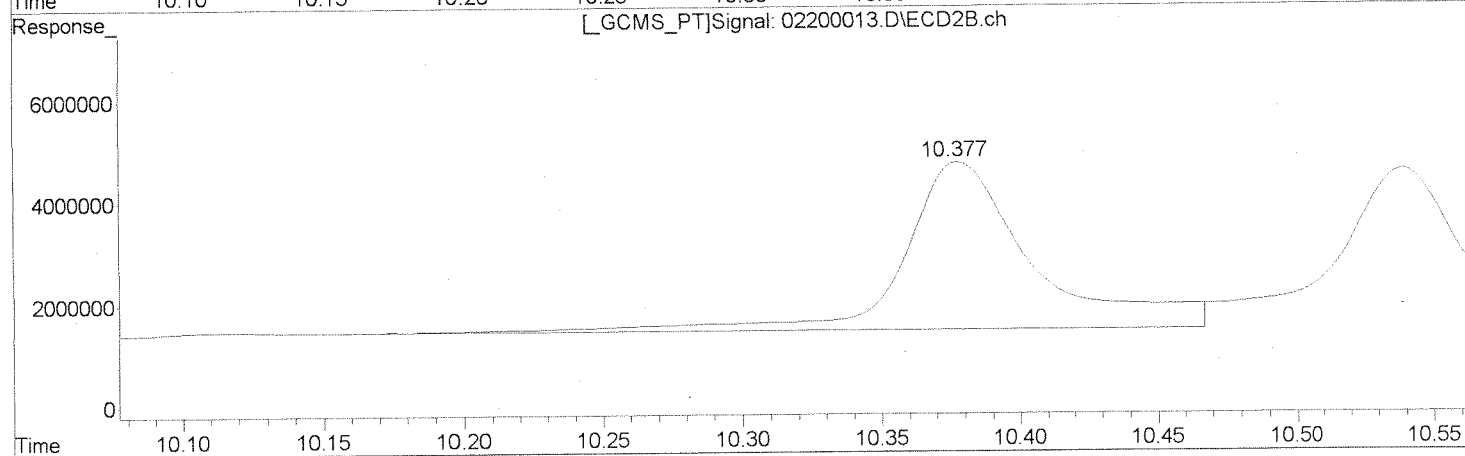
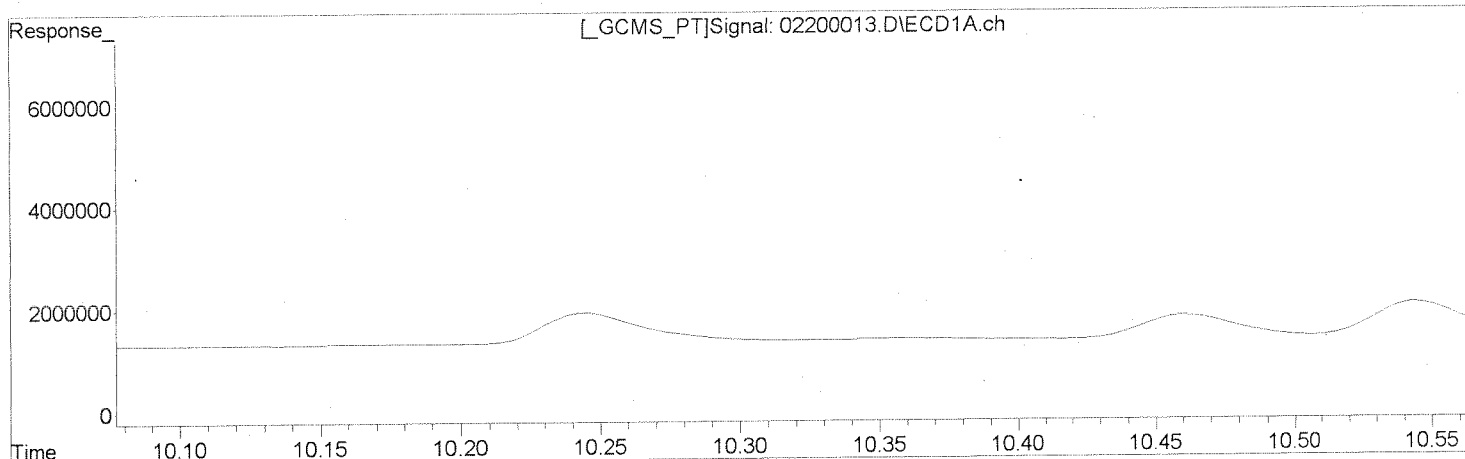


Quantitation Report (Qedit)

Data File : J:\GC33\Data\022010-PCB1\02200013.D  
Acq On : 20-Feb-2010, 16:15:49  
Acq Meth : 508.M  
Sample : 4-39N 2154 750  
Misc :  
Quant Time : Feb 22 08:20:39 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Operator : PM/LP  
Vial : 12  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP                      Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um                Signal #2 Info : 320 x 0.25 um



QEdit

(13) Aroclor 1221 {2} (L5)  
R.T. Response Conc  
11.13 6172794 690.57  
11.52 4866509 810.37  
11.63 14266108 697.03

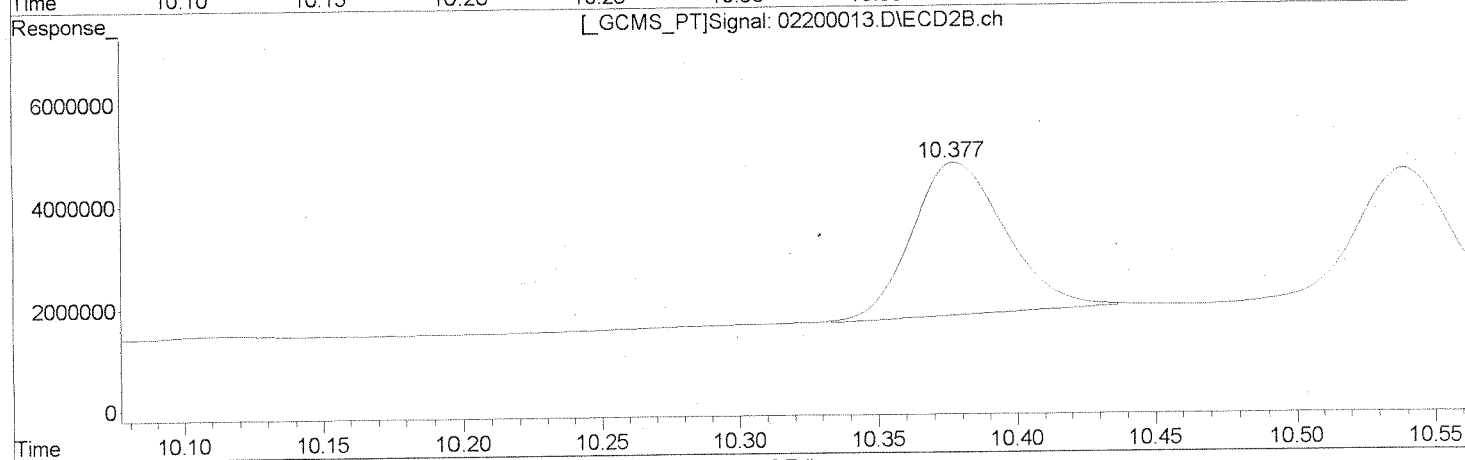
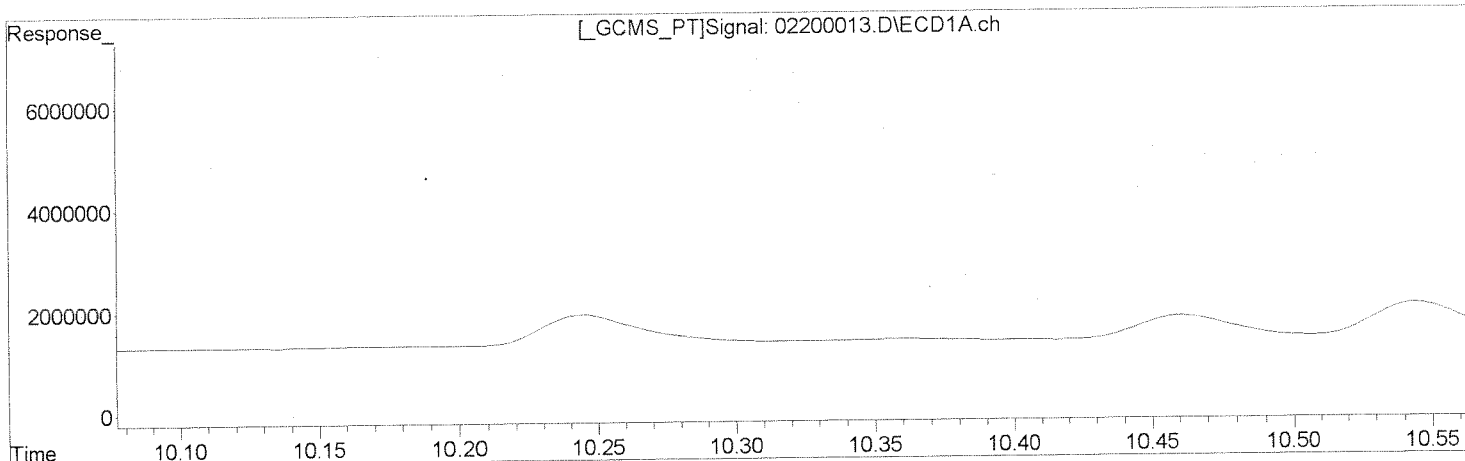
(13) Aroclor 1221 {2} #2 (L5)  
R.T. Response Conc  
10.38 10729420 901.00  
10.73 5198686 707.21  
10.87 18223050 682.92

Quantitation Report (Qedit)

Data File : J:\GC33\Data\022010-PCB1\02200013.D  
 Acq On : 20-Feb-2010, 16:15:49  
 Acq Meth : 508.M  
 Sample : 4-39N 2154 750  
 Misc :  
 Quant Time : Feb 22 08:20:39 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 08:19:42 2010

Operator : PM/LP  
 Vial : 12  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase : RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um



QEdit

(13) Aroclor 1221 {2} #2 (L5)  
 R.T. Response Conc  
 11.13 6172794 690.57  
 11.52 4866509 810.37  
 11.63 14266108 697.03

(13) Aroclor 1221 {2} #2 (L5)  
 R.T. Response Conc  
 10.38 6976691 585.87  
 10.73 5198686 707.21  
 10.87 18223050 682.92

*BL*  
*2/22/10*

*02200013*

Data File : J:\GC33\Data\022010-PCB1\02200014.D  
 Acq On : 20-Feb-2010, 16:42:11  
 Acq Meth : 508.M  
 Sample : 4-5U 2154 1000  
 Misc :  
 Quant Time : Feb 22 12:14:58 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 08:19:42 2010

Operator : PM/LP  
 Vial : 13  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

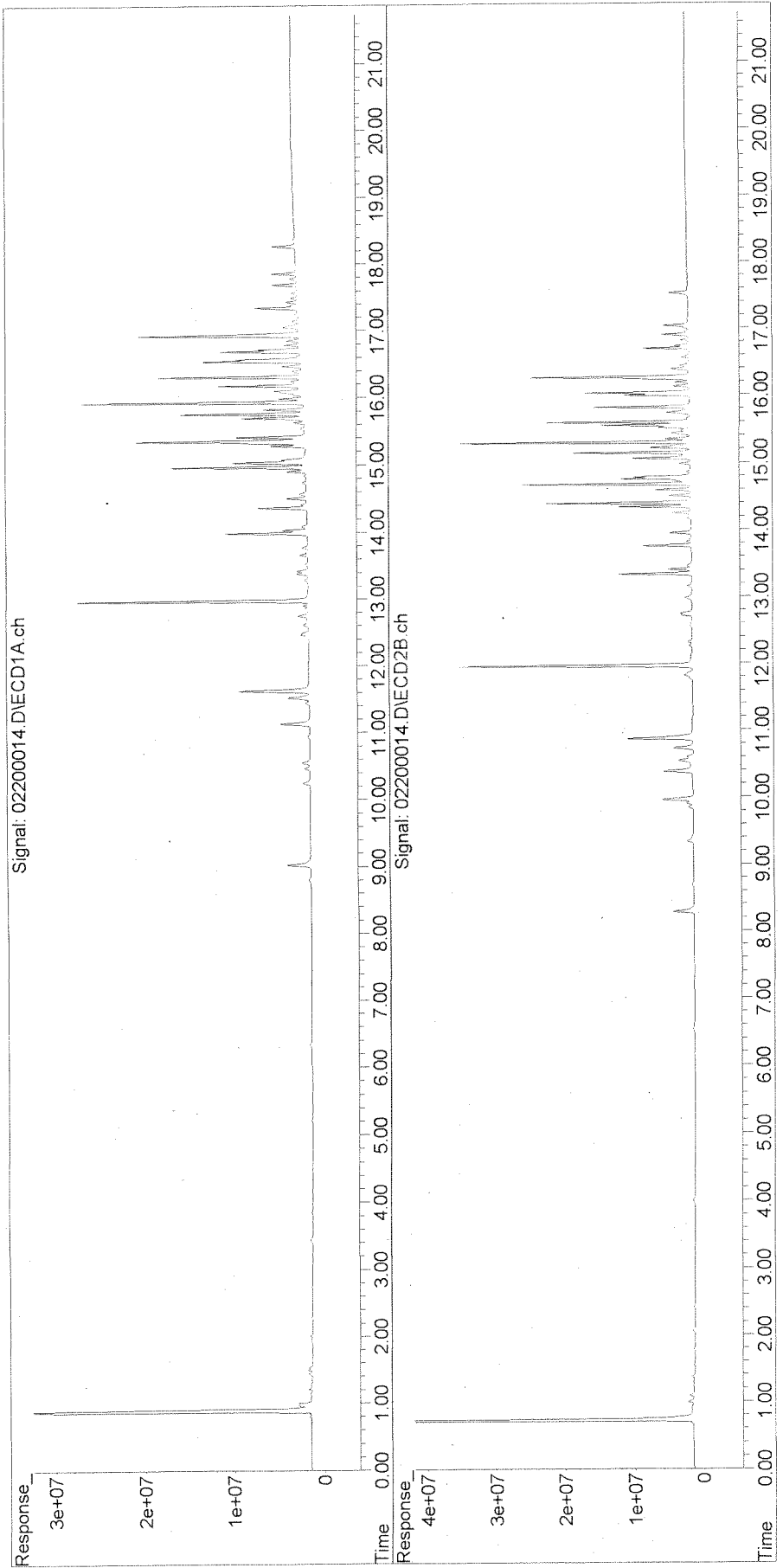
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.98	11.96	45370509	63131051	50.000	50.000
Target Compounds						
12) Aroclor 1221	9.03	8.28	7042180	8461648	888.600	880.463
13) Aroclor 1221 {2}	11.13	10.38	8200375	10505815	909.249	864.583m
14) Aroclor 1221 {3}	11.52	10.73	5782387	6816636	954.326	908.770
15) Aroclor 1221 {4}	11.63	10.87	18856692	24451952	913.134	898.020
16) Aroclor 1221 - TOTAL	0.00	0.00	39881634	50236051	913.595T	889.268T
17) Aroclor 1254	14.97	14.39	24496454	34758190	971.781	947.909
18) Aroclor 1254 {2}	15.35	14.67	41077264	36378342	988.592	976.780
19) Aroclor 1254 {3}	15.93	15.29	38244949	47366877	968.627	972.249
20) Aroclor 1254 {4}	16.31	15.59	25353794	30074978	946.084	935.779
21) Aroclor 1254 - TOTAL	0.00	0.00	129.2E6	148.6E6	970.906T	960.065T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\022010-PCB1\02200014.D  
Acq On : 20-Feb-2010, 16:42:11 Operator : PM/LP  
Acq Meth : 508.M Vial : 13  
Sample : 4-5U 2154 1000 Multiplier : 1.00  
Misc :  
Quant Time : Feb 22 12:14:58 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL aka 022010 PCB1 1016,1260,1221,1254  
QLast Update : Mon Feb 22 08:19:42 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

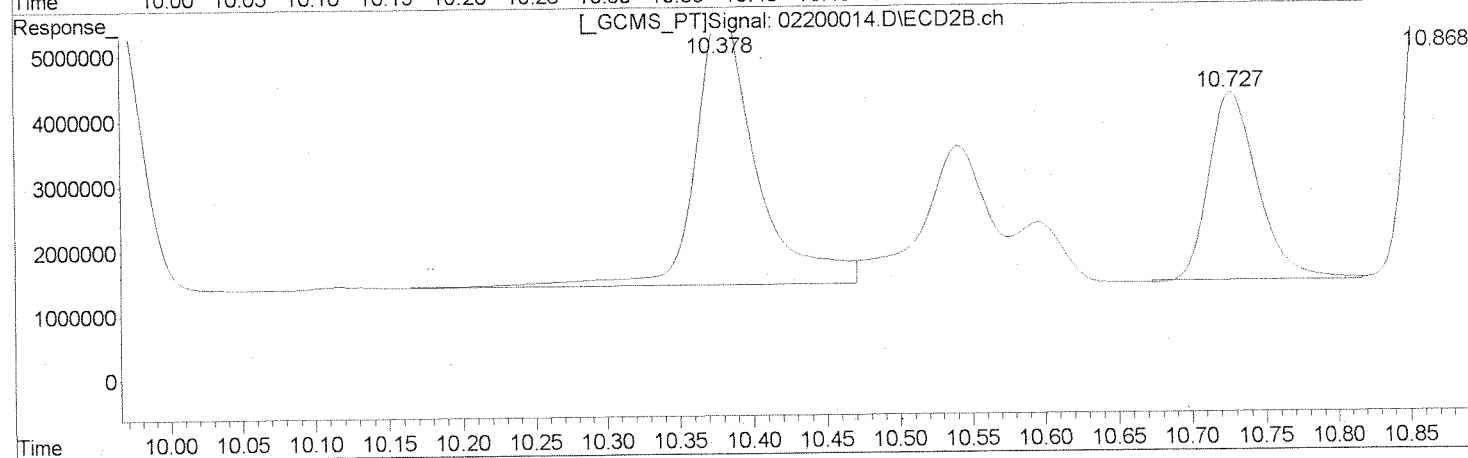
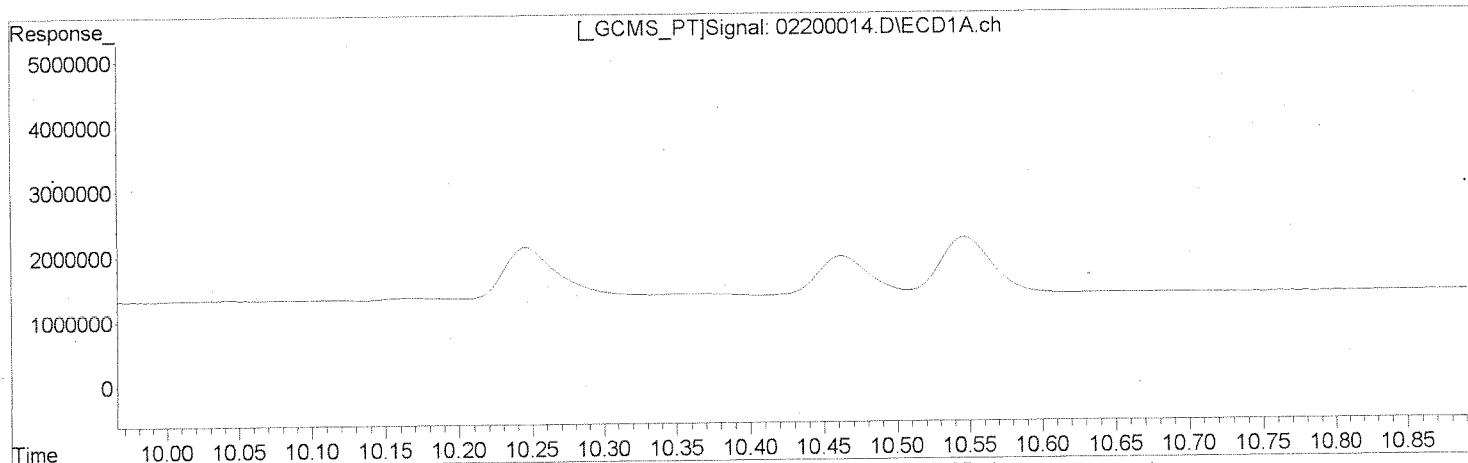


Quantitation Report (Qedit)

Data File : J:\GC33\Data\022010-PCB1\02200014.D  
 Acq On : 20-Feb-2010, 16:42:11  
 Acq Meth : 508.M  
 Sample : 4-5U 2154 1000  
 Misc :  
 Quant Time : Feb 22 08:20:41 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 08:19:42 2010

Operator : PM/LP  
 Vial : 13  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase: RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um



QEdit

(13) Aroclor 1221 {2} (L5)  
 R.T. Response Conc  
 11.13 8200375 909.25  
 11.52 5782387 954.33  
 11.63 18856692 913.13

(13) Aroclor 1221 {2} #2 (L5)  
 R.T. Response Conc  
 10.38 12206003 1004.50  
 10.73 6816636 908.77  
 10.87 24451952 898.02

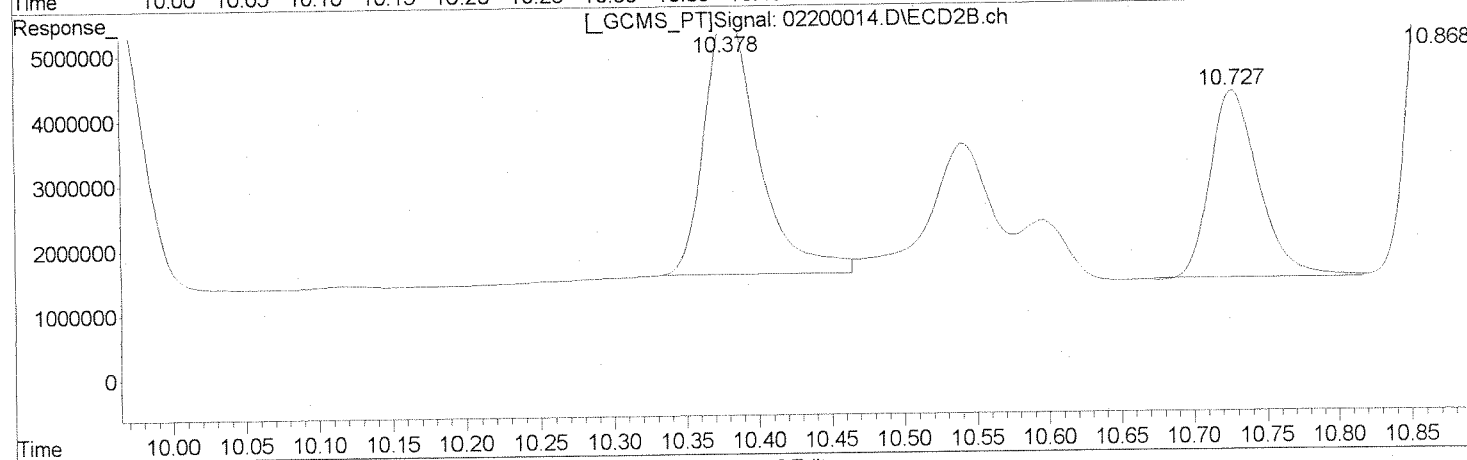
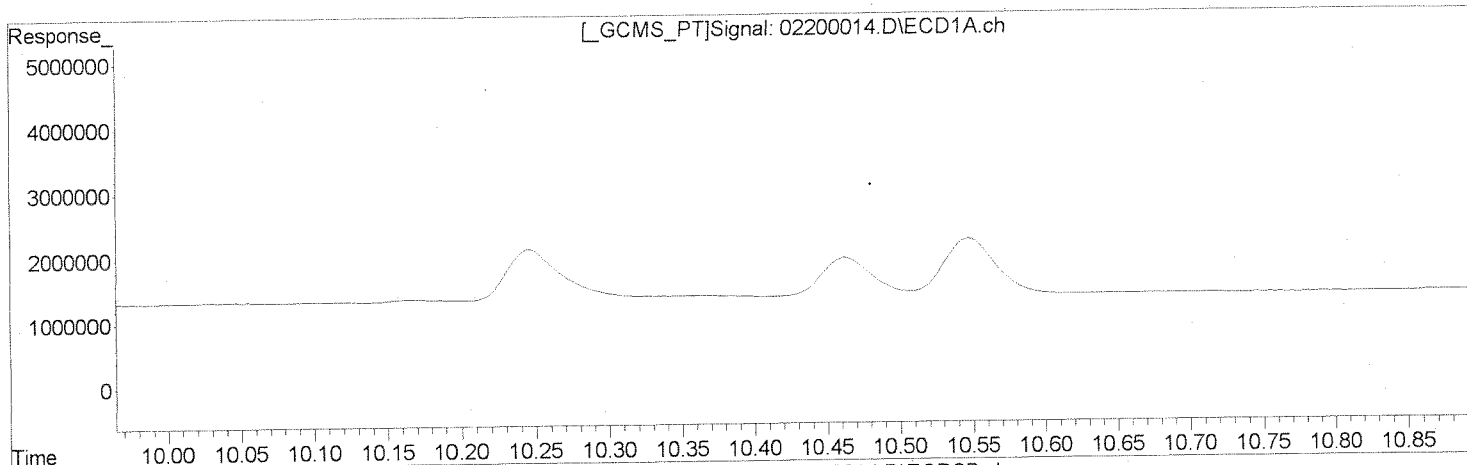
*MM02310*

Quantitation Report (Qedit)

Data File : J:\GC33\Data\022010-PCB1\02200014.D  
 Acq On : 20-Feb-2010, 16:42:11  
 Acq Meth : 508.M  
 Sample : 4-5U 2154 1000  
 Misc :  
 Quant Time : Feb 22 08:20:41 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL aka 022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Mon Feb 22 08:19:42 2010

Operator : PM/LP  
 Vial : 13  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase: RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um



QEdit

(13) Aroclor 1221 {2} #2 (L5)  
 R.T. Response Conc  
 11.13 8200375 909.25  
 11.52 5782387 954.33  
 11.63 18856692 913.13

(13) Aroclor 1221 {2} #2 (L5)  
 R.T. Response Conc  
 10.38 10505815 864.58  
 10.73 6816636 908.77  
 10.87 24451952 898.02

*BL*  
*2/22/10*  
*022310*

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
1	Vial 96	EA	508	1	Sample	
2	Vial 1	4-39P 1660 25	508	1	Sample	
3	Vial 2	4-39Q 1660 50	508	1	Sample	
4	Vial 3	4-39R 1660 250	508	1	Sample	
5	Vial 4	4-39S 1660 500	508	1	Sample	
6	Vial 5	4-39T 1660 1000	508	1	Sample	
7	Vial 6	4-22E 1660 2000	508	1	Sample	
8	Vial 7	4-39U ICV 250	508	1	Sample	
9	Vial 8	4-39J 2154 50	508	1	Sample	
10	Vial 9	4-39K 2154 100	508	1	Sample	
11	Vial 10	4-39L 2154 250	508	1	Sample	
12	Vial 11	4-39M 2154 500	508	1	Sample	
13	Vial 12	4-39N 2154 750	508	1	Sample	
14	Vial 13	4-5U 2154 1000	508	1	Sample	
15	Vial 14	4-48O ICV 250	508	1	Sample	
16	Vial 15	4-39D 1248 50	508	1	Sample	
17	Vial 16	4-39E 1248 100	508	1	Sample	
18	Vial 17	4-39F 1248 250	508	1	Sample	
19	Vial 18	4-39G 1248 500	508	1	Sample	
20	Vial 19	4-39H 1248 750	508	1	Sample	
21	Vial 20	4-6F 1248 1000	508	1	Sample	

Handwritten notes and markings on the table:

- A large bracket on the right side of the table, spanning from line 2 to line 15, with the handwritten text "PCB1 ICV" written vertically next to it.
- Handwritten "1-6" next to line 5.
- Handwritten "7-12" next to line 9.



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 12/12/2009

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9310  
**Instrument ID:** GC33

**Column:** RTX-CLP

Level ID	File ID	Level ID	File ID
A	J:\GC33\Data\121109-508\12110047.D	K	J:\GC33\Data\121109-508\12110058.D
B	J:\GC33\Data\121109-508\12110048.D	L	J:\GC33\Data\121109-508\12110059.D
C	J:\GC33\Data\121109-508\12110049.D	M	J:\GC33\Data\032210-608\03220004.D
D	J:\GC33\Data\121109-508\12110050.D	N	J:\GC33\Data\032210-608\03220005.D
E	J:\GC33\Data\121109-508\12110051.D	O	J:\GC33\Data\032210-608\03220006.D
F	J:\GC33\Data\121109-508\12110052.D	P	J:\GC33\Data\032210-608\03220007.D
G	J:\GC33\Data\121109-508\12110054.D	Q	J:\GC33\Data\032210-608\03220008.D
H	J:\GC33\Data\121109-508\12110055.D	R	J:\GC33\Data\032210-608\03220009.D
I	J:\GC33\Data\121109-508\12110056.D	S	J:\GC33\Data\032210-608\03220010.D
J	J:\GC33\Data\121109-508\12110057.D		

Analyte Name	Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Decachlorobiphenyl							M	2.0	0.610	N	5.0	0.618
	P	50	0.531	Q	75	0.530	R	100	0.526	S	200	0.529
										O	20	0.558

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 12/12/2009

**Initial Calibration Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9310  
**Instrument ID:** GC33

**Column:** RTX-CLP

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Decachlorobiphenyl	SURR	AverageRF	% RSD	7.2		≤ 10	0.557		

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 12/12/2009

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9310  
**Instrument ID:** GC33

**Column:** RTX-CLP2

Level ID	File ID	Level ID	File ID
A	J:\GC33\Data\121109-508\12110047.D\12110047c.d	K	J:\GC33\Data\121109-508\12110058.D\12110058c.d
B	J:\GC33\Data\121109-508\12110048.D\12110048c.d	L	J:\GC33\Data\121109-508\12110059.D\12110059c.d
C	J:\GC33\Data\121109-508\12110049.D\12110049c.d	M	J:\GC33\Data\032210-608\03220004.D\03220004c.d
D	J:\GC33\Data\121109-508\12110050.D\12110050c.d	N	J:\GC33\Data\032210-608\03220005.D\03220005c.d
E	J:\GC33\Data\121109-508\12110051.D\12110051c.d	O	J:\GC33\Data\032210-608\03220006.D\03220006c.d
F	J:\GC33\Data\121109-508\12110052.D\12110052c.d	P	J:\GC33\Data\032210-608\03220007.D\03220007c.d
G	J:\GC33\Data\121109-508\12110054.D\12110054c.d	Q	J:\GC33\Data\032210-608\03220008.D\03220008c.d
H	J:\GC33\Data\121109-508\12110055.D\12110055c.d	R	J:\GC33\Data\032210-608\03220009.D\03220009c.d
I	J:\GC33\Data\121109-508\12110056.D\12110056c.d	S	J:\GC33\Data\032210-608\03220010.D\03220010c.d
J	J:\GC33\Data\121109-508\12110057.D\12110057c.d		

Analyte Name	Level			Level			Level			Level					
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF			
Decachlorobiphenyl							M	2.0	0.516	N	5.0	0.515	O	20	0.447
	P	50	0.425	Q	75	0.423	R	100	0.414	S	200	0.426			

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 12/12/2009

**Initial Calibration Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration ID:** CAL9310  
**Instrument ID:** GC33

**Column:** RTX-CLP2

Analyte Name	Compound Type	Calibration Evaluation				RRF Evaluation			
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Decachlorobiphenyl	SURR	AverageRF	% RSD	9.8		≤ 10	0.452		

Results flagged with an asterisk (\*) indicate values outside control criteria.

# Initial Calibration - Summary Report

Calibration ID:	CAL9310		Instrument ID:	GC33
Method ID:	MJ492	032310-508.m	Column Name:	RTX-CLP

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
alpha-BHC	MS	AverageRF		1.160	30	8.4			OK	
4,4'-Dibromooctafluorobiphenyl	SURR	AverageRF		0.943	30	4.0			NA	
gamma-BHC (Lindane)	MS	AverageRF		1.071	30	6.3			OK	
beta-BHC	MS	AverageRF		0.450	30	1.1			OK	
delta-BHC	MS	AverageRF		0.990	30	6.1			OK	
Heptachlor	MS	AverageRF		0.985	30	8.6			OK	
Aldrin	MS	AverageRF		0.964	30	7.0			OK	
Heptachlor Epoxide (Isomer A)	MS	AverageRF		1.024	30	6.3			OK	
Heptachlor Epoxide	MS	AverageRF		0.895	30	4.7			OK	
gamma-Chlordane	MS	AverageRF		0.856	30	6.5			OK	
alpha-Chlordane	MS	AverageRF		0.821	30	3.5			OK	
4,4'-DDE	MS	AverageRF		0.739	30	8.0			OK	
Endosulfan I	MS	AverageRF		0.764	30	4.0			OK	
Dieldrin	MS	AverageRF		0.814	30	5.3			OK	
Endrin	MS	AverageRF		0.681	30	6.6			OK	
4,4'-DDD	MS	AverageRF		0.542	30	6.7			OK	
Endosulfan II	MS	AverageRF		0.665	30	4.9			OK	
4,4'-DDT	MS	AverageRF		0.558	30	5.7			OK	
Endrin Aldehyde	MS	AverageRF		0.518	30	3.1			OK	
Methoxychlor	MS	AverageRF		0.288	30	4.0			OK	
Endosulfan Sulfate	MS	AverageRF		0.596	30	3.1			OK	
Endrin Ketone	MS	AverageRF		0.701	30	2.9			OK	
Decachlorobiphenyl	SURR	AverageRF		0.557	30	7.2			NA	
Toxaphene	TRG	AverageRF		0.051	30	3.3			OK	
Chlordane	TRG	AverageRF		0.200	30	3.4			OK	

↓  
 NOTE: ALL ARE RSDS  
 MEET 608 CRITERION  
 OF ≤ 10%

ONLY SINGLES UPDATED

- SEE TOX, CHLORIS.  
 IN 121109 FOLDER / CAL9085

032310  
 m

## Initial Calibration - Summary Report

Calibration ID: CAL9310  
Method ID: MJ492

Instrument ID: GC33  
Column Name: RTX-CLP2

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
alpha-BHC	MS	AverageRF		1.138	30	8.8			OK	
4,4'-Dibromooctafluorobiphenyl	SURR	AverageRF		0.922	30	4.3			NA	
gamma-BHC (Lindane)	MS	AverageRF		1.132	30	5.6			OK	
beta-BHC	MS	AverageRF		0.448	30	8.4			OK	
delta-BHC	MS	AverageRF		0.934	30	9.1			OK	
Heptachlor	MS	AverageRF		0.882	30	5.4			OK	
Aldrin	MS	AverageRF		0.938	30	5.2			OK	
Heptachlor Epoxide (Isomer A)	MS	AverageRF		0.940	30	6.6			OK	
Heptachlor Epoxide	MS	AverageRF		0.809	30	3.0			OK	
gamma-Chlordane	MS	AverageRF		0.804	30	4.7			OK	
alpha-Chlordane	MS	AverageRF		0.787	30	3.8			OK	
4,4'-DDE	MS	AverageRF		0.642	30	8.1			OK	
Endosulfan I	MS	AverageRF		0.757	30	6.3			OK	
Dieldrin	MS	AverageRF		0.775	30	5.3			OK	
Endrin	MS	AverageRF		0.675	30	5.3			OK	
4,4'-DDD	MS	AverageRF		0.489	30	6.0			OK	
Endosulfan II	MS	AverageRF		0.608	30	4.5			OK	
4,4'-DDT	MS	AverageRF		0.487	30	4.6			OK	
Endrin Aldehyde	MS	Linear		0.479			0.990	0.9995	OK	1.01
Methoxychlor	MS	AverageRF		0.238	30	6.2			OK	
Endosulfan Sulfate	MS	AverageRF		0.525	30	4.4			OK	
Endrin Ketone	MS	AverageRF		0.605	30	3.6			OK	
Decachlorobiphenyl	SURR	AverageRF		0.452	30	9.8			NA	
Toxaphene	TRG	AverageRF		0.081	30	3.6			OK	
Chlordane	TRG	AverageRF		0.183	30	2.8			OK	

## Second Source Calibration Verification Summary

**CalibrationID:** CAL9310  
**Method ID:** MJ492  
**DataFile Location:** J:\GC33\DATA\032210-608\03220011.D

**Units:** ug/L  
**Column:** RTX-CLP

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
alpha-BHC	180854	AverageRF	30	1.160	1.382	19.1	50.00	59.6	
gamma-BHC (Lindane)	180854	AverageRF	30	1.071	1.244	16.1	50.00	58.1	
beta-BHC	180854	AverageRF	30	0.450	0.521	15.8	50.00	57.9	
delta-BHC	180854	AverageRF	30	0.990	1.118	12.9	50.00	56.5	
Heptachlor	180854	AverageRF	30	0.985	1.088	10.5	50.00	55.2	
Aldrin	180854	AverageRF	30	0.964	1.127	16.9	50.00	58.4	
Heptachlor Epoxide (Isomer A)	180854	AverageRF	30	1.024	1.018	-0.7	50.00	49.7	
Heptachlor Epoxide	180854	AverageRF	30	0.895	1.000	11.8	50.00	55.9	
gamma-Chlordane	180854	AverageRF	30	0.856	0.979	14.3	50.00	57.2	
alpha-Chlordane	180854	AverageRF	30	0.821	0.940	14.4	50.00	57.2	
4,4'-DDE	180854	AverageRF	30	0.739	0.783	5.9	50.00	52.9	
Endosulfan I	180854	AverageRF	30	0.764	0.875	14.6	50.00	57.3	
Dieldrin	180854	AverageRF	30	0.814	0.960	17.8	50.00	58.9	
Endrin	180854	AverageRF	30	0.681	0.760	11.6	50.00	55.8	
4,4'-DDD	180854	AverageRF	30	0.542	0.597	10.0	50.00	55.0	
Endosulfan II	180854	AverageRF	30	0.665	0.728	9.5	50.00	54.7	
4,4'-DDT	180854	AverageRF	30	0.558	0.616	10.4	50.00	55.2	
Endrin Aldehyde	180854	AverageRF	30	0.518	0.503	-2.7	50.00	48.6	
Methoxychlor	180854	AverageRF	30	0.288	0.320	11.2	50.00	55.6	
Endosulfan Sulfate	180854	AverageRF	30	0.596	0.669	12.2	50.00	56.1	
Endrin Ketone	180854	AverageRF	30	0.701	0.789	12.5	50.00	56.3	
Toxaphene	177035	AverageRF	30	0.051	0.059	14.1	250.00	285.3	
Chlordane	177049	AverageRF	30	0.200	0.195	-2.4	250.00	243.9	

## Second Source Calibration Verification Summary

CalibrationID: CAL9310  
 Method ID: MJ492  
 DataFile Location: J:\GC33\DATA\032210-608\03220011.D\03220011C.D

Units: ug/L  
 Column: RTX-CLP2

Parameter Name	File ID	Curve Fit	Method Criteria	AveRF	SSV RF	% Diff	True Value	Sol'n Conc	% Drift
alpha-BHC	180855	AverageRF	30	1.138	1.382	21.4	50.00	60.7	
gamma-BHC (Lindane)	180855	AverageRF	30	1.132	1.297	14.6	50.00	57.3	
beta-BHC	180855	AverageRF	30	0.448	0.504	12.4	50.00	56.2	
delta-BHC	180855	AverageRF	30	0.934	1.111	18.9	50.00	59.5	
Heptachlor	180855	AverageRF	30	0.882	1.014	15.0	50.00	57.5	
Aldrin	180855	AverageRF	30	0.938	1.100	17.3	50.00	58.7	
Heptachlor Epoxide (Isomer A)	180855	AverageRF	30	0.940	1.011	7.5	50.00	53.7	
Heptachlor Epoxide	180855	AverageRF	30	0.809	0.952	17.7	50.00	58.8	
gamma-Chlordane	180855	AverageRF	30	0.804	0.950	18.1	50.00	59.1	
alpha-Chlordane	180855	AverageRF	30	0.787	0.908	15.3	50.00	57.7	
4,4'-DDE	180855	AverageRF	30	0.642	0.747	16.4	50.00	58.2	
Endosulfan I	180855	AverageRF	30	0.757	0.855	13.0	50.00	56.5	
Dieldrin	180855	AverageRF	30	0.775	0.937	20.8	50.00	60.4	
Endrin	180855	AverageRF	30	0.675	0.773	14.5	50.00	57.3	
4,4'-DDD	180855	AverageRF	30	0.489	0.558	14.2	50.00	57.1	
Endosulfan II	180855	AverageRF	30	0.608	0.697	14.7	50.00	57.4	
4,4'-DDT	180855	AverageRF	30	0.487	0.540	10.9	50.00	55.5	
Endrin Aldehyde	180855	Linear	30				50.00	47.7	-4.5
Methoxychlor	180855	AverageRF	30	0.238	0.263	10.4	50.00	55.2	
Endosulfan Sulfate	180855	AverageRF	30	0.525	0.596	13.6	50.00	56.8	
Endrin Ketone	180855	AverageRF	30	0.605	0.695	14.9	50.00	57.4	
Toxaphene	177036	AverageRF	30	0.081	0.090	11.9	250.00	279.7	
Chlordane	177050	AverageRF	30	0.183	0.198	8.4	250.00	271.0	



Response Factor Report GCI

Method Path : J:\GC33\Methods\  
 Method File : 032210\_508.M  
 Title : CAL aka032210\_508.m | MJ492  
 Last Update : Tue Mar 23 08:18:14 2010  
 Response Via : Initial Calibration

Calibration Files

1 =03220004.D 2 =03220005.D 3 =03220006.D  
 4 =03220007.D 5 =03220008.D 6 =03220009.D

Compound	1	2	3	4	5	6	Avg	%RSD
-----ISTD-----								
1) I Pentachloronitrobenzene								
2) s TCMX	0.884	0.882	0.815	0.826	0.834	0.860	0.854	3.32
3) m alpha-BHC	1.045	1.060	1.089	1.170	1.215	1.250	1.160	8.44
4) S 4,4'-Dibromodiphenyl ether	1.001	0.983	0.902	0.907	0.918	0.938	0.943	4.05
5) m gamma-BHC (Li)	1.001	1.013	1.004	1.071	1.110	1.131	1.071	6.26
6) m beta-BHC		0.449	0.456	0.441	0.449	0.451	0.450	1.13
7) m delta-BHC	1.000	0.933	0.904	0.968	1.016	1.031	0.990	6.07
8) m Heptachlor	1.149	0.985	0.885	0.920	0.958	0.984	0.985	8.55
9) m Aldrin	0.880	0.909	0.908	0.967	1.006	1.023	0.964	6.95
10) m Heptachlor Epoxide	1.147	1.036	0.943	0.973	1.009	1.016	1.024	6.33
11) m Heptachlor Epoxide	0.960	0.910	0.831	0.856	0.887	0.896	0.895	4.74
12) m gamma-Chlordane	0.954	0.851	0.779	0.815	0.847	0.856	0.856	6.50
13) m alpha-Chlordane	0.825	0.821	0.774	0.799	0.827	0.836	0.821	3.53
14) m 4,4'-DDE	0.849	0.725	0.666	0.697	0.726	0.738	0.739	8.01
15) m Endosulfan I	0.767	0.754	0.716	0.744	0.772	0.781	0.764	4.04
16) m Dieldrin	0.779	0.791	0.763	0.801	0.835	0.847	0.814	5.34
17) m Endrin	0.622	0.665	0.639	0.670	0.705	0.712	0.681	6.65
18) m 4,4'-DDD	0.497	0.514	0.514	0.541	0.559	0.571	0.542	6.75
19) m Endosulfan II	0.717	0.669	0.623	0.635	0.655	0.663	0.665	4.94
20) m 4,4'-DDT	0.522	0.546	0.529	0.547	0.568	0.580	0.558	5.65
21) m Endrin Aldehyde	0.512	0.544	0.504	0.502	0.512	0.515	0.518	3.07
22) m Methoxychlor	0.272	0.310	0.287	0.282	0.286	0.287	0.288	4.01
23) m Endosulfan Sulfone	0.604	0.622	0.575	0.576	0.588	0.593	0.596	3.07
24) m Endrin Ketone	0.705	0.716	0.674	0.679	0.697	0.703	0.701	2.92
25) S Decachlorobiphenyl	0.610	0.618	0.558	0.531	0.530	0.526	0.557	7.24
26) L1 Toxaphene							0.009	7.96
27) L1 Toxaphene {2}							0.015	14.22
28) L1 Toxaphene {3}							0.015	2.83
29) L1 Toxaphene {4}							0.012	17.54
30) L1 Toxaphene - T...							0.051	3.31
31) L2 Chlordane							0.046	9.99
32) L2 Chlordane {2}							0.116	3.43
33) L2 Chlordane {3}							0.038	3.35
34) L2 Chlordane - T...							0.200	3.37

Signal #2 Calibration Files

1 =03220004.D 2 =03220005.D 3 =03220006.D  
 4 =03220007.D 5 =03220008.D 6 =03220009.D

Compound	1	2	3	4	5	6	Avg	%RSD
-----ISTD-----								
1) I Pentachloronitrobenzene								
2) s TCMX	0.833	0.833	0.784	0.797	0.812	0.804	0.814	2.55
3) m alpha-BHC	1.001	1.037	1.082	1.164	1.206	1.202	1.138	8.78

Response Factor Report GCI

Method Path : J:\GC33\Methods\  
 Method File : 032210\_508.M  
 Title : CAL aka032210\_508.m | MJ492  
 Last Update : Tue Mar 23 08:18:14 2010  
 Response Via : Initial Calibration

Calibration Files

1 =03220004.D 2 =03220005.D 3 =03220006.D  
 4 =03220007.D 5 =03220008.D 6 =03220009.D

Compound	1	2	3	4	5	6	Avg	%RSD
4) S 4,4'-Dibromoo...	0.996	0.949	0.892	0.886	0.904	0.894	0.922	4.33
5) m gamma-BHC (Li...	1.257	1.122	1.061	1.094	1.122	1.106	1.132	5.58
6) m beta-BHC	0.517	0.484	0.428	0.421	0.427	0.423	0.448	8.36
7) m delta-BHC	0.820	0.852	0.882	0.950	0.991	0.990	0.934	9.10
8) m Heptachlor	0.953	0.862	0.813	0.851	0.881	0.883	0.882	5.37
9) m Aldrin	0.901	0.890	0.882	0.939	0.971	0.965	0.938	5.24
10) m Heptachlor Ep...	0.864	0.919	0.878	0.930	1.000	0.956	0.940	6.57
11) m Heptachlor Ep...	0.803	0.774	0.784	0.820	0.806	0.835	0.809	3.00
12) m gamma-Chlordane	0.844	0.790	0.744	0.780	0.808	0.806	0.804	4.68
13) m alpha-Chlordane	0.815	0.783	0.739	0.766	0.791	0.786	0.787	3.85
14) m 4,4'-DDE	0.580	0.597	0.601	0.643	0.675	0.675	0.642	8.08
15) m Endosulfan I	0.847	0.771	0.700	0.721	0.744	0.738	0.757	6.31
16) m Dieldrin	0.751	0.743	0.725	0.767	0.798	0.797	0.775	5.34
17) m Endrin	0.650	0.652	0.633	0.666	0.695	0.694	0.675	5.31
18) m 4,4'-DDD	0.464	0.468	0.460	0.482	0.502	0.506	0.489	6.04
19) m Endosulfan II	0.598	0.604	0.571	0.592	0.615	0.616	0.608	4.46
20) m 4,4'-DDT	0.488	0.487	0.455	0.471	0.489	0.490	0.487	4.57
21) m Endrin Aldehyde	0.377	0.472	0.543	0.494	0.490	0.480	0.479	10.49 L
22) m Methoxychlor	0.257	0.261	0.232	0.227	0.229	0.225	0.238	6.19
23) m Endosulfan Su...	0.552	0.543	0.496	0.502	0.517	0.514	0.525	4.40
24) m Endrin Ketone	0.608	0.615	0.575	0.587	0.604	0.602	0.605	3.61
25) S Decachlorobip...	0.516	0.515	0.447	0.425	0.423	0.414	0.452	9.78
26) L1 Toxaphene							0.017	1.70
27) L1 Toxaphene {2}							0.030	5.17
28) L1 Toxaphene {3}							0.018	11.51
29) L1 Toxaphene {4}							0.016	2.93
30) L1 Toxaphene - T...							0.081	3.58
31) L2 Chlordane							0.040	6.22
32) L2 Chlordane {2}							0.107	4.84
33) L2 Chlordane {3}							0.036	3.57
34) L2 Chlordane - T...							0.183	2.80

(#) = Out of Range ### Number of calibration levels exceeded format ###

DATA ANALYSIS PARAMETERS

Method Name: J:\GC33\Methods\032210\_508.M

Percent Report Settings

Sort By: Signal

Output Destination

Screen: No  
Printer: Yes  
File: No

Integration Events: Meth Default

Generate Report During Run Method: No

Signal Correlation Window: 0.020

Quantitative Report Settings

Report Type: Summary

Output Destination

Screen: No  
Printer: Yes  
File: No

Generate Report During Run Method: No

CAL aka032210\_508.m | MJ492

Calibration Last Updated: Tue Mar 23 08:34:24 2010

Reference Window: 2.00 Minutes

Non-Reference Window: 1.00 Minutes

Correlation Window: 0.10 minutes

Default Multiplier: 1.00

Default Sample Concentration: 0.00

Compound Information

1) Pentachloronitrobenzene (ISTD)  
Ret. Time 12.916 min., Extract & Integrate from 12.866 to 12.966 min.

Lvl ID	Conc (ug/L)	Response
1	50.000	45734187
2	50.000	44343453
3	50.000	44440857
4	50.000	43444887
5	50.000	43023372
6	50.000	43291693
7	50.000	43378904
8	50.000	25044151
9	50.000	25443553
10	50.000	24809839
11	50.000	24348675
12	50.000	25607157
13	50.000	25823819
14	50.000	24110450
15	50.000	24329007
16	50.000	25789483
17	50.000	23719101
18	50.000	23880779
19	50.000	24676157

ISTD conc: 50.000 ug/L  
Curve Fit: Avg. RF

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2) TCMX ( )  
Ret. Time 10.515 min., Extract & Integrate from 10.465 to 10.565 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1617574
2	5.000	3909053
3	20.000	14493025
4	50.000	35886883
5	75.000	53839967
6	100.000	74434063
7	200.000	151835365
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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3) alpha-BHC ( )  
Ret. Time 12.035 min., Extract & Integrate from 11.985 to 12.085 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1911303
2	5.000	4700581
3	20.000	19352992
4	50.000	50817601
5	75.000	78430063
6	100.000	108190286
7	200.000	224546449
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

---

4) 4,4'-Dibromooctafluorobiphenyl ( )  
Ret. Time 12.403 min., Extract & Integrate from 12.353 to 12.453 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1832028
2	5.000	4358683
3	20.000	16026009
4	50.000	39416782
5	75.000	59241127
6	100.000	81228762
7	200.000	165298349
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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5) gamma-BHC (Lindane) ( )  
Ret. Time 12.757 min., Extract & Integrate from 12.707 to 12.807 min.

Lvl ID	Conc (ug/L)	Response
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1	2.000	1832082
2	5.000	4492669
3	20.000	17840618
4	50.000	46527651
5	75.000	71656441
6	100.000	97914272
7	200.000	202430671
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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6) beta-BHC ( )  
Ret. Time 12.962 min., Extract & Integrate from 12.912 to 13.012 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	-1
2	5.000	1992884
3	20.000	8105024
4	50.000	19148736
5	75.000	28996149
6	100.000	39049130
7	200.000	78567600
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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7) delta-BHC ( )  
Ret. Time 13.307 min., Extract & Integrate from 13.257 to 13.357 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1829517
2	5.000	4135590

3	20.000	16064945
4	50.000	42055033
5	75.000	65582518
6	100.000	89275225
7	200.000	187247809
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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8) Heptachlor ( )  
 Ret. Time 13.697 min., Extract & Integrate from 13.647 to 13.747 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	2102026
2	5.000	4369679
3	20.000	15737275
4	50.000	39963619
5	75.000	61849219
6	100.000	85180424
7	200.000	175768215
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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9) Aldrin ( )  
 Ret. Time 14.232 min., Extract & Integrate from 14.182 to 14.282 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1610164
2	5.000	4031790
3	20.000	16142939
4	50.000	42032878

5	75.000	64898899
6	100.000	88590256
7	200.000	183349350
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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10) Heptachlor Epoxide (A) ( )  
 Ret. Time 15.091 min., Extract & Integrate from 15.041 to 15.141 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	2097695
2	5.000	4592906
3	20.000	16760832
4	50.000	42251580
5	75.000	65119033
6	100.000	87980338
7	200.000	181645121
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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11) Heptachlor Epoxide (B) ( )  
 Ret. Time 15.227 min., Extract & Integrate from 15.177 to 15.277 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1756385
2	5.000	4034382
3	20.000	14779030
4	50.000	37199434
5	75.000	57248590
6	100.000	77535658



7	200.000	159899810
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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12) gamma-Chlordane ( )  
 Ret. Time 15.413 min., Extract & Integrate from 15.363 to 15.463 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1745894
2	5.000	3775280
3	20.000	13853171
4	50.000	35421803
5	75.000	54641921
6	100.000	74154663
7	200.000	154704012
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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13) alpha-Chlordane ( )  
 Ret. Time 15.609 min., Extract & Integrate from 15.559 to 15.659 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1508449
2	5.000	3640738
3	20.000	13761224
4	50.000	34697093
5	75.000	53363999
6	100.000	72357124
7	200.000	150383743
8	not used for this compound	

9 not used for this compound  
10 not used for this compound  
11 not used for this compound  
12 not used for this compound  
13 not used for this compound  
14 not used for this compound  
15 not used for this compound  
16 not used for this compound  
17 not used for this compound  
18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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14) 4,4'-DDE ( )  
Ret. Time 15.709 min., Extract & Integrate from 15.659 to 15.759 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1553918
2	5.000	3214039
3	20.000	11831801
4	50.000	30273058
5	75.000	46884702
6	100.000	63862750
7	200.000	134492535
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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15) Endosulfan I ( )  
Ret. Time 15.813 min., Extract & Integrate from 15.763 to 15.863 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1402237
2	5.000	3342002
3	20.000	12727972
4	50.000	32329055
5	75.000	49808452
6	100.000	67594988
7	200.000	141334320
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	

11 not used for this compound  
12 not used for this compound  
13 not used for this compound  
14 not used for this compound  
15 not used for this compound  
16 not used for this compound  
17 not used for this compound  
18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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16) Dieldrin ( )  
Ret. Time 16.154 min., Extract & Integrate from 16.104 to 16.204 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1424325
2	5.000	3505923
3	20.000	13567389
4	50.000	34780507
5	75.000	53870142
6	100.000	73355118
7	200.000	153806253
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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17) Endrin ( )  
Ret. Time 16.481 min., Extract & Integrate from 16.431 to 16.531 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1138063
2	5.000	2950071
3	20.000	11361667
4	50.000	29100251
5	75.000	45488550
6	100.000	61651475
7	200.000	130640810
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	

13 not used for this compound  
14 not used for this compound  
15 not used for this compound  
16 not used for this compound  
17 not used for this compound  
18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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18) 4,4'-DDD ( )  
Ret. Time 16.529 min., Extract & Integrate from 16.479 to 16.579 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	909209
2	5.000	2279807
3	20.000	9137965
4	50.000	23496261
5	75.000	36085040
6	100.000	49462950
7	200.000	104011786
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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19) Endosulfan II ( )  
Ret. Time 16.785 min., Extract & Integrate from 16.735 to 16.835 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1311156
2	5.000	2968732
3	20.000	11067070
4	50.000	27580387
5	75.000	42287010
6	100.000	57400659
7	200.000	120845849
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	

15 not used for this compound  
16 not used for this compound  
17 not used for this compound  
18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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20) 4,4'-DDT ( )  
Ret. Time 16.900 min., Extract & Integrate from 16.850 to 16.950 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	955808
2	5.000	2421997
3	20.000	9398450
4	50.000	23776678
5	75.000	36684663
6	100.000	50186050
7	200.000	106351767
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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21) Endrin Aldehyde ( )  
Ret. Time 17.373 min., Extract & Integrate from 17.323 to 17.423 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	937286
2	5.000	2412430
3	20.000	8951633
4	50.000	21788298
5	75.000	33027942
6	100.000	44606319
7	200.000	92788308
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	

17 not used for this compound  
18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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22) Methoxychlor ( )  
Ret. Time 17.528 min., Extract & Integrate from 17.478 to 17.578 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	498145
2	5.000	1374192
3	20.000	5100822
4	50.000	12234725
5	75.000	18455161
6	100.000	24838293
7	200.000	50853311
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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23) Endosulfan Sulfate ( )  
Ret. Time 18.003 min., Extract & Integrate from 17.953 to 18.053 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1104603
2	5.000	2756692
3	20.000	10225304
4	50.000	25022570
5	75.000	37952058
6	100.000	51328067
7	200.000	106811993
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	

19 not used for this compound

Curve Fit: Avg. RF

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24) Endrin Ketone ( )  
Ret. Time 18.422 min., Extract & Integrate from 18.372 to 18.472 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1289608
2	5.000	3173590
3	20.000	11973820
4	50.000	29513015
5	75.000	45001449
6	100.000	60897237
7	200.000	127256553
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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25) Decachlorobiphenyl ( )  
Ret. Time 19.802 min., Extract & Integrate from 19.752 to 19.852 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1115974
2	5.000	2741631
3	20.000	9917936
4	50.000	23053606
5	75.000	34211937
6	100.000	45501520
7	200.000	91763194
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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26) Toxaphene ( )  
Ret. Time 16.265 min., Extract & Integrate from 16.215 to 16.315 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	50.000	236262
9	100.000	525951
10	250.000	1187079
11	500.000	2153229
12	750.000	3236631
13	1000.000	4398619
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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27) Toxaphene {2} ( )  
Ret. Time 16.349 min., Extract & Integrate from 16.299 to 16.399 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	50.000	476085
9	100.000	866957
10	250.000	1878237
11	500.000	3402333
12	750.000	5076940
13	1000.000	7323825
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF



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28) Toxaphene {3} ( )  
Ret. Time 17.707 min., Extract & Integrate from 17.657 to 17.757 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	50.000	356258
9	100.000	732353
10	250.000	1879523
11	500.000	3720338
12	750.000	5694813
13	1000.000	7731260
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF  
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29) Toxaphene {4} ( )  
Ret. Time 17.856 min., Extract & Integrate from 17.806 to 17.906 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	50.000	222647
9	100.000	509851
10	250.000	1753897
11	500.000	3366247
12	750.000	4784606
13	1000.000	6539700
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF  
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30) Toxaphene - TOTAL

( )

Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	50.000	1291252
9	100.000	2635112
10	250.000	6698736
11	500.000	12642147
12	750.000	18792990
13	1000.000	25993404
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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31) Chlordane

( )

Ret. Time 14.466 min., Extract & Integrate from 14.416 to 14.516 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	50.000	1315598
15	100.000	2351248
16	250.000	5704944
17	500.000	10308595
18	750.000	15515163
19	1000.000	21088017

Curve Fit: Avg. RF

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32) Chlordane {2}

( )

Ret. Time 15.395 min., Extract & Integrate from 15.345 to 15.445 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	50.000	2828043
15	100.000	5454729
16	250.000	14157243
17	500.000	28122696
18	750.000	42377448
19	1000.000	58939973

Curve Fit: Avg. RF

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33) Chlordane {3} ( )  
Ret. Time 16.673 min., Extract & Integrate from 16.623 to 16.723 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	50.000	924779
15	100.000	1817679
16	250.000	4528750
17	500.000	8926053
18	750.000	13735461
19	1000.000	18933263

Curve Fit: Avg. RF

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34) Chlordane - TOTAL ( )  
Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	50.000	5068420
15	100.000	9623656
16	250.000	24390937
17	500.000	47357344
18	750.000	71628072
19	1000.000	98961253

Curve Fit: Avg. RF

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35) Signal #2 ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	50.000	-1
15	100.000	-1
16	250.000	26468
17	500.000	-1
18	750.000	-1
19	1000.000	-1

Curve Fit: Avg. RF

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36) Pentachloronitrobenzene #2 (ISTD)  
 Ret. Time 11.890 min., Extract & Integrate from 11.840 to 11.940 min.

Lvl ID	Conc (ug/L)	Response
1	50.000	56912257

2	50.000	55973059
3	50.000	56626712
4	50.000	55502972
5	50.000	55201537
6	50.000	56567715
7	50.000	55571100
8	50.000	40082525
9	50.000	40818791
10	50.000	39888977
11	50.000	38826635
12	50.000	40339155
13	50.000	41628162
14	50.000	38430596
15	50.000	39282309
16	50.000	39992099
17	50.000	39280052
18	50.000	38429868
19	50.000	40287322

ISTD conc: 50.000 ug/L  
 Curve Fit: Avg. RF

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37) TCMX #2 ( )  
 Ret. Time 9.466 min., Extract & Integrate from 9.416 to 9.516 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1897378
2	5.000	4661419
3	20.000	17759437
4	50.000	44209574
5	75.000	67235394
6	100.000	90947743
7	200.000	186127915
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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38) alpha-BHC #2 ( )  
 Ret. Time 11.102 min., Extract & Integrate from 11.052 to 11.152 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	2279195
2	5.000	5802475
3	20.000	24501598

4	50.000	64611339
5	75.000	99872719
6	100.000	136032706
7	200.000	282983708
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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39) 4,4'-Dibromooctafluorobiphenyl #2 ( )  
 Ret. Time 10.492 min., Extract & Integrate from 10.442 to 10.542 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	2268192
2	5.000	5314619
3	20.000	20213648
4	50.000	49197175
5	75.000	74883400
6	100.000	101182674
7	200.000	206414176
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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40) gamma-BHC (Lindane) #2 ( )  
 Ret. Time 11.947 min., Extract & Integrate from 11.897 to 11.997 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	2862282
2	5.000	6281720
3	20.000	24033720
4	50.000	60701021
5	75.000	92927514

6	100.000	125126314
7	200.000	258043198
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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41) beta-BHC #2 ( )  
 Ret. Time 12.177 min., Extract & Integrate from 12.127 to 12.227 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1177906
2	5.000	2711317
3	20.000	9698666
4	50.000	23388365
5	75.000	35361130
6	100.000	47828973
7	200.000	97300115
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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42) delta-BHC #2 ( )  
 Ret. Time 12.739 min., Extract & Integrate from 12.689 to 12.789 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1867080
2	5.000	4768823
3	20.000	19967140
4	50.000	52705229
5	75.000	82060592
6	100.000	111994226
7	200.000	234161246

8 not used for this compound  
9 not used for this compound  
10 not used for this compound  
11 not used for this compound  
12 not used for this compound  
13 not used for this compound  
14 not used for this compound  
15 not used for this compound  
16 not used for this compound  
17 not used for this compound  
18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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43) Heptachlor #2 ( )  
Ret. Time 12.825 min., Extract & Integrate from 12.775 to 12.875 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	2169720
2	5.000	4822739
3	20.000	18411278
4	50.000	47206690
5	75.000	72966255
6	100.000	99881835
7	200.000	206509773
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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44) Aldrin #2 ( )  
Ret. Time 13.384 min., Extract & Integrate from 13.334 to 13.434 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	2050222
2	5.000	4980882
3	20.000	19985674
4	50.000	52112647
5	75.000	80433324
6	100.000	109225474
7	200.000	225432391
8	not used for this compound	
9	not used for this compound	



10 not used for this compound  
11 not used for this compound  
12 not used for this compound  
13 not used for this compound  
14 not used for this compound  
15 not used for this compound  
16 not used for this compound  
17 not used for this compound  
18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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45) Heptachlor Epoxide (A) #2 ( )  
Ret. Time 14.346 min., Extract & Integrate from 14.296 to 14.396 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1966977
2	5.000	5145253
3	20.000	19885239
4	50.000	51611496
5	75.000	82803965
6	100.000	108117190
7	200.000	229924769
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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46) Heptachlor Epoxide (B) #2 ( )  
Ret. Time 14.312 min., Extract & Integrate from 14.262 to 14.362 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1827539
2	5.000	4334805
3	20.000	17762586
4	50.000	45513961
5	75.000	66716745
6	100.000	94511635
7	200.000	186299036
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	

12 not used for this compound  
13 not used for this compound  
14 not used for this compound  
15 not used for this compound  
16 not used for this compound  
17 not used for this compound  
18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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47) gamma-Chlordane #2 ( )  
Ret. Time 14.598 min., Extract & Integrate from 14.548 to 14.648 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1921646
2	5.000	4421462
3	20.000	16860045
4	50.000	43278537
5	75.000	66937926
6	100.000	91162417
7	200.000	189829327
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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48) alpha-Chlordane #2 ( )  
Ret. Time 14.807 min., Extract & Integrate from 14.757 to 14.857 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1855630
2	5.000	4379892
3	20.000	16738201
4	50.000	42514339
5	75.000	65510753
6	100.000	88928941
7	200.000	184683874
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	

14 not used for this compound  
15 not used for this compound  
16 not used for this compound  
17 not used for this compound  
18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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49) 4,4'-DDE #2 ( )  
Ret. Time 15.067 min., Extract & Integrate from 15.017 to 15.117 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1320986
2	5.000	3339829
3	20.000	13620222
4	50.000	35707222
5	75.000	55855909
6	100.000	76420122
7	200.000	160575965
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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50) Endosulfan I #2 ( )  
Ret. Time 14.870 min., Extract & Integrate from 14.820 to 14.920 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1928506
2	5.000	4315975
3	20.000	15857416
4	50.000	40040791
5	75.000	61571670
6	100.000	83531175
7	200.000	172381504
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	

16 not used for this compound  
17 not used for this compound  
18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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51) Dieldrin #2 ( )  
Ret. Time 15.249 min., Extract & Integrate from 15.199 to 15.299 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1710373
2	5.000	4160031
3	20.000	16418961
4	50.000	42572912
5	75.000	66082504
6	100.000	90210104
7	200.000	188136487
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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52) Endrin #2 ( )  
Ret. Time 15.645 min., Extract & Integrate from 15.595 to 15.695 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1480746
2	5.000	3648944
3	20.000	14337265
4	50.000	36966198
5	75.000	57518285
6	100.000	78493425
7	200.000	164098199
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	

18 not used for this compound  
19 not used for this compound

Curve Fit: Avg. RF

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53) 4,4'-DDD #2 ( )  
Ret. Time 15.810 min., Extract & Integrate from 15.760 to 15.860 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1055263
2	5.000	2617506
3	20.000	10408873
4	50.000	26749492
5	75.000	41544729
6	100.000	57206828
7	200.000	120410250
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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54) Endosulfan II #2 ( )  
Ret. Time 15.918 min., Extract & Integrate from 15.868 to 15.968 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1361155
2	5.000	3380383
3	20.000	12931360
4	50.000	32872246
5	75.000	50891240
6	100.000	69715213
7	200.000	146396727
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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55) 4,4'-DDT #2 ( )  
Ret. Time 16.200 min., Extract & Integrate from 16.150 to 16.250 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1111441
2	5.000	2724487
3	20.000	10317345
4	50.000	26166337
5	75.000	40510163
6	100.000	55482173
7	200.000	117468261
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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56) Endrin Aldehyde #2 ( )  
Ret. Time 16.340 min., Extract & Integrate from 16.290 to 16.390 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	859113
2	5.000	2641660
3	20.000	12296508
4	50.000	27403965
5	75.000	40586466
6	100.000	54357184
7	200.000	110787975
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Linear

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57) Methoxychlor #2 ( )  
Ret. Time 17.015 min., Extract & Integrate from 16.965 to 17.065 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	584879
2	5.000	1462817
3	20.000	5261968
4	50.000	12600890
5	75.000	18963578
6	100.000	25509150
7	200.000	52197077
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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58) Endosulfan Sulfate #2 ( )  
Ret. Time 16.683 min., Extract & Integrate from 16.633 to 16.733 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1257450
2	5.000	3039534
3	20.000	11224028
4	50.000	27880928
5	75.000	42779620
6	100.000	58196888
7	200.000	121932864
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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59) Endrin Ketone #2

( )

Ret. Time 17.368 min., Extract & Integrate from 17.318 to 17.418 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1383904
2	5.000	3443059
3	20.000	13015174
4	50.000	32559633
5	75.000	50024443
6	100.000	68142856
7	200.000	143019368
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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60) Decachlorobiphenyl #2

( )

Ret. Time 19.104 min., Extract & Integrate from 19.054 to 19.154 min.

Lvl ID	Conc (ug/L)	Response
1	2.000	1174183
2	5.000	2880231
3	20.000	10129991
4	50.000	23579509
5	75.000	35038519
6	100.000	46810045
7	200.000	94614571
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

---



61) Toxaphene #2 ( )  
Ret. Time 15.961 min., Extract & Integrate from 15.911 to 16.011 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	50.000	671418
9	100.000	1374405
10	250.000	3345033
11	500.000	6424216
12	750.000	9971242
13	1000.000	14390978
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

---

62) Toxaphene {2} #2 ( )  
Ret. Time 16.084 min., Extract & Integrate from 16.034 to 16.134 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	50.000	1282940
9	100.000	2283270
10	250.000	5615137
11	500.000	11782526
12	750.000	18041171
13	1000.000	25490126
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

---

63) Toxaphene {3} #2 ( )  
Ret. Time 16.414 min., Extract & Integrate from 16.364 to 16.464 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	50.000	878509
9	100.000	1497347
10	250.000	3376542
11	500.000	6462442
12	750.000	9877263
13	1000.000	14679764
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

---

64) Toxaphene {4} #2 ( )  
 Ret. Time 17.050 min., Extract & Integrate from 17.000 to 17.100 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	50.000	618033
9	100.000	1298496
10	250.000	3287287
11	500.000	6508289
12	750.000	9899915
13	1000.000	13556212
14	not used for this compound	
15	not used for this compound	
16	not used for this compound	
17	not used for this compound	
18	not used for this compound	
19	not used for this compound	

Curve Fit: Avg. RF

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65) Toxaphene - TOTAL #2 ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
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1	not used for this compound
2	not used for this compound
3	not used for this compound
4	not used for this compound
5	not used for this compound
6	not used for this compound
7	not used for this compound
8	50.000 3450900
9	100.000 6453518
10	250.000 15623999
11	500.000 31177473
12	750.000 47789591
13	1000.000 68117080
14	not used for this compound
15	not used for this compound
16	not used for this compound
17	not used for this compound
18	not used for this compound
19	not used for this compound

Curve Fit: Avg. RF

-----

66) Chlordane #2 ( )  
 Ret. Time 13.727 min., Extract & Integrate from 13.678 to 13.778 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	50.000	1724393
15	100.000	3242940
16	250.000	7960842
17	500.000	15446967
18	750.000	22547658
19	1000.000	30336597

Curve Fit: Avg. RF

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67) Chlordane {2} #2 ( )  
 Ret. Time 14.650 min., Extract & Integrate from 14.600 to 14.700 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	

3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	50.000	4016080
15	100.000	7897262
16	250.000	20454839
17	500.000	42734717
18	750.000	65482294
19	1000.000	89520865

Curve Fit: Avg. RF

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68) Chlordane {3} #2 ( )  
 Ret. Time 16.036 min., Extract & Integrate from 15.986 to 16.086 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	50.000	1340725
15	100.000	2618363
16	250.000	7259347
17	500.000	14025196
18	750.000	21211638
19	1000.000	29226428

Curve Fit: Avg. RF

-----

69) Chlordane - TOTAL #2 ( )  
 Ret. Time 0.000 min., Extract & Integrate from 0.000 to 0.050 min.

Lvl ID	Conc (ug/L)	Response
1	not used for this compound	
2	not used for this compound	
3	not used for this compound	
4	not used for this compound	

5	not used for this compound	
6	not used for this compound	
7	not used for this compound	
8	not used for this compound	
9	not used for this compound	
10	not used for this compound	
11	not used for this compound	
12	not used for this compound	
13	not used for this compound	
14	50.000	7081198
15	100.000	13758565
16	250.000	35675028
17	500.000	72206880
18	750.000	109241590
19	1000.000	149083890

Curve Fit: Avg. RF

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END OF DATA ANALYSIS PARAMETERS

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Tue Mar 23 08:58:34 2010

Data File : J:\GC33\Data\032210-608\03220004.D  
 Acq On : 22-Mar-2010, 15:18:12  
 Acq Meth : 508.M  
 Sample : 4-53H 2PPB  
 Misc :  
 Quant Time : Mar 23 08:07:15 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Thu Feb 11 21:03:14 2010

Operator : PM/LP  
 Vial : 2  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

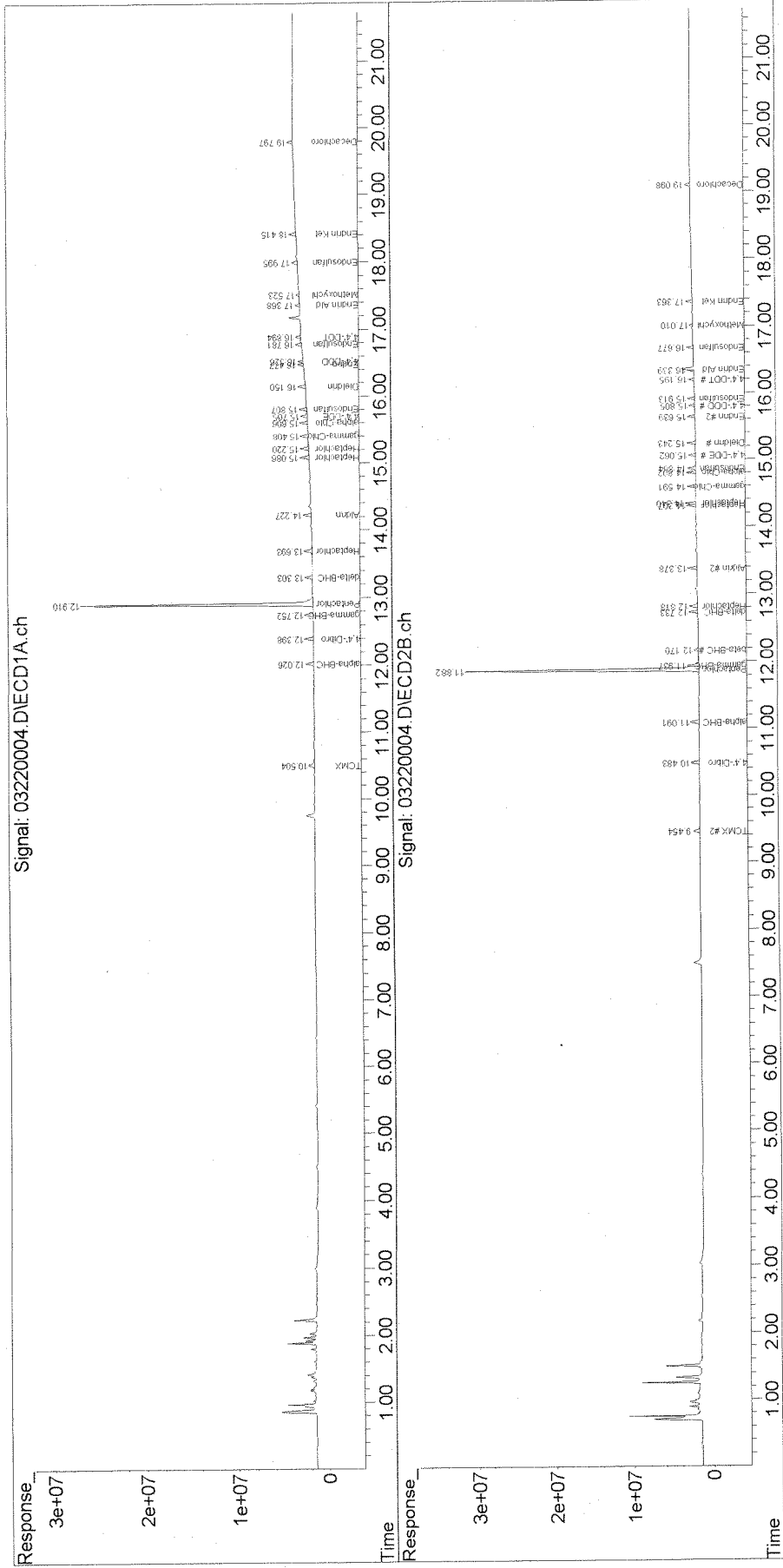
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.91	11.88	45734187	56912257	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.50	9.45	1617574	1897378	1.872	1.880
4) 4,4'-Dibromooctaf...	12.40	10.48	1832028	2268192	1.952	2.014
25) Decachlorobiphenyl	19.80	19.10	1115974	1174183	1.071	2.159 #
Target Compounds						
3) alpha-BHC	12.03	11.09	1911303	2279195	1.498	1.507
5) gamma-BHC (Lindane)	12.75	11.94	1832082	2862282	1.595	1.923
6) beta-BHC	0.00	12.17	0	1177906	N.D.	1.956 #
7) delta-BHC	13.30	12.73	1829517	1867080	1.713	1.456
8) Heptachlor	13.69	12.82	2102026	2169720	1.913	1.727
9) Aldrin	14.23	13.38	1610164	2050222	1.567	1.657
10) Heptachlor Epoxid...	15.09	14.34	2097695	1966977	2.188	1.717
11) Heptachlor Epoxid...	15.22	14.31	1756385	1827539	1.913	1.638
12) gamma-Chlordane	15.41	14.59	1745894	1921646	2.022	1.771
13) alpha-Chlordane	15.61	14.80	1508449	1855630	1.743	1.745
14) 4,4'-DDE	15.71	15.06	1553918	1320986	2.107	1.488 #
15) Endosulfan I	15.81	14.86	1402237	1928506	1.742	1.949
16) Dieldrin	16.15	15.24	1424325	1710373	1.677	1.606
17) Endrin	16.48	15.64	1138063	1480746	1.603	1.574
18) 4,4'-DDD	16.53	15.81	909209	1055263	1.611	1.501
19) Endosulfan II	16.78	15.91	1311156	1361155	1.920	1.613
20) 4,4'-DDT	16.89	16.20	955808	1111441	1.602	1.597
21) Endrin Aldehyde	17.37	16.34	937286	859113	1.765	1.338m
22) Methoxychlor	17.52	17.01	498145	584879	1.591	1.758
23) Endosulfan Sulfate	18.00	16.68	1104603	1257450	1.794	1.725
24) Endrin Ketone	18.41	17.36	1289608	1383904	1.770	1.580
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : J:\GC33\Data\0322210-608\032220004.D  
Acq On : 22-Mar-2010, 15:18:12  
Acq Meth : 508.M  
Sample : 4-53H 2PPB  
Misc :  
Quant Time : Mar 23 08:07:15 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\021110\_508.M  
Quant Title : CAL9211 aka 021110\_508.m | MJ492  
QLast Update : Thu Feb 11 21:03:14 2010

Operator : PM/LP  
Vial : 2  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

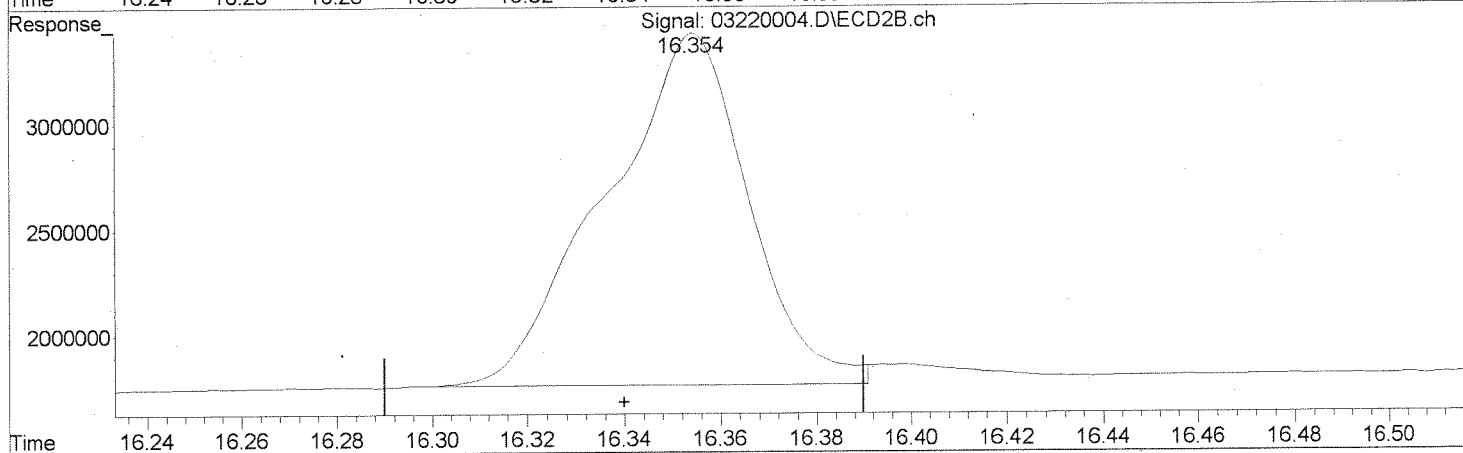
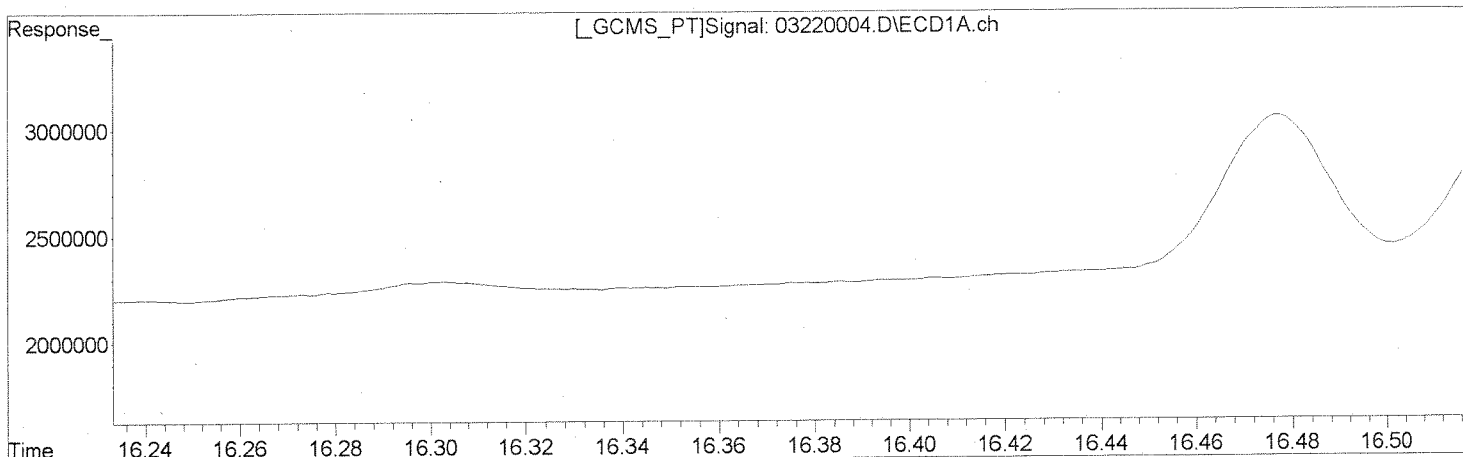


Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220004.D  
Acq On : 22-Mar-2010, 15:18:12  
Acq Meth : 508.M  
Sample : 4-53H 2PPB  
Misc :  
Quant Time : Mar 23 08:04:55 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\021110\_508.M  
Quant Title : CAL9211 aka 021110\_508.m | MJ492  
QLast Update : Thu Feb 11 21:03:14 2010

Operator : PM/LP  
Vial : 2  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP  
Signal #1 Info : 320 x 0.50 um  
Signal #2 Phase : RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



QEdit

(21) Endrin Aldehyde (m)  
17.368min 1.765 ug/L  
response 937286

(21) Endrin Aldehyde #2 (m)  
16.354min 5.298 ug/L  
response 3401627

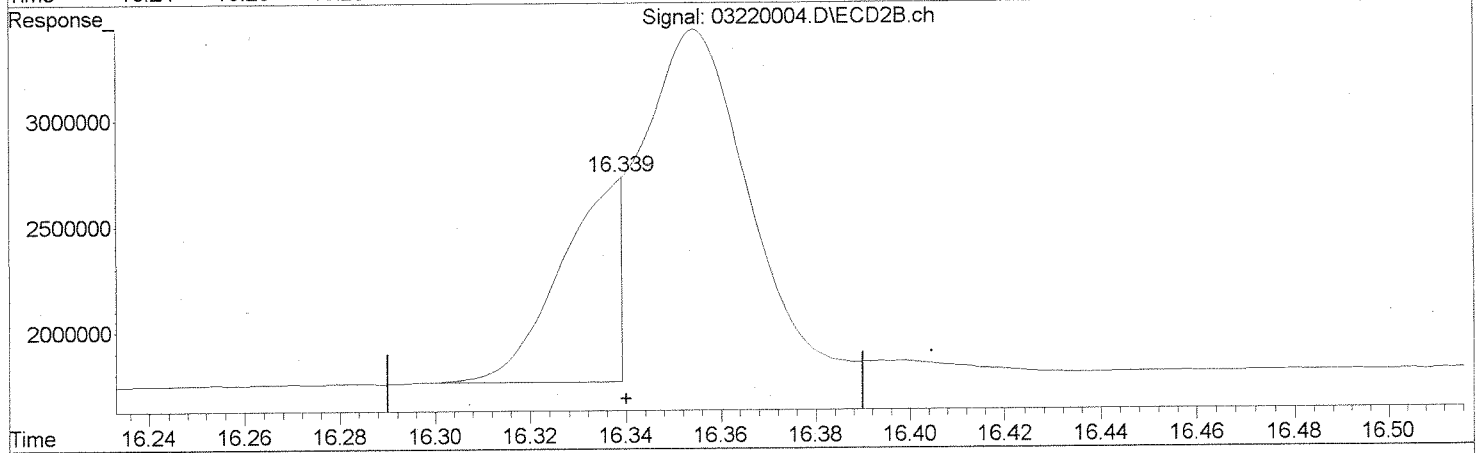
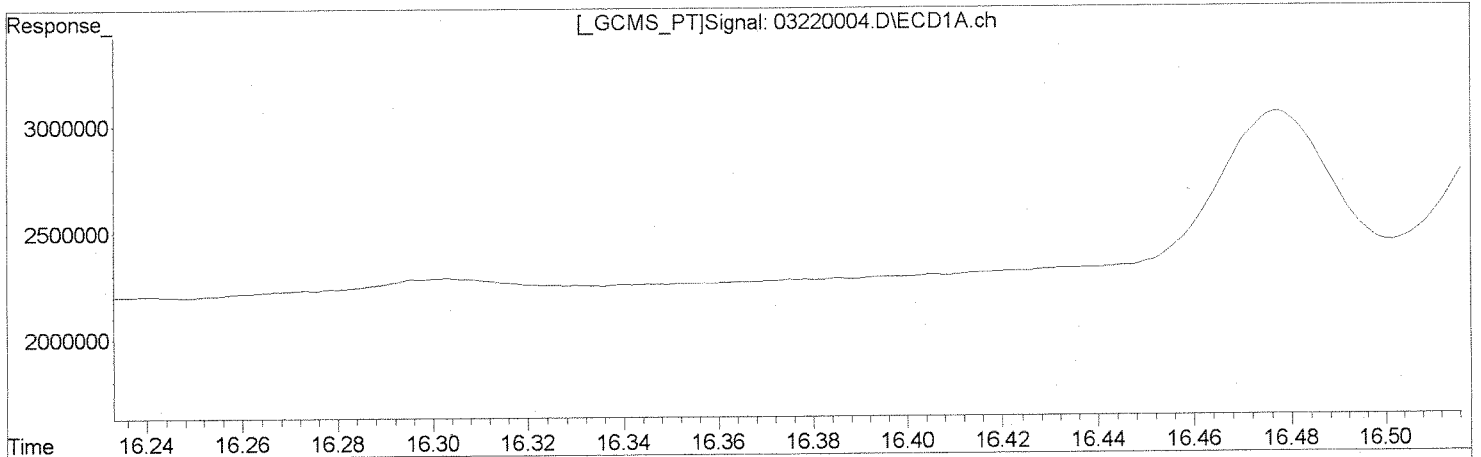


Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220004.D  
Acq On : 22-Mar-2010, 15:18:12  
Acq Meth : 508.M  
Sample : 4-53H 2PPB  
Misc :  
Quant Time : Mar 23 08:04:55 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\021110\_508.M  
Quant Title : CAL9211 aka 021110\_508.m | MJ492  
QLast Update : Thu Feb 11 21:03:14 2010

Operator : PM/LP  
Vial : 2  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP  
Signal #1 Info : 320 x 0.50 um  
Signal #2 Phase : RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



QEdit

(21) Endrin Aldehyde (m)  
17.368min 1.765 ug/L  
response 937286

(21) Endrin Aldehyde #2 (m)  
16.339min 1.338 ug/L m  
response 859113

*SH*  
*MA*  
*3/23/10*

*MOZGLO*

Data File : J:\GC33\Data\032210-608\03220005.D  
 Acq On : 22-Mar-2010, 15:45:53  
 Acq Meth : 508.M  
 Sample : 4-53I 5 PPB  
 Misc :  
 Quant Time : Mar 23 08:09:17 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
 Vial : 3  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

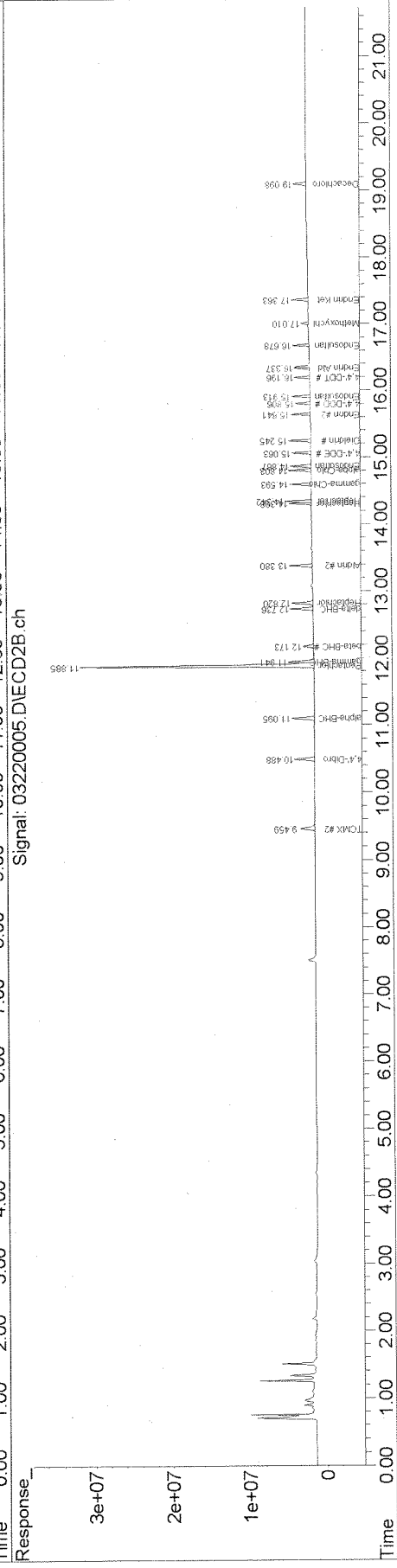
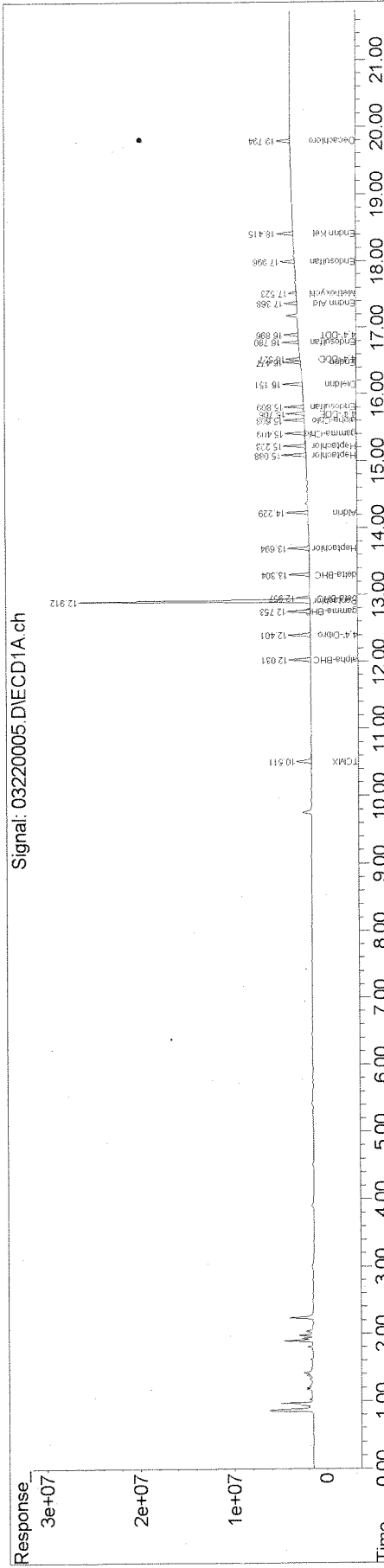
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.91	11.89	44343453	55973059	50.000m	50.000
System Monitoring Compounds						
2) TCMX	10.51	9.46	3909053	4661419	4.666	4.696
4) 4,4'-Dibromooctaf...	12.40	10.49	4358683	5314619	4.789	4.797
25) Decachlorobiphenyl	19.79	19.10	2741631	2880231	4.485	5.384
Target Compounds						
3) alpha-BHC	12.03	11.10	4700581	5802475	3.801	3.901
5) gamma-BHC (Lindane)	12.75	11.94	4492669	6281720	4.035	4.291
6) beta-BHC	12.96	12.17	1992884	2711317	4.333m	4.578
7) delta-BHC	13.30	12.74	4135590	4768823	3.993	3.782
8) Heptachlor	13.69	12.82	4369679	4822739	4.101	3.903
9) Aldrin	14.23	13.38	4031790	4980882	4.046	4.094
10) Heptachlor Epoxid...	15.09	14.34	4592906	5145253	4.941	4.566
11) Heptachlor Epoxid...	15.22	14.31	4034382	4334805	4.533	3.950
12) gamma-Chlordane	15.41	14.59	3775280	4421462	4.509	4.142
13) alpha-Chlordane	15.61	14.80	3640738	4379892	4.339	4.188
14) 4,4'-DDE	15.71	15.06	3214039	3339829	4.494	3.824
15) Endosulfan I	15.81	14.87	3342002	4315975	4.282	4.434
16) Dieldrin	16.15	15.24	3505923	4160031	4.256	3.971
17) Endrin	16.48	15.64	2950071	3648944	4.285	3.944
18) 4,4'-DDD	16.53	15.81	2279807	2617506	4.167	3.785
19) Endosulfan II	16.78	15.91	2968732	3380383	4.484	4.072
20) 4,4'-DDT	16.90	16.20	2421997	2724487	4.188	3.980
21) Endrin Aldehyde	17.37	16.34	2412430	2641660	4.685	4.183m
22) Methoxychlor	17.52	17.01	1374192	1462817	4.525	4.471
23) Endosulfan Sulfate	18.00	16.68	2756692	3039534	4.619	4.239
24) Endrin Ketone	18.41	17.36	3173590	3443059	4.494	3.997
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : J:\GC33\Data\032210-608\03220005.D  
 Acq On : 22-Mar-2010, 15:45:53  
 Acq Meth : 508.M  
 Sample : 4-53I 5 PPB  
 Misc :  
 Quant Time : Mar 23 08:09:17 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
 Vial : 3  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

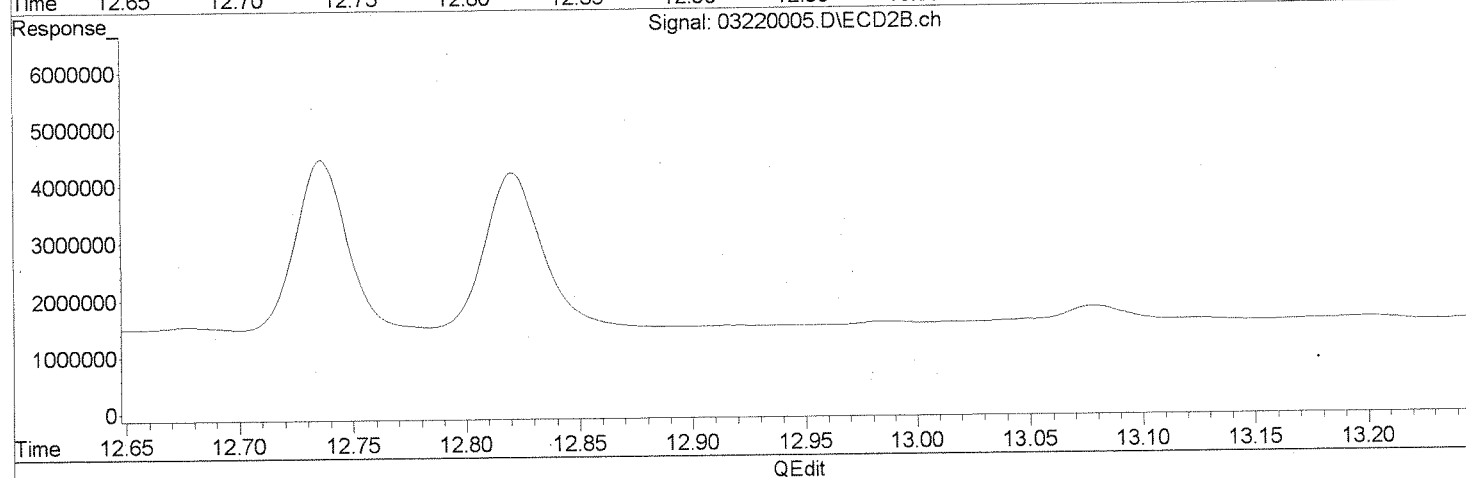
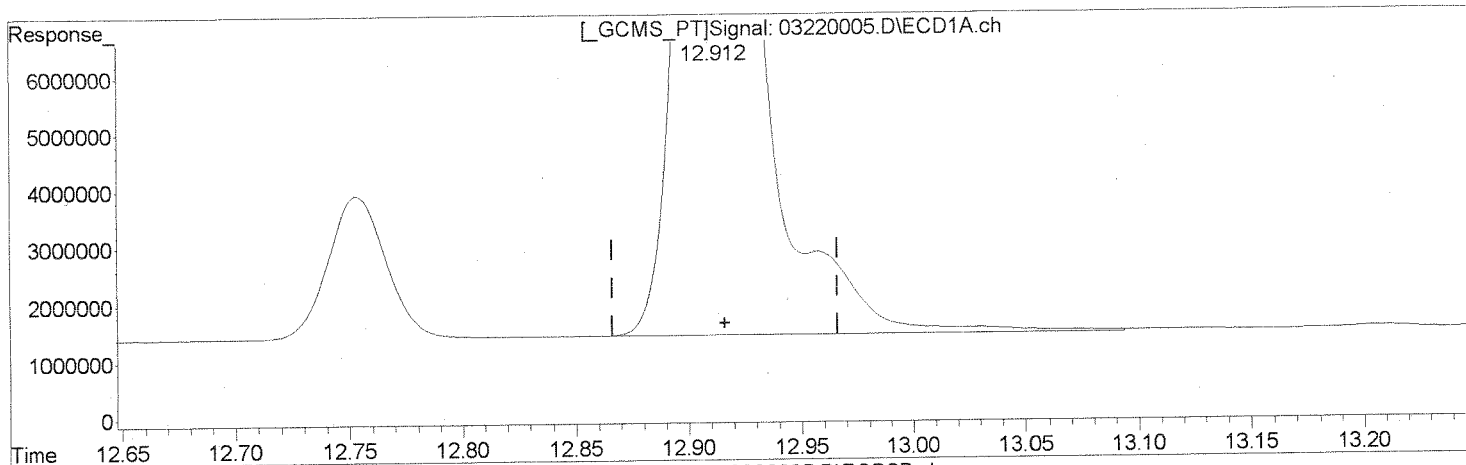


Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220005.D  
Acq On : 22-Mar-2010, 15:45:53  
Acq Meth : 508.M  
Sample : 4-53I 5 PPB  
Misc :  
Quant Time : Mar 23 08:02:02 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\021110\_508.M  
Quant Title : CAL9211 aka 021110\_508.m | MJ492  
QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
Vial : 3  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP  
Signal #1 Info : 320 x 0.50 um  
Signal #2 Phase : RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



(1) Pentachloronitrobenzene (I)

12.912min 50.000 ug/L

response 46810875

(1) Pentachloronitrobenzene #2 (I)

11.885min 50.000 ug/L

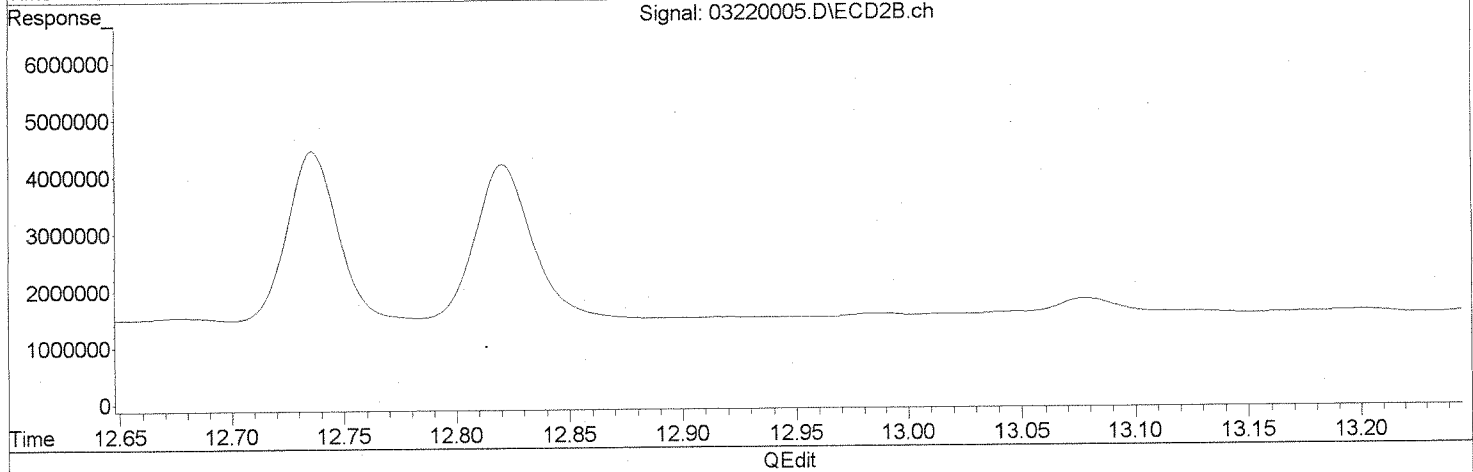
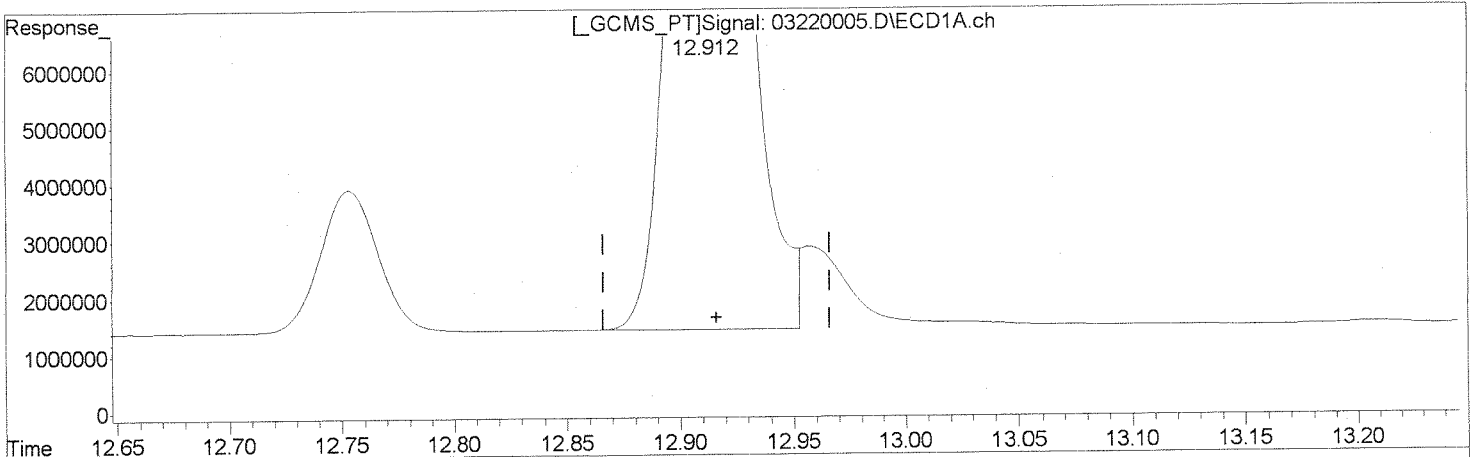
response 55973059

Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220005.D  
Acq On : 22-Mar-2010, 15:45:53  
Acq Meth : 508.M  
Sample : 4-53I 5 PPB  
Misc :  
Quant Time : Mar 23 08:02:02 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\021110\_508.M  
Quant Title : CAL9211 aka 021110\_508.m | MJ492  
QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
Vial : 3  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP  
Signal #1 Info : 320 x 0.50 um  
Signal #2 Phase : RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



(1) Pentachloronitrobenzene (I)  
12.912min 50.000 ug/L m  
response 44343453

(1) Pentachloronitrobenzene #2 (I)  
11.885min 50.000 ug/L  
response 55973059

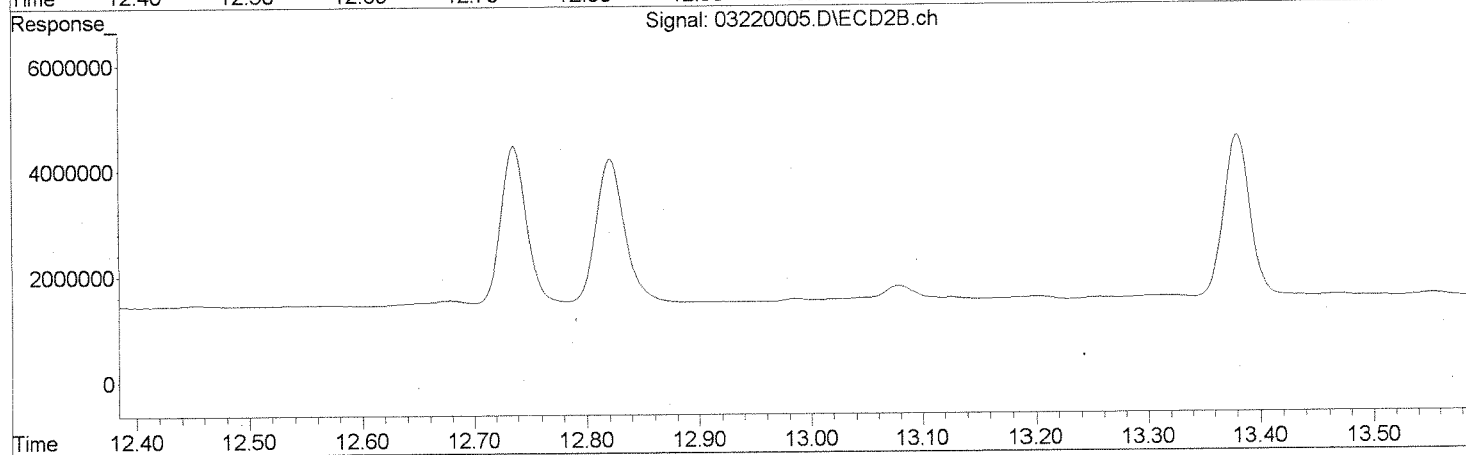
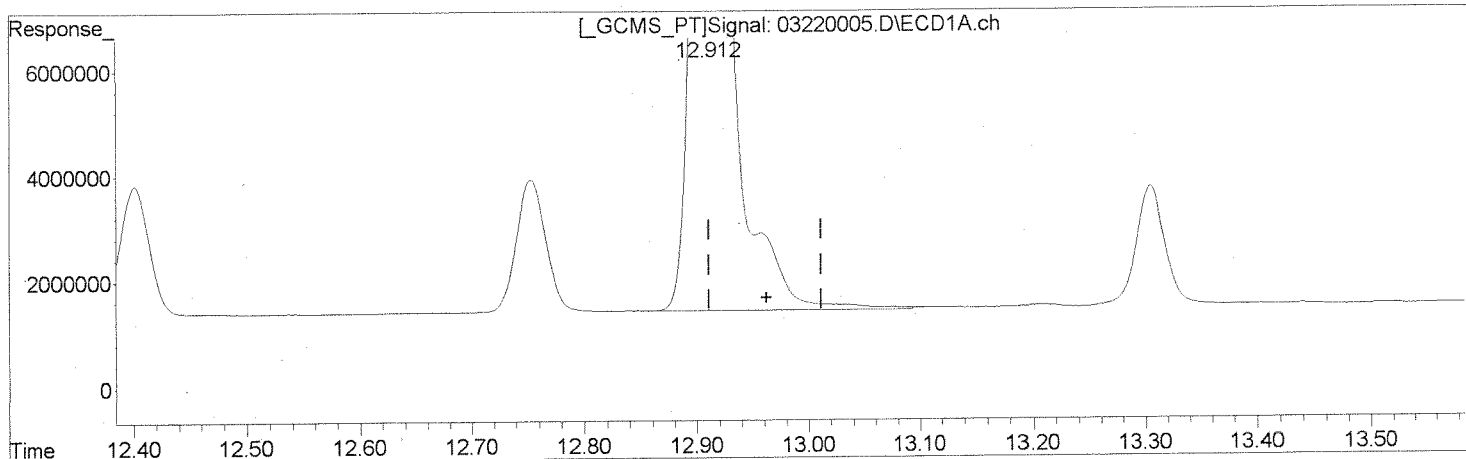
*SH*  
*3/23/10*  
*PM032010*

Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220005.D  
Acq On : 22-Mar-2010, 15:45:53  
Acq Meth : 508.M  
Sample : 4-53I 5 PPB  
Misc :  
Quant Time : Mar 23 08:02:02 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\021110\_508.M  
Quant Title : CAL9211 aka 021110\_508.m | MJ492  
QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
Vial : 3  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP  
Signal #1 Info : 320 x 0.50 um  
Signal #2 Phase: RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



QEdit

(6) beta-BHC (m)  
12.912min 101.783 ug/L  
response 46810875

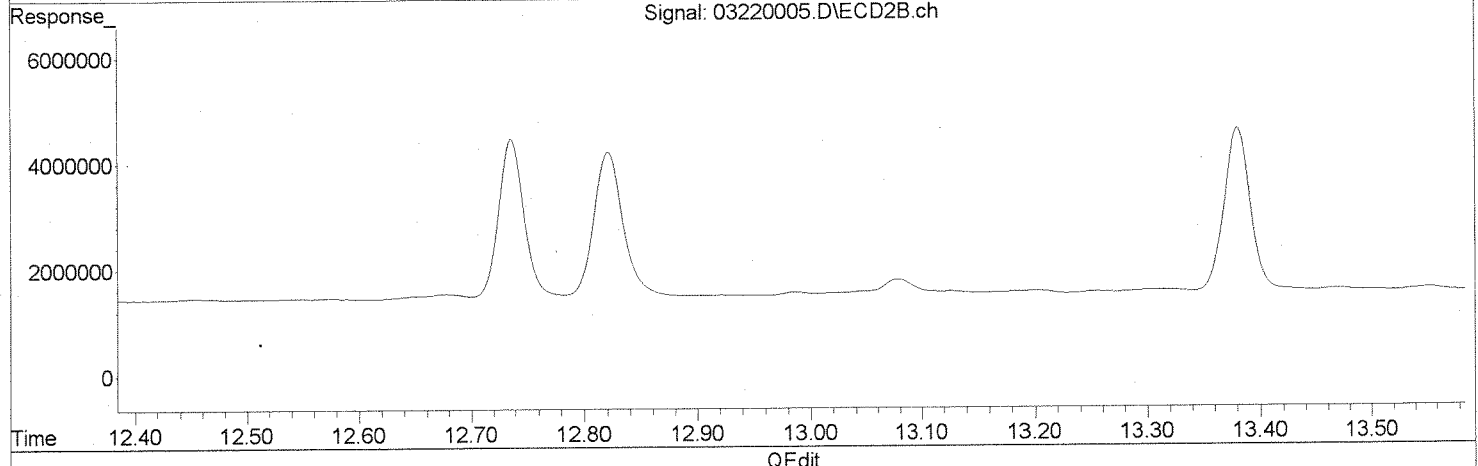
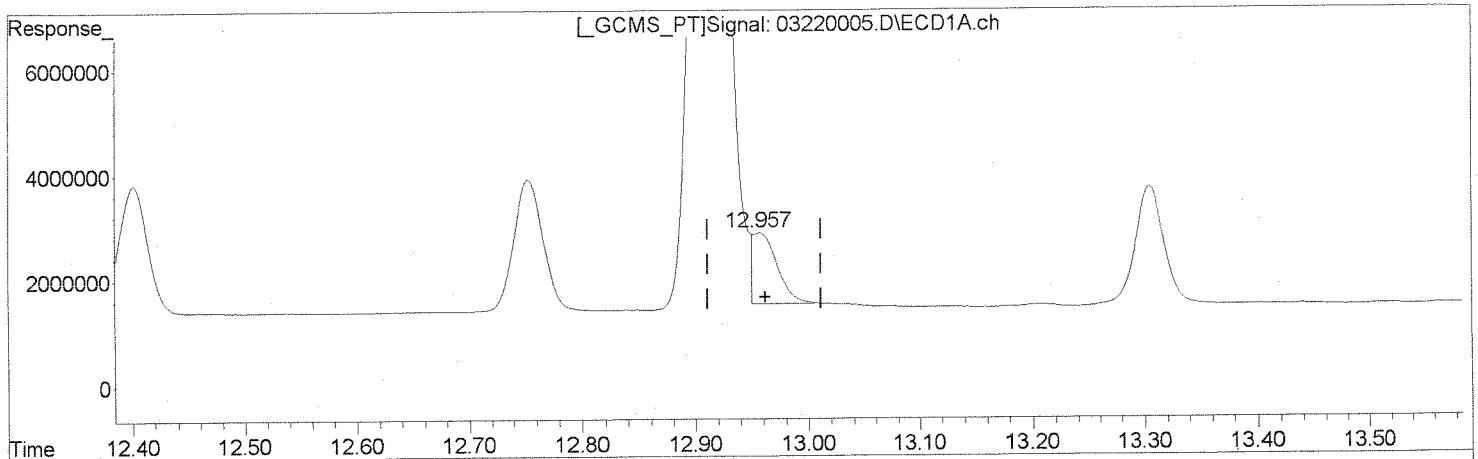
(6) beta-BHC #2 (m)  
12.173min 4.578 ug/L  
response 2711317

Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220005.D  
Acq On : 22-Mar-2010, 15:45:53  
Acq Meth : 508.M  
Sample : 4-53I 5 PPB  
Misc :  
Quant Time : Mar 23 08:02:02 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\021110\_508.M  
Quant Title : CAL9211 aka 021110\_508.m | MJ492  
QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
Vial : 3  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP  
Signal #1 Info : 320 x 0.50 um  
Signal #2 Phase : RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



(6) beta-BHC (m)  
12.957min 4.333 ug/L m  
response 1992884

(6) beta-BHC #2 (m)  
12.173min 4.578 ug/L  
response 2711317

*SH*  
*mm*  
*3/23/10*

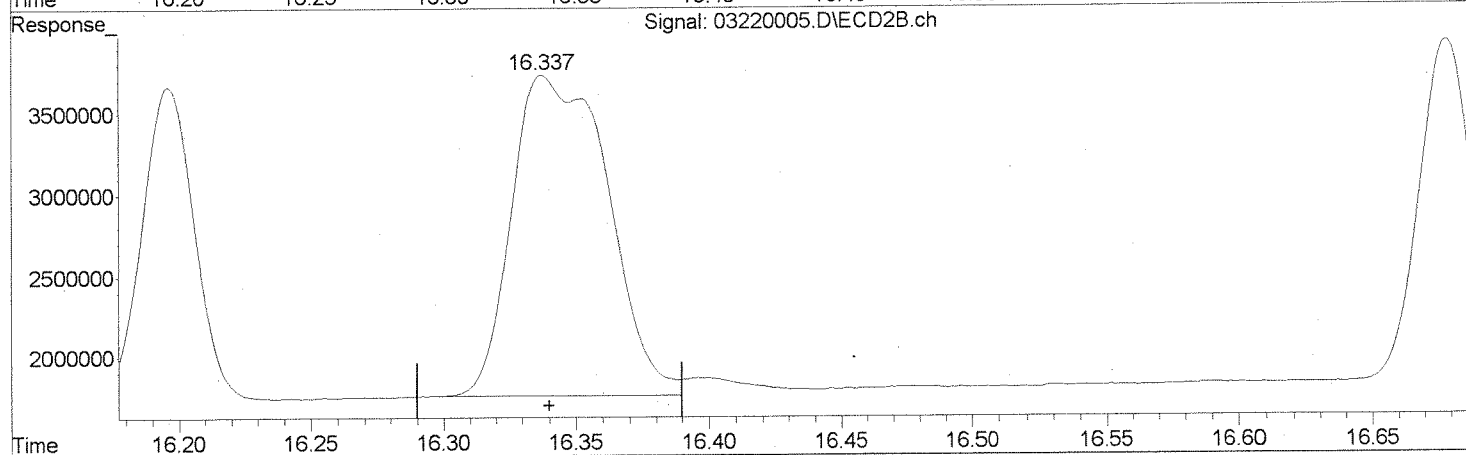
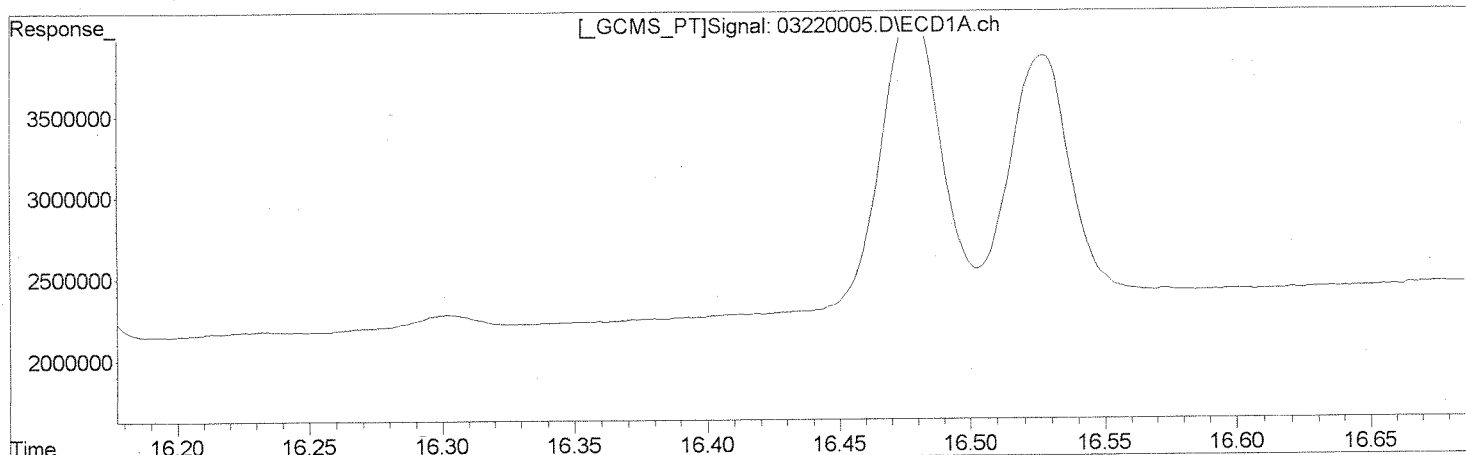
*PM032010*

Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220005.D  
Acq On : 22-Mar-2010, 15:45:53  
Acq Meth : 508.M  
Sample : 4-53I 5 PPB  
Misc :  
Quant Time : Mar 23 08:02:02 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\021110\_508.M  
Quant Title : CAL9211 aka 021110\_508.m | MJ492  
QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
Vial : 3  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



QEdit

(21) Endrin Aldehyde (m)  
17.368min 4.685 ug/L  
response 2412430

(21) Endrin Aldehyde #2 (m)  
16.337min 7.848 ug/L  
response 4955718

(+) = Expected Retention Time



Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220005.D

Acq On : 22-Mar-2010, 15:45:53

Operator : PM/LP

Acq Meth : 508.M

Sample : 4-53I 5 PPB

Vial : 3

Misc :

Multiplier : 1.00

Quant Time : Mar 23 08:02:02 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\021110\_508.M

Quant Title : CAL9211 aka 021110\_508.m | MJ492

QLast Update : Tue Mar 09 21:07:27 2010

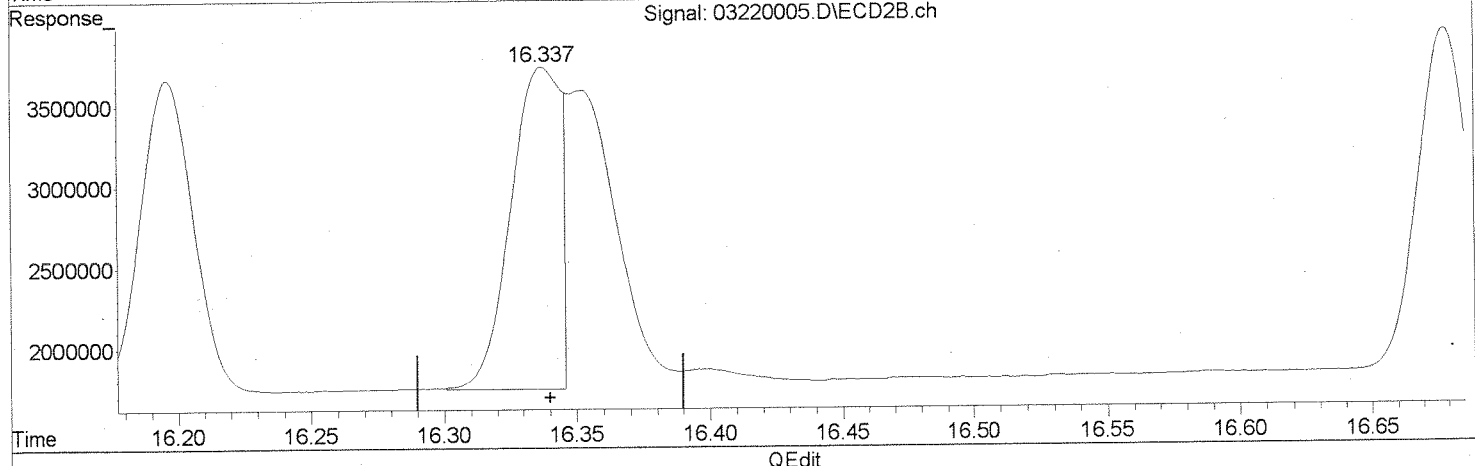
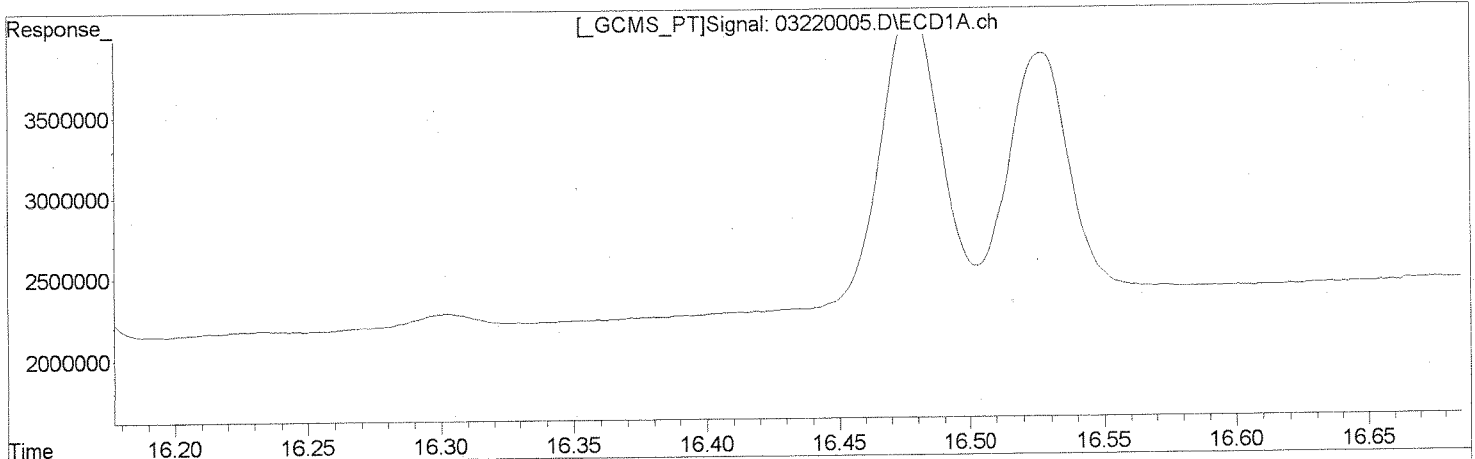
Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #2 Phase: RTX-CLP2

Signal #1 Info : 320 x 0.50 um

Signal #2 Info : 320 x 0.25 um



(21) Endrin Aldehyde (m)

17.368min 4.685 ug/L

response 2412430

(21) Endrin Aldehyde #2 (m)

16.337min 4.183 ug/L m

response 2641660

*SH*  
*21*  
*3/23/10*  
*PM032010*

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\032210-608\03220006.D

Acq On : 22-Mar-2010, 16:13:28

Operator : PM/LP

Acq Meth : 508.M

Sample : 4-53J 20PPB

Vial : 4

Misc :

Multiplier : 1.00

Quant Time : Mar 23 08:10:06 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\021110\_508.M

Quant Title : CAL9211 aka 021110\_508.m | MJ492

QLast Update : Tue Mar 09 21:07:27 2010

Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #2 Phase: RTX-CLP2

Signal #1 Info : 320 x 0.50 um

Signal #2 Info : 320 x 0.25 um

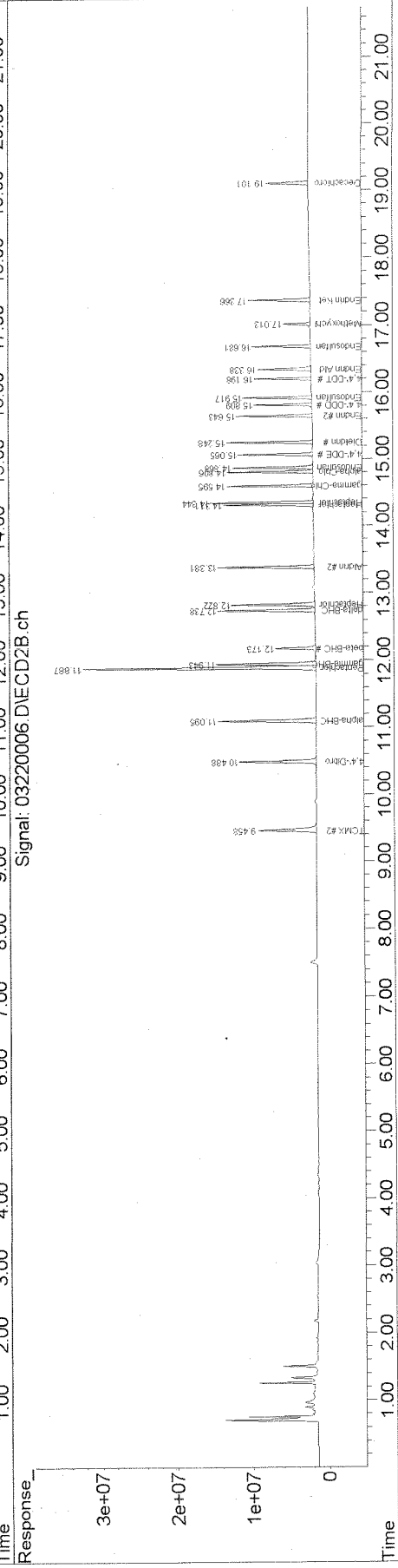
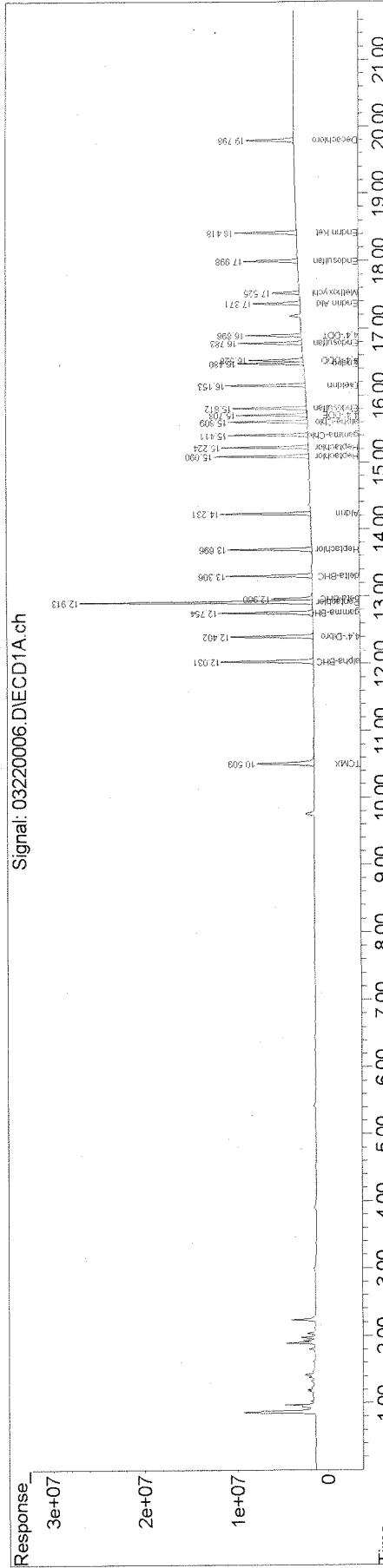
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.91	11.89	44440857	56626712	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.51	9.46	14493025	17759437	17.260	17.684
4) 4,4'-Dibromooctaf...	12.40	10.49	16026009	20213648	17.571	18.036
25) Decachlorobiphenyl	19.80	19.10	9917936	10129991	19.202	18.717
Target Compounds						
3) alpha-BHC	12.03	11.10	19352992	24501598	15.614	16.280
5) gamma-BHC (Lindane)	12.75	11.94	17840618	24033720	15.988	16.227
6) beta-BHC	12.96	12.17	8105024	9698666	17.584	16.187
7) delta-BHC	13.31	12.74	16064945	19967140	15.475	15.654
8) Heptachlor	13.70	12.82	15737275	18411278	14.735	14.728
9) Aldrin	14.23	13.38	16142939	19985674	16.164	16.238
10) Heptachlor Epoxid...	15.09	14.34	16760832	19885239	17.992	17.441
11) Heptachlor Epoxid...	15.22	14.31	14779030	17762586	16.569	15.997
12) gamma-Chlordane	15.41	14.60	13853171	16860045	16.508	15.614
13) alpha-Chlordane	15.61	14.81	13761224	16738201	16.364	15.822
14) 4,4'-DDE	15.71	15.07	11831801	13620222	16.508	15.415
15) Endosulfan I	15.81	14.87	12727972	15857416	16.272	16.104
16) Dieldrin	16.15	15.25	13567389	16418961	16.435	15.493
17) Endrin	16.48	15.64	11361667	14337265	16.468	15.319
18) 4,4'-DDD	16.53	15.81	9137965	10408873	16.666	14.880
19) Endosulfan II	16.78	15.92	11067070	12931360	16.680	15.397
20) 4,4'-DDT	16.90	16.20	9398450	10317345	16.216	14.900
21) Endrin Aldehyde	17.37	16.34	8951633	12296508	17.348	19.248
22) Methoxychlor	17.52	17.01	5100822	5261968	16.761	15.899
23) Endosulfan Sulfate	18.00	16.68	10225304	11224028	17.095	15.472
24) Endrin Ketone	18.42	17.37	11973820	13015174	16.917	14.936
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : J:\GC33\Data\032210-608\03220006.D  
 Acq On : 22-Mar-2010, 16:13:28  
 Acq Meth : 508.M  
 Sample : 4-53J 20PPB  
 Misc :  
 Quant Time : Mar 23 08:10:06 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
 Vial : 4  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\032210-608\03220007.D  
 Acq On : 22-Mar-2010, 16:41:06  
 Acq Meth : 508.M  
 Sample : 4-53K 50PPB  
 Misc :  
 Quant Time : Mar 23 08:10:54 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
 Vial : 5  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

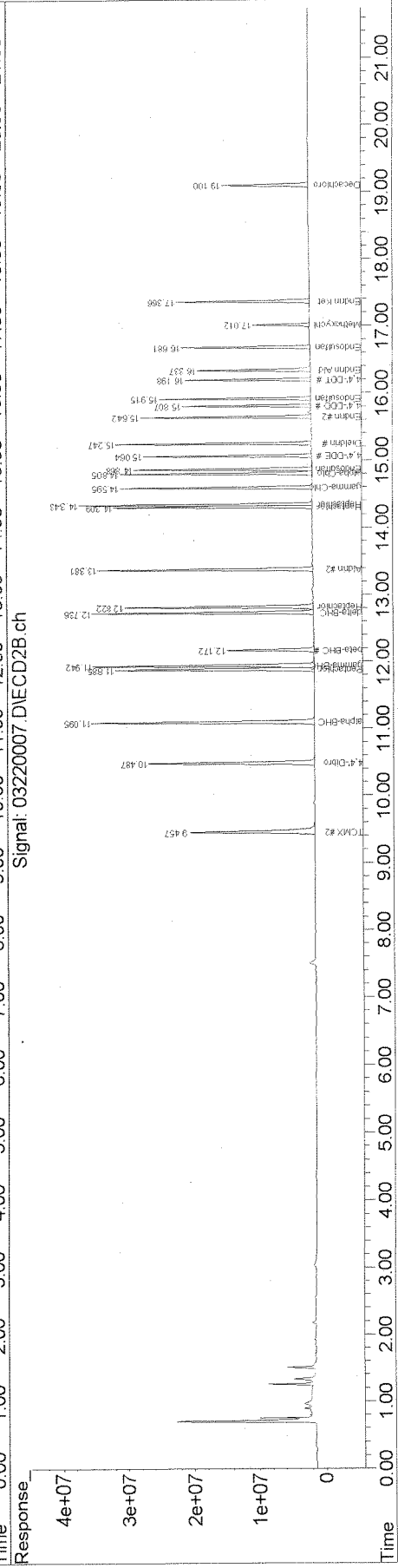
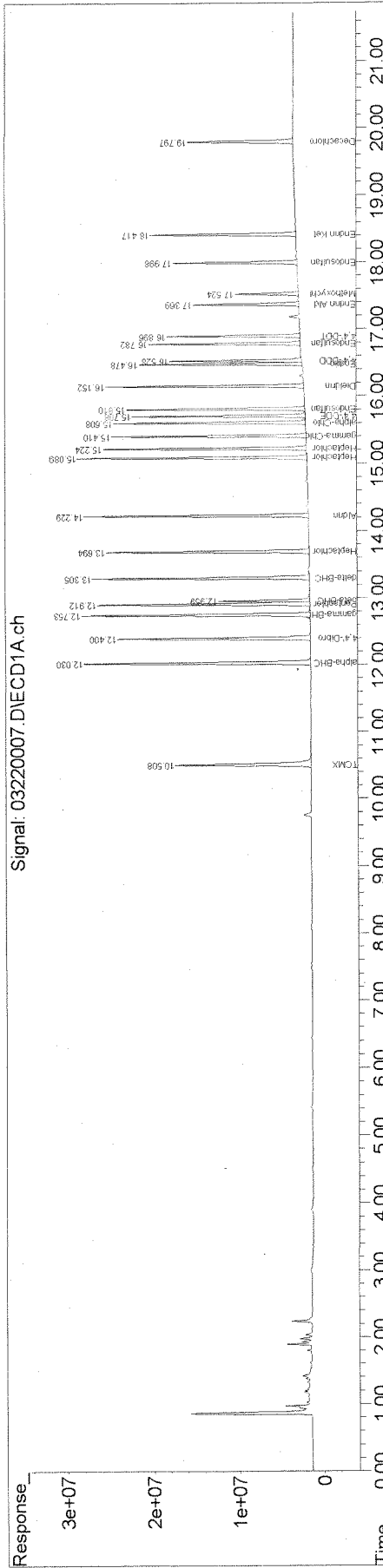
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.91	11.89	43444887	55502972	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.51	9.46	35886883	44209574	43.718	44.913
4) 4,4'-Dibromooctaf...	12.40	10.49	39416782	49197175	44.207	44.785
25) Decachlorobiphenyl	19.80	19.10	23053606	23579509	47.249	44.450
Target Compounds						
3) alpha-BHC	12.03	11.10	50817601	64611339	41.939	43.801
5) gamma-BHC (Lindane)	12.75	11.94	46527651	60701021	42.651	41.813
6) beta-BHC	12.96	12.17	19148736	23388365	42.497	39.825
7) delta-BHC	13.31	12.74	42055033	52705229	41.440	42.156
8) Heptachlor	13.69	12.82	39963619	47206690	38.277	38.529
9) Aldrin	14.23	13.38	42032878	52112647	43.051	43.197
10) Heptachlor Epoxid...	15.09	14.34	42251580	51611496	46.394	46.184
11) Heptachlor Epoxid...	15.22	14.31	37199434	45513961	42.660	41.820
12) gamma-Chlordane	15.41	14.60	35421803	43278537	43.177	40.891
13) alpha-Chlordane	15.61	14.81	34697093	42514339	42.205	41.000
14) 4,4'-DDE	15.71	15.06	30273058	35707222	43.207	41.231
15) Endosulfan I	15.81	14.87	32329055	40040791	42.278	41.487
16) Dieldrin	16.15	15.25	34780507	42572912	43.097	40.985
17) Endrin	16.48	15.64	29100251	36966198	43.145	40.296
18) 4,4'-DDD	16.53	15.81	23496261	26749492	43.834	39.013
19) Endosulfan II	16.78	15.91	27580387	32872246	42.520	39.933
20) 4,4'-DDT	16.90	16.20	23776678	26166337	41.964	38.553
21) Endrin Aldehyde	17.37	16.34	21788298	27403965	43.193	43.765
22) Methoxychlor	17.52	17.01	12234725	12600890	41.125	38.844
23) Endosulfan Sulfate	18.00	16.68	25022570	27880928	42.791	39.210
24) Endrin Ketone	18.42	17.37	29513015	32559633	42.653	38.120
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : J:\GC33\Data\032210-608\032220007.D  
 Acq On : 22-Mar-2010, 16:41:06  
 Acq Meth : 508.M  
 Sample : 4-53K 50PPB  
 Misc :  
 Quant Time : Mar 23 08:10:54 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
 Vial : 5  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\032210-608\03220008.D  
 Acq On : 22-Mar-2010, 17:08:43  
 Acq Meth : 508.M  
 Sample : 4-53K 75PPB  
 Misc :  
 Quant Time : Mar 23 08:12:54 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
 Vial : 6  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

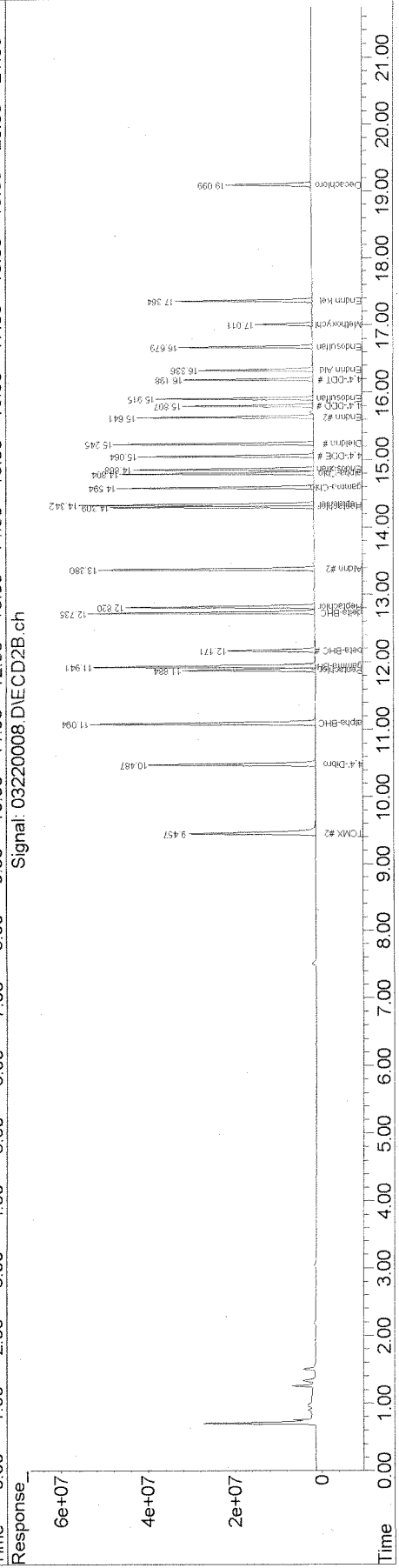
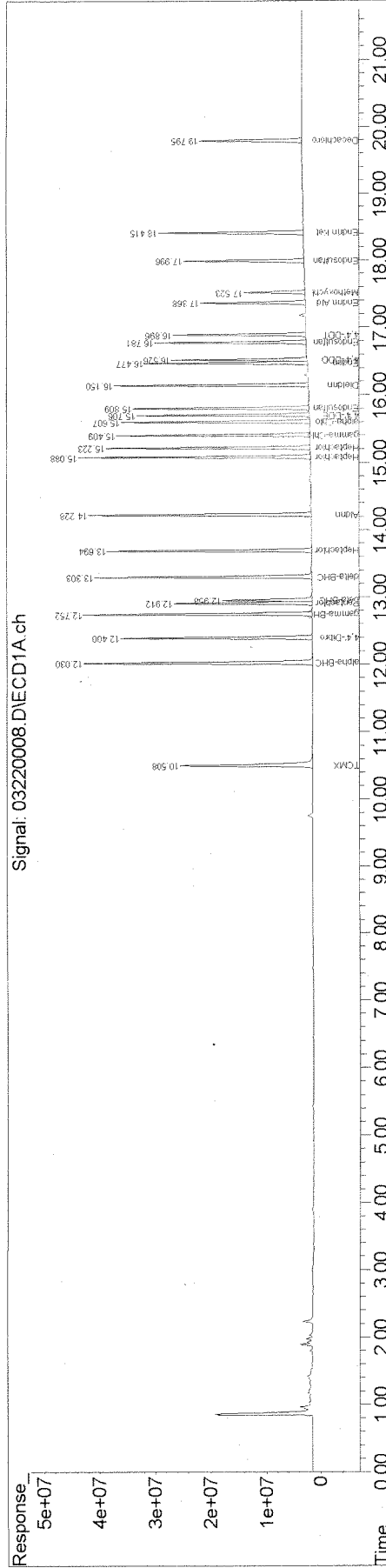
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.91	11.88	43023372	55201537	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.51	9.46	53839967	67235394	66.232	68.679
4) 4,4'-Dibromooctaf...	12.40	10.49	59241127	74883400	67.092	68.540
25) Decachlorobiphenyl	19.80	19.10	34211937	35038519	71.381	66.412
Target Compounds						
3) alpha-BHC	12.03	11.09	78430063	99872719	65.361	68.074
5) gamma-BHC (Lindane)	12.75	11.94	71656441	92927514	66.329	64.361
6) beta-BHC	12.96	12.17	28996149	35361130	64.982	60.541
7) delta-BHC	13.30	12.73	65582518	82060592	65.256	65.994
8) Heptachlor	13.69	12.82	61849219	72966255	59.820	59.878
9) Aldrin	14.23	13.38	64898899	80433324	67.123	67.036
10) Heptachlor Epoxid...	15.09	14.34	65119033	82803965	72.204	74.501
11) Heptachlor Epoxid...	15.22	14.31	57248590	66716745	66.296	61.636
12) gamma-Chlordane	15.41	14.59	54641921	66937926	67.257	63.591
13) alpha-Chlordane	15.61	14.80	53363999	65510753	65.547	63.522
14) 4,4'-DDE	15.71	15.06	46884702	55855909	67.571	64.849
15) Endosulfan I	15.81	14.87	49808452	61571670	65.775	64.144
16) Dieldrin	16.15	15.24	53870142	66082504	67.406	63.966
17) Endrin	16.48	15.64	45488550	57518285	68.103	63.042
18) 4,4'-DDD	16.53	15.81	36085040	41544729	67.979	60.922
19) Endosulfan II	16.78	15.91	42287010	50891240	65.832	62.160
20) 4,4'-DDT	16.90	16.20	36684663	40510163	65.380	60.013
21) Endrin Aldehyde	17.37	16.34	33027942	40586466	66.116	65.172
22) Methoxychlor	17.52	17.01	18455161	18963578	62.641	58.777
23) Endosulfan Sulfate	18.00	16.68	37952058	42779620	65.538	60.491
24) Endrin Ketone	18.41	17.36	45001449	50024443	65.674	58.887
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : J:\GC33\Data\032210-608\032220008.D  
 Acq On : 22-Mar-2010, 17:08:43  
 Acq Meth : 508.M  
 Sample : 4-53K 75PPB  
 Misc :  
 Quant Time : Mar 23 08:12:54 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
 Vial : 6  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase : RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\032210-608\03220009.D  
 Acq On : 22-Mar-2010, 17:36:27  
 Acq Meth : 508.M  
 Sample : 4-53M 100PPB  
 Misc :  
 Quant Time : Mar 23 08:13:45 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
 Vial : 7  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.91	11.89	43291693	56567715	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.51	9.46	74434063	90947743	90.998	90.656
4) 4,4'-Dibromooctaf...	12.40	10.49	81228762	101.2E6	91.423	90.375
25) Decachlorobiphenyl	19.80	19.10	45501520	46810045	94.720	86.581
Target Compounds						
3) alpha-BHC	12.03	11.10	108.2E6	136.0E6	89.604	90.482
5) gamma-BHC (Lindane)	12.75	11.94	97914272	125.1E6	90.073	84.569
6) beta-BHC	12.96	12.17	39049130	47828973	86.969	79.909
7) delta-BHC	13.31	12.74	89275225	112.0E6	88.280	87.891
8) Heptachlor	13.70	12.82	85180424	99881835	81.875	79.986
9) Aldrin	14.23	13.38	88590256	109.2E6	91.058	88.834
10) Heptachlor Epoxid...	15.09	14.34	87980338	108.1E6	96.949	94.927
11) Heptachlor Epoxid...	15.22	14.31	77535658	94511635	89.233	85.206
12) gamma-Chlordane	15.41	14.59	74154663	91162417	90.709	84.512
13) alpha-Chlordane	15.61	14.81	72357124	88928941	88.326	84.146
14) 4,4'-DDE	15.71	15.07	63862750	76420122	91.470	86.581
15) Endosulfan I	15.81	14.87	67594988	83531175	88.709	84.919
16) Dieldrin	16.15	15.25	73355118	90210104	91.218	85.212
17) Endrin	16.48	15.64	61651475	78493425	91.730	83.954
18) 4,4'-DDD	16.53	15.81	49462950	57206828	92.604	81.863
19) Endosulfan II	16.78	15.91	57400659	69715213	88.807	83.096
20) 4,4'-DDT	16.90	16.20	50186050	55482173	88.888	80.208
21) Endrin Aldehyde	17.37	16.34	44606319	54357184	88.740	85.176
22) Methoxychlor	17.52	17.01	24838293	25509150	83.785	77.155
23) Endosulfan Sulfate	18.00	16.68	51328067	58196888	88.088	80.304
24) Endrin Ketone	18.42	17.36	60897237	68142856	88.321	78.279
-----						

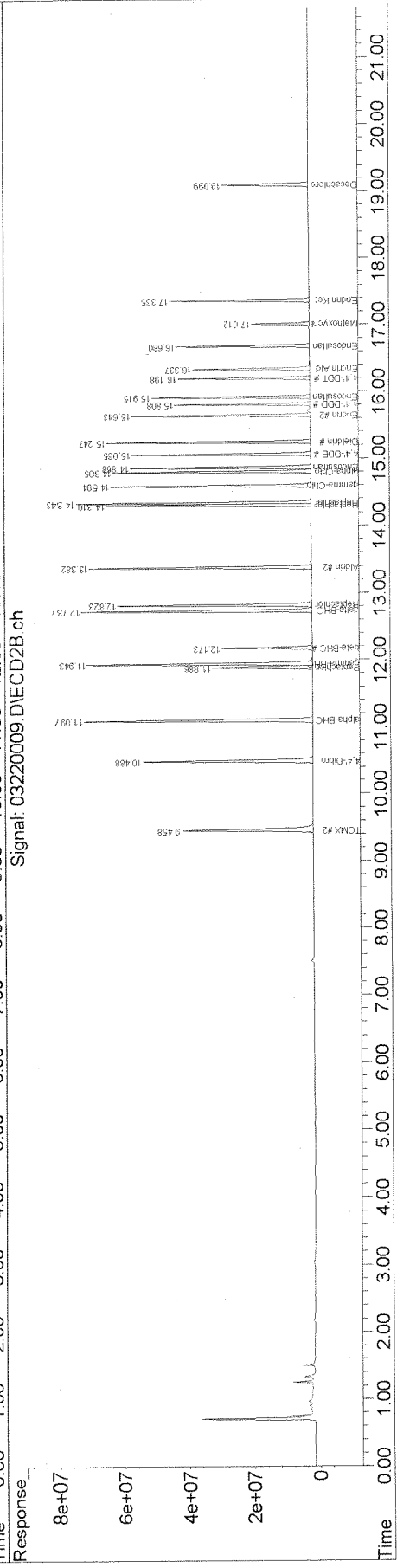
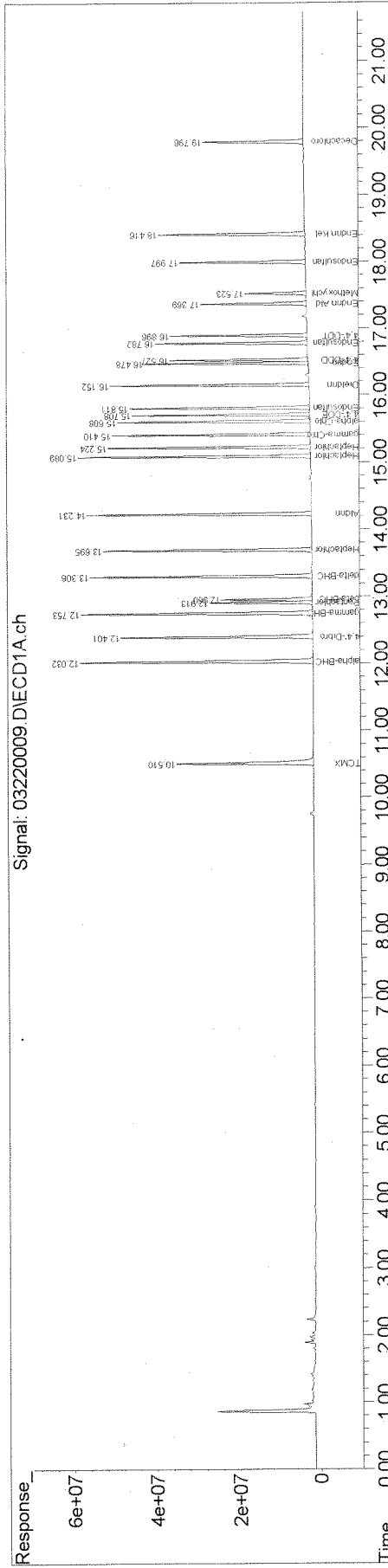
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.



Data File : J:\GC33\Data\032210-608\03220009.D  
 Acq On : 22-Mar-2010, 17:36:27  
 Acq Meth : 508.M  
 Sample : 4-53M 100PPB  
 Misc :  
 Quant Time : Mar 23 08:13:45 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
 Vial : 7  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase : RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um



Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\032210-608\03220010.D  
 Acq On : 22-Mar-2010, 18:04:08  
 Acq Meth : 508.M  
 Sample : 4-53N 200PPB  
 Misc :  
 Quant Time : Mar 23 08:14:32 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\021110\_508.M  
 Quant Title : CAL9211 aka 021110\_508.m | MJ492  
 QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
 Vial : 8  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.91	11.88	43378904	55571100	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.51	9.46	151.8E6	186.1E6	185.251	188.859
4) 4,4'-Dibromooctaf...	12.40	10.49	165.3E6	206.4E6	185.670	187.673
25) Decachlorobiphenyl	19.79	19.10	91763194	94614571	191.807	178.140
Target Compounds						
3) alpha-BHC	12.03	11.09	224.5E6	283.0E6	185.597	191.602
5) gamma-BHC (Lindane)	12.75	11.94	202.4E6	258.0E6	185.846	177.532
6) beta-BHC	12.96	12.17	78567600	97300115	174.631	165.478
7) delta-BHC	13.30	12.73	187.2E6	234.2E6	184.789	187.062
8) Heptachlor	13.69	12.82	175.8E6	206.5E6	168.608	168.340
9) Aldrin	14.23	13.38	183.3E6	225.4E6	188.077	186.635
10) Heptachlor Epoxid...	15.09	14.34	181.6E6	229.9E6	199.759	205.494
11) Heptachlor Epoxid...	15.22	14.31	159.9E6	186.3E6	183.652	170.968
12) gamma-Chlordane	15.41	14.59	154.7E6	189.8E6	188.860	179.137
13) alpha-Chlordane	15.61	14.80	150.4E6	184.7E6	183.203	177.886
14) 4,4'-DDE	15.71	15.06	134.5E6	160.6E6	192.245	185.189
15) Endosulfan I	15.81	14.87	141.3E6	172.4E6	185.109	178.388
16) Dieldrin	16.15	15.25	153.8E6	188.1E6	190.875	180.899
17) Endrin	16.48	15.64	130.6E6	164.1E6	193.987	178.661
18) 4,4'-DDD	16.52	15.81	104.0E6	120.4E6	194.338	175.397
19) Endosulfan II	16.78	15.91	120.8E6	146.4E6	186.590	177.624
20) 4,4'-DDT	16.90	16.20	106.4E6	117.5E6	187.989	172.864
21) Endrin Aldehyde	17.37	16.34	92788308	110.8E6	184.223	176.714
22) Methoxychlor	17.52	17.01	50853311	52197077	171.194	160.706
23) Endosulfan Sulfate	18.00	16.68	106.8E6	121.9E6	182.939	171.269
24) Endrin Ketone	18.41	17.36	127.3E6	143.0E6	184.193	167.239
-----						

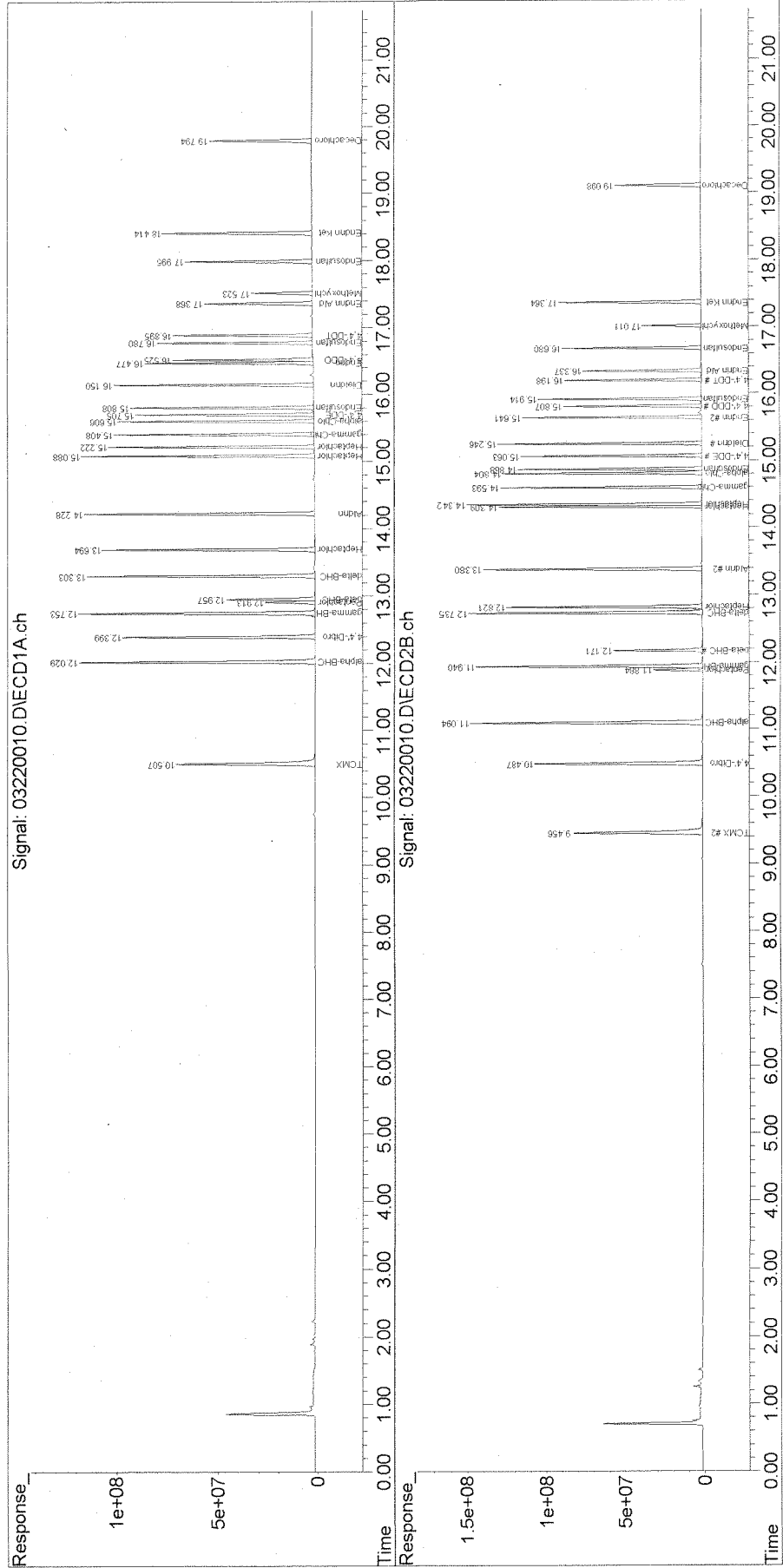
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\032210-608\03220010.D  
Acq On : 22-Mar-2010, 18:04:08  
Acq Meth : 508.M  
Sample : 4-53N 200PPB  
Misc :  
Quant Time : Mar 23 08:14:32 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\021110\_508.M  
Quant Title : CAL9211 aka 021110\_508.m | MJ492  
QLast Update : Tue Mar 09 21:07:27 2010

Operator : PM/LP  
Vial : 8  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP  
Signal #1 Info : 320 x 0.50 um  
Signal #2 Phase : RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



Data File : J:\GC33\Data\032210-608\03220011.D  
 Acq On : 22-Mar-2010, 18:31:38  
 Acq Meth : 508.M  
 Sample : 4-37P 50 ICV  
 Misc :  
 Quant Time : Mar 23 08:22:34 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\032210\_508.M  
 Quant Title : CAL aka032210\_508.m | MJ492  
 QLast Update : Tue Mar 23 08:18:15 2010

Operator : PM/LP  
 Vial : 9  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

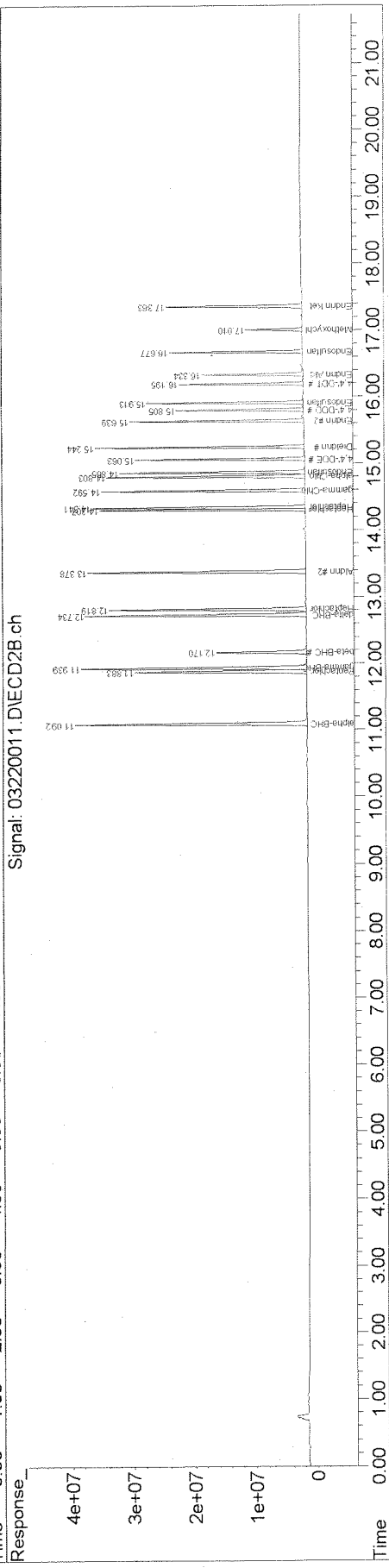
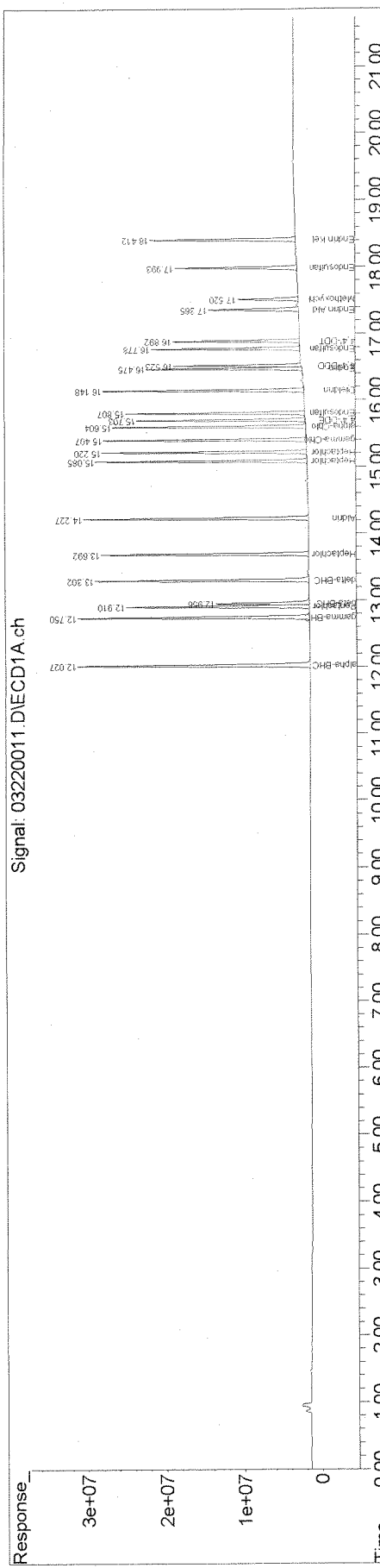
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.91	11.88	40917811	51972418	50.000	50.000
System Monitoring Compounds						
Target Compounds						
3) alpha-BHC	12.03	11.09	56548296	71800127	59.553	60.704
5) gamma-BHC (Lindane)	12.75	11.94	50894122	67426770	58.067	57.308
6) beta-BHC	12.96	12.17	21307897	26206349	57.877	56.224
7) delta-BHC	13.30	12.73	45752027	57733272	56.465	59.470
8) Heptachlor	13.69	12.82	44523974	52692887	55.237	57.502
9) Aldrin	14.23	13.38	46111443	57167870	58.429	58.663
10) Heptachlor Epoxid...	15.09	14.34	41635048	52523008	49.671	53.746
11) Heptachlor Epoxid...	15.22	14.31	40913909	49455420	55.890	58.836
12) gamma-Chlordane	15.41	14.59	40071074	49352471	57.173	59.072
13) alpha-Chlordane	15.60	14.80	38447967	47187591	57.219	57.666
14) 4,4'-DDE	15.70	15.06	32032795	38823213	52.938	58.177
15) Endosulfan I	15.81	14.87	35816950	44426634	57.293	56.480
16) Dieldrin	16.15	15.24	39273799	48703901	58.922	60.422
17) Endrin	16.48	15.64	31095446	40200525	55.806	57.259
18) 4,4'-DDD	16.52	15.81	24416140	29004771	55.020	57.084
19) Endosulfan II	16.78	15.91	29803320	36244289	54.726	57.371
20) 4,4'-DDT	16.89	16.20	25194728	28088386	55.179	55.471
21) Endrin Aldehyde	17.36	16.33	20596911	24466943	48.626	47.742
22) Methoxychlor	17.52	17.01	13109420	13657713	55.604	55.177
23) Endosulfan Sulfate	17.99	16.68	27366500	30975864	56.093	56.796
24) Endrin Ketone	18.41	17.36	32279371	36113774	56.262	57.439
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : J:\GC33\Data\0322210-608\032220011.D  
Acq On : 22-Mar-2010, 18:31:38  
Acq Meth : 508.M  
Sample : 4-37P 50 ICV  
Misc :  
Quant Time : Mar 23 08:22:34 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\0322210\_508.M  
Quant Title : CAL aka0322210\_508.m | MJ492  
QLast Update : Tue Mar 23 08:18:15 2010

Operator : PM/LP  
Vial : 9  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



### Breakdown Report

Sample Name: 4-37C IPC

	Column 1	Column 2
% Endrin Breakdown =	2.0	3.1
% DDT Breakdown =	0.3	0.6

Compound(s)	#1 Response	#2 Response
Endrin	165432213	199719869
Endrin Aldehyde	1020533	3999543
Endrin Ketone	2362775	2450114
Endrin BrkDwns - TOTAL	3383308	6449657
ENDRINS - TOTAL	168815521	206169526
DDT	286383541	302731764
DDE	1104073	1070014
DDD	270735	683865
DDT BrkDwn - TOTAL	1374808	1753879
DDT+DDE+DDD - TOTAL	452919827	304485643

Data File : J:\GC33\Data\032210-608\03220003.D  
 Acq On : 22-Mar-2010, 14:51:02  
 Acq Meth : 508.M  
 Sample : 4-37C IPC  
 Misc :  
 Quant Time : Mar 23 11:23:53 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\QUAL\_CHECKS\_508.M  
 Quant Title : CAL7679 aka 082808\_508.m | MJ492  
 QLast Update : Tue Mar 23 10:54:26 2010

Operator : PM/LP  
 Vial : 1  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : HP-5 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.25 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.91	11.88	57005753	72321569	50.000	50.000
Target Compounds						
2) delta-BHC	13.31	12.73	46489962	57489100	117.139	117.816
3) Chlorothalonil	14.36	13.07	39568461	47751249	508.594	453.681
4) Chlorpyrifos	14.67	13.87	785507	1321763	2.523	3.704 #
5) DCPA (Dacthal)	15.16	13.99	36684298	44275321	61.958	60.997
8) Endrin BrkDwns - ...	0.00	0.00	3383308	6449657	66.566T	62.019T
12) ENDRINS - TOTAL	0.00	0.00	168.8E6	206.2E6	253.246T	308.696T
15) DDT BrkDwn - TOTAL	0.00	0.00	1374808	1753879	18.958T	21.223T
19) DDT+DDE+DDD - TOTAL	0.00	0.00	452.9E6	304.5E6	1207.699T	759.129T#
-----						

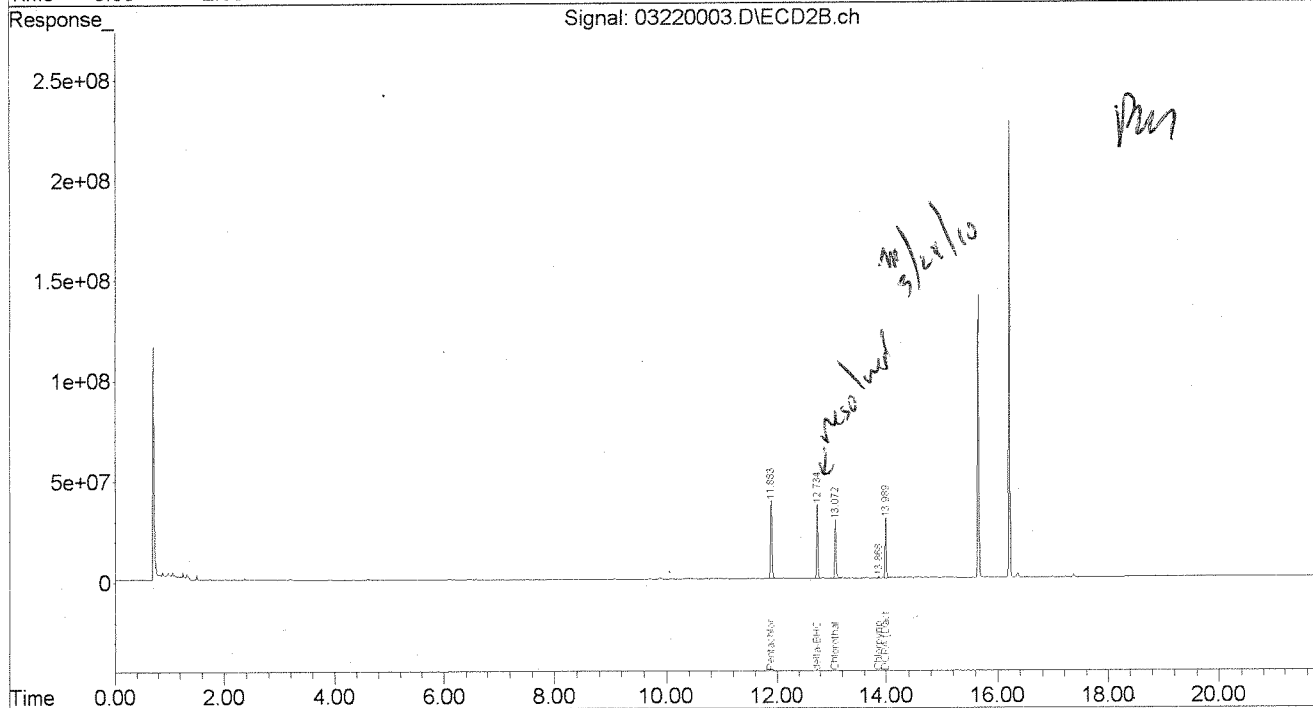
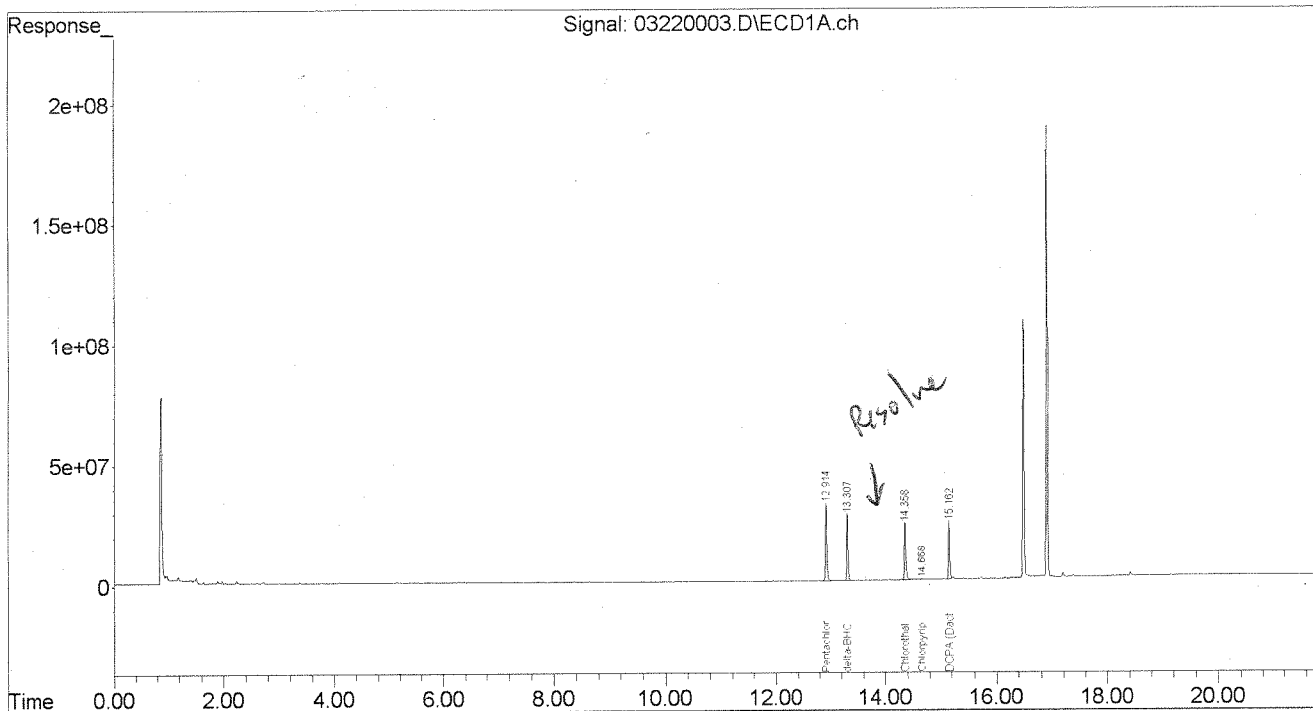
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\032210-608\03220003.D  
Acq On : 22-Mar-2010, 14:51:02  
Acq Meth : 508.M  
Sample : 4-37C IPC  
Misc :  
Quant Time : Mar 23 11:23:53 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\QUAL\_CHECKS\_508.M  
Quant Title : CAL7679 aka 082808\_508.m | MJ492  
QLast Update : Tue Mar 23 10:54:26 2010

Operator : PM/LP  
Vial : 1  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : HP-5  
Signal #1 Info : 320 x 0.25 um  
Signal #2 Phase: RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



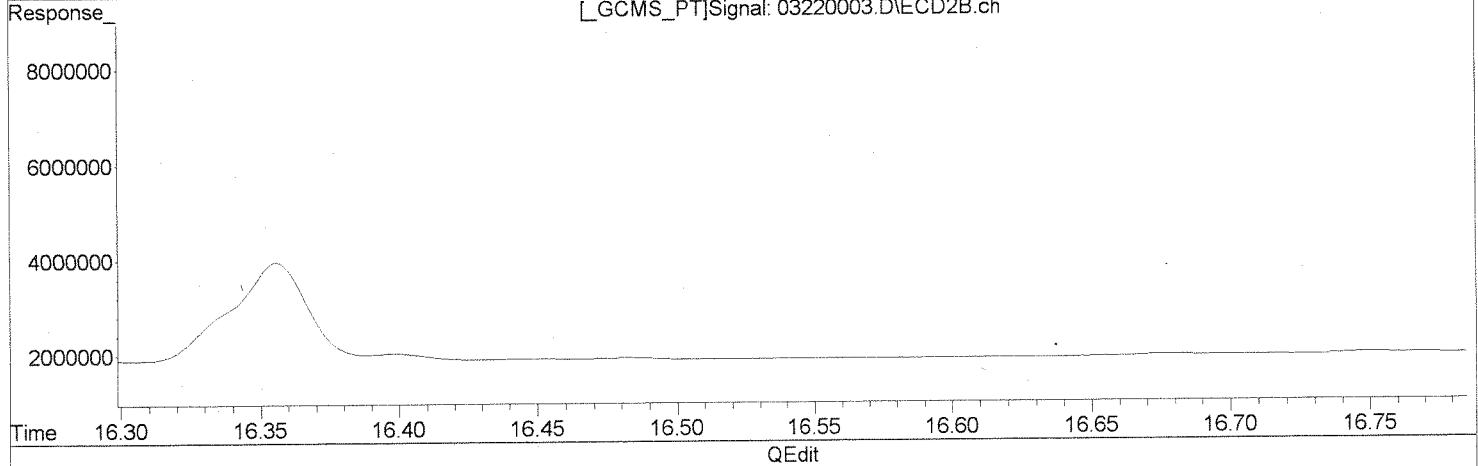
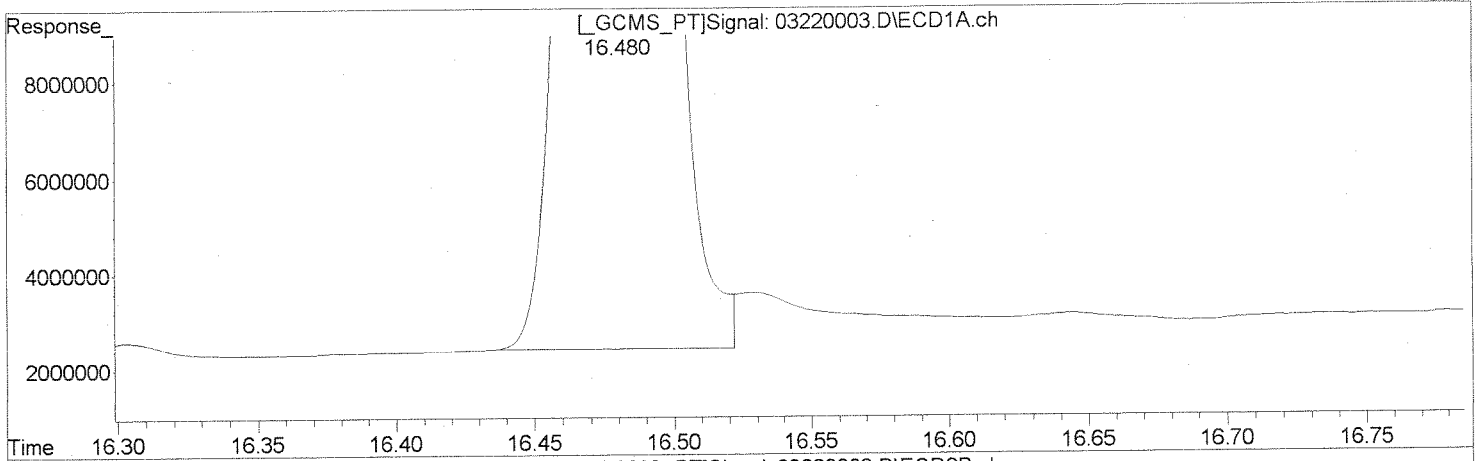


Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220003.D  
Acq On : 22-Mar-2010, 14:51:02  
Acq Meth : 508.M  
Sample : 4-37C IPC  
Misc :  
Quant Time : Mar 23 10:54:41 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\QUAL\_CHECKS\_508.M  
Quant Title : CAL7679 aka 082808\_508.m | MJ492  
QLast Update : Tue Mar 23 10:54:26 2010

Operator : PM/LP  
Vial : 1  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : HP-5  
Signal #1 Info : 320 x 0.25 um  
Signal #2 Phase: RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



(14) DDD (L3)  
R.T. Response Conc  
16.48 165432213 0.00

(14) DDD #2 (L3)  
R.T. Response Conc  
15.81 683865 0.00

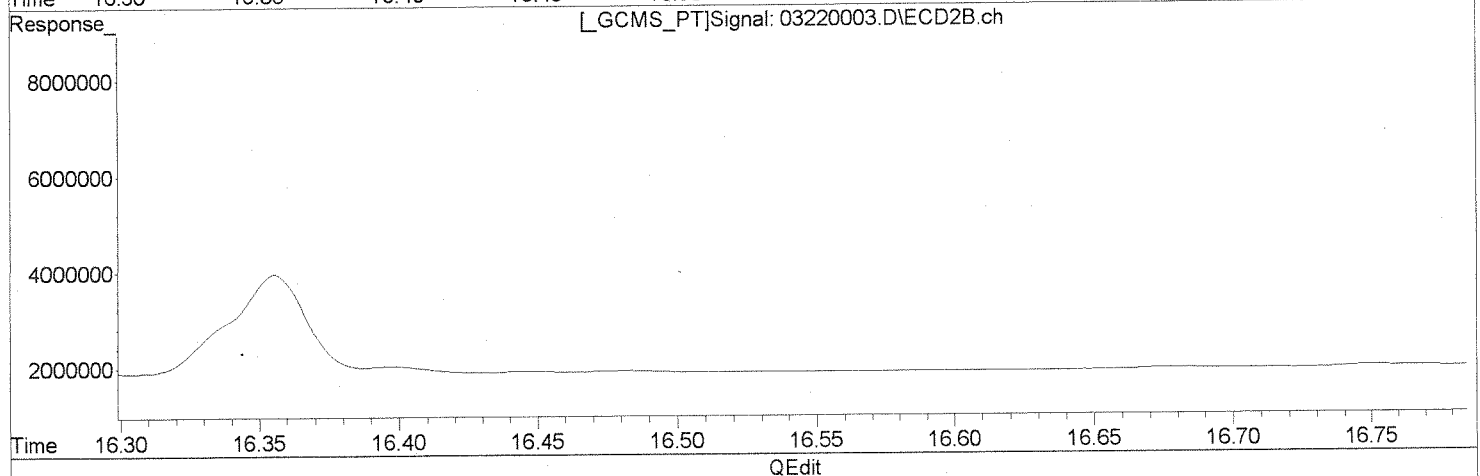
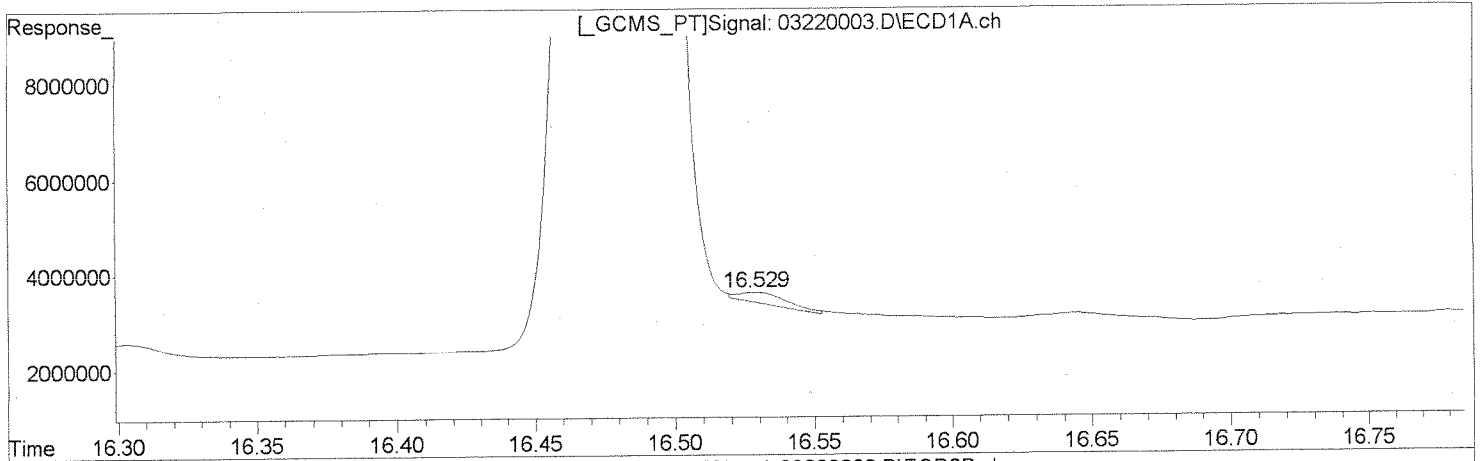
QEdit

Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220003.D  
Acq On : 22-Mar-2010, 14:51:02  
Acq Meth : 508.M  
Sample : 4-37C IPC  
Misc :  
Quant Time : Mar 23 10:54:41 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\QUAL\_CHECKS\_508.M  
Quant Title : CAL7679 aka 082808\_508.m | MJ492  
QLast Update : Tue Mar 23 10:54:26 2010

Operator : PM/LP  
Vial : 1  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : HP-5  
Signal #1 Info : 320 x 0.25 um  
Signal #2 Phase: RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



(14) DDD #2 (L3)  
R.T. Response Conc  
16.53 270735 0.00

(14) DDD #2 (L3)  
R.T. Response Conc  
15.81 683865 0.00

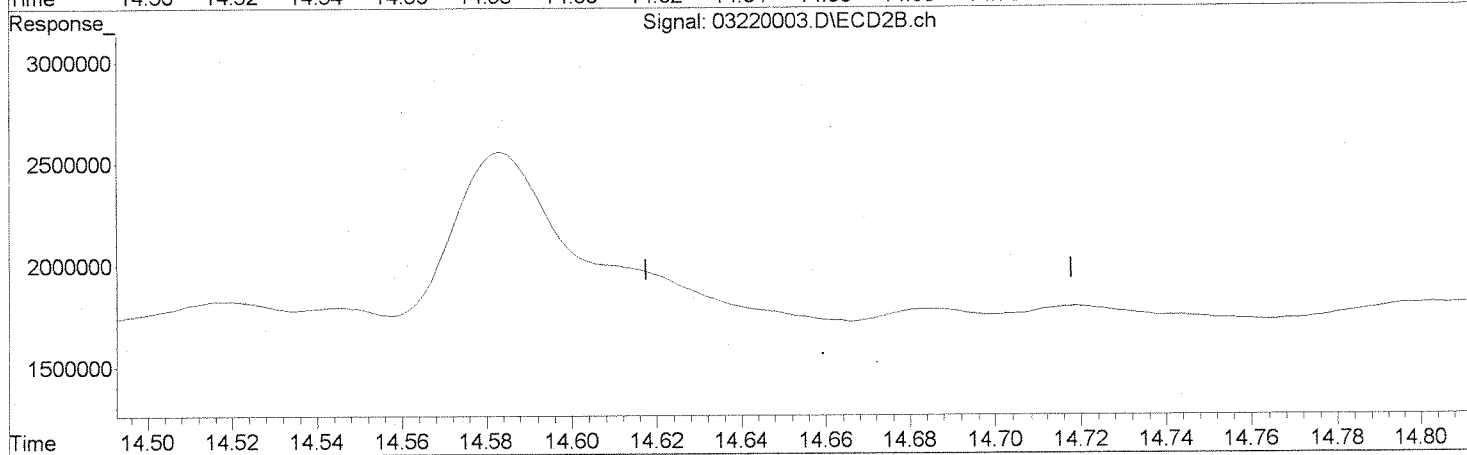
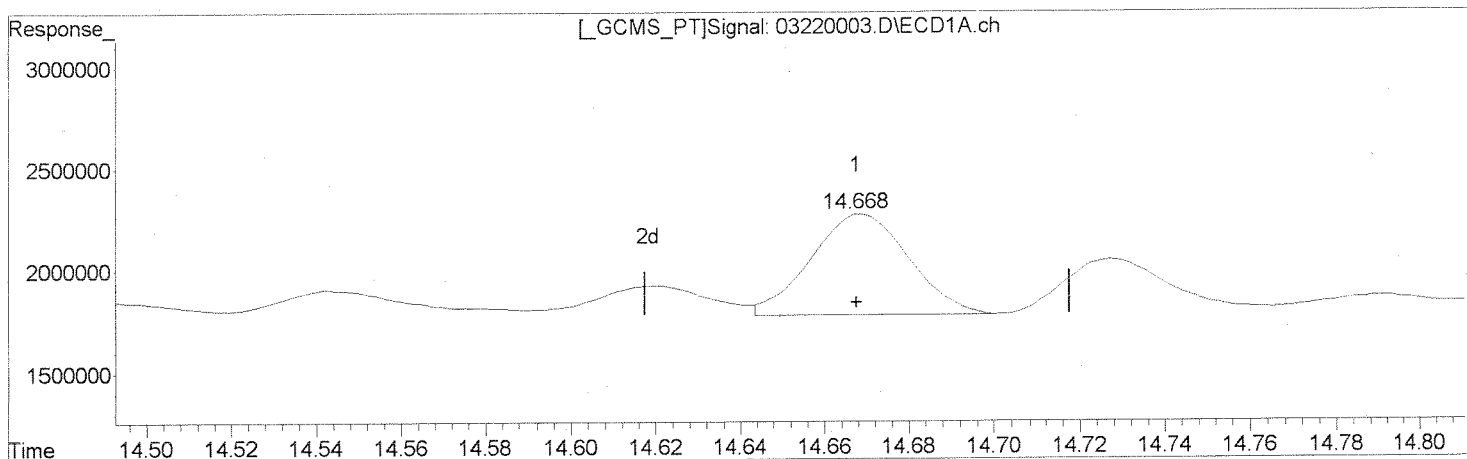
*WFO*  
*M/ 3/24/10*  
*PM 0322010*

Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220003.D  
Acq On : 22-Mar-2010, 14:51:02  
Acq Meth : 508.M  
Sample : 4-37C IPC  
Misc :  
Quant Time : Mar 23 11:23:53 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\QUAL\_CHECKS\_508.M  
Quant Title : CAL7679 aka 082808\_508.m | MJ492  
QLast Update : Tue Mar 23 10:54:26 2010

Operator : PM/LP  
Vial : 1  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : HP-5  
Signal #1 Info : 320 x 0.25 um  
Signal #2 Phase : RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



QEdit

(4) Chlorpyrifos (m)  
14.668min 2.523 ug/L  
response 785507

*S/N* *3/24/10* *PM 03220003*

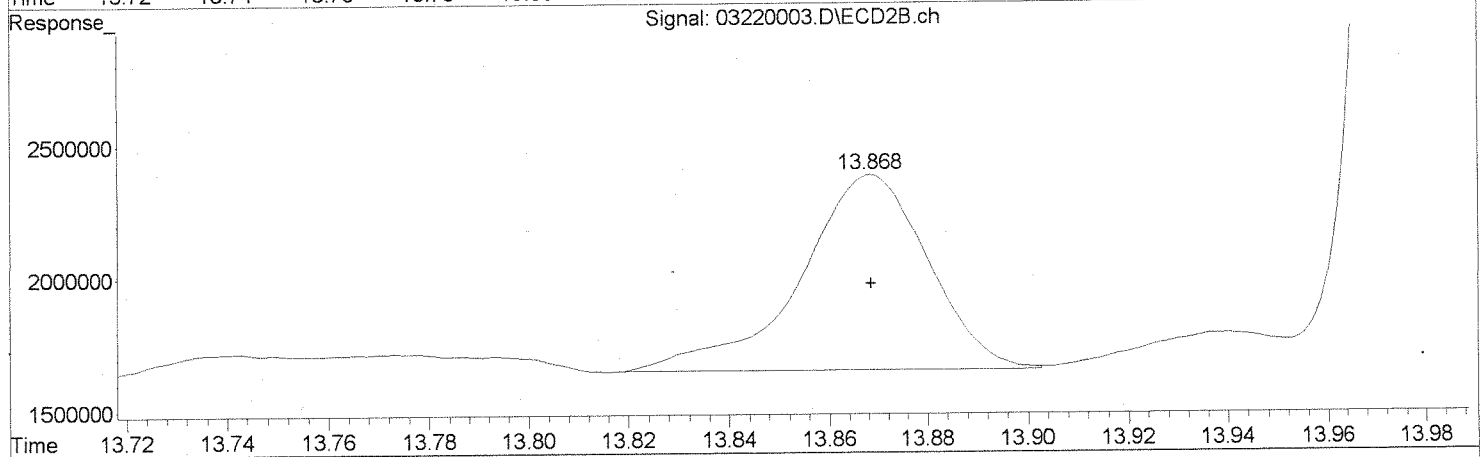
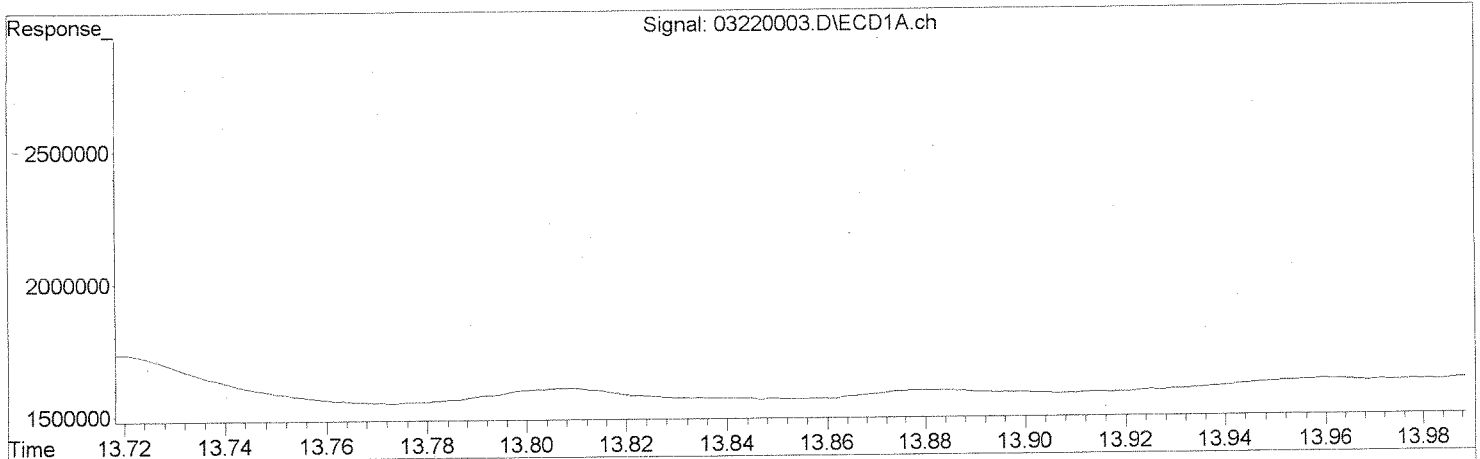
(4) Chlorpyrifos #2 (m)  
13.868min 3.704 ug/L  
response 1321763

Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220003.D  
Acq On : 22-Mar-2010, 14:51:02  
Acq Meth : 508.M  
Sample : 4-37C IPC  
Misc :  
Quant Time : Mar 23 11:23:53 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\QUAL\_CHECKS\_508.M  
Quant Title : CAL7679 aka 082808\_508.m | MJ492  
QLast Update : Tue Mar 23 10:54:26 2010

Operator : PM/LP  
Vial : 1  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : HP-5  
Signal #1 Info : 320 x 0.25 um  
Signal #2 Phase: RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



QEdit

(4) Chlorpyriphos (m)  
14.668min 2.523 ug/L  
response 785507

(4) Chlorpyriphos #2 (m)  
13.868min 3.704 ug/L  
response 1321763

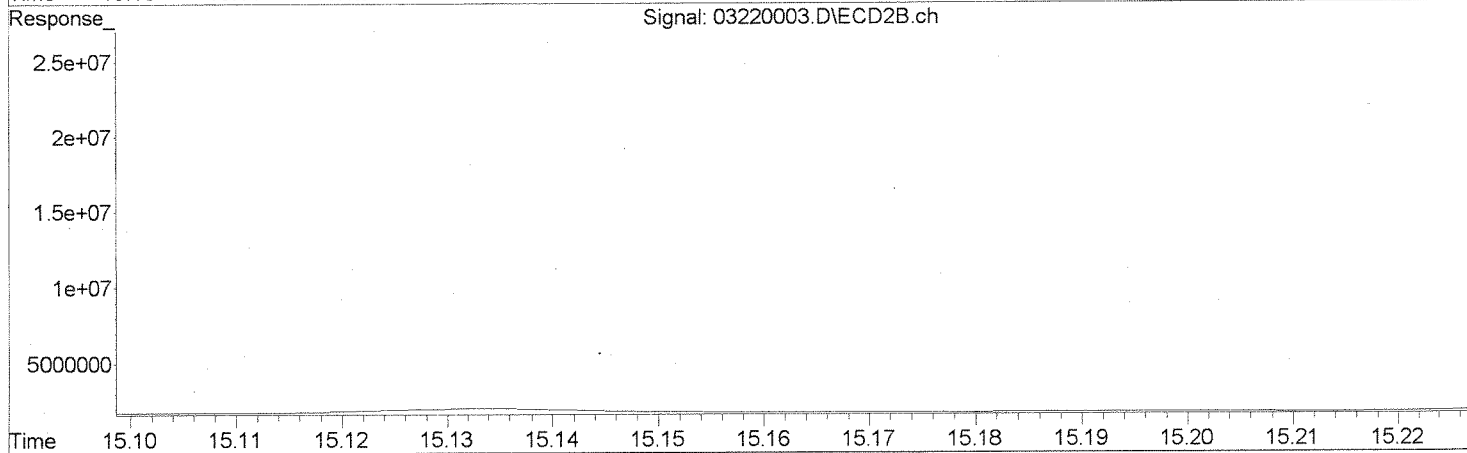
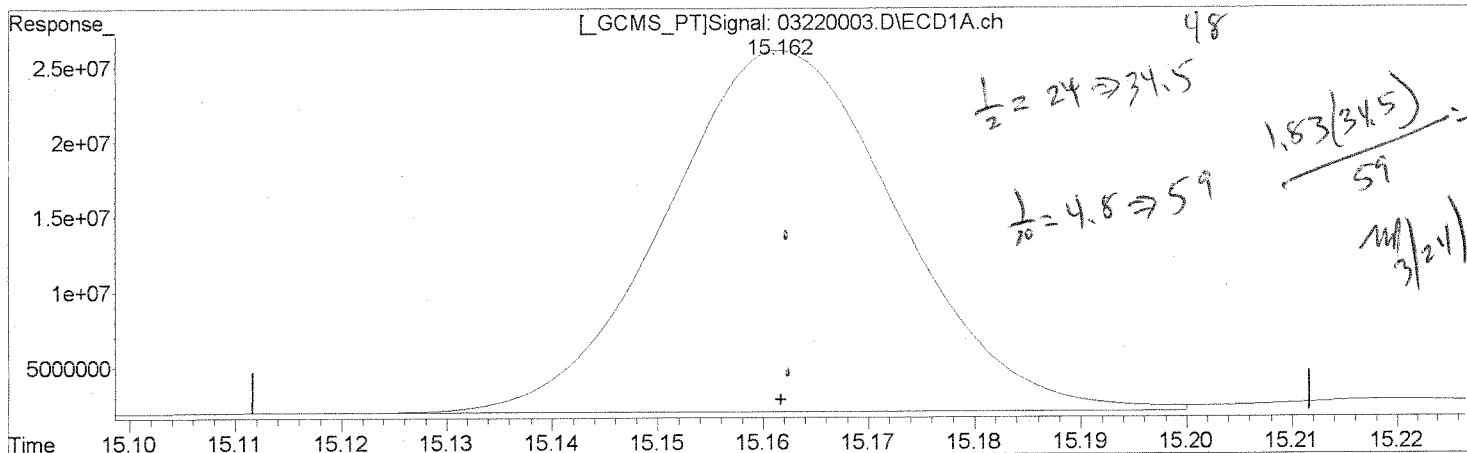
*S/N*  
*PM*  
*3/24/10*  
*0322010*

Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220003.D  
 Acq On : 22-Mar-2010, 14:51:02  
 Acq Meth : 508.M  
 Sample : 4-37C IPC  
 Misc :  
 Quant Time : Mar 23 11:23:53 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\QUAL\_CHECKS\_508.M  
 Quant Title : CAL7679 aka 082808\_508.m | MJ492  
 QLast Update : Tue Mar 23 10:54:26 2010

Operator : PM/LP  
 Vial : 1  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : HP-5  
 Signal #1 Info : 320 x 0.25 um  
 Signal #2 Phase: RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um



QEdit

(5) DCPA (Dacthal) (m)  
 15.162min 61.958 ug/L  
 response 36684298

(5) DCPA (Dacthal) #2 (m)  
 13.989min 60.997 ug/L  
 response 44275321

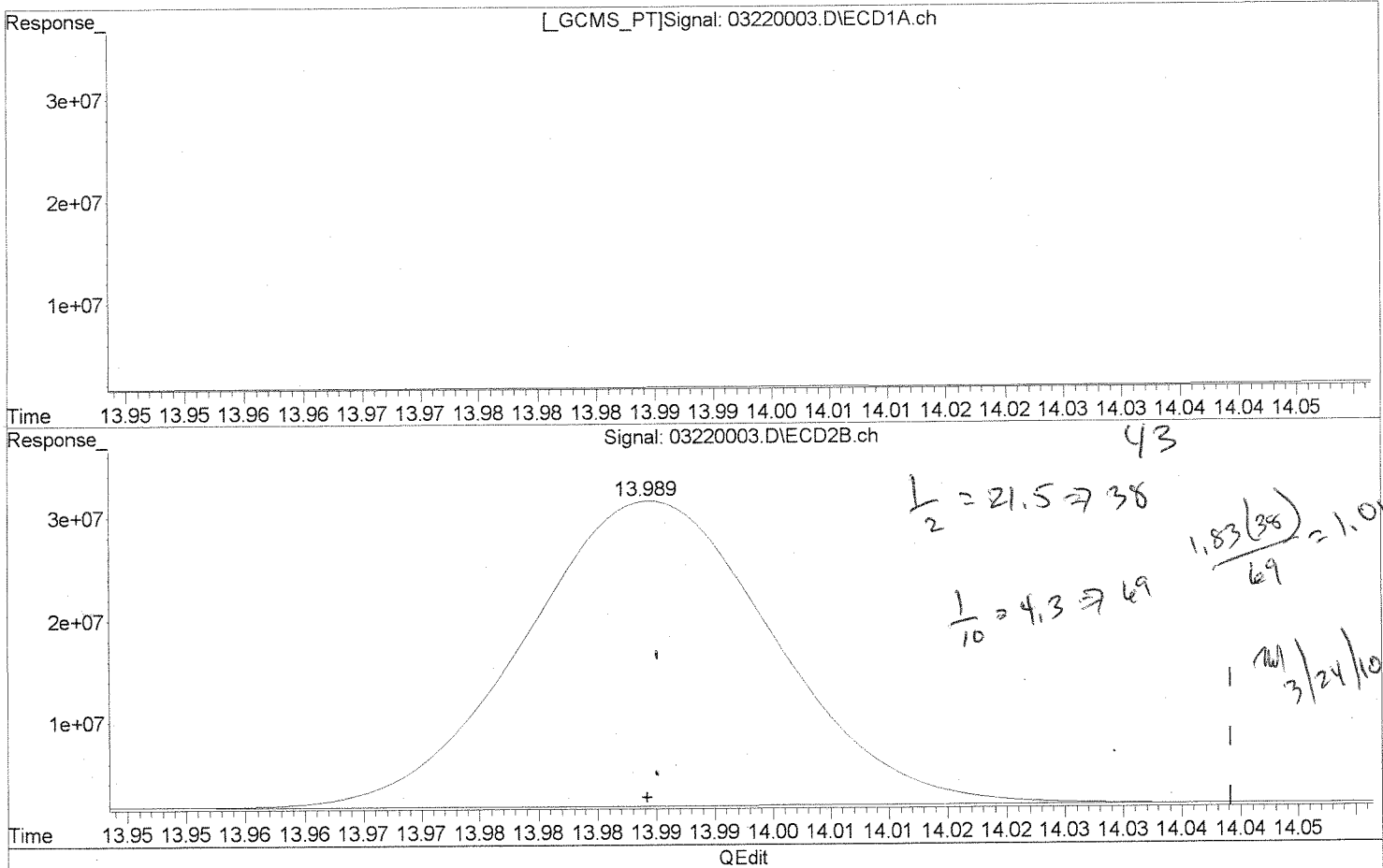
*MM 3/26/10*

Quantitation Report (Qedit)

Data File : J:\GC33\Data\032210-608\03220003.D  
 Acq On : 22-Mar-2010, 14:51:02  
 Acq Meth : 508.M  
 Sample : 4-37C IPC  
 Misc :  
 Quant Time : Mar 23 11:23:53 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\QUAL\_CHECKS\_508.M  
 Quant Title : CAL7679 aka 082808\_508.m | MJ492  
 QLast Update : Tue Mar 23 10:54:26 2010

Operator : PM/LP  
 Vial : 1  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : HP-5  
 Signal #1 Info : 320 x 0.25 um  
 Signal #2 Phase : RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um



(5) DCPA (Dacthal) (m)  
 15.162min 61.958 ug/L  
 response 36684298

(5) DCPA (Dacthal) #2 (m)  
 13.989min 60.997 ug/L  
 response 44275321

MWB2610

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/24/2010

**Continuing Calibration Verification Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 12/12/2009  
**Calibration ID:** CAL9310  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP

**File ID:** J:\GC33\DATA\052410-608\05240002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	50	52		0.557	0.580	4	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Date Analyzed: 05/24/2010

Continuing Calibration Verification Summary  
Organochlorine Pesticides and Polychlorinated Biphenyls

Calibration Type: Internal Standard  
Analysis Method: 608M

Calibration Date: 12/12/2009  
Calibration ID: CAL9310  
Analysis Lot: KWG1004915  
Units: ug/L  
Column ID: RTX-CLP2

File ID: J:\GC33\DATA\052410-608\05240002.D\05240002C.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	50	48		0.452	0.430	-5	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.



# Exception Report

Data File: J:\GC33\DATA\052410-608\05240002.D  
Lab ID: KWG1004915-1  
RunType: CCV  
Matrix: NOT APPLICABLE

Date Acquired: 05/24/2010 18:03  
Date Quantitated: 05/25/2010 15:52  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*

# Exception Report

Data File: J:\GC33\DATA\052410-608\05240002.D\05240002C.D  
Lab ID: KWG1004915-1  
Run Type: CCV  
Matrix: NOT APPLICABLE

Date Acquired: 05/24/2010 18:03  
Date Quantitated: 05/25/2010 15:52  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: \_\_\_\_\_

Secondary Review: \_\_\_\_\_

# Quantitation Report

Bottle ID:	Tier:	Matrix:	NOT APPLICABL
Prod Code: 508.1 PEST_CL	Collect Date:	Receive Date:	05/25/2010

Analysis Lot: KWG1004915	Prep Lot:	Report Group:
Analysis Method: 608M	Prep Method:	
Prep Ref:	Prep Date:	

Quant Method: JAGC33\METHODS\032210_508.M	Calibration ID: CAL9310
Title:	Method ID: MJ1028
MB Ref:	Quant based on Method

Data File #1: JAGC33\DATA\052410-608\05240002.D	Instrument: GC33
Data File #2: JAGC33\Data\052410-608\05240002.D\05240002c.d	Vial: 1
Acqu Date: 05/24/2010 18:03	Quant Date: 05/25/2010 15:52
Run Type: CCV	Dilution: 1.0
Lab ID: KWG1004915-1	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN	12.89?	11.81?	39444603	53176339	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ug/L #1	ug/L #2	Rpt
1	Decachlorobiphenyl	19.77	19.04	22895899	22844234	52.07	47.51	NA
%Recovery =						NA	NA	Limits = 10-134

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	Final Conc. Units:		Rpt
						ug/L #1	ug/L #2	
1	alpha-BHC	12.00	11.02	49284504	67453410	53.84	55.74	
1	gamma-BHC (Lindane)	12.73	11.87	45365435	64021704	53.69	53.18	
1	beta-BHC	12.93	12.11	19929365	24581673	56.16	51.54	
1	delta-BHC	13.28	12.67	41079705	52672216	52.59	53.03	
1	Heptachlor	13.67	12.75	41437098	47470911	53.33	50.63	
1	Aldrin	14.20	13.32	41446339	54728997	54.48	54.89	
1	Heptachlor Epoxide	15.20	14.25	38539013	41722807	54.61	48.51	
1	gamma-Chlordane	15.38	14.54	36379120	40719679	53.84	47.64	
1	alpha-Chlordane	15.58	14.75	36107796	41470983	55.74	49.53	
1	4,4'-DDE	15.68	15.01	31100235	34298574	53.32	50.23	
1	Endosulfan I	15.78	14.81	33039804	39788660	54.83	49.44	
1	Dieldrin	16.13	15.19	35989366	42610290	56.01	51.67	
1	Endrin	16.45	15.58	29411823	36651589	54.76	51.02	
1	4,4'-DDD	16.50	15.76	23561727	25204100	55.08	48.48	
1	Endosulfan II	16.76	15.86	29233314	34093048	55.68	52.74	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of IICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 c: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ? : Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of IICAL  
 c: check for co-elution

Data File #1:	J:\GC33\DATA\052410-608\05240002.D	Instrument:	GC33
Data File #2:	J:\GC33\Data\052410-608\05240002.D\05240002c.d	Vial:	1
Acqu Date:	05/24/2010 18:03	Quant Date:	05/25/2010 15:52
Run Type:	CCV	Dilution:	1.0
Lab ID:	KWG1004915-1	Soln Conc. Units:	ug/L
Signal #1:	RTX-CLP	Signal #2:	RTX-CLP2

**Target Compounds**

Final Conc. Units: ug/L

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	ug/L #1	ug/L #2	Rpt
1	4,4'-DDT	16.87	16.15	24943314	24225696	56.67	46.76			
1	Endrin Aldehyde	17.34	16.28	21045974	27817308	51.54	53.02			
1	Methoxychlor	17.50	16.96	12451313	11400226	54.79	45.01			
1	Endosulfan Sulfate	17.97	16.63	23476067	26565516	49.92	47.61			
1	Endrin Ketone	18.39	17.30	31698791	35105338	57.31	54.57			
1	Toxaphene			0d	0d	0.0000	0.0000			
1	Chlordane			0d	0d	0.0000	0.0000			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240002.D  
 Acq On : 24-May-2010, 18:03:22  
 Acq Meth : 508.M  
 Sample : 4-60B 50 PEST  
 Misc :  
 Quant Time : May 25 15:52:59 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\032210\_508.M  
 Quant Title : CAL9310 aka032210\_508.m | MJ492  
 QLast Update : Tue Mar 23 08:34:24 2010

Operator : PM  
 Vial : 1  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.81	39444603	53176339	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.49	9.40	33640390	44961234	49.949	51.917
4) 4,4'-Dibromooctaf...	12.37	10.43	38450157	50824677	51.678	51.848
25) Decachlorobiphenyl	19.77	19.04	22895899	22844234	52.074	47.507
Target Compounds						
3) alpha-BHC	12.00	11.02	49284504	67453410	53.842	55.738
5) gamma-BHC (Lindane)	12.73	11.87	45365435	64021704	53.693	53.182
6) beta-BHC	12.93	12.11	19929365	24581673	56.155	51.544
7) delta-BHC	13.28	12.67	41079705	52672216	52.592	53.029
8) Heptachlor	13.67	12.75	41437098	47470911	53.327	50.630
9) Aldrin	14.20	13.32	41446339	54728997	54.479	54.889
10) Heptachlor Epoxid...	15.06	14.28	45034491	49281181	55.733	49.287
11) Heptachlor Epoxid...	15.20	14.25	38539013	41722807	54.612	48.513
12) gamma-Chlordane	15.38	14.54	36379120	40719679	53.844	47.635
13) alpha-Chlordane	15.58	14.75	36107796	41470983	55.743	49.533
14) 4,4'-DDE	15.68	15.01	31100235	34298574	53.317	50.233
15) Endosulfan I	15.78	14.81	33039804	39788660	54.825	49.439
16) Dieldrin	16.13	15.19	35989366	42610290	56.011	51.666
17) Endrin	16.45	15.58	29411823	36651589	54.756	51.022
18) 4,4'-DDD	16.50	15.76	23561727	25204100	55.078	48.481
19) Endosulfan II	16.76	15.86	29233314	34093048	55.684	52.744
20) 4,4'-DDT	16.87	16.15	24943314	24225696	56.668	46.759
21) Endrin Aldehyde	17.34	16.28	21045974	27817308	51.542	53.024
22) Methoxychlor	17.50	16.96	12451313	11400226	54.785	45.014
23) Endosulfan Sulfate	17.97	16.63	23476067	26565516	49.916	47.606
24) Endrin Ketone	18.39	17.30	31698791	35105338	57.313	54.571
-----						

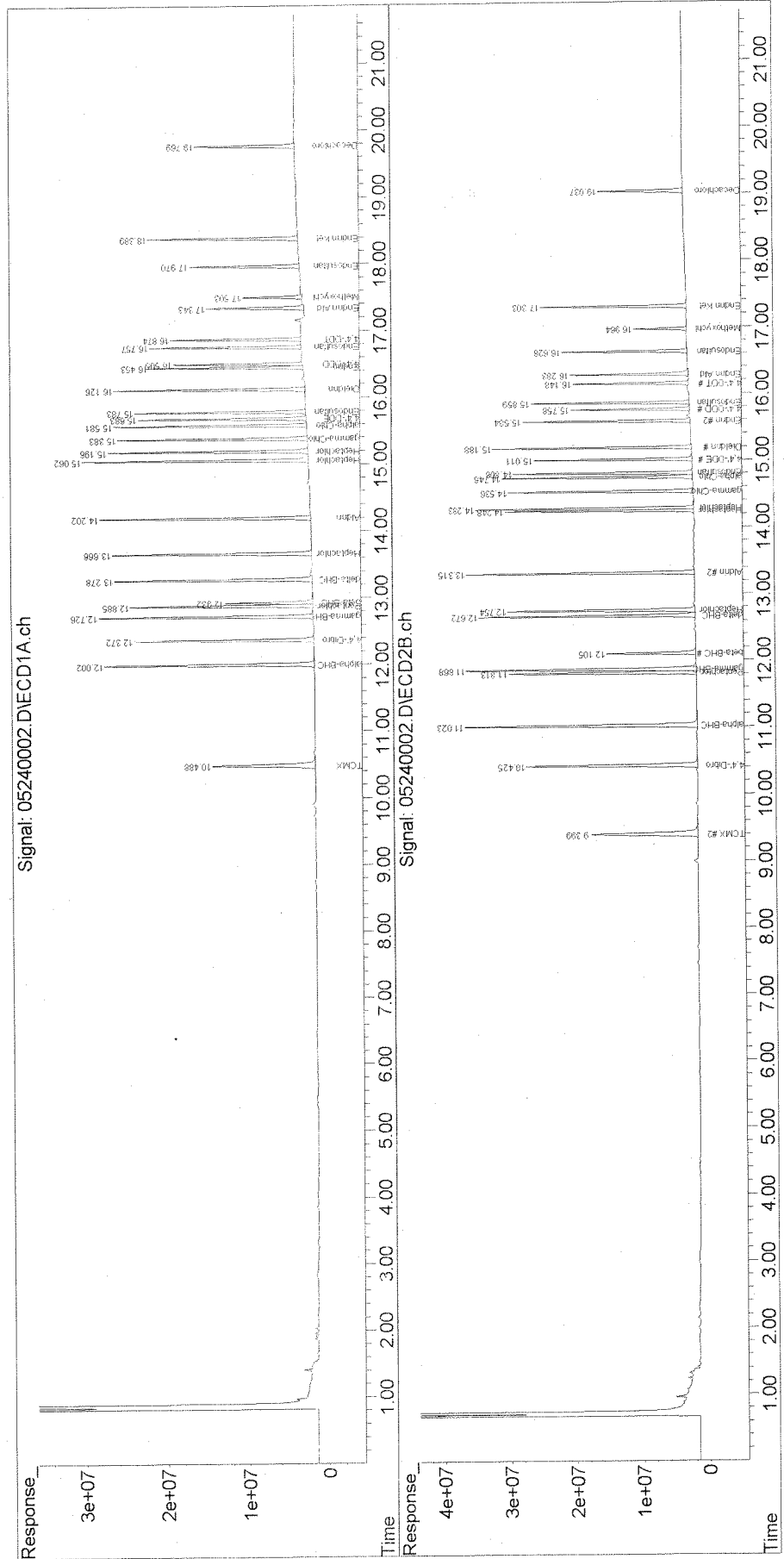
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240002.D  
Acq On : 24-May-2010, 18:03:22  
Acq Meth : 508.M  
Sample : 4-60B 50 PEST  
Misc :  
Quant Time : May 25 15:52:59 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\032210\_508.M  
Quant Title : CAL9310 aka032210\_508.m | MJ492  
QLast Update : Tue Mar 23 08:34:24 2010

Operator : PM  
Vial : 1  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/24/2010

**Continuing Calibration Verification Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 02/20/2010  
**Calibration ID:** CAL9230  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP

**File ID:** J:\GC33\DATA\052410-PCB1\05240003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	220		0.0806	0.0669	NA	-13	± 15 %	Linear
Aroclor 1260	250	240		0.135	0.131	-3	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/24/2010

**Continuing Calibration Verification Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 02/20/2010  
**Calibration ID:** CAL9230  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP2

**File ID:** J:\GC33\DATA\052410-PCB1\05240003.D\05240003C.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	220		0.0757	0.0658	-13	NA	± 15 %	AverageRF
Aroclor 1260	250	220		0.117	0.105	-10	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.



# Exception Report

Data File: J:\GC33\DATA\052410-PCB1\05240003.D  
Lab ID: KWG1004915-2  
RunType: CCV  
Matrix: NOT APPLICABLE

Date Acquired: 05/24/2010 18:29  
Date Quantitated: 05/25/2010 22:05  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: *AS/10/10*  
Secondary Review: *AS/10/10*

# Exception Report

Data File: J:\GC33\DATA\052410-PCBI\05240003.D\05240003C.D  
Lab ID: KWG1004915-2  
RunType: CCV  
Matrix: NOT APPLICABLE

Date Acquired: 05/24/2010 18:29  
Date Quantitated: 05/25/2010 22:05  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: \_\_\_\_\_

Secondary Review: \_\_\_\_\_

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 508.1 PEST_CL	Collect Date:	NOT APPLICABL Receive Date: 05/25/2010

Analysis Lot: KWG1004915	Prep Lot:	Report Group:
Analysis Method: 608M	Prep Method:	
Prep Ref:	Prep Date:	

Quant Method: J:\GC33\METHODS\022010_PCB1.	Calibration ID: CAL9230
Title:	Method ID: MJ1028
MB Ref:	Quant based on Method

Data File #1: J:\GC33\DATA\052410-PCB1\05240003.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB1\05240003.D\05240003c.d	Vial: 2
Acqu Date: 05/24/2010 18:29	Quant Date: 05/25/2010 22:05
Run Type: CCV	Dilution: 1.0
Lab ID: KWG1004915-2	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89? <sup>-0.09</sup>	11.82? <sup>-0.14</sup>	31044771	42142305	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ug/L #1	ug/L #2	Rpt
						ccv	ccv	
%Recovery =						Limits =		

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	ug/L #1	ug/L #2	Rpt
1	Aroclor 1016			10377600m	13859993m	216.62	217.33			
1	Aroclor 1260			20361311m	22104484m	243.13	224.14			
1	Aroclor 1221			0d	0d	0.0000	0.0000			
1	Aroclor 1254			0d	0d	0.0000	0.0000			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\GC33\Data\052410-PCB1\05240003.D

Acq On : 24-May-2010, 18:29:20

Operator : PM

Acq Meth : 508.M

Sample : 4-52B 250 PCB

Vial : 2

Misc :

Multiplier : 1.00

Quant Time : May 25 22:05:11 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254

QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #2 Phase: RTX-CLP2

Signal #1 Info : 320 x 0.50 um

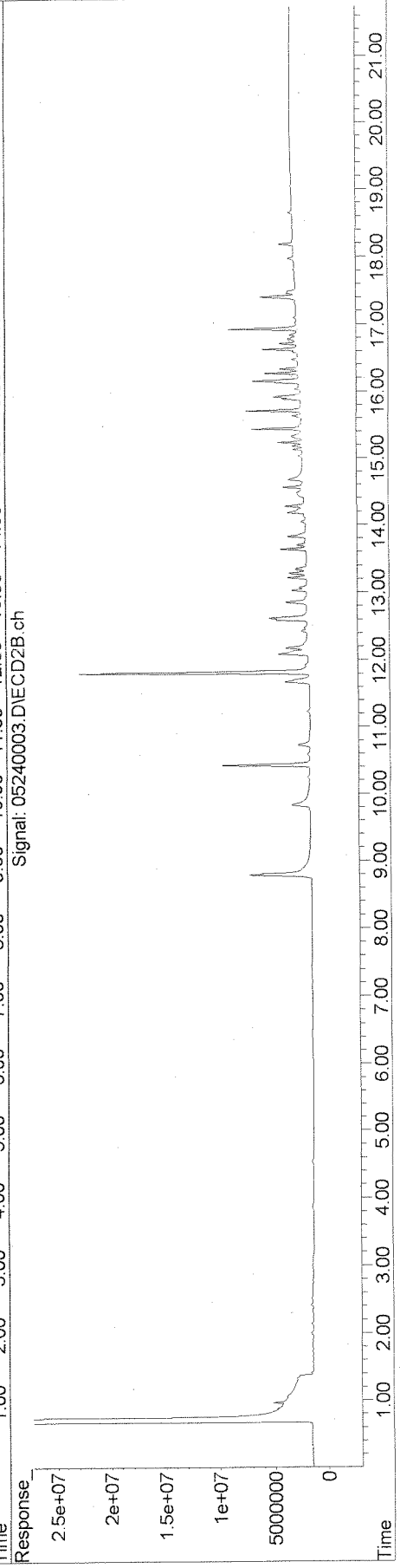
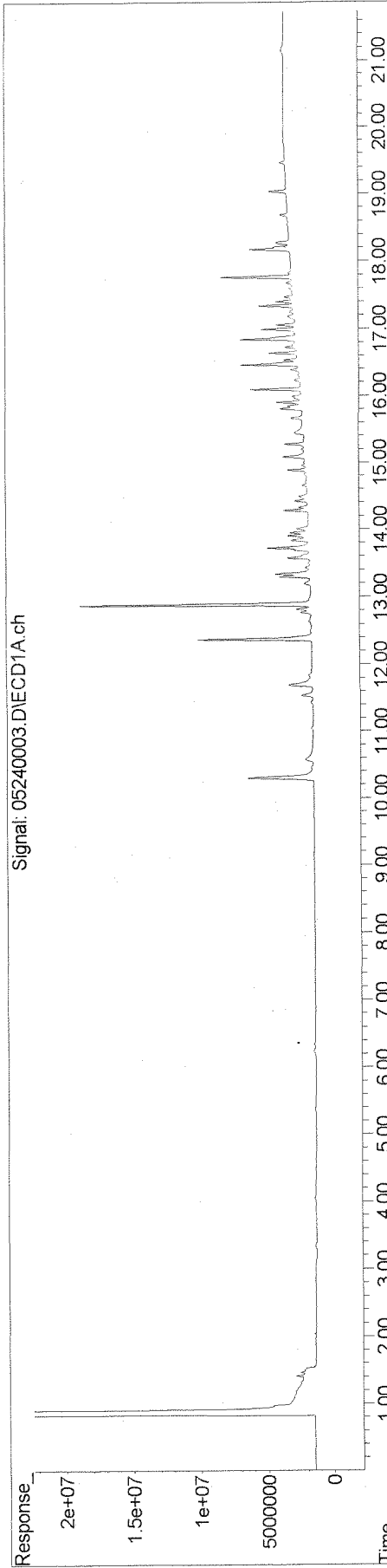
Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	31044771	42142305	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.54	10.73	2406961	2853835	237.424	220.390
3) Aroclor 1016 {2}	13.58	12.86	3160630	4626300	225.062	219.732
4) Aroclor 1016 {3}	13.69	13.03	1501132	2548846	152.377	202.845 #
5) Aroclor 1016 {4}	14.28	13.64	3308877	3831012	241.544	222.670
6) Aroclor 1016 - TOTAL	0.00	0.00	10377600	13859993	216.618T	217.331T
7) Aroclor 1260	16.99	16.27	4444297	4768022	252.104	228.119
8) Aroclor 1260 {2}	17.34	16.63	4231265	5176529	233.186	235.625
9) Aroclor 1260 {3}	17.77	16.93	9439543	9903102	241.637	215.739
10) Aroclor 1260 {4}	19.04	18.19	2246206	2256831	252.152	229.271
11) Aroclor 1260 - TOTAL	0.00	0.00	20361311	22104484	243.128T	224.144T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : J:\GC33\Data\052410-PCB1\05240003.D  
Acq On : 24-May-2010, 18:29:20 Operator : PM  
Acq Meth : 508.M Vial : 2  
Sample : 4-52B 250 PCB Multiplier : 1.00  
Misc :  
Quant Time : May 25 22:05:11 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL9230 aka022010 PCB1 1016,1260,1221,1254  
Qlast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010

**Continuing Calibration Verification Summary**  
**Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 12/12/2009  
**Calibration ID:** CAL9310  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP

**File ID:** J:\GC33\DATA\052410-608\05240017.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	50	53		0.557	0.587	5	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Date Analyzed: 05/25/2010

Continuing Calibration Verification Summary  
Organochlorine Pesticides and Polychlorinated Biphenyls

Calibration Type: Internal Standard  
Analysis Method: 608M

Calibration Date: 12/12/2009  
Calibration ID: CAL9310  
Analysis Lot: KWG1004915  
Units: ug/L  
Column ID: RTX-CLP2

File ID: J:\GC33\DATA\052410-608\05240017.D\05240017C.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	50	49		0.452	0.445	-2	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

# Exception Report

Data File: J:\GC33\DATA\052410-608\05240017.D  
Lab ID: KWG1004915-3  
RunType: CCV  
Matrix: NOT APPLICABLE

Date Acquired: 05/25/2010 00:32  
Date Quantitated: 05/25/2010 16:27  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*



# Exception Report

Data File: J:\GC33\DATA\052410-608\05240017.D\05240017C.D  
Lab ID: KWG1004915-3  
RunType: CCV  
Matrix: NOT APPLICABLE

Date Acquired: 05/25/2010 00:32  
Date Quantitated: 05/25/2010 16:27  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 508.1 PEST_CL	Collect Date:	NOT APPLICABL Receive Date: 05/25/2010

Analysis Lot: KWG1004915	Prep Lot:	Report Group:
Analysis Method: 608M	Prep Method:	
Prep Ref:	Prep Date:	

Quant Method: J:\GC33\METHODS\032210_508.M	Calibration ID: CAL9310
Title:	Method ID: MJ1028
MB Ref:	Quant based on Method

Data File #1: J:\GC33\DATA\052410-608\05240017.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-608\05240017.D\05240017c.d	Vial: 1
Acqu Date: 05/25/2010 00:32	Quant Date: 05/25/2010 16:27
Run Type: CCV	Dilution: 1.0
Lab ID: KWG1004915-3	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89 <sup>-0.02</sup>	11.82 <sup>-0.07</sup>	38462564	52946184	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Respe #2	ug/L #1	ug/L #2	Rpt
1	Decachlorobiphenyl	19.77	19.05	22589182	23548951	52.69	49.19	NA
%Recovery =						NA	NA	Limits = 10-134

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	ug/L #1	ug/L #2	Rpt
1	alpha-BHC	12.00	11.03	48447545	67172670	54.28	55.75			
1	gamma-BHC (Lindane)	12.73	11.87	44474631	64705910	53.98	53.98			
1	beta-BHC	12.93	12.11	20127857	25087964	58.16	52.83			
1	delta-BHC	13.28	12.68	39480215	51122101	51.84	51.69			
1	Heptachlor	13.67	12.76	41225027	53023518	54.41	56.80			
1	Aldrin	14.20	13.32	41445648	55831768	55.87	56.24			
1	Heptachlor Epoxide	15.20	14.25	38040154	48939036	55.28	57.15			
1	gamma-Chlordane	15.38	14.54	36011718	46991032	54.66	55.21			
1	alpha-Chlordane	15.58	14.75	35781334	46136155	56.65	55.34			
1	4,4'-DDE	15.68	15.02	31200310	37356519	54.85	54.95			
1	Endosulfan I	15.78	14.81	33184791	43202715	56.47	53.91			
1	Dieldrin	16.12	15.19	35944773	46604521	57.37	56.76			
1	Endrin	16.45	15.59	29522957	39104731	56.37	54.67			
1	4,4'-DDD	16.50	15.77	23626007	27186564	56.64	52.52			
1	Endosulfan II	16.75	15.87	28767924	35604222	56.20	55.32			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File #1:	J:\GC33\DATA\052410-608\05240017.D	Instrument:	GC33
Data File #2:	J:\GC33\Data\052410-608\05240017.D\05240017c.d	Vial:	1
Acqu Date:	05/25/2010 00:32	Quant Date:	05/25/2010 16:27
Run Type:	CCV	Dilution:	1.0
Lab ID:	KWG1004915-3	Soln Conc. Units:	ug/L
Signal #1:	RTX-CLP	Signal #2:	RTX-CLP2

**Target Compounds**

Final Conc. Units: ug/L

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	ug/L #1	ug/L #2	Rpt
1	4,4'-DDT	16.87	16.16	24954193	26629749	58.14	51.62			
1	Endrin Aldehyde	17.34	16.29	22801309	28586166	57.27	54.72			
1	Methoxychlor	17.50	16.97	12972064	12793690	58.53	50.74			
1	Endosulfan Sulfate	17.97	16.64	21875151	25054768	47.70	45.09			
1	Endrin Ketone	18.39	17.31	31632239	35733363	58.65	55.79			
1	Toxaphene			nd	nd	0.0000	0.0000			
1	Chlordane			nd	nd	0.0000	0.0000			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240017.D  
 Acq On : 25-May-2010, 00:32:08  
 Acq Meth : 508.M  
 Sample : 4-60B 50 PEST  
 Misc :  
 Quant Time : May 25 16:27:01 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\032210\_508.M  
 Quant Title : CAL9310 aka032210\_508.m | MJ492  
 QLast Update : Mon May 24 18:32:56 2010

Operator : PM  
 Vial : 1  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase : RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	38462564	52946184	50.000	50.000
System Monitoring Compounds						
2) TCMX	10.49	9.40	33720584	45690059	51.346	52.988
4) 4,4'-Dibromooctaf...	12.37	10.43	38633229	51273537	53.250	52.533
25) Decachlorobiphenyl	19.77	19.05	22589182	23548951	52.688	49.185
Target Compounds						
3) alpha-BHC	12.00	11.03	48447545	67172670	54.279	55.747
5) gamma-BHC (Lindane)	12.73	11.87	44474631	64705910	53.982	53.984
6) beta-BHC	12.93	12.11	20127857	25087964	58.162	52.834
7) delta-BHC	13.28	12.68	39480215	51122101	51.835	51.692
8) Heptachlor	13.67	12.76	41225027	53023518	54.409	56.798
9) Aldrin	14.20	13.32	41445648	55831768	55.869	56.238
10) Heptachlor Epoxid...	15.06	14.29	42174592	55410938	53.527	55.658
11) Heptachlor Epoxid...	15.20	14.25	38040154	48939036	55.282	57.150
12) gamma-Chlordane	15.38	14.54	36011718	46991032	54.661	55.211
13) alpha-Chlordane	15.58	14.75	35781334	46136155	56.649	55.344
14) 4,4'-DDE	15.68	15.02	31200310	37356519	54.854	54.949
15) Endosulfan I	15.78	14.81	33184791	43202715	56.472	53.914
16) Dieldrin	16.12	15.19	35944773	46604621	57.370	56.755
17) Endrin	16.45	15.59	29522957	39104731	56.366	54.674
18) 4,4'-DDD	16.50	15.77	23626007	27186564	56.638	52.522
19) Endosulfan II	16.75	15.87	28767924	35604222	56.197	55.321
20) 4,4'-DDT	16.87	16.16	24954193	26629749	58.141	51.623
21) Endrin Aldehyde	17.34	16.29	22801309	28586166	57.266	54.718
22) Methoxychlor	17.50	16.97	12972064	12793690	58.533	50.736
23) Endosulfan Sulfate	17.97	16.64	21875151	25054768	47.700	45.094
24) Endrin Ketone	18.39	17.31	31632239	35733363	58.653	55.788

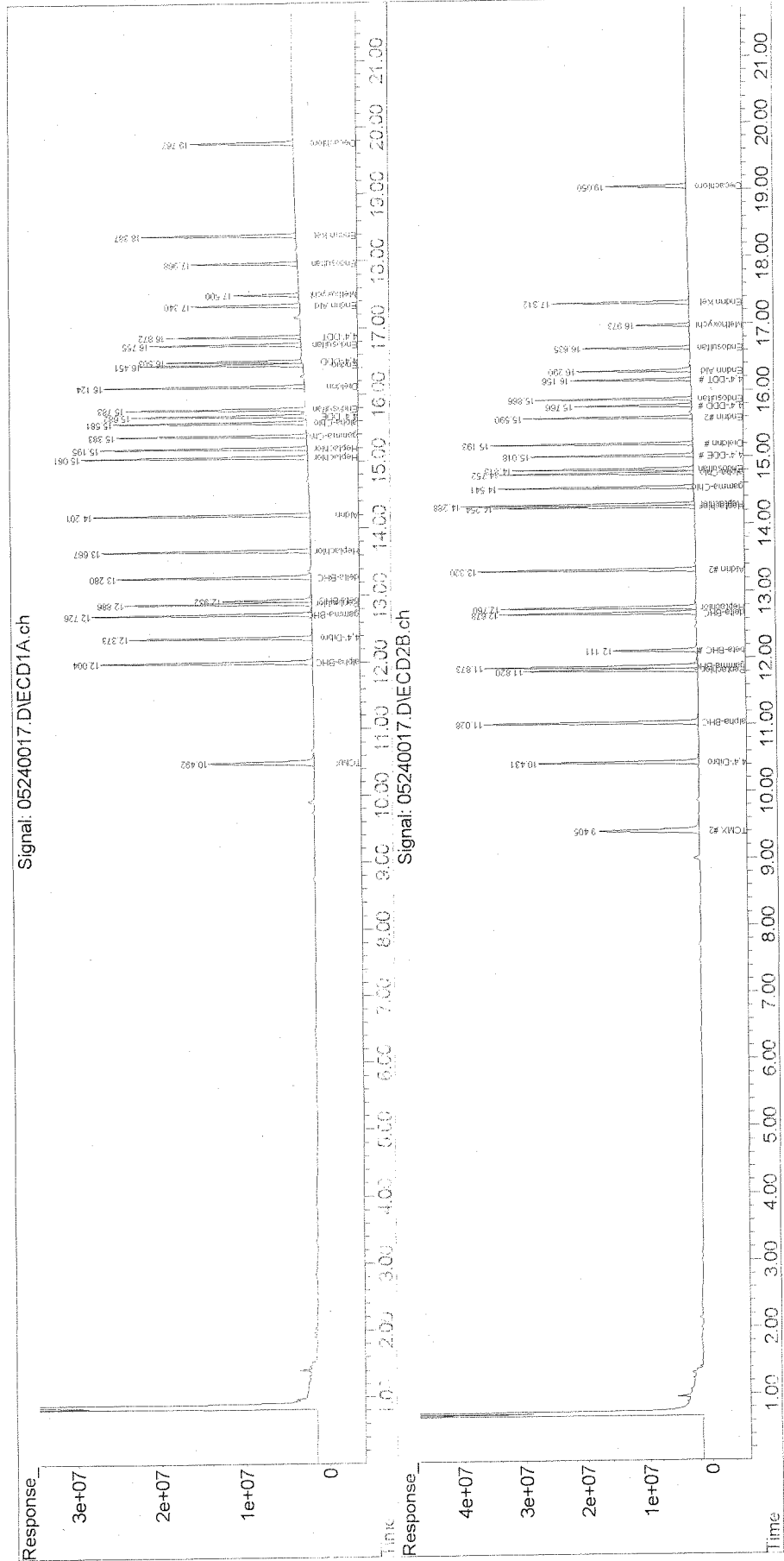
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-608\05240017.D  
Acq On : 25-May-2010, 00:32:08  
Acq Meth : 508.M  
Sample : 4-60B 50 PEST  
Misc :  
Quant Time : May 25 16:27:01 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\032210\_508.M  
Quant Title : CAL9310 aka032210\_508.m | MJ492  
Qlast Update : Mon May 24 18:32:56 2010

Operator : PM  
Vial : 1  
Multiplier : 1.00

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP  
Signal #1 Info : 320 x 0.50 um  
Signal #2 Phase : RTX-CLP2  
Signal #2 Info : 320 x 0.25 um



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010

**Continuing Calibration Verification Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 02/20/2010  
**Calibration ID:** CAL9230  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP

**File ID:** J:\GC33\DATA\052410-PCB1\05240019.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	220		0.0806	0.0677	NA	-12	± 15 %	Linear
Aroclor 1260	250	250		0.135	0.136	1	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/25/2010

**Continuing Calibration Verification Summary  
 Organochlorine Pesticides and Polychlorinated Biphenyls**

**Calibration Type:** Internal Standard  
**Analysis Method:** 608M

**Calibration Date:** 02/20/2010  
**Calibration ID:** CAL9230  
**Analysis Lot:** KWG1004915  
**Units:** ug/L  
**Column ID:** RTX-CLP2

**File ID:** J:\GC33\DATA\052410-PCB1\05240019.D\05240019C.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Aroclor 1016	250	220		0.0757	0.0660	-13	NA	± 15 %	AverageRF
Aroclor 1260	250	230		0.117	0.109	-7	NA	± 15 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

# Exception Report

Data File: J:\GC33\DATA\052410-PCB1\05240019.D  
Lab ID: KWG1004915-4  
RunType: CCV  
Matrix: NOT APPLICABLE

Date Acquired: 05/25/2010 01:23  
Date Quantitated: 05/25/2010 17:31  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*



# Exception Report

Data File: J:\GC33\DATA\052410-PCB1\05240019.D\05240019C.D  
Lab ID: KWG1004915-4  
RunType: CCV  
Matrix: NOT APPLICABLE

Date Acquired: 05/25/2010 01:23  
Date Quantitated: 05/25/2010 17:31  
Batch ID: KWG1004915  
Analysis Method: 608M  
MethodJoinID: MJ1028

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: *[Signature]*

Secondary Review: *[Signature]*

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 508.1 PEST_CL	Collect Date:	NOT APPLICABL Receive Date: 05/25/2010

Analysis Lot: KWG1004915	Prep Lot:	Report Group:
Analysis Method: 608M	Prep Method:	
Prep Ref:	Prep Date:	

Quant Method: J:\GC33\METHODS\022010_PCB1	Calibration ID: CAL9230
Title:	Method ID: MJ1028
MB Ref:	Quant based on Method

Data File #1: J:\GC33\DATA\052410-PCB1\05240019.D	Instrument: GC33
Data File #2: J:\GC33\Data\052410-PCB1\05240019.D\05240019c.d	Vial: 2
Acqu Date: 05/25/2010 01:23	Quant Date: 05/25/2010 17:31
Run Type: CCV	Dilution: 1.0
Lab ID: KWG1004915-4	Soln Conc. Units: ug/L
Signal #1: RTX-CLP	Signal #2: RTX-CLP2

## Internal Standard Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2
1	Pentachloronitrobenzene (PCN)	12.89 <sup>0.09</sup>	11.82 <sup>0.14</sup>	29998455	41027799	50.00	50.00

## Surrogate Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	Rpt
						CCV	CCV	
						%Recovery =	Limits =	

## Target Compounds

IS #	Parameter Name	RT #1	RT #2	Resp #1	Resp #2	ug/L #1	ug/L #2	ug/L #1	ug/L #2	Rpt
1	Aroclor 1016			10156733m	13544308m	219.66	218.15			
1	Aroclor 1260			20419857m	22348101m	252.33	232.77			
1	Aroclor 1221			0d	0d	0.0000	0.0000			
1	Aroclor 1254			0d	0d	0.0000	0.0000			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL, also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240019.D  
 Acq On : 25-May-2010, 01:23:58  
 Acq Meth : 508.M  
 Sample : 4-52B 250 1660  
 Misc :  
 Quant Time : May 25 17:31:51 2010  
 Response via : Initial Calibration  
 Quant Method : J:\GC33\Methods\022010\_PCB1.M  
 Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254  
 QLast Update : Sun May 23 17:12:24 2010

Operator : PM  
 Vial : 2  
 Multiplier : 1.00

Volume Inj. : 1 uL  
 Signal #1 Phase : RTX-CLP  
 Signal #1 Info : 320 x 0.50 um  
 Signal #2 Phase : RTX-CLP2  
 Signal #2 Info : 320 x 0.25 um

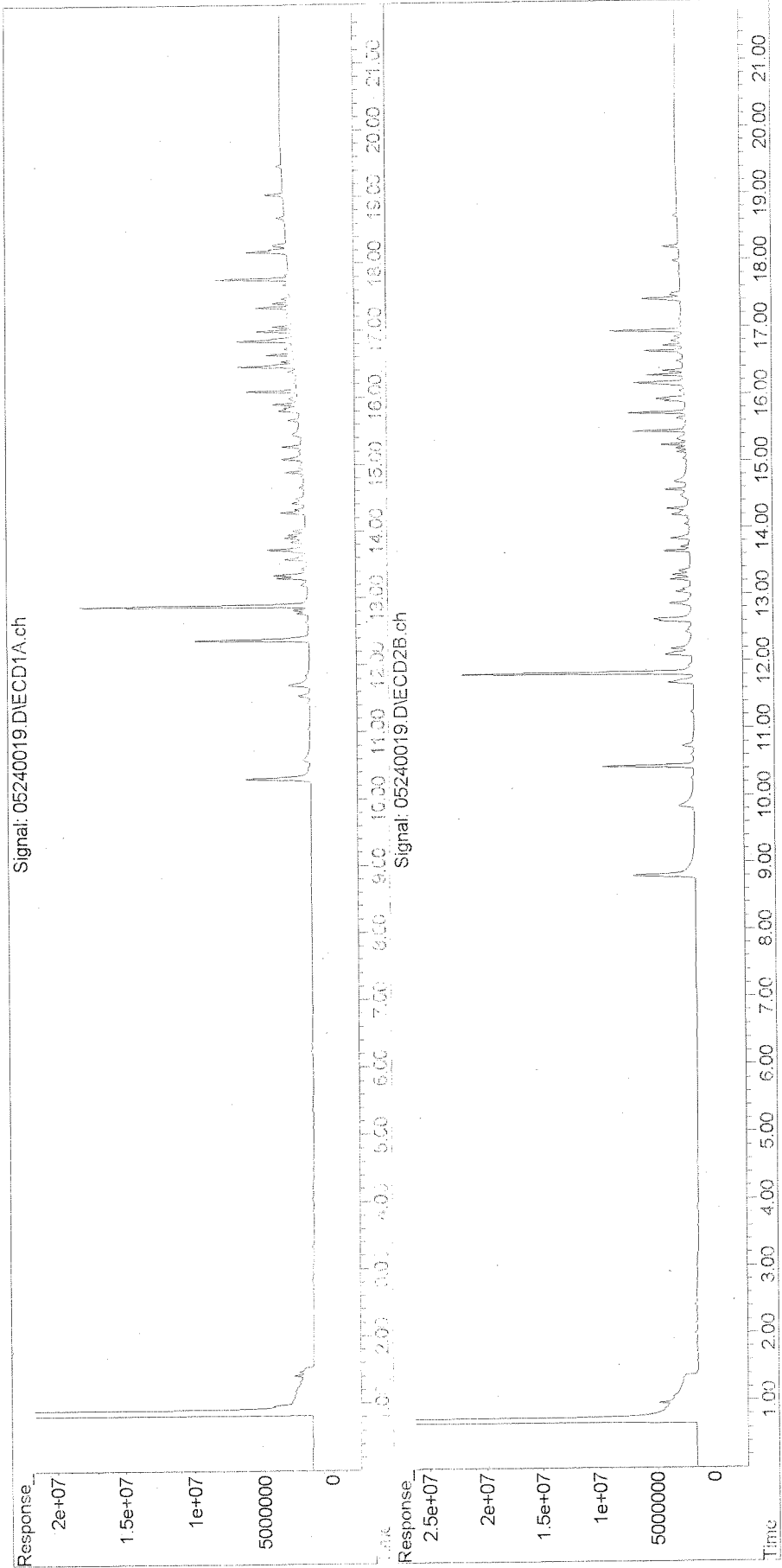
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
-----						
Internal Standards						
1) Pentachloronitrob...	12.89	11.82	29998455	41027799	50.000	50.000
Target Compounds						
2) Aroclor 1016	11.54	10.74	2282532	2779143	232.314	220.452
3) Aroclor 1016 {2}	13.58	12.86	3109022	4566388	229.375	222.778
4) Aroclor 1016 {3}	13.70	13.04	1540852	2384269	162.295	194.902
5) Aroclor 1016 {4}	14.28	13.64	3224327	3814508	243.776	227.733
6) Aroclor 1016 - TOTAL	0.00	0.00	10156733	13544308	219.659T	218.150T
7) Aroclor 1260	16.99	16.27	4217556	4829434	247.587m	237.334
8) Aroclor 1260 {2}	17.34	16.63	4455363	5111877	254.100	239.003
9) Aroclor 1260 {3}	17.77	16.94	9395587	10102123	248.901	226.053
10) Aroclor 1260 {4}	19.04	18.19	2351351	2304667	273.161	240.491
11) Aroclor 1260 - TOTAL	0.00	0.00	20419857	22348101	252.331T	232.770T
-----						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC33\Data\052410-PCB1\05240019.D  
Acq On : 25-May-2010, 01:23:58 Operator : PM  
Acq Meth : 508.M Vial : 2  
Sample : 4-52B 250 1660 Multiplier : 1.00  
Misc :  
Quant Time : May 25 17:31:51 2010  
Response via : Initial Calibration  
Quant Method : J:\GC33\Methods\022010\_PCB1.M  
Quant Title : CAL9230 aka022010\_PCB1\_1016,1260,1221,1254  
QLast Update : Sun May 23 17:12:24 2010

Volume Inj. : 1 uL  
Signal #1 Phase : RTX-CLP Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 320 x 0.50 um Signal #2 Info : 320 x 0.25 um



Quantitation Report (Qedit)

Data File : J:\GC33\Data\052410-PCB1\05240019.D

Acq On : 25-May-2010, 01:23:58

Operator : PM

Acq Meth : 508.M

Sample : 4-52B 250 1660

Vial : 2

Misc :

Multiplier : 1.00

Quant Time : May 25 17:21:33 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254

QLast Update : Sun May 23 17:12:24 2010

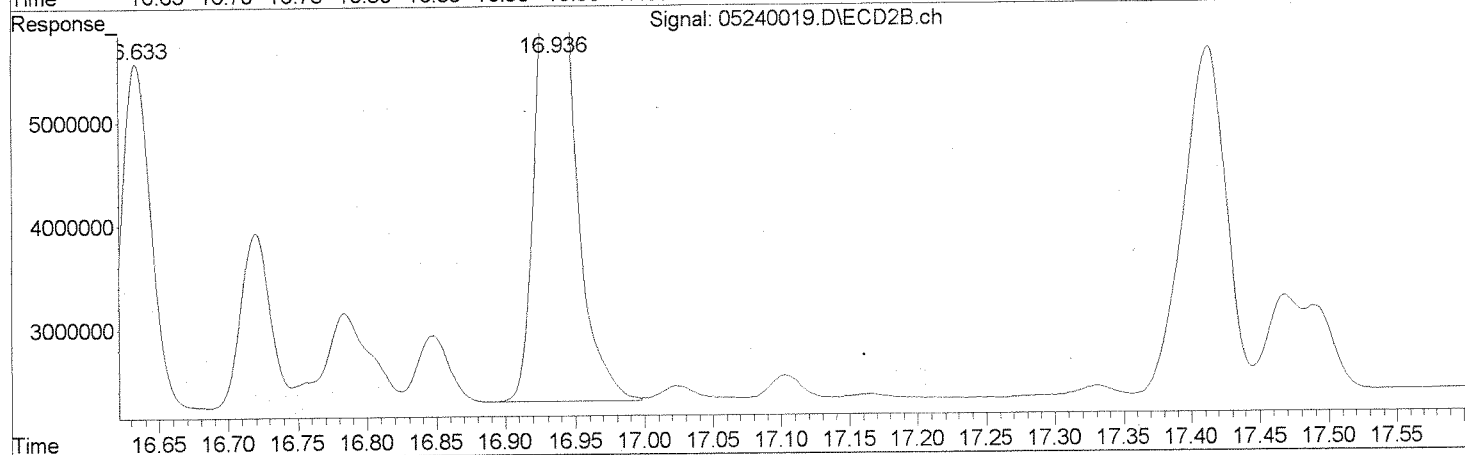
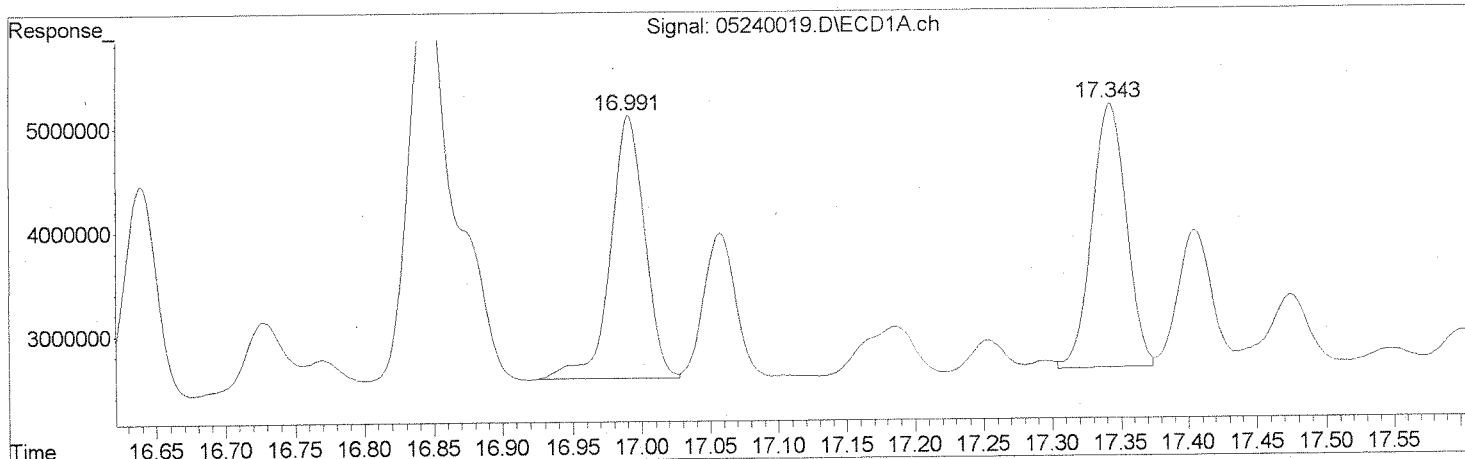
Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #2 Phase: RTX-CLP2

Signal #1 Info : 320 x 0.50 um

Signal #2 Info : 320 x 0.25 um



QEdit

(7) Aroclor 1260 (L4)

R.T.	Response	Conc
16.99	4397655	258.16
17.34	4455363	254.10
17.77	9395587	248.90
19.04	2351351	273.16

(7) Aroclor 1260 #2 (L4)

R.T.	Response	Conc
16.27	4829434	237.33
16.63	5111877	239.00
16.94	10102123	226.05
18.19	2304667	240.49

Quantitation Report (Qedit)

Data File : J:\GC33\Data\052410-PCB1\05240019.D

Acq On : 25-May-2010, 01:23:58

Acq Meth : 508.M

Sample : 4-52B 250 1660

Misc :

Operator : PM

Vial : 2

Multiplier : 1.00

Quant Time : May 25 17:21:33 2010

Response via : Initial Calibration

Quant Method : J:\GC33\Methods\022010\_PCB1.M

Quant Title : CAL9230 aka022010\_PCB1 1016,1260,1221,1254

QLast Update : Sun May 23 17:12:24 2010

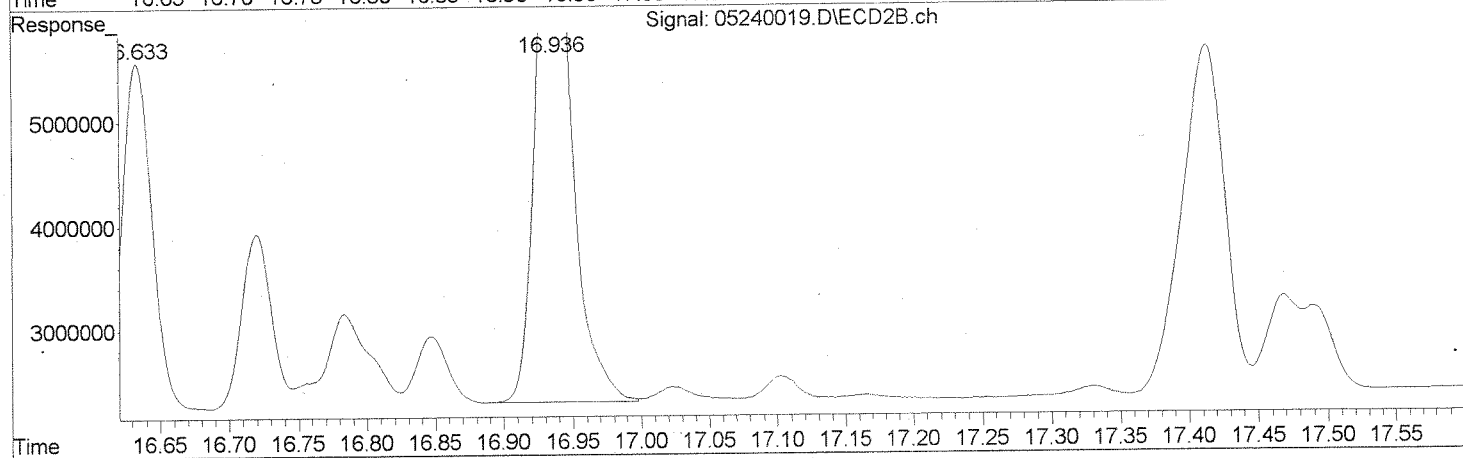
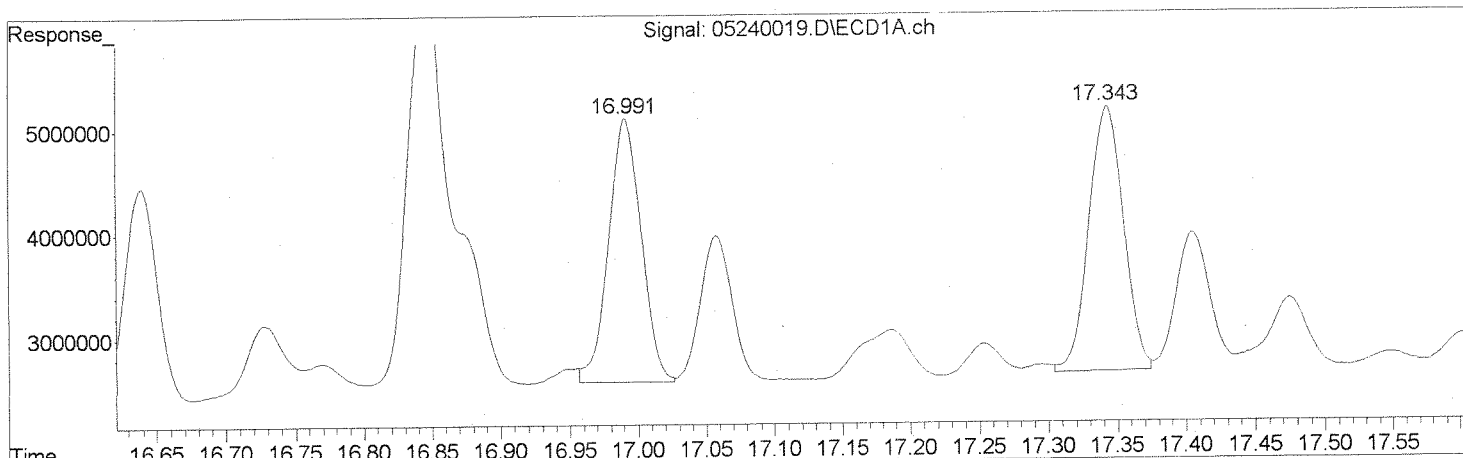
Volume Inj. : 1 uL

Signal #1 Phase : RTX-CLP

Signal #1 Info : 320 x 0.50 um

Signal #2 Phase: RTX-CLP2

Signal #2 Info : 320 x 0.25 um



QEdit

(7) Aroclor 1260 #2 (L4)

R.T.	Response	Conc
16.99	4217556	247.59
17.34	4455363	254.10
17.77	9395587	248.90
19.04	2351351	273.16

(7) Aroclor 1260 #2 (L4)

R.T.	Response	Conc
16.27	4829434	237.33
16.63	5111877	239.00
16.94	10102123	226.05
18.19	2304667	240.49

*Handwritten signature and notes:*  
 05/27/10

Organic Analysis:  
Organochlorine Pesticides and Polychlorinated  
Biphenyls  
Validation Package

Sample Prep and Screen Data

## Preparation Information

<b>Group ID:</b> KWG1004759	<b>Prep Method:</b> EPA 3520C	<b>Prep Date:</b> 05/20/10 12:00
<b>Department:</b> Semivoa GC		

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1005067-002	3bcd-2	608 Modified PC	WATER	1050mL	2mL	
K1005067-003	3ddd	608 Modified PC	WATER	1050mL	2mL	
K1005067-004	EB-051710	608 Modified PC	WATER	1050mL	2mL	
KWG1004759-1	Lab Control Sample	608 Modified PC	WATER	1000mL	2mL	
KWG1004759-2	Duplicate Lab Control Sampl	608 Modified PC	WATER	1000mL	2mL	
KWG1004759-3	Method Blank	608 Modified PC	WATER	1050mL	2mL	

Lab Code	Parent Lab Code	Comments
KWG1004759-1		KQ1004601-01
KWG1004759-2		KQ1004601-02
KWG1004759-3		KQ1004601-03

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1005067-002	910413					LBERG
K1005067-003	910414					LBERG
K1005067-004	910415					LBERG
KWG1004759-1	910416					LBERG
KWG1004759-2	910417					LBERG
KWG1004759-3	910418					LBERG

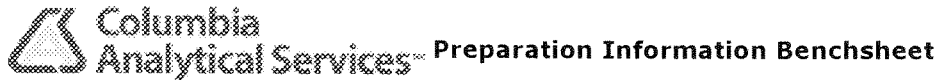
**Comments:** \_\_\_\_\_

Started By: <u>EERICKSO</u>	Assisted By: _____	<u>Training</u>	Yes	No
Completed By: <u>SMURRAY</u>	Assisted By: _____		Yes	No
Reviewed By: <u><i>mm</i></u>	Date: <u>052410</u>	Storage: <u>FRIDGE</u>		

**Chain of Custody**

Relinquished By: <u><i>mm</i></u>	Date: <u>052110</u>	<u>Extracts Examined</u>	Yes	No
Received By: <u><i>mm</i></u>	Date: <u>052410</u>		Yes	No





**Prep Run:** 111880      **Prep Workflow:** OrgExtAq (7)      **Status:** Prepped      **Prep Date:** 05/20/2010  
**Team:** Semivoa      **Prep Method:** EPA      **Current Step:** Final      **Due Date:** 12:00  
                  GC      **Rush/NPDES:** N/A      **Volume:**      **Due Date:** 05/30/2010  
**Analyst:** EERICKSON

Lab Code	Client ID	Bottle #	Initial Amt	pH Initial	pH Adj 1	Final Volume	TestNo List	Comments
K1005067-002	3bcd-2	.16	1050 mL			2 mL	PCB	
K1005067-003	3ddd	.18	1050 mL			2 mL	PCB	
K1005067-004	EB-051710	.17	1050 mL			2 mL	PCB	
KQ1004601-01	Lab Control Sample		1000 mL			2 mL	PCB	
KQ1004601-02	Duplicate Lab Control Sample		1000 mL			2 mL	PCB	
KQ1004601-03	Method Blank		1050 mL			2 mL	PCB	

6 Total Samples consisting of 3 Client Samples, 0 Client QC Samples, 3 Batch QC Samples associated with the current Prep Run.

### Spiking Solutions

**Witness:** LBERG

### Preparation Steps

Step	Started	Finished	By	Assisted By	Training?	Comments
Extraction	20-MAY-10 12:00	20-MAY-10 12:00	EERICKSON		N	
Final Volume	21-MAY-10 12:00	21-MAY-10 12:00	SMURRAY		N	

### Comments

### Review

Reviewed by:  Date: 052410

### Chain of Custody

Relinquished By: <u></u>	Date: <u>5/21/10</u>	<u>Extracts/Digestions Examined</u>
Received By: <u></u>	Date: <u>052410</u>	Yes <input type="checkbox"/> No <input type="checkbox"/>

**Columbia Analytical Services** Preparation Information Benchsheet

Prep Run: 111880      Prep Workflow: OrgExtAq (7)      Status: Draft      Prep Date: 05/20/2010 15:26  
 Team: Semivoa GC      Prep Method: EPA 3520C      Current Step: Extraction      Due Date: 05/30/2010  
 Analyst: EERICKSON      Rush/NPDES: N/A

Lab Code	Client ID	Bottle #	✓	Initial Amount	pH Initial	pH Adj 1	Inter. Volume	Final Volume	Surr Amt	Spike Amt	TestNo List
K1005067-002	3bcd-2	.16		1050	6	NA	NA	2.1L	100uL	-	PCB
K1005067-003	3ddd	.18		1050	6					-	PCB
K1005067-004	EB-051710	.17		1050	5					-	PCB
KQ1004601-01	Lab Control Sample			1000	5					50uL	PCB
KQ1004601-02	Duplicate Lab Control Sample			1000	5						PCB
KQ1004601-03	Method Blank			1050	5					-	PCB

6 Total Samples consisting of 3 Client Samples, 0 Client QC Samples, 3 Batch QC Samples associated with the current Prep Run.

**Spiking Solutions**

Witness: *Jordan G. Sulfate* 5-20-10

SURP PCB5-53E 2.0 PPM XP 10-14-10 100uL  
 Spike PCB5-49L 40 ug/mL XP 7-27-10 50uL

**Preparation Steps**

Step	Started	Finished	By	Assisted By	Training?	Comments
Extraction	5-20-10		Eerickson			
Final Volume	5-21-10 5-21-10		SM			

**Comments**

PCB only      Solv. x Hex 5-21-10 Km      G. Sulfate PC-10/16  
 3665 cu - 5-21-10 SM      PG  
 Off 10:20 10/2 5/21-10 Km      Km 5/21-10

## Sequence Table (Front Injector):

## Method and Injection Info Part:

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
1	Vial 100	IB	508	1	Sample	
2	Vial 1	4-60B 50 PEST	508	1	Sample	
3	Vial 2	4-52B 250 PCB	508	1	Sample	
4	Vial 6	KQ4517-1LCS	508	1	Sample	
5	Vial 7	KQ4517-2DLCS	508	1	Sample	
6	Vial 8	KG4517-3MB	508	1	Sample	
7	Vial 9	K1004766- <del>001</del> 002	508	1	Sample	
8	Vial 10	KQ4601-LCS	508	1	Sample	
9	Vial 11	KQ4601-DLCS	508	1	Sample	
10	Vial 12	KQ4601-MB	508	1	Sample	
11	Vial 13	K10050 <sup>67</sup> 87-002	508	1	Sample	
12	Vial 14	K1005087-003	508	1	Sample	
13	Vial 15	K10050 <sup>67</sup> 87-004	508	1	Sample	
14	Vial 95	IB	508	1	Sample	
15	Vial 99	IPC 4-55L	508	1	Sample	
16	Vial 1	4-60B 50 PEST	508	1	Sample	
17	Vial 1	4-60B 50 PEST	508	1	Sample	
18	Vial 3	4-52A 25 1660	508	1	Sample	
19	Vial 2	4-52B 250 1660	508	1	Sample	
20	Vial 16	052410-MRL	508	1	Sample	
21	Vial 17	052410-MRL	508	1	Sample	

Line	Location	SampleName DataFile LimsID	Method	Inj	SampleType	InjVolume
22	Vial 18	052410-MB	508	1	Sample	
23	Vial 19	052410-LCS	508	1	Sample	
24	Vial 20	052410-LCS	508	1	Sample	
25	Vial 21	K1005112-001	508	1	Sample	
26	Vial 22	K1005112-001MS	508	1	Sample	
27	Vial 23	K1005112-002	508	1	Sample	
28	Vial 24	K1005112-002MS	508	1	Sample	
29	Vial 25	K1004905-003REX	508	1	Sample	
30	Vial 26	K1004854-003REX	508	1	Sample	
31	Vial 27	K1004854-007REX	508	1	Sample	
32	Vial 28	K1004854-007REX2	508	1	Sample	
33	Vial 29	K1004904-001	508	1	Sample	
34	Vial 95	IB	508	1	Sample	
35	Vial 1	4-60B 50 PEST	508	1	Sample	
36	Vial 1	4-60B 50 PEST	508	1	Sample	
37	Vial 3	4-52A 25 1660	508	1	Sample	
38	Vial 2	4-52B 250 1660	508	1	Sample	

Sequence Table (Back Injector):

No entries - empty table!

## **Volatile Organic Compounds**

Organic Analysis:  
Volatile Organic Compounds

Summary Package

Sample and QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067

Cover Page - Organic Analysis Data Package  
 Volatile Organic Compounds

Sample Name	Lab Code	Date Collected	Date Received
3bcd-2	K1005067-002	05/17/2010	05/19/2010
3ddd	K1005067-003	05/17/2010	05/19/2010
EB-051710	K1005067-004	05/17/2010	05/19/2010
Trip Blank	K1005067-005	05/17/2010	05/19/2010

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature:  \_\_\_\_\_

Name: Jordan \_\_\_\_\_

Date: 6/4/10 \_\_\_\_\_

Title: Manager \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: 3bcd-2  
 Lab Code: K1005067-002  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/29/10	05/29/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/29/10	05/29/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Methylene Chloride	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/29/10	05/29/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/29/10	05/29/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/29/10	05/29/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/29/10	05/29/10	KWG1005071	
Toluene	0.32	J	5.0	0.18	1	05/29/10	05/29/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/29/10	05/29/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/29/10	05/29/10	KWG1005071	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichlorobenzene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/29/10	05/29/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/29/10	05/29/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/29/10	05/29/10	KWG1005071	

Comments:



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: 3bcd-2  
 Lab Code: K1005067-002  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	ND	U	1.0	0.13	1	05/29/10	05/29/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	98	79-131	05/29/10	Acceptable
4-Bromofluorobenzene	91	82-122	05/29/10	Acceptable
Dibromofluoromethane	91	86-124	05/29/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: 3ddd  
 Lab Code: K1005067-003  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/29/10	05/29/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/29/10	05/29/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Methylene Chloride	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/29/10	05/29/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/29/10	05/29/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/29/10	05/29/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/29/10	05/29/10	KWG1005071	
Toluene	0.30	J	5.0	0.18	1	05/29/10	05/29/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/29/10	05/29/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/29/10	05/29/10	KWG1005071	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichlorobenzene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/29/10	05/29/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/29/10	05/29/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/29/10	05/29/10	KWG1005071	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: 3ddd  
 Lab Code: K1005067-003  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	0.15	J	1.0	0.13	1	05/29/10	05/29/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	94	79-131	05/29/10	Acceptable
4-Bromofluorobenzene	91	82-122	05/29/10	Acceptable
Dibromofluoromethane	91	86-124	05/29/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: EB-051710  
 Lab Code: K1005067-004  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/29/10	05/29/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/29/10	05/29/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Methylene Chloride	0.15	J	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/29/10	05/29/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/29/10	05/29/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/29/10	05/29/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/29/10	05/29/10	KWG1005071	
Toluene	0.74	J	5.0	0.18	1	05/29/10	05/29/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/29/10	05/29/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/29/10	05/29/10	KWG1005071	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichlorobenzene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/29/10	05/29/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/29/10	05/29/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/29/10	05/29/10	KWG1005071	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Volatile Organic Compounds**

**Sample Name:** EB-051710 **Units:** ug/L  
**Lab Code:** K1005067-004 **Basis:** NA  
**Extraction Method:** METHOD **Level:** Low  
**Analysis Method:** 624

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	ND	U	1.0	0.13	1	05/29/10	05/29/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	96	79-131	05/29/10	Acceptable
4-Bromofluorobenzene	92	82-122	05/29/10	Acceptable
Dibromofluoromethane	91	86-124	05/29/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: Trip Blank  
 Lab Code: K1005067-005  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/29/10	05/29/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/29/10	05/29/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Methylene Chloride	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/29/10	05/29/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/29/10	05/29/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/29/10	05/29/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/29/10	05/29/10	KWG1005071	
Toluene	0.48	J	5.0	0.18	1	05/29/10	05/29/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/29/10	05/29/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/29/10	05/29/10	KWG1005071	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichlorobenzene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/29/10	05/29/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/29/10	05/29/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/29/10	05/29/10	KWG1005071	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: Trip Blank Units: ug/L  
 Lab Code: K1005067-005 Basis: NA  
 Extraction Method: METHOD Level: Low  
 Analysis Method: 624

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	ND	U	1.0	0.13	1	05/29/10	05/29/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	97	79-131	05/29/10	Acceptable
4-Bromofluorobenzene	91	82-122	05/29/10	Acceptable
Dibromofluoromethane	91	86-124	05/29/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments:

## Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: NA  
 Date Received: NA

## Volatile Organic Compounds

Sample Name: Method Blank  
 Lab Code: KWG1005071-4  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/28/10	05/28/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/28/10	05/28/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
Methylene Chloride	0.23	J	5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/28/10	05/28/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/28/10	05/28/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/28/10	05/28/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/28/10	05/28/10	KWG1005071	
Toluene	ND	U	5.0	0.18	1	05/28/10	05/28/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/28/10	05/28/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/28/10	05/28/10	KWG1005071	
1,1,2,2-Tetrachloroethane	0.11	J	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichlorobenzene	0.14	J	5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/28/10	05/28/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/28/10	05/28/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/28/10	05/28/10	KWG1005071	

Comments:



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: NA  
 Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank  
 Lab Code: KWG1005071-4  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	ND	U	1.0	0.13	1	05/28/10	05/28/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	97	79-131	05/28/10	Acceptable
4-Bromofluorobenzene	93	82-122	05/28/10	Acceptable
Dibromofluoromethane	92	86-124	05/28/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments:

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067

**Surrogate Recovery Summary  
 Volatile Organic Compounds**

Extraction Method: METHOD  
 Analysis Method: 624

Units: PERCENT  
 Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
3bcd-2	K1005067-002	98	91	91
3ddd	K1005067-003	94	91	91
EB-051710	K1005067-004	96	92	91
Trip Blank	K1005067-005	97	91	91
Method Blank	KWG1005071-4	97	93	92
Batch QC	K1004934-006	96	90	91
Batch QCMS	KWG1005071-1	100	92	92
Batch QCDMS	KWG1005071-2	100	92	93
Lab Control Sample	KWG1005071-3	99	93	92

**Surrogate Recovery Control Limits (%)**

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Sur1 = Toluene-d8 79-131  
 Sur2 = 4-Bromofluorobenzene 82-122  
 Sur3 = Dibromofluoromethane 86-124

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Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 05/28/2010  
 Time Analyzed: 20:19

Internal Standard Area and RT Summary  
 Volatile Organic Compounds

File ID: J:\MS13\DATA\052810-624\0528F107.D  
 Instrument ID: MS13  
 Analysis Method: 624

Lab Code: KWG1005070-2  
 Analysis Lot: KWG1005070

	Fluorobenzene		1,4-Dichlorobenzene-d4		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
Results ==>	606,960	6.12	217,420	15.08	238,587	12.04
Upper Limit ==>	1,213,920	6.62	434,840	15.58	477,174	12.54
Lower Limit ==>	303,480	5.62	108,710	14.58	119,294	11.54
ICAL Result ==>	782,787	6.36	304,962	15.21	292,855	12.21

Associated Analyses

		Area	RT	Area	RT	Area	RT
Method Blank	KWG1005071-4	582,035	6.12	204,168	15.08	230,841	12.03
Batch QC	K1004934-006	584,498	6.12	205,452	15.08	230,615	12.03
Lab Control Sample	KWG1005071-3	601,301	6.12	221,353	15.08	237,048	12.04
Batch QCMS	KWG1005071-1	598,974	6.12	222,254	15.08	239,642	12.03
Batch QCDMS	KWG1005071-2	591,524	6.12	211,858	15.08	237,418	12.03
3bcd-2	K1005067-002	584,547	6.12	205,017	15.08	233,308	12.03
3ddd	K1005067-003	593,029	6.12	206,441	15.08	233,619	12.03
EB-051710	K1005067-004	586,345	6.12	205,914	15.08	226,830	12.03
Trip Blank	K1005067-005	576,914	6.12	201,609	15.08	228,741	12.03

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Extracted: 05/29/2010  
 Date Analyzed: 05/29/2010

Matrix Spike/Duplicate Matrix Spike Summary  
 Volatile Organic Compounds

Sample Name: Batch QC  
 Lab Code: K1004934-006  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low  
 Extraction Lot: KWG1005071

Analyte Name	Sample Result	Batch QCMS KWG1005071-1 Matrix Spike			Batch QCDMS KWG1005071-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,1-Dichloroethene	ND	28.1	20.0	141	27.4	20.0	137	63-153	2	30
Benzene	ND	24.2	20.0	121	23.9	20.0	119	69-128	1	30
Trichloroethene (TCE)	ND	23.5	20.0	117	23.2	20.0	116	33-174	1	30
Toluene	0.27	23.4	20.0	116	23.4	20.0	116	62-132	0	30
Chlorobenzene	ND	20.0	20.0	100	20.1	20.0	100	71-120	0	30
1,2-Dichlorobenzene	ND	21.0	20.0	105	21.9	20.0	110	72-117	5	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Extracted: 05/28/2010  
 Date Analyzed: 05/28/2010

Lab Control Spike Summary  
 Volatile Organic Compounds

Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low  
 Extraction Lot: KWG1005071

Analyte Name	Lab Control Sample KWG1005071-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Chloromethane	15.4	20.0	77	45-137
Vinyl Chloride	15.9	20.0	80	54-145
Bromomethane	16.4	20.0	82	20-175
Chloroethane	18.3	20.0	91	56-137
Trichlorofluoromethane	17.5	20.0	88	50-135
1,1-Dichloroethene	17.2	20.0	86	74-139
Methylene Chloride	16.4	20.0	82	76-120
trans-1,2-Dichloroethene	16.9	20.0	85	76-125
1,1-Dichloroethane	17.4	20.0	87	68-127
Chloroform	18.4	20.0	92	69-126
1,1,1-Trichloroethane (TCA)	17.2	20.0	86	61-135
Carbon Tetrachloride	18.8	20.0	94	54-142
Benzene	17.7	20.0	88	73-122
1,2-Dichloroethane (EDC)	20.1	20.0	100	66-132
Trichloroethene (TCE)	17.4	20.0	87	70-123
1,2-Dichloropropane	17.4	20.0	87	73-122
Bromodichloromethane	17.9	20.0	90	68-136
2-Chloroethyl Vinyl Ether	20.2	20.0	101	30-155
trans-1,3-Dichloropropene	16.6	20.0	83	56-121
Toluene	17.6	20.0	88	71-124
cis-1,3-Dichloropropene	13.9	20.0	70	64-131
1,1,2-Trichloroethane	17.2	20.0	86	75-118
Tetrachloroethene (PCE)	15.5	20.0	78	65-125
Dibromochloromethane	16.1	20.0	81	65-132
Chlorobenzene	16.2	20.0	81	77-115
Ethylbenzene	17.5	20.0	87	72-123
Bromoform	15.9	20.0	80	51-145
1,1,2,2-Tetrachloroethane	18.8	20.0	94	62-135
1,3-Dichlorobenzene	18.3	20.0	92	74-116
1,4-Dichlorobenzene	18.2	20.0	91	74-114
1,2-Dichlorobenzene	17.9	20.0	90	76-113
Acrolein	114	100	114	10-185
Acrylonitrile	19.7	20.0	98	63-138
m,p-Xylenes	34.9	40.0	87	71-126
o-Xylene	18.0	20.0	90	70-125

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/28/2010  
**Date Analyzed:** 05/28/2010  
**Time Analyzed:** 20:46

**Method Blank Summary  
 Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1005071-4  
**Extraction Method:** METHOD  
**Analysis Method:** 624

**File ID:** J:\MS13\DATA\052810-624\0528F108.D  
**Instrument ID:** MS13  
**Level:** Low  
**Extraction Lot:** KWG1005071

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Batch QC	K1004934-006	J:\MS13\DATA\052810-624\0528F110.D	05/28/10	21:41
Lab Control Sample	KWG1005071-3	J:\MS13\DATA\052810-624\0528F114.D	05/28/10	23:31
Batch QCMS	KWG1005071-1	J:\MS13\DATA\052810-624\0528F119.D	05/29/10	01:50
Batch QCDMS	KWG1005071-2	J:\MS13\DATA\052810-624\0528F201.D	05/29/10	02:45
3bcd-2	K1005067-002	J:\MS13\DATA\052810-624\0528F121.D	05/29/10	03:39
3ddd	K1005067-003	J:\MS13\DATA\052810-624\0528F122.D	05/29/10	04:07
EB-051710	K1005067-004	J:\MS13\DATA\052810-624\0528F123.D	05/29/10	04:34
Trip Blank	K1005067-005	J:\MS13\DATA\052810-624\0528F124.D	05/29/10	05:02

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/28/2010  
**Date Analyzed:** 05/28/2010  
**Time Analyzed:** 23:31

**Lab Control Sample Summary**  
**Volatile Organic Compounds**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1005071-3  
**Extraction Method:** METHOD  
**Analysis Method:** 624

**File ID:** J:\MS13\DATA\052810-624\0528F114.D  
**Instrument ID:** MS13  
**Level:** Low  
**Extraction Lot:** KWG1005071

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1005071-4	J:\MS13\DATA\052810-624\0528F108.D	05/28/10	20:46
Batch QC	K1004934-006	J:\MS13\DATA\052810-624\0528F110.D	05/28/10	21:41
Batch QCMS	KWG1005071-1	J:\MS13\DATA\052810-624\0528F119.D	05/29/10	01:50
Batch QCDMS	KWG1005071-2	J:\MS13\DATA\052810-624\0528F201.D	05/29/10	02:45
3bcd-2	K1005067-002	J:\MS13\DATA\052810-624\0528F121.D	05/29/10	03:39
3ddd	K1005067-003	J:\MS13\DATA\052810-624\0528F122.D	05/29/10	04:07
EB-051710	K1005067-004	J:\MS13\DATA\052810-624\0528F123.D	05/29/10	04:34
Trip Blank	K1005067-005	J:\MS13\DATA\052810-624\0528F124.D	05/29/10	05:02

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Date Analyzed: 05/28/2010  
Time Analyzed: 19:43

Tune Summary  
Volatile Organic Compounds

File ID: J:\MS13\DATA\052810-624\0528F106.D  
Instrument ID: MS13  
Column:

Analysis Method: 624  
Analysis Lot: KWG1005070

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	16.6	8693	PASS
75	95	30	60	47.1	24725	PASS
95	95	100	100	100.0	52458	PASS
96	95	5	9	6.6	3468	PASS
173	174	0	2	0.3	110	PASS
174	95	50	120	77.9	40869	PASS
175	174	5	9	5.3	2169	PASS
176	174	95	101	100.5	41093	PASS
177	176	5	9	6.4	2611	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1005070-2	J:\MS13\DATA\052810-624\0528F10	05/28/2010	20:19	
Method Blank	KWG1005071-4	J:\MS13\DATA\052810-624\0528F10	05/28/2010	20:46	
Batch QC	K1004934-006	J:\MS13\DATA\052810-624\0528F11	05/28/2010	21:41	
Lab Control Sample	KWG1005071-3	J:\MS13\DATA\052810-624\0528F11	05/28/2010	23:31	
Batch QCMS	KWG1005071-1	J:\MS13\DATA\052810-624\0528F11	05/29/2010	01:50	
Batch QCDMS	KWG1005071-2	J:\MS13\DATA\052810-624\0528F20	05/29/2010	02:45	
3bcd-2	K1005067-002	J:\MS13\DATA\052810-624\0528F12	05/29/2010	03:39	
3ddd	K1005067-003	J:\MS13\DATA\052810-624\0528F12	05/29/2010	04:07	
EB-051710	K1005067-004	J:\MS13\DATA\052810-624\0528F12	05/29/2010	04:34	
Trip Blank	K1005067-005	J:\MS13\DATA\052810-624\0528F12	05/29/2010	05:02	

Results flagged with an asterisk (\*) indicate the analysis performed outside specified tune window



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Calibration Date: 02/08/2010

Initial Calibration Summary  
 Volatile Organic Compounds

Calibration ID: CAL9204  
 Instrument ID: MS13

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS13\DATA\020810_624\0208F005.D	F	J:\MS13\DATA\020810_624\0208F010.D
B	J:\MS13\DATA\020810_624\0208F006.D	G	J:\MS13\DATA\020810_624\0208F011.D
C	J:\MS13\DATA\020810_624\0208F007.D	H	J:\MS13\DATA\020810_624\0208F012.D
D	J:\MS13\DATA\020810_624\0208F008.D		
E	J:\MS13\DATA\020810_624\0208F009.D		

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Chloromethane	A	0.50	0.416	B	1.0	0.309	C	2.5	0.287	D	5.0	0.289	E	20	0.323
	F	40	0.315	G	80	0.299	H	120	0.299						
Vinyl Chloride	A	0.50	0.311	B	1.0	0.268	C	2.5	0.233	D	5.0	0.242	E	20	0.296
	F	40	0.291	G	80	0.273	H	120	0.275						
Bromomethane	A	0.50	0.119	B	1.0	0.127	C	2.5	0.109	D	5.0	0.118	E	20	0.152
	F	40	0.160	G	80	0.163	H	120	0.168						
Chloroethane	A	0.50	0.0453	B	1.0	0.0329	C	2.5	0.0394	D	5.0	0.0381	E	20	0.0463
	F	40	0.0443	G	80	0.0426	H	120	0.0422						
Trichlorofluoromethane	A	0.50	0.470	B	1.0	0.388	C	2.5	0.333	D	5.0	0.348	E	20	0.408
	F	40	0.406	G	80	0.383	H	120	0.382						
1,1-Dichloroethene	A	0.50	0.214	B	1.0	0.206	C	2.5	0.171	D	5.0	0.182	E	20	0.218
	F	40	0.216	G	80	0.209	H	120	0.206						
Methylene Chloride	A	0.50	0.305	B	1.0	0.297	C	2.5	0.261	D	5.0	0.259	E	20	0.276
	F	40	0.275	G	80	0.266	H	120	0.265						
trans-1,2-Dichloroethene	A	0.50	0.266	B	1.0	0.253	C	2.5	0.223	D	5.0	0.244	E	20	0.276
	F	40	0.271	G	80	0.264	H	120	0.264						
1,1-Dichloroethane	A	0.50	0.448	B	1.0	0.423	C	2.5	0.374	D	5.0	0.372	E	20	0.441
	F	40	0.444	G	80	0.439	H	120	0.442						
Chloroform	A	0.50	0.420	B	1.0	0.424	C	2.5	0.406	D	5.0	0.402	E	20	0.448
	F	40	0.443	G	80	0.436	H	120	0.436						
1,1,1-Trichloroethane (TCA)	A	0.50	0.323	B	1.0	0.282	C	2.5	0.265	D	5.0	0.279	E	20	0.328
	F	40	0.337	G	80	0.334	H	120	0.342						
Carbon Tetrachloride	A	0.50	0.322	B	1.0	0.276	C	2.5	0.265	D	5.0	0.257	E	20	0.319
	F	40	0.325	G	80	0.313	H	120	0.316						
Benzene	A	0.50	1.09	B	1.0	0.999	C	2.5	0.942	D	5.0	0.991	E	20	1.15
	F	40	1.14	G	80	1.11	H	120	1.11						
1,2-Dichloroethane (EDC)	A	0.50	0.306	B	1.0	0.324	C	2.5	0.307	D	5.0	0.301	E	20	0.327
	F	40	0.318	G	80	0.313	H	120	0.309						
Trichloroethene (TCE)	A	0.50	0.288	B	1.0	0.267	C	2.5	0.233	D	5.0	0.239	E	20	0.279
	F	40	0.278	G	80	0.269	H	120	0.270						

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Calibration Date: 02/08/2010

Initial Calibration Summary  
Volatile Organic Compounds

Calibration ID: CAL9204  
Instrument ID: MS13

Column: MS

Analyte Name	Level			Level			Level			Level					
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF			
1,2-Dichloropropane	A	0.50	0.256	B	1.0	0.246	C	2.5	0.227	D	5.0	0.233	E	20	0.263
	F	40	0.268	G	80	0.269	H	120	0.274						
Bromodichloromethane	A	0.50	0.310	B	1.0	0.304	C	2.5	0.295	D	5.0	0.297	E	20	0.333
	F	40	0.337	G	80	0.332	H	120	0.334						
2-Chloroethyl Vinyl Ether	A	0.50	0.112	B	1.0	0.106	C	2.5	0.106	D	5.0	0.112	E	20	0.133
	F	40	0.138	G	80	0.146	H	120	0.145						
trans-1,3-Dichloropropene	A	0.50	0.658	B	1.0	0.586	C	2.5	0.627	D	5.0	0.636	E	20	0.762
	F	40	0.808	G	80	0.848	H	120	0.860						
Toluene	A	0.50	0.699	B	1.0	0.635	C	2.5	0.596	D	5.0	0.643	E	20	0.729
	F	40	0.721	G	80	0.707	H	120	0.704						
cis-1,3-Dichloropropene	A	0.50	0.293	B	1.0	0.309	C	2.5	0.282	D	5.0	0.299	E	20	0.363
	F	40	0.371	G	80	0.390	H	120	0.398						
1,1,2-Trichloroethane	A	0.50	0.437	B	1.0	0.464	C	2.5	0.459	D	5.0	0.474	E	20	0.523
	F	40	0.506	G	80	0.501	H	120	0.497						
Tetrachloroethene (PCE)	A	0.50	0.584	B	1.0	0.556	C	2.5	0.534	D	5.0	0.506	E	20	0.633
	F	40	0.624	G	80	0.601	H	120	0.589						
Dibromochloromethane	A	0.50	0.597	B	1.0	0.644	C	2.5	0.620	D	5.0	0.598	E	20	0.678
	F	40	0.671	G	80	0.672	H	120	0.659						
Chlorobenzene	A	0.50	1.97	B	1.0	2.02	C	2.5	1.92	D	5.0	1.89	E	20	2.15
	F	40	2.14	G	80	2.07	H	120	2.05						
Ethylbenzene	A	0.50	0.797	B	1.0	0.897	C	2.5	0.879	D	5.0	0.937	E	20	1.15
	F	40	1.15	G	80	1.11	H	120	1.11						
Bromoform	A	0.50	0.345	B	1.0	0.367	C	2.5	0.362	D	5.0	0.382	E	20	0.407
	F	40	0.398	G	80	0.412	H	120	0.402						
1,1,2,2-Tetrachloroethane	A	0.50	0.648	B	1.0	0.635	C	2.5	0.618	D	5.0	0.630	E	20	0.655
	F	40	0.632	G	80	0.635	H	120	0.628						
1,3-Dichlorobenzene	A	0.50	1.39	B	1.0	1.34	C	2.5	1.33	D	5.0	1.34	E	20	1.57
	F	40	1.54	G	80	1.51	H	120	1.55						
1,4-Dichlorobenzene	A	0.50	1.47	B	1.0	1.50	C	2.5	1.40	D	5.0	1.43	E	20	1.62
	F	40	1.58	G	80	1.55	H	120	1.57						
1,2-Dichlorobenzene	A	0.50	1.30	B	1.0	1.33	C	2.5	1.30	D	5.0	1.29	E	20	1.47
	F	40	1.44	G	80	1.43	H	120	1.43						
Acrolein	A	10	0.0222	B	20	0.0225	C	50	0.0209	D	100	0.0218	E	400	0.0211
	F	800	0.0208	G	1600	0.0212	H	2400	0.0206						
Acrylonitrile	A	1.0	0.0677	B	2.0	0.0843	C	5.0	0.0805	D	10	0.0849	E	40	0.0855
	F	80	0.0846	G	160	0.0855	H	240	0.0834						

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Calibration Date: 02/08/2010

Initial Calibration Summary  
 Volatile Organic Compounds

Calibration ID: CAL9204  
 Instrument ID: MS13

Column: MS

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Toluene-d8	A	4.0	0.898	B	6.0	0.871	C	8.0	0.968	D	10	0.992	E	20	1.03
	F	40	1.04	G	50	0.998	H	60	1.01						
4-Bromofluorobenzene	A	4.0	0.839	B	6.0	0.853	C	8.0	0.949	D	10	0.966	E	20	1.00
	F	40	0.974	G	50	0.941	H	60	0.933						
Dibromofluoromethane	A	4.0	0.240	B	6.0	0.230	C	8.0	0.243	D	10	0.244	E	20	0.249
	F	40	0.241	G	50	0.236	H	60	0.237						
m,p-Xylenes	A	1.0	1.09	B	2.0	1.07	C	5.0	1.07	D	10	1.15	E	40	1.40
	F	80	1.40	G	160	1.37	H	240	1.35						
o-Xylene	A	0.50	1.03	B	1.0	0.988	C	2.5	0.960	D	5.0	1.07	E	20	1.32
	F	40	1.33	G	80	1.30	H	120	1.30						

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Calibration Date: 02/08/2010

Initial Calibration Summary  
 Volatile Organic Compounds

Calibration ID: CAL9204  
 Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Chloromethane	TRG	AverageRF	% RSD	13.1		≤ 35	0.317		0.01
Vinyl Chloride	TRG	AverageRF	% RSD	9.6		≤ 35	0.274		0.01
Bromomethane	TRG	AverageRF	% RSD	17.0		≤ 35	0.140		0.01
Chloroethane	TRG	AverageRF	% RSD	10.7		≤ 35	0.0414		0.01
Trichlorofluoromethane	TRG	AverageRF	% RSD	10.7		≤ 35	0.390		0.01
1,1-Dichloroethene	MS	AverageRF	% RSD	8.4		≤ 35	0.203		0.01
Methylene Chloride	TRG	AverageRF	% RSD	6.1		≤ 35	0.275		0.01
trans-1,2-Dichloroethene	TRG	AverageRF	% RSD	6.7		≤ 35	0.258		0.01
1,1-Dichloroethane	TRG	AverageRF	% RSD	7.5		≤ 35	0.423		0.01
Chloroform	TRG	AverageRF	% RSD	3.9		≤ 35	0.427		0.01
1,1,1-Trichloroethane (TCA)	TRG	AverageRF	% RSD	9.9		≤ 35	0.311		0.01
Carbon Tetrachloride	TRG	AverageRF	% RSD	9.4		≤ 35	0.299		0.01
Benzene	MS	AverageRF	% RSD	7.3		≤ 35	1.07		0.01
1,2-Dichloroethane (EDC)	TRG	AverageRF	% RSD	2.9		≤ 35	0.313		0.01
Trichloroethene (TCE)	MS	AverageRF	% RSD	7.3		≤ 35	0.265		0.01
1,2-Dichloropropane	TRG	AverageRF	% RSD	6.8		≤ 35	0.254		0.01
Bromodichloromethane	TRG	AverageRF	% RSD	5.7		≤ 35	0.318		0.01
2-Chloroethyl Vinyl Ether	TRG	AverageRF	% RSD	14.2		≤ 35	0.125		0.01
trans-1,3-Dichloropropene	TRG	AverageRF	% RSD	15.1		≤ 35	0.723		0.01
Toluene	MS	AverageRF	% RSD	7.1		≤ 35	0.679		0.01
cis-1,3-Dichloropropene	TRG	AverageRF	% RSD	13.9		≤ 35	0.338		0.01
1,1,2-Trichloroethane	TRG	AverageRF	% RSD	6.0		≤ 35	0.483		0.01
Tetrachloroethene (PCE)	TRG	AverageRF	% RSD	7.5		≤ 35	0.578		0.01
Dibromochloromethane	TRG	AverageRF	% RSD	5.2		≤ 35	0.642		0.01
Chlorobenzene	MS	AverageRF	% RSD	4.8		≤ 35	2.02		0.01
Ethylbenzene	TRG	AverageRF	% RSD	14.1		≤ 35	1.00		0.01
Bromoform	TRG	AverageRF	% RSD	6.3		≤ 35	0.384		0.01
1,1,2,2-Tetrachloroethane	TRG	AverageRF	% RSD	1.8		≤ 35	0.635		0.01
1,3-Dichlorobenzene	TRG	AverageRF	% RSD	7.2		≤ 35	1.45		0.01
1,4-Dichlorobenzene	TRG	AverageRF	% RSD	5.3		≤ 35	1.51		0.01
1,2-Dichlorobenzene	MS	AverageRF	% RSD	5.4		≤ 35	1.37		0.01
Acrolein	TRG	AverageRF	% RSD	3.3		≤ 35	0.0214		0.01
Acrylonitrile	TRG	AverageRF	% RSD	7.3		≤ 35	0.0821		0.01
Toluene-d8	SURR	AverageRF	% RSD	6.3		≤ 35	0.976		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	6.2		≤ 35	0.932		0.01
Dibromofluoromethane	SURR	AverageRF	% RSD	2.5		≤ 35	0.240		0.01
m,p-Xylenes	TRG	AverageRF	% RSD	12.6		≤ 35	1.24		0.01
o-Xylene	TRG	AverageRF	% RSD	14.1		≤ 35	1.16		0.01

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Calibration Date: 02/08/2010  
 Date Analyzed: 02/08/2010

Second Source Calibration Verification  
 Volatile Organic Compounds

Calibration Type: Internal Standard  
 Analysis Method: 624

Calibration ID: CAL9204  
 Units: PPB

File ID: J:\MS13\DATA\020810\_624\0208F015.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Chloromethane	20	23	0.317	0.369	16	NA	± 104 %	AverageRF
Vinyl Chloride	20	24	0.274	0.335	22	NA	± 96 %	AverageRF
Bromomethane	20	24	0.140	0.164	18	NA	± 86 %	AverageRF
Chloroethane	20	23	0.0414	0.0468	13	NA	± 62 %	AverageRF
Trichlorofluoromethane	20	19	0.390	0.371	-5	NA	± 52 %	AverageRF
1,1-Dichloroethene	20	22	0.203	0.224	11	NA	± 49 %	AverageRF
Methylene Chloride	20	22	0.275	0.302	10	NA	± 39 %	AverageRF
trans-1,2-Dichloroethene	20	20	0.258	0.263	2	NA	± 30 %	AverageRF
1,1-Dichloroethane	20	20	0.423	0.424	0	NA	± 27 %	AverageRF
Chloroform	20	21	0.427	0.439	3	NA	± 32 %	AverageRF
1,1,1-Trichloroethane (TCA)	20	21	0.311	0.322	4	NA	± 25 %	AverageRF
Carbon Tetrachloride	20	20	0.299	0.303	1	NA	± 27 %	AverageRF
Benzene	20	21	1.07	1.12	5	NA	± 36 %	AverageRF
1,2-Dichloroethane (EDC)	20	20	0.313	0.310	-1	NA	± 32 %	AverageRF
Trichloroethene (TCE)	20	20	0.265	0.264	0	NA	± 33 %	AverageRF
1,2-Dichloropropane	20	20	0.254	0.255	0	NA	± 66 %	AverageRF
Bromodichloromethane	20	20	0.318	0.315	-1	NA	± 34 %	AverageRF
2-Chloroethyl Vinyl Ether	20	20	0.125	0.126	1	NA	± 124 %	AverageRF
trans-1,3-Dichloropropene	20	22	0.723	0.788	9	NA	± 50 %	AverageRF
Toluene	20	21	0.679	0.700	3	NA	± 25 %	AverageRF
cis-1,3-Dichloropropene	20	17	0.338	0.287	-15	NA	± 76 %	AverageRF
1,1,2-Trichloroethane	20	20	0.483	0.490	1	NA	± 29 %	AverageRF
Tetrachloroethene (PCE)	20	20	0.578	0.589	2	NA	± 26 %	AverageRF
Dibromochloromethane	20	19	0.642	0.619	-4	NA	± 32 %	AverageRF
Chlorobenzene	20	20	2.02	2.07	2	NA	± 34 %	AverageRF
Ethylbenzene	20	21	1.00	1.08	7	NA	± 41 %	AverageRF
Bromoform	20	21	0.384	0.395	3	NA	± 29 %	AverageRF
1,1,2,2-Tetrachloroethane	20	19	0.635	0.593	-7	NA	± 39 %	AverageRF
1,3-Dichlorobenzene	20	21	1.45	1.54	6	NA	± 27 %	AverageRF
1,4-Dichlorobenzene	20	21	1.51	1.57	3	NA	± 37 %	AverageRF
1,2-Dichlorobenzene	20	20	1.37	1.40	2	NA	± 37 %	AverageRF
Acrolein	100	150	0.0214	0.0324	51	NA	± 80 %	AverageRF
Acrylonitrile	20	18	0.0821	0.0756	-8	NA	± 40 %	AverageRF
m,p-Xylenes	40	43	1.24	1.33	8	NA	± 40 %	AverageRF
o-Xylene	20	23	1.16	1.31	13	NA	± 40 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 05/28/2010

Continuing Calibration Verification Summary  
 Volatile Organic Compounds

Calibration Type: Internal Standard  
 Analysis Method: 624

Calibration Date: 02/08/2010  
 Calibration ID: CAL9204  
 Analysis Lot: KWG1005070  
 Units: PPB

File ID: J:\MS13\DATA\052810-624\0528F107.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Chloromethane	20	20	0.01	0.317	0.321	1	NA	± 104 %	AverageRF
Vinyl Chloride	20	20	0.01	0.274	0.267	-2	NA	± 96 %	AverageRF
Bromomethane	20	21	0.01	0.140	0.150	7	NA	± 86 %	AverageRF
Chloroethane	20	22	0.01	0.0414	0.0454	10	NA	± 62 %	AverageRF
Trichlorofluoromethane	20	24	0.01	0.390	0.474	22	NA	± 52 %	AverageRF
1,1-Dichloroethene	20	22	0.01	0.203	0.226	11	NA	± 49 %	AverageRF
Methylene Chloride	20	20	0.01	0.275	0.280	2	NA	± 39 %	AverageRF
trans-1,2-Dichloroethene	20	22	0.01	0.258	0.278	8	NA	± 30 %	AverageRF
1,1-Dichloroethane	20	22	0.01	0.423	0.466	10	NA	± 27 %	AverageRF
Chloroform	20	22	0.01	0.427	0.464	9	NA	± 32 %	AverageRF
1,1,1-Trichloroethane (TCA)	20	22	0.01	0.311	0.338	9	NA	± 25 %	AverageRF
Carbon Tetrachloride	20	23	0.01	0.299	0.349	17	NA	± 27 %	AverageRF
Benzene	20	22	0.01	1.07	1.16	9	NA	± 36 %	AverageRF
1,2-Dichloroethane (EDC)	20	24	0.01	0.313	0.370	18	NA	± 32 %	AverageRF
Trichloroethene (TCE)	20	21	0.01	0.265	0.279	5	NA	± 33 %	AverageRF
1,2-Dichloropropane	20	20	0.01	0.254	0.258	1	NA	± 66 %	AverageRF
Bromodichloromethane	20	22	0.01	0.318	0.343	8	NA	± 34 %	AverageRF
2-Chloroethyl Vinyl Ether	20	22	0.01	0.125	0.137	9	NA	± 124 %	AverageRF
trans-1,3-Dichloropropene	20	18	0.01	0.723	0.649	-10	NA	± 50 %	AverageRF
Toluene	20	21	0.01	0.679	0.710	5	NA	± 25 %	AverageRF
cis-1,3-Dichloropropene	20	20	0.01	0.338	0.330	-3	NA	± 76 %	AverageRF
1,1,2-Trichloroethane	20	19	0.01	0.483	0.468	-3	NA	± 29 %	AverageRF
Tetrachloroethene (PCE)	20	19	0.01	0.578	0.549	-5	NA	± 26 %	AverageRF
Dibromochloromethane	20	19	0.01	0.642	0.598	-7	NA	± 32 %	AverageRF
Chlorobenzene	20	19	0.01	2.02	1.90	-6	NA	± 34 %	AverageRF
Ethylbenzene	20	21	0.01	1.00	1.04	4	NA	± 41 %	AverageRF
Bromoform	20	17	0.01	0.384	0.324	-16	NA	± 29 %	AverageRF
1,1,2,2-Tetrachloroethane	20	21	0.01	0.635	0.670	6	NA	± 39 %	AverageRF
1,3-Dichlorobenzene	20	21	0.01	1.45	1.51	4	NA	± 27 %	AverageRF
1,4-Dichlorobenzene	20	20	0.01	1.51	1.54	2	NA	± 37 %	AverageRF
1,2-Dichlorobenzene	20	21	0.01	1.37	1.43	4	NA	± 37 %	AverageRF
Acrolein	400	630	0.01	0.0214	0.0336	57	NA	± 80 %	AverageRF
Acrylonitrile	40	44	0.01	0.0821	0.0897	9	NA	± 40 %	AverageRF
Toluene-d8	20	20	0.01	0.976	0.967	-1	NA	± 30 %	AverageRF
4-Bromofluorobenzene	20	19	0.01	0.932	0.882	-5	NA	± 30 %	AverageRF
Dibromofluoromethane	20	18	0.01	0.240	0.221	-8	NA	± 30 %	AverageRF
m,p-Xylenes	40	41	0.01	1.24	1.27	3	NA	± 40 %	AverageRF
o-Xylene	20	21	0.01	1.16	1.19	3	NA	± 40 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067

Analysis Run Log  
 Volatile Organic Compounds

Analysis Method: 624

Analysis Lot: KWG1005070  
 Instrument ID: MS13

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0528F106.D	GC/MS Tuning - Generic	KWG1005070-1	5/28/2010	19:43		5/28/2010	20:02
0528F107.D	Continuing Calibration Verification	KWG1005070-2	5/28/2010	20:19		5/28/2010	20:38
0528F108.D	Method Blank	KWG1005071-4	5/28/2010	20:46		5/28/2010	21:05
0528F109.D	ZZZZZZ	ZZZZZZ	5/28/2010	21:14		5/28/2010	21:33
0528F110.D	Batch QC	K1004934-006	5/28/2010	21:41		5/28/2010	22:00
0528F111.D	ZZZZZZ	ZZZZZZ	5/28/2010	22:09		5/28/2010	22:28
0528F112.D	ZZZZZZ	ZZZZZZ	5/28/2010	22:36		5/28/2010	22:55
0528F113.D	ZZZZZZ	ZZZZZZ	5/28/2010	23:04		5/28/2010	23:23
0528F114.D	Lab Control Sample	KWG1005071-3	5/28/2010	23:31		5/28/2010	23:50
0528F119.D	Batch QCMS	KWG1005071-1	5/29/2010	01:50		5/29/2010	02:09
0528F201.D	Batch QCDMS	KWG1005071-2	5/29/2010	02:45		5/29/2010	03:04
0528F121.D	3bcd-2	K1005067-002	5/29/2010	03:39		5/29/2010	03:58
0528F122.D	3ddd	K1005067-003	5/29/2010	04:07		5/29/2010	04:26
0528F123.D	EB-051710	K1005067-004	5/29/2010	04:34		5/29/2010	04:53
0528F124.D	Trip Blank	K1005067-005	5/29/2010	05:02		5/29/2010	05:21
0528F125.D	ZZZZZZ	ZZZZZZ	5/29/2010	05:29		5/29/2010	05:48
0528F126.D	ZZZZZZ	ZZZZZZ	5/29/2010	05:56		5/29/2010	06:15

Results flagged with an asterisk (\*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Extracted: 05/29/2010

Extraction Prep Log  
 Volatile Organic Compounds

Extraction Method: METHOD  
 Analysis Method: 624

Extraction Lot: KWG1005071  
 Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
3bcd-2	K1005067-002	05/17/10	05/19/10	5ml	5ml	NA	
3ddd	K1005067-003	05/17/10	05/19/10	5ml	5ml	NA	
EB-051710	K1005067-004	05/17/10	05/19/10	5ml	5ml	NA	
Trip Blank	K1005067-005	05/17/10	05/19/10	5ml	5ml	NA	
Method Blank	KWG1005071-4	NA	NA	5ml	5ml	NA	
Batch QC	K1004934-006	NA	NA	5ml	5ml	NA	
Batch QCMS	KWG1005071-1	NA	NA	5ml	5ml	NA	
Batch QCDMS	KWG1005071-2	NA	NA	5ml	5ml	NA	
Lab Control Sample	KWG1005071-3	NA	NA	5ml	5ml	NA	

Results flagged with an asterisk (\*) indicate the holding time was exceeded for the analysis



Organic Analysis:  
Volatile Organic Compounds

Validation Package

Organic Analysis:  
Volatile Organic Compounds

Validation Package

QC Reports

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067

**Surrogate Recovery Summary  
 Volatile Organic Compounds**

Extraction Method: METHOD  
 Analysis Method: 624

Units: PERCENT  
 Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
3bcd-2	K1005067-002	98	91	91
3ddd	K1005067-003	94	91	91
EB-051710	K1005067-004	96	92	91
Trip Blank	K1005067-005	97	91	91
Method Blank	KWG1005071-4	97	93	92
Batch QC	K1004934-006	96	90	91
Batch QCMS	KWG1005071-1	100	92	92
Batch QCDMS	KWG1005071-2	100	92	93
Lab Control Sample	KWG1005071-3	99	93	92

**Surrogate Recovery Control Limits (%)**

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Sur1 = Toluene-d8	79-131
Sur2 = 4-Bromofluorobenzene	82-122
Sur3 = Dibromofluoromethane	86-124

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Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 05/28/2010  
 Time Analyzed: 20:19

Internal Standard Area and RT Summary  
 Volatile Organic Compounds

File ID: J:\MS13\DATA\052810-624\0528F107.D  
 Instrument ID: MS13  
 Analysis Method: 624

Lab Code: KWG1005070-2  
 Analysis Lot: KWG1005070

	Fluorobenzene		1,4-Dichlorobenzene-d4		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
Results ==>	606,960	6.12	217,420	15.08	238,587	12.04
Upper Limit ==>	1,213,920	6.62	434,840	15.58	477,174	12.54
Lower Limit ==>	303,480	5.62	108,710	14.58	119,294	11.54
ICAL Result ==>	782,787	6.36	304,962	15.21	292,855	12.21

Associated Analyses

Method Blank	KWG1005071-4	582,035	6.12	204,168	15.08	230,841	12.03
Batch QC	K1004934-006	584,498	6.12	205,452	15.08	230,615	12.03
Lab Control Sample	KWG1005071-3	601,301	6.12	221,353	15.08	237,048	12.04
Batch QCMS	KWG1005071-1	598,974	6.12	222,254	15.08	239,642	12.03
Batch QCDMS	KWG1005071-2	591,524	6.12	211,858	15.08	237,418	12.03
3bcd-2	K1005067-002	584,547	6.12	205,017	15.08	233,308	12.03
3ddd	K1005067-003	593,029	6.12	206,441	15.08	233,619	12.03
EB-051710	K1005067-004	586,345	6.12	205,914	15.08	226,830	12.03
Trip Blank	K1005067-005	576,914	6.12	201,609	15.08	228,741	12.03

Results flagged with an asterisk (\*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Extracted: 05/29/2010  
 Date Analyzed: 05/29/2010

Matrix Spike/Duplicate Matrix Spike Summary  
 Volatile Organic Compounds

Sample Name: Batch QC  
 Lab Code: K1004934-006  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low  
 Extraction Lot: KWG1005071

Analyte Name	Sample Result	Batch QCMS KWG1005071-1 Matrix Spike			Batch QCDMS KWG1005071-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,1-Dichloroethene	ND	28.1	20.0	141	27.4	20.0	137	63-153	2	30
Benzene	ND	24.2	20.0	121	23.9	20.0	119	69-128	1	30
Trichloroethene (TCE)	ND	23.5	20.0	117	23.2	20.0	116	33-174	1	30
Toluene	0.27	23.4	20.0	116	23.4	20.0	116	62-132	0	30
Chlorobenzene	ND	20.0	20.0	100	20.1	20.0	100	71-120	0	30
1,2-Dichlorobenzene	ND	21.0	20.0	105	21.9	20.0	110	72-117	5	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Extracted: 05/28/2010  
 Date Analyzed: 05/28/2010

Lab Control Spike Summary  
 Volatile Organic Compounds

Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low  
 Extraction Lot: KWG1005071

Lab Control Sample  
 KWG1005071-3  
 Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
Chloromethane	15.4	20.0	77	45-137
Vinyl Chloride	15.9	20.0	80	54-145
Bromomethane	16.4	20.0	82	20-175
Chloroethane	18.3	20.0	91	56-137
Trichlorofluoromethane	17.5	20.0	88	50-135
1,1-Dichloroethene	17.2	20.0	86	74-139
Methylene Chloride	16.4	20.0	82	76-120
trans-1,2-Dichloroethene	16.9	20.0	85	76-125
1,1-Dichloroethane	17.4	20.0	87	68-127
Chloroform	18.4	20.0	92	69-126
1,1,1-Trichloroethane (TCA)	17.2	20.0	86	61-135
Carbon Tetrachloride	18.8	20.0	94	54-142
Benzene	17.7	20.0	88	73-122
1,2-Dichloroethane (EDC)	20.1	20.0	100	66-132
Trichloroethene (TCE)	17.4	20.0	87	70-123
1,2-Dichloropropane	17.4	20.0	87	73-122
Bromodichloromethane	17.9	20.0	90	68-136
2-Chloroethyl Vinyl Ether	20.2	20.0	101	30-155
trans-1,3-Dichloropropene	16.6	20.0	83	56-121
Toluene	17.6	20.0	88	71-124
cis-1,3-Dichloropropene	13.9	20.0	70	64-131
1,1,2-Trichloroethane	17.2	20.0	86	75-118
Tetrachloroethene (PCE)	15.5	20.0	78	65-125
Dibromochloromethane	16.1	20.0	81	65-132
Chlorobenzene	16.2	20.0	81	77-115
Ethylbenzene	17.5	20.0	87	72-123
Bromoform	15.9	20.0	80	51-145
1,1,2,2-Tetrachloroethane	18.8	20.0	94	62-135
1,3-Dichlorobenzene	18.3	20.0	92	74-116
1,4-Dichlorobenzene	18.2	20.0	91	74-114
1,2-Dichlorobenzene	17.9	20.0	90	76-113
Acrolein	114	100	114	10-185
Acrylonitrile	19.7	20.0	98	63-138
m,p-Xylenes	34.9	40.0	87	71-126
o-Xylene	18.0	20.0	90	70-125

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/28/2010  
**Date Analyzed:** 05/28/2010  
**Time Analyzed:** 20:46

**Method Blank Summary  
 Volatile Organic Compounds**

**Sample Name:** Method Blank **File ID:** J:\MS13\DATA\052810-624\0528F108.D  
**Lab Code:** KWG1005071-4 **Instrument ID:** MS13  
**Extraction Method:** METHOD **Level:** Low  
**Analysis Method:** 624 **Extraction Lot:** KWG1005071

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Batch QC	K1004934-006	J:\MS13\DATA\052810-624\0528F110.D	05/28/10	21:41
Lab Control Sample	KWG1005071-3	J:\MS13\DATA\052810-624\0528F114.D	05/28/10	23:31
Batch QCMS	KWG1005071-1	J:\MS13\DATA\052810-624\0528F119.D	05/29/10	01:50
Batch QCDMS	KWG1005071-2	J:\MS13\DATA\052810-624\0528F201.D	05/29/10	02:45
3bcd-2	K1005067-002	J:\MS13\DATA\052810-624\0528F121.D	05/29/10	03:39
3ddd	K1005067-003	J:\MS13\DATA\052810-624\0528F122.D	05/29/10	04:07
EB-051710	K1005067-004	J:\MS13\DATA\052810-624\0528F123.D	05/29/10	04:34
Trip Blank	K1005067-005	J:\MS13\DATA\052810-624\0528F124.D	05/29/10	05:02

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/28/2010  
**Date Analyzed:** 05/28/2010  
**Time Analyzed:** 23:31

**Lab Control Sample Summary**  
**Volatile Organic Compounds**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1005071-3  
**Extraction Method:** METHOD  
**Analysis Method:** 624

**File ID:** J:\MS13\DATA\052810-624\0528F114.D  
**Instrument ID:** MS13  
**Level:** Low  
**Extraction Lot:** KWG1005071

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1005071-4	J:\MS13\DATA\052810-624\0528F108.D	05/28/10	20:46
Batch QC	K1004934-006	J:\MS13\DATA\052810-624\0528F110.D	05/28/10	21:41
Batch QCMS	KWG1005071-1	J:\MS13\DATA\052810-624\0528F119.D	05/29/10	01:50
Batch QCDMS	KWG1005071-2	J:\MS13\DATA\052810-624\0528F201.D	05/29/10	02:45
3bcd-2	K1005067-002	J:\MS13\DATA\052810-624\0528F121.D	05/29/10	03:39
3ddd	K1005067-003	J:\MS13\DATA\052810-624\0528F122.D	05/29/10	04:07
EB-051710	K1005067-004	J:\MS13\DATA\052810-624\0528F123.D	05/29/10	04:34
Trip Blank	K1005067-005	J:\MS13\DATA\052810-624\0528F124.D	05/29/10	05:02



Organic Analysis:  
Volatile Organic Compounds

Validation Package

Raw Data

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

## Volatile Organic Compounds

Sample Name: 3bcd-2  
 Lab Code: K1005067-002  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/29/10	05/29/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/29/10	05/29/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Methylene Chloride	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/29/10	05/29/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/29/10	05/29/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/29/10	05/29/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/29/10	05/29/10	KWG1005071	
Toluene	0.32	J	5.0	0.18	1	05/29/10	05/29/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/29/10	05/29/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/29/10	05/29/10	KWG1005071	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichlorobenzene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/29/10	05/29/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/29/10	05/29/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/29/10	05/29/10	KWG1005071	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: 3bcd-2  
 Lab Code: K1005067-002  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	ND	U	1.0	0.13	1	05/29/10	05/29/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	98	79-131	05/29/10	Acceptable
4-Bromofluorobenzene	91	82-122	05/29/10	Acceptable
Dibromofluoromethane	91	86-124	05/29/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments:

## Exception Report

**Data File:** J:\MS13\DATA\052810-624\0528F121.D  
**Lab ID:** K1005067-002  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/29/2010 03:39  
**Date Quantitated:** 06/01/2010 17:03  
**Batch ID:** KWG1005070  
**Analysis Method:** 624  
**ListJoinID:** LJ11571

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:     cum 6/1/10    

Secondary Review:     HB6170

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>	V	<b>Matrix:</b>	WATER
<b>Prod Code:</b>	624 VOC_FP	<b>Collect Date:</b>	05/17/2010	<b>Receive Date:</b>	05/19/2010
<b>Analysis Lot:</b>	KWG1005070	<b>Prep Lot:</b>	KWG1005071	<b>Report Group:</b>	K1005067
<b>Analysis Method:</b>	624	<b>Prep Method:</b>	METHOD		
<b>Prep Ref:</b>	913230	<b>Prep Date:</b>	05/29/2010		
<b>Quant Method:</b>	J:\MS13\METHODS\020810MS13_6	<b>Calibration ID:</b>	CAL9204		
<b>Title:</b>	Volatile Organic Compounds	<b>Report List ID:</b>	LJ11571		
<b>Tune Ref:</b>	J:\MS13\DATA\052810-624\0528F106.D	<b>Method ID:</b>	MJ158		
<b>MB Ref:</b>	J:\MS13\DATA\052810-624\0528F108.D	<b>Quant based on Report List</b>			
<b>Data File:</b>	J:\MS13\DATA\052810-624\0528F121.D	<b>Instrument:</b>	MS13		
<b>Acqu Date:</b>	05/29/2010 03:39	<b>Quant Date:</b>	06/01/2010 17:03	<b>Vial:</b>	13
<b>Run Type:</b>	SMPL			<b>Dilution:</b>	1.0
<b>Lab ID:</b>	K1005067-002			<b>Soln Conc. Units:</b>	PPB

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	0.00	96	584547	20.00	OK
2	Chlorobenzene-d5	12.03	-0.01	82	233308	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	0.00	152	205017	20.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.11	-0.01	0.00	113	128011	18.25	91	86-124	OK
1	Toluene-d8	9.30	0.00	0.00	98	556750	19.52	98	79-131	OK
2	4-Bromofluorobenzene	13.70	0.00	0.00	95	197446	18.16	91	82-122	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
								Final Conc. Units: ug/L		
1	Chloromethane				50	0		0.23	U	
1	Vinyl Chloride				62	0		0.16	U	
1	Bromomethane				96	0		0.28	U	
1	Chloroethane				49	0		0.16	U	
1	Trichlorofluoromethane				101	0		0.11	U	
1	Acrolein				56	0		3.3	U	
1	1,1-Dichloroethene				96	0		0.15	U	
1	Methylene Chloride				84	0		0.12	U	
1	Acrylonitrile				53	0		0.61	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	1,1-Dichloroethane				63	0		0.11	U	
1	Chloroform				83	0		0.11	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.14	U	
1	Carbon Tetrachloride				117	0		0.047	U	
1	Benzene				78	0		0.14	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS13\DATA\052810-624\0528F121.D  
 Acqu Date: 05/29/2010 03:39  
 Run Type: SMPL  
 Lab ID: K1005067-002

Quant Date: 06/01/2010 17:03

Instrument: MS13  
 Vial: 13  
 Dilution: 1.0  
 Soln Conc. Units: PPB

**Target Compounds**

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	Trichloroethene (TCE)				95	0		0.13	U	
1	1,2-Dichloropropane				63	0		0.17	U	
1	Bromodichloromethane				83	0		0.12	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.29	U	
1	cis-1,3-Dichloropropene				75	0		0.13	U	
1	Toluene	9.47	0.01	0.00	92	6381	0.3200	0.32	J	
2	trans-1,3-Dichloropropene				75	0		0.10	U	
2	1,1,2-Trichloroethane				83	0		0.16	U	
2	Tetrachloroethene (PCE)				164	0		0.14	U	
2	Dibromochloromethane				129	0		0.15	U	
2	Chlorobenzene				112	0		0.098	U	
2	Ethylbenzene				106	0		0.11	U	
2	m,p-Xylenes	12.42	-0.01	0.00	106	996	0.0700	0.26	U	
2	o-Xylene	12.97	-0.01	0.00	106	1183	0.0900	0.13	U	
2	Bromoform				173	0		0.37	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.11	U	
3	1,3-Dichlorobenzene	14.99	0.01	0.00	146	613	0.0400	0.16	U	
3	1,4-Dichlorobenzene	15.11		0.00	146	685	0.0400	0.15	U	
3	1,2-Dichlorobenzene				146	0		0.13	U	

Prep Amount: 5 ml  
 Prep Final Vol: 5 ml

Dilution: 1.0  
 Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

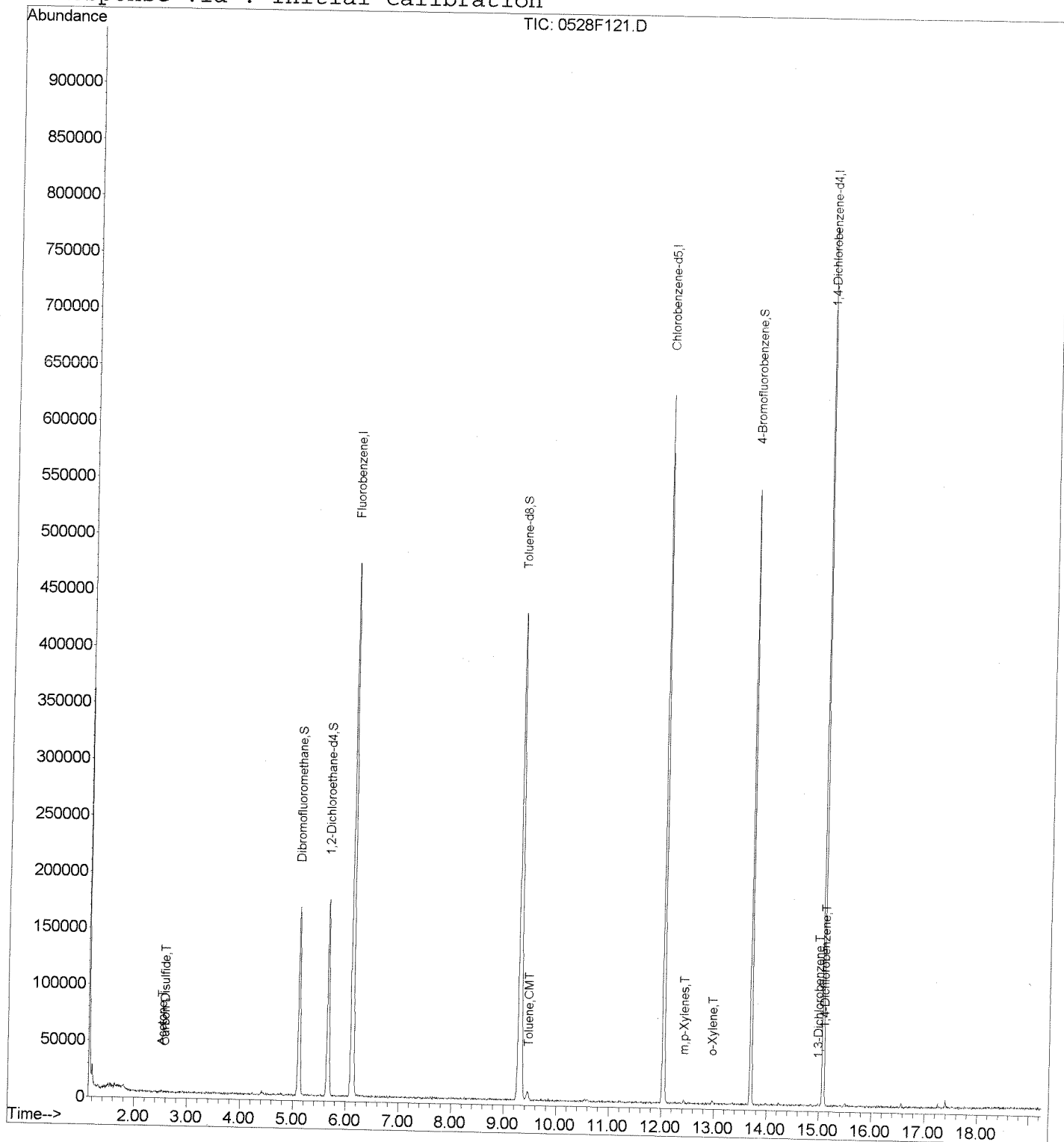
Quantitation Report (QT Reviewed)

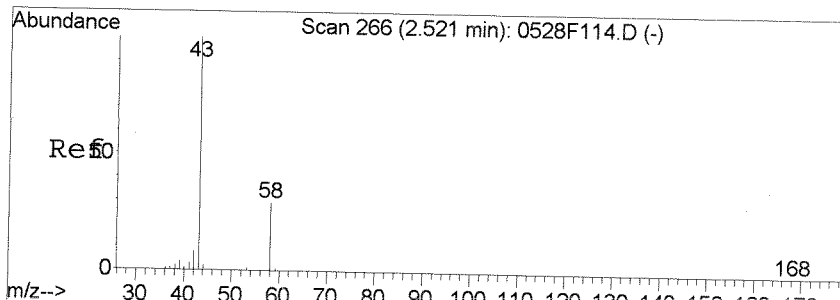
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Acq On : 29 May 2010 3:39 am  
Sample : K5067-002 (R)  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 1 17:03 2010

Vial: 13  
Operator: CMK  
Inst : MS13  
Multiplr: 1.00

Quant Results File: 020810MS13\_6

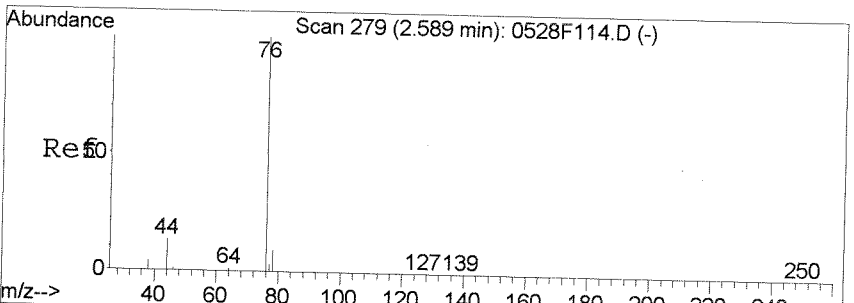
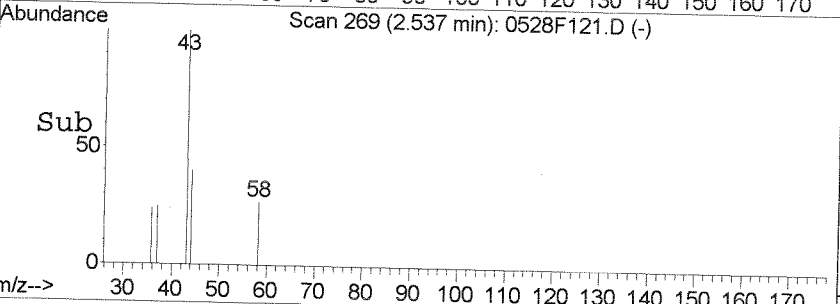
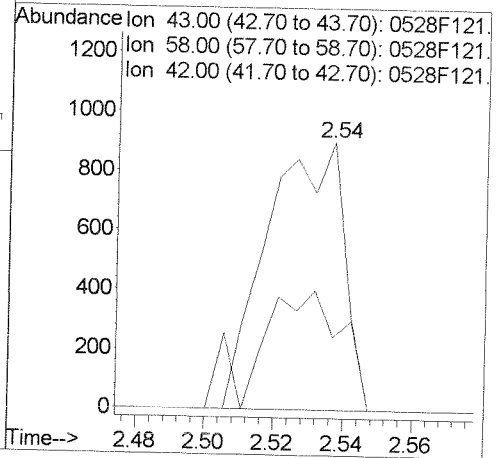
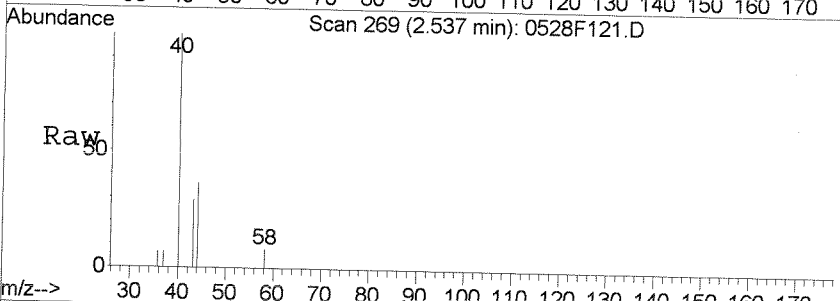
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Title : VOA MS13 EPA Method 8260B  
Last Update : Fri May 28 23:53:25 2010  
Response via : Initial Calibration





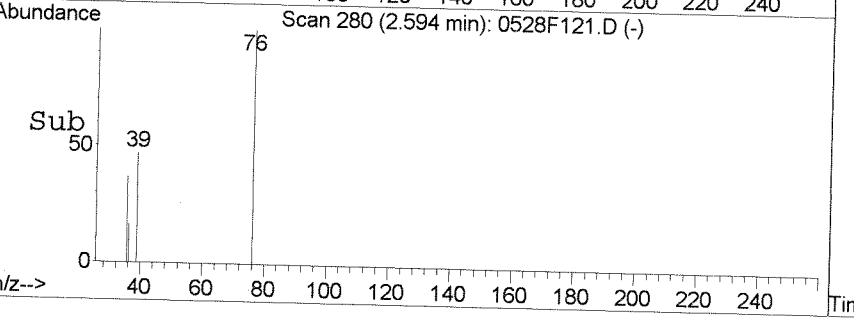
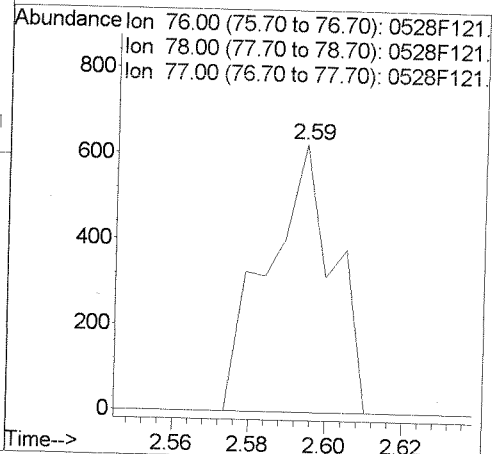
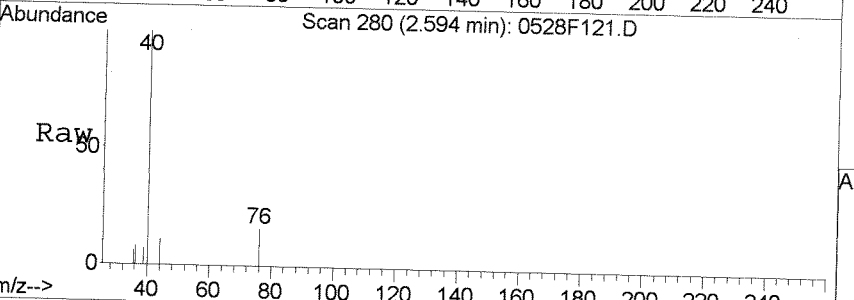
#11  
 Acetone  
 Concen: 0.84 PPB  
 RT: 2.54 min Scan# 269  
 Delta R.T. -0.01 min  
 Lab File: 0528F121.D  
 Acq: 29 May 2010 3:39 am

Tgt Ion	Resp	Lower	Upper
43	1375		
43	100		
58	27.3	4.3	64.3
42	0.0	0.0	37.4

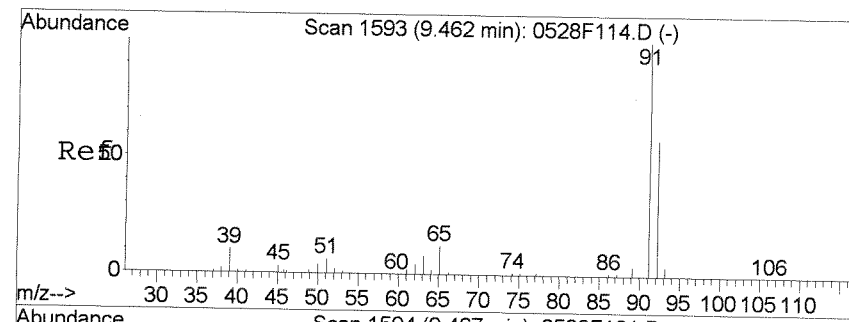


#12  
 Carbon Disulfide  
 Concen: 0.03 PPB  
 RT: 2.59 min Scan# 280  
 Delta R.T. -0.02 min  
 Lab File: 0528F121.D  
 Acq: 29 May 2010 3:39 am

Tgt Ion	Resp	Lower	Upper
76	744		
76	100		
78	0.0	0.0	38.8
77	0.0	0.0	32.6

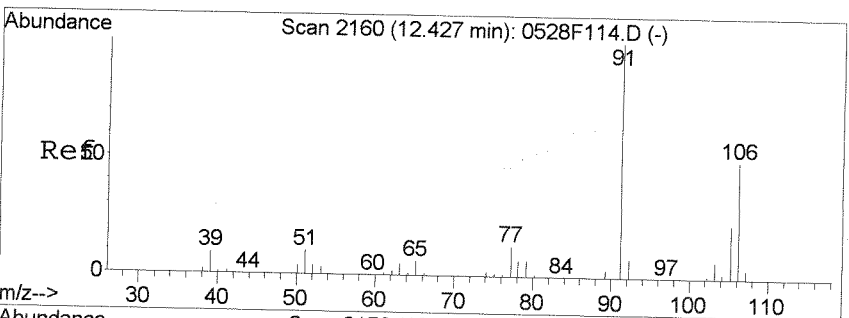
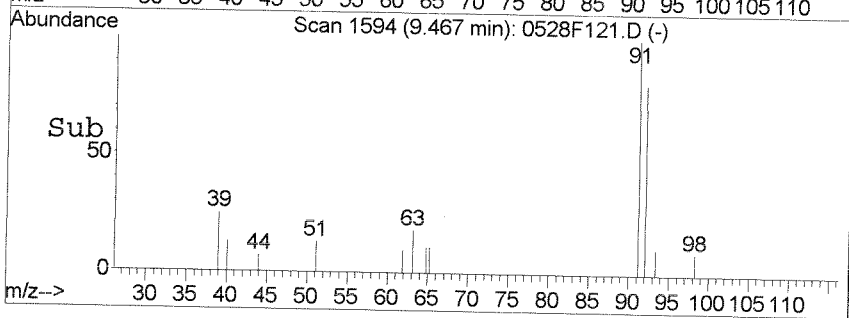
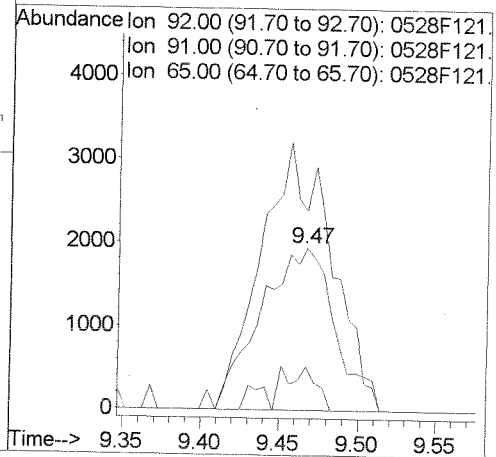
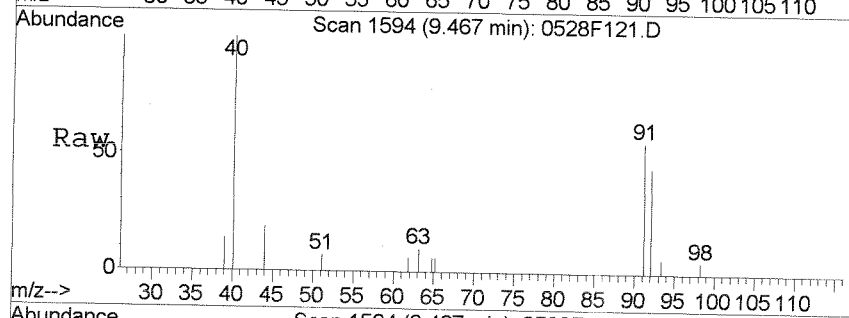






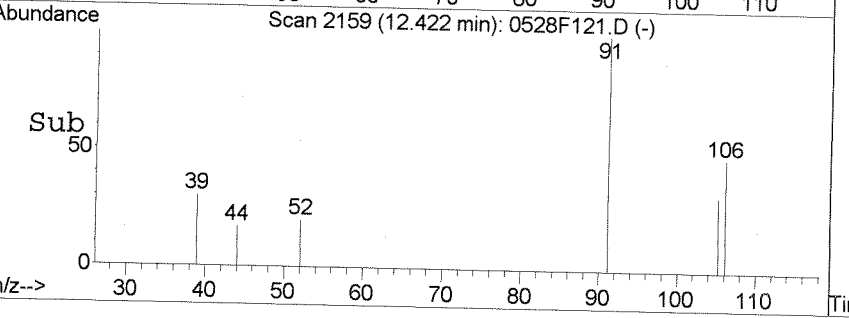
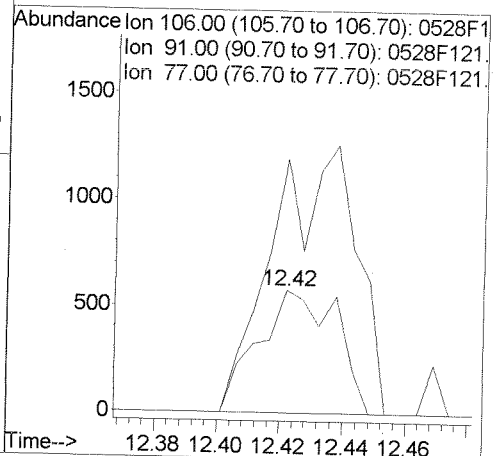
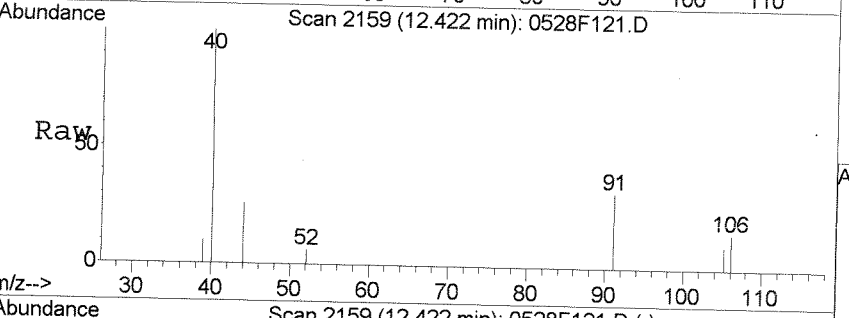
#34  
 Toluene  
 Concen: 0.32 PPB  
 RT: 9.47 min Scan# 1594  
 Delta R.T. 0.09 min  
 Lab File: 0528F121.D  
 Acq: 29 May 2010 3:39 am

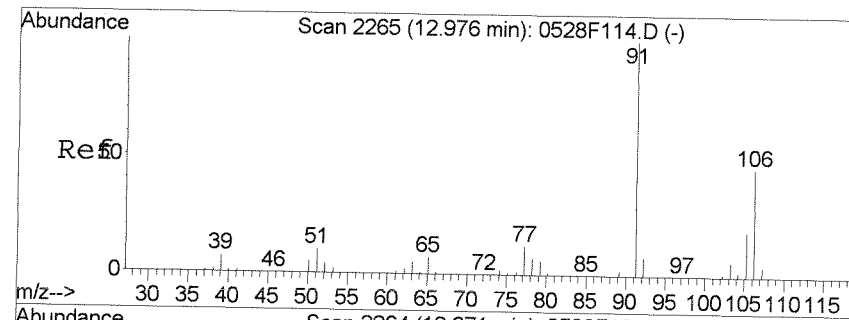
Tgt Ion	Resp	Lower	Upper
92	6381		
92	100		
91	123.1	139.7	199.7#
65	26.9	0.0	47.9



#43  
 m,p-Xylenes  
 Concen: 0.07 PPB  
 RT: 12.42 min Scan# 2159  
 Delta R.T. 0.01 min  
 Lab File: 0528F121.D  
 Acq: 29 May 2010 3:39 am

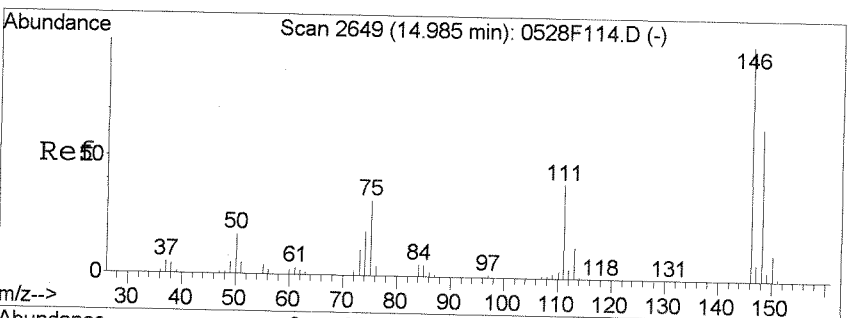
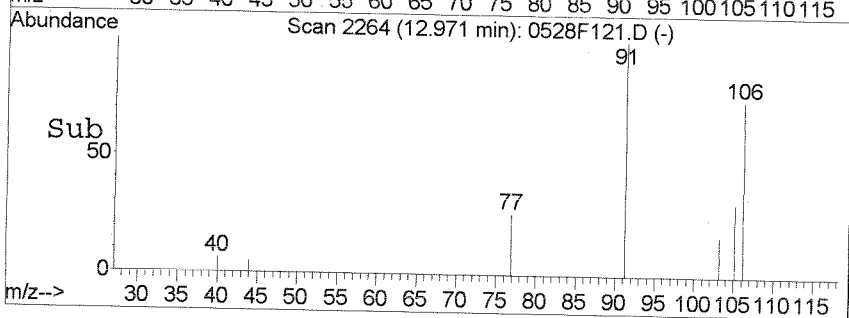
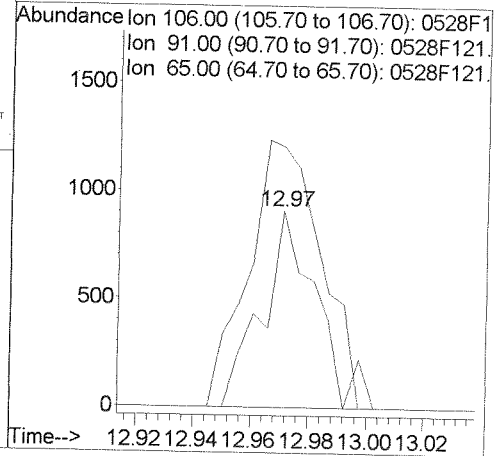
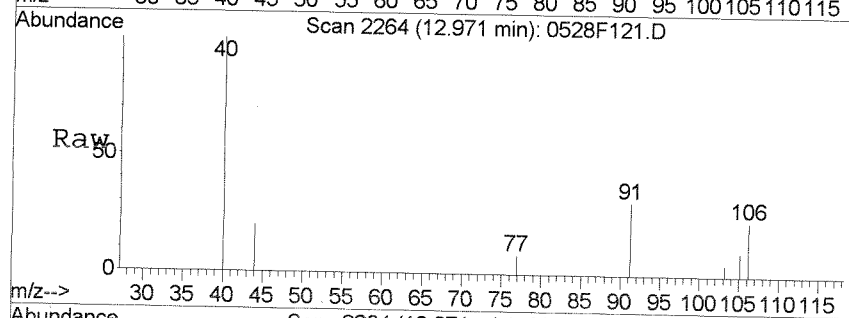
Tgt Ion	Resp	Lower	Upper
106	996		
106	100		
91	206.6	165.7	225.7
77	0.0	0.0	53.0





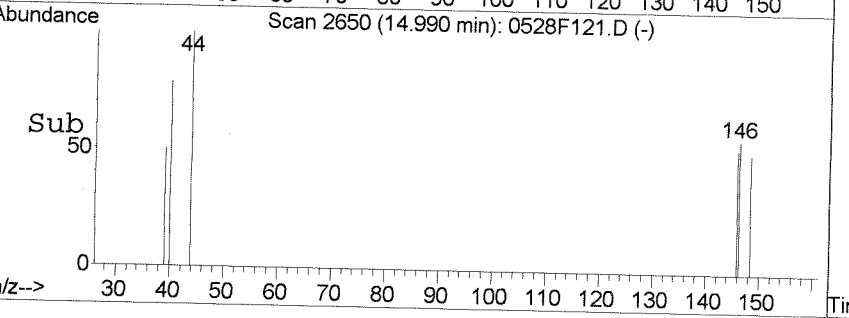
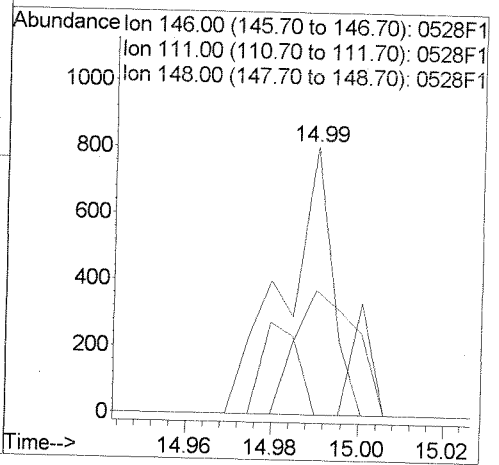
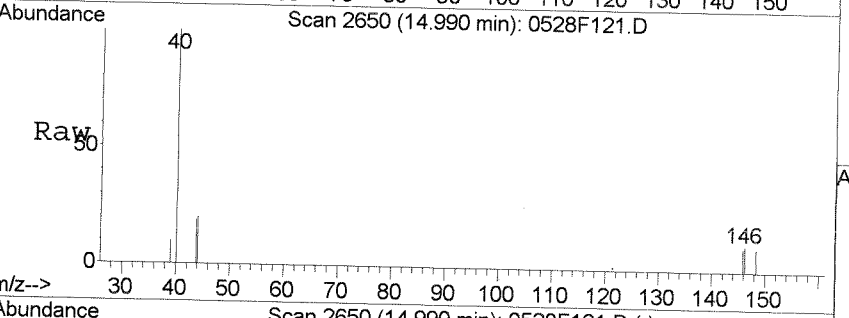
#44  
 o-Xylene  
 Concen: 0.09 PPB  
 RT: 12.97 min Scan# 2264  
 Delta R.T. 0.03 min  
 Lab File: 0528F121.D  
 Acq: 29 May 2010 3:39 am

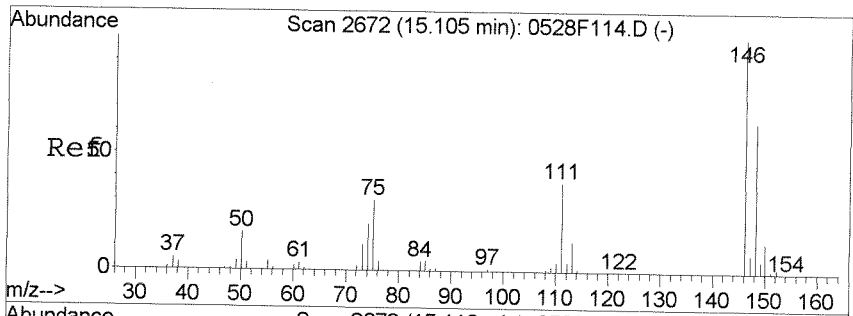
Tgt Ion	Resp	Lower	Upper
106	1183		
106	100		
91	132.6	179.6	239.6#
65	0.0	0.0	42.8



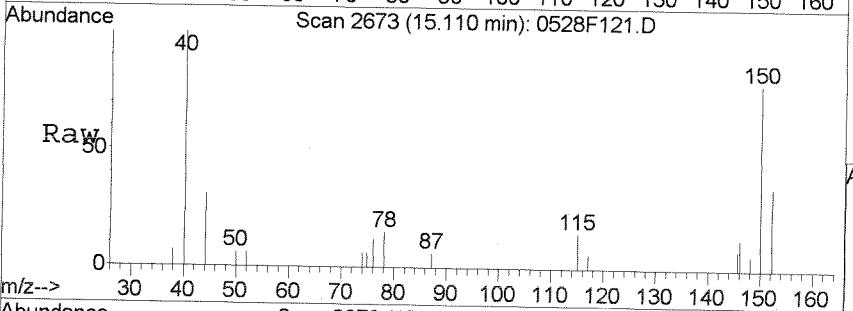
#51  
 1,3-Dichlorobenzene  
 Concen: 0.04 PPB  
 RT: 14.99 min Scan# 2650  
 Delta R.T. 0.00 min  
 Lab File: 0528F121.D  
 Acq: 29 May 2010 3:39 am

Tgt Ion	Resp	Lower	Upper
146	613		
146	100		
111	0.0	8.1	68.1#
148	46.4	32.9	92.9



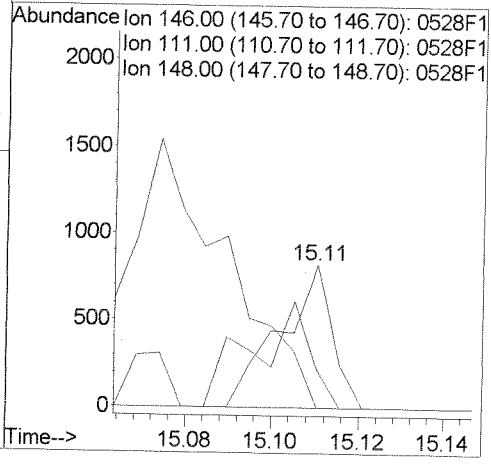
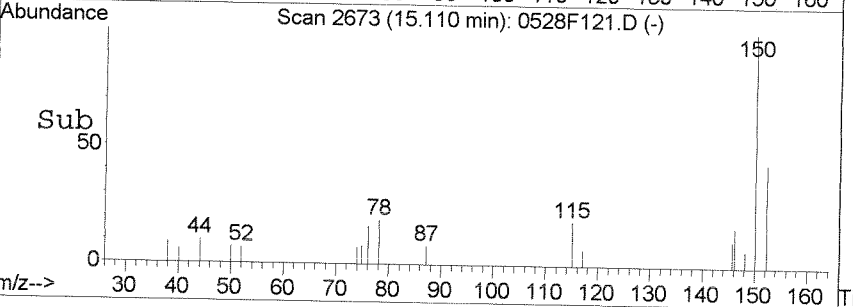


#52  
 1,4-Dichlorobenzene  
 Concen: 0.04 PPB  
 RT: 15.11 min Scan# 2673  
 Delta R.T. 0.01 min  
 Lab File: 0528F121.D  
 Acq: 29 May 2010 3:39 am



Tgt Ion: 146 Resp: 685

Ion	Ratio	Lower	Upper
146	100		
111	0.0	4.3	64.3#
148	26.5	33.1	93.1#



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

## Volatile Organic Compounds

Sample Name: 3ddd  
 Lab Code: K1005067-003  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/29/10	05/29/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/29/10	05/29/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Methylene Chloride	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/29/10	05/29/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/29/10	05/29/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/29/10	05/29/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/29/10	05/29/10	KWG1005071	
Toluene	0.30	J	5.0	0.18	1	05/29/10	05/29/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/29/10	05/29/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/29/10	05/29/10	KWG1005071	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichlorobenzene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/29/10	05/29/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/29/10	05/29/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/29/10	05/29/10	KWG1005071	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: 3ddd  
 Lab Code: K1005067-003  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	0.15	J	1.0	0.13	1	05/29/10	05/29/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	94	79-131	05/29/10	Acceptable
4-Bromofluorobenzene	91	82-122	05/29/10	Acceptable
Dibromofluoromethane	91	86-124	05/29/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments: \_\_\_\_\_

## Exception Report

**Data File:** J:\MS13\DATA\052810-624\0528F122.D  
**Lab ID:** K1005067-003  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/29/2010 04:07  
**Date Quantitated:** 06/01/2010 17:04  
**Batch ID:** KWG1005070  
**Analysis Method:** 624  
**ListJoinID:** LJ11571

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:         *Ann 6/1/10*        

Secondary Review:         *HTB 6/1/10*

# Quantitation Report

Bottle ID:	Tier: V	Matrix: WATER
Prod Code: 624 VOC_FP	Collect Date: 05/17/2010	Receive Date: 05/19/2010

Analysis Lot: KWG1005070	Prep Lot: KWG1005071	Report Group: K1005067
Analysis Method: 624	Prep Method: METHOD	
Prep Ref: 913231	Prep Date: 05/29/2010	

Quant Method: JAMS13\METHODS\020810MS13_6	Calibration ID: CAL9204
Title: Volatile Organic Compounds	Report List ID: LJ11571
Tune Ref: JAMS13\DATA\052810-624\0528F106.D	Method ID: MJ158
MB Ref: JAMS13\DATA\052810-624\0528F108.D	<b>Quant based on Report List</b>

Data File: JAMS13\DATA\052810-624\0528F122.D	Instrument: MS13
Acqu Date: 05/29/2010 04:07	Quant Date: 06/01/2010 17:04
Run Type: SMPL	Vial: 14
Lab ID: K1005067-003	Dilution: 1.0
	Soln Conc. Units: PPB

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	0.00	96	593029	20.00	OK
2	Chlorobenzene-d5	12.03	-0.01	82	233619	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	0.00	152	206441	20.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.11	-0.01	0.00	113	130143	18.29	91	86-124	OK
1	Toluene-d8	9.30	0.00	0.00	98	546347	18.88	94	79-131	OK
2	4-Bromofluorobenzene	13.70	0.00	0.00	95	198888	18.27	91	82-122	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
								Final Conc. Units: ug/L		
1	Chloromethane				50	0		0.23	U	
1	Vinyl Chloride				62	0		0.16	U	
1	Bromomethane				96	0		0.28	U	
1	Chloroethane				49	0		0.16	U	
1	Trichlorofluoromethane				101	0		0.11	U	
1	Acrolein				56	0		3.3	U	
1	1,1-Dichloroethene				96	0		0.15	U	
1	Methylene Chloride				84	0		0.12	U	
1	Acrylonitrile				53	0		0.61	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	1,1-Dichloroethane				63	0		0.11	U	
1	Chloroform				83	0		0.11	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.14	U	
1	Carbon Tetrachloride				117	0		0.047	U	
1	Benzene				78	0		0.14	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

<b>Data File:</b>	J:\MS13\DATA\052810-624\0528F122.D	<b>Instrument:</b>	MS13
<b>Acqu Date:</b>	05/29/2010 04:07	<b>Quant Date:</b>	06/01/2010 17:04
<b>Run Type:</b>	SMPL	<b>Vial:</b>	14
<b>Lab ID:</b>	K1005067-003	<b>Dilution:</b>	1.0
		<b>Soln Conc. Units:</b>	PPB

<i>Target Compounds</i>			Final Conc. Units:		ug/L			Q	Rpt?
IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	
1	1,2-Dichloroethane (EDC)				62	0		0.12	U
1	Trichloroethene (TCE)				95	0		0.13	U
1	1,2-Dichloropropane				63	0		0.17	U
1	Bromodichloromethane				83	0		0.12	U
1	2-Chloroethyl Vinyl Ether				63	0		0.29	U
1	cis-1,3-Dichloropropene				75	0		0.13	U
1	Toluene	9.46		0.00	92	6082	0.3000	0.30	J
2	trans-1,3-Dichloropropene				75	0		0.10	U
2	1,1,2-Trichloroethane				83	0		0.16	U
2	Tetrachloroethene (PCE)				164	0		0.14	U
2	Dibromochloromethane				129	0		0.15	U
2	Chlorobenzene				112	0		0.098	U
2	Ethylbenzene				106	0		0.11	U
2	m,p-Xylenes	12.42	-0.01	0.00	106	1461	0.1000	0.26	U
2	o-Xylene	12.97	-0.01	0.00	106	2069	0.1500	0.15	J
2	Bromoform				173	0		0.37	U
3	1,1,2,2-Tetrachloroethane				83	0		0.11	U
3	1,3-Dichlorobenzene				146	0		0.16	U
3	1,4-Dichlorobenzene				146	0		0.15	U
3	1,2-Dichlorobenzene				146	0		0.13	U

Prep Amount: 5 ml Dilution: 1.0  
 Prep Final Vol: 5 ml Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution



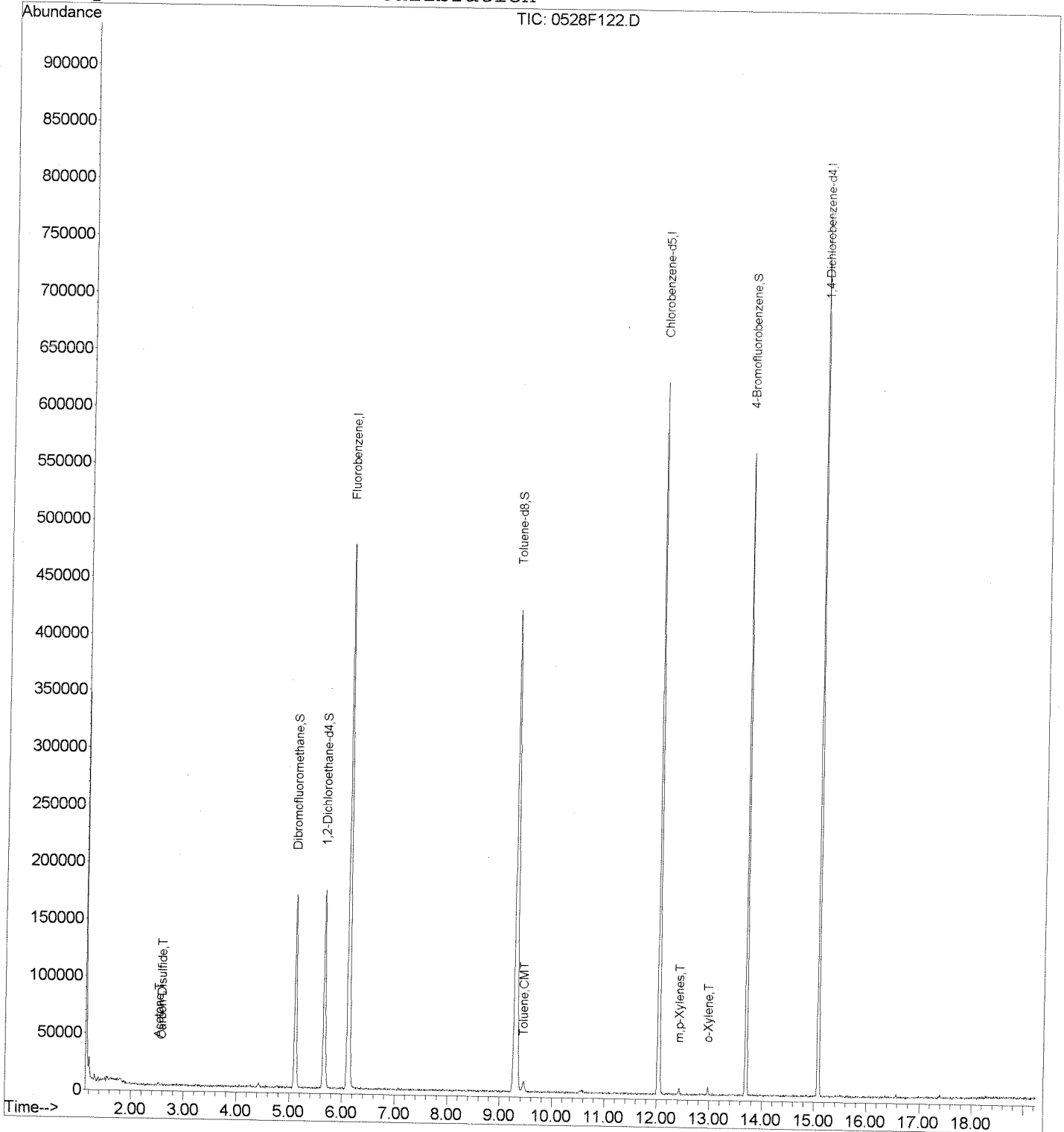
Quantitation Report (QT Reviewed)

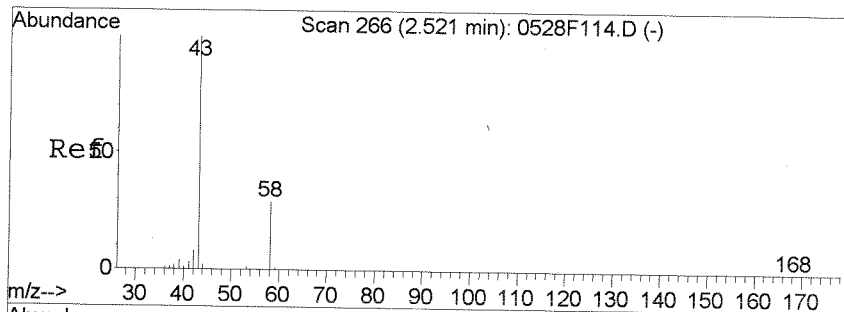
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Acq On : 29 May 2010 4:07 am  
Sample : K5067-003  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 1 17:04 2010

Vial: 14  
Operator: CMK  
Inst : MS13  
Multiplr: 1.00

Quant Results File: 020810MS13\_6

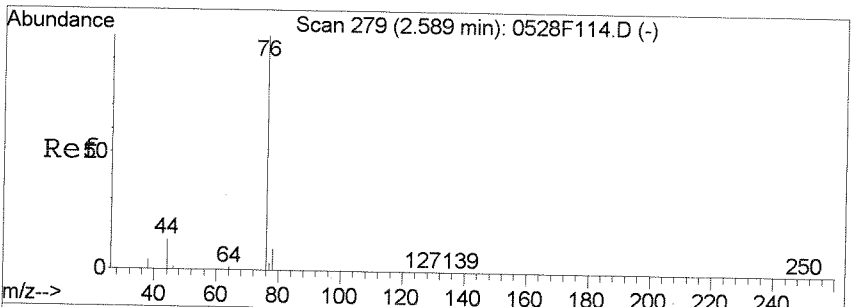
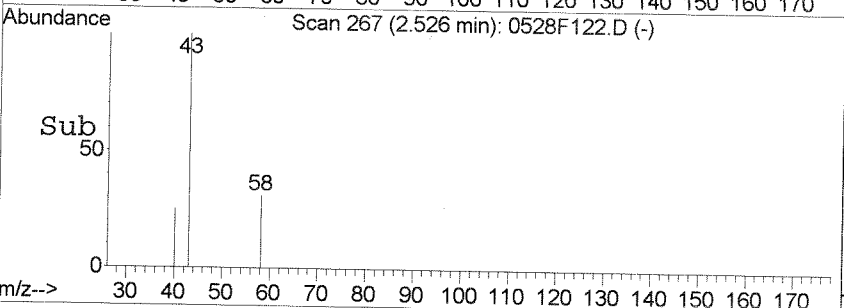
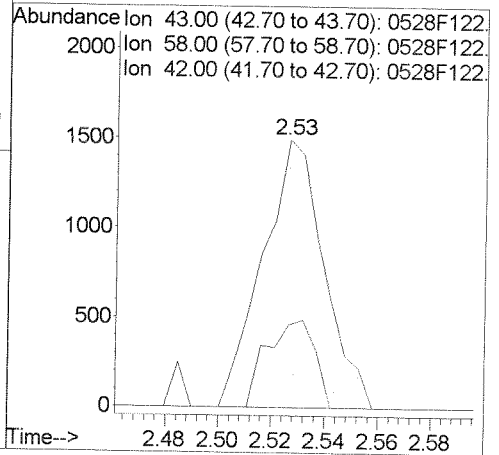
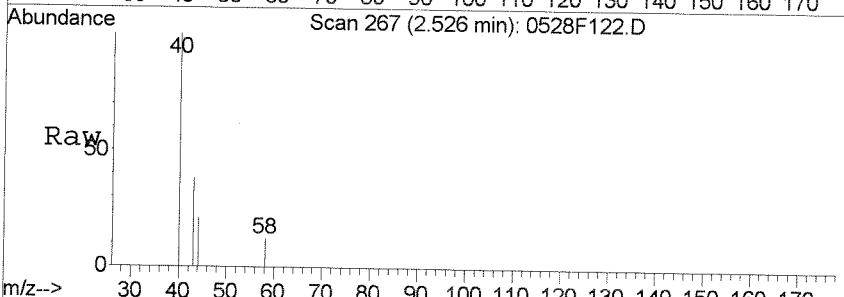
Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
Title : VOA MS13 EPA Method 8260B  
Last Update : Fri May 28 23:53:25 2010  
Response via : Initial Calibration





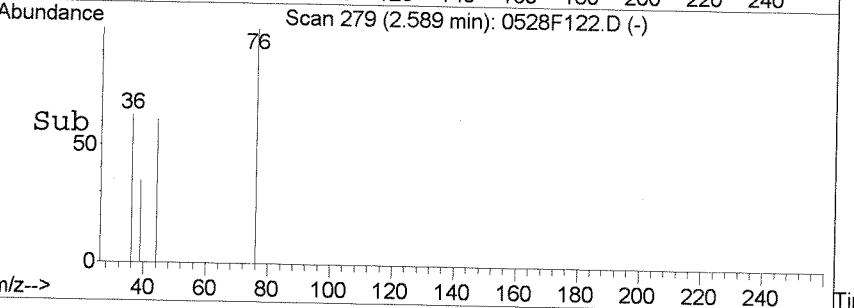
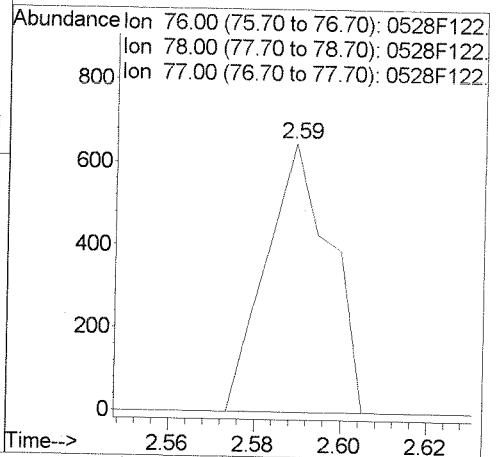
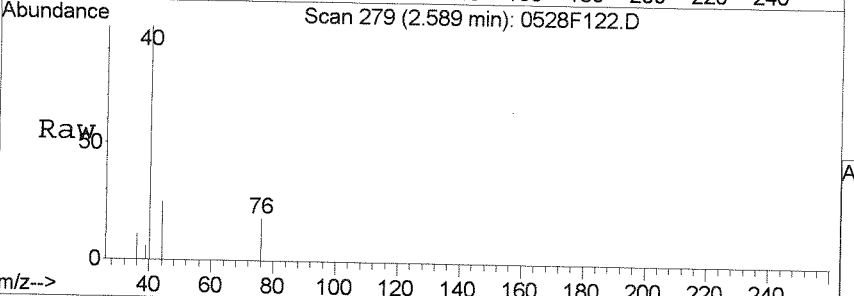
#11  
 Acetone  
 Concen: 1.43 PPB  
 RT: 2.53 min Scan# 267  
 Delta R.T. -0.02 min  
 Lab File: 0528F122.D  
 Acq: 29 May 2010 4:07 am

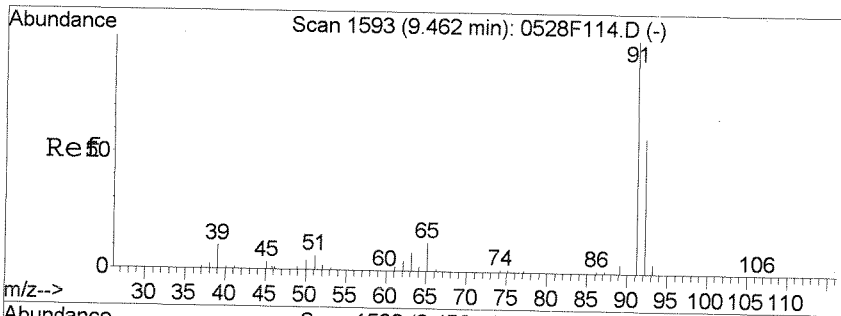
Tgt Ion	Resp	Lower	Upper
43	100		
58	30.9	4.3	64.3
42	0.0	0.0	37.4



#12  
 Carbon Disulfide  
 Concen: 0.03 PPB  
 RT: 2.59 min Scan# 279  
 Delta R.T. -0.03 min  
 Lab File: 0528F122.D  
 Acq: 29 May 2010 4:07 am

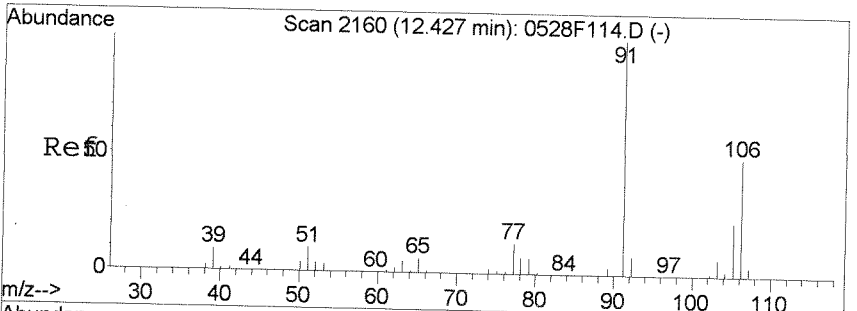
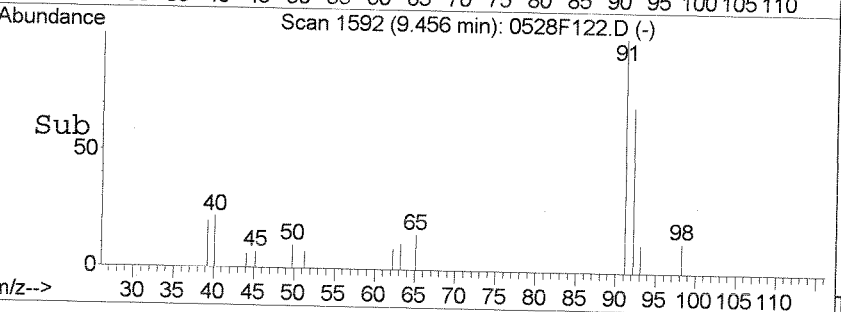
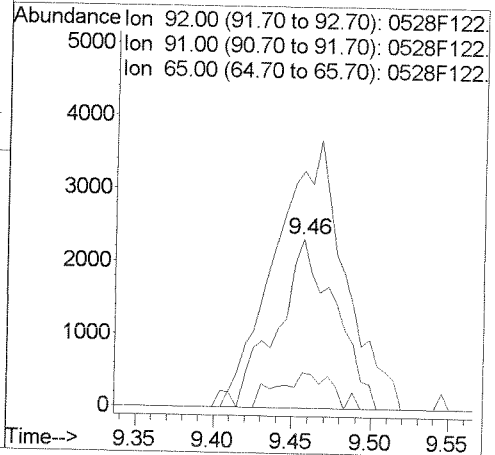
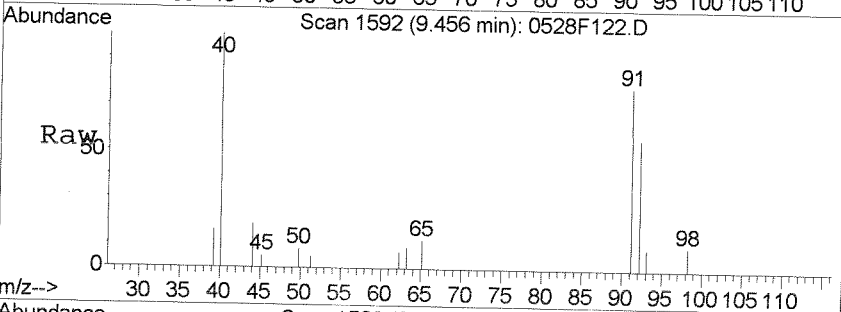
Tgt Ion	Resp	Lower	Upper
76	100		
78	0.0	0.0	38.8
77	0.0	0.0	32.6





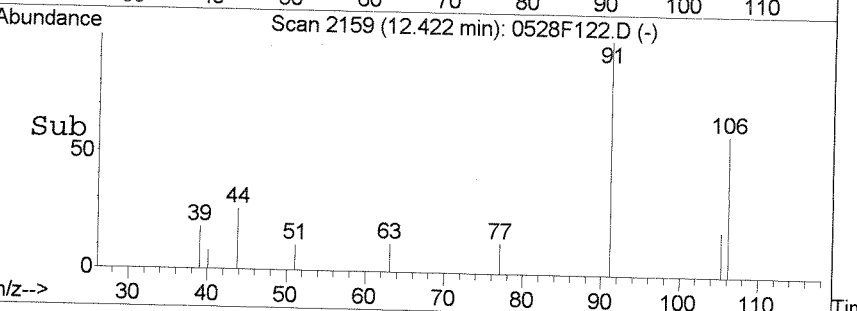
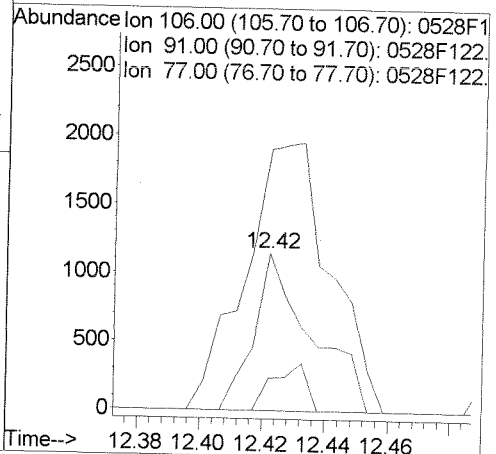
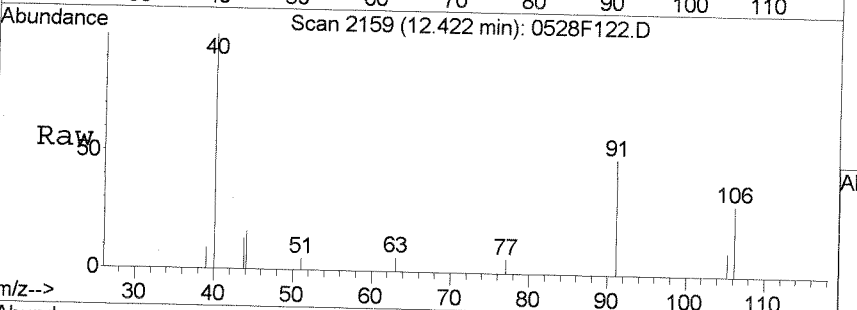
#34  
 Toluene  
 Concen: 0.30 PPB  
 RT: 9.46 min Scan# 1592  
 Delta R.T. 0.08 min  
 Lab File: 0528F122.D  
 Acq: 29 May 2010 4:07 am

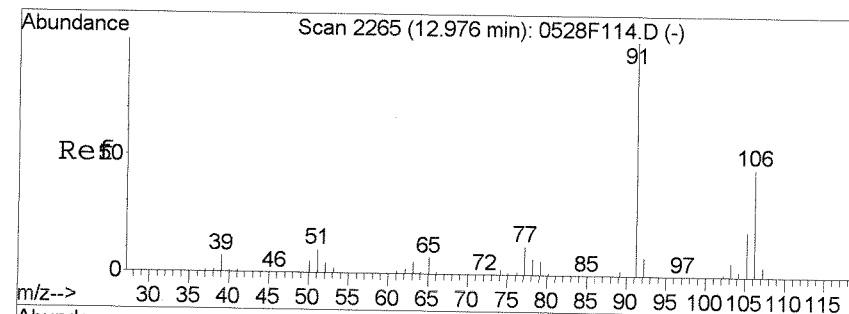
Tgt Ion	Resp	Lower	Upper
92	6082		
92	100		
91	140.1	139.7	199.7
65	21.2	0.0	47.9



#43  
 m,p-Xylenes  
 Concen: 0.10 PPB  
 RT: 12.42 min Scan# 2159  
 Delta R.T. 0.01 min  
 Lab File: 0528F122.D  
 Acq: 29 May 2010 4:07 am

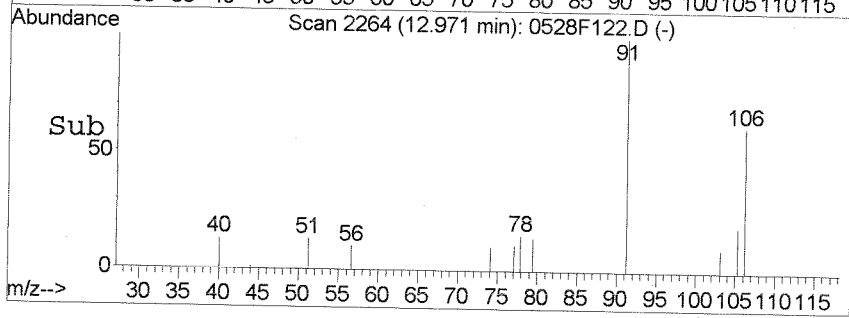
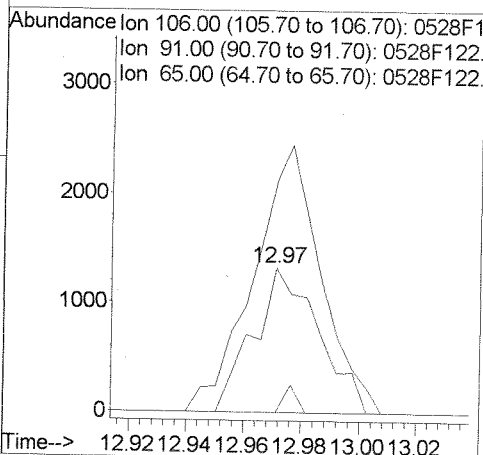
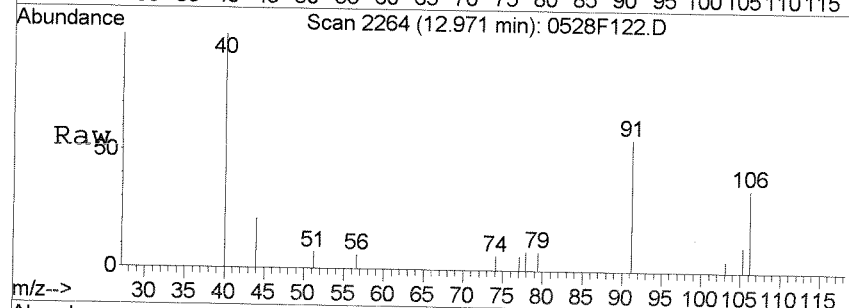
Tgt Ion	Resp	Lower	Upper
106	1461		
106	100		
91	165.6	165.7	225.7#
77	20.7	0.0	53.0





#44  
 o-Xylene  
 Concen: 0.15 PPB  
 RT: 12.97 min Scan# 2264  
 Delta R.T. 0.03 min  
 Lab File: 0528F122.D  
 Acq: 29 May 2010 4:07 am

Tgt Ion	Resp	Lower	Upper
106	100		
91	160.4	179.6	239.6#
65	0.0	0.0	42.8



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

## Volatile Organic Compounds

Sample Name: EB-051710  
 Lab Code: K1005067-004  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/29/10	05/29/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/29/10	05/29/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Methylene Chloride	0.15	J	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/29/10	05/29/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/29/10	05/29/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/29/10	05/29/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/29/10	05/29/10	KWG1005071	
Toluene	0.74	J	5.0	0.18	1	05/29/10	05/29/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/29/10	05/29/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/29/10	05/29/10	KWG1005071	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichlorobenzene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/29/10	05/29/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/29/10	05/29/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/29/10	05/29/10	KWG1005071	

Comments:

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: EB-051710 Units: ug/L  
 Lab Code: K1005067-004 Basis: NA  
 Extraction Method: METHOD Level: Low  
 Analysis Method: 624

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	ND	U	1.0	0.13	1	05/29/10	05/29/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	96	79-131	05/29/10	Acceptable
4-Bromofluorobenzene	92	82-122	05/29/10	Acceptable
Dibromofluoromethane	91	86-124	05/29/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments: \_\_\_\_\_

## Exception Report

**Data File:** J:\MS13\DATA\052810-624\0528F123.D  
**Lab ID:** K1005067-004  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/29/2010 04:34  
**Date Quantitated:** 06/01/2010 17:05  
**Batch ID:** KWG1005070  
**Analysis Method:** 624  
**ListJoinID:** LJ11571

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review:         6/1/10          
 Secondary Review:         HBQ-170

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>	V	<b>Matrix:</b>	WATER
<b>Prod Code:</b>	624 VOC_FP	<b>Collect Date:</b>	05/17/2010	<b>Receive Date:</b>	05/19/2010

<b>Analysis Lot:</b>	KWG1005070	<b>Prep Lot:</b>	KWG1005071	<b>Report Group:</b>	K1005067
<b>Analysis Method:</b>	624	<b>Prep Method:</b>	METHOD		
<b>Prep Ref:</b>	913232	<b>Prep Date:</b>	05/29/2010		

<b>Quant Method:</b>	JAMS13\METHODS\020810MS13_6	<b>Calibration ID:</b>	CAL9204
<b>Title:</b>	Volatile Organic Compounds	<b>Report List ID:</b>	LJ11571
<b>Tune Ref:</b>	JAMS13\DATA\052810-624\0528F106.D	<b>Method ID:</b>	MJ158
<b>MB Ref:</b>	JAMS13\DATA\052810-624\0528F108.D	<b>Quant based on Report List</b>	

<b>Data File:</b>	JAMS13\DATA\052810-624\0528F123.D	<b>Instrument:</b>	MS13
<b>Acqu Date:</b>	05/29/2010 04:34	<b>Quant Date:</b>	06/01/2010 17:05
<b>Run Type:</b>	SMPL	<b>Vial:</b>	15
<b>Lab ID:</b>	K1005067-004	<b>Dilution:</b>	1.0
		<b>Soln Conc. Units:</b>	PPB

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	0.00	96	586345	20.00	OK
2	Chlorobenzene-d5	12.03	-0.01	82	226830	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	0.00	152	205914	20.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.12	0.00	0.00	113	128257	18.23	91	86-124	OK
1	Toluene-d8	9.30	0.00	0.00	98	547622	19.14	96	79-131	OK
2	4-Bromofluorobenzene	13.70	0.00	0.00	95	194363	18.39	92	82-122	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Chloromethane				50	0		0.23	U	
1	Vinyl Chloride				62	0		0.16	U	
1	Bromomethane				96	0		0.28	U	
1	Chloroethane				49	0		0.16	U	
1	Trichlorofluoromethane				101	0		0.11	U	
1	Acrolein				56	0		3.3	U	
1	1,1-Dichloroethene				96	0		0.15	U	
1	Methylene Chloride	2.93		0.00	84	1196	0.1500	0.15	J	
1	Acrylonitrile				53	0		0.61	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	1,1-Dichloroethane				63	0		0.11	U	
1	Chloroform	4.87		0.00	83	511	0.0400	0.11	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.14	U	
1	Carbon Tetrachloride				117	0		0.047	U	
1	Benzene	5.61	0.01	0.00	78	1096m	0.0400	0.14	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution





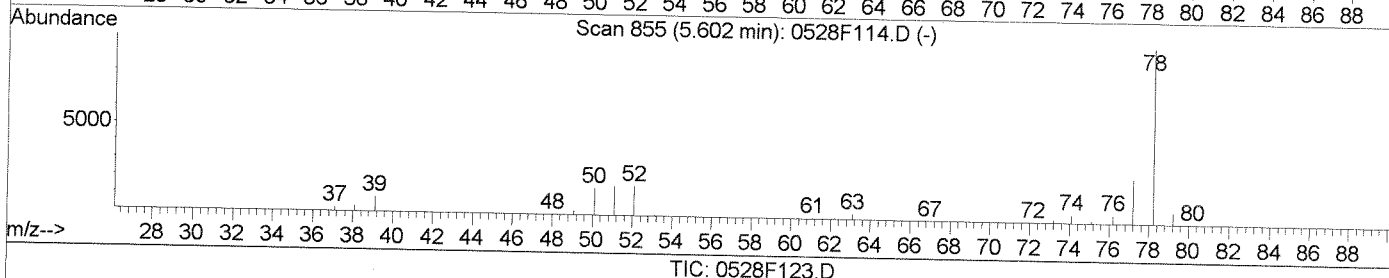
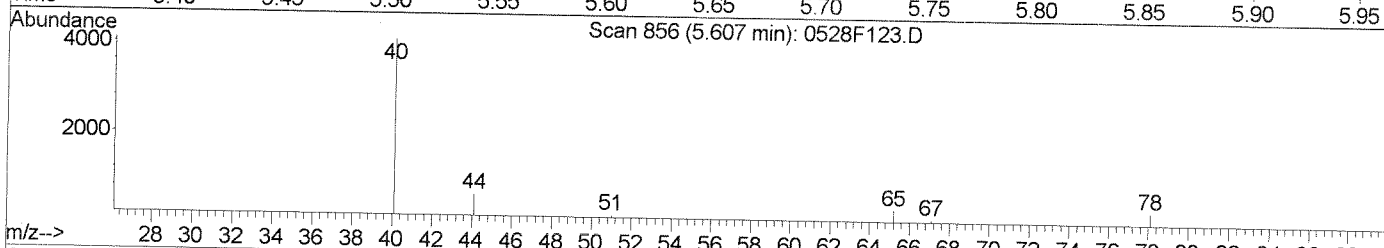
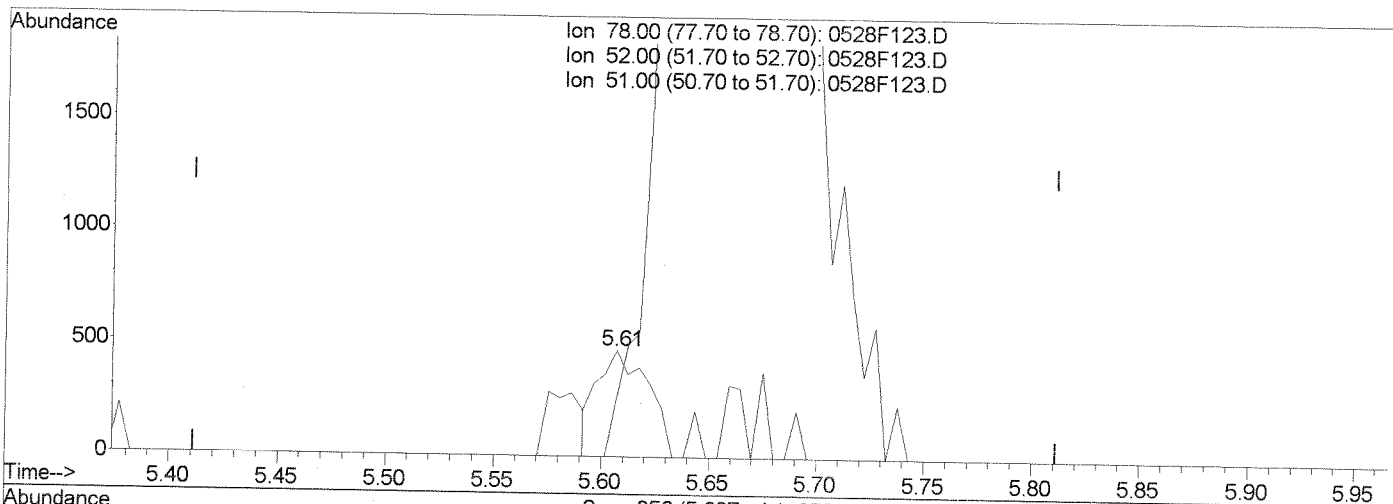
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\052810-624\0528F123.D  
 Acq On : 29 May 2010 4:34 am  
 Sample : K5067-004  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 1 17:04 2010

Vial: 15  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Fri May 28 23:53:25 2010  
 Response via : Multiple Level Calibration



(25) Benzene (MT)

5.61min 0.02PPB

response 773

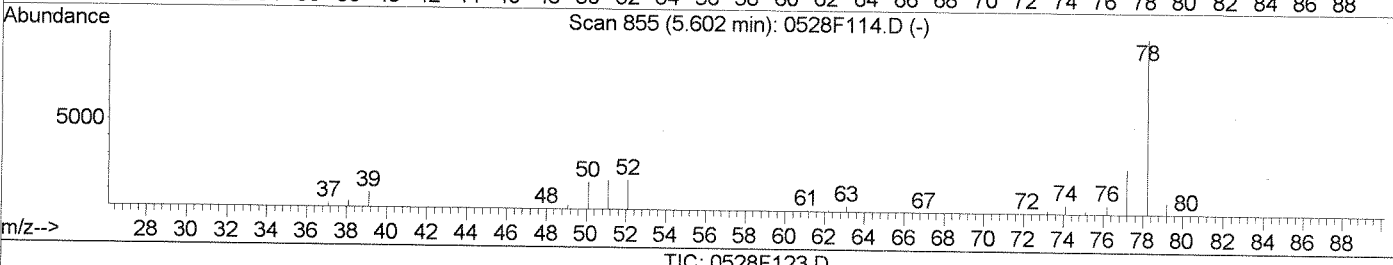
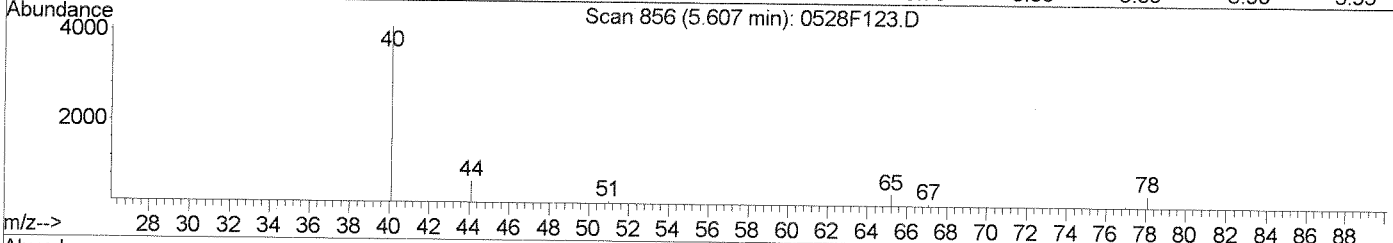
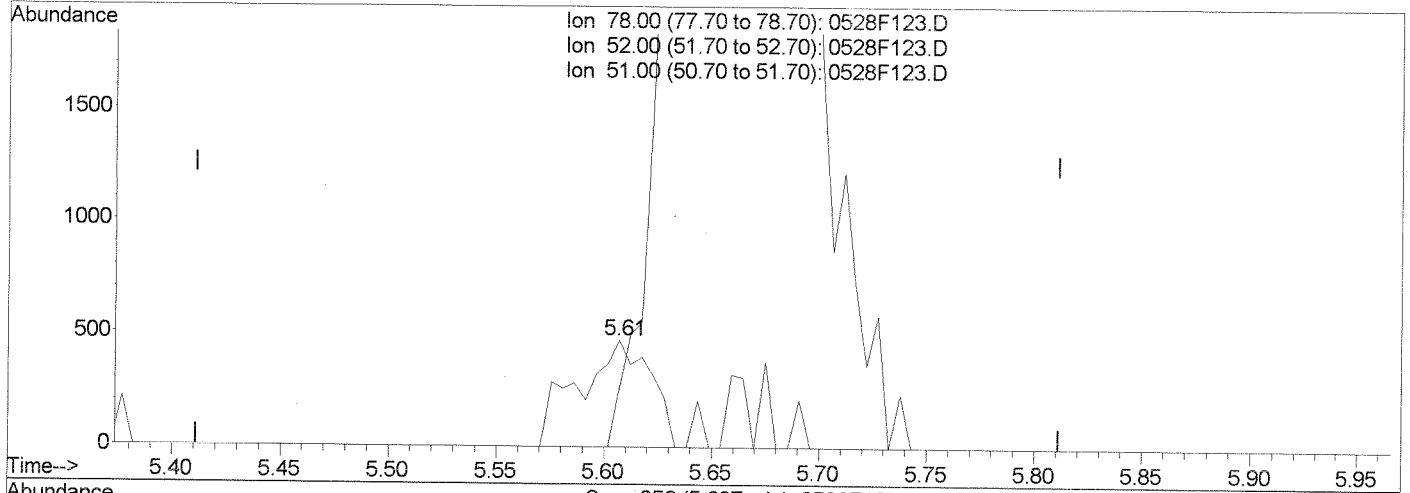
Ion	Exp%	Act%
78.00	100	100
52.00	14.50	0.00
51.00	14.50	54.66#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\052810-624\0528F123.D  
 Acq On : 29 May 2010 4:34 am  
 Sample : K5067-004  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 1 17:05 2010

Vial: 15  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Fri May 28 23:53:25 2010  
 Response via : Multiple Level Calibration



(25) Benzene (MT)  
 5.61min 0.04PPB m  
 response 1096

Ion	Exp%	Act%
78.00	100	100
52.00	14.50	0.00
51.00	14.50	54.66#
0.00	0.00	0.00

S.P.  
 6/1/10

HB6-170

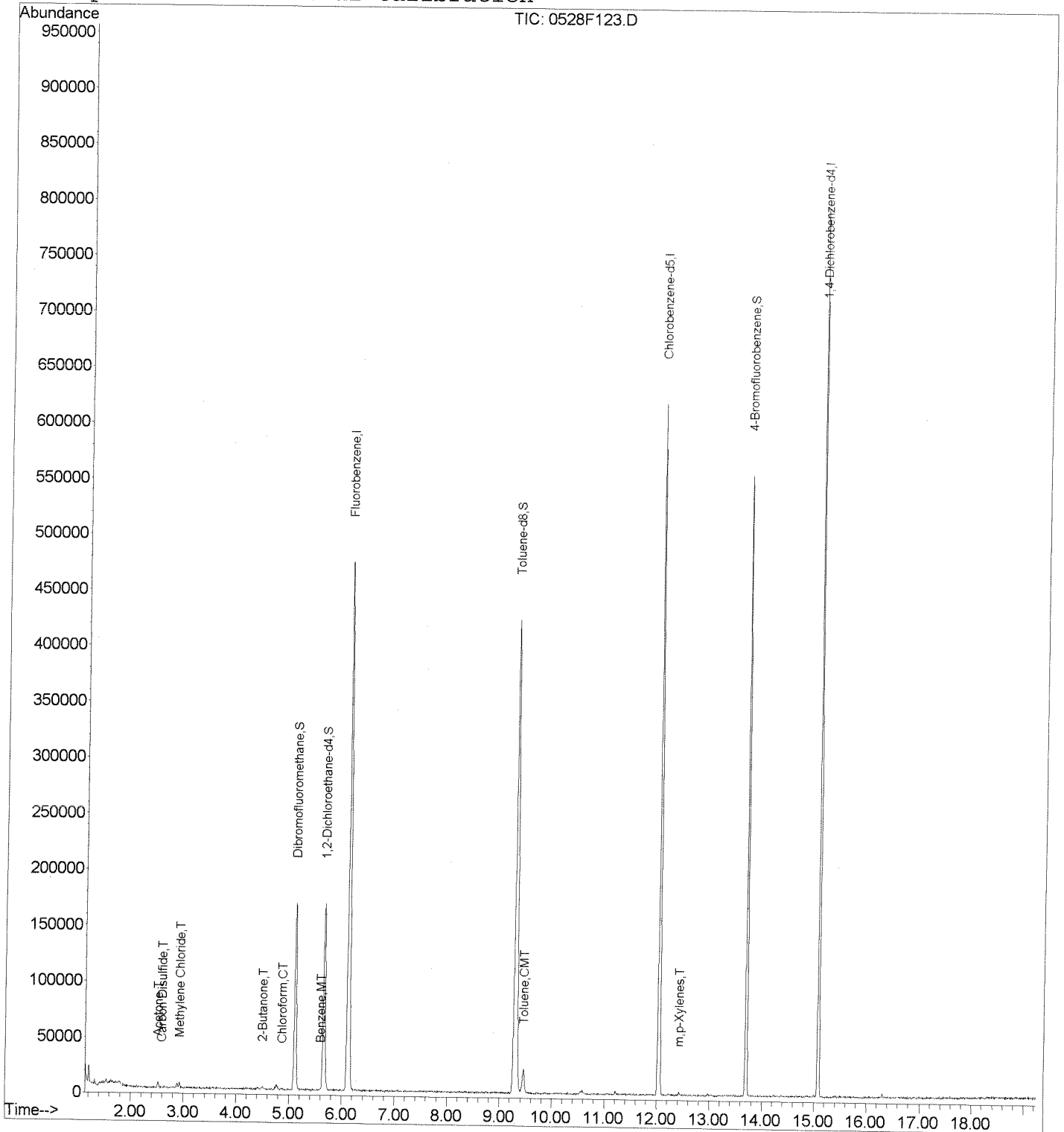
Quantitation Report (QT Reviewed)

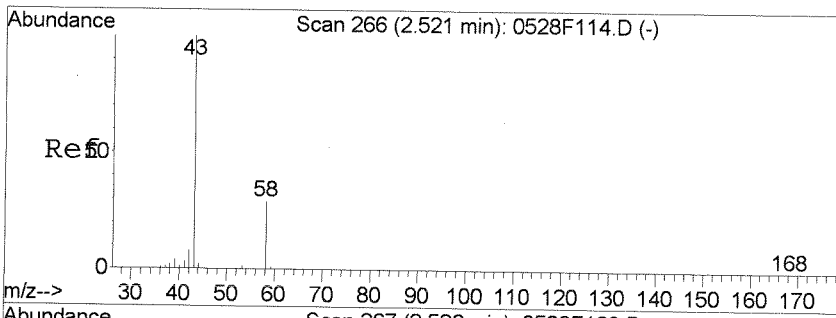
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Acq On : 29 May 2010 4:34 am  
Sample : K5067-004  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 1 17:05 2010

Vial: 15  
Operator: CMK  
Inst : MS13  
Multiplr: 1.00

Quant Results File: 020810MS13\_6

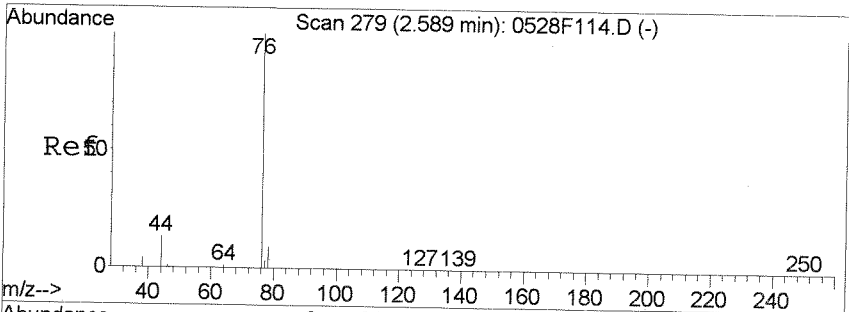
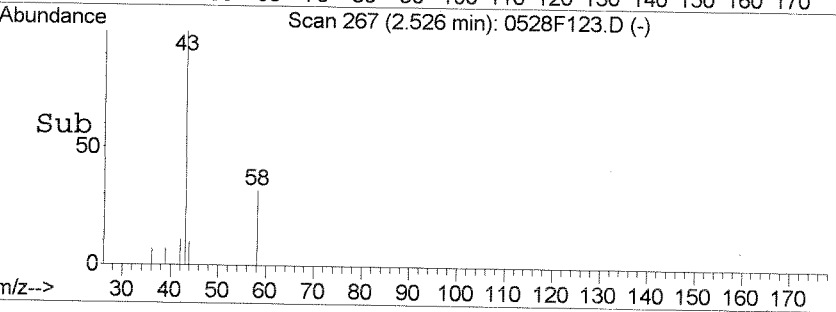
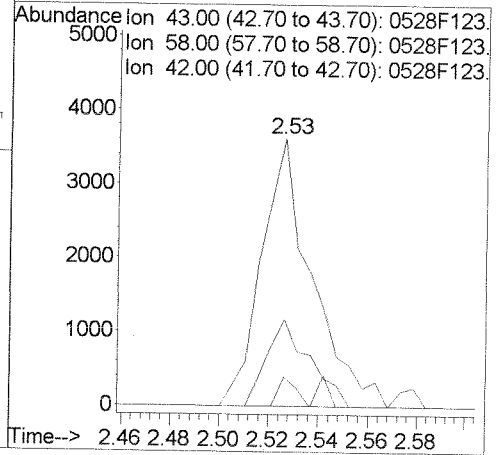
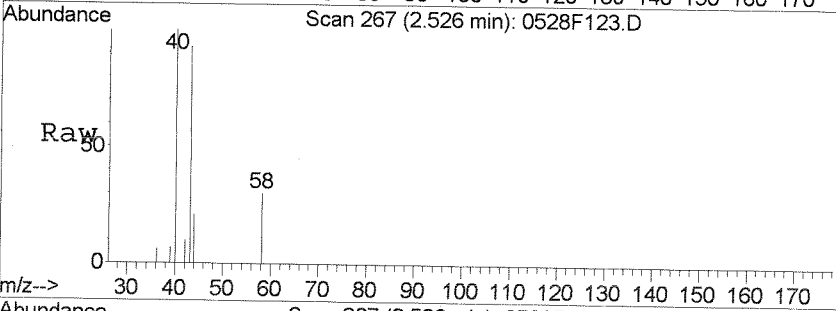
Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
Title : VOA MS13 EPA Method 8260B  
Last Update : Fri May 28 23:53:25 2010  
Response via : Initial Calibration





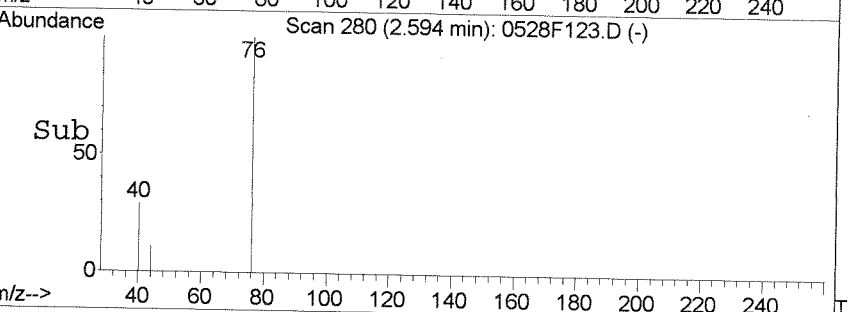
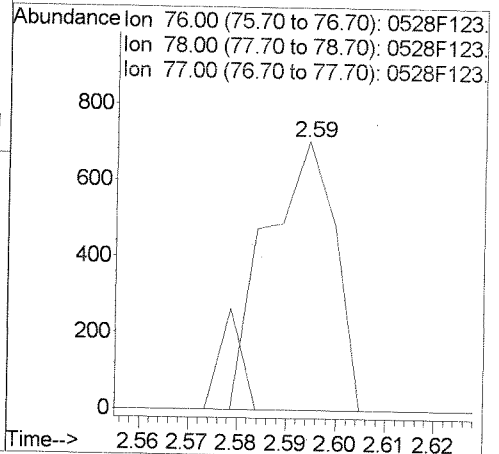
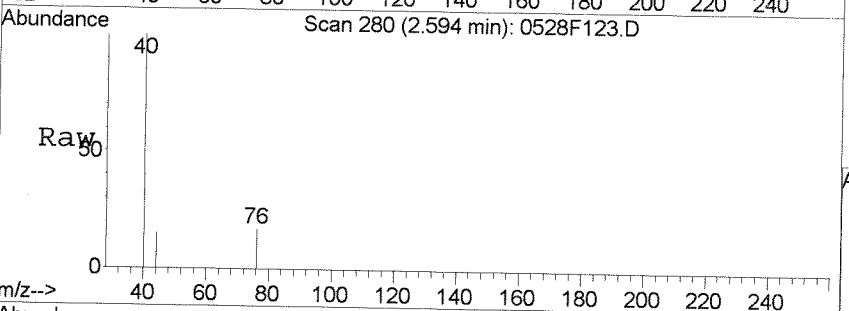
#11  
 Acetone  
 Concen: 3.10 PPB  
 RT: 2.53 min Scan# 267  
 Delta R.T. -0.02 min  
 Lab File: 0528F123.D  
 Acq: 29 May 2010 4:34 am

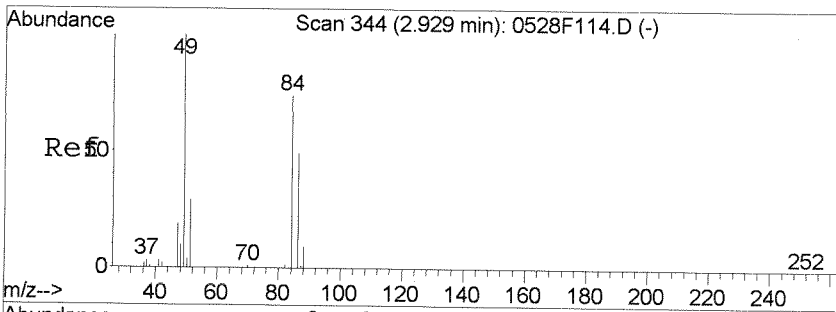
Tgt Ion	Resp	Lower	Upper
43	100		
58	32.2	4.3	64.3
42	10.9	0.0	37.4



#12  
 Carbon Disulfide  
 Concen: 0.03 PPB  
 RT: 2.59 min Scan# 280  
 Delta R.T. -0.02 min  
 Lab File: 0528F123.D  
 Acq: 29 May 2010 4:34 am

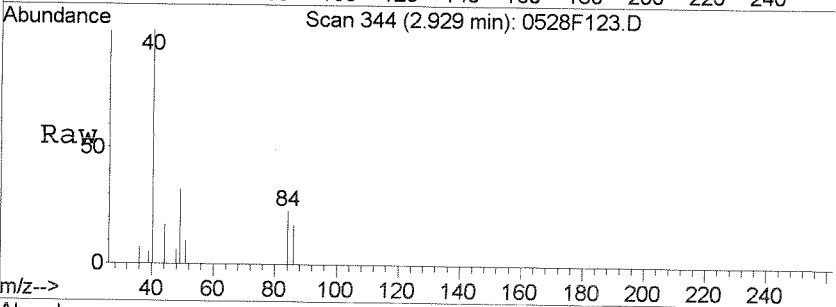
Tgt Ion	Resp	Lower	Upper
76	100		
78	0.0	0.0	38.8
77	0.0	0.0	32.6



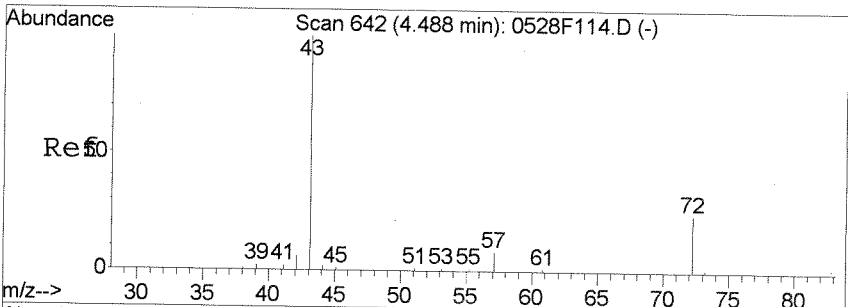
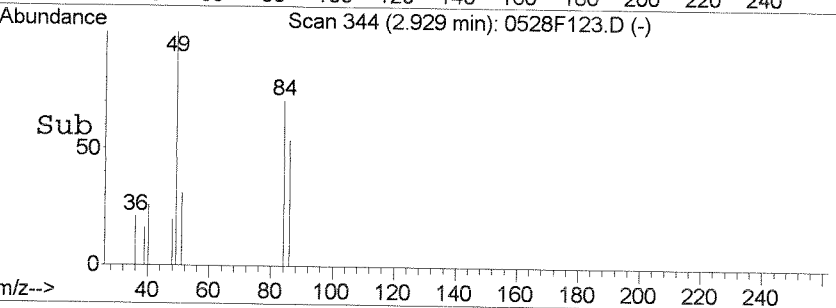
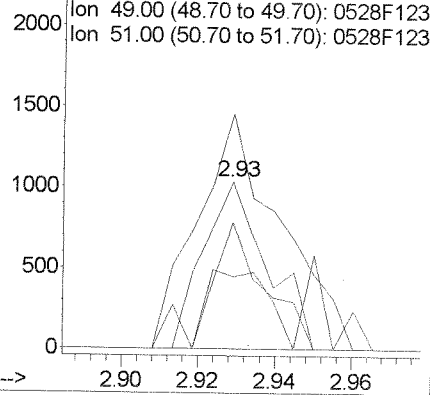


#13  
 Methylene Chloride  
 Concen: 0.15 PPB  
 RT: 2.93 min Scan# 344  
 Delta R.T. -0.03 min  
 Lab File: 0528F123.D  
 Acq: 29 May 2010 4:34 am

Tgt Ion	Resp	Lower	Upper
84	1196		
84	100		
86	75.8	34.5	94.5
49	140.6	91.3	151.3
51	43.3	6.4	66.4

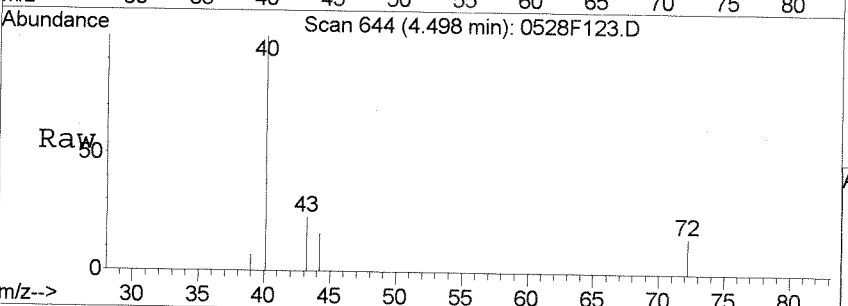


Abundance  
 Ion 84.00 (83.70 to 84.70): 0528F123.  
 Ion 86.00 (85.70 to 86.70): 0528F123.  
 Ion 49.00 (48.70 to 49.70): 0528F123.  
 Ion 51.00 (50.70 to 51.70): 0528F123.

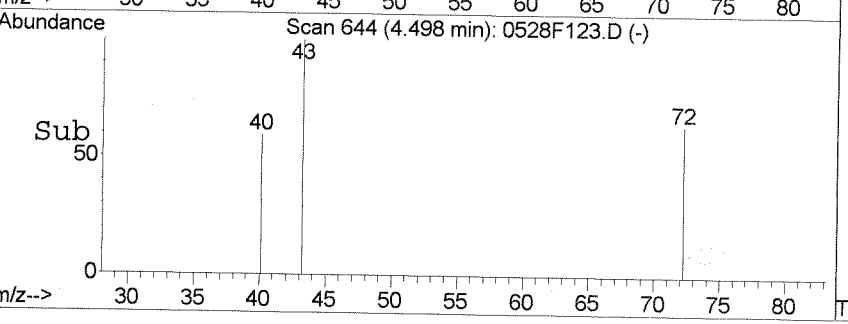
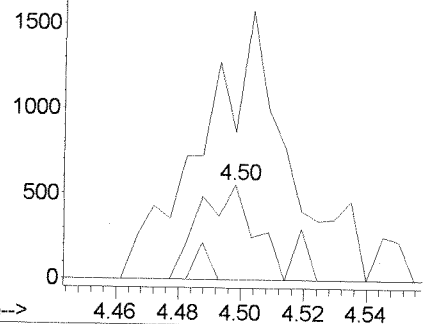


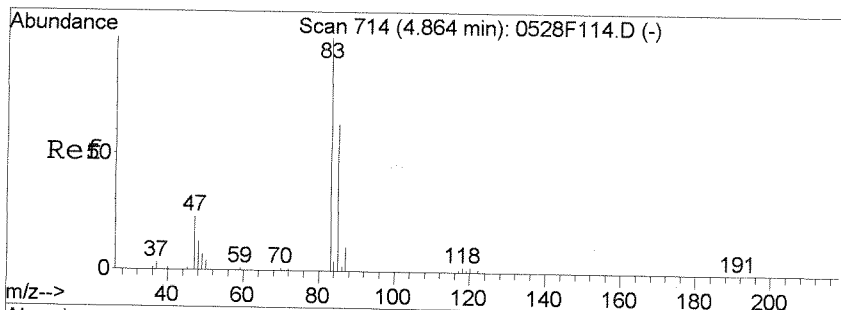
#19  
 2-Butanone  
 Concen: 1.11 PPB  
 RT: 4.50 min Scan# 644  
 Delta R.T. -0.01 min  
 Lab File: 0528F123.D  
 Acq: 29 May 2010 4:34 am

Tgt Ion	Resp	Lower	Upper
72	773		
72	100		
43	91.4	326.0	386.0#
57	0.0	0.0	58.5



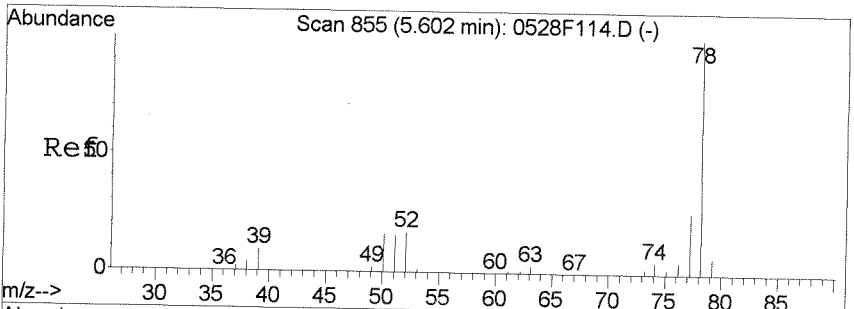
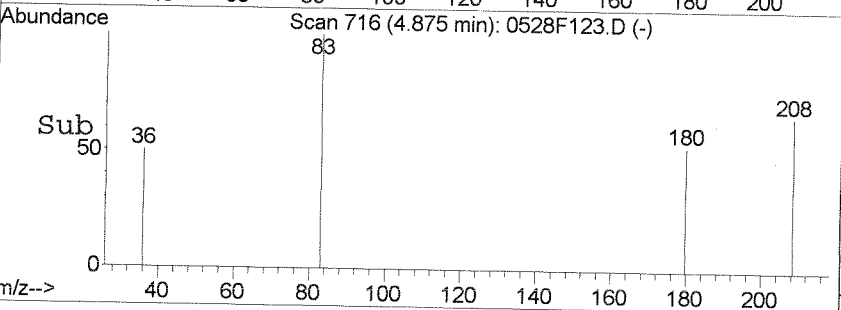
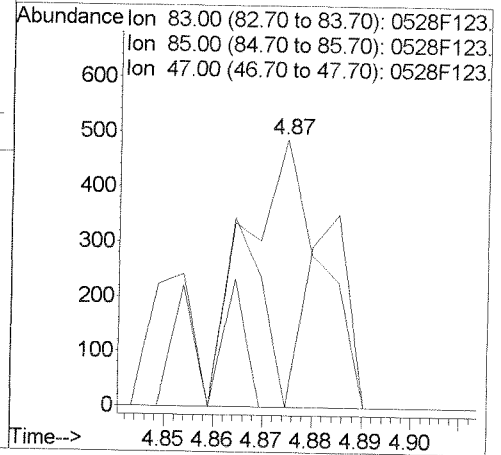
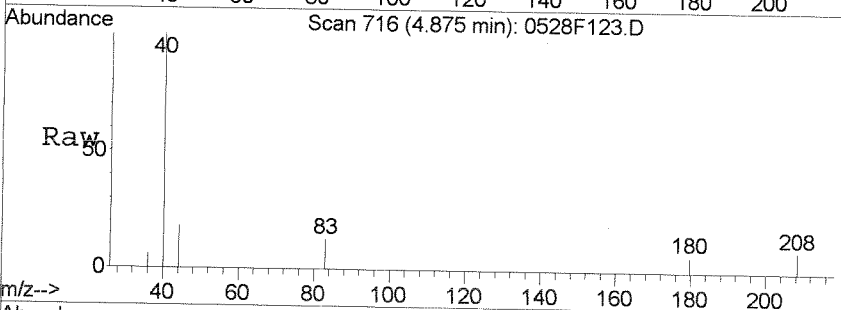
Abundance  
 Ion 72.00 (71.70 to 72.70): 0528F123.  
 Ion 43.00 (42.70 to 43.70): 0528F123.  
 Ion 57.00 (56.70 to 57.70): 0528F123.





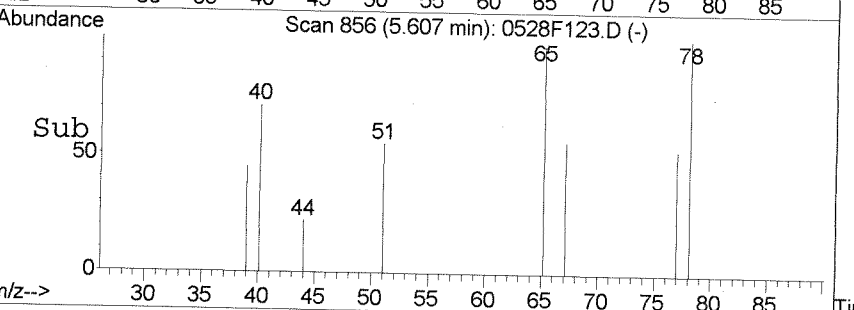
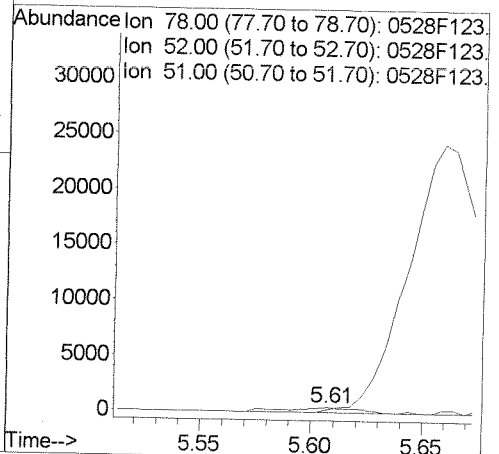
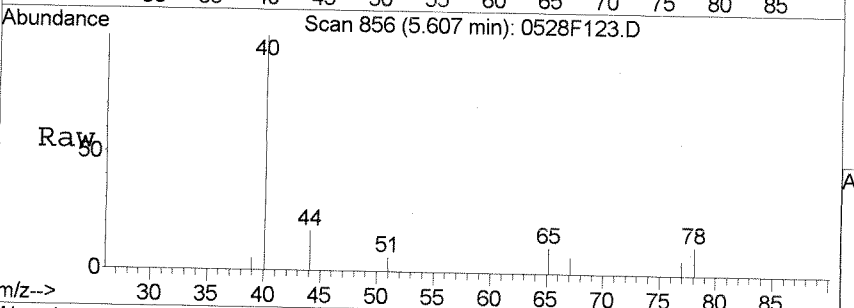
#20  
 Chloroform  
 Concen: 0.04 PPB  
 RT: 4.87 min Scan# 716  
 Delta R.T. -0.01 min  
 Lab File: 0528F123.D  
 Acq: 29 May 2010 4:34 am

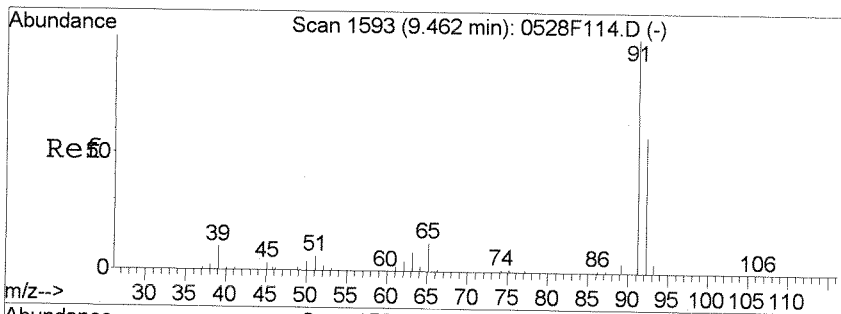
Tgt Ion	Resp	Lower	Upper
83	100		
85	0.0	31.8	91.8#
47	0.0	0.0	51.1



#25  
 Benzene  
 Concen: 0.04 PPB m  
 RT: 5.61 min Scan# 856  
 Delta R.T. -0.00 min  
 Lab File: 0528F123.D  
 Acq: 29 May 2010 4:34 am

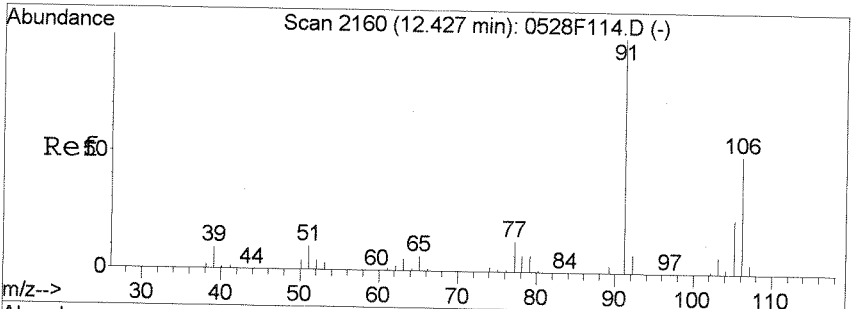
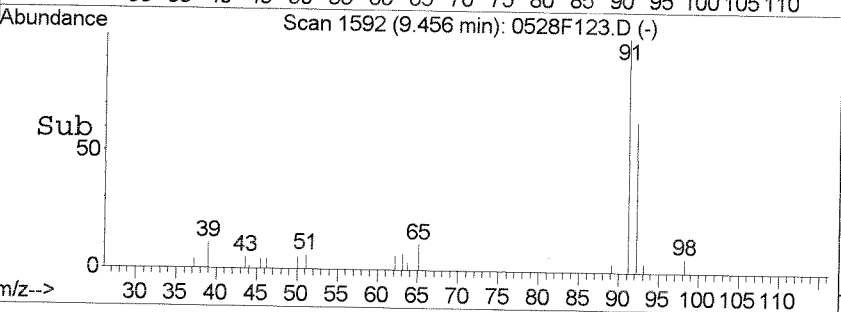
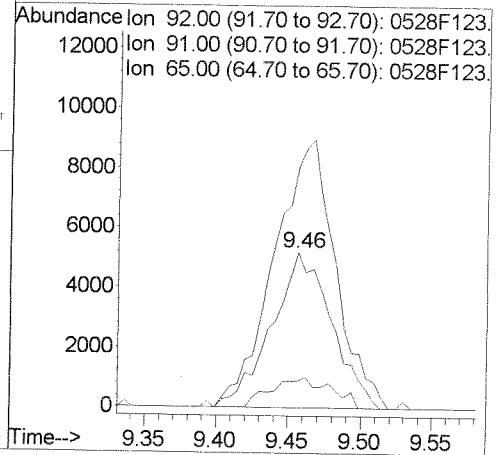
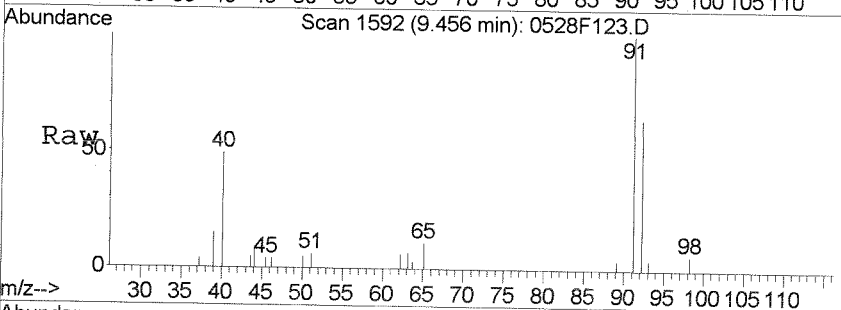
Tgt Ion	Resp	Lower	Upper
78	100		
52	0.0	0.0	44.5
51	54.7	0.0	44.5#





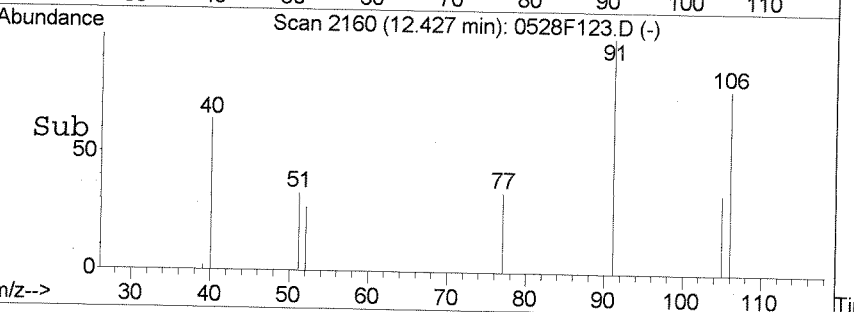
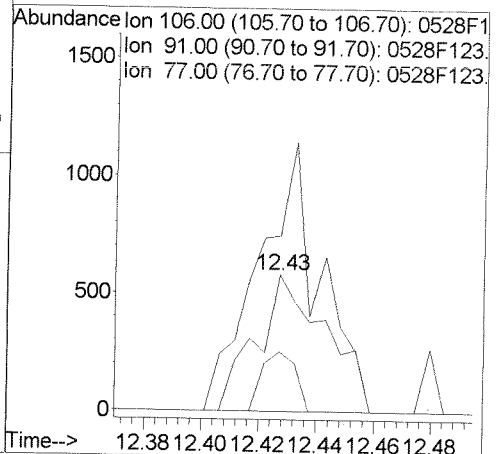
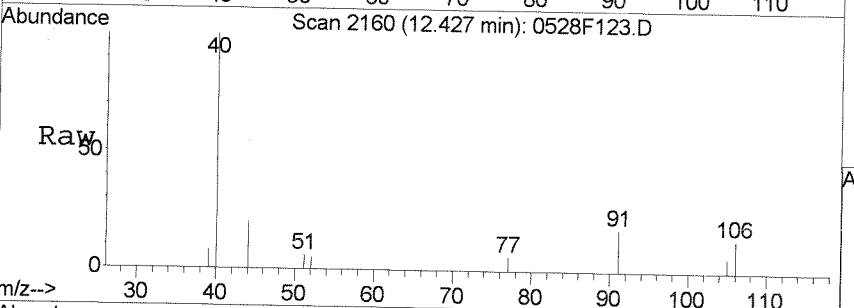
#34  
 Toluene  
 Concen: 0.74 PPB  
 RT: 9.46 min Scan# 1592  
 Delta R.T. 0.08 min  
 Lab File: 0528F123.D  
 Acq: 29 May 2010 4:34 am

Tgt Ion	Resp	Lower	Upper
92	14813		
91	156.1	139.7	199.7
65	17.4	0.0	47.9



#43  
 m,p-Xylenes  
 Concen: 0.07 PPB  
 RT: 12.43 min Scan# 2160  
 Delta R.T. 0.01 min  
 Lab File: 0528F123.D  
 Acq: 29 May 2010 4:34 am

Tgt Ion	Resp	Lower	Upper
106	976		
91	128.2	165.7	225.7#
77	43.7	0.0	53.0





## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

## Volatile Organic Compounds

Sample Name: Trip Blank  
 Lab Code: K1005067-005  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/29/10	05/29/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/29/10	05/29/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Methylene Chloride	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/29/10	05/29/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/29/10	05/29/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/29/10	05/29/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/29/10	05/29/10	KWG1005071	
Toluene	0.48	J	5.0	0.18	1	05/29/10	05/29/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/29/10	05/29/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/29/10	05/29/10	KWG1005071	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichlorobenzene	ND	U	5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/29/10	05/29/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/29/10	05/29/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/29/10	05/29/10	KWG1005071	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: 05/17/2010  
 Date Received: 05/19/2010

Volatile Organic Compounds

Sample Name: Trip Blank  
 Lab Code: K1005067-005  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	ND	U	1.0	0.13	1	05/29/10	05/29/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	97	79-131	05/29/10	Acceptable
4-Bromofluorobenzene	91	82-122	05/29/10	Acceptable
Dibromofluoromethane	91	86-124	05/29/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments:

## Exception Report

**Data File:** J:\MS13\DATA\052810-624\0528F124.D  
**Lab ID:** K1005067-005  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/29/2010 05:02  
**Date Quantitated:** 06/01/2010 17:05  
**Batch ID:** KWG1005070  
**Analysis Method:** 624  
**ListJoinID:** LJ11571

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: Ann G/1/10

Secondary Review: HBG-170

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>	V	<b>Matrix:</b>	WATER
<b>Prod Code:</b>	624 VOC_FP	<b>Collect Date:</b>	05/17/2010	<b>Receive Date:</b>	05/19/2010

<b>Analysis Lot:</b>	KWG1005070	<b>Prep Lot:</b>	KWG1005071	<b>Report Group:</b>	K1005067
<b>Analysis Method:</b>	624	<b>Prep Method:</b>	METHOD		
<b>Prep Ref:</b>	913233	<b>Prep Date:</b>	05/29/2010		

<b>Quant Method:</b>	J:\MS13\METHODS\020810MS13_6	<b>Calibration ID:</b>	CAL9204
<b>Title:</b>	Volatile Organic Compounds	<b>Report List ID:</b>	LJ11571
<b>Tune Ref:</b>	J:\MS13\DATA\052810-624\0528F106.D	<b>Method ID:</b>	MJ158
<b>MB Ref:</b>	J:\MS13\DATA\052810-624\0528F108.D	<b>Quant based on Report List</b>	

<b>Data File:</b>	J:\MS13\DATA\052810-624\0528F124.D	<b>Instrument:</b>	MS13
<b>Acqu Date:</b>	05/29/2010 05:02	<b>Quant Date:</b>	06/01/2010 17:05
<b>Run Type:</b>	SMPL	<b>Vial:</b>	16
<b>Lab ID:</b>	K1005067-005	<b>Dilution:</b>	1.0
		<b>Soln Conc. Units:</b>	PPB

### Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	0.00	96	576914	20.00	OK
2	Chlorobenzene-d5	12.03	-0.01	82	228741	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	0.00	152	201609	20.00	OK

### Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.12	0.00	0.00	113	126432	18.27	91	86-124	OK
1	Toluene-d8	9.30	0.00	0.00	98	543531	19.31	97	79-131	OK
2	4-Bromofluorobenzene	13.70	0.00	0.00	95	193463	18.15	91	82-122	OK

### Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
								Final Conc. Units: ug/L		
1	Chloromethane				50	0		0.23	U	
1	Vinyl Chloride				62	0		0.16	U	
1	Bromomethane				96	0		0.28	U	
1	Chloroethane				49	0		0.16	U	
1	Trichlorofluoromethane				101	0		0.11	U	
1	Acrolein				56	0		3.3	U	
1	1,1-Dichloroethene				96	0		0.15	U	
1	Methylene Chloride	2.93		0.00	84	509	0.0600	0.12	U	
1	Acrylonitrile				53	0		0.61	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	1,1-Dichloroethane				63	0		0.11	U	
1	Chloroform				83	0		0.11	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.14	U	
1	Carbon Tetrachloride				117	0		0.047	U	
1	Benzene				78	0		0.14	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 c: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS13\DATA\052810-624\0528F124.D

Acqu Date: 05/29/2010 05:02

Quant Date: 06/01/2010 17:05

Instrument: MS13

Run Type: SMPL

Vial: 16

Lab ID: K1005067-005

Dilution: 1.0

Soln Conc. Units: PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	Trichloroethene (TCE)				95	0		0.13	U	
1	1,2-Dichloropropane				63	0		0.17	U	
1	Bromodichloromethane				83	0		0.12	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.29	U	
1	cis-1,3-Dichloropropene				75	0		0.13	U	
1	Toluene	9.46		0.00	92	9328m	0.4800	0.48	J	
2	trans-1,3-Dichloropropene				75	0		0.10	U	
2	1,1,2-Trichloroethane				83	0		0.16	U	
2	Tetrachloroethene (PCE)				164	0		0.14	U	
2	Dibromochloromethane				129	0		0.15	U	
2	Chlorobenzene				112	0		0.098	U	
2	Ethylbenzene				106	0		0.11	U	
2	m,p-Xylenes				106	0		0.26	U	
2	o-Xylene				106	0		0.13	U	
2	Bromoform				173	0		0.37	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.11	U	
3	1,3-Dichlorobenzene				146	0		0.16	U	
3	1,4-Dichlorobenzene				146	0		0.15	U	
3	1,2-Dichlorobenzene				146	0		0.13	U	

Prep Amount: 5 ml  
Prep Final Vol: 5 ml

Dilution: 1.0  
Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
F: Analyte detected above MDL, but below MRL  
B: Hit above MRL also found in Method Blank  
E: Analyte concentration above high point of ICAL  
N: Presumptive evidence of compound

D: Result from dilution  
m: Manual integration performed  
d: Compound manually deleted  
NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
#: Acceptance criteria not applicable  
?: Insufficient information to determine acceptance  
e: Result >= MRL, but MRL less than low point of ICAL  
c: check for co-elution

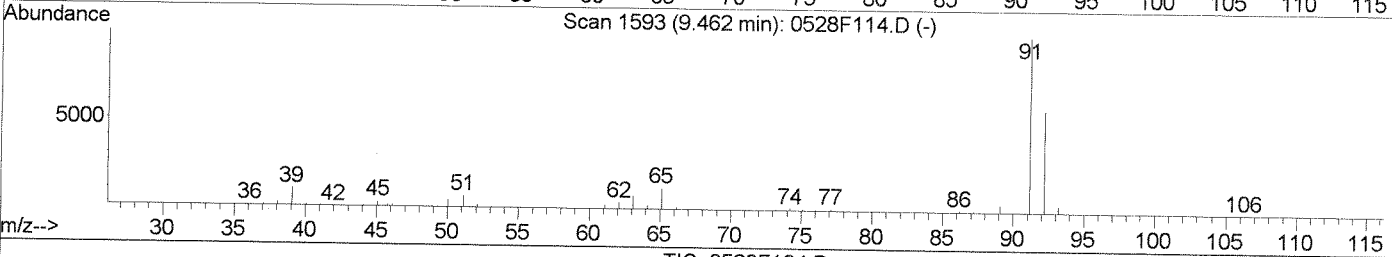
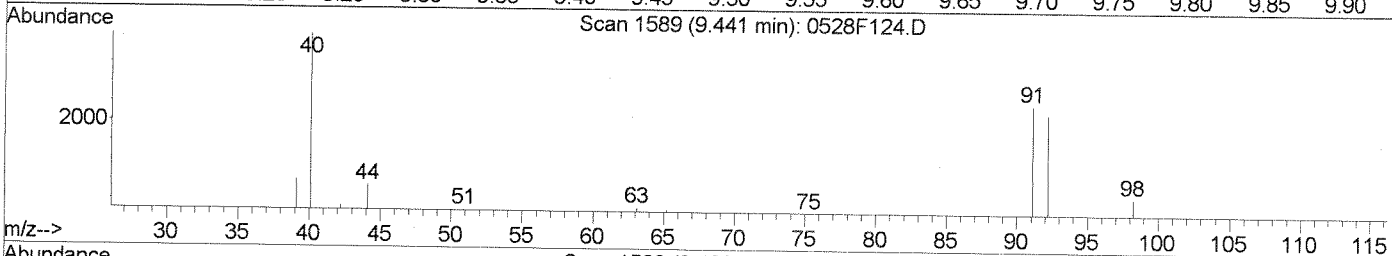
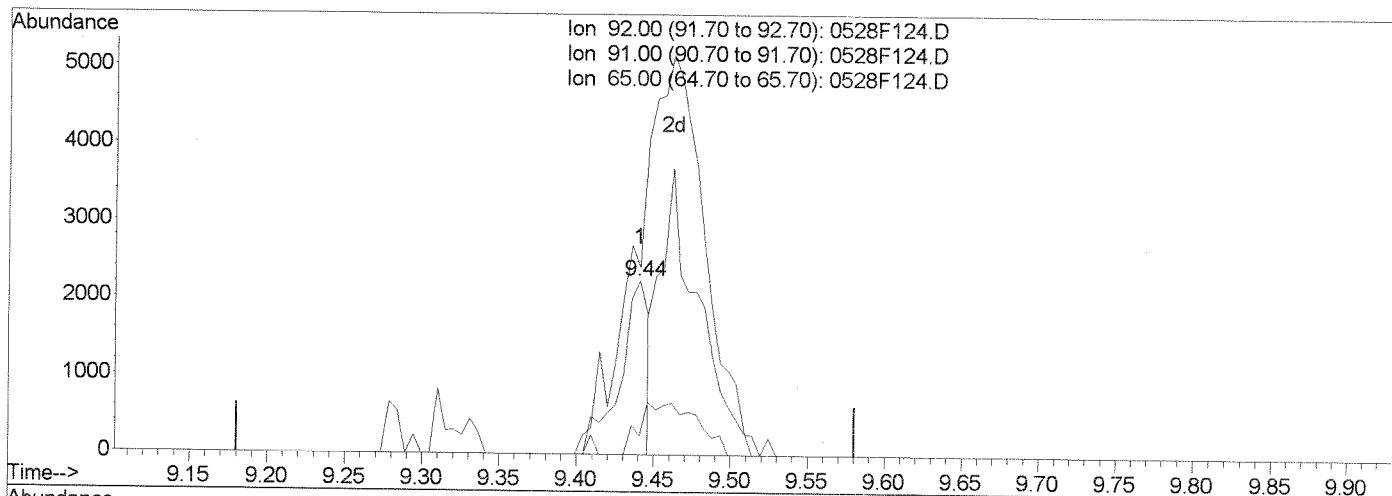
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\052810-624\0528F124.D  
 Acq On : 29 May 2010 5:02 am  
 Sample : K5067-005 TB# 42436  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 1 17:05 2010

Vial: 16  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Fri May 28 23:53:25 2010  
 Response via : Multiple Level Calibration



TIC: 0528F124.D

(34) Toluene (CMT)

9.44min 0.15PPB

response 2880

Ion	Exp%	Act%
92.00	100	100
91.00	169.70	107.94#
65.00	17.90	10.92
0.00	0.00	0.00

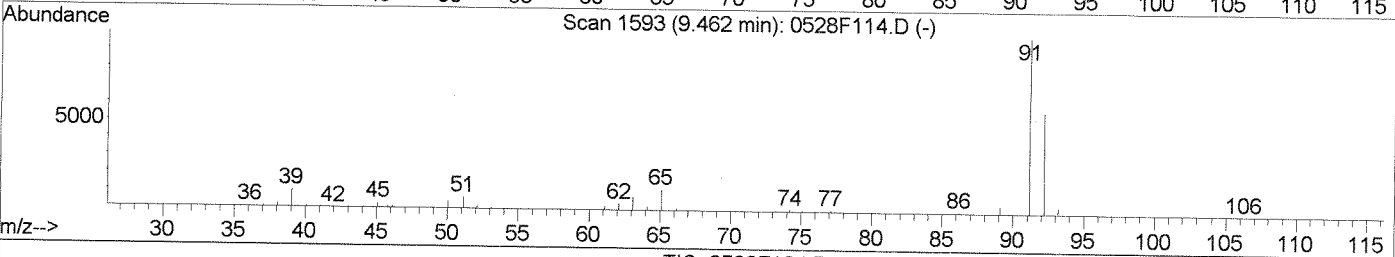
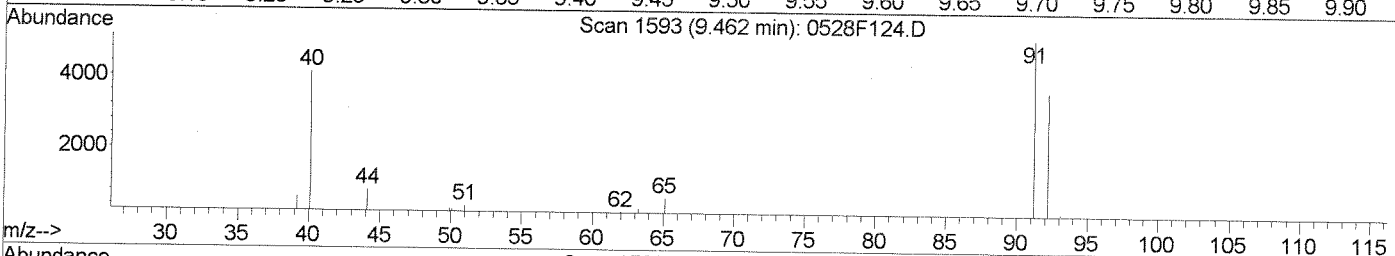
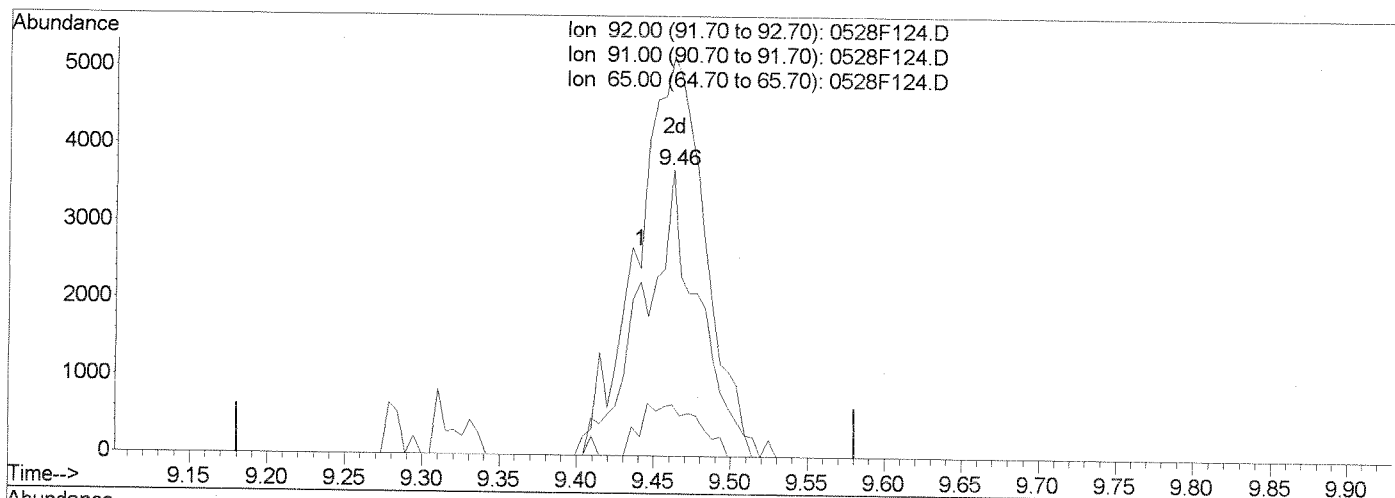
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\052810-624\0528F124.D  
 Acq On : 29 May 2010 5:02 am  
 Sample : K5067-005 TB# 42436  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 1 17:05 2010

Vial: 16  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Fri May 28 23:53:25 2010  
 Response via : Multiple Level Calibration



(34) Toluene (CMT)

9.46min 0.48PPB m

response 9328

Ion	Exp%	Act%
92.00	100	100
91.00	169.70	139.63#
65.00	17.90	17.95
0.00	0.00	0.00

S.P.

*CMK 6/1/10*

*HB6170*

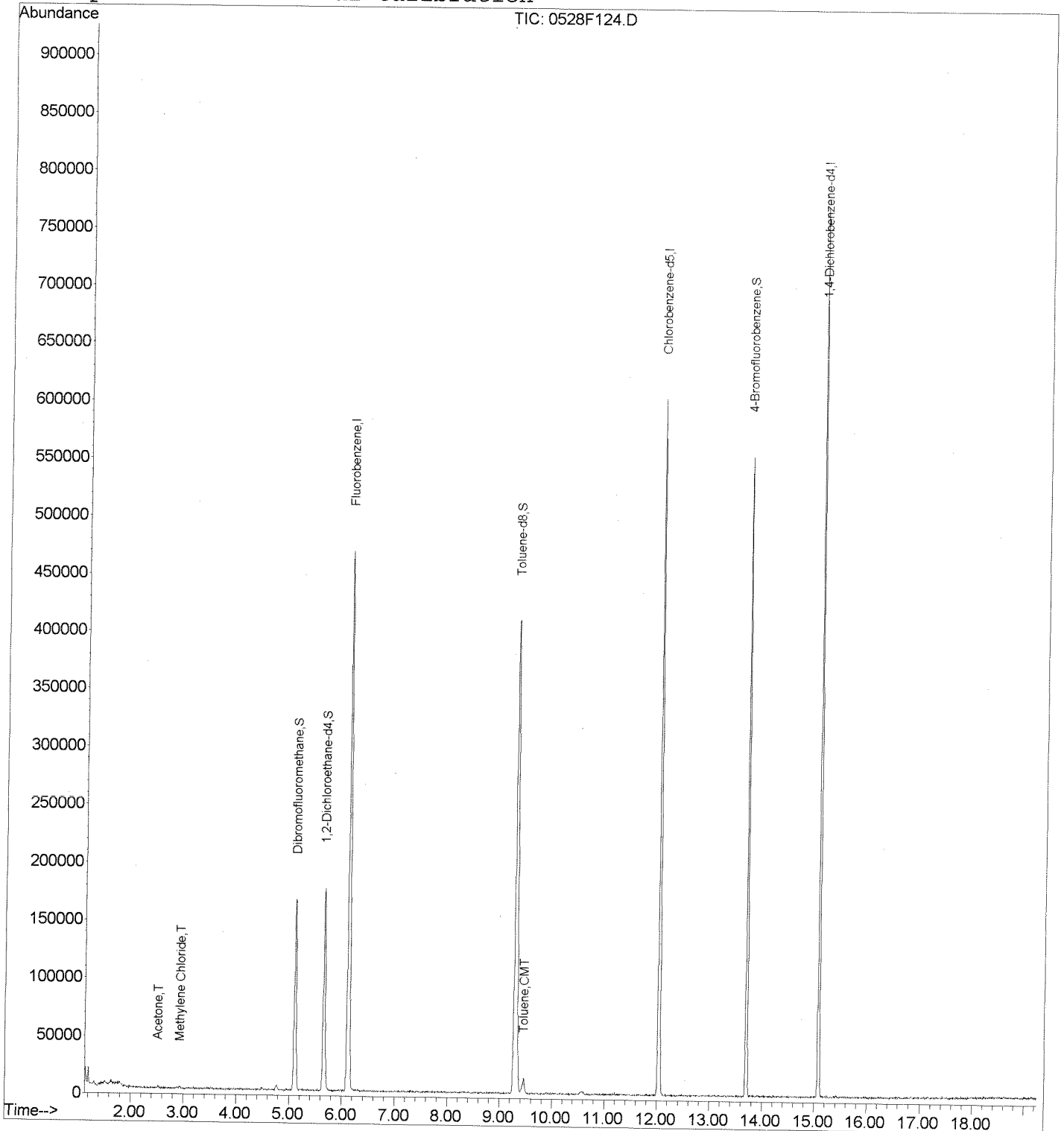
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\052810-624\0528F124.D  
Acq On : 29 May 2010 5:02 am  
Sample : K5067-005 TB# 42436  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 1 17:05 2010

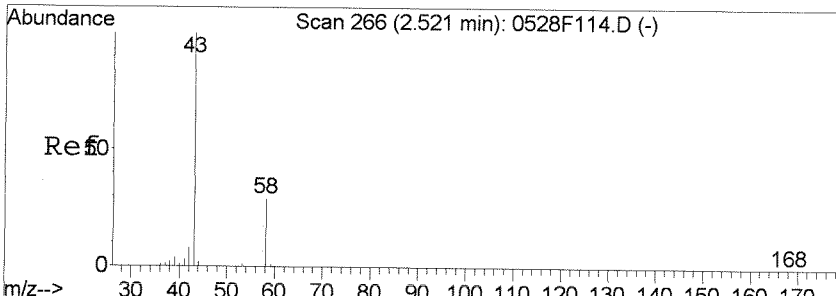
Vial: 16  
Operator: CMK  
Inst : MS13  
Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
Title : VOA MS13 EPA Method 8260B  
Last Update : Fri May 28 23:53:25 2010  
Response via : Initial Calibration

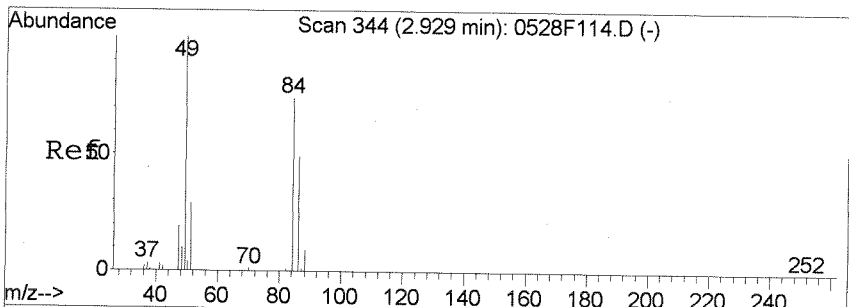
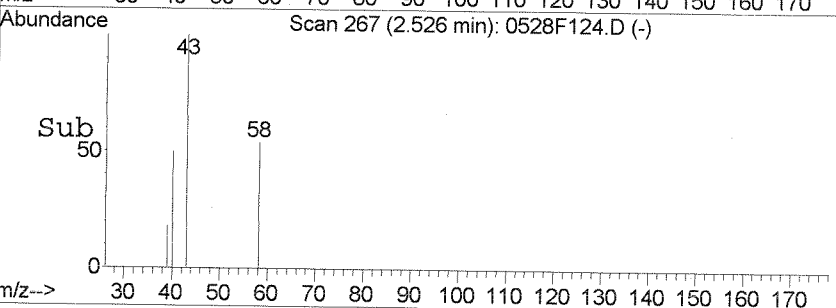
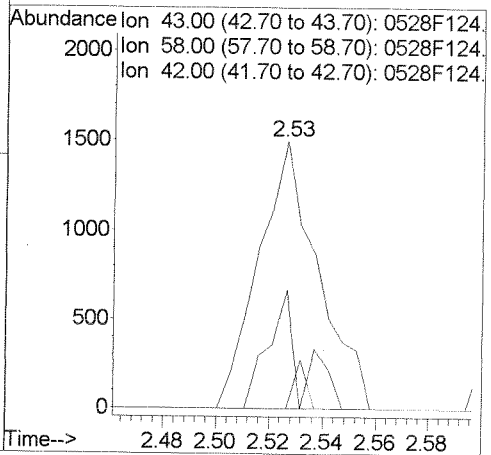
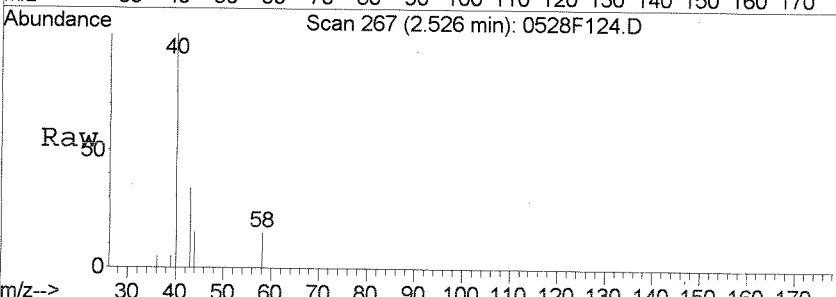






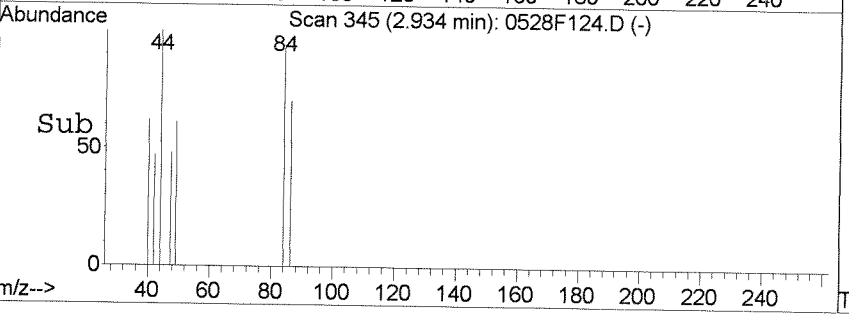
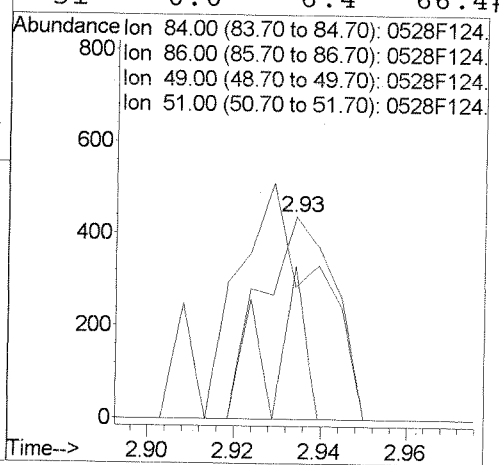
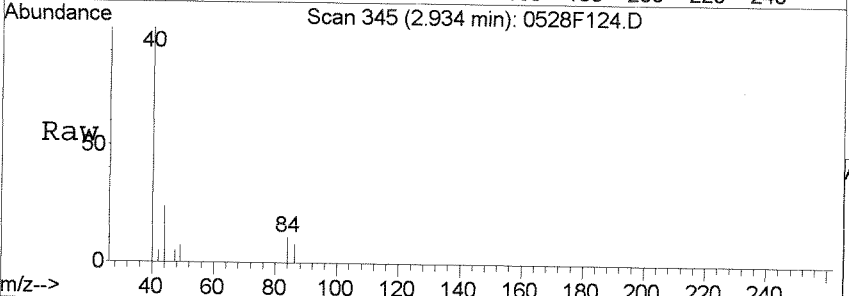
#11  
 Acetone  
 Concen: 1.42 PPB  
 RT: 2.53 min Scan# 267  
 Delta R.T. -0.02 min  
 Lab File: 0528F124.D  
 Acq: 29 May 2010 5:02 am

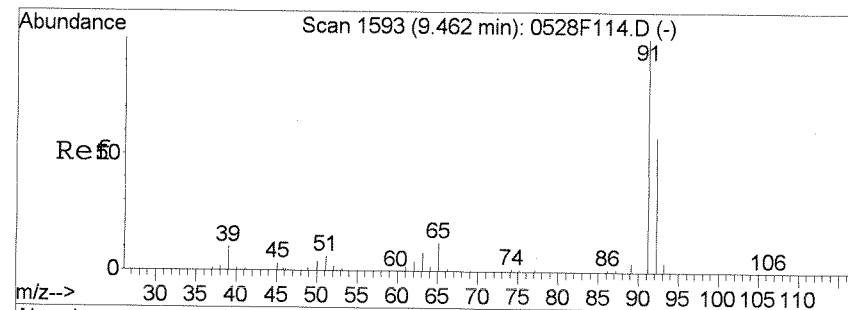
Tgt Ion	Resp	Lower	Upper
43	2304		
58	44.4	4.3	64.3
42	0.0	0.0	37.4



#13  
 Methylene Chloride  
 Concen: 0.06 PPB  
 RT: 2.93 min Scan# 345  
 Delta R.T. -0.02 min  
 Lab File: 0528F124.D  
 Acq: 29 May 2010 5:02 am

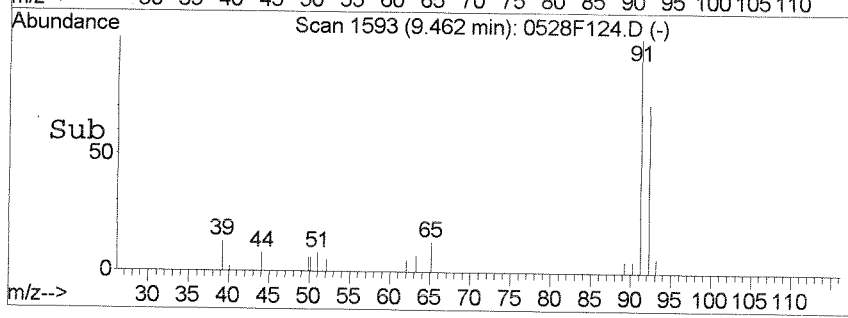
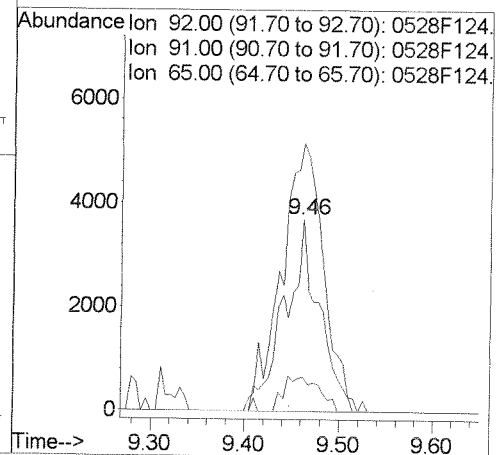
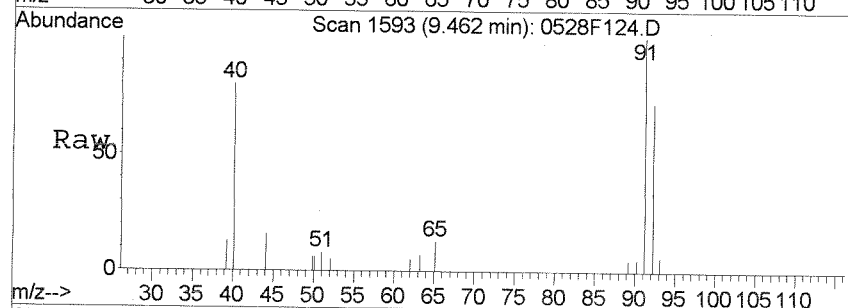
Tgt Ion	Resp	Lower	Upper
84	509		
86	75.3	34.5	94.5
49	65.3	91.3	151.3#
51	0.0	6.4	66.4#





#34  
 Toluene  
 Concen: 0.48 PPB m  
 RT: 9.46 min Scan# 1593  
 Delta R.T. 0.08 min  
 Lab File: 0528F124.D  
 Acq: 29 May 2010 5:02 am

Tgt Ion	Resp	Lower	Upper
92	9328		
91	139.6	139.7	199.7#
65	17.9	0.0	47.9



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: NA  
 Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank  
 Lab Code: KWG1005071-4  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/28/10	05/28/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/28/10	05/28/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
Methylene Chloride	0.23	J	5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/28/10	05/28/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/28/10	05/28/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/28/10	05/28/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/28/10	05/28/10	KWG1005071	
Toluene	ND	U	5.0	0.18	1	05/28/10	05/28/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/28/10	05/28/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/28/10	05/28/10	KWG1005071	
1,1,2,2-Tetrachloroethane	0.11	J	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichlorobenzene	0.14	J	5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/28/10	05/28/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/28/10	05/28/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/28/10	05/28/10	KWG1005071	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank **Units:** ug/L  
**Lab Code:** KWG1005071-4 **Basis:** NA  
**Extraction Method:** METHOD **Level:** Low  
**Analysis Method:** 624

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	ND	U	1.0	0.13	1	05/28/10	05/28/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	97	79-131	05/28/10	Acceptable
4-Bromofluorobenzene	93	82-122	05/28/10	Acceptable
Dibromofluoromethane	92	86-124	05/28/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments: \_\_\_\_\_

# Exception Report

**Data File:** J:\MS13\DATA\052810-624\0528F108.D  
**Lab ID:** KWG1005071-4  
**RunType:** MB  
**Matrix:** WATER

**Date Acquired:** 05/28/2010 20:46  
**Date Quantitated:** 05/28/2010 21:07  
**Batch ID:** KWG1005070  
**Analysis Method:** 624  
**MethodJoinID:** MJ158

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: Ann 5/28/10  
 Secondary Review: HB 6-1-10

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>	<b>Matrix:</b>	WATER
<b>Prod Code:</b>	624 VOC_FP	<b>Collect Date:</b>	<b>Receive Date:</b>	05/28/2010
<b>Analysis Lot:</b>	KWG1005070	<b>Prep Lot:</b>	KWG1005071	<b>Report Group:</b>
<b>Analysis Method:</b>	624	<b>Prep Method:</b>	METHOD	
<b>Prep Ref:</b>	913247	<b>Prep Date:</b>	05/28/2010	
<b>Quant Method:</b>	J:\MS13\METHODS\020810MS13_6	<b>Calibration ID:</b>	CAL9204	
<b>Title:</b>		<b>Method ID:</b>	MJ158	<b>Quant based on Method</b>
<b>Tune Ref:</b>	J:\MS13\DATA\052810-624\0528F106.D			
<b>MB Ref:</b>				
<b>Data File:</b>	J:\MS13\DATA\052810-624\0528F108.D	<b>Instrument:</b>	MS13	
<b>Acqu Date:</b>	05/28/2010 20:46	<b>Quant Date:</b>	05/28/2010 21:07	<b>Vial:</b>
<b>Run Type:</b>	MB			4
<b>Lab ID:</b>	KWG1005071-4			<b>Dilution:</b>
				1.0
				<b>Soln Conc. Units:</b>
				PPB

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	0.00	96	582035	20.00	OK
2	Chlorobenzene-d5	12.03	-0.01	82	230841	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	0.00	152	204168	20.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.11	-0.01	0.00	113	128176	18.36	92	86-124	OK
1	1,2-Dichloroethane-d4	5.66	0.00	0.00	65	167189	21.77	109	70-130	OK
1	Toluene-d8	9.30	0.00	0.00	98	548875	19.33	97	79-131	OK
2	4-Bromofluorobenzene	13.70	0.00	0.00	95	200308	18.62	93	82-122	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.19	U	
1	Chloromethane				50	0		0.23	U	
1	Vinyl Chloride				62	0		0.16	U	
1	Bromomethane				96	0		0.28	U	
1	Chloroethane				49	0		0.16	U	
1	Trichlorofluoromethane				101	0		0.11	U	
1	Acrolein	2.39		0.00	56	576	0.9300	3.3	U	
1	Trichlorotrifluoroethane				151	0		0.13	U	
1	1,1-Dichloroethene				96	0		0.15	U	
1	Acetone	2.52		0.00	43	5057	3.09	3.09	J	
1	Carbon Disulfide	2.59		0.00	76	986	0.0400	0.13	U	
1	Methylene Chloride	2.93		0.00	84	1820	0.2300	0.230	J	
1	Acrylonitrile				53	0		0.61	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File:	J:\MS13\DATA\052810-624\0528F108.D	Instrument:	MS13
Acqu Date:	05/28/2010 20:46	Quant Date:	05/28/2010 21:07
Run Type:	MB	Vial:	4
Lab ID:	KWG1005071-4	Dilution:	1.0
		Soln Conc. Units:	PPB

**Target Compounds**

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,1-Dichloroethane				63	0		0.11	U	
1	Vinyl Acetate				86	0		0.57	U	
1	cis-1,2-Dichloroethene				96	0		0.15	U	
1	2-Butanone (MEK)	4.50	0.01	0.00	72	1367	1.98	2.6	U	
1	Chloroform				83	0		0.11	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.14	U	
1	Carbon Tetrachloride				117	0		0.047	U	
1	Benzene				78	0		0.14	U	
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	Trichloroethene (TCE)				95	0		0.13	U	
1	1,2-Dichloropropane				63	0		0.17	U	
1	Bromodichloromethane				83	0		0.12	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.29	U	
1	cis-1,3-Dichloropropene				75	0		0.13	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.5	U	
1	Toluene				92	0		0.18	U	
2	trans-1,3-Dichloropropene				75	0		0.10	U	
2	1,1,2-Trichloroethane				83	0		0.16	U	
2	Tetrachloroethene (PCE)				164	0		0.14	U	
2	2-Hexanone	11.07	0.01	0.00	43	2436	0.6800	2.4	U	
2	Dibromochloromethane				129	0		0.15	U	
2	Chlorobenzene	12.08	0.01	0.00	112	902	0.0400	0.098	U	
2	Ethylbenzene				106	0		0.11	U	
2	m,p-Xylenes	12.43		0.00	106	959	0.0700	0.26	U	
2	o-Xylene				106	0		0.13	U	
2	Styrene				103	0		0.14	U	
2	Bromoform				173	0		0.37	U	
3	1,1,2,2-Tetrachloroethane	13.99		0.00	83	709	0.1100	0.110	J	
3	1,3-Dichlorobenzene	14.98		0.00	146	1564	0.1100	0.16	U	
3	1,4-Dichlorobenzene	15.11		0.00	146	1788	0.1200	0.15	U	
3	1,2-Dichlorobenzene	15.52		0.00	146	1982	0.1400	0.140	J	
	Bis(chloromethyl) Ether				0	0		10	U	NR

Prep Amount: 5 ml      Dilution: 1.0  
 Prep Final Vol: 5 ml      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

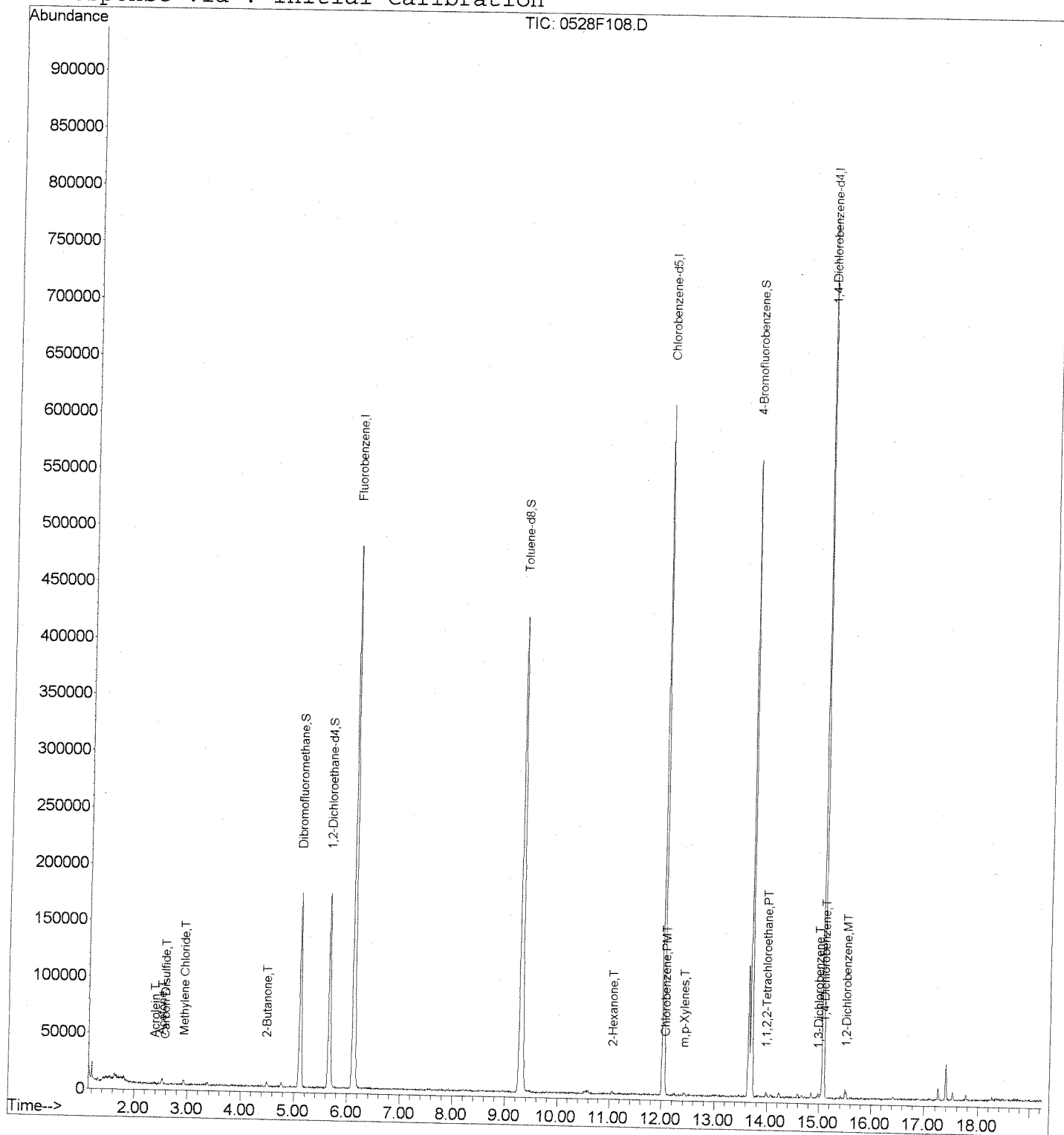
\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS13\DATA\052810-624\0528F108.D  
 Acq On : 28 May 2010 8:46 pm  
 Sample : MB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: May 28 21:07 2010

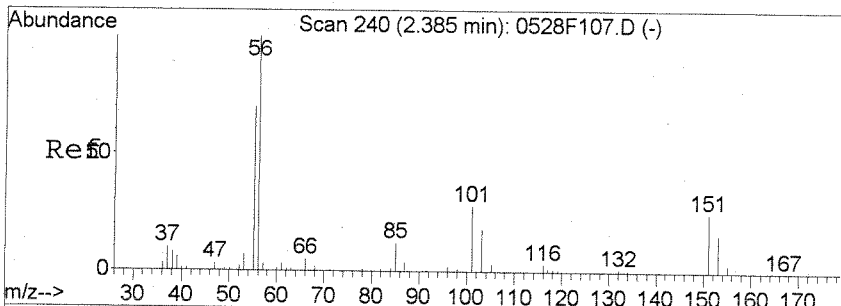
Vial: 4  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Fri May 28 21:07:16 2010  
 Response via : Initial Calibration

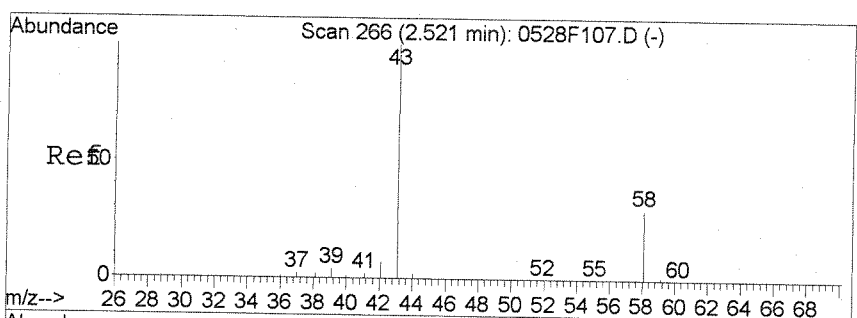
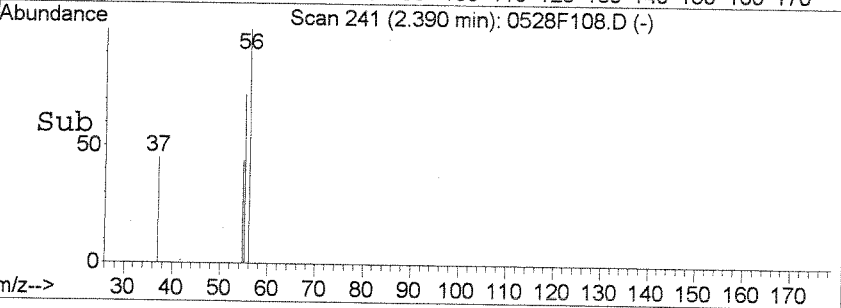
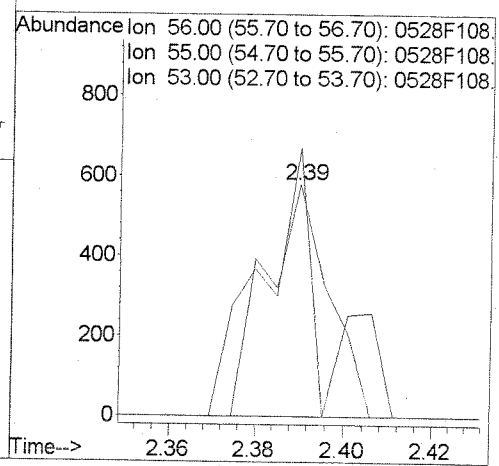
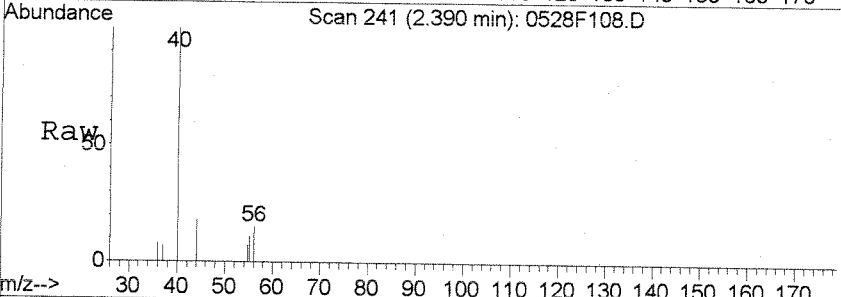






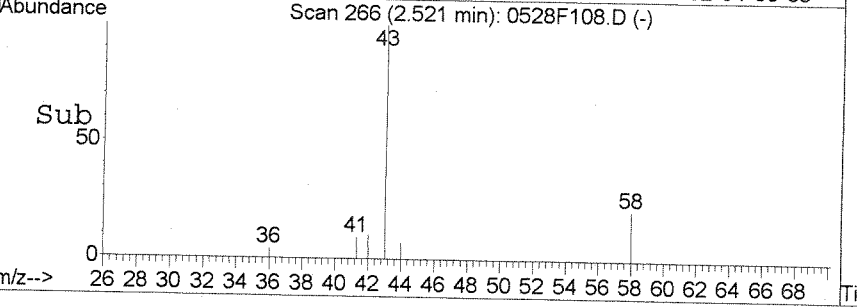
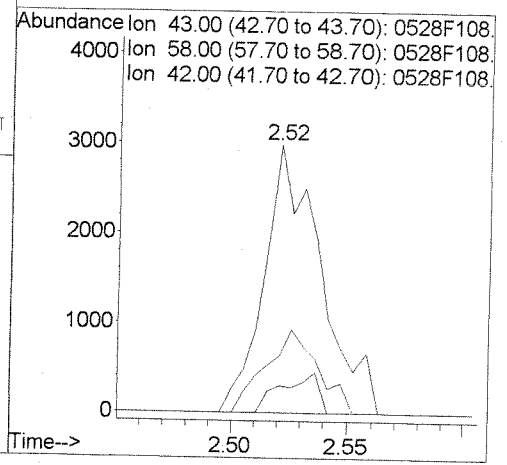
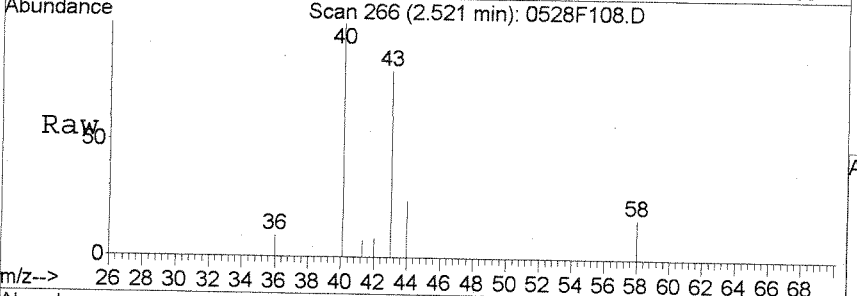
#8  
 Acrolein  
 Concen: 0.93 PPB  
 RT: 2.39 min Scan# 241  
 Delta R.T. -0.02 min  
 Lab File: 0528F108.D  
 Acq: 28 May 2010 8:46 pm

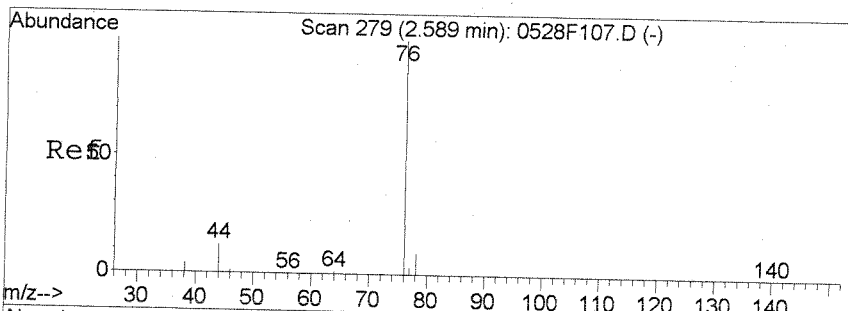
Tgt Ion	Resp	Lower	Upper
56	100		
55	115.5	37.8	97.8#
53	0.0	0.0	35.8



#11  
 Acetone  
 Concen: 3.09 PPB  
 RT: 2.52 min Scan# 266  
 Delta R.T. -0.02 min  
 Lab File: 0528F108.D  
 Acq: 28 May 2010 8:46 pm

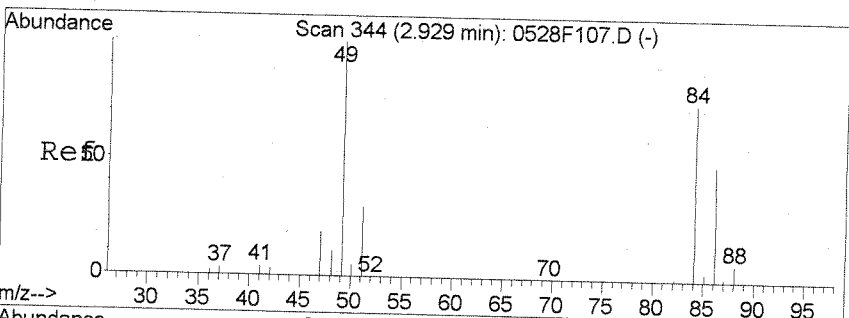
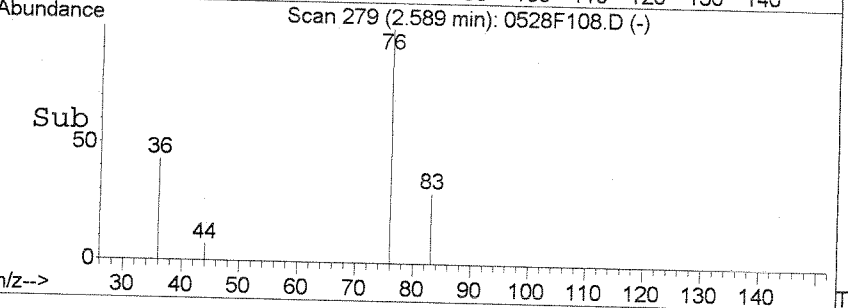
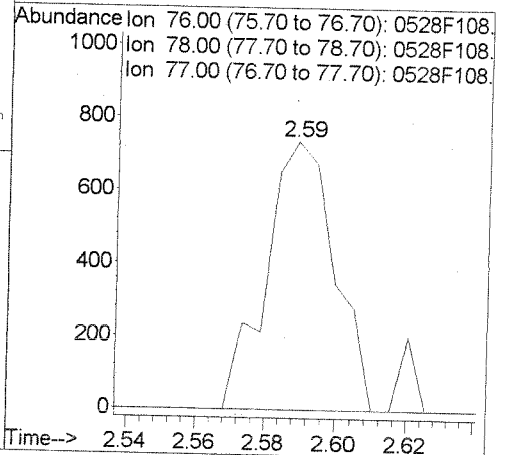
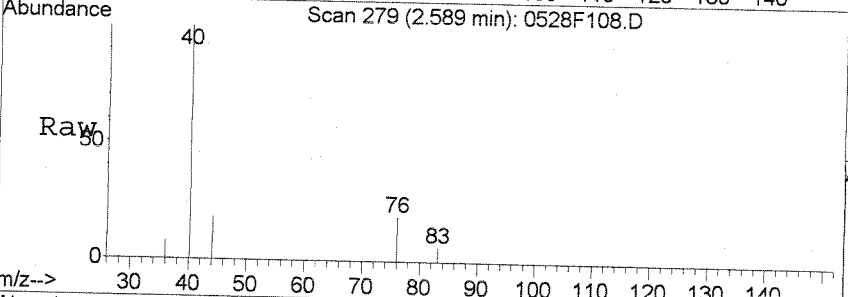
Tgt Ion	Resp	Lower	Upper
43	100		
58	21.3	4.3	64.3
42	10.1	0.0	37.4





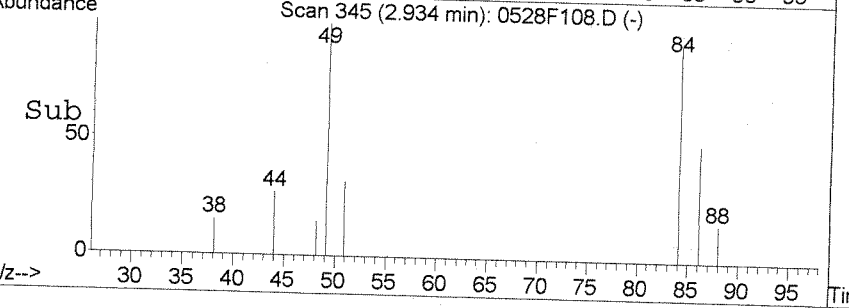
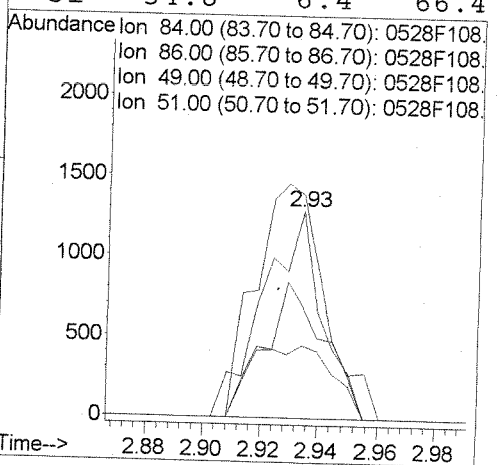
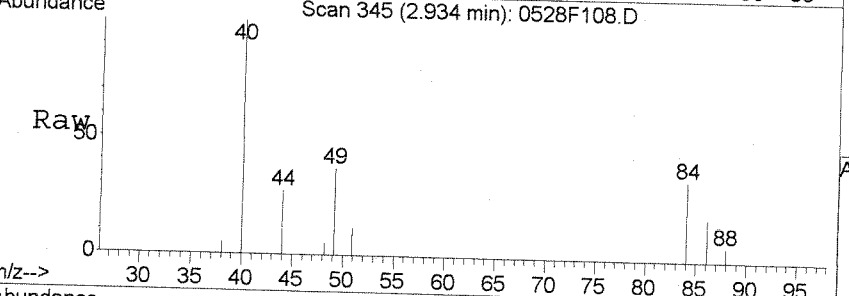
#12  
 Carbon Disulfide  
 Concen: 0.04 PPB  
 RT: 2.59 min Scan# 279  
 Delta R.T. -0.03 min  
 Lab File: 0528F108.D  
 Acq: 28 May 2010 8:46 pm

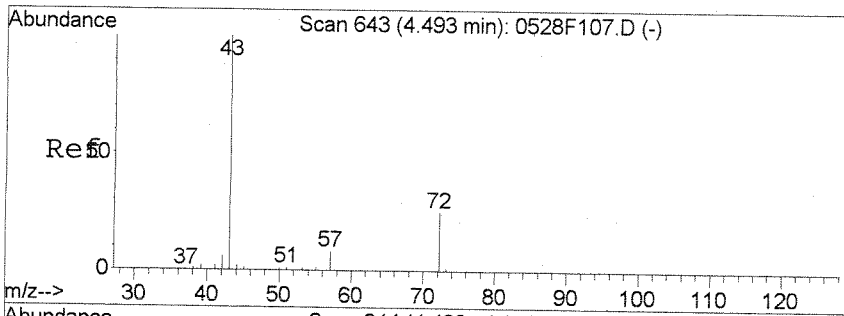
Tgt Ion	Resp	Lower	Upper
76	100		
78	0.0	0.0	38.8
77	0.0	0.0	32.6



#13  
 Methylene Chloride  
 Concen: 0.23 PPB  
 RT: 2.93 min Scan# 345  
 Delta R.T. -0.02 min  
 Lab File: 0528F108.D  
 Acq: 28 May 2010 8:46 pm

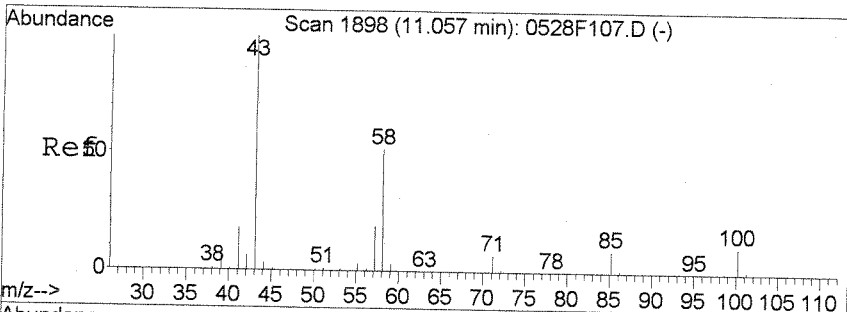
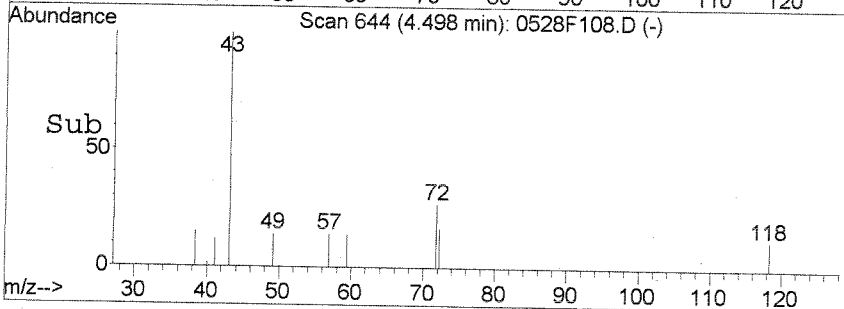
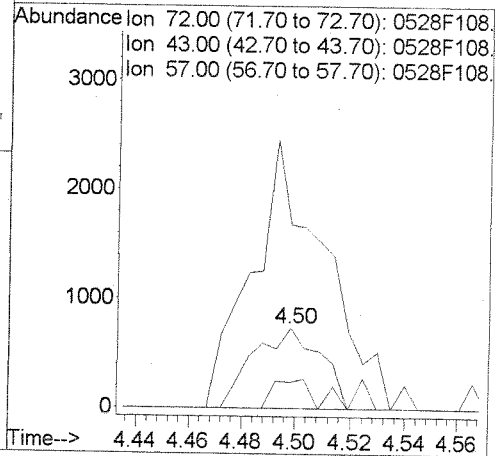
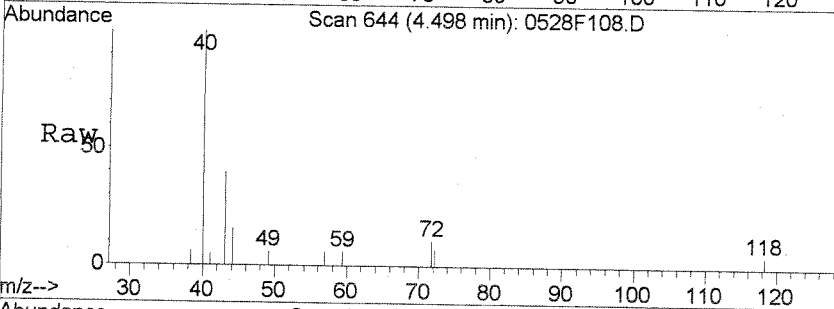
Tgt Ion	Resp	Lower	Upper
84	100		
86	53.8	34.5	94.5
49	107.9	91.3	151.3
51	34.8	6.4	66.4





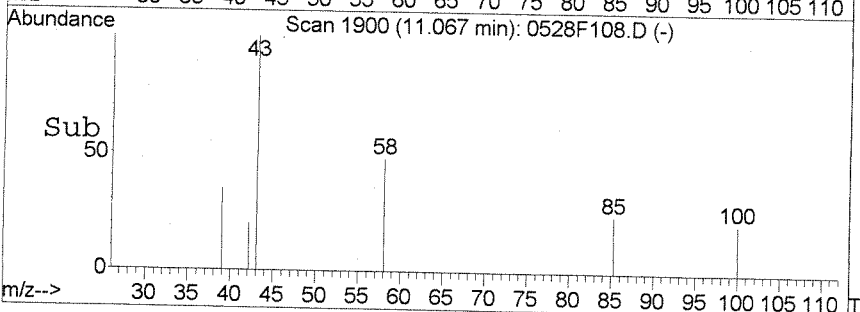
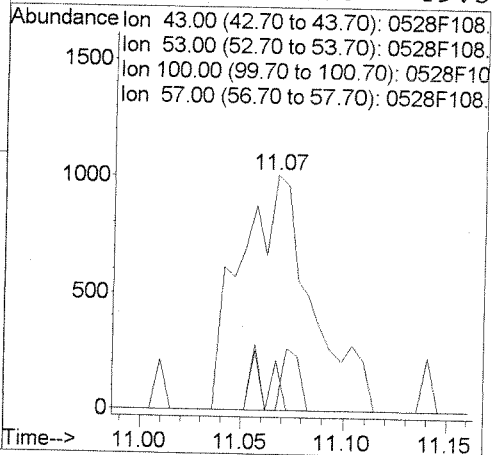
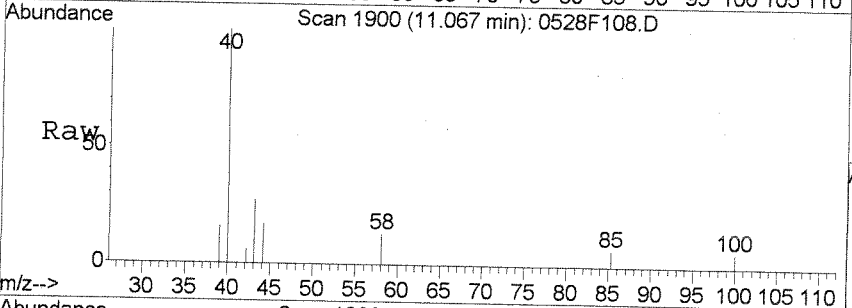
#19  
 2-Butanone  
 Concen: 1.98 PPB  
 RT: 4.50 min Scan# 644  
 Delta R.T. -0.00 min  
 Lab File: 0528F108.D  
 Acq: 28 May 2010 8:46 pm

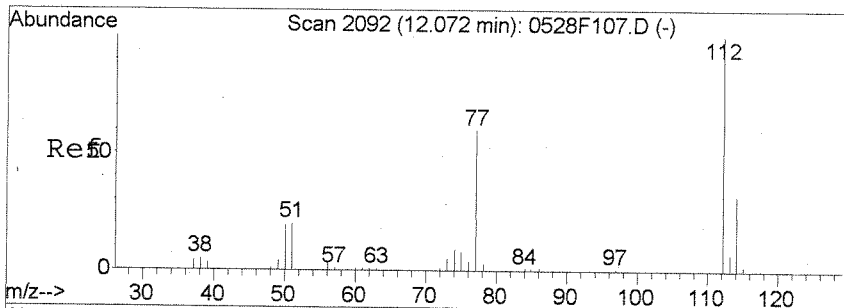
Tgt Ion	Resp	Lower	Upper
72	1367		
72	100		
43	228.4	326.0	386.0#
57	32.7	0.0	58.5



#39  
 2-Hexanone  
 Concen: 0.68 PPB  
 RT: 11.07 min Scan# 1900  
 Delta R.T. -0.02 min  
 Lab File: 0528F108.D  
 Acq: 28 May 2010 8:46 pm

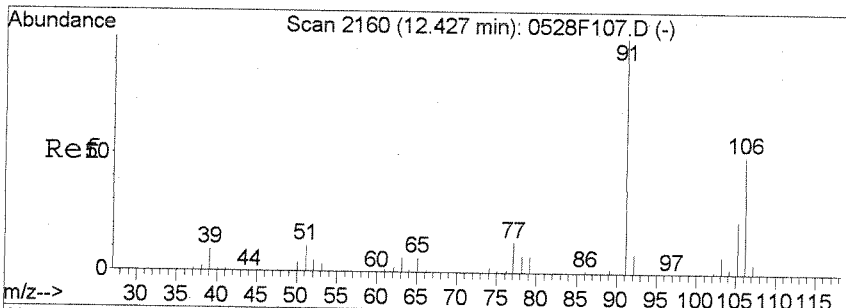
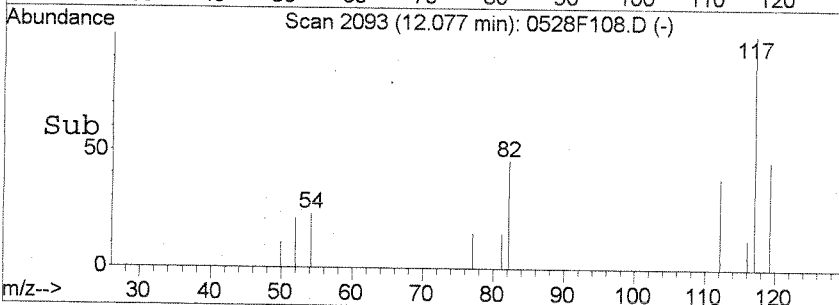
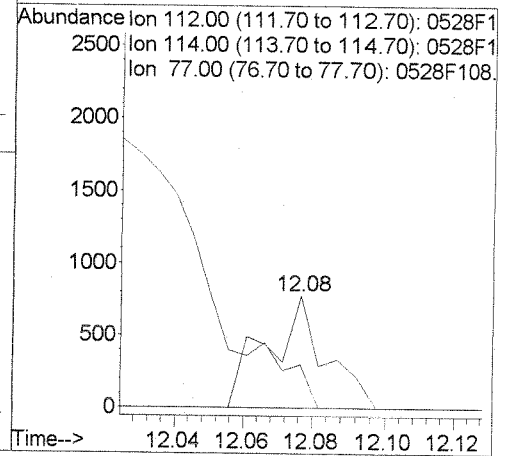
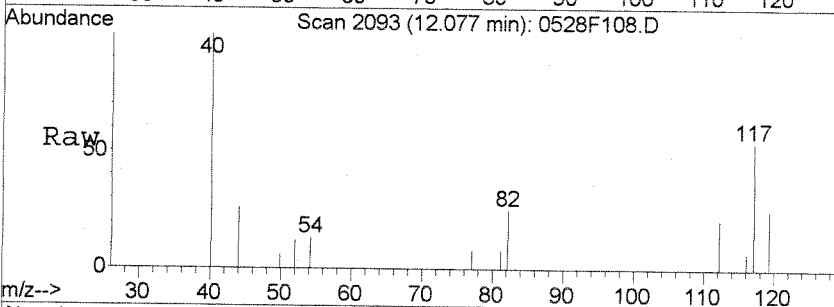
Tgt Ion	Resp	Lower	Upper
43	2436		
43	100		
53	0.0	0.0	31.5
100	21.1	0.0	43.2
57	0.0	0.0	49.5





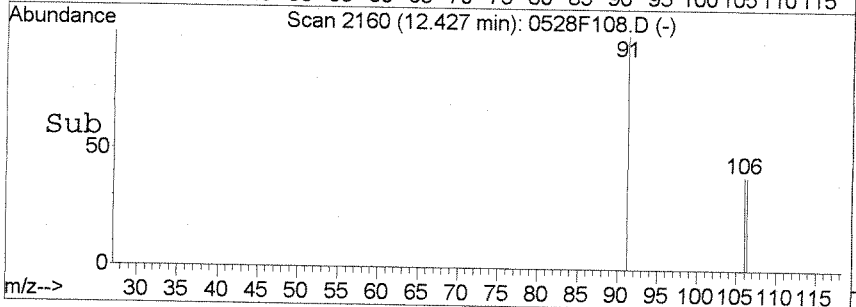
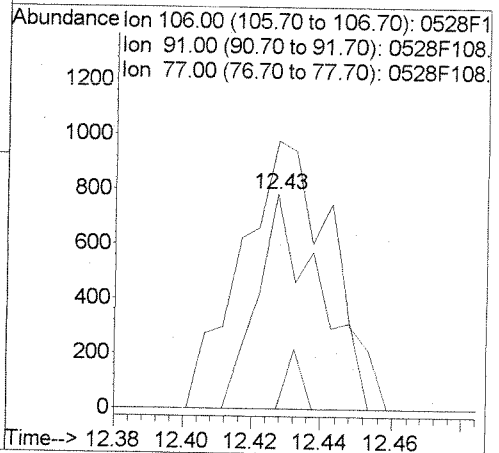
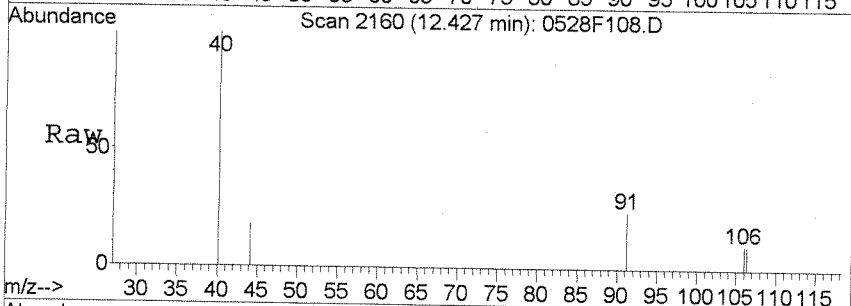
#41  
 Chlorobenzene  
 Concen: 0.04 PPB  
 RT: 12.08 min Scan# 2093  
 Delta R.T. 0.01 min  
 Lab File: 0528F108.D  
 Acq: 28 May 2010 8:46 pm

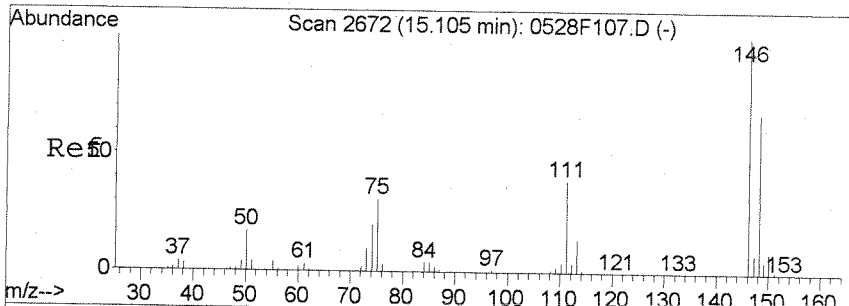
Tgt Ion	Resp	Lower	Upper
112	902	100	
114	0.0	2.9	62.9#
77	38.9	25.6	85.6



#43  
 m,p-Xylenes  
 Concen: 0.07 PPB  
 RT: 12.43 min Scan# 2160  
 Delta R.T. 0.02 min  
 Lab File: 0528F108.D  
 Acq: 28 May 2010 8:46 pm

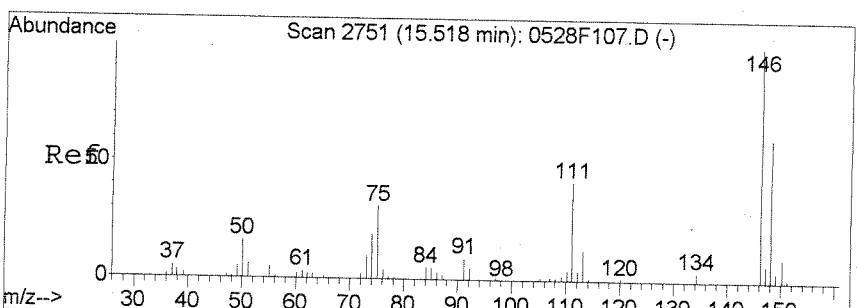
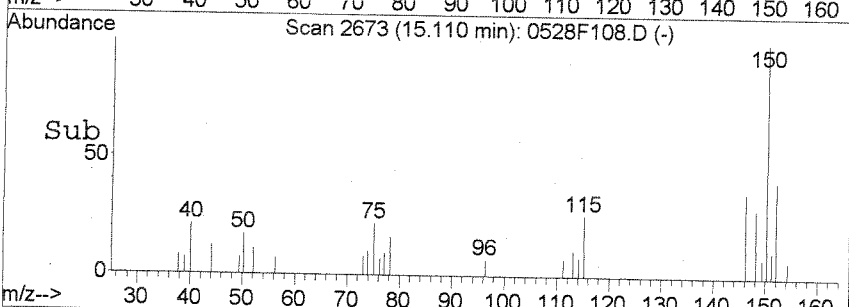
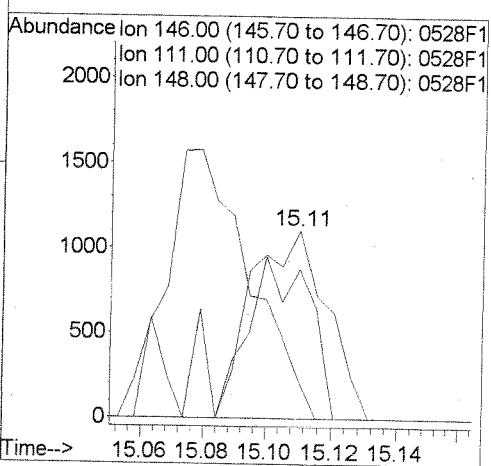
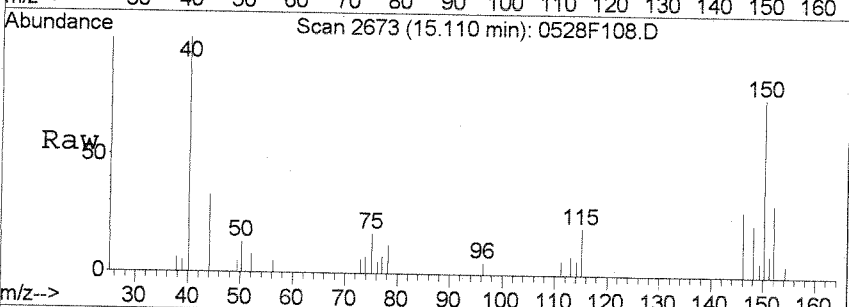
Tgt Ion	Resp	Lower	Upper
106	959	100	
91	124.6	165.7	225.7#
77	0.0	0.0	53.0





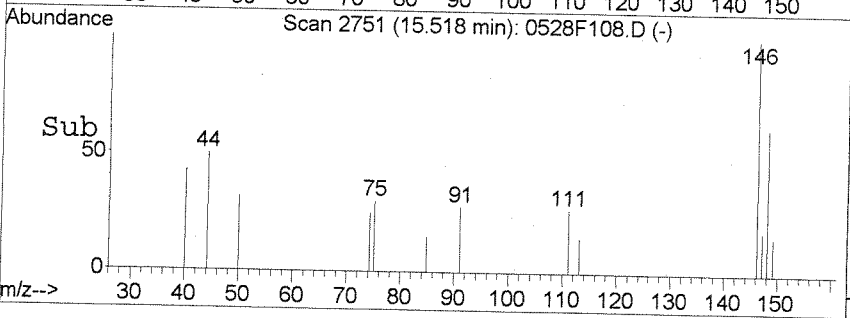
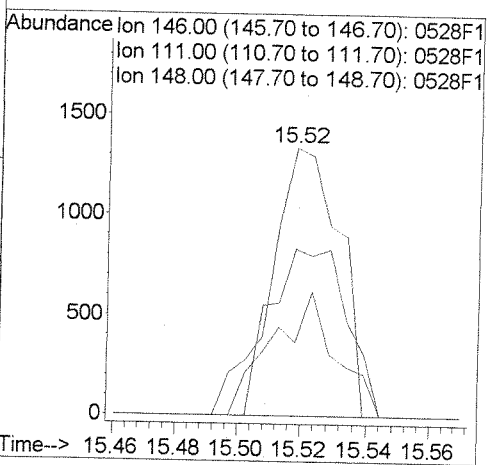
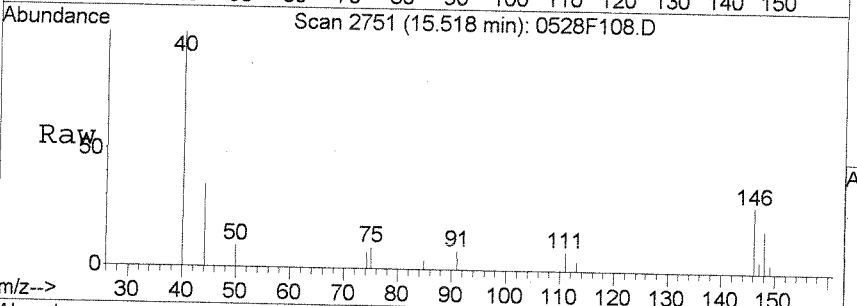
#52  
 1,4-Dichlorobenzene  
 Concen: 0.12 PPB  
 RT: 15.11 min Scan# 2673  
 Delta R.T. 0.01 min  
 Lab File: 0528F108.D  
 Acq: 28 May 2010 8:46 pm

Tgt Ion	Resp	Lower	Upper
146	1788		
111	20.7	4.3	64.3
148	79.4	33.1	93.1



#53  
 1,2-Dichlorobenzene  
 Concen: 0.14 PPB  
 RT: 15.52 min Scan# 2751  
 Delta R.T. 0.00 min  
 Lab File: 0528F108.D  
 Acq: 28 May 2010 8:46 pm

Tgt Ion	Resp	Lower	Upper
146	1982		
111	27.4	8.9	68.9
148	62.3	31.8	91.8



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: NA  
 Date Received: NA

Volatile Organic Compounds

Sample Name: Batch QC  
 Lab Code: K1004934-006

Units: ug/L  
 Basis: NA

Extraction Method: METHOD  
 Analysis Method: 624

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.23	1	05/28/10	05/28/10	KWG1005071	
Vinyl Chloride	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Bromomethane	ND	U	2.0	0.28	1	05/28/10	05/28/10	KWG1005071	
Chloroethane	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Trichlorofluoromethane	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,1-Dichloroethene	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
Methylene Chloride	ND	U	5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
trans-1,2-Dichloroethene	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
1,1-Dichloroethane	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
Chloroform	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
Carbon Tetrachloride	ND	U	5.0	0.047	1	05/28/10	05/28/10	KWG1005071	
Benzene	ND	U	5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
Trichloroethene (TCE)	ND	U	5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichloropropane	ND	U	5.0	0.17	1	05/28/10	05/28/10	KWG1005071	
Bromodichloromethane	ND	U	5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/28/10	05/28/10	KWG1005071	
trans-1,3-Dichloropropene	ND	U	5.0	0.10	1	05/28/10	05/28/10	KWG1005071	
Toluene	0.27	J	5.0	0.18	1	05/28/10	05/28/10	KWG1005071	
cis-1,3-Dichloropropene	ND	U	5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
1,1,2-Trichloroethane	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Tetrachloroethene (PCE)	ND	U	5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
Dibromochloromethane	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
Chlorobenzene	ND	U	5.0	0.098	1	05/28/10	05/28/10	KWG1005071	
Ethylbenzene	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
Bromoform	ND	U	5.0	0.37	1	05/28/10	05/28/10	KWG1005071	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,3-Dichlorobenzene	ND	U	5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
1,4-Dichlorobenzene	ND	U	5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichlorobenzene	ND	U	5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
Acrolein†	ND	U	50	3.3	1	05/28/10	05/28/10	KWG1005071	
Acrylonitrile†	ND	U	10	0.61	1	05/28/10	05/28/10	KWG1005071	
m,p-Xylenes	ND	U	2.0	0.26	1	05/28/10	05/28/10	KWG1005071	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: NA  
 Date Received: NA

Volatile Organic Compounds

Sample Name: Batch QC Units: ug/L  
 Lab Code: K1004934-006 Basis: NA  
 Extraction Method: METHOD Level: Low  
 Analysis Method: 624

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	ND U	1.0	0.13	1	05/28/10	05/28/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	96	79-131	05/28/10	Acceptable
4-Bromofluorobenzene	90	82-122	05/28/10	Acceptable
Dibromofluoromethane	91	86-124	05/28/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments: \_\_\_\_\_

## Exception Report

**Data File:** J:\MS13\DATA\052810-624\0528F110.D  
**Lab ID:** K1004934-006  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 05/28/2010 21:41  
**Date Quantitated:** 05/28/2010 22:05  
**Batch ID:** KWG1005070  
**Analysis Method:** 624  
**ListJoinID:** LJ11571

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: Ann 5/28/10

Secondary Review: HBG-120



# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b> V	<b>Matrix:</b> WATER
<b>Prod Code:</b> 624 VOC_FP		<b>Collect Date:</b> 05/14/2010	<b>Receive Date:</b> 05/15/2010
<b>Analysis Lot:</b> KWG1005070	<b>Prep Lot:</b> KWG1005071	<b>Report Group:</b> K1004934	
<b>Analysis Method:</b> 624	<b>Prep Method:</b> METHOD		
<b>Prep Ref:</b> 913226	<b>Prep Date:</b> 05/28/2010		
<b>Quant Method:</b> JAMS13\METHODS\020810MS13_6	<b>Calibration ID:</b> CAL9204		
<b>Title:</b> Volatile Organic Compounds	<b>Report List ID:</b> LJ11571		
<b>Tune Ref:</b> JAMS13\DATA\052810-624\0528F106.D	<b>Method ID:</b> MJ158		
<b>MB Ref:</b> JAMS13\DATA\052810-624\0528F108.D	<b>Quant based on Report List</b>		
<b>Data File:</b> JAMS13\DATA\052810-624\0528F110.D	<b>Instrument:</b> MS13		
<b>Acqu Date:</b> 05/28/2010 21:41	<b>Quant Date:</b> 05/28/2010 22:05	<b>Vial:</b> 6	
<b>Run Type:</b> SMPL		<b>Dilution:</b> 1.0	
<b>Lab ID:</b> K1004934-006		<b>Soln Conc. Units:</b> PPB	

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	0.00	96	584498	20.00	OK
2	Chlorobenzene-d5	12.03	-0.01	82	230615	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	0.00	152	205452	20.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.11	-0.01	0.00	113	127412	18.17	91	86-124	OK
1	Toluene-d8	9.30	0.00	0.00	98	547463	19.20	96	79-131	OK
2	4-Bromofluorobenzene	13.70	0.00	0.00	95	193686	18.02	90	82-122	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
							Final Conc. Units:	ug/L		
1	Chloromethane				50	0		0.23	U	
1	Vinyl Chloride				62	0		0.16	U	
1	Bromomethane				96	0		0.28	U	
1	Chloroethane				49	0d		0.16	U	
1	Trichlorofluoromethane				101	0		0.11	U	
1	Acrolein				56	0		3.3	U	
1	1,1-Dichloroethene				96	0		0.15	U	
1	Methylene Chloride				84	0		0.12	U	
1	Acrylonitrile				53	0		0.61	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	1,1-Dichloroethane				63	0		0.11	U	
1	Chloroform				83	0		0.11	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.14	U	
1	Carbon Tetrachloride				117	0		0.047	U	
1	Benzene				78	0		0.14	U	

J: Undetected at or above MDL  
 L: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 S: Analyte concentration above high point of ICAL  
 P: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Printed: 05/28/2010 23:59:08  
 A:\Stealth\Crystal.rpt\quant1.rpt

J:\MS13\DATA\052810-624\0528F110.D

Data File:	J:\MS13\DATA\052810-624\0528F110.D	Instrument:	MS13
Acqu Date:	05/28/2010 21:41	Quant Date:	05/28/2010 22:05
Run Type:	SMPL	Vial:	6
Lab ID:	K1004934-006	Dilution:	1.0
		Soln Conc. Units:	PPB

**Target Compounds**

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	Trichloroethene (TCE)				95	0		0.13	U	
1	1,2-Dichloropropane				63	0		0.17	U	
1	Bromodichloromethane				83	0		0.12	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.29	U	
1	cis-1,3-Dichloropropene				75	0		0.13	U	
1	Toluene	9.46		0.00	92	5428	0.2700	0.27	J	
2	trans-1,3-Dichloropropene				75	0		0.10	U	
2	1,1,2-Trichloroethane				83	0		0.16	U	
2	Tetrachloroethene (PCE)				164	0		0.14	U	
2	Dibromochloromethane				129	0		0.15	U	
2	Chlorobenzene				112	0		0.098	U	
2	Ethylbenzene				106	0		0.11	U	
2	m,p-Xylenes				106	0		0.26	U	
2	o-Xylene				106	0		0.13	U	
2	Bromoform				173	0		0.37	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.11	U	
3	1,3-Dichlorobenzene	14.98		0.00	146	1193	0.0800	0.16	U	
3	1,4-Dichlorobenzene				146	0d		0.15	U	
3	1,2-Dichlorobenzene				146	0		0.13	U	

Prep Amount: 5 ml      Dilution: 1.0  
 Prep Final Vol: 5 ml      Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

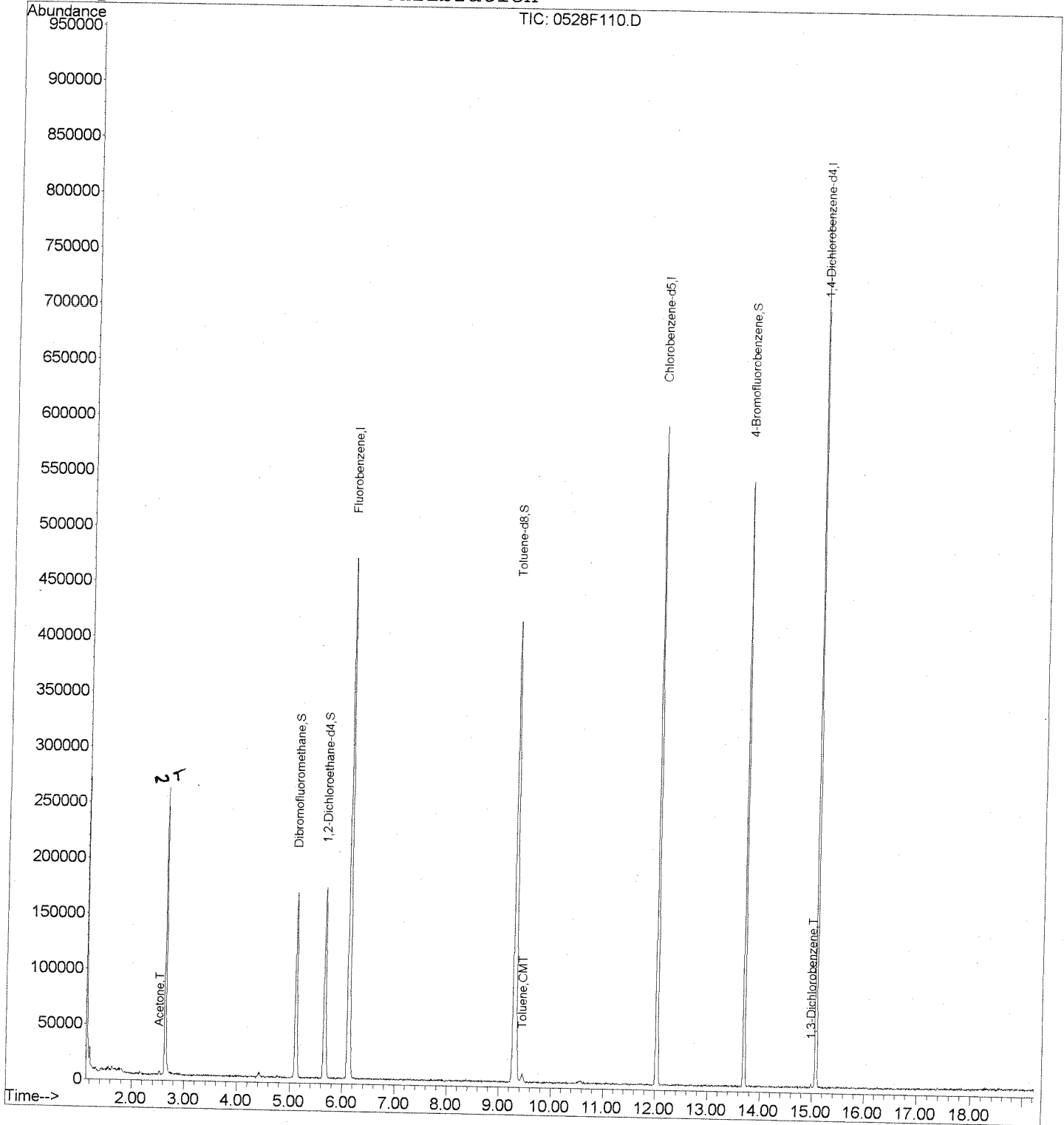
\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

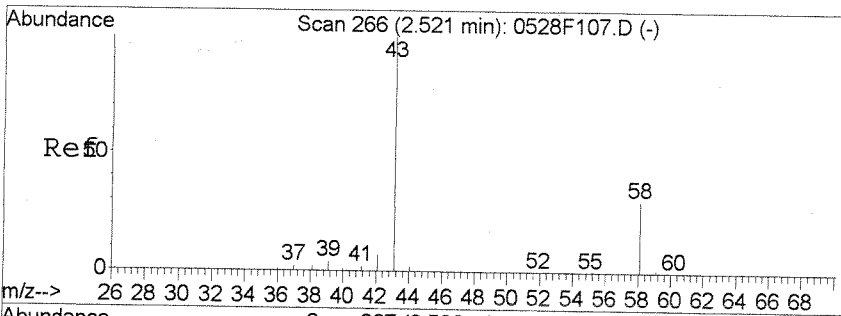
Data File : J:\MS13\DATA\052810-624\0528F110.D  
 Acq On : 28 May 2010 9:41 pm  
 Sample : K4934-006  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: May 28 22:05 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

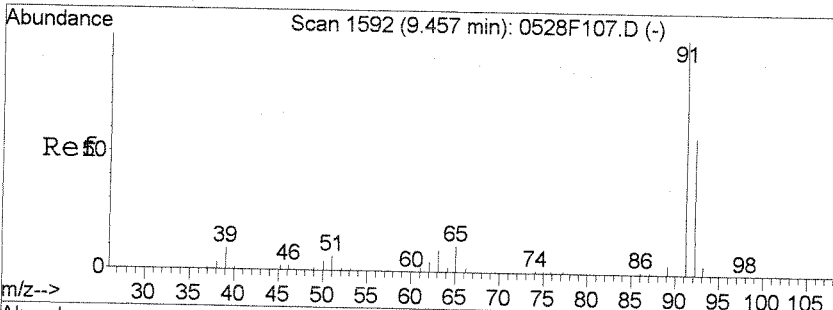
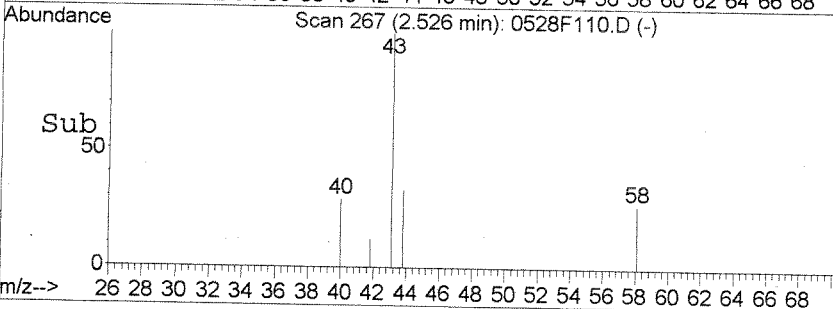
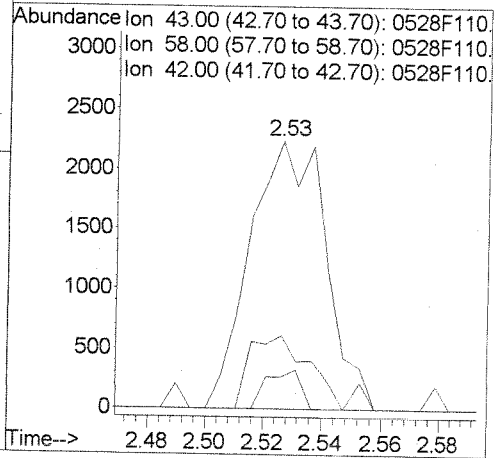
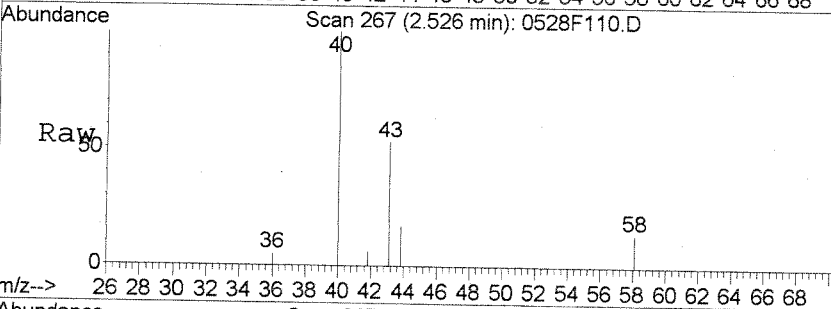
Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Fri May 28 21:07:16 2010  
 Response via : Initial Calibration





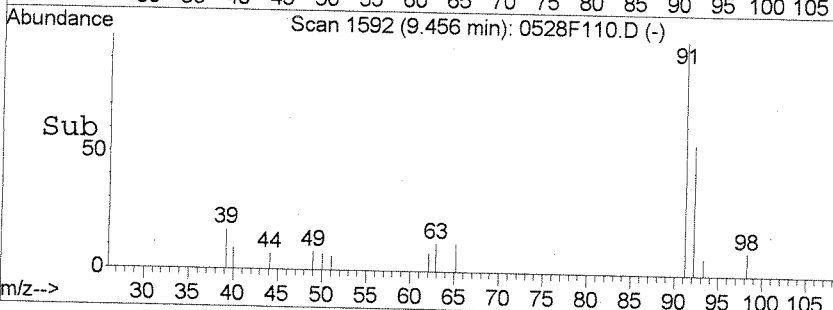
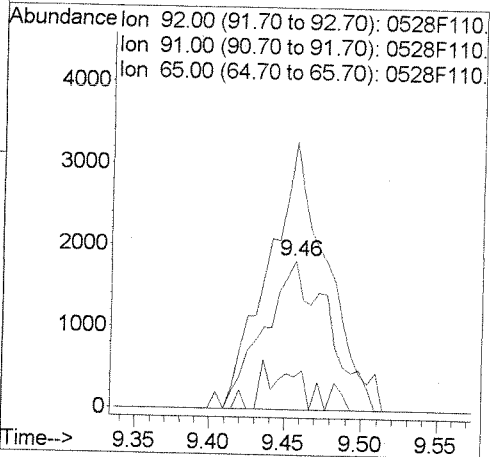
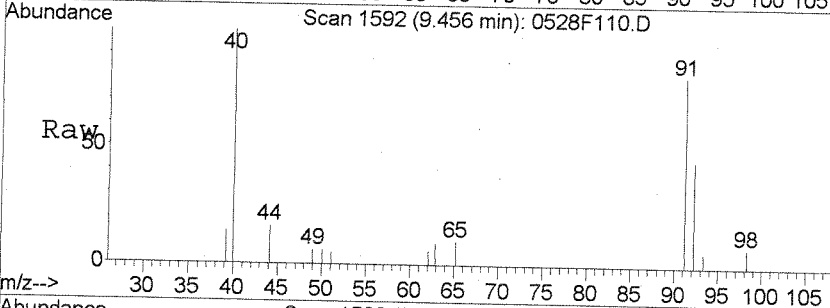
#11  
 Acetone  
 Concen: 2.43 PPB  
 RT: 2.53 min Scan# 267  
 Delta R.T. -0.02 min  
 Lab File: 0528F110.D  
 Acq: 28 May 2010 9:41 pm

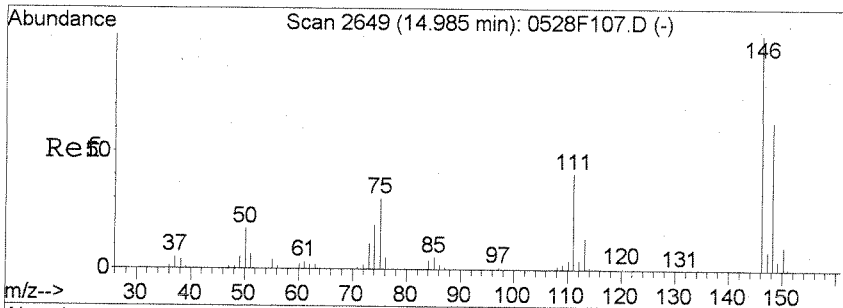
Tgt Ion	Resp	Lower	Upper
43	3998		
58	27.3	4.3	64.3
42	12.1	0.0	37.4



#34  
 Toluene  
 Concen: 0.27 PPB  
 RT: 9.46 min Scan# 1592  
 Delta R.T. 0.08 min  
 Lab File: 0528F110.D  
 Acq: 28 May 2010 9:41 pm

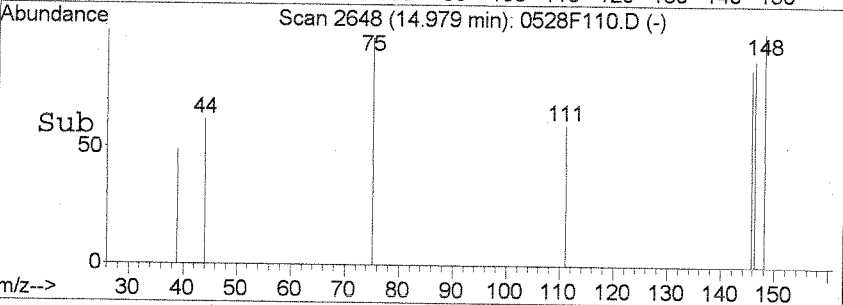
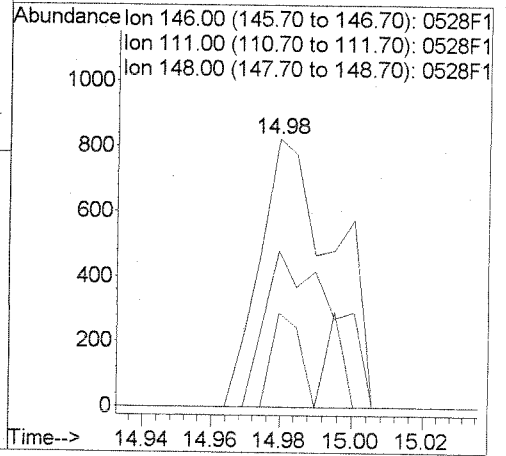
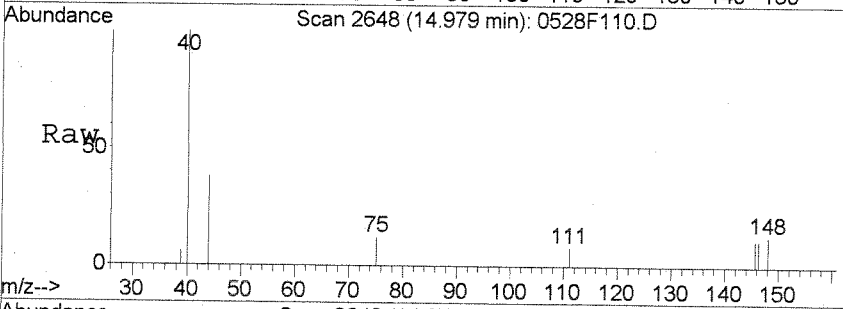
Tgt Ion	Resp	Lower	Upper
92	5428		
91	179.6	139.7	199.7
65	22.3	0.0	47.9





#51  
 1,3-Dichlorobenzene  
 Concen: 0.08 PPB  
 RT: 14.98 min Scan# 2648  
 Delta R.T. -0.01 min  
 Lab File: 0528F110.D  
 Acq: 28 May 2010 9:41 pm

Tgt Ion	Ratio	Lower	Upper
146	100		
111	35.1	8.1	68.1
148	58.3	32.9	92.9



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: NA  
 Date Received: NA

## Volatile Organic Compounds

Sample Name: Batch QCMS  
 Lab Code: KWG1005071-1  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	23.0		5.0	0.23	1	05/29/10	05/29/10	KWG1005071	
Vinyl Chloride	22.9		5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Bromomethane	22.6		2.0	0.28	1	05/29/10	05/29/10	KWG1005071	
Chloroethane	23.0		5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Trichlorofluoromethane	23.7		5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethene	28.1		5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Methylene Chloride	22.3		5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
trans-1,2-Dichloroethene	24.7		5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethane	24.0		5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Chloroform	23.5		5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	24.6		5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Carbon Tetrachloride	27.3		5.0	0.047	1	05/29/10	05/29/10	KWG1005071	
Benzene	24.2		5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloroethane (EDC)	25.3		5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
Trichloroethene (TCE)	23.5		5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloropropane	22.0		5.0	0.17	1	05/29/10	05/29/10	KWG1005071	
Bromodichloromethane	22.6		5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
2-Chloroethyl Vinyl Ether	7.17	J	10	0.29	1	05/29/10	05/29/10	KWG1005071	
trans-1,3-Dichloropropene	17.9		5.0	0.10	1	05/29/10	05/29/10	KWG1005071	
Toluene	23.4		5.0	0.18	1	05/29/10	05/29/10	KWG1005071	
cis-1,3-Dichloropropene	21.2		5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,1,2-Trichloroethane	20.5		5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Tetrachloroethene (PCE)	20.9		5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Dibromochloromethane	19.2		5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Chlorobenzene	20.0		5.0	0.098	1	05/29/10	05/29/10	KWG1005071	
Ethylbenzene	22.6		5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Bromoform	18.1		5.0	0.37	1	05/29/10	05/29/10	KWG1005071	
1,1,2,2-Tetrachloroethane	20.9		5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,3-Dichlorobenzene	21.7		5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
1,4-Dichlorobenzene	21.3		5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichlorobenzene	21.0		5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
Acrolein†	118		50	3.3	1	05/29/10	05/29/10	KWG1005071	
Acrylonitrile†	20.3		10	0.61	1	05/29/10	05/29/10	KWG1005071	
m,p-Xylenes	44.7		2.0	0.26	1	05/29/10	05/29/10	KWG1005071	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: NA  
 Date Received: NA

Volatile Organic Compounds

Sample Name: Batch QCMS Units: ug/L  
 Lab Code: KWG1005071-1 Basis: NA  
 Extraction Method: METHOD Level: Low  
 Analysis Method: 624

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	22.5		1.0	0.13	1	05/29/10	05/29/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	100	79-131	05/29/10	Acceptable
4-Bromofluorobenzene	92	82-122	05/29/10	Acceptable
Dibromofluoromethane	92	86-124	05/29/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments: \_\_\_\_\_

## Exception Report

**Data File:** J:\MS13\DATA\052810-624\0528F119.D  
**Lab ID:** KWG1005071-1 -- K1004934-006MS  
**RunType:** MS  
**Matrix:** WATER

**Date Acquired:** 05/29/2010 01:50  
**Date Quantitated:** 05/29/2010 02:09  
**Batch ID:** KWG1005070  
**Analysis Method:** 624  
**MethodJoinID:** MJ158

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

### Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Dichlorodifluoromethane	40.4	NA	40	NT

Primary Review: Cum 5/29/10

Secondary Review: ITB6-170



# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 624 VOC_FP	Collect Date:	WATER
		Receive Date: 05/29/2010
Analysis Lot: KWG1005070	Prep Lot: KWG1005071	Report Group:
Analysis Method: 624	Prep Method: METHOD	
Prep Ref: 913244	Prep Date: 05/28/2010 <i>29 HPLC-110</i>	
Quant Method: J:\MS13\METHODS\020810MS13_6	Calibration ID: CAL9204	
Title:	Method ID: MJ158	
Tune Ref: J:\MS13\DATA\052810-624\0528F106.D	Quant based on Method	
MB Ref: J:\MS13\DATA\052810-624\0528F108.D		
Data File: J:\MS13\DATA\052810-624\0528F119.D	Instrument: MS13	
Acqu Date: 05/29/2010 01:50	Quant Date: 05/29/2010 02:09	Vial: 11
Run Type: MS		Dilution: 1.0
Lab ID: KWG1005071-1 -- K1004934-006MS		Soln Conc. Units: PPB

### Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	0.00	96	598974	20.00	OK
2	Chlorobenzene-d5	12.03	-0.01	82	239642	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	0.00	152	222254	20.00	OK

### Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.11	-0.01	0.00	113	132487	18.44	92	86-124	OK
1	1,2-Dichloroethane-d4	5.66	0.00	0.00	65	166416	21.05	105	70-130	OK
1	Toluene-d8	9.30	0.00	0.00	98	581720	19.90	100	79-131	OK
2	4-Bromofluorobenzene	13.70	0.00	0.00	95	204581	18.32	92	82-122	OK

### Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.22	-0.01	0.00	85	239678	31.46	31.5		
1	Chloromethane	1.37		0.00	50	218849	23.04	23.0		
1	Vinyl Chloride	1.44		0.00	62	187939	22.93	22.9		
1	Bromomethane	1.70		0.00	96	94429	22.58	22.6		
1	Chloroethane	1.78		0.00	49	28514	23.01	23.0		
1	Trichlorofluoromethane	1.95		0.00	101	276763	23.72	23.7		
1	Acrolein	2.39		0.00	56	75739	118.23	118		
1	Trichlorotrifluoroethane	2.38		0.00	151	136073	22.37	22.4		
1	1,1-Dichloroethene	2.41		0.00	96	170559	28.10	28.1		
1	Acetone	2.52		0.00	43	183410	108.91	109		
1	Carbon Disulfide	2.59		0.00	76	1117656	44.78	44.8		
1	Methylene Chloride	2.93		0.00	84	184212	22.33	22.3		
1	Acrylonitrile	3.27		0.00	53	49946	20.32	20.3		
1	trans-1,2-Dichloroethene	3.16		0.00	96	190681	24.70	24.7		

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS13\DATA\052810-624\0528F119.D  
 Acqu Date: 05/29/2010 01:50  
 Run Type: MS  
 Lab ID: KWG1005071-1 -- K1004934-006MS

Quant Date: 05/29/2010 02:09

Instrument: MS13  
 Vial: 11  
 Dilution: 1.0  
 Soln Conc. Units: PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,1-Dichloroethane	3.68		0.00	63	303302	23.95	24.0		
1	Vinyl Acetate	3.75		0.00	86	59990	47.57	47.6		
1	cis-1,2-Dichloroethene	4.42		0.00	96	190380	22.63	22.6		
1	2-Butanone (MEK)	4.49		0.00	72	70121	98.49	98.5		
1	Chloroform	4.87		0.00	83	300920	23.54	23.5		
1	1,1,1-Trichloroethane (TCA)	5.04	-0.01	0.00	97	229505	24.63	24.6		
1	Carbon Tetrachloride	5.22	-0.01	0.00	117	244233	27.27	27.3		
1	Benzene	5.61	0.01	0.00	78	773861	24.22	24.2		
1	1,2-Dichloroethane (EDC)	5.78		0.00	62	237226	25.29	25.3		
1	Trichloroethene (TCE)	6.73		0.00	95	186385	23.46	23.5		
1	1,2-Dichloropropane	7.25		0.00	63	167851	22.04	22.0		
1	Bromodichloromethane	7.81		0.00	83	215317	22.64	22.6		
1	2-Chloroethyl Vinyl Ether	8.60		0.00	63	26790	7.17	7.17	J	
1	cis-1,3-Dichloropropene	8.82	-0.01	0.00	75	214539	21.18	21.2		
1	4-Methyl-2-pentanone (MIBK)	9.29		0.00	58	221674	102.37	102		
1	Toluene	9.46		0.00	92	476527	23.43	23.4		
2	trans-1,3-Dichloropropene	10.24		0.00	75	154992	17.89	17.9		
2	1,1,2-Trichloroethane	10.55		0.00	83	118710	20.53	20.5		
2	Tetrachloroethene (PCE)	10.52		0.00	164	144543	20.86	20.9		
2	2-Hexanone	11.06		0.00	43	372203	99.81	99.8		
2	Dibromochloromethane	11.16		0.00	129	147607	19.17	19.2		
2	Chlorobenzene	12.08	0.01	0.00	112	485027	19.99	20.0		
2	Ethylbenzene	12.24		0.00	106	271649	22.58	22.6		
2	m,p-Xylenes	12.43		0.00	106	662629	44.67	44.7		
2	o-Xylene	12.98		0.00	106	313372	22.52	22.5		
2	Styrene	13.02		0.00	103	258541	22.84	22.8		
2	Bromoform	13.26		0.00	173	83486	18.13	18.1		
3	1,1,2,2-Tetrachloroethane	13.99		0.00	83	147593	20.91	20.9		
3	1,3-Dichlorobenzene	14.98		0.00	146	349543	21.72	21.7		
3	1,4-Dichlorobenzene	15.11		0.00	146	357525	21.25	21.3		
3	1,2-Dichlorobenzene	15.52		0.00	146	319642	20.95	21.0		
	Bis(chloromethyl) Ether				0	0		10	U	NR

Prep Amount: 5 ml Dilution: 1.0  
 Prep Final Vol: 5 ml Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

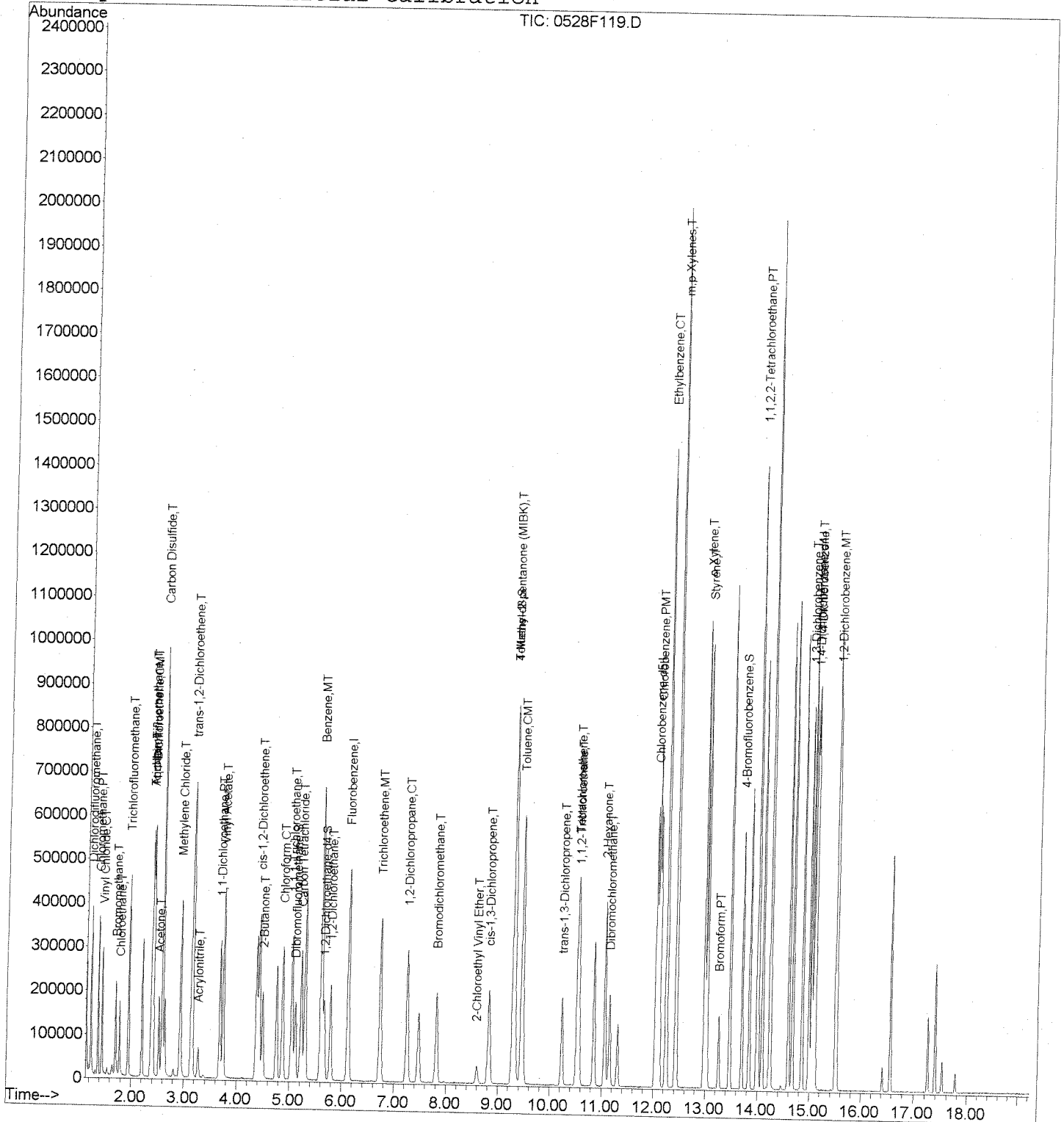
\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS13\DATA\052810-624\0528F119.D  
Acq On : 29 May 2010 1:50 am  
Sample : K4934-006 DMS (R)  
Misc : MS  
MS Integration Params: RTEINT.P  
Quant Time: May 29 2:09 2010

Vial: 11  
Operator: CMK  
Inst : MS13  
Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
Title : VOA MS13 EPA Method 8260B  
Last Update : Fri May 28 23:53:25 2010  
Response via : Initial Calibration



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Batch QCDMS  
**Lab Code:** KWG1005071-2  
**Extraction Method:** METHOD  
**Analysis Method:** 624

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	22.6		5.0	0.23	1	05/29/10	05/29/10	KWG1005071	
Vinyl Chloride	22.9		5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Bromomethane	22.9		2.0	0.28	1	05/29/10	05/29/10	KWG1005071	
Chloroethane	21.6		5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Trichlorofluoromethane	23.8		5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethene	27.4		5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Methylene Chloride	22.3		5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
trans-1,2-Dichloroethene	24.4		5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,1-Dichloroethane	23.5		5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Chloroform	24.1		5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	24.1		5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Carbon Tetrachloride	26.5		5.0	0.047	1	05/29/10	05/29/10	KWG1005071	
Benzene	23.9		5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloroethane (EDC)	25.1		5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
Trichloroethene (TCE)	23.2		5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichloropropane	21.9		5.0	0.17	1	05/29/10	05/29/10	KWG1005071	
Bromodichloromethane	22.3		5.0	0.12	1	05/29/10	05/29/10	KWG1005071	
2-Chloroethyl Vinyl Ether	ND	U	10	0.29	1	05/29/10	05/29/10	KWG1005071	
trans-1,3-Dichloropropene	17.8		5.0	0.10	1	05/29/10	05/29/10	KWG1005071	
Toluene	23.4		5.0	0.18	1	05/29/10	05/29/10	KWG1005071	
cis-1,3-Dichloropropene	21.3		5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
1,1,2-Trichloroethane	20.5		5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
Tetrachloroethene (PCE)	20.8		5.0	0.14	1	05/29/10	05/29/10	KWG1005071	
Dibromochloromethane	19.0		5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
Chlorobenzene	20.1		5.0	0.098	1	05/29/10	05/29/10	KWG1005071	
Ethylbenzene	22.3		5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
Bromoform	18.3		5.0	0.37	1	05/29/10	05/29/10	KWG1005071	
1,1,2,2-Tetrachloroethane	22.3		5.0	0.11	1	05/29/10	05/29/10	KWG1005071	
1,3-Dichlorobenzene	22.5		5.0	0.16	1	05/29/10	05/29/10	KWG1005071	
1,4-Dichlorobenzene	22.2		5.0	0.15	1	05/29/10	05/29/10	KWG1005071	
1,2-Dichlorobenzene	21.9		5.0	0.13	1	05/29/10	05/29/10	KWG1005071	
Acrolein†	125		50	3.3	1	05/29/10	05/29/10	KWG1005071	
Acrylonitrile†	22.3		10	0.61	1	05/29/10	05/29/10	KWG1005071	
m,p-Xylenes	45.0		2.0	0.26	1	05/29/10	05/29/10	KWG1005071	

Comments: \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: NA  
 Date Received: NA

Volatile Organic Compounds

Sample Name: Batch QCDMS Units: ug/L  
 Lab Code: KWG1005071-2 Basis: NA  
 Extraction Method: METHOD Level: Low  
 Analysis Method: 624

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	22.7		1.0	0.13	1	05/29/10	05/29/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	100	79-131	05/29/10	Acceptable
4-Bromofluorobenzene	92	82-122	05/29/10	Acceptable
Dibromofluoromethane	93	86-124	05/29/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments: \_\_\_\_\_

## Exception Report

**Data File:** J:\MS13\DATA\052810-624\0528F201.D  
**Lab ID:** KWG1005071-2 -- K1004934-006DMS  
**RunType:** DMS  
**Matrix:** WATER

**Date Acquired:** 05/29/2010 02:45  
**Date Quantitated:** 05/29/2010 03:05  
**Batch ID:** KWG1005070  
**Analysis Method:** 624  
**MethodJoinID:** MJ158

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

### Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Dichlorodifluoromethane	40.4	NA	40	NT

Primary Review: Gene G/1/10

Secondary Review: TPB 6-1-10

# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 624 VOC_FP	Collect Date:	Receive Date:	06/01/2010
Analysis Lot: KWG1005070	Prep Lot: KWG1005071	Report Group:	
Analysis Method: 624	Prep Method: METHOD		
Prep Ref: 913245	Prep Date: 05/29/2010		
Quant Method: J:\MS13\METHODS\020810MS13_6		Calibration ID:	CAL9204
Title:		Method ID:	MJ158
Tune Ref: J:\MS13\DATA\052810-624\0528F106.D		Quant based on Method	
MB Ref: J:\MS13\DATA\052810-624\0528F108.D			
Data File: J:\MS13\DATA\052810-624\0528F201.D		Instrument:	MS13
Acqu Date: 05/29/2010 02:45	Quant Date: 06/01/2010 17:45	Vial:	11
Run Type: DMS		Dilution:	1.0
Lab ID: KWG1005071-2 -- K1004934-006DMS		Soln Conc. Units:	PPB

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	0.00	96	591524	20.00	OK
2	Chlorobenzene-d5	12.03	-0.01	82	237418	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	0.00	152	211858	20.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.11	-0.01	0.00	113	131871	18.58	93	86-124	OK
1	1,2-Dichloroethane-d4	5.66	0.00	0.00	65	165410	21.19	106	70-130	OK
1	Toluene-d8	9.30	0.00	0.00	98	575683	19.95	100	79-131	OK
2	4-Bromofluorobenzene	13.70	0.00	0.00	95	202731	18.33	92	82-122	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.22	-0.01	0.00	85	233813	31.08	31.1		
1	Chloromethane	1.37		0.00	50	211647	22.56	22.6		
1	Vinyl Chloride	1.44		0.00	62	185349	22.90	22.9		
1	Bromomethane	1.70		0.00	96	94450	22.87	22.9		
1	Chloroethane	1.78		0.00	49	26416	21.58	21.6		
1	Trichlorofluoromethane	1.95		0.00	101	273721	23.75	23.8		
1	Acrolein	2.38	-0.01	0.00	56	79002	124.87	125		
1	Trichlorotrifluoroethane	2.38		0.00	151	130628	21.75	21.8		
1	1,1-Dichloroethene	2.41		0.00	96	164285	27.41	27.4		
1	Acetone	2.52		0.00	43	188404	113.29	113		
1	Carbon Disulfide	2.59		0.00	76	1085556	44.04	44.0		
1	Methylene Chloride	2.93		0.00	84	181928	22.34	22.3		
1	Acrylonitrile	3.27		0.00	53	54096	22.29	22.3		
1	trans-1,2-Dichloroethene	3.16		0.00	96	186094	24.41	24.4		

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS13\DATA\052810-624\0528F201.D  
 Acqu Date: 05/29/2010 02:45  
 Run Type: DMS  
 Lab ID: KWG1005071-2 -- K1004934-006DMS

Quant Date: 06/01/2010 17:45

Instrument: MS13  
 Vial: 11  
 Dilution: 1.0  
 Soln Conc. Units: PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,1-Dichloroethane	3.68		0.00	63	294318	23.53	23.5		
1	Vinyl Acetate	3.74	-0.01	0.00	86	62351	50.07	50.1		
1	cis-1,2-Dichloroethene	4.42		0.00	96	189764	22.84	22.8		
1	2-Butanone (MEK)	4.49		0.00	72	70041m	99.62	99.6		
1	Chloroform	4.87		0.00	83	303818	24.06	24.1		
1	1,1,1-Trichloroethane (TCA)	5.05		0.00	97	222052	24.13	24.1		
1	Carbon Tetrachloride	5.22	-0.01	0.00	117	234734	26.54	26.5		
1	Benzene	5.61	0.01	0.00	78	753574	23.88	23.9		
1	1,2-Dichloroethane (EDC)	5.78		0.00	62	232689	25.12	25.1		
1	Trichloroethene (TCE)	6.73		0.00	95	181579	23.15	23.2		
1	1,2-Dichloropropane	7.25		0.00	63	164336	21.85	21.9		
1	Bromodichloromethane	7.81		0.00	83	209803	22.34	22.3		
1	2-Chloroethyl Vinyl Ether				63	0		0.29		U
1	cis-1,3-Dichloropropene	8.82	-0.01	0.00	75	213510	21.34	21.3		
1	4-Methyl-2-pentanone (MIBK)	9.29		0.00	58	224481	104.97	105		
1	Toluene	9.46		0.00	92	470049	23.40	23.4		
2	trans-1,3-Dichloropropene	10.23	-0.01	0.00	75	152391	17.75	17.8		
2	1,1,2-Trichloroethane	10.56	0.01	0.00	83	117561	20.52	20.5		
2	Tetrachloroethene (PCE)	10.52		0.00	164	142863	20.81	20.8		
2	2-Hexanone	11.06		0.00	43	385035	104.22	104		
2	Dibromochloromethane	11.16		0.00	129	144492	18.95	19.0		
2	Chlorobenzene	12.08	0.01	0.00	112	482815	20.09	20.1		
2	Ethylbenzene	12.24		0.00	106	266158	22.33	22.3		
2	m,p-Xylenes	12.43		0.00	106	661711	45.03	45.0		
2	o-Xylene	12.98		0.00	106	313527	22.74	22.7		
2	Styrene	13.02		0.00	103	254901	22.73	22.7		
2	Bromoform	13.26		0.00	173	83572	18.31	18.3		
3	1,1,2,2-Tetrachloroethane	13.99		0.00	83	149796	22.26	22.3		
3	1,3-Dichlorobenzene	14.98		0.00	146	345433	22.52	22.5		
3	1,4-Dichlorobenzene	15.10	-0.01	0.00	146	355938	22.19	22.2		
3	1,2-Dichlorobenzene	15.52		0.00	146	319093	21.94	21.9		
	Bis(chloromethyl) Ether				0	0		10		UJ NR

Prep Amount: 5 ml Dilution: 1.0  
 Prep Final Vol: 5 ml Unit Factor: 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution



Data File : J:\MS13\DATA\052810-624\0528F201.D

Vial: 11

Acq On : 29 May 2010 2:45 am

Operator: CMK

Sample : K4934-006 DMS (R)

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: May 29 3:05 2010

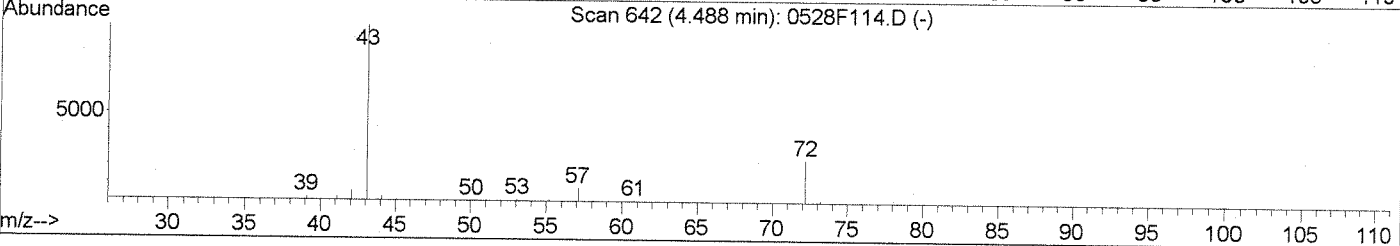
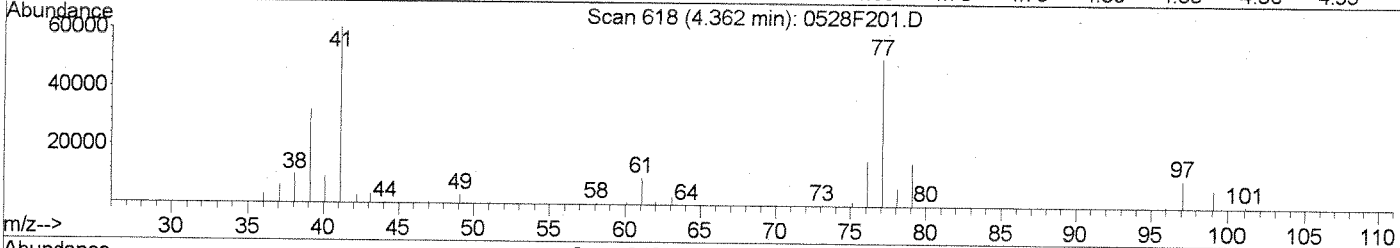
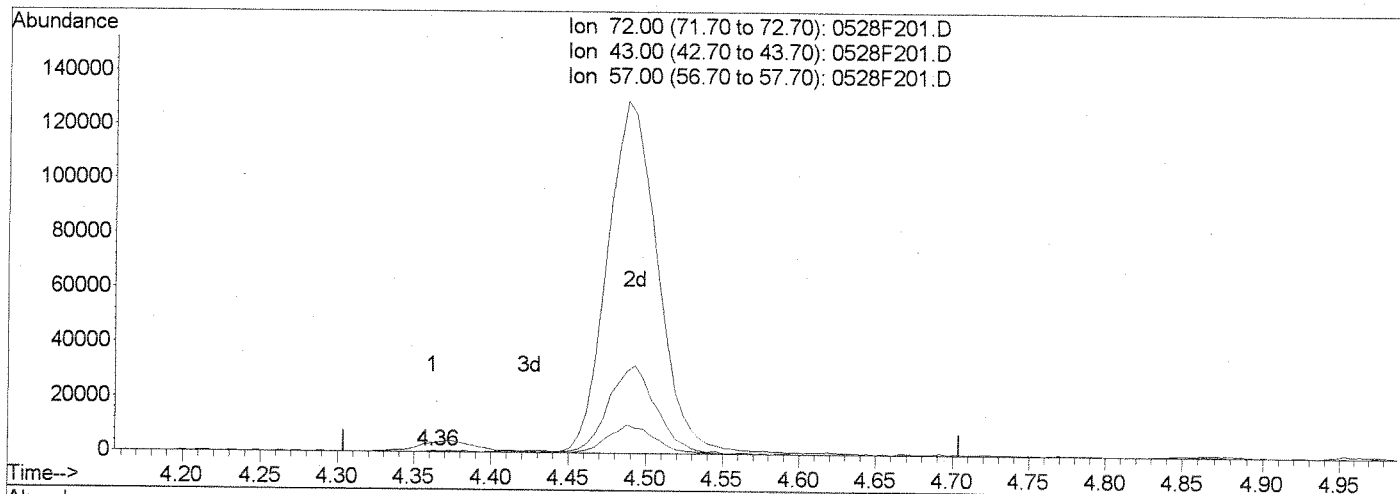
Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri May 28 23:53:25 2010

Response via : Multiple Level Calibration



TIC: 0528F201.D

(19) 2-Butanone (T)

4.36min 0.93PPB

response 655

Ion	Exp%	Act%
72.00	100	100
43.00	356.00	337.44
57.00	28.50	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\052810-624\0528F201.D

Vial: 11

Acq On : 29 May 2010 2:45 am

Operator: CMK

Sample : K4934-006 DMS (R)

Inst : MS13

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Jun 1 17:45 2010

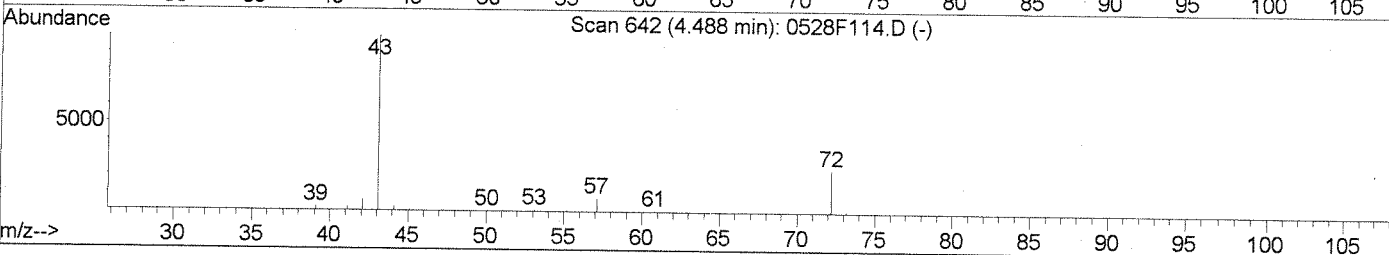
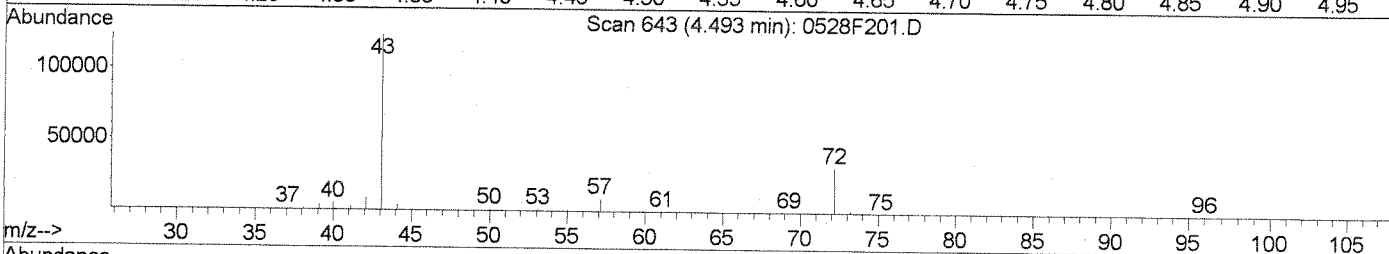
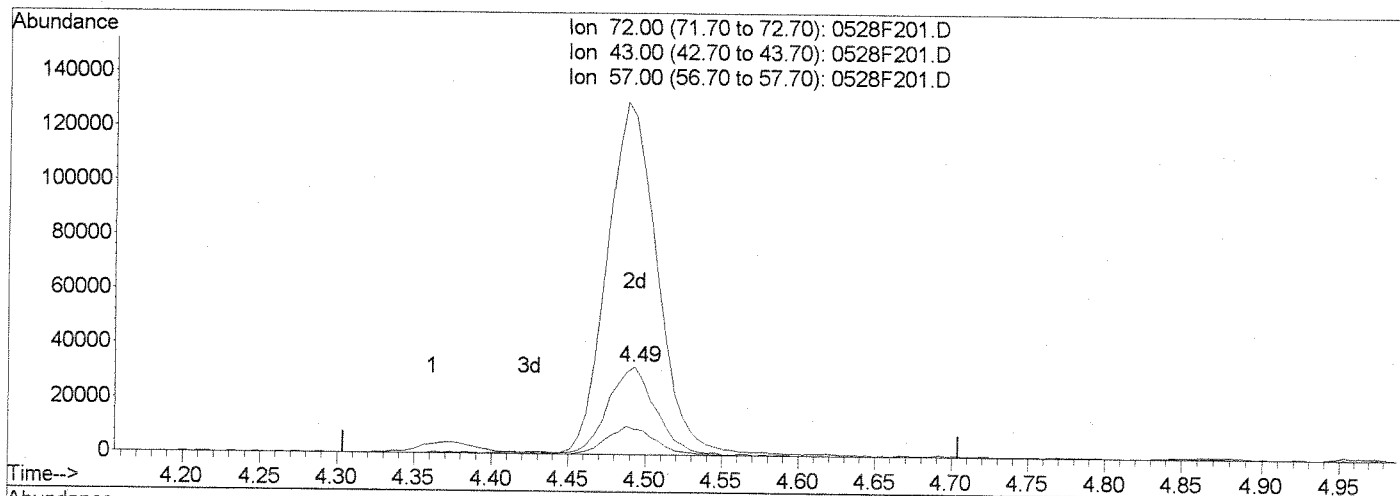
Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)

Title : VOA MS13 EPA Method 8260B

Last Update : Fri May 28 23:53:25 2010

Response via : Multiple Level Calibration



TIC: 0528F201.D

(19) 2-Butanone (T)

4.49min 99.62PPB m

response 70041

Ion	Exp%	Act%
72.00	100	100
43.00	356.00	386.56#
57.00	28.50	28.63
0.00	0.00	0.00

*Wong Peak*  
*6/1/10*  
*cmk*

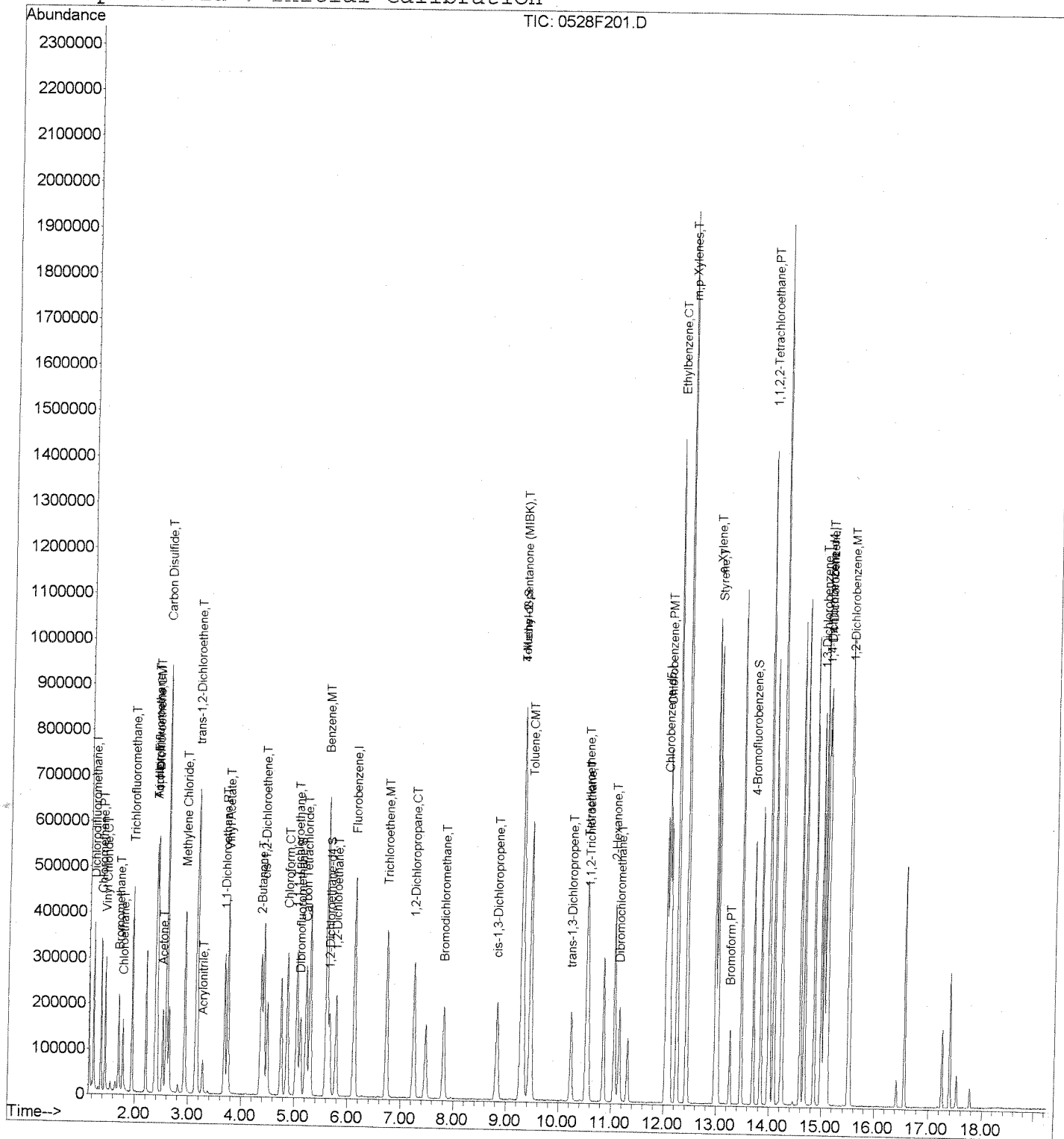
*HB 6170*

Data File : J:\MS13\DATA\052810-624\0528F201.D  
 Acq On : 29 May 2010 2:45 am  
 Sample : K4934-006 DMS (R)  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: May 29 3:05 2010

Vial: 11  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Fri May 28 23:53:25 2010  
 Response via : Initial Calibration



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: NA  
 Date Received: NA

## Volatile Organic Compounds

Sample Name: Lab Control Sample  
 Lab Code: KWG1005071-3  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	15.4		5.0	0.23	1	05/28/10	05/28/10	KWG1005071	
Vinyl Chloride	15.9		5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Bromomethane	16.4		2.0	0.28	1	05/28/10	05/28/10	KWG1005071	
Chloroethane	18.3		5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Trichlorofluoromethane	17.5		5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,1-Dichloroethene	17.2		5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
Methylene Chloride	16.4		5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
trans-1,2-Dichloroethene	16.9		5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
1,1-Dichloroethane	17.4		5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
Chloroform	18.4		5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,1,1-Trichloroethane (TCA)	17.2		5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
Carbon Tetrachloride	18.8		5.0	0.047	1	05/28/10	05/28/10	KWG1005071	
Benzene	17.7		5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichloroethane (EDC)	20.1		5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
Trichloroethene (TCE)	17.4		5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichloropropane	17.4		5.0	0.17	1	05/28/10	05/28/10	KWG1005071	
Bromodichloromethane	17.9		5.0	0.12	1	05/28/10	05/28/10	KWG1005071	
2-Chloroethyl Vinyl Ether	20.2		10	0.29	1	05/28/10	05/28/10	KWG1005071	
trans-1,3-Dichloropropene	16.6		5.0	0.10	1	05/28/10	05/28/10	KWG1005071	
Toluene	17.6		5.0	0.18	1	05/28/10	05/28/10	KWG1005071	
cis-1,3-Dichloropropene	13.9		5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
1,1,2-Trichloroethane	17.2		5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
Tetrachloroethene (PCE)	15.5		5.0	0.14	1	05/28/10	05/28/10	KWG1005071	
Dibromochloromethane	16.1		5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
Chlorobenzene	16.2		5.0	0.098	1	05/28/10	05/28/10	KWG1005071	
Ethylbenzene	17.5		5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
Bromoform	15.9		5.0	0.37	1	05/28/10	05/28/10	KWG1005071	
1,1,2,2-Tetrachloroethane	18.8		5.0	0.11	1	05/28/10	05/28/10	KWG1005071	
1,3-Dichlorobenzene	18.3		5.0	0.16	1	05/28/10	05/28/10	KWG1005071	
1,4-Dichlorobenzene	18.2		5.0	0.15	1	05/28/10	05/28/10	KWG1005071	
1,2-Dichlorobenzene	17.9		5.0	0.13	1	05/28/10	05/28/10	KWG1005071	
Acrolein†	114		50	3.3	1	05/28/10	05/28/10	KWG1005071	
Acrylonitrile†	19.7		10	0.61	1	05/28/10	05/28/10	KWG1005071	
m,p-Xylenes	34.9		2.0	0.26	1	05/28/10	05/28/10	KWG1005071	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067  
 Date Collected: NA  
 Date Received: NA

Volatile Organic Compounds

Sample Name: Lab Control Sample  
 Lab Code: KWG1005071-3  
 Extraction Method: METHOD  
 Analysis Method: 624

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
o-Xylene	18.0		1.0	0.13	1	05/28/10	05/28/10	KWG1005071	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	99	79-131	05/28/10	Acceptable
4-Bromofluorobenzene	93	82-122	05/28/10	Acceptable
Dibromofluoromethane	92	86-124	05/28/10	Acceptable

† Analyte Comments

Acrolein This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.  
 Acrylonitrile This compound is unstable under normal conditions. As per EPA Method 624 guidelines, the reported value was an estimate.

Comments:

## Exception Report

**Data File:** J:\MS13\DATA\052810-624\0528F114.D  
**Lab ID:** KWG1005071-3  
**RunType:** LCS  
**Matrix:** WATER

**Date Acquired:** 05/28/2010 23:31  
**Date Quantitated:** 05/28/2010 23:53  
**Batch ID:** KWG1005070  
**Analysis Method:** 624  
**MethodJoinID:** MJ158

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

### Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	Dichlorodifluoromethane	40.4	NA	40	NT

Primary Review: Carol 5/28/10

Secondary Review: HTB 6-1-10

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 624 VOC_FP	Collect Date:	WATER
		Receive Date: 05/28/2010

Analysis Lot: KWG1005070	Prep Lot: KWG1005071	Report Group:
Analysis Method: 624	Prep Method: METHOD	
Prep Ref: 913246	Prep Date: 05/28/2010	

Quant Method: J:\MS13\METHODS\020810MS13_6	Calibration ID: CAL9204
Title:	
Tune Ref: J:\MS13\DATA\052810-624\0528F106.D	Method ID: MJ158
MB Ref: J:\MS13\DATA\052810-624\0528F108.D	Quant based on Method

Data File: J:\MS13\DATA\052810-624\0528F114.D	Instrument: MS13
Acqu Date: 05/28/2010 23:31	Quant Date: 05/28/2010 23:53
Run Type: LCS	Vial: 10
Lab ID: KWG1005071-3	Dilution: 1.0
	Soln Conc. Units: PPB

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	0.00	96	601301	20.00	OK
2	Chlorobenzene-d5	12.04	0.00	82	237048	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	0.00	152	221353	20.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.11	-0.01	0.00	113	132841	18.41	92	86-124	OK
1	1,2-Dichloroethane-d4	5.66	0.00	0.00	65	168188	21.20	106	70-130	OK
1	Toluene-d8	9.30	0.00	0.00	98	580418	19.78	99	79-131	OK
2	4-Bromofluorobenzene	13.70	0.00	0.00	95	205537	18.61	93	82-122	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
								Final Conc. Units: ug/L		
1	Dichlorodifluoromethane	1.22	-0.01	0.00	85	115638	15.17	15.2		
1	Chloromethane	1.37		0.00	50	146734	15.38	15.4		
1	Vinyl Chloride	1.44		0.00	62	130899	15.91	15.9		
1	Bromomethane	1.70		0.00	96	68664	16.35	16.4		
1	Chloroethane	1.78		0.00	49	22736	18.27	18.3		
1	Trichlorofluoromethane	1.95		0.00	101	205115	17.51	17.5		
1	Acrolein	2.39		0.00	56	73522	114.32	114		
1	Trichlorotrifluoroethane	2.38		0.00	151	104442	17.10	17.1		
1	1,1-Dichloroethene	2.41		0.00	96	104802	17.20	17.2		
1	Acetone	2.52		0.00	43	161808	95.71	95.7		
1	Carbon Disulfide	2.59		0.00	76	887220	35.41	35.4		
1	Methylene Chloride	2.93		0.00	84	135723	16.39	16.4		
1	Acrylonitrile	3.27		0.00	53	48532	19.67	19.7		
1	trans-1,2-Dichloroethene	3.16		0.00	96	130952	16.90	16.9		

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 c: Compound manually deleted  
 NR: Analyte not reported from this analysis

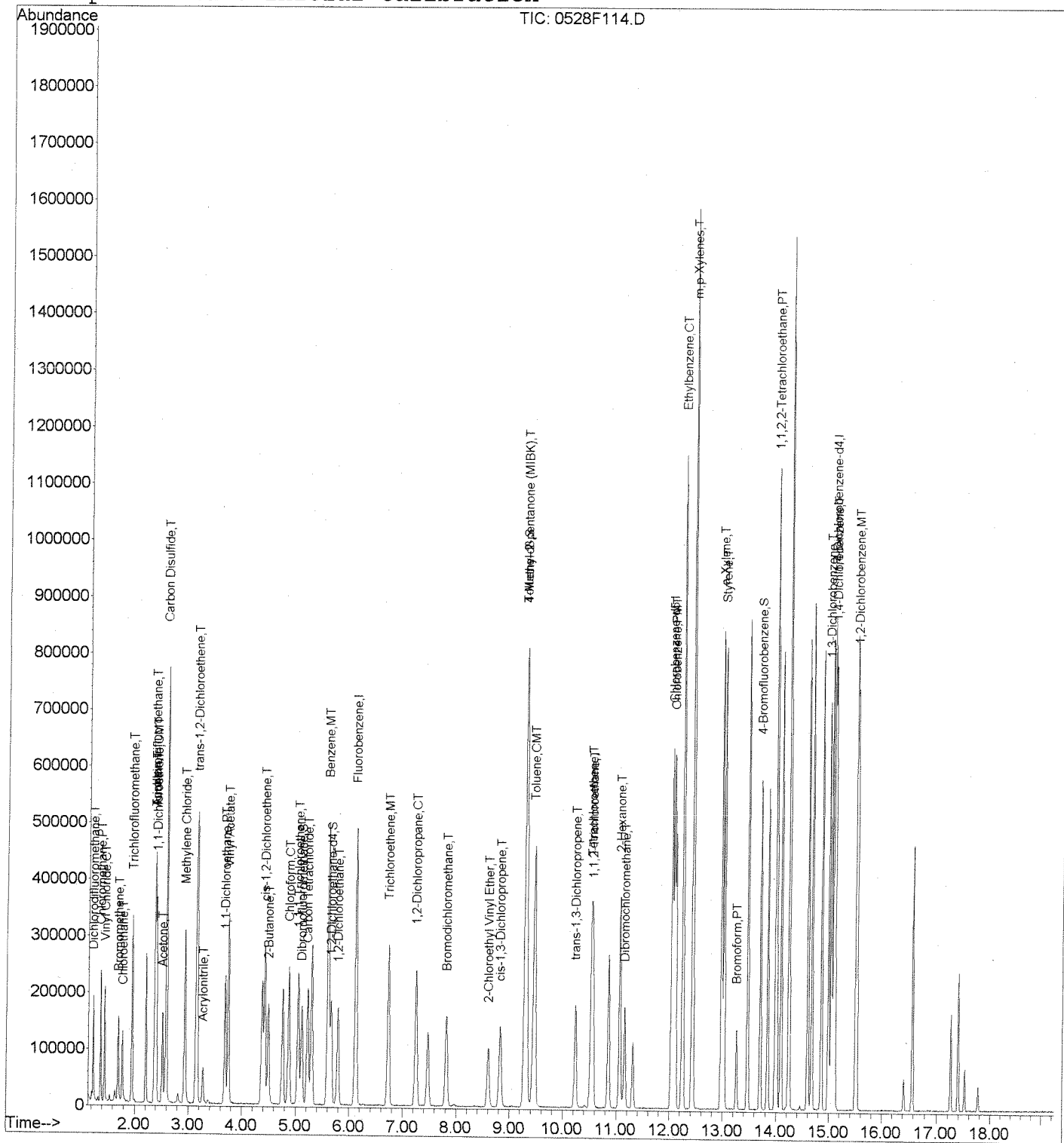
\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS13\DATA\052810-624\0528F114.D  
 Acq On : 28 May 2010 11:31 pm  
 Sample : LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: May 28 23:53 2010

Vial: 10  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Fri May 28 23:53:25 2010  
 Response via : Initial Calibration





Organic Analysis:  
Volatile Organic Compounds

Validation Package

Standards Data

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 05/28/2010  
**Time Analyzed:** 19:43

**Tune Summary  
 Volatile Organic Compounds**

**File ID:** J:\MS13\DATA\052810-624\0528F106.D  
**Instrument ID:** MS13  
**Column:**

**Analysis Method:** 624  
**Analysis Lot:** KWG1005070

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	16.6	8693	PASS
75	95	30	60	47.1	24725	PASS
95	95	100	100	100.0	52458	PASS
96	95	5	9	6.6	3468	PASS
173	174	0	2	0.3	110	PASS
174	95	50	120	77.9	40869	PASS
175	174	5	9	5.3	2169	PASS
176	174	95	101	100.5	41093	PASS
177	176	5	9	6.4	2611	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1005070-2	J:\MS13\DATA\052810-624\0528F10	05/28/2010	20:19	
Method Blank	KWG1005071-4	J:\MS13\DATA\052810-624\0528F10	05/28/2010	20:46	
Batch QC	K1004934-006	J:\MS13\DATA\052810-624\0528F11	05/28/2010	21:41	
Lab Control Sample	KWG1005071-3	J:\MS13\DATA\052810-624\0528F11	05/28/2010	23:31	
Batch QCMS	KWG1005071-1	J:\MS13\DATA\052810-624\0528F11	05/29/2010	01:50	
Batch QCDMS	KWG1005071-2	J:\MS13\DATA\052810-624\0528F20	05/29/2010	02:45	
3bcd-2	K1005067-002	J:\MS13\DATA\052810-624\0528F12	05/29/2010	03:39	
3ddd	K1005067-003	J:\MS13\DATA\052810-624\0528F12	05/29/2010	04:07	
EB-051710	K1005067-004	J:\MS13\DATA\052810-624\0528F12	05/29/2010	04:34	
Trip Blank	K1005067-005	J:\MS13\DATA\052810-624\0528F12	05/29/2010	05:02	

Results flagged with an asterisk (\*) indicate the analysis performed outside specified tune window

# Exception Report

Data File: J:\MS13\DATA\052810-624\0528F106.D  
Lab ID: KWG1005070-1  
RunType: TUNE  
Matrix: WATER

Date Acquired: 05/28/2010 19:43  
Date Quantitated:  
Batch ID: KWG1005070  
Analysis Method: 624  
MethodJoinID: MJ158

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: Kim 5/28/10

Secondary Review: HBG-170

# Quantitation Report

Bottle ID:	Tier:	Matrix:
Prod Code: 624 VOC_FP	Collect Date:	WATER
		Receive Date: 05/28/2010
Analysis Lot: KWG1005070	Prep Lot:	Report Group:
Analysis Method: BFB	Prep Method:	
Prep Ref:	Prep Date:	
Quant Method: J:\MS13\METHODS\020810MS13_6	Calibration ID: CAL9204	
Title: GC/MS Tuning Evaluation	Report List ID: LJ774	
Tune Ref:	Method ID: MJ159	
MB Ref:	Quant based on Report List	
Data File: J:\MS13\DATA\052810-624\0528F106.D	Instrument: MS13	
Acqu Date: 05/28/2010 19:43	Quant Date:	Vial: 2
Run Type: TUNE		Dilution: 1.0
Lab ID: KWG1005070-1		Soln Conc. Units:

## Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	16.6	8693	Pass
75	95	30	60	47.1	24725	Pass
95	95	100	100	100.0	52458	Pass
96	95	5	9	6.6	3468	Pass
173	174	0	2	0.3	110	Pass
174	95	50	120	77.9	40869	Pass
175	174	5	9	5.3	2169	Pass
176	174	95	101	100.5	41093	Pass
177	176	5	9	6.4	2611	Pass

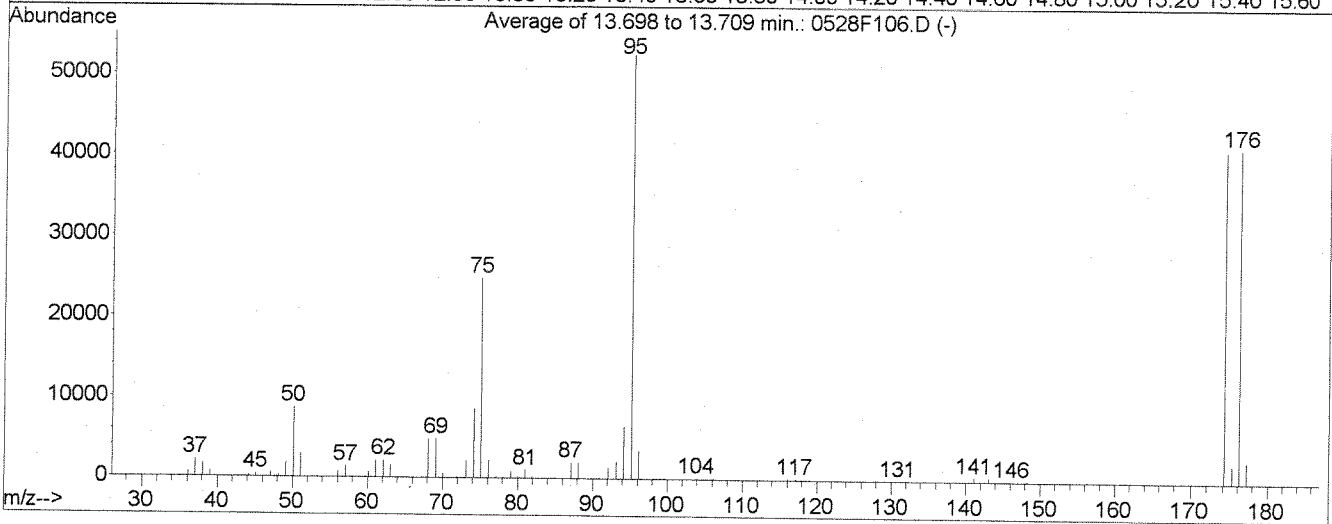
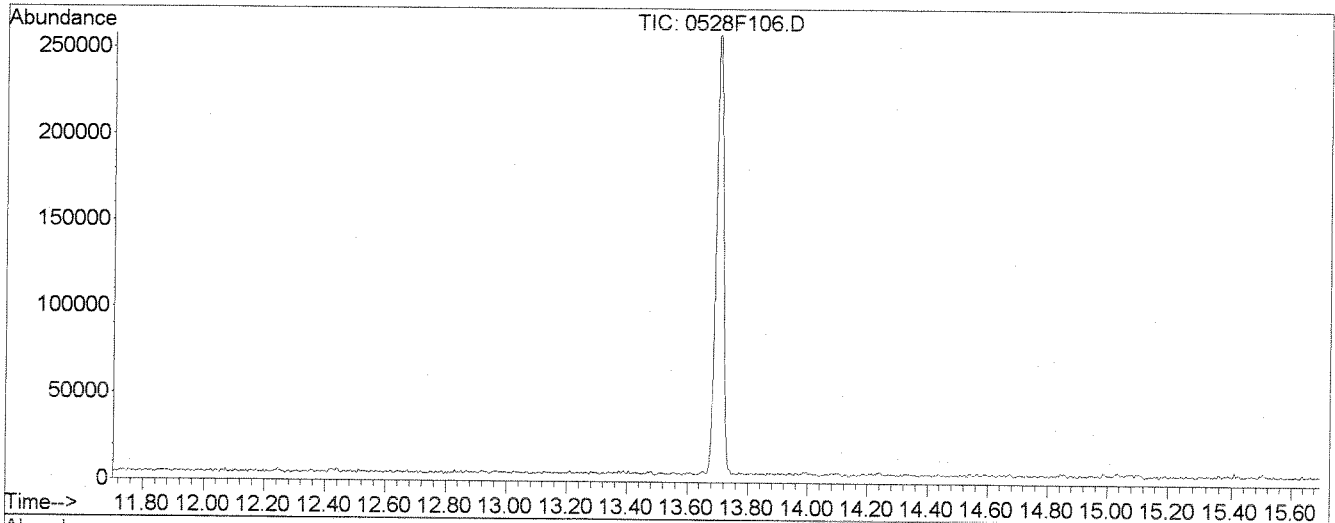
U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS13\DATA\052810-624\0528F106.D  
 Acq On : 28 May 2010 7:43 pm  
 Sample : 50NG BFB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B

Vial: 2  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00



AutoFind: Scans 2403, 2404, 2405; Background Corrected with Scan 2394

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	8693	PASS
75	95	30	60	47.1	24725	PASS
95	95	100	100	100.0	52458	PASS
96	95	5	9	6.6	3468	PASS
173	174	0.00	2	0.3	110	PASS
174	95	50	120	77.9	40869	PASS
175	174	5	9	5.3	2169	PASS
176	174	95	101	100.5	41093	PASS
177	176	5	9	6.4	2611	PASS

*Handwritten signature*  
 5/28/10

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Calibration Date: 02/08/2010

Initial Calibration Summary  
Volatile Organic Compounds

Calibration ID: CAL9204  
Instrument ID: MS13

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS13\DATA\020810_624\0208F005.D	F	J:\MS13\DATA\020810_624\0208F010.D
B	J:\MS13\DATA\020810_624\0208F006.D	G	J:\MS13\DATA\020810_624\0208F011.D
C	J:\MS13\DATA\020810_624\0208F007.D	H	J:\MS13\DATA\020810_624\0208F012.D
D	J:\MS13\DATA\020810_624\0208F008.D		
E	J:\MS13\DATA\020810_624\0208F009.D		

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Chloromethane	A	0.50	0.416	B	1.0	0.309	C	2.5	0.287	D	5.0	0.289	E	20	0.323
	F	40	0.315	G	80	0.299	H	120	0.299						
Vinyl Chloride	A	0.50	0.311	B	1.0	0.268	C	2.5	0.233	D	5.0	0.242	E	20	0.296
	F	40	0.291	G	80	0.273	H	120	0.275						
Bromomethane	A	0.50	0.119	B	1.0	0.127	C	2.5	0.109	D	5.0	0.118	E	20	0.152
	F	40	0.160	G	80	0.163	H	120	0.168						
Chloroethane	A	0.50	0.0453	B	1.0	0.0329	C	2.5	0.0394	D	5.0	0.0381	E	20	0.0463
	F	40	0.0443	G	80	0.0426	H	120	0.0422						
Trichlorofluoromethane	A	0.50	0.470	B	1.0	0.388	C	2.5	0.333	D	5.0	0.348	E	20	0.408
	F	40	0.406	G	80	0.383	H	120	0.382						
1,1-Dichloroethene	A	0.50	0.214	B	1.0	0.206	C	2.5	0.171	D	5.0	0.182	E	20	0.218
	F	40	0.216	G	80	0.209	H	120	0.206						
Methylene Chloride	A	0.50	0.305	B	1.0	0.297	C	2.5	0.261	D	5.0	0.259	E	20	0.276
	F	40	0.275	G	80	0.266	H	120	0.265						
trans-1,2-Dichloroethene	A	0.50	0.266	B	1.0	0.253	C	2.5	0.223	D	5.0	0.244	E	20	0.276
	F	40	0.271	G	80	0.264	H	120	0.264						
1,1-Dichloroethane	A	0.50	0.448	B	1.0	0.423	C	2.5	0.374	D	5.0	0.372	E	20	0.441
	F	40	0.444	G	80	0.439	H	120	0.442						
Chloroform	A	0.50	0.420	B	1.0	0.424	C	2.5	0.406	D	5.0	0.402	E	20	0.448
	F	40	0.443	G	80	0.436	H	120	0.436						
1,1,1-Trichloroethane (TCA)	A	0.50	0.323	B	1.0	0.282	C	2.5	0.265	D	5.0	0.279	E	20	0.328
	F	40	0.337	G	80	0.334	H	120	0.342						
Carbon Tetrachloride	A	0.50	0.322	B	1.0	0.276	C	2.5	0.265	D	5.0	0.257	E	20	0.319
	F	40	0.325	G	80	0.313	H	120	0.316						
Benzene	A	0.50	1.09	B	1.0	0.999	C	2.5	0.942	D	5.0	0.991	E	20	1.15
	F	40	1.14	G	80	1.11	H	120	1.11						
1,2-Dichloroethane (EDC)	A	0.50	0.306	B	1.0	0.324	C	2.5	0.307	D	5.0	0.301	E	20	0.327
	F	40	0.318	G	80	0.313	H	120	0.309						
Trichloroethene (TCE)	A	0.50	0.288	B	1.0	0.267	C	2.5	0.233	D	5.0	0.239	E	20	0.279
	F	40	0.278	G	80	0.269	H	120	0.270						

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Calibration Date: 02/08/2010

Initial Calibration Summary  
 Volatile Organic Compounds

Calibration ID: CAL9204  
 Instrument ID: MS13

Column: MS

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
1,2-Dichloropropane	A	0.50	0.256	B	1.0	0.246	C	2.5	0.227	D	5.0	0.233	E	20	0.263
	F	40	0.268	G	80	0.269	H	120	0.274						
Bromodichloromethane	A	0.50	0.310	B	1.0	0.304	C	2.5	0.295	D	5.0	0.297	E	20	0.333
	F	40	0.337	G	80	0.332	H	120	0.334						
2-Chloroethyl Vinyl Ether	A	0.50	0.112	B	1.0	0.106	C	2.5	0.106	D	5.0	0.112	E	20	0.133
	F	40	0.138	G	80	0.146	H	120	0.145						
trans-1,3-Dichloropropene	A	0.50	0.658	B	1.0	0.586	C	2.5	0.627	D	5.0	0.636	E	20	0.762
	F	40	0.808	G	80	0.848	H	120	0.860						
Toluene	A	0.50	0.699	B	1.0	0.635	C	2.5	0.596	D	5.0	0.643	E	20	0.729
	F	40	0.721	G	80	0.707	H	120	0.704						
cis-1,3-Dichloropropene	A	0.50	0.293	B	1.0	0.309	C	2.5	0.282	D	5.0	0.299	E	20	0.363
	F	40	0.371	G	80	0.390	H	120	0.398						
1,1,2-Trichloroethane	A	0.50	0.437	B	1.0	0.464	C	2.5	0.459	D	5.0	0.474	E	20	0.523
	F	40	0.506	G	80	0.501	H	120	0.497						
Tetrachloroethene (PCE)	A	0.50	0.584	B	1.0	0.556	C	2.5	0.534	D	5.0	0.506	E	20	0.633
	F	40	0.624	G	80	0.601	H	120	0.589						
Dibromochloromethane	A	0.50	0.597	B	1.0	0.644	C	2.5	0.620	D	5.0	0.598	E	20	0.678
	F	40	0.671	G	80	0.672	H	120	0.659						
Chlorobenzene	A	0.50	1.97	B	1.0	2.02	C	2.5	1.92	D	5.0	1.89	E	20	2.15
	F	40	2.14	G	80	2.07	H	120	2.05						
Ethylbenzene	A	0.50	0.797	B	1.0	0.897	C	2.5	0.879	D	5.0	0.937	E	20	1.15
	F	40	1.15	G	80	1.11	H	120	1.11						
Bromoform	A	0.50	0.345	B	1.0	0.367	C	2.5	0.362	D	5.0	0.382	E	20	0.407
	F	40	0.398	G	80	0.412	H	120	0.402						
1,1,2,2-Tetrachloroethane	A	0.50	0.648	B	1.0	0.635	C	2.5	0.618	D	5.0	0.630	E	20	0.655
	F	40	0.632	G	80	0.635	H	120	0.628						
1,3-Dichlorobenzene	A	0.50	1.39	B	1.0	1.34	C	2.5	1.33	D	5.0	1.34	E	20	1.57
	F	40	1.54	G	80	1.51	H	120	1.55						
1,4-Dichlorobenzene	A	0.50	1.47	B	1.0	1.50	C	2.5	1.40	D	5.0	1.43	E	20	1.62
	F	40	1.58	G	80	1.55	H	120	1.57						
1,2-Dichlorobenzene	A	0.50	1.30	B	1.0	1.33	C	2.5	1.30	D	5.0	1.29	E	20	1.47
	F	40	1.44	G	80	1.43	H	120	1.43						
Acrolein	A	10	0.0222	B	20	0.0225	C	50	0.0209	D	100	0.0218	E	400	0.0211
	F	800	0.0208	G	1600	0.0212	H	2400	0.0206						
Acrylonitrile	A	1.0	0.0677	B	2.0	0.0843	C	5.0	0.0805	D	10	0.0849	E	40	0.0855
	F	80	0.0846	G	160	0.0855	H	240	0.0834						

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Calibration Date: 02/08/2010

Initial Calibration Summary  
 Volatile Organic Compounds

Calibration ID: CAL9204  
 Instrument ID: MS13

Column: MS

Analyte Name	Level			Level			Level			Level					
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF			
Toluene-d8	A	4.0	0.898	B	6.0	0.871	C	8.0	0.968	D	10	0.992	E	20	1.03
	F	40	1.04	G	50	0.998	H	60	1.01						
4-Bromofluorobenzene	A	4.0	0.839	B	6.0	0.853	C	8.0	0.949	D	10	0.966	E	20	1.00
	F	40	0.974	G	50	0.941	H	60	0.933						
Dibromofluoromethane	A	4.0	0.240	B	6.0	0.230	C	8.0	0.243	D	10	0.244	E	20	0.249
	F	40	0.241	G	50	0.236	H	60	0.237						
m,p-Xylenes	A	1.0	1.09	B	2.0	1.07	C	5.0	1.07	D	10	1.15	E	40	1.40
	F	80	1.40	G	160	1.37	H	240	1.35						
o-Xylene	A	0.50	1.03	B	1.0	0.988	C	2.5	0.960	D	5.0	1.07	E	20	1.32
	F	40	1.33	G	80	1.30	H	120	1.30						

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound



## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Calibration Date: 02/08/2010

Initial Calibration Summary  
 Volatile Organic Compounds

Calibration ID: CAL9204  
 Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Chloromethane	TRG	AverageRF	% RSD	13.1		≤ 35	0.317		0.01
Vinyl Chloride	TRG	AverageRF	% RSD	9.6		≤ 35	0.274		0.01
Bromomethane	TRG	AverageRF	% RSD	17.0		≤ 35	0.140		0.01
Chloroethane	TRG	AverageRF	% RSD	10.7		≤ 35	0.0414		0.01
Trichlorofluoromethane	TRG	AverageRF	% RSD	10.7		≤ 35	0.390		0.01
1,1-Dichloroethene	MS	AverageRF	% RSD	8.4		≤ 35	0.203		0.01
Methylene Chloride	TRG	AverageRF	% RSD	6.1		≤ 35	0.275		0.01
trans-1,2-Dichloroethene	TRG	AverageRF	% RSD	6.7		≤ 35	0.258		0.01
1,1-Dichloroethane	TRG	AverageRF	% RSD	7.5		≤ 35	0.423		0.01
Chloroform	TRG	AverageRF	% RSD	3.9		≤ 35	0.427		0.01
1,1,1-Trichloroethane (TCA)	TRG	AverageRF	% RSD	9.9		≤ 35	0.311		0.01
Carbon Tetrachloride	TRG	AverageRF	% RSD	9.4		≤ 35	0.299		0.01
Benzene	MS	AverageRF	% RSD	7.3		≤ 35	1.07		0.01
1,2-Dichloroethane (EDC)	TRG	AverageRF	% RSD	2.9		≤ 35	0.313		0.01
Trichloroethene (TCE)	MS	AverageRF	% RSD	7.3		≤ 35	0.265		0.01
1,2-Dichloropropane	TRG	AverageRF	% RSD	6.8		≤ 35	0.254		0.01
Bromodichloromethane	TRG	AverageRF	% RSD	5.7		≤ 35	0.318		0.01
2-Chloroethyl Vinyl Ether	TRG	AverageRF	% RSD	14.2		≤ 35	0.125		0.01
trans-1,3-Dichloropropene	TRG	AverageRF	% RSD	15.1		≤ 35	0.723		0.01
Toluene	MS	AverageRF	% RSD	7.1		≤ 35	0.679		0.01
cis-1,3-Dichloropropene	TRG	AverageRF	% RSD	13.9		≤ 35	0.338		0.01
1,1,2-Trichloroethane	TRG	AverageRF	% RSD	6.0		≤ 35	0.483		0.01
Tetrachloroethene (PCE)	TRG	AverageRF	% RSD	7.5		≤ 35	0.578		0.01
Dibromochloromethane	TRG	AverageRF	% RSD	5.2		≤ 35	0.642		0.01
Chlorobenzene	MS	AverageRF	% RSD	4.8		≤ 35	2.02		0.01
Ethylbenzene	TRG	AverageRF	% RSD	14.1		≤ 35	1.00		0.01
Bromoform	TRG	AverageRF	% RSD	6.3		≤ 35	0.384		0.01
1,1,2,2-Tetrachloroethane	TRG	AverageRF	% RSD	1.8		≤ 35	0.635		0.01
1,3-Dichlorobenzene	TRG	AverageRF	% RSD	7.2		≤ 35	1.45		0.01
1,4-Dichlorobenzene	TRG	AverageRF	% RSD	5.3		≤ 35	1.51		0.01
1,2-Dichlorobenzene	MS	AverageRF	% RSD	5.4		≤ 35	1.37		0.01
Acrolein	TRG	AverageRF	% RSD	3.3		≤ 35	0.0214		0.01
Acrylonitrile	TRG	AverageRF	% RSD	7.3		≤ 35	0.0821		0.01
Toluene-d8	SURR	AverageRF	% RSD	6.3		≤ 35	0.976		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	6.2		≤ 35	0.932		0.01
Dibromofluoromethane	SURR	AverageRF	% RSD	2.5		≤ 35	0.240		0.01
m,p-Xylenes	TRG	AverageRF	% RSD	12.6		≤ 35	1.24		0.01
o-Xylene	TRG	AverageRF	% RSD	14.1		≤ 35	1.16		0.01

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Calibration Date: 02/08/2010  
Date Analyzed: 02/08/2010

Second Source Calibration Verification  
Volatile Organic Compounds

Calibration Type: Internal Standard  
Analysis Method: 624

Calibration ID: CAL9204  
Units: PPB

File ID: J:\MS13\DATA\020810\_624\0208F015.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Chloromethane	20	23	0.317	0.369	16	NA	± 104 %	AverageRF
Vinyl Chloride	20	24	0.274	0.335	22	NA	± 96 %	AverageRF
Bromomethane	20	24	0.140	0.164	18	NA	± 86 %	AverageRF
Chloroethane	20	23	0.0414	0.0468	13	NA	± 62 %	AverageRF
Trichlorofluoromethane	20	19	0.390	0.371	-5	NA	± 52 %	AverageRF
1,1-Dichloroethene	20	22	0.203	0.224	11	NA	± 49 %	AverageRF
Methylene Chloride	20	22	0.275	0.302	10	NA	± 39 %	AverageRF
trans-1,2-Dichloroethene	20	20	0.258	0.263	2	NA	± 30 %	AverageRF
1,1-Dichloroethane	20	20	0.423	0.424	0	NA	± 27 %	AverageRF
Chloroform	20	21	0.427	0.439	3	NA	± 32 %	AverageRF
1,1,1-Trichloroethane (TCA)	20	21	0.311	0.322	4	NA	± 25 %	AverageRF
Carbon Tetrachloride	20	20	0.299	0.303	1	NA	± 27 %	AverageRF
Benzene	20	21	1.07	1.12	5	NA	± 36 %	AverageRF
1,2-Dichloroethane (EDC)	20	20	0.313	0.310	-1	NA	± 32 %	AverageRF
Trichloroethene (TCE)	20	20	0.265	0.264	0	NA	± 33 %	AverageRF
1,2-Dichloropropane	20	20	0.254	0.255	0	NA	± 66 %	AverageRF
Bromodichloromethane	20	20	0.318	0.315	-1	NA	± 34 %	AverageRF
2-Chloroethyl Vinyl Ether	20	20	0.125	0.126	1	NA	± 124 %	AverageRF
trans-1,3-Dichloropropene	20	22	0.723	0.788	9	NA	± 50 %	AverageRF
Toluene	20	21	0.679	0.700	3	NA	± 25 %	AverageRF
cis-1,3-Dichloropropene	20	17	0.338	0.287	-15	NA	± 76 %	AverageRF
1,1,2-Trichloroethane	20	20	0.483	0.490	1	NA	± 29 %	AverageRF
Tetrachloroethene (PCE)	20	20	0.578	0.589	2	NA	± 26 %	AverageRF
Dibromochloromethane	20	19	0.642	0.619	-4	NA	± 32 %	AverageRF
Chlorobenzene	20	20	2.02	2.07	2	NA	± 34 %	AverageRF
Ethylbenzene	20	21	1.00	1.08	7	NA	± 41 %	AverageRF
Bromoform	20	21	0.384	0.395	3	NA	± 29 %	AverageRF
1,1,2,2-Tetrachloroethane	20	19	0.635	0.593	-7	NA	± 39 %	AverageRF
1,3-Dichlorobenzene	20	21	1.45	1.54	6	NA	± 27 %	AverageRF
1,4-Dichlorobenzene	20	21	1.51	1.57	3	NA	± 37 %	AverageRF
1,2-Dichlorobenzene	20	20	1.37	1.40	2	NA	± 37 %	AverageRF
Acrolein	100	150	0.0214	0.0324	51	NA	± 80 %	AverageRF
Acrylonitrile	20	18	0.0821	0.0756	-8	NA	± 40 %	AverageRF
m,p-Xylenes	40	43	1.24	1.33	8	NA	± 40 %	AverageRF
o-Xylene	20	23	1.16	1.31	13	NA	± 40 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Date: 2/8/10

Columbia Analytical Services, Inc. Tune File: BFB1.U

By: CMK

### Injection Log

New Tune: NO

IS/SS Std. ID: 5500A-38D

MS13 - Agilent 5973

RUN #: NA

CCV Std ID: NA

ICAL Date: (New) 2/8/10 #9204

MS/DMS/LCS/ICV Std ID: See Prep Sheet

Second RV: KA 2/9/10

BFB Std. ID: 5500A-34B

LIMS ID: NA

	Sample Name	File Name	Method	Dilution	pH	R	Comments
1	IB	0208F001	8760L05				
2	50 NG BFB		2	9.8uL/44uL			
3	<del>IB</del>		3				I.S. only: 5500A-42D
4	IB		4				
5	0.5 ppb ICAL		5	See Prep Sheet			
6	1.0		6				
7	2.5		7				
8	5.0		8				
9	20		9				
10	40		10				
11	80		11				
12	120		12				
13	IB		13				
14	IB		14				
15	ICV		15	See Prep Sheet			
16	ICV		16				NR
17	IB x 4		17-20				
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							

CMK 2/9/10

Date 2/3/10  
 Prepared By CMA

Analysis: 624  
 Instrument: MS13  
 Matrix: Water

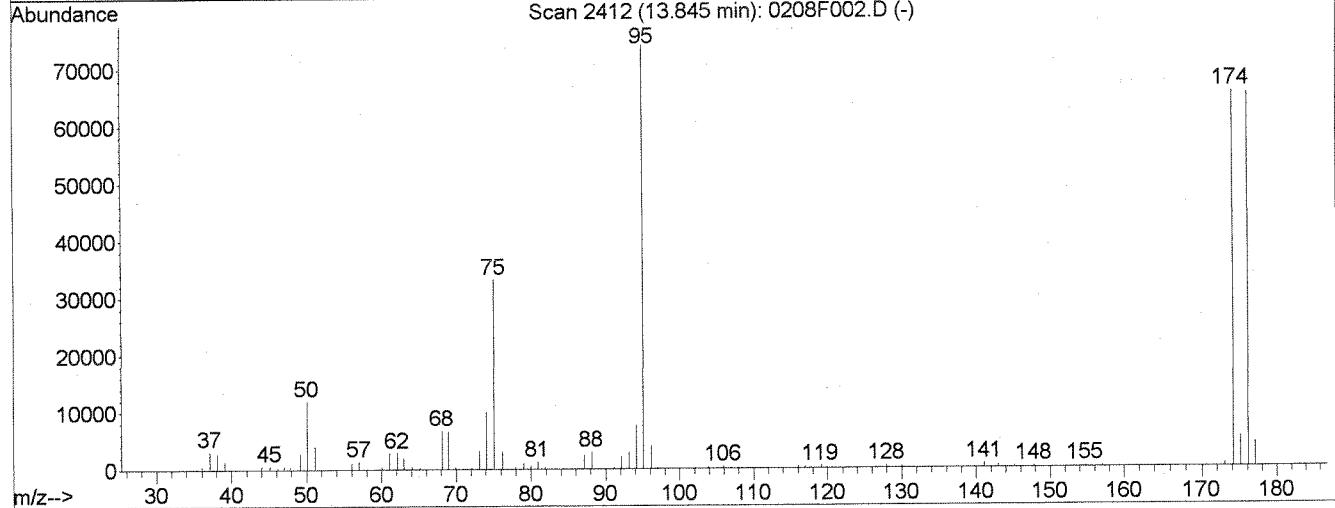
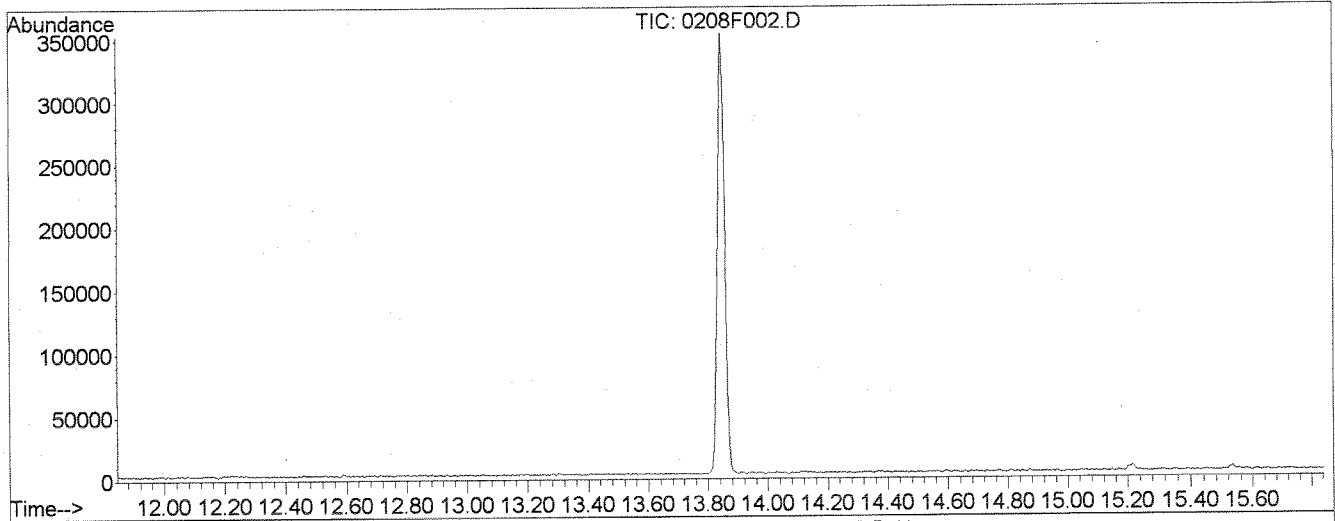
Stock Solution #1 5500A-49E Analytes: Surrogates Initial Conc: 100ppm  
 Stock Solution #2 47D Analytes: 624 Initial Conc: 50/100/200/1000ppm  
 Stock Solution #3 48C Analytes: Ketones Initial Conc: 2000ppm

Aliquot of Stock Solution #1 (µL)	Final Conc. of #1 (µg/L)	Aliquot of Stock Solution #2 (µL)	Final Conc. of #2 (µg/L)	Aliquot of Stock Solution #3 (µL)	Final Conc. of #3 (µg/L)	Final Volume (mL)	Notes
2.0	4.0	0.5	0.5/1.0/2.0/10	0.5	20	50	Level ID: 1
3.0	6.0	1	1.0/2.0/4.0/20	1	40	50	Level ID: 2
4.0	8.0	2.5	2.5/5.0/10/50	2.5	100	50	Level ID: 3
5.0	10	5	5.0/10/20/100	5	200	50	Level ID: 4
10	20	20	20/40/80/400	10	400	50	Level ID: 5
20	40	40	40/80/160/800	20	800	50	Level ID: 6
25	50	80	80/160/320/1600	40	1600	50	Level ID: 7
30	60	120	120/320/640/3200	60	2400	50	Level ID: 8

624 ICV: 20uL of 50/250ppm Accustd ICV ( 5500A - 49E ) + 50uL of 100ppm Acrolein ICV ( 5500A-48C )

Data File : J:\MS13\DATA\020810\_624\0208F002.D  
 Acq On : 8 Feb 2010 2:13 pm  
 Sample : 50NG BFB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B

Vial: 2  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00



Spectrum Information: Scan 2412 *Apex - scan 2400* *Comp 2/8/10*

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	11921	PASS
75	95	30	60	44.8	33216	PASS
95	95	100	100	100.0	74088	PASS
96	95	5	9	5.4	3996	PASS
173	174	0.00	2	0.9	599	PASS
174	95	50	120	88.4	65520	PASS
175	174	5	9	8.1	5285	PASS
176	174	95	101	99.4	65136	PASS
177	176	5	9	6.5	4235	PASS

*Kr*  
*2/8/10*

Data File : J:\MS13\DATA\020810\_624\0208F004.D  
 Acq On : 8 Feb 2010 3:08 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 20:05:47 2010

Vial: 4  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Ann 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	689219	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	261661	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	259405	20.00	PPB	0.00
System Monitoring Compounds						
22) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount	20.000		Recovery	=	0.00%	
24) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount	20.000		Recovery	=	0.00%	
33) Toluene-d8	9.61	98	3904	0.12	PPB	0.00
Spiked Amount	20.000		Recovery	=	0.60%	
47) 4-Bromofluorobenzene	13.85	95	2558	0.21	PPB	0.00
Spiked Amount	20.000		Recovery	=	1.05%	
Target Compounds						
11) Acetone	2.65	43	1708	0.88	PPB	85
12) Carbon Disulfide	2.72	76	630	0.02	PPB	79
13) Methylene Chloride	3.08	84	1563	0.16	PPB	# 63
34) Toluene	9.74	92	1761m	0.08	PPB	

*Kamal*

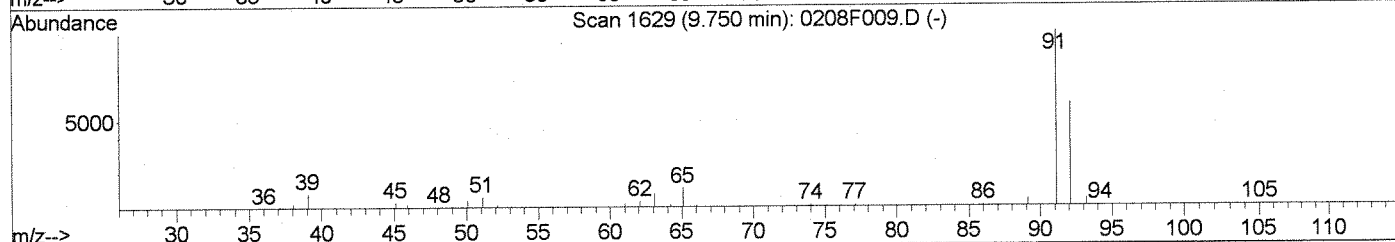
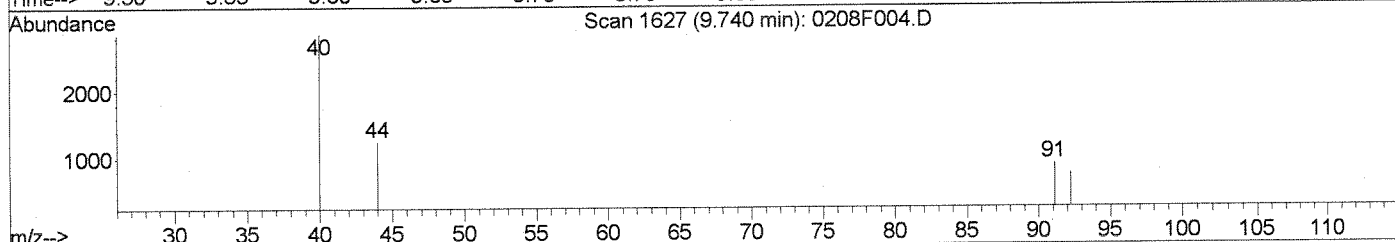
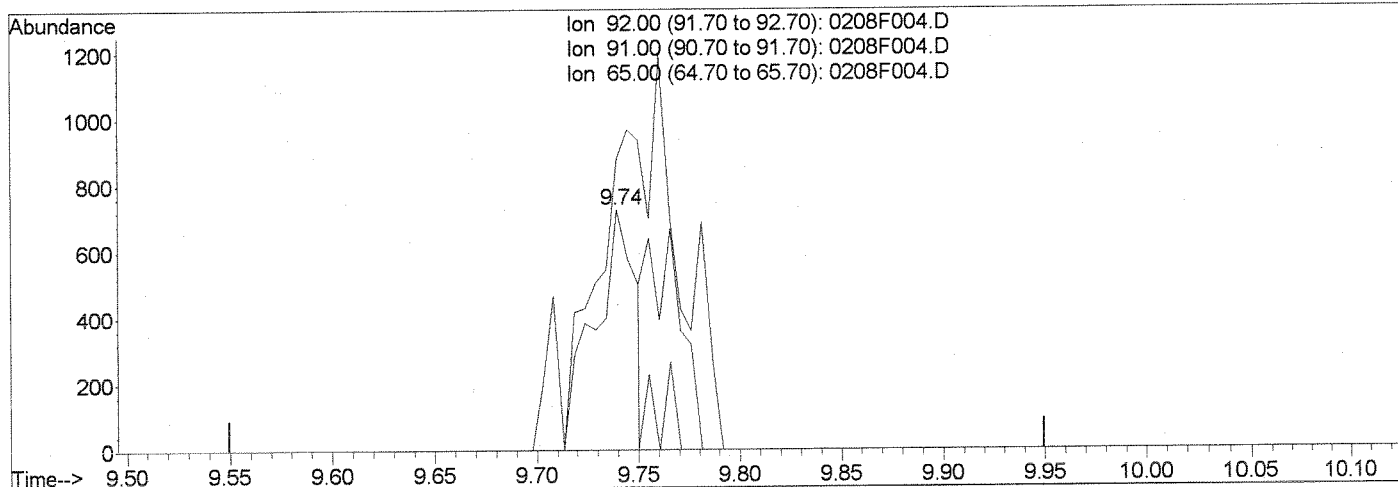
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F004.D  
 Acq On : 8 Feb 2010 3:08 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:05 2010

Vial: 4  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Multiple Level Calibration



TIC: 0208F004.D

(34) Toluene (CMT)

9.74min 0.04PPB

response 1015

Ion	Exp%	Act%
92.00	100	100
91.00	169.70	56.67#
65.00	17.90	0.00
0.00	0.00	0.00

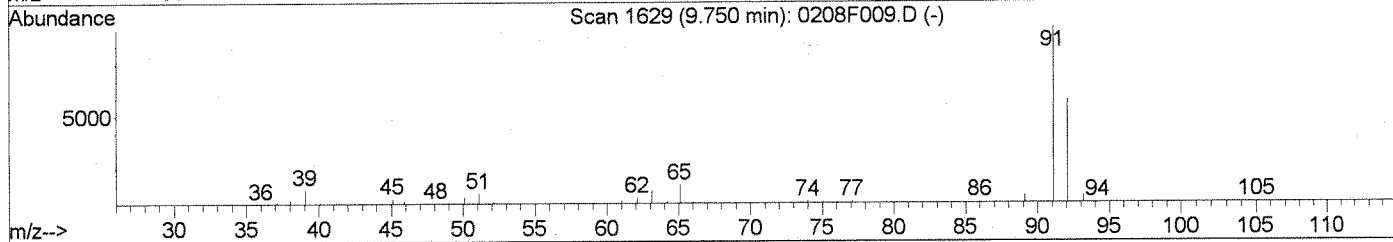
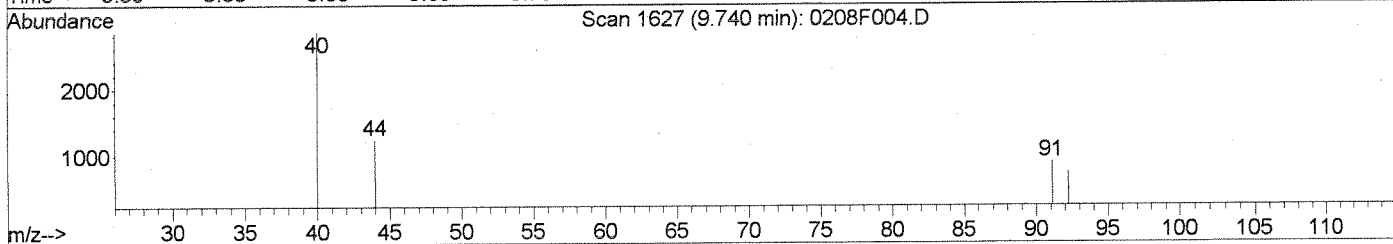
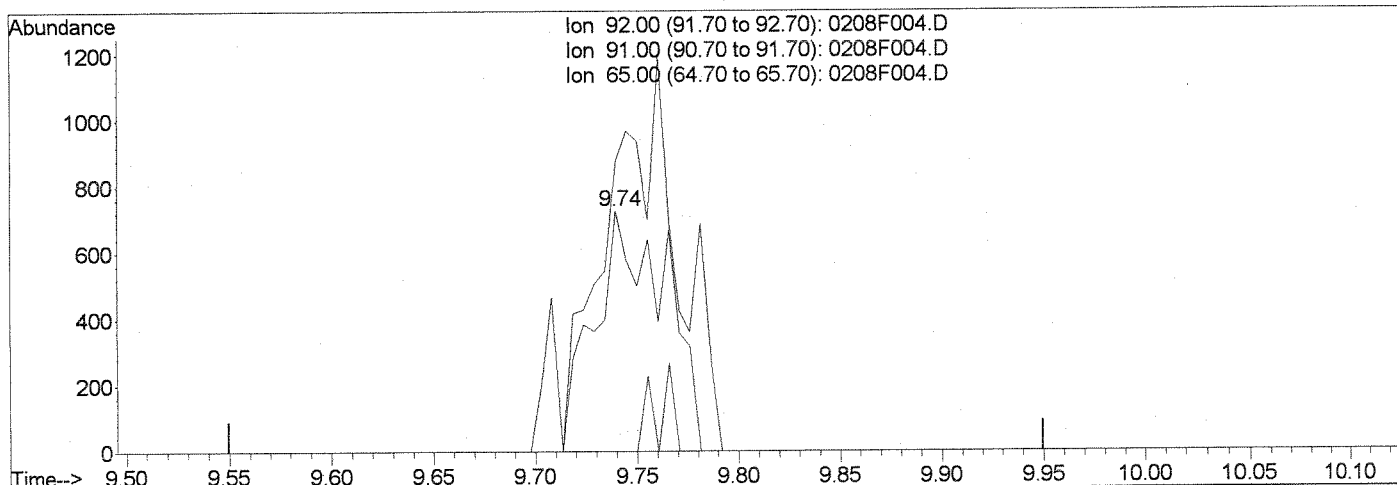
Quantitation Report (Quant)

Data File : J:\MS13\DATA\020810\_624\0208F004.D  
 Acq On : 8 Feb 2010 3:08 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:06 2010

Vial: 4  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Multiple Level Calibration



TIC: 0208F004.D

(34) Toluene (CMT)

9.74min 0.08PPB m

response 1761

Ion	Exp%	Act%
92.00	100	100
91.00	169.70	120.77#
65.00	17.90	0.00
0.00	0.00	0.00

S.P.

ann 2/9/10

K 2/9/10

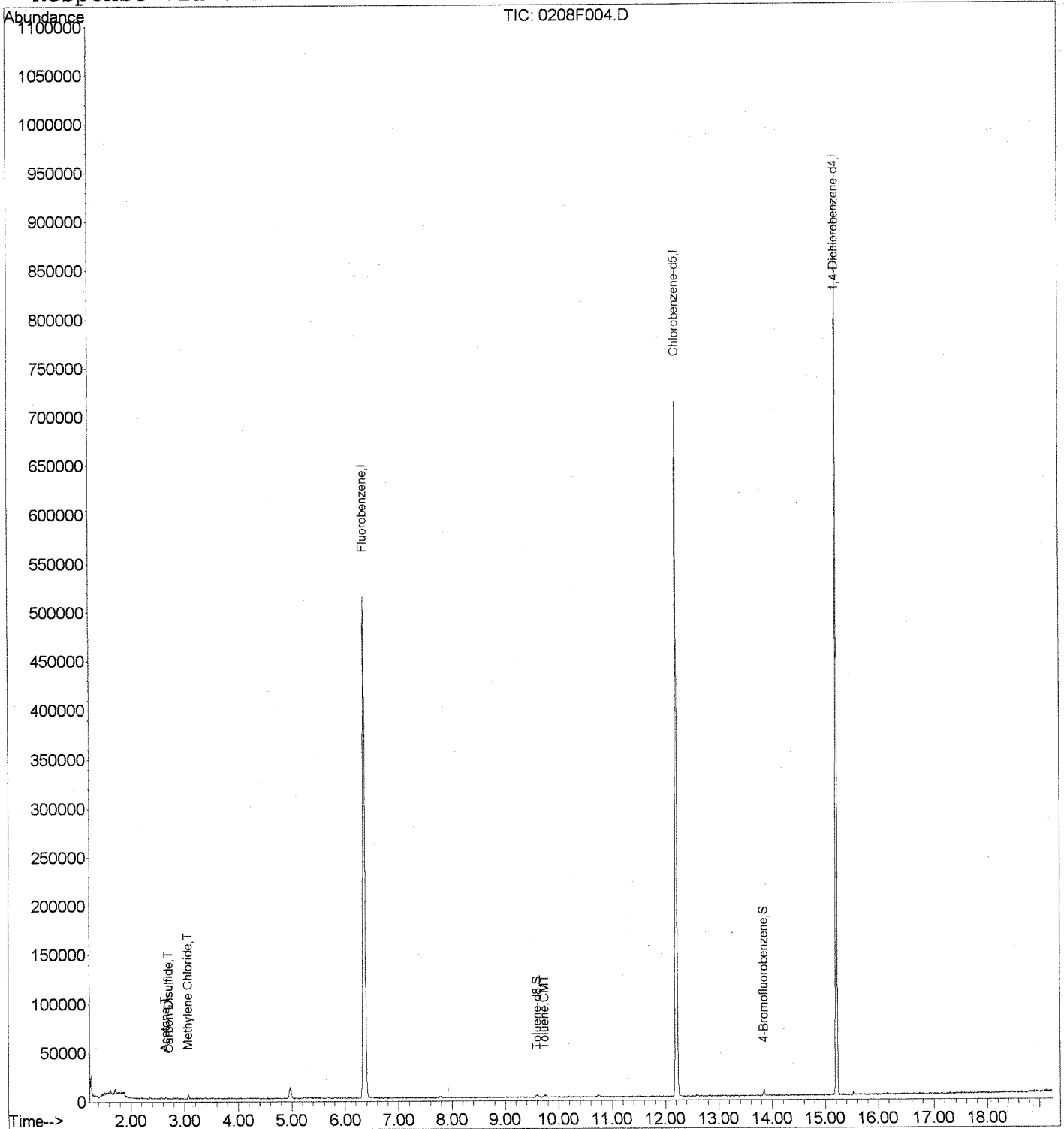


Data File : J:\MS13\DATA\020810\_624\0208F004.D  
Acq On : 8 Feb 2010 3:08 pm  
Sample : IB  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Feb 8 20:06 2010

Vial: 4  
Operator: CMK  
Inst : MS13  
Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
Title : VOA MS13 EPA Method 8260B  
Last Update : Mon Feb 08 20:05:04 2010  
Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F005.D  
 Acq On : 8 Feb 2010 3:48 pm  
 Sample : 0.5 PPB ICAL  
 Misc :

Vial: 5  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:46 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*conc 2/9/10*

*152/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	710587	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	269642	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	276835	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	34130	3.86	PPB	0.00
Spiked Amount	20.000		Recovery	=	19.30%	
24) 1,2-Dichloroethane-d4	5.88	65	36810	3.80	PPB	0.00
Spiked Amount	20.000		Recovery	=	19.00%	
33) Toluene-d8	9.60	98	127673	3.48	PPB	0.00
Spiked Amount	20.000		Recovery	=	17.40%	
47) 4-Bromofluorobenzene	13.85	95	45244	3.35	PPB	0.00
Spiked Amount	20.000		Recovery	=	16.75%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	5200	0.57	PPB	85
3) Chloromethane	1.43	50	7389	0.64	PPB	99
4) Vinyl Chloride	1.51	62	5522	0.52	PPB	98
5) Bromomethane	1.78	96	2121	0.39	PPB	89
6) Chloroethane	1.87	49	804	0.49	PPB	# 85
7) Trichlorofluoromethane	2.05	101	8341	0.58	PPB	91
8) Acrolein	2.50	56	7892	10.53	PPB	93
9) Trichlorotrifluoroethane	2.50	151	4054	0.53	PPB	90
10) 1,1-Dichloroethene	2.53	96	3797	0.49	PPB	93
11) Acetone	2.65	43	40221	19.94	PPB	97
12) Carbon Disulfide	2.72	76	16638	0.53	PPB	98
13) Methylene Chloride	3.07	84	5417	0.55	PPB	95
14) Acrylonitrile	3.42	53	2406	0.79	PPB	94
15) trans-1,2-Dichloroethene	3.31	96	4733	0.48	PPB	90
16) 1,1-Dichloroethane	3.85	63	7963	0.51	PPB	92
18) cis-1,2-Dichloroethene	4.61	96	4626	0.43	PPB	# 74
19) 2-Butanone	4.69	72	14348	16.07	PPB	# 84
20) Chloroform	5.07	83	7457	0.47	PPB	89
21) 1,1,1-Trichloroethane	5.25	97	5734	0.49	PPB	93
23) Carbon Tetrachloride	5.43	117	5721	0.51	PPB	80
25) Benzene	5.83	78	19450	0.48	PPB	98
26) 1,2-Dichloroethane	6.02	62	5431	0.47	PPB	91
27) Trichloroethene	6.99	95	5114	0.52	PPB	84
28) 1,2-Dichloropropane	7.51	63	4539	0.49	PPB	91
29) Bromodichloromethane	8.07	83	5506	0.47	PPB	86
30) 2-Chloroethyl Vinyl Ether	8.89	63	1981m	0.42	PPB	
31) cis-1,3-Dichloropropene	9.13	75	5200	0.40	PPB	86

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F005.D  
 Acq On : 8 Feb 2010 3:48 pm  
 Sample : 0.5 PPB ICAL  
 Misc :

Vial: 5  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:46 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	36759	13.03	PPB	# 74
34) Toluene	9.74	92	12412	0.48	PPB	# 73
36) trans-1,3-Dichloropropene	10.46	75	4437	0.43	PPB	96
37) 1,1,2-Trichloroethane	10.78	83	2945	0.42	PPB	80
38) Tetrachloroethene	10.75	164	3937	0.46	PPB	88
39) 2-Hexanone	11.26	43	59270	12.70	PPB	96
40) Dibromochloromethane	11.35	129	4023	0.44	PPB	84
41) Chlorobenzene	12.25	112	13277	0.46	PPB	100
42) Ethylbenzene	12.41	106	5373	0.35	PPB	91
43) m,p-Xylenes	12.60	106	14689	0.78	PPB	90
44) o-Xylene	13.13	106	6946	0.39	PPB	85
45) Styrene	13.18	103	5301	0.36	PPB	# 83
46) Bromoform	13.41	173	2325	0.42	PPB	75
49) 1,1,2,2-Tetrachloroethane	14.12	83	4484	0.49	PPB	85
51) 1,3-Dichlorobenzene	15.12	146	9613	0.44	PPB	96
52) 1,4-Dichlorobenzene	15.24	146	10158	0.45	PPB	94
53) 1,2-Dichlorobenzene	15.64	146	9018	0.44	PPB	89

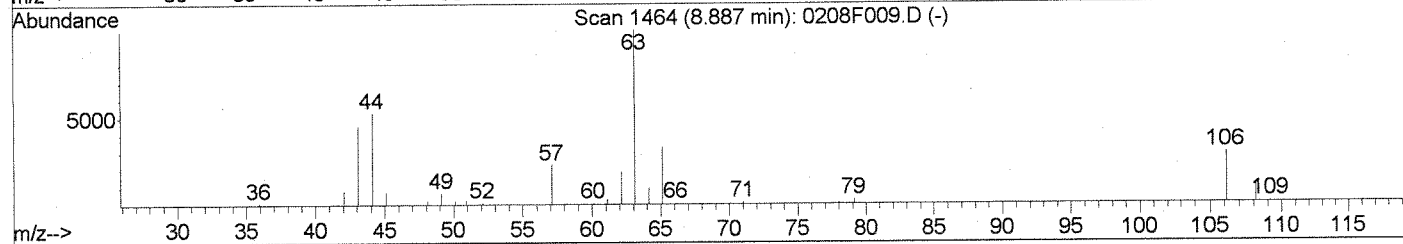
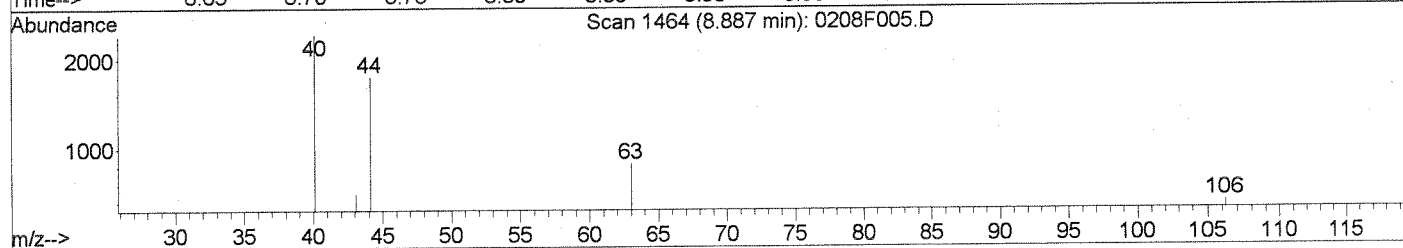
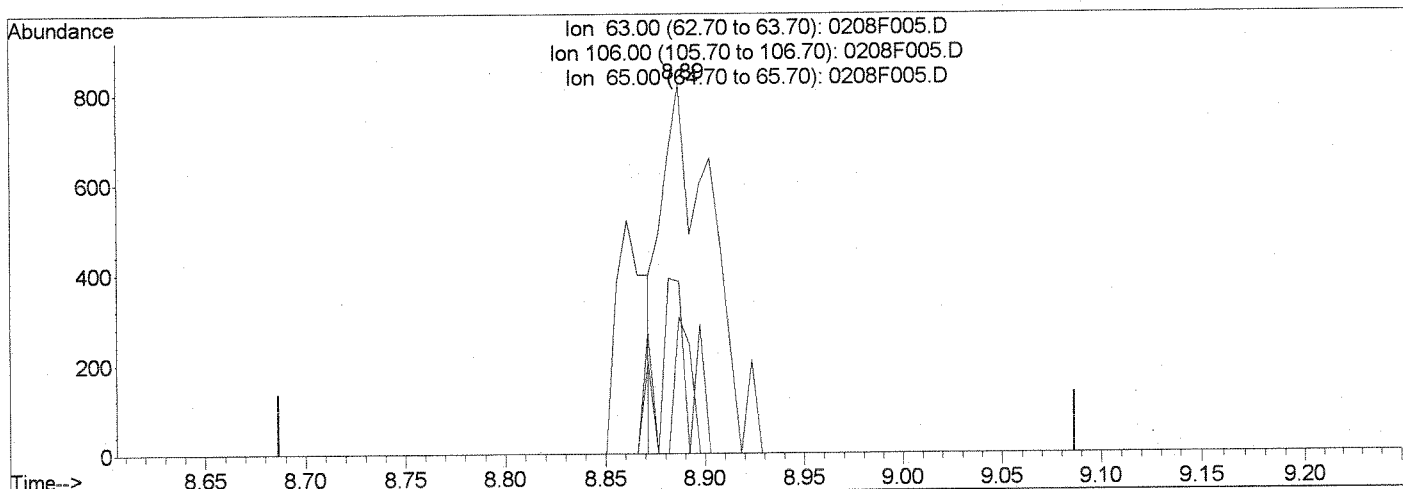
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F005.D  
 Acq On : 8 Feb 2010 3:48 pm  
 Sample : 0.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:58 2010

Vial: 5  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Multiple Level Calibration



TIC: 0208F005.D

(30) 2-Chloroethyl Vinyl Ether (T)

8.89min 0.31PPB

response 1448

Ion	Exp%	Act%
63.00	100	100
106.00	28.80	46.65
65.00	33.10	37.15
0.00	0.00	0.00

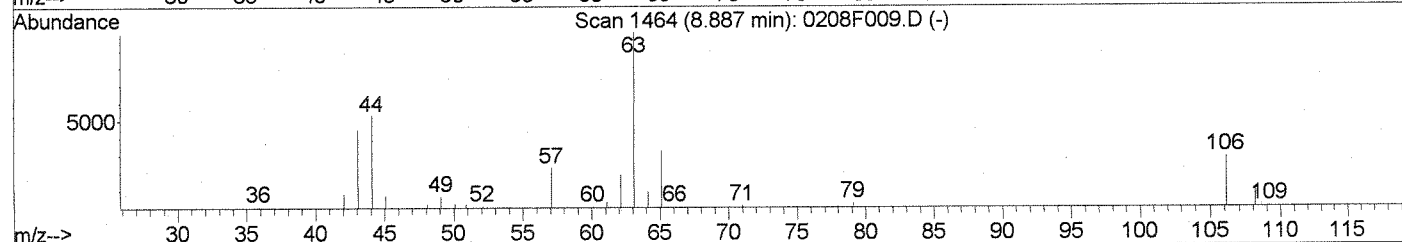
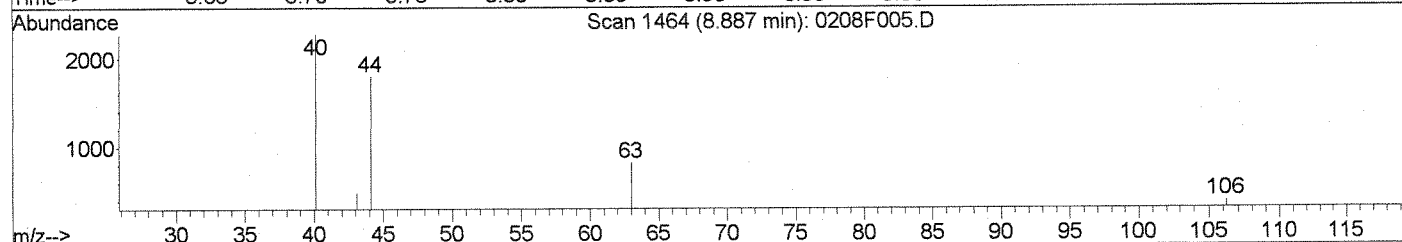
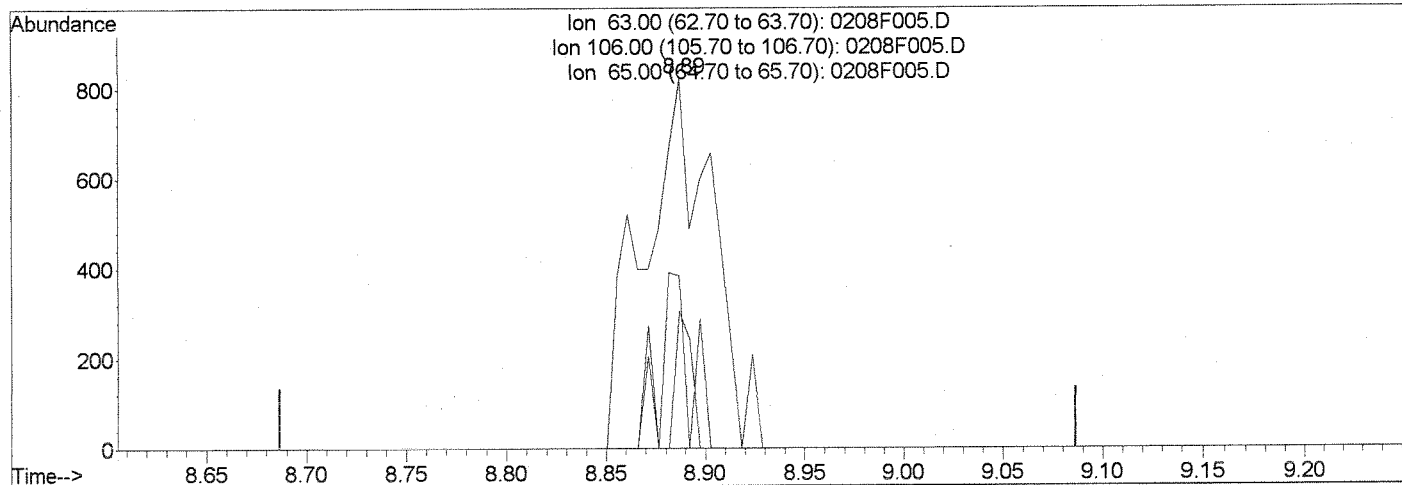
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F005.D  
 Acq On : 8 Feb 2010 3:48 pm  
 Sample : 0.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:59 2010

Vial: 5  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Multiple Level Calibration



TIC: 0208F005.D

(30) 2-Chloroethyl Vinyl Ether (T)

8.89min 0.42PPB m

response 1981

Ion	Exp%	Act%
63.00	100	100
106.00	28.80	46.65
65.00	33.10	37.15
0.00	0.00	0.00

S.P.

2/9/10

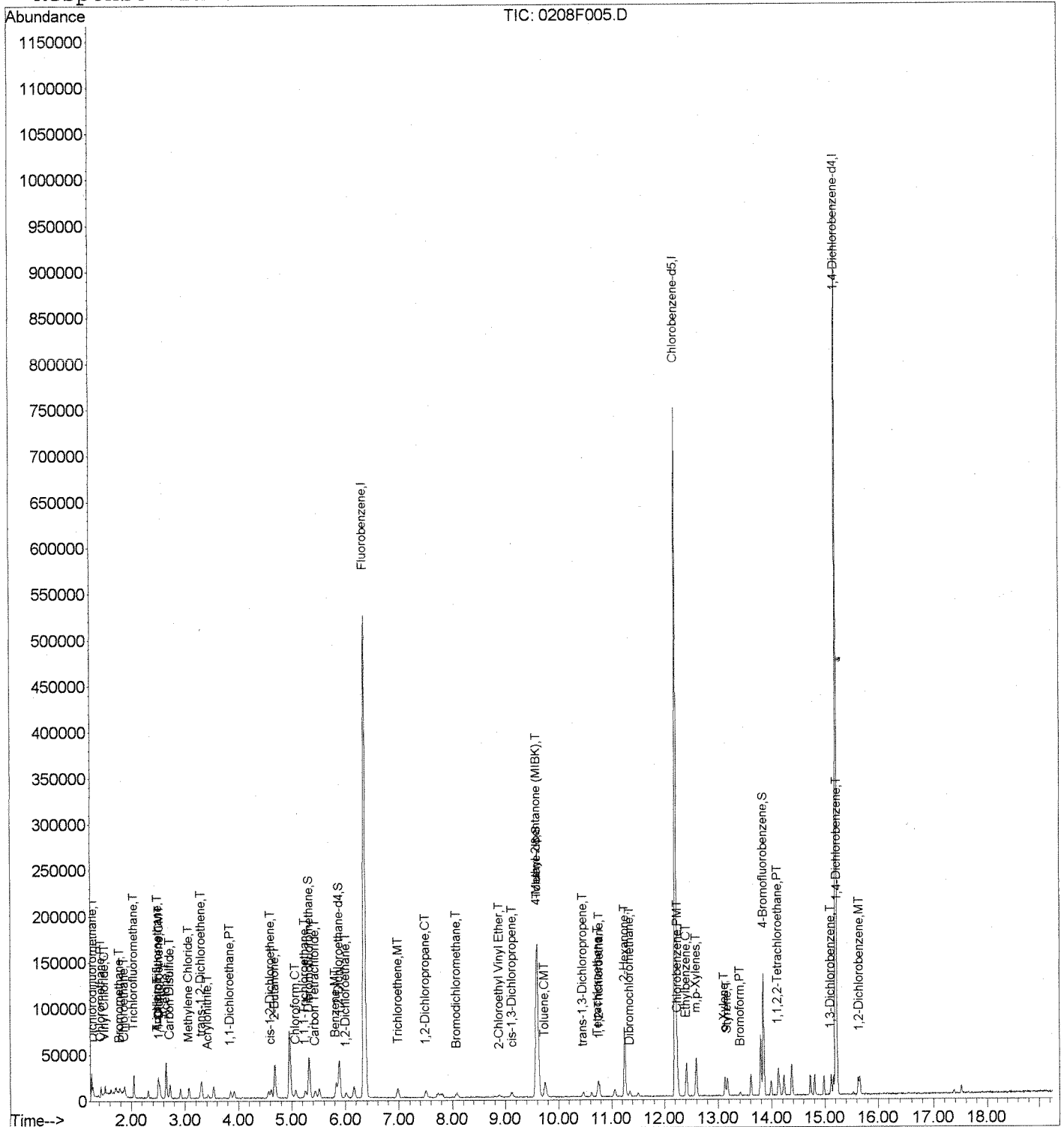
K21110

Data File : J:\MS13\DATA\020810\_624\0208F005.D  
 Acq On : 8 Feb 2010 3:48 pm  
 Sample : 0.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:59 2010

Vial: 5  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F006.D  
 Acq On : 8 Feb 2010 4:15 pm  
 Sample : 1.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:47 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Conc 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	715763	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	275799	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	282744	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	49355	5.54	PPB	0.00
Spiked Amount	20.000		Recovery	=	27.70%	
24) 1,2-Dichloroethane-d4	5.89	65	55091	5.65	PPB	0.00
Spiked Amount	20.000		Recovery	=	28.25%	
33) Toluene-d8	9.60	98	187104	5.06	PPB	0.00
Spiked Amount	20.000		Recovery	=	25.30%	
47) 4-Bromofluorobenzene	13.85	95	70545	5.11	PPB	0.00
Spiked Amount	20.000		Recovery	=	25.55%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	8734	0.95	PPB	86
3) Chloromethane	1.43	50	11059	0.96	PPB	98
4) Vinyl Chloride	1.51	62	9600	0.91	PPB	92
5) Bromomethane	1.78	96	4559	0.84	PPB	98
6) Chloroethane	1.87	49	1178	0.71	PPB	# 76
7) Trichlorofluoromethane	2.05	101	13880	0.95	PPB	96
8) Acrolein	2.51	56	16088	21.31	PPB	94
9) Trichlorotrifluoroethane	2.50	151	7567	0.99	PPB	93
10) 1,1-Dichloroethene	2.53	96	7356	0.94	PPB	82
11) Acetone	2.65	43	82302	40.51	PPB	99
12) Carbon Disulfide	2.72	76	29099	0.91	PPB	96
13) Methylene Chloride	3.08	84	10627	1.08	PPB	93
14) Acrylonitrile	3.43	53	6034	1.97	PPB	# 65
15) trans-1,2-Dichloroethene	3.31	96	9052	0.92	PPB	92
16) 1,1-Dichloroethane	3.86	63	15125	0.96	PPB	93
17) Vinyl Acetate	3.91	86	2715	1.73	PPB	# 58
18) cis-1,2-Dichloroethene	4.62	96	9774	0.91	PPB	85
19) 2-Butanone	4.69	72	31034	34.50	PPB	96
20) Chloroform	5.07	83	15186	0.95	PPB	98
21) 1,1,1-Trichloroethane	5.25	97	10077	0.86	PPB	90
23) Carbon Tetrachloride	5.43	117	9877	0.87	PPB	84
25) Benzene	5.83	78	35742	0.87	PPB	96
26) 1,2-Dichloroethane	6.02	62	11588	0.99	PPB	97
27) Trichloroethene	6.98	95	9553	0.96	PPB	80
28) 1,2-Dichloropropane	7.51	63	8789	0.94	PPB	94
29) Bromodichloromethane	8.09	83	10879	0.91	PPB	84
30) 2-Chloroethyl Vinyl Ether	8.88	63	3796m	0.80	PPB	

*kr  
4/10*

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F006.D  
 Acq On : 8 Feb 2010 4:15 pm  
 Sample : 1.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:47 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.11	75	11066	0.85	PPB	91
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	86849	30.56	PPB #	80
34) Toluene	9.75	92	22736	0.87	PPB #	76
36) trans-1,3-Dichloropropene	10.46	75	8077	0.77	PPB	91
37) 1,1,2-Trichloroethane	10.78	83	6395	0.89	PPB	86
38) Tetrachloroethene	10.75	164	7674	0.88	PPB	93
39) 2-Hexanone	11.25	43	143299	30.01	PPB	99
40) Dibromochloromethane	11.35	129	8884	0.95	PPB	86
41) Chlorobenzene	12.25	112	27872	0.94	PPB	96
42) Ethylbenzene	12.41	106	12370	0.78	PPB	94
43) m,p-Xylenes	12.60	106	29487	1.52	PPB	90
44) o-Xylene	13.13	106	13618	0.75	PPB	91
45) Styrene	13.18	103	10538	0.70	PPB	87
46) Bromoform	13.41	173	5066	0.90	PPB	92
49) 1,1,2,2-Tetrachloroethane	14.12	83	8979	0.97	PPB	88
51) 1,3-Dichlorobenzene	15.12	146	19002	0.86	PPB	89
52) 1,4-Dichlorobenzene	15.24	146	21188	0.92	PPB	100
53) 1,2-Dichlorobenzene	15.65	146	18772	0.90	PPB	90

(#) = qualifier out of range (m) = manual integration



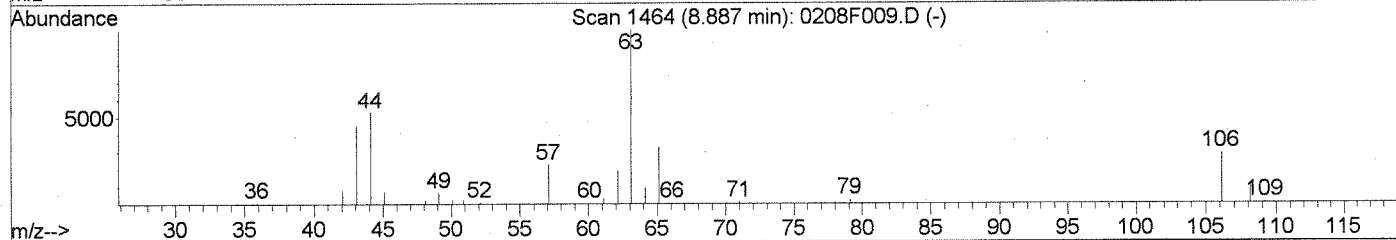
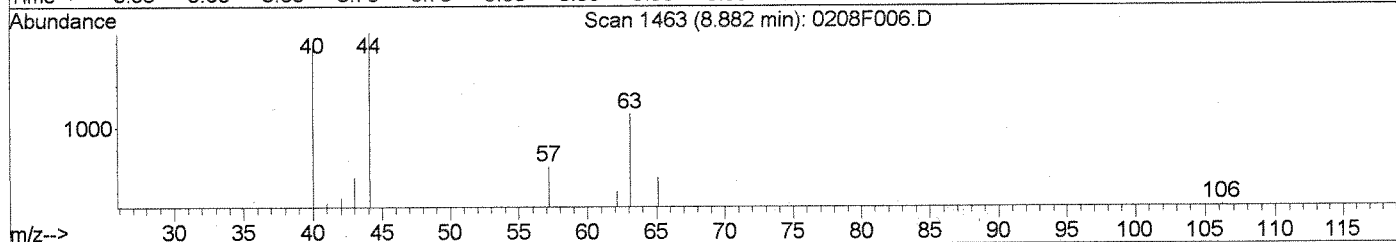
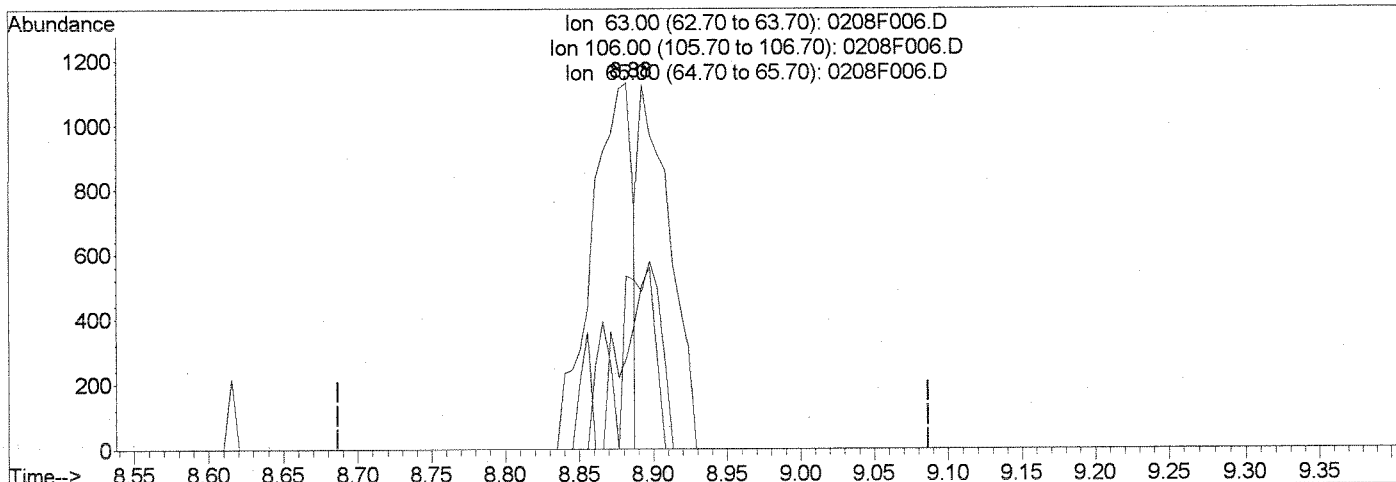
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\020810\_624\0208F006.D  
 Acq On : 8 Feb 2010 4:15 pm  
 Sample : 1.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:57 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:00:10 2010  
 Response via : Multiple Level Calibration



TIC: 0208F006.D

(30) 2-Chloroethyl Vinyl Ether (T)

8.88min 0.46PPB

response 2172

Ion	Exp%	Act%
63.00	100	100
106.00	28.80	24.71
65.00	33.10	47.12
0.00	0.00	0.00

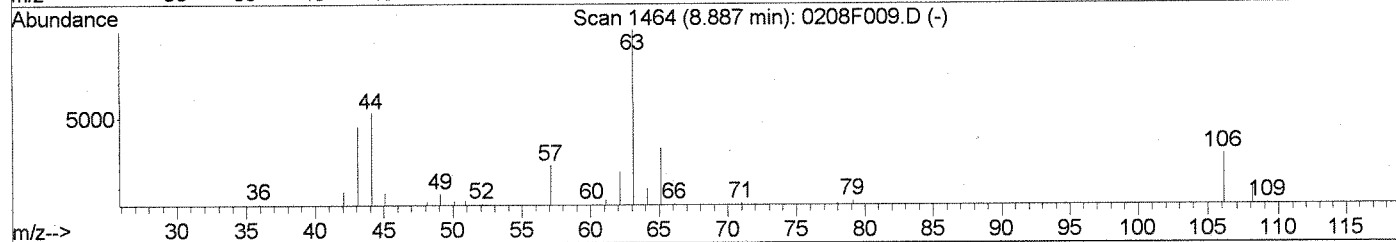
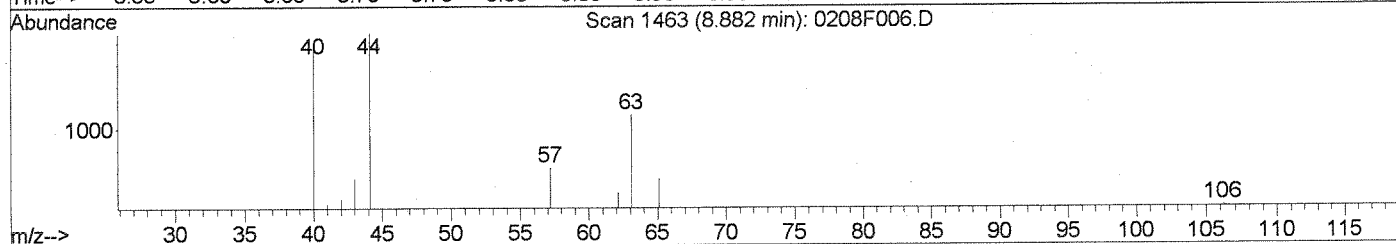
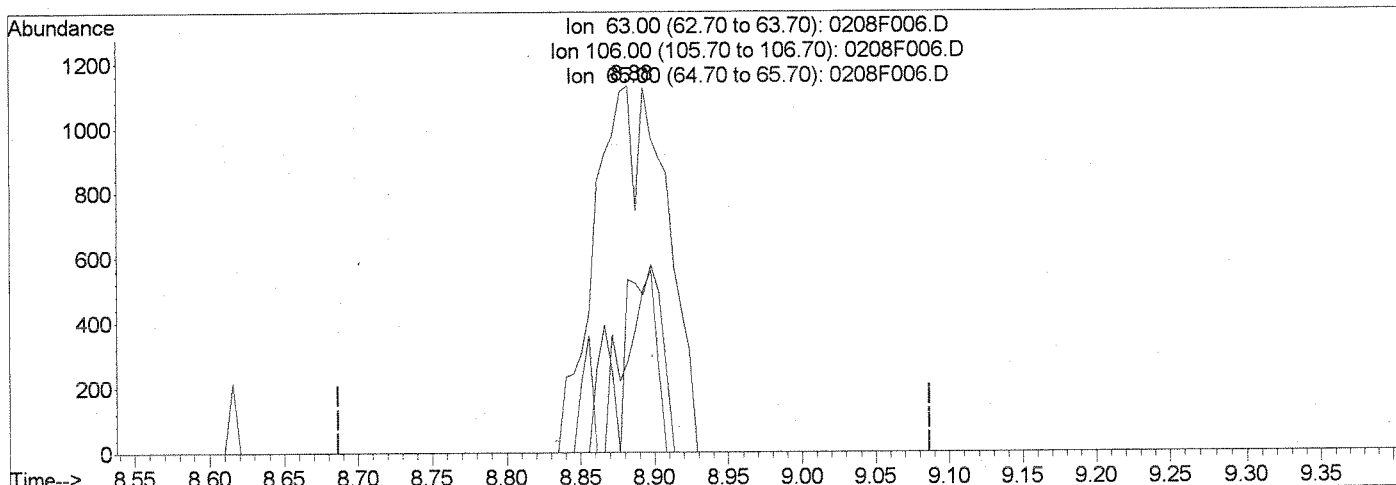
Quantitation Report (Quant)

Data File : J:\MS13\DATA\020810\_624\0208F006.D  
 Acq On : 8 Feb 2010 4:15 pm  
 Sample : 1.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:00 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:00:10 2010  
 Response via : Multiple Level Calibration



(30) 2-Chloroethyl Vinyl Ether (T)

8.88min 0.80PPB m

response 3796

Ion	Exp%	Act%
63.00	100	100
106.00	28.80	24.71
65.00	33.10	47.12
0.00	0.00	0.00

S.P.

Gene 2/9/10

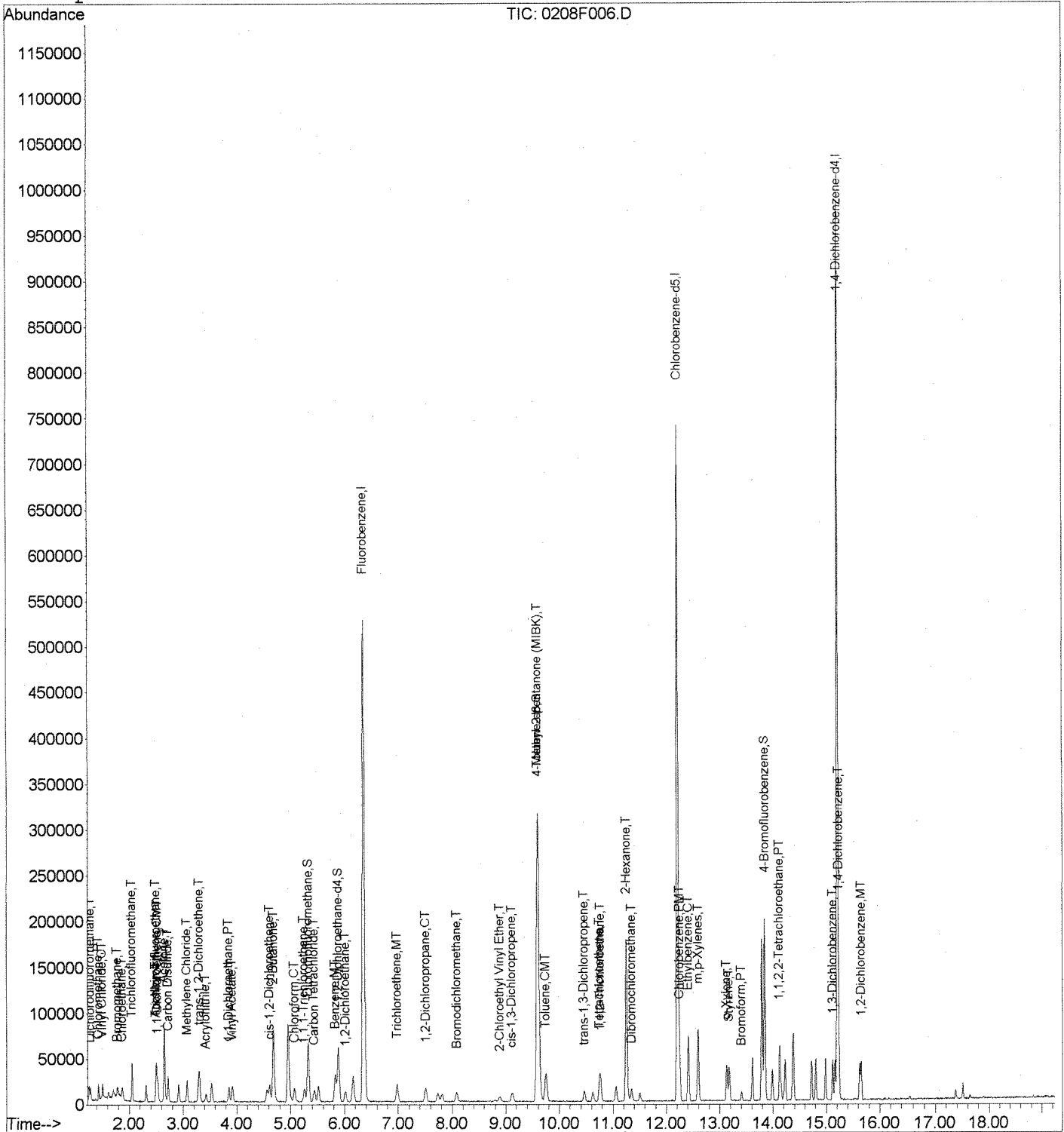
W 2/9/10

Data File : J:\MS13\DATA\020810\_624\0208F006.D  
 Acq On : 8 Feb 2010 4:15 pm  
 Sample : 1.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:00 2010

Vial: 6  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F007.D  
 Acq On : 8 Feb 2010 4:43 pm  
 Sample : 2.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:47 2010

Vial: 7  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Sum 2/4/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	729207	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	277276	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	284897	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	70961	7.81	PPB	0.00
Spiked Amount	20.000		Recovery	=	39.05%	
24) 1,2-Dichloroethane-d4	5.89	65	79031	7.96	PPB	0.00
Spiked Amount	20.000		Recovery	=	39.80%	
33) Toluene-d8	9.60	98	282211	7.50	PPB	0.00
Spiked Amount	20.000		Recovery	=	37.50%	
47) 4-Bromofluorobenzene	13.85	95	105258	7.58	PPB	0.00
Spiked Amount	20.000		Recovery	=	37.90%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	20056	2.14	PPB	94
3) Chloromethane	1.43	50	26204	2.23	PPB	97
4) Vinyl Chloride	1.51	62	21265	1.97	PPB	92
5) Bromomethane	1.78	96	9905	1.78	PPB	95
6) Chloroethane	1.87	49	3594	2.13	PPB	# 84
7) Trichlorofluoromethane	2.05	101	30362	2.04	PPB	97
8) Acrolein	2.51	56	38096	49.52	PPB	97
9) Trichlorotrifluoroethane	2.50	151	16295	2.09	PPB	97
10) 1,1-Dichloroethene	2.53	96	15626	1.96	PPB	81
11) Acetone	2.65	43	203711	98.42	PPB	99
12) Carbon Disulfide	2.72	76	65545	2.02	PPB	99
13) Methylene Chloride	3.07	84	23824	2.37	PPB	93
14) Acrylonitrile	3.43	53	14679	4.71	PPB	99
15) trans-1,2-Dichloroethene	3.31	96	20350	2.02	PPB	87
16) 1,1-Dichloroethane	3.85	63	34058	2.12	PPB	97
17) Vinyl Acetate	3.92	86	6705	4.20	PPB	# 86
18) cis-1,2-Dichloroethene	4.61	96	23107	2.11	PPB	95
19) 2-Butanone	4.69	72	83932	91.60	PPB	99
20) Chloroform	5.07	83	37002	2.26	PPB	90
21) 1,1,1-Trichloroethane	5.25	97	24122	2.02	PPB	99
23) Carbon Tetrachloride	5.43	117	24110	2.08	PPB	82
25) Benzene	5.83	78	85901	2.05	PPB	99
26) 1,2-Dichloroethane	6.01	62	28021	2.35	PPB	96
27) Trichloroethene	6.97	95	21196	2.08	PPB	94
28) 1,2-Dichloropropane	7.50	63	20694	2.16	PPB	88
29) Bromodichloromethane	8.08	83	26857	2.22	PPB	100
30) 2-Chloroethyl Vinyl Ether	8.89	63	9622	1.98	PPB	90

*ka*  
*2/4/10*

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F007.D  
 Acq On : 8 Feb 2010 4:43 pm  
 Sample : 2.5 PPB ICAL  
 Misc :

Vial: 7  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:47 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.12	75	25730	1.94	PPB	89
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	250308	86.45	PPB	94
34) Toluene	9.75	92	54315	2.04	PPB	99
36) trans-1,3-Dichloropropene	10.46	75	21736	2.06	PPB	95
37) 1,1,2-Trichloroethane	10.77	83	15917	2.19	PPB	95
38) Tetrachloroethene	10.75	164	18492	2.11	PPB	80
39) 2-Hexanone	11.25	43	400242	83.38	PPB	99
40) Dibromochloromethane	11.36	129	21476	2.28	PPB	96
41) Chlorobenzene	12.25	112	66459	2.23	PPB	93
42) Ethylbenzene	12.41	106	30461	1.92	PPB	98
43) m,p-Xylenes	12.60	106	74010	3.80	PPB	98
44) o-Xylene	13.13	106	33258	1.82	PPB	83
45) Styrene	13.18	103	28558	1.90	PPB	95
46) Bromoform	13.41	173	12543	2.22	PPB	97
49) 1,1,2,2-Tetrachloroethane	14.12	83	22001	2.36	PPB	96
51) 1,3-Dichlorobenzene	15.12	146	47529	2.12	PPB	95
52) 1,4-Dichlorobenzene	15.24	146	49718	2.15	PPB	92
53) 1,2-Dichlorobenzene	15.65	146	46305	2.21	PPB	93

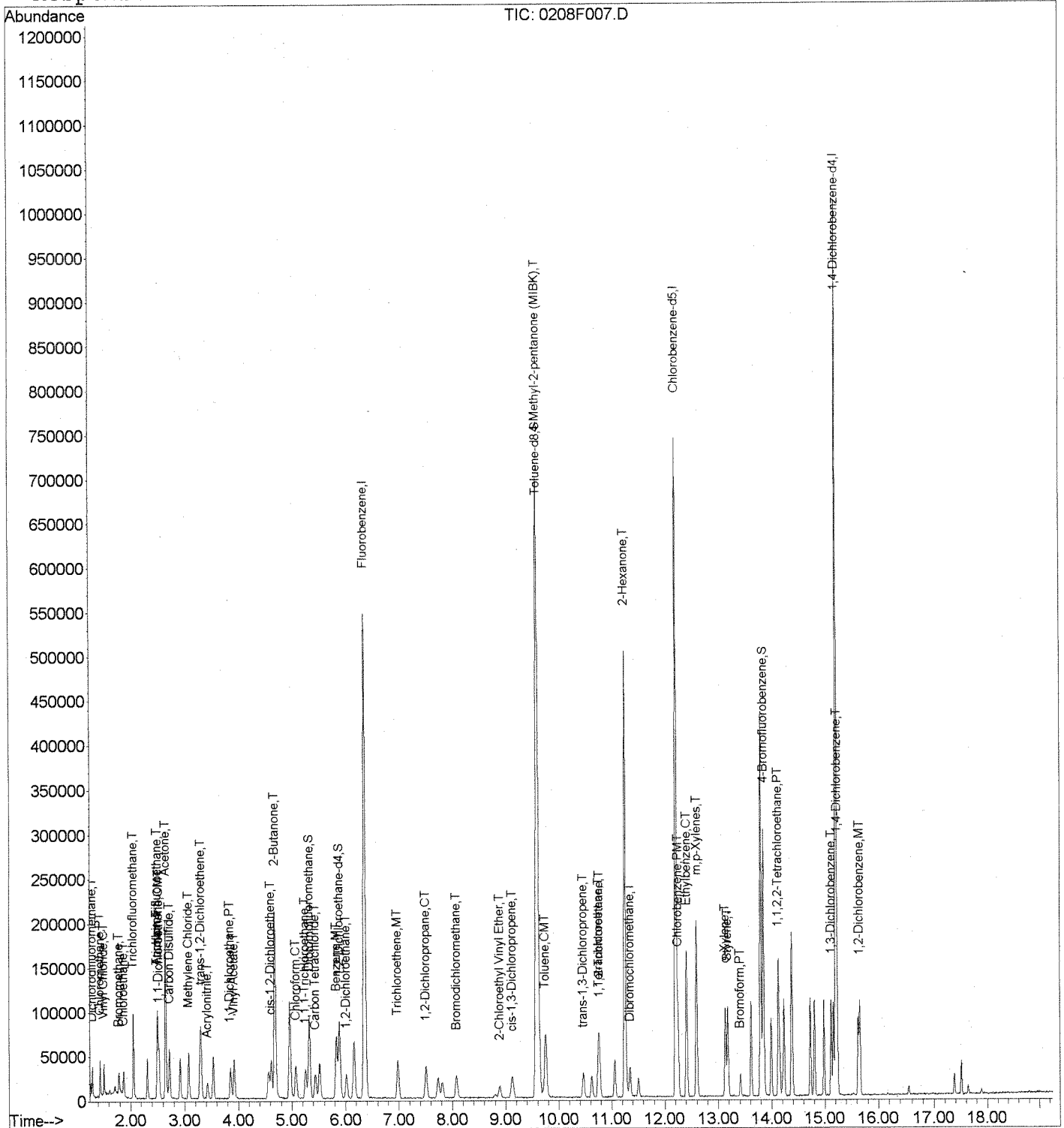
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F007.D  
 Acq On : 8 Feb 2010 4:43 pm  
 Sample : 2.5 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:57 2010

Vial: 7  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F008.D  
 Acq On : 8 Feb 2010 5:11 pm  
 Sample : 5.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:48 2010

Vial: 8  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Conc 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	6.36	96	745166	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	283413	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	297098	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	90961	9.80	PPB	0.00
Spiked Amount	20.000		Recovery	=	49.00%	
24) 1,2-Dichloroethane-d4	5.89	65	100748	9.93	PPB	0.00
Spiked Amount	20.000		Recovery	=	49.65%	
33) Toluene-d8	9.60	98	369438	9.60	PPB	0.00
Spiked Amount	20.000		Recovery	=	48.00%	
47) 4-Bromofluorobenzene	13.85	95	136840	9.65	PPB	0.00
Spiked Amount	20.000		Recovery	=	48.25%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	40572	4.23	PPB	97
3) Chloromethane	1.43	50	53881	4.48	PPB	96
4) Vinyl Chloride	1.51	62	45051	4.08	PPB	99
5) Bromomethane	1.78	96	21969	3.87	PPB	93
6) Chloroethane	1.87	49	7089	4.11	PPB	# 81
7) Trichlorofluoromethane	2.05	101	64760	4.26	PPB	98
8) Acrolein	2.51	56	81291	103.42	PPB	98
9) Trichlorotrifluoroethane	2.50	151	34689	4.35	PPB	91
10) 1,1-Dichloroethene	2.53	96	33819	4.16	PPB	97
11) Acetone	2.65	43	419710	198.43	PPB	99
12) Carbon Disulfide	2.72	76	138286	4.18	PPB	97
13) Methylene Chloride	3.07	84	48196	4.70	PPB	89
14) Acrylonitrile	3.43	53	31626	9.93	PPB	97
15) trans-1,2-Dichloroethene	3.31	96	45399	4.41	PPB	96
16) 1,1-Dichloroethane	3.86	63	69357	4.22	PPB	98
17) Vinyl Acetate	3.92	86	14021	8.60	PPB	93
18) cis-1,2-Dichloroethene	4.62	96	51315	4.59	PPB	94
19) 2-Butanone	4.68	72	182882	195.31	PPB	99
20) Chloroform	5.07	83	74981	4.49	PPB	99
21) 1,1,1-Trichloroethane	5.26	97	52050	4.26	PPB	98
23) Carbon Tetrachloride	5.43	117	47870	4.03	PPB	94
25) Benzene	5.83	78	184607	4.31	PPB	100
26) 1,2-Dichloroethane	6.02	62	56124	4.60	PPB	99
27) Trichloroethene	6.98	95	44531	4.28	PPB	92
28) 1,2-Dichloropropane	7.51	63	43466	4.44	PPB	95
29) Bromodichloromethane	8.08	83	55278	4.46	PPB	95
30) 2-Chloroethyl Vinyl Ether	8.89	63	20870	4.21	PPB	92

*KS 2/9/10*

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F008.D  
 Acq On : 8 Feb 2010 5:11 pm  
 Sample : 5.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:48 2010

Vial: 8  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.12	75	55778	4.12	PPB	93
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	559032	188.93	PPB	99
34) Toluene	9.75	92	119751	4.41	PPB	95
36) trans-1,3-Dichloropropene	10.47	75	45065	4.18	PPB	94
37) 1,1,2-Trichloroethane	10.77	83	33574	4.53	PPB	95
38) Tetrachloroethene	10.75	164	35887	4.00	PPB	90
39) 2-Hexanone	11.25	43	898962	183.22	PPB	99
40) Dibromochloromethane	11.35	129	42387	4.41	PPB	98
41) Chlorobenzene	12.25	112	133564	4.38	PPB	96
42) Ethylbenzene	12.41	106	66379	4.09	PPB	99
43) m,p-Xylenes	12.59	106	163208	8.20	PPB	94
44) o-Xylene	13.13	106	75753	4.06	PPB	96
45) Styrene	13.18	103	62513	4.07	PPB	97
46) Bromoform	13.41	173	27061	4.69	PPB	97
49) 1,1,2,2-Tetrachloroethane	14.12	83	46797	4.81	PPB	93
51) 1,3-Dichlorobenzene	15.12	146	99727	4.27	PPB	99
52) 1,4-Dichlorobenzene	15.24	146	105897	4.39	PPB	94
53) 1,2-Dichlorobenzene	15.65	146	95741	4.39	PPB	96

(#) = qualifier out of range (m) = manual integration

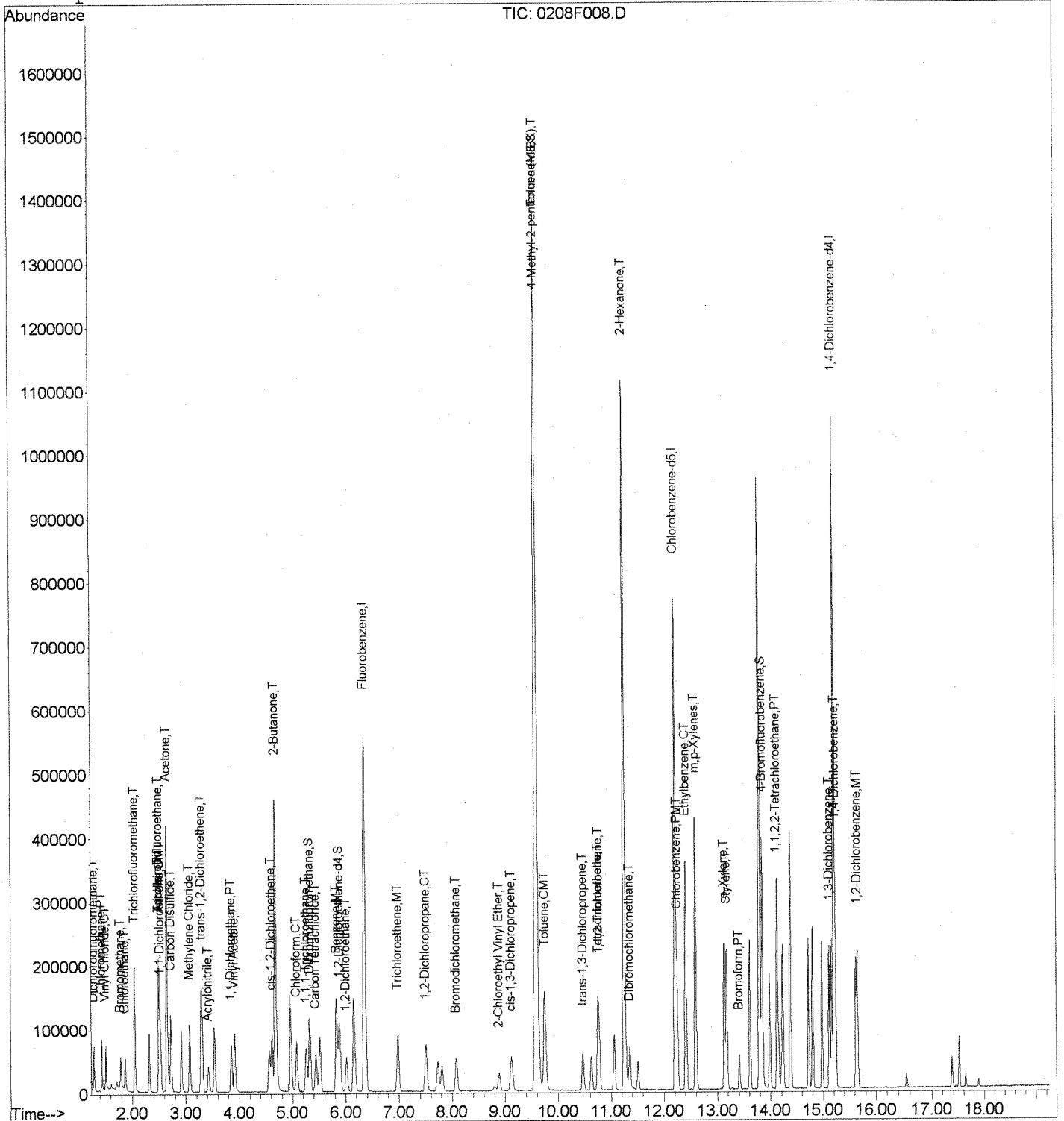


Data File : J:\MS13\DATA\020810\_624\0208F008.D  
 Acq On : 8 Feb 2010 5:11 pm  
 Sample : 5.0 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:57 2010

Vial: 8  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F009.D  
 Acq On : 8 Feb 2010 5:38 pm  
 Sample : 20 PPB ICAL  
 Misc :

Vial: 9  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:56:55 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:56:17 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*run 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	782787	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	292855	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	304962	20.00	PPB	0.00
System Monitoring Compounds						
22) Dibromofluoromethane	5.33	113	195037	20.00	PPB	0.00
Spiked Amount	20.000		Recovery	=	100.00%	
24) 1,2-Dichloroethane-d4	5.88	65	213156	20.00	PPB	0.00
Spiked Amount	20.000		Recovery	=	100.00%	
33) Toluene-d8	9.60	98	808165	20.00	PPB	0.00
Spiked Amount	20.000		Recovery	=	100.00%	
47) 4-Bromofluorobenzene	13.85	95	293205	20.00	PPB	0.00
Spiked Amount	20.000		Recovery	=	100.00%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.29	85	201347	20.00	PPB	100
3) Chloromethane	1.43	50	252593	20.00	PPB	100
4) Vinyl Chloride	1.51	62	231933	20.00	PPB	100
5) Bromomethane	1.78	96	119301	20.00	PPB	100
6) Chloroethane	1.87	49	36250	20.00	PPB	100
7) Trichlorofluoromethane	2.05	101	319259	20.00	PPB	100
8) Acrolein	2.51	56	330300	400.00	PPB	100
9) Trichlorotrifluoroethane	2.50	151	167357	20.00	PPB	100
10) 1,1-Dichloroethene	2.53	96	170927	20.00	PPB	100
11) Acetone	2.65	43	888797	400.00	PPB	100
12) Carbon Disulfide	2.72	76	695784	20.00	PPB	100
13) Methylene Chloride	3.07	84	215668	20.00	PPB	100
14) Acrylonitrile	3.43	53	133885	40.00	PPB	100
15) trans-1,2-Dichloroethene	3.31	96	216292	20.00	PPB	100
16) 1,1-Dichloroethane	3.86	63	345336	20.00	PPB	100
17) Vinyl Acetate	3.92	86	68502	40.00	PPB	100
18) cis-1,2-Dichloroethene	4.62	96	234948	20.00	PPB	100
19) 2-Butanone	4.68	72	393457	400.00	PPB	100
20) Chloroform	5.07	83	350776	20.00	PPB	100
21) 1,1,1-Trichloroethane	5.26	97	256537	20.00	PPB	100
23) Carbon Tetrachloride	5.43	117	249408	20.00	PPB	100
25) Benzene	5.83	78	899480	20.00	PPB	100
26) 1,2-Dichloroethane	6.01	62	256152	20.00	PPB	100
27) Trichloroethene	6.98	95	218524	20.00	PPB	100
28) 1,2-Dichloropropane	7.51	63	205550	20.00	PPB	100
29) Bromodichloromethane	8.08	83	260279	20.00	PPB	100
30) 2-Chloroethyl Vinyl Ether	8.89	63	104146	20.00	PPB	100

*Handwritten signature*

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F009.D  
 Acq On : 8 Feb 2010 5:38 pm  
 Sample : 20 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:56:55 2010

Vial: 9  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:56:17 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

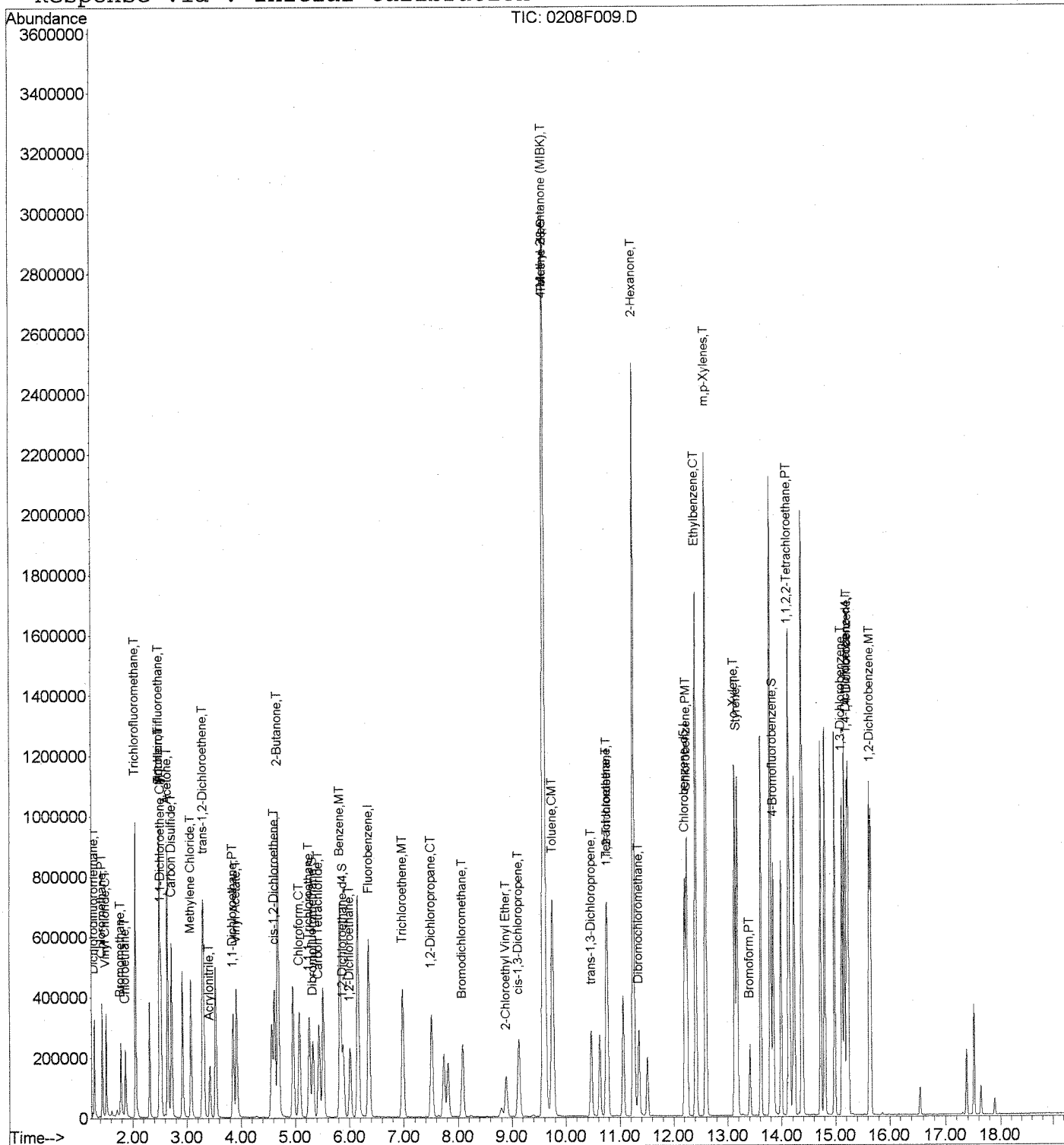
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.12	75	284351	20.00	PPB	100
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	1243307	400.00	PPB	100
34) Toluene	9.75	92	570497	20.00	PPB	100
36) trans-1,3-Dichloropropene	10.47	75	223016	20.00	PPB	100
37) 1,1,2-Trichloroethane	10.77	83	153182	20.00	PPB	100
38) Tetrachloroethene	10.75	164	185268	20.00	PPB	100
39) 2-Hexanone	11.25	43	2027981	400.00	PPB	100
40) Dibromochloromethane	11.35	129	198639	20.00	PPB	100
41) Chlorobenzene	12.25	112	630374	20.00	PPB	100
42) Ethylbenzene	12.41	106	335365	20.00	PPB	100
43) m,p-Xylenes	12.60	106	822451	40.00	PPB	100
44) o-Xylene	13.13	106	385391	20.00	PPB	100
45) Styrene	13.18	103	317686	20.00	PPB	100
46) Bromoform	13.41	173	119310	20.00	PPB	100
49) 1,1,2,2-Tetrachloroethane	14.12	83	199642	20.00	PPB	100
51) 1,3-Dichlorobenzene	15.12	146	478910	20.00	PPB	100
52) 1,4-Dichlorobenzene	15.24	146	495493	20.00	PPB	100
53) 1,2-Dichlorobenzene	15.65	146	448068	20.00	PPB	100

Data File : J:\MS13\DATA\020810\_624\0208F009.D  
 Acq On : 8 Feb 2010 5:38 pm  
 Sample : 20 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 19:57 2010

Vial: 9  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F010.D  
 Acq On : 8 Feb 2010 6:06 pm  
 Sample : 40 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:48 2010

Vial: 10  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Conc 2/4/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	809591	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	303738	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	316651	20.00	PPB	0.00
System Monitoring Compounds						
22) Dibromofluoromethane	5.33	113	389777	38.65	PPB	0.00
Spiked Amount	20.000		Recovery	=	193.25%	
24) 1,2-Dichloroethane-d4	5.88	65	430835	39.09	PPB	0.00
Spiked Amount	20.000		Recovery	=	195.45%	
33) Toluene-d8	9.60	98	1684446	40.31	PPB	0.00
Spiked Amount	20.000		Recovery	=	201.55%	
47) 4-Bromofluorobenzene	13.85	95	591730	38.92	PPB	0.00
Spiked Amount	20.000		Recovery	=	194.60%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.29	85	410919	39.47	PPB	100
3) Chloromethane	1.43	50	510833	39.11	PPB	99
4) Vinyl Chloride	1.51	62	470495	39.23	PPB	99
5) Bromomethane	1.78	96	258807	41.95	PPB	96
6) Chloroethane	1.87	49	71742	38.27	PPB	92
7) Trichlorofluoromethane	2.05	101	658063	39.86	PPB	99
8) Acrolein	2.50	56	674738	790.07	PPB	96
9) Trichlorotrifluoroethane	2.50	151	339526	39.23	PPB	93
10) 1,1-Dichloroethene	2.53	96	349840	39.58	PPB	98
11) Acetone	2.65	43	1813780	789.26	PPB	100
12) Carbon Disulfide	2.72	76	1425492	39.62	PPB	100
13) Methylene Chloride	3.07	84	444580	39.86	PPB	97
14) Acrylonitrile	3.43	53	273915	79.13	PPB	99
15) trans-1,2-Dichloroethene	3.31	96	438283	39.19	PPB	95
16) 1,1-Dichloroethane	3.86	63	718916	40.26	PPB	97
17) Vinyl Acetate	3.92	86	135028	76.24	PPB	94
18) cis-1,2-Dichloroethene	4.62	96	487275	40.11	PPB	97
19) 2-Butanone	4.68	72	814390	800.52	PPB	97
20) Chloroform	5.07	83	717221	39.54	PPB	97
21) 1,1,1-Trichloroethane	5.26	97	546121	41.17	PPB	99
23) Carbon Tetrachloride	5.44	117	526827	40.85	PPB	94
25) Benzene	5.83	78	1842654	39.62	PPB	99
26) 1,2-Dichloroethane	6.02	62	514499	38.84	PPB	98
27) Trichloroethene	6.98	95	449580	39.78	PPB	93
28) 1,2-Dichloropropane	7.51	63	433502	40.78	PPB	99
29) Bromodichloromethane	8.08	83	545297	40.51	PPB	97
30) 2-Chloroethyl Vinyl Ether	8.88	63	222979	41.40	PPB	97

*ka*  
*val*

Data File : J:\MS13\DATA\020810\_624\0208F010.D  
 Acq On : 8 Feb 2010 6:06 pm  
 Sample : 40 PPB ICAL  
 Misc :

Vial: 10  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:48 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.13	75	600778	40.86	PPB	99
32) 4-Methyl-2-pentanone (MIBK)	9.58	58	2598380	808.28	PPB	96
34) Toluene	9.75	92	1167643	39.58	PPB	98
36) trans-1,3-Dichloropropene	10.47	75	490792	42.44	PPB	97
37) 1,1,2-Trichloroethane	10.78	83	307213	38.67	PPB	98
38) Tetrachloroethene	10.75	164	378794	39.43	PPB	98
39) 2-Hexanone	11.25	43	4274793	812.95	PPB	99
40) Dibromochloromethane	11.35	129	407884	39.60	PPB	100
41) Chlorobenzene	12.25	112	1298097	39.71	PPB	99
42) Ethylbenzene	12.41	106	698086	40.14	PPB	97
43) m,p-Xylenes	12.60	106	1702632	79.84	PPB	98
44) o-Xylene	13.13	106	808715	40.46	PPB	99
45) Styrene	13.18	103	654877	39.75	PPB	98
46) Bromoform	13.41	173	241646	39.06	PPB	99
49) 1,1,2,2-Tetrachloroethane	14.12	83	400421	38.63	PPB	97
51) 1,3-Dichlorobenzene	15.12	146	977963	39.33	PPB	98
52) 1,4-Dichlorobenzene	15.24	146	1001228	38.92	PPB	97
53) 1,2-Dichlorobenzene	15.65	146	909596	39.10	PPB	99

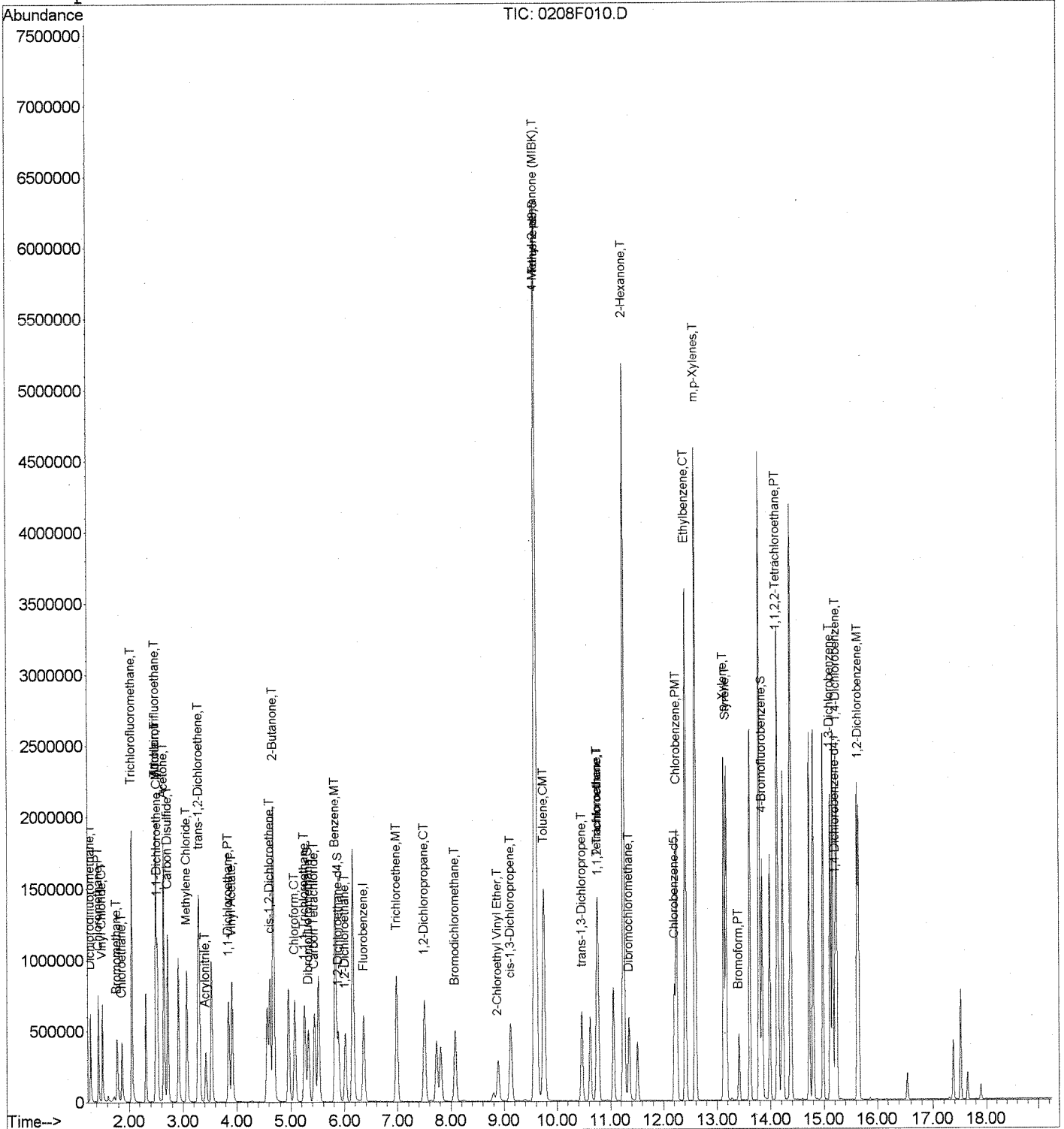
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F010.D  
 Acq On : 8 Feb 2010 6:06 pm  
 Sample : 40 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:04 2010

Vial: 10  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F011.D  
 Acq On : 8 Feb 2010 6:33 pm  
 Sample : 80 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:49 2010

Vial: 11  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Ann 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	6.36	96	839580	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	315199	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	328411	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	494660	47.29	PPB	0.00
Spiked Amount	20.000		Recovery	=	236.45%	
24) 1,2-Dichloroethane-d4	5.88	65	541188	47.34	PPB	0.00
Spiked Amount	20.000		Recovery	=	236.70%	
33) Toluene-d8	9.61	98	2094856	48.34	PPB	0.00
Spiked Amount	20.000		Recovery	=	241.70%	
47) 4-Bromofluorobenzene	13.85	95	741303	46.98	PPB	0.00
Spiked Amount	20.000		Recovery	=	234.90%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	787737	72.95	PPB	99
3) Chloromethane	1.43	50	1004817	74.18	PPB	99
4) Vinyl Chloride	1.51	62	917424	73.76	PPB	98
5) Bromomethane	1.77	96	548965	85.80	PPB	97
6) Chloroethane	1.86	49	143005	73.56	PPB	96
7) Trichlorofluoromethane	2.05	101	1285791	75.10	PPB	98
8) Acrolein	2.50	56	1425587	1609.63	PPB	97
9) Trichlorotrifluoroethane	2.50	151	666785	74.29	PPB	95
10) 1,1-Dichloroethene	2.53	96	701432	76.52	PPB	99
11) Acetone	2.65	43	3780965	1586.51	PPB	100
12) Carbon Disulfide	2.72	76	2828494	75.80	PPB	99
13) Methylene Chloride	3.07	84	894641	77.35	PPB	98
14) Acrylonitrile	3.43	53	574484	160.02	PPB	99
15) trans-1,2-Dichloroethene	3.31	96	888196	76.57	PPB	98
16) 1,1-Dichloroethane	3.86	63	1474143	79.60	PPB	97
17) Vinyl Acetate	3.92	86	319673	174.04	PPB	95
18) cis-1,2-Dichloroethene	4.62	96	984629	78.15	PPB	97
19) 2-Butanone	4.68	72	1722007	1632.22	PPB	94
20) Chloroform	5.08	83	1463182	77.78	PPB	97
21) 1,1,1-Trichloroethane	5.26	97	1121929	81.55	PPB	96
23) Carbon Tetrachloride	5.44	117	1051415	78.61	PPB	93
25) Benzene	5.83	78	3725343	77.23	PPB	99
26) 1,2-Dichloroethane	6.02	62	1051268	76.53	PPB	99
27) Trichloroethene	6.98	95	902170	76.98	PPB	94
28) 1,2-Dichloropropane	7.51	63	902126	81.84	PPB	99
29) Bromodichloromethane	8.08	83	1115627	79.93	PPB	98
30) 2-Chloroethyl Vinyl Ether	8.88	63	491913	88.08	PPB	98

*Kr*  
*WAT*

(#) = qualifier out of range (m) = manual integration



Data File : J:\MS13\DATA\020810\_624\0208F011.D  
 Acq On : 8 Feb 2010 6:33 pm  
 Sample : 80 PPB ICAL  
 Misc :

Vial: 11  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:49 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.13	75	1308210	85.79	PPB	97
32) 4-Methyl-2-pentanone (MIBK)	9.59	58	5550788	1665.01	PPB	96
34) Toluene	9.75	92	2373313	77.57	PPB	100
36) trans-1,3-Dichloropropene	10.47	75	1069071	89.08	PPB	98
37) 1,1,2-Trichloroethane	10.78	83	632033	76.67	PPB	93
38) Tetrachloroethene	10.75	164	757344	75.96	PPB	97
39) 2-Hexanone	11.25	43	9152254	1677.23	PPB	99
40) Dibromochloromethane	11.36	129	847696	79.30	PPB	100
41) Chlorobenzene	12.25	112	2610712	76.96	PPB	99
42) Ethylbenzene	12.41	106	1405323	77.87	PPB	99
43) m,p-Xylenes	12.60	106	3445523	155.69	PPB	98
44) o-Xylene	13.13	106	1638145	78.99	PPB	99
45) Styrene	13.18	103	1353421	79.16	PPB	99
46) Bromoform	13.41	173	519550	80.92	PPB	96
49) 1,1,2,2-Tetrachloroethane	14.12	83	834775	77.66	PPB	97
51) 1,3-Dichlorobenzene	15.12	146	1988970	77.13	PPB	97
52) 1,4-Dichlorobenzene	15.24	146	2031947	76.16	PPB	99
53) 1,2-Dichlorobenzene	15.65	146	1872255	77.60	PPB	99

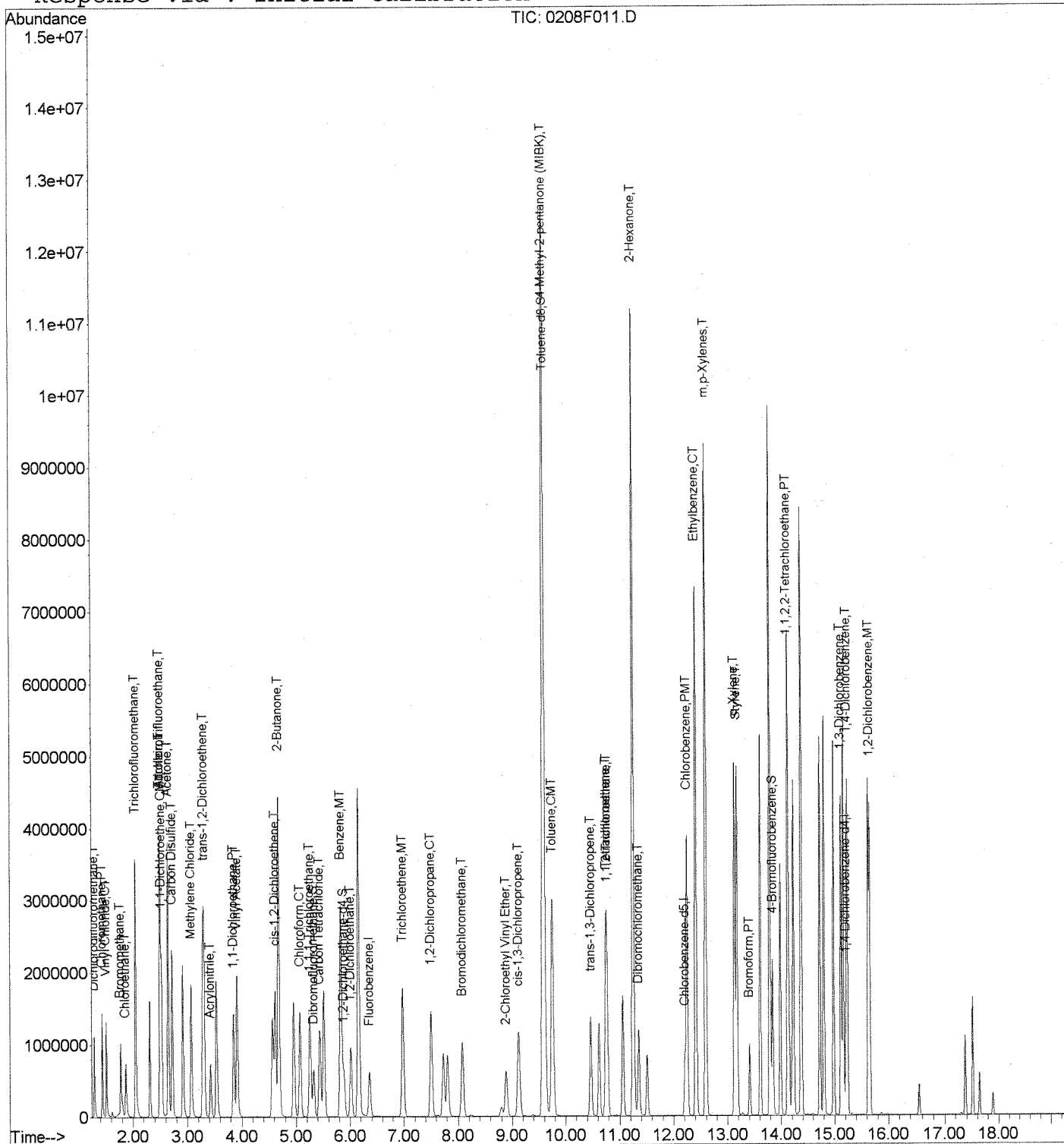
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F011.D  
Acq On : 8 Feb 2010 6:33 pm  
Sample : 80 PPB ICAL  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Feb 8 20:04 2010

Vial: 11  
Operator: CMK  
Inst : MS13  
Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
Title : VOA MS13 EPA Method 8260B  
Last Update : Mon Feb 08 20:05:04 2010  
Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F012.D  
 Acq On : 8 Feb 2010 7:01 pm  
 Sample : 120 PPB ICAL  
 Misc :

Vial: 12  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:49 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*conc 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	865220	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	326403	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	329512	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	614185	56.98	PPB	0.00
Spiked Amount	20.000		Recovery	=	284.90%	
24) 1,2-Dichloroethane-d4	5.88	65	670487	56.92	PPB	0.00
Spiked Amount	20.000		Recovery	=	284.60%	
33) Toluene-d8	9.61	98	2614057	58.53	PPB	0.00
Spiked Amount	20.000		Recovery	=	292.65%	
47) 4-Bromofluorobenzene	13.85	95	913502	55.91	PPB	0.00
Spiked Amount	20.000		Recovery	=	279.55%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	1179501	106.00	PPB	100
3) Chloromethane	1.43	50	1551317	111.13	PPB	99
4) Vinyl Chloride	1.51	62	1427141	111.34	PPB	98
5) Bromomethane	1.77	96	872645	132.36	PPB	97
6) Chloroethane	1.86	49	219143	109.39	PPB	99
7) Trichlorofluoromethane	2.05	101	1981122	112.28	PPB	99
8) Acrolein	2.51	56	2134958	2339.15	PPB	99
9) Trichlorotrifluoroethane	2.50	151	1028289	111.18	PPB	95
10) 1,1-Dichloroethene	2.53	96	1069001	113.17	PPB	97
11) Acetone	2.65	43	5656574	2303.18	PPB	100
12) Carbon Disulfide	2.72	76	4382332	113.97	PPB	100
13) Methylene Chloride	3.07	84	1374581	115.33	PPB	99
14) Acrylonitrile	3.43	53	866294	234.16	PPB	98
15) trans-1,2-Dichloroethene	3.31	96	1370607	114.66	PPB	97
16) 1,1-Dichloroethane	3.86	63	2295021	120.25	PPB	98
17) Vinyl Acetate	3.92	86	512430	270.71	PPB	# 88
18) cis-1,2-Dichloroethene	4.62	96	1509796	116.28	PPB	99
19) 2-Butanone	4.68	72	2577360	2370.58	PPB	94
20) Chloroform	5.07	83	2262514	116.71	PPB	97
21) 1,1,1-Trichloroethane	5.26	97	1776040	125.27	PPB	95
23) Carbon Tetrachloride	5.44	117	1641359	119.08	PPB	95
25) Benzene	5.84	78	5773211	116.14	PPB	99
26) 1,2-Dichloroethane	6.02	62	1606093	113.45	PPB	98
27) Trichloroethene	6.98	95	1402519	116.13	PPB	95
28) 1,2-Dichloropropane	7.51	63	1420062	125.01	PPB	96
29) Bromodichloromethane	8.08	83	1733520	120.51	PPB	98
30) 2-Chloroethyl Vinyl Ether	8.89	63	754004	131.00	PPB	99

*Handwritten initials and numbers: k, 2/9/10*

(#) = qualifier out of range (m) = manual integration  
 0208F012.D 020810MS13\_624.M Mon Feb 08 20:09:07 2010

Data File : J:\MS13\DATA\020810\_624\0208F012.D  
 Acq On : 8 Feb 2010 7:01 pm  
 Sample : 120 PPB ICAL  
 Misc :

Vial: 12  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 08 19:57:49 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 19:57:21 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.13	75	2068250	131.61	PPB	97
32) 4-Methyl-2-pentanone (MIBK)	9.59	58	8314078	2419.99	PPB	95
34) Toluene	9.76	92	3655785	115.95	PPB	99
36) trans-1,3-Dichloropropene	10.47	75	1684872	135.57	PPB	98
37) 1,1,2-Trichloroethane	10.77	83	973573	114.05	PPB	95
38) Tetrachloroethene	10.75	164	1154012	111.77	PPB	98
39) 2-Hexanone	11.25	43	13445595	2379.44	PPB	99
40) Dibromochloromethane	11.36	129	1290222	116.55	PPB	99
41) Chlorobenzene	12.25	112	4004969	114.01	PPB	99
42) Ethylbenzene	12.41	106	2182549	116.78	PPB	99
43) m,p-Xylenes	12.60	106	5300587	231.30	PPB	98
44) o-Xylene	13.13	106	2541036	118.31	PPB	96
45) Styrene	13.18	103	2082592	117.63	PPB	98
46) Bromoform	13.41	173	787101	118.38	PPB	98
49) 1,1,2,2-Tetrachloroethane	14.12	83	1242115	115.16	PPB	97
51) 1,3-Dichlorobenzene	15.12	146	3056505	118.13	PPB	98
52) 1,4-Dichlorobenzene	15.24	146	3107976	116.10	PPB	99
53) 1,2-Dichlorobenzene	15.65	146	2831359	116.96	PPB	98

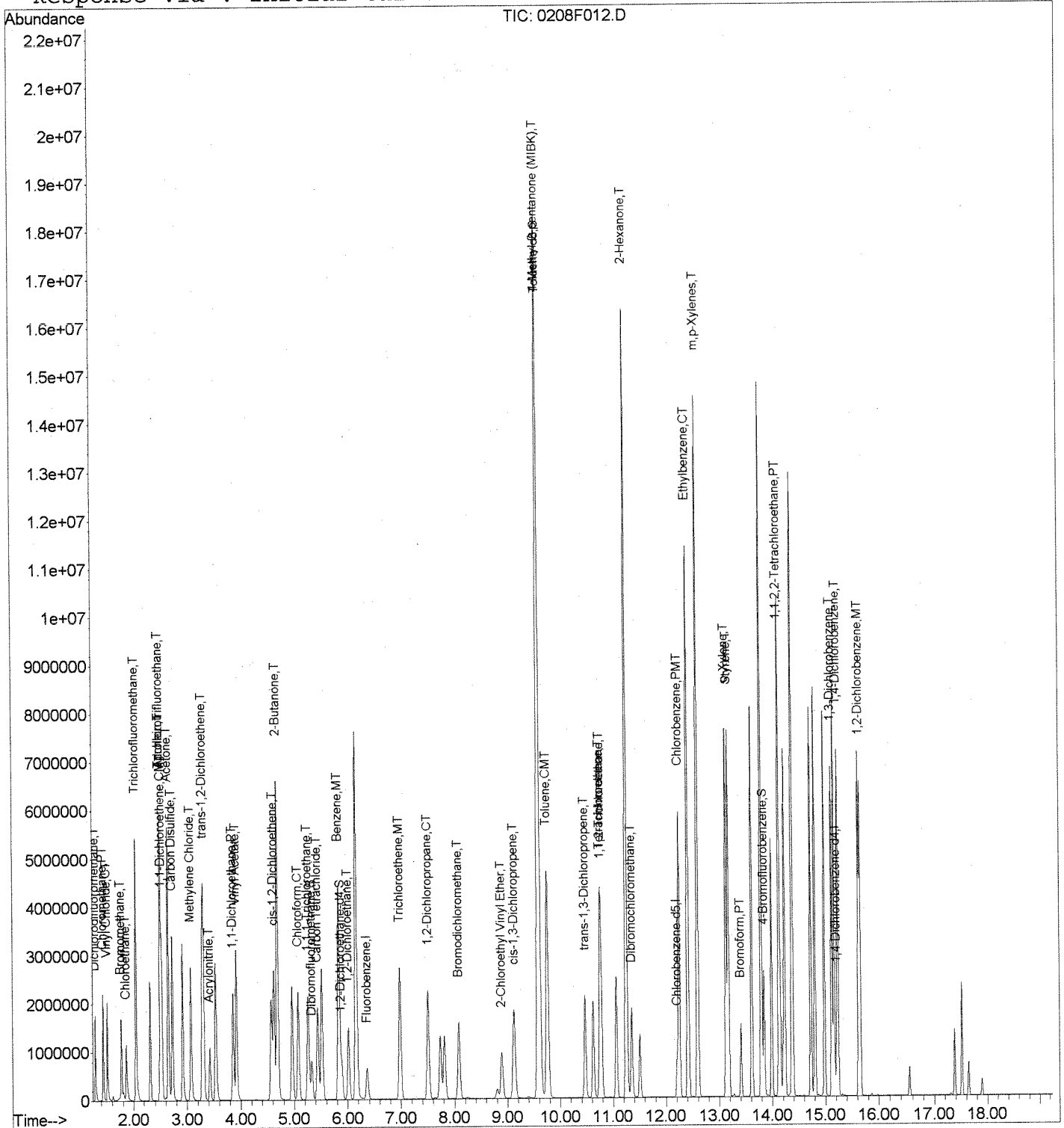
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F012.D  
 Acq On : 8 Feb 2010 7:01 pm  
 Sample : 120 PPB ICAL  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 8 20:04 2010

Vial: 12  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Mon Feb 08 20:05:04 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 09 10:14:00 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Amr 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	771682	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	291896	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	291008	20.00	PPB	0.00
System Monitoring Compounds						
22) Dibromofluoromethane	5.33	113	171747	18.55	PPB	0.00
Spiked Amount	20.000		Recovery	=	92.75%	
24) 1,2-Dichloroethane-d4	5.88	65	187642	18.43	PPB	0.00
Spiked Amount	20.000		Recovery	=	92.15%	
33) Toluene-d8	9.60	98	733802	19.49	PPB	0.00
Spiked Amount	20.000		Recovery	=	97.45%	
47) 4-Bromofluorobenzene	13.85	95	254625	18.72	PPB	0.00
Spiked Amount	20.000		Recovery	=	93.60%	
Target Compounds						Qvalue
7) Trichlorofluoromethane	2.05	101	722	0.05	PPB	93
9) Trichlorotrifluoroethane	2.50	151	927	0.12	PPB	# 77
11) Acetone	2.65	43	2451	1.13	PPB	72
12) Carbon Disulfide	2.73	76	2753	0.09	PPB	79
13) Methylene Chloride	3.07	84	2302	0.22	PPB	84
25) Benzene	5.83	78	1372m	0.03	PPB	
34) Toluene	9.76	92	3344m	0.13	PPB	
38) Tetrachloroethene	10.74	164	954	0.11	PPB	# 49
39) 2-Hexanone	11.25	43	1920	0.42	PPB	63
41) Chlorobenzene	12.26	112	1918	0.06	PPB	73
42) Ethylbenzene	12.41	106	828	0.06	PPB	# 53
43) m,p-Xylenes	12.61	106	2626	0.15	PPB	# 42
44) o-Xylene	13.13	106	1448	0.09	PPB	92
49) 1,1,2,2-Tetrachloroethane	14.12	83	1160	0.13	PPB	93
51) 1,3-Dichlorobenzene	15.12	146	3188	0.15	PPB	94
52) 1,4-Dichlorobenzene	15.24	146	4107	0.19	PPB	85
53) 1,2-Dichlorobenzene	15.65	146	5053	0.25	PPB	96

*(All < MRL)*

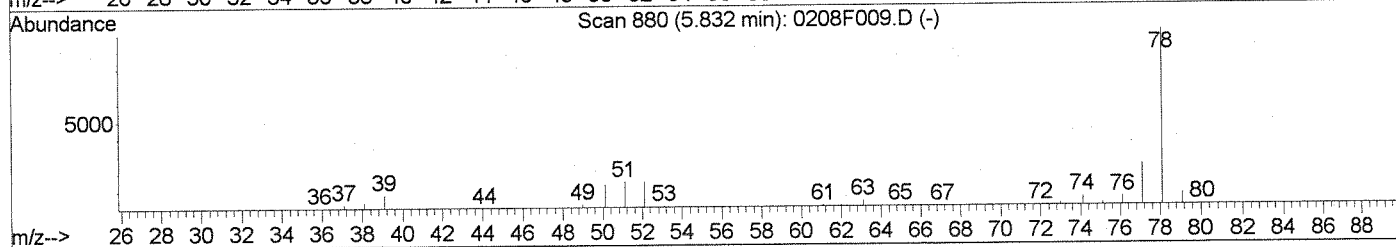
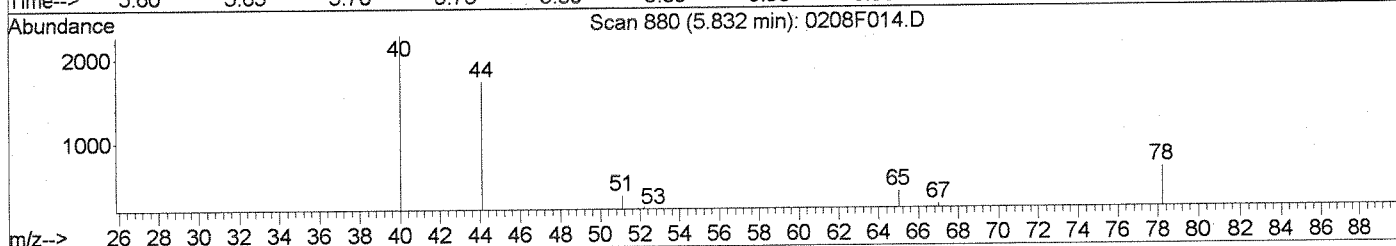
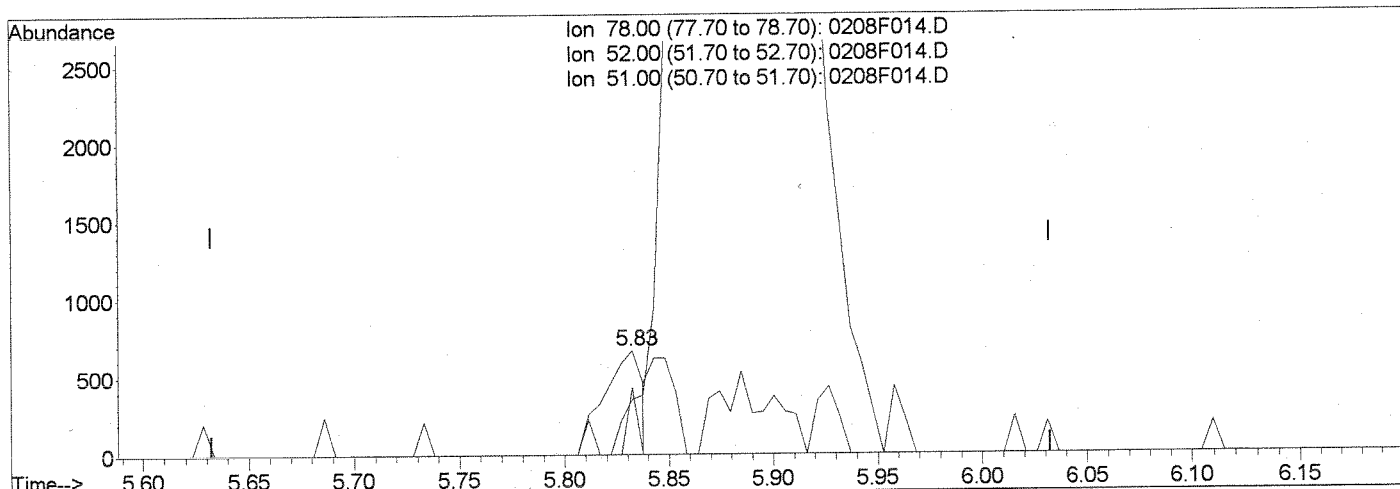
*K. Alan*

Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:53 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Multiple Level Calibration



TIC: 0208F014.D

(25) Benzene (MT)

5.83min 0.02PPB

response 860

Ion	Exp%	Act%
78.00	100	100
52.00	14.50	94.89#
51.00	14.50	53.15#
0.00	0.00	0.00

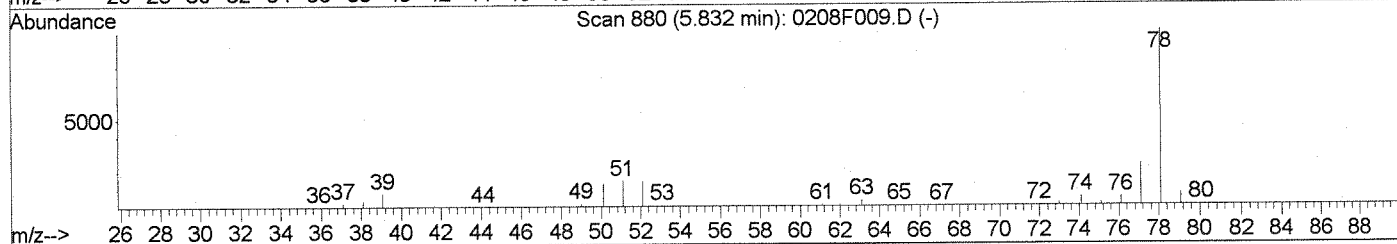
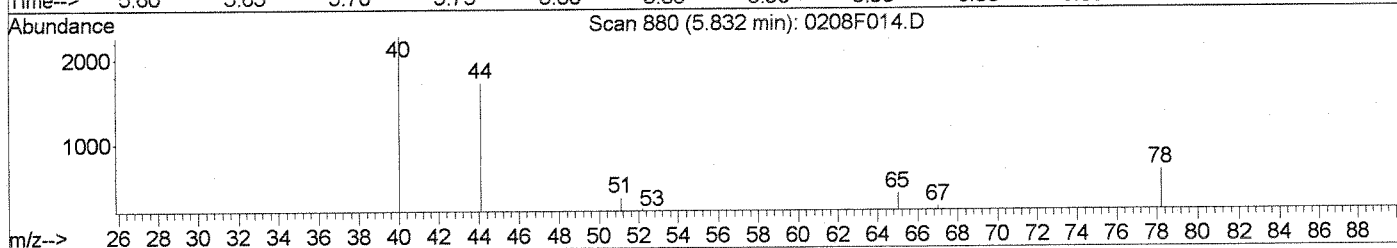
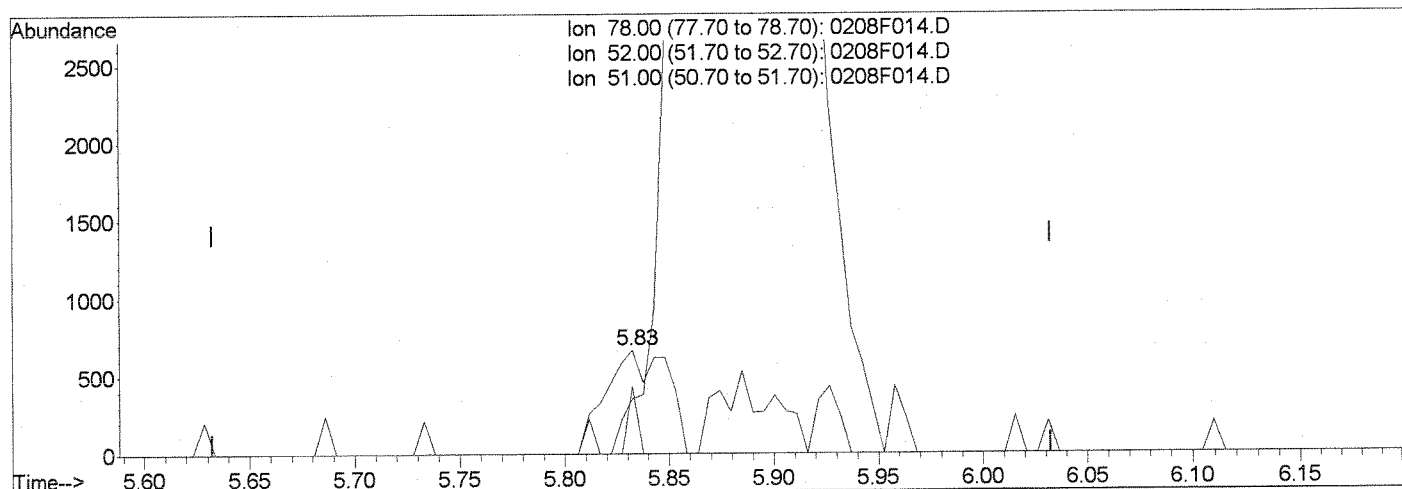
Quantitation Report (Qeait)

Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:53 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Multiple Level Calibration



(25) Benzene (MT)

5.83min 0.03PPB m

response 1372

Ion	Exp%	Act%
78.00	100	100
52.00	14.50	33.78
51.00	14.50	53.15#
0.00	0.00	0.00

S.P.

Conc 2/9/10

*Handwritten signature*



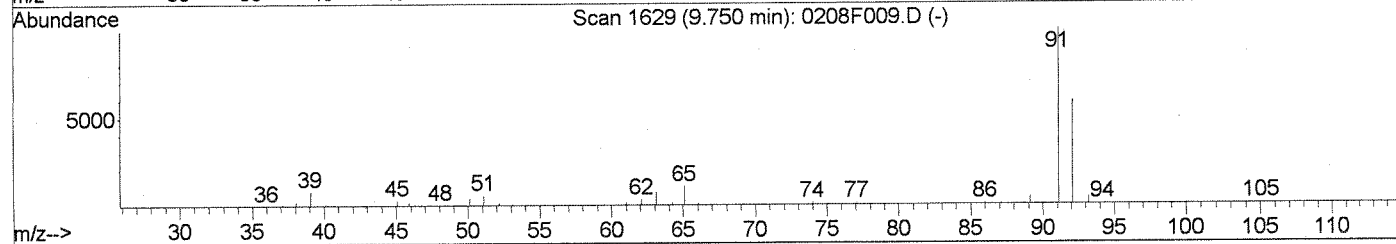
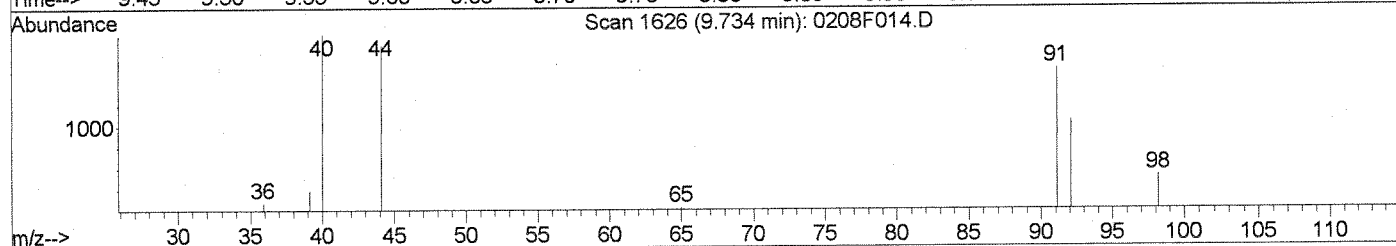
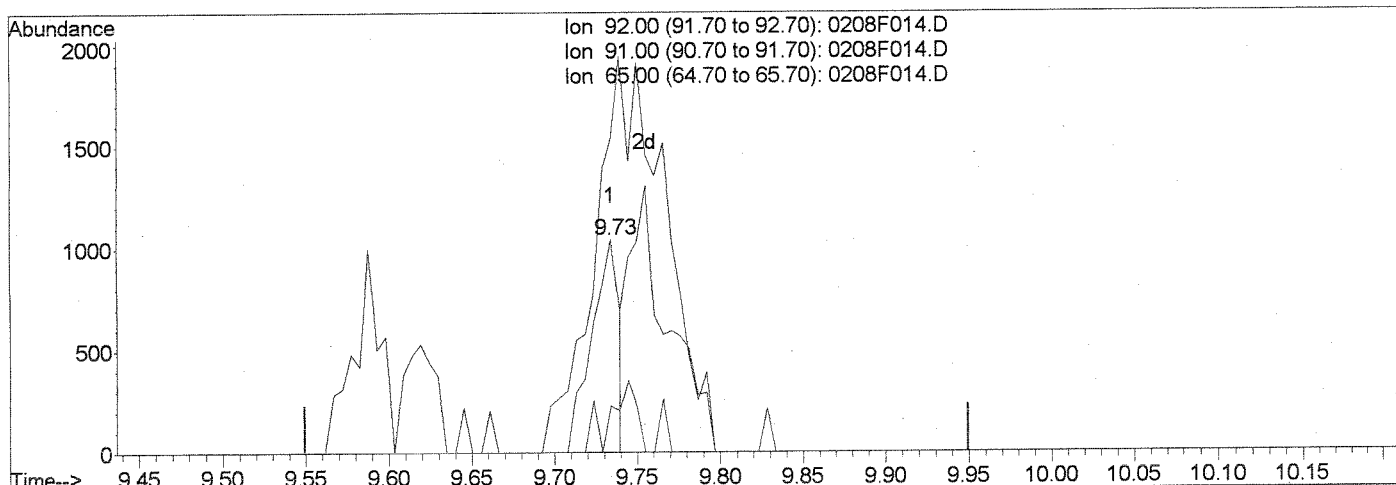
Quantitation Report (Quant)

Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:54 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Multiple Level Calibration



TIC: 0208F014.D

(34) Toluene (CMT)

9.73min 0.05PPB

response 1213

Ion	Exp%	Act%
92.00	100	100
91.00	169.70	121.93#
65.00	17.90	21.55
0.00	0.00	0.00

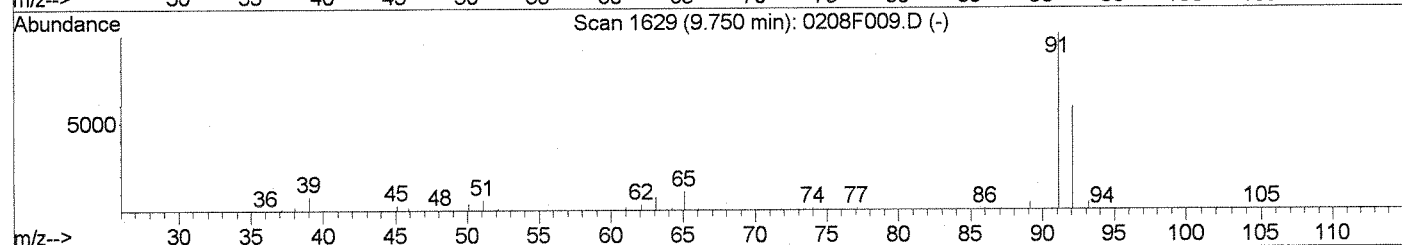
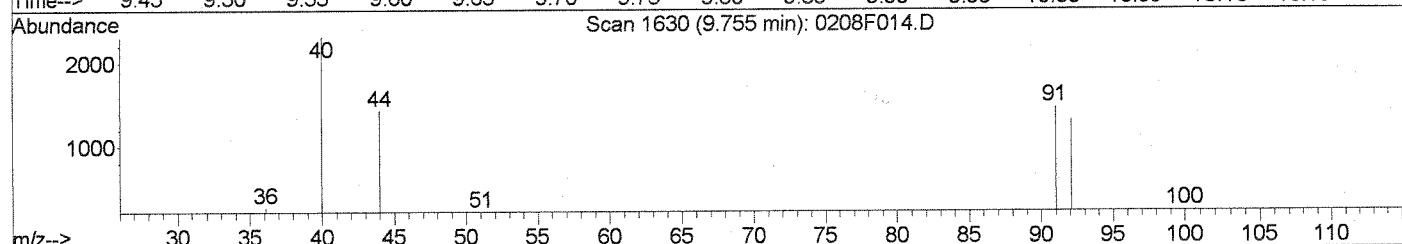
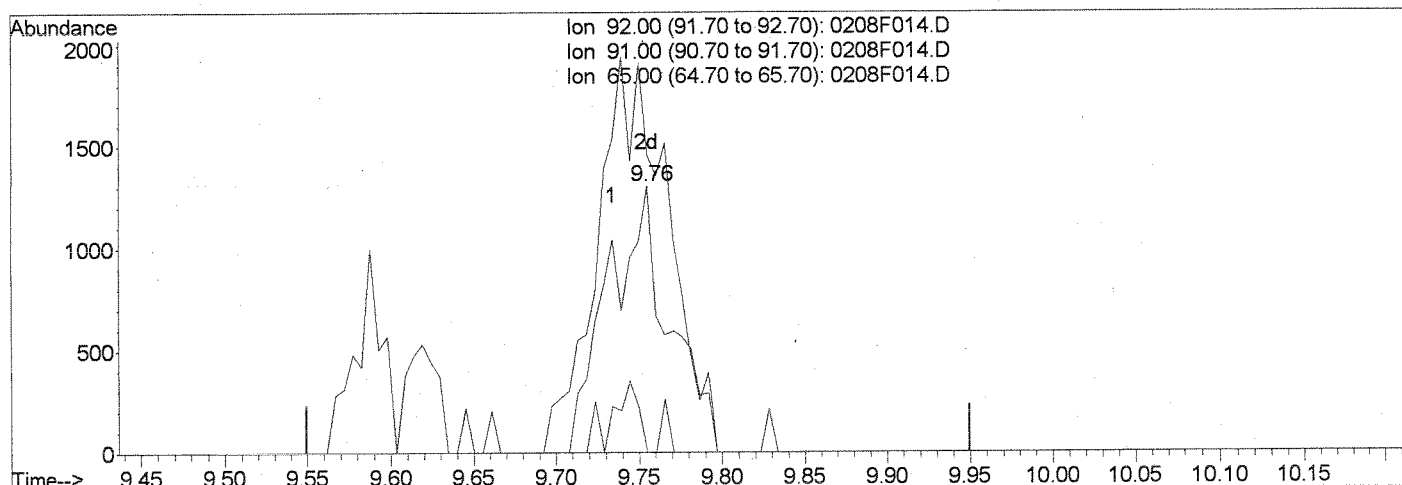
Quantitation Report (Qeait)

Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:54 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Multiple Level Calibration



TIC: 0208F014.D

(34) Toluene (CMT)		
9.76min	0.13PPB m	
response	3344	
Ion	Exp%	Act%
92.00	100	100
91.00	169.70	111.57#
65.00	17.90	0.00
0.00	0.00	0.00

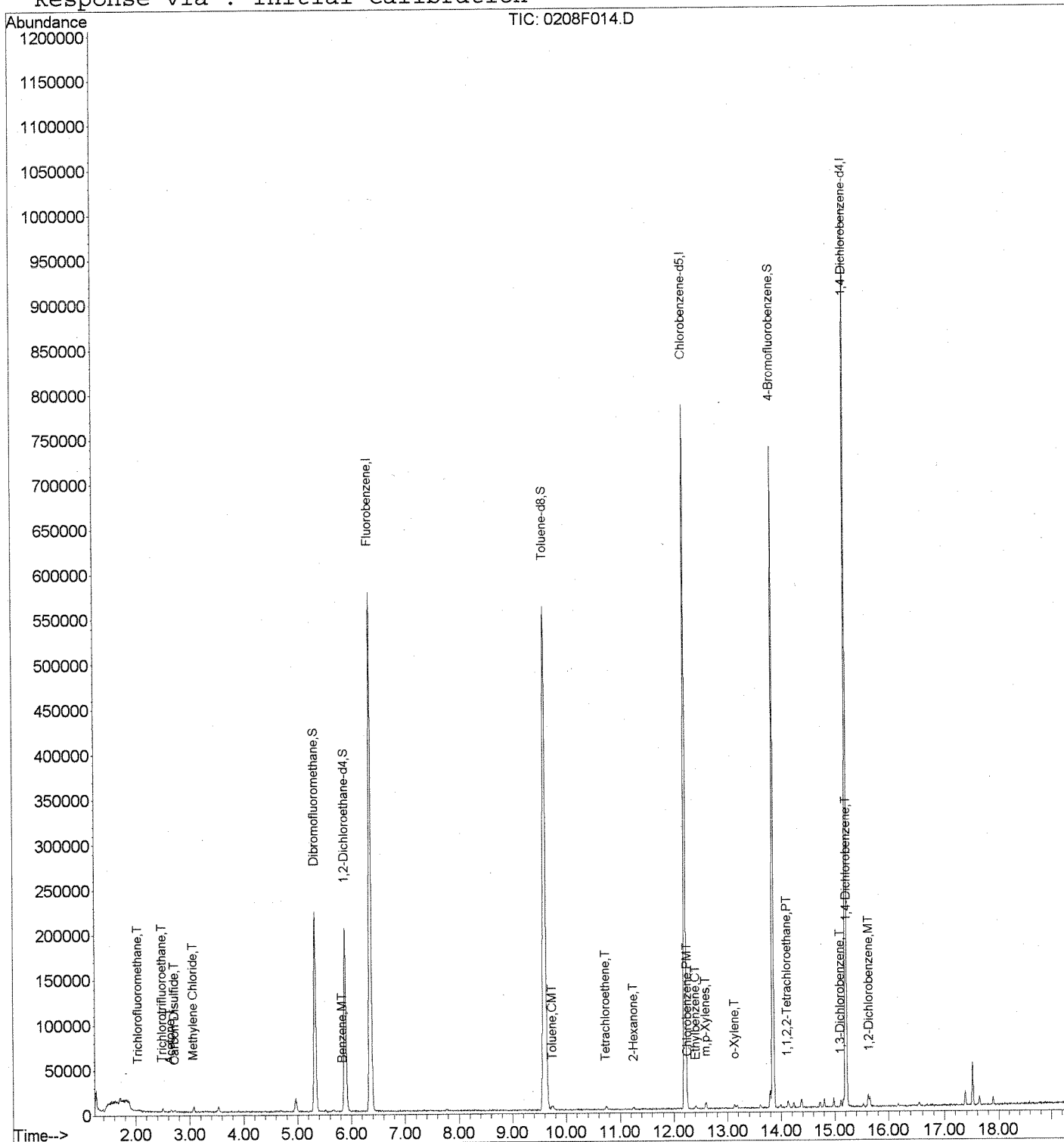
*S.P.*  
*um 2/9/10*  
*K. Van*

Data File : J:\MS13\DATA\020810\_624\0208F014.D  
 Acq On : 8 Feb 2010 7:55 pm  
 Sample : IB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:54 2010

Vial: 14  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Initial Calibration



Data File : J:\MS13\DATA\020810\_624\0208F015.D  
 Acq On : 8 Feb 2010 8:23 pm  
 Sample : ICV  
 Misc :

Vial: 15  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 09 10:08:33 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

*Curve 2/9/10* *LS 2/9/10*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.36	96	785142	20.00	PPB	0.00
35) Chlorobenzene-d5	12.21	82	295199	20.00	PPB	0.00
48) 1,4-Dichlorobenzene-d4	15.21	152	304325	20.00	PPB	0.00

System Monitoring Compounds

22) Dibromofluoromethane	5.33	113	179299	19.03	PPB	0.00
Spiked Amount	20.000		Recovery	=	95.15%	
24) 1,2-Dichloroethane-d4	5.89	65	189982	18.34	PPB	0.00
Spiked Amount	20.000		Recovery	=	91.70%	
33) Toluene-d8	9.60	98	769891	20.10	PPB	0.00
Spiked Amount	20.000		Recovery	=	100.50%	
47) 4-Bromofluorobenzene	13.85	95	270217	19.65	PPB	0.00
Spiked Amount	20.000		Recovery	=	98.25%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	276891	27.72	PPB	100
3) Chloromethane	1.43	50	289898	23.28	PPB	100
4) Vinyl Chloride	1.52	62	262937	24.48	PPB	98
5) Bromomethane	1.78	96	129129	23.55	PPB	97
6) Chloroethane	1.87	49	36747	22.62	PPB	93
7) Trichlorofluoromethane	2.05	101	291470	19.06	PPB	97
8) Acrolein	2.51	56	127143	151.41	PPB	96
9) Trichlorotrifluoroethane	2.50	151	158186	19.84	PPB	92
10) 1,1-Dichloroethene	2.53	96	176255	22.15	PPB	98
11) Acetone	2.65	43	201629	91.34	PPB	99
12) Carbon Disulfide	2.73	76	1269582	38.81	PPB	99
13) Methylene Chloride	3.08	84	237357	21.95	PPB	99
14) Acrylonitrile	3.43	53	59366	18.43	PPB	98
15) trans-1,2-Dichloroethene	3.31	96	206767	20.44	PPB	99
16) 1,1-Dichloroethane	3.86	63	332533	20.03	PPB	96
17) Vinyl Acetate	3.92	86	44011	26.63	PPB	# 77
18) cis-1,2-Dichloroethene	4.62	96	223063	20.22	PPB	97
19) 2-Butanone	4.69	72	85126	91.22	PPB	93
20) Chloroform	5.07	83	344811	20.58	PPB	98
21) 1,1,1-Trichloroethane	5.26	97	252904	20.70	PPB	98
23) Carbon Tetrachloride	5.44	117	237785	20.25	PPB	94
25) Benzene	5.83	78	876884	20.94	PPB	99
26) 1,2-Dichloroethane	6.02	62	243284	19.79	PPB	99
27) Trichloroethene	6.98	95	207426	19.92	PPB	92
28) 1,2-Dichloropropane	7.51	63	200240	20.06	PPB	96
29) Bromodichloromethane	8.08	83	247348	19.84	PPB	98
30) 2-Chloroethyl Vinyl Ether	8.89	63	98924	20.21	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS13\DATA\020810\_624\0208F015.D  
 Acq On : 8 Feb 2010 8:23 pm  
 Sample : ICV  
 Misc :

Vial: 15  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Feb 09 10:08:33 2010

Quant Results File: 020810MS13\_624.

Quant Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8260W5

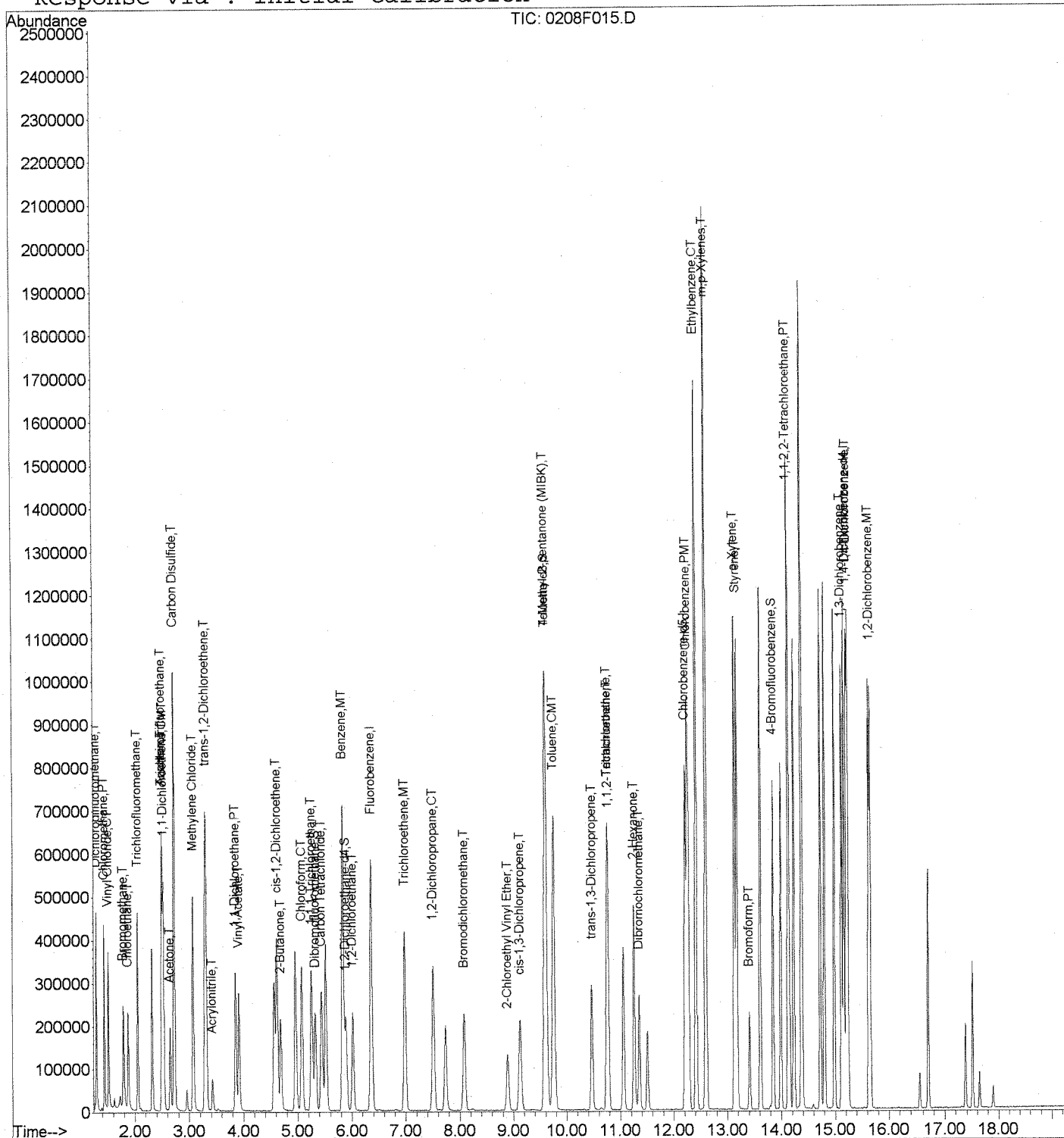
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) cis-1,3-Dichloropropene	9.12	75	225521	16.98	PPB	95
32) 4-Methyl-2-pentanone (MIBK)	9.59	58	253425	89.28	PPB #	70
34) Toluene	9.75	92	549329	20.60	PPB	96
36) trans-1,3-Dichloropropene	10.46	75	232545	21.79	PPB	99
37) 1,1,2-Trichloroethane	10.78	83	144541	20.29	PPB	96
38) Tetrachloroethene	10.75	164	173867	20.37	PPB	96
39) 2-Hexanone	11.25	43	392296	85.40	PPB	99
40) Dibromochloromethane	11.35	129	182633	19.26	PPB	97
41) Chlorobenzene	12.25	112	611073	20.45	PPB	99
42) Ethylbenzene	12.41	106	318165	21.47	PPB	96
43) m,p-Xylenes	12.60	106	786032	43.02	PPB	98
44) o-Xylene	13.13	106	386548	22.55	PPB	95
45) Styrene	13.18	103	306271	21.97	PPB	99
46) Bromoform	13.41	173	116709	20.57	PPB	100
49) 1,1,2,2-Tetrachloroethane	14.12	83	180423	18.67	PPB	99
51) 1,3-Dichlorobenzene	15.12	146	467310	21.21	PPB	99
52) 1,4-Dichlorobenzene	15.24	146	476718	20.69	PPB	97
53) 1,2-Dichlorobenzene	15.65	146	427149	20.45	PPB	98

Data File : J:\MS13\DATA\020810\_624\0208F015.D  
 Acq On : 8 Feb 2010 8:23 pm  
 Sample : ICV  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Feb 9 10:08 2010

Vial: 15  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Tue Feb 09 10:06:10 2010  
 Response via : Initial Calibration



## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Date Analyzed: 05/28/2010

Continuing Calibration Verification Summary  
Volatile Organic Compounds

Calibration Type: Internal Standard  
Analysis Method: 624

Calibration Date: 02/08/2010  
Calibration ID: CAL9204  
Analysis Lot: KWG1005070  
Units: PPB

File ID: J:\MS13\DATA\052810-624\0528F107.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Chloromethane	20	20	0.01	0.317	0.321	1	NA	± 104 %	AverageRF
Vinyl Chloride	20	20	0.01	0.274	0.267	-2	NA	± 96 %	AverageRF
Bromomethane	20	21	0.01	0.140	0.150	7	NA	± 86 %	AverageRF
Chloroethane	20	22	0.01	0.0414	0.0454	10	NA	± 62 %	AverageRF
Trichlorofluoromethane	20	24	0.01	0.390	0.474	22	NA	± 52 %	AverageRF
1,1-Dichloroethene	20	22	0.01	0.203	0.226	11	NA	± 49 %	AverageRF
Methylene Chloride	20	20	0.01	0.275	0.280	2	NA	± 39 %	AverageRF
trans-1,2-Dichloroethene	20	22	0.01	0.258	0.278	8	NA	± 30 %	AverageRF
1,1-Dichloroethane	20	22	0.01	0.423	0.466	10	NA	± 27 %	AverageRF
Chloroform	20	22	0.01	0.427	0.464	9	NA	± 32 %	AverageRF
1,1,1-Trichloroethane (TCA)	20	22	0.01	0.311	0.338	9	NA	± 25 %	AverageRF
Carbon Tetrachloride	20	23	0.01	0.299	0.349	17	NA	± 27 %	AverageRF
Benzene	20	22	0.01	1.07	1.16	9	NA	± 36 %	AverageRF
1,2-Dichloroethane (EDC)	20	24	0.01	0.313	0.370	18	NA	± 32 %	AverageRF
Trichloroethene (TCE)	20	21	0.01	0.265	0.279	5	NA	± 33 %	AverageRF
1,2-Dichloropropane	20	20	0.01	0.254	0.258	1	NA	± 66 %	AverageRF
Bromodichloromethane	20	22	0.01	0.318	0.343	8	NA	± 34 %	AverageRF
2-Chloroethyl Vinyl Ether	20	22	0.01	0.125	0.137	9	NA	± 124 %	AverageRF
trans-1,3-Dichloropropene	20	18	0.01	0.723	0.649	-10	NA	± 50 %	AverageRF
Toluene	20	21	0.01	0.679	0.710	5	NA	± 25 %	AverageRF
cis-1,3-Dichloropropene	20	20	0.01	0.338	0.330	-3	NA	± 76 %	AverageRF
1,1,2-Trichloroethane	20	19	0.01	0.483	0.468	-3	NA	± 29 %	AverageRF
Tetrachloroethene (PCE)	20	19	0.01	0.578	0.549	-5	NA	± 26 %	AverageRF
Dibromochloromethane	20	19	0.01	0.642	0.598	-7	NA	± 32 %	AverageRF
Chlorobenzene	20	19	0.01	2.02	1.90	-6	NA	± 34 %	AverageRF
Ethylbenzene	20	21	0.01	1.00	1.04	4	NA	± 41 %	AverageRF
Bromoform	20	17	0.01	0.384	0.324	-16	NA	± 29 %	AverageRF
1,1,2,2-Tetrachloroethane	20	21	0.01	0.635	0.670	6	NA	± 39 %	AverageRF
1,3-Dichlorobenzene	20	21	0.01	1.45	1.51	4	NA	± 27 %	AverageRF
1,4-Dichlorobenzene	20	20	0.01	1.51	1.54	2	NA	± 37 %	AverageRF
1,2-Dichlorobenzene	20	21	0.01	1.37	1.43	4	NA	± 37 %	AverageRF
Acrolein	400	630	0.01	0.0214	0.0336	57	NA	± 80 %	AverageRF
Acrylonitrile	40	44	0.01	0.0821	0.0897	9	NA	± 40 %	AverageRF
Toluene-d8	20	20	0.01	0.976	0.967	-1	NA	± 30 %	AverageRF
4-Bromofluorobenzene	20	19	0.01	0.932	0.882	-5	NA	± 30 %	AverageRF
Dibromofluoromethane	20	18	0.01	0.240	0.221	-8	NA	± 30 %	AverageRF
m,p-Xylenes	40	41	0.01	1.24	1.27	3	NA	± 40 %	AverageRF
o-Xylene	20	21	0.01	1.16	1.19	3	NA	± 40 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

# Exception Report

Data File: J:\MS13\DATA\052810-624\0528F107.D  
Lab ID: KWG1005070-2  
RunType: CCV  
Matrix: WATER

Date Acquired: 05/28/2010 20:19  
Date Quantitated: 05/28/2010 20:38  
Batch ID: KWG1005070  
Analysis Method: 624  
MethodJoinID: MJ158

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: Ann 5/28/10

Secondary Review: HB6-170



# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 624 VOC_FP	Collect Date:	Receive Date:	05/28/2010
Analysis Lot: KWG1005070	Prep Lot:	Report Group:	
Analysis Method: 624	Prep Method:		
Prep Ref:	Prep Date:		
Quant Method: J:\MS13\METHODS\020810MS13_6	Calibration ID: CAL9204		
Title:			
Tune Ref: J:\MS13\DATA\052810-624\0528F106.D	Method ID: MJ158		
MB Ref:	Quant based on Method		
Data File: J:\MS13\DATA\052810-624\0528F107.D	Instrument: MS13		
Acqu Date: 05/28/2010 20:19	Quant Date: 05/28/2010 20:38	Vial: 3	
Run Type: CCV		Dilution: 1.0	
Lab ID: KWG1005070-2		Soln Conc. Units: PPB	

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.12	-0.24	96	606960	20.00	OK
2	Chlorobenzene-d5	12.04	-0.17	82	238587	20.00	OK
3	1,4-Dichlorobenzene-d4	15.08	-0.13	152	217420	20.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.12			113	134264	18.44		86-124	NA
1	1,2-Dichloroethane-d4	5.66			65	168428	21.03		70-130	NA
1	Toluene-d8	9.30			98	587146	19.83		79-131	NA
2	4-Bromofluorobenzene	13.70			95	210523	18.94		91-121	NA

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.23			85	216769	28.08			
1	Chloromethane	1.37			50	194759	20.23			
1	Vinyl Chloride	1.44			62	162206	19.53			
1	Bromomethane	1.70			96	90928	21.46			
1	Chloroethane	1.78			49	27574	21.96			
1	Trichlorofluoromethane	1.95			101	287975	24.36			
1	Acrolein	2.39			56	408028	628.54			
1	Trichlorotrifluoroethane	2.38			151	131742	21.37			
1	1,1-Dichloroethene	2.41			96	136994	22.27			
1	Acetone	2.52			43	719742	421.77			
1	Carbon Disulfide	2.59			76	544792	21.54			
1	Methylene Chloride	2.93			84	170242	20.37			
1	Acrylonitrile	3.27			53	108935	43.74			
1	trans-1,2-Dichloroethene	3.16			96	168549	21.55			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File:	J:\MS13\DATA\052810-624\0528F107.D	Instrument:	MS13
Acqu Date:	05/28/2010 20:19	Quant Date:	05/28/2010 20:38
Run Type:	CCV	Vial:	3
Lab ID:	KWG1005070-2	Dilution:	1.0
		Soln Conc. Units:	PPB

**Target Compounds**

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	1,1-Dichloroethane	3.68			63	282912	22.04			
1	Vinyl Acetate	3.75			86	50288	39.35			
1	cis-1,2-Dichloroethene	4.42			96	180012	21.11			
1	2-Butanone (MEK)	4.49			72	272034	377.08			
1	Chloroform	4.87			83	281568	21.73			
1	1,1,1-Trichloroethane (TCA)	5.05			97	205400	21.75			
1	Carbon Tetrachloride	5.23			117	211968	23.35			
1	Benzene	5.60			78	703582	21.73			
1	1,2-Dichloroethane (EDC)	5.78			62	224559	23.63			
1	Trichloroethene (TCE)	6.73			95	169524	21.06			
1	1,2-Dichloropropane	7.25			63	156386	20.27			
1	Bromodichloromethane	7.81			83	208379	21.62			
1	2-Chloroethyl Vinyl Ether	8.60			63	82869	21.90			
1	cis-1,3-Dichloropropene	8.83			75	200158	19.50			
1	4-Methyl-2-pentanone (MIBK)	9.29			58	868292	395.70			
1	Toluene	9.46			92	430937	20.91			
2	trans-1,3-Dichloropropene	10.24			75	154960	17.96			
2	1,1,2-Trichloroethane	10.55			83	111625	19.39			
2	Tetrachloroethene (PCE)	10.52			164	131001	18.99			
2	2-Hexanone	11.06			43	1517074	408.61			
2	Dibromochloromethane	11.16			129	142679	18.62			
2	Chlorobenzene	12.07			112	453278	18.77			
2	Ethylbenzene	12.24			106	248165	20.72			
2	m,p-Xylenes	12.43			106	607300	41.12			
2	o-Xylene	12.98			106	284243	20.52			
2	Styrene	13.02			103	235451	20.90			
2	Bromoform	13.26			173	77275	16.85			
3	1,1,2,2-Tetrachloroethane	13.99			83	145703	21.10			
3	1,3-Dichlorobenzene	14.98			146	328221	20.85			
3	1,4-Dichlorobenzene	15.11			146	335602	20.39			
3	1,2-Dichlorobenzene	15.52			146	311538	20.87			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

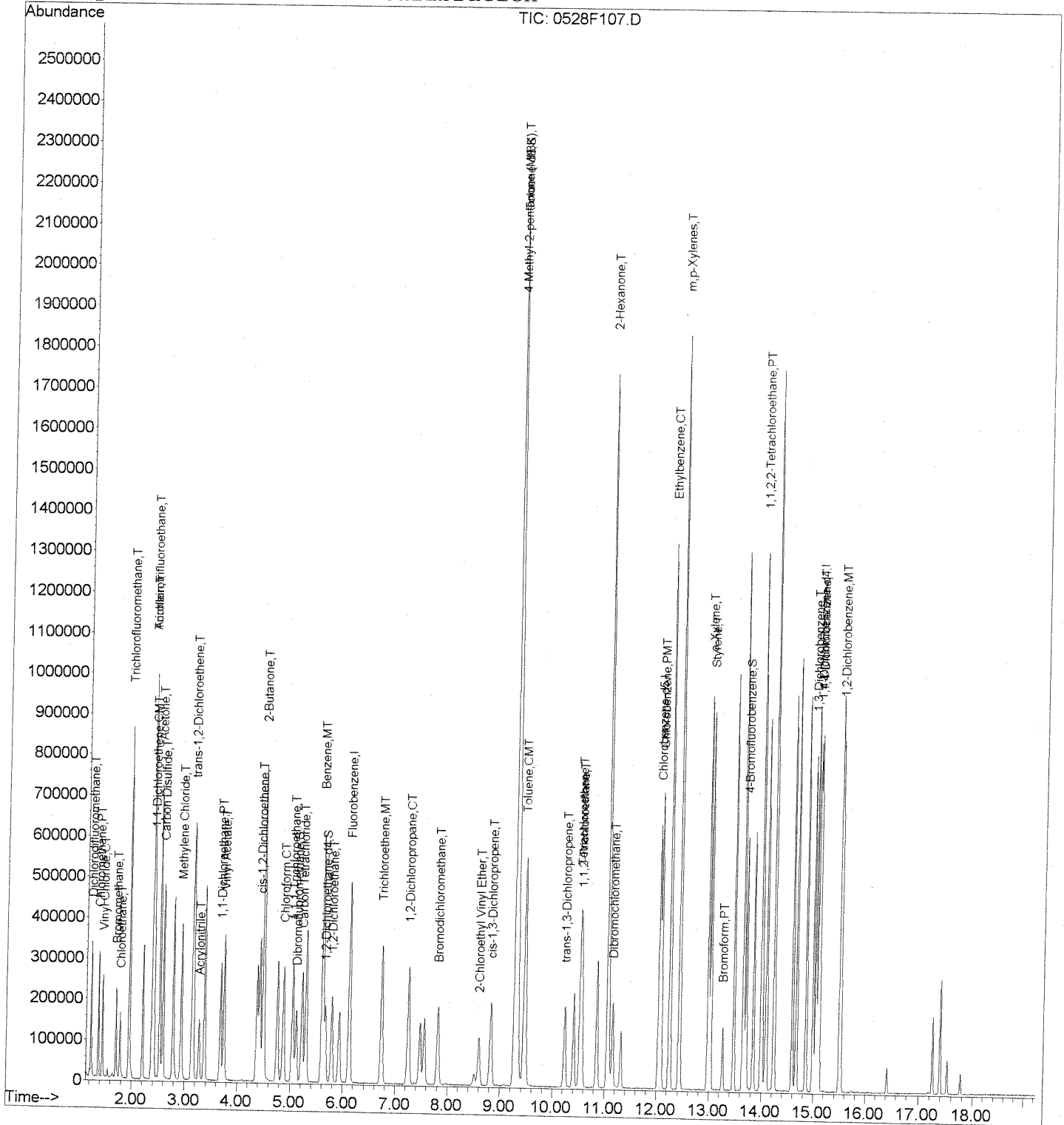
\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS13\DATA\052810-624\0528F107.D  
 Acq On : 28 May 2010 8:19 pm  
 Sample : 624 CCV  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: May 28 20:38 2010

Vial: 3  
 Operator: CMK  
 Inst : MS13  
 Multiplr: 1.00

Quant Results File: 020810MS13\_6

Method : J:\MS13\METHODS\020810MS13\_624.M (RTE Integrator)  
 Title : VOA MS13 EPA Method 8260B  
 Last Update : Fri May 28 16:56:35 2010  
 Response via : Initial Calibration



Organic Analysis:  
Volatile Organic Compounds

Validation Package

Sample Prep and Screen Data

Date: 5/28/10

Columbia Analytical Services, Inc. Tune File: BFB1.U

By: CMK

Injection Log

New Tune: yes

IS/SS Std. ID: 56VDA-74B

MS13 - Agilent 5973

RUN #: 202798

CCV Std ID: 56VDA-76A/21B

ICAL Date: 2/8/10 #9204

MS/DMS/LCS/ICV Std ID: 56VDA-76C/74E

Second RV: HBLV 2-U

BFB Std. ID: 56VDA-42B

LIMS ID: KWG1005070A/5071P

	Sample Name	File Name	Method	Dilution	pH	R	Comments
1	IB	0528F101	82GOW5				
2	BFB	2		8.8ul/44ml			(NR) i.s. responses too low
3	G24CCV	3		20+10ul/50ml			
4	LCS	4		20+50ul/50ml			
5	BFB	5		8.8ul/44ml			New Tune (NR)
6	BFB(R)	6					
7	G24CCV	7		20+10ul/50ml			
8	MB	8					
9	K4934-5	9			≤2		
10	-6	10					
11	-7	11					
12	-8	12					
13	-9	13					TB# 42439
14	LCS	14		20+50ul/50ml			
15	K4934-6 MS	15		17.6+44ul/44ml	≤2		(NR) Wrong IS/SS
16	DMS	16					
17	Cream Puff S.B.	17			6		5/24/10
18	K5067-2	18			≤2		
19	K4934-6 MS (R)	19		17.6+44ul/44ml			
20	Cream Puff S.B. (R)	20			6		5/24/10
21	K4934-6 DMS (R)	201		17.6+44ul/44ml	≤2		
22	IB	202					
23	K5067-2 (R)	2123			≤2		
24	-3	2224					
25	-4	2325					
26	-5	2426					TB# 42436
27	K5225-1	2527					

K5227-1  
IB \* 5

2628  
29-33  
27-31

R:\VOA\Injection Logs\INJLOG\_MS13\_Rev1

1026 \* All samples negative for free Cl2

CMK 52910

## **Semi-Volatile Organic Compounds**

Organic Analysis:  
Semi-Volatile Organic Compounds by GC/MS

Summary Package

Sample and QC Results


Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067

**Cover Page - Organic Analysis Data Package  
 Semi-Volatile Organic Compounds by GC/MS**

Sample Name	Lab Code	Date Collected	Date Received
3bcd-2	K1005067-002	05/17/2010	05/19/2010
3ddd	K1005067-003	05/17/2010	05/19/2010
EB-051710	K1005067-004	05/17/2010	05/19/2010

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature:   
 Date: 6/2/10

Name: Carl Degeen  
 Title: Supv Supervisor



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** 3bcd-2  
**Lab Code:** K1005067-002  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	24	1.7	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethyl) Ether	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Phenol	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
2-Chlorophenol	ND	U	9.6	0.42	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroisopropyl) Ether	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Hexachloroethane	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodi-n-propylamine	ND	U	9.6	0.51	1	05/24/10	06/03/10	KWG1005060	
Nitrobenzene	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Isophorone	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2-Nitrophenol	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2,4-Dimethylphenol	ND	U	9.6	1.1	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethoxy)methane	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
2,4-Dichlorophenol	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
1,2,4-Trichlorobenzene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Naphthalene	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobutadiene	ND	U	9.6	0.22	1	05/24/10	06/03/10	KWG1005060	
4-Chloro-3-methylphenol	ND	U	9.6	0.48	1	05/24/10	06/03/10	KWG1005060	
Hexachlorocyclopentadiene	ND	U	9.6	0.58	1	05/24/10	06/03/10	KWG1005060	
2,4,6-Trichlorophenol	ND	U	9.6	0.19	1	05/24/10	06/03/10	KWG1005060	
2-Chloronaphthalene	ND	U	9.6	0.43	1	05/24/10	06/03/10	KWG1005060	
Acenaphthylene	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
Dimethyl Phthalate	ND	U	9.6	0.71	1	05/24/10	06/03/10	KWG1005060	
2,6-Dinitrotoluene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Acenaphthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrophenol	ND	U	24	1.0	1	05/24/10	06/03/10	KWG1005060	
4-Nitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrotoluene	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Fluorene	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	
4-Chlorophenyl Phenyl Ether	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Diethyl Phthalate	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
2-Methyl-4,6-dinitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodiphenylamine	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
1,2-Diphenylhydrazine†	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** 3bcd-2  
**Lab Code:** K1005067-002  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Bromophenyl Phenyl Ether	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobenzene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Pentachlorophenol	ND	U	24	0.38	1	05/24/10	06/03/10	KWG1005060	
Phenanthrene	ND	U	9.6	0.24	1	05/24/10	06/03/10	KWG1005060	
Anthracene	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
Di-n-butyl Phthalate	ND	U	9.6	0.46	1	05/24/10	06/03/10	KWG1005060	
Fluoranthene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Benzidine	ND	U	48	29	1	05/24/10	06/03/10	KWG1005060	
Pyrene	ND	U	9.6	0.47	1	05/24/10	06/03/10	KWG1005060	
Butyl Benzyl Phthalate	ND	U	9.6	0.55	1	05/24/10	06/03/10	KWG1005060	
3,3'-Dichlorobenzidine	ND	U	24	0.48	1	05/24/10	06/03/10	KWG1005060	
Benz(a)anthracene	ND	U	9.6	0.25	1	05/24/10	06/03/10	KWG1005060	
Chrysene	ND	U	9.6	0.40	1	05/24/10	06/03/10	KWG1005060	
Bis(2-ethylhexyl) Phthalate	0.47	J	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
Di-n-octyl Phthalate	ND	U	9.6	0.38	1	05/24/10	06/03/10	KWG1005060	
Benzo(b)fluoranthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Benzo(k)fluoranthene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Benzo(a)pyrene	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Indeno(1,2,3-cd)pyrene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Dibenz(a,h)anthracene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	
Benzo(g,h,i)perylene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	85	34-112	06/03/10	Acceptable
Phenol-d6	76	34-116	06/03/10	Acceptable
Nitrobenzene-d5	74	43-120	06/03/10	Acceptable
2-Fluorobiphenyl	73	45-115	06/03/10	Acceptable
2,4,6-Tribromophenol	79	34-134	06/03/10	Acceptable
Terphenyl-d14	139	13-152	06/03/10	Acceptable

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** 3bcd-2  
**Lab Code:** K1005067-002

**Units:** ug/L  
**Basis:** NA

† Analyte Comments

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1,2-Diphenylhydrazine                      This compound is quantitated as Azobenzene.

Comments: \_\_\_\_\_

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## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** 3ddd  
**Lab Code:** K1005067-003  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	24	1.7	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethyl) Ether	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Phenol	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
2-Chlorophenol	ND	U	9.6	0.42	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroisopropyl) Ether	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Hexachloroethane	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodi-n-propylamine	ND	U	9.6	0.51	1	05/24/10	06/03/10	KWG1005060	
Nitrobenzene	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Isophorone	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2-Nitrophenol	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2,4-Dimethylphenol	ND	U	9.6	1.1	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethoxy)methane	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
2,4-Dichlorophenol	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
1,2,4-Trichlorobenzene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Naphthalene	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobutadiene	ND	U	9.6	0.22	1	05/24/10	06/03/10	KWG1005060	
4-Chloro-3-methylphenol	ND	U	9.6	0.48	1	05/24/10	06/03/10	KWG1005060	
Hexachlorocyclopentadiene	ND	U	9.6	0.58	1	05/24/10	06/03/10	KWG1005060	
2,4,6-Trichlorophenol	ND	U	9.6	0.19	1	05/24/10	06/03/10	KWG1005060	
2-Chloronaphthalene	ND	U	9.6	0.43	1	05/24/10	06/03/10	KWG1005060	
Acenaphthylene	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
Dimethyl Phthalate	ND	U	9.6	0.71	1	05/24/10	06/03/10	KWG1005060	
2,6-Dinitrotoluene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Acenaphthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrophenol	ND	U	24	1.0	1	05/24/10	06/03/10	KWG1005060	
4-Nitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrotoluene	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Fluorene	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	
4-Chlorophenyl Phenyl Ether	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Diethyl Phthalate	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
2-Methyl-4,6-dinitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodiphenylamine	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
1,2-Diphenylhydrazine†	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** 3ddd  
**Lab Code:** K1005067-003  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Bromophenyl Phenyl Ether	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobenzene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Pentachlorophenol	ND	U	24	0.38	1	05/24/10	06/03/10	KWG1005060	
Phenanthrene	ND	U	9.6	0.24	1	05/24/10	06/03/10	KWG1005060	
Anthracene	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
Di-n-butyl Phthalate	ND	U	9.6	0.46	1	05/24/10	06/03/10	KWG1005060	
Fluoranthene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Benzidine	ND	U	48	29	1	05/24/10	06/03/10	KWG1005060	
Pyrene	ND	U	9.6	0.47	1	05/24/10	06/03/10	KWG1005060	
Butyl Benzyl Phthalate	ND	U	9.6	0.55	1	05/24/10	06/03/10	KWG1005060	
3,3'-Dichlorobenzidine	ND	U	24	0.48	1	05/24/10	06/03/10	KWG1005060	
Benz(a)anthracene	ND	U	9.6	0.25	1	05/24/10	06/03/10	KWG1005060	
Chrysene	ND	U	9.6	0.40	1	05/24/10	06/03/10	KWG1005060	
Bis(2-ethylhexyl) Phthalate	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
Di-n-octyl Phthalate	ND	U	9.6	0.38	1	05/24/10	06/03/10	KWG1005060	
Benzo(b)fluoranthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Benzo(k)fluoranthene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Benzo(a)pyrene	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Indeno(1,2,3-cd)pyrene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Dibenz(a,h)anthracene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	
Benzo(g,h,i)perylene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	86	34-112	06/03/10	Acceptable
Phenol-d6	82	34-116	06/03/10	Acceptable
Nitrobenzene-d5	83	43-120	06/03/10	Acceptable
2-Fluorobiphenyl	76	45-115	06/03/10	Acceptable
2,4,6-Tribromophenol	87	34-134	06/03/10	Acceptable
Terphenyl-d14	125	13-152	06/03/10	Acceptable

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** 3ddd  
**Lab Code:** K1005067-003

**Units:** ug/L  
**Basis:** NA

† Analyte Comments

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1,2-Diphenylhydrazine                      This compound is quantitated as Azobenzene.

Comments: \_\_\_\_\_

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** EB-051710  
**Lab Code:** K1005067-004  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	24	1.7	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethyl) Ether	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Phenol	<b>0.54</b>	J	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
2-Chlorophenol	ND	U	9.6	0.42	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroisopropyl) Ether	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Hexachloroethane	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodi-n-propylamine	ND	U	9.6	0.51	1	05/24/10	06/03/10	KWG1005060	
Nitrobenzene	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Isophorone	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2-Nitrophenol	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2,4-Dimethylphenol	ND	U	9.6	1.1	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethoxy)methane	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
2,4-Dichlorophenol	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
1,2,4-Trichlorobenzene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Naphthalene	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobutadiene	ND	U	9.6	0.22	1	05/24/10	06/03/10	KWG1005060	
4-Chloro-3-methylphenol	ND	U	9.6	0.48	1	05/24/10	06/03/10	KWG1005060	
Hexachlorocyclopentadiene	ND	U	9.6	0.58	1	05/24/10	06/03/10	KWG1005060	
2,4,6-Trichlorophenol	ND	U	9.6	0.19	1	05/24/10	06/03/10	KWG1005060	
2-Chloronaphthalene	ND	U	9.6	0.43	1	05/24/10	06/03/10	KWG1005060	
Acenaphthylene	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
Dimethyl Phthalate	ND	U	9.6	0.71	1	05/24/10	06/03/10	KWG1005060	
2,6-Dinitrotoluene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Acenaphthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrophenol	ND	U	24	1.0	1	05/24/10	06/03/10	KWG1005060	
4-Nitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrotoluene	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Fluorene	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	
4-Chlorophenyl Phenyl Ether	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Diethyl Phthalate	<b>1.0</b>	J	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
2-Methyl-4,6-dinitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodiphenylamine	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
1,2-Diphenylhydrazine†	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** EB-051710  
**Lab Code:** K1005067-004  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Bromophenyl Phenyl Ether	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobenzene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Pentachlorophenol	ND	U	24	0.38	1	05/24/10	06/03/10	KWG1005060	
Phenanthrene	ND	U	9.6	0.24	1	05/24/10	06/03/10	KWG1005060	
Anthracene	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
Di-n-butyl Phthalate	ND	U	9.6	0.46	1	05/24/10	06/03/10	KWG1005060	
Fluoranthene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Benzidine	ND	U	48	29	1	05/24/10	06/03/10	KWG1005060	
Pyrene	ND	U	9.6	0.47	1	05/24/10	06/03/10	KWG1005060	
Butyl Benzyl Phthalate	ND	U	9.6	0.55	1	05/24/10	06/03/10	KWG1005060	
3,3'-Dichlorobenzidine	ND	U	24	0.48	1	05/24/10	06/03/10	KWG1005060	
Benz(a)anthracene	<b>0.26</b>	J	9.6	0.25	1	05/24/10	06/03/10	KWG1005060	
Chrysene	ND	U	9.6	0.40	1	05/24/10	06/03/10	KWG1005060	
Bis(2-ethylhexyl) Phthalate	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
Di-n-octyl Phthalate	ND	U	9.6	0.38	1	05/24/10	06/03/10	KWG1005060	
Benzo(b)fluoranthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Benzo(k)fluoranthene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Benzo(a)pyrene	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Indeno(1,2,3-cd)pyrene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Dibenz(a,h)anthracene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	
Benzo(g,h,i)perylene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	92	34-112	06/03/10	Acceptable
Phenol-d6	88	34-116	06/03/10	Acceptable
Nitrobenzene-d5	94	43-120	06/03/10	Acceptable
2-Fluorobiphenyl	88	45-115	06/03/10	Acceptable
2,4,6-Tribromophenol	95	34-134	06/03/10	Acceptable
Terphenyl-d14	141	13-152	06/03/10	Acceptable

**Comments:** \_\_\_\_\_



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** EB-051710  
**Lab Code:** K1005067-004

**Units:** ug/L  
**Basis:** NA

† Analyte Comments

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1,2-Diphenylhydrazine                      This compound is quantitated as Azobenzene.

Comments: \_\_\_\_\_

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## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** Method Blank  
**Lab Code:** KWG1005060-3  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	24	1.7	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethyl) Ether	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Phenol	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
2-Chlorophenol	ND	U	9.6	0.42	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroisopropyl) Ether	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Hexachloroethane	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodi-n-propylamine	ND	U	9.6	0.51	1	05/24/10	06/03/10	KWG1005060	
Nitrobenzene	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Isophorone	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2-Nitrophenol	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2,4-Dimethylphenol	ND	U	9.6	1.1	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethoxy)methane	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
2,4-Dichlorophenol	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
1,2,4-Trichlorobenzene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Naphthalene	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobutadiene	ND	U	9.6	0.22	1	05/24/10	06/03/10	KWG1005060	
4-Chloro-3-methylphenol	ND	U	9.6	0.48	1	05/24/10	06/03/10	KWG1005060	
Hexachlorocyclopentadiene	ND	U	9.6	0.58	1	05/24/10	06/03/10	KWG1005060	
2,4,6-Trichlorophenol	ND	U	9.6	0.19	1	05/24/10	06/03/10	KWG1005060	
2-Chloronaphthalene	ND	U	9.6	0.43	1	05/24/10	06/03/10	KWG1005060	
Acenaphthylene	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
Dimethyl Phthalate	ND	U	9.6	0.71	1	05/24/10	06/03/10	KWG1005060	
2,6-Dinitrotoluene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Acenaphthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrophenol	ND	U	24	1.0	1	05/24/10	06/03/10	KWG1005060	
4-Nitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrotoluene	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Fluorene	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	
4-Chlorophenyl Phenyl Ether	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Diethyl Phthalate	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
2-Methyl-4,6-dinitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodiphenylamine	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
1,2-Diphenylhydrazine†	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Method Blank  
**Lab Code:** KWG1005060-3  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Bromophenyl Phenyl Ether	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobenzene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Pentachlorophenol	ND	U	24	0.38	1	05/24/10	06/03/10	KWG1005060	
Phenanthrene	ND	U	9.6	0.24	1	05/24/10	06/03/10	KWG1005060	
Anthracene	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
Di-n-butyl Phthalate	ND	U	9.6	0.46	1	05/24/10	06/03/10	KWG1005060	
Fluoranthene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Benzidine	ND	U	48	29	1	05/24/10	06/03/10	KWG1005060	
Pyrene	ND	U	9.6	0.47	1	05/24/10	06/03/10	KWG1005060	
Butyl Benzyl Phthalate	ND	U	9.6	0.55	1	05/24/10	06/03/10	KWG1005060	
3,3'-Dichlorobenzidine	ND	U	24	0.48	1	05/24/10	06/03/10	KWG1005060	
Benz(a)anthracene	ND	U	9.6	0.25	1	05/24/10	06/03/10	KWG1005060	
Chrysene	ND	U	9.6	0.40	1	05/24/10	06/03/10	KWG1005060	
Bis(2-ethylhexyl) Phthalate	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
Di-n-octyl Phthalate	ND	U	9.6	0.38	1	05/24/10	06/03/10	KWG1005060	
Benzo(b)fluoranthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Benzo(k)fluoranthene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Benzo(a)pyrene	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Indeno(1,2,3-cd)pyrene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Dibenz(a,h)anthracene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	
Benzo(g,h,i)perylene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	76	34-112	06/03/10	Acceptable
Phenol-d6	75	34-116	06/03/10	Acceptable
Nitrobenzene-d5	74	43-120	06/03/10	Acceptable
2-Fluorobiphenyl	74	45-115	06/03/10	Acceptable
2,4,6-Tribromophenol	68	34-134	06/03/10	Acceptable
Terphenyl-d14	121	13-152	06/03/10	Acceptable

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** Method Blank  
**Lab Code:** KWG1005060-3

**Units:** ug/L  
**Basis:** NA

† Analyte Comments

1,2-Diphenylhydrazine

This compound is quantitated as Azobenzene.

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067

**Surrogate Recovery Summary  
 Semi-Volatile Organic Compounds by GC/MS**

**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** PERCENT  
**Level:** Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>	<u>Sur4</u>	<u>Sur5</u>	<u>Sur6</u>
3bcd-2	K1005067-002	85	76	74	73	79	139
3ddd	K1005067-003	86	82	83	76	87	125
EB-051710	K1005067-004	92	88	94	88	95	141
Method Blank	KWG1005060-3	76	75	74	74	68	121
Lab Control Sample	KWG1005060-1	77	78	84	92	97	103
Duplicate Lab Control Sample	KWG1005060-2	87	87	91	94	99	100

**Surrogate Recovery Control Limits (%)**

Sur1 = 2-Fluorophenol	34-112	Sur5 = 2,4,6-Tribromophenol	34-134
Sur2 = Phenol-d6	34-116	Sur6 = Terphenyl-d14	13-152
Sur3 = Nitrobenzene-d5	43-120		
Sur4 = 2-Fluorobiphenyl	45-115		

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 06/03/2010  
 Time Analyzed: 09:52

Internal Standard Area and RT Summary  
 Semi-Volatile Organic Compounds by GC/MS

File ID: J:\MS07\DATA\060310\0603F002.D  
 Instrument ID: MS07  
 Analysis Method: 625

Lab Code: KWG1005376-2  
 Analysis Lot: KWG1005376

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
	Area	RT	Area	RT	Area	RT
Results ==>	114,508	9.35	456,867	11.45	226,896	14.31
Upper Limit ==>	229,016	9.85	913,734	11.95	453,792	14.81
Lower Limit ==>	57,254	8.85	228,434	10.95	113,448	13.81
ICAL Result ==>	103,733	9.34	407,774	11.45	224,107	14.30

Associated Analyses

Method Blank	KWG1005060-3	106,372	9.35	379,395	11.45	226,297	14.31
Lab Control Sample	KWG1005060-1	123,781	9.35	514,970	11.45	224,915	14.31
Duplicate Lab Control Sample	KWG1005060-2	114,829	9.36	452,063	11.45	223,035	14.31
3bcd-2	K1005067-002	96,699	9.35	352,596	11.45	197,307	14.31
3ddd	K1005067-003	85,467	9.35	334,350	11.45	193,372	14.31
EB-051710	K1005067-004	91,009	9.36	352,276	11.46	204,977	14.31
Lab Control Sample	KWG1005060-1	99,764	9.35	397,676	11.45	213,574	14.31

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 09:52

**Internal Standard Area and RT Summary  
Semi-Volatile Organic Compounds by GC/MS**

**File ID:** J:\MS07\DATA\060310\0603F002.D  
**Instrument ID:** MS07  
**Analysis Method:** 625

**Lab Code:** KWG1005376-2  
**Analysis Lot:** KWG1005376

	Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>
<b>Results ==&gt;</b>	300,151	16.71	305,673	21.14	250,279	24.32
<b>Upper Limit ==&gt;</b>	600,302	17.21	611,346	21.64	500,558	24.82
<b>Lower Limit ==&gt;</b>	150,076	16.21	152,837	20.64	125,140	23.82
<b>ICAL Result ==&gt;</b>	285,196	16.70	279,166	21.13	255,637	24.31

*Associated Analyses*

Method Blank	KWG1005060-3	364,230	16.70	240,468	21.13	231,679	24.32
Lab Control Sample	KWG1005060-1	265,062	16.70	314,868	21.14	238,065	24.32
Duplicate Lab Control Sample	KWG1005060-2	279,026	16.71	311,422	21.14	218,422	24.32
3bcd-2	K1005067-002	338,438	16.70	217,674	21.13	222,836	24.32
3ddd	K1005067-003	309,344	16.70	203,471	21.13	218,936	24.32
EB-051710	K1005067-004	298,225	16.71	208,159	21.14	197,717	24.33
Lab Control Sample	KWG1005060-1	290,246	16.71	272,317	21.14	225,383	24.32

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010  
**Date Analyzed:** 06/03/2010

**Lab Control Spike/Duplicate Lab Control Spike Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1005060

Analyte Name	Lab Control Sample KWG1005060-1 Lab Control Spike			Duplicate Lab Control Sample KWG1005060-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
N-Nitrosodimethylamine	76.5	100	77	84.5	100	84	47-110	10	30
Bis(2-chloroethyl) Ether	77.9	100	78	82.4	100	82	55-102	6	30
Phenol	80.2	100	80	83.2	100	83	53-101	4	30
2-Chlorophenol	81.1	100	81	82.8	100	83	59-101	2	30
Bis(2-chloroisopropyl) Ether	82.2	100	82	86.5	100	86	51-105	5	30
Hexachloroethane	73.7	100	74	71.4	100	71	50-98	3	30
N-Nitrosodi-n-propylamine	82.5	100	82	89.4	100	89	59-105	8	30
Nitrobenzene	84.6	100	85	85.4	100	85	58-105	1	30
Isophorone	78.2	100	78	83.3	100	83	57-108	6	30
2-Nitrophenol	78.7	100	79	86.6	100	87	61-105	10	30
2,4-Dimethylphenol	55.8	100	56	45.4	100	45	29-105	21	30
Bis(2-chloroethoxy)methane	79.0	100	79	88.0	100	88	56-106	11	30
2,4-Dichlorophenol	77.0	100	77	82.5	100	83	59-106	7	30
1,2,4-Trichlorobenzene	71.0	100	71	77.4	100	77	53-101	9	30
Naphthalene	71.9	100	72	79.7	100	80	55-102	10	30
Hexachlorobutadiene	69.5	100	69	71.7	100	72	52-101	3	30
4-Chloro-3-methylphenol	79.6	100	80	85.9	100	86	60-112	8	30
Hexachlorocyclopentadiene	37.1	100	37	35.7	100	36	10-63	4	30
2,4,6-Trichlorophenol	98.4	100	98	93.6	100	94	65-112	5	30
2-Chloronaphthalene	88.7	100	89	86.8	100	87	57-106	2	30
Acenaphthylene	89.9	100	90	89.3	100	89	57-112	1	30
Dimethyl Phthalate	80.8	100	81	84.8	100	85	62-122	5	30
2,6-Dinitrotoluene	92.7	100	93	84.7	100	85	63-122	9	30
Acenaphthene	88.5	100	88	86.8	100	87	60-109	2	30
2,4-Dinitrophenol	86.4	100	86	85.8	100	86	32-123	1	30
4-Nitrophenol	98.0	100	98	94.5	100	94	51-125	4	30
2,4-Dinitrotoluene	79.0	100	79	84.4	100	84	56-127	7	30
Fluorene	90.3	100	90	84.4	100	84	56-115	7	30
4-Chlorophenyl Phenyl Ether	84.0	100	84	79.6	100	80	57-116	5	30
Diethyl Phthalate	83.1	100	83	87.0	100	87	54-135	5	30
2-Methyl-4,6-dinitrophenol	85.4	100	85	86.7	100	87	49-128	2	30
N-Nitrosodiphenylamine	82.1	100	82	86.0	100	86	48-122	5	30
1,2-Diphenylhydrazine	89.5	100	90	85.3	100	85	54-117	5	30
4-Bromophenyl Phenyl Ether	96.6	100	97	91.8	100	92	64-116	5	30
Hexachlorobenzene	91.7	100	92	91.7	100	92	61-116	0	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010  
**Date Analyzed:** 06/03/2010

**Lab Control Spike/Duplicate Lab Control Spike Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1005060

Analyte Name	Lab Control Sample KWG1005060-1 Lab Control Spike			Duplicate Lab Control Sample KWG1005060-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
Pentachlorophenol	89.5	100	89	80.7	100	81	52-117	10	30
Phenanthrene	97.1	100	97	95.1	100	95	64-113	2	30
Anthracene	94.4	100	94	93.7	100	94	62-114	1	30
Di-n-butyl Phthalate	105	100	105	101	100	101	63-125	4	30
Fluoranthene	116	100	116	99.7	100	100	60-120	15	30
Benzidine	196	200	98	198	200	99	10-202	1	30
Pyrene	86.8	100	87	87.6	100	88	57-115	1	30
Butyl Benzyl Phthalate	100	100	100	101	100	101	65-115	0	30
3,3'-Dichlorobenzidine	81.6	100	82	73.6	100	74	42-120	10	30
Benz(a)anthracene	101	100	101	90.6	100	91	66-113	10	30
Chrysene	104	100	104	97.6	100	98	64-113	6	30
Bis(2-ethylhexyl) Phthalate	105	100	105	105	100	105	61-120	0	30
Di-n-octyl Phthalate	111	100	111	112	100	112	64-128	1	30
Benzo(b)fluoranthene	106	100	106	107	100	107	64-115	1	30
Benzo(k)fluoranthene	105	100	105	106	100	106	62-119	1	30
Benzo(a)pyrene	110	100	110	109	100	109	57-119	1	30
Indeno(1,2,3-cd)pyrene	95.6	100	96	98.3	100	98	65-116	3	30
Dibenz(a,h)anthracene	98.7	100	99	101	100	101	64-119	3	30
Benzo(g,h,i)perylene	93.6	100	94	101	100	101	65-115	8	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 10:43

**Method Blank Summary**  
**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Method Blank **File ID:** J:\MS07\DATA\060310\0603F003.D  
**Lab Code:** KWG1005060-3 **Instrument ID:** MS07  
**Extraction Method:** EPA 3520C **Level:** Low  
**Analysis Method:** 625 **Extraction Lot:** KWG1005060

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1005060-1	J:\MS07\DATA\060310\0603F004.D	06/03/10	11:28
Duplicate Lab Control Sample	KWG1005060-2	J:\MS07\DATA\060310\0603F005.D	06/03/10	12:13
3bcd-2	K1005067-002	J:\MS07\DATA\060310\0603F006.D	06/03/10	12:59
3ddd	K1005067-003	J:\MS07\DATA\060310\0603F007.D	06/03/10	13:45
EB-051710	K1005067-004	J:\MS07\DATA\060310\0603F008.D	06/03/10	14:32
Lab Control Sample	KWG1005060-1	J:\MS07\DATA\060310\0603F011.D	06/03/10	16:55

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 11:28

**Lab Control Sample Summary**  
**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1005060-1  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625  
**File ID:** J:\MS07\DATA\060310\0603F004.D  
**Instrument ID:** MS07  
**Level:** Low  
**Extraction Lot:** KWG1005060

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1005060-3	J:\MS07\DATA\060310\0603F003.D	06/03/10	10:43
3bcd-2	K1005067-002	J:\MS07\DATA\060310\0603F006.D	06/03/10	12:59
3ddd	K1005067-003	J:\MS07\DATA\060310\0603F007.D	06/03/10	13:45
EB-051710	K1005067-004	J:\MS07\DATA\060310\0603F008.D	06/03/10	14:32

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 16:55

**Lab Control Sample Summary**  
**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1005060-1  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**File ID:** J:\MS07\DATA\060310\0603F011.D  
**Instrument ID:** MS07  
**Level:** Low  
**Extraction Lot:** KWG1005060

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
3bcd-2	K1005067-002	J:\MS07\DATA\060310\0603F006.D	06/03/10	12:59
3ddd	K1005067-003	J:\MS07\DATA\060310\0603F007.D	06/03/10	13:45
EB-051710	K1005067-004	J:\MS07\DATA\060310\0603F008.D	06/03/10	14:32

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 09:08

**Tune Summary**  
**Semi-Volatile Organic Compounds by GC/MS**

**File ID:** J:\MS07\DATA\060310\0603F001.D  
**Instrument ID:** MS07  
**Column:**

**Analysis Method:** 625  
**Analysis Lot:** KWG1005376

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	30	60	49.4	23231	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	59.6	28021	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	49.3	23181	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	47026	PASS
199	198	5	9	6.6	3119	PASS
275	198	10	30	20.3	9557	PASS
365	198	1	100	2.6	1224	PASS
441	443	0	100	77.5	3287	PASS
442	198	40	100	47.7	22412	PASS
443	442	17	23	18.9	4244	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1005376-2	J:\MS07\DATA\060310\0603F002.D	06/03/2010	09:52	
Method Blank	KWG1005060-3	J:\MS07\DATA\060310\0603F003.D	06/03/2010	10:43	
Lab Control Sample	KWG1005060-1	J:\MS07\DATA\060310\0603F004.D	06/03/2010	11:28	
Duplicate Lab Control Sample	KWG1005060-2	J:\MS07\DATA\060310\0603F005.D	06/03/2010	12:13	
3bcd-2	K1005067-002	J:\MS07\DATA\060310\0603F006.D	06/03/2010	12:59	
3ddd	K1005067-003	J:\MS07\DATA\060310\0603F007.D	06/03/2010	13:45	
EB-051710	K1005067-004	J:\MS07\DATA\060310\0603F008.D	06/03/2010	14:32	
Lab Control Sample	KWG1005060-1	J:\MS07\DATA\060310\0603F011.D	06/03/2010	16:55	

Results flagged with an asterisk (\*) indicate the analysis performed outside specified tune window

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010

**Initial Calibration Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Calibration ID:** CAL9525  
**Instrument ID:** MS07

**Column:** MS

<b>Level ID</b>	<b>File ID</b>	<b>Level ID</b>	<b>File ID</b>
A	J:\MS07\DATA\060210\0602F004.D	F	J:\MS07\DATA\060210\0602F009.D
B	J:\MS07\DATA\060210\0602F005.D	G	J:\MS07\DATA\060210\0602F010.D
C	J:\MS07\DATA\060210\0602F006.D	H	J:\MS07\DATA\060210\0602F011.D
D	J:\MS07\DATA\060210\0602F007.D	I	J:\MS07\DATA\060210\0602F012.D
E	J:\MS07\DATA\060210\0602F008.D		

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
N-Nitrosodimethylamine	A	5.0	0.876	B	10	0.953	C	20	0.933	D	50	0.861	E	80	0.952
	F	100	1.02	G	120	0.995	H	160	1.02	I	200	0.996			
Bis(2-chloroethyl) Ether	A	5.0	1.03	B	10	1.14	C	20	1.20	D	50	1.05	E	80	1.24
	F	100	1.29	G	120	1.32	H	160	1.33	I	200	1.29			
Phenol				B	10	1.36	C	20	1.44	D	50	1.31	E	80	1.54
	F	100	1.63	G	120	1.63	H	160	1.62	I	200	1.62			
2-Chlorophenol	A	5.0	1.16	B	10	1.25	C	20	1.33	D	50	1.15	E	80	1.34
	F	100	1.43	G	120	1.36	H	160	1.39	I	200	1.36			
Bis(2-chloroisopropyl) Ether				B	10	1.81	C	20	1.82	D	50	1.63	E	80	2.01
	F	100	2.16	G	120	2.18	H	160	2.25	I	200	2.20			
Hexachloroethane	A	5.0	0.579	B	10	0.644	C	20	0.660	D	50	0.598	E	80	0.692
	F	100	0.699	G	120	0.678	H	160	0.653	I	200	0.590			
N-Nitrosodi-n-propylamine	A	5.0	0.866	B	10	0.899	C	20	0.946	D	50	0.757	E	80	1.06
	F	100	1.09	G	120	1.11	H	160	1.11	I	200	1.02			
Nitrobenzene				B	10	1.24	C	20	1.31	D	50	1.21	E	80	1.40
	F	100	1.46	G	120	1.46	H	160	1.50	I	200	1.33			
Isophorone	A	5.0	0.711	B	10	0.701	C	20	0.765	D	50	0.630	E	80	0.760
	F	100	0.681	G	120	0.768	H	160	0.731	I	200	0.747			
2-Nitrophenol	A	5.0	0.182	B	10	0.183	C	20	0.204	D	50	0.173	E	80	0.206
	F	100	0.190	G	120	0.218	H	160	0.217	I	200	0.217			
2,4-Dimethylphenol	A	5.0	0.264	B	10	0.234	C	20	0.266	D	50	0.245	E	80	0.281
	F	100	0.271	G	120	0.282	H	160	0.273	I	200	0.277			
Bis(2-chloroethoxy)methane	A	5.0	0.391	B	10	0.393	C	20	0.425	D	50	0.375	E	80	0.412
	F	100	0.410	G	120	0.426	H	160	0.395	I	200	0.421			
2,4-Dichlorophenol	A	5.0	0.273	B	10	0.290	C	20	0.315	D	50	0.286	E	80	0.303
	F	100	0.294	G	120	0.341	H	160	0.310	I	200	0.303			
1,2,4-Trichlorobenzene	A	5.0	0.318	B	10	0.326	C	20	0.339	D	50	0.300	E	80	0.335
	F	100	0.318	G	120	0.332	H	160	0.311	I	200	0.304			

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† SPCC Compound

‡ CCC Compound

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010

**Initial Calibration Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Calibration ID:** CAL9525  
**Instrument ID:** MS07

**Column:** MS

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Naphthalene	A	5.0	0.986	B	10	1.00	C	20	1.01	D	50	0.889	E	80	0.980
	F	100	0.935	G	120	1.01	H	160	0.940	I	200	0.884			
Hexachlorobutadiene	A	5.0	0.202	B	10	0.201	C	20	0.218	D	50	0.191	E	80	0.218
	F	100	0.211	G	120	0.206	H	160	0.191	I	200	0.190			
4-Chloro-3-methylphenol	A	5.0	0.319	B	10	0.318	C	20	0.322	D	50	0.310	E	80	0.345
	F	100	0.299	G	120	0.334	H	160	0.293	I	200	0.294			
Hexachlorocyclopentadiene				B	10	0.211	C	20	0.297	D	50	0.327	E	80	0.387
	F	100	0.465	G	120	0.436	H	160	0.424	I	200	0.438			
2,4,6-Trichlorophenol	A	5.0	0.373	B	10	0.389	C	20	0.417	D	50	0.388	E	80	0.413
	F	100	0.449	G	120	0.429	H	160	0.427	I	200	0.427			
2-Chloronaphthalene	A	5.0	1.13	B	10	1.08	C	20	1.10	D	50	1.11	E	80	1.18
	F	100	1.25	G	120	1.16	H	160	1.20	I	200	1.20			
Acenaphthylene	A	5.0	1.73	B	10	1.76	C	20	1.84	D	50	1.67	E	80	1.79
	F	100	1.89	G	120	1.81	H	160	1.76	I	200	1.78			
Dimethyl Phthalate	A	5.0	1.49	B	10	1.42	C	20	1.48	D	50	1.36	E	80	1.34
	F	100	1.31	G	120	1.33	H	160	1.28	I	200	1.21			
2,6-Dinitrotoluene	A	5.0	0.316	B	10	0.315	C	20	0.320	D	50	0.286	E	80	0.319
	F	100	0.311	G	120	0.303	H	160	0.299	I	200	0.305			
Acenaphthene	A	5.0	1.10	B	10	1.06	C	20	1.04	D	50	0.936	E	80	1.01
	F	100	1.02	G	120	1.02	H	160	0.990	I	200	0.982			
2,4-Dinitrophenol							C	20	0.126	D	50	0.173	E	80	0.191
	F	100	0.189	G	120	0.188	H	160	0.196	I	200	0.187			
4-Nitrophenol							C	20	0.149	D	50	0.168	E	80	0.186
	F	100	0.180	G	120	0.179	H	160	0.183	I	200	0.184			
2,4-Dinitrotoluene	A	5.0	0.442	B	10	0.421	C	20	0.412	D	50	0.379	E	80	0.401
	F	100	0.365	G	120	0.362	H	160	0.369	I	200	0.364			
Fluorene	A	5.0	1.34	B	10	1.29	C	20	1.25	D	50	1.20	E	80	1.21
	F	100	1.18	G	120	1.12	H	160	1.16	I	200	1.07			
4-Chlorophenyl Phenyl Ether	A	5.0	0.653	B	10	0.664	C	20	0.646	D	50	0.591	E	80	0.636
	F	100	0.587	G	120	0.605	H	160	0.586	I	200	0.568			
Diethyl Phthalate				B	10	1.52	C	20	1.50	D	50	1.30	E	80	1.41
	F	100	1.23	G	120	1.26	H	160	1.15	I	200	1.15			
2-Methyl-4,6-dinitrophenol							C	20	0.188	D	50	0.221	E	80	0.230
	F	100	0.209	G	120	0.215	H	160	0.219	I	200	0.205			
N-Nitrosodiphenylamine	A	5.0	0.904	B	10	0.854	C	20	0.852	D	50	0.892	E	80	0.789
	F	100	0.752	G	120	0.753	H	160	0.728	I	200	0.688			

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† SPCC Compound

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010

**Initial Calibration Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Calibration ID:** CAL9525  
**Instrument ID:** MS07

**Column:** MS

Analyte Name	Level ID			Level ID			Level ID			Level ID			Level ID		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
1,2-Diphenylhydrazine	A	5.0	1.51	B	10	1.35	C	20	1.44	D	50	1.30	E	80	1.40
	F	100	1.36	G	120	1.33	H	160	1.27	I	200	1.19			
4-Bromophenyl Phenyl Ether	A	5.0	0.213	B	10	0.226	C	20	0.243	D	50	0.218	E	80	0.267
	F	100	0.257	G	120	0.263	H	160	0.250	I	200	0.233			
Hexachlorobenzene	A	5.0	0.269	B	10	0.266	C	20	0.277	D	50	0.257	E	80	0.306
	F	100	0.297	G	120	0.289	H	160	0.281	I	200	0.274			
Pentachlorophenol							C	20	0.125	D	50	0.142	E	80	0.171
	F	100	0.158	G	120	0.169	H	160	0.166	I	200	0.169			
Phenanthrene	A	5.0	1.15	B	10	1.14	C	20	1.09	D	50	0.980	E	80	1.15
	F	100	1.00	G	120	1.04	H	160	1.00	I	200	1.01			
Anthracene	A	5.0	1.15	B	10	1.12	C	20	1.10	D	50	1.04	E	80	1.21
	F	100	1.15	G	120	1.13	H	160	1.10	I	200	1.06			
Di-n-butyl Phthalate	A	5.0	1.26	B	10	1.09	C	20	1.15	D	50	1.16	E	80	1.33
	F	100	1.28	G	120	1.25	H	160	1.19	I	200	1.25			
Fluoranthene	A	5.0	0.954	B	10	0.890	C	20	0.817	D	50	0.817	E	80	0.968
	F	100	1.04	G	120	1.04	H	160	1.04	I	200	1.10			
Benzidine							C	20	0.432	D	50	0.278	E	80	0.332
	F	100	0.314	G	120	0.312	H	160	0.338	I	200	0.345			
Pyrene				B	10	1.28	C	20	1.15	D	50	1.08	E	80	1.03
	F	100	0.965	G	120	0.970	H	160	0.958	I	200	1.11			
Butyl Benzyl Phthalate	A	5.0	0.581	B	10	0.542	C	20	0.606	D	50	0.565	E	80	0.647
	F	100	0.607	G	120	0.626	H	160	0.620	I	200	0.680			
3,3'-Dichlorobenzidine	A	5.0	0.404	B	10	0.399	C	20	0.423	D	50	0.427	E	80	0.465
	F	100	0.430	G	120	0.415	H	160	0.398	I	200	0.402			
Benz(a)anthracene	A	5.0	0.973	B	10	0.885	C	20	0.921	D	50	0.905	E	80	1.02
	F	100	0.963	G	120	0.923	H	160	0.914	I	200	0.952			
Chrysene	A	5.0	1.01	B	10	0.878	C	20	0.894	D	50	0.882	E	80	0.958
	F	100	0.911	G	120	0.877	H	160	0.866	I	200	0.918			
Bis(2-ethylhexyl) Phthalate	A	5.0	0.827	B	10	0.765	C	20	0.860	D	50	0.809	E	80	0.896
	F	100	0.902	G	120	0.924	H	160	0.901	I	200	0.908			
Di-n-octyl Phthalate				B	10	1.37	C	20	1.40	D	50	1.58	E	80	1.81
	F	100	1.99	G	120	1.96	H	160	2.00	I	200	1.98			
Benzo(b)fluoranthene				B	10	0.873	C	20	0.966	D	50	0.943	E	80	1.04
	F	100	1.11	G	120	1.04	H	160	1.12	I	200	1.15			
Benzo(k)fluoranthene	A	5.0	0.941	B	10	0.944	C	20	1.03	D	50	1.03	E	80	1.09
	F	100	1.14	G	120	1.18	H	160	1.10	I	200	1.17			

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† SPCC Compound

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010

**Initial Calibration Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Calibration ID:** CAL9525  
**Instrument ID:** MS07

**Column:** MS

Analyte Name	Level			Level			Level			Level					
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF			
Benzo(a)pyrene	F	100	0.874	B	10	0.799	C	20	0.843	D	50	0.788	E	80	0.871
				G	120	0.881	H	160	0.899	I	200	0.891			
Indeno(1,2,3-cd)pyrene	A	5.0	0.706	B	10	0.671	C	20	0.684	D	50	0.687	E	80	0.758
	F	100	0.750	G	120	0.785	H	160	0.813	I	200	0.816			
Dibenz(a,h)anthracene	A	5.0	0.758	B	10	0.689	C	20	0.761	D	50	0.713	E	80	0.812
	F	100	0.819	G	120	0.809	H	160	0.859	I	200	0.885			
Benzo(g,h,i)perylene	A	5.0	0.819	B	10	0.799	C	20	0.777	D	50	0.744	E	80	0.778
	F	100	0.772	G	120	0.832	H	160	0.809	I	200	0.870			
2-Fluorophenol	A	5.0	0.897	B	10	1.01	C	20	1.02	D	50	1.07	E	80	1.08
	F	100	1.15	G	120	1.12	H	160	1.12	I	200	1.11			
Phenol-d6	A	5.0	1.24	B	10	1.40	C	20	1.40	D	50	1.43	E	80	1.52
	F	100	1.60	G	120	1.60	H	160	1.61	I	200	1.55			
Nitrobenzene-d5				B	10	1.27	C	20	1.32	D	50	1.34	E	80	1.50
	F	100	1.55	G	120	1.53	H	160	1.58	I	200	1.50			
2-Fluorobiphenyl	A	5.0	1.21	B	10	1.26	C	20	1.26	D	50	1.31	E	80	1.24
	F	100	1.47	G	120	1.38	H	160	1.35	I	200	1.32			
2,4,6-Tribromophenol				B	10	0.133	C	20	0.155	D	50	0.160	E	80	0.180
	F	100	0.173	G	120	0.175	H	160	0.161	I	200	0.160			
Terphenyl-d14				B	10	0.644	C	20	0.659	D	50	0.674	E	80	0.595
	F	100	0.564	G	120	0.551	H	160	0.587	I	200	0.625			

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† SPCC Compound

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Calibration Date: 06/02/2010

Initial Calibration Summary  
 Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL9525  
 Instrument ID: MS07

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
N-Nitrosodimethylamine	TRG	AverageRF	% RSD	6.0		≤35	0.956		0.01
Bis(2-chloroethyl) Ether	TRG	AverageRF	% RSD	9.3		≤35	1.21		0.01
Phenol	MS	AverageRF	% RSD	8.7		≤35	1.52		0.01
2-Chlorophenol	MS	AverageRF	% RSD	7.6		≤35	1.31		0.01
Bis(2-chloroisopropyl) Ether	TRG	AverageRF	% RSD	11.5		≤35	2.01		0.01
Hexachloroethane	TRG	AverageRF	% RSD	7.0		≤35	0.644		0.01
N-Nitrosodi-n-propylamine	MS	AverageRF	% RSD	12.7		≤35	0.985		0.05
Nitrobenzene	TRG	AverageRF	% RSD	7.9		≤35	1.36		0.01
Isophorone	TRG	AverageRF	% RSD	6.3		≤35	0.722		0.01
2-Nitrophenol	TRG	AverageRF	% RSD	8.7		≤35	0.199		0.01
2,4-Dimethylphenol	TRG	AverageRF	% RSD	6.1		≤35	0.266		0.01
Bis(2-chloroethoxy)methane	TRG	AverageRF	% RSD	4.3		≤35	0.405		0.01
2,4-Dichlorophenol	TRG	AverageRF	% RSD	6.5		≤35	0.302		0.01
1,2,4-Trichlorobenzene	MS	AverageRF	% RSD	4.3		≤35	0.320		0.01
Naphthalene	TRG	AverageRF	% RSD	5.2		≤35	0.960		0.01
Hexachlorobutadiene	TRG	AverageRF	% RSD	5.5		≤35	0.203		0.01
4-Chloro-3-methylphenol	MS	AverageRF	% RSD	5.6		≤35	0.315		0.01
Hexachlorocyclopentadiene	TRG	Quadratic	COD	0.993		≥0.990	0.373		0.05
2,4,6-Trichlorophenol	TRG	AverageRF	% RSD	5.9		≤35	0.413		0.01
2-Chloronaphthalene	TRG	AverageRF	% RSD	4.8		≤35	1.16		0.01
Acenaphthylene	TRG	AverageRF	% RSD	3.6		≤35	1.78		0.01
Dimethyl Phthalate	TRG	AverageRF	% RSD	6.7		≤35	1.36		0.01
2,6-Dinitrotoluene	TRG	AverageRF	% RSD	3.6		≤35	0.308		0.01
Acenaphthene	MS	AverageRF	% RSD	4.6		≤35	1.02		0.01
2,4-Dinitrophenol	TRG	AverageRF	% RSD	13.5		≤35	0.179		0.05
4-Nitrophenol	MS	AverageRF	% RSD	7.4		≤35	0.176		0.05
2,4-Dinitrotoluene	MS	AverageRF	% RSD	7.5		≤35	0.391		0.01
Fluorene	TRG	AverageRF	% RSD	7.0		≤35	1.20		0.01
4-Chlorophenyl Phenyl Ether	TRG	AverageRF	% RSD	5.7		≤35	0.615		0.01
Diethyl Phthalate	TRG	AverageRF	% RSD	11.0		≤35	1.31		0.01
2-Methyl-4,6-dinitrophenol	TRG	AverageRF	% RSD	6.4		≤35	0.212		0.01
N-Nitrosodiphenylamine	TRG	AverageRF	% RSD	9.6		≤35	0.801		0.01
1,2-Diphenylhydrazine	TRG	AverageRF	% RSD	7.0		≤35	1.35		0.01
4-Bromophenyl Phenyl Ether	TRG	AverageRF	% RSD	8.1		≤35	0.241		0.01
Hexachlorobenzene	TRG	AverageRF	% RSD	5.6		≤35	0.280		0.01
Pentachlorophenol	MS	AverageRF	% RSD	11.0		≤35	0.157		0.01
Phenanthrene	TRG	AverageRF	% RSD	6.5		≤35	1.06		0.01
Anthracene	TRG	AverageRF	% RSD	4.6		≤35	1.12		0.01
Di-n-butyl Phthalate	TRG	AverageRF	% RSD	6.2		≤35	1.22		0.01
Fluoranthene	TRG	AverageRF	% RSD	10.7		≤35	0.964		0.01
Benzidine	TRG	AverageRF	% RSD	14.3		≤35	0.336		0.01
Pyrene	MS	AverageRF	% RSD	10.4		≤35	1.07		0.01

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010

**Initial Calibration Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Calibration ID:** CAL9525  
**Instrument ID:** MS07

**Column:** MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Butyl Benzyl Phthalate	TRG	AverageRF	% RSD	6.9		≤ 35	0.608		0.01
3,3'-Dichlorobenzidine	TRG	AverageRF	% RSD	5.1		≤ 35	0.418		0.01
Benz(a)anthracene	TRG	AverageRF	% RSD	4.5		≤ 35	0.940		0.01
Chrysene	TRG	AverageRF	% RSD	5.1		≤ 35	0.910		0.01
Bis(2-ethylhexyl) Phthalate	TRG	AverageRF	% RSD	6.3		≤ 35	0.866		0.01
Di-n-octyl Phthalate	TRG	Quadratic	COD	0.998		≥ 0.990	1.76		0.01
Benzo(b)fluoranthene	TRG	AverageRF	% RSD	9.4		≤ 35	1.03		0.01
Benzo(k)fluoranthene	TRG	AverageRF	% RSD	8.3		≤ 35	1.07		0.01
Benzo(a)pyrene	TRG	AverageRF	% RSD	4.9		≤ 35	0.856		0.01
Indeno(1,2,3-cd)pyrene	TRG	AverageRF	% RSD	7.6		≤ 35	0.741		0.01
Dibenz(a,h)anthracene	TRG	AverageRF	% RSD	8.2		≤ 35	0.789		0.01
Benzo(g,h,i)perylene	TRG	AverageRF	% RSD	4.7		≤ 35	0.800		0.01
2-Fluorophenol	SURR	AverageRF	% RSD	7.3		≤ 35	1.06		0.01
Phenol-d6	SURR	AverageRF	% RSD	8.3		≤ 35	1.48		0.01
Nitrobenzene-d5	SURR	AverageRF	% RSD	8.3		≤ 35	1.45		0.01
2-Fluorobiphenyl	SURR	AverageRF	% RSD	6.1		≤ 35	1.31		0.01
2,4,6-Tribromophenol	SURR	AverageRF	% RSD	9.2		≤ 35	0.162		0.01
Terphenyl-d14	SURR	AverageRF	% RSD	7.3		≤ 35	0.612		0.01

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010  
**Date Analyzed:** 06/02/2010 -  
 06/03/2010

**Second Source Calibration Verification  
 Semi-Volatile Organic Compounds by GC/MS**

**Calibration Type:** Internal Standard  
**Analysis Method:** 625

**Calibration ID:** CAL9525  
**Units:** ug/ml

**File ID:** J:\MS07\DATA\060210\0602F013.D  
 J:\MS07\DATA\060210\0602F014.D  
 J:\MS07\DATA\060210\0602F016.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
N-Nitrosodimethylamine	80	76	0.956	0.912	-5	NA	± 30 %	AverageRF
Bis(2-chloroethyl) Ether	80	85	1.21	1.28	6	NA	± 30 %	AverageRF
Phenol	80	86	1.52	1.64	8	NA	± 30 %	AverageRF
2-Chlorophenol	80	83	1.31	1.36	4	NA	± 30 %	AverageRF
Bis(2-chloroisopropyl) Ether	80	89	2.01	2.24	12	NA	± 30 %	AverageRF
Hexachloroethane	80	81	0.644	0.653	1	NA	± 30 %	AverageRF
N-Nitrosodi-n-propylamine	80	77	0.985	0.949	-4	NA	± 30 %	AverageRF
Nitrobenzene	80	79	1.36	1.35	-1	NA	± 30 %	AverageRF
Isophorone	80	76	0.722	0.686	-5	NA	± 30 %	AverageRF
2-Nitrophenol	80	82	0.199	0.204	3	NA	± 30 %	AverageRF
2,4-Dimethylphenol	80	83	0.266	0.276	4	NA	± 30 %	AverageRF
Bis(2-chloroethoxy)methane	80	86	0.405	0.434	7	NA	± 30 %	AverageRF
2,4-Dichlorophenol	80	81	0.302	0.306	1	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	80	80	0.320	0.321	0	NA	± 30 %	AverageRF
Naphthalene	80	80	0.960	0.962	0	NA	± 30 %	AverageRF
Hexachlorobutadiene	80	80	0.203	0.203	0	NA	± 30 %	AverageRF
4-Chloro-3-methylphenol	80	73	0.315	0.287	-9	NA	± 30 %	AverageRF
Hexachlorocyclopentadiene	80	65	0.373	0.326	NA	-19	± 30 %	Quadratic
2,4,6-Trichlorophenol	80	86	0.413	0.445	8	NA	± 30 %	AverageRF
2-Chloronaphthalene	80	85	1.16	1.23	6	NA	± 30 %	AverageRF
Acenaphthylene	80	68	1.78	1.51	-15	NA	± 30 %	AverageRF
Dimethyl Phthalate	80	71	1.36	1.20	-12	NA	± 30 %	AverageRF
2,6-Dinitrotoluene	80	75	0.308	0.288	-7	NA	± 30 %	AverageRF
Acenaphthene	80	77	1.02	0.979	-4	NA	± 30 %	AverageRF
2,4-Dinitrophenol	80	79	0.179	0.176	-2	NA	± 30 %	AverageRF
4-Nitrophenol	80	75	0.176	0.165	-6	NA	± 30 %	AverageRF
2,4-Dinitrotoluene	80	67	0.391	0.325	-17	NA	± 30 %	AverageRF
Fluorene	80	71	1.20	1.07	-11	NA	± 30 %	AverageRF
4-Chlorophenyl Phenyl Ether	80	70	0.615	0.537	-13	NA	± 30 %	AverageRF
Diethyl Phthalate	80	70	1.31	1.14	-13	NA	± 30 %	AverageRF
2-Methyl-4,6-dinitrophenol	80	83	0.212	0.220	3	NA	± 30 %	AverageRF
N-Nitrosodiphenylamine	80	65	0.801	0.653	-18	NA	± 30 %	AverageRF
1,2-Diphenylhydrazine	80	72	1.35	1.22	-10	NA	± 30 %	AverageRF
4-Bromophenyl Phenyl Ether	80	78	0.241	0.234	-3	NA	± 30 %	AverageRF
Hexachlorobenzene	80	76	0.280	0.266	-5	NA	± 30 %	AverageRF
Pentachlorophenol	80	79	0.157	0.155	-1	NA	± 30 %	AverageRF
Phenanthrene	80	81	1.06	1.07	1	NA	± 30 %	AverageRF
Anthracene	80	74	1.12	1.04	-7	NA	± 30 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010  
**Date Analyzed:** 06/02/2010 -  
 06/03/2010

**Second Source Calibration Verification  
 Semi-Volatile Organic Compounds by GC/MS**

**Calibration Type:** Internal Standard  
**Analysis Method:** 625

**Calibration ID:** CAL9525  
**Units:** ug/ml

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Di-n-butyl Phthalate	80	83	1.22	1.26	4	NA	± 30 %	AverageRF
Fluoranthene	80	80	0.964	0.962	0	NA	± 30 %	AverageRF
Benzidine	50	110	0.336	0.738	120 *	NA	± 30 %	AverageRF
Pyrene	80	68	1.07	0.905	-15	NA	± 30 %	AverageRF
Butyl Benzyl Phthalate	80	79	0.608	0.604	-1	NA	± 30 %	AverageRF
3,3'-Dichlorobenzidine	80	75	0.418	0.393	-6	NA	± 30 %	AverageRF
Benz(a)anthracene	80	74	0.940	0.866	-8	NA	± 30 %	AverageRF
Chrysene	80	77	0.910	0.880	-3	NA	± 30 %	AverageRF
Bis(2-ethylhexyl) Phthalate	80	83	0.866	0.900	4	NA	± 30 %	AverageRF
Di-n-octyl Phthalate	80	87	1.76	2.07	NA	9	± 30 %	Quadratic
Benzo(b)fluoranthene	80	82	1.03	1.06	3	NA	± 30 %	AverageRF
Benzo(k)fluoranthene	80	83	1.07	1.12	4	NA	± 30 %	AverageRF
Benzo(a)pyrene	80	96	0.856	1.02	20	NA	± 30 %	AverageRF
Indeno(1,2,3-cd)pyrene	80	82	0.741	0.760	3	NA	± 30 %	AverageRF
Dibenz(a,h)anthracene	80	80	0.789	0.786	0	NA	± 30 %	AverageRF
Benzo(g,h,i)perylene	80	80	0.800	0.796	-1	NA	± 30 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 06/03/2010

Continuing Calibration Verification Summary  
 Semi-Volatile Organic Compounds by GC/MS

Calibration Type: Internal Standard  
 Analysis Method: 625

Calibration Date: 06/02/2010  
 Calibration ID: CAL9525  
 Analysis Lot: KWG1005376  
 Units: ug/ml

File ID: J:\MS07\DATA\060310\0603F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
N-Nitrosodimethylamine	80	86	0.01	0.956	1.02	7	NA	± 20 %	AverageRF
Bis(2-chloroethyl) Ether	80	89	0.01	1.21	1.34	11	NA	± 20 %	AverageRF
Phenol	80	88	0.01	1.52	1.67	10	NA	± 20 %	AverageRF
2-Chlorophenol	80	84	0.01	1.31	1.38	5	NA	± 20 %	AverageRF
Bis(2-chloroisopropyl) Ether	80	87	0.01	2.01	2.18	9	NA	± 20 %	AverageRF
Hexachloroethane	80	82	0.01	0.644	0.658	2	NA	± 20 %	AverageRF
N-Nitrosodi-n-propylamine	80	90	0.05	0.985	1.11	12	NA	± 20 %	AverageRF
Nitrobenzene	80	85	0.01	1.36	1.46	7	NA	± 20 %	AverageRF
Isophorone	80	84	0.01	0.722	0.755	5	NA	± 20 %	AverageRF
2-Nitrophenol	80	86	0.01	0.199	0.213	7	NA	± 20 %	AverageRF
2,4-Dimethylphenol	80	90	0.01	0.266	0.300	13	NA	± 20 %	AverageRF
Bis(2-chloroethoxy)methane	80	88	0.01	0.405	0.447	10	NA	± 20 %	AverageRF
2,4-Dichlorophenol	80	82	0.01	0.302	0.310	3	NA	± 20 %	AverageRF
1,2,4-Trichlorobenzene	80	82	0.01	0.320	0.327	2	NA	± 20 %	AverageRF
Naphthalene	80	82	0.01	0.960	0.983	2	NA	± 20 %	AverageRF
Hexachlorobutadiene	80	79	0.01	0.203	0.201	-1	NA	± 20 %	AverageRF
4-Chloro-3-methylphenol	80	82	0.01	0.315	0.321	2	NA	± 20 %	AverageRF
Hexachlorocyclopentadiene	80	78	0.05	0.373	0.403	NA	-2	± 20 %	Quadratic
2,4,6-Trichlorophenol	80	78	0.01	0.413	0.401	-3	NA	± 20 %	AverageRF
2-Chloronaphthalene	80	86	0.01	1.16	1.25	8	NA	± 20 %	AverageRF
Acenaphthylene	80	85	0.01	1.78	1.89	6	NA	± 20 %	AverageRF
Dimethyl Phthalate	80	70	0.01	1.36	1.19	-12	NA	± 20 %	AverageRF
2,6-Dinitrotoluene	80	84	0.01	0.308	0.324	5	NA	± 20 %	AverageRF
Acenaphthene	80	82	0.01	1.02	1.04	3	NA	± 20 %	AverageRF
2,4-Dinitrophenol	80	78	0.05	0.179	0.175	-2	NA	± 20 %	AverageRF
4-Nitrophenol	80	80	0.05	0.176	0.176	0	NA	± 20 %	AverageRF
2,4-Dinitrotoluene	80	76	0.01	0.391	0.370	-5	NA	± 20 %	AverageRF
Fluorene	80	80	0.01	1.20	1.20	0	NA	± 20 %	AverageRF
4-Chlorophenyl Phenyl Ether	80	74	0.01	0.615	0.568	-8	NA	± 20 %	AverageRF
Diethyl Phthalate	80	77	0.01	1.31	1.26	-4	NA	± 20 %	AverageRF
2-Methyl-4,6-dinitrophenol	80	80	0.01	0.212	0.212	0	NA	± 20 %	AverageRF
N-Nitrosodiphenylamine	80	73	0.01	0.801	0.732	-9	NA	± 20 %	AverageRF
1,2-Diphenylhydrazine	80	82	0.01	1.35	1.39	3	NA	± 20 %	AverageRF
4-Bromophenyl Phenyl Ether	80	81	0.01	0.241	0.245	2	NA	± 20 %	AverageRF
Hexachlorobenzene	80	79	0.01	0.280	0.276	-1	NA	± 20 %	AverageRF
Pentachlorophenol	80	76	0.01	0.157	0.150	-5	NA	± 20 %	AverageRF
Phenanthrene	80	76	0.01	1.06	1.01	-5	NA	± 20 %	AverageRF
Anthracene	80	81	0.01	1.12	1.13	1	NA	± 20 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 06/03/2010

Continuing Calibration Verification Summary  
 Semi-Volatile Organic Compounds by GC/MS

Calibration Type: Internal Standard  
 Analysis Method: 625

Calibration Date: 06/02/2010  
 Calibration ID: CAL9525  
 Analysis Lot: KWG1005376  
 Units: ug/ml

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Di-n-butyl Phthalate	80	80	0.01	1.22	1.21	0	NA	± 20 %	AverageRF
Fluoranthene	80	81	0.01	0.964	0.973	1	NA	± 20 %	AverageRF
Benzidine	80	160	0.01	0.336	0.668	99 *	NA	± 20 %	AverageRF
Pyrene	80	74	0.01	1.07	0.993	-7	NA	± 20 %	AverageRF
Butyl Benzyl Phthalate	80	85	0.01	0.608	0.643	6	NA	± 20 %	AverageRF
3,3'-Dichlorobenzidine	80	83	0.01	0.418	0.433	4	NA	± 20 %	AverageRF
Benz(a)anthracene	80	80	0.01	0.940	0.938	0	NA	± 20 %	AverageRF
Chrysene	80	83	0.01	0.910	0.943	4	NA	± 20 %	AverageRF
Bis(2-ethylhexyl) Phthalate	80	87	0.01	0.866	0.943	9	NA	± 20 %	AverageRF
Di-n-octyl Phthalate	80	86	0.01	1.76	2.03	NA	7	± 20 %	Quadratic
Benzo(b)fluoranthene	80	83	0.01	1.03	1.07	4	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	80	82	0.01	1.07	1.10	3	NA	± 20 %	AverageRF
Benzo(a)pyrene	80	84	0.01	0.856	0.894	5	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	80	76	0.01	0.741	0.702	-5	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	80	80	0.01	0.789	0.790	0	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	80	78	0.01	0.800	0.776	-3	NA	± 20 %	AverageRF
2-Fluorophenol	80	80	0.01	1.06	1.07	0	NA	± 20 %	AverageRF
Phenol-d6	80	87	0.01	1.48	1.60	8	NA	± 20 %	AverageRF
Nitrobenzene-d5	80	80	0.01	1.45	1.46	1	NA	± 20 %	AverageRF
2-Fluorobiphenyl	80	81	0.01	1.31	1.33	1	NA	± 20 %	AverageRF
2,4,6-Tribromophenol	80	73	0.01	0.162	0.149	-8	NA	± 20 %	AverageRF
Terphenyl-d14	80	71	0.01	0.612	0.544	-11	NA	± 20 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067

**Analysis Run Log  
Semi-Volatile Organic Compounds by GC/MS**

**Analysis Method:** 625

**Analysis Lot:** KWG1005376  
**Instrument ID:** MS07

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0603F009.D	ZZZZZZ	ZZZZZZ	6/3/2010	15:20		6/3/2010	15:49
0603F011.D	Lab Control Sample	KWG1005060-1	6/3/2010	16:55		6/3/2010	17:24
0603F001.D	GC/MS Tuning - Decafluorotripheny	KWG1005376-1	6/3/2010	09:08		6/3/2010	09:37
0603F002.D	Continuing Calibration Verification	KWG1005376-2	6/3/2010	09:52		6/3/2010	10:21
0603F003.D	Method Blank	KWG1005060-3	6/3/2010	10:43		6/3/2010	11:12
0603F004.D	Lab Control Sample	KWG1005060-1	6/3/2010	11:28		6/3/2010	11:57
0603F005.D	Duplicate Lab Control Sample	KWG1005060-2	6/3/2010	12:13		6/3/2010	12:42
0603F006.D	3bcd-2	K1005067-002	6/3/2010	12:59		6/3/2010	13:28
0603F007.D	3ddd	K1005067-003	6/3/2010	13:45		6/3/2010	14:14
0603F008.D	EB-051710	K1005067-004	6/3/2010	14:32		6/3/2010	15:01

Results flagged with an asterisk (\*) indicate the holding time was exceeded for the analysis



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010

**Extraction Prep Log  
Semi-Volatile Organic Compounds by GC/MS**

**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Extraction Lot:** KWG1005060  
**Level:** Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
3bcd-2	K1005067-002	05/17/10	05/19/10	1050mL	1mL	NA	
3ddd	K1005067-003	05/17/10	05/19/10	1050mL	1mL	NA	
EB-051710	K1005067-004	05/17/10	05/19/10	1050mL	1mL	NA	
Method Blank	KWG1005060-3	NA	NA	1050mL	1mL	NA	
Lab Control Sample	KWG1005060-1	NA	NA	1000mL	1mL	NA	
Duplicate Lab Control Sample	KWG1005060-2	NA	NA	1000mL	1mL	NA	

Results flagged with an asterisk (\*) indicate the holding time was exceeded for the analysis

Organic Analysis:  
Semi-Volatile Organic Compounds by GC/MS

Validation Package

Organic Analysis:  
Semi-Volatile Organic Compounds by GC/MS

Validation Package

QC Reports

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601  
 Sample Matrix: Water

Service Request: K1005067

Surrogate Recovery Summary  
 Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C  
 Analysis Method: 625

Units: PERCENT  
 Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6
3bcd-2	K1005067-002	85	76	74	73	79	139
3ddd	K1005067-003	86	82	83	76	87	125
EB-051710	K1005067-004	92	88	94	88	95	141
Method Blank	KWG1005060-3	76	75	74	74	68	121
Lab Control Sample	KWG1005060-1	77	78	84	92	97	103
Duplicate Lab Control Sample	KWG1005060-2	87	87	91	94	99	100

Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	34-112	Sur5 = 2,4,6-Tribromophenol	34-134
Sur2 = Phenol-d6	34-116	Sur6 = Terphenyl-d14	13-152
Sur3 = Nitrobenzene-d5	43-120		
Sur4 = 2-Fluorobiphenyl	45-115		

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 09:52

**Internal Standard Area and RT Summary  
Semi-Volatile Organic Compounds by GC/MS**

**File ID:** J:\MS07\DATA\060310\0603F002.D  
**Instrument ID:** MS07  
**Analysis Method:** 625

**Lab Code:** KWG1005376-2  
**Analysis Lot:** KWG1005376

	1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>
<b>Results ==&gt;</b>	114,508	9.35	456,867	11.45	226,896	14.31
<b>Upper Limit ==&gt;</b>	229,016	9.85	913,734	11.95	453,792	14.81
<b>Lower Limit ==&gt;</b>	57,254	8.85	228,434	10.95	113,448	13.81
<b>ICAL Result ==&gt;</b>	103,733	9.34	407,774	11.45	224,107	14.30

*Associated Analyses*

Method Blank	KWG1005060-3	106,372	9.35	379,395	11.45	226,297	14.31
Lab Control Sample	KWG1005060-1	123,781	9.35	514,970	11.45	224,915	14.31
Duplicate Lab Control Sample	KWG1005060-2	114,829	9.36	452,063	11.45	223,035	14.31
3bcd-2	K1005067-002	96,699	9.35	352,596	11.45	197,307	14.31
3ddd	K1005067-003	85,467	9.35	334,350	11.45	193,372	14.31
EB-051710	K1005067-004	91,009	9.36	352,276	11.46	204,977	14.31
Lab Control Sample	KWG1005060-1	99,764	9.35	397,676	11.45	213,574	14.31

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 09:52

**Internal Standard Area and RT Summary  
Semi-Volatile Organic Compounds by GC/MS**

**File ID:** J:\MS07\DATA\060310\0603F002.D  
**Instrument ID:** MS07  
**Analysis Method:** 625

**Lab Code:** KWG1005376-2  
**Analysis Lot:** KWG1005376

	Phenanthrene-d10		Chrysene-d12		Perylene-d12	
	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>
<b>Results ==&gt;</b>	300,151	16.71	305,673	21.14	250,279	24.32
<b>Upper Limit ==&gt;</b>	600,302	17.21	611,346	21.64	500,558	24.82
<b>Lower Limit ==&gt;</b>	150,076	16.21	152,837	20.64	125,140	23.82
<b>ICAL Result ==&gt;</b>	285,196	16.70	279,166	21.13	255,637	24.31

*Associated Analyses*

Method Blank	KWG1005060-3	364,230	16.70	240,468	21.13	231,679	24.32
Lab Control Sample	KWG1005060-1	265,062	16.70	314,868	21.14	238,065	24.32
Duplicate Lab Control Sample	KWG1005060-2	279,026	16.71	311,422	21.14	218,422	24.32
3bcd-2	K1005067-002	338,438	16.70	217,674	21.13	222,836	24.32
3ddd	K1005067-003	309,344	16.70	203,471	21.13	218,936	24.32
EB-051710	K1005067-004	298,225	16.71	208,159	21.14	197,717	24.33
Lab Control Sample	KWG1005060-1	290,246	16.71	272,317	21.14	225,383	24.32

Results flagged with an asterisk (\*) indicate values outside control criteria.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010  
**Date Analyzed:** 06/03/2010

**Lab Control Spike/Duplicate Lab Control Spike Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1005060

Analyte Name	Lab Control Sample KWG1005060-1 Lab Control Spike			Duplicate Lab Control Sample KWG1005060-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
N-Nitrosodimethylamine	76.5	100	77	84.5	100	84	47-110	10	30
Bis(2-chloroethyl) Ether	77.9	100	78	82.4	100	82	55-102	6	30
Phenol	80.2	100	80	83.2	100	83	53-101	4	30
2-Chlorophenol	81.1	100	81	82.8	100	83	59-101	2	30
Bis(2-chloroisopropyl) Ether	82.2	100	82	86.5	100	86	51-105	5	30
Hexachloroethane	73.7	100	74	71.4	100	71	50-98	3	30
N-Nitrosodi-n-propylamine	82.5	100	82	89.4	100	89	59-105	8	30
Nitrobenzene	84.6	100	85	85.4	100	85	58-105	1	30
Isophorone	78.2	100	78	83.3	100	83	57-108	6	30
2-Nitrophenol	78.7	100	79	86.6	100	87	61-105	10	30
2,4-Dimethylphenol	55.8	100	56	45.4	100	45	29-105	21	30
Bis(2-chloroethoxy)methane	79.0	100	79	88.0	100	88	56-106	11	30
2,4-Dichlorophenol	77.0	100	77	82.5	100	83	59-106	7	30
1,2,4-Trichlorobenzene	71.0	100	71	77.4	100	77	53-101	9	30
Naphthalene	71.9	100	72	79.7	100	80	55-102	10	30
Hexachlorobutadiene	69.5	100	69	71.7	100	72	52-101	3	30
4-Chloro-3-methylphenol	79.6	100	80	85.9	100	86	60-112	8	30
Hexachlorocyclopentadiene	37.1	100	37	35.7	100	36	10-63	4	30
2,4,6-Trichlorophenol	98.4	100	98	93.6	100	94	65-112	5	30
2-Chloronaphthalene	88.7	100	89	86.8	100	87	57-106	2	30
Acenaphthylene	89.9	100	90	89.3	100	89	57-112	1	30
Dimethyl Phthalate	80.8	100	81	84.8	100	85	62-122	5	30
2,6-Dinitrotoluene	92.7	100	93	84.7	100	85	63-122	9	30
Acenaphthene	88.5	100	88	86.8	100	87	60-109	2	30
2,4-Dinitrophenol	86.4	100	86	85.8	100	86	32-123	1	30
4-Nitrophenol	98.0	100	98	94.5	100	94	51-125	4	30
2,4-Dinitrotoluene	79.0	100	79	84.4	100	84	56-127	7	30
Fluorene	90.3	100	90	84.4	100	84	56-115	7	30
4-Chlorophenyl Phenyl Ether	84.0	100	84	79.6	100	80	57-116	5	30
Diethyl Phthalate	83.1	100	83	87.0	100	87	54-135	5	30
2-Methyl-4,6-dinitrophenol	85.4	100	85	86.7	100	87	49-128	2	30
N-Nitrosodiphenylamine	82.1	100	82	86.0	100	86	48-122	5	30
1,2-Diphenylhydrazine	89.5	100	90	85.3	100	85	54-117	5	30
4-Bromophenyl Phenyl Ether	96.6	100	97	91.8	100	92	64-116	5	30
Hexachlorobenzene	91.7	100	92	91.7	100	92	61-116	0	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010  
**Date Analyzed:** 06/03/2010

**Lab Control Spike/Duplicate Lab Control Spike Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1005060

Analyte Name	Lab Control Sample KWG1005060-1 Lab Control Spike			Duplicate Lab Control Sample KWG1005060-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
Pentachlorophenol	89.5	100	89	80.7	100	81	52-117	10	30
Phenanthrene	97.1	100	97	95.1	100	95	64-113	2	30
Anthracene	94.4	100	94	93.7	100	94	62-114	1	30
Di-n-butyl Phthalate	105	100	105	101	100	101	63-125	4	30
Fluoranthene	116	100	116	99.7	100	100	60-120	15	30
Benzidine	196	200	98	198	200	99	10-202	1	30
Pyrene	86.8	100	87	87.6	100	88	57-115	1	30
Butyl Benzyl Phthalate	100	100	100	101	100	101	65-115	0	30
3,3'-Dichlorobenzidine	81.6	100	82	73.6	100	74	42-120	10	30
Benz(a)anthracene	101	100	101	90.6	100	91	66-113	10	30
Chrysene	104	100	104	97.6	100	98	64-113	6	30
Bis(2-ethylhexyl) Phthalate	105	100	105	105	100	105	61-120	0	30
Di-n-octyl Phthalate	111	100	111	112	100	112	64-128	1	30
Benzo(b)fluoranthene	106	100	106	107	100	107	64-115	1	30
Benzo(k)fluoranthene	105	100	105	106	100	106	62-119	1	30
Benzo(a)pyrene	110	100	110	109	100	109	57-119	1	30
Indeno(1,2,3-cd)pyrene	95.6	100	96	98.3	100	98	65-116	3	30
Dibenz(a,h)anthracene	98.7	100	99	101	100	101	64-119	3	30
Benzo(g,h,i)perylene	93.6	100	94	101	100	101	65-115	8	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 10:43

**Method Blank Summary**  
**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Method Blank  
**Lab Code:** KWG1005060-3  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625  
**File ID:** J:\MS07\DATA\060310\0603F003.D  
**Instrument ID:** MS07  
**Level:** Low  
**Extraction Lot:** KWG1005060

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1005060-1	J:\MS07\DATA\060310\0603F004.D	06/03/10	11:28
Duplicate Lab Control Sample	KWG1005060-2	J:\MS07\DATA\060310\0603F005.D	06/03/10	12:13
3bcd-2	K1005067-002	J:\MS07\DATA\060310\0603F006.D	06/03/10	12:59
3ddd	K1005067-003	J:\MS07\DATA\060310\0603F007.D	06/03/10	13:45
EB-051710	K1005067-004	J:\MS07\DATA\060310\0603F008.D	06/03/10	14:32
Lab Control Sample	KWG1005060-1	J:\MS07\DATA\060310\0603F011.D	06/03/10	16:55

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 11:28

**Lab Control Sample Summary**  
**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1005060-1  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625  
**File ID:** J:\MS07\DATA\060310\0603F004.D  
**Instrument ID:** MS07  
**Level:** Low  
**Extraction Lot:** KWG1005060

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1005060-3	J:\MS07\DATA\060310\0603F003.D	06/03/10	10:43
3bcd-2	K1005067-002	J:\MS07\DATA\060310\0603F006.D	06/03/10	12:59
3ddd	K1005067-003	J:\MS07\DATA\060310\0603F007.D	06/03/10	13:45
EB-051710	K1005067-004	J:\MS07\DATA\060310\0603F008.D	06/03/10	14:32

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Extracted:** 05/24/2010  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 16:55

**Lab Control Sample Summary**  
**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1005060-1  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**File ID:** J:\MS07\DATA\060310\0603F011.D  
**Instrument ID:** MS07  
**Level:** Low  
**Extraction Lot:** KWG1005060

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
3bcd-2	K1005067-002	J:\MS07\DATA\060310\0603F006.D	06/03/10	12:59
3ddd	K1005067-003	J:\MS07\DATA\060310\0603F007.D	06/03/10	13:45
EB-051710	K1005067-004	J:\MS07\DATA\060310\0603F008.D	06/03/10	14:32

Organic Analysis:  
Semi-Volatile Organic Compounds by GC/MS

Validation Package

Raw Data

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** 3bcd-2  
**Lab Code:** K1005067-002  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	24	1.7	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethyl) Ether	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Phenol	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
2-Chlorophenol	ND	U	9.6	0.42	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroisopropyl) Ether	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Hexachloroethane	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodi-n-propylamine	ND	U	9.6	0.51	1	05/24/10	06/03/10	KWG1005060	
Nitrobenzene	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Isophorone	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2-Nitrophenol	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2,4-Dimethylphenol	ND	U	9.6	1.1	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethoxy)methane	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
2,4-Dichlorophenol	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
1,2,4-Trichlorobenzene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Naphthalene	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobutadiene	ND	U	9.6	0.22	1	05/24/10	06/03/10	KWG1005060	
4-Chloro-3-methylphenol	ND	U	9.6	0.48	1	05/24/10	06/03/10	KWG1005060	
Hexachlorocyclopentadiene	ND	U	9.6	0.58	1	05/24/10	06/03/10	KWG1005060	
2,4,6-Trichlorophenol	ND	U	9.6	0.19	1	05/24/10	06/03/10	KWG1005060	
2-Chloronaphthalene	ND	U	9.6	0.43	1	05/24/10	06/03/10	KWG1005060	
Acenaphthylene	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
Dimethyl Phthalate	ND	U	9.6	0.71	1	05/24/10	06/03/10	KWG1005060	
2,6-Dinitrotoluene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Acenaphthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrophenol	ND	U	24	1.0	1	05/24/10	06/03/10	KWG1005060	
4-Nitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrotoluene	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Fluorene	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	
4-Chlorophenyl Phenyl Ether	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Diethyl Phthalate	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
2-Methyl-4,6-dinitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodiphenylamine	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
1,2-Diphenylhydrazine†	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** 3bcd-2  
**Lab Code:** K1005067-002  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Bromophenyl Phenyl Ether	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobenzene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Pentachlorophenol	ND	U	24	0.38	1	05/24/10	06/03/10	KWG1005060	
Phenanthrene	ND	U	9.6	0.24	1	05/24/10	06/03/10	KWG1005060	
Anthracene	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
Di-n-butyl Phthalate	ND	U	9.6	0.46	1	05/24/10	06/03/10	KWG1005060	
Fluoranthene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Benzidine	ND	U	48	29	1	05/24/10	06/03/10	KWG1005060	
Pyrene	ND	U	9.6	0.47	1	05/24/10	06/03/10	KWG1005060	
Butyl Benzyl Phthalate	ND	U	9.6	0.55	1	05/24/10	06/03/10	KWG1005060	
3,3'-Dichlorobenzidine	ND	U	24	0.48	1	05/24/10	06/03/10	KWG1005060	
Benz(a)anthracene	ND	U	9.6	0.25	1	05/24/10	06/03/10	KWG1005060	
Chrysene	ND	U	9.6	0.40	1	05/24/10	06/03/10	KWG1005060	
Bis(2-ethylhexyl) Phthalate	0.47	J	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
Di-n-octyl Phthalate	ND	U	9.6	0.38	1	05/24/10	06/03/10	KWG1005060	
Benzo(b)fluoranthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Benzo(k)fluoranthene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Benzo(a)pyrene	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Indeno(1,2,3-cd)pyrene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Dibenz(a,h)anthracene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	
Benzo(g,h,i)perylene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	85	34-112	06/03/10	Acceptable
Phenol-d6	76	34-116	06/03/10	Acceptable
Nitrobenzene-d5	74	43-120	06/03/10	Acceptable
2-Fluorobiphenyl	73	45-115	06/03/10	Acceptable
2,4,6-Tribromophenol	79	34-134	06/03/10	Acceptable
Terphenyl-d14	139	13-152	06/03/10	Acceptable

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** 3bcd-2  
**Lab Code:** K1005067-002

**Units:** ug/L  
**Basis:** NA

† Analyte Comments

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1,2-Diphenylhydrazine                      This compound is quantitated as Azobenzene.

Comments: \_\_\_\_\_

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## Exception Report

**Data File:** J:\MS07\DATA\060310\0603F006.D  
**Lab ID:** K1005067-002  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 06/03/2010 12:59  
**Date Quantitated:** 06/04/2010 08:28  
**Batch ID:** KWG1005376  
**Analysis Method:** 625  
**ListJoinID:** LJ7897

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

### Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Benzidine	119.6	NA	30	<i>OK</i>

Primary Review: M 6-4-10

Secondary Review: KB 6/4/10



# Quantitation Report

Bottle ID:	Tier: V	Matrix: WATER
Prod Code: 625 SVO	Collect Date: 05/17/2010	Receive Date: 05/19/2010

Analysis Lot: KWG1005376	Prep Lot: KWG1005060	Report Group: K1005067
Analysis Method: 625	Prep Method: EPA 3520C	
Prep Ref: 913126	Prep Date: 05/24/2010	

Quant Method: J:\MS07\METHODS\8270_625\0602BNC7.M	Calibration ID: CAL9525
Title: Semi-Volatile Organic Compounds by GC/MS	Report List ID: LJ7897
Tune Ref: J:\MS07\DATA\060310\0603F001.D	Method ID: MJ104
MB Ref: J:\MS07\DATA\060310\0603F003.D	Quant based on Report List

Data File: J:\MS07\DATA\060310\0603F006.D	Instrument: MS07
Acqu Date: 06/03/2010 12:59	Quant Date: 06/04/2010 08:28
Run Type: SMPL	Vial: 6
Lab ID: K1005067-002	Dilution: 1.0
	Soln Conc. Units: ug/ml

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	1,4-Dichlorobenzene-d4	9.35	0.00	152	96699	40.00	OK
2	Naphthalene-d8	11.45	0.00	136	352596	40.00	OK
3	Acenaphthene-d10	14.31	0.00	164	197307	40.00	OK
4	Phenanthrene-d10	16.70	-0.01	188	338438	40.00	OK
5	Chrysene-d12	21.13	-0.01	240	217674	40.00	OK
6	Perylene-d12	24.32	0.00	264	222836	40.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Fluorophenol	7.13	-0.01	0.00	112	328260	127.68	85	34-112	OK
1	Phenol-d6	8.87	-0.01	0.00	99	407631	113.69	76	34-116	OK
1	Nitrobenzene-d5	10.29	0.00	0.00	82	259885	74.20	74	43-120	OK
3	2-Fluorobiphenyl	13.24	0.00	0.00	172	472631	73.07	73	45-115	OK
4	2,4,6-Tribromophenol	15.60	0.00	0.00	330	163089	118.89	79	34-134	OK
5	Terphenyl-d14	19.33	0.00	0.00	244	461815	138.56	139	13-152	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?	
							Final Conc. Units:	ug/L			
1	N-Nitrosodimethylamine				42	0		1.7	U		
1	Bis(2-chloroethyl) Ether				93	0d		0.37	U		
1	Phenol				94	0d		0.45	U		
1	2-Chlorophenol				128	0d		0.42	U		
1	Bis(2-chloroisopropyl) Ether				45	0d		0.36	U		
1	Hexachloroethane				117	0		0.26	U		
1	N-Nitrosodi-n-propylamine				70	0d		0.51	U		
1	Nitrobenzene				77	0d		0.36	U		
2	Isophorone				82	0d		0.35	U		
2	2-Nitrophenol				139	0		0.35	U		

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F006.D  
 Acqu Date: 06/03/2010 12:59  
 Run Type: SMPL  
 Lab ID: K1005067-002

Quant Date: 06/04/2010 08:28

Instrument: MS07  
 Vial: 6  
 Dilution: 1.0  
 Soln Conc. Units: ug/ml

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	2,4-Dimethylphenol				122	0		1.1	U	
2	Bis(2-chloroethoxy)methane				93	0d		0.31	U	
2	2,4-Dichlorophenol				162	0		0.29	U	
2	1,2,4-Trichlorobenzene				180	0		0.32	U	
2	Naphthalene				128	0d		0.31	U	
2	Hexachlorobutadiene				225	0		0.22	U	
2	4-Chloro-3-methylphenol				107	0		0.48	U	
3	Hexachlorocyclopentadiene				237	0		0.58	U	
3	2,4,6-Trichlorophenol				196	0		0.19	U	
3	2-Chloronaphthalene				162	0d		0.43	U	
3	Acenaphthylene				152	0		0.29	U	
3	Dimethyl Phthalate				163	0d		0.71	U	
3	2,6-Dinitrotoluene				165	0d		0.27	U	
3	Acenaphthene				154	0d		0.27	U	
3	2,4-Dinitrophenol				184	0		1.0	U	
3	4-Nitrophenol				109	0d		2.3	U	
3	2,4-Dinitrotoluene				165	0d		0.26	U	
3	Fluorene				166	0d		0.23	U	
3	4-Chlorophenyl Phenyl Ether				204	0		0.26	U	
3	Diethyl Phthalate	15.08	-0.01	0.00	149	1059m	0.1600	0.33	U	
3	2-Methyl-4,6-dinitrophenol				198	0		2.3	U	
3	N-Nitrosodiphenylamine				169	0		0.34	U	
3	1,2-Diphenylhydrazine				77	0d		0.23	U	
4	4-Bromophenyl Phenyl Ether				248	0d		0.35	U	
4	Hexachlorobenzene				284	0		0.27	U	
4	Pentachlorophenol				266	0		0.38	U	
4	Phenanthrene				178	0d		0.24	U	
4	Anthracene	16.84		0.00	178	572	0.0600	0.33	U	
4	Di-n-butyl Phthalate	17.74		0.00	149	3447m	0.3300	0.46	U	
4	Fluoranthene	18.66		0.00	202	1841m	0.2300	0.45	U	
5	Benzidine				184	0d		29	U	
5	Pyrene	19.02		0.00	202	2096	0.3600	0.47	U	
5	Butyl Benzyl Phthalate				149	0d		0.55	U	
5	3,3'-Dichlorobenzidine				252	0		0.48	U	
5	Benz(a)anthracene				228	0d		0.25	U	
5	Chrysene				228	0d		0.40	U	
5	Bis(2-ethylhexyl) Phthalate	21.31		0.00	149	2299	0.4900	0.47	J	
6	Di-n-octyl Phthalate				149	0d		0.38	U	
6	Benzo(b)fluoranthene				252	0d		0.27	U	
6	Benzo(k)fluoranthene				252	0		0.32	U	
6	Benzo(a)pyrene				252	0d		0.37	U	
6	Indeno(1,2,3-cd)pyrene				276	0		0.45	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

<b>Data File:</b>	J:\MS07\DATA\060310\0603F006.D	<b>Instrument:</b>	MS07
<b>Acqu Date:</b>	06/03/2010 12:59	<b>Quant Date:</b>	06/04/2010 08:28
<b>Run Type:</b>	SMPL	<b>Vial:</b>	6
<b>Lab ID:</b>	K1005067-002	<b>Dilution:</b>	1.0
		<b>Soln Conc. Units:</b>	ug/ml

**Target Compounds**

**Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
6	Dibenz(a,h)anthracene				278	0		0.41	U	
6	Benzo(g,h,i)perylene				276	0		0.41	U	

**Prep Amount:** 1050 mL      **Dilution:** 1.0  
**Prep Final Vol:** 1 mL      **Unit Factor:** 1000

**Final Concentration =** ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
J: Analyte detected above MDL, but below MRL  
B: Hit above MRL also found in Method Blank  
E: Analyte concentration above high point of ICAL  
N: Presumptive evidence of compound

D: Result from dilution  
m: Manual integration performed  
d: Compound manually deleted  
NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
#: Acceptance criteria not applicable  
?: Insufficient information to determine acceptance  
e: Result >= MRL, but MRL less than low point of ICAL  
c: check for co-elution

Data File : J:\MS07\DATA\060310\0603F006.D  
 Acq On : 3 Jun 2010 12:59 pm  
 Sample : K1005067-2  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 14:02:33 2010

Vial: 6  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	96699	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	352596	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	197307	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.70	188	338438	40.00	ug/ml	0.00
68) Chrysene-d12	21.13	240	217674	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	222836	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.13	112	328260	127.68	ug/ml	0.00
Spiked Amount 150.000	Range 21 - 100		Recovery =	85.12%		
7) Phenol-d6	8.87	99	407631	113.69	ug/ml	0.00
Spiked Amount 150.000	Range 10 - 94		Recovery =	75.79%		
19) Nitrobenzene-d5	10.29	82	259885	74.20	ug/ml	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery =	74.20%		
38) 2-Fluorobiphenyl	13.24	172	472631	73.07	ug/ml	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery =	73.07%		
59) 2,4,6-Tribromophenol	15.60	330	163089	118.89	ug/ml	0.00
Spiked Amount 150.000	Range 10 - 123		Recovery =	79.26%		
71) Terphenyl-d14	19.33	244	461815	138.56	ug/ml	0.00
Spiked Amount 100.000	Range 33 - 141		Recovery =	138.56%		

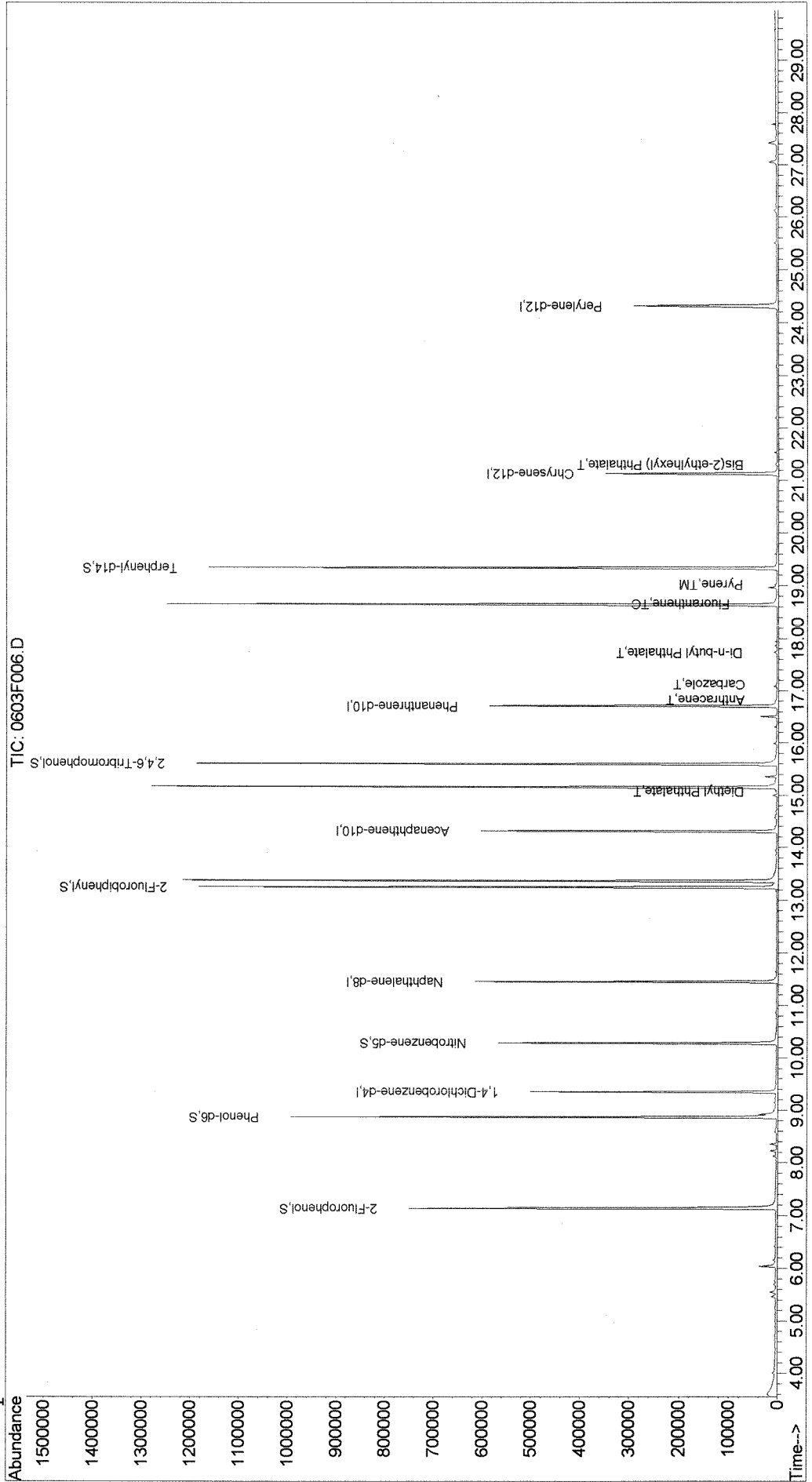
Target Compounds

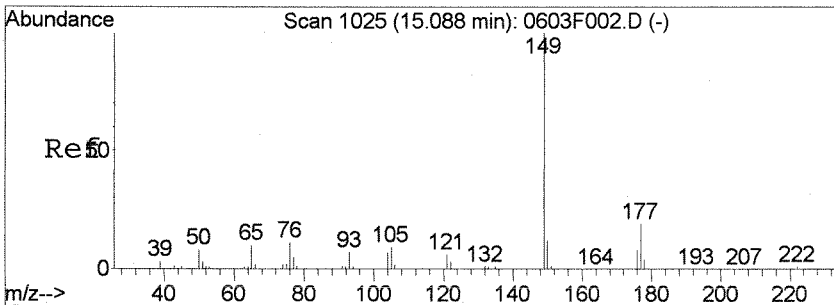
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
53) Diethyl Phthalate	15.08	149	1059m	0.16	ug/ml	
64) Anthracene	16.84	178	572	0.06	ug/ml	78
65) Carbazole	17.13	167	1016	0.13	ug/ml	74
66) Di-n-butyl Phthalate	17.74	149	3447m	0.33	ug/ml	
67) Fluoranthene	18.66	202	1841m	0.23	ug/ml	
70) Pyrene	19.02	202	2096	0.36	ug/ml	96
76) Bis(2-ethylhexyl) Phthalat	21.31	149	2299	0.49	ug/ml	91

Data File : J:\MS07\DATA\060310\0603F006.D  
 Acq On : 3 Jun 2010 12:59 pm  
 Sample : K1005067-2  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:28 2010

Vial: 6  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00  
 Quant Results File: 0602BNC7.RES

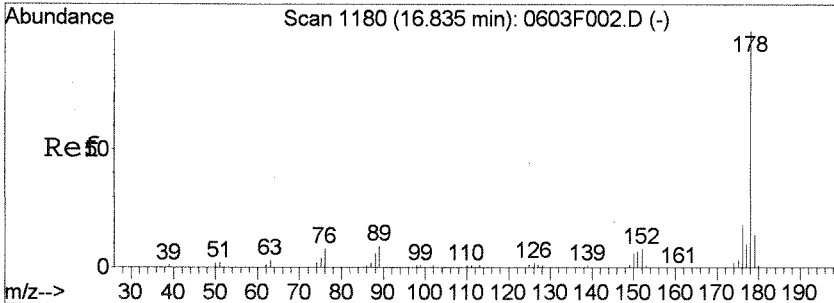
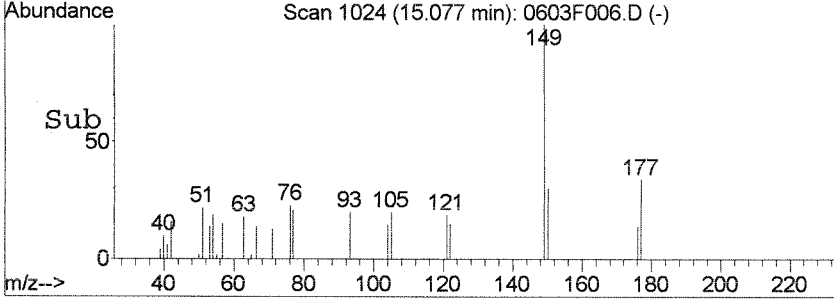
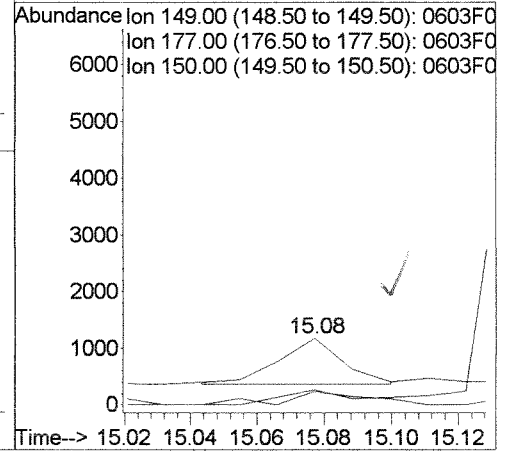
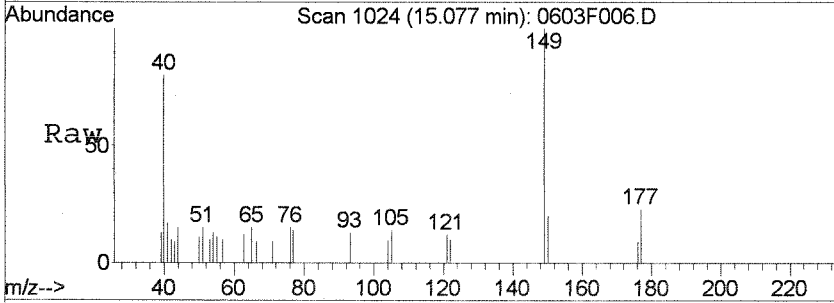
Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Fri Jun 04 10:34:14 2010  
 Response via : Initial Calibration





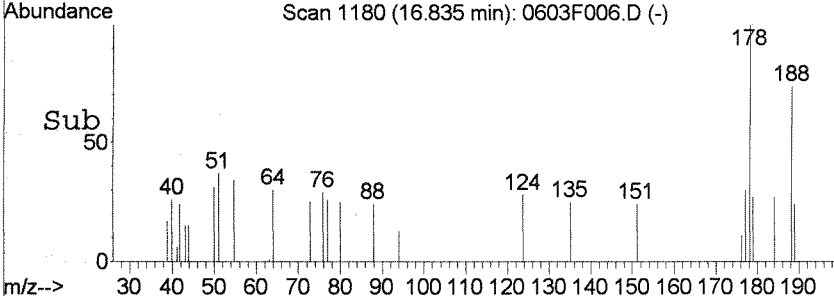
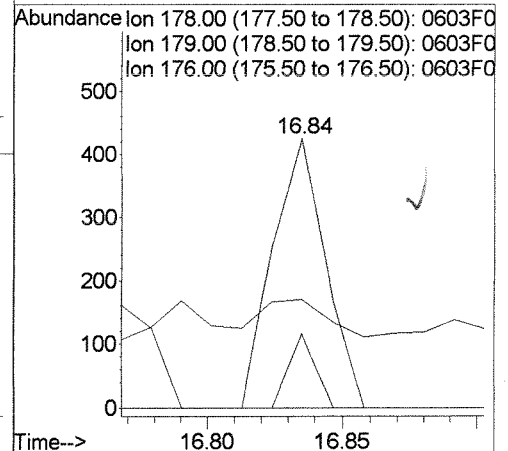
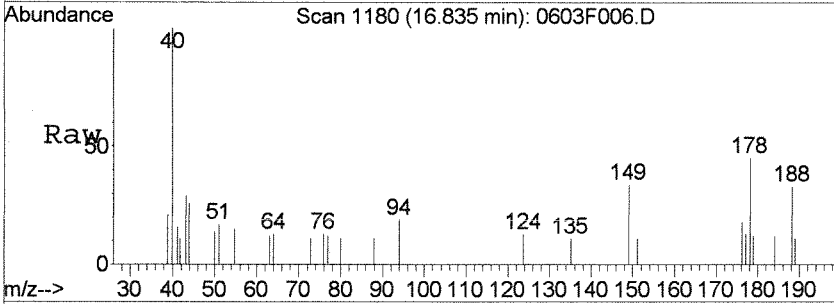
#53  
 Diethyl Phthalate  
 Concen: 0.16 ug/ml m  
 RT: 15.08 min Scan# 1024  
 Delta R.T. -0.01 min  
 Lab File: 0603F006.D  
 Acq: 3 Jun 2010 12:59 pm

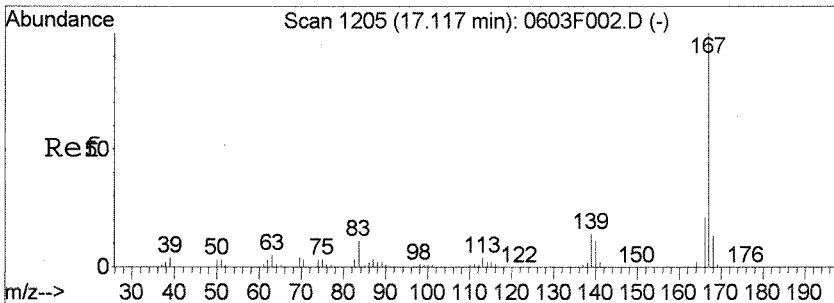
Tgt Ion	Resp	Lower	Upper
149	1059		
177	22.8	0.0	49.4
150	20.2	0.0	41.7



#64  
 Anthracene  
 Concen: 0.06 ug/ml  
 RT: 16.84 min Scan# 1180  
 Delta R.T. 0.01 min  
 Lab File: 0603F006.D  
 Acq: 3 Jun 2010 12:59 pm

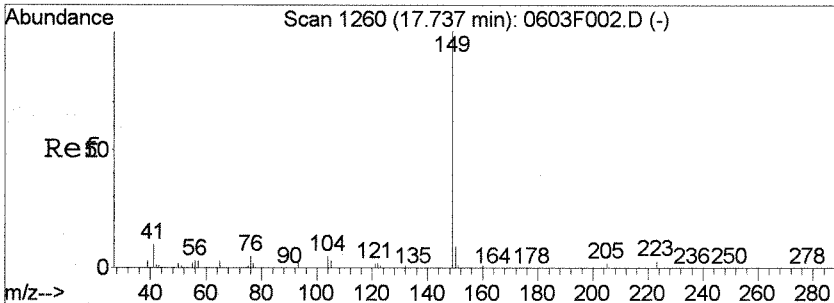
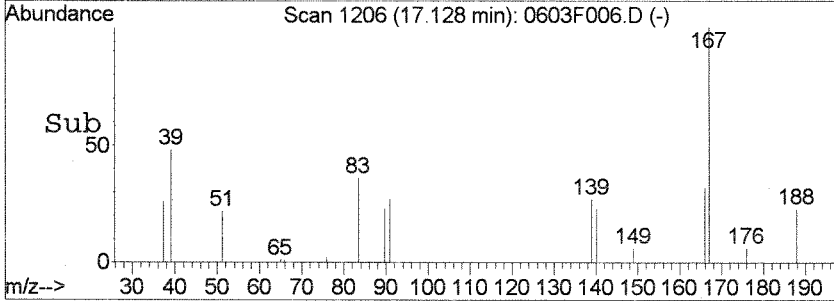
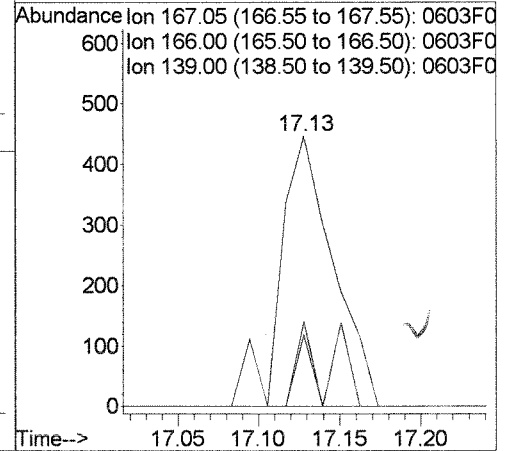
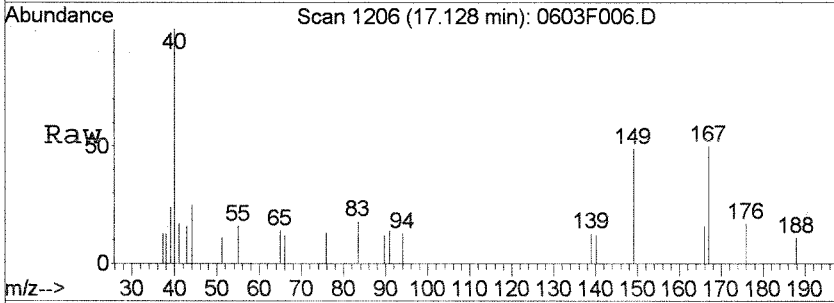
Tgt Ion	Resp	Lower	Upper
178	572		
179	27.3	0.0	45.4
176	11.1	0.0	48.0





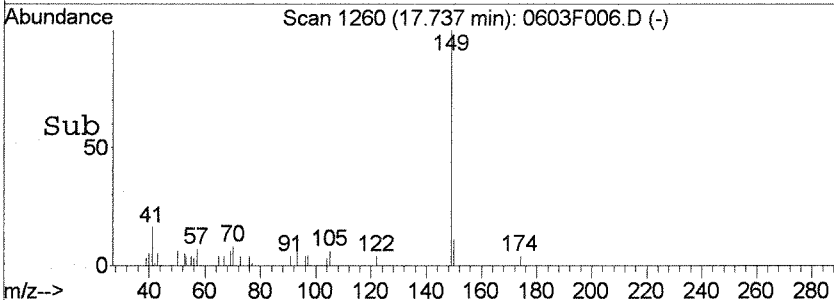
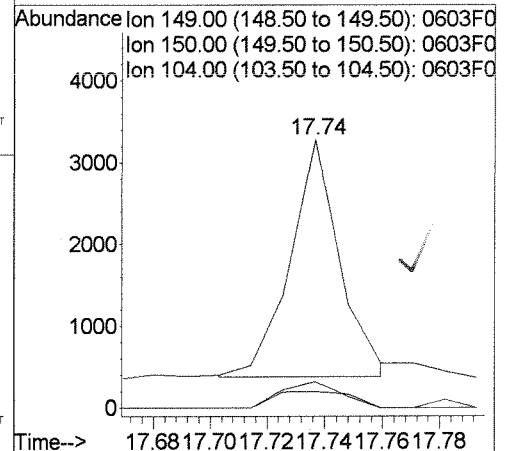
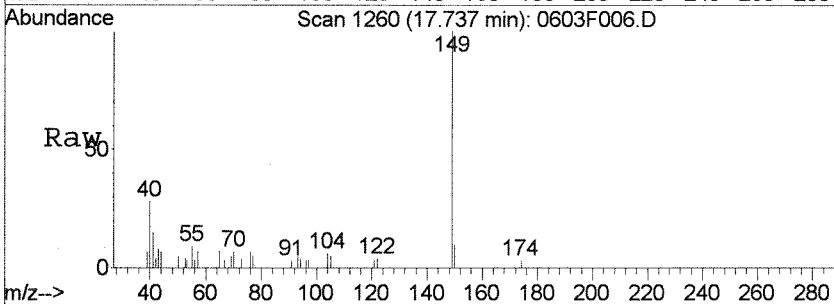
#65  
 Carbazole  
 Concen: 0.13 ug/ml  
 RT: 17.13 min Scan# 1206  
 Delta R.T. 0.01 min  
 Lab File: 0603F006.D  
 Acq: 3 Jun 2010 12:59 pm

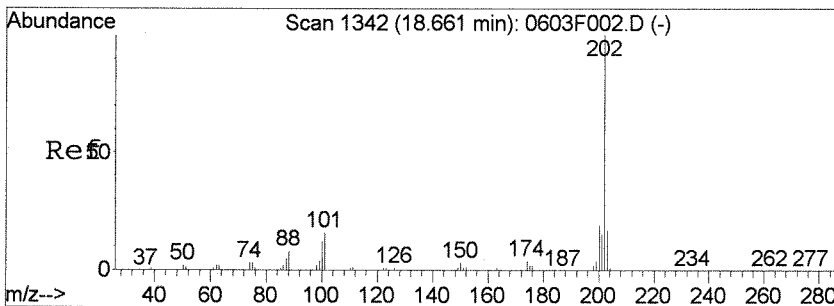
Tgt Ion	Resp	Lower	Upper
167	1016		
166	31.6	0.0	51.0
139	26.7	0.0	44.5



#66  
 Di-n-butyl Phthalate  
 Concen: 0.33 ug/ml m  
 RT: 17.74 min Scan# 1260  
 Delta R.T. -0.00 min  
 Lab File: 0603F006.D  
 Acq: 3 Jun 2010 12:59 pm

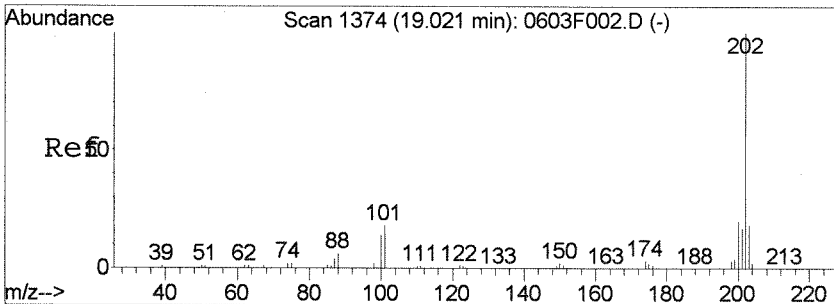
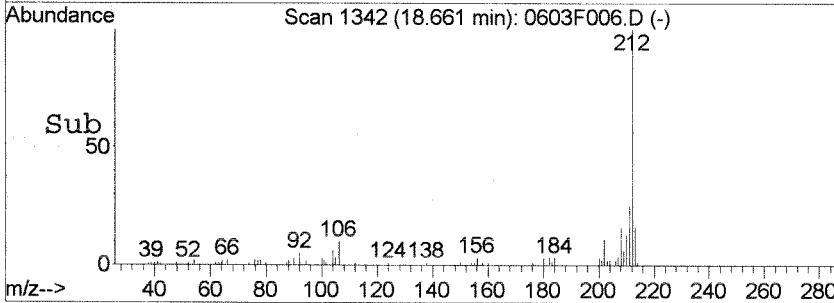
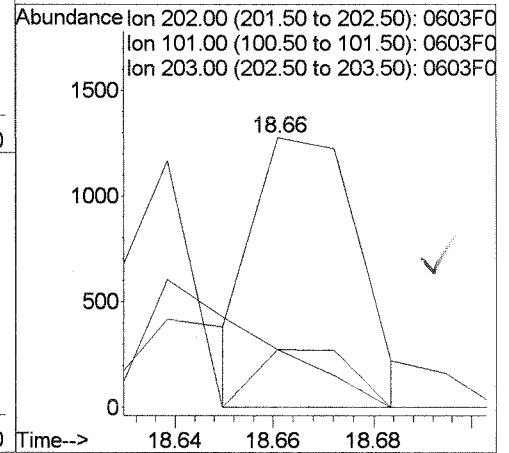
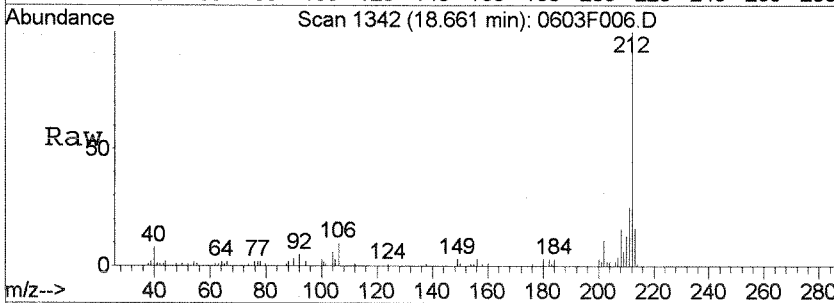
Tgt Ion	Resp	Lower	Upper
149	3447		
150	9.7	0.0	39.1
104	6.1	0.0	35.2





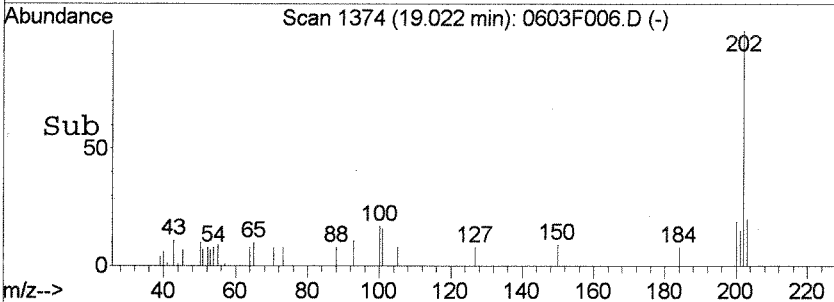
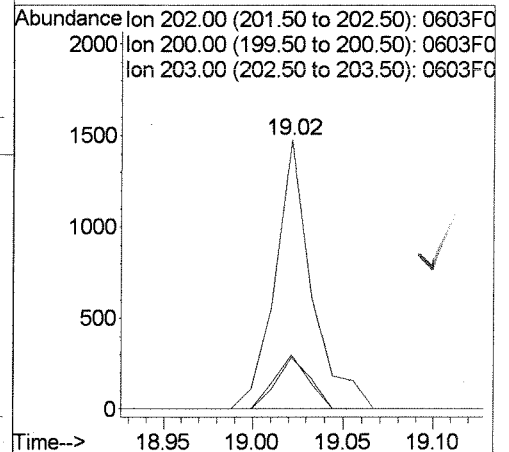
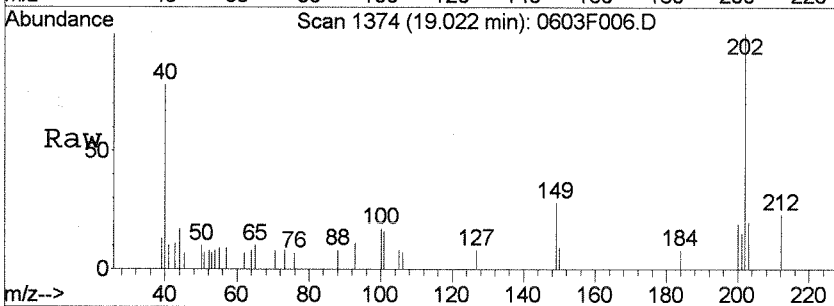
#67  
 Fluoranthene  
 Concen: 0.23 ug/ml m  
 RT: 18.66 min Scan# 1342  
 Delta R.T. -0.00 min  
 Lab File: 0603F006.D  
 Acq: 3 Jun 2010 12:59 pm

Tgt Ion	Ratio	Resp	Lower	Upper
202	100	1841		
101	21.6		0.0	43.3
203	21.6		0.0	47.4

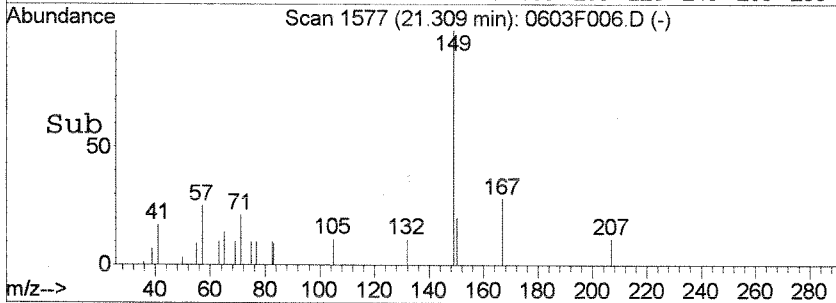
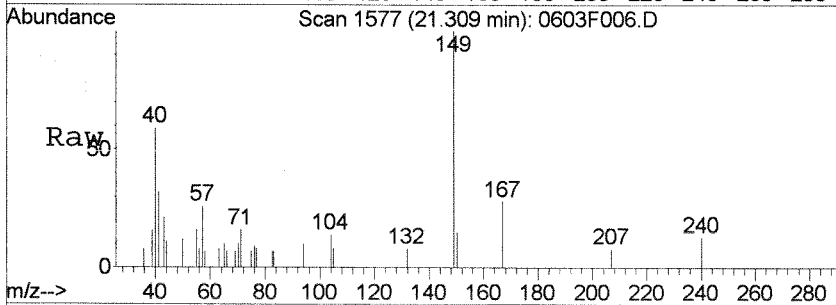
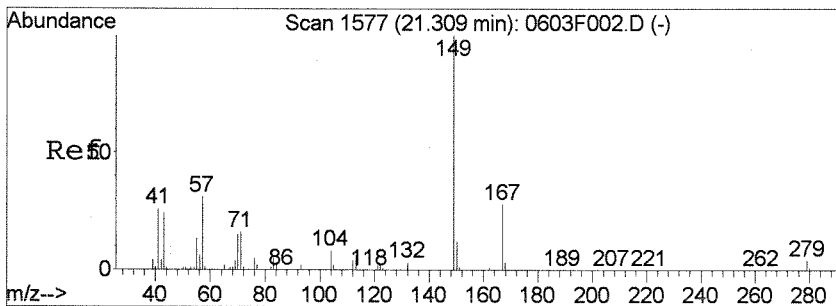


#70  
 Pyrene  
 Concen: 0.36 ug/ml  
 RT: 19.02 min Scan# 1374  
 Delta R.T. -0.00 min  
 Lab File: 0603F006.D  
 Acq: 3 Jun 2010 12:59 pm

Tgt Ion	Ratio	Resp	Lower	Upper
202	100	2096		
200	19.4		0.0	49.7
203	20.3		0.0	46.9

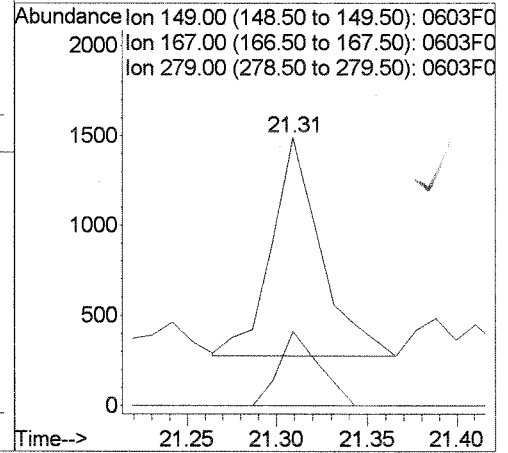






#76  
 Bis(2-ethylhexyl) Phthalate  
 Concen: 0.49 ug/ml  
 RT: 21.31 min Scan# 1577  
 Delta R.T. -0.00 min  
 Lab File: 0603F006.D  
 Acq: 3 Jun 2010 12:59 pm

Tgt Ion	Ratio	Resp	Lower	Upper
149	100	2299		
167	34.0		0.0	59.2
279	0.0		0.0	34.2



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** 3ddd  
**Lab Code:** K1005067-003  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	24	1.7	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethyl) Ether	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Phenol	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
2-Chlorophenol	ND	U	9.6	0.42	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroisopropyl) Ether	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Hexachloroethane	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodi-n-propylamine	ND	U	9.6	0.51	1	05/24/10	06/03/10	KWG1005060	
Nitrobenzene	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Isophorone	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2-Nitrophenol	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2,4-Dimethylphenol	ND	U	9.6	1.1	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethoxy)methane	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
2,4-Dichlorophenol	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
1,2,4-Trichlorobenzene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Naphthalene	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobutadiene	ND	U	9.6	0.22	1	05/24/10	06/03/10	KWG1005060	
4-Chloro-3-methylphenol	ND	U	9.6	0.48	1	05/24/10	06/03/10	KWG1005060	
Hexachlorocyclopentadiene	ND	U	9.6	0.58	1	05/24/10	06/03/10	KWG1005060	
2,4,6-Trichlorophenol	ND	U	9.6	0.19	1	05/24/10	06/03/10	KWG1005060	
2-Chloronaphthalene	ND	U	9.6	0.43	1	05/24/10	06/03/10	KWG1005060	
Acenaphthylene	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
Dimethyl Phthalate	ND	U	9.6	0.71	1	05/24/10	06/03/10	KWG1005060	
2,6-Dinitrotoluene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Acenaphthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrophenol	ND	U	24	1.0	1	05/24/10	06/03/10	KWG1005060	
4-Nitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrotoluene	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Fluorene	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	
4-Chlorophenyl Phenyl Ether	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Diethyl Phthalate	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
2-Methyl-4,6-dinitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodiphenylamine	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
1,2-Diphenylhydrazine†	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** 3ddd  
**Lab Code:** K1005067-003  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Bromophenyl Phenyl Ether	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobenzene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Pentachlorophenol	ND	U	24	0.38	1	05/24/10	06/03/10	KWG1005060	
Phenanthrene	ND	U	9.6	0.24	1	05/24/10	06/03/10	KWG1005060	
Anthracene	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
Di-n-butyl Phthalate	ND	U	9.6	0.46	1	05/24/10	06/03/10	KWG1005060	
Fluoranthene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Benzidine	ND	U	48	29	1	05/24/10	06/03/10	KWG1005060	
Pyrene	ND	U	9.6	0.47	1	05/24/10	06/03/10	KWG1005060	
Butyl Benzyl Phthalate	ND	U	9.6	0.55	1	05/24/10	06/03/10	KWG1005060	
3,3'-Dichlorobenzidine	ND	U	24	0.48	1	05/24/10	06/03/10	KWG1005060	
Benz(a)anthracene	ND	U	9.6	0.25	1	05/24/10	06/03/10	KWG1005060	
Chrysene	ND	U	9.6	0.40	1	05/24/10	06/03/10	KWG1005060	
Bis(2-ethylhexyl) Phthalate	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
Di-n-octyl Phthalate	ND	U	9.6	0.38	1	05/24/10	06/03/10	KWG1005060	
Benzo(b)fluoranthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Benzo(k)fluoranthene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Benzo(a)pyrene	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Indeno(1,2,3-cd)pyrene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Dibenz(a,h)anthracene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	
Benzo(g,h,i)perylene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	86	34-112	06/03/10	Acceptable
Phenol-d6	82	34-116	06/03/10	Acceptable
Nitrobenzene-d5	83	43-120	06/03/10	Acceptable
2-Fluorobiphenyl	76	45-115	06/03/10	Acceptable
2,4,6-Tribromophenol	87	34-134	06/03/10	Acceptable
Terphenyl-d14	125	13-152	06/03/10	Acceptable

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** 3ddd  
**Lab Code:** K1005067-003

**Units:** ug/L  
**Basis:** NA

† Analyte Comments

1,2-Diphenylhydrazine

This compound is quantitated as Azobenzene.

Comments:

## Exception Report

**Data File:** J:\MS07\DATA\060310\0603F007.D  
**Lab ID:** K1005067-003  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 06/03/2010 13:45  
**Date Quantitated:** 06/04/2010 08:31  
**Batch ID:** KWG1005376  
**Analysis Method:** 625  
**ListJoinID:** LJ7897

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

### Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Benzidine	119.6	NA	30	<i>OK</i>

Primary Review: M 6-4-10

Secondary Review: LB 4/10

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>	V	<b>Matrix:</b>	WATER
<b>Prod Code:</b>	625 SVO	<b>Collect Date:</b>	05/17/2010	<b>Receive Date:</b>	05/19/2010

<b>Analysis Lot:</b>	KWG1005376	<b>Prep Lot:</b>	KWG1005060	<b>Report Group:</b>	K1005067
<b>Analysis Method:</b>	625	<b>Prep Method:</b>	EPA 3520C		
<b>Prep Ref:</b>	913127	<b>Prep Date:</b>	05/24/2010		

<b>Quant Method:</b>	J:\MS07\METHODS\8270_625\0602BNC7.M	<b>Calibration ID:</b>	CAL9525
<b>Title:</b>	Semi-Volatile Organic Compounds by GC/MS	<b>Report List ID:</b>	LJ7897
<b>Tune Ref:</b>	J:\MS07\DATA\060310\0603F001.D	<b>Method ID:</b>	MJ104
<b>MB Ref:</b>	J:\MS07\DATA\060310\0603F003.D	<b>Quant based on Report List</b>	

<b>Data File:</b>	J:\MS07\DATA\060310\0603F007.D	<b>Instrument:</b>	MS07
<b>Acqu Date:</b>	06/03/2010 13:45	<b>Quant Date:</b>	06/04/2010 08:31
<b>Run Type:</b>	SMPL	<b>Vial:</b>	7
<b>Lab ID:</b>	K1005067-003	<b>Dilution:</b>	1.0
		<b>Soln Conc. Units:</b>	ug/ml

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	1,4-Dichlorobenzene-d4	9.35	0.00	152	85467	40.00	OK
2	Naphthalene-d8	11.45	0.00	136	334350	40.00	OK
3	Acenaphthene-d10	14.31	0.00	164	193372	40.00	OK
4	Phenanthrene-d10	16.70	-0.01	188	309344	40.00	OK
5	Chrysene-d12	21.13	-0.01	240	203471	40.00	OK
6	Perylene-d12	24.32	0.00	264	218936	40.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Fluorophenol	7.13	-0.01	0.00	112	294394	129.56	86	34-112	OK
1	Phenol-d6	8.87	-0.01	0.00	99	389229	122.82	82	34-116	OK
1	Nitrobenzene-d5	10.29	0.00	0.00	82	255622	82.57	83	43-120	OK
3	2-Fluorobiphenyl	13.24	0.00	0.00	172	480599	75.81	76	45-115	OK
4	2,4,6-Tribromophenol	15.60	0.00	0.00	330	163817	130.65	87	34-134	OK
5	Terphenyl-d14	19.33	0.00	0.00	244	389135	124.90	125	13-152	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	N-Nitrosodimethylamine				42	0		1.7	U	
1	Bis(2-chloroethyl) Ether				93	0d		0.37	U	
1	Phenol				94	0d		0.45	U	
1	2-Chlorophenol				128	0d		0.42	U	
1	Bis(2-chloroisopropyl) Ether				45	0d		0.36	U	
1	Hexachloroethane				117	0		0.26	U	
1	N-Nitrosodi-n-propylamine				70	0d		0.51	U	
1	Nitrobenzene				77	0d		0.36	U	
2	Isophorone				82	0d		0.35	U	
2	2-Nitrophenol				139	0		0.35	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F007.D  
 Acqu Date: 06/03/2010 13:45  
 Run Type: SMPL  
 Lab ID: K1005067-003

Quant Date: 06/04/2010 08:31

Instrument: MS07  
 Vial: 7  
 Dilution: 1.0  
 Soln Conc. Units: ug/ml

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	2,4-Dimethylphenol				122	0		1.1	U	
2	Bis(2-chloroethoxy)methane				93	0d		0.31	U	
2	2,4-Dichlorophenol				162	0		0.29	U	
2	1,2,4-Trichlorobenzene				180	0		0.32	U	
2	Naphthalene				128	0d		0.31	U	
2	Hexachlorobutadiene				225	0		0.22	U	
2	4-Chloro-3-methylphenol				107	0		0.48	U	
3	Hexachlorocyclopentadiene				237	0		0.58	U	
3	2,4,6-Trichlorophenol				196	0		0.19	U	
3	2-Chloronaphthalene				162	0d		0.43	U	
3	Acenaphthylene				152	0d		0.29	U	
3	Dimethyl Phthalate				163	0d		0.71	U	
3	2,6-Dinitrotoluene				165	0d		0.27	U	
3	Acenaphthene				154	0d		0.27	U	
3	2,4-Dinitrophenol				184	0		1.0	U	
3	4-Nitrophenol				109	0d		2.3	U	
3	2,4-Dinitrotoluene				165	0d		0.26	U	
3	Fluorene				166	0d		0.23	U	
3	4-Chlorophenyl Phenyl Ether				204	0		0.26	U	
3	Diethyl Phthalate	15.08	-0.01	0.00	149	1065m	0.1700	0.33	U	
3	2-Methyl-4,6-dinitrophenol				198	0		2.3	U	
3	N-Nitrosodiphenylamine				169	0d		0.34	U	
3	1,2-Diphenylhydrazine				77	0d		0.23	U	
4	4-Bromophenyl Phenyl Ether				248	0		0.35	U	
4	Hexachlorobenzene				284	0		0.27	U	
4	Pentachlorophenol				266	0		0.38	U	
4	Phenanthrene				178	0d		0.24	U	
4	Anthracene				178	0d		0.33	U	
4	Di-n-butyl Phthalate	17.74		0.00	149	3729m	0.4000	0.46	U	
4	Fluoranthene	18.66		0.00	202	1944m	0.2600	0.45	U	
5	Benzidine				184	0d		29	U	
5	Pyrene	19.02		0.00	202	1991	0.3700	0.47	U	
5	Butyl Benzyl Phthalate				149	0d		0.55	U	
5	3,3'-Dichlorobenzidine				252	0		0.48	U	
5	Benz(a)anthracene				228	0d		0.25	U	
5	Chrysene				228	0d		0.40	U	
5	Bis(2-ethylhexyl) Phthalate				149	0d		0.34	U	
6	Di-n-octyl Phthalate				149	0d		0.38	U	
6	Benzo(b)fluoranthene				252	0		0.27	U	
6	Benzo(k)fluoranthene				252	0		0.32	U	
6	Benzo(a)pyrene				252	0d		0.37	U	
6	Indeno(1,2,3-cd)pyrene				276	0		0.45	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL, also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F007.D  
Acqu Date: 06/03/2010 13:45  
Run Type: SMPL  
Lab ID: K1005067-003

Quant Date: 06/04/2010 08:31

Instrument: MS07  
Vial: 7  
Dilution: 1.0  
Soln Conc. Units: ug/ml

**Target Compounds**

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
6	Dibenz(a,h)anthracene				278	0		0.41	U	
6	Benzo(g,h,i)perylene				276	0		0.41	U	

Prep Amount: 1050 mL      Dilution: 1.0  
Prep Final Vol: 1 mL      Unit Factor: 1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
J: Analyte detected above MDL, but below MRL  
B: Hit above MRL also found in Method Blank  
E: Analyte concentration above high point of ICAL  
N: Presumptive evidence of compound

D: Result from dilution  
m: Manual integration performed  
d: Compound manually deleted  
NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
#: Acceptance criteria not applicable  
?: Insufficient information to determine acceptance  
e: Result >= MRL, but MRL less than low point of ICAL  
c: check for co-elution



Data File : J:\MS07\DATA\060310\0603F007.D  
 Acq On : 3 Jun 2010 1:45 pm  
 Sample : K1005067-3  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 14:31:45 2010

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	85467	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	334350	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	193372	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.70	188	309344	40.00	ug/ml	0.00
68) Chrysene-d12	21.13	240	203471	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	218936	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.13	112	294394	129.56	ug/ml	0.00
Spiked Amount 150.000	Range 21 - 100		Recovery =	86.37%		
7) Phenol-d6	8.87	99	389229	122.82	ug/ml	0.00
Spiked Amount 150.000	Range 10 - 94		Recovery =	81.88%		
19) Nitrobenzene-d5	10.29	82	255622	82.57	ug/ml	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery =	82.57%		
38) 2-Fluorobiphenyl	13.24	172	480599	75.81	ug/ml	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery =	75.81%		
59) 2,4,6-Tribromophenol	15.60	330	163817	130.65	ug/ml	0.00
Spiked Amount 150.000	Range 10 - 123		Recovery =	87.10%		
71) Terphenyl-d14	19.33	244	389135	124.90	ug/ml	0.00
Spiked Amount 100.000	Range 33 - 141		Recovery =	124.90%		

Target Compounds

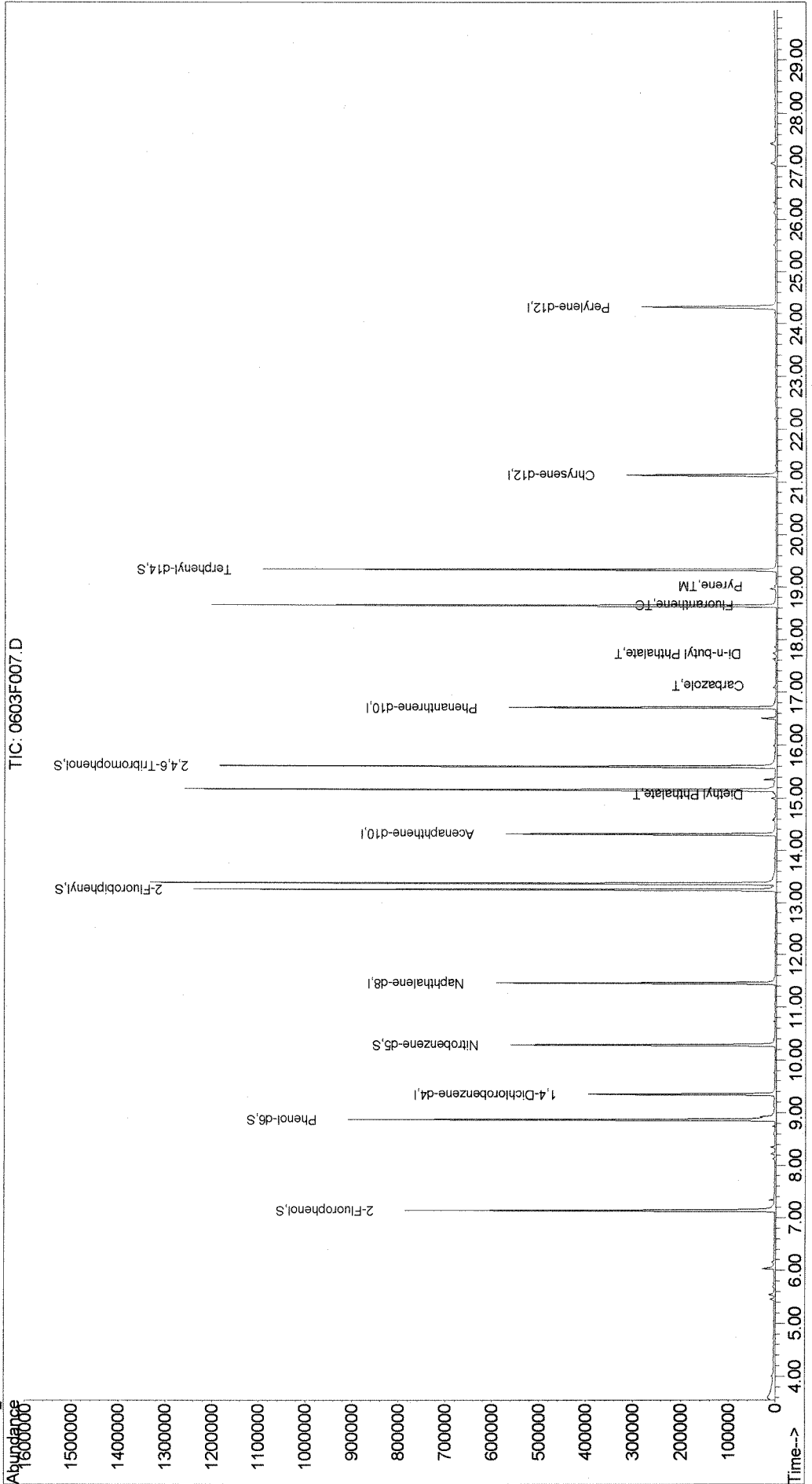
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
53) Diethyl Phthalate	15.08	149	1065m	0.17	ug/ml	
65) Carbazole	17.13	167	1089	0.15	ug/ml	83
66) Di-n-butyl Phthalate	17.74	149	3729m	0.40	ug/ml	
67) Fluoranthene	18.66	202	1944m	0.26	ug/ml	
70) Pyrene	19.02	202	1991	0.37	ug/ml	99

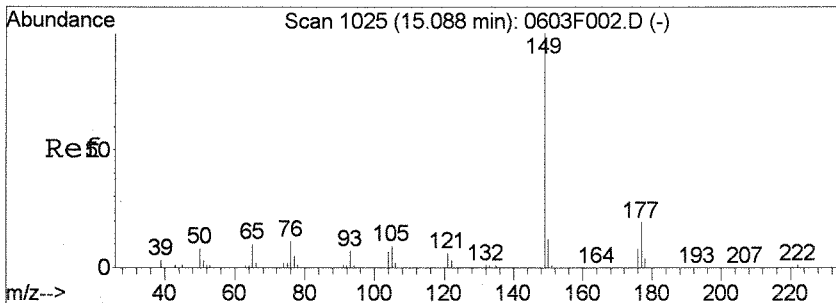
Data File : J:\MS07\DATA\060310\0603F007.D  
 Acq On : 3 Jun 2010 1:45 pm  
 Sample : K1005067-3  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:31 2010

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

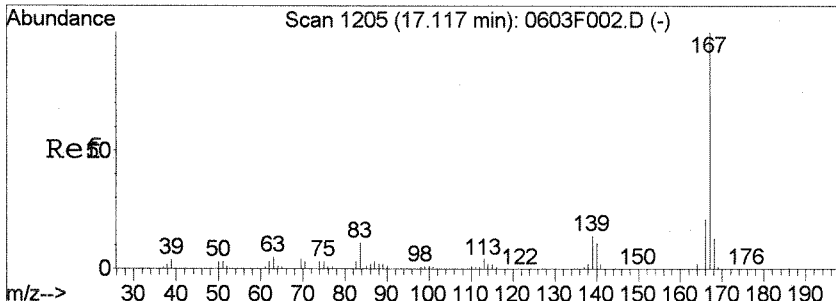
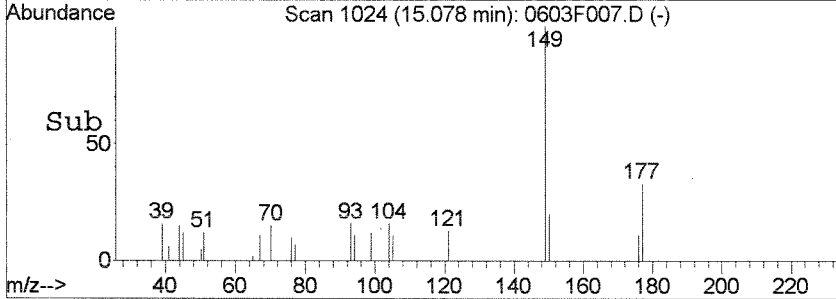
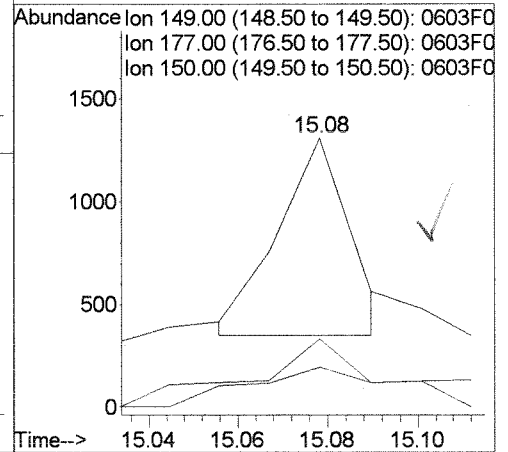
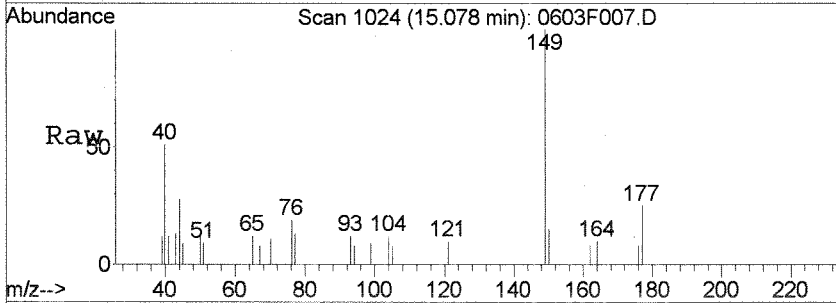
Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Fri Jun 04 10:34:14 2010  
 Response via : Initial Calibration





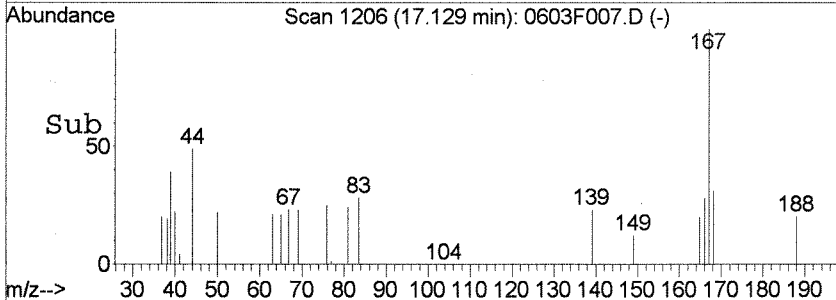
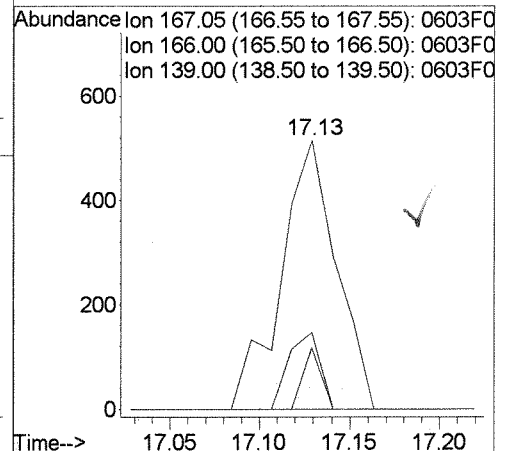
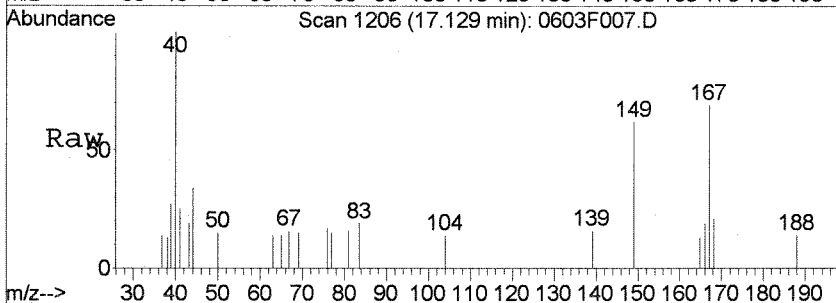
#53  
 Diethyl Phthalate  
 Concen: 0.17 ug/ml m  
 RT: 15.08 min Scan# 1024  
 Delta R.T. -0.01 min  
 Lab File: 0603F007.D  
 Acq: 3 Jun 2010 1:45 pm

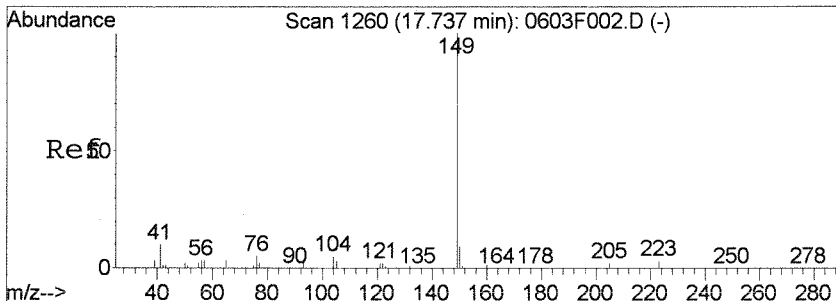
Tgt Ion	Resp	Lower	Upper
149	1065		
177	25.5	0.0	49.4
150	14.9	0.0	41.7



#65  
 Carbazole  
 Concen: 0.15 ug/ml  
 RT: 17.13 min Scan# 1206  
 Delta R.T. 0.01 min  
 Lab File: 0603F007.D  
 Acq: 3 Jun 2010 1:45 pm

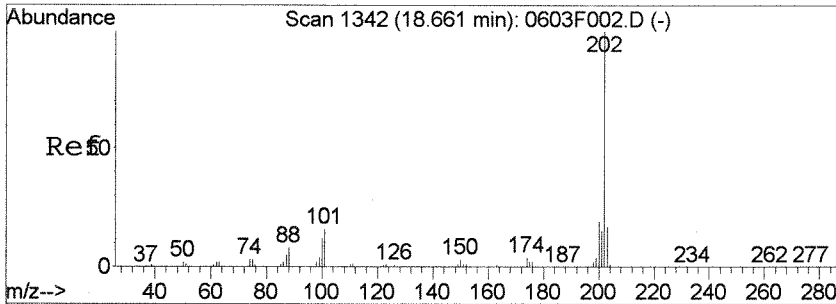
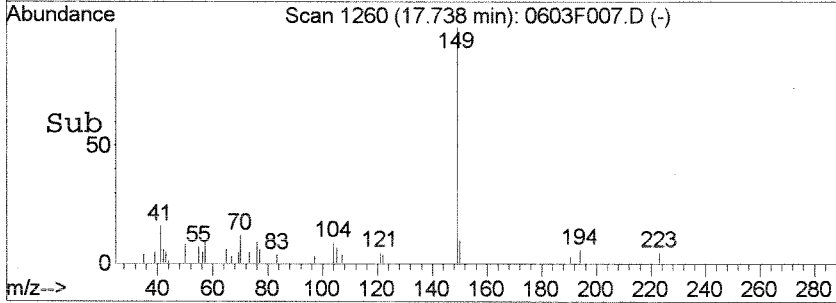
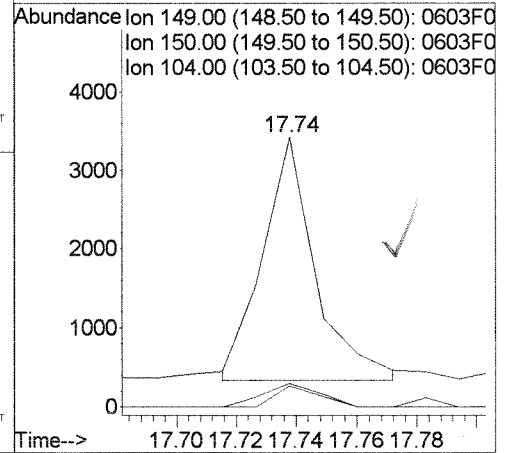
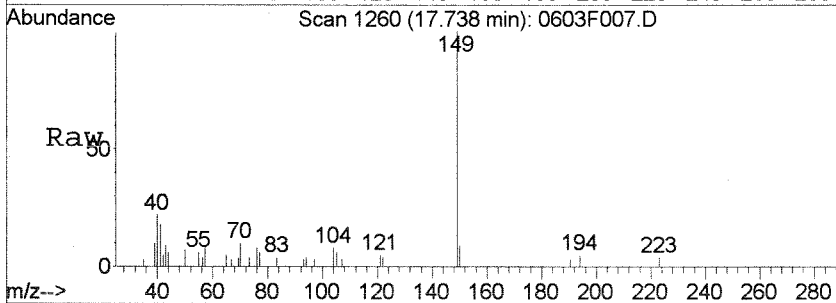
Tgt Ion	Resp	Lower	Upper
167	1089		
166	28.3	0.0	51.0
139	22.7	0.0	44.5





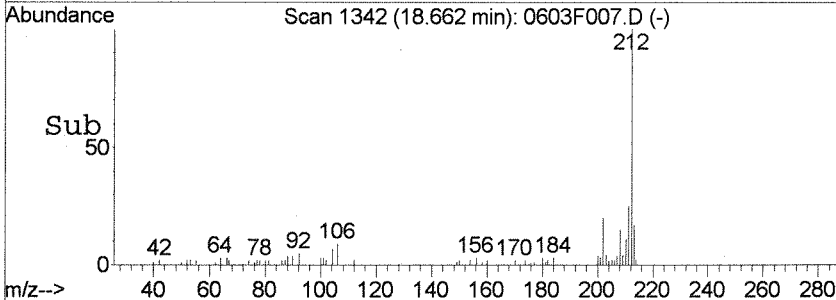
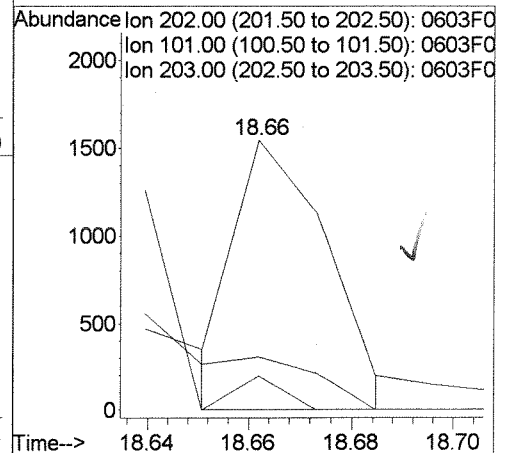
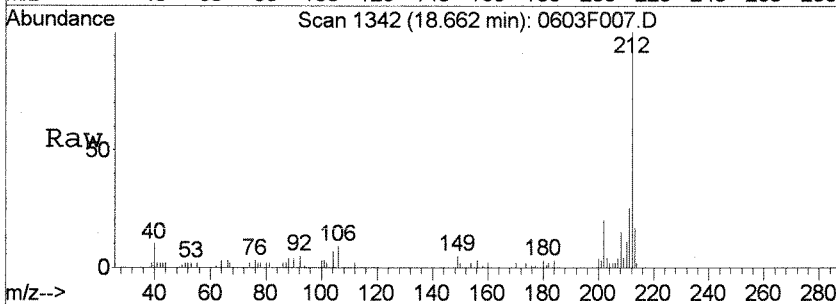
#66  
 Di-n-butyl Phthalate  
 Concen: 0.40 ug/ml m  
 RT: 17.74 min Scan# 1260  
 Delta R.T. -0.00 min  
 Lab File: 0603F007.D  
 Acq: 3 Jun 2010 1:45 pm

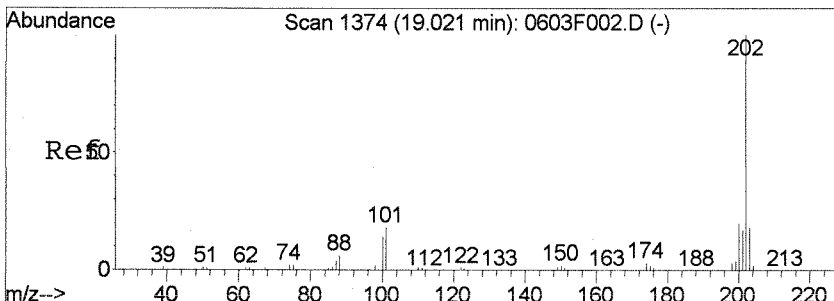
Tgt Ion	Resp	Lower	Upper
149	3729	100	
150	8.8	0.0	39.1
104	7.8	0.0	35.2



#67  
 Fluoranthene  
 Concen: 0.26 ug/ml m  
 RT: 18.66 min Scan# 1342  
 Delta R.T. -0.00 min  
 Lab File: 0603F007.D  
 Acq: 3 Jun 2010 1:45 pm

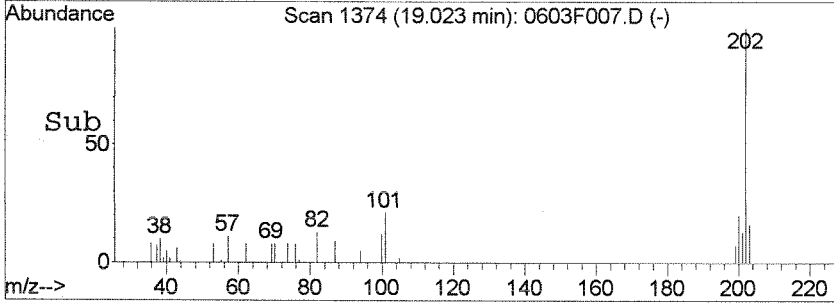
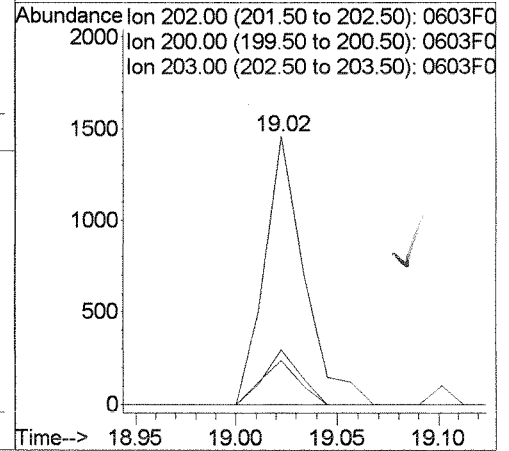
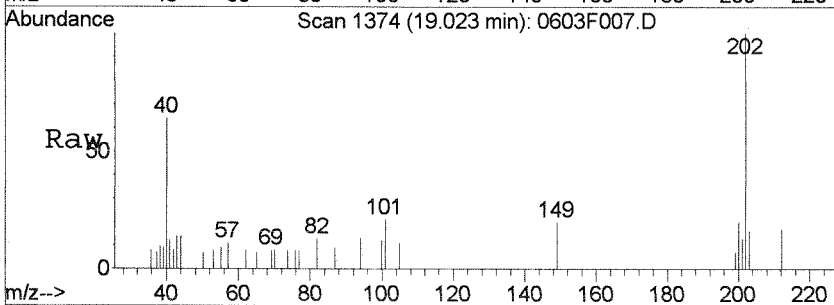
Tgt Ion	Resp	Lower	Upper
202	1944	100	
101	12.7	0.0	43.3
203	19.9	0.0	47.4





#70  
 Pyrene  
 Concen: 0.37 ug/ml  
 RT: 19.02 min Scan# 1374  
 Delta R.T. -0.00 min  
 Lab File: 0603F007.D  
 Acq: 3 Jun 2010 1:45 pm

Tgt Ion	Ratio	Resp	Lower	Upper
202	100	1991		
200	20.3		0.0	49.7
203	16.3		0.0	46.9



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** EB-051710  
**Lab Code:** K1005067-004  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	24	1.7	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethyl) Ether	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Phenol	0.54	J	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
2-Chlorophenol	ND	U	9.6	0.42	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroisopropyl) Ether	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Hexachloroethane	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodi-n-propylamine	ND	U	9.6	0.51	1	05/24/10	06/03/10	KWG1005060	
Nitrobenzene	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Isophorone	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2-Nitrophenol	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2,4-Dimethylphenol	ND	U	9.6	1.1	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethoxy)methane	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
2,4-Dichlorophenol	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
1,2,4-Trichlorobenzene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Naphthalene	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobutadiene	ND	U	9.6	0.22	1	05/24/10	06/03/10	KWG1005060	
4-Chloro-3-methylphenol	ND	U	9.6	0.48	1	05/24/10	06/03/10	KWG1005060	
Hexachlorocyclopentadiene	ND	U	9.6	0.58	1	05/24/10	06/03/10	KWG1005060	
2,4,6-Trichlorophenol	ND	U	9.6	0.19	1	05/24/10	06/03/10	KWG1005060	
2-Chloronaphthalene	ND	U	9.6	0.43	1	05/24/10	06/03/10	KWG1005060	
Acenaphthylene	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
Dimethyl Phthalate	ND	U	9.6	0.71	1	05/24/10	06/03/10	KWG1005060	
2,6-Dinitrotoluene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Acenaphthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrophenol	ND	U	24	1.0	1	05/24/10	06/03/10	KWG1005060	
4-Nitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrotoluene	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Fluorene	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	
4-Chlorophenyl Phenyl Ether	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Diethyl Phthalate	1.0	J	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
2-Methyl-4,6-dinitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodiphenylamine	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
1,2-Diphenylhydrazine†	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** EB-051710  
**Lab Code:** K1005067-004  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Bromophenyl Phenyl Ether	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobenzene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Pentachlorophenol	ND	U	24	0.38	1	05/24/10	06/03/10	KWG1005060	
Phenanthrene	ND	U	9.6	0.24	1	05/24/10	06/03/10	KWG1005060	
Anthracene	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
Di-n-butyl Phthalate	ND	U	9.6	0.46	1	05/24/10	06/03/10	KWG1005060	
Fluoranthene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Benzidine	ND	U	48	29	1	05/24/10	06/03/10	KWG1005060	
Pyrene	ND	U	9.6	0.47	1	05/24/10	06/03/10	KWG1005060	
Butyl Benzyl Phthalate	ND	U	9.6	0.55	1	05/24/10	06/03/10	KWG1005060	
3,3'-Dichlorobenzidine	ND	U	24	0.48	1	05/24/10	06/03/10	KWG1005060	
Benz(a)anthracene	<b>0.26</b>	J	9.6	0.25	1	05/24/10	06/03/10	KWG1005060	
Chrysene	ND	U	9.6	0.40	1	05/24/10	06/03/10	KWG1005060	
Bis(2-ethylhexyl) Phthalate	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
Di-n-octyl Phthalate	ND	U	9.6	0.38	1	05/24/10	06/03/10	KWG1005060	
Benzo(b)fluoranthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Benzo(k)fluoranthene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Benzo(a)pyrene	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Indeno(1,2,3-cd)pyrene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Dibenz(a,h)anthracene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	
Benzo(g,h,i)perylene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	92	34-112	06/03/10	Acceptable
Phenol-d6	88	34-116	06/03/10	Acceptable
Nitrobenzene-d5	94	43-120	06/03/10	Acceptable
2-Fluorobiphenyl	88	45-115	06/03/10	Acceptable
2,4,6-Tribromophenol	95	34-134	06/03/10	Acceptable
Terphenyl-d14	141	13-152	06/03/10	Acceptable

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** 05/17/2010  
**Date Received:** 05/19/2010

Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** EB-051710  
**Lab Code:** K1005067-004

**Units:** ug/L  
**Basis:** NA

† Analyte Comments

1,2-Diphenylhydrazine

This compound is quantitated as Azobenzene.

Comments:



# Exception Report

**Data File:** J:\MS07\DATA\060310\0603F008.D  
**Lab ID:** K1005067-004  
**RunType:** SMPL  
**Matrix:** WATER

**Date Acquired:** 06/03/2010 14:32  
**Date Quantitated:** 06/04/2010 08:35  
**Batch ID:** KWG1005376  
**Analysis Method:** 625  
**ListJoinID:** LJ7897

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

## Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Benzidine	119.6	NA	30	<i>OTC</i>

Primary Review: *M 6-4-10*

Secondary Review: *LB 4/10*

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>	V	<b>Matrix:</b>	WATER
<b>Prod Code:</b>	625 SVO	<b>Collect Date:</b>	05/17/2010	<b>Receive Date:</b>	05/19/2010

<b>Analysis Lot:</b>	KWG1005376	<b>Prep Lot:</b>	KWG1005060	<b>Report Group:</b>	K1005067
<b>Analysis Method:</b>	625	<b>Prep Method:</b>	EPA 3520C		
<b>Prep Ref:</b>	913128	<b>Prep Date:</b>	05/24/2010		

<b>Quant Method:</b>	J:\MS07\METHODS\8270_625\0602BNC7.M	<b>Calibration ID:</b>	CAL9525
<b>Title:</b>	Semi-Volatile Organic Compounds by GC/MS	<b>Report List ID:</b>	LJ7897
<b>Tune Ref:</b>	J:\MS07\DATA\060310\0603F001.D	<b>Method ID:</b>	MJ104
<b>MB Ref:</b>	J:\MS07\DATA\060310\0603F003.D	<b>Quant based on Report List</b>	

<b>Data File:</b>	J:\MS07\DATA\060310\0603F008.D	<b>Instrument:</b>	MS07
<b>Acqu Date:</b>	06/03/2010 14:32	<b>Quant Date:</b>	06/04/2010 08:35
<b>Run Type:</b>	SMPL	<b>Vial:</b>	8
<b>Lab ID:</b>	K1005067-004	<b>Dilution:</b>	1.0
		<b>Soln Conc. Units:</b>	ug/ml

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	1,4-Dichlorobenzene-d4	9.36	0.01	152	91009	40.00	OK
2	Naphthalene-d8	11.46	0.01	136	352276	40.00	OK
3	Acenaphthene-d10	14.31	0.00	164	204977	40.00	OK
4	Phenanthrene-d10	16.71	0.00	188	298225	40.00	OK
5	Chrysene-d12	21.14	0.00	240	208159	40.00	OK
6	Perylene-d12	24.33	0.01	264	197717	40.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Fluorophenol	7.14	0.00	0.00	112	334565	138.27	92	34-112	OK
1	Phenol-d6	8.87	-0.01	0.00	99	447693	132.67	88	34-116	OK
1	Nitrobenzene-d5	10.28	-0.01	0.00	82	311405	94.47	94	43-120	OK
3	2-Fluorobiphenyl	13.25	0.01	0.00	172	587943	87.50	88	45-115	OK
4	2,4,6-Tribromophenol	15.60	0.00	0.00	330	172784	142.94	95	34-134	OK
5	Terphenyl-d14	19.33	0.00	0.00	244	448111	140.59	141	13-152	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	N-Nitrosodimethylamine				42	0		1.7	U	
1	Bis(2-chloroethyl) Ether				93	0d		0.37	U	
1	Phenol	8.89		0.00	94	1971	0.5700	0.54	J	
1	2-Chlorophenol				128	0d		0.42	U	
1	Bis(2-chloroisopropyl) Ether				45	0d		0.36	U	
1	Hexachloroethane				117	0		0.26	U	
1	N-Nitrosodi-n-propylamine				70	0d		0.51	U	
1	Nitrobenzene				77	0d		0.36	U	
2	Isophorone				82	0d		0.35	U	
2	2-Nitrophenol				139	0		0.35	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F008.D  
 Acqu Date: 06/03/2010 14:32  
 Run Type: SMPL  
 Lab ID: K1005067-004

Quant Date: 06/04/2010 08:35

Instrument: MS07  
 Vial: 8  
 Dilution: 1.0  
 Soln Conc. Units: ug/ml

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	2,4-Dimethylphenol				122	0		1.1	U	
2	Bis(2-chloroethoxy)methane				93	0d		0.31	U	
2	2,4-Dichlorophenol				162	0		0.29	U	
2	1,2,4-Trichlorobenzene				180	0		0.32	U	
2	Naphthalene				128	0d		0.31	U	
2	Hexachlorobutadiene				225	0		0.22	U	
2	4-Chloro-3-methylphenol				107	0		0.48	U	
3	Hexachlorocyclopentadiene				237	0		0.58	U	
3	2,4,6-Trichlorophenol				196	0		0.19	U	
3	2-Chloronaphthalene				162	0d		0.43	U	
3	Acenaphthylene				152	0d		0.29	U	
3	Dimethyl Phthalate				163	0d		0.71	U	
3	2,6-Dinitrotoluene				165	0d		0.27	U	
3	Acenaphthene				154	0d		0.27	U	
3	2,4-Dinitrophenol				184	0		1.0	U	
3	4-Nitrophenol				109	0		2.3	U	
3	2,4-Dinitrotoluene				165	0d		0.26	U	
3	Fluorene				166	0d		0.23	U	
3	4-Chlorophenyl Phenyl Ether				204	0		0.26	U	
3	Diethyl Phthalate	15.07	-0.02	0.00	149	7172	1.06	1.0	J	
3	2-Methyl-4,6-dinitrophenol				198	0		2.3	U	
3	N-Nitrosodiphenylamine				169	0d		0.34	U	
3	1,2-Diphenylhydrazine				77	0d		0.23	U	
4	4-Bromophenyl Phenyl Ether				248	0		0.35	U	
4	Hexachlorobenzene				284	0		0.27	U	
4	Pentachlorophenol				266	0		0.38	U	
4	Phenanthrene	16.74		0.00	178	750	0.0900	0.24	U	
4	Anthracene				178	0d		0.33	U	
4	Di-n-butyl Phthalate	17.74		0.00	149	4247m	0.4700	0.46	U	
4	Fluoranthene	18.67	0.01	0.00	202	1519m	0.2100	0.45	U	
5	Benzidine				184	0d		29	U	
5	Pyrene	19.03	0.01	0.00	202	1965	0.3500	0.47	U	
5	Butyl Benzyl Phthalate				149	0d		0.55	U	
5	3,3'-Dichlorobenzidine				252	0		0.48	U	
5	Benz(a)anthracene	21.12	0.01	0.00	228	1330	0.2700	0.26	J	
5	Chrysene				228	0d		0.40	U	
5	Bis(2-ethylhexyl) Phthalate	21.32	0.01	0.00	149	1126m	0.2500	0.34	U	
6	Di-n-octyl Phthalate				149	0d		0.38	U	
6	Benzo(b)fluoranthene				252	0		0.27	U	
6	Benzo(k)fluoranthene				252	0		0.32	U	
6	Benzo(a)pyrene				252	0d		0.37	U	
6	Indeno(1,2,3-cd)pyrene				276	0		0.45	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

<b>Data File:</b>	J:\MS07\DATA\060310\0603F008.D	<b>Instrument:</b>	MS07
<b>Acqu Date:</b>	06/03/2010 14:32	<b>Quant Date:</b>	06/04/2010 08:35
<b>Run Type:</b>	SMPL	<b>Vial:</b>	8
<b>Lab ID:</b>	K1005067-004	<b>Dilution:</b>	1.0
		<b>Soln Conc. Units:</b>	ug/ml

<i>Target Compounds</i>						Final Conc. Units: ug/L				
IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
6	Dibenz(a,h)anthracene				278	0		0.41	U	
6	Benzo(g,h,i)perylene				276	0		0.41	U	

**Prep Amount:** 1050 mL                      **Dilution:** 1.0  
**Prep Final Vol:** 1 mL                      **Unit Factor:** 1000

**Final Concentration =** ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
J: Analyte detected above MDL, but below MRL  
B: Hit above MRL also found in Method Blank  
E: Analyte concentration above high point of ICAL  
N: Presumptive evidence of compound

D: Result from dilution  
m: Manual integration performed  
d: Compound manually deleted  
NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
#: Acceptance criteria not applicable  
?: Insufficient information to determine acceptance  
e: Result >= MRL, but MRL less than low point of ICAL  
c: check for co-elution

Data File : J:\MS07\DATA\060310\0603F008.D  
 Acq On : 3 Jun 2010 2:32 pm  
 Sample : K1005067-4  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 15:22:03 2010

Vial: 8  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	91009	40.00	ug/ml	0.02
21) Naphthalene-d8	11.46	136	352276	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	204977	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.71	188	298225	40.00	ug/ml	0.00
68) Chrysene-d12	21.14	240	208159	40.00	ug/ml	0.00
77) Perylene-d12	24.33	264	197717	40.00	ug/ml	0.01

System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	334565	138.27	ug/ml	0.00
Spiked Amount 150.000	Range 21 - 100		Recovery =	92.18%		
7) Phenol-d6	8.87	99	447693	132.67	ug/ml	0.00
Spiked Amount 150.000	Range 10 - 94		Recovery =	88.45%		
19) Nitrobenzene-d5	10.28	82	311405	94.47	ug/ml	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery =	94.47%		
38) 2-Fluorobiphenyl	13.25	172	587943	87.50	ug/ml	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery =	87.50%		
59) 2,4,6-Tribromophenol	15.60	330	172784	142.94	ug/ml	0.00
Spiked Amount 150.000	Range 10 - 123		Recovery =	95.29%		
71) Terphenyl-d14	19.33	244	448111	140.59	ug/ml	0.00
Spiked Amount 100.000	Range 33 - 141		Recovery =	140.59%		

Target Compounds

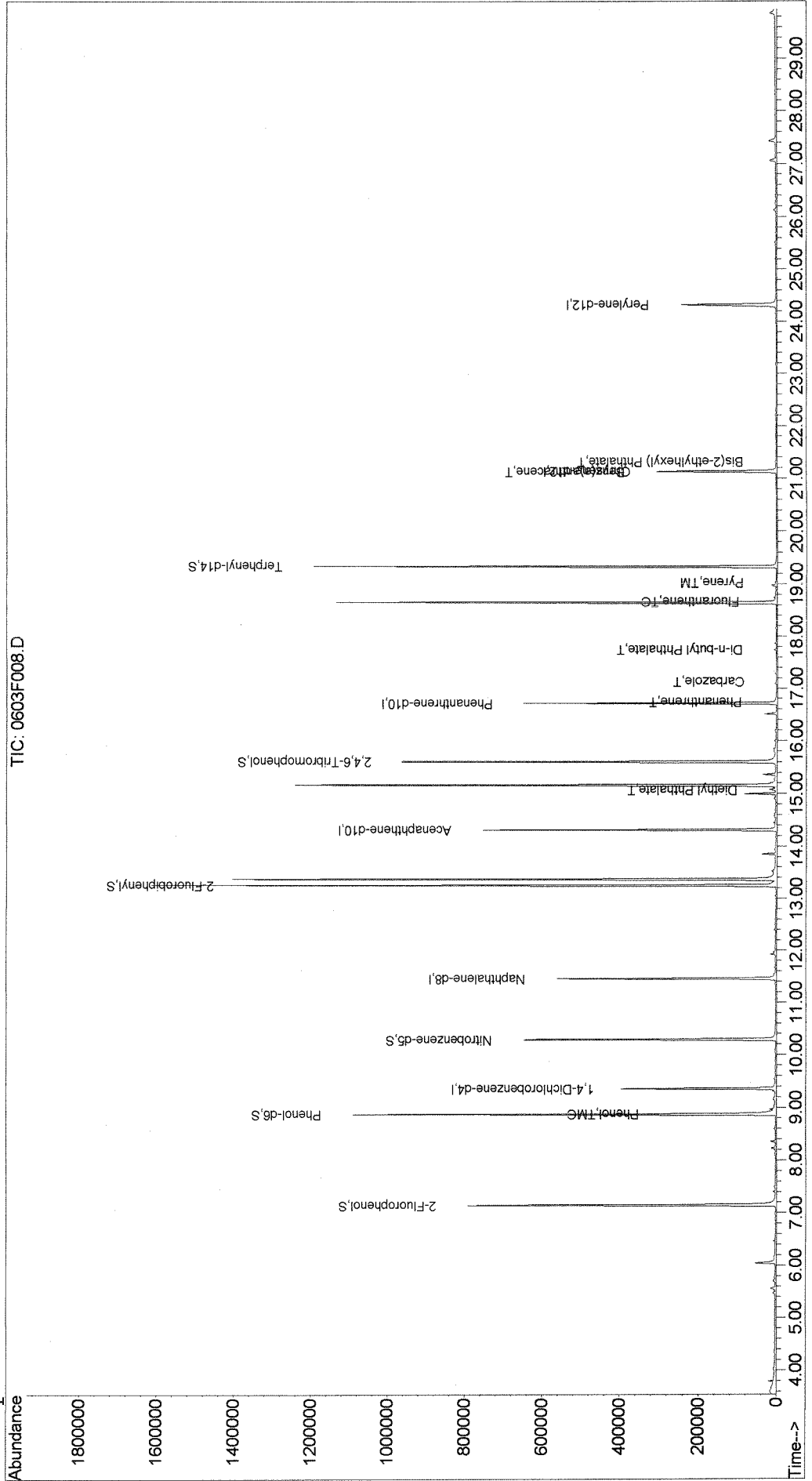
	R.T.	QIon	Response	Conc	Units	Qvalue
8) Phenol	8.89	94	1971	0.57	ug/ml#	1
53) Diethyl Phthalate	15.07	149	7172	1.06	ug/ml	72
63) Phenanthrene	16.74	178	750	0.09	ug/ml	70
65) Carbazole	17.14	167	1168	0.17	ug/ml	90
66) Di-n-butyl Phthalate	17.74	149	4247m	0.47	ug/ml	
67) Fluoranthene	18.67	202	1519m	0.21	ug/ml	
70) Pyrene	19.03	202	1965	0.35	ug/ml	95
74) Benz(a)anthracene	21.12	228	1330	0.27	ug/ml	51
76) Bis(2-ethylhexyl) Phthalat	21.32	149	1126m	0.25	ug/ml	

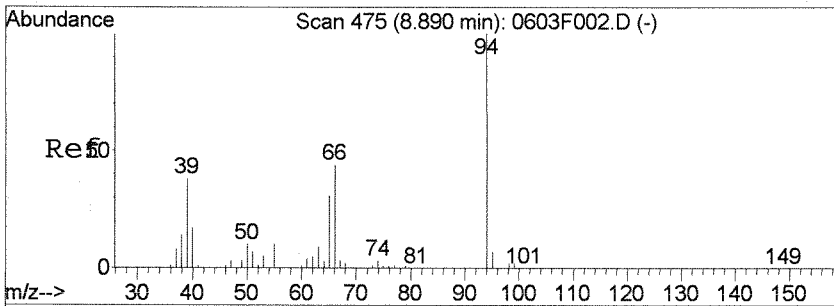
Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\060310\0603F008.D  
Acq On : 3 Jun 2010 2:32 pm  
Sample : K1005067-4  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 4 8:35 2010

Vial: 8  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00  
Quant Results File: 0602BNC7.RES

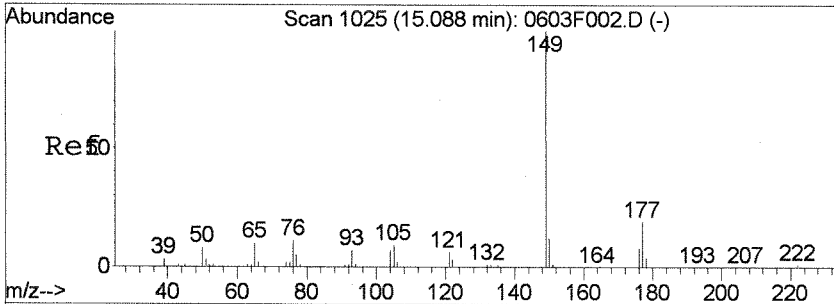
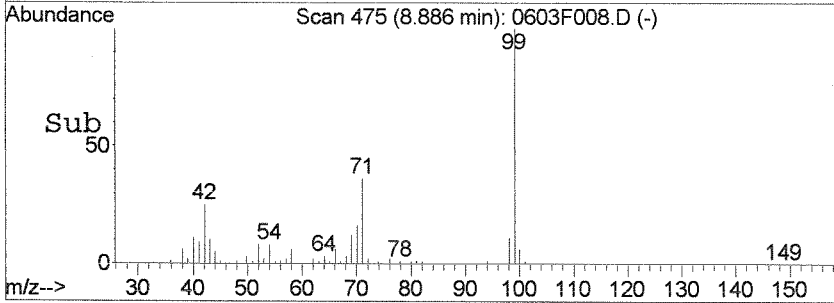
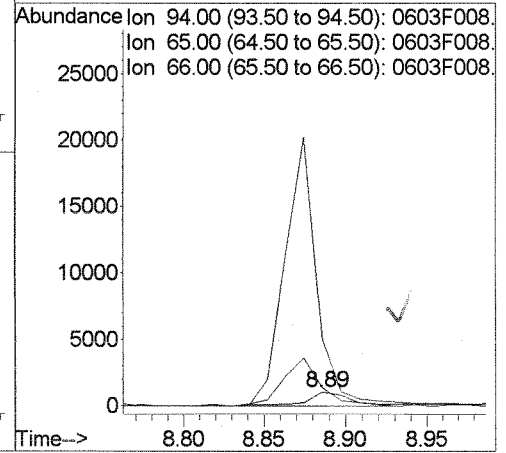
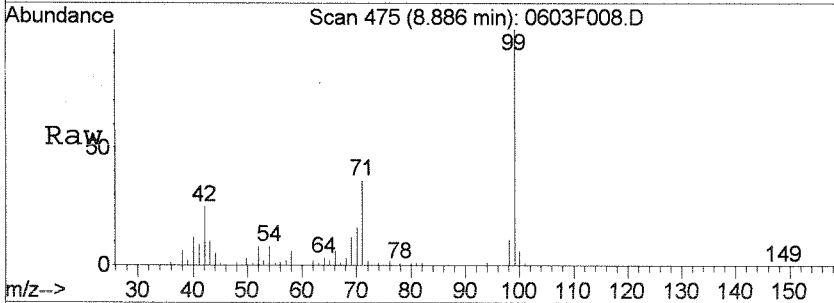
Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Fri Jun 04 10:34:14 2010  
Response via : Initial Calibration





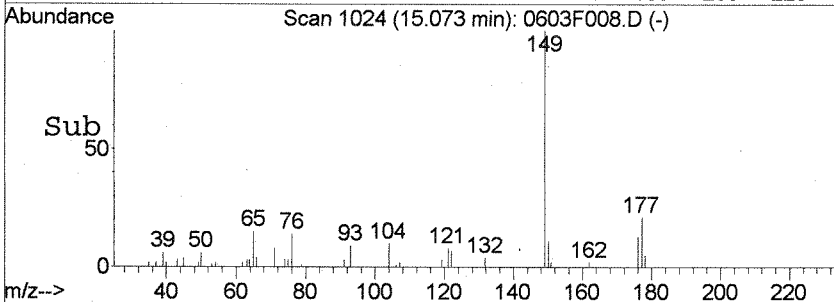
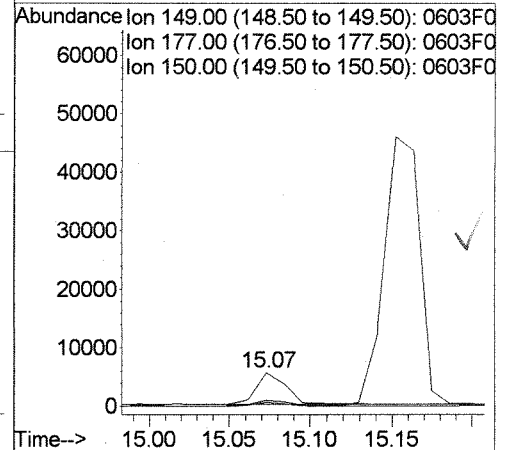
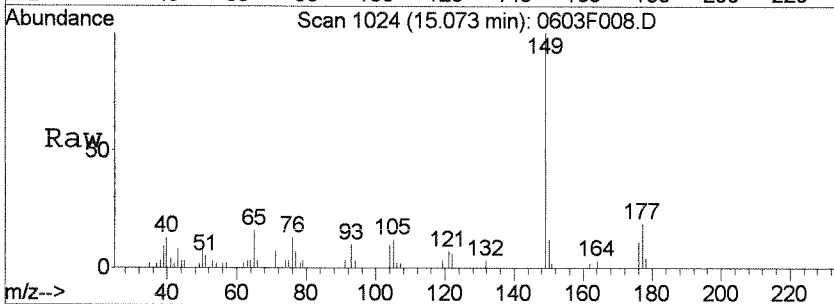
#8  
 Phenol  
 Concen: 0.57 ug/ml  
 RT: 8.89 min Scan# 475  
 Delta R.T. -0.01 min  
 Lab File: 0603F008.D  
 Acq: 3 Jun 2010 2:32 pm

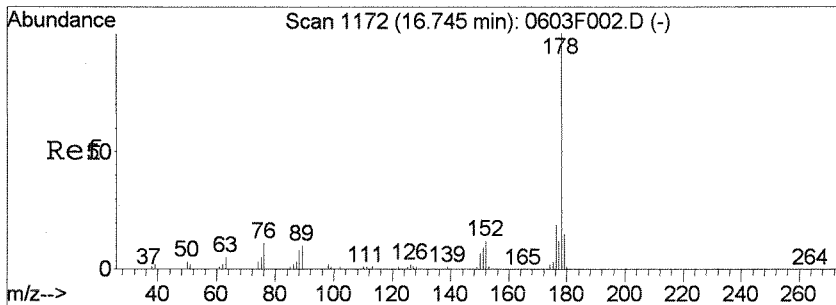
Tgt Ion:	94	Resp:	1971
Ion Ratio	Lower	Upper	
94	100		
65	116.9	1.1	61.1#
66	462.0	14.3	74.3#



#53  
 Diethyl Phthalate  
 Concen: 1.06 ug/ml  
 RT: 15.07 min Scan# 1024  
 Delta R.T. -0.02 min  
 Lab File: 0603F008.D  
 Acq: 3 Jun 2010 2:32 pm

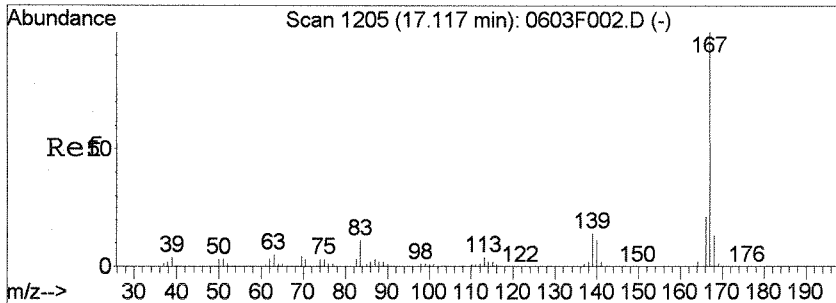
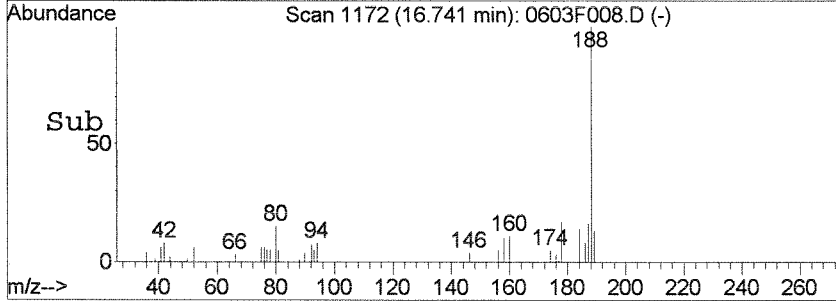
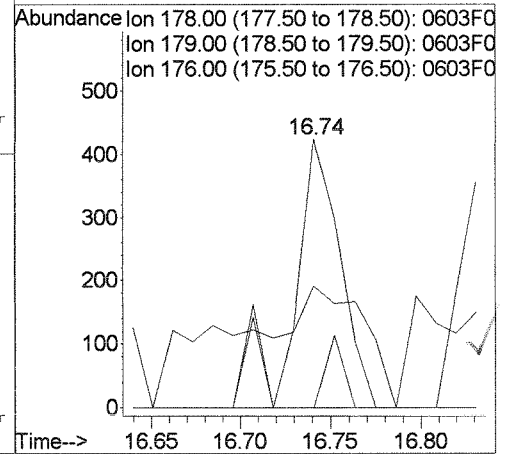
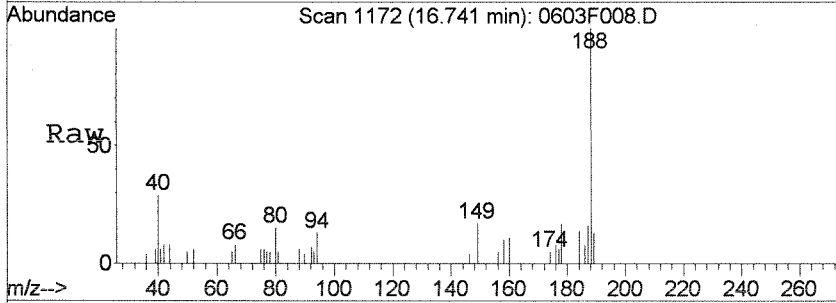
Tgt Ion:	149	Resp:	7172
Ion Ratio	Lower	Upper	
149	100		
177	0.0	0.0	49.4
150	13.3	0.0	41.7





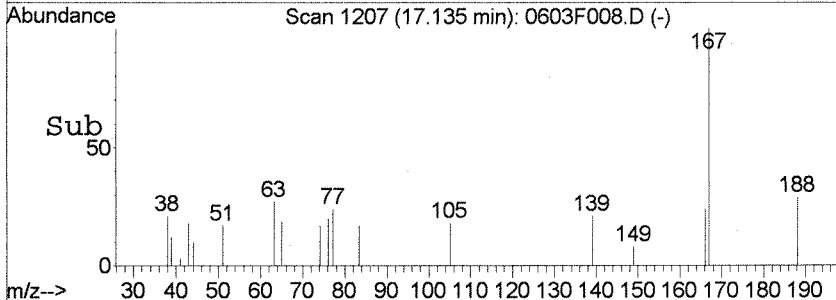
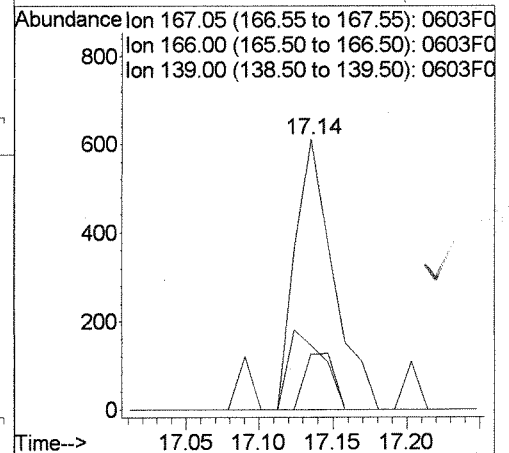
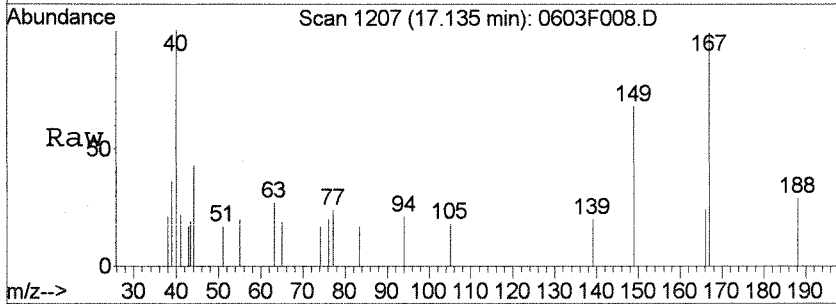
#63  
 Phenanthrene  
 Concen: 0.09 ug/ml  
 RT: 16.74 min Scan# 1172  
 Delta R.T. -0.01 min  
 Lab File: 0603F008.D  
 Acq: 3 Jun 2010 2:32 pm

Tgt Ion	Resp	Lower	Upper
178	750		
179	0.0	0.0	45.0
176	29.8	0.0	48.5

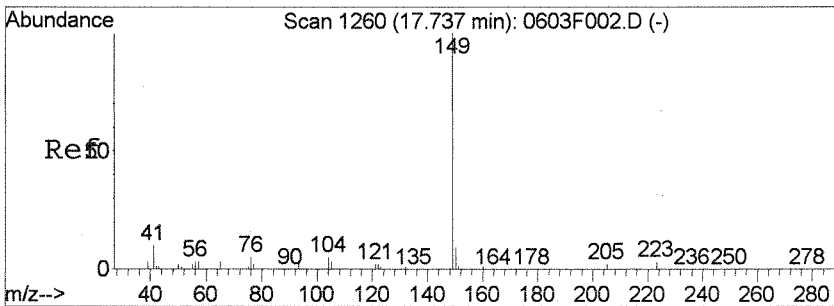


#65  
 Carbazole  
 Concen: 0.17 ug/ml  
 RT: 17.14 min Scan# 1207  
 Delta R.T. 0.02 min  
 Lab File: 0603F008.D  
 Acq: 3 Jun 2010 2:32 pm

Tgt Ion	Resp	Lower	Upper
167	1168		
166	23.9	0.0	51.0
139	20.6	0.0	44.5

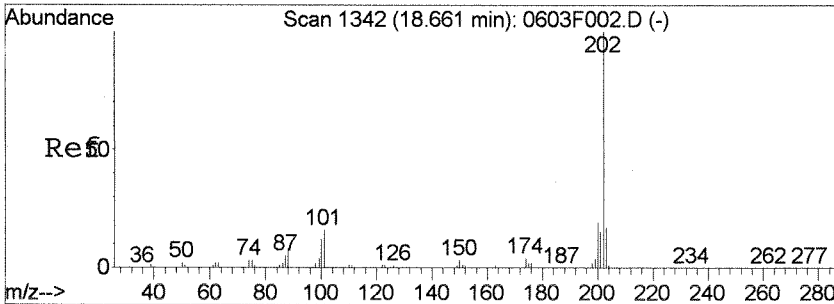
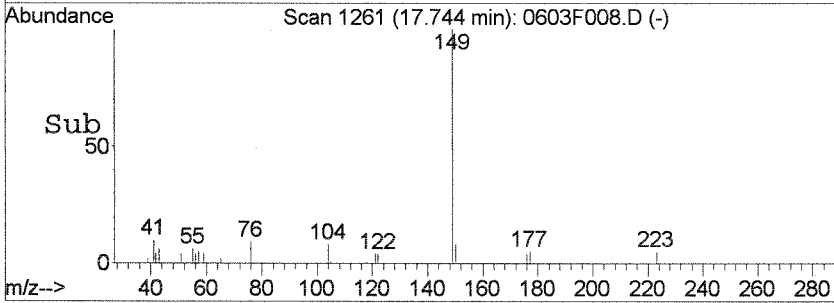
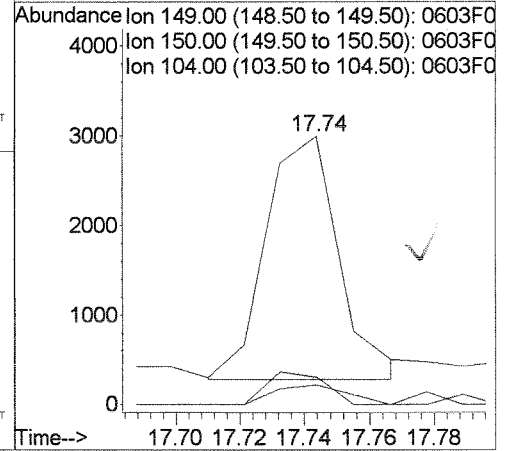
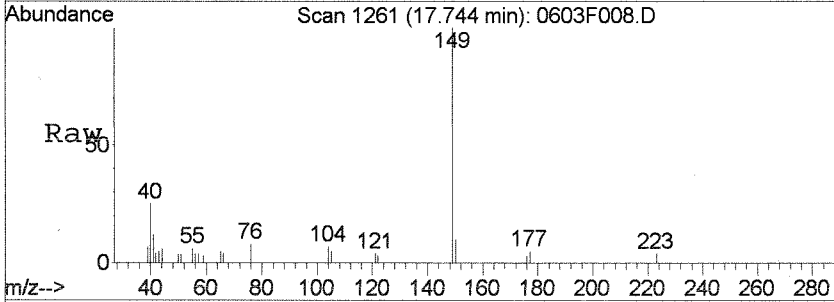






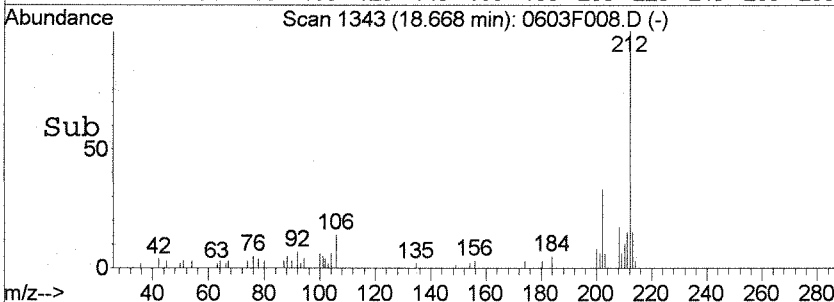
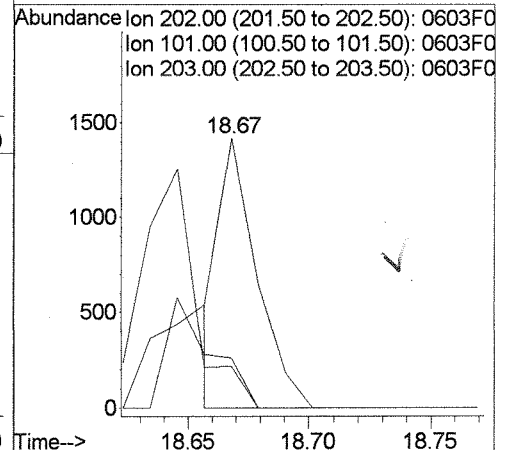
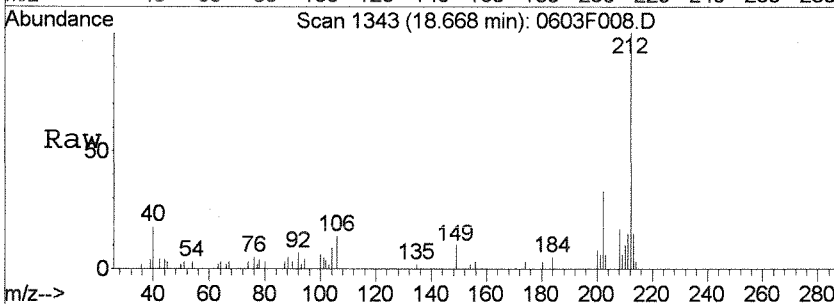
#66  
 Di-n-butyl Phthalate  
 Concen: 0.47 ug/ml m  
 RT: 17.74 min Scan# 1261  
 Delta R.T. 0.00 min  
 Lab File: 0603F008.D  
 Acq: 3 Jun 2010 2:32 pm

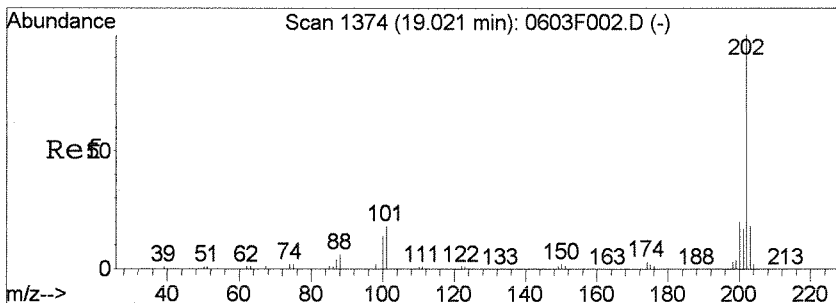
Tgt Ion	Resp	Lower	Upper
149	4247		
150	10.2	0.0	39.1
104	7.3	0.0	35.2



#67  
 Fluoranthene  
 Concen: 0.21 ug/ml m  
 RT: 18.67 min Scan# 1343  
 Delta R.T. 0.00 min  
 Lab File: 0603F008.D  
 Acq: 3 Jun 2010 2:32 pm

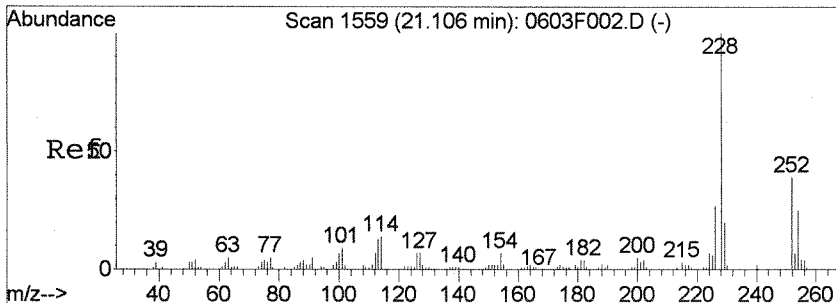
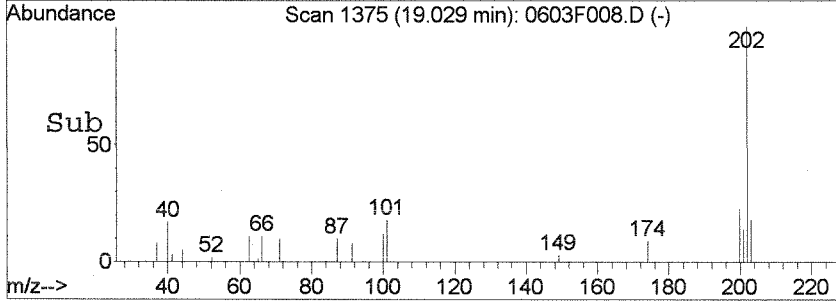
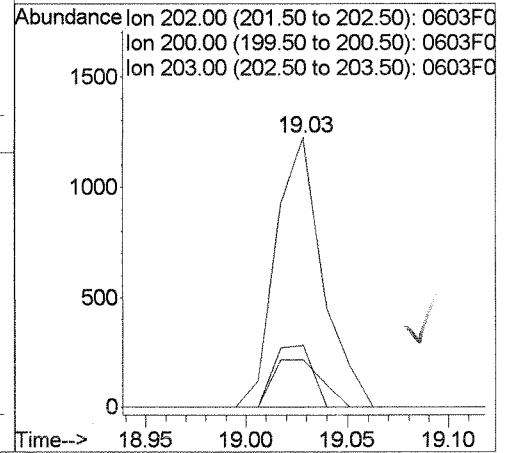
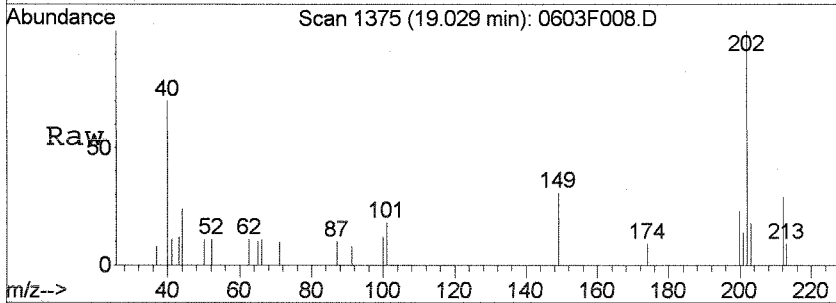
Tgt Ion	Resp	Lower	Upper
202	1519		
101	15.4	0.0	43.3
203	18.4	0.0	47.4





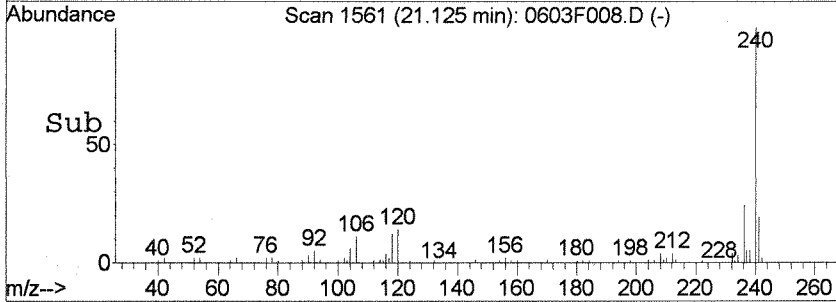
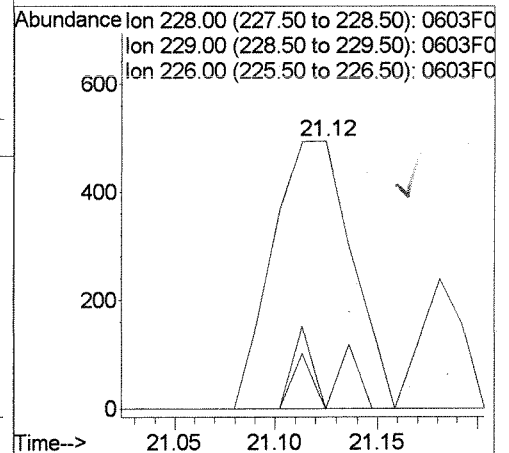
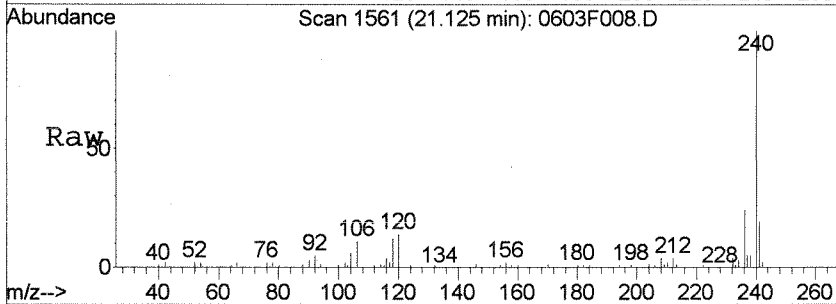
#70  
 Pyrene  
 Concen: 0.35 ug/ml  
 RT: 19.03 min Scan# 1375  
 Delta R.T. 0.00 min  
 Lab File: 0603F008.D  
 Acq: 3 Jun 2010 2:32 pm

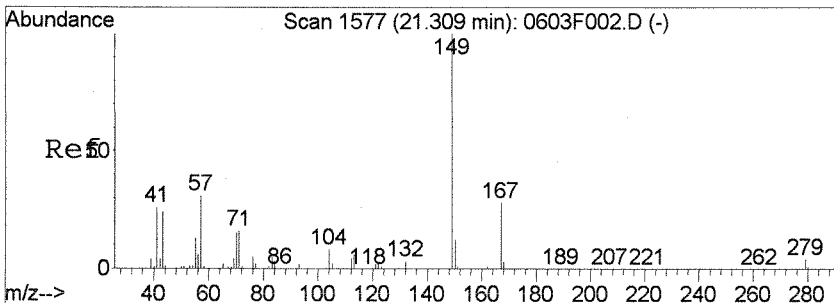
Tgt Ion	Ratio	Resp	Lower	Upper
202	100	1965		
200	23.1		0.0	49.7
203	17.7		0.0	46.9



#74  
 Benz(a)anthracene  
 Concen: 0.27 ug/ml  
 RT: 21.12 min Scan# 1561  
 Delta R.T. 0.01 min  
 Lab File: 0603F008.D  
 Acq: 3 Jun 2010 2:32 pm

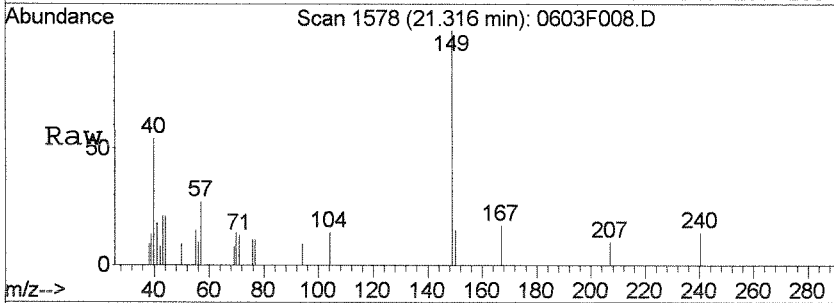
Tgt Ion	Ratio	Resp	Lower	Upper
228	100	1330		
229	0.0		0.0	49.6
226	0.0		0.0	57.9



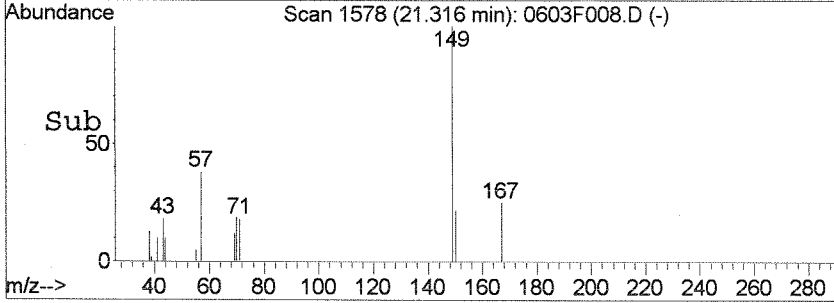
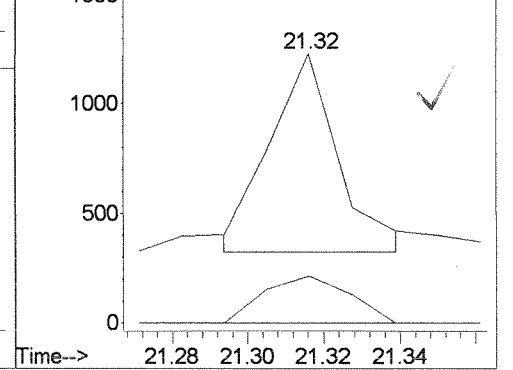


#76  
 Bis(2-ethylhexyl) Phthalate  
 Concen: 0.25 ug/ml m  
 RT: 21.32 min Scan# 1578  
 Delta R.T. 0.00 min  
 Lab File: 0603F008.D  
 Acq: 3 Jun 2010 2:32 pm

Tgt Ion	Resp	Lower	Upper
149	1126		
167	17.5	0.0	59.2
279	0.0	0.0	34.2



Abundance Ion 149.00 (148.50 to 149.50): 0603F0  
 Ion 167.00 (166.50 to 167.50): 0603F0  
 Ion 279.00 (278.50 to 279.50): 0603F0



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** Method Blank  
**Lab Code:** KWG1005060-3  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	24	1.7	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethyl) Ether	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Phenol	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
2-Chlorophenol	ND	U	9.6	0.42	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroisopropyl) Ether	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Hexachloroethane	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodi-n-propylamine	ND	U	9.6	0.51	1	05/24/10	06/03/10	KWG1005060	
Nitrobenzene	ND	U	9.6	0.36	1	05/24/10	06/03/10	KWG1005060	
Isophorone	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2-Nitrophenol	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
2,4-Dimethylphenol	ND	U	9.6	1.1	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethoxy)methane	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
2,4-Dichlorophenol	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
1,2,4-Trichlorobenzene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Naphthalene	ND	U	9.6	0.31	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobutadiene	ND	U	9.6	0.22	1	05/24/10	06/03/10	KWG1005060	
4-Chloro-3-methylphenol	ND	U	9.6	0.48	1	05/24/10	06/03/10	KWG1005060	
Hexachlorocyclopentadiene	ND	U	9.6	0.58	1	05/24/10	06/03/10	KWG1005060	
2,4,6-Trichlorophenol	ND	U	9.6	0.19	1	05/24/10	06/03/10	KWG1005060	
2-Chloronaphthalene	ND	U	9.6	0.43	1	05/24/10	06/03/10	KWG1005060	
Acenaphthylene	ND	U	9.6	0.29	1	05/24/10	06/03/10	KWG1005060	
Dimethyl Phthalate	ND	U	9.6	0.71	1	05/24/10	06/03/10	KWG1005060	
2,6-Dinitrotoluene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Acenaphthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrophenol	ND	U	24	1.0	1	05/24/10	06/03/10	KWG1005060	
4-Nitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrotoluene	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Fluorene	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	
4-Chlorophenyl Phenyl Ether	ND	U	9.6	0.26	1	05/24/10	06/03/10	KWG1005060	
Diethyl Phthalate	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
2-Methyl-4,6-dinitrophenol	ND	U	24	2.3	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodiphenylamine	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
1,2-Diphenylhydrazine†	ND	U	9.6	0.23	1	05/24/10	06/03/10	KWG1005060	

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Method Blank  
**Lab Code:** KWG1005060-3  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Bromophenyl Phenyl Ether	ND	U	9.6	0.35	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobenzene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Pentachlorophenol	ND	U	24	0.38	1	05/24/10	06/03/10	KWG1005060	
Phenanthrene	ND	U	9.6	0.24	1	05/24/10	06/03/10	KWG1005060	
Anthracene	ND	U	9.6	0.33	1	05/24/10	06/03/10	KWG1005060	
Di-n-butyl Phthalate	ND	U	9.6	0.46	1	05/24/10	06/03/10	KWG1005060	
Fluoranthene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Benzidine	ND	U	48	29	1	05/24/10	06/03/10	KWG1005060	
Pyrene	ND	U	9.6	0.47	1	05/24/10	06/03/10	KWG1005060	
Butyl Benzyl Phthalate	ND	U	9.6	0.55	1	05/24/10	06/03/10	KWG1005060	
3,3'-Dichlorobenzidine	ND	U	24	0.48	1	05/24/10	06/03/10	KWG1005060	
Benz(a)anthracene	ND	U	9.6	0.25	1	05/24/10	06/03/10	KWG1005060	
Chrysene	ND	U	9.6	0.40	1	05/24/10	06/03/10	KWG1005060	
Bis(2-ethylhexyl) Phthalate	ND	U	9.6	0.34	1	05/24/10	06/03/10	KWG1005060	
Di-n-octyl Phthalate	ND	U	9.6	0.38	1	05/24/10	06/03/10	KWG1005060	
Benzo(b)fluoranthene	ND	U	9.6	0.27	1	05/24/10	06/03/10	KWG1005060	
Benzo(k)fluoranthene	ND	U	9.6	0.32	1	05/24/10	06/03/10	KWG1005060	
Benzo(a)pyrene	ND	U	9.6	0.37	1	05/24/10	06/03/10	KWG1005060	
Indeno(1,2,3-cd)pyrene	ND	U	9.6	0.45	1	05/24/10	06/03/10	KWG1005060	
Dibenz(a,h)anthracene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	
Benzo(g,h,i)perylene	ND	U	9.6	0.41	1	05/24/10	06/03/10	KWG1005060	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	76	34-112	06/03/10	Acceptable
Phenol-d6	75	34-116	06/03/10	Acceptable
Nitrobenzene-d5	74	43-120	06/03/10	Acceptable
2-Fluorobiphenyl	74	45-115	06/03/10	Acceptable
2,4,6-Tribromophenol	68	34-134	06/03/10	Acceptable
Terphenyl-d14	121	13-152	06/03/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** Method Blank  
**Lab Code:** KWG1005060-3

**Units:** ug/L  
**Basis:** NA

† Analyte Comments

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1,2-Diphenylhydrazine                      This compound is quantitated as Azobenzene.

Comments: \_\_\_\_\_

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## Exception Report

**Data File:** J:\MS07\DATA\060310\0603F003.D  
**Lab ID:** KWG1005060-3  
**RunType:** MB  
**Matrix:** WATER

**Date Acquired:** 06/03/2010 10:43  
**Date Quantitated:** 06/04/2010 08:21  
**Batch ID:** KWG1005376  
**Analysis Method:** 625  
**MethodJoinID:** MJ104

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

5067  
5005

### Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Benzidine	119.6	NA	30	<i>MLC</i>

Primary Review: M 6-4-10  
 Secondary Review: LB 6/4/10

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>		<b>Matrix:</b>	WATER
<b>Prod Code:</b>	625 SVO	<b>Collect Date:</b>		<b>Receive Date:</b>	05/28/2010
<b>Analysis Lot:</b>	KWG1005376	<b>Prep Lot:</b>	KWG1005060	<b>Report Group:</b>	
<b>Analysis Method:</b>	625	<b>Prep Method:</b>	EPA 3520C		
<b>Prep Ref:</b>	913132	<b>Prep Date:</b>	05/24/2010		
<b>Quant Method:</b>	J:\MS07\METHODS\8270_625\0602BNC7.M			<b>Calibration ID:</b>	CAL9525
<b>Title:</b>				<b>Method ID:</b>	MJ104
<b>Tune Ref:</b>	J:\MS07\DATA\060310\0603F001.D			<b>Quant based on Method</b>	
<b>MB Ref:</b>					
<b>Data File:</b>	J:\MS07\DATA\060310\0603F003.D	<b>Instrument:</b>	MS07		
<b>Acqu Date:</b>	06/03/2010 10:43	<b>Quant Date:</b>	06/04/2010 08:21		
<b>Run Type:</b>	MB	<b>Vial:</b>	3		
<b>Lab ID:</b>	KWG1005060-3	<b>Dilution:</b>	1.0		
		<b>Soln Conc. Units:</b>	ug/ml		

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	1,4-Dichlorobenzene-d4	9.35	0.00	152	106372	40.00	OK
2	Naphthalene-d8	11.45	0.00	136	379395	40.00	OK
3	Acenaphthene-d10	14.31	0.00	164	226297	40.00	OK
4	Phenanthrene-d10	16.70	-0.01	188	364230	40.00	OK
5	Chrysene-d12	21.13	-0.01	240	240468	40.00	OK
6	Perylene-d12	24.32	0.00	264	231679	40.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Fluorophenol	7.13	-0.01	0.00	112	323589	114.42	76	34-112	OK
1	Phenol-d6	8.87	-0.01	0.00	99	444794	112.77	75	34-116	OK
1	Nitrobenzene-d5	10.28	-0.01	0.00	82	285518	74.10	74	43-120	OK
3	2-Fluorobiphenyl	13.24	0.00	0.00	172	548043	73.87	74	45-115	OK
4	2,4,6-Tribromophenol	15.59	-0.01	0.00	330	151480	102.61	68	34-134	OK
5	Terphenyl-d14	19.32	-0.01	0.00	244	444593	120.75	121	13-152	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	N-Nitrosodimethylamine				42	0		1.7	U	
1	Pyridine				79	0		25	U	
1	Aniline				93	0d		25	U	
1	Bis(2-chloroethyl) Ether				93	0d		0.37	U	
1	Phenol	8.89		0.00	94	568m	0.1400	0.45	U	
1	2-Chlorophenol				128	0d		0.42	U	
1	1,3-Dichlorobenzene				146	0		0.37	U	
1	1,4-Dichlorobenzene				146	0		0.36	U	
1	1,2-Dichlorobenzene				146	0		0.40	U	
1	Benzyl Alcohol				108	0		10	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution



Data File: J:\MS07\DATA\060310\0603F003.D  
 Acqu Date: 06/03/2010 10:43  
 Run Type: MB  
 Lab ID: KWG1005060-3

Quant Date: 06/04/2010 08:21

Instrument: MS07  
 Vial: 3  
 Dilution: 1.0  
 Soln Conc. Units: ug/ml

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Bis(2-chloroisopropyl) Ether				45	0d		0.36	U	
1	2-Methylphenol				107	0		10	U	
1	Hexachloroethane				117	0		0.26	U	
1	N-Nitrosodi-n-propylamine				70	0d		0.51	U	
1	4-Methylphenol				107	0		1.2	U	
1	Nitrobenzene				77	0d		0.36	U	
2	Isophorone				82	0d		0.35	U	
2	2-Nitrophenol				139	0		0.35	U	
2	2,4-Dimethylphenol				122	0		1.1	U	
2	Bis(2-chloroethoxy)methane				93	0d		0.31	U	
2	2,4-Dichlorophenol				162	0		0.29	U	
2	Benzoic Acid				122	0		25	U	
2	1,2,4-Trichlorobenzene				180	0		0.32	U	
2	Naphthalene				128	0d		0.31	U	
2	4-Chloroaniline				127	0		10	U	
2	Hexachlorobutadiene				225	0		0.22	U	
2	4-Chloro-3-methylphenol				107	0		0.48	U	
2	2-Methylnaphthalene				142	0		0.45	U	
3	Hexachlorocyclopentadiene				237	0		0.58	U	
3	2,4,6-Trichlorophenol				196	0		0.19	U	
3	2,4,5-Trichlorophenol				196	0		0.30	U	
3	2-Chloronaphthalene				162	0d		0.43	U	
3	2-Nitroaniline				65	0d		25	U	
3	Acenaphthylene				152	0d		0.29	U	
3	Dimethyl Phthalate				163	0d		0.71	U	
3	2,6-Dinitrotoluene				165	0		0.27	U	
3	Acenaphthene				154	0d		0.27	U	
3	3-Nitroaniline				138	0		25	U	
3	2,4-Dinitrophenol				184	0		1.0	U	
3	Dibenzofuran				168	0d		10	U	
3	4-Nitrophenol				109	0		2.3	U	
3	2,4-Dinitrotoluene				165	0d		0.26	U	
3	Fluorene				166	0d		0.23	U	
3	4-Chlorophenyl Phenyl Ether				204	0		0.26	U	
3	Diethyl Phthalate	15.08	-0.01	0.00	149	1086m	0.1500	0.33	U	
3	4-Nitroaniline				138	0		25	U	
3	2-Methyl-4,6-dinitrophenol				198	0		2.3	U	
3	N-Nitrosodiphenylamine				169	0d		0.34	U	
3	1,2-Diphenylhydrazine				77	0d		0.23	U	
4	4-Bromophenyl Phenyl Ether				248	0		0.35	U	
4	Hexachlorobenzene				284	0		0.27	U	
4	Pentachlorophenol				266	0		0.38	U	

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F003.D  
 Acqu Date: 06/03/2010 10:43  
 Run Type: MB  
 Lab ID: KWG1005060-3

Quant Date: 06/04/2010 08:21

Instrument: MS07  
 Vial: 3  
 Dilution: 1.0  
 Soln Conc. Units: ug/ml

**Target Compounds**

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
4	Phenanthrene	16.74		0.00	178	609m	0.0600	0.24	U	
4	Anthracene				178	0d		0.33	U	
4	Di-n-butyl Phthalate	17.74		0.00	149	3331m	0.3000	0.46	U	
4	Fluoranthene	18.66		0.00	202	1978m	0.2300	0.45	U	
5	Benzidine				184	0d		29	U	
5	Pyrene	19.02		0.00	202	2359	0.3700	0.47	U	
5	Butyl Benzyl Phthalate				149	0d		0.55	U	
5	3,3'-Dichlorobenzidine				252	0		0.48	U	
5	Benz(a)anthracene				228	0d		0.25	U	
5	Chrysene				228	0d		0.40	U	
5	Bis(2-ethylhexyl) Phthalate				149	0d		0.34	U	
6	Di-n-octyl Phthalate				149	0d		0.38	U	
6	Benzo(b)fluoranthene				252	0d		0.27	U	
6	Benzo(k)fluoranthene				252	0		0.32	U	
6	Benzo(a)pyrene				252	0d		0.37	U	
6	Indeno(1,2,3-cd)pyrene				276	0		0.45	U	
6	Dibenz(a,h)anthracene				278	0		0.41	U	
6	Benzo(g,h,i)perylene				276	0		0.41	U	
	alpha-Terpineol, Total				0	0		9.5	U	
	Bis(chloromethyl) Ether				0	0		9.5	U	NR
	2,3,7,8-Tetrachlorodibenzo-p-di				0	0		48	U	NR

Prep Amount: 1050 mL      Dilution: 1.0  
 Prep Final Vol: 1 mL      Unit Factor: 1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS07\DATA\060310\0603F003.D  
 Acq On : 3 Jun 2010 10:43 am  
 Sample : KQ4706-3 MB  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 11:44:35 2010

Vial: 3  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	106372	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	379395	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	226297	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.70	188	364230	40.00	ug/ml	0.00
68) Chrysene-d12	21.13	240	240468	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	231679	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.13	112	323589	114.42	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	76.28%
7) Phenol-d6	8.87	99	444794	112.77	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	75.18%
19) Nitrobenzene-d5	10.28	82	285518	74.10	ug/ml	-0.01
Spiked Amount	100.000	Range	35 - 114	Recovery	=	74.10%
38) 2-Fluorobiphenyl	13.24	172	548043	73.87	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	73.87%
59) 2,4,6-Tribromophenol	15.59	330	151480	102.61	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	68.41%
71) Terphenyl-d14	19.32	244	444593	120.75	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	120.75%

Target Compounds

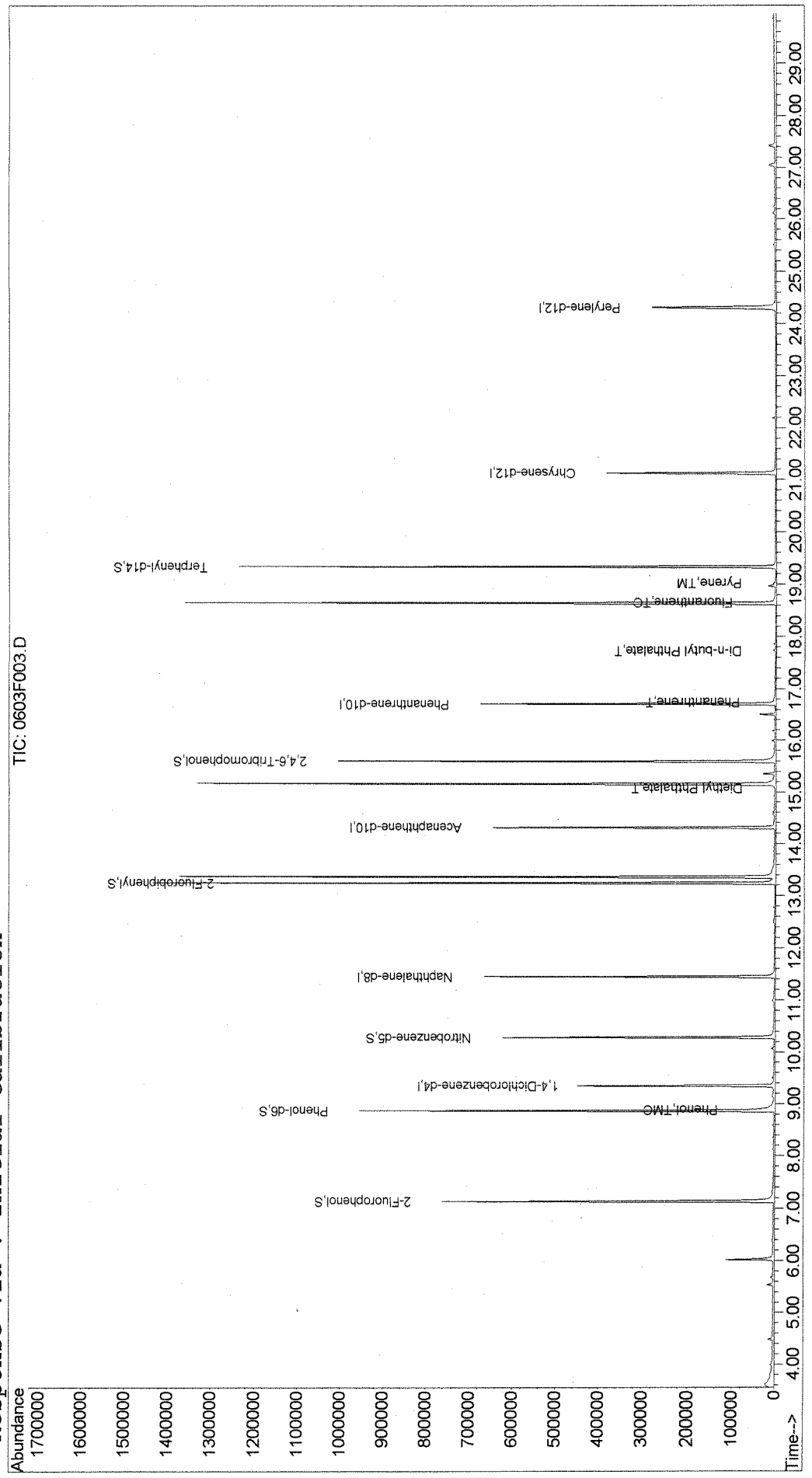
						Qvalue
8) Phenol	8.89	94	568m	0.14	ug/ml	
53) Diethyl Phthalate	15.08	149	1086m	0.15	ug/ml	
63) Phenanthrene	16.74	178	609m	0.06	ug/ml	
66) Di-n-butyl Phthalate	17.74	149	3331m	0.30	ug/ml	
67) Fluoranthene	18.66	202	1978m	0.23	ug/ml	
70) Pyrene	19.02	202	2359	0.37	ug/ml	96

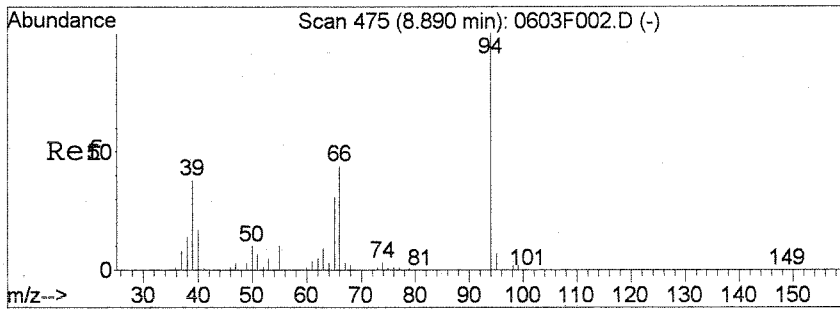
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS07\DATA\060310\0603F003.D  
Acq On : 3 Jun 2010 10:43 am  
Sample : KQ4706-3 MB  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 4 8:21 2010  
Quant Results File: 0602BNC7.RES

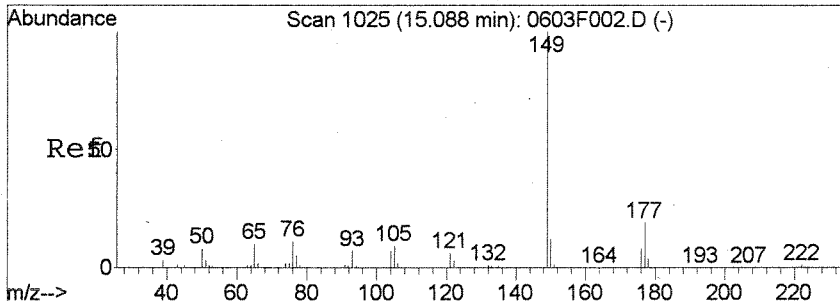
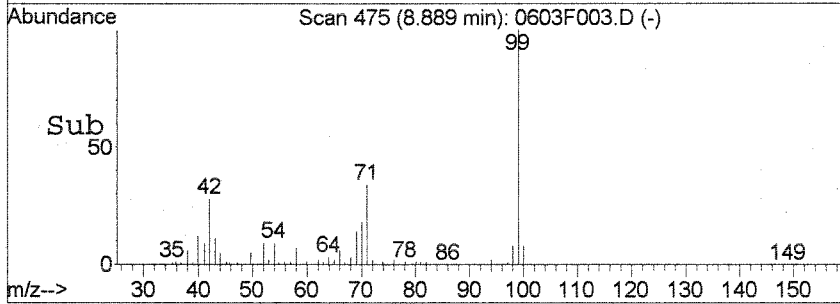
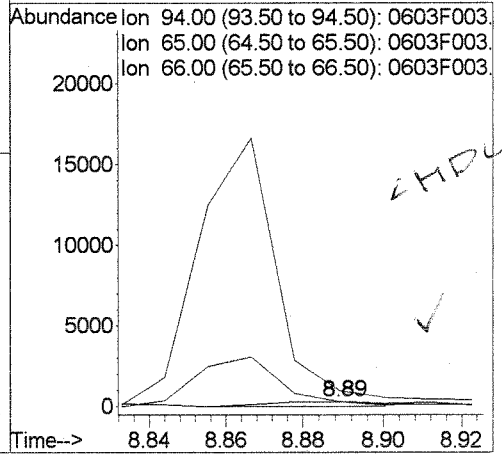
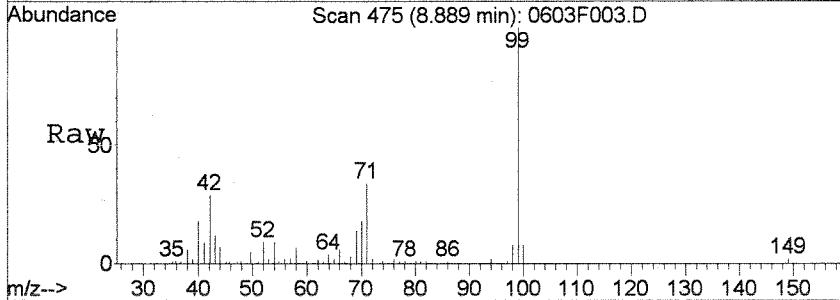
Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Fri Jun 04 10:34:14 2010  
Response via : Initial Calibration





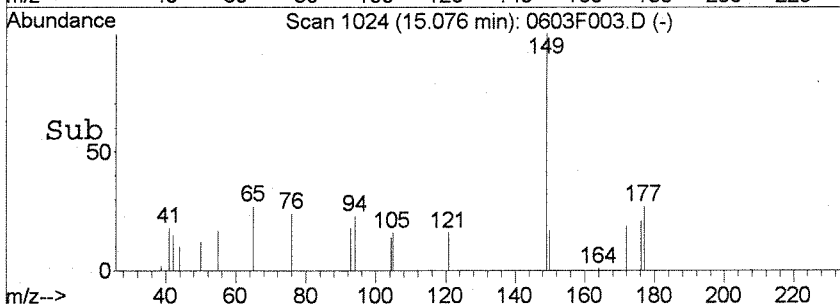
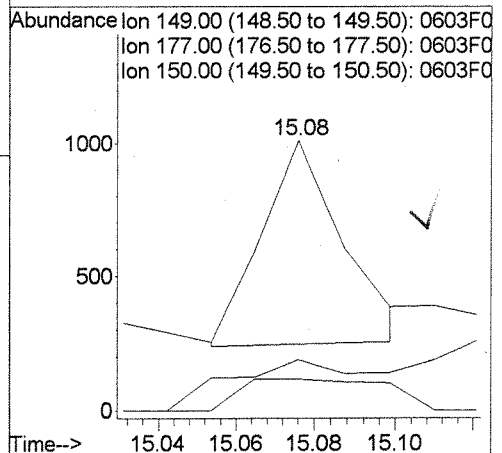
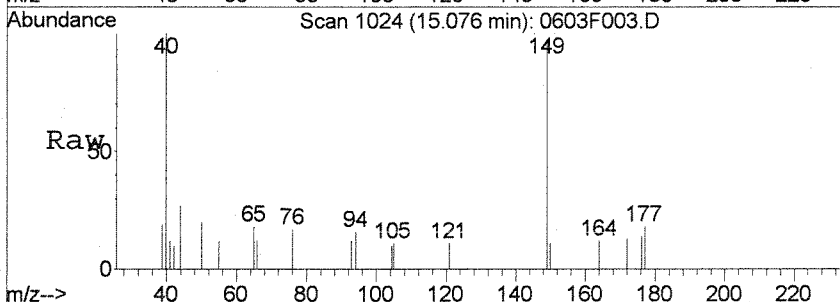
#8  
 Phenol  
 Concen: 0.14 ug/ml m  
 RT: 8.89 min Scan# 475  
 Delta R.T. -0.00 min  
 Lab File: 0603F003.D  
 Acq: 3 Jun 2010 10:43 am

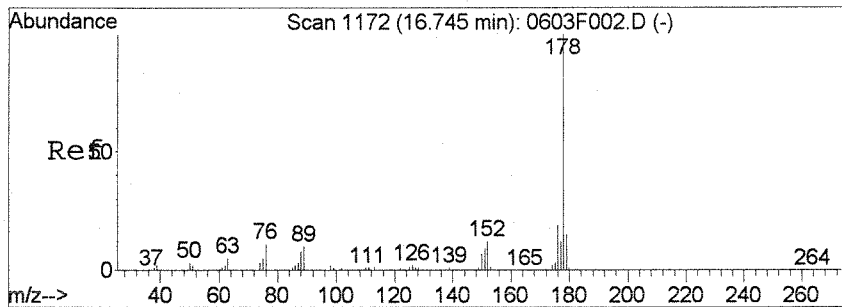
Tgt Ion:	94	Resp:	568
Ion Ratio	Lower	Upper	
94	100		
65	106.3	1.1	61.1#
66	323.0	14.3	74.3#



#53  
 Diethyl Phthalate  
 Concen: 0.15 ug/ml m  
 RT: 15.08 min Scan# 1024  
 Delta R.T. -0.01 min  
 Lab File: 0603F003.D  
 Acq: 3 Jun 2010 10:43 am

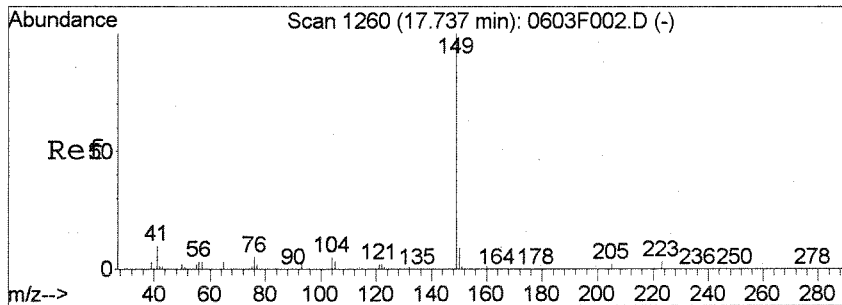
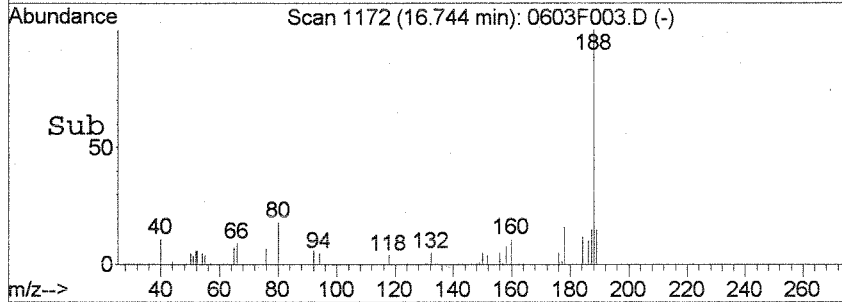
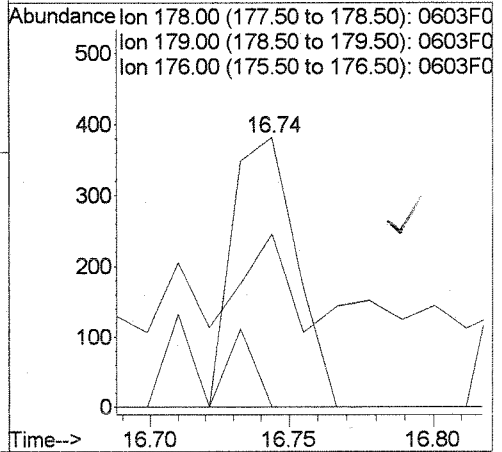
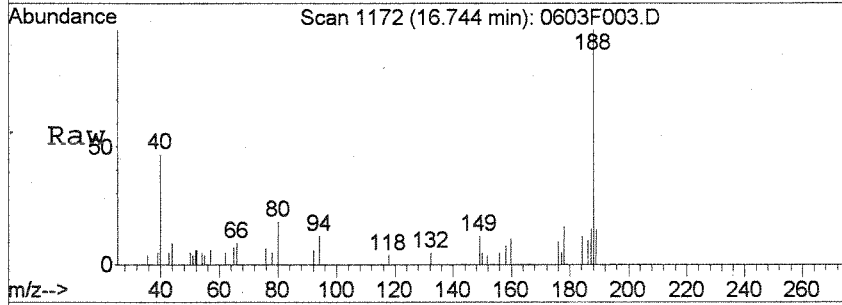
Tgt Ion:	149	Resp:	1086
Ion Ratio	Lower	Upper	
149	100		
177	18.8	0.0	49.4
150	11.5	0.0	41.7





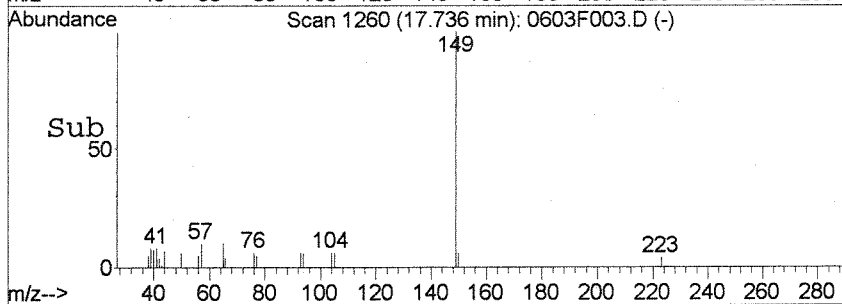
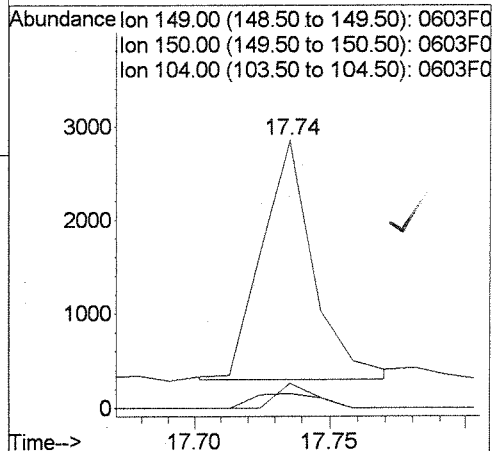
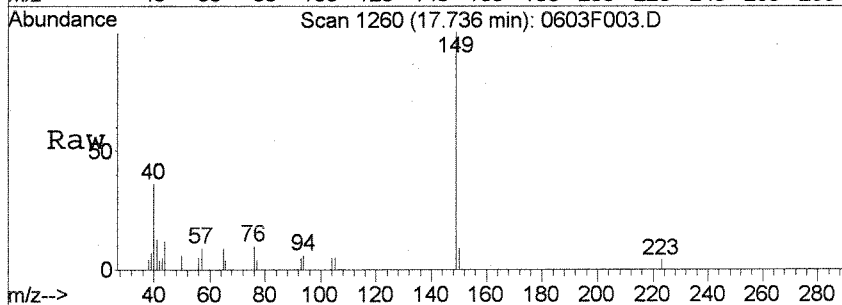
#63  
 Phenanthrene  
 Concen: 0.06 ug/ml m  
 RT: 16.74 min Scan# 1172  
 Delta R.T. -0.00 min  
 Lab File: 0603F003.D  
 Acq: 3 Jun 2010 10:43 am

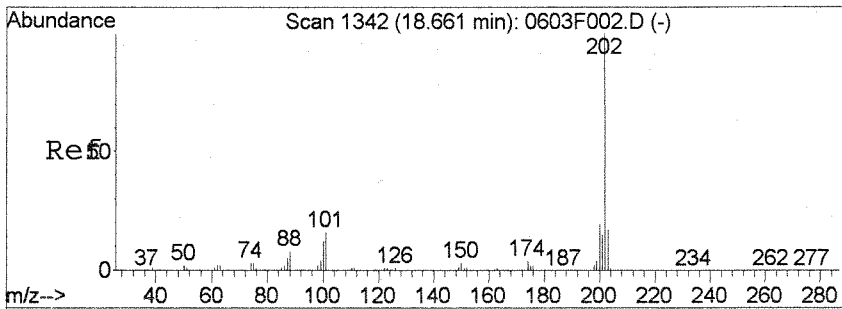
Tgt Ion	Resp	Lower	Upper
178	609		
179	0.0	0.0	45.0
176	64.4	0.0	48.5#



#66  
 Di-n-butyl Phthalate  
 Concen: 0.30 ug/ml m  
 RT: 17.74 min Scan# 1260  
 Delta R.T. -0.00 min  
 Lab File: 0603F003.D  
 Acq: 3 Jun 2010 10:43 am

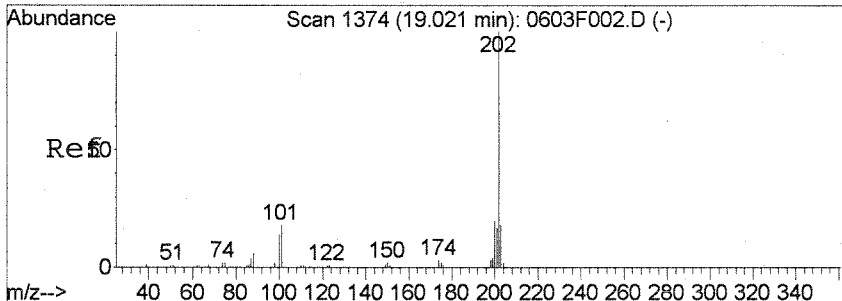
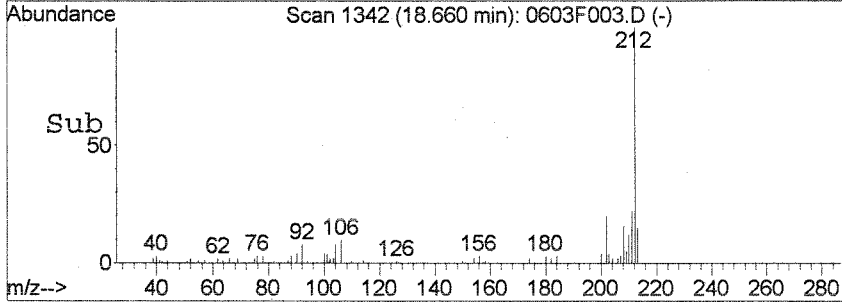
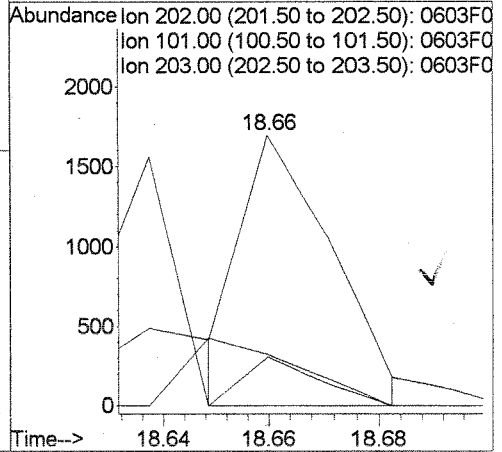
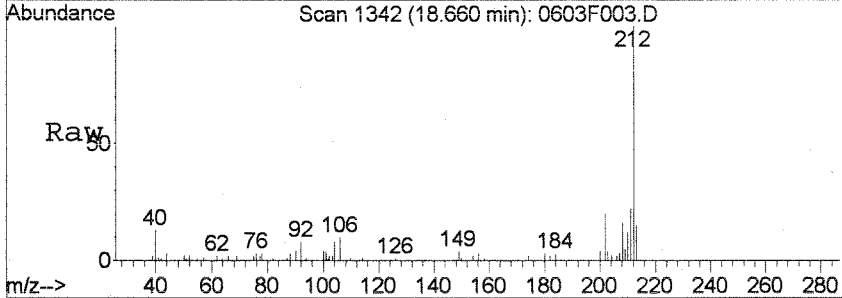
Tgt Ion	Resp	Lower	Upper
149	3331		
150	9.2	0.0	39.1
104	5.4	0.0	35.2





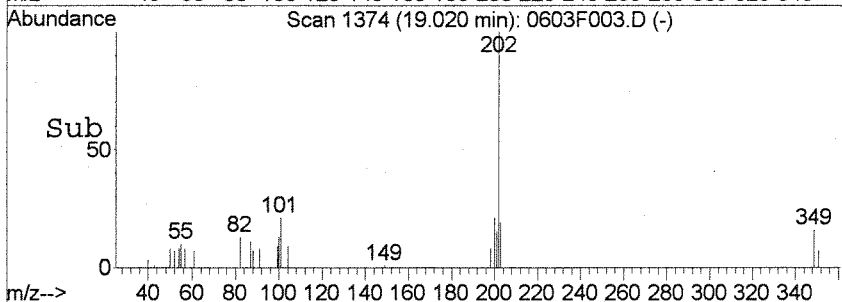
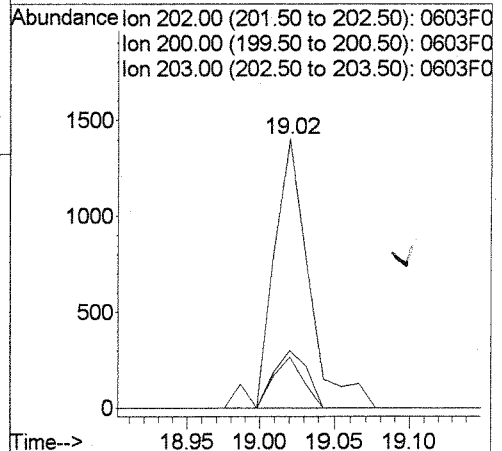
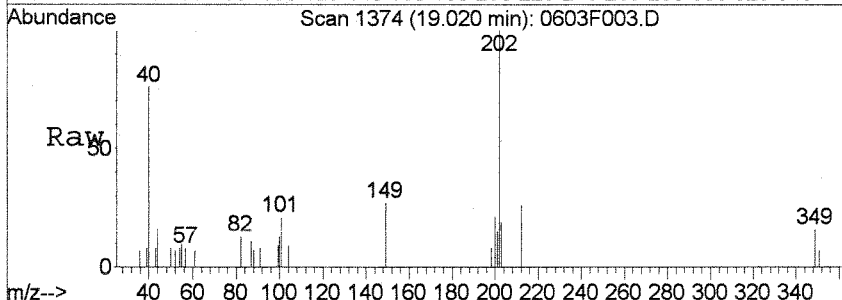
#67  
 Fluoranthene  
 Concen: 0.23 ug/ml m  
 RT: 18.66 min Scan# 1342  
 Delta R.T. -0.00 min  
 Lab File: 0603F003.D  
 Acq: 3 Jun 2010 10:43 am

Tgt Ion	Resp	Lower	Upper
202	1978		
101	18.2	0.0	43.3
203	19.1	0.0	47.4

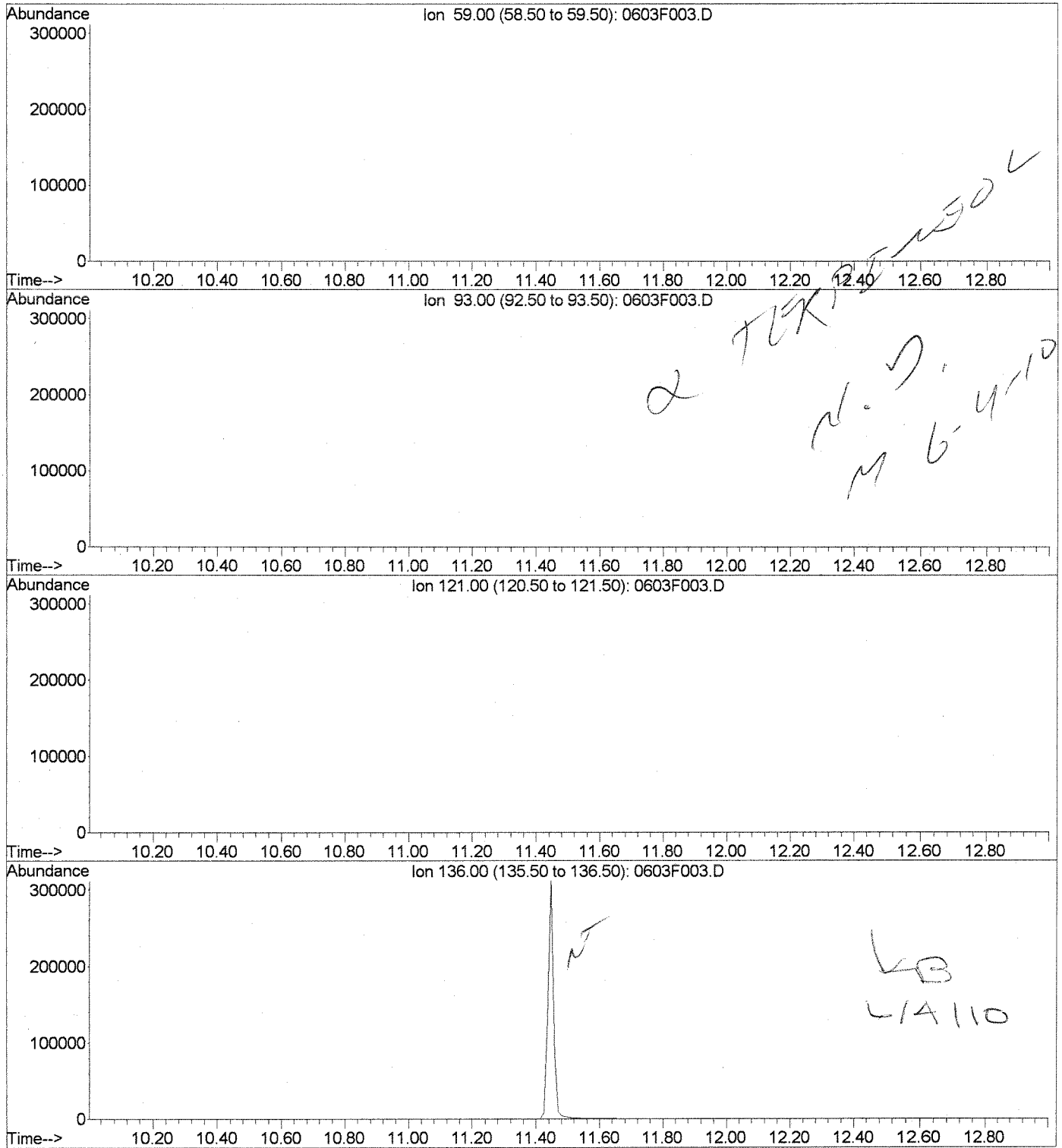


#70  
 Pyrene  
 Concen: 0.37 ug/ml  
 RT: 19.02 min Scan# 1374  
 Delta R.T. -0.00 min  
 Lab File: 0603F003.D  
 Acq: 3 Jun 2010 10:43 am

Tgt Ion	Resp	Lower	Upper
202	2359		
200	21.4	0.0	49.7
203	19.0	0.0	46.9



File : J:\MS07\DATA\060310\0603F003.D  
Operator : M.BUTCHER  
Acquired : 3 Jun 2010 10:43 am using AcqMethod 8270\_1  
Instrument : MS07  
Sample Name: KQ4706-3 MB  
Misc Info :  
Vial Number: 3





## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1005060-1  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	76.5		25	1.7	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethyl) Ether	77.9		10	0.37	1	05/24/10	06/03/10	KWG1005060	
Phenol	80.2		10	0.45	1	05/24/10	06/03/10	KWG1005060	
2-Chlorophenol	81.1		10	0.42	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroisopropyl) Ether	82.2		10	0.36	1	05/24/10	06/03/10	KWG1005060	
Hexachloroethane	73.7		10	0.26	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodi-n-propylamine	82.5		10	0.51	1	05/24/10	06/03/10	KWG1005060	
Nitrobenzene	84.6		10	0.36	1	05/24/10	06/03/10	KWG1005060	
Isophorone	78.2		10	0.35	1	05/24/10	06/03/10	KWG1005060	
2-Nitrophenol	78.7		10	0.35	1	05/24/10	06/03/10	KWG1005060	
2,4-Dimethylphenol	55.8		10	1.1	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethoxy)methane	79.0		10	0.31	1	05/24/10	06/03/10	KWG1005060	
2,4-Dichlorophenol	77.0		10	0.29	1	05/24/10	06/03/10	KWG1005060	
1,2,4-Trichlorobenzene	71.0		10	0.32	1	05/24/10	06/03/10	KWG1005060	
Naphthalene	71.9		10	0.31	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobutadiene	69.5		10	0.22	1	05/24/10	06/03/10	KWG1005060	
4-Chloro-3-methylphenol	79.6		10	0.48	1	05/24/10	06/03/10	KWG1005060	
Hexachlorocyclopentadiene	37.1		10	0.58	1	05/24/10	06/03/10	KWG1005060	
2,4,6-Trichlorophenol	98.4		10	0.19	1	05/24/10	06/03/10	KWG1005060	
2-Chloronaphthalene	88.7		10	0.43	1	05/24/10	06/03/10	KWG1005060	
Acenaphthylene	89.9		10	0.29	1	05/24/10	06/03/10	KWG1005060	
Dimethyl Phthalate	80.8		10	0.71	1	05/24/10	06/03/10	KWG1005060	
2,6-Dinitrotoluene	92.7		10	0.27	1	05/24/10	06/03/10	KWG1005060	
Acenaphthene	88.5		10	0.27	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrophenol	86.4		25	1.0	1	05/24/10	06/03/10	KWG1005060	
4-Nitrophenol	98.0		25	2.3	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrotoluene	79.0		10	0.26	1	05/24/10	06/03/10	KWG1005060	
Fluorene	90.3		10	0.23	1	05/24/10	06/03/10	KWG1005060	
4-Chlorophenyl Phenyl Ether	84.0		10	0.26	1	05/24/10	06/03/10	KWG1005060	
Diethyl Phthalate	83.1		10	0.33	1	05/24/10	06/03/10	KWG1005060	
2-Methyl-4,6-dinitrophenol	85.4		25	2.3	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodiphenylamine	82.1		10	0.34	1	05/24/10	06/03/10	KWG1005060	
1,2-Diphenylhydrazine†	89.5		10	0.23	1	05/24/10	06/03/10	KWG1005060	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1005060-1  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Bromophenyl Phenyl Ether	96.6		10	0.35	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobenzene	91.7		10	0.27	1	05/24/10	06/03/10	KWG1005060	
Pentachlorophenol	89.5		25	0.38	1	05/24/10	06/03/10	KWG1005060	
Phenanthrene	97.1		10	0.24	1	05/24/10	06/03/10	KWG1005060	
Anthracene	94.4		10	0.33	1	05/24/10	06/03/10	KWG1005060	
Di-n-butyl Phthalate	105		10	0.46	1	05/24/10	06/03/10	KWG1005060	
Fluoranthene	116		10	0.45	1	05/24/10	06/03/10	KWG1005060	
Benzidine	196	D	100	58	2	05/24/10	06/03/10	KWG1005060	*
Pyrene	86.8		10	0.47	1	05/24/10	06/03/10	KWG1005060	
Butyl Benzyl Phthalate	100		10	0.55	1	05/24/10	06/03/10	KWG1005060	
3,3'-Dichlorobenzidine	81.6		25	0.48	1	05/24/10	06/03/10	KWG1005060	
Benz(a)anthracene	101		10	0.25	1	05/24/10	06/03/10	KWG1005060	
Chrysene	104		10	0.40	1	05/24/10	06/03/10	KWG1005060	
Bis(2-ethylhexyl) Phthalate	105		10	0.34	1	05/24/10	06/03/10	KWG1005060	
Di-n-octyl Phthalate	111		10	0.38	1	05/24/10	06/03/10	KWG1005060	
Benzo(b)fluoranthene	106		10	0.27	1	05/24/10	06/03/10	KWG1005060	
Benzo(k)fluoranthene	105		10	0.32	1	05/24/10	06/03/10	KWG1005060	
Benzo(a)pyrene	110		10	0.37	1	05/24/10	06/03/10	KWG1005060	
Indeno(1,2,3-cd)pyrene	95.6		10	0.45	1	05/24/10	06/03/10	KWG1005060	
Dibenz(a,h)anthracene	98.7		10	0.41	1	05/24/10	06/03/10	KWG1005060	
Benzo(g,h,i)perylene	93.6		10	0.41	1	05/24/10	06/03/10	KWG1005060	

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	77	34-112	06/03/10	Acceptable
Phenol-d6	78	34-116	06/03/10	Acceptable
Nitrobenzene-d5	84	43-120	06/03/10	Acceptable
2-Fluorobiphenyl	92	45-115	06/03/10	Acceptable
2,4,6-Tribromophenol	97	34-134	06/03/10	Acceptable
Terphenyl-d14	103	13-152	06/03/10	Acceptable

Comments: \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** Lab Control Sample  
**Lab Code:** KWG1005060-1

**Units:** ug/L  
**Basis:** NA

† Analyte Comments

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1,2-Diphenylhydrazine                      This compound is quantitated as Azobenzene.

Comments: \_\_\_\_\_

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## Exception Report

**Data File:** J:\MS07\DATA\060310\0603F004.D  
**Lab ID:** KWG1005060-1  
**RunType:** LCS  
**Matrix:** WATER

**Date Acquired:** 06/03/2010 11:28  
**Date Quantitated:** 06/04/2010 08:22  
**Batch ID:** KWG1005376  
**Analysis Method:** 625  
**MethodJoinID:** MJ104

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA		x
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

5067  
5005

### Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Benzidine	119.6	NA	30	OHC
Continuing Calibration Recovery	Benzyl Alcohol	27.8	NA	20	NTJ
	Aniline	39.9	NA	20	I
	Benzidine	99.0	NA	20	OHC
Above Highest ICAL Level	Benzidine	227.79	NA	200	SPE DELIVER

Primary Review: MB-4-10  
 Secondary Review: LB 4/10

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>		<b>Matrix:</b>	WATER
<b>Prod Code:</b>	625 SVO	<b>Collect Date:</b>		<b>Receive Date:</b>	05/28/2010
<b>Analysis Lot:</b>	KWG1005376	<b>Prep Lot:</b>	KWG1005060	<b>Report Group:</b>	
<b>Analysis Method:</b>	625	<b>Prep Method:</b>	EPA 3520C		
<b>Prep Ref:</b>	913130	<b>Prep Date:</b>	05/24/2010		
<b>Quant Method:</b>	J:\MS07\METHODS\8270_625\0602BNC7.M			<b>Calibration ID:</b>	CAL9525
<b>Title:</b>				<b>Method ID:</b>	MJ104
<b>Tune Ref:</b>	J:\MS07\DATA\060310\0603F001.D			<b>Quant based on Method</b>	
<b>MB Ref:</b>	J:\MS07\DATA\060310\0603F003.D				
<b>Data File:</b>	J:\MS07\DATA\060310\0603F004.D			<b>Instrument:</b>	MS07
<b>Acqu Date:</b>	06/03/2010 11:28	<b>Quant Date:</b>	06/04/2010 08:22	<b>Vial:</b>	4
<b>Run Type:</b>	LCS			<b>Dilution:</b>	1.0
<b>Lab ID:</b>	KWG1005060-1			<b>Soln Conc. Units:</b>	ug/ml

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	1,4-Dichlorobenzene-d4	9.35	0.00	152	123781	40.00	OK
2	Naphthalene-d8	11.45	0.00	136	514970	40.00	OK
3	Acenaphthene-d10	14.31	0.00	164	224915	40.00	OK
4	Phenanthrene-d10	16.70	-0.01	188	265062	40.00	OK
5	Chrysene-d12	21.14	0.00	240	314868	40.00	OK
6	Perylene-d12	24.32	0.00	264	238065	40.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Fluorophenol	7.15	0.01	0.00	112	379949	115.45	77	34-112	OK
1	Phenol-d6	8.88	0.00	0.00	99	537210	117.04	78	34-116	OK
1	Nitrobenzene-d5	10.29	0.00	0.00	82	378292	84.37	84	43-120	OK
3	2-Fluorobiphenyl	13.25	0.01	0.00	172	679042	92.09	92	45-115	OK
4	2,4,6-Tribromophenol	15.60	0.00	0.00	330	156681	145.84	97	34-134	OK
5	Terphenyl-d14	19.33	0.00	0.00	244	498133	103.32	103	13-152	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	N-Nitrosodimethylamine	4.16	0.01	0.00	42	226332m	76.54	76.5		
1	Pyridine	4.19		0.00	79	513340m	122.49	122		
1	Aniline	8.83	0.01	0.00	93	405020	87.31	87.3		
1	Bis(2-chloroethyl) Ether	8.96		0.00	93	291555	77.90	77.9		
1	Phenol	8.90	0.01	0.00	94	376835	80.18	80.2		
1	2-Chlorophenol	9.03		0.00	128	328619	81.08	81.1		
1	1,3-Dichlorobenzene	9.25		0.00	146	317533	73.87	73.9		
1	1,4-Dichlorobenzene	9.38	0.01	0.00	146	319847	73.06	73.1		
1	1,2-Dichlorobenzene	9.63	0.01	0.00	146	323050	77.95	78.0		
1	Benzyl Alcohol	9.66		0.00	108	215169	86.44	86.4		

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F004.D  
 Acqu Date: 06/03/2010 11:28  
 Run Type: LCS  
 Lab ID: KWG1005060-1

Quant Date: 06/04/2010 08:22

Instrument: MS07  
 Vial: 4  
 Dilution: 1.0  
 Soln Conc. Units: ug/ml

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Bis(2-chloroisopropyl) Ether	9.87		0.00	45	510665	82.24	82.2		
1	2-Methylphenol	9.87		0.00	107	240027	78.86	78.9		
1	Hexachloroethane	10.18	0.01	0.00	117	146713	73.65	73.7		
1	N-Nitrosodi-n-propylamine	10.10		0.00	70	251306	82.49	82.5		
1	4-Methylphenol	10.14		0.00	107	384761	83.24	83.2		
1	Nitrobenzene	10.32		0.00	77	356890	84.62	84.6		
2	Isophorone	10.75	0.01	0.00	82	725992	78.15	78.2		
2	2-Nitrophenol	10.85		0.00	139	201465	78.70	78.7		
2	2,4-Dimethylphenol	10.99	-0.01	0.00	122	191073	55.83	55.8		
2	Bis(2-chloroethoxy)methane	11.12		0.00	93	412464	79.04	79.0		
2	2,4-Dichlorophenol	11.27		0.00	162	299148	77.04	77.0		
2	Benzoic Acid	11.32	0.01	0.00	122	205984	70.22	70.2		
2	1,2,4-Trichlorobenzene	11.37		0.00	180	292826	71.03	71.0		
2	Naphthalene	11.50	0.01	0.00	128	887781	71.85	71.9		
2	4-Chloroaniline	11.62		0.00	127	427192	78.37	78.4		
2	Hexachlorobutadiene	11.72		0.00	225	181629	69.45	69.5		
2	4-Chloro-3-methylphenol	12.47	0.01	0.00	107	322538	79.57	79.6		
2	2-Methylnaphthalene	12.62		0.00	142	583146	74.17	74.2		
3	Hexachlorocyclopentadiene	12.88	-0.01	0.00	237	75592	37.07	37.1		
3	2,4,6-Trichlorophenol	13.12		0.00	196	228408	98.44	98.4		
3	2,4,5-Trichlorophenol	13.19	0.01	0.00	196	249349	96.44	96.4		
3	2-Chloronaphthalene	13.41		0.00	162	576894	88.69	88.7		
3	2-Nitroaniline	13.61		0.00	65	195186	93.27	93.3		
3	Acenaphthylene	14.08	0.01	0.00	152	900599	89.87	89.9		
3	Dimethyl Phthalate	13.94		0.00	163	618138	80.84	80.8		
3	2,6-Dinitrotoluene	14.03	0.01	0.00	165	160668	92.73	92.7		
3	Acenaphthene	14.37		0.00	154	506044	88.48	88.5		
3	3-Nitroaniline	14.29		0.00	138	167150	91.68	91.7		
3	2,4-Dinitrophenol	14.46		0.00	184	86889	86.42	86.4		
3	Dibenzofuran	14.65		0.00	168	802264	88.97	89.0		
3	4-Nitrophenol	14.65		0.00	109	96695	97.95	98.0		
3	2,4-Dinitrotoluene	14.67		0.00	165	173558	79.04	79.0		
3	Fluorene	15.20		0.00	166	610483	90.34	90.3		
3	4-Chlorophenyl Phenyl Ether	15.23	0.01	0.00	204	290642	84.01	84.0		
3	Diethyl Phthalate	15.09		0.00	149	614062	83.07	83.1		
3	4-Nitroaniline	15.29		0.00	138	157749	99.97	100		
3	2-Methyl-4,6-dinitrophenol	15.33	0.01	0.00	198	102019	85.42	85.4		
3	N-Nitrosodiphenylamine	15.43		0.00	169	369663	82.05	82.1		
3	1,2-Diphenylhydrazine	15.49	0.01	0.00	77	679985	89.50	89.5		
4	4-Bromophenyl Phenyl Ether	16.02	0.01	0.00	248	154399	96.62	96.6		
4	Hexachlorobenzene	16.09		0.00	284	169795	91.67	91.7		
4	Pentachlorophenol	16.43		0.00	266	93135	89.48	89.5		

U: Undetected at or above MDL  
 F: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ? : Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F004.D  
 Acqu Date: 06/03/2010 11:28  
 Run Type: LCS  
 Lab ID: KWG1005060-1

Quant Date: 06/04/2010 08:22

Instrument: MS07  
 Vial: 4  
 Dilution: 1.0  
 Soln Conc. Units: ug/ml

**Target Compounds**

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
4	Phenanthrene	16.75	0.01	0.00	178	683730	97.09	97.1		
4	Anthracene	16.84		0.00	178	699183	94.44	94.4		
4	Di-n-butyl Phthalate	17.74		0.00	149	844813	104.78	105		
4	Fluoranthene	18.67	0.01	0.00	202	741519	116.13	116		
5	Benzidine	18.93		0.00	184	602244	227.79	228	E	NR
5	Pyrene	19.04	0.02	0.00	202	729571	86.81	86.8		
5	Butyl Benzyl Phthalate	20.16		0.00	149	479461	100.11	100		
5	3,3'-Dichlorobenzidine	21.12		0.00	252	268321	81.55	81.6		
5	Benz(a)anthracene	21.12	0.01	0.00	228	744251	100.57	101		
5	Chrysene	21.20		0.00	228	744699	103.95	104		
5	Bis(2-ethylhexyl) Phthalate	21.32	0.01	0.00	149	716961	105.19	105		
6	Di-n-octyl Phthalate	22.79	0.02	0.00	149	1272973	110.73	111		
6	Benzo(b)fluoranthene	23.46	0.01	0.00	252	649409m	105.89	106		
6	Benzo(k)fluoranthene	23.53		0.00	252	670531m	105.35	105		
6	Benzo(a)pyrene	24.20	0.02	0.00	252	559732	109.89	110		
6	Indeno(1,2,3-cd)pyrene	26.78	0.02	0.00	276	421863	95.63	95.6		
6	Dibenz(a,h)anthracene	26.86	0.02	0.00	278	463660	98.68	98.7		
6	Benzo(g,h,i)perylene	27.35	0.01	0.00	276	445874	93.64	93.6		
	Bis(chloromethyl) Ether				0	0		10	UJ	NR
	alpha-Terpineol, Total				0	0		10	UJ	NR
	2,3,7,8-Tetrachlorodibenzo-p-di				0	0		50	UJ	NR

Prep Amount: 1000 mL      Dilution: 1.0  
 Prep Final Vol: 1 mL      Unit Factor: 1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 #: Acceptance criteria not applicable  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ? : Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 12:45:12 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	123781	40.00	ug/ml	0.01
21) Naphthalene-d8	11.45	136	514970	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	224915	40.00	ug/ml	0.01
58) Phenanthrene-d10	16.70	188	265062	40.00	ug/ml	0.00
68) Chrysene-d12	21.14	240	314868	40.00	ug/ml	0.01
77) Perylene-d12	24.32	264	238065	40.00	ug/ml	0.01

System Monitoring Compounds

4) 2-Fluorophenol	7.15	112	379949	115.45	ug/ml	0.01
Spiked Amount	150.000	Range	21 - 100	Recovery	=	76.97%
7) Phenol-d6	8.88	99	537210	117.04	ug/ml	0.01
Spiked Amount	150.000	Range	10 - 94	Recovery	=	78.03%
19) Nitrobenzene-d5	10.29	82	378292	84.37	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	84.37%
38) 2-Fluorobiphenyl	13.25	172	679042	92.09	ug/ml	0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	92.09%
59) 2,4,6-Tribromophenol	15.60	330	156681	145.84	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	97.23%
71) Terphenyl-d14	19.33	244	498133	103.32	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	103.32%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.16	42	226332m	76.54	ug/ml	
3) Pyridine	4.19	79	513340m	122.49	ug/ml	
5) Aniline	8.83	93	405020	87.31	ug/ml	75
6) Bis(2-chloroethyl) Ether	8.96	93	291555	77.90	ug/ml	94
8) Phenol	8.90	94	376835	80.18	ug/ml	95
9) 2-Chlorophenol	9.03	128	328619	81.08	ug/ml	91
10) 1,3-Dichlorobenzene	9.25	146	317533	73.87	ug/ml	96
11) 1,4-Dichlorobenzene	9.38	146	319847	73.06	ug/ml	99
12) 1,2-Dichlorobenzene	9.63	146	323050	77.95	ug/ml	98
13) Benzyl Alcohol	9.66	108	215169	86.44	ug/ml	99
14) Bis(2-chloroisopropyl) Eth	9.87	45	510665	82.24	ug/ml	79
15) 2-Methylphenol	9.87	107	240027	78.86	ug/ml	96
16) Hexachloroethane	10.18	117	146713	73.65	ug/ml	95
17) N-Nitrosodi-n-propylamine	10.10	70	251306	82.49	ug/ml	90
18) 4-Methylphenol	10.14	107	384761	83.24	ug/ml	99
20) Nitrobenzene	10.32	77	356890	84.62	ug/ml	94
22) Isophorone	10.75	82	725992	78.15	ug/ml	99
23) 2-Nitrophenol	10.85	139	201465	78.70	ug/ml	91
24) 2,4-Dimethylphenol	10.99	122	191073	55.83	ug/ml	97
25) Bis(2-chloroethoxy)methane	11.12	93	412464	79.04	ug/ml	100

(#) = qualifier out of range (m) = manual integration



Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 12:45:12 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.27	162	299148	77.04	ug/ml	99
27) Benzoic Acid	11.32	122	205984	70.22	ug/ml	98
28) 1,2,4-Trichlorobenzene	11.37	180	292826	71.03	ug/ml	99
29) Naphthalene	11.50	128	887781	71.85	ug/ml	99
30) 4-Chloroaniline	11.62	127	427192	78.37	ug/ml	96
31) Hexachlorobutadiene	11.72	225	181629	69.45	ug/ml	97
32) 4-Chloro-3-methylphenol	12.47	107	322538	79.57	ug/ml#	56
33) 2-Methylnaphthalene	12.62	142	583146	74.17	ug/ml	100
35) Hexachlorocyclopentadiene	12.88	237	75592	37.07	ug/ml	96
36) 2,4,6-Trichlorophenol	13.12	196	228408	98.44	ug/ml	99
37) 2,4,5-Trichlorophenol	13.19	196	249349	96.44	ug/ml	98
39) 2-Chloronaphthalene	13.41	162	576894	88.69	ug/ml	97
40) 2-Nitroaniline	13.61	65	195186	93.27	ug/ml	99
41) Acenaphthylene	14.08	152	900599	89.87	ug/ml	99
42) Dimethyl Phthalate	13.94	163	618138	80.84	ug/ml	100
43) 2,6-Dinitrotoluene	14.03	165	160668	92.73	ug/ml	78
44) Acenaphthene	14.37	154	506044	88.48	ug/ml	97
45) 3-Nitroaniline	14.29	138	167150	91.68	ug/ml	98
46) 2,4-Dinitrophenol	14.46	184	86889	86.42	ug/ml	93
47) Dibenzofuran	14.65	168	802264	88.97	ug/ml	97
48) 4-Nitrophenol	14.65	109	96695	97.95	ug/ml	93
49) 2,4-Dinitrotoluene	14.67	165	173558	79.04	ug/ml	82
50) 2,3,4,6-Tetrachlorophenol	14.88	232	155313	82.39	ug/ml	96
51) Fluorene	15.20	166	610483	90.34	ug/ml	99
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	290642	84.01	ug/ml	92
53) Diethyl Phthalate	15.09	149	614062	83.07	ug/ml	97
54) 4-Nitroaniline	15.29	138	157749	99.97	ug/ml	97
55) 2-Methyl-4,6-dinitrophenol	15.33	198	102019	85.42	ug/ml#	35
56) N-Nitrosodiphenylamine	15.43	169	369663	82.05	ug/ml	99
57) 1,2-Diphenylhydrazine	15.49	77	679985	89.50	ug/ml	97
60) 4-Bromophenyl Phenyl Ether	16.02	248	154399	96.62	ug/ml	95
61) Hexachlorobenzene	16.09	284	169795	91.67	ug/ml	85
62) Pentachlorophenol	16.43	266	93135	89.48	ug/ml	98
63) Phenanthrene	16.75	178	683730	97.09	ug/ml	99
64) Anthracene	16.84	178	699183	94.44	ug/ml	99
65) Carbazole	17.12	167	674848	111.66	ug/ml	100
66) Di-n-butyl Phthalate	17.74	149	844813	104.78	ug/ml	99
67) Fluoranthene	18.67	202	741519	116.13	ug/ml	99
69) Benzidine	18.93	184	602244	227.79	ug/ml	100
70) Pyrene	19.04	202	729571	86.81	ug/ml	100
72) Butyl Benzyl Phthalate	20.16	149	479461	100.11	ug/ml	90

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 12:45:12 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.12	252	268321	81.55	ug/ml	99
74) Benz(a)anthracene	21.12	228	744251	100.57	ug/ml	99
75) Chrysene	21.20	228	744699	103.95	ug/ml	99
76) Bis(2-ethylhexyl) Phthalat	21.32	149	716961	105.19	ug/ml	99
78) Di-n-octyl Phthalate	22.79	149	1272973	110.73	ug/ml	99
79) Benzo(b)fluoranthene	23.46	252	649409m	105.89	ug/ml	
80) Benzo(k)fluoranthene	23.53	252	670531m	105.35	ug/ml	
81) Benzo(a)pyrene	24.20	252	559732	109.89	ug/ml	99
82) Indeno(1,2,3-cd)pyrene	26.78	276	421863	95.63	ug/ml	98
83) Dibenz(a,h)anthracene	26.86	278	463660	98.68	ug/ml	99
84) Benzo(g,h,i)perylene	27.35	276	445874	93.64	ug/ml	95

-----  
 (#) = qualifier out of range (m) = manual integration

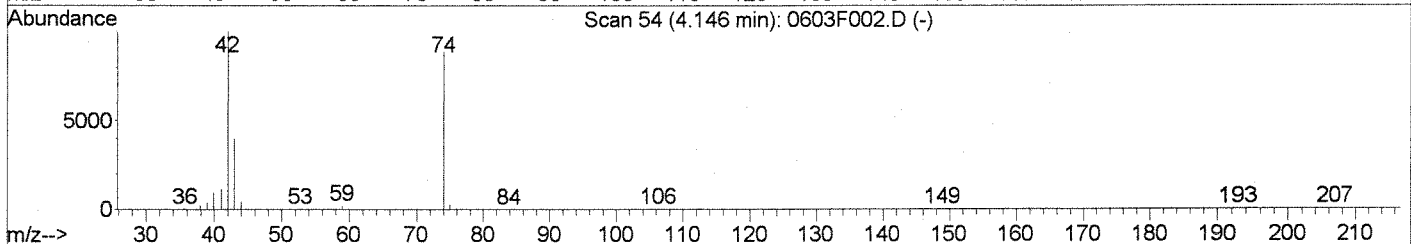
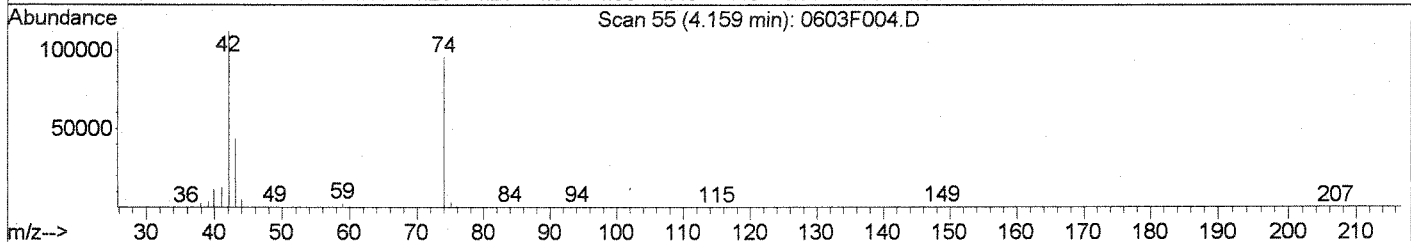
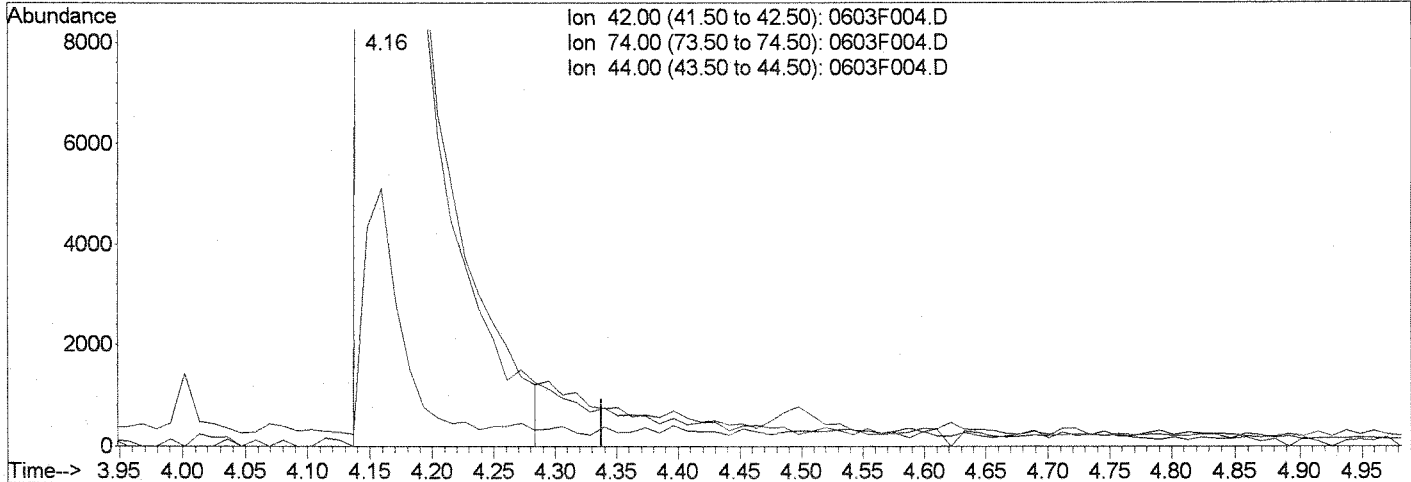


Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 12:45 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F004.D

(2) N-Nitrosodimethylamine (T)

4.16min 74.12ug/ml

response 219174

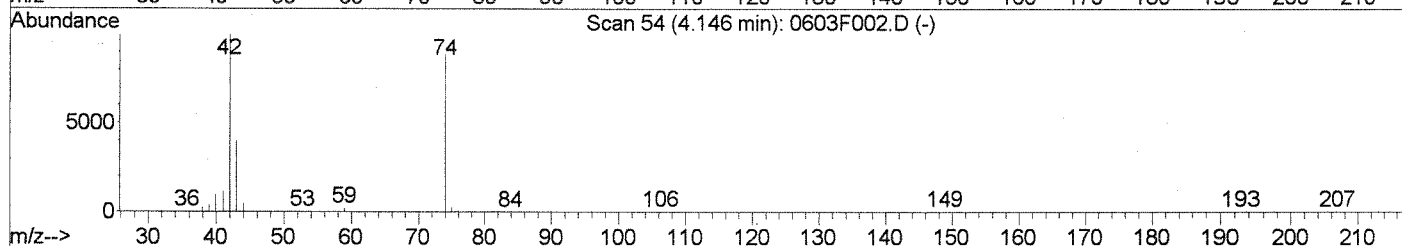
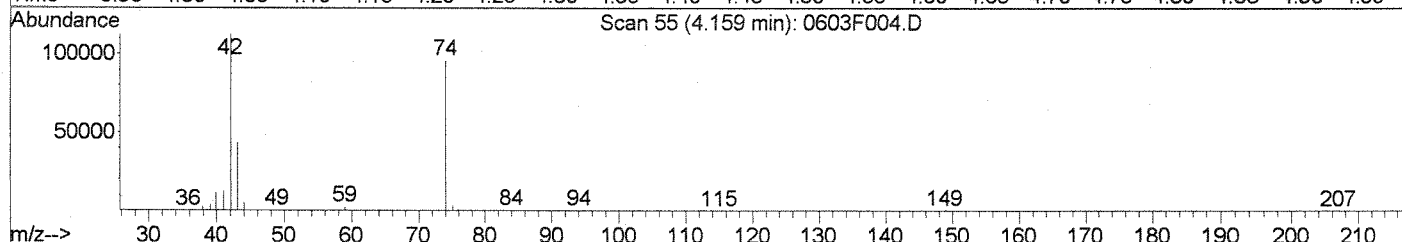
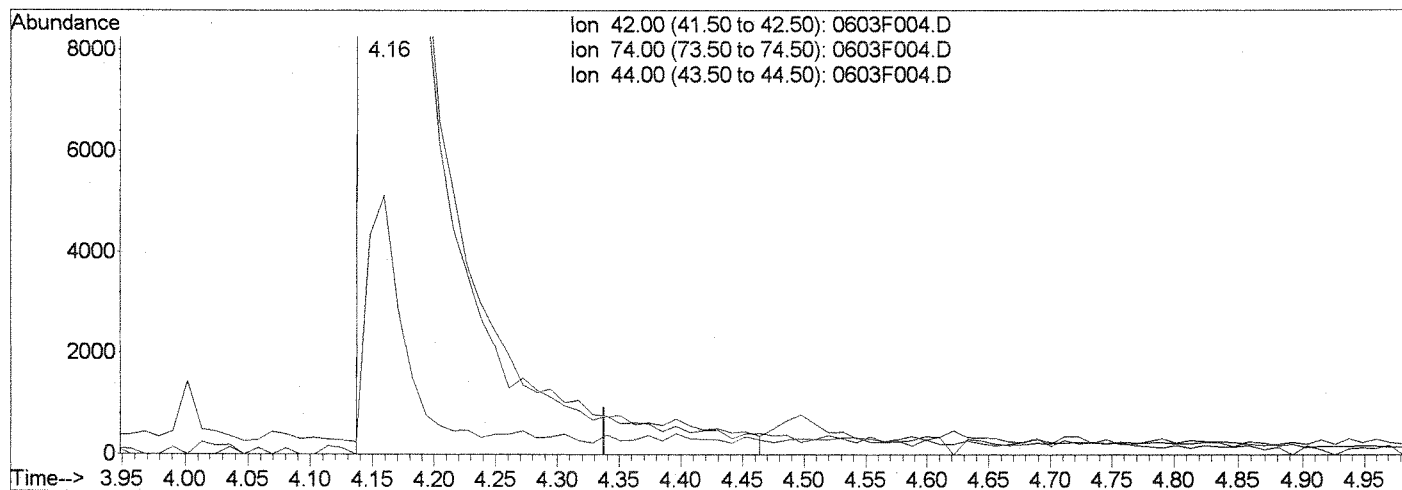
Ion	Exp%	Act%
42.00	100	100
74.00	79.30	85.14
44.00	4.40	4.29
0.00	0.00	0.00

Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:21 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F004.D

(2) N-Nitrosodimethylamine (T)

4.16min 76.54ug/ml m

response 226332

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	85.25
44.00	4.40	4.56
0.00	0.00	0.00

*Handwritten signature: SC M B U W*

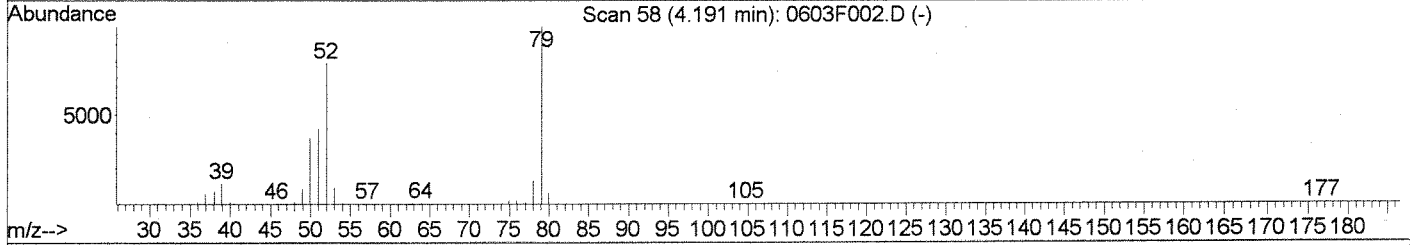
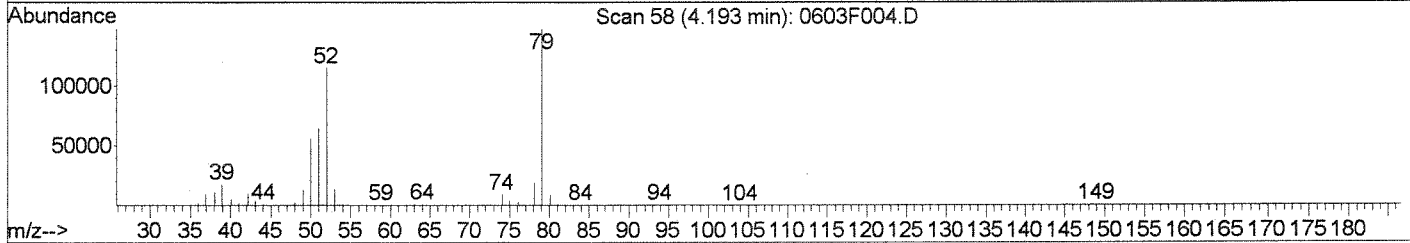
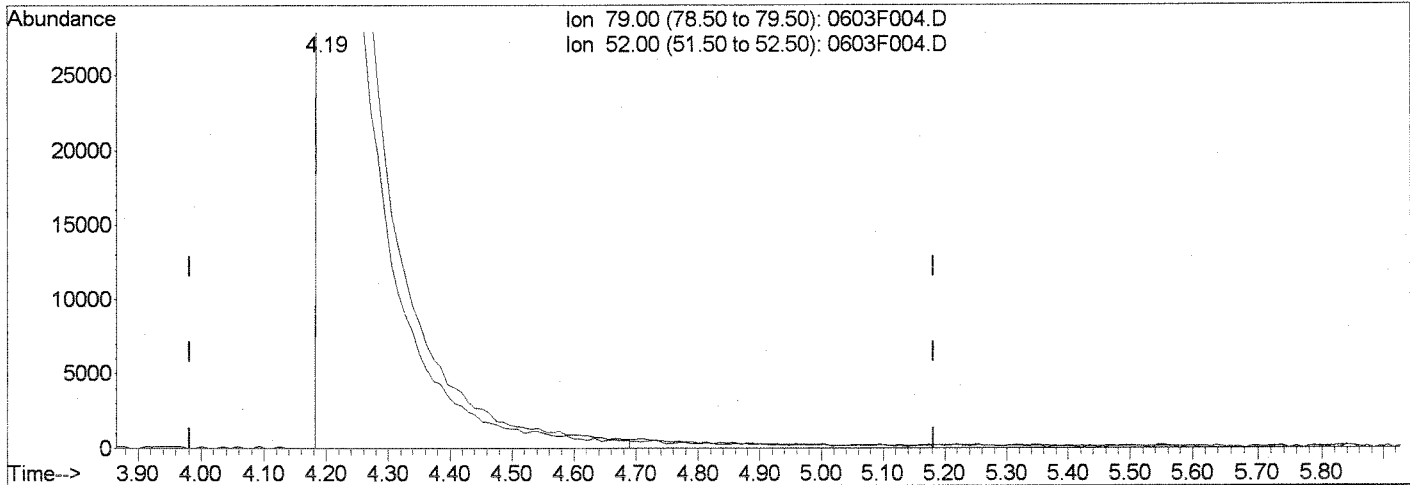
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Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:21 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F004.D

(3) Pyridine (T)

4.19min 120.22ug/ml

response 503822

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	77.76
0.00	0.00	0.00
0.00	0.00	0.00

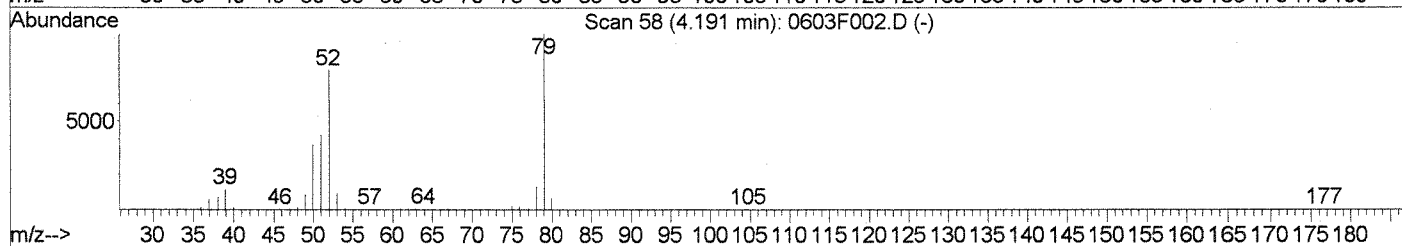
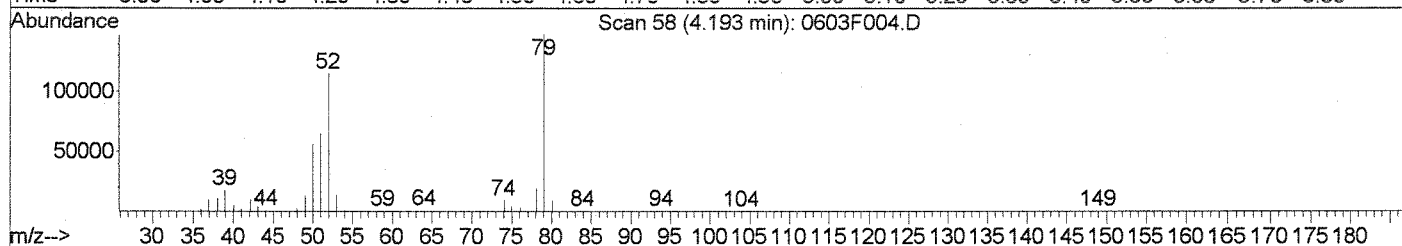
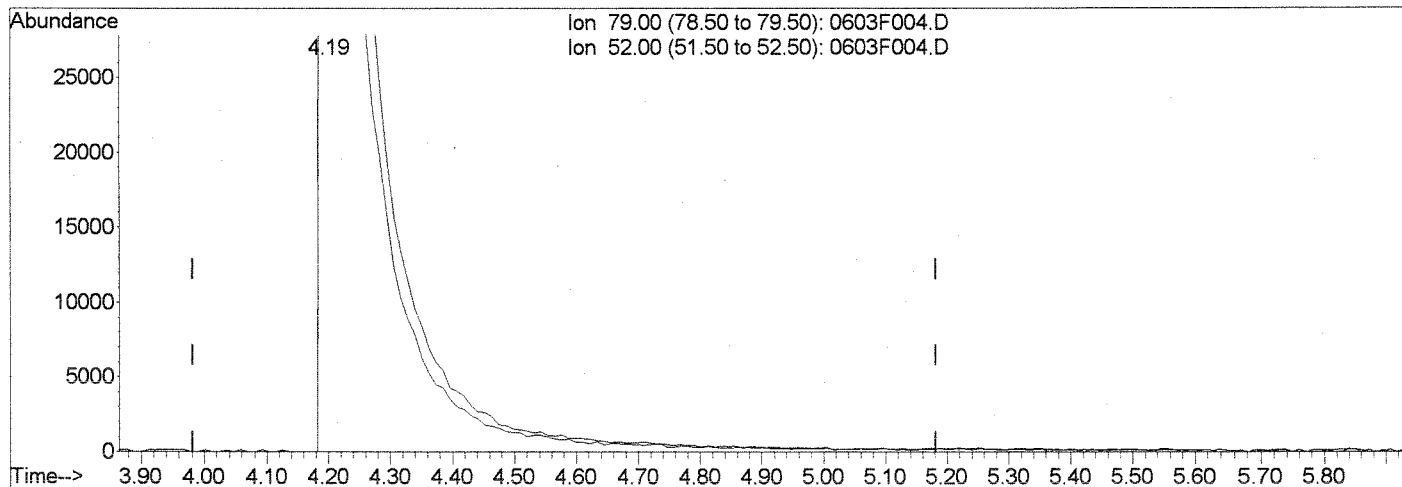
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:21 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F004.D

(3) Pyridine (T)  
 4.19min 122.49ug/ml m  
 response 513340  

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	77.77
0.00	0.00	0.00
0.00	0.00	0.00

*JC*  
*6-4-10*

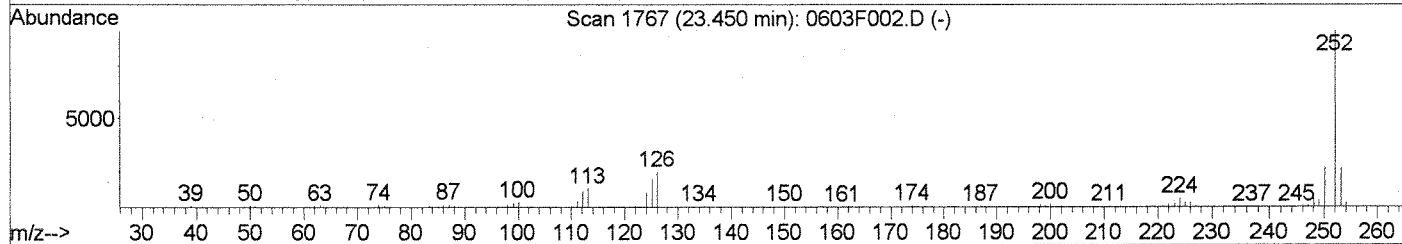
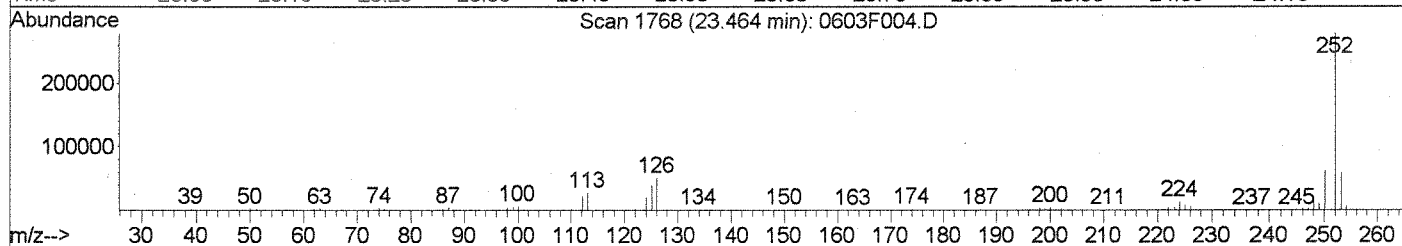
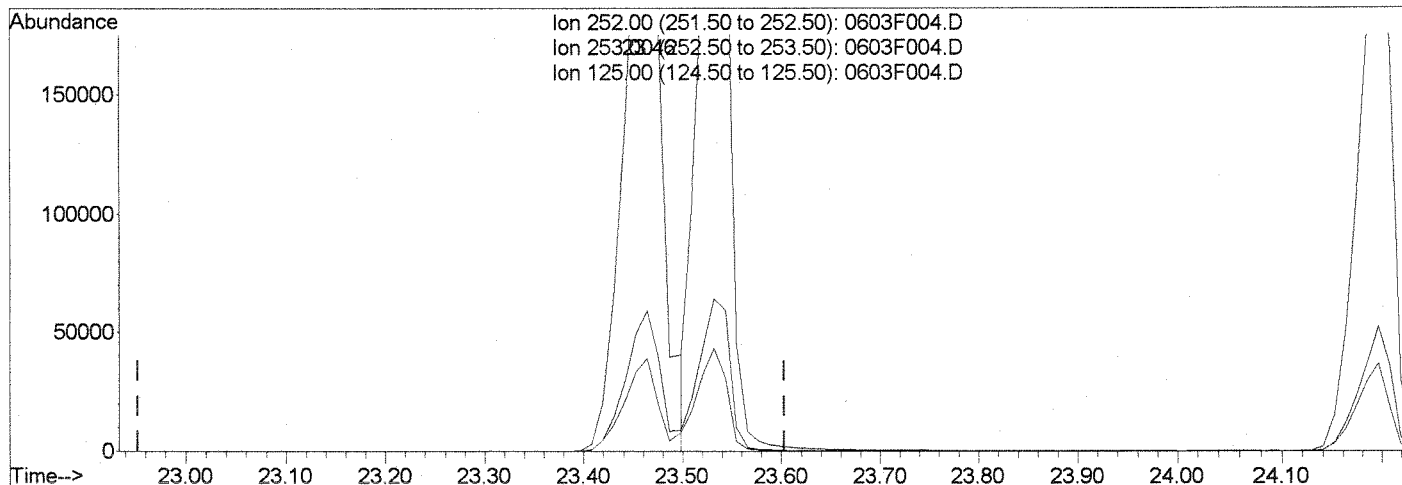
*LB*  
*6/4/10*

Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:21 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F004.D

(79) Benzo(b)fluoranthene (T)

23.46min 110.37ug/ml

response 676877

Ion	Exp%	Act%
252.00	100	100
253.00	21.80	21.16
125.00	14.40	13.63
0.00	0.00	0.00

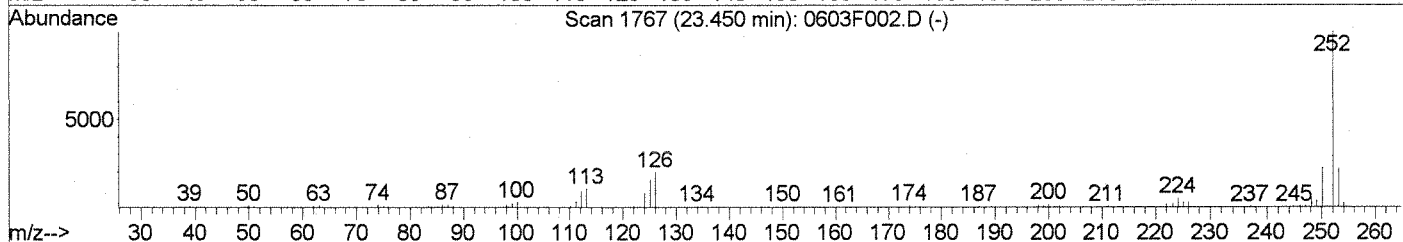
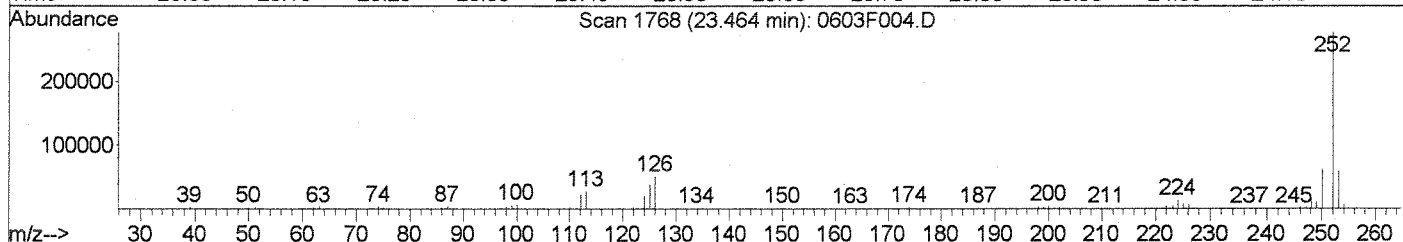
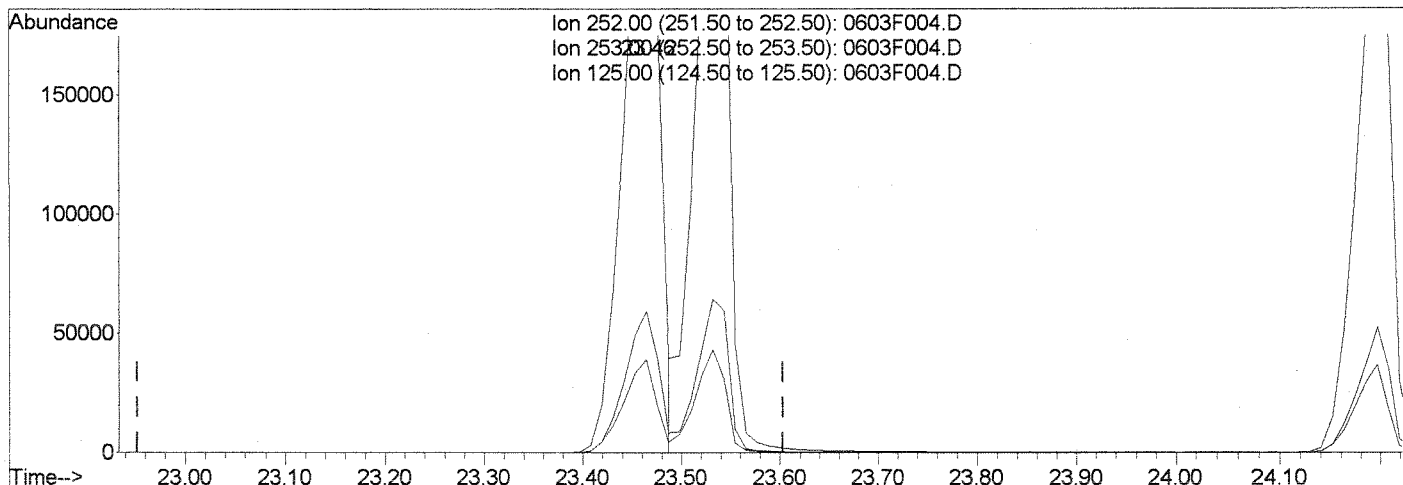


Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:22 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F004.D

Ion	Exp%	Act%
252.00	100	100
253.00	21.80	21.21
125.00	14.40	14.03
0.00	0.00	0.00

(79) Benzo(b)fluoranthene (T)  
 23.46min 105.89ug/ml m  
 response 649409

*Handwritten notes:* JF  
 6-4-10

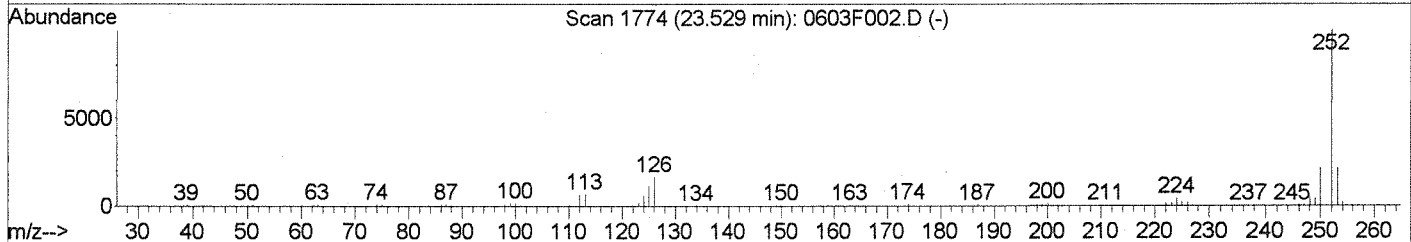
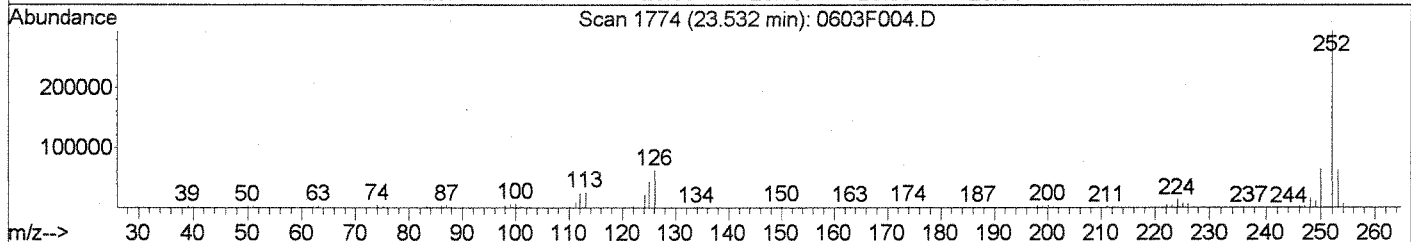
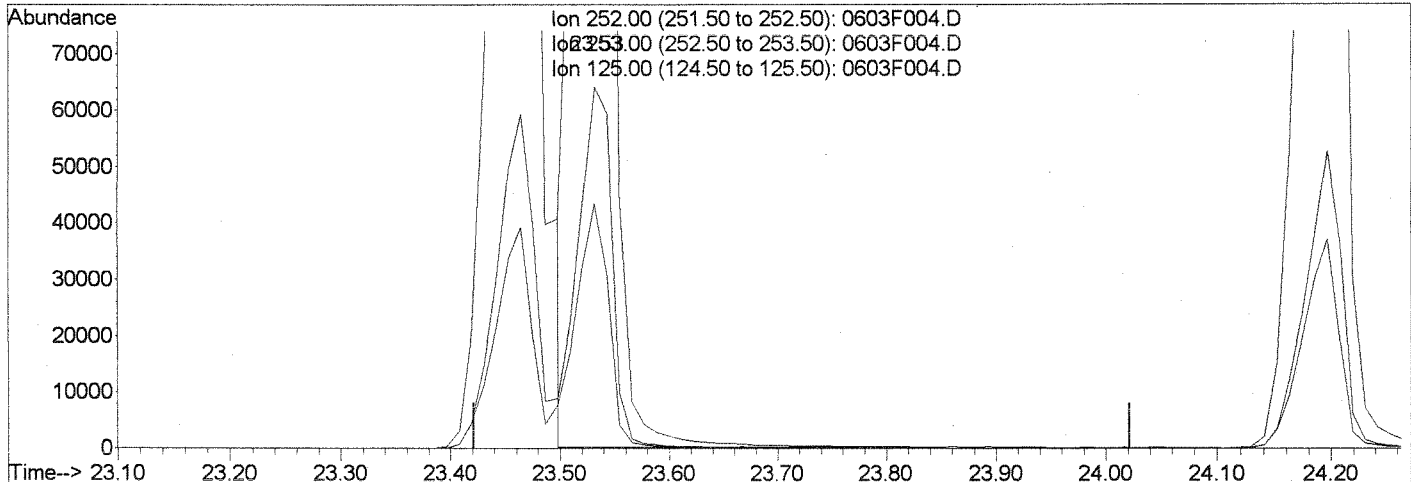
*Handwritten notes:* LB  
 4/11/10

Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:22 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F004.D

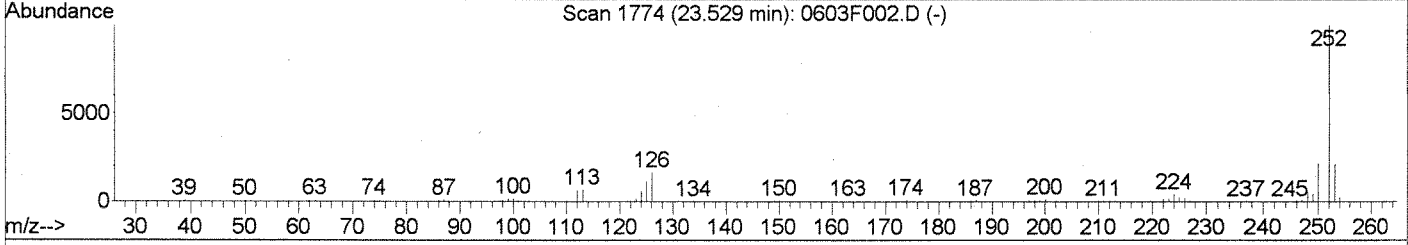
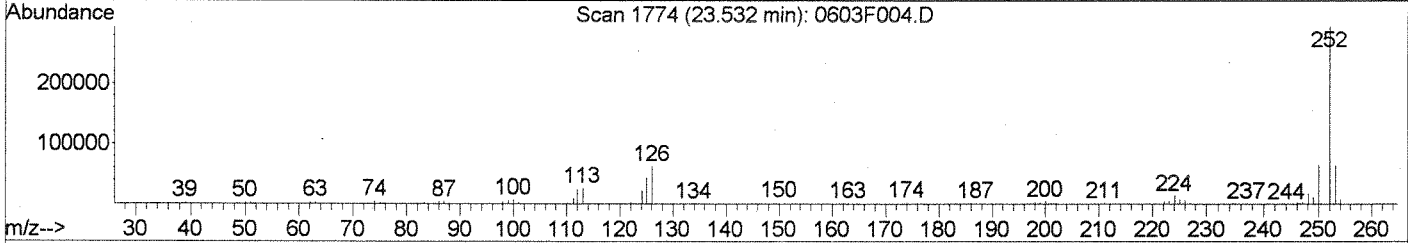
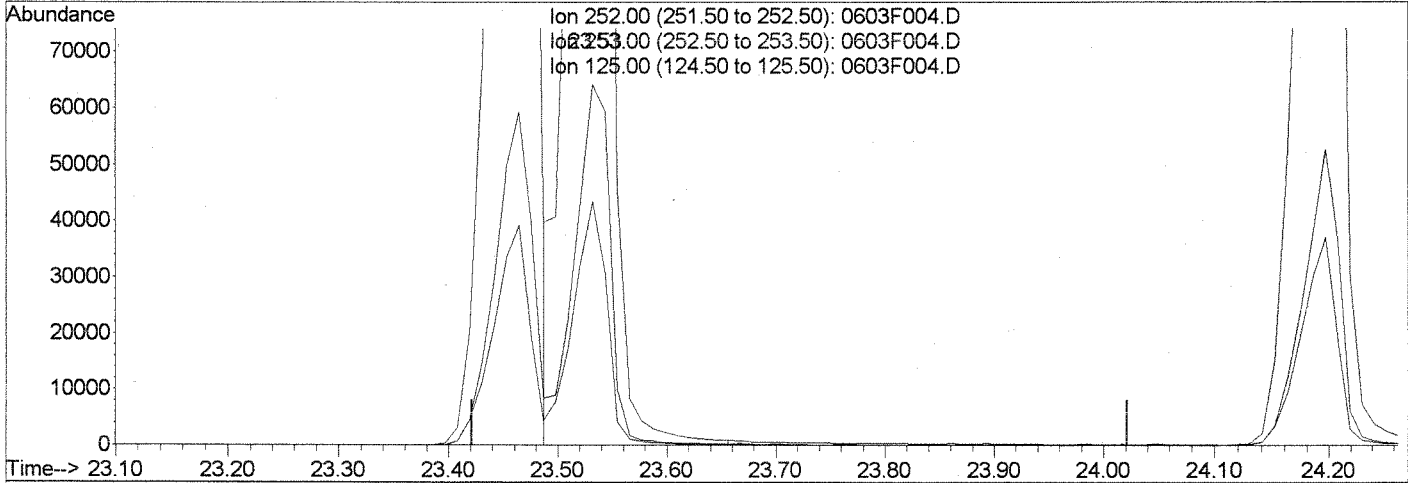
(80) Benzo(k)fluoranthene (T)		
23.53min	101.11ug/ml	
response	643533	
Ion	Exp%	Act%
252.00	100	100
253.00	21.30	21.74
125.00	13.20	14.38
0.00	0.00	0.00

Data File : J:\MS07\DATA\060310\0603F004.D  
 Acq On : 3 Jun 2010 11:28 am  
 Sample : KQ4706-1 LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:22 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F004.D

(80) Benzo(k)fluoranthene (T)

23.53min 105.35ug/ml m  
 response 670531

Ion	Exp%	Act%
252.00	100	100
253.00	21.30	21.77
125.00	13.20	14.70
0.00	0.00	0.00

*Handwritten notes:* IC m 6-4-10

*Handwritten initials:* LB 4/4/10



# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>		<b>Matrix:</b>	WATER
<b>Prod Code:</b>	625 SVO	<b>Collect Date:</b>		<b>Receive Date:</b>	05/28/2010
<b>Analysis Lot:</b>	KWG1005376	<b>Prep Lot:</b>	KWG1005060	<b>Report Group:</b>	
<b>Analysis Method:</b>	625	<b>Prep Method:</b>	EPA 3520C		
<b>Prep Ref:</b>	913130	<b>Prep Date:</b>	05/24/2010		
<b>Quant Method:</b>	J:\MS07\METHODS\8270_625\0602BNC7.M			<b>Calibration ID:</b>	CAL9525
<b>Title:</b>				<b>Method ID:</b>	MJ104
<b>Tune Ref:</b>	J:\MS07\DATA\060310\0603F001.D			<b>Quant based on Method</b>	
<b>MB Ref:</b>	J:\MS07\DATA\060310\0603F003.D				
<b>Data File:</b>	J:\MS07\DATA\060310\0603F011.D			<b>Instrument:</b>	MS07
<b>Acqu Date:</b>	06/03/2010 16:55	<b>Quant Date:</b>	06/04/2010 10:34	<b>Vial:</b>	10
<b>Run Type:</b>	LCS			<b>Dilution:</b>	2.0
<b>Lab ID:</b>	KWG1005060-1			<b>Soln Conc. Units:</b>	ug/ml

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	1,4-Dichlorobenzene-d4	9.35	0.00	152	99764	40.00	OK
2	Naphthalene-d8	11.45	0.00	136	397676	40.00	OK
3	Acenaphthene-d10	14.31	0.00	164	213574	40.00	OK
4	Phenanthrene-d10	16.71	0.00	188	290246	40.00	OK
5	Chrysene-d12	21.14	0.00	240	272317	40.00	OK
6	Perylene-d12	24.32	0.00	264	225383	40.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Fluorophenol	7.14	0.00	0.00	112	144862	54.62	73	34-112	OK NR
1	Phenol-d6	8.87	-0.01	0.00	99	206748	55.89	75	34-116	OK NR
1	Nitrobenzene-d5	10.29	0.00	0.00	82	136745	37.84	76	43-120	OK NR
3	2-Fluorobiphenyl	13.24	0.00	0.00	172	272191	38.88	78	45-115	OK NR
4	2,4,6-Tribromophenol	15.60	0.00	0.00	330	80531	68.45	91	34-134	OK NR
5	Terphenyl-d14	19.33	0.00	0.00	244	190965	45.80	92	13-152	OK NR

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	N-Nitrosodimethylamine	4.15		0.00	42	91115m	38.22	76.4	D	NR
1	Pyridine	4.19		0.00	79	203383m	60.21	120	D	
1	Aniline	8.81	-0.01	0.00	93	148188	39.63	79.3	D	
1	Bis(2-chloroethyl) Ether	8.96		0.00	93	104695	34.71	69.4	D	NR
1	Phenol	8.89		0.00	94	139634	36.86	73.7	D	NR
1	2-Chlorophenol	9.02	-0.01	0.00	128	118937	36.41	72.8	D	NR
1	1,3-Dichlorobenzene	9.25		0.00	146	117537	33.93	67.9	D	
1	1,4-Dichlorobenzene	9.38	0.01	0.00	146	116013	32.88	65.8	D	
1	1,2-Dichlorobenzene	9.62		0.00	146	115757	34.66	69.3	D	
1	Benzyl Alcohol	9.65	-0.01	0.00	108	76268	38.02	76.0	D	

U: Undetected at or above MDL  
 F: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F011.D  
 Acqu Date: 06/03/2010 16:55  
 Run Type: LCS  
 Lab ID: KWG1005060-1

Quant Date: 06/04/2010 10:34

Instrument: MS07  
 Vial: 10  
 Dilution: 2.0  
 Soln Conc. Units: ug/ml

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Bis(2-chloroisopropyl) Ether	9.87		0.00	45	166819	33.33	66.7	D	NR
1	2-Methylphenol	9.88	0.01	0.00	107	87934	35.85	71.7	D	
1	Hexachloroethane	10.18	0.01	0.00	117	54204	33.76	67.5	D	NR
1	N-Nitrosodi-n-propylamine	10.09	-0.01	0.00	70	76721	31.25	62.5	D	NR
1	4-Methylphenol	10.14		0.00	107	136534	36.65	73.3	D	
1	Nitrobenzene	10.32		0.00	77	132359	38.94	77.9	D	NR
2	Isophorone	10.73	-0.01	0.00	82	287126	40.02	80.0	D	NR
2	2-Nitrophenol	10.84	-0.01	0.00	139	74880	37.88	75.8	D	NR
2	2,4-Dimethylphenol	10.99	-0.01	0.00	122	70024	26.49	53.0	D	NR
2	Bis(2-chloroethoxy)methane	11.12		0.00	93	151787	37.66	75.3	D	NR
2	2,4-Dichlorophenol	11.27		0.00	162	117146	39.07	78.1	D	NR
2	Benzoic Acid	11.25	-0.06	-0.01	122	76046	33.57	67.1	D	
2	1,2,4-Trichlorobenzene	11.37		0.00	180	120786	37.94	75.9	D	NR
2	Naphthalene	11.48	-0.01	0.00	128	350522	36.74	73.5	D	NR
2	4-Chloroaniline	11.62		0.00	127	176643	41.96	83.9	D	
2	Hexachlorobutadiene	11.72		0.00	225	68753	34.04	68.1	D	NR
2	4-Chloro-3-methylphenol	12.46		0.00	107	132932	42.47	84.9	D	NR
2	2-Methylnaphthalene	12.62		0.00	142	230660	37.99	76.0	D	
3	Hexachlorocyclopentadiene	12.89		0.00	237	24616	17.94	35.9	D	NR
3	2,4,6-Trichlorophenol	13.12		0.00	196	99988	45.38	90.8	D	NR
3	2,4,5-Trichlorophenol	13.19	0.01	0.00	196	102059	41.57	83.1	D	
3	2-Chloronaphthalene	13.41		0.00	162	254142	41.14	82.3	D	NR
3	2-Nitroaniline	13.61		0.00	65	87064	43.81	87.6	D	
3	Acenaphthylene	14.08	0.01	0.00	152	404943	42.56	85.1	D	NR
3	Dimethyl Phthalate	13.94		0.00	163	336205	46.31	92.6	D	NR
3	2,6-Dinitrotoluene	14.02		0.00	165	70649	42.94	85.9	D	NR
3	Acenaphthene	14.37		0.00	154	242922	44.73	89.5	D	NR
3	3-Nitroaniline	14.29		0.00	138	76853	44.39	88.8	D	
3	2,4-Dinitrophenol	14.46		0.00	184	36846	38.60	77.2	D	NR
3	Dibenzofuran	14.65		0.00	168	384473	44.90	89.8	D	
3	4-Nitrophenol	14.65		0.00	109	43631	46.55	93.1	D	NR
3	2,4-Dinitrotoluene	14.67		0.00	165	95097	45.61	91.2	D	NR
3	Fluorene	15.20		0.00	166	286533	44.65	89.3	D	NR
3	4-Chlorophenyl Phenyl Ether	15.23	0.01	0.00	204	136772	41.64	83.3	D	NR
3	Diethyl Phthalate	15.09		0.00	149	330989	47.16	94.3	D	NR
3	4-Nitroaniline	15.28	-0.01	0.00	138	69704	46.52	93.0	D	
3	2-Methyl-4,6-dinitrophenol	15.33	0.01	0.00	198	54506	48.06	96.1	D	NR
3	N-Nitrosodiphenylamine	15.43		0.00	169	187375	43.80	87.6	D	NR
3	1,2-Diphenylhydrazine	15.48		0.00	77	308221	42.72	85.4	D	NR
4	4-Bromophenyl Phenyl Ether	16.01		0.00	248	75717	43.27	86.5	D	NR
4	Hexachlorobenzene	16.09		0.00	284	90259	44.50	89.0	D	NR
4	Pentachlorophenol	16.43		0.00	266	43172	37.88	75.8	D	NR

U: Undetected at or above MDL  
 F: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F011.D  
 Acqu Date: 06/03/2010 16:55  
 Run Type: LCS  
 Lab ID: KWG1005060-1

Quant Date: 06/04/2010 10:34

Instrument: MS07  
 Vial: 10  
 Dilution: 2.0  
 Soln Conc. Units: ug/ml

**Target Compounds**

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
4	Phenanthrene	16.75	0.01	0.00	178	350219	45.42	90.8	D	NR
4	Anthracene	16.84		0.00	178	376676	46.46	92.9	D	NR
4	Di-n-butyl Phthalate	17.74		0.00	149	432077	48.94	97.9	D	NR
4	Fluoranthene	18.67	0.01	0.00	202	331920	47.47	94.9	D	NR
5	Benzidine	18.93		0.00	184	224408	98.14	196	D	
5	Pyrene	19.02		0.00	202	325028	44.72	89.4	D	NR
5	Butyl Benzyl Phthalate	20.16		0.00	149	190700	46.04	92.1	D	NR
5	3,3'-Dichlorobenzidine	21.12		0.00	252	115101	40.45	80.9	D	NR
5	Benz(a)anthracene	21.12	0.01	0.00	228	308988	48.28	96.6	D	NR
5	Chrysene	21.20		0.00	228	311827	50.33	101	D	NR
5	Bis(2-ethylhexyl) Phthalate	21.32	0.01	0.00	149	284313	48.23	96.5	D	NR
6	Di-n-octyl Phthalate	22.78	0.01	0.00	149	540938	53.32	107	D	NR
6	Benzo(b)fluoranthene	23.45		0.00	252	297454	51.23	102	D	NR
6	Benzo(k)fluoranthene	23.52	-0.01	0.00	252	292061	48.47	96.9	D	NR
6	Benzo(a)pyrene	24.18		0.00	252	255377	52.96	106	D	NR
6	Indeno(1,2,3-cd)pyrene	26.77	0.01	0.00	276	194723	46.63	93.3	D	NR
6	Dibenz(a,h)anthracene	26.84		0.00	278	199933	44.94	89.9	D	NR
6	Benzo(g,h,i)perylene	27.34		0.00	276	203926	45.24	90.5	D	NR
	Bis(chloromethyl) Ether				0	0		20	U	NR
	alpha-Terpineol, Total				0	0		20	U	NR
	2,3,7,8-Tetrachlorodibenzo-p-di				0	0		100	U	NR

Prep Amount: 1000 mL      Dilution: 2.0  
 Prep Final Vol: 1 mL      Unit Factor: 1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS07\DATA\060310\0603F011.D  
 Acq On : 3 Jun 2010 4:55 pm  
 Sample : KQ4706-1 LCS 2X  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 04 10:34:20 2010

Vial: 10  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 2.00  
 Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Fri Jun 04 10:34:14 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	99764	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	397676	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	213574	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.71	188	290246	40.00	ug/ml	0.00
68) Chrysene-d12	21.14	240	272317	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	225383	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	144862	54.62	ug/ml	0.00
Spiked Amount	150.000	Range 21 - 100	Recovery	=	36.41%	
7) Phenol-d6	8.87	99	206748	55.89	ug/ml	0.00
Spiked Amount	150.000	Range 10 - 94	Recovery	=	37.26%	
19) Nitrobenzene-d5	10.29	82	136745	37.84	ug/ml	0.00
Spiked Amount	100.000	Range 35 - 114	Recovery	=	37.84%	
38) 2-Fluorobiphenyl	13.24	172	272191	38.88	ug/ml	0.00
Spiked Amount	100.000	Range 43 - 116	Recovery	=	38.88%#	
59) 2,4,6-Tribromophenol	15.60	330	80531	68.45	ug/ml	0.00
Spiked Amount	150.000	Range 10 - 123	Recovery	=	45.63%	
71) Terphenyl-d14	19.33	244	190965	45.80	ug/ml	0.00
Spiked Amount	100.000	Range 33 - 141	Recovery	=	45.80%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.15	42	91115m	38.22	ug/ml	
3) Pyridine	4.19	79	203383m	60.21	ug/ml	
5) Aniline	8.81	93	148188	39.63	ug/ml	77
6) Bis(2-chloroethyl) Ether	8.96	93	104695	34.71	ug/ml	98
8) Phenol	8.89	94	139634	36.86	ug/ml	99
9) 2-Chlorophenol	9.02	128	118937	36.41	ug/ml	97
10) 1,3-Dichlorobenzene	9.25	146	117537	33.93	ug/ml	97
11) 1,4-Dichlorobenzene	9.38	146	116013	32.88	ug/ml	99
12) 1,2-Dichlorobenzene	9.62	146	115757	34.66	ug/ml	97
13) Benzyl Alcohol	9.65	108	76268	38.02	ug/ml	99
14) Bis(2-chloroisopropyl) Eth	9.87	45	166819	33.33	ug/ml	77
15) 2-Methylphenol	9.88	107	87934	35.85	ug/ml	90
16) Hexachloroethane	10.18	117	54204	33.76	ug/ml	95
17) N-Nitrosodi-n-propylamine	10.09	70	76721	31.25	ug/ml	85
18) 4-Methylphenol	10.14	107	136534	36.65	ug/ml	97
20) Nitrobenzene	10.32	77	132359	38.94	ug/ml	98
22) Isophorone	10.73	82	287126	40.02	ug/ml	99
23) 2-Nitrophenol	10.84	139	74880	37.88	ug/ml	90
24) 2,4-Dimethylphenol	10.99	122	70024	26.49	ug/ml	99
25) Bis(2-chloroethoxy)methane	11.12	93	151787	37.66	ug/ml	99

(#) = qualifier out of range (m) = manual integration  
 0603F011.D 0602BNC7.M Fri Jun 04 10:55:26 2010



Data File : J:\MS07\DATA\060310\0603F011.D  
 Acq On : 3 Jun 2010 4:55 pm  
 Sample : KQ4706-1 LCS 2X  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 04 10:34:20 2010

Vial: 10  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 2.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Fri Jun 04 10:34:14 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.27	162	117146	39.07	ug/ml	99
27) Benzoic Acid	11.25	122	76046	33.57	ug/ml	99
28) 1,2,4-Trichlorobenzene	11.37	180	120786	37.94	ug/ml	99
29) Naphthalene	11.48	128	350522	36.74	ug/ml	99
30) 4-Chloroaniline	11.62	127	176643	41.96	ug/ml	98
31) Hexachlorobutadiene	11.72	225	68753	34.04	ug/ml	97
32) 4-Chloro-3-methylphenol	12.46	107	132932	42.47	ug/ml	85
33) 2-Methylnaphthalene	12.62	142	230660	37.99	ug/ml	99
35) Hexachlorocyclopentadiene	12.89	237	24616	17.94	ug/ml	99
36) 2,4,6-Trichlorophenol	13.12	196	99988	45.38	ug/ml	97
37) 2,4,5-Trichlorophenol	13.19	196	102059	41.57	ug/ml	98
39) 2-Chloronaphthalene	13.41	162	254142	41.14	ug/ml	97
40) 2-Nitroaniline	13.61	65	87064	43.81	ug/ml	98
41) Acenaphthylene	14.08	152	404943	42.56	ug/ml	99
42) Dimethyl Phthalate	13.94	163	336205	46.31	ug/ml	100
43) 2,6-Dinitrotoluene	14.02	165	70649	42.94	ug/ml	95
44) Acenaphthene	14.37	154	242922	44.73	ug/ml	97
45) 3-Nitroaniline	14.29	138	76853	44.39	ug/ml	95
46) 2,4-Dinitrophenol	14.46	184	36846	38.60	ug/ml	93
47) Dibenzofuran	14.65	168	384473	44.90	ug/ml	100
48) 4-Nitrophenol	14.65	109	43631	46.55	ug/ml#	80
49) 2,4-Dinitrotoluene	14.67	165	95097	45.61	ug/ml	96
50) 2,3,4,6-Tetrachlorophenol	14.88	232	75083	41.94	ug/ml	90
51) Fluorene	15.20	166	286533	44.65	ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	136772	41.64	ug/ml	93
53) Diethyl Phthalate	15.09	149	330989	47.16	ug/ml	99
54) 4-Nitroaniline	15.28	138	69704	46.52	ug/ml	95
55) 2-Methyl-4,6-dinitrophenol	15.33	198	54506	48.06	ug/ml#	42
56) N-Nitrosodiphenylamine	15.43	169	187375	43.80	ug/ml	99
57) 1,2-Diphenylhydrazine	15.48	77	308221	42.72	ug/ml	97
60) 4-Bromophenyl Phenyl Ether	16.01	248	75717	43.27	ug/ml	92
61) Hexachlorobenzene	16.09	284	90259	44.50	ug/ml	87
62) Pentachlorophenol	16.43	266	43172	37.88	ug/ml	97
63) Phenanthrene	16.75	178	350219	45.42	ug/ml	99
64) Anthracene	16.84	178	376676	46.46	ug/ml	99
65) Carbazole	17.12	167	299176	45.21	ug/ml	100
66) Di-n-butyl Phthalate	17.74	149	432077	48.94	ug/ml	100
67) Fluoranthene	18.67	202	331920	47.47	ug/ml	96
69) Benzidine	18.93	184	224408	98.14	ug/ml	97
70) Pyrene	19.02	202	325028	44.72	ug/ml	99
72) Butyl Benzyl Phthalate	20.16	149	190700	46.04	ug/ml	92

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\060310\0603F011.D  
 Acq On : 3 Jun 2010 4:55 pm  
 Sample : KQ4706-1 LCS 2X  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 04 10:34:20 2010

Vial: 10  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 2.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Fri Jun 04 10:34:14 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.12	252	115101	40.45	ug/ml	99
74) Benz(a)anthracene	21.12	228	308988	48.28	ug/ml	99
75) Chrysene	21.20	228	311827	50.33	ug/ml	98
76) Bis(2-ethylhexyl) Phthalat	21.32	149	284313	48.23	ug/ml	98
78) Di-n-octyl Phthalate	22.78	149	540938	53.32	ug/ml	98
79) Benzo(b)fluoranthene	23.45	252	297454	51.23	ug/ml	98
80) Benzo(k)fluoranthene	23.52	252	292061	48.47	ug/ml	99
81) Benzo(a)pyrene	24.18	252	255377	52.96	ug/ml	98
82) Indeno(1,2,3-cd)pyrene	26.77	276	194723	46.63	ug/ml	98
83) Dibenz(a,h)anthracene	26.84	278	199933	44.94	ug/ml	99
84) Benzo(g,h,i)perylene	27.34	276	203926	45.24	ug/ml	98

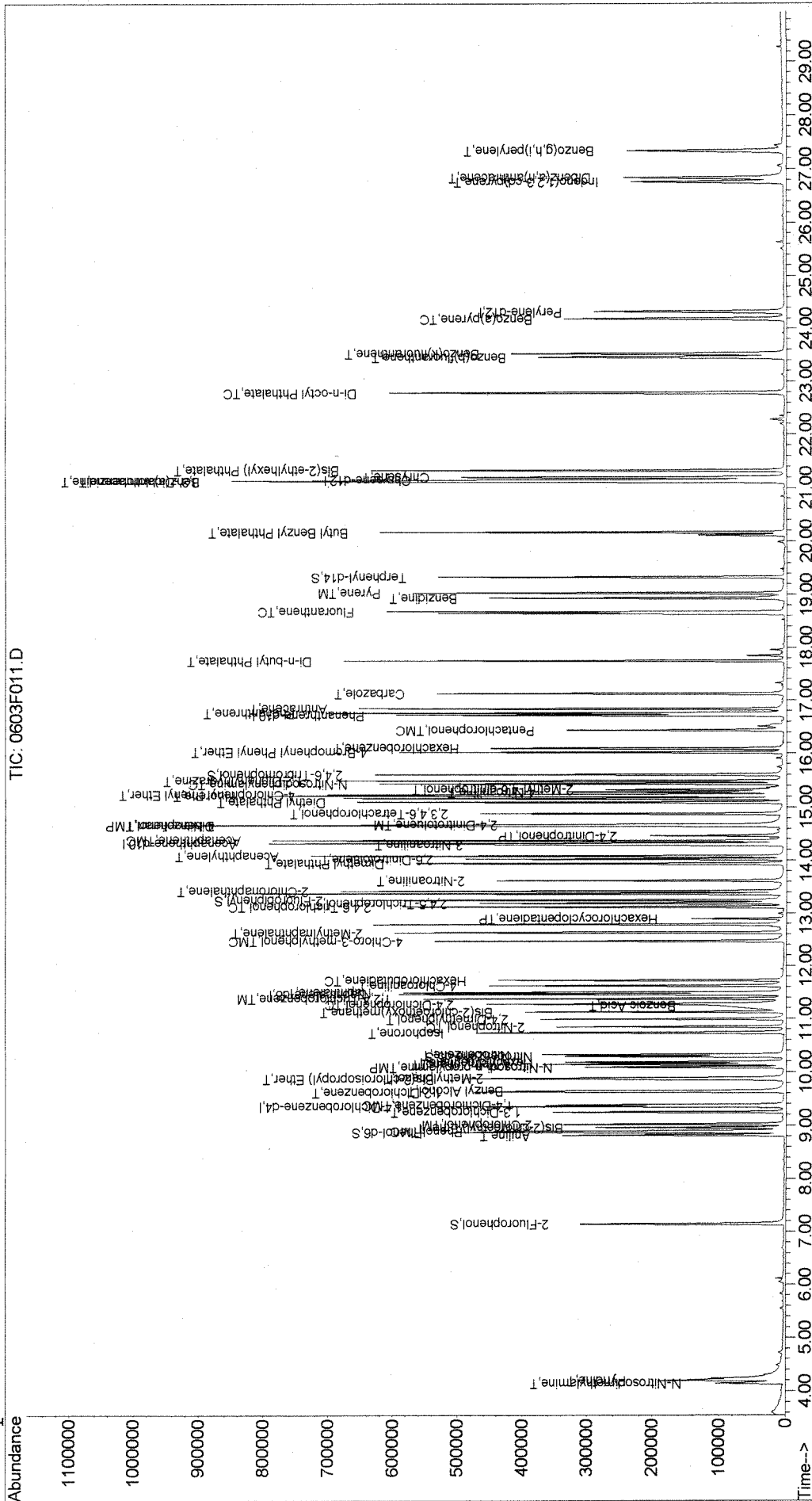
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\060310\0603F011.D  
Acq On : 3 Jun 2010 4:55 pm  
Sample : KQ4706-1 LCS 2X  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 4 10:34 2010

Vial: 10  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 2.00

Quant Results File: 0602BNC7.RES

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Fri Jun 04 10:34:14 2010  
Response via : Initial Calibration



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Duplicate Lab Control Sample  
**Lab Code:** KWG1005060-2  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	84.5		25	1.7	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethyl) Ether	82.4		10	0.37	1	05/24/10	06/03/10	KWG1005060	
Phenol	83.2		10	0.45	1	05/24/10	06/03/10	KWG1005060	
2-Chlorophenol	82.8		10	0.42	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroisopropyl) Ether	86.5		10	0.36	1	05/24/10	06/03/10	KWG1005060	
Hexachloroethane	71.4		10	0.26	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodi-n-propylamine	89.4		10	0.51	1	05/24/10	06/03/10	KWG1005060	
Nitrobenzene	85.4		10	0.36	1	05/24/10	06/03/10	KWG1005060	
Isophorone	83.3		10	0.35	1	05/24/10	06/03/10	KWG1005060	
2-Nitrophenol	86.6		10	0.35	1	05/24/10	06/03/10	KWG1005060	
2,4-Dimethylphenol	45.4		10	1.1	1	05/24/10	06/03/10	KWG1005060	
Bis(2-chloroethoxy)methane	88.0		10	0.31	1	05/24/10	06/03/10	KWG1005060	
2,4-Dichlorophenol	82.5		10	0.29	1	05/24/10	06/03/10	KWG1005060	
1,2,4-Trichlorobenzene	77.4		10	0.32	1	05/24/10	06/03/10	KWG1005060	
Naphthalene	79.7		10	0.31	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobutadiene	71.7		10	0.22	1	05/24/10	06/03/10	KWG1005060	
4-Chloro-3-methylphenol	85.9		10	0.48	1	05/24/10	06/03/10	KWG1005060	
Hexachlorocyclopentadiene	35.7		10	0.58	1	05/24/10	06/03/10	KWG1005060	
2,4,6-Trichlorophenol	93.6		10	0.19	1	05/24/10	06/03/10	KWG1005060	
2-Chloronaphthalene	86.8		10	0.43	1	05/24/10	06/03/10	KWG1005060	
Acenaphthylene	89.3		10	0.29	1	05/24/10	06/03/10	KWG1005060	
Dimethyl Phthalate	84.8		10	0.71	1	05/24/10	06/03/10	KWG1005060	
2,6-Dinitrotoluene	84.7		10	0.27	1	05/24/10	06/03/10	KWG1005060	
Acenaphthene	86.8		10	0.27	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrophenol	85.8		25	1.0	1	05/24/10	06/03/10	KWG1005060	
4-Nitrophenol	94.5		25	2.3	1	05/24/10	06/03/10	KWG1005060	
2,4-Dinitrotoluene	84.4		10	0.26	1	05/24/10	06/03/10	KWG1005060	
Fluorene	84.4		10	0.23	1	05/24/10	06/03/10	KWG1005060	
4-Chlorophenyl Phenyl Ether	79.6		10	0.26	1	05/24/10	06/03/10	KWG1005060	
Diethyl Phthalate	87.0		10	0.33	1	05/24/10	06/03/10	KWG1005060	
2-Methyl-4,6-dinitrophenol	86.7		25	2.3	1	05/24/10	06/03/10	KWG1005060	
N-Nitrosodiphenylamine	86.0		10	0.34	1	05/24/10	06/03/10	KWG1005060	
1,2-Diphenylhydrazine†	85.3		10	0.23	1	05/24/10	06/03/10	KWG1005060	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Duplicate Lab Control Sample  
**Lab Code:** KWG1005060-2  
**Extraction Method:** EPA 3520C  
**Analysis Method:** 625

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Bromophenyl Phenyl Ether	91.8		10	0.35	1	05/24/10	06/03/10	KWG1005060	
Hexachlorobenzene	91.7		10	0.27	1	05/24/10	06/03/10	KWG1005060	
Pentachlorophenol	80.7		25	0.38	1	05/24/10	06/03/10	KWG1005060	
Phenanthrene	95.1		10	0.24	1	05/24/10	06/03/10	KWG1005060	
Anthracene	93.7		10	0.33	1	05/24/10	06/03/10	KWG1005060	
Di-n-butyl Phthalate	101		10	0.46	1	05/24/10	06/03/10	KWG1005060	
Fluoranthene	99.7		10	0.45	1	05/24/10	06/03/10	KWG1005060	
Benzidine	198		50	29	1	05/24/10	06/03/10	KWG1005060	*
Pyrene	87.6		10	0.47	1	05/24/10	06/03/10	KWG1005060	
Butyl Benzyl Phthalate	101		10	0.55	1	05/24/10	06/03/10	KWG1005060	
3,3'-Dichlorobenzidine	73.6		25	0.48	1	05/24/10	06/03/10	KWG1005060	
Benz(a)anthracene	90.6		10	0.25	1	05/24/10	06/03/10	KWG1005060	
Chrysene	97.6		10	0.40	1	05/24/10	06/03/10	KWG1005060	
Bis(2-ethylhexyl) Phthalate	105		10	0.34	1	05/24/10	06/03/10	KWG1005060	
Di-n-octyl Phthalate	112		10	0.38	1	05/24/10	06/03/10	KWG1005060	
Benzo(b)fluoranthene	107		10	0.27	1	05/24/10	06/03/10	KWG1005060	
Benzo(k)fluoranthene	106		10	0.32	1	05/24/10	06/03/10	KWG1005060	
Benzo(a)pyrene	109		10	0.37	1	05/24/10	06/03/10	KWG1005060	
Indeno(1,2,3-cd)pyrene	98.3		10	0.45	1	05/24/10	06/03/10	KWG1005060	
Dibenz(a,h)anthracene	101		10	0.41	1	05/24/10	06/03/10	KWG1005060	
Benzo(g,h,i)perylene	101		10	0.41	1	05/24/10	06/03/10	KWG1005060	

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	87	34-112	06/03/10	Acceptable
Phenol-d6	87	34-116	06/03/10	Acceptable
Nitrobenzene-d5	91	43-120	06/03/10	Acceptable
2-Fluorobiphenyl	94	45-115	06/03/10	Acceptable
2,4,6-Tribromophenol	99	34-134	06/03/10	Acceptable
Terphenyl-d14	100	13-152	06/03/10	Acceptable

Comments: \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601  
**Sample Matrix:** Water

**Service Request:** K1005067  
**Date Collected:** NA  
**Date Received:** NA

Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** Duplicate Lab Control Sample  
**Lab Code:** KWG1005060-2

**Units:** ug/L  
**Basis:** NA

† Analyte Comments

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1,2-Diphenylhydrazine                      This compound is quantitated as Azobenzene.

Comments: \_\_\_\_\_

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## Exception Report

**Data File:** J:\MS07\DATA\060310\0603F005.D  
**Lab ID:** KWG1005060-2  
**RunType:** DLCS  
**Matrix:** WATER

**Date Acquired:** 06/03/2010 12:13  
**Date Quantitated:** 06/04/2010 08:23  
**Batch ID:** KWG1005376  
**Analysis Method:** 625  
**MethodJoinID:** MJ104

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

5067  
5005

### Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Benzidine	119.6	NA	30	OFLC
Continuing Calibration Recovery	Benzyl Alcohol	27.8	NA	20	MTJ
	Aniline	39.9	NA	20	L
	Benzidine	99.0	NA	20	OFLC

Primary Review: MB-4/10  
 Secondary Review: LB4/10

# Quantitation Report

<b>Bottle ID:</b>		<b>Tier:</b>		<b>Matrix:</b>	WATER
<b>Prod Code:</b>	625 SVO	<b>Collect Date:</b>		<b>Receive Date:</b>	05/28/2010
<b>Analysis Lot:</b>	KWG1005376	<b>Prep Lot:</b>	KWG1005060	<b>Report Group:</b>	
<b>Analysis Method:</b>	625	<b>Prep Method:</b>	EPA 3520C		
<b>Prep Ref:</b>	913131	<b>Prep Date:</b>	05/24/2010		
<b>Quant Method:</b>	J:\MS07\METHODS\8270_625\0602BNC7.M			<b>Calibration ID:</b>	CAL9525
<b>Title:</b>				<b>Method ID:</b>	MJ104
<b>Tune Ref:</b>	J:\MS07\DATA\060310\0603F001.D			<b>Quant based on Method</b>	
<b>MB Ref:</b>	J:\MS07\DATA\060310\0603F003.D				
<b>Data File:</b>	J:\MS07\DATA\060310\0603F005.D		<b>Instrument:</b>	MS07	
<b>Acqu Date:</b>	06/03/2010 12:13	<b>Quant Date:</b>	06/04/2010 08:23	<b>Vial:</b>	5
<b>Run Type:</b>	DLCS		<b>Dilution:</b>	1.0	
<b>Lab ID:</b>	KWG1005060-2		<b>Soln Conc. Units:</b>	ug/ml	

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	1,4-Dichlorobenzene-d4	9.36	0.01	152	114829	40.00	OK
2	Naphthalene-d8	11.45	0.00	136	452063	40.00	OK
3	Acenaphthene-d10	14.31	0.00	164	223035	40.00	OK
4	Phenanthrene-d10	16.71	0.00	188	279026	40.00	OK
5	Chrysene-d12	21.14	0.00	240	311422	40.00	OK
6	Perylene-d12	24.32	0.00	264	218422	40.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Fluorophenol	7.15	0.01	0.00	112	397889	130.33	87	34-112	OK
1	Phenol-d6	8.88	0.00	0.00	99	558609	131.20	87	34-116	OK
1	Nitrobenzene-d5	10.29	0.00	0.00	82	376705	90.57	91	43-120	OK
3	2-Fluorobiphenyl	13.25	0.01	0.00	172	684721	93.65	94	45-115	OK
4	2,4,6-Tribromophenol	15.60	0.00	0.00	330	167095	147.75	99	34-134	OK
5	Terphenyl-d14	19.33	0.00	0.00	244	477750	100.19	100	13-152	OK

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	N-Nitrosodimethylamine	4.15		0.00	42	231736m	84.47	84.5		
1	Pyridine	4.18	-0.01	0.00	79	511926m	131.67	132		
1	Aniline	8.83	0.01	0.00	93	394326	91.63	91.6		
1	Bis(2-chloroethyl) Ether	8.96		0.00	93	286240	82.44	82.4		
1	Phenol	8.90	0.01	0.00	94	362625	83.18	83.2		
1	2-Chlorophenol	9.03		0.00	128	311157	82.76	82.8		
1	1,3-Dichlorobenzene	9.25		0.00	146	283779	71.16	71.2		
1	1,4-Dichlorobenzene	9.38	0.01	0.00	146	298308	73.45	73.5		
1	1,2-Dichlorobenzene	9.63	0.01	0.00	146	290782	75.63	75.6		
1	Benzyl Alcohol	9.65	-0.01	0.00	108	204597	88.60	88.6		

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution



Data File: J:\MS07\DATA\060310\0603F005.D  
 Acqu Date: 06/03/2010 12:13  
 Run Type: DLCS  
 Lab ID: KWG1005060-2

Quant Date: 06/04/2010 08:23

Instrument: MS07  
 Vial: 5  
 Dilution: 1.0  
 Soln Conc. Units: ug/ml

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Bis(2-chloroisopropyl) Ether	9.87		0.00	45	498121	86.47	86.5		
1	2-Methylphenol	9.87		0.00	107	231776	82.09	82.1		
1	Hexachloroethane	10.18	0.01	0.00	117	131998	71.43	71.4		
1	N-Nitrosodi-n-propylamine	10.10		0.00	70	252540	89.36	89.4		
1	4-Methylphenol	10.14		0.00	107	342032	79.77	79.8		
1	Nitrobenzene	10.32		0.00	77	334229	85.43	85.4		
2	Isophorone	10.74		0.00	82	679638	83.34	83.3		
2	2-Nitrophenol	10.85		0.00	139	194675	86.63	86.6		
2	2,4-Dimethylphenol	10.99	-0.01	0.00	122	136376	45.39	45.4		
2	Bis(2-chloroethoxy)methane	11.12		0.00	93	403056	87.98	88.0		
2	2,4-Dichlorophenol	11.27		0.00	162	281272	82.52	82.5		
2	Benzoic Acid	11.31		0.00	122	194411	75.50	75.5		
2	1,2,4-Trichlorobenzene	11.37		0.00	180	280075	77.39	77.4		
2	Naphthalene	11.50	0.01	0.00	128	864003	79.66	79.7		
2	4-Chloroaniline	11.62		0.00	127	403453	84.32	84.3		
2	Hexachlorobutadiene	11.72		0.00	225	164501	71.65	71.7		
2	4-Chloro-3-methylphenol	12.47	0.01	0.00	107	305642	85.90	85.9		
2	2-Methylnaphthalene	12.62		0.00	142	555718	80.52	80.5		
3	Hexachlorocyclopentadiene	12.89		0.00	237	71472	35.71	35.7		
3	2,4,6-Trichlorophenol	13.12		0.00	196	215352	93.60	93.6		
3	2,4,5-Trichlorophenol	13.19	0.01	0.00	196	238074	92.85	92.9		
3	2-Chloronaphthalene	13.41		0.00	162	560068	86.83	86.8		
3	2-Nitroaniline	13.62	0.01	0.00	65	192792	92.91	92.9		
3	Acenaphthylene	14.08	0.01	0.00	152	887555	89.32	89.3		
3	Dimethyl Phthalate	13.94		0.00	163	642595	84.75	84.8		
3	2,6-Dinitrotoluene	14.03	0.01	0.00	165	145527	84.70	84.7		
3	Acenaphthene	14.37		0.00	154	492229	86.79	86.8		
3	3-Nitroaniline	14.29		0.00	138	166366	92.02	92.0		
3	2,4-Dinitrophenol	14.46		0.00	184	85514	85.77	85.8		
3	Dibenzofuran	14.65		0.00	168	776387	86.82	86.8		
3	4-Nitrophenol	14.65		0.00	109	92473	94.47	94.5		
3	2,4-Dinitrotoluene	14.67		0.00	165	183750	84.38	84.4		
3	Fluorene	15.20		0.00	166	565646	84.41	84.4		
3	4-Chlorophenyl Phenyl Ether	15.23	0.01	0.00	204	272890	79.55	79.6		
3	Diethyl Phthalate	15.09		0.00	149	637937	87.03	87.0		
3	4-Nitroaniline	15.29		0.00	138	146819	93.83	93.8		
3	2-Methyl-4,6-dinitrophenol	15.33	0.01	0.00	198	102726	86.73	86.7		
3	N-Nitrosodiphenylamine	15.44	0.01	0.00	169	384176	85.99	86.0		
3	1,2-Diphenylhydrazine	15.49	0.01	0.00	77	642499	85.28	85.3		
4	4-Bromophenyl Phenyl Ether	16.02	0.01	0.00	248	154389	91.78	91.8		
4	Hexachlorobenzene	16.09		0.00	284	178727	91.66	91.7		
4	Pentachlorophenol	16.43		0.00	266	88404	80.68	80.7		

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

<b>Data File:</b>	J:\MS07\DATA\060310\0603F005.D	<b>Instrument:</b>	MS07
<b>Acqu Date:</b>	06/03/2010 12:13	<b>Quant Date:</b>	06/04/2010 08:23
<b>Run Type:</b>	DLCS	<b>Vial:</b>	5
<b>Lab ID:</b>	KWG1005060-2	<b>Dilution:</b>	1.0
		<b>Soln Conc. Units:</b>	ug/ml

**Target Compounds** **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
4	Phenanthrene	16.75	0.01	0.00	178	705171	95.13	95.1		
4	Anthracene	16.84		0.00	178	730136	93.68	93.7		
4	Di-n-butyl Phthalate	17.74		0.00	149	857608	101.05	101		
4	Fluoranthene	18.68	0.02	0.00	202	669922	99.67	99.7		
5	Benzidine	18.93		0.00	184	517199	197.79	198		
5	Pyrene	19.04	0.02	0.00	202	728495	87.64	87.6		
5	Butyl Benzyl Phthalate	20.16		0.00	149	476456	100.59	101		
5	3,3'-Dichlorobenzidine	21.12		0.00	252	239664	73.64	73.6		
5	Benz(a)anthracene	21.12	0.01	0.00	228	662906	90.57	90.6		
5	Chrysene	21.20		0.00	228	691475	97.59	97.6		
5	Bis(2-ethylhexyl) Phthalate	21.32	0.01	0.00	149	707730	104.99	105		
6	Di-n-octyl Phthalate	22.79	0.02	0.00	149	1177593	111.58	112		
6	Benzo(b)fluoranthene	23.46	0.01	0.00	252	600830	106.78	107		
6	Benzo(k)fluoranthene	23.53		0.00	252	621330	106.40	106		
6	Benzo(a)pyrene	24.20	0.02	0.00	252	510886	109.32	109		
6	Indeno(1,2,3-cd)pyrene	26.78	0.02	0.00	276	397935	98.32	98.3		
6	Dibenz(a,h)anthracene	26.86	0.02	0.00	278	436394	101.23	101		
6	Benzo(g,h,i)perylene	27.35	0.01	0.00	276	442732	101.34	101		
	alpha-Terpineol, Total				0	0		10	U	NR
	Bis(chloromethyl) Ether				0	0		10	UJ	NR
	2,3,7,8-Tetrachlorodibenzo-p-di				0	0		50	U	NR

**Prep Amount:** 1000 mL **Dilution:** 1.0  
**Prep Final Vol:** 1 mL **Unit Factor:** 1000

**Final Concentration** = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL  
J: Analyte detected above MDL, but below MRL  
B: Hit above MRL also found in Method Blank  
E: Analyte concentration above high point of ICAL  
N: Presumptive evidence of compound  
D: Result from dilution  
m: Manual integration performed  
d: Compound manually deleted  
NR: Analyte not reported from this analysis  
\*: Result fails acceptance criteria  
#: Acceptance criteria not applicable  
?: Insufficient information to determine acceptance  
e: Result >= MRL, but MRL less than low point of ICAL  
c: check for co-elution

Data File : J:\MS07\DATA\060310\0603F005.D  
 Acq On : 3 Jun 2010 12:13 pm  
 Sample : KQ4706-2 DLCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 12:45:29 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	114829	40.00	ug/ml	0.01
21) Naphthalene-d8	11.45	136	452063	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	223035	40.00	ug/ml	0.01
58) Phenanthrene-d10	16.71	188	279026	40.00	ug/ml	0.01
68) Chrysene-d12	21.14	240	311422	40.00	ug/ml	0.01
77) Perylene-d12	24.32	264	218422	40.00	ug/ml	0.01

System Monitoring Compounds

4) 2-Fluorophenol	7.15	112	397889	130.33	ug/ml	0.01
Spiked Amount	150.000	Range	21 - 100	Recovery	=	86.89%
7) Phenol-d6	8.88	99	558609	131.20	ug/ml	0.01
Spiked Amount	150.000	Range	10 - 94	Recovery	=	87.47%
19) Nitrobenzene-d5	10.29	82	376705	90.57	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	90.57%
38) 2-Fluorobiphenyl	13.25	172	684721	93.65	ug/ml	0.01
Spiked Amount	100.000	Range	43 - 116	Recovery	=	93.65%
59) 2,4,6-Tribromophenol	15.60	330	167095	147.75	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	98.50%
71) Terphenyl-d14	19.33	244	477750	100.19	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	100.19%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.15	42	231736m	84.47	ug/ml	
3) Pyridine	4.18	79	511926m	131.67	ug/ml	
5) Aniline	8.83	93	394326	91.63	ug/ml	84
6) Bis(2-chloroethyl) Ether	8.96	93	286240	82.44	ug/ml	93
8) Phenol	8.90	94	362625	83.18	ug/ml	94
9) 2-Chlorophenol	9.03	128	311157	82.76	ug/ml	91
10) 1,3-Dichlorobenzene	9.25	146	283779	71.16	ug/ml	95
11) 1,4-Dichlorobenzene	9.38	146	298308	73.45	ug/ml	99
12) 1,2-Dichlorobenzene	9.63	146	290782	75.63	ug/ml	98
13) Benzyl Alcohol	9.65	108	204597	88.60	ug/ml	92
14) Bis(2-chloroisopropyl) Eth	9.87	45	498121	86.47	ug/ml	82
15) 2-Methylphenol	9.87	107	231776	82.09	ug/ml	95
16) Hexachloroethane	10.18	117	131998	71.43	ug/ml	96
17) N-Nitrosodi-n-propylamine	10.10	70	252540	89.36	ug/ml	95
18) 4-Methylphenol	10.14	107	342032	79.77	ug/ml	99
20) Nitrobenzene	10.32	77	334229	85.43	ug/ml	93
22) Isophorone	10.74	82	679638	83.34	ug/ml	99
23) 2-Nitrophenol	10.85	139	194675	86.63	ug/ml	95
24) 2,4-Dimethylphenol	10.99	122	136376	45.39	ug/ml	98
25) Bis(2-chloroethoxy)methane	11.12	93	403056	87.98	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\060310\0603F005.D  
 Acq On : 3 Jun 2010 12:13 pm  
 Sample : KQ4706-2 DLCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 12:45:29 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.27	162	281272	82.52	ug/ml	99
27) Benzoic Acid	11.31	122	194411	75.50	ug/ml	97
28) 1,2,4-Trichlorobenzene	11.37	180	280075	77.39	ug/ml	99
29) Naphthalene	11.50	128	864003	79.66	ug/ml	99
30) 4-Chloroaniline	11.62	127	403453	84.32	ug/ml	96
31) Hexachlorobutadiene	11.72	225	164501	71.65	ug/ml	97
32) 4-Chloro-3-methylphenol	12.47	107	305642	85.90	ug/ml#	54
33) 2-Methylnaphthalene	12.62	142	555718	80.52	ug/ml	100
35) Hexachlorocyclopentadiene	12.89	237	71472	35.71	ug/ml	99
36) 2,4,6-Trichlorophenol	13.12	196	215352	93.60	ug/ml	97
37) 2,4,5-Trichlorophenol	13.19	196	238074	92.85	ug/ml	99
39) 2-Chloronaphthalene	13.41	162	560068	86.83	ug/ml	98
40) 2-Nitroaniline	13.62	65	192792	92.91	ug/ml	99
41) Acenaphthylene	14.08	152	887555	89.32	ug/ml	100
42) Dimethyl Phthalate	13.94	163	642595	84.75	ug/ml	99
43) 2,6-Dinitrotoluene	14.03	165	145527	84.70	ug/ml	81
44) Acenaphthene	14.37	154	492229	86.79	ug/ml	99
45) 3-Nitroaniline	14.29	138	166366	92.02	ug/ml	94
46) 2,4-Dinitrophenol	14.46	184	85514	85.77	ug/ml	89
47) Dibenzofuran	14.65	168	776387	86.82	ug/ml	97
48) 4-Nitrophenol	14.65	109	92473	94.47	ug/ml	99
49) 2,4-Dinitrotoluene	14.67	165	183750	84.38	ug/ml	78
50) 2,3,4,6-Tetrachlorophenol	14.88	232	149183	79.80	ug/ml	92
51) Fluorene	15.20	166	565646	84.41	ug/ml	99
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	272890	79.55	ug/ml	95
53) Diethyl Phthalate	15.09	149	637937	87.03	ug/ml	98
54) 4-Nitroaniline	15.29	138	146819	93.83	ug/ml	98
55) 2-Methyl-4,6-dinitrophenol	15.33	198	102726	86.73	ug/ml#	35
56) N-Nitrosodiphenylamine	15.44	169	384176	85.99	ug/ml	100
57) 1,2-Diphenylhydrazine	15.49	77	642499	85.28	ug/ml	96
60) 4-Bromophenyl Phenyl Ether	16.02	248	154389	91.78	ug/ml	93
61) Hexachlorobenzene	16.09	284	178727	91.66	ug/ml	88
62) Pentachlorophenol	16.43	266	88404	80.68	ug/ml	99
63) Phenanthrene	16.75	178	705171	95.13	ug/ml	99
64) Anthracene	16.84	178	730136	93.68	ug/ml	99
65) Carbazole	17.12	167	642717	101.02	ug/ml	100
66) Di-n-butyl Phthalate	17.74	149	857608	101.05	ug/ml	100
67) Fluoranthene	18.68	202	669922	99.67	ug/ml	100
69) Benzidine	18.93	184	517199	197.79	ug/ml	99
70) Pyrene	19.04	202	728495	87.64	ug/ml	100
72) Butyl Benzyl Phthalate	20.16	149	476456	100.59	ug/ml	92

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\060310\0603F005.D  
 Acq On : 3 Jun 2010 12:13 pm  
 Sample : KQ4706-2 DLCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 12:45:29 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.12	252	239664	73.64	ug/ml	98
74) Benz(a)anthracene	21.12	228	662906	90.57	ug/ml	99
75) Chrysene	21.20	228	691475	97.59	ug/ml	99
76) Bis(2-ethylhexyl) Phthalat	21.32	149	707730	104.99	ug/ml	99
78) Di-n-octyl Phthalate	22.79	149	1177593	111.58	ug/ml	99
79) Benzo(b)fluoranthene	23.46	252	600830	106.78	ug/ml	99
80) Benzo(k)fluoranthene	23.53	252	621330	106.40	ug/ml	99
81) Benzo(a)pyrene	24.20	252	510886	109.32	ug/ml	99
82) Indeno(1,2,3-cd)pyrene	26.78	276	397935	98.32	ug/ml	98
83) Dibenz(a,h)anthracene	26.86	278	436394	101.23	ug/ml	99
84) Benzo(g,h,i)perylene	27.35	276	442732	101.34	ug/ml	98

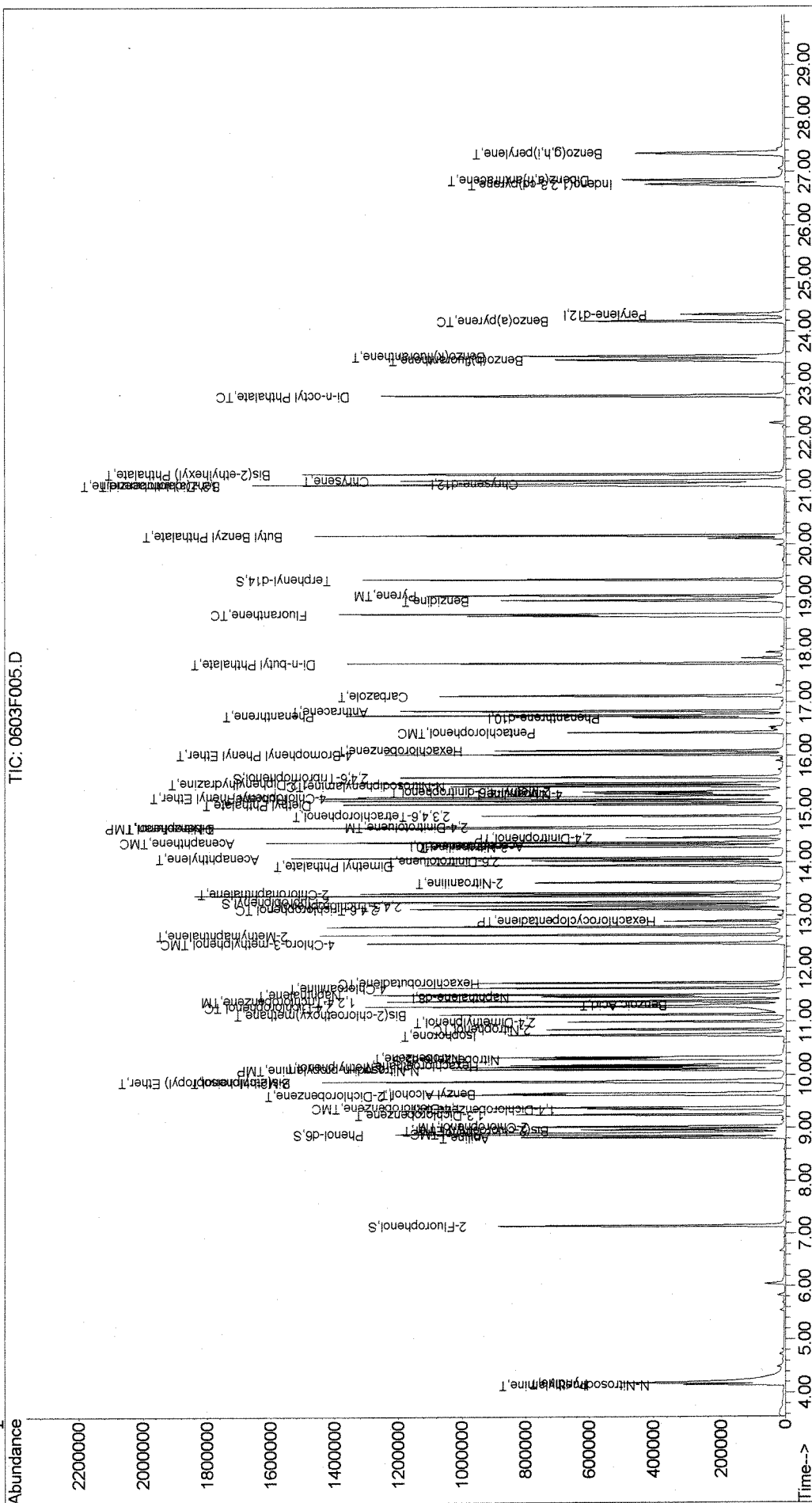
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 (#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\060310\0603F005.D  
Acq On : 3 Jun 2010 12:13 pm  
Sample : KQ4706-2 DLCS  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 4 8:23 2010

Vial: 5  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Fri Jun 04 10:34:14 2010  
Response via : Initial Calibration

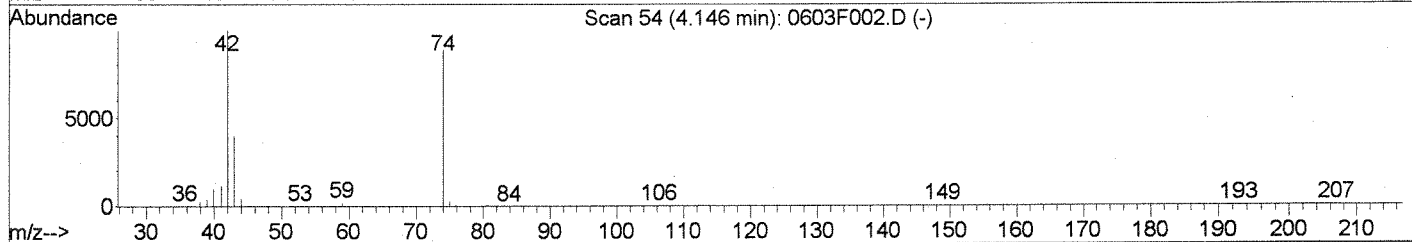
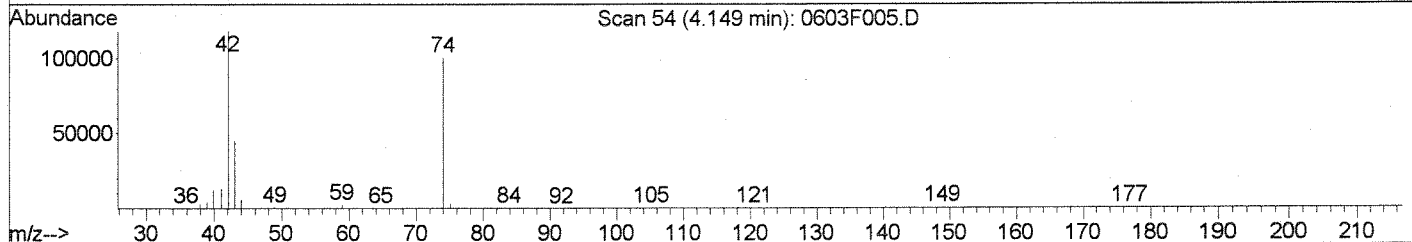
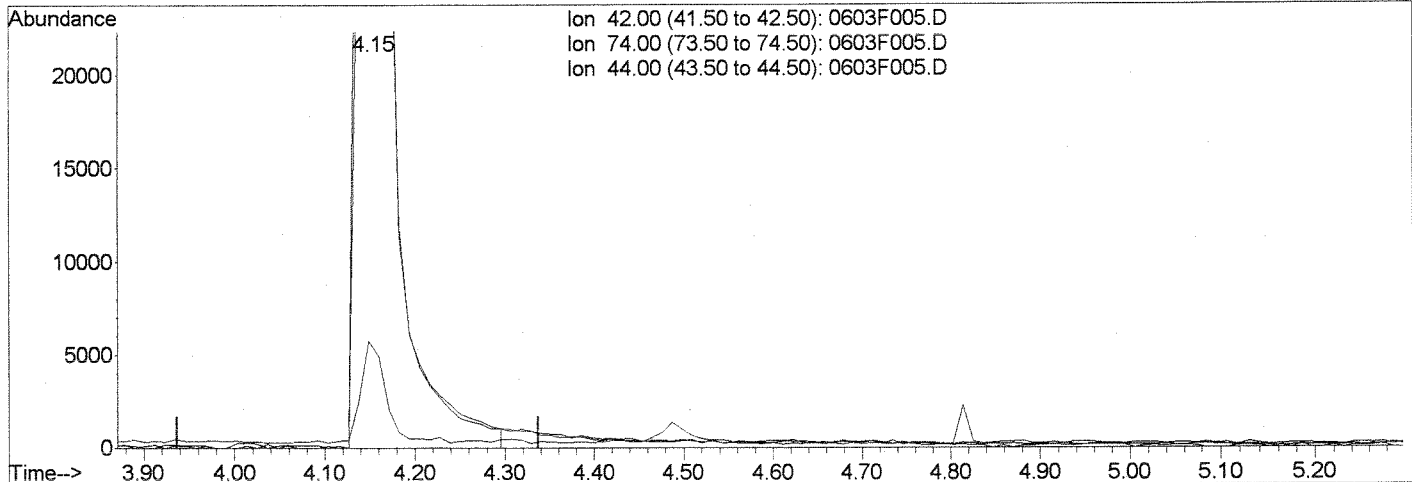


Data File : J:\MS07\DATA\060310\0603F005.D  
 Acq On : 3 Jun 2010 12:13 pm  
 Sample : KQ4706-2 DLCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 12:45 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F005.D

(2) N-Nitrosodimethylamine (T)

4.15min 82.32ug/ml

response 225827

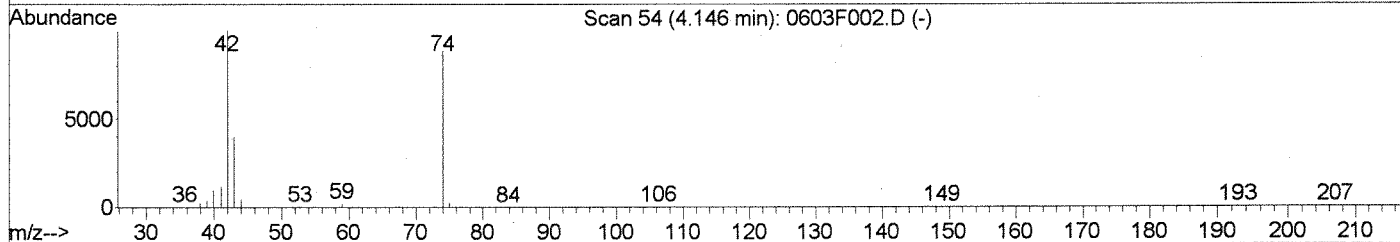
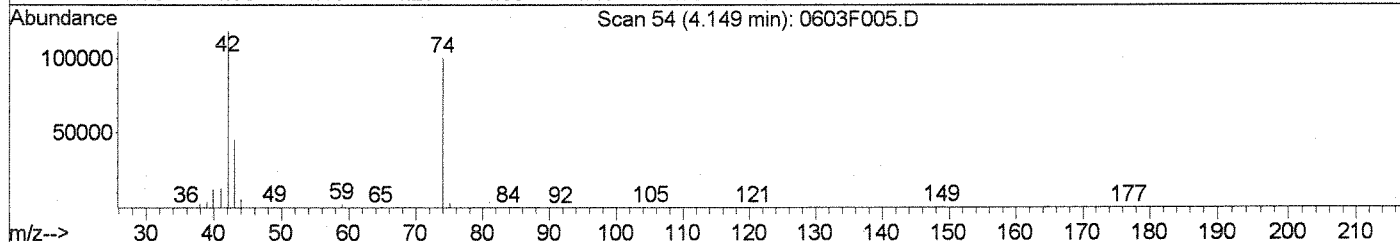
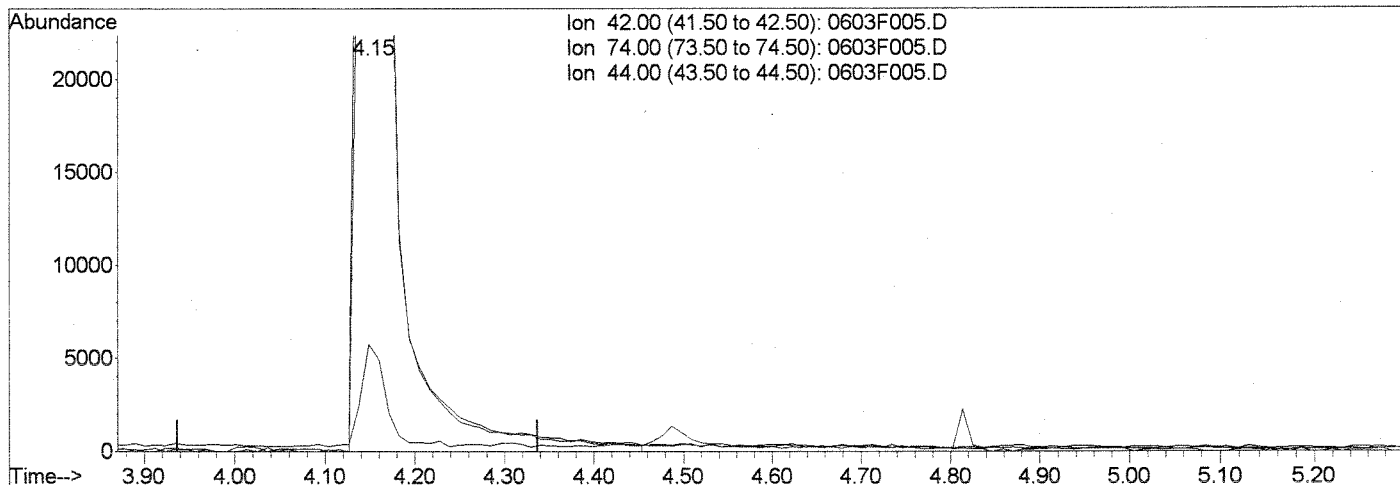
Ion	Exp%	Act%
42.00	100	100
74.00	79.30	84.72
44.00	4.40	4.57
0.00	0.00	0.00

Data File : J:\MS07\DATA\060310\0603F005.D  
Acq On : 3 Jun 2010 12:13 pm  
Sample : KQ4706-2 DLCS  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 4 8:22 2010

Vial: 5  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 09:52:06 2010  
Response via : Multiple Level Calibration



TIC: 0603F005.D

(2) N-Nitrosodimethylamine (T)

4.15min 84.47ug/ml m

response 231736

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	84.82
44.00	4.40	4.85
0.00	0.00	0.00

*Handwritten notes: LC 6-4-10, LB, 4/110*

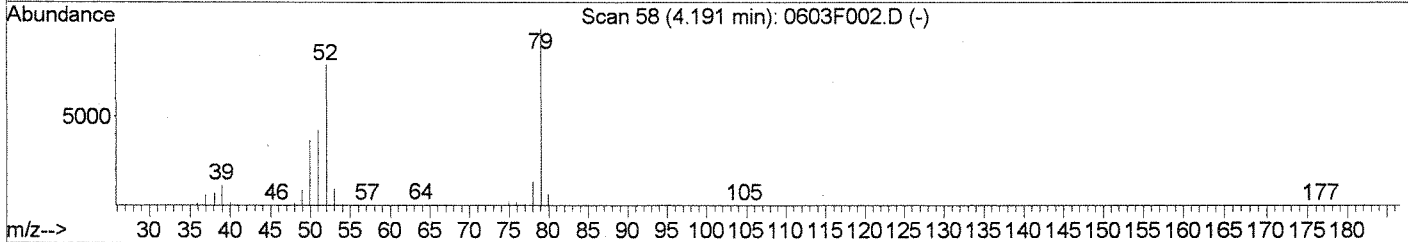
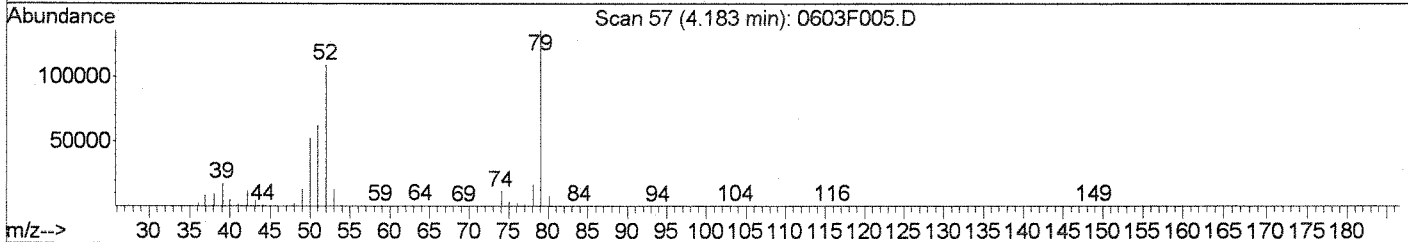
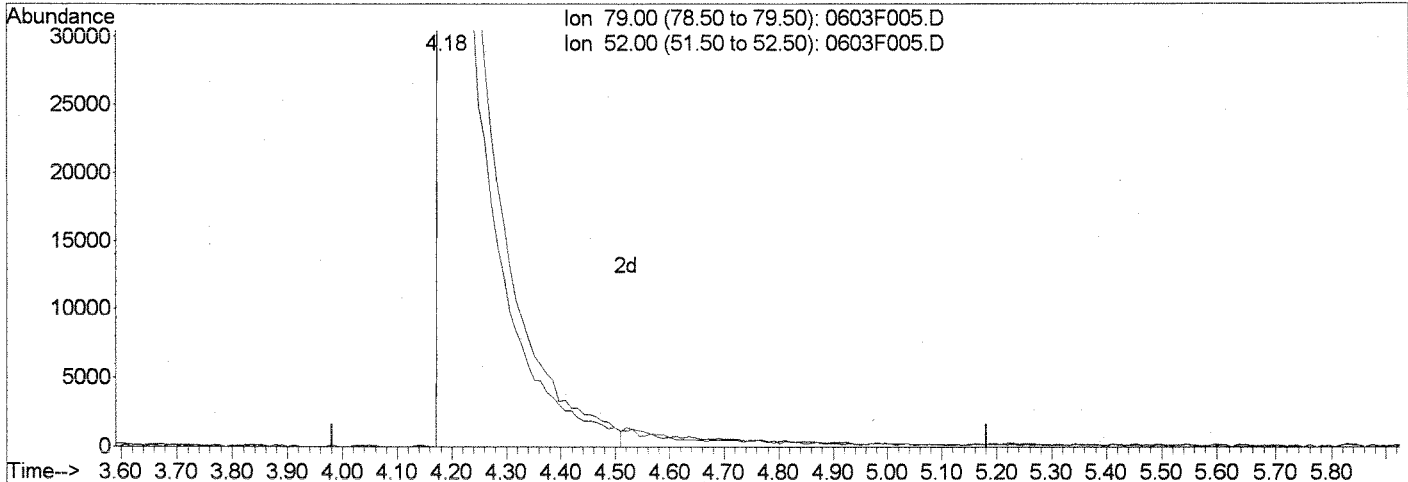


Data File : J:\MS07\DATA\060310\0603F005.D  
 Acq On : 3 Jun 2010 12:13 pm  
 Sample : KQ4706-2 DLCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:22 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F005.D

(3) Pyridine (T)

4.18min 127.45ug/ml

response 495518

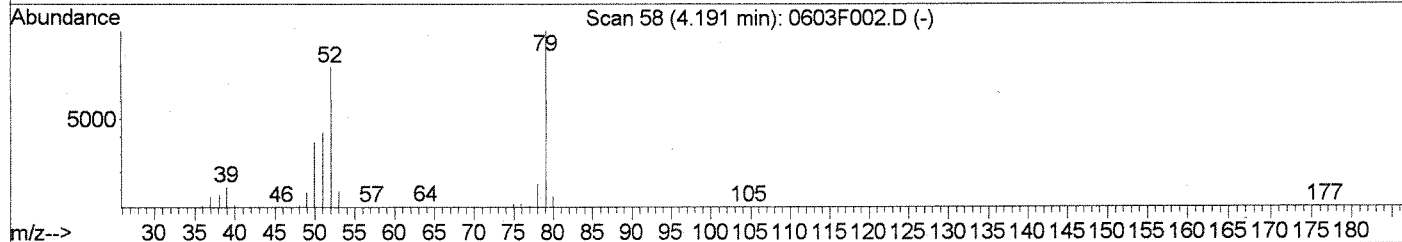
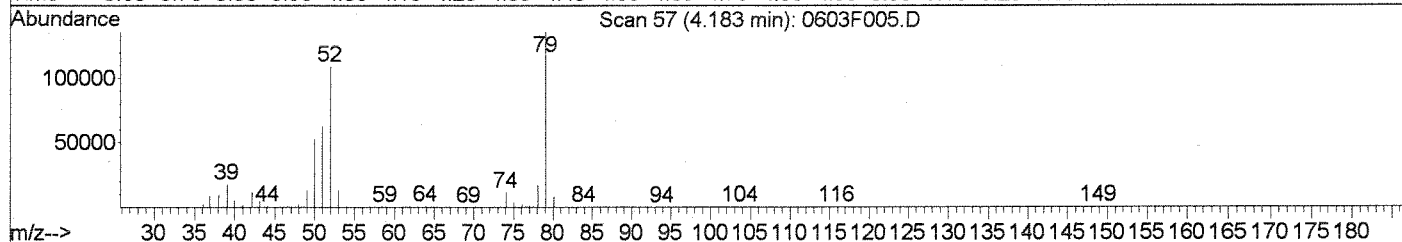
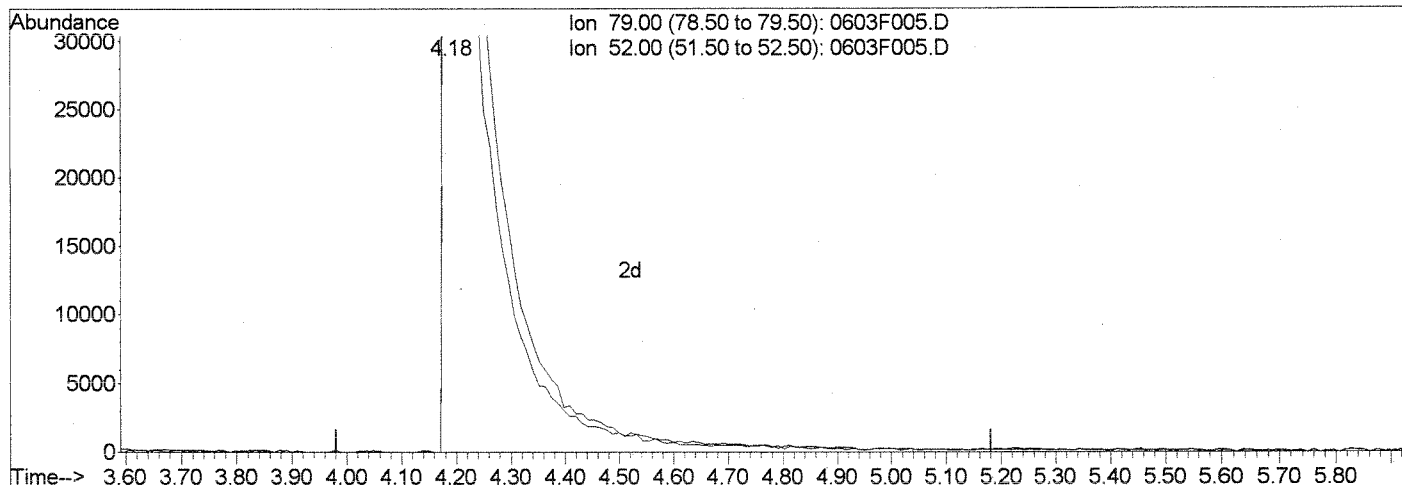
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	80.01
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\MS07\DATA\060310\0603F005.D  
Acq On : 3 Jun 2010 12:13 pm  
Sample : KQ4706-2 DLCS  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 4 8:23 2010

Vial: 5  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 09:52:06 2010  
Response via : Multiple Level Calibration



TIC: 0603F005.D

(3) Pyridine (T)

4.18min 131.67ug/ml m

response 511926

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	80.10
0.00	0.00	0.00
0.00	0.00	0.00

*Handwritten signature: J C M 6400*

*Handwritten initials: LB 6/4/10*

Organic Analysis:  
Semi-Volatile Organic Compounds by GC/MS

Validation Package

Standards Data

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 06/03/2010  
**Time Analyzed:** 09:08

**Tune Summary**  
**Semi-Volatile Organic Compounds by GC/MS**

**File ID:** J:\MS07\DATA\060310\0603F001.D  
**Instrument ID:** MS07  
**Column:**

**Analysis Method:** 625  
**Analysis Lot:** KWG1005376

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	30	60	49.4	23231	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	59.6	28021	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	49.3	23181	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	47026	PASS
199	198	5	9	6.6	3119	PASS
275	198	10	30	20.3	9557	PASS
365	198	1	100	2.6	1224	PASS
441	443	0	100	77.5	3287	PASS
442	198	40	100	47.7	22412	PASS
443	442	17	23	18.9	4244	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1005376-2	J:\MS07\DATA\060310\0603F002.D	06/03/2010	09:52	
Method Blank	KWG1005060-3	J:\MS07\DATA\060310\0603F003.D	06/03/2010	10:43	
Lab Control Sample	KWG1005060-1	J:\MS07\DATA\060310\0603F004.D	06/03/2010	11:28	
Duplicate Lab Control Sample	KWG1005060-2	J:\MS07\DATA\060310\0603F005.D	06/03/2010	12:13	
3bcd-2	K1005067-002	J:\MS07\DATA\060310\0603F006.D	06/03/2010	12:59	
3ddd	K1005067-003	J:\MS07\DATA\060310\0603F007.D	06/03/2010	13:45	
EB-051710	K1005067-004	J:\MS07\DATA\060310\0603F008.D	06/03/2010	14:32	
Lab Control Sample	KWG1005060-1	J:\MS07\DATA\060310\0603F011.D	06/03/2010	16:55	

Results flagged with an asterisk (\*) indicate the analysis performed outside specified tune window

# Exception Report

Data File: J:\MS07\DATA\060310\0603F001.D  
Lab ID: KWG1005376-1  
RunType: TUNE  
Matrix: WATER

Date Acquired: 06/03/2010 09:08  
Date Quantitated:  
Batch ID: KWG1005376  
Analysis Method: 625  
MethodJoinID: MJ104

## Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: M 6-4-10  
Secondary Review: LB 4/10

# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 8270C	Collect Date:	Receive Date:	06/04/2010

Analysis Lot: KWG1005376	Prep Lot:	Report Group:
Analysis Method: DFTPP	Prep Method:	
Prep Ref:	Prep Date:	

Quant Method: J:\MS07\METHODS\8270_625\625DFTPP.M	Calibration ID: CAL9525
Title:	Report List ID: LJ1047
Tune Ref:	Method ID: MJ190
MB Ref:	Quant based on Report List

Data File: J:\MS07\DATA\060310\0603F001.D	Instrument: MS07
Acqu Date: 06/03/2010 09:08	Quant Date:
Run Type: TUNE	Vial: 1
Lab ID: KWG1005376-1	Dilution: 1.0
	Soln Conc. Units:

## Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	30	60	49.4	23231	Pass
68	69	0	2	0.0	0	Pass
69	198	0	100	59.6	28021	Pass
70	69	0	2	0.0	0	Pass
127	198	40	60	49.3	23181	Pass
197	198	0	1	0.0	0	Pass
198	198	100	100	100.0	47026	Pass
199	198	5	9	6.6	3119	Pass
275	198	10	30	20.3	9557	Pass
365	198	1	100	2.6	1224	Pass
441	443	0.01	100	77.5	3287	Pass
442	198	40	100	47.7	22412	Pass
443	442	17	23	18.9	4244	Pass

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS07\DATA\060310\0603F001.D

Acq On : 3 Jun 2010 9:08 am

Sample : 50PPM DFTPP SVM32-14A

Misc :

MS Integration Params: LSCINT.P

Method : J:\MS07\METHODS\8270\_625\625DFTPP.M (RTE Integrator)

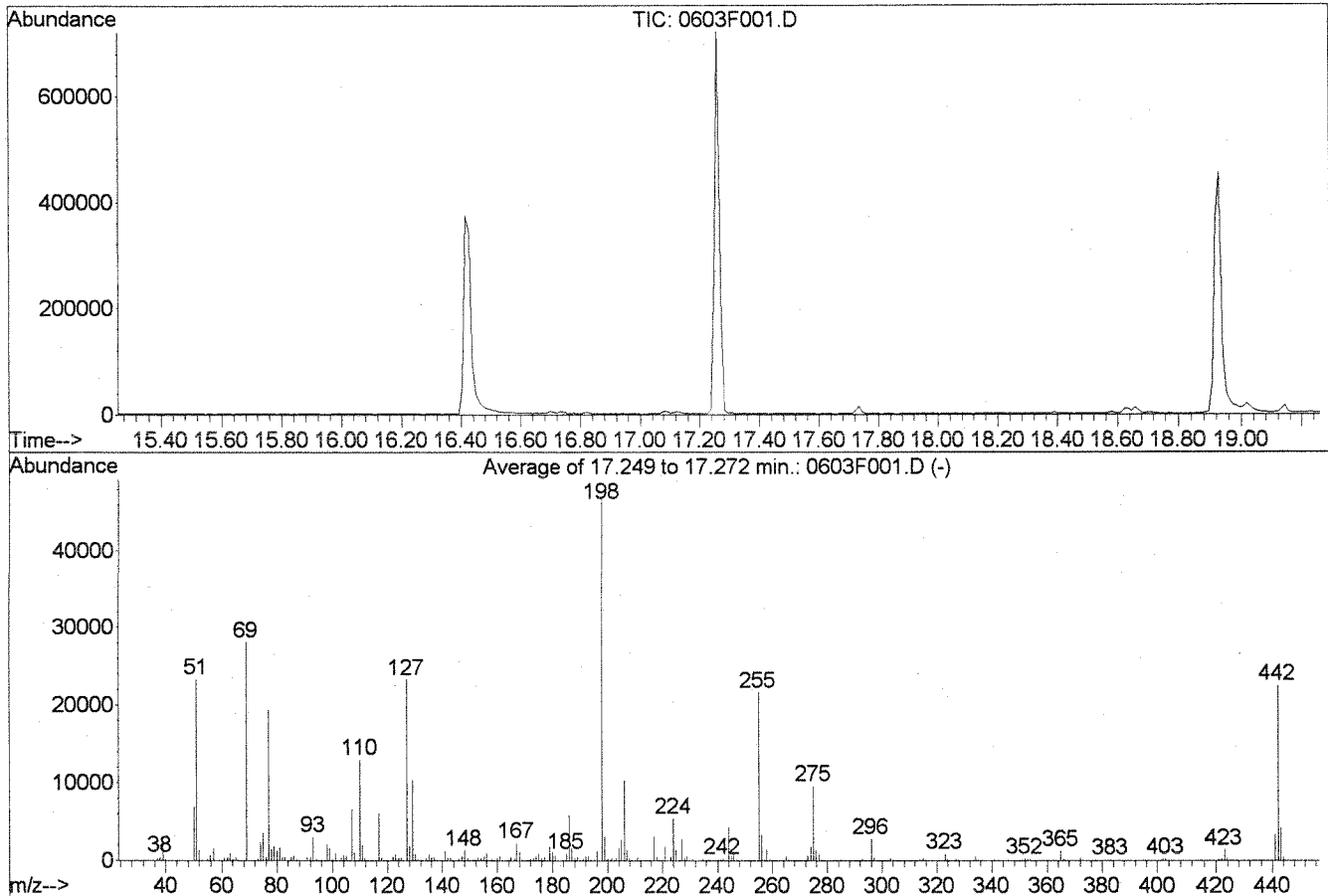
Title : 8270C Calibration/RTX-5MS 30m X .25mm MS08

Vial: 1

Operator: M.BUTCHER

Inst : MS07

Multiplr: 1.00



Spectrum Information: Average of 17.249 to 17.272 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.4	23231	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	59.6	28021	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	49.3	23181	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	47026	PASS
199	198	5	9	6.6	3119	PASS
275	198	10	30	20.3	9557	PASS
365	198	1	100	2.6	1224	PASS
441	443	0.01	100	77.5	3287	PASS
442	198	40	100	47.7	22412	PASS
443	442	17	23	18.9	4244	PASS

## 50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.95	227	52.00	1327	62.00	423	73.00	210
37.95	478	52.95	79	63.05	918	73.25	41
38.15	42	53.30	34	63.95	67	73.95	2292
38.95	2481	54.90	188	64.35	49	74.95	3511
39.95	205	55.90	697	65.00	388	76.05	463
44.00	10	56.10	58	65.75	57	77.05	19347
45.05	101	56.95	1543	66.05	45	78.00	1423
47.60	40	58.00	66	66.95	83	78.95	1885
49.00	37	59.90	36	68.95	28021	79.95	1284
50.00	6939	60.70	35	70.75	44	80.95	1645
51.00	23231	60.95	263	72.15	41	81.90	395

Average of 17.249 to 17.272 min.: 0603F001.D

## 50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.85	408	94.20	45	105.00	651	117.90	446
83.90	41	95.10	34	105.85	41	118.85	47
85.00	423	96.00	119	106.95	6561	120.05	49
85.95	574	96.70	35	107.95	1042	122.00	511
86.95	192	97.95	2105	109.95	12933	122.90	733
87.90	128	98.95	1604	110.95	2011	123.90	389
88.80	38	99.80	170	111.90	277	124.95	345
90.95	433	100.95	945	112.95	109	127.00	23181
91.95	462	101.80	45	114.05	54	128.00	1832
93.00	3000	102.95	340	114.85	40	129.00	10359
93.95	191	103.90	650	116.95	6013	130.00	871

Average of 17.249 to 17.272 min.: 0603F001.D

## 50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.95	158	141.90	372	151.55	89	160.95	597
132.05	83	142.10	49	152.90	397	161.85	138
132.70	44	142.90	300	153.65	33	162.85	34
133.95	295	143.90	37	153.90	237	163.95	42
134.95	817	144.90	58	154.85	143	164.85	469
135.95	305	145.95	252	155.05	524	166.05	302
136.95	416	147.00	552	155.95	891	166.90	2281
137.90	102	147.95	1308	157.00	133	167.95	1050
139.00	39	149.05	237	157.90	194	168.85	228
139.90	40	149.95	45	158.95	116	170.10	52
140.90	1207	150.90	130	159.95	345	170.90	55

Average of 17.249 to 17.272 min.: 0603F001.D

## 50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
171.90	126	184.00	111	194.95	69	207.95	405
172.10	37	185.00	843	196.00	1225	208.85	104
173.00	262	186.00	5782	197.95	47026	210.95	442
174.00	505	186.90	1577	198.95	3119	215.10	97
175.00	849	188.00	225	199.95	220	215.80	40
176.00	274	188.90	445	201.50	252	216.90	3112
176.90	425	189.90	48	202.90	318	217.95	402
178.90	1781	190.95	166	203.95	1539	221.00	1839
179.90	1102	191.95	510	204.95	2648	223.10	484
181.00	588	192.95	523	205.95	10323	224.00	5399
182.00	76	193.85	89	206.95	1344	225.00	1379



50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.90	2701	238.85	65	251.95	46	265.90	36
227.90	299	240.05	58	252.95	37	269.90	34
228.90	522	241.10	149	255.00	21552	272.90	634
229.70	42	241.90	246	256.00	3337	273.90	1774
230.70	35	242.95	79	257.00	242	274.90	9557
230.85	178	243.95	4305	257.90	1392	275.90	1333
233.95	155	245.05	577	258.90	201	276.95	870
234.90	200	245.95	985	259.90	34	277.75	129
236.00	112	246.95	170	260.90	34	282.90	102
236.90	208	247.75	37	264.90	531	283.95	47
237.75	35	248.90	147	265.70	115	284.95	95

Average of 17.249 to 17.272 min.: 0603F001.D

50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
291.95	37	314.85	295	345.90	163	382.95	112
292.90	220	315.95	154	346.90	36	401.95	161
293.95	40	320.75	56	351.70	36	402.90	182
295.95	2722	322.95	845	352.00	230	403.90	41
296.90	387	323.95	216	352.95	187	420.95	180
302.00	40	326.85	159	353.90	202	422.00	176
302.95	319	327.85	60	354.80	33	422.95	1358
303.95	90	331.85	75	364.95	1224	423.95	237
308.00	33	334.00	482	365.90	193	441.00	3287
313.00	34	335.00	119	371.95	399	442.00	22412
313.90	127	341.00	68	372.95	113	443.00	4244

Average of 17.249 to 17.272 min.: 0603F001.D

50PPM DFTPP SVM32-14A

Modified:subtracted

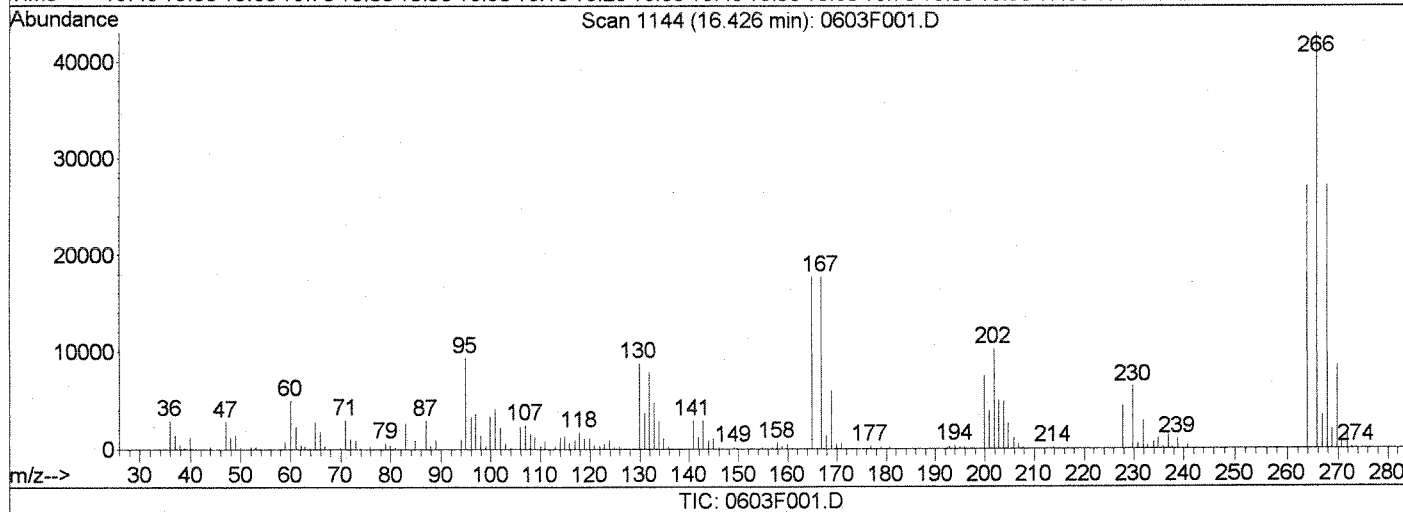
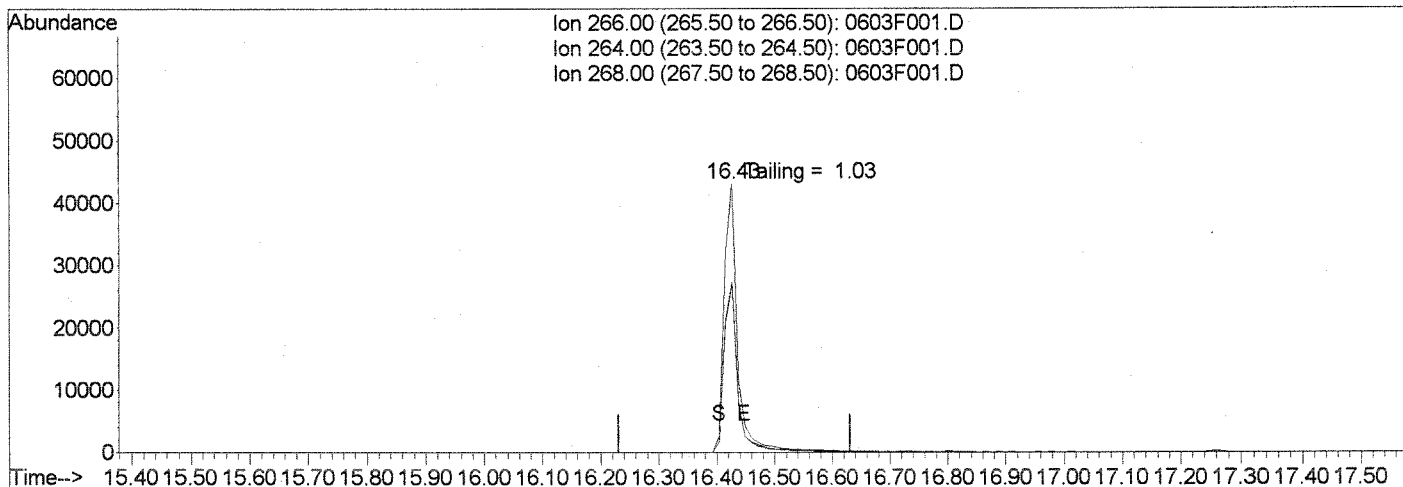
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
443.95	454						

Data File : J:\MS07\DATA\060310\0603F001.D  
 Acq On : 3 Jun 2010 9:08 am  
 Sample : 50PPM DFTPP SVM32-14A  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 11:34 2010

Vial: 1  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Fri Jun 04 10:34:14 2010  
 Response via : Single Level Calibration



(62) Pentachlorophenol (TMC)

16.43min 6400.35ug/ml

response 70297

Ion	Exp%	Act%
266.00	100	100
264.00	61.00	62.94
268.00	63.90	63.24
0.00	0.00	0.00

*M-4-10*

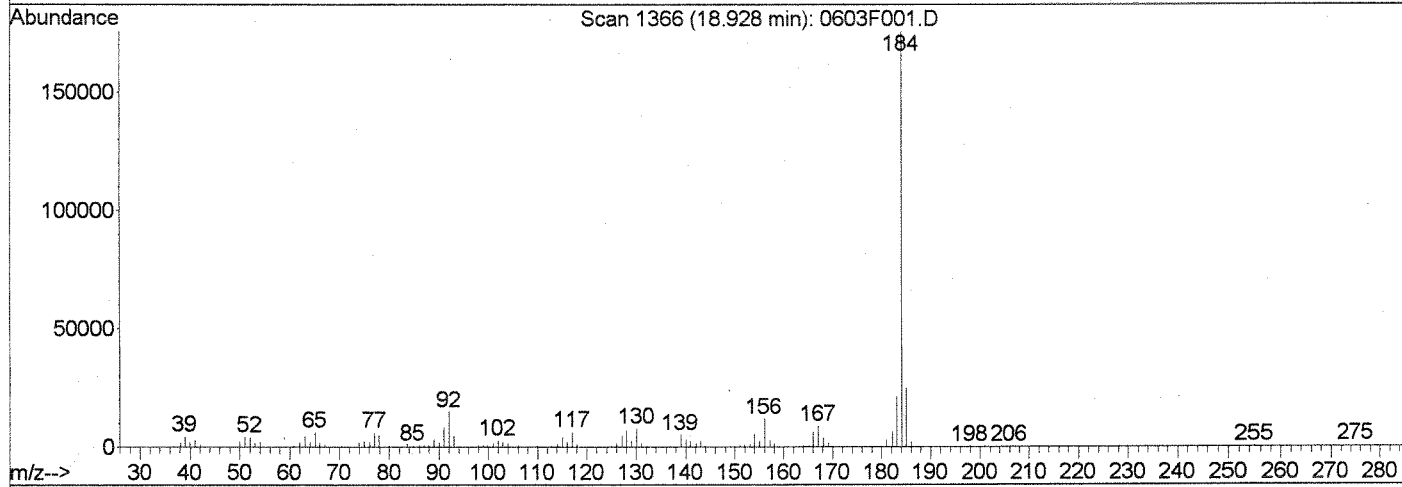
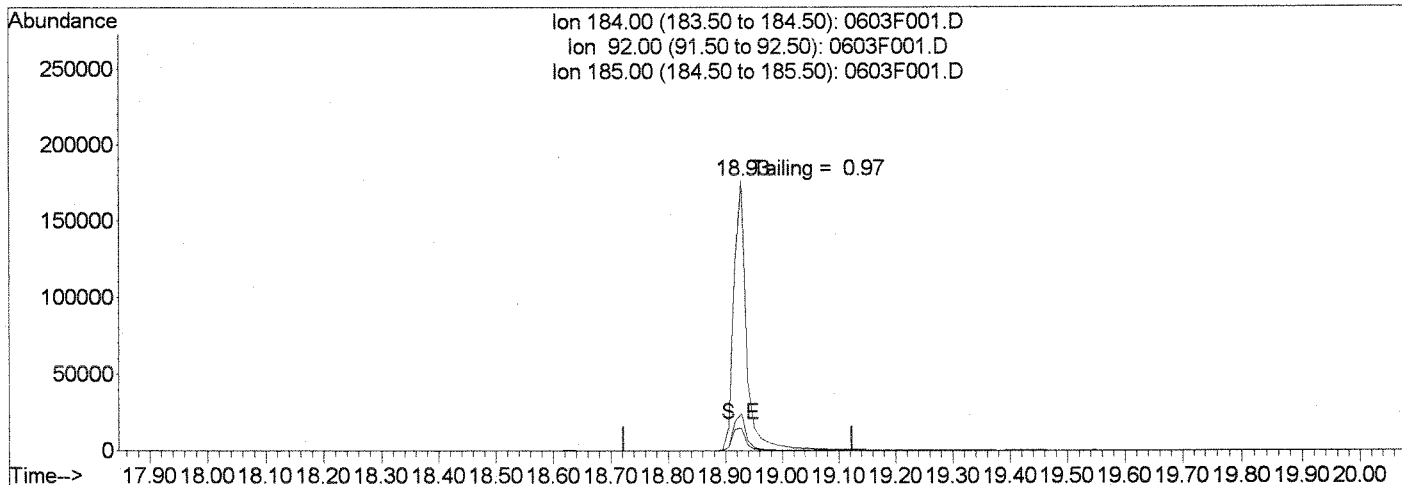
*LB*  
*6/4/10*

Data File : J:\MS07\DATA\060310\0603F001.D  
Acq On : 3 Jun 2010 9:08 am  
Sample : 50PPM DFTPP SVM32-14A  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 4 11:34 2010

Vial: 1  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Fri Jun 04 10:34:14 2010  
Response via : Single Level Calibration



(69) Benzidine (T)

18.93min 30478.02ug/ml

response 277155

Ion	Exp%	Act%
184.00	100	100
92.00	9.90	8.37
185.00	14.60	13.95
0.00	0.00	0.00

*Handwritten:* 6-4-10

*Handwritten:* LB  
4/4/10

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010

**Initial Calibration Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Calibration ID:** CAL9525  
**Instrument ID:** MS07

**Column:** MS

<b>Level ID</b>	<b>File ID</b>	<b>Level ID</b>	<b>File ID</b>
A	J:\MS07\DATA\060210\0602F004.D	F	J:\MS07\DATA\060210\0602F009.D
B	J:\MS07\DATA\060210\0602F005.D	G	J:\MS07\DATA\060210\0602F010.D
C	J:\MS07\DATA\060210\0602F006.D	H	J:\MS07\DATA\060210\0602F011.D
D	J:\MS07\DATA\060210\0602F007.D	I	J:\MS07\DATA\060210\0602F012.D
E	J:\MS07\DATA\060210\0602F008.D		

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
N-Nitrosodimethylamine	A	5.0	0.876	B	10	0.953	C	20	0.933	D	50	0.861	E	80	0.952
	F	100	1.02	G	120	0.995	H	160	1.02	I	200	0.996			
Bis(2-chloroethyl) Ether	A	5.0	1.03	B	10	1.14	C	20	1.20	D	50	1.05	E	80	1.24
	F	100	1.29	G	120	1.32	H	160	1.33	I	200	1.29			
Phenol				B	10	1.36	C	20	1.44	D	50	1.31	E	80	1.54
	F	100	1.63	G	120	1.63	H	160	1.62	I	200	1.62			
2-Chlorophenol	A	5.0	1.16	B	10	1.25	C	20	1.33	D	50	1.15	E	80	1.34
	F	100	1.43	G	120	1.36	H	160	1.39	I	200	1.36			
Bis(2-chloroisopropyl) Ether				B	10	1.81	C	20	1.82	D	50	1.63	E	80	2.01
	F	100	2.16	G	120	2.18	H	160	2.25	I	200	2.20			
Hexachloroethane	A	5.0	0.579	B	10	0.644	C	20	0.660	D	50	0.598	E	80	0.692
	F	100	0.699	G	120	0.678	H	160	0.653	I	200	0.590			
N-Nitrosodi-n-propylamine	A	5.0	0.866	B	10	0.899	C	20	0.946	D	50	0.757	E	80	1.06
	F	100	1.09	G	120	1.11	H	160	1.11	I	200	1.02			
Nitrobenzene				B	10	1.24	C	20	1.31	D	50	1.21	E	80	1.40
	F	100	1.46	G	120	1.46	H	160	1.50	I	200	1.33			
Isophorone	A	5.0	0.711	B	10	0.701	C	20	0.765	D	50	0.630	E	80	0.760
	F	100	0.681	G	120	0.768	H	160	0.731	I	200	0.747			
2-Nitrophenol	A	5.0	0.182	B	10	0.183	C	20	0.204	D	50	0.173	E	80	0.206
	F	100	0.190	G	120	0.218	H	160	0.217	I	200	0.217			
2,4-Dimethylphenol	A	5.0	0.264	B	10	0.234	C	20	0.266	D	50	0.245	E	80	0.281
	F	100	0.271	G	120	0.282	H	160	0.273	I	200	0.277			
Bis(2-chloroethoxy)methane	A	5.0	0.391	B	10	0.393	C	20	0.425	D	50	0.375	E	80	0.412
	F	100	0.410	G	120	0.426	H	160	0.395	I	200	0.421			
2,4-Dichlorophenol	A	5.0	0.273	B	10	0.290	C	20	0.315	D	50	0.286	E	80	0.303
	F	100	0.294	G	120	0.341	H	160	0.310	I	200	0.303			
1,2,4-Trichlorobenzene	A	5.0	0.318	B	10	0.326	C	20	0.339	D	50	0.300	E	80	0.335
	F	100	0.318	G	120	0.332	H	160	0.311	I	200	0.304			

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010

**Initial Calibration Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Calibration ID:** CAL9525  
**Instrument ID:** MS07

**Column:** MS

Analyte Name	Level ID			Level ID			Level ID			Level ID			Level ID		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Naphthalene	A	5.0	0.986	B	10	1.00	C	20	1.01	D	50	0.889	E	80	0.980
	F	100	0.935	G	120	1.01	H	160	0.940	I	200	0.884			
Hexachlorobutadiene	A	5.0	0.202	B	10	0.201	C	20	0.218	D	50	0.191	E	80	0.218
	F	100	0.211	G	120	0.206	H	160	0.191	I	200	0.190			
4-Chloro-3-methylphenol	A	5.0	0.319	B	10	0.318	C	20	0.322	D	50	0.310	E	80	0.345
	F	100	0.299	G	120	0.334	H	160	0.293	I	200	0.294			
Hexachlorocyclopentadiene				B	10	0.211	C	20	0.297	D	50	0.327	E	80	0.387
	F	100	0.465	G	120	0.436	H	160	0.424	I	200	0.438			
2,4,6-Trichlorophenol	A	5.0	0.373	B	10	0.389	C	20	0.417	D	50	0.388	E	80	0.413
	F	100	0.449	G	120	0.429	H	160	0.427	I	200	0.427			
2-Chloronaphthalene	A	5.0	1.13	B	10	1.08	C	20	1.10	D	50	1.11	E	80	1.18
	F	100	1.25	G	120	1.16	H	160	1.20	I	200	1.20			
Acenaphthylene	A	5.0	1.73	B	10	1.76	C	20	1.84	D	50	1.67	E	80	1.79
	F	100	1.89	G	120	1.81	H	160	1.76	I	200	1.78			
Dimethyl Phthalate	A	5.0	1.49	B	10	1.42	C	20	1.48	D	50	1.36	E	80	1.34
	F	100	1.31	G	120	1.33	H	160	1.28	I	200	1.21			
2,6-Dinitrotoluene	A	5.0	0.316	B	10	0.315	C	20	0.320	D	50	0.286	E	80	0.319
	F	100	0.311	G	120	0.303	H	160	0.299	I	200	0.305			
Acenaphthene	A	5.0	1.10	B	10	1.06	C	20	1.04	D	50	0.936	E	80	1.01
	F	100	1.02	G	120	1.02	H	160	0.990	I	200	0.982			
2,4-Dinitrophenol							C	20	0.126	D	50	0.173	E	80	0.191
	F	100	0.189	G	120	0.188	H	160	0.196	I	200	0.187			
4-Nitrophenol							C	20	0.149	D	50	0.168	E	80	0.186
	F	100	0.180	G	120	0.179	H	160	0.183	I	200	0.184			
2,4-Dinitrotoluene	A	5.0	0.442	B	10	0.421	C	20	0.412	D	50	0.379	E	80	0.401
	F	100	0.365	G	120	0.362	H	160	0.369	I	200	0.364			
Fluorene	A	5.0	1.34	B	10	1.29	C	20	1.25	D	50	1.20	E	80	1.21
	F	100	1.18	G	120	1.12	H	160	1.16	I	200	1.07			
4-Chlorophenyl Phenyl Ether	A	5.0	0.653	B	10	0.664	C	20	0.646	D	50	0.591	E	80	0.636
	F	100	0.587	G	120	0.605	H	160	0.586	I	200	0.568			
Diethyl Phthalate				B	10	1.52	C	20	1.50	D	50	1.30	E	80	1.41
	F	100	1.23	G	120	1.26	H	160	1.15	I	200	1.15			
2-Methyl-4,6-dinitrophenol							C	20	0.188	D	50	0.221	E	80	0.230
	F	100	0.209	G	120	0.215	H	160	0.219	I	200	0.205			
N-Nitrosodiphenylamine	A	5.0	0.904	B	10	0.854	C	20	0.852	D	50	0.892	E	80	0.789
	F	100	0.752	G	120	0.753	H	160	0.728	I	200	0.688			

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† SPCC Compound

‡ CCC Compound

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
Calibration Date: 06/02/2010

Initial Calibration Summary  
Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL9525  
Instrument ID: MS07

Column: MS

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
1,2-Diphenylhydrazine	A	5.0	1.51	B	10	1.35	C	20	1.44	D	50	1.30	E	80	1.40
	F	100	1.36	G	120	1.33	H	160	1.27	I	200	1.19			
4-Bromophenyl Phenyl Ether	A	5.0	0.213	B	10	0.226	C	20	0.243	D	50	0.218	E	80	0.267
	F	100	0.257	G	120	0.263	H	160	0.250	I	200	0.233			
Hexachlorobenzene	A	5.0	0.269	B	10	0.266	C	20	0.277	D	50	0.257	E	80	0.306
	F	100	0.297	G	120	0.289	H	160	0.281	I	200	0.274			
Pentachlorophenol							C	20	0.125	D	50	0.142	E	80	0.171
	F	100	0.158	G	120	0.169	H	160	0.166	I	200	0.169			
Phenanthrene	A	5.0	1.15	B	10	1.14	C	20	1.09	D	50	0.980	E	80	1.15
	F	100	1.00	G	120	1.04	H	160	1.00	I	200	1.01			
Anthracene	A	5.0	1.15	B	10	1.12	C	20	1.10	D	50	1.04	E	80	1.21
	F	100	1.15	G	120	1.13	H	160	1.10	I	200	1.06			
Di-n-butyl Phthalate	A	5.0	1.26	B	10	1.09	C	20	1.15	D	50	1.16	E	80	1.33
	F	100	1.28	G	120	1.25	H	160	1.19	I	200	1.25			
Fluoranthene	A	5.0	0.954	B	10	0.890	C	20	0.817	D	50	0.817	E	80	0.968
	F	100	1.04	G	120	1.04	H	160	1.04	I	200	1.10			
Benzidine							C	20	0.432	D	50	0.278	E	80	0.332
	F	100	0.314	G	120	0.312	H	160	0.338	I	200	0.345			
Pyrene				B	10	1.28	C	20	1.15	D	50	1.08	E	80	1.03
	F	100	0.965	G	120	0.970	H	160	0.958	I	200	1.11			
Butyl Benzyl Phthalate	A	5.0	0.581	B	10	0.542	C	20	0.606	D	50	0.565	E	80	0.647
	F	100	0.607	G	120	0.626	H	160	0.620	I	200	0.680			
3,3'-Dichlorobenzidine	A	5.0	0.404	B	10	0.399	C	20	0.423	D	50	0.427	E	80	0.465
	F	100	0.430	G	120	0.415	H	160	0.398	I	200	0.402			
Benz(a)anthracene	A	5.0	0.973	B	10	0.885	C	20	0.921	D	50	0.905	E	80	1.02
	F	100	0.963	G	120	0.923	H	160	0.914	I	200	0.952			
Chrysene	A	5.0	1.01	B	10	0.878	C	20	0.894	D	50	0.882	E	80	0.958
	F	100	0.911	G	120	0.877	H	160	0.866	I	200	0.918			
Bis(2-ethylhexyl) Phthalate	A	5.0	0.827	B	10	0.765	C	20	0.860	D	50	0.809	E	80	0.896
	F	100	0.902	G	120	0.924	H	160	0.901	I	200	0.908			
Di-n-octyl Phthalate				B	10	1.37	C	20	1.40	D	50	1.58	E	80	1.81
	F	100	1.99	G	120	1.96	H	160	2.00	I	200	1.98			
Benzo(b)fluoranthene				B	10	0.873	C	20	0.966	D	50	0.943	E	80	1.04
	F	100	1.11	G	120	1.04	H	160	1.12	I	200	1.15			
Benzo(k)fluoranthene	A	5.0	0.941	B	10	0.944	C	20	1.03	D	50	1.03	E	80	1.09
	F	100	1.14	G	120	1.18	H	160	1.10	I	200	1.17			

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† SPCC Compound

‡ CCC Compound

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010

**Initial Calibration Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Calibration ID:** CAL9525  
**Instrument ID:** MS07

**Column:** MS

Analyte Name	Level			Level			Level			Level					
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF			
Benzo(a)pyrene	F	100	0.874	B	10	0.799	C	20	0.843	D	50	0.788	E	80	0.871
				G	120	0.881	H	160	0.899	I	200	0.891			
Indeno(1,2,3-cd)pyrene	A	5.0	0.706	B	10	0.671	C	20	0.684	D	50	0.687	E	80	0.758
	F	100	0.750	G	120	0.785	H	160	0.813	I	200	0.816			
Dibenz(a,h)anthracene	A	5.0	0.758	B	10	0.689	C	20	0.761	D	50	0.713	E	80	0.812
	F	100	0.819	G	120	0.809	H	160	0.859	I	200	0.885			
Benzo(g,h,i)perylene	A	5.0	0.819	B	10	0.799	C	20	0.777	D	50	0.744	E	80	0.778
	F	100	0.772	G	120	0.832	H	160	0.809	I	200	0.870			
2-Fluorophenol	A	5.0	0.897	B	10	1.01	C	20	1.02	D	50	1.07	E	80	1.08
	F	100	1.15	G	120	1.12	H	160	1.12	I	200	1.11			
Phenol-d6	A	5.0	1.24	B	10	1.40	C	20	1.40	D	50	1.43	E	80	1.52
	F	100	1.60	G	120	1.60	H	160	1.61	I	200	1.55			
Nitrobenzene-d5				B	10	1.27	C	20	1.32	D	50	1.34	E	80	1.50
	F	100	1.55	G	120	1.53	H	160	1.58	I	200	1.50			
2-Fluorobiphenyl	A	5.0	1.21	B	10	1.26	C	20	1.26	D	50	1.31	E	80	1.24
	F	100	1.47	G	120	1.38	H	160	1.35	I	200	1.32			
2,4,6-Tribromophenol				B	10	0.133	C	20	0.155	D	50	0.160	E	80	0.180
	F	100	0.173	G	120	0.175	H	160	0.161	I	200	0.160			
Terphenyl-d14				B	10	0.644	C	20	0.659	D	50	0.674	E	80	0.595
	F	100	0.564	G	120	0.551	H	160	0.587	I	200	0.625			

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† SPCC Compound

‡ CCC Compound

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Calibration Date: 06/02/2010

Initial Calibration Summary  
 Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL9525  
 Instrument ID: MS07

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
N-Nitrosodimethylamine	TRG	AverageRF	% RSD	6.0		≤ 35	0.956		0.01
Bis(2-chloroethyl) Ether	TRG	AverageRF	% RSD	9.3		≤ 35	1.21		0.01
Phenol	MS	AverageRF	% RSD	8.7		≤ 35	1.52		0.01
2-Chlorophenol	MS	AverageRF	% RSD	7.6		≤ 35	1.31		0.01
Bis(2-chloroisopropyl) Ether	TRG	AverageRF	% RSD	11.5		≤ 35	2.01		0.01
Hexachloroethane	TRG	AverageRF	% RSD	7.0		≤ 35	0.644		0.01
N-Nitrosodi-n-propylamine	MS	AverageRF	% RSD	12.7		≤ 35	0.985		0.05
Nitrobenzene	TRG	AverageRF	% RSD	7.9		≤ 35	1.36		0.01
Isophorone	TRG	AverageRF	% RSD	6.3		≤ 35	0.722		0.01
2-Nitrophenol	TRG	AverageRF	% RSD	8.7		≤ 35	0.199		0.01
2,4-Dimethylphenol	TRG	AverageRF	% RSD	6.1		≤ 35	0.266		0.01
Bis(2-chloroethoxy)methane	TRG	AverageRF	% RSD	4.3		≤ 35	0.405		0.01
2,4-Dichlorophenol	TRG	AverageRF	% RSD	6.5		≤ 35	0.302		0.01
1,2,4-Trichlorobenzene	MS	AverageRF	% RSD	4.3		≤ 35	0.320		0.01
Naphthalene	TRG	AverageRF	% RSD	5.2		≤ 35	0.960		0.01
Hexachlorobutadiene	TRG	AverageRF	% RSD	5.5		≤ 35	0.203		0.01
4-Chloro-3-methylphenol	MS	AverageRF	% RSD	5.6		≤ 35	0.315		0.01
Hexachlorocyclopentadiene	TRG	Quadratic	COD	0.993		≥ 0.990	0.373		0.05
2,4,6-Trichlorophenol	TRG	AverageRF	% RSD	5.9		≤ 35	0.413		0.01
2-Chloronaphthalene	TRG	AverageRF	% RSD	4.8		≤ 35	1.16		0.01
Acenaphthylene	TRG	AverageRF	% RSD	3.6		≤ 35	1.78		0.01
Dimethyl Phthalate	TRG	AverageRF	% RSD	6.7		≤ 35	1.36		0.01
2,6-Dinitrotoluene	TRG	AverageRF	% RSD	3.6		≤ 35	0.308		0.01
Acenaphthene	MS	AverageRF	% RSD	4.6		≤ 35	1.02		0.01
2,4-Dinitrophenol	TRG	AverageRF	% RSD	13.5		≤ 35	0.179		0.05
4-Nitrophenol	MS	AverageRF	% RSD	7.4		≤ 35	0.176		0.05
2,4-Dinitrotoluene	MS	AverageRF	% RSD	7.5		≤ 35	0.391		0.01
Fluorene	TRG	AverageRF	% RSD	7.0		≤ 35	1.20		0.01
4-Chlorophenyl Phenyl Ether	TRG	AverageRF	% RSD	5.7		≤ 35	0.615		0.01
Diethyl Phthalate	TRG	AverageRF	% RSD	11.0		≤ 35	1.31		0.01
2-Methyl-4,6-dinitrophenol	TRG	AverageRF	% RSD	6.4		≤ 35	0.212		0.01
N-Nitrosodiphenylamine	TRG	AverageRF	% RSD	9.6		≤ 35	0.801		0.01
1,2-Diphenylhydrazine	TRG	AverageRF	% RSD	7.0		≤ 35	1.35		0.01
4-Bromophenyl Phenyl Ether	TRG	AverageRF	% RSD	8.1		≤ 35	0.241		0.01
Hexachlorobenzene	TRG	AverageRF	% RSD	5.6		≤ 35	0.280		0.01
Pentachlorophenol	MS	AverageRF	% RSD	11.0		≤ 35	0.157		0.01
Phenanthrene	TRG	AverageRF	% RSD	6.5		≤ 35	1.06		0.01
Anthracene	TRG	AverageRF	% RSD	4.6		≤ 35	1.12		0.01
Di-n-butyl Phthalate	TRG	AverageRF	% RSD	6.2		≤ 35	1.22		0.01
Fluoranthene	TRG	AverageRF	% RSD	10.7		≤ 35	0.964		0.01
Benzidine	TRG	AverageRF	% RSD	14.3		≤ 35	0.336		0.01
Pyrene	MS	AverageRF	% RSD	10.4		≤ 35	1.07		0.01

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† SPCC Compound

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010

**Initial Calibration Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Calibration ID:** CAL9525  
**Instrument ID:** MS07

**Column:** MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Butyl Benzyl Phthalate	TRG	AverageRF	% RSD	6.9		≤ 35	0.608		0.01
3,3'-Dichlorobenzidine	TRG	AverageRF	% RSD	5.1		≤ 35	0.418		0.01
Benz(a)anthracene	TRG	AverageRF	% RSD	4.5		≤ 35	0.940		0.01
Chrysene	TRG	AverageRF	% RSD	5.1		≤ 35	0.910		0.01
Bis(2-ethylhexyl) Phthalate	TRG	AverageRF	% RSD	6.3		≤ 35	0.866		0.01
Di-n-octyl Phthalate	TRG	Quadratic	COD	0.998		≥ 0.990	1.76		0.01
Benzo(b)fluoranthene	TRG	AverageRF	% RSD	9.4		≤ 35	1.03		0.01
Benzo(k)fluoranthene	TRG	AverageRF	% RSD	8.3		≤ 35	1.07		0.01
Benzo(a)pyrene	TRG	AverageRF	% RSD	4.9		≤ 35	0.856		0.01
Indeno(1,2,3-cd)pyrene	TRG	AverageRF	% RSD	7.6		≤ 35	0.741		0.01
Dibenz(a,h)anthracene	TRG	AverageRF	% RSD	8.2		≤ 35	0.789		0.01
Benzo(g,h,i)perylene	TRG	AverageRF	% RSD	4.7		≤ 35	0.800		0.01
2-Fluorophenol	SURR	AverageRF	% RSD	7.3		≤ 35	1.06		0.01
Phenol-d6	SURR	AverageRF	% RSD	8.3		≤ 35	1.48		0.01
Nitrobenzene-d5	SURR	AverageRF	% RSD	8.3		≤ 35	1.45		0.01
2-Fluorobiphenyl	SURR	AverageRF	% RSD	6.1		≤ 35	1.31		0.01
2,4,6-Tribromophenol	SURR	AverageRF	% RSD	9.2		≤ 35	0.162		0.01
Terphenyl-d14	SURR	AverageRF	% RSD	7.3		≤ 35	0.612		0.01

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010  
**Date Analyzed:** 06/02/2010 -  
 06/03/2010

**Second Source Calibration Verification  
 Semi-Volatile Organic Compounds by GC/MS**

**Calibration Type:** Internal Standard  
**Analysis Method:** 625

**Calibration ID:** CAL9525  
**Units:** ug/ml

**File ID:** J:\MS07\DATA\060210\0602F013.D  
 J:\MS07\DATA\060210\0602F014.D  
 J:\MS07\DATA\060210\0602F016.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
N-Nitrosodimethylamine	80	76	0.956	0.912	-5	NA	± 30 %	AverageRF
Bis(2-chloroethyl) Ether	80	85	1.21	1.28	6	NA	± 30 %	AverageRF
Phenol	80	86	1.52	1.64	8	NA	± 30 %	AverageRF
2-Chlorophenol	80	83	1.31	1.36	4	NA	± 30 %	AverageRF
Bis(2-chloroisopropyl) Ether	80	89	2.01	2.24	12	NA	± 30 %	AverageRF
Hexachloroethane	80	81	0.644	0.653	1	NA	± 30 %	AverageRF
N-Nitrosodi-n-propylamine	80	77	0.985	0.949	-4	NA	± 30 %	AverageRF
Nitrobenzene	80	79	1.36	1.35	-1	NA	± 30 %	AverageRF
Isophorone	80	76	0.722	0.686	-5	NA	± 30 %	AverageRF
2-Nitrophenol	80	82	0.199	0.204	3	NA	± 30 %	AverageRF
2,4-Dimethylphenol	80	83	0.266	0.276	4	NA	± 30 %	AverageRF
Bis(2-chloroethoxy)methane	80	86	0.405	0.434	7	NA	± 30 %	AverageRF
2,4-Dichlorophenol	80	81	0.302	0.306	1	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	80	80	0.320	0.321	0	NA	± 30 %	AverageRF
Naphthalene	80	80	0.960	0.962	0	NA	± 30 %	AverageRF
Hexachlorobutadiene	80	80	0.203	0.203	0	NA	± 30 %	AverageRF
4-Chloro-3-methylphenol	80	73	0.315	0.287	-9	NA	± 30 %	AverageRF
Hexachlorocyclopentadiene	80	65	0.373	0.326	NA	-19	± 30 %	Quadratic
2,4,6-Trichlorophenol	80	86	0.413	0.445	8	NA	± 30 %	AverageRF
2-Chloronaphthalene	80	85	1.16	1.23	6	NA	± 30 %	AverageRF
Acenaphthylene	80	68	1.78	1.51	-15	NA	± 30 %	AverageRF
Dimethyl Phthalate	80	71	1.36	1.20	-12	NA	± 30 %	AverageRF
2,6-Dinitrotoluene	80	75	0.308	0.288	-7	NA	± 30 %	AverageRF
Acenaphthene	80	77	1.02	0.979	-4	NA	± 30 %	AverageRF
2,4-Dinitrophenol	80	79	0.179	0.176	-2	NA	± 30 %	AverageRF
4-Nitrophenol	80	75	0.176	0.165	-6	NA	± 30 %	AverageRF
2,4-Dinitrotoluene	80	67	0.391	0.325	-17	NA	± 30 %	AverageRF
Fluorene	80	71	1.20	1.07	-11	NA	± 30 %	AverageRF
4-Chlorophenyl Phenyl Ether	80	70	0.615	0.537	-13	NA	± 30 %	AverageRF
Diethyl Phthalate	80	70	1.31	1.14	-13	NA	± 30 %	AverageRF
2-Methyl-4,6-dinitrophenol	80	83	0.212	0.220	3	NA	± 30 %	AverageRF
N-Nitrosodiphenylamine	80	65	0.801	0.653	-18	NA	± 30 %	AverageRF
1,2-Diphenylhydrazine	80	72	1.35	1.22	-10	NA	± 30 %	AverageRF
4-Bromophenyl Phenyl Ether	80	78	0.241	0.234	-3	NA	± 30 %	AverageRF
Hexachlorobenzene	80	76	0.280	0.266	-5	NA	± 30 %	AverageRF
Pentachlorophenol	80	79	0.157	0.155	-1	NA	± 30 %	AverageRF
Phenanthrene	80	81	1.06	1.07	1	NA	± 30 %	AverageRF
Anthracene	80	74	1.12	1.04	-7	NA	± 30 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Calibration Date:** 06/02/2010  
**Date Analyzed:** 06/02/2010 -  
 06/03/2010

**Second Source Calibration Verification  
 Semi-Volatile Organic Compounds by GC/MS**

**Calibration Type:** Internal Standard  
**Analysis Method:** 625

**Calibration ID:** CAL9525  
**Units:** ug/ml

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Di-n-butyl Phthalate	80	83	1.22	1.26	4	NA	± 30 %	AverageRF
Fluoranthene	80	80	0.964	0.962	0	NA	± 30 %	AverageRF
Benzidine	50	110	0.336	0.738	120 *	NA	± 30 %	AverageRF
Pyrene	80	68	1.07	0.905	-15	NA	± 30 %	AverageRF
Butyl Benzyl Phthalate	80	79	0.608	0.604	-1	NA	± 30 %	AverageRF
3,3'-Dichlorobenzidine	80	75	0.418	0.393	-6	NA	± 30 %	AverageRF
Benz(a)anthracene	80	74	0.940	0.866	-8	NA	± 30 %	AverageRF
Chrysene	80	77	0.910	0.880	-3	NA	± 30 %	AverageRF
Bis(2-ethylhexyl) Phthalate	80	83	0.866	0.900	4	NA	± 30 %	AverageRF
Di-n-octyl Phthalate	80	87	1.76	2.07	NA	9	± 30 %	Quadratic
Benzo(b)fluoranthene	80	82	1.03	1.06	3	NA	± 30 %	AverageRF
Benzo(k)fluoranthene	80	83	1.07	1.12	4	NA	± 30 %	AverageRF
Benzo(a)pyrene	80	96	0.856	1.02	20	NA	± 30 %	AverageRF
Indeno(1,2,3-cd)pyrene	80	82	0.741	0.760	3	NA	± 30 %	AverageRF
Dibenz(a,h)anthracene	80	80	0.789	0.786	0	NA	± 30 %	AverageRF
Benzo(g,h,i)perylene	80	80	0.800	0.796	-1	NA	± 30 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0602f001.d	1.	50PPM DFTPP SVM32-14A		2 Jun 2010 14:14
2	2	0602f002.d	1.	<del>80PPM 8270 CCV SVM32-32L</del> NR		2 Jun 2010 14:55
3	1	0602f003.d	1.	IB		2 Jun 2010 16:38
4	2	0602f004.d	1.	5PPM 8270 ICAL SVM32-21C		2 Jun 2010 17:18
5	3	0602f005.d	1.	10PPM 8270 ICAL SVM32-21D		2 Jun 2010 17:58
6	4	0602f006.d	1.	20PPM 8270 ICAL SVM32-21E		2 Jun 2010 18:38
7	5	0602f007.d	1.	50PPM 8270 ICAL SVM32-21F		2 Jun 2010 19:19
8	6	0602f008.d	1.	80PPM 8270 ICAL SVM32-21G		2 Jun 2010 19:59
9	7	0602f009.d	1.	100PPM 8270 ICAL SVM32-21H		2 Jun 2010 20:39
10	8	0602f010.d	1.	120PPM 8270 ICAL SVM32-21I		2 Jun 2010 21:19
11	9	0602f011.d	1.	160PPM 8270 ICAL SVM32-21J		2 Jun 2010 22:00
12	10	0602f012.d	1.	200PPM 8270 ICAL SVM32-21K		2 Jun 2010 22:40
13	11	0602f013.d	1.	80PPM 8270 ICV SVM32-21L		2 Jun 2010 23:20
14	12	0602f014.d	1.	80PPM ANILINE ICV SVM30-7D		3 Jun 2010 00:01
15	13	0602f015.d	1.	<del>80PPM HCCPD ICV SVM32-22A</del> NR		3 Jun 2010 00:41
16	14	0602f016.d	1.	50PPM BENZ ICV SVM32-25F		3 Jun 2010 01:21

8270/625 ICAL 9525

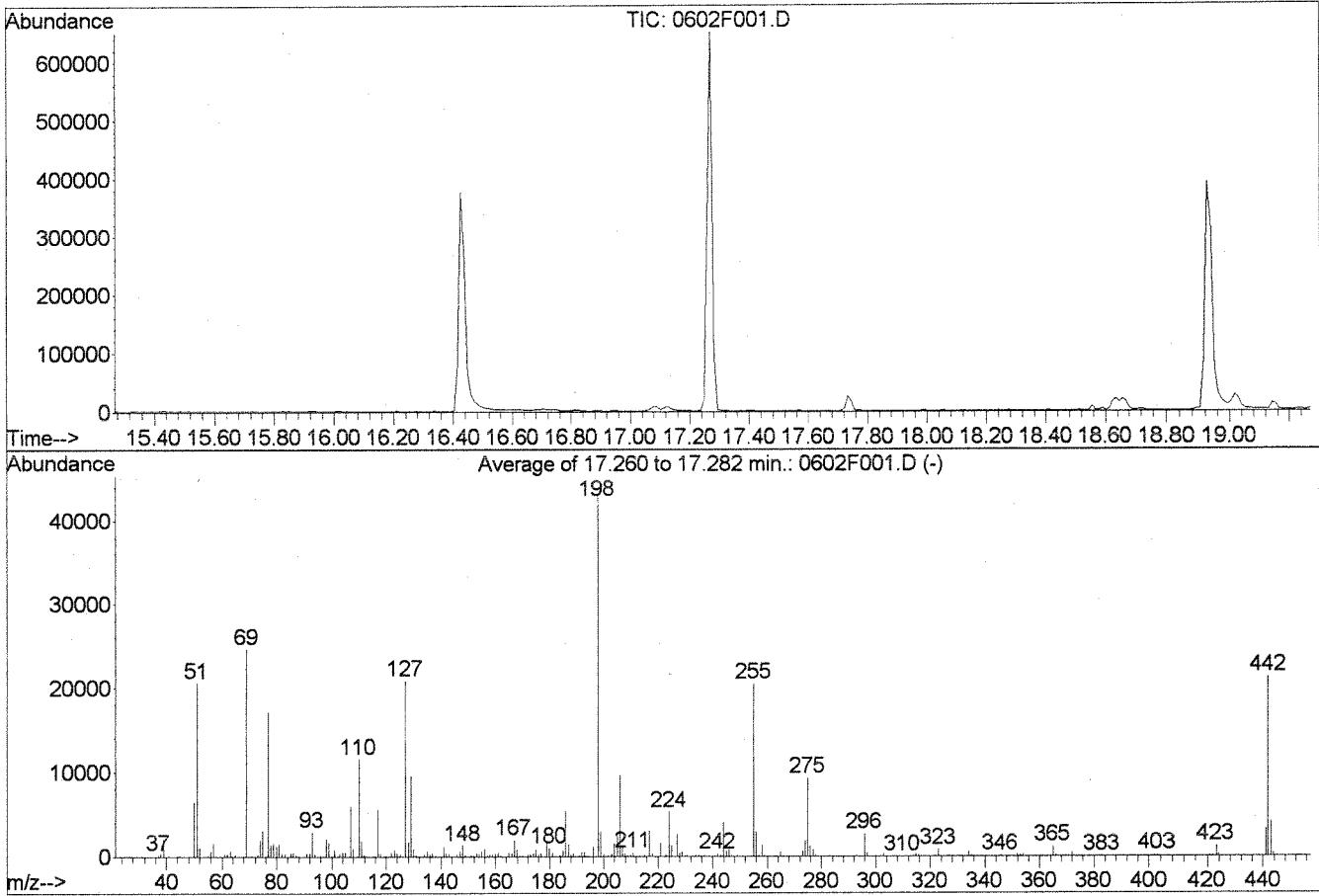
M 6-3-10

LB  
LIA/10

DFTPP

Data File : J:\MS07\DATA\060210\0602F001.D  
 Acq On : 2 Jun 2010 2:14 pm  
 Sample : 50PPM DFTPP SVM32-14A  
 Misc :  
 MS Integration Params: rteint.p  
 Method : J:\MS07\METHODS\BNA\0526APIX7.M (RTE Integrator)  
 Title : Method 8270 (App. IX) MS07

Vial: 1  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00



Spectrum Information: Average of 17.260 to 17.282 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	47.6	20561	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	56.9	24593	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	48.3	20860	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	43221	PASS
199	198	5	9	6.8	2948	PASS
275	198	10	30	21.4	9252	PASS
365	198	1	100	2.7	1168	PASS
441	443	0.01	100	80.3	3292	PASS
442	198	40	100	49.3	21307	PASS
443	442	17	23	19.2	4101	PASS

*Handwritten:* 6-3-10  
 LAB  
 614110

Average of 17.260 to 17.282 min.: 0602F001.D

50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.35	40	44.00	126	60.95	267	75.95	53
35.85	36	44.85	86	61.95	331	76.95	17071
36.15	42	50.00	6492	63.00	740	77.95	1379
36.75	40	51.00	20561	63.85	123	78.85	1609
37.00	170	51.95	1103	64.95	233	79.95	1192
37.95	421	53.00	43	65.85	33	80.95	1525
38.95	2063	54.90	187	68.95	24593	81.90	381
40.85	106	55.60	38	70.95	37	82.95	319
42.00	38	55.95	589	73.00	202	84.95	462
43.00	45	56.90	1642	73.95	1943	85.95	491
43.60	33	57.80	91	74.95	3110	86.70	38

Average of 17.260 to 17.282 min.: 0602F001.D

50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.95	227	99.95	146	114.95	35	127.95	1764
87.90	92	100.90	803	115.85	34	129.00	9553
90.90	405	102.85	306	116.95	5577	129.95	892
92.00	417	103.90	598	117.95	372	130.85	185
92.90	2888	104.95	528	118.75	41	131.90	67
93.85	276	106.95	6031	119.90	83	132.10	68
94.90	55	107.95	940	121.90	494	133.95	243
95.80	57	109.95	11572	122.90	754	134.90	662
96.00	78	110.95	1890	123.90	348	135.90	267
97.90	2184	111.90	267	124.95	292	136.95	380
98.90	1645	112.75	59	127.00	20860	137.80	45

Average of 17.260 to 17.282 min.: 0602F001.D

50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
138.00	49	148.95	190	159.85	353	169.90	62
139.00	44	150.05	40	160.95	466	170.60	33
140.00	54	151.05	195	161.65	46	170.90	65
140.90	1177	151.80	90	161.95	86	171.95	223
141.90	382	152.95	394	162.95	34	172.95	238
142.90	302	153.90	282	163.95	62	173.95	441
143.90	52	154.95	616	164.85	490	174.20	40
144.80	61	155.95	915	165.90	401	174.95	846
145.85	216	157.00	159	166.85	1983	175.90	234
146.95	591	157.95	219	167.90	899	176.85	423
147.95	1343	158.85	151	168.90	191	178.85	1611

Average of 17.260 to 17.282 min.: 0602F001.D

50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
179.95	1018	190.95	176	204.95	2415	221.50	52
180.90	509	191.95	493	205.95	9632	222.90	233
181.80	64	192.90	530	206.95	1258	224.00	5276
182.10	39	194.00	117	207.80	354	224.90	1319
183.85	167	195.95	1131	208.75	74	226.90	2606
184.95	728	197.85	43221	209.95	164	227.85	407
185.90	5399	198.85	2948	210.85	462	228.85	497
186.90	1487	199.90	240	215.00	130	230.00	46
187.90	149	201.50	165	216.90	3015	230.80	181
188.90	379	202.90	327	217.90	348	233.85	149
189.60	50	203.95	1540	220.95	1626	234.85	171

1187  
 LAB  
 6-4-10

Average of 17.260 to 17.282 min.: 0602F001.D

50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
235.85	92	246.90	150	264.90	553	283.95	56
236.90	159	247.75	43	265.75	112	284.90	133
238.85	72	248.90	143	270.80	38	288.95	33
239.95	50	250.75	34	272.90	622	292.85	170
240.45	34	255.00	20460	273.90	1807	293.95	39
240.85	101	255.95	3002	274.90	9252	295.85	2684
241.90	329	256.90	65	275.90	1273	296.85	402
242.95	128	257.90	1280	276.85	816	300.90	33
243.95	4001	258.95	196	277.90	141	302.00	38
244.95	620	260.90	37	278.85	38	302.90	332
245.90	874	263.70	47	282.95	61	303.90	58

Average of 17.260 to 17.282 min.: 0602F001.D

50PPM DFTPP SVM32-14A

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
307.90	34	333.95	574	371.05	33	441.00	3292
309.90	37	334.95	105	371.95	456	441.90	21307
313.90	86	340.90	58	372.95	64	442.95	4101
314.80	297	341.90	34	382.85	74	443.90	369
315.85	186	345.80	139	401.90	109		
320.95	68	346.00	42	402.90	187		
322.95	807	351.90	241	403.80	50		
323.95	86	352.90	153	420.85	162		
326.80	136	354.00	267	421.95	121		
327.85	59	364.95	1168	422.95	1264		
331.85	41	365.95	116	423.85	245		

LB  
4/4/10

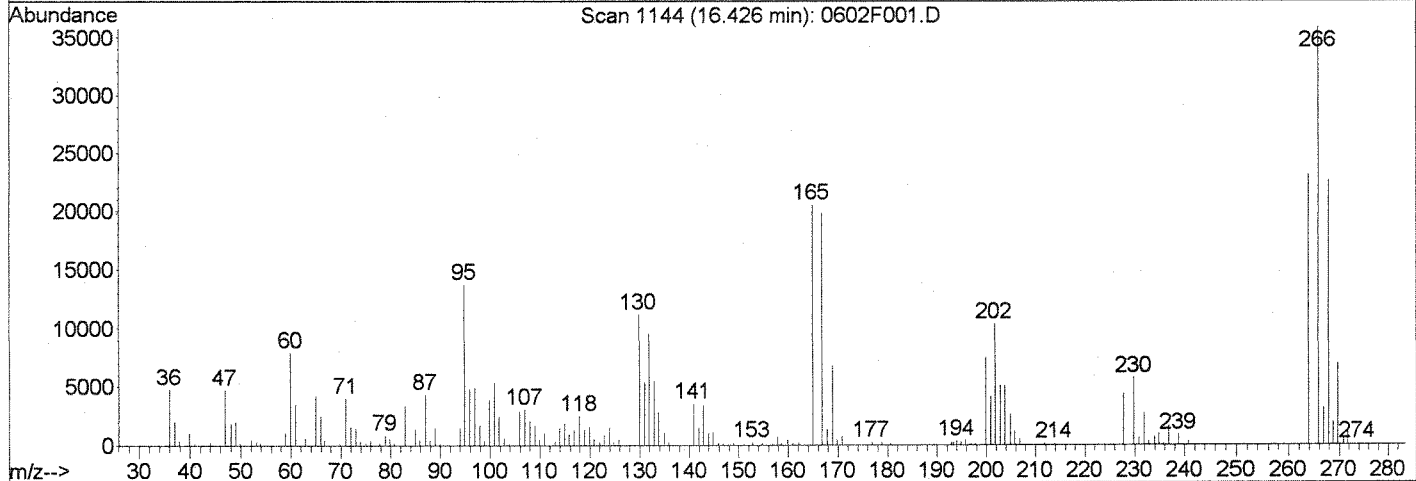
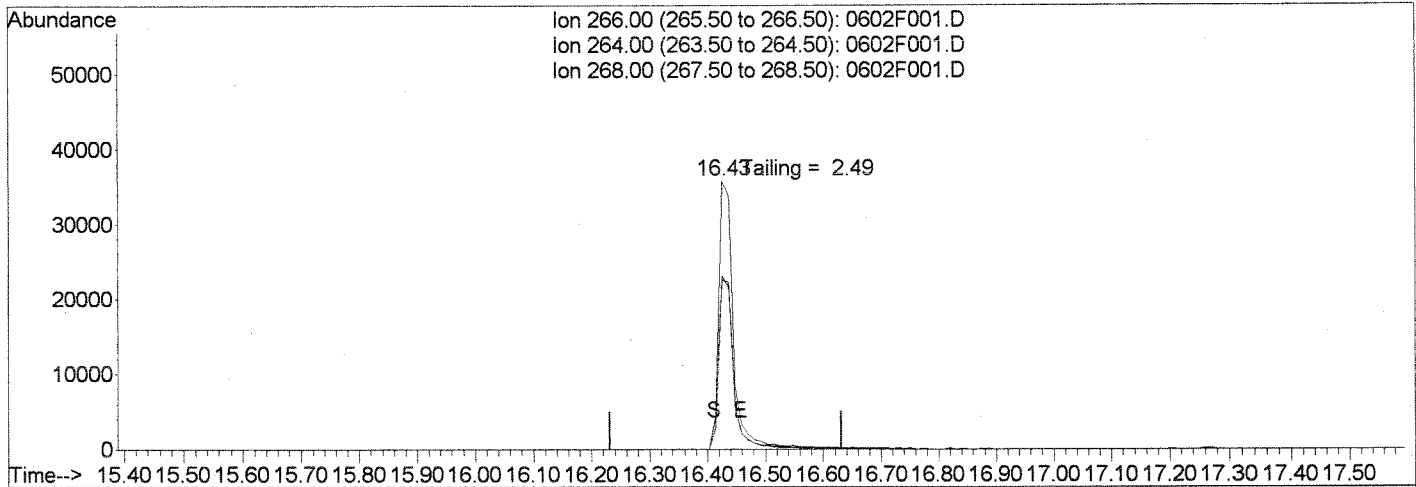
6-2-10

Data File : J:\MS07\DATA\060210\0602F001.D  
Acq On : 2 Jun 2010 2:14 pm  
Sample : 50PPM DFTPP SVM32-14A  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:47 2010

Vial: 1  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 09:52:06 2010  
Response via : Single Level Calibration



TIC: 0602F001.D

(62) Pentachlorophenol (TMC)  
16.43min 6845.95ug/ml  
response 63309

Ion	Exp%	Act%
266.00	100	100
264.00	61.00	64.46
268.00	63.90	63.03
0.00	0.00	0.00

*LB*  
*1/110*

*M*  
*6-3-10*

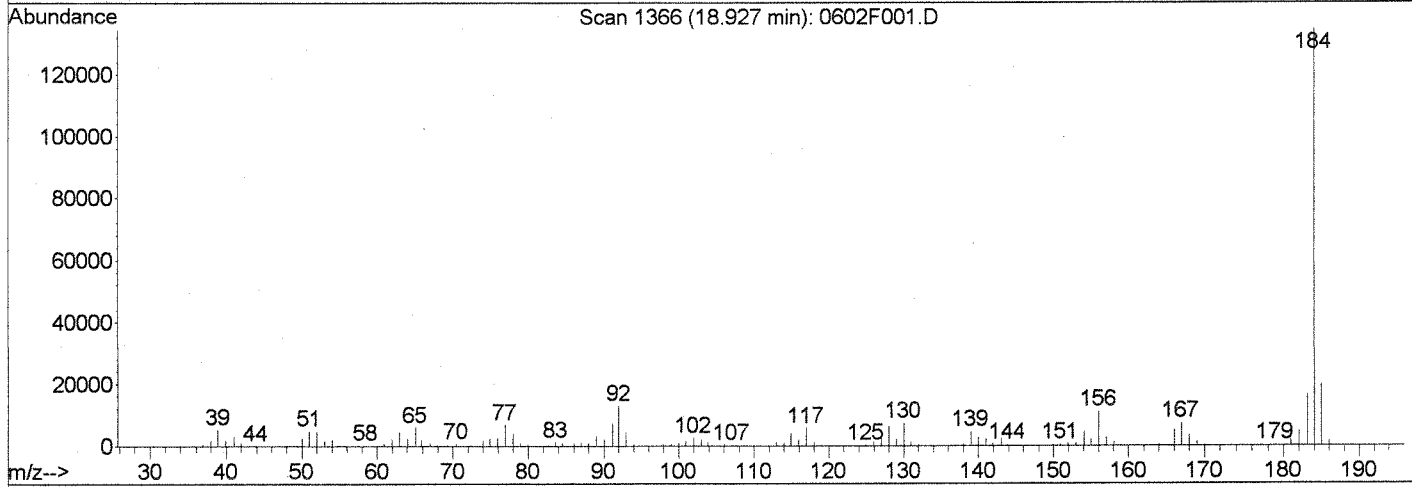
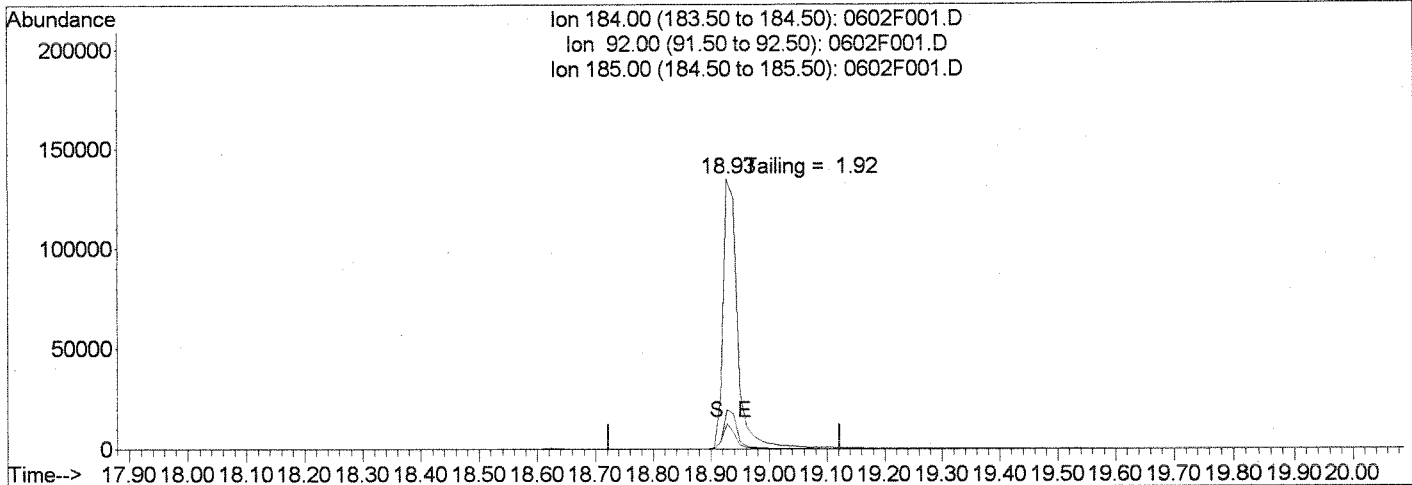


Data File : J:\MS07\DATA\060210\0602F001.D  
 Acq On : 2 Jun 2010 2:14 pm  
 Sample : 50PPM DFTPP SVM32-14A  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:47 2010

Vial: 1  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Single Level Calibration



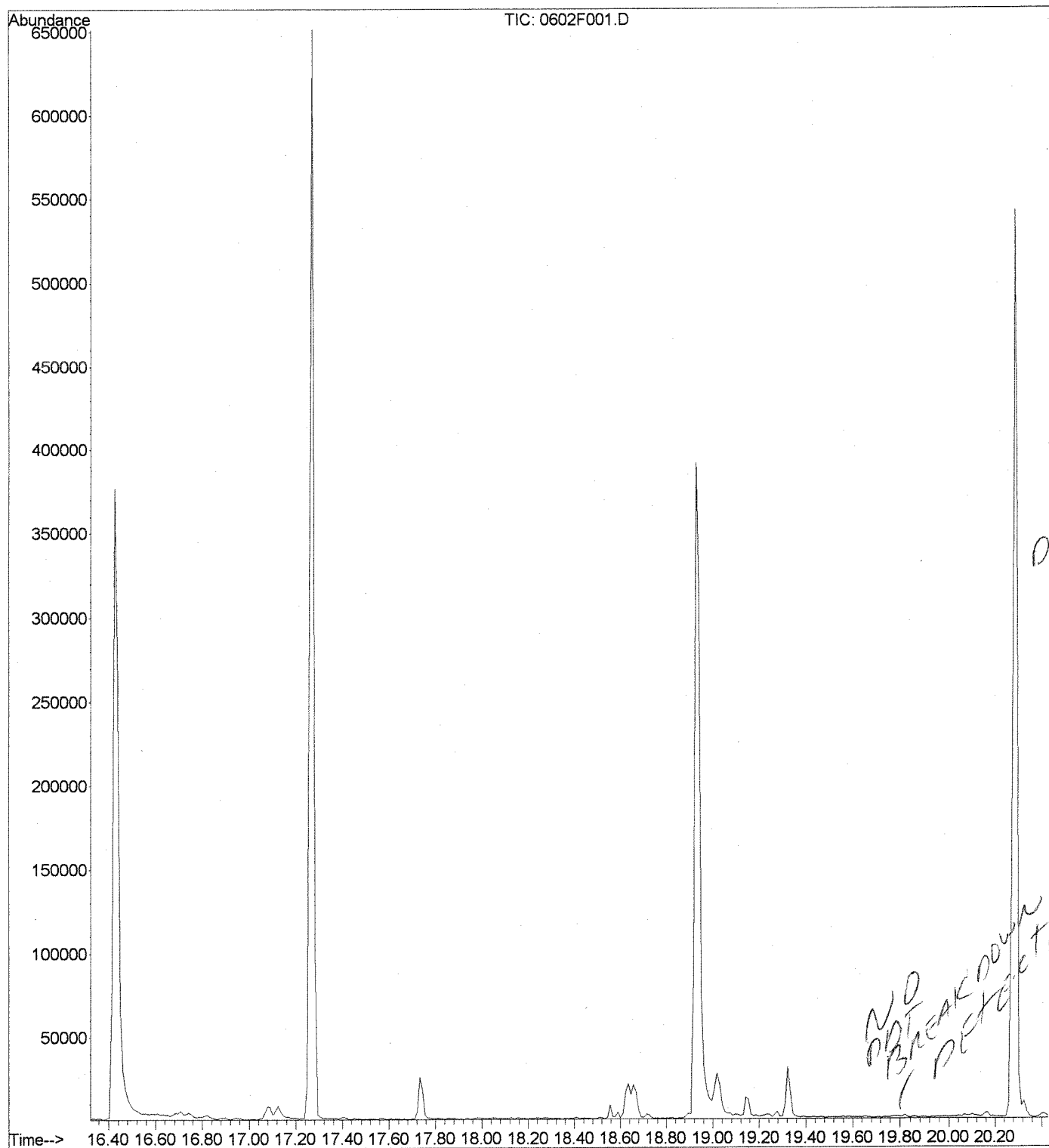
(69) Benzidine (T)  
 18.93min 16523.54ug/ml  
 response 237944

Ion	Exp%	Act%
184.00	100	100
92.00	9.90	9.49
185.00	14.60	14.71
0.00	0.00	0.00

*LB*  
*4/11/10*

*M*  
*6-3-10*

File : J:\MS07\DATA\060210\0602F001.D  
Operator : M.BUTCHER  
Acquired : 2 Jun 2010 2:14 pm using AcqMethod 8270\_1  
Instrument : MS07  
Sample Name: 50PPM DFTPP SVM32-14A  
Misc Info :  
Vial Number: 1



NO  
PBT  
BREAKDOWN  
/ DETECTED

DOT

1191

LB  
6/11/10

M  
6-3-10

Data File : J:\MS07\DATA\060210\0602F003.D  
Acq On : 2 Jun 2010 4:38 pm  
Sample : IB  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 03 10:48:47 2010

Vial: 1  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 09:52:06 2010  
Response via : Initial Calibration  
DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.36	152	320704	40.00	ug/ml	0.02
21) Naphthalene-d8	11.46	136	1084699	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.32	164	601819	40.00	ug/ml	0.02
58) Phenanthrene-d10	16.72	188	1100123	40.00	ug/ml	0.02
68) Chrysene-d12	21.15	240	803978	40.00	ug/ml	0.02
77) Perylene-d12	24.35	264	792779	40.00	ug/ml	0.04

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0	0.00	ug/ml	
Spiked Amount	150.000	Range 21 - 100	Recovery	=	0.00%#	
7) Phenol-d6	0.00	99	0	0.00	ug/ml	
Spiked Amount	150.000	Range 10 - 94	Recovery	=	0.00%#	
19) Nitrobenzene-d5	0.00	82	0	0.00	ug/ml	
Spiked Amount	100.000	Range 35 - 114	Recovery	=	0.00%#	
38) 2-Fluorobiphenyl	0.00	172	0d	0.00	ug/ml	
Spiked Amount	100.000	Range 43 - 116	Recovery	=	0.00%#	
59) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/ml	
Spiked Amount	150.000	Range 10 - 123	Recovery	=	0.00%#	
71) Terphenyl-d14	19.32	244	1959	0.16	ug/ml	0.00
Spiked Amount	100.000	Range 33 - 141	Recovery	=	0.16%#	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
53) Diethyl Phthalate	15.07	149	1944m	0.10	ug/ml	
63) Phenanthrene	16.75	178	948m	0.03	ug/ml	
64) Anthracene	16.83	178	970	0.03	ug/ml	76
65) Carbazole	17.14	167	1388	0.06	ug/ml	91
66) Di-n-butyl Phthalate	17.73	149	4084m	0.12	ug/ml	
67) Fluoranthene	18.67	202	2380	0.09	ug/ml	96
70) Pyrene	19.03	202	2470	0.12	ug/ml	97
74) Benz(a)anthracene	21.15	228	2323m	0.12	ug/ml	
75) Chrysene	21.18	228	622	0.03	ug/ml	61
76) Bis(2-ethylhexyl) Phthalat	21.32	149	1766	0.10	ug/ml	94

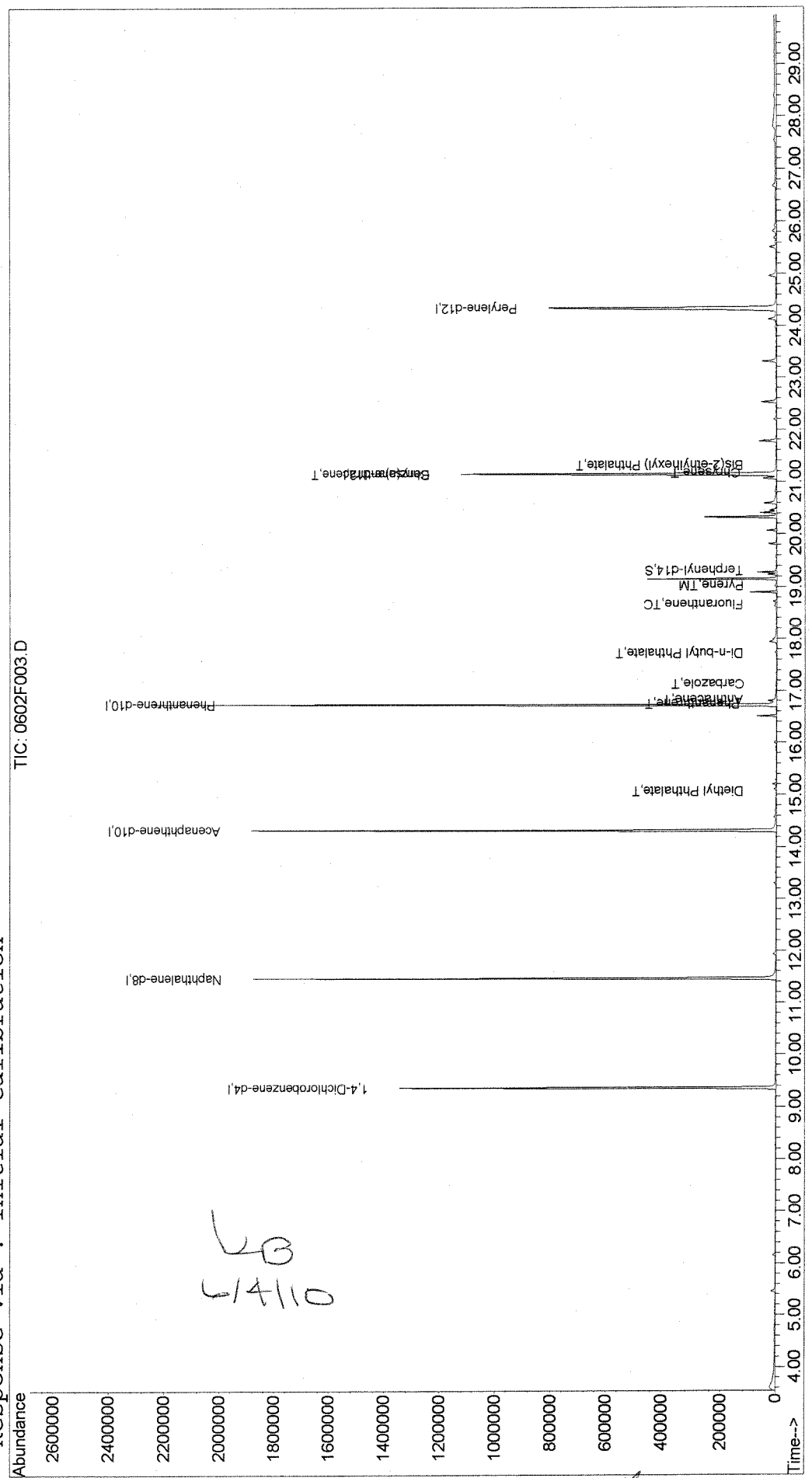
LB  
6-3-10

6-3-10

Data File : J:\MS07\DATA\060210\0602F003.D  
Acq On : 2 Jun 2010 4:38 pm  
Sample : IB  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:51 2010

Vial: 1  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00  
Quant Results File: 0602BNC7.RES

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Initial Calibration



Data File : J:\MS07\DATA\060210\0602F004.D  
 Acq On : 2 Jun 2010 5:18 pm  
 Sample : 5PPM 8270 ICAL SVM32-21C  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:49 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	105915	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	378911	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	222578	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.70	188	388712	40.00	ug/ml	0.00
68) Chrysene-d12	21.13	240	251721	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	274311	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.16	112	11882	4.22	ug/ml	0.02
Spiked Amount	150.000	Range	21 - 100	Recovery	=	2.81%#
7) Phenol-d6	8.88	99	16464	4.19	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	2.79%#
19) Nitrobenzene-d5	10.28	82	15159	3.95	ug/ml	-0.01
Spiked Amount	100.000	Range	35 - 114	Recovery	=	3.95%#
38) 2-Fluorobiphenyl	13.24	172	33732	4.62	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	4.62%#
59) 2,4,6-Tribromophenol	15.60	330	6253	3.97	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	2.65%#
71) Terphenyl-d14	19.32	244	24013	6.23	ug/ml	-0.01
Spiked Amount	100.000	Range	33 - 141	Recovery	=	6.23%#

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.23	42	11593m	4.60	ug/ml	
3) Pyridine	4.37	79	15161m	4.24	ug/ml	
5) Aniline	8.81	93	19993	5.04	ug/ml	88
6) Bis(2-chloroethyl) Ether	8.95	93	13655m	4.22	ug/ml	
8) Phenol	8.90	94	15799m	3.93	ug/ml	
9) 2-Chlorophenol	9.03	128	15360	4.43	ug/ml	90
10) 1,3-Dichlorobenzene	9.24	146	17630	4.79	ug/ml	96
11) 1,4-Dichlorobenzene	9.38	146	18099	4.83	ug/ml	98
12) 1,2-Dichlorobenzene	9.62	146	16923	4.77	ug/ml	98
13) Benzyl Alcohol	9.64	108	8446	3.97	ug/ml	94
14) Bis(2-chloroisopropyl) Eth	9.86	45	23961	4.51	ug/ml	91
15) 2-Methylphenol	9.88	107	12993	4.99	ug/ml	85
16) Hexachloroethane	10.18	117	7664	4.50	ug/ml	96
17) N-Nitrosodi-n-propylamine	10.06	70	11468m	4.33	ug/ml	
18) 4-Methylphenol	10.14	107	18174	4.60	ug/ml	98
20) Nitrobenzene	10.31	77	15225	4.29	ug/ml	95
22) Isophorone	10.72	82	33686	4.93	ug/ml	98
23) 2-Nitrophenol	10.84	139	8608	4.52	ug/ml	95
24) 2,4-Dimethylphenol	10.99	122	12495	4.96	ug/ml	95
25) Bis(2-chloroethoxy)methane	11.11	93	18497	4.82	ug/ml	99

(#) = qualifier out of range (m) = manual integration

LAB

M  
6-3-10

Data File : J:\MS07\DATA\060210\0602F004.D  
 Acq On : 2 Jun 2010 5:18 pm  
 Sample : 5PPM 8270 ICAL SVM32-21C  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:49 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.29	162	12917	4.52	ug/ml	99
27) Benzoic Acid	11.16	122	6190	2.87	ug/ml	93
28) 1,2,4-Trichlorobenzene	11.37	180	15069	4.97	ug/ml	94
29) Naphthalene	11.48	128	46687	5.14	ug/ml	99
30) 4-Chloroaniline	11.62	127	20515	5.12	ug/ml	98
31) Hexachlorobutadiene	11.72	225	9544	4.96	ug/ml	96
32) 4-Chloro-3-methylphenol	12.48	107	15122	5.07	ug/ml	95
33) 2-Methylnaphthalene	12.62	142	29645	5.12	ug/ml	99
35) Hexachlorocyclopentadiene	12.89	237	3783	9.45	ug/ml	92
36) 2,4,6-Trichlorophenol	13.12	196	10389	4.52	ug/ml	97
37) 2,4,5-Trichlorophenol	13.21	196	11627	4.54	ug/ml	96
39) 2-Chloronaphthalene	13.41	162	31360	4.87	ug/ml	97
40) 2-Nitroaniline	13.60	65	9229	4.46	ug/ml	96
41) Acenaphthylene	14.08	152	48218	4.86	ug/ml	98
42) Dimethyl Phthalate	13.93	163	41398	5.47	ug/ml	97
43) 2,6-Dinitrotoluene	14.01	165	8804	5.13	ug/ml	88
44) Acenaphthene	14.36	154	30613	5.41	ug/ml	99
45) 3-Nitroaniline	14.29	138	8692	4.82	ug/ml	90
46) 2,4-Dinitrophenol	14.47	184	1335	1.34	ug/ml	68
47) Dibenzofuran	14.64	168	45031	5.05	ug/ml	91
49) 2,4-Dinitrotoluene	14.66	165	12303	5.66	ug/ml	95
50) 2,3,4,6-Tetrachlorophenol	14.88	232	8704	4.67	ug/ml	95
51) Fluorene	15.19	166	37252	5.57	ug/ml	95
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	18167	5.31	ug/ml	98
53) Diethyl Phthalate	15.08	149	47922	6.55	ug/ml	99
54) 4-Nitroaniline	15.27	138	7347	4.70	ug/ml	86
55) 2-Methyl-4,6-dinitrophenol	15.32	198	4130	3.49	ug/ml	76
56) N-Nitrosodiphenylamine	15.43	169	25148	5.64	ug/ml	99
57) 1,2-Diphenylhydrazine	15.47	77	42085	5.55	ug/ml	96
60) 4-Bromophenyl Phenyl Ether	16.01	248	10358	4.42	ug/ml	94
61) Hexachlorobenzene	16.08	284	13085	4.82	ug/ml	90
62) Pentachlorophenol	16.43	266	3879	2.54	ug/ml	93
63) Phenanthrene	16.75	178	55741	5.40	ug/ml	99
64) Anthracene	16.83	178	55696	5.13	ug/ml	99
65) Carbazole	17.12	167	44064	4.97	ug/ml	98
66) Di-n-butyl Phthalate	17.74	149	61417	5.19	ug/ml	99
67) Fluoranthene	18.66	202	46359	4.94	ug/ml	97
69) Benzidine	18.93	184	16327	7.72	ug/ml	98
70) Pyrene	19.02	202	46594	6.93	ug/ml	99
72) Butyl Benzyl Phthalate	20.16	149	18281	4.77	ug/ml	97
73) 3,3'-Dichlorobenzidine	21.11	252	12698	4.83	ug/ml	96

(#) = qualifier out of range (m) = manual integration  
 0602F004.D 0602BNC7.M Thu Jun 03 11:34:25 2010

LAB  
 WATCO

7  
 6-7-10

Data File : J:\MS07\DATA\060210\0602F004.D  
 Acq On : 2 Jun 2010 5:18 pm  
 Sample : 5PPM 8270 ICAL SVM32-21C  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:49 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74) Benz(a)anthracene	21.11	228	30630	5.18	ug/ml	99
75) Chrysene	21.18	228	31713	5.54	ug/ml	98
76) Bis(2-ethylhexyl) Phthalat	21.31	149	26007	4.77	ug/ml	99
78) Di-n-octyl Phthalate	22.76	149	47537	3.93	ug/ml	98
79) Benzo(b)fluoranthene	23.43	252	29572	4.18	ug/ml	98
80) Benzo(k)fluoranthene	23.50	252	32277	4.40	ug/ml	100
81) Benzo(a)pyrene	24.17	252	27782	4.73	ug/ml	98
82) Indeno(1,2,3-cd)pyrene	26.74	276	24221	4.77	ug/ml	98
83) Dibenz(a,h)anthracene	26.82	278	25997	4.80	ug/ml	99
84) Benzo(g,h,i)perylene	27.32	276	28084	5.12	ug/ml	96

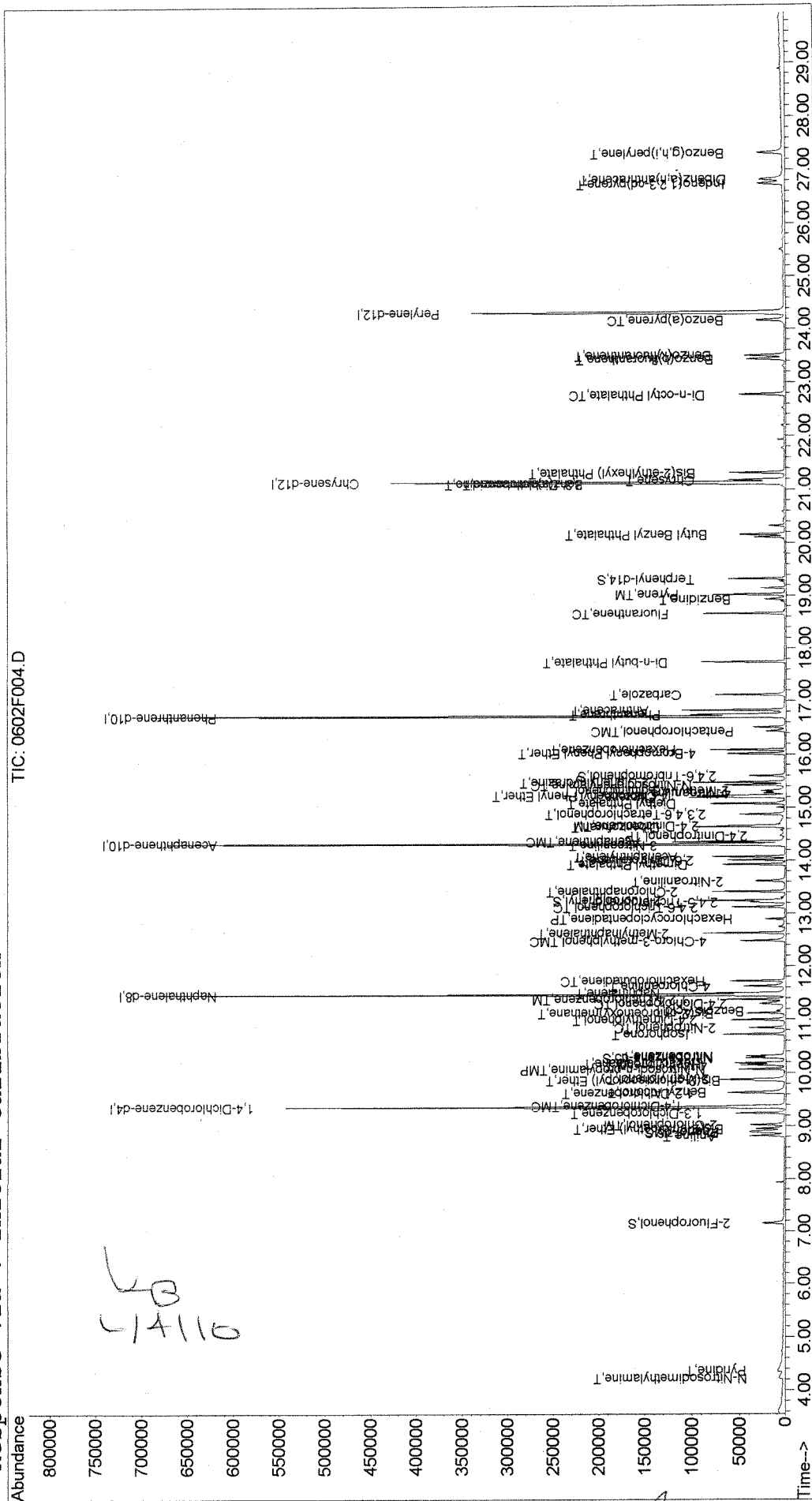
LB  
 6/4/10

Data File : J:\MS07\DATA\060210\0602F004.D  
 Acq On : 2 Jun 2010 5:18 pm  
 Sample : 5PPM 8270 ICAL SVM32-21C  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:52 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RE5

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration



Handwritten notes: 11110

Handwritten note: 1-7-10

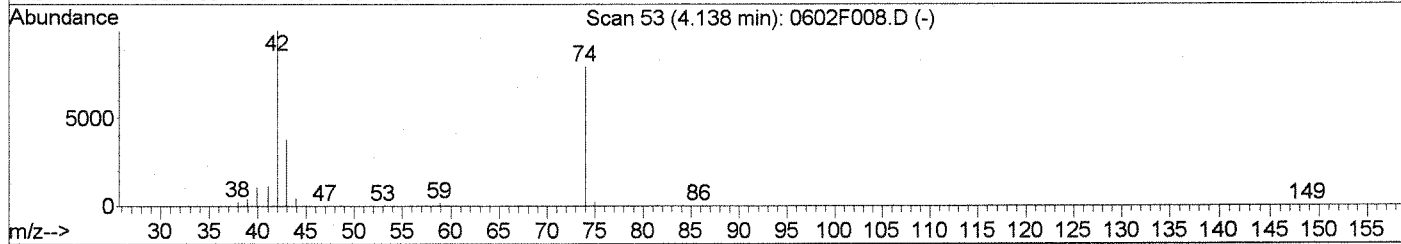
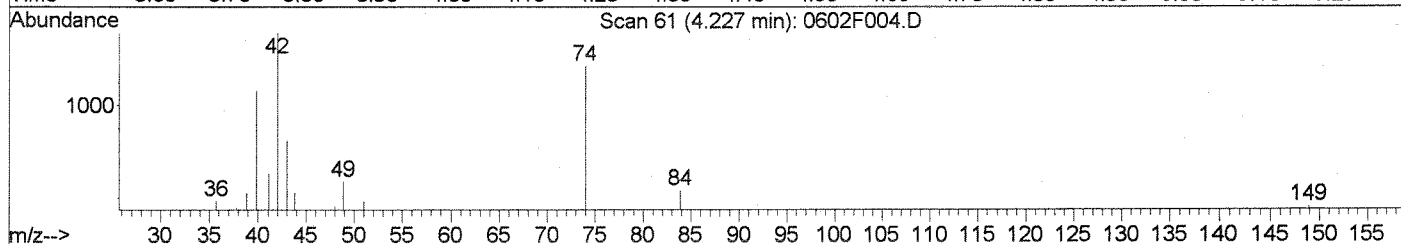
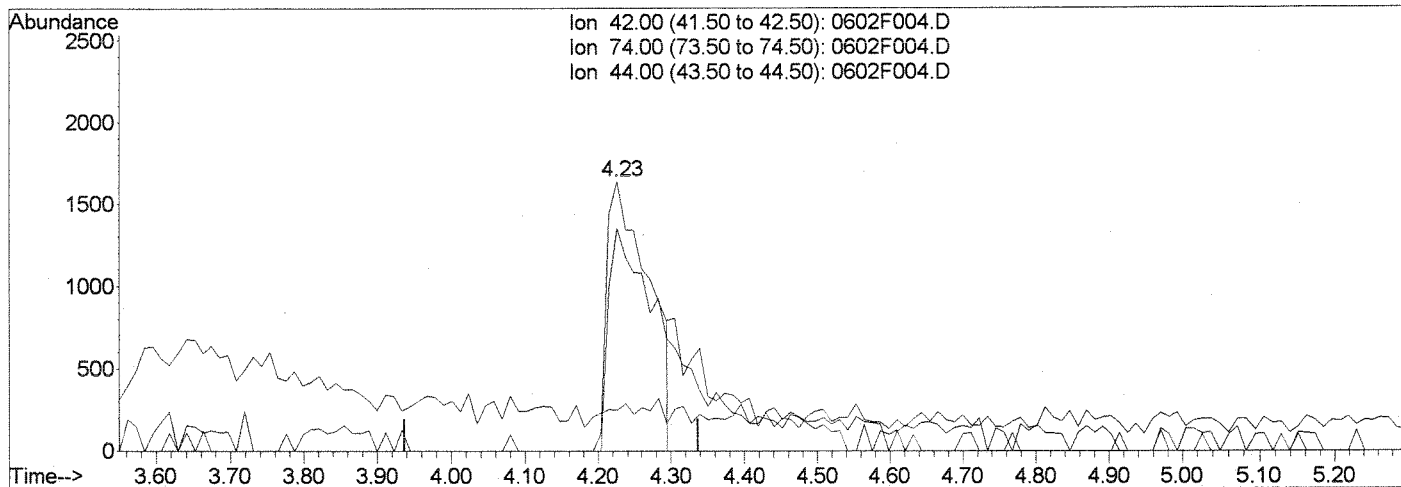


Data File : J:\MS07\DATA\060210\0602F004.D  
 Acq On : 2 Jun 2010 5:18 pm  
 Sample : 5PPM 8270 ICAL SVM32-21C  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:48 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F004.D

(2) N-Nitrosodimethylamine (T)

4.23min 2.60ug/ml

response 6565

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	81.14
44.00	4.40	7.46
0.00	0.00	0.00

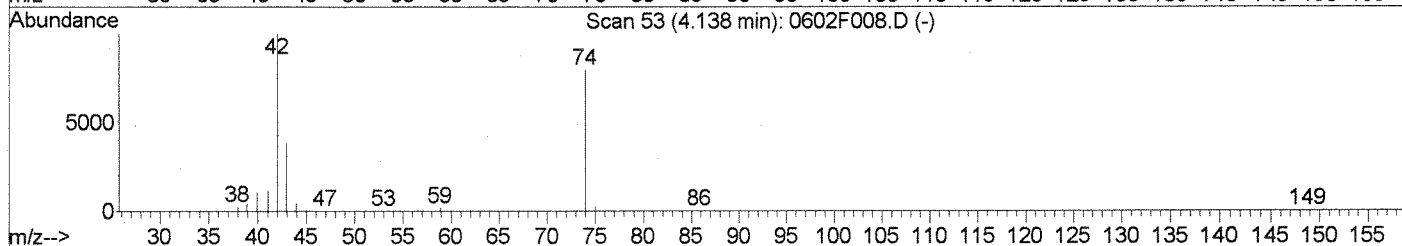
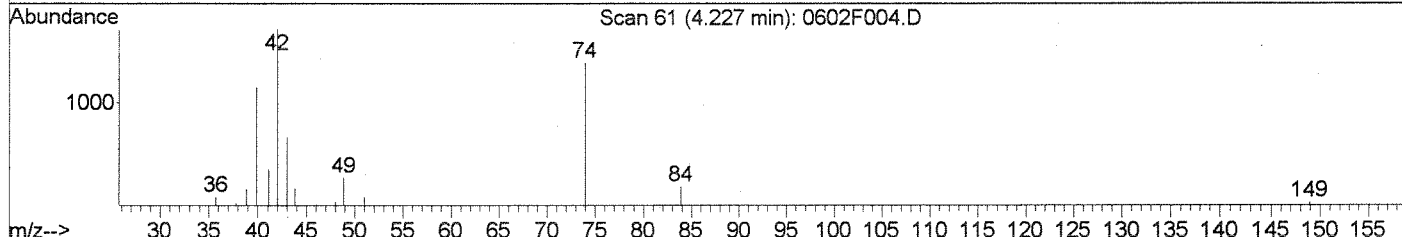
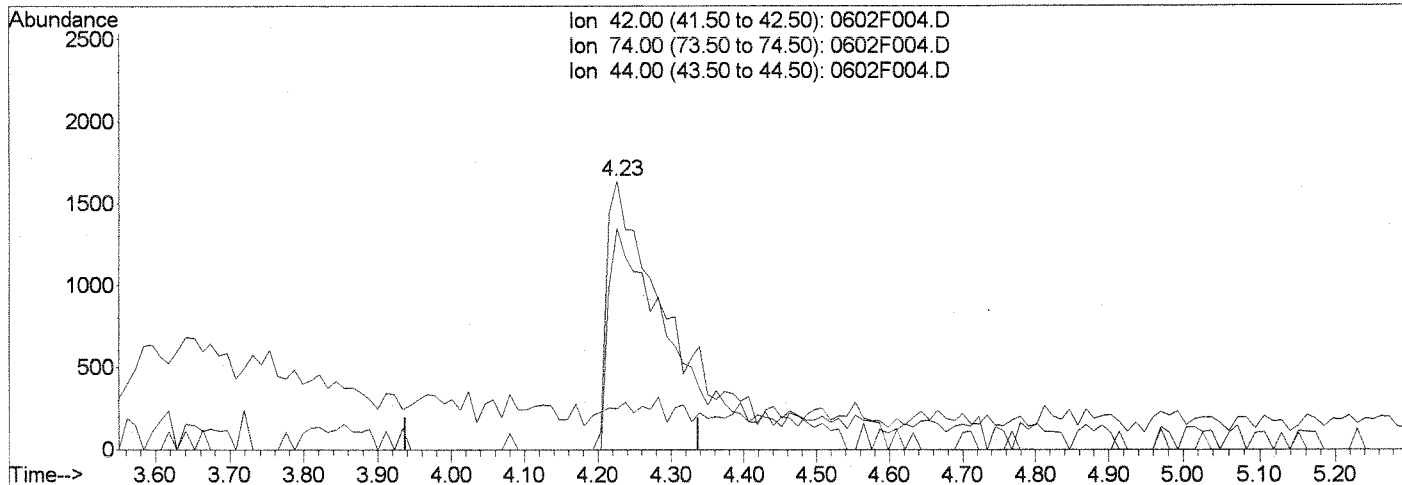
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F004.D  
Acq On : 2 Jun 2010 5:18 pm  
Sample : 5PPM 8270 ICAL SVM32-21C  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:51 2010

Vial: 2  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F004.D

(2) N-Nitrosodimethylamine (T)

4.23min 4.60ug/ml m

response 11593

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	82.41
44.00	4.40	15.15
0.00	0.00	0.00

*Handwritten notes: LL, 6-3-10*

*Handwritten notes: LB, 6/4/10*

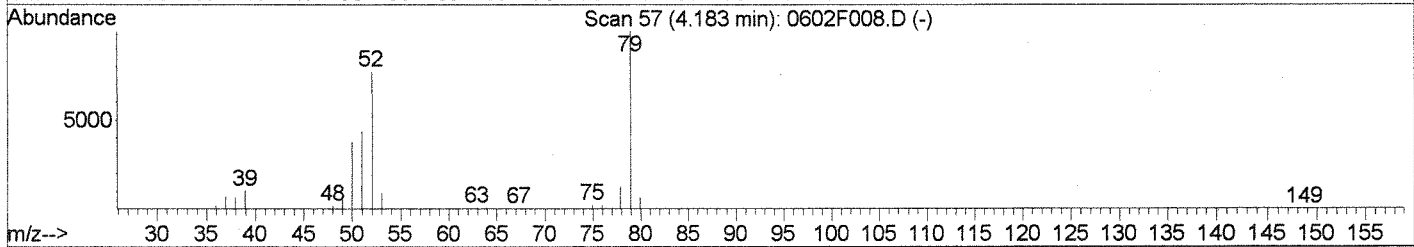
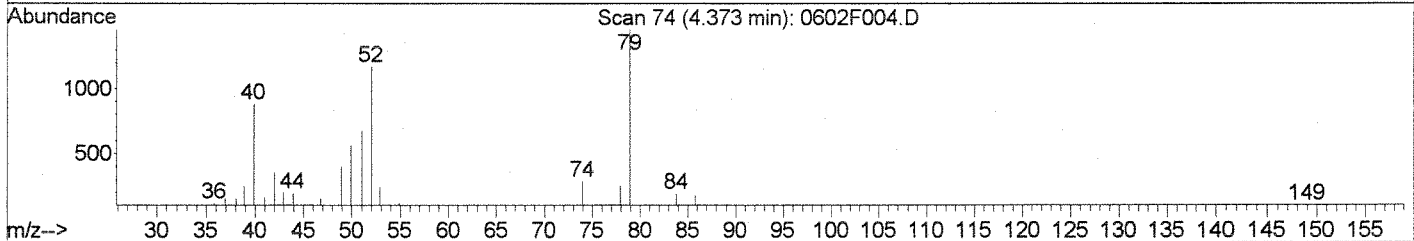
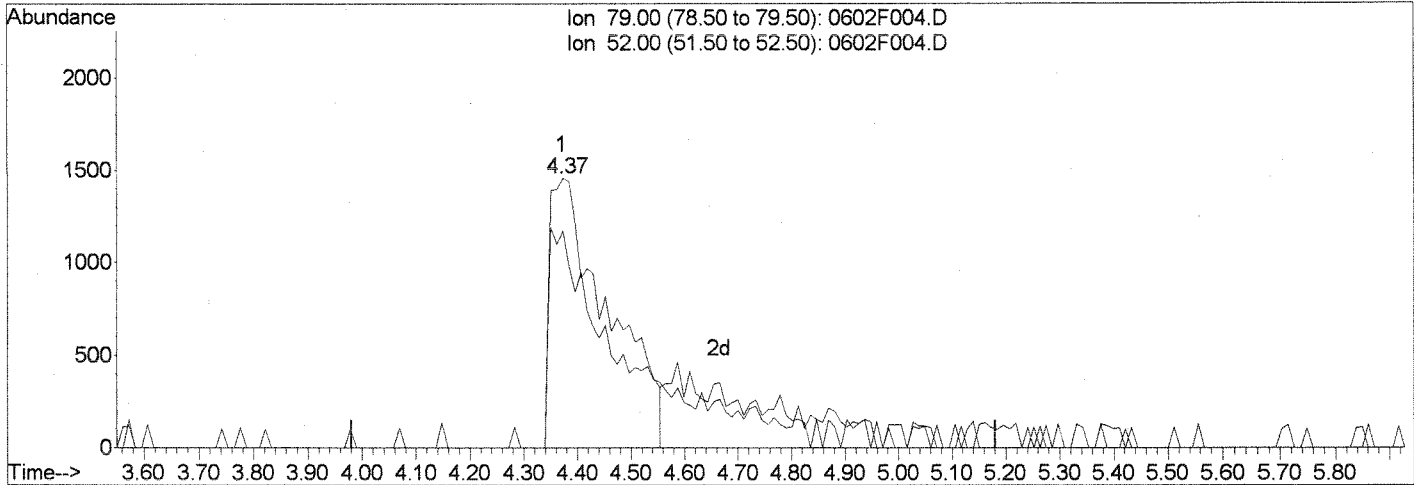
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F004.D  
 Acq On : 2 Jun 2010 5:18 pm  
 Sample : 5PPM 8270 ICAL SVM32-21C  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:51 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F004.D

(3) Pyridine (T)  
 4.37min 3.06ug/ml  
 response 10936

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	76.73
0.00	0.00	0.00
0.00	0.00	0.00

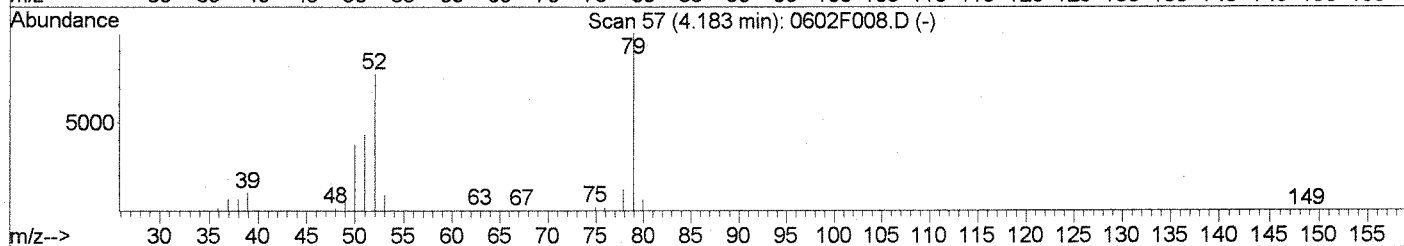
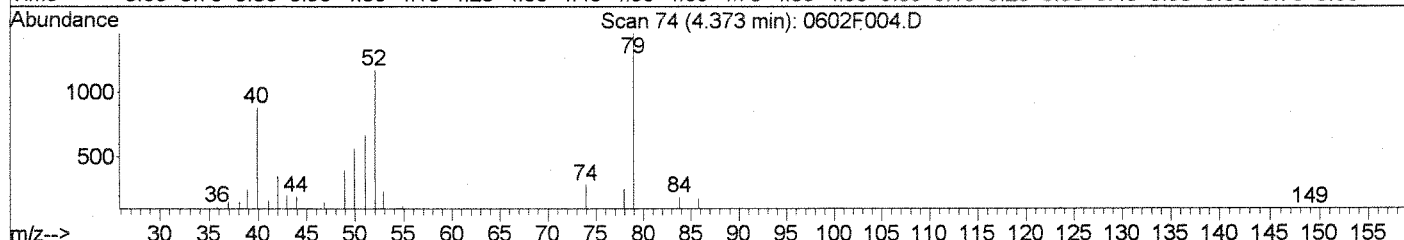
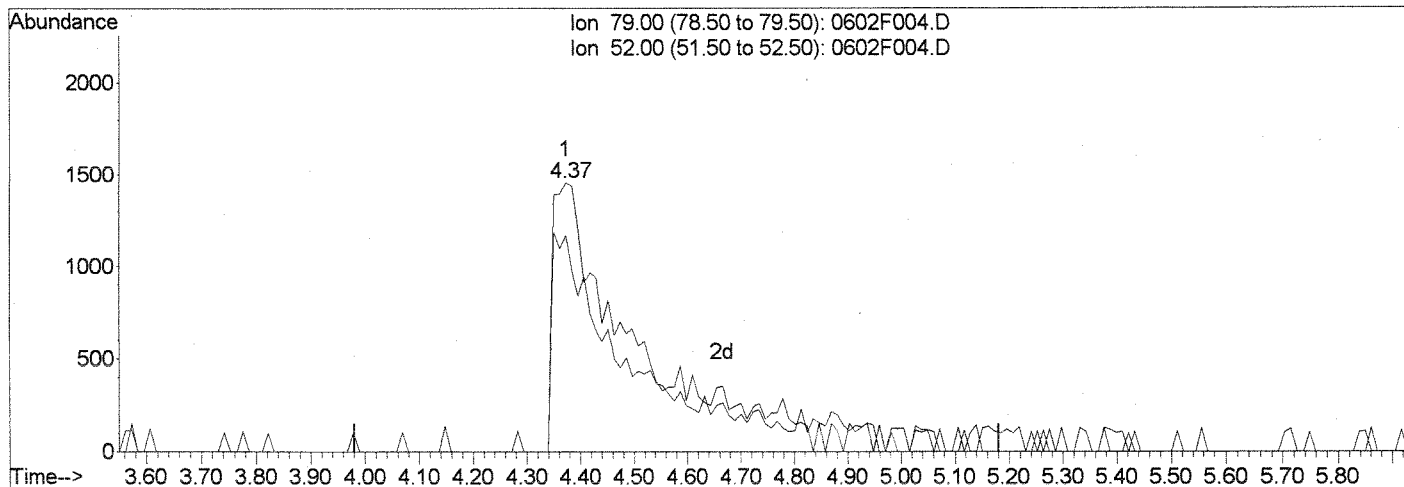
Quantitation Report (Qual)

Data File : J:\MS07\DATA\060210\0602F004.D  
 Acq On : 2 Jun 2010 5:18 pm  
 Sample : 5PPM 8270 ICAL SVM32-21C  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:51 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F004.D

(3) Pyridine (T)		
4.37min	4.24ug/ml m	
response	15161	
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	80.30
0.00	0.00	0.00
0.00	0.00	0.00

*Handwritten notes:* SC M 6-3-10

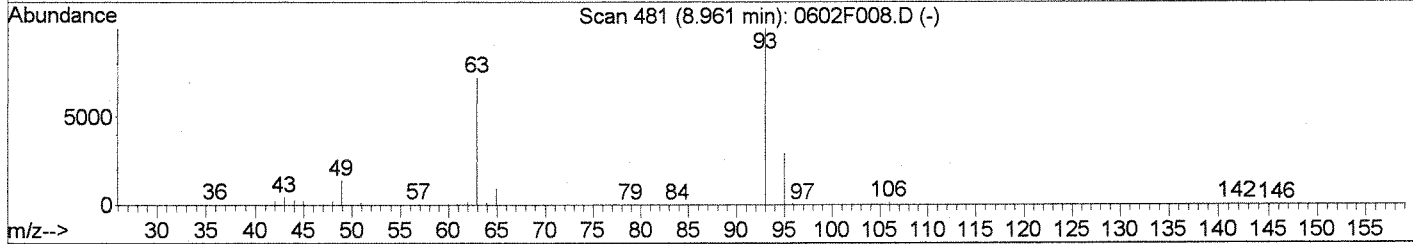
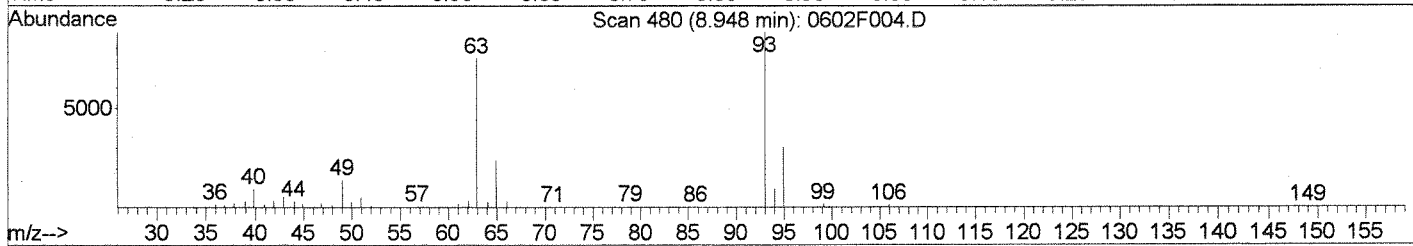
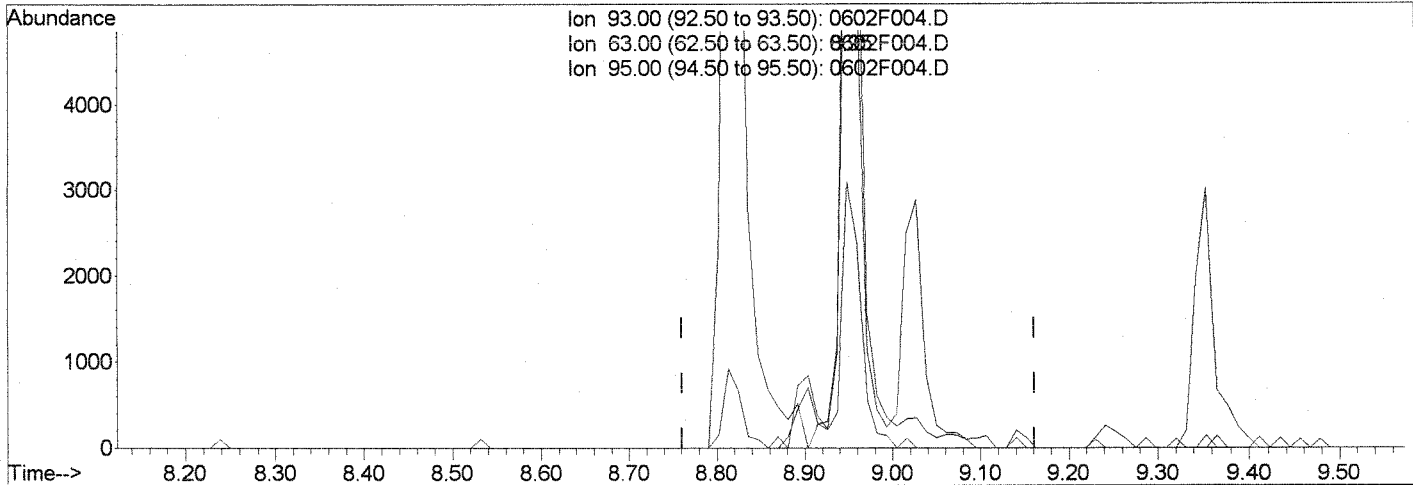
*Handwritten signature:* LB 4/11/10

Data File : J:\MS07\DATA\060210\0602F004.D  
 Acq On : 2 Jun 2010 5:18 pm  
 Sample : 5PPM 8270 ICAL SVM32-21C  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:51 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F004.D

(6) Bis(2-chloroethyl) Ether (T)

8.95min 4.64ug/ml

response 15011

Ion	Exp%	Act%
93.00	100	100
63.00	74.40	79.60
95.00	31.00	31.22
0.00	0.00	0.00

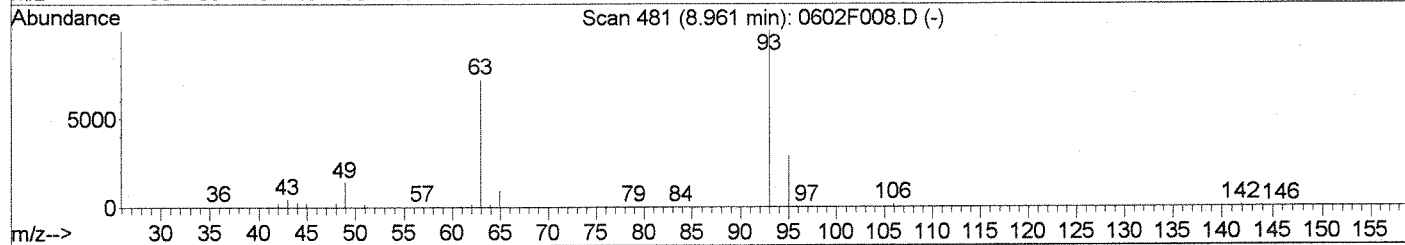
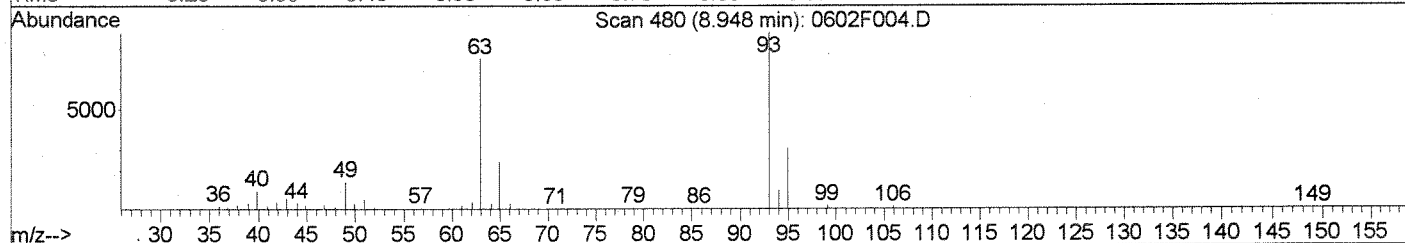
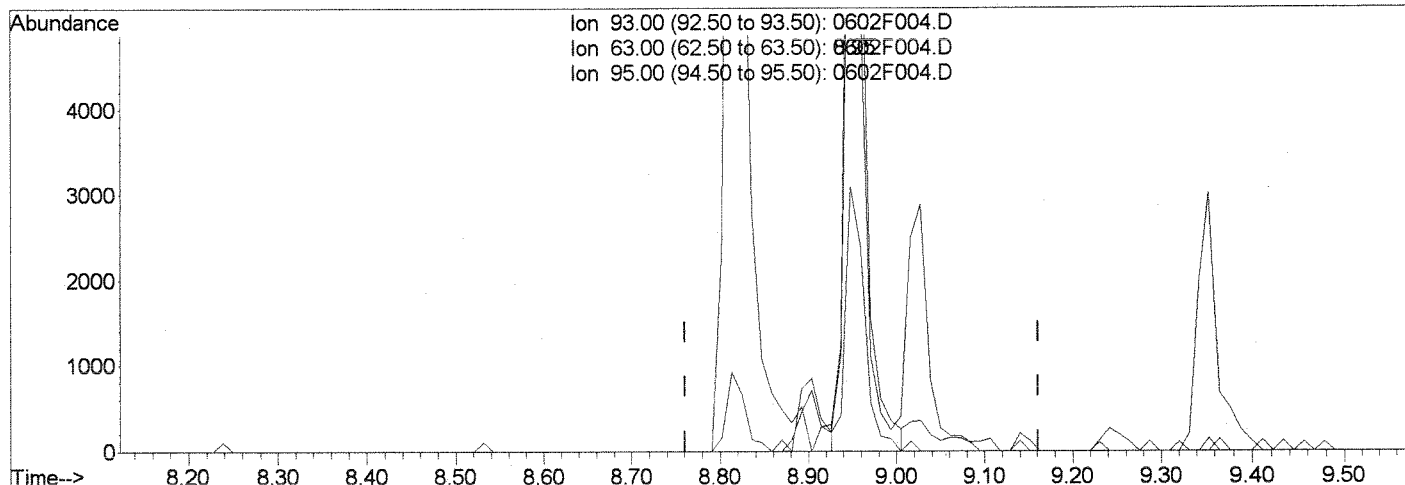
Quantitation Report (Quant)

Data File : J:\MS07\DATA\060210\0602F004.D  
 Acq On : 2 Jun 2010 5:18 pm  
 Sample : 5PPM 8270 ICAL SVM32-21C  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:51 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F004.D

(6) Bis(2-chloroethyl) Ether (T)

8.95min 4.22ug/ml m

response 13655

Ion	Exp%	Act%
93.00	100	100
63.00	74.40	85.24
95.00	31.00	35.23
0.00	0.00	0.00

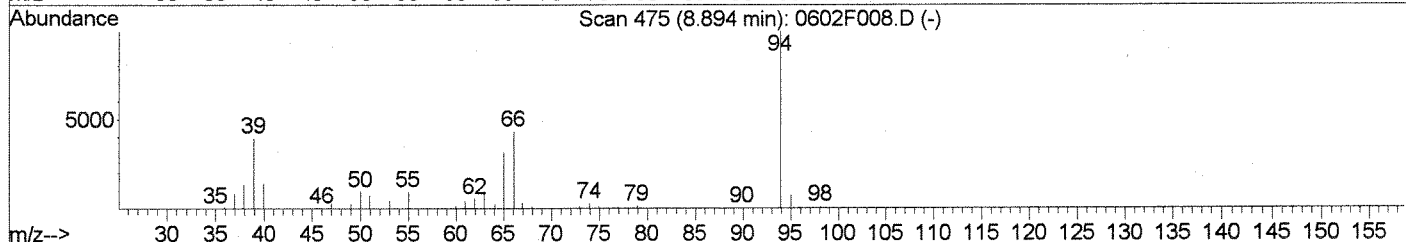
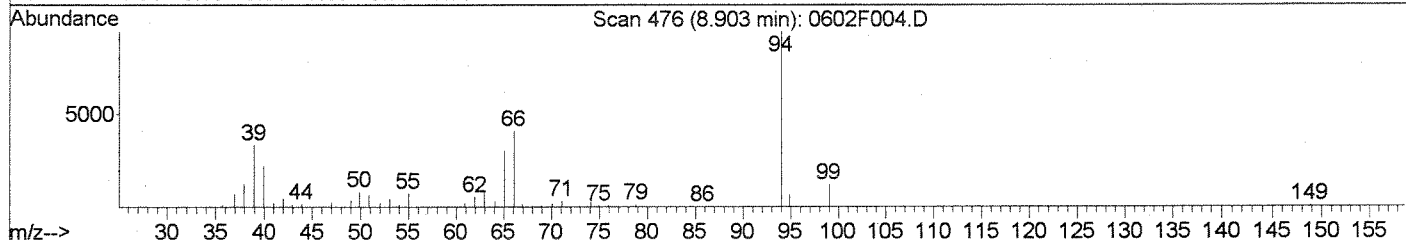
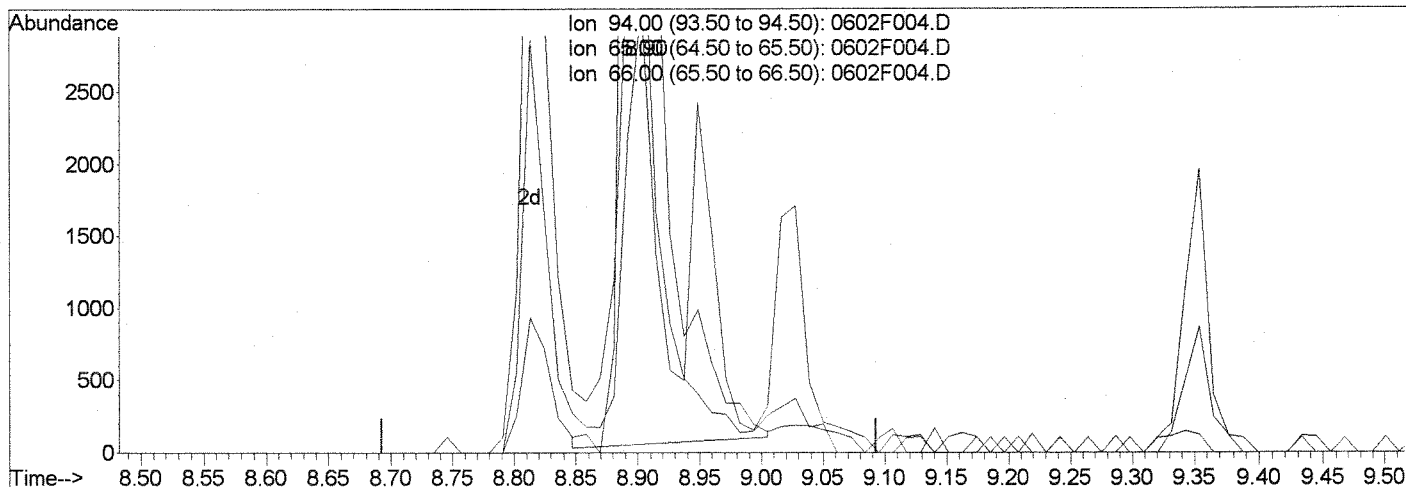
*Handwritten notes:* 05, 6-3-10, LB, 4/11/10

Data File : J:\MS07\DATA\060210\0602F004.D  
 Acq On : 2 Jun 2010 5:18 pm  
 Sample : 5PPM 8270 ICAL SVM32-21C  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:51 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F004.D

(8) Phenol (TMC)		
8.90min	4.23ug/ml	
response	17008	
Ion	Exp%	Act%
94.00	100	100
65.00	31.10	30.00
66.00	44.30	40.54
0.00	0.00	0.00

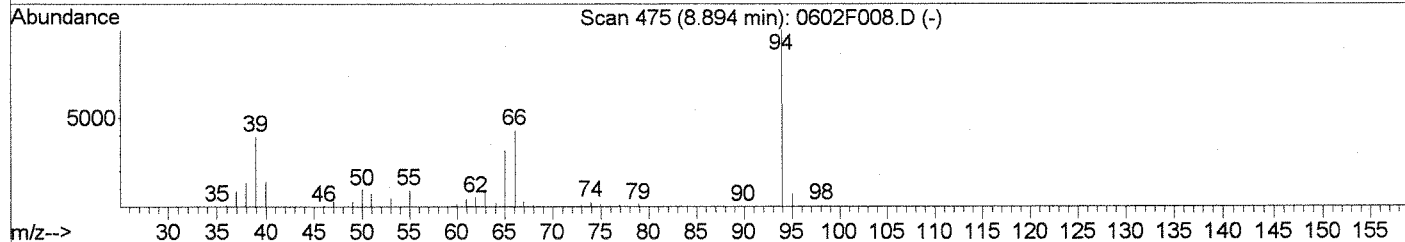
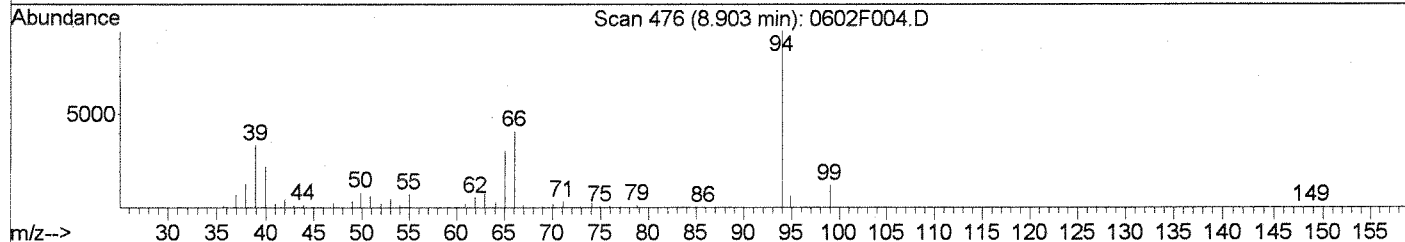
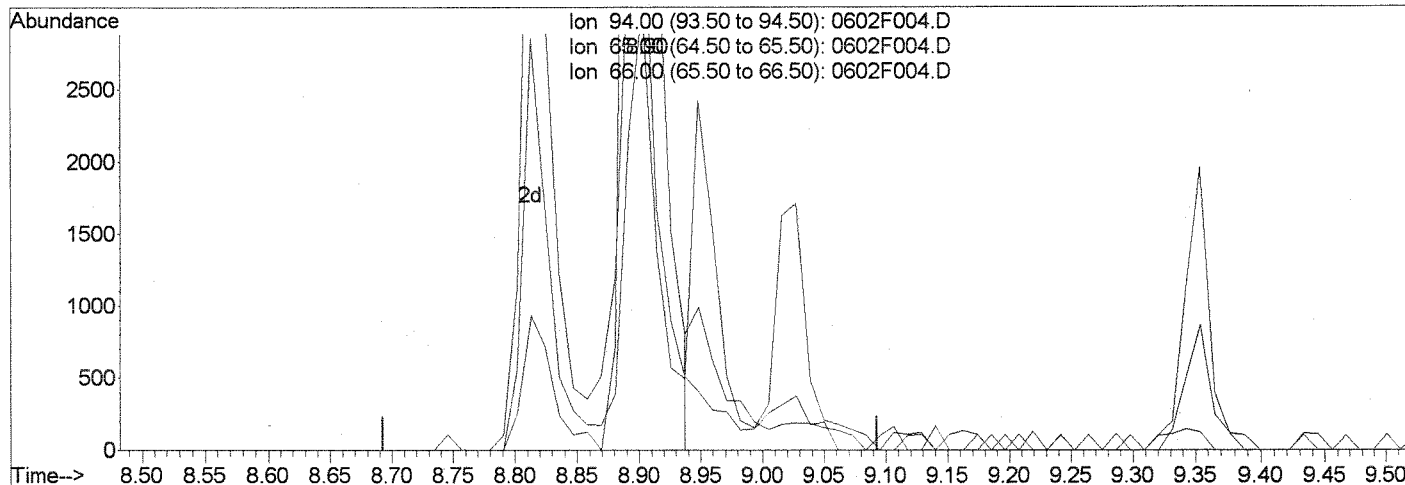
Data File : J:\MS07\DATA\060210\0602F004.D  
Acq On : 2 Jun 2010 5:18 pm  
Sample : 5PPM 8270 ICAL SVM32-21C  
Misc :

Vial: 2  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:51 2010

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F004.D

Ion	Exp%	Act%
94.00	100	100
65.00	31.10	32.77
66.00	44.30	43.67
0.00	0.00	0.00

(8) Phenol (TMC)  
8.90min 3.93ug/ml m  
response 15799

*05*  
*M 6-3-10*

*LB*  
*4/110*



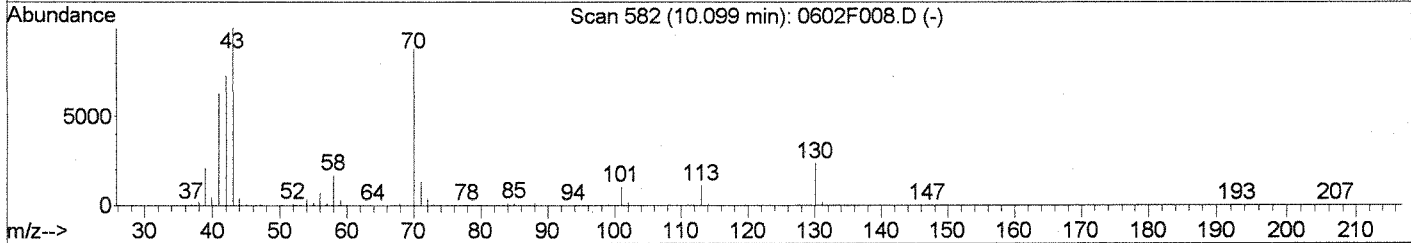
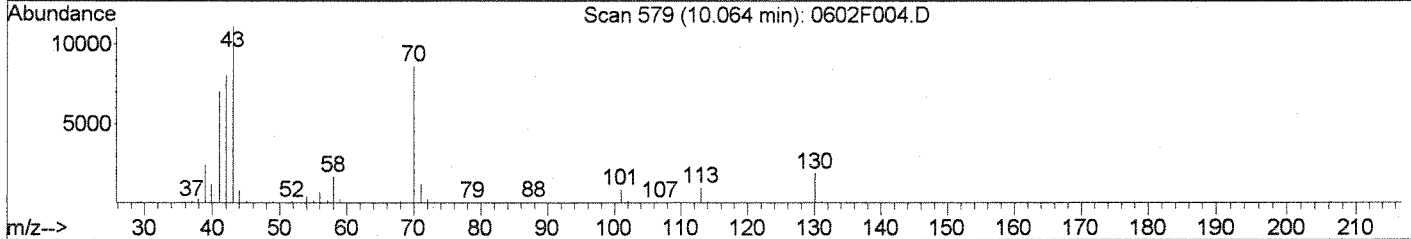
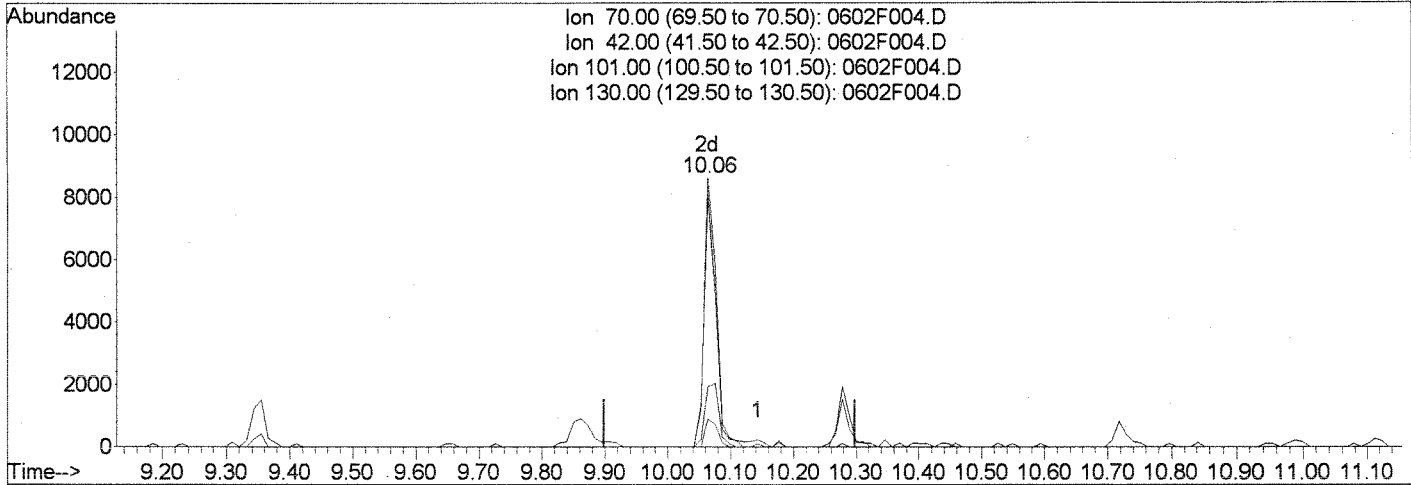
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F004.D  
Acq On : 2 Jun 2010 5:18 pm  
Sample : 5PPM 8270 ICAL SVM32-21C  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:51 2010

Vial: 2  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F004.D

(17) N-Nitrosodi-n-propylamine (TMP)

10.06min 4.33ug/ml m

response 11468

Ion	Exp%	Act%
70.00	100	100
42.00	82.30	93.49
101.00	11.70	10.47
130.00	26.70	22.39

*Handwritten notes:* LK, M 8-3-10

*Handwritten:* LK, 4/14/10

Data File : J:\MS07\DATA\060210\0602F005.D  
 Acq On : 2 Jun 2010 5:58 pm  
 Sample : 10PPM 8270 ICAL SVM32-21D  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:50 2010

Vial: 3  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	105247	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	391642	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	226676	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.70	188	357025	40.00	ug/ml	0.00
68) Chrysene-d12	21.13	240	241835	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	262995	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.15	112	26546	9.49	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	6.33%#
7) Phenol-d6	8.87	99	36844	9.44	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	6.29%#
19) Nitrobenzene-d5	10.28	82	33312	8.74	ug/ml	-0.01
Spiked Amount	100.000	Range	35 - 114	Recovery	=	8.74%#
38) 2-Fluorobiphenyl	13.24	172	71199	9.58	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	9.58%#
59) 2,4,6-Tribromophenol	15.60	330	11829	8.17	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	5.45%#
71) Terphenyl-d14	19.32	244	38951	10.52	ug/ml	-0.01
Spiked Amount	100.000	Range	33 - 141	Recovery	=	10.52%#

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.19	42	25086m	10.01	ug/ml	
3) Pyridine	4.31	79	31358m	8.83	ug/ml	
5) Aniline	8.81	93	40886	10.37	ug/ml	98
6) Bis(2-chloroethyl) Ether	8.95	93	30034	9.35	ug/ml	97
8) Phenol	8.89	94	35818m	8.96	ug/ml	
9) 2-Chlorophenol	9.02	128	32914	9.55	ug/ml	99
10) 1,3-Dichlorobenzene	9.24	146	36641	10.03	ug/ml	98
11) 1,4-Dichlorobenzene	9.38	146	38222	10.27	ug/ml	99
12) 1,2-Dichlorobenzene	9.62	146	34455	9.78	ug/ml	97
13) Benzyl Alcohol	9.64	108	18531	8.76	ug/ml	97
14) Bis(2-chloroisopropyl) Eth	9.85	45	47571	9.01	ug/ml	88
15) 2-Methylphenol	9.87	107	25872	10.00	ug/ml	98
16) Hexachloroethane	10.18	117	16954	10.01	ug/ml	94
17) N-Nitrosodi-n-propylamine	10.06	70	23644	8.99	ug/ml	89
18) 4-Methylphenol	10.14	107	35822	9.11	ug/ml	96
20) Nitrobenzene	10.31	77	32576	9.24	ug/ml	97
22) Isophorone	10.72	82	68596	9.71	ug/ml	97
23) 2-Nitrophenol	10.84	139	17870	9.08	ug/ml	94
24) 2,4-Dimethylphenol	10.99	122	22946	8.82	ug/ml	98
25) Bis(2-chloroethoxy)methane	11.11	93	38509	9.70	ug/ml	97

(#) = qualifier out of range (m) = manual integration  
 0602F005.D 0602BNC7.M Thu Jun 03 11:34:26 2010

Data File : J:\MS07\DATA\060210\0602F005.D  
 Acq On : 2 Jun 2010 5:58 pm  
 Sample : 10PPM 8270 ICAL SVM32-21D  
 Misc :

Vial: 3  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:50 2010

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.28	162	28397	9.62	ug/ml	97
27) Benzoic Acid	11.18	122	14734	6.60	ug/ml	93
28) 1,2,4-Trichlorobenzene	11.37	180	31946	10.19	ug/ml	99
29) Naphthalene	11.48	128	98207	10.45	ug/ml	99
30) 4-Chloroaniline	11.62	127	42506	10.25	ug/ml	98
31) Hexachlorobutadiene	11.71	225	19642	9.88	ug/ml	98
32) 4-Chloro-3-methylphenol	12.48	107	31095	10.09	ug/ml#	52
33) 2-Methylnaphthalene	12.62	142	61446	10.28	ug/ml	99
35) Hexachlorocyclopentadiene	12.89	237	11969	12.54	ug/ml	98
36) 2,4,6-Trichlorophenol	13.12	196	22060	9.43	ug/ml	98
37) 2,4,5-Trichlorophenol	13.20	196	24219	9.29	ug/ml	98
39) 2-Chloronaphthalene	13.41	162	61401	9.37	ug/ml	97
40) 2-Nitroaniline	13.60	65	20458	9.70	ug/ml	94
41) Acenaphthylene	14.08	152	99975	9.90	ug/ml	99
42) Dimethyl Phthalate	13.93	163	80744	10.48	ug/ml	99
43) 2,6-Dinitrotoluene	14.01	165	17837	10.21	ug/ml	87
44) Acenaphthene	14.36	154	60029	10.41	ug/ml	99
45) 3-Nitroaniline	14.28	138	18715	10.19	ug/ml	98
46) 2,4-Dinitrophenol	14.46	184	4551	4.49	ug/ml	91
47) Dibenzofuran	14.64	168	96912	10.66	ug/ml	91
48) 4-Nitrophenol	14.68	109	6093	6.12	ug/ml#	1
49) 2,4-Dinitrotoluene	14.66	165	23833	10.77	ug/ml	96
50) 2,3,4,6-Tetrachlorophenol	14.86	232	18936	9.97	ug/ml#	70
51) Fluorene	15.19	166	73383	10.78	ug/ml	96
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	37654	10.80	ug/ml	95
53) Diethyl Phthalate	15.08	149	86042	11.55	ug/ml	98
54) 4-Nitroaniline	15.27	138	15929	10.02	ug/ml	95
55) 2-Methyl-4,6-dinitrophenol	15.32	198	9476	7.87	ug/ml	94
56) N-Nitrosodiphenylamine	15.42	169	48404	10.66	ug/ml	100
57) 1,2-Diphenylhydrazine	15.47	77	76355	9.89	ug/ml	95
60) 4-Bromophenyl Phenyl Ether	16.01	248	20207	9.39	ug/ml	95
61) Hexachlorobenzene	16.08	284	23710	9.50	ug/ml	91
62) Pentachlorophenol	16.43	266	8788	6.27	ug/ml	98
63) Phenanthrene	16.75	178	101760	10.73	ug/ml	99
64) Anthracene	16.83	178	99958	10.02	ug/ml	99
65) Carbazole	17.12	167	78635	9.66	ug/ml	99
66) Di-n-butyl Phthalate	17.74	149	97039	8.94	ug/ml	98
67) Fluoranthene	18.66	202	79480	9.23	ug/ml	96
69) Benzidine	18.93	184	30551	15.05	ug/ml	96
70) Pyrene	19.02	202	77346	11.98	ug/ml	99
72) Butyl Benzyl Phthalate	20.16	149	32756	8.91	ug/ml	97

(#) = qualifier out of range (m) = manual integration  
 0602F005.D 0602BNC7.M Thu Jun 03 11:34:26 2010

*Handwritten:* 6-3-10

Data File : J:\MS07\DATA\060210\0602F005.D  
Acq On : 2 Jun 2010 5:58 pm  
Sample : 10PPM 8270 ICAL SVM32-21D  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 03 10:48:50 2010

Vial: 3  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Initial Calibration  
DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.11	252	24152	9.56	ug/ml	98
74) Benz(a)anthracene	21.11	228	53498	9.41	ug/ml	99
75) Chrysene	21.18	228	53106	9.65	ug/ml	99
76) Bis(2-ethylhexyl) Phthalat	21.31	149	46281	8.84	ug/ml	99
78) Di-n-octyl Phthalate	22.76	149	90208	7.79	ug/ml	99
79) Benzo(b)fluoranthene	23.43	252	57418	8.48	ug/ml	98
80) Benzo(k)fluoranthene	23.50	252	62067	8.83	ug/ml	99
81) Benzo(a)pyrene	24.17	252	52544	9.34	ug/ml	97
82) Indeno(1,2,3-cd)pyrene	26.74	276	44132	9.06	ug/ml	99
83) Dibenz(a,h)anthracene	26.82	278	45317	8.73	ug/ml	99
84) Benzo(g,h,i)perylene	27.32	276	52555	9.99	ug/ml	96

LB  
6/4/10

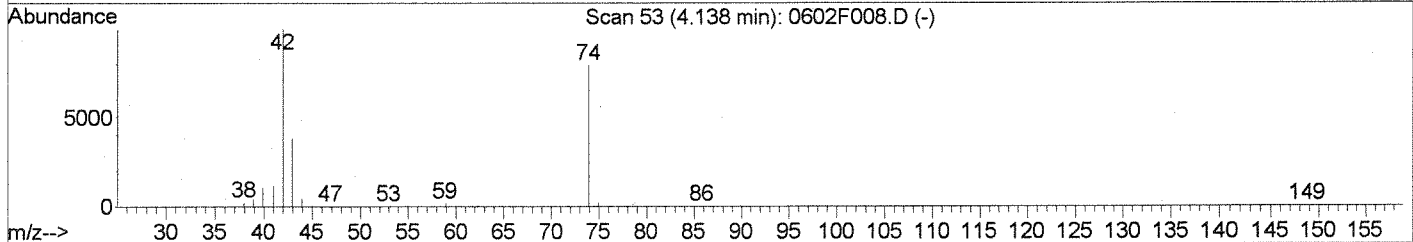
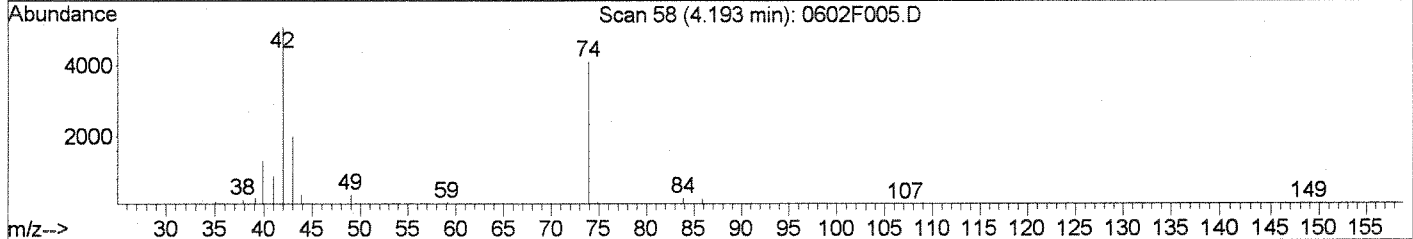
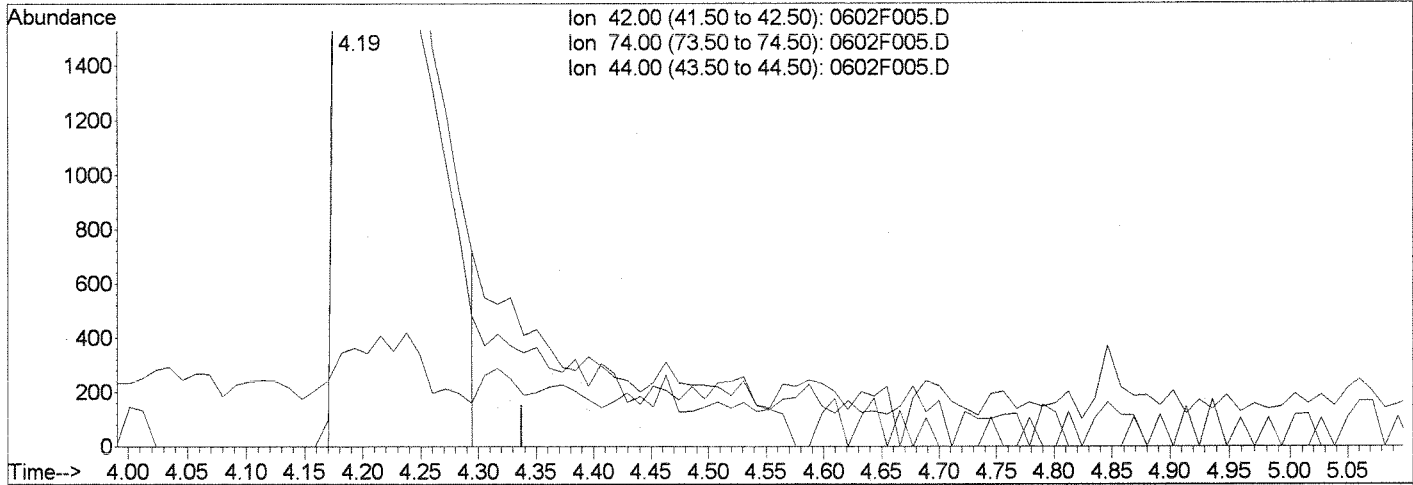


Data File : J:\MS07\DATA\060210\0602F005.D  
 Acq On : 2 Jun 2010 5:58 pm  
 Sample : 10PPM 8270 ICAL SVM32-21D  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:48 2010

Vial: 3  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F005.D

(2) N-Nitrosodimethylamine (T)

4.19min 7.60ug/ml

response 19042

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	82.13
44.00	4.40	3.79
0.00	0.00	0.00

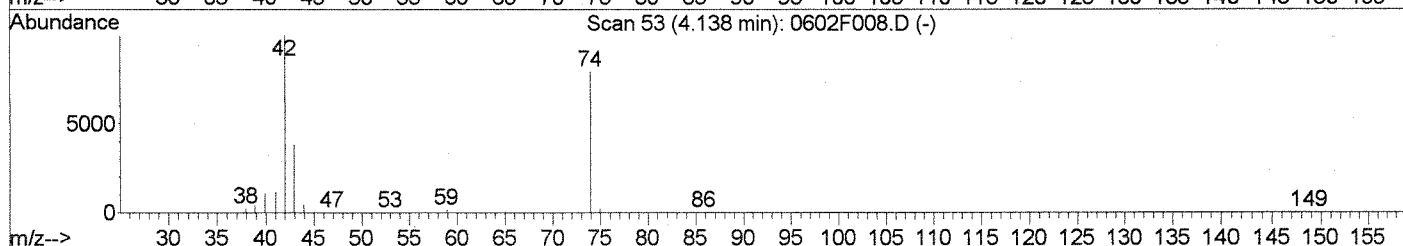
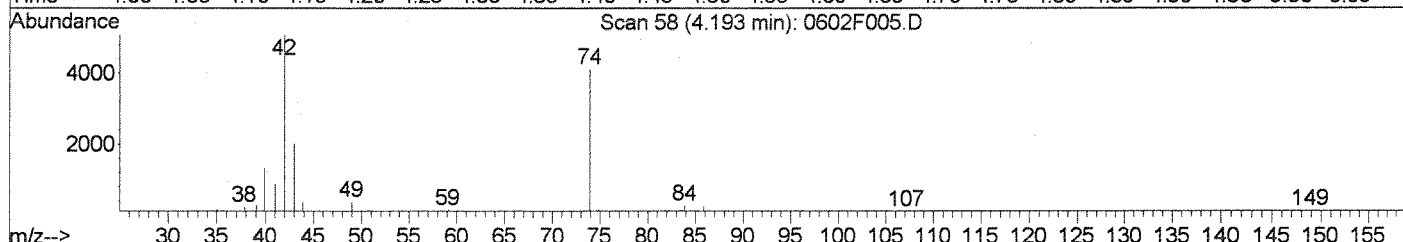
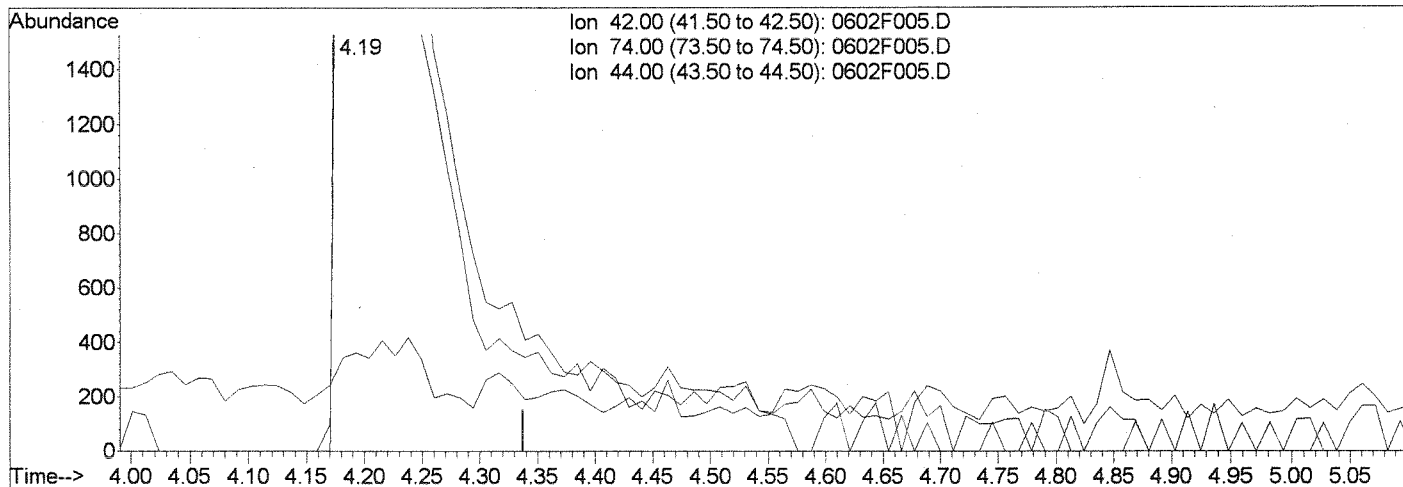
Quantitation Report (Quant)

Data File : J:\MS07\DATA\060210\0602F005.D  
 Acq On : 2 Jun 2010 5:58 pm  
 Sample : 10PPM 8270 ICAL SVM32-21D  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:52 2010

Vial: 3  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F005.D

(2) N-Nitrosodimethylamine (T)

4.19min 10.01ug/ml m

response 25086

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	81.04
44.00	4.40	7.12
0.00	0.00	0.00

*IC*  
*M 6-270*

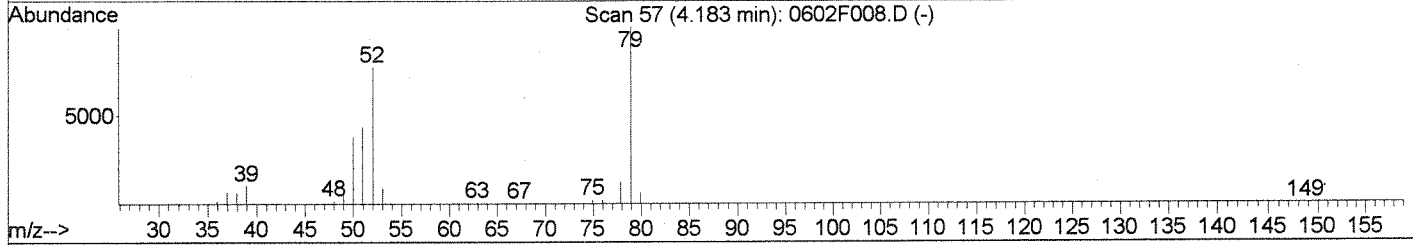
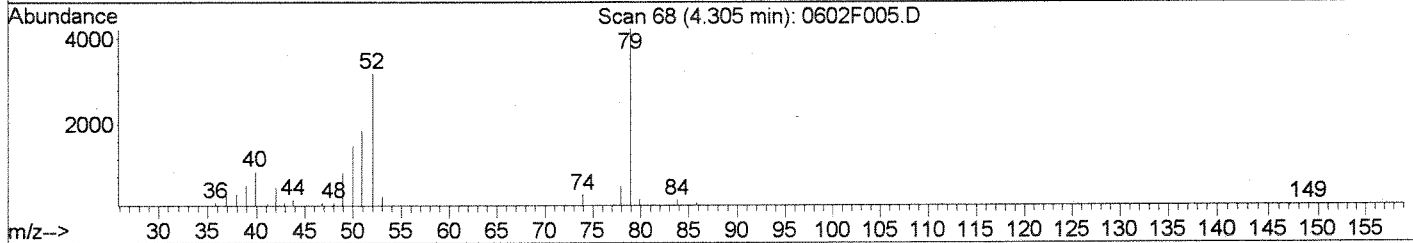
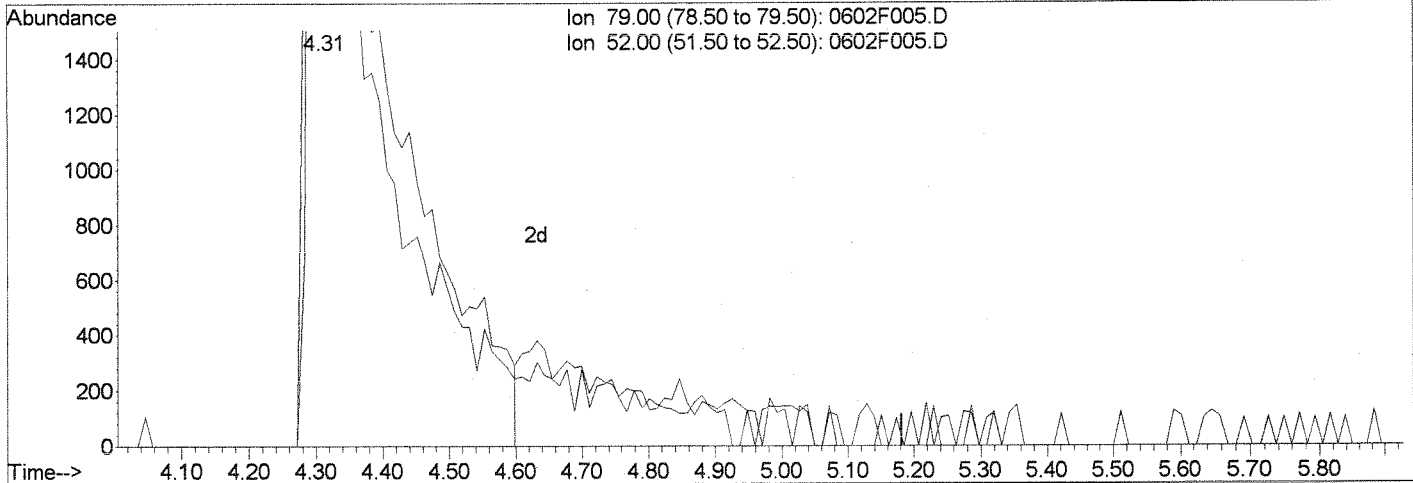
*LB*  
*6/4/10*

Data File : J:\MS07\DATA\060210\0602F005.D  
 Acq On : 2 Jun 2010 5:58 pm  
 Sample : 10PPM 8270 ICAL SVM32-21D  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:52 2010

Vial: 3  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F005.D

(3) Pyridine (T)  
 4.31min 7.54ug/ml  
 response 26783

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	75.18
0.00	0.00	0.00
0.00	0.00	0.00



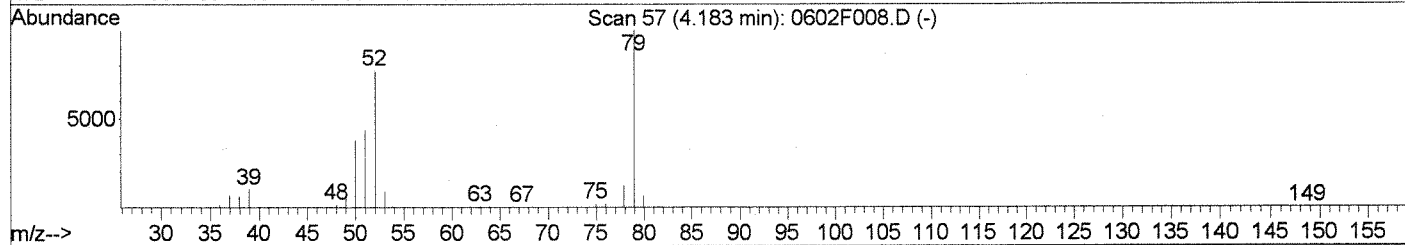
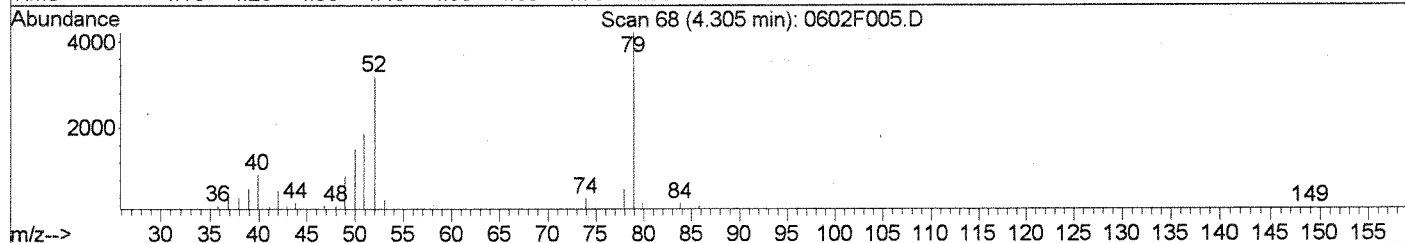
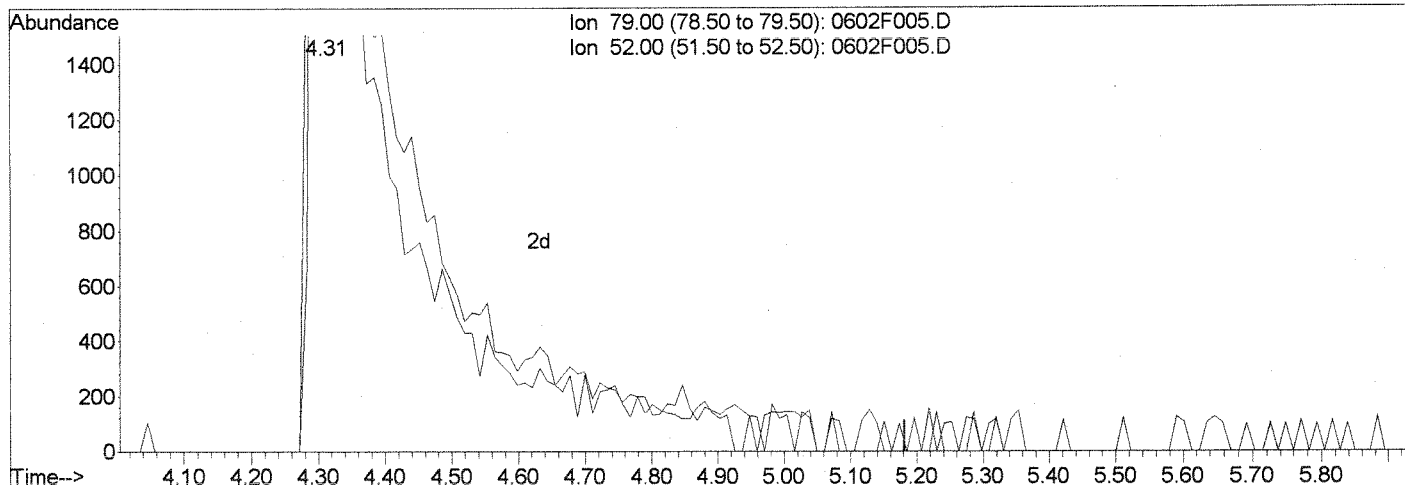
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F005.D  
Acq On : 2 Jun 2010 5:58 pm  
Sample : 10PPM 8270 ICAL SVM32-21D  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:52 2010

Vial: 3  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F005.D

(3) Pyridine (T)  
4.31min 8.83ug/ml m  
response 31358

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	75.44
0.00	0.00	0.00
0.00	0.00	0.00

*SC*  
*M 6-3-10*

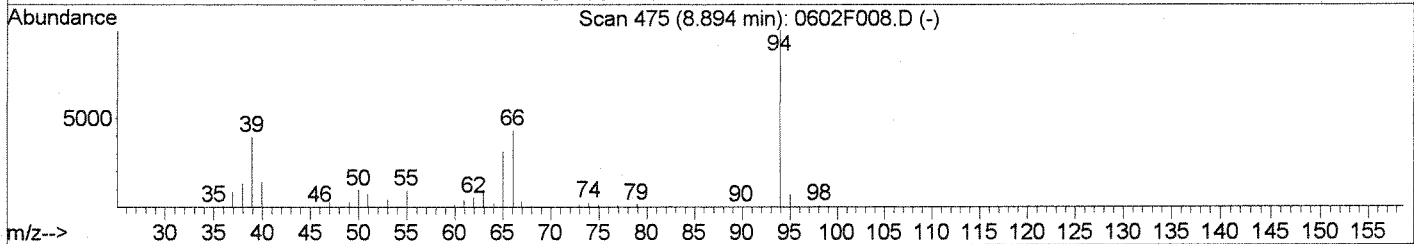
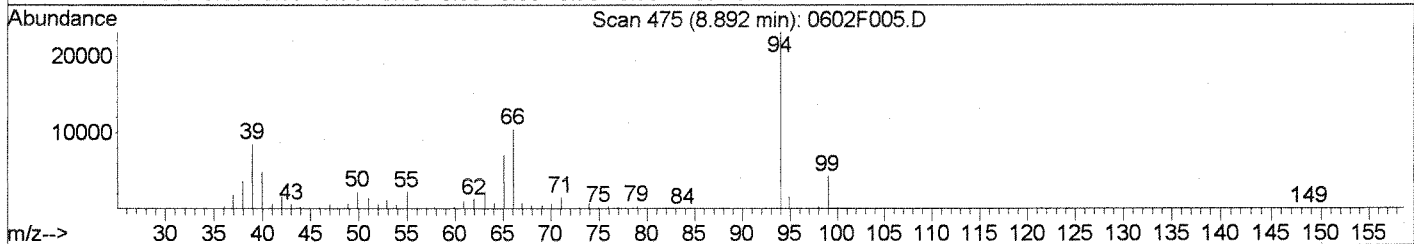
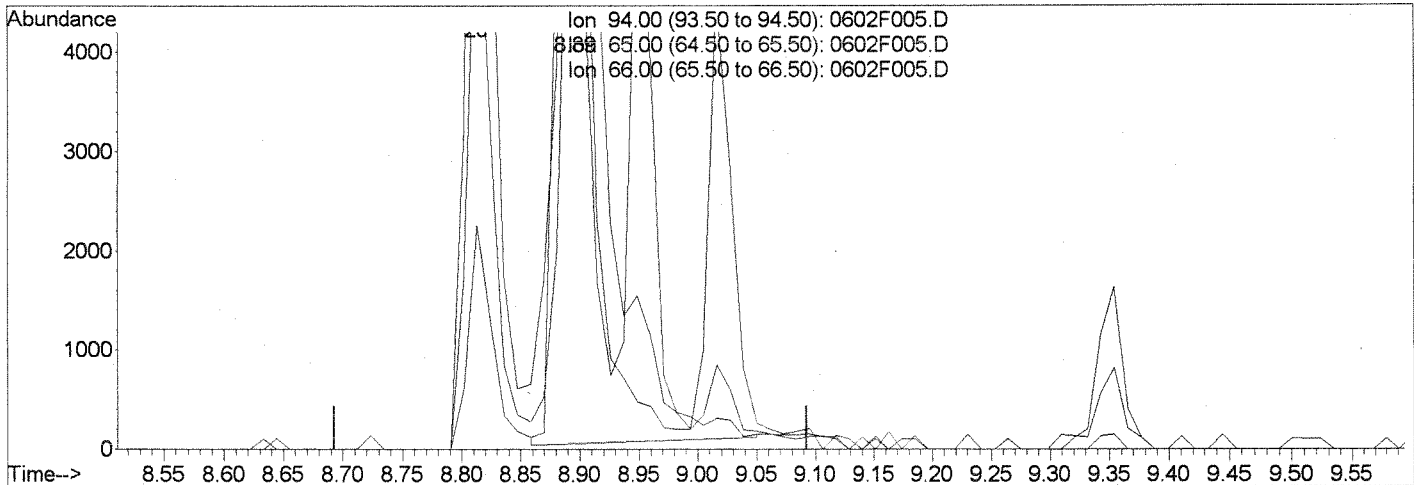
*LB*  
*4/4/10*

Data File : J:\MS07\DATA\060210\0602F005.D  
 Acq On : 2 Jun 2010 5:58 pm  
 Sample : 10PPM 8270 ICAL SVM32-21D  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:52 2010

Vial: 3  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F005.D

(8) Phenol (TMC)

8.89min 9.57ug/ml

response 38255

Ion	Exp%	Act%
94.00	100	100
65.00	31.10	29.66
66.00	44.30	43.61
0.00	0.00	0.00

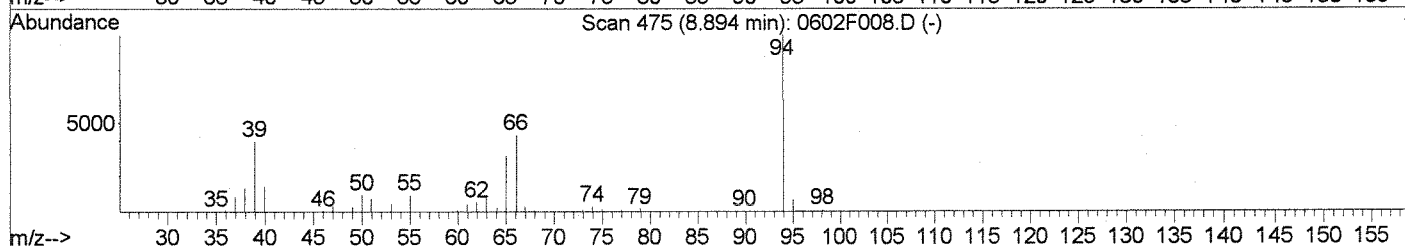
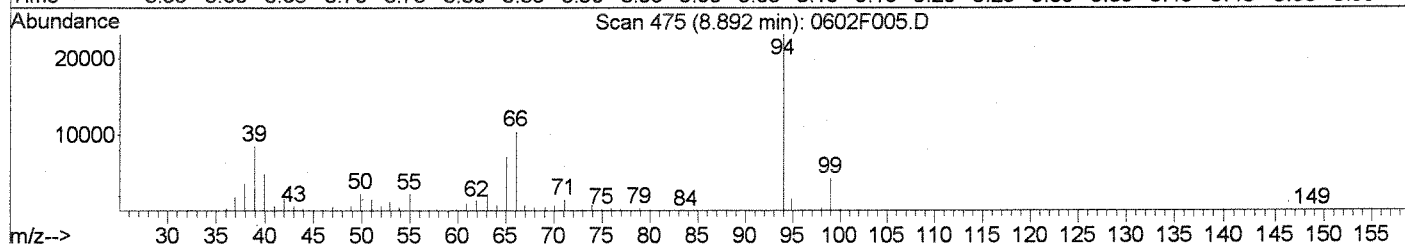
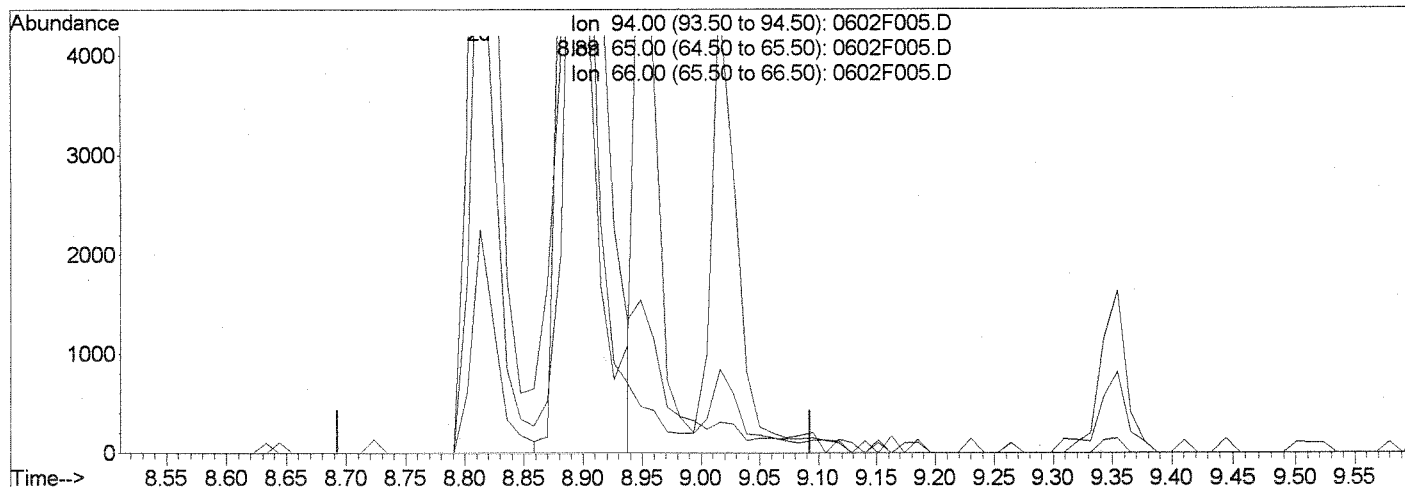
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F005.D  
 Acq On : 2 Jun 2010 5:58 pm  
 Sample : 10PPM 8270 ICAL SVM32-21D  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:52 2010

Vial: 3  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F005.D

(8) Phenol (TMC)

8.89min 8.96ug/ml m

response 35818

Ion	Exp%	Act%
94.00	100	100
65.00	31.10	30.65
66.00	44.30	45.16
0.00	0.00	0.00

*OE*  
*6-3-10*

*LB*  
*4/4/10*

Data File : J:\MS07\DATA\060210\0602F006.D  
 Acq On : 2 Jun 2010 6:38 pm  
 Sample : 20PPM 8270 ICAL SVM32-21E  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:51 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	107827	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	398983	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	232100	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.71	188	344754	40.00	ug/ml	0.00
68) Chrysene-d12	21.13	240	241469	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	276718	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.15	112	55135	19.23	ug/ml	0.02
Spiked Amount	150.000	Range 21 - 100	Recovery	=	12.82%#	
7) Phenol-d6	8.87	99	75461	18.87	ug/ml	0.00
Spiked Amount	150.000	Range 10 - 94	Recovery	=	12.58%	
19) Nitrobenzene-d5	10.29	82	71229	18.24	ug/ml	0.00
Spiked Amount	100.000	Range 35 - 114	Recovery	=	18.24%#	
38) 2-Fluorobiphenyl	13.24	172	146020	19.19	ug/ml	0.00
Spiked Amount	100.000	Range 43 - 116	Recovery	=	19.19%#	
59) 2,4,6-Tribromophenol	15.59	330	26645	19.07	ug/ml	0.00
Spiked Amount	150.000	Range 10 - 123	Recovery	=	12.71%	
71) Terphenyl-d14	19.32	244	79545	21.51	ug/ml	0.00
Spiked Amount	100.000	Range 33 - 141	Recovery	=	21.51%#	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.17	42	50289m	19.58	ug/ml	
3) Pyridine	4.26	79	65653m	18.04	ug/ml	
5) Aniline	8.81	93	85294	21.11	ug/ml	93
6) Bis(2-chloroethyl) Ether	8.96	93	64648	19.64	ug/ml	94
8) Phenol	8.89	94	77609m	18.95	ug/ml	
9) 2-Chlorophenol	9.02	128	71798	20.34	ug/ml	91
10) 1,3-Dichlorobenzene	9.25	146	78347	20.92	ug/ml	97
11) 1,4-Dichlorobenzene	9.38	146	78619	20.61	ug/ml	97
12) 1,2-Dichlorobenzene	9.62	146	73274	20.30	ug/ml	95
13) Benzyl Alcohol	9.63	108	40524	18.69	ug/ml	91
14) Bis(2-chloroisopropyl) Eth	9.87	45	97948	18.11	ug/ml	75
15) 2-Methylphenol	9.88	107	53112	20.03	ug/ml	90
16) Hexachloroethane	10.18	117	35563	20.49	ug/ml	82
17) N-Nitrosodi-n-propylamine	10.07	70	50989	18.93	ug/ml	93
18) 4-Methylphenol	10.14	107	77580	19.27	ug/ml	98
20) Nitrobenzene	10.31	77	70406	19.50	ug/ml	97
22) Isophorone	10.72	82	152700	21.22	ug/ml	98
23) 2-Nitrophenol	10.84	139	40761	20.33	ug/ml	89
24) 2,4-Dimethylphenol	10.98	122	52982	19.98	ug/ml	98
25) Bis(2-chloroethoxy)methane	11.12	93	84795	20.97	ug/ml	98

(#) = qualifier out of range (m) = manual integration

0602F006.D 0602BNC7.M Thu Jun 03 11:34:28 2010

*M*  
*6-3-10*

*LAB*  
*LIAN*

Data File : J:\MS07\DATA\060210\0602F006.D  
 Acq On : 2 Jun 2010 6:38 pm  
 Sample : 20PPM 8270 ICAL SVM32-21E  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:51 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.28	162	62920	20.91	ug/ml	94
27) Benzoic Acid	11.21	122	39035	17.18	ug/ml	97
28) 1,2,4-Trichlorobenzene	11.37	180	67561	21.15	ug/ml	98
29) Naphthalene	11.48	128	202046	21.11	ug/ml	99
30) 4-Chloroaniline	11.62	127	92217	21.84	ug/ml	99
31) Hexachlorobutadiene	11.72	225	43507	21.47	ug/ml	99
32) 4-Chloro-3-methylphenol	12.46	107	64285	20.47	ug/ml	94
33) 2-Methylnaphthalene	12.62	142	131239	21.55	ug/ml	96
35) Hexachlorocyclopentadiene	12.89	237	34516	20.83	ug/ml	98
36) 2,4,6-Trichlorophenol	13.11	196	48387	20.21	ug/ml	99
37) 2,4,5-Trichlorophenol	13.19	196	50981	19.11	ug/ml	99
39) 2-Chloronaphthalene	13.41	162	127345	18.97	ug/ml	99
40) 2-Nitroaniline	13.61	65	44993	20.84	ug/ml	84
41) Acenaphthylene	14.07	152	214017	20.70	ug/ml	99
42) Dimethyl Phthalate	13.93	163	171907	21.79	ug/ml	100
43) 2,6-Dinitrotoluene	14.02	165	37142	20.77	ug/ml	80
44) Acenaphthene	14.35	154	120815	20.47	ug/ml	99
45) 3-Nitroaniline	14.27	138	39608	21.05	ug/ml	97
46) 2,4-Dinitrophenol	14.46	184	14657	14.13	ug/ml	93
47) Dibenzofuran	14.65	168	198067	21.28	ug/ml	90
48) 4-Nitrophenol	14.66	109	17318	17.00	ug/ml#	1
49) 2,4-Dinitrotoluene	14.66	165	47758	21.07	ug/ml	80
50) 2,3,4,6-Tetrachlorophenol	14.87	232	40042	20.58	ug/ml	95
51) Fluorene	15.20	166	145342	20.84	ug/ml	97
52) 4-Chlorophenyl Phenyl Ethe	15.22	204	74932	20.99	ug/ml	95
53) Diethyl Phthalate	15.07	149	173708	22.77	ug/ml	99
54) 4-Nitroaniline	15.27	138	32289	19.83	ug/ml	96
55) 2-Methyl-4,6-dinitrophenol	15.31	198	21784	17.67	ug/ml	77
56) N-Nitrosodiphenylamine	15.42	169	98866	21.26	ug/ml	99
57) 1,2-Diphenylhydrazine	15.47	77	167281	21.16	ug/ml	94
60) 4-Bromophenyl Phenyl Ether	16.01	248	41910	20.16	ug/ml	92
61) Hexachlorobenzene	16.08	284	47682	19.79	ug/ml	97
62) Pentachlorophenol	16.43	266	21580	15.94	ug/ml	95
63) Phenanthrene	16.74	178	188045	20.53	ug/ml	99
64) Anthracene	16.82	178	189032	19.63	ug/ml	100
65) Carbazole	17.11	167	144391	18.37	ug/ml	99
66) Di-n-butyl Phthalate	17.73	149	198519	18.93	ug/ml	98
67) Fluoranthene	18.66	202	140879	16.94	ug/ml	99
69) Benzidine	18.93	184	52194	25.74	ug/ml	98
70) Pyrene	19.02	202	138437	21.48	ug/ml	99
72) Butyl Benzyl Phthalate	20.16	149	73189	19.93	ug/ml	98

(#) = qualifier out of range (m) = manual integration  
 0602F006.D 0602BNC7.M Thu Jun 03 11:34:28 2010

*Handwritten:* 6-3-10

Data File : J:\MS07\DATA\060210\0602F006.D  
 Acq On : 2 Jun 2010 6:38 pm  
 Sample : 20PPM 8270 ICAL SVM32-21E  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:51 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.10	252	51085	20.24	ug/ml	97
74) Benz(a)anthracene	21.10	228	111232	19.60	ug/ml	99
75) Chrysene	21.18	228	107890	19.64	ug/ml	99
76) Bis(2-ethylhexyl) Phthalat	21.31	149	103877	19.87	ug/ml	98
78) Di-n-octyl Phthalate	22.77	149	193270	15.86	ug/ml	98
79) Benzo(b)fluoranthene	23.44	252	133681	18.75	ug/ml	97
80) Benzo(k)fluoranthene	23.50	252	142980	19.33	ug/ml	97
81) Benzo(a)pyrene	24.17	252	116697	19.71	ug/ml	100
82) Indeno(1,2,3-cd)pyrene	26.74	276	94671	18.46	ug/ml	98
83) Dibenz(a,h)anthracene	26.82	278	105237	19.27	ug/ml	97
84) Benzo(g,h,i)perylene	27.31	276	107472	19.42	ug/ml	99

LB  
 6/3/10

6-3-10

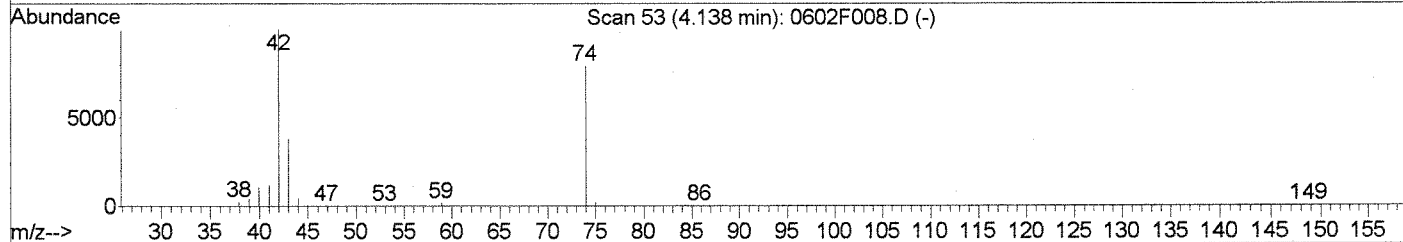
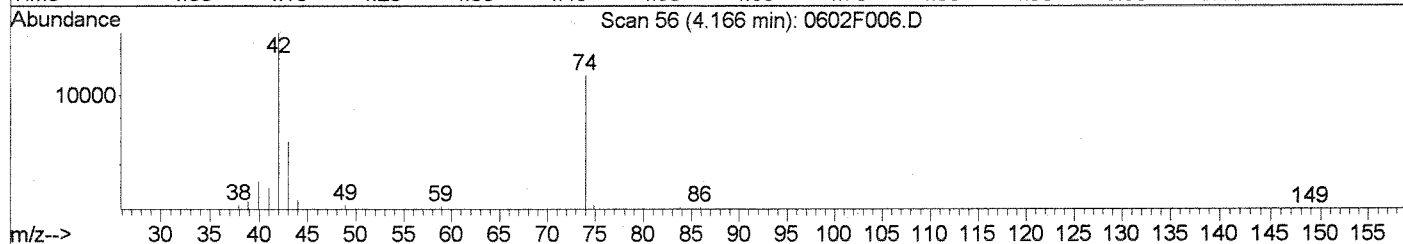
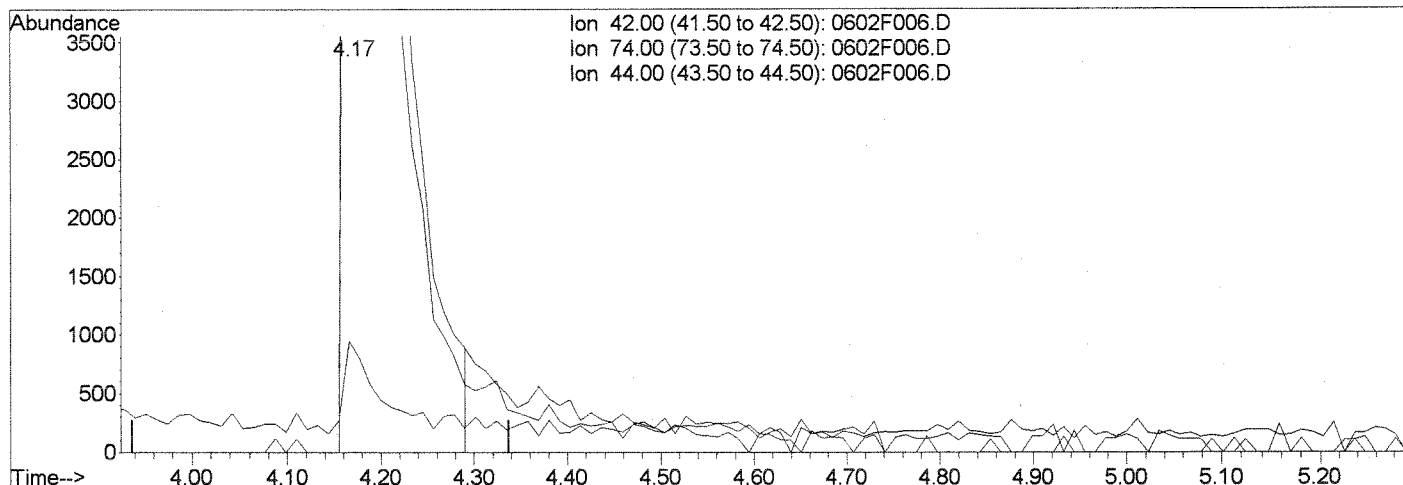


Data File : J:\MS07\DATA\060210\0602F006.D  
 Acq On : 2 Jun 2010 6:38 pm  
 Sample : 20PPM 8270 ICAL SVM32-21E  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:48 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F006.D

(2) N-Nitrosodimethylamine (T)			
4.17min	16.91ug/ml		
response	43432		
Ion	Exp%	Act%	
42.00	100	100	
74.00	79.30	76.23	
44.00	4.40	5.09	
0.00	0.00	0.00	



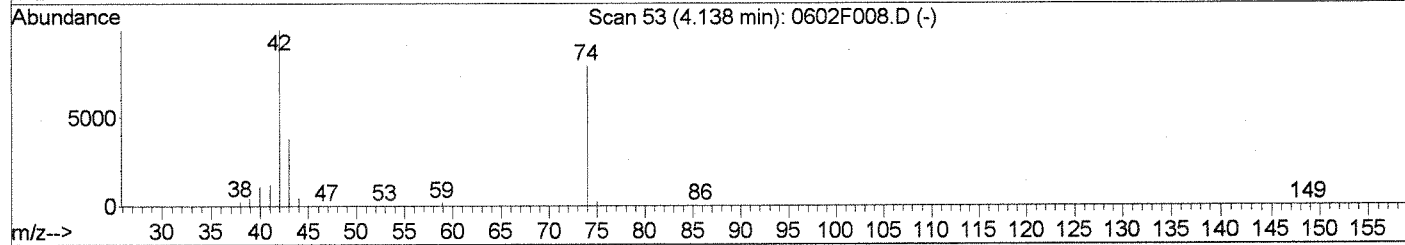
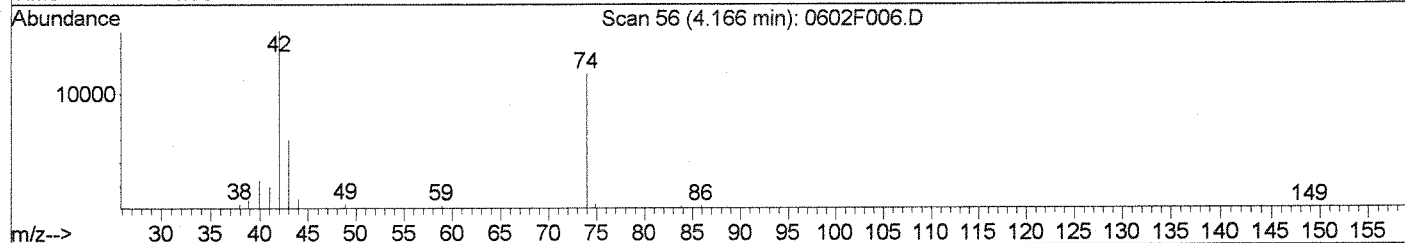
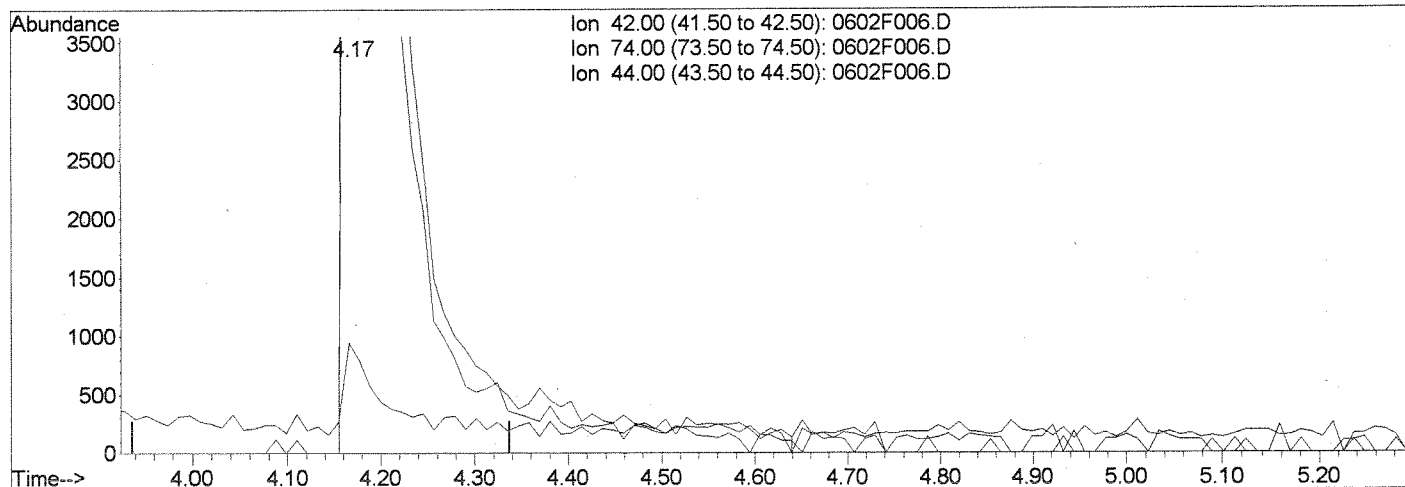
Quantitation Report (Quant)

Data File : J:\MS07\DATA\060210\0602F006.D  
 Acq On : 2 Jun 2010 6:38 pm  
 Sample : 20PPM 8270 ICAL SVM32-21E  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:53 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F006.D

(2) N-Nitrosodimethylamine (T)

4.17min 19.58ug/ml m

response 50289

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	75.89
44.00	4.40	6.12
0.00	0.00	0.00

*Handwritten notes: IC, 19-6-3-10*

*Handwritten signature: LB LIA/10*

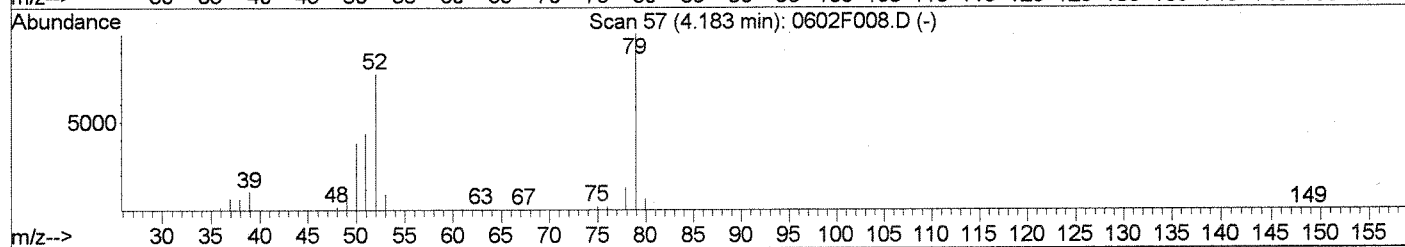
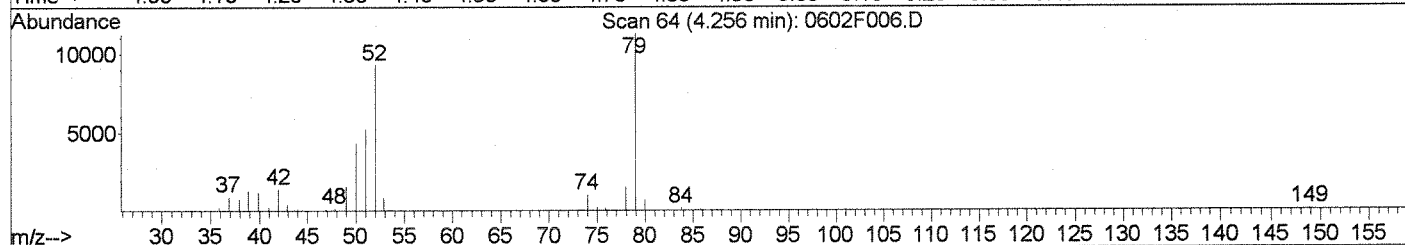
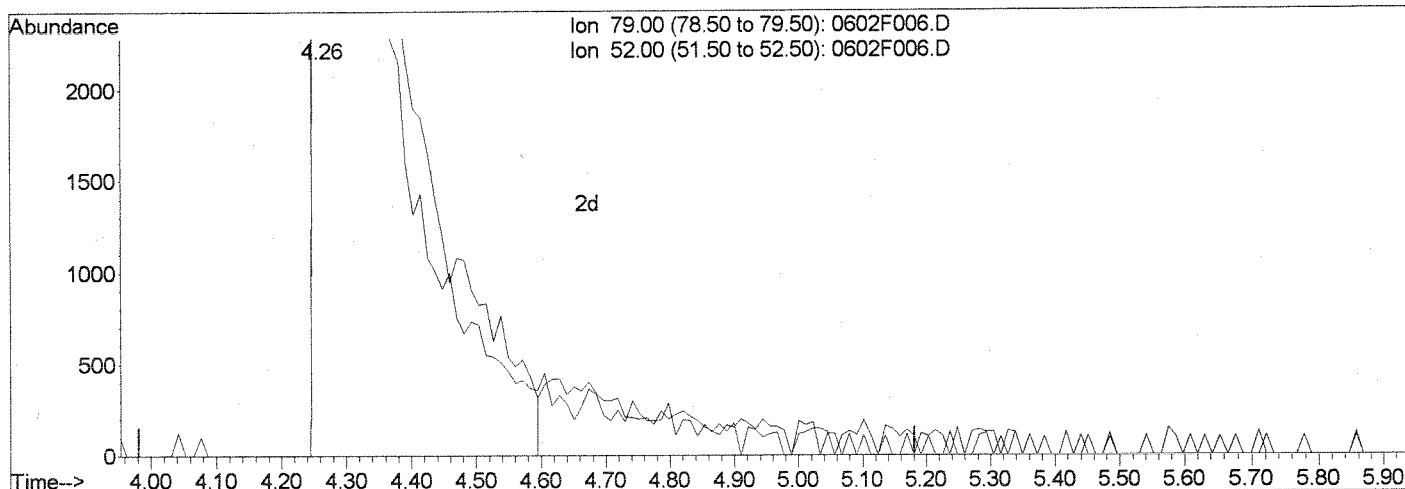
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F006.D  
 Acq On : 2 Jun 2010 6:38 pm  
 Sample : 20PPM 8270 ICAL SVM32-21E  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:53 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F006.D

(3) Pyridine (T)

4.26min 16.53ug/ml

response 60139

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	81.88
0.00	0.00	0.00
0.00	0.00	0.00

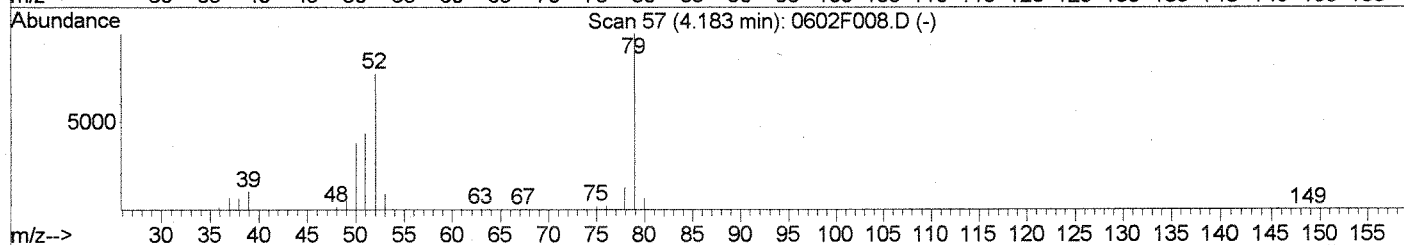
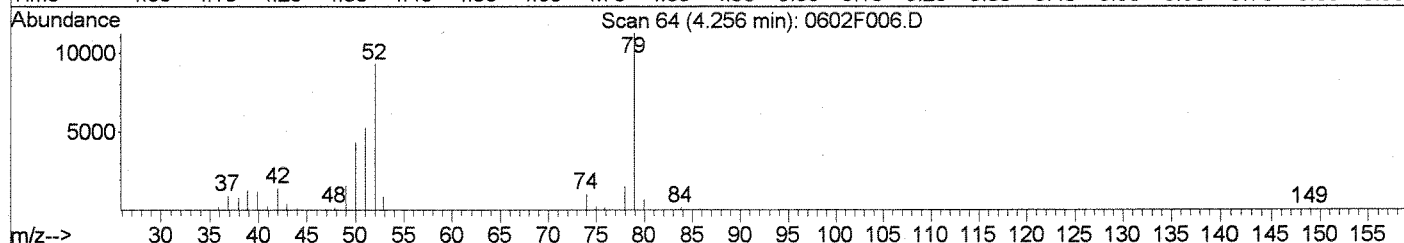
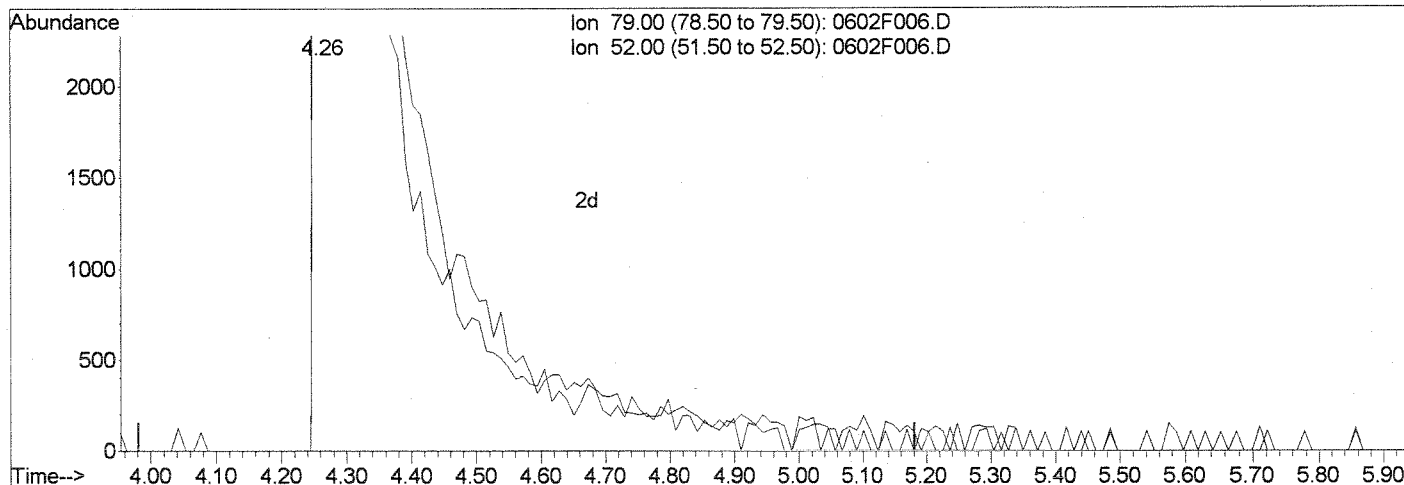
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F006.D  
 Acq On : 2 Jun 2010 6:38 pm  
 Sample : 20PPM 8270 ICAL SVM32-21E  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:53 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F006.D

(3) Pyridine (T)

4.26min 18.04ug/ml m

response 65653

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	82.32
0.00	0.00	0.00
0.00	0.00	0.00

*LC*  
*M 6.7-10*

*LB*  
*14/10*

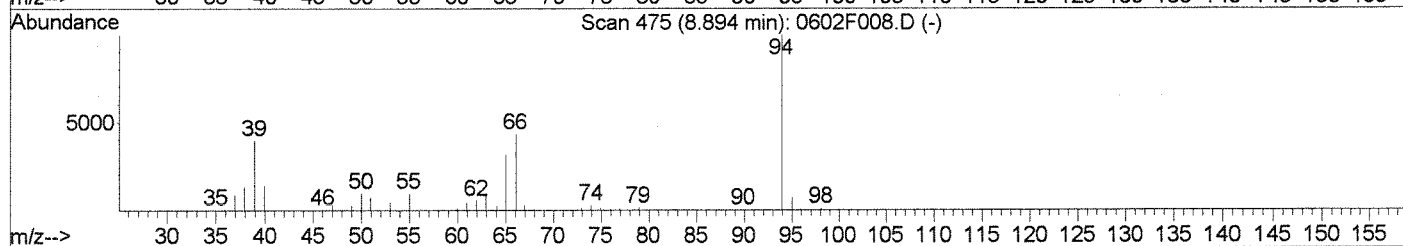
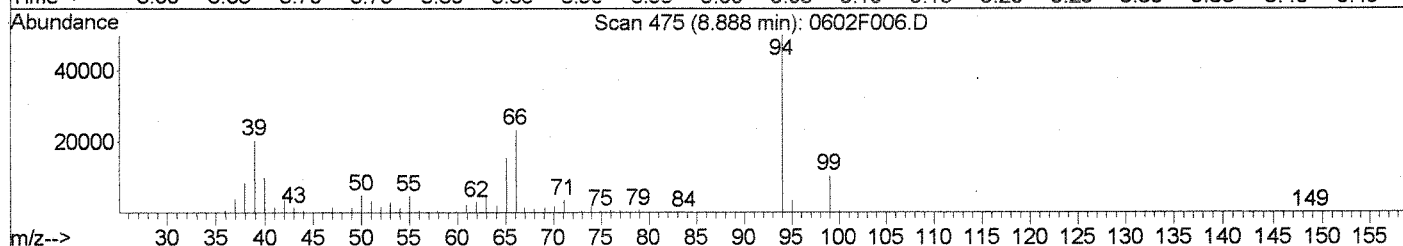
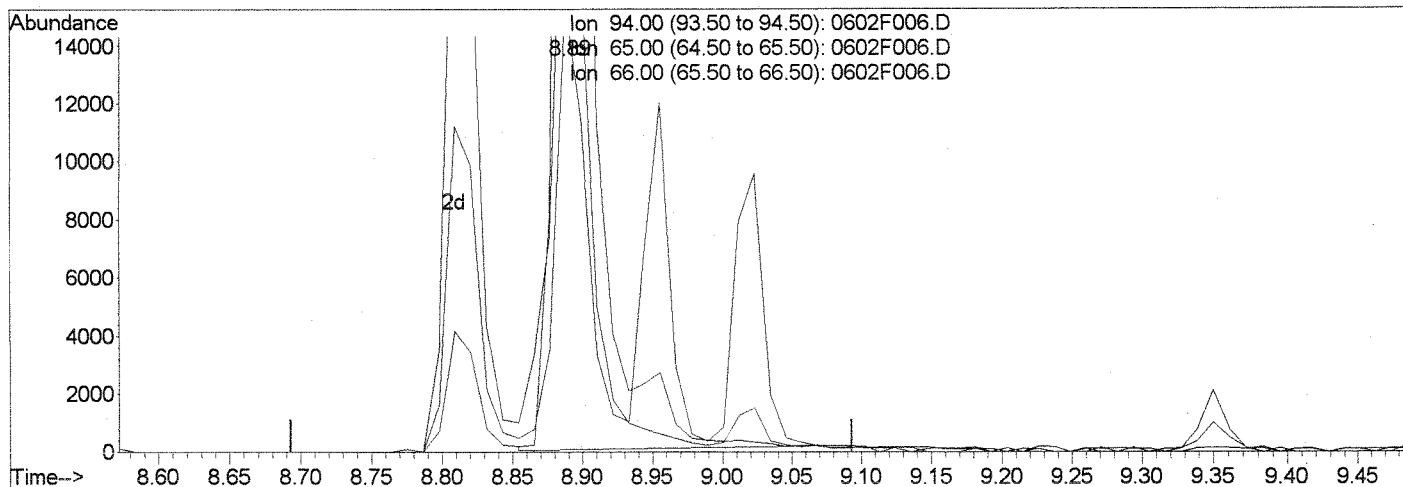
Quantitation Report (Quant)

Data File : J:\MS07\DATA\060210\0602F006.D  
 Acq On : 2 Jun 2010 6:38 pm  
 Sample : 20PPM 8270 ICAL SVM32-21E  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:53 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F006.D

(8) Phenol (TMC)

8.89min 20.05ug/ml

response 82120

Ion	Exp%	Act%
94.00	100	100
65.00	31.10	30.03
66.00	44.30	45.23
0.00	0.00	0.00

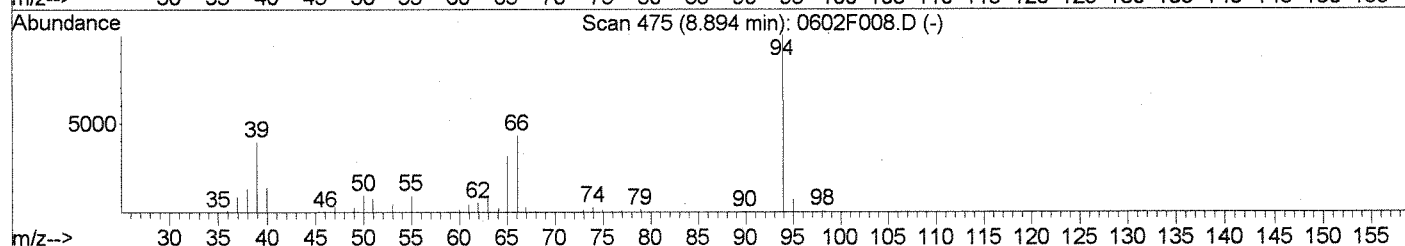
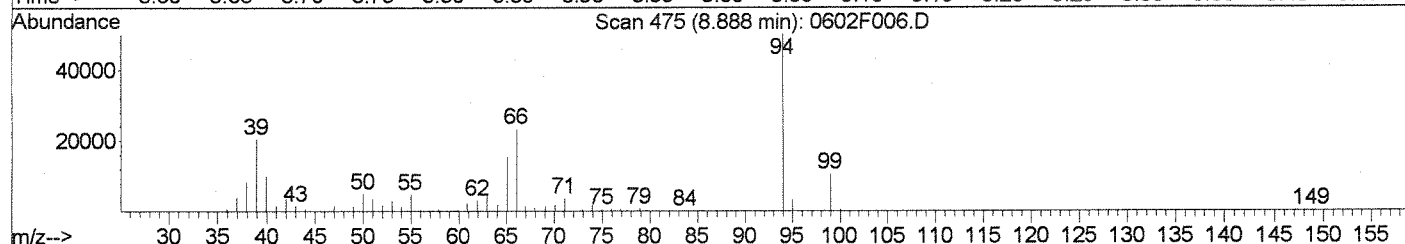
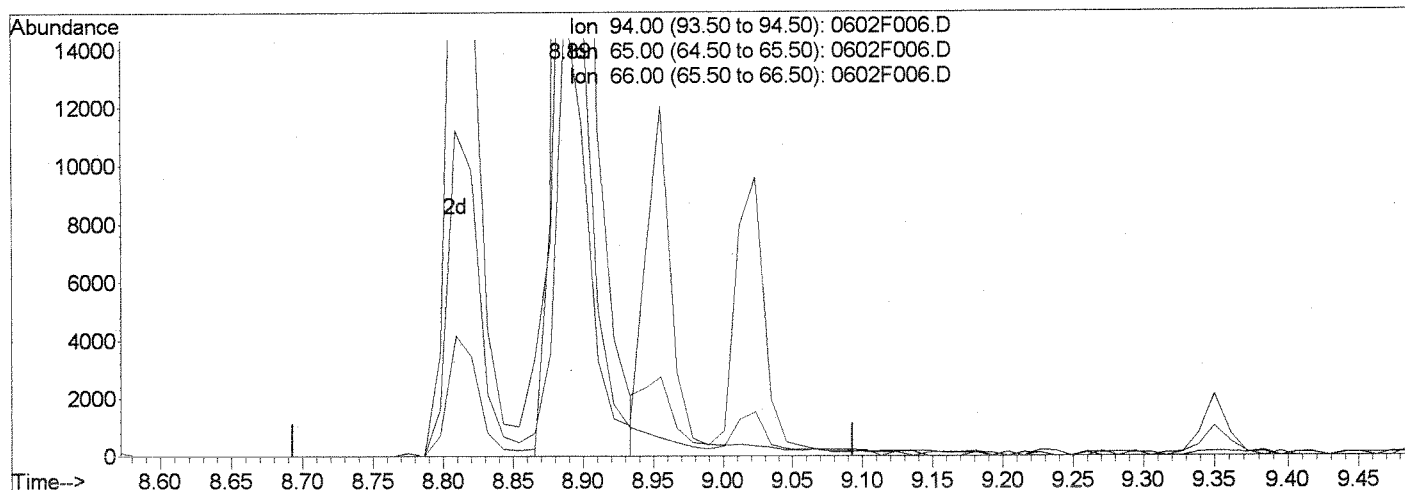
Quantitation Report (Quant)

Data File : J:\MS07\DATA\060210\0602F006.D  
 Acq On : 2 Jun 2010 6:38 pm  
 Sample : 20PPM 8270 ICAL SVM32-21E  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:53 2010

Vial: 4  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F006.D

(8) Phenol (TMC)		
8.89min	18.95ug/ml	m
response	77609	
Ion	Exp%	Act%
94.00	100	100
65.00	31.10	30.87
66.00	44.30	46.32
0.00	0.00	0.00

*OE*  
*M 6-3-10*

*LB*  
*4/11/10*

Data File : J:\MS07\DATA\060210\0602F007.D  
 Acq On : 2 Jun 2010 7:19 pm  
 Sample : 50PPM 8270 ICAL SVM32-21F  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:51 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	109365	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	402061	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	218097	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.71	188	329281	40.00	ug/ml	0.00
68) Chrysene-d12	21.13	240	257896	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	260318	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	146679	50.45	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	33.63%
7) Phenol-d6	8.86	99	195416	48.19	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	32.13%
19) Nitrobenzene-d5	10.28	82	183314	46.28	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	46.28%
38) 2-Fluorobiphenyl	13.24	172	358232	50.10	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	50.10%
59) 2,4,6-Tribromophenol	15.59	330	65835	49.33	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	32.89%
71) Terphenyl-d14	19.32	244	217312	55.03	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	55.03%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.14	42	117711m	45.19	ug/ml	
3) Pyridine	4.20	79	161541m	43.77	ug/ml	
5) Aniline	8.81	93	168735	41.17	ug/ml	99
6) Bis(2-chloroethyl) Ether	8.96	93	143459	42.98	ug/ml	98
8) Phenol	8.89	94	178719m	43.03	ug/ml	
9) 2-Chlorophenol	9.02	128	157752	44.05	ug/ml	89
10) 1,3-Dichlorobenzene	9.25	146	178728	47.06	ug/ml	97
11) 1,4-Dichlorobenzene	9.38	146	175355	45.33	ug/ml	97
12) 1,2-Dichlorobenzene	9.62	146	169698	46.34	ug/ml	98
13) Benzyl Alcohol	9.64	108	93759	42.63	ug/ml	98
14) Bis(2-chloroisopropyl) Eth	9.87	45	222174	40.50	ug/ml	88
15) 2-Methylphenol	9.88	107	114618	42.62	ug/ml	90
16) Hexachloroethane	10.17	117	81722	46.43	ug/ml	88
17) N-Nitrosodi-n-propylamine	10.08	70	103499	37.88	ug/ml	87
18) 4-Methylphenol	10.14	107	181709	44.50	ug/ml	100
20) Nitrobenzene	10.32	77	165715	45.26	ug/ml	99
22) Isophorone	10.74	82	316769	43.67	ug/ml	99
23) 2-Nitrophenol	10.84	139	86905	43.02	ug/ml	97
24) 2,4-Dimethylphenol	10.98	122	123093	46.06	ug/ml	98
25) Bis(2-chloroethoxy)methane	11.12	93	188702	46.31	ug/ml	99

(#) = qualifier out of range (m) = manual integration  
 0602F007.D 0602BNC7.M Thu Jun 03 11:34:29 2010

Data File : J:\MS07\DATA\060210\0602F007.D  
 Acq On : 2 Jun 2010 7:19 pm  
 Sample : 50PPM 8270 ICAL SVM32-21F  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:51 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.28	162	143526	47.34	ug/ml	96
27) Benzoic Acid	11.25	122	102211	44.63	ug/ml	99
28) 1,2,4-Trichlorobenzene	11.37	180	150578	46.78	ug/ml	99
29) Naphthalene	11.49	128	447021	46.34	ug/ml	99
30) 4-Chloroaniline	11.61	127	204392	48.03	ug/ml	98
31) Hexachlorobutadiene	11.72	225	96168	47.10	ug/ml	99
32) 4-Chloro-3-methylphenol	12.46	107	155560	49.16	ug/ml	86
33) 2-Methylnaphthalene	12.62	142	292555	47.66	ug/ml	96
35) Hexachlorocyclopentadiene	12.89	237	89107	43.36	ug/ml	98
36) 2,4,6-Trichlorophenol	13.11	196	105888	47.06	ug/ml	97
37) 2,4,5-Trichlorophenol	13.18	196	119511	47.67	ug/ml	95
39) 2-Chloronaphthalene	13.41	162	303136	48.06	ug/ml	100
40) 2-Nitroaniline	13.61	65	96099	47.36	ug/ml	97
41) Acenaphthylene	14.07	152	454687	46.79	ug/ml	99
42) Dimethyl Phthalate	13.94	163	372031	50.18	ug/ml	99
43) 2,6-Dinitrotoluene	14.02	165	77909	46.37	ug/ml	95
44) Acenaphthene	14.36	154	255084	46.00	ug/ml	98
45) 3-Nitroaniline	14.29	138	86607	48.99	ug/ml	100
46) 2,4-Dinitrophenol	14.45	184	47282	48.50	ug/ml	98
47) Dibenzofuran	14.65	168	437168	49.99	ug/ml	99
48) 4-Nitrophenol	14.65	109	45732	47.78	ug/ml#	67
49) 2,4-Dinitrotoluene	14.67	165	103358	48.54	ug/ml	99
50) 2,3,4,6-Tetrachlorophenol	14.87	232	93925	51.38	ug/ml	95
51) Fluorene	15.20	166	326905	49.89	ug/ml	98
52) 4-Chlorophenyl Phenyl Ethe	15.22	204	161128	48.03	ug/ml	93
53) Diethyl Phthalate	15.09	149	354895	49.51	ug/ml	99
54) 4-Nitroaniline	15.28	138	77365	50.56	ug/ml	97
55) 2-Methyl-4,6-dinitrophenol	15.32	198	60252	52.02	ug/ml	75
56) N-Nitrosodiphenylamine	15.42	169	243086	55.64	ug/ml	100
57) 1,2-Diphenylhydrazine	15.48	77	355134	47.82	ug/ml	99
60) 4-Bromophenyl Phenyl Ether	16.01	248	89629	45.15	ug/ml	92
61) Hexachlorobenzene	16.09	284	105665	45.92	ug/ml	84
62) Pentachlorophenol	16.43	266	58384	45.15	ug/ml	99
63) Phenanthrene	16.74	178	403270	46.10	ug/ml	100
64) Anthracene	16.83	178	428922	46.63	ug/ml	99
65) Carbazole	17.11	167	343589	45.76	ug/ml	99
66) Di-n-butyl Phthalate	17.73	149	475794	47.50	ug/ml	100
67) Fluoranthene	18.66	202	336131	42.33	ug/ml	99
69) Benzidine	18.93	184	89555	41.36	ug/ml	98
70) Pyrene	19.02	202	347908	50.54	ug/ml	99
72) Butyl Benzyl Phthalate	20.16	149	182255	46.46	ug/ml	98

(#) = qualifier out of range (m) = manual integration  
 0602F007.D 0602BNC7.M Thu Jun 03 11:34:29 2010

*Handwritten:* 163-10

*Handwritten:* K.B.

Data File : J:\MS07\DATA\060210\0602F007.D  
 Acq On : 2 Jun 2010 7:19 pm  
 Sample : 50PPM 8270 ICAL SVM32-21F  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:51 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.11	252	137550	51.04	ug/ml	99
74) Benz(a)anthracene	21.10	228	291900	48.16	ug/ml	99
75) Chrysene	21.18	228	284334	48.46	ug/ml	99
76) Bis(2-ethylhexyl) Phthalat	21.31	149	260935	46.74	ug/ml	99
78) Di-n-octyl Phthalate	22.77	149	515396	44.95	ug/ml	97
79) Benzo(b)fluoranthene	23.45	252	306778	45.75	ug/ml	98
80) Benzo(k)fluoranthene	23.52	252	335944	48.27	ug/ml	98
81) Benzo(a)pyrene	24.18	252	256282	46.01	ug/ml	98
82) Indeno(1,2,3-cd)pyrene	26.75	276	223531	46.34	ug/ml	98
83) Dibenz(a,h)anthracene	26.83	278	231956	45.15	ug/ml	99
84) Benzo(g,h,i)perylene	27.32	276	242092	46.50	ug/ml	99

LB  
 6/4/10

(#) = qualifier out of range (m) = manual integration  
 0602F007.D 0602BNC7.M Thu Jun 03 11:34:29 2010

0.7/10

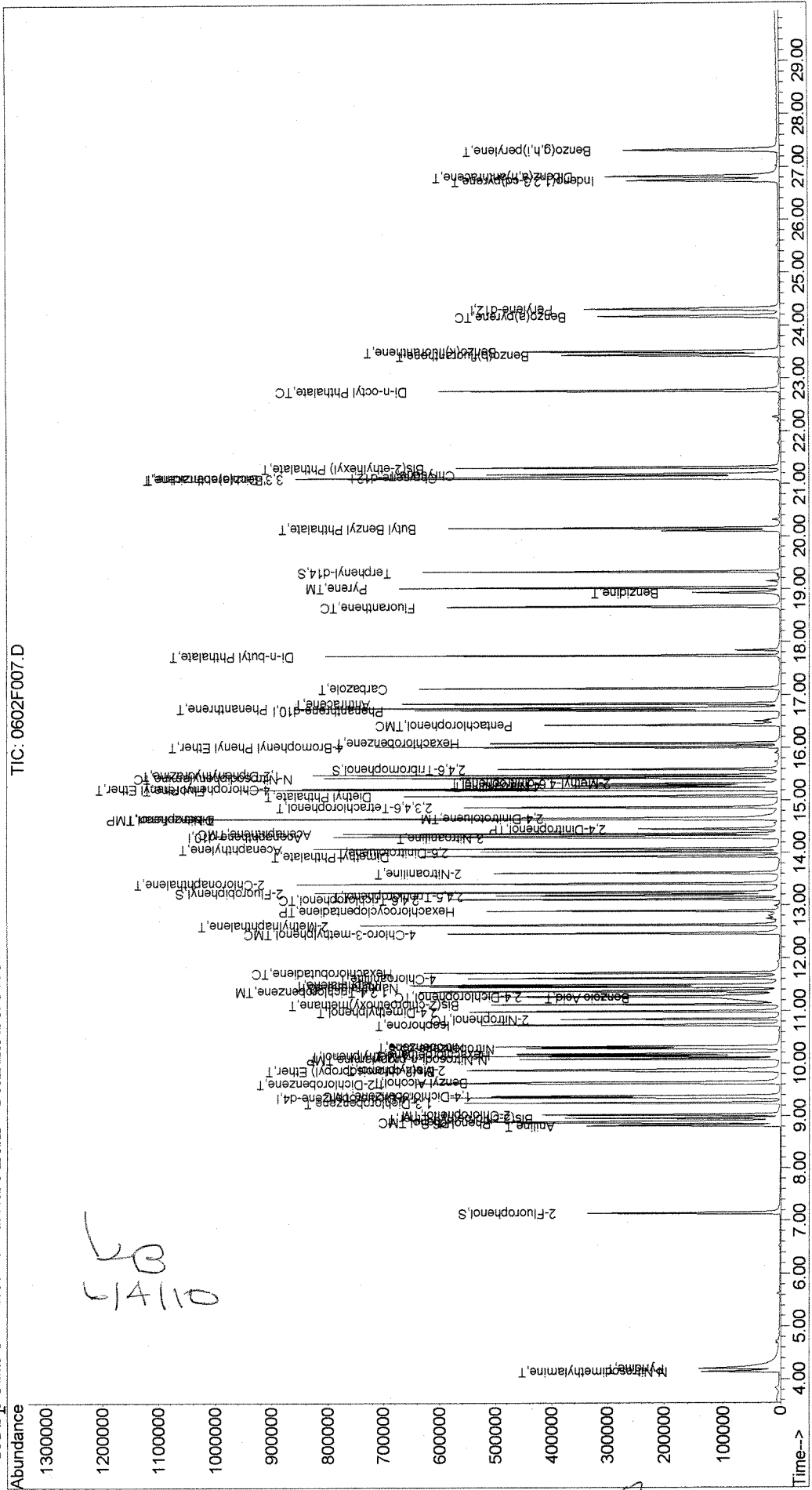


Data File : J:\MS07\DATA\060210\0602F007.D  
Acq On : 2 Jun 2010 7:19 pm  
Sample : 50PPM 8270 ICAL SVM32-21F  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:54 2010

Vial: 5  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Initial Calibration



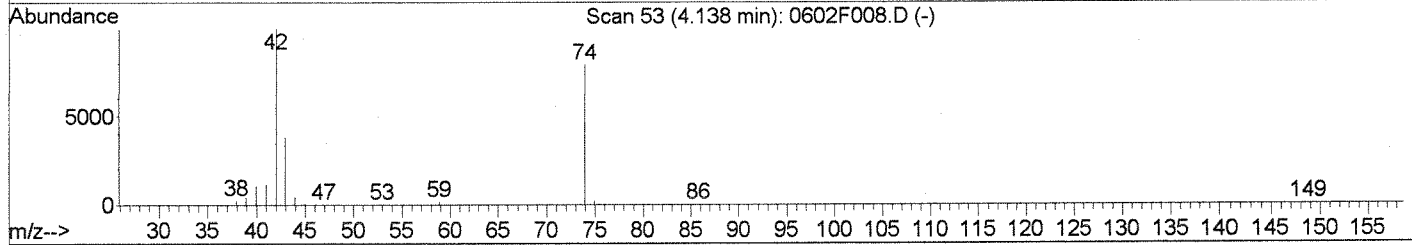
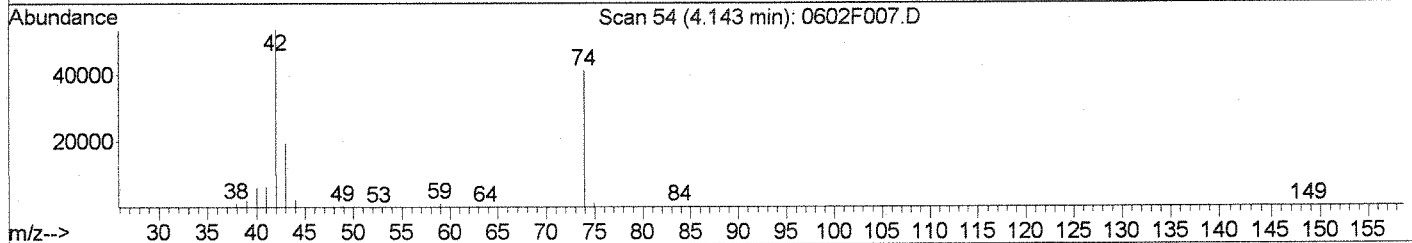
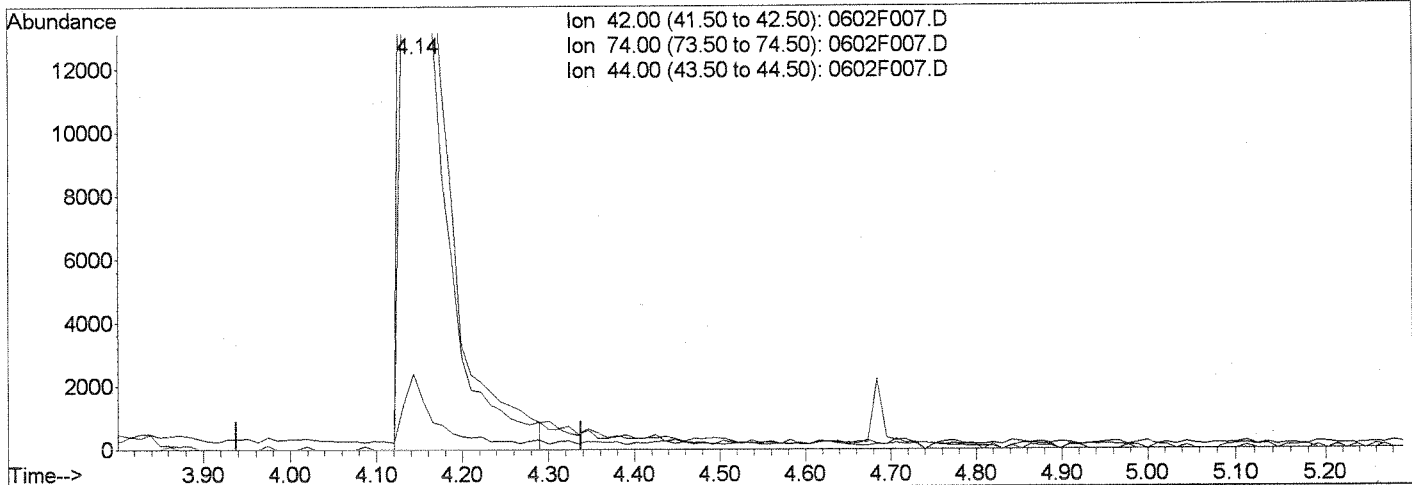
Quantitation Report (Cont)

Data File : J:\MS07\DATA\060210\0602F007.D  
Acq On : 2 Jun 2010 7:19 pm  
Sample : 50PPM 8270 ICAL SVM32-21F  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:48 2010

Vial: 5  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F007.D

(2) N-Nitrosodimethylamine (T)		
4.14min	42.61ug/ml	
response	110997	
Ion	Exp%	Act%
42.00	100	100
74.00	79.30	76.71
44.00	4.40	3.96
0.00	0.00	0.00

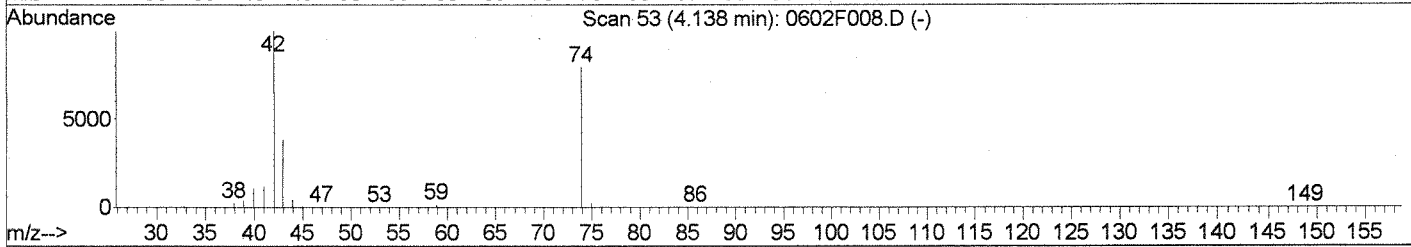
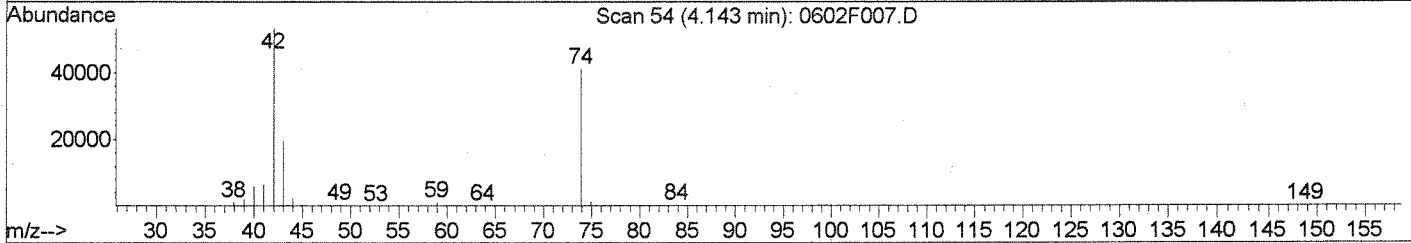
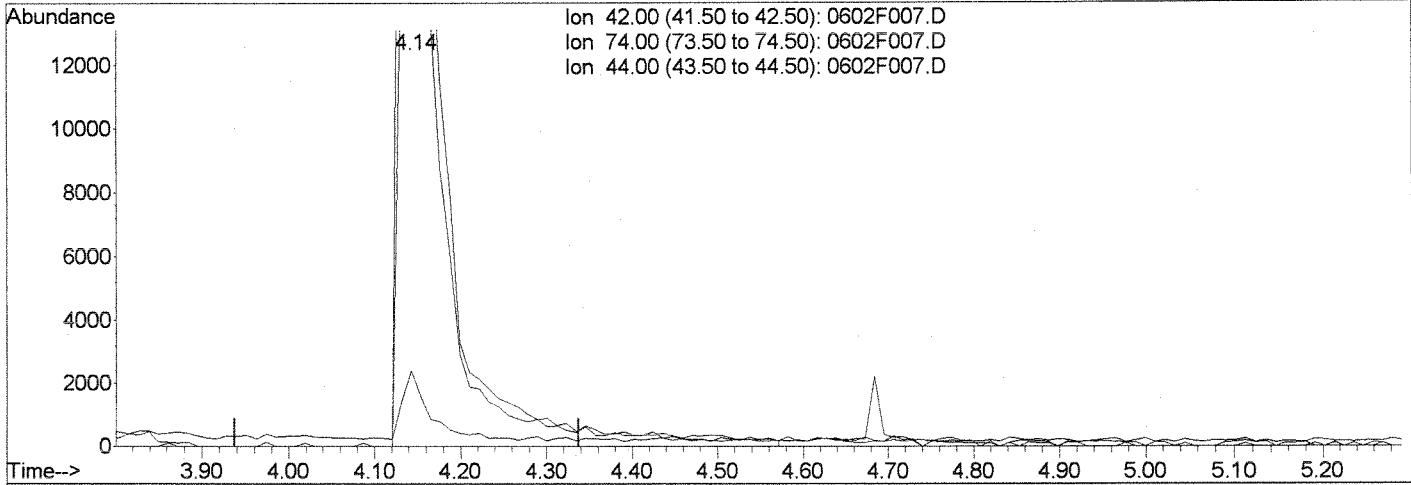
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F007.D  
 Acq On : 2 Jun 2010 7:19 pm  
 Sample : 50PPM 8270 ICAL SVM32-21F  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:54 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F007.D

(2) N-Nitrosodimethylamine (T)

4.14min 45.19ug/ml m

response 117711

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	76.90
44.00	4.40	4.45
0.00	0.00	0.00

*Handwritten notes: 5c, u 6-3-10*

*Handwritten signature: LB 6/3/10*

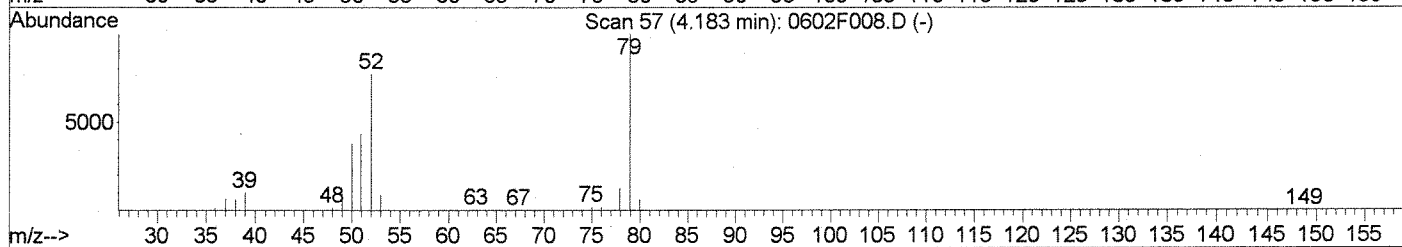
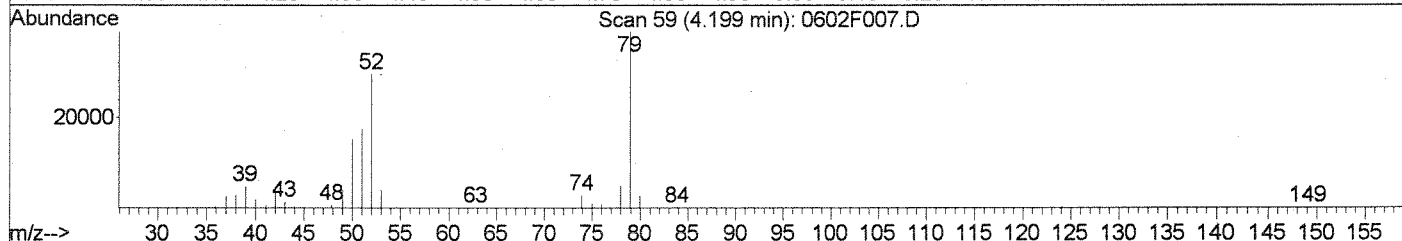
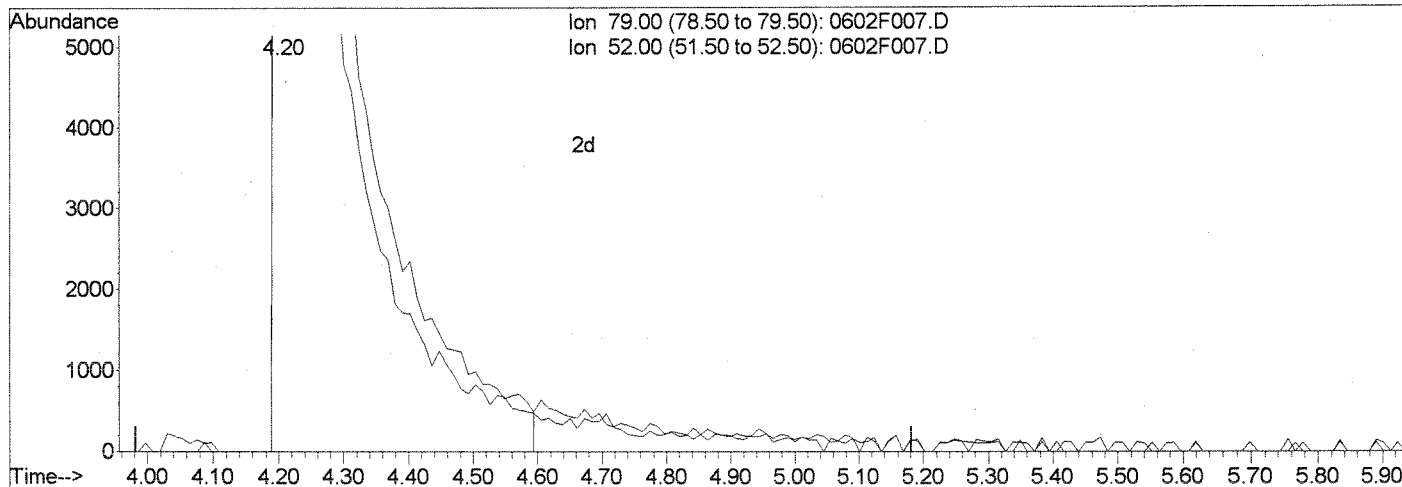
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F007.D  
 Acq On : 2 Jun 2010 7:19 pm  
 Sample : 50PPM 8270 ICAL SVM32-21F  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:54 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F007.D

(3) Pyridine (T)

4.20min 41.69ug/ml

response 153876

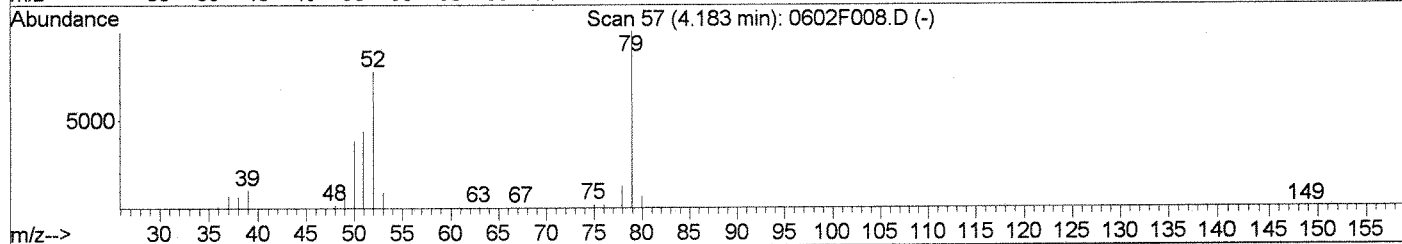
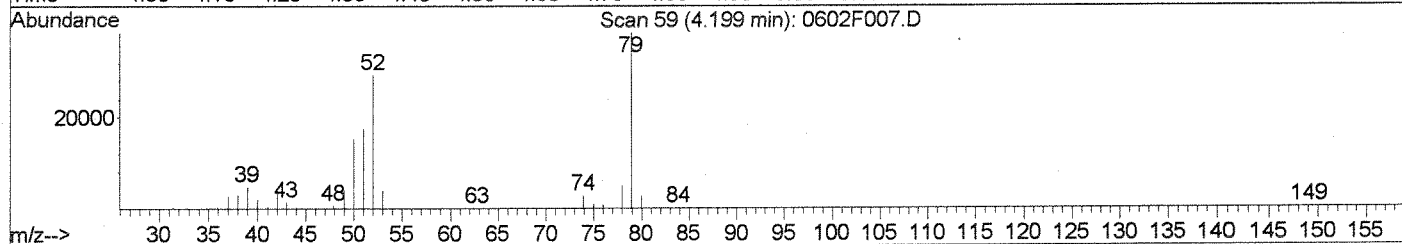
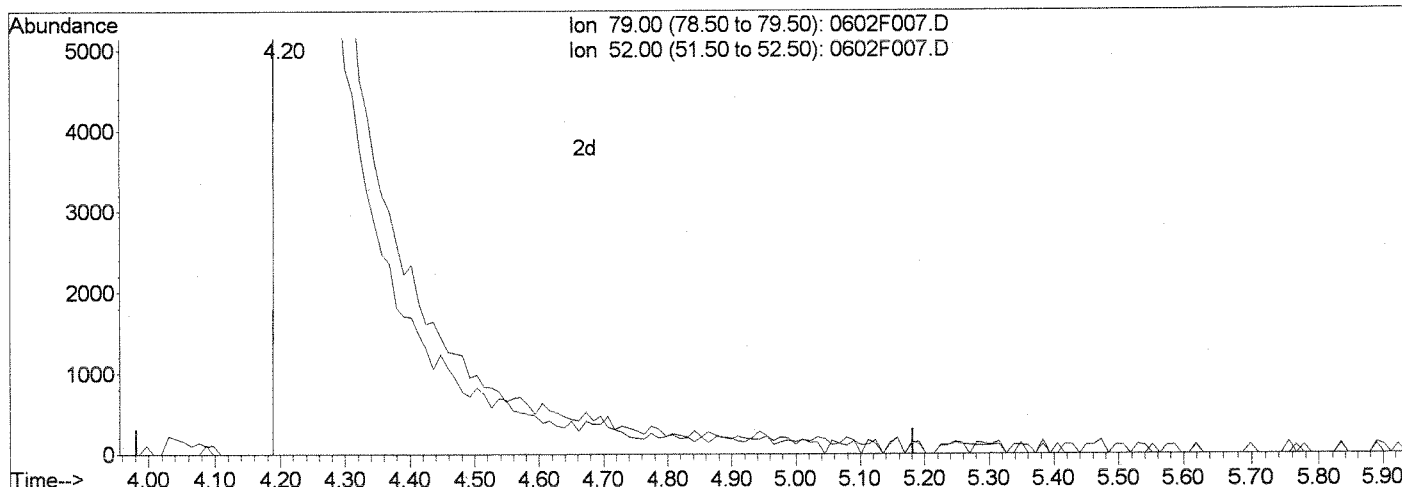
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	75.69
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F007.D  
Acq On : 2 Jun 2010 7:19 pm  
Sample : 50PPM 8270 ICAL SVM32-21F  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:54 2010

Vial: 5  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F007.D

(3) Pyridine (T)  
4.20min 43.77ug/ml m  
response 161541  
Ion Exp% Act%  
79.00 100 100  
52.00 77.00 75.82  
0.00 0.00 0.00  
0.00 0.00 0.00

*IC M 6-3-10*

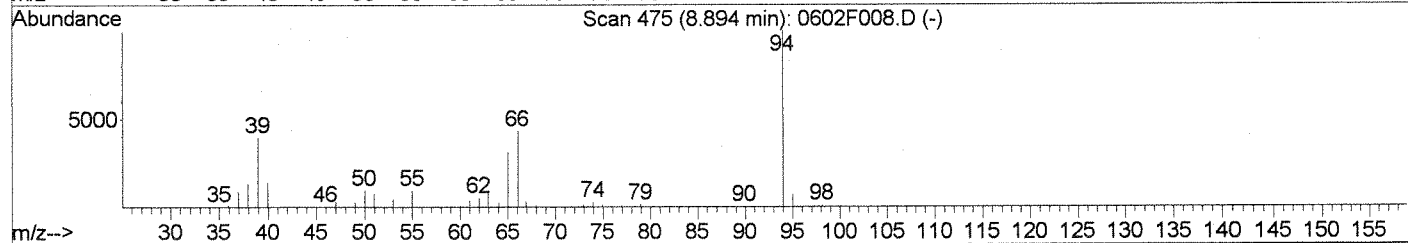
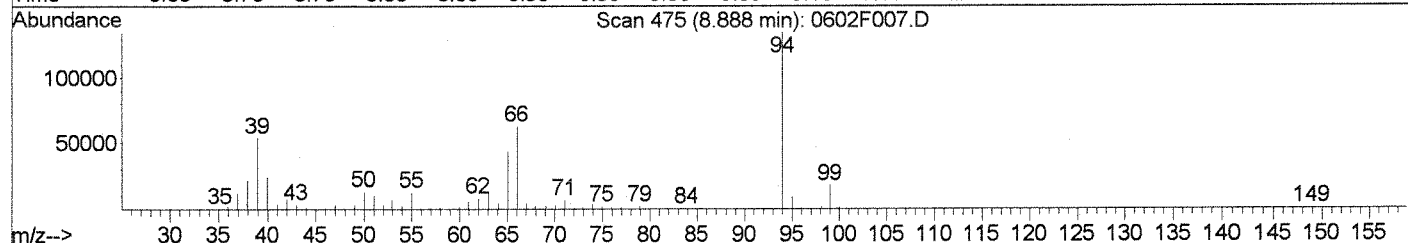
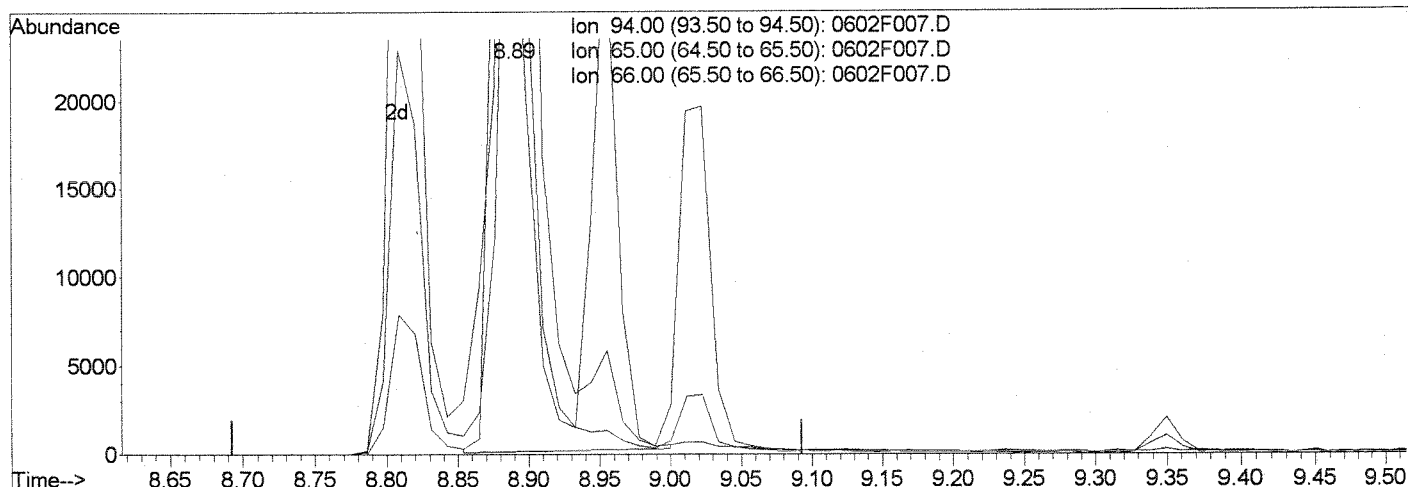
*LB  
4/11/10*

Data File : J:\MS07\DATA\060210\0602F007.D  
 Acq On : 2 Jun 2010 7:19 pm  
 Sample : 50PPM 8270 ICAL SVM32-21F  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:54 2010

Vial: 5  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F007.D

(8) Phenol (TMC)

8.89min 44.79ug/ml

response 186021

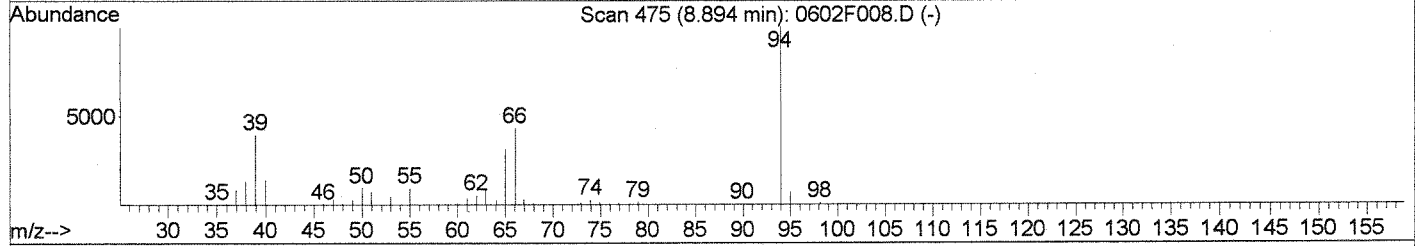
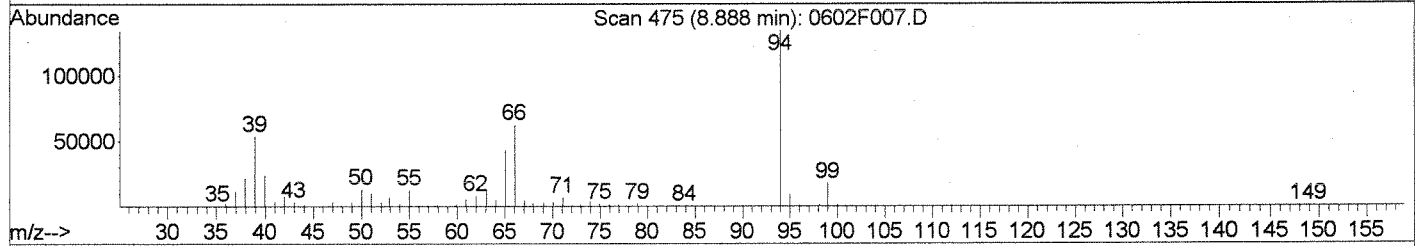
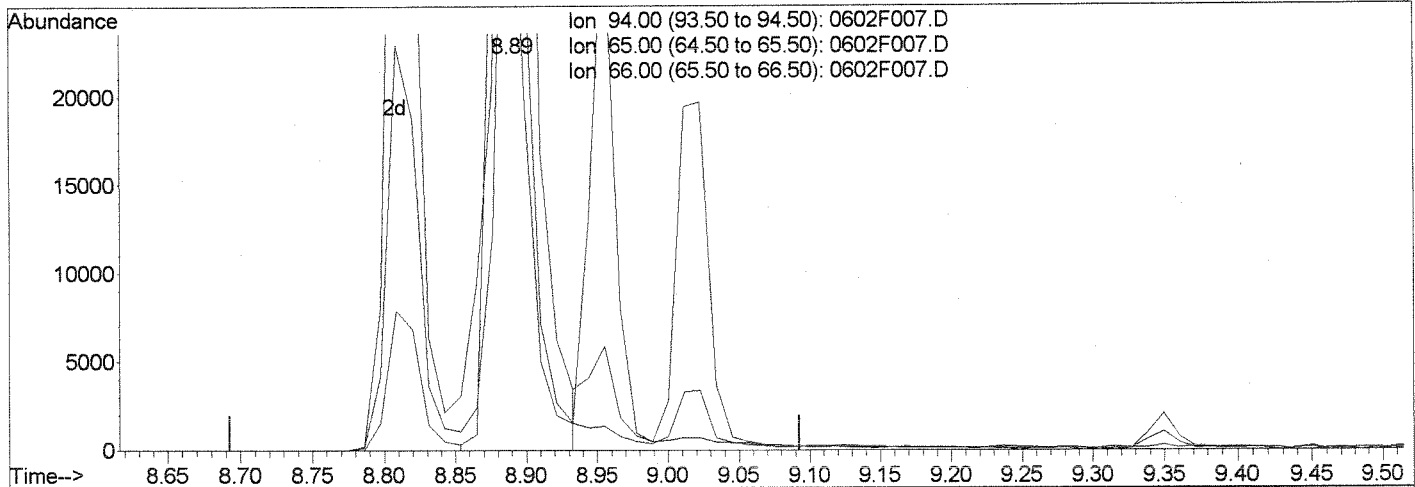
Ion	Exp%	Act%
94.00	100	100
65.00	31.10	30.64
66.00	44.30	45.15
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F007.D  
Acq On : 2 Jun 2010 7:19 pm  
Sample : 50PPM 8270 ICAL SVM32-21F  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:54 2010

Vial: 5  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F007.D

(8) Phenol (TMC)  
8.89min 43.03ug/ml m  
response 178719

Ion	Exp%	Act%
94.00	100	100
65.00	31.10	31.96
66.00	44.30	46.43
0.00	0.00	0.00

*OF*  
*7 6-7-10*

*LB*  
*4/11/10*

Data File : J:\MS07\DATA\060210\0602F008.D  
 Acq On : 2 Jun 2010 7:59 pm  
 Sample : 80PPM 8270 ICAL SVM32-21G  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:52 2010

Vial: 6  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	103733	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	407774	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.30	164	224107	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.70	188	285196	40.00	ug/ml	0.00
68) Chrysene-d12	21.13	240	279166	40.00	ug/ml	0.00
77) Perylene-d12	24.31	264	255637	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.14	112	223564	81.06	ug/ml	0.00
Spiked Amount	150.000	Range 21 - 100	Recovery =	54.04%		
7) Phenol-d6	8.87	99	315023	81.90	ug/ml	0.00
Spiked Amount	150.000	Range 10 - 94	Recovery =	54.60%		
19) Nitrobenzene-d5	10.29	82	311278	82.84	ug/ml	0.00
Spiked Amount	100.000	Range 35 - 114	Recovery =	82.84%		
38) 2-Fluorobiphenyl	13.24	172	557707	75.91	ug/ml	0.00
Spiked Amount	100.000	Range 43 - 116	Recovery =	75.91%		
59) 2,4,6-Tribromophenol	15.60	330	102619	88.77	ug/ml	0.00
Spiked Amount	150.000	Range 10 - 123	Recovery =	59.18%		
71) Terphenyl-d14	19.33	244	332481	77.78	ug/ml	0.00
Spiked Amount	100.000	Range 33 - 141	Recovery =	77.78%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.14	42	197404m	79.90	ug/ml	
3) Pyridine	4.18	79	304249m	86.91	ug/ml	
5) Aniline	8.81	93	310686	79.91	ug/ml	100
6) Bis(2-chloroethyl) Ether	8.96	93	257472	81.32	ug/ml	100
8) Phenol	8.89	94	318471	80.84	ug/ml	100
9) 2-Chlorophenol	9.02	128	278946	82.13	ug/ml	100
10) 1,3-Dichlorobenzene	9.24	146	289235	80.29	ug/ml	100
11) 1,4-Dichlorobenzene	9.38	146	306571	83.56	ug/ml	100
12) 1,2-Dichlorobenzene	9.63	146	292772	84.30	ug/ml	100
13) Benzyl Alcohol	9.65	108	173852	83.34	ug/ml	100
14) Bis(2-chloroisopropyl) Eth	9.86	45	416792	80.09	ug/ml	100
15) 2-Methylphenol	9.87	107	215850	84.63	ug/ml	100
16) Hexachloroethane	10.18	117	143551	85.99	ug/ml	100
17) N-Nitrosodi-n-propylamine	10.10	70	220097	84.93	ug/ml	100
18) 4-Methylphenol	10.14	107	338574	87.41	ug/ml	100
20) Nitrobenzene	10.32	77	290608	83.67	ug/ml	100
22) Isophorone	10.74	82	619847	84.26	ug/ml	100
23) 2-Nitrophenol	10.84	139	167839	81.92	ug/ml	100
24) 2,4-Dimethylphenol	10.99	122	228884	84.45	ug/ml	100
25) Bis(2-chloroethoxy)methane	11.12	93	335924	81.29	ug/ml	100

(#) = qualifier out of range (m) = manual integration  
 0602F008.D 0602BNC7.M Thu Jun 03 11:34:31 2010

*M*  
 6-3-10



Data File : J:\MS07\DATA\060210\0602F008.D  
 Acq On : 2 Jun 2010 7:59 pm  
 Sample : 80PPM 8270 ICAL SVM32-21G  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:52 2010

Vial: 6  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.27	162	247060	80.35	ug/ml	100
27) Benzoic Acid	11.31	122	191801	82.58	ug/ml	100
28) 1,2,4-Trichlorobenzene	11.37	180	273068	83.65	ug/ml	100
29) Naphthalene	11.49	128	799136	81.68	ug/ml	100
30) 4-Chloroaniline	11.62	127	343208	79.52	ug/ml	100
31) Hexachlorobutadiene	11.71	225	177888	85.90	ug/ml	100
32) 4-Chloro-3-methylphenol	12.47	107	281018	87.56	ug/ml#	53
33) 2-Methylnaphthalene	12.62	142	521205	83.72	ug/ml	100
35) Hexachlorocyclopentadiene	12.89	237	173516	75.23	ug/ml	100
36) 2,4,6-Trichlorophenol	13.12	196	185191	80.10	ug/ml	100
37) 2,4,5-Trichlorophenol	13.19	196	201418	78.18	ug/ml	100
39) 2-Chloronaphthalene	13.41	162	530083	81.78	ug/ml	100
40) 2-Nitroaniline	13.62	65	174420	83.65	ug/ml	100
41) Acenaphthylene	14.08	152	800909	80.21	ug/ml	100
42) Dimethyl Phthalate	13.94	163	601760	78.99	ug/ml	100
43) 2,6-Dinitrotoluene	14.02	165	143013	82.83	ug/ml	100
44) Acenaphthene	14.36	154	453532	79.59	ug/ml	100
45) 3-Nitroaniline	14.29	138	152245	83.81	ug/ml	100
46) 2,4-Dinitrophenol	14.46	184	85734	85.58	ug/ml	100
47) Dibenzofuran	14.65	168	743626	82.76	ug/ml	100
48) 4-Nitrophenol	14.65	109	83574	84.97	ug/ml	100
49) 2,4-Dinitrotoluene	14.67	165	179522	82.05	ug/ml	100
50) 2,3,4,6-Tetrachlorophenol	14.88	232	160056	85.21	ug/ml	100
51) Fluorene	15.20	166	540443	80.27	ug/ml	100
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	284971	82.67	ug/ml	100
53) Diethyl Phthalate	15.09	149	630375	85.59	ug/ml	100
54) 4-Nitroaniline	15.29	138	128806	81.92	ug/ml	100
55) 2-Methyl-4,6-dinitrophenol	15.33	198	102961	86.52	ug/ml	100
56) N-Nitrosodiphenylamine	15.43	169	353714	78.79	ug/ml	100
57) 1,2-Diphenylhydrazine	15.49	77	629514	82.49	ug/ml	100
60) 4-Bromophenyl Phenyl Ether	16.02	248	152517	88.70	ug/ml	100
61) Hexachlorobenzene	16.08	284	174819	87.72	ug/ml	100
62) Pentachlorophenol	16.43	266	97469	87.03	ug/ml	100
63) Phenanthrene	16.75	178	653153	86.20	ug/ml	100
64) Anthracene	16.83	178	693023	87.00	ug/ml	100
65) Carbazole	17.12	167	559783	86.08	ug/ml	100
66) Di-n-butyl Phthalate	17.74	149	758593	87.45	ug/ml	100
67) Fluoranthene	18.66	202	552331	80.30	ug/ml	100
69) Benzidine	18.92	184	185568	79.16	ug/ml	100
70) Pyrene	19.02	202	575978	77.30	ug/ml	100
72) Butyl Benzyl Phthalate	20.16	149	361324	85.09	ug/ml	100

(#) = qualifier out of range (m) = manual integration

*M 6-3-10*  
*LAB*

Data File : J:\MS07\DATA\060210\0602F008.D  
 Acq On : 2 Jun 2010 7:59 pm  
 Sample : 80PPM 8270 ICAL SVM32-21G  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:52 2010

Vial: 6  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.12	252	259524	88.96	ug/ml	100
74) Benz(a)anthracene	21.11	228	571803	87.15	ug/ml	100
75) Chrysene	21.19	228	534824	84.20	ug/ml	100
76) Bis(2-ethylhexyl) Phthalat	21.31	149	500131	82.76	ug/ml	100
78) Di-n-octyl Phthalate	22.78	149	927272	82.35	ug/ml	100
79) Benzo(b)fluoranthene	23.45	252	531245	80.67	ug/ml	100
80) Benzo(k)fluoranthene	23.52	252	555690	81.31	ug/ml	100
81) Benzo(a)pyrene	24.19	252	445333	81.42	ug/ml	100
82) Indeno(1,2,3-cd)pyrene	26.77	276	387546	81.82	ug/ml	100
83) Dibenz(a,h)anthracene	26.85	278	415299	82.31	ug/ml	100
84) Benzo(g,h,i)perylene	27.34	276	397579	77.76	ug/ml	100

LB  
 6/3/10

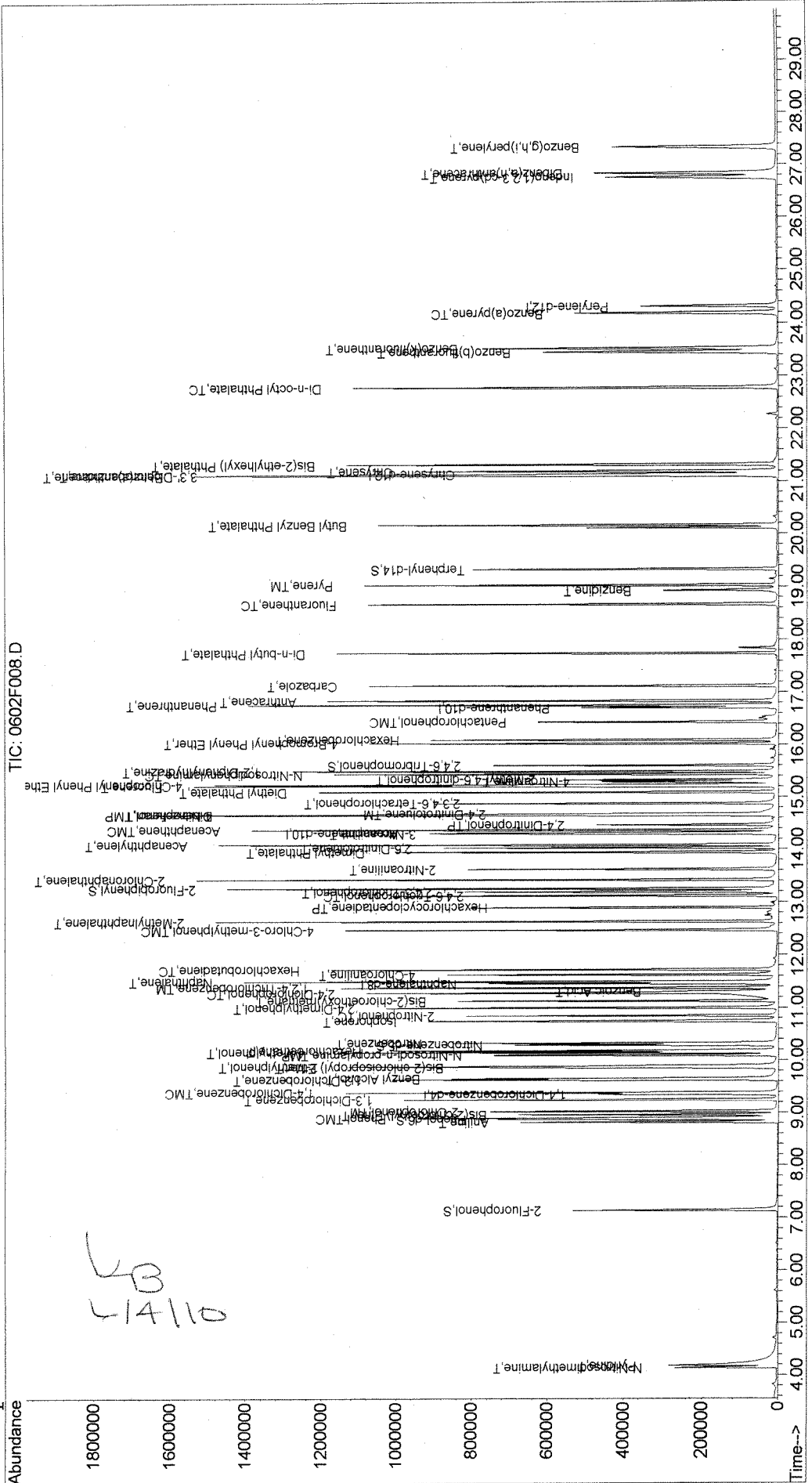
6-3-10

Data File : J:\MS07\DATA\060210\0602F008.D  
Acq On : 2 Jun 2010 7:59 pm  
Sample : 80PPM 8270 ICAL SVM32-21G  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:55 2010

Vial: 6  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: 0602BNC7.RE5

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Initial Calibration



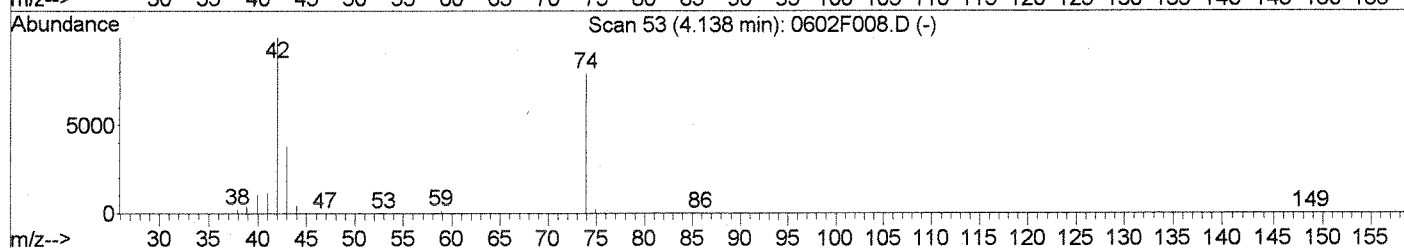
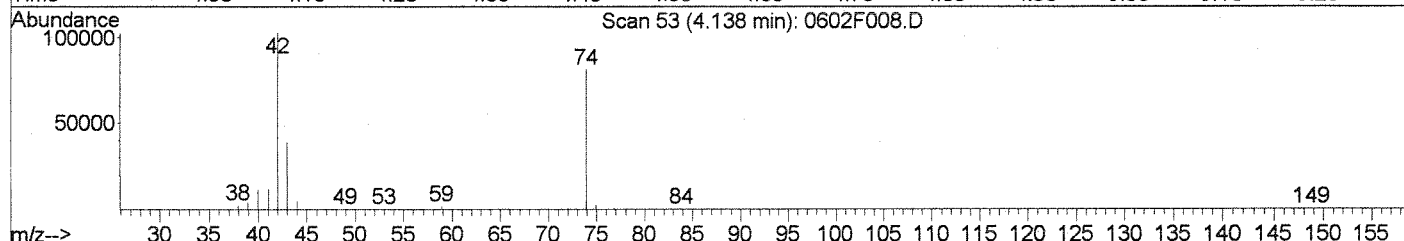
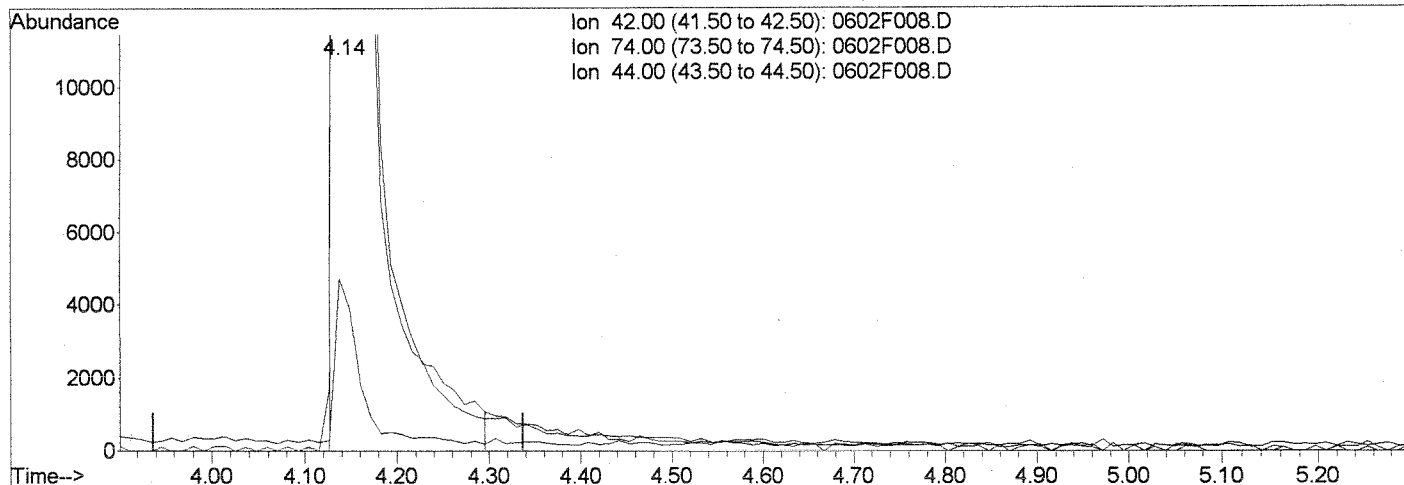
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F008.D  
 Acq On : 2 Jun 2010 7:59 pm  
 Sample : 80PPM 8270 ICAL SVM32-21G  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:48 2010

Vial: 6  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F008.D

(2) N-Nitrosodimethylamine (T)

4.14min 76.14ug/ml

response 188109

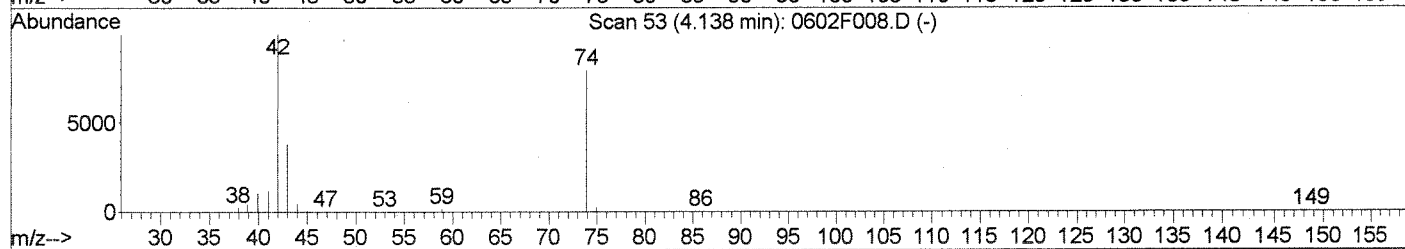
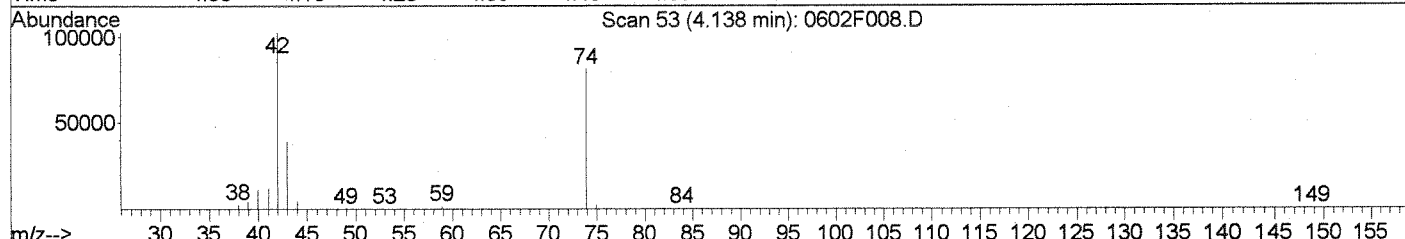
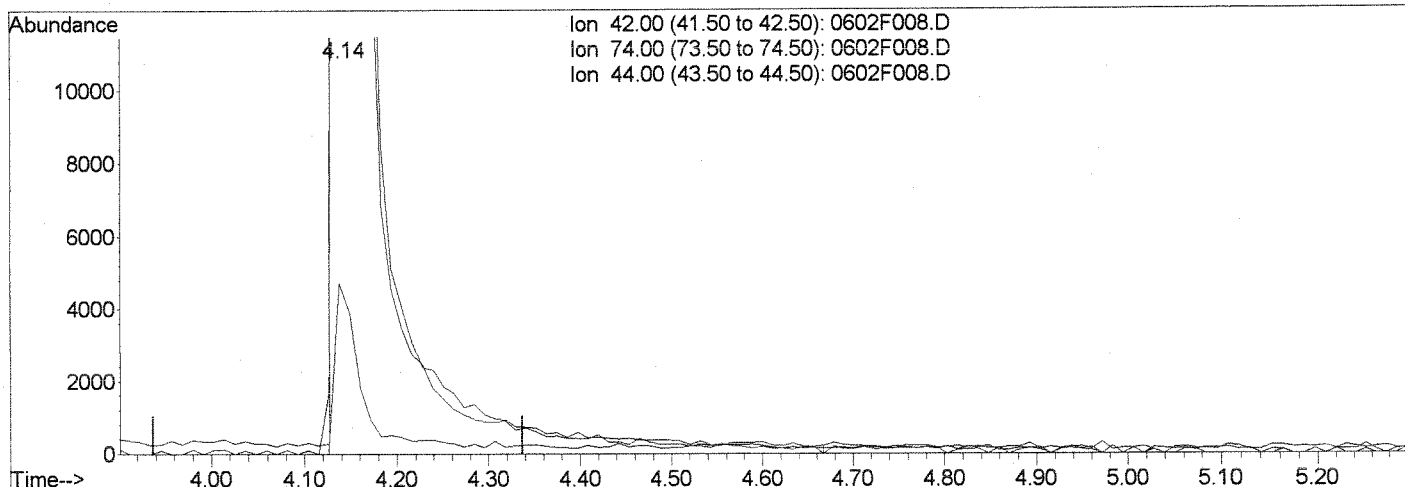
Ion	Exp%	Act%
42.00	100	100
74.00	79.30	79.28
44.00	4.40	4.41
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F008.D  
Acq On : 2 Jun 2010 7:59 pm  
Sample : 80PPM 8270 ICAL SVM32-21G  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:55 2010

Vial: 6  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F008.D

(2) N-Nitrosodimethylamine (T)

4.14min 79.90ug/ml m

response 197404

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	79.29
44.00	4.40	4.59
0.00	0.00	0.00

*IC*  
*M 6-3-10*

*LB*  
*4/4/10*

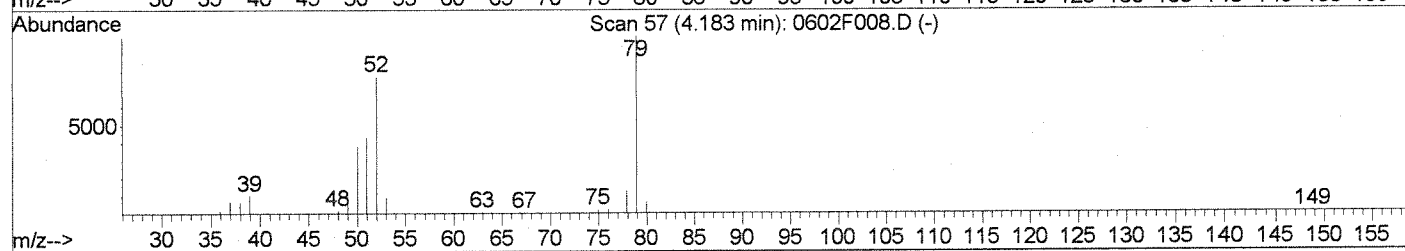
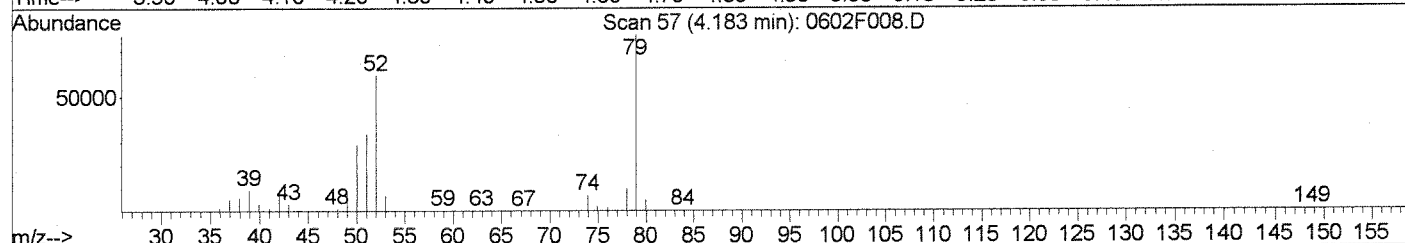
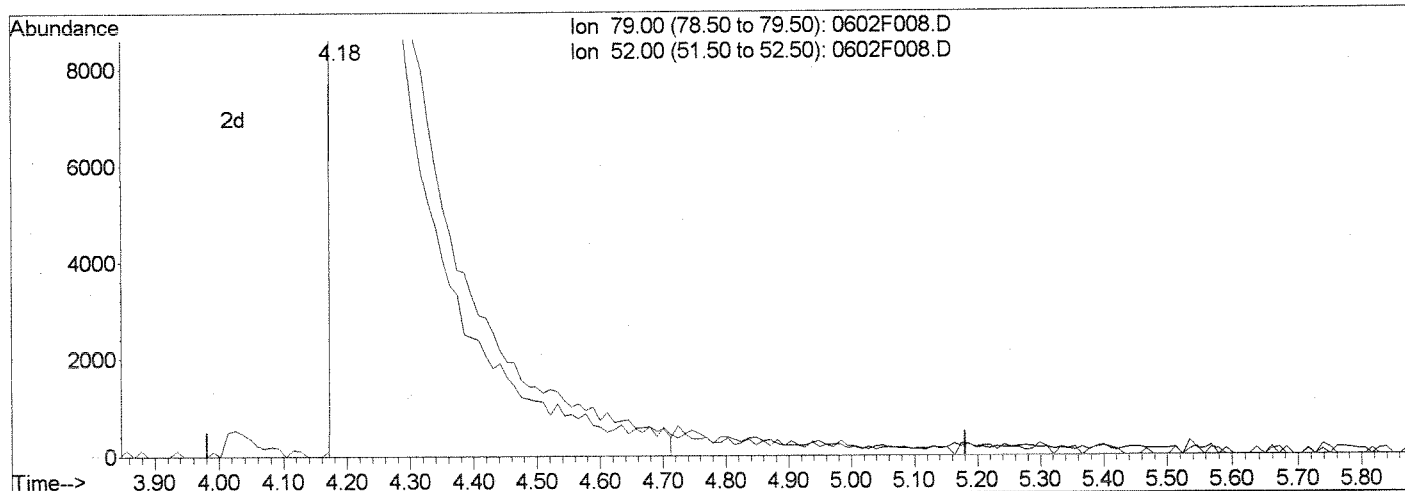
Quantitation Report (Qealr)

Data File : J:\MS07\DATA\060210\0602F008.D  
 Acq On : 2 Jun 2010 7:59 pm  
 Sample : 80PPM 8270 ICAL SVM32-21G  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:55 2010

Vial: 6  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F008.D

(3) Pyridine (T)

4.18min 84.92ug/ml

response 297300

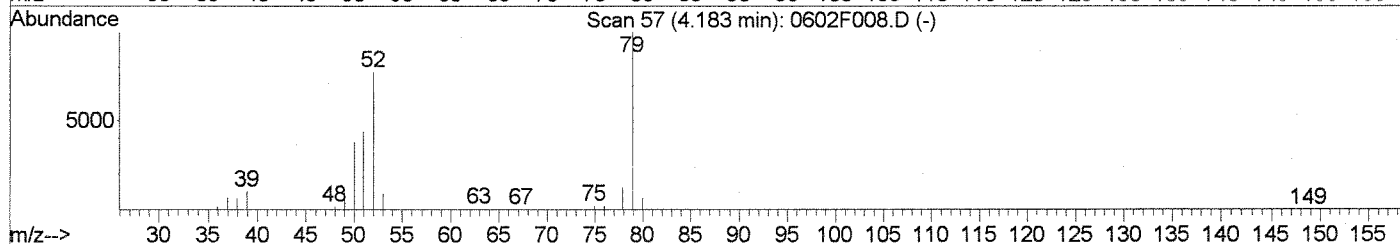
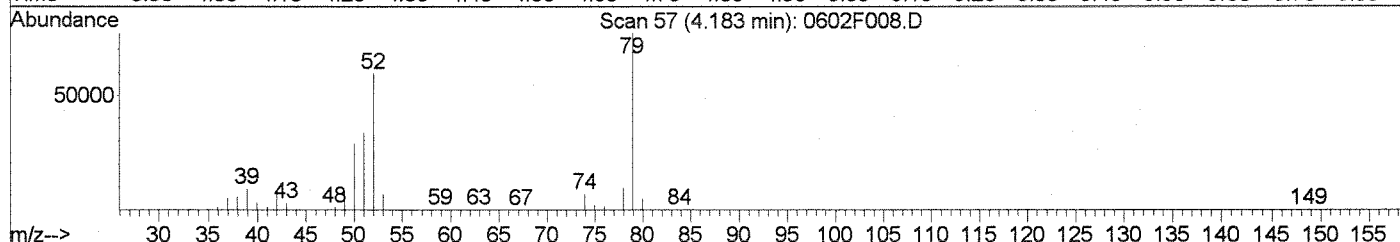
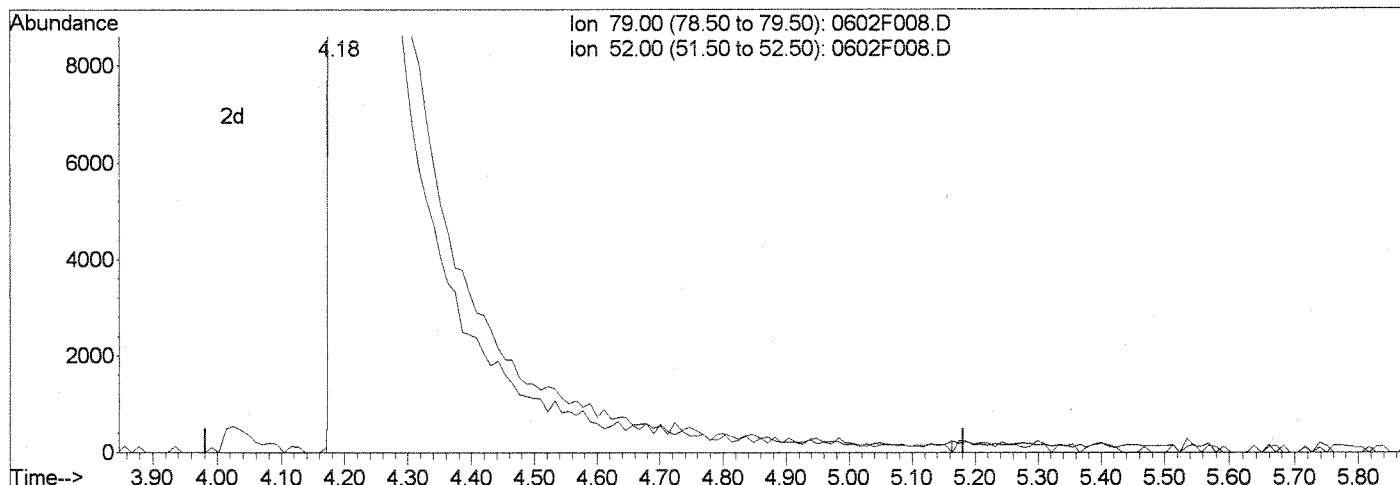
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	77.02
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F008.D  
 Acq On : 2 Jun 2010 7:59 pm  
 Sample : 80PPM 8270 ICAL SVM32-21G  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:55 2010

Vial: 6  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F008.D

(3) Pyridine (T)		
4.18min	86.91ug/ml m	
response	304249	
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	77.12
0.00	0.00	0.00
0.00	0.00	0.00

*IC*  
*M 6-3-10*

*LB*  
*4/11/10*

Data File : J:\MS07\DATA\060210\0602F009.D  
 Acq On : 2 Jun 2010 8:39 pm  
 Sample : 100PPM 8270 ICAL SVM32-21H  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:53 2010

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	116346	40.00	ug/ml	0.00
21) Naphthalene-d8	11.46	136	477905	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	217694	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.71	188	271937	40.00	ug/ml	0.00
68) Chrysene-d12	21.14	240	311055	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	253663	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	334191	108.04	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	72.03%
7) Phenol-d6	8.88	99	464659	107.71	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	71.81%
19) Nitrobenzene-d5	10.30	82	449580	106.68	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	106.68%
38) 2-Fluorobiphenyl	13.25	172	799895	112.08	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	112.08%
59) 2,4,6-Tribromophenol	15.61	330	117775	106.85	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	71.23%
71) Terphenyl-d14	19.32	244	438362	92.04	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	92.04%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.14	42	295565m	106.66	ug/ml	
3) Pyridine	4.19	79	408054m	103.92	ug/ml	
5) Aniline	8.82	93	450153	103.24	ug/ml	99
6) Bis(2-chloroethyl) Ether	8.97	93	374058	105.33	ug/ml	99
8) Phenol	8.90	94	474690m	107.43	ug/ml	
9) 2-Chlorophenol	9.02	128	416236	109.26	ug/ml	96
10) 1,3-Dichlorobenzene	9.25	146	416543	103.10	ug/ml	99
11) 1,4-Dichlorobenzene	9.39	146	418565	101.71	ug/ml	98
12) 1,2-Dichlorobenzene	9.62	146	395551	101.54	ug/ml	97
13) Benzyl Alcohol	9.66	108	245296	104.84	ug/ml	96
14) Bis(2-chloroisopropyl) Eth	9.87	45	628031	107.60	ug/ml	91
15) 2-Methylphenol	9.88	107	296022	103.48	ug/ml	94
16) Hexachloroethane	10.19	117	203365	108.62	ug/ml	82
17) N-Nitrosodi-n-propylamine	10.11	70	318086	109.44	ug/ml	98
18) 4-Methylphenol	10.15	107	472826	108.83	ug/ml	99
20) Nitrobenzene	10.33	77	423986	108.84	ug/ml	99
22) Isophorone	10.75	82	813693	94.38	ug/ml	99
23) 2-Nitrophenol	10.85	139	227468	94.74	ug/ml	94
24) 2,4-Dimethylphenol	11.00	122	323457	101.83	ug/ml	99
25) Bis(2-chloroethoxy)methane	11.13	93	490181	101.21	ug/ml	99

(#) = qualifier out of range (m) = manual integration

*Handwritten:* LAB, 6-3-10



Data File : J:\MS07\DATA\060210\0602F009.D  
 Acq On : 2 Jun 2010 8:39 pm  
 Sample : 100PPM 8270 ICAL SVM32-21H  
 Misc :

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:53 2010

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.28	162	351125	97.44	ug/ml	97
27) Benzoic Acid	11.33	122	265560	97.55	ug/ml	94
28) 1,2,4-Trichlorobenzene	11.37	180	379744	99.26	ug/ml	99
29) Naphthalene	11.49	128	1116954	97.41	ug/ml	99
30) 4-Chloroaniline	11.62	127	488552	96.58	ug/ml	95
31) Hexachlorobutadiene	11.72	225	252177	103.90	ug/ml	99
32) 4-Chloro-3-methylphenol	12.47	107	357750	95.11	ug/ml#	59
33) 2-Methylnaphthalene	12.63	142	699410	95.86	ug/ml	100
35) Hexachlorocyclopentadiene	12.89	237	253013	109.24	ug/ml	99
36) 2,4,6-Trichlorophenol	13.12	196	244406	108.83	ug/ml	98
37) 2,4,5-Trichlorophenol	13.18	196	273965	109.47	ug/ml	96
39) 2-Chloronaphthalene	13.42	162	677924	107.68	ug/ml	97
40) 2-Nitroaniline	13.62	65	198747	98.13	ug/ml	89
41) Acenaphthylene	14.08	152	1029454	106.14	ug/ml	98
42) Dimethyl Phthalate	13.94	163	712379	96.26	ug/ml	99
43) 2,6-Dinitrotoluene	14.03	165	169101	100.83	ug/ml	86
44) Acenaphthene	14.37	154	552958	99.89	ug/ml	98
45) 3-Nitroaniline	14.30	138	170723	96.75	ug/ml	97
46) 2,4-Dinitrophenol	14.47	184	102955	105.80	ug/ml	88
47) Dibenzofuran	14.65	168	858485	98.36	ug/ml	93
48) 4-Nitrophenol	14.65	109	97704	102.26	ug/ml#	89
49) 2,4-Dinitrotoluene	14.67	165	198493	93.39	ug/ml	80
50) 2,3,4,6-Tetrachlorophenol	14.87	232	179206	98.21	ug/ml#	86
51) Fluorene	15.20	166	640943	98.00	ug/ml	96
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	319628	95.46	ug/ml	92
53) Diethyl Phthalate	15.09	149	670573	93.73	ug/ml	100
54) 4-Nitroaniline	15.29	138	151045	98.89	ug/ml	96
55) 2-Methyl-4,6-dinitrophenol	15.32	198	114012	98.63	ug/ml#	61
56) N-Nitrosodiphenylamine	15.44	169	409398	93.88	ug/ml	99
57) 1,2-Diphenylhydrazine	15.48	77	740388	99.87	ug/ml	94
60) 4-Bromophenyl Phenyl Ether	16.01	248	174388	106.37	ug/ml	91
61) Hexachlorobenzene	16.09	284	201858	106.22	ug/ml	91
62) Pentachlorophenol	16.43	266	107141	100.33	ug/ml	98
63) Phenanthrene	16.74	178	683180	94.56	ug/ml	98
64) Anthracene	16.83	178	782379	103.00	ug/ml	100
65) Carbazole	17.13	167	655012	105.63	ug/ml	98
66) Di-n-butyl Phthalate	17.74	149	867148	104.84	ug/ml	100
67) Fluoranthene	18.67	202	708060	107.96	ug/ml	98
69) Benzidine	18.93	184	244370	93.56	ug/ml	98
70) Pyrene	19.03	202	750272	90.37	ug/ml	100
72) Butyl Benzyl Phthalate	20.16	149	471978	99.76	ug/ml	88

(#) = qualifier out of range (m) = manual integration

*Handwritten:* LK3  
L1410

*Handwritten:* 6-3-10

Data File : J:\MS07\DATA\060210\0602F009.D  
Acq On : 2 Jun 2010 8:39 pm  
Sample : 100PPM 8270 ICAL SVM32-21H  
Misc :

Vial: 7  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

MS Integration Params: RTEINT.P  
Quant Time: Jun 03 10:48:53 2010

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Initial Calibration  
DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.12	252	334152	102.80	ug/ml	98
74) Benz(a)anthracene	21.12	228	748559	102.40	ug/ml	100
75) Chrysene	21.20	228	708399	100.09	ug/ml	100
76) Bis(2-ethylhexyl) Phthalat	21.32	149	701443	104.18	ug/ml	99
78) Di-n-octyl Phthalate	22.78	149	1263346	113.08	ug/ml	99
79) Benzo(b)fluoranthene	23.46	252	704855m	107.87	ug/ml	
80) Benzo(k)fluoranthene	23.53	252	721871m	106.45	ug/ml	
81) Benzo(a)pyrene	24.19	252	554160	102.11	ug/ml	99
82) Indeno(1,2,3-cd)pyrene	26.77	276	475821	101.23	ug/ml	99
83) Dibenz(a,h)anthracene	26.85	278	519620	103.79	ug/ml	100
84) Benzo(g,h,i)perylene	27.35	276	489833	96.55	ug/ml	97

LB  
6/11/10

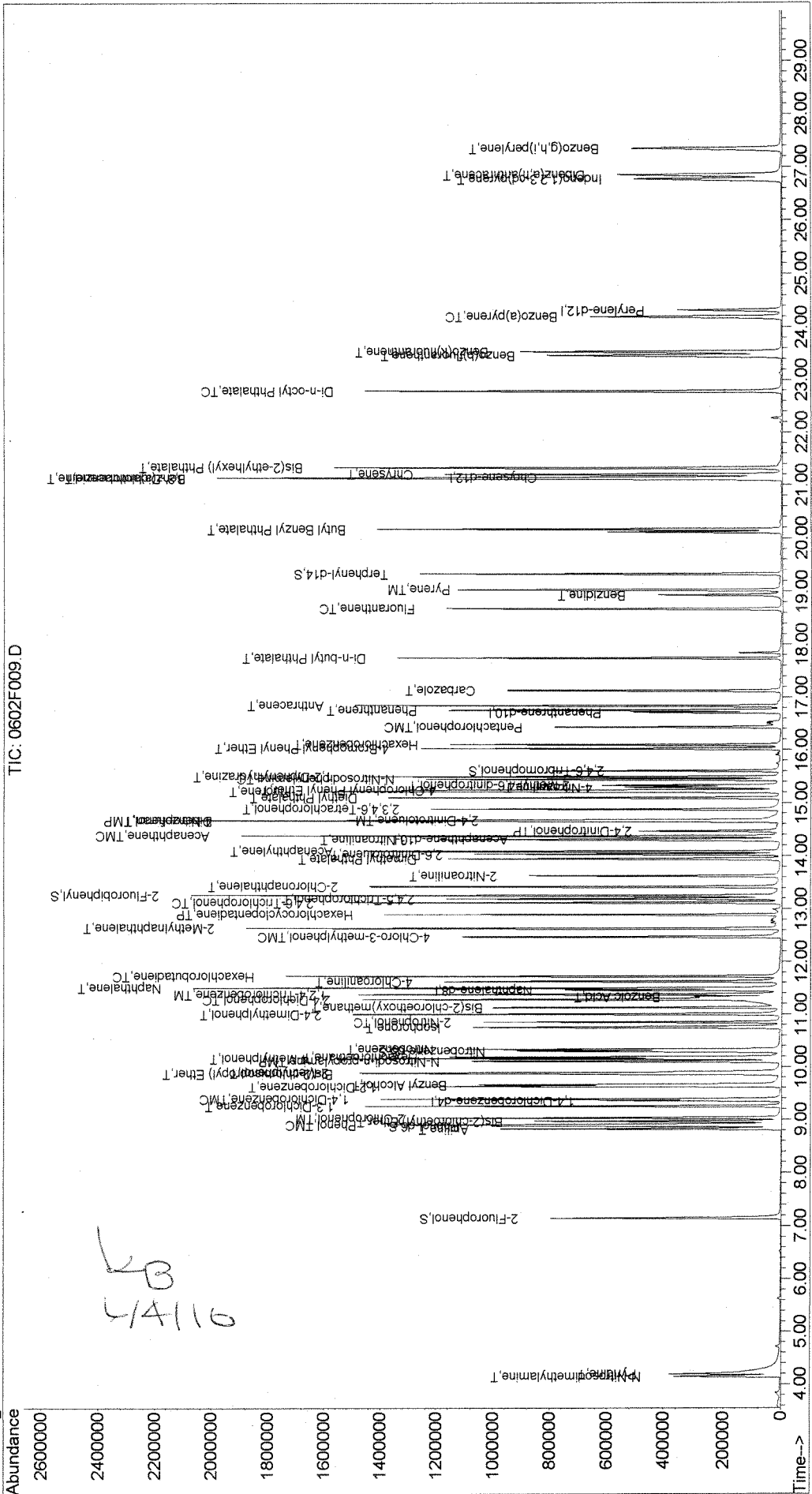
(#) = qualifier out of range (m) = manual integration  
0602F009.D 0602BNC7.M Thu Jun 03 11:34:32 2010

1  
6-3-10

Data File : J:\MS07\DATA\060210\0602F009.D  
Acq On : 2 Jun 2010 8:39 pm  
Sample : 100PPM 8270 ICAL SVM32-21H  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:57 2010

Vial: 7  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00  
Quant Results File: 0602BNC7.RES

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Initial Calibration



Handwritten notes: 11/10 and a signature.

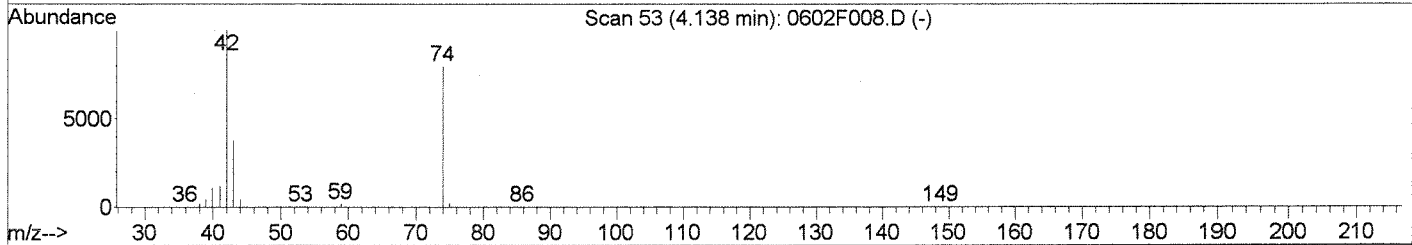
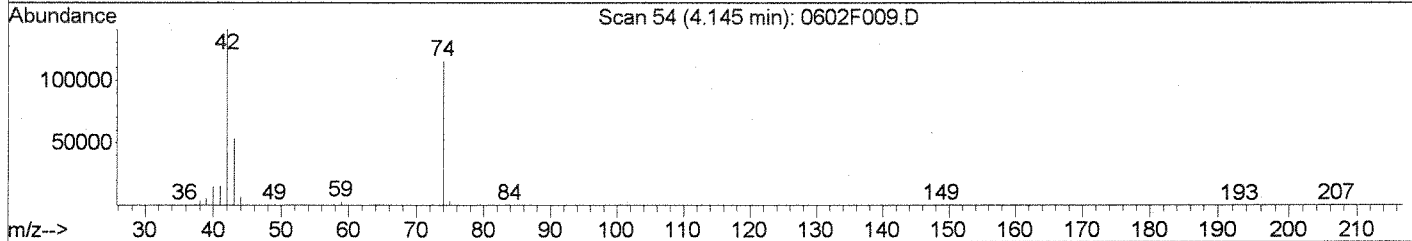
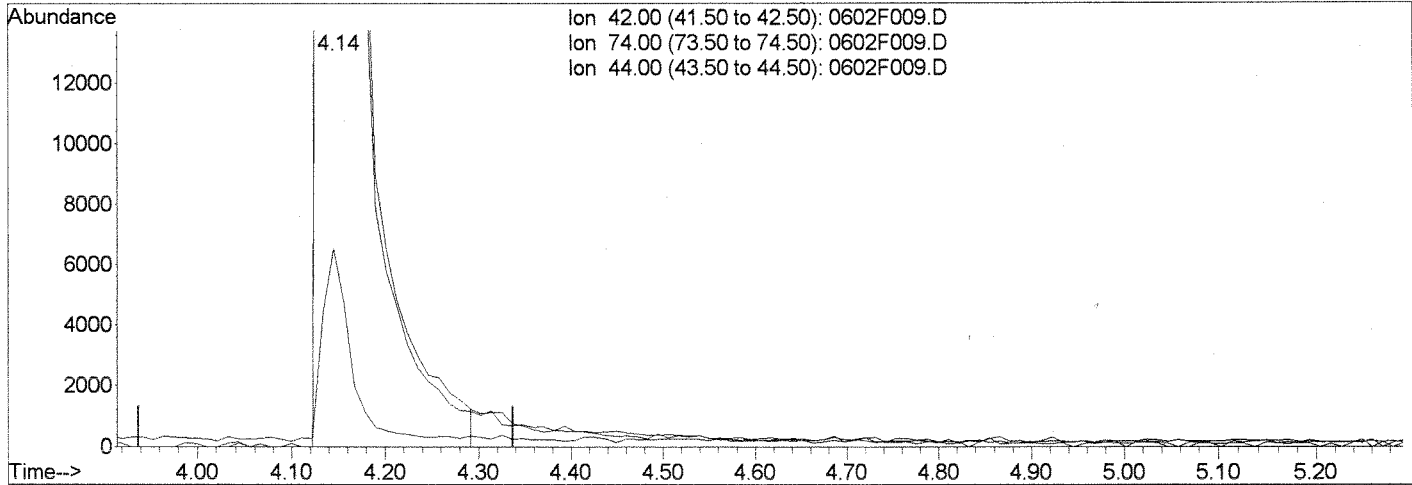
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F009.D  
 Acq On : 2 Jun 2010 8:39 pm  
 Sample : 100PPM 8270 ICAL SVM32-21H  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:48 2010

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F009.D

(2) N-Nitrosodimethylamine (T)

4.14min 102.89ug/ml

response 285108

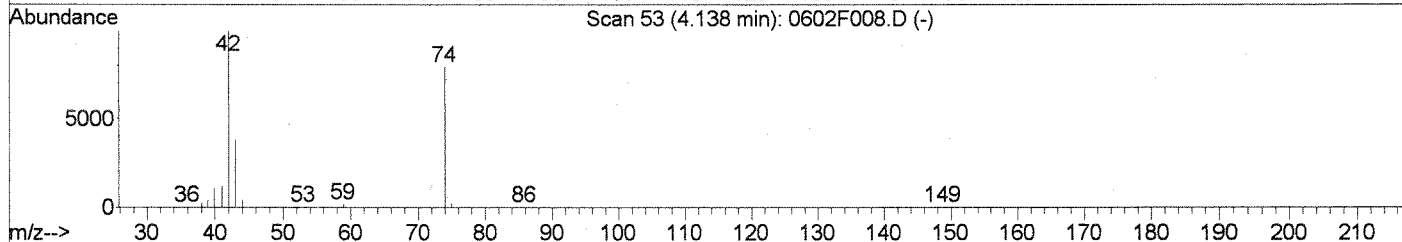
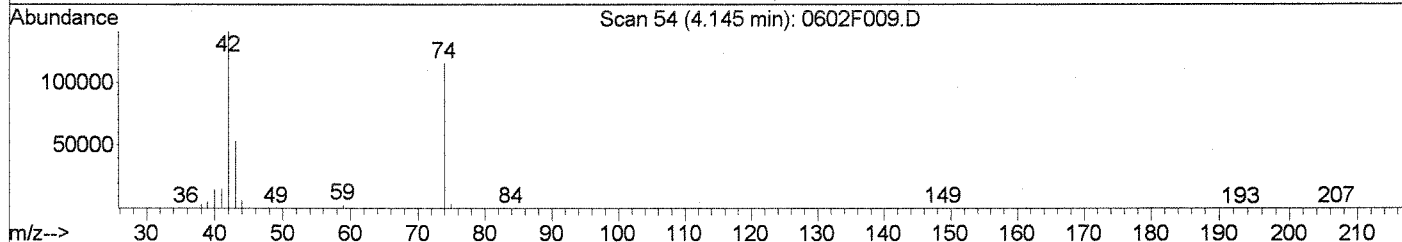
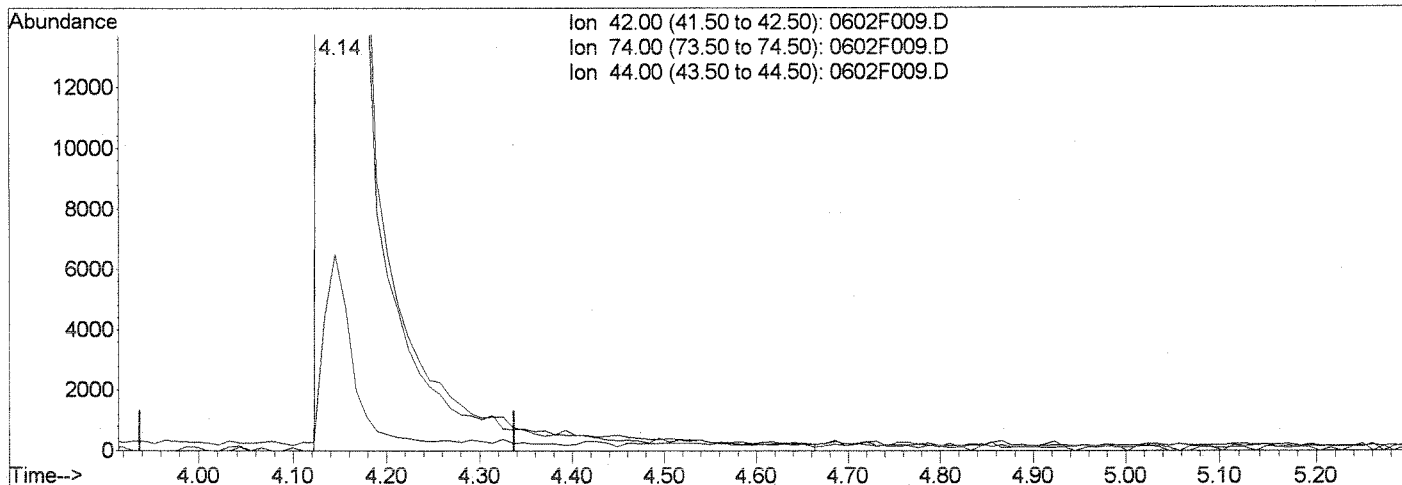
Ion	Exp%	Act%
42.00	100	100
74.00	79.30	81.93
44.00	4.40	4.44
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F009.D  
 Acq On : 2 Jun 2010 8:39 pm  
 Sample : 100PPM 8270 ICAL SVM32-21H  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:56 2010

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F009.D

(2) N-Nitrosodimethylamine (T)

4.14min 106.66ug/ml m

response 295565

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	81.98
44.00	4.40	4.64
0.00	0.00	0.00

*Handwritten notes:* EC m 6 3-10

*Handwritten:* LKB 414110

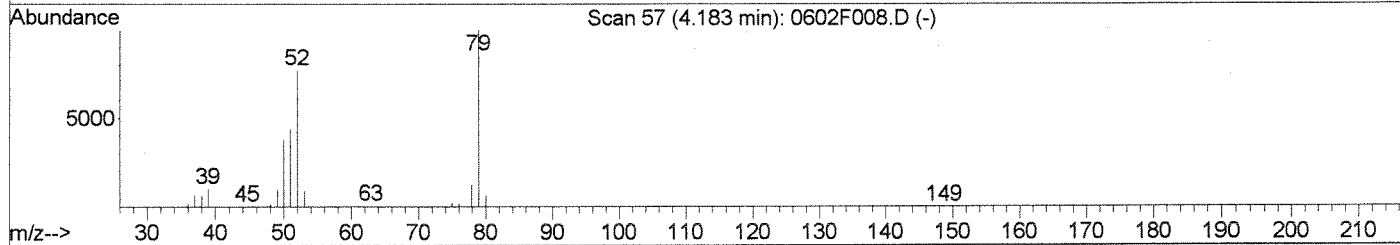
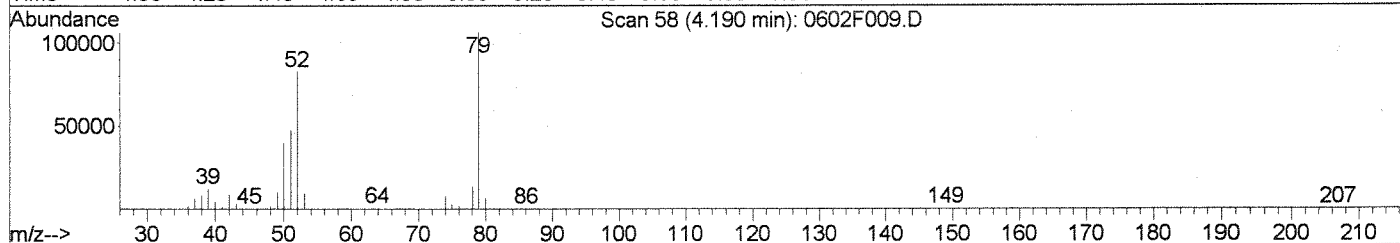
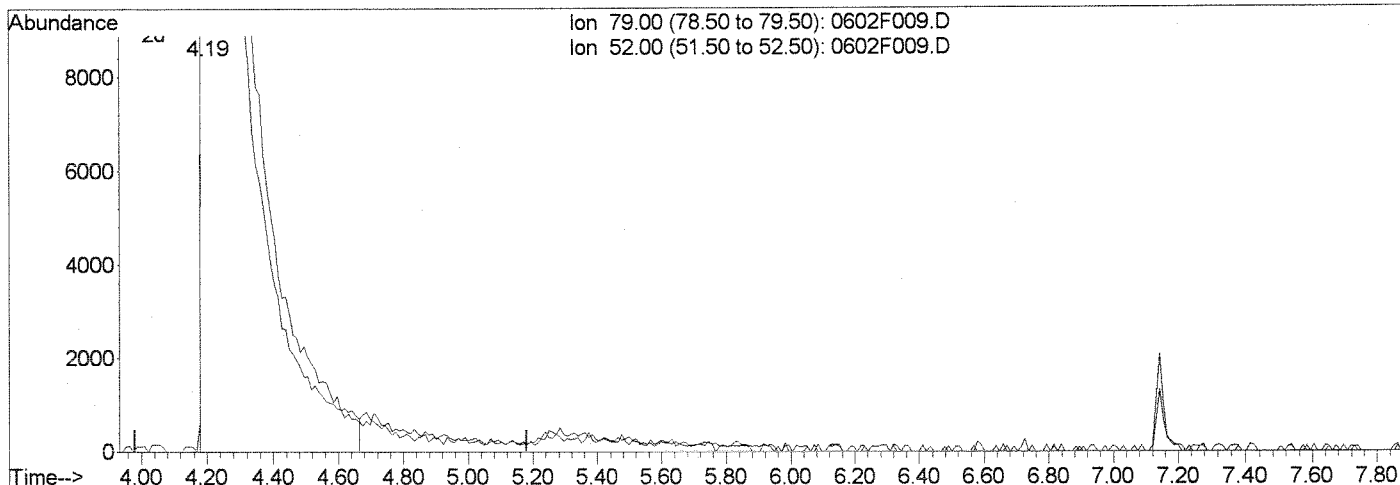
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F009.D  
 Acq On : 2 Jun 2010 8:39 pm  
 Sample : 100PPM 8270 ICAL SVM32-21H  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:56 2010

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F009.D

(3) Pyridine (T)

4.19min 98.54ug/ml  
 response 386906

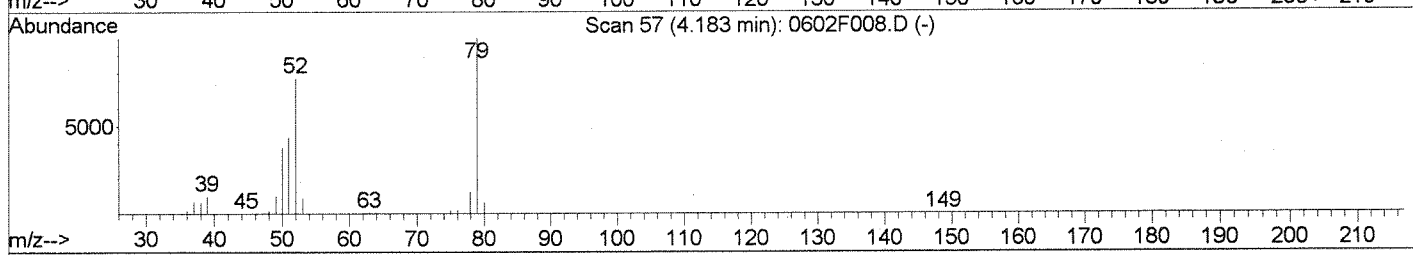
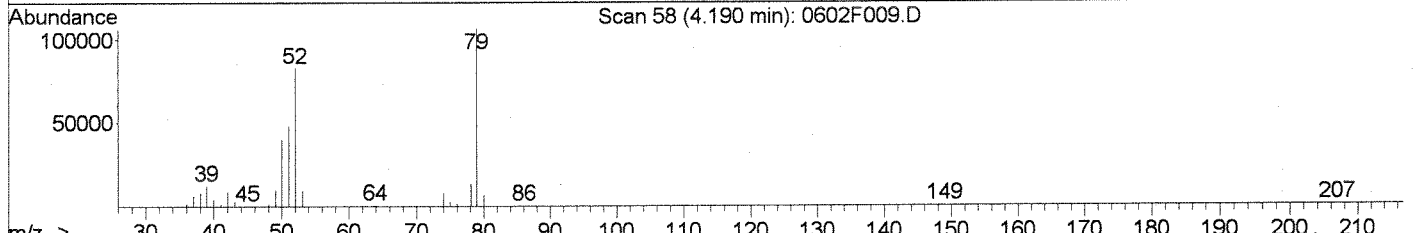
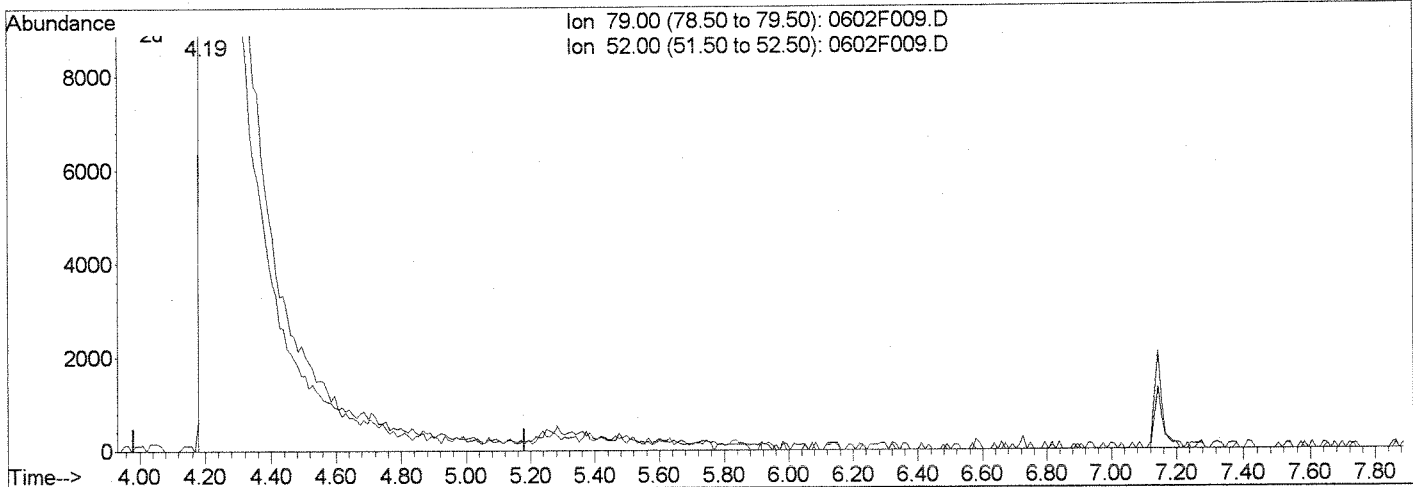
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	77.80
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F009.D  
 Acq On : 2 Jun 2010 8:39 pm  
 Sample : 100PPM 8270 ICAL SVM32-21H  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:56 2010

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F009.D

(3) Pyridine (T)		
4.19min	103.92ug/ml	m
response	408054	
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	77.84
0.00	0.00	0.00
0.00	0.00	0.00

*Handwritten notes:* EC 46-3-10

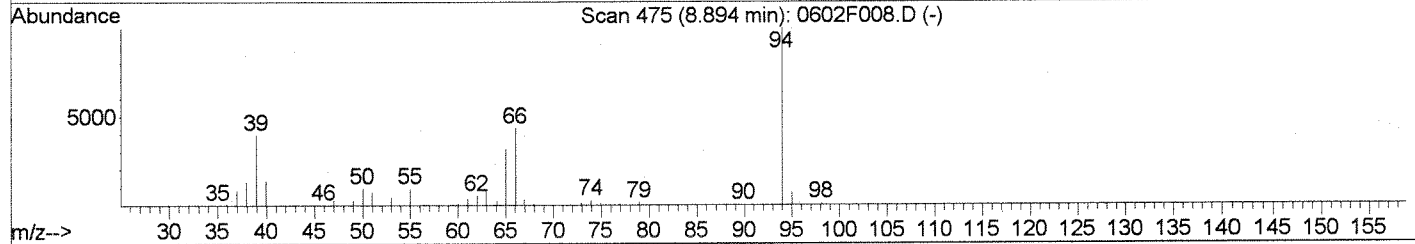
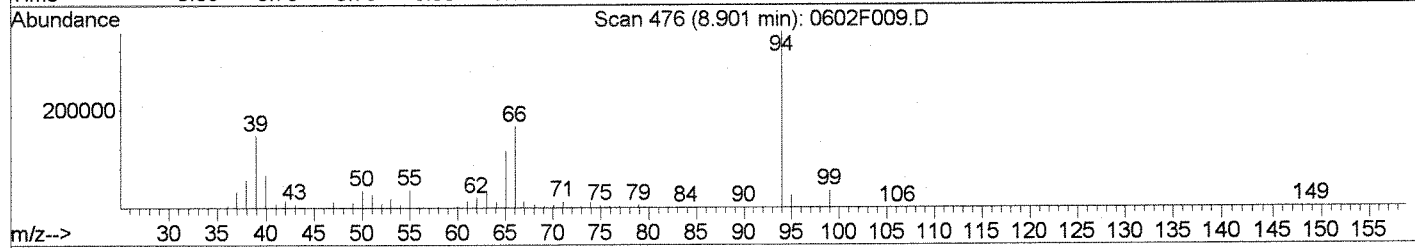
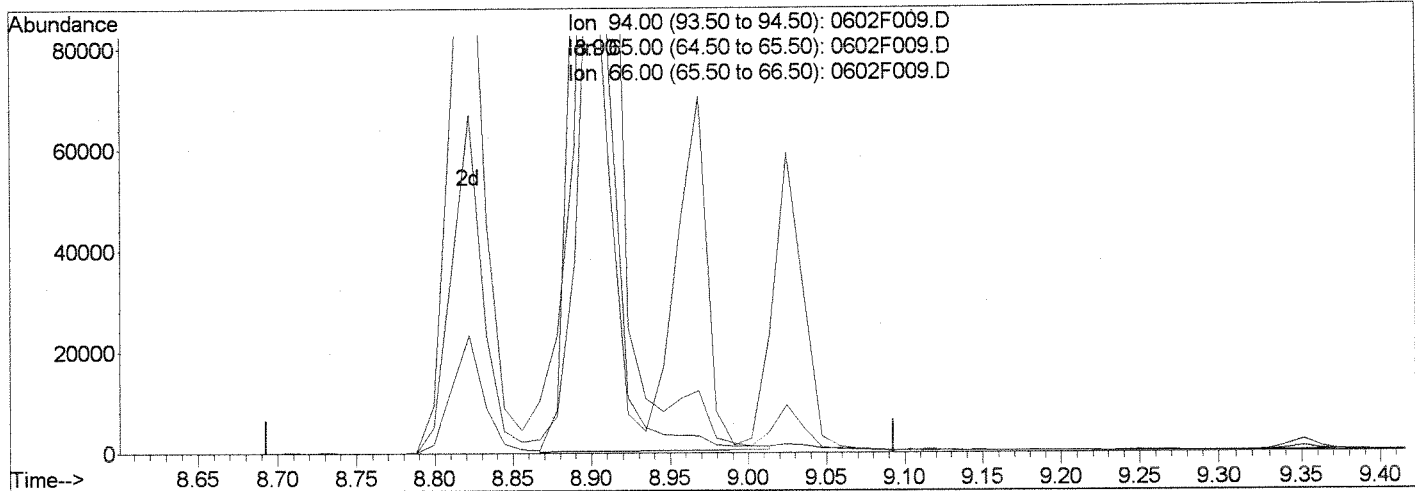
*Handwritten:* LB 6/4/10

Data File : J:\MS07\DATA\060210\0602F009.D  
 Acq On : 2 Jun 2010 8:39 pm  
 Sample : 100PPM 8270 ICAL SVM32-21H  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:56 2010

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F009.D

(8) Phenol (TMC)

8.90min 111.16ug/ml

response 491149

Ion	Exp%	Act%
94.00	100	100
65.00	31.10	28.91
66.00	44.30	44.26
0.00	0.00	0.00



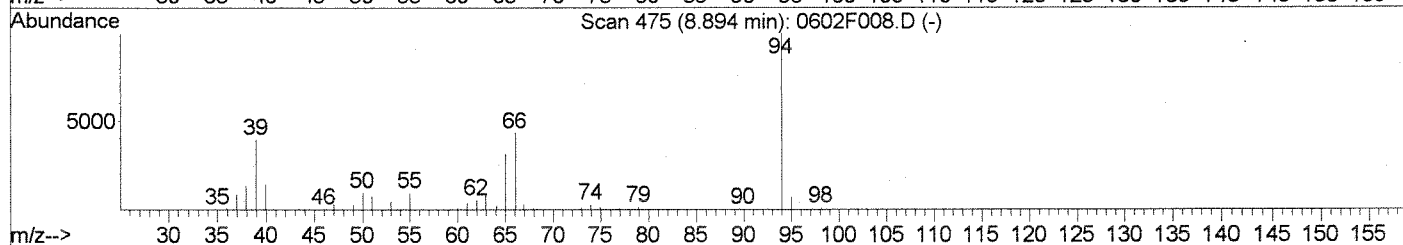
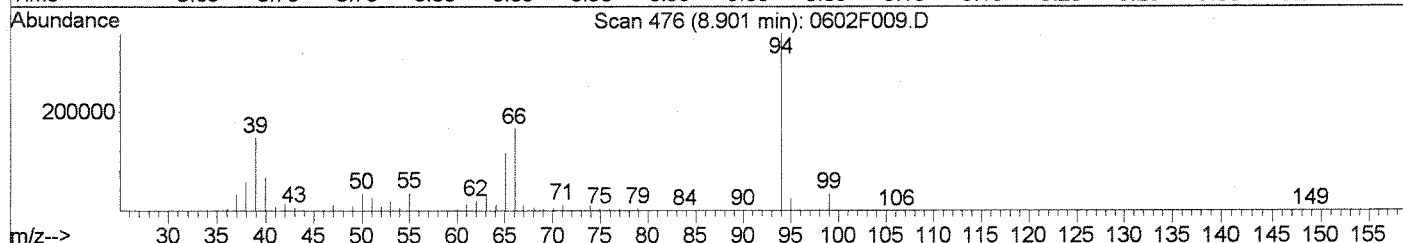
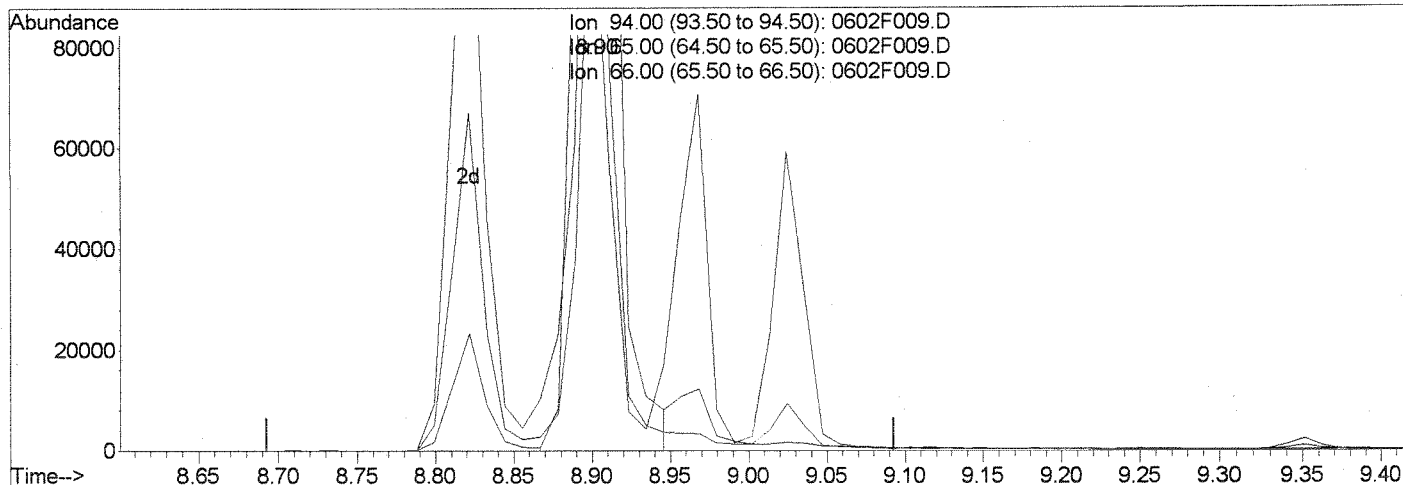
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F009.D  
 Acq On : 2 Jun 2010 8:39 pm  
 Sample : 100PPM 8270 ICAL SVM32-21H  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:56 2010

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F009.D

(8) Phenol (TMC)		
8.90min	107.43ug/ml m	
response	474690	
Ion	Exp%	Act%
94.00	100	100
65.00	31.10	32.45
66.00	44.30	46.15
0.00	0.00	0.00

*01/6-3-10*

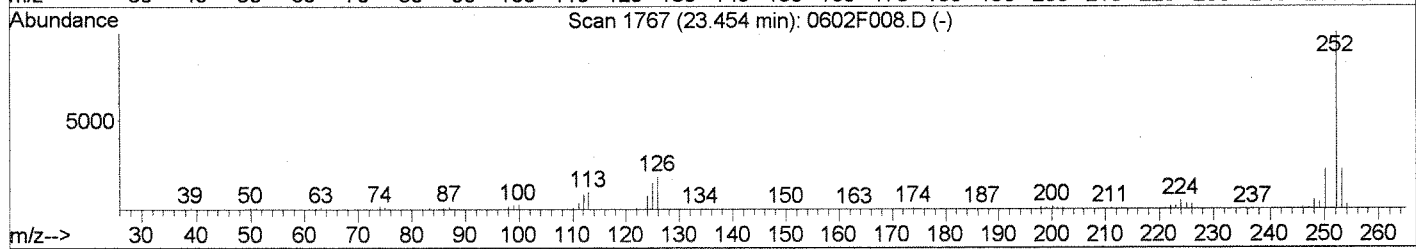
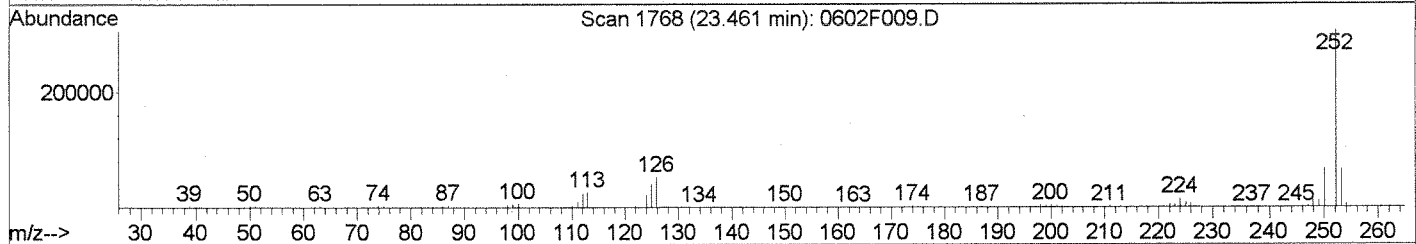
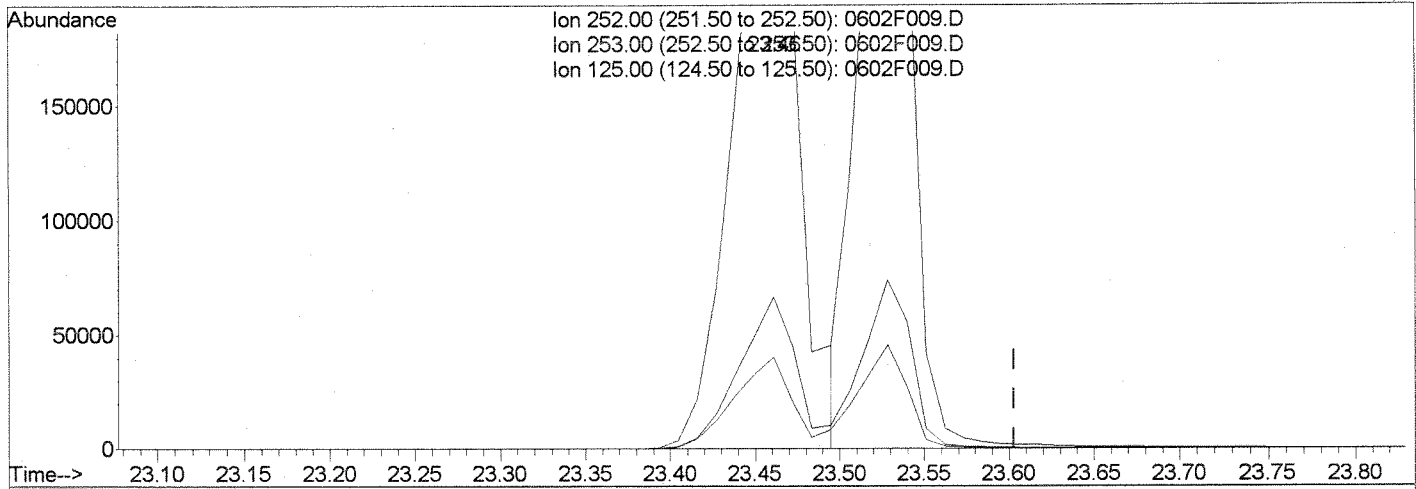
*LB*  
*4/4/10*

Data File : J:\MS07\DATA\060210\0602F009.D  
Acq On : 2 Jun 2010 8:39 pm  
Sample : 100PPM 8270 ICAL SVM32-21H  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:56 2010

Vial: 7  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F009.D

(79) Benzo(b)fluoranthene (T)

23.46min 112.55ug/ml

response 735458

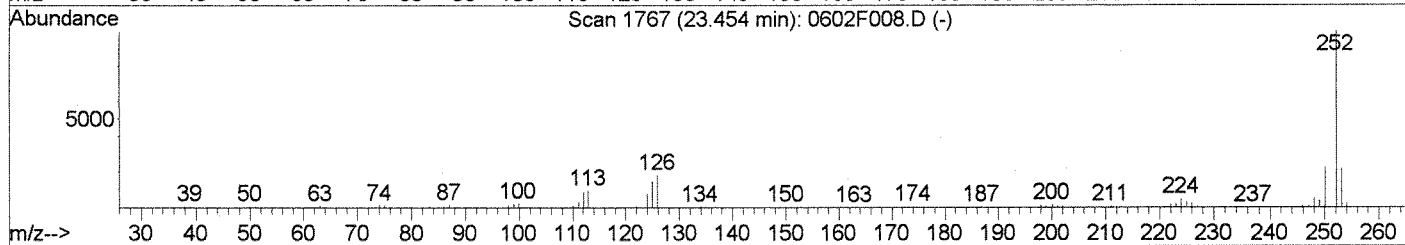
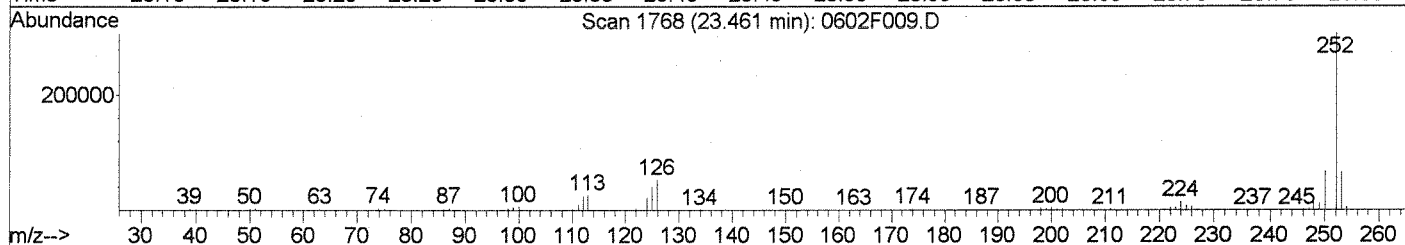
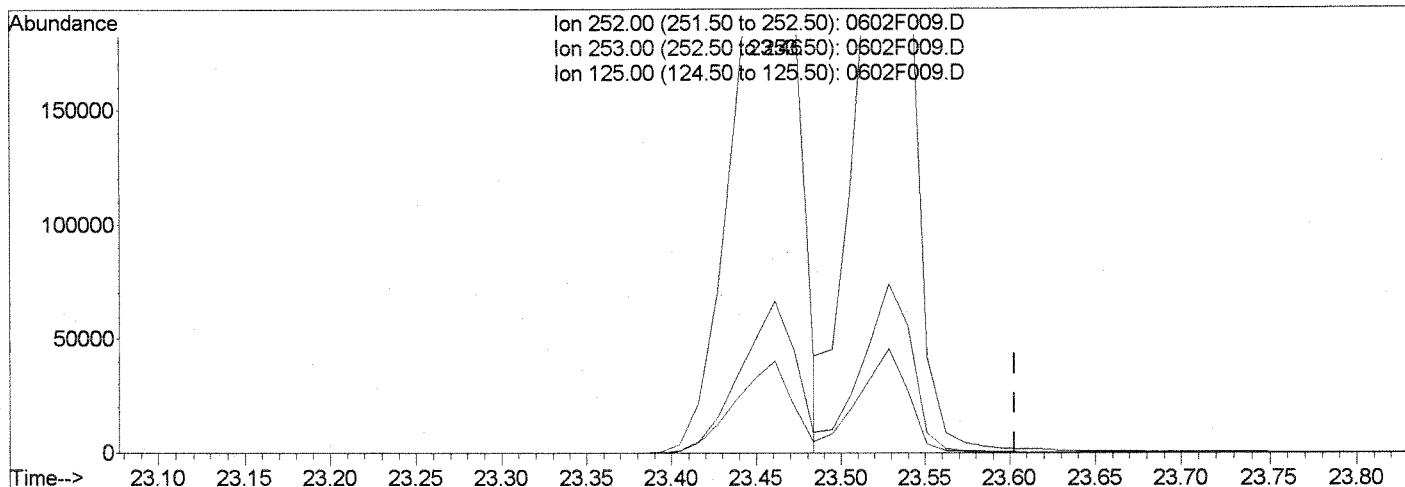
Ion	Exp%	Act%
252.00	100	100
253.00	21.80	21.59
125.00	14.40	12.70
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F009.D  
 Acq On : 2 Jun 2010 8:39 pm  
 Sample : 100PPM 8270 ICAL SVM32-21H  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:57 2010

Vial: 7  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F009.D

(79) Benzo(b)fluoranthene (T)		
23.46min	107.87ug/ml m	
response	704855	
Ion	Exp%	Act%
252.00	100	100
253.00	21.80	21.65
125.00	14.40	13.11
0.00	0.00	0.00

*Handwritten notes:* 02, m 6 3-10

*Handwritten signature:* LB 6/4/10

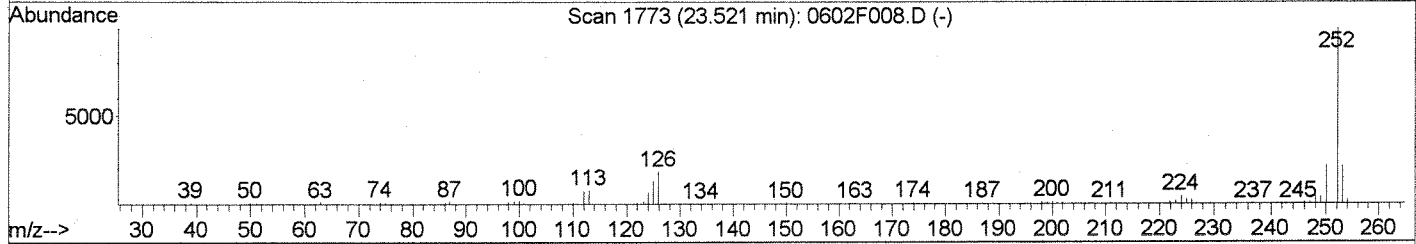
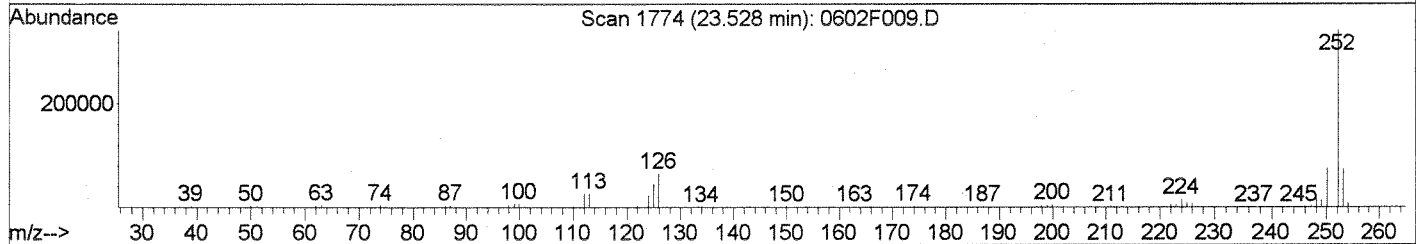
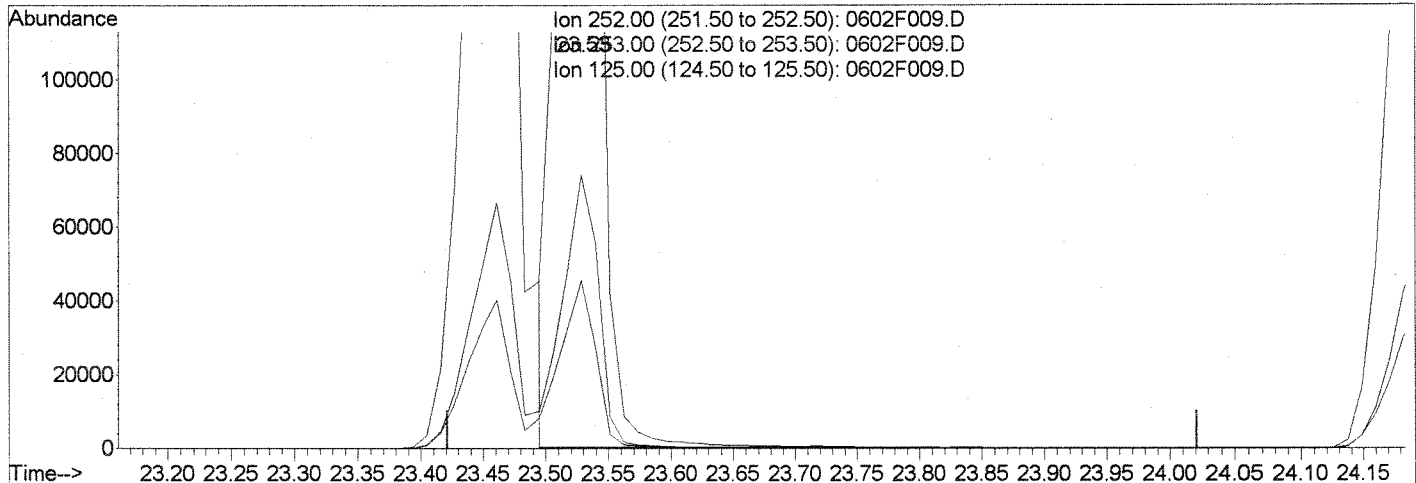
Data File : J:\MS07\DATA\060210\0602F009.D  
Acq On : 2 Jun 2010 8:39 pm  
Sample : 100PPM 8270 ICAL SVM32-21H  
Misc :

Vial: 7  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:57 2010

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F009.D

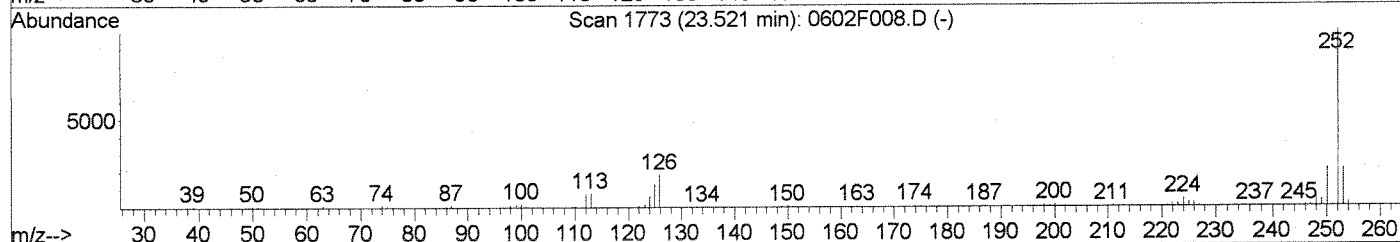
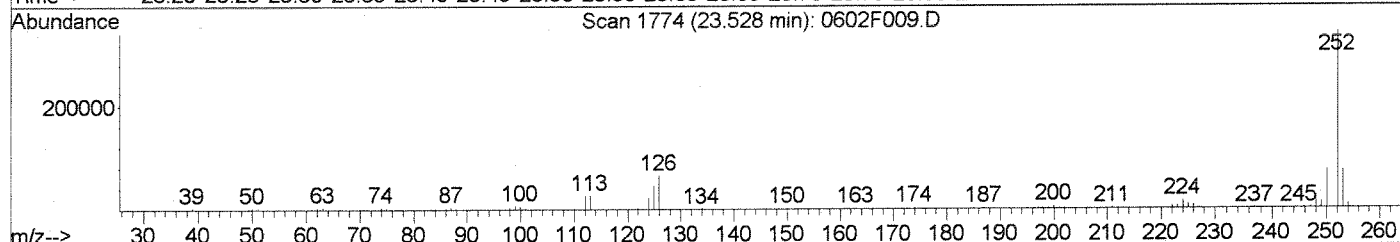
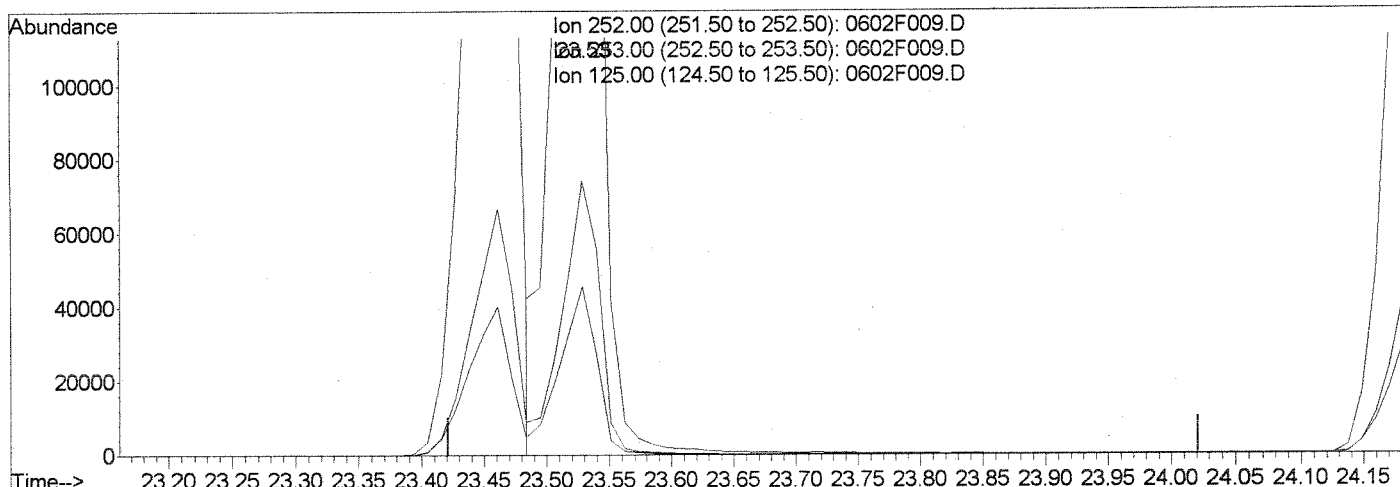
(80) Benzo(k)fluoranthene (T)			
23.53min	101.55ug/ml		
response	688650		
Ion	Exp%	Act%	
252.00	100	100	
253.00	21.30	21.46	
125.00	13.20	12.91	
0.00	0.00	0.00	

Data File : J:\MS07\DATA\060210\0602F009.D  
Acq On : 2 Jun 2010 8:39 pm  
Sample : 100PPM 8270 ICAL SVM32-21H  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:57 2010

Vial: 7  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F009.D

(80) Benzo(k)fluoranthene (T)

23.53min 106.45ug/ml m

response 721871

Ion	Exp%	Act%
252.00	100	100
253.00	21.30	21.50
125.00	13.20	13.25
0.00	0.00	0.00

*IC*  
*M 6 7 - 10*

*LB*  
*4/4/10*

Data File : J:\MS07\DATA\060210\0602F010.D  
 Acq On : 2 Jun 2010 9:19 pm  
 Sample : 120PPM 8270 ICAL SVM32-21I  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:54 2010

Vial: 8  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	107169	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	412368	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	219449	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.70	188	269634	40.00	ug/ml	0.00
68) Chrysene-d12	21.14	240	300460	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	239123	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.13	112	358610	125.86	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	83.91%
7) Phenol-d6	8.88	99	512994	129.09	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	86.06%
19) Nitrobenzene-d5	10.29	82	492175	126.79	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	126.79%#
38) 2-Fluorobiphenyl	13.25	172	908511	126.29	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	126.29%#
59) 2,4,6-Tribromophenol	15.60	330	141785	129.73	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	86.49%
71) Terphenyl-d14	19.33	244	497027	108.04	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	108.04%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.15	42	319885m	125.32	ug/ml	
3) Pyridine	4.18	79	474189m	131.11	ug/ml	
5) Aniline	8.82	93	480882	119.73	ug/ml	90
6) Bis(2-chloroethyl) Ether	8.97	93	424774	129.86	ug/ml	91
8) Phenol	8.90	94	523383	128.60	ug/ml	98
9) 2-Chlorophenol	9.03	128	438427	124.94	ug/ml	94
10) 1,3-Dichlorobenzene	9.25	146	460785	123.81	ug/ml	95
11) 1,4-Dichlorobenzene	9.38	146	467788	123.41	ug/ml	98
12) 1,2-Dichlorobenzene	9.62	146	451132	125.73	ug/ml	98
13) Benzyl Alcohol	9.66	108	287282	133.30	ug/ml	96
14) Bis(2-chloroisopropyl) Eth	9.87	45	701879	130.55	ug/ml	82
15) 2-Methylphenol	9.88	107	320434	121.60	ug/ml	88
16) Hexachloroethane	10.18	117	218080	126.45	ug/ml	99
17) N-Nitrosodi-n-propylamine	10.10	70	356483	133.15	ug/ml	93
18) 4-Methylphenol	10.15	107	538233	134.50	ug/ml	98
20) Nitrobenzene	10.32	77	468624	130.60	ug/ml	96
22) Isophorone	10.75	82	949856	127.69	ug/ml	98
23) 2-Nitrophenol	10.85	139	269293	129.98	ug/ml	93
24) 2,4-Dimethylphenol	11.00	122	349478	127.51	ug/ml	97
25) Bis(2-chloroethoxy)methane	11.12	93	526605	126.01	ug/ml	99

(#) = qualifier out of range (m) = manual integration

0602F010.D 0602BNC7.M Thu Jun 03 11:34:33 2010

*Handwritten notes:*  
 1  
 6-3-10  
 4.3 min

Data File : J:\MS07\DATA\060210\0602F010.D  
 Acq On : 2 Jun 2010 9:19 pm  
 Sample : 120PPM 8270 ICAL SVM32-21I  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:54 2010

Vial: 8  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.28	162	421752	135.64	ug/ml	96
27) Benzoic Acid	11.35	122	316824	134.88	ug/ml	91
28) 1,2,4-Trichlorobenzene	11.37	180	410335	124.30	ug/ml	98
29) Naphthalene	11.50	128	1246594	126.00	ug/ml	99
30) 4-Chloroaniline	11.62	127	526808	120.69	ug/ml	94
31) Hexachlorobutadiene	11.72	225	255280	121.90	ug/ml	98
32) 4-Chloro-3-methylphenol	12.46	107	413004	127.24	ug/ml#	52
33) 2-Methylnaphthalene	12.63	142	799450	126.99	ug/ml	98
35) Hexachlorocyclopentadiene	12.89	237	286789	121.97	ug/ml	98
36) 2,4,6-Trichlorophenol	13.12	196	282420	124.75	ug/ml	98
37) 2,4,5-Trichlorophenol	13.19	196	325010	128.83	ug/ml	99
39) 2-Chloronaphthalene	13.41	162	764123	120.40	ug/ml	99
40) 2-Nitroaniline	13.62	65	265703	130.13	ug/ml	90
41) Acenaphthylene	14.08	152	1193053	122.02	ug/ml	99
42) Dimethyl Phthalate	13.94	163	878268	117.73	ug/ml	99
43) 2,6-Dinitrotoluene	14.03	165	199250	117.86	ug/ml	88
44) Acenaphthene	14.37	154	669820	120.03	ug/ml	98
45) 3-Nitroaniline	14.30	138	209613	117.84	ug/ml	99
46) 2,4-Dinitrophenol	14.46	184	124037	126.45	ug/ml	92
47) Dibenzofuran	14.65	168	1035863	117.73	ug/ml	93
48) 4-Nitrophenol	14.65	109	118067	122.58	ug/ml	96
49) 2,4-Dinitrotoluene	14.67	165	238539	111.33	ug/ml	76
50) 2,3,4,6-Tetrachlorophenol	14.88	232	225291	122.48	ug/ml	94
51) Fluorene	15.20	166	735879	111.61	ug/ml	99
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	398548	118.08	ug/ml	96
53) Diethyl Phthalate	15.09	149	828919	114.93	ug/ml	99
54) 4-Nitroaniline	15.30	138	184736	119.99	ug/ml	95
55) 2-Methyl-4,6-dinitrophenol	15.34	198	141371	121.31	ug/ml#	35
56) N-Nitrosodiphenylamine	15.44	169	495689	112.76	ug/ml	100
57) 1,2-Diphenylhydrazine	15.48	77	876400m	117.28	ug/ml	
60) 4-Bromophenyl Phenyl Ether	16.01	248	212841	130.93	ug/ml	95
61) Hexachlorobenzene	16.09	284	233548	123.95	ug/ml	87
62) Pentachlorophenol	16.43	266	136664	129.07	ug/ml	98
63) Phenanthrene	16.75	178	843292	117.72	ug/ml	99
64) Anthracene	16.84	178	910273	120.86	ug/ml	100
65) Carbazole	17.12	167	736019	119.71	ug/ml	100
66) Di-n-butyl Phthalate	17.74	149	1009527	123.09	ug/ml	99
67) Fluoranthene	18.66	202	841477	129.40	ug/ml	99
69) Benzidine	18.93	184	281129	111.43	ug/ml	99
70) Pyrene	19.02	202	873938	108.98	ug/ml	99
72) Butyl Benzyl Phthalate	20.16	149	564627	123.55	ug/ml	93

(#) = qualifier out of range (m) = manual integration  
 0602F010.D 0602BNC7.M Thu Jun 03 11:34:33 2010

Data File : J:\MS07\DATA\060210\0602F010.D  
 Acq On : 2 Jun 2010 9:19 pm  
 Sample : 120PPM 8270 ICAL SVM32-21I  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:54 2010

Vial: 8  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.12	252	374209	119.18	ug/ml	98
74) Benz(a)anthracene	21.12	228	831988	117.82	ug/ml	100
75) Chrysene	21.20	228	790321	115.61	ug/ml	99
76) Bis(2-ethylhexyl) Phthalat	21.31	149	833025	128.08	ug/ml	99
78) Di-n-octyl Phthalate	22.78	149	1406271	133.52	ug/ml	96
79) Benzo(b)fluoranthene	23.46	252	744832	120.91	ug/ml	99
80) Benzo(k)fluoranthene	23.53	252	846656	132.44	ug/ml	99
81) Benzo(a)pyrene	24.20	252	632102	123.55	ug/ml	99
82) Indeno(1,2,3-cd)pyrene	26.78	276	563194	127.11	ug/ml	99
83) Dibenz(a,h)anthracene	26.86	278	580298	122.95	ug/ml	99
84) Benzo(g,h,i)perylene	27.35	276	597039	124.83	ug/ml	99

LB  
 4/11/10

(#) = qualifier out of range (m) = manual integration  
 0602F010.D 0602BNC7.M Thu Jun 03 11:34:33 2010

M  
 6-3-10





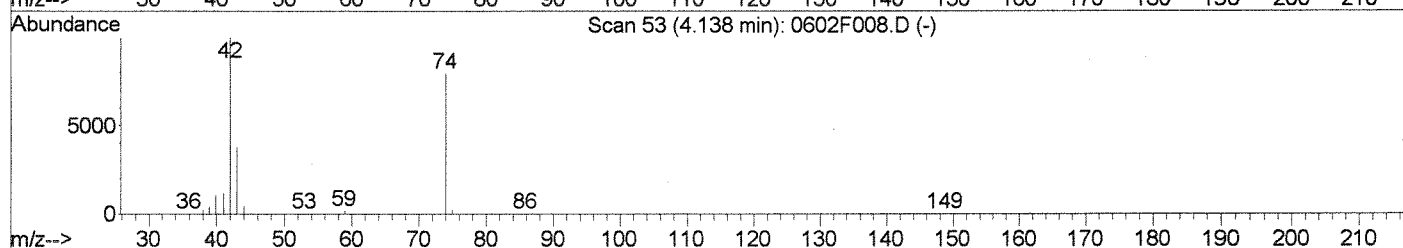
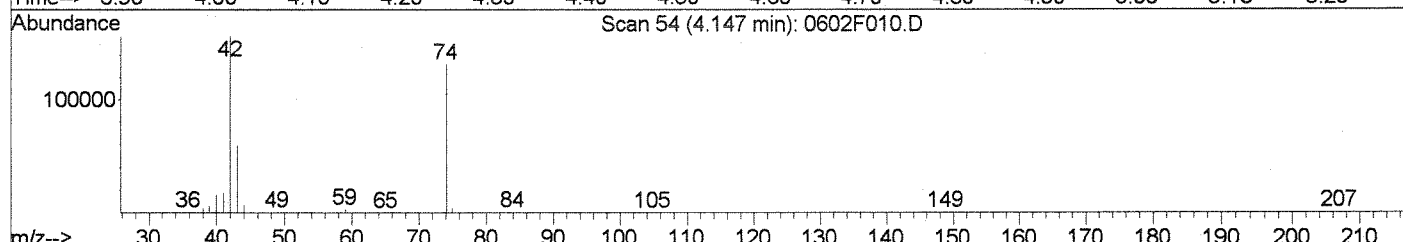
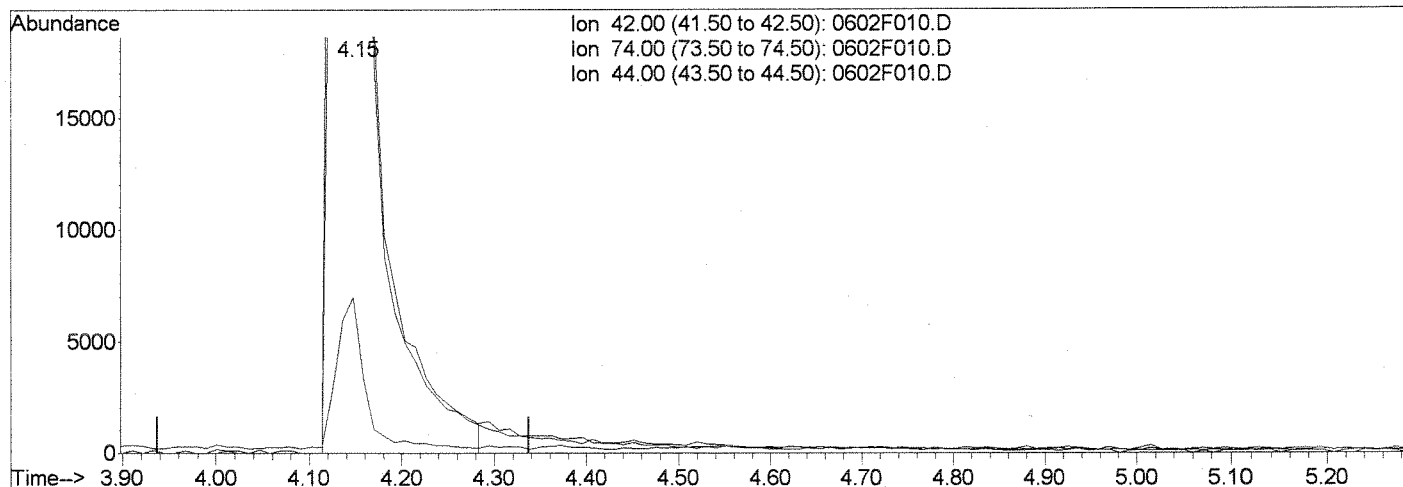
Quantitation Report (Qeait)

Data File : J:\MS07\DATA\060210\0602F010.D  
 Acq On : 2 Jun 2010 9:19 pm  
 Sample : 120PPM 8270 ICAL SVM32-21I  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:48 2010

Vial: 8  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F010.D

(2) N-Nitrosodimethylamine (T)

4.15min 120.79ug/ml

response 308314

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	83.79
44.00	4.40	4.30
0.00	0.00	0.00

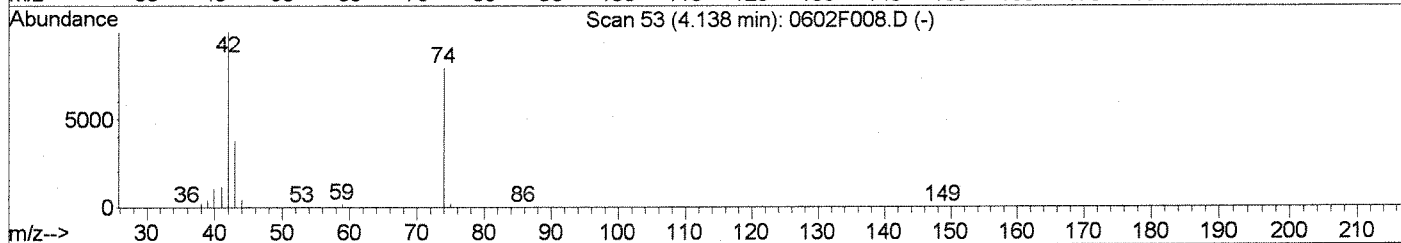
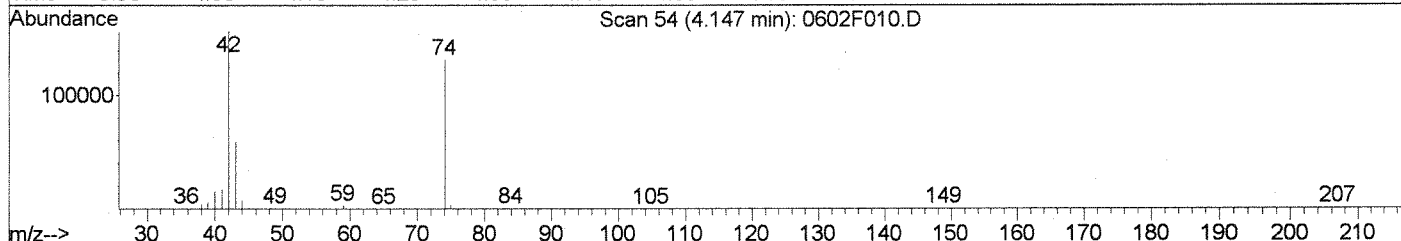
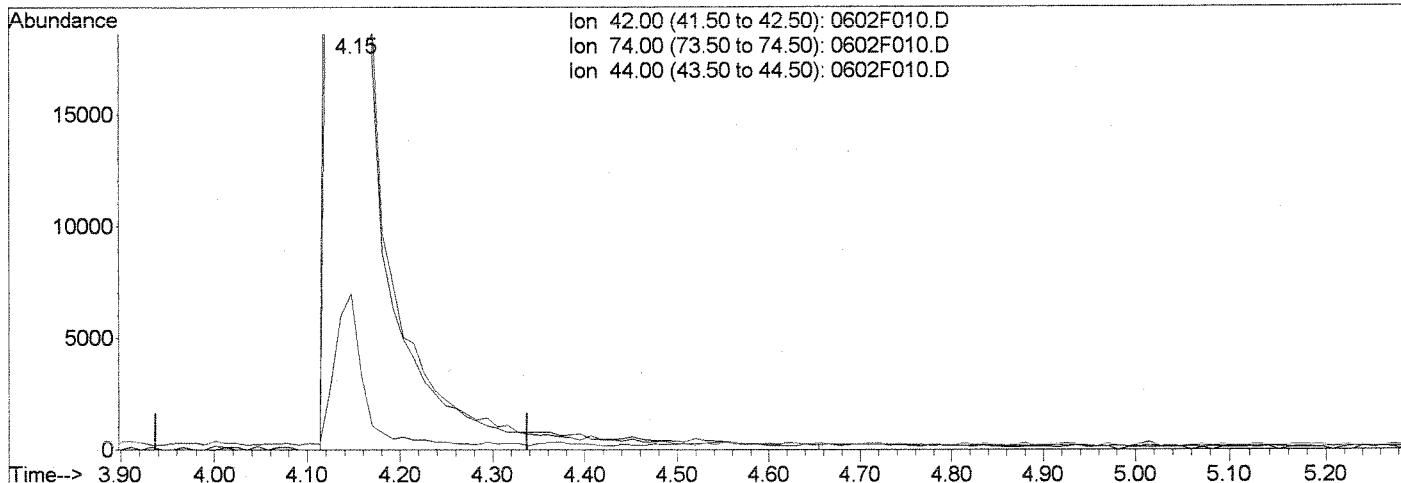
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F010.D  
 Acq On : 2 Jun 2010 9:19 pm  
 Sample : 120PPM 8270 ICAL SVM32-21I  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:57 2010

Vial: 8  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F010.D

(2) N-Nitrosodimethylamine (T)

4.15min 125.32ug/ml m

response 319885

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	83.84
44.00	4.40	4.44
0.00	0.00	0.00

*IC*  
*6-3-10*

*LB*  
*4/11/10*

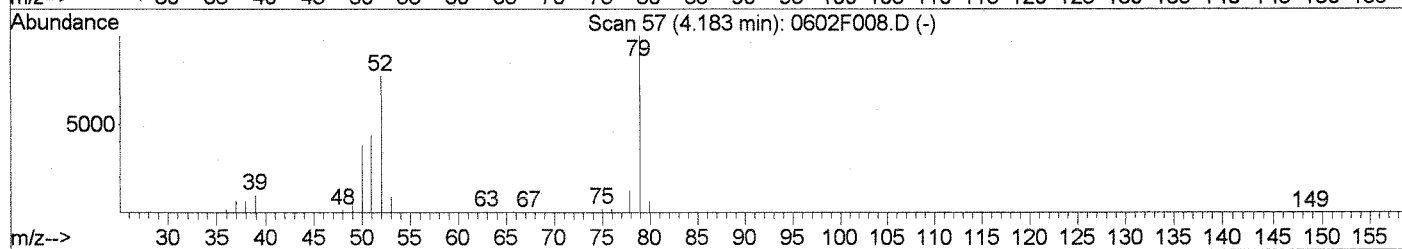
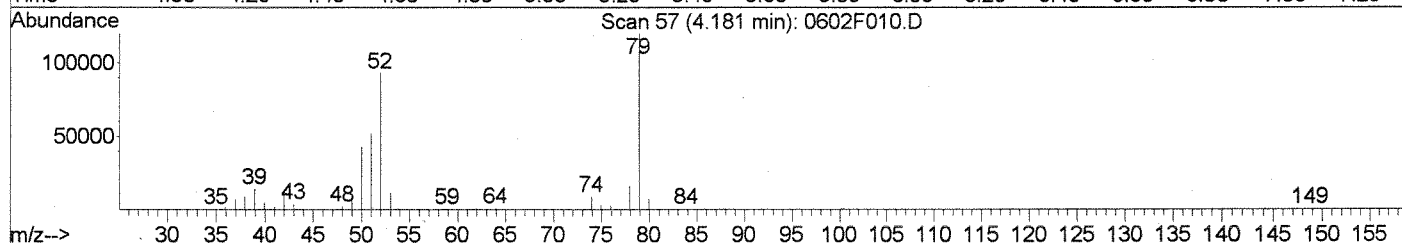
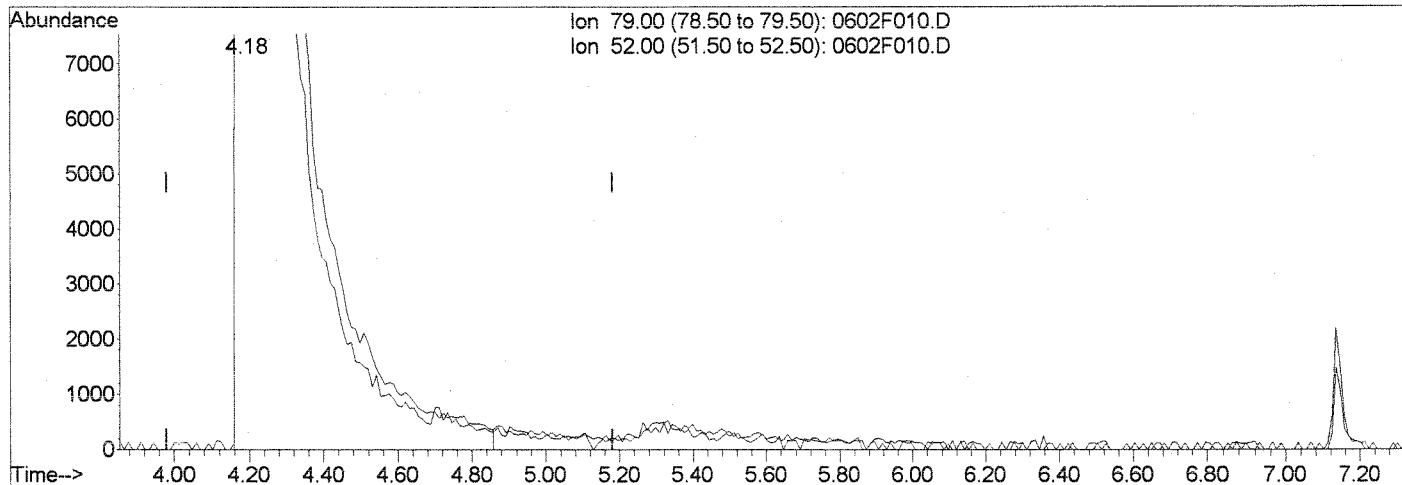
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F010.D  
 Acq On : 2 Jun 2010 9:19 pm  
 Sample : 120PPM 8270 ICAL SVM32-21I  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:57 2010

Vial: 8  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F010.D

(3) Pyridine (T)

4.18min 126.66ug/ml

response 458112

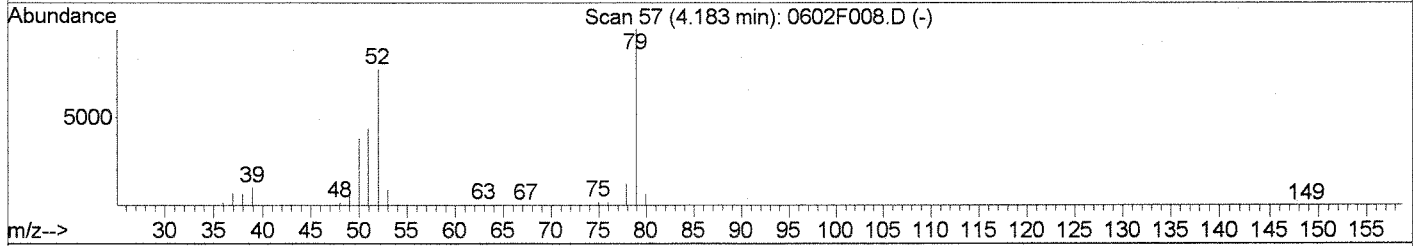
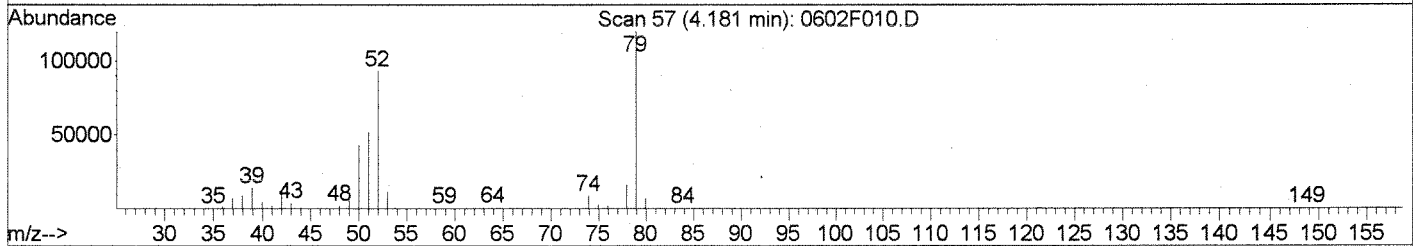
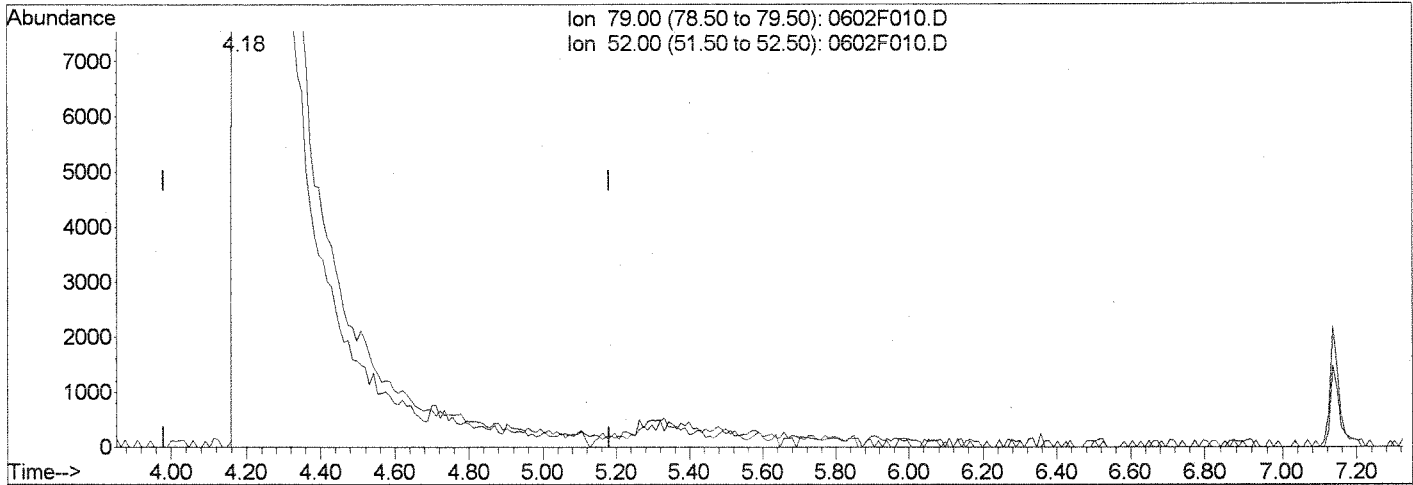
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	77.36
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F010.D  
Acq On : 2 Jun 2010 9:19 pm  
Sample : 120PPM 8270 ICAL SVM32-21I  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:57 2010

Vial: 8  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F010.D

(3) Pyridine (T)  
4.18min 131.11ug/ml m  
response 474189  
Ion Exp% Act%  
79.00 100 100  
52.00 77.00 77.38  
0.00 0.00 0.00  
0.00 0.00 0.00

*Handwritten notes:* SC M 2-3-10

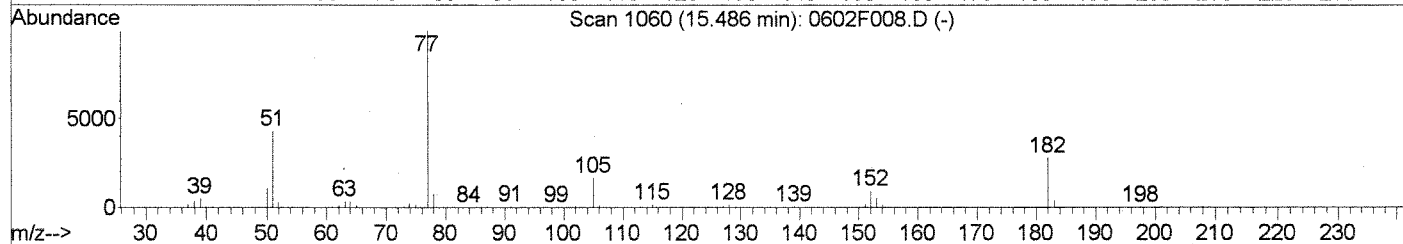
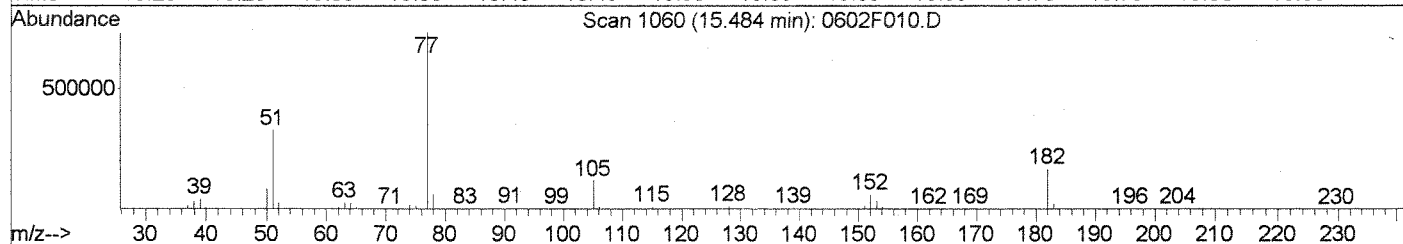
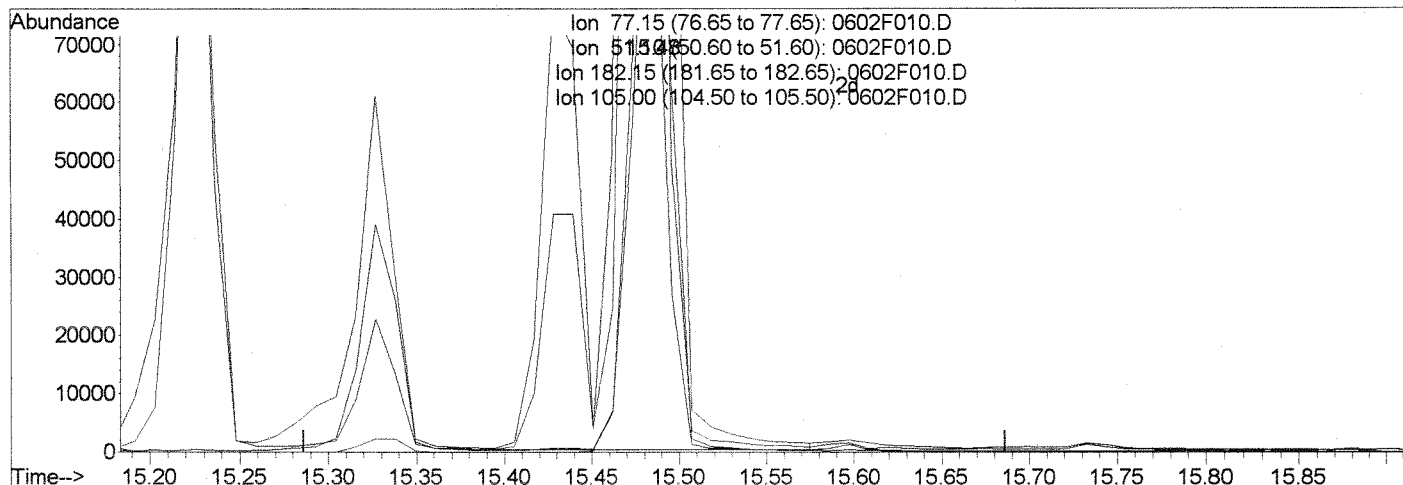
*Handwritten notes:* LB 4/4/10

Data File : J:\MS07\DATA\060210\0602F010.D  
 Acq On : 2 Jun 2010 9:19 pm  
 Sample : 120PPM 8270 ICAL SVM32-21I  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:57 2010

Vial: 8  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F010.D

(57) 1,2-Diphenylhydrazine (T)

15.48min 125.66ug/ml

response 939056

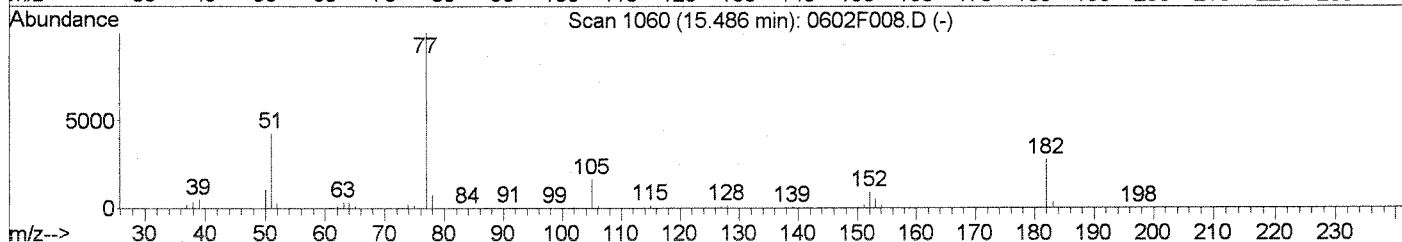
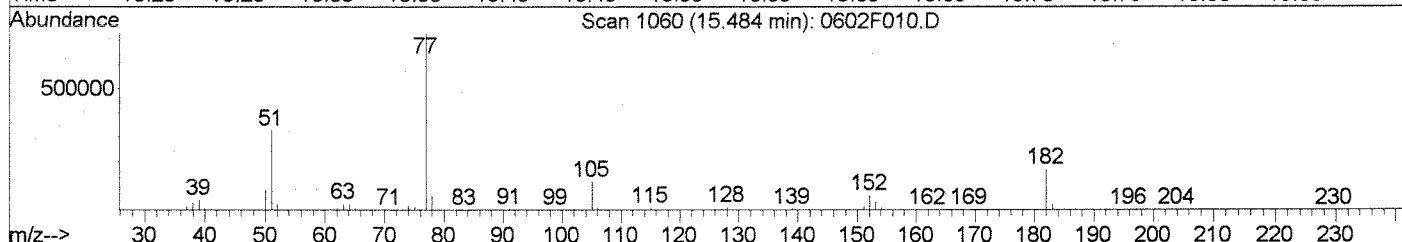
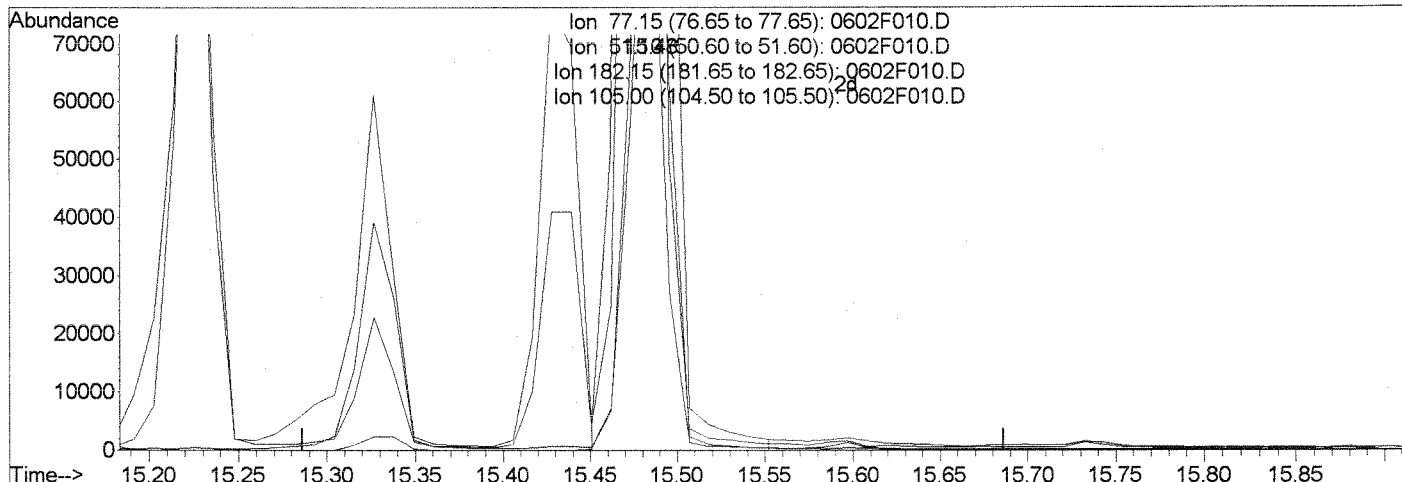
Ion	Exp%	Act%
77.15	100	100
51.10	43.10	44.67
182.15	27.90	22.70
105.00	16.60	15.94

Data File : J:\MS07\DATA\060210\0602F010.D  
 Acq On : 2 Jun 2010 9:19 pm  
 Sample : 120PPM 8270 ICAL SVM32-21I  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:58 2010

Vial: 8  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F010.D

(57) 1,2-Diphenylhydrazine (T)

15.48min 117.28ug/ml m

response 876400

Ion	Exp%	Act%
77.15	100	100
51.10	43.10	44.72
182.15	27.90	22.69
105.00	16.60	15.97

*Handwritten notes: 05, A 6-3-10, LB, 414/10*

Data File : J:\MS07\DATA\060210\0602F011.D  
 Acq On : 2 Jun 2010 10:00 pm  
 Sample : 160PPM 8270 ICAL SVM32-21J  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:54 2010

Vial: 9  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	109086	40.00	ug/ml	0.00
21) Naphthalene-d8	11.46	136	448361	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	217211	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.71	188	273850	40.00	ug/ml	0.00
68) Chrysene-d12	21.15	240	312329	40.00	ug/ml	0.02
77) Perylene-d12	24.31	264	231441	40.00	ug/ml	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
4) 2-Fluorophenol	7.14	112	488472	168.43	ug/ml	0.00
Spiked Amount 150.000	Range 21 - 100		Recovery =	112.29%#		
7) Phenol-d6	8.89	99	703915	174.03	ug/ml	0.02
Spiked Amount 150.000	Range 10 - 94		Recovery =	116.02%#		
19) Nitrobenzene-d5	10.29	82	690106	174.65	ug/ml	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery =	174.65%#		
38) 2-Fluorobiphenyl	13.25	172	1173825	164.85	ug/ml	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery =	164.85%#		
59) 2,4,6-Tribromophenol	15.60	330	176758	159.25	ug/ml	0.00
Spiked Amount 150.000	Range 10 - 123		Recovery =	106.17%		
71) Terphenyl-d14	19.33	244	733803	153.44	ug/ml	0.00
Spiked Amount 100.000	Range 33 - 141		Recovery =	153.44%#		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.15	42	444553m	171.10	ug/ml	
3) Pyridine	4.18	79	622573m	169.11	ug/ml	
5) Aniline	8.83	93	680212	166.38	ug/ml	66
6) Bis(2-chloroethyl) Ether	8.98	93	579071	173.92	ug/ml	94
8) Phenol	8.91	94	709006	171.14	ug/ml	99
9) 2-Chlorophenol	9.03	128	607699	170.14	ug/ml	94
10) 1,3-Dichlorobenzene	9.25	146	607647	160.40	ug/ml	99
11) 1,4-Dichlorobenzene	9.38	146	627752	162.70	ug/ml	99
12) 1,2-Dichlorobenzene	9.63	146	581957	159.34	ug/ml	99
13) Benzyl Alcohol	9.66	108	383597	174.86	ug/ml	95
14) Bis(2-chloroisopropyl) Eth	9.87	45	983546	179.73	ug/ml	95
15) 2-Methylphenol	9.88	107	456062	170.03	ug/ml	98
16) Hexachloroethane	10.18	117	284893	162.29	ug/ml	90
17) N-Nitrosodi-n-propylamine	10.11	70	486253	178.43	ug/ml	96
18) 4-Methylphenol	10.16	107	679988	166.93	ug/ml	99
20) Nitrobenzene	10.33	77	654697	179.26	ug/ml	96
22) Isophorone	10.76	82	1310662	162.05	ug/ml	98
23) 2-Nitrophenol	10.86	139	389366	172.85	ug/ml	91
24) 2,4-Dimethylphenol	11.00	122	489049	164.11	ug/ml	98
25) Bis(2-chloroethoxy)methane	11.13	93	709117	156.07	ug/ml	98

(#) = qualifier out of range (m) = manual integration

*Handwritten:* 7-3-10  
6-3-10



Data File : J:\MS07\DATA\060210\0602F011.D  
 Acq On : 2 Jun 2010 10:00 pm  
 Sample : 160PPM 8270 ICAL SVM32-21J  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:54 2010

Vial: 9  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.29	162	555411	164.29	ug/ml	96
27) Benzoic Acid	11.38	122	432469	169.34	ug/ml	99
28) 1,2,4-Trichlorobenzene	11.38	180	557107	155.22	ug/ml	100
29) Naphthalene	11.49	128	1685511	156.69	ug/ml	99
30) 4-Chloroaniline	11.62	127	726035	152.98	ug/ml	95
31) Hexachlorobutadiene	11.71	225	343046	150.65	ug/ml	100
32) 4-Chloro-3-methylphenol	12.47	107	525159	148.81	ug/ml#	52
33) 2-Methylnaphthalene	12.63	142	1062245	155.19	ug/ml	98
35) Hexachlorocyclopentadiene	12.89	237	368442	156.39	ug/ml	96
36) 2,4,6-Trichlorophenol	13.12	196	371381	165.74	ug/ml	98
37) 2,4,5-Trichlorophenol	13.19	196	416064	166.62	ug/ml	99
39) 2-Chloronaphthalene	13.42	162	1046731	166.62	ug/ml	100
40) 2-Nitroaniline	13.63	65	348108	172.25	ug/ml	89
41) Acenaphthylene	14.08	152	1529431	158.04	ug/ml	99
42) Dimethyl Phthalate	13.95	163	1114437	150.92	ug/ml	100
43) 2,6-Dinitrotoluene	14.04	165	260093	155.43	ug/ml	87
44) Acenaphthene	14.37	154	860528	155.80	ug/ml	99
45) 3-Nitroaniline	14.31	138	275708	156.59	ug/ml	98
46) 2,4-Dinitrophenol	14.48	184	170361	175.46	ug/ml	84
47) Dibenzofuran	14.66	168	1350415	155.06	ug/ml	93
48) 4-Nitrophenol	14.66	109	158591	166.35	ug/ml#	74
49) 2,4-Dinitrotoluene	14.68	165	321008	151.37	ug/ml	78
50) 2,3,4,6-Tetrachlorophenol	14.88	232	284009	156.00	ug/ml	97
51) Fluorene	15.21	166	1003639	153.79	ug/ml	97
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	509416	152.48	ug/ml	99
53) Diethyl Phthalate	15.10	149	1001407	140.28	ug/ml	99
54) 4-Nitroaniline	15.31	138	246938	162.04	ug/ml	97
55) 2-Methyl-4,6-dinitrophenol	15.34	198	190402	165.07	ug/ml#	69
56) N-Nitrosodiphenylamine	15.45	169	632192	145.29	ug/ml	99
57) 1,2-Diphenylhydrazine	15.49	77	1102059m	148.99	ug/ml	
60) 4-Bromophenyl Phenyl Ether	16.02	248	273308	165.54	ug/ml	99
61) Hexachlorobenzene	16.09	284	308236	161.07	ug/ml	97
62) Pentachlorophenol	16.44	266	181671	168.94	ug/ml	98
63) Phenanthrene	16.75	178	1098185	150.94	ug/ml	100
64) Anthracene	16.83	178	1199856	156.86	ug/ml	99
65) Carbazole	17.12	167	1051885	168.45	ug/ml	100
66) Di-n-butyl Phthalate	17.74	149	1300895	156.18	ug/ml	99
67) Fluoranthene	18.67	202	1143096	173.07	ug/ml	99
69) Benzidine	18.93	184	421674	160.79	ug/ml	99
70) Pyrene	19.03	202	1196757	143.56	ug/ml	99
72) Butyl Benzyl Phthalate	20.17	149	775186	163.18	ug/ml	97

(#) = qualifier out of range (m) = manual integration  
 0602F011.D 0602BNC7.M Thu Jun 03 11:34:35 2010

Data File : J:\MS07\DATA\060210\0602F011.D  
 Acq On : 2 Jun 2010 10:00 pm  
 Sample : 160PPM 8270 ICAL SVM32-21J  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:54 2010

Vial: 9  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.12	252	496687	152.18	ug/ml	99
74) Benz(a)anthracene	21.12	228	1141284	155.48	ug/ml	100
75) Chrysene	21.20	228	1081446	152.18	ug/ml	100
76) Bis(2-ethylhexyl) Phthalat	21.32	149	1125298	166.45	ug/ml	99
78) Di-n-octyl Phthalate	22.79	149	1847807	181.27	ug/ml	98
79) Benzo(b)fluoranthene	23.47	252	1034745	173.55	ug/ml	98
80) Benzo(k)fluoranthene	23.55	252	1015032	164.05	ug/ml	98
81) Benzo(a)pyrene	24.20	252	832627	168.14	ug/ml	99
82) Indeno(1,2,3-cd)pyrene	26.78	276	752501	175.47	ug/ml	97
83) Dibenz(a,h)anthracene	26.86	278	795069	174.05	ug/ml	98
84) Benzo(g,h,i)perylene	27.37	276	748550	161.71	ug/ml	99

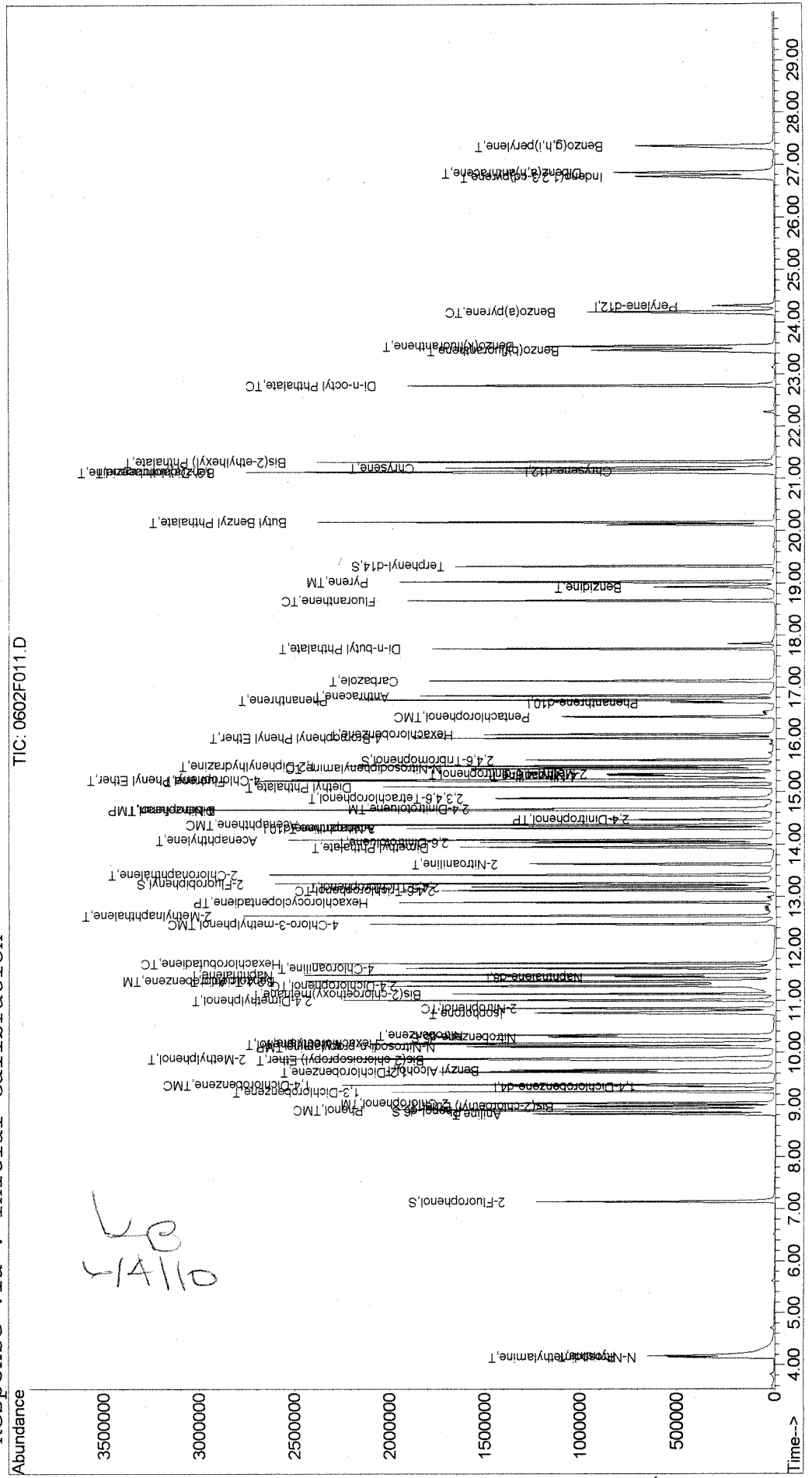
LB  
 4/4/10

Data File : J:\MS07\DATA\060210\0602F011.D  
Acq On : 2 Jun 2010 10:00 pm  
Sample : 160PPM 8270 ICAL SVM32-21J  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:59 2010

Vial: 9  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Initial Calibration



Handwritten notes: 5/10

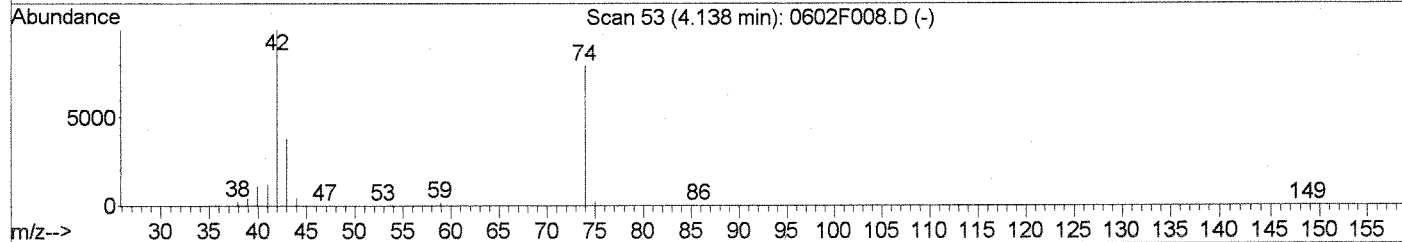
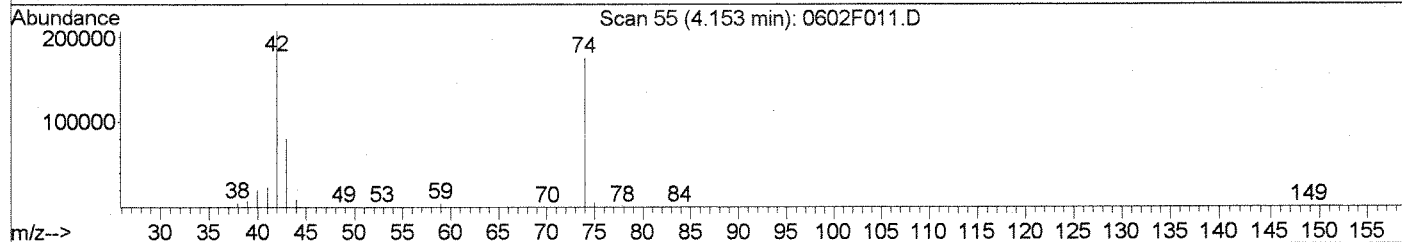
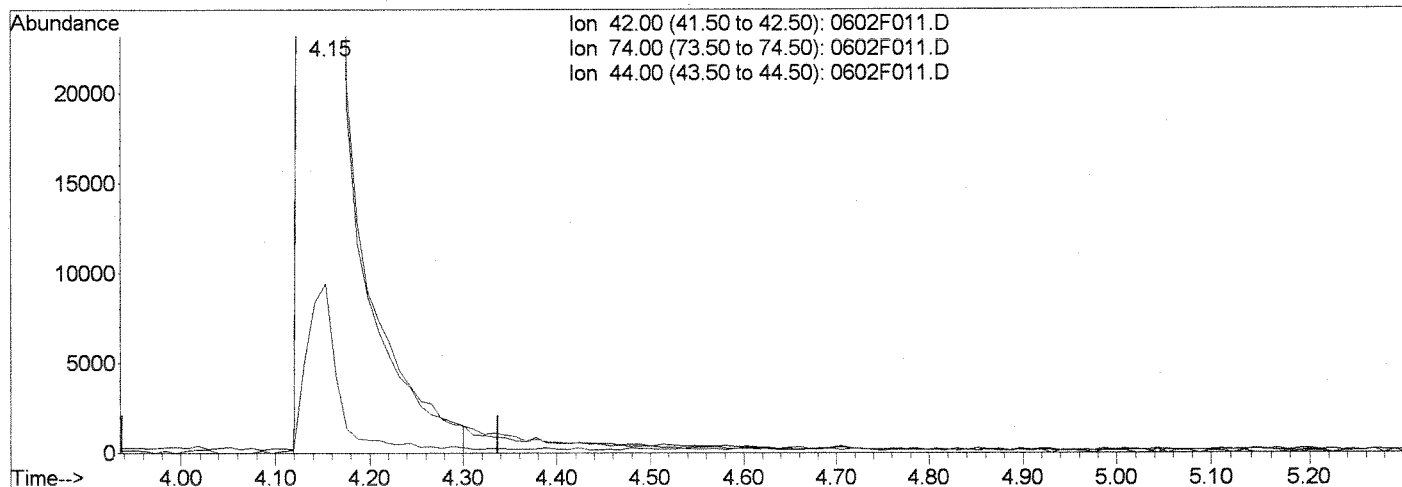
Handwritten notes: 10 7-10

Data File : J:\MS07\DATA\060210\0602F011.D  
 Acq On : 2 Jun 2010 10:00 pm  
 Sample : 160PPM 8270 ICAL SVM32-21J  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:48 2010

Vial: 9  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F011.D

(2) N-Nitrosodimethylamine (T)

4.15min 166.82ug/ml

response 433435

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	84.43
44.00	4.40	4.43
0.00	0.00	0.00

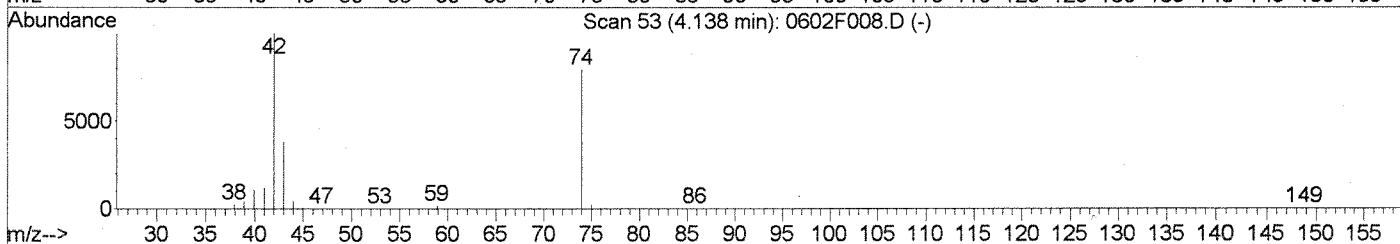
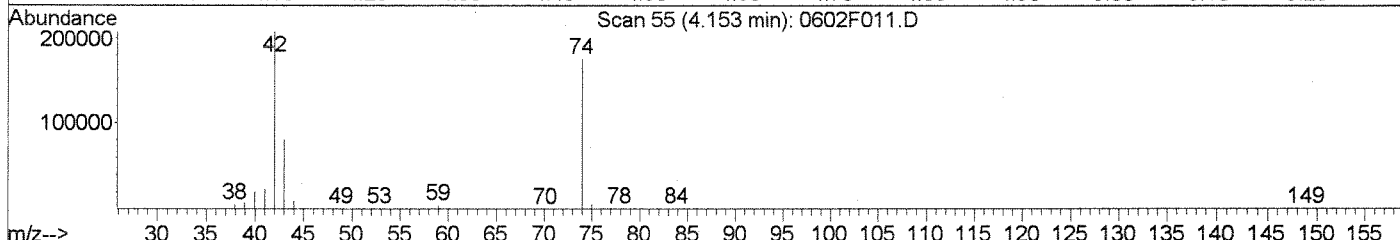
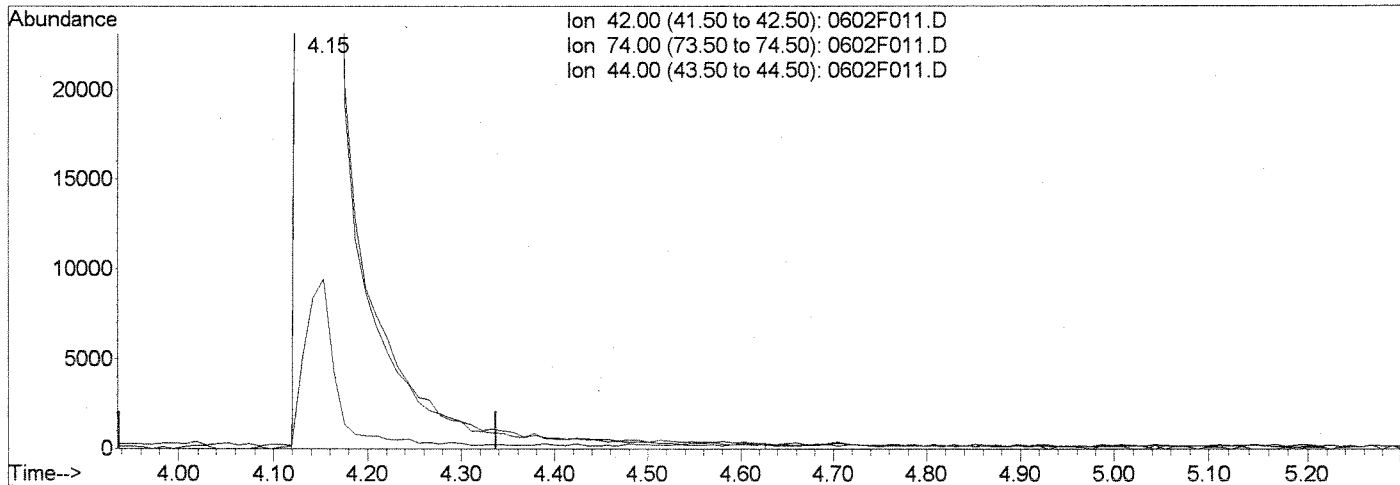
Quantitation Report (Quant)

Data File : J:\MS07\DATA\060210\0602F011.D  
Acq On : 2 Jun 2010 10:00 pm  
Sample : 160PPM 8270 ICAL SVM32-21J  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:58 2010

Vial: 9  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F011.D

(2) N-Nitrosodimethylamine (T)

4.15min 171.10ug/ml m

response 444553

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	84.49
44.00	4.40	4.54
0.00	0.00	0.00

*Handwritten notes:* CC and 6-3-10

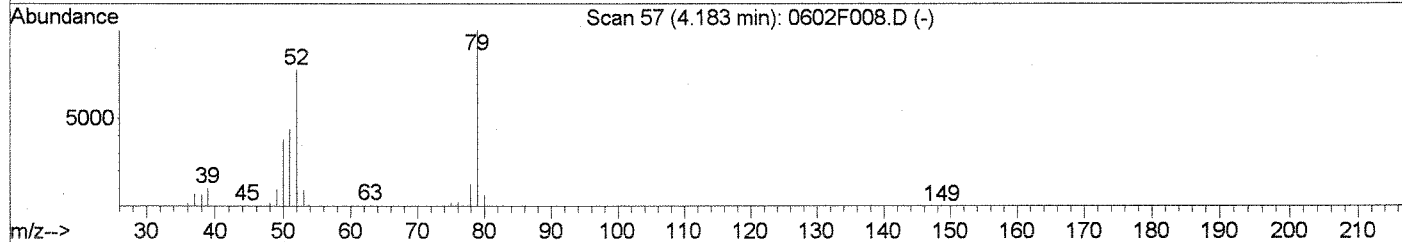
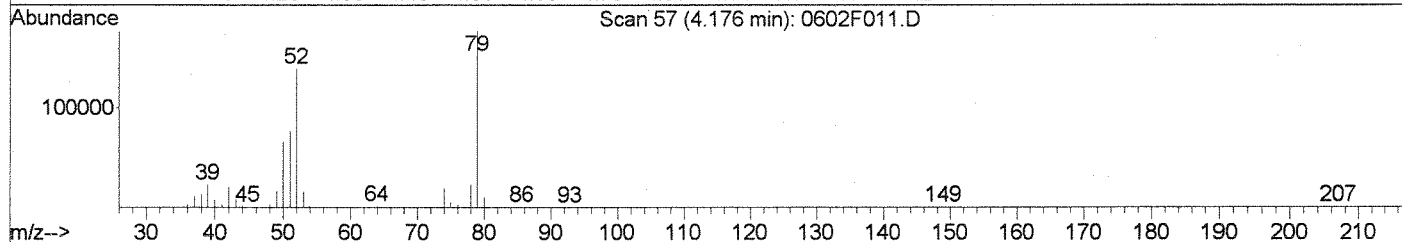
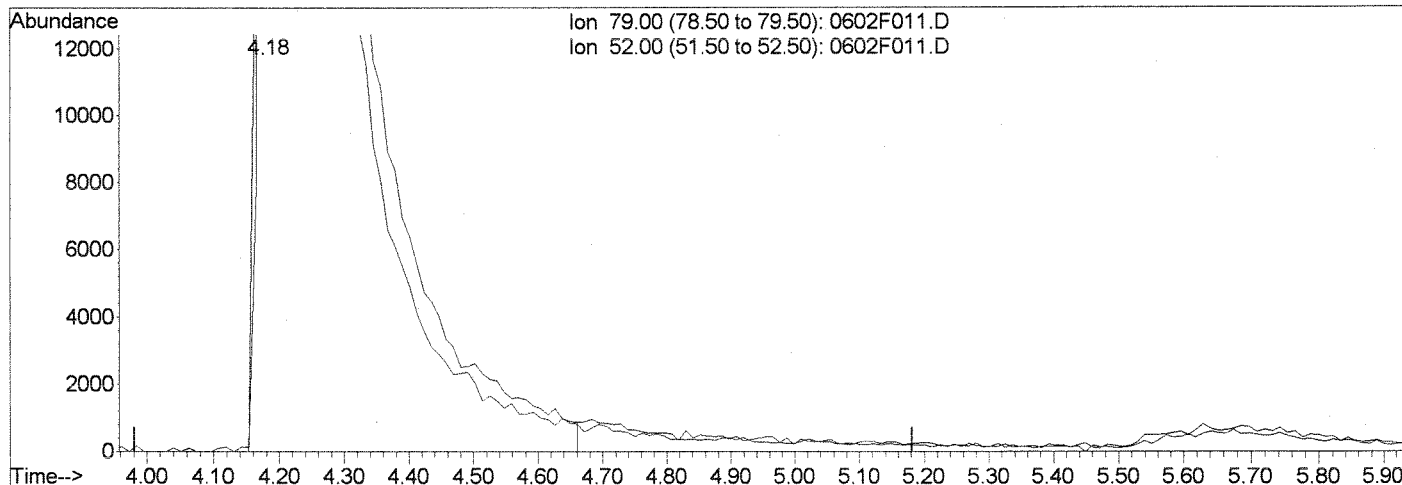
*Handwritten initials:* LB and 6/4/10

Data File : J:\MS07\DATA\060210\0602F011.D  
 Acq On : 2 Jun 2010 10:00 pm  
 Sample : 160PPM 8270 ICAL SVM32-21J  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:58 2010

Vial: 9  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F011.D

(3) Pyridine (T)

4.18min 164.71ug/ml

response 606392

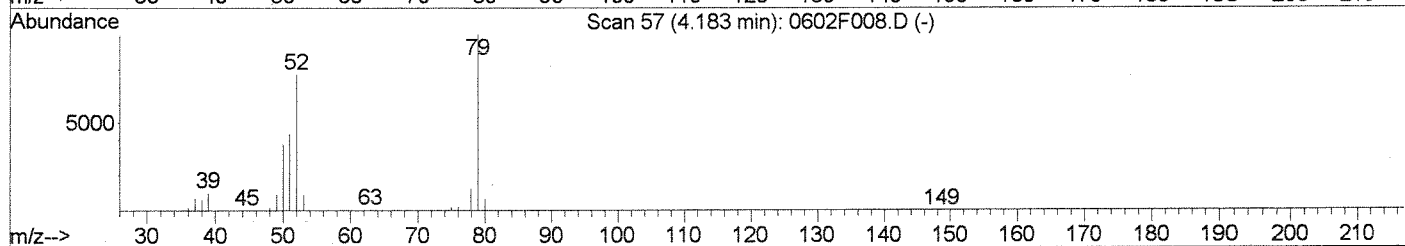
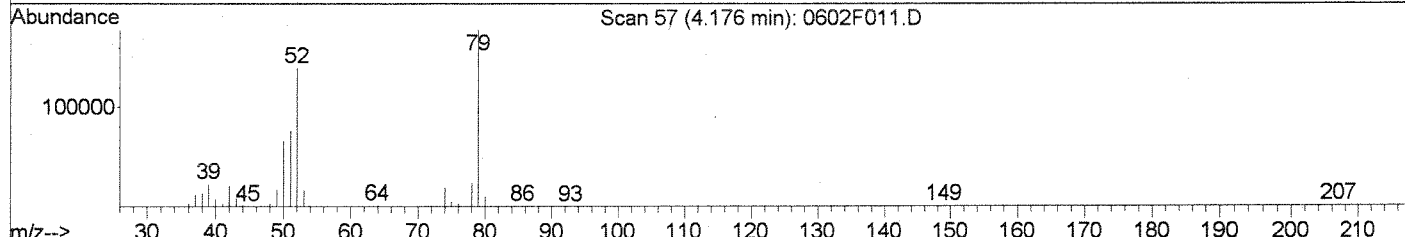
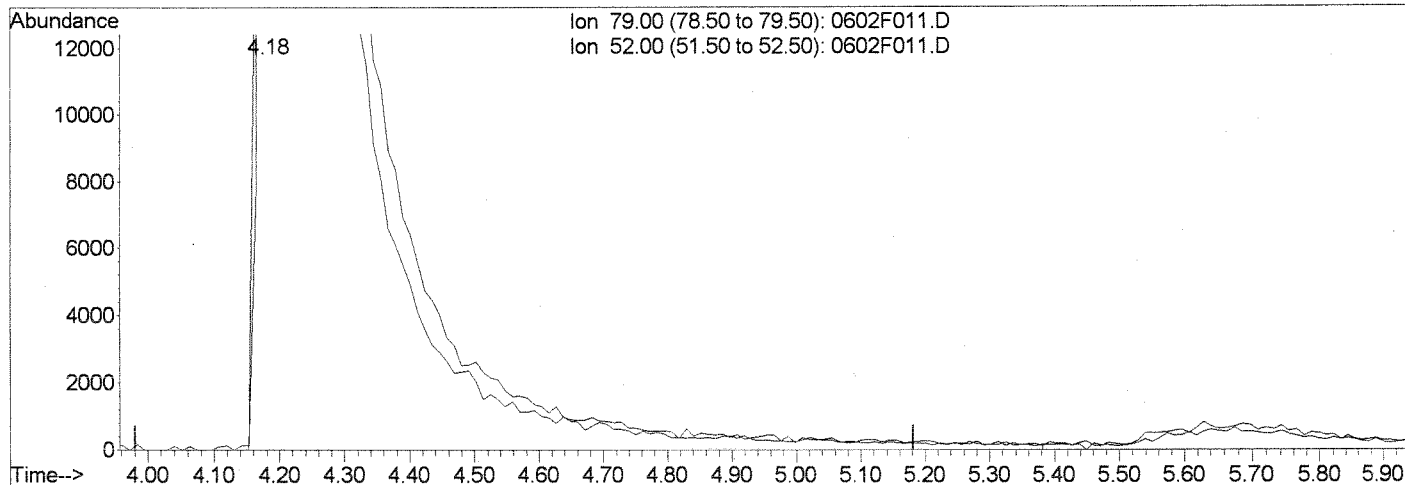
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	78.27
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F011.D  
 Acq On : 2 Jun 2010 10:00 pm  
 Sample : 160PPM 8270 ICAL SVM32-21J  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:58 2010

Vial: 9  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F011.D

(3) Pyridine (T)		
4.18min	169.11ug/ml m	
response	622573	
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	78.35
0.00	0.00	0.00
0.00	0.00	0.00

*FL*  
*M 07-10*

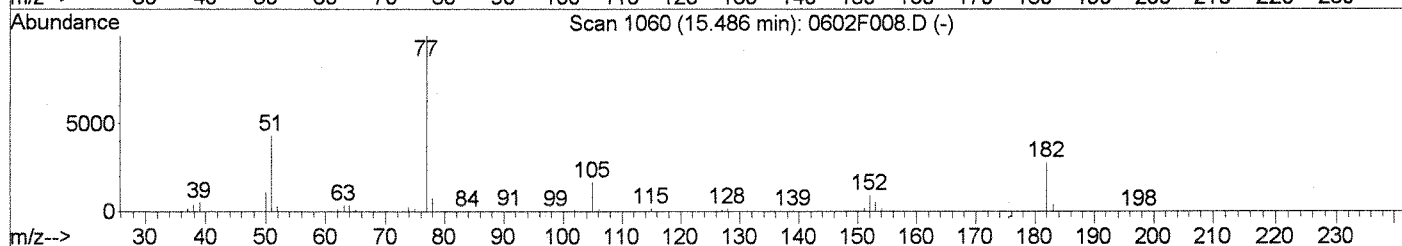
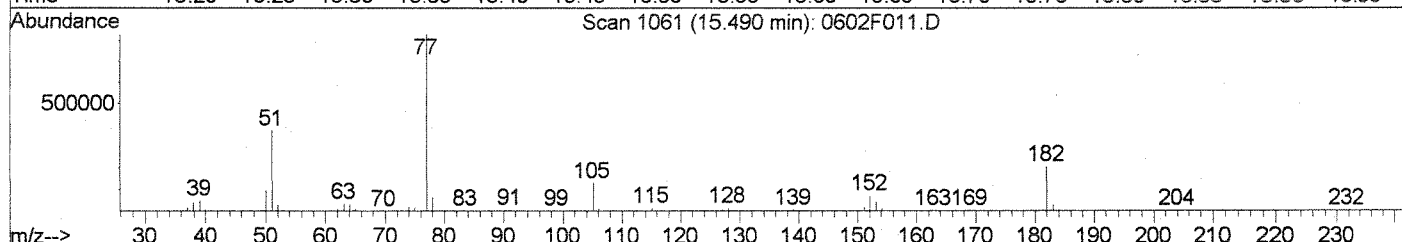
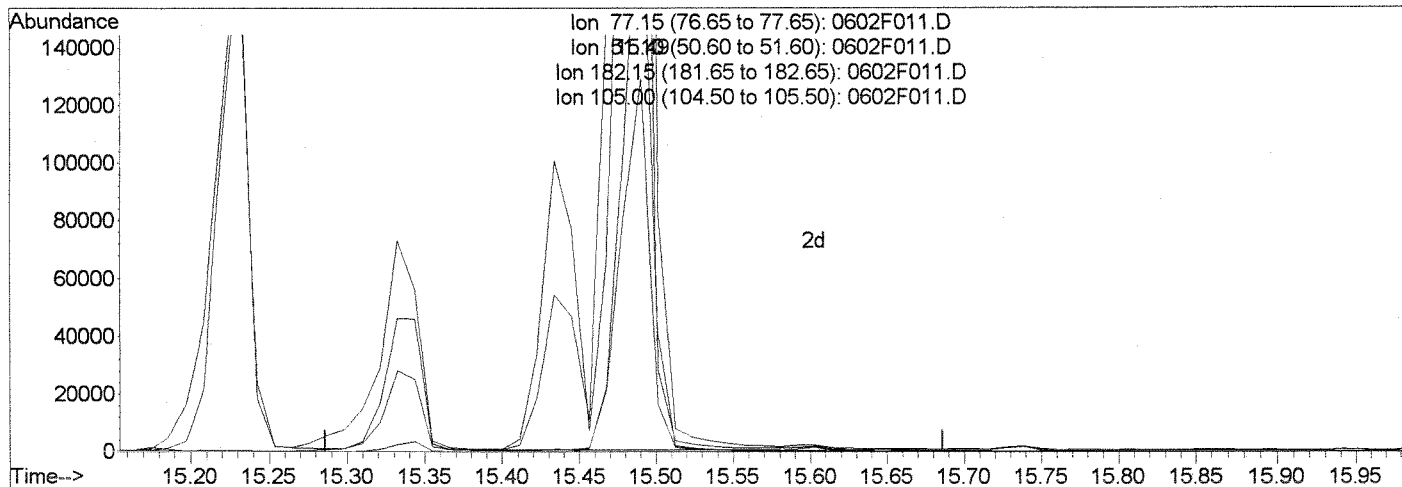
*LB*  
*6/3/10*

Data File : J:\MS07\DATA\060210\0602F011.D  
 Acq On : 2 Jun 2010 10:00 pm  
 Sample : 160PPM 8270 ICAL SVM32-21J  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:58 2010

Vial: 9  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F011.D

(57) 1,2-Diphenylhydrazine (T)

15.49min 160.44ug/ml

response 1186743

Ion	Exp%	Act%
77.15	100	100
51.10	43.10	44.86
182.15	27.90	25.10
105.00	16.60	15.56



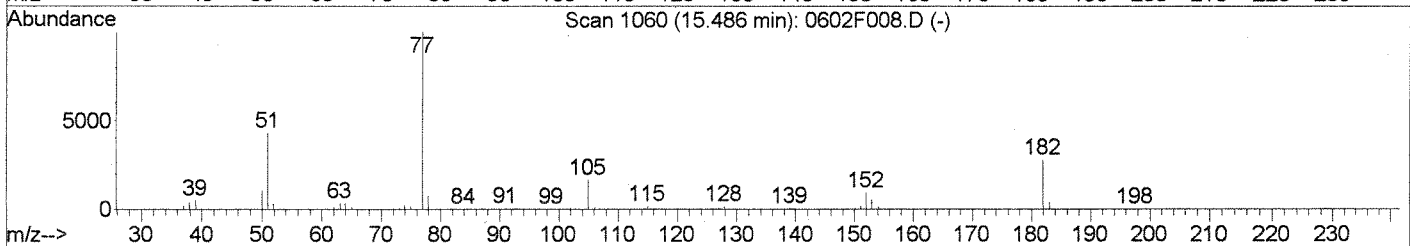
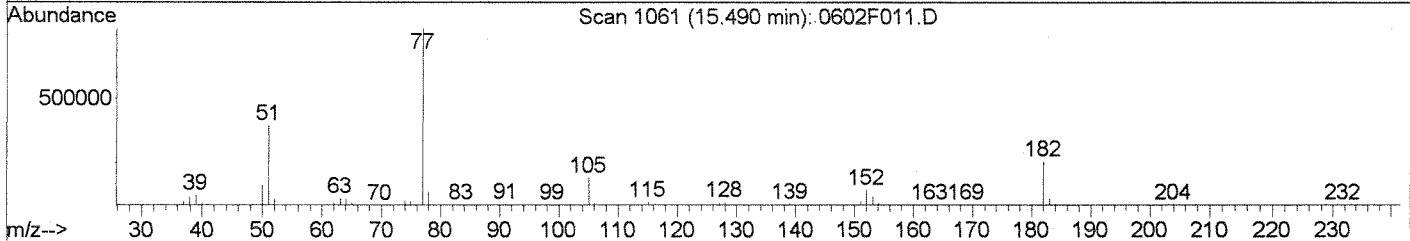
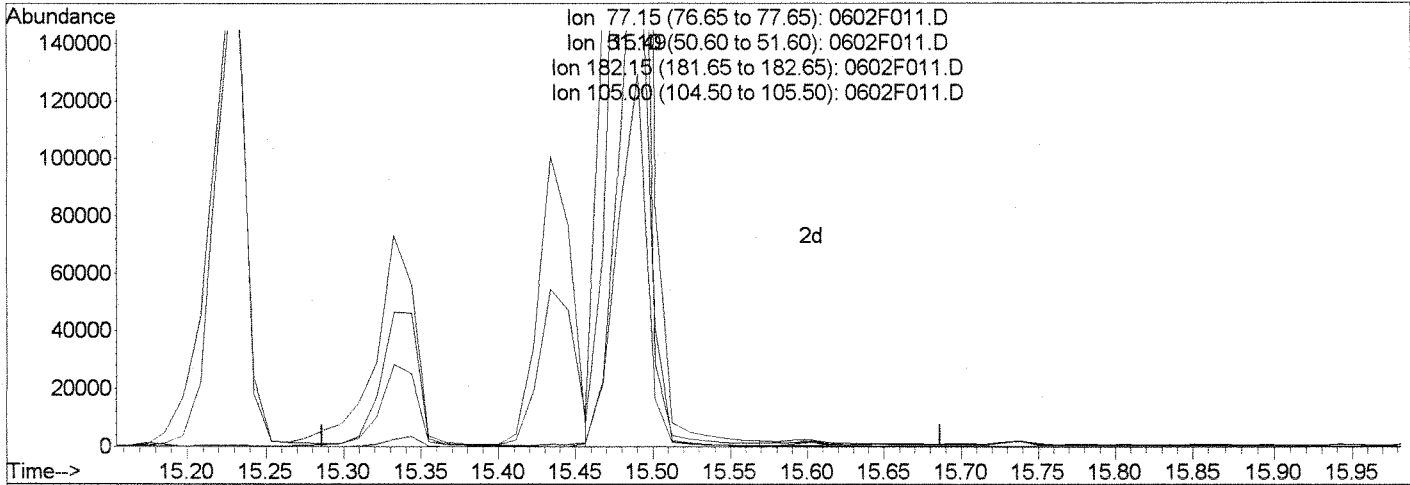
Quantitation Report (Qedit)

Data File : J:\MS07\DATA\060210\0602F011.D  
 Acq On : 2 Jun 2010 10:00 pm  
 Sample : 160PPM 8270 ICAL SVM32-21J  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:59 2010

Vial: 9  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F011.D

(57) 1,2-Diphenylhydrazine (T)	
15.49min	148.99ug/ml m
response	1102059
Ion	Exp% Act%
77.15	100 100
51.10	43.10 44.93
182.15	27.90 25.08
105.00	16.60 15.60

*Handwritten notes:* 06, 15.49-10, LCB, 4/11/10

Data File : J:\MS07\DATA\060210\0602F012.D  
 Acq On : 2 Jun 2010 10:40 pm  
 Sample : 200PPM 8270 ICAL SVM32-21K  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:55 2010

Vial: 10  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	116061	40.00	ug/ml	0.00
21) Naphthalene-d8	11.46	136	452844	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	221365	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.71	188	281460	40.00	ug/ml	0.00
68) Chrysene-d12	21.15	240	298121	40.00	ug/ml	0.02
77) Perylene-d12	24.32	264	225296	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	642798	208.32	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	138.88%#
7) Phenol-d6	8.89	99	900056	209.14	ug/ml	0.02
Spiked Amount	150.000	Range	10 - 94	Recovery	=	139.43%#
19) Nitrobenzene-d5	10.31	82	872957	207.65	ug/ml	0.02
Spiked Amount	100.000	Range	35 - 114	Recovery	=	207.65%#
38) 2-Fluorobiphenyl	13.26	172	1456119	200.65	ug/ml	0.02
Spiked Amount	100.000	Range	43 - 116	Recovery	=	200.65%#
59) 2,4,6-Tribromophenol	15.60	330	225426	197.60	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	131.73%#
71) Terphenyl-d14	19.33	244	931053	203.96	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	203.96%#

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.14	42	578026m	209.10	ug/ml	
3) Pyridine	4.17	79	854297m	218.10	ug/ml	
5) Aniline	8.83	93	877450	201.72	ug/ml	65
6) Bis(2-chloroethyl) Ether	8.98	93	747933	211.14	ug/ml	98
8) Phenol	8.91	94	941008	213.50	ug/ml	98
9) 2-Chlorophenol	9.03	128	788481	207.49	ug/ml	94
10) 1,3-Dichlorobenzene	9.25	146	792102	196.53	ug/ml	98
11) 1,4-Dichlorobenzene	9.38	146	790452	192.55	ug/ml	99
12) 1,2-Dichlorobenzene	9.63	146	787448	202.65	ug/ml	99
13) Benzyl Alcohol	9.68	108	487083	208.69	ug/ml	96
14) Bis(2-chloroisopropyl) Eth	9.87	45	1275373	219.05	ug/ml	93
15) 2-Methylphenol	9.89	107	559226	195.96	ug/ml	89
16) Hexachloroethane	10.18	117	342613	183.44	ug/ml	87
17) N-Nitrosodi-n-propylamine	10.12	70	589162	203.20	ug/ml	91
18) 4-Methylphenol	10.16	107	841682	194.21	ug/ml	99
20) Nitrobenzene	10.34	77	772145	198.71	ug/ml	96
22) Isophorone	10.77	82	1691139	207.02	ug/ml	98
23) 2-Nitrophenol	10.86	139	491319	215.95	ug/ml	98
24) 2,4-Dimethylphenol	11.02	122	628211	208.72	ug/ml	97
25) Bis(2-chloroethoxy)methane	11.13	93	952443	207.54	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS07\DATA\060210\0602F012.D  
 Acq On : 2 Jun 2010 10:40 pm  
 Sample : 200PPM 8270 ICAL SVM32-21K  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:55 2010

Vial: 10  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.29	162	686749	201.13	ug/ml	97
27) Benzoic Acid	11.39	122	546017	211.68	ug/ml	98
28) 1,2,4-Trichlorobenzene	11.38	180	688642	189.97	ug/ml	99
29) Naphthalene	11.50	128	2001585	184.23	ug/ml	98
30) 4-Chloroaniline	11.63	127	937251	195.53	ug/ml	95
31) Hexachlorobutadiene	11.72	225	430003	186.97	ug/ml	100
32) 4-Chloro-3-methylphenol	12.47	107	666276	186.93	ug/ml#	52
33) 2-Methylnaphthalene	12.63	142	1221574	176.70	ug/ml	98
35) Hexachlorocyclopentadiene	12.89	237	485003	200.45	ug/ml	98
36) 2,4,6-Trichlorophenol	13.12	196	472736	207.01	ug/ml	98
37) 2,4,5-Trichlorophenol	13.19	196	542628	213.23	ug/ml	100
39) 2-Chloronaphthalene	13.42	162	1325997	207.12	ug/ml	100
40) 2-Nitroaniline	13.63	65	396200	192.37	ug/ml	97
41) Acenaphthylene	14.08	152	1969233	199.67	ug/ml	99
42) Dimethyl Phthalate	13.96	163	1340665	178.15	ug/ml	100
43) 2,6-Dinitrotoluene	14.04	165	337116	197.68	ug/ml	93
44) Acenaphthene	14.38	154	1087074	193.12	ug/ml	99
45) 3-Nitroaniline	14.31	138	362314	201.92	ug/ml	96
46) 2,4-Dinitrophenol	14.48	184	206903	209.10	ug/ml	98
47) Dibenzofuran	14.66	168	1583306	178.39	ug/ml	93
48) 4-Nitrophenol	14.66	109	203750	209.71	ug/ml#	84
49) 2,4-Dinitrotoluene	14.69	165	403304	186.60	ug/ml	92
50) 2,3,4,6-Tetrachlorophenol	14.88	232	360129	194.10	ug/ml	94
51) Fluorene	15.21	166	1189053	178.78	ug/ml	98
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	628997	184.74	ug/ml	98
53) Diethyl Phthalate	15.11	149	1272424	174.90	ug/ml	99
54) 4-Nitroaniline	15.32	138	319692	205.84	ug/ml	96
55) 2-Methyl-4,6-dinitrophenol	15.34	198	226975	193.09	ug/ml#	35
56) N-Nitrosodiphenylamine	15.45	169	761443	171.71	ug/ml	99
57) 1,2-Diphenylhydrazine	15.49	77	1319201m	175.00	ug/ml	
60) 4-Bromophenyl Phenyl Ether	16.02	248	328541	193.61	ug/ml	94
61) Hexachlorobenzene	16.10	284	385427	195.96	ug/ml	83
62) Pentachlorophenol	16.44	266	238109	215.44	ug/ml	98
63) Phenanthrene	16.75	178	1423047	190.31	ug/ml	100
64) Anthracene	16.84	178	1497529	190.48	ug/ml	99
65) Carbazole	17.13	167	1313571	204.67	ug/ml	99
66) Di-n-butyl Phthalate	17.75	149	1759386	205.51	ug/ml	99
67) Fluoranthene	18.68	202	1547714	228.00	ug/ml	97
69) Benzidine	18.94	184	514176	205.41	ug/ml	98
70) Pyrene	19.04	202	1657705	208.33	ug/ml	99
72) Butyl Benzyl Phthalate	20.17	149	1014128	223.65	ug/ml	92

(#) = qualifier out of range (m) = manual integration

*M*  
*63-10*  
*LAB*

Data File : J:\MS07\DATA\060210\0602F012.D  
 Acq On : 2 Jun 2010 10:40 pm  
 Sample : 200PPM 8270 ICAL SVM32-21K  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 10:48:55 2010

Vial: 10  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
73) 3,3'-Dichlorobenzidine	21.14	252	599232	192.34	ug/ml	99
74) Benz(a)anthracene	21.13	228	1419495	202.60	ug/ml	100
75) Chrysene	21.22	228	1368118	201.70	ug/ml	99
76) Bis(2-ethylhexyl) Phthalat	21.33	149	1353572	209.75	ug/ml	99
78) Di-n-octyl Phthalate	22.79	149	2229837	224.71	ug/ml	98
79) Benzo(b)fluoranthene	23.48	252	1300661	224.11	ug/ml	98
80) Benzo(k)fluoranthene	23.55	252	1320192	219.19	ug/ml	100
81) Benzo(a)pyrene	24.21	252	1003724	208.23	ug/ml	99
82) Indeno(1,2,3-cd)pyrene	26.79	276	918704	220.07	ug/ml	100
83) Dibenz(a,h)anthracene	26.87	278	997110	224.23	ug/ml	98
84) Benzo(g,h,i)perylene	27.38	276	980529	217.60	ug/ml	99

LB  
 4/4/10

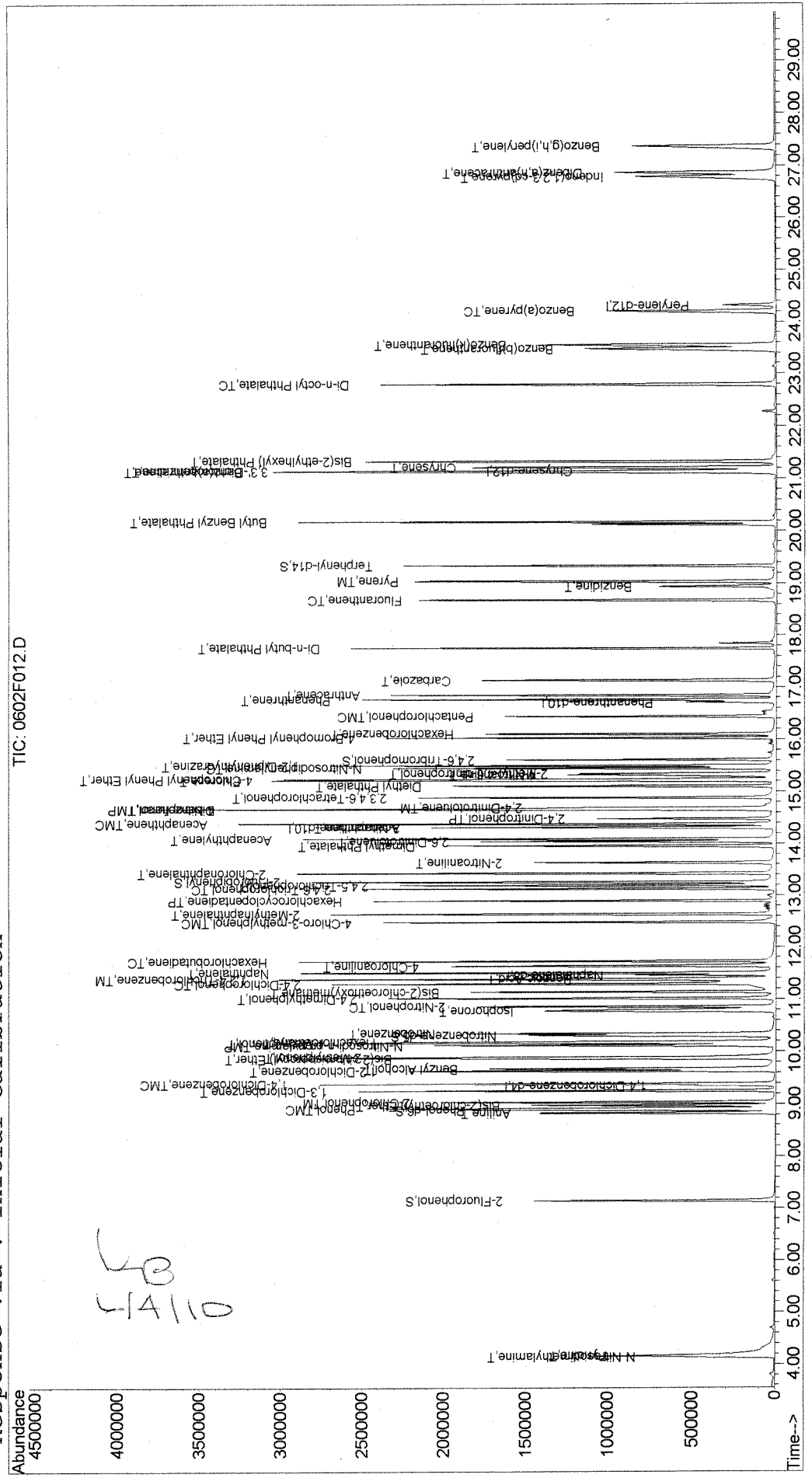
M  
 6-3-10

Data File : J:\MS07\DATA\060210\0602F012.D  
Acq On : 2 Jun 2010 10:40 pm  
Sample : 200PPM 8270 ICAL SVM32-21K  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 11:00 2010

Vial: 10  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Initial Calibration



50  
1110

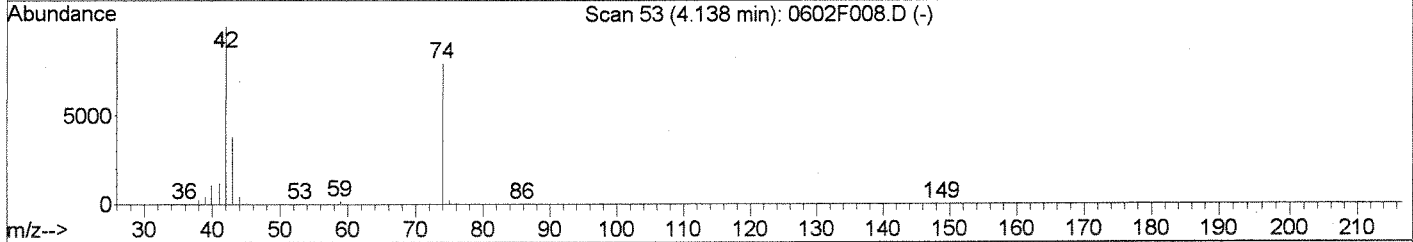
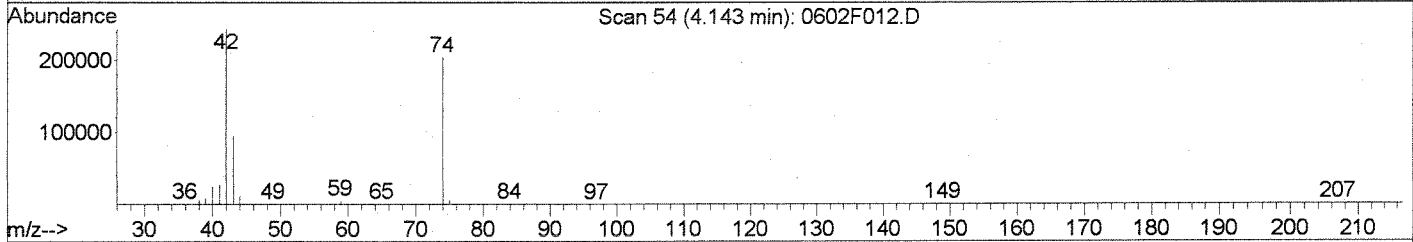
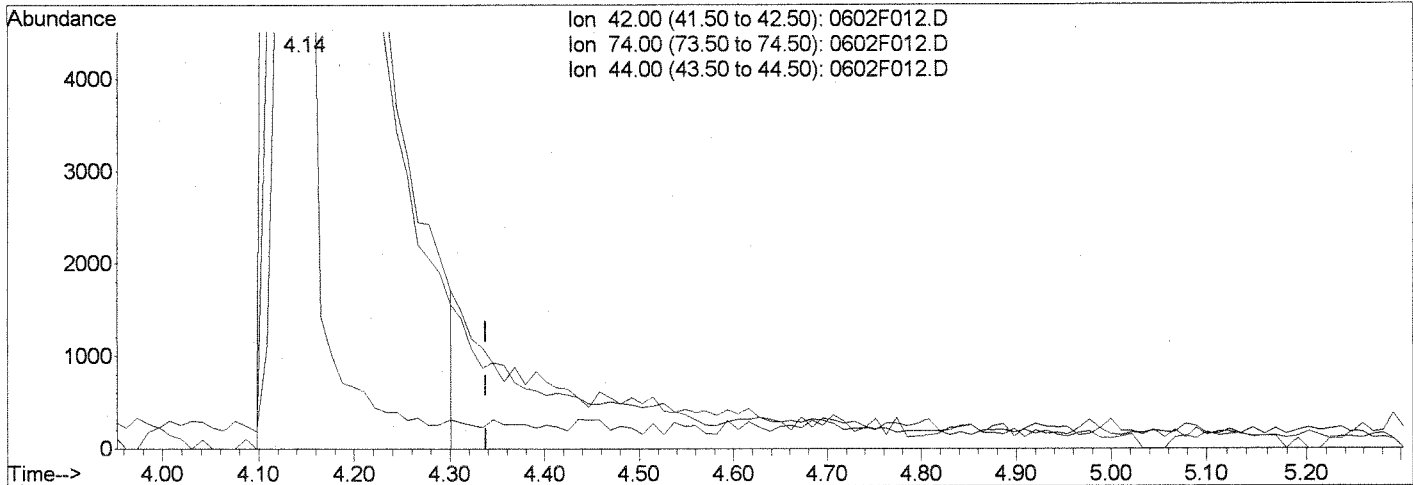
M-3-10

Data File : J:\MS07\DATA\060210\0602F012.D  
 Acq On : 2 Jun 2010 10:40 pm  
 Sample : 200PPM 8270 ICAL SVM32-21K  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:48 2010

Vial: 10  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F012.D

(2) N-Nitrosodimethylamine (T)

4.14min 202.99ug/ml

response 561118

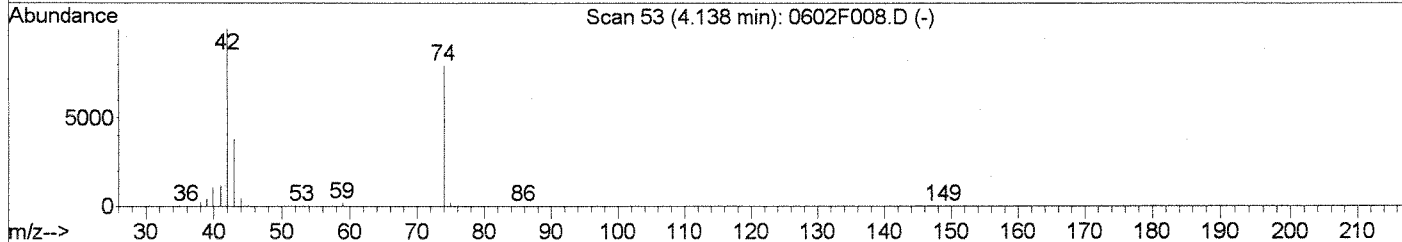
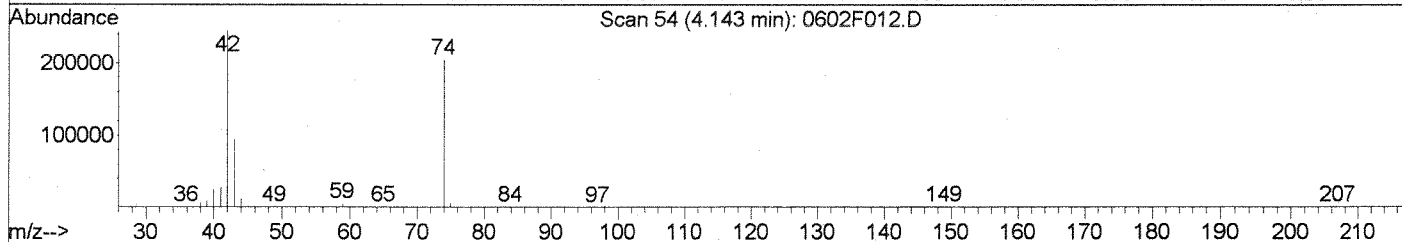
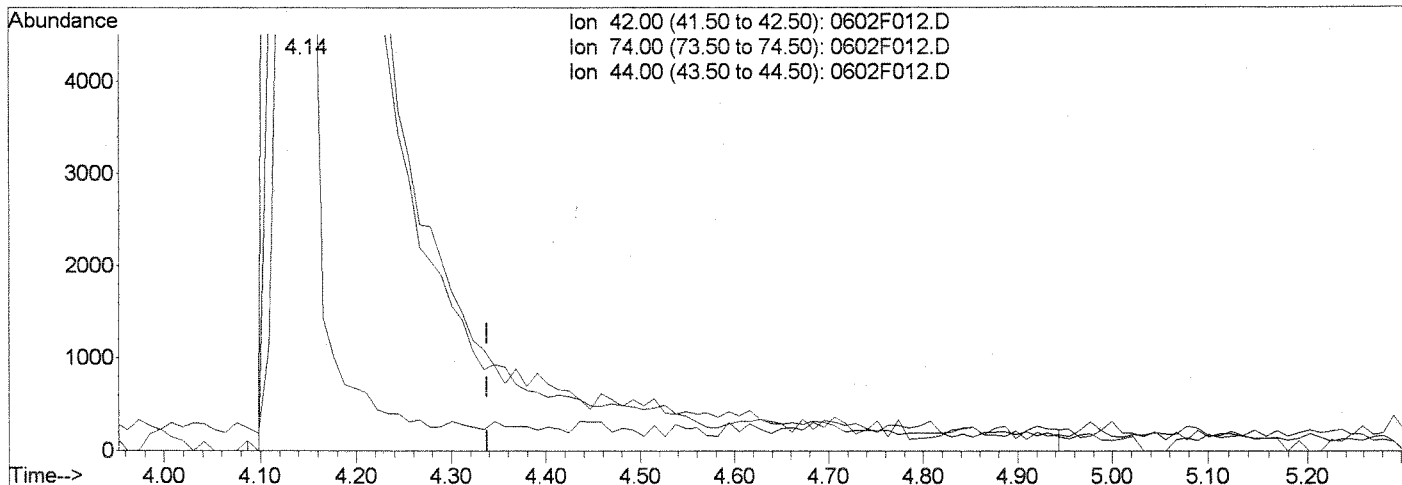
Ion	Exp%	Act%
42.00	100	100
74.00	79.30	83.71
44.00	4.40	4.58
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F012.D  
Acq On : 2 Jun 2010 10:40 pm  
Sample : 200PPM 8270 ICAL SVM32-21K  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:59 2010

Vial: 10  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F012.D

(2) N-Nitrosodimethylamine (T)

4.14min 209.10ug/ml m

response 578026

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	83.74
44.00	4.40	4.69
0.00	0.00	0.00

*Handwritten notes: SC M 6-3-10*

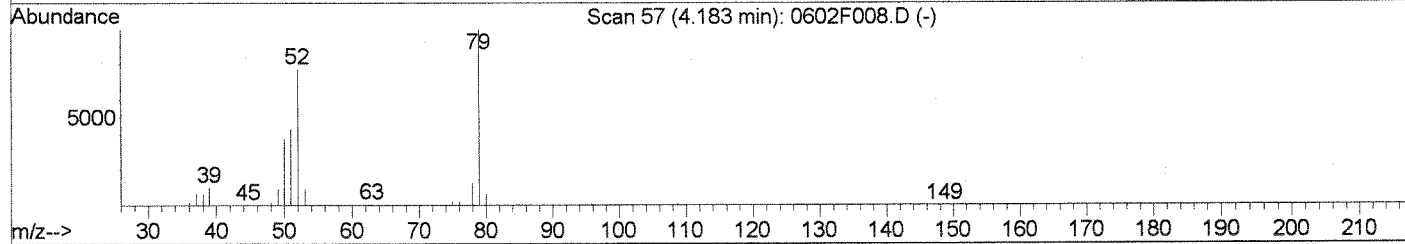
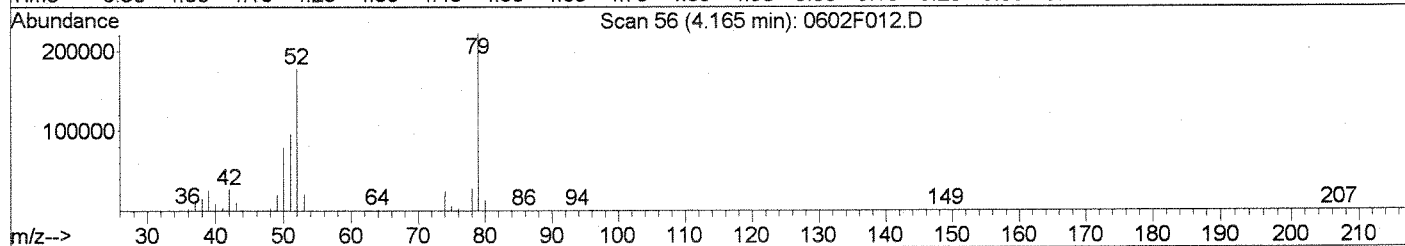
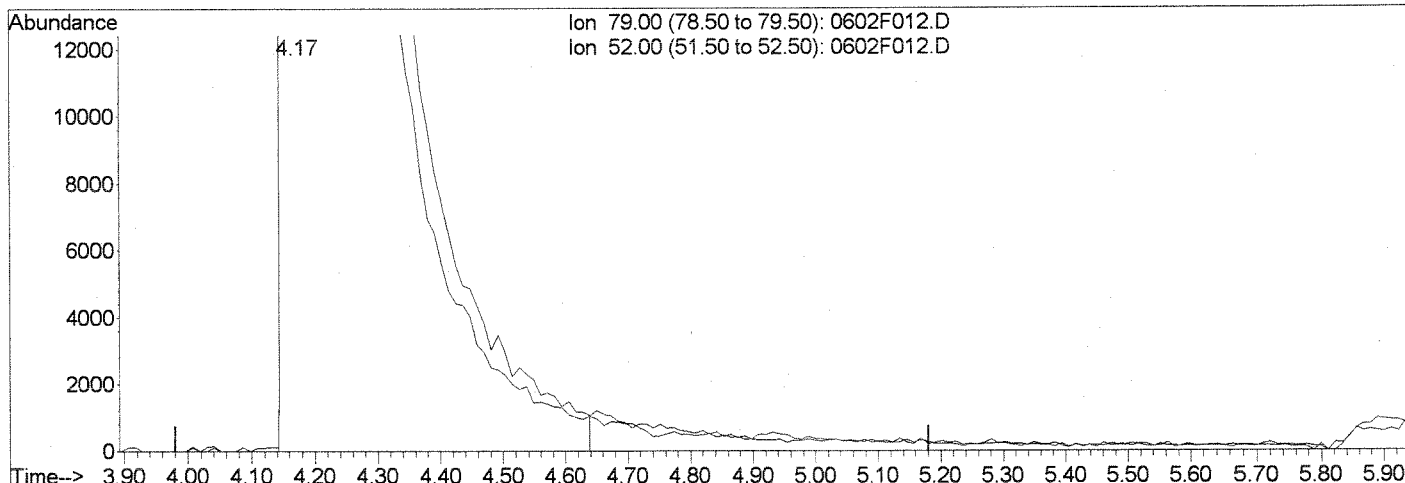
*Handwritten signature: LB 4/11/10*

Data File : J:\MS07\DATA\060210\0602F012.D  
Acq On : 2 Jun 2010 10:40 pm  
Sample : 200PPM 8270 ICAL SVM32-21K  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:59 2010

Vial: 10  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F012.D

(3) Pyridine (T)

4.17min 213.05ug/ml

response 834499

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	79.62
0.00	0.00	0.00
0.00	0.00	0.00

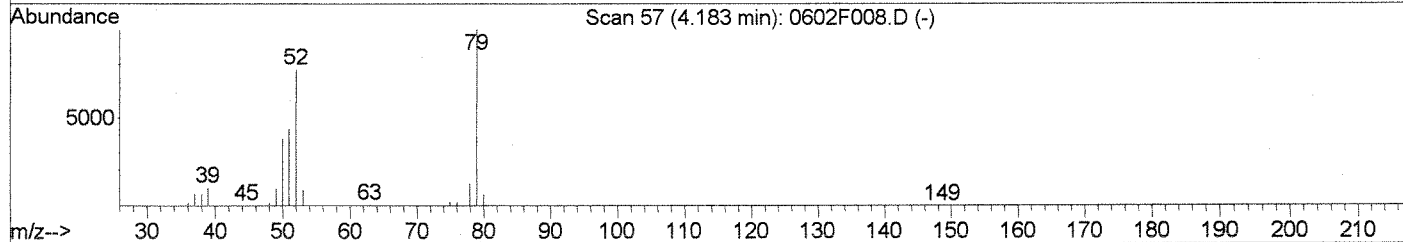
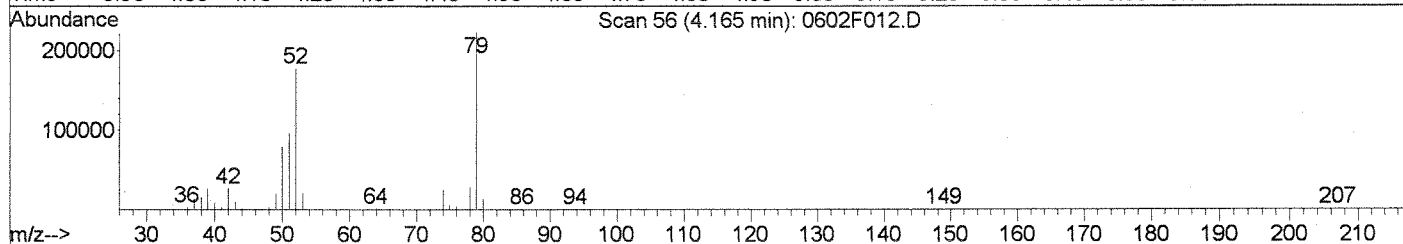
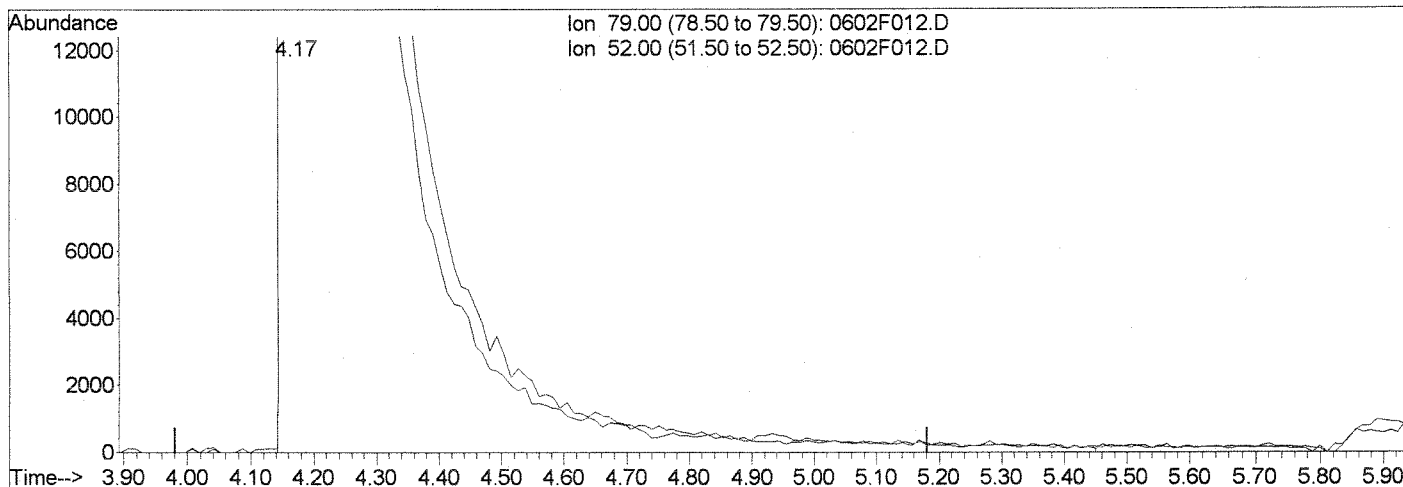


Data File : J:\MS07\DATA\060210\0602F012.D  
Acq On : 2 Jun 2010 10:40 pm  
Sample : 200PPM 8270 ICAL SVM32-21K  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 10:59 2010

Vial: 10  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F012.D

(3) Pyridine (T)

4.17min 218.10ug/ml m

response 854297

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	79.70
0.00	0.00	0.00
0.00	0.00	0.00

*IC*  
*M 6-3-10*

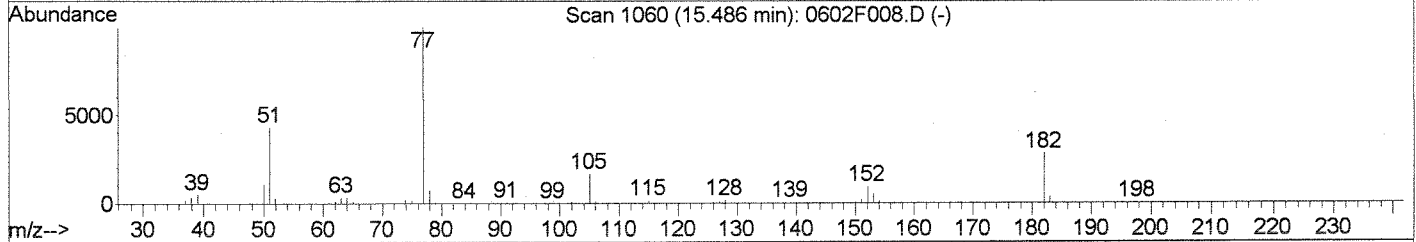
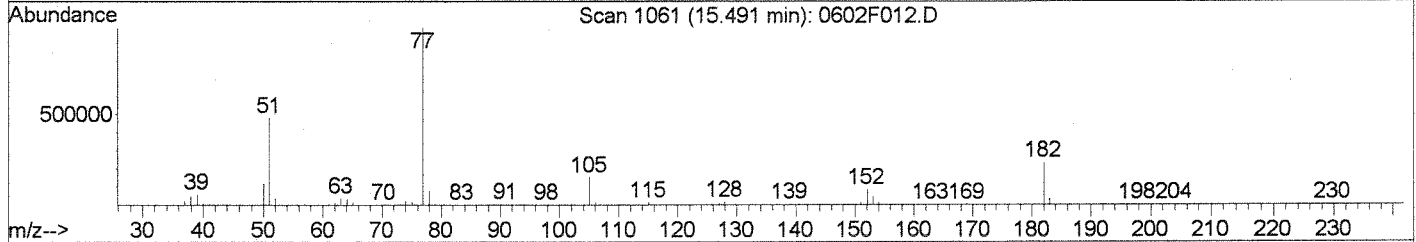
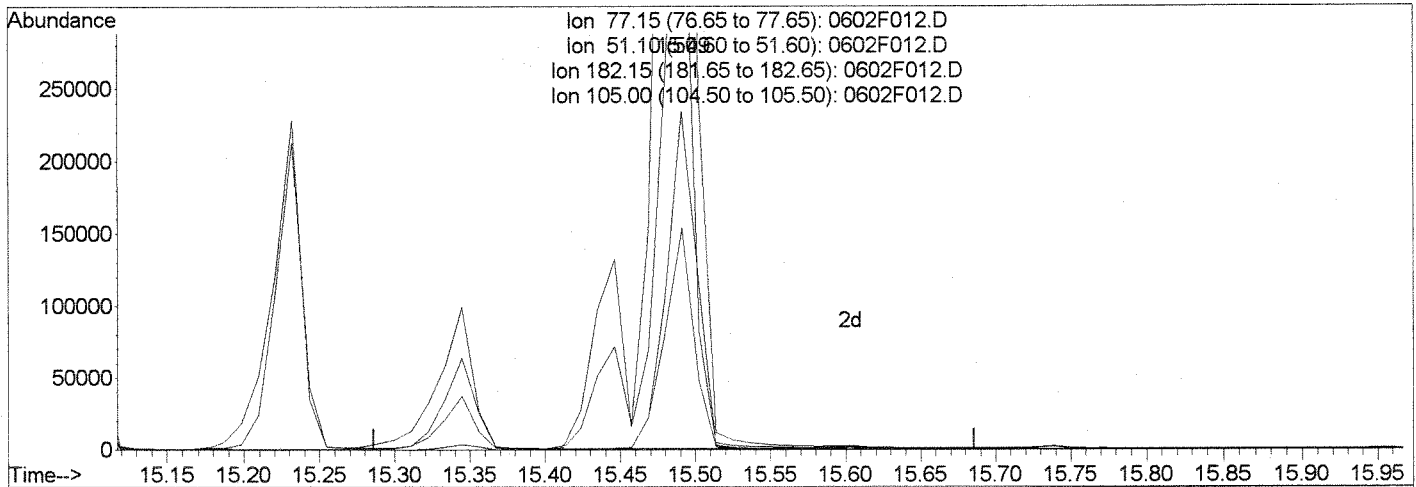
*LB*  
*4/11/10*

Data File : J:\MS07\DATA\060210\0602F012.D  
 Acq On : 2 Jun 2010 10:40 pm  
 Sample : 200PPM 8270 ICAL SVM32-21K  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 10:59 2010

Vial: 10  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 10:48:31 2010  
 Response via : Multiple Level Calibration



TIC: 0602F012.D

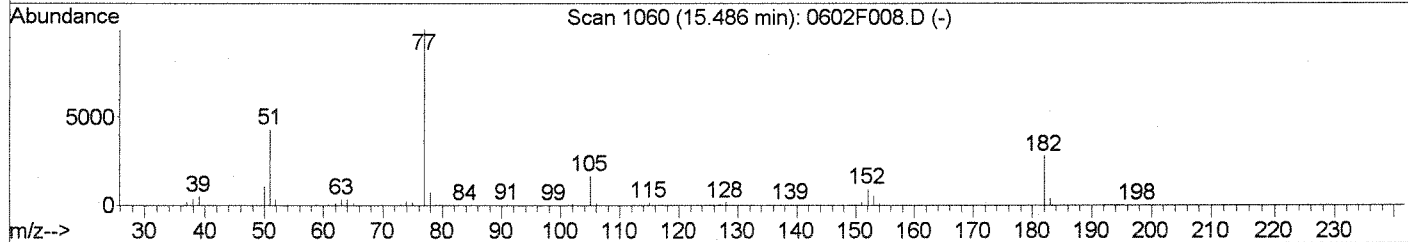
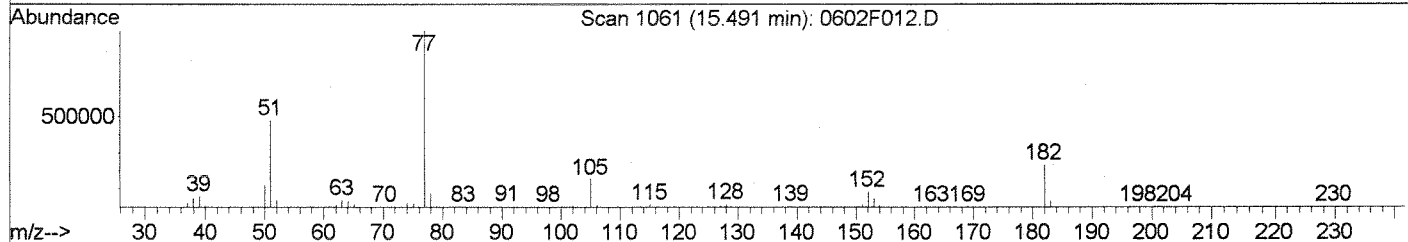
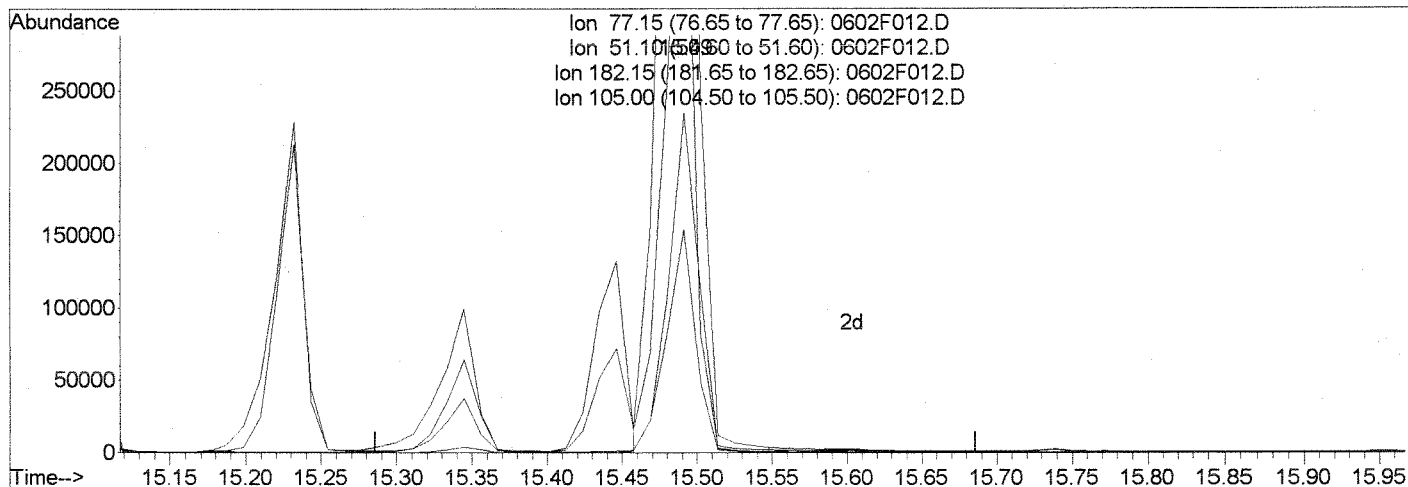
(57) 1,2-Diphenylhydrazine (T)			
15.49min	188.68ug/ml		
response	1422282		
Ion	Exp%	Act%	
77.15	100	100	
51.10	43.10	48.70	
182.15	27.90	23.80	
105.00	16.60	15.60	

Data File : J:\MS07\DATA\060210\0602F012.D  
Acq On : 2 Jun 2010 10:40 pm  
Sample : 200PPM 8270 ICAL SVM32-21K  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 11:00 2010

Vial: 10  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 10:48:31 2010  
Response via : Multiple Level Calibration



TIC: 0602F012.D

(57) 1,2-Diphenylhydrazine (T)

15.49min 175.00ug/ml m

response 1319201

Ion	Exp%	Act%
77.15	100	100
51.10	43.10	48.76
182.15	27.90	23.78
105.00	16.60	15.64

*Handwritten:* 05 MB3-0

*Handwritten:* LB 4/4/10

Data File : J:\MS07\DATA\060210\0602F013.D  
 Acq On : 2 Jun 2010 11:20 pm  
 Sample : 80PPM 8270 ICV SVM32-21L  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 11:06:24 2010

Vial: 11  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	157981	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	589143	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.30	164	263507	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.70	188	329343	40.00	ug/ml	0.00
68) Chrysene-d12	21.13	240	359499	40.00	ug/ml	0.00
77) Perylene-d12	24.31	264	274717	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	7.13	112	352056	83.82	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	55.88%
7) Phenol-d6	8.87	99	480612	82.05	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	54.70%
19) Nitrobenzene-d5	10.29	82	439915	76.88	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	76.88%
38) 2-Fluorobiphenyl	13.24	172	709474	82.13	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	82.13%
59) 2,4,6-Tribromophenol	15.60	330	98880	74.07	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	49.38%
71) Terphenyl-d14	19.32	244	384726	69.89	ug/ml	-0.01
Spiked Amount	100.000	Range	33 - 141	Recovery	=	69.89%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-Nitrosodimethylamine	4.13	42	288259m	76.38	ug/ml	
3) Pyridine	4.16	79	471901m	88.22	ug/ml	
6) Bis(2-chloroethyl) Ether	8.96	93	404665	84.71	ug/ml	96
8) Phenol	8.89	94	516946	86.18	ug/ml	98
9) 2-Chlorophenol	9.02	128	428586	82.85	ug/ml	98
10) 1,3-Dichlorobenzene	9.24	146	432675	78.87	ug/ml	99
11) 1,4-Dichlorobenzene	9.38	146	450299	80.59	ug/ml	99
12) 1,2-Dichlorobenzene	9.62	146	437025	82.62	ug/ml	99
13) Benzyl Alcohol	9.66	108	279227	87.89	ug/ml	94
14) Bis(2-chloroisopropyl) Eth	9.85	45	708097	89.35	ug/ml	86
15) 2-Methylphenol	9.87	107	312967	80.57	ug/ml	99
16) Hexachloroethane	10.18	117	206278	81.14	ug/ml	97
17) N-Nitrosodi-n-propylamine	10.10	70	299786	77.10	ug/ml	96
18) 4-Methylphenol	10.14	107	496368	84.14	ug/ml	100
20) Nitrobenzene	10.32	77	426035	79.15	ug/ml	98
22) Isophorone	10.74	82	808264	76.05	ug/ml	98
23) 2-Nitrophenol	10.84	139	240573	82.15	ug/ml	96
24) 2,4-Dimethylphenol	11.00	122	325418	83.11	ug/ml	94
25) Bis(2-chloroethoxy)methane	11.12	93	511818	85.73	ug/ml	99
26) 2,4-Dichlorophenol	11.27	162	360053	81.05	ug/ml	99

(#) = qualifier out of range (m) = manual integration

LAB  
 GIANO

6-7-10

Data File : J:\MS07\DATA\060210\0602F013.D  
 Acq On : 2 Jun 2010 11:20 pm  
 Sample : 80PPM 8270 ICV SVM32-21L  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 11:06:24 2010

Vial: 11  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
27) Benzoic Acid	11.32	122	261223	77.84	ug/ml	97
28) 1,2,4-Trichlorobenzene	11.37	180	378122	80.18	ug/ml	98
29) Naphthalene	11.48	128	1133311	80.18	ug/ml	99
30) 4-Chloroaniline	11.62	127	462290	74.13	ug/ml	94
31) Hexachlorobutadiene	11.71	225	238764	79.80	ug/ml	99
32) 4-Chloro-3-methylphenol	12.46	107	338233	72.94	ug/ml#	53
33) 2-Methylnaphthalene	12.62	142	661531	73.55	ug/ml	100
35) Hexachlorocyclopentadiene	12.88	237	171811	64.56	ug/ml	97
36) 2,4,6-Trichlorophenol	13.11	196	234694	86.34	ug/ml	96
37) 2,4,5-Trichlorophenol	13.19	196	245630	81.09	ug/ml	100
39) 2-Chloronaphthalene	13.41	162	648374	85.08	ug/ml	98
40) 2-Nitroaniline	13.61	65	190743	77.80	ug/ml	96
41) Acenaphthylene	14.08	152	795724	67.78	ug/ml	100
42) Dimethyl Phthalate	13.94	163	631928	70.54	ug/ml	99
43) 2,6-Dinitrotoluene	14.02	165	151624	74.69	ug/ml	92
44) Acenaphthene	14.36	154	515713	76.97	ug/ml	98
45) 3-Nitroaniline	14.29	138	154301	72.24	ug/ml	97
46) 2,4-Dinitrophenol	14.46	184	92573	78.59	ug/ml	94
47) Dibenzofuran	14.64	168	791536	74.92	ug/ml	96
48) 4-Nitrophenol	14.64	109	87062	75.28	ug/ml#	68
49) 2,4-Dinitrotoluene	14.66	165	171360	66.61	ug/ml	72
50) 2,3,4,6-Tetrachlorophenol	14.86	232	153545	69.52	ug/ml#	78
51) Fluorene	15.20	166	564836	71.34	ug/ml	98
52) 4-Chlorophenyl Phenyl Ethe	15.23	204	282899	69.80	ug/ml	99
53) Diethyl Phthalate	15.09	149	602830	69.61	ug/ml	98
54) 4-Nitroaniline	15.28	138	149019	80.61	ug/ml	96
55) 2-Methyl-4,6-dinitrophenol	15.33	198	115758	82.73	ug/ml	86
56) N-Nitrosodiphenylamine	15.43	169	344176	65.20	ug/ml	99
57) 1,2-Diphenylhydrazine	15.47	77	640947	72.01	ug/ml	94
60) 4-Bromophenyl Phenyl Ether	16.01	248	154168	77.64	ug/ml	97
61) Hexachlorobenzene	16.08	284	175262	76.15	ug/ml	97
62) Pentachlorophenol	16.43	266	102290	79.09	ug/ml	97
63) Phenanthrene	16.75	178	706354	80.73	ug/ml	100
64) Anthracene	16.83	178	683892	74.34	ug/ml	100
65) Carbazole	17.12	167	615984	82.03	ug/ml	99
66) Di-n-butyl Phthalate	17.74	149	830450	82.90	ug/ml	99
67) Fluoranthene	18.66	202	633419	79.84	ug/ml	99
70) Pyrene	19.02	202	650428	67.79	ug/ml	99
72) Butyl Benzyl Phthalate	20.16	149	434417	79.45	ug/ml	100
73) 3,3'-Dichlorobenzidine	21.12	252	282579	75.22	ug/ml	99
74) Benz(a)anthracene	21.11	228	622914	73.73	ug/ml	99

(#) = qualifier out of range (m) = manual integration

LAB  
 6-3-10

Data File : J:\MS07\DATA\060210\0602F013.D  
 Acq On : 2 Jun 2010 11:20 pm  
 Sample : 80PPM 8270 ICV SVM32-21L  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 11:06:24 2010

Vial: 11  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
75) Chrysene	21.19	228	632981	77.39	ug/ml	99
76) Bis(2-ethylhexyl) Phthalat	21.31	149	647030	83.15	ug/ml	100
78) Di-n-octyl Phthalate	22.78	149	1138544	87.36	ug/ml	100
79) Benzo(b)fluoranthene	23.45	252	583521	82.45	ug/ml	99
80) Benzo(k)fluoranthene	23.52	252	612904	83.45	ug/ml	99
81) Benzo(a)pyrene	24.18	252	562098	95.63	ug/ml	98
82) Indeno(1,2,3-cd)pyrene	26.77	276	417715	82.06	ug/ml	97
83) Dibenz(a,h)anthracene	26.84	278	431654	79.61	ug/ml	99
84) Benzo(g,h,i)perylene	27.34	276	437301	79.59	ug/ml	100

LB  
6/3/10

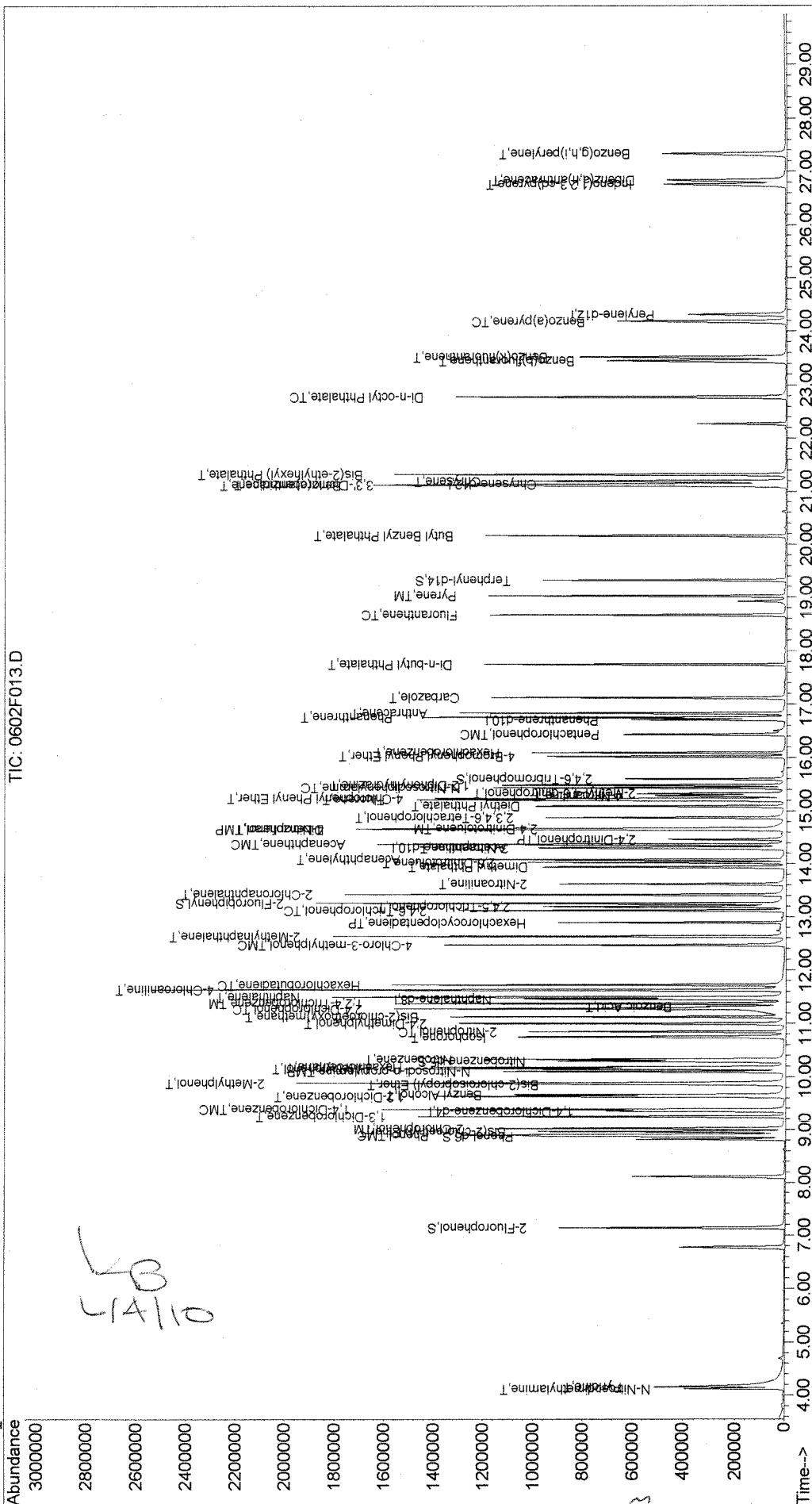
M  
6-3-10

Data File : J:\MS07\DATA\060210\0602F013.D  
 Acq On : 2 Jun 2010 11:20 pm  
 Sample : 80PPM 8270 ICV SVM32-21L  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 11:09 2010

Vial: 11  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration

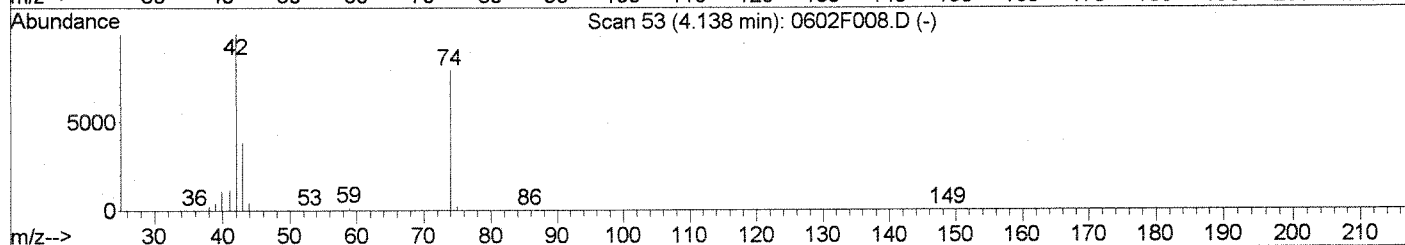
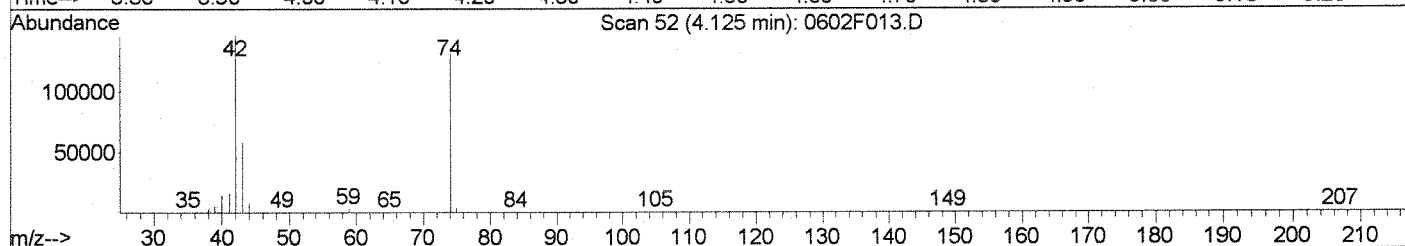
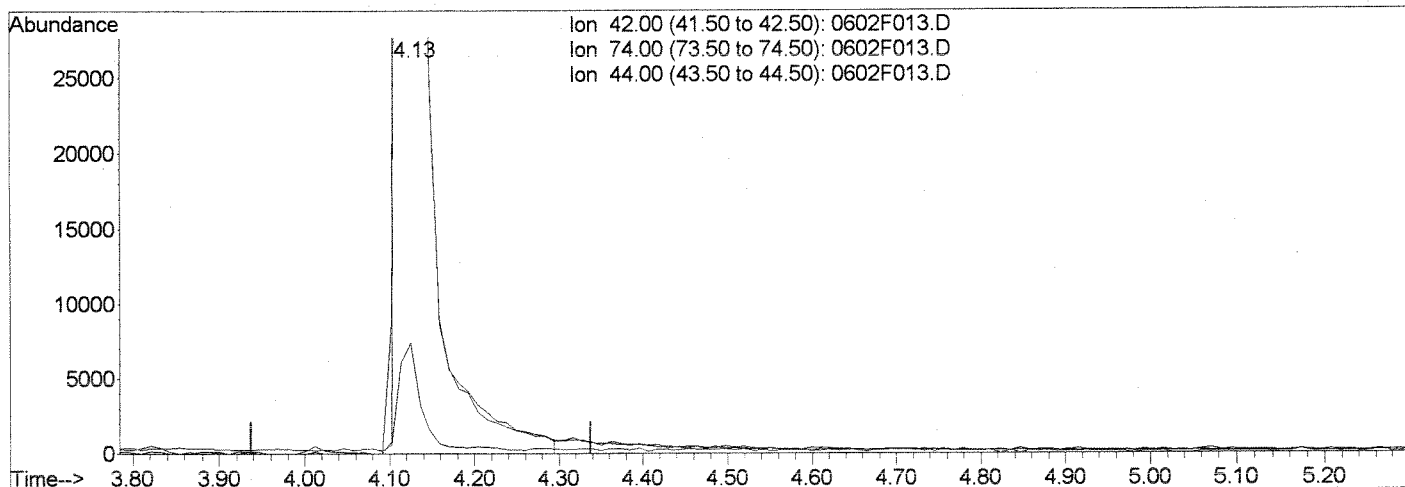


Data File : J:\MS07\DATA\060210\0602F013.D  
 Acq On : 2 Jun 2010 11:20 pm  
 Sample : 80PPM 8270 ICV SVM32-21L  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 11:06 2010

Vial: 11  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Multiple Level Calibration



TIC: 0602F013.D

(2) N-Nitrosodimethylamine (T)

4.13min 73.83ug/ml

response 278639

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	89.65
44.00	4.40	4.82
0.00	0.00	0.00



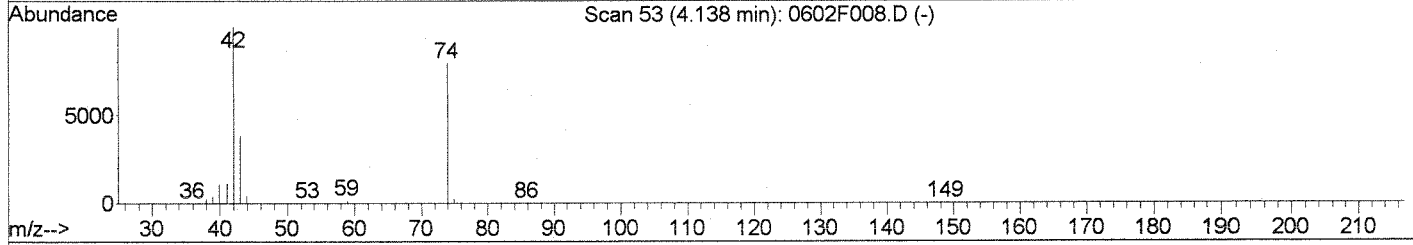
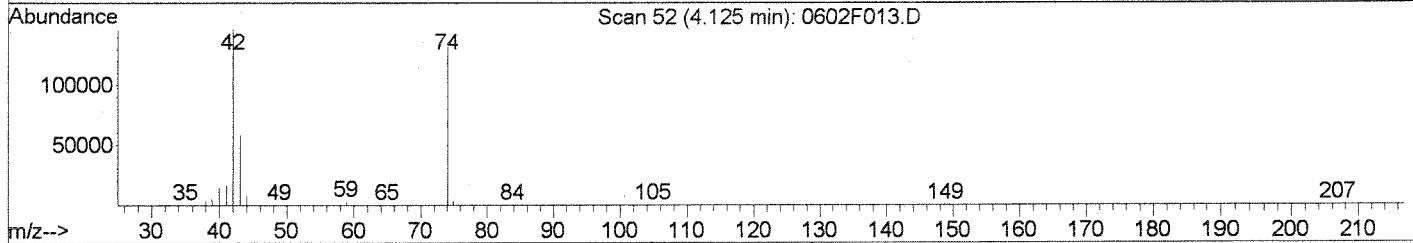
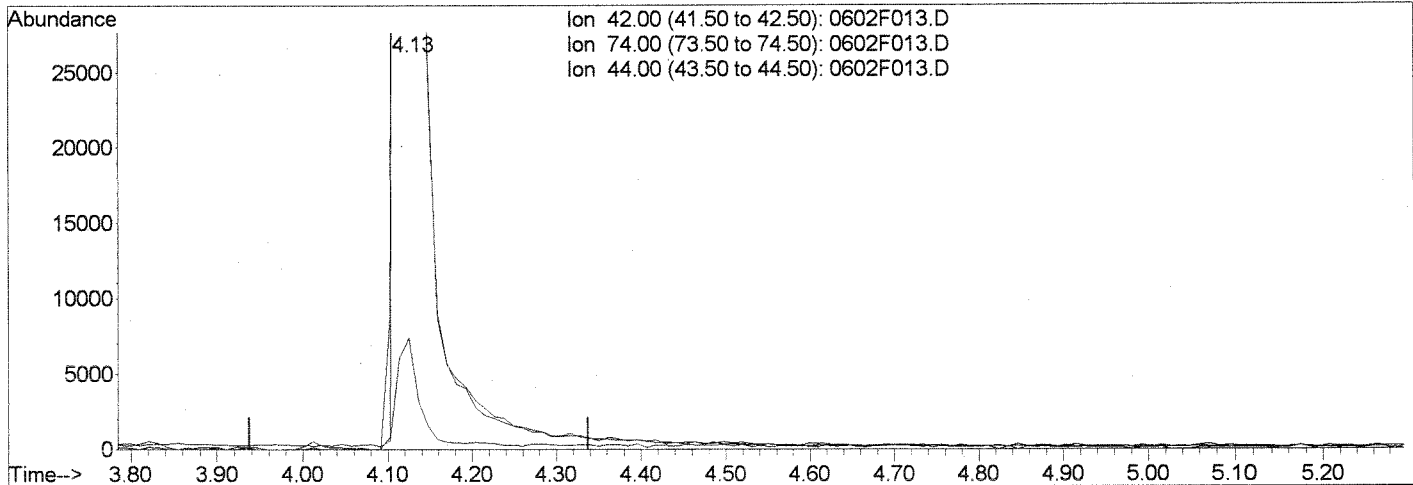
Quantitation Report (Quant)

Data File : J:\MS07\DATA\060210\0602F013.D  
 Acq On : 2 Jun 2010 11:20 pm  
 Sample : 80PPM 8270 ICV SVM32-21L  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 11:09 2010

Vial: 11  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Multiple Level Calibration



TIC: 0602F013.D

(2) N-Nitrosodimethylamine (T)

4.13min 76.38ug/ml m

response 288259

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	89.65
44.00	4.40	5.02
0.00	0.00	0.00

*SC*  
*76-3-10*

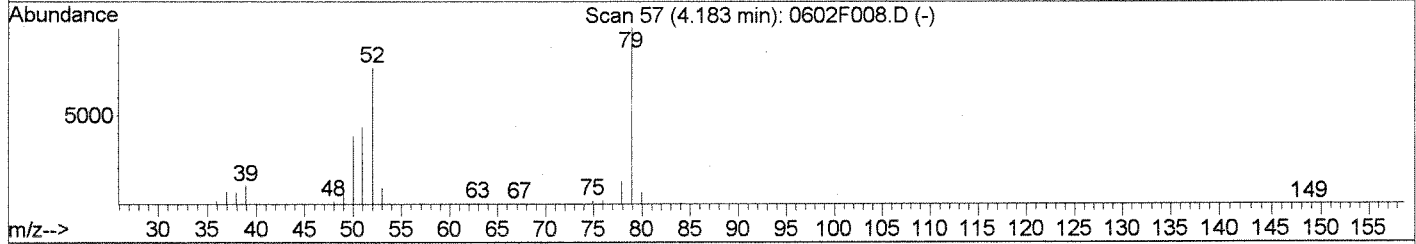
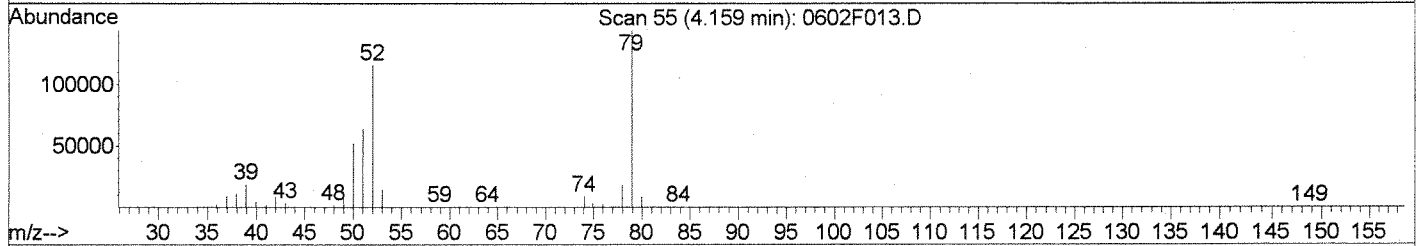
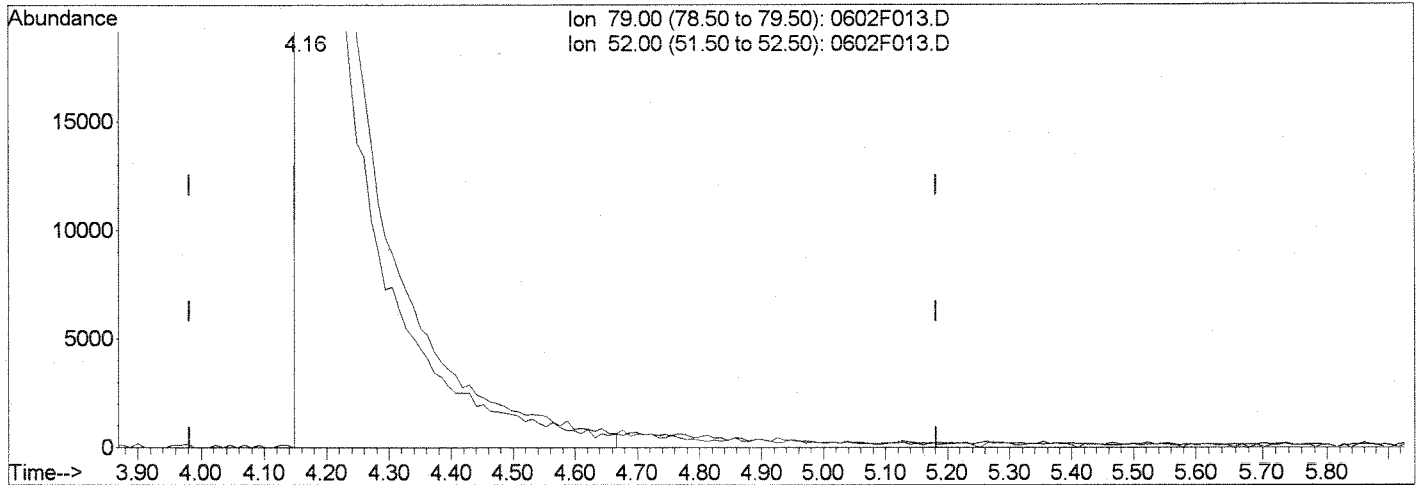
*LB*  
*4/11/10*

Data File : J:\MS07\DATA\060210\0602F013.D  
Acq On : 2 Jun 2010 11:20 pm  
Sample : 80PPM 8270 ICV SVM32-21L  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 11:09 2010

Vial: 11  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Multiple Level Calibration



TIC: 0602F013.D

(3) Pyridine (T)

4.16min 85.90ug/ml

response 459485

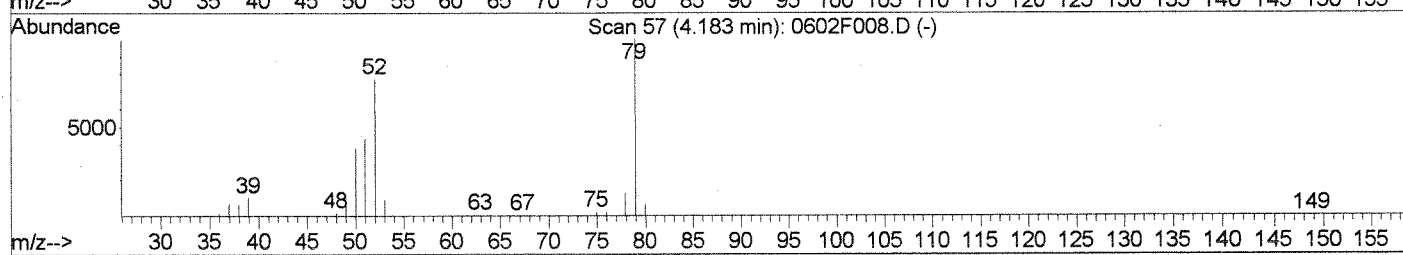
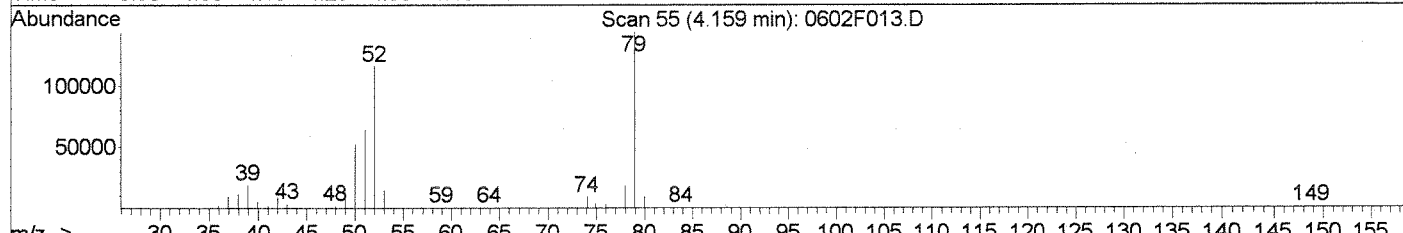
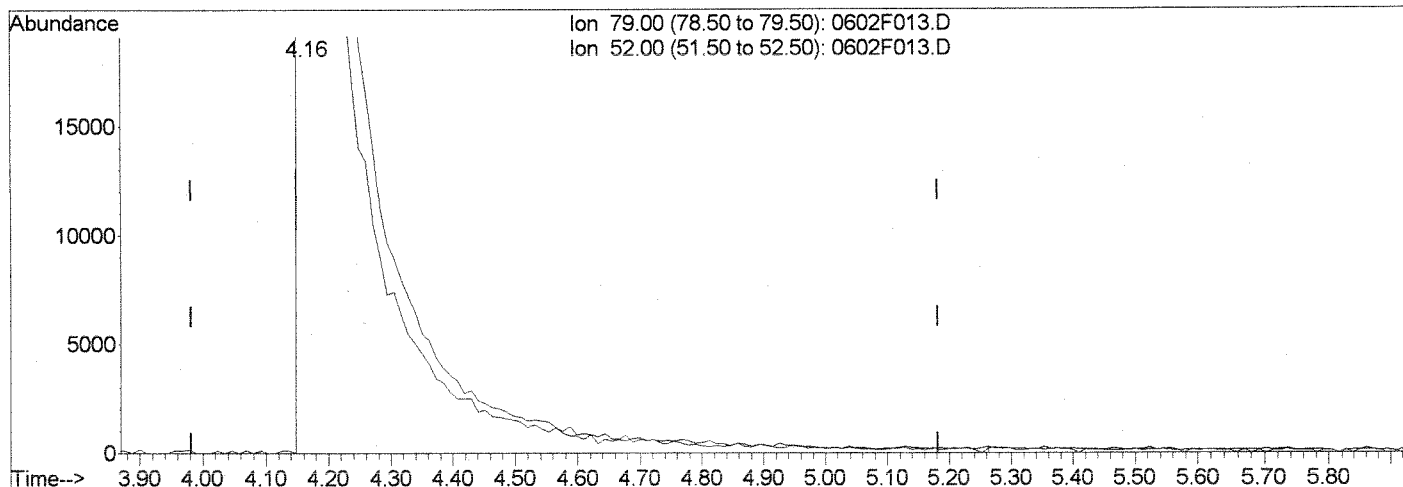
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	80.29
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\MS07\DATA\060210\0602F013.D  
Acq On : 2 Jun 2010 11:20 pm  
Sample : 80PPM 8270 ICV SVM32-21L  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 11:09 2010

Vial: 11  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Multiple Level Calibration



TIC: 0602F013.D

(3) Pyridine (T)		
4.16min	88.22ug/ml	m
response	471901	
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	80.37
0.00	0.00	0.00
0.00	0.00	0.00

*SC M 6-7-10*

*LB  
4/4/10*

Data File : J:\MS07\DATA\060210\0602F014.D  
 Acq On : 3 Jun 2010 12:01 am  
 Sample : 80PPM ANILINE ICV SVM30-7D  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 11:06:36 2010

Vial: 12  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	129491	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	455013	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.30	164	243230	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.70	188	413341	40.00	ug/ml	0.00
68) Chrysene-d12	21.12	240	292354	40.00	ug/ml	-0.02
77) Perylene-d12	24.30	264	304583	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0d	0.00	ug/ml	
Spiked Amount	150.000	Range 21 - 100	Recovery	=	0.00%#	
7) Phenol-d6	0.00	99	0	0.00	ug/ml	
Spiked Amount	150.000	Range 10 - 94	Recovery	=	0.00%#	
19) Nitrobenzene-d5	0.00	82	0	0.00	ug/ml	
Spiked Amount	100.000	Range 35 - 114	Recovery	=	0.00%#	
38) 2-Fluorobiphenyl	0.00	172	0d	0.00	ug/ml	
Spiked Amount	100.000	Range 43 - 116	Recovery	=	0.00%#	
59) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/ml	
Spiked Amount	150.000	Range 10 - 123	Recovery	=	0.00%#	
71) Terphenyl-d14	0.00	244	0d	0.00	ug/ml	
Spiked Amount	100.000	Range 33 - 141	Recovery	=	0.00%#	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
5) Aniline	8.81	93	478547	98.61	ug/ml	79

(#) = qualifier out of range (m) = manual integration  
 0602F014.D 0602BNC7.M Thu Jun 03 11:34:39 2010

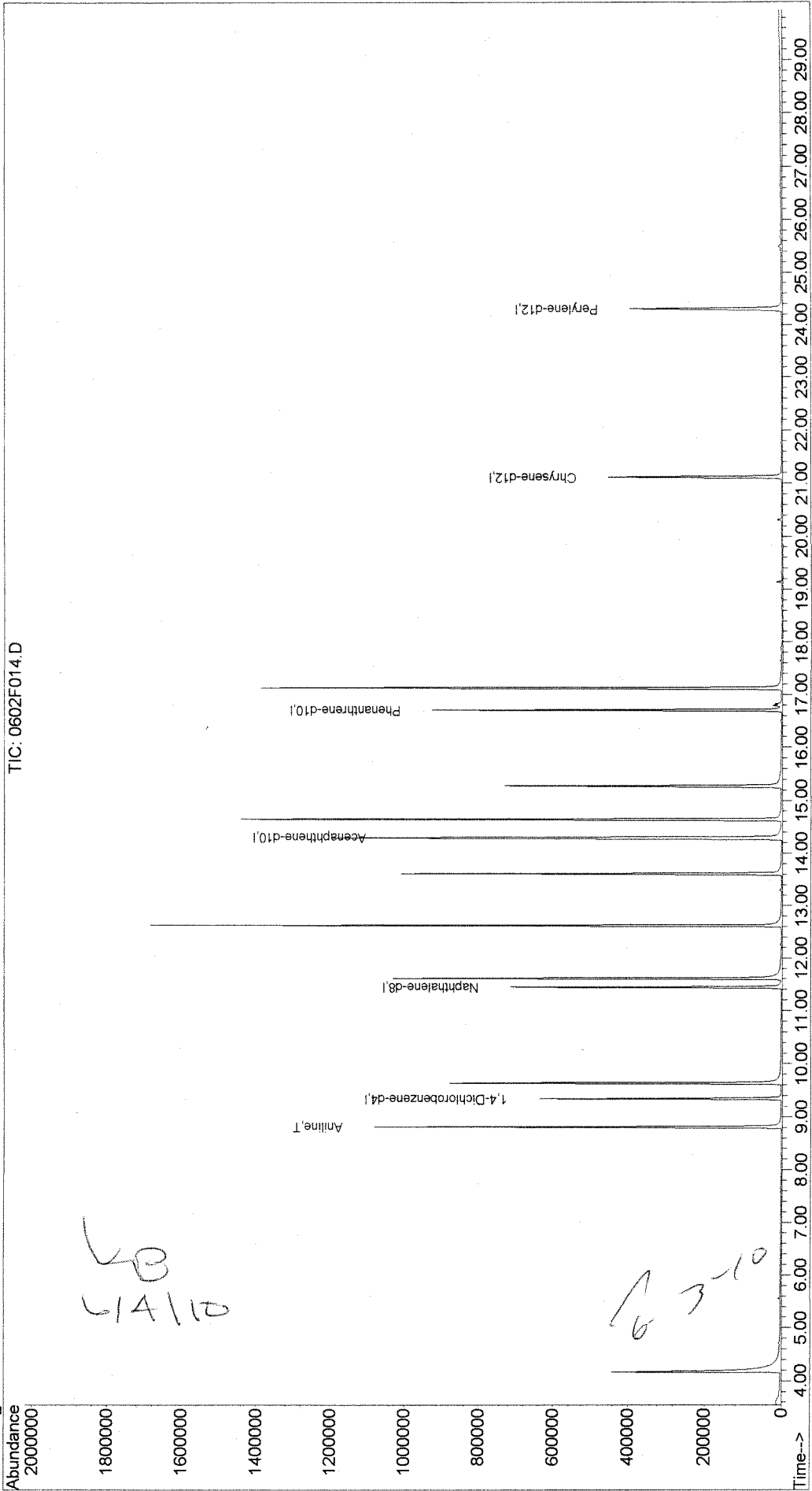
*Handwritten:* 6-3-10  
 LB  
 414/110

Data File : J:\MS07\DATA\060210\0602F014.D  
Acq On : 3 Jun 2010 12:01 am  
Sample : 80PPM ANILINE ICV SVM30-7D  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 11:06 2010

Vial: 12  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Initial Calibration



Data File : J:\MS07\DATA\060210\0602F016.D  
 Acq On : 3 Jun 2010 1:21 am  
 Sample : 50PPM BENZ ICV SVM32-25F  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 11:08:12 2010

Vial: 14  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.34	152	114003	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	399588	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.30	164	215228	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.70	188	420025	40.00	ug/ml	0.00
68) Chrysene-d12	21.11	240	274219	40.00	ug/ml	-0.02
77) Perylene-d12	24.30	264	264132	40.00	ug/ml	0.00

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0	0.00	ug/ml	
Spiked Amount	150.000	Range 21 - 100	Recovery	=	0.00%#	
7) Phenol-d6	0.00	99	0	0.00	ug/ml	
Spiked Amount	150.000	Range 10 - 94	Recovery	=	0.00%#	
19) Nitrobenzene-d5	0.00	82	0	0.00	ug/ml	
Spiked Amount	100.000	Range 35 - 114	Recovery	=	0.00%#	
38) 2-Fluorobiphenyl	0.00	172	0d	0.00	ug/ml	
Spiked Amount	100.000	Range 43 - 116	Recovery	=	0.00%#	
59) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/ml	
Spiked Amount	150.000	Range 10 - 123	Recovery	=	0.00%#	
71) Terphenyl-d14	0.00	244	0d	0.00	ug/ml	
Spiked Amount	100.000	Range 33 - 141	Recovery	=	0.00%#	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
69) Benzidine	18.92	184	252849	109.81	ug/ml	97

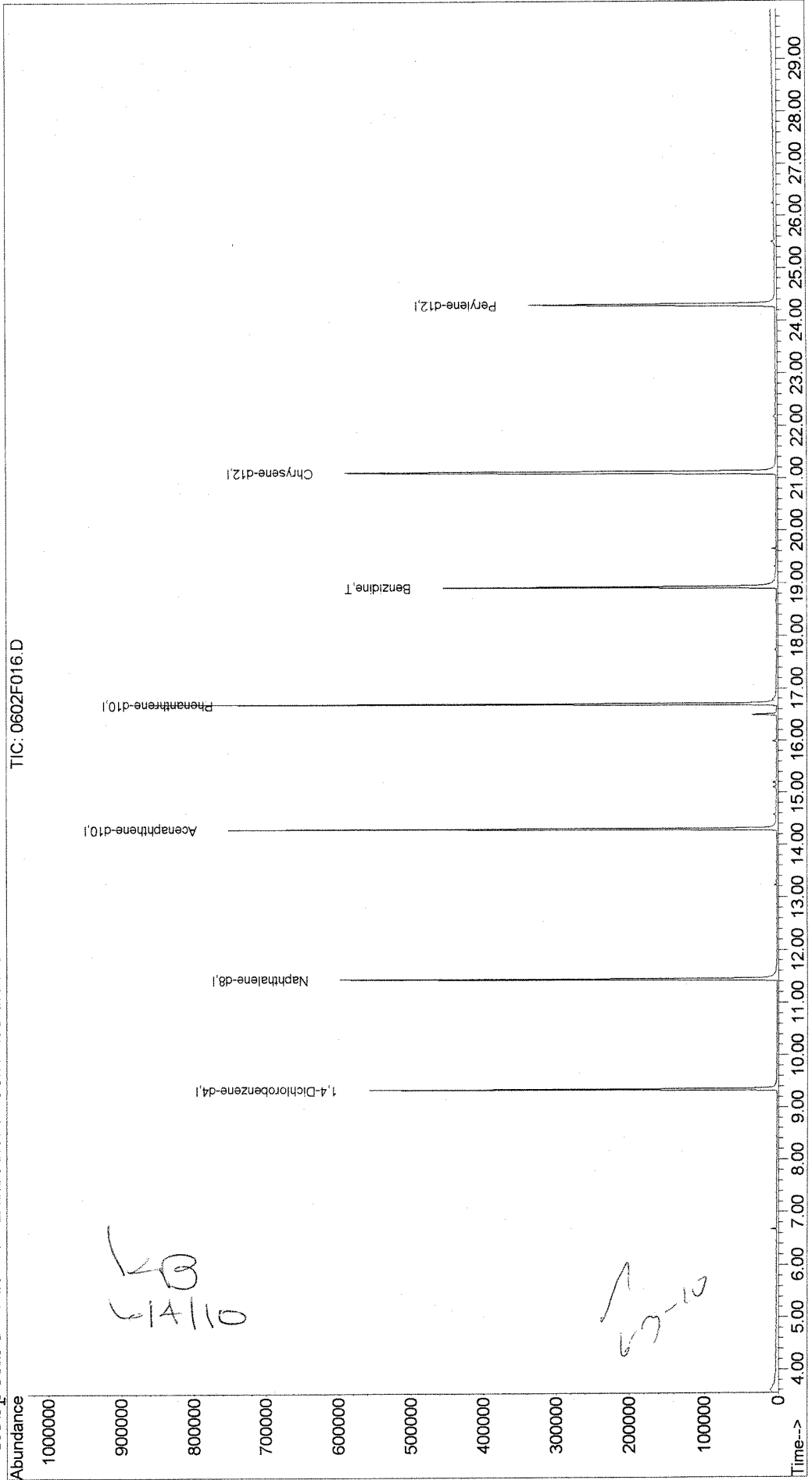
6-3-10  
 LEB  
 414110

Data File : J:\MS07\DATA\060210\0602F016.D  
Acq On : 3 Jun 2010 1:21 am  
Sample : 50PPM BENZ ICV SVM32-25F  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 3 11:08 2010

Vial: 14  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

Quant Results File: 0602BNC7.RE5

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Exponent  
 Project: Heglar-Kronquist/0907194.000.0601

Service Request: K1005067  
 Date Analyzed: 06/03/2010

Continuing Calibration Verification Summary  
 Semi-Volatile Organic Compounds by GC/MS

Calibration Type: Internal Standard  
 Analysis Method: 625

Calibration Date: 06/02/2010  
 Calibration ID: CAL9525  
 Analysis Lot: KWG1005376  
 Units: ug/ml

File ID: J:\MS07\DATA\060310\0603F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
N-Nitrosodimethylamine	80	86	0.01	0.956	1.02	7	NA	± 20 %	AverageRF
Bis(2-chloroethyl) Ether	80	89	0.01	1.21	1.34	11	NA	± 20 %	AverageRF
Phenol	80	88	0.01	1.52	1.67	10	NA	± 20 %	AverageRF
2-Chlorophenol	80	84	0.01	1.31	1.38	5	NA	± 20 %	AverageRF
Bis(2-chloroisopropyl) Ether	80	87	0.01	2.01	2.18	9	NA	± 20 %	AverageRF
Hexachloroethane	80	82	0.01	0.644	0.658	2	NA	± 20 %	AverageRF
N-Nitrosodi-n-propylamine	80	90	0.05	0.985	1.11	12	NA	± 20 %	AverageRF
Nitrobenzene	80	85	0.01	1.36	1.46	7	NA	± 20 %	AverageRF
Isophorone	80	84	0.01	0.722	0.755	5	NA	± 20 %	AverageRF
2-Nitrophenol	80	86	0.01	0.199	0.213	7	NA	± 20 %	AverageRF
2,4-Dimethylphenol	80	90	0.01	0.266	0.300	13	NA	± 20 %	AverageRF
Bis(2-chloroethoxy)methane	80	88	0.01	0.405	0.447	10	NA	± 20 %	AverageRF
2,4-Dichlorophenol	80	82	0.01	0.302	0.310	3	NA	± 20 %	AverageRF
1,2,4-Trichlorobenzene	80	82	0.01	0.320	0.327	2	NA	± 20 %	AverageRF
Naphthalene	80	82	0.01	0.960	0.983	2	NA	± 20 %	AverageRF
Hexachlorobutadiene	80	79	0.01	0.203	0.201	-1	NA	± 20 %	AverageRF
4-Chloro-3-methylphenol	80	82	0.01	0.315	0.321	2	NA	± 20 %	AverageRF
Hexachlorocyclopentadiene	80	78	0.05	0.373	0.403	NA	-2	± 20 %	Quadratic
2,4,6-Trichlorophenol	80	78	0.01	0.413	0.401	-3	NA	± 20 %	AverageRF
2-Chloronaphthalene	80	86	0.01	1.16	1.25	8	NA	± 20 %	AverageRF
Acenaphthylene	80	85	0.01	1.78	1.89	6	NA	± 20 %	AverageRF
Dimethyl Phthalate	80	70	0.01	1.36	1.19	-12	NA	± 20 %	AverageRF
2,6-Dinitrotoluene	80	84	0.01	0.308	0.324	5	NA	± 20 %	AverageRF
Acenaphthene	80	82	0.01	1.02	1.04	3	NA	± 20 %	AverageRF
2,4-Dinitrophenol	80	78	0.05	0.179	0.175	-2	NA	± 20 %	AverageRF
4-Nitrophenol	80	80	0.05	0.176	0.176	0	NA	± 20 %	AverageRF
2,4-Dinitrotoluene	80	76	0.01	0.391	0.370	-5	NA	± 20 %	AverageRF
Fluorene	80	80	0.01	1.20	1.20	0	NA	± 20 %	AverageRF
4-Chlorophenyl Phenyl Ether	80	74	0.01	0.615	0.568	-8	NA	± 20 %	AverageRF
Diethyl Phthalate	80	77	0.01	1.31	1.26	-4	NA	± 20 %	AverageRF
2-Methyl-4,6-dinitrophenol	80	80	0.01	0.212	0.212	0	NA	± 20 %	AverageRF
N-Nitrosodiphenylamine	80	73	0.01	0.801	0.732	-9	NA	± 20 %	AverageRF
1,2-Diphenylhydrazine	80	82	0.01	1.35	1.39	3	NA	± 20 %	AverageRF
4-Bromophenyl Phenyl Ether	80	81	0.01	0.241	0.245	2	NA	± 20 %	AverageRF
Hexachlorobenzene	80	79	0.01	0.280	0.276	-1	NA	± 20 %	AverageRF
Pentachlorophenol	80	76	0.01	0.157	0.150	-5	NA	± 20 %	AverageRF
Phenanthrene	80	76	0.01	1.06	1.01	-5	NA	± 20 %	AverageRF
Anthracene	80	81	0.01	1.12	1.13	1	NA	± 20 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Results

**Client:** Exponent  
**Project:** Heglar-Kronquist/0907194.000.0601

**Service Request:** K1005067  
**Date Analyzed:** 06/03/2010

**Continuing Calibration Verification Summary  
Semi-Volatile Organic Compounds by GC/MS**

**Calibration Type:** Internal Standard  
**Analysis Method:** 625

**Calibration Date:** 06/02/2010  
**Calibration ID:** CAL9525  
**Analysis Lot:** KWG1005376  
**Units:** ug/ml

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Di-n-butyl Phthalate	80	80	0.01	1.22	1.21	0	NA	± 20 %	AverageRF
Fluoranthene	80	81	0.01	0.964	0.973	1	NA	± 20 %	AverageRF
Benzidine	80	160	0.01	0.336	0.668	99 *	NA	± 20 %	AverageRF
Pyrene	80	74	0.01	1.07	0.993	-7	NA	± 20 %	AverageRF
Butyl Benzyl Phthalate	80	85	0.01	0.608	0.643	6	NA	± 20 %	AverageRF
3,3'-Dichlorobenzidine	80	83	0.01	0.418	0.433	4	NA	± 20 %	AverageRF
Benz(a)anthracene	80	80	0.01	0.940	0.938	0	NA	± 20 %	AverageRF
Chrysene	80	83	0.01	0.910	0.943	4	NA	± 20 %	AverageRF
Bis(2-ethylhexyl) Phthalate	80	87	0.01	0.866	0.943	9	NA	± 20 %	AverageRF
Di-n-octyl Phthalate	80	86	0.01	1.76	2.03	NA	7	± 20 %	Quadratic
Benzo(b)fluoranthene	80	83	0.01	1.03	1.07	4	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	80	82	0.01	1.07	1.10	3	NA	± 20 %	AverageRF
Benzo(a)pyrene	80	84	0.01	0.856	0.894	5	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	80	76	0.01	0.741	0.702	-5	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	80	80	0.01	0.789	0.790	0	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	80	78	0.01	0.800	0.776	-3	NA	± 20 %	AverageRF
2-Fluorophenol	80	80	0.01	1.06	1.07	0	NA	± 20 %	AverageRF
Phenol-d6	80	87	0.01	1.48	1.60	8	NA	± 20 %	AverageRF
Nitrobenzene-d5	80	80	0.01	1.45	1.46	1	NA	± 20 %	AverageRF
2-Fluorobiphenyl	80	81	0.01	1.31	1.33	1	NA	± 20 %	AverageRF
2,4,6-Tribromophenol	80	73	0.01	0.162	0.149	-8	NA	± 20 %	AverageRF
Terphenyl-d14	80	71	0.01	0.612	0.544	-11	NA	± 20 %	AverageRF

Results flagged with an asterisk (\*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

## Exception Report

**Data File:** J:\MS07\DATA\060310\0603F002.D  
**Lab ID:** KWG1005376-2  
**RunType:** CCV  
**Matrix:** WATER

**Date Acquired:** 06/03/2010 09:52  
**Date Quantitated:** 06/04/2010 08:00  
**Batch ID:** KWG1005376  
**Analysis Method:** 625  
**MethodJoinID:** MJ104

### Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

### Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Benzidine	119.6	NA	30	Out Height Confirmed D.H.C.

Primary Review: M 6-4-10  
 Secondary Review: LB 4/10

# Quantitation Report

Bottle ID:	Tier:	Matrix:	WATER
Prod Code: 8270C	Collect Date:	Receive Date:	06/04/2010

Analysis Lot: KWG1005376	Prep Lot:	Report Group:
Analysis Method: 625	Prep Method:	
Prep Ref:	Prep Date:	

Quant Method: J:\MS07\METHODS\8270_625\0602BNC7.M	Calibration ID: CAL9525
Title:	
Tune Ref: J:\MS07\DATA\060310\0603F001.D	Method ID: MJ104
MB Ref:	Quant based on Method

Data File: J:\MS07\DATA\060310\0603F002.D	Instrument: MS07
Acqu Date: 06/03/2010 09:52	Quant Date: 06/04/2010 08:00
Run Type: CCV	Vial: 2
Lab ID: KWG1005376-2	Dilution: 1.0
	Soln Conc. Units: ug/ml

## Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	1,4-Dichlorobenzene-d4	9.35	0.01	152	114508	40.00	OK
2	Naphthalene-d8	11.45	0.00	136	456867	40.00	OK
3	Acenaphthene-d10	14.31	0.01	164	226896	40.00	OK
4	Phenanthrene-d10	16.71	0.01	188	300151	40.00	OK
5	Chrysene-d12	21.14	0.01	240	305673	40.00	OK
6	Perylene-d12	24.32	0.01	264	250279	40.00	OK

## Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Fluorophenol	7.14			112	243997	80.15		34-112	NA
1	Phenol-d6	8.88			99	367258	86.50		34-116	NA
1	Nitrobenzene-d5	10.29			82	333546	80.42		43-120	NA
3	2-Fluorobiphenyl	13.24			172	601681	80.89		45-115	NA
4	2,4,6-Tribromophenol	15.60			330	89155	73.28		34-134	NA
5	Terphenyl-d14	19.33			244	332493	71.04		13-152	NA

## Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	N-Nitrosodimethylamine	4.15			42	234037m	85.55			
1	Pyridine	4.19			79	369852m	95.40			
1	Aniline	8.82			93	480215	111.90			
1	Bis(2-chloroethyl) Ether	8.96			93	307567	88.83			
1	Phenol	8.89			94	382879	88.07			
1	2-Chlorophenol	9.03			128	316426	84.40			
1	1,3-Dichlorobenzene	9.25			146	337131	84.78			
1	1,4-Dichlorobenzene	9.37			146	346641	85.59			
1	1,2-Dichlorobenzene	9.62			146	320766	83.67			
1	Benzyl Alcohol	9.66			108	235431	102.24			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 ? : Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F002.D  
 Acqu Date: 06/03/2010 09:52  
 Run Type: CCV  
 Lab ID: KWG1005376-2

Quant Date: 06/04/2010 08:00

Instrument: MS07  
 Vial: 2  
 Dilution: 1.0  
 Soln Conc. Units: ug/ml

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Bis(2-chloroisopropyl) Ether	9.87			45	499320	86.92			
1	2-Methylphenol	9.87			107	233868	83.06			
1	Hexachloroethane	10.17			117	150672	81.77			
1	N-Nitrosodi-n-propylamine	10.10			70	253282	89.87			
1	4-Methylphenol	10.14			107	375084	87.72			
1	Nitrobenzene	10.32			77	333365	85.44			
2	Isophorone	10.74			82	689904	83.71			
2	2-Nitrophenol	10.85			139	195036	85.88			
2	2,4-Dimethylphenol	11.00			122	274114	90.27			
2	Bis(2-chloroethoxy)methane	11.12			93	408889	88.31			
2	2,4-Dichlorophenol	11.27			162	283227	82.22			
2	Benzoic Acid	11.31			122	243246	93.47			
2	1,2,4-Trichlorobenzene	11.37			180	298372	81.58			
2	Naphthalene	11.49			128	898088	81.93			
2	4-Chloroaniline	11.62			127	396041	81.90			
2	Hexachlorobutadiene	11.72			225	183710	79.18			
2	4-Chloro-3-methylphenol	12.46			107	293762	81.69			
2	2-Methylnaphthalene	12.62			142	574332	82.34			
3	Hexachlorocyclopentadiene	12.89			237	182940	78.03			
3	2,4,6-Trichlorophenol	13.12			196	182049	77.78			
3	2,4,5-Trichlorophenol	13.18			196	209342	80.26			
3	2-Chloronaphthalene	13.41			162	565266	86.14			
3	2-Nitroaniline	13.61			65	180829	85.66			
3	Acenaphthylene	14.07			152	857303	84.81			
3	Dimethyl Phthalate	13.94			163	541711	70.23			
3	2,6-Dinitrotoluene	14.02			165	147001	84.10			
3	Acenaphthene	14.37			154	473880	82.13			
3	3-Nitroaniline	14.29			138	150895	82.05			
3	2,4-Dinitrophenol	14.46			184	79443	78.33			
3	Dibenzofuran	14.65			168	739726	81.31			
3	4-Nitrophenol	14.65			109	79868	80.20			
3	2,4-Dinitrotoluene	14.67			165	168056	75.86			
3	Fluorene	15.20			166	544566	79.88			
3	4-Chlorophenyl Phenyl Ether	15.22			204	257703	73.84			
3	Diethyl Phthalate	15.09			149	572319	76.75			
3	4-Nitroaniline	15.29			138	131458	82.58			
3	2-Methyl-4,6-dinitrophenol	15.32			198	96364	79.98			
3	N-Nitrosodiphenylamine	15.43			169	332043	73.05			
3	1,2-Diphenylhydrazine	15.48			77	632075	82.47			
4	4-Bromophenyl Phenyl Ether	16.01			248	147115	81.30			
4	Hexachlorobenzene	16.09			284	165797	79.05			
4	Pentachlorophenol	16.43			266	89900	76.27			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 c: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File: J:\MS07\DATA\060310\0603F002.D  
 Acqu Date: 06/03/2010 09:52  
 Run Type: CCV  
 Lab ID: KWG1005376-2

Quant Date: 06/04/2010 08:00

Instrument: MS07  
 Vial: 2  
 Dilution: 1.0  
 Soln Conc. Units: ug/ml

**Target Compounds**

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
4	Phenanthrene	16.74			178	606023	76.00			
4	Anthracene	16.84			178	680472	81.17			
4	Di-n-butyl Phthalate	17.74			149	727953	79.73			
4	Fluoranthene	18.66			202	584143	80.79			
5	Benzidine	18.93			184	408586	159.19			
5	Pyrene	19.02			202	607029	74.40			
5	Butyl Benzyl Phthalate	20.16			149	392950	84.52			
5	3,3'-Dichlorobenzidine	21.12			252	264553	82.82			
5	Benz(a)anthracene	21.11			228	573322	79.81			
5	Chrysene	21.20			228	576236	82.85			
5	Bis(2-ethylhexyl) Phthalate	21.31			149	576736	87.16			
6	Di-n-octyl Phthalate	22.77			149	1015159	85.64			
6	Benzo(b)fluoranthene	23.45			252	536621	83.23			
6	Benzo(k)fluoranthene	23.53			252	549018	82.05			
6	Benzo(a)pyrene	24.18			252	447714	83.61			
6	Indeno(1,2,3-cd)pyrene	26.76			276	351180	75.73			
6	Dibenz(a,h)anthracene	26.84			278	395265	80.02			
6	Benzo(g,h,i)perylene	27.34			276	388673	77.64			

U: Undetected at or above MDL  
 J: Analyte detected above MDL, but below MRL  
 B: Hit above MRL also found in Method Blank  
 E: Analyte concentration above high point of ICAL  
 N: Presumptive evidence of compound

D: Result from dilution  
 m: Manual integration performed  
 d: Compound manually deleted  
 NR: Analyte not reported from this analysis

\*: Result fails acceptance criteria  
 #: Acceptance criteria not applicable  
 ?: Insufficient information to determine acceptance  
 e: Result >= MRL, but MRL less than low point of ICAL  
 c: check for co-elution

Data File : J:\MS07\DATA\060310\0603F002.D  
Acq On : 3 Jun 2010 9:52 am  
Sample : 80PPM 8270 CCV SVM32-40T  
Misc :

Vial: 2  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00

MS Integration Params: RTEINT.P  
Quant Time: Jun 03 11:06:08 2010

Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
Last Update : Thu Jun 03 11:06:06 2010  
Response via : Initial Calibration  
DataAcq Meth : 8270\_1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	9.35	152	114508	40.00	ug/ml	0.00
21) Naphthalene-d8	11.45	136	456867	40.00	ug/ml	0.00
34) Acenaphthene-d10	14.31	164	226896	40.00	ug/ml	0.00
58) Phenanthrene-d10	16.71	188	300151	40.00	ug/ml	0.00
68) Chrysene-d12	21.14	240	305673	40.00	ug/ml	0.00
77) Perylene-d12	24.32	264	250279	40.00	ug/ml	0.00

#### System Monitoring Compounds

4) 2-Fluorophenol	7.14	112	243997	80.15	ug/ml	0.00
Spiked Amount	150.000	Range	21 - 100	Recovery	=	53.43%
7) Phenol-d6	8.88	99	367258	86.50	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 94	Recovery	=	57.67%
19) Nitrobenzene-d5	10.29	82	333546	80.42	ug/ml	0.00
Spiked Amount	100.000	Range	35 - 114	Recovery	=	80.42%
38) 2-Fluorobiphenyl	13.24	172	601681	80.89	ug/ml	0.00
Spiked Amount	100.000	Range	43 - 116	Recovery	=	80.89%
59) 2,4,6-Tribromophenol	15.60	330	89155	73.28	ug/ml	0.00
Spiked Amount	150.000	Range	10 - 123	Recovery	=	48.85%
71) Terphenyl-d14	19.33	244	332493	71.04	ug/ml	0.00
Spiked Amount	100.000	Range	33 - 141	Recovery	=	71.04%

#### Target Compounds

						Qvalue
2) N-Nitrosodimethylamine	4.15	42	234037m	85.55	ug/ml	
3) Pyridine	4.19	79	369852m	95.40	ug/ml	
5) Aniline	8.82	93	480215	111.90	ug/ml	94
6) Bis(2-chloroethyl) Ether	8.96	93	307567	88.83	ug/ml	98
8) Phenol	8.89	94	382879	88.07	ug/ml	97
9) 2-Chlorophenol	9.03	128	316426	84.40	ug/ml	93
10) 1,3-Dichlorobenzene	9.25	146	337131	84.78	ug/ml	96
11) 1,4-Dichlorobenzene	9.37	146	346641	85.59	ug/ml	98
12) 1,2-Dichlorobenzene	9.62	146	320766	83.67	ug/ml	97
13) Benzyl Alcohol	9.66	108	235431	102.24	ug/ml	94
14) Bis(2-chloroisopropyl) Eth	9.87	45	499320	86.92	ug/ml	79
15) 2-Methylphenol	9.87	107	233868	83.06	ug/ml	95
16) Hexachloroethane	10.17	117	150672	81.77	ug/ml	92
17) N-Nitrosodi-n-propylamine	10.10	70	253282	89.87	ug/ml	94
18) 4-Methylphenol	10.14	107	375084	87.72	ug/ml	99
20) Nitrobenzene	10.32	77	333365	85.44	ug/ml	95
22) Isophorone	10.74	82	689904	83.71	ug/ml	98
23) 2-Nitrophenol	10.85	139	195036	85.88	ug/ml	84
24) 2,4-Dimethylphenol	11.00	122	274114	90.27	ug/ml	95
25) Bis(2-chloroethoxy)methane	11.12	93	408889	88.31	ug/ml	99

(#) = qualifier out of range (m) = manual integration  
0603F002.D 0602BNC7.M Fri Jun 04 10:55:22 2010

Data File : J:\MS07\DATA\060310\0603F002.D  
 Acq On : 3 Jun 2010 9:52 am  
 Sample : 80PPM 8270 CCV SVM32-40T  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 03 11:06:08 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

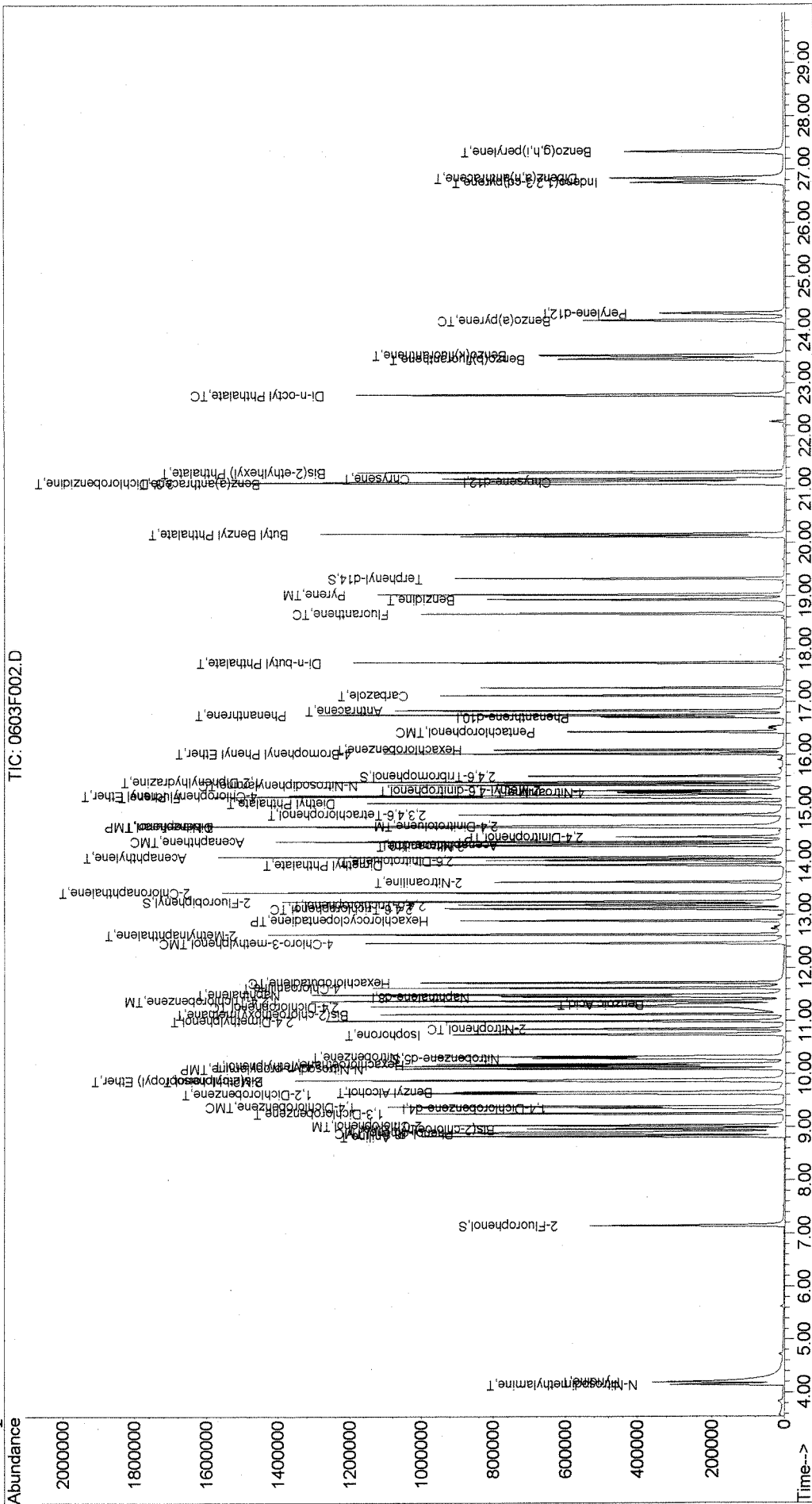
Quant Results File: 0602BNC7.RES

Quant Method : J:\MS07\M...\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 11:06:06 2010  
 Response via : Initial Calibration  
 DataAcq Meth : 8270\_1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
26) 2,4-Dichlorophenol	11.27	162	283227	82.22	ug/ml	98
27) Benzoic Acid	11.31	122	243246	93.47	ug/ml	98
28) 1,2,4-Trichlorobenzene	11.37	180	298372	81.58	ug/ml	99
29) Naphthalene	11.49	128	898088	81.93	ug/ml	99
30) 4-Chloroaniline	11.62	127	396041	81.90	ug/ml	96
31) Hexachlorobutadiene	11.72	225	183710	79.18	ug/ml	98
32) 4-Chloro-3-methylphenol	12.46	107	293762	81.69	ug/ml#	53
33) 2-Methylnaphthalene	12.62	142	574332	82.34	ug/ml	97
35) Hexachlorocyclopentadiene	12.89	237	182940	78.03	ug/ml	97
36) 2,4,6-Trichlorophenol	13.12	196	182049	77.78	ug/ml	100
37) 2,4,5-Trichlorophenol	13.18	196	209342	80.26	ug/ml	99
39) 2-Chloronaphthalene	13.41	162	565266	86.14	ug/ml	100
40) 2-Nitroaniline	13.61	65	180829	85.66	ug/ml	98
41) Acenaphthylene	14.07	152	857303	84.81	ug/ml	98
42) Dimethyl Phthalate	13.94	163	541711	70.23	ug/ml	100
43) 2,6-Dinitrotoluene	14.02	165	147001	84.10	ug/ml	96
44) Acenaphthene	14.37	154	473880	82.13	ug/ml	99
45) 3-Nitroaniline	14.29	138	150895	82.05	ug/ml	94
46) 2,4-Dinitrophenol	14.46	184	79443	78.33	ug/ml	94
47) Dibenzofuran	14.65	168	739726	81.31	ug/ml	99
48) 4-Nitrophenol	14.65	109	79868	80.20	ug/ml#	70
49) 2,4-Dinitrotoluene	14.67	165	168056	75.86	ug/ml	92
50) 2,3,4,6-Tetrachlorophenol	14.87	232	155652	81.85	ug/ml	98
51) Fluorene	15.20	166	544566	79.88	ug/ml	97
52) 4-Chlorophenyl Phenyl Ethe	15.22	204	257703	73.84	ug/ml	95
53) Diethyl Phthalate	15.09	149	572319	76.75	ug/ml	99
54) 4-Nitroaniline	15.29	138	131458	82.58	ug/ml	95
55) 2-Methyl-4,6-dinitrophenol	15.32	198	96364	79.98	ug/ml	92
56) N-Nitrosodiphenylamine	15.43	169	332043	73.05	ug/ml	99
57) 1,2-Diphenylhydrazine	15.48	77	632075	82.47	ug/ml	96
60) 4-Bromophenyl Phenyl Ether	16.01	248	147115	81.30	ug/ml	97
61) Hexachlorobenzene	16.09	284	165797	79.05	ug/ml	85
62) Pentachlorophenol	16.43	266	89900	76.27	ug/ml	97
63) Phenanthrene	16.74	178	606023	76.00	ug/ml	100
64) Anthracene	16.84	178	680472	81.17	ug/ml	99
65) Carbazole	17.12	167	538432	78.67	ug/ml	100
66) Di-n-butyl Phthalate	17.74	149	727953	79.73	ug/ml	100
67) Fluoranthene	18.66	202	584143	80.79	ug/ml	98
69) Benzidine	18.93	184	408586	159.19	ug/ml	99
70) Pyrene	19.02	202	607029	74.40	ug/ml	99
72) Butyl Benzyl Phthalate	20.16	149	392950	84.52	ug/ml	92

(#) = qualifier out of range (m) = manual integration  
 0603F002.D 0602BNC7.M Fri Jun 04 10:55:22 2010

Data File : J:\MS07\DATA\060310\0603F002.D  
Acq On : 3 Jun 2010 9:52 am  
Sample : 80PPM 8270 CCV SVM32-40T  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Jun 4 8:00 2010  
Quant Results File: 0602BNC7.RES  
Vial: 2  
Operator: M.BUTCHER  
Inst : MS07  
Multiplr: 1.00  
Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
Title : BNA Calibration Rtx\_5MS 30m x 0.25mm MS07  
Last Update : Fri Jun 04 10:34:14 2010  
Response via : Initial Calibration



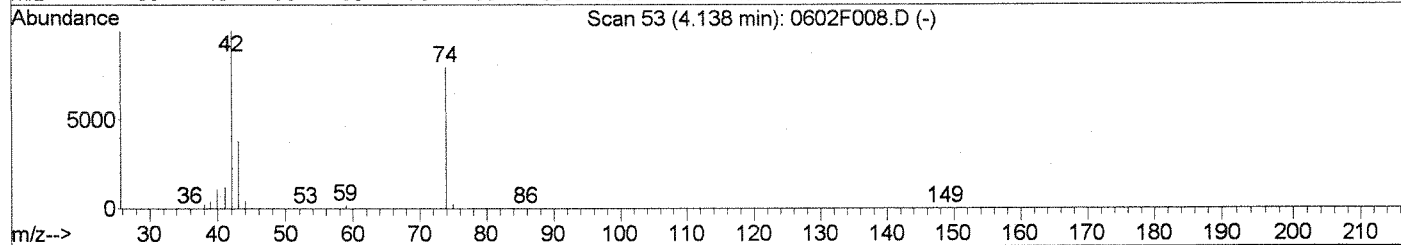
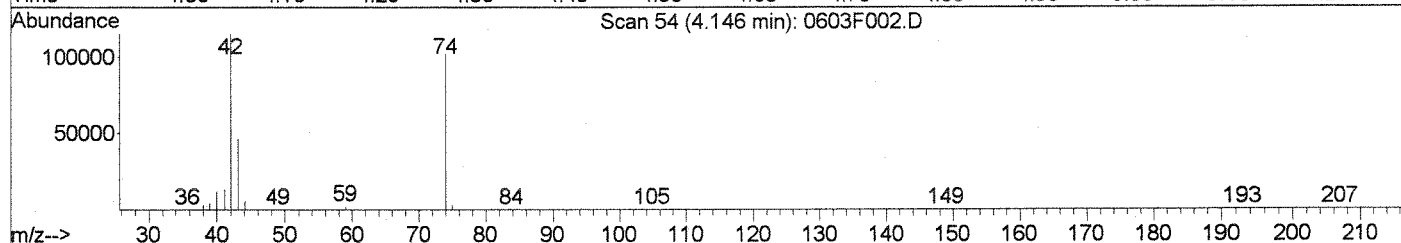
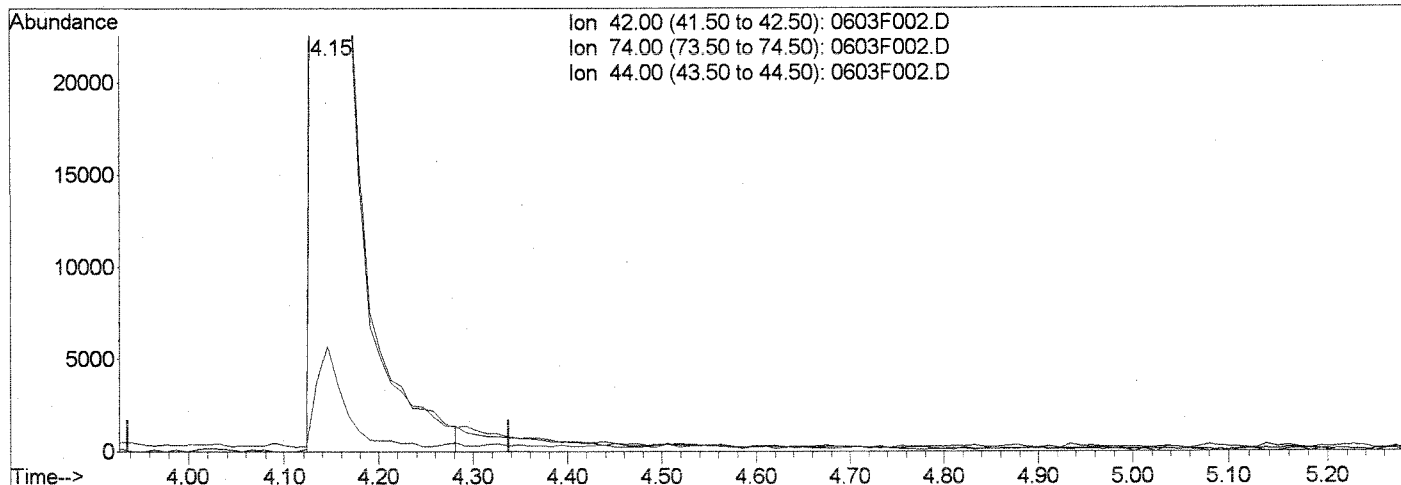


Data File : J:\MS07\DATA\060310\0603F002.D  
 Acq On : 3 Jun 2010 9:52 am  
 Sample : 80PPM 8270 CCV SVM32-40T  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 3 11:06 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F002.D

(2) N-Nitrosodimethylamine (T)

4.15min 81.59ug/ml

response 223198

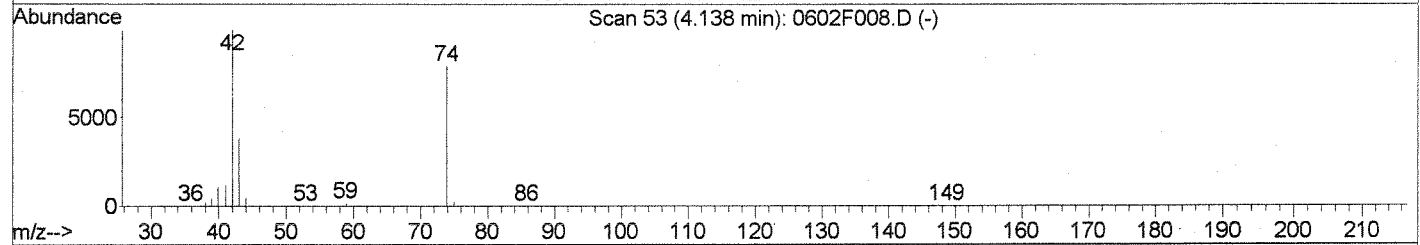
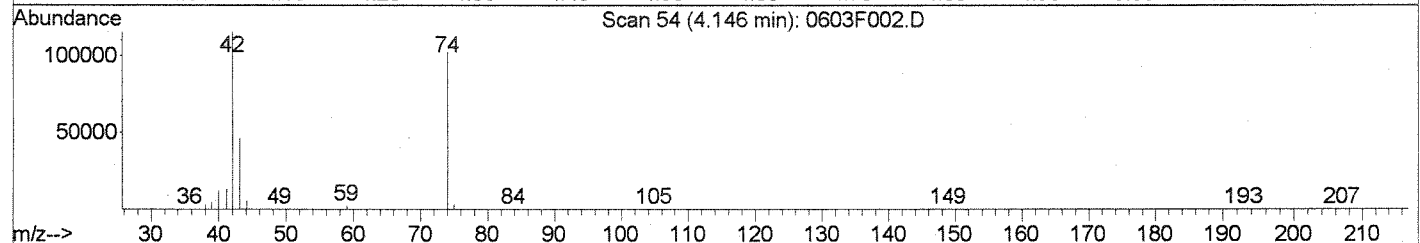
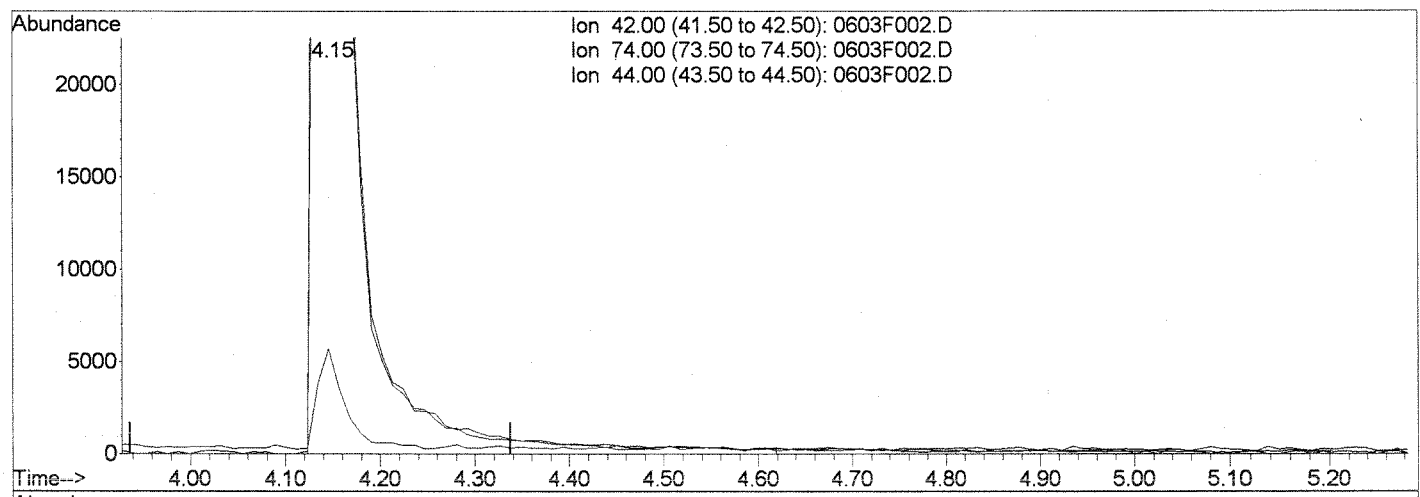
Ion	Exp%	Act%
42.00	100	100
74.00	79.30	88.55
44.00	4.40	4.65
0.00	0.00	0.00

Data File : J:\MS07\DATA\060310\0603F002.D  
 Acq On : 3 Jun 2010 9:52 am  
 Sample : 80PPM 8270 CCV SVM32-40T  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:00 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F002.D

(2) N-Nitrosodimethylamine (T)

4.15min 85.55ug/ml m  
 response 234037

Ion	Exp%	Act%
42.00	100	100
74.00	79.30	88.64
44.00	4.40	4.94
0.00	0.00	0.00

*IL M 6-11-10*

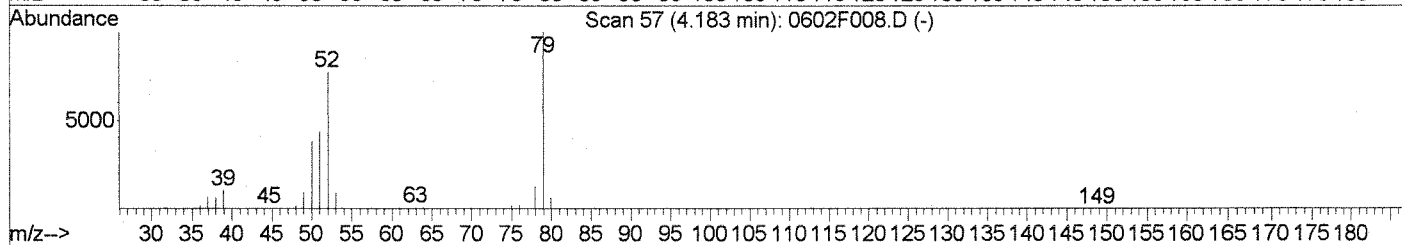
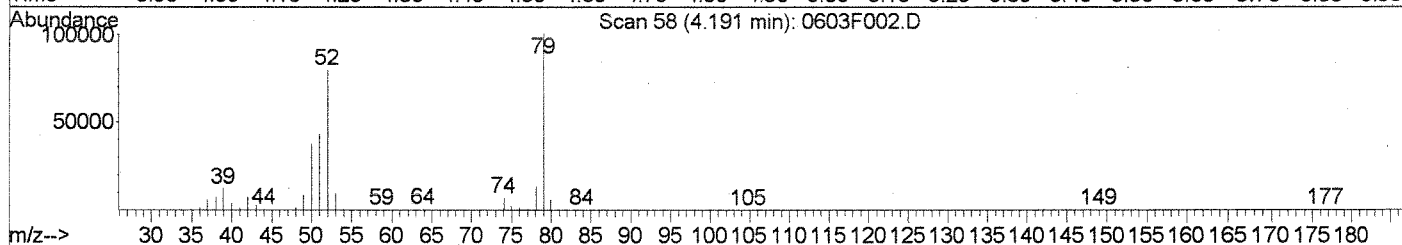
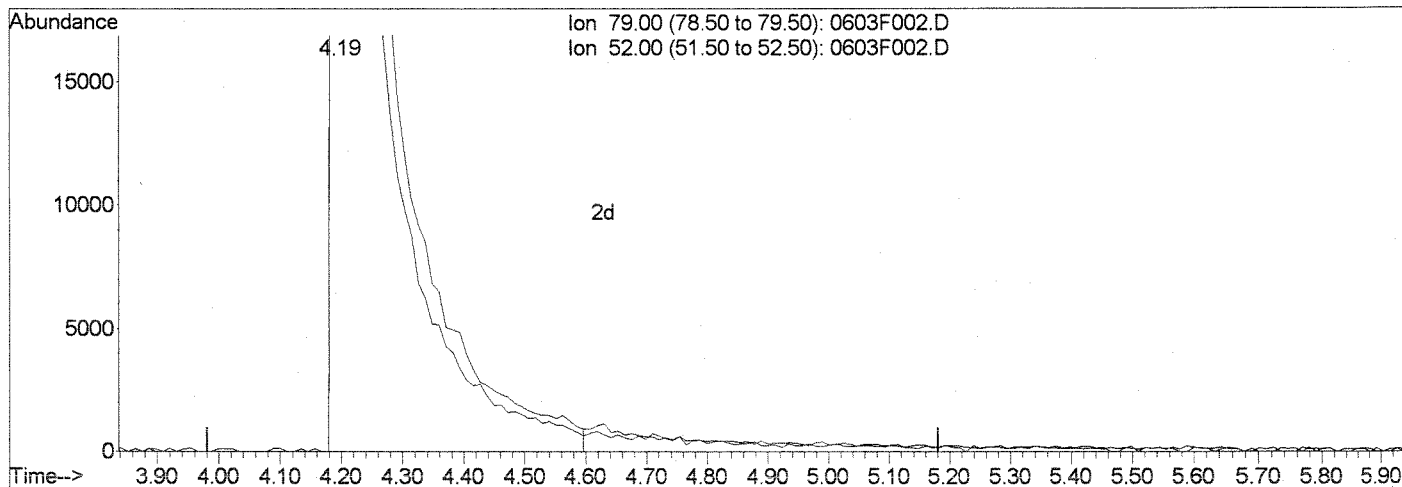
*LB*  
*4/4/10*

Data File : J:\MS07\DATA\060310\0603F002.D  
 Acq On : 3 Jun 2010 9:52 am  
 Sample : 80PPM 8270 CCV SVM32-40T  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:00 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F002.D

(3) Pyridine (T)

4.19min 91.56ug/ml

response 354972

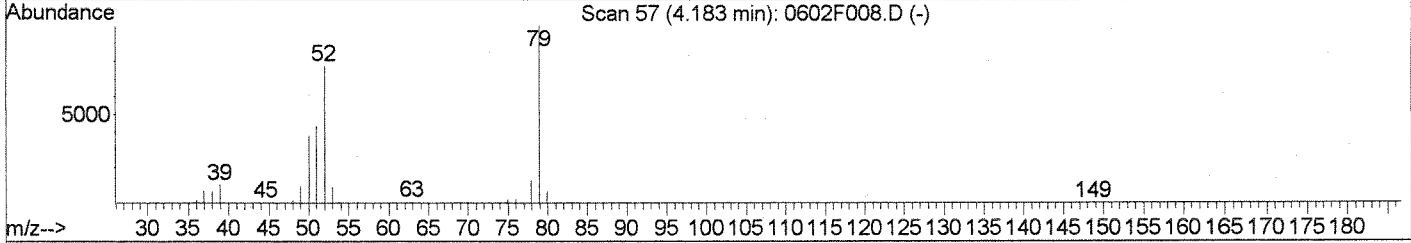
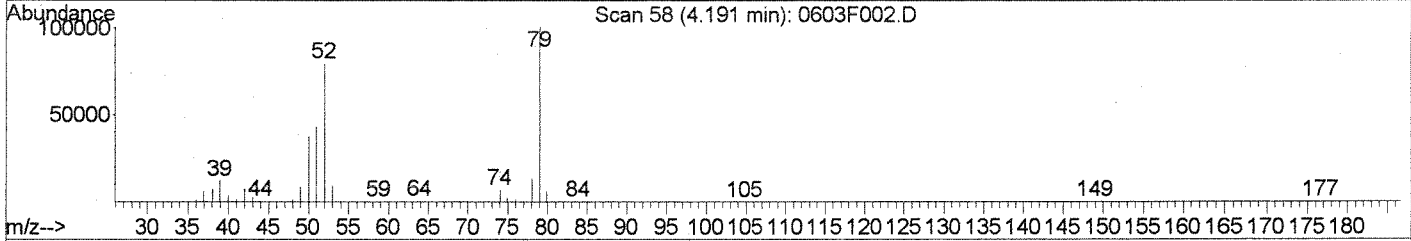
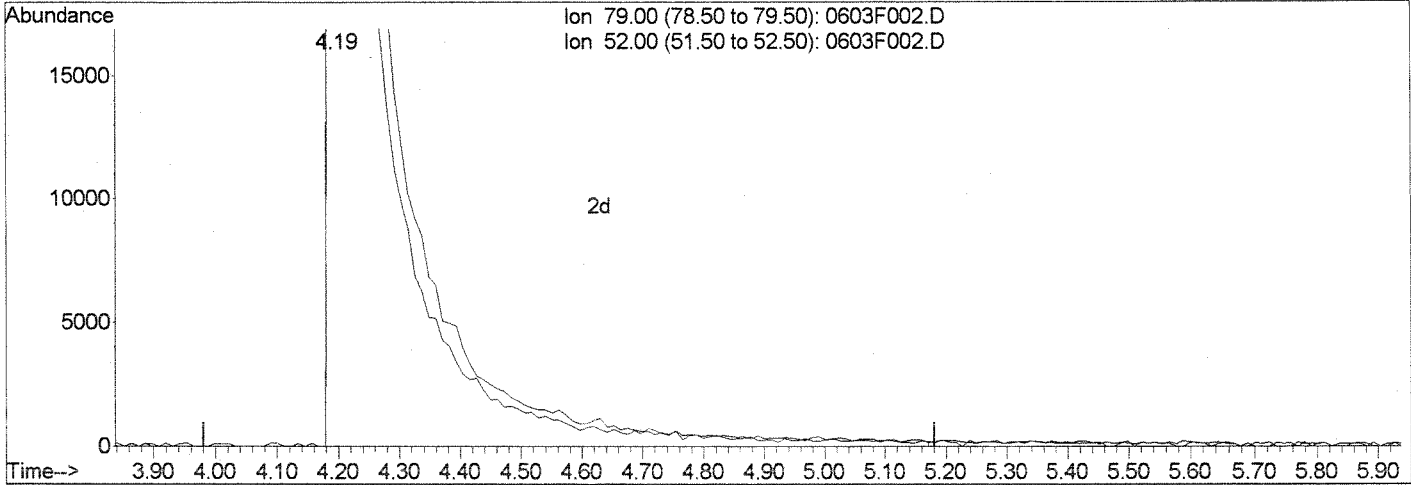
Ion	Exp%	Act%
79.00	100	100
52.00	77.00	79.18
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\MS07\DATA\060310\0603F002.D  
 Acq On : 3 Jun 2010 9:52 am  
 Sample : 80PPM 8270 CCV SVM32-40T  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Jun 4 8:00 2010

Vial: 2  
 Operator: M.BUTCHER  
 Inst : MS07  
 Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS07\METHODS\8270\_625\0602BNC7.M (RTE Integrator)  
 Title : BNA Calibration Rtx-5MS 30m x 0.25mm MS07  
 Last Update : Thu Jun 03 09:52:06 2010  
 Response via : Multiple Level Calibration



TIC: 0603F002.D

(3) Pyridine (T)  
 4.19min 95.40ug/ml m  
 response 369852

Ion	Exp%	Act%
79.00	100	100
52.00	77.00	79.14
0.00	0.00	0.00
0.00	0.00	0.00

*Handwritten:* JL m 6-4-10

*Handwritten:* LB 6/4/10

Organic Analysis:  
Semi-Volatile Organic Compounds by GC/MS

Validation Package

Sample Prep and Screen Data

## Preparation Information

<b>Group ID:</b> KWG1005060	<b>Prep Method:</b> EPA 3520C	<b>Prep Date:</b> 05/24/10 04:25
<b>Department:</b> Semivoa GCMS		

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1005005-001	CCLF5518	625 SVO	WATER	1050mL	1mL	
K1005067-002	3bcd-2	625 SVO	WATER	1050mL	1mL	
K1005067-003	3ddd	625 SVO	WATER	1050mL	1mL	
K1005067-004	EB-051710	625 SVO	WATER	1050mL	1mL	
K1005136-003	N0203-VZMW16-03	8270C SVO	WATER	880mL	1mL	
KWG1005060-1	Lab Control Sample	625 SVO	WATER	1000mL	1mL	
KWG1005060-2	Duplicate Lab Control Sampl	625 SVO	WATER	1000mL	1mL	
KWG1005060-3	Method Blank	625 SVO	WATER	1050mL	1mL	

Lab Code	Parent Lab Code	Comments
KWG1005060-1		KQ1004706-01
KWG1005060-2		KQ1004706-02
KWG1005060-3		KQ1004706-03

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1005005-001	913125					SJones
K1005067-002	913126					SJones
K1005067-003	913127					SJones
K1005067-004	913128					SJones
K1005136-003	913129					SJones
KWG1005060-1	913130					SJones
KWG1005060-2	913131					SJones
KWG1005060-3	913132					SJones

Comments: \_\_\_\_\_ *15-4430-82X*

Started By: <u>RHolden</u>	Assisted By: _____	Training Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Completed By: <u>CWood</u>	Assisted By: _____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Reviewed By: <u><i>Albair</i></u>	Date: <u>6/1/10</u>	Storage: <u>1508</u>

Chain of Custody

Relinquished By: <u><i>Cherin R Wood</i></u>	Date: <u>05-28-10</u>	Extracts Examined
Received By: <u><i>[Signature]</i></u>	Date: <u>6-2-10</u>	Yes <input type="checkbox"/> No <input type="checkbox"/>

**Columbia Analytical Services** Preparation Information Benchsheet

**Prep Run:** 112058    **Prep Workflow:** OrgExtAq (7)    **Status:** Prepped    **Prep Date:** 05/24/2010  
**Team:** Semivoa    **Prep Method:** EPA    **Current Step:** Final    **Due Date:** 04:25  
 GCMS    **Rush/NPDES:** NPDES    **Volume**    **Due Date:** 06/04/2010  
**Analyst:** RHolden

Lab Code	Client ID	Bottle #	Initial Amt	pH Initial	pH Adj 1	pH Adj 2	Final Volume	TestNo List	Comments
K1005005-001	CCLF5518	.01	1050 mL	NA	<2	11<	1 mL	SVO	
K1005067-002	3bcd-2	.16	1050 mL	NA	<2	11<	1 mL	SVO	
K1005067-003	3ddd	.16	1050 mL	NA	<2	11<	1 mL	SVO	
K1005067-004	EB-051710	.16	1050 mL	NA	<2	11<	1 mL	SVO	
K1005136-003	N0203-VZMW16-03	.03	880 mL	NA	<2	11<	1 mL	SVO	
KQ1004706-01	Lab Control Sample		1000 mL	NA	<2	11<	1 mL	SVO	
KQ1004706-02	Duplicate Lab Control Sample		1000 mL	NA	<2	11<	1 mL	SVO	
KQ1004706-03	Method Blank		1050 mL	NA	<2	11<	1 mL	SVO	

8 Total Samples consisting of 5 Client Samples, 0 Client QC Samples, 3 Batch QC Samples associated with the current Prep Run.

**Spiking Solutions**

**Witness:** SJones

**Preparation Steps**

Step	Started	Finished	By	Assisted By	Training?	Comments
Extraction	24-MAY-10 04:25	26-MAY-10 06:10	RHolden		N	
Final Volume	28-MAY-10 12:00	28-MAY-10 02:30	CWood		N	

**Comments**

**Review**

Reviewed by: RHolden Date: 6/11/10

**Chain of Custody**

Relinquished By: <u>Cheri R Wood</u> Date: <u>05-28-10</u>	<u>Extracts/Digestions Examined</u>
Received By: _____ Date: _____	Yes <input type="checkbox"/> No <input type="checkbox"/>

**Columbia Analytical Services** Preparation Information Benchsheet

Prep Run: 112058    Prep Workflow: OrgExtAq (7)    Status: Draft    Prep Date: 05/24/2010 09:43  
 Team: Semivoa GCMS    Prep Method: EPA 3520C    Current Step: Extraction    Due Date: 05/26/2010  
 Analyst: LBERG    Rush/NPDES: NPDES  
*RDA 5-24-10 RIALDEN*

Lab Code	Client ID	Bottle #	✓	Initial Amount	pH Initial	pH Adj 1	pH Adj 2	Inter. Volume	Final Volume	Surr Amt	Spike Amt	TestNo List
K1005005-001	CCLF5518	.01	✓	1050	NA	22	115	N/A	1ml	1.0ml	—	SVO
K1005067-002	3bcd-2	.16	✓	1050	↓	↓	↓	↓	↓	↓	—	SVO
K1005067-003	3ddd	.16	✓	1050	↓	↓	↓	↓	↓	↓	—	SVO
K1005067-004	EB-051710	.16	✓	1050	↓	↓	↓	↓	↓	↓	—	SVO
K1005136-003	N0203-VZMW16-03	.03	✓	880	↓	↓	↓	↓	↓	↓	—	SVO
KQ1004706-01	Lab Control Sample			1000	↓	↓	↓	↓	↓	↓	1.0ml 100ul	SVO
KQ1004706-02	Duplicate Lab Control Sample			1000	↓	↓	↓	↓	↓	↓	↓	SVO
KQ1004706-03	Method Blank			1050	↓	↓	↓	↓	↓	↓	—	SVO

8 Total Samples consisting of 5 Client Samples, 0 Client QC Samples, 3 Batch QC Samples associated with the current Prep Run.

**Spiking Solutions**

Witness: S. Jones 5-24-10

SVM31-84-A, 1.0ml, 100/150 ppm, XP: 10/2/10

SVM32-19-A, 1.0ml, 100 ppm, XP: 8/11/10 / SVM4-96-6, 100ul, 1.0ng/ml XP: 8-13-10

**Preparation Steps**

Step	Started	Finished	By	Assisted By	Training?	Comments
Extraction	5-24-10	5-24-10	RDA		No	
Final Volume	5-28-10	5-28-10	CWood		↓	

**Comments**

Insufficient sample for MS/DMS.

Samples left a gel like residue on the collector. CW 5-28-10  
*wrong paperwork for this note*



**Additional Prep Information For EPA 3520**

**Service Request** K5005, K5067, K5136

**Workgroup** KQ1004706

DCM Lot # DB093

Acid Lot # 9056

Base Lot # 8345

Filtered Samples:                     

Continuous Start<sub>1</sub> (Time/Date/Initial): 16:25 / 5-24-10 / RKA

Continuous Stop<sub>1</sub> (Time/Date/Initial): 10:35 / 5-25-10 / RKA

Continuous Start<sub>2</sub> (Time/Date/Initial): 12:10 / 05-25-10 / CW

Continuous Stop<sub>2</sub> (Time/Date/Initial): 06:10 / 5-26-10 / RKA

Sulfate Lot # BC 1016 05-22-10

S-Evap Temp 70°C

N-Evap Temp 20°C

Hexane Lot #                     

Clean-up #1:                      Initial/Date:                     

Clean-up #2:                      Initial/Date:                     

Date Completed: 05-28-10

Comments/Observations:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Bench Sheet Review Check List**

- Hold Times Met (if no, Reason: \_\_\_\_\_)
- Prep date, dept, method, product code correct in stealth
- Spike Information correct
- Weights/Volumes and units correct on raw and final bench sheets
- Sample IDs have been checked—Bottle numbers appended if required
- Names present for: Started by, Completed by, relinquished by, and witnessed by.
- Training has been circled
- Extract Storage recorded
- Additional Prep Sheet completely filled out ( NA or line out Blanks)
- All clean-ups have been noted on additional prep sheet
- Signed service request with Form V, if applicable, has been attached

Injection Log

Directory: J:\MS07\DATA\060310

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0603f001.d	1.	50PPM DFTPP SVM32-14A		3 Jun 2010 09:08
2	2	0603f002.d	1.	80PPM 8270 CCV SVM32-40T		3 Jun 2010 09:52
3	3	0603f003.d	1.	KQ4706-3 MB		3 Jun 2010 10:43
4	4	0603f004.d	1.	KQ4706-1 LCS	KWB1005040	3 Jun 2010 11:28
5	5	0603f005.d	1.	KQ4706-2 DLCS		3 Jun 2010 12:13
6	6	0603f006.d	1.	K1005067-2		3 Jun 2010 12:59
7	7	0603f007.d	1.	K1005067-3		3 Jun 2010 13:45
8	8	0603f008.d	1.	K1005067-4		3 Jun 2010 14:32
9	9	0603f009.d	1.	K1005005-1		3 Jun 2010 15:20
10	4	0603f010.d	1.	<del>KQ4706-1 LCS</del> MR		3 Jun 2010 16:08
11	10	0603f011.d	1.	KQ4706-1 LCS 2X		3 Jun 2010 16:55

STAR  $\leftarrow$  MS# 203526

ICAL 9525  
M 6-4-10

LB  
LIA110