

Sequence No.: 47
 Sample ID: BEJ0795-MS1

Autosampler Location: 352
 Date Collected: 10/28/2016 3:52:51 PM
 Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: BEJ0795-MS1

Analyte Back Pressure Flow
 All 151.0 kPa 0.65 L/min

Mean Data: BEJ0795-MS1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1897425.5	108.4 %	0.65			0.60%
ScR 361.383	211031.5	109.6 %	0.68			0.62%
Ag 328.068†	60083.9	0.4639 mg/L	0.00226	0.9278 mg/L	0.00453	0.49%
Al 308.215†	104222.4	111.8 mg/L	0.52	223.7 mg/L	1.03	0.46%
As 188.979†	2174.2	1.981 mg/L	0.0085	3.963 mg/L	0.0170	0.43%
B 249.677†	168.4	0.02947 mg/L	0.000258	0.05894 mg/L	0.000516	0.88%
Ba 233.527†	15072.7	2.522 mg/L	0.0150	5.044 mg/L	0.0300	0.60%
Be 313.042†	162967.4	0.4942 mg/L	0.00113	0.9884 mg/L	0.00227	0.23%
Ca 317.933†	565700.1	79.03 mg/L	0.146	158.1 mg/L	0.29	0.19%
Cd 228.802†	8687.6	0.4911 mg/L	0.00247	0.9823 mg/L	0.00494	0.50%
Co 228.616†	13877.8	0.5359 mg/L	0.00323	1.072 mg/L	0.0065	0.60%
Cr 267.716†	4212.4	0.7313 mg/L	0.00367	1.463 mg/L	0.0073	0.50%
Cu 324.752†	87115.2	0.6121 mg/L	0.00190	1.224 mg/L	0.0038	0.31%
Fe 273.955†	133367.3	170.0 mg/L	0.47	340.0 mg/L	0.95	0.28%
K 766.490†	21458.8	17.63 mg/L	0.080	35.27 mg/L	0.160	0.45%
Mg 279.077†	73448.0	90.04 mg/L	0.366	180.1 mg/L	0.73	0.41%
Mn 257.610†	85867.8	2.889 mg/L	0.0066	5.777 mg/L	0.0132	0.23%
Mo 202.031†	145.3	0.00819 mg/L	0.000408	0.01639 mg/L	0.000816	4.98%
Na 589.592†	99232.2	13.26 mg/L	0.078	26.52 mg/L	0.155	0.59%
Na 330.237†	218.2	14.25 mg/L	0.279	28.51 mg/L	0.559	1.96%
Ni 231.604†	3305.4	0.9239 mg/L	0.00397	1.848 mg/L	0.0079	0.43%
Pb 220.353†	13084.3	2.005 mg/L	0.0089	4.009 mg/L	0.0177	0.44%
Sb 206.836†	1328.1	0.5465 mg/L	0.00232	1.093 mg/L	0.0046	0.43%
Se 196.026†	1844.6	1.985 mg/L	0.0095	3.970 mg/L	0.0189	0.48%
Si 288.158†	1166.6	0.9562 mg/L	0.00237	1.912 mg/L	0.0047	0.25%
Sn 189.927†	-108.8	-0.01773 mg/L	0.000719	-0.03545 mg/L	0.001437	4.05%
Sr 421.552†	454060.2	0.9150 mg/L	0.00420	1.830 mg/L	0.0084	0.46%
Ti 334.903†	99296.8	6.903 mg/L	0.0243	13.81 mg/L	0.049	0.35%
Tl 190.801†	2688.8	1.853 mg/L	0.0124	3.705 mg/L	0.0247	0.67%
V 292.402†	84758.5	0.8281 mg/L	0.00244	1.656 mg/L	0.0049	0.29%
Zn 206.200†	2918.2	0.9174 mg/L	0.00558	1.835 mg/L	0.0112	0.61%

Sequence No.: 48

Autosampler Location: 353

Sample ID: BEJ0795-BS1

Date Collected: 10/28/2016 3:56:37 PM

Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: BEJ0795-BS1

Analyte	Back Pressure	Flow
All	150.0 kPa	0.65 L/min

Mean Data: BEJ0795-BS1

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.	Units		Conc.	Units		
ScA 357.253	1895931.8	108.3	%	0.45				0.41%
ScR 361.383	209224.3	108.7	%	0.75				0.69%
Ag 328.068†	66909.2	0.5165	mg/L	0.00256	1.033	mg/L	0.0051	0.50%
Al 308.215†	1938.8	2.073	mg/L	0.0093	4.147	mg/L	0.0186	0.45%
As 188.979†	2524.7	2.058	mg/L	0.0052	4.116	mg/L	0.0104	0.25%
B 249.677†	3.1	-0.00077	mg/L	0.001614	-0.00155	mg/L	0.003227	208.79%
Ba 233.527†	12071.5	2.035	mg/L	0.0089	4.070	mg/L	0.0177	0.44%
Be 313.042†	166519.7	0.5051	mg/L	0.00029	1.010	mg/L	0.0006	0.06%
Ca 317.933†	72674.5	10.15	mg/L	0.009	20.30	mg/L	0.019	0.09%
Cd 228.802†	8790.3	0.4964	mg/L	0.00085	0.9928	mg/L	0.00170	0.17%
Co 228.616†	12686.1	0.5015	mg/L	0.00163	1.003	mg/L	0.0033	0.32%
Cr 267.716†	2943.6	0.5086	mg/L	0.00294	1.017	mg/L	0.0059	0.58%
Cu 324.752†	70601.1	0.4910	mg/L	0.00204	0.9821	mg/L	0.00407	0.41%
Fe 273.955†	1645.2	2.093	mg/L	0.0154	4.185	mg/L	0.0309	0.74%
K 766.490†	12885.3	10.59	mg/L	0.044	21.18	mg/L	0.087	0.41%
Mg 279.077†	8576.1	10.53	mg/L	0.047	21.06	mg/L	0.095	0.45%
Mn 257.610†	14543.2	0.4898	mg/L	0.00254	0.9795	mg/L	0.00509	0.52%
Mo 202.031†	16.2	0.00089	mg/L	0.000219	0.00179	mg/L	0.000437	24.45%
Na 589.592†	76857.4	10.27	mg/L	0.048	20.54	mg/L	0.096	0.47%
Na 330.237†	190.8	11.15	mg/L	0.217	22.30	mg/L	0.434	1.94%
Ni 231.604†	1832.1	0.5127	mg/L	0.00446	1.025	mg/L	0.0089	0.87%
Pb 220.353†	13271.7	2.005	mg/L	0.0071	4.011	mg/L	0.0143	0.36%
Sb 206.836†	5194.7	2.148	mg/L	0.0076	4.297	mg/L	0.0153	0.36%
Se 196.026†	1916.7	2.075	mg/L	0.0020	4.149	mg/L	0.0040	0.10%
Si 288.158†	-6.1	-0.00218	mg/L	0.003763	-0.00435	mg/L	0.007527	172.96%
Sn 189.927†	-29.2	-0.00673	mg/L	0.001664	-0.01347	mg/L	0.003327	24.71%
Sr 421.552†	249715.2	0.5032	mg/L	0.00192	1.006	mg/L	0.0038	0.38%
Ti 334.903†	30.2	0.00125	mg/L	0.000485	0.00251	mg/L	0.000971	38.74%
Tl 190.801†	2997.0	2.045	mg/L	0.0095	4.090	mg/L	0.0189	0.46%
V 292.402†	51786.0	0.5124	mg/L	0.00191	1.025	mg/L	0.0038	0.37%
Zn 206.200†	1615.5	0.5078	mg/L	0.00293	1.016	mg/L	0.0059	0.58%

Sequence No.: 49
Sample ID: SEQ-CCV7

Autosampler Location: 7
Date Collected: 10/28/2016 4:00:36 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV7

Analyte	Back Pressure	Flow
All	150.0 kPa	0.65 L/min

Mean Data: SEQ-CCV7

Analyte	Mean Corrected		Calib.		Sample		Std.Dev.	RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units		
ScA 357.253	1857170.9	106.1	%	0.29				0.28%
ScR 361.383	204142.9	106.1	%	0.65				0.61%
Ag 328.068†	134754.6	1.040	mg/L	0.0094	1.040	mg/L	0.0094	0.90%
Al 308.215†	1984.0	2.096	mg/L	0.0211	2.096	mg/L	0.0211	1.01%
As 188.979†	2477.1	2.047	mg/L	0.0059	2.047	mg/L	0.0059	0.29%
B 249.677†	5246.1	1.013	mg/L	0.0110	1.013	mg/L	0.0110	1.08%
Ba 233.527†	6156.9	1.038	mg/L	0.0117	1.038	mg/L	0.0117	1.13%
Be 313.042†	333387.9	1.011	mg/L	0.0049	1.011	mg/L	0.0049	0.48%
Ca 317.933†	15265.4	2.133	mg/L	0.0228	2.133	mg/L	0.0228	1.07%
Cd 228.802†	17442.4	0.9977	mg/L	0.01061	0.9977	mg/L	0.01061	1.06%
Co 228.616†	25432.1	1.004	mg/L	0.0116	1.004	mg/L	0.0116	1.15%
Cr 267.716†	5991.6	1.037	mg/L	0.0091	1.037	mg/L	0.0091	0.88%
Cu 324.752†	142301.5	0.9891	mg/L	0.00884	0.9891	mg/L	0.00884	0.89%
Fe 273.955†	1631.4	2.071	mg/L	0.0174	2.071	mg/L	0.0174	0.84%
K 766.490†	26038.1	21.40	mg/L	0.184	21.40	mg/L	0.184	0.86%
Mg 279.077†	1717.7	2.116	mg/L	0.0214	2.116	mg/L	0.0214	1.01%
Mn 257.610†	28186.8	0.9488	mg/L	0.00306	0.9488	mg/L	0.00306	0.32%
Mo 202.031†	15077.4	0.9707	mg/L	0.01236	0.9707	mg/L	0.01236	1.27%
Na 589.592†	383485.8	51.25	mg/L	0.220	51.25	mg/L	0.220	0.43%
Na 330.237†	909.4	53.88	mg/L	0.386	53.88	mg/L	0.386	0.72%
Ni 231.604†	3724.1	1.042	mg/L	0.0088	1.042	mg/L	0.0088	0.85%
Pb 220.353†	13204.1	1.996	mg/L	0.0235	1.996	mg/L	0.0235	1.18%
Sb 206.836†	5093.3	2.110	mg/L	0.0040	2.110	mg/L	0.0040	0.19%
Se 196.026†	1904.6	2.061	mg/L	0.0014	2.061	mg/L	0.0014	0.07%
Si 288.158†	2464.8	2.097	mg/L	0.0125	2.097	mg/L	0.0125	0.60%
Sn 189.927†	2895.2	1.001	mg/L	0.0012	1.001	mg/L	0.0012	0.12%
Sr 421.552†	508811.0	1.025	mg/L	0.0043	1.025	mg/L	0.0043	0.42%
Ti 334.903†	14414.2	1.002	mg/L	0.0035	1.002	mg/L	0.0035	0.35%
Tl 190.801†	2978.3	2.029	mg/L	0.0022	2.029	mg/L	0.0022	0.11%
V 292.402†	102842.7	1.018	mg/L	0.0101	1.018	mg/L	0.0101	0.99%
Zn 206.200†	3330.7	1.047	mg/L	0.0086	1.047	mg/L	0.0086	0.82%

Sequence No.: 50
 Sample ID: SEQ-CCB7

Autosampler Location: 1
 Date Collected: 10/28/2016 4:04:37 PM
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCB7

Analyte Back Pressure Flow
 All 151.0 kPa 0.65 L/min

Mean Data: SEQ-CCB7

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1868879.7	106.8 %	0.51			0.48%
ScR 361.383	205159.4	106.6 %	0.20			0.19%
Ag 328.068†	5.8	0.00005 mg/L	0.000573	0.00005 mg/L	0.000573	>999.9%
Al 308.215†	9.1	0.00974 mg/L	0.001744	0.00974 mg/L	0.001744	17.90%
As 188.979†	2.7	0.00215 mg/L	0.002362	0.00215 mg/L	0.002362	109.98%
B 249.677†	3.1	0.00061 mg/L	0.000738	0.00061 mg/L	0.000738	121.26%
Ba 233.527†	5.0	0.00084 mg/L	0.000194	0.00084 mg/L	0.000194	23.08%
Be 313.042†	-26.1	-0.00008 mg/L	0.000092	-0.00008 mg/L	0.000092	116.90%
Ca 317.933†	23.4	0.00328 mg/L	0.001158	0.00328 mg/L	0.001158	35.36%
Cd 228.802†	2.1	0.00011 mg/L	0.000214	0.00011 mg/L	0.000214	200.94%
Co 228.616†	5.0	0.00020 mg/L	0.000097	0.00020 mg/L	0.000097	48.31%
Cr 267.716†	1.9	0.00033 mg/L	0.000414	0.00033 mg/L	0.000414	125.82%
Cu 324.752†	35.8	0.00025 mg/L	0.000261	0.00025 mg/L	0.000261	105.02%
Fe 273.955†	4.5	0.00572 mg/L	0.003475	0.00572 mg/L	0.003475	60.71%
K 766.490†	60.4	0.04961 mg/L	0.024553	0.04961 mg/L	0.024553	49.49%
Mg 279.077†	6.3	0.00773 mg/L	0.006772	0.00773 mg/L	0.006772	87.66%
Mn 257.610†	0.4	0.00001 mg/L	0.000135	0.00001 mg/L	0.000135	939.25%
Mo 202.031†	10.5	0.00068 mg/L	0.000560	0.00068 mg/L	0.000560	82.56%
Na 589.592†	398.6	0.05327 mg/L	0.003639	0.05327 mg/L	0.003639	6.83%
Na 330.237†	17.3	1.030 mg/L	1.1300	1.030 mg/L	1.1300	109.75%
Ni 231.604†	-0.3	-0.00009 mg/L	0.001289	-0.00009 mg/L	0.001289	>999.9%
Pb 220.353†	2.0	0.00031 mg/L	0.000687	0.00031 mg/L	0.000687	220.12%
Sb 206.836†	-0.9	-0.00040 mg/L	0.001044	-0.00040 mg/L	0.001044	260.91%
Se 196.026†	0.1	0.00010 mg/L	0.001782	0.00010 mg/L	0.001782	>999.9%
Si 288.158†	-7.6	-0.00642 mg/L	0.002679	-0.00642 mg/L	0.002679	41.73%
Sn 189.927†	-1.6	-0.00055 mg/L	0.001206	-0.00055 mg/L	0.001206	219.33%
Sr 421.552†	-26.1	-0.00005 mg/L	0.000082	-0.00005 mg/L	0.000082	155.99%
Ti 334.903†	-20.3	-0.00141 mg/L	0.000653	-0.00141 mg/L	0.000653	46.16%
Tl 190.801†	1.9	0.00129 mg/L	0.000553	0.00129 mg/L	0.000553	42.96%
V 292.402†	-18.4	-0.00018 mg/L	0.000136	-0.00018 mg/L	0.000136	76.20%
Zn 206.200†	1.0	0.00031 mg/L	0.000471	0.00031 mg/L	0.000471	154.02%

Sequence No.: 51

Autosampler Location: 354

Sample ID: BEJ0777-BLK1

Date Collected: 10/28/2016 4:08:37 PM

Dilution: 1.000000X

Data Type: Original

Nebulizer Parameters: BEJ0777-BLK1

Analyte	Back Pressure	Flow
All	152.0 kPa	0.65 L/min

Mean Data: BEJ0777-BLK1

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1875895.4	107.2	%	0.71				0.67%
ScR 361.383	208043.9	108.1	%	0.38				0.35%
Ag 328.068†	-17.1	-0.00013	mg/L	0.000212	-0.00013	mg/L	0.000212	160.28%
Al 308.215†	25.6	0.02745	mg/L	0.011760	0.02745	mg/L	0.011760	42.84%
As 188.979†	1.9	0.00164	mg/L	0.000636	0.00164	mg/L	0.000636	38.76%
B 249.677†	-2.7	-0.00052	mg/L	0.001619	-0.00052	mg/L	0.001619	311.14%
Ba 233.527†	1.6	0.00026	mg/L	0.000780	0.00026	mg/L	0.000780	295.10%
Be 313.042†	-52.6	-0.00016	mg/L	0.000054	-0.00016	mg/L	0.000054	33.78%
Ca 317.933†	261.5	0.03653	mg/L	0.000258	0.03653	mg/L	0.000258	0.71%
Cd 228.802†	-2.6	-0.00016	mg/L	0.000059	-0.00016	mg/L	0.000059	36.22%
Co 228.616†	-2.9	-0.00012	mg/L	0.000143	-0.00012	mg/L	0.000143	116.04%
Cr 267.716†	6.3	0.00110	mg/L	0.000230	0.00110	mg/L	0.000230	20.92%
Cu 324.752†	48.4	0.00034	mg/L	0.000156	0.00034	mg/L	0.000156	46.57%
Fe 273.955†	7.0	0.00896	mg/L	0.002905	0.00896	mg/L	0.002905	32.42%
K 766.490†	59.5	0.04892	mg/L	0.026553	0.04892	mg/L	0.026553	54.28%
Mg 279.077†	18.2	0.02231	mg/L	0.001747	0.02231	mg/L	0.001747	7.83%
Mn 257.610†	-0.9	-0.00003	mg/L	0.000067	-0.00003	mg/L	0.000067	215.01%
Mo 202.031†	7.5	0.00048	mg/L	0.000063	0.00048	mg/L	0.000063	13.07%
Na 589.592†	613.0	0.08192	mg/L	0.011867	0.08192	mg/L	0.011867	14.49%
Na 330.237†	19.3	1.144	mg/L	0.5715	1.144	mg/L	0.5715	49.94%
Ni 231.604†	-4.9	-0.00137	mg/L	0.001840	-0.00137	mg/L	0.001840	134.63%
Pb 220.353†	3.1	0.00047	mg/L	0.001310	0.00047	mg/L	0.001310	277.68%
Sb 206.836†	-2.2	-0.00094	mg/L	0.001795	-0.00094	mg/L	0.001795	191.41%
Se 196.026†	-3.7	-0.00397	mg/L	0.001454	-0.00397	mg/L	0.001454	36.61%
Si 288.158†	-9.1	-0.00777	mg/L	0.005871	-0.00777	mg/L	0.005871	75.59%
Sn 189.927†	0.2	0.00009	mg/L	0.001122	0.00009	mg/L	0.001122	>999.9%
Sr 421.552†	-36.4	-0.00007	mg/L	0.000009	-0.00007	mg/L	0.000009	11.81%
Ti 334.903†	58.6	0.00407	mg/L	0.000884	0.00407	mg/L	0.000884	21.71%
Tl 190.801†	-4.0	-0.00276	mg/L	0.001499	-0.00276	mg/L	0.001499	54.33%
V 292.402†	-13.8	-0.00013	mg/L	0.000170	-0.00013	mg/L	0.000170	127.77%
Zn 206.200†	17.7	0.00555	mg/L	0.000234	0.00555	mg/L	0.000234	4.21%

Sequence No.: 52
 Sample ID: 16J0413-05

Autosampler Location: 355
 Date Collected: 10/28/2016 4:12:37 PM
 Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: 16J0413-05

Analyte Back Pressure Flow
 All 151.0 kPa 0.65 L/min

Mean Data: 16J0413-05

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1887010.1	107.8 %	0.35			0.32%
ScR 361.383	209192.1	108.7 %	0.71			0.65%
Ag 328.068†	-225.8	-0.00159 mg/L	0.000089	-0.00317 mg/L	0.000177	5.59%
Al 308.215†	145913.5	156.6 mg/L	0.40	313.1 mg/L	0.80	0.26%
As 188.979†	187.5	0.3645 mg/L	0.00103	0.7290 mg/L	0.00205	0.28%
B 249.677†	81.0	0.01368 mg/L	0.002408	0.02736 mg/L	0.004815	17.60%
Ba 233.527†	3807.5	0.6179 mg/L	0.00363	1.236 mg/L	0.0073	0.59%
Be 313.042†	644.2	0.00183 mg/L	0.000029	0.00365 mg/L	0.000058	1.60%
Ca 317.933†	520048.2	72.65 mg/L	0.082	145.3 mg/L	0.16	0.11%
Cd 228.802†	78.9	0.00191 mg/L	0.000219	0.00383 mg/L	0.000438	11.46%
Co 228.616†	3435.1	0.1229 mg/L	0.00102	0.2457 mg/L	0.00203	0.83%
Cr 267.716†	1482.8	0.2633 mg/L	0.00251	0.5265 mg/L	0.00502	0.95%
Cu 324.752†	27529.8	0.2003 mg/L	0.00028	0.4006 mg/L	0.00055	0.14%
Fe 273.955†	171273.5	218.3 mg/L ✓	0.84	436.6 mg/L	1.68	0.38%
K 766.490†	10213.9	8.394 mg/L	0.0337	16.79 mg/L	0.067	0.40%
Mg 279.077†	53871.5	65.97 mg/L	0.164	131.9 mg/L	0.33	0.25%
Mn 257.610†	81340.0	2.736 mg/L	0.0085	5.472 mg/L	0.0169	0.31%
Mo 202.031†	99.2	0.00532 mg/L	0.000474	0.01063 mg/L	0.000947	8.91%
Na 589.592†	46638.6	6.233 mg/L	0.0202	12.47 mg/L	0.040	0.32%
Na 330.237†	93.1	6.981 mg/L	0.2788	13.96 mg/L	0.558	3.99%
Ni 231.604†	689.0	0.1927 mg/L	0.00359	0.3854 mg/L	0.00717	1.86%
Pb 220.353†	287.0	0.08231 mg/L	0.000937	0.1646 mg/L	0.00187	1.14%
Sb 206.836†	39.8	0.01867 mg/L	0.003023	0.03733 mg/L	0.006046	16.20%
Se 196.026†	38.2	0.02475 mg/L	0.007203	0.04950 mg/L	0.014406	29.10%
Si 288.158†	1190.2	0.9704 mg/L	0.00778	1.941 mg/L	0.0156	0.80%
Sn 189.927†	-102.2	-0.01719 mg/L	0.001597	-0.03438 mg/L	0.003194	9.29%
Sr 421.552†	252149.5	0.5081 mg/L	0.00092	1.016 mg/L	0.0018	0.18%
Ti 334.903†	101389.6	7.050 mg/L	0.0208	14.10 mg/L	0.042	0.29%
Tl 190.801†	-36.7	-0.00211 mg/L	0.003194	-0.00422 mg/L	0.006388	151.38%
V 292.402†	54483.8	0.5258 mg/L	0.00032	1.052 mg/L	0.0006	0.06%
Zn 206.200†	1894.9	0.5957 mg/L	0.00286	1.191 mg/L	0.0057	0.48%

Sequence No.: 53
 Sample ID: 16J0413-06
 Dilution: 2.000000X

del

Autosampler Location: 356
 Date Collected: 10/28/2016 4:16:23 PM
 Data Type: Original

Nebulizer Parameters: 16J0413-06

Analyte Back Pressure Flow
 All 150.0 kPa 0.65 L/min

Mean Data: 16J0413-06

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1873043.8	107.0	%	0.40			0.37%
ScR 361.383	209940.9	109.1	%	1.19			1.09%
Ag 328.068†	-206.7	-0.00144	mg/L	0.000162	-0.00287	mg/L	0.000324 11.27%
Al 308.215†	173502.1	186.2	mg/L	1.13	372.4	mg/L	2.26 0.61%
As 188.979†	-217.7	0.04966	mg/L	0.001805	0.09931	mg/L	0.003609 3.63%
B 249.677†	67.4	0.01096	mg/L	0.000791	0.02192	mg/L	0.001583 7.22%
Ba 233.527†	4537.4	0.7369	mg/L	0.00805	1.474	mg/L	0.0161 1.09%
Be 313.042†	838.7	0.00242	mg/L	0.000089	0.00483	mg/L	0.000178 3.68%
Ca 317.933†	715802.1	100.00	mg/L	0.092	200.0	mg/L	0.18 0.09%
Cd 228.802†	43.9	0.00166	mg/L	0.000394	0.00332	mg/L	0.000788 23.77%
Co 228.616†	2882.8	0.09992	mg/L	0.000330	0.1998	mg/L	0.00066 0.33%
Cr 267.716†	1552.1	0.2764	mg/L	0.00271	0.5527	mg/L	0.00543 0.98%
Cu 324.752†	46044.3	0.3307	mg/L	0.00035	0.6613	mg/L	0.00070 0.11%
Fe 273.955†	199992.8	<u>254.9</u>	mg/L	1.01	509.8	mg/L	2.02 0.40%
K 766.490†	15005.7	12.33	mg/L	0.058	24.66	mg/L	0.116 0.47%
Mg 279.077†	62731.0	76.81	mg/L	0.295	153.6	mg/L	0.59 0.38%
Mn 257.610†	111775.7	3.760	mg/L	0.0123	7.519	mg/L	0.0247 0.33%
Mo 202.031†	126.2	0.00665	mg/L	0.000180	0.01331	mg/L	0.000361 2.71%
Na 589.592†	56987.6	7.616	mg/L	0.0459	15.23	mg/L	0.092 0.60%
Na 330.237†	110.5	8.169	mg/L	0.3367	16.34	mg/L	0.673 4.12%
Ni 231.604†	903.7	0.2528	mg/L	0.00107	0.5055	mg/L	0.00215 0.42%
Pb 220.353†	710.6	0.1535	mg/L	0.00076	0.3069	mg/L	0.00153 0.50%
Sb 206.836†	42.1	0.01979	mg/L	0.002928	0.03958	mg/L	0.005855 14.79%
Se 196.026†	46.9	0.03114	mg/L	0.003974	0.06228	mg/L	0.007947 12.76%
Si 288.158†	1236.9	1.007	mg/L	0.0080	2.014	mg/L	0.0161 0.80%
Sn 189.927†	-112.6	-0.01444	mg/L	0.002130	-0.02888	mg/L	0.004259 14.75%
Sr 421.552†	280024.8	0.5643	mg/L	0.00298	1.129	mg/L	0.0060 0.53%
Ti 334.903†	109854.1	7.637	mg/L	0.0287	15.27	mg/L	0.057 0.38%
Tl 190.801†	-36.6	0.00131	mg/L	0.007113	0.00262	mg/L	0.014227 542.13%
V 292.402†	55108.0	0.5304	mg/L	0.00035	1.061	mg/L	0.0007 0.07%
Zn 206.200†	1764.5	0.5547	mg/L	0.00443	1.109	mg/L	0.0089 0.80%

Sequence No.: 54
 Sample ID: 16J0413-07

Autosampler Location: 357
 Date Collected: 10/28/2016 4:20:09 PM
 Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: 16J0413-07

Analyte Back Pressure Flow
 All 150.0 kPa 0.65 L/min

Mean Data: 16J0413-07

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1842029.9	105.2 %		0.26			0.25%
ScR 361.383	205503.3	106.8 %		0.70			0.65%
Ag 328.068†	-264.2	-0.00191 mg/L		0.000089	-0.00382 mg/L	0.000177	4.64%
Al 308.215†	153293.7	164.5 mg/L		0.63	329.0 mg/L	1.27	0.39%
As 188.979†	-202.2	0.04285 mg/L		0.002011	0.08570 mg/L	0.004022	4.69%
B 249.677†	127.4	0.02269 mg/L		0.001511	0.04537 mg/L	0.003022	6.66%
Ba 233.527†	5200.6	0.8536 mg/L		0.00097	1.707 mg/L	0.0019	0.11%
Be 313.042†	919.4	0.00268 mg/L		0.000007	0.00537 mg/L	0.000015	0.27%
Ca 317.933†	2309575.9	322.6 mg/L		1.07	645.3 mg/L	2.14	0.33%
Cd 228.802†	30.8	0.00114 mg/L		0.000022	0.00228 mg/L	0.000044	1.90%
Co 228.616†	2323.9	0.07823 mg/L		0.000717	0.1565 mg/L	0.00143	0.92%
Cr 267.716†	1196.1	0.2136 mg/L		0.00144	0.4272 mg/L	0.00288	0.67%
Cu 324.752†	64711.9	0.4584 mg/L		0.00077	0.9168 mg/L	0.00154	0.17%
Fe 273.955†	164872.2	210.1 mg/L		0.63	420.3 mg/L	1.26	0.30%
K 766.490†	11738.8	9.647 mg/L		0.0378	19.29 mg/L	0.076	0.39%
Mg 279.077†	49114.8	60.13 mg/L		0.093	120.3 mg/L	0.19	0.15%
Mn 257.610†	90292.8	3.037 mg/L		0.0044	6.074 mg/L	0.0088	0.14%
Mo 202.031†	208.3	0.00867 mg/L		0.000366	0.01733 mg/L	0.000732	4.22%
Na 589.592†	46466.8	6.210 mg/L		0.0078	12.42 mg/L	0.016	0.13%
Na 330.237†	83.0	6.368 mg/L		0.1446	12.74 mg/L	0.289	2.27%
Ni 231.604†	656.5	0.1836 mg/L		0.00173	0.3672 mg/L	0.00345	0.94%
Pb 220.353†	108.1	0.05679 mg/L		0.000495	0.1136 mg/L	0.00099	0.87%
Sb 206.836†	43.2	0.02070 mg/L		0.001232	0.04140 mg/L	0.002464	5.95%
Se 196.026†	54.7	0.04190 mg/L		0.004810	0.08381 mg/L	0.009620	11.48%
Si 288.158†	586.5	0.4526 mg/L		0.00512	0.9053 mg/L	0.01025	1.13%
Sn 189.927†	-103.7	0.03923 mg/L		0.002956	0.07847 mg/L	0.005913	7.54%
Sr 421.552†	448393.3	0.9035 mg/L		0.00175	1.807 mg/L	0.0035	0.19%
Ti 334.903†	106595.6	7.394 mg/L		0.0194	14.79 mg/L	0.039	0.26%
Tl 190.801†	-19.5	-0.00335 mg/L		0.003302	-0.00671 mg/L	0.006605	98.48%
V 292.402†	45320.8	0.4354 mg/L		0.00033	0.8708 mg/L	0.00066	0.08%
Zn 206.200†	2709.8	0.8517 mg/L		0.00289	1.703 mg/L	0.0058	0.34%

Sequence No.: 55
 Sample ID: 16J0413-08

Del

Autosampler Location: 358
 Date Collected: 10/28/2016 4:23:56 PM
 Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: 16J0413-08

Analyte Back Pressure Flow
 All 151.0 kPa 0.65 L/min

Mean Data: 16J0413-08

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1779046.6	101.6 %	0.40			0.39%
ScR 361.383	201021.7	104.4 %	0.35			0.34%
Ag 328.068†	-297.1	-0.00218 mg/L	0.000195	-0.00437 mg/L	0.000389	8.91%
Al 308.215†	137988.2	148.1 mg/L	0.68	296.1 mg/L	1.36	0.46%
As 188.979†	-108.7	0.05577 mg/L	0.001710	0.1115 mg/L	0.00342	3.07%
B 249.677†	247.7	0.04622 mg/L	0.000810	0.09244 mg/L	0.001621	1.75%
Ba 233.527†	9611.3	1.602 mg/L	0.0049	3.204 mg/L	0.0098	0.30%
Be 313.042†	422.7	0.00119 mg/L	0.000015	0.00238 mg/L	0.000029	1.23%
Ca 317.933†	5794305.8	809.4 mg/L	12.21	1619 mg/L	24.43	1.51%
Cd 228.802†	39.2	0.00148 mg/L	0.000401	0.00296 mg/L	0.000801	27.02%
Co 228.616†	2361.0	0.08167 mg/L	0.000486	0.1633 mg/L	0.00097	0.59%
Cr 267.716†	1206.7	0.2140 mg/L	0.00188	0.4279 mg/L	0.00377	0.88%
Cu 324.752†	102231.9	0.7174 mg/L	0.00063	1.435 mg/L	0.0013	0.09%
Fe 273.955†	129759.4	165.4 mg/L	0.95	330.8 mg/L	1.89	0.57%
K 766.490†	8893.0	7.308 mg/L	0.0087	14.62 mg/L	0.017	0.12%
Mg 279.077†	39962.6	48.93 mg/L	0.206	97.86 mg/L	0.413	0.42%
Mn 257.610†	79885.0	2.687 mg/L	0.0134	5.374 mg/L	0.0267	0.50%
Mo 202.031†	332.4	0.00950 mg/L	0.000253	0.01899 mg/L	0.000506	2.66%
Na 589.592†	45335.5	6.058 mg/L	0.0242	12.12 mg/L	0.048	0.40%
Na 330.237†	78.9	5.549 mg/L	0.3260	11.10 mg/L	0.652	5.88%
Ni 231.604†	500.7	0.1401 mg/L	0.00166	0.2801 mg/L	0.00333	1.19%
Pb 220.353†	565.0	0.1214 mg/L	0.00086	0.2428 mg/L	0.00172	0.71%
Sb 206.836†	66.7	0.02966 mg/L	0.002503	0.05932 mg/L	0.005005	8.44%
Se 196.026†	50.1	0.03864 mg/L	0.004326	0.07729 mg/L	0.008652	11.19%
Si 288.158†	378.3	0.2820 mg/L	0.00429	0.5639 mg/L	0.00858	1.52%
Sn 189.927†	-39.5	0.1719 mg/L	0.00363	0.3439 mg/L	0.00726	2.11%
Sr 421.552†	1101062.6	2.219 mg/L	0.0094	4.437 mg/L	0.0189	0.42%
Ti 334.903†	90665.9	6.250 mg/L	0.0240	12.50 mg/L	0.048	0.38%
Tl 190.801†	-3.4	-0.02303 mg/L	0.004077	-0.04606 mg/L	0.008155	17.71%
V 292.402†	38381.2	0.3694 mg/L	0.00045	0.7388 mg/L	0.00090	0.12%
Zn 206.200†	5423.6	1.704 mg/L	0.0028	3.409 mg/L	0.0056	0.16%

Sequence No.: 56

Sample ID: 16H0147-01

Autosampler Location: 359

Date Collected: 10/28/2016 4:28:01 PM

Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 16H0147-01

Analyte Back Pressure Flow
 All 150.0 kPa 0.65 L/min

Mean Data: 16H0147-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1817734.2	103.8	%	0.58			0.56%
ScR 361.383	206389.8	107.2	%	0.36			0.33%
Ag 328.068†	73.7	0.00057	mg/L	0.000096	0.00057 mg/L	0.000096	16.88%
Al 308.215†	280.8	0.3011	mg/L	0.01176	0.3011 mg/L	0.01176	3.91%
As 188.979†	83.9	0.06725	mg/L	0.002742	0.06725 mg/L	0.002742	4.08%
B 249.677†	999.2	0.1933	mg/L	0.00108	0.1933 mg/L	0.00108	0.56%
Ba 233.527†	22.5	0.00365	mg/L	0.000590	0.00365 mg/L	0.000590	16.15%
Be 313.042†	13.9	0.00004	mg/L	0.000020	0.00004 mg/L	0.000020	47.09%
Ca 317.933†	220500.1	30.80	mg/L	0.061	30.80 mg/L	0.061	0.20%
Cd 228.802†	873.6	0.05013	mg/L	0.000615	0.05013 mg/L	0.000615	1.23%
Co 228.616†	61.0	0.00237	mg/L	0.000189	0.00237 mg/L	0.000189	7.98%
Cr 267.716†	38.7	0.00448	mg/L	0.000546	0.00448 mg/L	0.000546	12.20%
Cu 324.752†	6711.3	0.04570	mg/L	0.000425	0.04570 mg/L	0.000425	0.93%
Fe 273.955†	998.9	1.273	mg/L	0.0058	1.273 mg/L	0.0058	0.45%
K 766.490†	131434.7	108.0	mg/L	0.36	108.0 mg/L	0.36	0.33%
Mg 279.077†	24782.3	30.42	mg/L	0.028	30.42 mg/L	0.028	0.09%
Mn 257.610†	1556.3	0.05211	mg/L	0.000189	0.05211 mg/L	0.000189	0.36%
Mo 202.031†	160.5	0.00988	mg/L	0.000203	0.00988 mg/L	0.000203	2.06%
Na 589.592†	1569175.3	209.7	mg/L	0.16	209.7 mg/L	0.16	0.08%
Na 330.237†	3573.3	212.0	mg/L	0.91	212.0 mg/L	0.91	0.43%
Ni 231.604†	25.0	0.00700	mg/L	0.001449	0.00700 mg/L	0.001449	20.69%
Pb 220.353†	15.7	0.00239	mg/L	0.000660	0.00239 mg/L	0.000660	27.66%
Sb 206.836†	1.6	0.00045	mg/L	0.000920	0.00045 mg/L	0.000920	205.45%
Se 196.026†	28.5	0.03079	mg/L	0.004813	0.03079 mg/L	0.004813	15.63%
Si 288.158†	721.6	0.6189	mg/L	0.00724	0.6189 mg/L	0.00724	1.17%
Sn 189.927†	-46.4	-0.00902	mg/L	0.001102	-0.00902 mg/L	0.001102	12.22%
Sr 421.552†	143613.4	0.2894	mg/L	0.00020	0.2894 mg/L	0.00020	0.07%
Ti 334.903†	331.1	0.02082	mg/L	0.000527	0.02082 mg/L	0.000527	2.53%
Tl 190.801†	2.7	0.00043	mg/L	0.002180	0.00043 mg/L	0.002180	512.74%
V 292.402†	287.0	0.00281	mg/L	0.000208	0.00281 mg/L	0.000208	7.42%
Zn 206.200†	2798.0	0.8794	mg/L	0.00432	0.8794 mg/L	0.00432	0.49%

Sequence No.: 57

Sample ID: BEJ0777-DUP1

Autosampler Location: 360

Date Collected: 10/28/2016 4:32:16 PM

Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: BEJ0777-DUP1

Analyte Back Pressure Flow
 All 150.0 kPa 0.65 L/min

Mean Data: BEJ0777-DUP1

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1803325.3	103.0	%	0.37				0.36%
ScR 361.383	206038.1	107.0	%	0.41				0.38%
Ag 328.068†	47.2	0.00037	mg/L	0.000154	0.00037	mg/L	0.000154	42.13%
Al 308.215†	1513.8	1.624	mg/L	0.0071	1.624	mg/L	0.0071	0.44%
As 188.979†	69.4	0.05670	mg/L	0.001713	0.05670	mg/L	0.001713	3.02%
B 249.677†	1150.5	0.2225	mg/L	0.00038	0.2225	mg/L	0.00038	0.17%
Ba 233.527†	32.5	0.00513	mg/L	0.000174	0.00513	mg/L	0.000174	3.39%
Be 313.042†	0.4	-0.00000	mg/L	0.000031	-0.00000	mg/L	0.000031	>999.9%
Ca 317.933†	282262.0	39.43	mg/L	0.337	39.43	mg/L	0.337	0.85%
Cd 228.802†	504.8	0.02885	mg/L	0.000339	0.02885	mg/L	0.000339	1.17%
Co 228.616†	81.1	0.00305	mg/L	0.000003	0.00305	mg/L	0.000003	0.09%
Cr 267.716†	115.0	0.01692	mg/L	0.000840	0.01692	mg/L	0.000840	4.97%
Cu 324.752†	6852.8	0.04681	mg/L	0.000401	0.04681	mg/L	0.000401	0.86%
Fe 273.955†	2510.4	3.200	mg/L	0.0082	3.200	mg/L	0.0082	0.26%
K 766.490†	100694.0	82.75	mg/L	0.414	82.75	mg/L	0.414	0.50%
Mg 279.077†	34220.9	42.01	mg/L	0.075	42.01	mg/L	0.075	0.18%
Mn 257.610†	3215.6	0.1078	mg/L	0.00031	0.1078	mg/L	0.00031	0.28%
Mo 202.031†	161.9	0.00984	mg/L	0.000271	0.00984	mg/L	0.000271	2.76%
Na 589.592†	2228275.1	297.8	mg/L	1.21	297.8	mg/L	1.21	0.41%
Na 330.237†	5107.7	303.2	mg/L	1.13	303.2	mg/L	1.13	0.37%
Ni 231.604†	36.8	0.01030	mg/L	0.001636	0.01030	mg/L	0.001636	15.88%
Pb 220.353†	24.1	0.00401	mg/L	0.001125	0.00401	mg/L	0.001125	28.03%
Sb 206.836†	4.6	0.00147	mg/L	0.001799	0.00147	mg/L	0.001799	122.64%
Se 196.026†	22.6	0.02433	mg/L	0.004669	0.02433	mg/L	0.004669	19.19%
Si 288.158†	925.2	0.7934	mg/L	0.00665	0.7934	mg/L	0.00665	0.84%
Sn 189.927†	-63.1	-0.01279	mg/L	0.000489	-0.01279	mg/L	0.000489	3.83%
Sr 421.552†	164129.5	0.3307	mg/L	0.00052	0.3307	mg/L	0.00052	0.16%
Ti 334.903†	1195.0	0.08030	mg/L	0.001720	0.08030	mg/L	0.001720	2.14%
Tl 190.801†	5.8	0.00229	mg/L	0.002597	0.00229	mg/L	0.002597	113.25%
V 292.402†	702.6	0.00686	mg/L	0.000047	0.00686	mg/L	0.000047	0.68%
Zn 206.200†	2478.5	0.7791	mg/L	0.00348	0.7791	mg/L	0.00348	0.45%

Sequence No.: 58
 Sample ID: 16J0187-01

Autosampler Location: 361
 Date Collected: 10/28/2016 4:36:31 PM
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 16J0187-01

Analyte Back Pressure Flow
 All 150.0 kPa 0.65 L/min

Mean Data: 16J0187-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1818131.1	103.9	%	0.23			0.22%
ScR 361.383	208477.3	108.3	%	0.59			0.55%
Ag 328.068†	57.5	0.00045	mg/L	0.000390	0.00045 mg/L	0.000390	87.45%
Al 308.215†	1593.0	1.709	mg/L	0.0120	1.709 mg/L	0.0120	0.70%
As 188.979†	70.4	0.05738	mg/L	0.003573	0.05738 mg/L	0.003573	6.23%
B 249.677†	1126.2	0.2178	mg/L	0.00157	0.2178 mg/L	0.00157	0.72%
Ba 233.527†	33.5	0.00529	mg/L	0.000692	0.00529 mg/L	0.000692	13.10%
Be 313.042†	-16.4	-0.00005	mg/L	0.000017	-0.00005 mg/L	0.000017	32.48%
Ca 317.933†	302911.9	42.32	mg/L	0.659	42.32 mg/L	0.659	1.56%
Cd 228.802†	500.1	0.02857	mg/L	0.000237	0.02857 mg/L	0.000237	0.83%
Co 228.616†	84.1	0.00317	mg/L	0.000132	0.00317 mg/L	0.000132	4.17%
Cr 267.716†	109.3	0.01595	mg/L	0.000493	0.01595 mg/L	0.000493	3.09%
Cu 324.752†	6797.4	0.04644	mg/L	0.000153	0.04644 mg/L	0.000153	0.33%
Fe 273.955†	2563.4	3.267	mg/L	0.0212	3.267 mg/L	0.0212	0.65%
K 766.490†	100323.2	82.44	mg/L	0.554	82.44 mg/L	0.554	0.67%
Mg 279.077†	33911.6	41.63	mg/L	0.100	41.63 mg/L	0.100	0.24%
Mn 257.610†	3147.0	0.1055	mg/L	0.00090	0.1055 mg/L	0.00090	0.86%
Mo 202.031†	164.8	0.00999	mg/L	0.000073	0.00999 mg/L	0.000073	0.73%
Na 589.592†	2207382.0	295.0	mg/L	3.49	295.0 mg/L	3.49	1.18%
Na 330.237†	5074.8	301.2	mg/L	0.64	301.2 mg/L	0.64	0.21%
Ni 231.604†	33.7	0.00943	mg/L	0.001493	0.00943 mg/L	0.001493	15.83%
Pb 220.353†	28.3	0.00466	mg/L	0.001597	0.00466 mg/L	0.001597	34.28%
Sb 206.836†	0.3	-0.00029	mg/L	0.001026	-0.00029 mg/L	0.001026	355.45%
Se 196.026†	25.8	0.02775	mg/L	0.000998	0.02775 mg/L	0.000998	3.60%
Si 288.158†	784.2	0.6733	mg/L	0.00394	0.6733 mg/L	0.00394	0.58%
Sn 189.927†	-64.3	-0.01257	mg/L	0.000805	-0.01257 mg/L	0.000805	6.41%
Sr 421.552†	170003.8	0.3426	mg/L	0.00083	0.3426 mg/L	0.00083	0.24%
Ti 334.903†	1212.8	0.08133	mg/L	0.000676	0.08133 mg/L	0.000676	0.83%
Tl 190.801†	10.3	0.00529	mg/L	0.001909	0.00529 mg/L	0.001909	36.10%
V 292.402†	719.5	0.00702	mg/L	0.000147	0.00702 mg/L	0.000147	2.09%
Zn 206.200†	2429.2	0.7635	mg/L	0.00505	0.7635 mg/L	0.00505	0.66%

Sequence No.: 59
Sample ID: BEJ0777-MS1

Autosampler Location: 362
Date Collected: 10/28/2016 4:40:47 PM
Data Type: Original

Dilution: 1.000000X

ICP-MS SKE #1
TH 10-28-16

Nebulizer Parameters: BEJ0777-MS1

Analyte Back Pressure Flow
All 151.0 kPa 0.65 L/min

Mean Data: BEJ0777-MS1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1807197.7	103.2 %		0.60			0.58%
ScR 361.383	207635.1	107.9 %		0.21			0.20%
Ag 328.068†	26251.2	0.2027 mg/L		0.00072	0.2027 mg/L	0.00072	0.35%
Al 308.215†	1647.0	1.760 mg/L		0.0046	1.760 mg/L	0.0046	0.26%
As 188.979†	699.0	0.5696 mg/L		0.00718	0.5696 mg/L	0.00718	1.26%
B 249.677†	1119.5	0.2151 mg/L		0.00058	0.2151 mg/L	0.00058	0.27%
Ba 233.527†	3028.7	0.5102 mg/L		0.00045	0.5102 mg/L	0.00045	0.09%
Be 313.042†	160721.5	0.4875 mg/L		0.00116	0.4875 mg/L	0.00116	0.24%
Ca 317.933†	424499.2	59.30 mg/L		0.133	59.30 mg/L	0.133	0.22%
Ca 228.802†	8871.6	0.5102 mg/L		0.00351	0.5102 mg/L	0.00351	0.69%
Co 228.616†	12733.1	0.5033 mg/L		0.00234	0.5033 mg/L	0.00234	0.46%
Cr 267.716†	3026.0	0.5211 mg/L		0.00178	0.5211 mg/L	0.00178	0.34%
Cu 324.752†	78835.3	0.5475 mg/L		0.00366	0.5475 mg/L	0.00366	0.67%
Fe 273.955†	2624.0	3.340 mg/L		0.0143	3.340 mg/L	0.0143	0.43%
K 766.490†	99613.9	81.86 mg/L		0.320	81.86 mg/L	0.320	0.39%
Mg 279.077†	35351.1	43.40 mg/L		0.095	43.40 mg/L	0.095	0.22%
Mn 257.610†	17477.4	0.5877 mg/L		0.00172	0.5877 mg/L	0.00172	0.29%
Mo 202.031†	168.8	0.01000 mg/L		0.000481	0.01000 mg/L	0.000481	4.81%
Na 589.592†	2191831.4	292.9 mg/L		0.50	292.9 mg/L	0.50	0.17%
Na 330.237†	5233.3	310.1 mg/L		0.64	310.1 mg/L	0.64	0.21%
Ni 231.604†	1832.0	0.5121 mg/L		0.00163	0.5121 mg/L	0.00163	0.32%
Pb 220.353†	3228.0	0.4882 mg/L		0.00219	0.4882 mg/L	0.00219	0.45%
Sb 206.836†	17.8	0.00097 mg/L		0.000497	0.00097 mg/L	0.000497	51.41%
Se 196.026†	1621.9	1.755 mg/L		0.0033	1.755 mg/L	0.0033	0.19%
Si 288.158†	1275.6	1.093 mg/L		0.0095	1.093 mg/L	0.0095	0.87%
Sn 189.927†	-72.8	-0.01161 mg/L		0.001094	-0.01161 mg/L	0.001094	9.42%
Sr 421.552†	179619.9	0.3619 mg/L		0.00064	0.3619 mg/L	0.00064	0.18%
Ti 334.903†	1628.0	0.1089 mg/L		0.00029	0.1089 mg/L	0.00029	0.27%
Tl 190.801†	703.1	0.4732 mg/L		0.00567	0.4732 mg/L	0.00567	1.20%
V 292.402†	52706.7	0.5215 mg/L		0.00292	0.5215 mg/L	0.00292	0.56%
Zn 206.200†	7586.3	2.384 mg/L		0.0045	2.384 mg/L	0.0045	0.19%

Sequence No.: 60
 Sample ID: BEJ0777-BS1

Autosampler Location: 363
 Date Collected: 10/28/2016 4:45:03 PM
 Data Type: Original

Dilution: 2.000000X

ICP-MS SPIKE #1
TH 10-28-16

Nebulizer Parameters: BEJ0777-BS1

Analyte Back Pressure Flow
 All 150.0 kPa 0.65 L/min

Mean Data: BEJ0777-BS1

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1901614.9	108.6	%	0.27			0.25%
ScR 361.383	211287.3	109.8	%	0.35			0.32%
Ag 328.068†	34327.3	0.2650	mg/L	0.00208	0.5299	mg/L	0.00415 0.78%
Al 308.215†	33.0	0.03174	mg/L	0.006918	0.06348	mg/L	0.013836 21.79%
As 188.979†	310.2	0.2528	mg/L	0.00282	0.5057	mg/L	0.00564 1.12%
B 249.677†	-5.6	-0.00178	mg/L	0.000567	-0.00356	mg/L	0.001134 31.84%
Ba 233.527†	1521.2	0.2564	mg/L	0.00164	0.5128	mg/L	0.00327 0.64%
Be 313.042†	80483.9	0.2441	mg/L	0.00069	0.4882	mg/L	0.00138 0.28%
Ca 317.933†	107.2	0.01498	mg/L	0.000628	0.02996	mg/L	0.001255 4.19%
Cd 228.802†	4251.6	0.2447	mg/L	0.00220	0.4893	mg/L	0.00439 0.90%
Co 228.616†	6465.8	0.2557	mg/L	0.00240	0.5114	mg/L	0.00480 0.94%
Cr 267.716†	1506.3	0.2609	mg/L	0.00166	0.5219	mg/L	0.00333 0.64%
Cu 324.752†	37237.4	0.2590	mg/L	0.00232	0.5180	mg/L	0.00463 0.89%
Fe 273.955†	13.1	0.01461	mg/L	0.001497	0.02922	mg/L	0.002993 10.24%
K 766.490†	88.3	0.07259	mg/L	0.032069	0.1452	mg/L	0.06414 44.18%
Mg 279.077†	6.3	0.00851	mg/L	0.003723	0.01701	mg/L	0.007446 43.77%
Mn 257.610†	7343.9	0.2471	mg/L	0.00182	0.4943	mg/L	0.00364 0.74%
Mo 202.031†	2.3	0.00015	mg/L	0.000270	0.00029	mg/L	0.000540 183.18%
Na 589.592†	1111.3	0.1485	mg/L	0.02086	0.2970	mg/L	0.04172 14.05%
Na 330.237†	19.7	0.8646	mg/L	0.25801	1.729	mg/L	0.5160 29.84%
Ni 231.604†	938.8	0.2624	mg/L	0.00154	0.5248	mg/L	0.00307 0.59%
Pb 220.353†	1726.2	0.2609	mg/L	0.00148	0.5217	mg/L	0.00296 0.57%
Sb 206.836†	2.5	-0.00211	mg/L	0.001687	-0.00422	mg/L	0.003374 80.01%
Se 196.026†	739.5	0.8004	mg/L	0.00970	1.601	mg/L	0.0194 1.21%
Si 288.158†	-1.5	-0.00056	mg/L	0.001985	-0.00112	mg/L	0.003970 355.12%
Sn 189.927†	-1.5	-0.00051	mg/L	0.001262	-0.00103	mg/L	0.002525 245.57%
Sr 421.552†	-8.2	-0.00002	mg/L	0.000034	-0.00003	mg/L	0.000068 205.31%
Ti 334.903†	8.6	0.00053	mg/L	0.000116	0.00107	mg/L	0.000232 21.72%
Tl 190.801†	380.4	0.2577	mg/L	0.00088	0.5153	mg/L	0.00177 0.34%
V 292.402†	25950.5	0.2568	mg/L	0.00207	0.5137	mg/L	0.00414 0.81%
Zn 206.200†	2634.4	0.8279	mg/L	0.00695	1.656	mg/L	0.0139 0.84%

Sequence No.: 61
Sample ID: SEQ-CCV8

Autosampler Location: 7
Date Collected: 10/28/2016 4:49:02 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV8

Analyte Back Pressure Flow
All 150.0 kPa 0.65 L/min

Mean Data: SEQ-CCV8

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1874635.4	107.1 %		0.59			0.55%
ScR 361.383	205346.2	106.7 %		0.16			0.15%
Ag 328.068†	135115.8	1.043 mg/L		0.0125	1.043 mg/L	0.0125	1.20%
Al 308.215†	1992.8	2.106 mg/L		0.0097	2.106 mg/L	0.0097	0.46%
As 188.979†	2491.8	2.059 mg/L		0.0105	2.059 mg/L	0.0105	0.51%
B 249.677†	5248.1	1.013 mg/L		0.0042	1.013 mg/L	0.0042	0.42%
Ba 233.527†	6189.7	1.043 mg/L		0.0036	1.043 mg/L	0.0036	0.34%
Be 313.042†	333230.1	1.011 mg/L		0.0039	1.011 mg/L	0.0039	0.39%
Ca 317.933†	15352.1	2.145 mg/L		0.0039	2.145 mg/L	0.0039	0.18%
Cd 228.802†	17413.3	0.9960 mg/L		0.01140	0.9960 mg/L	0.01140	1.14%
Co 228.616†	25527.4	1.008 mg/L		0.0107	1.008 mg/L	0.0107	1.06%
Cr 267.716†	6004.5	1.040 mg/L		0.0005	1.040 mg/L	0.0005	0.04%
Cu 324.752†	142257.0	0.9888 mg/L		0.00941	0.9888 mg/L	0.00941	0.95%
Fe 273.955†	1632.6	2.073 mg/L		0.0002	2.073 mg/L	0.0002	0.01%
K 766.490†	26094.3	21.44 mg/L		0.057	21.44 mg/L	0.057	0.26%
Mg 279.077†	1717.1	2.116 mg/L		0.0089	2.116 mg/L	0.0089	0.42%
Mn 257.610†	28231.3	0.9503 mg/L		0.00188	0.9503 mg/L	0.00188	0.20%
Mo 202.031†	15127.2	0.9739 mg/L		0.01123	0.9739 mg/L	0.01123	1.15%
Na 589.592†	383950.7	51.31 mg/L		0.103	51.31 mg/L	0.103	0.20%
Na 330.237†	914.8	54.20 mg/L		0.178	54.20 mg/L	0.178	0.33%
Ni 231.604†	3738.1	1.046 mg/L		0.0014	1.046 mg/L	0.0014	0.13%
Pb 220.353†	13257.3	2.004 mg/L		0.0266	2.004 mg/L	0.0266	1.33%
Sb 206.836†	5092.7	2.109 mg/L		0.0105	2.109 mg/L	0.0105	0.50%
Se 196.026†	1913.3	2.070 mg/L		0.0140	2.070 mg/L	0.0140	0.68%
Si 288.158†	2452.9	2.087 mg/L		0.0056	2.087 mg/L	0.0056	0.27%
Sn 189.927†	2901.7	1.004 mg/L		0.0084	1.004 mg/L	0.0084	0.84%
Sr 421.552†	510698.4	1.029 mg/L		0.0017	1.029 mg/L	0.0017	0.16%
Ti 334.903†	14441.2	1.004 mg/L		0.0037	1.004 mg/L	0.0037	0.37%
Tl 190.801†	3001.5	2.045 mg/L		0.0091	2.045 mg/L	0.0091	0.44%
V 292.402†	103293.0	1.022 mg/L		0.0122	1.022 mg/L	0.0122	1.19%
Zn 206.200†	3346.2	1.052 mg/L		0.0026	1.052 mg/L	0.0026	0.25%

Sequence No.: 62
Sample ID: SEQ-CCB8

Autosampler Location: 1
Date Collected: 10/28/2016 4:53:04 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCB8

Analyte Back Pressure Flow
All 150.0 kPa 0.65 L/min

Mean Data: SEQ-CCB8

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1886018.1	107.7 %	0.74			0.69%
ScR 361.383	206913.4	107.5 %	0.29			0.27%
Ag 328.068†	52.6	0.00041 mg/L	0.000148	0.00041 mg/L	0.000148	36.43%
Al 308.215†	6.8	0.00724 mg/L	0.007077	0.00724 mg/L	0.007077	97.79%
As 188.979†	1.2	0.00089 mg/L	0.001645	0.00089 mg/L	0.001645	185.75%
B 249.677†	-0.9	-0.00017 mg/L	0.001015	-0.00017 mg/L	0.001015	584.84%
Ba 233.527†	2.0	0.00034 mg/L	0.001468	0.00034 mg/L	0.001468	438.05%
Be 313.042†	-33.0	-0.00010 mg/L	0.000067	-0.00010 mg/L	0.000067	66.48%
Ca 317.933†	22.8	0.00318 mg/L	0.000234	0.00318 mg/L	0.000234	7.36%
Cd 228.802†	0.9	0.00004 mg/L	0.000240	0.00004 mg/L	0.000240	559.52%
Co 228.616†	-0.4	-0.00001 mg/L	0.000081	-0.00001 mg/L	0.000081	884.03%
Cr 267.716†	0.9	0.00015 mg/L	0.000918	0.00015 mg/L	0.000918	613.18%
Cu 324.752†	31.9	0.00022 mg/L	0.000082	0.00022 mg/L	0.000082	36.94%
Fe 273.955†	4.3	0.00552 mg/L	0.001479	0.00552 mg/L	0.001479	26.78%
K 766.490†	71.6	0.05888 mg/L	0.013710	0.05888 mg/L	0.013710	23.29%
Mg 279.077†	6.7	0.00827 mg/L	0.007928	0.00827 mg/L	0.007928	95.82%
Mn 257.610†	2.3	0.00008 mg/L	0.000059	0.00008 mg/L	0.000059	78.43%
Mo 202.031†	11.0	0.00071 mg/L	0.000295	0.00071 mg/L	0.000295	41.79%
Na 589.592†	317.2	0.04239 mg/L	0.005344	0.04239 mg/L	0.005344	12.61%
Na 330.237†	13.3	0.7887 mg/L	0.11728	0.7887 mg/L	0.11728	14.87%
Ni 231.604†	-2.4	-0.00068 mg/L	0.000880	-0.00068 mg/L	0.000880	128.58%
Pb 220.353†	-3.7	-0.00056 mg/L	0.000653	-0.00056 mg/L	0.000653	116.77%
Sb 206.836†	-3.1	-0.00129 mg/L	0.001520	-0.00129 mg/L	0.001520	118.32%
Se 196.026†	-1.5	-0.00165 mg/L	0.003286	-0.00165 mg/L	0.003286	198.84%
Si 288.158†	-3.1	-0.00260 mg/L	0.007109	-0.00260 mg/L	0.007109	273.38%
Sn 189.927†	0.4	0.00013 mg/L	0.001548	0.00013 mg/L	0.001548	>999.9%
Sr 421.552†	-2.0	-0.00000 mg/L	0.000050	-0.00000 mg/L	0.000050	>999.9%
Ti 334.903†	-36.8	-0.00256 mg/L	0.001895	-0.00256 mg/L	0.001895	73.99%
Tl 190.801†	3.4	0.00230 mg/L	0.003725	0.00230 mg/L	0.003725	161.95%
V 292.402†	0.6	0.00001 mg/L	0.000191	0.00001 mg/L	0.000191	>999.9%
Zn 206.200†	1.6	0.00050 mg/L	0.000326	0.00050 mg/L	0.000326	64.96%

Sequence No.: 63
Sample ID: 16H0268-01

Autosampler Location: 364
Date Collected: 10/28/2016 4:57:04 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 16H0268-01

Analyte Back Pressure Flow
All 151.0 kPa 0.65 L/min

Mean Data: 16H0268-01

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1843250.2	105.3	%	0.38			0.36%
ScR 361.383	203928.5	105.9	%	0.59			0.56%
Ag 328.068†	27.3	0.00021	mg/L	0.000202	0.00021 mg/L	0.000202	95.86%
Al 308.215†	192.6	0.2063	mg/L	0.00660	0.2063 mg/L	0.00660	3.20%
As 188.979†	72.8	0.05841	mg/L	0.002605	0.05841 mg/L	0.002605	4.46%
B 249.677†	967.3	0.1871	mg/L	0.00097	0.1871 mg/L	0.00097	0.52%
Ba 233.527†	41.4	0.00687	mg/L	0.000409	0.00687 mg/L	0.000409	5.95%
Be 313.042†	18.2	0.00005	mg/L	0.000045	0.00005 mg/L	0.000045	81.42%
Ca 317.933†	146220.6	20.43	mg/L	0.033	20.43 mg/L	0.033	0.16%
Cd 228.802†	373.9	0.02127	mg/L	0.000348	0.02127 mg/L	0.000348	1.64%
Co 228.616†	42.5	0.00166	mg/L	0.000354	0.00166 mg/L	0.000354	21.32%
Cr 267.716†	37.7	0.00442	mg/L	0.001767	0.00442 mg/L	0.001767	40.03%
Cu 324.752†	5789.3	0.03935	mg/L	0.000284	0.03935 mg/L	0.000284	0.72%
Fe 273.955†	794.9	1.013	mg/L	0.0046	1.013 mg/L	0.0046	0.45%
K 766.490†	120101.6	98.70	mg/L	0.522	98.70 mg/L	0.522	0.53%
Mg 279.077†	23405.6	28.73	mg/L	0.192	28.73 mg/L	0.192	0.67%
Mn 257.610†	1310.6	0.04386	mg/L	0.000642	0.04386 mg/L	0.000642	1.46%
Mo 202.031†	280.1	0.01773	mg/L	0.000420	0.01773 mg/L	0.000420	2.37%
Na 589.592†	1414997.6	189.1	mg/L	1.11	189.1 mg/L	1.11	0.58%
Na 330.237†	3296.7	195.6	mg/L	0.97	195.6 mg/L	0.97	0.49%
Ni 231.604†	13.2	0.00370	mg/L	0.000735	0.00370 mg/L	0.000735	19.86%
Pb 220.353†	10.7	0.00162	mg/L	0.000639	0.00162 mg/L	0.000639	39.59%
Sb 206.836†	-2.7	-0.00133	mg/L	0.000498	-0.00133 mg/L	0.000498	37.45%
Se 196.026†	21.8	0.02361	mg/L	0.007067	0.02361 mg/L	0.007067	29.93%
Si 288.158†	628.3	0.5392	mg/L	0.00531	0.5392 mg/L	0.00531	0.99%
Sn 189.927†	-31.4	-0.00620	mg/L	0.000919	-0.00620 mg/L	0.000919	14.83%
Sr 421.552†	99870.4	0.2012	mg/L	0.00075	0.2012 mg/L	0.00075	0.37%
Ti 334.903†	159.1	0.00959	mg/L	0.000604	0.00959 mg/L	0.000604	6.30%
Tl 190.801†	3.2	0.00130	mg/L	0.000697	0.00130 mg/L	0.000697	53.71%
V 292.402†	187.9	0.00185	mg/L	0.000197	0.00185 mg/L	0.000197	10.63%
Zn 206.200†	2139.9	0.6726	mg/L	0.00433	0.6726 mg/L	0.00433	0.64%

Sequence No.: 64
Sample ID: 16J0187-02

Autosampler Location: 365
Date Collected: 10/28/2016 5:01:21 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 16J0187-02

Analyte Back Pressure Flow
All 151.0 kPa 0.65 L/min

Mean Data: 16J0187-02

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1799542.5	102.8	%	0.52			0.50%
ScR 361.383	204556.7	106.3	%	0.42			0.39%
Ag 328.068†	65.4	0.00051	mg/L	0.000134	0.00051 mg/L	0.000134	26.49%
Al 308.215†	592.2	0.6352	mg/L	0.00905	0.6352 mg/L	0.00905	1.43%
As 188.979†	70.4	0.05696	mg/L	0.000849	0.05696 mg/L	0.000849	1.49%
B 249.677†	1109.6	0.2146	mg/L	0.00074	0.2146 mg/L	0.00074	0.34%
Ba 233.527†	20.8	0.00334	mg/L	0.000338	0.00334 mg/L	0.000338	10.12%
Be 313.042†	3.5	0.00001	mg/L	0.000027	0.00001 mg/L	0.000027	280.79%
Ca 317.933†	172532.3	24.10	mg/L	0.046	24.10 mg/L	0.046	0.19%
Cd 228.802†	521.5	0.02982	mg/L	0.000181	0.02982 mg/L	0.000181	0.61%
Co 228.616†	53.9	0.00207	mg/L	0.000163	0.00207 mg/L	0.000163	7.88%
Cr 267.716†	48.8	0.00544	mg/L	0.000492	0.00544 mg/L	0.000492	9.04%
Cu 324.752†	5878.8	0.04000	mg/L	0.000321	0.04000 mg/L	0.000321	0.80%
Fe 273.955†	1209.3	1.541	mg/L	0.0104	1.541 mg/L	0.0104	0.68%
K 766.490†	95815.1	78.74	mg/L	0.108	78.74 mg/L	0.108	0.14%
Mg 279.077†	33308.9	40.89	mg/L	0.070	40.89 mg/L	0.070	0.17%
Mn 257.610†	2799.2	0.09383	mg/L	0.000407	0.09383 mg/L	0.000407	0.43%
Mo 202.031†	149.8	0.00929	mg/L	0.000090	0.00929 mg/L	0.000090	0.97%
Na 589.592†	2176944.6	290.9	mg/L	1.97	290.9 mg/L	1.97	0.68%
Na 330.237†	5009.0	297.3	mg/L	0.96	297.3 mg/L	0.96	0.32%
Ni 231.604†	21.0	0.00587	mg/L	0.001487	0.00587 mg/L	0.001487	25.31%
Pb 220.353†	15.6	0.00247	mg/L	0.000388	0.00247 mg/L	0.000388	15.73%
Sb 206.836†	-0.8	-0.00057	mg/L	0.001136	-0.00057 mg/L	0.001136	198.12%
Se 196.026†	25.0	0.02703	mg/L	0.000769	0.02703 mg/L	0.000769	2.84%
Si 288.158†	732.9	0.6298	mg/L	0.00079	0.6298 mg/L	0.00079	0.13%
Sn 189.927†	-41.4	-0.00880	mg/L	0.001825	-0.00880 mg/L	0.001825	20.75%
Sr 421.552†	145823.0	0.2938	mg/L	0.00047	0.2938 mg/L	0.00047	0.16%
Ti 334.903†	483.7	0.03191	mg/L	0.000193	0.03191 mg/L	0.000193	0.60%
Tl 190.801†	5.0	0.00236	mg/L	0.002529	0.00236 mg/L	0.002529	107.17%
V 292.402†	398.5	0.00390	mg/L	0.000307	0.00390 mg/L	0.000307	7.86%
Zn 206.200†	2105.8	0.6619	mg/L	0.00529	0.6619 mg/L	0.00529	0.80%

Sequence No.: 65
 Sample ID: 16J0187-03

Autosampler Location: 366
 Date Collected: 10/28/2016 5:05:36 PM
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 16J0187-03

Analyte Back Pressure Flow
 All 151.0 kPa 0.65 L/min

Mean Data: 16J0187-03

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
ScA 357.253	1801983.7	102.9	%	0.18			0.17%
ScR 361.383	206019.4	107.0	%	0.53			0.49%
Ag 328.068†	94.3	0.00073	mg/L	0.000115	0.00073 mg/L	0.000115	15.72%
Al 308.215†	681.5	0.7311	mg/L	0.00722	0.7311 mg/L	0.00722	0.99%
As 188.979†	75.0	0.06102	mg/L	0.001222	0.06102 mg/L	0.001222	2.00%
B 249.677†	1131.0	0.2188	mg/L	0.00209	0.2188 mg/L	0.00209	0.96%
Ba 233.527†	22.7	0.00365	mg/L	0.000328	0.00365 mg/L	0.000328	9.00%
Be 313.042†	-3.1	-0.00001	mg/L	0.000011	-0.00001 mg/L	0.000011	99.97%
Ca 317.933†	156940.8	21.92	mg/L	0.079	21.92 mg/L	0.079	0.36%
Cd 228.802†	579.2	0.03313	mg/L	0.000257	0.03313 mg/L	0.000257	0.77%
Co 228.616†	56.3	0.00215	mg/L	0.000216	0.00215 mg/L	0.000216	10.03%
Cr 267.716†	68.6	0.00883	mg/L	0.001569	0.00883 mg/L	0.001569	17.77%
Cu 324.752†	6397.6	0.04360	mg/L	0.000076	0.04360 mg/L	0.000076	0.18%
Fe 273.955†	1288.7	1.643	mg/L	0.0034	1.643 mg/L	0.0034	0.20%
K 766.490†	98292.1	80.77	mg/L	0.233	80.77 mg/L	0.233	0.29%
Mg 279.077†	33729.3	41.41	mg/L	0.129	41.41 mg/L	0.129	0.31%
Mn 257.610†	2997.7	0.1005	mg/L	0.00042	0.1005 mg/L	0.00042	0.42%
Mo 202.031†	148.0	0.00921	mg/L	0.000220	0.00921 mg/L	0.000220	2.39%
Na 589.592†	2194330.0	293.2	mg/L	1.01	293.2 mg/L	1.01	0.35%
Na 330.237†	5059.3	300.3	mg/L	1.95	300.3 mg/L	1.95	0.65%
Ni 231.604†	19.8	0.00555	mg/L	0.000800	0.00555 mg/L	0.000800	14.42%
Pb 220.353†	16.4	0.00261	mg/L	0.000441	0.00261 mg/L	0.000441	16.91%
Sb 206.836†	2.8	0.00090	mg/L	0.001530	0.00090 mg/L	0.001530	169.50%
Se 196.026†	26.6	0.02867	mg/L	0.000483	0.02867 mg/L	0.000483	1.69%
Si 288.158†	820.9	0.7048	mg/L	0.01132	0.7048 mg/L	0.01132	1.61%
Sn 189.927†	-34.7	-0.00699	mg/L	0.000456	-0.00699 mg/L	0.000456	6.52%
Sr 421.552†	141702.4	0.2855	mg/L	0.00040	0.2855 mg/L	0.00040	0.14%
Ti 334.903†	562.7	0.03757	mg/L	0.000720	0.03757 mg/L	0.000720	1.92%
Tl 190.801†	0.9	-0.00034	mg/L	0.001804	-0.00034 mg/L	0.001804	534.70%
V 292.402†	451.4	0.00443	mg/L	0.000163	0.00443 mg/L	0.000163	3.67%
Zn 206.200†	2492.1	0.7833	mg/L	0.00310	0.7833 mg/L	0.00310	0.40%

Sequence No.: 66
 Sample ID: 16J0187-04

Autosampler Location: 367
 Date Collected: 10/28/2016 5:09:51 PM
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 16J0187-04

Analyte Back Pressure Flow
 All 151.0 kPa 0.65 L/min

Mean Data: 16J0187-04

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1814402.5	103.7	%	0.29			0.28%
ScR 361.383	207001.1	107.5	%	0.71			0.66%
Ag 328.068†	66.1	0.00051	mg/L	0.000134	0.00051	mg/L	0.000134 26.15%
Al 308.215†	909.5	0.9757	mg/L	0.00892	0.9757	mg/L	0.00892 0.91%
As 188.979†	64.7	0.05324	mg/L	0.003388	0.05324	mg/L	0.003388 6.36%
B 249.677†	992.2	0.1919	mg/L	0.00248	0.1919	mg/L	0.00248 1.29%
Ba 233.527†	31.2	0.00503	mg/L	0.000735	0.00503	mg/L	0.000735 14.62%
Be 313.042†	-11.6	-0.00004	mg/L	0.000004	-0.00004	mg/L	0.000004 11.53%
Ca 317.933†	149146.7	20.84	mg/L	0.030	20.84	mg/L	0.030 0.14%
Cd 228.802†	408.7	0.02331	mg/L	0.000188	0.02331	mg/L	0.000188 0.81%
Co 228.616†	63.7	0.00242	mg/L	0.000249	0.00242	mg/L	0.000249 10.30%
Cr 267.716†	64.4	0.00862	mg/L	0.001044	0.00862	mg/L	0.001044 12.11%
Cu 324.752†	6236.4	0.04253	mg/L	0.000046	0.04253	mg/L	0.000046 0.11%
Fe 273.955†	1605.8	2.047	mg/L	0.0219	2.047	mg/L	0.0219 1.07%
K 766.490†	103163.1	84.78	mg/L	0.439	84.78	mg/L	0.439 0.52%
Mg 279.077†	28451.1	34.93	mg/L	0.102	34.93	mg/L	0.102 0.29%
Mn 257.610†	1725.3	0.05776	mg/L	0.000153	0.05776	mg/L	0.000153 0.26%
Mo 202.031†	132.8	0.00824	mg/L	0.000256	0.00824	mg/L	0.000256 3.10%
Na 589.592†	1832267.5	244.9	mg/L	1.50	244.9	mg/L	1.50 0.61%
Na 330.237†	4204.2	249.5	mg/L	0.94	249.5	mg/L	0.94 0.38%
Ni 231.604†	18.5	0.00518	mg/L	0.000964	0.00518	mg/L	0.000964 18.60%
Pb 220.353†	29.3	0.00463	mg/L	0.001883	0.00463	mg/L	0.001883 40.64%
Sb 206.836†	-0.6	-0.00048	mg/L	0.003250	-0.00048	mg/L	0.003250 682.59%
Se 196.026†	20.3	0.02185	mg/L	0.007004	0.02185	mg/L	0.007004 32.06%
Si 288.158†	971.6	0.8321	mg/L	0.00268	0.8321	mg/L	0.00268 0.32%
Sn 189.927†	-33.4	-0.00678	mg/L	0.001445	-0.00678	mg/L	0.001445 21.31%
Sr 421.552†	131499.0	0.2650	mg/L	0.00044	0.2650	mg/L	0.00044 0.17%
Ti 334.903†	811.6	0.05496	mg/L	0.000921	0.05496	mg/L	0.000921 1.68%
Tl 190.801†	-2.2	-0.00231	mg/L	0.002635	-0.00231	mg/L	0.002635 114.22%
V 292.402†	441.9	0.00430	mg/L	0.000115	0.00430	mg/L	0.000115 2.66%
Zn 206.200†	2269.7	0.7134	mg/L	0.00703	0.7134	mg/L	0.00703 0.99%

Sequence No.: 67

Sample ID: 16J0187-05

Autosampler Location: 368

Date Collected: 10/28/2016 5:14:06 PM

Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 16J0187-05

Analyte	Back Pressure	Flow
All	150.0 kPa	0.65 L/min

Mean Data: 16J0187-05

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1807231.6	103.2	%	0.19				0.18%
ScR 361.383	208124.1	108.1	%	0.75				0.69%
Ag 328.068†	52.9	0.00041	mg/L	0.000183	0.00041	mg/L	0.000183	44.64%
Al 308.215†	844.1	0.9056	mg/L	0.00633	0.9056	mg/L	0.00633	0.70%
As 188.979†	74.0	0.05992	mg/L	0.000985	0.05992	mg/L	0.000985	1.64%
B 249.677†	1054.3	0.2039	mg/L	0.00253	0.2039	mg/L	0.00253	1.24%
Ba 233.527†	32.9	0.00533	mg/L	0.000400	0.00533	mg/L	0.000400	7.49%
Be 313.042†	-17.1	-0.00005	mg/L	0.000030	-0.00005	mg/L	0.000030	56.97%
Ca 317.933†	226215.1	31.60	mg/L	0.202	31.60	mg/L	0.202	0.64%
Cd 228.802†	381.0	0.02167	mg/L	0.000139	0.02167	mg/L	0.000139	0.64%
Co 228.616†	57.2	0.00218	mg/L	0.000071	0.00218	mg/L	0.000071	3.28%
Cr 267.716†	56.2	0.00685	mg/L	0.001226	0.00685	mg/L	0.001226	17.90%
Cu 324.752†	5911.9	0.04022	mg/L	0.000102	0.04022	mg/L	0.000102	0.25%
Fe 273.955†	1508.9	1.923	mg/L	0.0113	1.923	mg/L	0.0113	0.59%
K 766.490†	103993.4	85.46	mg/L	0.733	85.46	mg/L	0.733	0.86%
Mg 279.077†	32179.6	39.50	mg/L	0.328	39.50	mg/L	0.328	0.83%
Mn 257.610†	1864.6	0.06241	mg/L	0.000389	0.06241	mg/L	0.000389	0.62%
Mo 202.031†	155.4	0.00954	mg/L	0.000252	0.00954	mg/L	0.000252	2.64%
Na 589.592†	2070611.3	276.7	mg/L	3.41	276.7	mg/L	3.41	1.23%
Na 330.237†	4800.8	284.9	mg/L	2.44	284.9	mg/L	2.44	0.86%
Ni 231.604†	15.0	0.00420	mg/L	0.001703	0.00420	mg/L	0.001703	40.59%
Pb 220.353†	17.6	0.00284	mg/L	0.000452	0.00284	mg/L	0.000452	15.89%
Sb 206.836†	1.2	0.00023	mg/L	0.003506	0.00023	mg/L	0.003506	>999.9%
Se 196.026†	19.3	0.02080	mg/L	0.002836	0.02080	mg/L	0.002836	13.64%
Si 288.158†	803.9	0.6900	mg/L	0.00462	0.6900	mg/L	0.00462	0.67%
Sn 189.927†	-50.8	-0.01032	mg/L	0.001952	-0.01032	mg/L	0.001952	18.90%
Sr 421.552†	172966.2	0.3485	mg/L	0.00315	0.3485	mg/L	0.00315	0.90%
Ti 334.903†	685.9	0.04545	mg/L	0.001457	0.04545	mg/L	0.001457	3.21%
Tl 190.801†	4.5	0.00167	mg/L	0.002834	0.00167	mg/L	0.002834	169.41%
V 292.402†	447.4	0.00436	mg/L	0.000327	0.00436	mg/L	0.000327	7.49%
Zn 206.200†	2397.4	0.7536	mg/L	0.00571	0.7536	mg/L	0.00571	0.76%

Sequence No.: 68
 Sample ID: 16J0187-06

Autosampler Location: 369
 Date Collected: 10/28/2016 5:18:21 PM
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 16J0187-06

Analyte Back Pressure Flow
 All 150.0 kPa 0.65 L/min

Mean Data: 16J0187-06

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1782080.0	101.8	%	0.53				0.52%
ScR 361.383	205401.3	106.7	%	0.83				0.78%
Ag 328.068†	-53.9	-0.00041	mg/L	0.000266	-0.00041	mg/L	0.000266	64.02%
Al 308.215†	687.5	0.7375	mg/L	0.00355	0.7375	mg/L	0.00355	0.48%
As 188.979†	92.0	0.06562	mg/L	0.000977	0.06562	mg/L	0.000977	1.49%
B 249.677†	1075.8	0.2081	mg/L	0.00266	0.2081	mg/L	0.00266	1.28%
Ba 233.527†	136.2	0.02278	mg/L	0.000880	0.02278	mg/L	0.000880	3.86%
Be 313.042†	-6.4	-0.00002	mg/L	0.000021	-0.00002	mg/L	0.000021	104.13%
Ca 317.933†	1310050.2	183.0	mg/L	1.06	183.0	mg/L	1.06	0.58%
Cd 228.802†	510.9	0.02910	mg/L	0.000364	0.02910	mg/L	0.000364	1.25%
Co 228.616†	60.2	0.00229	mg/L	0.000123	0.00229	mg/L	0.000123	5.38%
Cr 267.716†	74.2	0.00992	mg/L	0.000407	0.00992	mg/L	0.000407	4.10%
Cu 324.752†	6923.1	0.04721	mg/L	0.000544	0.04721	mg/L	0.000544	1.15%
Fe 273.955†	1271.8	1.621	mg/L	0.0102	1.621	mg/L	0.0102	0.63%
K 766.490†	107732.7	88.53	mg/L	1.470	88.53	mg/L	1.470	1.66%
Mg 279.077†	32439.9	39.82	mg/L	0.578	39.82	mg/L	0.578	1.45%
Mn 257.610†	2774.7	0.09302	mg/L	0.000687	0.09302	mg/L	0.000687	0.74%
Mo 202.031†	203.0	0.01038	mg/L	0.000206	0.01038	mg/L	0.000206	1.99%
Na 589.592†	2089451.2	279.2	mg/L	2.00	279.2	mg/L	2.00	0.72%
Na 330.237†	4929.5	292.6	mg/L	1.80	292.6	mg/L	1.80	0.61%
Ni 231.604†	26.2	0.00734	mg/L	0.000849	0.00734	mg/L	0.000849	11.58%
Pb 220.353†	13.3	0.00215	mg/L	0.001337	0.00215	mg/L	0.001337	62.29%
Sb 206.836†	11.2	0.00410	mg/L	0.002381	0.00410	mg/L	0.002381	58.07%
Se 196.026†	37.4	0.04043	mg/L	0.004141	0.04043	mg/L	0.004141	10.24%
Si 288.158†	770.0	0.6611	mg/L	0.00557	0.6611	mg/L	0.00557	0.84%
Sn 189.927†	-123.0	-0.00083	mg/L	0.001002	-0.00083	mg/L	0.001002	120.58%
Sr 421.552†	935864.8	1.886	mg/L	0.0136	1.886	mg/L	0.0136	0.72%
Ti 334.903†	733.1	0.03785	mg/L	0.000204	0.03785	mg/L	0.000204	0.54%
Tl 190.801†	21.0	0.00517	mg/L	0.002307	0.00517	mg/L	0.002307	44.64%
V 292.402†	369.3	0.00362	mg/L	0.000261	0.00362	mg/L	0.000261	7.19%
Zn 206.200†	2290.9	0.7201	mg/L	0.00619	0.7201	mg/L	0.00619	0.86%

Sequence No.: 69
 Sample ID: SEQ-CCV9

Autosampler Location: 7
 Date Collected: 10/28/2016 5:22:37 PM
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV9

Analyte Back Pressure Flow
 All 151.0 kPa 0.65 L/min

Mean Data: SEQ-CCV9

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1884638.1	107.7	%	0.38			0.35%
ScR 361.383	204212.2	106.1	%	0.62			0.58%
Ag 328.068†	135740.9	1.048	mg/L	0.0087	1.048	mg/L	0.0087
Al 308.215†	2005.5	2.119	mg/L	0.0241	2.119	mg/L	0.0241
As 188.979†	2516.9	2.079	mg/L	0.0100	2.079	mg/L	0.0100
B 249.677†	5347.0	1.033	mg/L	0.0092	1.033	mg/L	0.0092
Ba 233.527†	6289.9	1.060	mg/L	0.0085	1.060	mg/L	0.0085
Be 313.042†	339657.8	1.030	mg/L	0.0055	1.030	mg/L	0.0055
Ca 317.933†	15612.9	2.181	mg/L	0.0170	2.181	mg/L	0.0170
Cd 228.802†	17575.9	1.005	mg/L	0.0017	1.005	mg/L	0.0017
Co 228.616†	25700.9	1.015	mg/L	0.0099	1.015	mg/L	0.0099
Cr 267.716†	6107.7	1.058	mg/L	0.0081	1.058	mg/L	0.0081
Cu 324.752†	143147.0	0.9950	mg/L	0.00646	0.9950	mg/L	0.00646
Fe 273.955†	1659.3	2.107	mg/L	0.0203	2.107	mg/L	0.0203
K 766.490†	26491.3	21.77	mg/L ✓	0.143	21.77	mg/L	0.143
Mg 279.077†	1745.6	2.151	mg/L ✓	0.0159	2.151	mg/L	0.0159
Mn 257.610†	28653.5	0.9645	mg/L	0.00409	0.9645	mg/L	0.00409
Mo 202.031†	15222.2	0.9800	mg/L	0.00680	0.9800	mg/L	0.00680
Na 589.592†	389850.3	52.10	mg/L	0.154	52.10	mg/L	0.154
Na 330.237†	932.0	55.22	mg/L	0.264	55.22	mg/L	0.264
Ni 231.604†	3799.9	1.063	mg/L	0.0088	1.063	mg/L	0.0088
Pb 220.353†	13371.7	2.021	mg/L	0.0129	2.021	mg/L	0.0129
Sb 206.836†	5156.1	2.136	mg/L	0.0134	2.136	mg/L	0.0134
Se 196.026†	1936.1	2.095	mg/L	0.0100	2.095	mg/L	0.0100
Si 288.158†	2496.8	2.124	mg/L	0.0217	2.124	mg/L	0.0217
Sn 189.927†	2934.7	1.015	mg/L	0.0087	1.015	mg/L	0.0087
Sr 421.552†	517871.1	1.044	mg/L	0.0039	1.044	mg/L	0.0039
Ti 334.903†	14647.4	1.018	mg/L	0.0038	1.018	mg/L	0.0038
Tl 190.801†	3020.2	2.058	mg/L	0.0125	2.058	mg/L	0.0125
V 292.402†	104035.1	1.029	mg/L	0.0088	1.029	mg/L	0.0088
Zn 206.200†	3412.6	1.073	mg/L	0.0097	1.073	mg/L	0.0097

Sequence No.: 70
 Sample ID: SEQ-CCB9
 Dilution: 1.000000X

Autosampler Location: 1
 Date Collected: 10/28/2016 5:26:38 PM
 Data Type: Original

Nebulizer Parameters: SEQ-CCB9

Analyte Back Pressure Flow
 All 151.0 kPa 0.65 L/min

Mean Data: SEQ-CCB9

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.	Units		Conc.	Units		
ScA 357.253	1897709.6	108.4	%	0.89				0.82%
ScR 361.383	206772.5	107.4	%	0.82				0.76%
Ag 328.068†	4.0	0.00003	mg/L	0.000265	0.00003	mg/L	0.000265	866.30%
Al 308.215†	5.4	0.00581	mg/L	0.001228	0.00581	mg/L	0.001228	21.12%
As 188.979†	0.9	0.00070	mg/L	0.001436	0.00070	mg/L	0.001436	206.26%
B 249.677†	9.6	0.00185	mg/L	0.000845	0.00185	mg/L	0.000845	45.57%
Ba 233.527†	8.5	0.00143	mg/L	0.000260	0.00143	mg/L	0.000260	18.23%
Be 313.042†	-27.1	-0.00008	mg/L	0.000047	-0.00008	mg/L	0.000047	56.98%
Ca 317.933†	28.9	0.00404	mg/L	0.001164	0.00404	mg/L	0.001164	28.79%
Cd 228.802†	1.3	0.00007	mg/L	0.000206	0.00007	mg/L	0.000206	281.95%
Co 228.616†	2.4	0.00010	mg/L	0.000073	0.00010	mg/L	0.000073	75.41%
Cr 267.716†	1.3	0.00022	mg/L	0.000289	0.00022	mg/L	0.000289	132.20%
Cu 324.752†	26.8	0.00019	mg/L	0.000050	0.00019	mg/L	0.000050	26.72%
Fe 273.955†	7.0	0.00892	mg/L	0.000879	0.00892	mg/L	0.000879	9.85%
K 766.490†	97.9	0.08046	mg/L	0.015223	0.08046	mg/L	0.015223	18.92%
Mg 279.077†	7.8	0.00954	mg/L	0.007707	0.00954	mg/L	0.007707	80.78%
Mn 257.610†	-0.5	-0.00002	mg/L	0.000167	-0.00002	mg/L	0.000167	955.40%
Mo 202.031†	11.1	0.00072	mg/L	0.000346	0.00072	mg/L	0.000346	48.22%
Na 589.592†	461.8	0.06171	mg/L	0.004627	0.06171	mg/L	0.004627	7.50%
Na 330.237†	12.5	0.7438	mg/L	0.06221	0.7438	mg/L	0.06221	8.36%
Ni 231.604†	1.4	0.00038	mg/L	0.001300	0.00038	mg/L	0.001300	342.98%
Pb 220.353†	1.0	0.00016	mg/L	0.001434	0.00016	mg/L	0.001434	918.63%
Sb 206.836†	-5.9	-0.00247	mg/L	0.001712	-0.00247	mg/L	0.001712	69.31%
Se 196.026†	1.9	0.00204	mg/L	0.005126	0.00204	mg/L	0.005126	251.25%
Si 288.158†	-3.9	-0.00334	mg/L	0.003908	-0.00334	mg/L	0.003908	116.97%
Sn 189.927†	-0.9	-0.00030	mg/L	0.000311	-0.00030	mg/L	0.000311	102.29%
Sr 421.552†	-17.3	-0.00003	mg/L	0.000041	-0.00003	mg/L	0.000041	116.89%
Ti 334.903†	-0.2	-0.00001	mg/L	0.000736	-0.00001	mg/L	0.000736	>999.9%
Tl 190.801†	2.0	0.00138	mg/L	0.001546	0.00138	mg/L	0.001546	111.87%
V 292.402†	-0.6	-0.00000	mg/L	0.000077	-0.00000	mg/L	0.000077	>999.9%
Zn 206.200†	0.1	0.00004	mg/L	0.001193	0.00004	mg/L	0.001193	>999.9%

Sequence No.: 71
 Sample ID: RINSE

Autosampler Location: 9
 Date Collected: 10/28/2016 5:30:38 PM
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: RINSE

Analyte	Back Pressure	Flow
All	150.0 kPa	0.65 L/min

Mean Data: RINSE

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	1884625.6	107.7	%	0.31				0.29%
ScR 361.383	207430.8	107.8	%	0.84				0.78%
Ag 328.068†	4.8	0.00004	mg/L	0.000184	0.00004	mg/L	0.000184	498.98%
Al 308.215†	12.3	0.01323	mg/L	0.007781	0.01323	mg/L	0.007781	58.83%
As 188.979†	1.4	0.00114	mg/L	0.001235	0.00114	mg/L	0.001235	108.76%
B 249.677†	-1.6	-0.00032	mg/L	0.000968	-0.00032	mg/L	0.000968	303.76%
Ba 233.527†	5.3	0.00089	mg/L	0.000306	0.00089	mg/L	0.000306	34.33%
Be 313.042†	-45.3	-0.00014	mg/L	0.000012	-0.00014	mg/L	0.000012	8.61%
Ca 317.933†	24.3	0.00340	mg/L	0.001340	0.00340	mg/L	0.001340	39.39%
Cd 228.802†	1.8	0.00010	mg/L	0.000234	0.00010	mg/L	0.000234	242.43%
Co 228.616†	1.8	0.00007	mg/L	0.000131	0.00007	mg/L	0.000131	177.88%
Cr 267.716†	1.5	0.00025	mg/L	0.000637	0.00025	mg/L	0.000637	251.11%
Cu 324.752†	29.2	0.00020	mg/L	0.000105	0.00020	mg/L	0.000105	51.96%
Fe 273.955†	3.8	0.00483	mg/L	0.001585	0.00483	mg/L	0.001585	32.82%
K 766.490†	72.1	0.05926	mg/L	0.028178	0.05926	mg/L	0.028178	47.55%
Mg 279.077†	5.2	0.00632	mg/L	0.002532	0.00632	mg/L	0.002532	40.05%
Mn 257.610†	2.3	0.00008	mg/L	0.000090	0.00008	mg/L	0.000090	118.68%
Mo 202.031†	4.8	0.00031	mg/L	0.000280	0.00031	mg/L	0.000280	90.72%
Na 589.592†	272.3	0.03639	mg/L	0.003290	0.03639	mg/L	0.003290	9.04%
Na 330.237†	7.9	0.4705	mg/L	0.72012	0.4705	mg/L	0.72012	153.06%
Ni 231.604†	-1.5	-0.00041	mg/L	0.000246	-0.00041	mg/L	0.000246	59.55%
Pb 220.353†	1.3	0.00020	mg/L	0.000785	0.00020	mg/L	0.000785	402.13%
Sb 206.836†	-1.0	-0.00043	mg/L	0.002034	-0.00043	mg/L	0.002034	477.41%
Se 196.026†	2.4	0.00263	mg/L	0.004245	0.00263	mg/L	0.004245	161.63%
Si 288.158†	-5.5	-0.00465	mg/L	0.002850	-0.00465	mg/L	0.002850	61.29%
Sn 189.927†	-4.4	-0.00151	mg/L	0.000677	-0.00151	mg/L	0.000677	44.92%
Sr 421.552†	-17.1	-0.00003	mg/L	0.000040	-0.00003	mg/L	0.000040	116.94%
Ti 334.903†	-8.4	-0.00058	mg/L	0.000896	-0.00058	mg/L	0.000896	153.88%
Tl 190.801†	-5.2	-0.00356	mg/L	0.001678	-0.00356	mg/L	0.001678	47.14%
V 292.402†	3.2	0.00003	mg/L	0.000152	0.00003	mg/L	0.000152	465.29%
Zn 206.200†	0.8	0.00024	mg/L	0.000523	0.00024	mg/L	0.000523	214.02%

Sequence No.: 72
Sample ID: RINSE2

Autosampler Location: 9
Date Collected: 10/28/2016 5:34:37 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: RINSE2

Analyte Back Pressure Flow
All 150.0 kPa 0.65 L/min

Mean Data: RINSE2

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1901106.5	108.6	%	0.43			0.39%
ScR 361.383	208035.7	108.1	%	0.32			0.30%
Ag 328.068†	25.7	0.00020	mg/L	0.000372	0.00020	mg/L	0.000372 187.14%
Al 308.215†	10.1	0.01084	mg/L	0.003949	0.01084	mg/L	0.003949 36.44%
As 188.979†	4.1	0.00336	mg/L	0.003870	0.00336	mg/L	0.003870 115.35%
B 249.677†	-0.9	-0.00018	mg/L	0.000364	-0.00018	mg/L	0.000364 203.66%
Ba 233.527†	3.2	0.00054	mg/L	0.000069	0.00054	mg/L	0.000069 12.81%
Be 313.042†	-38.4	-0.00012	mg/L	0.000030	-0.00012	mg/L	0.000030 26.06%
Ca 317.933†	33.2	0.00463	mg/L	0.001431	0.00463	mg/L	0.001431 30.88%
Cd 228.802†	2.8	0.00014	mg/L	0.000093	0.00014	mg/L	0.000093 65.48%
Co 228.616†	0.7	0.00003	mg/L	0.000112	0.00003	mg/L	0.000112 402.11%
Cr 267.716†	-1.6	-0.00028	mg/L	0.000385	-0.00028	mg/L	0.000385 137.52%
Cu 324.752†	14.5	0.00010	mg/L	0.000052	0.00010	mg/L	0.000052 51.91%
Fe 273.955†	5.5	0.00696	mg/L	0.003118	0.00696	mg/L	0.003118 44.77%
K 766.490†	13.0	0.01070	mg/L	0.011896	0.01070	mg/L	0.011896 111.15%
Mg 279.077†	0.3	0.00036	mg/L	0.012074	0.00036	mg/L	0.012074 >999.9%
Mn 257.610†	1.9	0.00006	mg/L	0.000133	0.00006	mg/L	0.000133 211.44%
Mo 202.031†	-1.5	-0.00009	mg/L	0.000173	-0.00009	mg/L	0.000173 182.69%
Na 589.592†	204.5	0.02732	mg/L	0.003940	0.02732	mg/L	0.003940 14.42%
Na 330.237†	15.6	0.9258	mg/L	0.39457	0.9258	mg/L	0.39457 42.62%
Ni 231.604†	-1.7	-0.00046	mg/L	0.001167	-0.00046	mg/L	0.001167 250.97%
Pb 220.353†	3.6	0.00055	mg/L	0.000991	0.00055	mg/L	0.000991 180.79%
Sb 206.836†	-4.6	-0.00191	mg/L	0.001597	-0.00191	mg/L	0.001597 83.82%
Se 196.026†	4.1	0.00447	mg/L	0.002305	0.00447	mg/L	0.002305 51.53%
Si 288.158†	-7.7	-0.00657	mg/L	0.000885	-0.00657	mg/L	0.000885 13.46%
Sn 189.927†	-2.7	-0.00094	mg/L	0.000384	-0.00094	mg/L	0.000384 40.90%
Sr 421.552†	-18.8	-0.00004	mg/L	0.000018	-0.00004	mg/L	0.000018 48.31%
Ti 334.903†	-13.4	-0.00093	mg/L	0.001352	-0.00093	mg/L	0.001352 144.85%
Tl 190.801†	2.2	0.00152	mg/L	0.001267	0.00152	mg/L	0.001267 83.14%
V 292.402†	-5.2	-0.00005	mg/L	0.000038	-0.00005	mg/L	0.000038 73.75%
Zn 206.200†	0.2	0.00005	mg/L	0.000325	0.00005	mg/L	0.000325 641.17%

Sequence No.: 73
 Sample ID: RINSE3

Autosampler Location: 9
 Date Collected: 10/28/2016 5:38:37 PM
 Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: RINSE3

Analyte Back Pressure Flow
 All 150.0 kPa 0.65 L/min

Mean Data: RINSE3

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1889685.4	108.0	%	0.50			0.46%
ScR 361.383	208505.9	108.3	%	0.11			0.11%
Ag 328.068†	37.6	0.00029	mg/L	0.000134	0.00029	mg/L	0.000134 46.28%
Al 308.215†	5.8	0.00617	mg/L	0.002718	0.00617	mg/L	0.002718 44.02%
As 188.979†	-1.2	-0.00104	mg/L	0.000197	-0.00104	mg/L	0.000197 18.86%
B 249.677†	-9.6	-0.00187	mg/L	0.000335	-0.00187	mg/L	0.000335 17.95%
Ba 233.527†	2.7	0.00045	mg/L	0.000433	0.00045	mg/L	0.000433 95.79%
Be 313.042†	-54.6	-0.00017	mg/L	0.000012	-0.00017	mg/L	0.000012 7.38%
Ca 317.933†	39.1	0.00546	mg/L	0.000130	0.00546	mg/L	0.000130 2.37%
Cd 228.802†	4.3	0.00026	mg/L	0.000222	0.00026	mg/L	0.000222 86.51%
Co 228.616†	2.5	0.00010	mg/L	0.000080	0.00010	mg/L	0.000080 79.45%
Cr 267.716†	4.3	0.00074	mg/L	0.000422	0.00074	mg/L	0.000422 56.76%
Cu 324.752†	14.8	0.00010	mg/L	0.000077	0.00010	mg/L	0.000077 74.50%
Fe 273.955†	4.8	0.00611	mg/L	0.003264	0.00611	mg/L	0.003264 53.38%
K 766.490†	47.2	0.03875	mg/L	0.011648	0.03875	mg/L	0.011648 30.06%
Mg 279.077†	12.0	0.01476	mg/L	0.004973	0.01476	mg/L	0.004973 33.70%
Mn 257.610†	3.1	0.00010	mg/L	0.000038	0.00010	mg/L	0.000038 36.29%
Mo 202.031†	2.1	0.00013	mg/L	0.000144	0.00013	mg/L	0.000144 108.82%
Na 589.592†	161.0	0.02151	mg/L	0.002045	0.02151	mg/L	0.002045 9.51%
Na 330.237†	1.2	0.07057	mg/L	0.404878	0.07057	mg/L	0.404878 573.71%
Ni 231.604†	-2.6	-0.00074	mg/L	0.001203	-0.00074	mg/L	0.001203 163.60%
Pb 220.353†	-6.8	-0.00102	mg/L	0.001239	-0.00102	mg/L	0.001239 121.01%
Sb 206.836†	0.7	0.00027	mg/L	0.001564	0.00027	mg/L	0.001564 583.77%
Se 196.026†	1.9	0.00202	mg/L	0.002034	0.00202	mg/L	0.002034 100.56%
Si 288.158†	-2.6	-0.00222	mg/L	0.004488	-0.00222	mg/L	0.004488 201.84%
Sn 189.927†	-2.7	-0.00095	mg/L	0.000520	-0.00095	mg/L	0.000520 54.81%
Sr 421.552†	-8.6	-0.00002	mg/L	0.000014	-0.00002	mg/L	0.000014 82.24%
Ti 334.903†	-12.2	-0.00085	mg/L	0.000758	-0.00085	mg/L	0.000758 89.50%
Tl 190.801†	-1.8	-0.00120	mg/L	0.001447	-0.00120	mg/L	0.001447 120.31%
V 292.402†	1.3	0.00002	mg/L	0.000250	0.00002	mg/L	0.000250 >999.9%
Zn 206.200†	0.5	0.00016	mg/L	0.000261	0.00016	mg/L	0.000261 160.32%

Sequence No.: 74
Sample ID: RINSE4

Autosampler Location: 9
Date Collected: 10/28/2016 5:42:37 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: RINSE4

Analyte	Back Pressure	Flow
All	150.0 kPa	0.65 L/min

Mean Data: RINSE4

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
ScA 357.253	1901949.7	108.7	%	2.21			2.03%
ScR 361.383	2067111.4	107.4	%	0.59			0.55%
Ag 328.068†	37.3	0.00029	mg/L	0.000046	0.00029	mg/L	0.000046 16.17%
Al 308.215†	4.7	0.00501	mg/L	0.004999	0.00501	mg/L	0.004999 99.72%
As 188.979†	2.3	0.00184	mg/L	0.000929	0.00184	mg/L	0.000929 50.51%
B 249.677†	-5.6	-0.00108	mg/L	0.000847	-0.00108	mg/L	0.000847 78.32%
Ba 233.527†	3.4	0.00057	mg/L	0.000732	0.00057	mg/L	0.000732 128.74%
Be 313.042†	-42.8	-0.00013	mg/L	0.000038	-0.00013	mg/L	0.000038 29.08%
Ca 317.933†	25.5	0.00356	mg/L	0.003323	0.00356	mg/L	0.003323 93.23%
Cd 228.802†	-46.3	-0.00269	mg/L	0.004209	-0.00269	mg/L	0.004209 156.23%
Co 228.616†	0.7	0.00003	mg/L	0.000136	0.00003	mg/L	0.000136 436.51%
Cr 267.716†	-1.1	-0.00019	mg/L	0.000860	-0.00019	mg/L	0.000860 454.53%
Cu 324.752†	6.1	0.00004	mg/L	0.000228	0.00004	mg/L	0.000228 536.39%
Fe 273.955†	4.5	0.00573	mg/L	0.002901	0.00573	mg/L	0.002901 50.66%
K 766.490†	58.5	0.04811	mg/L	0.013467	0.04811	mg/L	0.013467 27.99%
Mg 279.077†	0.0	0.00001	mg/L	0.005165	0.00001	mg/L	0.005165 >999.9%
Mn 257.610†	4.4	0.00015	mg/L	0.000093	0.00015	mg/L	0.000093 63.46%
Mo 202.031†	-1.1	-0.00007	mg/L	0.000083	-0.00007	mg/L	0.000083 116.58%
Na 589.592†	88.0	0.01176	mg/L	0.000702	0.01176	mg/L	0.000702 5.97%
Na 330.237†	-1.4	-0.08158	mg/L	0.274585	-0.08158	mg/L	0.274585 336.58%
Ni 231.604†	-5.7	-0.00160	mg/L	0.000384	-0.00160	mg/L	0.000384 23.96%
Pb 220.353†	-1.3	-0.00020	mg/L	0.001322	-0.00020	mg/L	0.001322 656.49%
Sb 206.836†	-4.6	-0.00193	mg/L	0.001363	-0.00193	mg/L	0.001363 70.54%
Se 196.026†	-1.2	-0.00133	mg/L	0.006766	-0.00133	mg/L	0.006766 507.86%
Si 288.158†	-4.9	-0.00413	mg/L	0.004501	-0.00413	mg/L	0.004501 108.89%
Sn 189.927†	-2.9	-0.00099	mg/L	0.000132	-0.00099	mg/L	0.000132 13.38%
Sr 421.552†	-28.3	-0.00006	mg/L	0.000109	-0.00006	mg/L	0.000109 191.55%
Ti 334.903†	-24.2	-0.00169	mg/L	0.001212	-0.00169	mg/L	0.001212 71.91%
Tl 190.801†	0.8	0.00058	mg/L	0.000784	0.00058	mg/L	0.000784 135.68%
V 292.402†	-7.6	-0.00007	mg/L	0.000307	-0.00007	mg/L	0.000307 412.93%
Zn 206.200†	1.9	0.00060	mg/L	0.000417	0.00060	mg/L	0.000417 69.80%

Sequence No.: 75

Autosampler Location: 10

Sample ID: DI

Date Collected: 10/28/2016 5:46:37 PM

Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: DI

Analyte	Back Pressure	Flow
All	151.0 kPa	0.65 L/min

Mean Data: DI

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	13143.9	0.7509	%	0.00156				0.21%
ScR 361.383	-243.4	-0.1265	%	0.00388				3.07%
Ag 328.068†	-10525.9	-0.08116	mg/L	0.020510	-0.08116	mg/L	0.020510	25.27%
Al 308.215†	57189.8	61.40	mg/L	1.871	61.40	mg/L	1.871	3.05%
As 188.979†	-105.6	-0.6992	mg/L	0.13016	-0.6992	mg/L	0.13016	18.62%
B 249.677†	-52677.8	-10.18	mg/L	0.944	-10.18	mg/L	0.944	9.27%
Ba 233.527†	14874.2	2.496	mg/L	0.2609	2.496	mg/L	0.2609	10.45%
Be 313.042†	-774363.7	-2.349	mg/L	0.0397	-2.349	mg/L	0.0397	1.69%
Ca 317.933†	236769.4	33.08	mg/L	1.365	33.08	mg/L	1.365	4.13%
Cd 228.802†	7275.8	0.4294	mg/L	0.01886	0.4294	mg/L	0.01886	4.39%
Co 228.616†	-11497.7	-0.4217	mg/L	0.01410	-0.4217	mg/L	0.01410	3.34%
Cr 267.716†	34959.5	6.058	mg/L	0.4940	6.058	mg/L	0.4940	8.16%
Cu 324.752†	108683.8	0.7650	mg/L	0.00457	0.7650	mg/L	0.00457	0.60%
Fe 273.955†	77583.6	98.90	mg/L	3.742	98.90	mg/L	3.742	3.78%
K 766.490†	-353497.7	-290.5	mg/L	10.51	-290.5	mg/L	10.51	3.62%
Mg 279.077†	98562.6	120.9	mg/L	3.80	120.9	mg/L	3.80	3.14%
Mn 257.610†	130915.0	4.403	mg/L	0.1370	4.403	mg/L	0.1370	3.11%
Mo 202.031†	6893.7	0.4434	mg/L	0.01958	0.4434	mg/L	0.01958	4.42%
Na 589.592†	-367930.7	-49.17	mg/L	6.996	-49.17	mg/L	6.996	14.23%
Na 330.237†	40493.0	2399	mg/L	337.72	2399	mg/L	337.72	14.08%
Ni 231.604†	32736.0	9.159	mg/L	1.0444	9.159	mg/L	1.0444	11.40%
Pb 220.353†	2093.8	0.3415	mg/L	0.13352	0.3415	mg/L	0.13352	39.10%
Sb 206.836†	7145.5	2.851	mg/L	0.3298	2.851	mg/L	0.3298	11.57%
Se 196.026†	-2102.2	-2.283	mg/L	0.1479	-2.283	mg/L	0.1479	6.48%
Si 288.158†	-43104.1	-36.56	mg/L	5.399	-36.56	mg/L	5.399	14.77%
Sn 189.927†	-1138.1	-0.3883	mg/L	0.13623	-0.3883	mg/L	0.13623	35.08%
Sr 421.552†	-292307.0	-0.5890	mg/L	0.02552	-0.5890	mg/L	0.02552	4.33%
Ti 334.903†	-270880.6	-18.85	mg/L	0.684	-18.85	mg/L	0.684	3.63%
Tl 190.801†	-5241.3	-3.585	mg/L	0.4636	-3.585	mg/L	0.4636	12.93%
V 292.402†	21430.0	0.2469	mg/L	0.00627	0.2469	mg/L	0.00627	2.54%
Zn 206.200†	15990.9	5.019	mg/L	1.0856	5.019	mg/L	1.0856	21.63%

Sequence No.: 76
Sample ID: DI2

Autosampler Location: 10
Date Collected: 10/28/2016 5:51:05 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: DI2

Analyte	Back Pressure	Flow
All	150.0 kPa	0.65 L/min

Mean Data: DI2

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
ScA 357.253	13039.7	0.7449	%	0.00181			0.24%
ScR 361.383	-247.2	-0.1284	%	0.00260			2.02%
Ag 328.068†	-7996.9	-0.06165	mg/L	0.007643	-0.06165	mg/L	0.007643 12.40%
Al 308.215†	61135.9	65.63	mg/L	2.964	65.63	mg/L	2.964 4.52%
As 188.979†	59.4	-0.5316	mg/L	0.47840	-0.5316	mg/L	0.47840 89.99%
B 249.677†	-52149.9	-10.08	mg/L	0.861	-10.08	mg/L	0.861 8.54%
Ba 233.527†	14498.9	2.433	mg/L	1.0599	2.433	mg/L	1.0599 43.57%
Be 313.042†	-771852.4	-2.342	mg/L	0.0254	-2.342	mg/L	0.0254 1.09%
Ca 317.933†	230552.4	32.21	mg/L	0.918	32.21	mg/L	0.918 2.85%
Cd 228.802†	7035.0	0.4143	mg/L	0.01347	0.4143	mg/L	0.01347 3.25%
Co 228.616†	-11102.8	-0.4079	mg/L	0.00925	-0.4079	mg/L	0.00925 2.27%
Cr 267.716†	33132.0	5.741	mg/L	0.1974	5.741	mg/L	0.1974 3.44%
Cu 324.752†	109044.9	0.7671	mg/L	0.00306	0.7671	mg/L	0.00306 0.40%
Fe 273.955†	75826.8	96.66	mg/L	4.480	96.66	mg/L	4.480 4.63%
K 766.490†	-357601.8	-293.9	mg/L	20.04	-293.9	mg/L	20.04 6.82%
Mg 279.077†	97869.6	120.1	mg/L	5.64	120.1	mg/L	5.64 4.70%
Mn 257.610†	126131.5	4.242	mg/L	0.0242	4.242	mg/L	0.0242 0.57%
Mo 202.031†	6622.9	0.4259	mg/L	0.02559	0.4259	mg/L	0.02559 6.01%
Na 589.592†	-354360.1	-47.36	mg/L	6.720	-47.36	mg/L	6.720 14.19%
Na 330.237†	43203.9	2561	mg/L	440.23	2561	mg/L	440.23 17.19%
Ni 231.604†	31393.2	8.783	mg/L	0.3537	8.783	mg/L	0.3537 4.03%
Pb 220.353†	3067.8	0.4891	mg/L	0.14521	0.4891	mg/L	0.14521 29.69%
Sb 206.836†	8018.3	3.218	mg/L	0.3685	3.218	mg/L	0.3685 11.45%
Se 196.026†	-2859.9	-3.103	mg/L	0.3883	-3.103	mg/L	0.3883 12.51%
Si 288.158†	-42663.2	-36.19	mg/L	1.544	-36.19	mg/L	1.544 4.27%
Sn 189.927†	-1292.5	-0.4414	mg/L	0.12283	-0.4414	mg/L	0.12283 27.83%
Sr 421.552†	-291570.7	-0.5875	mg/L	0.02876	-0.5875	mg/L	0.02876 4.89%
Ti 334.903†	-256110.6	-17.82	mg/L	1.062	-17.82	mg/L	1.062 5.96%
Tl 190.801†	-5189.4	-3.549	mg/L	0.1271	-3.549	mg/L	0.1271 3.58%
V 292.402†	21405.1	0.2446	mg/L	0.00137	0.2446	mg/L	0.00137 0.56%
Zn 206.200†	14226.9	4.465	mg/L	0.4950	4.465	mg/L	0.4950 11.09%

Sequence No.: 77
Sample ID: DI3

Autosampler Location: 10
Date Collected: 10/28/2016 5:55:34 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: DI3

Analyte Back Pressure Flow
All 151.0 kPa 0.65 L/min

Mean Data: DI3

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	13027.0	0.7442	%	0.00075				0.10%
ScR 361.383	-265.3	-0.1378	%	0.00319				2.32%
Ag 328.068†	-11902.9	-0.09179	mg/L	0.017397	-0.09179	mg/L	0.017397	18.95%
Al 308.215†	57778.2	62.03	mg/L	2.629	62.03	mg/L	2.629	4.24%
As 188.979†	147.9	-0.4175	mg/L	0.44513	-0.4175	mg/L	0.44513	106.63%
B 249.677†	-45735.3	-8.842	mg/L	0.6906	-8.842	mg/L	0.6906	7.81%
Ba 233.527†	15014.7	2.520	mg/L	0.7317	2.520	mg/L	0.7317	29.04%
Be 313.042†	-717072.6	-2.175	mg/L	0.0593	-2.175	mg/L	0.0593	2.73%
Ca 317.933†	221190.6	30.90	mg/L	1.630	30.90	mg/L	1.630	5.28%
Cd 228.802†	7217.6	0.4251	mg/L	0.01724	0.4251	mg/L	0.01724	4.06%
Co 228.616†	-11330.2	-0.4194	mg/L	0.02910	-0.4194	mg/L	0.02910	6.94%
Cr 267.716†	33297.8	5.770	mg/L	0.1563	5.770	mg/L	0.1563	2.71%
Cu 324.752†	108172.2	0.7606	mg/L	0.00065	0.7606	mg/L	0.00065	0.09%
Fe 273.955†	71900.6	91.66	mg/L	2.194	91.66	mg/L	2.194	2.39%
K 766.490†	-320768.6	-263.6	mg/L	3.94	-263.6	mg/L	3.94	1.49%
Mg 279.077†	94479.2	115.9	mg/L	10.22	115.9	mg/L	10.22	8.82%
Mn 257.610†	117362.1	3.947	mg/L	0.2730	3.947	mg/L	0.2730	6.92%
Mo 202.031†	6967.1	0.4481	mg/L	0.03049	0.4481	mg/L	0.03049	6.80%
Na 589.592†	-318972.2	-42.63	mg/L	2.735	-42.63	mg/L	2.735	6.42%
Na 330.237†	32408.1	1920	mg/L	203.80	1920	mg/L	203.80	10.62%
Ni 231.604†	33560.3	9.389	mg/L	1.2175	9.389	mg/L	1.2175	12.97%
Pb 220.353†	2010.5	0.3285	mg/L	0.05419	0.3285	mg/L	0.05419	16.49%
Sb 206.836†	7550.4	3.024	mg/L	0.2208	3.024	mg/L	0.2208	7.30%
Se 196.026†	-3270.1	-3.547	mg/L	0.3410	-3.547	mg/L	0.3410	9.61%
Si 288.158†	-35248.2	-29.88	mg/L	5.633	-29.88	mg/L	5.633	18.85%
Sn 189.927†	-1454.0	-0.4973	mg/L	0.06435	-0.4973	mg/L	0.06435	12.94%
Sr 421.552†	-268445.8	-0.5409	mg/L	0.03818	-0.5409	mg/L	0.03818	7.06%
Ti 334.903†	-237038.7	-16.50	mg/L	0.923	-16.50	mg/L	0.923	5.60%
Tl 190.801†	-5664.6	-3.874	mg/L	0.1867	-3.874	mg/L	0.1867	4.82%
V 292.402†	22306.3	0.2530	mg/L	0.00865	0.2530	mg/L	0.00865	3.42%
Zn 206.200†	13453.9	4.223	mg/L	0.1773	4.223	mg/L	0.1773	4.20%

Sequence No.: 78
Sample ID: DI4

Autosampler Location: 10
Date Collected: 10/28/2016 6:00:03 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: DI4

Analyte	Back Pressure	Flow
All	151.0 kPa	0.65 L/min

Mean Data: DI4

Analyte	Mean Corrected		Calib. Units	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
ScA 357.253	13034.9	0.7446	%	0.00188				0.25%
ScR 361.383	-263.9	-0.1371	%	0.00744				5.42%
Ag 328.068†	-12408.4	-0.09569	mg/L	0.021683	-0.09569	mg/L	0.021683	22.66%
Al 308.215†	57341.6	61.56	mg/L	4.004	61.56	mg/L	4.004	6.50%
As 188.979†	625.0	-0.05074	mg/L	0.070430	-0.05074	mg/L	0.070430	138.79%
B 249.677†	-40797.6	-7.887	mg/L	1.1508	-7.887	mg/L	1.1508	14.59%
Ba 233.527†	14171.3	2.378	mg/L	0.2473	2.378	mg/L	0.2473	10.40%
Be 313.042†	-722040.7	-2.191	mg/L	0.1457	-2.191	mg/L	0.1457	6.65%
Ca 317.933†	214978.1	30.03	mg/L	1.977	30.03	mg/L	1.977	6.58%
Cd 228.802†	7581.4	0.4427	mg/L	0.03384	0.4427	mg/L	0.03384	7.65%
Co 228.616†	-11833.7	-0.4378	mg/L	0.02217	-0.4378	mg/L	0.02217	5.06%
Cr 267.716†	32378.8	5.611	mg/L	0.5663	5.611	mg/L	0.5663	10.09%
Cu 324.752†	107649.4	0.7573	mg/L	0.01036	0.7573	mg/L	0.01036	1.37%
Fe 273.955†	70437.2	89.79	mg/L	3.302	89.79	mg/L	3.302	3.68%
K 766.490†	-344401.3	-283.0	mg/L	10.55	-283.0	mg/L	10.55	3.73%
Mg 279.077†	88755.9	108.9	mg/L	1.50	108.9	mg/L	1.50	1.38%
Mn 257.610†	118567.4	3.988	mg/L	0.3046	3.988	mg/L	0.3046	7.64%
Mo 202.031†	6427.9	0.4134	mg/L	0.02069	0.4134	mg/L	0.02069	5.01%
Na 589.592†	-322671.6	-43.12	mg/L	4.622	-43.12	mg/L	4.622	10.72%
Na 330.237†	29076.9	1722	mg/L	597.43	1722	mg/L	597.43	34.70%
Ni 231.604†	29384.8	8.222	mg/L	0.5803	8.222	mg/L	0.5803	7.06%
Pb 220.353†	2501.5	0.4023	mg/L	0.11620	0.4023	mg/L	0.11620	28.89%
Sb 206.836†	8008.4	3.215	mg/L	0.2268	3.215	mg/L	0.2268	7.05%
Se 196.026†	-2894.0	-3.140	mg/L	0.4589	-3.140	mg/L	0.4589	14.61%
Si 288.158†	-35798.5	-30.35	mg/L	1.511	-30.35	mg/L	1.511	4.98%
Sn 189.927†	-1662.9	-0.5697	mg/L	0.13225	-0.5697	mg/L	0.13225	23.22%
Sr 421.552†	-286826.5	-0.5780	mg/L	0.05416	-0.5780	mg/L	0.05416	9.37%
Ti 334.903†	-247447.1	-17.22	mg/L	1.051	-17.22	mg/L	1.051	6.10%
Tl 190.801†	-5621.2	-3.845	mg/L	0.4370	-3.845	mg/L	0.4370	11.37%
V 292.402†	22646.8	0.2561	mg/L	0.01609	0.2561	mg/L	0.01609	6.28%
Zn 206.200†	15047.0	4.724	mg/L	0.6128	4.724	mg/L	0.6128	12.97%



INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Instrument ID: ICP2

Calibration: ZJ00089

Control Limit: +/- 10.00%

Sequence: SEJ0466

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SEJ0466-ICV1	Cadmium	1.0000	1.02	102	mg/L	EPA 6010C
SEJ0466-CCV1	Cadmium	1.0000	1.01	101	mg/L	EPA 6010C
SEJ0466-CCV2	Cadmium	1.0000	1.01	101	mg/L	EPA 6010C
SEJ0466-CCV3	Cadmium	1.0000	1.02	102	mg/L	EPA 6010C
SEJ0466-CCV4	Cadmium	1.0000	1.02	102	mg/L	EPA 6010C
SEJ0466-CCV5	Cadmium	1.0000	1.01	101	mg/L	EPA 6010C
SEJ0466-CCV6	Cadmium	1.0000	0.997	99.7	mg/L	EPA 6010C
SEJ0466-CCV7	Cadmium	1.0000	0.998	99.8	mg/L	EPA 6010C
SEJ0466-CCV8	Cadmium	1.0000	0.996	99.6	mg/L	EPA 6010C
SEJ0466-CCV9	Cadmium	1.0000	1.01	101	mg/L	EPA 6010C

* Values outside of QC limits



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SEJ0466

Instrument: ICP2

Calibration: ZJ00089

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Cal Standard	SEJ0466-CAL1	I2161028-006	Water	10/28/16 10:50
Cal Standard	SEJ0466-CAL2	I2161028-007	Water	10/28/16 10:54
Cal Standard	SEJ0466-CAL3	I2161028-008	Water	10/28/16 10:56
Cal Standard	SEJ0466-CAL4	I2161028-009	Water	10/28/16 10:58
Cal Standard	SEJ0466-CAL5	I2161028-010	Water	10/28/16 11:00
Initial Cal Check	SEJ0466-ICV1	I2161028-011	Water	10/28/16 11:04
Initial Cal Blank	SEJ0466-ICB1	I2161028-012	Water	10/28/16 11:09
Instrument RL Check	SEJ0466-CRL1	I2161028-013	Water	10/28/16 11:13
Interference Check A	SEJ0466-IFA1	I2161028-014	Water	10/28/16 11:17
Interference Check B	SEJ0466-IFB1	I2161028-015	Water	10/28/16 11:21
Calibration Check	SEJ0466-CCV1	I2161028-016	Water	10/28/16 11:26
Calibration Blank	SEJ0466-CCB1	I2161028-017	Water	10/28/16 11:30
ZZZZZ	16J0366-02	I2161028-021	Water	10/28/16 11:46
ZZZZZ	16J0438-02	I2161028-025	Water	10/28/16 12:04
Calibration Check	SEJ0466-CCV2	I2161028-028	Water	10/28/16 12:20
Calibration Blank	SEJ0466-CCB2	I2161028-029	Water	10/28/16 12:25
Calibration Check	SEJ0466-CCV3	I2161028-031	Water	10/28/16 12:33
Calibration Blank	SEJ0466-CCB3	I2161028-032	Water	10/28/16 12:37
ZZZZZ	16J0378-07	I2161028-034	Water	10/28/16 12:45
ZZZZZ	16J0378-09	I2161028-035	Water	10/28/16 12:49
ZZZZZ	16J0378-10	I2161028-036	Water	10/28/16 12:54
ZZZZZ	16J0378-11	I2161028-037	Water	10/28/16 12:58
ZZZZZ	16J0378-12	I2161028-038	Water	10/28/16 13:02
ZZZZZ	16J0378-08	I2161028-040	Water	10/28/16 13:11
Calibration Check	SEJ0466-CCV4	I2161028-043	Water	10/28/16 13:30
Calibration Blank	SEJ0466-CCB4	I2161028-044	Water	10/28/16 13:36
ZZZZZ	16J0341-01	I2161028-046	Water	10/28/16 13:45
ZZZZZ	16J0336-01	I2161028-047	Water	10/28/16 13:49
ZZZZZ	16J0341-03	I2161028-048	Water	10/28/16 13:53
ZZZZZ	16J0341-04	I2161028-049	Water	10/28/16 13:57
ZZZZZ	16J0341-02	I2161028-051	Water	10/28/16 14:06



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SEJ0466

Instrument: ICP2

Calibration: ZJ00089

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SEJ0466-IBL1	I2161028-054	Water	10/28/16 14:18
Calibration Check	SEJ0466-CCV5	I2161028-055	Water	10/28/16 14:22
Calibration Blank	SEJ0466-CCB5	I2161028-056	Water	10/28/16 14:26
ZZZZZ	16J0341-05	I2161028-058	Water	10/28/16 14:34
ZZZZZ	16J0341-06	I2161028-059	Water	10/28/16 14:39
ZZZZZ	16J0341-07	I2161028-060	Water	10/28/16 14:43
ZZZZZ	16J0341-08	I2161028-061	Water	10/28/16 14:47
ZZZZZ	16J0341-09	I2161028-062	Water	10/28/16 14:52
Calibration Check	SEJ0466-CCV6	I2161028-067	Water	10/28/16 15:12
Calibration Blank	SEJ0466-CCB6	I2161028-068	Water	10/28/16 15:16
ZZZZZ	BEJ0795-BLK1	I2161028-070	Solid	10/28/16 15:24
ZZZZZ	16J0433-03	I2161028-071	Water	10/28/16 15:28
ZZZZZ	16J0433-04	I2161028-072	Water	10/28/16 15:32
ZZZZZ	16J0342-03	I2161028-073	Solid	10/28/16 15:37
ZZZZZ	16J0342-02	I2161028-074	Solid	10/28/16 15:41
ZZZZZ	16J0342-01	I2161028-076	Solid	10/28/16 15:49
ZZZZZ	BEJ0795-BS1	I2161028-078	Solid	10/28/16 15:56
Calibration Check	SEJ0466-CCV7	I2161028-079	Water	10/28/16 16:00
Calibration Blank	SEJ0466-CCB7	I2161028-080	Water	10/28/16 16:04
Blank	BEJ0777-BLK1	I2161028-081	Tissue	10/28/16 16:08
ZZZZZ	16J0413-05	I2161028-082	Solid	10/28/16 16:12
ZZZZZ	16J0413-07	I2161028-084	Solid	10/28/16 16:20
ZZZZZ	16H0147-01	I2161028-086	Tissue	10/28/16 16:28
PG-SMA-1-1-161011	BEJ0777-DUP1	I2161028-087	Tissue	10/28/16 16:32
PG-SMA-1-1-161011	16J0187-01	I2161028-088	Tissue	10/28/16 16:36
PG-SMA-1-1-161011	BEJ0777-MS1	I2161028-089	Tissue	10/28/16 16:40
LCS	BEJ0777-BS1	I2161028-090	Tissue	10/28/16 16:45
Calibration Check	SEJ0466-CCV8	I2161028-091	Water	10/28/16 16:49
Calibration Blank	SEJ0466-CCB8	I2161028-092	Water	10/28/16 16:53
ZZZZZ	16H0268-01	I2161028-093	Tissue	10/28/16 16:57
PG-SMA-1-2-161011	16J0187-02	I2161028-094	Tissue	10/28/16 17:01



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SEJ0466

Instrument: ICP2

Calibration: ZJ00089

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
PG-SMA-1-3-161011	16J0187-03	I2161028-095	Tissue	10/28/16 17:05
PG-REF-PJ-1-161011	16J0187-04	I2161028-096	Tissue	10/28/16 17:09
PG-REF-WS-1-161011	16J0187-05	I2161028-097	Tissue	10/28/16 17:14
PG-REF-GP-1-161011	16J0187-06	I2161028-098	Tissue	10/28/16 17:18
Calibration Check	SEJ0466-CCV9	I2161028-099	Water	10/28/16 17:22
Calibration Blank	SEJ0466-CCB9	I2161028-100	Water	10/28/16 17:26

ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Instrument ID: ICP2

Calibration: ZJ00089

Sequence: SEJ0466

Standard ID: E004967

Lab Sample ID	Analyte	True	Found	%R	Units
SEJ0466-IFA1	Arsenic	0	0.0027		mg/L
	Cobalt	0	0.0017		mg/L
	Nickel	0	-0.0005		mg/L
	Vanadium	0	-0.0016		mg/L
	Cadmium	0	-0.0009		mg/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Instrument ID: ICP2

Calibration: ZJ00089

Sequence: SEJ0466

Standard ID: E004967

Lab Sample ID	Analyte	True	Found	%R	Units
SEJ0466-IFB1	Arsenic	1.0000	0.9903	99.0	mg/L
	Cobalt	1.0000	0.9375	93.8	mg/L
	Nickel	1.0000	0.9648	96.5	mg/L
	Vanadium	1.0000	0.9558	95.6	mg/L
	Cadmium	1.0000	1.0040	100	mg/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



INTER-ELEMENT CORRECTION FACTORS

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Instrument: ICP2

IEC Date: 05/12/2016

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		<u>Al</u>	<u>Ca</u>	<u>Fe</u>	<u>Mg</u>	<u>Sb</u>
Arsenic			0.147496			
Cadmium	228.8					
Cobalt						
Nickel						-0.48472
Vanadium				0.054249		



INTER-ELEMENT CORRECTION FACTORS

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Instrument: ICP2

IEC Date: 05/12/2016

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		<u>As</u>	<u>Ba</u>	<u>Cd</u>	<u>Cr</u>	<u>Co</u>
Arsenic					1.428339	-1.156813
Cadmium	228.8	5.553583				0.156872
Cobalt			0.126506		0	
Nickel						
Vanadium					-4.431174	



INTER-ELEMENT CORRECTION FACTORS

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Instrument: ICP2

IEC Date: 05/12/2016

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		<u>Cu</u>	<u>Pb</u>	<u>Mn</u>	<u>Mo</u>	<u>Ni</u>
Arsenic					3.362611	
Cadmium	228.8					-0.892927
Cobalt					-0.149322	0.145484
Nickel						
Vanadium				-0.144261	-0.435373	



INTER-ELEMENT CORRECTION FACTORS

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Instrument: ICP2

IEC Date: 05/12/2016

Analyte	Wave-length (nm)	Interelement Correction Factors for:			
		<u>Tl</u>	<u>Ti</u>	<u>V</u>	<u>Zn</u>
Arsenic			-30.79292		
Cadmium	228.8			0.053016	
Cobalt			1.79711		
Nickel		0.476574			
Vanadium			0.590829		

DETECTION LEVEL STANDARD

EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Instrument ID: ICP2

Calibration: ZJ00089

Sequence: SEJ0466

Lab Sample ID: SEJ0466-CRL1

Analyte	True	Found	%R	Units	QC Limits
Cadmium	0.0020	0.0020	98.5	mg/L	50 - 150

* Values outside of QC limits

HOLDING TIME SUMMARY

Analysis: EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PG-SMA-1-1-161011 16J0187-01	10/11/16 11:08	10/12/16 07:12	10/26/16 07:22	14	180	10/28/16 16:36	17	180	
PG-SMA-1-2-161011 16J0187-02	10/11/16 11:05	10/12/16 07:12	10/26/16 07:22	14	180	10/28/16 17:01	17	180	
PG-SMA-1-3-161011 16J0187-03	10/11/16 11:10	10/12/16 07:12	10/26/16 07:22	14	180	10/28/16 17:05	17	180	
PG-REF-PJ-1-161011 16J0187-04	10/11/16 12:37	10/12/16 07:12	10/26/16 07:22	14	180	10/28/16 17:09	17	180	
PG-REF-WS-1-161011 16J0187-05	10/11/16 12:15	10/12/16 07:12	10/26/16 07:22	14	180	10/28/16 17:14	17	180	
PG-REF-GP-1-161011 16J0187-06	10/11/16 12:50	10/12/16 07:12	10/26/16 07:22	14	180	10/28/16 17:18	17	180	
Duplicate BEJ0777-DUP1	10/11/16 11:08	10/12/16 07:12	10/26/16 07:22	14	180	10/28/16 16:32	17	180	
Matrix Spike BEJ0777-MS1	10/11/16 11:08	10/12/16 07:12	10/26/16 07:22	14	180	10/28/16 16:40	17	180	

* Indicates hold time exceedance.



METHOD DETECTION AND REPORTING LIMITS

EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Matrix: Tissue

Instrument: ICP2

Analyte	MDL	RL	Units
Cadmium	0.0025	0.0400	mg/kg



Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA-1-1-161011

Bligh & Dyer (Mod)
TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-01

File ID:

Sampled: 10/11/16 11:08

Prepared: 10/26/16 15:28

Analyzed: 11/14/16 10:59

Solids (wt%): 0.00

Preparation: EPA 3550C-Mod (Ultrasonic)

Initial/Final: 10 g / 10 mL

Batch: BEJ0808

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	1.2	1	0.010	0.010	



Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA-1-2-161011

Bligh & Dyer (Mod)
TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-02

File ID:

Sampled: 10/11/16 11:05

Prepared: 10/26/16 15:28

Analyzed: 11/14/16 10:59

Solids (wt%): 0.00

Preparation: EPA 3550C-Mod (Ultrasonic)

Initial/Final: 10 g / 10 mL

Batch: BEJ0808

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	1.1	1	0.010	0.010	



Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA-1-3-161011

Bligh & Dyer (Mod)
TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-03

File ID:

Sampled: 10/11/16 11:10

Prepared: 10/26/16 15:28

Analyzed: 11/14/16 10:59

Solids (wt%): 0.00

Preparation: EPA 3550C-Mod (Ultrasonic)

Initial/Final: 10 g / 10 mL

Batch: BEJ0808

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	1.2	1	0.010	0.010	



Form I
INORGANIC ANALYSIS DATA SHEET

PG-REF-PJ-1-161011

Bligh & Dyer (Mod)
TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-04

File ID:

Sampled: 10/11/16 12:37

Prepared: 10/26/16 15:28

Analyzed: 11/14/16 10:59

Solids (wt%): 0.00

Preparation: EPA 3550C-Mod (Ultrasonic)

Initial/Final: 10 g / 10 mL

Batch: BEJ0808

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	1.2	1	0.010	0.010	



Form I
INORGANIC ANALYSIS DATA SHEET

PG-REF-WS-1-161011

Bligh & Dyer (Mod)
TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-05

File ID:

Sampled: 10/11/16 12:15

Prepared: 10/26/16 15:28

Analyzed: 11/14/16 10:59

Solids (wt%): 0.00

Preparation: EPA 3550C-Mod (Ultrasonic)

Initial/Final: 10 g / 10 mL

Batch: BEJ0808

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	1.2	1	0.010	0.010	



Form I
INORGANIC ANALYSIS DATA SHEET

PG-REF-GP-1-161011

Bligh & Dyer (Mod)
TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-06

File ID:

Sampled: 10/11/16 12:50

Prepared: 10/26/16 15:28

Analyzed: 11/14/16 10:59

Solids (wt%): 0.00

Preparation: EPA 3550C-Mod (Ultrasonic)

Initial/Final: 10 g / 10 mL

Batch: BEJ0808

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	1.3	1	0.010	0.010	



PREPARATION BATCH SUMMARY

Bligh & Dyer (Mod)

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Batch: BEJ0808

Batch Matrix: Tissue

Preparation: EPA 3550C-Mod (Ultrasonic)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PG-SMA-1-1-161011	16J0187-01		10/26/16 15:28	
PG-SMA-1-2-161011	16J0187-02		10/26/16 15:28	
PG-SMA-1-3-161011	16J0187-03		10/26/16 15:28	
PG-REF-PJ-1-161011	16J0187-04		10/26/16 15:28	
PG-REF-WS-1-161011	16J0187-05		10/26/16 15:28	
PG-REF-GP-1-161011	16J0187-06		10/26/16 15:28	
Blank	BEJ0808-BLK1		10/26/16 15:28	



Preparation Test % Lipid Test # 1

Lab Number(s) 16H4147, 16H4268, 16J4187
Batch ID: BEJ4848

In-House
Batch set up by: JH

Jar ID	ARI Sample ID	Original Extracted Weight (wet wt)	Original Volume (FEV) (mL)	(split aliquot) Y/N	Volume Taken (µL)	Tare Weight	Tare+Sample Weight	Comments	Verify Client ID	
	BEJ4848 BLK	14.44	1 mL	(Y/N)	(1.444 µL)	1.1650	1.1847	0.197	 10/26/16	
A	16H4147-φ1	14.43	1 mL	(Y/N)	(1.444 µL)	1.1618	1.3282	1.659		
A	16H4268-φ1	14.48	1 mL	(Y/N)	(1.444 µL)	1.1596	1.3735	2.122		
A	16J4187-φ1	14.13	1 mL	(Y/N)	(1.444 µL)	1.16635	1.2915	1.233		
A	} -φ2	14.17	1 mL	(Y/N)	(1.444 µL)	1.1556	1.2635	1.464		
A		-φ3	14.46	1 mL	(Y/N)	(1.444 µL)	1.1671	1.2889		1.214
A		-φ4	14.45	1 mL	(Y/N)	(1.444 µL)	1.1649	1.2850		1.195
A		-φ5	14.41	1 mL	(Y/N)	(1.444 µL)	1.1590	1.2801		1.249
A	↓ -φ6	14.49	1 mL	(Y/N)	(1.444 µL)	1.15388	1.2824	1.274	KD 80-85°C 12 3 4 5 6 RH 11/7/16	
			mL	(Y/N)	(µL)				Analyst/Date TurboVap 12 3 4 5 11/9/16	
			mL	(Y/N)	(µL)					
			mL	(Y/N)	(µL)					
			mL	(Y/N)	(µL)					
			mL	(Y/N)	(µL)					
			mL	(Y/N)	(µL)					
			mL	(Y/N)	(µL)					
			mL	(Y/N)	(µL)					
Analyst/Date	10/26/16		11/9/16		11/9/16	11/9/16	11/10/16	Reviewed by/Date	Analyst/Date	
Balance ID:	B13929842				Analytical Balance ID:	1123230597				

SPECIAL INSTRUCTIONS: 1. Weigh into 250mL Centrifuge bottles. 2. Use 10 g neutral Sodium Sulfate for the blanks. 3. Add 1:1 DCM/Acetone. 4. Add Sodium Sulfate to samples just prior to tissue mizzing. 5. Tissuemize (2X) with 1:1 DCM/Acetone + (1X) DCM only. 6. Collect in 500mL flask + Lg Funnel with glasswool (NO Sodium Sulfate). 7. KD at 80-85°C. 8. Turbovap to 1mL. 9. Record weights of empty tins from Analytical Balance in Tare Weight column. 10. Transfer the 1mL extract into the empty tins. 11. Dry extracts in tins under hood for a minimum of 2 hours. 12. Store extracts in a desiccator over night. 13. Re-weigh tins with Analytical Balance. 14. Record weights in Tare+Sample Weight column. 15. %Lipids are calculated by entering on LIMS.

*NOTE: THE TARGET IS GENERALLY A 10:1 RATIO (10G SAMPLE TO 1mL FEV).

Freeze Y/N



ARI Job No.: 16H0147/16H0268/16J0187

Client ID: Ancho: QEA, LLC

Batch ID: BEJ0848

Parameter: % Lipids

Client Project: Port Canale Shellfish Monitoring

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input checked="" type="checkbox"/> Other (Details)= <u>16H0147=φ1, 16H0268=φ1, 16J0187=φ1-φ6.</u> <u>All homogenized tissue</u>	<u>mje 10/26/16</u>
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / N <u>Y</u>	<u>mje 10/26/16</u>
<input checked="" type="checkbox"/> Multiple Jars Y / N <u>N</u>	<u>mje 10/26/16</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Form I
METHOD BLANK DATA SHEET

Blank

Bligh & Dyer (Mod)

TotalAnalytes

Batch: BEJ0808

Laboratory ID: BEJ0808-BLK1

Prepared: 10/26/16 15:28

Matrix: Tissue

Preparation: EPA 3550C-Mod (Ultrason

Analyzed: 11/14/16 10:59

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	0.20	1	0.010	0.010	

HOLDING TIME SUMMARY

Analysis: Bligh & Dyer (Mod)

 Laboratory: Analytical Resources, Inc.

 SDG: 16J0187

 Client: Anchor QEA, LLC

 Project: Port Gamble Shellfish Monitoring

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PG-SMA-1-1-161011 16J0187-01	10/11/16 11:08	10/12/16 07:12	10/26/16 15:28	15	365	11/14/16 10:59	34	365	
PG-SMA-1-2-161011 16J0187-02	10/11/16 11:05	10/12/16 07:12	10/26/16 15:28	15	365	11/14/16 10:59	34	365	
PG-SMA-1-3-161011 16J0187-03	10/11/16 11:10	10/12/16 07:12	10/26/16 15:28	15	365	11/14/16 10:59	34	365	
PG-REF-PJ-1-161011 16J0187-04	10/11/16 12:37	10/12/16 07:12	10/26/16 15:28	15	365	11/14/16 10:59	34	365	
PG-REF-WS-1-161011 16J0187-05	10/11/16 12:15	10/12/16 07:12	10/26/16 15:28	15	365	11/14/16 10:59	34	365	
PG-REF-GP-1-161011 16J0187-06	10/11/16 12:50	10/12/16 07:12	10/26/16 15:28	15	365	11/14/16 10:59	34	365	

* Indicates hold time exceedance.



Analytical
Resources,
Incorporated

METHOD DETECTION AND REPORTING LIMITS

Bligh & Dyer (Mod)

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Matrix: Tissue

Instrument:

Analyte	MDL	RL	Units
Percent Lipids	0.010	0.010	%



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
8270D-SIM PAH (0.01 ug/L)

Laboratory: Analytical Resources, Inc. SDG: 16J0187
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 16J0187-01 File ID: 16111007.D
 Sampled: 10/11/16 11:08 Prepared: 10/26/16 15:10 Analyzed: 11/10/16 14:40
 Solids: Preparation: EPA 3550C-Mod (Ultrasonic) Initial/Final: 10.02 g / 0.5 mL
 Batch: BEJ0794 Sequence: SEK0151 Calibration: ZK00002
 Instrument: NT11 Column: RXi-17Sil-MS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.59	J	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	1.48		0.50	0.50
120-12-7	Anthracene	1	0.50	U	0.50	0.50
206-44-0	Fluoranthene	1	1.32		0.50	0.50
129-00-0	Pyrene	1	1.03		0.50	0.50
56-55-3	Benzo(a)anthracene	1	0.50	U	0.50	0.50
218-01-9	Chrysene	1	0.50	U	0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	0.50	U	0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.50	U	0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
1985-5-0	Perylene	1	0.50	U	0.50	0.50
197-97-2	Benzo(e)pyrene	1	0.50	U	0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.970	9.60	64.1	30 - 160	
Dibenzo[a,h]anthracene-d14	14.970	13.2	88.1	30 - 160	
Fluoranthene-d10	14.970	12.1	80.8	30 - 160	

Data File: \\target\share\chem3\nt11.1\20161110.16\16111007.D

Date : 10-NOV-2016 14:40

Client ID:

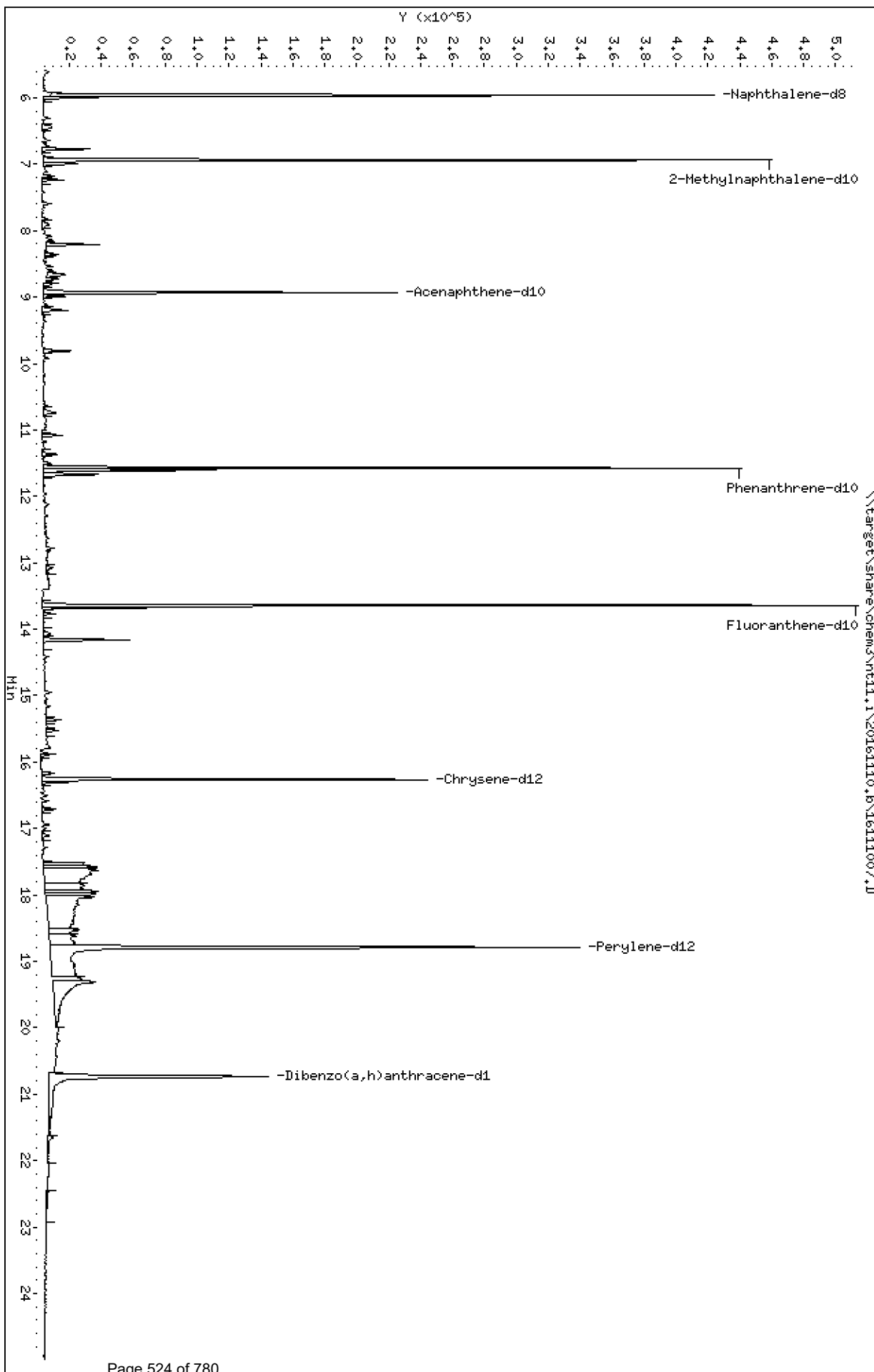
Sample Info: 16J0187-01

Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25



Date : 10-NOV-2016 14:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-01

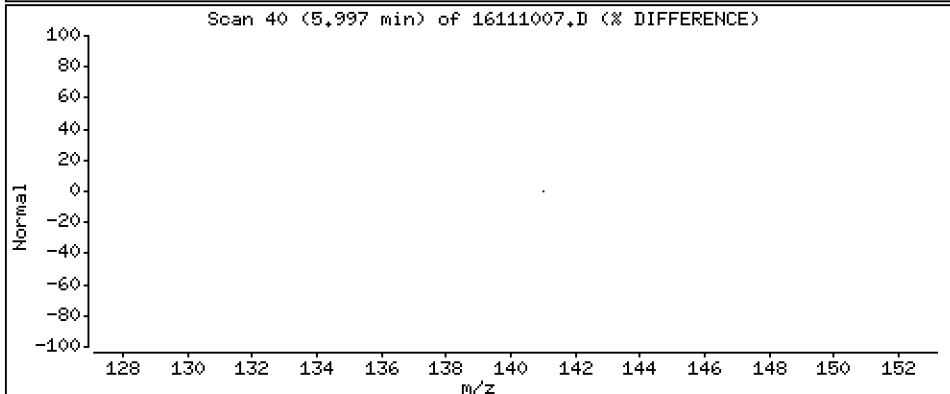
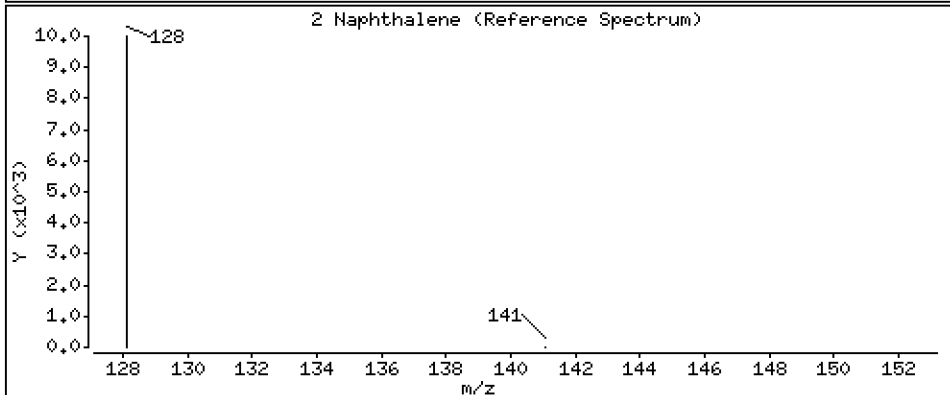
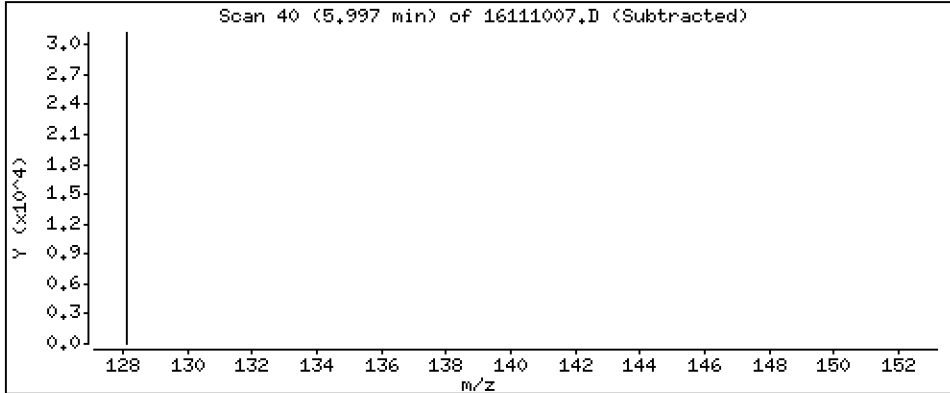
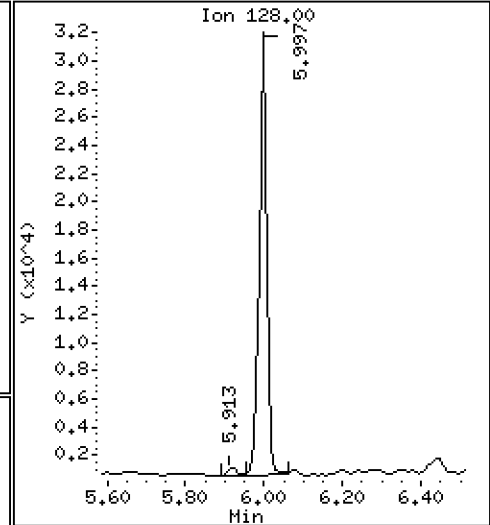
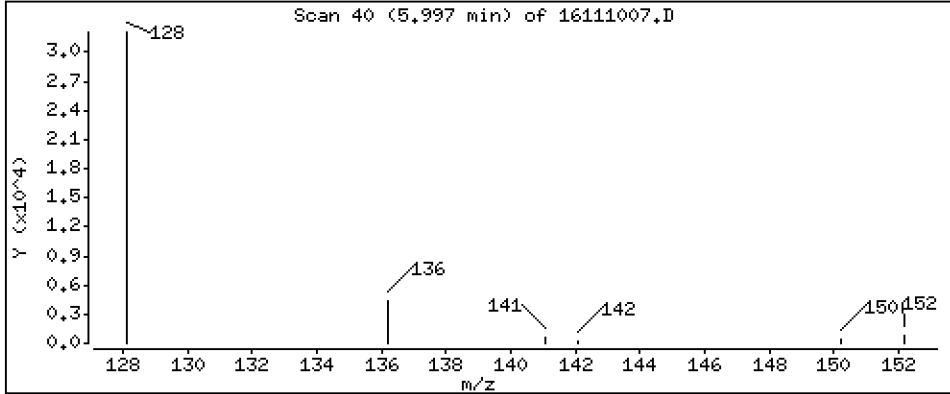
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 11,9 ng/mL



Date : 10-NOV-2016 14:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-01

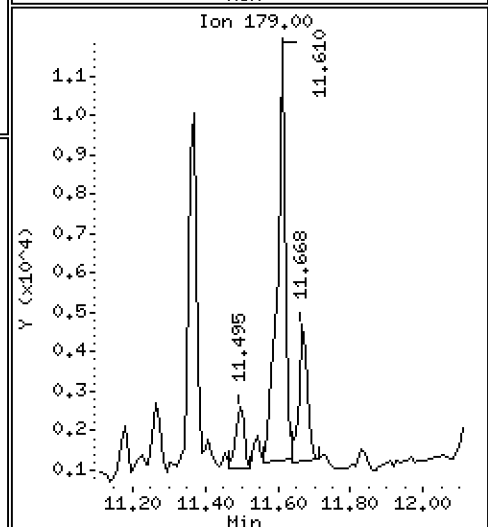
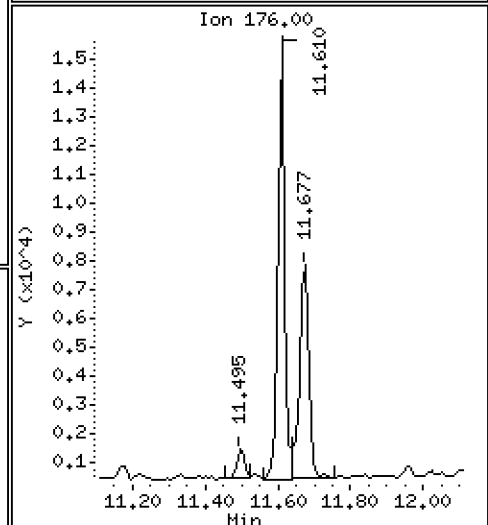
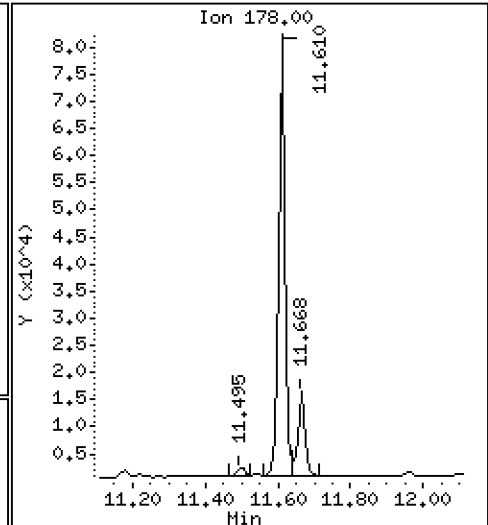
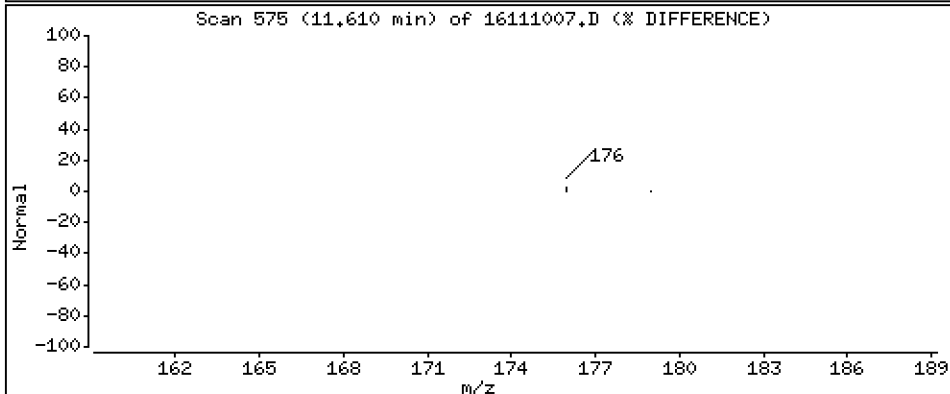
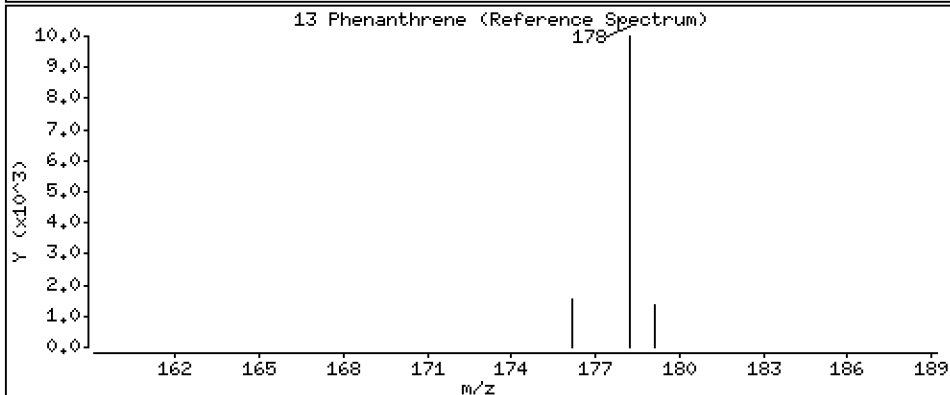
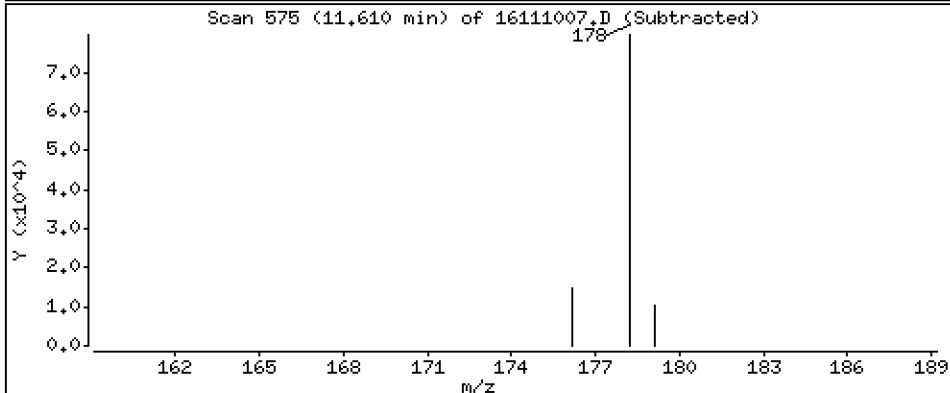
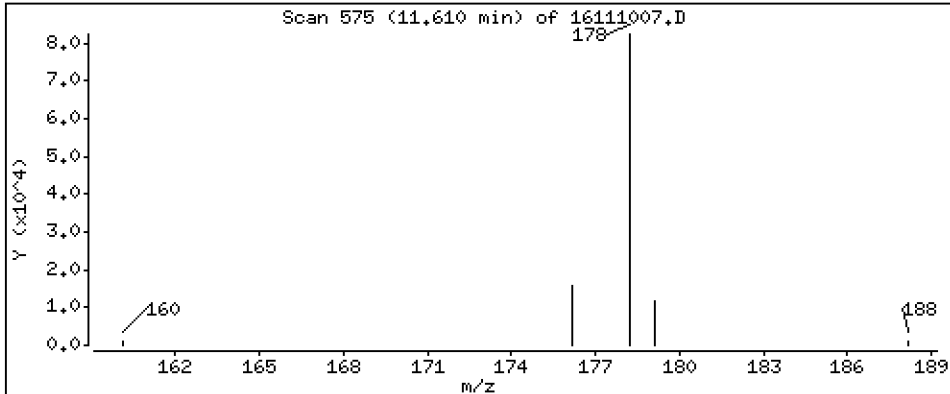
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 Phenanthrene

Concentration: 29.7 ng/mL



Date : 10-NOV-2016 14:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-01

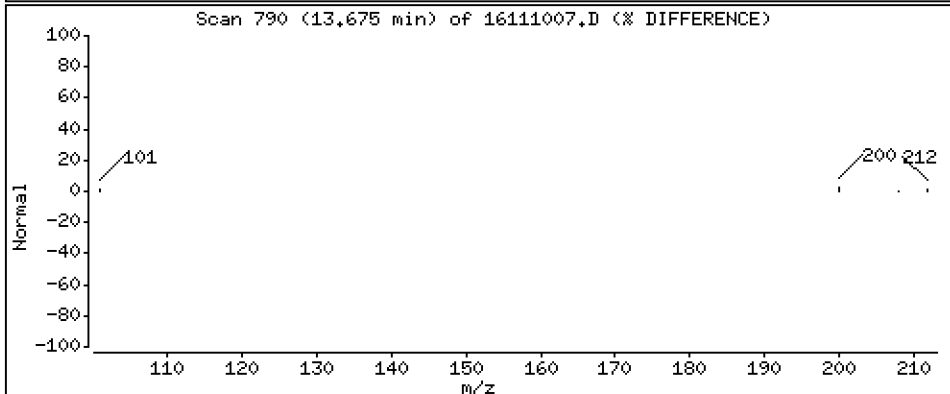
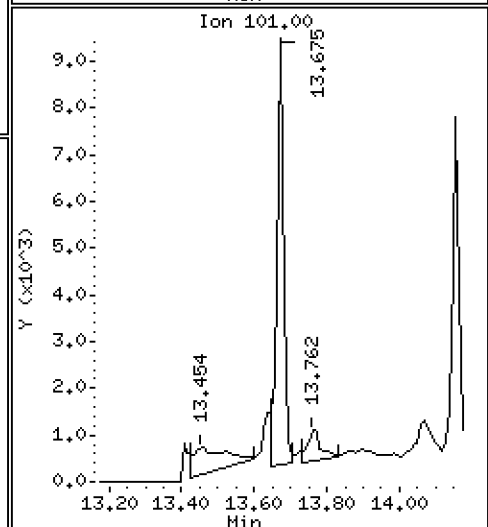
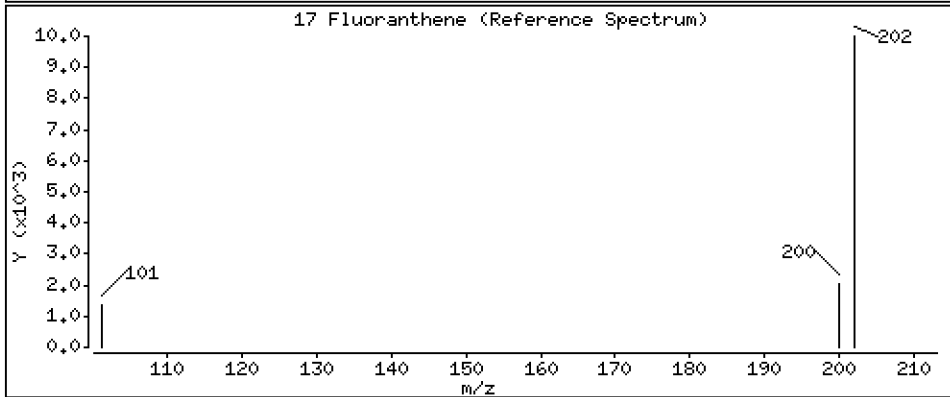
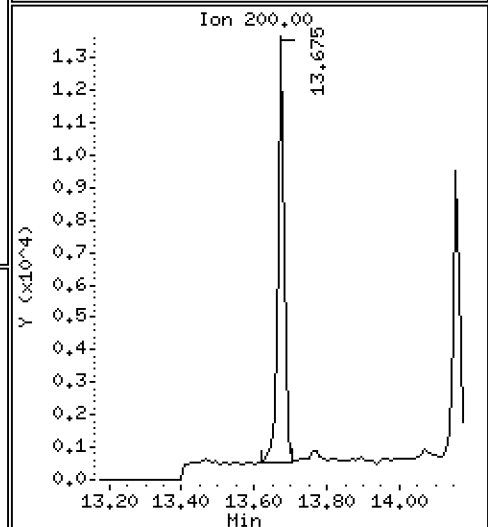
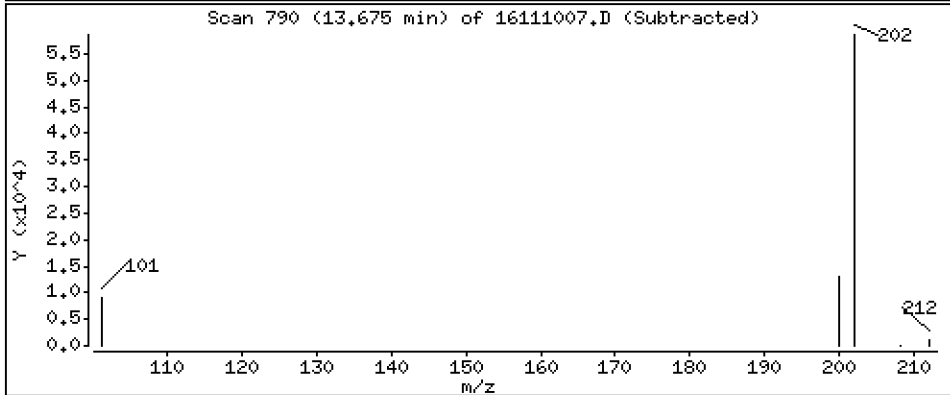
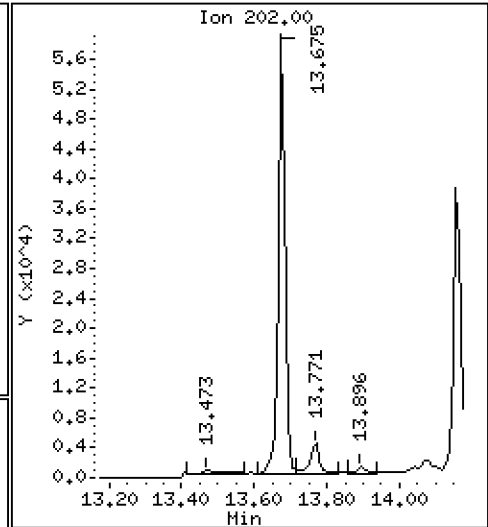
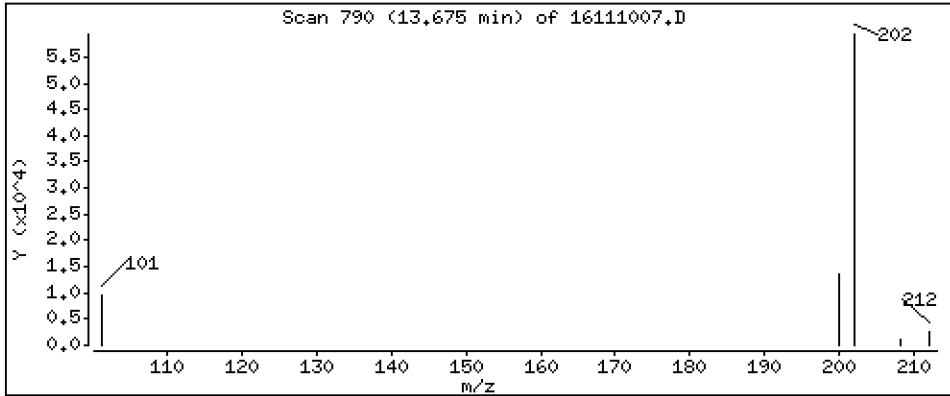
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Fluoranthene

Concentration: 26,5 ng/mL



Date : 10-NOV-2016 14:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-01

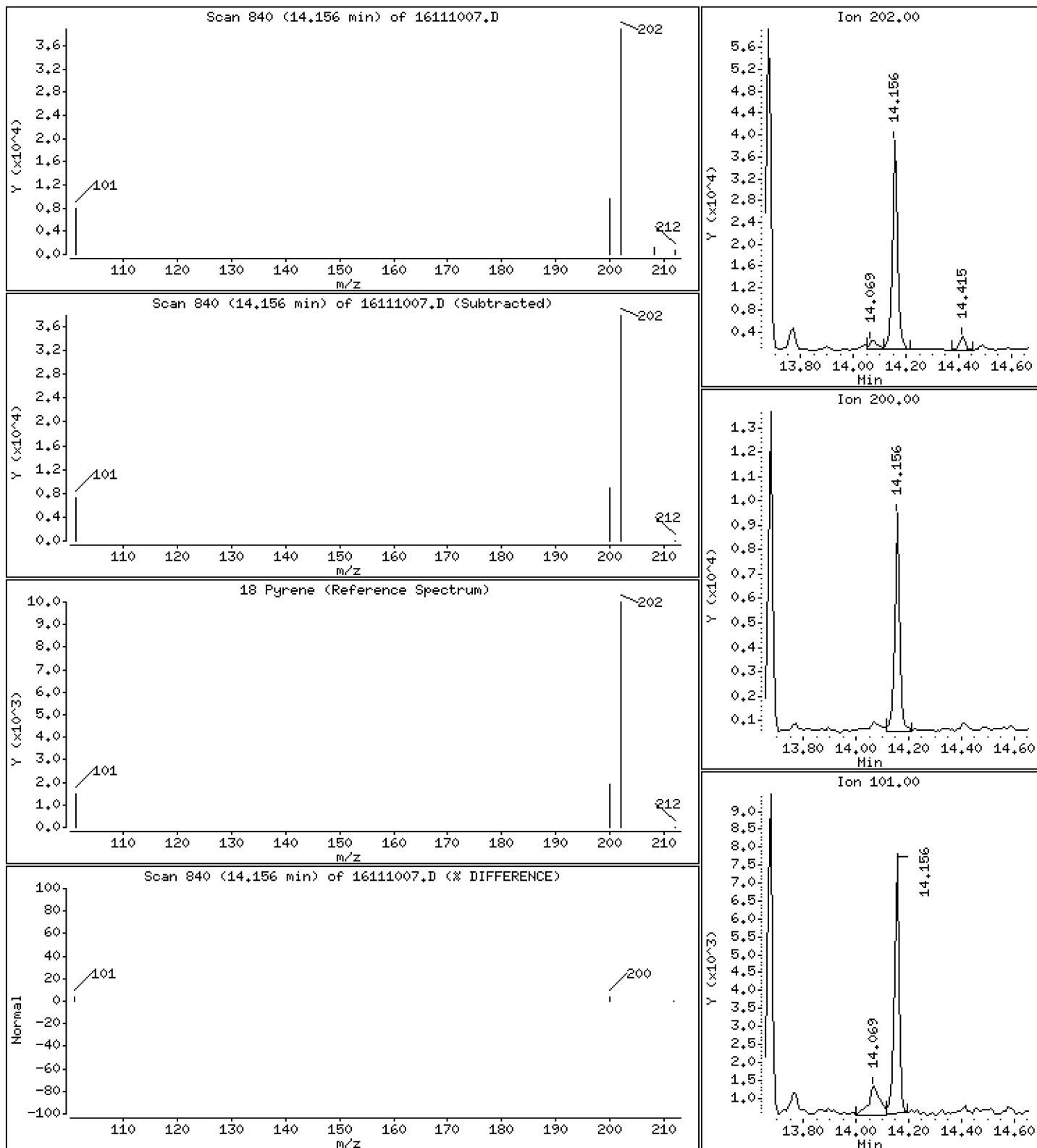
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Pyrene

Concentration: 20,6 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161110.b\16111007.D

Lab Smp Id: 16J0187-01

Inj Date : 10-NOV-2016 14:40

MS Autotune Date: 15-JAN-2015 15:59

Operator : JW

Inst ID: nt11.i

Smp Info : 16J0187-01

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20161110.b\lowsim.m

Meth Date : 10-Nov-2016 13:00 nt11.i

Quant Type: ISTD

Cal Date : 01-NOV-2016 12:34

Cal File: 16110107.D

Als bottle: 10

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PEMD.sub

Target Version: 4.14

Processing Host: AUTOSPECDATA02

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		5.965	5.965	(1.000)	593102	200.000	
2 Naphthalene	128		5.997	6.007	(1.005)	41086	11.8845	11.9
\$ 3 2-Methylnaphthalene-d10	152		6.932	6.942	(1.162)	344369	192.287	192
4 2-Methylnaphthalene	142		Compound Not Detected.					
5 1-Methylnaphthalene	142		Compound Not Detected.					
6 Acenaphthylene	152		Compound Not Detected.					
* 7 Acenaphthene-d10	164		8.928	8.928	(1.000)	299230	200.000	
8 Acenaphthene	153		Compound Not Detected.					
9 Dibenzofuran	168		Compound Not Detected.					
\$ 10 Fluorene-d10	174		Compound Not Detected.					
11 Fluorene	166		Compound Not Detected.					
* 12 Phenanthrene-d10	188		11.571	11.571	(1.000)	518256	200.000	
13 Phenanthrene	178		11.609	11.609	(1.003)	104816	29.7338	29.7
\$ 14 Anthracene-d10	188		Compound Not Detected.					
15 Anthracene	178		Compound Not Detected.					
\$ 16 Fluoranthene-d10	212		13.646	13.646	(1.179)	595248	242.469	242
17 Fluoranthene	202		13.675	13.675	(1.182)	79887	26.5057	26.5
18 Pyrene	202		14.155	14.165	(0.870)	56641	20.5603	20.6
19 Benzo(a)anthracene	228		Compound Not Detected.					
* 20 Chrysene-d12	240		16.264	16.264	(1.000)	350799	200.000	
21 Chrysene	228		Compound Not Detected.					
22 Benzo(b)fluoranthene	252		Compound Not Detected.					
23 Benzo(k)fluoranthene	252		Compound Not Detected.					
24 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 25 Benzo(e)pyrene-d12	264		Compound Not Detected.					
26 Benzo(e)pyrene	252		Compound Not Detected.					
27 Benzo(a)pyrene	252		Compound Not Detected.					
* 28 Perylene-d12	264		18.788	18.788	(1.000)	459966	200.000	
29 Perylene	252		Compound Not Detected.					
\$ 30 Dibenzo(a,h)anthracene-d14	292		20.728	20.739	(1.103)	376498	264.273	264
31 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
32 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.					
33 Benzo(g,h,i)perylene	276		Compound Not Detected.					

Compounds =====	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
	MASS					ON-COLUMN	FINAL
	=====	=====	=====	=====	=====	=====	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16111007.D
 Lab Smp Id: 16J0187-01
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161110.b\lowsim.m
 Misc Info:

Calibration Date: 10-NOV-2016
 Calibration Time: 11:38
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	593102	-2.70
7 Acenaphthene-d10	316851	158426	633702	299230	-5.56
12 Phenanthrene-d10	546133	273067	1092266	518256	-5.10
20 Chrysene-d12	417210	208605	834420	350799	-15.92
28 Perylene-d12	524443	262222	1048886	459966	-12.29

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	5.97	5.47	6.47	5.97	0.00
7 Acenaphthene-d10	8.93	8.43	9.43	8.93	0.00
12 Phenanthrene-d10	11.57	11.07	12.07	11.57	0.00
20 Chrysene-d12	16.26	15.76	16.76	16.26	0.00
28 Perylene-d12	18.79	18.29	19.29	18.79	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16111007.D

Lab ID: 16J0187-01
nt11.i, 20161110.b\lowsim.m, 10-NOV-2016 14:40

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161110.b\lowsim.m, PEMD.sub = 0.0000



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
8270D-SIM PAH (0.01 ug/L)

Laboratory: Analytical Resources, Inc. SDG: 16J0187
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 16J0187-02 File ID: 16111008.D
 Sampled: 10/11/16 11:05 Prepared: 10/26/16 15:10 Analyzed: 11/10/16 15:10
 Solids: Preparation: EPA 3550C-Mod (Ultrasonic) Initial/Final: 10.14 g / 0.5 mL
 Batch: BEJ0794 Sequence: SEK0151 Calibration: ZK00002
 Instrument: NT11 Column: RXi-17Sil-MS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.61		0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.49	U	0.49	0.49
86-73-7	Fluorene	1	0.49	U	0.49	0.49
85-01-8	Phenanthrene	1	0.77		0.49	0.49
120-12-7	Anthracene	1	0.49	U	0.49	0.49
206-44-0	Fluoranthene	1	0.62		0.49	0.49
129-00-0	Pyrene	1	0.56		0.49	0.49
56-55-3	Benzo(a)anthracene	1	0.49	U	0.49	0.49
218-01-9	Chrysene	1	0.49	U	0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	0.49	U	0.49	0.49
207-08-9	Benzo(k)fluoranthene	1	0.49	U	0.49	0.49
50-32-8	Benzo(a)pyrene	1	0.49	U	0.49	0.49
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.49	U	0.49	0.49
53-70-3	Dibenzo(a,h)anthracene	1	0.49	U	0.49	0.49
191-24-2	Benzo(g,h,i)perylene	1	0.49	U	0.49	0.49
1985-5-0	Perylene	1	0.49	U	0.49	0.49
197-97-2	Benzo(e)pyrene	1	0.49	U	0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.793	9.60	64.9	30 - 160	
Dibenzo[a,h]anthracene-d14	14.793	13.8	93.1	30 - 160	
Fluoranthene-d10	14.793	11.9	80.3	30 - 160	

Data File: \\target\share\chem3\nt11.1\20161110.16\16111008.D

Date : 10-NOV-2016 15:10

Client ID:

Sample Info: 16J0187-02

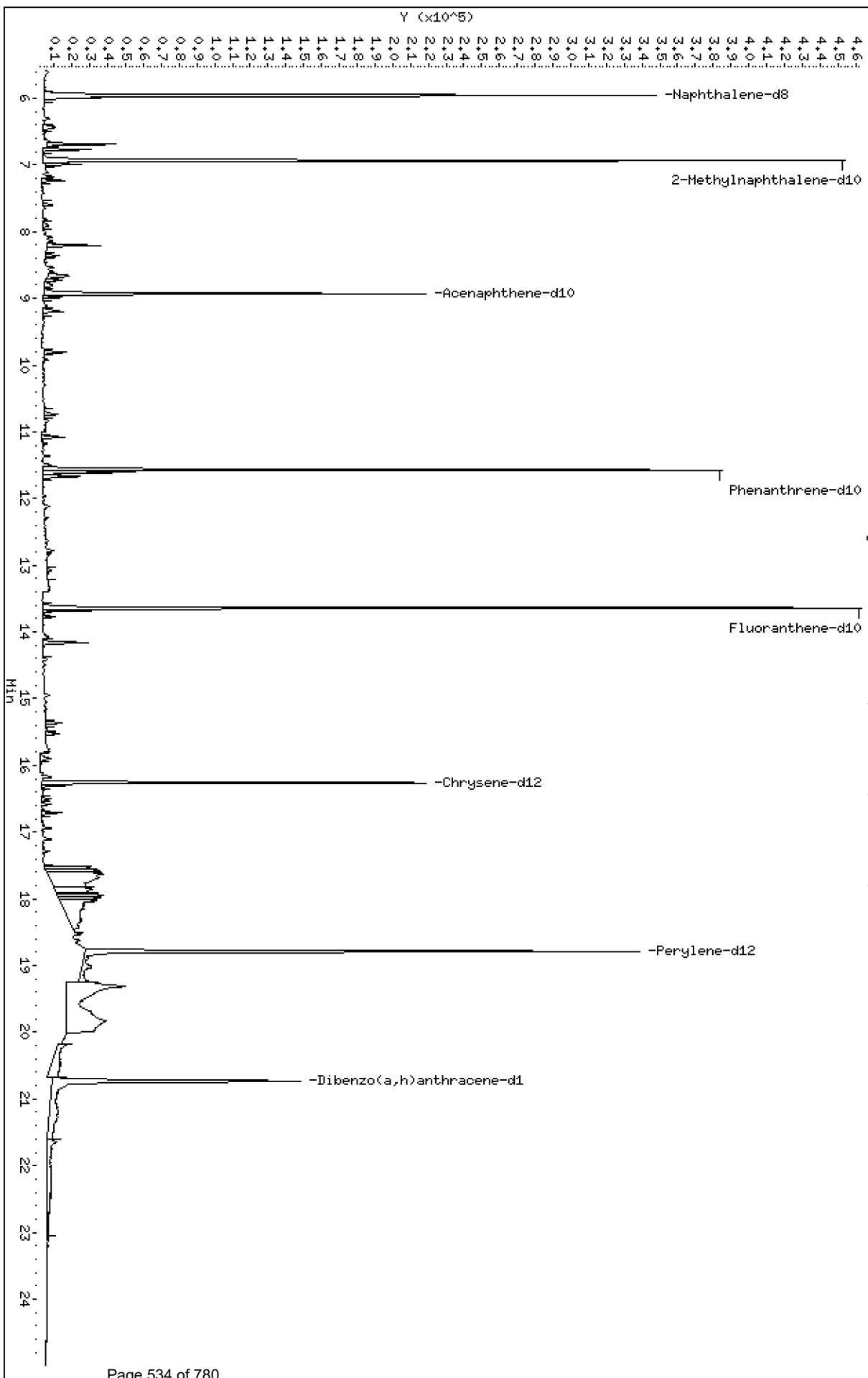
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25

\\target\share\chem3\nt11.1\20161110.16\16111008.D



Date : 10-NOV-2016 15:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-02

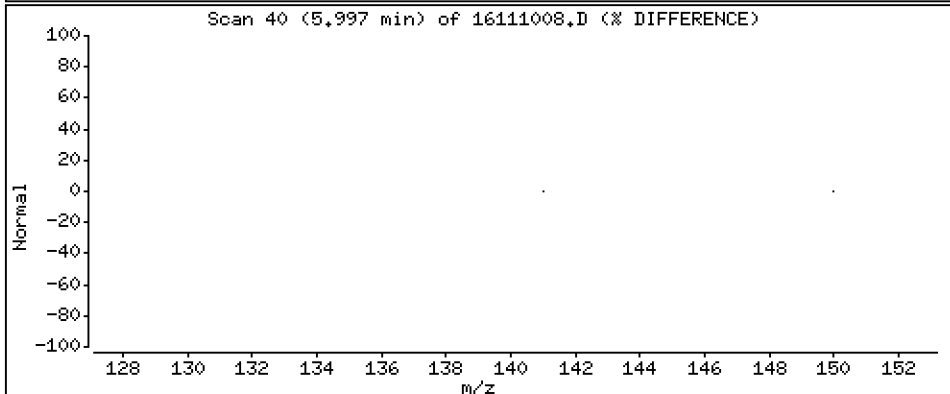
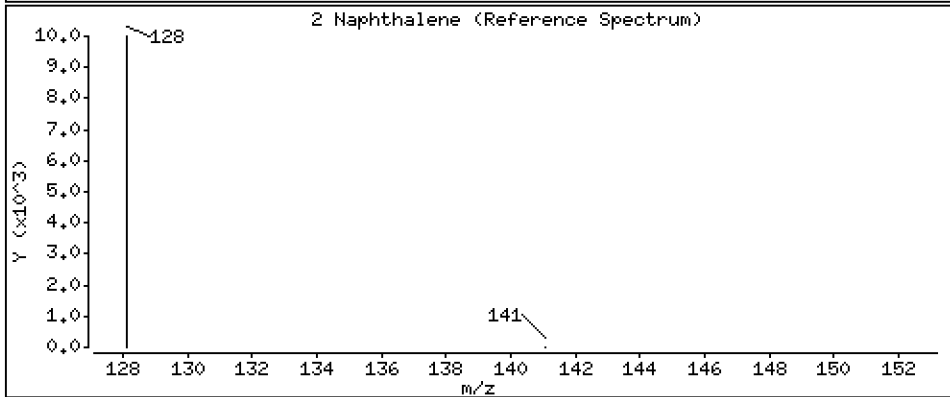
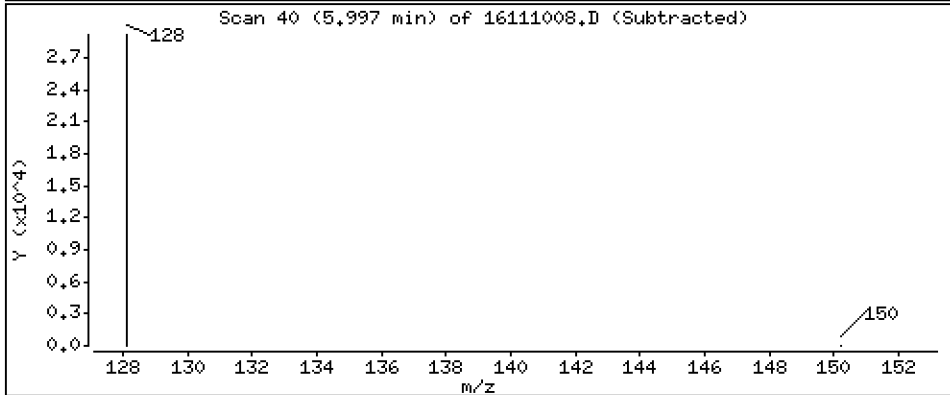
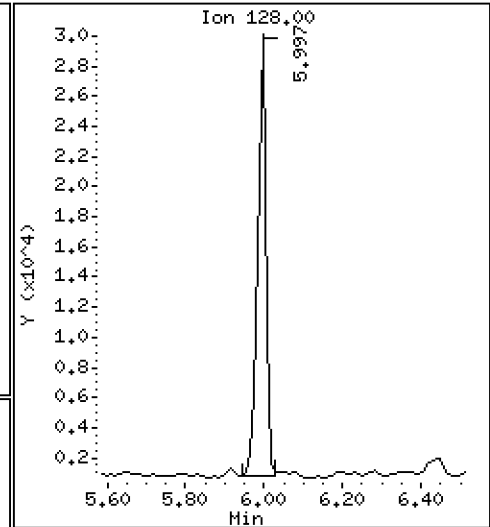
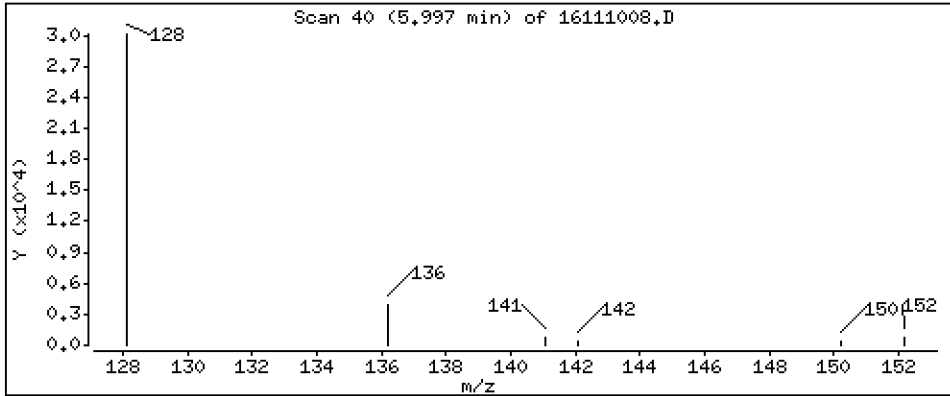
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 12,3 ng/mL



Date : 10-NOV-2016 15:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-02

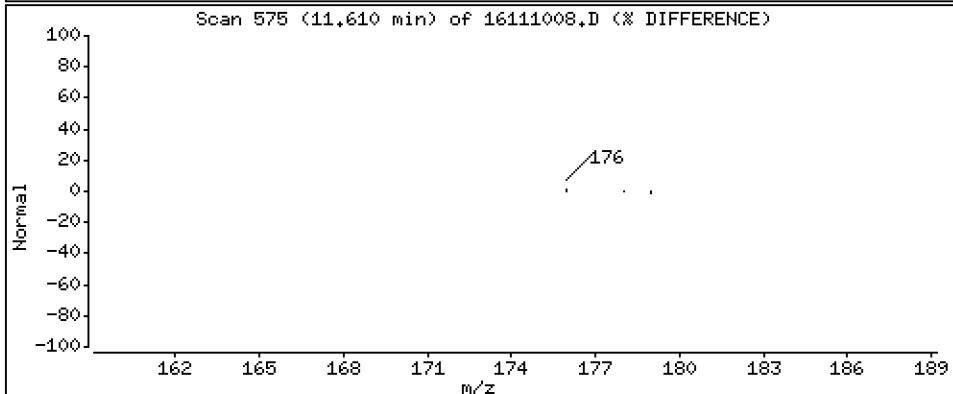
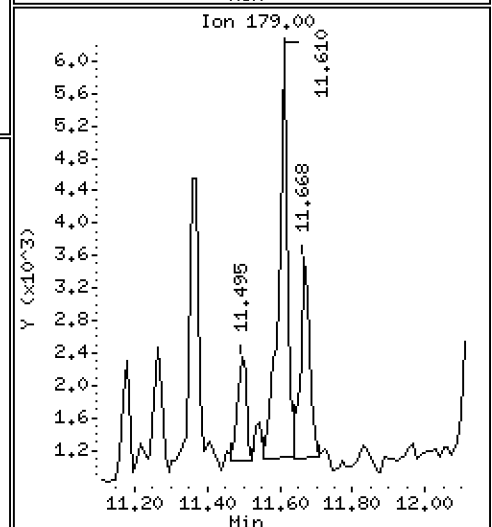
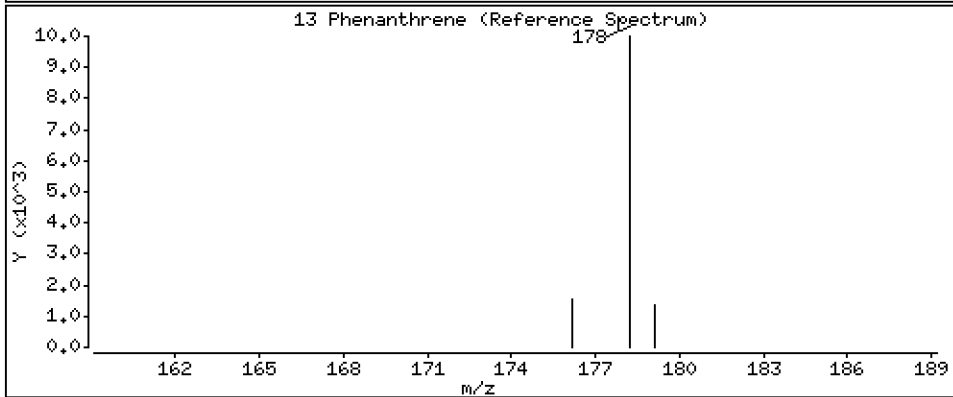
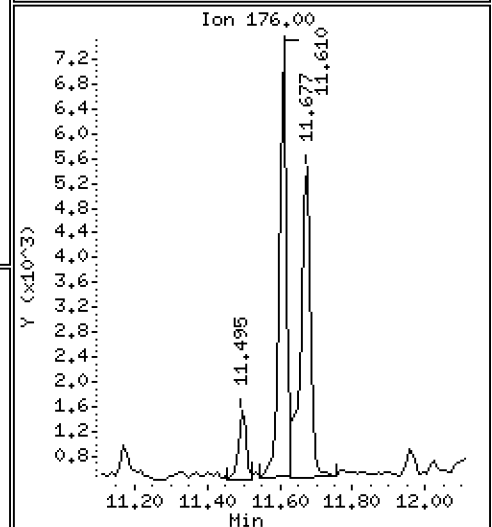
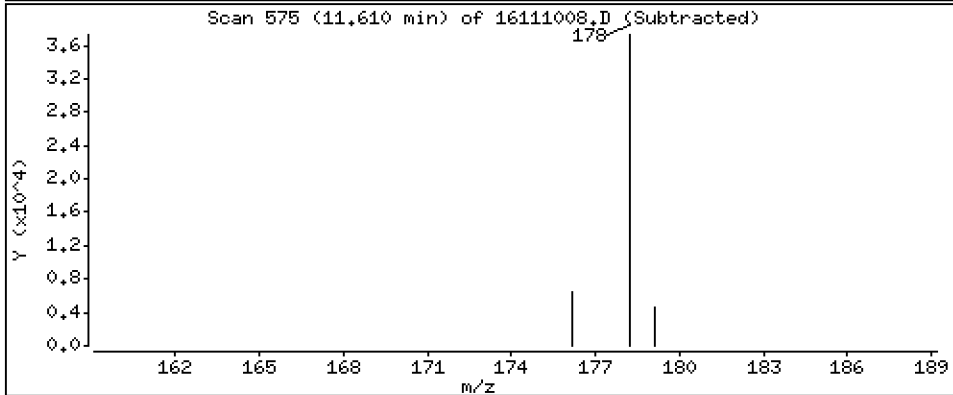
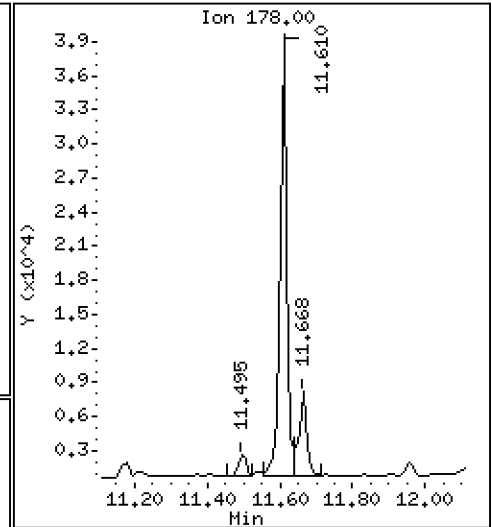
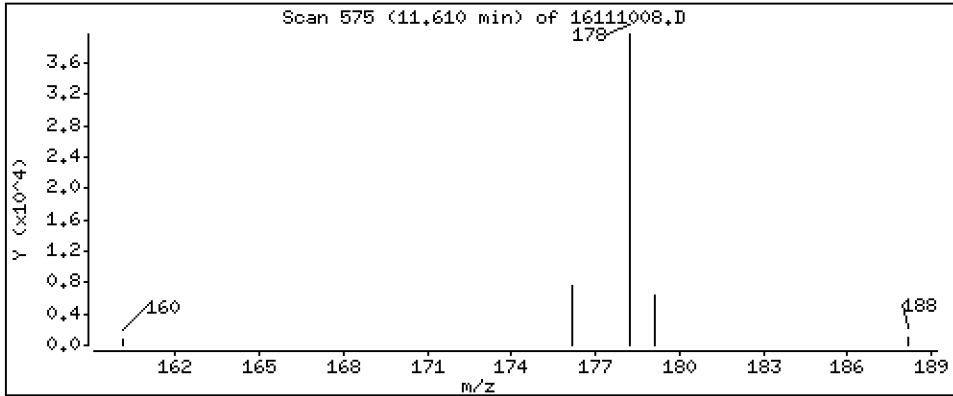
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 Phenanthrene

Concentration: 15.7 ng/mL



Date : 10-NOV-2016 15:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-02

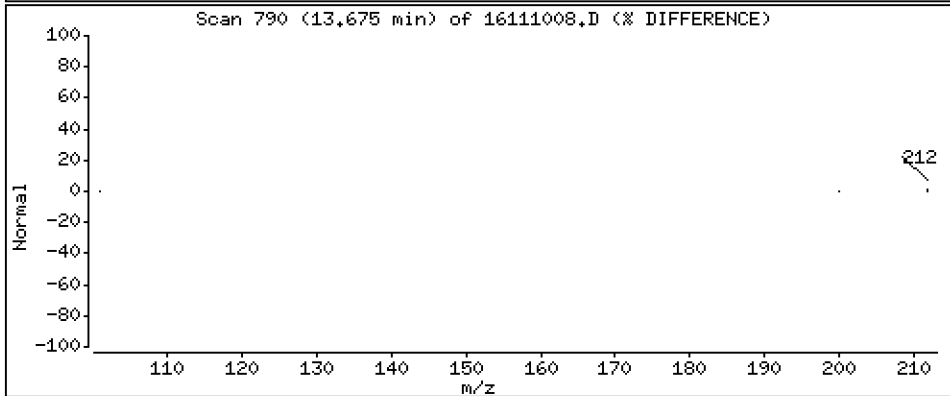
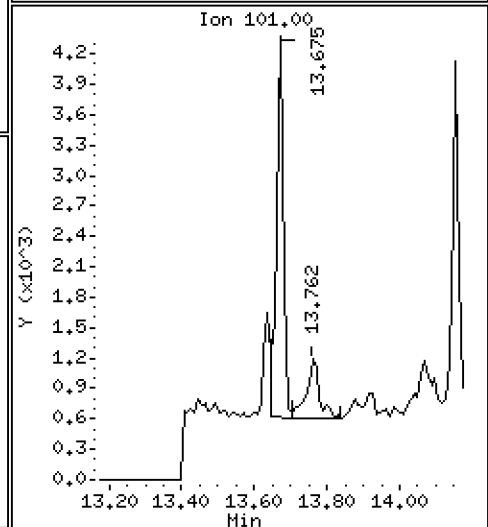
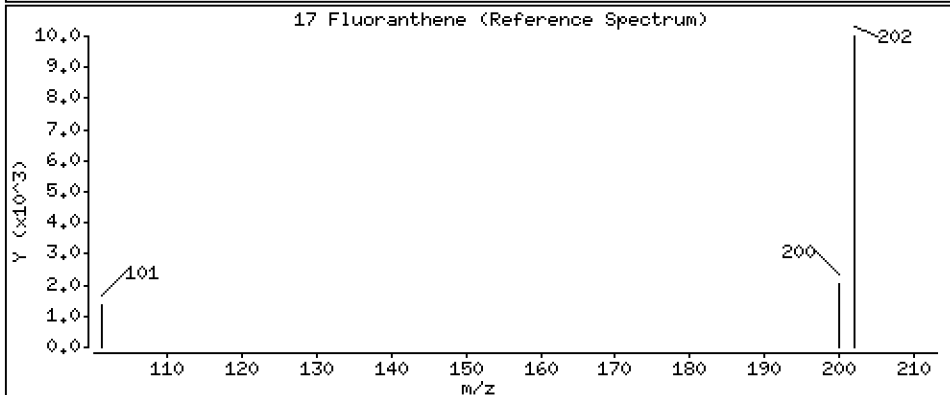
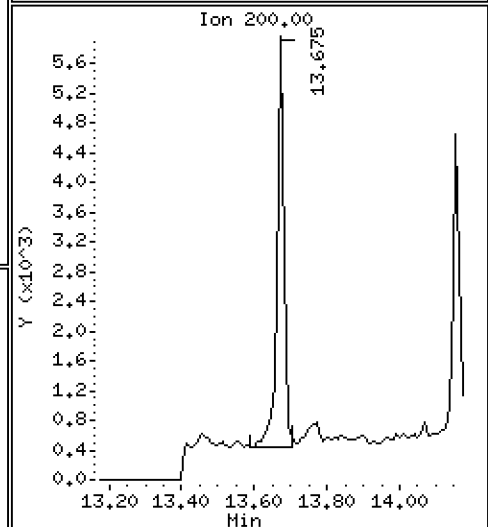
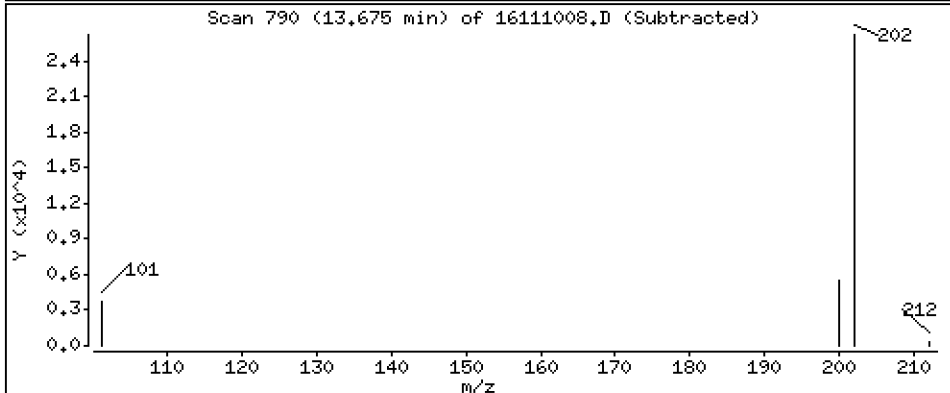
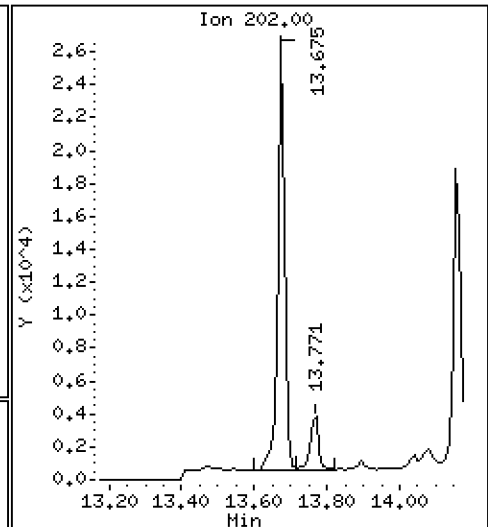
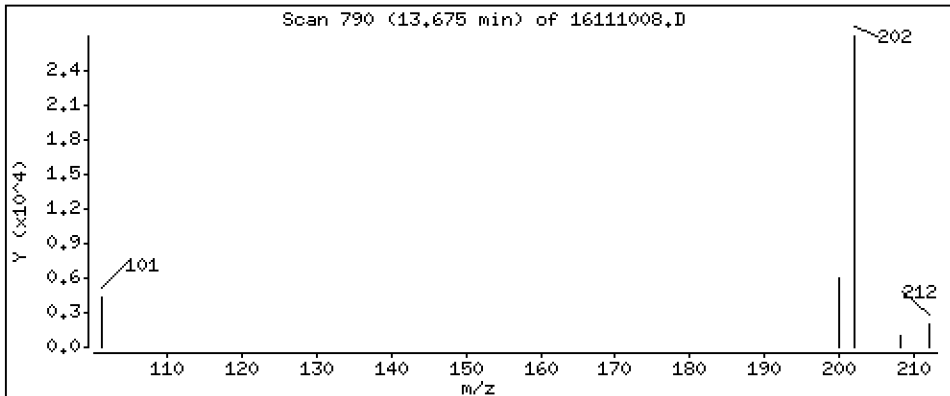
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Fluoranthene

Concentration: 12,6 ng/mL



Date : 10-NOV-2016 15:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-02

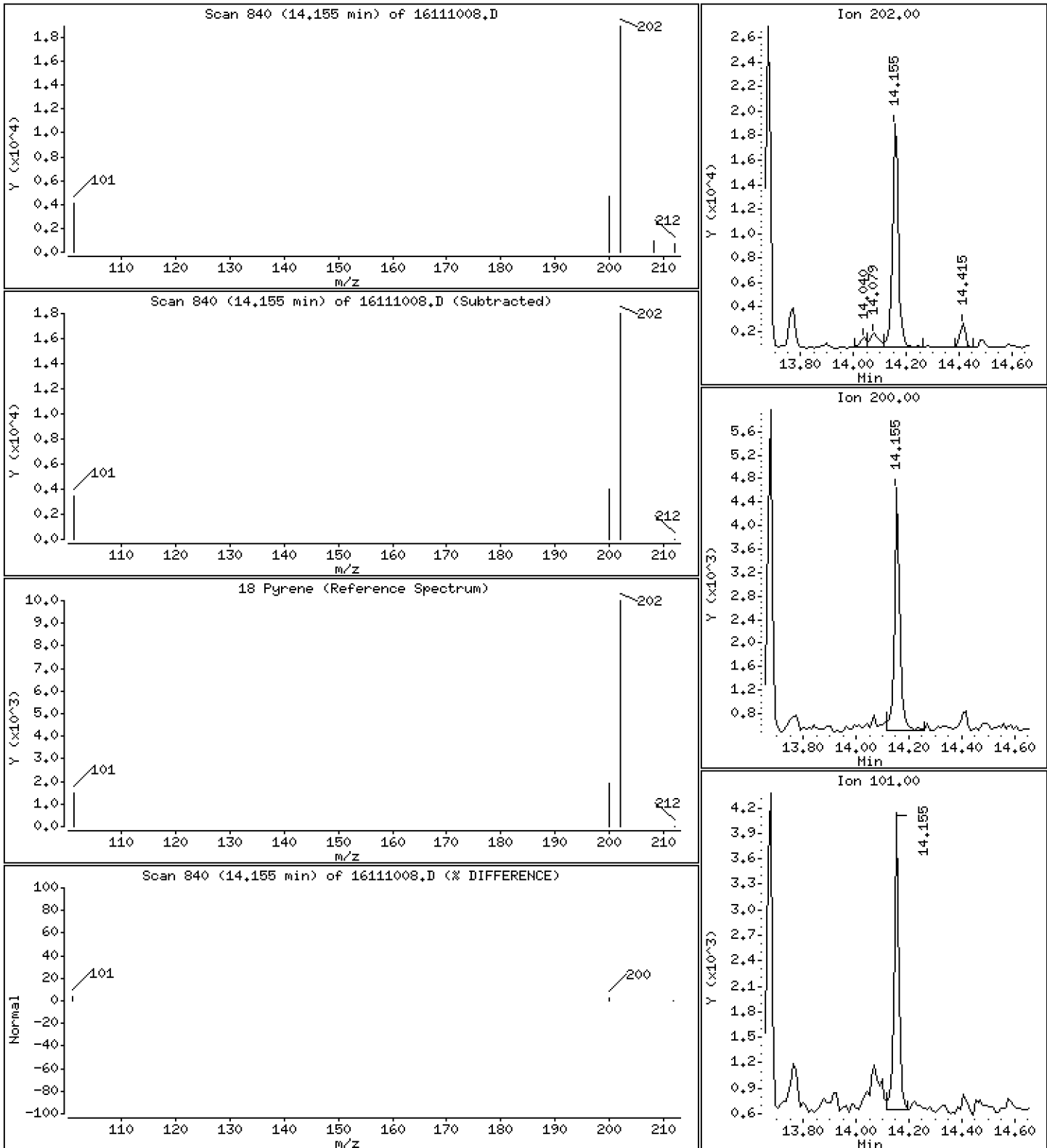
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Pyrene

Concentration: 11,3 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161110.b\16111008.D

Lab Smp Id: 16J0187-02

Inj Date : 10-NOV-2016 15:10

MS Autotune Date: 15-JAN-2015 15:59

Operator : JW

Inst ID: nt11.i

Smp Info : 16J0187-02

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20161110.b\lowsim.m

Meth Date : 10-Nov-2016 13:00 nt11.i

Quant Type: ISTD

Cal Date : 01-NOV-2016 12:34

Cal File: 16110107.D

Als bottle: 11

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PEMD.sub

Target Version: 4.14

Processing Host: AUTOSPECDATA02

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		5.955	5.965	(1.000)	584381	200.000	
2 Naphthalene	128		5.997	6.007	(1.007)	41933	12.3105	12.3
\$ 3 2-Methylnaphthalene-d10	152		6.932	6.942	(1.164)	343426	194.622	195
4 2-Methylnaphthalene	142		Compound Not Detected.					
5 1-Methylnaphthalene	142		Compound Not Detected.					
6 Acenaphthylene	152		Compound Not Detected.					
* 7 Acenaphthene-d10	164		8.928	8.928	(1.000)	295258	200.000	
8 Acenaphthene	153		Compound Not Detected.					
9 Dibenzofuran	168		Compound Not Detected.					
\$ 10 Fluorene-d10	174		Compound Not Detected.					
11 Fluorene	166		Compound Not Detected.					
* 12 Phenanthrene-d10	188		11.571	11.571	(1.000)	498327	200.000	
13 Phenanthrene	178		11.609	11.609	(1.003)	53252	15.7104	15.7
\$ 14 Anthracene-d10	188		Compound Not Detected.					
15 Anthracene	178		Compound Not Detected.					
\$ 16 Fluoranthene-d10	212		13.646	13.646	(1.179)	568914	241.010	241
17 Fluoranthene	202		13.675	13.675	(1.182)	36479	12.5874	12.6
18 Pyrene	202		14.155	14.165	(0.870)	28563	11.3440	11.3
19 Benzo(a)anthracene	228		Compound Not Detected.					
* 20 Chrysene-d12	240		16.264	16.264	(1.000)	320622	200.000	
21 Chrysene	228		Compound Not Detected.					
22 Benzo(b)fluoranthene	252		Compound Not Detected.					
23 Benzo(k)fluoranthene	252		Compound Not Detected.					
24 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 25 Benzo(e)pyrene-d12	264		Compound Not Detected.					
26 Benzo(e)pyrene	252		Compound Not Detected.					
27 Benzo(a)pyrene	252		Compound Not Detected.					
* 28 Perylene-d12	264		18.788	18.788	(1.000)	431086	200.000	
29 Perylene	252		Compound Not Detected.					
\$ 30 Dibenzo(a,h)anthracene-d14	292		20.728	20.739	(1.103)	372918	279.296	279
31 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
32 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.					
33 Benzo(g,h,i)perylene	276		Compound Not Detected.					

Compounds	QUANT	SIG					CONCENTRATIONS	
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ng/mL)
=====	=====		=====	=====	=====	=====	=====	=====

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16111008.D
 Lab Smp Id: 16J0187-02
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161110.b\lowsim.m
 Misc Info:

Calibration Date: 10-NOV-2016
 Calibration Time: 11:38
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	584381	-4.13
7 Acenaphthene-d10	316851	158426	633702	295258	-6.81
12 Phenanthrene-d10	546133	273067	1092266	498327	-8.75
20 Chrysene-d12	417210	208605	834420	320622	-23.15
28 Perylene-d12	524443	262222	1048886	431086	-17.80

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	5.97	5.47	6.47	5.96	-0.18
7 Acenaphthene-d10	8.93	8.43	9.43	8.93	-0.00
12 Phenanthrene-d10	11.57	11.07	12.07	11.57	0.00
20 Chrysene-d12	16.26	15.76	16.76	16.26	0.00
28 Perylene-d12	18.79	18.29	19.29	18.79	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16111008.D

Lab ID: 16J0187-02

nt11.i, 20161110.b\lowsim.m, 10-NOV-2016 15:10

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161110.b\lowsim.m, PEMD.sub = 0.0000



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
8270D-SIM PAH (0.01 ug/L)

Laboratory: Analytical Resources, Inc. SDG: 16J0187
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 16J0187-03 File ID: 16111009.D
 Sampled: 10/11/16 11:10 Prepared: 10/26/16 15:10 Analyzed: 11/10/16 15:40
 Solids: Preparation: EPA 3550C-Mod (Ultrasonic) Initial/Final: 10.13 g / 0.5 mL
 Batch: BEJ0794 Sequence: SEK0151 Calibration: ZK00002
 Instrument: NT11 Column: RXi-17Sil-MS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.53	J	0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.49	U	0.49	0.49
86-73-7	Fluorene	1	0.49	U	0.49	0.49
85-01-8	Phenanthrene	1	0.68		0.49	0.49
120-12-7	Anthracene	1	0.65		0.49	0.49
206-44-0	Fluoranthene	1	0.62		0.49	0.49
129-00-0	Pyrene	1	1.13		0.49	0.49
56-55-3	Benzo(a)anthracene	1	0.49	U	0.49	0.49
218-01-9	Chrysene	1	0.49	U	0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	0.49	U	0.49	0.49
207-08-9	Benzo(k)fluoranthene	1	0.49	U	0.49	0.49
50-32-8	Benzo(a)pyrene	1	0.49	U	0.49	0.49
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.49	U	0.49	0.49
53-70-3	Dibenzo(a,h)anthracene	1	0.49	U	0.49	0.49
191-24-2	Benzo(g,h,i)perylene	1	0.49	U	0.49	0.49
1985-5-0	Perylene	1	0.49	U	0.49	0.49
197-97-2	Benzo(e)pyrene	1	0.49	U	0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.808	9.64	65.1	30 - 160	
Dibenzo[a,h]anthracene-d14	14.808	12.3	83.4	30 - 160	
Fluoranthene-d10	14.808	11.2	75.7	30 - 160	

Data File: \\target\share\chem3\nt11.1\20161110.16\16111009.D

Date : 10-NOV-2016 15:40

Client ID:

Sample Info: 16J0187-03

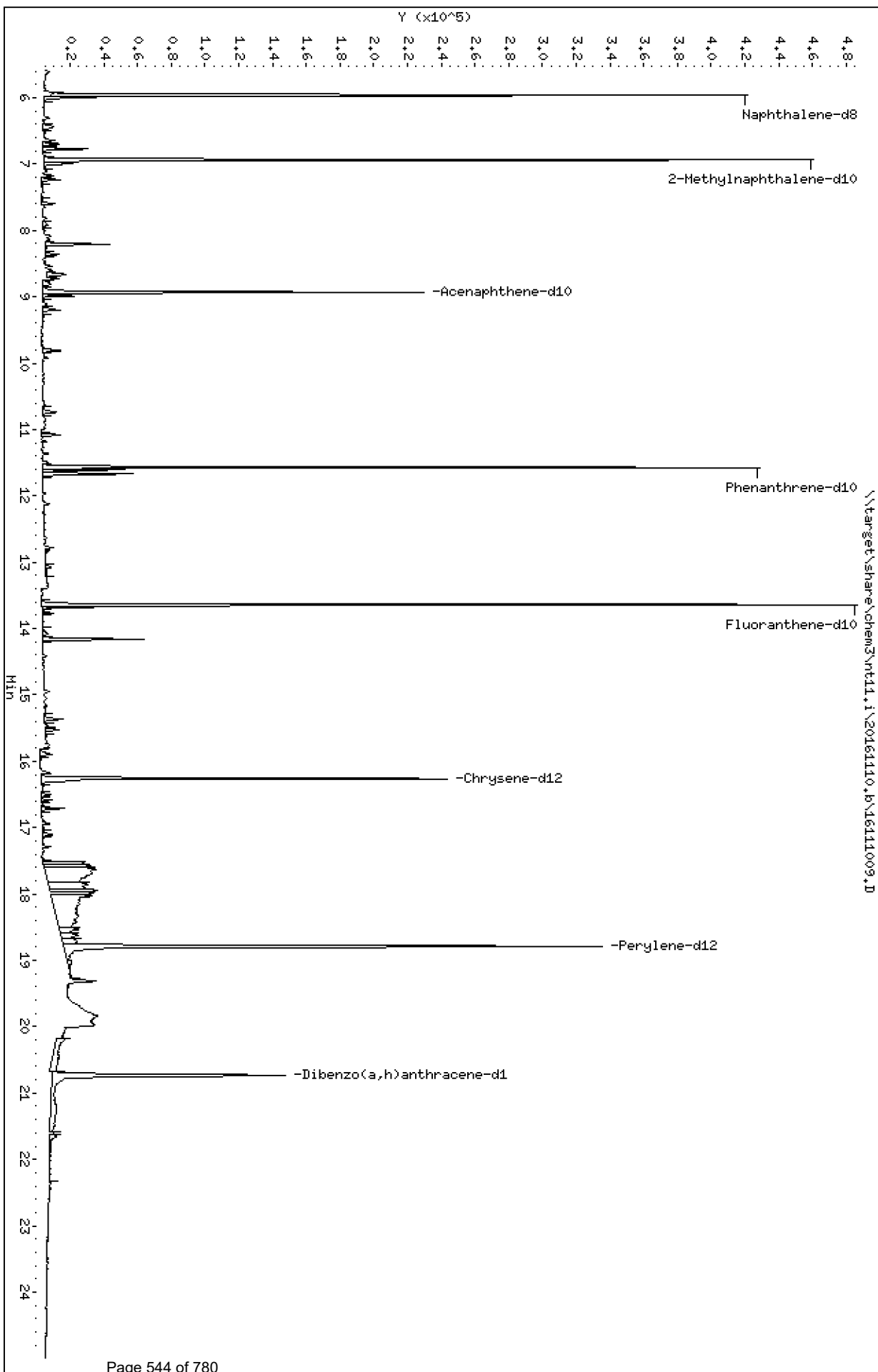
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25

\\target\share\chem3\nt11.1\20161110.16\16111009.D



Date : 10-NOV-2016 15:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-03

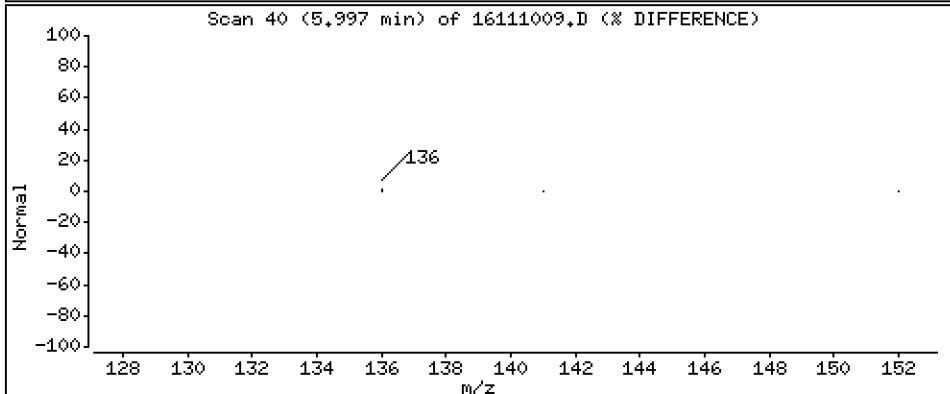
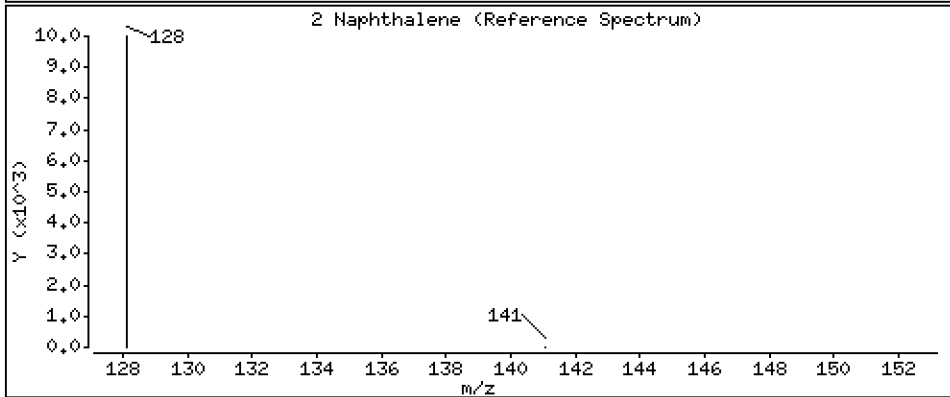
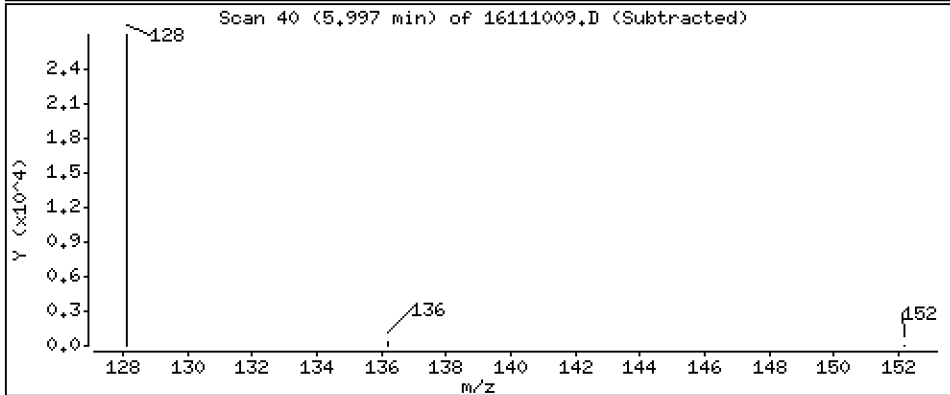
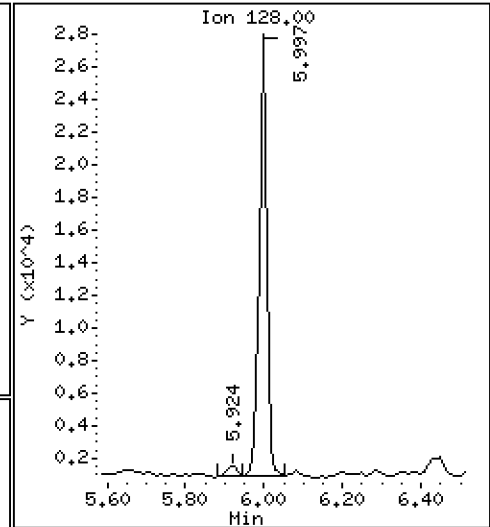
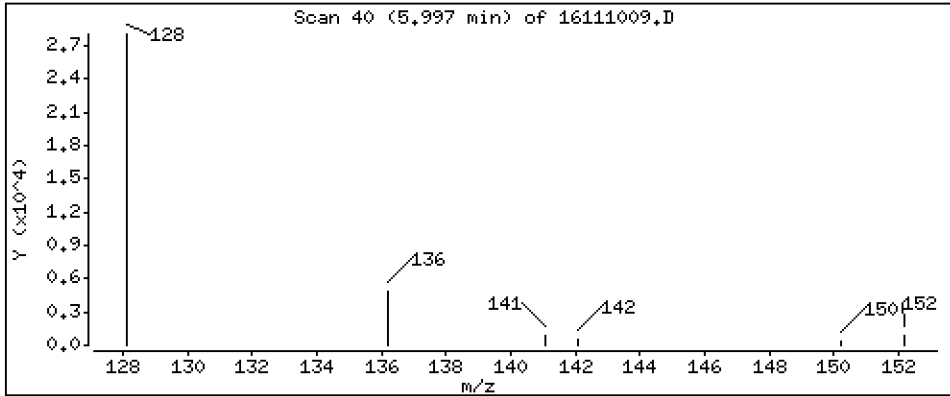
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 10,7 ng/mL



Date : 10-NOV-2016 15:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-03

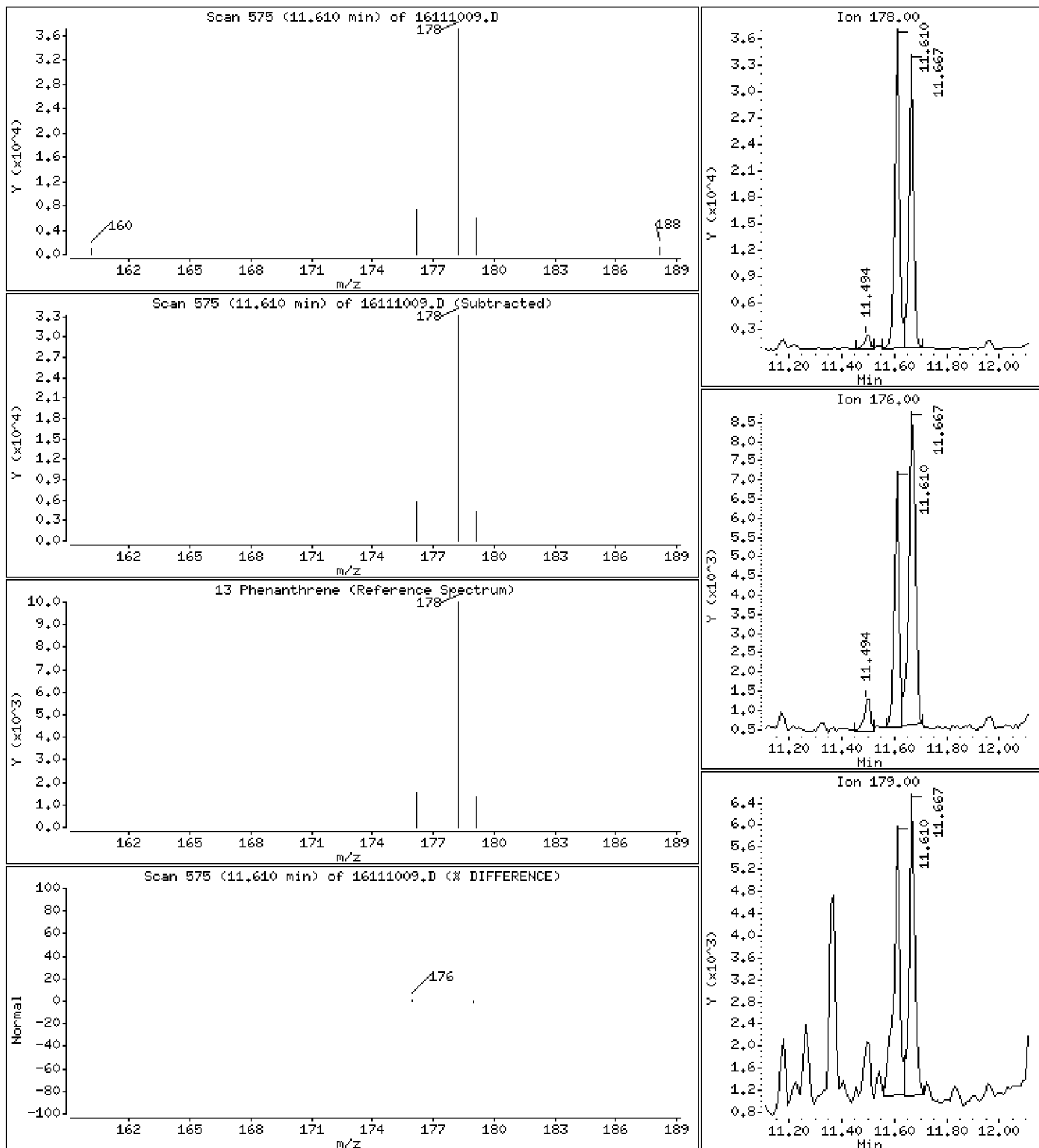
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 Phenanthrene

Concentration: 13.7 ng/mL



Date : 10-NOV-2016 15:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-03

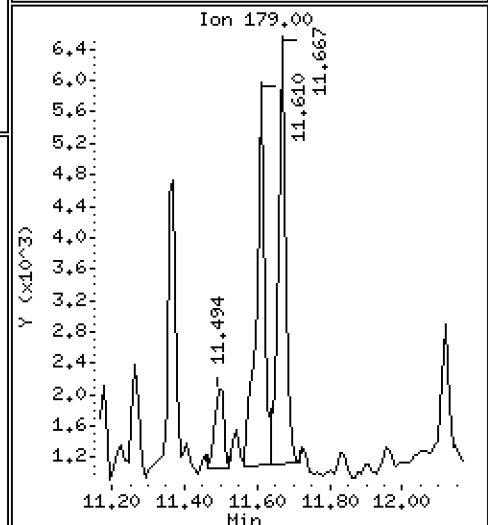
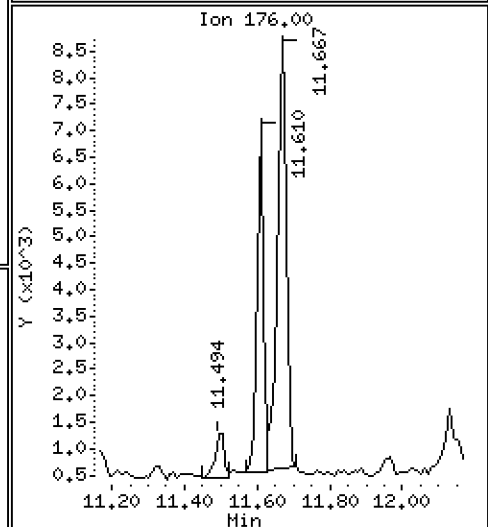
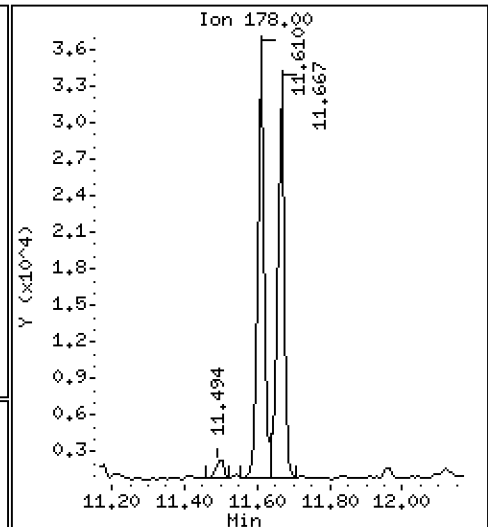
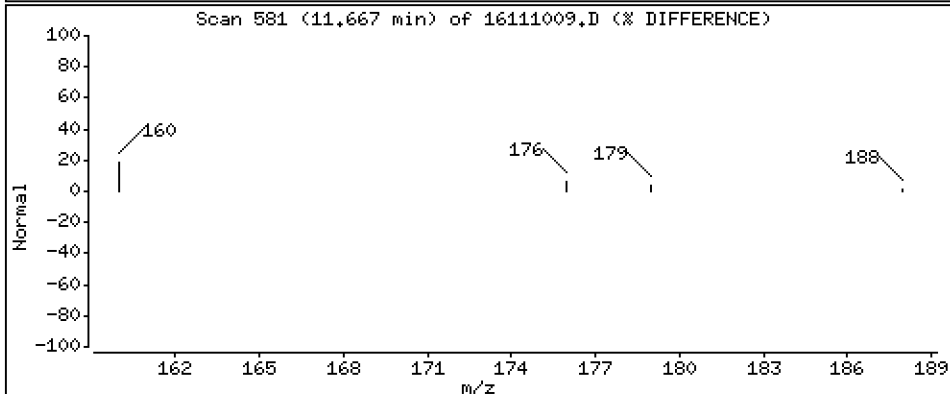
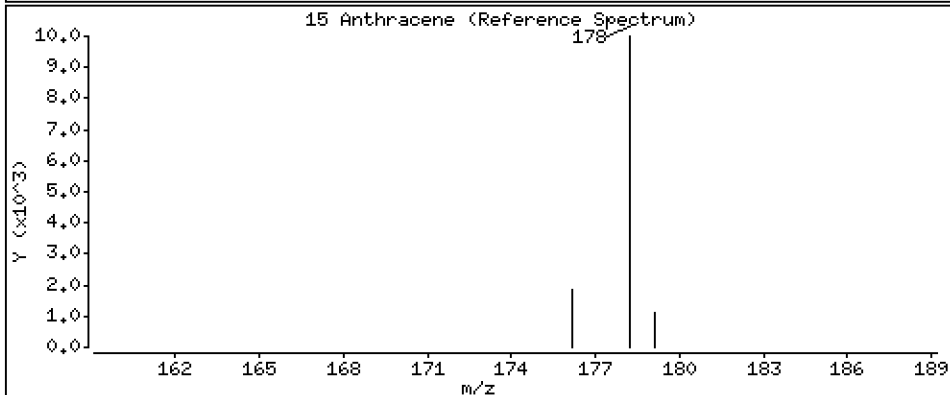
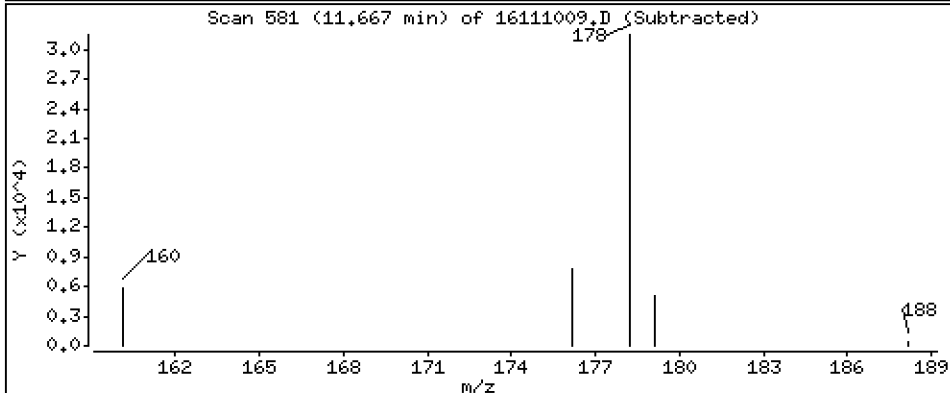
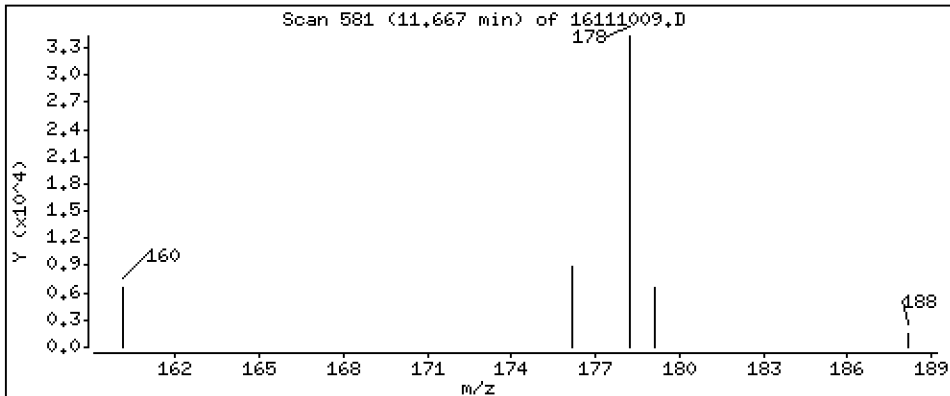
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

15 Anthracene

Concentration: 13.1 ng/mL



Date : 10-NOV-2016 15:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-03

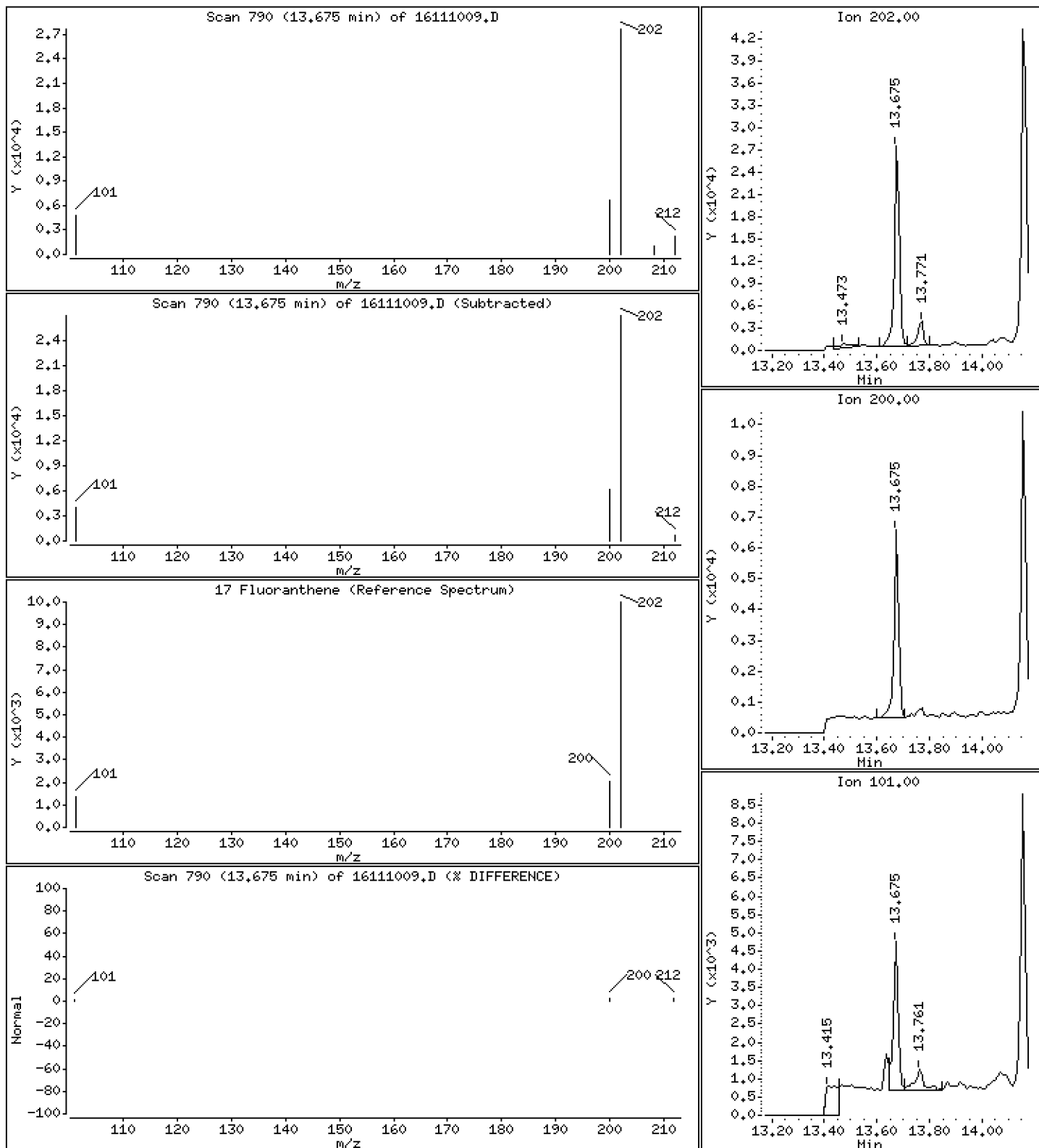
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Fluoranthene

Concentration: 12,6 ng/mL



Date : 10-NOV-2016 15:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-03

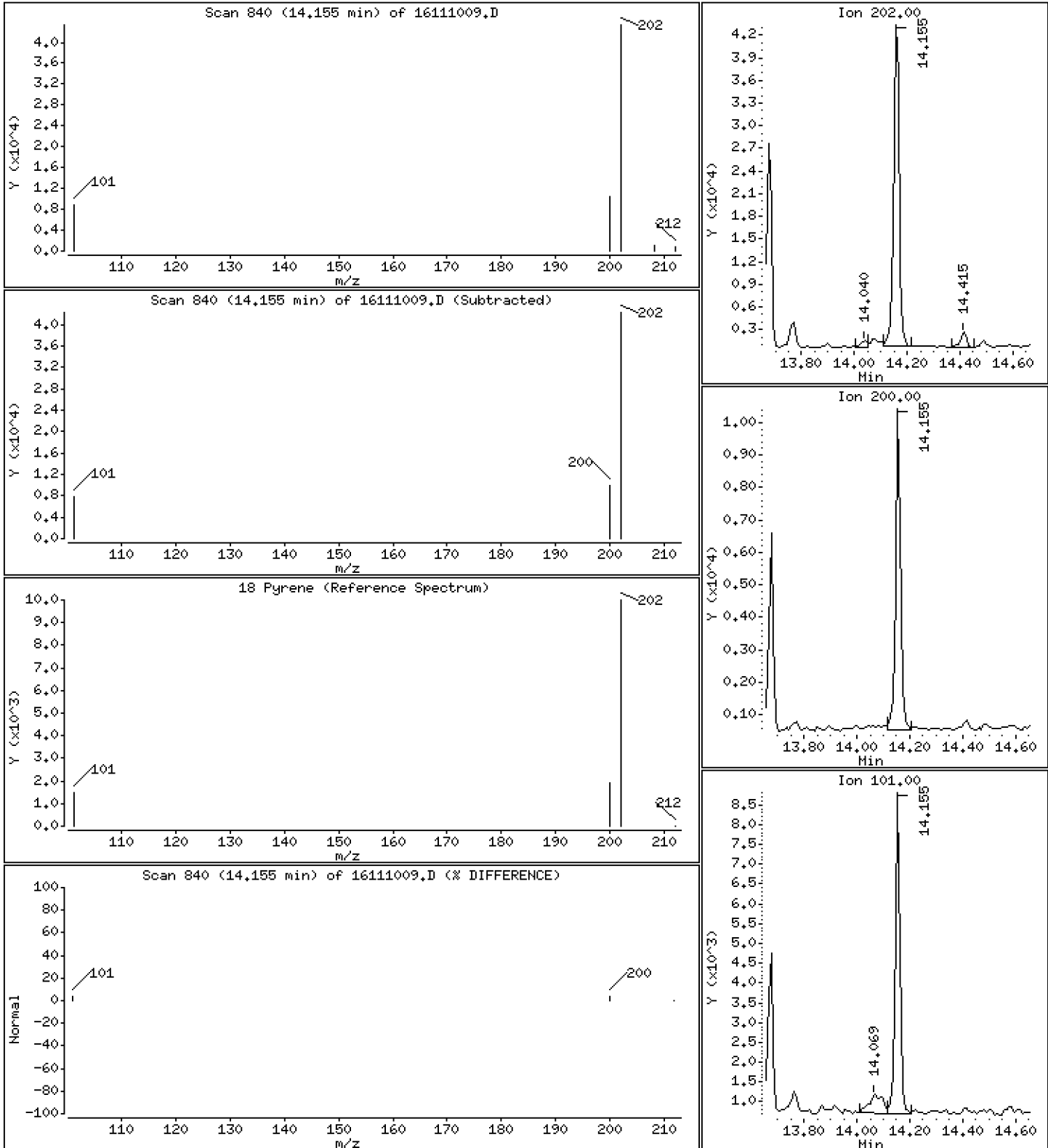
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

18 Pyrene

Concentration: 23.0 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161110.b\16111009.D

Lab Smp Id: 16J0187-03

Inj Date : 10-NOV-2016 15:40

MS Autotune Date: 15-JAN-2015 15:59

Operator : JW

Inst ID: nt11.i

Smp Info : 16J0187-03

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20161110.b\lowsim.m

Meth Date : 10-Nov-2016 13:00 nt11.i

Quant Type: ISTD

Cal Date : 01-NOV-2016 12:34

Cal File: 16110107.D

Als bottle: 12

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PEMD.sub

Target Version: 4.14

Processing Host: AUTOSPECDATA02

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		5.965	5.965	(1.000)	583069	200.000	
2 Naphthalene	128		5.997	6.007	(1.005)	36449	10.7246	10.7
\$ 3 2-Methylnaphthalene-d10	152		6.932	6.942	(1.162)	343819	195.283	195
4 2-Methylnaphthalene	142		Compound Not Detected.					
5 1-Methylnaphthalene	142		Compound Not Detected.					
6 Acenaphthylene	152		Compound Not Detected.					
* 7 Acenaphthene-d10	164		8.928	8.928	(1.000)	297549	200.000	
8 Acenaphthene	153		Compound Not Detected.					
9 Dibenzofuran	168		Compound Not Detected.					
\$ 10 Fluorene-d10	174		Compound Not Detected.					
11 Fluorene	166		Compound Not Detected.					
* 12 Phenanthrene-d10	188		11.571	11.571	(1.000)	514668	200.000	
13 Phenanthrene	178		11.609	11.609	(1.003)	48005	13.7128	13.7
\$ 14 Anthracene-d10	188		Compound Not Detected.					
15 Anthracene	178		11.667	11.667	(1.008)	44570	13.1386	13.1
\$ 16 Fluoranthene-d10	212		13.646	13.646	(1.179)	553924	227.209	227
17 Fluoranthene	202		13.674	13.675	(1.182)	37779	12.6221	12.6
18 Pyrene	202		14.155	14.165	(0.870)	63894	22.9607	23.0
19 Benzo(a)anthracene	228		Compound Not Detected.					
* 20 Chrysene-d12	240		16.264	16.264	(1.000)	354350	200.000	
21 Chrysene	228		Compound Not Detected.					
22 Benzo(b)fluoranthene	252		Compound Not Detected.					
23 Benzo(k)fluoranthene	252		Compound Not Detected.					
24 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 25 Benzo(e)pyrene-d12	264		Compound Not Detected.					
26 Benzo(e)pyrene	252		Compound Not Detected.					
27 Benzo(a)pyrene	252		Compound Not Detected.					
* 28 Perylene-d12	264		18.787	18.788	(1.000)	462754	200.000	
29 Perylene	252		Compound Not Detected.					
\$ 30 Dibenzo(a,h)anthracene-d14	292		20.728	20.739	(1.103)	358536	250.148	250
31 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
32 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.					
33 Benzo(g,h,i)perylene	276		Compound Not Detected.					

Compounds	QUANT	SIG					CONCENTRATIONS	
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)	FINAL (ng/mL)
=====	=====	=====	=====	=====	=====	=====	=====	=====

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16111009.D
 Lab Smp Id: 16J0187-03
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161110.b\lowsim.m
 Misc Info:

Calibration Date: 10-NOV-2016
 Calibration Time: 11:38
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	583069	-4.35
7 Acenaphthene-d10	316851	158426	633702	297549	-6.09
12 Phenanthrene-d10	546133	273067	1092266	514668	-5.76
20 Chrysene-d12	417210	208605	834420	354350	-15.07
28 Perylene-d12	524443	262222	1048886	462754	-11.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	5.97	5.47	6.47	5.97	-0.00
7 Acenaphthene-d10	8.93	8.43	9.43	8.93	-0.00
12 Phenanthrene-d10	11.57	11.07	12.07	11.57	-0.00
20 Chrysene-d12	16.26	15.76	16.76	16.26	-0.00
28 Perylene-d12	18.79	18.29	19.29	18.79	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16111009.D

Lab ID: 16J0187-03

nt11.i, 20161110.b\lowsim.m, 10-NOV-2016 15:40

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161110.b\lowsim.m, PEMD.sub = 0.0000



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
8270D-SIM PAH (0.01 ug/L)

Laboratory: Analytical Resources, Inc. SDG: 16J0187
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 16J0187-04 File ID: 16111010.D
 Sampled: 10/11/16 12:37 Prepared: 10/26/16 15:10 Analyzed: 11/10/16 16:10
 Solids: Preparation: EPA 3550C-Mod (Ultrasonic) Initial/Final: 10.18 g / 0.5 mL
 Batch: BEJ0794 Sequence: SEK0151 Calibration: ZK00002
 Instrument: NT11 Column: RXi-17Sil-MS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.57	J	0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.49	U	0.49	0.49
86-73-7	Fluorene	1	0.49	U	0.49	0.49
85-01-8	Phenanthrene	1	1.13		0.49	0.49
120-12-7	Anthracene	1	0.49	U	0.49	0.49
206-44-0	Fluoranthene	1	0.92		0.49	0.49
129-00-0	Pyrene	1	0.64		0.49	0.49
56-55-3	Benzo(a)anthracene	1	0.49	U	0.49	0.49
218-01-9	Chrysene	1	0.49	U	0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	0.49	U	0.49	0.49
207-08-9	Benzo(k)fluoranthene	1	0.49	U	0.49	0.49
50-32-8	Benzo(a)pyrene	1	0.49	U	0.49	0.49
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.49	U	0.49	0.49
53-70-3	Dibenzo(a,h)anthracene	1	0.49	U	0.49	0.49
191-24-2	Benzo(g,h,i)perylene	1	0.49	U	0.49	0.49
1985-5-0	Perylene	1	0.49	U	0.49	0.49
197-97-2	Benzo(e)pyrene	1	0.49	U	0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.735	9.60	65.2	30 - 160	
Dibenzo[a,h]anthracene-d14	14.735	12.2	82.5	30 - 160	
Fluoranthene-d10	14.735	11.0	74.4	30 - 160	

Data File: \\target\share\chem3\nt11.1\20161110.16\16111010.D

Date: 10-NOV-2016 16:10

Client ID:

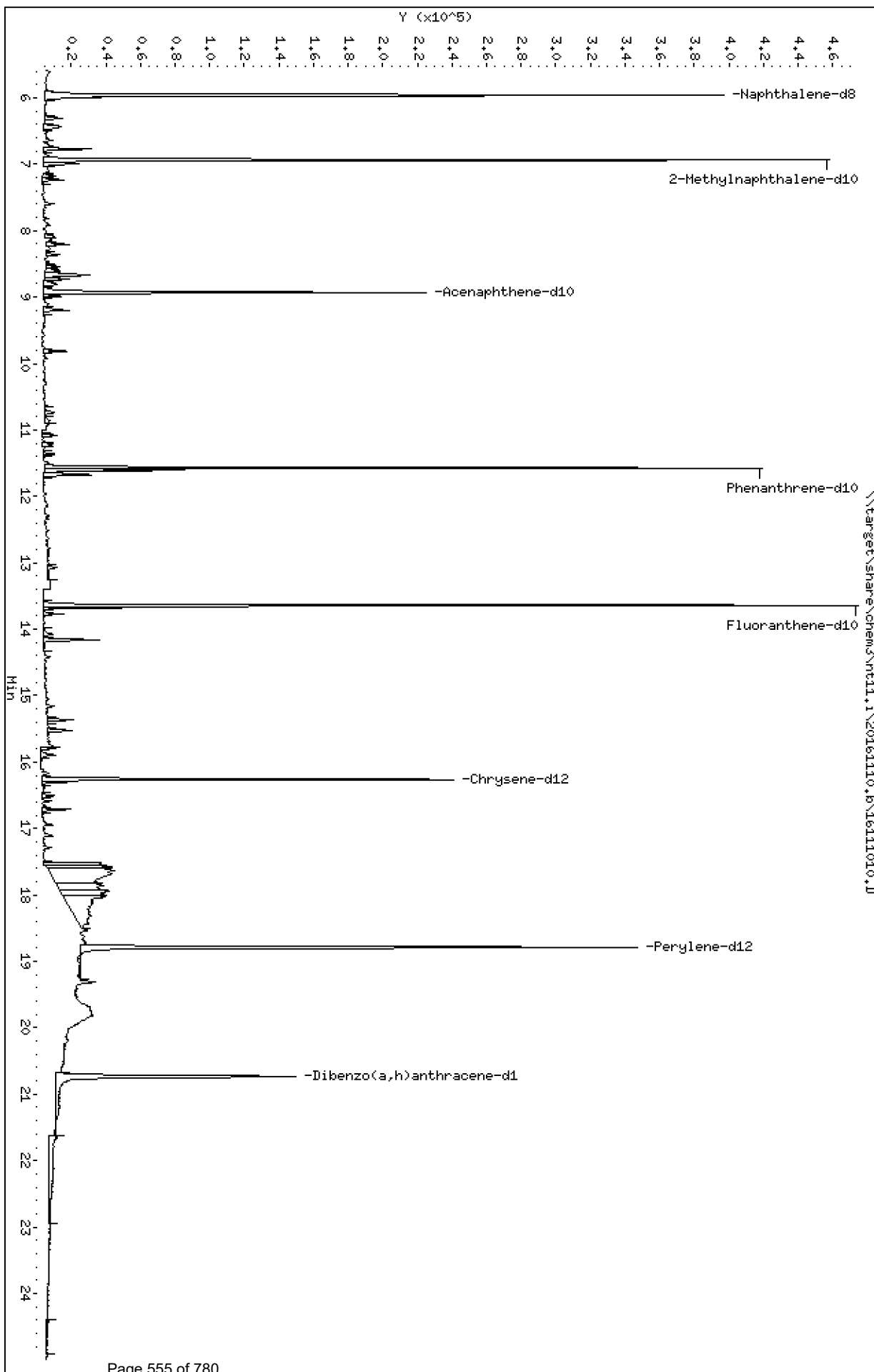
Sample Info: 16J0187-04

Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25



Date : 10-NOV-2016 16:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-04

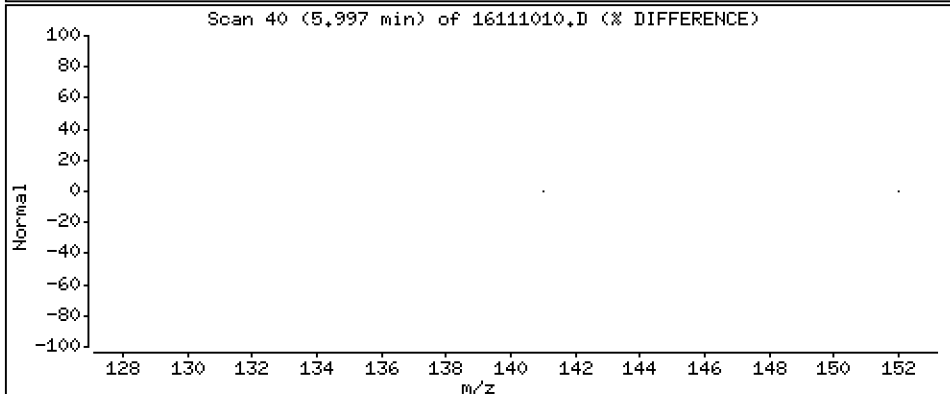
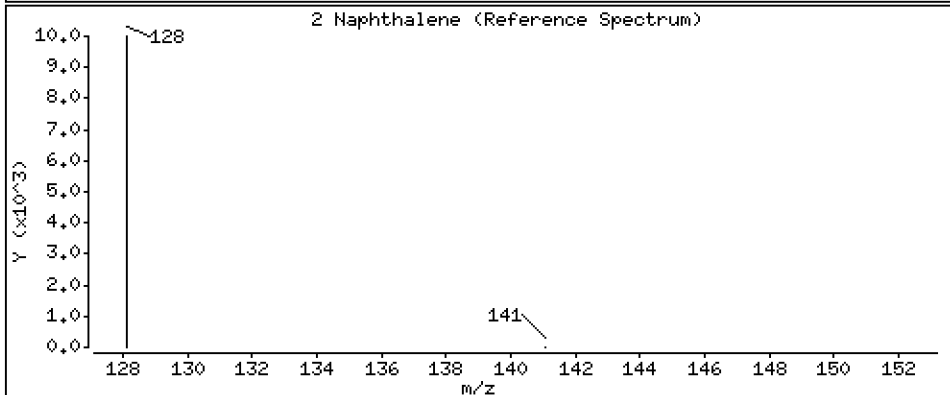
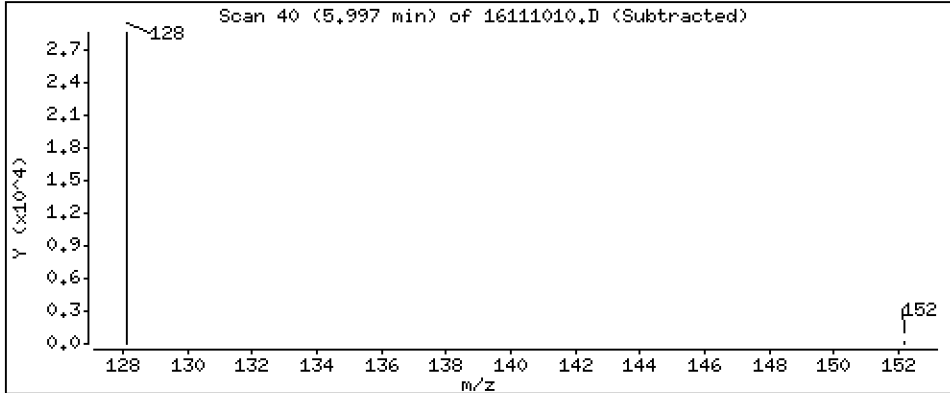
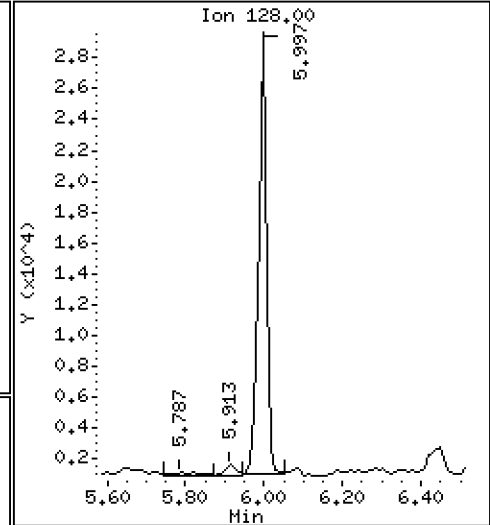
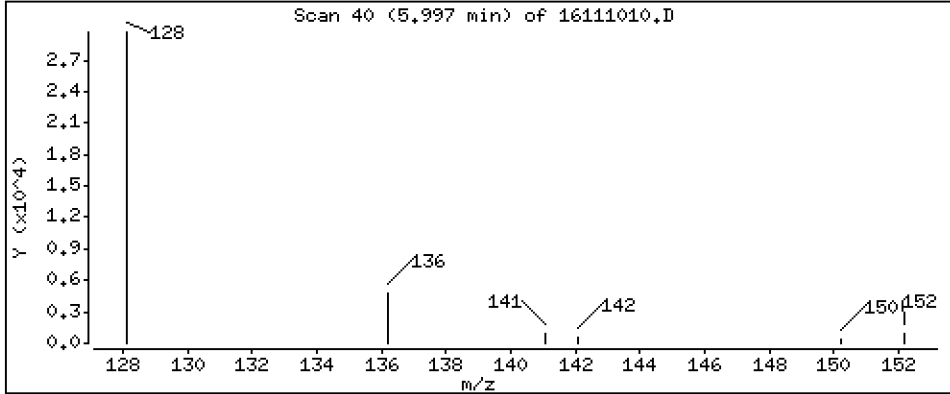
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 11,5 ng/mL



Date : 10-NOV-2016 16:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-04

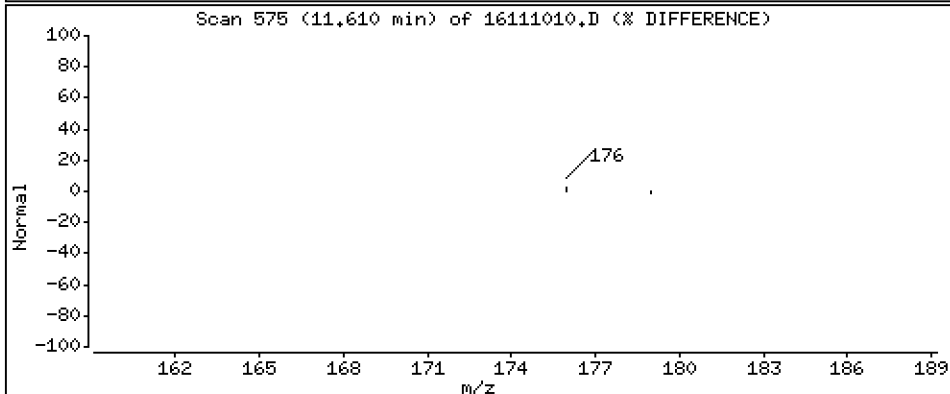
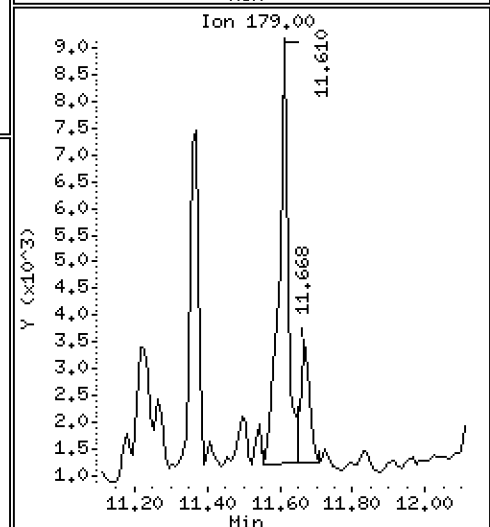
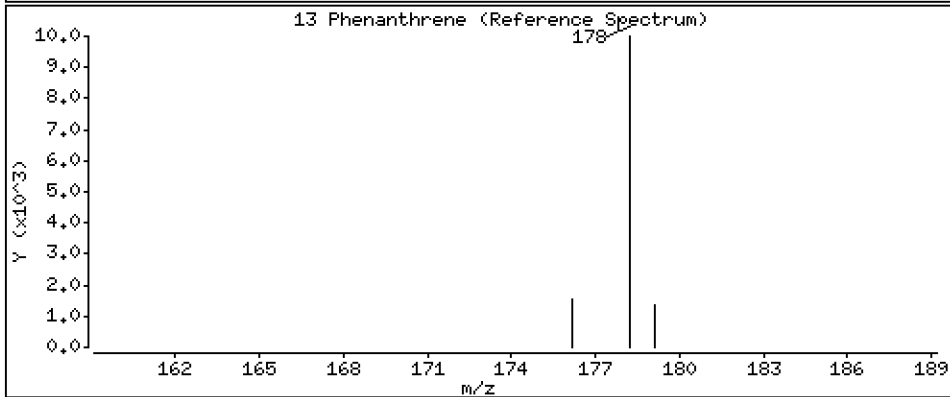
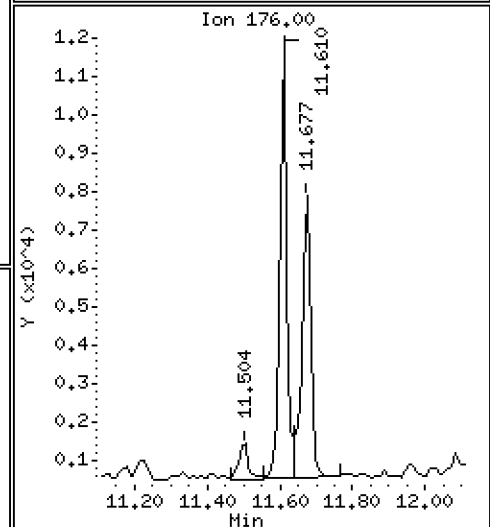
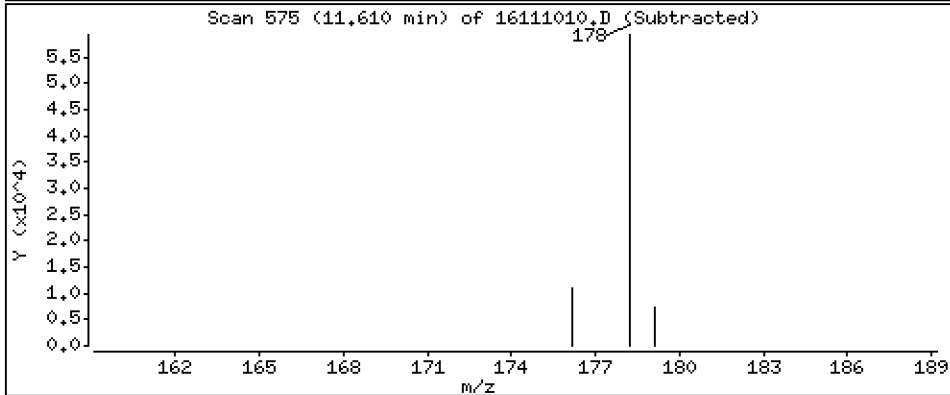
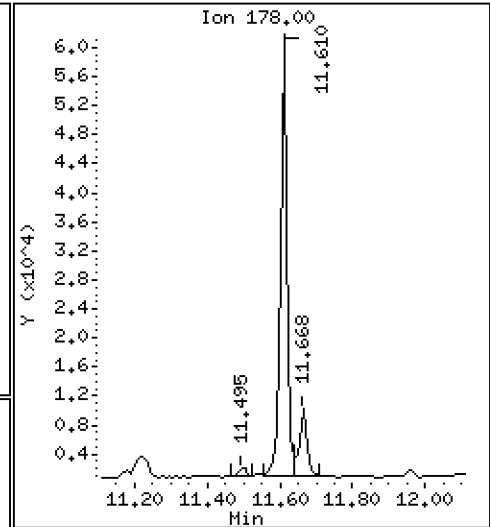
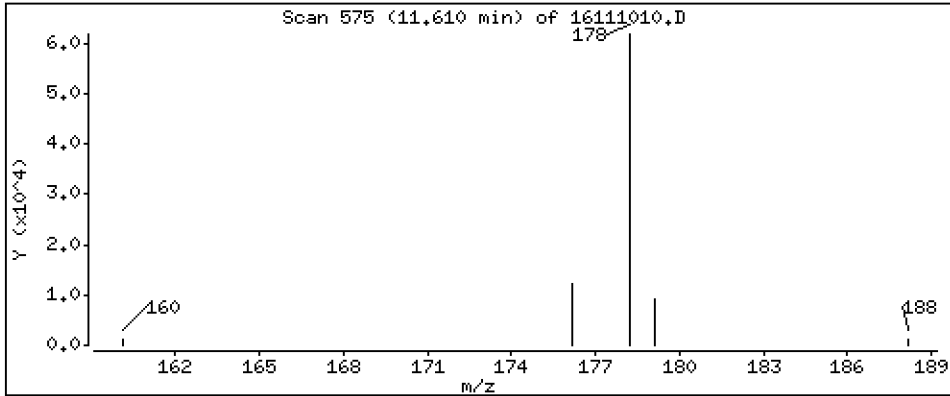
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 Phenanthrene

Concentration: 23.0 ng/mL



Date : 10-NOV-2016 16:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-04

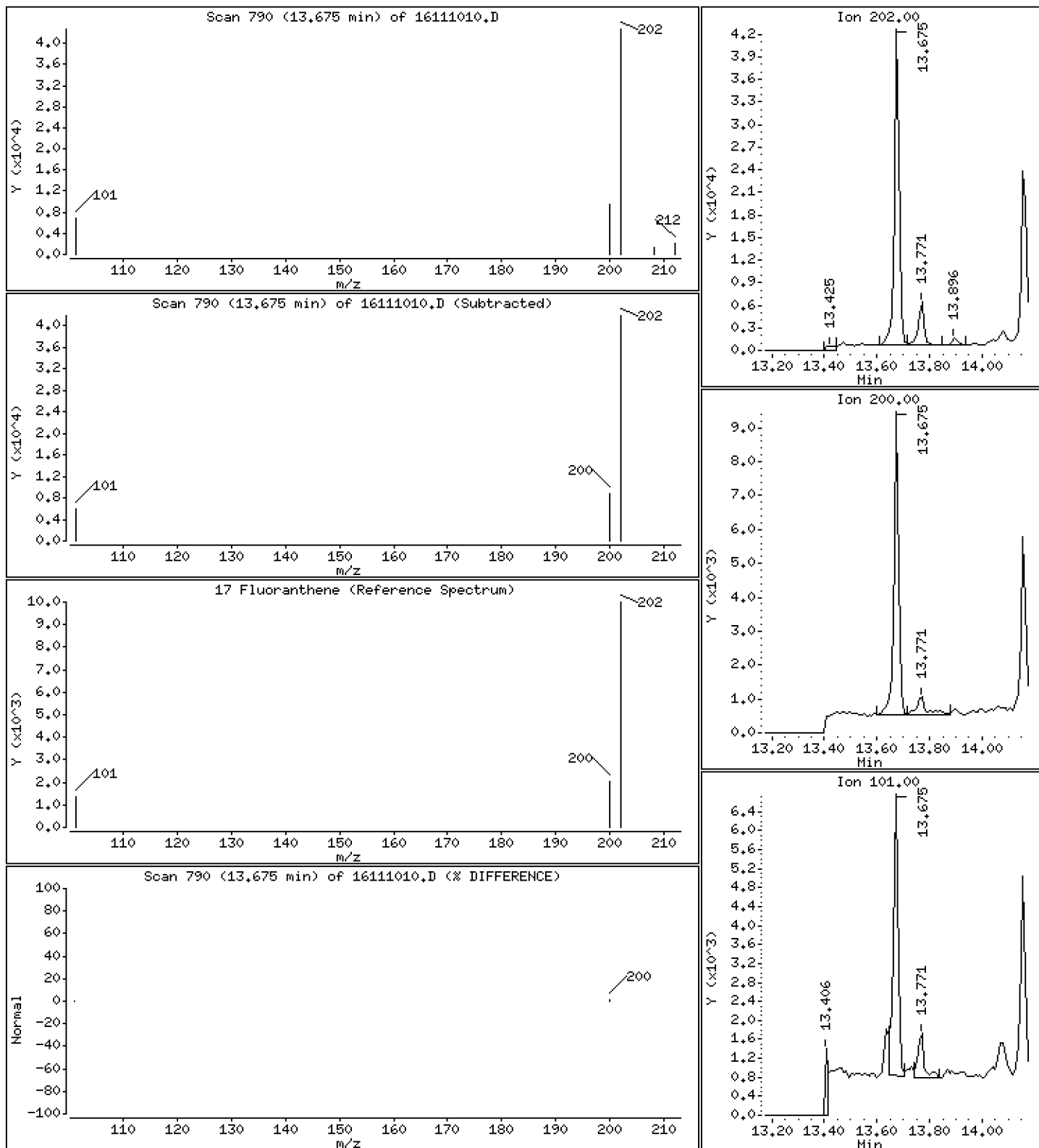
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Fluoranthene

Concentration: 18,8 ng/mL



Date : 10-NOV-2016 16:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-04

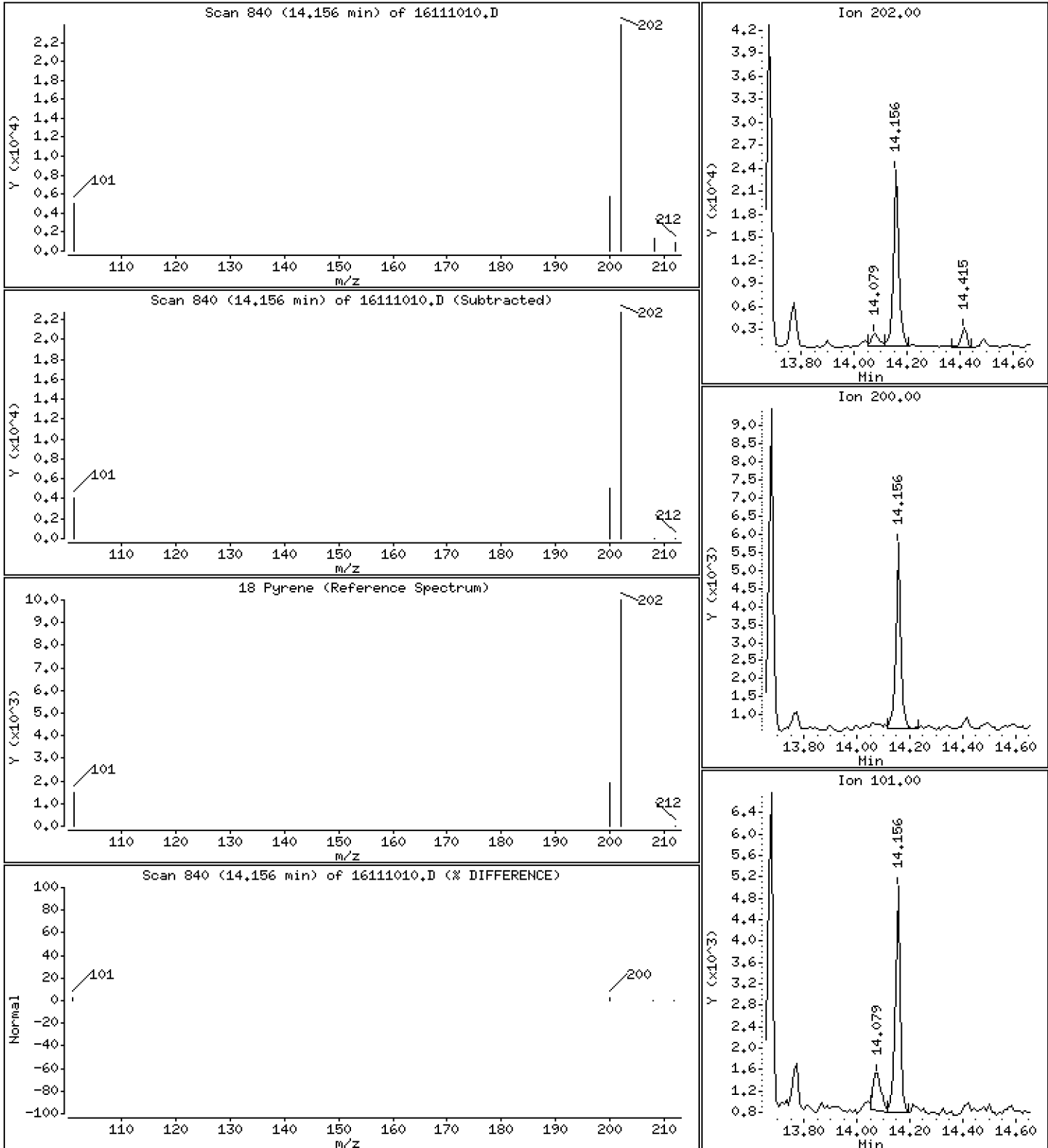
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

18 Pyrene

Concentration: 13.1 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161110.b\16111010.D
Lab Smp Id: 16J0187-04
Inj Date : 10-NOV-2016 16:10 MS Autotune Date: 15-JAN-2015 15:59
Operator : JW Inst ID: nt11.i
Smp Info : 16J0187-04
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20161110.b\lowsim.m
Meth Date : 10-Nov-2016 13:00 nt11.i Quant Type: ISTD
Cal Date : 01-NOV-2016 12:34 Cal File: 16110107.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PEMD.sub
Target Version: 4.14
Processing Host: AUTOSPECDATA02

Compounds	QUANT	SIG	CONCENTRATIONS					
			ON-COLUMN	FINAL				
	MASS	RT	EXP RT	REL RT	RESPONSE	(ng/mL)	(ng/mL)	
* 1 Naphthalene-d8	136	5.965	5.965	(1.000)	596285	200.000		
2 Naphthalene	128	5.997	6.007	(1.005)	40074	11.5299	11.5	
\$ 3 2-Methylnaphthalene-d10	152	6.932	6.942	(1.162)	352058	195.531	196	
4 2-Methylnaphthalene	142			Compound Not Detected.				
5 1-Methylnaphthalene	142			Compound Not Detected.				
6 Acenaphthylene	152			Compound Not Detected.				
* 7 Acenaphthene-d10	164	8.928	8.928	(1.000)	303646	200.000		
8 Acenaphthene	153			Compound Not Detected.				
9 Dibenzofuran	168			Compound Not Detected.				
\$ 10 Fluorene-d10	174			Compound Not Detected.				
11 Fluorene	166			Compound Not Detected.				
* 12 Phenanthrene-d10	188	11.571	11.571	(1.000)	516573	200.000		
13 Phenanthrene	178	11.609	11.609	(1.003)	80736	22.9775	23.0	
\$ 14 Anthracene-d10	188			Compound Not Detected.				
15 Anthracene	178			Compound Not Detected.				
\$ 16 Fluoranthene-d10	212	13.646	13.646	(1.179)	546400	223.296	223	
17 Fluoranthene	202	13.675	13.675	(1.182)	56457	18.7929	18.8	
18 Pyrene	202	14.155	14.165	(0.870)	35214	13.0938	13.1	
19 Benzo(a)anthracene	228			Compound Not Detected.				
* 20 Chrysene-d12	240	16.264	16.264	(1.000)	342456	200.000		
21 Chrysene	228			Compound Not Detected.				
22 Benzo(b)fluoranthene	252			Compound Not Detected.				
23 Benzo(k)fluoranthene	252			Compound Not Detected.				
24 Benzo(j)fluoranthene	252			Compound Not Detected.				
\$ 25 Benzo(e)pyrene-d12	264			Compound Not Detected.				
26 Benzo(e)pyrene	252			Compound Not Detected.				
27 Benzo(a)pyrene	252			Compound Not Detected.				
* 28 Perylene-d12	264	18.788	18.788	(1.000)	470835	200.000		
29 Perylene	252			Compound Not Detected.				
\$ 30 Dibenzo(a,h)anthracene-d14	292	20.728	20.739	(1.103)	361045	247.576	248	
31 Dibenzo(a,h)anthracene	278			Compound Not Detected.				
32 Indeno(1,2,3-cd)pyrene	276			Compound Not Detected.				
33 Benzo(g,h,i)perylene	276			Compound Not Detected.				

Compounds =====	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
	MASS					ON-COLUMN	FINAL
	=====	=====	=====	=====	(ng/mL)	(ng/mL)	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16111010.D
 Lab Smp Id: 16J0187-04
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161110.b\lowsim.m
 Misc Info:

Calibration Date: 10-NOV-2016
 Calibration Time: 11:38
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	596285	-2.18
7 Acenaphthene-d10	316851	158426	633702	303646	-4.17
12 Phenanthrene-d10	546133	273067	1092266	516573	-5.41
20 Chrysene-d12	417210	208605	834420	342456	-17.92
28 Perylene-d12	524443	262222	1048886	470835	-10.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	5.97	5.47	6.47	5.97	0.00
7 Acenaphthene-d10	8.93	8.43	9.43	8.93	0.00
12 Phenanthrene-d10	11.57	11.07	12.07	11.57	0.00
20 Chrysene-d12	16.26	15.76	16.76	16.26	0.00
28 Perylene-d12	18.79	18.29	19.29	18.79	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16111010.D

Lab ID: 16J0187-04

nt11.i, 20161110.b\lowsim.m, 10-NOV-2016 16:10

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161110.b\lowsim.m, PEMD.sub = 0.0000



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
8270D-SIM PAH (0.01 ug/L)

Laboratory: Analytical Resources, Inc. SDG: 16J0187
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 16J0187-05 File ID: 16111011.D
 Sampled: 10/11/16 12:15 Prepared: 10/26/16 15:10 Analyzed: 11/10/16 16:40
 Solids: Preparation: EPA 3550C-Mod (Ultrasonic) Initial/Final: 10.15 g / 0.5 mL
 Batch: BEJ0794 Sequence: SEK0151 Calibration: ZK00002
 Instrument: NT11 Column: RXi-17Sil-MS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.62		0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.64		0.49	0.49
86-73-7	Fluorene	1	0.53		0.49	0.49
85-01-8	Phenanthrene	1	1.94		0.49	0.49
120-12-7	Anthracene	1	0.65		0.49	0.49
206-44-0	Fluoranthene	1	1.66		0.49	0.49
129-00-0	Pyrene	1	1.66		0.49	0.49
56-55-3	Benzo(a)anthracene	1	0.49	U	0.49	0.49
218-01-9	Chrysene	1	0.60		0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	0.49	U	0.49	0.49
207-08-9	Benzo(k)fluoranthene	1	0.49	U	0.49	0.49
50-32-8	Benzo(a)pyrene	1	0.49	U	0.49	0.49
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.49	U	0.49	0.49
53-70-3	Dibenzo(a,h)anthracene	1	0.49	U	0.49	0.49
191-24-2	Benzo(g,h,i)perylene	1	0.49	U	0.49	0.49
1985-5-0	Perylene	1	0.49	U	0.49	0.49
197-97-2	Benzo(e)pyrene	1	0.49	U	0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.778	9.25	62.6	30 - 160	
Dibenzo[a,h]anthracene-d14	14.778	12.3	83.2	30 - 160	
Fluoranthene-d10	14.778	11.4	77.3	30 - 160	

Data File: \\target\share\chem3\nt11.1\20161110.16\16111011.D

Date : 10-NOV-2016 16:40

Client ID:

Sample Info: 16J0187-05

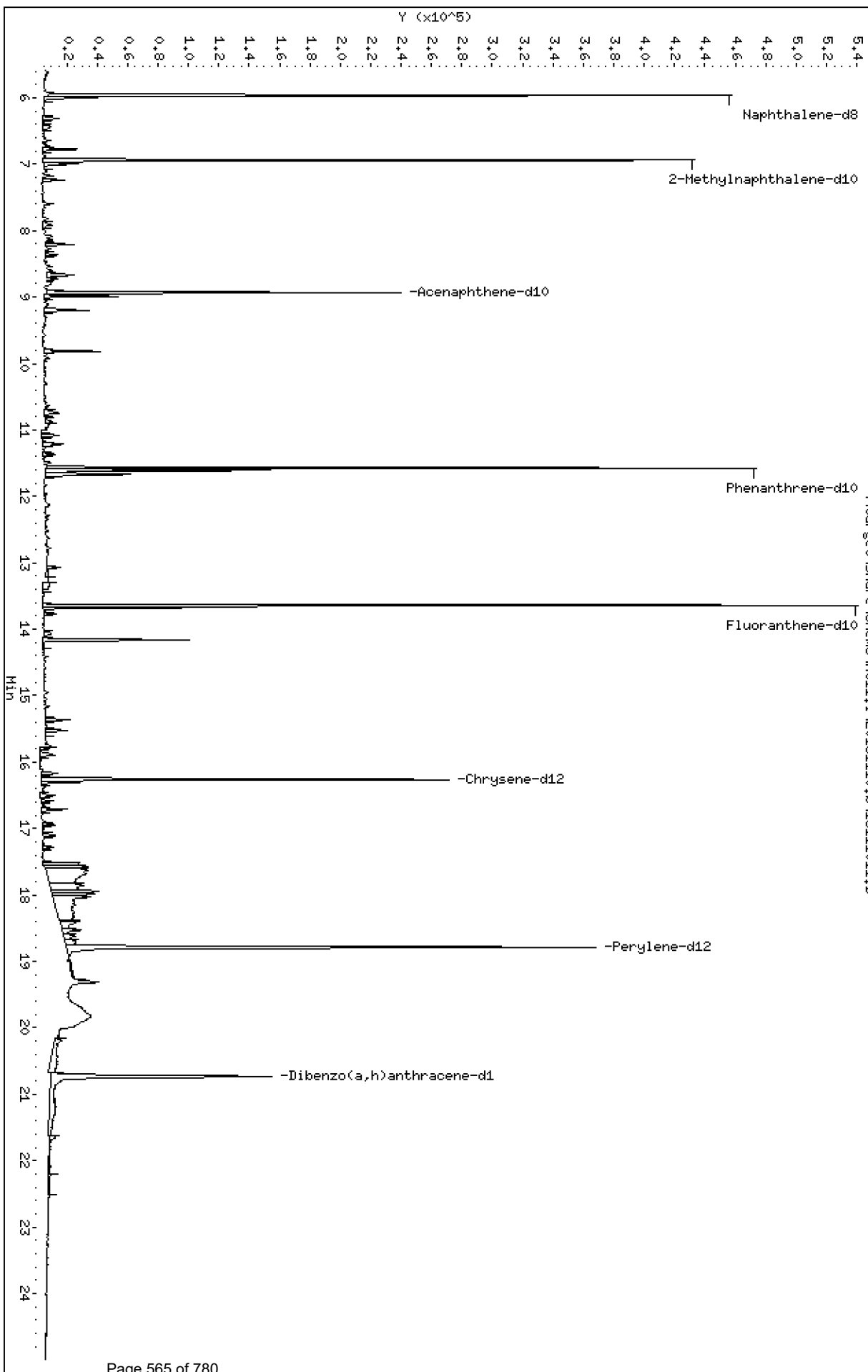
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25

\\target\share\chem3\nt11.1\20161110.16\16111011.D



Date : 10-NOV-2016 16:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-05

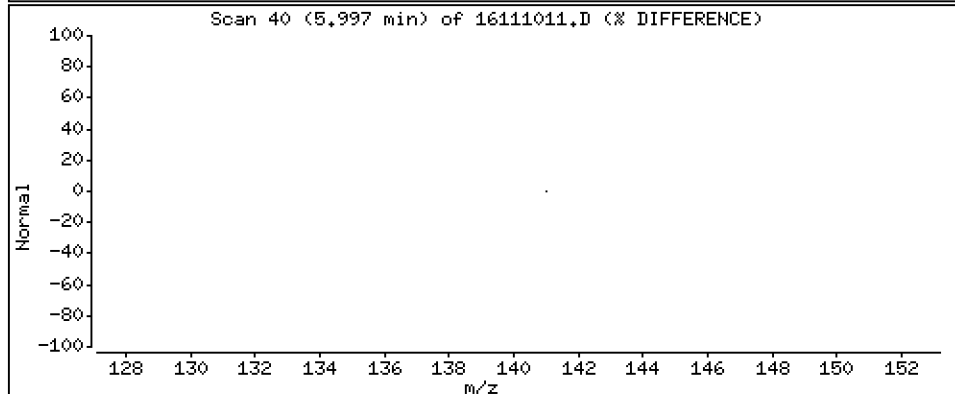
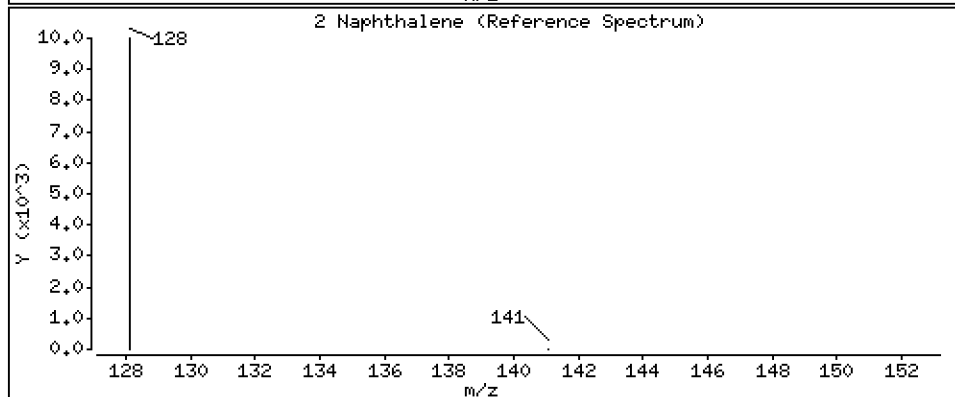
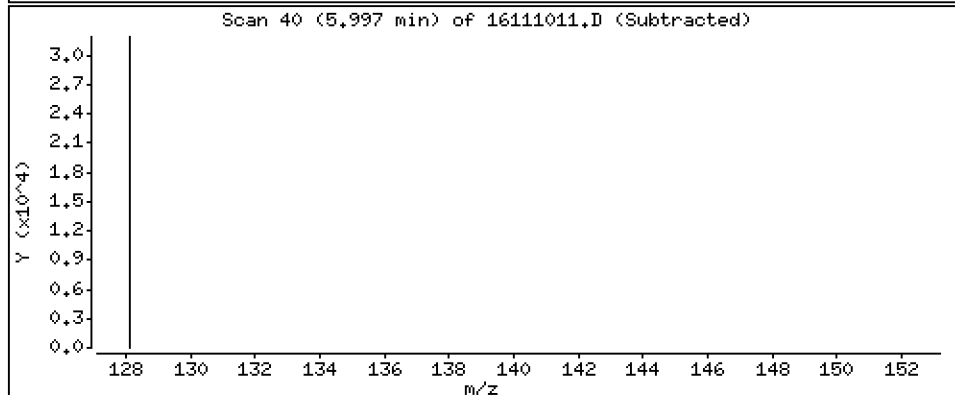
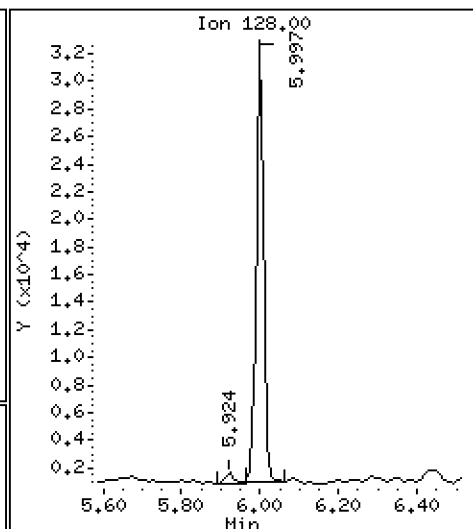
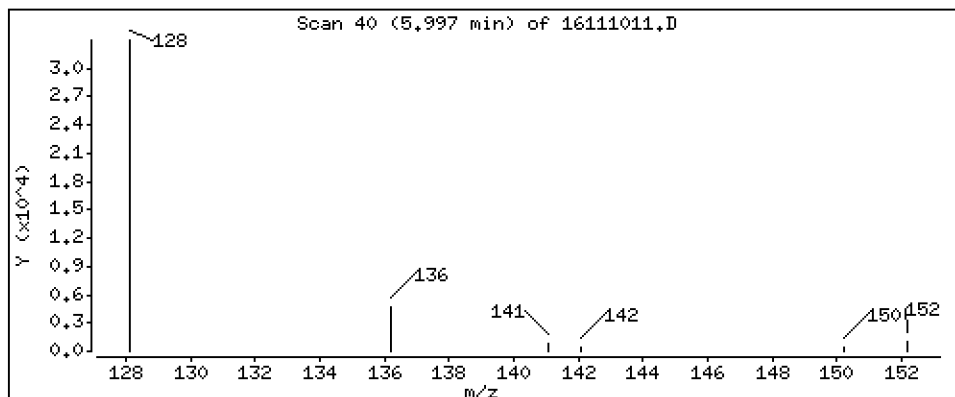
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 12,5 ng/mL



Date : 10-NOV-2016 16:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-05

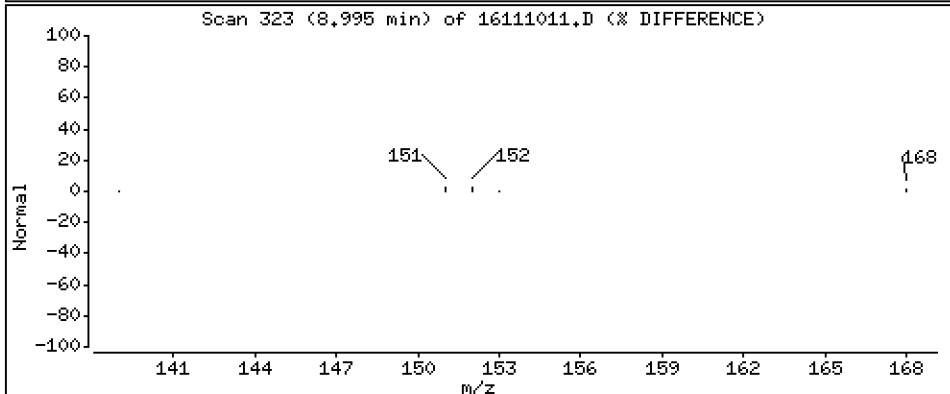
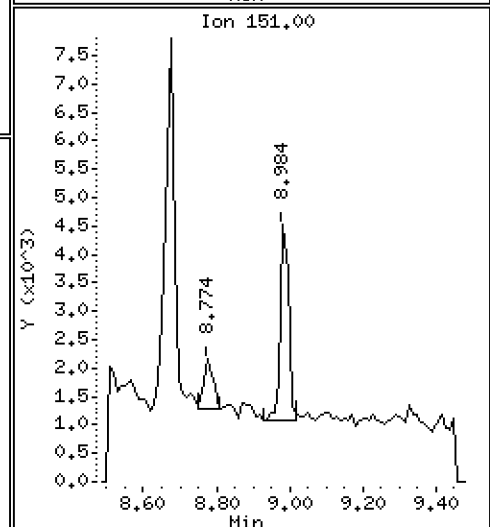
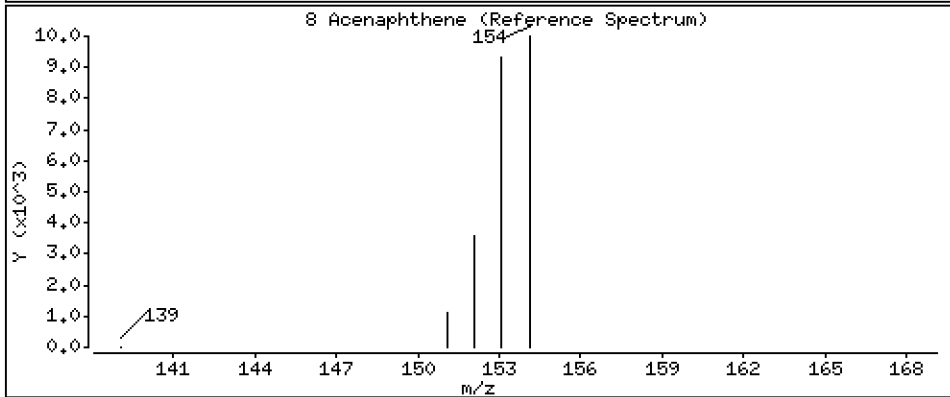
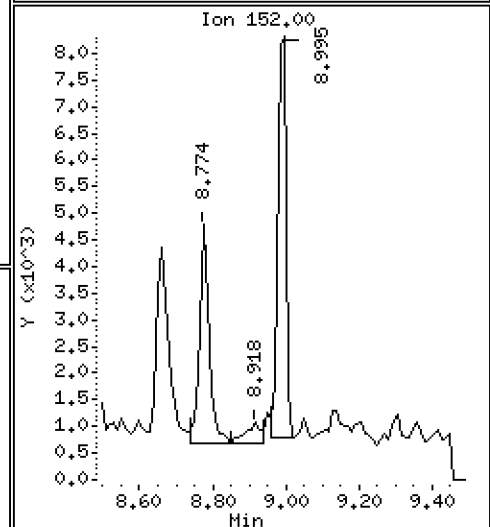
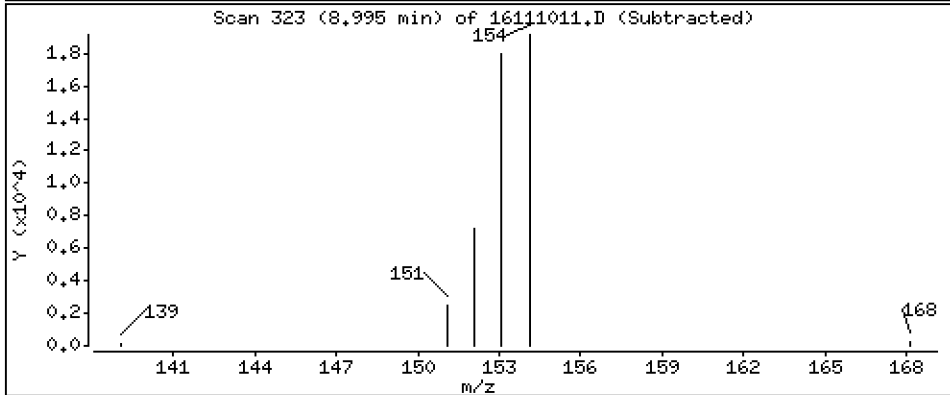
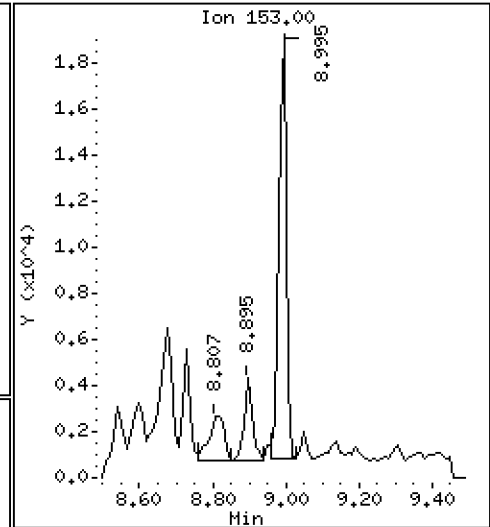
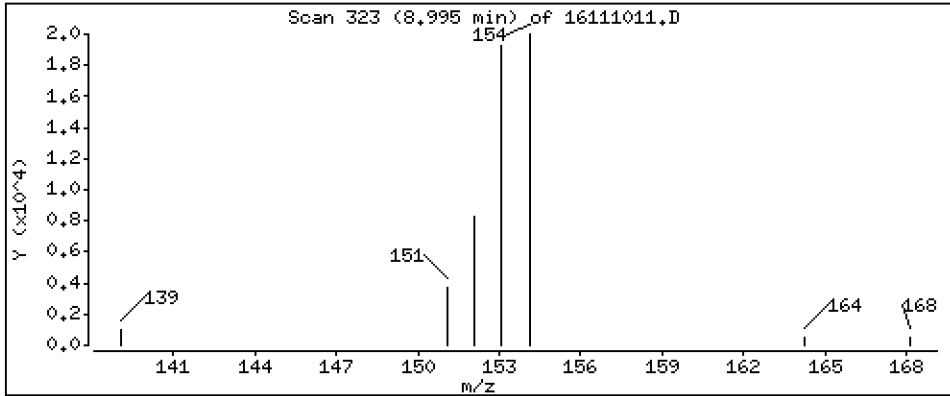
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

8 Acenaphthene

Concentration: 13.0 ng/mL



Date : 10-NOV-2016 16:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-05

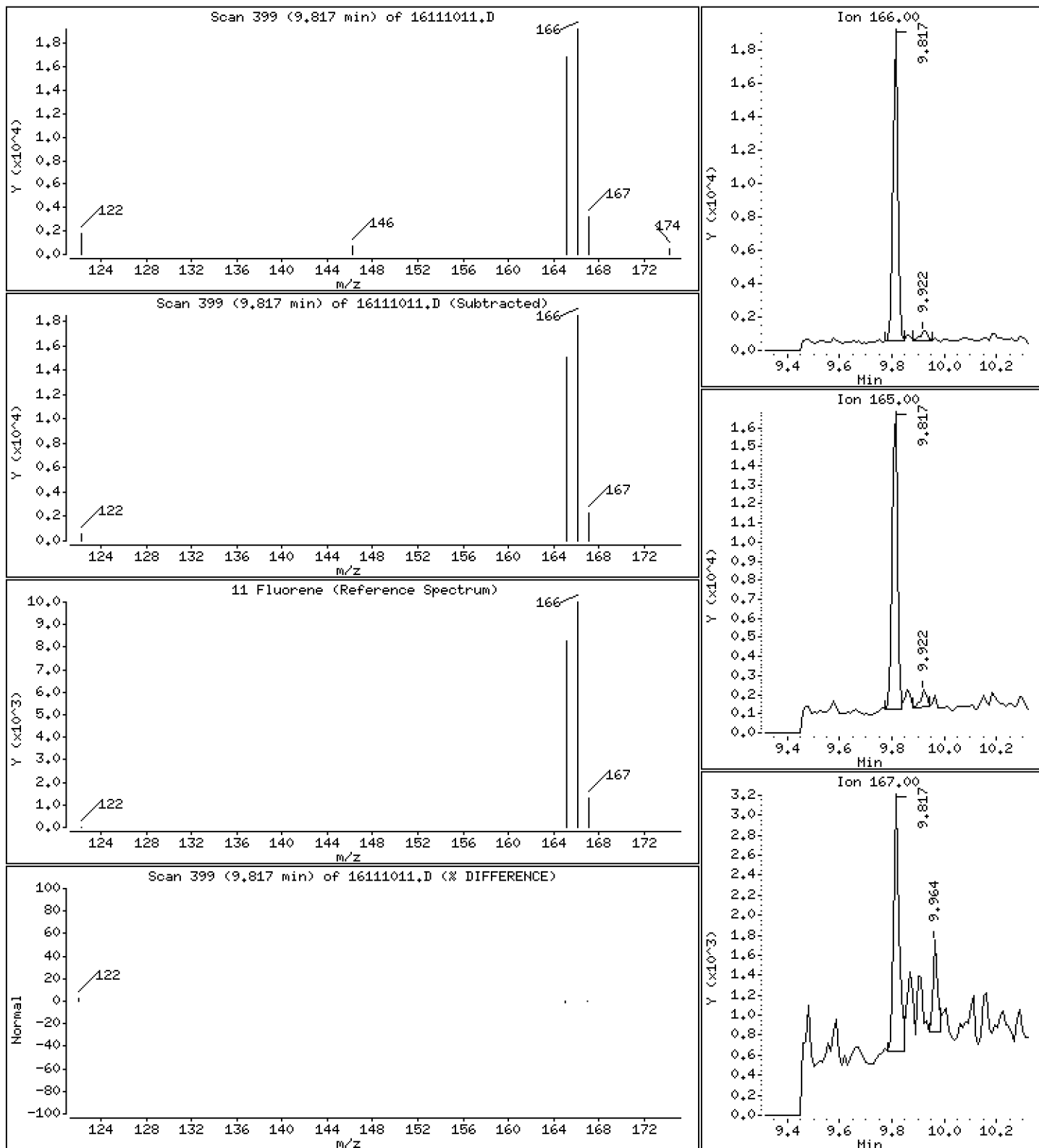
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

11 Fluorene

Concentration: 10,8 ng/mL



Date : 10-NOV-2016 16:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-05

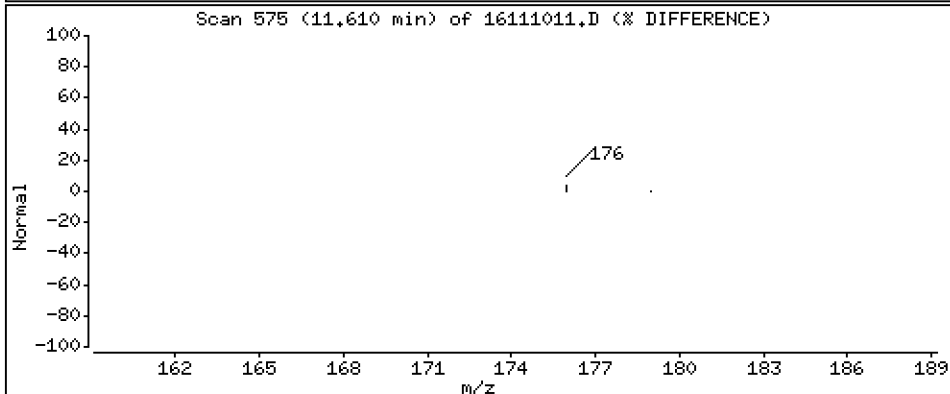
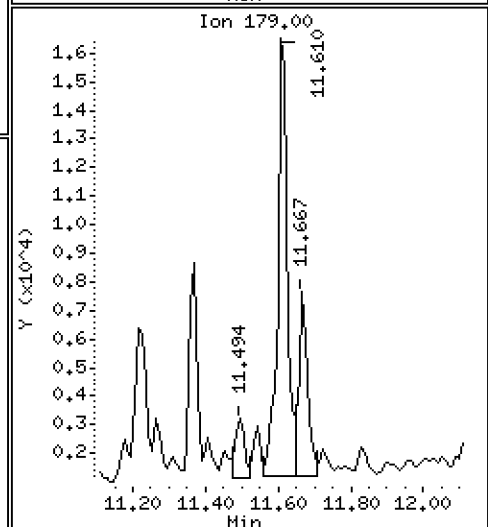
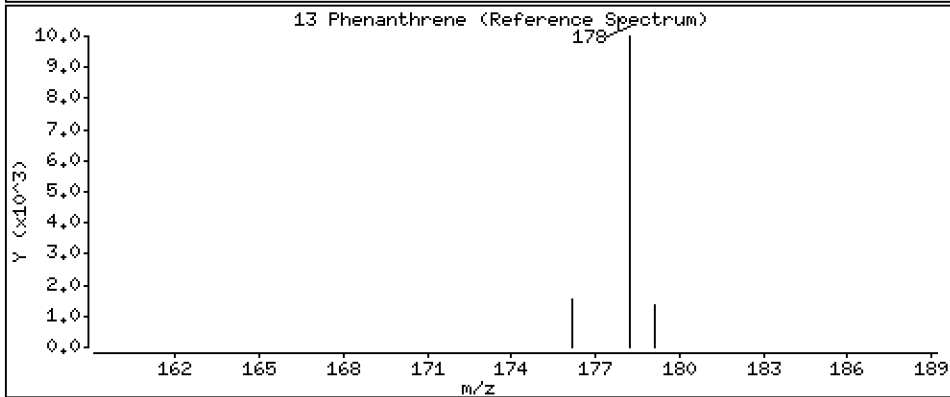
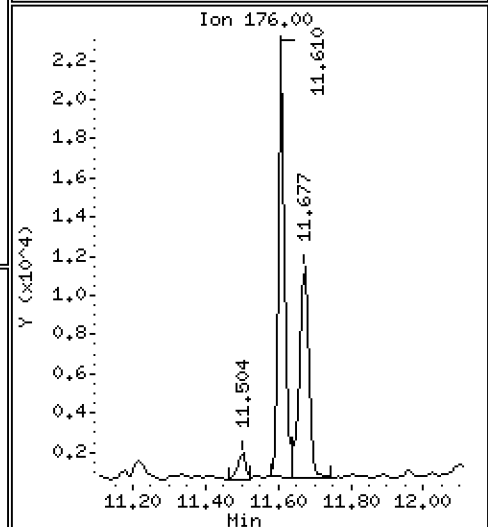
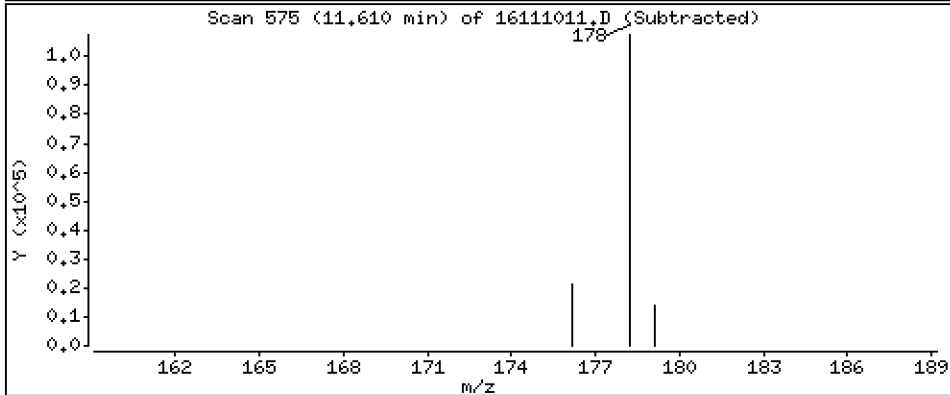
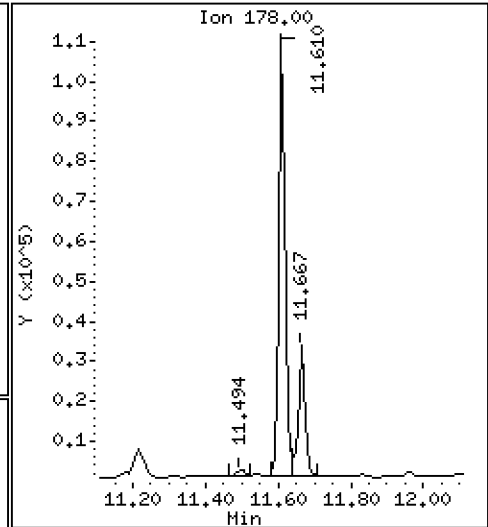
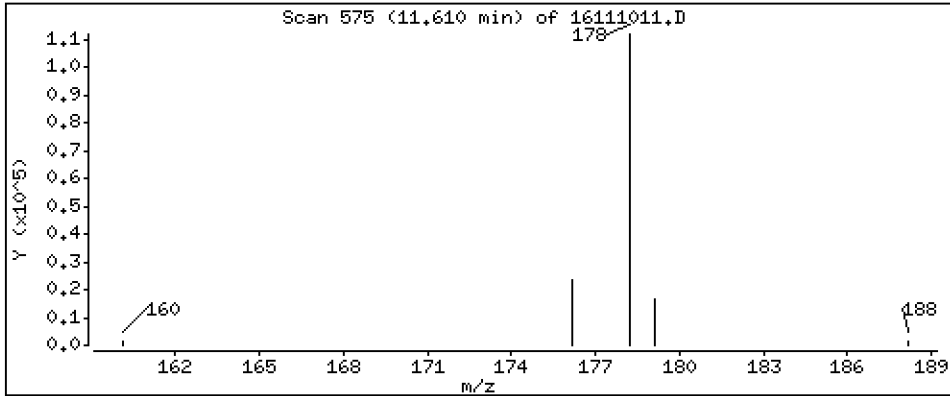
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 Phenanthrene

Concentration: 39,3 ng/mL



Date : 10-NOV-2016 16:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-05

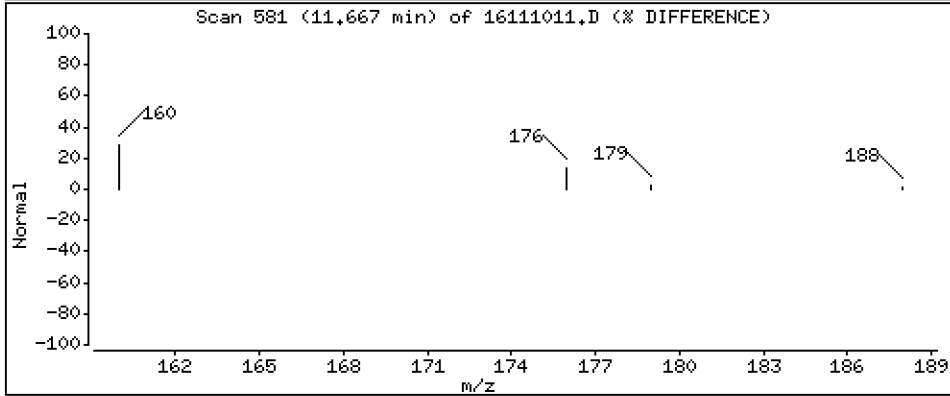
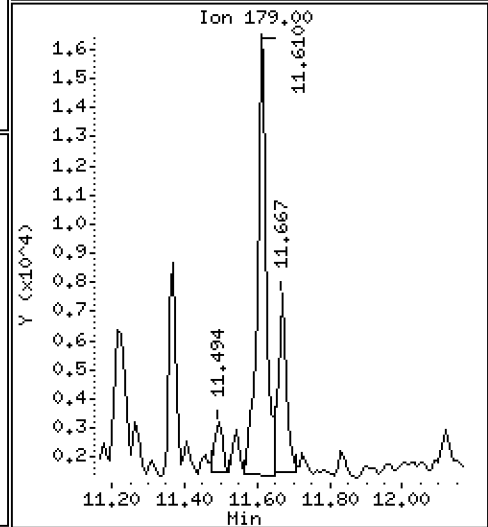
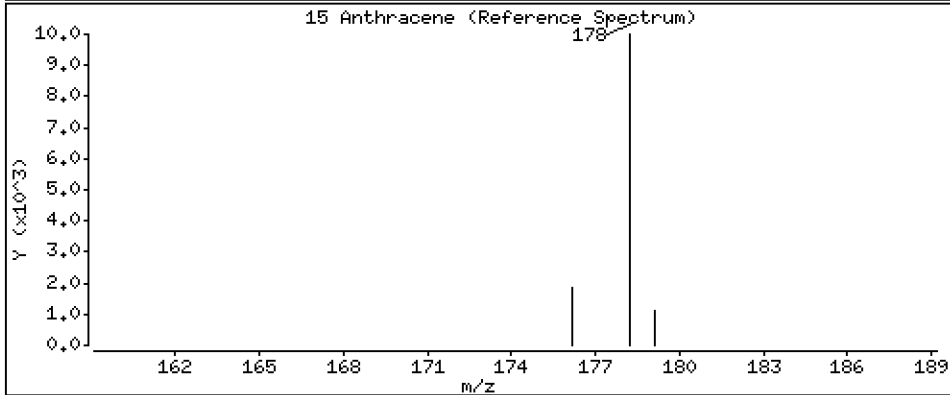
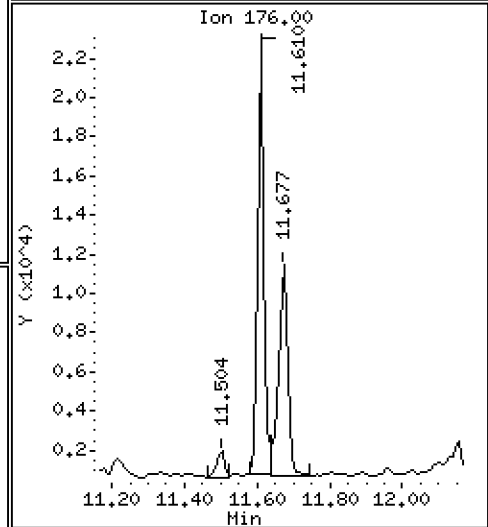
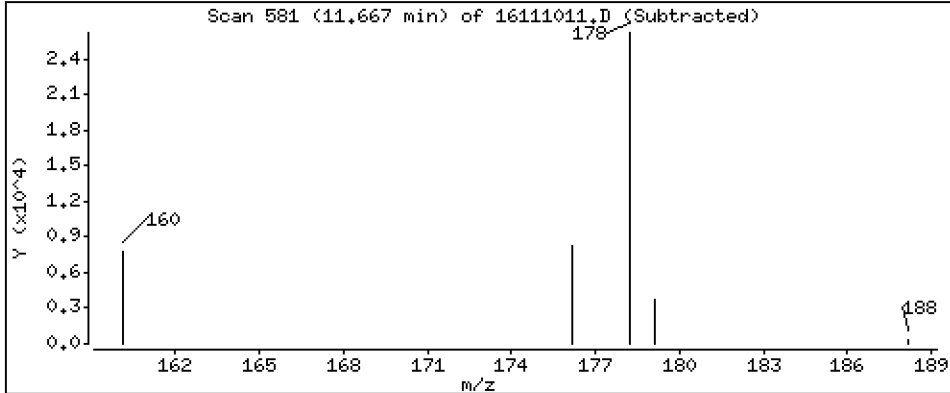
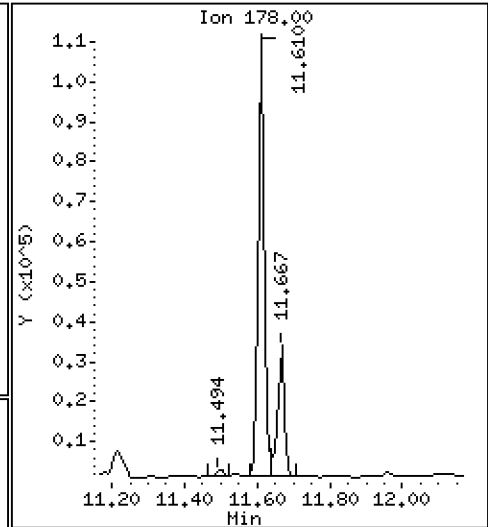
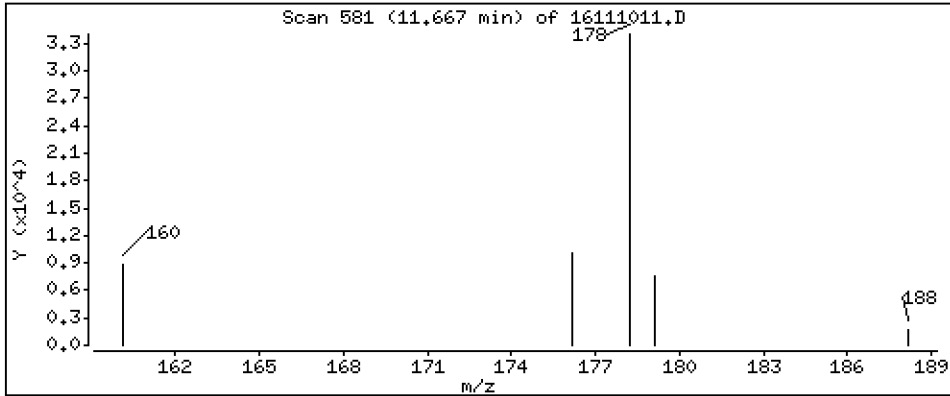
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

15 Anthracene

Concentration: 13.1 ng/mL



Date : 10-NOV-2016 16:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-05

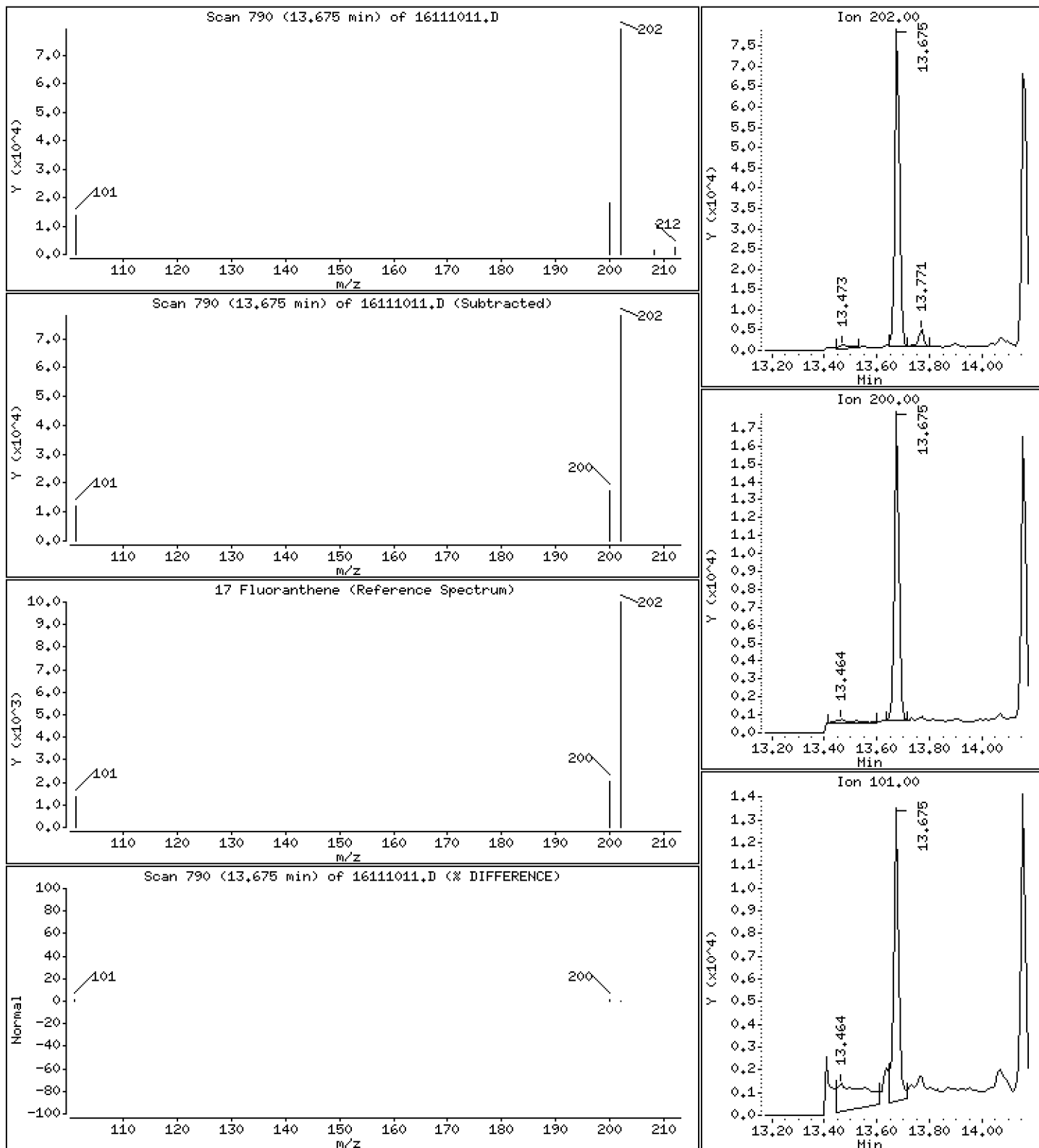
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Fluoranthene

Concentration: 33,7 ng/mL



Date : 10-NOV-2016 16:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-05

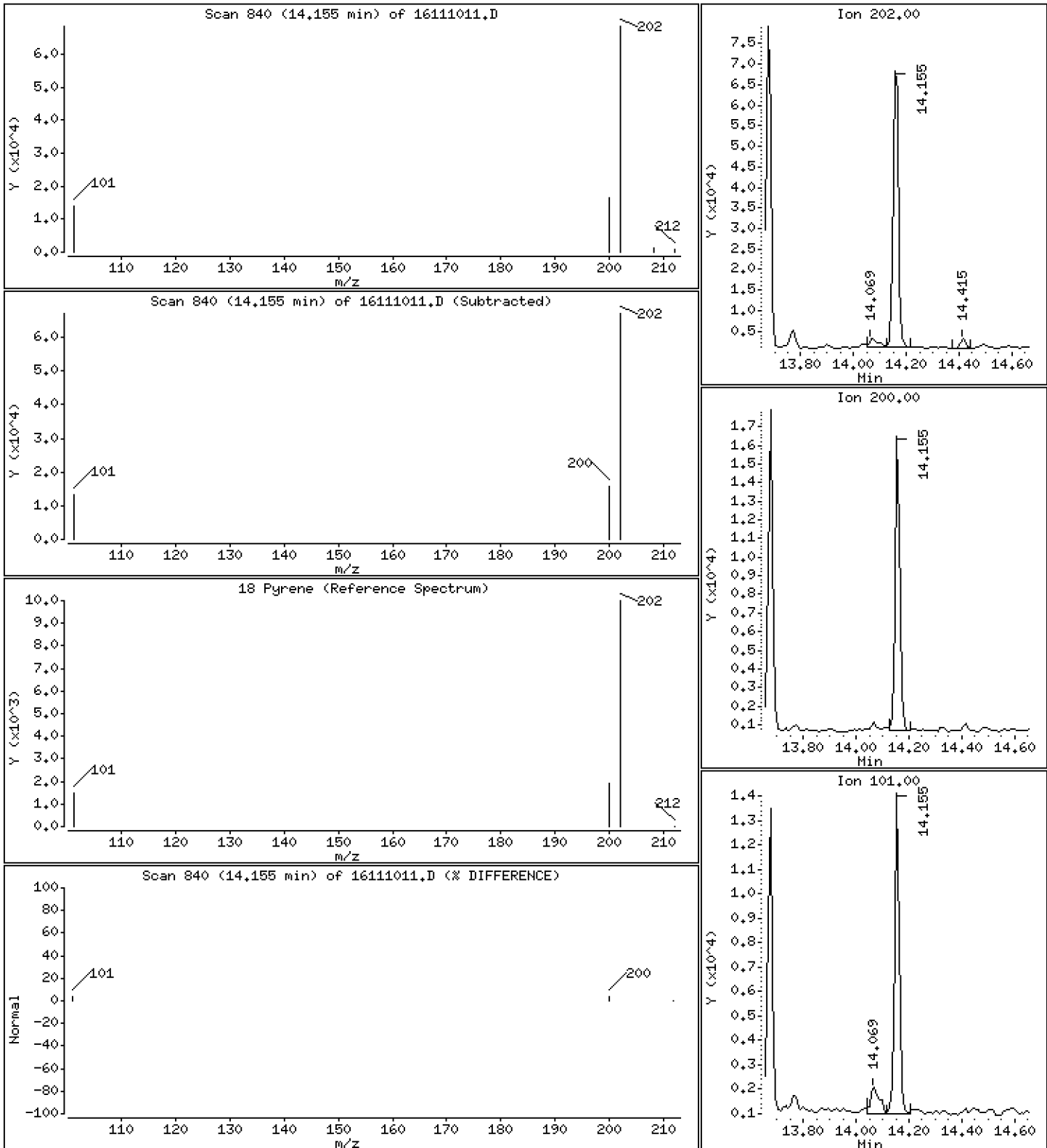
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Pyrene

Concentration: 33,7 ng/mL



Date : 10-NOV-2016 16:40

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-05

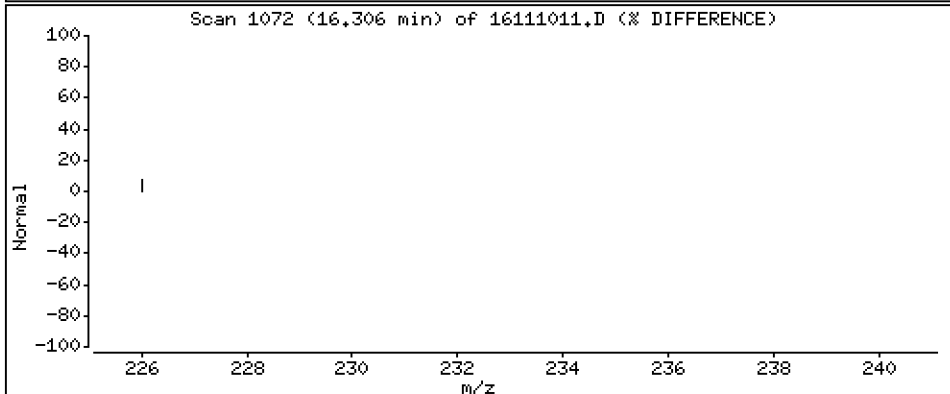
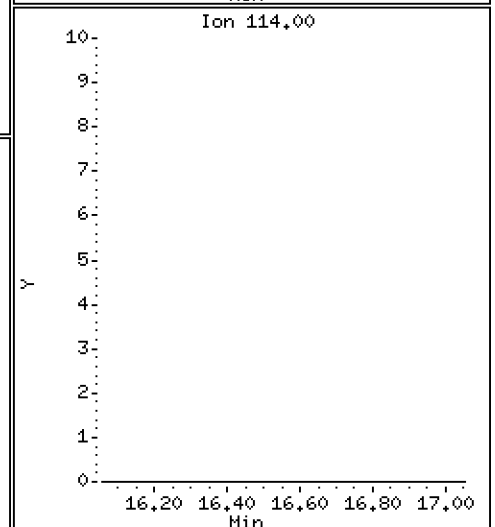
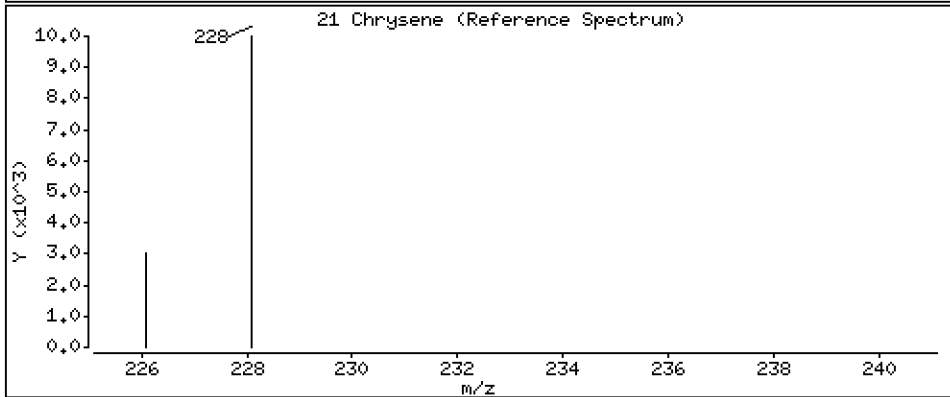
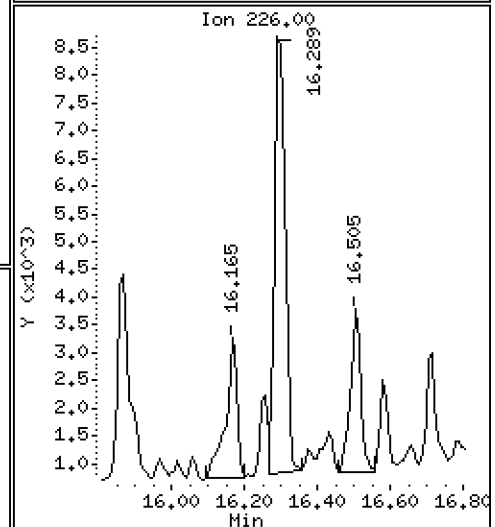
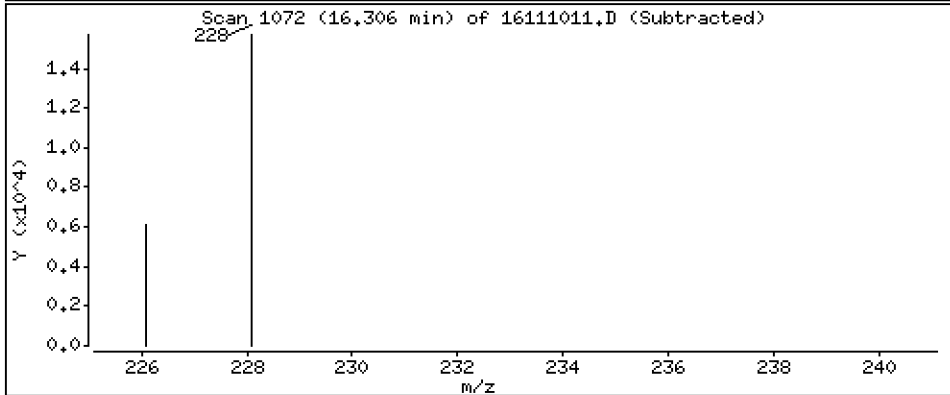
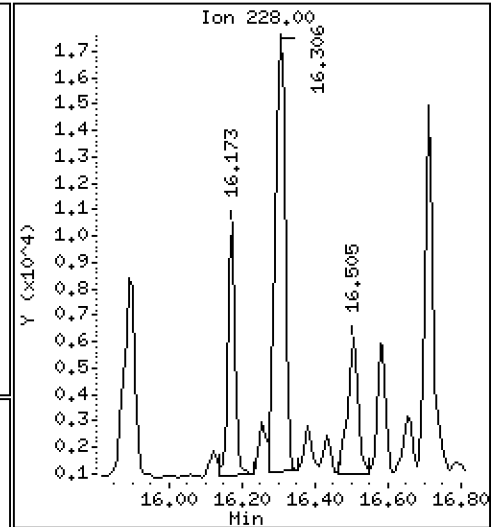
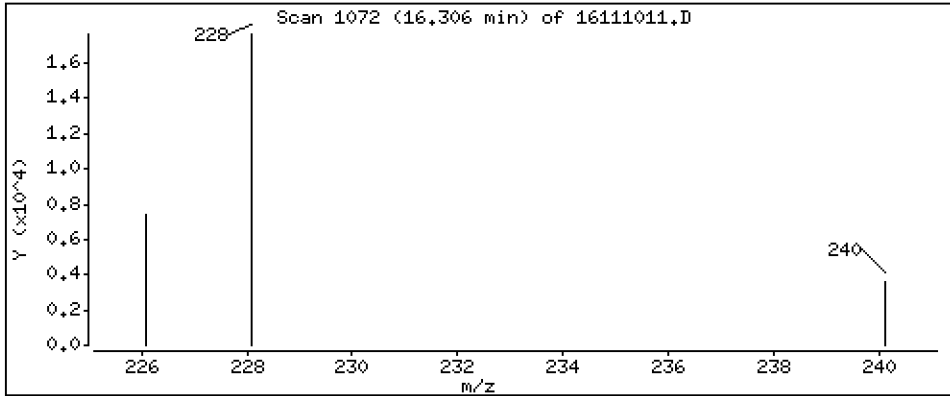
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Chrysene

Concentration: 12,1 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161110.b\16111011.D

Lab Smp Id: 16J0187-05

Inj Date : 10-NOV-2016 16:40

MS Autotune Date: 15-JAN-2015 15:59

Operator : JW

Inst ID: nt11.i

Smp Info : 16J0187-05

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20161110.b\lowsim.m

Meth Date : 10-Nov-2016 13:00 nt11.i

Quant Type: ISTD

Cal Date : 01-NOV-2016 12:34

Cal File: 16110107.D

Als bottle: 14

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PEMD.sub

Target Version: 4.14

Processing Host: AUTOSPECDATA02

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		5.965	5.965	(1.000)	578688	200.000	
2 Naphthalene	128		5.997	6.007	(1.005)	42270	12.5315	12.5
\$ 3 2-Methylnaphthalene-d10	152		6.932	6.942	(1.162)	328132	187.784	188
4 2-Methylnaphthalene	142		Compound Not Detected.					
5 1-Methylnaphthalene	142		Compound Not Detected.					
6 Acenaphthylene	152		Compound Not Detected.					
* 7 Acenaphthene-d10	164		8.928	8.928	(1.000)	299595	200.000	
8 Acenaphthene	153		8.995	8.995	(1.007)	25427	12.9926	13.0
9 Dibenzofuran	168		Compound Not Detected.					
\$ 10 Fluorene-d10	174		Compound Not Detected.					
11 Fluorene	166		9.817	9.817	(1.100)	23360	10.7980	10.8
* 12 Phenanthrene-d10	188		11.571	11.571	(1.000)	527262	200.000	
13 Phenanthrene	178		11.609	11.609	(1.003)	141036	39.3251	39.3
\$ 14 Anthracene-d10	188		Compound Not Detected.					
15 Anthracene	178		11.667	11.667	(1.008)	45504	13.0935	13.1
\$ 16 Fluoranthene-d10	212		13.646	13.646	(1.179)	579306	231.945	232
17 Fluoranthene	202		13.674	13.675	(1.182)	103335	33.6999	33.7
18 Pyrene	202		14.155	14.165	(0.870)	98180	33.7189	33.7
19 Benzo(a)anthracene	228		Compound Not Detected.					
* 20 Chrysene-d12	240		16.264	16.264	(1.000)	370771	200.000	
21 Chrysene	228		16.306	16.314	(1.003)	31167	12.0896	12.1
22 Benzo(b)fluoranthene	252		Compound Not Detected.					
23 Benzo(k)fluoranthene	252		Compound Not Detected.					
24 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 25 Benzo(e)pyrene-d12	264		Compound Not Detected.					
26 Benzo(e)pyrene	252		Compound Not Detected.					
27 Benzo(a)pyrene	252		Compound Not Detected.					
* 28 Perylene-d12	264		18.787	18.788	(1.000)	479814	200.000	
29 Perylene	252		Compound Not Detected.					
\$ 30 Dibenzo(a,h)anthracene-d14	292		20.728	20.739	(1.103)	370952	249.609	250
31 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
32 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.					
33 Benzo(g,h,i)perylene	276		Compound Not Detected.					

Compounds =====	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
	MASS					ON-COLUMN	FINAL
	=====	=====	=====	=====	(ng/mL)	(ng/mL)	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16111011.D
 Lab Smp Id: 16J0187-05
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161110.b\lowsim.m
 Misc Info:

Calibration Date: 10-NOV-2016
 Calibration Time: 11:38
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	578688	-5.06
7 Acenaphthene-d10	316851	158426	633702	299595	-5.45
12 Phenanthrene-d10	546133	273067	1092266	527262	-3.46
20 Chrysene-d12	417210	208605	834420	370771	-11.13
28 Perylene-d12	524443	262222	1048886	479814	-8.51

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	5.97	5.47	6.47	5.97	-0.00
7 Acenaphthene-d10	8.93	8.43	9.43	8.93	-0.00
12 Phenanthrene-d10	11.57	11.07	12.07	11.57	-0.00
20 Chrysene-d12	16.26	15.76	16.76	16.26	-0.00
28 Perylene-d12	18.79	18.29	19.29	18.79	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16111011.D

Lab ID: 16J0187-05

nt11.i, 20161110.b\lowsim.m, 10-NOV-2016 16:40

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161110.b\lowsim.m, PEMD.sub = 0.0000



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
8270D-SIM PAH (0.01 ug/L)

Laboratory: Analytical Resources, Inc. SDG: 16J0187
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 16J0187-06 File ID: 16111012.D
 Sampled: 10/11/16 12:50 Prepared: 10/26/16 15:10 Analyzed: 11/10/16 17:10
 Solids: Preparation: EPA 3550C-Mod (Ultrasonic) Initial/Final: 10 g / 0.5 mL
 Batch: BEJ0794 Sequence: SEK0151 Calibration: ZK00002
 Instrument: NT11 Column: RXi-17Sil-MS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.59	J	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	1.82		0.50	0.50
120-12-7	Anthracene	1	0.78		0.50	0.50
206-44-0	Fluoranthene	1	1.08		0.50	0.50
129-00-0	Pyrene	1	1.58		0.50	0.50
56-55-3	Benzo(a)anthracene	1	0.50	U	0.50	0.50
218-01-9	Chrysene	1	0.50	U	0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	0.50	U	0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.50	U	0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
1985-5-0	Perylene	1	0.50	U	0.50	0.50
197-97-2	Benzo(e)pyrene	1	0.50	U	0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	15.000	9.44	62.9	30 - 160	
Dibenzo[a,h]anthracene-d14	15.000	13.2	88.2	30 - 160	
Fluoranthene-d10	15.000	11.6	77.2	30 - 160	

Data File: \\target\share\chem3\nt11.1\20161110.16\16111012.D

Date : 10-NOV-2016 17:10

Client ID:

Sample Info: 16J0187-06

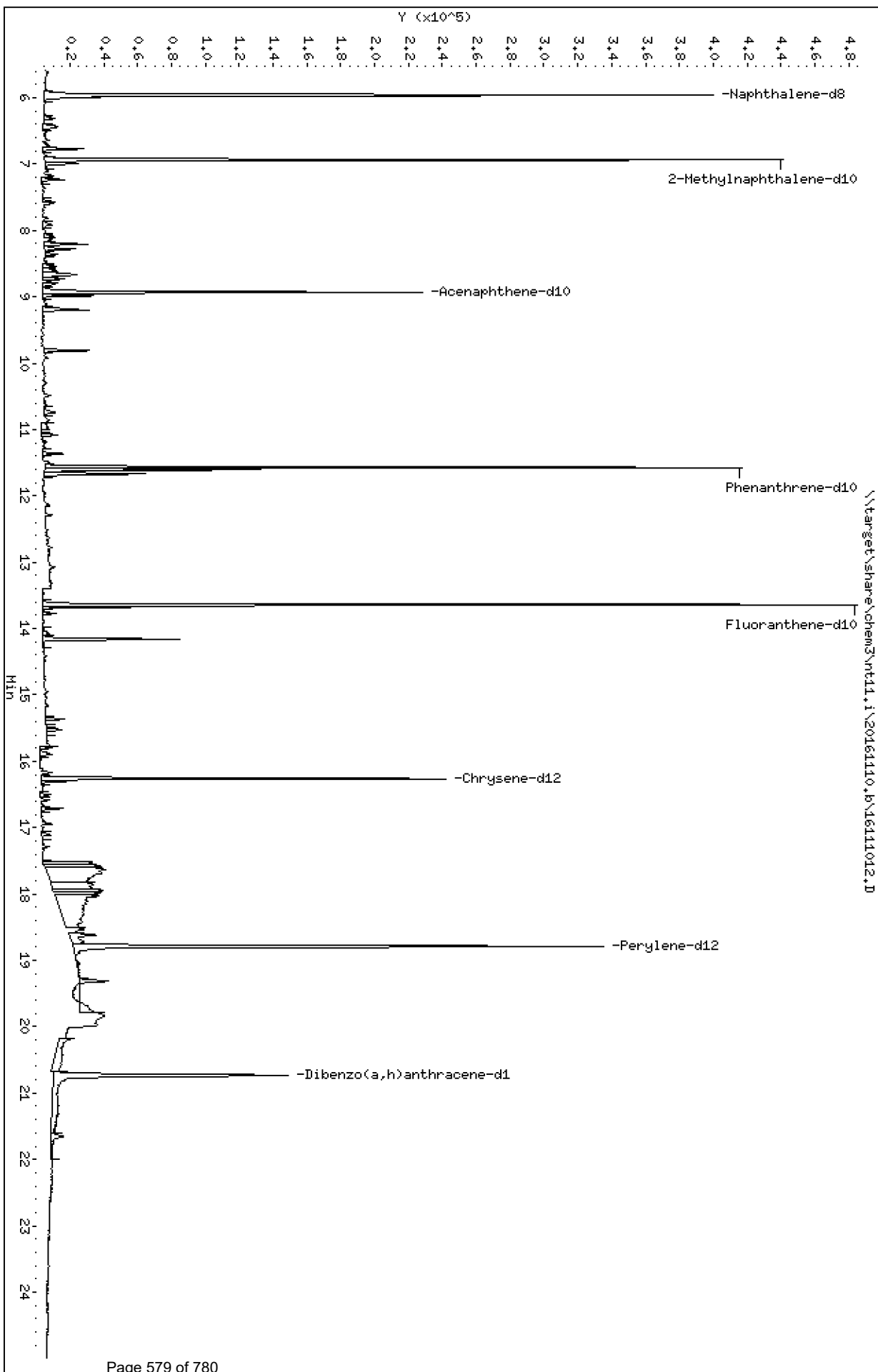
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25

\\target\share\chem3\nt11.1\20161110.16\16111012.D



Date : 10-NOV-2016 17:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-06

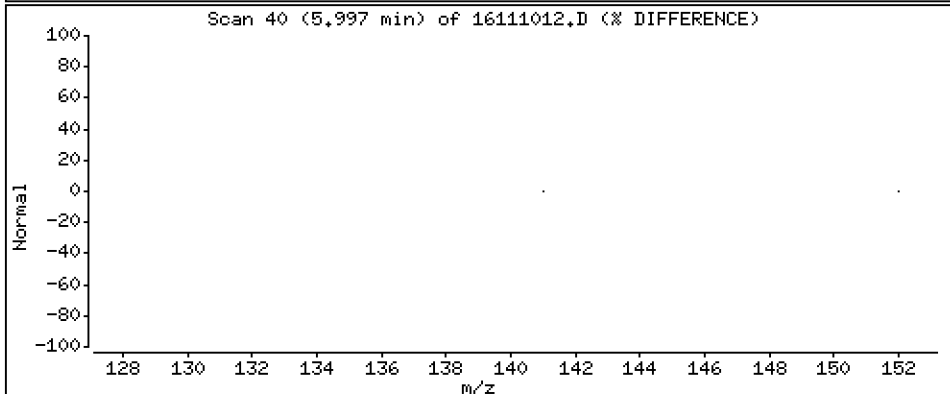
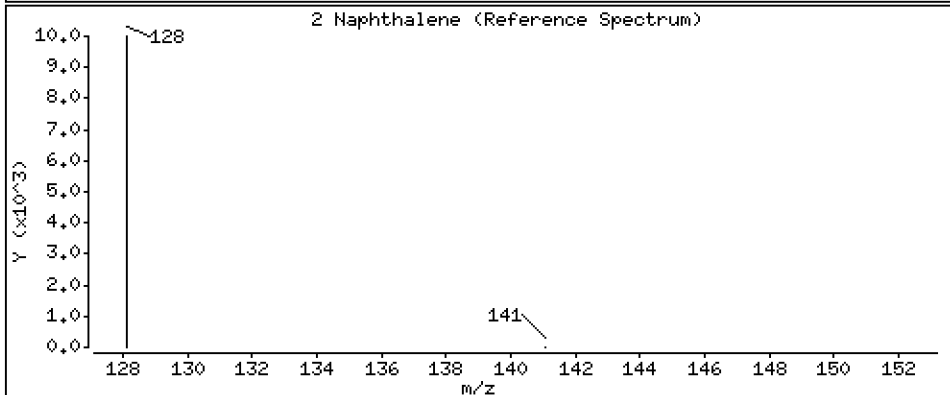
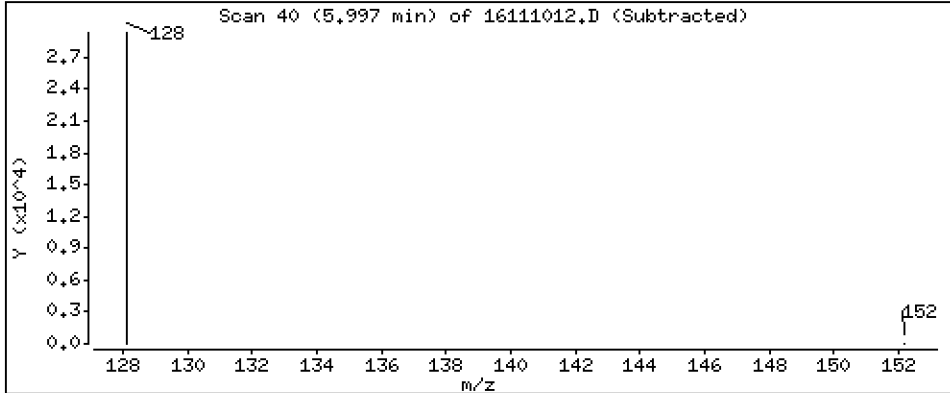
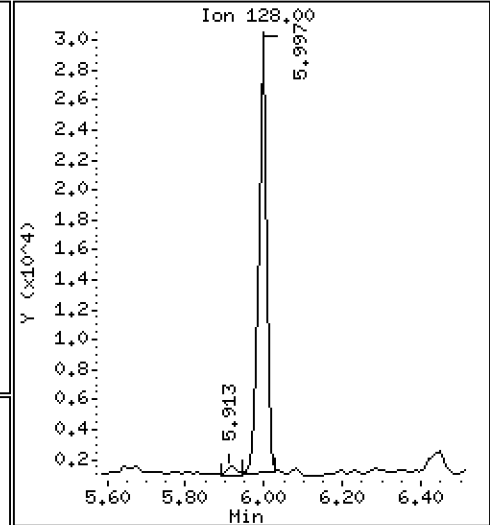
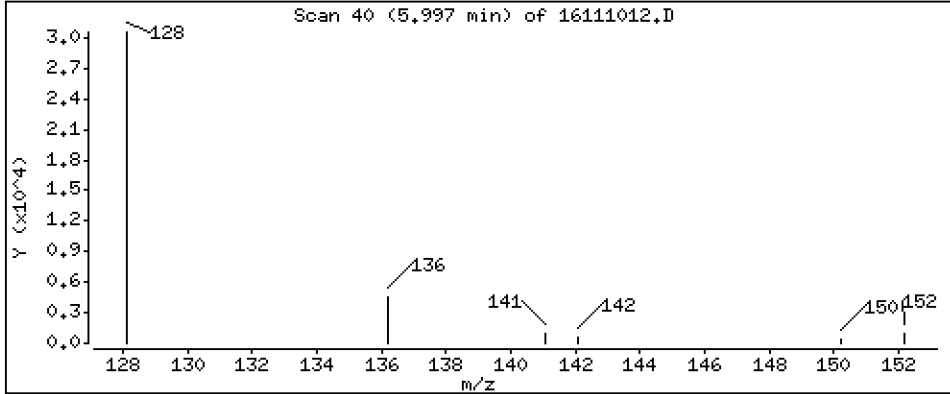
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 11,8 ng/mL



Date : 10-NOV-2016 17:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-06

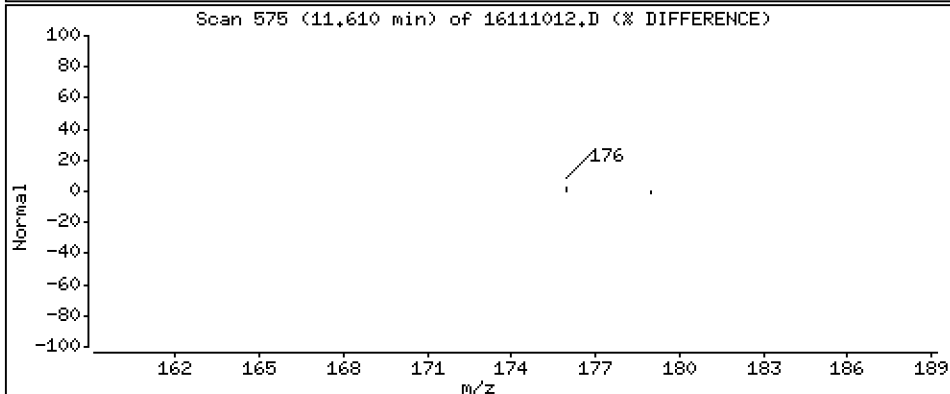
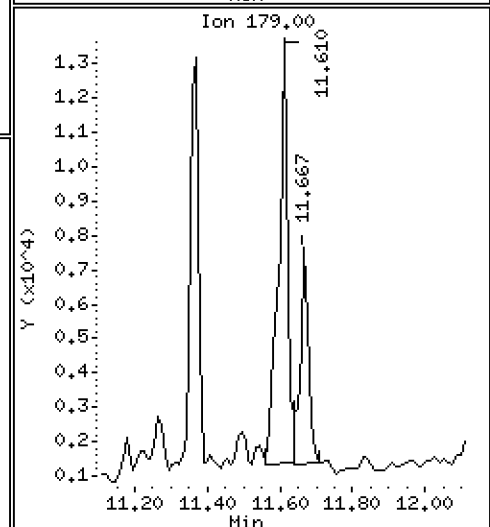
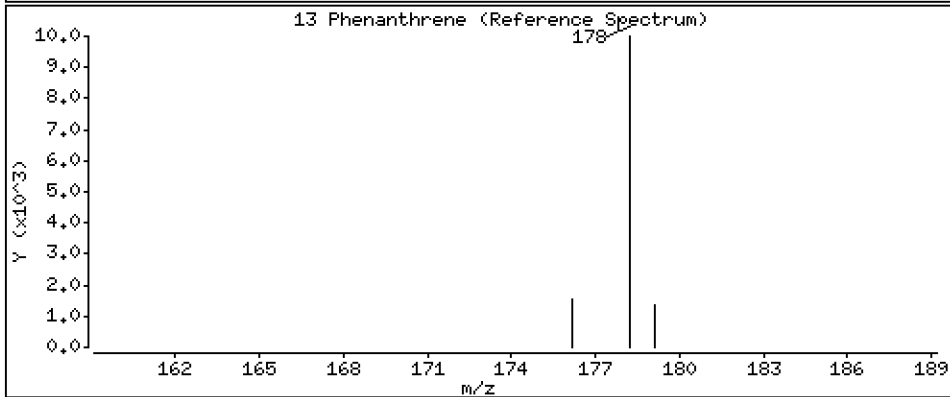
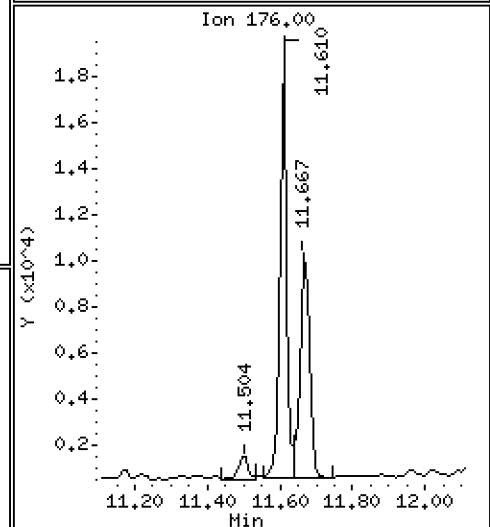
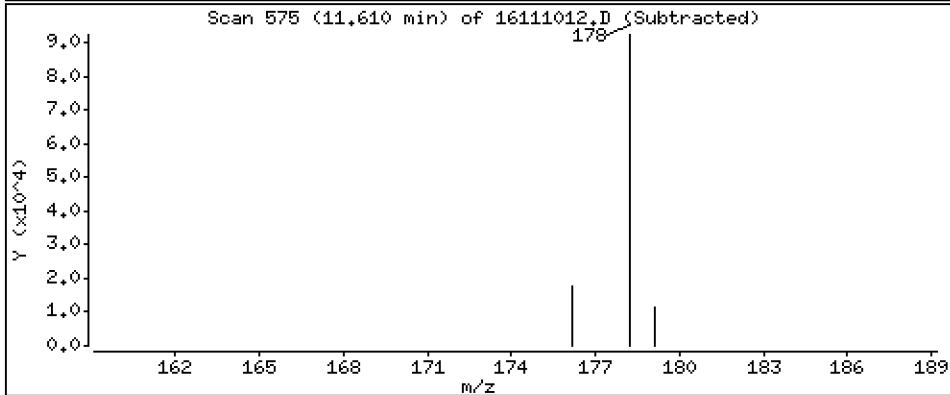
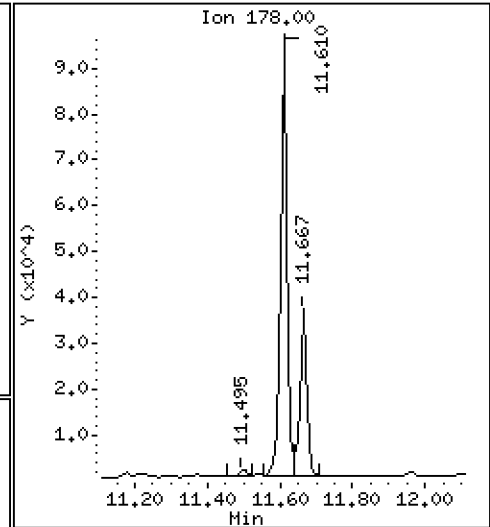
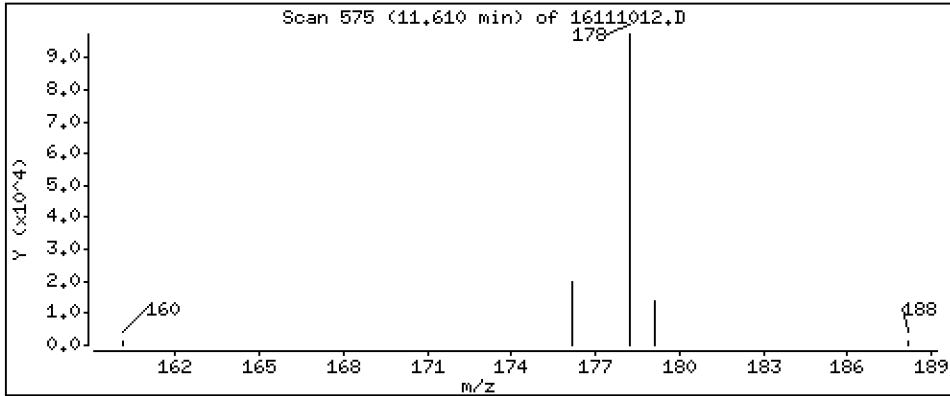
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 Phenanthrene

Concentration: 36.4 ng/mL



Date : 10-NOV-2016 17:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-06

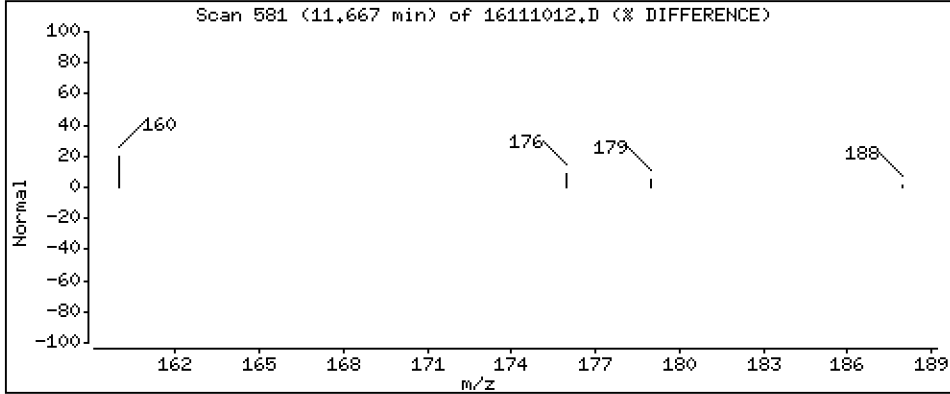
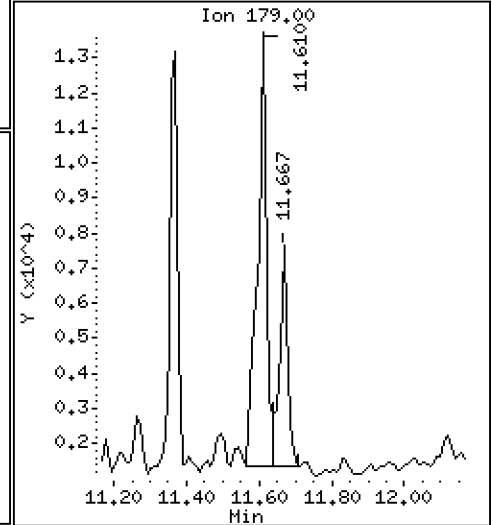
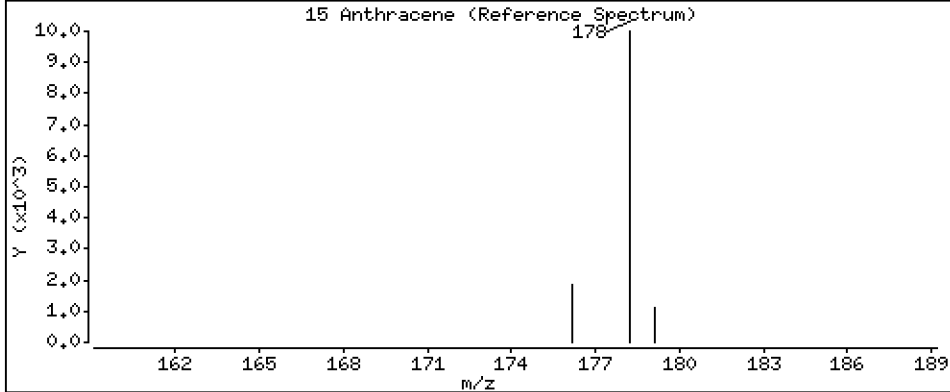
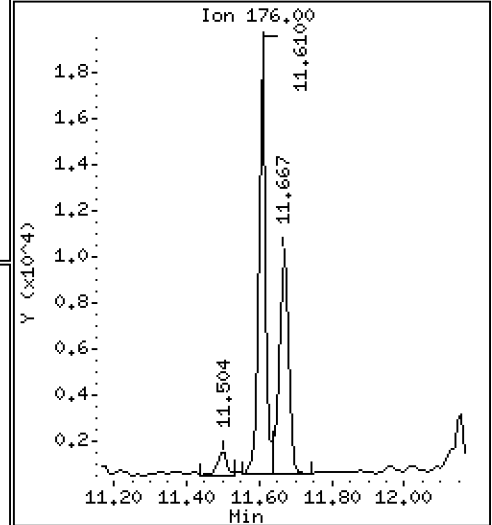
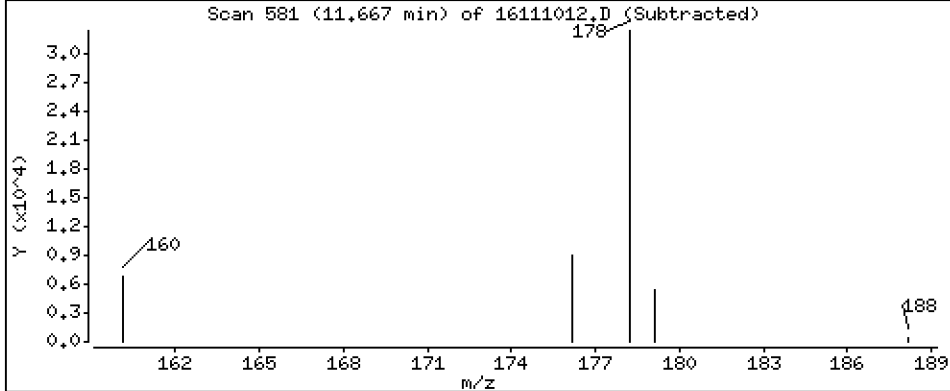
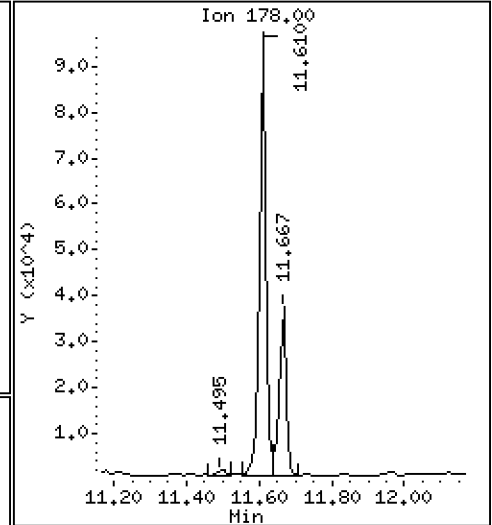
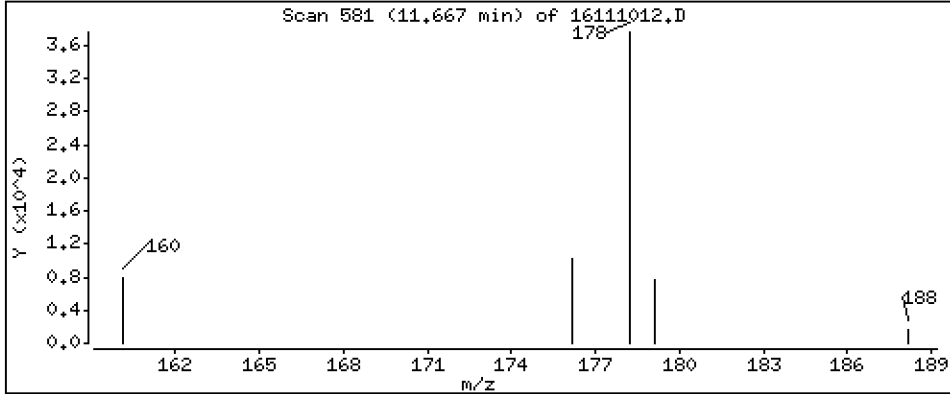
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

15 Anthracene

Concentration: 15,5 ng/mL



Date : 10-NOV-2016 17:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-06

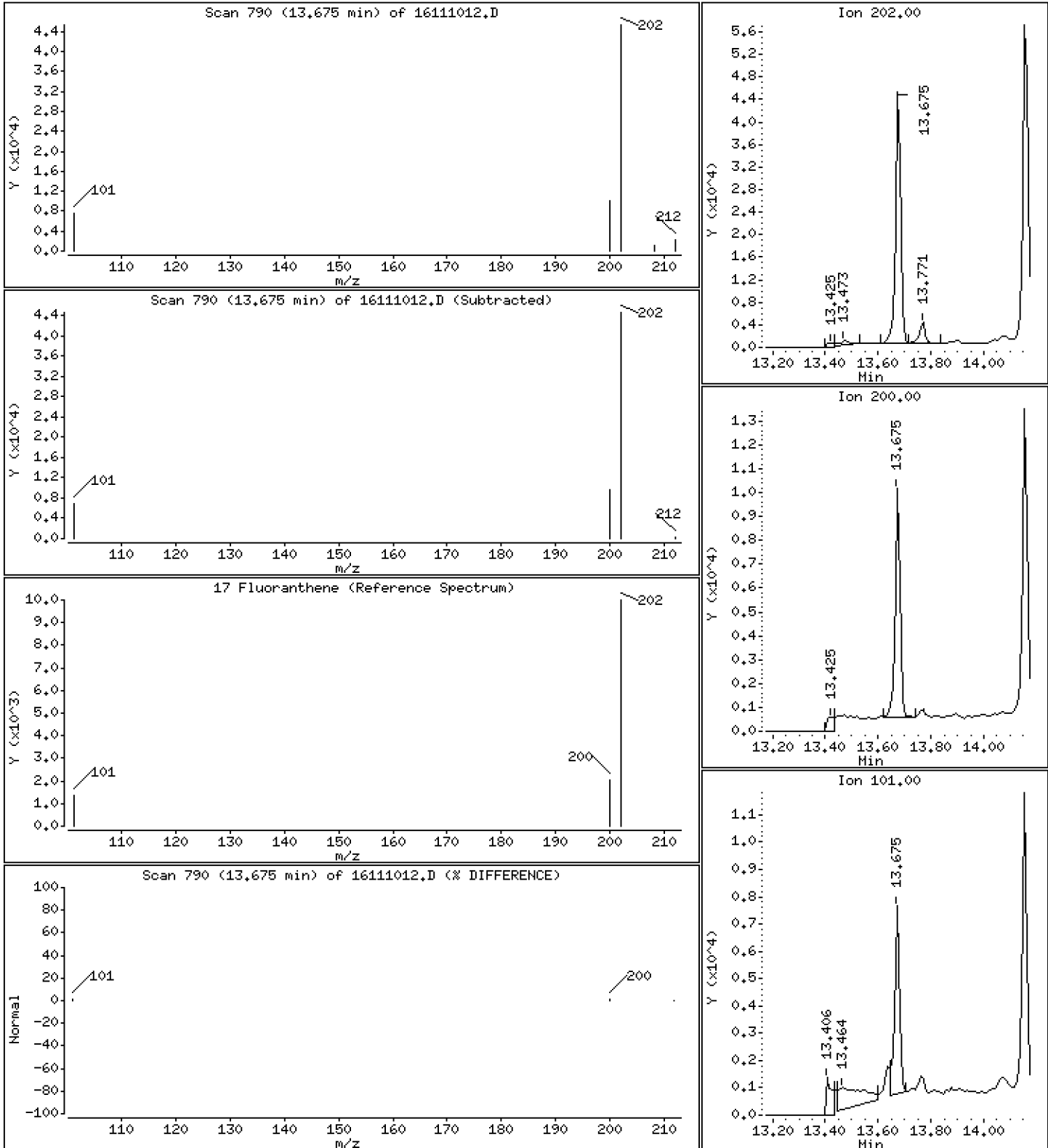
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Fluoranthene

Concentration: 21,5 ng/mL



Date : 10-NOV-2016 17:10

Client ID:

Instrument: nt11.i

Sample Info: 16J0187-06

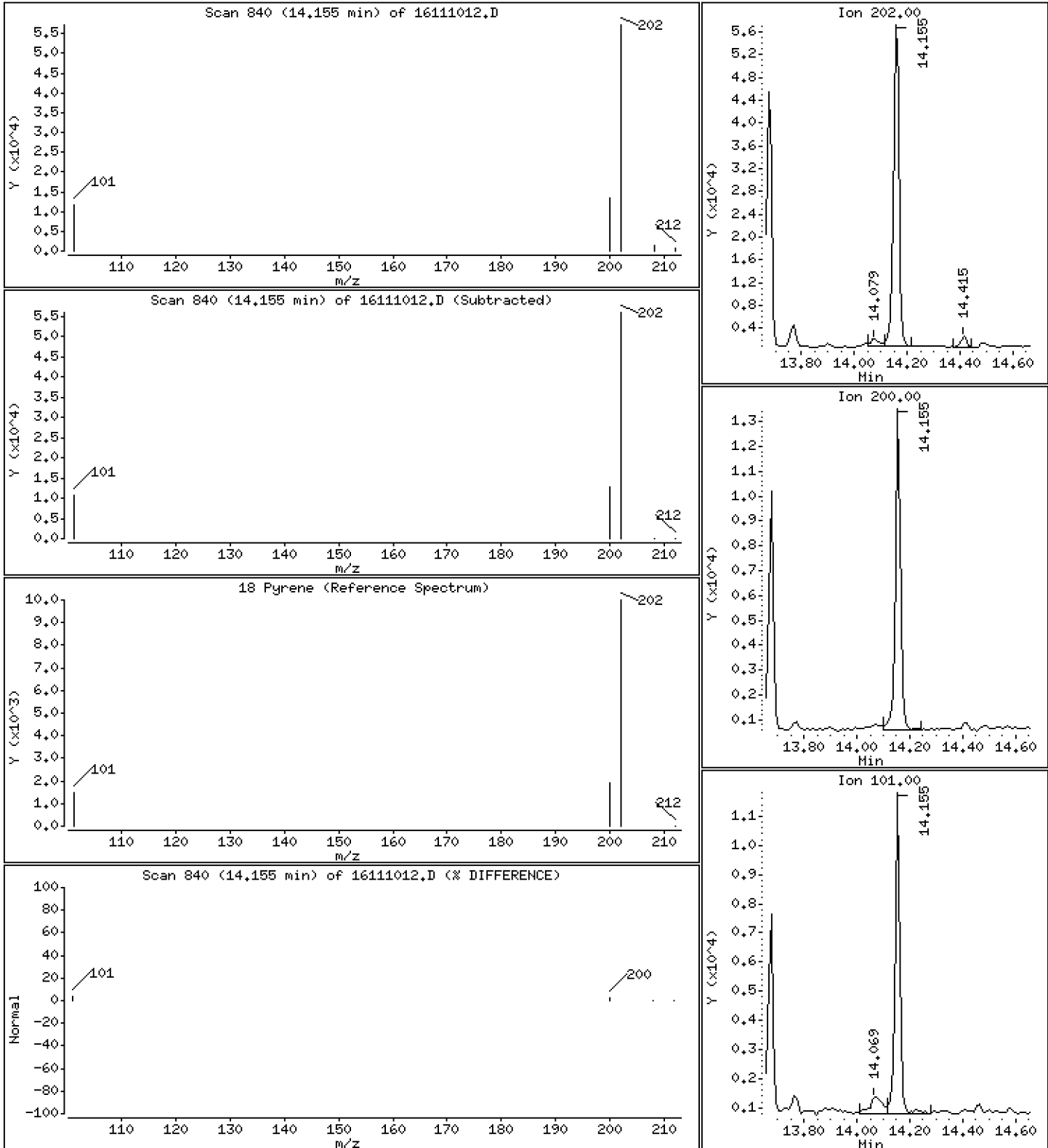
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

18 Pyrene

Concentration: 31.7 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161110.b\16111012.D

Lab Smp Id: 16J0187-06

Inj Date : 10-NOV-2016 17:10

MS Autotune Date: 15-JAN-2015 15:59

Operator : JW

Inst ID: nt11.i

Smp Info : 16J0187-06

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20161110.b\lowsim.m

Meth Date : 10-Nov-2016 13:00 nt11.i

Quant Type: ISTD

Cal Date : 01-NOV-2016 12:34

Cal File: 16110107.D

Als bottle: 15

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PEMD.sub

Target Version: 4.14

Processing Host: AUTOSPECDATA02

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		5.965	5.965	(1.000)	587361	200.000	
2 Naphthalene	128		5.997	6.007	(1.005)	40351	11.7859	11.8
\$ 3 2-Methylnaphthalene-d10	152		6.932	6.942	(1.162)	334776	188.757	189
4 2-Methylnaphthalene	142		Compound Not Detected.					
5 1-Methylnaphthalene	142		Compound Not Detected.					
6 Acenaphthylene	152		Compound Not Detected.					
* 7 Acenaphthene-d10	164		8.928	8.928	(1.000)	299483	200.000	
8 Acenaphthene	153		Compound Not Detected.					
9 Dibenzofuran	168		Compound Not Detected.					
\$ 10 Fluorene-d10	174		Compound Not Detected.					
11 Fluorene	166		Compound Not Detected.					
* 12 Phenanthrene-d10	188		11.571	11.571	(1.000)	512054	200.000	
13 Phenanthrene	178		11.609	11.609	(1.003)	126913	36.4382	36.4
\$ 14 Anthracene-d10	188		Compound Not Detected.					
15 Anthracene	178		11.667	11.667	(1.008)	52330	15.5049	15.5
\$ 16 Fluoranthene-d10	212		13.646	13.646	(1.179)	561996	231.697	232
17 Fluoranthene	202		13.674	13.675	(1.182)	64116	21.5307	21.5
18 Pyrene	202		14.155	14.165	(0.870)	84426	31.6693	31.7
19 Benzo(a)anthracene	228		Compound Not Detected.					
* 20 Chrysene-d12	240		16.264	16.264	(1.000)	339465	200.000	
21 Chrysene	228		Compound Not Detected.					
22 Benzo(b)fluoranthene	252		Compound Not Detected.					
23 Benzo(k)fluoranthene	252		Compound Not Detected.					
24 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 25 Benzo(e)pyrene-d12	264		Compound Not Detected.					
26 Benzo(e)pyrene	252		Compound Not Detected.					
27 Benzo(a)pyrene	252		Compound Not Detected.					
* 28 Perylene-d12	264		18.787	18.788	(1.000)	449995	200.000	
29 Perylene	252		Compound Not Detected.					
\$ 30 Dibenzo(a,h)anthracene-d14	292		20.728	20.739	(1.103)	368723	264.550	265
31 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
32 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.					
33 Benzo(g,h,i)perylene	276		Compound Not Detected.					

Compounds =====	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
	MASS					ON-COLUMN	FINAL
	=====	=====	=====	=====	(ng/mL)	(ng/mL)	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16111012.D
 Lab Smp Id: 16J0187-06
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161110.b\lowsim.m
 Misc Info:

Calibration Date: 10-NOV-2016
 Calibration Time: 11:38
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	587361	-3.64
7 Acenaphthene-d10	316851	158426	633702	299483	-5.48
12 Phenanthrene-d10	546133	273067	1092266	512054	-6.24
20 Chrysene-d12	417210	208605	834420	339465	-18.63
28 Perylene-d12	524443	262222	1048886	449995	-14.20

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	5.97	5.47	6.47	5.97	-0.00
7 Acenaphthene-d10	8.93	8.43	9.43	8.93	-0.00
12 Phenanthrene-d10	11.57	11.07	12.07	11.57	-0.00
20 Chrysene-d12	16.26	15.76	16.76	16.26	-0.00
28 Perylene-d12	18.79	18.29	19.29	18.79	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16111012.D

Lab ID: 16J0187-06

nt11.i, 20161110.b\lowsim.m, 10-NOV-2016 17:10

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161110.b\lowsim.m, PEMD.sub = 0.0000

Form I
METHOD BLANK DATA SHEET
EPA 8270D-SIM

Blank

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>16J0187</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Matrix:	<u>Tissue</u>	Laboratory ID:	<u>BEJ0794-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>10/26/16 13:35</u>
Solids:		Analized:	<u>11/10/16 12:40</u>
Batch:	<u>BEJ0794</u>	Preparation:	<u>EPA 3550C-Mod (Ultrasonic)</u>
Instrument:	<u>NT11</u>	Initial/Final:	<u>10 g / 0.5 mL</u>
		Sequence:	<u>SEK0151</u>
		Calibration:	<u>ZK00002</u>
		Column:	<u>RXi-17Sil-MS</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.60	U	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	0.50	U	0.50	0.50
120-12-7	Anthracene	1	0.50	U	0.50	0.50
206-44-0	Fluoranthene	1	0.50	U	0.50	0.50
129-00-0	Pyrene	1	0.50	U	0.50	0.50
56-55-3	Benzo(a)anthracene	1	0.50	U	0.50	0.50
218-01-9	Chrysene	1	0.50	U	0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	0.50	U	0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.50	U	0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
1985-5-0	Perylene	1	0.50	U	0.50	0.50
197-97-2	Benzo(e)pyrene	1	0.50	U	0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	15.000	7.71	51.4	30 - 160	
Dibenzo[a,h]anthracene-d14	15.000	12.2	81.4	30 - 160	
Fluoranthene-d10	15.000	11.2	74.8	30 - 160	

Data File: \\target\share\chem3\nt11.1\20161110.16\16111003.D

Date: 10-NOV-2016 12:40

Client ID:

Sample Info: BEJ0794-BLK1

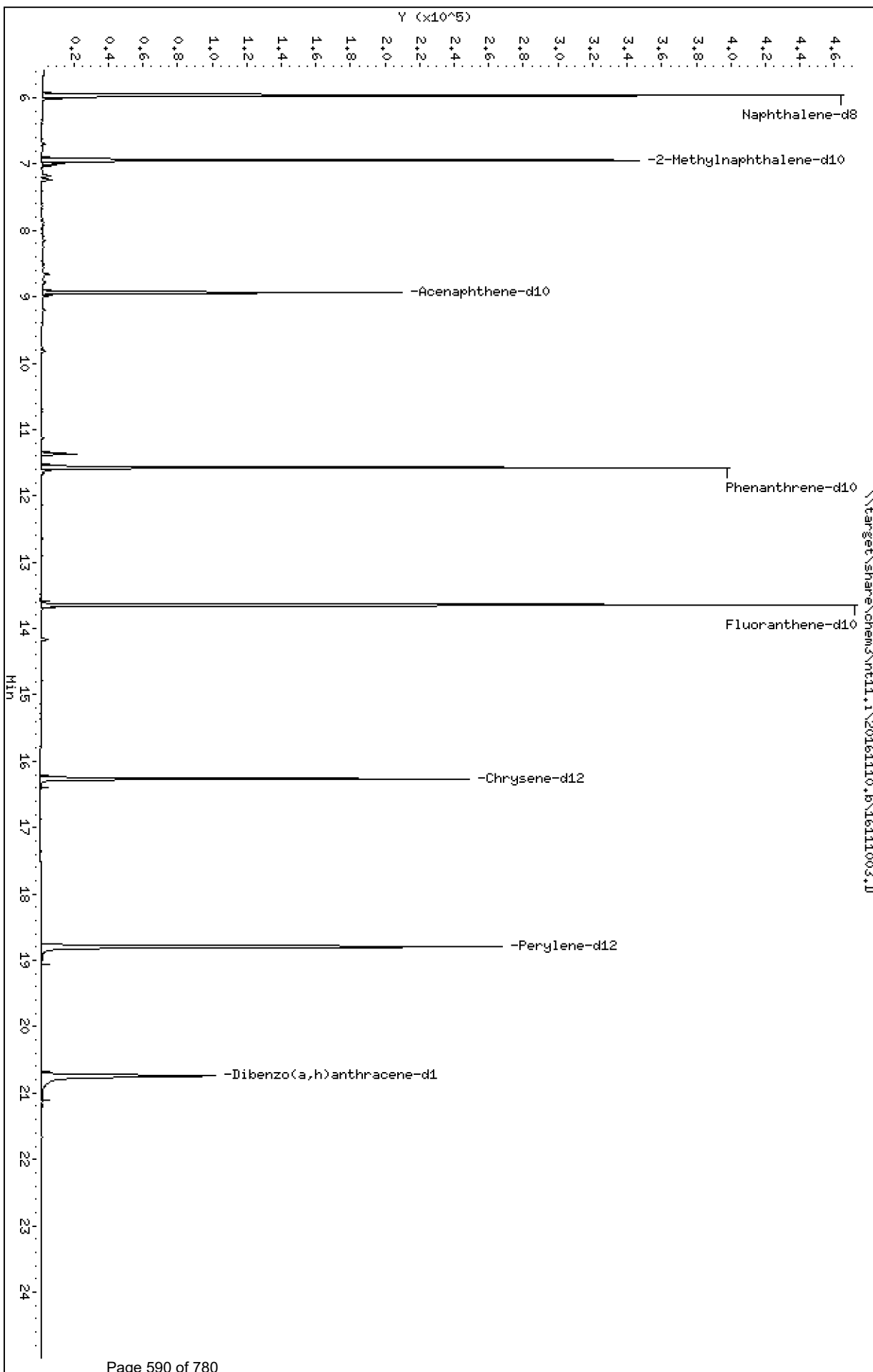
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25

Page 1



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161110.b\16111003.D
Lab Smp Id: BEJ0794-BLK1
Inj Date : 10-NOV-2016 12:40 MS Autotune Date: 15-JAN-2015 15:59
Operator : JW Inst ID: nt11.i
Smp Info : BEJ0794-BLK1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20161110.b\lowsim.m
Meth Date : 10-Nov-2016 13:00 nt11.i Quant Type: ISTD
Cal Date : 01-NOV-2016 12:34 Cal File: 16110107.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PEMD.sub
Target Version: 4.14
Processing Host: AUTOSPECDATA02

Compounds	QUANT	SIG	CONCENTRATIONS					
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)
* 1 Naphthalene-d8	136		5.965	5.965	(1.000)	622424	200.000	
2 Naphthalene	128		Compound Not Detected.					
\$ 3 2-Methylnaphthalene-d10	152		6.942	6.942	(1.164)	289633	154.105	154
4 2-Methylnaphthalene	142		Compound Not Detected.					
5 1-Methylnaphthalene	142		Compound Not Detected.					
6 Acenaphthylene	152		Compound Not Detected.					
* 7 Acenaphthene-d10	164		8.939	8.928	(1.000)	294676	200.000	
8 Acenaphthene	153		Compound Not Detected.					
9 Dibenzofuran	168		Compound Not Detected.					
\$ 10 Fluorene-d10	174		Compound Not Detected.					
11 Fluorene	166		Compound Not Detected.					
* 12 Phenanthrene-d10	188		11.571	11.571	(1.000)	522842	200.000	
13 Phenanthrene	178		Compound Not Detected.					
\$ 14 Anthracene-d10	188		Compound Not Detected.					
15 Anthracene	178		Compound Not Detected.					
\$ 16 Fluoranthene-d10	212		13.646	13.646	(1.179)	555435	224.267	224
17 Fluoranthene	202		Compound Not Detected.					
18 Pyrene	202		Compound Not Detected.					
19 Benzo(a)anthracene	228		Compound Not Detected.					
* 20 Chrysene-d12	240		16.264	16.264	(1.000)	352800	200.000	
21 Chrysene	228		Compound Not Detected.					
22 Benzo(b)fluoranthene	252		Compound Not Detected.					
23 Benzo(k)fluoranthene	252		Compound Not Detected.					
24 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 25 Benzo(e)pyrene-d12	264		Compound Not Detected.					
26 Benzo(e)pyrene	252		Compound Not Detected.					
27 Benzo(a)pyrene	252		Compound Not Detected.					
* 28 Perylene-d12	264		18.797	18.788	(1.000)	416680	200.000	
29 Perylene	252		Compound Not Detected.					
\$ 30 Dibenzo(a,h)anthracene-d14	292		20.739	20.739	(1.103)	315216	244.242	244
31 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
32 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.					
33 Benzo(g,h,i)perylene	276		Compound Not Detected.					

Compounds =====	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
	MASS					ON-COLUMN	FINAL
	=====	=====	=====	=====	=====	=====	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16111003.D
 Lab Smp Id: BEJ0794-BLK1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161110.b\lowsim.m
 Misc Info:

Calibration Date: 10-NOV-2016
 Calibration Time: 11:38
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	622424	2.11
7 Acenaphthene-d10	316851	158426	633702	294676	-7.00
12 Phenanthrene-d10	546133	273067	1092266	522842	-4.26
20 Chrysene-d12	417210	208605	834420	352800	-15.44
28 Perylene-d12	524443	262222	1048886	416680	-20.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	5.97	5.47	6.47	5.97	0.00
7 Acenaphthene-d10	8.93	8.43	9.43	8.94	0.12
12 Phenanthrene-d10	11.57	11.07	12.07	11.57	0.00
20 Chrysene-d12	16.26	15.76	16.76	16.26	0.00
28 Perylene-d12	18.79	18.29	19.29	18.80	0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16111003.D

Lab ID: BEJ0794-BLK1

nt11.i, 20161110.b\lowsim.m, 10-NOV-2016 12:40

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161110.b\lowsim.m, PEMD.sub = 0.0000



LCS / LCS DUPLICATE RECOVERY
EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 16J0187
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Analyzed: 11/10/16 13:09
 Batch: BEJ0794 Laboratory ID: BEJ0794-BS1
 Preparation: EPA 3550C-Mod (Ultrasonic) Sequence Name: LCS
 Initial/Final: 10 g / 0.5 mL

COMPOUND	SPIKE ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS % REC. #	QC LIMITS REC.
Naphthalene	15.0	6.97	46.5	30 - 160
2-Methylnaphthalene	15.0	6.89	45.9	30 - 160
Acenaphthylene	15.0	6.19	41.3	30 - 160
Acenaphthene	15.0	7.64	51.0	30 - 160
Fluorene	15.0	7.78	51.9	30 - 160
Phenanthrene	15.0	9.35	62.3	30 - 160
Anthracene	15.0	7.80	52.0	30 - 160
Fluoranthene	15.0	10.3	68.7	30 - 160
Pyrene	15.0	10.8	72.0	30 - 160
Benzo(a)anthracene	15.0	10.2	68.3	30 - 160
Chrysene	15.0	10.6	70.8	30 - 160
Benzo(b)fluoranthene	15.0	10.1	67.3	30 - 160
Benzo(k)fluoranthene	15.0	11.6	77.4	30 - 160
Benzo(a)pyrene	15.0	8.80	58.7	30 - 160
Indeno(1,2,3-cd)pyrene	15.0	10.5	70.1	30 - 160
Dibenzo(a,h)anthracene	15.0	10.4	69.2	30 - 160
Benzo(g,h,i)perylene	15.0	10.3	68.4	30 - 160
Perylene	15.0	8.97	59.8	30 - 160
Benzo(e)pyrene	15.0	10.4	69.6	30 - 160

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20161110.16\16111004.D

Date : 10-NOV-2016 13:09

Client ID:

Sample Info: BEJ0794-BS1

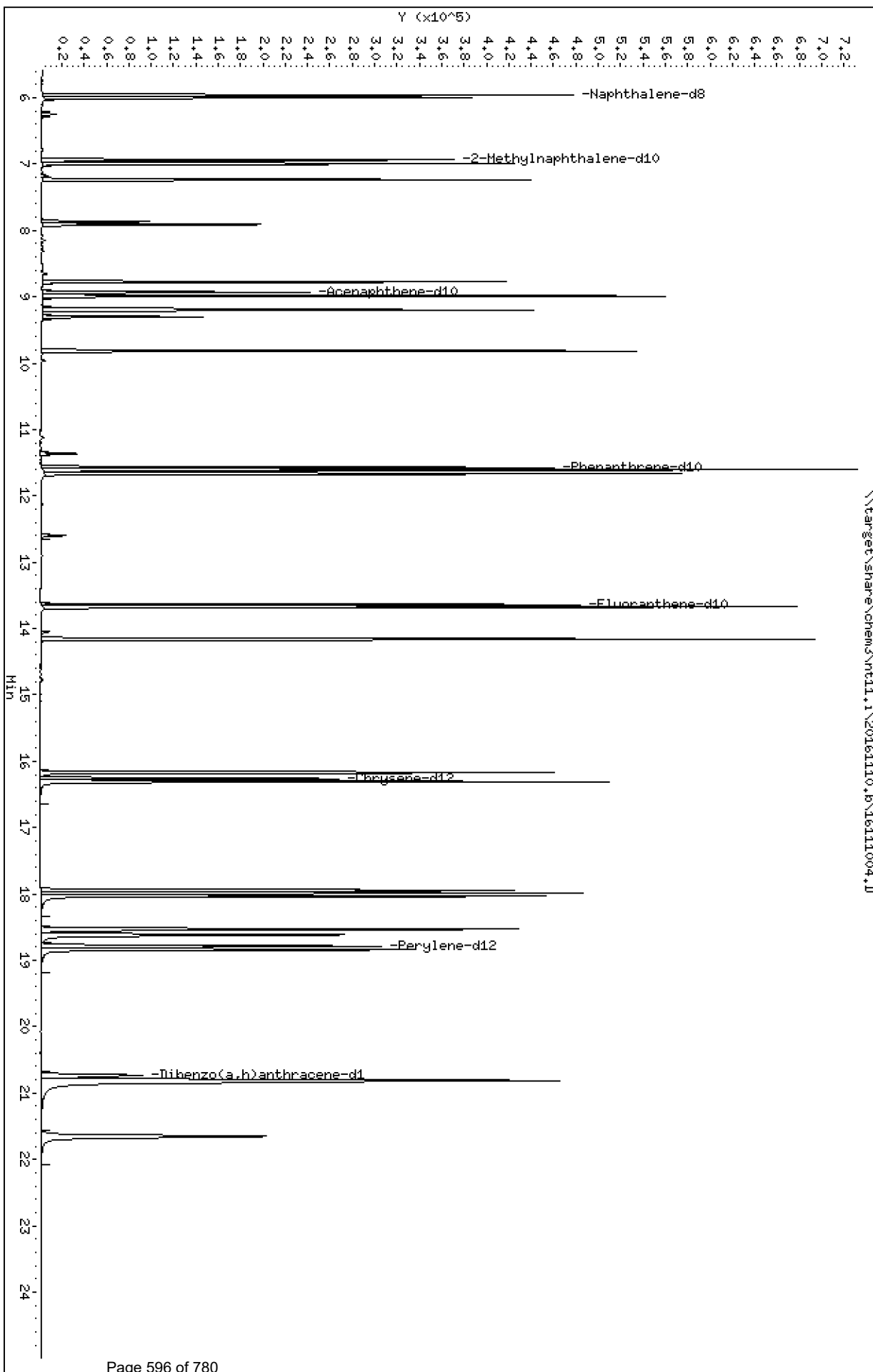
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25

Page 1



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

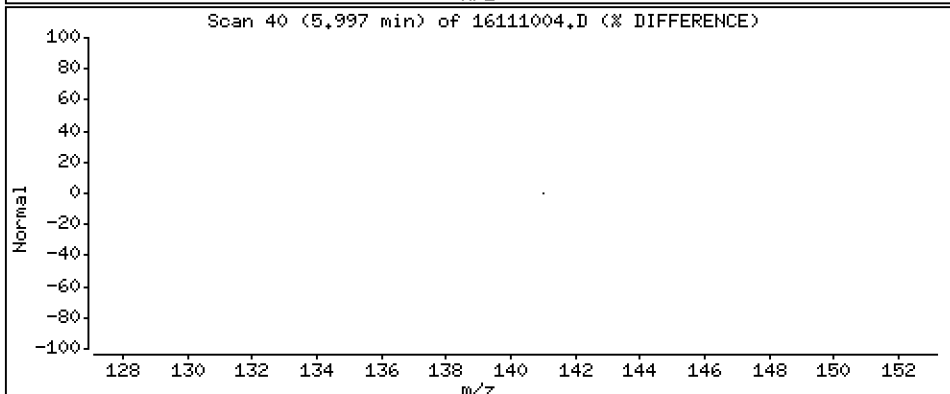
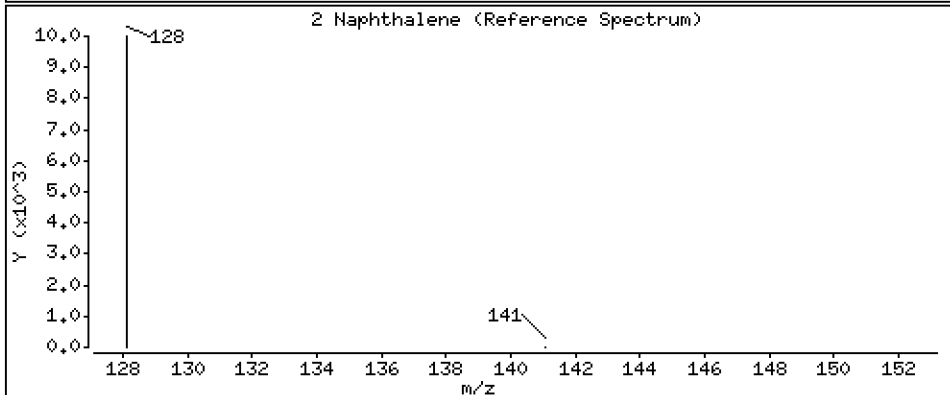
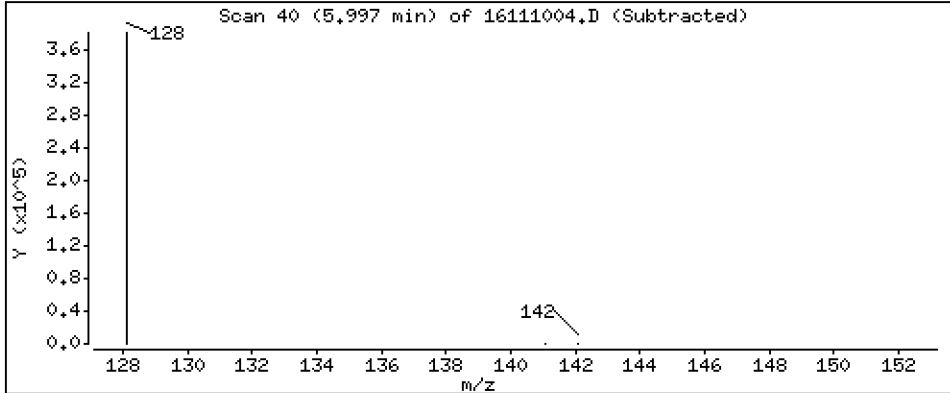
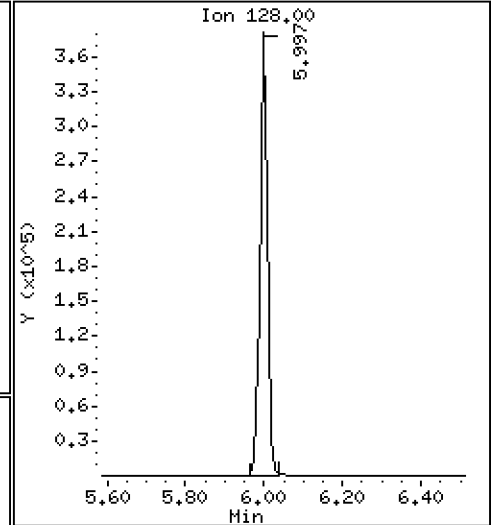
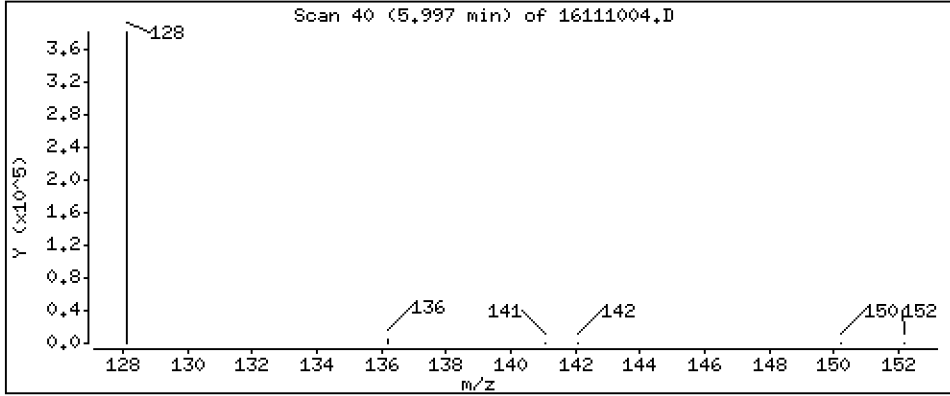
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 139 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

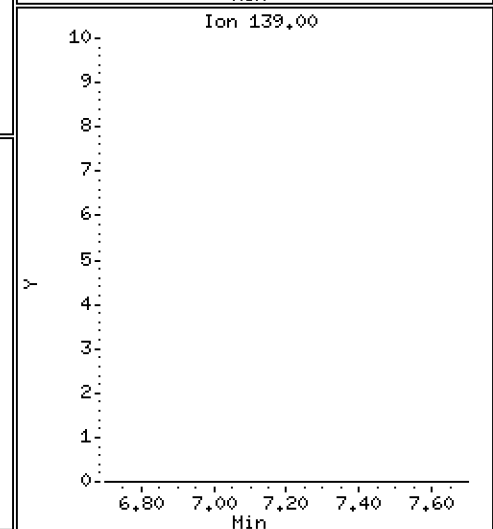
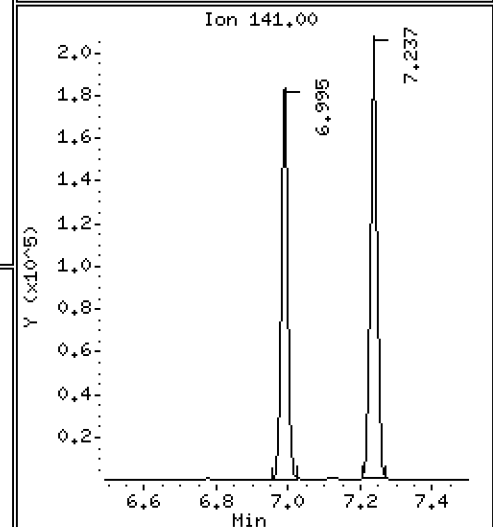
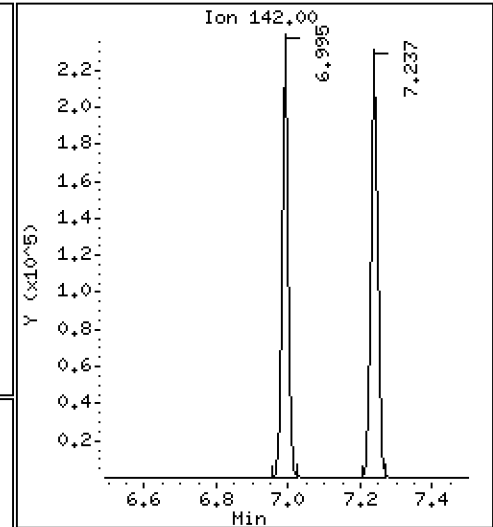
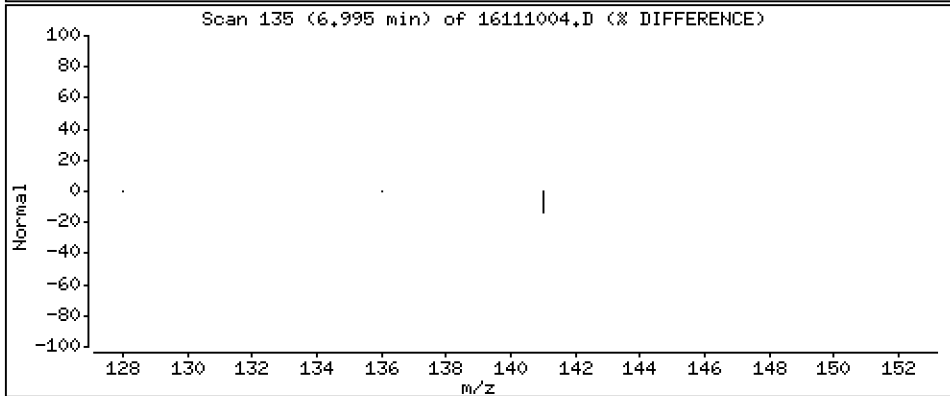
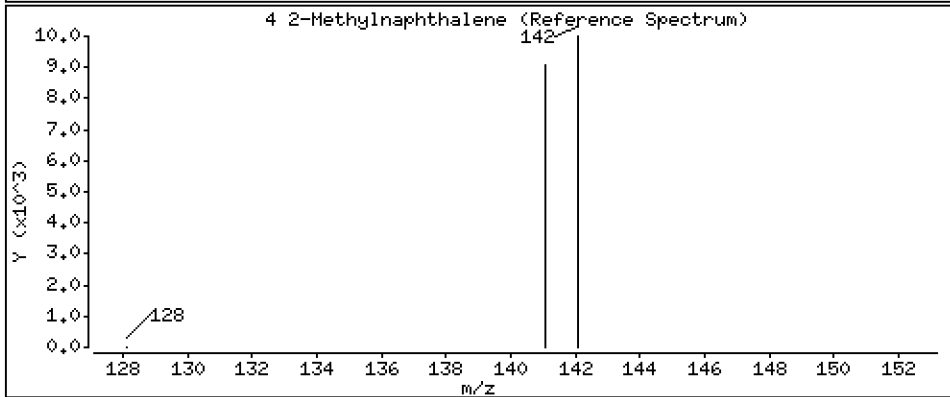
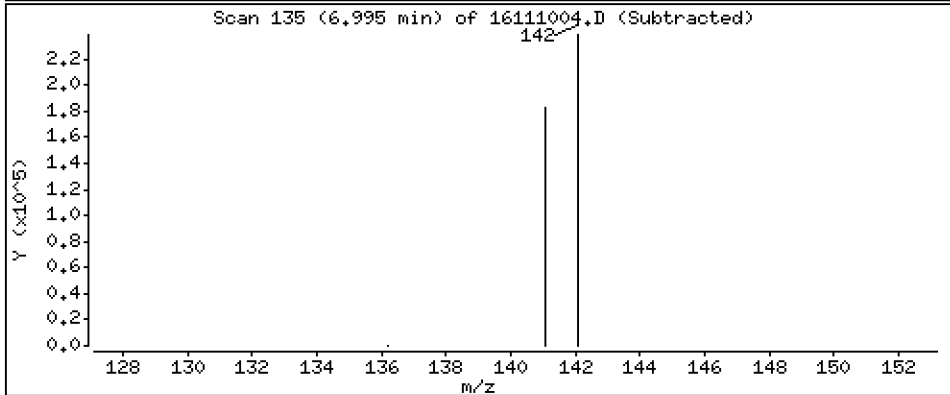
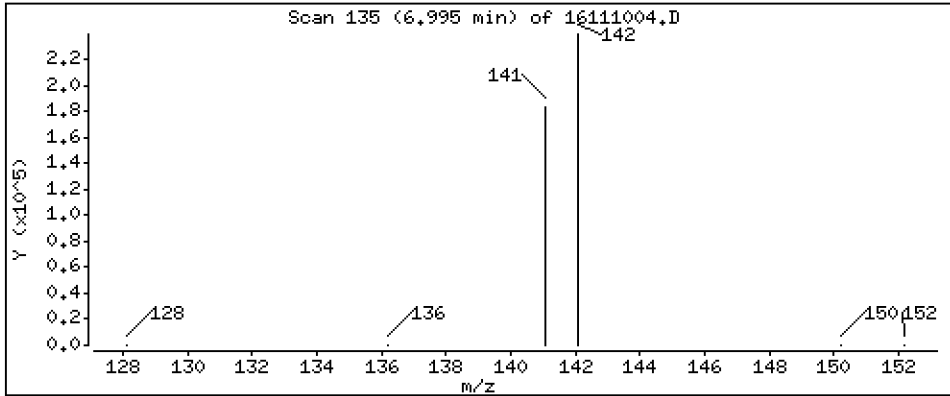
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

4-Methylnaphthalene

Concentration: 138 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

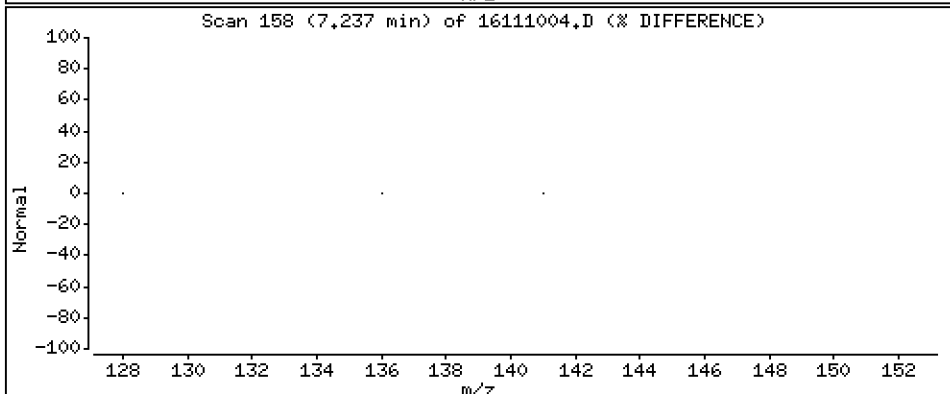
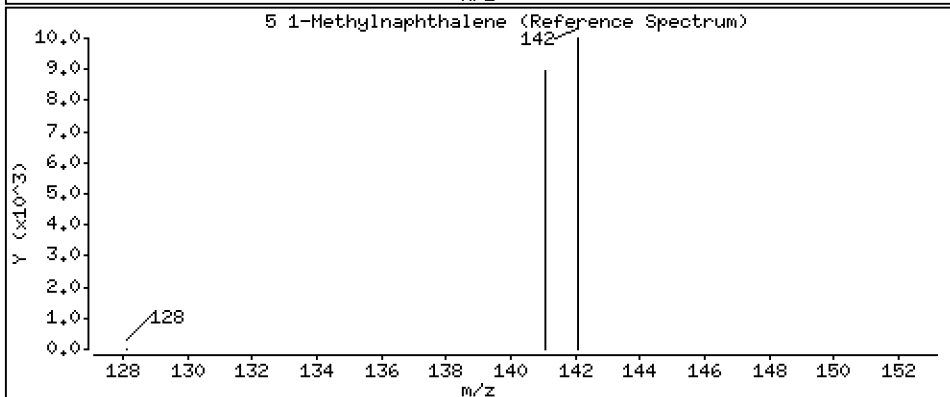
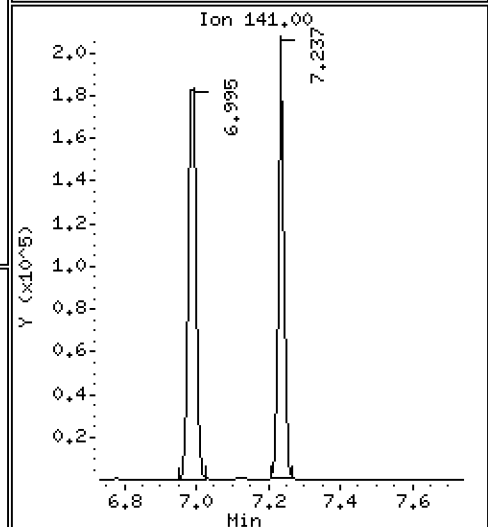
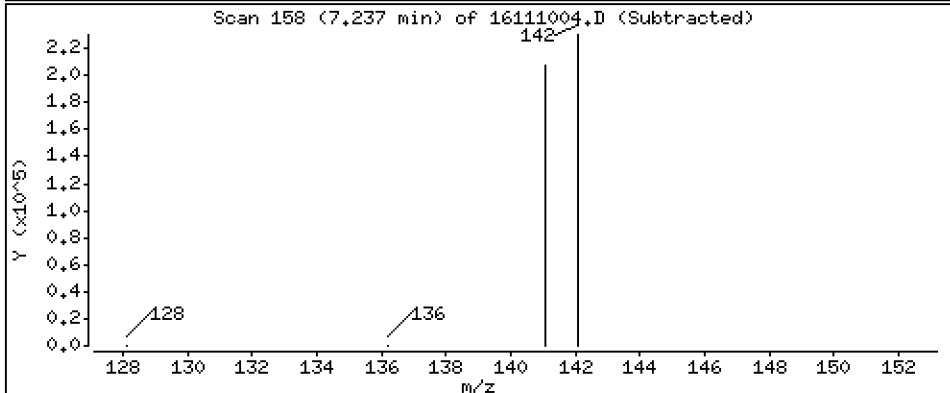
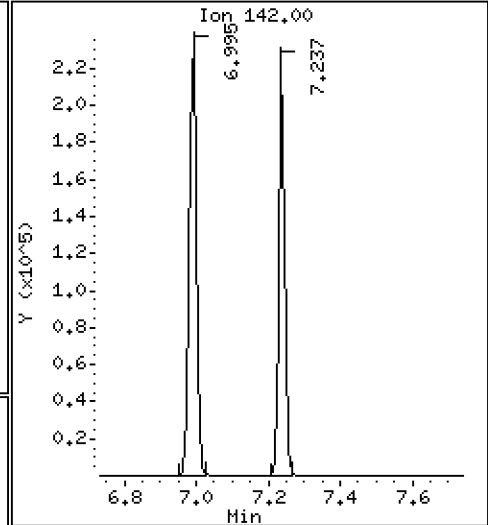
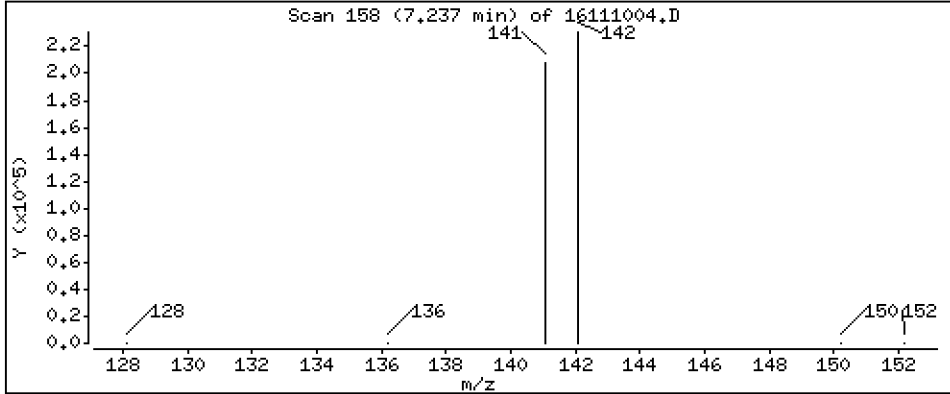
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

5 1-Methylnaphthalene

Concentration: 137 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

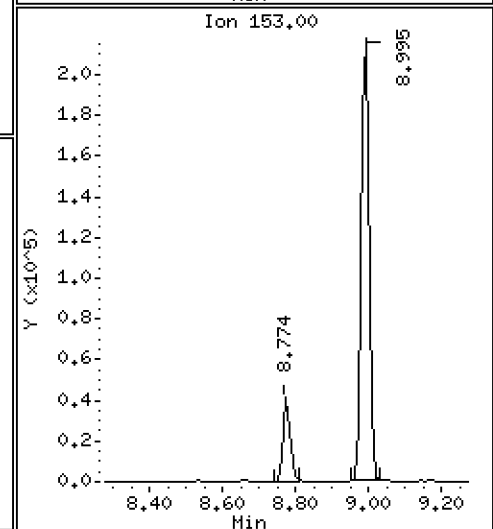
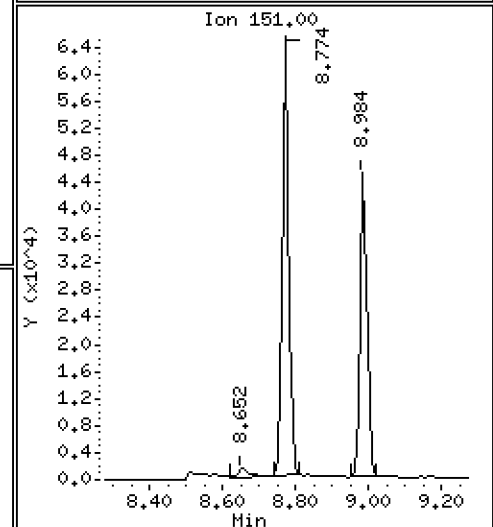
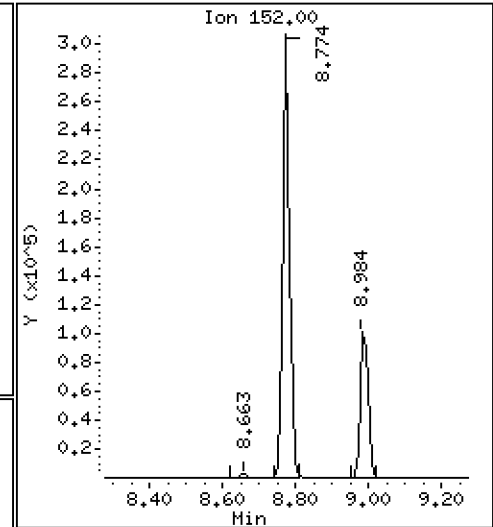
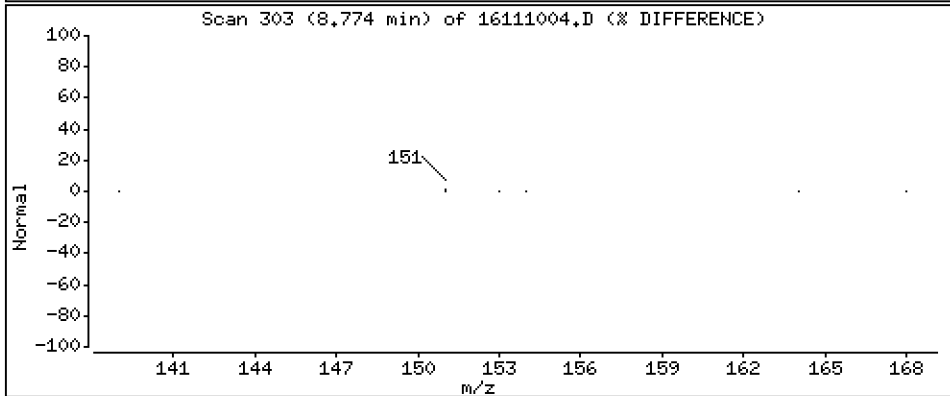
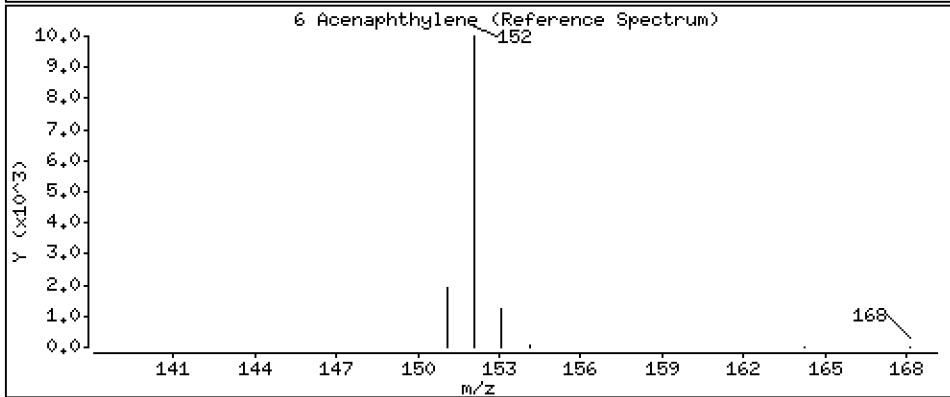
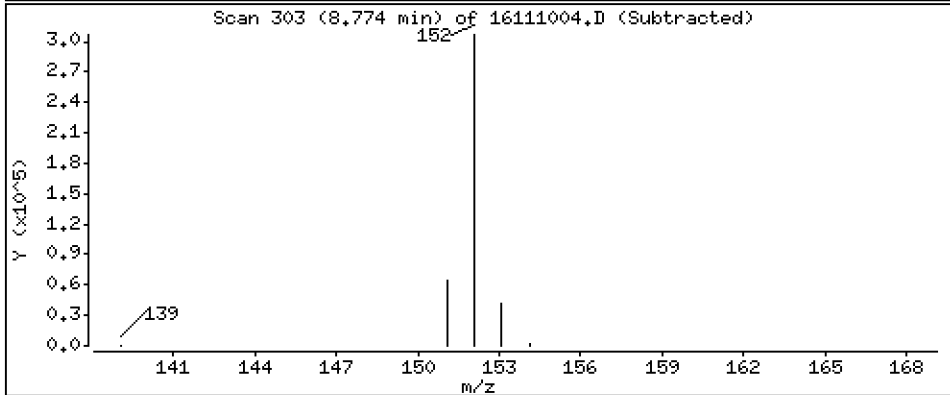
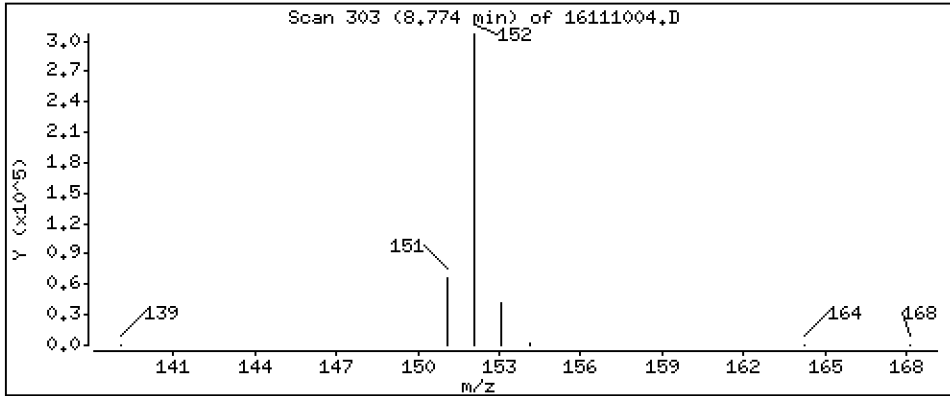
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

6 Acenaphthylene

Concentration: 124 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

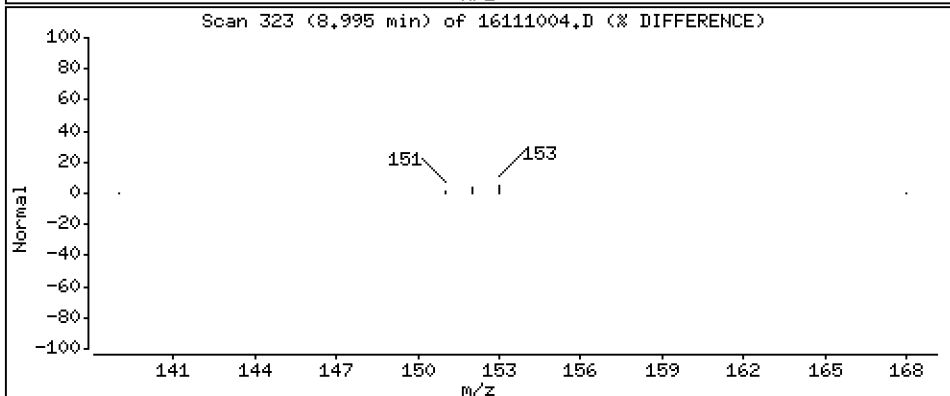
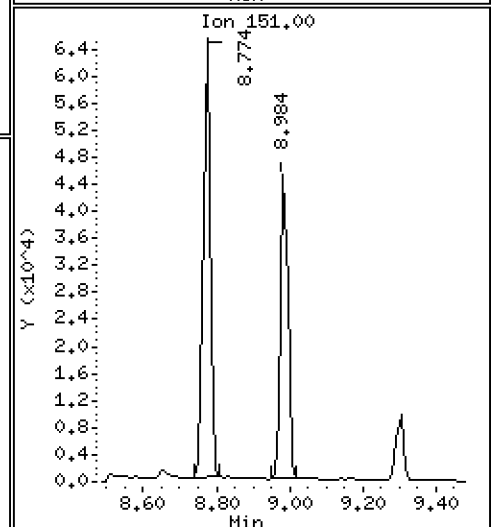
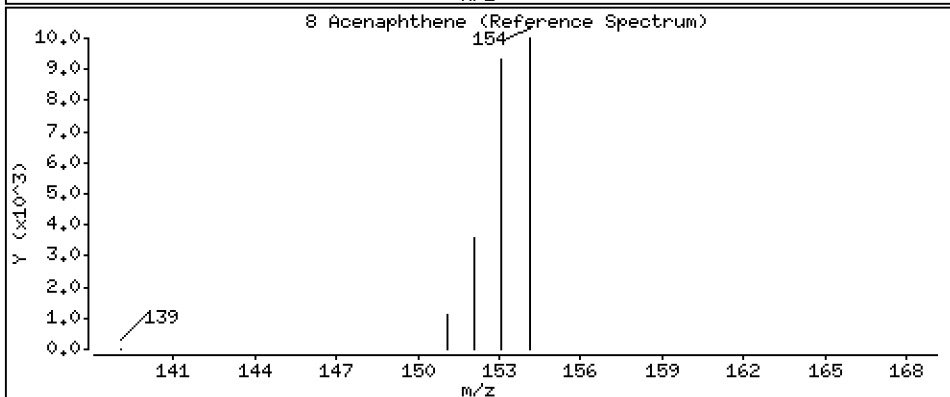
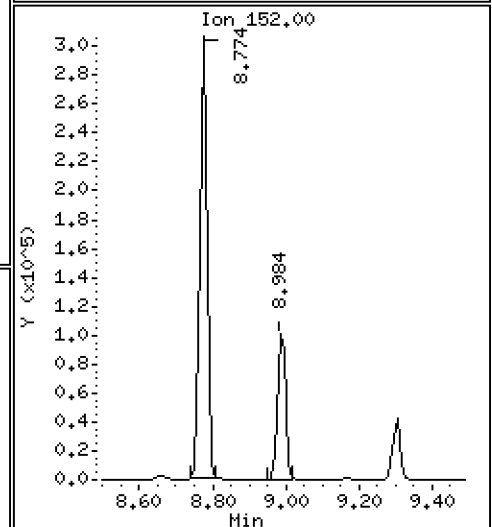
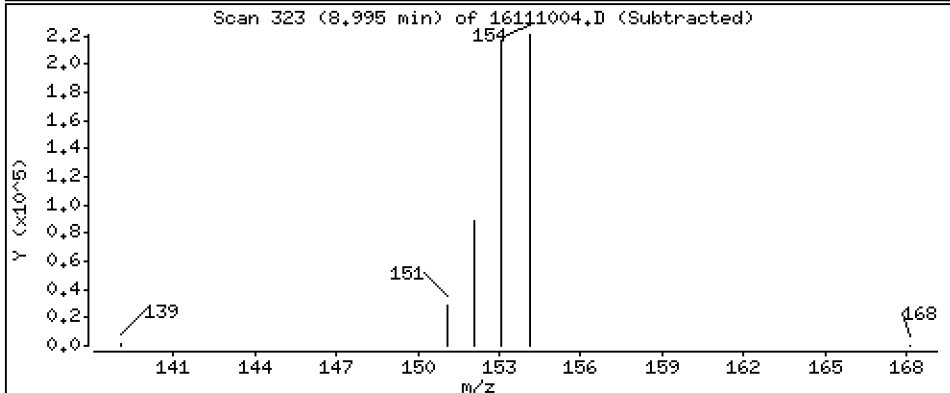
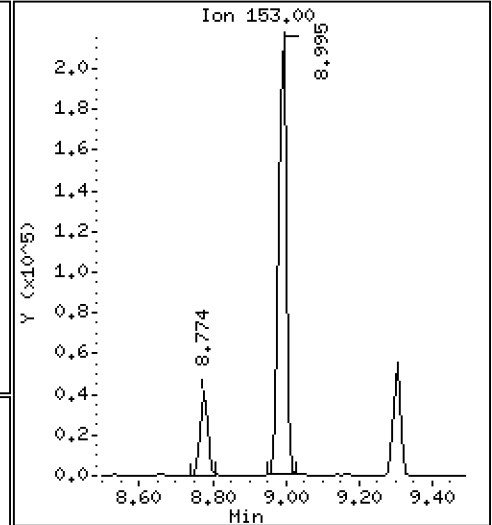
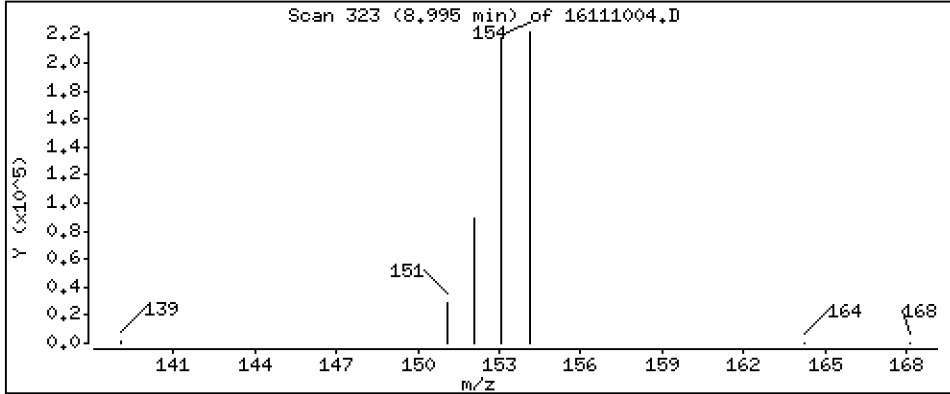
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 Acenaphthene

Concentration: 153 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

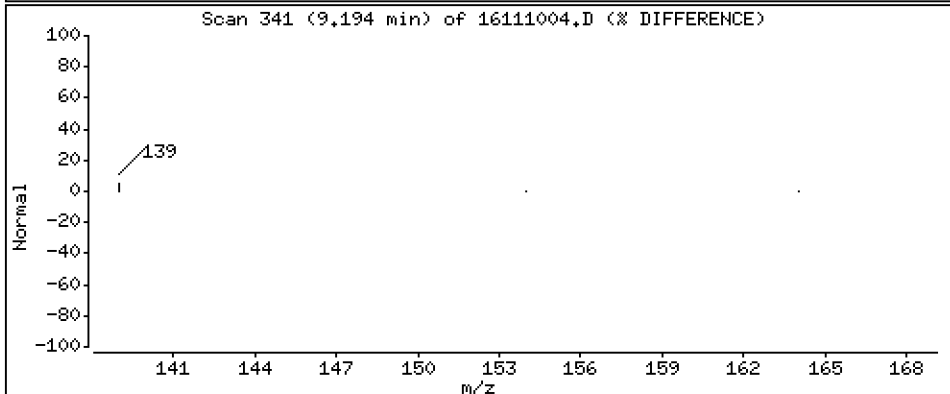
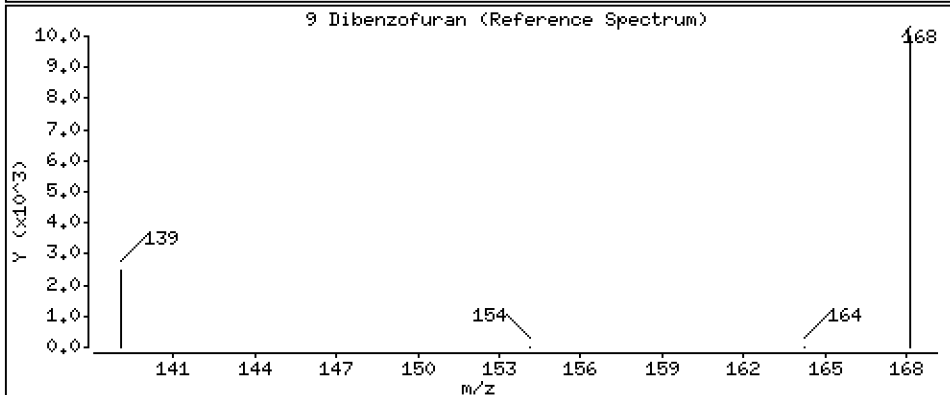
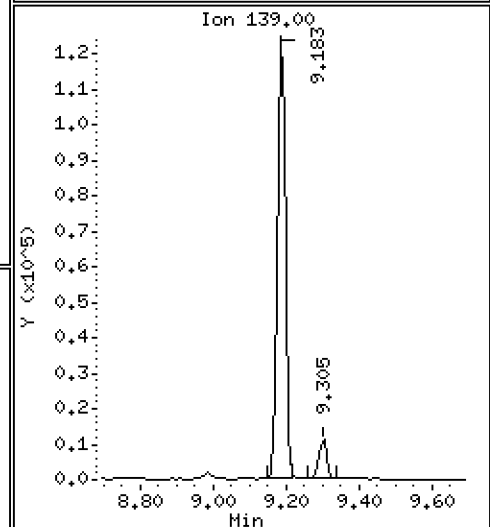
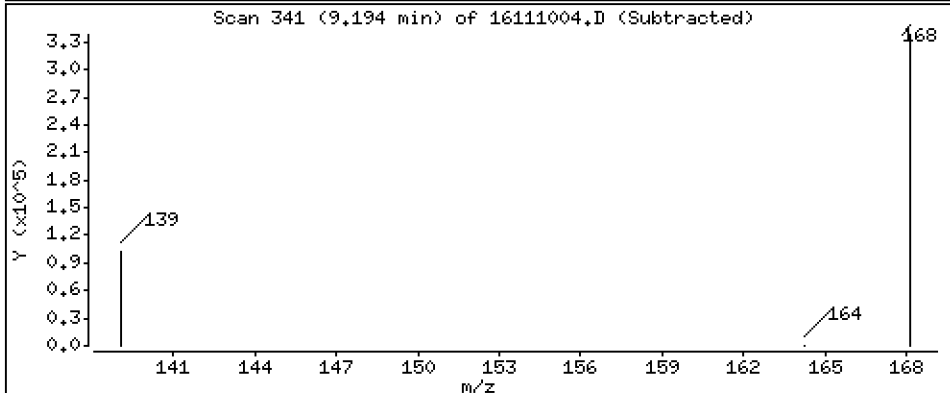
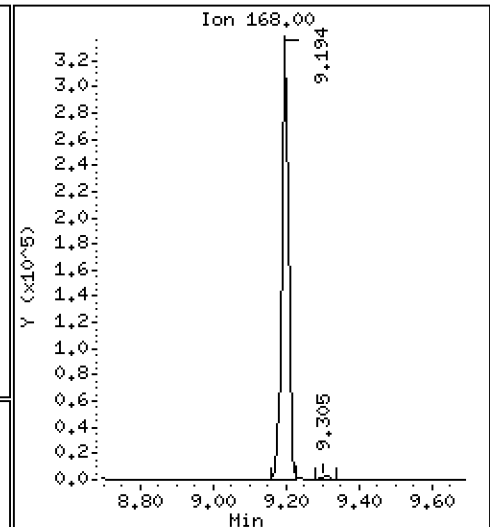
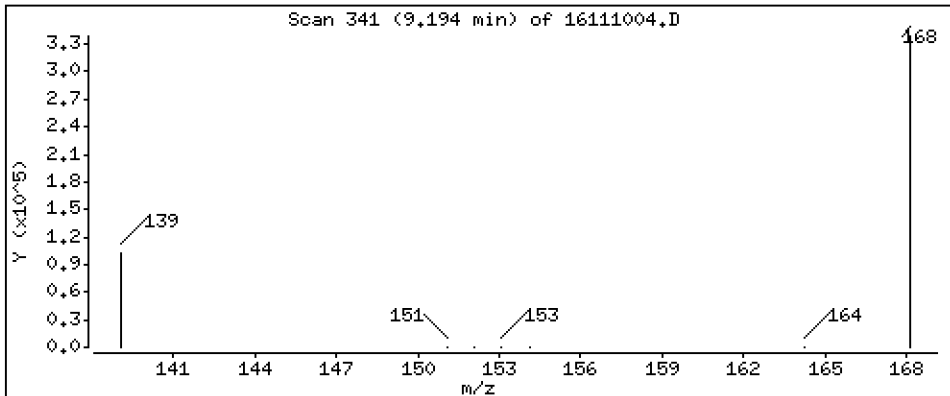
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

9 Dibenzofuran

Concentration: 157 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

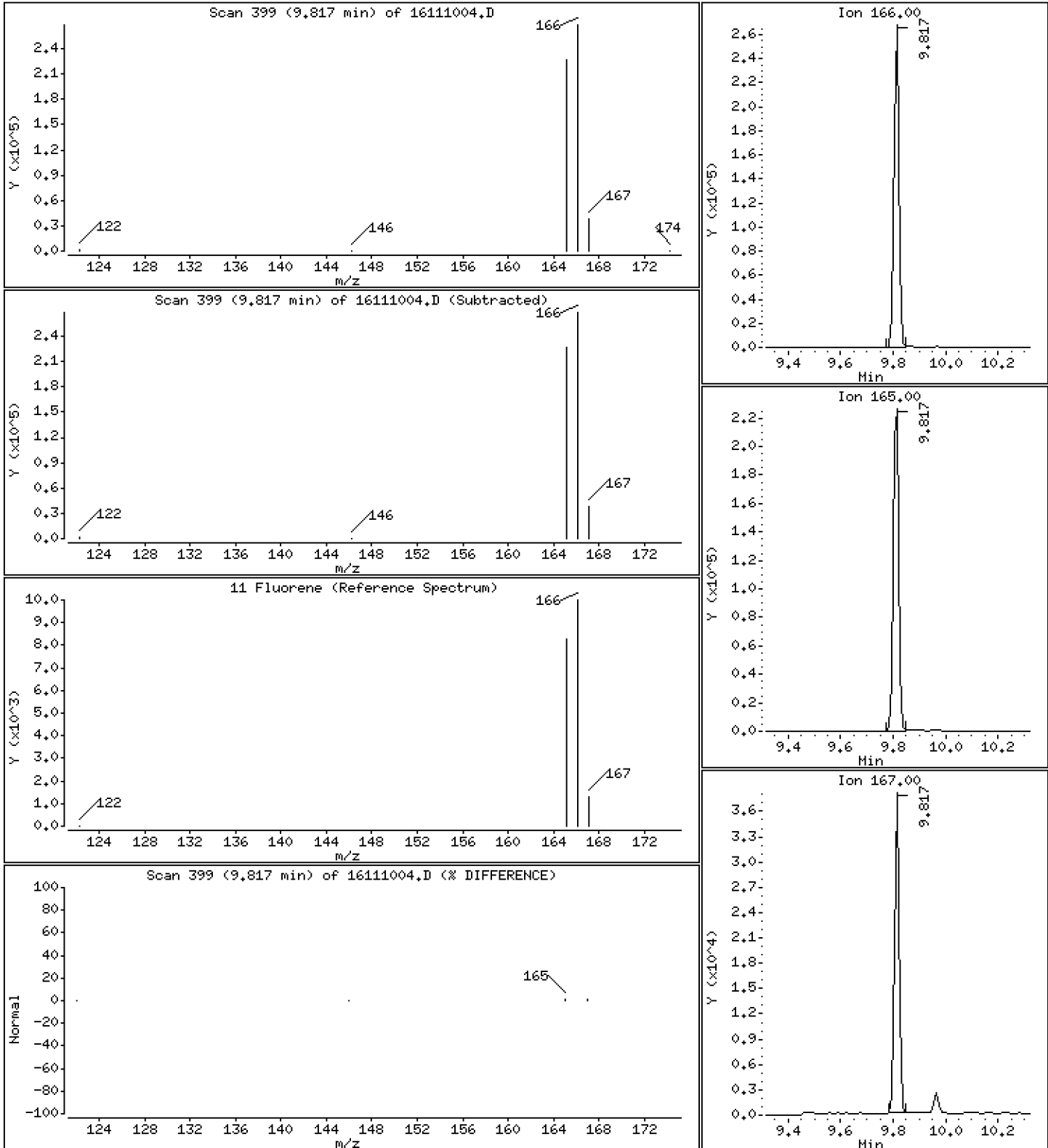
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

11 Fluorene

Concentration: 156 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

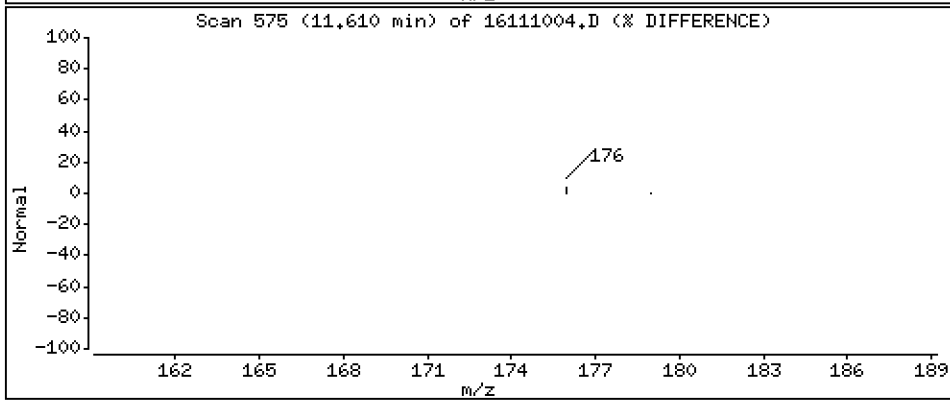
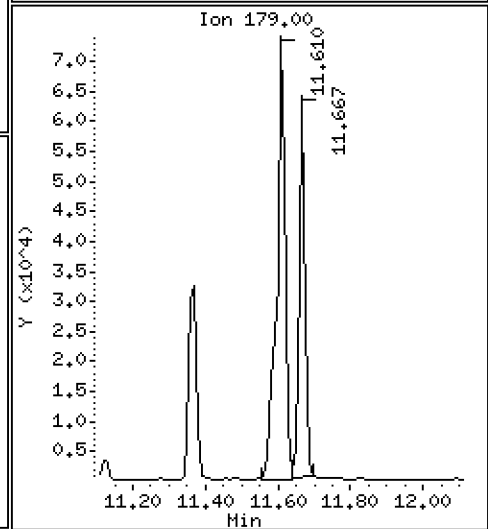
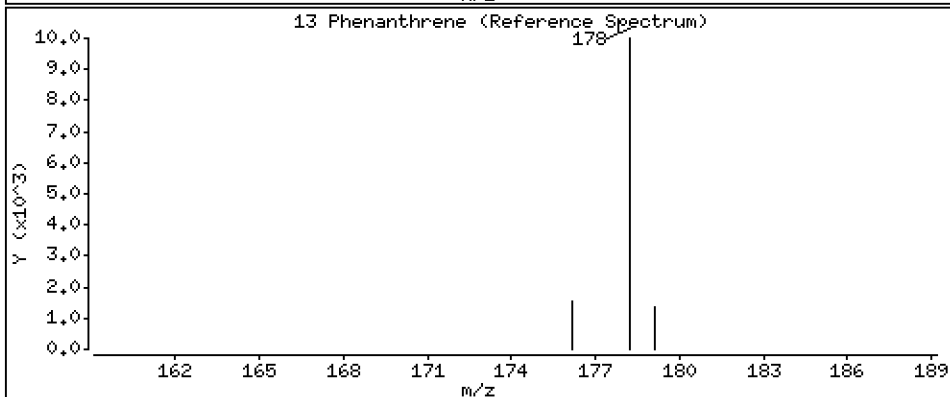
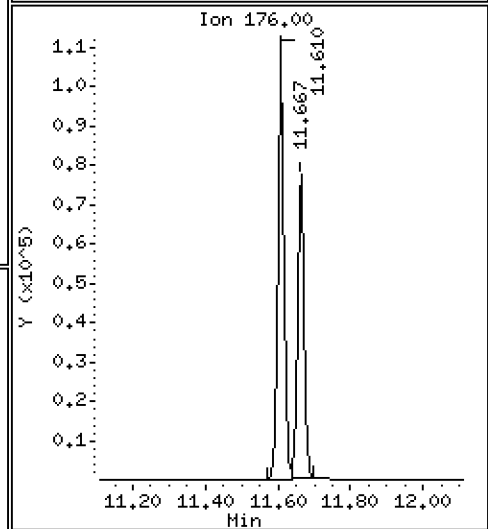
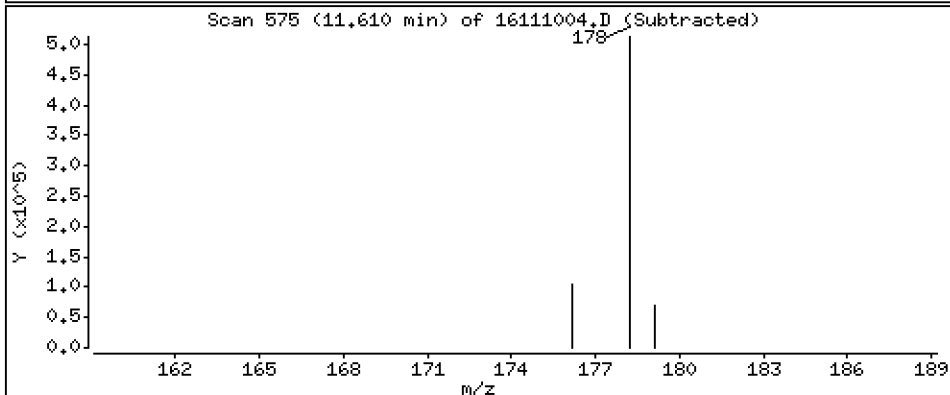
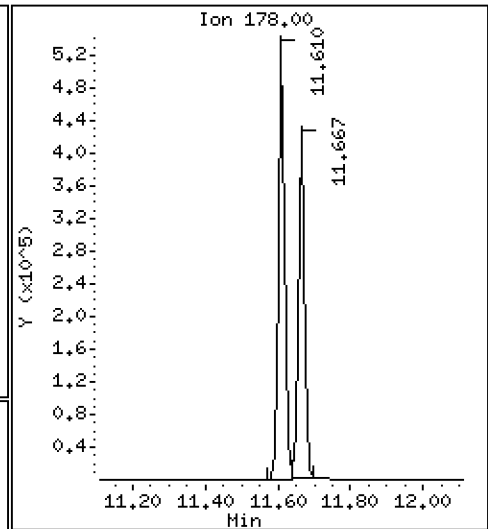
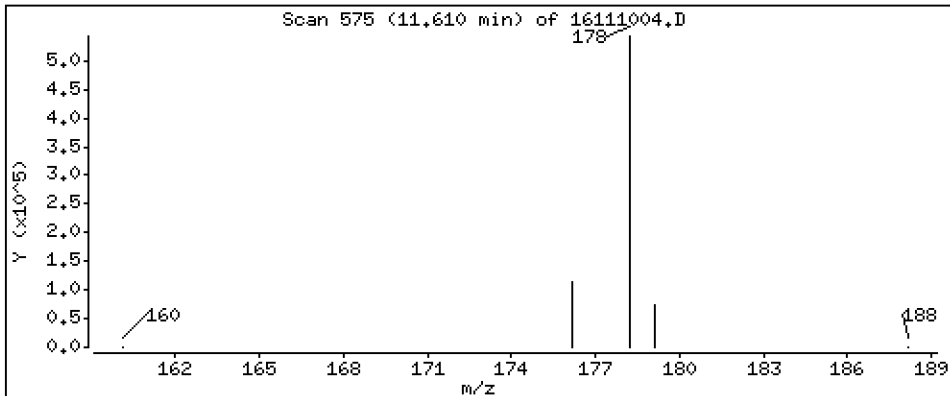
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 Phenanthrene

Concentration: 187 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

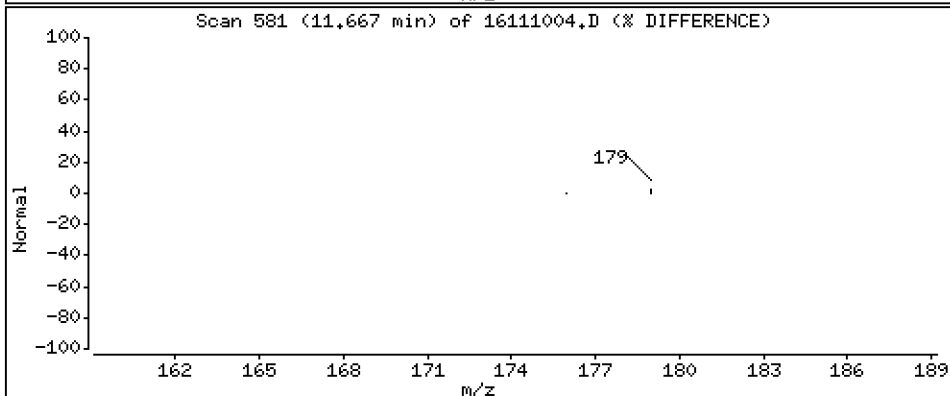
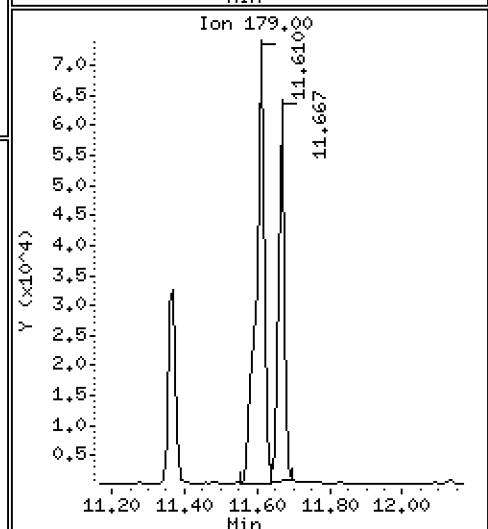
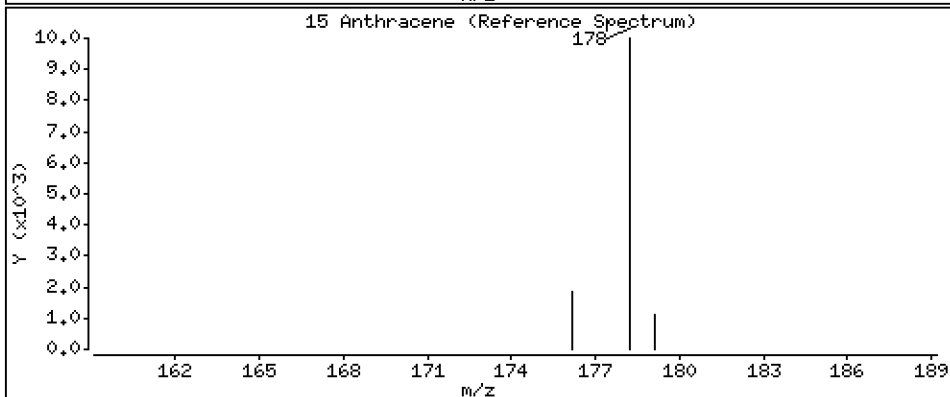
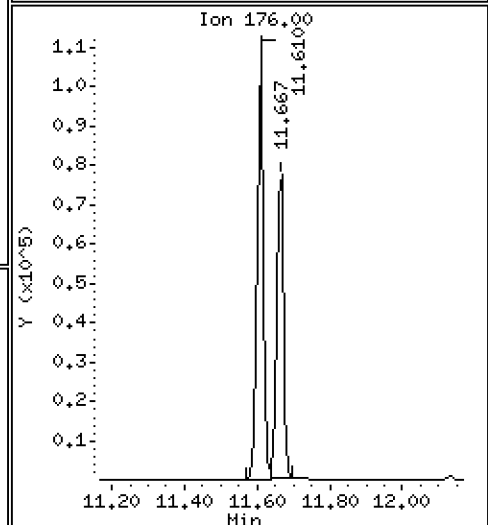
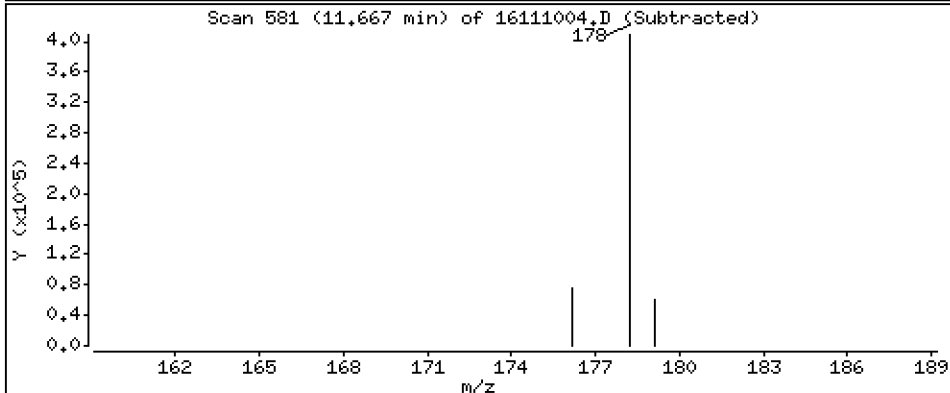
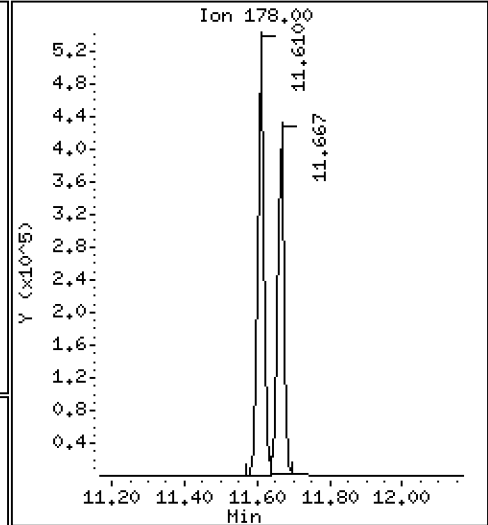
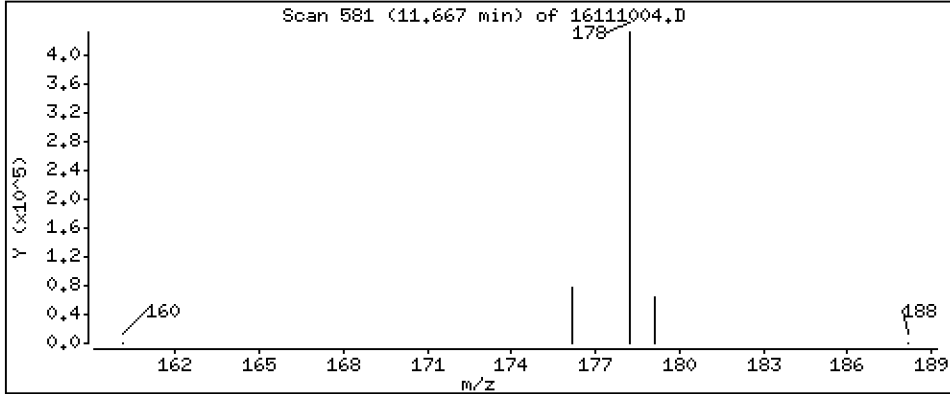
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

15 Anthracene

Concentration: 156 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

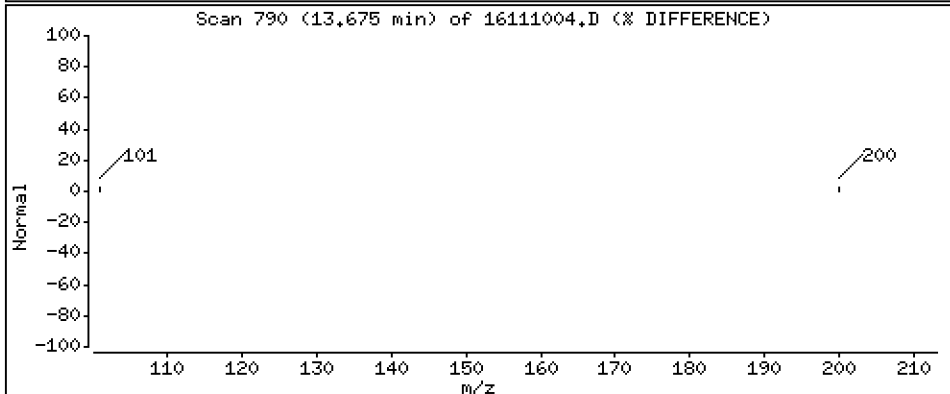
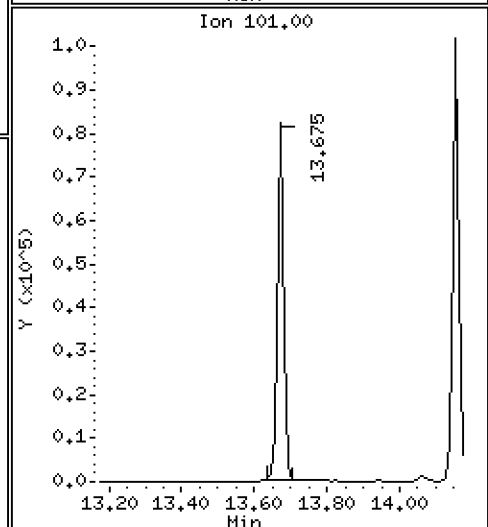
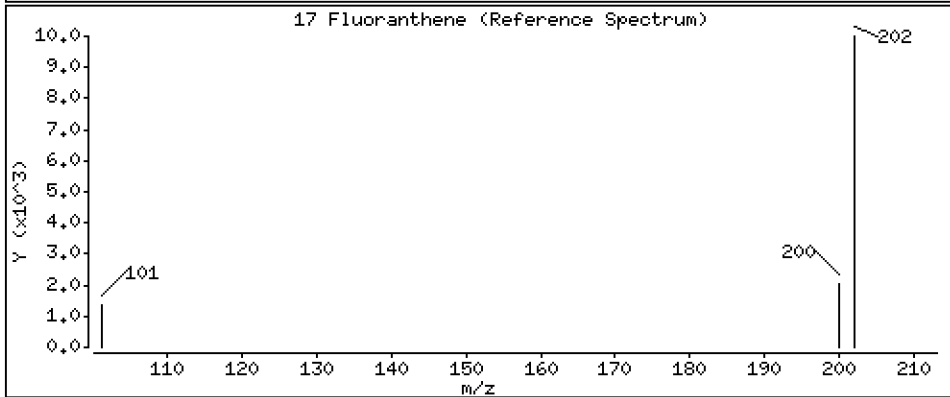
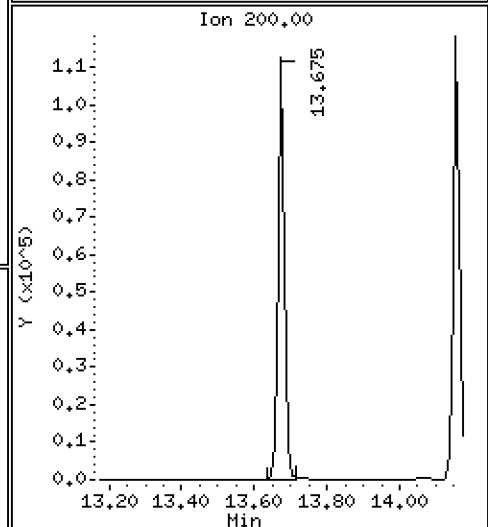
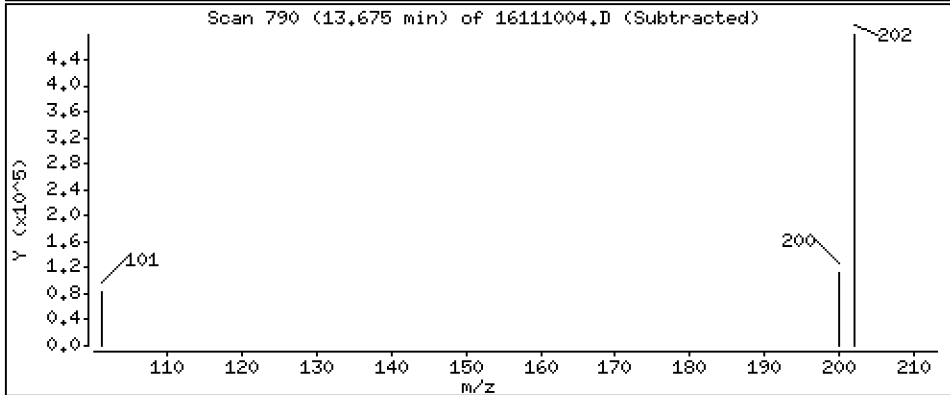
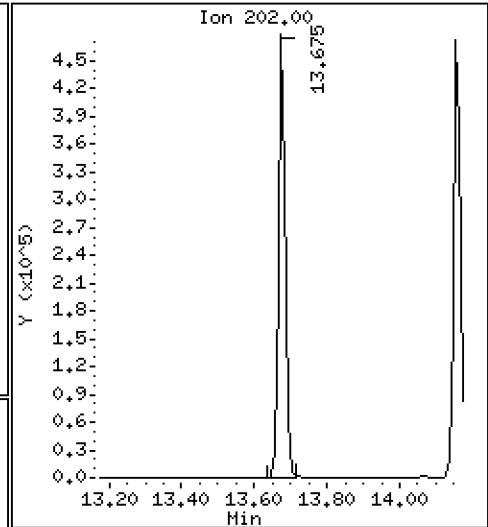
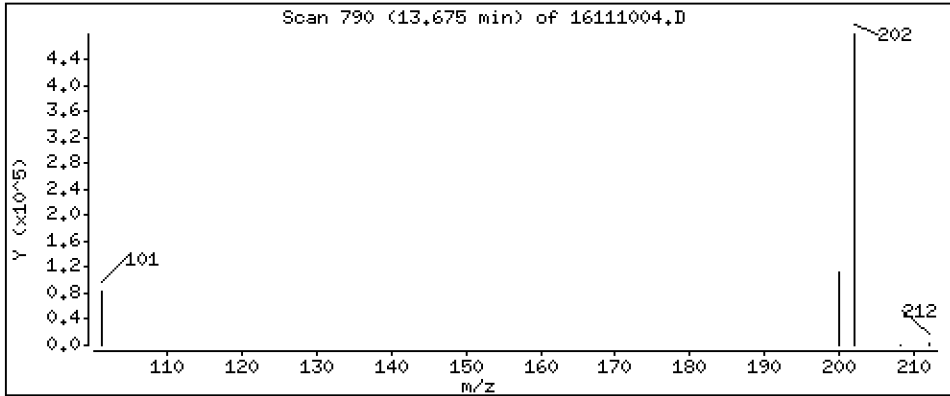
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Fluoranthene

Concentration: 206 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

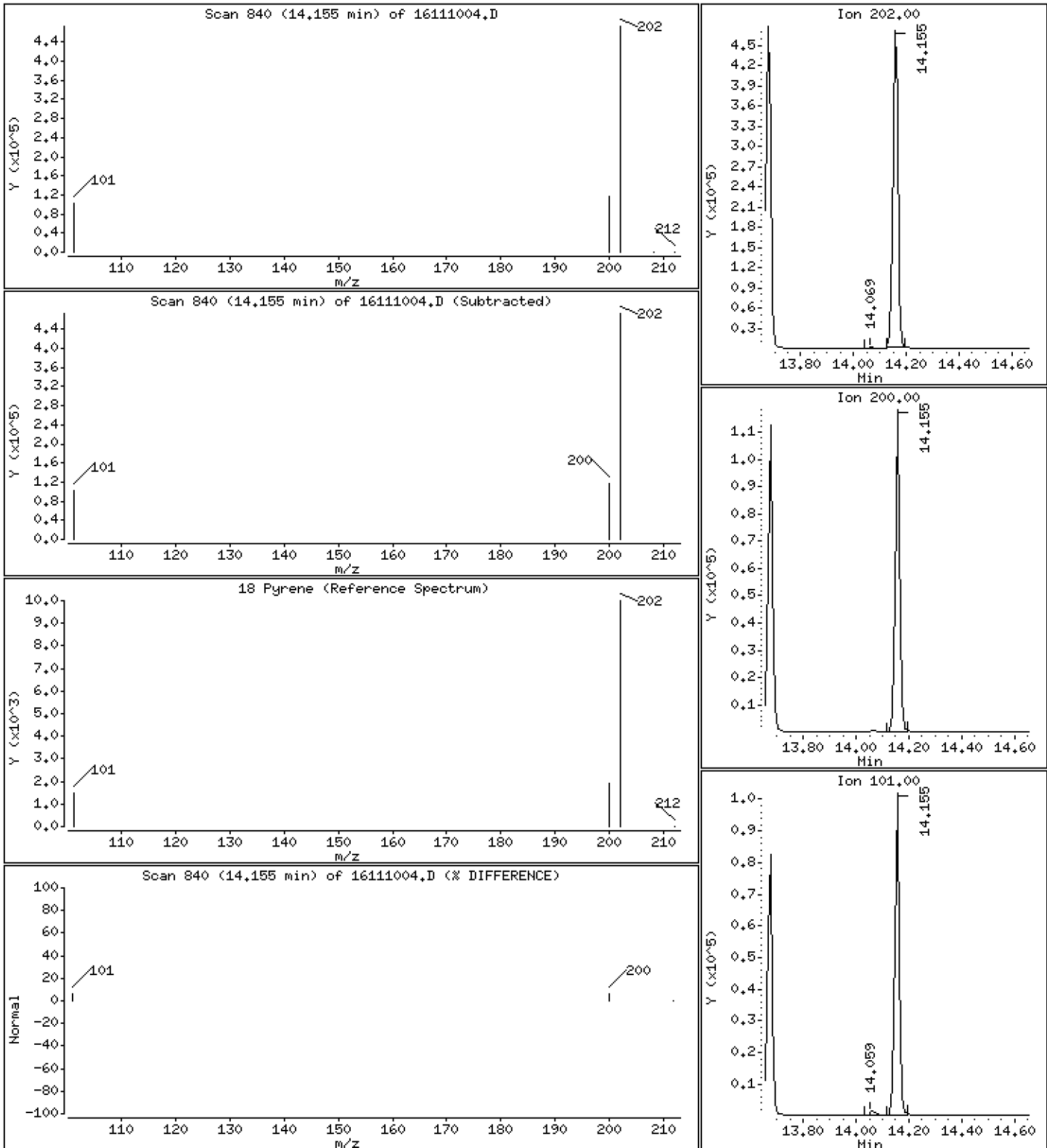
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

18 Pyrene

Concentration: 216 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

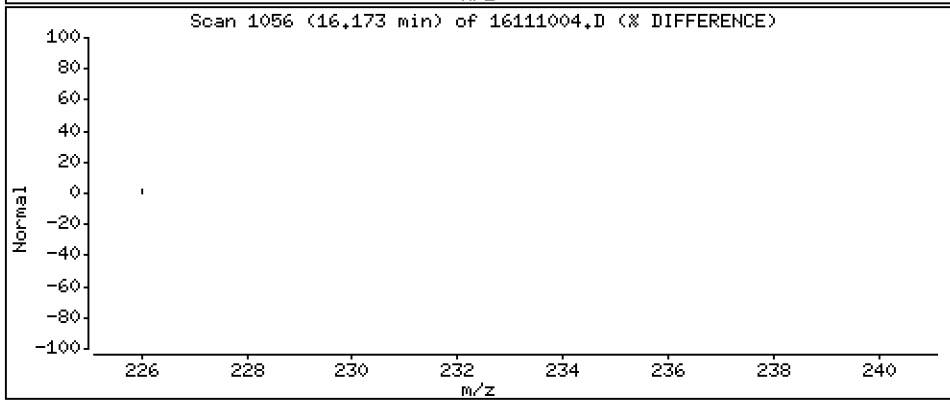
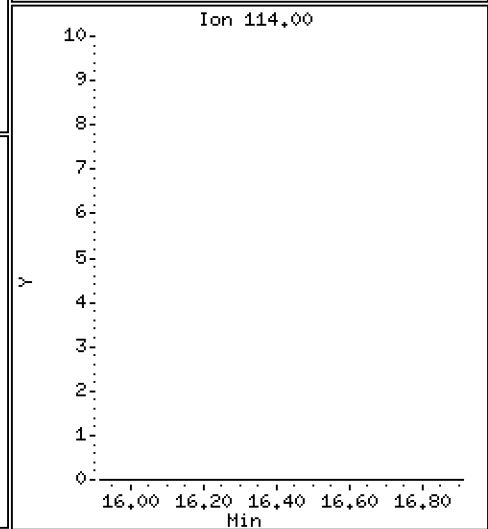
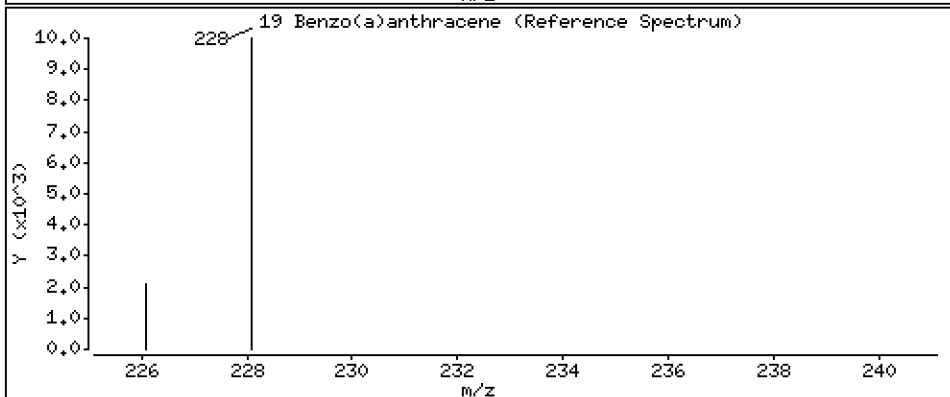
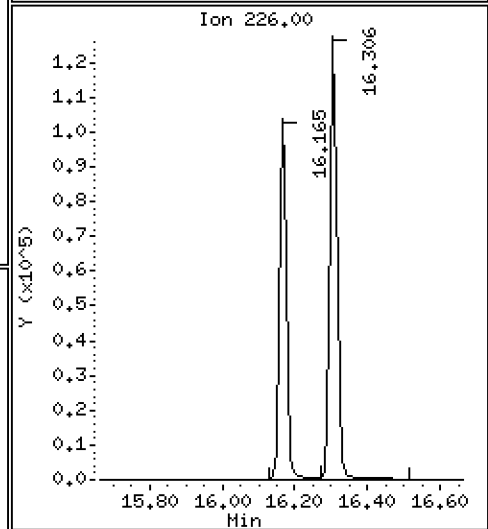
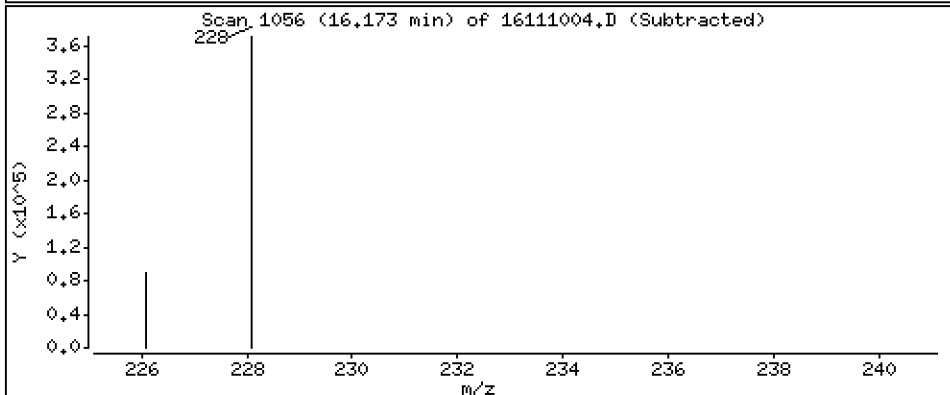
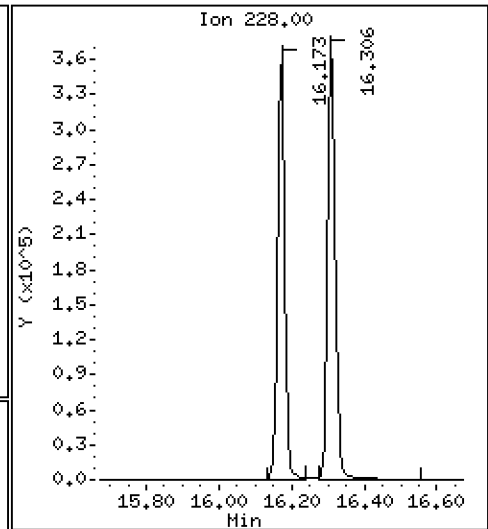
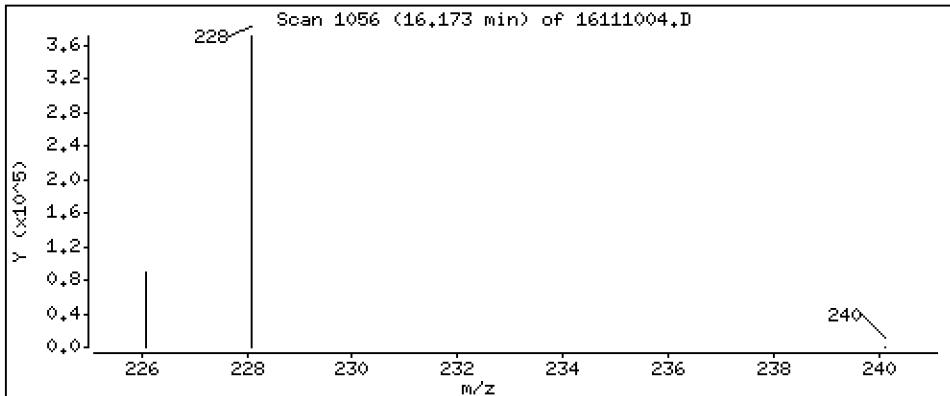
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Benzo(a)anthracene

Concentration: 205 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

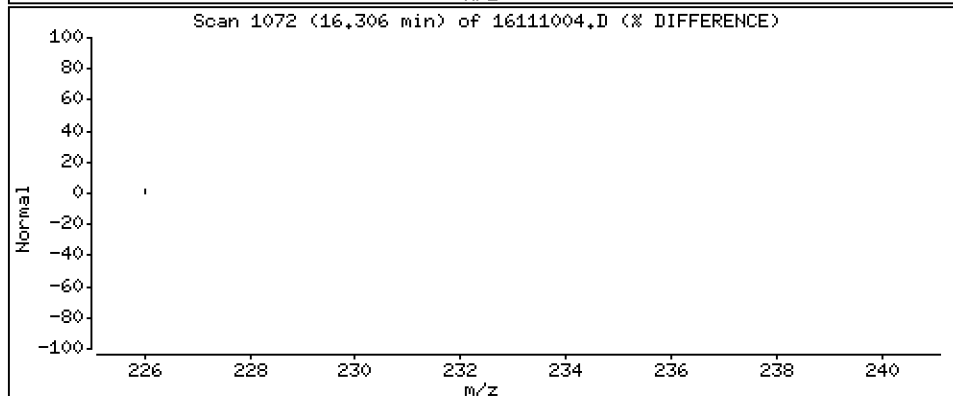
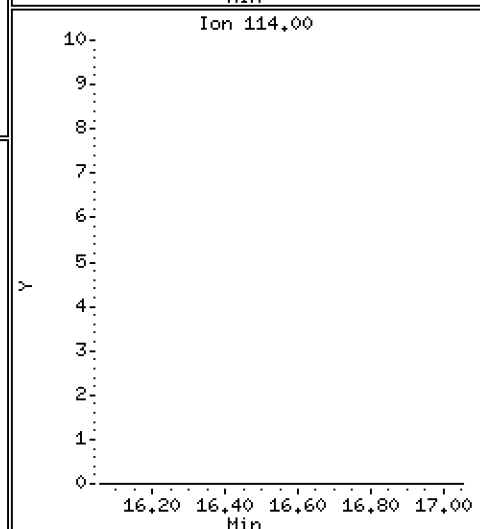
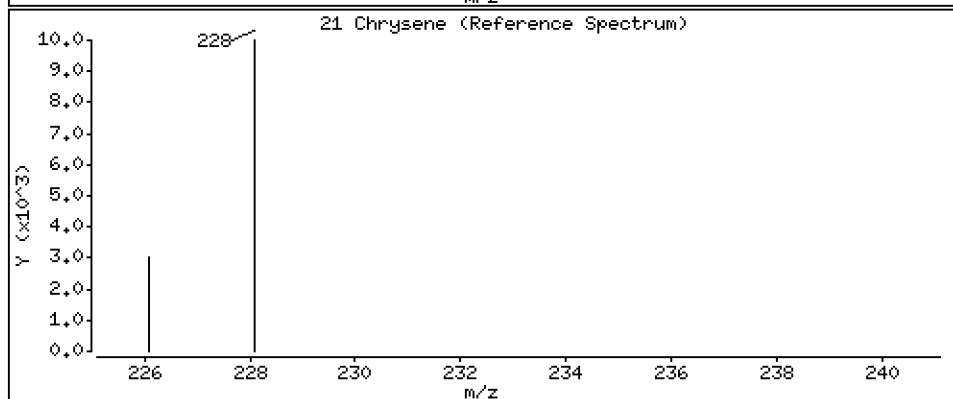
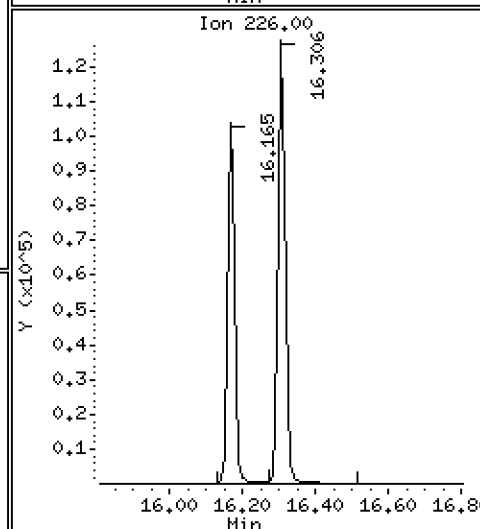
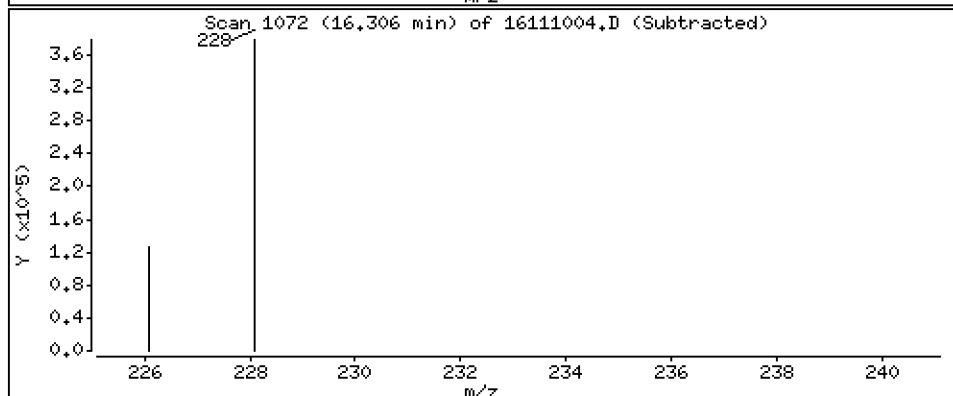
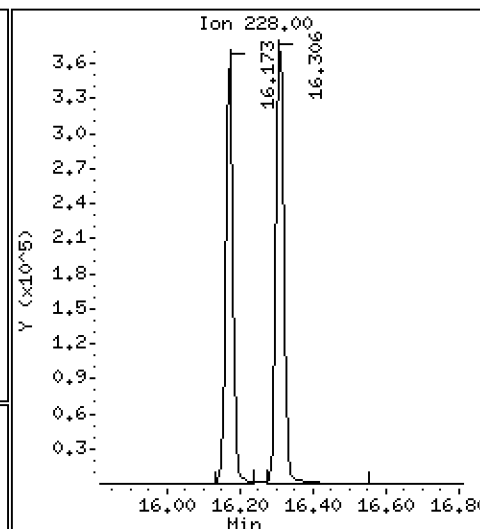
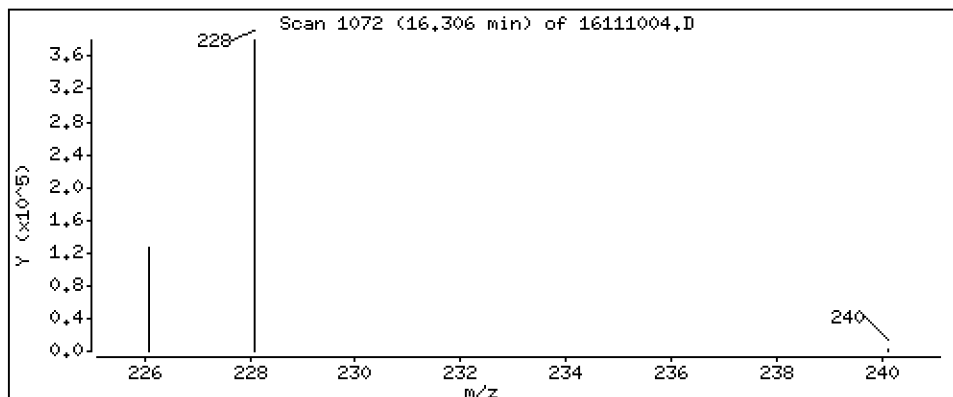
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Chrysene

Concentration: 212 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

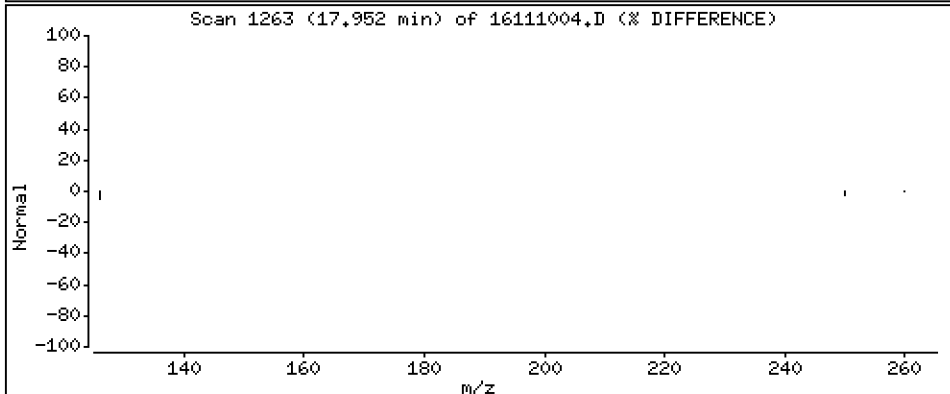
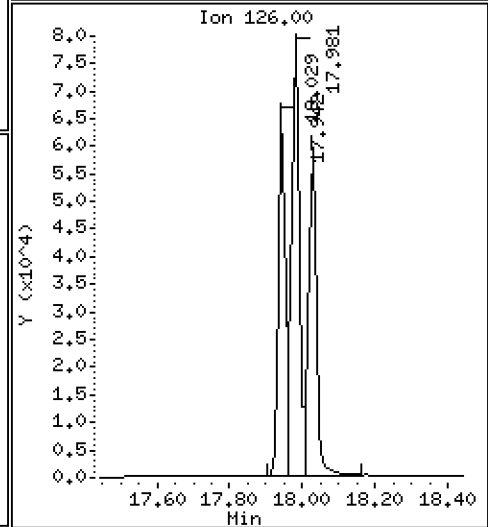
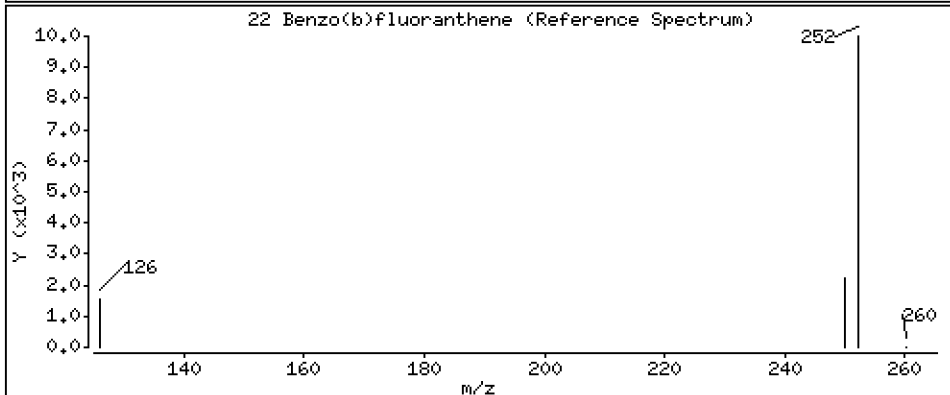
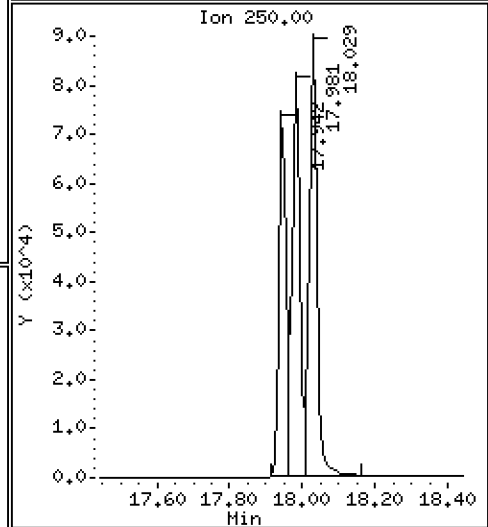
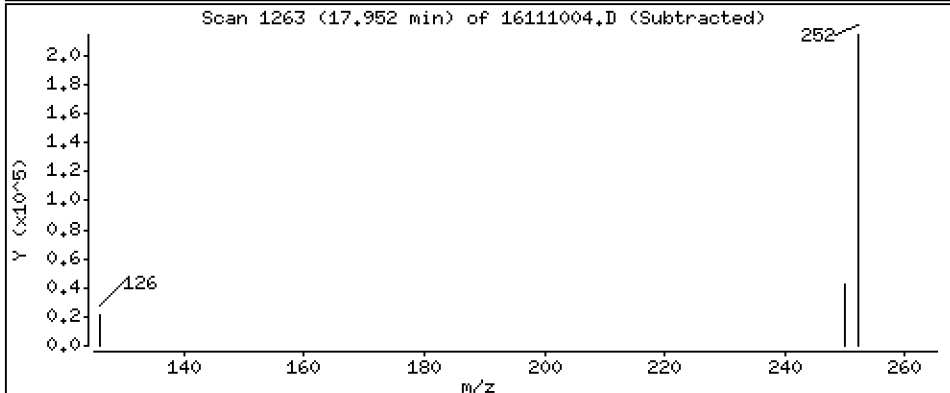
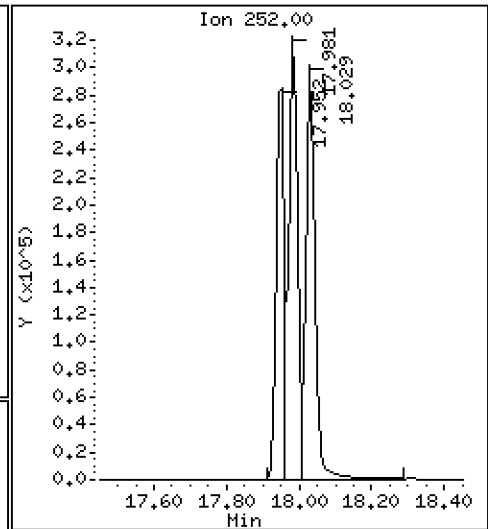
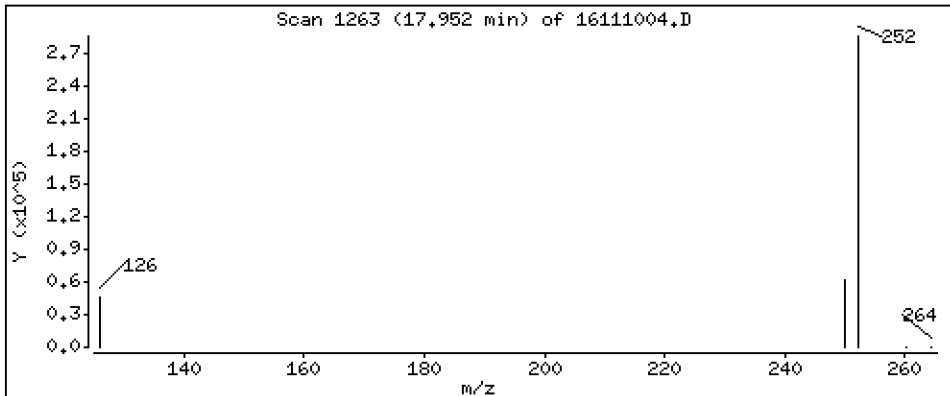
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Benzo(b)fluoranthene

Concentration: 202 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

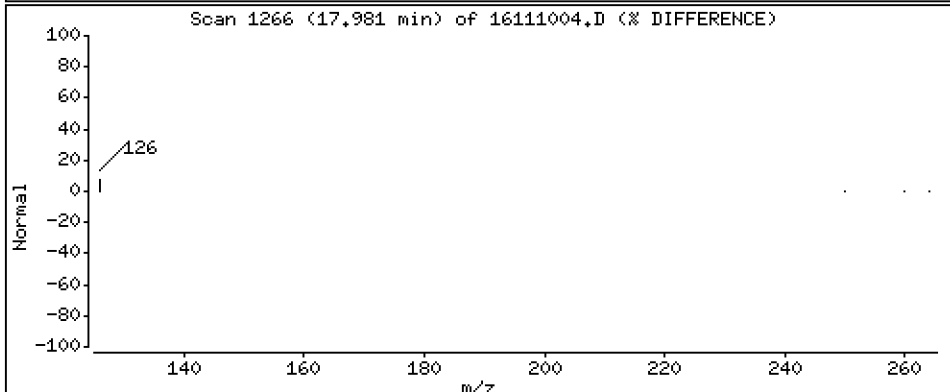
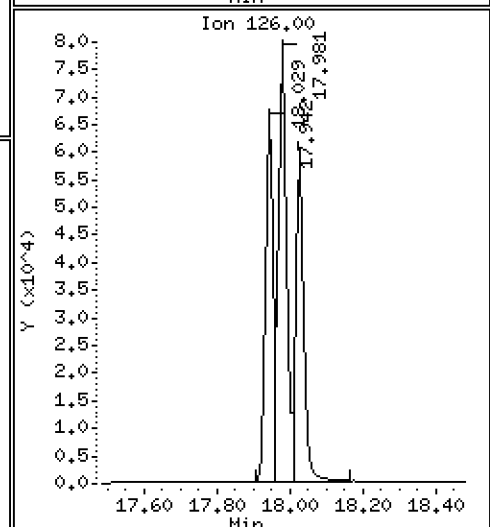
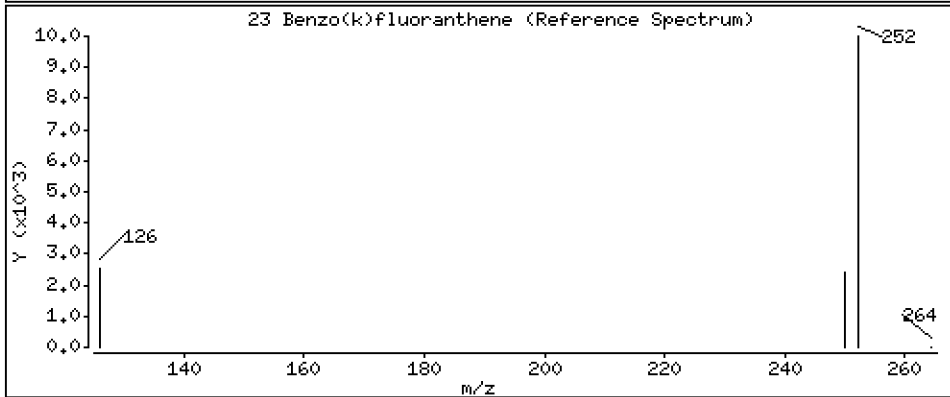
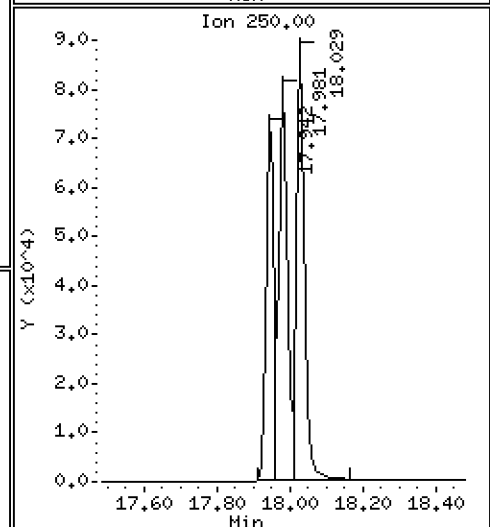
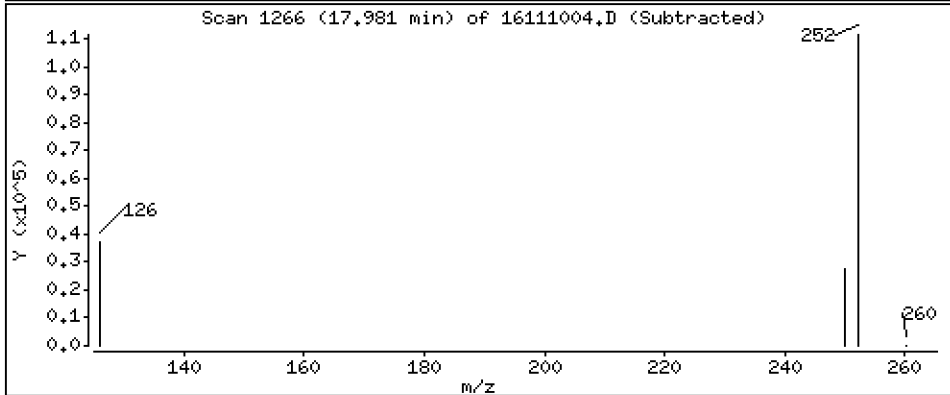
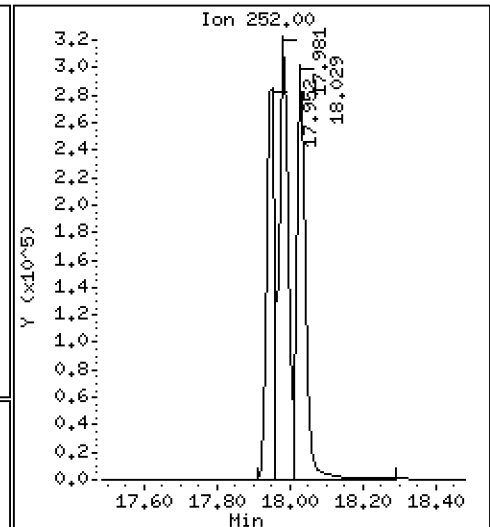
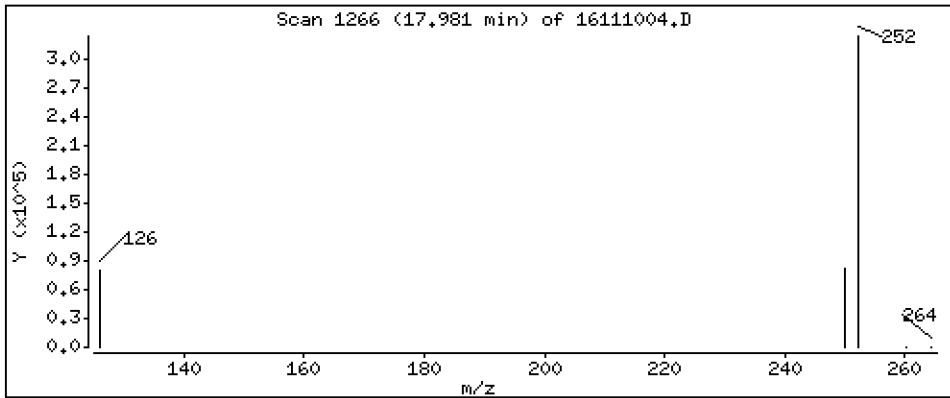
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Benzo(k)fluoranthene

Concentration: 232 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

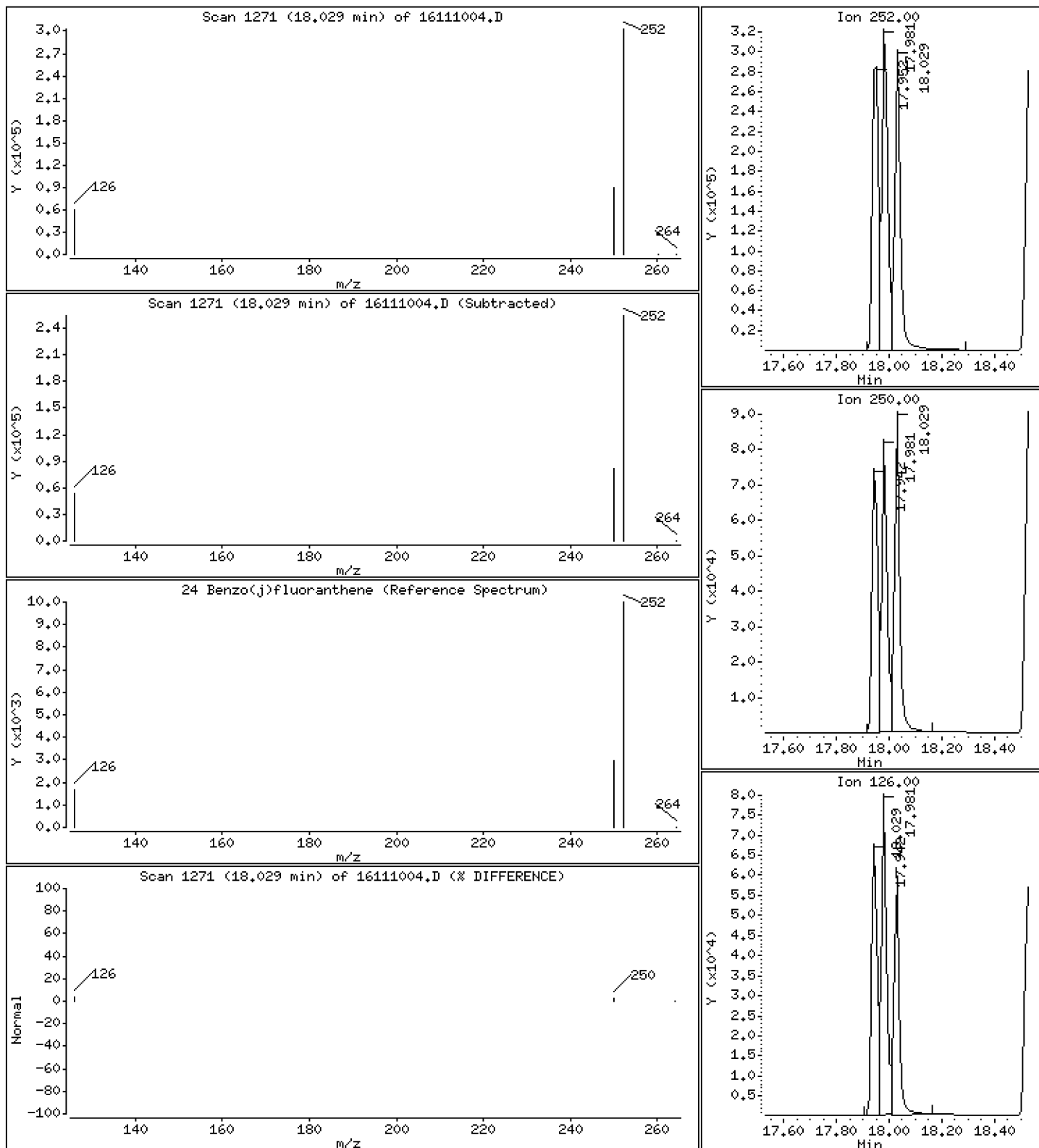
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

24 Benzo(j)fluoranthene

Concentration: 225 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

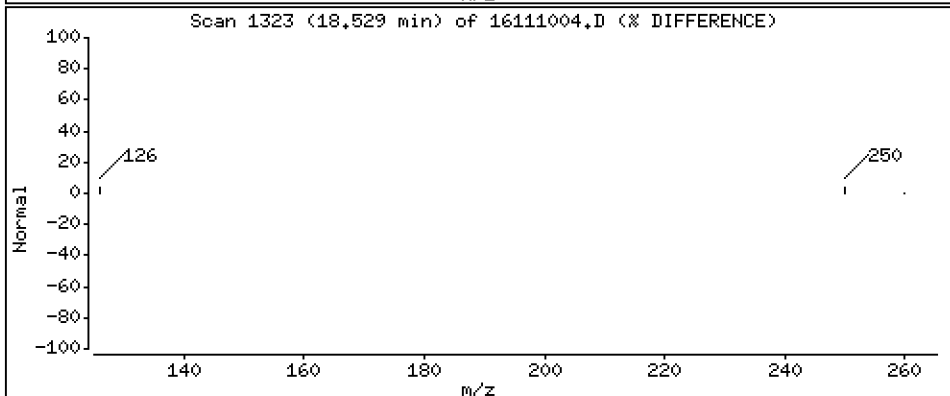
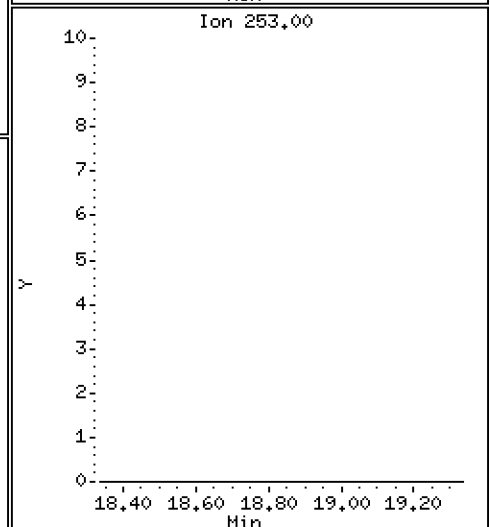
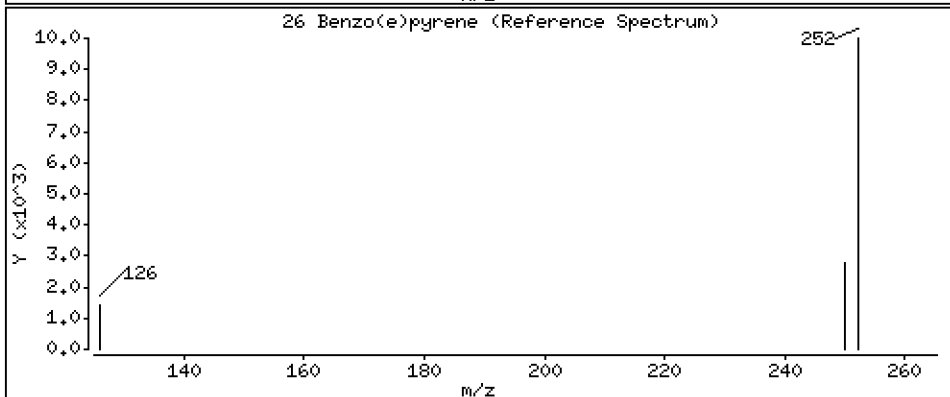
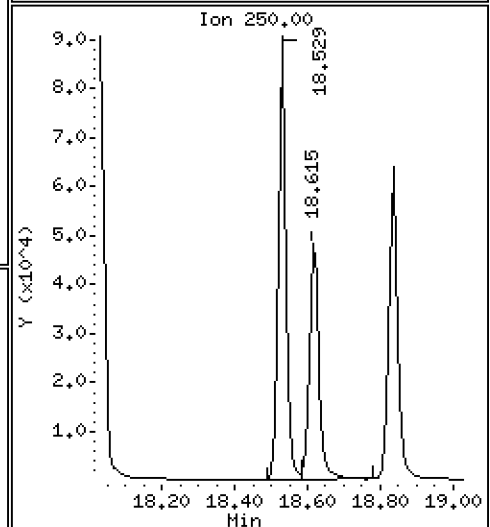
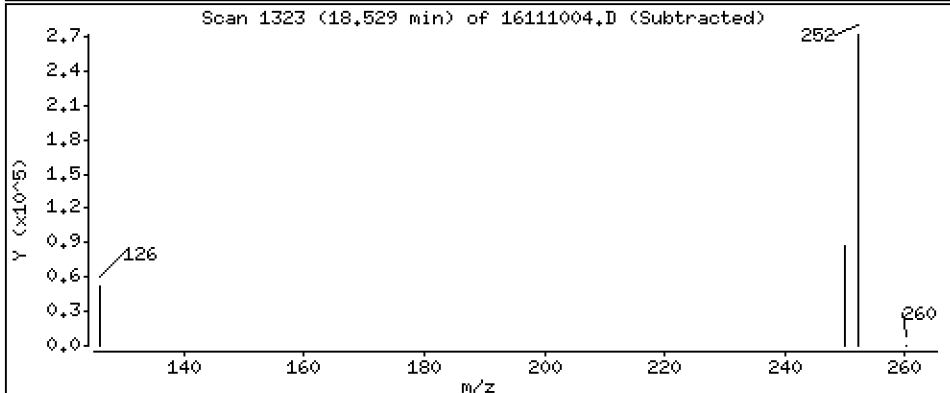
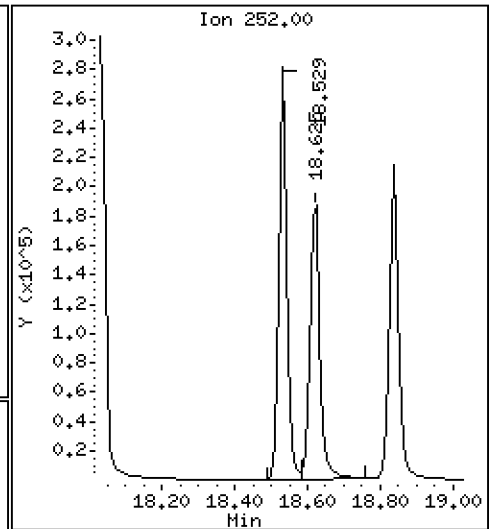
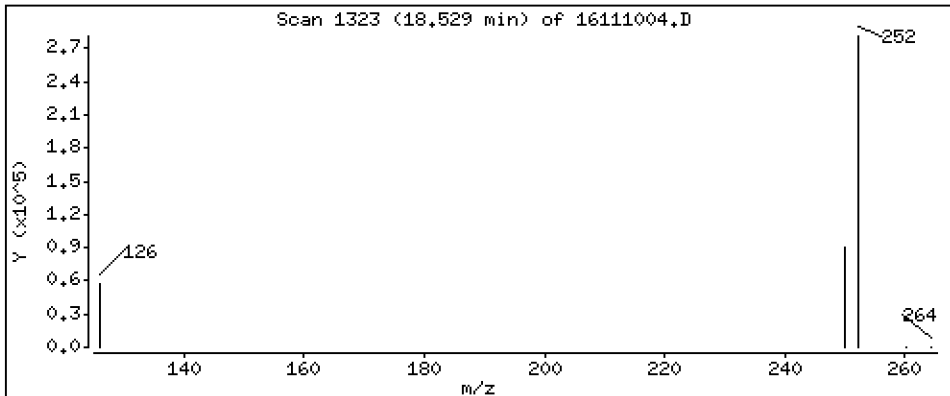
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Benzo(e)pyrene

Concentration: 209 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

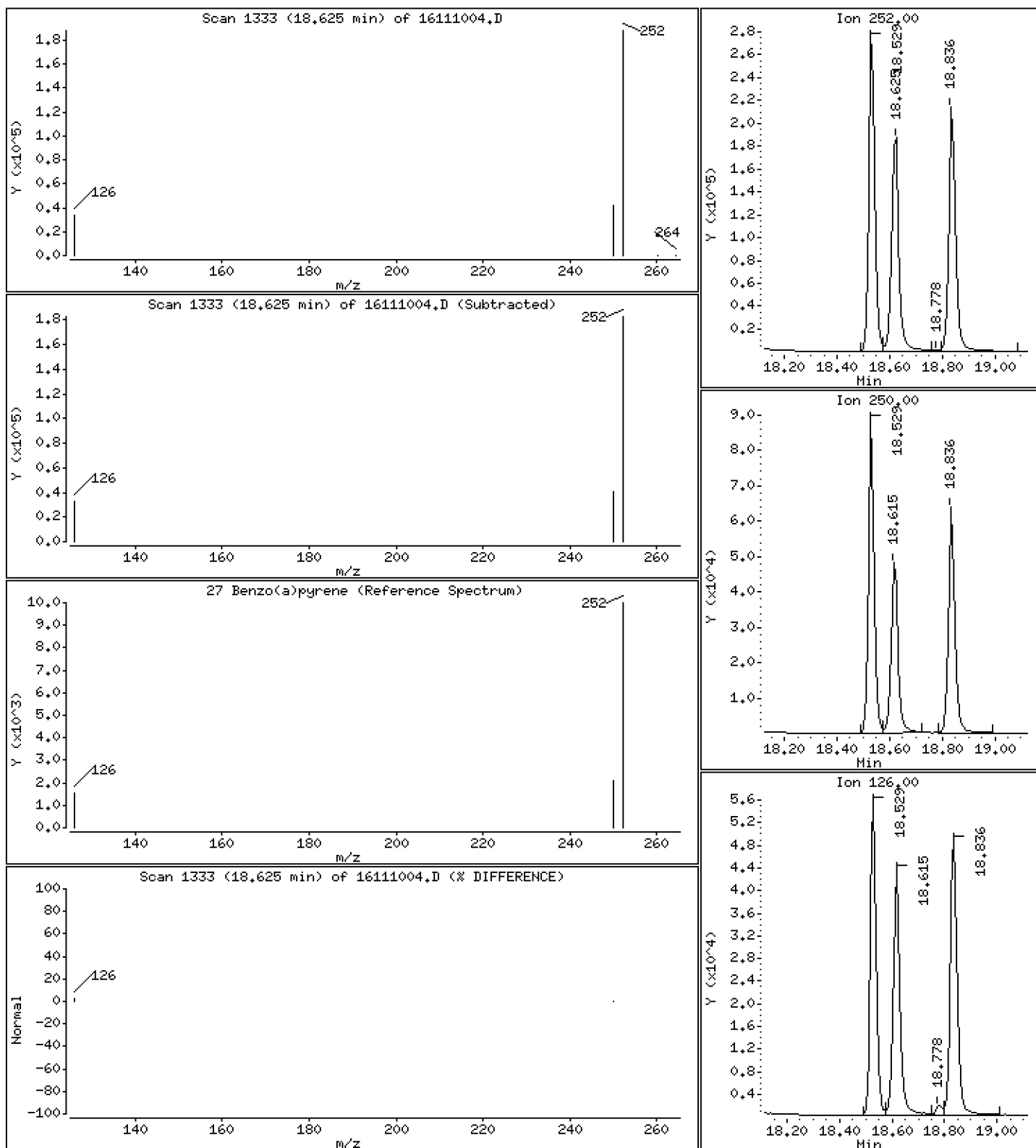
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)pyrene

Concentration: 176 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

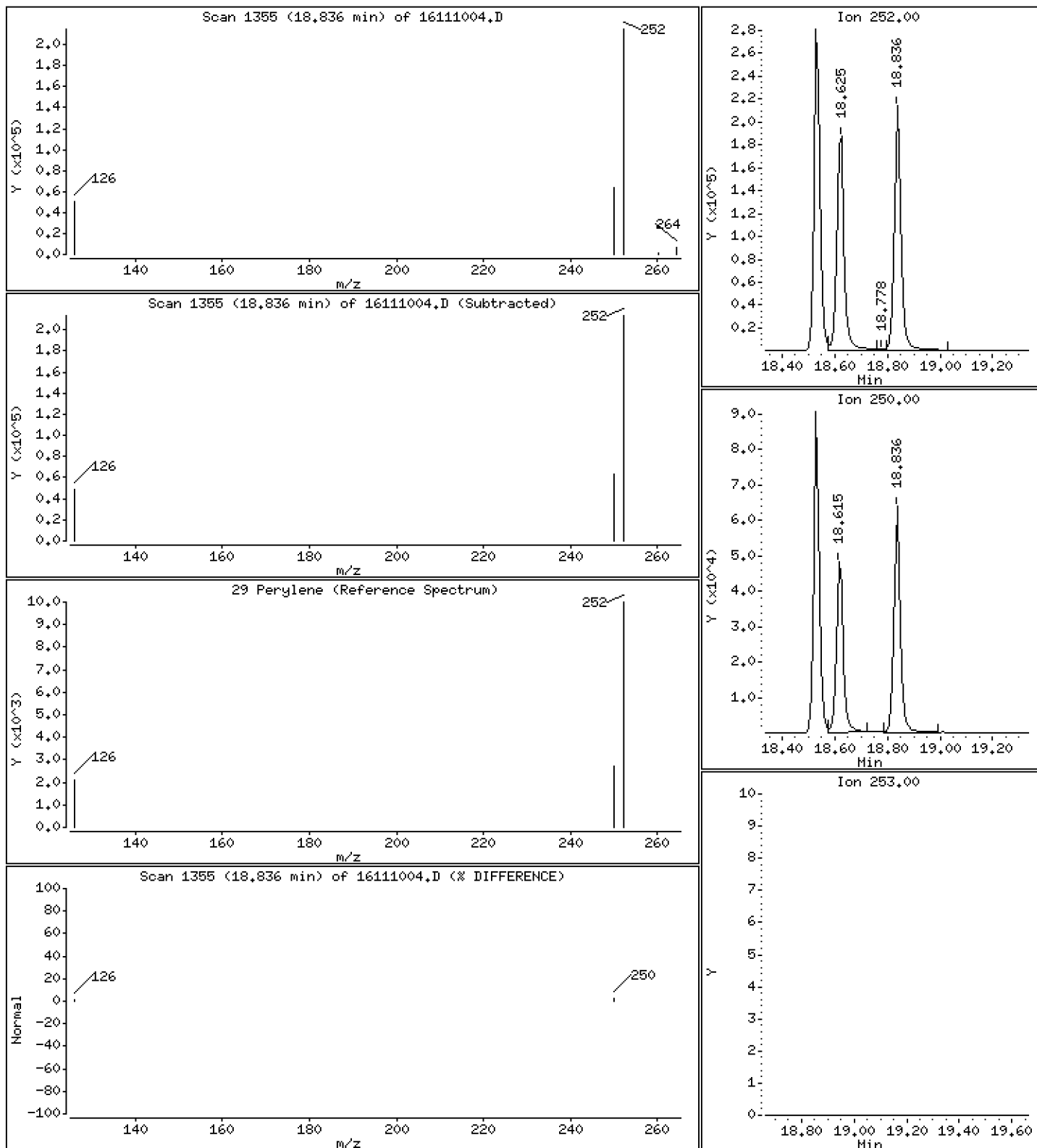
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Perylene

Concentration: 179 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

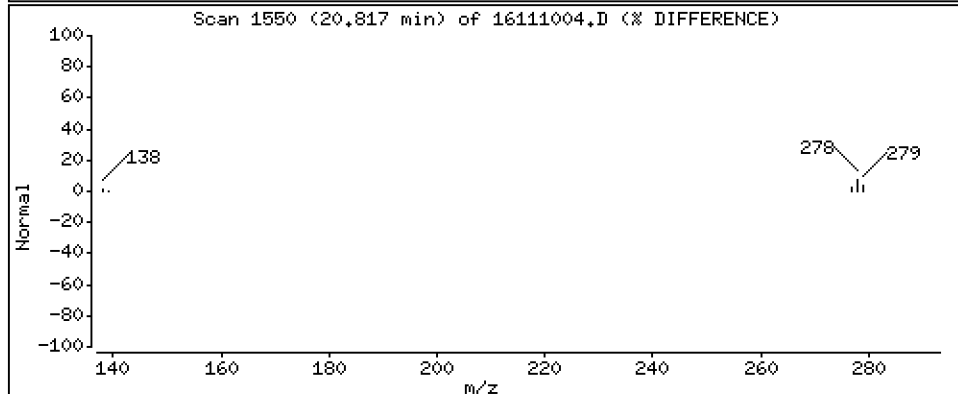
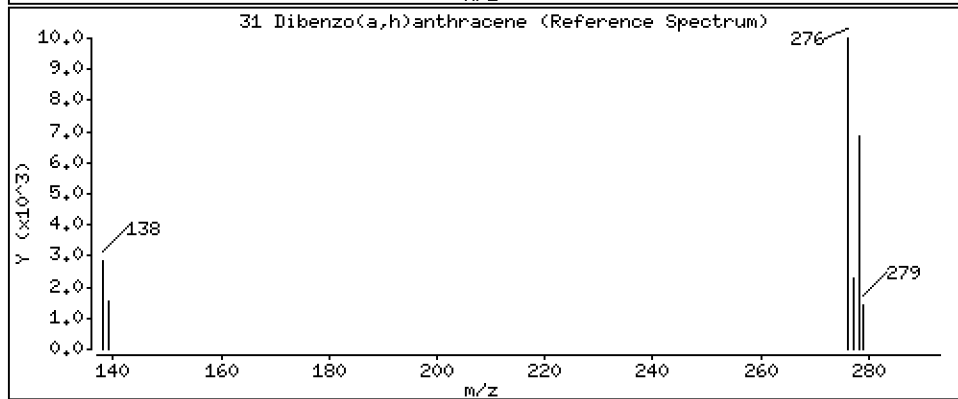
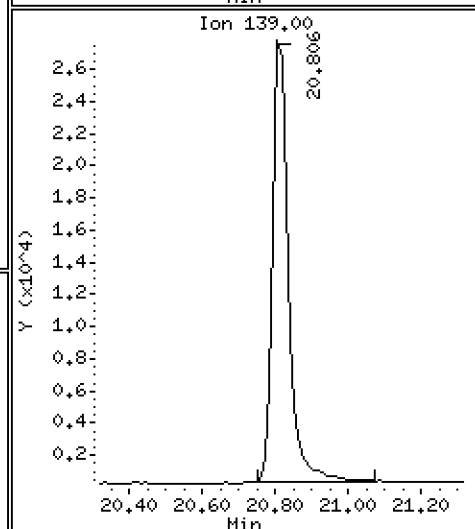
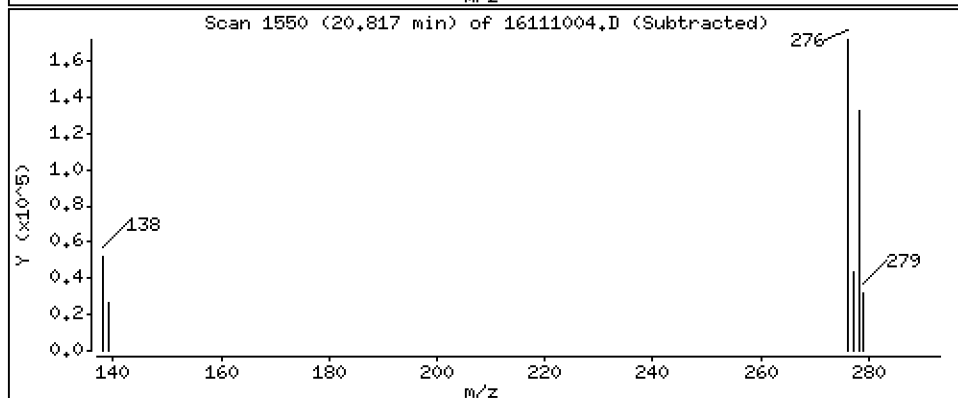
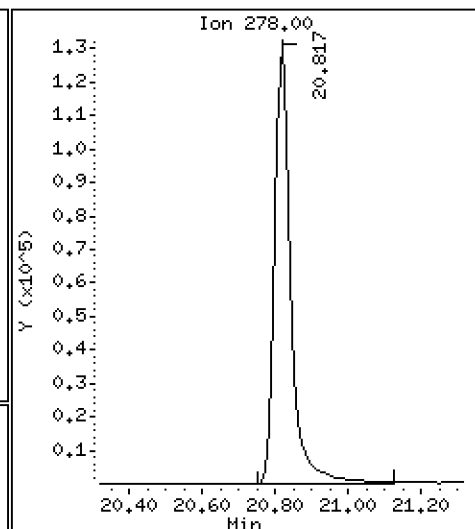
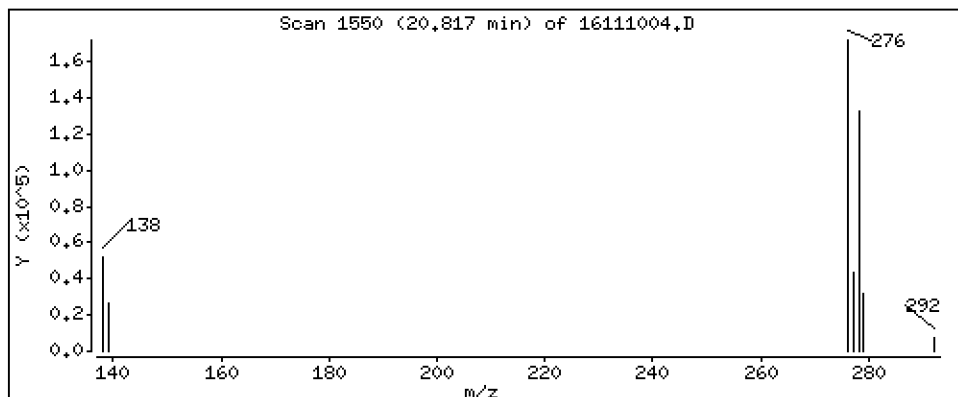
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Dibenzo(a,h)anthracene

Concentration: 208 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

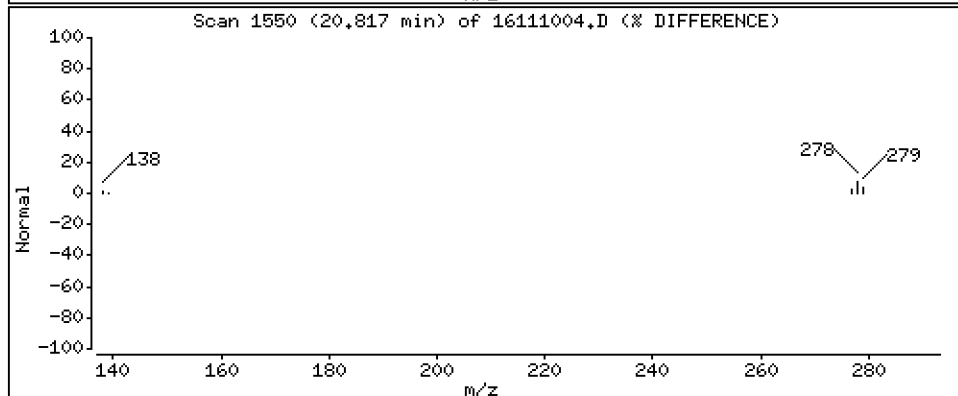
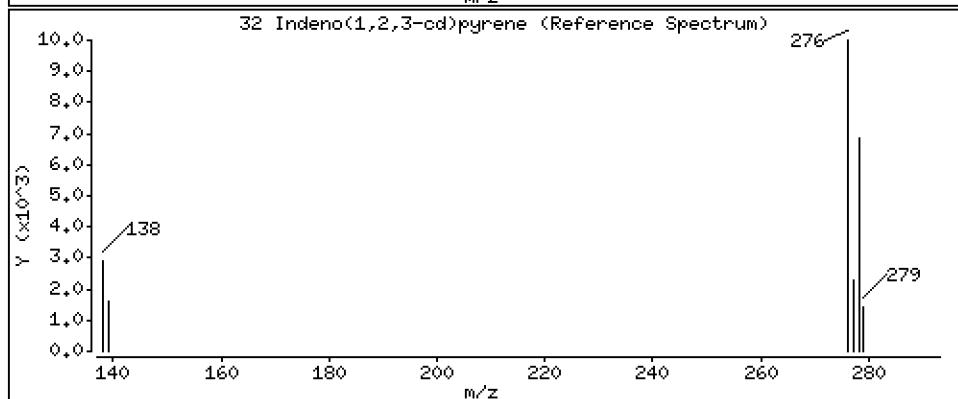
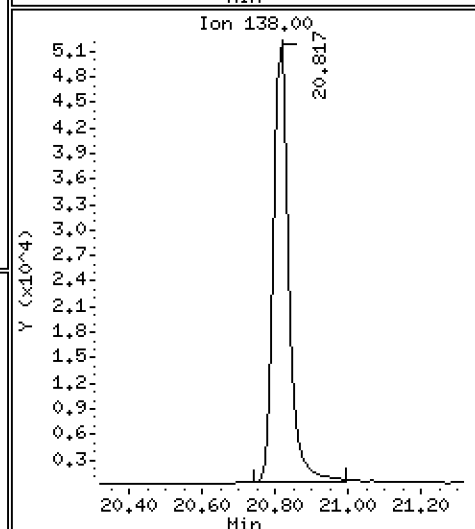
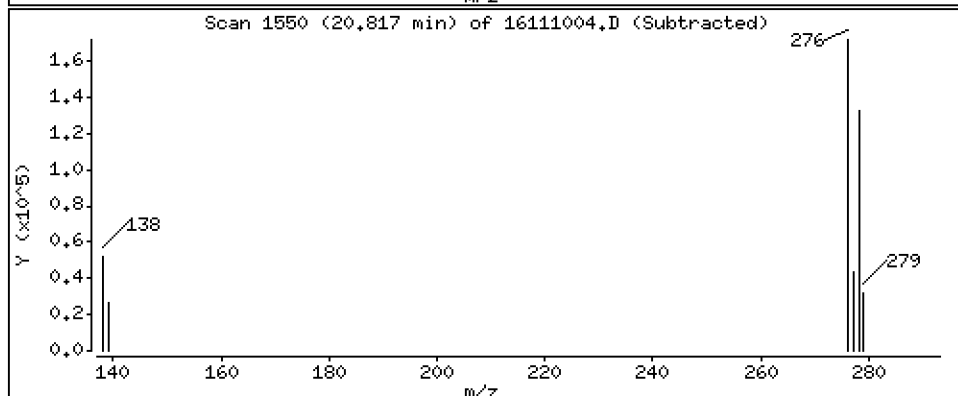
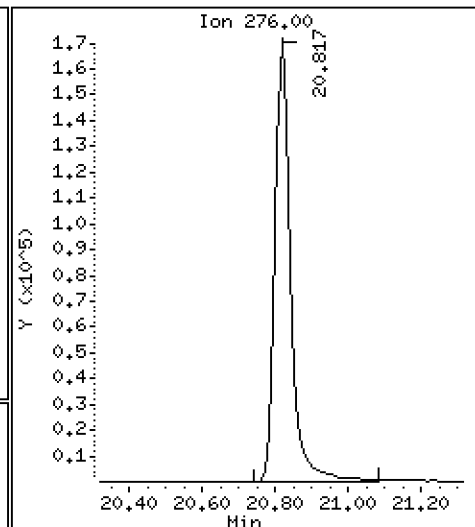
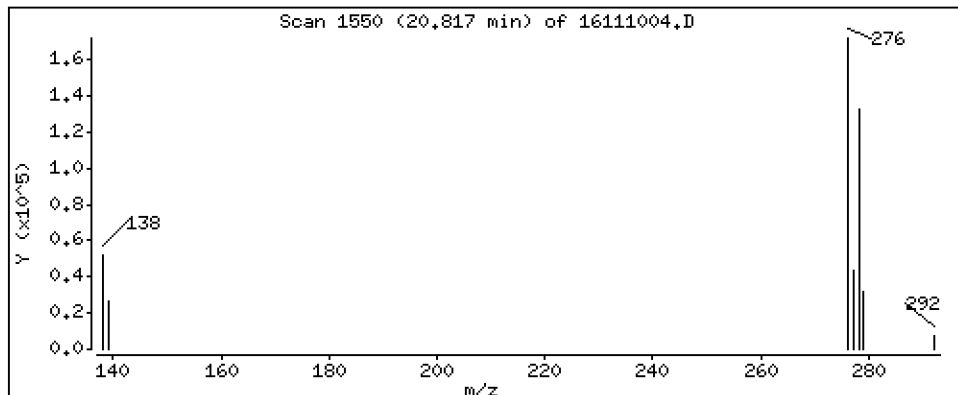
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 Indeno(1,2,3-cd)pyrene

Concentration: 210 ng/mL



Date : 10-NOV-2016 13:09

Client ID:

Instrument: nt11.i

Sample Info: BEJ0794-BS1

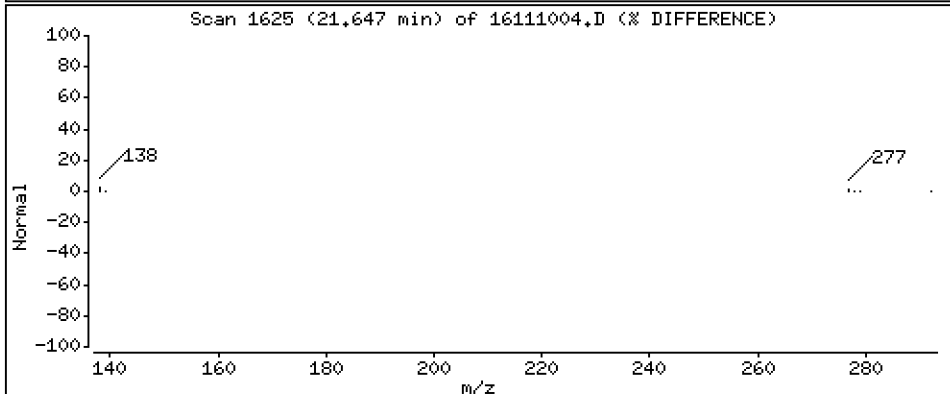
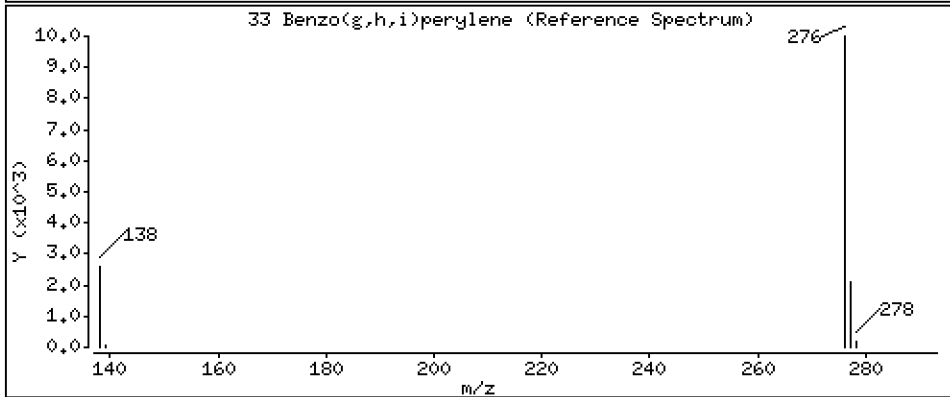
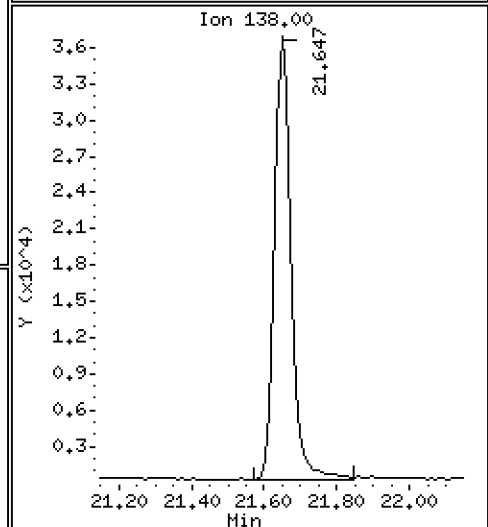
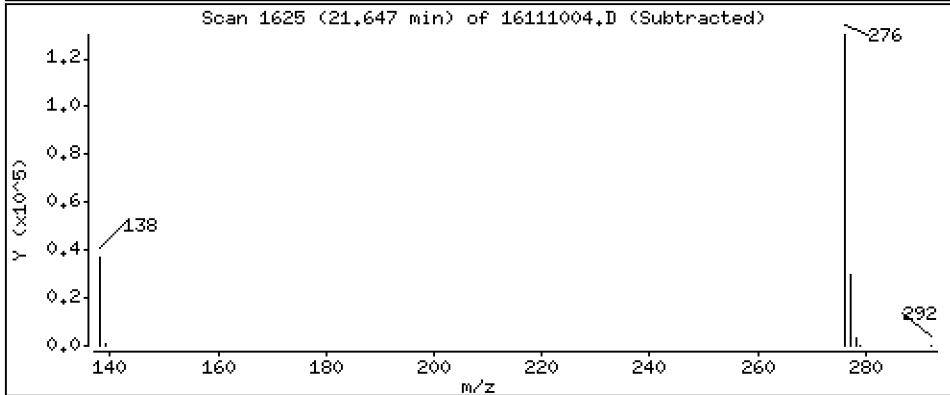
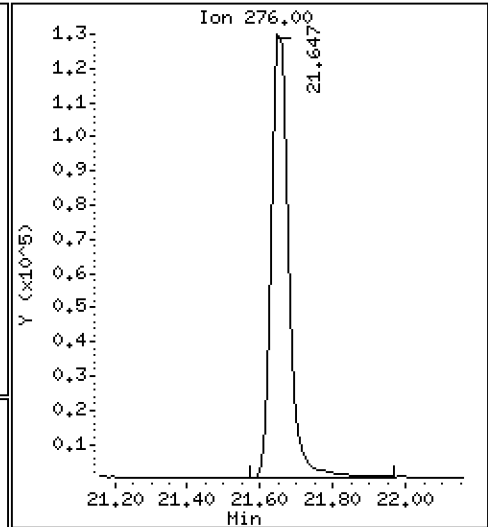
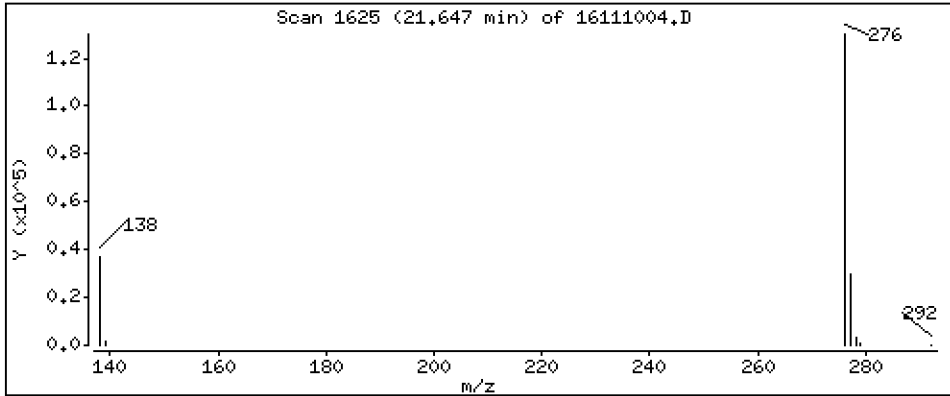
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

33 Benzo(g,h,i)perylene

Concentration: 205 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161110.b\16111004.D

Lab Smp Id: BEJ0794-BS1

Inj Date : 10-NOV-2016 13:09

MS Autotune Date: 15-JAN-2015 15:59

Operator : JW

Inst ID: nt11.i

Smp Info : BEJ0794-BS1

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20161110.b\lowsim.m

Meth Date : 10-Nov-2016 13:00 nt11.i

Quant Type: ISTD

Cal Date : 01-NOV-2016 12:34

Cal File: 16110107.D

Als bottle: 7

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PEMD.sub

Target Version: 4.14

Processing Host: AUTOSPECDATA02

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ng/mL)	FINAL (ng/mL)	
* 1 Naphthalene-d8	136		5.965	5.965	(1.000)	622901	200.000		
2 Naphthalene	128		5.997	6.007	(1.005)	506320	139.451	139	
§ 3 2-Methylnaphthalene-d10	152		6.932	6.942	(1.162)	268365	142.679	143	
4 2-Methylnaphthalene	142		6.995	6.995	(1.173)	324967	137.741	138	
5 1-Methylnaphthalene	142		7.236	7.236	(1.213)	289021	136.630	137	
6 Acenaphthylene	152		8.773	8.773	(0.983)	376239	123.823	124	
* 7 Acenaphthene-d10	164		8.928	8.928	(1.000)	305537	200.000		
8 Acenaphthene	153		8.995	8.995	(1.007)	305134	152.884	153	
9 Dibenzofuran	168		9.194	9.194	(1.030)	433355	157.459	157	
§ 10 Fluorene-d10	174		Compound Not Detected.						
11 Fluorene	166		9.817	9.817	(1.100)	343484	155.685	156	
* 12 Phenanthrene-d10	188		11.571	11.571	(1.000)	532614	200.000		
13 Phenanthrene	178		11.609	11.609	(1.003)	677397	186.981	187	
§ 14 Anthracene-d10	188		Compound Not Detected.						
15 Anthracene	178		11.667	11.667	(1.008)	547938	156.082	156	
§ 16 Fluoranthene-d10	212		13.646	13.646	(1.179)	535094	212.090	212	
17 Fluoranthene	202		13.674	13.675	(1.182)	638813	206.238	206	
18 Pyrene	202		14.155	14.165	(0.870)	642935	216.101	216	
19 Benzo(a)anthracene	228		16.173	16.173	(0.994)	518587	204.974	205	
* 20 Chrysene-d12	240		16.264	16.264	(1.000)	378849	200.000		
21 Chrysene	228		16.306	16.314	(1.003)	559423	212.371	212	
22 Benzo(b)fluoranthene	252		17.951	17.952	(0.956)	451688	201.772	202	
23 Benzo(k)fluoranthene	252		17.980	17.980	(0.957)	573045	232.062	232	
24 Benzo(j)fluoranthene	252		18.028	18.028	(0.960)	490547	224.782	225	
§ 25 Benzo(e)pyrene-d12	264		Compound Not Detected.						
26 Benzo(e)pyrene	252		18.528	18.528	(0.986)	459822	208.744	209	
27 Benzo(a)pyrene	252		18.624	18.624	(0.991)	373601	175.954	176	
* 28 Perylene-d12	264		18.787	18.788	(1.000)	442667	200.000		
29 Perylene	252		18.835	18.836	(1.003)	394802	179.440	179	
§ 30 Dibenzo(a,h)anthracene-d14	292		20.728	20.739	(1.103)	295875	215.797	216	
31 Dibenzo(a,h)anthracene	278		20.816	20.816	(1.108)	389243	207.583	208	
32 Indeno(1,2,3-cd)pyrene	276		20.816	20.816	(1.108)	491581	210.437	210	
33 Benzo(g,h,i)perylene	276		21.647	21.658	(1.152)	417886	205.179	205	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16111004.D
 Lab Smp Id: BEJ0794-BS1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161110.b\lowsim.m
 Misc Info:

Calibration Date: 10-NOV-2016
 Calibration Time: 11:38
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	622901	2.19
7 Acenaphthene-d10	316851	158426	633702	305537	-3.57
12 Phenanthrene-d10	546133	273067	1092266	532614	-2.48
20 Chrysene-d12	417210	208605	834420	378849	-9.19
28 Perylene-d12	524443	262222	1048886	442667	-15.59

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	5.97	5.47	6.47	5.97	-0.00
7 Acenaphthene-d10	8.93	8.43	9.43	8.93	-0.00
12 Phenanthrene-d10	11.57	11.07	12.07	11.57	-0.00
20 Chrysene-d12	16.26	15.76	16.76	16.26	-0.00
28 Perylene-d12	18.79	18.29	19.29	18.79	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16111004.D

Lab ID: BEJ0794-BS1

nt11.i, 20161110.b\lowsim.m, 10-NOV-2016 13:09

RT	CO-ELUTION COMPOUNDS
20.817	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
20.817	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND

NONE				

On Column LOD for nt11.i, 20161110.b\lowsim.m, PEMD.sub = 0.0000



Miscellaneous
Water/Soil/Sed/Tissue/Other
Separatory Funnel (3510C)/Liq-Liq (3520C)
Sonication (3550C)/Microwave (3546)
TissueMize (Modified 3550C)

Analysis SJM PNA Low Lvl

Preparation Test Misc # 1

Lab Number(s) 16Hφ147, 16Hφ268, 16Jφ187 Page 1 of 1

Batch set up by: JG

Batch ID BEJφ774

EM
of
Assessment

Bottle or JAR ID	Extraction Requirements	Weight or Volume Extracted	Sonic Horn ID + Chk	(REQ/Opt) GPC (3) Y/N 1:1	(REQ/Opt) Acid Clean Y(N)	(REQ/Opt) Sulfur Clean Y(N)	(REQ/Opt) SPE Clean (3) Y/N 1:1	Final Effective Volume	Vol to Lab	Comments	Verify Client ID
BEJφ774	BLK	φ.φφφ		1:1			1:1	φ.5ML	φ.5ML		1φ/26/16 Analyst/Date
	BS	φ.φφφ		1:1			1:1	φ.5ML	φ.5ML		Pre-GPC KD 1 2 3 4 5 6 °C Exchange to Hex? Analyst/Date
	BS Dup										
	MRL Check										
A	16Hφ147-φ1	φ.φ7		1:1			1:1	φ.5ML	φ.5ML		TurboVap Pre-GPC 1 2 3 4 5 Analyst/Date
A	16Hφ268-φ1	φ.1φ		1:1			1:1	φ.5ML	φ.5ML		6M 11/7/16
A	16Jφ187-φ1	φ.φ2		1:1			1:1	φ.5ML	φ.5ML		Analyst/Date
A	φ2	φ.14		1:1			1:1	φ.5ML	φ.5ML		Post GPC KD 1 2 3 4 5 6 °C Exchange to Hex? Analyst/Date
A	φ3	φ.13		1:1			1:1	φ.5ML	φ.5ML		
A	φ4	φ.18		1:1			1:1	φ.5ML	φ.5ML		
A	φ5	φ.15		1:1			1:1	φ.5ML	φ.5ML		TurboVap Post-GPC 1 2 3 4 5 Analyst/Date
A	φ6	φ.φφ		1:1			1:1	φ.5ML	φ.5ML		6M 11/9/16
											Analyst/Date
											TurboVap Pre-Cleanups 1 2 3 4 5 Analyst/Date
											ML 11/10/16
											Analyst/Date
											TurboVap Post-Cleanups 1 2 3 4 5 Analyst/Date
Analyst/Date	wfe 1φ/26/16			6M 11/8/16			6M 11/9/16	ML 11/10/16	→	Reviewed by/Date	NA Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	I (Dφφ5238)	1.5/7.5μg/mL	1φφ μL	11/1/16		ww
Spike	()		μL			
Spike	18 (Eφφ319φ)	1.5/7.5μg/mL	1φφ μL	11/1/15		ww
Spike	()		μL			
MRL Spike	()		μL			
Extraction Time: 15:10	Liq/Liq Start:	Liq/Liq Stop:	Balance ID: B139298φφ2			

SPECIAL INSTRUCTIONS: (2x) 1:1 DeMACE
(1x) DeM only
Lvl 1d

Organic Extractions Reagent and Solutions Identification

Analysis: SIM PWA Low Vol

Method: Tissuevize (35542) Anal: 502

Lab Number(s) 16Hφ147, 16Hφ268, 16Jφ187

Water/Soil/Sediment/Solid/Tissue/Other:	Analyst/Date
<p><u>Sep. Funnel/Liquid-Liquid/Sonication/Microwave/Tissuevize Station:</u></p> <p>Neutral Sodium Sulfate: (<u>Eφφ5298</u>)</p> <p>Pre-deactivated Sodium Sulfate: ()</p> <p>Neutral Glasswool: (<u>Eφφ3664</u>)</p> <p>Pre-deactivated Glasswool: ()</p> <p>1:1 Hexane/Acetone: ()</p> <p>80:20 Hexane/Acetone: ()</p> <p>1:1 DCM/Acetone: (<u>Eφφ5637</u>) <u>Low Vol DCM</u></p> <p>80:20 DCM/Acetone: ()</p> <p>Hexane: ()</p> <p>DCM: (<u>Eφφ4228</u>)</p> <p>Other: ()</p> <p>Other: ()</p> <hr/> <p><u>Pre-GPC KD Station:</u></p> <p>Hexane: ()</p> <p>DCM: (<u>Eφφ3811</u>)</p> <p>Neutral Sodium Sulfate: ()</p> <p>Pre-deactivated Sodium Sulfate: ()</p> <p>Neutral Glasswool: ()</p> <p>Pre-deactivated Glasswool: ()</p> <p>Other: ()</p> <p>Other: ()</p> <hr/> <p><u>GPC Filter Prep:</u></p> <p>DCM: (<u>Eφφ4229</u>)</p> <p>Other: ()</p> <p>Other: ()</p> <hr/> <p><u>GPC Station:</u></p> <p>Acetone: (<u>Eφφ461φ</u>)</p> <p>DCM: (<u>Eφφ4229</u>)</p> <p>1:1 DCM/Acetone: ()</p> <p>Other: ()</p> <p>Other: ()</p> <hr/> <p><u>Post GPC KD Station:</u></p> <p>DCM: (<u>Eφφ5665</u>)</p> <p>Hexane: (<u>Eφφ4837</u>)</p> <p>Other: ()</p> <p>Other: ()</p> <hr/> <p><u>Vialing Station:</u></p> <p>Hexane: (<u>Eφφ4837</u>)</p> <p>DCM: (<u>Eφφ4229</u>)</p> <p>Concentrated Sulfuric Acid: ()</p> <p>Ethyl Acetate: ()</p> <p>Tetrabutylammonium hydrogensulfate (TBAS): ()</p> <p>Sodium Sulfite: ()</p> <p>Copper: ()</p> <p>Silica Gel (SPE) Darts: ()</p> <p>0% Silica Gel: (<u>Eφφ2623</u>)</p> <p>Alumina: ()</p> <p>HexMgBr: ()</p> <p>Other: ()</p> <p>Other: ()</p> <p style="margin-left: 200px;">) Sodium sulfite: <u>Eφφ5874</u></p> <p style="margin-left: 200px;">) glass wool <u>Eφφ172φ</u></p> <p style="margin-left: 20px;"><u>6φ:4φ pentan/1φ DCM Eφφ4991</u></p>	<p>Sep Funnel/LiqLiq/ Sonication/Microwave/ Tissuevize</p> <p style="text-align: center;"><u>MC</u> <u>1φ/27/16</u></p> <hr/> <p>Pre-GPC KD</p> <p style="text-align: center;"><u>RMM</u> <u>1φ/27/16</u></p> <hr/> <p>GPC Filter Prep</p> <p style="text-align: center;"><u>GM</u> <u>11/7/16</u></p> <hr/> <p>GPC</p> <p style="text-align: center;"><u>GM</u> <u>11/8/16</u></p> <hr/> <p>Post GPC KD</p> <p style="text-align: center;"><u>RMM</u> <u>11/9/16</u></p> <hr/> <p>Vialing</p> <p style="text-align: center;"><u>MC</u> <u>11/10/16</u></p>



Analytical Resources,
Incorporated
Analytical Chemists and
Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: 16HΦ147/16HΦ268/16JΦ187

Client ID: Anchor REA, LLC

Batch ID: BEJΦ794

Parameter: SIM PMA Low Lvl

Client Project: Port Gamble Shellfish Monitoring

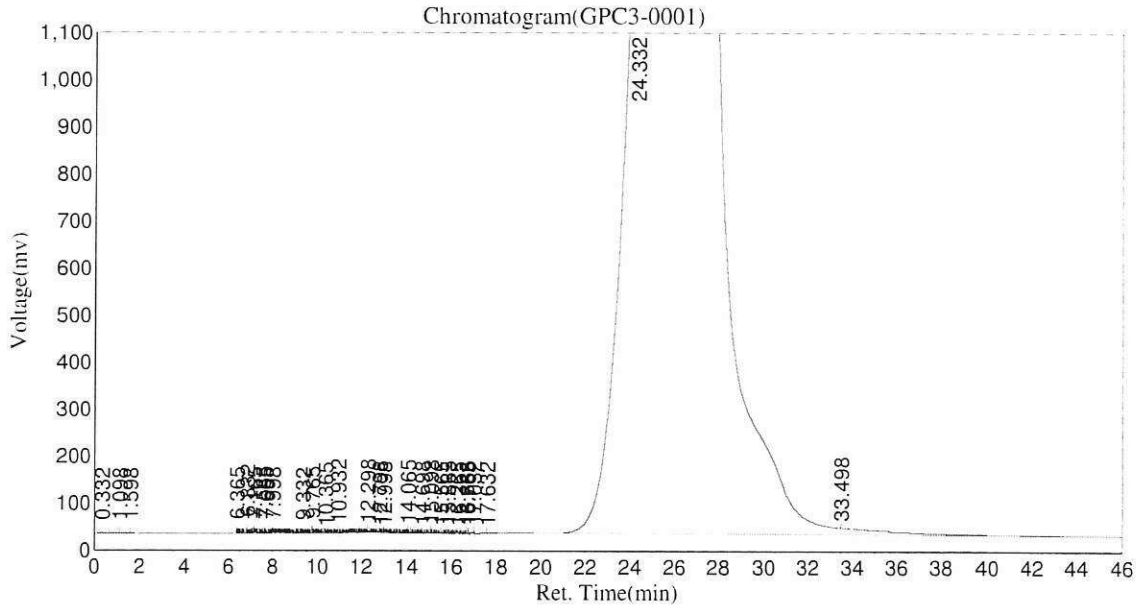
Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input type="checkbox"/> Share Samples Y / N	
<input type="checkbox"/> Multiple Jars Y / N	
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

BEJ0794-16H147;268;J187 LL SIM PNA

Date:2016-11-08,1:06:31 PM
 Data File:c:\n2000\data\110816\GPC3-0001
 Method File:C:\N2000\LL-Tiss.mtd

—BLK

Analyst:GM
 Date/Time:2016-11-08,1:06:32 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.332	1006.636	17699.912	0.0041
2		1.098	1378.909	35244.715	0.0082
3		1.598	627.000	10478.717	0.0024
4		6.365	6684.667	75148.164	0.0174
5		6.832	3916.222	23864.090	0.0055
6		7.165	6525.333	110796.680	0.0257
7		7.565	5742.667	52762.441	0.0123
8		7.665	4092.500	39107.035	0.0091
9		7.998	7783.611	64071.816	0.0149
10		9.332	3713.055	88295.664	0.0205
11		9.765	3521.000	8094.200	0.0019
12		10.365	4985.000	90872.211	0.0211
13		10.932	3663.389	43997.410	0.0102
14		12.298	2717.875	48903.699	0.0114
15		12.798	1804.800	15532.606	0.0036
16		12.998	3188.200	87559.461	0.0203
17		14.065	3281.000	96150.016	0.0223
18		14.698	3274.600	51265.617	0.0119
19		15.098	3664.400	34666.105	0.0080
20		15.565	3266.000	44457.500	0.0103
21		15.865	2678.600	55074.070	0.0128

GPC #3

22		16.265	3418.400	35927.398	0.0083
23		16.665	4674.200	52746.117	0.0122
24		16.765	2182.400	7947.102	0.0018
25	BAN Collect	17.032	3722.600	37164.906	0.0086
26		17.632	1362.500	62916.000	0.0146
27		24.332	1343081.375	429398336.000	99.6956
28		33.498	674.100	20410.400	0.0047
Total			1436631.040	430709490.055	100.000

Ingredient Table

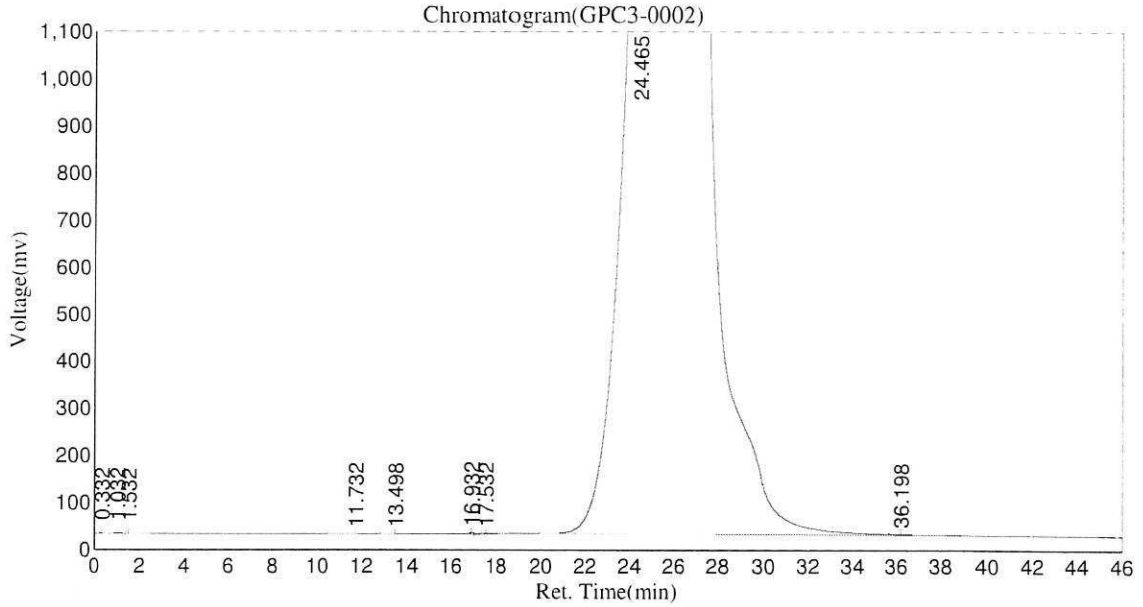
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BEJ0794-16H147;268;J187 LL SIM PNA

Date:2016-11-08,1:54:13 PM
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 Method File:C:\N2000\LL-Tiss.mtd

-BS

Analyst:GM
 Date/Time:2016-11-08,1:54:13 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.332	760.833	10945.400	0.0028
2		1.032	1088.000	27210.100	0.0069
3		1.532	459.576	9431.600	0.0024
4		11.732	41.079	1526.000	0.0004
5		13.498	52.333	2619.300	0.0007
6	BAN Collect	16.932	3715.143	36751.398	0.0093
7		17.532	2508.636	135622.000	0.0343
8		24.465	1345948.750	395239584.000	99.8917
9		36.198	2281.764	204429.219	0.0517
Total			1356856.115	395668119.017	100.000

Ingredient Table

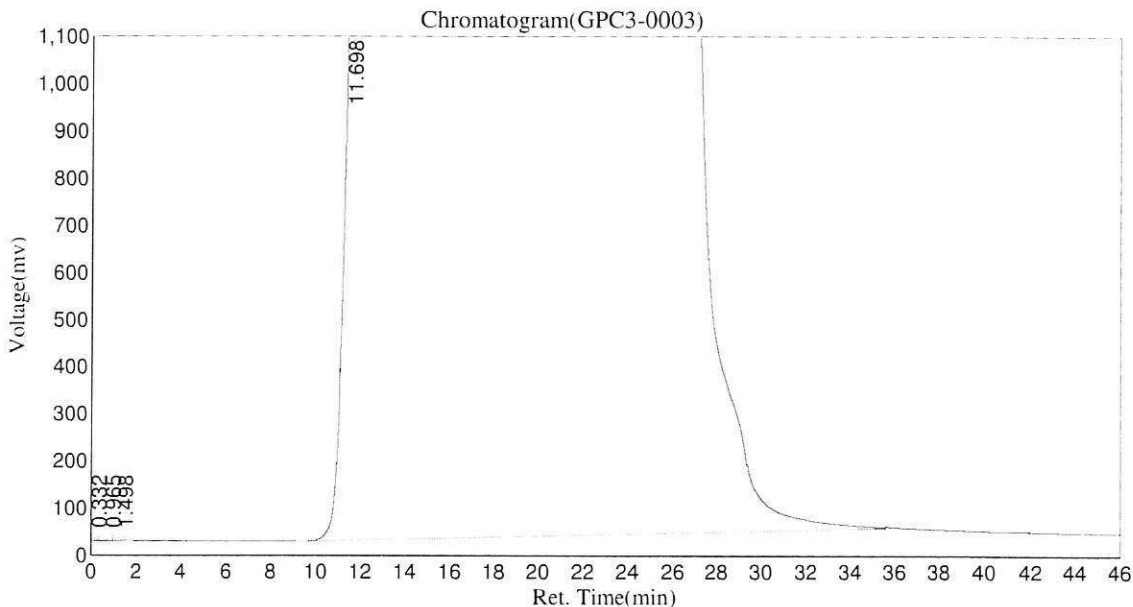
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1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BEJ0794-16H147;268;J187 LL SIM PNA

Date:2016-11-08,2:41:59 PM
 Data File:c:\n2000\data\1\110816\GPC3-0003
 Method File:C:\N2000\LL-Tiss.mtd

— 01

Analyst: GM
 Date/Time: 2016-11-08, 2:41:59 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.332	991.459	19067.391	0.0014
2		0.965	1235.081	33497.895	0.0025
3		1.498	340.750	5532.500	0.0004
4		11.698	1347027.125	1350419584.000	99.9957
Total			1349594.416	1350477681.785	100.000

Ingredient Table

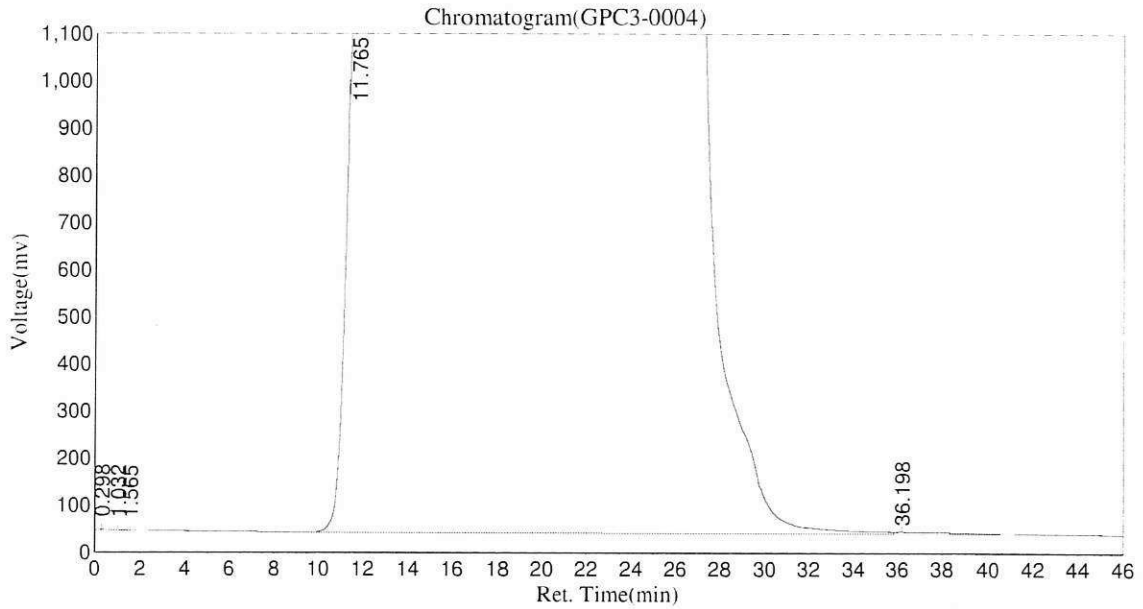
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BEJ0794-16H147;268;J187 LL SIM PNA

Date:2016-11-08,3:29:41 PM
 Data File:c:\n2000\data1\110816\GPC3-0004
 Method File:C:\N2000\LL-Tiss.mtd

①

Analyst:GM
 Date/Time:2016-11-08,3:29:41 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.298	929.235	15407.000	0.0011
2		1.032	1333.708	43810.801	0.0032
3		1.565	306.556	6699.000	0.0005
4		11.765	1337819.750	1351132544.000	99.9641
5		36.198	2926.263	419958.813	0.0311
Total			1343315.512	1351618419.613	100.000

Ingredient Table

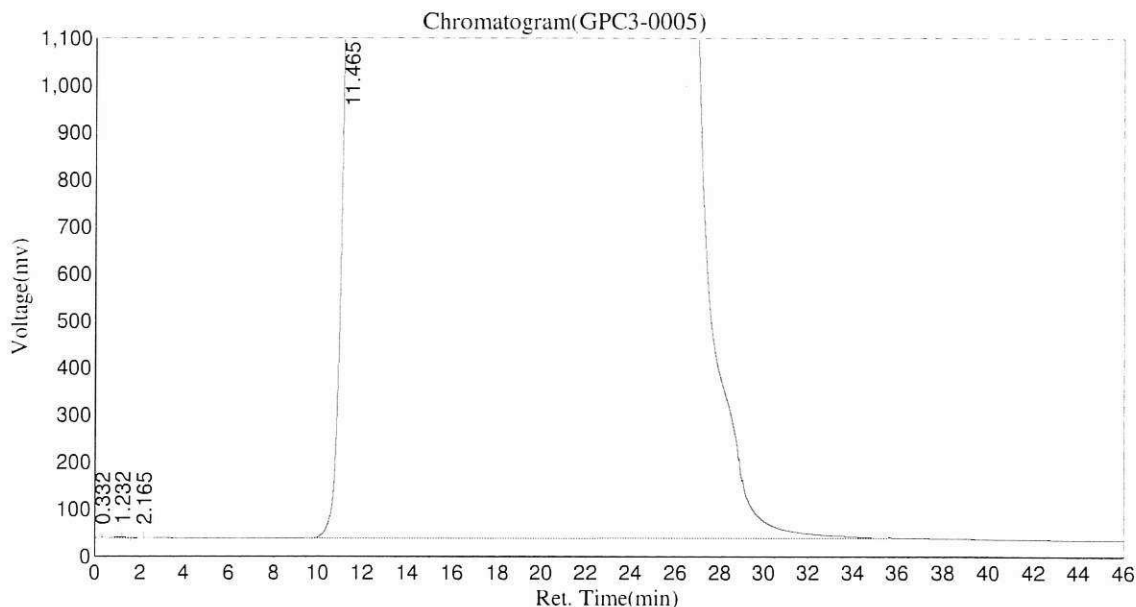
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BEJ0794-16H147;268;J187 LL SIM PNA

Date:2016-11-08,4:17:23 PM
 Data File:c:\n2000\data1\110816\GPC3-0005
 Method File:C:\N2000\LL-Tiss.mtd

01

Analyst:GM
 Date/Time:2016-11-08,4:17:23 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.332	784.167	16868.199	0.0013
2		1.232	1670.926	60994.602	0.0045
3		2.165	136.524	2961.900	0.0002
4		11.465	1341885.750	1344128768.000	99.9940
Total			1344477.366	1344209592.701	100.000

Ingredient Table

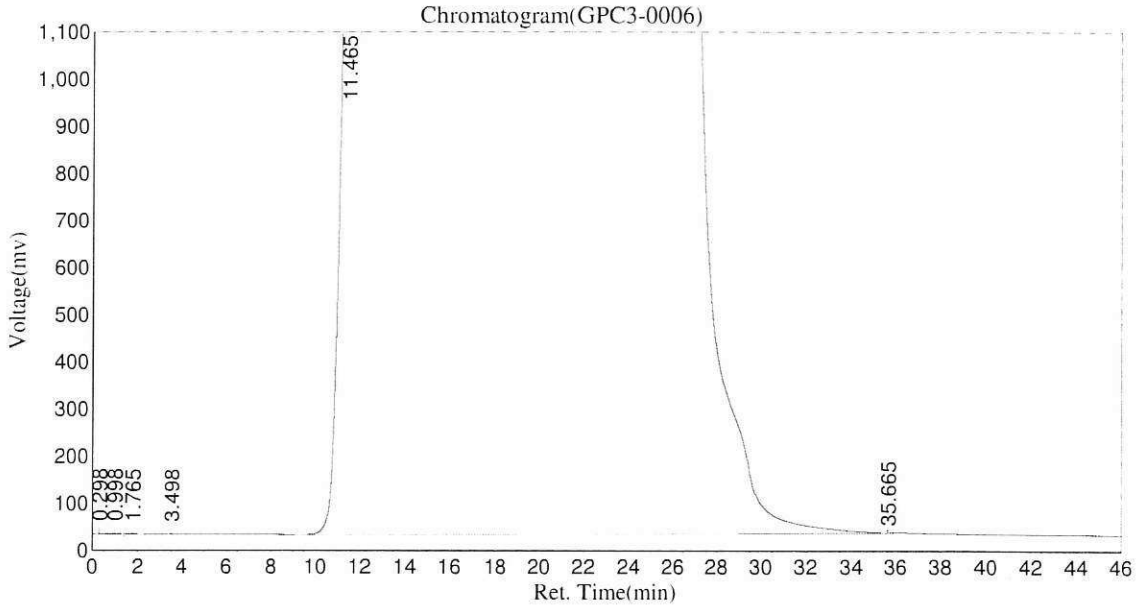
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BEJ0794-16H147;268;J187 LL SIM PNA

Date:2016-11-08,5:05:05 PM
 Data File:c:\n2000\data1\110816\GPC3-0006
 Method File:C:\N2000\LL-Tiss.mtd

Analyst:EGM
 Date/Time:2016-11-08,5:05:05 PM

02



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.298	772.765	12120.138	0.0009
2		0.998	998.647	25192.719	0.0018
3		1.765	449.471	12134.110	0.0009
4		3.498	885.000	3395.600	0.0002
5		11.465	1346564.500	1371328000.000	99.9955
6		35.665	1477.167	8740.000	0.0006
Total			1351147.549	1371389582.567	100.000

Ingredient Table

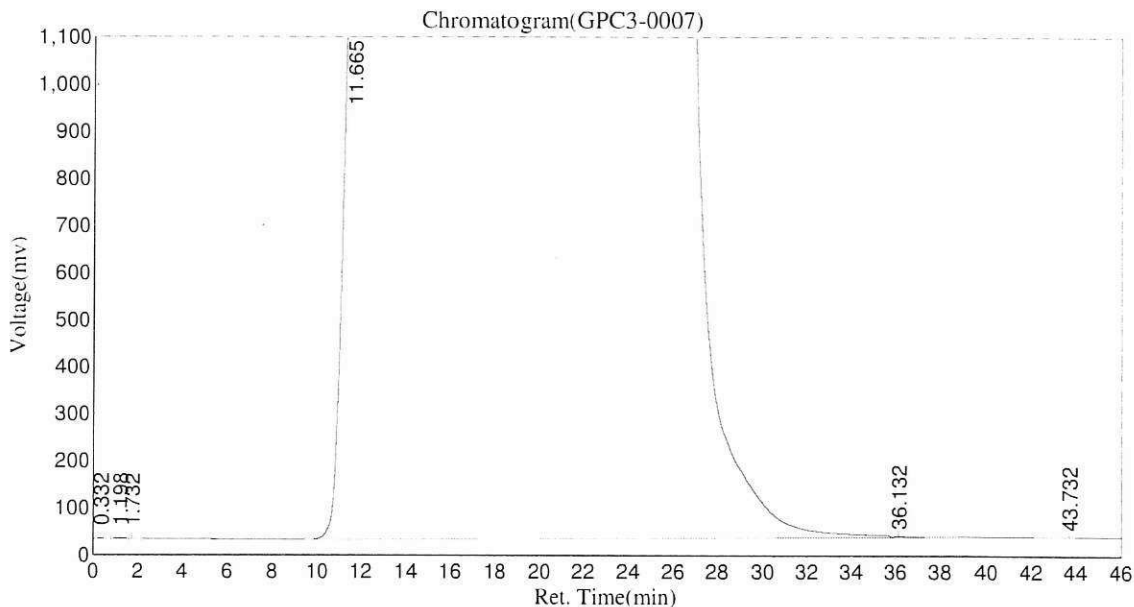
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BEJ0794-16H147;268;J187 LL SIM PNA

Date:2016-11-08,5:52:49 PM
 Data File:c:\n2000\data1\110816\GPC3-0007
 Method File:C:\N2000\LL-Tiss.mtd

—03

Analyst:GM
 Date/Time:2016-11-08,5:52:49 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.332	799.750	14475.600	0.0011
2		1.198	1214.560	40478.602	0.0030
3		1.732	278.474	5619.600	0.0004
4		11.665	1346765.875	1340973056.000	99.9828
5		36.132	1939.000	166891.344	0.0124
6		43.732	39.000	3698.000	0.0003
Total			1351036.659	1341204219.145	100.000

Ingredient Table

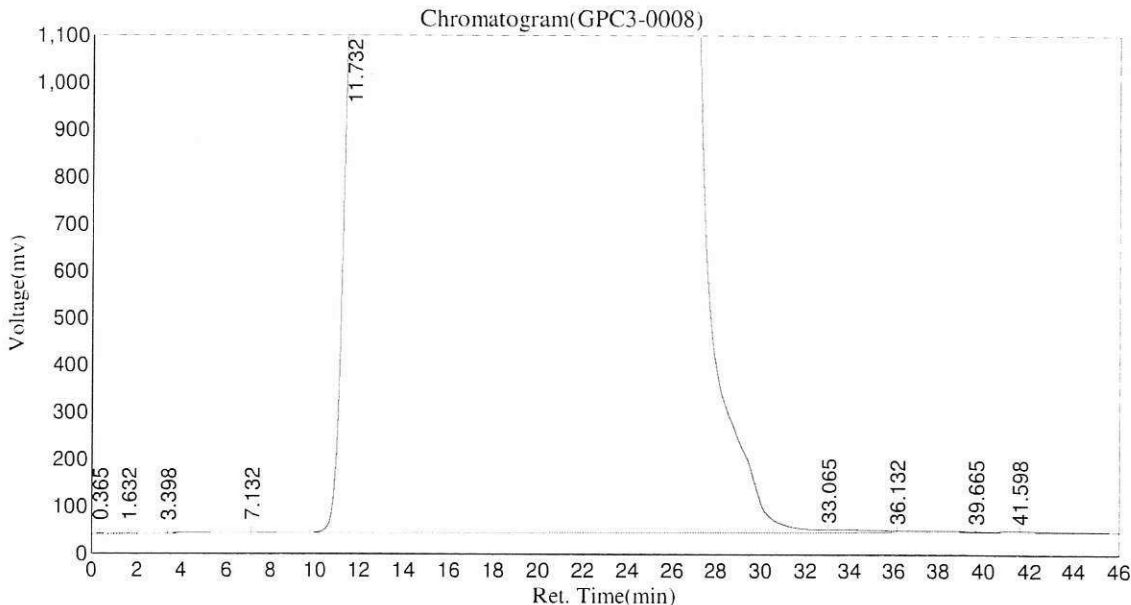
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BEJ0794-16H147;268;J187 LL SIM PNA

Date:2016-11-08,6:40:32 PM
 Data File:c:\n2000\data\110816\GPC3-0008
 Method File:C:\N2000\LL-Tiss.mtd

Analyst:GM
 Date/Time:2016-11-08,6:40:32 PM

-04



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.365	1076.895	24455.199	0.0018
2		1.632	1272.565	79322.539	0.0059
3		3.398	152.118	35063.703	0.0026
4		7.132	84.441	3416.200	0.0003
5		11.732	1335761.250	1336338560.000	99.8181
6		33.065	7222.320	1136094.875	0.0849
7		36.132	3716.032	610859.313	0.0456
8		39.665	2224.048	153437.766	0.0115
9		41.598	2559.736	393192.625	0.0294
Total			1354069.403	1338774402.219	100.000

Ingredient Table

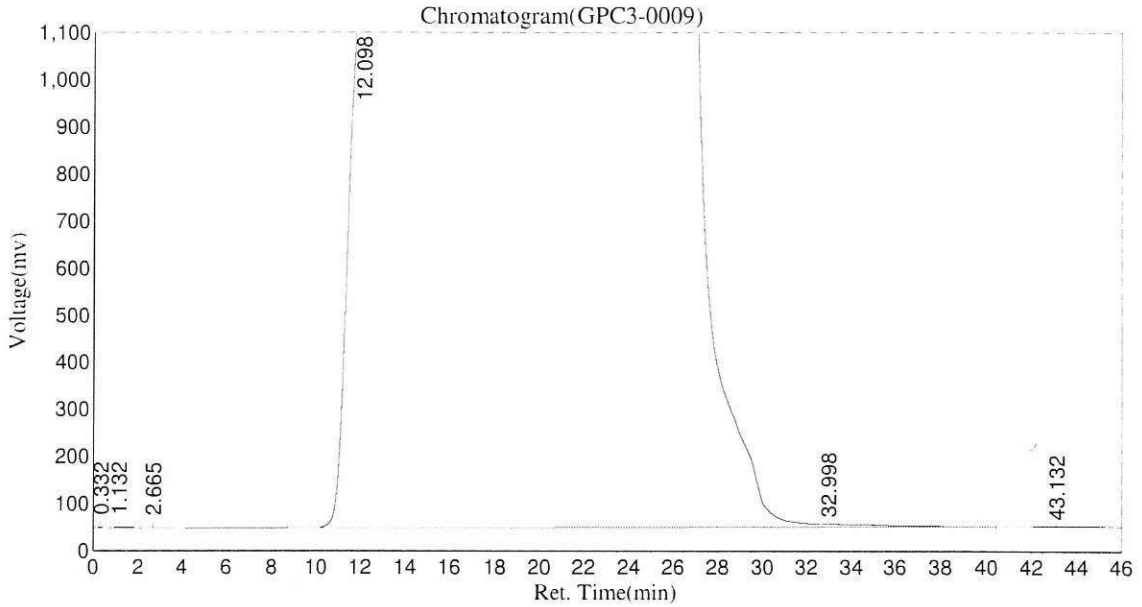
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BEJ0794-16H147;268;J187 LL SIM PNA

Date:2016-11-08,7:28:15 PM
 Data File:c:\n2000\data1\110816\GPC3-0009
 Method File:C:\N2000\LL-Tiss.mtd

OS

Analyst:GM
 Date/Time:2016-11-08,7:28:15 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.332	845.400	11318.800	0.0009
2		1.132	1381.195	78569.398	0.0061
3		2.665	263.967	19227.199	0.0015
4		12.098	1135818.625	1283404160.000	99.8769
5		32.998	6804.403	1321358.625	0.1028
6		43.132	916.417	151335.344	0.0118
Total			1146030.007	1284985969.366	100.000

Ingredient Table

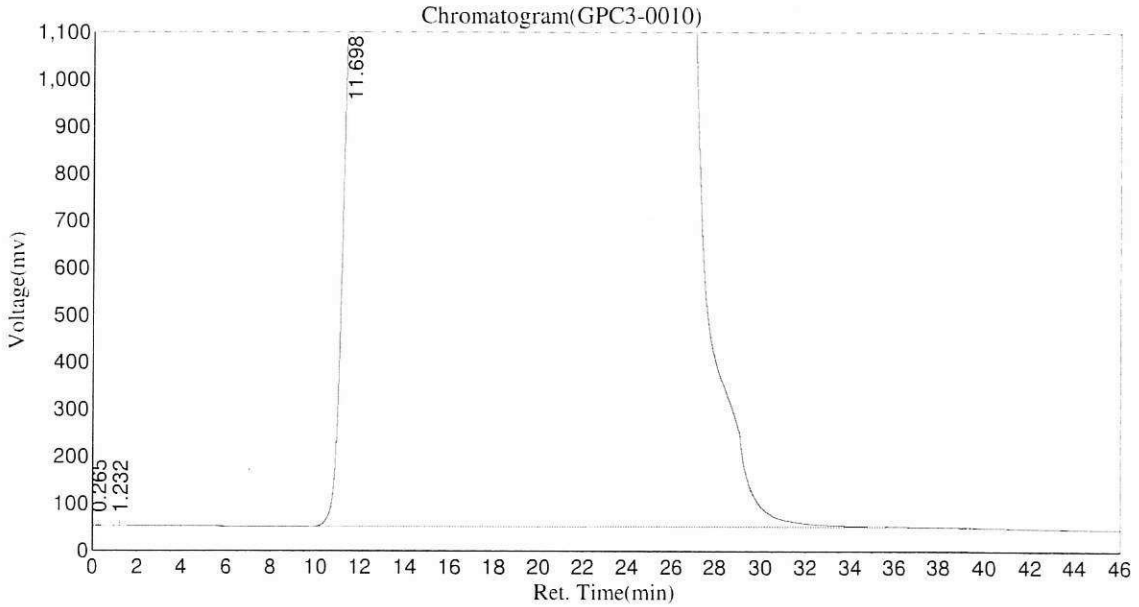
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000

BEJ0794-16H147;268;J187 LL SIM PNA

Date:2016-11-08,8:15:57 PM
 Data File:c:\n2000\data1\110816\GPC3-0010
 Method File:C:\N2000\LL-Tiss.mtd

Analyst:GM
 Date/Time:2016-11-08,8:15:58 PM

06



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		0.265	603.793	7828.600	0.0006
2		1.232	166.400	2247.700	0.0002
3		11.698	1329450.375	1326888320.000	99.9992
Total			1330220.568	1326898396.300	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	BAN Collect	17.000	0.100	0.00E+000	0.00E+000	0.0000
2	Pest Collect	21.000	0.100	0.00E+000	0.00E+000	0.0000
3	Pest Dump	35.000	0.100	0.00E+000	0.00E+000	0.0000
4	BAN Dump	36.000	0.100	0.00E+000	0.00E+000	0.0000



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Cleanup Batch: CEK0059

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup

Analysis: EPA 8270D-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
PG-REF-WS-1-161011	16J0187-05	16111011.D	11/08/2016	
PG-SMA-1-3-161011	16J0187-03	16111009.D	11/08/2016	
PG-SMA-1-2-161011	16J0187-02	16111008.D	11/08/2016	
PG-REF-PJ-1-161011	16J0187-04	16111010.D	11/08/2016	
PG-REF-GP-1-161011	16J0187-06	16111012.D	11/08/2016	
PG-SMA-1-1-161011	16J0187-01	16111007.D	11/08/2016	



CLEANUP BENCH SHEET

CEK0059

Matrix: Tissue

Cleanup using: Organics - EPA 3640A GPC Cleanup

Printed: 11/10/2016 11:52:59AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
16J0187-06	A	PG-REF-GP-1-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/8/2016	GM	
16J0187-05	A	PG-REF-WS-1-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/8/2016	GM	
16J0187-04	A	PG-REF-PJ-1-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/8/2016	GM	
16J0187-03	A	PG-SMA-1-3-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/8/2016	GM	
16J0187-02	A	PG-SMA-1-2-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/8/2016	GM	
16J0187-01	A	PG-SMA-1-1-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/8/2016	GM	
16H0268-01	A	PG-T08-MUS-COC-160829	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/8/2016	GM	
16H0147-01	A	PG-T0-MUS-COC-160816	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/8/2016	GM	
BEJ0794-BS1	-	LCS	-	0.5	0.5	-	11/8/2016	GM	
BEJ0794-BLK1	-	Blank	-	0.5	0.5	-	11/8/2016	GM	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Cleanup Batch: CEK0060

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup

Analysis: EPA 8270D-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
PG-SMA-1-2-161011	16J0187-02	16111008.D	11/09/2016	
PG-SMA-1-1-161011	16J0187-01	16111007.D	11/09/2016	
PG-REF-WS-1-161011	16J0187-05	16111011.D	11/09/2016	
PG-REF-PJ-1-161011	16J0187-04	16111010.D	11/09/2016	
PG-REF-GP-1-161011	16J0187-06	16111012.D	11/09/2016	
PG-SMA-1-3-161011	16J0187-03	16111009.D	11/09/2016	



CLEANUP BENCH SHEET

CEK0060

Matrix: Tissue

Cleanup using: Organics - EPA 3630C Silica Gel Cleanup

Printed: 11/10/2016 11:52:36AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
16J0187-06	A	PG-REF-GP-1-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/9/2016	GM	
16J0187-05	A	PG-REF-WS-1-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/9/2016	GM	
16J0187-04	A	PG-REF-PJ-1-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/9/2016	GM	
16J0187-03	A	PG-SMA-1-3-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/9/2016	GM	
16J0187-02	A	PG-SMA-1-2-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/9/2016	GM	
16J0187-01	A	PG-SMA-1-1-161011	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/9/2016	GM	
16H0268-01	A	PG-T0B-MUS-COC-160829	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/9/2016	GM	
16H0147-01	A	PG-T0-MUS-COC-160816	A 02	0.5	0.5	D-SIM PAH Low (0.01 ug/L - 0.5 u	11/9/2016	GM	
BEJ0794-BS1	-	LCS	-	0.5	0.5	-	11/9/2016	GM	
BEJ0794-BLK1	-	Blank	-	0.5	0.5	-	11/9/2016	GM	



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM**

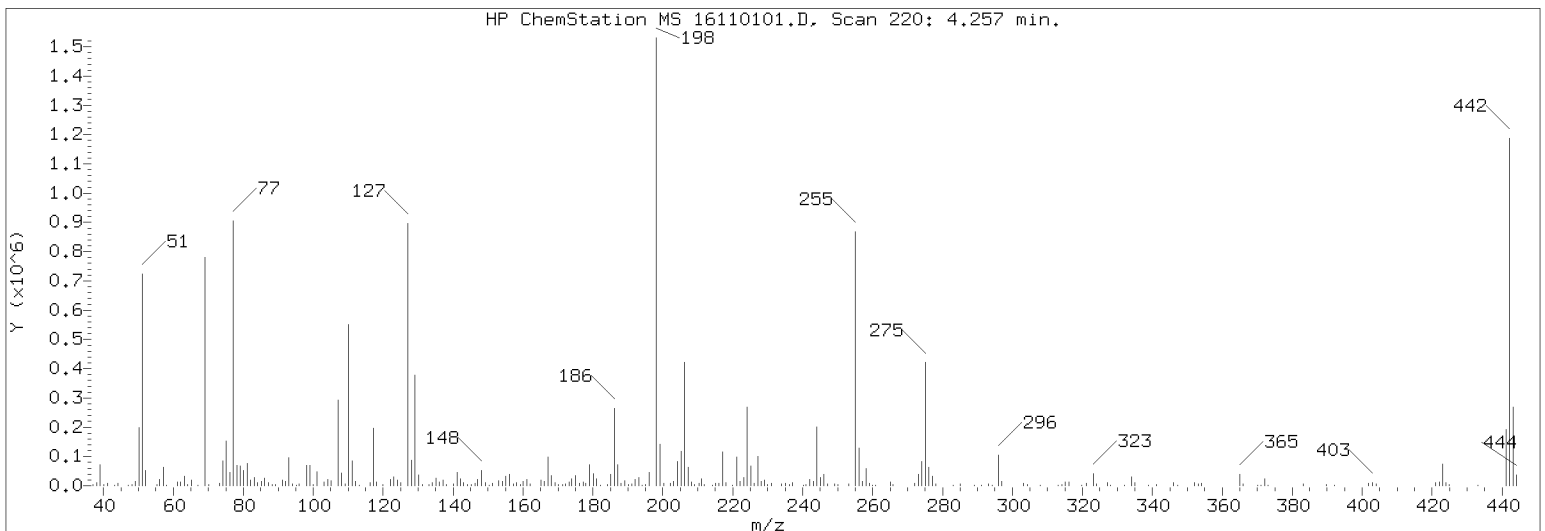
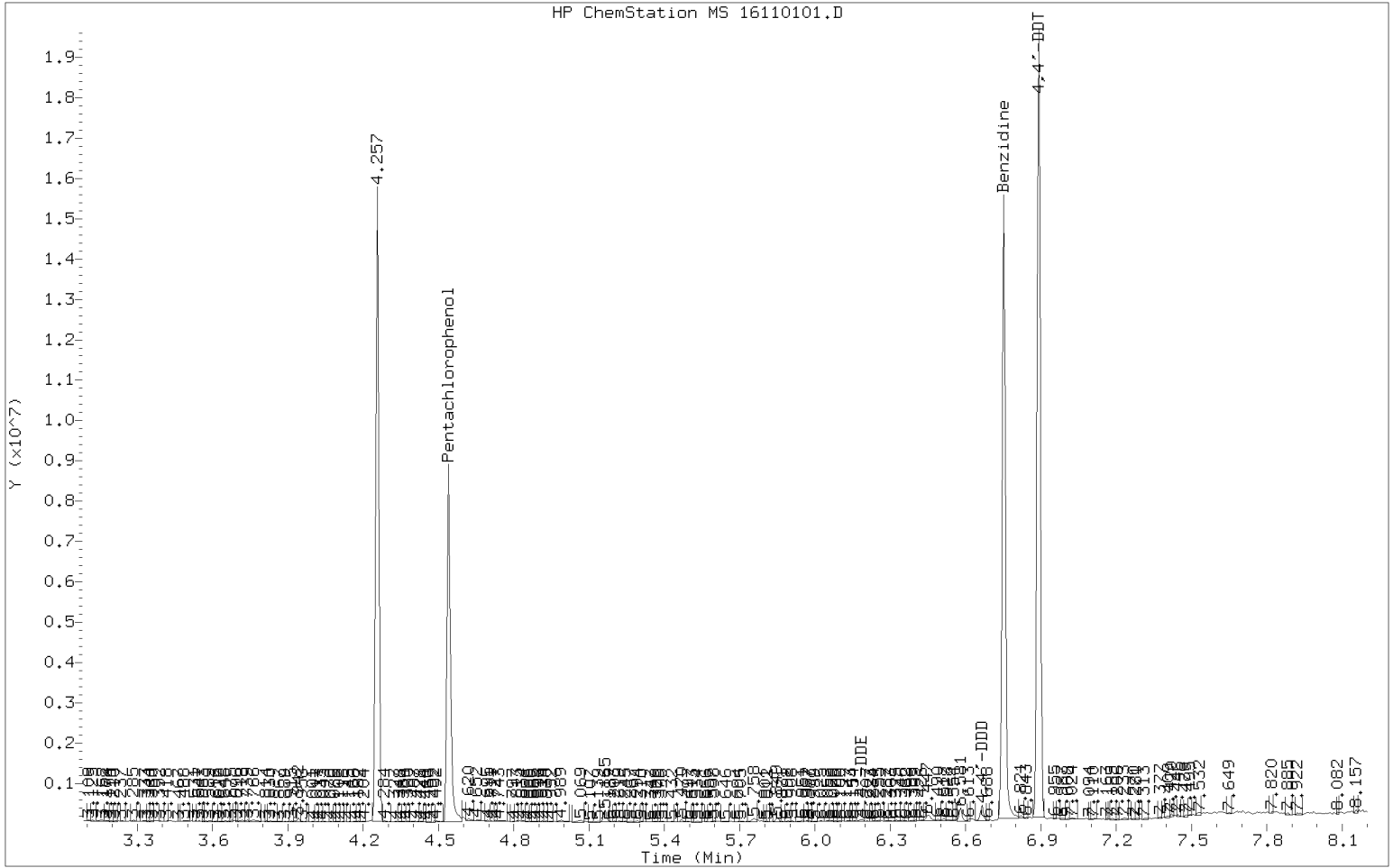
Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>16J0187</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Lab File ID:	<u>16110101.D</u>	Injection Date:	<u>11/01/16</u>
Instrument ID:	<u>NT11</u>	Injection Time:	<u>09:16</u>
Sequence:	<u>SEK0004</u>	Lab Sample ID:	<u>SEK0004-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	45.6	PASS
68	Less than 2% of 69	1.37	PASS
69	Less than 100% of 198	50.1	PASS
70	Less than 2% of 69	0.736	PASS
127	10 - 80% of 198	58.3	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	8.67	PASS
275	10 - 60% of 198	26.7	PASS
365	1 - 100% of 198	2.77	PASS
441	0.1 - 24% of 442	15.3	PASS
442	50 - 200% of 198	78	PASS
443	15 - 24% of 442	21.4	PASS

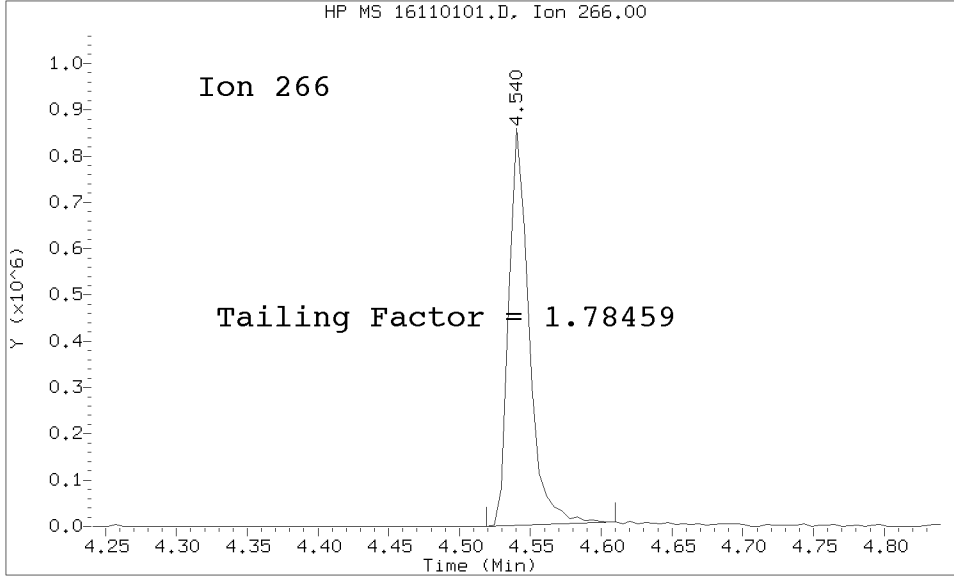
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SEK0004-TUN1	16110101.D	11/01/2016	9:16
Cal Standard	SEK0004-CAL4	16110102.D	11/01/2016	9:31
Cal Standard	SEK0004-CAL3	16110103.D	11/01/2016	10:34
Cal Standard	SEK0004-CAL1	16110104.D	11/01/2016	11:04
Cal Standard	SEK0004-CAL5	16110105.D	11/01/2016	11:34
Cal Standard	SEK0004-CAL2	16110106.D	11/01/2016	12:04
Cal Standard	SEK0004-CAL6	16110107.D	11/01/2016	12:34
Secondary Cal Check	SEK0004-SCV1	16110108.D	11/01/2016	13:04
Cleanup Blank	CEJ0249-CBL1	16110109.D	11/01/2016	13:35
GPC Check	CEJ0249-GPC1	16110110.D	11/01/2016	14:05
ZZZZZ	16J0334-01RE1	16110111.D	11/01/2016	14:35
Calibration Check	SEK0004-CCV1	16110112.D	11/01/2016	15:05

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20161101.b/16110101.D/16110101.D
Method Used: \20161101.b\DFTPP.m Inst: nt11
Injection Date: 01-NOV-2016 09:16 Operator: JW
Sample Info: SEK0004-TUN1 SEK0004-TUN1
Report Date: 11/01/2016 13:03



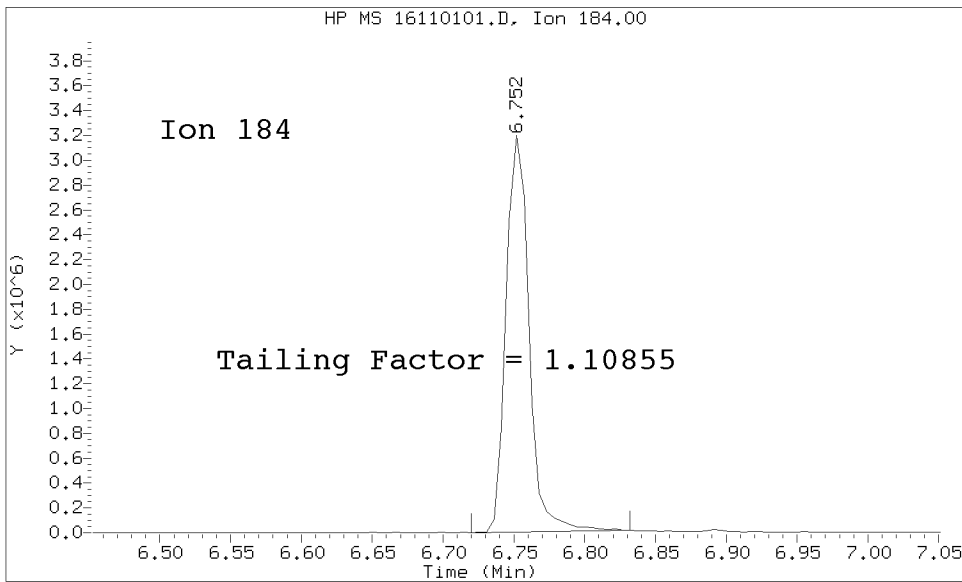
Datafile Analyzed: /20161101.b/16110101.D/16110101.D
Method Used: \20161101.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 01-NOV-2016 09:16 Operator: JW
Sample Info: SEK-TUN1
Report Date: 11/01/2016 13:03



Pentachlorophenol

=====
Exp. RT = 4.540
Found RT = 4.540

Tail Factor = 1.785 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 6.752
Found RT = 6.752

Tail Factor = 1.109 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.7845912	2.000	PASS
Benzidine	1.1085450	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2468908			N/A
4,4-DDE	6701	0.3	20.0	PASS
4,4-DDD	61939	2.4	20.0	PASS
4,4-DDD + DDE	68640	2.7	20.0	PASS

Tuning Sample, nt11.i/20161101.b/16110101.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	45.63
68	Less than 2.00% of mass 69	0.68 (1.37)
69	Mass 69 relative abundance	50.07
70	Less than 2.00% of mass 69	0.37 (0.74)
127	10.00 - 80.00% of mass 198	58.25
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	8.67
275	10.00 - 60.00% of mass 198	26.66
365	Greater than 1.00% of mass 198	2.77
441	0.01 - 24.00% of mass 442	11.91 (15.27)
442	50.00 - 200.00% of mass 198	78.01
443	15.00 - 24.00% of mass 442	16.68 (21.39)

Data File: 16110101.D
 Spectrum: Avg. Scans 219-221 (4.26), Background Scan 214
 Location of Maximum: 198.00
 Number of points: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	2439	117.00	142144	190.00	3295	272.00	3958
38.00	10054	118.00	11135	191.00	5043	273.00	29088
39.00	52424	119.00	1326	192.00	16504	274.00	62184
40.00	1484	120.00	2258	193.00	20256	275.00	320896
41.00	2968	122.00	14299	194.00	2876	276.00	46424
43.00	942	123.00	22568	195.00	1790	277.00	24704
44.00	261	124.00	12333	196.00	39072	278.00	3697
45.00	986	125.00	8981	198.00	1203712	283.00	1761
47.00	301	127.00	701184	199.00	104344	284.00	795
48.00	2103	128.00	65672	200.00	7802	285.00	5578
49.00	6498	129.00	279680	201.00	2678	289.00	733
50.00	153920	130.00	28000	202.00	2807	291.00	1006
51.00	549248	131.00	5248	203.00	13246	292.00	718
52.00	33832	132.00	3755	204.00	58656	293.00	5167
53.00	1477	133.00	1271	205.00	86240	294.00	1582
55.00	2497	134.00	7154	206.00	337600	296.00	82032
56.00	18400	135.00	25880	207.00	48928	297.00	11164
57.00	50824	136.00	8076	208.00	10823	301.00	897
58.00	857	137.00	12135	209.00	5306	303.00	7676
61.00	7732	138.00	2003	210.00	6072	304.00	3601
62.00	9658	140.00	4153	211.00	16840	308.00	3054
63.00	23504	141.00	34288	212.00	1926	313.00	718
64.00	2760	142.00	13870	213.00	764	314.00	4757
65.00	15522	143.00	7332	214.00	803	315.00	9615
66.00	900	144.00	3154	215.00	3686	316.00	7556
67.00	1665	145.00	1184	216.00	6574	320.00	810
68.00	8238	146.00	6683	217.00	86120	321.00	4552
69.00	602688	147.00	18088	218.00	10805	323.00	27784
70.00	4435	148.00	34752	220.00	1933	324.00	5425
71.00	725	149.00	8021	221.00	75664	327.00	5661
73.00	5547	150.00	2157	222.00	10791	328.00	835
74.00	65792	151.00	4860	223.00	21544	332.00	1687
75.00	116448	152.00	1190	224.00	198592	333.00	679
76.00	37944	153.00	11900	225.00	48184	334.00	20432
77.00	717120	154.00	11527	226.00	3876	335.00	5332
78.00	52816	155.00	21120	227.00	77176	336.00	726
79.00	51128	156.00	32280	228.00	9626	339.00	695
80.00	40232	157.00	5390	229.00	17264	341.00	3556
81.00	59872	158.00	6167	230.00	1152	346.00	6837
82.00	13860	159.00	5432	231.00	7848	347.00	744
83.00	14350	160.00	11211	233.00	1487	352.00	8556
85.00	10742	161.00	17920	234.00	4798	353.00	6388
86.00	9822	162.00	4286	235.00	5614	354.00	8814
87.00	8201	163.00	981	236.00	3920	355.00	1145
88.00	2698	164.00	1894	237.00	6914	365.00	33352
89.00	1195	165.00	13021	239.00	1772	366.00	5174
91.00	9817	166.00	11088	240.00	2694	370.00	1569
92.00	11221	167.00	69824	241.00	2458	371.00	2284
93.00	72208	168.00	26120	242.00	14148	372.00	16448

94.00	6228	169.00	6898	243.00	11081	373.00	4492
95.00	3203	170.00	2101	244.00	141248	383.00	4847
96.00	4495	171.00	4453	245.00	18472	390.00	1842
97.00	983	172.00	5198	246.00	27528	391.00	1095
98.00	53088	173.00	9570	247.00	6172	392.00	716
99.00	49984	174.00	16608	248.00	1049	402.00	8126
100.00	4335	175.00	26744	249.00	4559	403.00	10067
101.00	34296	176.00	6478	250.00	1351	404.00	4348
103.00	9842	177.00	13268	251.00	982	421.00	10884
104.00	16920	178.00	5712	252.00	1140	422.00	8822
105.00	15395	179.00	53816	253.00	5055	423.00	59384
106.00	3090	180.00	33408	255.00	666688	424.00	9176
107.00	220416	181.00	19136	256.00	105808	425.00	1513
108.00	35048	182.00	2948	257.00	7977	433.00	865
109.00	4158	184.00	3798	258.00	40352	441.00	143360
110.00	408832	185.00	25312	259.00	6548	442.00	939008
111.00	63728	186.00	200704	260.00	807	443.00	200832
112.00	9489	187.00	55888	261.00	1037	444.00	22432
113.00	2735	188.00	5421	265.00	15759		
116.00	11509	189.00	12329	266.00	1597		



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM**

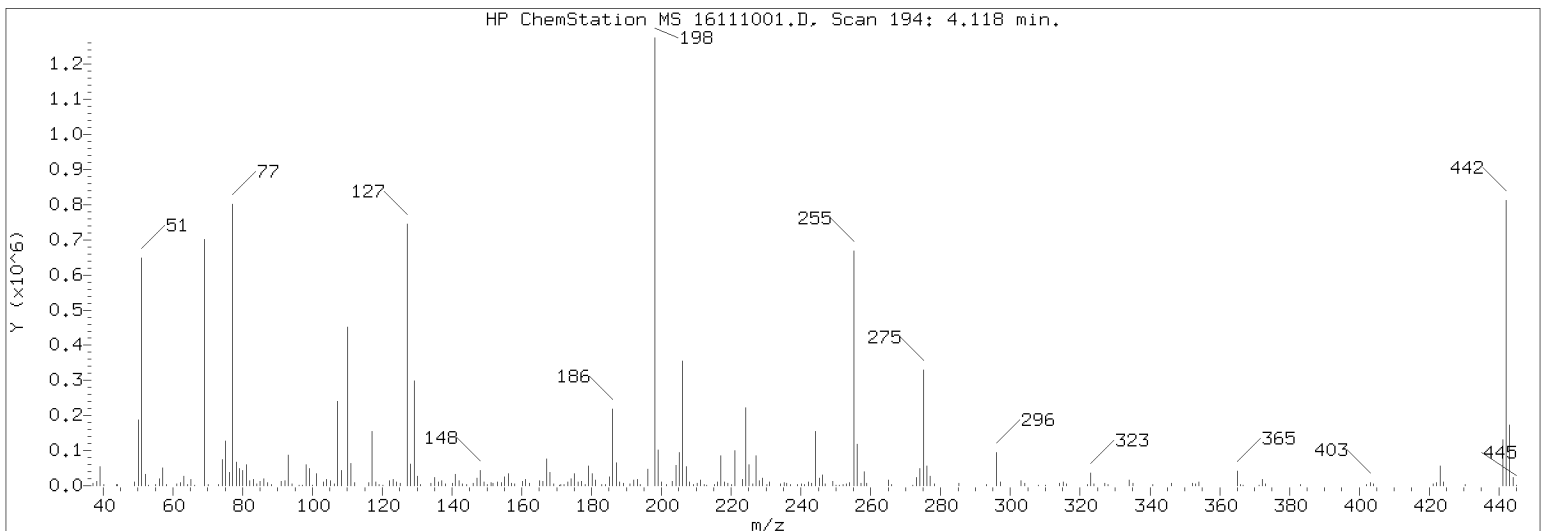
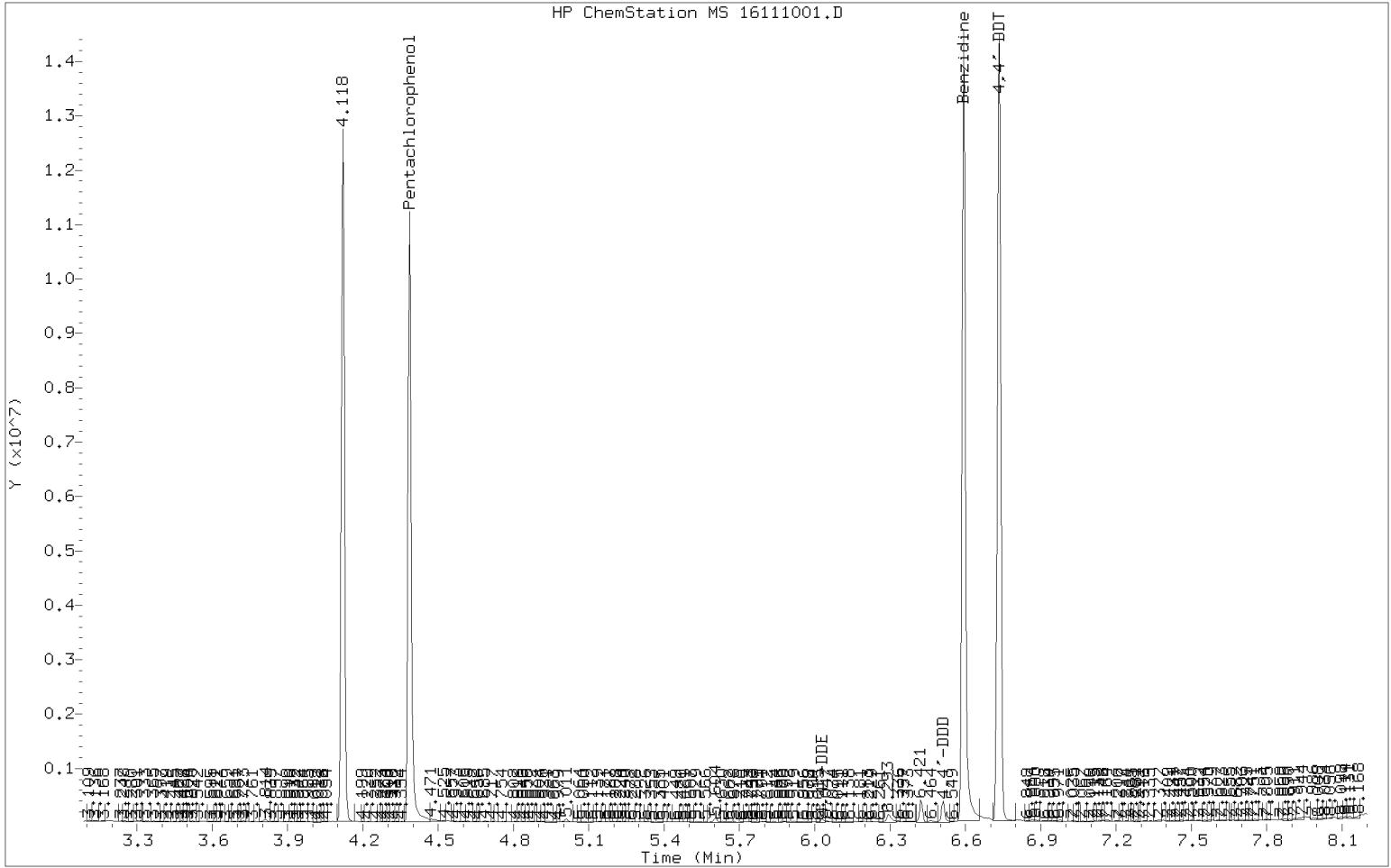
Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>16J0187</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Lab File ID:	<u>16111001.D</u>	Injection Date:	<u>11/10/16</u>
Instrument ID:	<u>NT11</u>	Injection Time:	<u>11:23</u>
Sequence:	<u>SEK0151</u>	Lab Sample ID:	<u>SEK0151-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	48.9	PASS
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	51.8	PASS
70	Less than 2% of 69	0.525	PASS
127	10 - 80% of 198	57.6	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	8.08	PASS
275	10 - 60% of 198	25.4	PASS
365	1 - 100% of 198	3.4	PASS
441	0.1 - 24% of 442	16.4	PASS
442	50 - 200% of 198	71.4	PASS
443	15 - 24% of 442	22.1	PASS

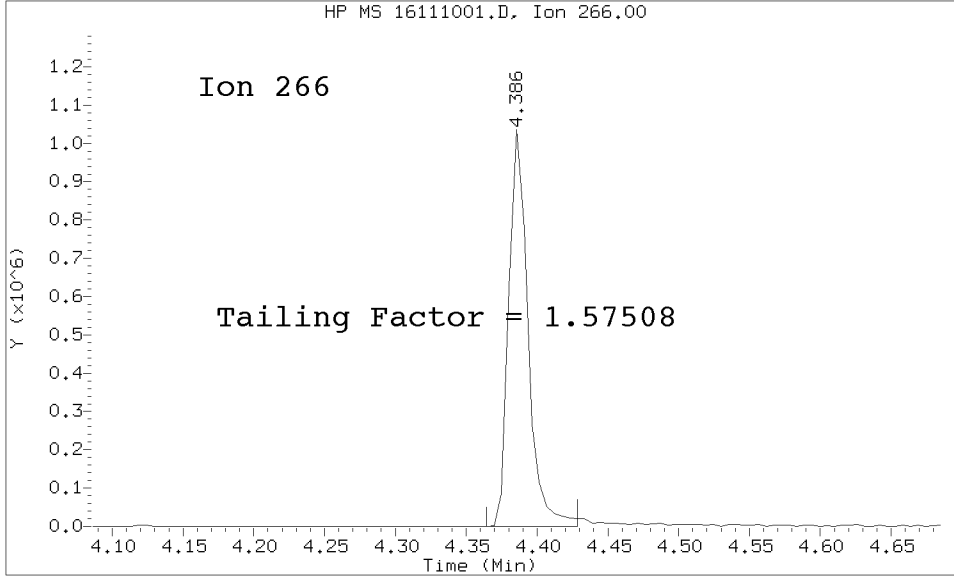
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SEK0151-TUN1	16111001.D	11/10/2016	11:23
Initial Cal Check	SEK0151-ICV1	16111002.D	11/10/2016	11:38
Blank	BEJ0794-BLK1	16111003.D	11/10/2016	12:40
LCS	BEJ0794-BS1	16111004.D	11/10/2016	13:09
ZZZZZ	16H0147-01	16111005.D	11/10/2016	13:39
ZZZZZ	16H0268-01	16111006.D	11/10/2016	14:10
PG-SMA-1-1-161011	16J0187-01	16111007.D	11/10/2016	14:40
PG-SMA-1-2-161011	16J0187-02	16111008.D	11/10/2016	15:10
PG-SMA-1-3-161011	16J0187-03	16111009.D	11/10/2016	15:40
PG-REF-PJ-1-161011	16J0187-04	16111010.D	11/10/2016	16:10
PG-REF-WS-1-161011	16J0187-05	16111011.D	11/10/2016	16:40
PG-REF-GP-1-161011	16J0187-06	16111012.D	11/10/2016	17:10
Calibration Check	SEK0151-CCV1	16111013.D	11/10/2016	17:40

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20161110.b/16111001.D/16111001.D
Method Used: \20161110.b\DFTPP.m Inst: nt11
Injection Date: 10-NOV-2016 11:23 Operator: JW
Sample Info: SEK0151-TUN1 SEK0151-TUN1
Report Date: 11/10/2016 13:01



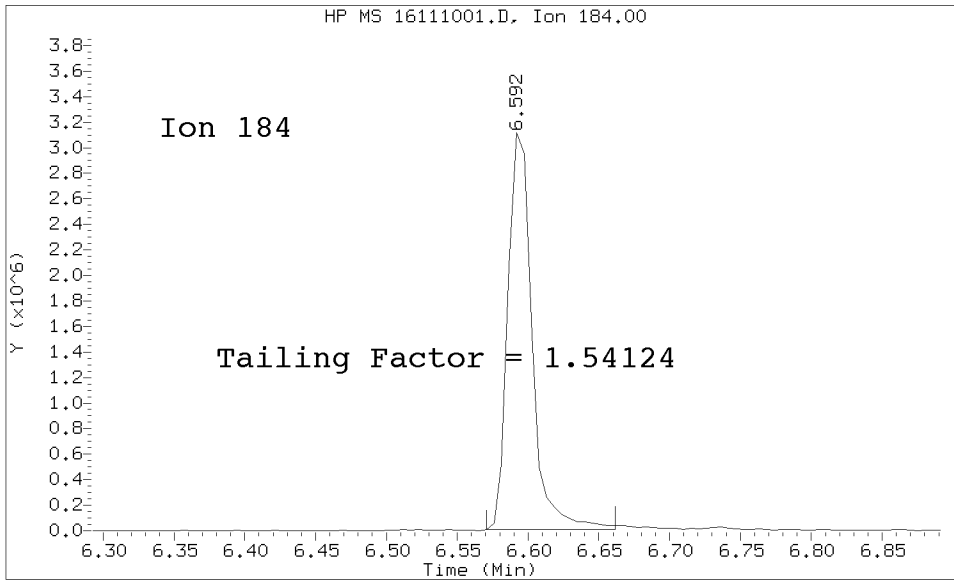
Datafile Analyzed: /20161110.b/16111001.D/16111001.D
Method Used: \20161110.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 10-NOV-2016 11:23 Operator: JW
Sample Info: SEK-TUN1
Report Date: 11/10/2016 13:01



Pentachlorophenol

=====
Exp. RT = 4.418
Found RT = 4.386

Tail Factor = 1.575 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 6.629
Found RT = 6.592

Tail Factor = 1.541 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.5750799	2.000	PASS
Benzidine	1.5412371	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2015351			N/A
4,4-DDE	10585	0.5	20.0	PASS
4,4-DDD	64915	3.1	20.0	PASS
4,4-DDD + DDE	75500	3.6	20.0	PASS

Tuning Sample, nt11.i/20161110.b/16111001.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	48.95
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	51.77
70	Less than 2.00% of mass 69	0.27 (0.53)
127	10.00 - 80.00% of mass 198	57.55
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	8.08
275	10.00 - 60.00% of mass 198	25.39
365	Greater than 1.00% of mass 198	3.40
441	0.01 - 24.00% of mass 442	11.71 (16.40)
442	50.00 - 200.00% of mass 198	71.39
443	15.00 - 24.00% of mass 442	15.75 (22.06)

Data File: 16111001.D
Spectrum: Avg. Scans 193-195 (4.12), Background Scan 188
Location of Maximum: 198.00
Number of points: 263

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	3412	123.00	15945	196.00	34512	274.00	49688
38.00	8085	124.00	6912	198.00	1011648	275.00	256832
39.00	37232	125.00	7074	199.00	81712	276.00	40288
40.00	1801	127.00	582208	200.00	5942	277.00	19648
44.00	5093	128.00	46680	201.00	4760	278.00	5095
49.00	5947	129.00	231424	202.00	1415	283.00	1019
50.00	139136	130.00	20536	203.00	8330	285.00	4258
51.00	495168	131.00	3385	204.00	43192	290.00	769
52.00	26088	134.00	4590	205.00	73328	293.00	4870
53.00	779	135.00	18560	206.00	276736	294.00	2073
55.00	3589	136.00	7259	207.00	41072	296.00	66960
56.00	15473	137.00	10653	208.00	7934	297.00	7871
57.00	36904	138.00	2487	209.00	2218	302.00	837
58.00	1908	139.00	917	210.00	8317	303.00	11057
61.00	6013	140.00	3219	211.00	13349	304.00	2917
62.00	7834	141.00	26600	212.00	966	308.00	1662
63.00	21032	142.00	8919	213.00	876	309.00	894
64.00	2782	143.00	4505	215.00	2642	310.00	755
65.00	10643	144.00	1256	216.00	8334	314.00	4465
66.00	704	145.00	1304	217.00	73296	315.00	7464
69.00	523776	146.00	4770	218.00	8792	316.00	5061
70.00	2751	147.00	15878	219.00	3423	321.00	1157
73.00	4316	148.00	36576	220.00	2356	322.00	1061
74.00	50208	149.00	6021	221.00	67536	323.00	31472
75.00	92320	150.00	2669	222.00	1426	324.00	5398
76.00	31800	151.00	6779	223.00	18960	325.00	1059
77.00	596608	152.00	3994	224.00	160192	327.00	4678
78.00	50512	153.00	7363	225.00	44568	328.00	1453
79.00	37176	154.00	7425	226.00	4928	332.00	1270
80.00	28496	155.00	16848	227.00	64616	333.00	1731
81.00	47368	156.00	24384	228.00	10709	334.00	14241
82.00	12734	157.00	4392	229.00	15654	335.00	5609
83.00	13252	158.00	4693	230.00	2250	341.00	2829
84.00	2682	159.00	3650	231.00	6269	346.00	5123
85.00	8417	160.00	10009	234.00	3764	351.00	770
86.00	11277	161.00	13505	235.00	5347	352.00	7492
87.00	5275	162.00	4744	236.00	5269	353.00	5947
88.00	1395	165.00	11652	237.00	3223	354.00	9165
89.00	735	166.00	9451	238.00	817	355.00	1632
91.00	8742	167.00	57368	239.00	2006	365.00	34376
92.00	10808	168.00	28232	240.00	2595	366.00	2565
93.00	61816	169.00	5452	241.00	3788	367.00	715
94.00	3957	170.00	1767	242.00	8144	371.00	1499
96.00	2506	171.00	2491	243.00	6777	372.00	13198
97.00	723	172.00	4401	244.00	122808	373.00	3308
98.00	48304	173.00	6805	245.00	15149	374.00	760
99.00	37376	174.00	13845	246.00	23616	383.00	3700
100.00	2807	175.00	27128	247.00	3131	385.00	832
101.00	22728	176.00	8779	249.00	6852	390.00	795

102.00	1359	177.00	11102	250.00	768	392.00	750
103.00	7925	178.00	1339	251.00	710	402.00	4412
104.00	14082	179.00	41664	252.00	2495	403.00	8924
105.00	10390	180.00	31312	253.00	4620	404.00	2833
106.00	3188	181.00	13658	254.00	3271	421.00	6230
107.00	178432	183.00	2704	255.00	526464	422.00	6093
108.00	31360	184.00	3981	256.00	91880	423.00	51024
109.00	2095	185.00	19336	257.00	6944	424.00	8204
110.00	340992	186.00	159104	258.00	31400	425.00	689
111.00	48272	187.00	50304	259.00	6598	429.00	756
112.00	5073	188.00	7095	260.00	751	430.00	1710
116.00	9100	189.00	7374	265.00	13234	441.00	118424
117.00	119608	191.00	3349	266.00	2277	442.00	722176
118.00	8955	192.00	12760	270.00	744	443.00	159296
119.00	1365	193.00	13634	271.00	775	444.00	16720
120.00	2667	194.00	2746	272.00	2347	445.00	864
122.00	11135	195.00	2841	273.00	17928		



INITIAL CALIBRATION DATA

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 16J0187
Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
Calibration: ZK00002 Instrument: NT11
Calibration Date: 11/01/2016 13:18 Column (1): RXi-17Sil-MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Naphthalene	1000	0.9302904	500	1.058	250	1.120296	100	1.222338	50	1.227268	10	1.436464
2-Methylnaphthalene	1000	0.6677359	500	0.7384141	250	0.7719862	100	0.8206285	50	0.7490332	10	0.7972565
Acenaphthylene	1000	1.699905	500	1.878504	250	1.986327	100	2.153647	50	2.021117	10	2.194353
Acenaphthene	1000	1.133055	500	1.232364	250	1.261446	100	1.358647	50	1.32033	10	1.532912
Dibenzofuran	1000	1.540937	500	1.707004	250	1.805952	100	1.917698	50	1.88469	10	1.952902
Fluorene	1000	1.294232	500	1.409975	250	1.464822	100	1.536418	50	1.448093	10	1.511619
Phenanthrene	1000	1.110793	500	1.276948	250	1.359632	100	1.466869	50	1.439035	10	1.509058
Anthracene	1000	1.114522	500	1.276872	250	1.365544	100	1.435214	50	1.30444	10	1.41287
Fluoranthene	1000	1.03415	500	1.158915	250	1.197849	100	1.238125	50	1.146145	10	1.203501
Pyrene	1000	1.352519	500	1.505617	250	1.57621	100	1.671194	50	1.570154	10	1.748076
Benzo(a)anthracene	1000	1.198993	500	1.297758	250	1.3707	100	1.418123	50	1.330132	10	1.398085
Chrysene	1000	1.216593	500	1.33858	250	1.395309	100	1.463876	50	1.432887	10	1.496486
Benzo(b)fluoranthene	1000	0.9341969	500	1.017724	250	1.023318	100	1.015678	50	1.007093	10	1.070495
Benzo(k)fluoranthene	1000	1.066488	500	1.119182	250	1.105841	100	1.194839	50	1.099507	10	1.108204
Benzo(j)fluoranthene	1000	0.9434426	500	1.001126	250	0.9542696	100	1.022236	50	1.003383	10	0.9914742
Benzo(a)pyrene	1000	0.9319624	500	0.9813762	250	0.9562755	100	0.9877835	50	0.9350025	10	0.963504
Indeno(1,2,3-cd)pyrene	1000	1.094155	500	1.119587	250	1.048526	100	1.070381	50	1.00083	10	0.9990573
Dibenzo(a,h)anthracene	1000	0.8936226	500	0.9015163	250	0.8398366	100	0.8509656	50	0.7994673	10	0.7977541
Benzo(g,h,i)perylene	1000	0.9108665	500	0.9308817	250	0.8774948	100	0.9207446	50	0.8921275	10	0.9890294
1-Methylnaphthalene	1000	0.6056111	500	0.6624351	250	0.6896771	100	0.7307884	50	0.6695803	10	0.7170798
Perylene	1000	0.9340366	500	0.9919639	250	0.9719493	100	1.024294	50	0.9947023	10	1.047415
Benzo(e)pyrene	1000	0.9369447	500	1.003613	250	0.9708128	100	1.022393	50	1.007187	10	1.030508
2-Methylnaphthalene-d10	1000	0.5509576	500	0.5897072	250	0.6075885	100	0.647317	50	0.5947038	10	0.6332152
Dibenzo[a,h]anthracene-d14	1000	0.6476647	500	0.6450568	250	0.6199675	100	0.6197279	50	0.5795353	10	0.6048212
Fluoranthene-d10	1000	0.8718064	500	0.9420403	250	0.9622433	100	0.9851832	50	0.9284512	10	0.9945933



INITIAL CALIBRATION DATA

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	16J0187
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	ZK00002	Instrument:	NT11
Calibration Date:	11/01/2016 13:18	Column (1):	RXi-17Sil-MS

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Naphthalene	1.165776	14.8			RSD (20)	
2-Methylnaphthalene	0.7575091	7.1			RSD (20)	
Acenaphthylene	1.988976	9.2			RSD (20)	
Acenaphthene	1.306459	10.4			RSD (20)	
Dibenzofuran	1.80153	8.6			RSD (20)	
Fluorene	1.444193	6.0			RSD (20)	
Phenanthrene	1.360389	10.8			RSD (20)	
Anthracene	1.318244	8.9			RSD (20)	
Fluoranthene	1.163114	6.1			RSD (20)	
Pyrene	1.570628	8.7			RSD (20)	
Benzo(a)anthracene	1.335632	6.0			RSD (20)	
Chrysene	1.390622	7.3			RSD (20)	
Benzo(b)fluoranthene	1.011417	4.3			RSD (20)	
Benzo(k)fluoranthene	1.115677	3.8			RSD (20)	
Benzo(j)fluoranthene	0.9859886	3.1			RSD (20)	
Benzo(a)pyrene	0.9593173	2.4			RSD (20)	
Indeno(1,2,3-cd)pyrene	1.055423	4.7			RSD (20)	
Dibenzo(a,h)anthracene	0.8471938	5.3			RSD (20)	
Benzo(g,h,i)perylene	0.9201908	4.2			RSD (20)	
1-Methylnaphthalene	0.6791953	6.6			RSD (20)	
Perylene	0.9940602	4.0			RSD (20)	
Benzo(e)pyrene	0.9952431	3.5			RSD (20)	
2-Methylnaphthalene-d10	0.6039149	5.7			RSD (20)	
Dibenzo[a,h]anthracene-d14	0.6194622	4.1			RSD (20)	
Fluoranthene-d10	0.9473863	4.7			RSD (20)	

<u>Analysis</u>	<u>Matrix</u>	<u>Method</u>
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Tissue	EPA 8270D-SIM

Checklist: Initial Calibration Checklist-SVOA

#	Checklist Item	Response	Analyst Initials	Date
1	Element Calibration Code Comments: ZK00002	YES	JLW	11/01/2016
2	DFTPP Tune met criteria	YES	JLW	11/01/2016
3	DDT breakdown <20%	YES	JLW	11/01/2016
4	Peak Tailing factor <= 2%	YES	JLW	11/01/2016
5	ICal meets 20% RSD, LR COD, and QR COD limits	YES	JLW	11/01/2016
6	NO ICAL Q Flag applied	YES	JLW	11/01/2016
7	Manual integrations include before/after pictures	YES	JLW	11/01/2016
8	Spectral Library matches updated	NA	JLW	11/01/2016
9	Internal Standard areas within 50-200% from reference	YES	JLW	11/01/2016
10	Minimum response factors met	YES	JLW	11/01/2016
11	All SCV within +/- 20% (DOD)	YES	JLW	11/01/2016
12	All SCV within +/- 30%	YES	JLW	11/01/2016
13	NO Linear or Quadratic fits used	YES	JLW	11/01/2016
14	NO Calibration points dropped	YES	JLW	11/01/2016
15	Additional notes	NA	JLW	11/01/2016
16	Reviewer approval (Reviewer)	YES	BB	11/01/2016

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-NOV-2016 09:31
 End Cal Date : 01-NOV-2016 12:34
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Last Edit : 01-Nov-2016 13:04 nt11.i
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem3\nt11.i\20161101.b\16110104.D
 Level 2: \\target\share\chem3\nt11.i\20161101.b\16110106.D
 Level 3: \\target\share\chem3\nt11.i\20161101.b\16110103.D
 Level 4: \\target\share\chem3\nt11.i\20161101.b\16110102.D
 Level 5: \\target\share\chem3\nt11.i\20161101.b\16110105.D
 Level 6: \\target\share\chem3\nt11.i\20161101.b\16110107.D

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
2 Naphthalene	1.43646	1.22727	1.22234	1.12030	1.05800	0.93029	1.16578	14.827
4 2-Methylnaphthalene	0.79726	0.74903	0.82063	0.77199	0.73841	0.66774	0.75751	7.052
5 1-Methylnaphthalene	0.71708	0.66958	0.73079	0.68968	0.66244	0.60561	0.67920	6.583
6 Acenaphthylene	2.19435	2.02112	2.15365	1.98633	1.87850	1.69991	1.98898	9.164
8 Acenaphthene	1.53291	1.32033	1.35865	1.26145	1.23236	1.13306	1.30646	10.370
9 Dibenzofuran	1.95290	1.88469	1.91770	1.80595	1.70700	1.54094	1.80153	8.606
11 Fluorene	1.51162	1.44809	1.53642	1.46482	1.40997	1.29423	1.44419	5.969
13 Phenanthrene	1.50906	1.43904	1.46687	1.35963	1.27695	1.11079	1.36039	10.848
15 Anthracene	1.41287	1.30444	1.43521	1.36554	1.27637	1.11452	1.31824	8.865
17 Fluoranthene	1.20350	1.14615	1.23813	1.19785	1.15892	1.03415	1.16311	6.128
18 Pyrene	1.74808	1.57015	1.67119	1.57621	1.50562	1.35252	1.57063	8.703
19 Benzo(a)anthracene	1.39808	1.33013	1.41812	1.37070	1.29776	1.19899	1.33563	5.996
21 Chrysene	1.49649	1.43289	1.46388	1.39531	1.33858	1.21659	1.39062	7.289
22 Benzo(b)fluoranthene	1.07050	1.00709	1.01568	1.02332	1.01772	0.93420	1.01142	4.348
23 Benzo(k)fluoranthene	1.10820	1.09951	1.19484	1.10584	1.11918	1.06649	1.11568	3.826
24 Benzo(j)fluoranthene	0.99147	1.00338	1.02224	0.95427	1.00113	0.94344	0.98599	3.107
26 Benzo(e)pyrene	1.03051	1.00713	1.02239	0.97081	1.00361	0.93694	0.99524	3.535
27 Benzo(a)pyrene	0.96350	0.93500	0.98778	0.95628	0.98138	0.93196	0.95932	2.406
29 Perylene	1.04741	0.99470	1.02429	0.97195	0.99196	0.93404	0.99406	3.988
31 Dibenzo(a,h)anthracene	0.79775	0.79947	0.85097	0.83984	0.90152	0.89362	0.84719	5.252
32 Indeno(1,2,3-cd)pyrene	0.99906	1.00083	1.07038	1.04853	1.11959	1.09415	1.05542	4.651
33 Benzo(g,h,i)perylene	0.98903	0.89213	0.92074	0.87749	0.93088	0.91087	0.92019	4.223
\$ 3 2-Methylnaphthalene-d10	0.63322	0.59470	0.64732	0.60759	0.58971	0.55096	0.60391	5.662
\$ 10 Fluorene-d10	1.17328	1.02878	1.07554	1.03300	0.99740	0.95486	1.04381	7.192
\$ 14 Anthracene-d10	1.13857	0.97318	1.05630	1.01059	0.96443	0.88116	1.00404	8.739
\$ 16 Fluoranthene-d10	0.99459	0.92845	0.98518	0.96224	0.94204	0.87181	0.94739	4.715
\$ 25 Benzo(e)pyrene-d12	1.04045	0.99788	1.02335	0.97095	0.99526	0.93325	0.99352	3.834

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-NOV-2016 09:31
 End Cal Date : 01-NOV-2016 12:34
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Last Edit : 01-Nov-2016 13:04 nt11.i
 Curve Type : Average

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
\$ 30 Dibenzo(a,h)anthracene-d14	0.60482	0.57954	0.61973	0.61997	0.64506	0.64766	0.61946	4.122

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161101.b

Job No.: SEK0 Method: DFPP.m Instrument: nt11.i Date: 01-NOV-2016

Time	Filename	LabID	ClientID	DF	Manually Integrated Compounds
0916	16110101.D	SEK0004-TUN1		1	NO MANUAL INTEGRATION
0931	16110102.D	SEK0004-CAL4		1	NO MANUAL INTEGRATION
1034	16110103.D	SEK0004-CAL3		1	NO MANUAL INTEGRATION
1104	16110104.D	SEK0004-CAL1		1	NO MANUAL INTEGRATION
1134	16110105.D	SEK0004-CAL5		1	NO MANUAL INTEGRATION
1204	16110106.D	SEK0004-CAL2		1	NO MANUAL INTEGRATION
1234	16110107.D	SEK0004-CAL6		1	NO MANUAL INTEGRATION

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161101.b

Page No	Filename	LabID	ClientID	DF																
1	0616	16110101.D	SEK0004-TUN1	1	NO ISTDs FOUND															
2	0931	16110102.D	SEK0004-CAL4	1	6.17	609556	9.15	316851	11.80	546133	16.50	417210	19.10	524443						
3	1034	16110103.D	SEK0004-CAL3	1	6.17	605453	9.15	309736	11.80	547216	16.50	410327	19.11	510211						
4	1104	16110104.D	SEK0004-CAL1	1	6.17	607408	9.15	290245	11.80	518986	16.50	393896	19.10	482655						
5	1134	16110105.D	SEK0004-CAL5	1	6.17	614933	9.15	319092	11.80	545127	16.50	422171	19.11	511390						
6	1204	16110106.D	SEK0004-CAL2	1	6.17	611834	9.15	290382	11.80	510239	16.50	387799	19.10	470018						
7	1234	16110107.D	SEK0004-CAL6	1	6.17	617596	9.15	316004	11.80	545628	16.50	421958	19.11	510441						

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Batch File: \\target\share\chem3\nt11.i\20161101.b
 Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 1 Naphthalene-d8	6.166	6.166	6.166	6.166	6.166	6.166	6.166	5.916-6.416	6.166	0.000
2 Naphthalene	6.208	6.208	6.198	6.208	6.208	6.208	6.208	5.958-6.458	6.206	0.004
\$ 3 2-Methylnaphthalene-d1	7.143	7.143	7.143	7.143	7.143	7.143	7.143	6.893-7.393	7.143	0.000
4 2-Methylnaphthalene	7.196	7.196	7.196	7.196	7.196	7.196	7.196	6.946-7.446	7.196	0.000
5 1-Methylnaphthalene	7.448	7.448	7.448	7.448	7.448	7.448	7.448	7.198-7.698	7.448	0.000
6 Acenaphthylene	8.990	8.990	8.990	8.990	8.990	8.990	8.990	8.740-9.240	8.990	0.000
* 7 Acenaphthene-d10	9.145	9.145	9.145	9.145	9.145	9.145	9.145	8.895-9.395	9.145	0.000
8 Acenaphthene	9.201	9.212	9.201	9.201	9.201	9.201	9.201	8.951-9.451	9.203	0.005
9 Dibenzofuran	9.411	9.411	9.411	9.411	9.411	9.411	9.411	9.161-9.661	9.411	0.000
\$ 10 Fluorene-d10	9.972	9.983	9.972	9.972	9.972	9.972	9.972	9.722-10.222	9.974	0.004
11 Fluorene	10.035	10.035	10.035	10.035	10.035	10.035	10.035	9.785-10.285	10.035	0.000
* 12 Phenanthrene-d10	11.798	11.798	11.798	11.798	11.798	11.798	11.798	11.548-12.048	11.798	0.000
13 Phenanthrene	11.837	11.837	11.837	11.837	11.836	11.836	11.837	11.587-12.087	11.836	0.000
\$ 14 Anthracene-d10	11.856	11.865	11.856	11.856	11.856	11.856	11.856	11.606-12.106	11.857	0.004
15 Anthracene	11.894	11.894	11.894	11.894	11.894	11.894	11.894	11.644-12.144	11.894	0.000
\$ 16 Fluoranthene-d10	13.883	13.883	13.873	13.873	13.873	13.882	13.883	13.633-14.133	13.878	0.005
17 Fluoranthene	13.911	13.911	13.911	13.911	13.911	13.911	13.911	13.661-14.161	13.911	0.000

Reviewer 1 _____ Date: 11/1/16
 Reviewer 2 _____ Date: _____

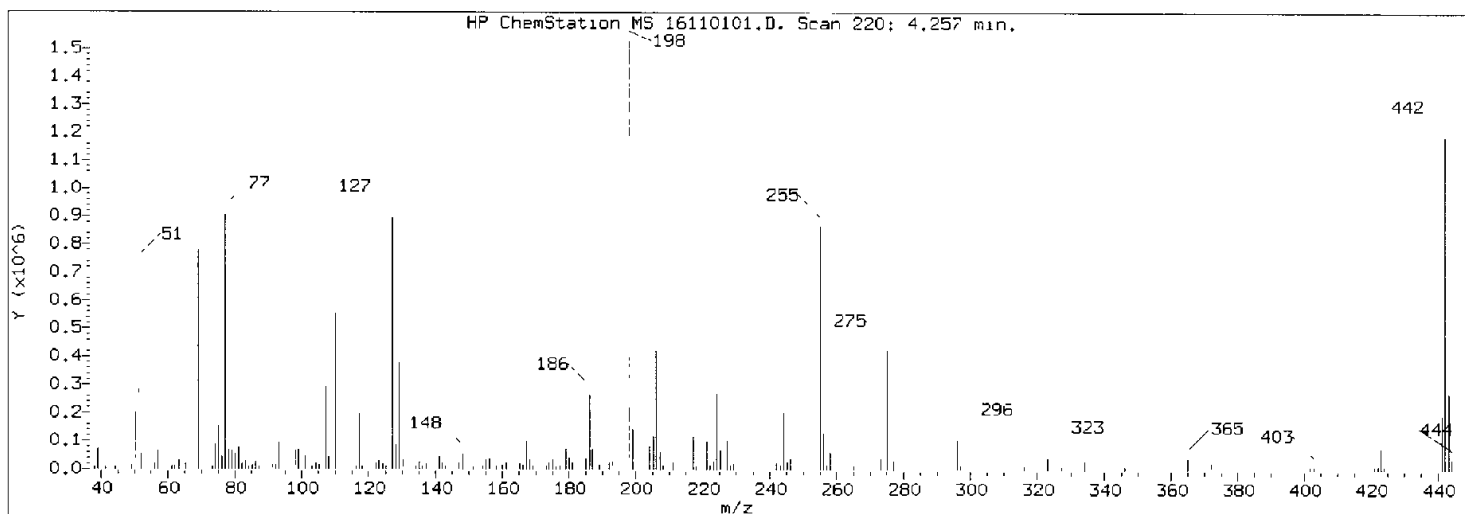
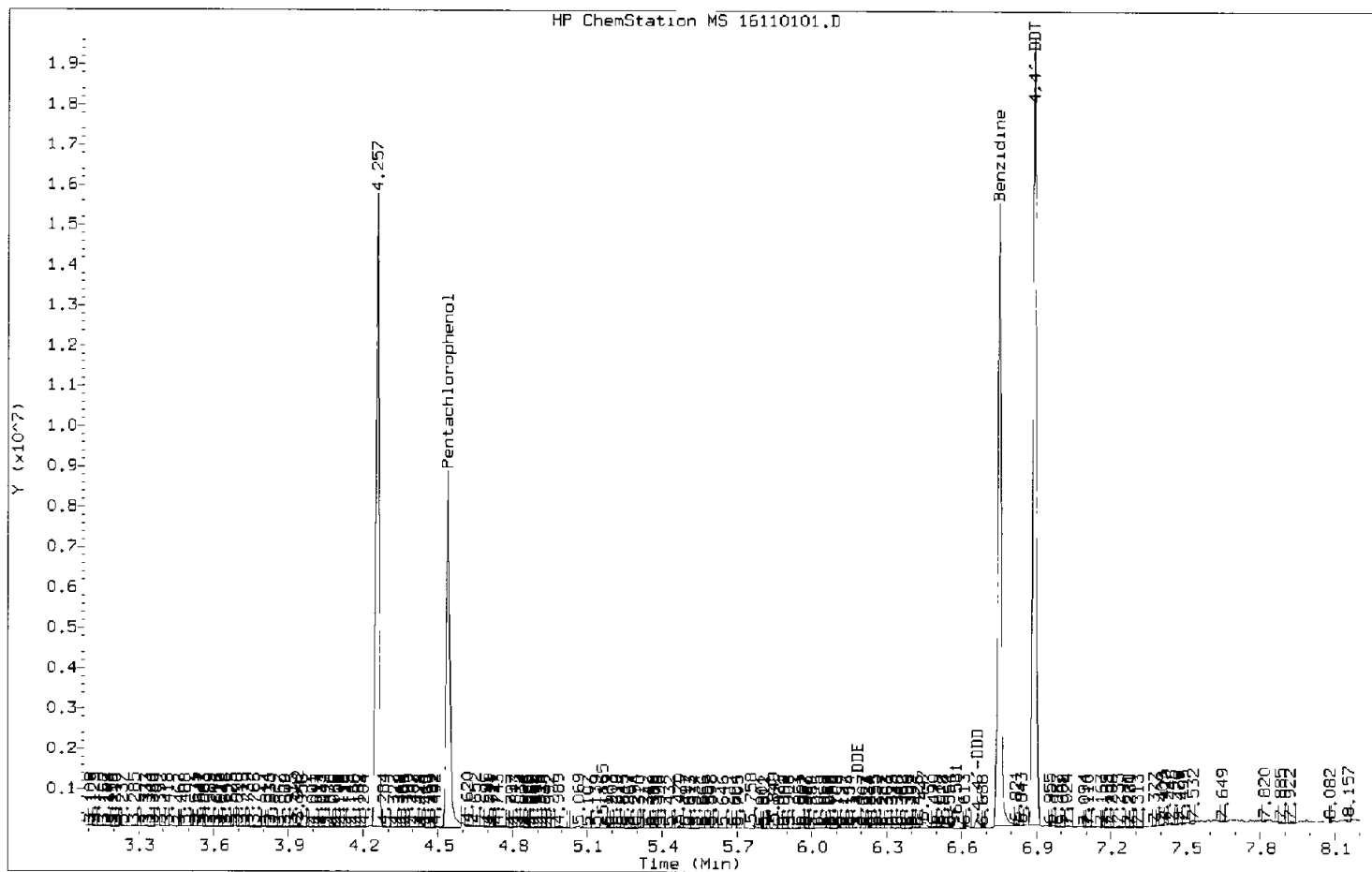
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20161101.b\lowsim.m
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 Inse ID: nt11.i

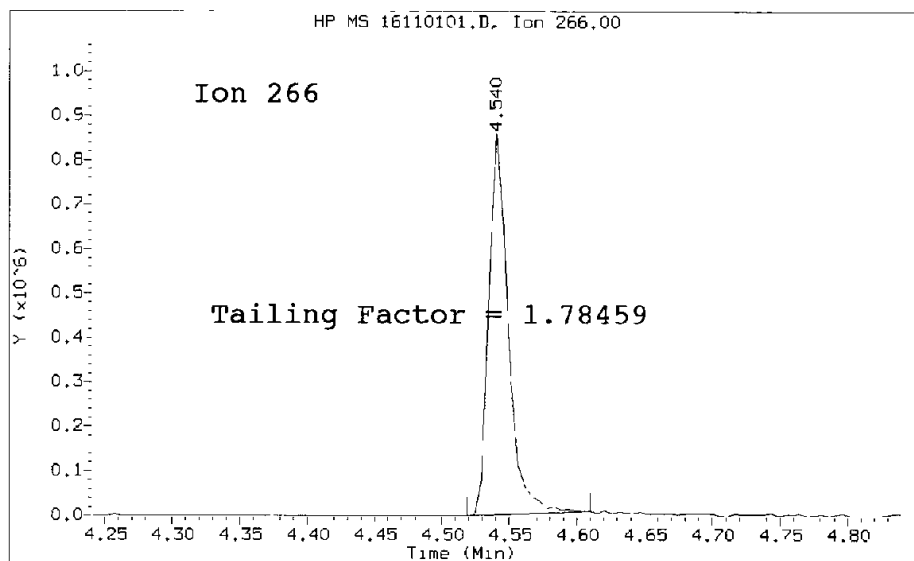
Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 Pyrene	14.401	14.401	14.392	14.392	14.392	14.401	14.401	14.151-14.651	14.397	0.005
19 Benzo(a)anthracene	16.413	16.413	16.413	16.413	16.413	16.413	16.413	16.163-16.663	16.413	0.000
* 20 Chrysene-d12	16.504	16.504	16.504	16.504	16.504	16.504	16.504	16.254-16.754	16.504	0.000
21 Chrysene	16.554	16.554	16.554	16.554	16.554	16.554	16.554	16.304-16.804	16.554	0.000
22 Benzo(b)fluoranthene	18.198	18.198	18.198	18.198	18.198	18.198	18.198	17.948-18.448	18.198	0.000
23 Benzo(k)fluoranthene	18.236	18.236	18.236	18.236	18.236	18.236	18.236	17.986-18.486	18.236	0.000
24 Benzo(j)fluoranthene	18.285	18.294	18.285	18.285	18.284	18.294	18.285	18.035-18.535	18.288	0.005
\$ 25 Benzo(e)pyrene-d12	18.775	18.784	18.775	18.775	18.774	18.774	18.775	18.525-19.025	18.776	0.004
26 Benzo(e)pyrene	18.832	18.832	18.832	18.832	18.832	18.832	18.832	18.582-19.082	18.832	0.000
27 Benzo(a)pyrene	18.928	18.928	18.919	18.928	18.928	18.928	18.928	18.678-19.178	18.927	0.004
* 28 Perylene-d12	19.101	19.111	19.101	19.111	19.101	19.111	19.101	18.851-19.351	19.106	0.005
29 Perylene	19.159	19.159	19.159	19.159	19.159	19.159	19.159	18.909-19.409	19.160	0.004
\$ 30 Dibenzo(a,h)anthracene	21.177	21.177	21.177	21.177	21.177	21.177	21.177	20.927-21.427	21.177	0.000
31 Dibenzo(a,h)anthracene	21.266	21.266	21.266	21.266	21.265	21.265	21.266	21.016-21.516	21.266	0.000
32 Indeno(1,2,3-cd)pyrene	21.266	21.277	21.266	21.266	21.265	21.277	21.266	21.016-21.516	21.269	0.006
33 Benzo(g,h,i)perylene	22.185	22.185	22.174	22.185	22.185	22.185	22.185	21.935-22.435	22.183	0.004

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20161101.b/16110101.D/16110101.D
 Method Used: \20161101.b\DFTPP.m Inst: nt11
 Injection Date: 01-NOV-2016 09:16 Operator: JW
 Sample Info: SEK0004-TUN1 SEK0004-TUN1
 Report Date: 11/01/2016 13:03



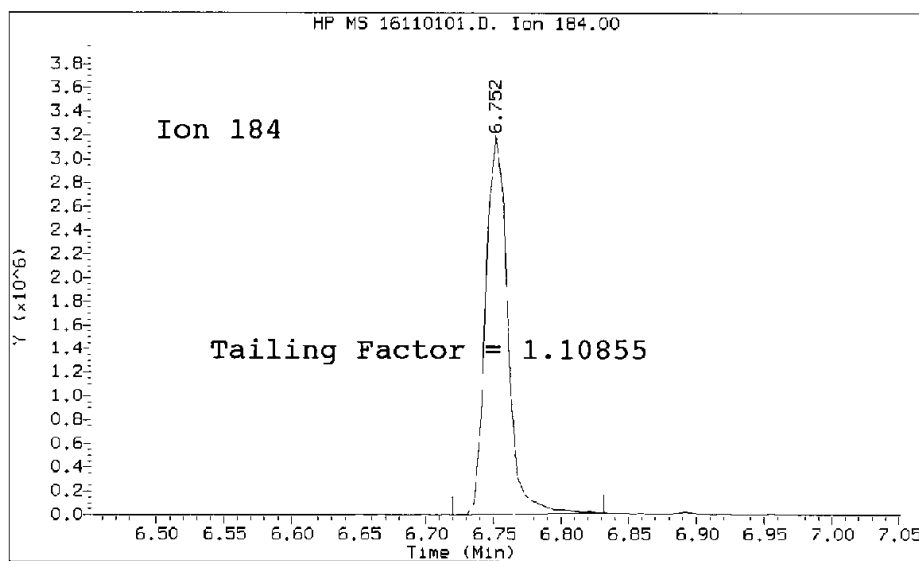
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Method Used: \20161101.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 01-NOV-2016 09:16 Operator: JW
Sample Info: SEK-TUN1
Report Date: 11/01/2016 13:03



Pentachlorophenol

=====
Exp. RT = 4.540
Found RT = 4.540

Tail Factor = 1.785 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 6.752
Found RT = 6.752

Tail Factor = 1.109 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.7845912	2.000	PASS
Benzidine	1.1085450	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2468908			N/A
4,4-DDE	6701	0.3	20.0	PASS
4,4-DDD	61939	2.4	20.0	PASS
4,4-DDD + DDE	68640	2.7	20.0	PASS

Tuning Sample, nt11.i/20161101.b/16110101.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	45.63
68	Less than 2.00% of mass 69	0.68 (1.37)
69	Mass 69 relative abundance	50.07
70	Less than 2.00% of mass 69	0.37 (0.74)
127	10.00 - 80.00% of mass 198	58.25
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	8.67
275	10.00 - 60.00% of mass 198	26.66
365	Greater than 1.00% of mass 198	2.77
441	0.01 - 24.00% of mass 442	11.91 (15.27)
442	50.00 - 200.00% of mass 198	78.01
443	15.00 - 24.00% of mass 442	16.68 (21.39)

Data File: 16110101.D
 Spectrum: Avg. Scans 219-221 (4.26), Background Scan 214
 Location of Maximum: 198.00
 Number of points: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	2439	117.00	142144	190.00	3295	272.00	3958
38.00	10054	118.00	11135	191.00	5043	273.00	29088
39.00	52424	119.00	1326	192.00	16504	274.00	62184
40.00	1484	120.00	2258	193.00	20256	275.00	320896
41.00	2968	122.00	14299	194.00	2876	276.00	46424
43.00	942	123.00	22568	195.00	1790	277.00	24704
44.00	261	124.00	12333	196.00	39072	278.00	3697
45.00	986	125.00	8981	198.00	1203712	283.00	1761
47.00	301	127.00	701184	199.00	104344	284.00	795
48.00	2103	128.00	65672	200.00	7802	285.00	5578
49.00	6498	129.00	279680	201.00	2678	289.00	733
50.00	153920	130.00	28000	202.00	2807	291.00	1006
51.00	549248	131.00	5248	203.00	13246	292.00	718
52.00	33832	132.00	3755	204.00	58656	293.00	5167
53.00	1477	133.00	1271	205.00	86240	294.00	1582
55.00	2497	134.00	7154	206.00	337600	296.00	82032
56.00	18400	135.00	25880	207.00	48928	297.00	11164
57.00	50824	136.00	8076	208.00	10823	301.00	897
58.00	857	137.00	12135	209.00	5306	303.00	7676
61.00	7732	138.00	2003	210.00	6072	304.00	3601
62.00	9658	140.00	4153	211.00	16840	308.00	3054
63.00	23504	141.00	34288	212.00	1926	313.00	718
64.00	2760	142.00	13870	213.00	764	314.00	4757
65.00	15522	143.00	7332	214.00	803	315.00	9615
66.00	900	144.00	3154	215.00	3686	316.00	7556
67.00	1665	145.00	1184	216.00	6574	320.00	810
68.00	8238	146.00	6683	217.00	86120	321.00	4552
69.00	602688	147.00	18088	218.00	10805	323.00	27784
70.00	4435	148.00	34752	220.00	1933	324.00	5425
71.00	725	149.00	8021	221.00	75664	327.00	5661
73.00	5547	150.00	2157	222.00	10791	328.00	835
74.00	65792	151.00	4860	223.00	21544	332.00	1687
75.00	116448	152.00	1190	224.00	198592	333.00	679
76.00	37944	153.00	11900	225.00	48184	334.00	20432
77.00	717120	154.00	11527	226.00	3876	335.00	5332
78.00	52816	155.00	21120	227.00	77176	336.00	726
79.00	51128	156.00	32280	228.00	9626	339.00	695
80.00	40232	157.00	5390	229.00	17264	341.00	3556
81.00	59872	158.00	6167	230.00	1152	346.00	6837
82.00	13860	159.00	5432	231.00	7848	347.00	744
83.00	14350	160.00	11211	233.00	1487	352.00	8556
85.00	10742	161.00	17920	234.00	4798	353.00	6388
86.00	9822	162.00	4286	235.00	5614	354.00	8814
87.00	8201	163.00	981	236.00	3920	355.00	1145
88.00	2698	164.00	1894	237.00	6914	365.00	33352
89.00	1195	165.00	13021	239.00	1772	366.00	5174
91.00	9817	166.00	11088	240.00	2694	370.00	1569
92.00	11221	167.00	69824	241.00	2458	371.00	2284
93.00	72208	168.00	26120	242.00	14148	372.00	16448

94.00	6228	169.00	6898	243.00	11081	373.00	4492
95.00	3203	170.00	2101	244.00	141248	383.00	4847
96.00	4495	171.00	4453	245.00	18472	390.00	1842
97.00	983	172.00	5198	246.00	27528	391.00	1095
98.00	53088	173.00	9570	247.00	6172	392.00	716
99.00	49984	174.00	16608	248.00	1049	402.00	8126
100.00	4335	175.00	26744	249.00	4559	403.00	10067
101.00	34296	176.00	6478	250.00	1351	404.00	4348
103.00	9842	177.00	13268	251.00	982	421.00	10884
104.00	16920	178.00	5712	252.00	1140	422.00	8822
105.00	15395	179.00	53816	253.00	5055	423.00	59384
106.00	3090	180.00	33408	255.00	666688	424.00	9176
107.00	220416	181.00	19136	256.00	105808	425.00	1513
108.00	35048	182.00	2948	257.00	7977	433.00	865
109.00	4158	184.00	3798	258.00	40352	441.00	143360
110.00	408832	185.00	25312	259.00	6548	442.00	939008
111.00	63728	186.00	200704	260.00	807	443.00	200832
112.00	9489	187.00	55888	261.00	1037	444.00	22432
113.00	2735	188.00	5421	265.00	15759		
116.00	11509	189.00	12329	266.00	1597		

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Date: 01-NOV-2016 09:31

Client ID:

Sample Info: SEK0004-CAL4

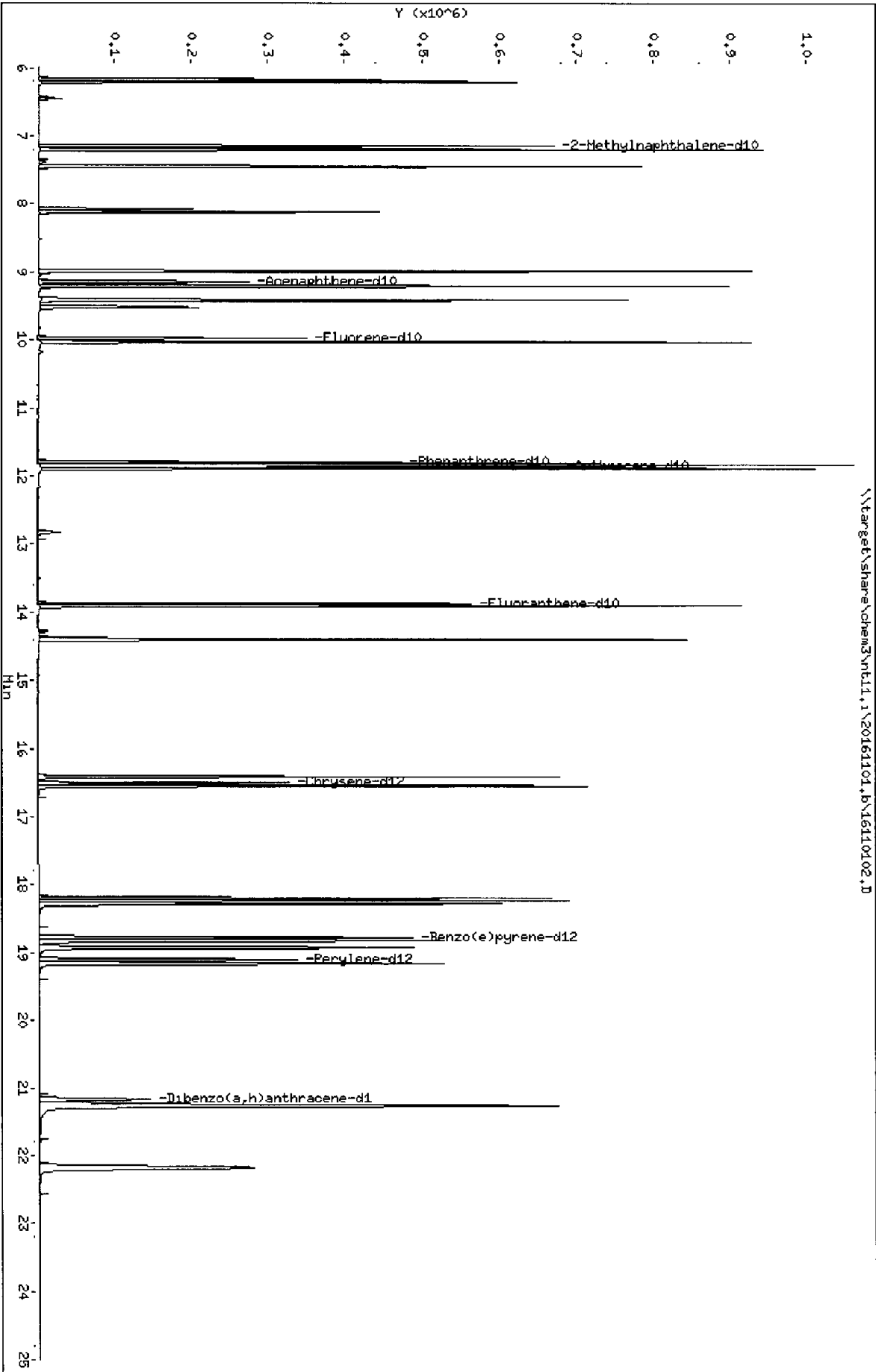
Column phase: Fx1-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161101.b\16110102.D
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 Inj Date : 01-NOV-2016 09:31
 Operator : JW
 Smp Info : SEK0004-CAL4
 Misc Info :
 Comment :
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 Meth Date : 01-Nov-2016 13:04 nt11.i
 Cal Date : 01-NOV-2016 12:34
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: AUTOSPECDATA02

Inst ID: nt11.i

Quant Type: ISTD
 Cal File: 16110107.D
 Calibration Sample, Level: 4

Compound Sublist: PEMD.sub

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136	6.166	6.166	(1.000)	50955e	200.000	
2 Naphthalene	128	6.206	6.206	(1.007)	853604	250.000	240
\$ 3 2-Methylnaphthalene-d10	152	7.143	7.143	(1.158)	163949	250.000	252
4 2-Methylnaphthalene	144	7.195	7.195	(1.167)	568211	250.000	255
5 1-Methylnaphthalene	142	7.447	7.447	(1.208)	525496	250.000	254
6 Acenaphthylene	152	8.990	8.990	(0.963)	786712	250.000	250
* 7 Acenaphthene-d10	134	9.145	9.145	(1.000)	316851	200.000	
8 Acenaphthene	153	9.200	9.200	(1.006)	499613	250.000	241
9 Dibenzofuran	166	9.411	9.411	(1.029)	715272	250.000	251 (H)
\$ 10 Fluorene-d10	174	9.972	9.972	(1.090)	499135	250.000	247
11 Fluorene	166	10.035	10.035	(1.097)	580163	250.000	254
* 12 Phenanthrene-d10	138	11.798	11.798	(1.000)	546133	200.000	(H)
13 Phenanthrene	179	11.836	11.836	(0.998)	328175	250.000	250 (H)
\$ 14 Anthracene-d10	188	11.855	11.855	(1.000)	693897	250.000	252
15 Anthracene	179	11.894	11.894	(1.003)	932211	250.000	256
\$ 16 Fluoranthene-d10	212	13.862	13.862	(1.171)	653891	250.000	254
17 Fluoranthene	202	13.911	13.911	(1.173)	317731	250.000	257
18 Pyrene	202	14.401	14.401	(0.873)	822013	250.000	251
19 Benzo(a)anthracene	228	16.412	16.412	(0.994)	714837	250.000	257 (H)
* 20 Chrysene-d12	240	16.504	16.504	(1.000)	417210	200.000	
21 Chrysene	228	16.553	16.553	(1.003)	727671	250.000	251
22 Benzo(b)fluoranthene	252	16.198	16.198	(0.953)	870840	250.000	253 (H)
23 Benzo(k)fluoranthene	252	18.235	18.235	(0.955)	724936	250.000	248 (H)
24 Benzo(j)fluoranthene	252	18.284	18.284	(0.957)	625575	250.000	242
\$ 25 Benzo(a)pyrene-d12	264	18.774	18.774	(0.983)	636512	250.000	244
26 Benzo(a)pyrene	252	18.832	18.832	(0.983)	636420	250.000	244 (H)
27 Benzo(a)pyrene	252	18.928	18.928	(0.991)	626690	250.000	249 (H)
* 28 Perylene-d12	264	19.101	19.101	(1.000)	524443	200.000	
29 Perylene	252	19.158	19.158	(1.003)	637165	250.000	244
\$ 30 D,benzo(a,k)anthracene-d14	292	21.177	21.177	(1.109)	406422	250.000	250
31 D,benzo(a,k)anthracene	278	21.265	21.265	(1.113)	550556	250.000	246
32 Indeno(1,2,3-cd)pyrene	276	21.265	21.265	(1.113)	687325	250.000	246
33 Benzo(g,h,i)perylene	276	22.185	22.185	(1.161)	575245	250.000	236

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16110102.D
 Lab Smp Id: SEK0004-CAL4
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Misc Info:

Calibration Date: 01-NOV-2016
 Calibration Time: 09:31

Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	609556	0.00
7 Acenaphthene-d10	316851	158426	633702	316851	0.00
12 Phenanthrene-d10	546133	273067	1092266	546133	0.00
20 Chrysene-d12	417210	208605	834420	417210	0.00
28 Perylene-d12	524443	262222	1048886	524443	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.17	5.67	6.67	6.17	0.00
7 Acenaphthene-d10	9.15	8.65	9.65	9.15	0.00
12 Phenanthrene-d10	11.80	11.30	12.30	11.80	0.00
20 Chrysene-d12	16.50	16.00	17.00	16.50	0.00
28 Perylene-d12	19.10	18.60	19.60	19.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16110102.D

Lab ID: SEK0004-CAL4

nt11.i, 20161101.b\lowsim.m, 01-NOV-2016 09:31

RT	CO-ELUTION COMPOUNDS
21.266	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
21.266	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161101.b\lowsim.m, PEMD.sub = 0.0000

Data File: \\target\share\chem3\nt11.1\20161101.6\16110103.D

Date: 01-NDU-2016 10:34

Client ID:

Sample Info: SEK0004-CAL3

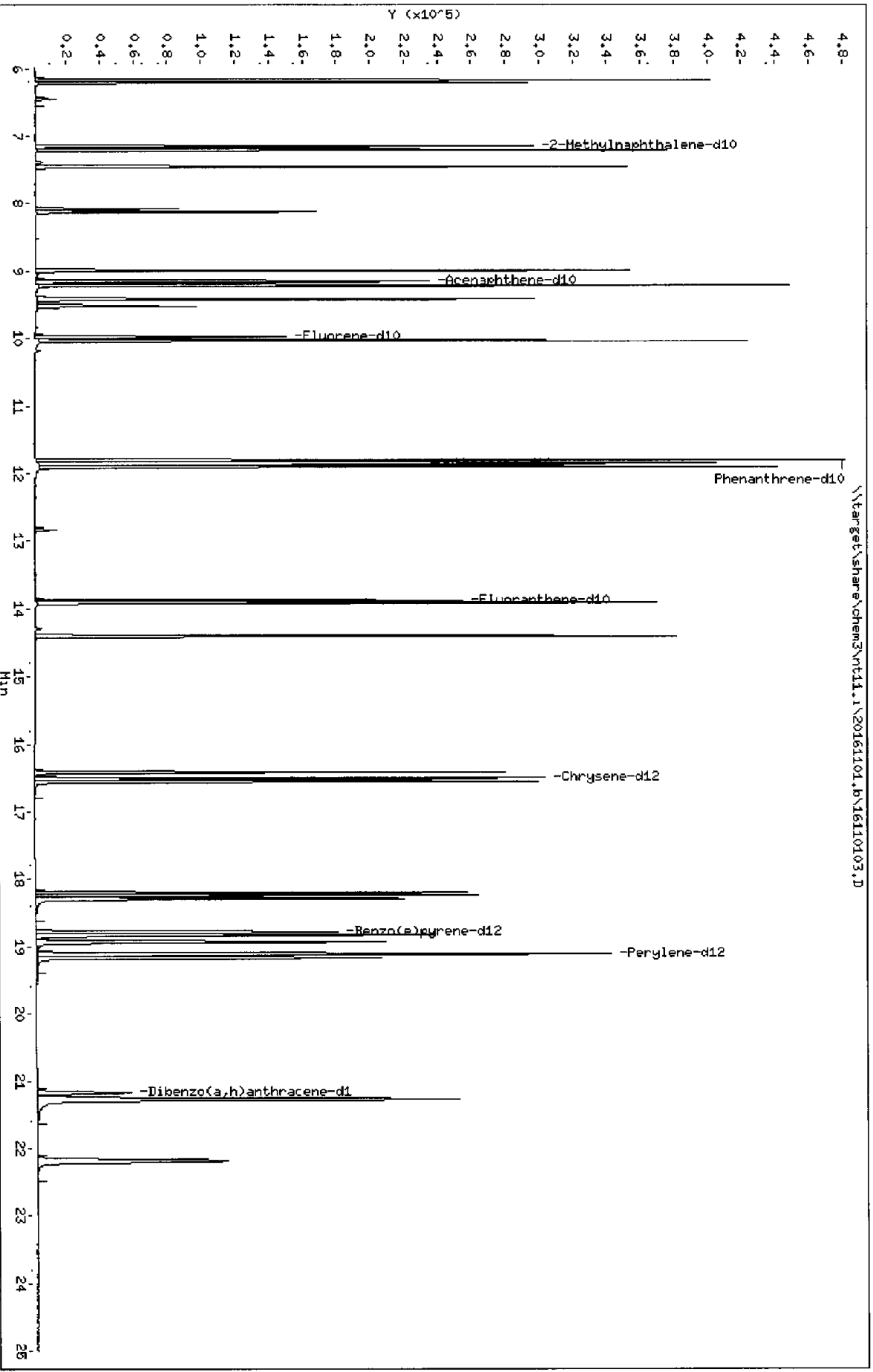
Column phase: Rx1-175.1 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25

Page 1



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161101.b\16110103.D
 Lab Smp Id: SEK0004-CAL3
 Inj Date : 01-NOV-2016 10:34 MS Autotune Date: 15-JAN-2015 16:59
 Operator : JW Inst ID: nt11.i
 Smp Info : SEK0004-CAL3
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Meth Date : 01-Nov-2016 13:02 jonathonw Quant Type: ISTD
 Cal Date : 01-NOV-2016 12:34 Cal File: 16110107.D
 Als bottle: 5 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PEMD.sub
 Target Version: 4.14
 Processing Host: AUTOSPECDATA02

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)
* 1 Naphthalene-d8	136	6.165	6.165	(1.000)	605453	200.000	
2 Naphthalene	128	6.208	6.207	(1.007)	370034	100.000	105
§ 3 2-Methylnaphthalene-d10	152	7.143	7.143	(1.158)	195960	100.000	107
4 2-Methylnaphthalene	140	7.195	7.195	(1.167)	246420	100.000	108
5 1-Methylnaphthalene	140	7.447	7.447	(1.208)	221229	100.000	108
6 Acenaphthylene	152	8.900	8.900	(0.983)	333531	100.000	108
* 7 Acenaphthylene-d10	154	9.145	9.145	(1.000)	309736	200.000	
8 Acenaphthene	152	9.211	9.200	(1.007)	210411	100.000	104
9 Dibenzofuran	168	9.411	9.410	(1.009)	296990	100.000	106
§ 10 Fluorene-d10	174	9.982	9.972	(1.092)	166567	100.000	103
11 Fluorene	166	10.035	10.035	(1.097)	237942	100.000	106
* 12 Phenanthrene-d10	188	11.798	11.797	(1.000)	547216	200.000	
13 Phenanthrene	178	11.836	11.836	(1.003)	401347	100.000	108
§ 14 Anthracene-d10	188	11.865	11.855	(1.005)	253013	100.000	105
15 Anthracene	178	11.894	11.893	(1.008)	392686	100.000	109
§ 16 Fluoranthene-d10	212	13.882	13.882	(1.177)	263554	100.000	104
17 Fluoranthene	202	13.911	13.911	(1.179)	238761	100.000	106
18 Pyrene	202	14.401	14.401	(0.873)	342668	100.000	106
19 Benzo(a)anthracene	228	16.412	16.412	(0.994)	290947	100.000	106
* 20 Chrysene-d12	240	16.504	16.503	(1.000)	410327	200.000	
21 Chrysene	228	16.553	16.553	(1.003)	300334	100.000	105
22 Benzo(b)fluoranthene	252	18.198	18.197	(0.952)	259105	100.000	100
23 Benzo(k)fluoranthene	252	18.235	18.235	(0.954)	304820	100.000	107
24 Benzo(γ)fluoranthene	252	18.294	18.293	(0.957)	260778	100.000	104
§ 25 Benzo(e)pyrene-d12	264	18.784	18.774	(0.933)	261063	100.000	103
26 Benzo(e)pyrene	252	18.832	18.831	(0.935)	200818	100.000	103
27 Benzo(a)pyrene	252	18.926	18.923	(0.990)	251989	100.000	103
* 28 Perylene-d12	264	19.110	19.110	(1.000)	510211	200.000	
29 Perylene	252	19.158	19.158	(1.003)	261303	100.000	103
§ 30 Dibenzo(a,h)anthracene-d14	292	21.177	21.176	(1.108)	158096	100.000	100
31 Dibenzo(a,h)anthracene	278	21.265	21.265	(1.113)	217086	100.000	100
32 Indeno(1,2,3-cd)pyrene	276	21.275	21.276	(1.113)	273060	100.000	101
33 Benzo(g,h,i)perylene	276	22.185	22.184	(1.161)	234867	100.000	100

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: ntl1.i
 Lab File ID: 16110103.D
 Lab Smp Id: SEK0004-CAL3
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\ntl1.i\20161101.b\lowsim.m
 Misc Info:

Calibration Date: 01-NOV-2016
 Calibration Time: 09:31

Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	605453	-0.67
7 Acenaphthene-d10	316851	158426	633702	309736	-2.25
12 Phenanthrene-d10	546133	273067	1092266	547216	0.20
20 Chrysene-d12	417210	208605	834420	410327	-1.65
28 Perylene-d12	524443	262222	1048886	510211	-2.71

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.17	5.67	6.67	6.17	0.00
7 Acenaphthene-d10	9.15	8.65	9.65	9.15	0.00
12 Phenanthrene-d10	11.80	11.30	12.30	11.80	0.00
20 Chrysene-d12	16.50	16.00	17.00	16.50	0.00
28 Perylene-d12	19.10	18.60	19.60	19.11	0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16110103.D

Lab ID: SEK0004-CAL3

nt11.i, 20161101.b\lowsim.m, 01-NOV-2016 10:34

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161101.b\lowsim.m, PEMD.sub = 0.0000

Data File: \\target\share\chem\nt11.1\20161101.b\16110104.D
Date : 01-NOV-2016 11:04

Client ID:

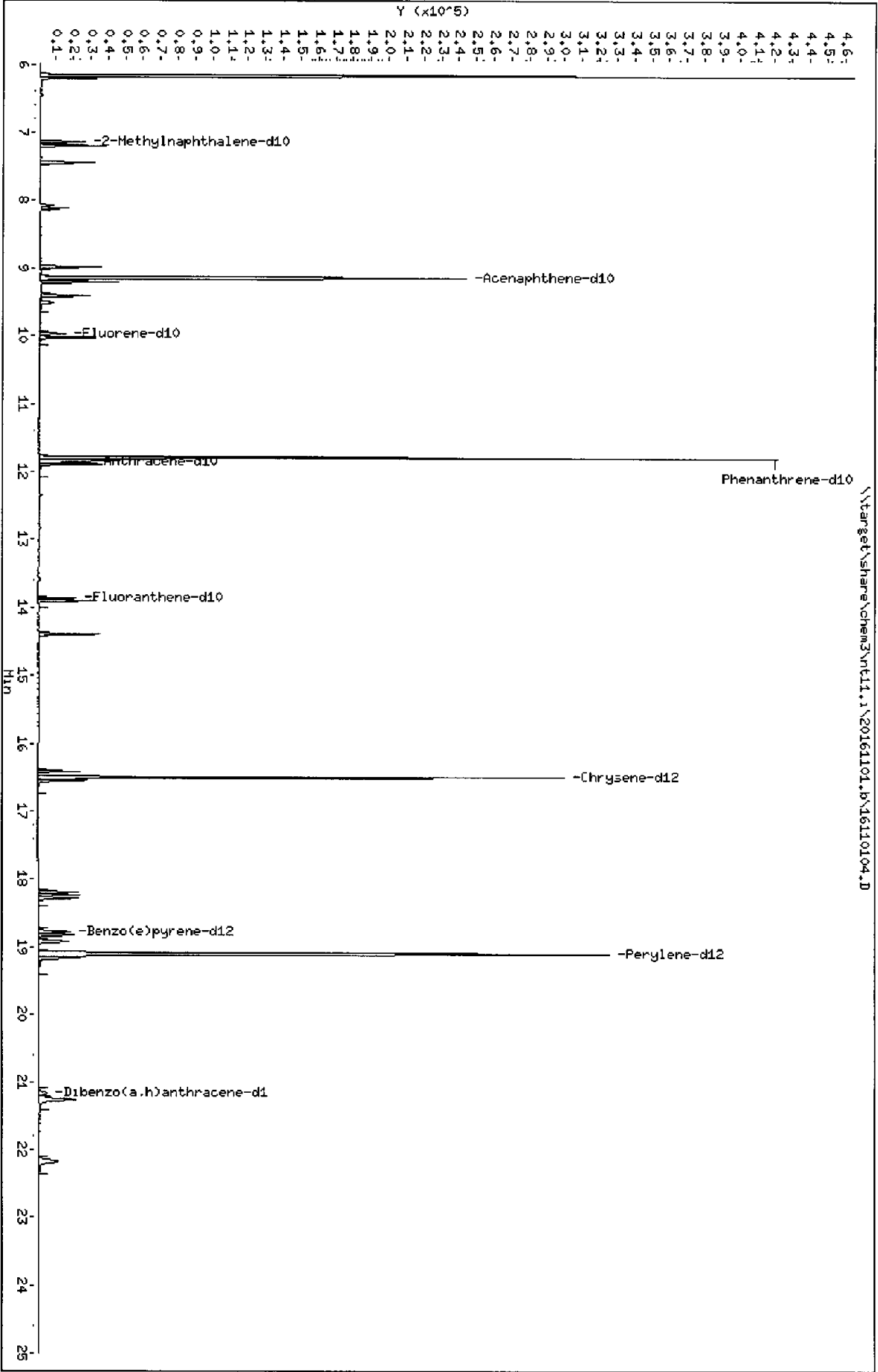
Sample Info: SEK004-CALI

Column phase: Rx1-17S11 HS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161101.b\16110104.D
 Lab Smp Id: SEK0004-CAL1
 Inj Date : 01-NOV-2016 11:04 MS Autotune Date: 15-JAN-2015 16:59
 Operator : JW Inst ID: nt11.i
 Smp Info : SEK0004-CAL1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Meth Date : 01-Nov-2016 13:02 jonathonw Quant Type: ISTD
 Cal Date : 01-NOV-2016 12:34 Cal File: 16110107.D
 Als bottle: 3 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PEMD.sub
 Target Version: 4.14
 Processing Host: AUTOSPECDATA02

Compounds	QUANT SIF	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/rl)
* 1 Naphthalene-d8		136	6.166	6.166	(1.000)	607408	200.000	
2 Naphthalene		128	6.197	6.207	(1.005)	43626	10.0000	12.3
§ 3 2-Methylnaphtalene-d10		152	7.143	7.142	(1.158)	19231	10.0000	10.5
4 2-Methylnaphtalene		142	7.195	7.195	(1.167)	24213	10.0000	10.5
5 1-Methylnaphtalene		142	7.447	7.447	(1.208)	21776	10.0000	10.6
6 Acenaphthylene		152	8.990	8.990	(0.983)	31645	10.0000	11.0
* 7 Acenaphthene-d10		164	9.145	9.145	(1.000)	290145	100.000	
8 Acenaphthene		153	9.200	9.200	(1.006)	22246	10.0000	11.7
9 Dibenzofuran		166	9.411	9.410	(1.029)	26341	10.0000	10.8
§ 10 Fluorene-d10		174	9.972	9.972	(1.090)	17027	10.0000	11.2
11 Fluorene		166	10.035	10.035	(1.097)	21937	10.0000	10.5
* 12 Phenanthrene-d10		188	11.798	11.797	(1.000)	518986	200.000	
13 Phenanthrene		178	11.836	11.836	(1.003)	39159	10.0000	11.1
§ 14 Anthracene-d10		188	11.855	11.855	(1.005)	29545	10.0000	11.3
15 Anthracene		178	11.894	11.893	(1.008)	36653	10.0000	10.7
§ 16 Fluoranthene-d10		210	13.870	13.882	(1.176)	25809	10.0000	10.5
17 Fluoranthene		202	13.911	13.911	(1.179)	31230	10.0000	10.3
18 Pyrene		202	14.391	14.401	(0.872)	34428	10.0000	11.1
19 Benzo(a)anthracene		228	16.412	16.412	(0.994)	27535	10.0000	10.5
* 20 Chrysene-d10		240	16.504	16.503	(1.000)	393896	200.000	
21 Chrysene		228	16.553	16.553	(1.003)	29473	10.0000	10.8
22 Benzo(l)fluoranthene		252	18.196	18.197	(0.953)	25834	10.0000	10.6
23 Benzo(k)fluoranthene		252	18.236	18.236	(0.955)	26744	10.0000	9.93
24 Benzo(j)fluoranthene		252	18.284	18.283	(0.957)	23927	10.0000	10.1
§ 25 Benzo(e)pyrene-d10		264	18.774	18.774	(0.933)	25109	10.0000	10.5
26 Benzo(e)pyrene		250	18.832	18.831	(0.936)	24869	10.0000	10.4
27 Benzo(a)pyrene		252	18.918	18.928	(0.990)	23052	10.0000	10.0
* 28 Perylene-d10		264	19.101	19.110	(1.000)	430655	200.000	
29 Perylene		252	19.158	19.158	(1.003)	25277	10.0000	10.5
§ 30 Dibenzo(a,h)anthracene-d14		292	21.177	21.176	(1.109)	14596	10.0000	9.76
31 Dibenzo(a,h)anthracene		278	21.265	21.265	(1.113)	19252	10.0000	9.42
32 Indeno(1,2,3-cd)pyrene		276	21.265	21.276	(1.113)	24110	10.0000	9.47
33 Benzo(g,h,i)perylene		276	22.173	22.184	(1.161)	23868	10.0000	10.7

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16110104.D
 Lab Smp Id: SEK0004-CAL1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Misc Info:

Calibration Date: 01-NOV-2016
 Calibration Time: 09:31

Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	607408	-0.35
7 Acenaphthene-d10	316851	158426	633702	290245	-8.40
12 Phenanthrene-d10	546133	273067	1092266	518986	-4.97
20 Chrysene-d12	417210	208605	834420	393896	-5.59
28 Perylene-d12	524443	262222	1048886	482655	-7.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.17	5.67	6.67	6.17	-0.00
7 Acenaphthene-d10	9.15	8.65	9.65	9.15	-0.00
12 Phenanthrene-d10	11.80	11.30	12.30	11.80	-0.00
20 Chrysene-d12	16.50	16.00	17.00	16.50	-0.00
28 Perylene-d12	19.10	18.60	19.60	19.10	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16110104.D

Lab ID: SEK0004-CAL1

nt11.i, 20161101.b\lowsim.m, 01-NOV-2016 11:04

RT	CO-ELUTION COMPOUNDS
21.266	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
21.266	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene <i>etc</i>

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161101.b\lowsim.m, PEMD.sub = 0.0000

Data File: \\target\share\chem3\nt11.1\20161101.b\16110105.D

Date: 01-NOV-2016 11:34

Client ID:

Sample Info: SEK0004-CAL5

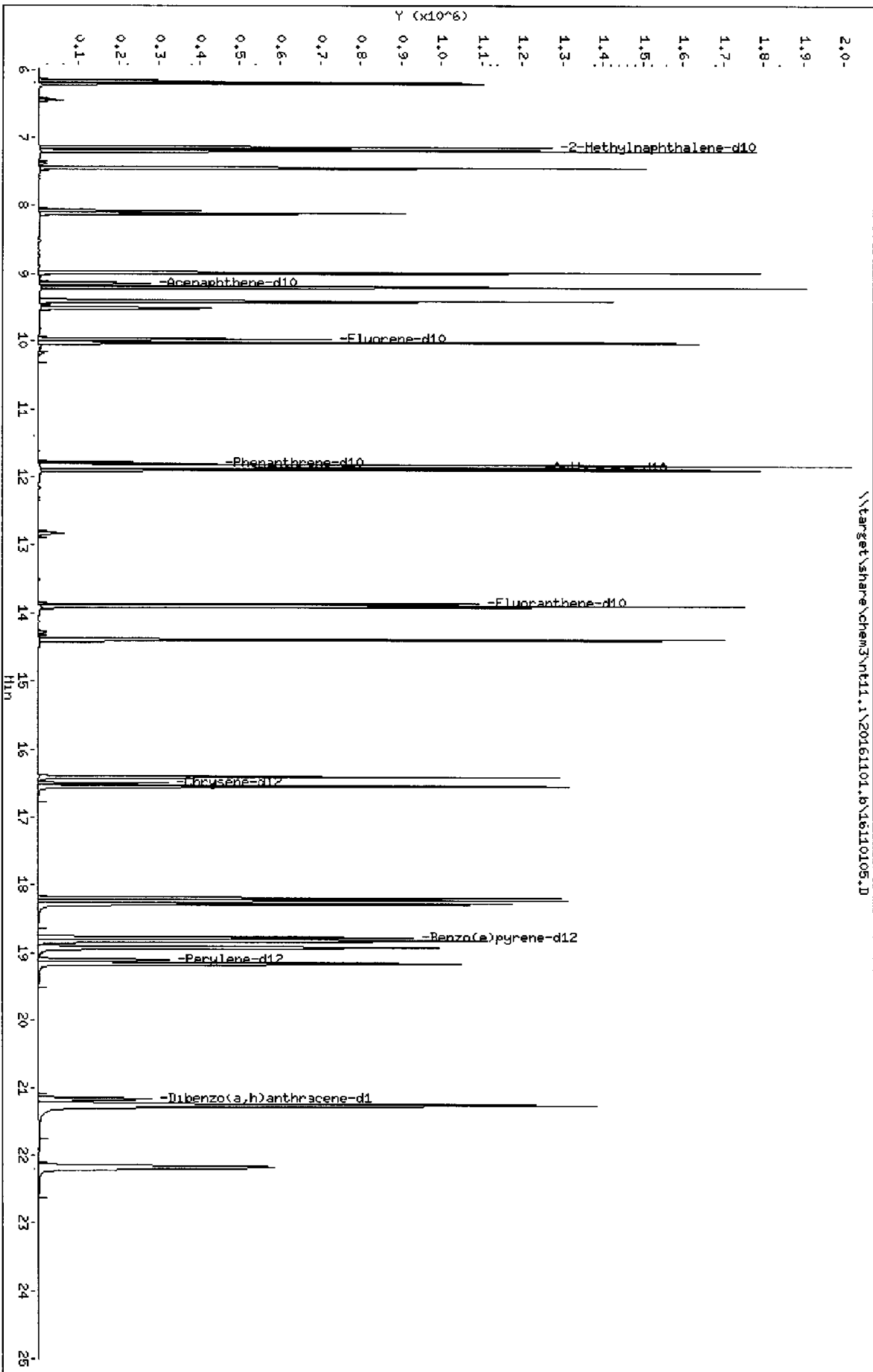
Column phase: Rx1-17S11 HS

Instrument: nt11.1

Operator: JH

Column diameter: 0.25

\\target\share\chem3\nt11.1\20161101.b\16110105.D



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161101.b\16110105.D

Lab Smp Id: SEK0004-CAL5

Inj Date : 01-NOV-2016 11:34

MS Autotune Date: 15-JAN-2015 16:59

Operator : JW

Inst ID: nt11.i

Smp Info : SEK0004-CAL5

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20161101.b\lowsim.m

Meth Date : 01-Nov-2016 13:02 jonathonw

Quant Type: ISTD

Cal Date : 01-NOV-2016 12:34

Cal File: 16110107.D

Als bottle: 6

Calibration Sample, Level: 5

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PEMD.sub

Target Version: 4.14

Processing Host: AUTOSPECDATA02

Compounds	QUANT	SIG	AMOUNTS				CAL-AMT (ng/mL)	ON-COL (ng/mL)
			MASS	RT	EXP RT	REL RT		
* 1 Naphthalene-d8	136		6.165	6.165	(1.000)	614933	500.000	
2 Naphthalene	128		6.206	6.207	(1.007)	1616428	500.000	454
\$ 3 2-Methylnaphthalene-d10	152		7.143	7.147	(1.158)	906578	500.000	488
4 2-Methylnaphthalene	142		7.195	7.195	(1.167)	1135188	500.000	487
5 1-Methylnaphthalene	142		7.447	7.447	(1.208)	1010302	500.000	488
6 Acenaphthylene	152		8.990	8.990	(0.983)	1498530	500.000	472
* 7 Acenaphthene-d10	154		9.145	9.145	(1.000)	319097	200.000	
8 Acenaphthene	153		9.200	9.200	(1.006)	983094	500.000	472
9 Dibenzofuran	168		9.411	9.410	(1.029)	1361728	500.000	474
\$ 10 Fluorene-d10	174		9.972	9.972	(1.090)	795654	500.000	473
11 Fluorene	156		10.035	10.035	(1.097)	1124779	500.000	488
* 12 Phenanthrene-d10	188		11.798	11.797	(1.000)	545127	200.000	
13 Phenanthrene	178		11.835	11.836	(1.003)	1740247	500.000	469
\$ 14 Antracene-d10	188		11.855	11.855	(1.005)	1314346	500.000	480
15 Antracene	176		11.894	11.893	(1.008)	1740143	500.000	484
\$ 16 Fluoranthene-d10	212		13.872	13.882	(1.176)	1784929	500.000	497
17 Fluoranthene	202		13.911	13.911	(1.179)	1579390	500.000	496
18 Eylene	202		14.391	14.401	(0.872)	1589070	500.000	479
19 Benzo(a)anthracene	228		16.412	16.412	(0.994)	1369690	500.000	486
* 20 Chrysene-d12	240		16.504	16.503	(1.000)	422171	200.000	
21 Chrysene	228		16.553	16.553	(1.003)	1412774	500.000	481
22 Benzo(b)fluoranthene	252		16.198	16.197	(0.952)	1301135	500.000	502
23 Benzo(k)fluoranthene	252		18.235	18.236	(0.954)	1430840	500.000	500
24 Benzo(j)fluoranthene	252		18.284	18.293	(0.957)	1279914	500.000	506
\$ 25 Benzo(e)pyrene-d10	264		18.774	18.774	(0.982)	1272419	500.000	501
26 Benzo(e)pyrene	252		18.832	18.831	(0.985)	1763094	500.000	504
27 Benzo(a)pyrene	252		18.928	18.928	(0.990)	1254665	500.000	511
* 28 Perylene-d12	264		19.110	19.110	(1.000)	511390	200.000	
29 Perylene	252		19.158	19.158	(1.002)	1268201	500.000	499
\$ 30 Dibenzo(a,h)anthracene-d14	292		21.177	21.176	(1.108)	824689	500.000	521
31 Dibenzo(a,h)anthracene	278		21.265	21.265	(1.113)	1152566	500.000	532
32 Indeno(1,2,3-cd)pyrene	276		21.265	21.266	(1.113)	1431364	500.000	530
33 Benzo(g,h,i)perylene	276		22.185	22.184	(1.161)	1190109	500.000	506

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16110105.D
 Lab Smp Id: SEK0004-CAL5
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Misc Info:

Calibration Date: 01-NOV-2016
 Calibration Time: 09:31

Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	614933	0.88
7 Acenaphthene-d10	316851	158426	633702	319092	0.71
12 Phenanthrene-d10	546133	273067	1092266	545127	-0.18
20 Chrysene-d12	417210	208605	834420	422171	1.19
28 Perylene-d12	524443	262222	1048886	511390	-2.49

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.17	5.67	6.67	6.17	0.00
7 Acenaphthene-d10	9.15	8.65	9.65	9.15	-0.00
12 Phenanthrene-d10	11.80	11.30	12.30	11.80	0.00
20 Chrysene-d12	16.50	16.00	17.00	16.50	0.00
28 Perylene-d12	19.10	18.60	19.60	19.11	0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16110105.D

Lab ID: SEK0004-CAL5

nt11.i, 20161101.b\lowsim.m, 01-NOV-2016 11:34

RT	CO-ELUTION COMPOUNDS
21.266	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
21.266	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161101.b\lowsim.m, PEMD.sub = 0.0000

Data File: \\target\share\chem3\nt11.1\20161101.B\16110106.D
Date: 01-NOV-2016 12:04

Client ID:

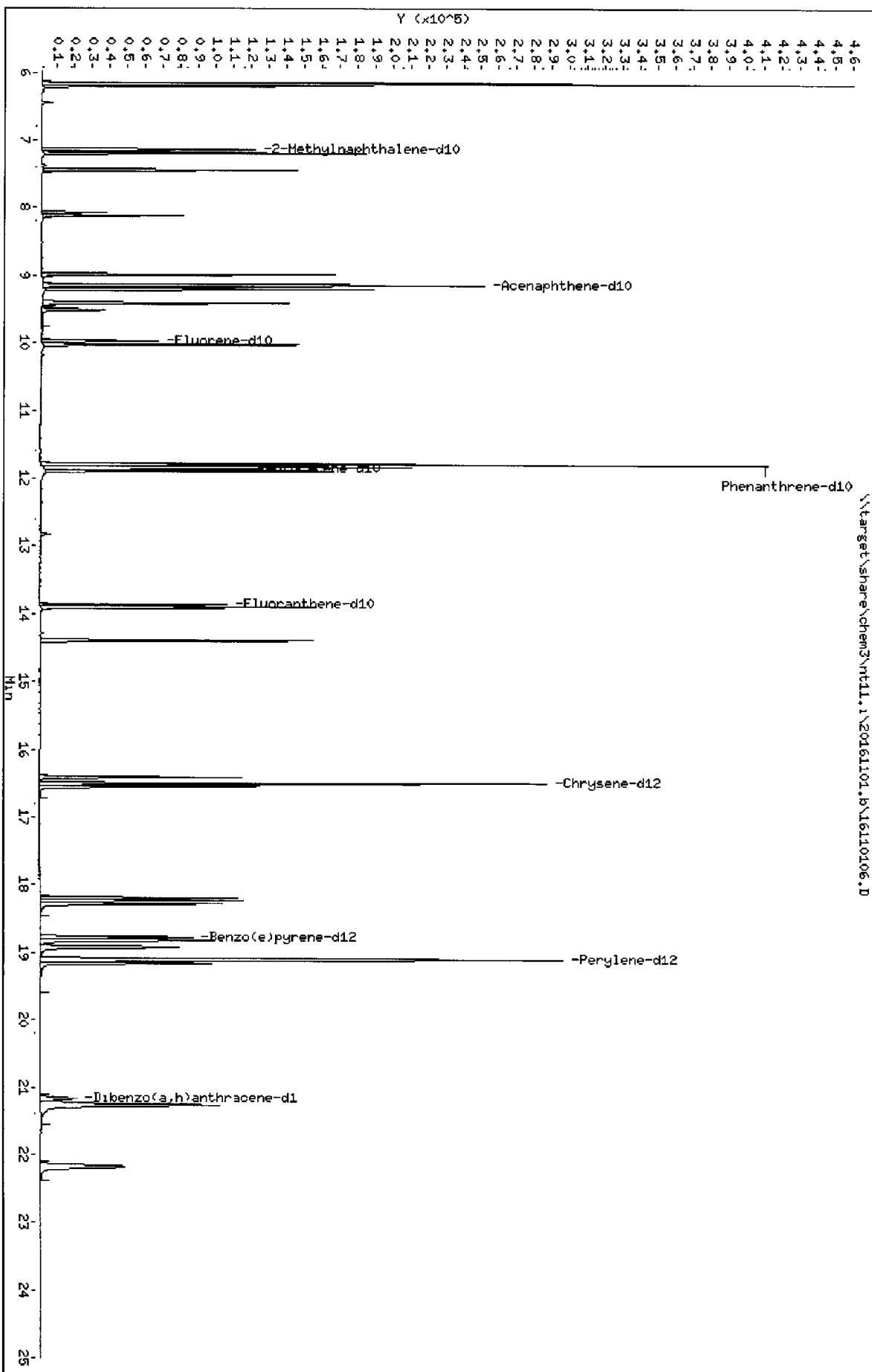
Sample Info: SEK0004-CAL2

Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161101.b\16110106.D

Lab Smp Id: SEK0004-CAL2

Inj Date : 01-NOV-2016 12:04

MS Autotune Date: 15-JAN-2015 16:59

Operator : JW

Inst ID: nt11.i

Smp Info : SEK0004-CAL2

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20161101.b\lowsim.m

Meth Date : 01-Nov-2016 13:02 jonathonw

Quant Type: ISTD

Cal Date : 01-NOV-2016 12:34

Cal File: 16110107.D

Als bottle: 4

Calibration Sample, Level: 2

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PEMD.sub

Target Version: 4.14

Processing Host: AUTOSPECDATA02

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	GN-COL (ng/mL)
* 1 Naphthalene-d8		136	6.165	6.165	(1.000)	61.834	200.000	
2 Naphthalene		128	6.203	6.207	(1.007)	1877.21	50.0000	52.6
\$ 3 2-Methylnaphthalene-d10		152	7.143	7.142	(1.158)	90965	50.0000	49.2
4 2-Methylnaphthalene		142	7.195	7.195	(1.167)	114571	50.0000	49.4
5 1-Methylnaphthalene		142	7.447	7.447	(1.208)	102418	50.0000	49.3
6 Acenaphthylene		152	8.990	8.990	(0.983)	1457.24	50.0000	50.8
* 7 Acenaphthene-d10		164	9.145	9.145	(1.000)	290387	200.000	
8 Acenaphthene		153	9.200	9.200	(1.005)	95650	50.0000	50.5
9 Dibenzofuran		168	9.410	9.410	(1.013)	135620	50.0000	52.3
\$ 10 Fluorene-d10		174	9.972	9.972	(1.090)	74685	50.0000	49.3
11 Fluorene		166	10.035	10.035	(1.097)	105125	50.0000	50.1
* 12 Phenanthrene-d10		168	11.797	11.797	(1.000)	510239	200.000	
13 Phenanthrene		178	11.838	11.838	(1.003)	133563	50.0000	52.9
\$ 14 Anthracene-d10		166	11.855	11.855	(1.005)	124136	50.0000	48.5
15 Anthracene		178	11.893	11.893	(1.008)	166394	50.0000	49.5
\$ 16 Fluoranthene-d10		212	13.872	13.862	(1.176)	118433	50.0000	49.0
17 Fluoranthene		202	13.911	13.911	(1.170)	146202	50.0000	49.3
18 Pyrene		202	14.291	14.101	(0.872)	152226	50.0000	50.0
19 Benzo(a)anthracene		228	16.412	16.412	(0.994)	128956	50.0000	49.8
* 20 Chrysene-d12		240	16.503	16.503	(1.000)	337799	200.000	
21 Chrysene		228	16.553	16.553	(1.003)	138918	50.0000	51.5
22 Benzo(b)fluoranthene		252	18.197	18.197	(0.953)	118336	50.0000	49.8
23 Benzo(k)fluoranthene		252	18.236	18.236	(0.955)	129107	50.0000	49.3
24 Benzo(j)fluoranthene		252	18.284	18.293	(0.957)	117901	50.0000	50.9
25 Benzo(e)pyrene-d12		264	18.774	18.774	(0.983)	117255	50.0000	50.2
26 Benzo(e)pyrene		252	18.832	18.831	(0.986)	118349	50.0000	50.6
27 Benzo(a)pyrene		252	18.928	18.928	(0.991)	109827	50.0000	48.7
* 28 Perylene-d12		261	19.101	19.110	(1.000)	4700.8	200.000	
29 Perylene		252	19.158	19.158	(1.003)	116882	50.0000	50.0
\$ 30 Dibenzo(a,h)anthracene-d14		292	21.176	21.176	(1.109)	68098	50.0000	48.8
31 Dibenzo(a,h)anthracene		278	21.265	21.265	(1.113)	93941	50.0000	47.2
32 Indeno(1,2,3-cd)pyrene		276	21.265	21.276	(1.113)	117602	50.0000	47.4
33 Benzo(g,h,i)perylene		275	22.181	22.184	(1.167)	104829	50.0000	48.5

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16110106.D
 Lab Smp Id: SEK0004-CAL2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Misc Info:

Calibration Date: 01-NOV-2016
 Calibration Time: 09:31

Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	611834	0.37
7 Acenaphthene-d10	316851	158426	633702	290382	-8.35
12 Phenanthrene-d10	546133	273067	1092266	510239	-6.57
20 Chrysene-d12	417210	208605	834420	387799	-7.05
28 Perylene-d12	524443	262222	1048886	470018	-10.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.17	5.67	6.67	6.17	-0.00
7 Acenaphthene-d10	9.15	8.65	9.65	9.15	-0.00
12 Phenanthrene-d10	11.80	11.30	12.30	11.80	-0.00
20 Chrysene-d12	16.50	16.00	17.00	16.50	-0.00
28 Perylene-d12	19.10	18.60	19.60	19.10	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16110106.D

Lab ID: SEK0004-CAL2

nt11.i, 20161101.b\lowsim.m, 01-NOV-2016 12:04

RT	CO-ELUTION COMPOUNDS
21.265	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
21.265	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE			

On Column LOD for nt11.i, 20161101.b\lowsim.m, PEMD.sub = 0.0000

Data File: \\target\share\chem3\nt11.1\20161101.b\16110107.D

Date: 01-NOV-2016 12:34

Client ID:

Sample Info: SEK0004-CAL6

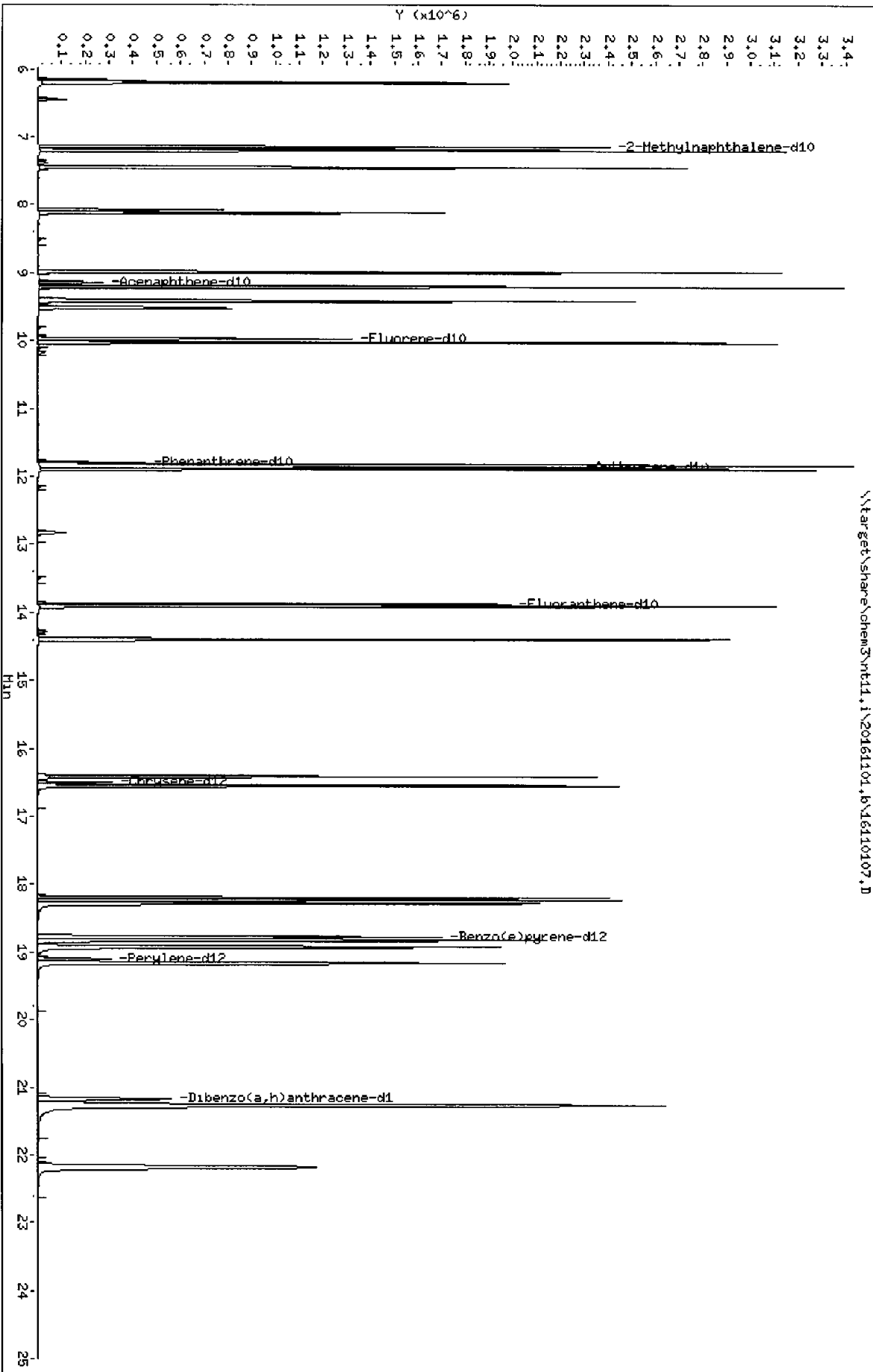
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: JM

Column diameter: 0.25

Page 1



ARI Labs, Inc.

LOW LEVEL PNAS BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161101.b\16110107.D

Lab Smp Id: SEK0004-CAL6

Inj Date : 01-NOV-2016 12:34

MS Autotune Date: 15-JAN-2015 16:59

Operator : JW

Inst ID: nt11.i

Smp Info : SEK0004-CAL6

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20161101.b\lowsim.m

Meth Date : 01-Nov-2016 13:02 jonathonw

Quant Type: ISTD

Cal Date : 01-NOV-2016 12:34

Cal File: 16110107.D

Als bottle: 7

Calibration Sample, Level: 6

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PEMD.sub

Target Version: 4.14

Processing Host: AUTOSPECDATA02

Compounds	QUANT SIG			AMOUNTS			
	NAME	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/L)
* 1 Naphthalene-d8	130	6.165	6.165 (1.000)		617596	200.000	
2 Naphthalene	123	6.207	6.207 (1.007)		2872718	1000.00	798
\$ 3 2-Methylnaphthalene-d10	152	7.142	7.142 (1.158)		1701346	1000.00	212
4 2-Methylnaphthalene	142	7.195	7.195 (1.167)		2061955	1000.00	881
5 1-Methylnaphthalene	142	7.447	7.447 (1.208)		1870115	1000.00	892
6 Acenaphthylene	152	8.930	8.930 (0.933)		7635884	1000.00	850
7 Acenaphthene-d10	161	9.145	9.145 (1.000)		316004	200.000	
8 Acenaphthene	153	9.200	9.200 (1.006)		1790250	1000.00	867
9 Dibenzofuran	168	9.410	9.410 (1.029)		2434711	1000.00	855
\$ 10 Fluorene-d10	174	9.972	9.972 (1.090)		1508698	1000.00	915
11 Fluorene	166	10.035	10.035 (1.097)		2044921	1000.00	890
* 12 Phenanthrene-d10	188	11.797	11.797 (1.000)		5456026	200.000	
13 Phenanthrene	178	11.836	11.836 (1.003)		3030338	1000.00	817
\$ 14 Anthracene-d10	188	11.855	11.855 (1.005)		2403934	1000.00	878
15 Anthracene	178	11.893	11.893 (1.008)		3000570	1000.00	845
\$ 16 Fluoranthene-d10	212	13.882	13.882 (1.177)		2378410	1000.00	920
17 Fluoranthene	202	13.911	13.911 (1.179)		2821306	1000.00	889
18 Pyrene	202	14.401	14.401 (0.873)		2853599	1000.00	861
19 Benzo(a)anthracene	208	16.412	16.412 (0.894)		2529664	1000.00	898
* 20 Chrysene-d12	240	16.503	16.503 (1.000)		421968	200.000	
21 Chrysene	228	16.552	16.553 (1.003)		2566816	1000.00	875
22 Benzo(b)fluoranthene	252	18.197	18.197 (0.952)		2384262	1000.00	924
23 Benzo(k)fluoranthene	252	18.236	18.236 (0.954)		2721895	1000.00	956
24 Benzo(j)fluoranthene	252	18.293	18.293 (0.957)		2407859	1000.00	957
\$ 25 Benzo(e)pyrene-d12	264	18.774	18.774 (0.922)		2381840	1000.00	939
26 Benzo(e)pyrene	252	18.831	18.831 (0.965)		2391075	1000.00	941
27 Benzo(a)pyrene	252	18.928	18.928 (0.990)		2378550	1000.00	971
* 28 Perylene-d12	264	19.110	19.110 (1.000)		510441	200.000	
29 Perylene	252	19.158	19.158 (1.002)		2363853	1000.00	940
\$ 30 Dibenz(a,h)anthracene-d14	288	21.176	21.176 (1.108)		1352973	1000.00	1050
31 Dibenz(a,h)anthracene	276	21.265	21.265 (1.113)		2280708	1000.00	1050
32 Indeno(1,2,3-cd)pyrene	276	21.276	21.276 (1.113)		2792507	1000.00	1040
33 Benzo(c,h,i)perylene	276	22.184	22.184 (1.161)		2304718	1000.00	990

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16110107.D
 Lab Smp Id: SEK0004-CAL6
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Misc Info:

Calibration Date: 01-NOV-2016
 Calibration Time: 09:31
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	617596	1.32
7 Acenaphthene-d10	316851	158426	633702	316004	-0.27
12 Phenanthrene-d10	546133	273067	1092266	545628	-0.09
20 Chrysene-d12	417210	208605	834420	421968	1.14
28 Perylene-d12	524443	262222	1048886	510441	-2.67

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.17	5.67	6.67	6.17	-0.00
7 Acenaphthene-d10	9.15	8.65	9.65	9.15	-0.00
12 Phenanthrene-d10	11.80	11.30	12.30	11.80	-0.00
20 Chrysene-d12	16.50	16.00	17.00	16.50	-0.00
28 Perylene-d12	19.10	18.60	19.60	19.11	0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16110107.D

Lab ID: SEK0004-CAL6

nt11.i, 20161101.b\lowsim.m, 01-NOV-2016 12:34

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20161101.b\lowsim.m, PEMD.sub = 0.0000

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Calibration: ZK00002

Laboratory ID: SEK0004-SCV1

Sequence: SEK0004

Sequence Name: SIMPNA SCV

Standard ID: D004766

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Naphthalene	250.00	229	-8.6	20.00
2-Methylnaphthalene	250.00	215	-14.0	20.00
Acenaphthylene	250.00	230	-8.0	20.00
Acenaphthene	250.00	252	0.9	20.00
Fluorene	250.00	227	-9.2	20.00
Phenanthrene	250.00	238	-5.0	20.00
Anthracene	250.00	233	-7.0	20.00
Fluoranthene	250.00	226	-9.5	20.00
Pyrene	250.00	243	-2.9	20.00
Benzo(a)anthracene	250.00	227	-9.1	20.00
Chrysene	250.00	233	-6.7	20.00
Benzo(b)fluoranthene	250.00	229	-8.3	20.00
Benzo(k)fluoranthene	250.00	235	-6.2	20.00
Benzo(a)pyrene	250.00	237	-5.0	20.00
Indeno(1,2,3-cd)pyrene	250.00	234	-6.6	20.00
Dibenzo(a,h)anthracene	250.00	235	-5.9	20.00
Benzo(g,h,i)perylene	250.00	232	-7.4	20.00

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20161101_16\16110108.D

Date : 01-NOV-2016 13:04

Client ID:

Sample Info: SEK0004-SCV1

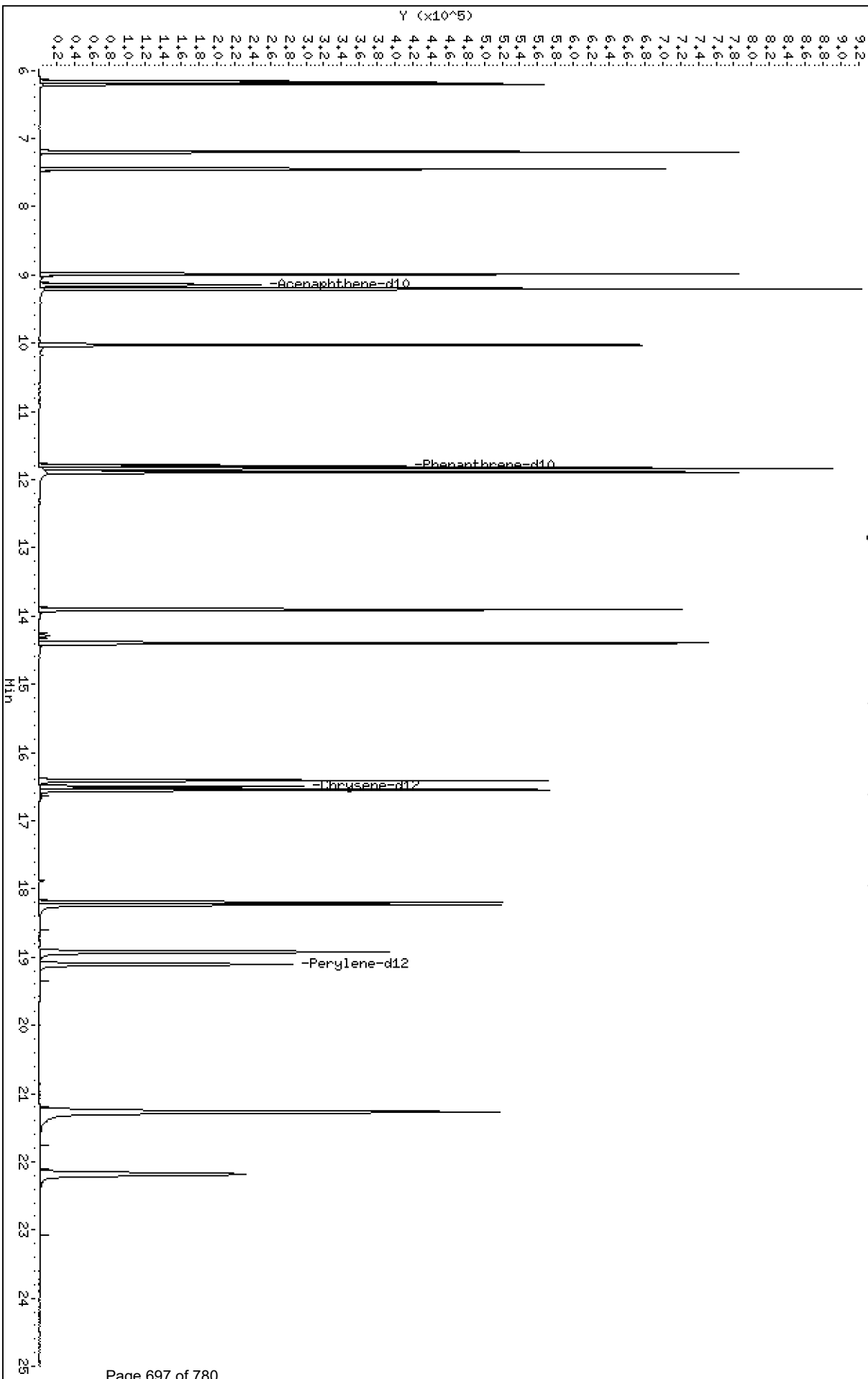
Column phase: Rxi-17S11 MS

Instrument: nt11.i

Operator: JM

Column diameter: 0.25

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Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

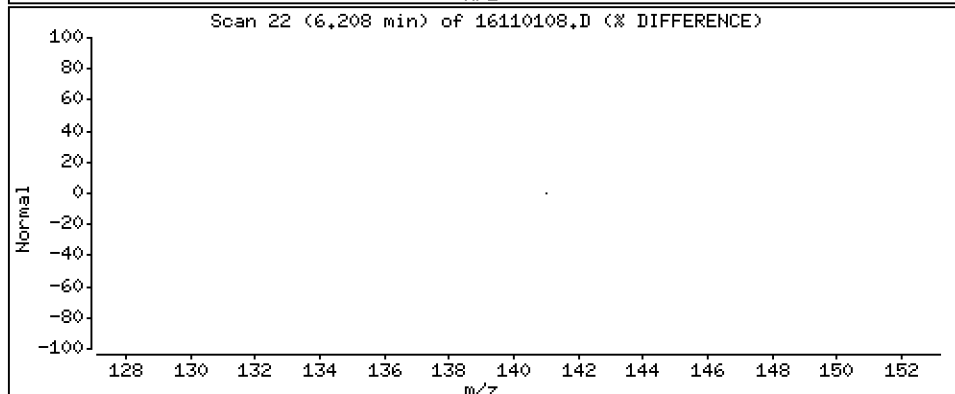
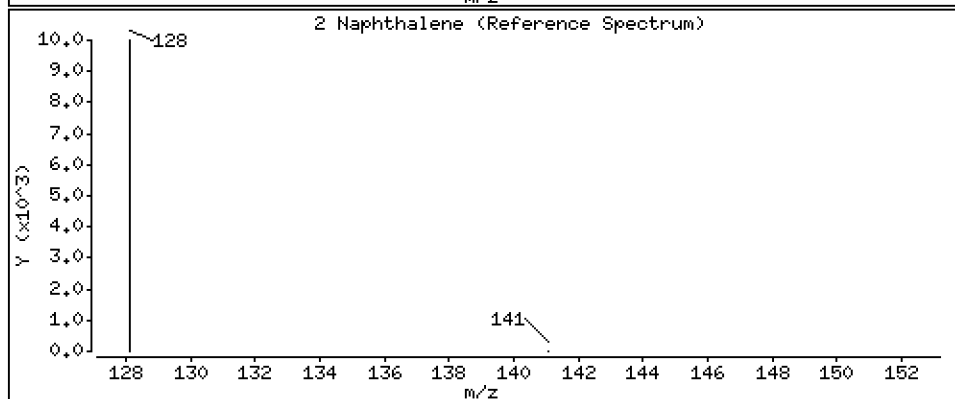
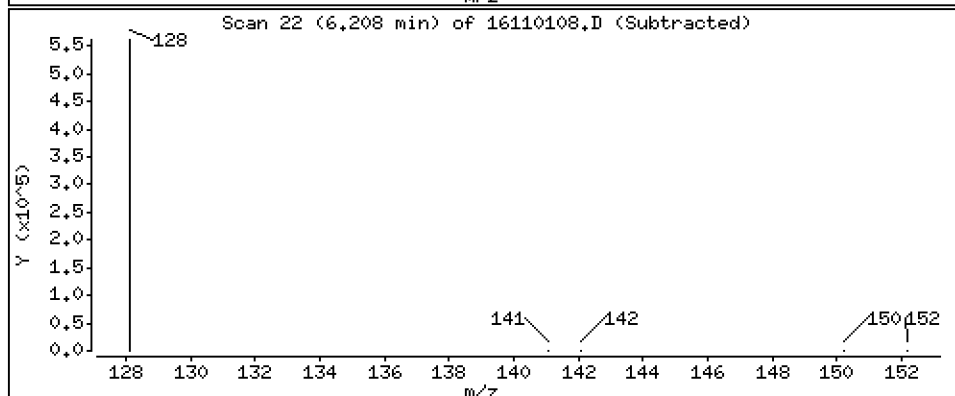
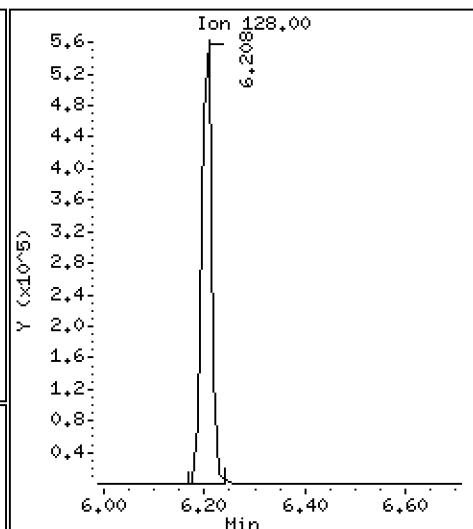
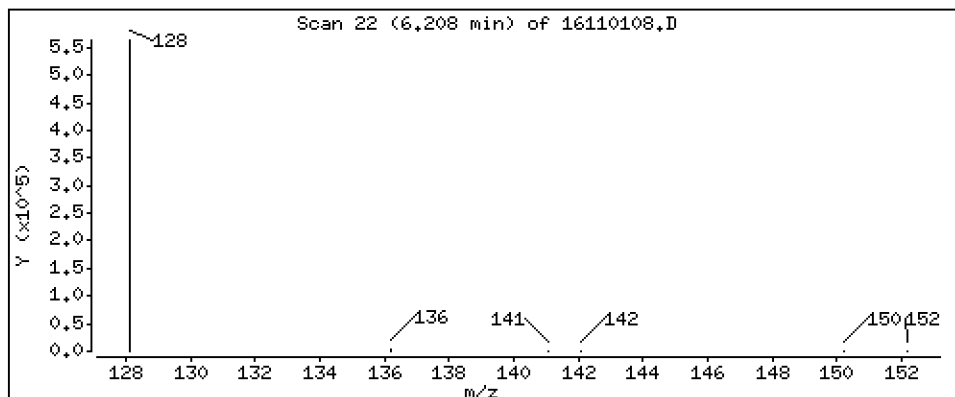
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 229 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

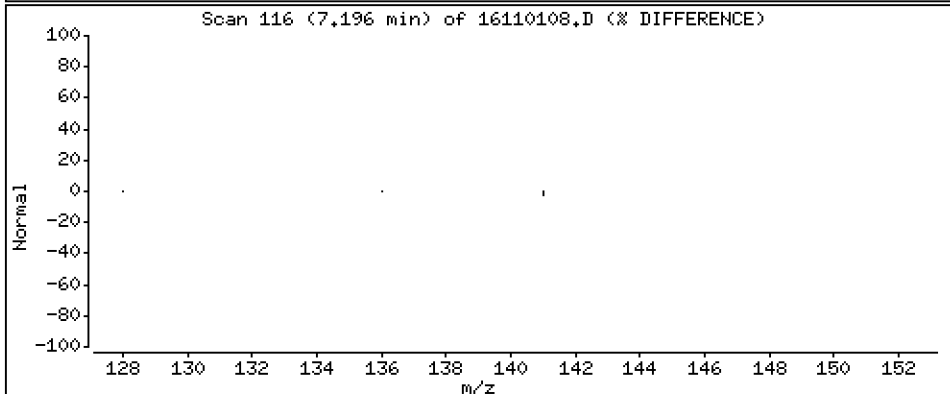
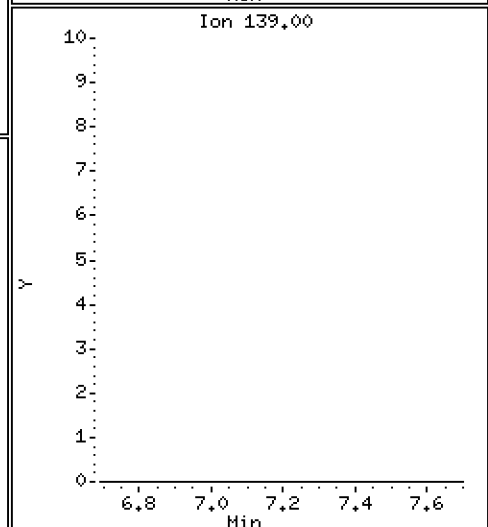
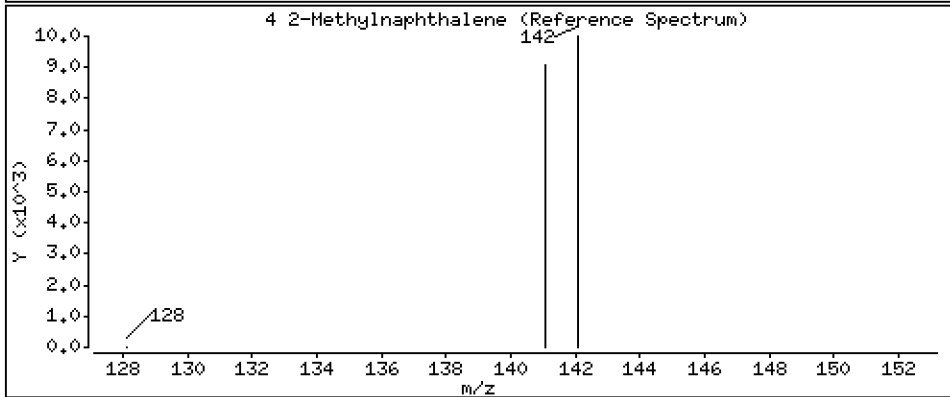
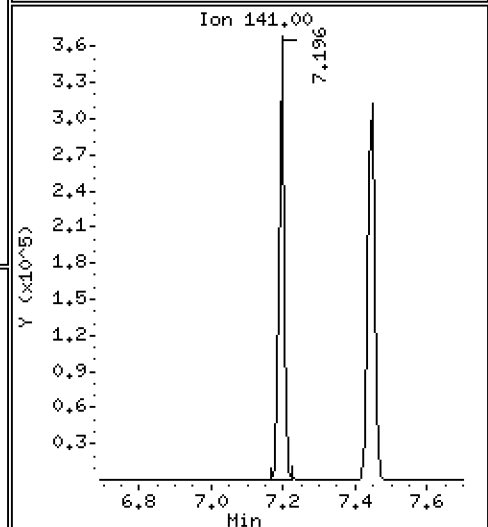
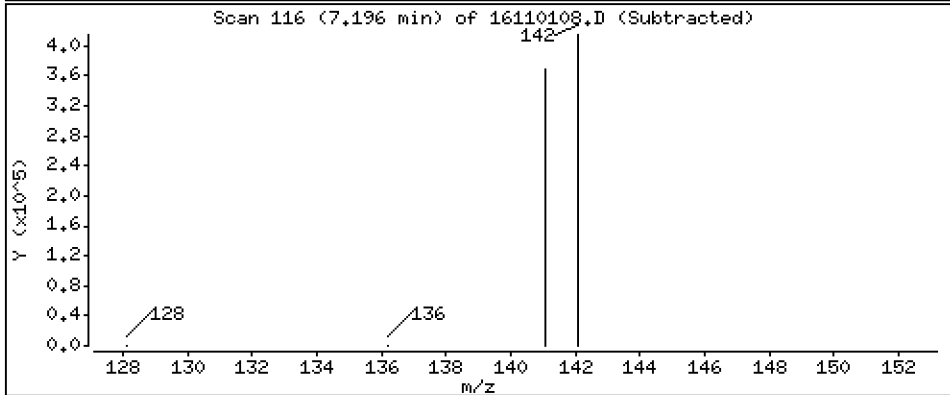
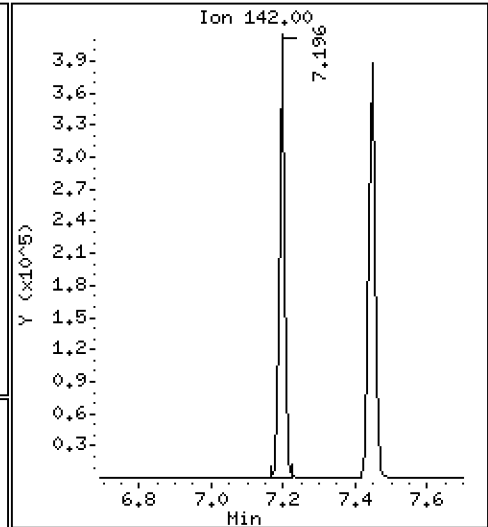
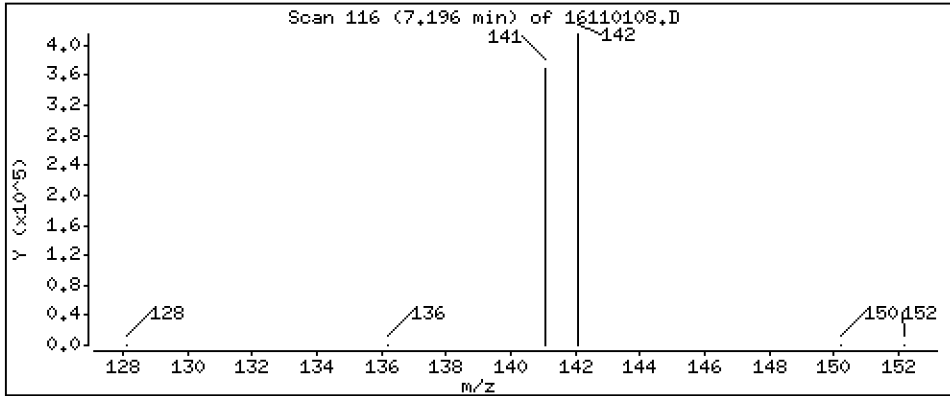
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

4-Methylnaphthalene

Concentration: 215 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

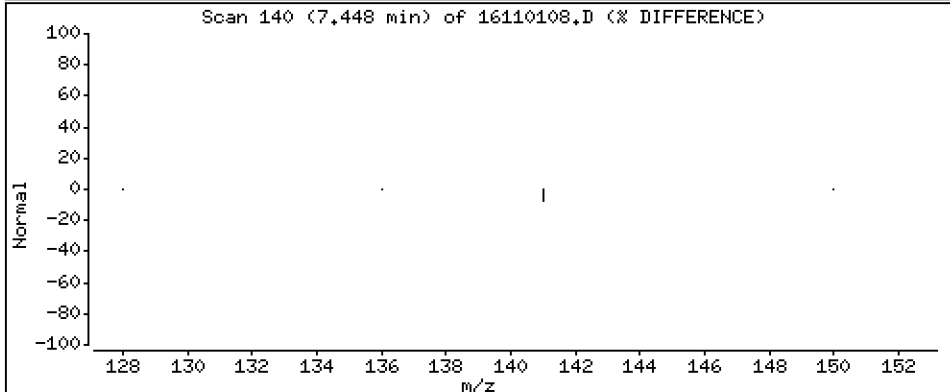
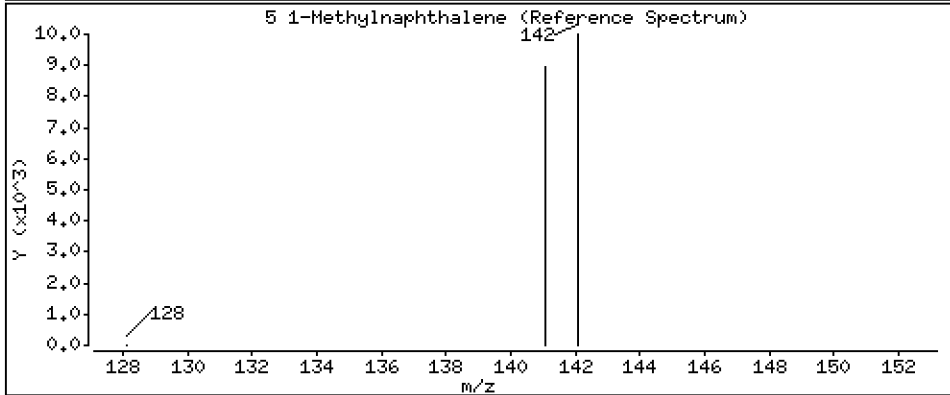
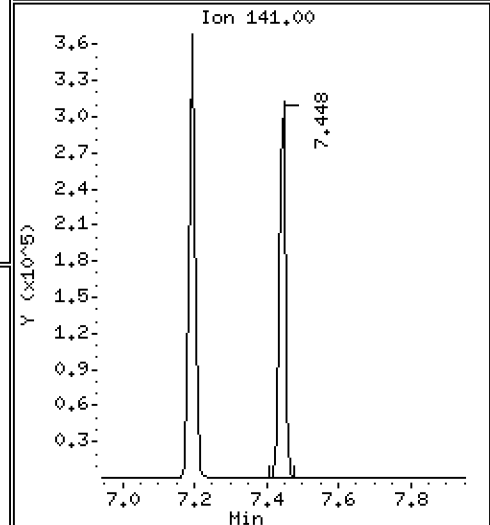
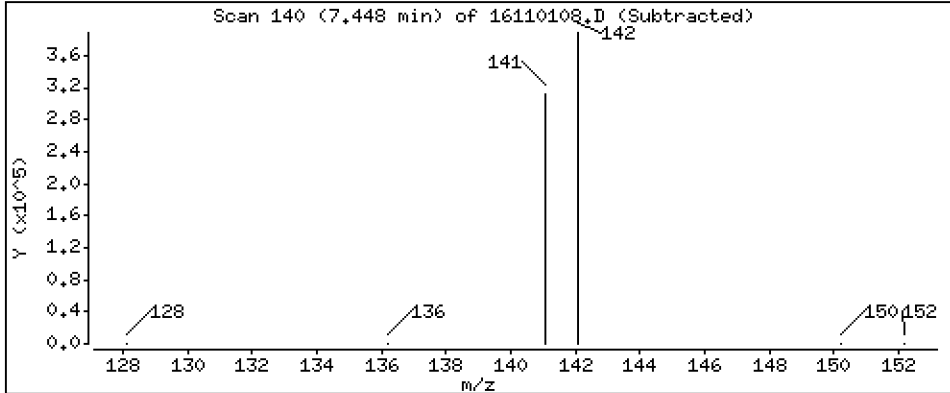
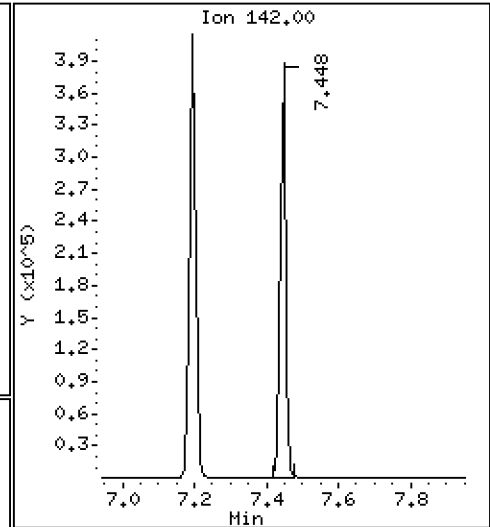
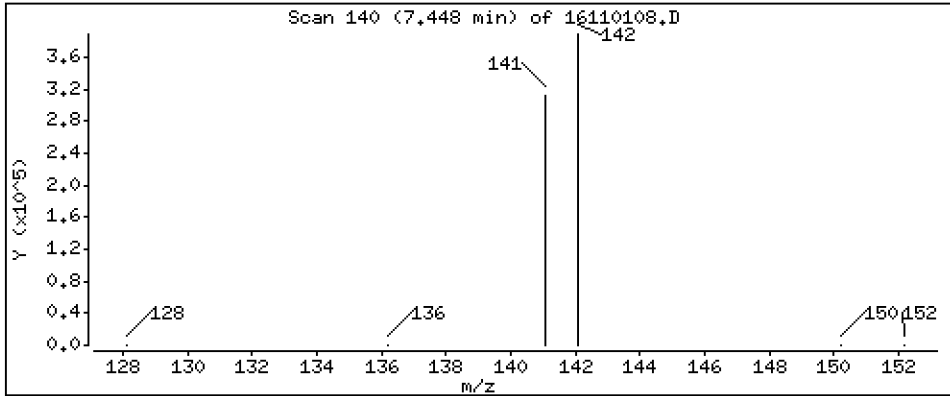
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5 1-Methylnaphthalene

Concentration: 234 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

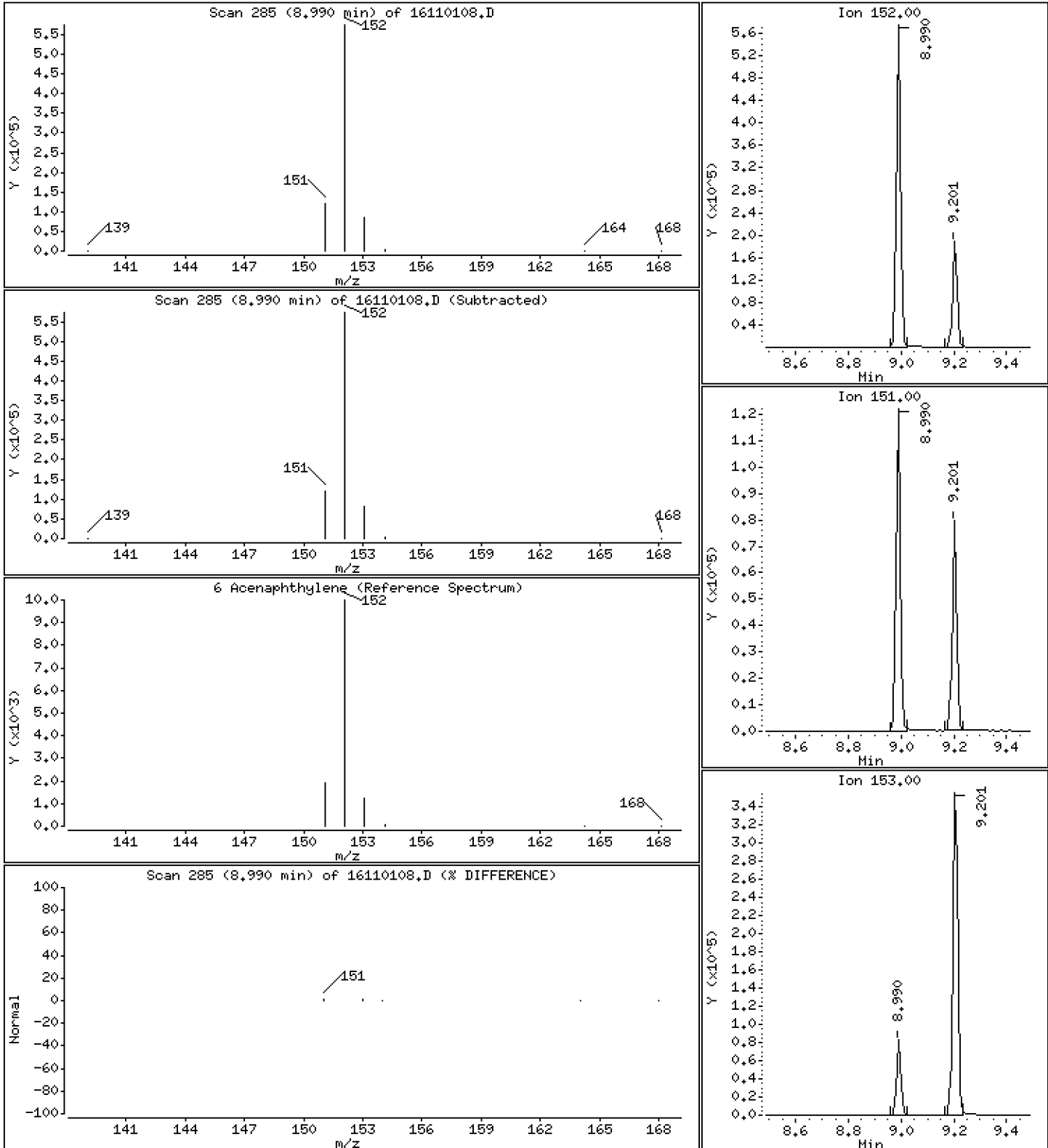
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6 Acenaphthylene

Concentration: 230 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

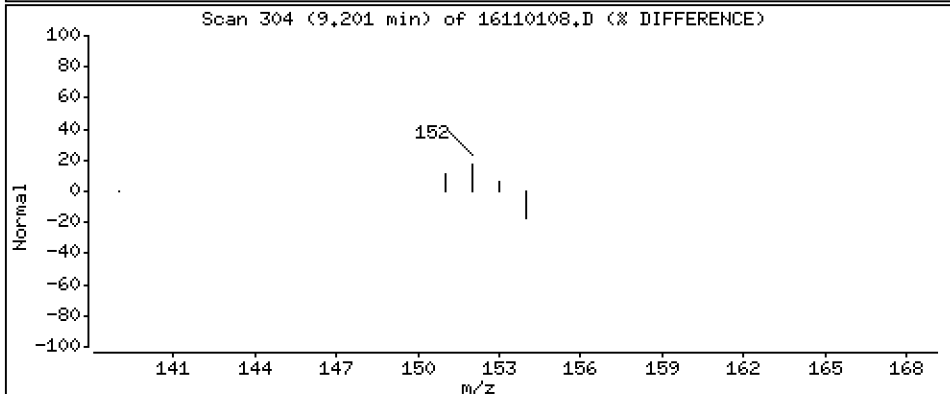
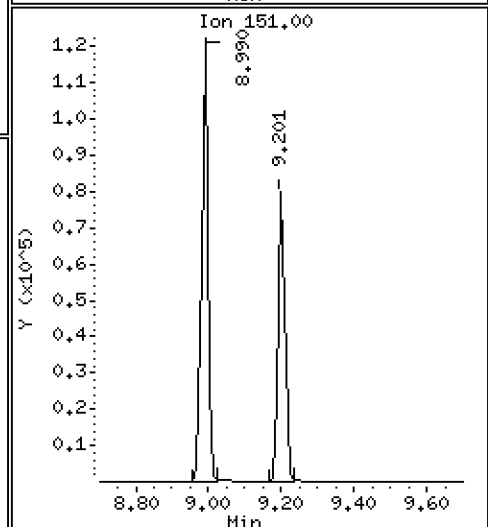
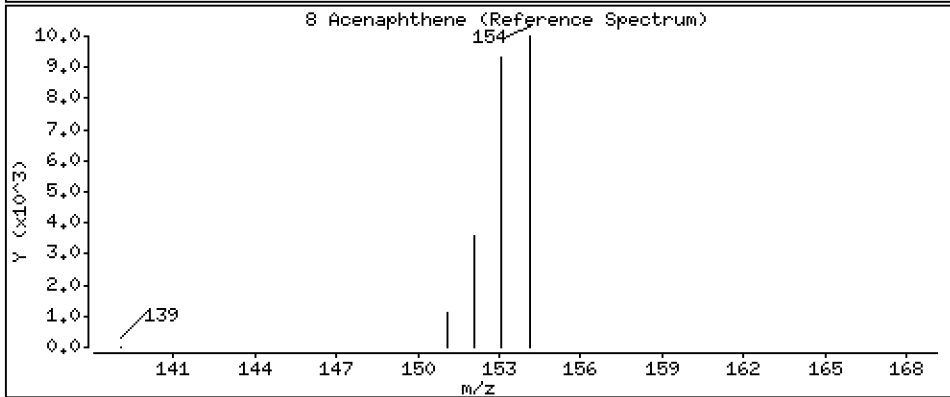
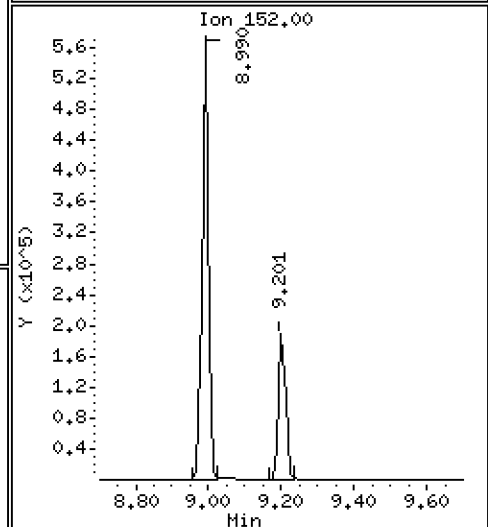
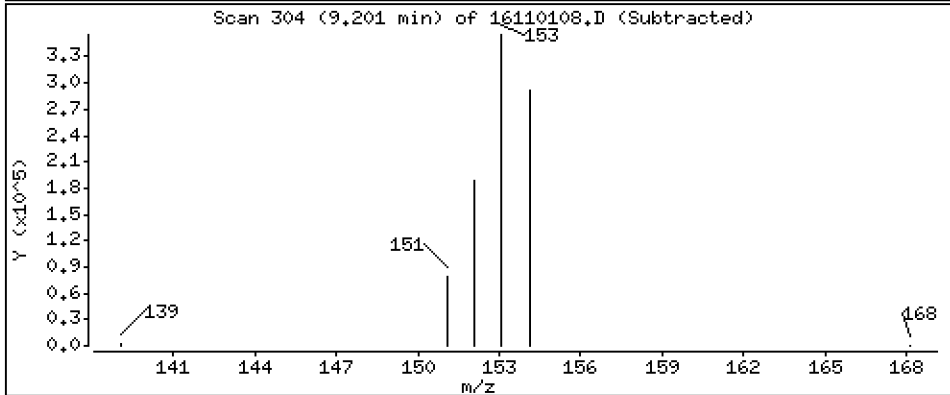
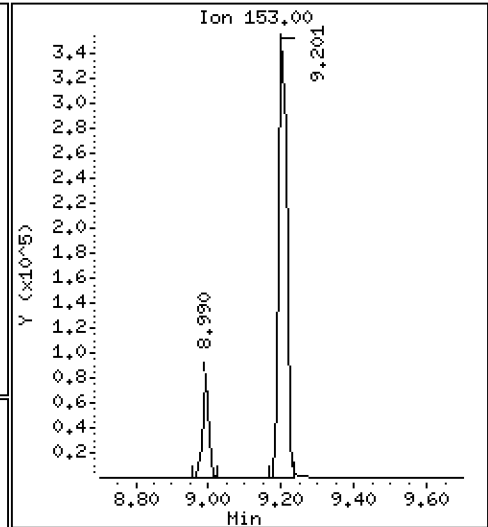
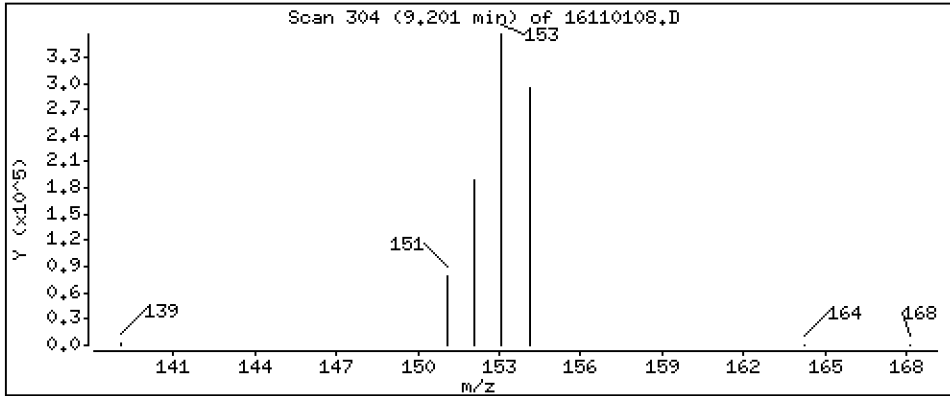
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

8 Acenaphthene

Concentration: 252 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

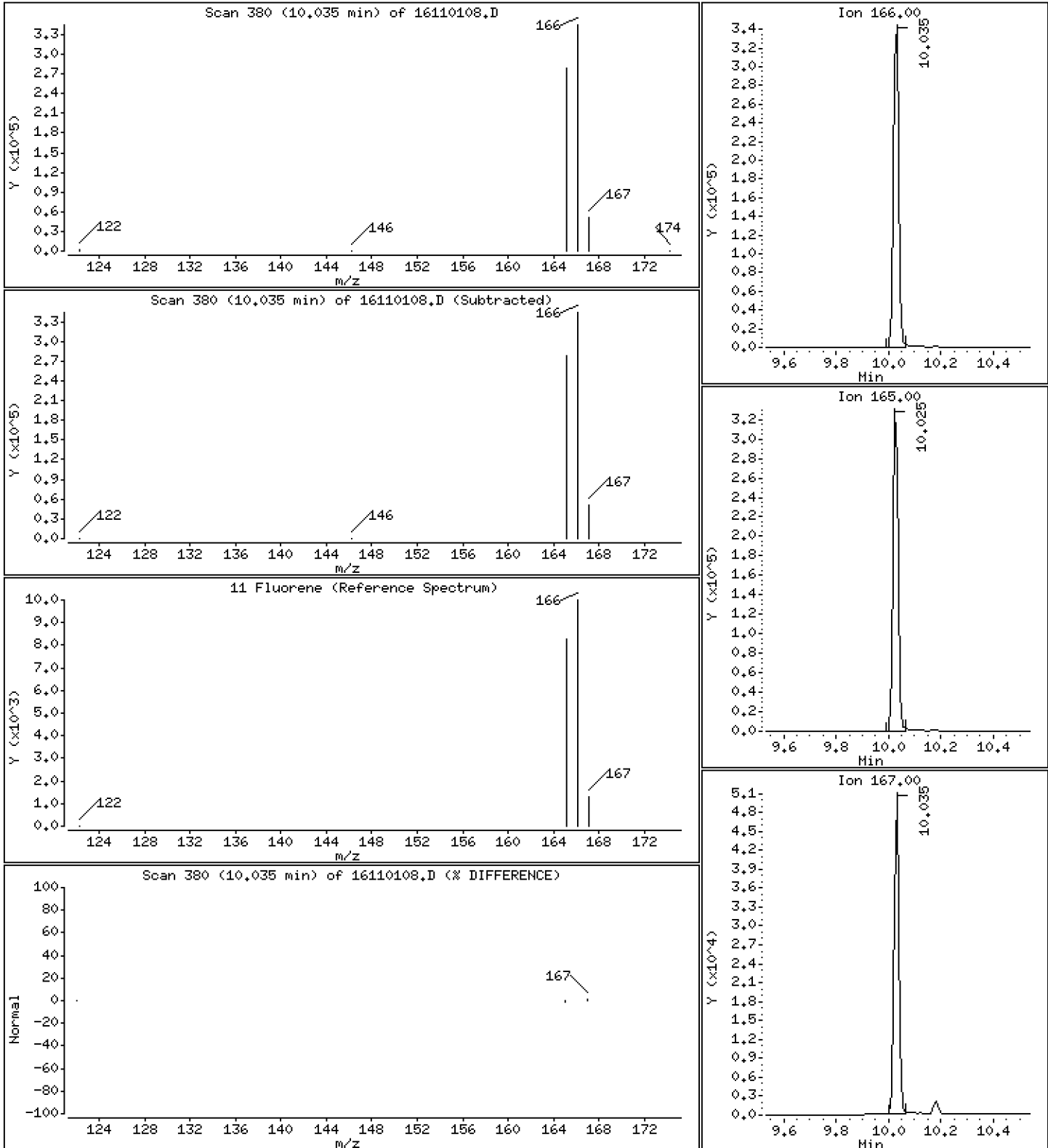
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

11 Fluorene

Concentration: 227 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

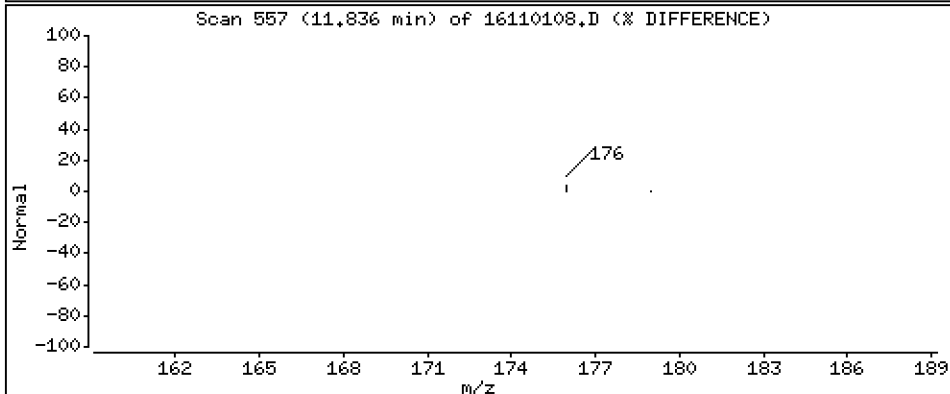
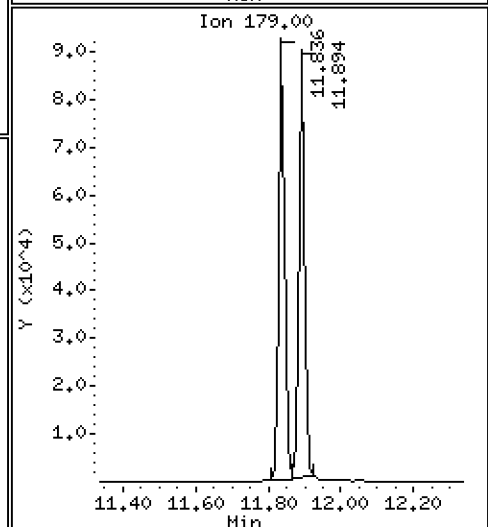
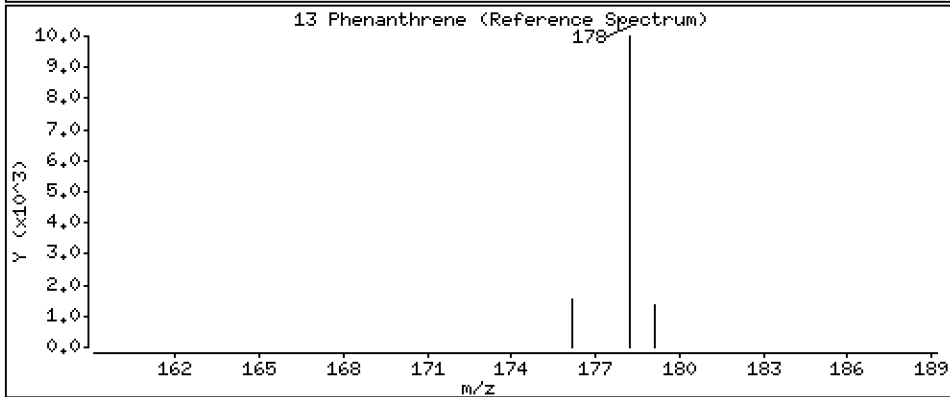
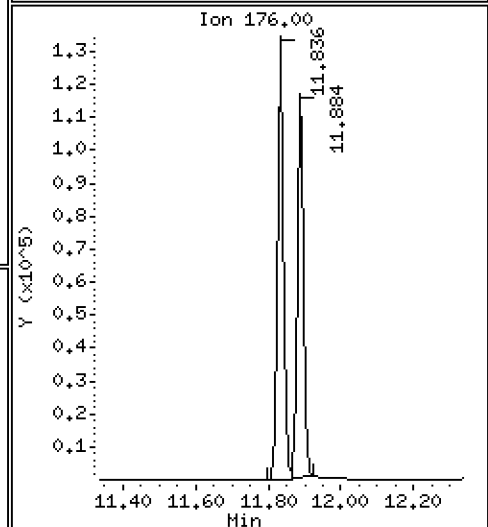
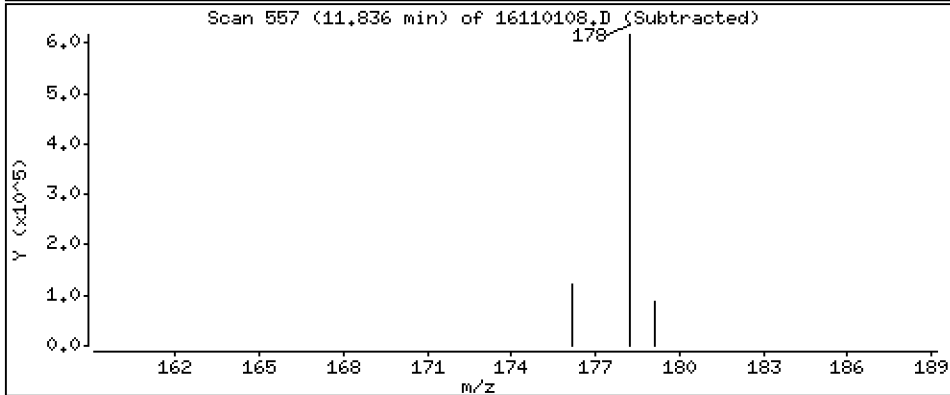
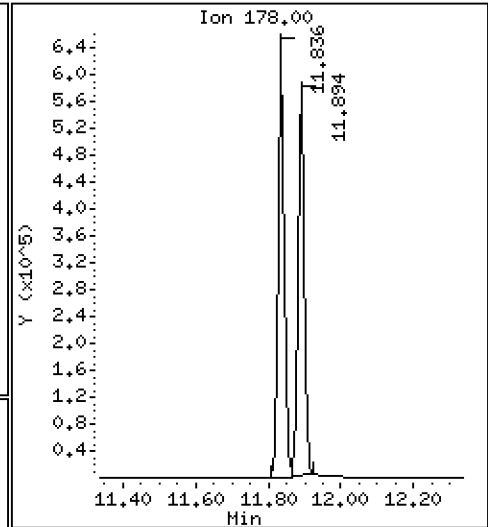
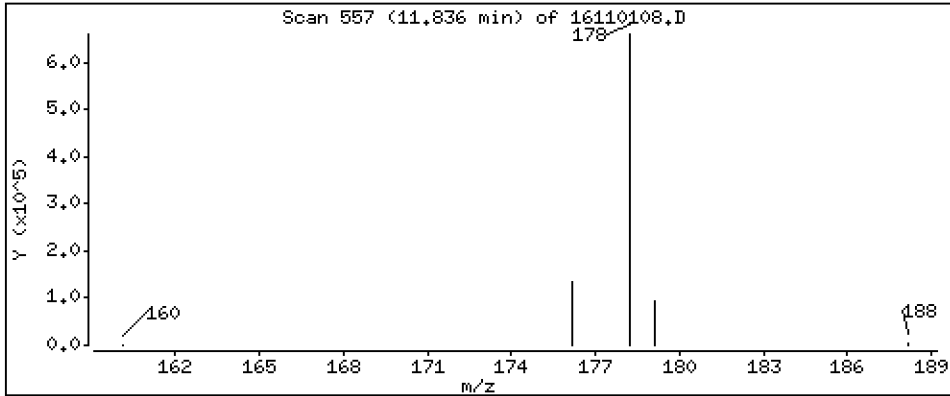
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 Phenanthrene

Concentration: 238 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

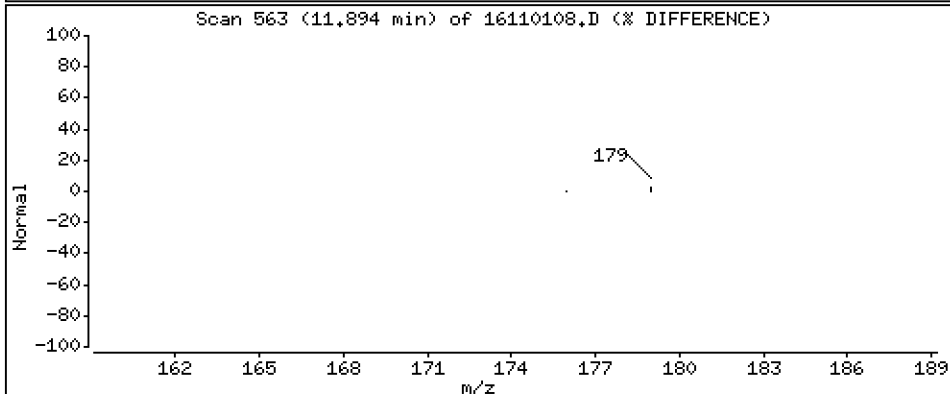
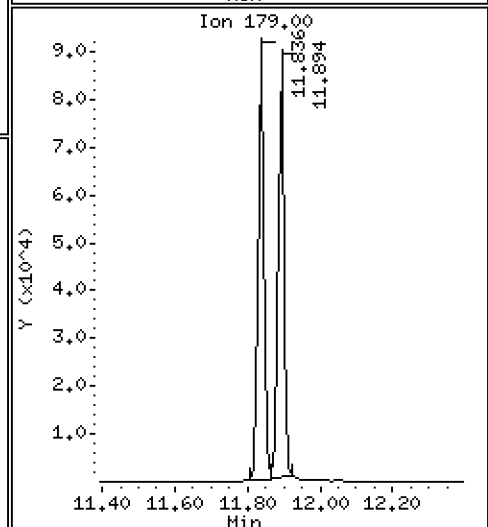
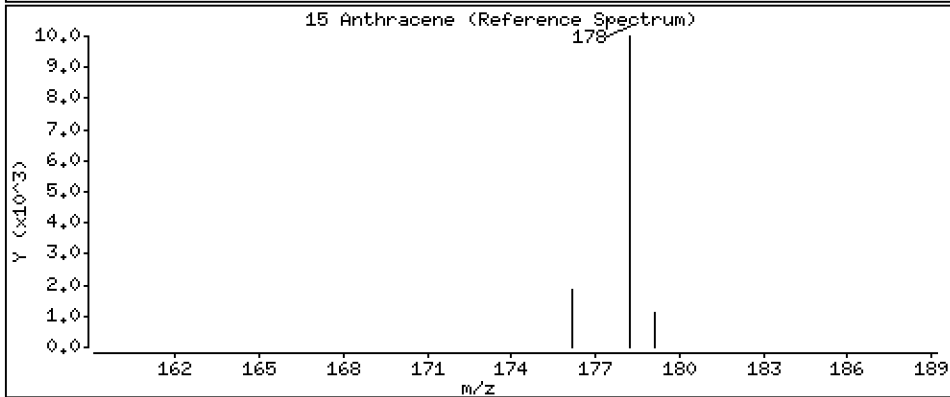
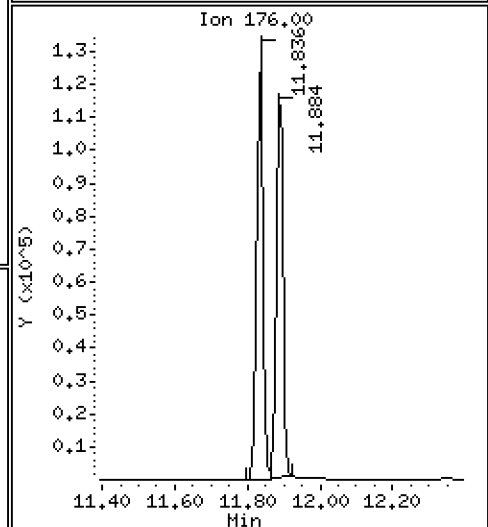
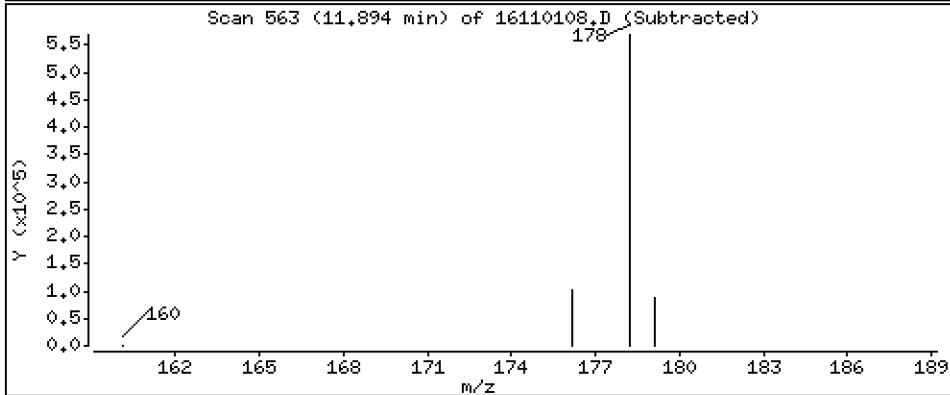
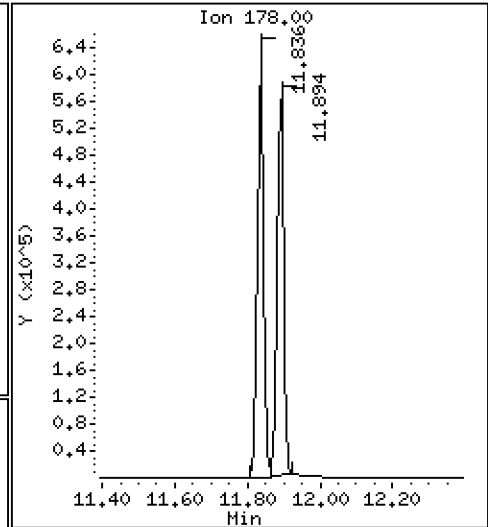
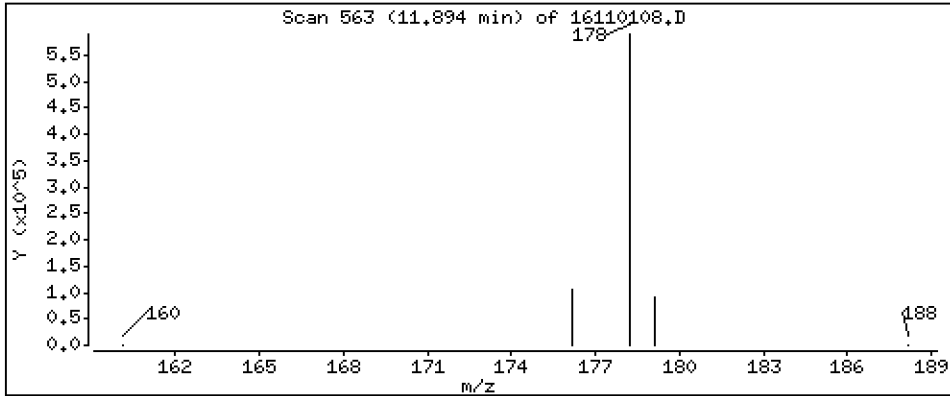
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

15 Anthracene

Concentration: 233 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

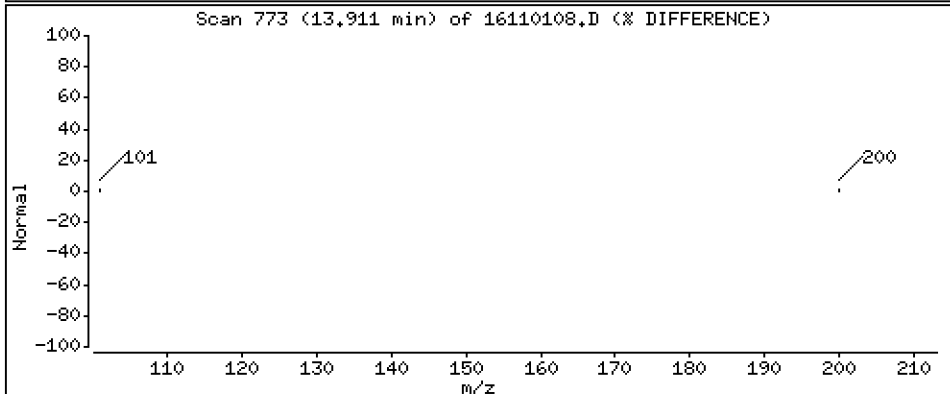
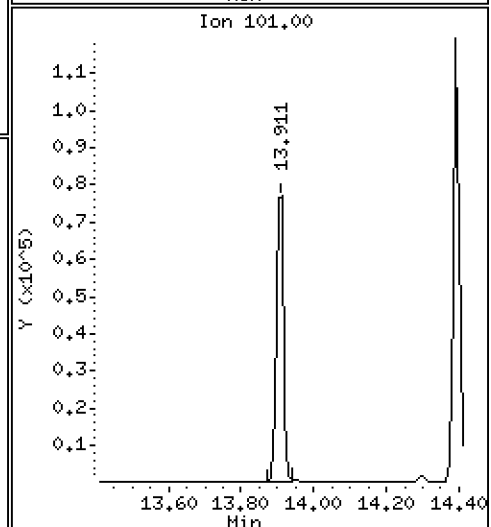
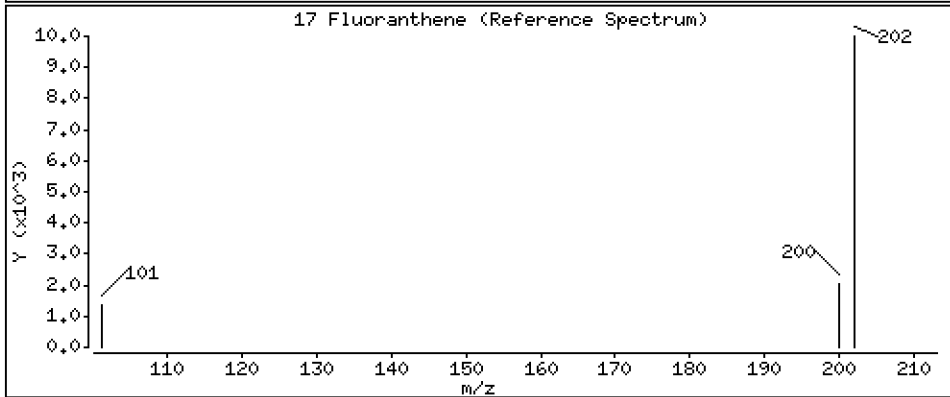
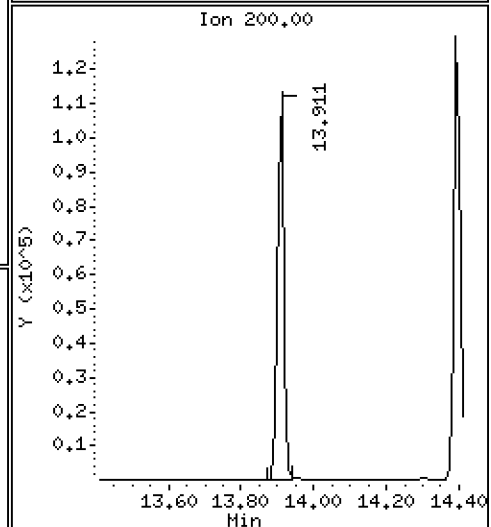
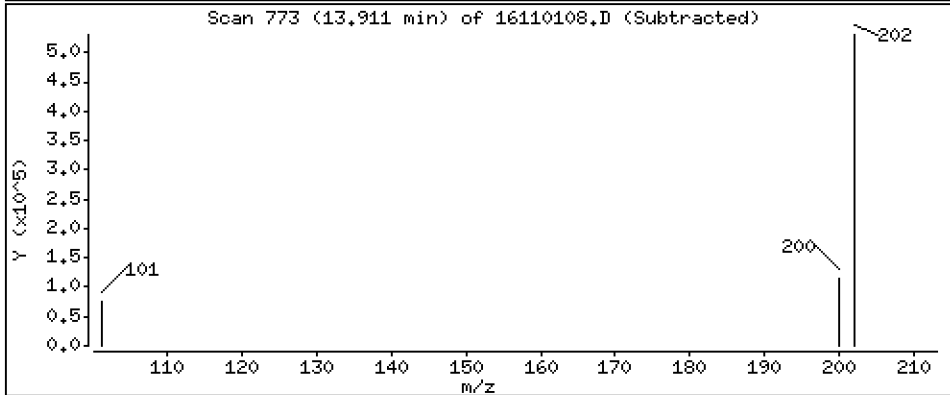
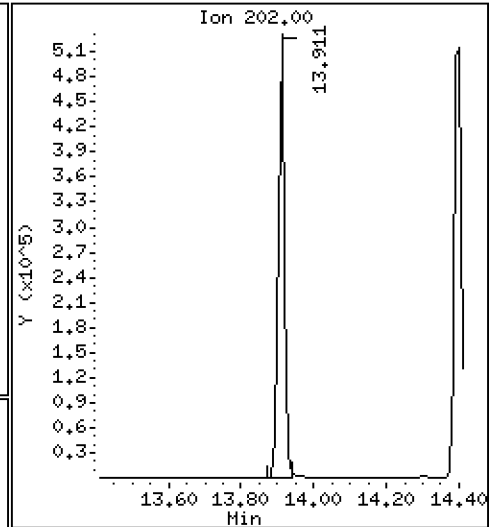
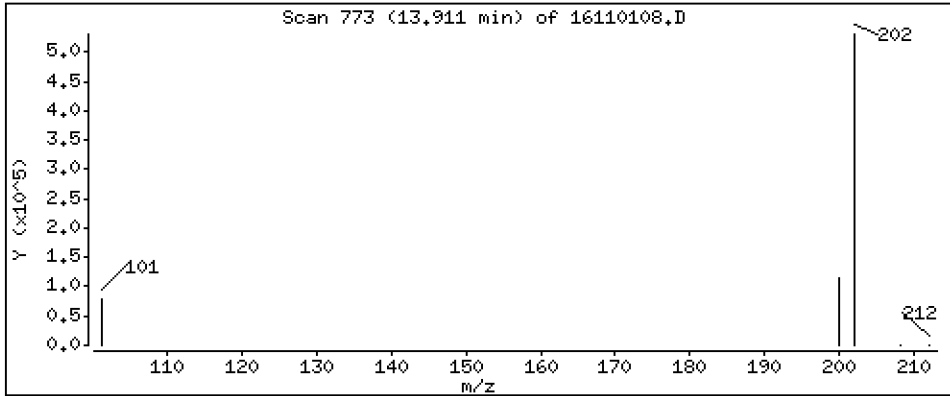
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Fluoranthene

Concentration: 226 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

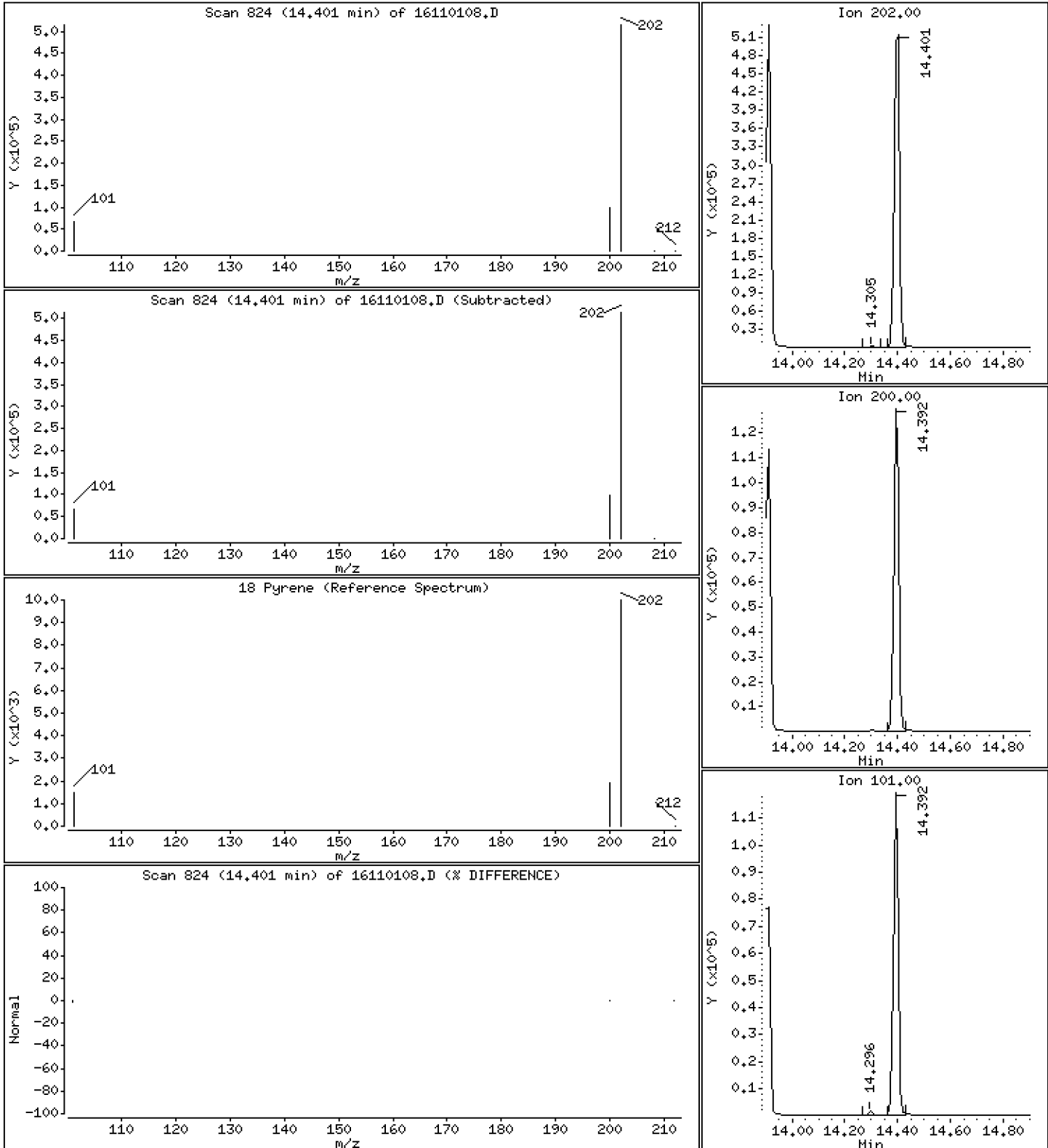
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

18 Pyrene

Concentration: 243 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

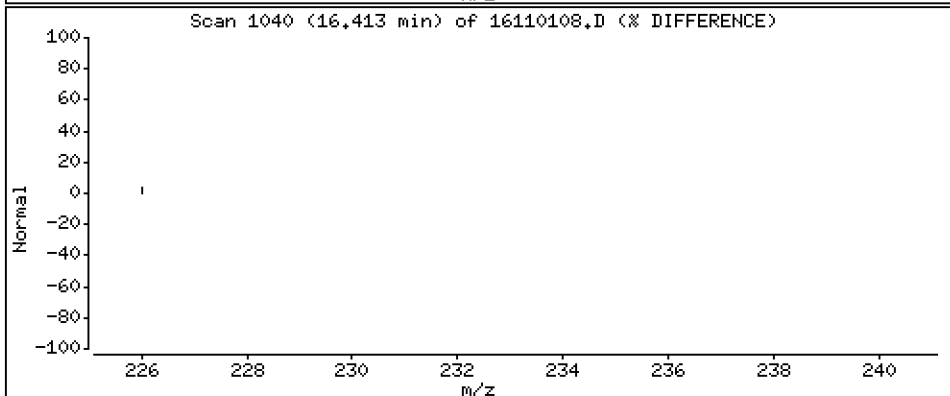
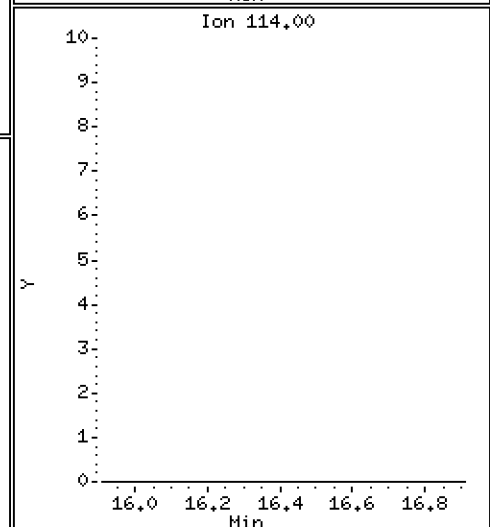
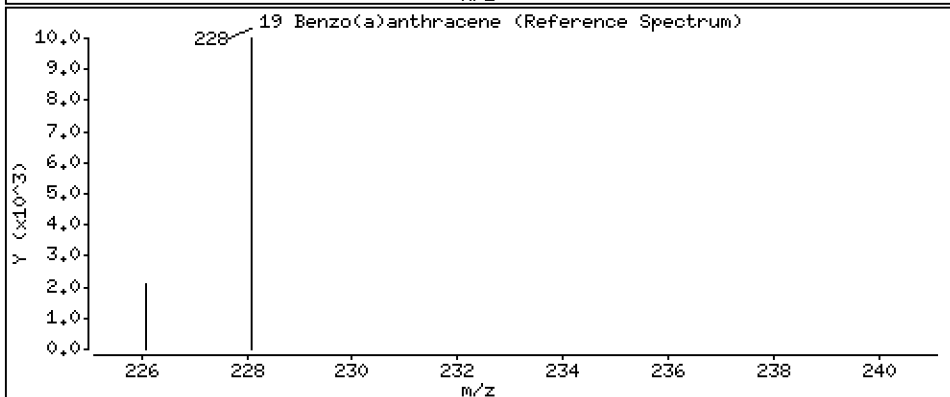
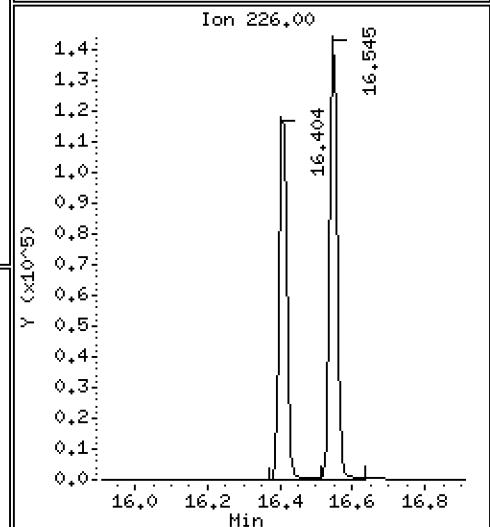
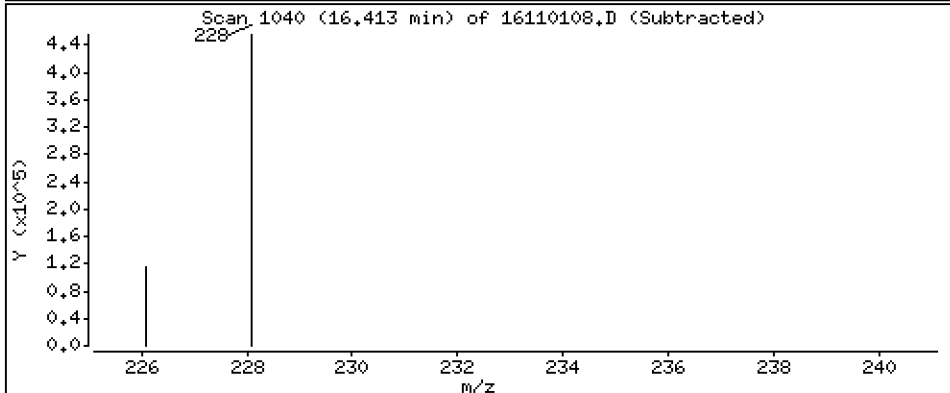
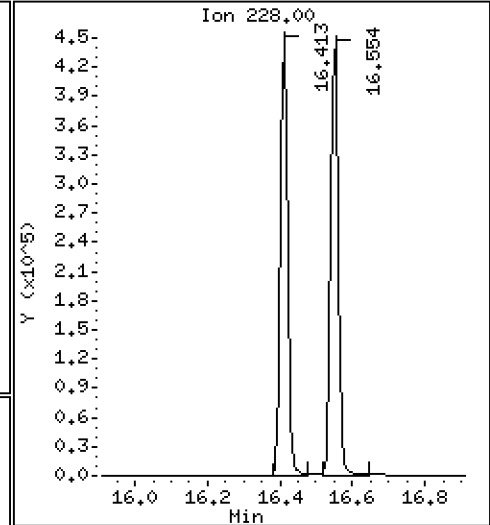
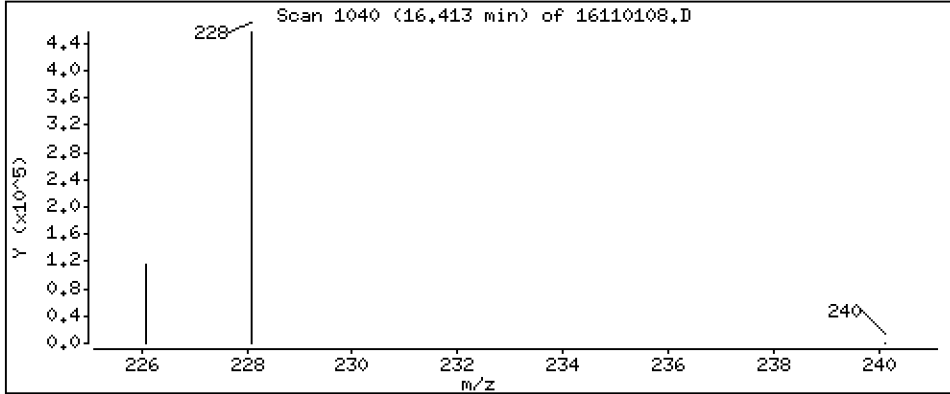
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Benzo(a)anthracene

Concentration: 227 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

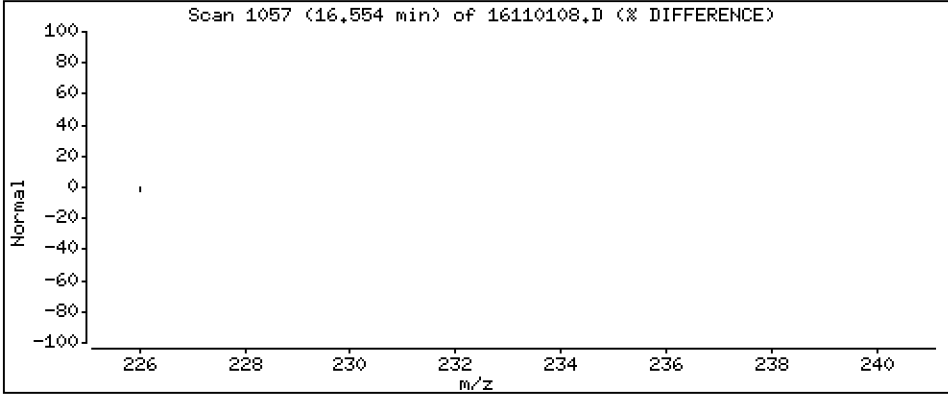
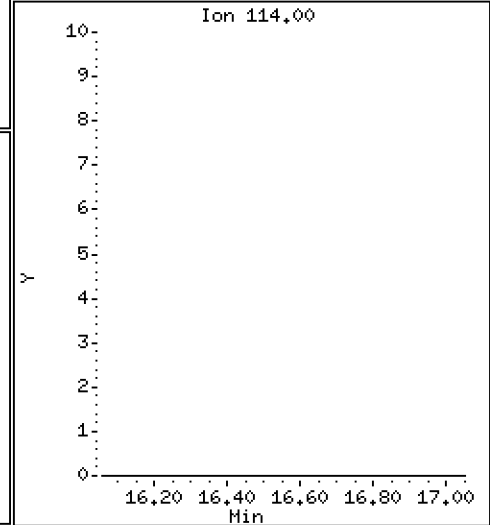
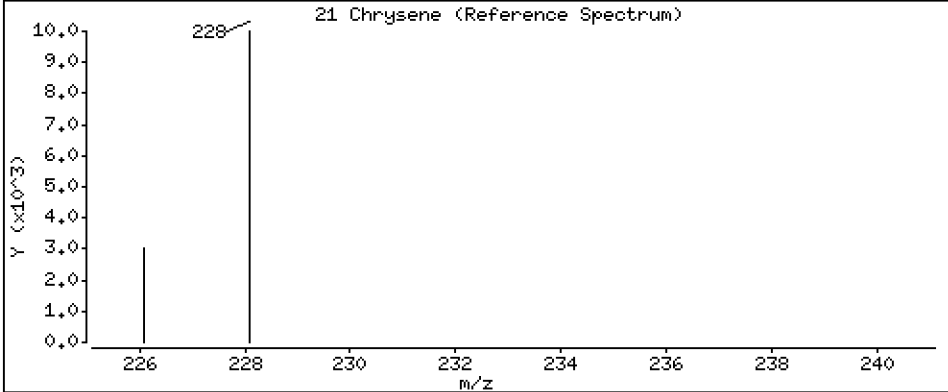
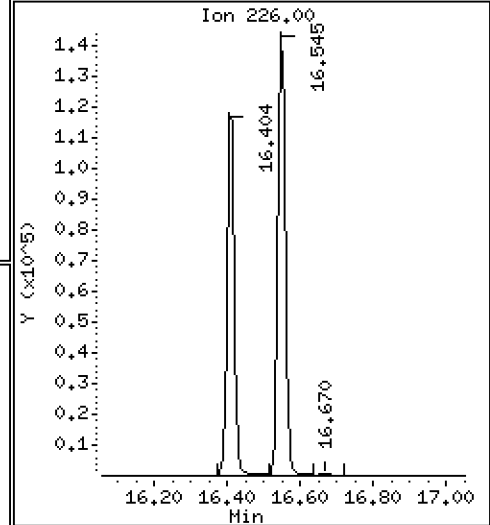
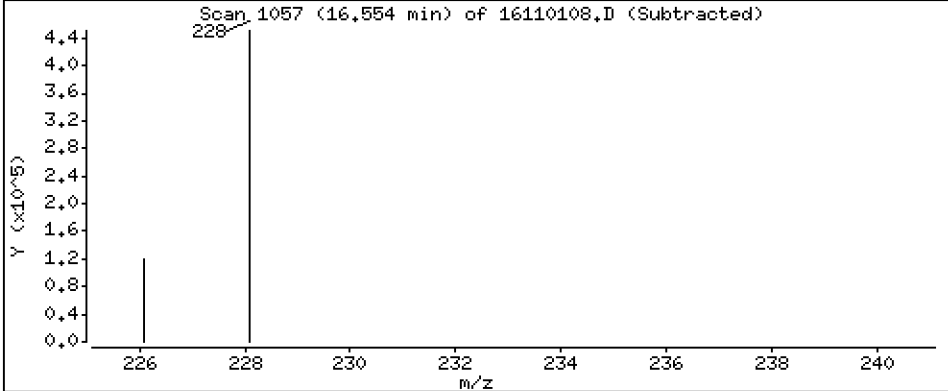
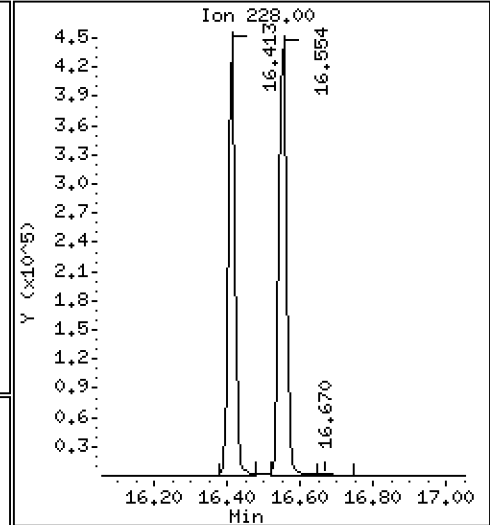
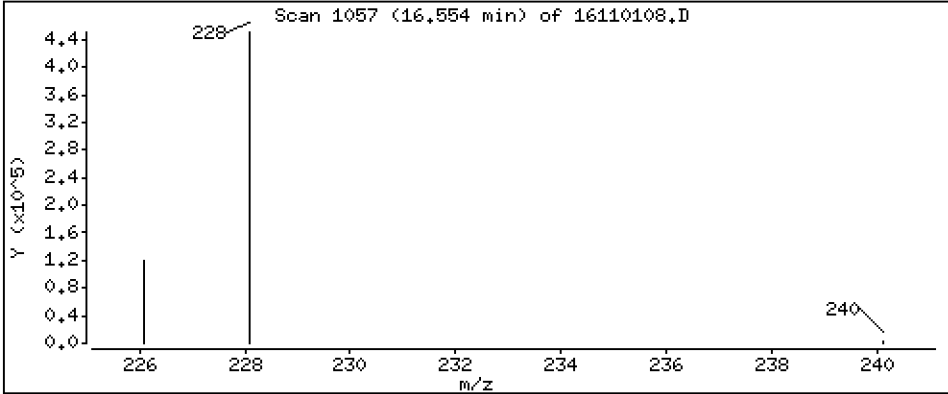
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Chrysene

Concentration: 233 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

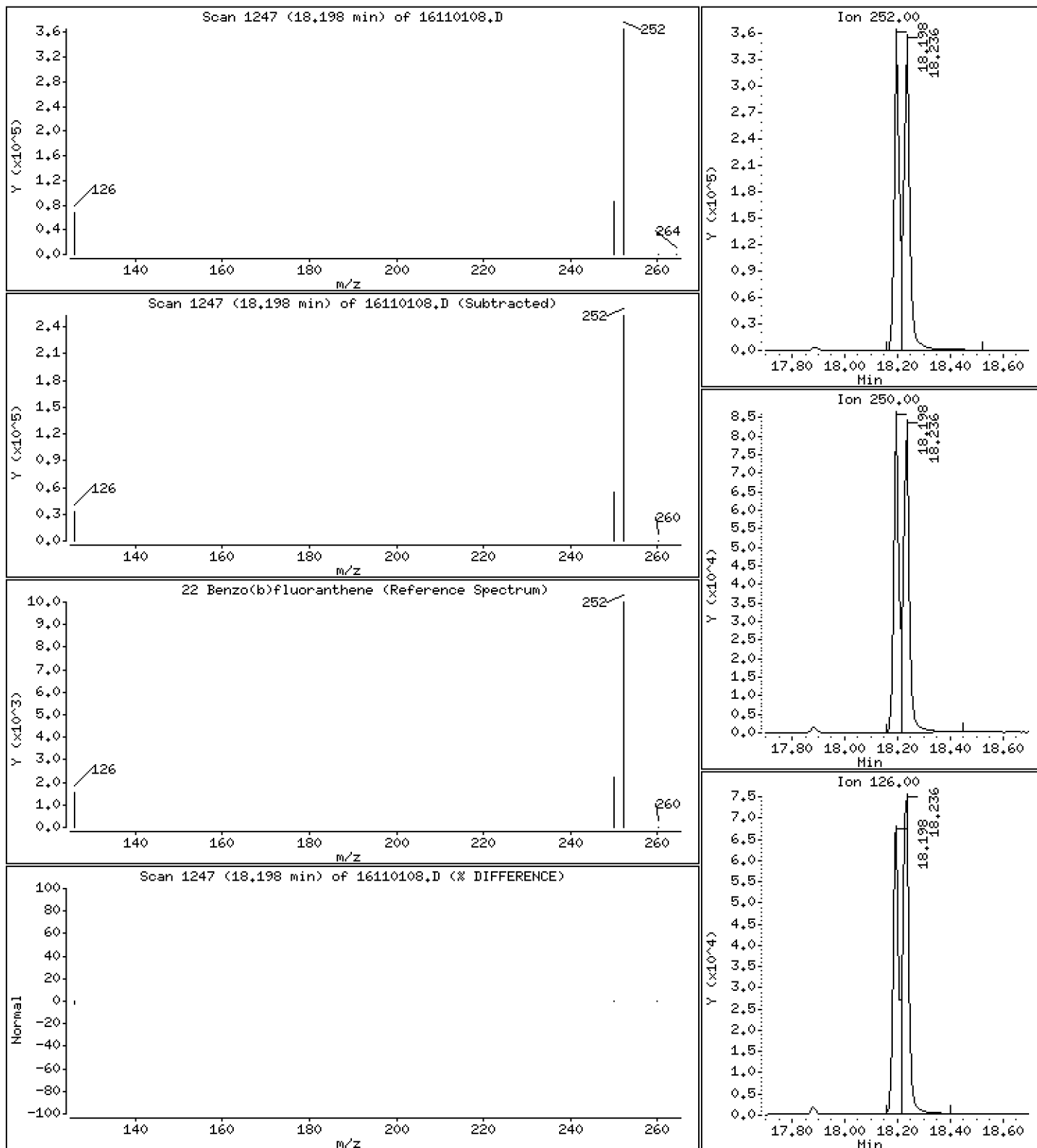
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Benzo(b)fluoranthene

Concentration: 229 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

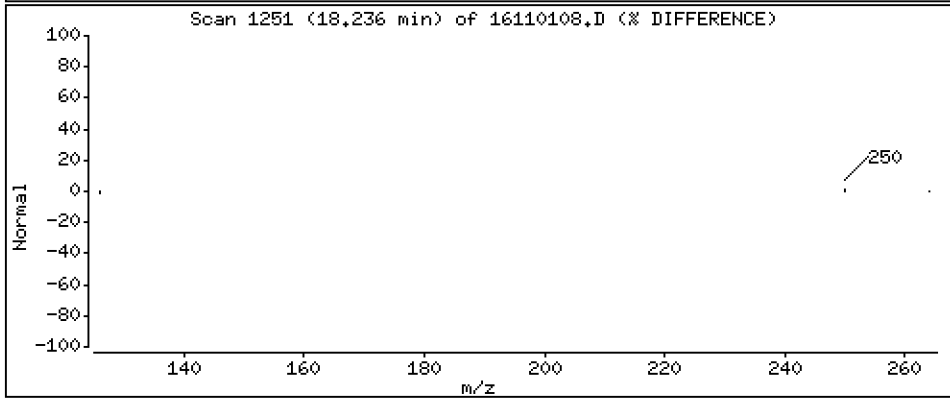
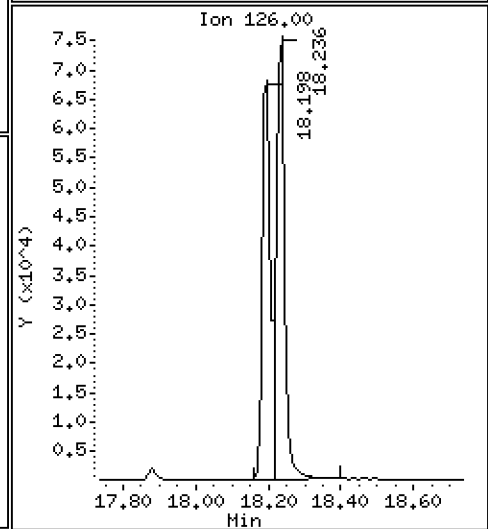
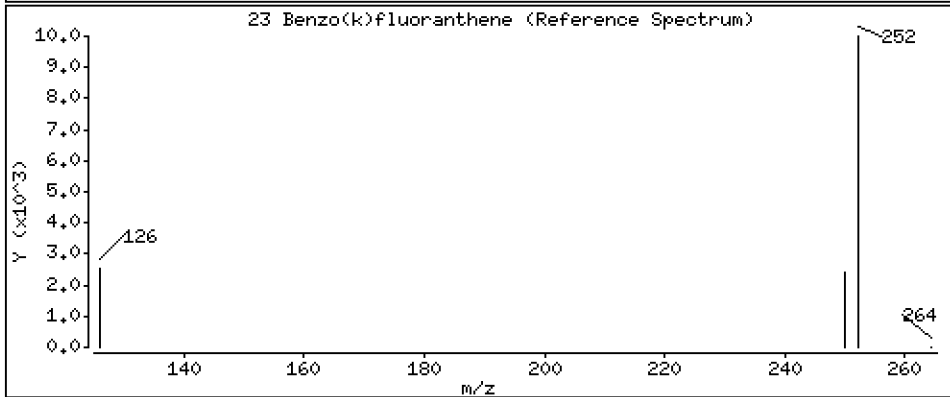
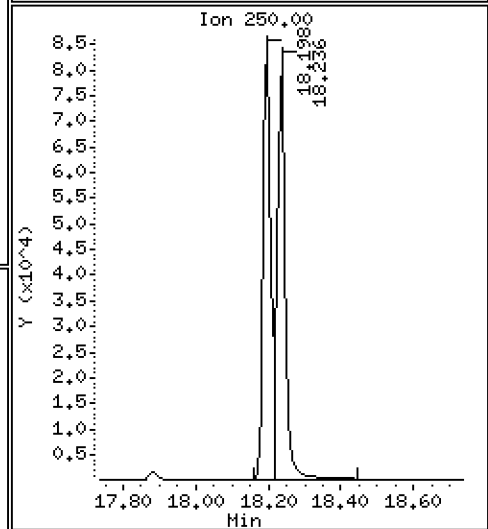
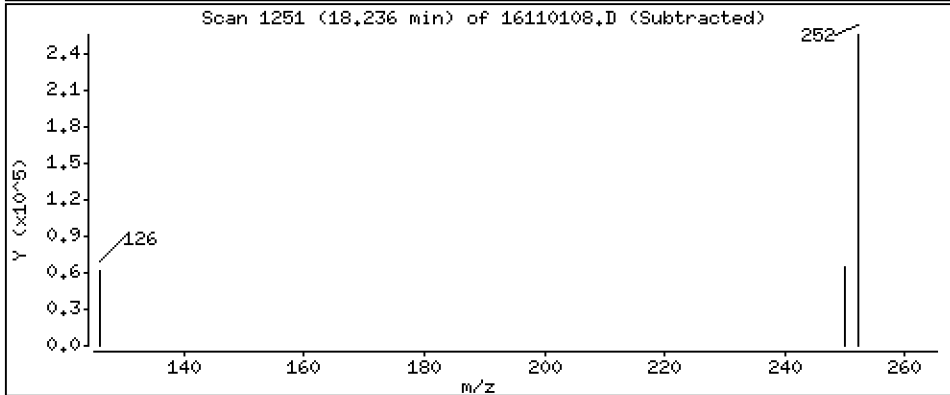
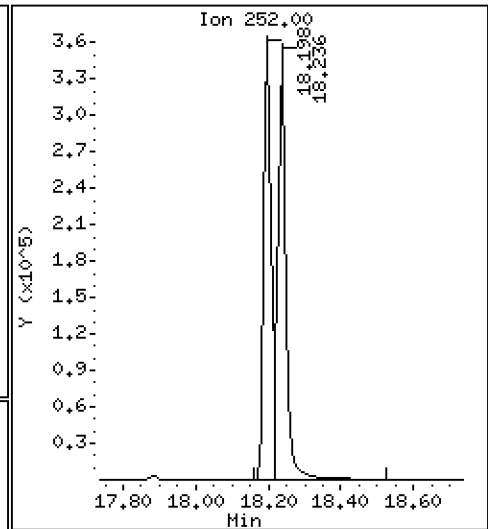
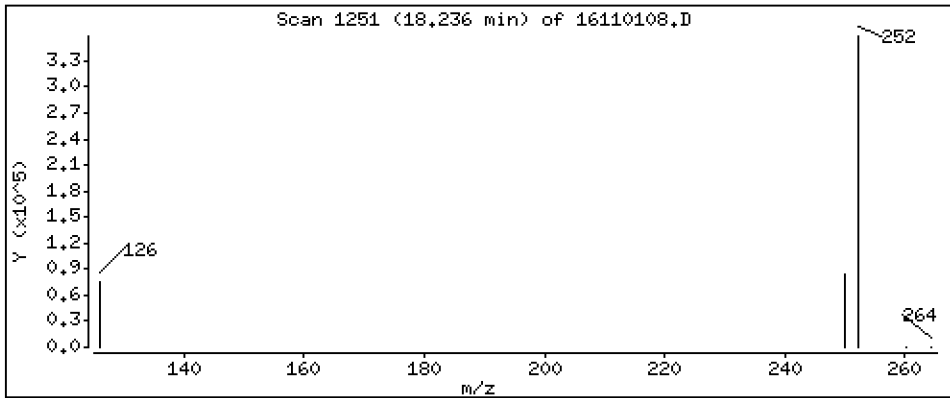
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Benzo(k)fluoranthene

Concentration: 235 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

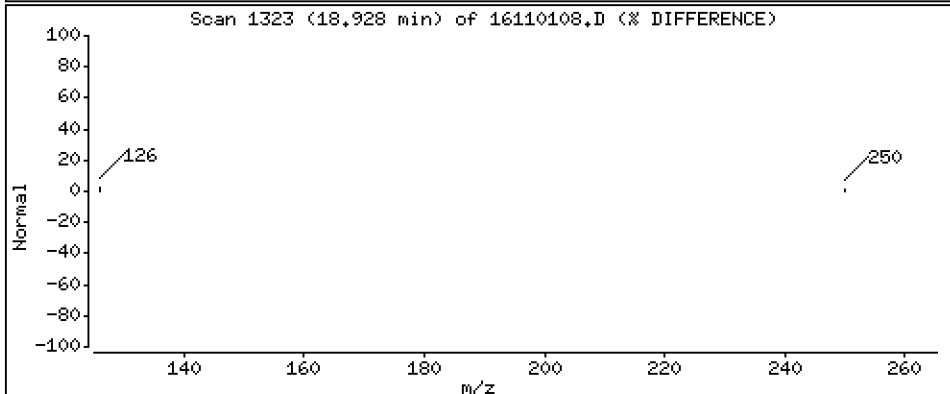
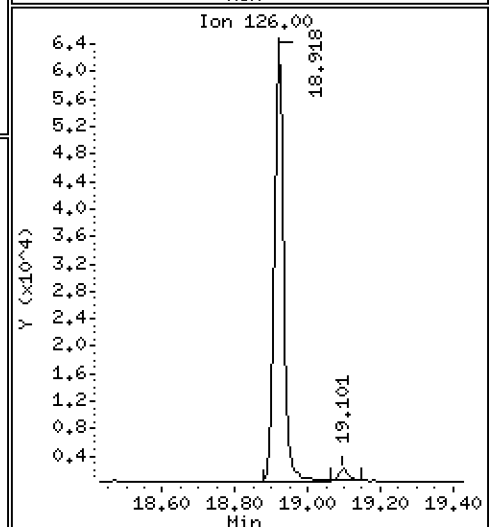
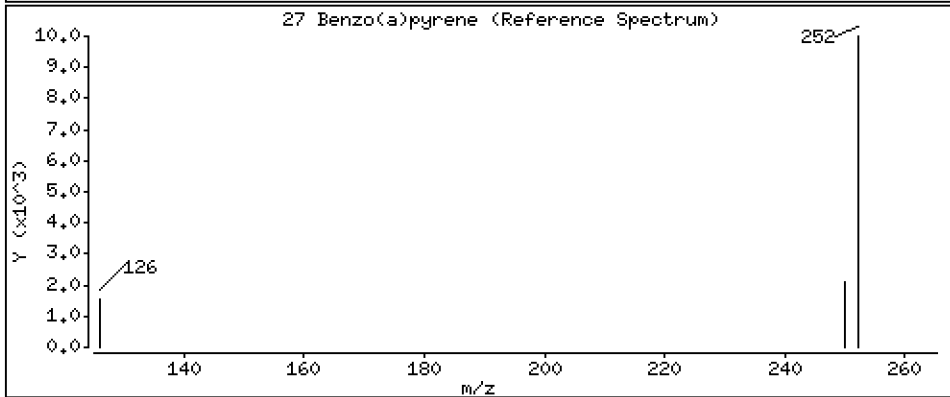
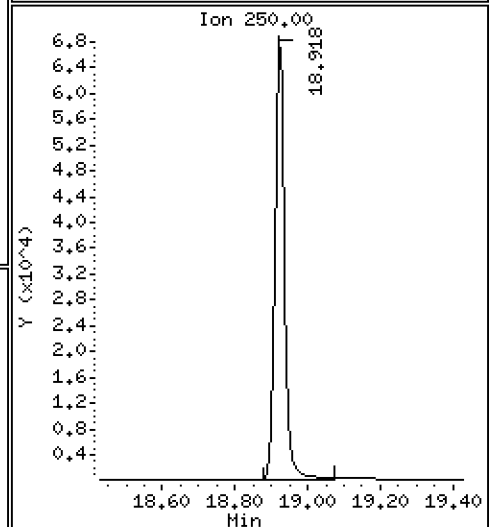
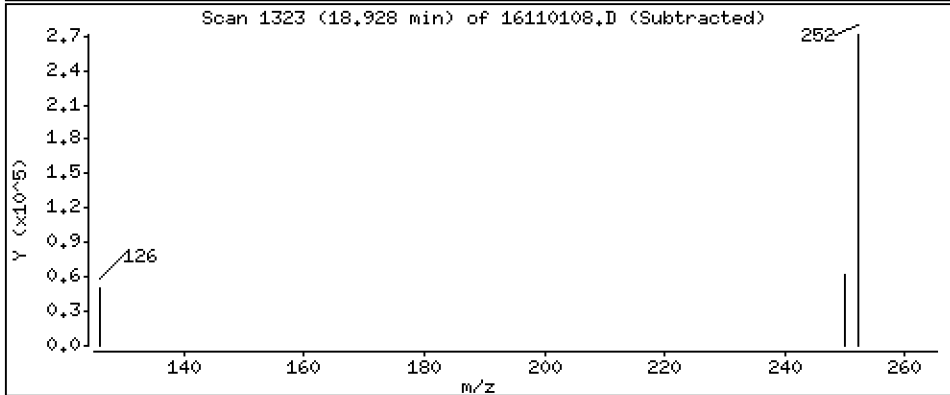
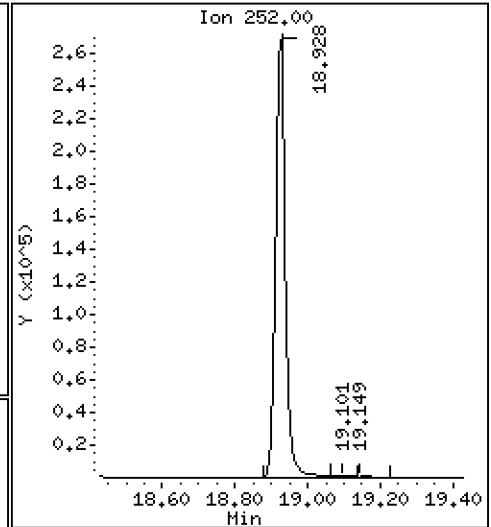
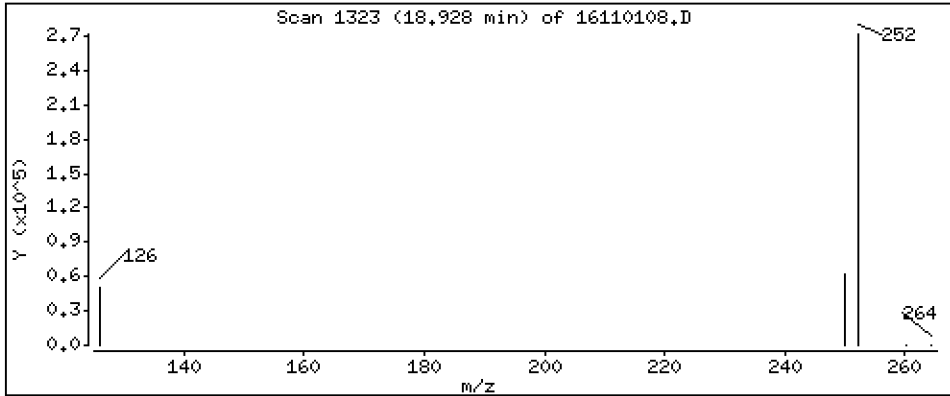
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)pyrene

Concentration: 237 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

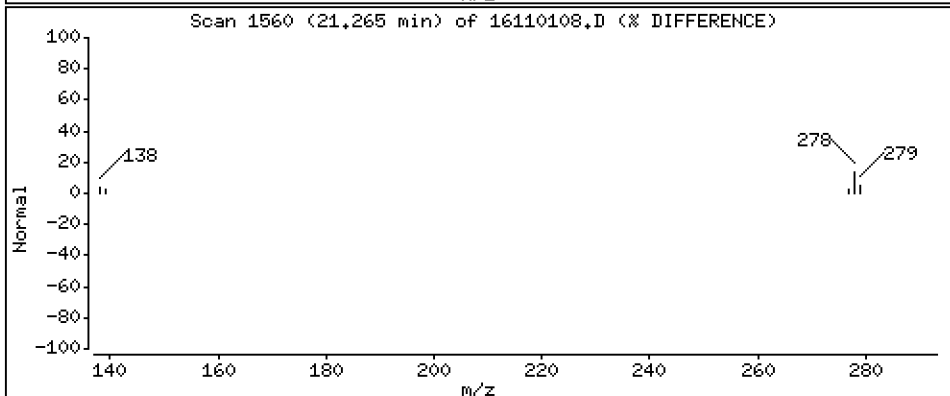
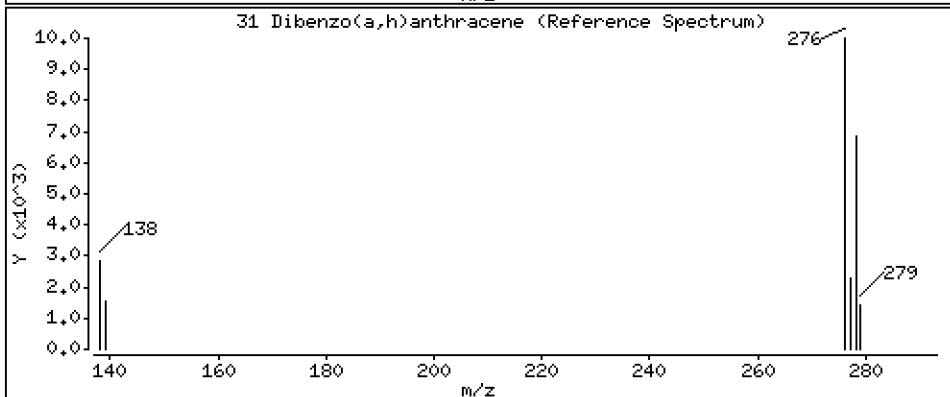
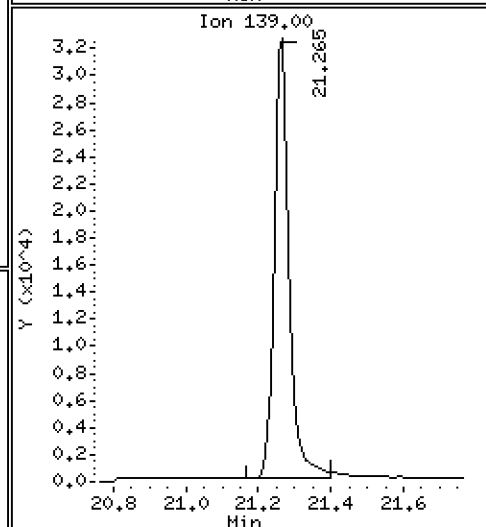
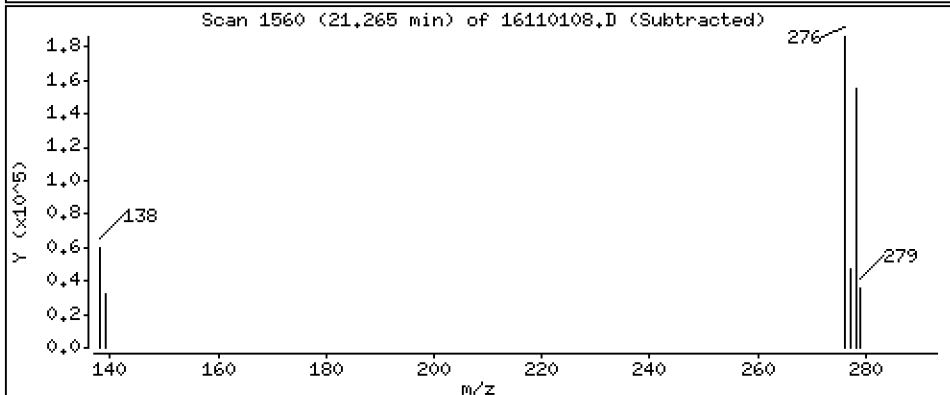
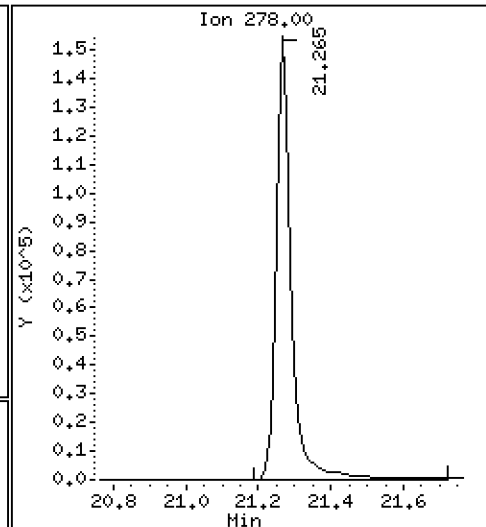
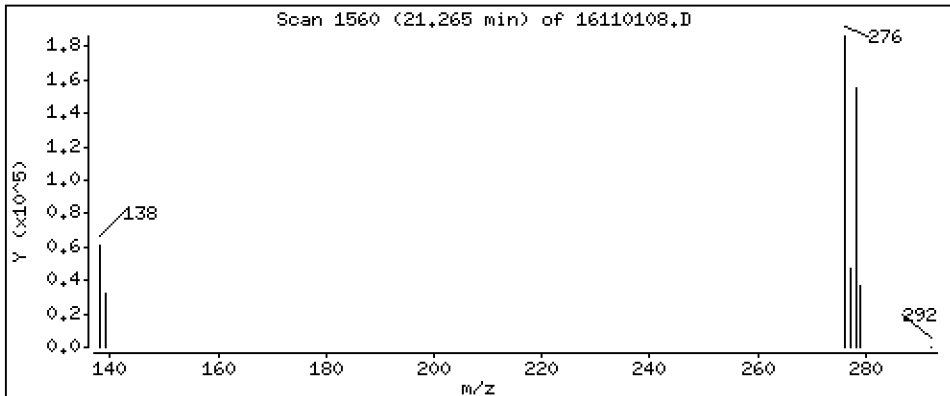
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Dibenzo(a,h)anthracene

Concentration: 235 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

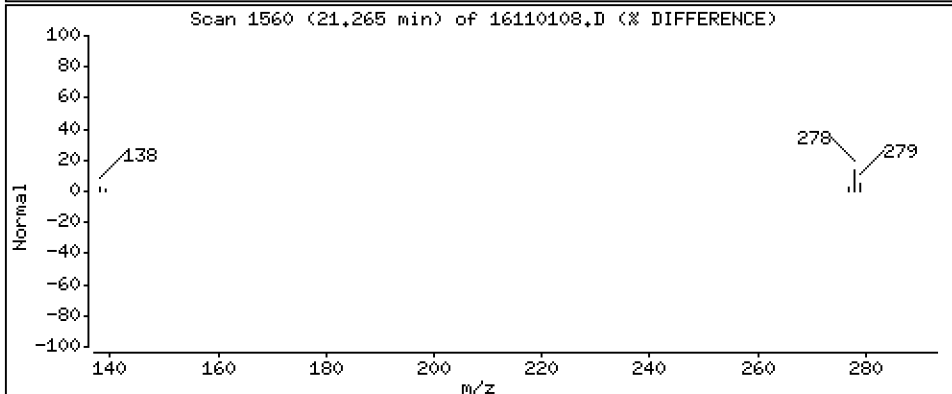
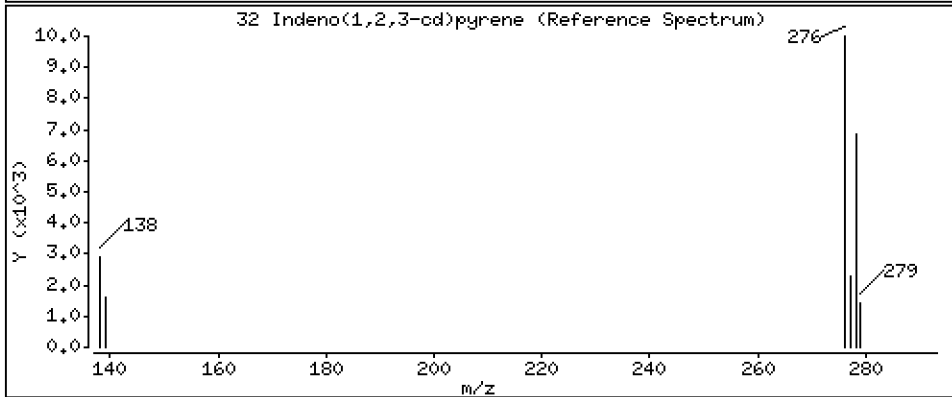
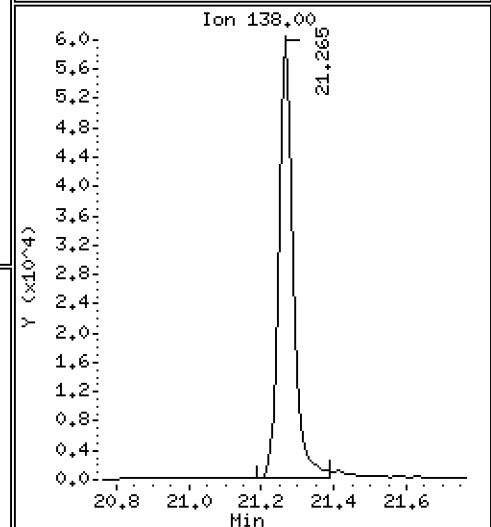
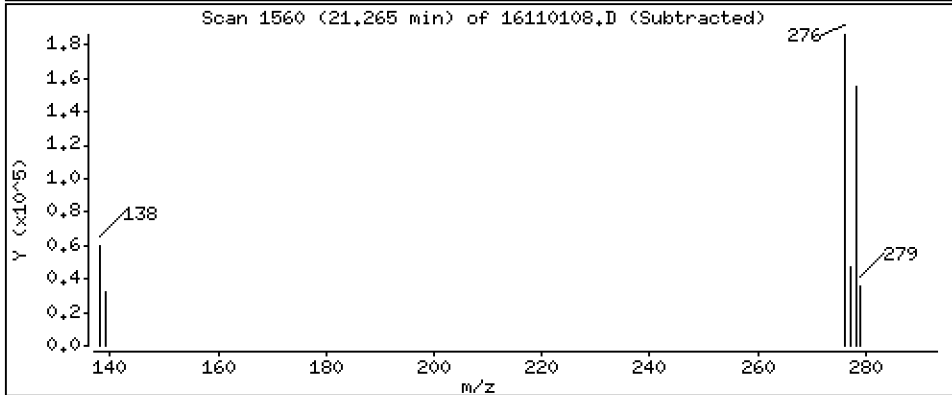
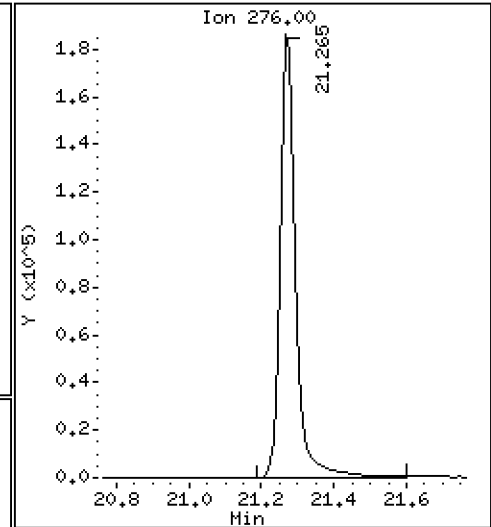
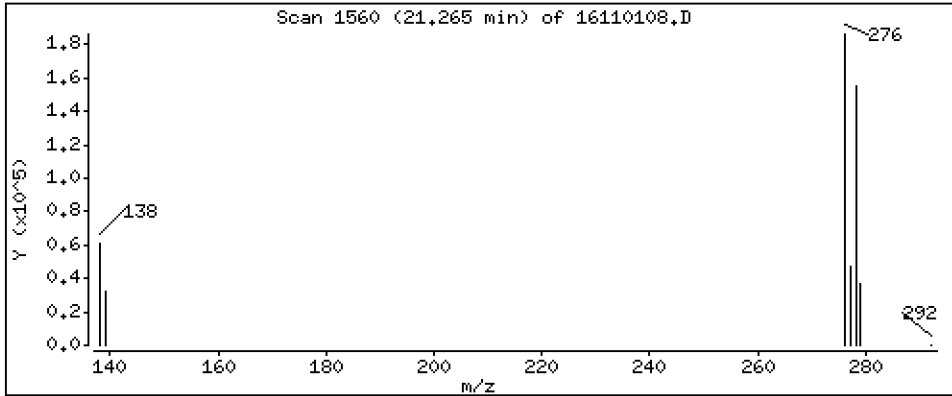
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 Indeno(1,2,3-cd)pyrene

Concentration: 234 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

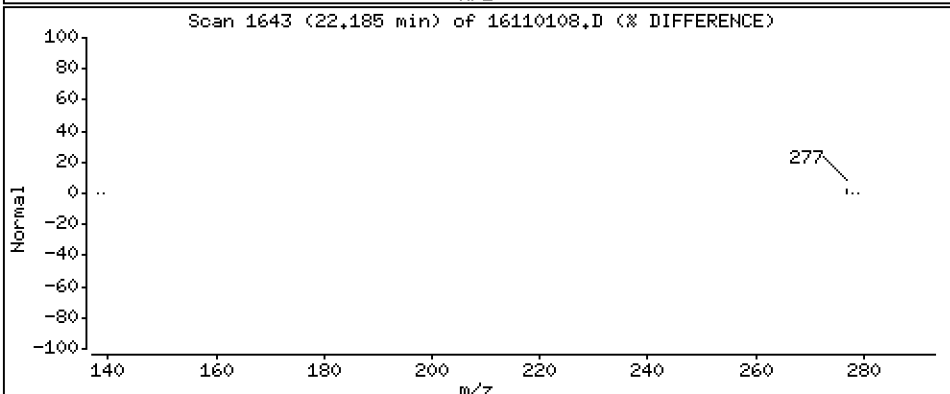
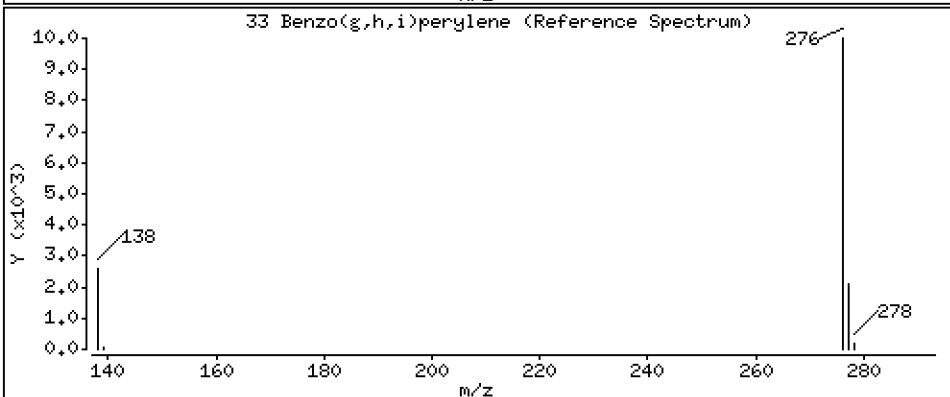
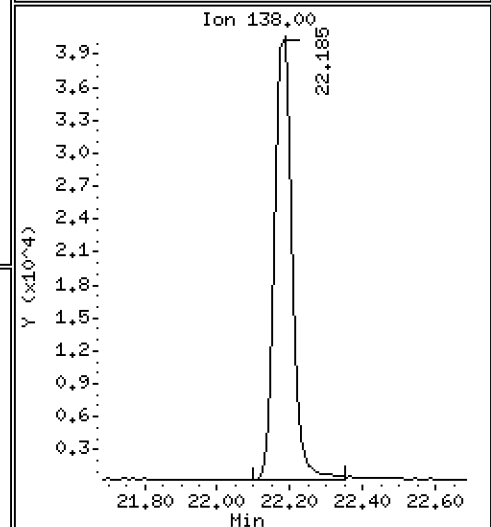
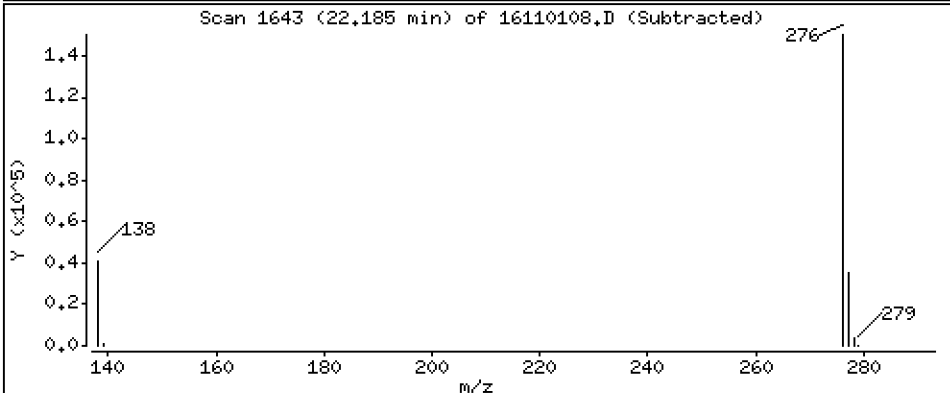
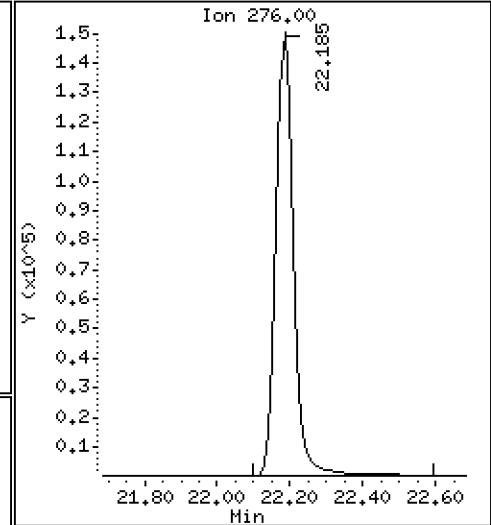
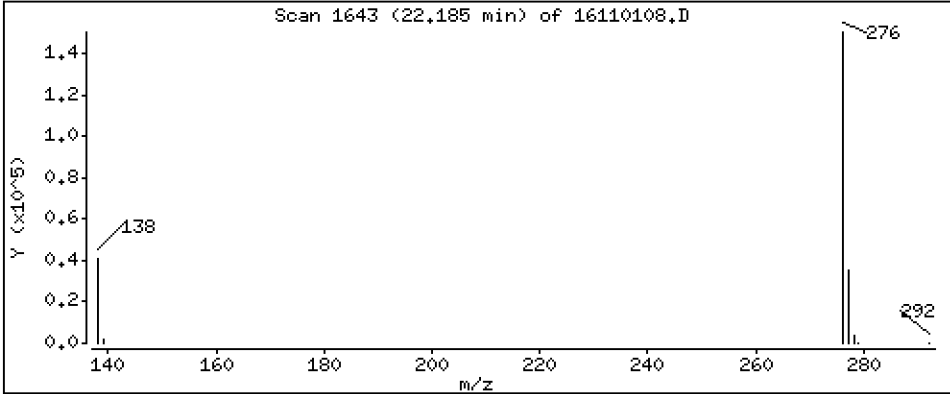
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

33 Benzo(g,h,i)perylene

Concentration: 232 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161101.b\16110108.D
 Lab Smp Id: SEK0004-SCV1
 Inj Date : 01-NOV-2016 13:04
 Operator : JW
 Smp Info : SEK0004-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Meth Date : 01-Nov-2016 13:10 jonathonw Quant Type: ISTD
 Cal Date : 01-NOV-2016 12:34 Cal File: 16110107.D
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: AUTOSPECDATA02

Inst ID: nt11.i

Compound Sublist: PEMD.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		6.165	6.166	(1.000)	597012	200.000	
2 Naphthalene	128		6.207	6.208	(1.007)	795334	228.550	229
§ 3 2-Methylnaphthalene-d10	152		Compound Not Detected.					
4 2-Methylnaphthalene	142		7.195	7.195	(1.167)	485886	214.879	215
5 1-Methylnaphthalene	142		7.447	7.447	(1.208)	473636	233.613	234
6 Acenaphthylene	152		8.990	8.990	(0.983)	667001	229.993	230
* 7 Acenaphthene-d10	164		9.145	9.145	(1.000)	291617	200.000	
8 Acenaphthene	153		9.200	9.200	(1.006)	480381	252.178	252
9 Dibenzofuran	168		Compound Not Detected.					
§ 10 Fluorene-d10	174		Compound Not Detected.					
11 Fluorene	166		10.035	10.035	(1.097)	478200	227.092	227
* 12 Phenanthrene-d10	188		11.797	11.798	(1.000)	499409	200.000	
13 Phenanthrene	178		11.836	11.836	(1.003)	807059	237.583	238
§ 14 Anthracene-d10	188		Compound Not Detected.					
15 Anthracene	178		11.893	11.894	(1.008)	765469	232.544	233
§ 16 Fluoranthene-d10	212		Compound Not Detected.					
17 Fluoranthene	202		13.911	13.911	(1.179)	657265	226.304	226
18 Pyrene	202		14.401	14.401	(0.873)	747898	242.848	243
19 Benzo(a)anthracene	228		16.412	16.412	(0.994)	595301	227.308	227
* 20 Chrysene-d12	240		16.503	16.504	(1.000)	392161	200.000	
21 Chrysene	228		16.553	16.553	(1.003)	635792	233.169	233
22 Benzo(b)fluoranthene	252		18.197	18.198	(0.952)	531419	229.167	229
23 Benzo(k)fluoranthene	252		18.236	18.236	(0.954)	599881	234.516	235
24 Benzo(j)fluoranthene	252		Compound Not Detected.					
§ 25 Benzo(e)pyrene-d12	264		Compound Not Detected.					
26 Benzo(e)pyrene	252		Compound Not Detected.					
27 Benzo(a)pyrene	252		18.928	18.928	(0.990)	522116	237.384	237
* 28 Perylene-d12	264		19.110	19.101	(1.000)	458547	200.000	
29 Perylene	252		Compound Not Detected.					
§ 30 Dibenzo(a,h)anthracene-d14	292		Compound Not Detected.					
31 Dibenzo(a,h)anthracene	278		21.265	21.265	(1.113)	456758	235.152	235
32 Indeno(1,2,3-cd)pyrene	276		21.265	21.265	(1.113)	565041	233.507	234
33 Benzo(g,h,i)perylene	276		22.184	22.185	(1.161)	488433	231.512	232

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16110108.D
 Lab Smp Id: SEK0004-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Misc Info:

Calibration Date: 01-NOV-2016
 Calibration Time: 09:31
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	597012	-2.06
7 Acenaphthene-d10	316851	158426	633702	291617	-7.96
12 Phenanthrene-d10	546133	273067	1092266	499409	-8.56
20 Chrysene-d12	417210	208605	834420	392161	-6.00
28 Perylene-d12	524443	262222	1048886	458547	-12.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.17	5.67	6.67	6.17	-0.00
7 Acenaphthene-d10	9.15	8.65	9.65	9.15	-0.00
12 Phenanthrene-d10	11.80	11.30	12.30	11.80	-0.00
20 Chrysene-d12	16.50	16.00	17.00	16.50	-0.00
28 Perylene-d12	19.10	18.60	19.60	19.11	0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16110108.D

Lab ID: SEK0004-SCV1

nt11.i, 20161101.b\lowsim.m, 01-NOV-2016 13:04

RT	CO-ELUTION COMPOUNDS
21.265	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
21.265	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND

NONE				

On Column LOD for nt11.i, 20161101.b\lowsim.m, PEMD.sub = 0.0000

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Calibration: ZK00002

Laboratory ID: SEK0004-SCV1

Sequence: SEK0004

Standard ID: D004766

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Naphthalene	250.00	229	-8.6	20.00
2-Methylnaphthalene	250.00	215	-14.0	20.00
Acenaphthylene	250.00	230	-8.0	20.00
Acenaphthene	250.00	252	0.9	20.00
Fluorene	250.00	227	-9.2	20.00
Phenanthrene	250.00	238	-5.0	20.00
Anthracene	250.00	233	-7.0	20.00
Fluoranthene	250.00	226	-9.5	20.00
Pyrene	250.00	243	-2.9	20.00
Benzo(a)anthracene	250.00	227	-9.1	20.00
Chrysene	250.00	233	-6.7	20.00
Benzo(b)fluoranthene	250.00	229	-8.3	20.00
Benzo(k)fluoranthene	250.00	235	-6.2	20.00
Benzo(a)pyrene	250.00	237	-5.0	20.00
Indeno(1,2,3-cd)pyrene	250.00	234	-6.6	20.00
Dibenzo(a,h)anthracene	250.00	235	-5.9	20.00
Benzo(g,h,i)perylene	250.00	232	-7.4	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20161101_16\16110108.D

Date : 01-NOV-2016 13:04

Client ID:

Sample Info: SEK0004-SCV1

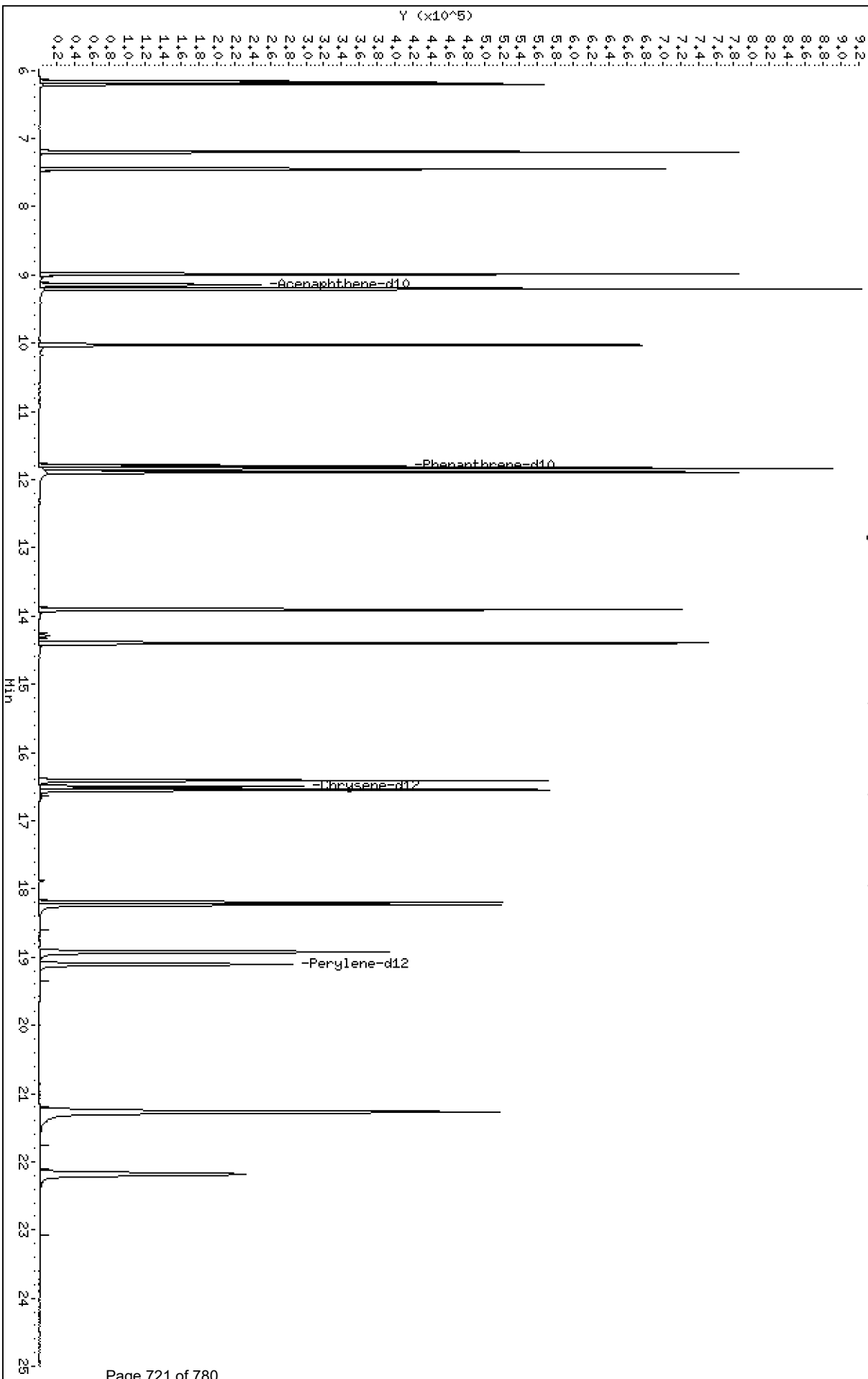
Column phase: Rxi-17S11 MS

Instrument: nt11.i

Operator: JM

Column diameter: 0.25

\\target\share\chem3\nt11.i\20161101_16\16110108.D



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

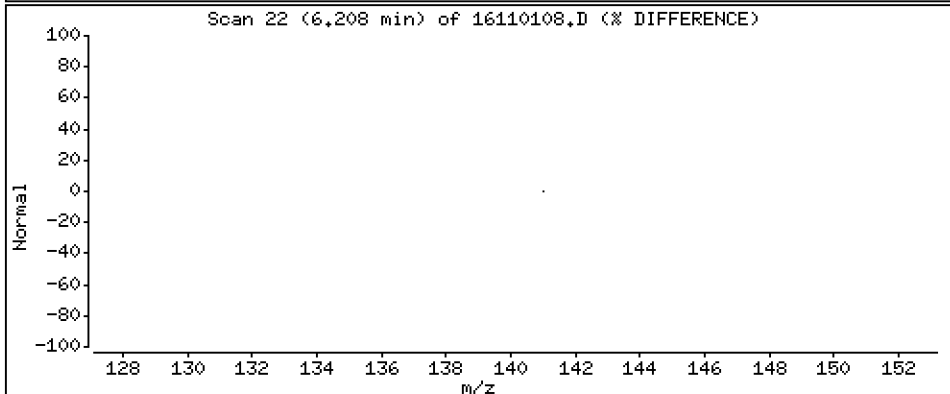
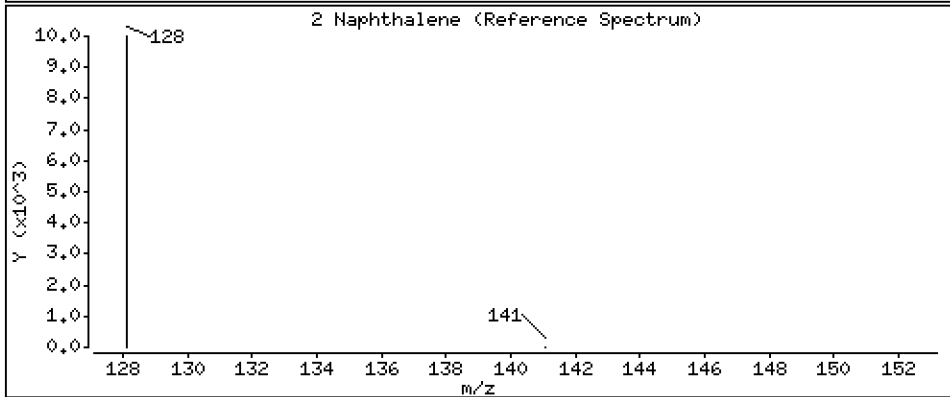
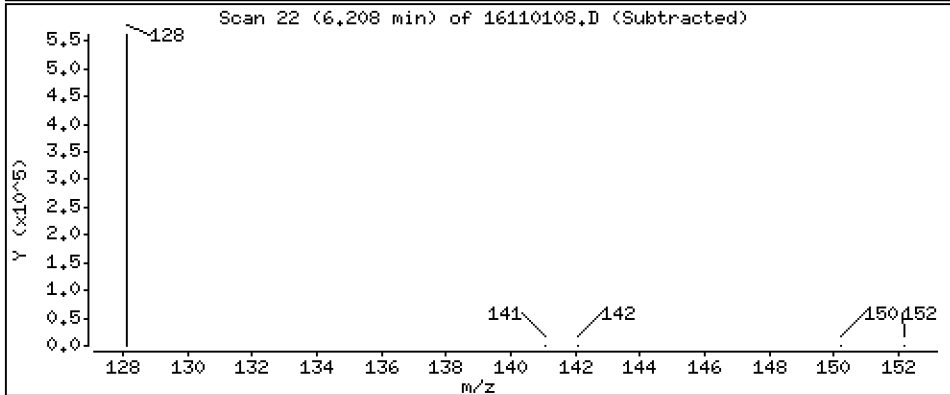
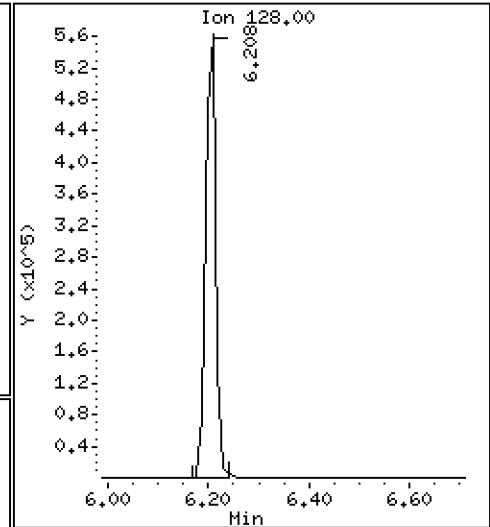
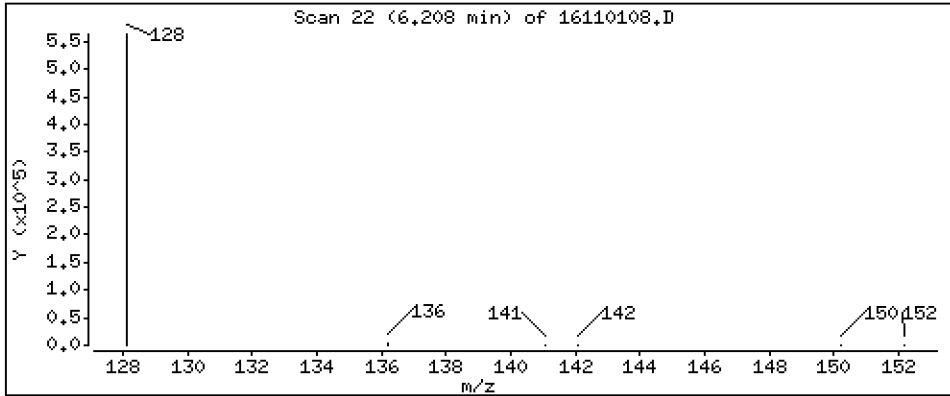
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 229 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

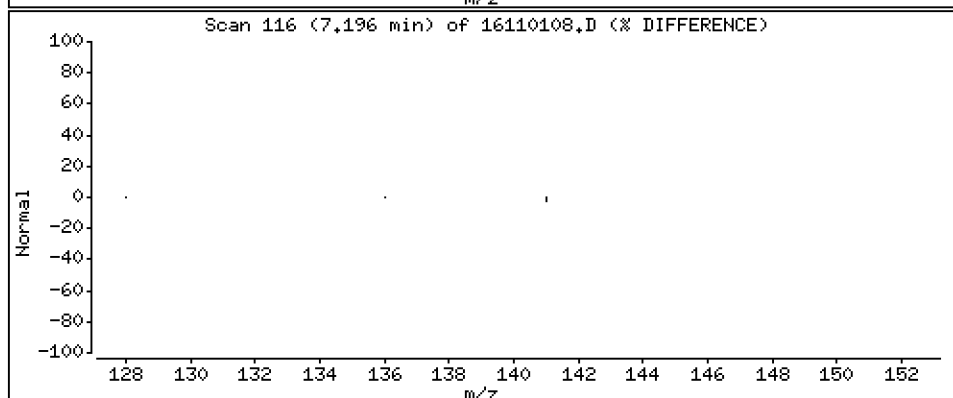
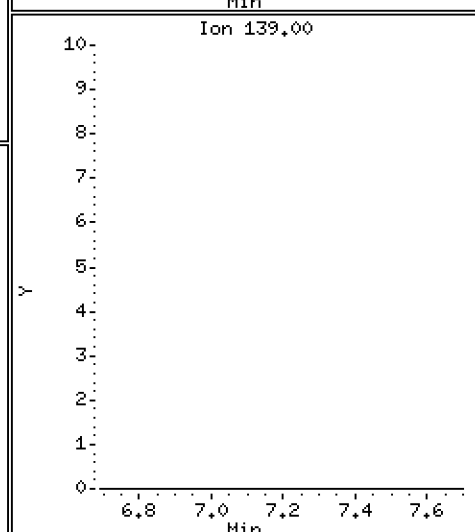
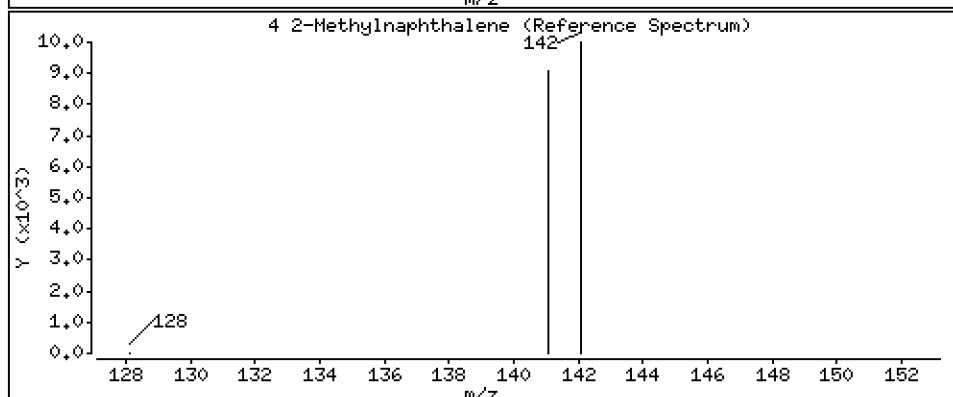
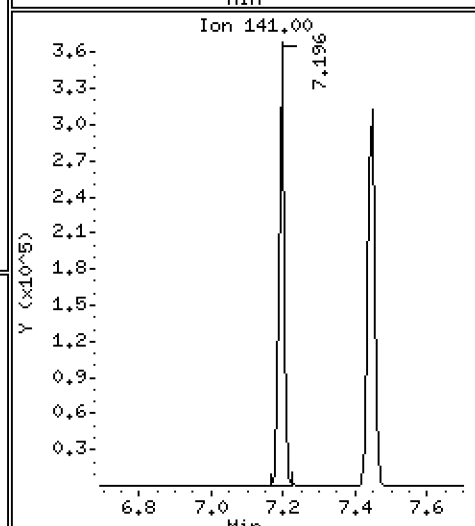
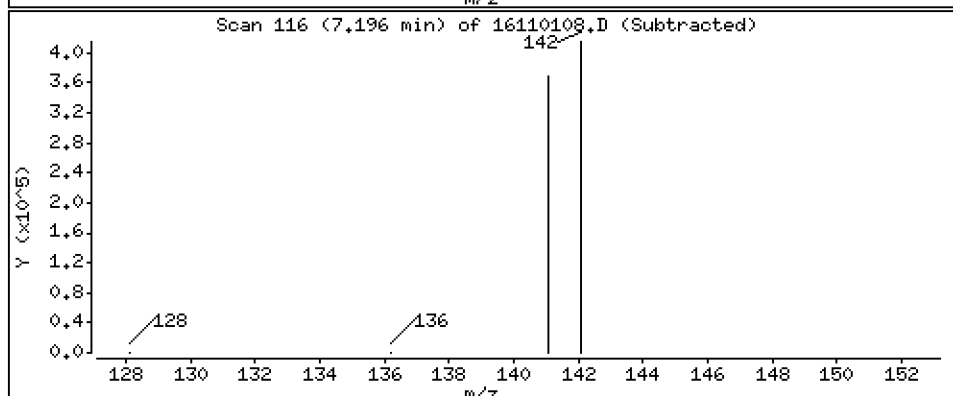
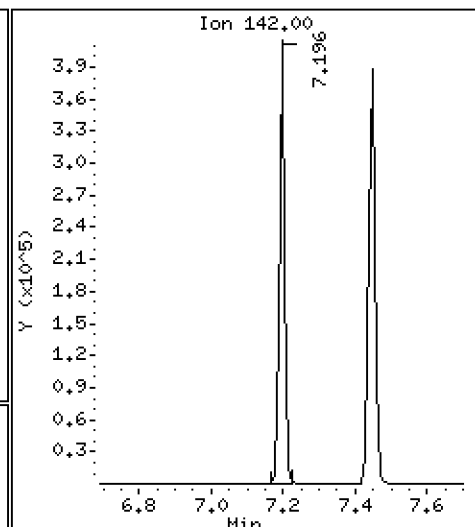
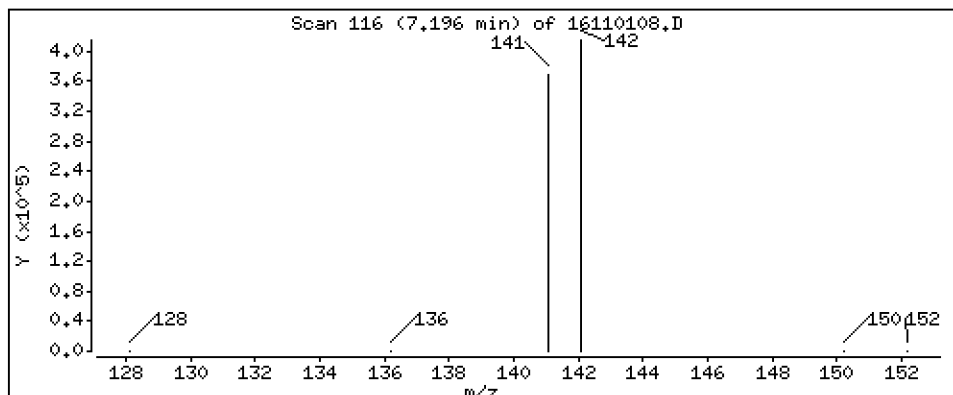
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

4-Methylnaphthalene

Concentration: 215 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

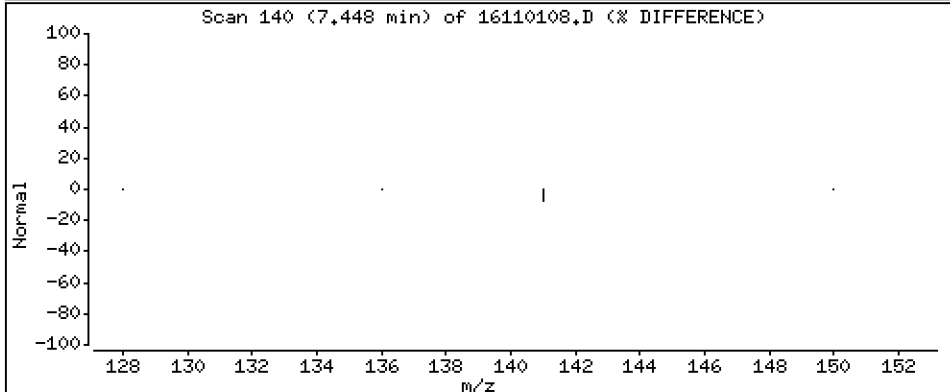
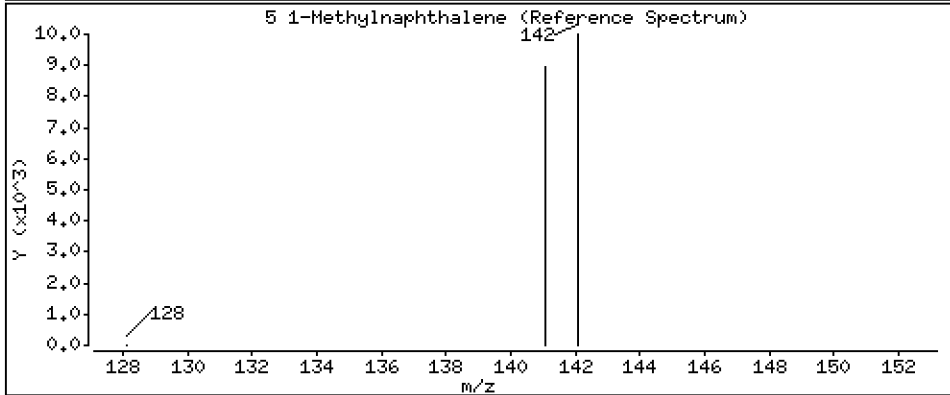
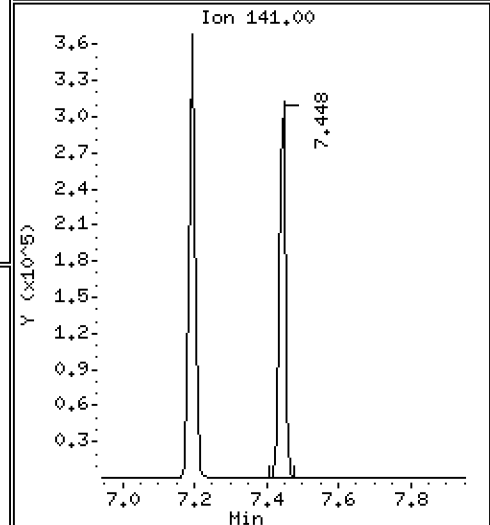
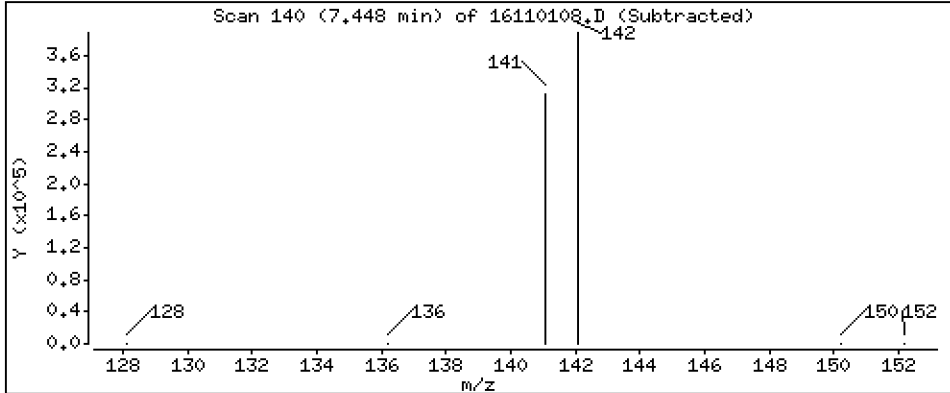
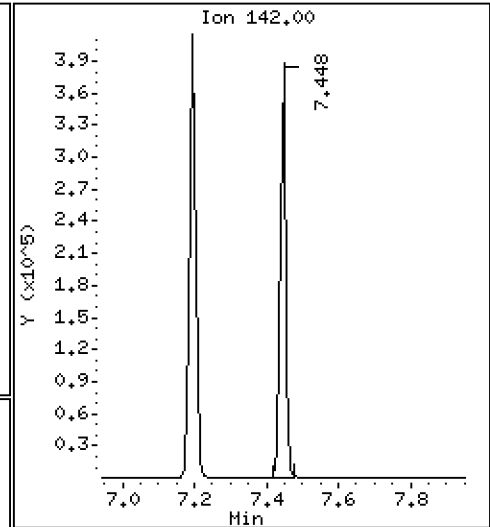
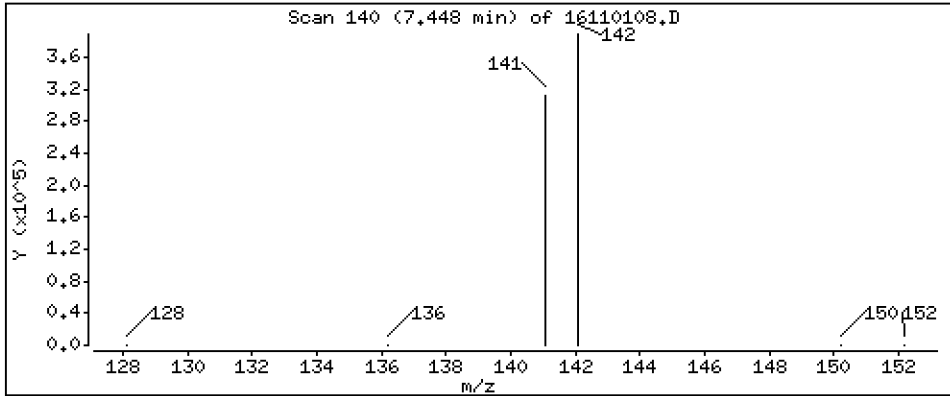
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5 1-Methylnaphthalene

Concentration: 234 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

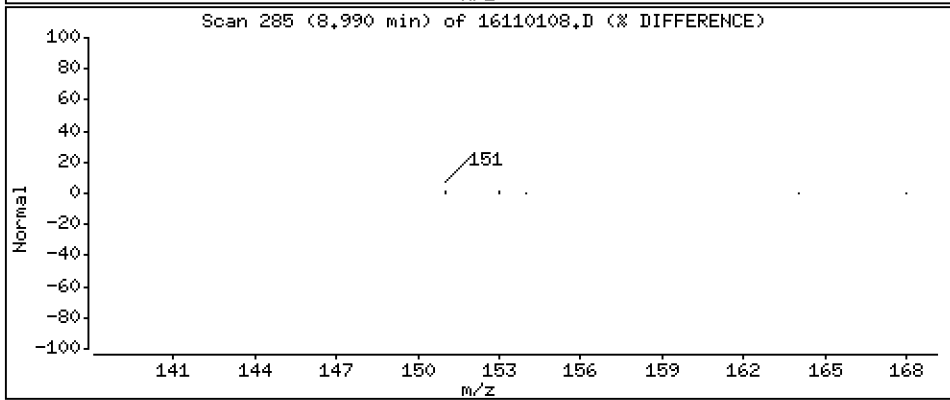
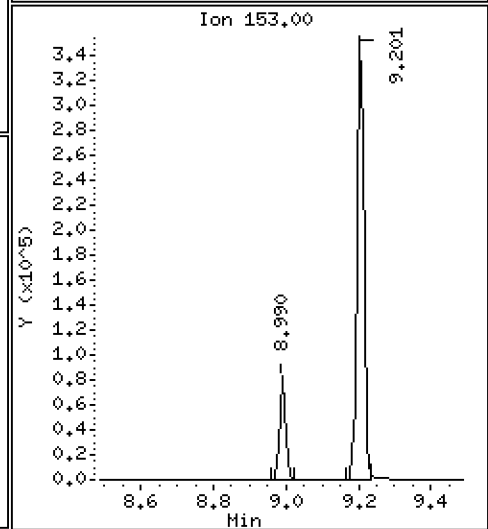
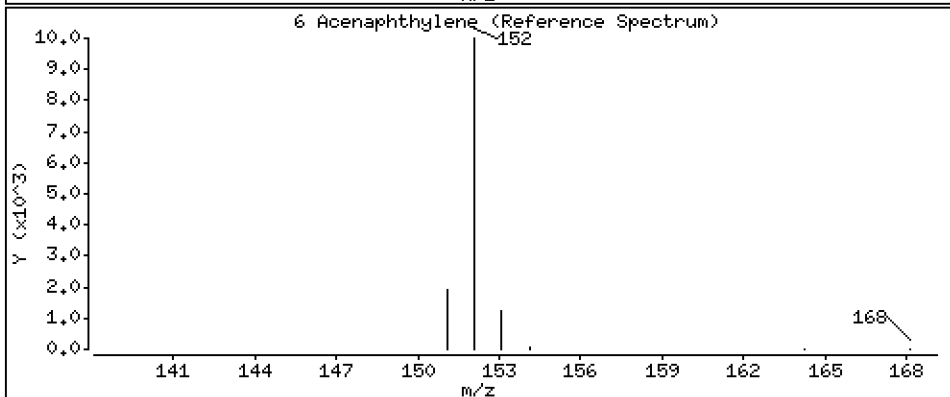
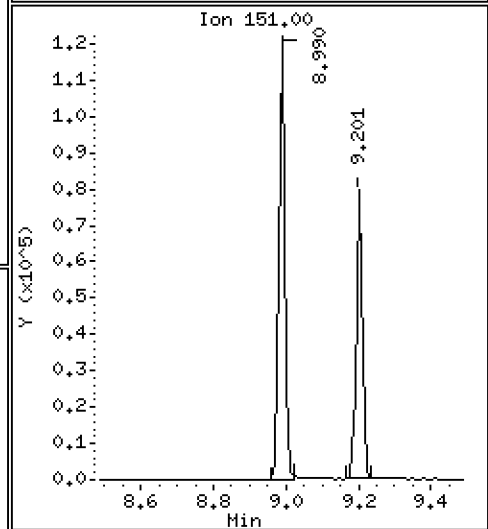
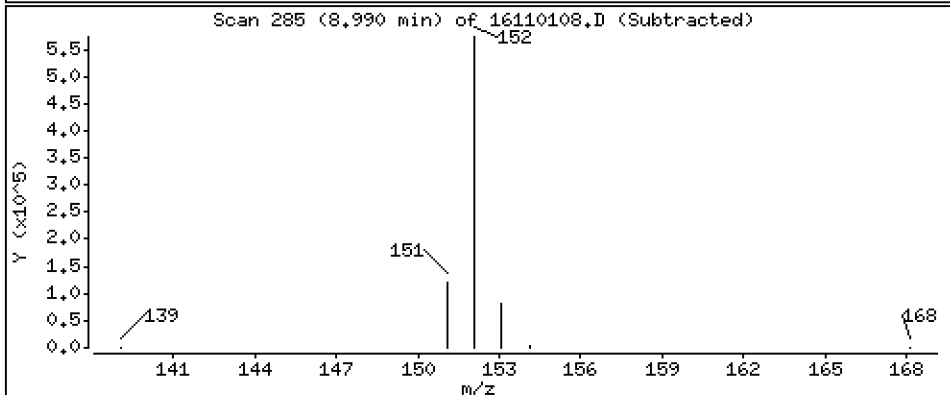
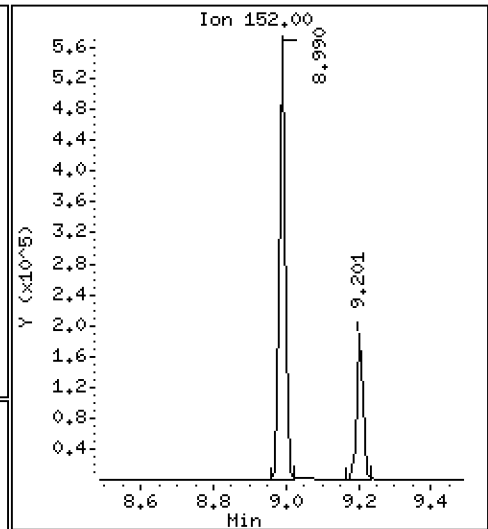
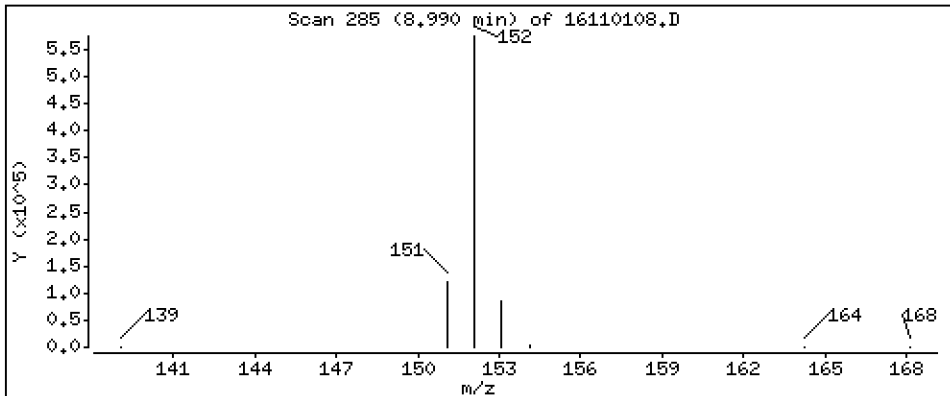
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6 Acenaphthylene

Concentration: 230 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

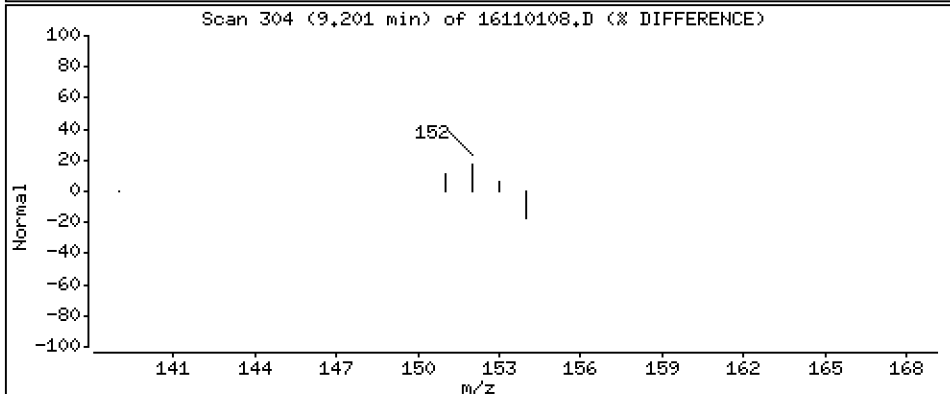
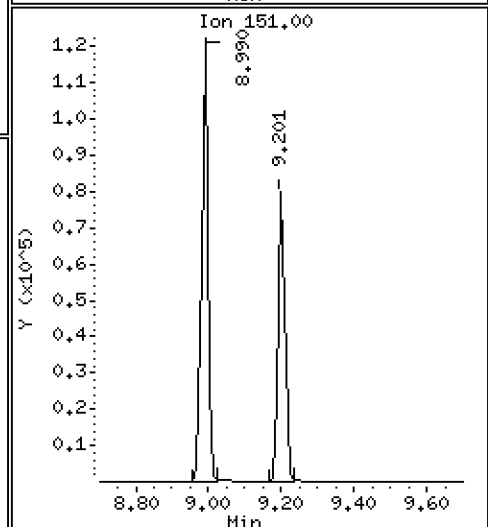
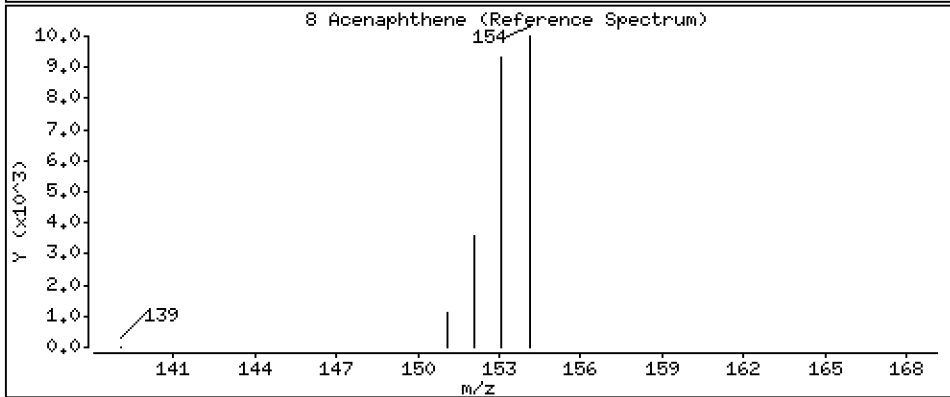
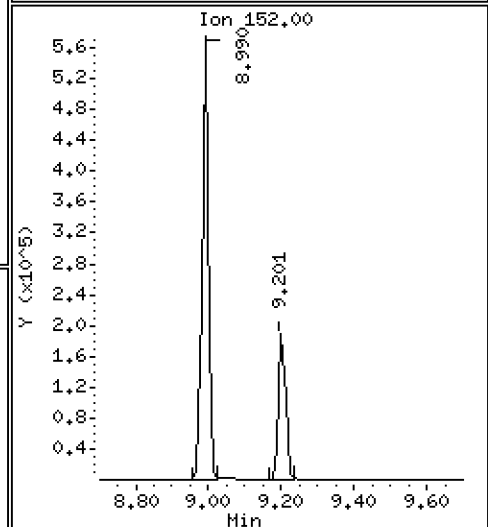
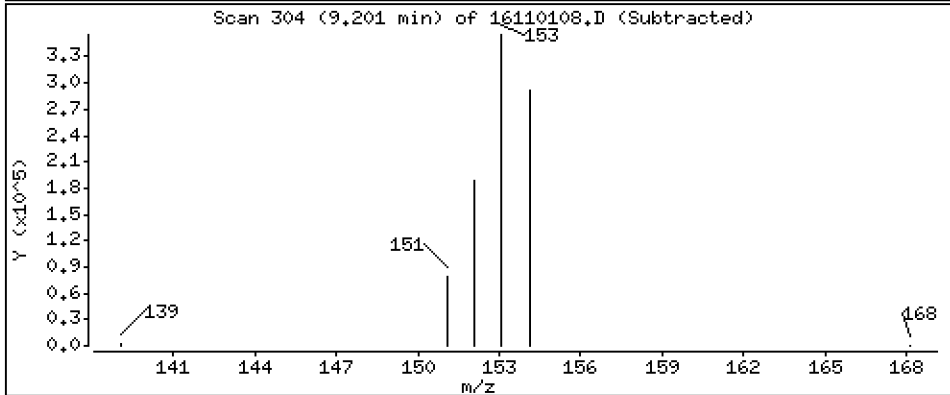
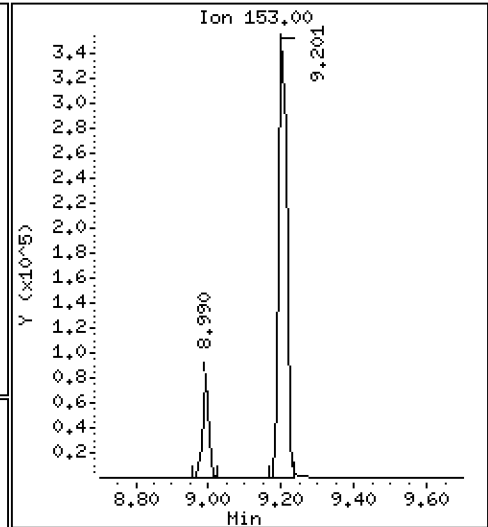
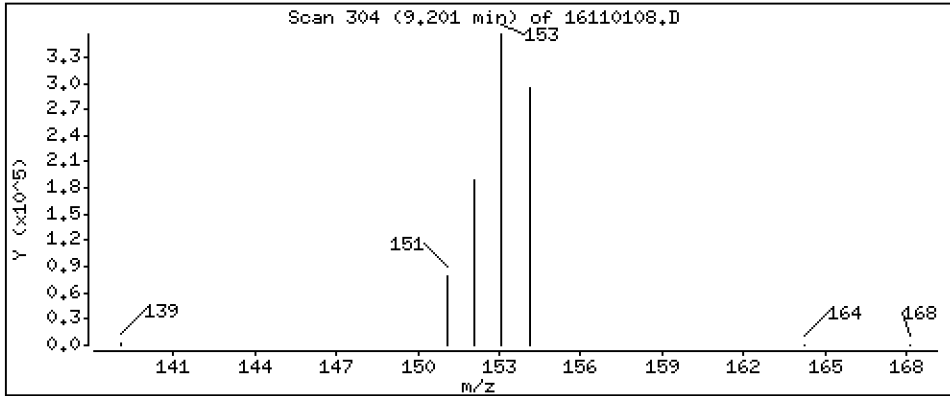
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

8 Acenaphthene

Concentration: 252 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

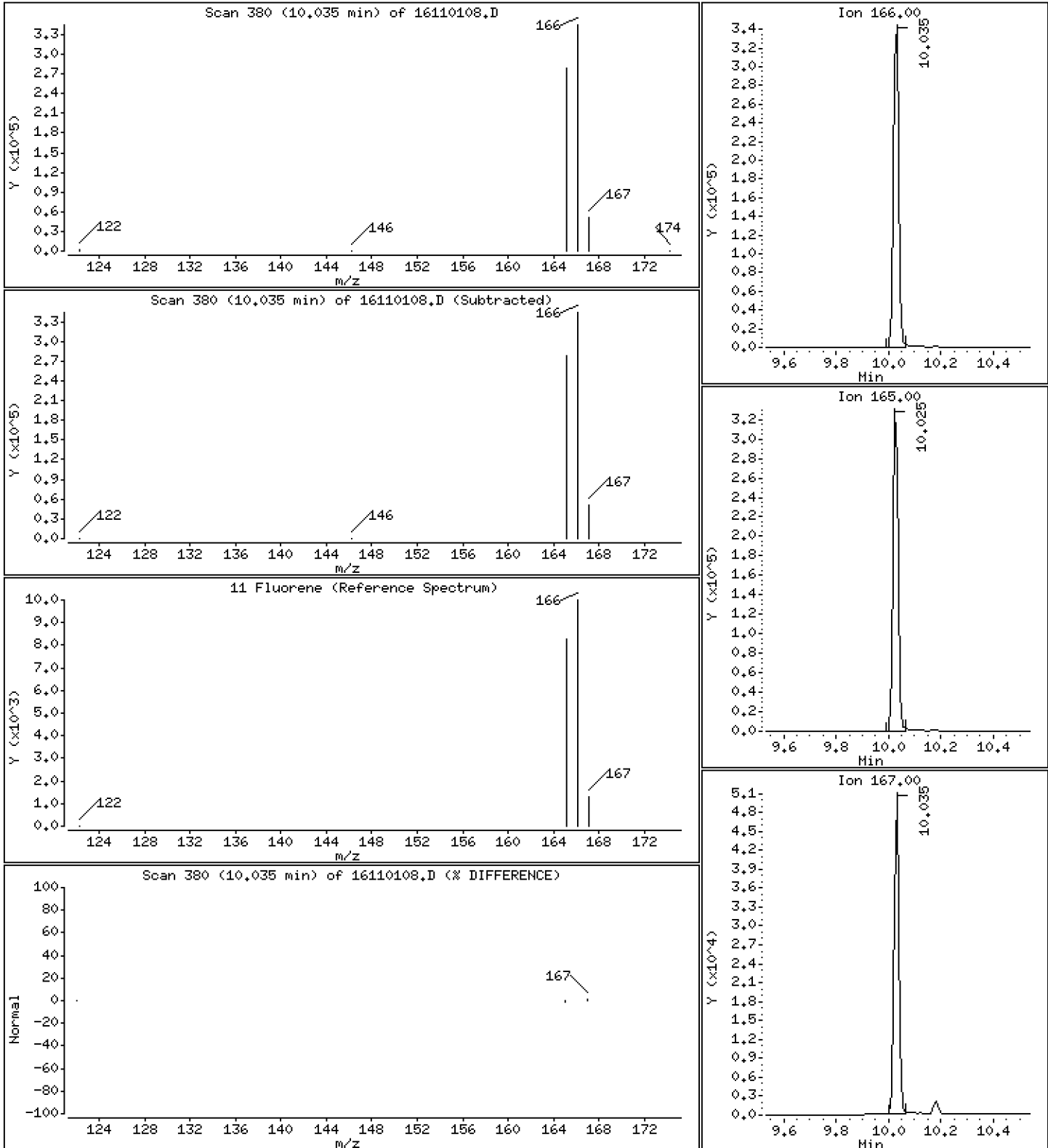
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

11 Fluorene

Concentration: 227 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

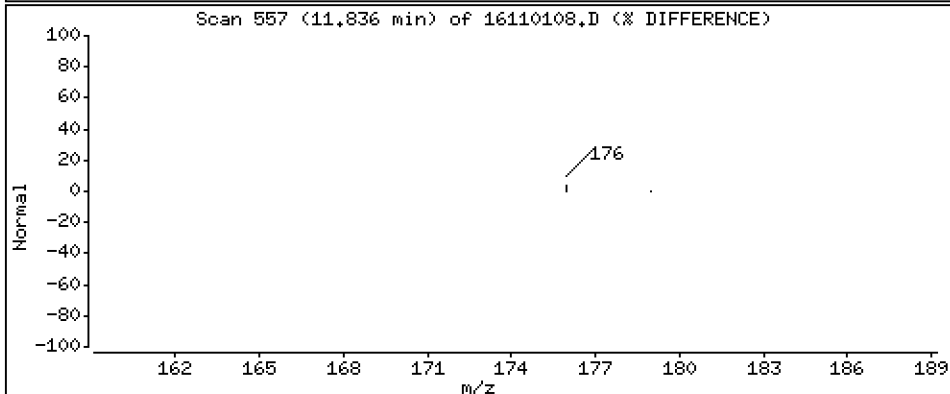
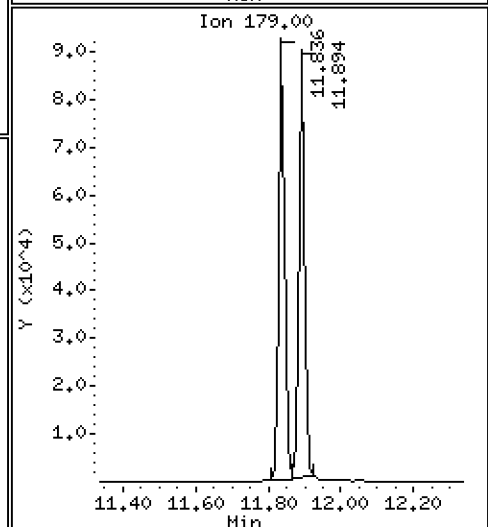
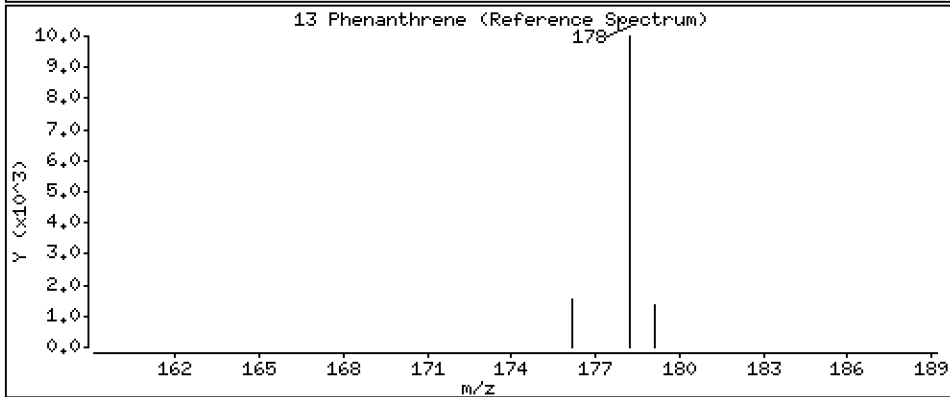
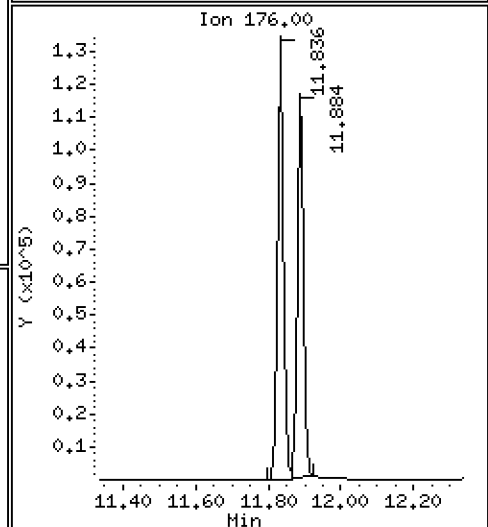
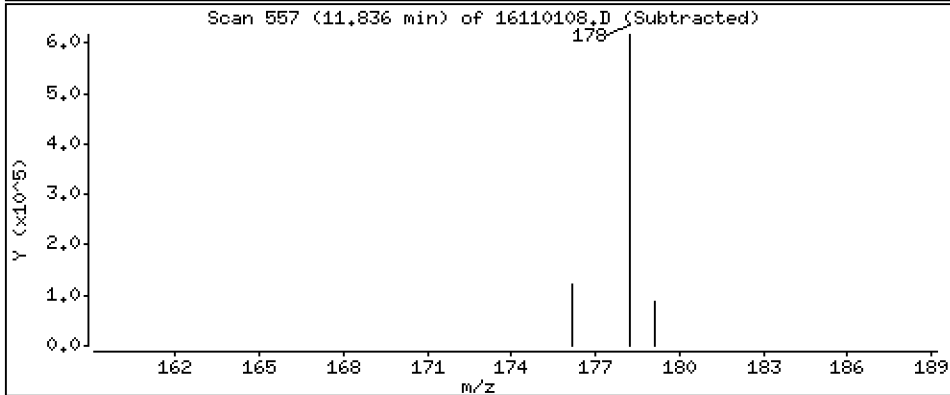
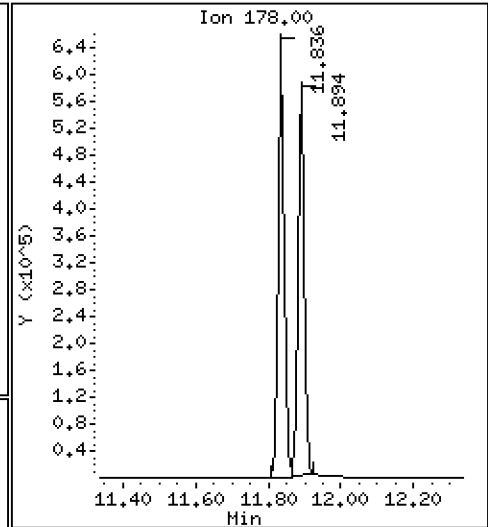
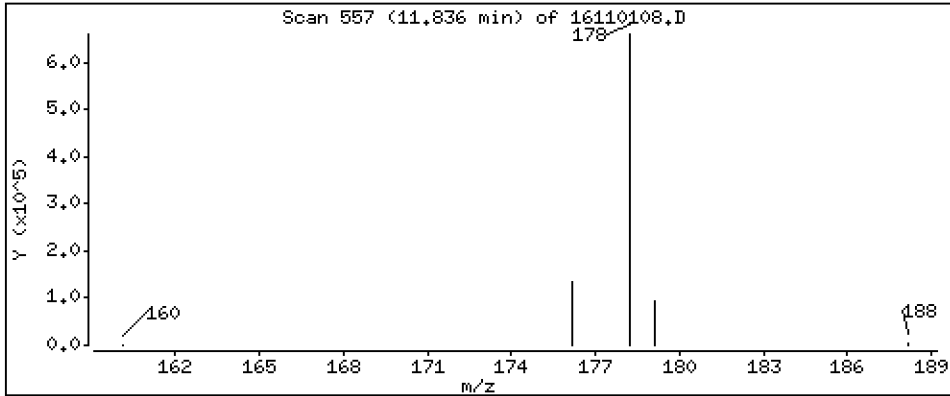
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 Phenanthrene

Concentration: 238 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

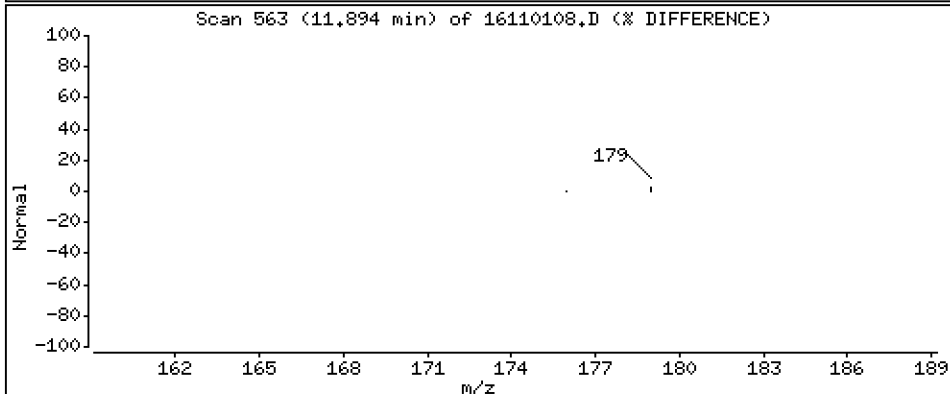
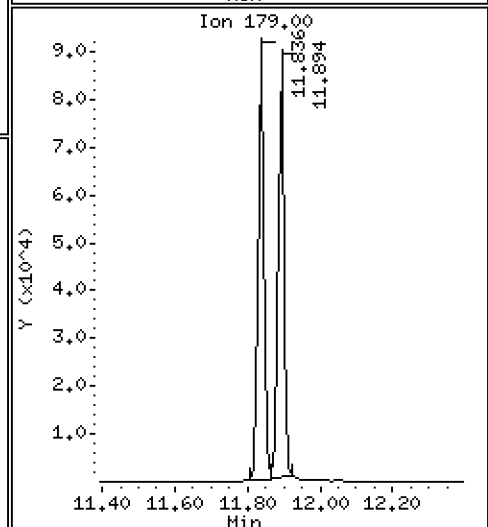
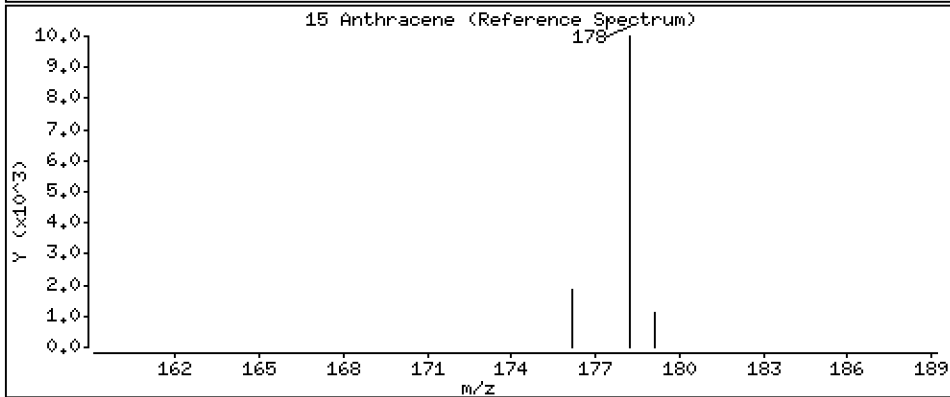
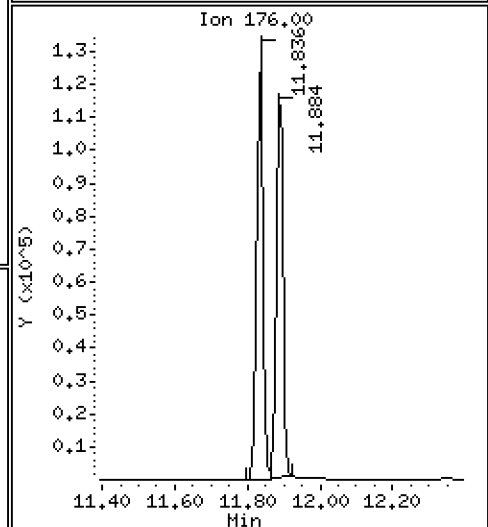
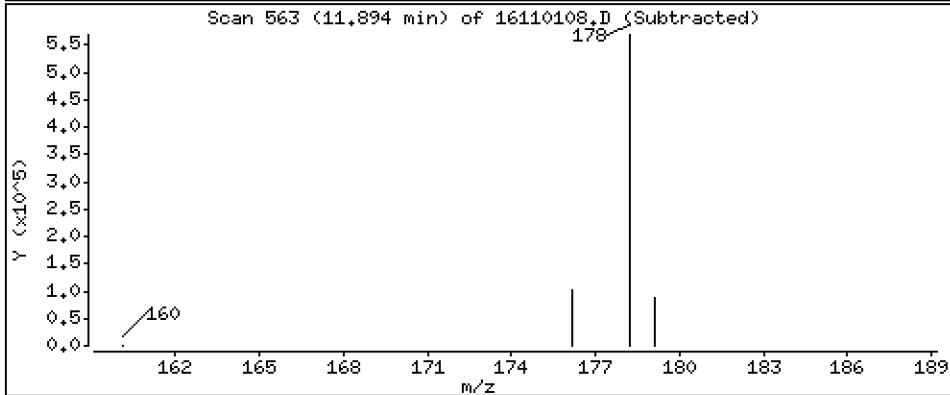
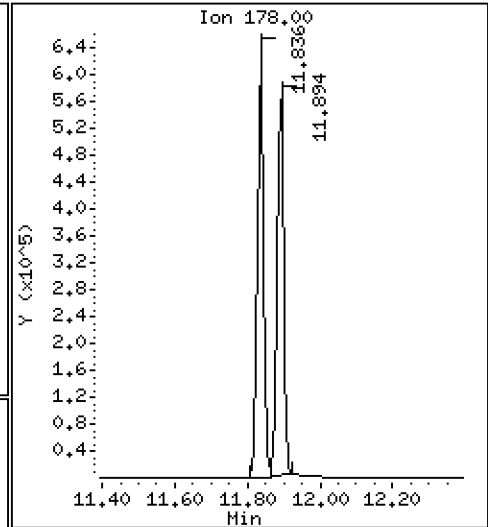
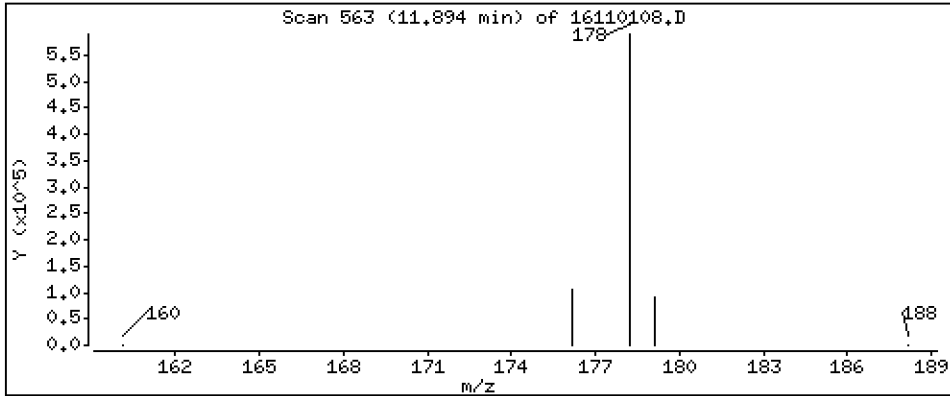
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

15 Anthracene

Concentration: 233 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

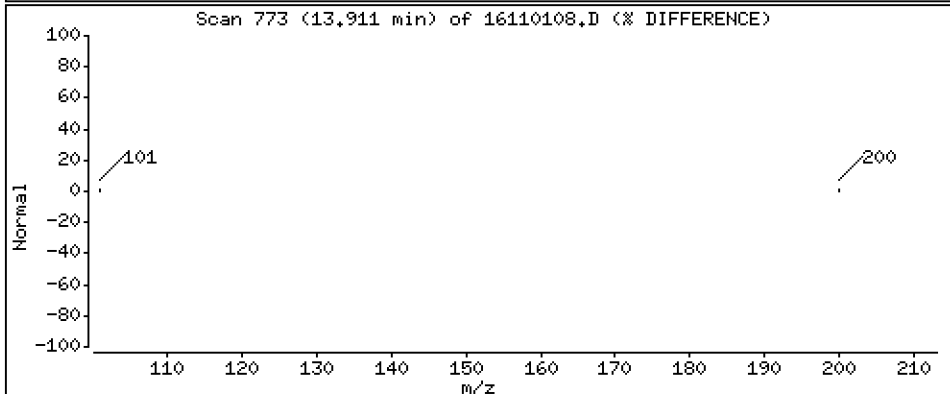
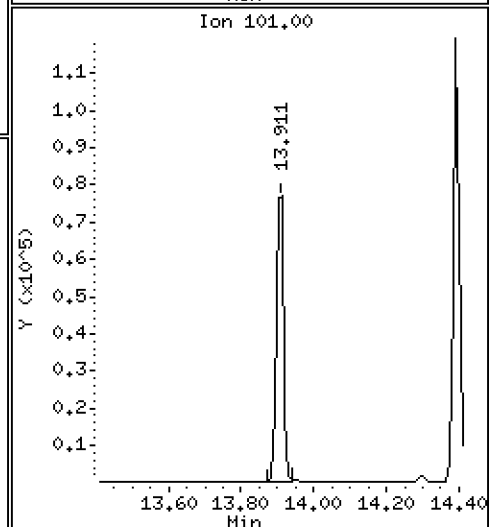
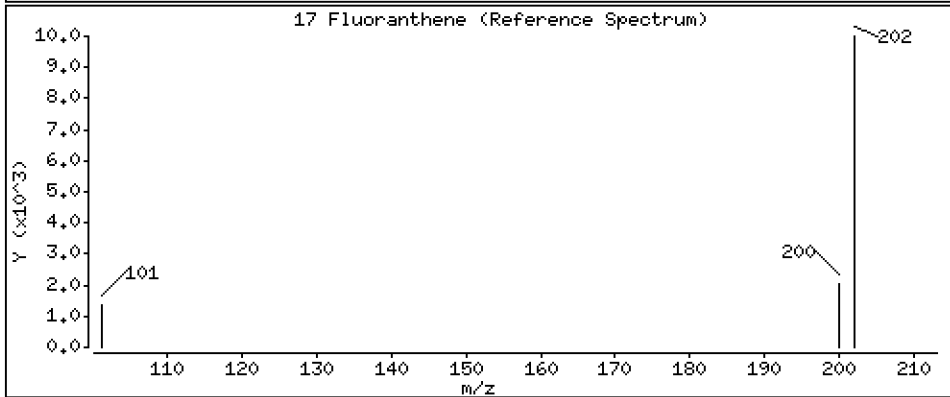
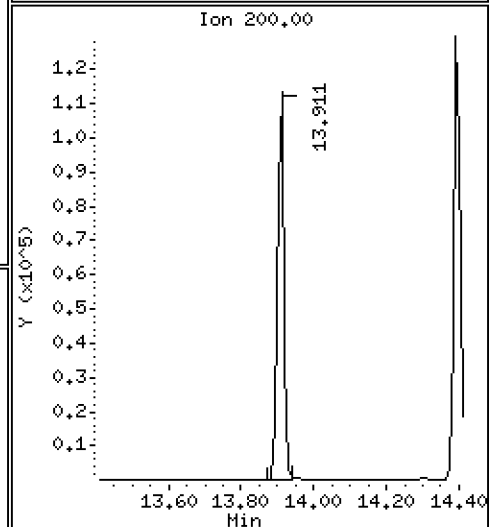
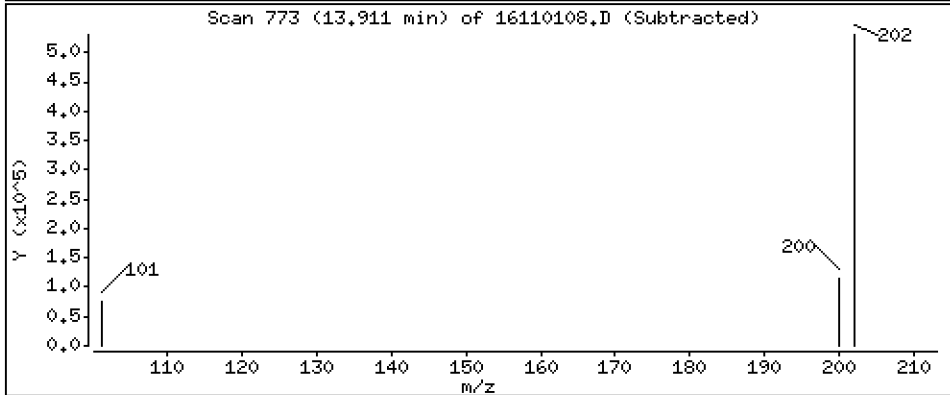
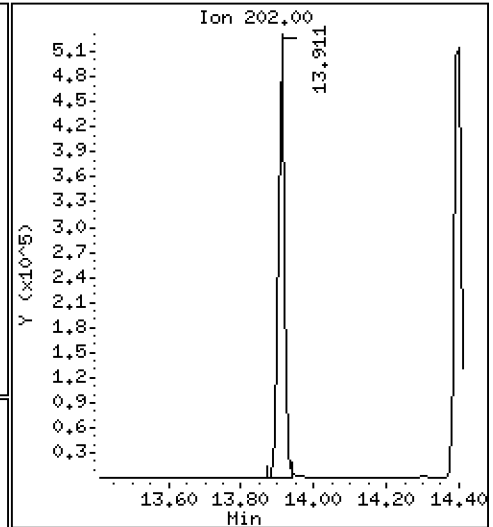
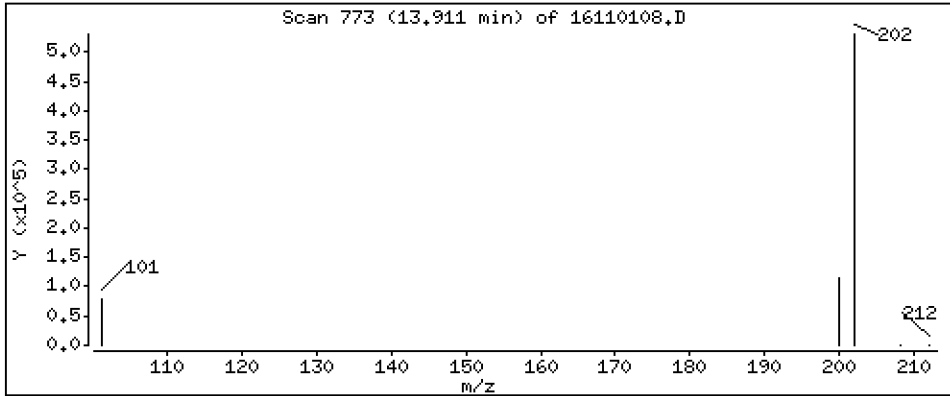
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Fluoranthene

Concentration: 226 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

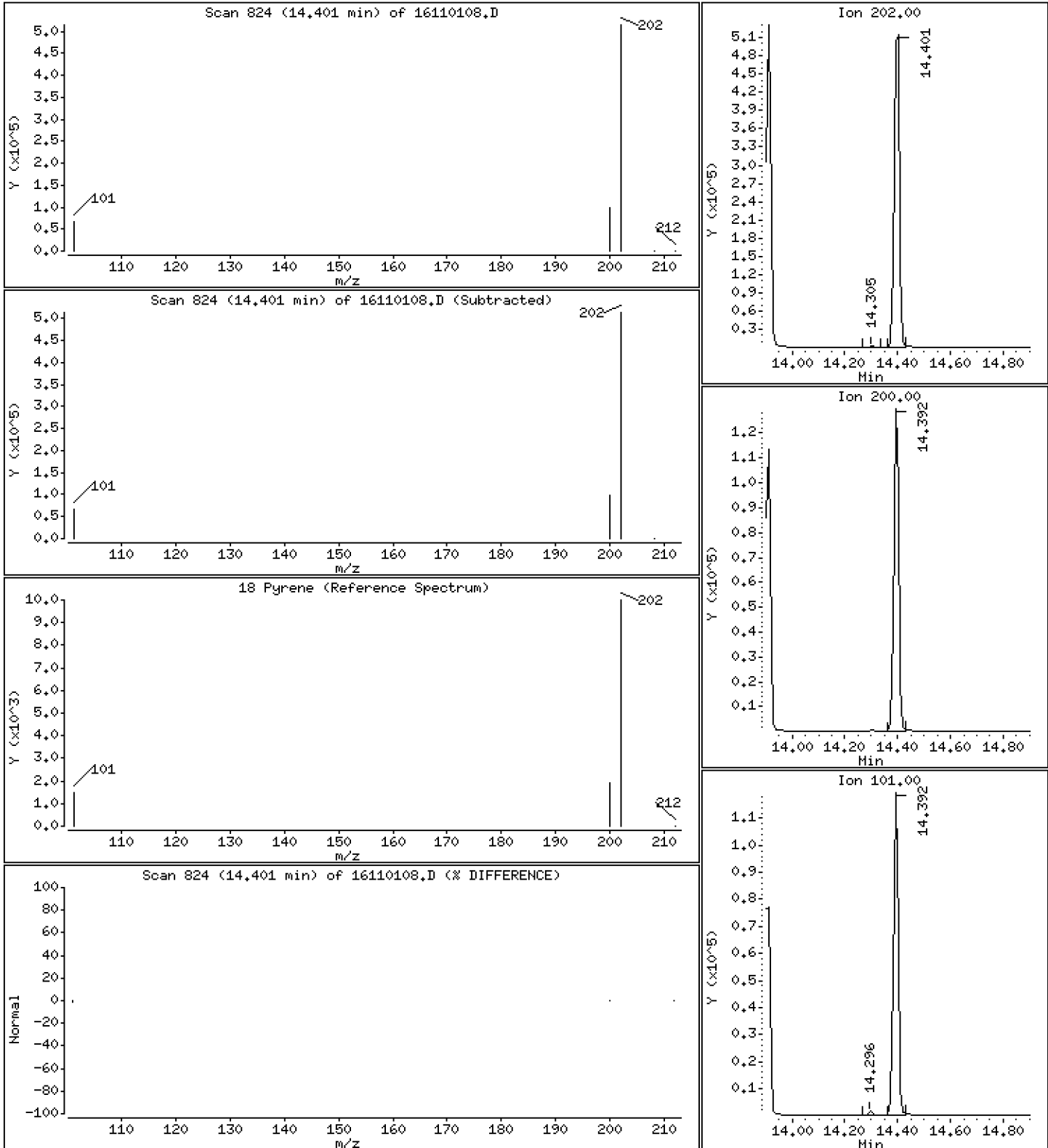
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0.25

18 Pyrene

Concentration: 243 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

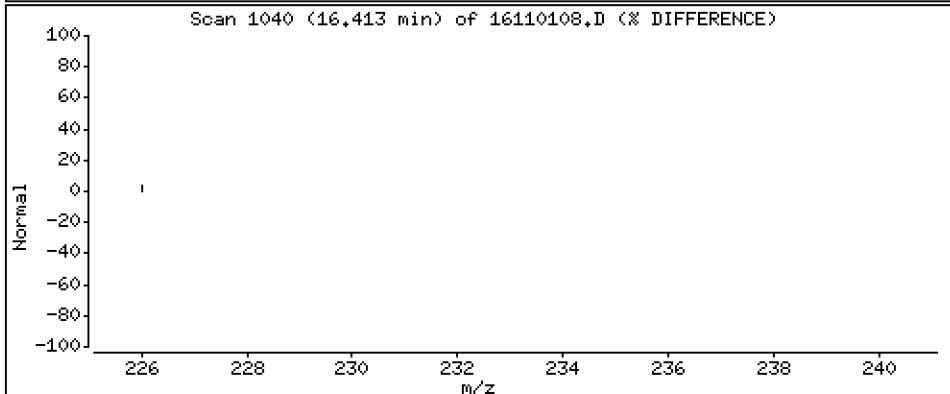
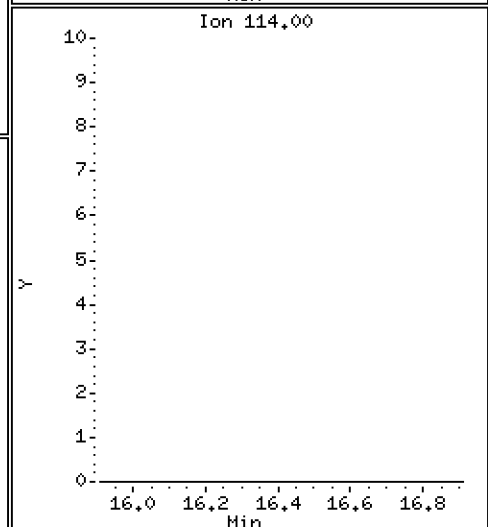
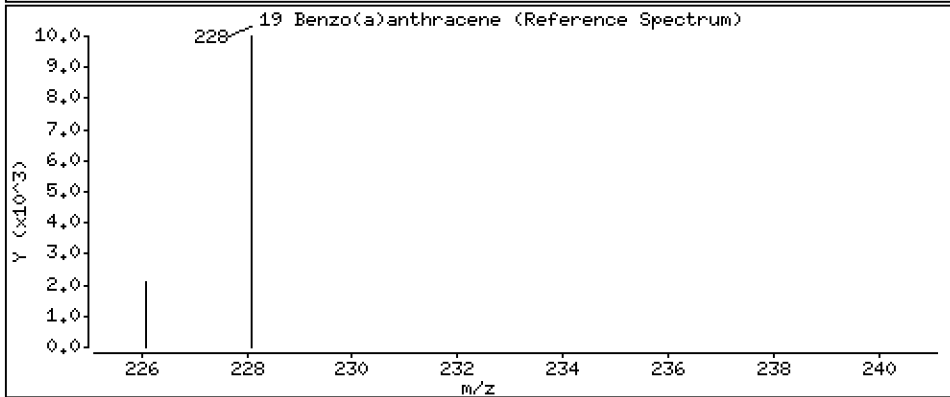
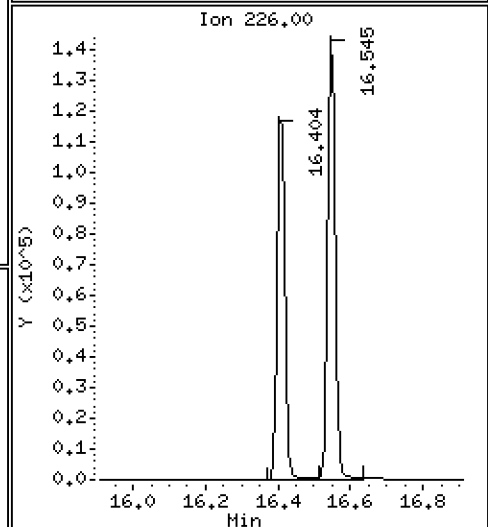
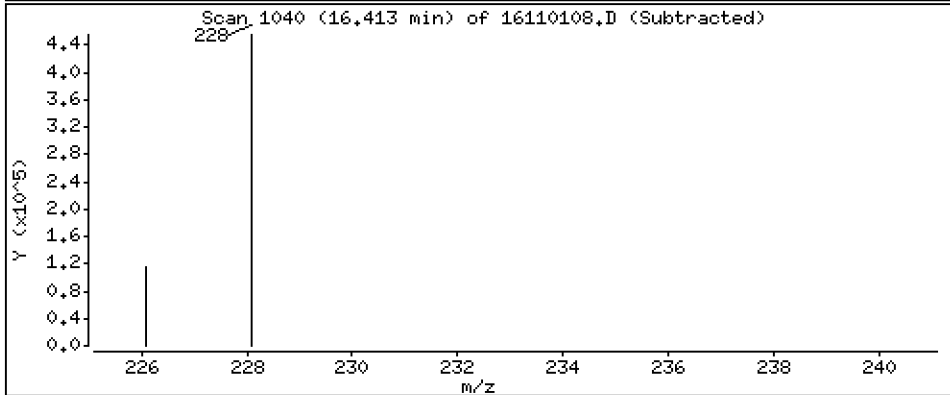
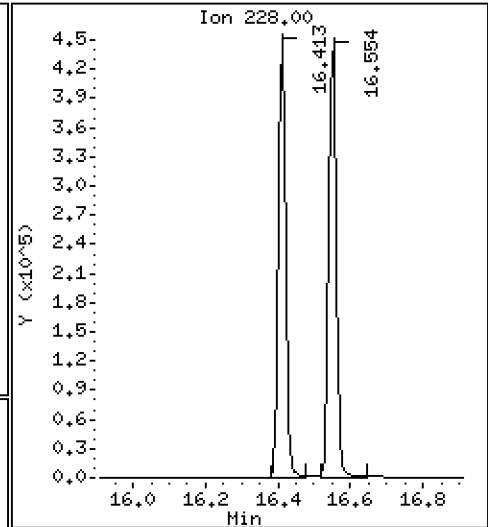
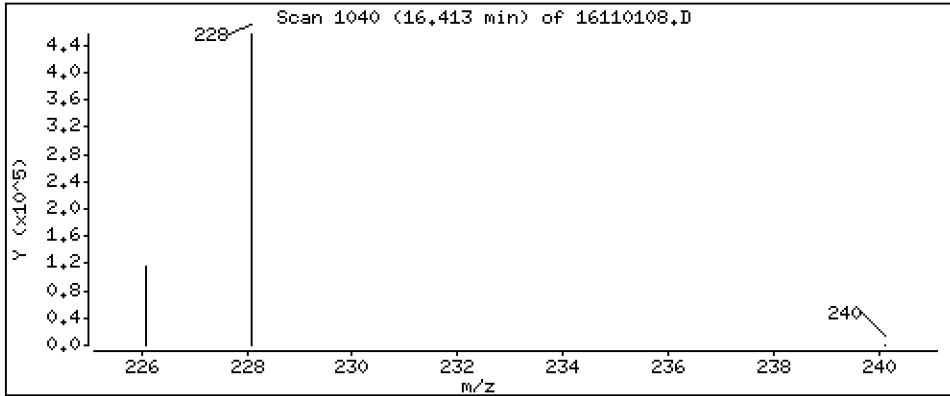
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Benzo(a)anthracene

Concentration: 227 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

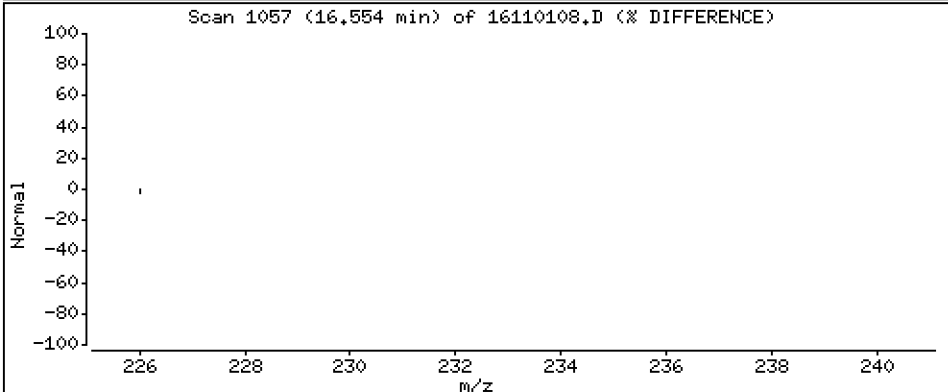
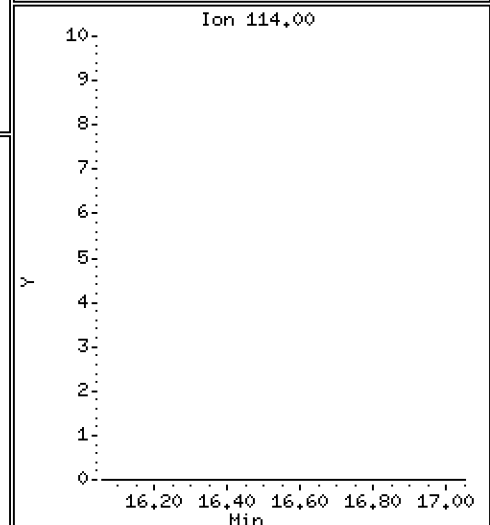
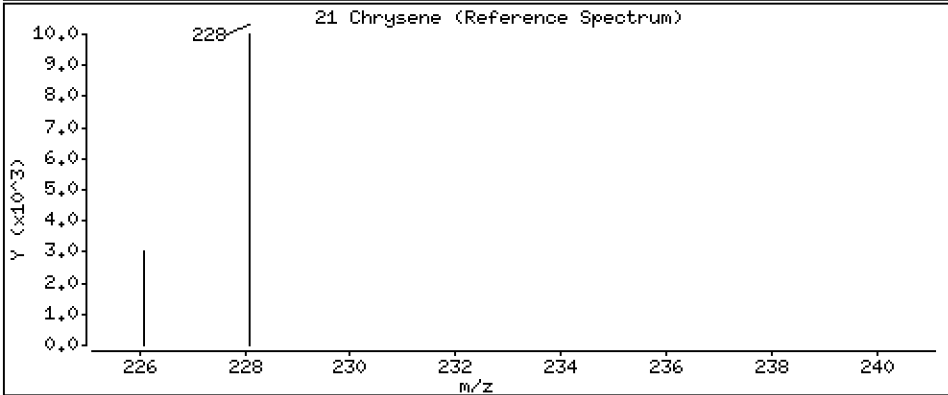
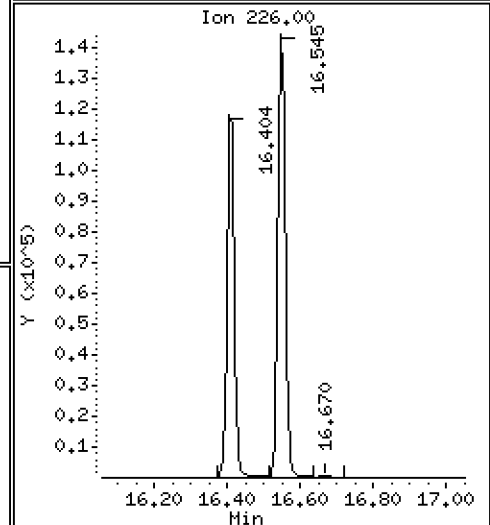
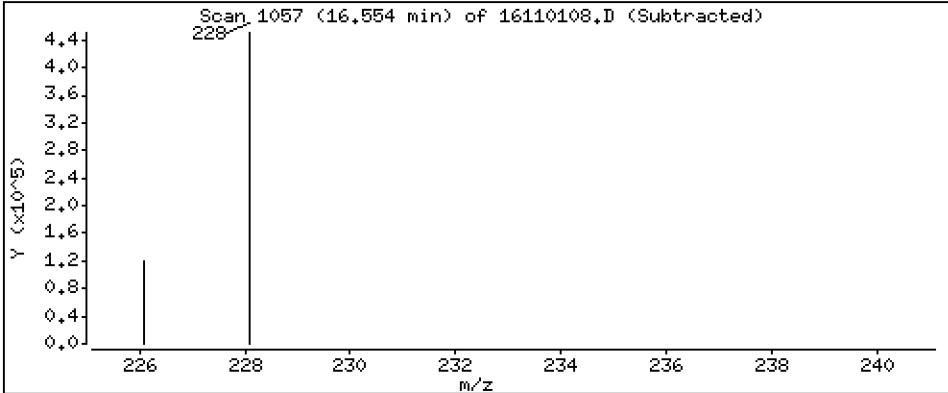
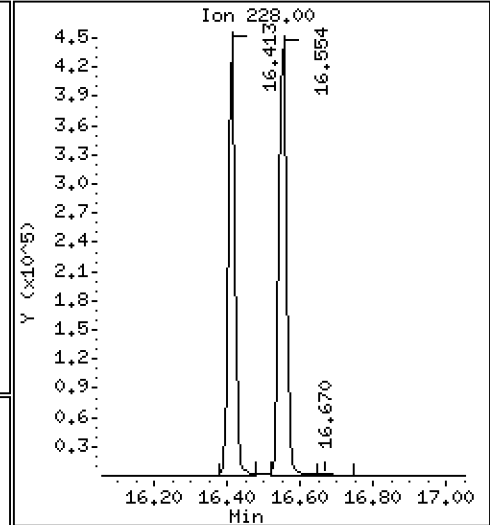
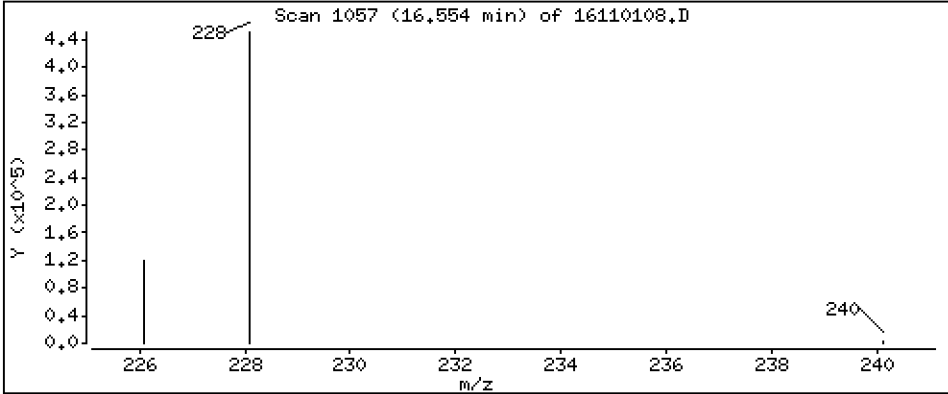
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Chrysene

Concentration: 233 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

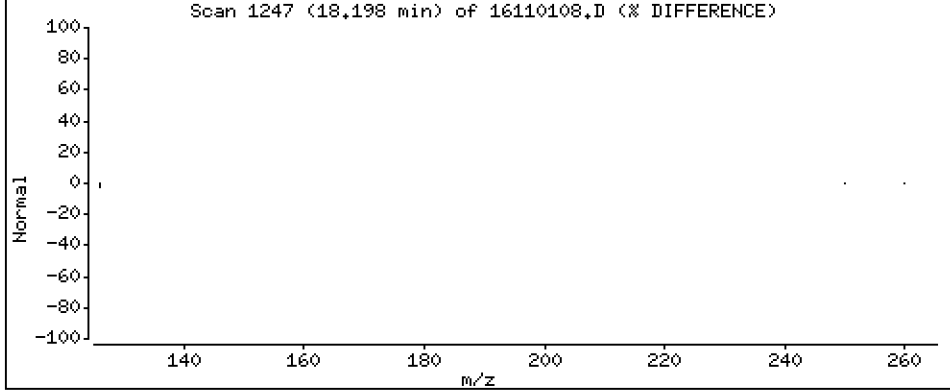
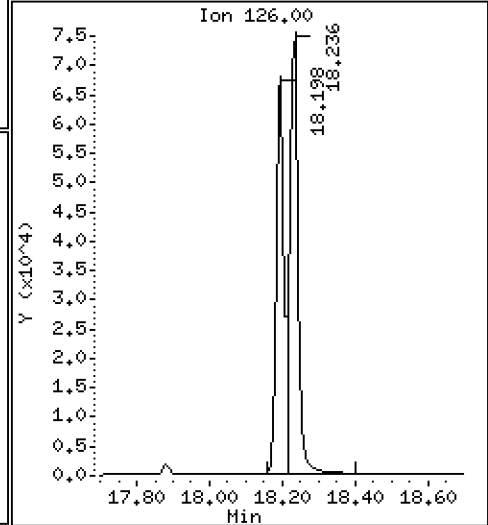
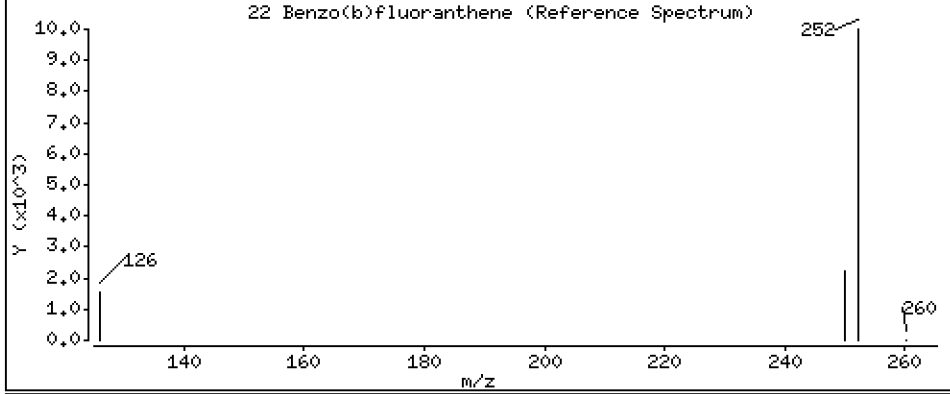
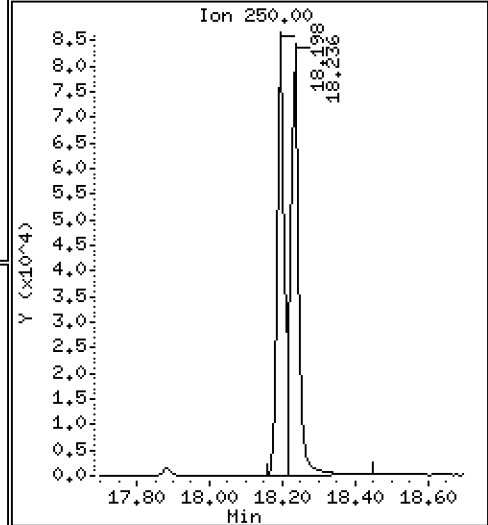
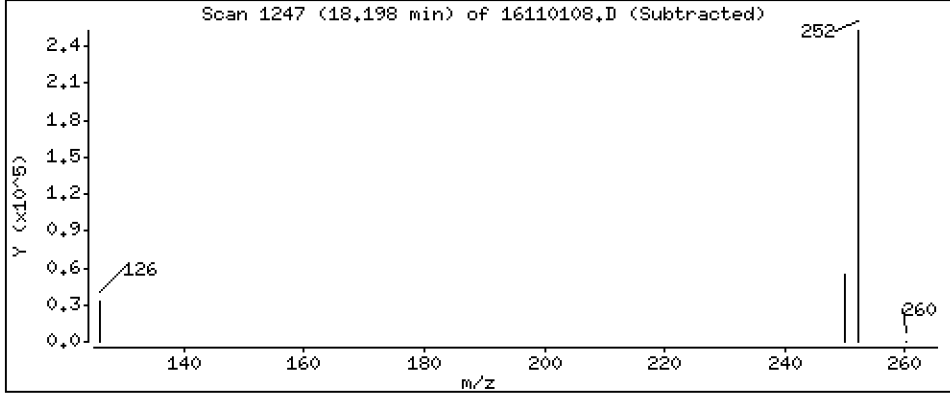
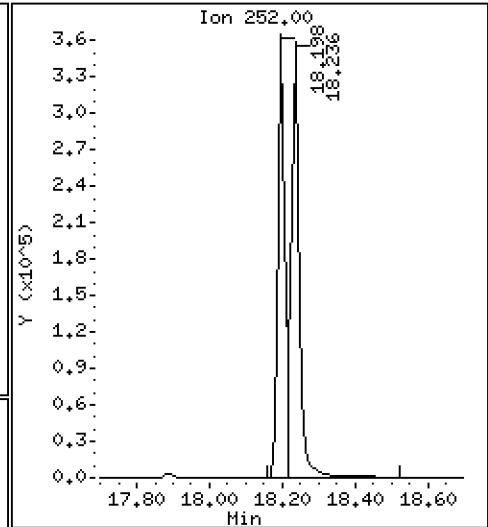
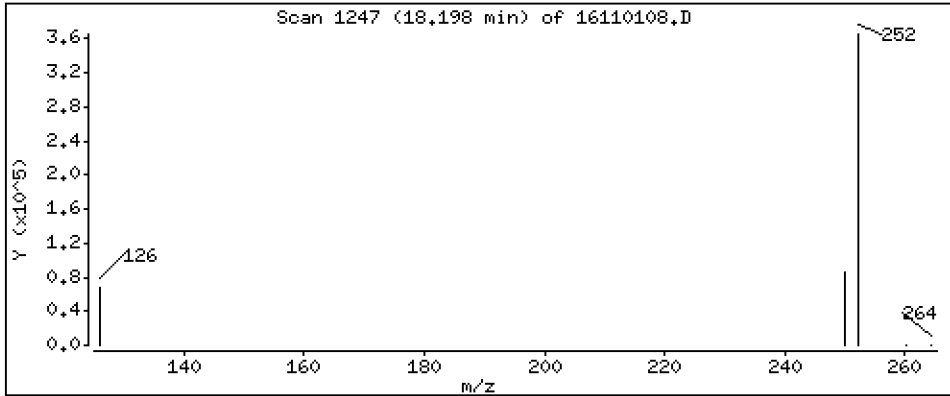
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Benzo(b)fluoranthene

Concentration: 229 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

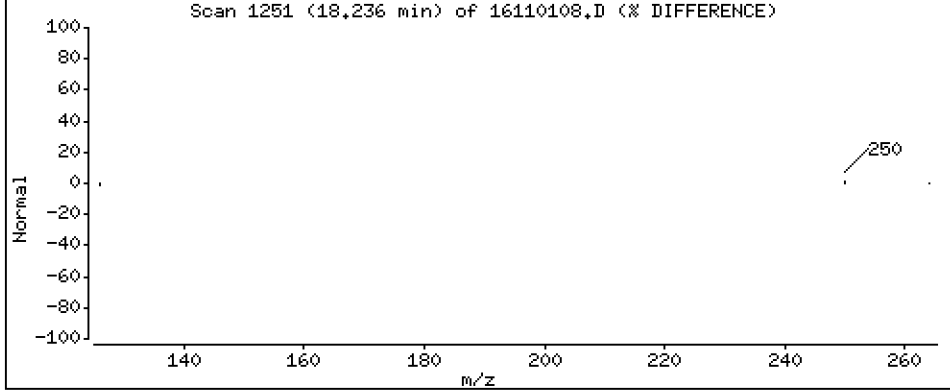
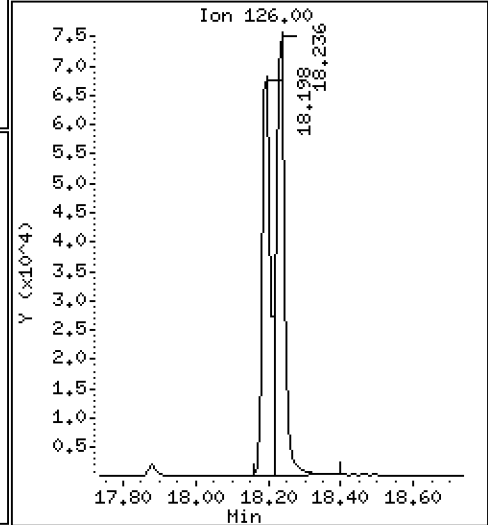
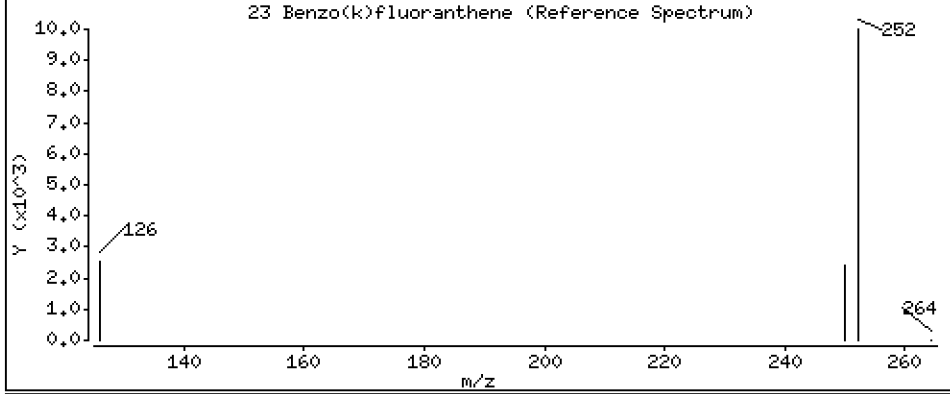
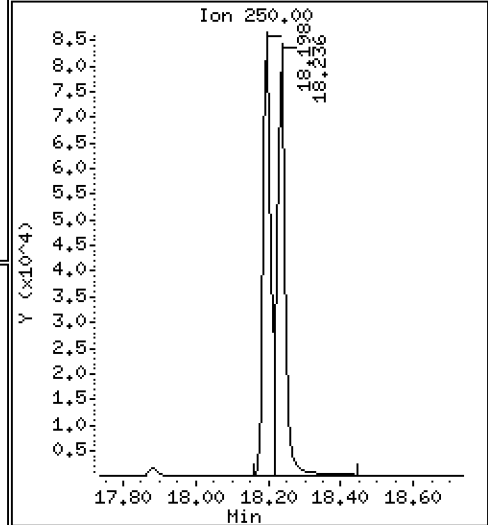
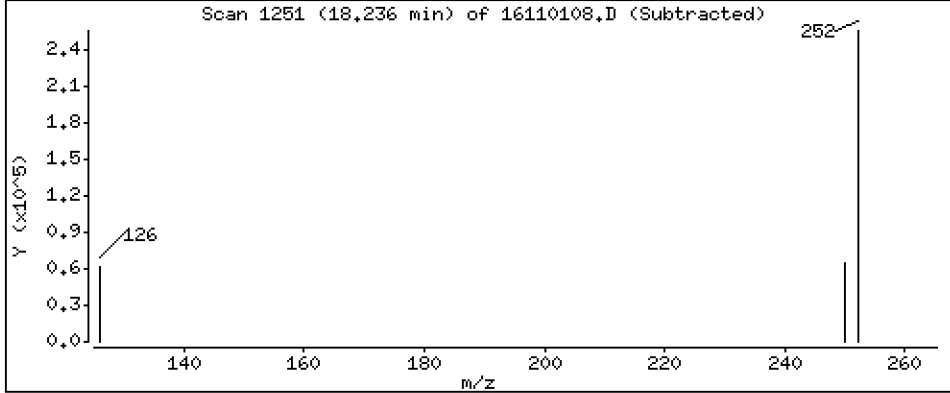
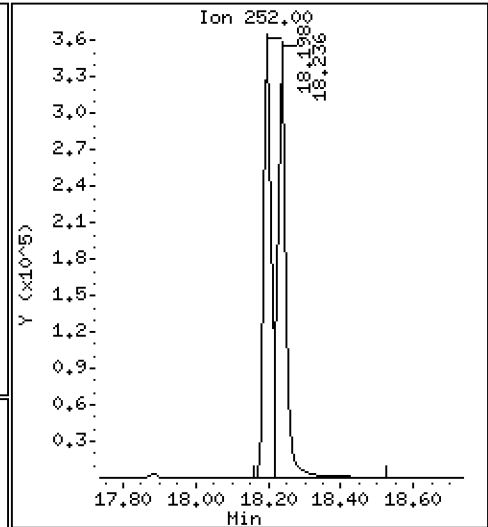
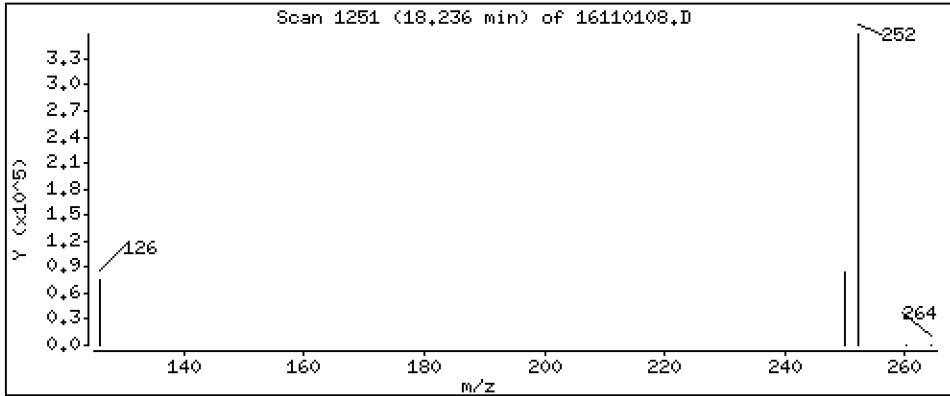
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Benzo(k)fluoranthene

Concentration: 235 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

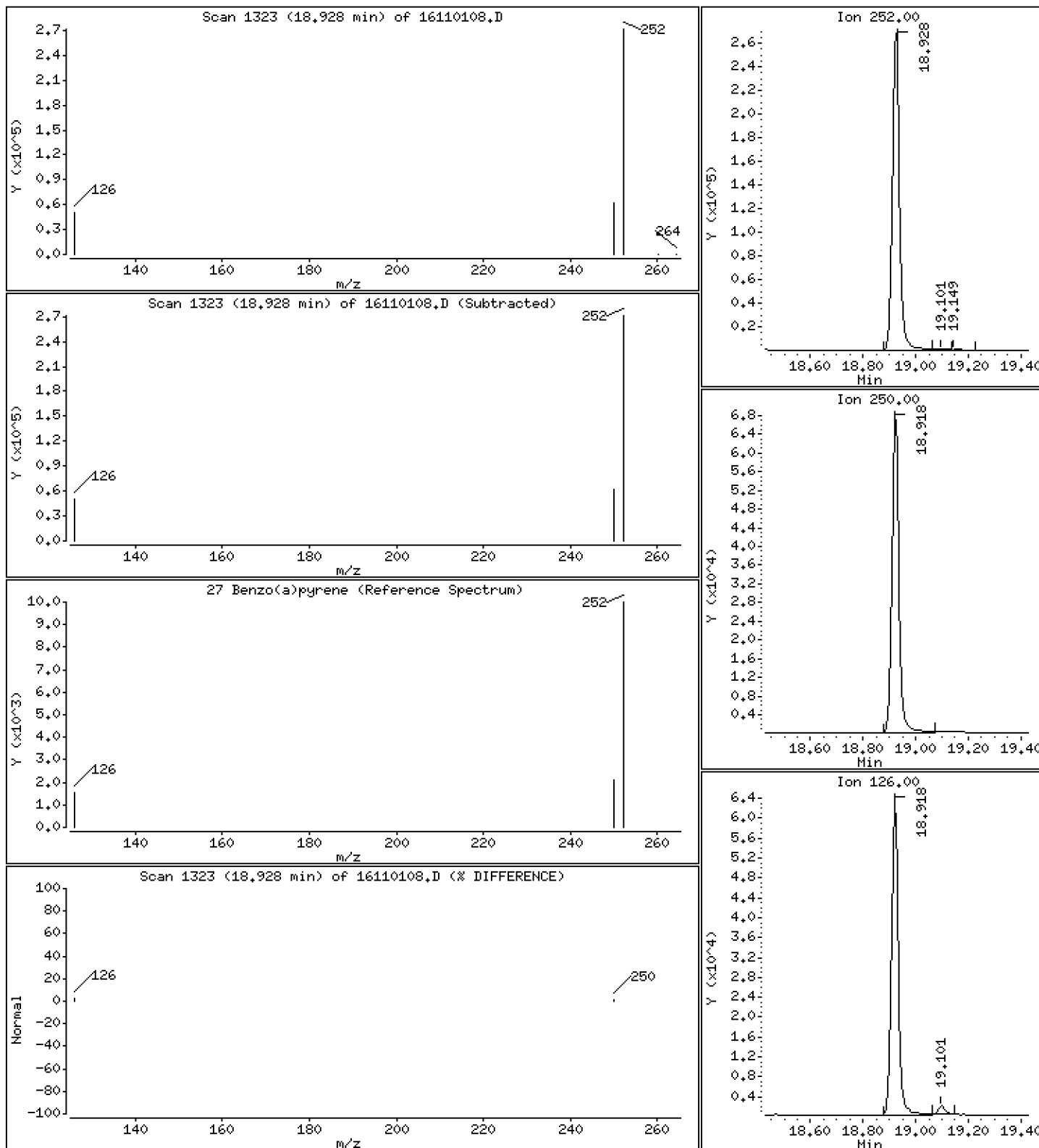
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)pyrene

Concentration: 237 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

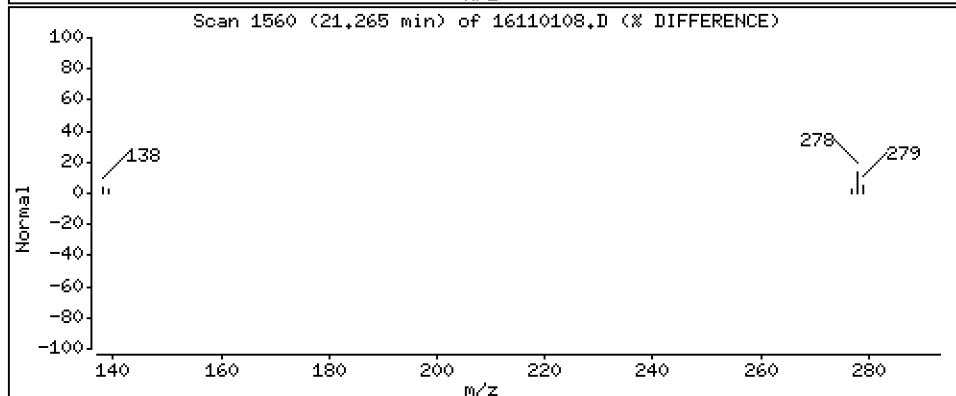
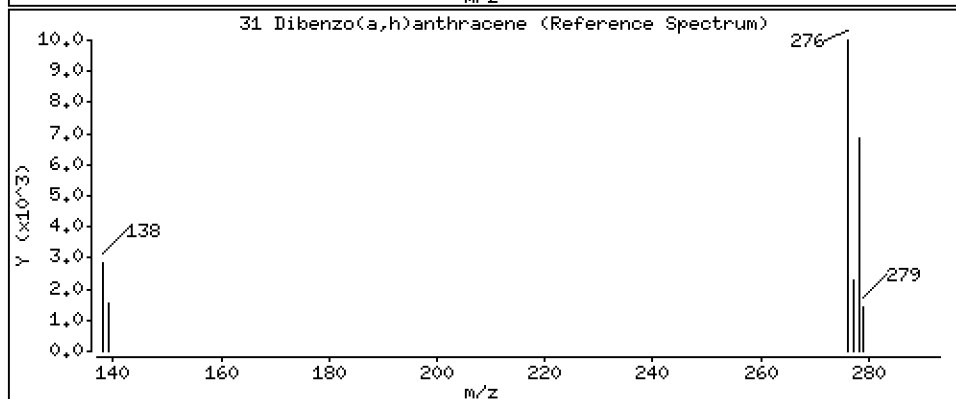
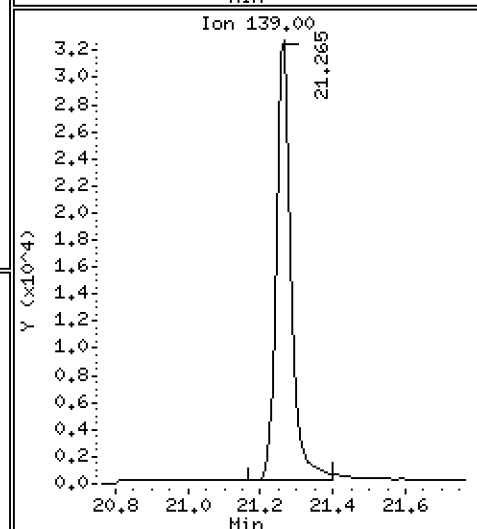
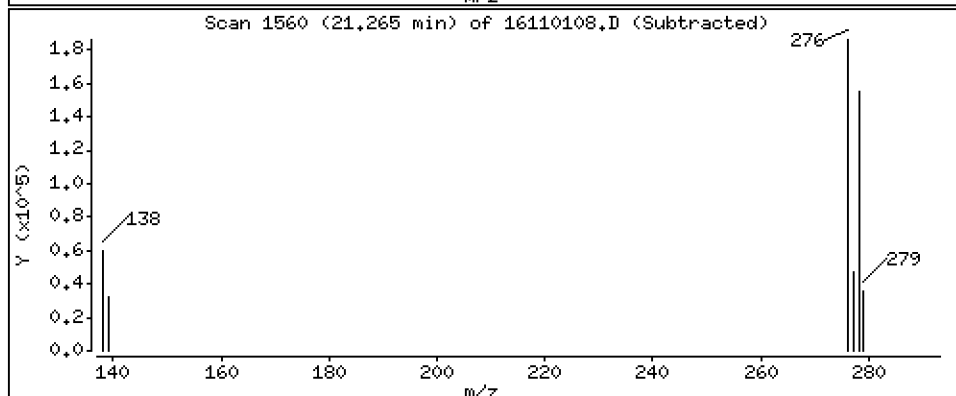
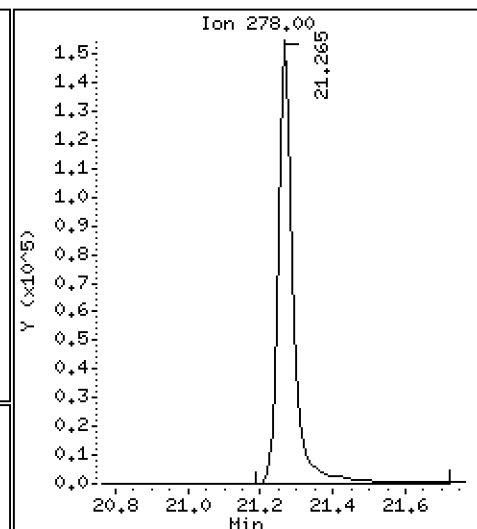
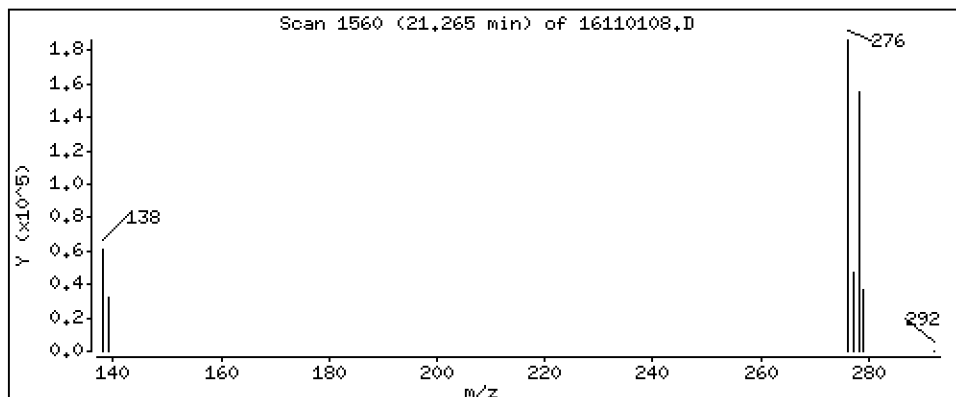
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Dibenzo(a,h)anthracene

Concentration: 235 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

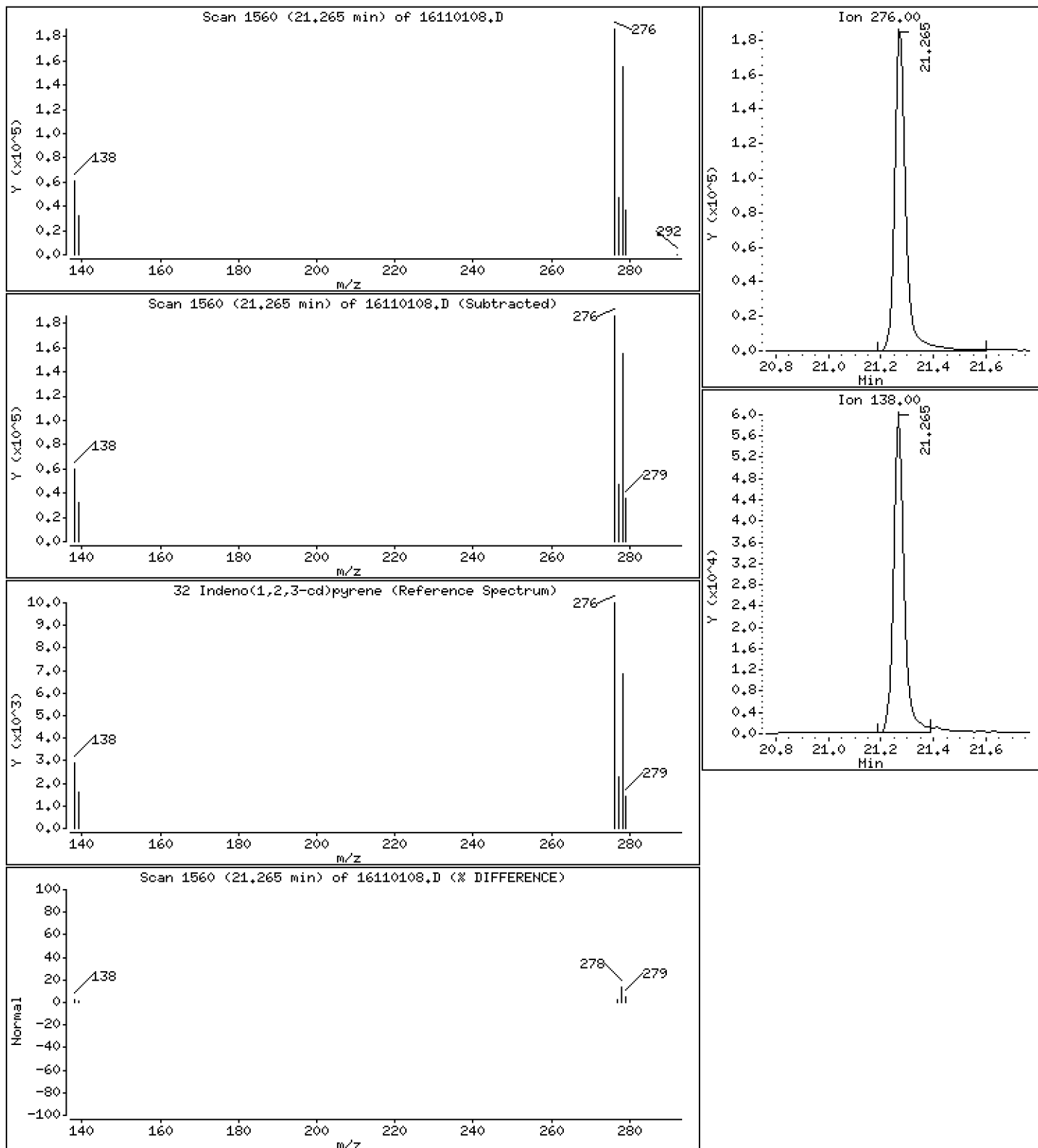
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 Indeno(1,2,3-cd)pyrene

Concentration: 234 ng/mL



Date : 01-NOV-2016 13:04

Client ID:

Instrument: nt11.i

Sample Info: SEK0004-SCV1

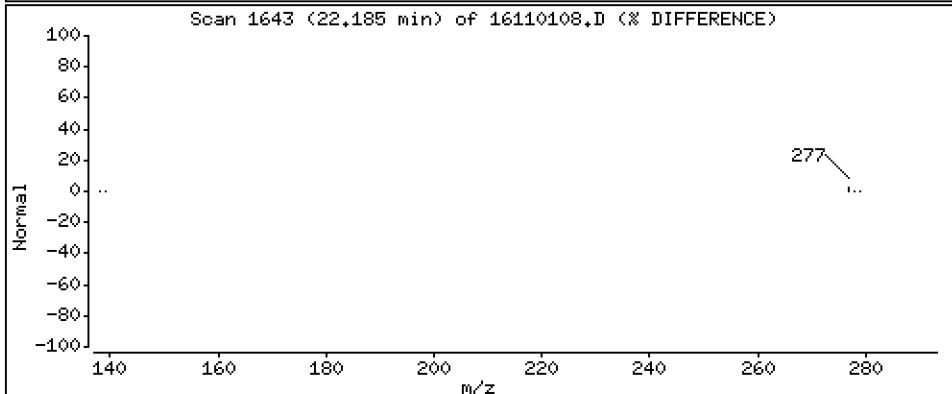
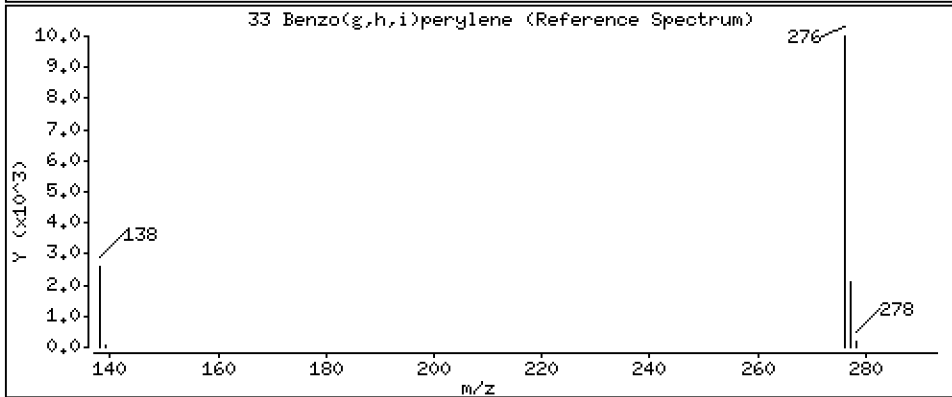
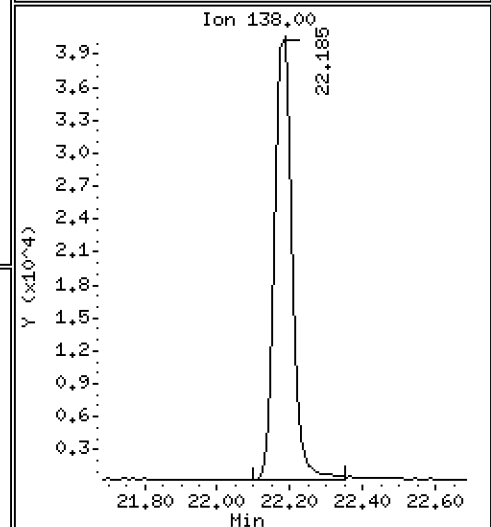
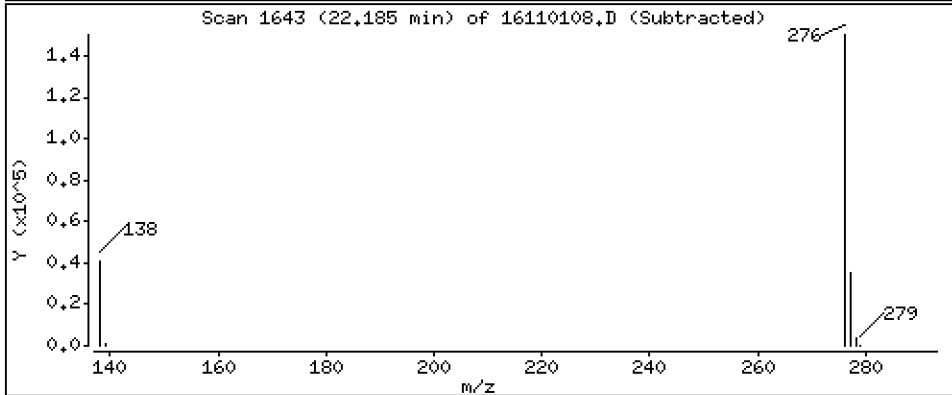
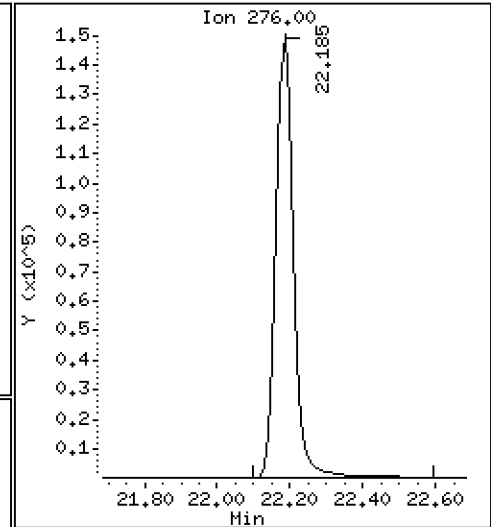
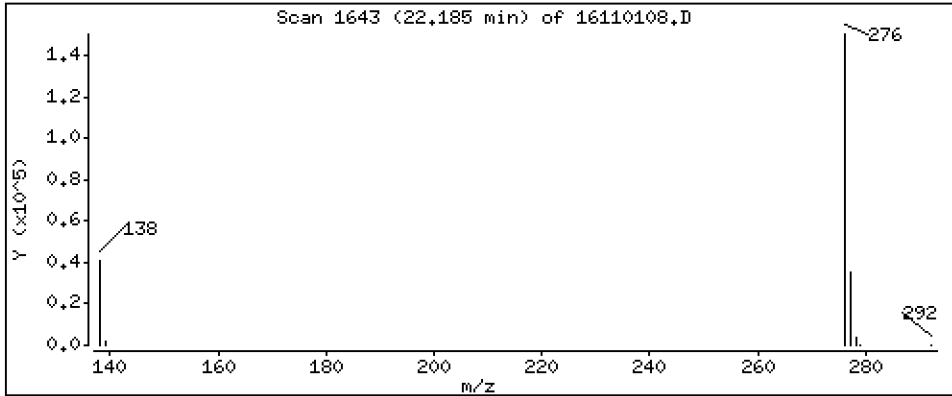
Operator: JW

Column phase: Rxi-17Sil MS

Column diameter: 0,25

33 Benzo(g,h,i)perylene

Concentration: 232 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161101.b\16110108.D
 Lab Smp Id: SEK0004-SCV1
 Inj Date : 01-NOV-2016 13:04
 Operator : JW
 Smp Info : SEK0004-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Meth Date : 01-Nov-2016 13:10 jonathonw Quant Type: ISTD
 Cal Date : 01-NOV-2016 12:34 Cal File: 16110107.D
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: AUTOSPECDATA02

Inst ID: nt11.i

Compound Sublist: PEMD.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		6.165	6.166	(1.000)	597012	200.000	
2 Naphthalene	128		6.207	6.208	(1.007)	795334	228.550	229
§ 3 2-Methylnaphthalene-d10	152		Compound Not Detected.					
4 2-Methylnaphthalene	142		7.195	7.195	(1.167)	485886	214.879	215
5 1-Methylnaphthalene	142		7.447	7.447	(1.208)	473636	233.613	234
6 Acenaphthylene	152		8.990	8.990	(0.983)	667001	229.993	230
* 7 Acenaphthene-d10	164		9.145	9.145	(1.000)	291617	200.000	
8 Acenaphthene	153		9.200	9.200	(1.006)	480381	252.178	252
9 Dibenzofuran	168		Compound Not Detected.					
§ 10 Fluorene-d10	174		Compound Not Detected.					
11 Fluorene	166		10.035	10.035	(1.097)	478200	227.092	227
* 12 Phenanthrene-d10	188		11.797	11.798	(1.000)	499409	200.000	
13 Phenanthrene	178		11.836	11.836	(1.003)	807059	237.583	238
§ 14 Anthracene-d10	188		Compound Not Detected.					
15 Anthracene	178		11.893	11.894	(1.008)	765469	232.544	233
§ 16 Fluoranthene-d10	212		Compound Not Detected.					
17 Fluoranthene	202		13.911	13.911	(1.179)	657265	226.304	226
18 Pyrene	202		14.401	14.401	(0.873)	747898	242.848	243
19 Benzo(a)anthracene	228		16.412	16.412	(0.994)	595301	227.308	227
* 20 Chrysene-d12	240		16.503	16.504	(1.000)	392161	200.000	
21 Chrysene	228		16.553	16.553	(1.003)	635792	233.169	233
22 Benzo(b)fluoranthene	252		18.197	18.198	(0.952)	531419	229.167	229
23 Benzo(k)fluoranthene	252		18.236	18.236	(0.954)	599881	234.516	235
24 Benzo(j)fluoranthene	252		Compound Not Detected.					
§ 25 Benzo(e)pyrene-d12	264		Compound Not Detected.					
26 Benzo(e)pyrene	252		Compound Not Detected.					
27 Benzo(a)pyrene	252		18.928	18.928	(0.990)	522116	237.384	237
* 28 Perylene-d12	264		19.110	19.101	(1.000)	458547	200.000	
29 Perylene	252		Compound Not Detected.					
§ 30 Dibenzo(a,h)anthracene-d14	292		Compound Not Detected.					
31 Dibenzo(a,h)anthracene	278		21.265	21.265	(1.113)	456758	235.152	235
32 Indeno(1,2,3-cd)pyrene	276		21.265	21.265	(1.113)	565041	233.507	234
33 Benzo(g,h,i)perylene	276		22.184	22.185	(1.161)	488433	231.512	232

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16110108.D
 Lab Smp Id: SEK0004-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161101.b\lowsim.m
 Misc Info:

Calibration Date: 01-NOV-2016
 Calibration Time: 09:31
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	597012	-2.06
7 Acenaphthene-d10	316851	158426	633702	291617	-7.96
12 Phenanthrene-d10	546133	273067	1092266	499409	-8.56
20 Chrysene-d12	417210	208605	834420	392161	-6.00
28 Perylene-d12	524443	262222	1048886	458547	-12.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.17	5.67	6.67	6.17	-0.00
7 Acenaphthene-d10	9.15	8.65	9.65	9.15	-0.00
12 Phenanthrene-d10	11.80	11.30	12.30	11.80	-0.00
20 Chrysene-d12	16.50	16.00	17.00	16.50	-0.00
28 Perylene-d12	19.10	18.60	19.60	19.11	0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16110108.D

Lab ID: SEK0004-SCV1

nt11.i, 20161101.b\lowsim.m, 01-NOV-2016 13:04

RT	CO-ELUTION COMPOUNDS
21.265	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
21.265	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND

NONE				

On Column LOD for nt11.i, 20161101.b\lowsim.m, PEMD.sub = 0.0000



INITIAL CALIBRATION CHECK EPA 8270D-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>16J0187</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Port Gamble Shellfish Monitoring</u>
Instrument ID: <u>NT11</u>	Calibration: <u>ZK00002</u>
Lab File ID: <u>16111002.D</u>	Calibration Date: <u>11/01/16 13:18</u>
Sequence: <u>SEK0151</u>	Injection Date: <u>11/10/16</u>
Lab Sample ID: <u>SEK0151-ICV1</u>	Injection Time: <u>11:38</u>
Sequence Name: <u>SIM PAH 250</u>	

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	237	1.1657760	1.1058160		-5.2	20
2-Methylnaphthalene	A	250.00	238	0.7575091	0.7206889		-4.8	20
Acenaphthylene	A	250.00	233	1.9889760	1.8512080		-6.8	20
Acenaphthene	A	250.00	235	1.3064590	1.2273750		-6.0	20
Fluorene	A	250.00	243	1.4441930	1.4038120		-2.8	20
Phenanthrene	A	250.00	249	1.3603890	1.3552670		-0.4	20
Anthracene	A	250.00	244	1.3182440	1.2867690		-2.4	20
Fluoranthene	A	250.00	245	1.1631140	1.1387370		-2.0	20
Pyrene	A	250.00	248	1.5706280	1.5568440		-0.8	20
Benzo(a)anthracene	A	250.00	240	1.3356320	1.2825600		-4.0	20
Chrysene	A	250.00	249	1.3906220	1.3847870		-0.4	20
Benzo(b)fluoranthene	A	250.00	268	1.0114170	1.0853200		7.2	20
Benzo(k)fluoranthene	A	250.00	237	1.1156770	1.0588810		-5.2	20
Benzo(e)pyrene	A	250.00	253	0.9952431	1.0073820		1.2	20
Benzo(a)pyrene	A	250.00	248	0.9593173	0.9500087		-0.8	20
Indeno(1,2,3-cd)pyrene	A	250.00	244	1.0554230	1.0282130		-2.4	20
Dibenzo(a,h)anthracene	A	250.00	245	0.8471938	0.8302038		-2.0	20
Benzo(g,h,i)perylene	A	250.00	239	0.9201908	0.8796035		-4.4	20
Perylene	A	250.00	245	0.9940602	0.9728220		-2.0	20
2-Methylnaphthalene-d10	A	250.00	236	0.6039149	0.5711895		-5.6	20
Dibenzo[a,h]anthracene-d14	A	250.00	241	0.6194622	0.5979271		-3.6	20
Fluoranthene-d10	A	250.00	233	0.9473863	0.8822190		-6.8	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20161110.6\16111002.D

Date : 10-NOV-2016 11:38

Client ID:

Sample Info: SEK0151-ICW1

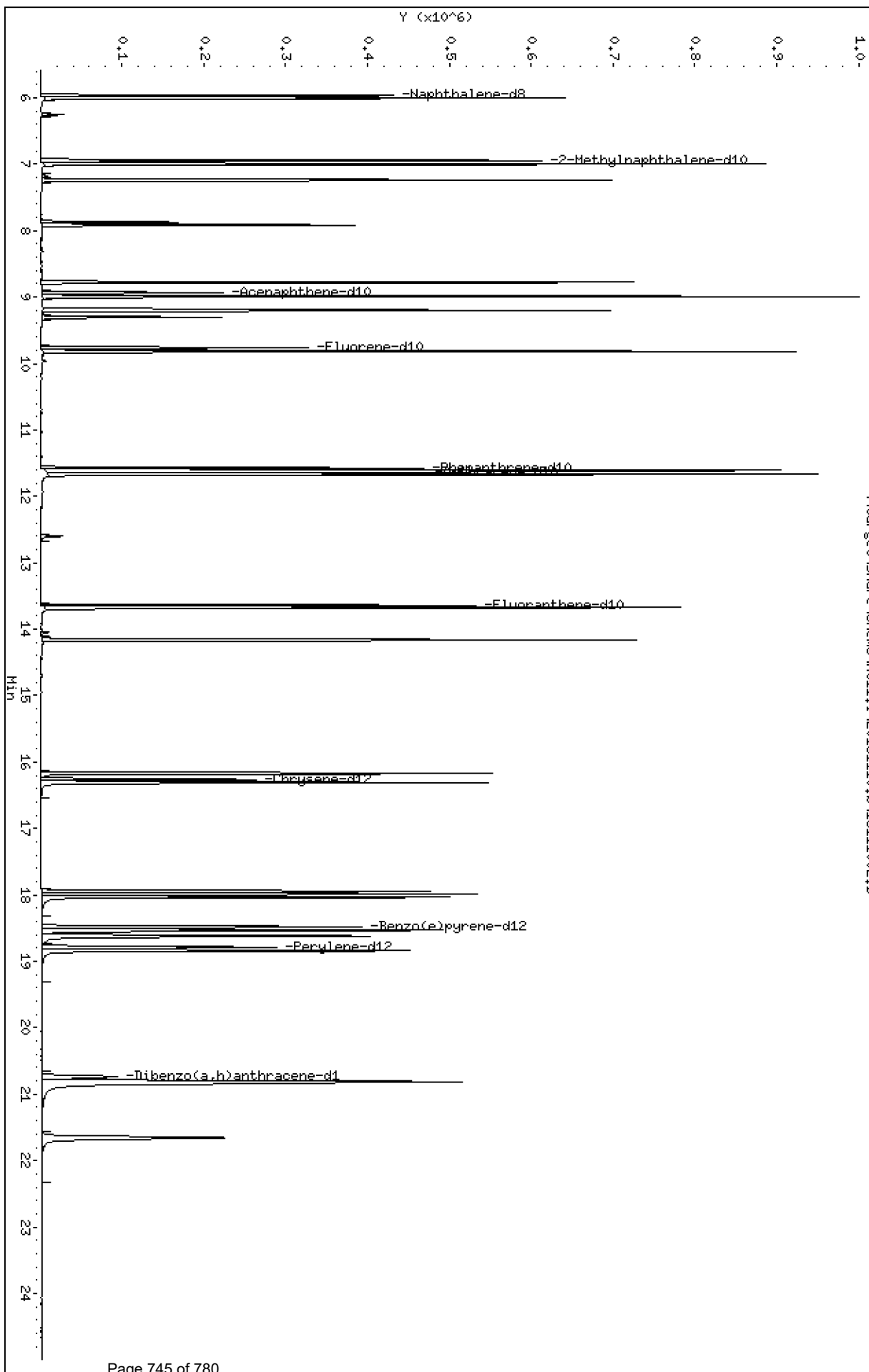
Column phase: Rxi-17S11 MS

Instrument: nt11.i

Operator: JM

Column diameter: 0.25

\\target\share\chem3\nt11.i\20161110.6\16111002.D



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20161110.b\16111002.D

Lab Smp Id: SEK0151-ICV1

Inj Date : 10-NOV-2016 11:38

MS Autotune Date: 15-JAN-2015 15:59

Operator : JW

Inst ID: nt11.i

Smp Info : SEK0151-ICV1

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20161110.b\lowsim.m

Meth Date : 10-Nov-2016 13:00 nt11.i

Quant Type: ISTD

Cal Date : 01-NOV-2016 12:34

Cal File: 16110107.D

Als bottle: 3

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PEMD.sub

Target Version: 4.14

Processing Host: AUTOSPECDATA02

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136	5.965	5.965	(1.000)	632880	200.000	
2 Naphthalene	128	6.007	6.007	(1.007)	874811	250.000	237
\$ 3 2-Methylnaphthalene-d10	152	6.942	6.942	(1.164)	451868	250.000	236
4 2-Methylnaphthalene	142	6.995	6.995	(1.173)	570137	250.000	238
5 1-Methylnaphthalene	142	7.236	7.236	(1.213)	504157	250.000	235
6 Acenaphthylene	152	8.773	8.773	(0.983)	705965	250.000	233
* 7 Acenaphthene-d10	164	8.928	8.928	(1.000)	305083	200.000	
8 Acenaphthene	153	8.995	8.995	(1.007)	468064	250.000	235
9 Dibenzofuran	168	9.194	9.194	(1.030)	694517	250.000	253
\$ 10 Fluorene-d10	174	9.764	9.764	(1.094)	375120	250.000	236
11 Fluorene	166	9.817	9.817	(1.100)	535349	250.000	243
* 12 Phenanthrene-d10	188	11.571	11.571	(1.000)	515735	200.000	
13 Phenanthrene	178	11.609	11.609	(1.003)	873698	250.000	249
\$ 14 Anthracene-d10	188	11.638	11.638	(1.006)	608658	250.000	235
15 Anthracene	178	11.667	11.667	(1.008)	829540	250.000	244
\$ 16 Fluoranthene-d10	212	13.646	13.646	(1.179)	568739	250.000	233
17 Fluoranthene	202	13.675	13.675	(1.182)	734108	250.000	245
18 Pyrene	202	14.165	14.165	(0.871)	723989	250.000	248
19 Benzo(a)anthracene	228	16.173	16.173	(0.994)	596437	250.000	240
* 20 Chrysene-d12	240	16.264	16.264	(1.000)	372029	200.000	
21 Chrysene	228	16.314	16.314	(1.003)	643976	250.000	249
22 Benzo(b)fluoranthene	252	17.952	17.952	(0.956)	586538	250.000	268
23 Benzo(k)fluoranthene	252	17.980	17.980	(0.957)	572250	250.000	237
24 Benzo(j)fluoranthene	252	18.028	18.028	(0.960)	571199	250.000	268
\$ 25 Benzo(e)pyrene-d12	264	18.480	18.480	(0.984)	534788	250.000	249
26 Benzo(e)pyrene	252	18.528	18.528	(0.986)	544418	250.000	253
27 Benzo(a)pyrene	252	18.624	18.624	(0.991)	513412	250.000	248
* 28 Perylene-d12	264	18.788	18.788	(1.000)	432343	200.000	
29 Perylene	252	18.836	18.836	(1.003)	525741	250.000	245
\$ 30 Dibenzo(a,h)anthracene-d14	292	20.739	20.739	(1.104)	323137	250.000	241
31 Dibenzo(a,h)anthracene	278	20.816	20.816	(1.108)	448666	250.000	245
32 Indeno(1,2,3-cd)pyrene	276	20.816	20.816	(1.108)	555676	250.000	244
33 Benzo(g,h,i)perylene	276	21.658	21.658	(1.153)	475363	250.000	239

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 16111002.D
 Lab Smp Id: SEK0151-ICV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JW
 Method File: \\target\share\chem3\nt11.i\20161110.b\lowsim.m
 Misc Info:

Calibration Date: 10-NOV-2016
 Calibration Time: 11:38
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	609556	304778	1219112	632880	3.83
7 Acenaphthene-d10	316851	158426	633702	305083	-3.71
12 Phenanthrene-d10	546133	273067	1092266	515735	-5.57
20 Chrysene-d12	417210	208605	834420	372029	-10.83
28 Perylene-d12	524443	262222	1048886	432343	-17.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	5.97	5.47	6.47	5.97	0.00
7 Acenaphthene-d10	8.93	8.43	9.43	8.93	0.00
12 Phenanthrene-d10	11.57	11.07	12.07	11.57	0.00
20 Chrysene-d12	16.26	15.76	16.76	16.26	0.00
28 Perylene-d12	18.79	18.29	19.29	18.79	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 16111002.D

Lab ID: SEK0151-ICV1

nt11.i, 20161110.b\lowsim.m, 10-NOV-2016 11:38

RT	CO-ELUTION COMPOUNDS
20.817	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
20.817	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

On Column LOD for nt11.i, 20161110.b\lowsim.m, PEMD.sub = 0.0000

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161110.b

Instrument: nt11.i Date: 10-NOV-2016 Method: 20161110.b\lowsim.m

INITIAL CAL: 01-NOV-2016

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: 16111002.D 10-NOV-2016 11:38

Compound	%D

NO Q-FLAGS	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SEK0004

Instrument: NT11

Calibration: ZK00002

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SEK0004-TUN1	16110101.D	Tissue	11/01/16 09:16
Cal Standard	SEK0004-CAL4	16110102.D	Tissue	11/01/16 09:31
Cal Standard	SEK0004-CAL3	16110103.D	Tissue	11/01/16 10:34
Cal Standard	SEK0004-CAL1	16110104.D	Tissue	11/01/16 11:04
Cal Standard	SEK0004-CAL5	16110105.D	Tissue	11/01/16 11:34
Cal Standard	SEK0004-CAL2	16110106.D	Tissue	11/01/16 12:04
Cal Standard	SEK0004-CAL6	16110107.D	Tissue	11/01/16 12:34
Secondary Cal Check	SEK0004-SCV1	16110108.D	Tissue	11/01/16 13:04
ZZZZZ	CEJ0249-CBL1	16110109.D	Solid	11/01/16 13:35
GPC Check	CEJ0249-GPC1	16110110.D	Solid	11/01/16 14:05
ZZZZZ	16J0334-01RE1	16110111.D	Solid	11/01/16 14:35
Calibration Check	SEK0004-CCV1	16110112.D	Tissue	11/01/16 15:05



ANALYSIS SEQUENCE

SEK0004

Instrument: NT11 Element Column ID: D005437
 Calibration ID: ZK00002 Tune File: 160805.U
 EPC Voltage: 2224

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SEK0004-TUN1	Tune 10	QC		1	E000099		
SEK0004-CAL4	SIMPNA 250 ppb	QC		2	E004262	E002870	
SEK0004-CAL3	SIMPNA 100 ppb	QC		3	E004261	E002870	
SEK0004-CAL1	SIMPNA 10 ppb	QC		4	E004259	E002870	
SEK0004-CAL5	SIMPNA 500 ppb	QC		5	E004263	E002870	
SEK0004-CAL2	SIMPNA 50 ppb	QC		6	E004260	E002870	
SEK0004-CAL6	SIMPNA 1000 ppb	QC		7	E004264	E002870	
SEK0004-SCV1	SIMPNA SCV	QC		8	D004766	E002870	
CEJ0249-CBL1	GPC3-102315-LLSimPNA BLK	QC		9		E002870	
CEJ0249-GPC1	GPC3-102315-LLSimPNA Ver	QC		10	E005911	E002870	
16J0334-01RE1	201610131130SS	SIM PAH Low (0.01 ug/L - 0.	A 01	11		E002870	Added 11/1/2016 by JLW
SEK0004-CCV1	SIM PAH 250	QC		12	E004262	E002870	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161101.b

Line	Filename	LabID	ClientId	DF														
1	1916	16110101.D	SEK0004-TUN1	1	NO	ISTDS	FOUND											
2	1931	16110102.D	SEK0004-CAL4	1	6.17	609556		9.15	316851		11.80	546133		16.50	417210		19.10	524443
3	1034	16110103.D	SEK0004-CAL3	1	6.17	605453		9.15	309736		11.80	547216		16.50	410327		19.11	510211
4	1104	16110104.D	SEK0004-CAL1	1	6.17	607408		9.15	290245		11.80	518986		16.50	393896		19.10	482655
5	1134	16110105.D	SEK0004-CAL5	1	6.17	614933		9.15	319092		11.80	545127		16.50	422171		19.11	511390
6	1204	16110106.D	SEK0004-CAL2	1	6.17	611834		9.15	290382		11.80	510239		16.50	387799		19.10	470018
7	1234	16110107.D	SEK0004-CAL6	1	6.17	617596		9.15	316004		11.80	545628		16.50	421968		19.11	510441
8	1304	16110108.D	SEK0004-SCV1	1	6.17	597012		9.15	291617		11.80	499409		16.50	392161		19.11	458547
9	1335	16110109.D	CEJ0249-CBL1	1	6.17	614848		9.15	289388		11.80	510545		16.50	368129		19.11	416644
10	1405	16110110.D	CEJ0249-GPC1	1	6.17	603890		9.15	292547		11.80	512033		16.50	377529		19.11	408522
11	1435	16110111.D	16J0334-01RE1	1	6.17	602621		9.15	298378		11.80	519273		16.51	363015		19.12	630268
12	1505	16110112.D	SEK0004-CCV1	1	6.17	535677		9.15	301283		11.80	535083		16.50	418218		19.11	514785

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161101.b

AR Job No.: SEK0 Method: DFPPP.m Instrument: nt11.i Date: 01-NOV-2016

Page 754 of 780

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0916	16110101.D	SEK0004-TUN1		1	NO MANUAL INTEGRATION
0931	16110102.D	SEK0004-CAL4		1	NO MANUAL INTEGRATION
1034	16110103.D	SEK0004-CAL3		1	NO MANUAL INTEGRATION
1104	16110104.D	SEK0004-CAL1		1	NO MANUAL INTEGRATION
1134	16110105.D	SEK0004-CAL5		1	NO MANUAL INTEGRATION
1204	16110106.D	SEK0004-CAL2		1	NO MANUAL INTEGRATION
1234	16110107.D	SEK0004-CAL6		1	NO MANUAL INTEGRATION
1304	16110108.D	SEK0004-SCV1		1	NO MANUAL INTEGRATION
1335	16110109.D	CEJ0249-CBL1		1	NO MANUAL INTEGRATION
1405	16110110.D	CEJ0249-GPC1		1	NO MANUAL INTEGRATION
1435	16110111.D	16J0334-01RE1		1	Fluorene, Dibenzo(a,b)anthracene-d14,
1505	16110112.D	SEK0004-CCV1		1	NO MANUAL INTEGRATION



Extract Dilution Bench Sheet

ARI Job#: N/A Client ID: N/A
 Analyst: JW Date: 10/31/16

ARI Sample ID	Primary Dilution			Secondary Dilution				
	Extract Volume (uL)	Diluent/Diluent ID	Diluent Volume (uL)	Dilution Factor	Primary Dilution (uL)	Diluent/Diluent ID	Diluent Volume (uL)	Final Dilution Factor
16J0334-01PE1	50	DEN/E005333	450	10x				
16J0334-01PE1	5	↓	995	100x				
16J0334-01	100	↓	100	3x				
11/01/16								
16J0334-01PE1	50	DEN/E005333	450	10x				



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SEK0151

Instrument: NT11

Calibration: ZK00002

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SEK0151-TUN1	16111001.D	Tissue	11/10/16 11:23
Initial Cal Check	SEK0151-ICV1	16111002.D	Tissue	11/10/16 11:38
Blank	BEJ0794-BLK1	16111003.D	Tissue	11/10/16 12:40
LCS	BEJ0794-BS1	16111004.D	Tissue	11/10/16 13:09
ZZZZZ	16H0147-01	16111005.D	Tissue	11/10/16 13:39
ZZZZZ	16H0268-01	16111006.D	Tissue	11/10/16 14:10
PG-SMA-1-1-161011	16J0187-01	16111007.D	Tissue	11/10/16 14:40
PG-SMA-1-2-161011	16J0187-02	16111008.D	Tissue	11/10/16 15:10
PG-SMA-1-3-161011	16J0187-03	16111009.D	Tissue	11/10/16 15:40
PG-REF-PJ-1-161011	16J0187-04	16111010.D	Tissue	11/10/16 16:10
PG-REF-WS-1-161011	16J0187-05	16111011.D	Tissue	11/10/16 16:40
PG-REF-GP-1-161011	16J0187-06	16111012.D	Tissue	11/10/16 17:10
Calibration Check	SEK0151-CCV1	16111013.D	Tissue	11/10/16 17:40

Port Gamble Shellfish Monitoring**16J0187****Analysis****Matrix****Method****8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)****Tissue****EPA 8270D-SIM****Checklist: Analyst Checklist-SVOA**

#	Checklist Item	Response	Analyst Initials	Date
1	DFTPP abundance and time criteria met	YES	JLW	11/11/2016
2	DDT Breakdown <20% and Peak Tailing <=2	YES	JLW	11/11/2016
3	ICV/CCV Meets %D	YES	JLW	11/11/2016
4	ICAL/ICV/CCV Q Flag - NONE required	YES	JLW	11/11/2016
5	Internal Standard areas within 50-200%	YES	JLW	11/11/2016
6	Retention times within windows and Coelution summary checked	YES	JLW	11/11/2016
7	Manual integrations include summary and before/after pictures	YES	JLW	11/11/2016
8	Project specific requirements have been met	YES	JLW	11/11/2016
9	Sample dilution factors have been correctly applied	NA	JLW	11/11/2016
10	AUTOCHECK: Blank checked for exceedence of criteria	YES *	JLW	11/11/2016
11	AUTOCHECK: Check blank spike recovery	YES *	JLW	11/11/2016
12	AUTOCHECK: Check blank spike/blank spike duplicate RPD. If exceeded include outliers in exception report.	NA *	JLW	11/11/2016
13	AUTOCHECK: Compounds in method designated as blank spike compounds are present	YES *	JLW	11/11/2016
14	AUTOCHECK: Check %RPD between sample and sample duplicate	NA *	JLW	11/11/2016
15	AUTOCHECK: Matrix spike recoveries within limits	NA *	JLW	11/11/2016
16	AUTOCHECK: Matrix spike/matrix spike duplicate RPD within limits	NA *	JLW	11/11/2016
17	AUTOCHECK: List of compounds listed as spiked are present	NA *	JLW	11/11/2016
18	AUTOCHECK: Check SRM limits for exceedance	NA *	JLW	11/11/2016
19	AUTOCHECK: Check Surrogate recoveries	YES *	JLW	11/11/2016
20	AUTOCHECK: Checks Surrogate spike list against Analysis	YES *	JLW	11/11/2016
21	Analyst checklist completed (PEER)	YES	BB	11/11/2016
22	Data is locked and Status is Analyzed (PEER)	YES	BB	11/11/2016
23	Data file, Calibration, Sequence, Batch, and Cleanup PDF's are attached (PEER)	YES	BB	11/11/2016
24	Color warnings have been addressed and (or) qualified (PEER)	YES	BB	11/11/2016
25	Qualifiers have been correctly added (PEER)	YES	BB	11/11/2016
26	Checklist completed and status is peer reviewed (REVIEWER)	YES	BB	11/11/2016
27	Dilutions are linear (50-200%) and appropriate (REVIEWER)	NA	BB	11/11/2016
28	All requested samples have been reported (REVIEWER)	YES	BB	11/11/2016

Port Gamble Shellfish Monitoring

16J0187

<u>Analysis</u>	<u>Matrix</u>	<u>Method</u>
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Tissue	EPA 8270D-SIM

Checklist: Analyst Checklist-SVOA

#	Checklist Item	Response	Analyst Initials	Date
29	Color warnings have been addressed, narrated and (or) qualified (REVIEWER)	YES	BB	11/11/2016
30	List of samples in this sequence that will require additional runs-verify reshot created (ANALYST)	NA	JLW	11/11/2016
31	List of samples in this sequence that are re-analysis or dilutions of samples (ANALYST)	NA	JLW	11/11/2016
32	Additional Notes (ANALYST, PEER, and REVIEWER)	YES	BB	11/11/2016

Comments:

Special GPC column needed for Tissue . (10 day lag for set up & calibration and rushes)



ANALYSIS SEQUENCE

SEK0151

Instrument: NT11 Element Column ID: D005437
 Calibration ID: ZK00002 Tune File: 160805.U
 EPC Voltage: 2224

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SEK0151-TUN1	Tune 10	QC		1	E000099		
SEK0151-ICV1	SIM PAH 250	QC		2	E004262	E002870	
BEJ0794-BLK1	Blank	QC		3		E002870	
BEJ0794-BS1	LCS	QC		4		E002870	
16H0147-01	PG-T0-MUS-COC-160816	SIM PAH Low (0.01 ug/L - 0.	A 02	5		E002870	
16H0268-01	PG-T0B-MUS-COC-160829	SIM PAH Low (0.01 ug/L - 0.	A 02	6		E002870	
16J0187-01	PG-SMA-1-1-161011	SIM PAH Low (0.01 ug/L - 0.	A 02	7		E002870	
16J0187-02	PG-SMA-1-2-161011	SIM PAH Low (0.01 ug/L - 0.	A 02	8		E002870	
16J0187-03	PG-SMA-1-3-161011	SIM PAH Low (0.01 ug/L - 0.	A 02	9		E002870	
16J0187-04	PG-REF-PJ-1-161011	SIM PAH Low (0.01 ug/L - 0.	A 02	10		E002870	
16J0187-05	PG-REF-WS-1-161011	SIM PAH Low (0.01 ug/L - 0.	A 02	11		E002870	
16J0187-06	PG-REF-GP-1-161011	SIM PAH Low (0.01 ug/L - 0.	A 02	12		E002870	
SEK0151-CCV1	SIM PAH 250	QC		13	E004262	E002870	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161110.b

Time	Filename	LabID	ClientId	DF																
1	123	16111001.D	SEK0151-TUN1		1	INO	ISTDS	FOUND												
2	138	16111002.D	SEK0151-ICV1		1	5.97	632880	8.93	305083	11.57	515735	16.26	372029	18.79	432343					
3	1240	16111003.D	BEJ0794-BLK1		1	5.97	622424	8.94	294676	11.57	522842	16.26	352800	18.80	416680					
4	1309	16111004.D	BEJ0794-BS1		1	5.97	622901	8.93	305537	11.57	532614	16.26	378849	18.79	442667					
5	1339	16111005.D	16H0147-01		1	5.96	614914	6.93	288971	11.57	489101	16.26	315458	18.79	442359					
6	1410	16111006.D	16H0268-01		1	5.96	608197	6.93	302104	11.57	499363	16.26	329608	18.79	511935					
7	1440	16111007.D	16J0187-01		1	5.97	593102	6.93	299230	11.57	518256	16.26	350799	18.79	459966					
8	1510	16111008.D	16J0187-02		1	5.96	584381	6.93	295258	11.57	498327	16.26	320622	18.79	431086					
9	1540	16111009.D	16J0187-03		1	5.97	583069	6.93	297549	11.57	514668	16.26	354350	18.79	462754					
10	1610	16111010.D	16J0187-04		1	5.97	596285	6.93	303646	11.57	516573	16.26	342456	18.79	470835					
11	1640	16111011.D	16J0187-05		1	5.97	578688	6.93	299595	11.57	527262	16.26	370771	18.79	479814					
12	1710	16111012.D	16J0187-06		1	5.97	587361	6.93	299483	11.57	512054	16.26	339465	18.79	449995					
13	1740	16111013.D	SEK0151-CCV1		1	5.97	573338	8.93	309681	11.57	541613	16.26	400675	18.79	478346					

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20161110.b

ARF Job No.: SEK0 Method: DFPPP.m Instrument: nt11.i Date: 10-NOV-2016

Page 761 of 780

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1123	16111001.D	SEK0151-TUN1		1	NO MANUAL INTEGRATION
1138	16111002.D	SEK0151-ICV1		1	NO MANUAL INTEGRATION
1240	16111003.D	BEJ0794-BLK1		1	NO MANUAL INTEGRATION
1309	16111004.D	BEJ0794-BS1		1	NO MANUAL INTEGRATION
1339	16111005.D	16H0147-01		1	NO MANUAL INTEGRATION
1410	16111006.D	16H0268-01		1	NO MANUAL INTEGRATION
1440	16111007.D	16J0187-01		1	NO MANUAL INTEGRATION
1510	16111008.D	16J0187-02		1	NO MANUAL INTEGRATION
1540	16111009.D	16J0187-03		1	NO MANUAL INTEGRATION
1610	16111010.D	16J0187-04		1	NO MANUAL INTEGRATION
1640	16111011.D	16J0187-05		1	NO MANUAL INTEGRATION
1710	16111012.D	16J0187-06		1	NO MANUAL INTEGRATION
1740	16111013.D	SEK0151-CCV1		1	NO MANUAL INTEGRATION



SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG/WO:	<u>16J0187</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Sequence:	<u>SEK0004</u>	Instrument:	<u>NT11</u>
Calibration:	<u>ZK00002</u>	Calibration Date:	<u>11/01/2016</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
CEJ0249-GPC1 (Solid)		Lab File ID: 16110110.D			Analyzed: 11/01/16 14:05			
2-Methylnaphthalene-d10	150.00	91.5	80 - 110	7.143	7.142833	0.0002	N/A	
Dibenzo[a,h]anthracene-d14	150.00	105	80 - 110	21.177	21.17667	0.0003	N/A	
Fluoranthene-d10	150.00	95.6	80 - 110	13.872	13.877	-0.0050	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Sequence: SEK0151
Calibration: ZK00002

SDG/WO: 16J0187
Project: Port Gamble Shellfish Monitoring
Instrument: NT11
Calibration Date: 11/01/2016

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SEK0151-ICV1 (Tissue)			Lab File ID: 16111002.D			Analyzed: 11/10/16 11:38		
2-Methylnaphthalene-d10	250.00	94.4	80 - 120	6.942	7.142833	-0.2008	N/A	
Dibenzo[a,h]anthracene-d14	250.00	96.4	80 - 120	20.739	21.17667	-0.4377	N/A	
Fluoranthene-d10	250.00	93.2	80 - 120	13.646	13.877	-0.2310	N/A	
BEJ0794-BLK1 (Tissue)			Lab File ID: 16111003.D			Analyzed: 11/10/16 12:40		
2-Methylnaphthalene-d10	15.000	51.4	30 - 160	6.942	7.142833	-0.2008	N/A	
Dibenzo[a,h]anthracene-d14	15.000	81.4	30 - 160	20.739	21.17667	-0.4377	N/A	
Fluoranthene-d10	15.000	74.8	30 - 160	13.646	13.877	-0.2310	N/A	
BEJ0794-BS1 (Tissue)			Lab File ID: 16111004.D			Analyzed: 11/10/16 13:09		
2-Methylnaphthalene-d10	15.000	47.6	30 - 160	6.932	7.142833	-0.2108	N/A	
Dibenzo[a,h]anthracene-d14	15.000	71.9	30 - 160	20.728	21.17667	-0.4487	N/A	
Fluoranthene-d10	15.000	70.7	30 - 160	13.646	13.877	-0.2310	N/A	
16J0187-01 (Tissue)			Lab File ID: 16111007.D			Analyzed: 11/10/16 14:40		
2-Methylnaphthalene-d10	14.970	64.1	30 - 160	6.932	7.142833	-0.2108	N/A	
Dibenzo[a,h]anthracene-d14	14.970	88.1	30 - 160	20.728	21.17667	-0.4487	N/A	
Fluoranthene-d10	14.970	80.8	30 - 160	13.646	13.877	-0.2310	N/A	
16J0187-02 (Tissue)			Lab File ID: 16111008.D			Analyzed: 11/10/16 15:10		
2-Methylnaphthalene-d10	14.793	64.9	30 - 160	6.932	7.142833	-0.2108	N/A	
Dibenzo[a,h]anthracene-d14	14.793	93.1	30 - 160	20.728	21.17667	-0.4487	N/A	
Fluoranthene-d10	14.793	80.3	30 - 160	13.646	13.877	-0.2310	N/A	
16J0187-03 (Tissue)			Lab File ID: 16111009.D			Analyzed: 11/10/16 15:40		
2-Methylnaphthalene-d10	14.808	65.1	30 - 160	6.932	7.142833	-0.2108	N/A	
Dibenzo[a,h]anthracene-d14	14.808	83.4	30 - 160	20.728	21.17667	-0.4487	N/A	
Fluoranthene-d10	14.808	75.7	30 - 160	13.646	13.877	-0.2310	N/A	
16J0187-04 (Tissue)			Lab File ID: 16111010.D			Analyzed: 11/10/16 16:10		
2-Methylnaphthalene-d10	14.735	65.2	30 - 160	6.932	7.142833	-0.2108	N/A	
Dibenzo[a,h]anthracene-d14	14.735	82.5	30 - 160	20.728	21.17667	-0.4487	N/A	
Fluoranthene-d10	14.735	74.4	30 - 160	13.646	13.877	-0.2310	N/A	



SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>16J0187</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Port Gamble Shellfish Monitoring</u>
Sequence: <u>SEK0151</u>	Instrument: <u>NT11</u>
Calibration: <u>ZK00002</u>	Calibration Date: <u>11/01/2016</u>

Surrogate Compound	Spike Level ug/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
16J0187-05 (Tissue)		Lab File ID: 16111011.D			Analyzed: 11/10/16 16:40			
2-Methylnaphthalene-d10	14.778	62.6	30 - 160	6.932	7.142833	-0.2108	N/A	
Dibenzo[a,h]anthracene-d14	14.778	83.2	30 - 160	20.728	21.17667	-0.4487	N/A	
Fluoranthene-d10	14.778	77.3	30 - 160	13.646	13.877	-0.2310	N/A	
16J0187-06 (Tissue)		Lab File ID: 16111012.D			Analyzed: 11/10/16 17:10			
2-Methylnaphthalene-d10	15.000	62.9	30 - 160	6.932	7.142833	-0.2108	N/A	
Dibenzo[a,h]anthracene-d14	15.000	88.2	30 - 160	20.728	21.17667	-0.4487	N/A	
Fluoranthene-d10	15.000	77.2	30 - 160	13.646	13.877	-0.2310	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SEK0004

Instrument: NT11

Calibration: ZK00002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SEK0004-SCV1)		(Tissue)	Lab File ID: 16110108.D			Analyzed: 11/01/16 13:04			
Naphthalene-d8	597012	6.165	609556	6.166	98	50 - 200	0.0010	+/-0.50	
Acenaphthene-d10	291617	9.145	316851	9.145	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	499409	11.797	546133	11.798	91	50 - 200	0.0010	+/-0.50	
Chrysene-d12	392161	16.503	417210	16.504	94	50 - 200	0.0010	+/-0.50	
Perylene-d12	458547	19.11	524443	19.101	87	50 - 200	-0.0090	+/-0.50	
GPC Check (CEJ0249-GPC1)		(Solid)	Lab File ID: 16110110.D			Analyzed: 11/01/16 14:05			
Naphthalene-d8	603890	6.166	609556	6.166	99	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	292547	9.145	316851	9.145	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	512033	11.798	546133	11.798	94	50 - 200	0.0000	+/-0.50	
Chrysene-d12	377529	16.504	417210	16.504	90	50 - 200	0.0000	+/-0.50	
Perylene-d12	408522	19.11	524443	19.101	78	50 - 200	-0.0090	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SEK0151

Instrument: NT11

Calibration: ZK00002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SEK0151-ICV1)		(Tissue)	Lab File ID: 16111002.D			Analyzed: 11/10/16 11:38			
Naphthalene-d8	632880	5.965	609556	6.166	104	50 - 200	0.2010	+/-0.50	
Acenaphthene-d10	305083	8.928	316851	9.145	96	50 - 200	0.2170	+/-0.50	
Phenanthrene-d10	515735	11.571	546133	11.798	94	50 - 200	0.2270	+/-0.50	
Chrysene-d12	372029	16.264	417210	16.504	89	50 - 200	0.2400	+/-0.50	
Perylene-d12	432343	18.788	524443	19.101	82	50 - 200	0.3130	+/-0.50	
Blank (BEJ0794-BLK1)		(Tissue)	Lab File ID: 16111003.D			Analyzed: 11/10/16 12:40			
Naphthalene-d8	622424	5.965	609556	6.166	102	50 - 200	0.2010	+/-0.50	
Acenaphthene-d10	294676	8.939	316851	9.145	93	50 - 200	0.2060	+/-0.50	
Phenanthrene-d10	522842	11.571	546133	11.798	96	50 - 200	0.2270	+/-0.50	
Chrysene-d12	352800	16.264	417210	16.504	85	50 - 200	0.2400	+/-0.50	
Perylene-d12	416680	18.797	524443	19.101	79	50 - 200	0.3040	+/-0.50	
LCS (BEJ0794-BS1)		(Tissue)	Lab File ID: 16111004.D			Analyzed: 11/10/16 13:09			
Naphthalene-d8	622901	5.965	609556	6.166	102	50 - 200	0.2010	+/-0.50	
Acenaphthene-d10	305537	8.928	316851	9.145	96	50 - 200	0.2170	+/-0.50	
Phenanthrene-d10	532614	11.571	546133	11.798	98	50 - 200	0.2270	+/-0.50	
Chrysene-d12	378849	16.264	417210	16.504	91	50 - 200	0.2400	+/-0.50	
Perylene-d12	442667	18.787	524443	19.101	84	50 - 200	0.3140	+/-0.50	
PG-SMA-1-1-161011 (16J0187-01)		(Tissue)	Lab File ID: 16111007.D			Analyzed: 11/10/16 14:40			
Naphthalene-d8	593102	5.965	609556	6.166	97	50 - 200	0.2010	+/-0.50	
Acenaphthene-d10	299230	8.928	316851	9.145	94	50 - 200	0.2170	+/-0.50	
Phenanthrene-d10	518256	11.571	546133	11.798	95	50 - 200	0.2270	+/-0.50	
Chrysene-d12	350799	16.264	417210	16.504	84	50 - 200	0.2400	+/-0.50	
Perylene-d12	459966	18.788	524443	19.101	88	50 - 200	0.3130	+/-0.50	
PG-SMA-1-2-161011 (16J0187-02)		(Tissue)	Lab File ID: 16111008.D			Analyzed: 11/10/16 15:10			
Naphthalene-d8	584381	5.955	609556	6.166	96	50 - 200	0.2110	+/-0.50	
Acenaphthene-d10	295258	8.928	316851	9.145	93	50 - 200	0.2170	+/-0.50	
Phenanthrene-d10	498327	11.571	546133	11.798	91	50 - 200	0.2270	+/-0.50	
Chrysene-d12	320622	16.264	417210	16.504	77	50 - 200	0.2400	+/-0.50	
Perylene-d12	431086	18.788	524443	19.101	82	50 - 200	0.3130	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SEK0151

Instrument: NT11

Calibration: ZK00002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PG-SMA-1-3-161011 (16J0187-03)		(Tissue)	Lab File ID: 16111009.D		Analyzed: 11/10/16 15:40				
Naphthalene-d8	583069	5.965	609556	6.166	96	50 - 200	0.2010	+/-0.50	
Acenaphthene-d10	297549	8.928	316851	9.145	94	50 - 200	0.2170	+/-0.50	
Phenanthrene-d10	514668	11.571	546133	11.798	94	50 - 200	0.2270	+/-0.50	
Chrysene-d12	354350	16.264	417210	16.504	85	50 - 200	0.2400	+/-0.50	
Perylene-d12	462754	18.787	524443	19.101	88	50 - 200	0.3140	+/-0.50	
PG-REF-PJ-1-161011 (16J0187-04)		(Tissue)	Lab File ID: 16111010.D		Analyzed: 11/10/16 16:10				
Naphthalene-d8	596285	5.965	609556	6.166	98	50 - 200	0.2010	+/-0.50	
Acenaphthene-d10	303646	8.928	316851	9.145	96	50 - 200	0.2170	+/-0.50	
Phenanthrene-d10	516573	11.571	546133	11.798	95	50 - 200	0.2270	+/-0.50	
Chrysene-d12	342456	16.264	417210	16.504	82	50 - 200	0.2400	+/-0.50	
Perylene-d12	470835	18.788	524443	19.101	90	50 - 200	0.3130	+/-0.50	
PG-REF-WS-1-161011 (16J0187-05)		(Tissue)	Lab File ID: 16111011.D		Analyzed: 11/10/16 16:40				
Naphthalene-d8	578688	5.965	609556	6.166	95	50 - 200	0.2010	+/-0.50	
Acenaphthene-d10	299595	8.928	316851	9.145	95	50 - 200	0.2170	+/-0.50	
Phenanthrene-d10	527262	11.571	546133	11.798	97	50 - 200	0.2270	+/-0.50	
Chrysene-d12	370771	16.264	417210	16.504	89	50 - 200	0.2400	+/-0.50	
Perylene-d12	479814	18.787	524443	19.101	91	50 - 200	0.3140	+/-0.50	
PG-REF-GP-1-161011 (16J0187-06)		(Tissue)	Lab File ID: 16111012.D		Analyzed: 11/10/16 17:10				
Naphthalene-d8	587361	5.965	609556	6.166	96	50 - 200	0.2010	+/-0.50	
Acenaphthene-d10	299483	8.928	316851	9.145	95	50 - 200	0.2170	+/-0.50	
Phenanthrene-d10	512054	11.571	546133	11.798	94	50 - 200	0.2270	+/-0.50	
Chrysene-d12	339465	16.264	417210	16.504	81	50 - 200	0.2400	+/-0.50	
Perylene-d12	449995	18.787	524443	19.101	86	50 - 200	0.3140	+/-0.50	

HOLDING TIME SUMMARY

Analysis: EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PG-SMA-1-1-161011 16J0187-01	10/11/16 11:08	10/12/16 07:12	10/26/16 15:10	15	365	11/10/16 14:40	15	40	
PG-SMA-1-2-161011 16J0187-02	10/11/16 11:05	10/12/16 07:12	10/26/16 15:10	15	365	11/10/16 15:10	15	40	
PG-SMA-1-3-161011 16J0187-03	10/11/16 11:10	10/12/16 07:12	10/26/16 15:10	15	365	11/10/16 15:40	15	40	
PG-REF-PJ-1-161011 16J0187-04	10/11/16 12:37	10/12/16 07:12	10/26/16 15:10	15	365	11/10/16 16:10	15	40	
PG-REF-WS-1-161011 16J0187-05	10/11/16 12:15	10/12/16 07:12	10/26/16 15:10	15	365	11/10/16 16:40	15	40	
PG-REF-GP-1-161011 16J0187-06	10/11/16 12:50	10/12/16 07:12	10/26/16 15:10	15	365	11/10/16 17:10	15	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Matrix: Tissue

Instrument: NT11

Analyte	MDL	RL	Units
Naphthalene	0.50	0.60	ug/kg
2-Methylnaphthalene	0.50	0.50	ug/kg
Acenaphthylene	0.50	0.50	ug/kg
Acenaphthene	0.50	0.50	ug/kg
Fluorene	0.50	0.50	ug/kg
Phenanthrene	0.50	0.50	ug/kg
Anthracene	0.50	0.50	ug/kg
Fluoranthene	0.50	0.50	ug/kg
Pyrene	0.50	0.50	ug/kg
Benzo(a)anthracene	0.50	0.50	ug/kg
Chrysene	0.50	0.50	ug/kg
Benzo(b)fluoranthene	0.50	0.50	ug/kg
Benzo(k)fluoranthene	0.50	0.50	ug/kg
Benzo(e)pyrene	0.50	0.50	ug/kg
Benzo(a)pyrene	0.50	0.50	ug/kg
Indeno(1,2,3-cd)pyrene	0.50	0.50	ug/kg
Dibenzo(a,h)anthracene	0.50	0.50	ug/kg
Benzo(g,h,i)perylene	0.50	0.50	ug/kg
Perylene	0.50	0.50	ug/kg



Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA-1-1-161011

SM 2540 G-97

TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-01

File ID:

Sampled: 10/11/16 11:08

Prepared: 10/26/16 14:16

Analyzed: 10/26/16 15:52

Solids (wt%): 0.00

Preparation: No Prep Extractions

Initial/Final: 1 g / 1 g

Batch: BEJ0801

Sequence:

Calibration:

Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	17.3	1		0.0400	



Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA-1-2-161011

SM 2540 G-97

TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-02

File ID:

Sampled: 10/11/16 11:05

Prepared: 10/26/16 14:16

Analyzed: 10/26/16 15:52

Solids (wt%): 0.00

Preparation: No Prep Extractions

Initial/Final: 1 g / 1 g

Batch: BEJ0801

Sequence:

Calibration:

Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	16.4	1		0.0400	



Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA-1-3-161011

SM 2540 G-97

TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-03

File ID:

Sampled: 10/11/16 11:10

Prepared: 10/26/16 14:16

Analyzed: 10/26/16 15:52

Solids (wt%): 0.00

Preparation: No Prep Extractions

Initial/Final: 1 g / 1 g

Batch: BEJ0801

Sequence:

Calibration:

Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	15.9	1		0.0400	



Form I
INORGANIC ANALYSIS DATA SHEET

PG-REF-PJ-1-161011

SM 2540 G-97

TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-04

File ID:

Sampled: 10/11/16 12:37

Prepared: 10/26/16 14:16

Analyzed: 10/26/16 15:52

Solids (wt%): 0.00

Preparation: No Prep Extractions

Initial/Final: 1 g / 1 g

Batch: BEJ0801

Sequence:

Calibration:

Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	15.7	1		0.0400	



Form I
INORGANIC ANALYSIS DATA SHEET

PG-REF-WS-1-161011

SM 2540 G-97

TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-05

File ID:

Sampled: 10/11/16 12:15

Prepared: 10/26/16 14:16

Analyzed: 10/26/16 15:52

Solids (wt%): 0.00

Preparation: No Prep Extractions

Initial/Final: 1 g / 1 g

Batch: BEJ0801

Sequence:

Calibration:

Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	17.1	1		0.0400	



Form I
INORGANIC ANALYSIS DATA SHEET

PG-REF-GP-1-161011

SM 2540 G-97

TotalAnalytes

Laboratory: Analytical Resources, Inc.

Project: Port Gamble Shellfish Monitoring

Client: Anchor QEA, LLC

SDG: 16J0187

Matrix: Tissue

Laboratory ID: 16J0187-06

File ID:

Sampled: 10/11/16 12:50

Prepared: 10/26/16 14:16

Analyzed: 10/26/16 15:52

Solids (wt%): 0.00

Preparation: No Prep Extractions

Initial/Final: 1 g / 1 g

Batch: BEJ0801

Sequence:

Calibration:

Instrument: NA

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	18.8	1		0.0400	



PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Batch: BEJ0801

Batch Matrix: Tissue

Preparation: No Prep Extractions

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PG-SMA-1-1-161011	16J0187-01		10/26/16 14:16	
PG-SMA-1-2-161011	16J0187-02		10/26/16 14:16	
PG-SMA-1-3-161011	16J0187-03		10/26/16 14:16	
PG-REF-PJ-1-161011	16J0187-04		10/26/16 14:16	
PG-REF-WS-1-161011	16J0187-05		10/26/16 14:16	
PG-REF-GP-1-161011	16J0187-06		10/26/16 14:16	

TOTAL SOLIDS BENCHSHEET

Method: PSEP 1986
(dry at 103-105 C)

Instrumentation

Batch:	BEJ0801
Date:	10/26/2016 15:52
Analyst:	YI
Drying Oven:	15
Analytical Balance:	B139298002

Batch drying time	
record times as mm/dd/yy hh:mm	
date/time in oven:	10/26/2016 14:25
date/time out:	10/27/2016 7:45
elapsed hrs:	17.3

TS (%) calculated as:

Final dry wt (g) = (Dry Wt - Tare Wt)

TS = (Final Dry Wt X 100)/(sample & dish -dish tare)

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
16H0147-01	1.1700	12.1300	3.2100	2.04	18.61%	No
16H0268-01	1.1600	11.4300	3.3100	2.15	20.93%	No
16J0187-01	1.1700	11.7000	2.9900	1.82	17.28%	No
16J0187-02	1.1600	11.2700	2.8200	1.66	16.42%	No
16J0187-03	1.1700	11.1200	2.7500	1.58	15.88%	No
16J0187-04	1.1600	11.1100	2.7200	1.56	15.68%	No
16J0187-05	1.1600	11.5600	2.9400	1.78	17.12%	No
16J0187-06	1.1700	11.0400	3.0300	1.86	18.84%	No

TOTAL SOLIDS BENCHSHEET

Method: PSEP 1986
(dry at 103-105 C)

Batch: BEJ0801
Date: 10/26/2016 15:52
Analyst: *YL*
Drying Oven: *015*
Analytical Balance: *8139258402*

Instrumentation

Batch drying time
record times as mm/dd/yy hh:mm
date/time in oven: *10/26/16 14:25 100^o*
date/time out: *10/27/16 07:45 102^o*
elapsed hrs: *0.0*

TS (%) calculated as:

Final dry wt (g) = (Dry Wt - Tare Wt)

TS = (Final Dry Wt X 100)/(sample & dish -dish tare)

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
16H0147-01	1.17	17.13	3.21			No
16H0268-01	1.16	11.43	3.31			No
16J0187-01	1.17	11.74	2.99			No
16J0187-02	1.16	11.27	2.82			No
16J0187-03	1.17	11.12	2.75			No
16J0187-04	1.16	11.11	2.72			No
16J0187-05	1.16	11.56	2.94			No
16J0187-06	1.17	11.44	3.43			No

*IN Dessicator @ 0745
10/27/16 SP*

*out of dessicator @ 0855
10/27/16 SP*

HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PG-SMA-1-1-161011 16J0187-01	10/11/16 11:08	10/12/16 07:12	10/26/16 14:16	15	365	10/26/16 15:52	15	365	
PG-SMA-1-2-161011 16J0187-02	10/11/16 11:05	10/12/16 07:12	10/26/16 14:16	15	365	10/26/16 15:52	15	365	
PG-SMA-1-3-161011 16J0187-03	10/11/16 11:10	10/12/16 07:12	10/26/16 14:16	15	365	10/26/16 15:52	15	365	
PG-REF-PJ-1-161011 16J0187-04	10/11/16 12:37	10/12/16 07:12	10/26/16 14:16	15	365	10/26/16 15:52	15	365	
PG-REF-WS-1-161011 16J0187-05	10/11/16 12:15	10/12/16 07:12	10/26/16 14:16	15	365	10/26/16 15:52	15	365	
PG-REF-GP-1-161011 16J0187-06	10/11/16 12:50	10/12/16 07:12	10/26/16 14:16	15	365	10/26/16 15:52	15	365	

* Indicates hold time exceedance.



METHOD DETECTION AND REPORTING LIMITS

SM 2540 G-97

Laboratory: Analytical Resources, Inc.

SDG: 16J0187

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Matrix: Tissue

Instrument:

Analyte	MDL	RL	Units
Total Solids		0.0400	%



Prepared for: Anchor QEA, LLC

Project: Port Gamble

Analytical Data Package

Analysis: PCB Congeners by EPA 1668A

Maxxam Job #: B6N4556

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



I hereby certify that to the best of my knowledge all analytical data presented in this report:

- Has been checked for completeness.
- Is accurate, legible and error free.
- Has been conducted in accordance with approved SOP's and that all deviations are clearly listed in the Case Narrative.
- This report has been generated in .pdf format.

Review Performed By:

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
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www.maxxamanalytics.com

Glossary of Terms

- **MDL** represents the Minimum Detection Limit below which the laboratory cannot confirm the presence of the analyte to the 95% confidence level.
- **RDL** represents the Reportable Detection Limit and is usually set at a value equivalent to the lowest calibration standard
- **Acceptance Criteria** are values used by the laboratory to determine that a process is in control.
- **Accuracy** is the degree of agreement of a measured value with the true or expected value.
- **Calibration Standards** are a set of solutions containing the analytes of interest at a specified concentration.
- **Calibration Verification Standard** consists of a calibration standard solution of intermediate concentration (mid-point initial calibration level) used to assess whether the initial calibration is still valid
- **Certified Reference Material** is a stable homogenous material that is certified by repetitive analysis from a supplier who is certified to generate said materials.
- **Internal Standard** a deuterated or ¹³C-labelled analyte that is added to a sample extract prior to instrumental analysis to compensate for injection variability.
- **Isomer** is a member of a group of compounds that differ from each other only in the locations of a specific number of common substituent atoms or groups of atoms on the parent compound.
- **Method Blank** is a laboratory control sample using reagents that are known to be free of contamination.
- **Precision** is the degree of agreement between the data generated from repetitive measurements under specific conditions.
- **Quality Assurance** is a system of activities whose purpose is to provide the producer or user of a product with the assurance that the product meets a defined standard of quality.
- **Quality Control** is the overall system of activities whose purpose is to control the quality of a product so that it meets the needs of the end user.
- **RSD** is the relative standard deviation.
- **Blank Spike** is a laboratory control sample that has been fortified with native analytes of interest.
- **Window Defining Mixture** is a solution containing only the earliest and latest eluting congeners within each homologous group of target analytes on a specified GC column.
- **RPD** or Relative Percent Difference. A measure used to compare duplicate sample analysis.
- **EMPC/NDR** – Peak detected does not meet ratio criteria and has resulted in a higher detection limit.



1.0 Project Narrative

Maxxam Analytics International
6740 Campobello Rd. Mississauga,
Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

PROJECT NARRATIVE

Maxxam Analytics
Client Project #: PORT GAMBLE



Client: Anchor QEA, LLC
Client Project: PORT GAMBLE

I. SAMPLE RECEIPT/ANALYSIS

a) Sample Listing

Maxxam ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Date Run	Initial Calibration
PCB Congeners in Tissue (1668A)						
DIS272	PG-T0-MUS-COC-160816 16H147-01	2016/08/16	2016/10/28	2016/12/28	2016/12/06	2016/11/29
DIS273	PG-T0-MUS-COC-160829 16H0268-01	2016/08/29	2016/10/28	2016/12/28	2016/12/06	2016/11/29
DIS274	PG-SMA-1-1-161011 16J0187-01	2016/10/11	2016/10/28	2016/12/28	2016/12/06	2016/11/29
DIS275	PG-SMA-1-2-161011 16J0187-02	2016/10/11	2016/10/28	2016/12/28	2016/12/06	2016/11/29
DIS275 Dup	PG-SMA-1-2-161011 16J0187-02	2016/10/11	2016/10/28	2016/12/28	2016/12/06	2016/11/29
DIS276	PG-SMA-1-3-161011 16J0187-03	2016/10/11	2016/10/28	2016/12/28	2016/12/06	2016/11/29
DIS277	PG-REF-PJ-1-161011 16J0187-04	2016/10/11	2016/10/28	2016/12/28	2016/12/06	2016/11/29
DIS278	PG-REF-WS-1-161011 16J0187-05	2016/10/11	2016/10/28	2016/12/28	2016/12/06	2016/11/29
DIS279	PG-REF-GP-1-161011 16J0187-06A	2016/10/11	2016/10/28	2016/12/28	2016/12/06	2016/11/29

Run Date is defined as the date of injection of the last calibration standard (12 hours or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

b) Shipping Problems: none encountered

c) Documentation Problems: Revised CoC received to include samples DIS278-279. Report revised to include PCB totals for DIS278 and DIS279. Level updated with revised report and CLP forms.

II. SAMPLE PREP:

No problems encountered

III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis to include dilution data. Please note LCS Dup 5x dilution data not required (see QC run log cover sheet).

a) Hold Times: all within recommended hold times

b) Instrument Calibration: all within control limits

c) Quality Control: All applicable QC meets control criteria, except where otherwise noted.

d) All analytes requiring manual intergration(s) are noted on the sample chromatograms

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for other than the conditions detailed above.

In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. Release of the data contained in this data package has been authorized by the cognizant laboratory official or his/her designee, as verified by this signature.

M Di Grazia

2017/01/
Date



2.0 Summary Report

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Your Project #: PORT GAMBLE
 Site#: PORT GAMBLE
 Your C.O.C. #: na

Attention:Anchor QEA Reporting Group

Anchor QEA, LLC
 720 Olive Way, Suite 1900
 Seattle, WA
 USA 98101

Report Date: 2017/01/12
 Report #: R4321974
 Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B6N4556
Received: 2016/10/28, 14:56

Sample Matrix: TISSUE
 # Samples Received: 8

Analyses	Quantity	Date	Date	Laboratory Method	Reference
		Extracted	Analyzed		
PCB Congeners in Tissue (1668A)	8	2016/11/28	2016/12/06	BRL SOP-00408 BRL SOP-00409	EPA 1668A m

Remarks:
 Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

U = Undetected at the limit of quantitation.

J = Estimated concentration between the EDL & RDL.

B = Blank Contamination.

Q = One or more quality control criteria failed.

E = Analyte concentration exceeds the maximum concentration level.

K = Estimated maximum possible concentration due to ion abundance ratio failure.

Your Project #: PORT GAMBLE
Site#: PORT GAMBLE
Your C.O.C. #: na

Attention:Anchor QEA Reporting Group

Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA
USA 98101

Report Date: 2017/01/12
Report #: R4321974
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B6N4556
Received: 2016/10/28, 14:56

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Melissa Di Grazia, Customer Experience Team Lead
Email: MDiGrazia@maxxam.ca
Phone# (905) 817-5700

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS272							
Sampling Date		2016/08/16 08:00							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160816 16H147-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

PCBs									
2-MonoCB-(1)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
3-MonoCB-(2)	ng/g	0.00081 U	0.00081	0.0098	N/A	N/A	N/A	N/A	4779396
4-MonoCB-(3)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
2,2'-DiCB-(4)	ng/g	0.018 U	0.018	0.0098	N/A	N/A	N/A	N/A	4779396
2,3-DiCB-(5)	ng/g	0.0070 U	0.0070	0.0098	N/A	N/A	N/A	N/A	4779396
2,3'-DiCB-(6)	ng/g	0.0055 U	0.0055	0.0098	N/A	N/A	N/A	N/A	4779396
2,4-DiCB-(7)	ng/g	0.0062 U	0.0062	0.0098	N/A	N/A	N/A	N/A	4779396
2,4'-DiCB-(8)	ng/g	0.0051 U	0.0051	0.0098	N/A	N/A	N/A	N/A	4779396
2,5-DiCB-(9)	ng/g	0.0054 U	0.0054	0.0098	N/A	N/A	N/A	N/A	4779396
2,6-DiCB-(10)	ng/g	0.021 U	0.021	0.0098	N/A	N/A	N/A	N/A	4779396
3,3'-DiCB-(11)	ng/g	0.0083 U (1)	0.0083	0.0098	N/A	N/A	N/A	N/A	4779396
DiCB-(12)+(13)	ng/g	0.0063 U	0.0063	0.020	N/A	N/A	N/A	N/A	4779396
3,5-DiCB-(14)	ng/g	0.0054 U	0.0054	0.0098	N/A	N/A	N/A	N/A	4779396
4,4'-DiCB-(15)	ng/g	0.012 U	0.012	0.0098	N/A	N/A	N/A	N/A	4779396
2,2',3-TriCB-(16)	ng/g	0.0036 U	0.0036	0.0098	N/A	N/A	N/A	N/A	4779396
2,2',4-TriCB-(17)	ng/g	0.0032 U	0.0032	0.0098	N/A	N/A	N/A	N/A	4779396
TriCB-(18)+(30)	ng/g	0.0042 J	0.0026	0.020	N/A	N/A	N/A	N/A	4779396
2,2',6-TriCB-(19)	ng/g	0.0019 U	0.0019	0.0098	N/A	N/A	N/A	N/A	4779396
TriCB-(20) + (28)	ng/g	0.0126 J	0.00073	0.020	N/A	N/A	N/A	N/A	4779396
TriCB-(21)+(33)	ng/g	0.0025 U (1)	0.0025	0.020	N/A	N/A	N/A	N/A	4779396
2,3,4'-TriCB-(22)	ng/g	0.0013 U (1)	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
2,3,5-TriCB-(23)	ng/g	0.00077 U	0.00077	0.0098	N/A	N/A	N/A	N/A	4779396
2,3,6-TriCB-(24)	ng/g	0.0028 U	0.0028	0.0098	N/A	N/A	N/A	N/A	4779396
2,3',4-TriCB-(25)	ng/g	0.00094 U (1)	0.00094	0.0098	N/A	N/A	N/A	N/A	4779396
TriCB-(26)+(29)	ng/g	0.00149 J	0.00067	0.020	N/A	N/A	N/A	N/A	4779396
2,3',6-TriCB-(27)	ng/g	0.0022 U	0.0022	0.0098	N/A	N/A	N/A	N/A	4779396
2,4',5-TriCB-(31)	ng/g	0.00622 J	0.00065	0.0098	N/A	N/A	N/A	N/A	4779396
2,4',6-TriCB-(32)	ng/g	0.0020 U	0.0020	0.0098	N/A	N/A	N/A	N/A	4779396

EDL = Estimated Detection Limit
RDL = Reportable Detection Limit
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS272							
Sampling Date		2016/08/16 08:00							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160816 16H147-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00068 U	0.00068	0.0098	N/A	N/A	N/A	N/A	4779396
33'4'-TriCB-(35)	ng/g	0.00071 U	0.00071	0.0098	N/A	N/A	N/A	N/A	4779396
33'5'-TriCB-(36)	ng/g	0.00061 U	0.00061	0.0098	N/A	N/A	N/A	N/A	4779396
344'-TriCB-(37)	ng/g	0.0021 J	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
345-TriCB-(38)	ng/g	0.00073 U	0.00073	0.0098	N/A	N/A	N/A	N/A	4779396
34'5'-TriCB-(39)	ng/g	0.00074 U	0.00074	0.0098	N/A	N/A	N/A	N/A	4779396
TetraCB-(40)+(41)+(71)	ng/g	0.0064 U (1)	0.0064	0.029	N/A	N/A	N/A	N/A	4779396
22'34'-TetraCB-(42)	ng/g	0.0039 J	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
22'35'-TetraCB-(43)	ng/g	0.0023 U	0.0023	0.0098	N/A	N/A	N/A	N/A	4779396
TetraCB-(44)+(47)+(65)	ng/g	0.0264 J	0.0014	0.029	N/A	N/A	N/A	N/A	4779396
TetraCB-(45)+(51)	ng/g	0.0015 U	0.0015	0.020	N/A	N/A	N/A	N/A	4779396
22'36'-TetraCB-(46)	ng/g	0.0017 U	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
22'45'-TetraCB-(48)	ng/g	0.0036 J	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
TetraCB-(49)+TetraCB-(69)	ng/g	0.0101 J	0.0013	0.020	N/A	N/A	N/A	N/A	4779396
TetraCB-(50)+(53)	ng/g	0.0053 J	0.0014	0.020	N/A	N/A	N/A	N/A	4779396
22'55'-TetraCB-(52)	ng/g	0.0352	0.0014	0.0098	N/A	N/A	N/A	N/A	4779396
22'66'-TetraCB-(54)	ng/g	0.00070 U	0.00070	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'-TetraCB-(55)	ng/g	0.00078 U	0.00078	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'-Tetra CB(56)	ng/g	0.00229 J	0.00079	0.0098	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(57)	ng/g	0.00067 U	0.00067	0.0098	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(58)	ng/g	0.00074 U	0.00074	0.0098	N/A	N/A	N/A	N/A	4779396
TetraCB-(59)+(62)+(75)	ng/g	0.0024 J	0.0011	0.029	N/A	N/A	N/A	N/A	4779396
2344'-TetraCB -(60)	ng/g	0.0023 U (1)	0.0023	0.0098	N/A	N/A	N/A	N/A	4779396
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0261 J	0.00072	0.039	N/A	N/A	N/A	N/A	4779396
234'5'-TetraCB-(63)	ng/g	0.00093 J	0.00065	0.0098	N/A	N/A	N/A	N/A	4779396
234'6'-TetraCB-(64)	ng/g	0.0024 J	0.0012	0.0098	N/A	N/A	N/A	N/A	4779396
23'44'-TetraCB-(66)	ng/g	0.0124	0.00065	0.0098	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(67)	ng/g	0.00062 U	0.00062	0.0098	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(68)	ng/g	0.0011 U (1)	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396

EDL = Estimated Detection Limit
RDL = Reportable Detection Limit
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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS272							
Sampling Date		2016/08/16 08:00							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160816 16H147-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	0.00087 J	0.00065	0.0098	N/A	N/A	N/A	N/A	4779396
23'5'6-TetraCB-(73)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
33'44'-TetraCB-(77)	ng/g	0.0014 J	0.0011	0.0098	N/A	0.000100	0.000000140	N/A	4779396
33'45'-TetraCB-(78)	ng/g	0.00071 U	0.00071	0.0098	N/A	N/A	N/A	N/A	4779396
33'45'-TetraCB(79)	ng/g	0.00063 U	0.00063	0.0098	N/A	N/A	N/A	N/A	4779396
33'55'-TetraCB-(80)	ng/g	0.00061 U	0.00061	0.0098	N/A	N/A	N/A	N/A	4779396
344'5-TetraCB-(81)	ng/g	0.0011 U	0.0011	0.0098	N/A	0.000300	0.000000330	N/A	4779396
22'33'4-PentaCB-(82)	ng/g	0.0028 U (1)	0.0028	0.0098	N/A	N/A	N/A	N/A	4779396
PentaCB-(83)+(99)	ng/g	0.0714	0.0016	0.020	N/A	N/A	N/A	N/A	4779396
22'33'6-PentaCB-(84)	ng/g	0.0057 J	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
PentaCB-(85)+(116)+(117)	ng/g	0.0120 J	0.0012	0.029	N/A	N/A	N/A	N/A	4779396
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0254 J	0.0013	0.059	N/A	N/A	N/A	N/A	4779396
PentaCB-(88)+(91)	ng/g	0.0031 J	0.0015	0.020	N/A	N/A	N/A	N/A	4779396
22'346'-PentaCB-(89)	ng/g	0.0015 U	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
PentaCB-(90)+(101)+(113)	ng/g	0.0806	0.0013	0.029	N/A	N/A	N/A	N/A	4779396
22'355'-PentaCB-(92)	ng/g	0.0168	0.0014	0.0098	N/A	N/A	N/A	N/A	4779396
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.0041 U (1)	0.0041	0.039	N/A	N/A	N/A	N/A	4779396
22'356'-PentaCB-(94)	ng/g	0.0016 U	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
22'35'6-PentaCB-(95)	ng/g	0.0386	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
22'366'-PentaCB-(96)	ng/g	0.00098 U	0.00098	0.0098	N/A	N/A	N/A	N/A	4779396
22'45'6-PentaCB-(103)	ng/g	0.0020 J	0.0012	0.0098	N/A	N/A	N/A	N/A	4779396
22'466'-PentaCB-(104)	ng/g	0.00056 U	0.00056	0.0098	N/A	N/A	N/A	N/A	4779396
233'44'-PentaCB-(105)	ng/g	0.0152	0.0013	0.0098	N/A	0.0000300	0.000000456	N/A	4779396
233'45'-PentaCB-(106)	ng/g	0.00090 U	0.00090	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'5-PentaCB-(107)	ng/g	0.00460 J	0.00079	0.0098	N/A	N/A	N/A	N/A	4779396
PentaCB-(108)+(124)	ng/g	0.00173 J	0.00088	0.020	N/A	N/A	N/A	N/A	4779396
PentaCB-(110)+(115)	ng/g	0.0447	0.0013	0.020	N/A	N/A	N/A	N/A	4779396
233'55'-PentaCB-(111)	ng/g	0.0012 U	0.0012	0.0098	N/A	N/A	N/A	N/A	4779396
233'56-PentaCB-(112)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396

EDL = Estimated Detection Limit
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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS272							
Sampling Date		2016/08/16 08:00							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160816 16H147-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	0.0012 U	0.0012	0.0098	N/A	0.0000300	0.0000000360	N/A	4779396
23'44'5'-PentaCB-(118)	ng/g	0.0557	0.0013	0.0098	N/A	0.0000300	0.00000167	N/A	4779396
23'455'-PentaCB-(120)	ng/g	0.0010 U	0.0010	0.0098	N/A	N/A	N/A	N/A	4779396
23'45'6'-PentaCB-(121)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(122)	ng/g	0.00093 U	0.00093	0.0098	N/A	N/A	N/A	N/A	4779396
23'44'5'-PentaCB-(123)	ng/g	0.0014 U	0.0014	0.0098	N/A	0.0000300	0.0000000420	N/A	4779396
33'44'5'-PentaCB-(126)	ng/g	0.0013 U	0.0013	0.0098	N/A	0.100	0.000130	N/A	4779396
33'455'-PentaCB-(127)	ng/g	0.00083 U	0.00083	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(128)+(166)	ng/g	0.0133 J	0.0034	0.020	N/A	N/A	N/A	N/A	4779396
HexaCB-(129)+(138)+(163)	ng/g	0.117	0.0036	0.029	N/A	N/A	N/A	N/A	4779396
22'33'45'-HexaCB-(130)	ng/g	0.0067 J	0.0041	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(131)	ng/g	0.0044 U	0.0044	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(132)	ng/g	0.0096 J	0.0045	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'55'-HexaCB-(133)	ng/g	0.0038 U	0.0038	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(134)+(143)	ng/g	0.0040 U	0.0040	0.020	N/A	N/A	N/A	N/A	4779396
HexaCB-(135)+(151)	ng/g	0.0386	0.0024	0.020	N/A	N/A	N/A	N/A	4779396
22'33'66'-HexaCB-(136)	ng/g	0.0075 J	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
22'344'5'-HexaCB-(137)	ng/g	0.0041 U	0.0041	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(139)+(140)	ng/g	0.0035 U	0.0035	0.020	N/A	N/A	N/A	N/A	4779396
22'3455'-HexaCB-(141)	ng/g	0.0036 U	0.0036	0.0098	N/A	N/A	N/A	N/A	4779396
22'3456'-HexaCB-(142)	ng/g	0.0039 U	0.0039	0.0098	N/A	N/A	N/A	N/A	4779396
22'345'6'-HexaCB-(144)	ng/g	0.0028 J	0.0022	0.0098	N/A	N/A	N/A	N/A	4779396
22'3466'-HexaCB-(145)	ng/g	0.0018 U	0.0018	0.0098	N/A	N/A	N/A	N/A	4779396
22'34'55'-HexaCB-(146)	ng/g	0.0301	0.0033	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(147)+(149)	ng/g	0.0847	0.0035	0.020	N/A	N/A	N/A	N/A	4779396
22'34'56'-HexaCB-(148)	ng/g	0.0021 U	0.0021	0.0098	N/A	N/A	N/A	N/A	4779396
22'34'66'-HexaCB-(150)	ng/g	0.0017 U	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
22'3566'-HexaCB-(152)	ng/g	0.0015 U	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(153)+(168)	ng/g	0.168	0.0030	0.0098	N/A	N/A	N/A	N/A	4779396
22'44'56'-HexaCB-(154)	ng/g	0.0053 J	0.0020	0.0098	N/A	N/A	N/A	N/A	4779396

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N/A = Not Applicable

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS272							
Sampling Date		2016/08/16 08:00							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160816 16H147-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	0.00097 U	0.00097	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(156)+(157)	ng/g	0.0039 U (1)	0.0039	0.020	N/A	0.0000300	0.000000117	N/A	4779396
233'44'6'-HexaCB-(158)	ng/g	0.0062 J	0.0027	0.0098	N/A	N/A	N/A	N/A	4779396
233'455'-HexaCB-(159)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
233'456'-HexaCB-(160)	ng/g	0.0034 U	0.0034	0.0098	N/A	N/A	N/A	N/A	4779396
233'45'6'-HexaCB-(161)	ng/g	0.0027 U	0.0027	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'55'-HexaCB-(162)	ng/g	0.0012 U	0.0012	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'5'6'-HexaCB-(164)	ng/g	0.0030 U	0.0030	0.0098	N/A	N/A	N/A	N/A	4779396
233'55'6'-HexaCB-(165)	ng/g	0.0032 U	0.0032	0.0098	N/A	N/A	N/A	N/A	4779396
23'44'55'-HexaCB-(167)	ng/g	0.0030 U (1)	0.0030	0.0098	N/A	0.0000300	0.0000000900	N/A	4779396
33'44'55'-HexaCB-(169)	ng/g	0.0017 U	0.0017	0.0098	N/A	0.0300	0.0000510	N/A	4779396
22'33'44'5'-HeptaCB-(170)	ng/g	0.0016 U	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
HeptaCB-(171)+(173)	ng/g	0.0041 U (1)	0.0041	0.020	N/A	N/A	N/A	N/A	4779396
22'33'455'-HeptaCB-(172)	ng/g	0.0022 U	0.0022	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'456'-HeptaCB-(174)	ng/g	0.0022 U	0.0022	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(175)	ng/g	0.0010 U	0.0010	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'466'-HeptaCB-(176)	ng/g	0.00161 J	0.00078	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(177)	ng/g	0.0083 J	0.0022	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'55'6'-HeptaCB-(178)	ng/g	0.0071 J	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'566'-HeptaCB-(179)	ng/g	0.00799 J	0.00074	0.0098	N/A	N/A	N/A	N/A	4779396
HeptaCB-(180)+(193)	ng/g	0.0124 J	0.0014	0.020	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(181)	ng/g	0.0022 U	0.0022	0.0098	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(182)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
22'344'5'6'-HeptaCB-(183)	ng/g	0.0113	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
22'344'66'-HeptaCB-(184)	ng/g	0.00081 U	0.00081	0.0098	N/A	N/A	N/A	N/A	4779396
22'3455'6'-HeptaCB-(185)	ng/g	0.0025 U	0.0025	0.0098	N/A	N/A	N/A	N/A	4779396
22'34566'-HeptaCB-(186)	ng/g	0.00089 U	0.00089	0.0098	N/A	N/A	N/A	N/A	4779396
22'34'55'6'-HeptaCB-(187)	ng/g	0.0443	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
22'34'566'-HeptaCB-(188)	ng/g	0.00069 U	0.00069	0.0098	N/A	N/A	N/A	N/A	4779396

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS272							
Sampling Date		2016/08/16 08:00							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160816 16H147-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	0.0011 U	0.0011	0.0098	N/A	0.0000300	0.0000000330	N/A	4779396
233'44'56'-HeptaCB-(190)	ng/g	0.0017 U	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
233'44'5'6'-HeptaCB-(191)	ng/g	0.0016 U	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
233'455'6'-HeptaCB-(192)	ng/g	0.0019 U	0.0019	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'44'55'-OctaCB-(194)	ng/g	0.0015 U	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(195)	ng/g	0.0016 U	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(196)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'44'66'-OctaCB-(197)	ng/g	0.00089 U	0.00089	0.0098	N/A	N/A	N/A	N/A	4779396
OctaCB-(198)+(199)	ng/g	0.0011 U	0.0011	0.020	N/A	N/A	N/A	N/A	4779396
22'33'4566'-OctaCB-(200)	ng/g	0.00069 U	0.00069	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'45'66'-OctaCB-(201)	ng/g	0.00072 U	0.00072	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'55'66'-OctaCB-(202)	ng/g	0.00261 J	0.00073	0.0098	N/A	N/A	N/A	N/A	4779396
22'344'55'6'-OctaCB-(203)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
22'344'566'-OctaCB-(204)	ng/g	0.00073 U	0.00073	0.0098	N/A	N/A	N/A	N/A	4779396
233'44'55'6'-OctaCB-(205)	ng/g	0.0015 U	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'44'55'6'-NonaCB-(206)	ng/g	0.0013 U	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'44'566'-NonaCB-(207)	ng/g	0.0010 U	0.0010	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'455'66'-NonaCB-(208)	ng/g	0.0013 U	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
DecaCB-(209)	ng/g	0.0024 U	0.0024	0.0098	N/A	N/A	N/A	N/A	4779396
Total PCB	ng/g	1.12	N/A	N/A	N/A	N/A	N/A	N/A	4779396
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000184	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'55'6'-NonaCB-(206)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'5'-HeptaCB-(170)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'455'66'-NonaCB-(208)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'66'-OctaCB-(202)	%	141 Q	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'6'-HeptaCB-(178)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'344'55'-HeptaCB-(180)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'34'566'-HeptaCB-(188)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS272							
Sampling Date		2016/08/16 08:00							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC- 160816 16H147-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'44'66'-HexaCB-(155)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'466'-PentaCB-(104)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'66'-TetraCB-(54)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'6-TriCB-(19)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'-DiCB-(4)	%	71	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'6-OctaCB-(205)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'-HeptaCB-(189)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'-PentaCB-(105)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'55'-PentaCB-(111)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'55'-HexaCB-(167)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2344'5-PentaCB-(114)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'5-PentaCB-(118)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2'344'5-PentaCB-(123)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2-MonoCB-(1)	%	62	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'55'-HexaCB-(169)	%	52	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'5-PentaCB-(126)	%	79	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'-TetraCB-(77)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'5-TetraCB-(81)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'-TriCB-(37)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-44'-DiCB-(15)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-4-MonoCB-(3)	%	63	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-DecaCB-(209)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-HexaCB-(156)+(157)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS273							
Sampling Date		2016/08/29 14:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160829 16H0268-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

PCBs									
2-MonoCB-(1)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
3-MonoCB-(2)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
4-MonoCB-(3)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'-DiCB-(4)	ng/g	0.017 U	0.017	0.0097	N/A	N/A	N/A	N/A	4779396
2,3-DiCB-(5)	ng/g	0.0060 U	0.0060	0.0097	N/A	N/A	N/A	N/A	4779396
2,3'-DiCB-(6)	ng/g	0.0047 U	0.0047	0.0097	N/A	N/A	N/A	N/A	4779396
2,4-DiCB-(7)	ng/g	0.0053 U	0.0053	0.0097	N/A	N/A	N/A	N/A	4779396
2,4'-DiCB-(8)	ng/g	0.0044 U	0.0044	0.0097	N/A	N/A	N/A	N/A	4779396
2,5-DiCB-(9)	ng/g	0.0046 U	0.0046	0.0097	N/A	N/A	N/A	N/A	4779396
2,6-DiCB-(10)	ng/g	0.021 U	0.021	0.0097	N/A	N/A	N/A	N/A	4779396
3,3'-DiCB-(11)	ng/g	0.0091 J	0.0049	0.0097	N/A	N/A	N/A	N/A	4779396
DiCB-(12)+(13)	ng/g	0.0054 U	0.0054	0.019	N/A	N/A	N/A	N/A	4779396
3,5-DiCB-(14)	ng/g	0.0047 U	0.0047	0.0097	N/A	N/A	N/A	N/A	4779396
4,4'-DiCB-(15)	ng/g	0.010 U	0.010	0.0097	N/A	N/A	N/A	N/A	4779396
22'3-TriCB-(16)	ng/g	0.0033 U	0.0033	0.0097	N/A	N/A	N/A	N/A	4779396
22'4-TriCB-(17)	ng/g	0.0030 U	0.0030	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(18)+(30)	ng/g	0.0060 J	0.0024	0.019	N/A	N/A	N/A	N/A	4779396
22'6-TriCB-(19)	ng/g	0.0018 U	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(20) + (28)	ng/g	0.0145 J	0.00051	0.019	N/A	N/A	N/A	N/A	4779396
TriCB-(21)+(33)	ng/g	0.00364 J	0.00050	0.019	N/A	N/A	N/A	N/A	4779396
234'-TriCB-(22)	ng/g	0.00212 J	0.00057	0.0097	N/A	N/A	N/A	N/A	4779396
235-TriCB-(23)	ng/g	0.00054 U	0.00054	0.0097	N/A	N/A	N/A	N/A	4779396
236-TriCB-(24)	ng/g	0.0025 U	0.0025	0.0097	N/A	N/A	N/A	N/A	4779396
23'4-TriCB-(25)	ng/g	0.00116 J	0.00048	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(26)+(29)	ng/g	0.00202 J	0.00047	0.019	N/A	N/A	N/A	N/A	4779396
23'6-TriCB-(27)	ng/g	0.0020 U	0.0020	0.0097	N/A	N/A	N/A	N/A	4779396
24'5-TriCB-(31)	ng/g	0.00840 J	0.00046	0.0097	N/A	N/A	N/A	N/A	4779396
24'6-TriCB-(32)	ng/g	0.0019 U	0.0019	0.0097	N/A	N/A	N/A	N/A	4779396
23'5'-TriCB-(34)	ng/g	0.00048 U	0.00048	0.0097	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS273							
Sampling Date		2016/08/29 14:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160829 16H0268-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	0.00050 U	0.00050	0.0097	N/A	N/A	N/A	N/A	4779396
33'5'-TriCB-(36)	ng/g	0.00043 U	0.00043	0.0097	N/A	N/A	N/A	N/A	4779396
344'-TriCB-(37)	ng/g	0.0021 J	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
345'-TriCB-(38)	ng/g	0.00051 U	0.00051	0.0097	N/A	N/A	N/A	N/A	4779396
34'5'-TriCB-(39)	ng/g	0.00052 U	0.00052	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(40)+(41)+(71)	ng/g	0.0099 J	0.0020	0.029	N/A	N/A	N/A	N/A	4779396
22'34'-TetraCB-(42)	ng/g	0.0054 J	0.0022	0.0097	N/A	N/A	N/A	N/A	4779396
22'35'-TetraCB-(43)	ng/g	0.0030 U	0.0030	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(44)+(47)+(65)	ng/g	0.0307	0.0018	0.029	N/A	N/A	N/A	N/A	4779396
TetraCB-(45)+(51)	ng/g	0.0019 U	0.0019	0.019	N/A	N/A	N/A	N/A	4779396
22'36'-TetraCB-(46)	ng/g	0.0022 U	0.0022	0.0097	N/A	N/A	N/A	N/A	4779396
22'45'-TetraCB-(48)	ng/g	0.0042 J	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(49)+TetraCB-(69)	ng/g	0.0174 J	0.0016	0.019	N/A	N/A	N/A	N/A	4779396
TetraCB-(50)+(53)	ng/g	0.0055 J	0.0018	0.019	N/A	N/A	N/A	N/A	4779396
22'55'-TetraCB-(52)	ng/g	0.0432	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
22'66'-TetraCB-(54)	ng/g	0.00049 U	0.00049	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'-TetraCB-(55)	ng/g	0.00069 U	0.00069	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'-Tetra CB(56)	ng/g	0.00376 J	0.00070	0.0097	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(57)	ng/g	0.00059 U	0.00059	0.0097	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(58)	ng/g	0.00066 U	0.00066	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(59)+(62)+(75)	ng/g	0.0027 J	0.0015	0.029	N/A	N/A	N/A	N/A	4779396
2344'-TetraCB -(60)	ng/g	0.00281 J	0.00071	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0297 J	0.00064	0.039	N/A	N/A	N/A	N/A	4779396
234'5'-TetraCB-(63)	ng/g	0.00106 J	0.00058	0.0097	N/A	N/A	N/A	N/A	4779396
234'6'-TetraCB-(64)	ng/g	0.0058 J	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'-TetraCB-(66)	ng/g	0.0127	0.00057	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(67)	ng/g	0.00055 U	0.00055	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(68)	ng/g	0.0010 U (1)	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
23'55'-TetraCB-(72)	ng/g	0.00085 J	0.00058	0.0097	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS273							
Sampling Date		2016/08/29 14:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160829 16H0268-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
33'44'-TetraCB-(77)	ng/g	0.00166 J	0.00096	0.0097	N/A	0.000100	0.000000166	N/A	4779396
33'45-TetraCB-(78)	ng/g	0.00063 U	0.00063	0.0097	N/A	N/A	N/A	N/A	4779396
33'45'-TetraCB(79)	ng/g	0.00056 U	0.00056	0.0097	N/A	N/A	N/A	N/A	4779396
33'55'-TetraCB-(80)	ng/g	0.00054 U	0.00054	0.0097	N/A	N/A	N/A	N/A	4779396
344'5-TetraCB-(81)	ng/g	0.0010 U	0.0010	0.0097	N/A	0.000300	0.000000300	N/A	4779396
22'33'4-PentaCB-(82)	ng/g	0.0042 J	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(83)+(99)	ng/g	0.0667	0.0016	0.019	N/A	N/A	N/A	N/A	4779396
22'33'6-PentaCB-(84)	ng/g	0.0090 U (1)	0.0090	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(85)+(116)+(117)	ng/g	0.0106 J	0.0012	0.029	N/A	N/A	N/A	N/A	4779396
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0315 J	0.0013	0.058	N/A	N/A	N/A	N/A	4779396
PentaCB-(88)+(91)	ng/g	0.0053 J	0.0015	0.019	N/A	N/A	N/A	N/A	4779396
22'346'-PentaCB-(89)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(90)+(101)+(113)	ng/g	0.0782	0.0013	0.029	N/A	N/A	N/A	N/A	4779396
22'355'-PentaCB-(92)	ng/g	0.0158	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.0036 J	0.0015	0.039	N/A	N/A	N/A	N/A	4779396
22'356'-PentaCB-(94)	ng/g	0.0017 U	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
22'35'6-PentaCB-(95)	ng/g	0.0431	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
22'366'-PentaCB-(96)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'45'6-PentaCB-(103)	ng/g	0.0016 J	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
22'466'-PentaCB-(104)	ng/g	0.00078 U	0.00078	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'-PentaCB-(105)	ng/g	0.0150	0.0013	0.0097	N/A	0.0000300	0.000000450	N/A	4779396
233'45-PentaCB-(106)	ng/g	0.00091 U	0.00091	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5-PentaCB-(107)	ng/g	0.00457 J	0.00080	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(108)+(124)	ng/g	0.00166 J	0.00090	0.019	N/A	N/A	N/A	N/A	4779396
PentaCB-(110)+(115)	ng/g	0.0552	0.0013	0.019	N/A	N/A	N/A	N/A	4779396
233'55'-PentaCB-(111)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
233'56-PentaCB-(112)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
2344'5-PentaCB-(114)	ng/g	0.0012 U	0.0012	0.0097	N/A	0.0000300	0.0000000360	N/A	4779396

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Sampling Date		2016/08/29 14:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160829 16H0268-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5'-PentaCB-(118)	ng/g	0.0468	0.0013	0.0097	N/A	0.0000300	0.00000140	N/A	4779396
23'45'5'-PentaCB-(120)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'6'-PentaCB-(121)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(122)	ng/g	0.00094 U	0.00094	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'5'-PentaCB-(123)	ng/g	0.0014 U	0.0014	0.0097	N/A	0.0000300	0.0000000420	N/A	4779396
33'44'5'-PentaCB-(126)	ng/g	0.0013 U	0.0013	0.0097	N/A	0.100	0.000130	N/A	4779396
33'45'5'-PentaCB-(127)	ng/g	0.00084 U	0.00084	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(128)+(166)	ng/g	0.0104 J	0.0039	0.019	N/A	N/A	N/A	N/A	4779396
HexaCB-(129)+(138)+(163)	ng/g	0.107	0.0042	0.029	N/A	N/A	N/A	N/A	4779396
22'33'45'-HexaCB-(130)	ng/g	0.0061 J	0.0047	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(131)	ng/g	0.0051 U	0.0051	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(132)	ng/g	0.0170	0.0052	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'55'-HexaCB-(133)	ng/g	0.0044 U	0.0044	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(134)+(143)	ng/g	0.0046 U	0.0046	0.019	N/A	N/A	N/A	N/A	4779396
HexaCB-(135)+(151)	ng/g	0.0386	0.0017	0.019	N/A	N/A	N/A	N/A	4779396
22'33'66'-HexaCB-(136)	ng/g	0.0094 J	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'5'-HexaCB-(137)	ng/g	0.0048 U	0.0048	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(139)+(140)	ng/g	0.0041 U	0.0041	0.019	N/A	N/A	N/A	N/A	4779396
22'3455'-HexaCB-(141)	ng/g	0.0042 U	0.0042	0.0097	N/A	N/A	N/A	N/A	4779396
22'3456'-HexaCB-(142)	ng/g	0.0046 U	0.0046	0.0097	N/A	N/A	N/A	N/A	4779396
22'345'6'-HexaCB-(144)	ng/g	0.0040 J	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
22'3466'-HexaCB-(145)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'55'-HexaCB-(146)	ng/g	0.0255	0.0039	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(147)+(149)	ng/g	0.0820	0.0041	0.019	N/A	N/A	N/A	N/A	4779396
22'34'56'-HexaCB-(148)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'66'-HexaCB-(150)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
22'3566'-HexaCB-(152)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(153)+(168)	ng/g	0.136	0.0035	0.0097	N/A	N/A	N/A	N/A	4779396
22'44'56'-HexaCB-(154)	ng/g	0.0045 J	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'44'66'-HexaCB-(155)	ng/g	0.00070 U	0.00070	0.0097	N/A	N/A	N/A	N/A	4779396

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COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160829 16H0268-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(156)+(157)	ng/g	0.0033 U (1)	0.0033	0.019	N/A	0.0000300	0.000000099	N/A	4779396
233'44'6'-HexaCB-(158)	ng/g	0.0065 J	0.0032	0.0097	N/A	N/A	N/A	N/A	4779396
233'455'-HexaCB-(159)	ng/g	0.00077 U	0.00077	0.0097	N/A	N/A	N/A	N/A	4779396
233'456'-HexaCB-(160)	ng/g	0.0040 U	0.0040	0.0097	N/A	N/A	N/A	N/A	4779396
233'45'6'-HexaCB-(161)	ng/g	0.0032 U	0.0032	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'55'-HexaCB-(162)	ng/g	0.00087 U	0.00087	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5'6'-HexaCB-(164)	ng/g	0.0035 U	0.0035	0.0097	N/A	N/A	N/A	N/A	4779396
233'55'6'-HexaCB-(165)	ng/g	0.0037 U	0.0037	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'55'-HexaCB-(167)	ng/g	0.0024 J	0.0012	0.0097	N/A	0.0000300	0.0000000720	N/A	4779396
33'44'55'-HexaCB-(169)	ng/g	0.0012 U	0.0012	0.0097	N/A	0.0300	0.0000360	N/A	4779396
22'33'44'5'-HeptaCB-(170)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
HeptaCB-(171)+(173)	ng/g	0.0036 J	0.0018	0.019	N/A	N/A	N/A	N/A	4779396
22'33'455'-HeptaCB-(172)	ng/g	0.0018 U	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'456'-HeptaCB-(174)	ng/g	0.0018 U	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(175)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'466'-HeptaCB-(176)	ng/g	0.0014 U (1)	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(177)	ng/g	0.0075 U (1)	0.0075	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'55'6'-HeptaCB-(178)	ng/g	0.0052 U (1)	0.0052	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'566'-HeptaCB-(179)	ng/g	0.0065 U (1)	0.0065	0.0097	N/A	N/A	N/A	N/A	4779396
HeptaCB-(180)+(193)	ng/g	0.0074 J	0.0012	0.019	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(181)	ng/g	0.0019 U	0.0019	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(182)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'5'6'-HeptaCB-(183)	ng/g	0.0082 J	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'66'-HeptaCB-(184)	ng/g	0.0010 U	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
22'3455'6'-HeptaCB-(185)	ng/g	0.0021 U	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
22'34566'-HeptaCB-(186)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'55'6'-HeptaCB-(187)	ng/g	0.0343	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'566'-HeptaCB-(188)	ng/g	0.00088 U	0.00088	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'55'-HeptaCB-(189)	ng/g	0.00089 U	0.00089	0.0097	N/A	0.0000300	0.0000000267	N/A	4779396

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Maxxam ID		DIS273							
Sampling Date		2016/08/29 14:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC-160829 16H0268-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'56'-HeptaCB-(190)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'5'6'-HeptaCB-(191)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
233'455'6'-HeptaCB-(192)	ng/g	0.0016 U	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'55'-OctaCB-(194)	ng/g	0.0022 U (1)	0.0022	0.048	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(195)	ng/g	0.0023 U (1)	0.0023	0.048	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(196)	ng/g	0.0053 U (1)	0.0053	0.048	N/A	N/A	N/A	N/A	4779396
22'33'44'66'-OctaCB-(197)	ng/g	0.0042 U (1)	0.0042	0.048	N/A	N/A	N/A	N/A	4779396
OctaCB-(198)+(199)	ng/g	0.0055 U (1)	0.0055	0.097	N/A	N/A	N/A	N/A	4779396
22'33'4566'-OctaCB-(200)	ng/g	0.0036 U (1)	0.0036	0.048	N/A	N/A	N/A	N/A	4779396
22'33'45'66'-OctaCB-(201)	ng/g	0.0037 U (1)	0.0037	0.048	N/A	N/A	N/A	N/A	4779396
22'33'55'66'-OctaCB-(202)	ng/g	0.0038 U (1)	0.0038	0.048	N/A	N/A	N/A	N/A	4779396
22'344'55'6'-OctaCB-(203)	ng/g	0.0057 U (1)	0.0057	0.048	N/A	N/A	N/A	N/A	4779396
22'344'566'-OctaCB-(204)	ng/g	0.0037 U (1)	0.0037	0.048	N/A	N/A	N/A	N/A	4779396
233'44'55'6'-OctaCB-(205)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'55'6'-NonaCB-(206)	ng/g	0.0027 U	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'566'-NonaCB-(207)	ng/g	0.0022 U	0.0022	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'455'66'-NonaCB-(208)	ng/g	0.0027 U	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
DecaCB-(209)	ng/g	0.0042 U	0.0042	0.0097	N/A	N/A	N/A	N/A	4779396
Total PCB	ng/g	1.11	N/A	N/A	N/A	N/A	N/A	N/A	4779396
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000169	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'55'6'-NonaCB-(206)	%	85 (2)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'5'-HeptaCB-(170)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'455'66'-NonaCB-(208)	%	114 (2)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'66'-OctaCB-(202)	%	85 (1)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'6'-HeptaCB-(178)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'344'55'-HeptaCB-(180)	%	139	N/A	N/A	N/A	N/A	N/A	N/A	4779396
EDL = Estimated Detection Limit RDL = Reportable Detection Limit TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds QC Batch = Quality Control Batch N/A = Not Applicable (1) ** From 5X Dilution ** (2) Ion ratio failed, possibly due to matrix effects.									

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS273							
Sampling Date		2016/08/29 14:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-T0-MUS-COC- 160829 16H0268-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'34'566'-HeptaCB-(188)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'44'66'-HexaCB-(155)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'466'-PentaCB-(104)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'66'-TetraCB-(54)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'6-TriCB-(19)	%	73	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'-DiCB-(4)	%	60	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'6-OctaCB-(205)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'-HeptaCB-(189)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'-PentaCB-(105)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'55'-PentaCB-(111)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'55'-HexaCB-(167)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2344'5-PentaCB-(114)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'5-PentaCB-(118)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2'344'5-PentaCB-(123)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2-MonoCB-(1)	%	45	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'55'-HexaCB-(169)	%	37	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'5-PentaCB-(126)	%	65	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'-TetraCB-(77)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'5-TetraCB-(81)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'-TriCB-(37)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-44'-DiCB-(15)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-4-MonoCB-(3)	%	52	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-DecaCB-(209)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-HexaCB-(156)+(157)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	4779396

EDL = Estimated Detection Limit

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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

QC Batch = Quality Control Batch

N/A = Not Applicable

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS274							
Sampling Date		2016/10/11 11:08							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-1-161011 16J0187-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

PCBs									
2-MonoCB-(1)	ng/g	0.0010 U	0.0010	0.0096	N/A	N/A	N/A	N/A	4779396
3-MonoCB-(2)	ng/g	0.00078 U	0.00078	0.0096	N/A	N/A	N/A	N/A	4779396
4-MonoCB-(3)	ng/g	0.0010 U	0.0010	0.0096	N/A	N/A	N/A	N/A	4779396
22'-DiCB-(4)	ng/g	0.021 U	0.021	0.0096	N/A	N/A	N/A	N/A	4779396
2,3-DiCB-(5)	ng/g	0.0091 U	0.0091	0.0096	N/A	N/A	N/A	N/A	4779396
2,3'-DiCB-(6)	ng/g	0.0071 U	0.0071	0.0096	N/A	N/A	N/A	N/A	4779396
2,4-DiCB-(7)	ng/g	0.0081 U	0.0081	0.0096	N/A	N/A	N/A	N/A	4779396
2,4'-DiCB-(8)	ng/g	0.0067 U	0.0067	0.0096	N/A	N/A	N/A	N/A	4779396
2,5-DiCB-(9)	ng/g	0.0070 U	0.0070	0.0096	N/A	N/A	N/A	N/A	4779396
2,6-DiCB-(10)	ng/g	0.025 U	0.025	0.0096	N/A	N/A	N/A	N/A	4779396
3,3'-DiCB-(11)	ng/g	0.0093 J	0.0075	0.0096	N/A	N/A	N/A	N/A	4779396
DiCB-(12)+(13)	ng/g	0.0082 U	0.0082	0.019	N/A	N/A	N/A	N/A	4779396
3,5-DiCB-(14)	ng/g	0.0071 U	0.0071	0.0096	N/A	N/A	N/A	N/A	4779396
4,4'-DiCB-(15)	ng/g	0.016 U	0.016	0.0096	N/A	N/A	N/A	N/A	4779396
22'3-TriCB-(16)	ng/g	0.0087 U	0.0087	0.0096	N/A	N/A	N/A	N/A	4779396
22'4-TriCB-(17)	ng/g	0.0078 U	0.0078	0.0096	N/A	N/A	N/A	N/A	4779396
TriCB-(18)+(30)	ng/g	0.0062 U	0.0062	0.019	N/A	N/A	N/A	N/A	4779396
22'6-TriCB-(19)	ng/g	0.0046 U	0.0046	0.0096	N/A	N/A	N/A	N/A	4779396
TriCB-(20) + (28)	ng/g	0.0180 J	0.00070	0.019	N/A	N/A	N/A	N/A	4779396
TriCB-(21)+(33)	ng/g	0.00401 J	0.00069	0.019	N/A	N/A	N/A	N/A	4779396
234'-TriCB-(22)	ng/g	0.00173 J	0.00079	0.0096	N/A	N/A	N/A	N/A	4779396
235-TriCB-(23)	ng/g	0.00074 U	0.00074	0.0096	N/A	N/A	N/A	N/A	4779396
236-TriCB-(24)	ng/g	0.0067 U	0.0067	0.0096	N/A	N/A	N/A	N/A	4779396
23'4-TriCB-(25)	ng/g	0.00087 U (1)	0.00087	0.0096	N/A	N/A	N/A	N/A	4779396
TriCB-(26)+(29)	ng/g	0.0016 U (1)	0.0016	0.019	N/A	N/A	N/A	N/A	4779396
23'6-TriCB-(27)	ng/g	0.0053 U	0.0053	0.0096	N/A	N/A	N/A	N/A	4779396
24'5-TriCB-(31)	ng/g	0.00726 J	0.00063	0.0096	N/A	N/A	N/A	N/A	4779396
24'6-TriCB-(32)	ng/g	0.0049 U	0.0049	0.0096	N/A	N/A	N/A	N/A	4779396

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS274							
Sampling Date		2016/10/11 11:08							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-1-161011 16J0187-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00066 U	0.00066	0.0096	N/A	N/A	N/A	N/A	4779396
33'4'-TriCB-(35)	ng/g	0.00069 U	0.00069	0.0096	N/A	N/A	N/A	N/A	4779396
33'5'-TriCB-(36)	ng/g	0.00059 U	0.00059	0.0096	N/A	N/A	N/A	N/A	4779396
344'-TriCB-(37)	ng/g	0.0030 J	0.0014	0.0096	N/A	N/A	N/A	N/A	4779396
345-TriCB-(38)	ng/g	0.00070 U	0.00070	0.0096	N/A	N/A	N/A	N/A	4779396
34'5'-TriCB-(39)	ng/g	0.00072 U	0.00072	0.0096	N/A	N/A	N/A	N/A	4779396
TetraCB-(40)+(41)+(71)	ng/g	0.0101 J	0.0017	0.029	N/A	N/A	N/A	N/A	4779396
22'34'-TetraCB-(42)	ng/g	0.0042 J	0.0019	0.0096	N/A	N/A	N/A	N/A	4779396
22'35'-TetraCB-(43)	ng/g	0.0025 U	0.0025	0.0096	N/A	N/A	N/A	N/A	4779396
TetraCB-(44)+(47)+(65)	ng/g	0.0287 J	0.0015	0.029	N/A	N/A	N/A	N/A	4779396
TetraCB-(45)+(51)	ng/g	0.0017 U	0.0017	0.019	N/A	N/A	N/A	N/A	4779396
22'36'-TetraCB-(46)	ng/g	0.0019 U	0.0019	0.0096	N/A	N/A	N/A	N/A	4779396
22'45'-TetraCB-(48)	ng/g	0.0052 J	0.0018	0.0096	N/A	N/A	N/A	N/A	4779396
TetraCB-(49)+TetraCB-(69)	ng/g	0.0077 J	0.0014	0.019	N/A	N/A	N/A	N/A	4779396
TetraCB-(50)+(53)	ng/g	0.0039 U (1)	0.0039	0.019	N/A	N/A	N/A	N/A	4779396
22'55'-TetraCB-(52)	ng/g	0.0357	0.0015	0.0096	N/A	N/A	N/A	N/A	4779396
22'66'-TetraCB-(54)	ng/g	0.00086 U	0.00086	0.0096	N/A	N/A	N/A	N/A	4779396
233'4'-TetraCB-(55)	ng/g	0.00075 U	0.00075	0.0096	N/A	N/A	N/A	N/A	4779396
233'4'-Tetra CB(56)	ng/g	0.0022 U (1)	0.0022	0.0096	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(57)	ng/g	0.00064 U	0.00064	0.0096	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(58)	ng/g	0.00072 U	0.00072	0.0096	N/A	N/A	N/A	N/A	4779396
TetraCB-(59)+(62)+(75)	ng/g	0.0023 J	0.0012	0.029	N/A	N/A	N/A	N/A	4779396
2344'-TetraCB -(60)	ng/g	0.00295 J	0.00077	0.0096	N/A	N/A	N/A	N/A	4779396
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0320 J	0.00070	0.038	N/A	N/A	N/A	N/A	4779396
234'5'-TetraCB-(63)	ng/g	0.00091 J	0.00063	0.0096	N/A	N/A	N/A	N/A	4779396
234'6'-TetraCB-(64)	ng/g	0.0022 J	0.0013	0.0096	N/A	N/A	N/A	N/A	4779396
23'44'-TetraCB-(66)	ng/g	0.0156	0.00062	0.0096	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(67)	ng/g	0.00060 U	0.00060	0.0096	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(68)	ng/g	0.0011 U (1)	0.0011	0.0096	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS274							
Sampling Date		2016/10/11 11:08							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-1-161011 16J0187-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	0.00079 J	0.00063	0.0096	N/A	N/A	N/A	N/A	4779396
23'5'6-TetraCB-(73)	ng/g	0.0012 U	0.0012	0.0096	N/A	N/A	N/A	N/A	4779396
33'44'-TetraCB-(77)	ng/g	0.0018 U (1)	0.0018	0.0096	N/A	0.000100	0.000000180	N/A	4779396
33'45'-TetraCB-(78)	ng/g	0.00068 U	0.00068	0.0096	N/A	N/A	N/A	N/A	4779396
33'45'-TetraCB(79)	ng/g	0.00060 U	0.00060	0.0096	N/A	N/A	N/A	N/A	4779396
33'55'-TetraCB-(80)	ng/g	0.00059 U	0.00059	0.0096	N/A	N/A	N/A	N/A	4779396
344'5-TetraCB-(81)	ng/g	0.0011 U	0.0011	0.0096	N/A	0.000300	0.000000330	N/A	4779396
22'33'4-PentaCB-(82)	ng/g	0.0028 J	0.0019	0.0096	N/A	N/A	N/A	N/A	4779396
PentaCB-(83)+(99)	ng/g	0.0736	0.0017	0.019	N/A	N/A	N/A	N/A	4779396
22'33'6-PentaCB-(84)	ng/g	0.0054 J	0.0018	0.0096	N/A	N/A	N/A	N/A	4779396
PentaCB-(85)+(116)+(117)	ng/g	0.0134 J	0.0013	0.029	N/A	N/A	N/A	N/A	4779396
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0251 J	0.0014	0.058	N/A	N/A	N/A	N/A	4779396
PentaCB-(88)+(91)	ng/g	0.0025 J	0.0016	0.019	N/A	N/A	N/A	N/A	4779396
22'346'-PentaCB-(89)	ng/g	0.0017 U	0.0017	0.0096	N/A	N/A	N/A	N/A	4779396
PentaCB-(90)+(101)+(113)	ng/g	0.0833	0.0014	0.029	N/A	N/A	N/A	N/A	4779396
22'355'-PentaCB-(92)	ng/g	0.0174	0.0016	0.0096	N/A	N/A	N/A	N/A	4779396
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.0016 U	0.0016	0.038	N/A	N/A	N/A	N/A	4779396
22'356'-PentaCB-(94)	ng/g	0.0018 U	0.0018	0.0096	N/A	N/A	N/A	N/A	4779396
22'35'6-PentaCB-(95)	ng/g	0.0390	0.0015	0.0096	N/A	N/A	N/A	N/A	4779396
22'366'-PentaCB-(96)	ng/g	0.0018 U	0.0018	0.0096	N/A	N/A	N/A	N/A	4779396
22'45'6-PentaCB-(103)	ng/g	0.0013 U	0.0013	0.0096	N/A	N/A	N/A	N/A	4779396
22'466'-PentaCB-(104)	ng/g	0.0010 U	0.0010	0.0096	N/A	N/A	N/A	N/A	4779396
233'44'-PentaCB-(105)	ng/g	0.0200	0.0013	0.0096	N/A	0.0000300	0.000000600	N/A	4779396
233'45'-PentaCB-(106)	ng/g	0.00094 U	0.00094	0.0096	N/A	N/A	N/A	N/A	4779396
233'4'5-PentaCB-(107)	ng/g	0.00497 J	0.00083	0.0096	N/A	N/A	N/A	N/A	4779396
PentaCB-(108)+(124)	ng/g	0.00195 J	0.00093	0.019	N/A	N/A	N/A	N/A	4779396
PentaCB-(110)+(115)	ng/g	0.0427	0.0015	0.019	N/A	N/A	N/A	N/A	4779396
233'55'-PentaCB-(111)	ng/g	0.0013 U	0.0013	0.0096	N/A	N/A	N/A	N/A	4779396
233'56-PentaCB-(112)	ng/g	0.0012 U	0.0012	0.0096	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS274							
Sampling Date		2016/10/11 11:08							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-1-161011 16J0187-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	0.0013 U	0.0013	0.0096	N/A	0.0000300	0.0000000390	N/A	4779396
23'44'5'-PentaCB-(118)	ng/g	0.0645	0.0013	0.0096	N/A	0.0000300	0.00000194	N/A	4779396
23'45'5'-PentaCB-(120)	ng/g	0.0012 U	0.0012	0.0096	N/A	N/A	N/A	N/A	4779396
23'45'6'-PentaCB-(121)	ng/g	0.0012 U	0.0012	0.0096	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(122)	ng/g	0.00097 U	0.00097	0.0096	N/A	N/A	N/A	N/A	4779396
23'44'5'-PentaCB-(123)	ng/g	0.0015 U	0.0015	0.0096	N/A	0.0000300	0.0000000450	N/A	4779396
33'44'5'-PentaCB-(126)	ng/g	0.0013 U	0.0013	0.0096	N/A	0.100	0.000130	N/A	4779396
33'45'5'-PentaCB-(127)	ng/g	0.00087 U	0.00087	0.0096	N/A	N/A	N/A	N/A	4779396
HexaCB-(128)+(166)	ng/g	0.0162 J	0.0041	0.019	N/A	N/A	N/A	N/A	4779396
HexaCB-(129)+(138)+(163)	ng/g	0.145	0.0044	0.029	N/A	N/A	N/A	N/A	4779396
22'33'45'-HexaCB-(130)	ng/g	0.0083 J	0.0049	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(131)	ng/g	0.0053 U	0.0053	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(132)	ng/g	0.0102	0.0054	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'55'-HexaCB-(133)	ng/g	0.0047 J	0.0046	0.0096	N/A	N/A	N/A	N/A	4779396
HexaCB-(134)+(143)	ng/g	0.0053 J	0.0048	0.019	N/A	N/A	N/A	N/A	4779396
HexaCB-(135)+(151)	ng/g	0.0544	0.0019	0.019	N/A	N/A	N/A	N/A	4779396
22'33'66'-HexaCB-(136)	ng/g	0.0121	0.0013	0.0096	N/A	N/A	N/A	N/A	4779396
22'344'5'-HexaCB-(137)	ng/g	0.0050 U	0.0050	0.0096	N/A	N/A	N/A	N/A	4779396
HexaCB-(139)+(140)	ng/g	0.0043 U	0.0043	0.019	N/A	N/A	N/A	N/A	4779396
22'3455'-HexaCB-(141)	ng/g	0.0044 U	0.0044	0.0096	N/A	N/A	N/A	N/A	4779396
22'3456'-HexaCB-(142)	ng/g	0.0048 U	0.0048	0.0096	N/A	N/A	N/A	N/A	4779396
22'345'6'-HexaCB-(144)	ng/g	0.0047 U (1)	0.0047	0.0096	N/A	N/A	N/A	N/A	4779396
22'3466'-HexaCB-(145)	ng/g	0.0015 U	0.0015	0.0096	N/A	N/A	N/A	N/A	4779396
22'34'55'-HexaCB-(146)	ng/g	0.0370	0.0040	0.0096	N/A	N/A	N/A	N/A	4779396
HexaCB-(147)+(149)	ng/g	0.106	0.0043	0.019	N/A	N/A	N/A	N/A	4779396
22'34'56'-HexaCB-(148)	ng/g	0.0017 U	0.0017	0.0096	N/A	N/A	N/A	N/A	4779396
22'34'66'-HexaCB-(150)	ng/g	0.0014 U	0.0014	0.0096	N/A	N/A	N/A	N/A	4779396
22'3566'-HexaCB-(152)	ng/g	0.0012 U	0.0012	0.0096	N/A	N/A	N/A	N/A	4779396
HexaCB-(153)+(168)	ng/g	0.210	0.0037	0.0096	N/A	N/A	N/A	N/A	4779396

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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS274							
Sampling Date		2016/10/11 11:08							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-1-161011 16J0187-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	0.0062 J	0.0016	0.0096	N/A	N/A	N/A	N/A	4779396
22'44'66'-HexaCB-(155)	ng/g	0.00079 U	0.00079	0.0096	N/A	N/A	N/A	N/A	4779396
HexaCB-(156)+(157)	ng/g	0.00625 J	0.00095	0.019	N/A	0.0000300	0.000000188	N/A	4779396
233'44'6'-HexaCB-(158)	ng/g	0.0092 J	0.0033	0.0096	N/A	N/A	N/A	N/A	4779396
233'455'-HexaCB-(159)	ng/g	0.00066 U	0.00066	0.0096	N/A	N/A	N/A	N/A	4779396
233'456'-HexaCB-(160)	ng/g	0.0041 U	0.0041	0.0096	N/A	N/A	N/A	N/A	4779396
233'45'6'-HexaCB-(161)	ng/g	0.0033 U	0.0033	0.0096	N/A	N/A	N/A	N/A	4779396
233'4'55'-HexaCB-(162)	ng/g	0.00074 U	0.00074	0.0096	N/A	N/A	N/A	N/A	4779396
233'4'5'6'-HexaCB-(164)	ng/g	0.0036 U	0.0036	0.0096	N/A	N/A	N/A	N/A	4779396
233'55'6'-HexaCB-(165)	ng/g	0.0039 U	0.0039	0.0096	N/A	N/A	N/A	N/A	4779396
23'44'55'-HexaCB-(167)	ng/g	0.0039 J	0.0010	0.0096	N/A	0.0000300	0.000000117	N/A	4779396
33'44'55'-HexaCB-(169)	ng/g	0.0010 U	0.0010	0.0096	N/A	0.0300	0.0000300	N/A	4779396
22'33'44'5'-HeptaCB-(170)	ng/g	0.0035 JK	0.0011	0.0096	N/A	N/A	N/A	N/A	4779396
HeptaCB-(171)+(173)	ng/g	0.0066 J	0.0015	0.019	N/A	N/A	N/A	N/A	4779396
22'33'455'-HeptaCB-(172)	ng/g	0.0015 U	0.0015	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'456'-HeptaCB-(174)	ng/g	0.0015 U	0.0015	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(175)	ng/g	0.0016 U	0.0016	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'466'-HeptaCB-(176)	ng/g	0.0033 J	0.0012	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(177)	ng/g	0.0150	0.0015	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'55'6'-HeptaCB-(178)	ng/g	0.0100	0.0017	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'566'-HeptaCB-(179)	ng/g	0.0127	0.0012	0.0096	N/A	N/A	N/A	N/A	4779396
HeptaCB-(180)+(193)	ng/g	0.0167 J	0.0010	0.019	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(181)	ng/g	0.0016 U	0.0016	0.0096	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(182)	ng/g	0.0017 U	0.0017	0.0096	N/A	N/A	N/A	N/A	4779396
22'344'5'6'-HeptaCB-(183)	ng/g	0.0158	0.0012	0.0096	N/A	N/A	N/A	N/A	4779396
22'344'66'-HeptaCB-(184)	ng/g	0.0013 U	0.0013	0.0096	N/A	N/A	N/A	N/A	4779396
22'3455'6'-HeptaCB-(185)	ng/g	0.0018 U	0.0018	0.0096	N/A	N/A	N/A	N/A	4779396
22'34566'-HeptaCB-(186)	ng/g	0.0014 U	0.0014	0.0096	N/A	N/A	N/A	N/A	4779396
22'34'55'6'-HeptaCB-(187)	ng/g	0.0637	0.0018	0.0096	N/A	N/A	N/A	N/A	4779396
22'34'566'-HeptaCB-(188)	ng/g	0.0011 U	0.0011	0.0096	N/A	N/A	N/A	N/A	4779396

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N/A = Not Applicable

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS274							
Sampling Date		2016/10/11 11:08							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-1-161011 16J0187-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	0.0020 U	0.0020	0.0096	N/A	0.0000300	0.0000000600	N/A	4779396
233'44'56'-HeptaCB-(190)	ng/g	0.0012 U	0.0012	0.0096	N/A	N/A	N/A	N/A	4779396
233'44'5'6'-HeptaCB-(191)	ng/g	0.0012 U	0.0012	0.0096	N/A	N/A	N/A	N/A	4779396
233'455'6'-HeptaCB-(192)	ng/g	0.0014 U	0.0014	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'44'55'-OctaCB-(194)	ng/g	0.0015 U	0.0015	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(195)	ng/g	0.0016 U	0.0016	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(196)	ng/g	0.0021 U	0.0021	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'44'66'-OctaCB-(197)	ng/g	0.0018 U	0.0018	0.0096	N/A	N/A	N/A	N/A	4779396
OctaCB-(198)+(199)	ng/g	0.0023 U	0.0023	0.019	N/A	N/A	N/A	N/A	4779396
22'33'4566'-OctaCB-(200)	ng/g	0.0014 U	0.0014	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'45'66'-OctaCB-(201)	ng/g	0.0014 U	0.0014	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'55'66'-OctaCB-(202)	ng/g	0.0035 J	0.0015	0.0096	N/A	N/A	N/A	N/A	4779396
22'344'55'6'-OctaCB-(203)	ng/g	0.0022 U	0.0022	0.0096	N/A	N/A	N/A	N/A	4779396
22'344'566'-OctaCB-(204)	ng/g	0.0015 U	0.0015	0.0096	N/A	N/A	N/A	N/A	4779396
233'44'55'6'-OctaCB-(205)	ng/g	0.0015 U	0.0015	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'44'55'6'-NonaCB-(206)	ng/g	0.0021 U	0.0021	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'44'566'-NonaCB-(207)	ng/g	0.0017 U	0.0017	0.0096	N/A	N/A	N/A	N/A	4779396
22'33'455'66'-NonaCB-(208)	ng/g	0.0021 U	0.0021	0.0096	N/A	N/A	N/A	N/A	4779396
DecaCB-(209)	ng/g	0.0014 U	0.0014	0.0096	N/A	N/A	N/A	N/A	4779396
Total PCB	ng/g	1.37	N/A	N/A	N/A	N/A	N/A	N/A	4779396
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000163	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'55'6'-NonaCB-(206)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'5'-HeptaCB-(170)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'455'66'-NonaCB-(208)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'66'-OctaCB-(202)	%	149 Q	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'6'-HeptaCB-(178)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'344'55'-HeptaCB-(180)	%	124	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'34'566'-HeptaCB-(188)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	4779396
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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS274							
Sampling Date		2016/10/11 11:08							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-1-161011 16J0187-01	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'44'66'-HexaCB-(155)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'466'-PentaCB-(104)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'66'-TetraCB-(54)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'6-TriCB-(19)	%	63	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'-DiCB-(4)	%	53	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'6-OctaCB-(205)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'-HeptaCB-(189)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'-PentaCB-(105)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'55'-PentaCB-(111)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'55'-HexaCB-(167)	%	71	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2344'5-PentaCB-(114)	%	79	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'5-PentaCB-(118)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2'344'5-PentaCB-(123)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2-MonoCB-(1)	%	40	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'55'-HexaCB-(169)	%	39	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'5-PentaCB-(126)	%	60	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'-TetraCB-(77)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'5-TetraCB-(81)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'-TriCB-(37)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-44'-DiCB-(15)	%	68	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-4-MonoCB-(3)	%	46	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-DecaCB-(209)	%	70	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-HexaCB-(156)+(157)	%	68	N/A	N/A	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

PCBs									
2-MonoCB-(1)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
3-MonoCB-(2)	ng/g	0.0010 U	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
4-MonoCB-(3)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'-DiCB-(4)	ng/g	0.022 U	0.022	0.0097	N/A	N/A	N/A	N/A	4779396
2,3-DiCB-(5)	ng/g	0.0077 U	0.0077	0.0097	N/A	N/A	N/A	N/A	4779396
2,3'-DiCB-(6)	ng/g	0.0060 U	0.0060	0.0097	N/A	N/A	N/A	N/A	4779396
2,4-DiCB-(7)	ng/g	0.0068 U	0.0068	0.0097	N/A	N/A	N/A	N/A	4779396
2,4'-DiCB-(8)	ng/g	0.0057 U	0.0057	0.0097	N/A	N/A	N/A	N/A	4779396
2,5-DiCB-(9)	ng/g	0.0059 U	0.0059	0.0097	N/A	N/A	N/A	N/A	4779396
2,6-DiCB-(10)	ng/g	0.026 U	0.026	0.0097	N/A	N/A	N/A	N/A	4779396
3,3'-DiCB-(11)	ng/g	0.0087 J	0.0063	0.0097	N/A	N/A	N/A	N/A	4779396
DiCB-(12)+(13)	ng/g	0.0069 U	0.0069	0.019	N/A	N/A	N/A	N/A	4779396
3,5-DiCB-(14)	ng/g	0.0060 U	0.0060	0.0097	N/A	N/A	N/A	N/A	4779396
4,4'-DiCB-(15)	ng/g	0.013 U	0.013	0.0097	N/A	N/A	N/A	N/A	4779396
22'3-TriCB-(16)	ng/g	0.0065 U	0.0065	0.0097	N/A	N/A	N/A	N/A	4779396
22'4-TriCB-(17)	ng/g	0.0058 U	0.0058	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(18)+(30)	ng/g	0.0046 U	0.0046	0.019	N/A	N/A	N/A	N/A	4779396
22'6-TriCB-(19)	ng/g	0.0035 U	0.0035	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(20) + (28)	ng/g	0.0147 J	0.0012	0.019	N/A	N/A	N/A	N/A	4779396
TriCB-(21)+(33)	ng/g	0.0030 J	0.0012	0.019	N/A	N/A	N/A	N/A	4779396
234'-TriCB-(22)	ng/g	0.0016 J	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
235-TriCB-(23)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
236-TriCB-(24)	ng/g	0.0050 U	0.0050	0.0097	N/A	N/A	N/A	N/A	4779396
23'4-TriCB-(25)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(26)+(29)	ng/g	0.0014 J	0.0012	0.019	N/A	N/A	N/A	N/A	4779396
23'6-TriCB-(27)	ng/g	0.0040 U	0.0040	0.0097	N/A	N/A	N/A	N/A	4779396
24'5-TriCB-(31)	ng/g	0.0065 J	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
24'6-TriCB-(32)	ng/g	0.0036 U	0.0036	0.0097	N/A	N/A	N/A	N/A	4779396
23'5'-TriCB-(34)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4-TriCB-(35)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
33'5-TriCB-(36)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
344'-TriCB-(37)	ng/g	0.0026 J	0.0025	0.0097	N/A	N/A	N/A	N/A	4779396
345-TriCB-(38)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
34'5-TriCB-(39)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(40)+(41)+(71)	ng/g	0.0087 J	0.0038	0.029	N/A	N/A	N/A	N/A	4779396
22'34'-TetraCB-(42)	ng/g	0.0042 U	0.0042	0.0097	N/A	N/A	N/A	N/A	4779396
22'35-TetraCB-(43)	ng/g	0.0056 U	0.0056	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(44)+(47)+(65)	ng/g	0.0257 J	0.0034	0.029	N/A	N/A	N/A	N/A	4779396
TetraCB-(45)+(51)	ng/g	0.0037 U	0.0037	0.019	N/A	N/A	N/A	N/A	4779396
22'36'-TetraCB-(46)	ng/g	0.0042 U	0.0042	0.0097	N/A	N/A	N/A	N/A	4779396
22'45-TetraCB-(48)	ng/g	0.0042 U (1)	0.0042	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(49)+TetraCB-(69)	ng/g	0.0079 J	0.0031	0.019	N/A	N/A	N/A	N/A	4779396
TetraCB-(50)+(53)	ng/g	0.0038 J	0.0035	0.019	N/A	N/A	N/A	N/A	4779396
22'55'-TetraCB-(52)	ng/g	0.0311	0.0033	0.0097	N/A	N/A	N/A	N/A	4779396
22'66'-TetraCB-(54)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
233'4-TetraCB-(55)	ng/g	0.00084 U	0.00084	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'-Tetra CB(56)	ng/g	0.00244 J	0.00086	0.0097	N/A	N/A	N/A	N/A	4779396
233'5-TetraCB-(57)	ng/g	0.00073 U	0.00073	0.0097	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(58)	ng/g	0.00081 U	0.00081	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(59)+(62)+(75)	ng/g	0.0027 U	0.0027	0.029	N/A	N/A	N/A	N/A	4779396
2344'-TetraCB -(60)	ng/g	0.00311 J	0.00087	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0316 J	0.00079	0.039	N/A	N/A	N/A	N/A	4779396
234'5-TetraCB-(63)	ng/g	0.00097 J	0.00071	0.0097	N/A	N/A	N/A	N/A	4779396
234'6-TetraCB-(64)	ng/g	0.0029 U	0.0029	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'-TetraCB-(66)	ng/g	0.013 U (1)	0.013	0.0097	N/A	N/A	N/A	N/A	4779396
23'45-TetraCB-(67)	ng/g	0.00068 U	0.00068	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(68)	ng/g	0.00090 U (1)	0.00090	0.0097	N/A	N/A	N/A	N/A	4779396
23'55'-TetraCB-(72)	ng/g	0.00071 J	0.00071	0.0097	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	0.0027 U	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
33'44'-TetraCB-(77)	ng/g	0.0022 J	0.0012	0.0097	N/A	0.000100	0.000000220	N/A	4779396
33'45-TetraCB-(78)	ng/g	0.00077 U	0.00077	0.0097	N/A	N/A	N/A	N/A	4779396
33'45'-TetraCB(79)	ng/g	0.00068 U	0.00068	0.0097	N/A	N/A	N/A	N/A	4779396
33'55'-TetraCB-(80)	ng/g	0.00066 U	0.00066	0.0097	N/A	N/A	N/A	N/A	4779396
344'5-TetraCB-(81)	ng/g	0.0012 U	0.0012	0.0097	N/A	0.000300	0.000000360	N/A	4779396
22'33'4-PentaCB-(82)	ng/g	0.0025 U	0.0025	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(83)+(99)	ng/g	0.0797	0.0023	0.019	N/A	N/A	N/A	N/A	4779396
22'33'6-PentaCB-(84)	ng/g	0.0063 J	0.0025	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(85)+(116)+(117)	ng/g	0.0126 J	0.0018	0.029	N/A	N/A	N/A	N/A	4779396
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0245 J	0.0019	0.058	N/A	N/A	N/A	N/A	4779396
PentaCB-(88)+(91)	ng/g	0.0037 J	0.0022	0.019	N/A	N/A	N/A	N/A	4779396
22'346'-PentaCB-(89)	ng/g	0.0023 U	0.0023	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(90)+(101)+(113)	ng/g	0.0859	0.0019	0.029	N/A	N/A	N/A	N/A	4779396
22'355'-PentaCB-(92)	ng/g	0.0179	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.0049 U (1)	0.0049	0.039	N/A	N/A	N/A	N/A	4779396
22'356'-PentaCB-(94)	ng/g	0.0025 U	0.0025	0.0097	N/A	N/A	N/A	N/A	4779396
22'35'6-PentaCB-(95)	ng/g	0.0410	0.0020	0.0097	N/A	N/A	N/A	N/A	4779396
22'366'-PentaCB-(96)	ng/g	0.0021 U	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
22'45'6-PentaCB-(103)	ng/g	0.0023 J	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
22'466'-PentaCB-(104)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'-PentaCB-(105)	ng/g	0.0203	0.0017	0.0097	N/A	0.0000300	0.000000609	N/A	4779396
233'45-PentaCB-(106)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5-PentaCB-(107)	ng/g	0.0057 J	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(108)+(124)	ng/g	0.0020 J	0.0012	0.019	N/A	N/A	N/A	N/A	4779396
PentaCB-(110)+(115)	ng/g	0.0432	0.0020	0.019	N/A	N/A	N/A	N/A	4779396
233'55'-PentaCB-(111)	ng/g	0.0018 U	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
233'56-PentaCB-(112)	ng/g	0.0016 U	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
2344'5-PentaCB-(114)	ng/g	0.0016 U	0.0016	0.0097	N/A	0.0000300	0.0000000480	N/A	4779396

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COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5-PentaCB-(118)	ng/g	0.0694	0.0017	0.0097	N/A	0.0000300	0.00000208	N/A	4779396
23'45'5-PentaCB-(120)	ng/g	0.0016 U	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'6-PentaCB-(121)	ng/g	0.0017 U	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(122)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'5'-PentaCB-(123)	ng/g	0.0018 U	0.0018	0.0097	N/A	0.0000300	0.0000000540	N/A	4779396
33'44'5-PentaCB-(126)	ng/g	0.0017 U	0.0017	0.0097	N/A	0.100	0.000170	N/A	4779396
33'45'5-PentaCB-(127)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(128)+(166)	ng/g	0.0168 J	0.0050	0.019	N/A	N/A	N/A	N/A	4779396
HexaCB-(129)+(138)+(163)	ng/g	0.161	0.0053	0.029	N/A	N/A	N/A	N/A	4779396
22'33'45'-HexaCB-(130)	ng/g	0.0088 J	0.0060	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(131)	ng/g	0.0065 U	0.0065	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(132)	ng/g	0.0109	0.0066	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'55'-HexaCB-(133)	ng/g	0.0056 U	0.0056	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(134)+(143)	ng/g	0.0059 U	0.0059	0.019	N/A	N/A	N/A	N/A	4779396
HexaCB-(135)+(151)	ng/g	0.0603	0.0033	0.019	N/A	N/A	N/A	N/A	4779396
22'33'66'-HexaCB-(136)	ng/g	0.0126	0.0022	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'5'-HexaCB-(137)	ng/g	0.0061 U	0.0061	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(139)+(140)	ng/g	0.0052 U	0.0052	0.019	N/A	N/A	N/A	N/A	4779396
22'3455'-HexaCB-(141)	ng/g	0.0054 U	0.0054	0.0097	N/A	N/A	N/A	N/A	4779396
22'3456'-HexaCB-(142)	ng/g	0.0058 U	0.0058	0.0097	N/A	N/A	N/A	N/A	4779396
22'345'6'-HexaCB-(144)	ng/g	0.0056 U (1)	0.0056	0.0097	N/A	N/A	N/A	N/A	4779396
22'3466'-HexaCB-(145)	ng/g	0.0026 U	0.0026	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'55'-HexaCB-(146)	ng/g	0.0402	0.0049	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(147)+(149)	ng/g	0.115	0.0053	0.019	N/A	N/A	N/A	N/A	4779396
22'34'56'-HexaCB-(148)	ng/g	0.0030 U	0.0030	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'66'-HexaCB-(150)	ng/g	0.0024 U	0.0024	0.0097	N/A	N/A	N/A	N/A	4779396
22'3566'-HexaCB-(152)	ng/g	0.0021 U	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(153)+(168)	ng/g	0.233	0.0045	0.0097	N/A	N/A	N/A	N/A	4779396
22'44'56'-HexaCB-(154)	ng/g	0.0073 U (1)	0.0073	0.0097	N/A	N/A	N/A	N/A	4779396

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Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(156)+(157)	ng/g	0.0065 J	0.0014	0.019	N/A	0.0000300	0.000000195	N/A	4779396
233'44'6'-HexaCB-(158)	ng/g	0.0102	0.0040	0.0097	N/A	N/A	N/A	N/A	4779396
233'455'-HexaCB-(159)	ng/g	0.00096 U	0.00096	0.0097	N/A	N/A	N/A	N/A	4779396
233'456'-HexaCB-(160)	ng/g	0.0050 U	0.0050	0.0097	N/A	N/A	N/A	N/A	4779396
233'45'6'-HexaCB-(161)	ng/g	0.0040 U	0.0040	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'55'-HexaCB-(162)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5'6'-HexaCB-(164)	ng/g	0.0044 U	0.0044	0.0097	N/A	N/A	N/A	N/A	4779396
233'55'6'-HexaCB-(165)	ng/g	0.0048 U	0.0048	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'55'-HexaCB-(167)	ng/g	0.0054 J	0.0015	0.0097	N/A	0.0000300	0.000000162	N/A	4779396
33'44'55'-HexaCB-(169)	ng/g	0.0015 U	0.0015	0.0097	N/A	0.0300	0.0000450	N/A	4779396
22'33'44'5'-HeptaCB-(170)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
HeptaCB-(171)+(173)	ng/g	0.0069 J	0.0019	0.019	N/A	N/A	N/A	N/A	4779396
22'33'455'-HeptaCB-(172)	ng/g	0.0019 U	0.0019	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'456'-HeptaCB-(174)	ng/g	0.0019 U	0.0019	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(175)	ng/g	0.0025 U	0.0025	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'466'-HeptaCB-(176)	ng/g	0.0039 J	0.0019	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(177)	ng/g	0.017 U (1)	0.017	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'55'6'-HeptaCB-(178)	ng/g	0.0122	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'566'-HeptaCB-(179)	ng/g	0.013 U (1)	0.013	0.0097	N/A	N/A	N/A	N/A	4779396
HeptaCB-(180)+(193)	ng/g	0.0193	0.0013	0.019	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(181)	ng/g	0.0020 U	0.0020	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(182)	ng/g	0.0026 U	0.0026	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'5'6'-HeptaCB-(183)	ng/g	0.0206	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'66'-HeptaCB-(184)	ng/g	0.0020 U	0.0020	0.0097	N/A	N/A	N/A	N/A	4779396
22'3455'6'-HeptaCB-(185)	ng/g	0.0022 U	0.0022	0.0097	N/A	N/A	N/A	N/A	4779396
22'34566'-HeptaCB-(186)	ng/g	0.0022 U	0.0022	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'55'6'-HeptaCB-(187)	ng/g	0.0707	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'566'-HeptaCB-(188)	ng/g	0.0017 U	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396

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Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	0.0015 U	0.0015	0.0097	N/A	0.0000300	0.0000000450	N/A	4779396
233'44'56'-HeptaCB-(190)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'5'6'-HeptaCB-(191)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
233'455'6'-HeptaCB-(192)	ng/g	0.0017 U	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'55'-OctaCB-(194)	ng/g	0.0039 U (1)	0.0039	0.049	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(195)	ng/g	0.0041 U (1)	0.0041	0.049	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(196)	ng/g	0.013 U (1)	0.013	0.049	N/A	N/A	N/A	N/A	4779396
22'33'44'66'-OctaCB-(197)	ng/g	0.010 U (1)	0.010	0.049	N/A	N/A	N/A	N/A	4779396
OctaCB-(198)+(199)	ng/g	0.014 U (1)	0.014	0.039	N/A	N/A	N/A	N/A	4779396
22'33'4566'-OctaCB-(200)	ng/g	0.0088 U (1)	0.0088	0.049	N/A	N/A	N/A	N/A	4779396
22'33'45'66'-OctaCB-(201)	ng/g	0.0090 U (1)	0.0090	0.049	N/A	N/A	N/A	N/A	4779396
22'33'55'66'-OctaCB-(202)	ng/g	0.0092 U (1)	0.0092	0.049	N/A	N/A	N/A	N/A	4779396
22'344'55'6'-OctaCB-(203)	ng/g	0.014 U (1)	0.014	0.049	N/A	N/A	N/A	N/A	4779396
22'344'566'-OctaCB-(204)	ng/g	0.0091 U (1)	0.0091	0.049	N/A	N/A	N/A	N/A	4779396
233'44'55'6'-OctaCB-(205)	ng/g	0.0028 U	0.0028	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'55'6'-NonaCB-(206)	ng/g	0.0033 U	0.0033	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'566'-NonaCB-(207)	ng/g	0.0027 U	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'455'66'-NonaCB-(208)	ng/g	0.0033 U	0.0033	0.0097	N/A	N/A	N/A	N/A	4779396
DecaCB-(209)	ng/g	0.0034 U	0.0034	0.0097	N/A	N/A	N/A	N/A	4779396
Total PCB	ng/g	1.39	N/A	N/A	N/A	N/A	N/A	N/A	4779396
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000219	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'55'6'-NonaCB-(206)	%	85 (2)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'5'-HeptaCB-(170)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'455'66'-NonaCB-(208)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'66'-OctaCB-(202)	%	92 (1)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'6'-HeptaCB-(178)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	4779396

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QC Batch = Quality Control Batch
N/A = Not Applicable
(1) ** From 5X Dilution **
(2) Ion ratio failed, possibly due to matrix effects.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'344'55'-HeptaCB-(180)	%	133	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'34'566'-HeptaCB-(188)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'44'66'-HexaCB-(155)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'466'-PentaCB-(104)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'66'-TetraCB-(54)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'6-TriCB-(19)	%	66	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'-DiCB-(4)	%	58	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'6-OctaCB-(205)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'-HeptaCB-(189)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'-PentaCB-(105)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'55'-PentaCB-(111)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'55'-HexaCB-(167)	%	73	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2344'5-PentaCB-(114)	%	76	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'5-PentaCB-(118)	%	76	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2'344'5-PentaCB-(123)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2-MonoCB-(1)	%	44	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'55'-HexaCB-(169)	%	39	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'5-PentaCB-(126)	%	57	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'-TetraCB-(77)	%	72	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'5-TetraCB-(81)	%	74	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'-TriCB-(37)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-44'-DiCB-(15)	%	69	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-4-MonoCB-(3)	%	47	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-DecaCB-(209)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-HexaCB-(156)+(157)	%	68	N/A	N/A	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

PCBs									
2-MonoCB-(1)	ng/g	0.0022 U	0.0022	0.010	N/A	N/A	N/A	N/A	4779396
3-MonoCB-(2)	ng/g	0.0017 U	0.0017	0.010	N/A	N/A	N/A	N/A	4779396
4-MonoCB-(3)	ng/g	0.0022 U	0.0022	0.010	N/A	N/A	N/A	N/A	4779396
2,2'-DiCB-(4)	ng/g	0.025 U	0.025	0.010	N/A	N/A	N/A	N/A	4779396
2,3-DiCB-(5)	ng/g	0.0092 U	0.0092	0.010	N/A	N/A	N/A	N/A	4779396
2,3'-DiCB-(6)	ng/g	0.0072 U	0.0072	0.010	N/A	N/A	N/A	N/A	4779396
2,4-DiCB-(7)	ng/g	0.0081 U	0.0081	0.010	N/A	N/A	N/A	N/A	4779396
2,4'-DiCB-(8)	ng/g	0.0068 U	0.0068	0.010	N/A	N/A	N/A	N/A	4779396
2,5-DiCB-(9)	ng/g	0.0071 U	0.0071	0.010	N/A	N/A	N/A	N/A	4779396
2,6-DiCB-(10)	ng/g	0.030 U	0.030	0.010	N/A	N/A	N/A	N/A	4779396
3,3'-DiCB-(11)	ng/g	0.0080 J	0.0075	0.010	N/A	N/A	N/A	N/A	4779396
DiCB-(12)+(13)	ng/g	0.0083 U	0.0083	0.020	N/A	N/A	N/A	N/A	4779396
3,5-DiCB-(14)	ng/g	0.0071 U	0.0071	0.010	N/A	N/A	N/A	N/A	4779396
4,4'-DiCB-(15)	ng/g	0.016 U	0.016	0.010	N/A	N/A	N/A	N/A	4779396
2,2',3-TriCB-(16)	ng/g	0.0049 U	0.0049	0.010	N/A	N/A	N/A	N/A	4779396
2,2',4-TriCB-(17)	ng/g	0.0043 U	0.0043	0.010	N/A	N/A	N/A	N/A	4779396
TriCB-(18)+(30)	ng/g	0.0045 J	0.0035	0.020	N/A	N/A	N/A	N/A	4779396
2,2',6-TriCB-(19)	ng/g	0.0026 U	0.0026	0.010	N/A	N/A	N/A	N/A	4779396
TriCB-(20) + (28)	ng/g	0.0167 J	0.00032	0.020	N/A	N/A	N/A	N/A	4779396
TriCB-(21)+(33)	ng/g	0.00385 J	0.00031	0.020	N/A	N/A	N/A	N/A	4779396
2,3,4'-TriCB-(22)	ng/g	0.00229 J	0.00036	0.010	N/A	N/A	N/A	N/A	4779396
2,3,5-TriCB-(23)	ng/g	0.00034 U	0.00034	0.010	N/A	N/A	N/A	N/A	4779396
2,3,6-TriCB-(24)	ng/g	0.0037 U	0.0037	0.010	N/A	N/A	N/A	N/A	4779396
2,3',4-TriCB-(25)	ng/g	0.00084 U (1)	0.00084	0.010	N/A	N/A	N/A	N/A	4779396
TriCB-(26)+(29)	ng/g	0.00174 J	0.00029	0.020	N/A	N/A	N/A	N/A	4779396
2,3',6-TriCB-(27)	ng/g	0.0030 U	0.0030	0.010	N/A	N/A	N/A	N/A	4779396
2,4',5-TriCB-(31)	ng/g	0.00756 J	0.00028	0.010	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
24'6-TriCB-(32)	ng/g	0.0027 U	0.0027	0.010	N/A	N/A	N/A	N/A	4779396
23'5'-TriCB-(34)	ng/g	0.00030 U	0.00030	0.010	N/A	N/A	N/A	N/A	4779396
33'4-TriCB-(35)	ng/g	0.00031 U	0.00031	0.010	N/A	N/A	N/A	N/A	4779396
33'5-TriCB-(36)	ng/g	0.00027 U	0.00027	0.010	N/A	N/A	N/A	N/A	4779396
344'-TriCB-(37)	ng/g	0.00271 J	0.00063	0.010	N/A	N/A	N/A	N/A	4779396
345-TriCB-(38)	ng/g	0.00032 U	0.00032	0.010	N/A	N/A	N/A	N/A	4779396
34'5-TriCB-(39)	ng/g	0.00032 U	0.00032	0.010	N/A	N/A	N/A	N/A	4779396
TetraCB-(40)+(41)+(71)	ng/g	0.0106 J	0.0019	0.030	N/A	N/A	N/A	N/A	4779396
22'34'-TetraCB-(42)	ng/g	0.0047 J	0.0021	0.010	N/A	N/A	N/A	N/A	4779396
22'35-TetraCB-(43)	ng/g	0.0028 U	0.0028	0.010	N/A	N/A	N/A	N/A	4779396
TetraCB-(44)+(47)+(65)	ng/g	0.0328	0.0017	0.030	N/A	N/A	N/A	N/A	4779396
TetraCB-(45)+(51)	ng/g	0.0019 U (1)	0.0019	0.020	N/A	N/A	N/A	N/A	4779396
22'36'-TetraCB-(46)	ng/g	0.0021 U	0.0021	0.010	N/A	N/A	N/A	N/A	4779396
22'45-TetraCB-(48)	ng/g	0.0056 J	0.0020	0.010	N/A	N/A	N/A	N/A	4779396
TetraCB-(49)+TetraCB-(69)	ng/g	0.0113 J	0.0015	0.020	N/A	N/A	N/A	N/A	4779396
TetraCB-(50)+(53)	ng/g	0.0041 U (1)	0.0041	0.020	N/A	N/A	N/A	N/A	4779396
22'55'-TetraCB-(52)	ng/g	0.0369	0.0016	0.010	N/A	N/A	N/A	N/A	4779396
22'66'-TetraCB-(54)	ng/g	0.00048 U	0.00048	0.010	N/A	N/A	N/A	N/A	4779396
233'4-TetraCB-(55)	ng/g	0.00076 U	0.00076	0.010	N/A	N/A	N/A	N/A	4779396
233'4'-Tetra CB(56)	ng/g	0.00400 J	0.00078	0.010	N/A	N/A	N/A	N/A	4779396
233'5-TetraCB-(57)	ng/g	0.00066 U	0.00066	0.010	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(58)	ng/g	0.00073 U	0.00073	0.010	N/A	N/A	N/A	N/A	4779396
TetraCB-(59)+(62)+(75)	ng/g	0.0027 J	0.0014	0.030	N/A	N/A	N/A	N/A	4779396
2344'-TetraCB -(60)	ng/g	0.00350 J	0.00078	0.010	N/A	N/A	N/A	N/A	4779396
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0366 J	0.00071	0.040	N/A	N/A	N/A	N/A	4779396
234'5-TetraCB-(63)	ng/g	0.00121 J	0.00064	0.010	N/A	N/A	N/A	N/A	4779396
234'6-TetraCB-(64)	ng/g	0.0051 J	0.0014	0.010	N/A	N/A	N/A	N/A	4779396
23'44'-TetraCB-(66)	ng/g	0.0178	0.00064	0.010	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(67)	ng/g	0.00061 U	0.00061	0.010	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(68)	ng/g	0.0011 U (1)	0.0011	0.010	N/A	N/A	N/A	N/A	4779396
23'55'-TetraCB-(72)	ng/g	0.00087 J	0.00064	0.010	N/A	N/A	N/A	N/A	4779396
23'5'6'-TetraCB-(73)	ng/g	0.0013 U	0.0013	0.010	N/A	N/A	N/A	N/A	4779396
33'44'-TetraCB-(77)	ng/g	0.0024 J	0.0011	0.010	N/A	0.000100	0.000000240	N/A	4779396
33'45'-TetraCB-(78)	ng/g	0.00069 U	0.00069	0.010	N/A	N/A	N/A	N/A	4779396
33'45'-TetraCB-(79)	ng/g	0.00062 U	0.00062	0.010	N/A	N/A	N/A	N/A	4779396
33'55'-TetraCB-(80)	ng/g	0.00060 U	0.00060	0.010	N/A	N/A	N/A	N/A	4779396
344'5'-TetraCB-(81)	ng/g	0.0011 U	0.0011	0.010	N/A	0.000300	0.000000330	N/A	4779396
22'33'4'-PentaCB-(82)	ng/g	0.0047 J	0.0025	0.010	N/A	N/A	N/A	N/A	4779396
PentaCB-(83)+(99)	ng/g	0.0812	0.0024	0.020	N/A	N/A	N/A	N/A	4779396
22'33'6'-PentaCB-(84)	ng/g	0.0088 J	0.0025	0.010	N/A	N/A	N/A	N/A	4779396
PentaCB-(85)+(116)+(117)	ng/g	0.0158 J	0.0018	0.030	N/A	N/A	N/A	N/A	4779396
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0285 J	0.0019	0.060	N/A	N/A	N/A	N/A	4779396
PentaCB-(88)+(91)	ng/g	0.0036 U (1)	0.0036	0.020	N/A	N/A	N/A	N/A	4779396
22'346'-PentaCB-(89)	ng/g	0.0023 U	0.0023	0.010	N/A	N/A	N/A	N/A	4779396
PentaCB-(90)+(101)+(113)	ng/g	0.0950	0.0019	0.030	N/A	N/A	N/A	N/A	4779396
22'355'-PentaCB-(92)	ng/g	0.0196	0.0022	0.010	N/A	N/A	N/A	N/A	4779396
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.0057 J	0.0022	0.040	N/A	N/A	N/A	N/A	4779396
22'356'-PentaCB-(94)	ng/g	0.0025 U	0.0025	0.010	N/A	N/A	N/A	N/A	4779396
22'35'6'-PentaCB-(95)	ng/g	0.0477	0.0020	0.010	N/A	N/A	N/A	N/A	4779396
22'366'-PentaCB-(96)	ng/g	0.0022 U	0.0022	0.010	N/A	N/A	N/A	N/A	4779396
22'45'6'-PentaCB-(103)	ng/g	0.0018 U	0.0018	0.010	N/A	N/A	N/A	N/A	4779396
22'466'-PentaCB-(104)	ng/g	0.0013 U	0.0013	0.010	N/A	N/A	N/A	N/A	4779396
233'44'-PentaCB-(105)	ng/g	0.0231	0.0014	0.010	N/A	0.0000300	0.000000693	N/A	4779396
233'45'-PentaCB-(106)	ng/g	0.0010 U	0.0010	0.010	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(107)	ng/g	0.00449 J	0.00088	0.010	N/A	N/A	N/A	N/A	4779396
PentaCB-(108)+(124)	ng/g	0.0019 U (1)	0.0019	0.020	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
PentaCB-(110)+(115)	ng/g	0.0533	0.0020	0.020	N/A	N/A	N/A	N/A	4779396
233'55'-PentaCB-(111)	ng/g	0.0018 U	0.0018	0.010	N/A	N/A	N/A	N/A	4779396
233'56'-PentaCB-(112)	ng/g	0.0016 U	0.0016	0.010	N/A	N/A	N/A	N/A	4779396
2344'5'-PentaCB-(114)	ng/g	0.0014 U	0.0014	0.010	N/A	0.0000300	0.0000000420	N/A	4779396
23'44'5'-PentaCB-(118)	ng/g	0.0707	0.0014	0.010	N/A	0.0000300	0.00000212	N/A	4779396
23'455'-PentaCB-(120)	ng/g	0.0016 U	0.0016	0.010	N/A	N/A	N/A	N/A	4779396
23'45'6'-PentaCB-(121)	ng/g	0.0017 U	0.0017	0.010	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(122)	ng/g	0.0010 U	0.0010	0.010	N/A	N/A	N/A	N/A	4779396
23'44'5'-PentaCB-(123)	ng/g	0.0015 U	0.0015	0.010	N/A	0.0000300	0.0000000450	N/A	4779396
33'44'5'-PentaCB-(126)	ng/g	0.0014 U	0.0014	0.010	N/A	0.100	0.000140	N/A	4779396
33'455'-PentaCB-(127)	ng/g	0.00092 U	0.00092	0.010	N/A	N/A	N/A	N/A	4779396
HexaCB-(128)+(166)	ng/g	0.0194 J (1)	0.0052	0.10	N/A	N/A	N/A	N/A	4779396
HexaCB-(129)+(138)+(163)	ng/g	0.144 J (1)	0.0056	0.15	N/A	N/A	N/A	N/A	4779396
22'33'45'-HexaCB-(130)	ng/g	0.0064 U (1)	0.0064	0.050	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(131)	ng/g	0.0068 U (1)	0.0068	0.050	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(132)	ng/g	0.0138 J (1)	0.0068	0.050	N/A	N/A	N/A	N/A	4779396
22'33'55'-HexaCB-(133)	ng/g	0.0058 U (1)	0.0058	0.050	N/A	N/A	N/A	N/A	4779396
HexaCB-(134)+(143)	ng/g	0.0064 U (1)	0.0064	0.10	N/A	N/A	N/A	N/A	4779396
HexaCB-(135)+(151)	ng/g	0.041 J (1)	0.014	0.10	N/A	N/A	N/A	N/A	4779396
22'33'66'-HexaCB-(136)	ng/g	0.0086 U (1)	0.0086	0.050	N/A	N/A	N/A	N/A	4779396
22'344'5'-HexaCB-(137)	ng/g	0.0063 U (1)	0.0063	0.050	N/A	N/A	N/A	N/A	4779396
HexaCB-(139)+(140)	ng/g	0.0055 U (1)	0.0055	0.10	N/A	N/A	N/A	N/A	4779396
22'3455'-HexaCB-(141)	ng/g	0.0060 U (1)	0.0060	0.10	N/A	N/A	N/A	N/A	4779396
22'3456'-HexaCB-(142)	ng/g	0.0060 U (1)	0.0060	0.050	N/A	N/A	N/A	N/A	4779396
22'345'6'-HexaCB-(144)	ng/g	0.013 U (1)	0.013	0.050	N/A	N/A	N/A	N/A	4779396
22'3466'-HexaCB-(145)	ng/g	0.011 U (1)	0.011	0.050	N/A	N/A	N/A	N/A	4779396
22'34'55'-HexaCB-(146)	ng/g	0.0325 J (1)	0.0052	0.050	N/A	N/A	N/A	N/A	4779396
HexaCB-(147)+(149)	ng/g	0.0869 J (1)	0.0058	0.10	N/A	N/A	N/A	N/A	4779396

EDL = Estimated Detection Limit
RDL = Reportable Detection Limit
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) ** From 5X Dilution **

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'56'-HexaCB-(148)	ng/g	0.013 U (1)	0.013	0.050	N/A	N/A	N/A	N/A	4779396
22'34'66'-HexaCB-(150)	ng/g	0.011 U (1)	0.011	0.050	N/A	N/A	N/A	N/A	4779396
22'3566'-HexaCB-(152)	ng/g	0.0092 U (1)	0.0092	0.050	N/A	N/A	N/A	N/A	4779396
HexaCB-(153)+(168)	ng/g	0.194 (1)	0.0047	0.10	N/A	N/A	N/A	N/A	4779396
22'44'56'-HexaCB-(154)	ng/g	0.012 U (1)	0.012	0.050	N/A	N/A	N/A	N/A	4779396
22'44'66'-HexaCB-(155)	ng/g	0.0065 U (1)	0.0065	0.050	N/A	N/A	N/A	N/A	4779396
HexaCB-(156)+(157)	ng/g	0.00762 J	0.00099	0.020	N/A	0.0000300	0.000000229	N/A	4779396
233'44'6-HexaCB-(158)	ng/g	0.0096 J (1)	0.0042	0.050	N/A	N/A	N/A	N/A	4779396
233'455'-HexaCB-(159)	ng/g	0.0041 U (1)	0.0041	0.050	N/A	N/A	N/A	N/A	4779396
233'456-HexaCB-(160)	ng/g	0.0053 U (1)	0.0053	0.050	N/A	N/A	N/A	N/A	4779396
233'45'6-HexaCB-(161)	ng/g	0.0042 U (1)	0.0042	0.050	N/A	N/A	N/A	N/A	4779396
233'4'55'-HexaCB-(162)	ng/g	0.0045 U (1)	0.0045	0.050	N/A	N/A	N/A	N/A	4779396
233'4'5'6-HexaCB-(164)	ng/g	0.0046 U (1)	0.0046	0.050	N/A	N/A	N/A	N/A	4779396
233'55'6-HexaCB-(165)	ng/g	0.0050 U (1)	0.0050	0.050	N/A	N/A	N/A	N/A	4779396
23'44'55'-HexaCB-(167)	ng/g	0.0048 J	0.0011	0.010	N/A	0.0000300	0.000000144	N/A	4779396
33'44'55'-HexaCB-(169)	ng/g	0.0011 U	0.0011	0.010	N/A	0.0300	0.0000330	N/A	4779396
22'33'44'5-HeptaCB-(170)	ng/g	0.0065 J (1)	0.0035	0.050	N/A	N/A	N/A	N/A	4779396
HeptaCB-(171)+(173)	ng/g	0.0071 U (2)	0.0071	0.10	N/A	N/A	N/A	N/A	4779396
22'33'455'-HeptaCB-(172)	ng/g	0.0047 U (1)	0.0047	0.050	N/A	N/A	N/A	N/A	4779396
22'33'456'-HeptaCB-(174)	ng/g	0.0048 U (1)	0.0048	0.050	N/A	N/A	N/A	N/A	4779396
22'33'45'6-HeptaCB-(175)	ng/g	0.0044 U (1)	0.0044	0.050	N/A	N/A	N/A	N/A	4779396
22'33'466'-HeptaCB-(176)	ng/g	0.0033 U (1)	0.0033	0.050	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(177)	ng/g	0.0151 J (1)	0.0046	0.050	N/A	N/A	N/A	N/A	4779396
22'33'55'6-HeptaCB-(178)	ng/g	0.0106 J (1)	0.0047	0.050	N/A	N/A	N/A	N/A	4779396
22'33'566'-HeptaCB-(179)	ng/g	0.0106 J (1)	0.0032	0.050	N/A	N/A	N/A	N/A	4779396

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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
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Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) ** From 5X Dilution **
(2) ** From 5X Dilution **

EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HeptaCB-(180)+(193)	ng/g	0.018 U (1)	0.018	0.10	N/A	N/A	N/A	N/A	4779396
22'344'56-HeptaCB-(181)	ng/g	0.0048 U (2)	0.0048	0.050	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(182)	ng/g	0.0045 U (2)	0.0045	0.050	N/A	N/A	N/A	N/A	4779396
22'344'5'6-HeptaCB-(183)	ng/g	0.0177 J (2)	0.0040	0.050	N/A	N/A	N/A	N/A	4779396
22'344'66'-HeptaCB-(184)	ng/g	0.0034 U (2)	0.0034	0.050	N/A	N/A	N/A	N/A	4779396
22'3455'6-HeptaCB-(185)	ng/g	0.0047 U (2)	0.0047	0.050	N/A	N/A	N/A	N/A	4779396
22'34566'-HeptaCB-(186)	ng/g	0.0038 U (2)	0.0038	0.050	N/A	N/A	N/A	N/A	4779396
22'34'55'6-HeptaCB-(187)	ng/g	0.0635 (2)	0.0047	0.050	N/A	N/A	N/A	N/A	4779396
22'34'566'-HeptaCB-(188)	ng/g	0.00089 U	0.00089	0.010	N/A	N/A	N/A	N/A	4779396
233'44'55'-HeptaCB-(189)	ng/g	0.0023 U	0.0023	0.010	N/A	0.0000300	0.0000000690	N/A	4779396
233'44'56-HeptaCB-(190)	ng/g	0.0036 U (2)	0.0036	0.050	N/A	N/A	N/A	N/A	4779396
233'44'5'6-HeptaCB-(191)	ng/g	0.0034 U (2)	0.0034	0.050	N/A	N/A	N/A	N/A	4779396
233'455'6-HeptaCB-(192)	ng/g	0.0041 U (2)	0.0041	0.050	N/A	N/A	N/A	N/A	4779396
22'33'44'55'-OctaCB-(194)	ng/g	0.0045 U (2)	0.0045	0.050	N/A	N/A	N/A	N/A	4779396
22'33'44'56-OctaCB-(195)	ng/g	0.0048 U (2)	0.0048	0.050	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(196)	ng/g	0.0073 U (2)	0.0073	0.050	N/A	N/A	N/A	N/A	4779396
22'33'44'66'OctaCB-(197)	ng/g	0.0059 U (2)	0.0059	0.050	N/A	N/A	N/A	N/A	4779396
OctaCB-(198)+(199)	ng/g	0.0077 U (2)	0.0077	0.10	N/A	N/A	N/A	N/A	4779396
22'33'4566'-OctaCB-(200)	ng/g	0.0050 U (2)	0.0050	0.050	N/A	N/A	N/A	N/A	4779396
22'33'45'66'-OctaCB-(201)	ng/g	0.0051 U (2)	0.0051	0.050	N/A	N/A	N/A	N/A	4779396
22'33'55'66'-OctaCB-(202)	ng/g	0.0058 U (1)	0.0058	0.050	N/A	N/A	N/A	N/A	4779396
22'344'55'6-OctaCB-(203)	ng/g	0.0078 U (2)	0.0078	0.050	N/A	N/A	N/A	N/A	4779396
22'344'566'-OctaCB-(204)	ng/g	0.0051 U (2)	0.0051	0.050	N/A	N/A	N/A	N/A	4779396
233'44'55'6-OctaCB-(205)	ng/g	0.0021 U	0.0021	0.010	N/A	N/A	N/A	N/A	4779396
22'33'44'55'6-NonaCB-(206)	ng/g	0.0044 U	0.0044	0.010	N/A	N/A	N/A	N/A	4779396

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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) ** From 5X Dilution **
(2) ** From 5X Dilution **
EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.
(2) ** From 5X Dilution **

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'33'44'566'-NonaCB-(207)	ng/g	0.0036 U	0.0036	0.010	N/A	N/A	N/A	N/A	4779396
22'33'455'66'-NonaCB-(208)	ng/g	0.0044 U	0.0044	0.010	N/A	N/A	N/A	N/A	4779396
DecaCB-(209)	ng/g	0.0057 U (1)	0.0057	0.010	N/A	N/A	N/A	N/A	4779396
Total PCB	ng/g	1.36	N/A	N/A	N/A	N/A	N/A	N/A	4779396
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000177	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	79	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'55'6'-NonaCB-(206)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'5'-HeptaCB-(170)	%	95 (2)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'455'66'-NonaCB-(208)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'66'-OctaCB-(202)	%	94 (2)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'6'-HeptaCB-(178)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'344'55'-HeptaCB-(180)	%	95 (2)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'34'566'-HeptaCB-(188)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'44'66'-HexaCB-(155)	%	99 (2)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'466'-PentaCB-(104)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'66'-TetraCB-(54)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'6-TriCB-(19)	%	60	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'-DiCB-(4)	%	45	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'6'-OctaCB-(205)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'-HeptaCB-(189)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'-PentaCB-(105)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'55'-PentaCB-(111)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'55'-HexaCB-(167)	%	79	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2344'5'-PentaCB-(114)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'5'-PentaCB-(118)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2'344'5'-PentaCB-(123)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	4779396
<p>EDL = Estimated Detection Limit RDL = Reportable Detection Limit TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate N/A = Not Applicable (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit. (2) ** From 5X Dilution **</p>									

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS275							
Sampling Date		2016/10/11 11:05							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-2-161011 16J0187-02 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2-MonoCB-(1)	%	31	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'55'-HexaCB-(169)	%	42	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'5-PentaCB-(126)	%	60	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'-TetraCB-(77)	%	73	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'5-TetraCB-(81)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'-TriCB-(37)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-44'-DiCB-(15)	%	73	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-4-MonoCB-(3)	%	40	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-DecaCB-(209)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-HexaCB-(156)+(157)	%	74	N/A	N/A	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS276							
Sampling Date		2016/10/11 11:10							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-3-161011 16J0187-03	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

PCBs									
2-MonoCB-(1)	ng/g	0.0013 U	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
3-MonoCB-(2)	ng/g	0.0010 U	0.0010	0.0098	N/A	N/A	N/A	N/A	4779396
4-MonoCB-(3)	ng/g	0.0014 U	0.0014	0.0098	N/A	N/A	N/A	N/A	4779396
22'-DiCB-(4)	ng/g	0.025 U	0.025	0.0098	N/A	N/A	N/A	N/A	4779396
2,3-DiCB-(5)	ng/g	0.010 U	0.010	0.0098	N/A	N/A	N/A	N/A	4779396
2,3'-DiCB-(6)	ng/g	0.0079 U	0.0079	0.0098	N/A	N/A	N/A	N/A	4779396
2,4-DiCB-(7)	ng/g	0.0089 U	0.0089	0.0098	N/A	N/A	N/A	N/A	4779396
2,4'-DiCB-(8)	ng/g	0.0074 U	0.0074	0.0098	N/A	N/A	N/A	N/A	4779396
2,5-DiCB-(9)	ng/g	0.0078 U	0.0078	0.0098	N/A	N/A	N/A	N/A	4779396
2,6-DiCB-(10)	ng/g	0.030 U	0.030	0.0098	N/A	N/A	N/A	N/A	4779396
3,3'-DiCB-(11)	ng/g	0.0083 U	0.0083	0.0098	N/A	N/A	N/A	N/A	4779396
DiCB-(12)+(13)	ng/g	0.0091 U	0.0091	0.020	N/A	N/A	N/A	N/A	4779396
3,5-DiCB-(14)	ng/g	0.0079 U	0.0079	0.0098	N/A	N/A	N/A	N/A	4779396
4,4'-DiCB-(15)	ng/g	0.017 U	0.017	0.0098	N/A	N/A	N/A	N/A	4779396
22'3-TriCB-(16)	ng/g	0.0047 U	0.0047	0.0098	N/A	N/A	N/A	N/A	4779396
22'4-TriCB-(17)	ng/g	0.0042 U	0.0042	0.0098	N/A	N/A	N/A	N/A	4779396
TriCB-(18)+(30)	ng/g	0.0033 U	0.0033	0.020	N/A	N/A	N/A	N/A	4779396
22'6-TriCB-(19)	ng/g	0.0025 U	0.0025	0.0098	N/A	N/A	N/A	N/A	4779396
TriCB-(20) + (28)	ng/g	0.0143 J	0.00041	0.020	N/A	N/A	N/A	N/A	4779396
TriCB-(21)+(33)	ng/g	0.00354 J	0.00040	0.020	N/A	N/A	N/A	N/A	4779396
234'-TriCB-(22)	ng/g	0.00198 J	0.00046	0.0098	N/A	N/A	N/A	N/A	4779396
235-TriCB-(23)	ng/g	0.00043 U	0.00043	0.0098	N/A	N/A	N/A	N/A	4779396
236-TriCB-(24)	ng/g	0.0036 U	0.0036	0.0098	N/A	N/A	N/A	N/A	4779396
23'4-TriCB-(25)	ng/g	0.00092 J	0.00038	0.0098	N/A	N/A	N/A	N/A	4779396
TriCB-(26)+(29)	ng/g	0.00163 J	0.00038	0.020	N/A	N/A	N/A	N/A	4779396
23'6-TriCB-(27)	ng/g	0.0029 U	0.0029	0.0098	N/A	N/A	N/A	N/A	4779396
24'5-TriCB-(31)	ng/g	0.00651 J	0.00037	0.0098	N/A	N/A	N/A	N/A	4779396
24'6-TriCB-(32)	ng/g	0.0026 U	0.0026	0.0098	N/A	N/A	N/A	N/A	4779396
23'5'-TriCB-(34)	ng/g	0.00038 U	0.00038	0.0098	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS276							
Sampling Date		2016/10/11 11:10							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-3-161011 16J0187-03	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	0.00040 U	0.00040	0.0098	N/A	N/A	N/A	N/A	4779396
33'5'-TriCB-(36)	ng/g	0.00035 U	0.00035	0.0098	N/A	N/A	N/A	N/A	4779396
344'-TriCB-(37)	ng/g	0.00253 J	0.00082	0.0098	N/A	N/A	N/A	N/A	4779396
345'-TriCB-(38)	ng/g	0.00041 U	0.00041	0.0098	N/A	N/A	N/A	N/A	4779396
34'5'-TriCB-(39)	ng/g	0.00042 U	0.00042	0.0098	N/A	N/A	N/A	N/A	4779396
TetraCB-(40)+(41)+(71)	ng/g	0.0096 J	0.0017	0.030	N/A	N/A	N/A	N/A	4779396
22'34'-TetraCB-(42)	ng/g	0.0045 J	0.0019	0.0098	N/A	N/A	N/A	N/A	4779396
22'35'-TetraCB-(43)	ng/g	0.0026 U	0.0026	0.0098	N/A	N/A	N/A	N/A	4779396
TetraCB-(44)+(47)+(65)	ng/g	0.0251 J	0.0016	0.030	N/A	N/A	N/A	N/A	4779396
TetraCB-(45)+(51)	ng/g	0.0017 U	0.0017	0.020	N/A	N/A	N/A	N/A	4779396
22'36'-TetraCB-(46)	ng/g	0.0019 U	0.0019	0.0098	N/A	N/A	N/A	N/A	4779396
22'45'-TetraCB-(48)	ng/g	0.0041 J	0.0018	0.0098	N/A	N/A	N/A	N/A	4779396
TetraCB-(49)+TetraCB-(69)	ng/g	0.0094 J	0.0014	0.020	N/A	N/A	N/A	N/A	4779396
TetraCB-(50)+(53)	ng/g	0.0042 J	0.0016	0.020	N/A	N/A	N/A	N/A	4779396
22'55'-TetraCB-(52)	ng/g	0.0312	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
22'66'-TetraCB-(54)	ng/g	0.00056 U	0.00056	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'-TetraCB-(55)	ng/g	0.00079 U	0.00079	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'-Tetra CB(56)	ng/g	0.00288 J	0.00081	0.0098	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(57)	ng/g	0.00068 U	0.00068	0.0098	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(58)	ng/g	0.00076 U	0.00076	0.0098	N/A	N/A	N/A	N/A	4779396
TetraCB-(59)+(62)+(75)	ng/g	0.0023 J	0.0013	0.030	N/A	N/A	N/A	N/A	4779396
2344'-TetraCB -(60)	ng/g	0.0024 U (1)	0.0024	0.0098	N/A	N/A	N/A	N/A	4779396
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0297 J	0.00074	0.039	N/A	N/A	N/A	N/A	4779396
234'5'-TetraCB-(63)	ng/g	0.00085 U (1)	0.00085	0.0098	N/A	N/A	N/A	N/A	4779396
234'6'-TetraCB-(64)	ng/g	0.0033 J	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
23'44'-TetraCB-(66)	ng/g	0.0137	0.00066	0.0098	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(67)	ng/g	0.00064 U	0.00064	0.0098	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(68)	ng/g	0.00092 U (1)	0.00092	0.0098	N/A	N/A	N/A	N/A	4779396
23'55'-TetraCB-(72)	ng/g	0.00074 J	0.00066	0.0098	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS276							
Sampling Date		2016/10/11 11:10							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-3-161011 16J0187-03	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	0.0012 U	0.0012	0.0098	N/A	N/A	N/A	N/A	4779396
33'44'-TetraCB-(77)	ng/g	0.0019 J	0.0011	0.0098	N/A	0.000100	0.000000190	N/A	4779396
33'45-TetraCB-(78)	ng/g	0.00072 U	0.00072	0.0098	N/A	N/A	N/A	N/A	4779396
33'45'-TetraCB(79)	ng/g	0.00064 U	0.00064	0.0098	N/A	N/A	N/A	N/A	4779396
33'55'-TetraCB-(80)	ng/g	0.00062 U	0.00062	0.0098	N/A	N/A	N/A	N/A	4779396
344'5-TetraCB-(81)	ng/g	0.0011 U	0.0011	0.0098	N/A	0.000300	0.000000330	N/A	4779396
22'33'4-PentaCB-(82)	ng/g	0.0029 J	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
PentaCB-(83)+(99)	ng/g	0.0700	0.0012	0.020	N/A	N/A	N/A	N/A	4779396
22'33'6-PentaCB-(84)	ng/g	0.0063 J	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
PentaCB-(85)+(116)+(117)	ng/g	0.0116 J	0.00091	0.030	N/A	N/A	N/A	N/A	4779396
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0249 J	0.00099	0.059	N/A	N/A	N/A	N/A	4779396
PentaCB-(88)+(91)	ng/g	0.0038 J	0.0011	0.020	N/A	N/A	N/A	N/A	4779396
22'346'-PentaCB-(89)	ng/g	0.0012 U	0.0012	0.0098	N/A	N/A	N/A	N/A	4779396
PentaCB-(90)+(101)+(113)	ng/g	0.0761	0.00099	0.030	N/A	N/A	N/A	N/A	4779396
22'355'-PentaCB-(92)	ng/g	0.0159	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.0044 J	0.0011	0.039	N/A	N/A	N/A	N/A	4779396
22'356'-PentaCB-(94)	ng/g	0.0013 U	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
22'35'6-PentaCB-(95)	ng/g	0.0365	0.0010	0.0098	N/A	N/A	N/A	N/A	4779396
22'366'-PentaCB-(96)	ng/g	0.00054 U (1)	0.00054	0.0098	N/A	N/A	N/A	N/A	4779396
22'45'6-PentaCB-(103)	ng/g	0.00140 J	0.00094	0.0098	N/A	N/A	N/A	N/A	4779396
22'466'-PentaCB-(104)	ng/g	0.00020 U	0.00020	0.0098	N/A	N/A	N/A	N/A	4779396
233'44'-PentaCB-(105)	ng/g	0.0184	0.0013	0.0098	N/A	0.0000300	0.000000552	N/A	4779396
233'45-PentaCB-(106)	ng/g	0.00094 U	0.00094	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'5-PentaCB-(107)	ng/g	0.00480 J	0.00083	0.0098	N/A	N/A	N/A	N/A	4779396
PentaCB-(108)+(124)	ng/g	0.00180 J	0.00092	0.020	N/A	N/A	N/A	N/A	4779396
PentaCB-(110)+(115)	ng/g	0.0439	0.0010	0.020	N/A	N/A	N/A	N/A	4779396
233'55'-PentaCB-(111)	ng/g	0.00092 U	0.00092	0.0098	N/A	N/A	N/A	N/A	4779396
233'56-PentaCB-(112)	ng/g	0.00082 U	0.00082	0.0098	N/A	N/A	N/A	N/A	4779396
2344'5-PentaCB-(114)	ng/g	0.0013 U	0.0013	0.0098	N/A	0.0000300	0.0000000390	N/A	4779396

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Maxxam ID		DIS276							
Sampling Date		2016/10/11 11:10							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-3-161011 16J0187-03	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5-PentaCB-(118)	ng/g	0.0622	0.0013	0.0098	N/A	0.0000300	0.00000187	N/A	4779396
23'45'5-PentaCB-(120)	ng/g	0.00081 U	0.00081	0.0098	N/A	N/A	N/A	N/A	4779396
23'45'6-PentaCB-(121)	ng/g	0.00088 U	0.00088	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(122)	ng/g	0.00097 U	0.00097	0.0098	N/A	N/A	N/A	N/A	4779396
23'44'5'-PentaCB-(123)	ng/g	0.0014 U	0.0014	0.0098	N/A	0.0000300	0.0000000420	N/A	4779396
33'44'5-PentaCB-(126)	ng/g	0.0013 U	0.0013	0.0098	N/A	0.100	0.000130	N/A	4779396
33'45'5-PentaCB-(127)	ng/g	0.00087 U	0.00087	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(128)+(166)	ng/g	0.0175 J	0.0017	0.020	N/A	N/A	N/A	N/A	4779396
HexaCB-(129)+(138)+(163)	ng/g	0.141	0.0018	0.030	N/A	N/A	N/A	N/A	4779396
22'33'45'-HexaCB-(130)	ng/g	0.0071 J	0.0021	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(131)	ng/g	0.0022 U	0.0022	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(132)	ng/g	0.0140	0.0023	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'55'-HexaCB-(133)	ng/g	0.0042 J	0.0019	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(134)+(143)	ng/g	0.0047 J	0.0020	0.020	N/A	N/A	N/A	N/A	4779396
HexaCB-(135)+(151)	ng/g	0.0500	0.0025	0.020	N/A	N/A	N/A	N/A	4779396
22'33'66'-HexaCB-(136)	ng/g	0.0104	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
22'344'5'-HexaCB-(137)	ng/g	0.0021 U	0.0021	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(139)+(140)	ng/g	0.0018 U	0.0018	0.020	N/A	N/A	N/A	N/A	4779396
22'3455'-HexaCB-(141)	ng/g	0.0019 U	0.0019	0.0098	N/A	N/A	N/A	N/A	4779396
22'3456'-HexaCB-(142)	ng/g	0.0020 U	0.0020	0.0098	N/A	N/A	N/A	N/A	4779396
22'345'6'-HexaCB-(144)	ng/g	0.0049 J	0.0024	0.0098	N/A	N/A	N/A	N/A	4779396
22'3466'-HexaCB-(145)	ng/g	0.0020 U	0.0020	0.0098	N/A	N/A	N/A	N/A	4779396
22'34'55'-HexaCB-(146)	ng/g	0.0353	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(147)+(149)	ng/g	0.0928	0.0018	0.020	N/A	N/A	N/A	N/A	4779396
22'34'56'-HexaCB-(148)	ng/g	0.0023 U	0.0023	0.0098	N/A	N/A	N/A	N/A	4779396
22'34'66'-HexaCB-(150)	ng/g	0.0018 U	0.0018	0.0098	N/A	N/A	N/A	N/A	4779396
22'3566'-HexaCB-(152)	ng/g	0.0016 U	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
HexaCB-(153)+(168)	ng/g	0.197	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
22'44'56'-HexaCB-(154)	ng/g	0.0058 J	0.0021	0.0098	N/A	N/A	N/A	N/A	4779396
22'44'66'-HexaCB-(155)	ng/g	0.0010 U	0.0010	0.0098	N/A	N/A	N/A	N/A	4779396

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COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-3-161011 16J0187-03	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(156)+(157)	ng/g	0.00590 J	0.00088	0.020	N/A	0.0000300	0.000000177	N/A	4779396
233'44'6'-HexaCB-(158)	ng/g	0.0085 J	0.0014	0.0098	N/A	N/A	N/A	N/A	4779396
233'455'-HexaCB-(159)	ng/g	0.00061 U	0.00061	0.0098	N/A	N/A	N/A	N/A	4779396
233'456'-HexaCB-(160)	ng/g	0.0017 U	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
233'45'6'-HexaCB-(161)	ng/g	0.0014 U	0.0014	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'55'-HexaCB-(162)	ng/g	0.00068 U	0.00068	0.0098	N/A	N/A	N/A	N/A	4779396
233'4'5'6'-HexaCB-(164)	ng/g	0.0017 U (1)	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
233'55'6'-HexaCB-(165)	ng/g	0.0016 U	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
23'44'55'-HexaCB-(167)	ng/g	0.00448 J	0.00096	0.0098	N/A	0.0000300	0.000000134	N/A	4779396
33'44'55'-HexaCB-(169)	ng/g	0.00093 U	0.00093	0.0098	N/A	0.0300	0.0000279	N/A	4779396
22'33'44'5'-HeptaCB-(170)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
HeptaCB-(171)+(173)	ng/g	0.0073 J	0.0015	0.020	N/A	N/A	N/A	N/A	4779396
22'33'455'-HeptaCB-(172)	ng/g	0.0015 U	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'456'-HeptaCB-(174)	ng/g	0.0015 U	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(175)	ng/g	0.0023 U	0.0023	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'466'-HeptaCB-(176)	ng/g	0.0027 U (1)	0.0027	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(177)	ng/g	0.0145	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'55'6'-HeptaCB-(178)	ng/g	0.010 U (1)	0.010	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'566'-HeptaCB-(179)	ng/g	0.0122	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
HeptaCB-(180)+(193)	ng/g	0.0152 J	0.00098	0.020	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(181)	ng/g	0.0015 U	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(182)	ng/g	0.0024 U	0.0024	0.0098	N/A	N/A	N/A	N/A	4779396
22'344'5'6'-HeptaCB-(183)	ng/g	0.0174	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
22'344'66'-HeptaCB-(184)	ng/g	0.0018 U	0.0018	0.0098	N/A	N/A	N/A	N/A	4779396
22'3455'6'-HeptaCB-(185)	ng/g	0.0018 U	0.0018	0.0098	N/A	N/A	N/A	N/A	4779396
22'34566'-HeptaCB-(186)	ng/g	0.0019 U	0.0019	0.0098	N/A	N/A	N/A	N/A	4779396
22'34'55'6'-HeptaCB-(187)	ng/g	0.0635	0.0025	0.0098	N/A	N/A	N/A	N/A	4779396
22'34'566'-HeptaCB-(188)	ng/g	0.0015 U	0.0015	0.0098	N/A	N/A	N/A	N/A	4779396
233'44'55'-HeptaCB-(189)	ng/g	0.0011 U	0.0011	0.0098	N/A	0.0000300	0.0000000330	N/A	4779396

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COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-3-161011 16J0187-03	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'56'-HeptaCB-(190)	ng/g	0.0012 U	0.0012	0.0098	N/A	N/A	N/A	N/A	4779396
233'44'5'6'-HeptaCB-(191)	ng/g	0.0011 U	0.0011	0.0098	N/A	N/A	N/A	N/A	4779396
233'455'6'-HeptaCB-(192)	ng/g	0.0013 U	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'44'55'-OctaCB-(194)	ng/g	0.0026 U (1)	0.0026	0.049	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(195)	ng/g	0.0028 U (1)	0.0028	0.049	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(196)	ng/g	0.0023 U (1)	0.0023	0.049	N/A	N/A	N/A	N/A	4779396
22'33'44'66'-OctaCB-(197)	ng/g	0.0018 U (1)	0.0018	0.049	N/A	N/A	N/A	N/A	4779396
OctaCB-(198)+(199)	ng/g	0.0024 U (1)	0.0024	0.098	N/A	N/A	N/A	N/A	4779396
22'33'4566'-OctaCB-(200)	ng/g	0.0016 U (1)	0.0016	0.049	N/A	N/A	N/A	N/A	4779396
22'33'45'66'-OctaCB-(201)	ng/g	0.0019 J (1)	0.0016	0.049	N/A	N/A	N/A	N/A	4779396
22'33'55'66'-OctaCB-(202)	ng/g	0.0031 U (2)	0.0031	0.049	N/A	N/A	N/A	N/A	4779396
22'344'55'6'-OctaCB-(203)	ng/g	0.0024 U (1)	0.0024	0.049	N/A	N/A	N/A	N/A	4779396
22'344'566'-OctaCB-(204)	ng/g	0.0016 U (1)	0.0016	0.049	N/A	N/A	N/A	N/A	4779396
233'44'55'6'-OctaCB-(205)	ng/g	0.0017 U	0.0017	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'44'55'6'-NonaCB-(206)	ng/g	0.0016 U	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'44'566'-NonaCB-(207)	ng/g	0.0013 U	0.0013	0.0098	N/A	N/A	N/A	N/A	4779396
22'33'455'66'-NonaCB-(208)	ng/g	0.0016 U	0.0016	0.0098	N/A	N/A	N/A	N/A	4779396
DecaCB-(209)	ng/g	0.0032 U	0.0032	0.0098	N/A	N/A	N/A	N/A	4779396
Total PCB	ng/g	1.29	N/A	N/A	N/A	N/A	N/A	N/A	4779396
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000161	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'55'6'-NonaCB-(206)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'5'-HeptaCB-(170)	%	139	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'455'66'-NonaCB-(208)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'66'-OctaCB-(202)	%	100 (1)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'6'-HeptaCB-(178)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	4779396

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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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QC Batch = Quality Control Batch
N/A = Not Applicable
(1) ** From 5X Dilution **
(2) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.
** From 5X Dilution **

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS276							
Sampling Date		2016/10/11 11:10							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-SMA-1-3-161011 16J0187-03	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'344'55'-HeptaCB-(180)	%	150 Q	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'34'566'-HeptaCB-(188)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'44'66'-HexaCB-(155)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'466'-PentaCB-(104)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'66'-TetraCB-(54)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'6-TriCB-(19)	%	64	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'-DiCB-(4)	%	48	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'6-OctaCB-(205)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'-HeptaCB-(189)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'-PentaCB-(105)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'55'-PentaCB-(111)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'55'-HexaCB-(167)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2344'5-PentaCB-(114)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'5-PentaCB-(118)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2'344'5-PentaCB-(123)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2-MonoCB-(1)	%	37	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'55'-HexaCB-(169)	%	46	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'5-PentaCB-(126)	%	71	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'-TetraCB-(77)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'5-TetraCB-(81)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'-TriCB-(37)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-44'-DiCB-(15)	%	68	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-4-MonoCB-(3)	%	39	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-DecaCB-(209)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-HexaCB-(156)+(157)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	4779396

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N/A = Not Applicable

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS277							
Sampling Date		2016/10/11 12:37							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-PJ-1-161011 16J0187-04	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

PCBs									
2-MonoCB-(1)	ng/g	0.00056 U	0.00056	0.0099	N/A	N/A	N/A	N/A	4779396
3-MonoCB-(2)	ng/g	0.00045 U	0.00045	0.0099	N/A	N/A	N/A	N/A	4779396
4-MonoCB-(3)	ng/g	0.00057 U	0.00057	0.0099	N/A	N/A	N/A	N/A	4779396
22'-DiCB-(4)	ng/g	0.011 U	0.011	0.0099	N/A	N/A	N/A	N/A	4779396
2,3-DiCB-(5)	ng/g	0.0035 U	0.0035	0.0099	N/A	N/A	N/A	N/A	4779396
2,3'-DiCB-(6)	ng/g	0.0030 U	0.0030	0.0099	N/A	N/A	N/A	N/A	4779396
2,4-DiCB-(7)	ng/g	0.0033 U	0.0033	0.0099	N/A	N/A	N/A	N/A	4779396
2,4'-DiCB-(8)	ng/g	0.0030 U	0.0030	0.0099	N/A	N/A	N/A	N/A	4779396
2,5-DiCB-(9)	ng/g	0.0030 U	0.0030	0.0099	N/A	N/A	N/A	N/A	4779396
2,6-DiCB-(10)	ng/g	0.013 U	0.013	0.0099	N/A	N/A	N/A	N/A	4779396
3,3'-DiCB-(11)	ng/g	0.0114	0.0031	0.0099	N/A	N/A	N/A	N/A	4779396
DiCB-(12)+(13)	ng/g	0.0034 U	0.0034	0.020	N/A	N/A	N/A	N/A	4779396
3,5-DiCB-(14)	ng/g	0.0029 U	0.0029	0.0099	N/A	N/A	N/A	N/A	4779396
4,4'-DiCB-(15)	ng/g	0.0061 U	0.0061	0.0099	N/A	N/A	N/A	N/A	4779396
22'3-TriCB-(16)	ng/g	0.0054 U	0.0054	0.0099	N/A	N/A	N/A	N/A	4779396
22'4-TriCB-(17)	ng/g	0.0039 U	0.0039	0.0099	N/A	N/A	N/A	N/A	4779396
TriCB-(18)+(30)	ng/g	0.0035 J	0.0033	0.020	N/A	N/A	N/A	N/A	4779396
22'6-TriCB-(19)	ng/g	0.0026 U	0.0026	0.0099	N/A	N/A	N/A	N/A	4779396
TriCB-(20) + (28)	ng/g	0.0161 J	0.00056	0.020	N/A	N/A	N/A	N/A	4779396
TriCB-(21)+(33)	ng/g	0.00384 J	0.00055	0.020	N/A	N/A	N/A	N/A	4779396
234'-TriCB-(22)	ng/g	0.00208 J	0.00062	0.0099	N/A	N/A	N/A	N/A	4779396
235-TriCB-(23)	ng/g	0.00063 U	0.00063	0.0099	N/A	N/A	N/A	N/A	4779396
236-TriCB-(24)	ng/g	0.0033 U	0.0033	0.0099	N/A	N/A	N/A	N/A	4779396
23'4-TriCB-(25)	ng/g	0.00092 J	0.00051	0.0099	N/A	N/A	N/A	N/A	4779396
TriCB-(26)+(29)	ng/g	0.00189 J	0.00054	0.020	N/A	N/A	N/A	N/A	4779396
23'6-TriCB-(27)	ng/g	0.0027 U	0.0027	0.0099	N/A	N/A	N/A	N/A	4779396
24'5-TriCB-(31)	ng/g	0.00758 J	0.00051	0.0099	N/A	N/A	N/A	N/A	4779396
24'6-TriCB-(32)	ng/g	0.0026 U	0.0026	0.0099	N/A	N/A	N/A	N/A	4779396
23'5'-TriCB-(34)	ng/g	0.00051 U	0.00051	0.0099	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS277							
Sampling Date		2016/10/11 12:37							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-PJ-1-161011 16J0187-04	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	0.00056 U	0.00056	0.0099	N/A	N/A	N/A	N/A	4779396
33'5'-TriCB-(36)	ng/g	0.00047 U	0.00047	0.0099	N/A	N/A	N/A	N/A	4779396
344'-TriCB-(37)	ng/g	0.0030 J	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
345'-TriCB-(38)	ng/g	0.00056 U	0.00056	0.0099	N/A	N/A	N/A	N/A	4779396
34'5'-TriCB-(39)	ng/g	0.00057 U	0.00057	0.0099	N/A	N/A	N/A	N/A	4779396
TetraCB-(40)+(41)+(71)	ng/g	0.0099 J	0.0028	0.030	N/A	N/A	N/A	N/A	4779396
22'34'-TetraCB-(42)	ng/g	0.0052 J	0.0033	0.0099	N/A	N/A	N/A	N/A	4779396
22'35'-TetraCB-(43)	ng/g	0.0037 U	0.0037	0.0099	N/A	N/A	N/A	N/A	4779396
TetraCB-(44)+(47)+(65)	ng/g	0.0270 J	0.0025	0.030	N/A	N/A	N/A	N/A	4779396
TetraCB-(45)+(51)	ng/g	0.0027 U	0.0027	0.020	N/A	N/A	N/A	N/A	4779396
22'36'-TetraCB-(46)	ng/g	0.0032 U	0.0032	0.0099	N/A	N/A	N/A	N/A	4779396
22'45'-TetraCB-(48)	ng/g	0.0056 J	0.0030	0.0099	N/A	N/A	N/A	N/A	4779396
TetraCB-(49)+TetraCB-(69)	ng/g	0.0105 J	0.0023	0.020	N/A	N/A	N/A	N/A	4779396
TetraCB-(50)+(53)	ng/g	0.0040 J	0.0026	0.020	N/A	N/A	N/A	N/A	4779396
22'55'-TetraCB-(52)	ng/g	0.0431	0.0027	0.0099	N/A	N/A	N/A	N/A	4779396
22'66'-TetraCB-(54)	ng/g	0.00032 U	0.00032	0.0099	N/A	N/A	N/A	N/A	4779396
233'4'-TetraCB-(55)	ng/g	0.0014 U	0.0014	0.0099	N/A	N/A	N/A	N/A	4779396
233'4'-Tetra CB(56)	ng/g	0.0037 J	0.0014	0.0099	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(57)	ng/g	0.0011 U	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(58)	ng/g	0.0013 U	0.0013	0.0099	N/A	N/A	N/A	N/A	4779396
TetraCB-(59)+(62)+(75)	ng/g	0.0020 U	0.0020	0.030	N/A	N/A	N/A	N/A	4779396
2344'-TetraCB -(60)	ng/g	0.0037 J	0.0014	0.0099	N/A	N/A	N/A	N/A	4779396
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0409	0.0013	0.040	N/A	N/A	N/A	N/A	4779396
234'5'-TetraCB-(63)	ng/g	0.0011 U	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
234'6'-TetraCB-(64)	ng/g	0.0038 J	0.0022	0.0099	N/A	N/A	N/A	N/A	4779396
23'44'-TetraCB-(66)	ng/g	0.0181	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(67)	ng/g	0.0011 U	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(68)	ng/g	0.0012 U	0.0012	0.0099	N/A	N/A	N/A	N/A	4779396
23'55'-TetraCB-(72)	ng/g	0.0011 U	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
23'5'6'-TetraCB-(73)	ng/g	0.0020 U	0.0020	0.0099	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS277							
Sampling Date		2016/10/11 12:37							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-PJ-1-161011 16J0187-04	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'44'-TetraCB-(77)	ng/g	0.0019 J	0.0017	0.0099	N/A	0.000100	0.000000190	N/A	4779396
33'45'-TetraCB-(78)	ng/g	0.0012 U	0.0012	0.0099	N/A	N/A	N/A	N/A	4779396
33'45'-TetraCB-(79)	ng/g	0.0011 U	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
33'55'-TetraCB-(80)	ng/g	0.0011 U	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
344'5'-TetraCB-(81)	ng/g	0.0018 U	0.0018	0.0099	N/A	0.000300	0.000000540	N/A	4779396
22'33'4'-PentaCB-(82)	ng/g	0.0033 U (1)	0.0033	0.0099	N/A	N/A	N/A	N/A	4779396
PentaCB-(83)+(99)	ng/g	0.0812	0.0010	0.020	N/A	N/A	N/A	N/A	4779396
22'33'6'-PentaCB-(84)	ng/g	0.0074 U (1)	0.0074	0.0099	N/A	N/A	N/A	N/A	4779396
PentaCB-(85)+(116)+(117)	ng/g	0.0149 J	0.00077	0.030	N/A	N/A	N/A	N/A	4779396
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0321 J	0.00082	0.059	N/A	N/A	N/A	N/A	4779396
PentaCB-(88)+(91)	ng/g	0.00401 J	0.00094	0.020	N/A	N/A	N/A	N/A	4779396
22'346'-PentaCB-(89)	ng/g	0.00097 U	0.00097	0.0099	N/A	N/A	N/A	N/A	4779396
PentaCB-(90)+(101)+(113)	ng/g	0.0900	0.00083	0.030	N/A	N/A	N/A	N/A	4779396
22'355'-PentaCB-(92)	ng/g	0.0168	0.00092	0.0099	N/A	N/A	N/A	N/A	4779396
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.00393 J	0.00095	0.040	N/A	N/A	N/A	N/A	4779396
22'356'-PentaCB-(94)	ng/g	0.0011 U	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
22'35'6'-PentaCB-(95)	ng/g	0.0440	0.00088	0.0099	N/A	N/A	N/A	N/A	4779396
22'366'-PentaCB-(96)	ng/g	0.00025 U (1)	0.00025	0.0099	N/A	N/A	N/A	N/A	4779396
22'45'6'-PentaCB-(103)	ng/g	0.00157 J	0.00077	0.0099	N/A	N/A	N/A	N/A	4779396
22'466'-PentaCB-(104)	ng/g	0.00013 U	0.00013	0.0099	N/A	N/A	N/A	N/A	4779396
233'44'-PentaCB-(105)	ng/g	0.0250	0.0011	0.0099	N/A	0.0000300	0.000000750	N/A	4779396
233'45'-PentaCB-(106)	ng/g	0.00082 U	0.00082	0.0099	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(107)	ng/g	0.00621 J	0.00069	0.0099	N/A	N/A	N/A	N/A	4779396
PentaCB-(108)+(124)	ng/g	0.00173 J	0.00081	0.020	N/A	N/A	N/A	N/A	4779396
PentaCB-(110)+(115)	ng/g	0.0618	0.00084	0.020	N/A	N/A	N/A	N/A	4779396
233'55'-PentaCB-(111)	ng/g	0.00076 U	0.00076	0.0099	N/A	N/A	N/A	N/A	4779396
233'56'-PentaCB-(112)	ng/g	0.00067 U	0.00067	0.0099	N/A	N/A	N/A	N/A	4779396
2344'5'-PentaCB-(114)	ng/g	0.0010 U	0.0010	0.0099	N/A	0.0000300	0.0000000300	N/A	4779396
23'44'5'-PentaCB-(118)	ng/g	0.0792	0.0011	0.0099	N/A	0.0000300	0.00000238	N/A	4779396

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N/A = Not Applicable

(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS277							
Sampling Date		2016/10/11 12:37							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-PJ-1-161011 16J0187-04	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'455'-PentaCB-(120)	ng/g	0.00066 U	0.00066	0.0099	N/A	N/A	N/A	N/A	4779396
23'45'6'-PentaCB-(121)	ng/g	0.00073 U	0.00073	0.0099	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(122)	ng/g	0.00084 U	0.00084	0.0099	N/A	N/A	N/A	N/A	4779396
23'44'5'-PentaCB-(123)	ng/g	0.0012 U	0.0012	0.0099	N/A	0.0000300	0.0000000360	N/A	4779396
33'44'5'-PentaCB-(126)	ng/g	0.0011 U	0.0011	0.0099	N/A	0.100	0.000110	N/A	4779396
33'455'-PentaCB-(127)	ng/g	0.00077 U	0.00077	0.0099	N/A	N/A	N/A	N/A	4779396
HexaCB-(128)+(166)	ng/g	0.013 U (1)	0.013	0.020	N/A	N/A	N/A	N/A	4779396
HexaCB-(129)+(138)+(163)	ng/g	0.141	0.0026	0.030	N/A	N/A	N/A	N/A	4779396
22'33'45'-HexaCB-(130)	ng/g	0.0078 J	0.0030	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(131)	ng/g	0.0032 U	0.0032	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(132)	ng/g	0.0142	0.0033	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'55'-HexaCB-(133)	ng/g	0.0034 J	0.0028	0.0099	N/A	N/A	N/A	N/A	4779396
HexaCB-(134)+(143)	ng/g	0.0046 J	0.0030	0.020	N/A	N/A	N/A	N/A	4779396
HexaCB-(135)+(151)	ng/g	0.0432	0.0023	0.020	N/A	N/A	N/A	N/A	4779396
22'33'66'-HexaCB-(136)	ng/g	0.0099	0.0016	0.0099	N/A	N/A	N/A	N/A	4779396
22'344'5'-HexaCB-(137)	ng/g	0.0029 U	0.0029	0.0099	N/A	N/A	N/A	N/A	4779396
HexaCB-(139)+(140)	ng/g	0.0029 J	0.0026	0.020	N/A	N/A	N/A	N/A	4779396
22'3455'-HexaCB-(141)	ng/g	0.0028 U	0.0028	0.0099	N/A	N/A	N/A	N/A	4779396
22'3456'-HexaCB-(142)	ng/g	0.0029 U	0.0029	0.0099	N/A	N/A	N/A	N/A	4779396
22'345'6'-HexaCB-(144)	ng/g	0.0045 J	0.0021	0.0099	N/A	N/A	N/A	N/A	4779396
22'3466'-HexaCB-(145)	ng/g	0.0018 U	0.0018	0.0099	N/A	N/A	N/A	N/A	4779396
22'34'55'-HexaCB-(146)	ng/g	0.0297	0.0025	0.0099	N/A	N/A	N/A	N/A	4779396
HexaCB-(147)+(149)	ng/g	0.0842	0.0027	0.020	N/A	N/A	N/A	N/A	4779396
22'34'56'-HexaCB-(148)	ng/g	0.0021 U	0.0021	0.0099	N/A	N/A	N/A	N/A	4779396
22'34'66'-HexaCB-(150)	ng/g	0.0017 U	0.0017	0.0099	N/A	N/A	N/A	N/A	4779396
22'3566'-HexaCB-(152)	ng/g	0.0015 U	0.0015	0.0099	N/A	N/A	N/A	N/A	4779396
HexaCB-(153)+(168)	ng/g	0.186	0.0023	0.0099	N/A	N/A	N/A	N/A	4779396
22'44'56'-HexaCB-(154)	ng/g	0.0047 J	0.0020	0.0099	N/A	N/A	N/A	N/A	4779396
22'44'66'-HexaCB-(155)	ng/g	0.0011 U	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396

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QC Batch = Quality Control Batch
N/A = Not Applicable
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS277							
Sampling Date		2016/10/11 12:37							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-PJ-1-161011 16J0187-04	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(156)+(157)	ng/g	0.0074 J	0.0014	0.020	N/A	0.0000300	0.000000222	N/A	4779396
233'44'6'-HexaCB-(158)	ng/g	0.0089 J	0.0020	0.0099	N/A	N/A	N/A	N/A	4779396
233'455'-HexaCB-(159)	ng/g	0.00099 U	0.00099	0.0099	N/A	N/A	N/A	N/A	4779396
233'456'-HexaCB-(160)	ng/g	0.0025 U	0.0025	0.0099	N/A	N/A	N/A	N/A	4779396
233'45'6'-HexaCB-(161)	ng/g	0.0020 U	0.0020	0.0099	N/A	N/A	N/A	N/A	4779396
233'4'55'-HexaCB-(162)	ng/g	0.0011 U	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
233'4'5'6'-HexaCB-(164)	ng/g	0.0022 U	0.0022	0.0099	N/A	N/A	N/A	N/A	4779396
233'55'6'-HexaCB-(165)	ng/g	0.0025 U	0.0025	0.0099	N/A	N/A	N/A	N/A	4779396
23'44'55'-HexaCB-(167)	ng/g	0.0039 J	0.0015	0.0099	N/A	0.0000300	0.000000117	N/A	4779396
33'44'55'-HexaCB-(169)	ng/g	0.0014 U	0.0014	0.0099	N/A	0.0300	0.0000420	N/A	4779396
22'33'44'5'-HeptaCB-(170)	ng/g	0.00353 J	0.00099	0.0099	N/A	N/A	N/A	N/A	4779396
HeptaCB-(171)+(173)	ng/g	0.0051 U (1)	0.0051	0.020	N/A	N/A	N/A	N/A	4779396
22'33'455'-HeptaCB-(172)	ng/g	0.0014 U	0.0014	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'456'-HeptaCB-(174)	ng/g	0.0013 U	0.0013	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(175)	ng/g	0.0010 U	0.0010	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'466'-HeptaCB-(176)	ng/g	0.00246 J	0.00075	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(177)	ng/g	0.0133	0.0013	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'55'6'-HeptaCB-(178)	ng/g	0.0080 U (1)	0.0080	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'566'-HeptaCB-(179)	ng/g	0.0100	0.00073	0.0099	N/A	N/A	N/A	N/A	4779396
HeptaCB-(180)+(193)	ng/g	0.0172 J	0.00093	0.020	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(181)	ng/g	0.0014 U	0.0014	0.0099	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(182)	ng/g	0.0010 U	0.0010	0.0099	N/A	N/A	N/A	N/A	4779396
22'344'5'6'-HeptaCB-(183)	ng/g	0.0157	0.0012	0.0099	N/A	N/A	N/A	N/A	4779396
22'344'66'-HeptaCB-(184)	ng/g	0.00077 U	0.00077	0.0099	N/A	N/A	N/A	N/A	4779396
22'3455'6'-HeptaCB-(185)	ng/g	0.0014 U	0.0014	0.0099	N/A	N/A	N/A	N/A	4779396
22'34566'-HeptaCB-(186)	ng/g	0.00085 U	0.00085	0.0099	N/A	N/A	N/A	N/A	4779396
22'34'55'6'-HeptaCB-(187)	ng/g	0.0562	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
22'34'566'-HeptaCB-(188)	ng/g	0.00071 U	0.00071	0.0099	N/A	N/A	N/A	N/A	4779396
233'44'55'-HeptaCB-(189)	ng/g	0.0015 U	0.0015	0.0099	N/A	0.0000300	0.0000000450	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS277							
Sampling Date		2016/10/11 12:37							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-PJ-1-161011 16J0187-04	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'56'-HeptaCB-(190)	ng/g	0.0011 U	0.0011	0.0099	N/A	N/A	N/A	N/A	4779396
233'44'5'6'-HeptaCB-(191)	ng/g	0.0010 U	0.0010	0.0099	N/A	N/A	N/A	N/A	4779396
233'455'6'-HeptaCB-(192)	ng/g	0.0012 U	0.0012	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'44'55'-OctaCB-(194)	ng/g	0.0042 U (1)	0.0042	0.050	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(195)	ng/g	0.0046 U (1)	0.0046	0.050	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(196)	ng/g	0.0045 U (1)	0.0045	0.050	N/A	N/A	N/A	N/A	4779396
22'33'44'66'-OctaCB-(197)	ng/g	0.0036 U (1)	0.0036	0.050	N/A	N/A	N/A	N/A	4779396
OctaCB-(198)+(199)	ng/g	0.0047 U (1)	0.0047	0.099	N/A	N/A	N/A	N/A	4779396
22'33'4566'-OctaCB-(200)	ng/g	0.0031 U (1)	0.0031	0.050	N/A	N/A	N/A	N/A	4779396
22'33'45'66'-OctaCB-(201)	ng/g	0.0031 U (1)	0.0031	0.050	N/A	N/A	N/A	N/A	4779396
22'33'55'66'-OctaCB-(202)	ng/g	0.0038 U (2)	0.0038	0.050	N/A	N/A	N/A	N/A	4779396
22'344'55'6'-OctaCB-(203)	ng/g	0.0047 U (1)	0.0047	0.050	N/A	N/A	N/A	N/A	4779396
22'344'566'-OctaCB-(204)	ng/g	0.0031 U (1)	0.0031	0.050	N/A	N/A	N/A	N/A	4779396
233'44'55'6'-OctaCB-(205)	ng/g	0.0010 U	0.0010	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'44'55'6'-NonaCB-(206)	ng/g	0.0033 U	0.0033	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'44'566'-NonaCB-(207)	ng/g	0.0027 U	0.0027	0.0099	N/A	N/A	N/A	N/A	4779396
22'33'455'66'-NonaCB-(208)	ng/g	0.0033 U	0.0033	0.0099	N/A	N/A	N/A	N/A	4779396
DecaCB-(209)	ng/g	0.0036 U	0.0036	0.0099	N/A	N/A	N/A	N/A	4779396
Total PCB	ng/g	1.36	N/A	N/A	N/A	N/A	N/A	N/A	4779396
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000156	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'55'6'-NonaCB-(206)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'5'-HeptaCB-(170)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'455'66'-NonaCB-(208)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'66'-OctaCB-(202)	%	94 (1)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'6'-HeptaCB-(178)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	4779396
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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS277							
Sampling Date		2016/10/11 12:37							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-PJ-1-161011 16J0187-04	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'344'55'-HeptaCB-(180)	%	134	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'34'566'-HeptaCB-(188)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'44'66'-HexaCB-(155)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'466'-PentaCB-(104)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'66'-TetraCB-(54)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'6-TriCB-(19)	%	74	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'-DiCB-(4)	%	68	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'6-OctaCB-(205)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'-HeptaCB-(189)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'-PentaCB-(105)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'55'-PentaCB-(111)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'55'-HexaCB-(167)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2344'5-PentaCB-(114)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'5-PentaCB-(118)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2'344'5-PentaCB-(123)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2-MonoCB-(1)	%	56	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'55'-HexaCB-(169)	%	45	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'5-PentaCB-(126)	%	72	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'-TetraCB-(77)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'5-TetraCB-(81)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'-TriCB-(37)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-44'-DiCB-(15)	%	76	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-4-MonoCB-(3)	%	54	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-DecaCB-(209)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-HexaCB-(156)+(157)	%	73	N/A	N/A	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS278							
Sampling Date		2016/10/11 12:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-WS-1-161011 16J0187-05	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

PCBs									
2-MonoCB-(1)	ng/g	0.00086 U	0.00086	0.0097	N/A	N/A	N/A	N/A	4779396
3-MonoCB-(2)	ng/g	0.00069 U	0.00069	0.0097	N/A	N/A	N/A	N/A	4779396
4-MonoCB-(3)	ng/g	0.00087 U	0.00087	0.0097	N/A	N/A	N/A	N/A	4779396
22'-DiCB-(4)	ng/g	0.0084 U	0.0084	0.0097	N/A	N/A	N/A	N/A	4779396
2,3-DiCB-(5)	ng/g	0.0031 U	0.0031	0.0097	N/A	N/A	N/A	N/A	4779396
2,3'-DiCB-(6)	ng/g	0.0027 U	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
2,4-DiCB-(7)	ng/g	0.0030 U	0.0030	0.0097	N/A	N/A	N/A	N/A	4779396
2,4'-DiCB-(8)	ng/g	0.0027 U	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
2,5-DiCB-(9)	ng/g	0.0027 U	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
2,6-DiCB-(10)	ng/g	0.0097 U	0.0097	0.0097	N/A	N/A	N/A	N/A	4779396
3,3'-DiCB-(11)	ng/g	0.0101	0.0028	0.0097	N/A	N/A	N/A	N/A	4779396
DiCB-(12)+(13)	ng/g	0.0031 U	0.0031	0.019	N/A	N/A	N/A	N/A	4779396
3,5-DiCB-(14)	ng/g	0.0026 U	0.0026	0.0097	N/A	N/A	N/A	N/A	4779396
4,4'-DiCB-(15)	ng/g	0.0055 U	0.0055	0.0097	N/A	N/A	N/A	N/A	4779396
22'3-TriCB-(16)	ng/g	0.0026 J	0.0019	0.0097	N/A	N/A	N/A	N/A	4779396
22'4-TriCB-(17)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(18)+(30)	ng/g	0.0045 U (1)	0.0045	0.019	N/A	N/A	N/A	N/A	4779396
22'6-TriCB-(19)	ng/g	0.00095 U	0.00095	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(20) + (28)	ng/g	0.0272	0.00051	0.019	N/A	N/A	N/A	N/A	4779396
TriCB-(21)+(33)	ng/g	0.00700 J	0.00050	0.019	N/A	N/A	N/A	N/A	4779396
234'-TriCB-(22)	ng/g	0.00374 J	0.00057	0.0097	N/A	N/A	N/A	N/A	4779396
235-TriCB-(23)	ng/g	0.00058 U	0.00058	0.0097	N/A	N/A	N/A	N/A	4779396
236-TriCB-(24)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
23'4-TriCB-(25)	ng/g	0.00144 J	0.00046	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(26)+(29)	ng/g	0.00270 J	0.00049	0.019	N/A	N/A	N/A	N/A	4779396
23'6-TriCB-(27)	ng/g	0.00099 U	0.00099	0.0097	N/A	N/A	N/A	N/A	4779396
24'5-TriCB-(31)	ng/g	0.0121	0.00047	0.0097	N/A	N/A	N/A	N/A	4779396
24'6-TriCB-(32)	ng/g	0.00093 U	0.00093	0.0097	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS278							
Sampling Date		2016/10/11 12:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-WS-1-161011 16J0187-05	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00046 U	0.00046	0.0097	N/A	N/A	N/A	N/A	4779396
33'4'-TriCB-(35)	ng/g	0.00051 U	0.00051	0.0097	N/A	N/A	N/A	N/A	4779396
33'5'-TriCB-(36)	ng/g	0.00043 U	0.00043	0.0097	N/A	N/A	N/A	N/A	4779396
344'-TriCB-(37)	ng/g	0.0051 U (1)	0.0051	0.0097	N/A	N/A	N/A	N/A	4779396
345-TriCB-(38)	ng/g	0.00051 U	0.00051	0.0097	N/A	N/A	N/A	N/A	4779396
34'5'-TriCB-(39)	ng/g	0.00052 U	0.00052	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(40)+(41)+(71)	ng/g	0.0114 J	0.0013	0.029	N/A	N/A	N/A	N/A	4779396
22'34'-TetraCB-(42)	ng/g	0.0060 J	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
22'35'-TetraCB-(43)	ng/g	0.0017 U	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(44)+(47)+(65)	ng/g	0.0312	0.0012	0.029	N/A	N/A	N/A	N/A	4779396
TetraCB-(45)+(51)	ng/g	0.0020 J	0.0013	0.019	N/A	N/A	N/A	N/A	4779396
22'36'-TetraCB-(46)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
22'45'-TetraCB-(48)	ng/g	0.0066 J	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(49)+TetraCB-(69)	ng/g	0.0119 J	0.0011	0.019	N/A	N/A	N/A	N/A	4779396
TetraCB-(50)+(53)	ng/g	0.0049 J	0.0012	0.019	N/A	N/A	N/A	N/A	4779396
22'55'-TetraCB-(52)	ng/g	0.0444	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
22'66'-TetraCB-(54)	ng/g	0.00055 U	0.00055	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'-TetraCB-(55)	ng/g	0.00073 U	0.00073	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'-Tetra CB(56)	ng/g	0.00463 J	0.00068	0.0097	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(57)	ng/g	0.00057 U	0.00057	0.0097	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(58)	ng/g	0.00068 U	0.00068	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(59)+(62)+(75)	ng/g	0.00281 J	0.00092	0.029	N/A	N/A	N/A	N/A	4779396
2344'-TetraCB -(60)	ng/g	0.00496 J	0.00070	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0445	0.00063	0.039	N/A	N/A	N/A	N/A	4779396
234'5'-TetraCB-(63)	ng/g	0.00115 J	0.00057	0.0097	N/A	N/A	N/A	N/A	4779396
234'6'-TetraCB-(64)	ng/g	0.0052 J	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'-TetraCB-(66)	ng/g	0.0202	0.00055	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(67)	ng/g	0.00088 J	0.00054	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(68)	ng/g	0.00086 J	0.00058	0.0097	N/A	N/A	N/A	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS278							
Sampling Date		2016/10/11 12:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-WS-1-161011 16J0187-05	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	0.00088 J	0.00055	0.0097	N/A	N/A	N/A	N/A	4779396
23'5'6-TetraCB-(73)	ng/g	0.00091 U	0.00091	0.0097	N/A	N/A	N/A	N/A	4779396
33'44'-TetraCB-(77)	ng/g	0.0027 U (1)	0.0027	0.0097	N/A	0.000100	0.000000270	N/A	4779396
33'45'-TetraCB-(78)	ng/g	0.00061 U	0.00061	0.0097	N/A	N/A	N/A	N/A	4779396
33'45'-TetraCB(79)	ng/g	0.00053 U	0.00053	0.0097	N/A	N/A	N/A	N/A	4779396
33'55'-TetraCB-(80)	ng/g	0.00053 U	0.00053	0.0097	N/A	N/A	N/A	N/A	4779396
344'5-TetraCB-(81)	ng/g	0.00090 U	0.00090	0.0097	N/A	0.000300	0.000000270	N/A	4779396
22'33'4-PentaCB-(82)	ng/g	0.00354 J	0.00084	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(83)+(99)	ng/g	0.0780	0.00079	0.019	N/A	N/A	N/A	N/A	4779396
22'33'6-PentaCB-(84)	ng/g	0.00661 J	0.00081	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(85)+(116)+(117)	ng/g	0.0132 J	0.00059	0.029	N/A	N/A	N/A	N/A	4779396
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0295 J	0.00063	0.058	N/A	N/A	N/A	N/A	4779396
PentaCB-(88)+(91)	ng/g	0.0029 U (1)	0.0029	0.019	N/A	N/A	N/A	N/A	4779396
22'346'-PentaCB-(89)	ng/g	0.00074 U	0.00074	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(90)+(101)+(113)	ng/g	0.0890	0.00064	0.029	N/A	N/A	N/A	N/A	4779396
22'355'-PentaCB-(92)	ng/g	0.0179	0.00071	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.0038 U (1)	0.0038	0.039	N/A	N/A	N/A	N/A	4779396
22'356'-PentaCB-(94)	ng/g	0.00083 U	0.00083	0.0097	N/A	N/A	N/A	N/A	4779396
22'35'6-PentaCB-(95)	ng/g	0.0422	0.00068	0.0097	N/A	N/A	N/A	N/A	4779396
22'366'-PentaCB-(96)	ng/g	0.00051 J	0.00023	0.0097	N/A	N/A	N/A	N/A	4779396
22'45'6-PentaCB-(103)	ng/g	0.0014 U (1)	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'466'-PentaCB-(104)	ng/g	0.00015 U	0.00015	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'-PentaCB-(105)	ng/g	0.0236	0.00092	0.0097	N/A	0.0000300	0.000000708	N/A	4779396
233'45-PentaCB-(106)	ng/g	0.00070 U	0.00070	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5-PentaCB-(107)	ng/g	0.00586 J	0.00059	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(108)+(124)	ng/g	0.0023 U (1)	0.0023	0.019	N/A	N/A	N/A	N/A	4779396
PentaCB-(110)+(115)	ng/g	0.0540	0.00064	0.019	N/A	N/A	N/A	N/A	4779396
233'55'-PentaCB-(111)	ng/g	0.00058 U	0.00058	0.0097	N/A	N/A	N/A	N/A	4779396
233'56-PentaCB-(112)	ng/g	0.00051 U	0.00051	0.0097	N/A	N/A	N/A	N/A	4779396

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Sampling Date		2016/10/11 12:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-WS-1-161011 16J0187-05	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5-PentaCB-(114)	ng/g	0.0011 U (1)	0.0011	0.0097	N/A	0.0000300	0.0000000330	N/A	4779396
23'44'5-PentaCB-(118)	ng/g	0.0749	0.00092	0.0097	N/A	0.0000300	0.00000225	N/A	4779396
23'45'5-PentaCB-(120)	ng/g	0.00051 U	0.00051	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'6-PentaCB-(121)	ng/g	0.00056 U	0.00056	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(122)	ng/g	0.00071 U	0.00071	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'5'-PentaCB-(123)	ng/g	0.0012 U (1)	0.0012	0.0097	N/A	0.0000300	0.0000000360	N/A	4779396
33'44'5-PentaCB-(126)	ng/g	0.00093 U	0.00093	0.0097	N/A	0.100	0.0000930	N/A	4779396
33'45'5-PentaCB-(127)	ng/g	0.00066 U	0.00066	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(128)+(166)	ng/g	0.0183 J	0.0022	0.019	N/A	N/A	N/A	N/A	4779396
HexaCB-(129)+(138)+(163)	ng/g	0.158	0.0022	0.029	N/A	N/A	N/A	N/A	4779396
22'33'45'-HexaCB-(130)	ng/g	0.0086 J	0.0025	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(131)	ng/g	0.0027 U	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(132)	ng/g	0.0157	0.0028	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'55'-HexaCB-(133)	ng/g	0.0047 J	0.0023	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(134)+(143)	ng/g	0.0049 J	0.0025	0.019	N/A	N/A	N/A	N/A	4779396
HexaCB-(135)+(151)	ng/g	0.0511	0.0015	0.019	N/A	N/A	N/A	N/A	4779396
22'33'66'-HexaCB-(136)	ng/g	0.0105	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'5'-HexaCB-(137)	ng/g	0.0025 U	0.0025	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(139)+(140)	ng/g	0.0028 U (1)	0.0028	0.019	N/A	N/A	N/A	N/A	4779396
22'345'5'-HexaCB-(141)	ng/g	0.0023 U	0.0023	0.0097	N/A	N/A	N/A	N/A	4779396
22'3456'-HexaCB-(142)	ng/g	0.0025 U	0.0025	0.0097	N/A	N/A	N/A	N/A	4779396
22'345'6'-HexaCB-(144)	ng/g	0.0051 J	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'3466'-HexaCB-(145)	ng/g	0.0012 U	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'55'-HexaCB-(146)	ng/g	0.0375	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(147)+(149)	ng/g	0.100	0.0023	0.019	N/A	N/A	N/A	N/A	4779396
22'34'56'-HexaCB-(148)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'66'-HexaCB-(150)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
22'3566'-HexaCB-(152)	ng/g	0.00099 U	0.00099	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(153)+(168)	ng/g	0.211	0.0019	0.0097	N/A	N/A	N/A	N/A	4779396

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COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-WS-1-161011 16J0187-05	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	0.0063 J	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
22'44'66'-HexaCB-(155)	ng/g	0.00069 U	0.00069	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(156)+(157)	ng/g	0.00819 J	0.00085	0.019	N/A	0.0000300	0.000000246	N/A	4779396
233'44'6'-HexaCB-(158)	ng/g	0.0089 U (1)	0.0089	0.0097	N/A	N/A	N/A	N/A	4779396
233'455'-HexaCB-(159)	ng/g	0.00062 U	0.00062	0.0097	N/A	N/A	N/A	N/A	4779396
233'456'-HexaCB-(160)	ng/g	0.0022 U	0.0022	0.0097	N/A	N/A	N/A	N/A	4779396
233'45'6'-HexaCB-(161)	ng/g	0.0017 U	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'55'-HexaCB-(162)	ng/g	0.00069 U	0.00069	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5'6'-HexaCB-(164)	ng/g	0.0027 J	0.0019	0.0097	N/A	N/A	N/A	N/A	4779396
233'55'6'-HexaCB-(165)	ng/g	0.0021 U	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'55'-HexaCB-(167)	ng/g	0.00534 J	0.00093	0.0097	N/A	0.0000300	0.000000160	N/A	4779396
33'44'55'-HexaCB-(169)	ng/g	0.00091 U	0.00091	0.0097	N/A	0.0300	0.0000273	N/A	4779396
22'33'44'5'-HeptaCB-(170)	ng/g	0.0048 J	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
HeptaCB-(171)+(173)	ng/g	0.0073 J	0.0020	0.019	N/A	N/A	N/A	N/A	4779396
22'33'455'-HeptaCB-(172)	ng/g	0.0021 U	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'456'-HeptaCB-(174)	ng/g	0.0019 U	0.0019	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(175)	ng/g	0.00088 U	0.00088	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'466'-HeptaCB-(176)	ng/g	0.00327 J	0.00067	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(177)	ng/g	0.0168	0.0020	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'55'6'-HeptaCB-(178)	ng/g	0.0101	0.00093	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'566'-HeptaCB-(179)	ng/g	0.011 U (1)	0.011	0.0097	N/A	N/A	N/A	N/A	4779396
HeptaCB-(180)+(193)	ng/g	0.0214	0.0014	0.019	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(181)	ng/g	0.0021 U	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(182)	ng/g	0.00090 U	0.00090	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'5'6'-HeptaCB-(183)	ng/g	0.0207	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'66'-HeptaCB-(184)	ng/g	0.00068 U	0.00068	0.0097	N/A	N/A	N/A	N/A	4779396
22'3455'6'-HeptaCB-(185)	ng/g	0.0021 U	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
22'34566'-HeptaCB-(186)	ng/g	0.00075 U	0.00075	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'55'6'-HeptaCB-(187)	ng/g	0.0634	0.00094	0.0097	N/A	N/A	N/A	N/A	4779396

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Sampling Date		2016/10/11 12:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-WS-1-161011 16J0187-05	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	0.00063 U	0.00063	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'55'-HeptaCB-(189)	ng/g	0.0017 U	0.0017	0.0097	N/A	0.0000300	0.0000000510	N/A	4779396
233'44'56'-HeptaCB-(190)	ng/g	0.0016 U	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'5'6'-HeptaCB-(191)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
233'455'6'-HeptaCB-(192)	ng/g	0.0018 U	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'55'-OctaCB-(194)	ng/g	0.0013 U (1)	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(195)	ng/g	0.00099 U	0.00099	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(196)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'66'-OctaCB-(197)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
OctaCB-(198)+(199)	ng/g	0.0015 U	0.0015	0.019	N/A	N/A	N/A	N/A	4779396
22'33'4566'-OctaCB-(200)	ng/g	0.00095 U	0.00095	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'45'66'-OctaCB-(201)	ng/g	0.00246 J	0.00097	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'55'66'-OctaCB-(202)	ng/g	0.0044 J	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'55'6'-OctaCB-(203)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'566'-OctaCB-(204)	ng/g	0.00098 U	0.00098	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'55'6'-OctaCB-(205)	ng/g	0.00088 U	0.00088	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'55'6'-NonaCB-(206)	ng/g	0.0024 U	0.0024	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'566'-NonaCB-(207)	ng/g	0.0020 U	0.0020	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'455'66'-NonaCB-(208)	ng/g	0.0024 U	0.0024	0.0097	N/A	N/A	N/A	N/A	4779396
DecaCB-(209)	ng/g	0.0027 U	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
Total PCB	ng/g	1.51	N/A	N/A	N/A	N/A	N/A	N/A	4779396
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000124	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	74	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'55'6'-NonaCB-(206)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'5'-HeptaCB-(170)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'455'66'-NonaCB-(208)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'66'-OctaCB-(202)	%	144 Q	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'6'-HeptaCB-(178)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	4779396
EDL = Estimated Detection Limit RDL = Reportable Detection Limit TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds QC Batch = Quality Control Batch N/A = Not Applicable (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.									

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS278							
Sampling Date		2016/10/11 12:15							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-WS-1-161011 16J0187-05	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'344'55'-HeptaCB-(180)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'34'566'-HeptaCB-(188)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'44'66'-HexaCB-(155)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'466'-PentaCB-(104)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'66'-TetraCB-(54)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'6-TriCB-(19)	%	68	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'-DiCB-(4)	%	61	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'6-OctaCB-(205)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'-HeptaCB-(189)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'-PentaCB-(105)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'55'-PentaCB-(111)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'55'-HexaCB-(167)	%	76	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2344'5-PentaCB-(114)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'5-PentaCB-(118)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2'344'5-PentaCB-(123)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2-MonoCB-(1)	%	48	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'55'-HexaCB-(169)	%	44	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'5-PentaCB-(126)	%	72	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'-TetraCB-(77)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'5-TetraCB-(81)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'-TriCB-(37)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-44'-DiCB-(15)	%	73	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-4-MonoCB-(3)	%	52	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-DecaCB-(209)	%	76	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-HexaCB-(156)+(157)	%	72	N/A	N/A	N/A	N/A	N/A	N/A	4779396

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
QC Batch = Quality Control Batch
N/A = Not Applicable

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS279							
Sampling Date		2016/10/11 12:50							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-GP-1-161011 16J0187-06A	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

PCBs									
2-MonoCB-(1)	ng/g	0.00061 U	0.00061	0.0097	N/A	N/A	N/A	N/A	4779396
3-MonoCB-(2)	ng/g	0.00049 U	0.00049	0.0097	N/A	N/A	N/A	N/A	4779396
4-MonoCB-(3)	ng/g	0.00062 U	0.00062	0.0097	N/A	N/A	N/A	N/A	4779396
22'-DiCB-(4)	ng/g	0.0059 U	0.0059	0.0097	N/A	N/A	N/A	N/A	4779396
2,3-DiCB-(5)	ng/g	0.0032 U	0.0032	0.0097	N/A	N/A	N/A	N/A	4779396
2,3'-DiCB-(6)	ng/g	0.0028 U	0.0028	0.0097	N/A	N/A	N/A	N/A	4779396
2,4-DiCB-(7)	ng/g	0.0031 U	0.0031	0.0097	N/A	N/A	N/A	N/A	4779396
2,4'-DiCB-(8)	ng/g	0.0028 U	0.0028	0.0097	N/A	N/A	N/A	N/A	4779396
2,5-DiCB-(9)	ng/g	0.0028 U	0.0028	0.0097	N/A	N/A	N/A	N/A	4779396
2,6-DiCB-(10)	ng/g	0.0068 U	0.0068	0.0097	N/A	N/A	N/A	N/A	4779396
3,3'-DiCB-(11)	ng/g	0.0109	0.0029	0.0097	N/A	N/A	N/A	N/A	4779396
DiCB-(12)+(13)	ng/g	0.0032 U	0.0032	0.019	N/A	N/A	N/A	N/A	4779396
3,5-DiCB-(14)	ng/g	0.0027 U	0.0027	0.0097	N/A	N/A	N/A	N/A	4779396
4,4'-DiCB-(15)	ng/g	0.0057 U	0.0057	0.0097	N/A	N/A	N/A	N/A	4779396
22'3-TriCB-(16)	ng/g	0.0032 U	0.0032	0.0097	N/A	N/A	N/A	N/A	4779396
22'4-TriCB-(17)	ng/g	0.0023 U	0.0023	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(18)+(30)	ng/g	0.0040 J	0.0019	0.019	N/A	N/A	N/A	N/A	4779396
22'6-TriCB-(19)	ng/g	0.0016 U	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(20) + (28)	ng/g	0.0155 J	0.00072	0.019	N/A	N/A	N/A	N/A	4779396
TriCB-(21)+(33)	ng/g	0.00361 J	0.00070	0.019	N/A	N/A	N/A	N/A	4779396
234'-TriCB-(22)	ng/g	0.00259 J	0.00079	0.0097	N/A	N/A	N/A	N/A	4779396
235-TriCB-(23)	ng/g	0.00081 U	0.00081	0.0097	N/A	N/A	N/A	N/A	4779396
236-TriCB-(24)	ng/g	0.0019 U	0.0019	0.0097	N/A	N/A	N/A	N/A	4779396
23'4-TriCB-(25)	ng/g	0.00087 J	0.00065	0.0097	N/A	N/A	N/A	N/A	4779396
TriCB-(26)+(29)	ng/g	0.0016 U (1)	0.0016	0.019	N/A	N/A	N/A	N/A	4779396
23'6-TriCB-(27)	ng/g	0.0016 U	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
24'5-TriCB-(31)	ng/g	0.00733 J	0.00065	0.0097	N/A	N/A	N/A	N/A	4779396
24'6-TriCB-(32)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396

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QC Batch = Quality Control Batch
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS279							
Sampling Date		2016/10/11 12:50							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-GP-1-161011 16J0187-06A	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00065 U	0.00065	0.0097	N/A	N/A	N/A	N/A	4779396
33'4'-TriCB-(35)	ng/g	0.00072 U	0.00072	0.0097	N/A	N/A	N/A	N/A	4779396
33'5'-TriCB-(36)	ng/g	0.00060 U	0.00060	0.0097	N/A	N/A	N/A	N/A	4779396
344'-TriCB-(37)	ng/g	0.0026 J	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
345-TriCB-(38)	ng/g	0.00071 U	0.00071	0.0097	N/A	N/A	N/A	N/A	4779396
34'5'-TriCB-(39)	ng/g	0.00073 U	0.00073	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(40)+(41)+(71)	ng/g	0.0092 J	0.0019	0.029	N/A	N/A	N/A	N/A	4779396
22'34'-TetraCB-(42)	ng/g	0.0055 J	0.0023	0.0097	N/A	N/A	N/A	N/A	4779396
22'35'-TetraCB-(43)	ng/g	0.0026 U	0.0026	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(44)+(47)+(65)	ng/g	0.0262 J	0.0017	0.029	N/A	N/A	N/A	N/A	4779396
TetraCB-(45)+(51)	ng/g	0.0019 U	0.0019	0.019	N/A	N/A	N/A	N/A	4779396
22'36'-TetraCB-(46)	ng/g	0.0022 U	0.0022	0.0097	N/A	N/A	N/A	N/A	4779396
22'45'-TetraCB-(48)	ng/g	0.0041 J	0.0020	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(49)+TetraCB-(69)	ng/g	0.0132 J	0.0016	0.019	N/A	N/A	N/A	N/A	4779396
TetraCB-(50)+(53)	ng/g	0.0037 J	0.0018	0.019	N/A	N/A	N/A	N/A	4779396
22'55'-TetraCB-(52)	ng/g	0.0399	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
22'66'-TetraCB-(54)	ng/g	0.00045 U	0.00045	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'-TetraCB-(55)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'-Tetra CB(56)	ng/g	0.0036 J	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(57)	ng/g	0.00085 U	0.00085	0.0097	N/A	N/A	N/A	N/A	4779396
233'5'-TetraCB-(58)	ng/g	0.0010 U	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(59)+(62)+(75)	ng/g	0.0020 J	0.0014	0.029	N/A	N/A	N/A	N/A	4779396
2344'-TetraCB -(60)	ng/g	0.0028 J	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0311 J	0.00095	0.039	N/A	N/A	N/A	N/A	4779396
234'5'-TetraCB-(63)	ng/g	0.00085 U	0.00085	0.0097	N/A	N/A	N/A	N/A	4779396
234'6'-TetraCB-(64)	ng/g	0.0043 J	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'-TetraCB-(66)	ng/g	0.0133	0.00082	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(67)	ng/g	0.00080 U	0.00080	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'-TetraCB-(68)	ng/g	0.00087 U	0.00087	0.0097	N/A	N/A	N/A	N/A	4779396
23'55'-TetraCB-(72)	ng/g	0.00082 U	0.00082	0.0097	N/A	N/A	N/A	N/A	4779396

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N/A = Not Applicable

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS279							
Sampling Date		2016/10/11 12:50							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-GP-1-161011 16J0187-06A	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	0.0014 U	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
33'44'-TetraCB-(77)	ng/g	0.0022 J	0.0013	0.0097	N/A	0.000100	0.000000220	N/A	4779396
33'45-TetraCB-(78)	ng/g	0.00091 U	0.00091	0.0097	N/A	N/A	N/A	N/A	4779396
33'45'-TetraCB(79)	ng/g	0.00080 U	0.00080	0.0097	N/A	N/A	N/A	N/A	4779396
33'55'-TetraCB-(80)	ng/g	0.00079 U	0.00079	0.0097	N/A	N/A	N/A	N/A	4779396
344'5-TetraCB-(81)	ng/g	0.0013 U	0.0013	0.0097	N/A	0.000300	0.000000390	N/A	4779396
22'33'4-PentaCB-(82)	ng/g	0.0052 J	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(83)+(99)	ng/g	0.0659	0.00097	0.019	N/A	N/A	N/A	N/A	4779396
22'33'6-PentaCB-(84)	ng/g	0.0108	0.00099	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(85)+(116)+(117)	ng/g	0.0119 J	0.00072	0.029	N/A	N/A	N/A	N/A	4779396
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0347 J	0.00077	0.058	N/A	N/A	N/A	N/A	4779396
PentaCB-(88)+(91)	ng/g	0.00584 J	0.00088	0.019	N/A	N/A	N/A	N/A	4779396
22'346'-PentaCB-(89)	ng/g	0.00091 U	0.00091	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(90)+(101)+(113)	ng/g	0.0820	0.00078	0.029	N/A	N/A	N/A	N/A	4779396
22'355'-PentaCB-(92)	ng/g	0.0161	0.00086	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.00350 J	0.00089	0.039	N/A	N/A	N/A	N/A	4779396
22'356'-PentaCB-(94)	ng/g	0.0010 U	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
22'35'6-PentaCB-(95)	ng/g	0.0451	0.00083	0.0097	N/A	N/A	N/A	N/A	4779396
22'366'-PentaCB-(96)	ng/g	0.00042 U (1)	0.00042	0.0097	N/A	N/A	N/A	N/A	4779396
22'45'6-PentaCB-(103)	ng/g	0.00123 J	0.00073	0.0097	N/A	N/A	N/A	N/A	4779396
22'466'-PentaCB-(104)	ng/g	0.00011 U	0.00011	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'-PentaCB-(105)	ng/g	0.0195	0.0010	0.0097	N/A	0.0000300	0.000000585	N/A	4779396
233'45-PentaCB-(106)	ng/g	0.00075 U	0.00075	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5-PentaCB-(107)	ng/g	0.00470 J	0.00063	0.0097	N/A	N/A	N/A	N/A	4779396
PentaCB-(108)+(124)	ng/g	0.00250 J	0.00074	0.019	N/A	N/A	N/A	N/A	4779396
PentaCB-(110)+(115)	ng/g	0.0651	0.00078	0.019	N/A	N/A	N/A	N/A	4779396
233'55'-PentaCB-(111)	ng/g	0.00071 U	0.00071	0.0097	N/A	N/A	N/A	N/A	4779396
233'56-PentaCB-(112)	ng/g	0.00063 U	0.00063	0.0097	N/A	N/A	N/A	N/A	4779396
2344'5-PentaCB-(114)	ng/g	0.00096 U	0.00096	0.0097	N/A	0.0000300	0.000000288	N/A	4779396

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SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS279							
Sampling Date		2016/10/11 12:50							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-GP-1-161011 16J0187-06A	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5-PentaCB-(118)	ng/g	0.0646	0.0010	0.0097	N/A	0.0000300	0.00000194	N/A	4779396
23'45'5-PentaCB-(120)	ng/g	0.00062 U	0.00062	0.0097	N/A	N/A	N/A	N/A	4779396
23'45'6-PentaCB-(121)	ng/g	0.00068 U	0.00068	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5'-PentaCB-(122)	ng/g	0.00077 U	0.00077	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'5'-PentaCB-(123)	ng/g	0.0011 U	0.0011	0.0097	N/A	0.0000300	0.0000000330	N/A	4779396
33'44'5-PentaCB-(126)	ng/g	0.0010 U	0.0010	0.0097	N/A	0.100	0.000100	N/A	4779396
33'45'5-PentaCB-(127)	ng/g	0.00071 U	0.00071	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(128)+(166)	ng/g	0.0191	0.0013	0.019	N/A	N/A	N/A	N/A	4779396
HexaCB-(129)+(138)+(163)	ng/g	0.143	0.0014	0.029	N/A	N/A	N/A	N/A	4779396
22'33'45'-HexaCB-(130)	ng/g	0.0073 U (1)	0.0073	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(131)	ng/g	0.0017 U	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'46'-HexaCB-(132)	ng/g	0.0239	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'55'-HexaCB-(133)	ng/g	0.0033 J	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(134)+(143)	ng/g	0.0043 J	0.0016	0.019	N/A	N/A	N/A	N/A	4779396
HexaCB-(135)+(151)	ng/g	0.0409	0.0023	0.019	N/A	N/A	N/A	N/A	4779396
22'33'66'-HexaCB-(136)	ng/g	0.0098	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'5'-HexaCB-(137)	ng/g	0.0017 U (1)	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(139)+(140)	ng/g	0.0020 U (1)	0.0020	0.019	N/A	N/A	N/A	N/A	4779396
22'3455'-HexaCB-(141)	ng/g	0.0055 J	0.0014	0.0097	N/A	N/A	N/A	N/A	4779396
22'3456'-HexaCB-(142)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
22'345'6'-HexaCB-(144)	ng/g	0.0042 J	0.0022	0.0097	N/A	N/A	N/A	N/A	4779396
22'3466'-HexaCB-(145)	ng/g	0.0018 U	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'55'-HexaCB-(146)	ng/g	0.0296	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(147)+(149)	ng/g	0.0929	0.0014	0.019	N/A	N/A	N/A	N/A	4779396
22'34'56'-HexaCB-(148)	ng/g	0.0021 U	0.0021	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'66'-HexaCB-(150)	ng/g	0.0017 U	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
22'3566'-HexaCB-(152)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(153)+(168)	ng/g	0.178	0.0012	0.0097	N/A	N/A	N/A	N/A	4779396
22'44'56'-HexaCB-(154)	ng/g	0.0047 J	0.0020	0.0097	N/A	N/A	N/A	N/A	4779396

EDL = Estimated Detection Limit
RDL = Reportable Detection Limit
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS279							
Sampling Date		2016/10/11 12:50							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-GP-1-161011 16J0187-06A	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
HexaCB-(156)+(157)	ng/g	0.0073 U (1)	0.0073	0.019	N/A	0.0000300	0.000000219	N/A	4779396
233'44'6'-HexaCB-(158)	ng/g	0.0092 J	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
233'455'-HexaCB-(159)	ng/g	0.00082 U	0.00082	0.0097	N/A	N/A	N/A	N/A	4779396
233'456'-HexaCB-(160)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
233'45'6'-HexaCB-(161)	ng/g	0.0011 U	0.0011	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'55'-HexaCB-(162)	ng/g	0.00091 U	0.00091	0.0097	N/A	N/A	N/A	N/A	4779396
233'4'5'6'-HexaCB-(164)	ng/g	0.0032 U (1)	0.0032	0.0097	N/A	N/A	N/A	N/A	4779396
233'55'6'-HexaCB-(165)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
23'44'55'-HexaCB-(167)	ng/g	0.0048 J	0.0012	0.0097	N/A	0.0000300	0.000000144	N/A	4779396
33'44'55'-HexaCB-(169)	ng/g	0.0012 U	0.0012	0.0097	N/A	0.0300	0.0000360	N/A	4779396
22'33'44'5'-HeptaCB-(170)	ng/g	0.0051 J	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
HeptaCB-(171)+(173)	ng/g	0.0066 J	0.0017	0.019	N/A	N/A	N/A	N/A	4779396
22'33'455'-HeptaCB-(172)	ng/g	0.0017 U	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'456'-HeptaCB-(174)	ng/g	0.0024 U (1)	0.0024	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(175)	ng/g	0.00087 U	0.00087	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'466'-HeptaCB-(176)	ng/g	0.0024 U (1)	0.0024	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'45'6'-HeptaCB-(177)	ng/g	0.0130	0.0017	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'55'6'-HeptaCB-(178)	ng/g	0.00815 J	0.00091	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'566'-HeptaCB-(179)	ng/g	0.0100	0.00064	0.0097	N/A	N/A	N/A	N/A	4779396
HeptaCB-(180)+(193)	ng/g	0.0181 J	0.0012	0.019	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(181)	ng/g	0.0018 U	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'56'-HeptaCB-(182)	ng/g	0.00088 U	0.00088	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'5'6'-HeptaCB-(183)	ng/g	0.0156	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
22'344'66'-HeptaCB-(184)	ng/g	0.00067 U	0.00067	0.0097	N/A	N/A	N/A	N/A	4779396
22'3455'6'-HeptaCB-(185)	ng/g	0.0018 U	0.0018	0.0097	N/A	N/A	N/A	N/A	4779396
22'34566'-HeptaCB-(186)	ng/g	0.00074 U	0.00074	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'55'6'-HeptaCB-(187)	ng/g	0.0522	0.00093	0.0097	N/A	N/A	N/A	N/A	4779396
22'34'566'-HeptaCB-(188)	ng/g	0.00062 U	0.00062	0.0097	N/A	N/A	N/A	N/A	4779396

EDL = Estimated Detection Limit

RDL = Reportable Detection Limit

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS279							
Sampling Date		2016/10/11 12:50							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-GP-1-161011 16J0187-06A	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	0.0012 U	0.0012	0.0097	N/A	0.0000300	0.0000000360	N/A	4779396
233'44'56'-HeptaCB-(190)	ng/g	0.0017 J	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
233'44'5'6'-HeptaCB-(191)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
233'45'5'6'-HeptaCB-(192)	ng/g	0.0015 U	0.0015	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'55'-OctaCB-(194)	ng/g	0.0033 U (1)	0.0033	0.049	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(195)	ng/g	0.0036 U (1)	0.0036	0.049	N/A	N/A	N/A	N/A	4779396
22'33'44'56'-OctaCB-(196)	ng/g	0.0048 U (1)	0.0048	0.049	N/A	N/A	N/A	N/A	4779396
22'33'44'66'-OctaCB-(197)	ng/g	0.0038 U (1)	0.0038	0.049	N/A	N/A	N/A	N/A	4779396
OctaCB-(198)+(199)	ng/g	0.0050 U (1)	0.0050	0.097	N/A	N/A	N/A	N/A	4779396
22'33'4566'-OctaCB-(200)	ng/g	0.0033 U (1)	0.0033	0.049	N/A	N/A	N/A	N/A	4779396
22'33'45'66'-OctaCB-(201)	ng/g	0.0033 U (1)	0.0033	0.049	N/A	N/A	N/A	N/A	4779396
22'33'55'66'-OctaCB-(202)	ng/g	0.0034 U (1)	0.0034	0.049	N/A	N/A	N/A	N/A	4779396
22'344'55'6'-OctaCB-(203)	ng/g	0.0049 U (1)	0.0049	0.049	N/A	N/A	N/A	N/A	4779396
22'344'566'-OctaCB-(204)	ng/g	0.0033 U (1)	0.0033	0.049	N/A	N/A	N/A	N/A	4779396
233'44'55'6'-OctaCB-(205)	ng/g	0.00054 U	0.00054	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'55'6'-NonaCB-(206)	ng/g	0.0016 U	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'44'566'-NonaCB-(207)	ng/g	0.0013 U	0.0013	0.0097	N/A	N/A	N/A	N/A	4779396
22'33'455'66'-NonaCB-(208)	ng/g	0.0016 U	0.0016	0.0097	N/A	N/A	N/A	N/A	4779396
DecaCB-(209)	ng/g	0.0010 U	0.0010	0.0097	N/A	N/A	N/A	N/A	4779396
Total PCB	ng/g	1.35	N/A	N/A	N/A	N/A	N/A	N/A	4779396
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000140	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'55'6'-NonaCB-(206)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'44'5'-HeptaCB-(170)	%	137	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'455'66'-NonaCB-(208)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'66'-OctaCB-(202)	%	101 (1)	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'33'55'6'-HeptaCB-(178)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'344'55'-HeptaCB-(180)	%	141 Q	N/A	N/A	N/A	N/A	N/A	N/A	4779396
EDL = Estimated Detection Limit RDL = Reportable Detection Limit TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds QC Batch = Quality Control Batch N/A = Not Applicable (1) ** From 5X Dilution **									

SEMI-VOLATILE ORGANICS BY HRMS (TISSUE)

Maxxam ID		DIS279							
Sampling Date		2016/10/11 12:50							
COC Number		na				TOXIC EQUIVALENCY		# of	
	UNITS	PG-REF-GP-1-161011 16J0187-06A	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'34'566'-HeptaCB-(188)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'44'66'-HexaCB-(155)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'466'-PentaCB-(104)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'66'-TetraCB-(54)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'6-TriCB-(19)	%	79	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-22'-DiCB-(4)	%	73	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'6-OctaCB-(205)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'55'-HeptaCB-(189)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'44'-PentaCB-(105)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-233'55'-PentaCB-(111)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'55'-HexaCB-(167)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2344'5-PentaCB-(114)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-23'44'5-PentaCB-(118)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2'344'5-PentaCB-(123)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-2-MonoCB-(1)	%	55	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'55'-HexaCB-(169)	%	46	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'5-PentaCB-(126)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-33'44'-TetraCB-(77)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'5-TetraCB-(81)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-344'-TriCB-(37)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-44'-DiCB-(15)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-4-MonoCB-(3)	%	59	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-DecaCB-(209)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	4779396
C13-HexaCB-(156)+(157)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	4779396

EDL = Estimated Detection Limit
RDL = Reportable Detection Limit
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
QC Batch = Quality Control Batch
N/A = Not Applicable

TEST SUMMARY

Maxxam ID: DIS272
Sample ID: PG-T0-MUS-COC-160816 16H147-01
Matrix: TISSUE

Collected: 2016/08/16
Shipped:
Received: 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PCB Congeners in Tissue (1668A)	HRMS/MS	4779396	2016/11/28	2016/12/06	Branko Vrzic

Maxxam ID: DIS273
Sample ID: PG-T0-MUS-COC-160829 16H0268-01
Matrix: TISSUE

Collected: 2016/08/29
Shipped:
Received: 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PCB Congeners in Tissue (1668A)	HRMS/MS	4779396	2016/11/28	2016/12/06	Branko Vrzic

Maxxam ID: DIS274
Sample ID: PG-SMA-1-1-161011 16J0187-01
Matrix: TISSUE

Collected: 2016/10/11
Shipped:
Received: 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PCB Congeners in Tissue (1668A)	HRMS/MS	4779396	2016/11/28	2016/12/06	Branko Vrzic

Maxxam ID: DIS275
Sample ID: PG-SMA-1-2-161011 16J0187-02
Matrix: TISSUE

Collected: 2016/10/11
Shipped:
Received: 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PCB Congeners in Tissue (1668A)	HRMS/MS	4779396	2016/11/28	2016/12/06	Branko Vrzic

Maxxam ID: DIS275 Dup
Sample ID: PG-SMA-1-2-161011 16J0187-02
Matrix: TISSUE

Collected: 2016/10/11
Shipped:
Received: 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PCB Congeners in Tissue (1668A)	HRMS/MS	4779396	2016/11/28	2016/12/06	Branko Vrzic

Maxxam ID: DIS276
Sample ID: PG-SMA-1-3-161011 16J0187-03
Matrix: TISSUE

Collected: 2016/10/11
Shipped:
Received: 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PCB Congeners in Tissue (1668A)	HRMS/MS	4779396	2016/11/28	2016/12/06	Branko Vrzic

Maxxam ID: DIS277
Sample ID: PG-REF-PJ-1-161011 16J0187-04
Matrix: TISSUE

Collected: 2016/10/11
Shipped:
Received: 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PCB Congeners in Tissue (1668A)	HRMS/MS	4779396	2016/11/28	2016/12/06	Branko Vrzic

TEST SUMMARY

Maxxam ID: DIS278
Sample ID: PG-REF-WS-1-161011 16J0187-05
Matrix: TISSUE

Collected: 2016/10/11
Shipped:
Received: 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PCB Congeners in Tissue (1668A)	HRMS/MS	4779396	2016/11/28	2016/12/06	Branko Vrzic

Maxxam ID: DIS279
Sample ID: PG-REF-GP-1-161011 16J0187-06A
Matrix: TISSUE

Collected: 2016/10/11
Shipped:
Received: 2016/10/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PCB Congeners in Tissue (1668A)	HRMS/MS	4779396	2016/11/28	2016/12/06	Branko Vrzic

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.2°C
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SRM not available to include in the extraction. Sample duplicate performed in place of the SRM.

Revision 01/10: Report revised to include total PCB values for samples DIS278 and DIS279.

Revision 01/11: Report revised to include cooler temperature.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4779396	BY	Matrix Spike(DIS272)	C13-2,44'-TriCB-(28)	2016/12/05		101	%	40 - 125
			C13-22'33'44'55'6'-NonaCB-(206)	2016/12/05		89	%	30 - 140
			C13-22'33'44'5'-HeptaCB-(170)	2016/12/05		100 (1)	%	30 - 140
			C13-22'33'45'5'66'-NonaCB-(208)	2016/12/05		119	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2016/12/05		105 (1)	%	30 - 140
			C13-22'33'55'6'-HeptaCB-(178)	2016/12/05		109	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2016/12/05		100 (1)	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2016/12/05		110	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2016/12/05		121	%	30 - 140
			C13-22'466'-PentaCB-(104)	2016/12/05		105	%	30 - 140
			C13-22'66'-TetraCB-(54)	2016/12/05		106	%	30 - 140
			C13-22'6-TriCB-(19)	2016/12/05		85	%	30 - 140
			C13-22'-DiCB-(4)	2016/12/05		74	%	30 - 140
			C13-233'44'55'6'-OctaCB-(205)	2016/12/05		96	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2016/12/05		123	%	30 - 140
			C13-233'44'-PentaCB-(105)	2016/12/05		93	%	30 - 140
			C13-233'55'-PentaCB-(111)	2016/12/05		99	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2016/12/05		83	%	30 - 140
			C13-2344'5'-PentaCB-(114)	2016/12/05		96	%	30 - 140
			C13-23'44'5'-PentaCB-(118)	2016/12/05		95	%	30 - 140
			C13-2'344'5'-PentaCB-(123)	2016/12/05		95	%	30 - 140
			C13-2-MonoCB-(1)	2016/12/05		57	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2016/12/05		46	%	30 - 140
			C13-33'44'5'-PentaCB-(126)	2016/12/05		76	%	30 - 140
			C13-33'44'-TetraCB-(77)	2016/12/05		90	%	30 - 140
			C13-344'5'-TetraCB-(81)	2016/12/05		91	%	30 - 140
			C13-344'-TriCB-(37)	2016/12/05		93	%	30 - 140
			C13-44'-DiCB-(15)	2016/12/05		87	%	30 - 140
			C13-4-MonoCB-(3)	2016/12/05		62	%	15 - 140
			C13-DecaCB-(209)	2016/12/05		88	%	30 - 140
			C13-HexaCB-(156)+(157)	2016/12/05		79	%	30 - 140
			2-MonoCB-(1)	2016/12/05		107	%	50 - 150
			3-MonoCB-(2)	2016/12/05		0	%	N/A
			4-MonoCB-(3)	2016/12/05		109 (2)	%	50 - 150
			22'-DiCB-(4)	2016/12/05		93	%	50 - 150
			2,3-DiCB-(5)	2016/12/05		0	%	N/A
			2,3'-DiCB-(6)	2016/12/05		0	%	N/A
			2,4-DiCB-(7)	2016/12/05		0	%	N/A
			2,4'-DiCB-(8)	2016/12/05		0	%	N/A
			2,5-DiCB-(9)	2016/12/05		0	%	N/A
			2,6-DiCB-(10)	2016/12/05		0	%	N/A
			3,3'-DiCB-(11)	2016/12/05		0	%	N/A
			DiCB-(12)+(13)	2016/12/05		0	%	N/A
			3,5-DiCB-(14)	2016/12/05		0	%	N/A
			4,4'-DiCB-(15)	2016/12/05		111	%	50 - 150
			22'3-TriCB-(16)	2016/12/05		0	%	N/A
			22'4-TriCB-(17)	2016/12/05		0	%	N/A
			TriCB-(18)+(30)	2016/12/05		0	%	N/A
			22'6-TriCB-(19)	2016/12/05		87	%	50 - 150
			TriCB-(20) + (28)	2016/12/05		0	%	N/A
			TriCB-(21)+(33)	2016/12/05		0	%	N/A
			234'-TriCB-(22)	2016/12/05		0	%	N/A
			235-TriCB-(23)	2016/12/05		88	%	50 - 150
			236-TriCB-(24)	2016/12/05		0	%	N/A

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			23'4-TriCB-(25)	2016/12/05		0	%	N/A
			TriCB-(26)+(29)	2016/12/05		0	%	N/A
			23'6-TriCB-(27)	2016/12/05		0	%	N/A
			24'5-TriCB-(31)	2016/12/05		0	%	N/A
			24'6-TriCB-(32)	2016/12/05		0	%	N/A
			23'5'-TriCB-(34)	2016/12/05		80	%	50 - 150
			33'4-TriCB-(35)	2016/12/05		0	%	N/A
			33'5-TriCB-(36)	2016/12/05		0	%	N/A
			344'-TriCB-(37)	2016/12/05		107	%	50 - 150
			345-TriCB-(38)	2016/12/05		0	%	N/A
			34'5-TriCB-(39)	2016/12/05		0	%	N/A
			TetraCB-(40)+(41)+(71)	2016/12/05		0	%	N/A
			22'34'-TetraCB-(42)	2016/12/05		0	%	N/A
			22'35-TetraCB-(43)	2016/12/05		0	%	N/A
			TetraCB-(44)+(47)+(65)	2016/12/05		0	%	N/A
			TetraCB-(45)+(51)	2016/12/05		0	%	N/A
			22'36'-TetraCB-(46)	2016/12/05		0	%	N/A
			22'45-TetraCB-(48)	2016/12/05		0	%	N/A
			TetraCB-(49)+TetraCB-(69)	2016/12/05		0	%	N/A
			TetraCB-(50)+(53)	2016/12/05		0	%	N/A
			22'55'-TetraCB-(52)	2016/12/05		0	%	N/A
			22'66'-TetraCB-(54)	2016/12/05		90	%	50 - 150
			233'4-TetraCB-(55)	2016/12/05		0	%	N/A
			233'4'-Tetra CB(56)	2016/12/05		0	%	N/A
			233'5-TetraCB-(57)	2016/12/05		0	%	N/A
			233'5'-TetraCB-(58)	2016/12/05		0	%	N/A
			TetraCB-(59)+(62)+(75)	2016/12/05		0	%	N/A
			2344'-TetraCB -(60)	2016/12/05		0	%	N/A
			TetraCB-(61)+(70)+(74)+(76)	2016/12/05		0	%	N/A
			234'5-TetraCB-(63)	2016/12/05		0	%	N/A
			234'6-TetraCB-(64)	2016/12/05		0	%	N/A
			23'44'-TetraCB-(66)	2016/12/05		0	%	N/A
			23'45-TetraCB-(67)	2016/12/05		0	%	N/A
			23'45'-TetraCB-(68)	2016/12/05		0	%	N/A
			23'55'-TetraCB-(72)	2016/12/05		0	%	N/A
			23'5'6-TetraCB-(73)	2016/12/05		0	%	N/A
			33'44'-TetraCB-(77)	2016/12/05		104	%	50 - 150
			33'45-TetraCB-(78)	2016/12/05		0	%	N/A
			33'45'-TetraCB(79)	2016/12/05		0	%	N/A
			33'55'-TetraCB-(80)	2016/12/05		0	%	N/A
			344'5-TetraCB-(81)	2016/12/05		106	%	50 - 150
			22'33'4-PentaCB-(82)	2016/12/05		0	%	N/A
			PentaCB-(83)+(99)	2016/12/05		0	%	N/A
			22'33'6-PentaCB-(84)	2016/12/05		0	%	N/A
			PentaCB-(85)+(116)+(117)	2016/12/05		0	%	N/A
			PentaCB-(86)(87)(97)(109)(119)(125)	2016/12/05		0	%	N/A
			PentaCB-(88)+(91)	2016/12/05		0	%	N/A
			22'346'-PentaCB-(89)	2016/12/05		0	%	N/A
			PentaCB-(90)+(101)+(113)	2016/12/05		0	%	N/A
			22'355'-PentaCB-(92)	2016/12/05		0	%	N/A
			PentaCB-(93)+(98)+(100)+(102)	2016/12/05		0	%	N/A
			22'356'-PentaCB-(94)	2016/12/05		0	%	N/A
			22'35'6-PentaCB-(95)	2016/12/05		0	%	N/A
			22'366'-PentaCB-(96)	2016/12/05		0	%	N/A

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			22'45'6'-PentaCB-(103)	2016/12/05		0	%	N/A
			22'466'-PentaCB-(104)	2016/12/05		91	%	50 - 150
			233'44'-PentaCB-(105)	2016/12/05		111	%	50 - 150
			233'45'-PentaCB-(106)	2016/12/05		0	%	N/A
			233'4'5'-PentaCB-(107)	2016/12/05		0	%	N/A
			PentaCB-(108)+(124)	2016/12/05		0	%	N/A
			PentaCB-(110)+(115)	2016/12/05		0	%	N/A
			233'55'-PentaCB-(111)	2016/12/05		0	%	N/A
			233'56'-PentaCB-(112)	2016/12/05		0	%	N/A
			2344'5'-PentaCB-(114)	2016/12/05		107	%	50 - 150
			23'44'5'-PentaCB-(118)	2016/12/05		108	%	50 - 150
			23'455'-PentaCB-(120)	2016/12/05		0	%	N/A
			23'45'6'-PentaCB-(121)	2016/12/05		0	%	N/A
			233'4'5'-PentaCB-(122)	2016/12/05		0	%	N/A
			23'44'5'-PentaCB-(123)	2016/12/05		113	%	50 - 150
			33'44'5'-PentaCB-(126)	2016/12/05		111	%	50 - 150
			33'455'-PentaCB-(127)	2016/12/05		0	%	N/A
			HexaCB-(128)+(166)	2016/12/05		0	%	N/A
			HexaCB-(129)+(138)+(163)	2016/12/05		0	%	N/A
			22'33'45'-HexaCB-(130)	2016/12/05		0	%	N/A
			22'33'46'-HexaCB-(131)	2016/12/05		0	%	N/A
			22'33'46'-HexaCB-(132)	2016/12/05		0	%	N/A
			22'33'55'-HexaCB-(133)	2016/12/05		0	%	N/A
			HexaCB-(134)+(143)	2016/12/05		0	%	N/A
			HexaCB-(135)+(151)	2016/12/05		0	%	N/A
			22'33'66'-HexaCB-(136)	2016/12/05		0	%	N/A
			22'344'5'-HexaCB-(137)	2016/12/05		0	%	N/A
			HexaCB-(139)+(140)	2016/12/05		0	%	N/A
			22'3455'-HexaCB-(141)	2016/12/05		0	%	N/A
			22'3456'-HexaCB-(142)	2016/12/05		0	%	N/A
			22'345'6'-HexaCB-(144)	2016/12/05		0	%	N/A
			22'3466'-HexaCB-(145)	2016/12/05		0	%	N/A
			22'34'55'-HexaCB-(146)	2016/12/05		0	%	N/A
			HexaCB-(147)+(149)	2016/12/05		0	%	N/A
			22'34'56'-HexaCB-(148)	2016/12/05		0	%	N/A
			22'34'66'-HexaCB-(150)	2016/12/05		0	%	N/A
			22'3566'-HexaCB-(152)	2016/12/05		0	%	N/A
			HexaCB-(153)+(168)	2016/12/05		0	%	N/A
			22'44'56'-HexaCB-(154)	2016/12/05		0	%	N/A
			22'44'66'-HexaCB-(155)	2016/12/05		90	%	50 - 150
			HexaCB-(156)+(157)	2016/12/05		111	%	50 - 150
			233'44'6'-HexaCB-(158)	2016/12/05		0	%	N/A
			233'455'-HexaCB-(159)	2016/12/05		0	%	N/A
			233'456'-HexaCB-(160)	2016/12/05		0	%	N/A
			233'45'6'-HexaCB-(161)	2016/12/05		0	%	N/A
			233'4'55'-HexaCB-(162)	2016/12/05		0	%	N/A
			233'4'5'6'-HexaCB-(164)	2016/12/05		0	%	N/A
			233'55'6'-HexaCB-(165)	2016/12/05		0	%	N/A
			23'44'55'-HexaCB-(167)	2016/12/05		115	%	50 - 150
			33'44'55'-HexaCB-(169)	2016/12/05		108	%	50 - 150
			22'33'44'5'-HeptaCB-(170)	2016/12/05		91 (1)	%	50 - 150
			HeptaCB-(171)+(173)	2016/12/05		0 (1)	%	N/A
			22'33'455'-HeptaCB-(172)	2016/12/05		0 (1)	%	N/A
			22'33'456'-HeptaCB-(174)	2016/12/05		0 (1)	%	N/A

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			22'33'45'6-HeptaCB-(175)	2016/12/05		0 (1)	%	N/A
			22'33'46'6-HeptaCB-(176)	2016/12/05		0 (1)	%	N/A
			22'33'45'6-HeptaCB-(177)	2016/12/05		0 (1)	%	N/A
			22'33'55'6-HeptaCB-(178)	2016/12/05		0 (1)	%	N/A
			22'33'56'6-HeptaCB-(179)	2016/12/05		0 (1)	%	N/A
			HeptaCB-(180)+(193)	2016/12/05		80 (1)	%	50 - 150
			22'344'56-HeptaCB-(181)	2016/12/05		0 (1)	%	N/A
			22'344'56-HeptaCB-(182)	2016/12/05		92 (1)	%	50 - 150
			22'344'56-HeptaCB-(183)	2016/12/05		0 (1)	%	N/A
			22'344'66-HeptaCB-(184)	2016/12/05		0 (1)	%	N/A
			22'3455'6-HeptaCB-(185)	2016/12/05		0 (1)	%	N/A
			22'34566-HeptaCB-(186)	2016/12/05		0 (1)	%	N/A
			22'34'55'6-HeptaCB-(187)	2016/12/05		91 (1)	%	50 - 150
			22'34'566-HeptaCB-(188)	2016/12/05		95	%	50 - 150
			233'44'55-HeptaCB-(189)	2016/12/05		105	%	50 - 150
			233'44'56-HeptaCB-(190)	2016/12/05		0 (1)	%	N/A
			233'44'56-HeptaCB-(191)	2016/12/05		0 (1)	%	N/A
			233'455'6-HeptaCB-(192)	2016/12/05		0 (1)	%	N/A
			22'33'44'55'-OctaCB-(194)	2016/12/05		0 (1)	%	N/A
			22'33'44'56-OctaCB-(195)	2016/12/05		0 (1)	%	N/A
			22'33'44'56'-OctaCB-(196)	2016/12/05		0 (1)	%	N/A
			22'33'44'66-OctaCB-(197)	2016/12/05		0 (1)	%	N/A
			OctaCB-(198)+(199)	2016/12/05		0 (1)	%	N/A
			22'33'4566'-OctaCB-(200)	2016/12/05		0 (1)	%	N/A
			22'33'45'66'-OctaCB-(201)	2016/12/05		0 (1)	%	N/A
			22'33'55'66'-OctaCB-(202)	2016/12/05		90 (1)	%	50 - 150
			22'344'55'6-OctaCB-(203)	2016/12/05		0 (1)	%	N/A
			22'344'566'-OctaCB-(204)	2016/12/05		0 (1)	%	N/A
			233'44'55'6-OctaCB-(205)	2016/12/05		95	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2016/12/05		91	%	50 - 150
			22'33'44'566'-NonaCB-(207)	2016/12/05		0	%	N/A
			22'33'455'66'-NonaCB-(208)	2016/12/05		94	%	50 - 150
			DecaCB-(209)	2016/12/05		87	%	50 - 150
4779396	BY	Spiked Blank	C13-2,44'-TriCB-(28)	2016/12/05		92	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2016/12/05		104	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2016/12/05		92	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2016/12/05		95	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2016/12/05		97	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2016/12/05		101	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2016/12/05		92	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2016/12/05		98	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2016/12/05		102	%	30 - 140
			C13-22'466'-PentaCB-(104)	2016/12/05		104	%	30 - 140
			C13-22'66'-TetraCB-(54)	2016/12/05		107	%	30 - 140
			C13-22'6-TriCB-(19)	2016/12/05		86	%	30 - 140
			C13-22'-DiCB-(4)	2016/12/05		90	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2016/12/05		96	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2016/12/05		104	%	30 - 140
			C13-233'44'-PentaCB-(105)	2016/12/05		95	%	30 - 140
			C13-233'55'-PentaCB-(111)	2016/12/05		89	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2016/12/05		97	%	30 - 140
			C13-2344'5-PentaCB-(114)	2016/12/05		96	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2016/12/05		95	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2016/12/05		95	%	30 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			C13-2-MonoCB-(1)	2016/12/05		82	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2016/12/05		69	%	30 - 140
			C13-33'44'5'-PentaCB-(126)	2016/12/05		92	%	30 - 140
			C13-33'44'-TetraCB-(77)	2016/12/05		88	%	30 - 140
			C13-344'5'-TetraCB-(81)	2016/12/05		88	%	30 - 140
			C13-344'-TriCB-(37)	2016/12/05		90	%	30 - 140
			C13-44'-DiCB-(15)	2016/12/05		91	%	30 - 140
			C13-4-MonoCB-(3)	2016/12/05		77	%	15 - 140
			C13-DecaCB-(209)	2016/12/05		118	%	30 - 140
			C13-HexaCB-(156)+(157)	2016/12/05		93	%	30 - 140
			2-MonoCB-(1)	2016/12/05		123	%	50 - 150
			4-MonoCB-(3)	2016/12/05		132	%	50 - 150
			22'-DiCB-(4)	2016/12/05		100	%	50 - 150
			4,4'-DiCB-(15)	2016/12/05		122	%	50 - 150
			22'6'-TriCB-(19)	2016/12/05		103	%	50 - 150
			235-TriCB-(23)	2016/12/05		100	%	50 - 150
			23'5'-TriCB-(34)	2016/12/05		92	%	50 - 150
			344'-TriCB-(37)	2016/12/05		125	%	50 - 150
			22'66'-TetraCB-(54)	2016/12/05		106	%	50 - 150
			33'44'-TetraCB-(77)	2016/12/05		120	%	50 - 150
			344'5'-TetraCB-(81)	2016/12/05		118	%	50 - 150
			22'466'-PentaCB-(104)	2016/12/05		104	%	50 - 150
			233'44'-PentaCB-(105)	2016/12/05		125	%	50 - 150
			2344'5'-PentaCB-(114)	2016/12/05		122	%	50 - 150
			23'44'5'-PentaCB-(118)	2016/12/05		129	%	50 - 150
			23'44'5'-PentaCB-(123)	2016/12/05		124	%	50 - 150
			33'44'5'-PentaCB-(126)	2016/12/05		123	%	50 - 150
			22'44'66'-HexaCB-(155)	2016/12/05		103	%	50 - 150
			HexaCB-(156)+(157)	2016/12/05		125	%	50 - 150
			23'44'55'-HexaCB-(167)	2016/12/05		125	%	50 - 150
			33'44'55'-HexaCB-(169)	2016/12/05		121	%	50 - 150
			22'33'44'5'-HeptaCB-(170)	2016/12/05		112	%	50 - 150
			HeptaCB-(180)+(193)	2016/12/05		91	%	50 - 150
			22'344'56'-HeptaCB-(182)	2016/12/05		104	%	50 - 150
			22'34'55'6'-HeptaCB-(187)	2016/12/05		108	%	50 - 150
			22'34'566'-HeptaCB-(188)	2016/12/05		103	%	50 - 150
			233'44'55'-HeptaCB-(189)	2016/12/05		115	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2016/12/05		104	%	50 - 150
			233'44'55'6'-OctaCB-(205)	2016/12/05		105	%	50 - 150
			22'33'44'55'6'-NonaCB-(206)	2016/12/05		110	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2016/12/05		106	%	50 - 150
			DecaCB-(209)	2016/12/05		99	%	50 - 150
4779396	BY	Spiked Blank DUP	C13-2,44'-TriCB-(28)	2016/12/05		83	%	40 - 125
			C13-22'33'44'55'6'-NonaCB-(206)	2016/12/05		90	%	30 - 140
			C13-22'33'44'5'-HeptaCB-(170)	2016/12/05		84	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2016/12/05		86	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2016/12/05		88	%	30 - 140
			C13-22'33'55'6'-HeptaCB-(178)	2016/12/05		97	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2016/12/05		88	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2016/12/05		91	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2016/12/05		93	%	30 - 140
			C13-22'466'-PentaCB-(104)	2016/12/05		91	%	30 - 140
			C13-22'66'-TetraCB-(54)	2016/12/05		95	%	30 - 140
			C13-22'6'-TriCB-(19)	2016/12/05		78	%	30 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			C13-22'-DiCB-(4)	2016/12/05		77	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2016/12/05		84	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2016/12/05		95	%	30 - 140
			C13-233'44'-PentaCB-(105)	2016/12/05		94	%	30 - 140
			C13-233'55'-PentaCB-(111)	2016/12/05		90	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2016/12/05		90	%	30 - 140
			C13-2344'5-PentaCB-(114)	2016/12/05		94	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2016/12/05		90	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2016/12/05		89	%	30 - 140
			C13-2-MonoCB-(1)	2016/12/05		68	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2016/12/05		64	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2016/12/05		88	%	30 - 140
			C13-33'44'-TetraCB-(77)	2016/12/05		84	%	30 - 140
			C13-344'5-TetraCB-(81)	2016/12/05		84	%	30 - 140
			C13-344'-TriCB-(37)	2016/12/05		82	%	30 - 140
			C13-44'-DiCB-(15)	2016/12/05		85	%	30 - 140
			C13-4-MonoCB-(3)	2016/12/05		62	%	15 - 140
			C13-DecaCB-(209)	2016/12/05		99	%	30 - 140
			C13-HexaCB-(156)+(157)	2016/12/05		90	%	30 - 140
			2-MonoCB-(1)	2016/12/05		123	%	50 - 150
			4-MonoCB-(3)	2016/12/05		128	%	50 - 150
			22'-DiCB-(4)	2016/12/05		101	%	50 - 150
			4,4'-DiCB-(15)	2016/12/05		127	%	50 - 150
			22'6-TriCB-(19)	2016/12/05		101	%	50 - 150
			235-TriCB-(23)	2016/12/05		101	%	50 - 150
			23'5'-TriCB-(34)	2016/12/05		86	%	50 - 150
			344'-TriCB-(37)	2016/12/05		125	%	50 - 150
			22'66'-TetraCB-(54)	2016/12/05		104	%	50 - 150
			33'44'-TetraCB-(77)	2016/12/05		119	%	50 - 150
			344'5-TetraCB-(81)	2016/12/05		123	%	50 - 150
			22'466'-PentaCB-(104)	2016/12/05		105	%	50 - 150
			233'44'-PentaCB-(105)	2016/12/05		123	%	50 - 150
			2344'5-PentaCB-(114)	2016/12/05		120	%	50 - 150
			23'44'5-PentaCB-(118)	2016/12/05		129	%	50 - 150
			23'44'5'-PentaCB-(123)	2016/12/05		127	%	50 - 150
			33'44'5-PentaCB-(126)	2016/12/05		124	%	50 - 150
			22'44'66'-HexaCB-(155)	2016/12/05		103	%	50 - 150
			HexaCB-(156)+(157)	2016/12/05		127	%	50 - 150
			23'44'55'-HexaCB-(167)	2016/12/05		125	%	50 - 150
			33'44'55'-HexaCB-(169)	2016/12/05		121	%	50 - 150
			22'33'44'5-HeptaCB-(170)	2016/12/05		108	%	50 - 150
			HeptaCB-(180)+(193)	2016/12/05		87	%	50 - 150
			22'344'56'-HeptaCB-(182)	2016/12/05		103	%	50 - 150
			22'34'55'6-HeptaCB-(187)	2016/12/05		109	%	50 - 150
			22'34'566'-HeptaCB-(188)	2016/12/05		106	%	50 - 150
			233'44'55'-HeptaCB-(189)	2016/12/05		117	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2016/12/05		104	%	50 - 150
			233'44'55'6-OctaCB-(205)	2016/12/05		117	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2016/12/05		108	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2016/12/05		108	%	50 - 150
			DecaCB-(209)	2016/12/05		102	%	50 - 150
4779396	BY	RPD	2-MonoCB-(1)	2016/12/05	0		%	30
			4-MonoCB-(3)	2016/12/05	3.1		%	30
			22'-DiCB-(4)	2016/12/05	1.0		%	30

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			4,4'-DiCB-(15)	2016/12/05	4.0		%	30
			22'6'-TriCB-(19)	2016/12/05	2.0		%	30
			235'-TriCB-(23)	2016/12/05	1.0		%	30
			23'5'-TriCB-(34)	2016/12/05	6.7		%	30
			344'-TriCB-(37)	2016/12/05	0		%	30
			22'66'-TetraCB-(54)	2016/12/05	1.9		%	30
			33'44'-TetraCB-(77)	2016/12/05	0.84		%	30
			344'5'-TetraCB-(81)	2016/12/05	4.1		%	30
			22'466'-PentaCB-(104)	2016/12/05	0.96		%	30
			233'44'-PentaCB-(105)	2016/12/05	1.6		%	30
			2344'5'-PentaCB-(114)	2016/12/05	1.7		%	30
			23'44'5'-PentaCB-(118)	2016/12/05	0		%	30
			23'44'5'-PentaCB-(123)	2016/12/05	2.4		%	30
			33'44'5'-PentaCB-(126)	2016/12/05	0.81		%	30
			22'44'66'-HexaCB-(155)	2016/12/05	0		%	30
			HexaCB-(156)+(157)	2016/12/05	1.6		%	30
			23'44'55'-HexaCB-(167)	2016/12/05	0		%	30
			33'44'55'-HexaCB-(169)	2016/12/05	0		%	30
			22'33'44'5'-HeptaCB-(170)	2016/12/05	3.6		%	30
			HeptaCB-(180)+(193)	2016/12/05	4.5		%	30
			22'344'56'-HeptaCB-(182)	2016/12/05	0.97		%	30
			22'34'55'6'-HeptaCB-(187)	2016/12/05	0.92		%	30
			22'34'566'-HeptaCB-(188)	2016/12/05	2.9		%	30
			233'44'55'-HeptaCB-(189)	2016/12/05	1.7		%	30
			22'33'55'66'-OctaCB-(202)	2016/12/05	0		%	30
			233'44'55'6'-OctaCB-(205)	2016/12/05	11		%	30
			22'33'44'55'6'-NonaCB-(206)	2016/12/05	1.8		%	30
			22'33'455'66'-NonaCB-(208)	2016/12/05	1.9		%	30
			DecaCB-(209)	2016/12/05	3.0		%	30
4779396	BY	Method Blank	C13-2,44'-TriCB-(28)	2016/12/06		81	%	40 - 125
			C13-22'33'44'55'6'-NonaCB-(206)	2016/12/06		87	%	30 - 140
			C13-22'33'44'5'-HeptaCB-(170)	2016/12/06		96 (1)		30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2016/12/06		117	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2016/12/06		98 (1)		30 - 140
			C13-22'33'55'6'-HeptaCB-(178)	2016/12/06		93	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2016/12/06		95 (1)		30 - 140
			C13-22'34'566'-HeptaCB-(188)	2016/12/06		102	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2016/12/06		106	%	30 - 140
			C13-22'466'-PentaCB-(104)	2016/12/06		95	%	30 - 140
			C13-22'66'-TetraCB-(54)	2016/12/06		92	%	30 - 140
			C13-22'6'-TriCB-(19)	2016/12/06		74	%	30 - 140
			C13-22'-DiCB-(4)	2016/12/06		68	%	30 - 140
			C13-233'44'55'6'-OctaCB-(205)	2016/12/06		95	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2016/12/06		125	%	30 - 140
			C13-233'44'-PentaCB-(105)	2016/12/06		92	%	30 - 140
			C13-233'55'-PentaCB-(111)	2016/12/06		86	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2016/12/06		87	%	30 - 140
			C13-2344'5'-PentaCB-(114)	2016/12/06		92	%	30 - 140
			C13-23'44'5'-PentaCB-(118)	2016/12/06		93	%	30 - 140
			C13-2'344'5'-PentaCB-(123)	2016/12/06		93	%	30 - 140
			C13-2-MonoCB-(1)	2016/12/06		59	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2016/12/06		56	%	30 - 140
			C13-33'44'5'-PentaCB-(126)	2016/12/06		87	%	30 - 140
			C13-33'44'-TetraCB-(77)	2016/12/06		87	%	30 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			C13-344'5-TetraCB-(81)	2016/12/06		88	%	30 - 140
			C13-344'-TriCB-(37)	2016/12/06		90	%	30 - 140
			C13-44'-DiCB-(15)	2016/12/06		85	%	30 - 140
			C13-4-MonoCB-(3)	2016/12/06		60	%	15 - 140
			C13-DecaCB-(209)	2016/12/06		84	%	30 - 140
			C13-HexaCB-(156)+(157)	2016/12/06		88	%	30 - 140
			2-MonoCB-(1)	2016/12/06	0.0011 U, EDL=0.0011		ng/g	
			3-MonoCB-(2)	2016/12/06	0.00082 U, EDL=0.00082		ng/g	
			4-MonoCB-(3)	2016/12/06	0.0011 U, EDL=0.0011		ng/g	
			22'-DiCB-(4)	2016/12/06	0.016 U, EDL=0.016		ng/g	
			2,3-DiCB-(5)	2016/12/06	0.0059 U, EDL=0.0059		ng/g	
			2,3'-DiCB-(6)	2016/12/06	0.0046 U, EDL=0.0046		ng/g	
			2,4-DiCB-(7)	2016/12/06	0.0052 U, EDL=0.0052		ng/g	
			2,4'-DiCB-(8)	2016/12/06	0.0044 U, EDL=0.0044		ng/g	
			2,5-DiCB-(9)	2016/12/06	0.0045 U, EDL=0.0045		ng/g	
			2,6-DiCB-(10)	2016/12/06	0.019 U, EDL=0.019		ng/g	
			3,3'-DiCB-(11)	2016/12/06	0.0071 U, EDL=0.0071 (3)		ng/g	
			DiCB-(12)+(13)	2016/12/06	0.0053 U, EDL=0.0053		ng/g	
			3,5-DiCB-(14)	2016/12/06	0.0046 U, EDL=0.0046		ng/g	
			4,4'-DiCB-(15)	2016/12/06	0.010 U, EDL=0.010		ng/g	
			22'3-TriCB-(16)	2016/12/06	0.0046 U, EDL=0.0046		ng/g	
			22'4-TriCB-(17)	2016/12/06	0.0041 U, EDL=0.0041		ng/g	
			TriCB-(18)+(30)	2016/12/06	0.0033 U, EDL=0.0033		ng/g	
			22'6-TriCB-(19)	2016/12/06	0.0025 U, EDL=0.0025		ng/g	
			TriCB-(20) + (28)	2016/12/06	0.00092 J, EDL=0.00055		ng/g	
			TriCB-(21)+(33)	2016/12/06	0.00054 U, EDL=0.00054		ng/g	
			234'-TriCB-(22)	2016/12/06	0.00061 U, EDL=0.00061		ng/g	
			235-TriCB-(23)	2016/12/06	0.00058 U, EDL=0.00058		ng/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			236-TriCB-(24)	2016/12/06	0.0036 U, EDL=0.0036		ng/g	
			23'4-TriCB-(25)	2016/12/06	0.00051 U, EDL=0.00051		ng/g	
			TriCB-(26)+(29)	2016/12/06	0.00051 U, EDL=0.00051		ng/g	
			23'6-TriCB-(27)	2016/12/06	0.0028 U, EDL=0.0028		ng/g	
			24'5-TriCB-(31)	2016/12/06	0.00068 U, EDL=0.00068 (3)		ng/g	
			24'6-TriCB-(32)	2016/12/06	0.0026 U, EDL=0.0026		ng/g	
			23'5'-TriCB-(34)	2016/12/06	0.00051 U, EDL=0.00051		ng/g	
			33'4-TriCB-(35)	2016/12/06	0.00053 U, EDL=0.00053		ng/g	
			33'5-TriCB-(36)	2016/12/06	0.00046 U, EDL=0.00046		ng/g	
			344'-TriCB-(37)	2016/12/06	0.0011 U, EDL=0.0011		ng/g	
			345-TriCB-(38)	2016/12/06	0.00055 U, EDL=0.00055		ng/g	
			34'5-TriCB-(39)	2016/12/06	0.00056 U, EDL=0.00056		ng/g	
			TetraCB-(40)+(41)+(71)	2016/12/06	0.0016 U, EDL=0.0016		ng/g	
			22'34'-TetraCB-(42)	2016/12/06	0.0018 U, EDL=0.0018		ng/g	
			22'35-TetraCB-(43)	2016/12/06	0.0025 U, EDL=0.0025		ng/g	
			TetraCB-(44)+(47)+(65)	2016/12/06	0.0040 U, EDL=0.0040 (3)		ng/g	
			TetraCB-(45)+(51)	2016/12/06	0.0016 U, EDL=0.0016		ng/g	
			22'36'-TetraCB-(46)	2016/12/06	0.0018 U, EDL=0.0018		ng/g	
			22'45-TetraCB-(48)	2016/12/06	0.0017 U, EDL=0.0017		ng/g	
			TetraCB-(49)+TetraCB-(69)	2016/12/06	0.0014 U, EDL=0.0014		ng/g	
			TetraCB-(50)+(53)	2016/12/06	0.0015 U, EDL=0.0015		ng/g	
			22'55'-TetraCB-(52)	2016/12/06	0.0015 U, EDL=0.0015		ng/g	
			22'66'-TetraCB-(54)	2016/12/06	0.00026 U, EDL=0.00026		ng/g	
			233'4-TetraCB-(55)	2016/12/06	0.0010 U, EDL=0.0010		ng/g	
			233'4'-Tetra CB(56)	2016/12/06	0.0010 U, EDL=0.0010		ng/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			233'5-TetraCB-(57)	2016/12/06	0.00086 U, EDL=0.00086		ng/g	
			233'5'-TetraCB-(58)	2016/12/06	0.00096 U, EDL=0.00096		ng/g	
			TetraCB-(59)+(62)+(75)	2016/12/06	0.0012 U, EDL=0.0012		ng/g	
			2344'-TetraCB -(60)	2016/12/06	0.0010 U, EDL=0.0010		ng/g	
			TetraCB-(61)+(70)+(74)+(76)	2016/12/06	0.00169 J, EDL=0.00093		ng/g	
			234'5-TetraCB-(63)	2016/12/06	0.00084 U, EDL=0.00084		ng/g	
			234'6-TetraCB-(64)	2016/12/06	0.0013 U, EDL=0.0013		ng/g	
			23'44'-TetraCB-(66)	2016/12/06	0.00083 U, EDL=0.00083		ng/g	
			23'45-TetraCB-(67)	2016/12/06	0.00080 U, EDL=0.00080		ng/g	
			23'45'-TetraCB-(68)	2016/12/06	0.00089 U, EDL=0.00089		ng/g	
			23'55'-TetraCB-(72)	2016/12/06	0.00084 U, EDL=0.00084		ng/g	
			23'5'6-TetraCB-(73)	2016/12/06	0.0012 U, EDL=0.0012		ng/g	
			33'44'-TetraCB-(77)	2016/12/06	0.0014 U, EDL=0.0014		ng/g	
			33'45-TetraCB-(78)	2016/12/06	0.00091 U, EDL=0.00091		ng/g	
			33'45'-TetraCB(79)	2016/12/06	0.00081 U, EDL=0.00081		ng/g	
			33'55'-TetraCB-(80)	2016/12/06	0.00078 U, EDL=0.00078		ng/g	
			344'5-TetraCB-(81)	2016/12/06	0.0014 U, EDL=0.0014		ng/g	
			22'33'4-PentaCB-(82)	2016/12/06	0.0014 U, EDL=0.0014		ng/g	
			PentaCB-(83)+(99)	2016/12/06	0.0024 U, EDL=0.0024 (3)		ng/g	
			22'33'6-PentaCB-(84)	2016/12/06	0.0013 U, EDL=0.0013		ng/g	
			PentaCB-(85)+(116)+(117)	2016/12/06	0.00094 U, EDL=0.00094		ng/g	
			PentaCB-(86)(87)(97)(109)(119)(125)	2016/12/06	0.0010 U, EDL=0.0010		ng/g	
			PentaCB-(88)+(91)	2016/12/06	0.0012 U, EDL=0.0012		ng/g	
			22'346'-PentaCB-(89)	2016/12/06	0.0012 U, EDL=0.0012		ng/g	
			PentaCB-(90)+(101)+(113)	2016/12/06	0.0013 J, EDL=0.0010		ng/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			22'355'-PentaCB-(92)	2016/12/06	0.0011 U, EDL=0.0011		ng/g	
			PentaCB-(93)+(98)+(100)+(102)	2016/12/06	0.0012 U, EDL=0.0012		ng/g	
			22'356'-PentaCB-(94)	2016/12/06	0.0013 U, EDL=0.0013		ng/g	
			22'35'6'-PentaCB-(95)	2016/12/06	0.0011 J, EDL=0.0011		ng/g	
			22'366'-PentaCB-(96)	2016/12/06	0.00030 U, EDL=0.00030		ng/g	
			22'45'6'-PentaCB-(103)	2016/12/06	0.00097 U, EDL=0.00097		ng/g	
			22'466'-PentaCB-(104)	2016/12/06	0.00017 U, EDL=0.00017		ng/g	
			233'44'-PentaCB-(105)	2016/12/06	0.00127 J, EDL=0.00040		ng/g	
			233'45'-PentaCB-(106)	2016/12/06	0.00029 U, EDL=0.00029		ng/g	
			233'4'5'-PentaCB-(107)	2016/12/06	0.00025 U, EDL=0.00025		ng/g	
			PentaCB-(108)+(124)	2016/12/06	0.00028 U, EDL=0.00028		ng/g	
			PentaCB-(110)+(115)	2016/12/06	0.0025 J, EDL=0.0011		ng/g	
			233'55'-PentaCB-(111)	2016/12/06	0.00095 U, EDL=0.00095		ng/g	
			233'56'-PentaCB-(112)	2016/12/06	0.00085 U, EDL=0.00085		ng/g	
			2344'5'-PentaCB-(114)	2016/12/06	0.00039 U, EDL=0.00039		ng/g	
			23'44'5'-PentaCB-(118)	2016/12/06	0.00454 J, EDL=0.00040		ng/g	
			23'455'-PentaCB-(120)	2016/12/06	0.00084 U, EDL=0.00084		ng/g	
			23'45'6'-PentaCB-(121)	2016/12/06	0.00091 U, EDL=0.00091		ng/g	
			233'4'5'-PentaCB-(122)	2016/12/06	0.00030 U, EDL=0.00030		ng/g	
			23'44'5'-PentaCB-(123)	2016/12/06	0.00044 U, EDL=0.00044		ng/g	
			33'44'5'-PentaCB-(126)	2016/12/06	0.00041 U, EDL=0.00041		ng/g	
			33'455'-PentaCB-(127)	2016/12/06	0.00027 U, EDL=0.00027		ng/g	
			HexaCB-(128)+(166)	2016/12/06	0.0017 U, EDL=0.0017		ng/g	
			HexaCB-(129)+(138)+(163)	2016/12/06	0.0050 J, EDL=0.0018		ng/g	
			22'33'45'-HexaCB-(130)	2016/12/06	0.0020 U, EDL=0.0020		ng/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			22'33'46'-HexaCB-(131)	2016/12/06	0.0022 U, EDL=0.0022		ng/g	
			22'33'46'-HexaCB-(132)	2016/12/06	0.0022 U, EDL=0.0022		ng/g	
			22'33'55'-HexaCB-(133)	2016/12/06	0.0019 U, EDL=0.0019		ng/g	
			HexaCB-(134)+(143)	2016/12/06	0.0020 U, EDL=0.0020		ng/g	
			HexaCB-(135)+(151)	2016/12/06	0.0022 U, EDL=0.0022		ng/g	
			22'33'66'-HexaCB-(136)	2016/12/06	0.0015 U, EDL=0.0015		ng/g	
			22'344'5'-HexaCB-(137)	2016/12/06	0.0020 U, EDL=0.0020		ng/g	
			HexaCB-(139)+(140)	2016/12/06	0.0018 U, EDL=0.0018		ng/g	
			22'3455'-HexaCB-(141)	2016/12/06	0.0018 U, EDL=0.0018		ng/g	
			22'3456'-HexaCB-(142)	2016/12/06	0.0019 U, EDL=0.0019		ng/g	
			22'345'6'-HexaCB-(144)	2016/12/06	0.0021 U, EDL=0.0021		ng/g	
			22'3466'-HexaCB-(145)	2016/12/06	0.0017 U, EDL=0.0017		ng/g	
			22'34'55'-HexaCB-(146)	2016/12/06	0.0016 U, EDL=0.0016		ng/g	
			HexaCB-(147)+(149)	2016/12/06	0.0018 U, EDL=0.0018		ng/g	
			22'34'56'-HexaCB-(148)	2016/12/06	0.0020 U, EDL=0.0020		ng/g	
			22'34'66'-HexaCB-(150)	2016/12/06	0.0016 U, EDL=0.0016		ng/g	
			22'3566'-HexaCB-(152)	2016/12/06	0.0014 U, EDL=0.0014		ng/g	
			HexaCB-(153)+(168)	2016/12/06	0.0039 U, EDL=0.0039 (3)		ng/g	
			22'44'56'-HexaCB-(154)	2016/12/06	0.0019 U, EDL=0.0019		ng/g	
			22'44'66'-HexaCB-(155)	2016/12/06	0.00092 U, EDL=0.00092		ng/g	
			HexaCB-(156)+(157)	2016/12/06	0.00059 U, EDL=0.00059		ng/g	
			233'44'6'-HexaCB-(158)	2016/12/06	0.0013 U, EDL=0.0013		ng/g	
			233'455'-HexaCB-(159)	2016/12/06	0.00041 U, EDL=0.00041		ng/g	
			233'456'-HexaCB-(160)	2016/12/06	0.0017 U, EDL=0.0017		ng/g	
			233'45'6'-HexaCB-(161)	2016/12/06	0.0014 U, EDL=0.0014		ng/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			233'4'55'-HexaCB-(162)	2016/12/06	0.00046 U, EDL=0.00046		ng/g	
			233'4'5'6'-HexaCB-(164)	2016/12/06	0.0015 U, EDL=0.0015		ng/g	
			233'55'6'-HexaCB-(165)	2016/12/06	0.0016 U, EDL=0.0016		ng/g	
			23'44'55'-HexaCB-(167)	2016/12/06	0.00065 U, EDL=0.00065		ng/g	
			33'44'55'-HexaCB-(169)	2016/12/06	0.00063 U, EDL=0.00063		ng/g	
			22'33'44'5'-HeptaCB-(170)	2016/12/06	0.0036 U, EDL=0.0036 (1)		ng/g	
			HeptaCB-(171)+(173)	2016/12/06	0.0048 U, EDL=0.0048 (1)		ng/g	
			22'33'455'-HeptaCB-(172)	2016/12/06	0.0048 U, EDL=0.0048 (1)		ng/g	
			22'33'456'-HeptaCB-(174)	2016/12/06	0.0049 U, EDL=0.0049 (1)		ng/g	
			22'33'45'6'-HeptaCB-(175)	2016/12/06	0.0021 U, EDL=0.0021 (1)		ng/g	
			22'33'466'-HeptaCB-(176)	2016/12/06	0.0016 U, EDL=0.0016 (1)		ng/g	
			22'33'45'6'-HeptaCB-(177)	2016/12/06	0.0048 U, EDL=0.0048 (1)		ng/g	
			22'33'55'6'-HeptaCB-(178)	2016/12/06	0.0023 U, EDL=0.0023 (1)		ng/g	
			22'33'566'-HeptaCB-(179)	2016/12/06	0.0016 U, EDL=0.0016 (1)		ng/g	
			HeptaCB-(180)+(193)	2016/12/06	0.0034 U, EDL=0.0034 (1)		ng/g	
			22'344'56'-HeptaCB-(181)	2016/12/06	0.0050 U, EDL=0.0050 (1)		ng/g	
			22'344'56'-HeptaCB-(182)	2016/12/06	0.0022 U, EDL=0.0022 (1)		ng/g	
			22'344'5'6'-HeptaCB-(183)	2016/12/06	0.0041 U, EDL=0.0041 (1)		ng/g	
			22'344'66'-HeptaCB-(184)	2016/12/06	0.0017 U, EDL=0.0017 (1)		ng/g	
			22'3455'6'-HeptaCB-(185)	2016/12/06	0.0048 U, EDL=0.0048 (1)		ng/g	
			22'34566'-HeptaCB-(186)	2016/12/06	0.0018 U, EDL=0.0018 (1)		ng/g	
			22'34'55'6'-HeptaCB-(187)	2016/12/06	0.0023 U, EDL=0.0023 (1)		ng/g	
			22'34'566'-HeptaCB-(188)	2016/12/06	0.00079 U, EDL=0.00079		ng/g	
			233'44'55'-HeptaCB-(189)	2016/12/06	0.0011 U, EDL=0.0011		ng/g	
			233'44'56'-HeptaCB-(190)	2016/12/06	0.0037 U, EDL=0.0037 (1)		ng/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			233'44'5'6-HeptaCB-(191)	2016/12/06	0.0035 U, EDL=0.0035 (1)		ng/g	
			233'455'6-HeptaCB-(192)	2016/12/06	0.0042 U, EDL=0.0042 (1)		ng/g	
			22'33'44'55'-OctaCB-(194)	2016/12/06	0.0023 U, EDL=0.0023 (1)		ng/g	
			22'33'44'56'-OctaCB-(195)	2016/12/06	0.0025 U, EDL=0.0025 (1)		ng/g	
			22'33'44'56'-OctaCB-(196)	2016/12/06	0.0049 U, EDL=0.0049 (1)		ng/g	
			22'33'44'66'-OctaCB-(197)	2016/12/06	0.0039 U, EDL=0.0039 (1)		ng/g	
			OctaCB-(198)+(199)	2016/12/06	0.0051 U, EDL=0.0051 (1)		ng/g	
			22'33'4566'-OctaCB-(200)	2016/12/06	0.0033 U, EDL=0.0033 (1)		ng/g	
			22'33'45'66'-OctaCB-(201)	2016/12/06	0.0034 U, EDL=0.0034 (1)		ng/g	
			22'33'55'66'-OctaCB-(202)	2016/12/06	0.0035 U, EDL=0.0035 (1)		ng/g	
			22'344'55'6'-OctaCB-(203)	2016/12/06	0.0052 U, EDL=0.0052 (1)		ng/g	
			22'344'566'-OctaCB-(204)	2016/12/06	0.0034 U, EDL=0.0034 (1)		ng/g	
			233'44'55'6'-OctaCB-(205)	2016/12/06	0.00069 U, EDL=0.00069		ng/g	
			22'33'44'55'6'-NonaCB-(206)	2016/12/06	0.0022 U, EDL=0.0022		ng/g	
			22'33'44'566'-NonaCB-(207)	2016/12/06	0.0018 U, EDL=0.0018		ng/g	
			22'33'455'66'-NonaCB-(208)	2016/12/06	0.0021 U, EDL=0.0021		ng/g	
			DecaCB-(209)	2016/12/06	0.0017 U, EDL=0.0017		ng/g	
			Total PCB	2016/12/06	0.0184		ng/g	
4779396	BY	RPD - Sample/Sample Dup	2-MonoCB-(1)	2016/12/06	NC		%	30
			3-MonoCB-(2)	2016/12/06	NC		%	30
			4-MonoCB-(3)	2016/12/06	NC		%	30
			22'-DiCB-(4)	2016/12/06	NC		%	30
			2,3-DiCB-(5)	2016/12/06	NC		%	30
			2,3'-DiCB-(6)	2016/12/06	NC		%	30
			2,4-DiCB-(7)	2016/12/06	NC		%	30
			2,4'-DiCB-(8)	2016/12/06	NC		%	30
			2,5-DiCB-(9)	2016/12/06	NC		%	30
			2,6-DiCB-(10)	2016/12/06	NC		%	30
			3,3'-DiCB-(11)	2016/12/06	NC		%	30
			DiCB-(12)+(13)	2016/12/06	NC		%	30
			3,5-DiCB-(14)	2016/12/06	NC		%	30
			4,4'-DiCB-(15)	2016/12/06	NC		%	30
			22'3-TriCB-(16)	2016/12/06	NC		%	30
			22'4-TriCB-(17)	2016/12/06	NC		%	30
			TriCB-(18)+(30)	2016/12/06	NC		%	30

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			22'6-TriCB-(19)	2016/12/06	NC		%	30
			TriCB-(20) + (28)	2016/12/06	NC		%	30
			TriCB-(21)+(33)	2016/12/06	NC		%	30
			234'-TriCB-(22)	2016/12/06	NC		%	30
			235-TriCB-(23)	2016/12/06	NC		%	30
			236-TriCB-(24)	2016/12/06	NC		%	30
			23'4-TriCB-(25)	2016/12/06	NC (3)		%	30
			TriCB-(26)+(29)	2016/12/06	NC		%	30
			23'6-TriCB-(27)	2016/12/06	NC		%	30
			24'5-TriCB-(31)	2016/12/06	NC		%	30
			24'6-TriCB-(32)	2016/12/06	NC		%	30
			23'5'-TriCB-(34)	2016/12/06	NC		%	30
			33'4-TriCB-(35)	2016/12/06	NC		%	30
			33'5-TriCB-(36)	2016/12/06	NC		%	30
			344'-TriCB-(37)	2016/12/06	NC		%	30
			345-TriCB-(38)	2016/12/06	NC		%	30
			34'5-TriCB-(39)	2016/12/06	NC		%	30
			TetraCB-(40)+(41)+(71)	2016/12/06	NC		%	30
			22'34'-TetraCB-(42)	2016/12/06	NC		%	30
			22'35-TetraCB-(43)	2016/12/06	NC		%	30
			TetraCB-(44)+(47)+(65)	2016/12/06	NC		%	30
			TetraCB-(45)+(51)	2016/12/06	NC (3)		%	30
			22'36'-TetraCB-(46)	2016/12/06	NC		%	30
			22'45-TetraCB-(48)	2016/12/06	NC		%	30
			TetraCB-(49)+TetraCB-(69)	2016/12/06	NC		%	30
			TetraCB-(50)+(53)	2016/12/06	NC (3)		%	30
			22'55'-TetraCB-(52)	2016/12/06	NC		%	30
			22'66'-TetraCB-(54)	2016/12/06	NC		%	30
			233'4-TetraCB-(55)	2016/12/06	NC		%	30
			233'4'-Tetra CB(56)	2016/12/06	NC		%	30
			233'5-TetraCB-(57)	2016/12/06	NC		%	30
			233'5'-TetraCB-(58)	2016/12/06	NC		%	30
			TetraCB-(59)+(62)+(75)	2016/12/06	NC		%	30
			2344'-TetraCB -(60)	2016/12/06	NC		%	30
			TetraCB-(61)+(70)+(74)+(76)	2016/12/06	NC		%	30
			234'5-TetraCB-(63)	2016/12/06	NC		%	30
			234'6-TetraCB-(64)	2016/12/06	NC		%	30
			23'44'-TetraCB-(66)	2016/12/06	NC		%	30
			23'45-TetraCB-(67)	2016/12/06	NC		%	30
			23'45'-TetraCB-(68)	2016/12/06	NC (3)		%	30
			23'55'-TetraCB-(72)	2016/12/06	NC		%	30
			23'5'6-TetraCB-(73)	2016/12/06	NC		%	30
			33'44'-TetraCB-(77)	2016/12/06	NC		%	30
			33'45-TetraCB-(78)	2016/12/06	NC		%	30
			33'45'-TetraCB(79)	2016/12/06	NC		%	30
			33'55'-TetraCB-(80)	2016/12/06	NC		%	30
			344'5-TetraCB-(81)	2016/12/06	NC		%	30
			22'33'4-PentaCB-(82)	2016/12/06	NC		%	30
			PentaCB-(83)+(99)	2016/12/06	NC		%	30
			22'33'6-PentaCB-(84)	2016/12/06	NC		%	30
			PentaCB-(85)+(116)+(117)	2016/12/06	NC		%	30
			PentaCB-(86)(87)(97)(109)(119)(125)	2016/12/06	NC		%	30
			PentaCB-(88)+(91)	2016/12/06	NC (3)		%	30
			22'346'-PentaCB-(89)	2016/12/06	NC		%	30

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			PentaCB-(90)+(101)+(113)	2016/12/06	NC		%	30
			22'355'-PentaCB-(92)	2016/12/06	NC		%	30
			PentaCB-(93)+(98)+(100)+(102)	2016/12/06	NC		%	30
			22'356'-PentaCB-(94)	2016/12/06	NC		%	30
			22'35'6-PentaCB-(95)	2016/12/06	NC		%	30
			22'366'-PentaCB-(96)	2016/12/06	NC		%	30
			22'45'6-PentaCB-(103)	2016/12/06	NC		%	30
			22'466'-PentaCB-(104)	2016/12/06	NC		%	30
			233'44'-PentaCB-(105)	2016/12/06	NC		%	30
			233'45-PentaCB-(106)	2016/12/06	NC		%	30
			233'4'5-PentaCB-(107)	2016/12/06	NC		%	30
			PentaCB-(108)+(124)	2016/12/06	NC (3)		%	30
			PentaCB-(110)+(115)	2016/12/06	NC		%	30
			233'55'-PentaCB-(111)	2016/12/06	NC		%	30
			233'56-PentaCB-(112)	2016/12/06	NC		%	30
			2344'5-PentaCB-(114)	2016/12/06	NC		%	30
			23'44'5-PentaCB-(118)	2016/12/06	1.8		%	30
			23'455'-PentaCB-(120)	2016/12/06	NC		%	30
			23'45'6-PentaCB-(121)	2016/12/06	NC		%	30
			233'4'5'-PentaCB-(122)	2016/12/06	NC		%	30
			23'44'5'-PentaCB-(123)	2016/12/06	NC		%	30
			33'44'5-PentaCB-(126)	2016/12/06	NC		%	30
			33'455'-PentaCB-(127)	2016/12/06	NC		%	30
			HexaCB-(128)+(166)	2016/12/06	NC (1)		%	30
			HexaCB-(129)+(138)+(163)	2016/12/06	NC (1)		%	30
			22'33'45'-HexaCB-(130)	2016/12/06	NC (1)		%	30
			22'33'46-HexaCB-(131)	2016/12/06	NC (1)		%	30
			22'33'46'-HexaCB-(132)	2016/12/06	NC (1)		%	30
			22'33'55'-HexaCB-(133)	2016/12/06	NC (1)		%	30
			HexaCB-(134)+(143)	2016/12/06	NC (1)		%	30
			HexaCB-(135)+(151)	2016/12/06	NC (1)		%	30
			22'33'66'-HexaCB-(136)	2016/12/06	NC (1)		%	30
			22'344'5-HexaCB-(137)	2016/12/06	NC (1)		%	30
			HexaCB-(139)+(140)	2016/12/06	NC (1)		%	30
			22'3455'-HexaCB-(141)	2016/12/06	NC (1)		%	30
			22'3456-HexaCB-(142)	2016/12/06	NC (1)		%	30
			22'345'6-HexaCB-(144)	2016/12/06	NC (1)		%	30
			22'3466'-HexaCB-(145)	2016/12/06	NC (1)		%	30
			22'34'55'-HexaCB-(146)	2016/12/06	NC (1)		%	30
			HexaCB-(147)+(149)	2016/12/06	NC (1)		%	30
			22'34'56'-HexaCB-(148)	2016/12/06	NC (1)		%	30
			22'34'66'-HexaCB-(150)	2016/12/06	NC (1)		%	30
			22'3566'-HexaCB-(152)	2016/12/06	NC (1)		%	30
			HexaCB-(153)+(168)	2016/12/06	NC (1)		%	30
			22'44'56'-HexaCB-(154)	2016/12/06	NC (1)		%	30
			22'44'66'-HexaCB-(155)	2016/12/06	NC (1)		%	30
			HexaCB-(156)+(157)	2016/12/06	NC		%	30
			233'44'6-HexaCB-(158)	2016/12/06	NC (1)		%	30
			233'455'-HexaCB-(159)	2016/12/06	NC (1)		%	30
			233'456-HexaCB-(160)	2016/12/06	NC (1)		%	30
			233'45'6-HexaCB-(161)	2016/12/06	NC (1)		%	30
			233'4'55'-HexaCB-(162)	2016/12/06	NC (1)		%	30
			233'4'5'6-HexaCB-(164)	2016/12/06	NC (1)		%	30
			233'55'6-HexaCB-(165)	2016/12/06	NC (1)		%	30

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			23'44'55'-HexaCB-(167)	2016/12/06	NC		%	30
			33'44'55'-HexaCB-(169)	2016/12/06	NC		%	30
			22'33'44'5-HeptaCB-(170)	2016/12/06	NC (1)		%	30
			HeptaCB-(171)+(173)	2016/12/06	NC (4)		%	30
			22'33'455'-HeptaCB-(172)	2016/12/06	NC (1)		%	30
			22'33'456'-HeptaCB-(174)	2016/12/06	NC (1)		%	30
			22'33'45'6-HeptaCB-(175)	2016/12/06	NC (1)		%	30
			22'33'466'-HeptaCB-(176)	2016/12/06	NC (1)		%	30
			22'33'45'6'-HeptaCB-(177)	2016/12/06	NC (1)		%	30
			22'33'55'6-HeptaCB-(178)	2016/12/06	NC (1)		%	30
			22'33'566'-HeptaCB-(179)	2016/12/06	NC (1)		%	30
			HeptaCB-(180)+(193)	2016/12/06	NC (4)		%	30
			22'344'56-HeptaCB-(181)	2016/12/06	NC (1)		%	30
			22'344'56'-HeptaCB-(182)	2016/12/06	NC (1)		%	30
			22'344'5'6-HeptaCB-(183)	2016/12/06	NC (1)		%	30
			22'344'66'-HeptaCB-(184)	2016/12/06	NC (1)		%	30
			22'3455'6-HeptaCB-(185)	2016/12/06	NC (1)		%	30
			22'34566'-HeptaCB-(186)	2016/12/06	NC (1)		%	30
			22'34'55'6-HeptaCB-(187)	2016/12/06	NC (1)		%	30
			22'34'566'-HeptaCB-(188)	2016/12/06	NC		%	30
			233'44'55'-HeptaCB-(189)	2016/12/06	NC		%	30
			233'44'56-HeptaCB-(190)	2016/12/06	NC (1)		%	30
			233'44'5'6-HeptaCB-(191)	2016/12/06	NC (1)		%	30
			233'455'6-HeptaCB-(192)	2016/12/06	NC (1)		%	30
			22'33'44'55'-OctaCB-(194)	2016/12/06	NC (1)		%	30
			22'33'44'56-OctaCB-(195)	2016/12/06	NC (1)		%	30
			22'33'44'56'-OctaCB-(196)	2016/12/06	NC (1)		%	30
			22'33'44'66'OctaCB-(197)	2016/12/06	NC (1)		%	30
			OctaCB-(198)+(199)	2016/12/06	NC (1)		%	30
			22'33'4566'-OctaCB-(200)	2016/12/06	NC (1)		%	30
			22'33'45'66'-OctaCB-(201)	2016/12/06	NC (1)		%	30
			22'33'55'66'-OctaCB-(202)	2016/12/06	NC (4)		%	30
			22'344'55'6-OctaCB-(203)	2016/12/06	NC (1)		%	30
			22'344'566'-OctaCB-(204)	2016/12/06	NC (1)		%	30
			233'44'55'6-OctaCB-(205)	2016/12/06	NC		%	30
			22'33'44'55'6-NonaCB-(206)	2016/12/06	NC		%	30
			22'33'44'566'-NonaCB-(207)	2016/12/06	NC		%	30
			22'33'455'66'-NonaCB-(208)	2016/12/06	NC		%	30
			DecaCB-(209)	2016/12/06	NC (3)		%	30

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC				Date		%		
Batch	Init	QC Type	Parameter	Analyzed	Value	Recovery	UNITS	QC Limits
			Total PCB	2016/12/06	2.0		%	N/A
<p>N/A = Not Applicable</p> <p>Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.</p> <p>Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.</p> <p>Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p> <p>Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.</p> <p>NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).</p> <p>(1) ** From 5X Dilution **</p> <p>(2) EMPC / Ratio - Isotopic ratio adjusted to meet theoretical</p> <p>(3) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.</p> <p>(4) ** From 5X Dilution **EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.</p>								

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Owen Cosby, BSc.C.Chem, Supervisor, HRMS Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



3.0 Sample Custody

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: **1001**

Turn-around Requested: **Std.**

ARI Client Company: **Anchor OEA**

Phone:

Client Contact: **Nathan Saccorsy**

Client Project Name: **Port Gamble**

Client Project #: **Port Gamble**

Samplers:

Page: _____ of _____

Date: _____ Ice Present?

No. of Coolers: _____ Cooler Temps: _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)
www.arilabs.com



Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested		Notes/Comments
					Analysis Requested	Notes/Comments	
PG-TD-mus-coc-160816	8/14/16	0800	TISSUE	1	X		16H147-01
PG-TD-mus-coc-160816	8/21/16	1415		1	X		16H0268-01
PG-SMA-1-1-161011	10/11/16	1108		1	X		16J0187-01
PG-SMA-1-2-161011		1105		1	X		16J0187-02
PG-SMA-1-3-161011		1110		1	X		16J0187-03
PG-REF-PJ-1-161011		1237		1	X		16J0187-04
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>28-Oct-16 14:56</p> <p>Andrea Rieth</p> <p>B6N4556</p> <p>MAF FZ-46</p> </div>							
Comments/Special Instructions				Relinquished by: <i>[Signature]</i> (Signature)	Received by: <i>[Signature]</i> (Signature)		
Printed Name: Tyler Rankin				Printed Name: HARWIN GREWAL	Printed Name:		
Company: AP-I				Company: MAXAM	Company:		
Date & Time: 10-27-16 @ 1228				Date & Time: 10/28 14:56	Date & Time:		

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)
 www.arilabs.com



ARI Assigned Number: _____ of _____
 Turn-around Requested: Std.
 Date: _____
 No. of Coolers: _____
 Cooler Temps: _____
 Ice Present? _____
 No. of Containers: _____

ARI Client Company: Anchor OEA
 Phone: _____
 Client Contact: Nathaniel Socorsky
 Client Project Name: Port Fremble
 Client Project #: _____

Sampler: _____
 Date: _____
 Time: _____
 Matrix: _____
 No. Containers: _____

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested				Notes/Comments
					1	2	3	4	
PG-T0-MUS-COC-160816	8/16/16	0800	TISSUE	1	X				16H47-01
PG-T0-MUS-COC-160816	8/29/16	1415		1	X				16H0268-01
PG-SMA-1-1-161011	10/11/16	1108		1	X				16J0187-01
PG-SMA-1-2-161011	↓	1105		1	X				16J0187-02
PG-SMA-1-3-161011	↓	1110		1	X				16J0187-03
PG-REF-PJ-1-161011	↓	1237		1	X				16J0187-04
PG-REF-WS-1-161011	10/11/16	1215	TISSUE	1	X				16J0187-05 } Add
PG-REF-EP-1-161011	10/11/16	1250	↓	1	X				16J0187-06 } 10/31/16

Comments/Special Instructions: _____

Relinquished by: (Signature) _____ Printed Name: _____ Company: _____ Date & Time: _____

Received by: (Signature) _____ Printed Name: _____ Company: _____ Date & Time: _____

Relinquished by: (Signature) _____ Printed Name: _____ Company: _____ Date & Time: _____

Received by: (Signature) _____ Printed Name: _____ Company: _____ Date & Time: _____



Method 1668, Revision A: Chlorinated Biphenyl Congeners in Water, Soil, Sediment, Tissue and Air by HRGC/HRMS

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



4.0 Initial Calibration Data

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

M2161129A-PUR

File Name	File Text
M2161129A01	solvent
M2161129A02	CS1_PCB 150417CXU
M2161129A03	CS2_PCB 150417CXU
M2161129A04	CS3_PCB 150417CXU
M2161129A05	CS4_PCB 150417CXU
M2161129A06	CS5_PCB 150417CXU
M2161129A07	solvent
M2161129A08	CIL CS3 PCB PR-22535L
M2161129A09	209MIX PCB 150822CXU

5 pt Calibration

INSTRUMENT: Ultima 2

CALIBRATION DATE: 2016/11/29

	M2161129A02 CS1	M2161129A03 CS2	M2161129A04 CS3	M2161129A05 CS4	M2161129A06 CS5			
	Relative Response Factors					Mean RRF	RRF SD	%RSD
Natives								
PCB 1	1.341	1.258	1.330	1.303	1.248	1.295952	0.042	
PCB 3	1.235	1.227	1.376	1.282	1.261	1.276268	0.060	3.2%
PCB 4	1.024	1.092	1.252	1.264	1.299	1.186151	0.120	4.7%
PCB 15	0.977	0.948	1.078	1.090	1.115	1.041535	0.074	10.1%
PCB 19	1.055	1.044	1.183	1.241	1.259	1.156393	0.102	7.1%
PCB 37	0.931	0.919	1.003	1.018	1.055	0.985185	0.058	8.8%
PCB 54	0.878	0.917	1.028	1.113	1.163	1.019731	0.122	5.9%
PCB 81	1.076	1.086	1.191	1.231	1.251	1.166871	0.082	12.0%
PCB 77	1.159	1.132	1.216	1.272	1.300	1.215886	0.072	7.0%
PCB 104	1.106	1.090	1.192	1.241	1.310	1.187663	0.092	5.9%
PCB 123	0.916	0.861	0.947	0.989	1.025	0.947489	0.064	7.8%
PCB 118	0.965	0.968	1.045	1.103	1.130	1.042056	0.076	6.7%
PCB 114	0.993	0.995	1.092	1.130	1.169	1.075737	0.079	7.3%
PCB 105	0.981	0.960	1.048	1.091	1.123	1.040319	0.070	7.4%
PCB 126	1.016	0.953	1.037	1.074	1.104	1.036840	0.058	6.7%
PCB 155	0.978	0.994	1.085	1.143	1.196	1.079203	0.093	5.6%
PCB 167	0.883	0.898	0.968	0.983	1.024	0.951096	0.059	8.7%
PCB 156/157	1.002	0.974	1.037	1.063	1.103	1.035880	0.051	6.3%
PCB 169	0.943	0.914	0.973	1.000	1.035	0.973208	0.047	4.9%
PCB 188	0.928	0.977	1.067	1.120	1.175	1.053373	0.101	4.9%
PCB 180	1.120	1.022	1.067	1.151	1.229	1.111701	0.079	9.6%
PCB 170	1.117	1.106	1.209	1.264	1.332	1.205611	0.097	7.1%
PCB 189	0.858	0.854	0.900	0.948	0.992	0.910379	0.059	8.0%
PCB 202	1.033	0.969	1.074	1.127	1.197	1.079670	0.087	6.5%
PCB 205	1.030	0.973	1.056	1.120	1.176	1.071084	0.079	8.1%
PCB 208	1.090	0.973	1.056	1.115	1.175	1.081941	0.075	7.3%
PCB 206	1.025	1.010	1.034	1.143	1.173	1.077007	0.075	6.9%
PCB 209	1.110	0.947	0.945	1.021	1.097	1.023990	0.079	7.0%
Internal Standard								
PCB 1L	0.798	0.844	0.839	0.825	0.801	0.821297	0.021	2.6%
PCB 3L	0.830	0.827	0.818	0.823	0.841	0.827781	0.009	1.1%
PCB 4L	0.290	0.278	0.272	0.286	0.282	0.281581	0.007	2.4%
PCB 15L	1.058	1.073	1.068	1.058	1.062	1.063867	0.006	0.6%
PCB 19L	0.351	0.348	0.345	0.341	0.341	0.345224	0.004	1.2%
PCB 37L	2.584	2.620	2.681	2.585	2.598	2.613624	0.040	1.5%
PCB 54L	0.778	0.780	0.767	0.749	0.717	0.757953	0.026	3.5%
PCB 81L	1.904	1.865	1.905	1.823	1.882	1.875804	0.034	1.8%
PCB 77L	1.813	1.784	1.830	1.764	1.803	1.798640	0.026	1.4%
PCB 104L	0.978	0.966	0.948	0.972	0.969	0.966592	0.011	1.2%
PCB 123L	2.344	2.274	2.297	2.236	2.314	2.292931	0.041	1.8%
PCB 118L	2.239	2.229	2.190	2.129	2.228	2.202875	0.045	2.1%
PCB 114L	2.115	2.048	2.026	1.988	2.067	2.048993	0.047	2.3%
PCB 105L	2.113	2.159	2.100	2.069	2.128	2.113668	0.033	1.6%
PCB 126L	2.099	2.069	2.083	2.038	2.094	2.076660	0.025	1.2%
PCB 155L	1.081	1.047	1.039	1.040	1.075	1.056328	0.020	1.9%
PCB 167L	2.310	2.208	2.236	2.230	2.359	2.268575	0.064	2.8%
PCB 156L/157L	2.104	2.018	2.064	2.036	2.151	2.074670	0.054	2.6%
PCB 169L	2.168	2.109	2.099	2.106	2.229	2.142477	0.056	2.6%
PCB 188L	1.131	1.080	1.086	1.085	1.136	1.103413	0.027	2.5%
PCB 180L	1.218	1.226	1.216	1.218	1.217	1.219045	0.004	0.3%
PCB 170L	1.094	1.076	1.095	1.083	1.116	1.092559	0.015	1.4%
PCB 189L	2.395	2.414	2.406	2.423	2.474	2.422482	0.031	1.3%
PCB 202L	1.164	1.202	1.188	1.189	1.209	1.190251	0.017	1.4%
PCB 205L	1.474	1.481	1.461	1.477	1.496	1.477612	0.013	0.9%
PCB 208L	1.148	1.154	1.153	1.170	1.171	1.159182	0.011	0.9%
PCB 206L	0.823	0.810	0.813	0.792	0.833	0.814124	0.015	1.9%
PCB 209L	0.738	0.748	0.742	0.773	0.773	0.754728	0.017	2.2%
Cleanup Standard								
PCB 28L	2.363	2.916	2.900	2.804	2.915	2.779853	0.237	8.5%
PCB 111L	1.117	1.399	1.394	1.365	1.385	1.332082	0.121	9.1%
PCB 178L	0.539	0.686	0.678	0.663	0.687	0.650495	0.063	9.6%
Field Spike								
PCB 31L	2.818	2.775	2.769	2.727	2.787	2.775137	0.033	1.2%
PCB 95L	0.998	0.961	0.954	0.957	0.966	0.967226	0.018	1.9%
PCB 153L	1.223	1.176	1.189	1.174	1.191	1.190625	0.020	1.7%

16. 11. 30
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Acquired Date:

Dataset: C:\MassLynx\Default.pro\QLD\m2161129A_5pt_1668A.qld

Last Altered: November 30, 2016 11:38:27 AM Eastern Standard Time

Printed: November 30, 2016 11:59:47 AM Eastern Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\EPA 1668 5PT-20161129A.mdb 30 Nov 2016 11:14:24

Calibration: C:\MassLynx\Default.pro\Curvedb\M2161129A_5PT_1668.cdb 30 Nov 2016 11:38:27

ID:

Date: 29-Nov-2016

Time: 20:02:48

Instrument:

Description: CS1_PCB 150417CXU

# Name	RT	RRT	Area	Sec.Area	Ion Ratio	Ratio Flag	Flags	pg/ul	%Dev	%Rec	IS#	RRF
1 PCB 1	8.84	1.001	17294	5660	3.06	YES	bb	1.035	3.5	103	29	1.341
2 PCB 3	10.02	1.001	16554	5447	3.04	YES	bd	0.968	-3.2	97	30	1.235
3 PCB 4	10.13	1.001	4056	2309	1.76	YES	MM	0.864	-13.6	86	31	1.025
4 PCB 15	12.72	1.002	12774	9411	1.36	YES	bb	0.938	-6.2	94	32	0.977
5 PCB 19	11.50	1.002	4235	3702	1.14	YES	bb	0.912	-8.8	91	33	1.055
6 PCB 37	16.36	1.001	9696	9869	0.98	YES	bb	0.945	-5.5	95	34	0.931
7 PCB 54	12.84	1.000	2451	3098	0.79	YES	bb	0.861	-13.9	86	35	0.878
8 PCB 81	20.98	1.001	6868	9782	0.70	YES	bb	0.922	-7.8	92	36	1.076
9 PCB 77	21.42	1.001	7368	9709	0.76	YES	bb	0.953	-4.7	95	37	1.159
10 PCB 104	15.64	1.001	4545	2734	1.66	YES	bb	0.931	-6.9	93	38	1.106
11 PCB 123	23.05	1.001	8221	6229	1.32	YES	MM	0.967	-3.3	97	39	0.916
12 PCB 118	23.34	1.001	8508	6027	1.41	YES	MM	0.926	-7.4	93	40	0.965
13 PCB 114	23.79	1.001	8218	5918	1.39	YES	bb	0.923	-7.7	92	41	0.993
14 PCB 105	24.35	1.001	8265	5682	1.46	YES	bb	0.943	-5.7	94	42	0.981
15 PCB 126	27.18	1.001	8531	5830	1.46	YES	bb	0.980	-2.0	98	43	1.016
16 PCB 155	19.24	1.001	3925	3270	1.20	YES	bb	0.907	-9.3	91	44	0.978
17 PCB 167	28.99	1.001	7124	6747	1.06	YES	MM	0.928	-7.2	93	45	0.883
18 PCB 156/157	30.15	1.001	15326	13369	1.15	YES	bb	1.935	-3.2	97	46	1.002
19 PCB 169	33.51	1.000	7167	6744	1.06	YES	MM	0.969	-3.1	97	47	0.943
20 PCB 188	23.77	1.001	3531	3611	0.98	YES	bb	0.881	-11.9	88	48	0.928
21 PCB 193/180	31.60	1.002	4403	3836	1.15	YES	bb	1.002	0.2	100	49	1.120
22 PCB 170	32.89	1.001	3647	3735	0.98	YES	bb	0.927	-7.3	93	50	1.117
23 PCB 189	36.28	1.001	5895	6525	0.90	YES	bb	0.943	-5.7	94	51	0.858
24 PCB 202	28.75	1.001	3572	3693	0.97	YES	bb	0.957	-4.3	96	52	1.033
25 PCB 205	39.14	1.001	4569	4608	0.99	YES	bb	0.962	-3.8	96	53	1.030
26 PCB 208	35.76	1.001	3345	4212	0.79	YES	bb	1.007	0.7	101	54	1.090
27 PCB 206	41.14	1.000	2191	2904	0.75	YES	bb	0.952	-4.8	95	55	1.025
28 PCB 209	42.98	1.000	2782	2168	1.28	YES	bb	1.084	8.4	108	56	1.110
29 PCB 1L	8.82	0.802	1315629	395754	3.32	YES	bb	97.115	-2.9	97	63	0.798
30 PCB 3L	10.00	0.909	1366270	414702	3.30	YES	bb	100.273	0.3	100	63	0.830
31 PCB 4L	10.12	0.920	382770	238530	1.61	YES	bb	102.834	2.8	103	63	0.290
32 PCB 15L	12.70	1.154	1406725	864348	1.63	YES	bb	99.491	-0.5	99	63	1.058
33 PCB 19L	11.48	1.044	388861	363721	1.07	YES	dd	101.600	1.6	102	63	0.351
34 PCB 37L	16.35	1.084	1089846	1010970	1.08	YES	bb	98.883	-1.1	99	64	2.584
35 PCB 54L	12.84	0.852	284099	348212	0.82	YES	bb	102.628	2.6	103	64	0.778
36 PCB 81L	20.97	1.391	693690	853682	0.81	YES	bb	101.481	1.5	101	64	1.904
37 PCB 77L	21.41	1.420	660480	812920	0.81	YES	bb	100.775	0.8	101	64	1.813
38 PCB 104L	15.62	0.806	403206	254916	1.58	YES	bb	101.152	1.2	101	65	0.978
39 PCB 123L	23.03	1.189	979233	598421	1.64	YES	bd	102.219	2.2	102	65	2.344
40 PCB 118L	23.30	1.202	934650	572229	1.63	YES	db	101.625	1.6	102	65	2.239
41 PCB 114L	23.77	1.227	888008	535827	1.66	YES	bb	103.236	3.2	103	65	2.115
42 PCB 105L	24.33	1.256	882592	539629	1.64	YES	bb	99.964	-0.0	100	65	2.113
43 PCB 126L	27.17	1.402	883032	530074	1.67	YES	bb	101.093	1.1	101	65	2.099
44 PCB 155L	19.23	0.738	412335	323024	1.28	YES	bb	102.322	2.3	102	66	1.081

AutoSpec Ultima - M2

Acquired Date

Dataset: C:\MassLynx\Default.pro\QLD\m2161129A_5pt_1668A.qld

Last Altered: November 30, 2016 11:38:27 AM Eastern Standard Time

Printed: November 30, 2016 11:59:47 AM Eastern Standard Time

ID:

Date: 29-Nov-2016

Time: 20:02:48

Instrument:

Description: CS1_PCB 150417CXU

# Name	RT	RRT	Area	Sec.Area	Ion Ratio	Ratio Flag	Flags	pg/ul	%Dev	%Rec	IS#	RRF
45 PCB 167L	28.97	1.111	890187	681423	1.31	YES	db	101.827	1.8	102	66	2.310
46 PCB 156L/157L	30.13	1.156	1620325	1242647	1.30	YES	bb	202.833	1.4	101	66	2.104
47 PCB 169L	33.49	1.285	828364	646857	1.28	YES	bb	101.207	1.2	101	66	2.168
48 PCB 188L	23.76	0.911	397070	372540	1.07	YES	bb	102.519	2.5	103	66	1.131
49 PCB 180L	31.55	0.817	379276	356667	1.06	YES	bb	99.929	-0.1	100	67	1.218
50 PCB 170L	32.86	0.851	344773	316043	1.09	YES	bb	100.116	0.1	100	67	1.094
51 PCB 189L	36.24	0.939	749831	697019	1.08	YES	bb	98.862	-1.1	99	67	2.395
52 PCB 202L	28.74	0.745	334991	368402	0.91	YES	bb	97.820	-2.2	98	67	1.164
53 PCB 205L	39.12	1.014	424007	466587	0.91	YES	bb	99.767	-0.2	100	67	1.474
54 PCB 208L	35.73	0.926	309667	383659	0.81	YES	bb	99.006	-1.0	99	67	1.148
55 PCB 206L	41.12	1.066	219189	277776	0.79	YES	bb	101.042	1.0	101	67	0.823
56 PCB 209L	42.96	1.113	243545	202357	1.20	YES	bb	97.795	-2.2	98	67	0.738
57 PCB 28L	14.14	0.938	989983	931204	1.06	YES	db	85.021	-15.0	85	64	2.363
58 PCB 111L	21.41	1.105	469602	282585	1.66	YES	bb	83.889	-16.1	84	65	1.117
59 PCB 178L	26.49	1.016	190906	176136	1.08	YES	bb	82.936	-17.1	83	66	0.539
60 PCB 31L	13.99	0.928	1186198	1104158	1.07	YES	bd	101.530	1.5	102	64	2.818
61 PCB 95L	17.40	0.898	419781	252177	1.66	YES	dd	103.211	3.2	103	65	0.998
62 PCB 153L	24.94	0.957	470261	362101	1.30	YES	bb	102.756	2.8	103	66	1.223
63 PCB 9L	11.00	0.000	1351005	794644	1.70	YES	bb	119.120	19.1	119	0	21456...
64 PCB 52L	15.07	0.000	362532	450341	0.81	YES	bb	118.126	18.1	118	0	8128....
65 PCB 101L	19.38	0.000	419422	253690	1.65	YES	bb	117.406	17.4	117	0	6731....
66 PCB 138L	26.07	0.000	385508	294838	1.31	YES	bb	117.356	17.4	117	0	6803....
67 PCB 194L	38.59	0.000	291927	312207	0.94	YES	bb	119.692	19.7	120	0	6041....
68 Total MoCB F1								2.003			29	
69 Total MoCB labeled ...								197.388			63	
70 Total DiCB F1								0.864			31	
71 Total DiCB labeled F1								102.834			63	
72 Total DiCB F2								0.938			32	
73 Total DiCB labeled F2								218.612			63	
74 Total TriCB F2								0.912			33	
75 Total TriCB labeled F2								101.600			63	
76 Total TriCB F3								0.945			34	
77 Total TriCB labeled F3								285.434			64	
78 Total TeCB F2								0.861			35	
79 Total TeCB labeled F2								102.628			64	
80 Total TeCB F3											35	
81 Total TeCB labeled F3								118.126			64	
82 Total TeCB F4								1.875			36	
83 Total TeCB labeled F4								202.256			64	
84 Total PeCB F3								0.931			38	
85 Total PeCB labeled F3								101.152			65	
86 Total PeCB F4											39	
87 Total PeCB labeled F4								304.507			65	
88 Total PeCB F5								4.738			39	
89 Total PeCB labeled F5								508.138			65	
90 Total HxCB F4								0.907			44	
91 Total HxCB labeled F4								102.322			66	
92 Total HxCB F5											45	

AutoSpec Ultima - M2

Acquired Date

Dataset: C:\MassLynx\Default.pro\QLD\m2161129A_5pt_1668A.qld

Last Altered: November 30, 2016 11:38:27 AM Eastern Standard Time

Printed: November 30, 2016 11:59:47 AM Eastern Standard Time

ID:

Date: 29-Nov-2016

Time: 20:02:48

Instrument:

Description: CS1_PCB 150417CXU

#	Name	RT	RRT	Area	Sec.Area	Ion Ratio	Ratio Flag	Flags	pg/ul	%Dev	%Rec	IS#	RRF
93	Total HxCB labeled F5								220.112			66	
94	Total HxCB F6								3.832			45	
95	Total HxCB labeled F6								405.867			66	
96	Total HpCB F5								0.881			48	
97	Total HpCB labeled ...								185.455			67	
98	Total HpCB F6								1.928			49	
99	Total HpCB labeled ...								200.045			67	
100	Total HpCB F7								0.943			51	
101	Total HpCB labeled ...								98.862			67	
102	Total OcCB F6								0.957			52	
103	Total OcCB labeled ...								97.820			67	
104	Total OcCB F7								0.962			53	
105	Total OcCB labeled ...								219.459			67	
106	Total NoCB F7								1.959			54	
107	Total NoCB labeled ...								200.047			67	
108	Total DeCB F7								1.084			56	
109	Total DeCB labeled ...								97.795			67	
110	lockmass F1											0	
111	lockmass F2											0	
112	lockmass F3											0	
113	lockmass F4											0	
114	lockmass F5											0	
115	lockmass F6											0	
116	lockmass F7											0	

Acquired Date

Dataset: C:\MassLynx\Default.pro\QLD\m2161129A_5pt_1668A.qld

Last Altered: November 30, 2016 11:38:27 AM Eastern Standard Time

Printed: November 30, 2016 11:59:33 AM Eastern Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\EPA 1668 5PT-20161129A.mdb 30 Nov 2016 11:14:24

Calibration: C:\MassLynx\Default.pro\Curvedb\M2161129A_5PT_1668.cdb 30 Nov 2016 11:38:27

Description: CS1_PCB 150417CXU

Vial: 2

Date: 29-Nov-2016

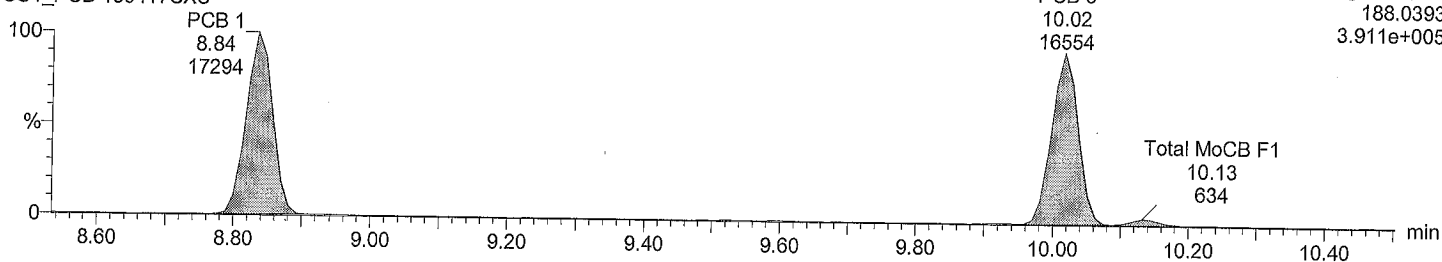
Time: 20:02:48

Instrument:

Total MoCB F1

M2161129A02 Smooth(SG,3x1)

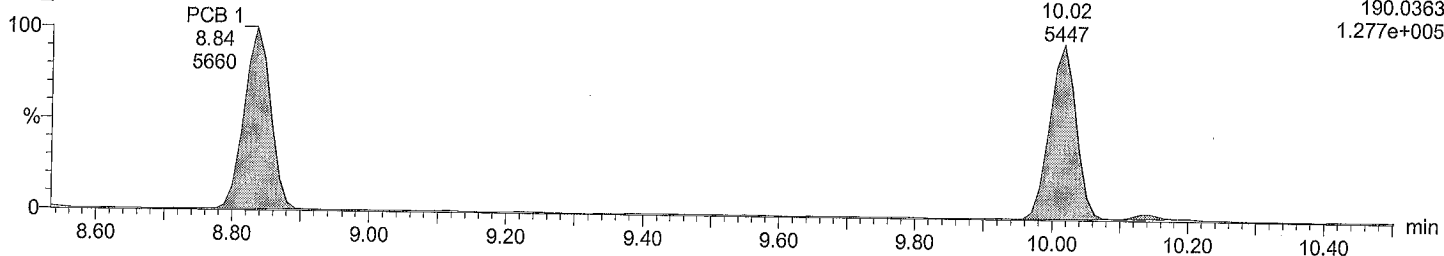
CS1_PCB 150417CXU



Total MoCB F1

M2161129A02 Smooth(SG,3x1)

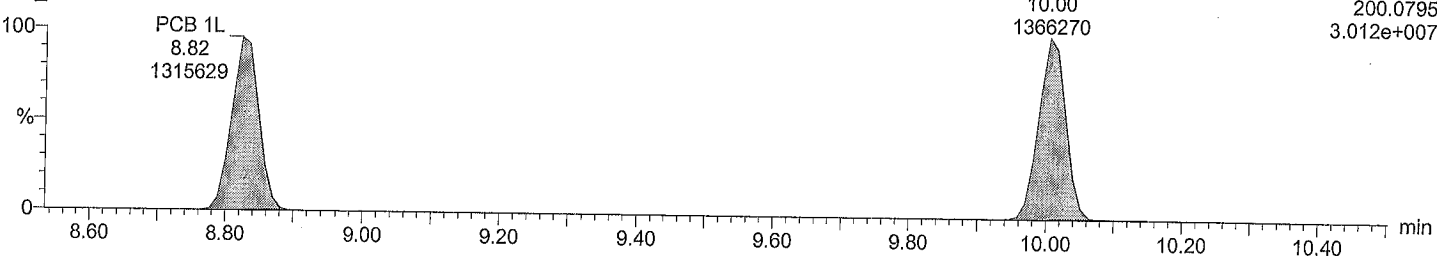
CS1_PCB 150417CXU



Total MoCB labeled F1

M2161129A02 Smooth(SG,3x1)

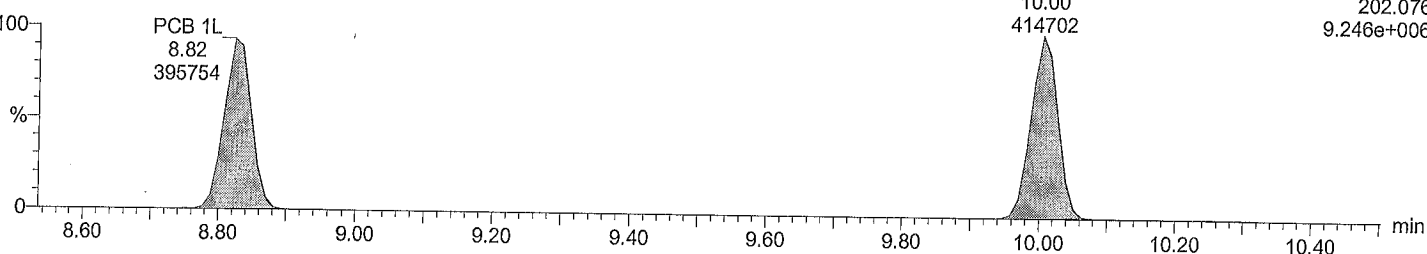
CS1_PCB 150417CXU



Total MoCB labeled F1

M2161129A02 Smooth(SG,3x1)

CS1_PCB 150417CXU



Dataset: C:\MassLynx\Default.pro\QLD\m2161129A_5pt_1668A.qld

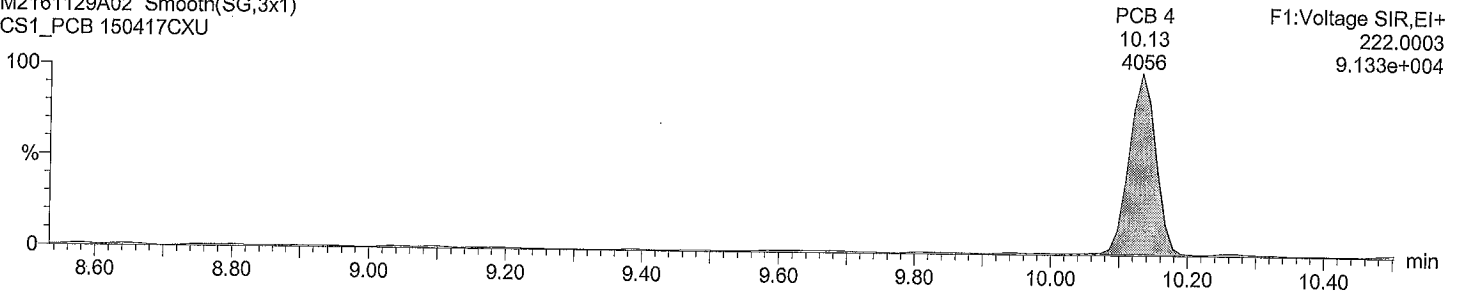
Last Altered: November 30, 2016 11:38:27 AM Eastern Standard Time
Printed: November 30, 2016 11:59:33 AM Eastern Standard Time

Description: CS1_PCB 150417CXU

Vial: 2
Date: 29-Nov-2016
Time: 20:02:48
Instrument:

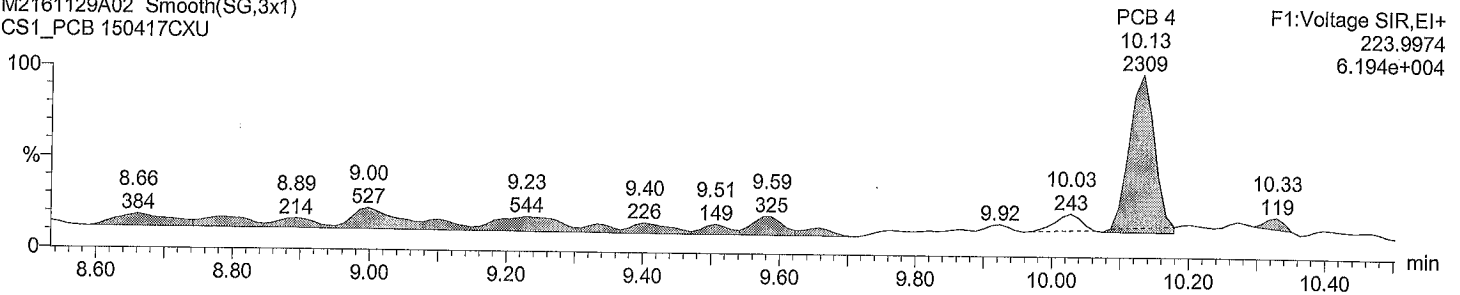
Total DiCB F1

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



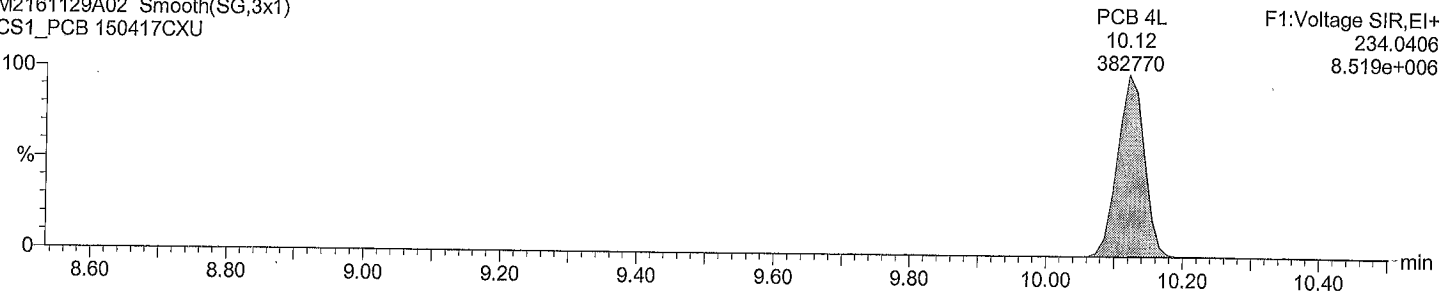
Total DiCB F1

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



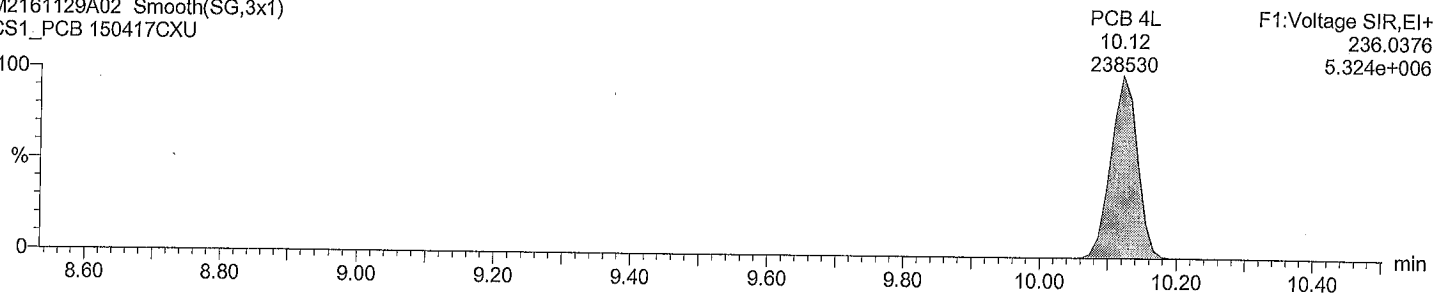
Total DiCB labeled F1

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



Total DiCB labeled F1

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



Acquired Date

Dataset: C:\MassLynx\Default.pro\QLD\m2161129A_5pt_1668A.qld

Last Altered: November 30, 2016 11:38:27 AM Eastern Standard Time

Printed: November 30, 2016 11:59:33 AM Eastern Standard Time

Description: CS1_PCB 150417CXU

Vial: 2

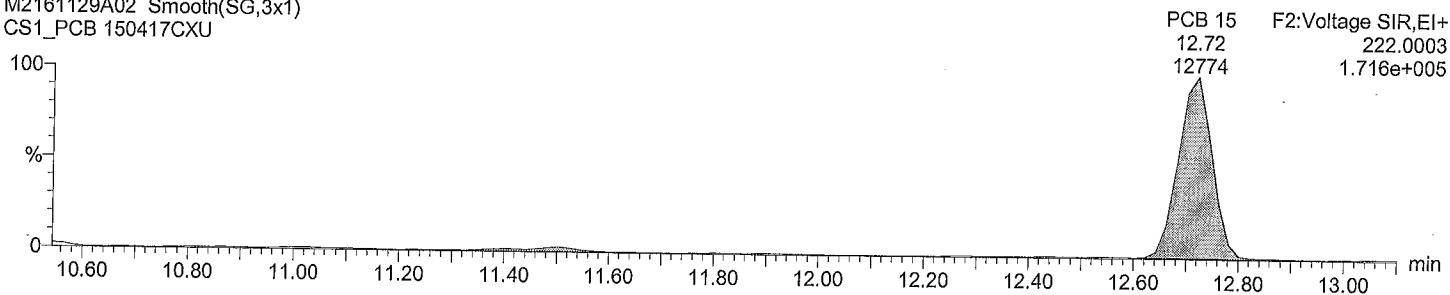
Date: 29-Nov-2016

Time: 20:02:48

Instrument:

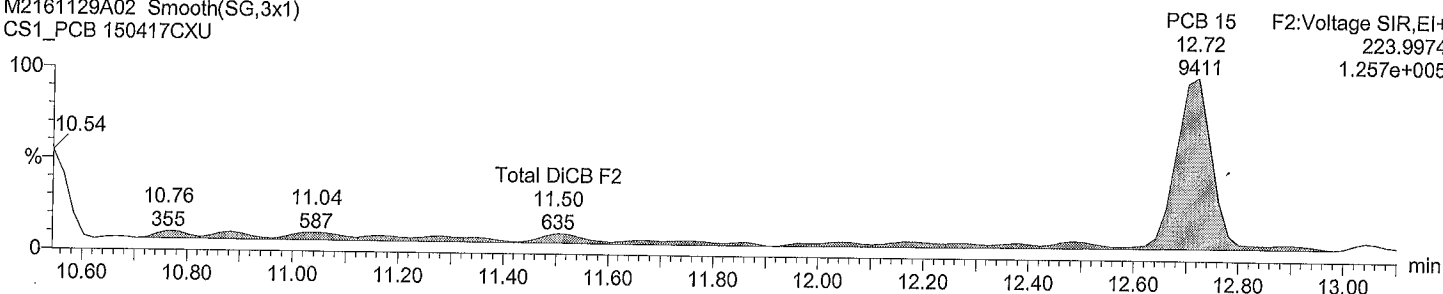
Total DiCB F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



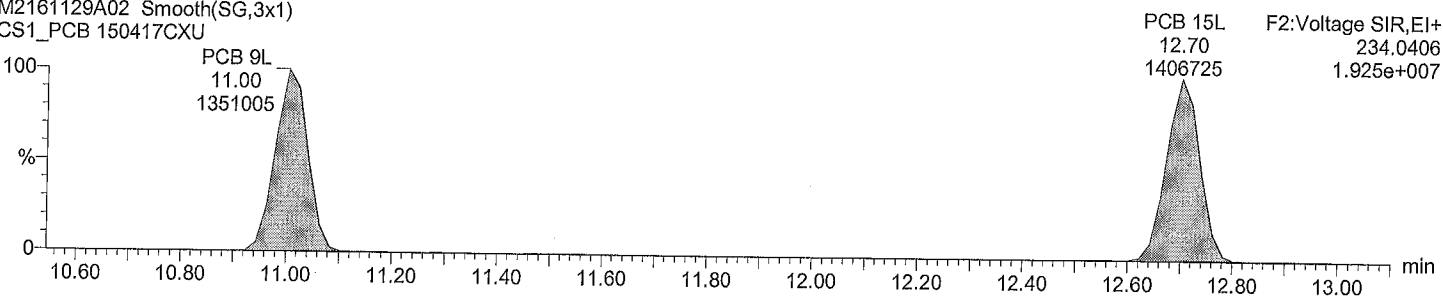
Total DiCB F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



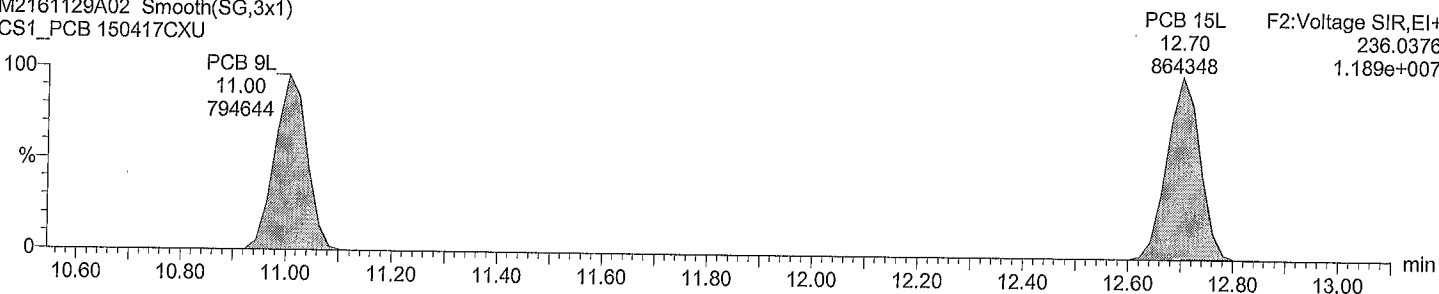
Total DiCB labeled F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



Total DiCB labeled F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



Acquired Date

Dataset: C:\MassLynx\Default.pro\QLD\m2161129A_5pt_1668A.qld

Last Altered: November 30, 2016 11:38:27 AM Eastern Standard Time

Printed: November 30, 2016 11:59:33 AM Eastern Standard Time

Description: CS1_PCB 150417CXU

Vial: 2

Date: 29-Nov-2016

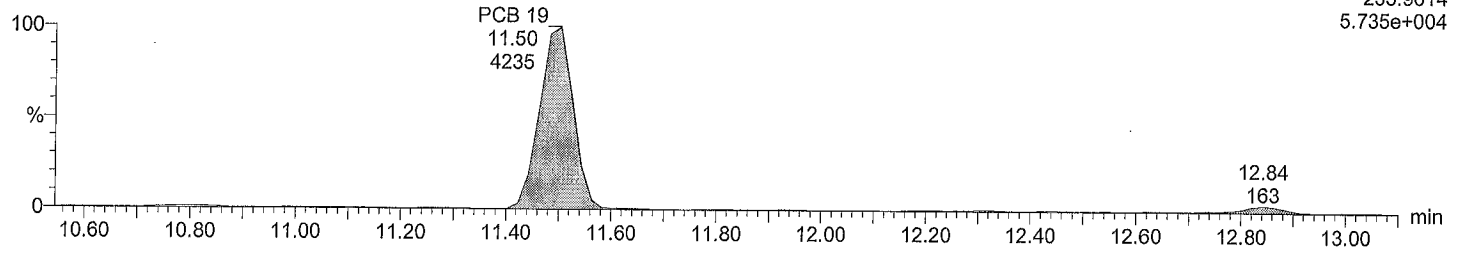
Time: 20:02:48

Instrument:

Total TriCB F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU

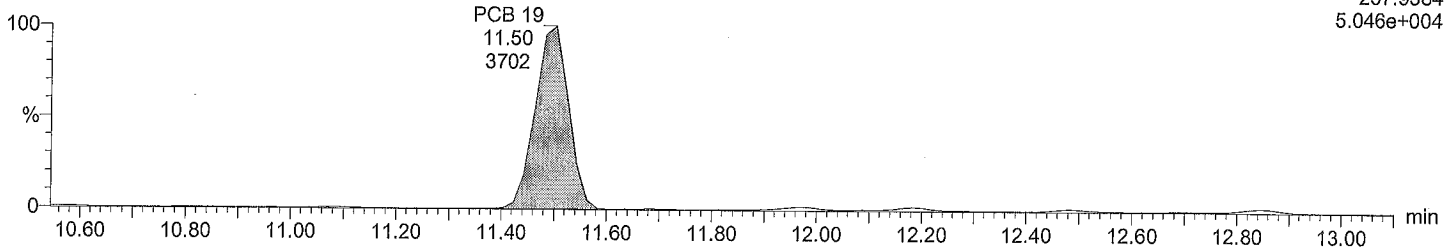
F2:Voltage SIR,EI+
255.9614
5.735e+004



Total TriCB F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU

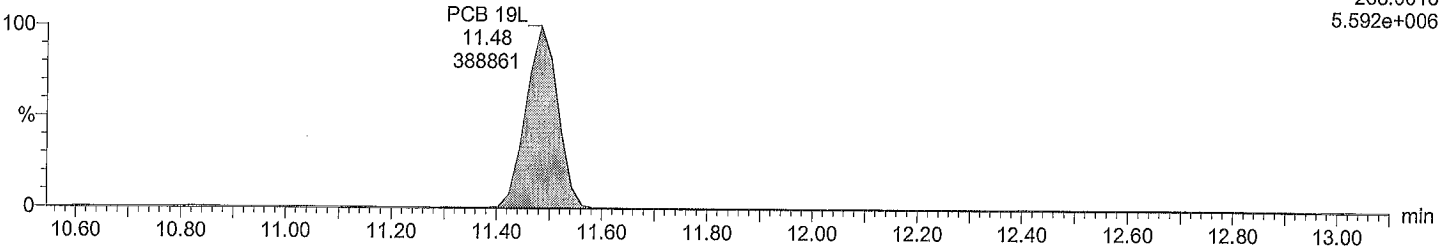
F2:Voltage SIR,EI+
257.9584
5.046e+004



Total TriCB labeled F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU

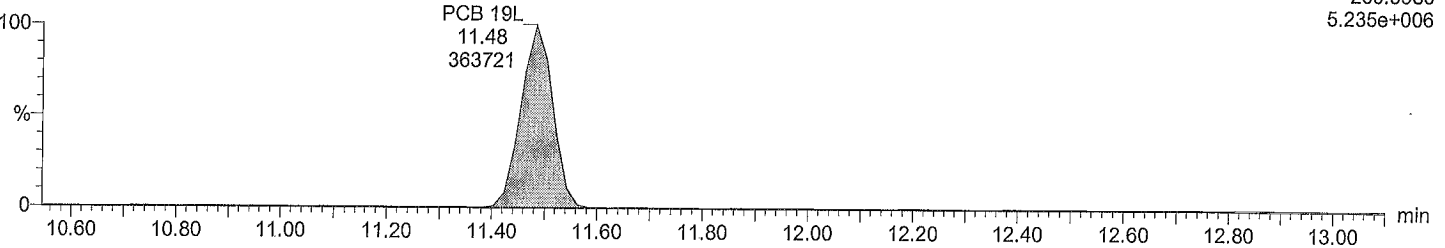
F2:Voltage SIR,EI+
268.0016
5.592e+006



Total TriCB labeled F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU

F2:Voltage SIR,EI+
269.9986
5.235e+006



Acquired Date

Dataset: C:\MassLynx\Default.pro\QLD\m2161129A_5pt_1668A.qld

Last Altered: November 30, 2016 11:38:27 AM Eastern Standard Time

Printed: November 30, 2016 11:59:33 AM Eastern Standard Time

Description: CS1_PCB 150417CXU

Vial: 2

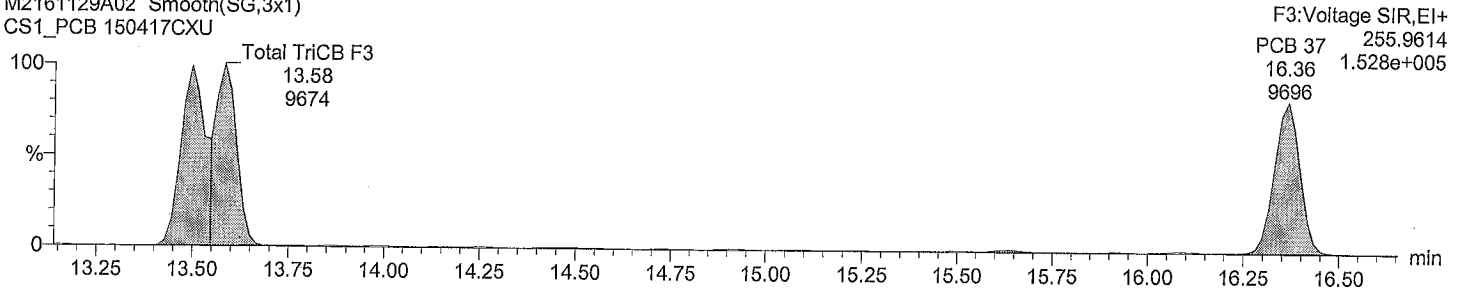
Date: 29-Nov-2016

Time: 20:02:48

Instrument:

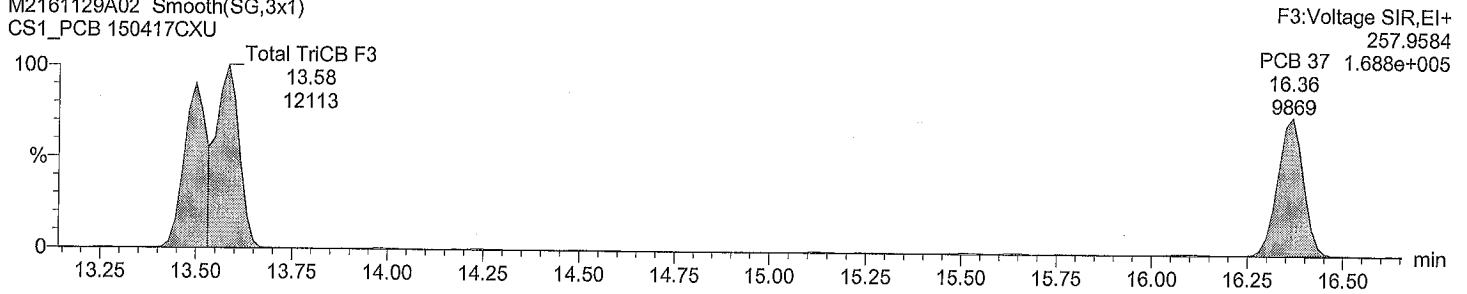
Total TriCB F3

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



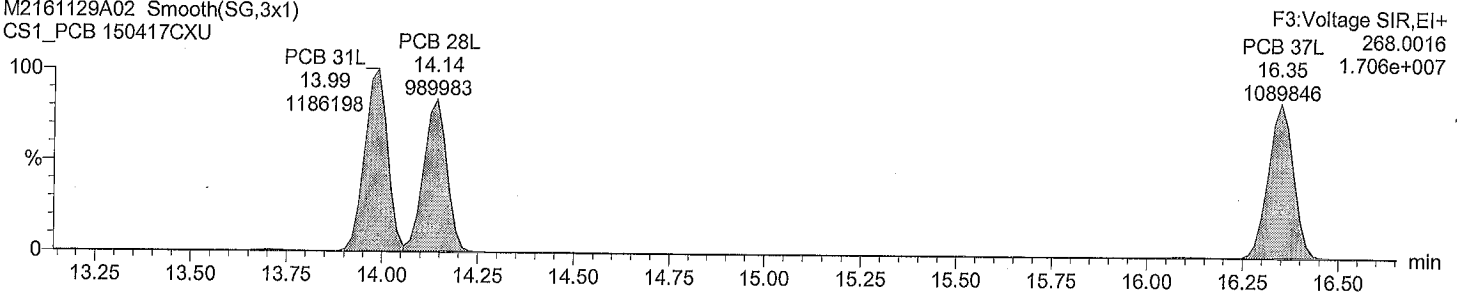
Total TriCB F3

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



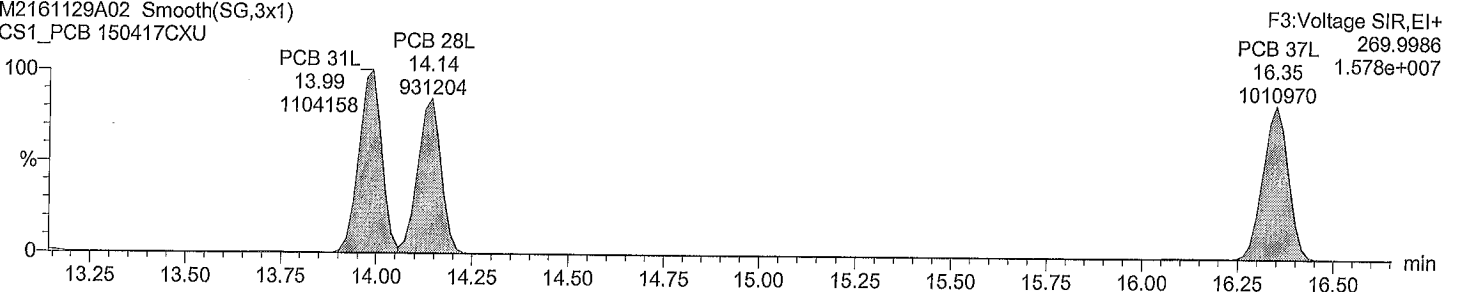
Total TriCB labeled F3

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



Total TriCB labeled F3

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



Acquired Date

Dataset: C:\MassLynx\Default.pro\QLD\m2161129A_5pt_1668A.qld

Last Altered: November 30, 2016 11:38:27 AM Eastern Standard Time

Printed: November 30, 2016 11:59:33 AM Eastern Standard Time

Description: CS1_PCB 150417CXU

Vial: 2

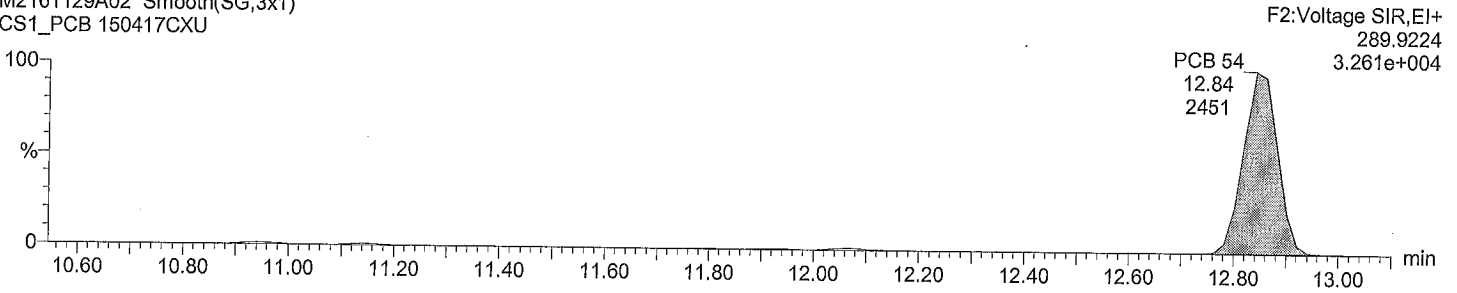
Date: 29-Nov-2016

Time: 20:02:48

Instrument:

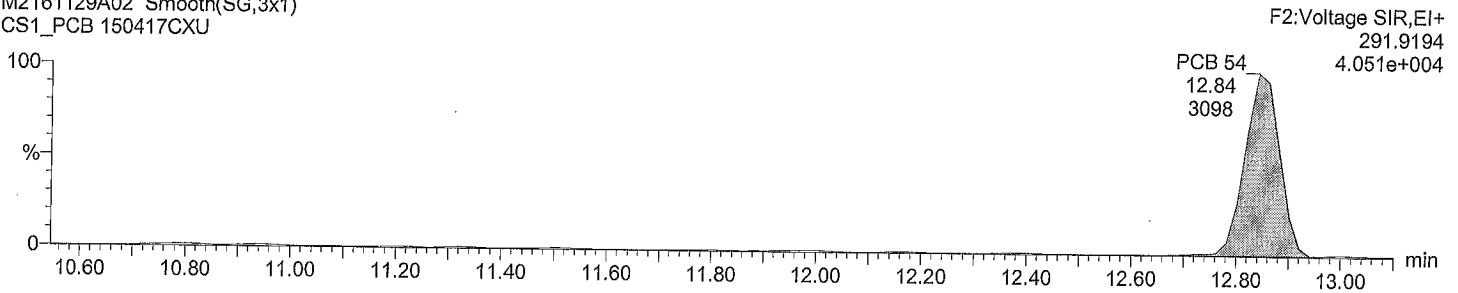
Total TeCB F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



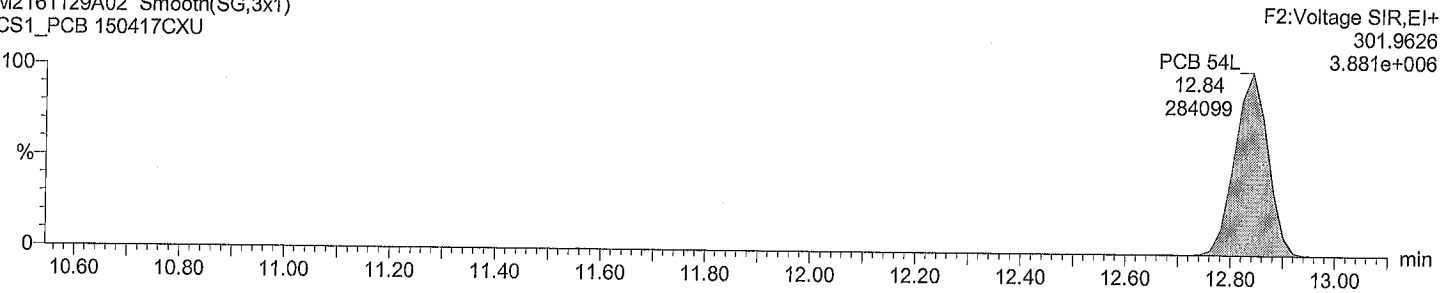
Total TeCB F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



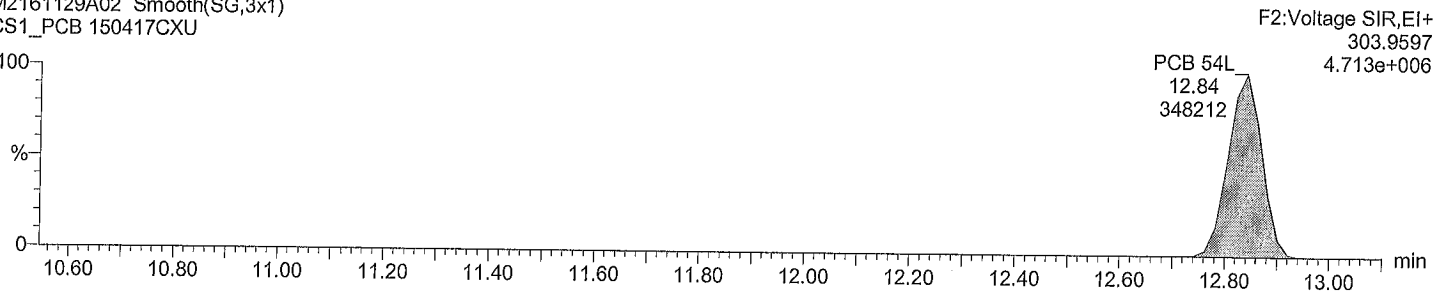
Total TeCB labeled F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



Total TeCB labeled F2

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU



Acquired Date

Dataset: C:\MassLynx\Default.pro\QLD\m2161129A_5pt_1668A.qld

Last Altered: November 30, 2016 11:38:27 AM Eastern Standard Time

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Description: CS1_PCB 150417CXU

Vial: 2

Date: 29-Nov-2016

Time: 20:02:48

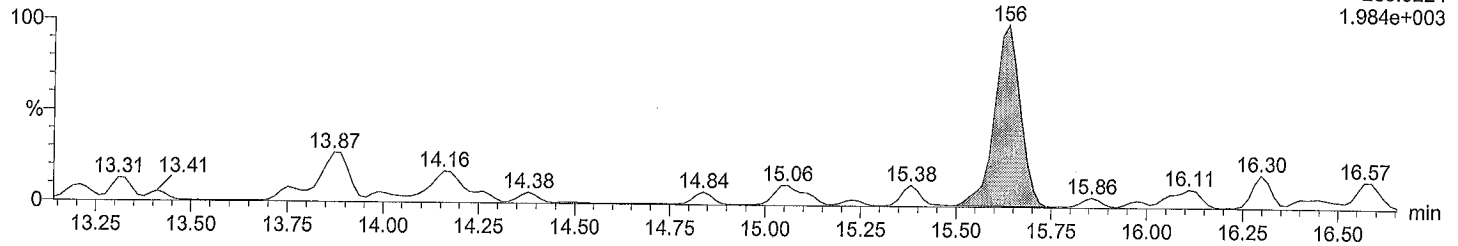
Instrument:

Total TeCB F3

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU

Total TeCB F3

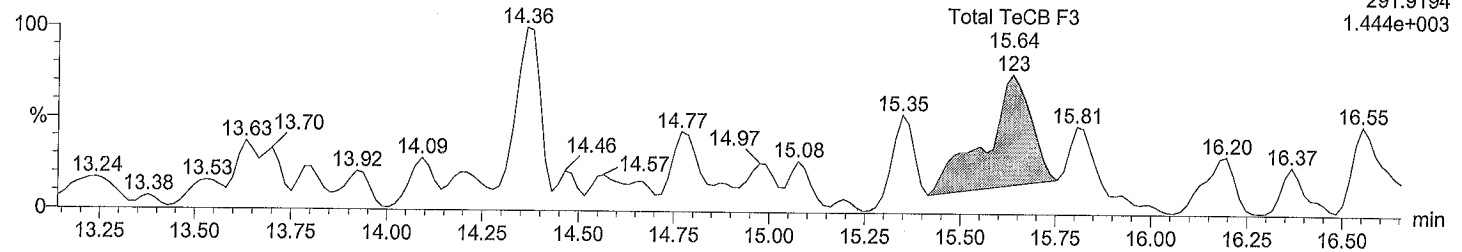
F3:Voltage SIR,EI+
289.9224
1.984e+003



Total TeCB F3

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU

F3:Voltage SIR,EI+
291.9194
1.444e+003

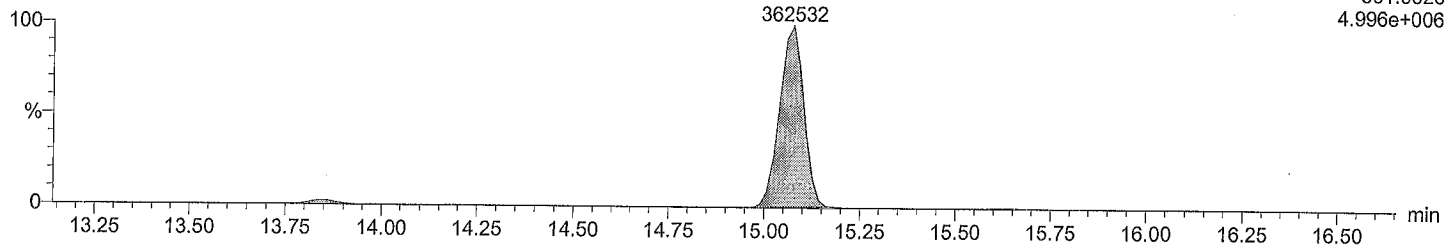


Total TeCB labeled F3

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU

PCB 52L
15.07
362532

F3:Voltage SIR,EI+
301.9626
4.996e+006



Total TeCB labeled F3

M2161129A02 Smooth(SG,3x1)
CS1_PCB 150417CXU

PCB 52L
15.07
450341

F3:Voltage SIR,EI+
303.9597
6.211e+006

