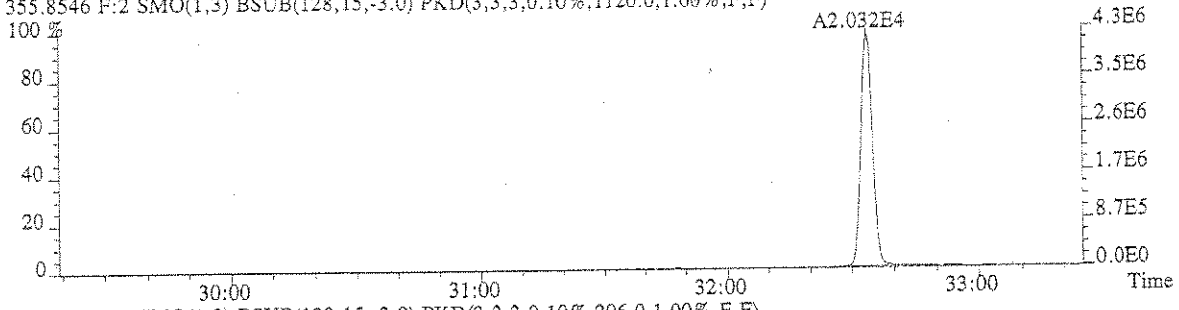
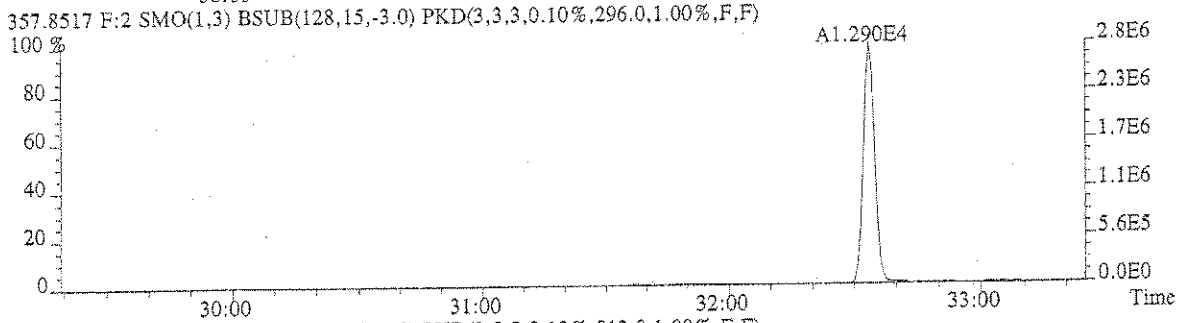
File:U122466 #1-372 Acq:21-AUG-2007 05:45:09 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3

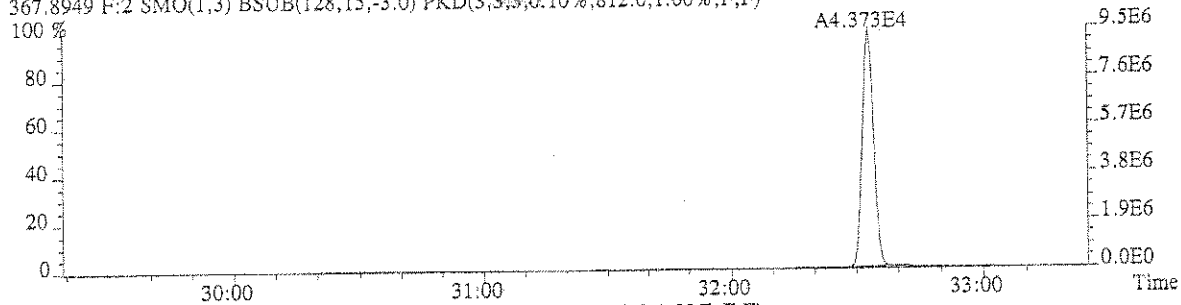
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1120.0,1.00%,F,F)



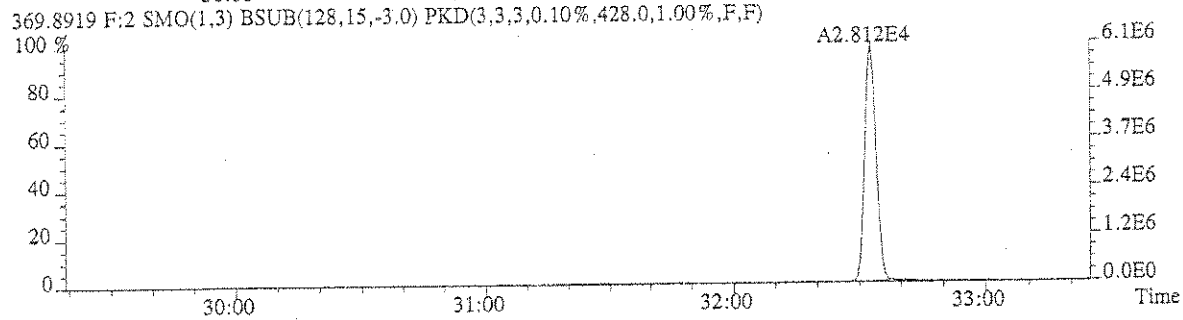
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,296.0,1.00%,F,F)



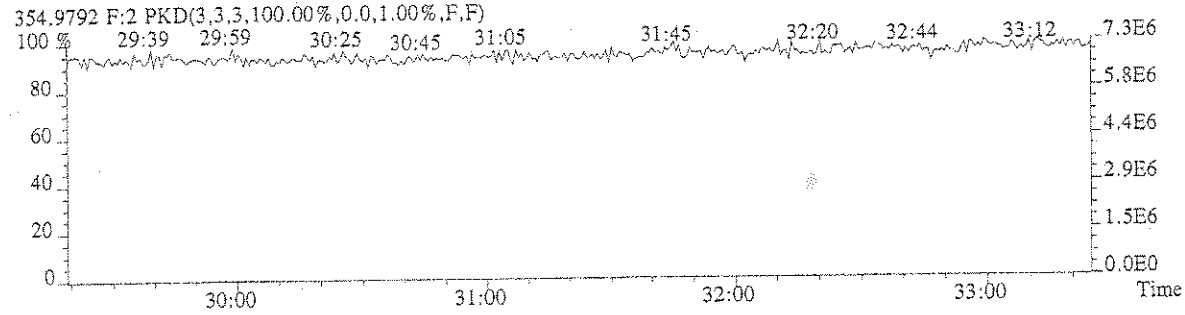
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,812.0,1.00%,F,F)



369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,428.0,1.00%,F,F)

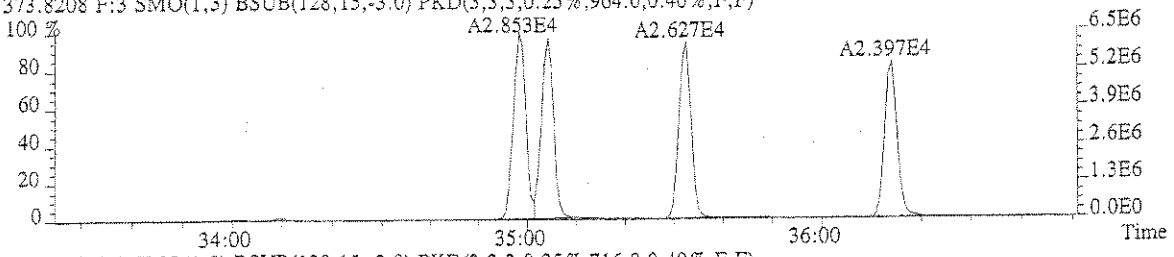


354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

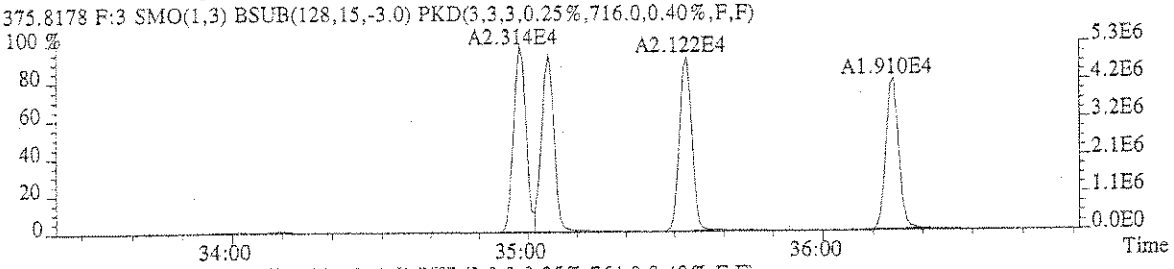


File:U122466 #1-313 Acq:21-AUG-2007 05:45:09 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3

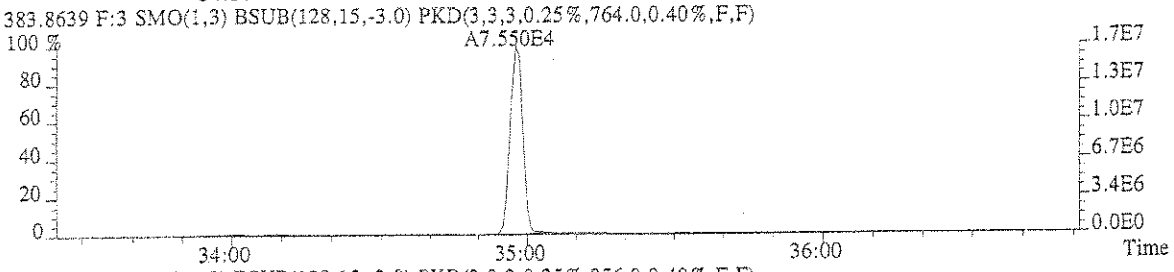
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,964.0,0.40%,F,F)



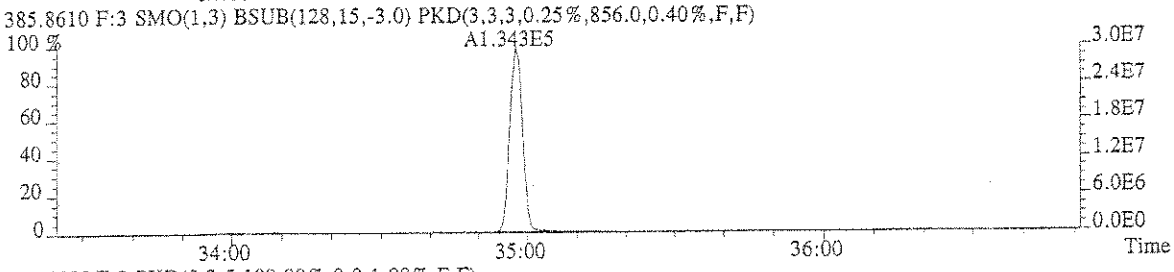
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,716.0,0.40%,F,F)



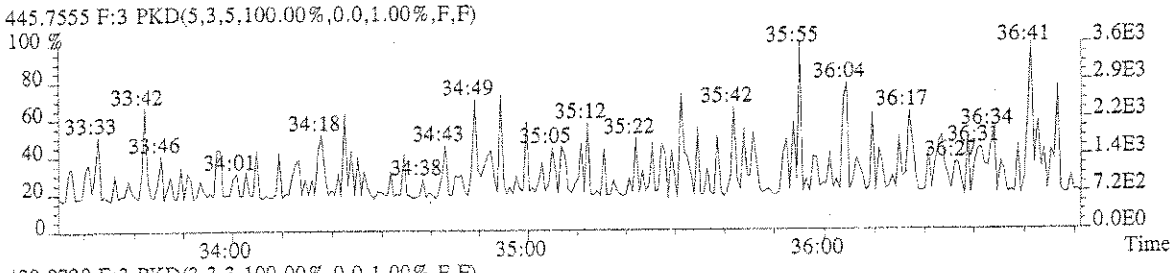
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,764.0,0.40%,F,F)



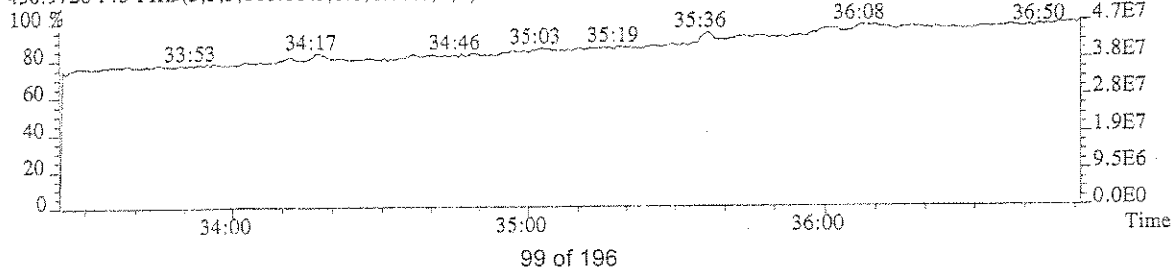
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,856.0,0.40%,F,F)



445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

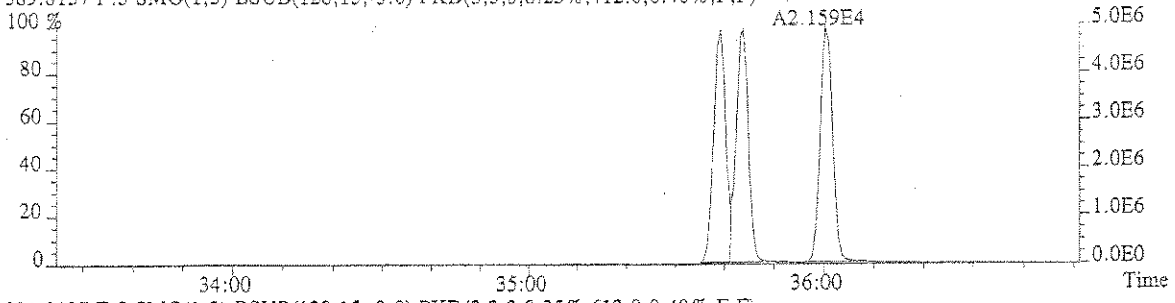


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

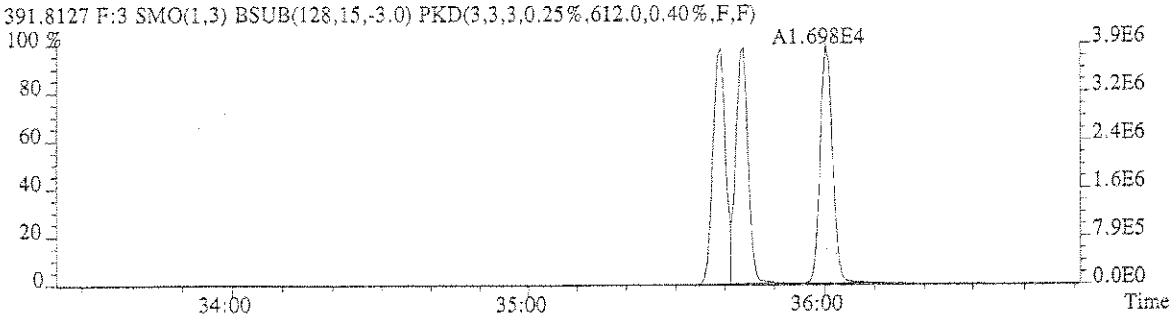


File:U122466 #1-313 Acq:21-AUG-2007 05:45:09 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3

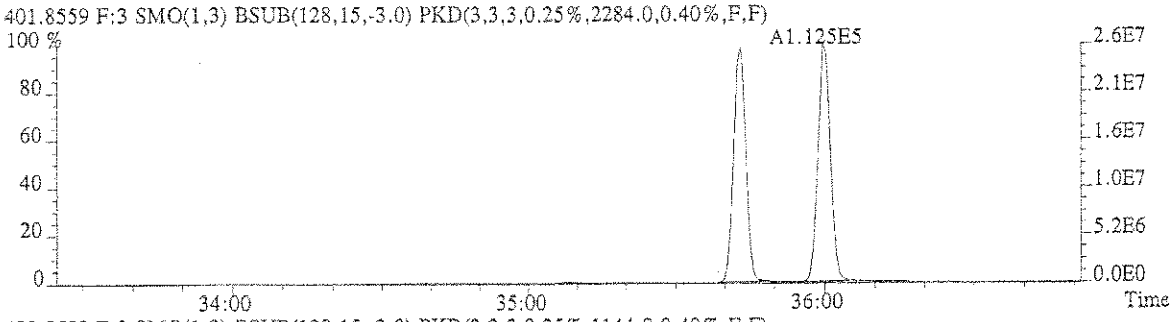
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,412.0,0.40%,F,F)



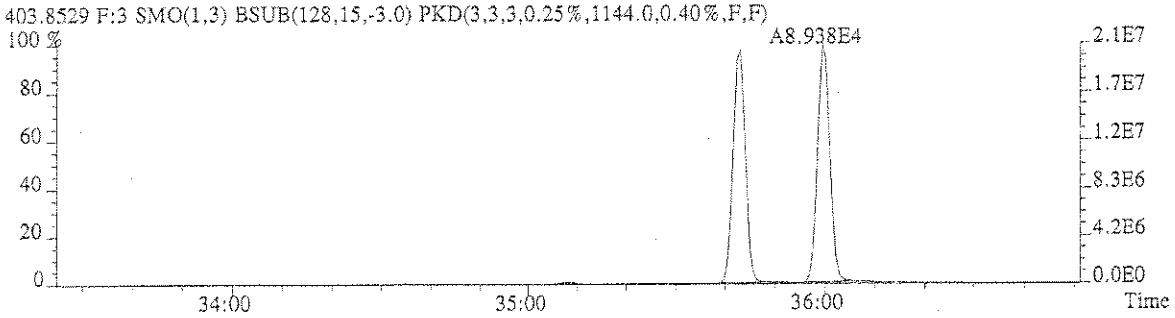
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,612.0,0.40%,F,F)



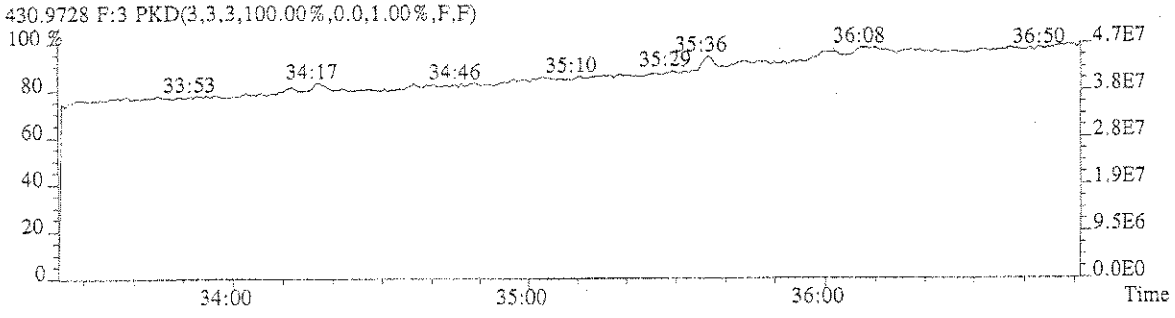
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2284.0,0.40%,F,F)



403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1144.0,0.40%,F,F)

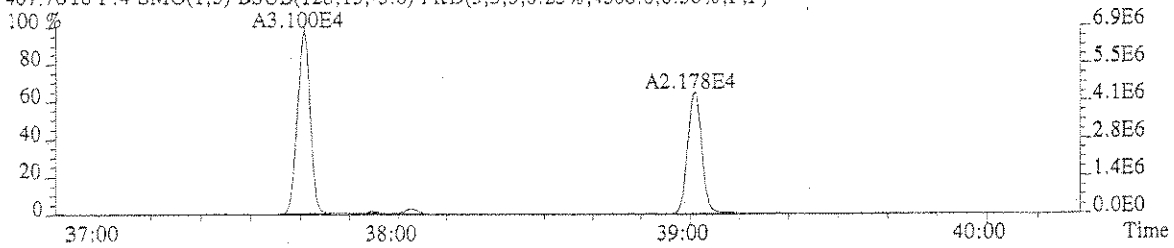


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

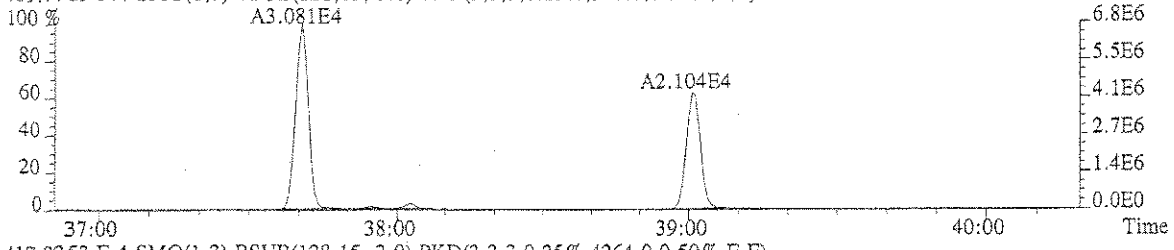


File:U122466 #1-314 Acq:21-AUG-2007 05:45:09 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3

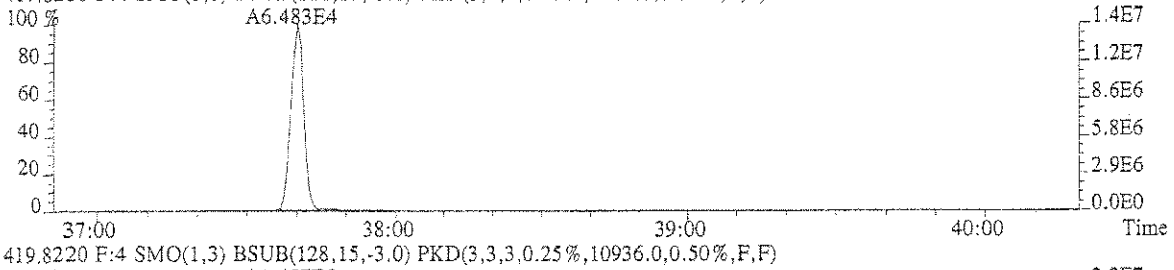
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,4508.0,0.50%,F,F)



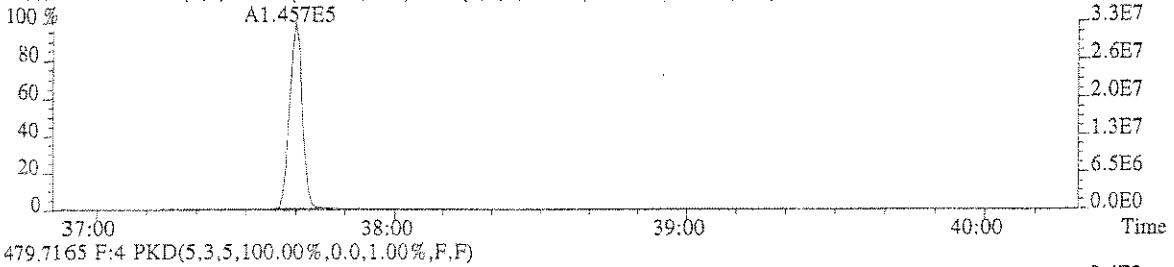
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,340.0,0.50%,F,F)



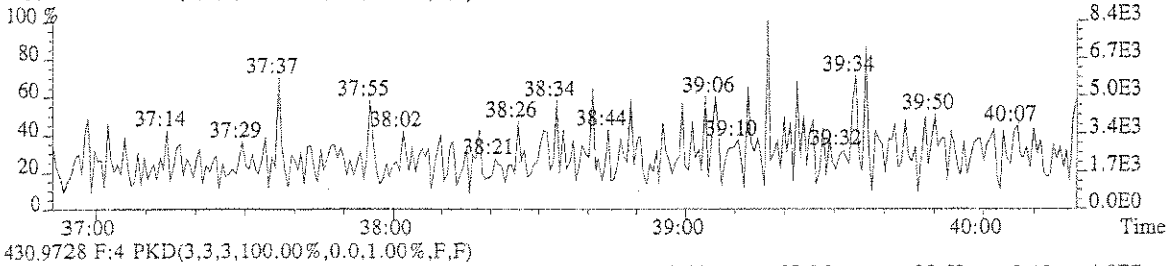
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,4264.0,0.50%,F,F)



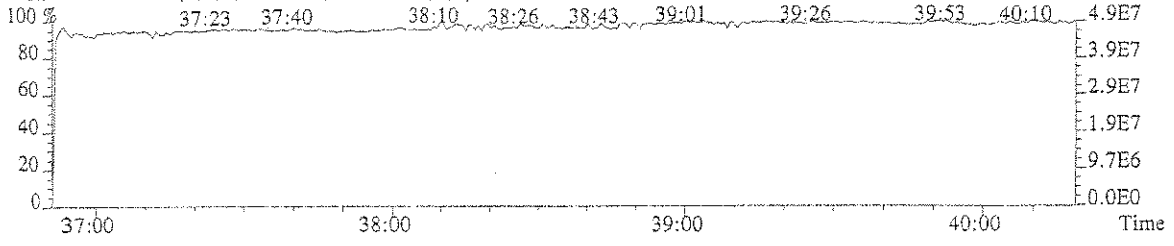
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,10936.0,0.50%,F,F)



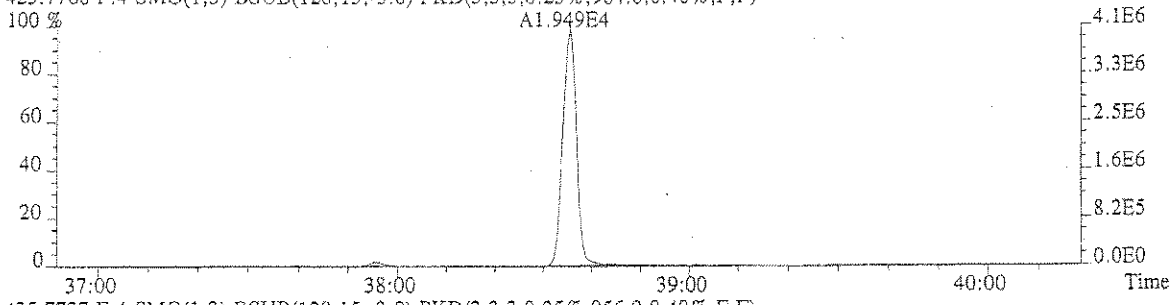
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



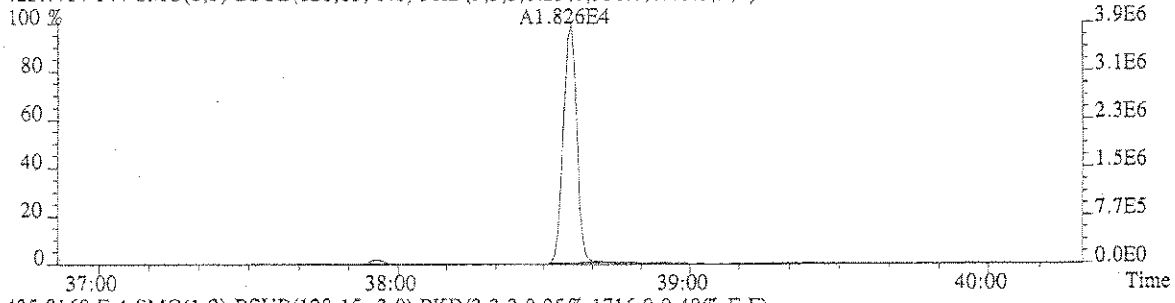
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



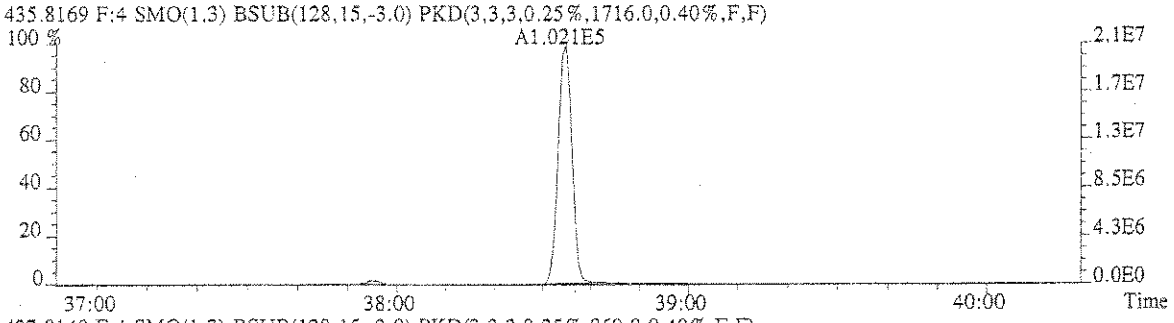
File:U122466 #1-314 Acq:21-AUG-2007 05:45:09 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,984.0,0.40%,F,F)



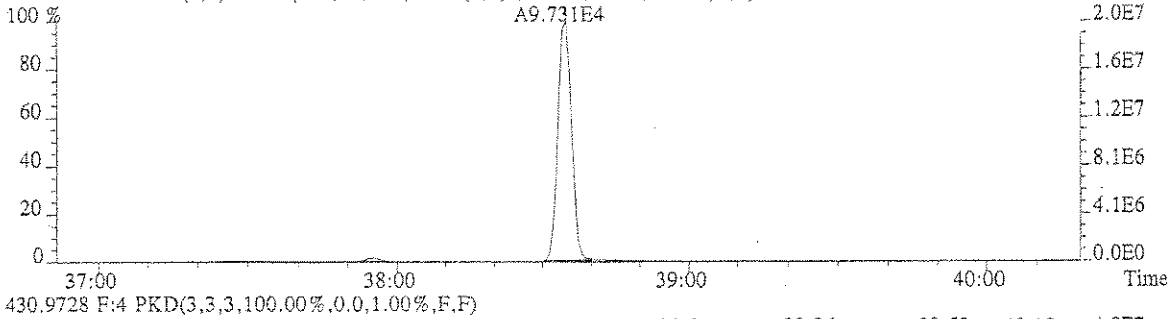
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,956.0,0.40%,F,F)



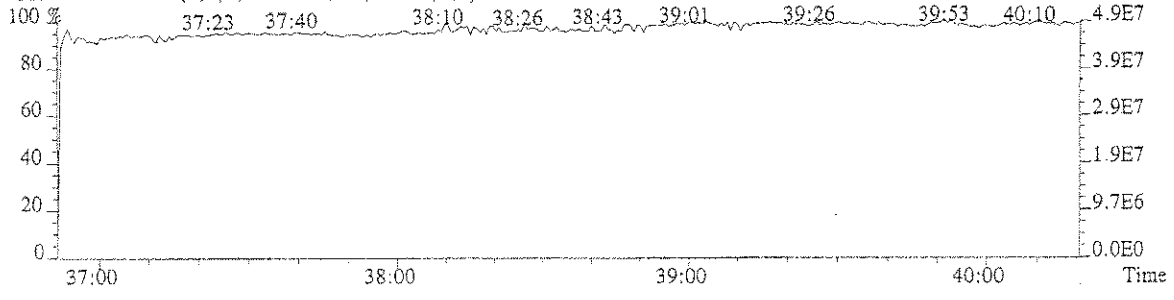
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1716.0,0.40%,F,F)



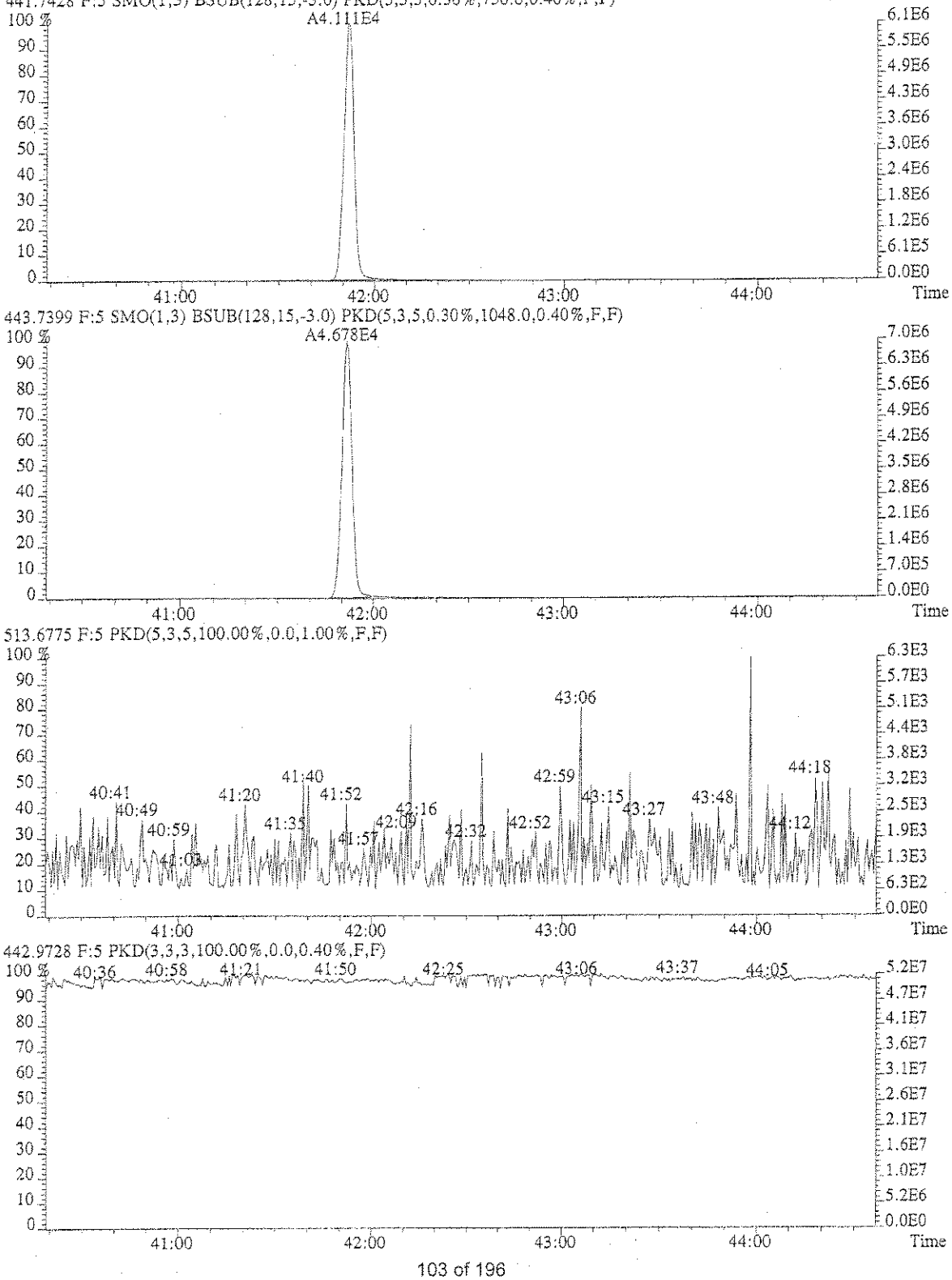
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,860.0,0.40%,F,F)



430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

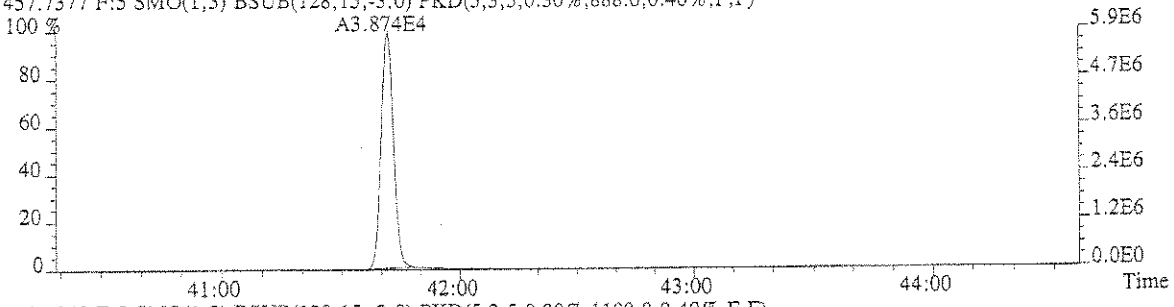


File:U122466 #1-475 Acq:21-AUG-2007 05:45:09 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3

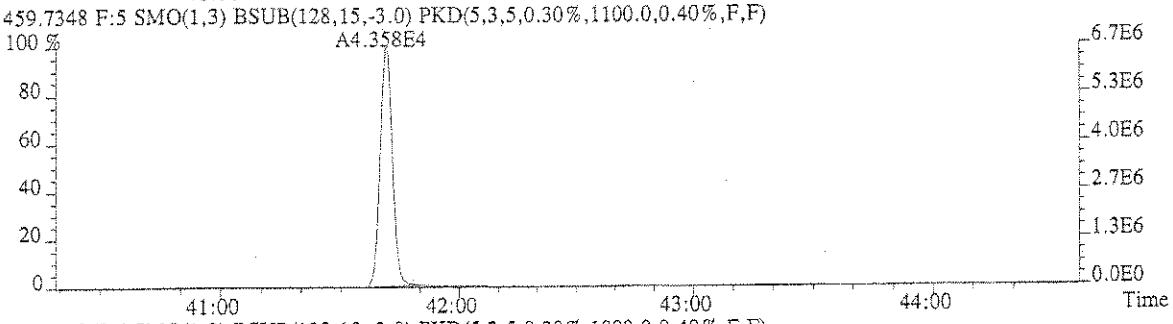


File:U122466 #1-475 Acq:21-AUG-2007 05:45:09 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3

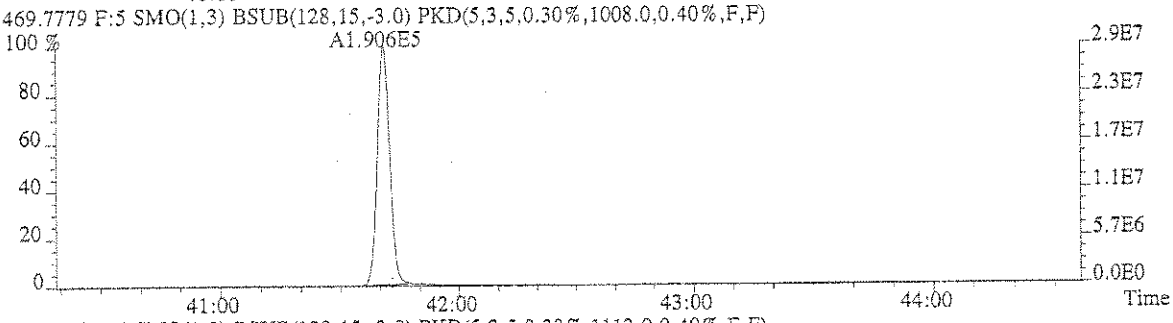
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,888.0,0.40%,F,F)



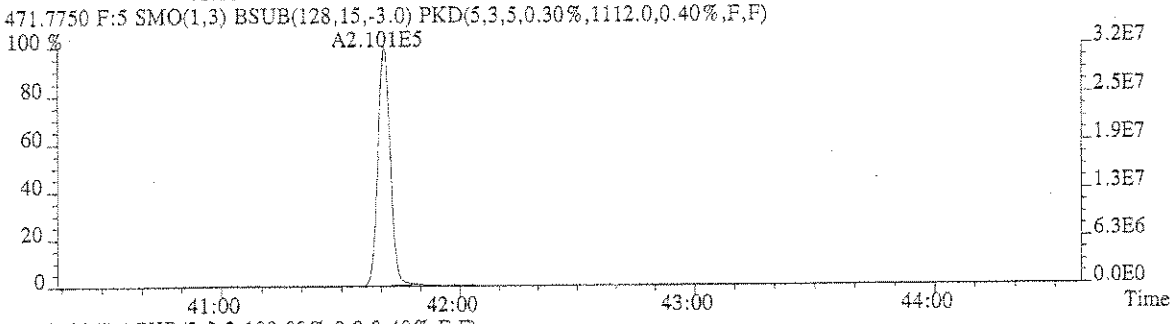
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1100.0,0.40%,F,F)



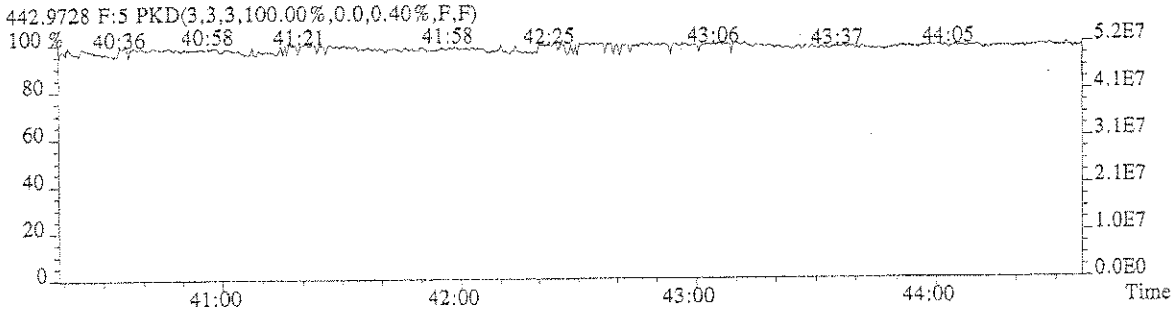
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1008.0,0.40%,F,F)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,1112.0,0.40%,F,F)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Columbia Analytical Services Episode No.:

Contract No.: SDG No.:

Initial Calibration Date: 04/02/07

Instrument ID: AutoSpec-Ultima GC Column ID: DB-5

VER Data Filename: U122477 Analysis Date: 21-AUG-07 Time: 16:38:22

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CCAL. RRF	MEAN RRF	%D (3)
NATIVE ANALYTES						
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	0.95	0.96	-1.32
1,2,3,7,8-PeCDD	M+2/M+4	1.56	1.32-1.78	0.90	0.91	-1.43
1,2,3,4,7,8-HxCDD	M+2/M+4	1.35	1.05-1.43	0.97	1.03	-6.19
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	0.96	1.07	-10.09
1,2,3,7,8,9-HxCDD	M+2/M+4	1.27	1.05-1.43	0.90	0.99	-8.83
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	1.07	0.93	15.78
OCDD	M+2/M+4	0.86	0.76-1.02	1.27	1.02	24.94
2,3,7,8-TCDF	M/M+2	0.81	0.65-0.89	0.90	0.96	-6.13
1,2,3,7,8-PeCDF	M+2/M+4	1.51	1.32-1.78	0.92	0.91	1.09
2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	0.95	0.95	0.49
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	1.16	1.17	-0.38
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	1.11	1.14	-2.86
1,2,3,7,8,9-HxCDF	M+2/M+4	1.29	1.05-1.43	0.91	0.86	5.38
2,3,4,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	1.08	1.03	4.88
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	1.50	1.36	10.07
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	1.00	1.02	-2.10
OCDF	M+2/M+4	0.89	0.76-1.02	1.03	1.09	-5.07

(1) See Table 6, Method 8290, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 8, Method 8290.

(3) The beginning CCAL %RSD for the 17 unlabeled standard must not exceed +/-20%, Section 7.7.4.1. The ending CCAL must not exceed +/-25%. Section 8.3.2.4.

8290F4A

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Columbia Analytical Services Episode No.:

Contract No.: SDG No.:

Initial Calibration Date: 04/02/07

Instrument ID: AutoSpec-Ultima GC Column ID: DB-5

VER Data Filename: U122477 Analysis Date: 21-AUG-07 Time: 16:38:22

	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	CCAL. RRF	MEAN RRF	%D (3)
LABELED COMPOUNDS						
13C-2,3,7,8-TCDD	M/M+2	0.75	0.65-0.89	0.96	0.90	6.80
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.60	1.32-1.78	0.90	1.06	-15.18
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	1.01	1.01	0.33
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	0.95	1.09	-13.25
13C-OCDD	M+2/M+4	0.89	0.76-1.02	1.00	1.17	-14.50
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	1.18	1.20	-1.46
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.53	1.32-1.78	1.19	1.52	-21.27
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	1.09	1.28	-14.84
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	0.94	1.11	-15.37
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD				0.94	0.86	9.72

(1) See Table 6, Method 8290, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 8, Method 8290.

(3) The beginning CCAL %RSD for the labeled standard must not exceed +/- 30%, Section 7.7.4.2. The ending CCAL must not exceed +/- 35%, Section 8.3.2.4.

8290F4B

Columbia Analytical Services, Inc.
Sample Response Summary

CLIENT ID.
CCAL HRCC3

Run #7 Filename U122477 Samp: 1 Inj: 1 Acquired: 21-AUG-07 16:38:22
Processed: 22-AUG-07 08:52:56 LAB. ID: CCAL HRCC3

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	27:20	7.630e+03	9.421e+03	0.81	yes	no
2	Unk	1,2,3,7,8-PeCDF	31:31	2.674e+04	1.769e+04	1.51	yes	no
3	Unk	2,3,4,7,8-PeCDF	32:13	2.824e+04	1.758e+04	1.61	yes	no
4	Unk	1,2,3,4,7,8-HxCDF	34:59	2.484e+04	1.992e+04	1.25	yes	no
5	Unk	1,2,3,6,7,8-HxCDF	35:04	2.380e+04	1.893e+04	1.26	yes	no
6	Unk	2,3,4,6,7,8-HxCDF	35:33	2.309e+04	1.857e+04	1.24	yes	no
7	Unk	1,2,3,7,8,9-HxCDF	36:14	1.970e+04	1.528e+04	1.29	yes	no
8	Unk	1,2,3,4,6,7,8-HpCDF	37:41	2.493e+04	2.460e+04	1.01	yes	no
9	Unk	1,2,3,4,7,8,9-HpCDF	39:01	1.668e+04	1.639e+04	1.02	yes	no
10	Unk	OCDF	41:52	3.452e+04	3.864e+04	0.89	yes	no
11	Unk	2,3,7,8-TCDD	28:07	6.392e+03	8.308e+03	0.77	yes	no
12	Unk	1,2,3,7,8-PeCDD	32:34	1.980e+04	1.273e+04	1.56	yes	no
13	Unk	1,2,3,4,7,8-HxCDD	35:39	1.983e+04	1.472e+04	1.35	yes	no
14	Unk	1,2,3,6,7,8-HxCDD	35:44	1.883e+04	1.535e+04	1.23	yes	no
15	Unk	1,2,3,7,8,9-HxCDD	36:01	1.796e+04	1.411e+04	1.27	yes	no
16	Unk	1,2,3,4,6,7,8-HpCDD	38:35	1.817e+04	1.764e+04	1.03	yes	no
17	Unk	OCDD	41:42	4.157e+04	4.833e+04	0.86	yes	yes
18	IS	13C-2,3,7,8-TCDF	27:19	4.211e+04	5.299e+04	0.79	yes	no
19	IS	13C-1,2,3,7,8-PeCDF	31:30	5.838e+04	3.807e+04	1.53	yes	no
20	IS	13C-1,2,3,4,7,8-HxCDF	34:58	6.658e+04	1.260e+05	0.53	yes	no
21	IS	13C-1,2,3,4,6,7,8-HpCDF	37:40	5.060e+04	1.150e+05	0.44	yes	no
22	IS	13C-2,3,7,8-TCDD	28:07	3.317e+04	4.439e+04	0.75	yes	no
23	IS	13C-1,2,3,7,8-PeCDD	32:33	4.455e+04	2.782e+04	1.60	yes	no
24	IS	13C-1,2,3,6,7,8-HxCDD	35:43	9.895e+04	7.903e+04	1.25	yes	no
25	IS	13C-1,2,3,4,6,7,8-HpCDD	38:35	8.564e+04	8.155e+04	1.05	yes	no
26	IS	13C-OCDD	41:41	1.668e+05	1.869e+05	0.89	yes	no
27	RS/RT	13C-1,2,3,4-TCDD	27:55	3.472e+04	4.600e+04	0.75	yes	no
28	RS/RT	13C-1,2,3,7,8,9-HxCDD	36:00	9.796e+04	7.819e+04	1.25	yes	no
29	C/Up	37Cl-2,3,7,8-TCDD	28:07	1.521e+04				
					SUM AREA			
30	Tot	Total Tetra-Furans	26:53		1.742e+04	0.83	yes	
31	Tot	Total Tetra-Dioxins	28:07		1.470e+04	0.77	yes	
32	Tot	Total Penta-Furans	31:08		9.126e+04	1.50	yes	
33	Tot	Total Penta-Dioxins	32:34		3.261e+04	1.56	yes	
34	Tot	Total Hexa-Furans	34:59		1.641e+05	1.25	yes	
35	Tot	Total Hexa-Dioxins	35:39		1.008e+05	1.35	yes	
36	Tot	Total Hepta-Furans	37:41		8.628e+04	1.01	yes	
37	Tot	Total Hepta-Dioxins	37:56		4.015e+04	0.92	yes	

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Columbia Analytical Services, Inc.
Signal/Noise Height Ratio Summary

CLIENT ID.
CCAL HRCC3

Run #7 Filename U122477 Samp: 1 Inj: 1 Acquired: 21-AUG-07 16:38:22

Processed: 22-AUG-07 08:52:56 LAB. ID: CCAL HRCC3

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	1.38e+06	7.12e+02	1.9e+03	1.69e+06	8.08e+02	2.1e+03
2	1,2,3,7,8-PeCDF	5.47e+06	2.54e+03	2.1e+03	3.67e+06	3.04e+03	1.2e+03
3	2,3,4,7,8-PeCDF	5.85e+06	2.54e+03	2.3e+03	3.69e+06	3.04e+03	1.2e+03
4	1,2,3,4,7,8-HxCDF	5.70e+06	4.68e+04	1.2e+02	4.49e+06	4.81e+04	9.3e+01
5	1,2,3,6,7,8-HxCDF	5.44e+06	4.68e+04	1.2e+02	4.31e+06	4.81e+04	9.0e+01
6	2,3,4,6,7,8-HxCDF	5.32e+06	4.68e+04	1.1e+02	4.25e+06	4.81e+04	8.8e+01
7	1,2,3,7,8,9-HxCDF	4.55e+06	4.68e+04	9.7e+01	3.55e+06	4.81e+04	7.4e+01
8	1,2,3,4,6,7,8-HpCDF	5.48e+06	7.81e+03	7.0e+02	5.38e+06	6.05e+03	8.9e+02
9	1,2,3,4,7,8,9-HpCDF	3.47e+06	7.81e+03	4.4e+02	3.39e+06	6.05e+03	5.6e+02
10	OCDF	5.14e+06	4.87e+03	1.1e+03	5.59e+06	3.89e+03	1.4e+03
11	2,3,7,8-TCDD	1.23e+06	1.03e+03	1.2e+03	1.59e+06	9.44e+02	1.7e+03
12	1,2,3,7,8-PeCDD	4.13e+06	2.60e+03	1.6e+03	2.66e+06	2.04e+03	1.3e+03
13	1,2,3,4,7,8-HxCDD	4.59e+06	1.42e+05	3.2e+01	3.61e+06	1.92e+05	1.9e+01
14	1,2,3,6,7,8-HxCDD	4.57e+06	1.42e+05	3.2e+01	3.45e+06	1.92e+05	1.8e+01
15	1,2,3,7,8,9-HxCDD	4.24e+06	1.42e+05	3.0e+01	3.30e+06	1.92e+05	1.7e+01
16	1,2,3,4,6,7,8-HpCDD	3.79e+06	8.33e+03	4.5e+02	3.72e+06	6.93e+03	5.4e+02
17	OCDD	6.24e+06	1.02e+04	6.1e+02	7.23e+06	1.07e+04	6.8e+02
18	13C-2,3,7,8-TCDF	7.49e+06	1.52e+03	4.9e+03	9.40e+06	1.38e+03	6.8e+03
19	13C-1,2,3,7,8-PeCDF	1.18e+07	2.17e+03	5.4e+03	7.66e+06	2.28e+03	3.4e+03
20	13C-1,2,3,4,7,8-HxCDF	1.49e+07	3.37e+03	4.4e+03	2.78e+07	8.13e+03	3.4e+03
21	13C-1,2,3,4,6,7,8-HpCDF	1.09e+07	5.27e+03	2.1e+03	2.49e+07	1.47e+04	1.7e+03
22	13C-2,3,7,8-TCDD	6.37e+06	2.72e+03	2.3e+03	8.46e+06	1.60e+03	5.3e+03
23	13C-1,2,3,7,8-PeCDD	9.48e+06	2.38e+03	4.0e+03	5.92e+06	1.53e+03	3.9e+03
24	13C-1,2,3,6,7,8-HxCDD	2.32e+07	7.94e+03	2.9e+03	1.87e+07	6.06e+03	3.1e+03
25	13C-1,2,3,4,6,7,8-HpCDD	1.85e+07	4.66e+03	4.0e+03	1.76e+07	4.50e+03	3.9e+03
26	13C-OCDD	2.49e+07	7.94e+03	3.1e+03	2.80e+07	7.24e+03	3.9e+03
27	13C-1,2,3,4-TCDD	6.49e+06	2.72e+03	2.4e+03	8.60e+06	1.60e+03	5.4e+03
28	13C-1,2,3,7,8,9-HxCDD	2.29e+07	7.94e+03	2.9e+03	1.79e+07	6.06e+03	2.9e+03
29	37Cl-2,3,7,8-TCDD	2.88e+06	9.80e+02	2.9e+03			

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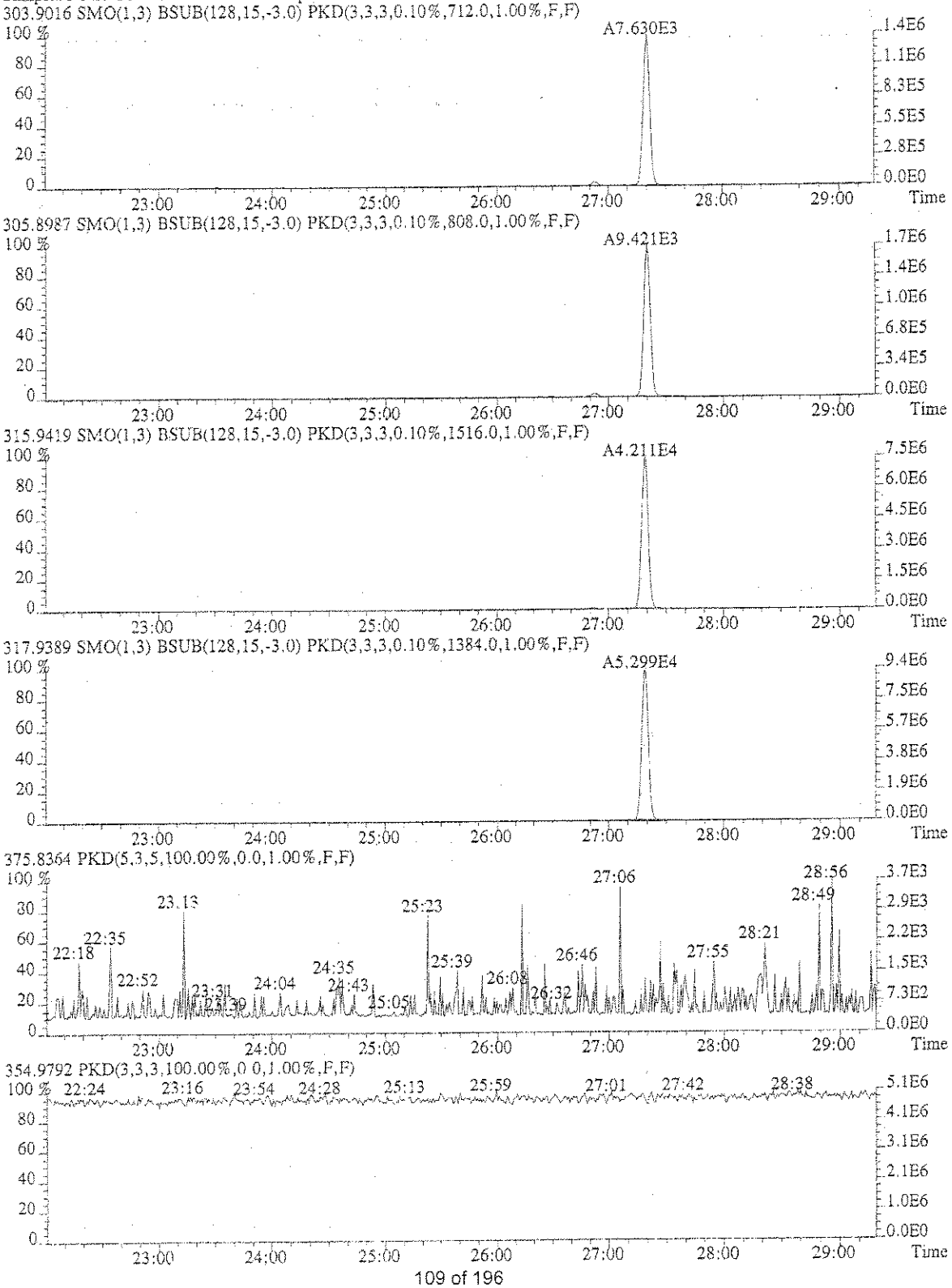
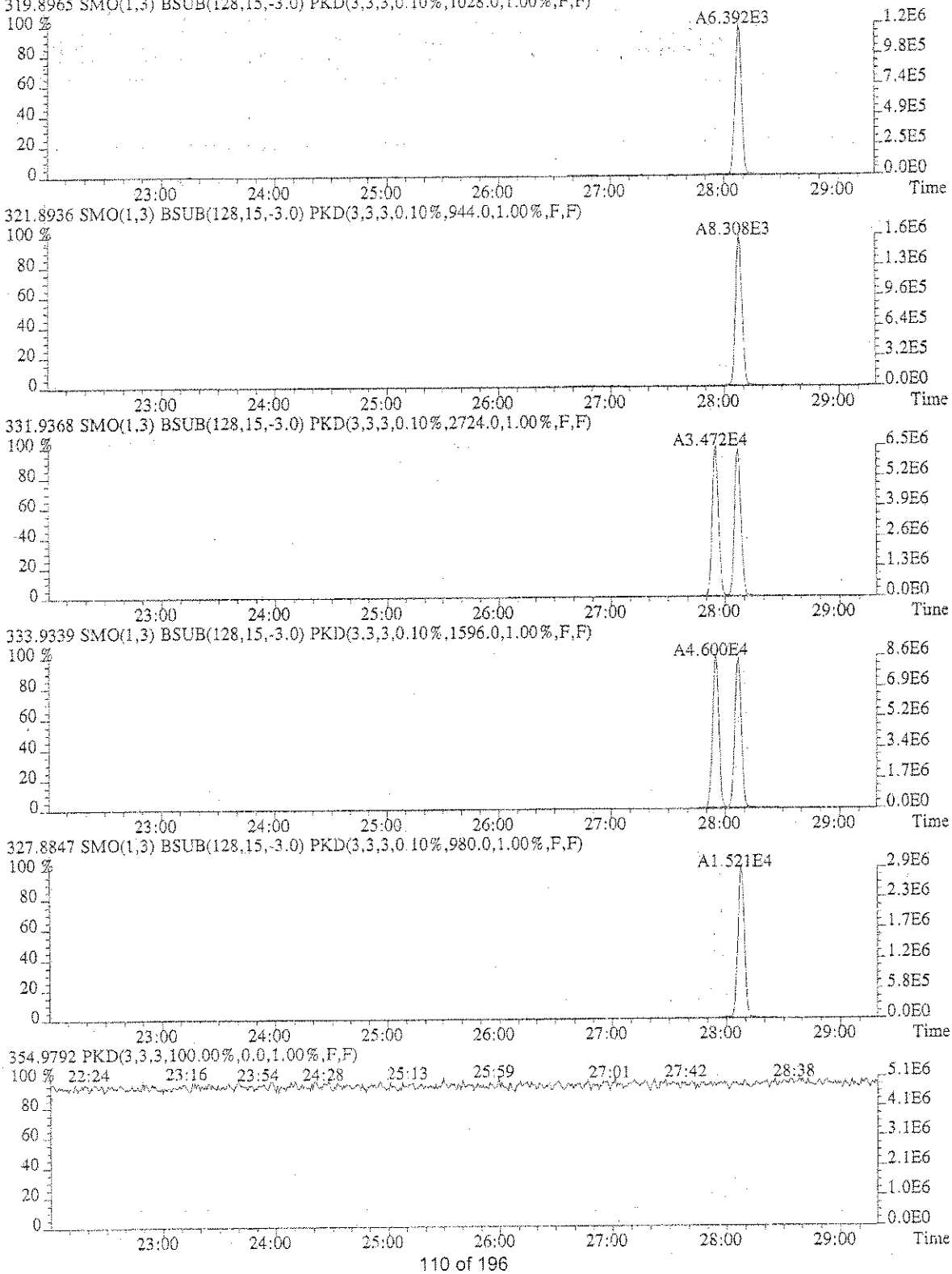
File:U122477 #1-610 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3

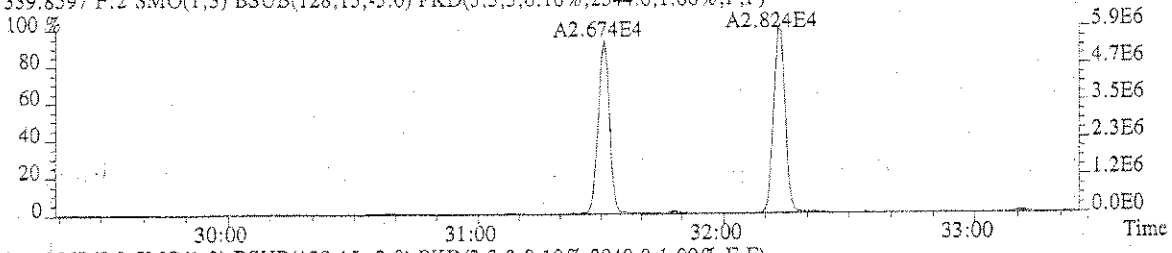


File:U122477 #1-610 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3

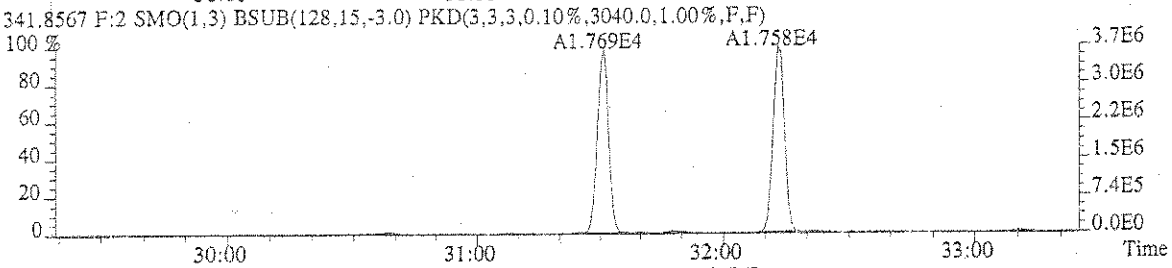


File:U122477 #1-372 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3

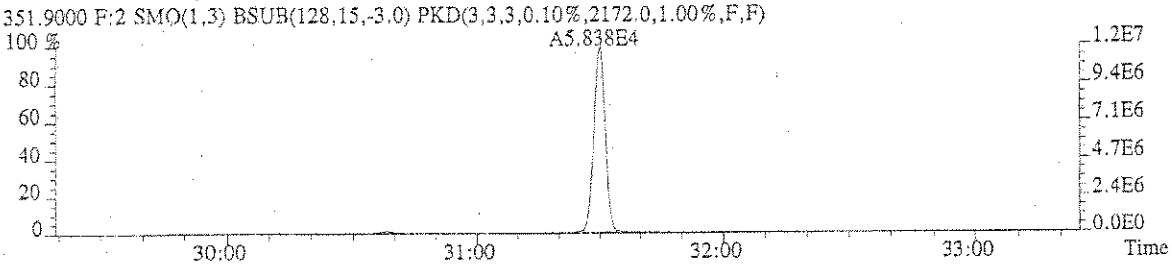
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2544.0,1.00%,F,F)



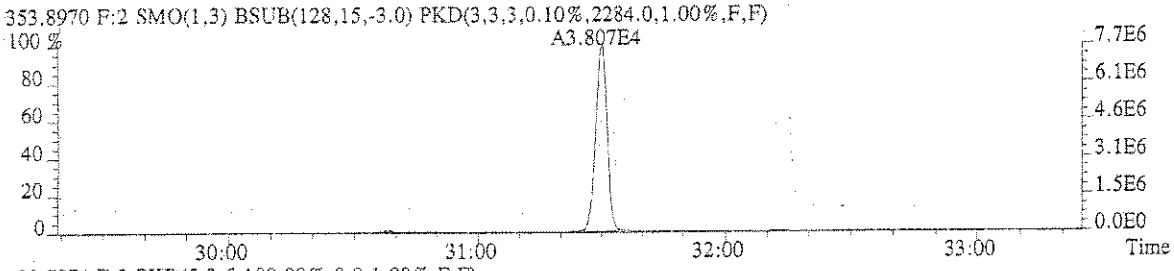
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,3040.0,1.00%,F,F)



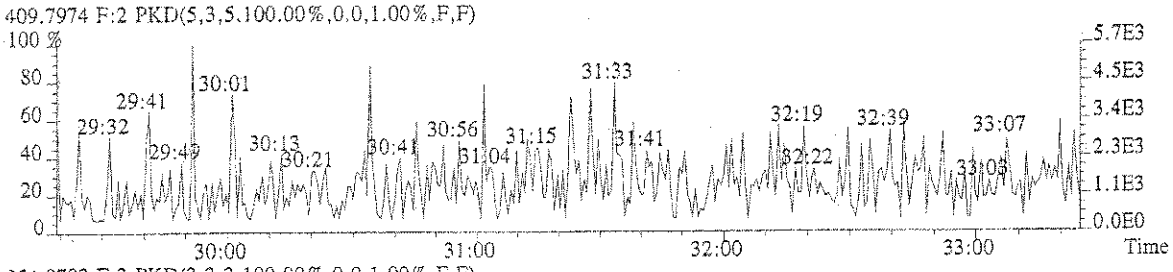
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2172.0,1.00%,F,F)



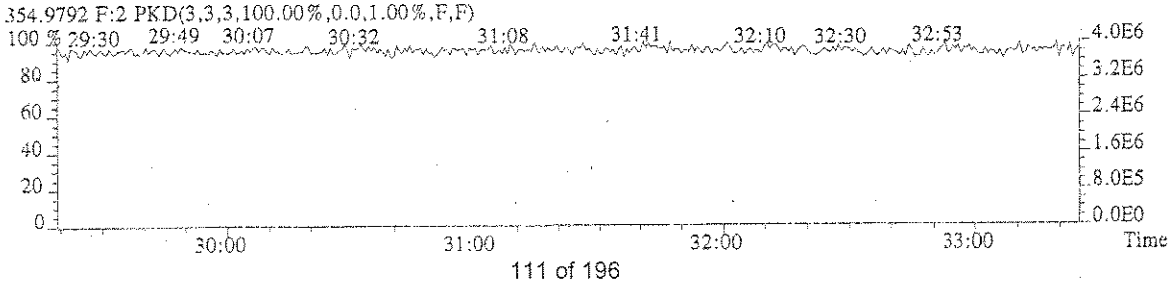
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2284.0,1.00%,F,F)



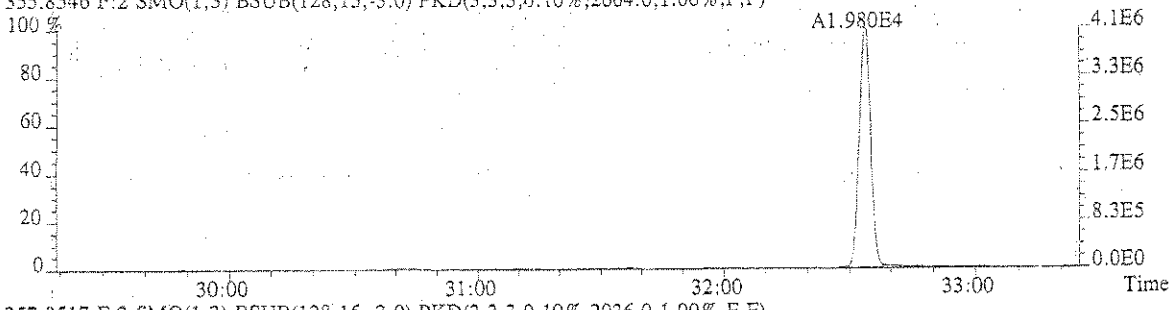
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



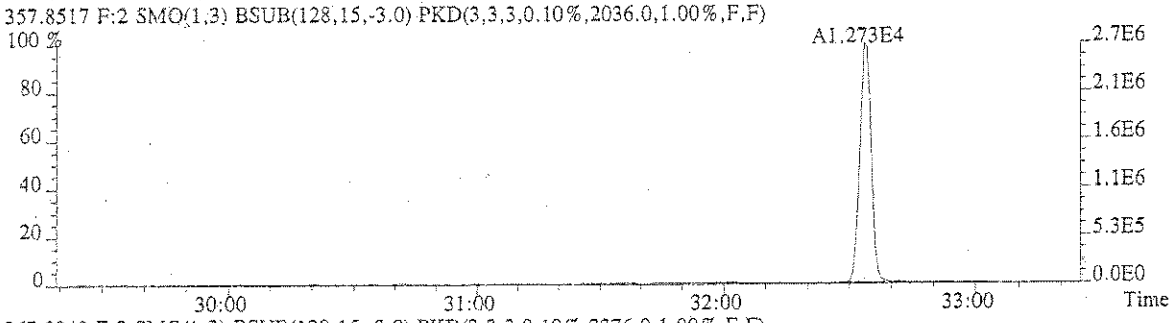
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



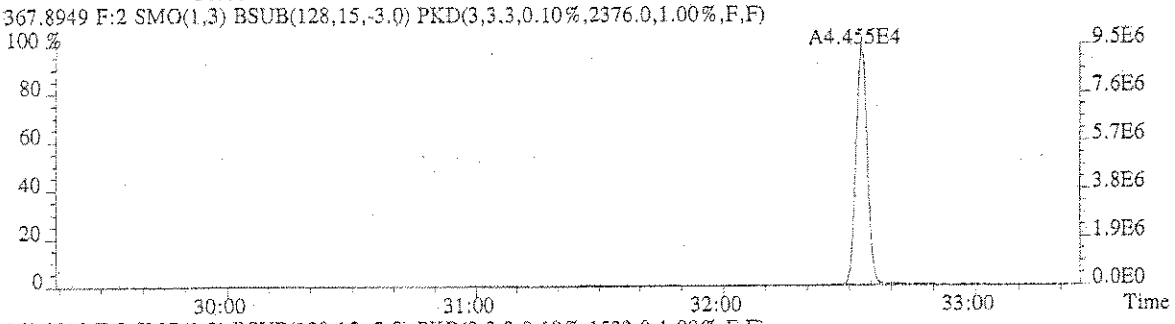
File:U122477 #1-372 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2604.0,1.00%,F,F)



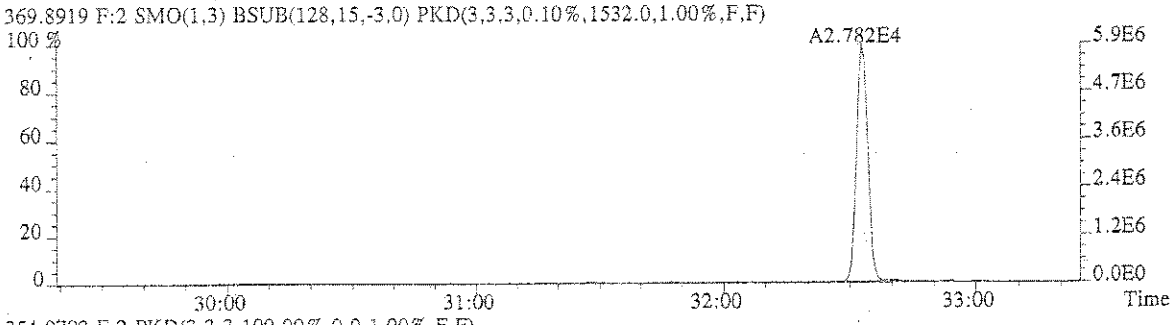
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2036.0,1.00%,F,F)



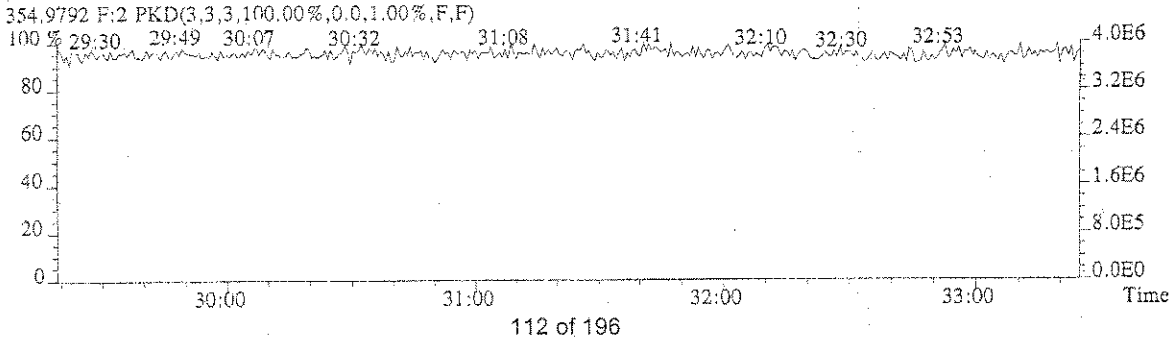
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,2376.0,1.00%,F,F)



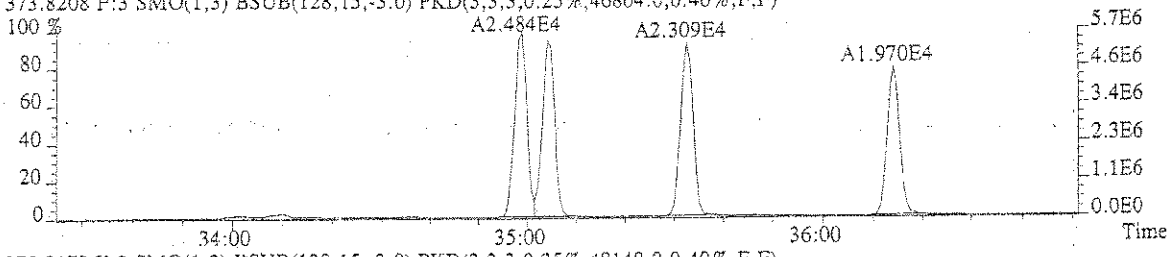
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,1532.0,1.00%,F,F)



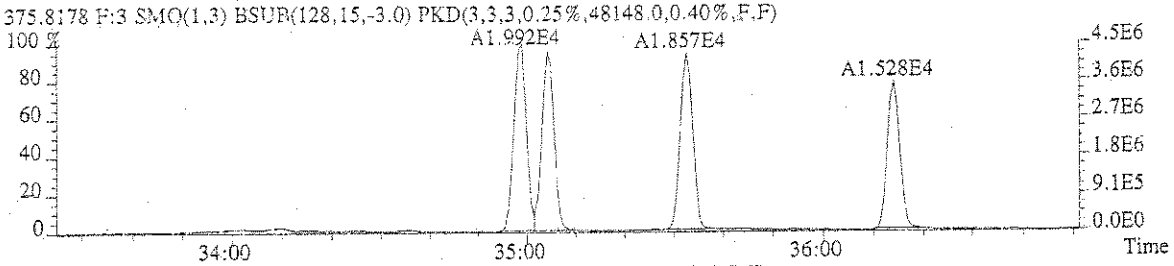
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



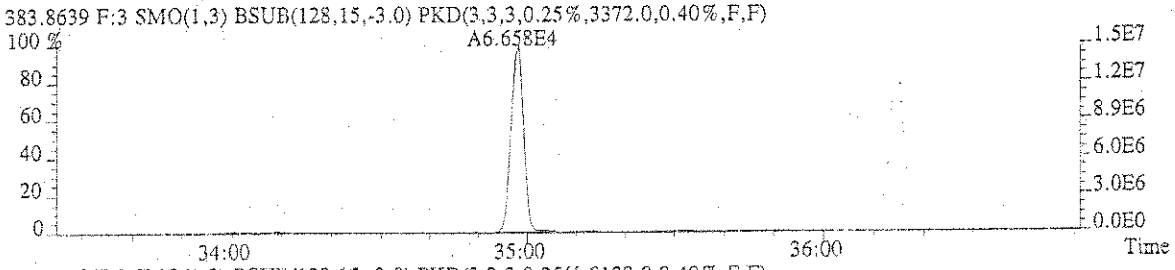
File:U122477 #1-313 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,46804.0,0.40%,F,F)



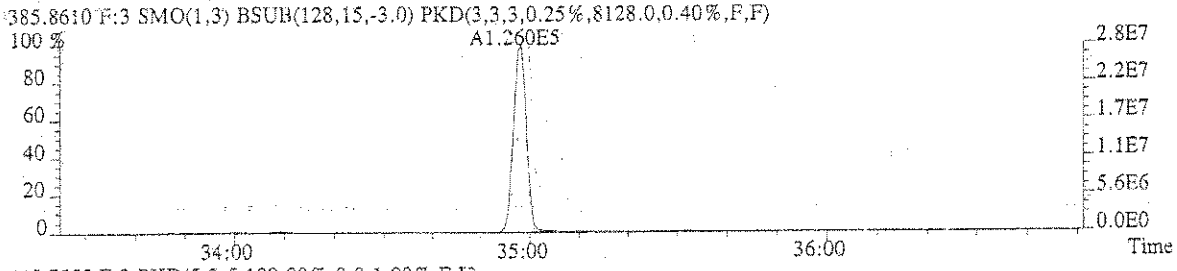
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,48148.0,0.40%,F,F)



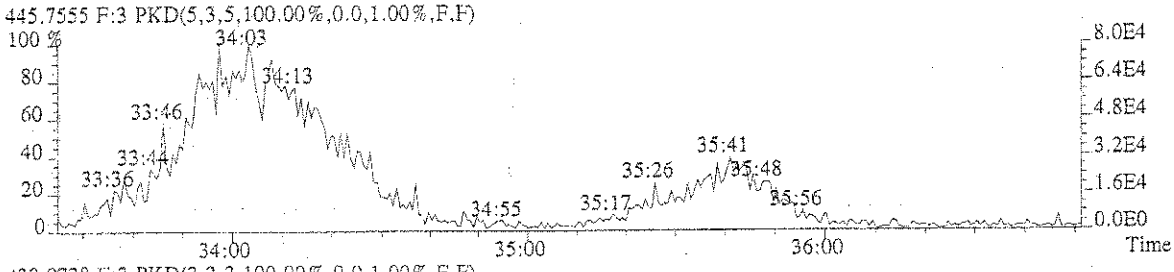
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3372.0,0.40%,F,F)



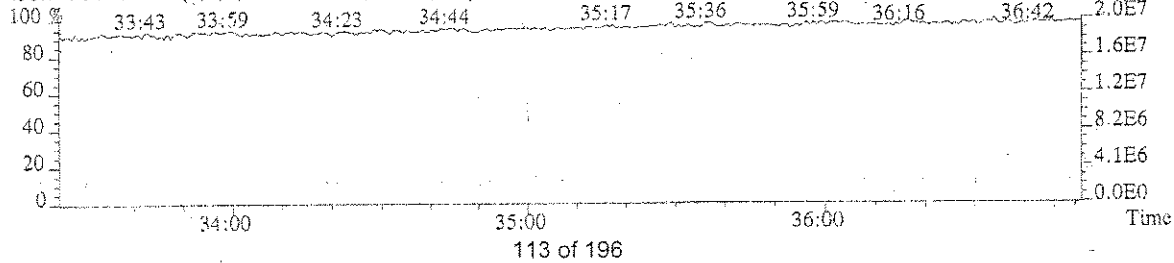
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,8128.0,0.40%,F,F)



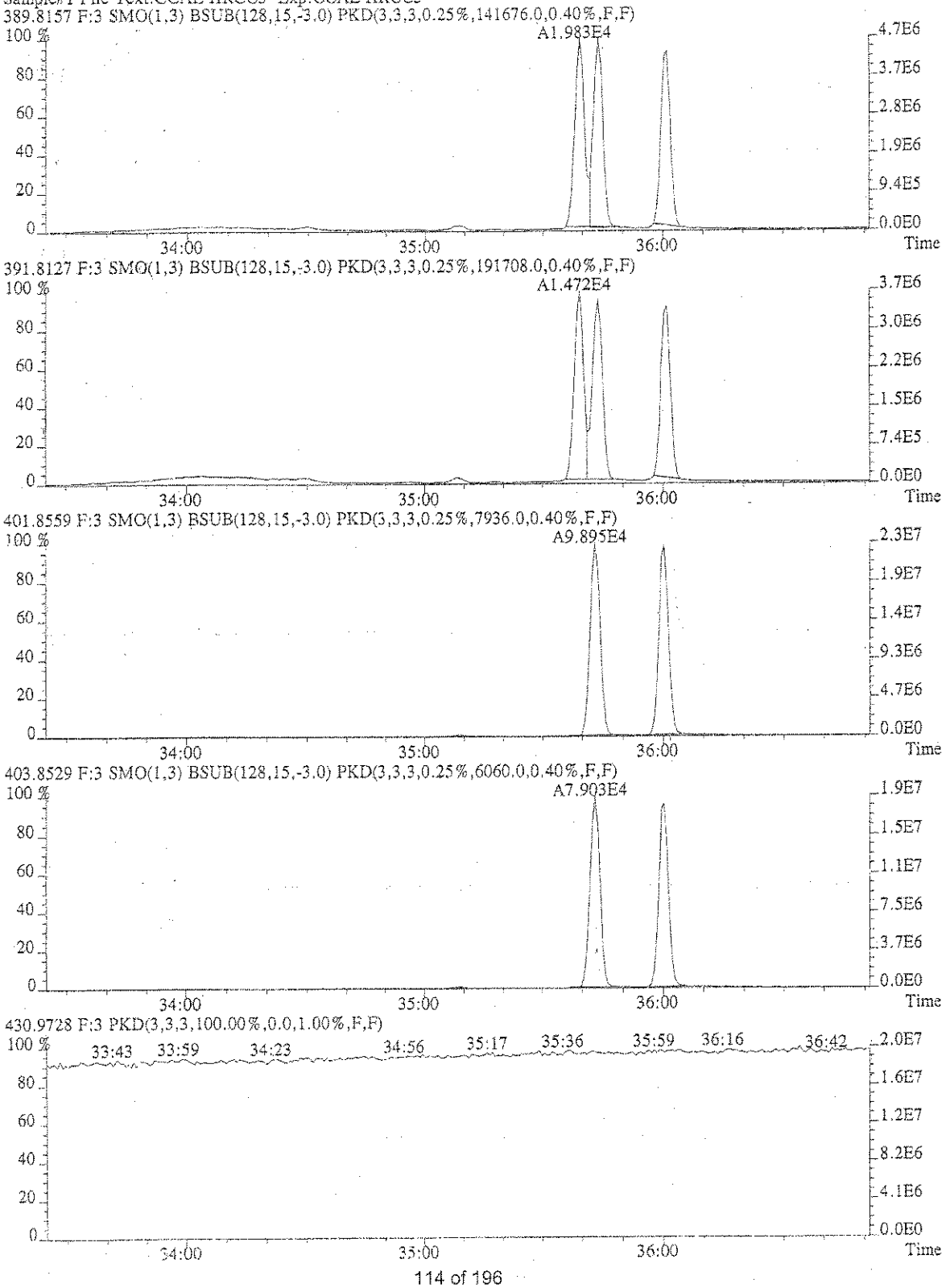
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



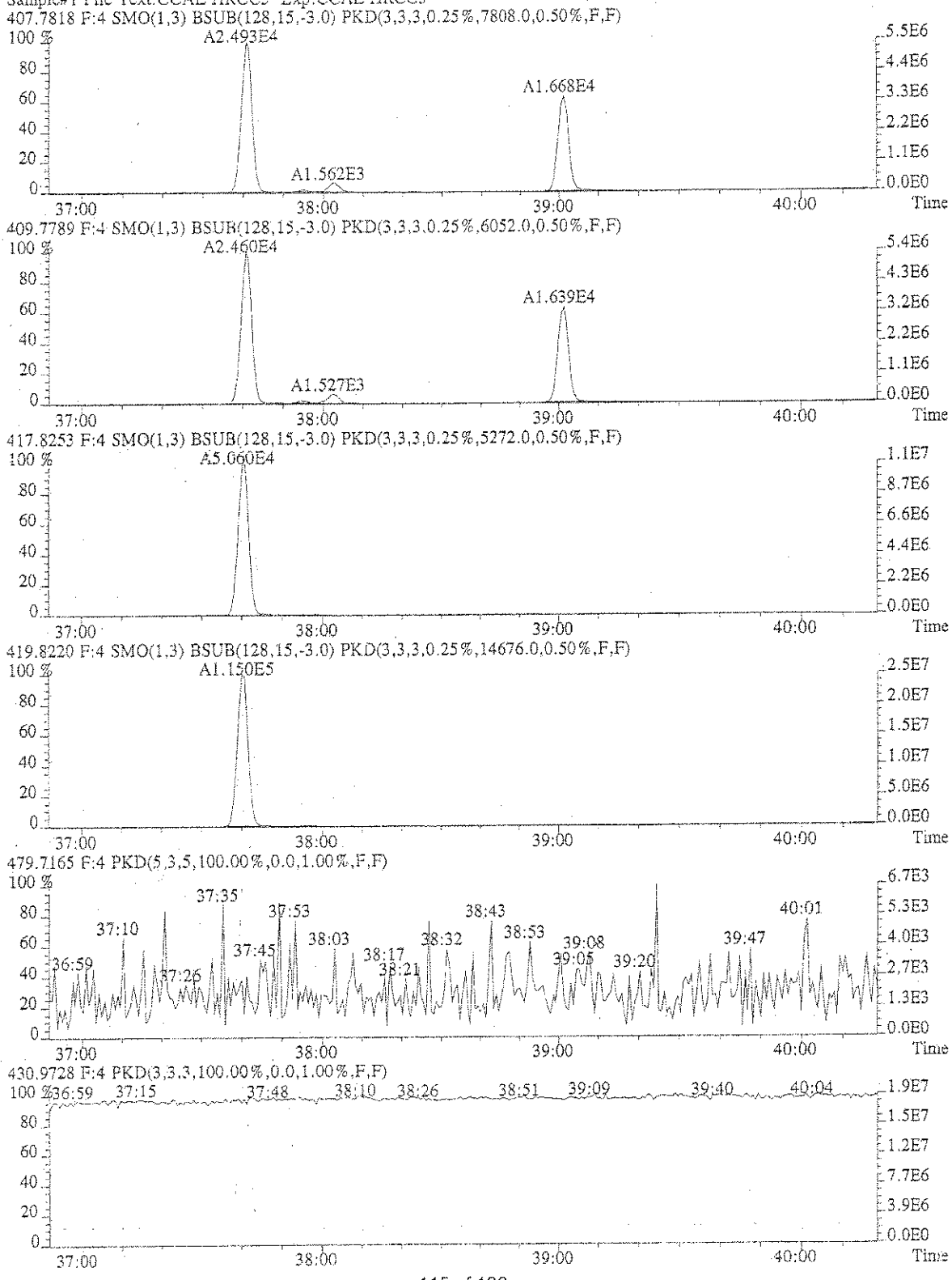
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



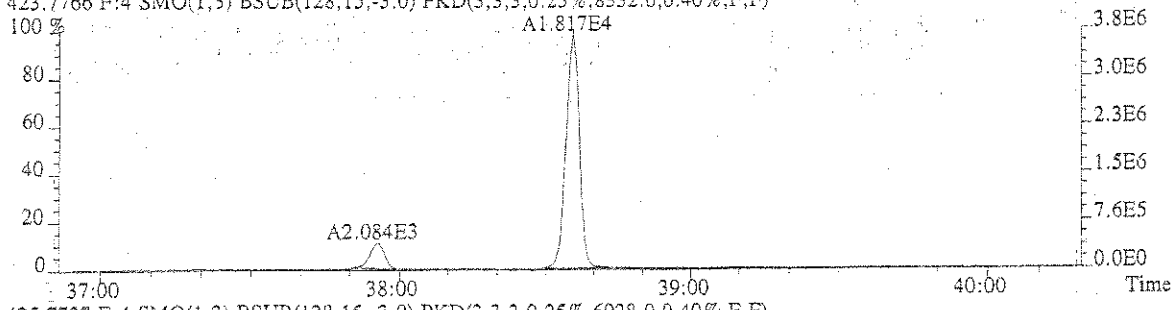
File:U122477 #1-313 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3



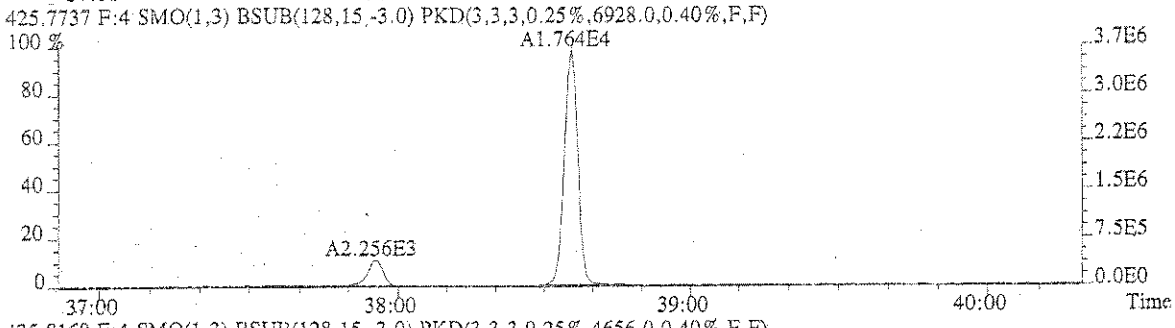
File:U122477 #1-314 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3



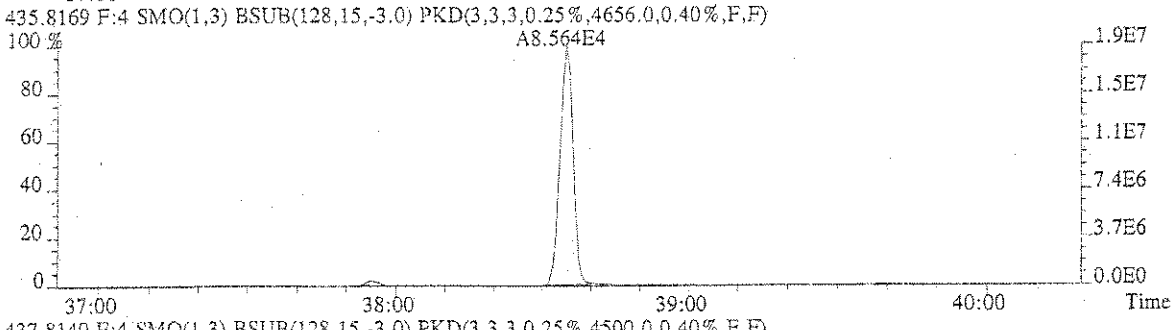
File:U122477 #1-314 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,8332.0,0.40%,F,F)



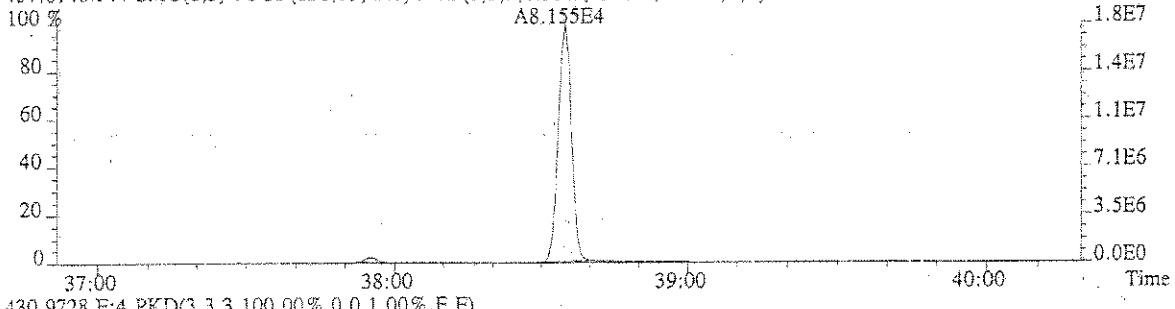
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,6928.0,0.40%,F,F)



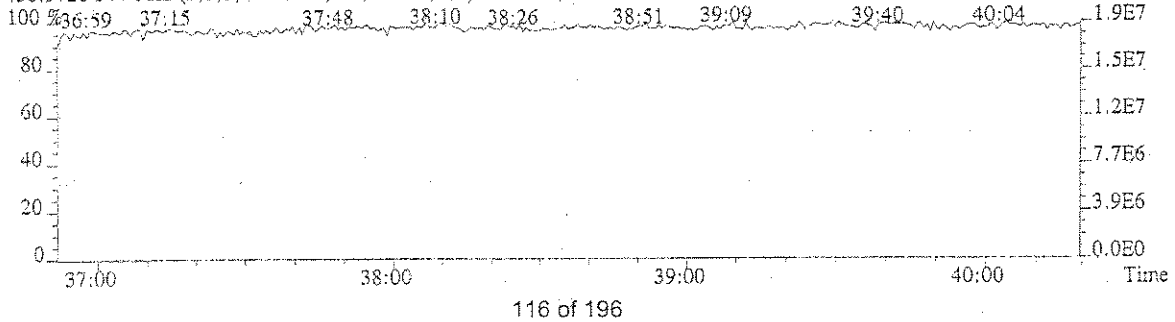
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,4656.0,0.40%,F,F)



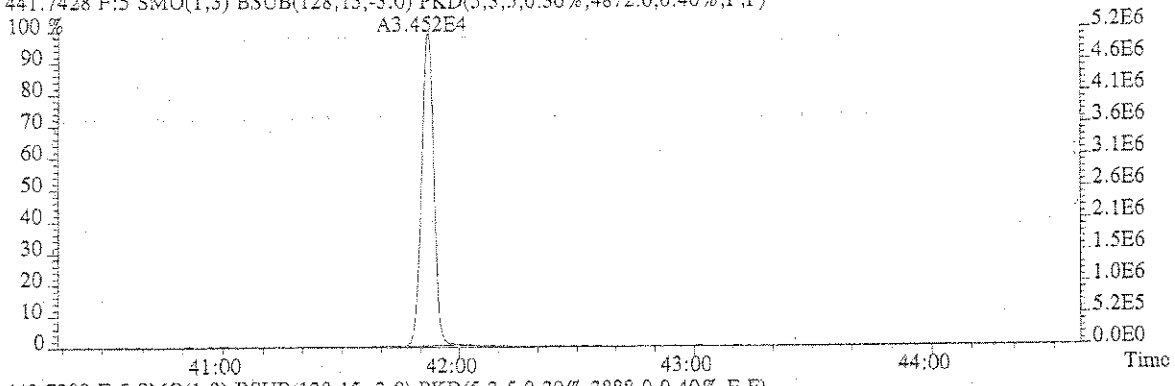
437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,4500.0,0.40%,F,F)



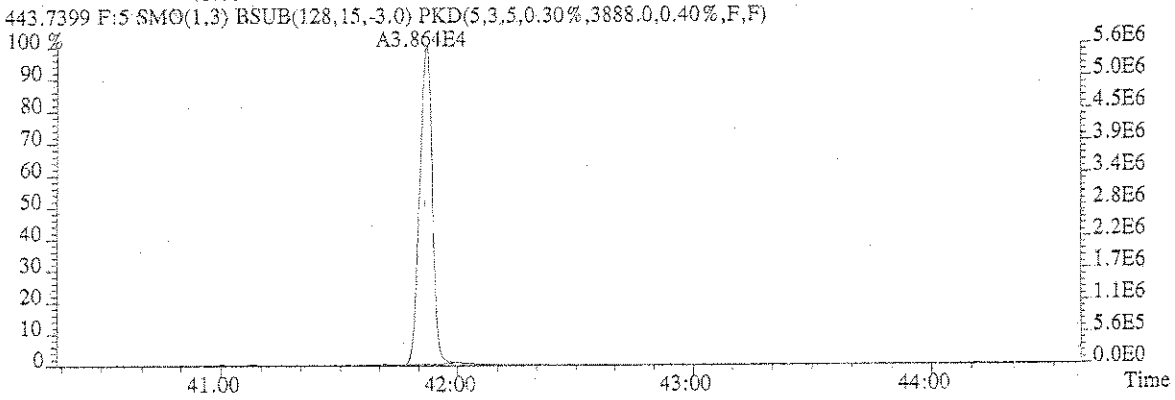
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



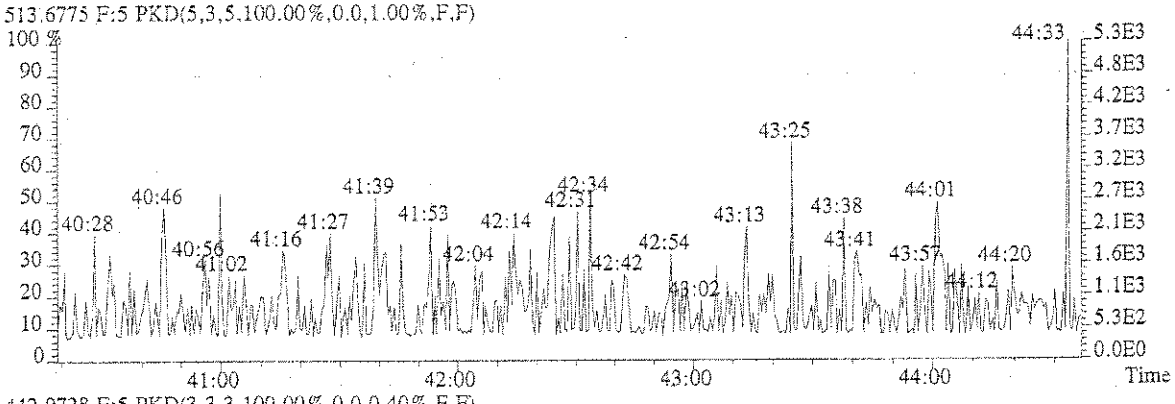
File:U122477 #1-475 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,4872.0,0.40%,F,F)



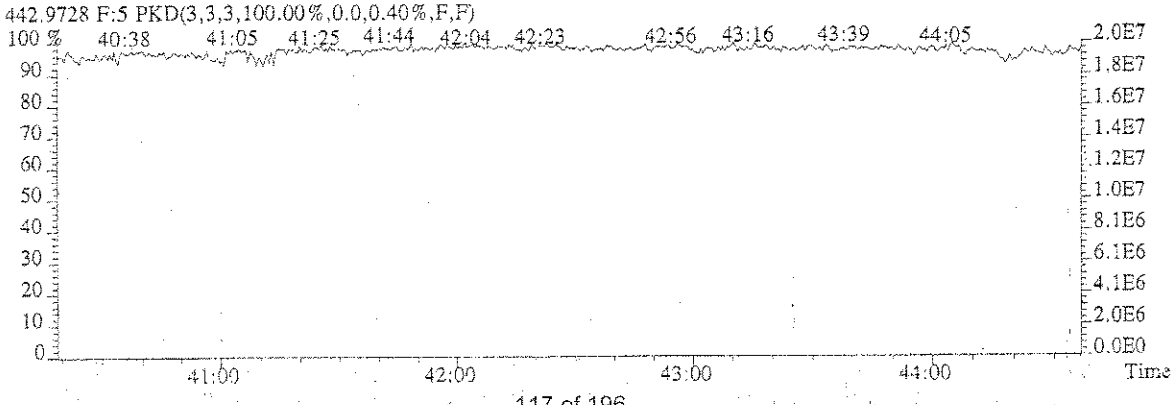
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,3888.0,0.40%,F,F)



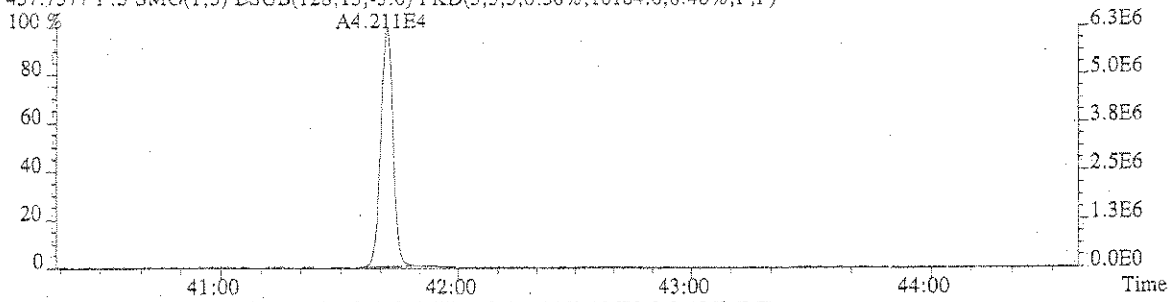
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



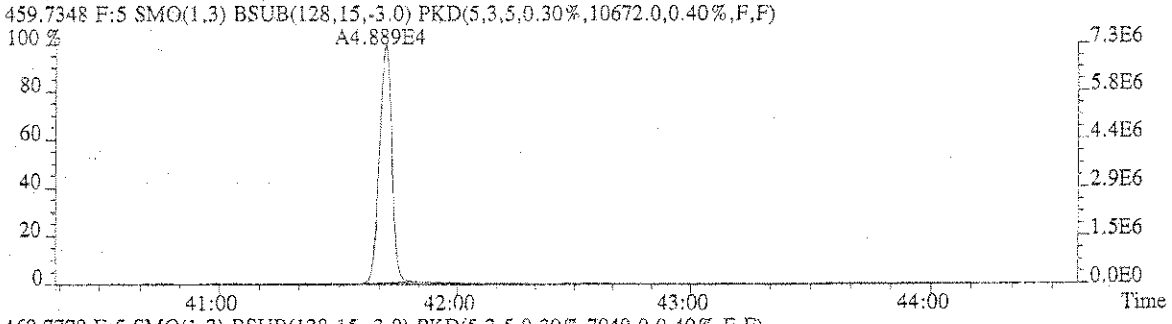
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



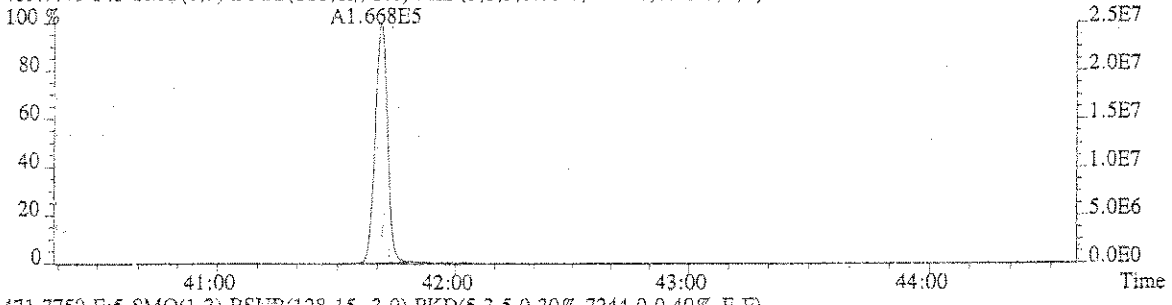
File:U122477 #1-475 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,10184.0,0.40%,F,F)



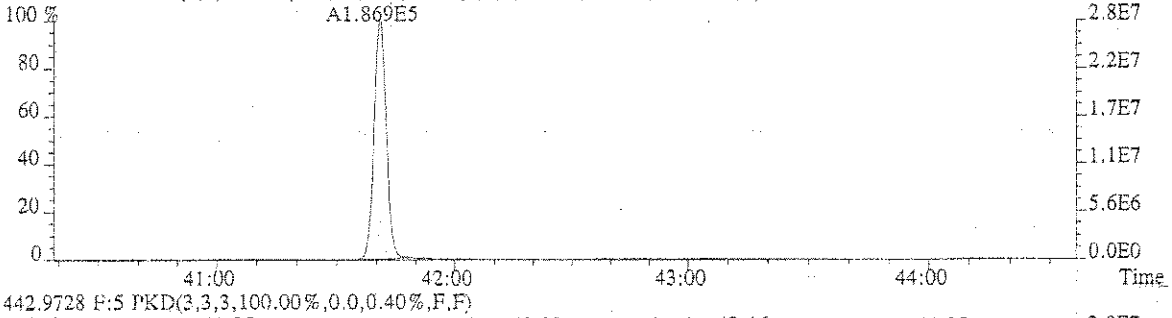
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,10672.0,0.40%,F,F)



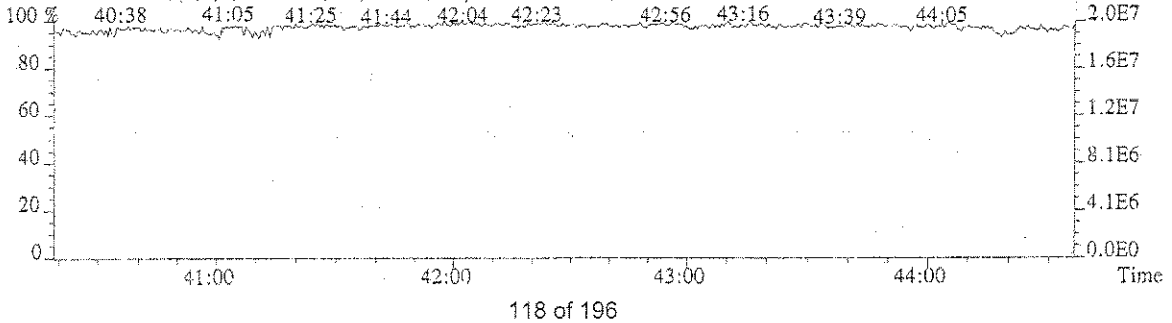
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,7940.0,0.40%,F,F)



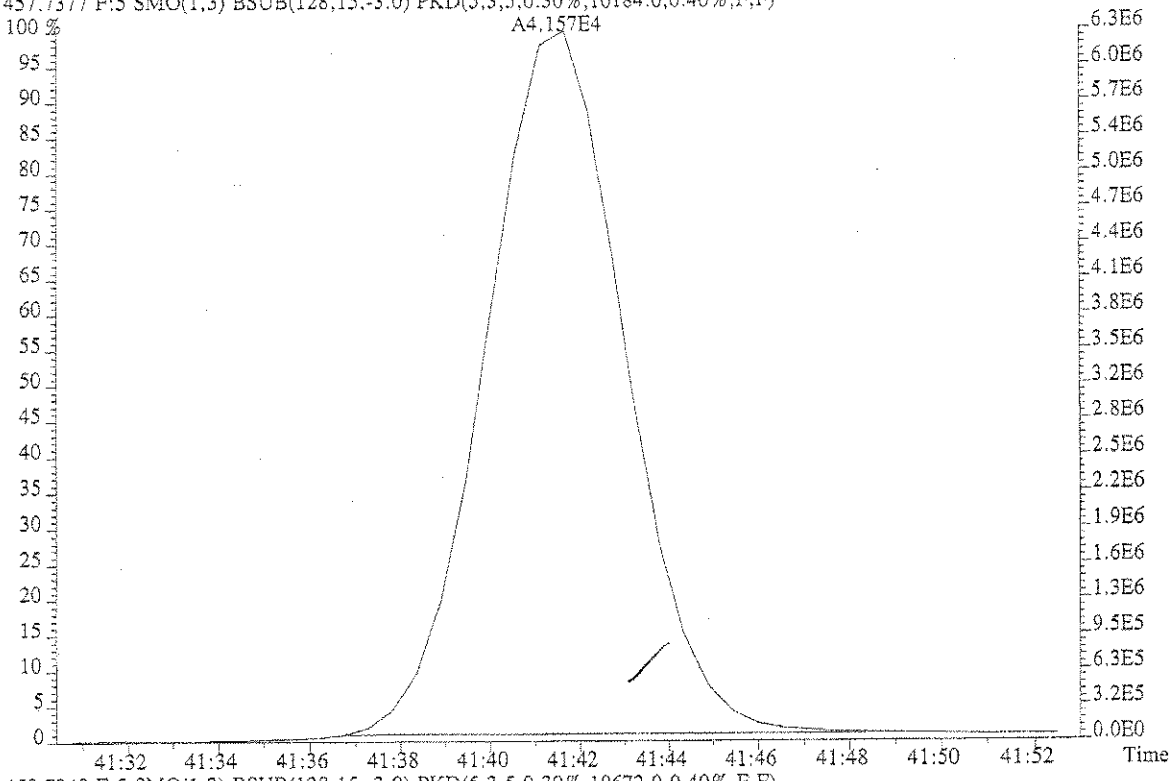
471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,7244.0,0.40%,F,F)



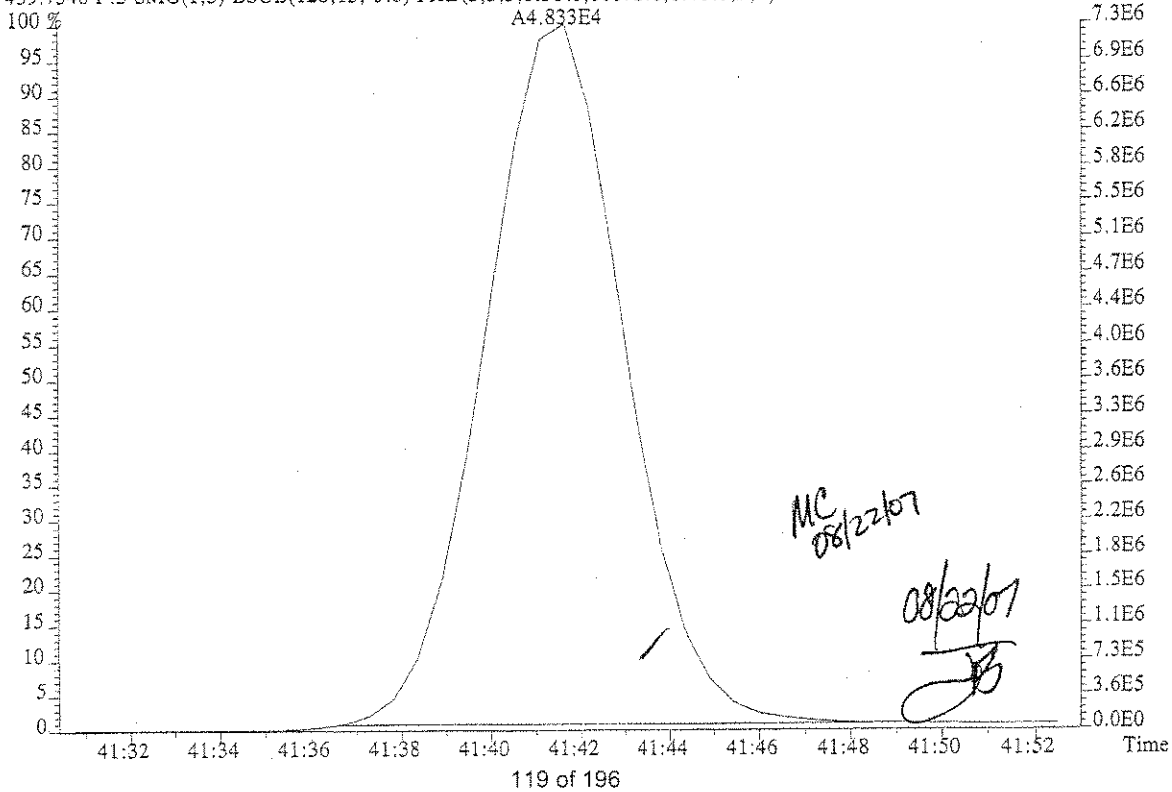
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



File:U122477 #1-475 Acq:21-AUG-2007 16:38:22 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 File Text:CCAL HRCC3 Exp:CCAL HRCC3
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,10184.0,0.40%,F,F)



459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,10672.0,0.40%,F,F)



MC 08/22/07

08/22/07

Initial Calibration

10655 Richmond Avenue, Suite 130-A, Houston, TX 77042
Phone (713)266-1599 Fax (713)266-0130
www.caslab.com

Initial Calibration QC Checklist

121

ICAL Name: U70402 82901

Date: 4/2/07

Method: 1613 / (8290) / Tetra / TCDD Only / TCDF Conf / 8280 / 613 / M23

Retention Window/Column Performance Check	Analyst	Second Check
Windows in and first and last eluters labeled	✓	✓
Column Performance shows less than or equal to 25% valley between column specific 2378 isomer and it's closest eluters	✓	✓
No QC ion deflections affect column specific 2378 isomer or it's closest eluters	✓	✓

Initial Calibration	Analyst	Second Check
Percent RSD within method criteria	✓	✓
All relative abundance ratios meet method criteria	✓	✓
No QC ion deflections of greater than 20%	✓	✓
Mass spectrometer resolution greater than or equal to 10,000 and documented	✓	✓
2378-TCDD elutes at 25 minutes or later on the DB-5 column	✓	✓
Signal-to-noise of all target analytes and their labeled standards at least 10:1	✓	✓
Valley between labeled 123478 and 123678 HxCDD peaks less than or equal to 50%	N/A	N/A
All Manual Intergrations signed and dated and first and final copies of Ical summary included	✓	✓

Analyst: [signature] Second QC: [signature]

icalqc.xls 02-23-00

CAS HOUSTON INC.

5DFC
PCDD/PCDF ANALYTICAL SEQUENCE SUMMARY

Name: Columbia Analytical Services, Houston Contract

Lab Code: TX01411 CASE No.: Client No: SDG No.:

GC Column: DB-5 ID: 0.25 (mm) Instrument ID: AutoSpec-Ultima

Init. Calib. Date: 04/02/07

Init. Calib.Times: 11:25

THE ANALYTICAL SEQUENCE OF STANDARDS, SAMPLES, BLANKS, SPIKES AND DUPLICATES IS AS FOLLOWS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
WINDOW DEFINE		U120205	2-APR-07	11:25:17
ICAL HRCC1		U120206	2-APR-07	13:56:35
ICAL HRCC2		U120207	2-APR-07	14:42:23
ICAL HRCC3		U120208	2-APR-07	15:34:13
ICAL HRCC4		U120209	2-APR-07	16:23:37
ICAL HRCC5		U120210	2-APR-07	17:13:27

HRGC/HRMS RUN LOG

Columbia Analytical Services inc.
An Employee Owned Company

CAS HOUSTON 10655 Richmond Avenue, Suite 130-A Houston, TX 77042

Acq Method: 8290 CAS/1/13 Result File: U2040282901 Archive Tape: ____
GC Method: 8290 CAS/1/13 EDD File: ____ Instrument ID: AutoSpec 1

Date	Time	File	CAS ID	Client ID	Batch #	Analyst	Comments	RE
03/31/07	00:03	U120200	K0702185-001DL	XA-5-1 DL	EB29049	YC	1:100	
	00:51	U120201	EB29052-LCS	LAB SPIKE	EB29052			
	1:39	U120202	EB29052-DLCS	DUP LAB SPIKE				
	2:27	U120203	Test					
	3:15	U120204	CCAL HRCC3	D8-2-7A			use average RF	
4/4/07	11:25	U120205	Window Defining	D4-90-2				
	13:56	U120206	Ical HRCC1	D5-49-5				
	14:42	U120207	Ical HRCC2	D5-49-4				
	15:34	U120208	Ical HRCC3	D8-2-7A				
	16:23	U120209	Ical HRCC4	D5-49-2				
	17:13	U120210	Ical HRCC5	D5-49-1				
	18:02	U120211	Test					

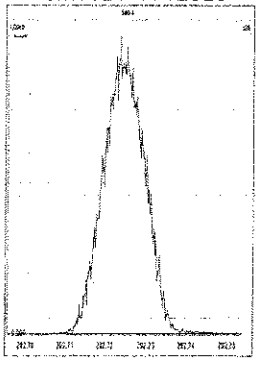
Reviewed by: JB

C38

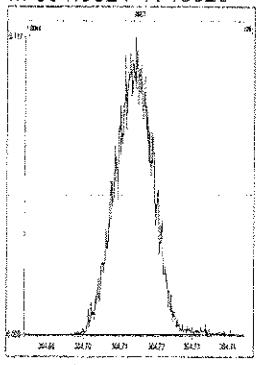
File: Experiment: 8290CAS.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Monday, April 02, 2007 11:23:56 Central Standard Time

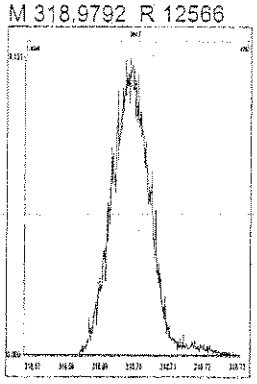
M 292.9824 R 12823



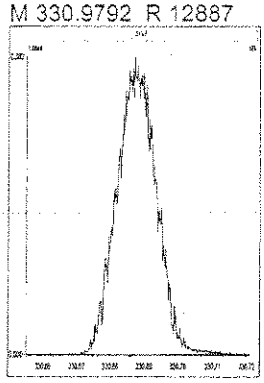
M 304.9824 R 13020



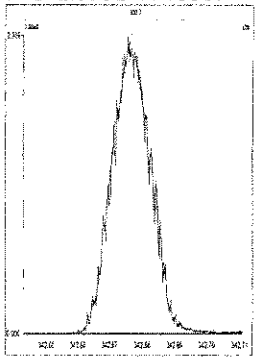
M 318.9792 R 12566



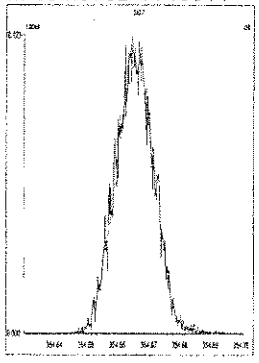
M 330.9792 R 12887



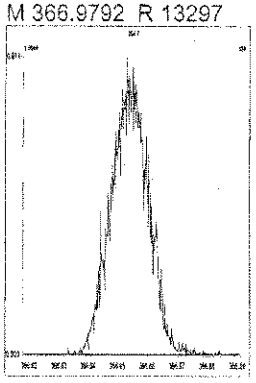
M 342.9792 R 13367



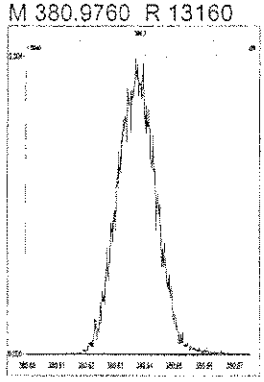
M 354.9792 R 13814



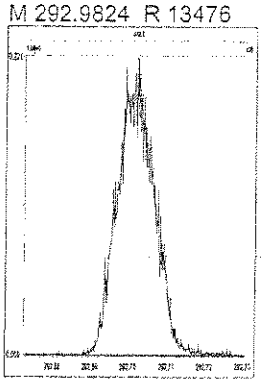
M 366.9792 R 13297



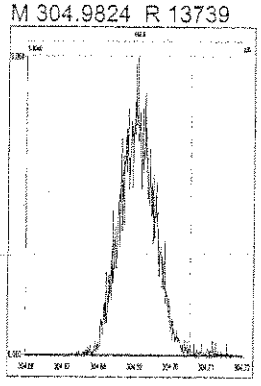
M 380.9760 R 13160



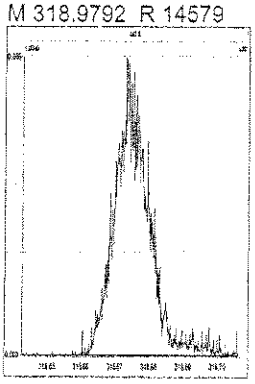
M 292.9824 R 13476



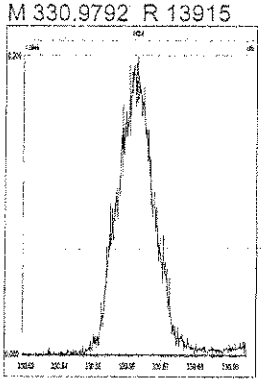
M 304.9824 R 13739



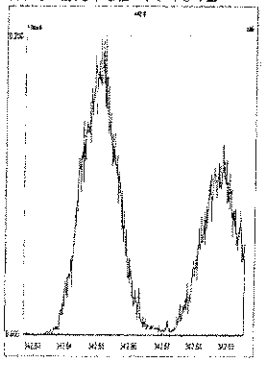
M 318.9792 R 14579



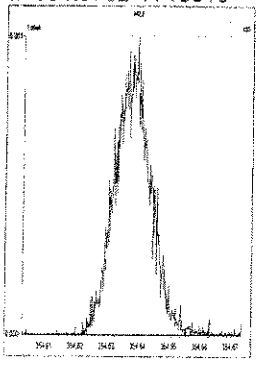
M 330.9792 R 13915



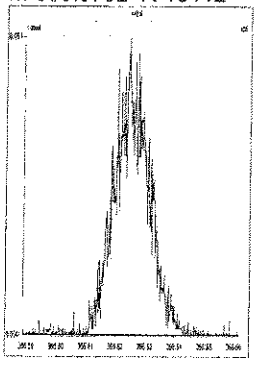
M 342.9792 R 4612



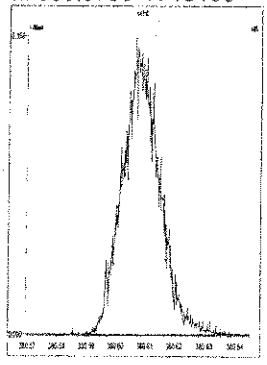
M 354.9792 R 13516



M 366.9792 R 15112



M 380.9760 R 13199



5DFA

WINDOW DEFINING MIX SUMMARY

CLIENT ID

WDM

Lab Name: COLUMBIA ANALYTICAL SERVICES

Lab Code: CAS Case No.: SDG No.:

GC Column: DB-5 ID: 0.25 (mm) Lab File ID: U120205

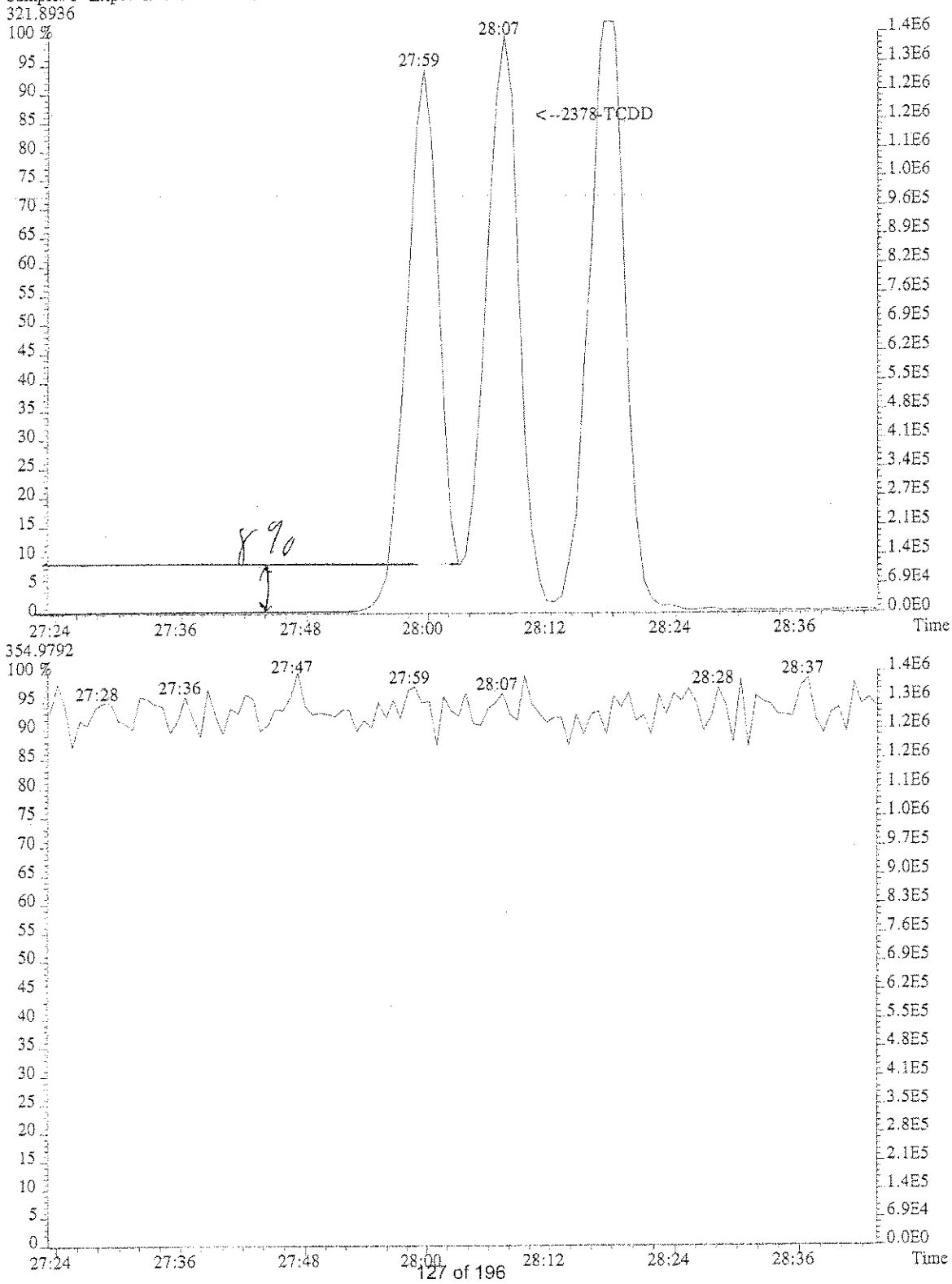
Date Analyzed: 04/02/07

Time Analyzed: 11:25:17

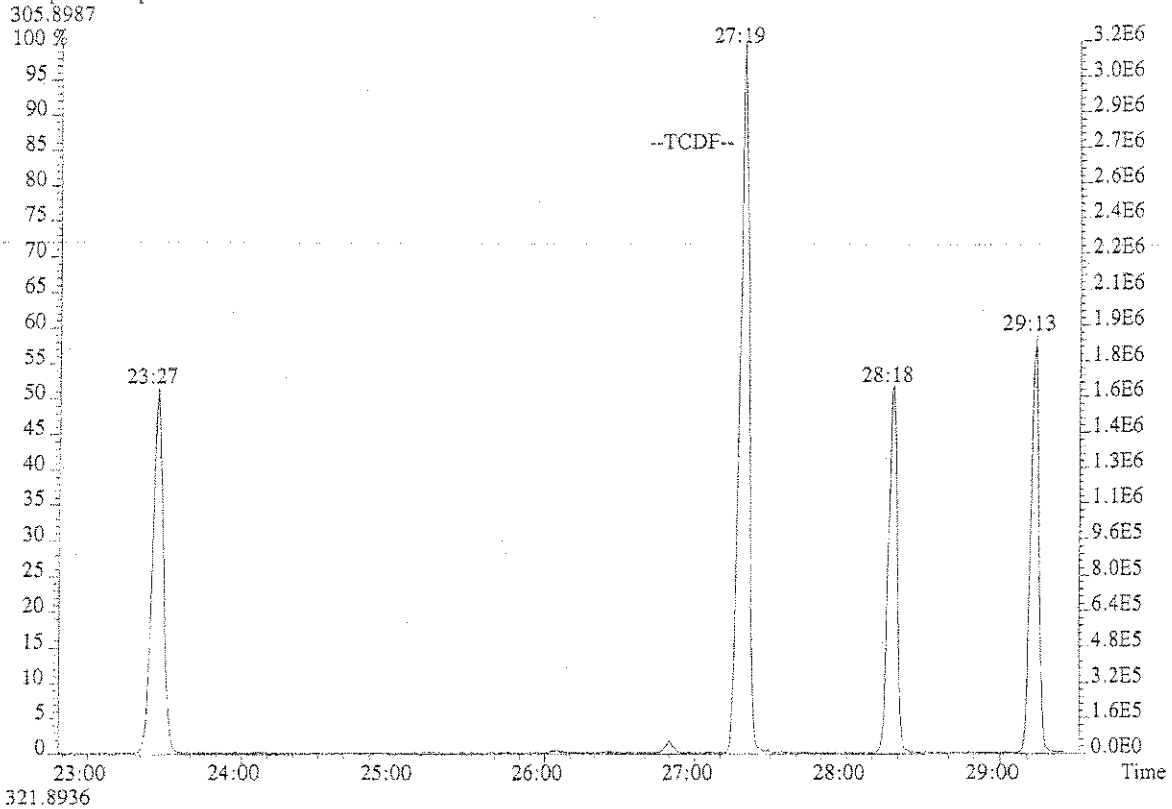
CONGENER	RT FIRST ELUTING	RT LAST ELUTING
TCDF	23:27	29:13
TCDD	25:10	29:11
PeCDF	29:28	33:15
PeCDD	30:47	33:06
HxCDF	34:06	36:24
HxCDD	34:36	36:04
HpCDF	37:46	39:05
HpCDD	38:01	38:40

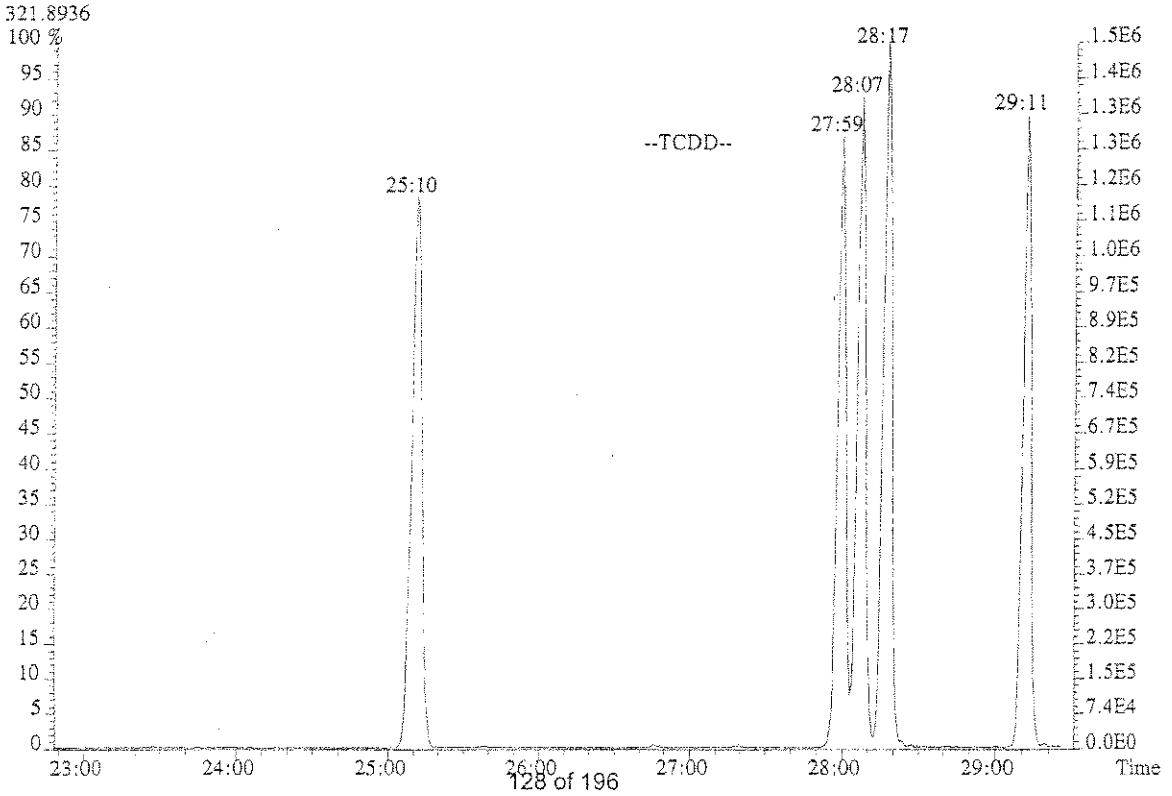
% Valley 2378-TCDD: 8%

File:U120205 #1-552 Acq: 2-APR-2007 11:25:17 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 Exp:WINDOW DEFINE

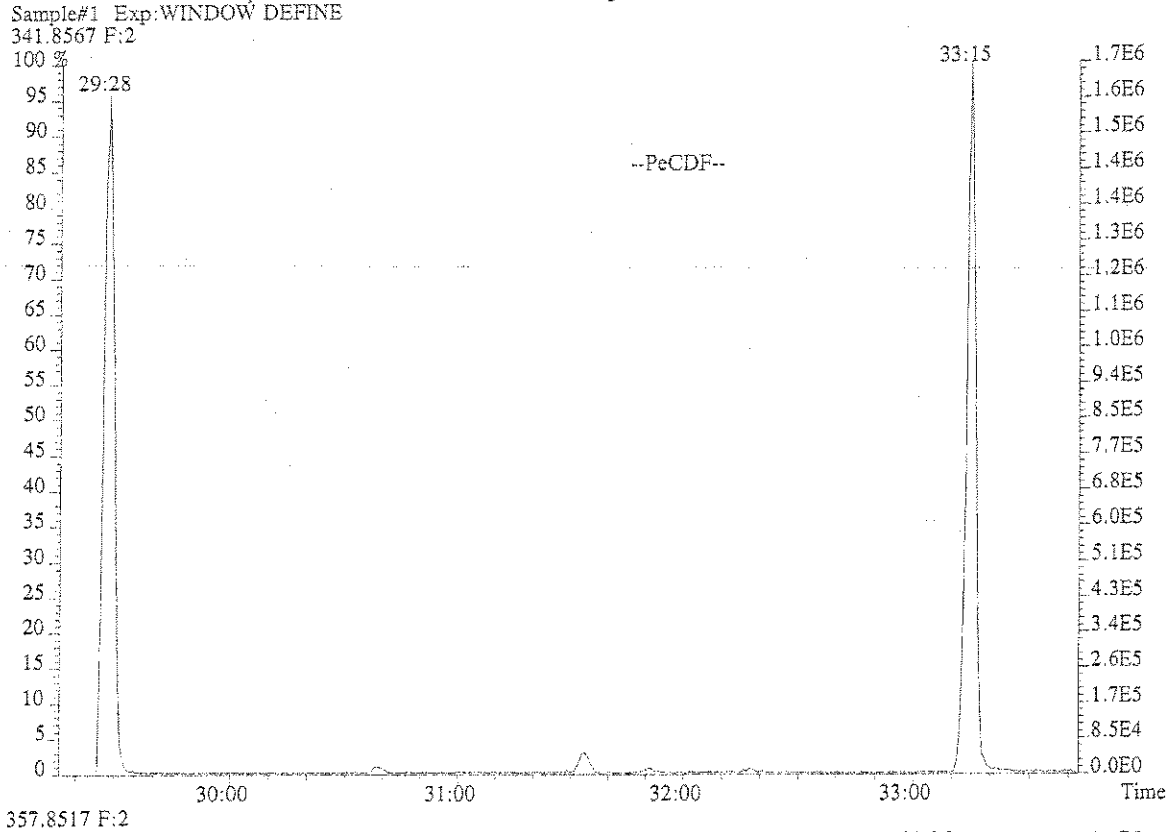


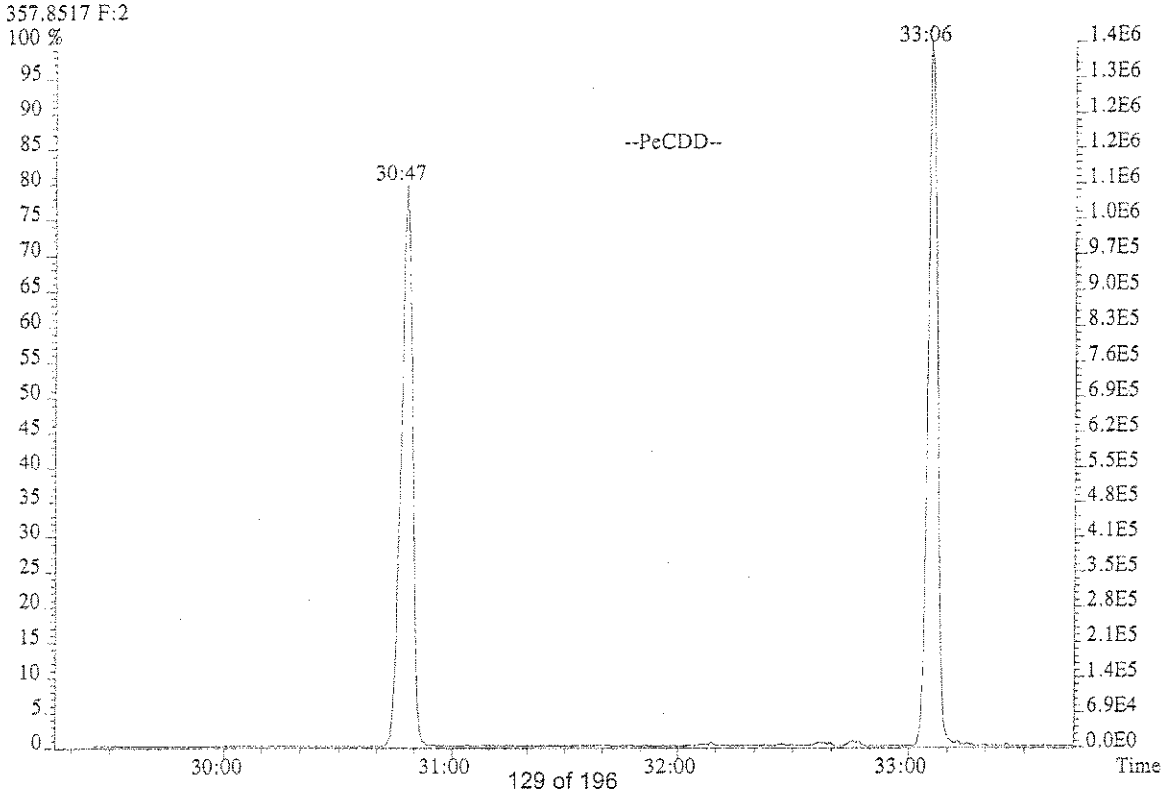
File:U120205 #1-552 Acq: 2-APR-2007 11:25:17 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE



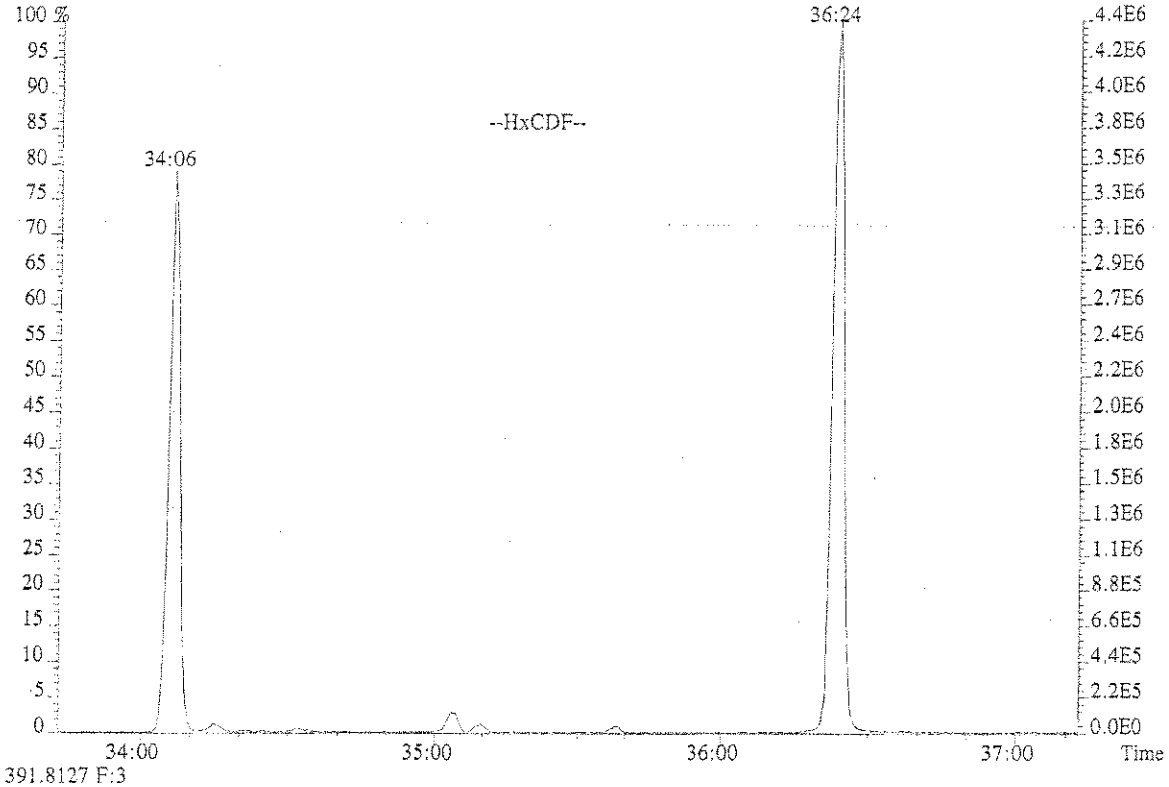


File:U120205 #1-390 Acq: 2-APR-2007 11:25:17 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:WINDOW DEFINE

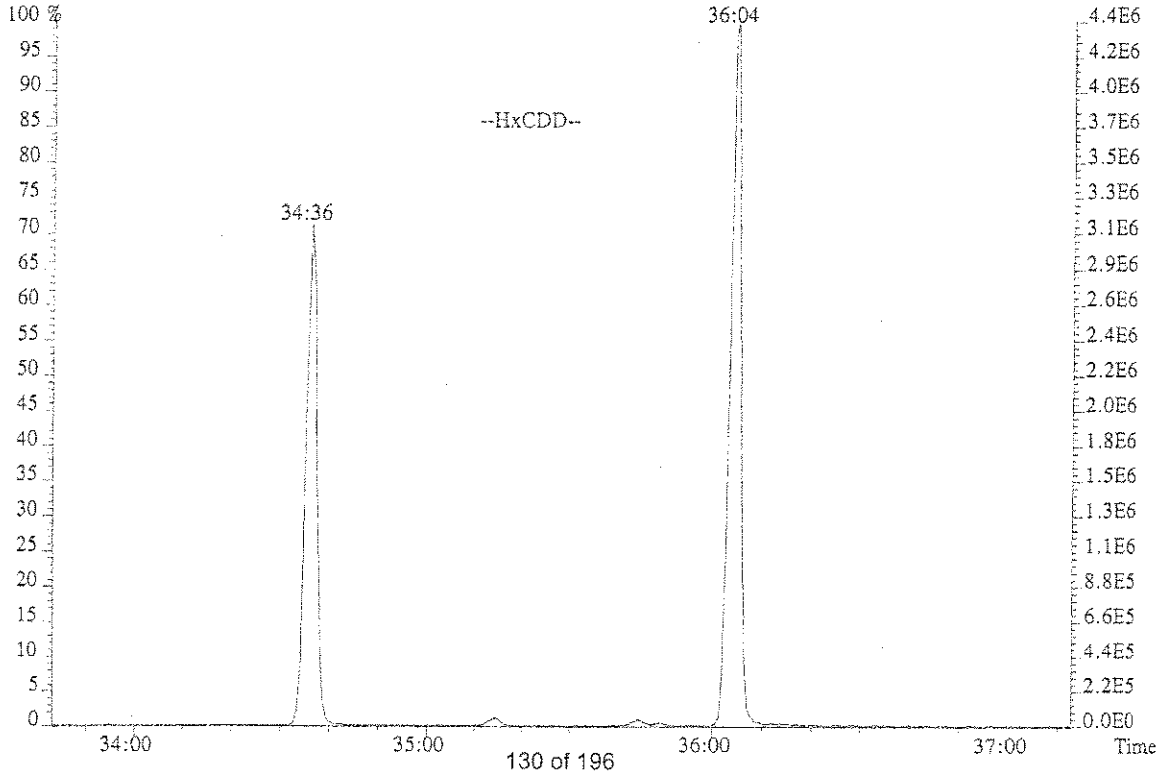




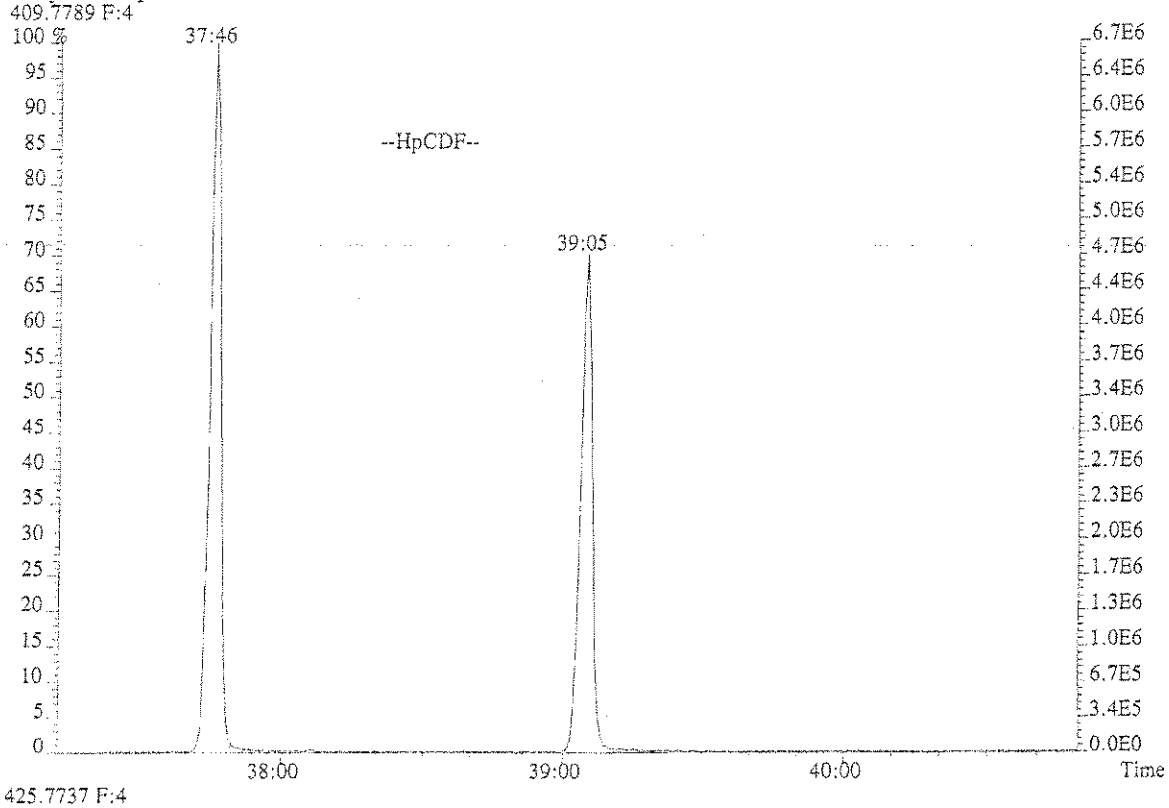
File:U120205 #1-318 Acq: 2-APR-2007 11:25:17 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:WINDOW DEFINE
375.8178 F:3



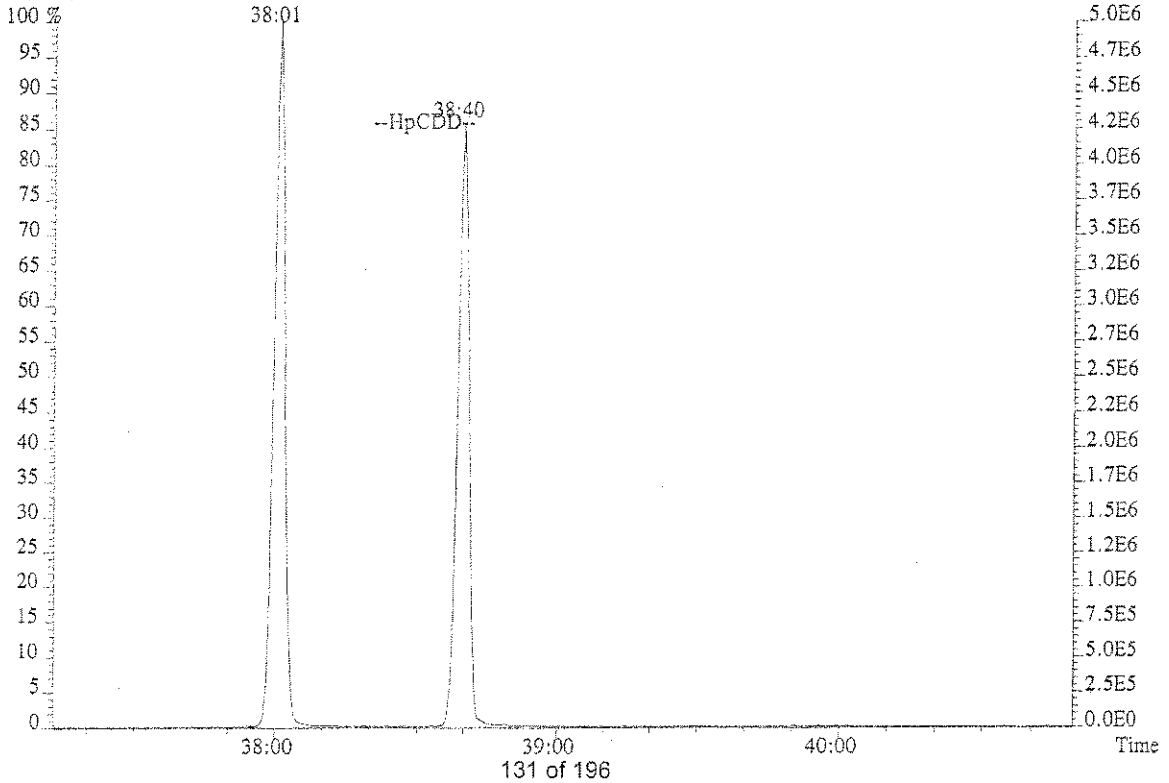
391.8127 F:3



File:U120205 #1-327 Acq: 2-APR-2007 11:25:17 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:WINDOW DEFINE
409.7789 F:4



425.7737 F:4



FORM 3A
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Columbia Analytical Services Episode No.:

Contract No.: SDG No.:

Initial Calibration Date: 04/02/07

Instrument ID: AutoSpec-Ultima GC Column ID: DB-5

HRCC1 Data Filename: U120206 HRCC4 Data Filename: U120209

HRCC2 Data Filename: U120207 HRCC5 Data Filename: U120210

HRCC3 Data Filename: U120208

	RELATIVE RESPONSE (RR)					MEAN RR	Cv (RSD) (1)
	HRCC1	HRCC2	HRCC3	HRCC4	HRCC5		
NATIVE ANALYTES							
2,3,7,8-TCDD	0.97	0.93	0.98	0.96	0.97	0.96	2.08
1,2,3,7,8-PeCDD	0.86	0.89	0.92	0.93	0.95	0.91	3.92
1,2,3,4,7,8-HxCDD	1.02	1.03	0.97	1.05	1.10	1.03	4.60
1,2,3,6,7,8-HxCDD	1.02	1.07	0.99	1.15	1.10	1.07	6.03
1,2,3,7,8,9-HxCDD	0.95	0.98	0.94	1.03	1.04	0.99	4.60
1,2,3,4,6,7,8-HpCDD	0.91	0.91	0.93	0.93	0.96	0.93	2.31
OCDD	1.04	1.04	0.99	1.01	1.01	1.02	2.11
2,3,7,8-TCDF	0.84	0.85	0.99	1.17	0.93	0.96	13.87
1,2,3,7,8-PeCDF	0.87	0.88	0.93	0.92	0.95	0.91	3.88
2,3,4,7,8-PeCDF	0.89	0.89	0.98	0.94	1.02	0.95	6.13
1,2,3,4,7,8-HxCDF	1.12	1.11	1.22	1.17	1.21	1.17	4.41
1,2,3,6,7,8-HxCDF	1.07	1.13	1.19	1.19	1.13	1.14	4.33
1,2,3,7,8,9-HxCDF	0.81	0.82	0.86	0.88	0.93	0.86	5.64
2,3,4,6,7,8-HxCDF	0.98	1.01	1.07	1.08	1.03	1.03	4.01
1,2,3,4,6,7,8-HpCDF	1.30	1.37	1.37	1.37	1.38	1.36	2.32
1,2,3,4,7,8,9-HpCDF	0.96	0.99	1.02	1.03	1.11	1.02	5.51
OCDF	1.05	1.07	1.08	1.11	1.12	1.09	2.77

(1) The %RSD for the 17 unlabeled standard must not exceed +/- 20%, see Section 7.7.2.1, Method 8290.

8290F3A

FORM 3B
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

Lab Name: Columbia Analytical Services Episode No.:

Contract No.: SDG No.:

Initial Calibration Date: 04/02/07

Instrument ID: AutoSpec-Ultima GC Column ID: DB-5

HCC1 Data Filename: U120206 HCC4 Data Filename: U120209

HCC2 Data Filename: U120207 HCC5 Data Filename: U120210

HCC3 Data Filename: U120208

	RELATIVE RESPONSE (RR)					MEAN RR	Cv (RSD) (1)
	HRCC1	HRCC2	HRCC3	HRCC4	HRCC5		
LABELED COMPOUNDS							
13C-2,3,7,8-TCDD	0.89	0.89	0.85	0.96	0.91	0.90	4.36
13C-1,2,3,7,8-PeCDD	1.03	1.00	1.03	1.13	1.09	1.06	4.97
13C-1,2,3,6,7,8-HxCDD	1.01	1.02	0.98	1.01	1.02	1.01	1.37
13C-1,2,3,4,6,7,8-HpCDD	1.10	1.09	0.99	1.15	1.15	1.09	6.01
13C-OCDD	1.15	1.13	1.03	1.24	1.31	1.17	9.04
13C-2,3,7,8-TCDF	1.23	1.23	1.14	1.08	1.30	1.20	7.34
13C-1,2,3,7,8-PeCDF	1.46	1.47	1.42	1.66	1.57	1.52	6.43
13C-1,2,3,4,7,8-HxCDF	1.30	1.31	1.15	1.32	1.33	1.28	5.73
13C-1,2,3,4,6,7,8-HpCDF	1.11	1.10	0.99	1.19	1.17	1.11	7.05
CLEANUP STANDARD							
37Cl-2,3,7,8-TCDD	0.84	0.82	0.83	0.91	0.90	0.86	5.13

(1) The %RSD for the nine labeled reference compounds must not exceed +/- 30%, see Section 7.7.2.1, Method 8290.

8290F3B

FORM 3C
PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name: Columbia Analytical Services Episode No.:

Contract No.: SDG No.:

Initial Calibration Date: 04/02/07

Instrument ID: AutoSpec-Ultima GC Column ID: DB-5

HCC1 Data Filename: U120206 HCC4 Data Filename: U120209

HCC2 Data Filename: U120207 HCC5 Data Filename: U120210

HCC3 Data Filename: U120208

	M/Z'S FORMING RATIO	ION ABUNDANCE RATIO					QC LIMITS (2)
		HRCC1	HRCC2	HRCC3	HRCC4	HRCC5	
NATIVE ANALYTES							
2,3,7,8-TCDD	M/M+2	0.85	0.80	0.77	0.79	0.79	0.65-0.89
1,2,3,7,8-PeCDD	M+2/M+4	1.68	1.49	1.62	1.61	1.57	1.32-1.78
1,2,3,4,7,8-HxCDD	M+2/M+4	1.35	1.42	1.30	1.30	1.30	1.05-1.43
1,2,3,6,7,8-HxCDD	M+2/M+4	1.37	1.21	1.14	1.26	1.30	1.05-1.43
1,2,3,7,8,9-HxCDD	M+2/M+4	1.19	1.26	1.19	1.30	1.31	1.05-1.43
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.14	1.06	1.05	1.05	1.03	0.88-1.20
OCDD	M+2/M+4	0.91	0.89	0.89	0.89	0.91	0.76-1.02
2,3,7,8-TCDF	M/M+2	0.71	0.87	0.75	0.79	0.79	0.65-0.89
1,2,3,7,8-PeCDF	M+2/M+4	1.52	1.62	1.60	1.58	1.56	1.32-1.78
2,3,4,7,8-PeCDF	M+2/M+4	1.59	1.46	1.57	1.58	1.57	1.32-1.78
1,2,3,4,7,8-HxCDF	M+2/M+4	1.24	1.25	1.30	1.27	1.21	1.05-1.43
1,2,3,6,7,8-HxCDF	M+2/M+4	1.18	1.29	1.24	1.24	1.21	1.05-1.43
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.28	1.24	1.27	1.23	1.05-1.43
2,3,4,6,7,8-HxCDF	M+2/M+4	1.11	1.22	1.22	1.27	1.22	1.05-1.43
1,2,3,4,6,7,8-HpCDF	M+2/M+4	0.92	0.94	1.02	0.99	0.99	0.88-1.20
1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.93	1.08	0.98	1.01	1.01	0.88-1.20
OCDF	M+2/M+4	0.88	0.97	0.92	0.90	0.93	0.76-1.02

(1) See Table 6, Method 8290, for m/z specifications.

(2) Ion Abundance Ratio Control Limits from Table 8, Method 8290.

8290F3C

FORM 3D
PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

Lab Name: Columbia Analytical Services Episode No.:

Contract No.: SDG No.:

Initial Calibration Date: 04/02/07

Instrument ID: AutoSpec-Ultima GC Column ID: DB-5

HRCC1 Data Filename: U120206 HRCC4 Data Filename: U120209

HRCC2 Data Filename: U120207 HRCC5 Data Filename: U120210

HRCC3 Data Filename: U120208

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUNDANCE RATIO HRCC1	HRCC2	HRCC3	HRCC4	HRCC5	QC LIMITS (2)
13C-2,3,7,8-TCDD	M/M+2	0.74	0.80	0.81	0.79	0.77	0.65-0.89
13C-1,2,3,7,8-PeCDD	M+2/M+4	1.57	1.53	1.57	1.60	1.55	1.32-1.78
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.24	1.25	1.23	1.24	1.05-1.43
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	1.05	1.04	1.05	1.04	0.88-1.20
13C-OCDD	M+2/M+4	0.91	0.89	0.89	0.89	0.90	0.76-1.02
13C-2,3,7,8-TCDF	M/M+2	0.83	0.83	0.84	0.85	0.80	0.65-0.89
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.61	1.61	1.60	1.61	1.57	1.32-1.78
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.54	0.51	0.54	0.52	0.43-0.59
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.43	0.44	0.43	0.42	0.42	0.37-0.51

(1) See Table 6, Method 8290, for m/z specifications.Method 8290.

(2) Ion Abundance Ratio Control Limits from Table 8,

8290F3D

Columbia Analytical Services, Inc.
Sample Response Summary

CLIENT ID.
ICAL HRCC1

Run #1 Filename U120206 Samp: 1 Inj: 1 Acquired: 2-APR-07 13:56:35
Processed: 3-APR-07 08:05:38 Sample ID: ICAL HRCC1

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	27:17	1.472e+02	2.085e+02	0.71	yes	no
2	Unk	1,2,3,7,8-PeCDF	31:33	6.662e+02	4.371e+02	1.52	yes	no
3	Unk	2,3,4,7,8-PeCDF	32:16	6.883e+02	4.342e+02	1.59	yes	no
4	Unk	1,2,3,4,7,8-HxCDF	35:03	6.333e+02	5.087e+02	1.24	yes	no
5	Unk	1,2,3,6,7,8-HxCDF	35:09	5.925e+02	5.036e+02	1.18	yes	no
6	Unk	2,3,4,6,7,8-HxCDF	35:37	5.273e+02	4.734e+02	1.11	yes	no
7	Unk	1,2,3,7,8,9-HxCDF	36:19	4.625e+02	3.693e+02	1.25	yes	no
8	Unk	1,2,3,4,6,7,8-HpCDF	37:45	5.479e+02	5.962e+02	0.92	yes	no
9	Unk	1,2,3,4,7,8,9-HpCDF	39:04	4.038e+02	4.361e+02	0.93	yes	no
10	Unk	OCDF	41:51	8.946e+02	1.017e+03	0.88	yes	no
11	Unk	2,3,7,8-TCDD	28:06	1.361e+02	1.610e+02	0.85	yes	no
12	Unk	1,2,3,7,8-PeCDD	32:37	4.789e+02	2.852e+02	1.68	yes	no
13	Unk	1,2,3,4,7,8-HxCDD	35:44	4.629e+02	3.438e+02	1.35	yes	no
14	Unk	1,2,3,6,7,8-HxCDD	35:48	4.700e+02	3.437e+02	1.37	yes	no
15	Unk	1,2,3,7,8,9-HxCDD	36:06	4.124e+02	3.452e+02	1.19	yes	no
16	Unk	1,2,3,4,6,7,8-HpCDD	38:39	4.174e+02	3.659e+02	1.14	yes	no
17	Unk	OCDD	41:41	9.068e+02	9.912e+02	0.91	yes	no
18	IS	13C-2,3,7,8-TCDF	27:16	9.664e+03	1.163e+04	0.83	yes	no
19	IS	13C-1,2,3,7,8-PeCDF	31:32	1.559e+04	9.670e+03	1.61	yes	no
20	IS	13C-1,2,3,4,7,8-HxCDF	35:02	1.754e+04	3.367e+04	0.52	yes	no
21	IS	13C-1,2,3,4,6,7,8-HpCDF	37:44	1.328e+04	3.059e+04	0.43	yes	no
22	IS	13C-2,3,7,8-TCDD	28:04	6.525e+03	8.807e+03	0.74	yes	no
23	IS	13C-1,2,3,7,8-PeCDD	32:36	1.082e+04	6.910e+03	1.57	yes	no
24	IS	13C-1,2,3,6,7,8-HxCDD	35:48	2.195e+04	1.777e+04	1.24	yes	no
25	IS	13C-1,2,3,4,6,7,8-HpCDD	38:38	2.214e+04	2.100e+04	1.05	yes	no
26	IS	13C-OCDD	41:41	4.327e+04	4.770e+04	0.91	yes	no
27	RS/RT	13C-1,2,3,4-TCDD	27:52	7.424e+03	9.849e+03	0.75	yes	no
28	RS/RT	13C-1,2,3,7,8,9-HxCDD	36:05	2.180e+04	1.758e+04	1.24	yes	no
29	C/Up	37Cl-2,3,7,8-TCDD	28:06	2.889e+02				

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Columbia Analytical Services,Inc. CLIENT ID.
Signal/Noise Height Ratio Summary ICAL HRCC1

Run #1 Filename U120206 Samp: 1 Inj: 1 Acquired: 2-APR-07 13:56:35

Processed: 3-APR-07 08:05:38 LAB. ID: ICAL HRCC1

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	2.59e+04	2.04e+02	1.3e+02	3.13e+04	2.28e+02	1.4e+02
2	1,2,3,7,8-PeCDF	1.33e+05	3.44e+02	3.9e+02	8.48e+04	2.84e+02	3.0e+02
3	2,3,4,7,8-PeCDF	1.36e+05	3.44e+02	4.0e+02	8.66e+04	2.84e+02	3.1e+02
4	1,2,3,4,7,8-HxCDF	1.46e+05	3.20e+02	4.6e+02	1.15e+05	2.60e+02	4.4e+02
5	1,2,3,6,7,8-HxCDF	1.34e+05	3.20e+02	4.2e+02	1.04e+05	2.60e+02	4.0e+02
6	2,3,4,6,7,8-HxCDF	1.13e+05	3.20e+02	3.5e+02	1.01e+05	2.60e+02	3.9e+02
7	1,2,3,7,8,9-HxCDF	9.79e+04	3.20e+02	3.1e+02	7.92e+04	2.60e+02	3.0e+02
8	1,2,3,4,6,7,8-HpCDF	1.15e+05	5.76e+02	2.0e+02	1.35e+05	2.36e+02	5.7e+02
9	1,2,3,4,7,8,9-HpCDF	8.01e+04	5.76e+02	1.4e+02	8.63e+04	2.36e+02	3.7e+02
10	OCDF	1.33e+05	3.12e+02	4.2e+02	1.42e+05	3.88e+02	3.7e+02
11	2,3,7,8-TCDD	2.43e+04	2.24e+02	1.1e+02	2.73e+04	2.08e+02	1.3e+02
12	1,2,3,7,8-PeCDD	9.82e+04	3.80e+02	2.6e+02	5.65e+04	2.64e+02	2.1e+02
13	1,2,3,4,7,8-HxCDD	9.94e+04	4.92e+02	2.0e+02	7.50e+04	3.48e+02	2.2e+02
14	1,2,3,6,7,8-HxCDD	1.04e+05	4.92e+02	2.1e+02	8.00e+04	3.48e+02	2.3e+02
15	1,2,3,7,8,9-HxCDD	8.38e+04	4.92e+02	1.7e+02	7.62e+04	3.48e+02	2.2e+02
16	1,2,3,4,6,7,8-HpCDD	8.83e+04	3.64e+02	2.4e+02	7.82e+04	1.96e+02	4.0e+02
17	OCDD	1.30e+05	6.32e+02	2.1e+02	1.56e+05	5.40e+02	2.9e+02
18	13C-2,3,7,8-TCDF	1.59e+06	4.24e+02	3.7e+03	1.95e+06	4.28e+02	4.6e+03
19	13C-1,2,3,7,8-PeCDF	2.99e+06	3.24e+02	9.2e+03	1.88e+06	2.88e+02	6.5e+03
20	13C-1,2,3,4,7,8-HxCDF	3.93e+06	3.04e+02	1.3e+04	7.41e+06	3.28e+02	2.3e+04
21	13C-1,2,3,4,6,7,8-HpCDF	2.89e+06	1.08e+03	2.7e+03	6.74e+06	2.02e+03	3.3e+03
22	13C-2,3,7,8-TCDD	1.16e+06	8.04e+02	1.4e+03	1.54e+06	2.32e+02	6.6e+03
23	13C-1,2,3,7,8-PeCDD	2.21e+06	2.24e+02	9.9e+03	1.39e+06	3.60e+02	3.9e+03
24	13C-1,2,3,6,7,8-HxCDD	4.98e+06	3.64e+02	1.4e+04	4.06e+06	5.04e+02	8.1e+03
25	13C-1,2,3,4,6,7,8-HpCDD	4.62e+06	5.68e+02	8.1e+03	4.41e+06	4.72e+02	9.3e+03
26	13C-OCDD	6.64e+06	3.92e+02	1.7e+04	7.34e+06	2.40e+02	3.1e+04
27	13C-1,2,3,4-TCDD	1.30e+06	8.04e+02	1.6e+03	1.73e+06	2.32e+02	7.5e+03
28	13C-1,2,3,7,8,9-HxCDD	4.85e+06	3.64e+02	1.3e+04	3.88e+06	5.04e+02	7.7e+03
29	37Cl-2,3,7,8-TCDD	5.36e+04	2.12e+02	2.5e+02			

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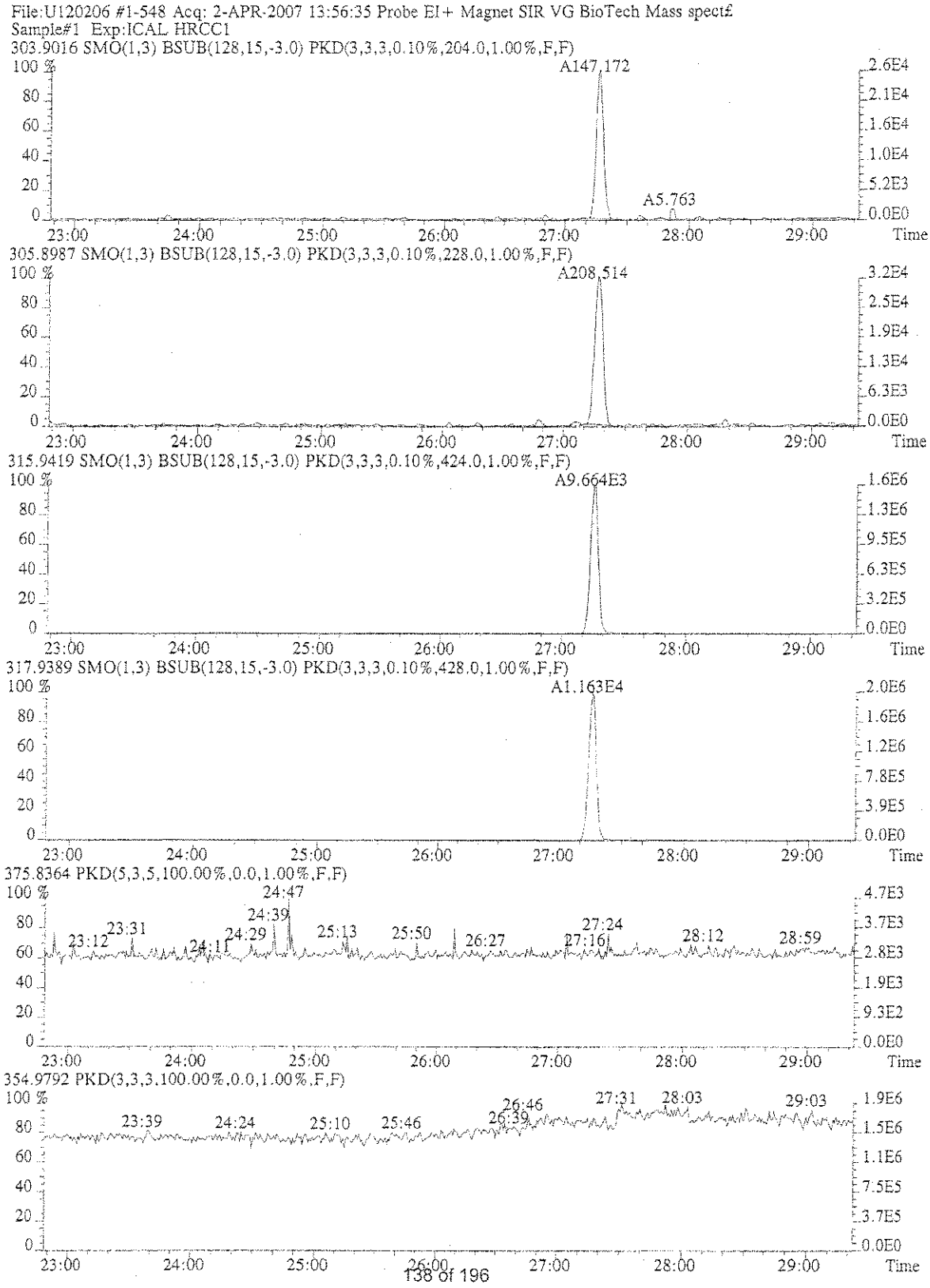
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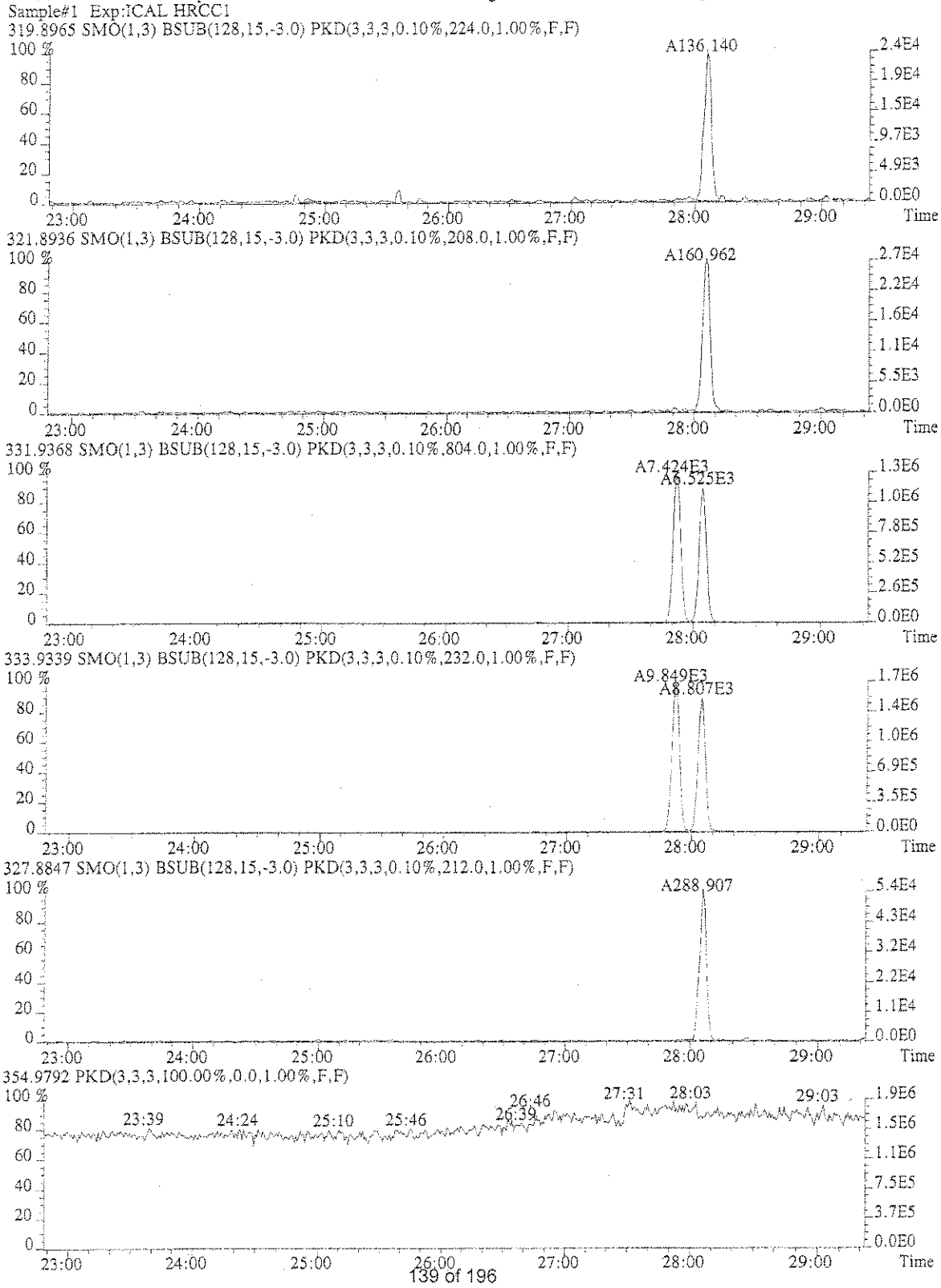
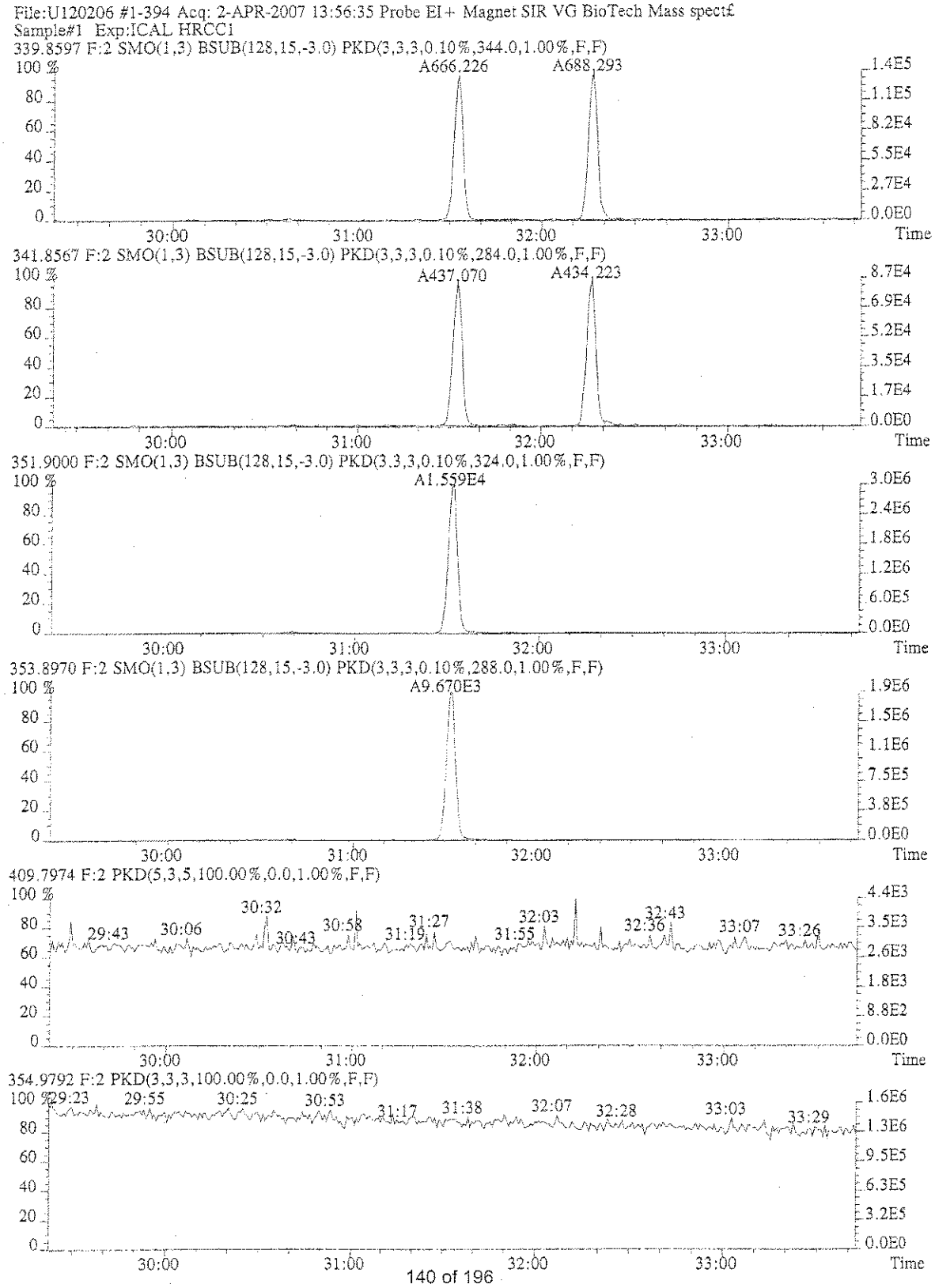
Sample#1 Exp:ICAL HRCC1
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,204.0,1.00%,F,F)
A147,172
A5.763
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,228.0,1.00%,F,F)
A208,514
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,424.0,1.00%,F,F)
A9.664E3
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,428.0,1.00%,F,F)
A1.163E4
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

File:U120206 #1-548 Acq: 2-APR-2007 13:56:35 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 Exp:ICAL HRCC1

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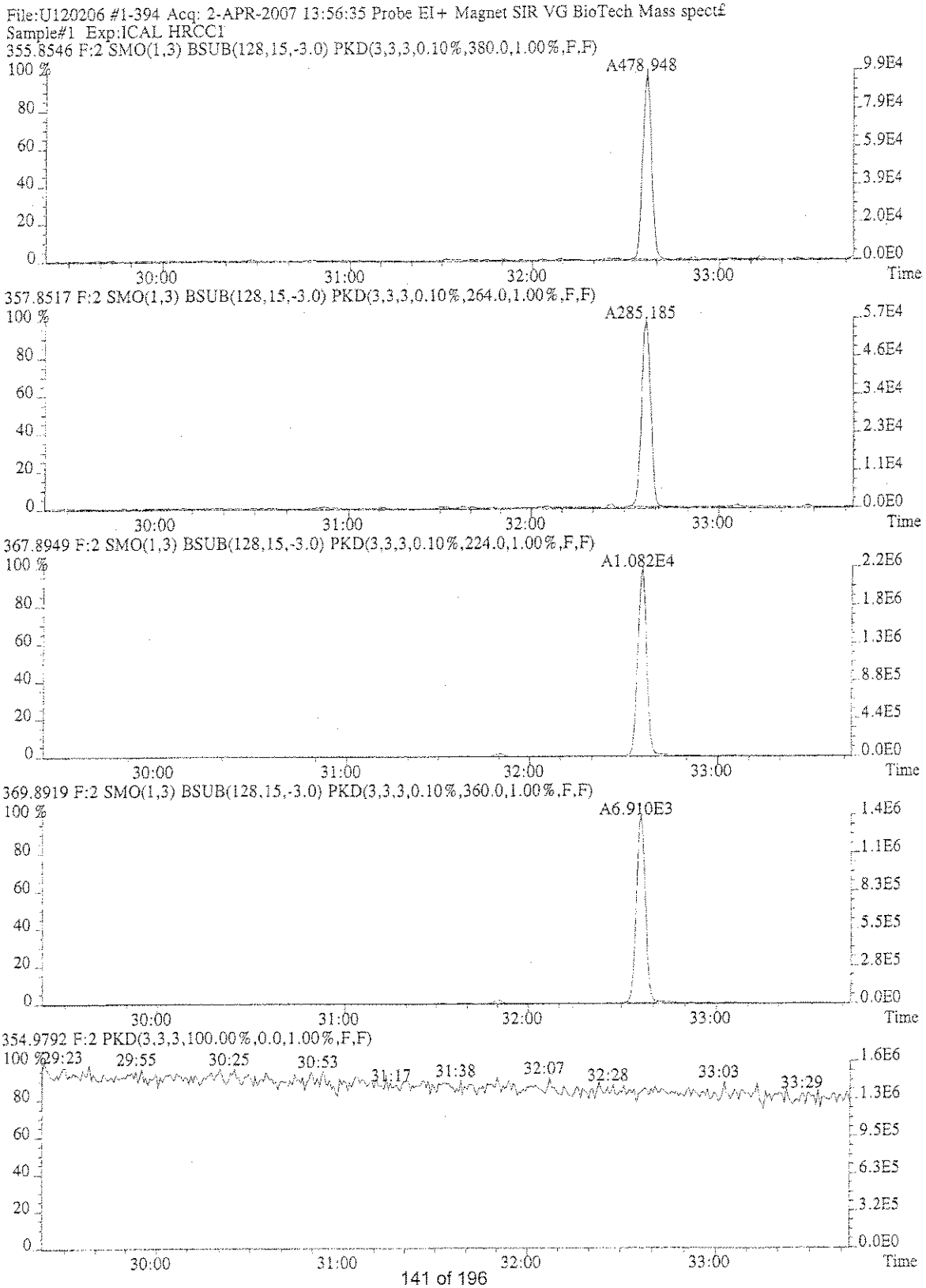
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,344.0,1.00%,F,F)
A666.226
A688.293
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,284.0,1.00%,F,F)
A437.070
A434.223
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,324.0,1.00%,F,F)
A1.559E4
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,288.0,1.00%,F,F)
A9.670E3
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
29:43
30:06
30:32
30:43
30:58
31:19
31:27
31:55
32:03
32:36
32:43
33:07
33:26
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
29:23
29:55
30:25
30:53
31:17
31:38
32:07
32:28
33:03
33:29
Time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Sample#1 Exp:ICAL HRCC1
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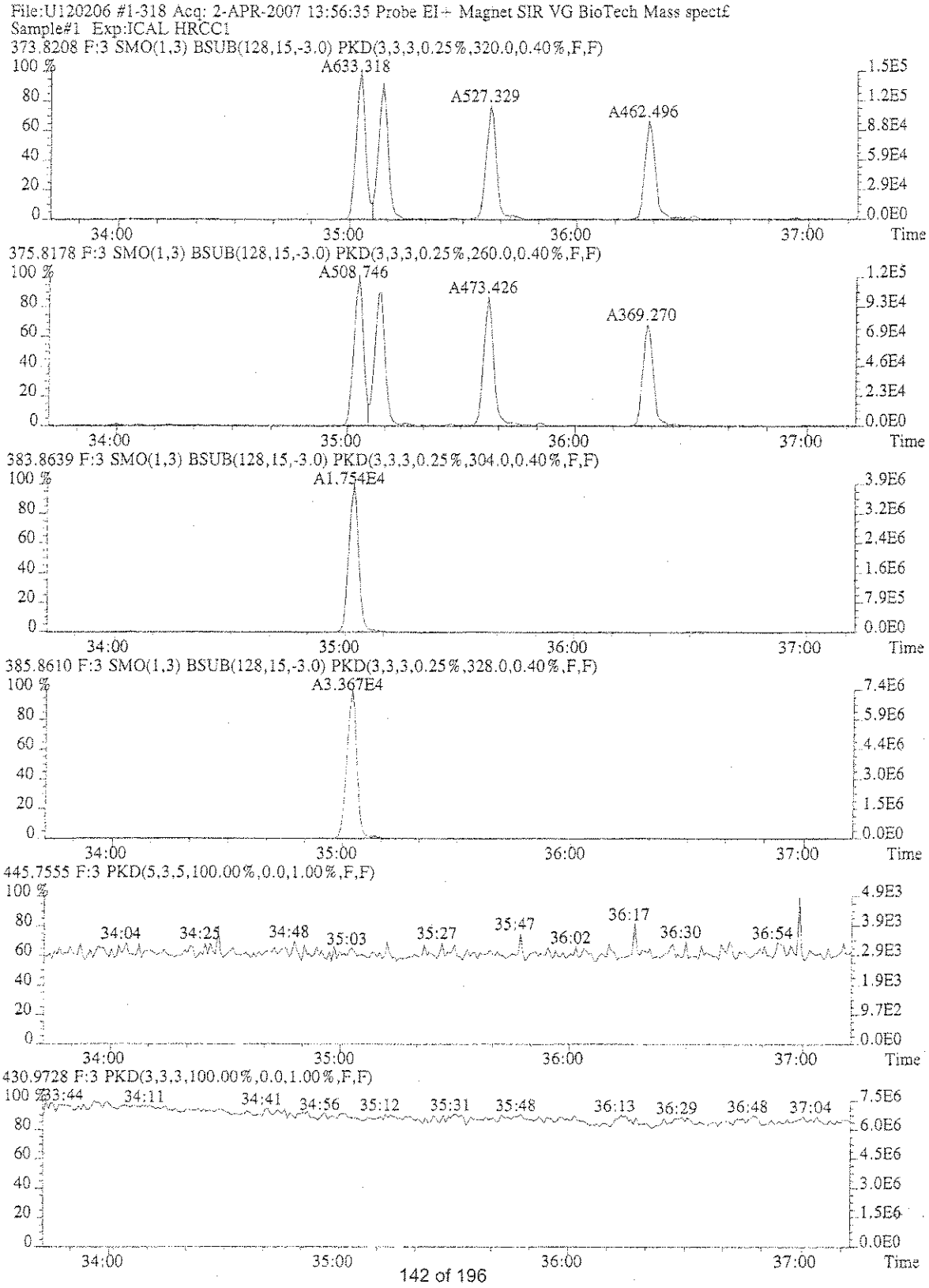
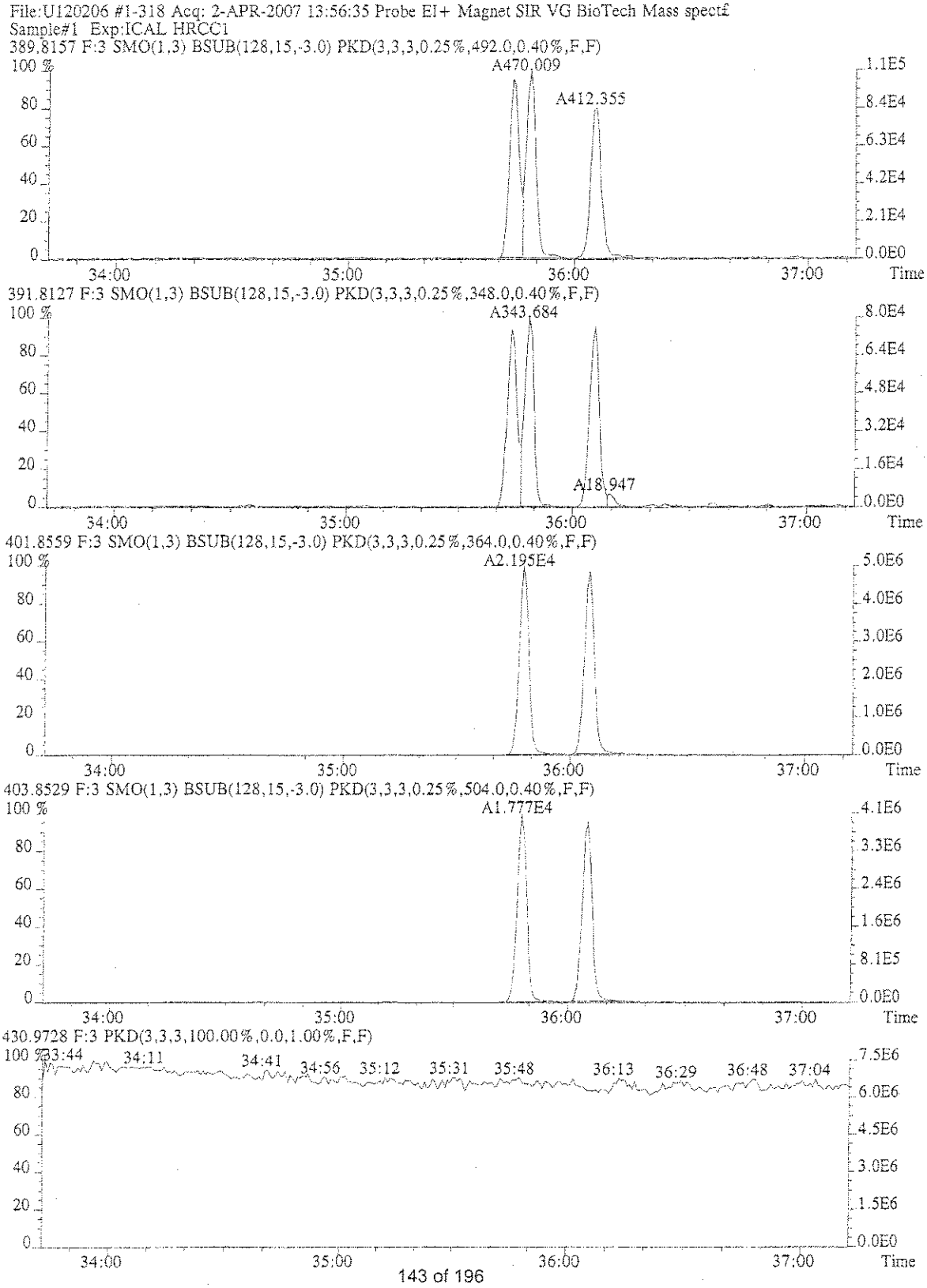
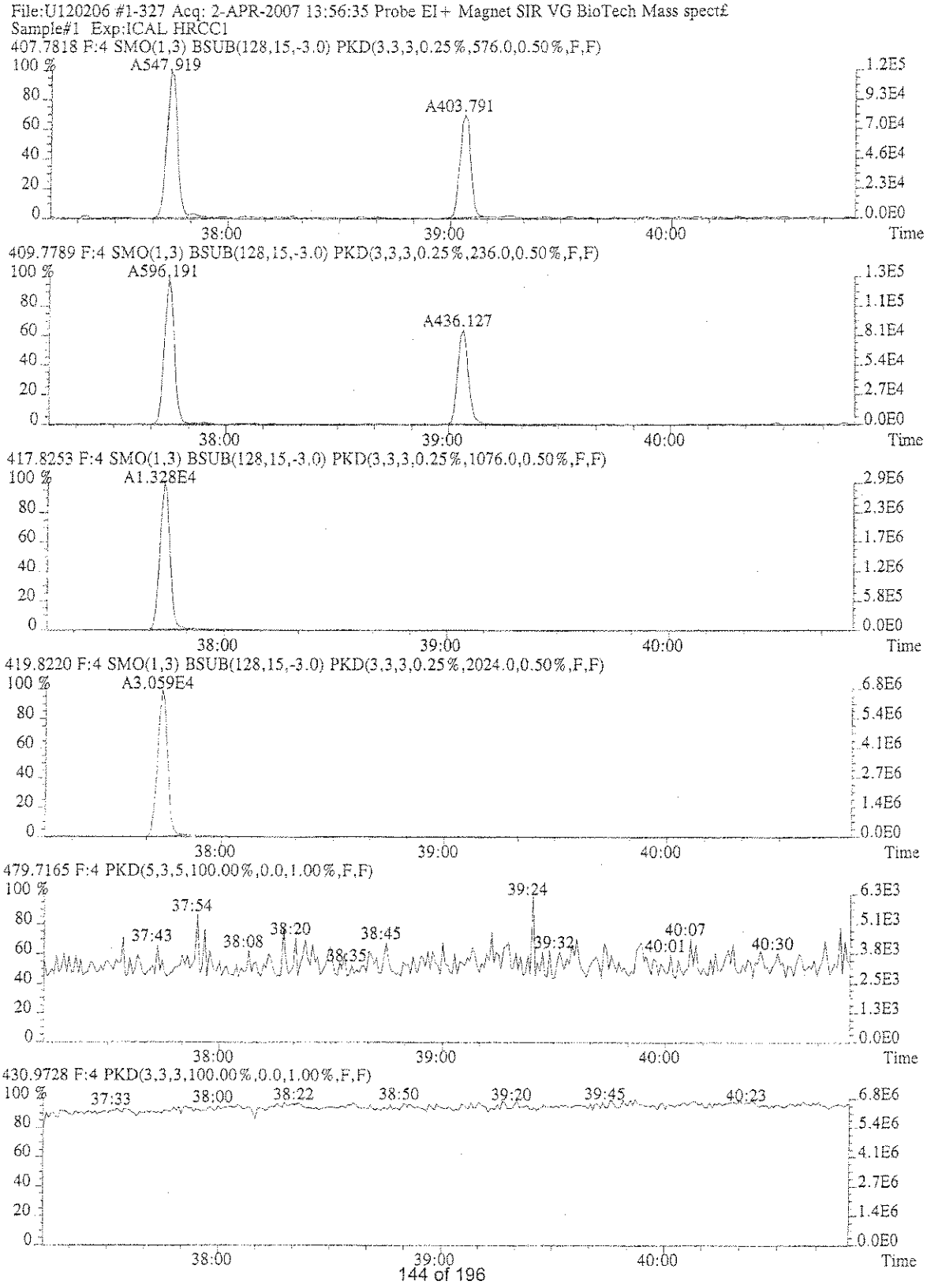
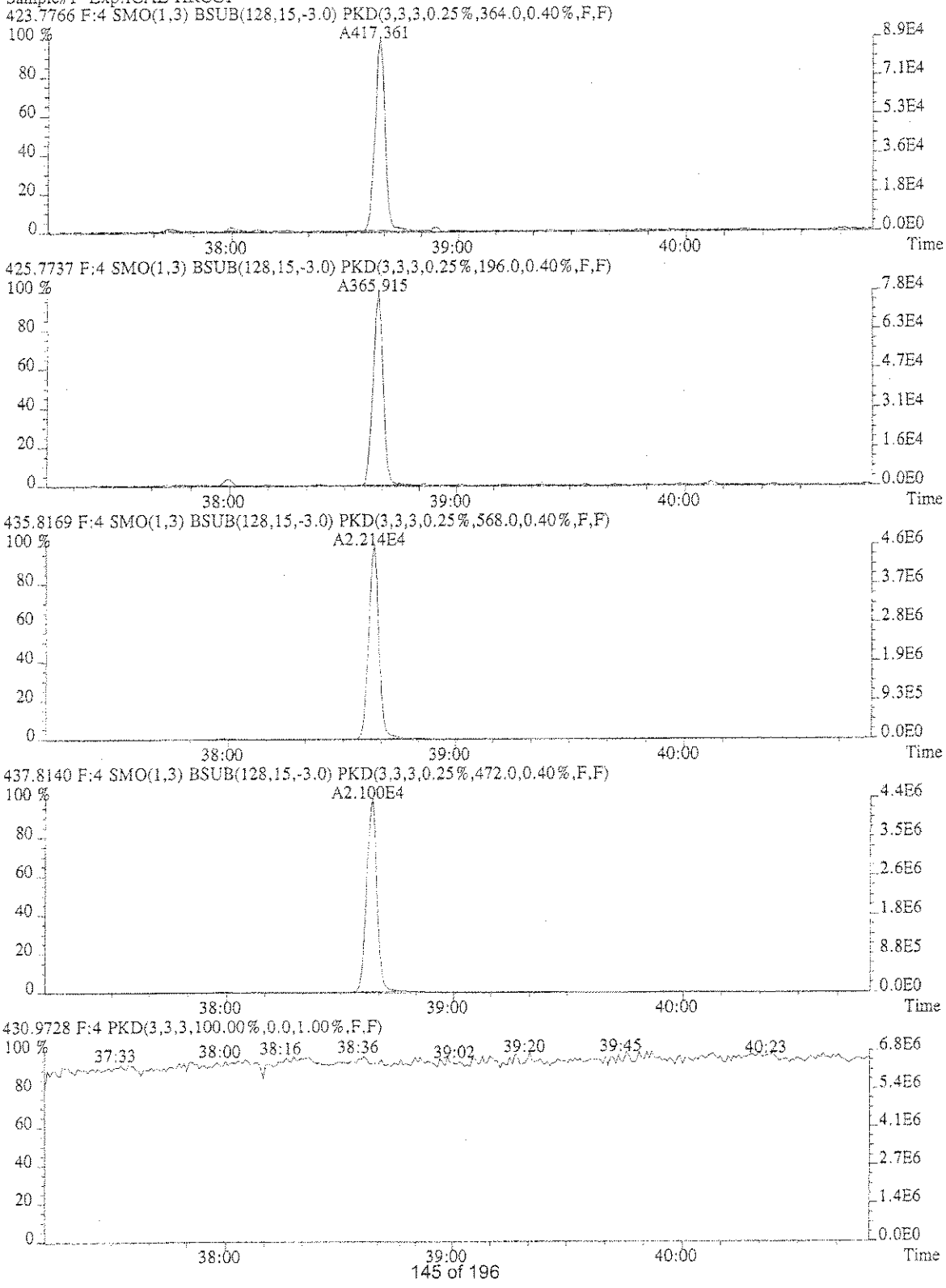
A478.948
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,264.0,1.00%,F,F)
A285.185
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,224.0,1.00%,F,F)
A1.082E4
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,360.0,1.00%,F,F)
A6.910E3
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
29:23
29:55
30:25
30:53
31:17
31:38
32:07
32:28
33:03
33:29
100 %
80
60
40
20
0
30:00
31:00
32:00
33:00
Time
9.9E4
7.9E4
5.9E4
3.9E4
2.0E4
0.0E0
5.7E4
4.6E4
3.4E4
2.3E4
1.1E4
2.2E6
1.8E6
1.3E6
8.8E5
4.4E5
1.4E6
1.1E6
8.3E5
5.5E5
2.8E5
1.6E6
1.3E6
9.5E5
6.3E5
3.2E5

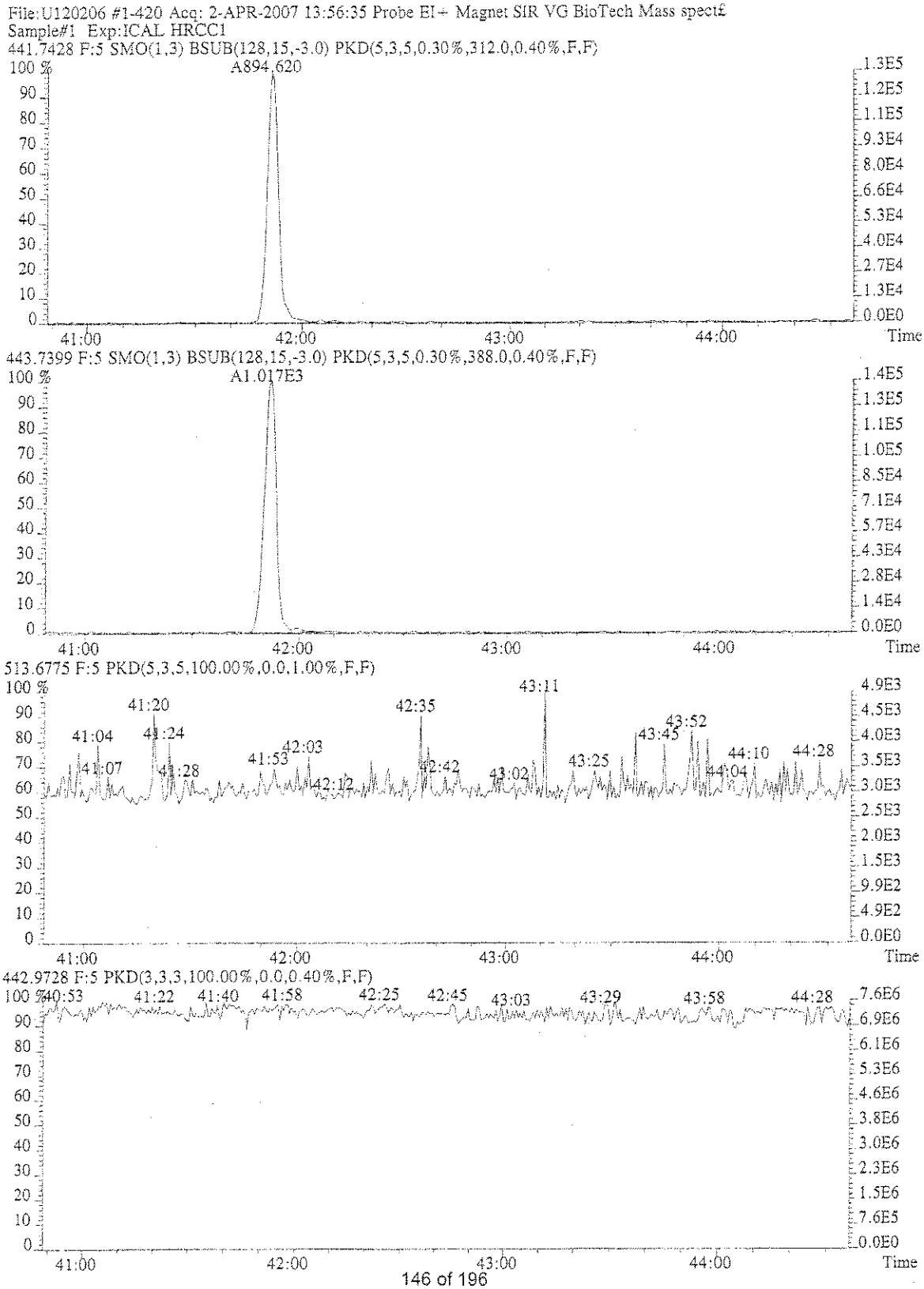

File:U120206 #1-318 Acq: 2-APR-2007 13:56:35 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC1
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,320.0,0.40%,F,F)
A633.318
A527.329
A462.496
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,260.0,0.40%,F,F)
A508.746
A473.426
A369.270
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,304.0,0.40%,F,F)
A1.754E4
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,328.0,0.40%,F,F)
A3.367E4
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
34:04 34:25 34:48 35:03 35:27 35:47 36:02 36:17 36:30 36:54
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
33:44 34:11 34:41 34:56 35:12 35:31 35:48 36:13 36:29 36:48 37:04
Time

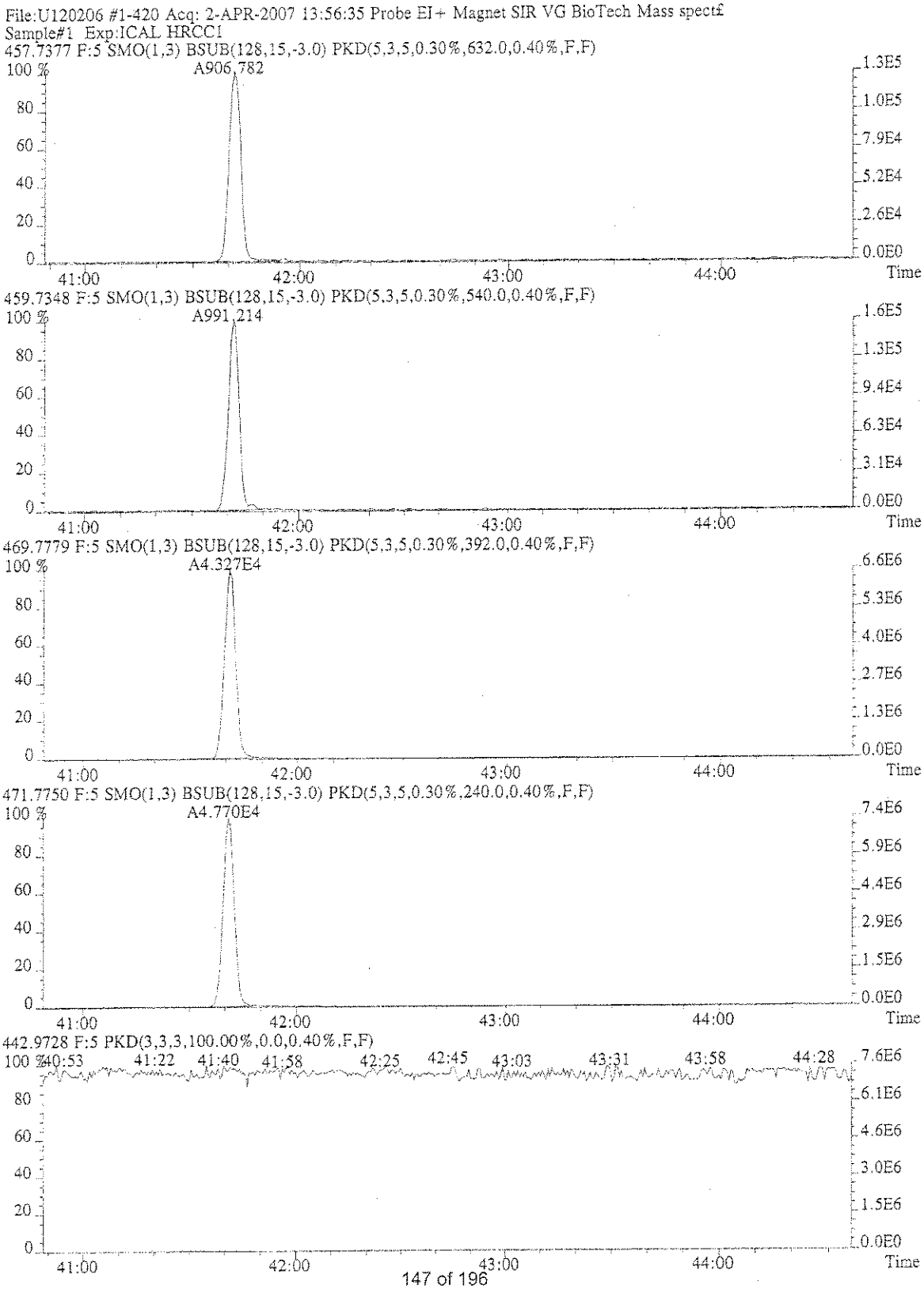

File:U120206 #1-318 Acq: 2-APR-2007 13:56:35 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC1
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,492.0,0.40%,F,F)
A470.009
A412.355
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,348.0,0.40%,F,F)
A343.684
A18.947
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,364.0,0.40%,F,F)
A2.195E4
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,504.0,0.40%,F,F)
A1.777E4
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
33:44
34:11
34:41
34:56
35:12
35:31
35:48
36:13
36:29
36:48
37:04
Time


File:U120206 #1-327 Acq: 2-APR-2007 13:56:35 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC1
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,576.0,0.50%,F,F)
A547.919
A403.791
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,236.0,0.50%,F,F)
A596.191
A436.127
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1076.0,0.50%,F,F)
A1.328E4
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2024.0,0.50%,F,F)
A3.059E4
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
37:54
37:43
38:08
38:20
38:45
38:35
39:24
39:32
40:07
40:01
40:30
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
37:33
38:00
38:22
38:50
39:20
39:45
40:23
Time

File:U120206 #1-327 Acq: 2-APR-2007 13:56:35 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC1




File:U120206 #1-420 Acq: 2-APR-2007 13:56:35 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 Exp:ICAL HRCC1
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,312.0,0.40%,F,F)
A894.620
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,388.0,0.40%,F,F)
A1.017E3
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
41:04
41:07
41:20
41:24
41:28
41:53
42:03
42:12
42:35
42:42
43:02
43:11
43:25
43:45
43:52
44:04
44:10
44:28
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)
40:53
41:22
41:40
41:58
42:25
42:45
43:03
43:29
43:58
44:28
Time


File:U120206 #1-420 Acq: 2-APR-2007 13:56:35 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 Exp:ICAL HRCC1
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,632.0,0.40%,F,F)
A906,782
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,540.0,0.40%,F,F)
A991,214
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,392.0,0.40%,F,F)
A4.327E4
471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,240.0,0.40%,F,F)
A4.770E4
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)
100 %
80
60
40
20
0
41:00
42:00
43:00
44:00
Time
1.3E5
1.0E5
7.9E4
5.2E4
2.6E4
0.0E0
1.6E5
1.3E5
9.4E4
6.3E4
3.1E4
0.0E0
6.6E6
5.3E6
4.0E6
2.7E6
1.3E6
0.0E0
7.4E6
5.9E6
4.4E6
2.9E6
1.5E6
0.0E0
7.6E6
6.1E6
4.6E6
3.0E6
1.5E6
0.0E0

Columbia Analytical Services, Inc.
Sample Response Summary

CLIENT ID.
ICAL HRCC2

Run #2 Filename U120207 Samp: 1 Inj: 1 Acquired: 2-APR-07 14:42:23
Processed: 3-APR-07 08:06:17 Sample ID: ICAL HRCC2

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	27:16	4.266e+02	4.917e+02	0.87	yes	no
2	Unk	1,2,3,7,8-PeCDF	31:32	1.737e+03	1.070e+03	1.62	yes	no
3	Unk	2,3,4,7,8-PeCDF	32:16	1.700e+03	1.161e+03	1.46	yes	no
4	Unk	1,2,3,4,7,8-HxCDF	35:03	1.618e+03	1.291e+03	1.25	yes	no
5	Unk	1,2,3,6,7,8-HxCDF	35:09	1.665e+03	1.286e+03	1.29	yes	no
6	Unk	2,3,4,6,7,8-HxCDF	35:37	1.445e+03	1.183e+03	1.22	yes	no
7	Unk	1,2,3,7,8,9-HxCDF	36:19	1.199e+03	9.397e+02	1.28	yes	no
8	Unk	1,2,3,4,6,7,8-HpCDF	37:45	1.445e+03	1.543e+03	0.94	yes	no
9	Unk	1,2,3,4,7,8,9-HpCDF	39:04	1.126e+03	1.043e+03	1.08	yes	no
10	Unk	OCDF	41:52	2.382e+03	2.462e+03	0.97	yes	no
11	Unk	2,3,7,8-TCDD	28:06	3.189e+02	3.997e+02	0.80	yes	no
12	Unk	1,2,3,7,8-PeCDD	32:37	1.166e+03	7.814e+02	1.49	yes	no
13	Unk	1,2,3,4,7,8-HxCDD	35:44	1.226e+03	8.626e+02	1.42	yes	no
14	Unk	1,2,3,6,7,8-HxCDD	35:48	1.185e+03	9.812e+02	1.21	yes	no
15	Unk	1,2,3,7,8,9-HxCDD	36:06	1.107e+03	8.815e+02	1.26	yes	no
16	Unk	1,2,3,4,6,7,8-HpCDD	38:39	1.008e+03	9.515e+02	1.06	yes	no
17	Unk	OCDD	41:41	2.203e+03	2.476e+03	0.89	yes	no
18	IS	13C-2,3,7,8-TCDF	27:15	9.762e+03	1.174e+04	0.83	yes	no
19	IS	13C-1,2,3,7,8-PeCDF	31:31	1.582e+04	9.843e+03	1.61	yes	no
20	IS	13C-1,2,3,4,7,8-HxCDF	35:02	1.826e+04	3.396e+04	0.54	yes	no
21	IS	13C-1,2,3,4,6,7,8-HpCDF	37:44	1.327e+04	3.045e+04	0.44	yes	no
22	IS	13C-2,3,7,8-TCDD	28:04	6.892e+03	8.608e+03	0.80	yes	no
23	IS	13C-1,2,3,7,8-PeCDD	32:36	1.057e+04	6.930e+03	1.53	yes	no
24	IS	13C-1,2,3,6,7,8-HxCDD	35:48	2.238e+04	1.803e+04	1.24	yes	no
25	IS	13C-1,2,3,4,6,7,8-HpCDD	38:38	2.220e+04	2.109e+04	1.05	yes	no
26	IS	13C-OCDD	41:41	4.240e+04	4.786e+04	0.89	yes	no
27	RS/RT	13C-1,2,3,4-TCDD	27:52	7.805e+03	9.651e+03	0.81	yes	no
28	RS/RT	13C-1,2,3,7,8,9-HxCDD	36:05	2.193e+04	1.785e+04	1.23	yes	no
29	C/Up	37Cl-2,3,7,8-TCDD	28:06	7.146e+02				

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Office(713)266-1599. Fax(713)266-0130

Columbia Analytical Services,Inc. CLIENT ID.
Signal/Noise Height Ratio Summary ICAL HRCC2

Run #2 Filename U120207 Samp: 1 Inj: 1 Acquired: 2-APR-07 14:42:23

Processed: 3-APR-07 08:06:17 LAB. ID: ICAL HRCC2

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	6.54e+04	2.56e+02	2.6e+02	7.68e+04	4.36e+02	1.8e+02
2	1,2,3,7,8-PeCDF	3.25e+05	2.52e+02	1.3e+03	2.10e+05	2.00e+02	1.0e+03
3	2,3,4,7,8-PeCDF	3.23e+05	2.52e+02	1.3e+03	2.23e+05	2.00e+02	1.1e+03
4	1,2,3,4,7,8-HxCDF	3.52e+05	2.80e+02	1.3e+03	2.90e+05	2.04e+02	1.4e+03
5	1,2,3,6,7,8-HxCDF	3.53e+05	2.80e+02	1.3e+03	2.70e+05	2.04e+02	1.3e+03
6	2,3,4,6,7,8-HxCDF	3.13e+05	2.80e+02	1.1e+03	2.50e+05	2.04e+02	1.2e+03
7	1,2,3,7,8,9-HxCDF	2.51e+05	2.80e+02	9.0e+02	2.01e+05	2.04e+02	9.8e+02
8	1,2,3,4,6,7,8-HpCDF	3.16e+05	8.44e+02	3.7e+02	3.29e+05	5.56e+02	5.9e+02
9	1,2,3,4,7,8,9-HpCDF	2.22e+05	8.44e+02	2.6e+02	1.98e+05	5.56e+02	3.6e+02
10	OCDF	3.49e+05	3.20e+02	1.1e+03	3.54e+05	5.72e+02	6.2e+02
11	2,3,7,8-TCDD	5.65e+04	2.88e+02	2.0e+02	6.82e+04	2.72e+02	2.5e+02
12	1,2,3,7,8-PeCDD	2.42e+05	2.88e+02	8.4e+02	1.57e+05	2.60e+02	6.0e+02
13	1,2,3,4,7,8-HxCDD	2.72e+05	4.08e+02	6.7e+02	2.07e+05	2.76e+02	7.5e+02
14	1,2,3,6,7,8-HxCDD	2.60e+05	4.08e+02	6.4e+02	2.02e+05	2.76e+02	7.3e+02
15	1,2,3,7,8,9-HxCDD	2.36e+05	4.08e+02	5.8e+02	1.96e+05	2.76e+02	7.1e+02
16	1,2,3,4,6,7,8-HpCDD	2.13e+05	2.48e+02	8.6e+02	2.02e+05	2.80e+02	7.2e+02
17	OCDD	3.29e+05	3.44e+02	9.6e+02	3.91e+05	3.56e+02	1.1e+03
18	13C-2,3,7,8-TCDF	1.65e+06	5.12e+02	3.2e+03	2.00e+06	4.92e+02	4.1e+03
19	13C-1,2,3,7,8-PeCDF	3.12e+06	3.00e+02	1.0e+04	1.95e+06	3.56e+02	5.5e+03
20	13C-1,2,3,4,7,8-HxCDF	4.02e+06	2.84e+02	1.4e+04	7.49e+06	2.96e+02	2.5e+04
21	13C-1,2,3,4,6,7,8-HpCDF	2.87e+06	1.87e+03	1.5e+03	6.59e+06	2.31e+03	2.9e+03
22	13C-2,3,7,8-TCDD	1.23e+06	7.00e+02	1.8e+03	1.54e+06	1.60e+02	9.6e+03
23	13C-1,2,3,7,8-PeCDD	2.12e+06	2.72e+02	7.8e+03	1.38e+06	2.96e+02	4.7e+03
24	13C-1,2,3,6,7,8-HxCDD	5.07e+06	4.60e+02	1.1e+04	4.10e+06	2.56e+02	1.6e+04
25	13C-1,2,3,4,6,7,8-HpCDD	4.57e+06	2.56e+02	1.8e+04	4.38e+06	3.00e+02	1.5e+04
26	13C-OCDD	6.41e+06	2.20e+02	2.9e+04	7.32e+06	3.56e+02	2.1e+04
27	13C-1,2,3,4-TCDD	1.43e+06	7.00e+02	2.0e+03	1.72e+06	1.60e+02	1.1e+04
28	13C-1,2,3,7,8,9-HxCDD	4.83e+06	4.60e+02	1.0e+04	3.92e+06	2.56e+02	1.5e+04
29	37Cl-2,3,7,8-TCDD	1.24e+05	2.48e+02	5.0e+02			

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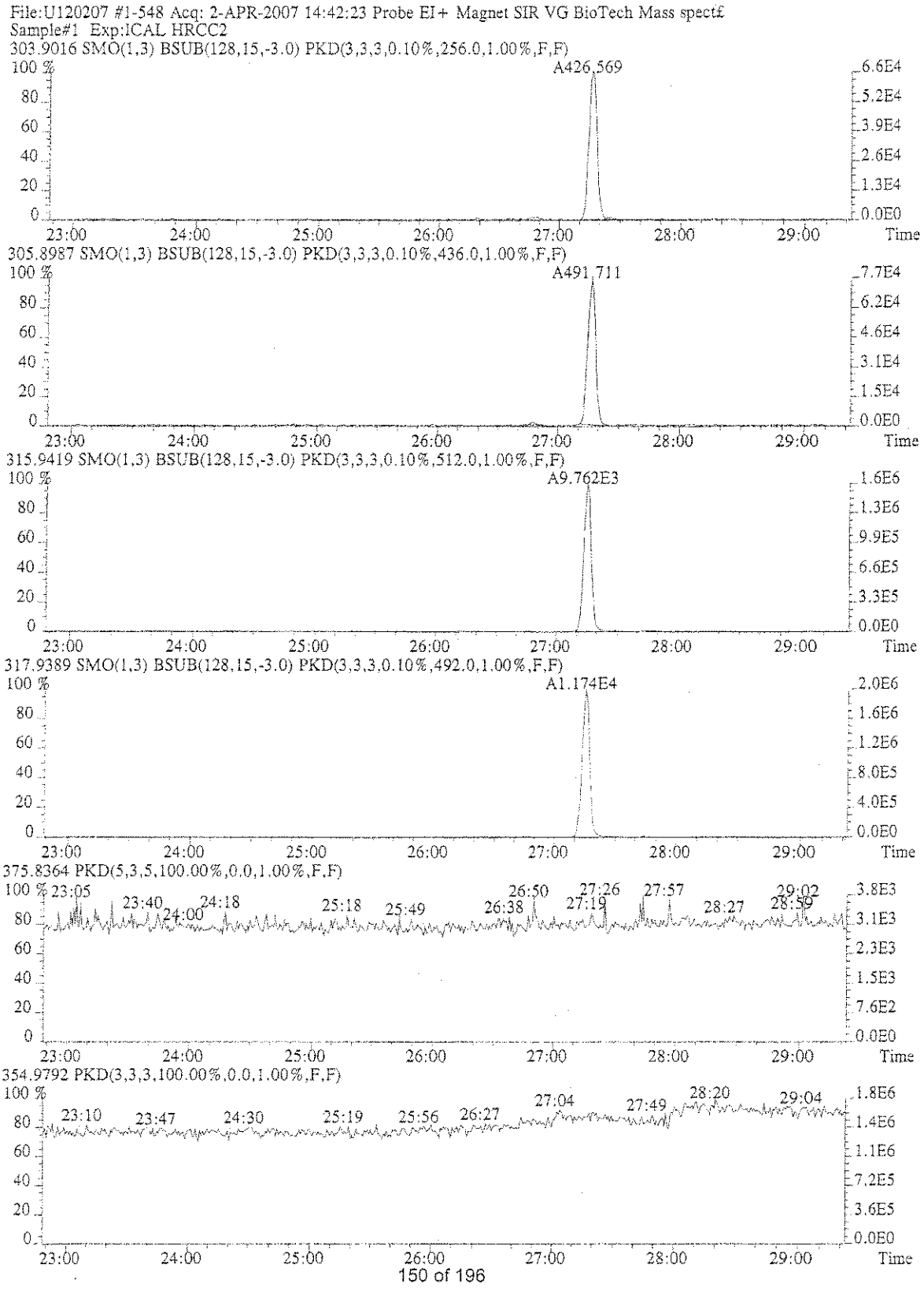
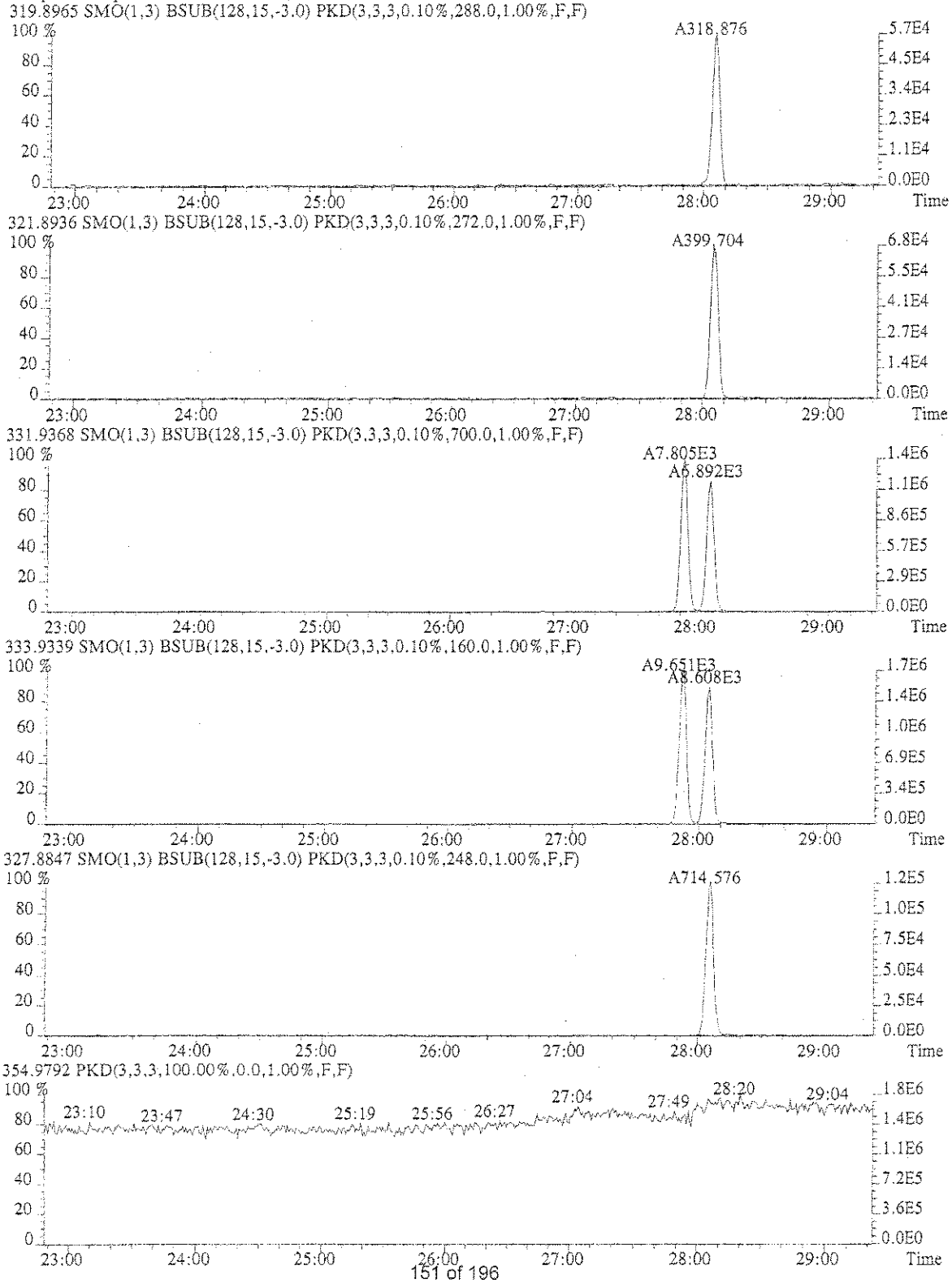
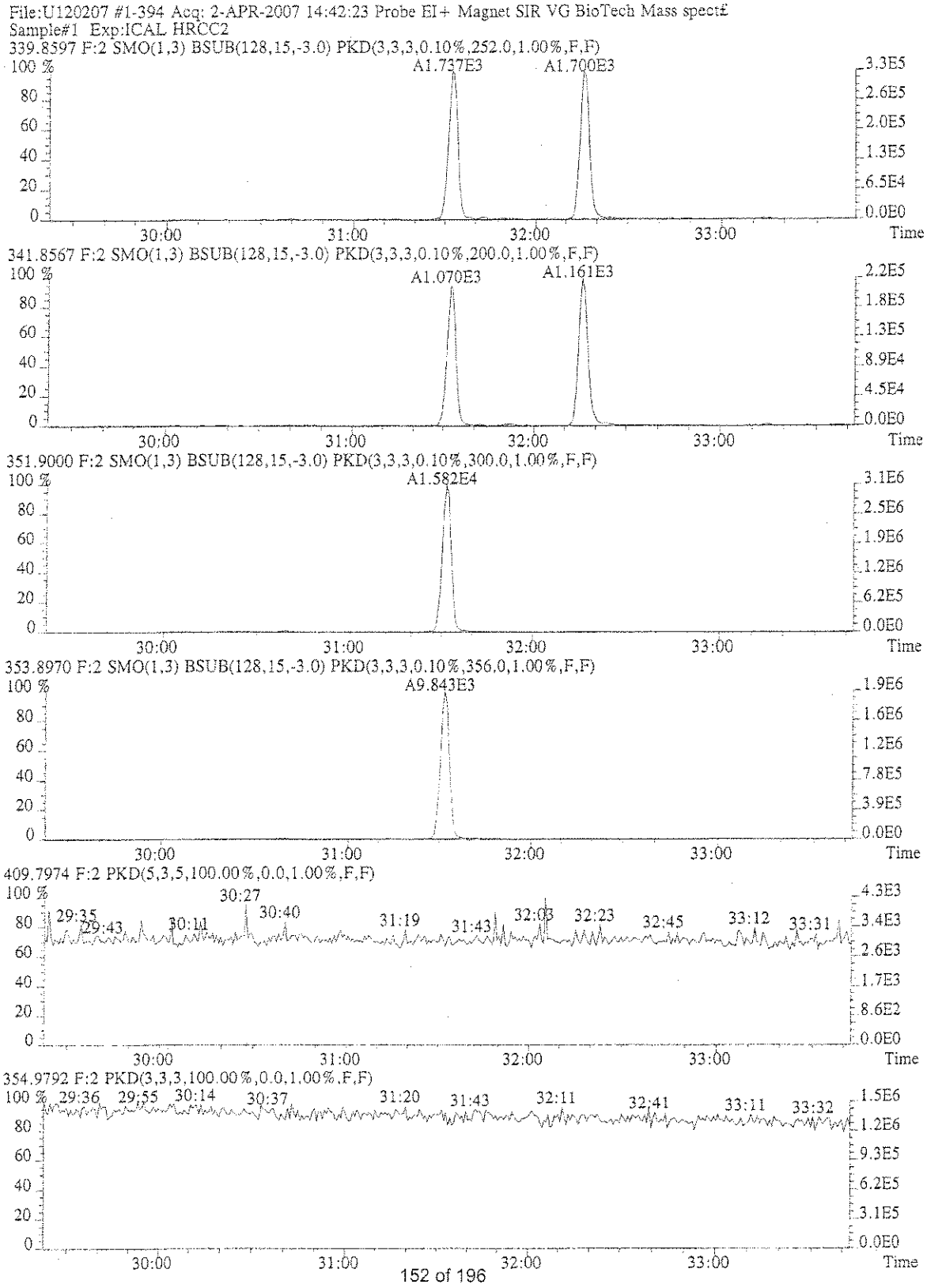
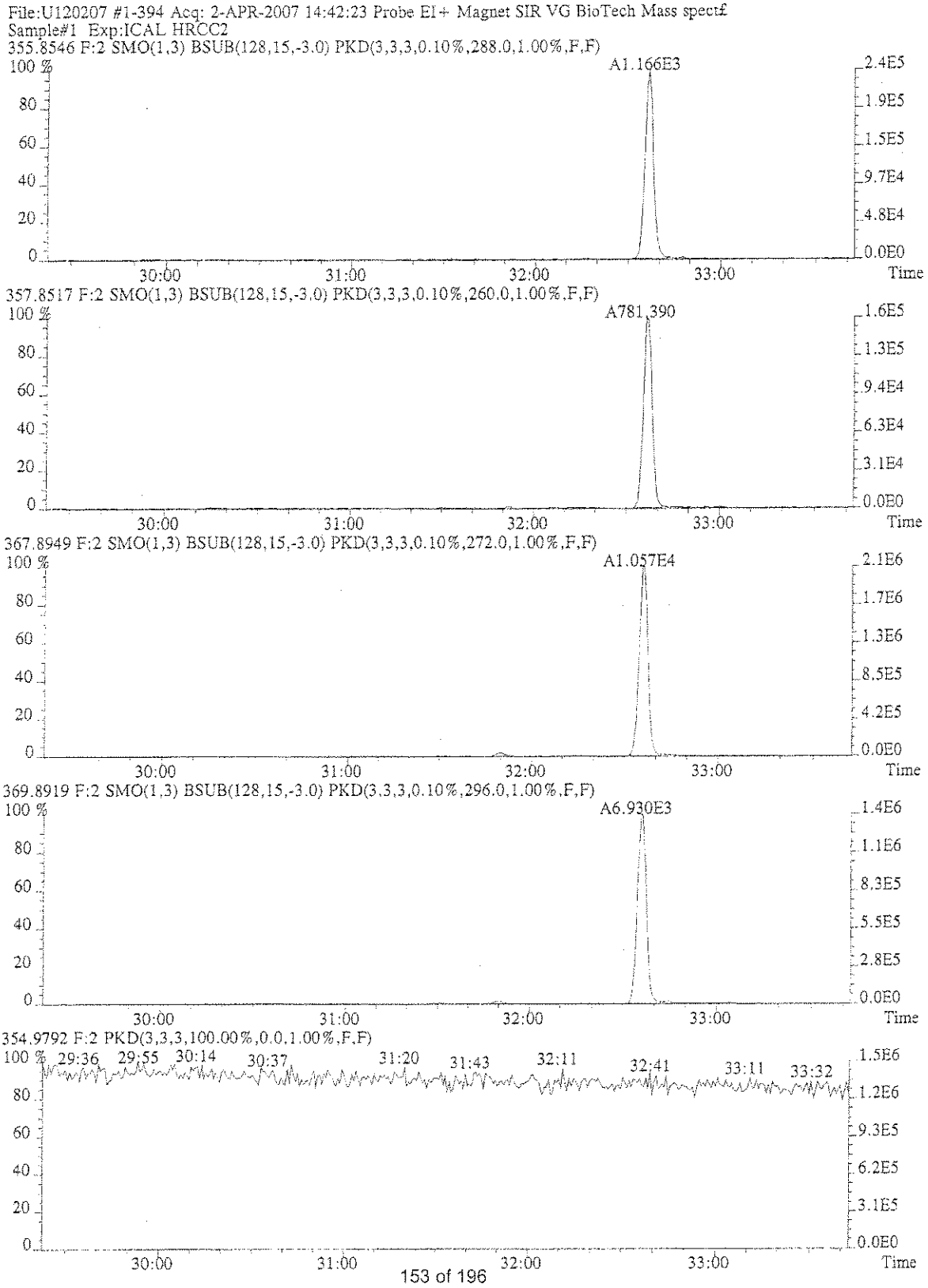

File:U120207 #1-548 Acq: 2-APR-2007 14:42:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC2
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,256.0,1.00%,F,F)
A426.569
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,436.0,1.00%,F,F)
A491.711
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,512.0,1.00%,F,F)
A9.762E3
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,492.0,1.00%,F,F)
A1.174E4
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

File:U120207 #1-548 Acq: 2-APR-2007 14:42:23 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC2

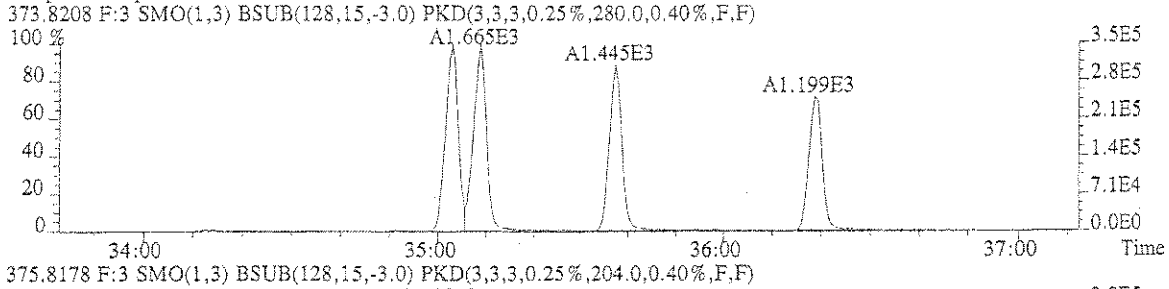



File:U120207 #1-394 Acq: 2-APR-2007 14:42:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC2
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,252.0,1.00%,F,F)
A1.737E3
A1.700E3
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,200.0,1.00%,F,F)
A1.070E3
A1.161E3
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,300.0,1.00%,F,F)
A1.582E4
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,356.0,1.00%,F,F)
A9.843E3
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

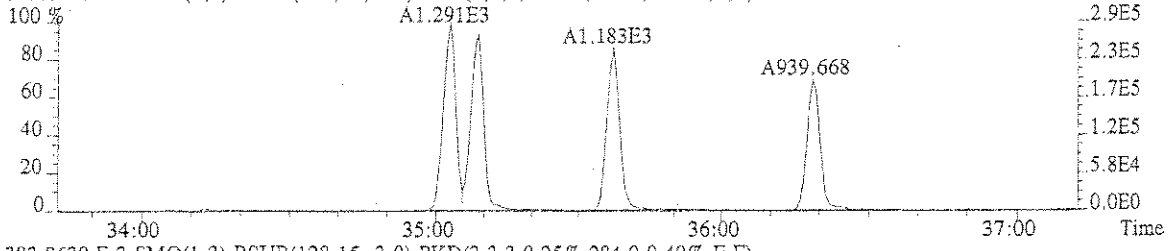

File:U120207 #1-394 Acq: 2-APR-2007 14:42:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC2
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,288.0,1.00%,F,F)
A1.166E3
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,260.0,1.00%,F,F)
A781.390
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,272.0,1.00%,F,F)
A1.057E4
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,296.0,1.00%,F,F)
A6.930E3
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
29:36
29:55
30:14
30:37
31:20
31:43
32:11
32:41
33:11
33:32
100 %
80
60
40
20
0
30:00
31:00
32:00
33:00
Time
2.4E5
1.9E5
1.5E5
9.7E4
4.8E4
0.0E0
1.6E5
1.3E5
9.4E4
6.3E4
3.1E4
2.1E6
1.7E6
1.3E6
8.5E5
4.2E5
1.4E6
1.1E6
8.3E5
5.5E5
2.8E5
1.5E6
1.2E6
9.3E5
6.2E5
3.1E5

File:U120207 #1-318 Acq: 2-APR-2007 14:42:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC2

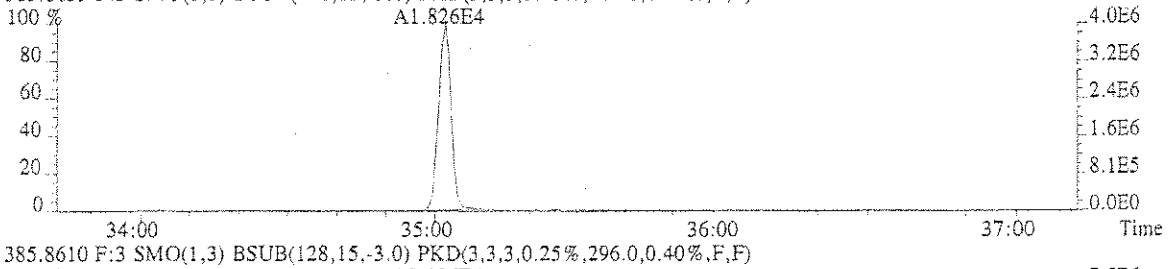
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,280.0,0.40%,F,F)



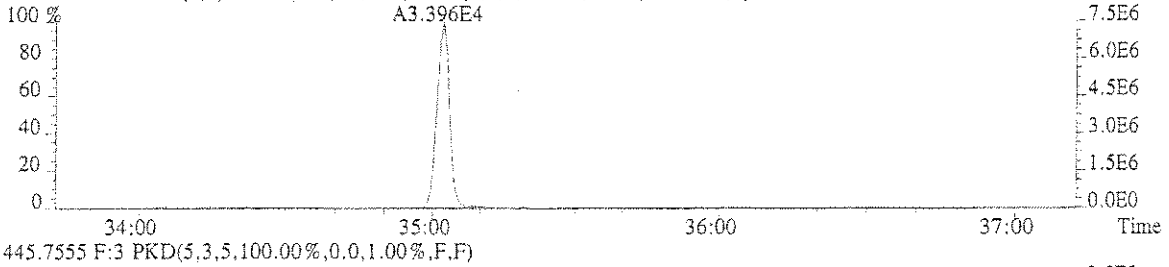
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,204.0,0.40%,F,F)



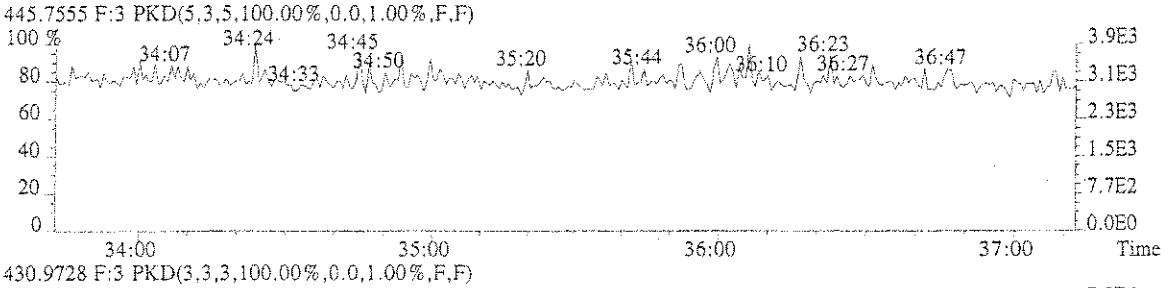
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,284.0,0.40%,F,F)



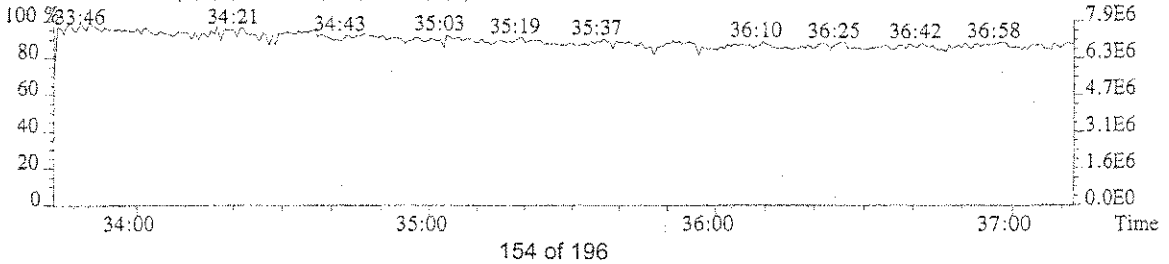
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,296.0,0.40%,F,F)



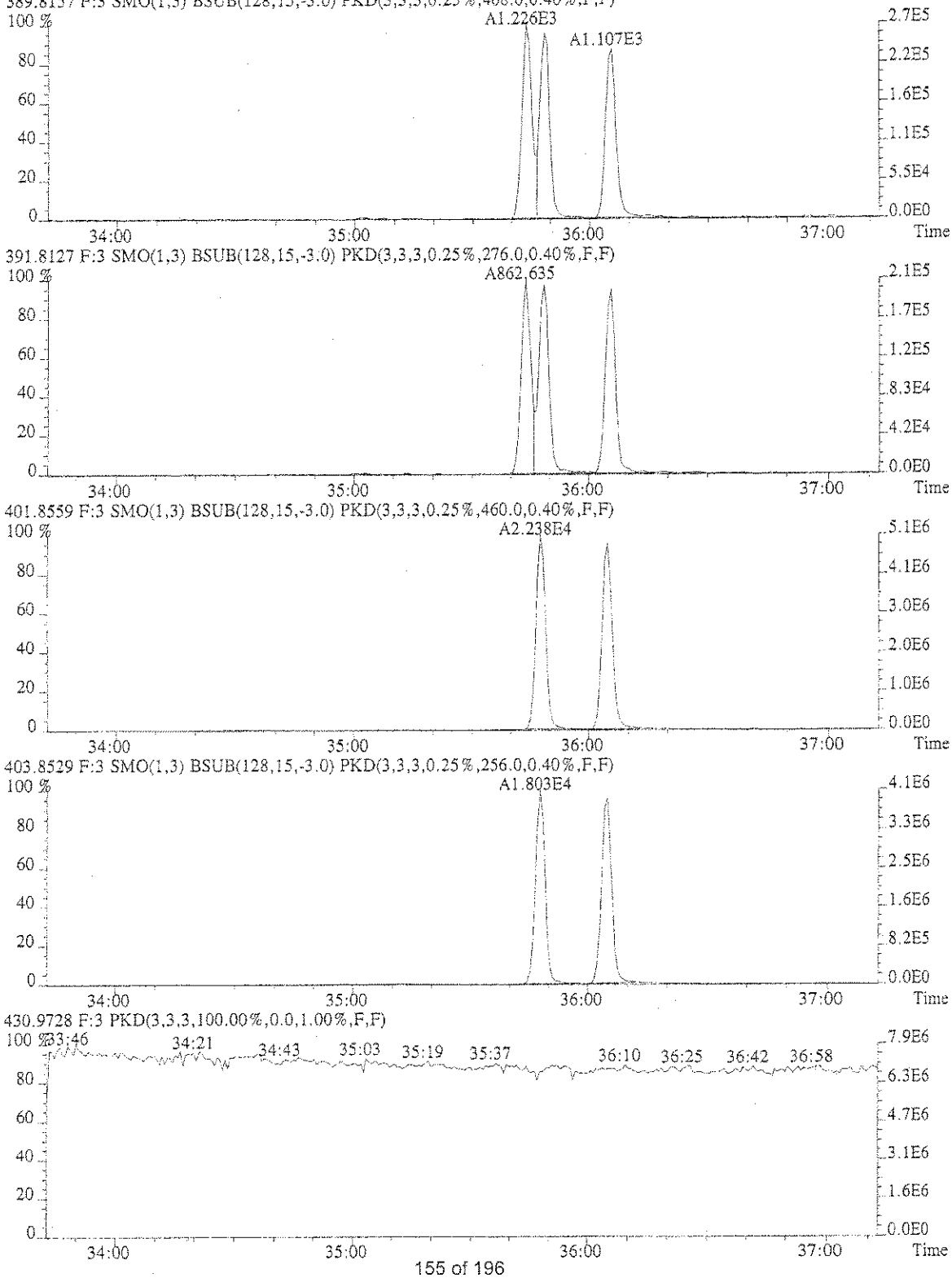
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



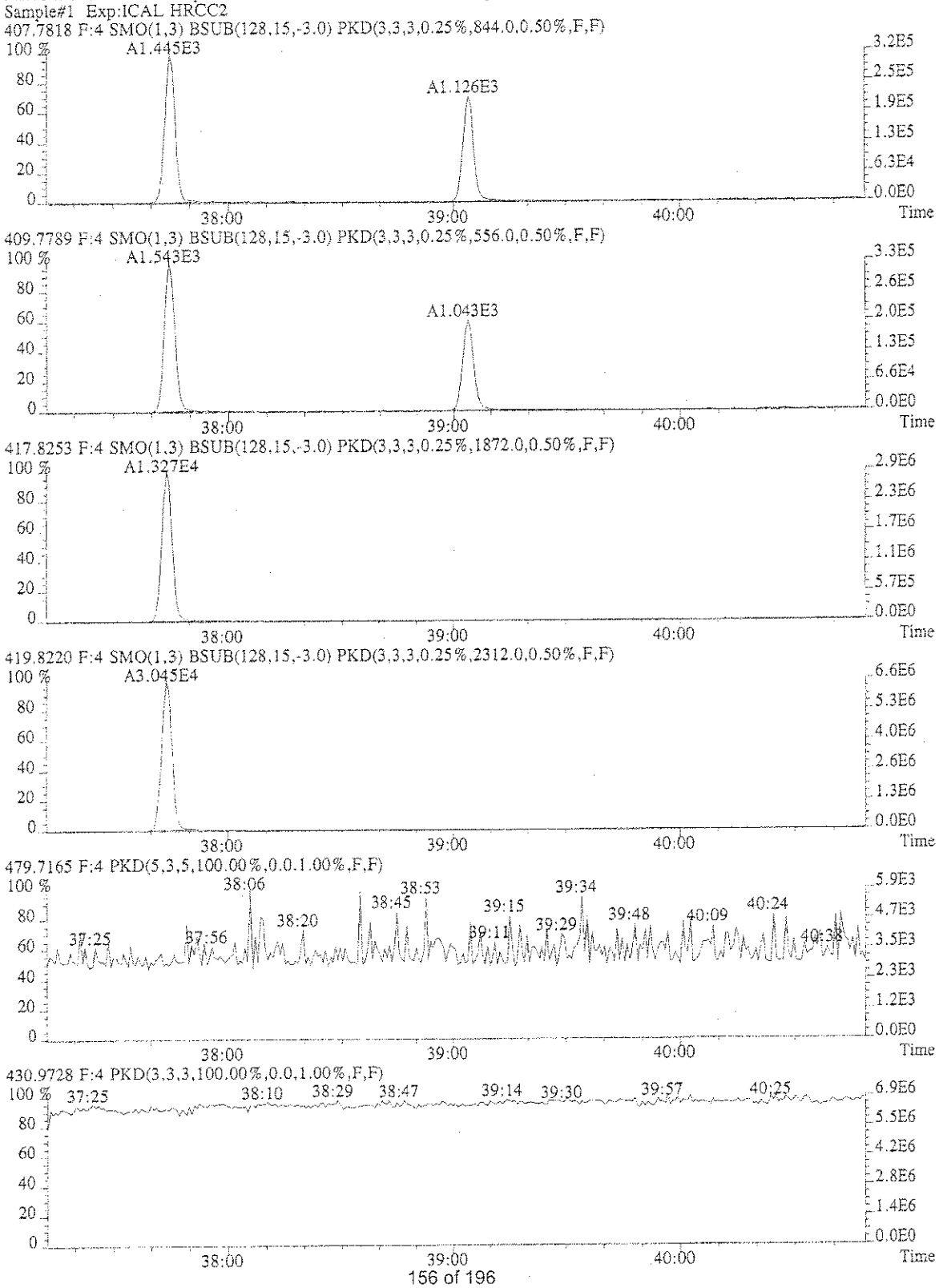
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



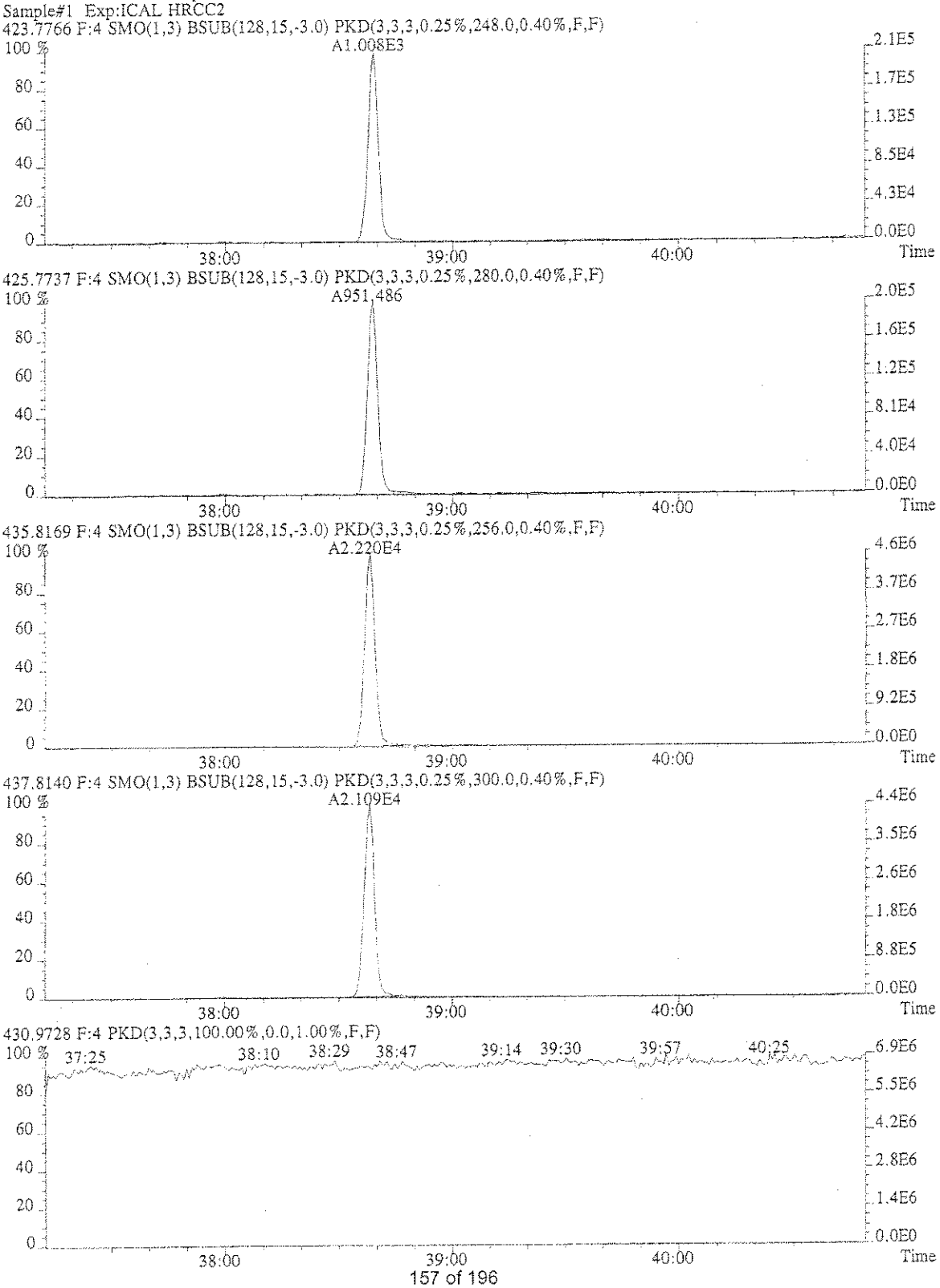
File:U120207 #1-318 Acq: 2-APR-2007 14:42:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC2



File:U120207 #1-327 Acq: 2-APR-2007 14:42:23 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC2

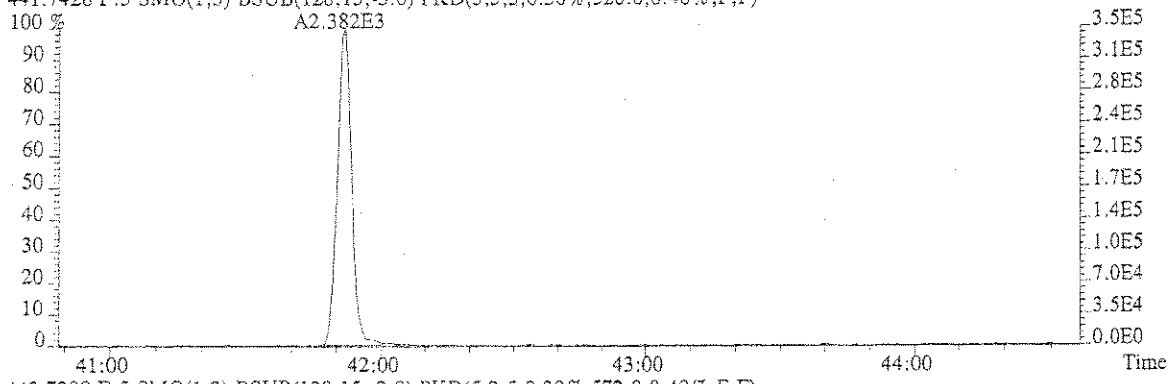


File:U120207 #1-327 Acq: 2-APR-2007 14:42:23 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC2

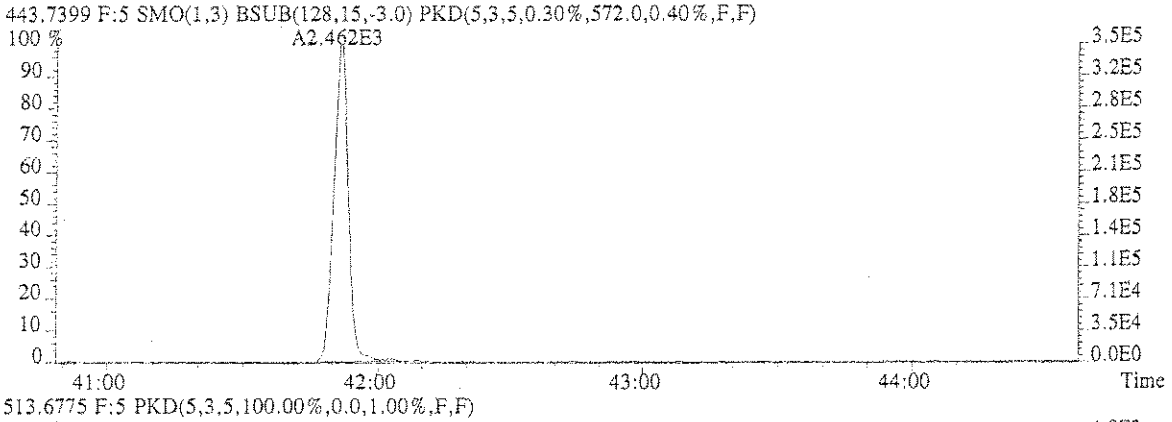


File:U120207 #1-420 Acq: 2-APR-2007 14:42:23 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC2

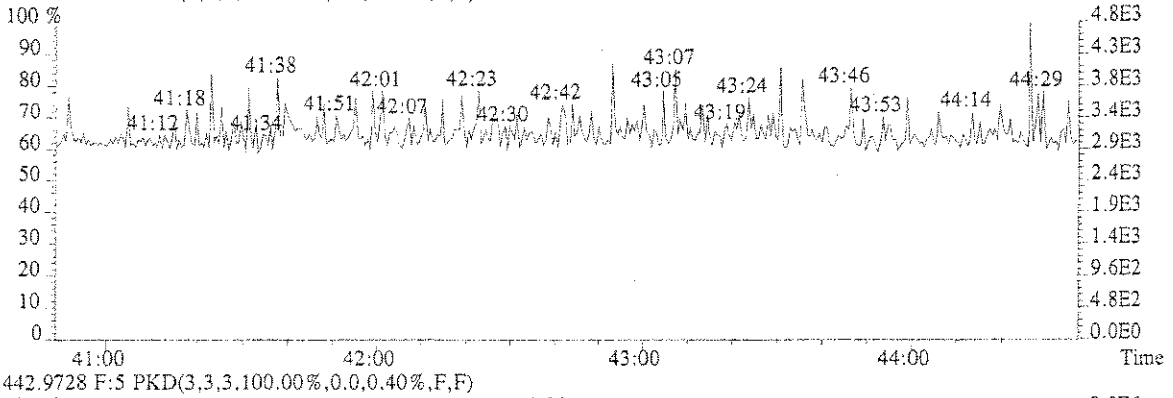
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,320.0,0.40%,F,F)



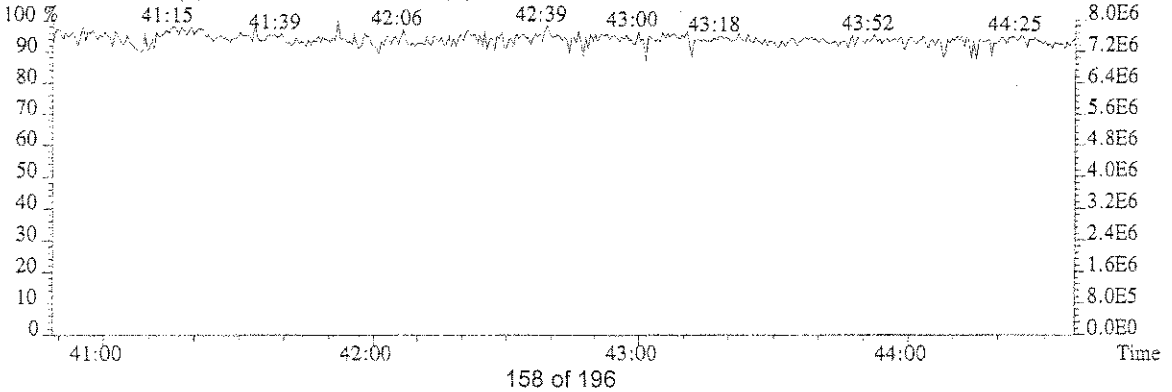
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,572.0,0.40%,F,F)

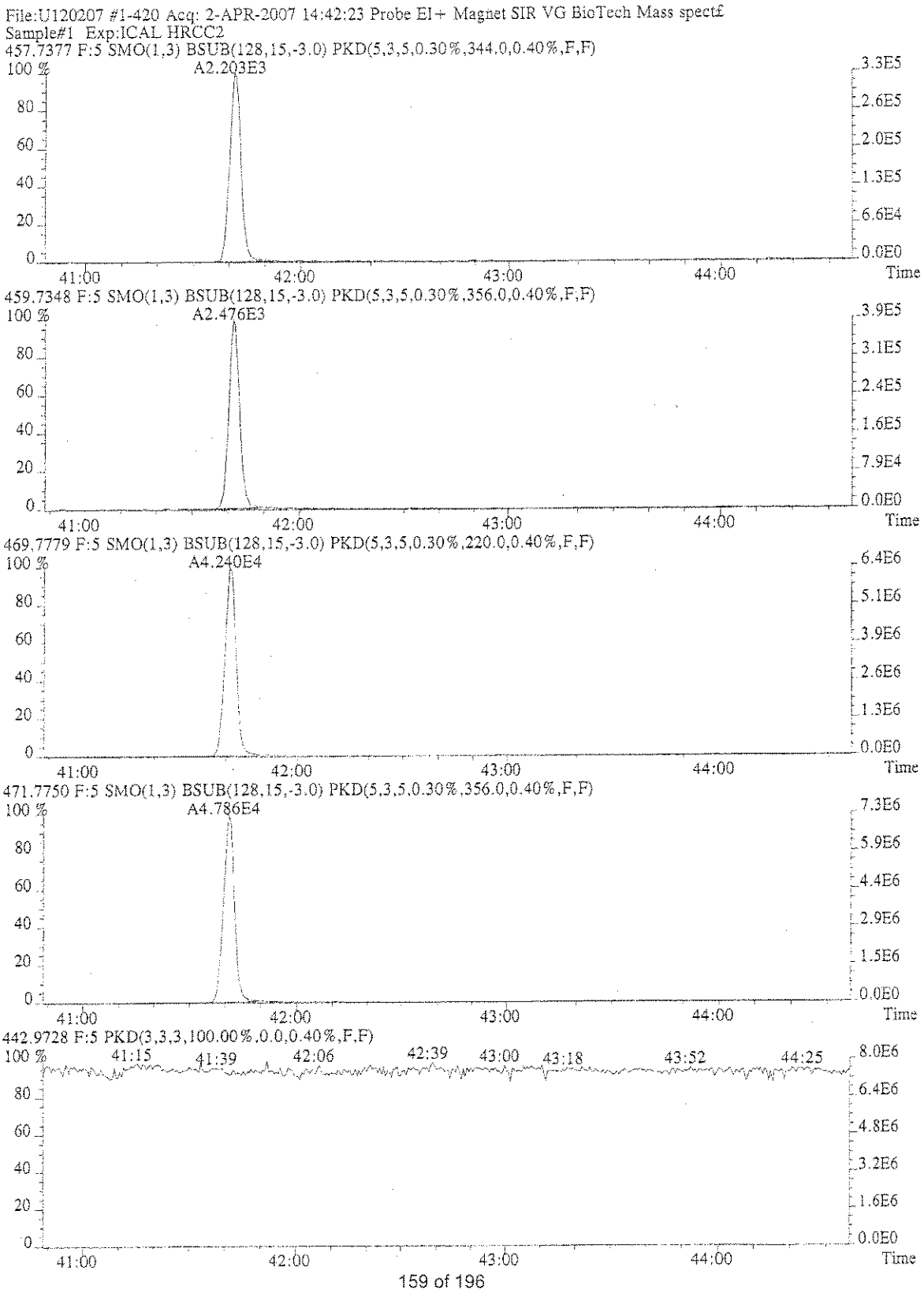


513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)




File:U120207 #1-420 Acq: 2-APR-2007 14:42:23 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC2
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,344.0,0.40%,F,F)
A2.203E3
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,356.0,0.40%,F,F)
A2.476E3
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,220.0,0.40%,F,F)
A4.240E4
471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,356.0,0.40%,F,F)
A4.786E4
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)
100 %
80
60
40
20
0
41:00
42:00
43:00
44:00
Time
41:15
41:39
42:06
42:39
43:18
43:52
44:25
3.3E5
2.6E5
2.0E5
1.3E5
6.6E4
0.0E0
3.9E5
3.1E5
2.4E5
1.6E5
7.9E4
6.4E6
5.1E6
3.9E6
2.6E6
1.3E6
7.3E6
5.9E6
4.4E6
2.9E6
1.5E6
8.0E6
6.4E6
4.8E6
3.2E6
1.6E6

Columbia Analytical Services, Inc.
Sample Response Summary

CLIENT ID.
ICAL HRCC3

Run #3 Filename U120208 Samp: 1 Inj: 1 Acquired: 2-APR-07 15:34:13
Processed: 3-APR-07 08:06:18 Sample ID: ICAL HRCC3

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	27:16	1.257e+03	1.682e+03	0.75	yes	no
2	Unk	1,2,3,7,8-PeCDF	31:32	5.345e+03	3.351e+03	1.60	yes	no
3	Unk	2,3,4,7,8-PeCDF	32:16	5.574e+03	3.542e+03	1.57	yes	no
4	Unk	1,2,3,4,7,8-HxCDF	35:03	5.889e+03	4.514e+03	1.30	yes	no
5	Unk	1,2,3,6,7,8-HxCDF	35:09	5.594e+03	4.513e+03	1.24	yes	no
6	Unk	2,3,4,6,7,8-HxCDF	35:37	5.001e+03	4.084e+03	1.22	yes	no
7	Unk	1,2,3,7,8,9-HxCDF	36:19	4.059e+03	3.286e+03	1.24	yes	no
8	Unk	1,2,3,4,6,7,8-HpCDF	37:45	5.042e+03	4.920e+03	1.02	yes	no
9	Unk	1,2,3,4,7,8,9-HpCDF	39:04	3.653e+03	3.742e+03	0.98	yes	no
10	Unk	OCDF	41:51	7.930e+03	8.579e+03	0.92	yes	no
11	Unk	2,3,7,8-TCDD	28:05	9.567e+02	1.238e+03	0.77	yes	no
12	Unk	1,2,3,7,8-PeCDD	32:37	3.874e+03	2.391e+03	1.62	yes	no
13	Unk	1,2,3,4,7,8-HxCDD	35:44	3.993e+03	3.083e+03	1.30	yes	no
14	Unk	1,2,3,6,7,8-HxCDD	35:48	3.822e+03	3.364e+03	1.14	yes	no
15	Unk	1,2,3,7,8,9-HxCDD	36:06	3.694e+03	3.098e+03	1.19	yes	no
16	Unk	1,2,3,4,6,7,8-HpCDD	38:39	3.463e+03	3.302e+03	1.05	yes	no
17	Unk	OCDD	41:41	7.135e+03	7.995e+03	0.89	yes	no
18	IS	13C-2,3,7,8-TCDF	27:16	6.817e+03	8.074e+03	0.84	yes	no
19	IS	13C-1,2,3,7,8-PeCDF	31:31	1.147e+04	7.170e+03	1.60	yes	no
20	IS	13C-1,2,3,4,7,8-HxCDF	35:02	1.429e+04	2.829e+04	0.51	yes	no
21	IS	13C-1,2,3,4,6,7,8-HpCDF	37:44	1.087e+04	2.552e+04	0.43	yes	no
22	IS	13C-2,3,7,8-TCDD	28:04	5.027e+03	6.178e+03	0.81	yes	no
23	IS	13C-1,2,3,7,8-PeCDD	32:36	8.273e+03	5.275e+03	1.57	yes	no
24	IS	13C-1,2,3,6,7,8-HxCDD	35:48	2.017e+04	1.614e+04	1.25	yes	no
25	IS	13C-1,2,3,4,6,7,8-HpCDD	38:38	1.859e+04	1.789e+04	1.04	yes	no
26	IS	13C-OCDD	41:41	3.588e+04	4.023e+04	0.89	yes	no
27	RS/RT	13C-1,2,3,4-TCDD	27:52	5.824e+03	7.289e+03	0.80	yes	no
28	RS/RT	13C-1,2,3,7,8,9-HxCDD	36:05	2.058e+04	1.633e+04	1.26	yes	no
29	C/Up	37Cl-2,3,7,8-TCDD	28:05	2.167e+03				

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10655 Richmond Ave., Suite 130A
Houston, TX 77042
Office(713)266-1599. Fax(713)266-0130

Columbia Analytical Services,Inc. CLIENT ID.
Signal/Noise Height Ratio Summary ICAL HRCC3

Run #3 Filename U120208 Samp: 1 Inj: 1 Acquired: 2-APR-07 15:34:13

Processed: 3-APR-07 08:06:18 LAB. ID: ICAL HRCC3

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	2.02e+05	2.60e+02	7.8e+02	2.68e+05	3.08e+02	8.7e+02
2	1,2,3,7,8-PeCDF	1.02e+06	2.84e+02	3.6e+03	6.46e+05	2.60e+02	2.5e+03
3	2,3,4,7,8-PeCDF	1.10e+06	2.84e+02	3.9e+03	7.06e+05	2.60e+02	2.7e+03
4	1,2,3,4,7,8-HxCDF	1.31e+06	3.00e+02	4.4e+03	1.03e+06	1.84e+02	5.6e+03
5	1,2,3,6,7,8-HxCDF	1.16e+06	3.00e+02	3.9e+03	9.40e+05	1.84e+02	5.1e+03
6	2,3,4,6,7,8-HxCDF	1.09e+06	3.00e+02	3.6e+03	8.63e+05	1.84e+02	4.7e+03
7	1,2,3,7,8,9-HxCDF	8.53e+05	3.00e+02	2.8e+03	6.82e+05	1.84e+02	3.7e+03
8	1,2,3,4,6,7,8-HpCDF	1.10e+06	1.62e+03	6.8e+02	1.07e+06	7.16e+02	1.5e+03
9	1,2,3,4,7,8,9-HpCDF	7.26e+05	1.62e+03	4.5e+02	7.22e+05	7.16e+02	1.0e+03
10	OCDF	1.18e+06	2.88e+02	4.1e+03	1.31e+06	7.16e+02	1.8e+03
11	2,3,7,8-TCDD	1.69e+05	3.08e+02	5.5e+02	2.11e+05	2.68e+02	7.9e+02
12	1,2,3,7,8-PeCDD	7.78e+05	3.56e+02	2.2e+03	4.76e+05	2.68e+02	1.8e+03
13	1,2,3,4,7,8-HxCDD	8.83e+05	3.56e+02	2.5e+03	7.24e+05	2.16e+02	3.4e+03
14	1,2,3,6,7,8-HxCDD	8.85e+05	3.56e+02	2.5e+03	7.16e+05	2.16e+02	3.3e+03
15	1,2,3,7,8,9-HxCDD	8.15e+05	3.56e+02	2.3e+03	6.75e+05	2.16e+02	3.1e+03
16	1,2,3,4,6,7,8-HpCDD	7.26e+05	2.80e+02	2.6e+03	7.05e+05	3.56e+02	2.0e+03
17	OCDD	1.09e+06	2.28e+02	4.8e+03	1.23e+06	2.16e+02	5.7e+03
18	13C-2,3,7,8-TCDF	1.14e+06	4.96e+02	2.3e+03	1.35e+06	3.52e+02	3.8e+03
19	13C-1,2,3,7,8-PeCDF	2.24e+06	2.28e+02	9.8e+03	1.44e+06	1.40e+02	1.0e+04
20	13C-1,2,3,4,7,8-HxCDF	3.12e+06	1.92e+02	1.6e+04	6.07e+06	4.04e+02	1.5e+04
21	13C-1,2,3,4,6,7,8-HpCDF	2.39e+06	1.98e+03	1.2e+03	5.55e+06	5.60e+02	9.9e+03
22	13C-2,3,7,8-TCDD	8.92e+05	8.04e+02	1.1e+03	1.09e+06	3.04e+02	3.6e+03
23	13C-1,2,3,7,8-PeCDD	1.67e+06	2.52e+02	6.6e+03	1.05e+06	2.52e+02	4.2e+03
24	13C-1,2,3,6,7,8-HxCDD	4.51e+06	3.48e+02	1.3e+04	3.62e+06	3.76e+02	9.6e+03
25	13C-1,2,3,4,6,7,8-HpCDD	3.93e+06	4.04e+02	9.7e+03	3.76e+06	2.40e+02	1.6e+04
26	13C-OCDD	5.43e+06	4.08e+02	1.3e+04	6.01e+06	3.16e+02	1.9e+04
27	13C-1,2,3,4-TCDD	1.01e+06	8.04e+02	1.3e+03	1.25e+06	3.04e+02	4.1e+03
28	13C-1,2,3,7,8,9-HxCDD	4.59e+06	3.48e+02	1.3e+04	3.57e+06	3.76e+02	9.5e+03
29	37Cl-2,3,7,8-TCDD	3.83e+05	2.44e+02	1.6e+03			

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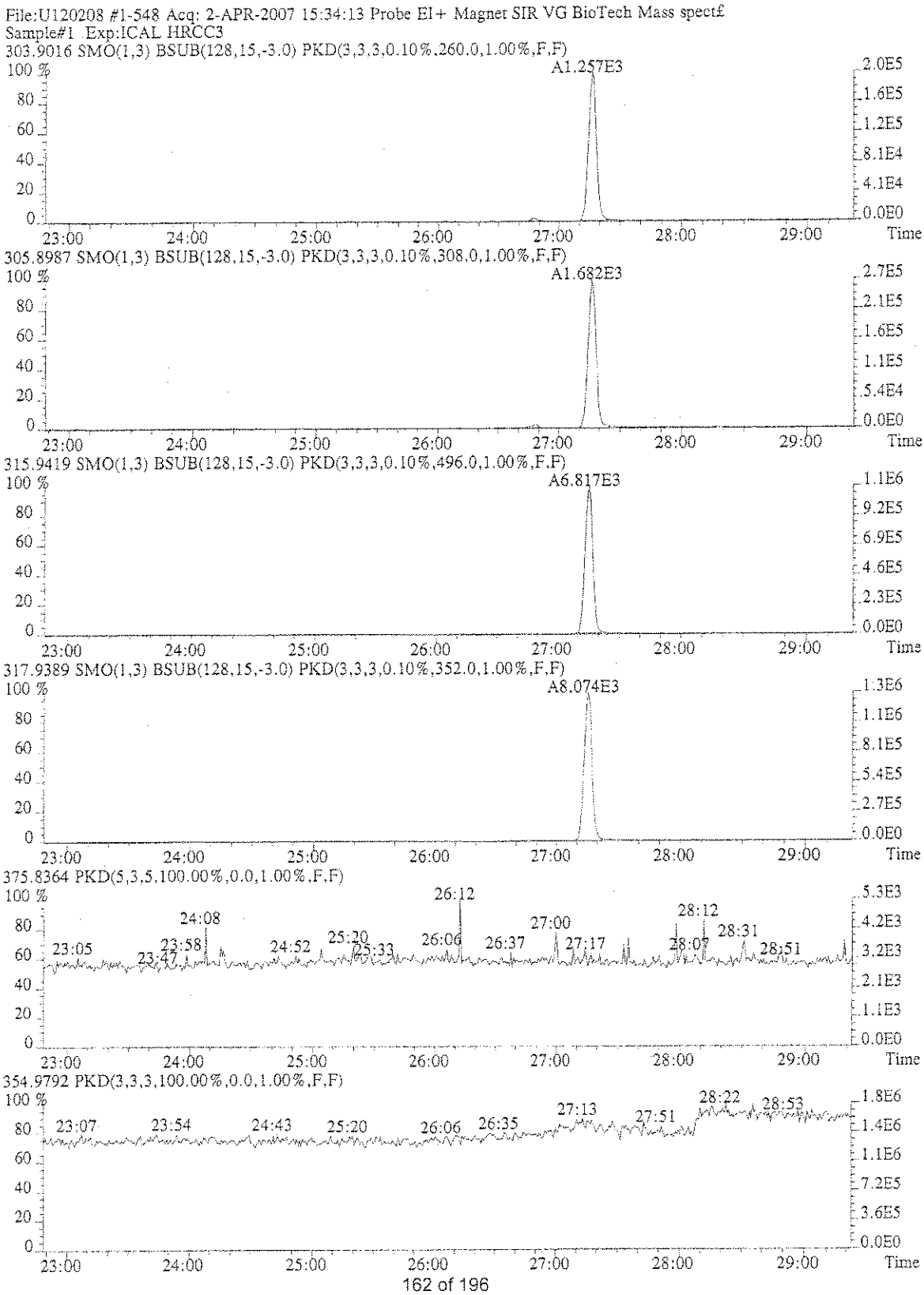
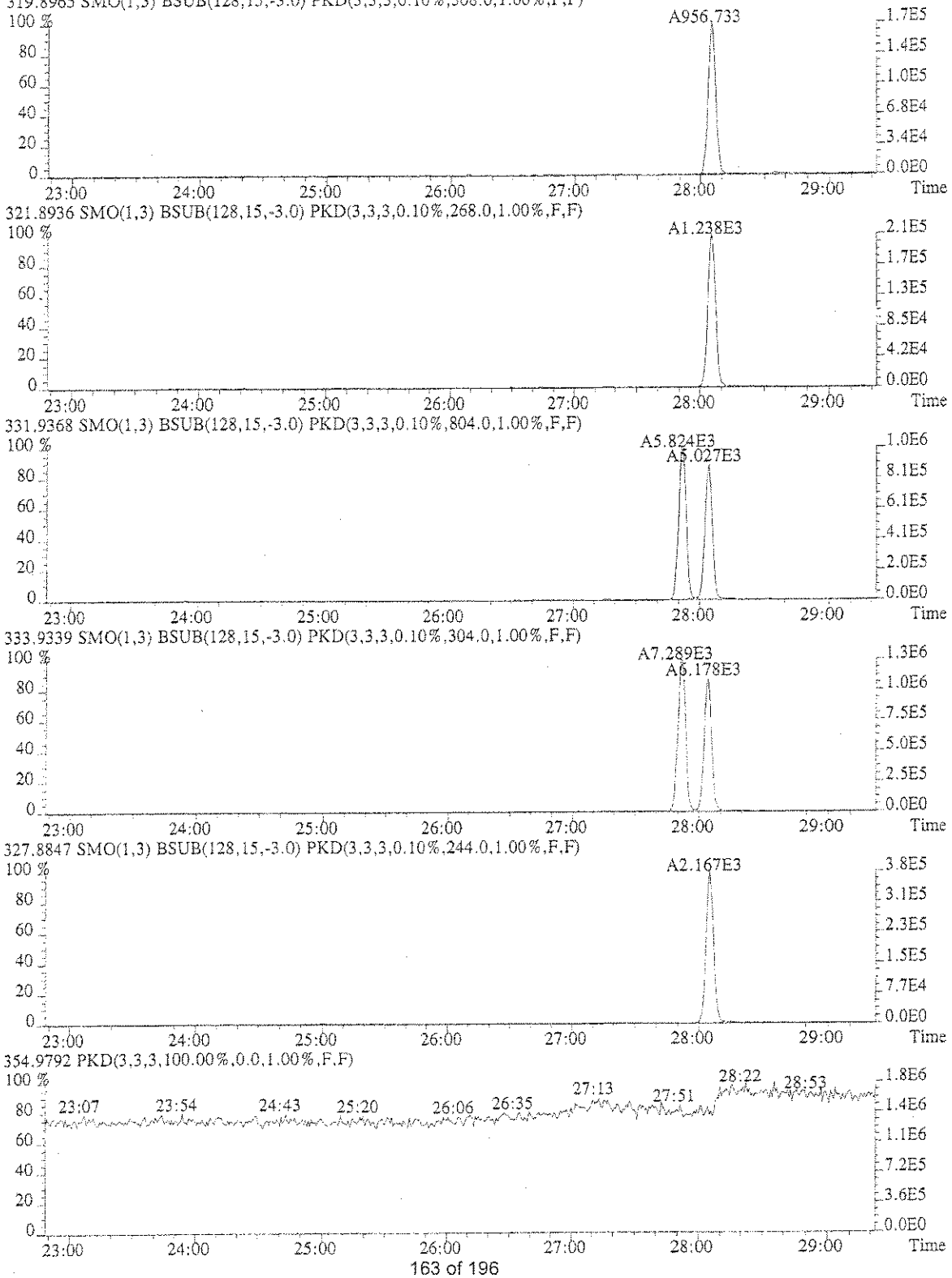
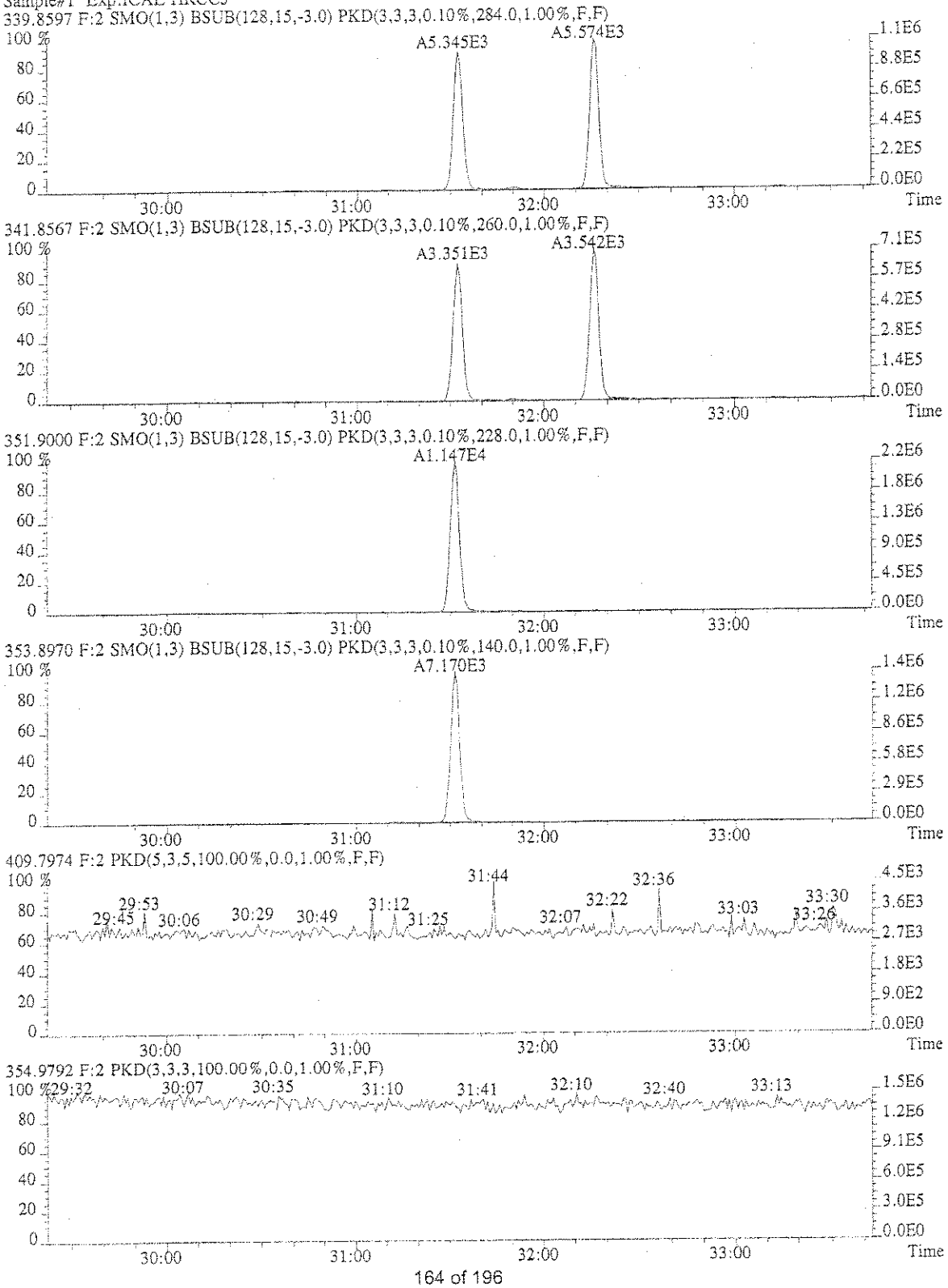

File:U120208 #1-548 Acq: 2-APR-2007 15:34:13 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC3
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,260.0,1.00%,F,F)
A1.257E3
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,308.0,1.00%,F,F)
A1.682E3
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,496.0,1.00%,F,F)
A6.817E3
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,352.0,1.00%,F,F)
A8.074E3
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

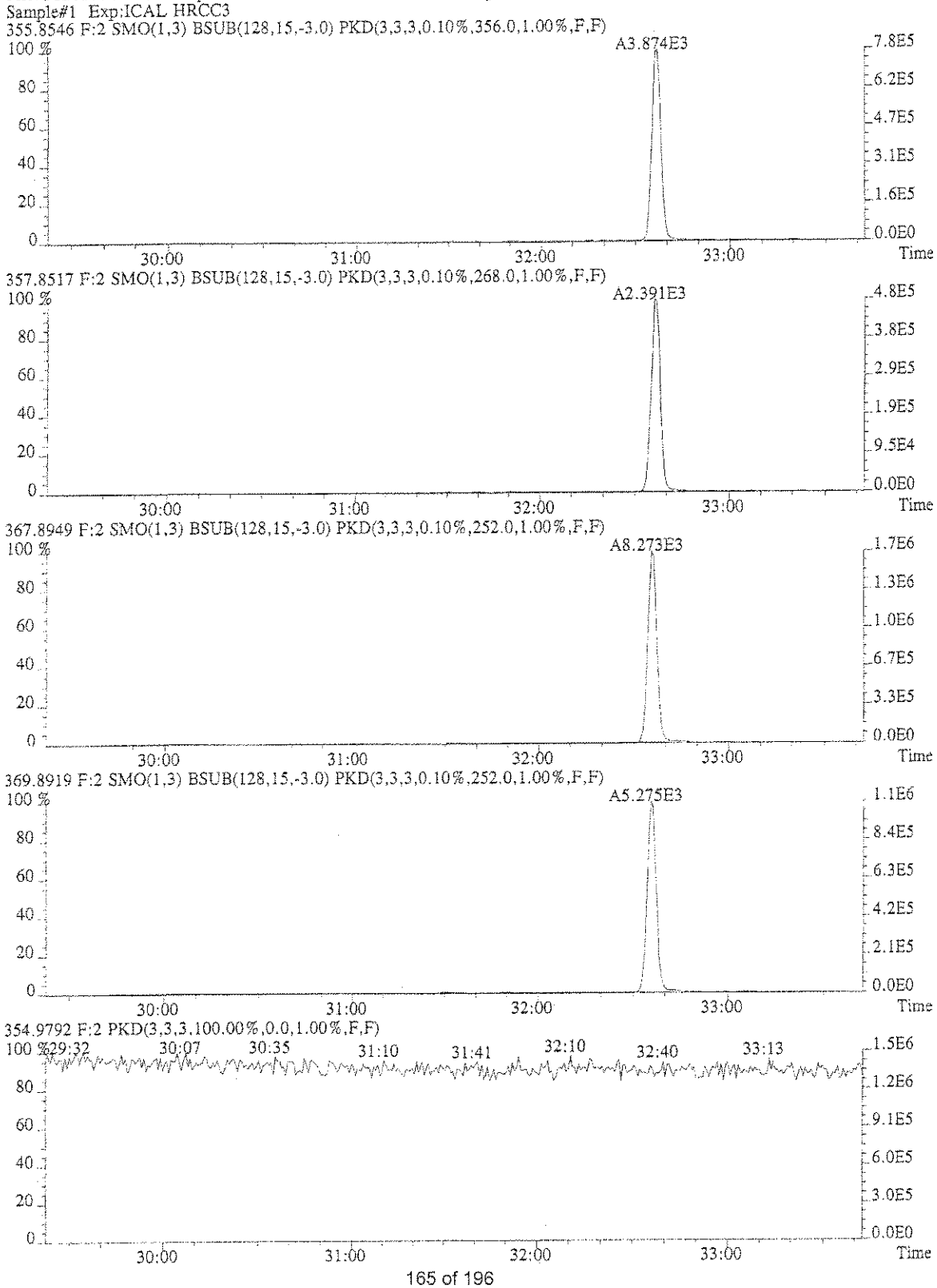
File:U120208 #1-548 Acq: 2-APR-2007 15:34:13 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC3

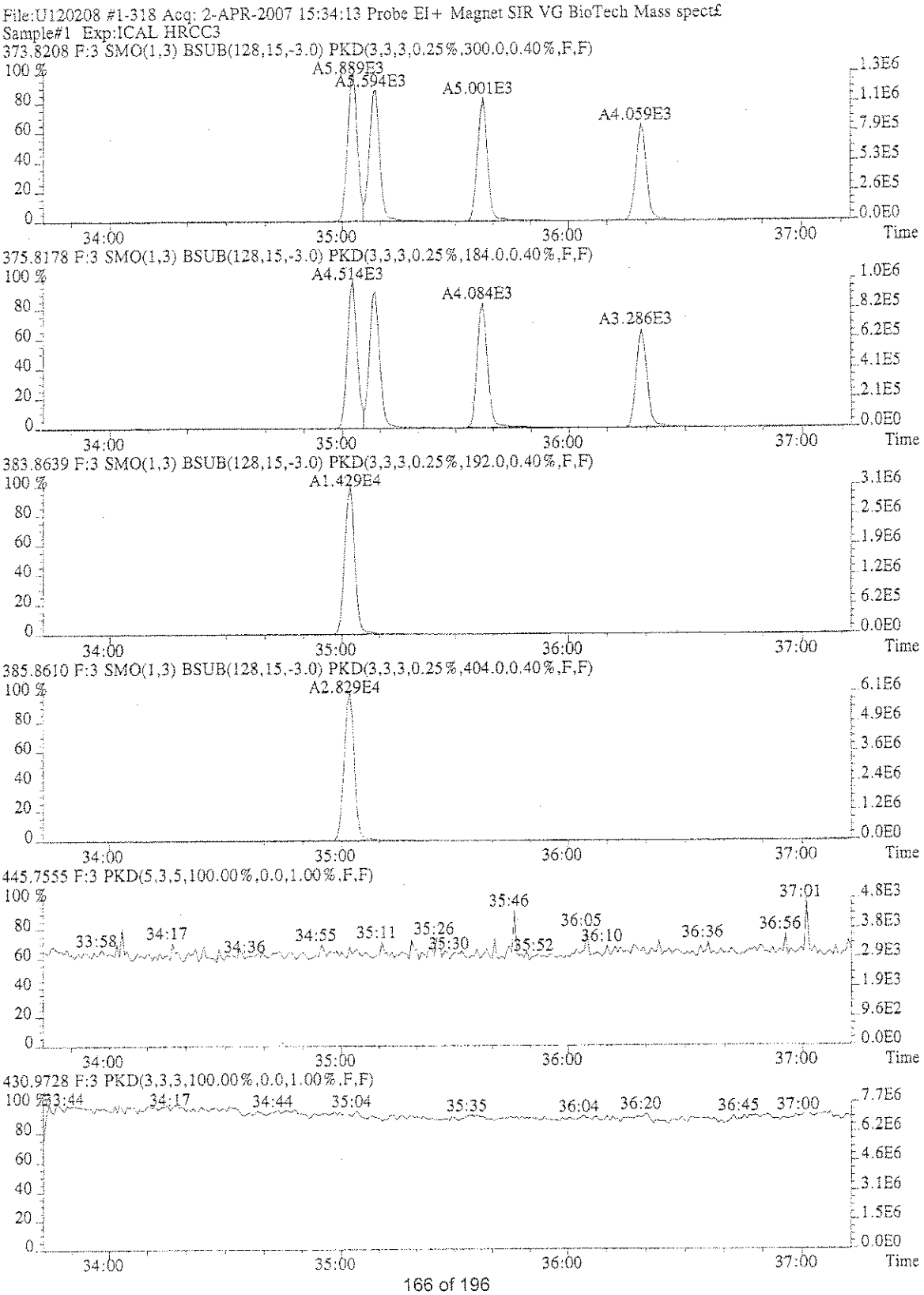


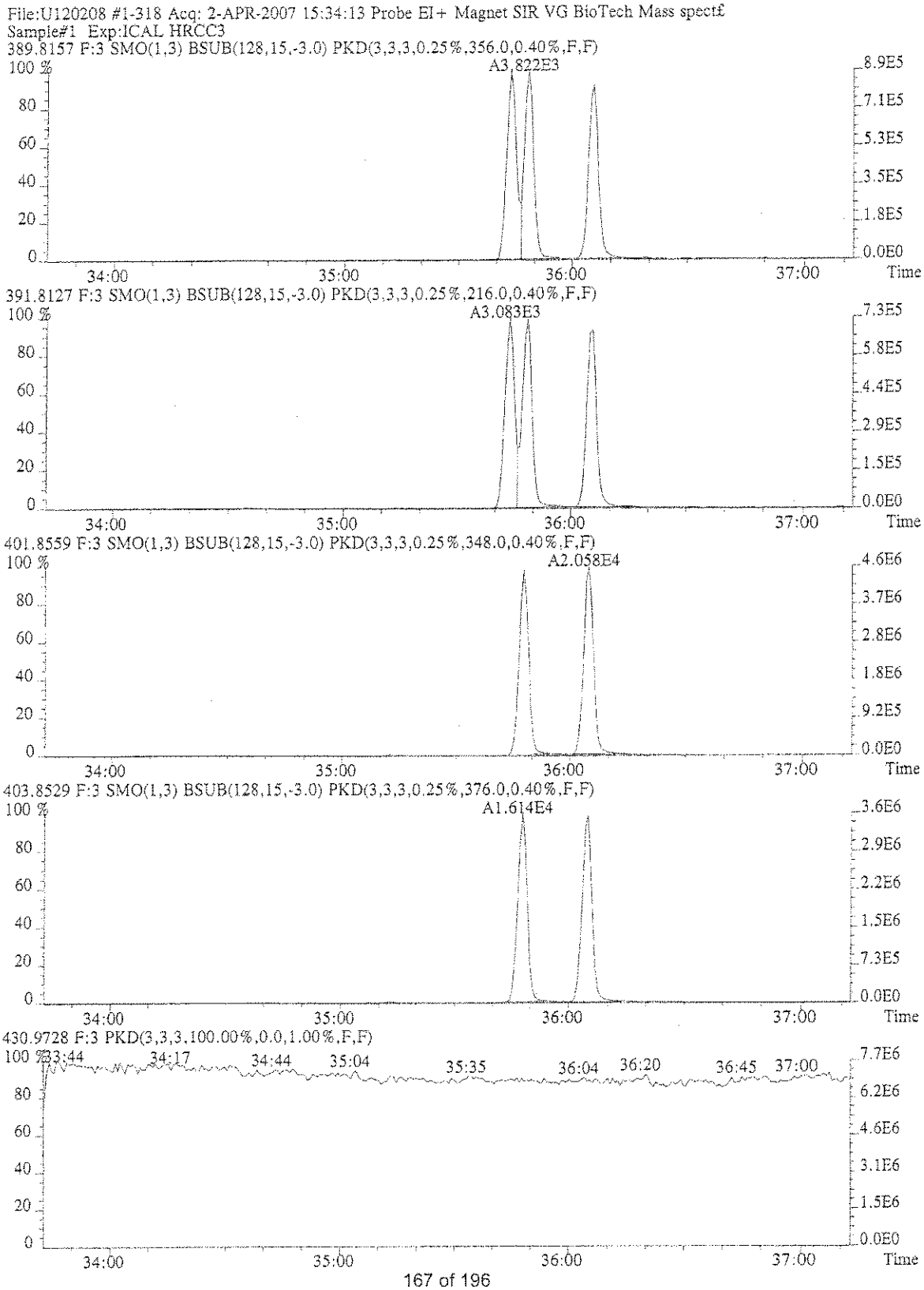
File:U120208 #1-394 Acq: 2-APR-2007 15:34:13 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC3



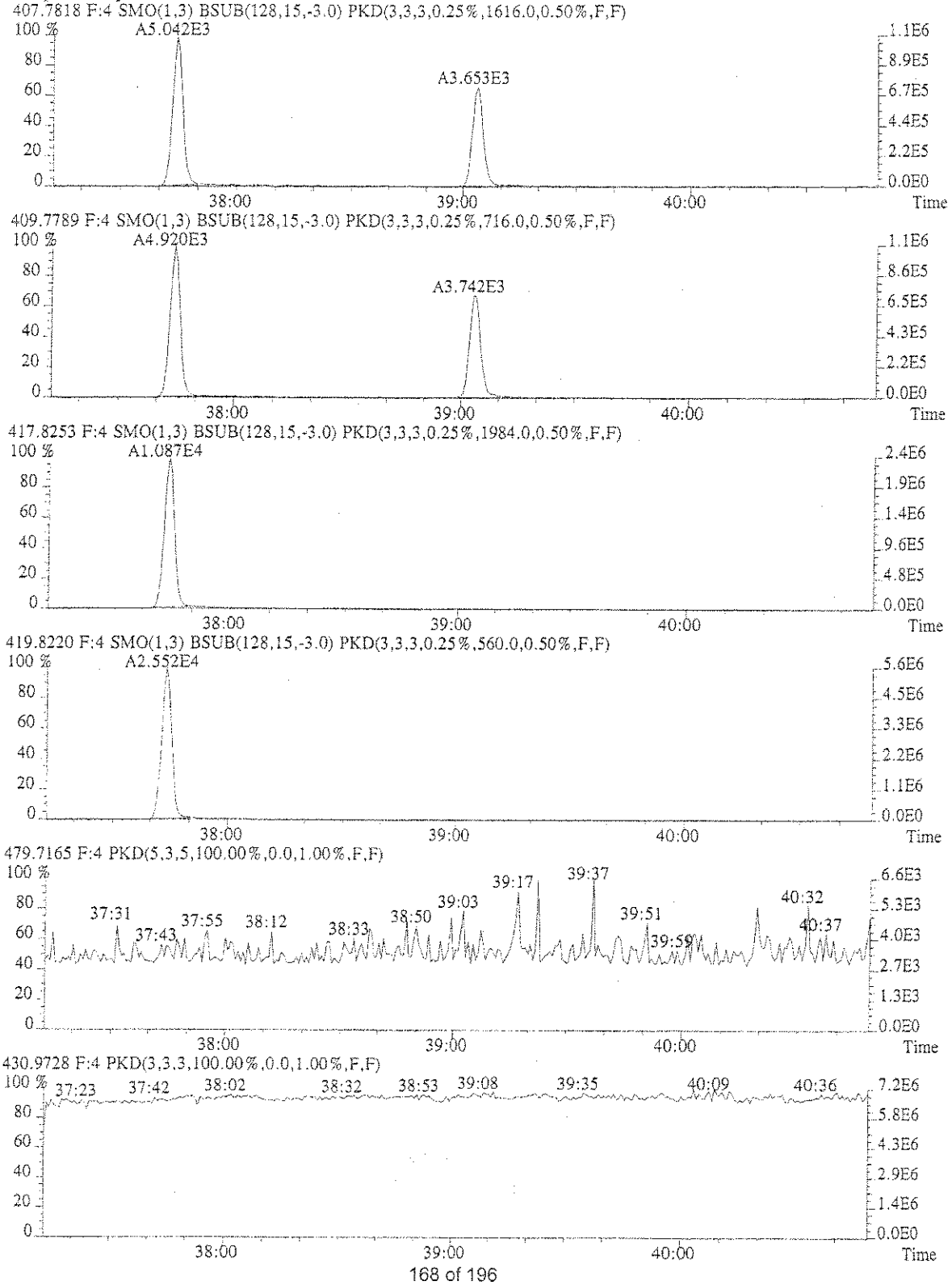
File:U120208 #1-394 Acq: 2-APR-2007 15:34:13 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC3



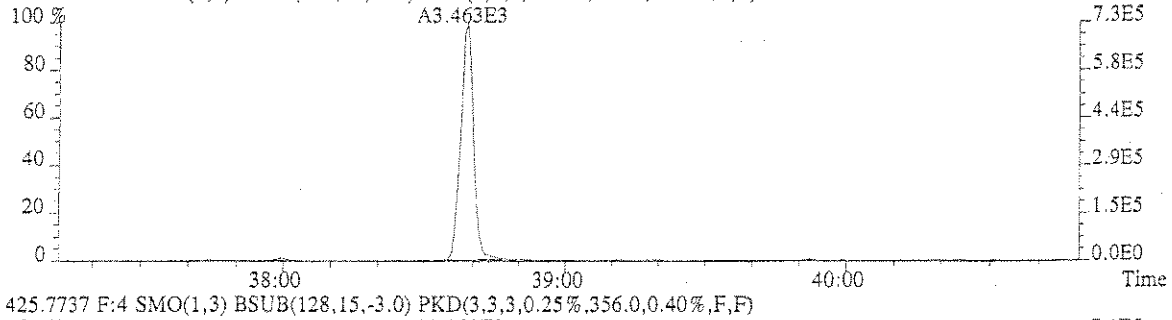

File:U120208 #1-318 Acq: 2-APR-2007 15:34:13 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC3
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,300.0,0.40%,F,F)
A5.889E3
A5.594E3
A5.001E3
A4.059E3
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,184.0,0.40%,F,F)
A4.514E3
A4.084E3
A3.286E3
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,192.0,0.40%,F,F)
A1.429E4
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,404.0,0.40%,F,F)
A2.829E4
445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
33:58
34:17
34:36
34:55
35:11
35:26
35:30
35:46
35:52
36:05
36:10
36:36
36:56
37:01
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
33:44
34:17
34:44
35:04
35:35
36:04
36:20
36:45
37:00
Time


File:U120208 #1-318 Acq: 2-APR-2007 15:34:13 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC3
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,356.0,0.40%,F,F)
A3.822E3
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,216.0,0.40%,F,F)
A3.083E3
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,348.0,0.40%,F,F)
A2.058E4
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,376.0,0.40%,F,F)
A1.614E4
430.9728 F:3 PKD(3,3,3.100.00%,0.0,1.00%,F,F)
100 %
80
60
40
20
0
34:00
35:00
36:00
37:00
Time
8.9E5
7.1E5
5.3E5
3.5E5
1.8E5
0.0E0
7.3E5
5.8E5
4.4E5
2.9E5
1.5E5
4.6E6
3.7E6
2.8E6
1.8E6
9.2E5
3.6E6
2.9E6
2.2E6
1.5E6
7.3E5
7.7E6
6.2E6
4.6E6
3.1E6
1.5E6

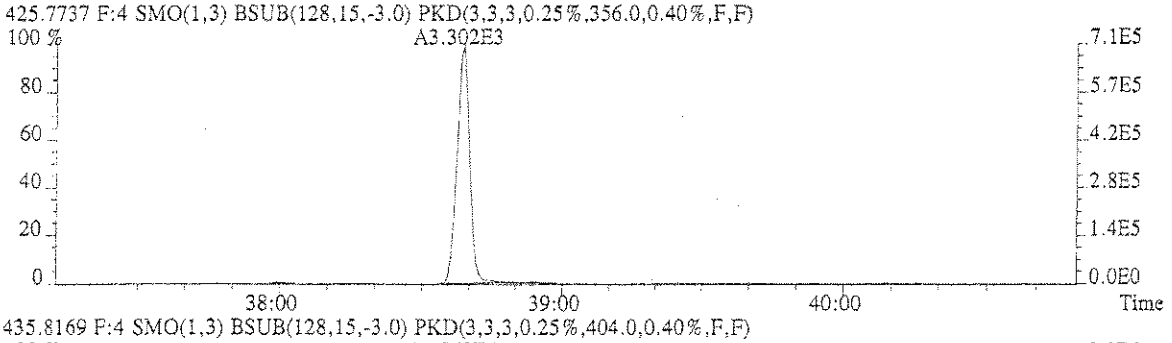
File:U120208 #1-327 Acq: 2-APR-2007 15:34:13 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC3



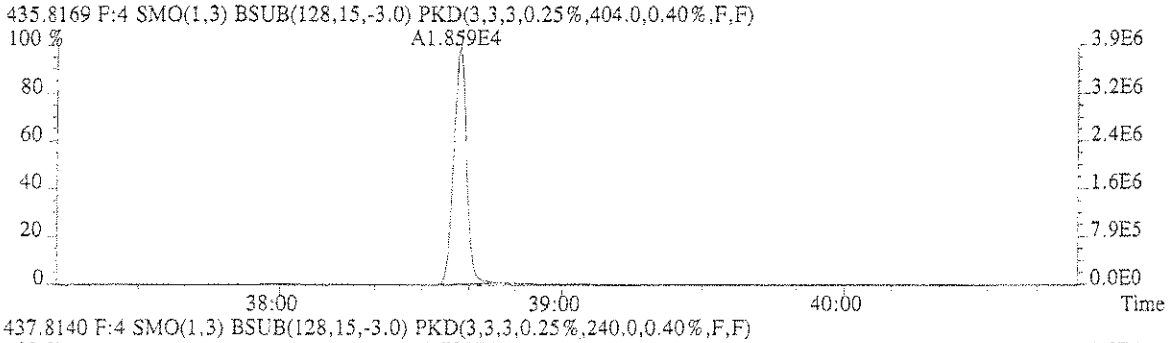
File:U120208 #1-327 Acq: 2-APR-2007 15:34:13 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC3
423.7766 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,280.0,0.40%,F,F)



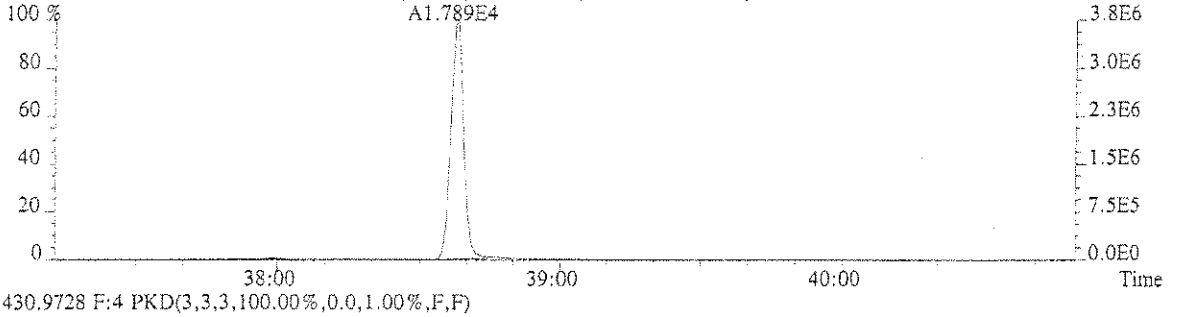
425.7737 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,356.0,0.40%,F,F)



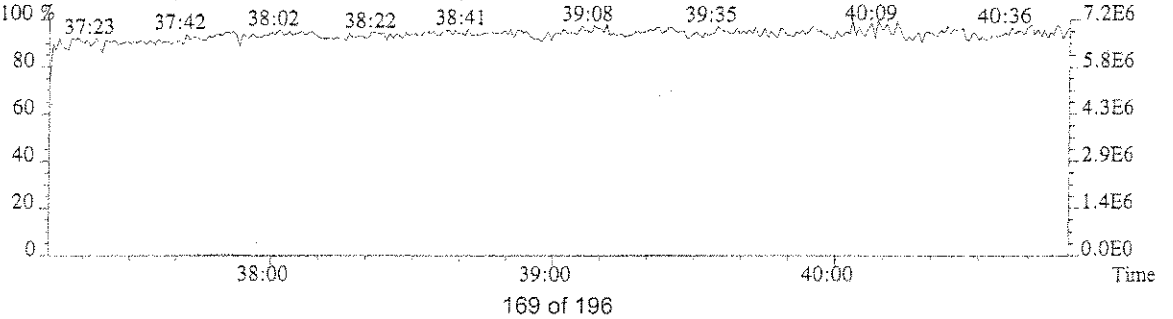
435.8169 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,404.0,0.40%,F,F)

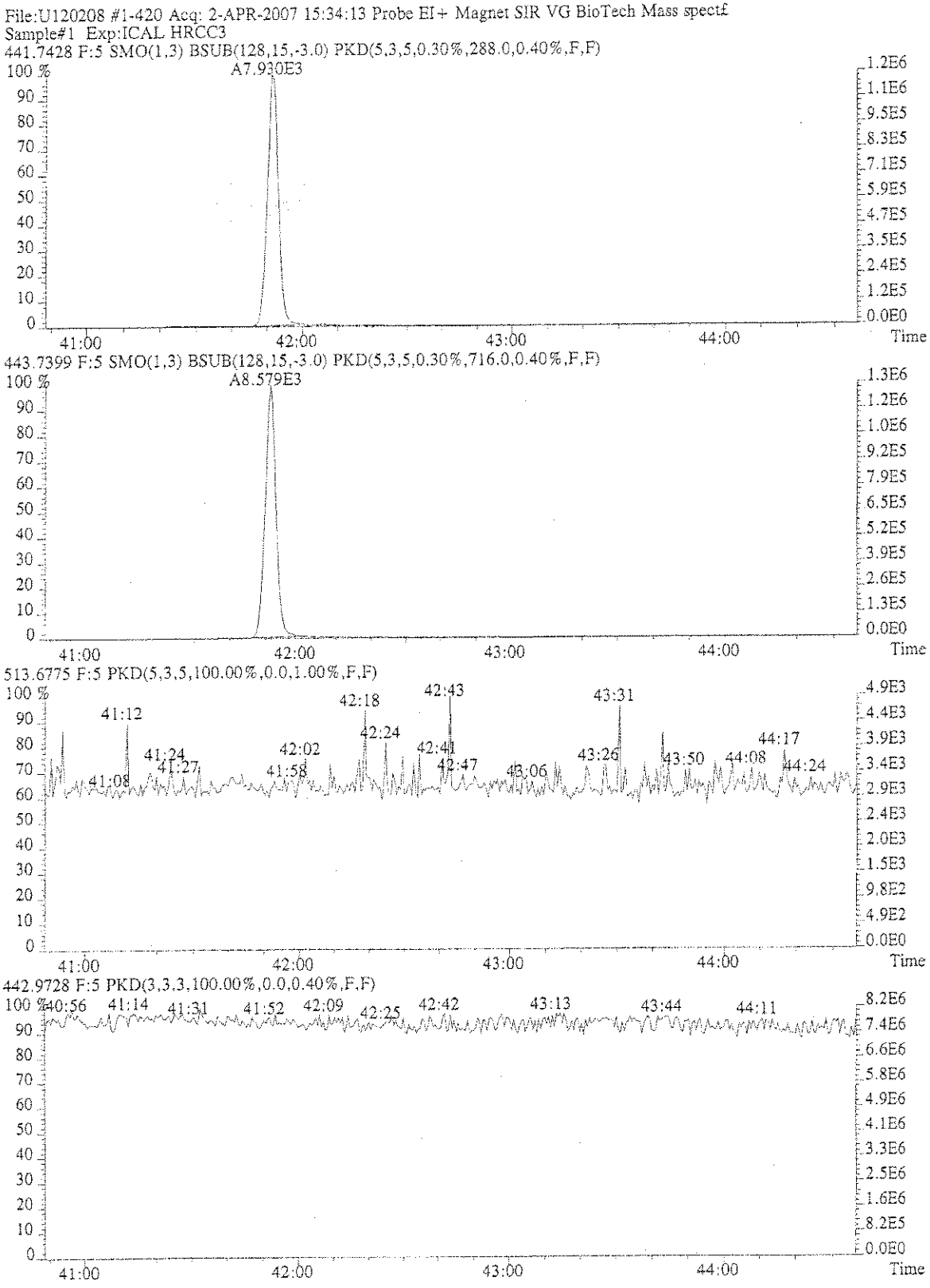


437.8140 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,240.0,0.40%,F,F)



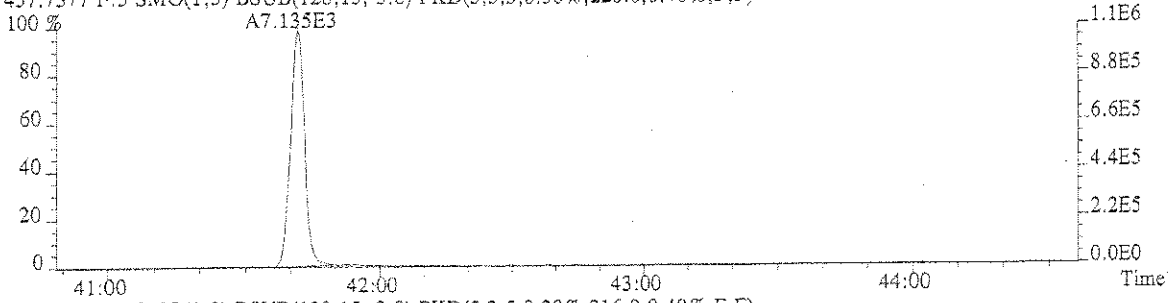
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



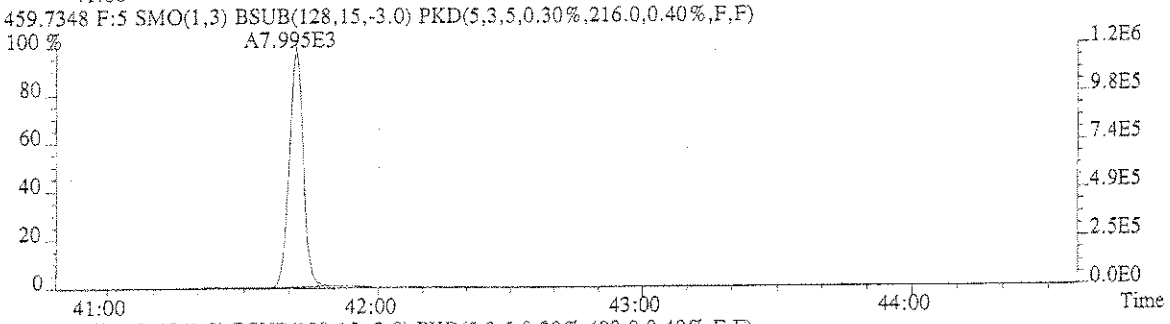

File:U120208 #1-420 Acq: 2-APR-2007 15:34:13 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC3
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,288.0,0.40%,F,F)
A7.930E3
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,716.0,0.40%,F,F)
A8.579E3
513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
41:12
41:08
41:24
41:27
41:58
42:02
42:18
42:24
42:41
42:43
42:47
43:06
43:26
43:31
43:50
44:08
44:17
44:24
442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)
40:56
41:14
41:31
41:52
42:09
42:25
42:42
43:13
43:44
44:11
Time

File:U120208 #1-420 Acq: 2-APR-2007 15:34:13 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC3

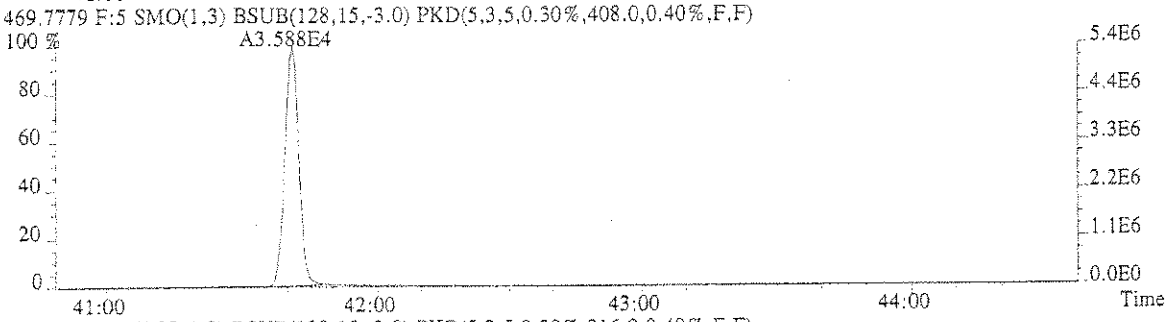
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,228.0,0.40%,F,F)



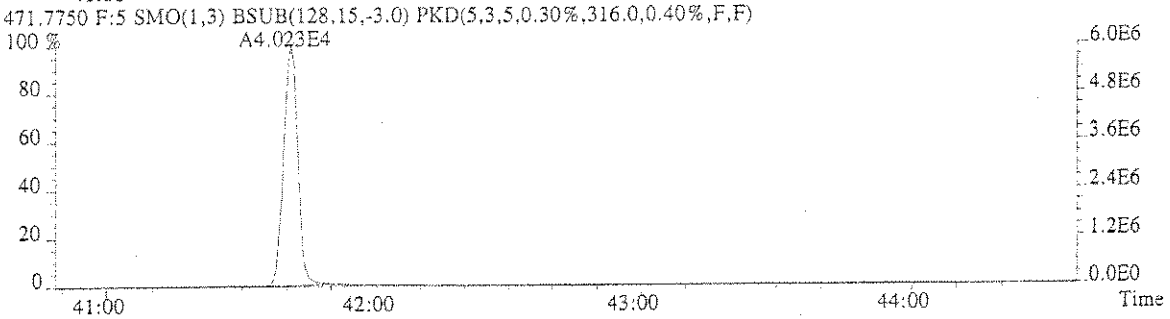
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,216.0,0.40%,F,F)



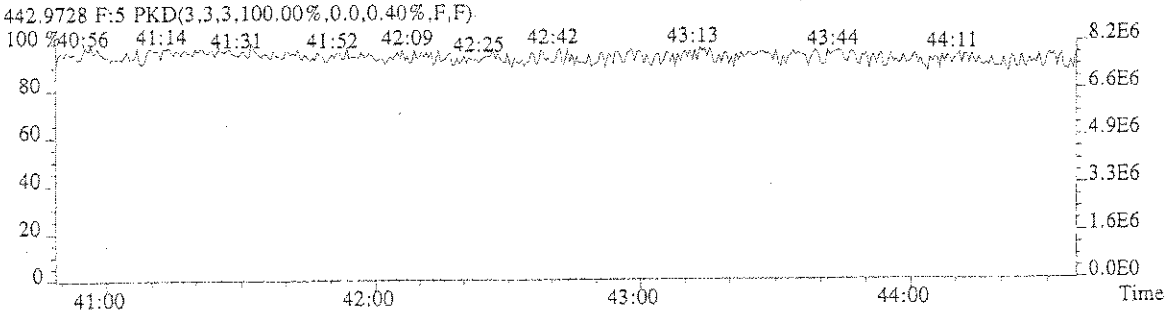
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,408.0,0.40%,F,F)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,316.0,0.40%,F,F)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Columbia Analytical Services, Inc.
Sample Response Summary

CLIENT ID.
ICAL HRCC4

Run #4 Filename U120209 Samp: 1 Inj: 1 Acquired: 2-APR-07 16:23:37
Processed: 3-APR-07 08:06:20 Sample ID: ICAL HRCC4

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	27:16	6.792e+03	8.584e+03	0.79	yes	no
2	Unk	1,2,3,7,8-PeCDF	31:32	2.874e+04	1.819e+04	1.58	yes	no
3	Unk	2,3,4,7,8-PeCDF	32:16	2.932e+04	1.856e+04	1.58	yes	no
4	Unk	1,2,3,4,7,8-HxCDF	35:03	2.896e+04	2.282e+04	1.27	yes	no
5	Unk	1,2,3,6,7,8-HxCDF	35:09	2.927e+04	2.358e+04	1.24	yes	no
6	Unk	2,3,4,6,7,8-HxCDF	35:37	2.674e+04	2.102e+04	1.27	yes	no
7	Unk	1,2,3,7,8,9-HxCDF	36:19	2.197e+04	1.726e+04	1.27	yes	no
8	Unk	1,2,3,4,6,7,8-HpCDF	37:45	2.710e+04	2.742e+04	0.99	yes	no
9	Unk	1,2,3,4,7,8,9-HpCDF	39:04	2.051e+04	2.033e+04	1.01	yes	no
10	Unk	OCDF	41:51	4.386e+04	4.892e+04	0.90	yes	no
11	Unk	2,3,7,8-TCDD	28:06	4.960e+03	6.310e+03	0.79	yes	no
12	Unk	1,2,3,7,8-PeCDD	32:37	1.981e+04	1.233e+04	1.61	yes	no
13	Unk	1,2,3,4,7,8-HxCDD	35:44	1.996e+04	1.538e+04	1.30	yes	no
14	Unk	1,2,3,6,7,8-HxCDD	35:48	2.179e+04	1.725e+04	1.26	yes	no
15	Unk	1,2,3,7,8,9-HxCDD	36:06	1.965e+04	1.513e+04	1.30	yes	no
16	Unk	1,2,3,4,6,7,8-HpCDD	38:39	1.832e+04	1.747e+04	1.05	yes	no
17	Unk	OCDD	41:41	3.931e+04	4.436e+04	0.89	yes	no
18	IS	13C-2,3,7,8-TCDF	27:15	6.069e+03	7.126e+03	0.85	yes	no
19	IS	13C-1,2,3,7,8-PeCDF	31:31	1.253e+04	7.782e+03	1.61	yes	no
20	IS	13C-1,2,3,4,7,8-HxCDF	35:02	1.553e+04	2.884e+04	0.54	yes	no
21	IS	13C-1,2,3,4,6,7,8-HpCDF	37:44	1.182e+04	2.792e+04	0.42	yes	no
22	IS	13C-2,3,7,8-TCDD	28:04	5.184e+03	6.574e+03	0.79	yes	no
23	IS	13C-1,2,3,7,8-PeCDD	32:36	8.514e+03	5.309e+03	1.60	yes	no
24	IS	13C-1,2,3,6,7,8-HxCDD	35:48	1.862e+04	1.518e+04	1.23	yes	no
25	IS	13C-1,2,3,4,6,7,8-HpCDD	38:38	1.981e+04	1.881e+04	1.05	yes	no
26	IS	13C-OCDD	41:41	3.927e+04	4.395e+04	0.89	yes	no
27	RS/RT	13C-1,2,3,4-TCDD	27:52	5.745e+03	6.490e+03	0.89	yes	yes
28	RS/RT	13C-1,2,3,7,8,9-HxCDD	36:05	1.851e+04	1.501e+04	1.23	yes	no
29	C/Up	37Cl-2,3,7,8-TCDD	28:05	1.113e+04				

Columbia Analytical Services, Inc.
10655 Richmond Ave., Suite 130A
Houston, TX 77042
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Columbia Analytical Services,Inc.
Signal/Noise Height Ratio Summary

CLIENT ID.
ICAL HRCC4

Run #4 Filename U120209 Samp: 1 Inj: 1 Acquired: 2-APR-07 16:23:37

Processed: 3-APR-07 08:06:20 LAB. ID: ICAL HRCC4

	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	1.13e+06	2.28e+02	4.9e+03	1.45e+06	3.16e+02	4.6e+03
2	1,2,3,7,8-PeCDF	5.92e+06	3.12e+02	1.9e+04	3.76e+06	3.20e+02	1.2e+04
3	2,3,4,7,8-PeCDF	6.05e+06	3.12e+02	1.9e+04	3.82e+06	3.20e+02	1.2e+04
4	1,2,3,4,7,8-HxCDF	6.39e+06	2.88e+02	2.2e+04	5.10e+06	2.32e+02	2.2e+04
5	1,2,3,6,7,8-HxCDF	6.31e+06	2.88e+02	2.2e+04	4.97e+06	2.32e+02	2.1e+04
6	2,3,4,6,7,8-HxCDF	6.08e+06	2.88e+02	2.1e+04	4.73e+06	2.32e+02	2.0e+04
7	1,2,3,7,8,9-HxCDF	4.88e+06	2.88e+02	1.7e+04	3.87e+06	2.32e+02	1.7e+04
8	1,2,3,4,6,7,8-HpCDF	5.93e+06	2.50e+03	2.4e+03	6.05e+06	9.08e+02	6.7e+03
9	1,2,3,4,7,8,9-HpCDF	4.03e+06	2.50e+03	1.6e+03	4.03e+06	9.08e+02	4.4e+03
10	OCDF	6.59e+06	2.04e+02	3.2e+04	7.36e+06	4.80e+02	1.5e+04
11	2,3,7,8-TCDD	9.12e+05	2.96e+02	3.1e+03	1.16e+06	1.80e+02	6.4e+03
12	1,2,3,7,8-PeCDD	4.09e+06	3.96e+02	1.0e+04	2.58e+06	2.44e+02	1.1e+04
13	1,2,3,4,7,8-HxCDD	4.81e+06	2.84e+02	1.7e+04	3.67e+06	2.96e+02	1.2e+04
14	1,2,3,6,7,8-HxCDD	4.72e+06	2.84e+02	1.7e+04	3.74e+06	2.96e+02	1.3e+04
15	1,2,3,7,8,9-HxCDD	4.39e+06	2.84e+02	1.5e+04	3.42e+06	2.96e+02	1.2e+04
16	1,2,3,4,6,7,8-HpCDD	3.89e+06	3.96e+02	9.8e+03	3.62e+06	3.72e+02	9.7e+03
17	OCDD	5.99e+06	2.48e+02	2.4e+04	6.72e+06	2.68e+02	2.5e+04
18	13C-2,3,7,8-TCDF	1.02e+06	3.56e+02	2.9e+03	1.22e+06	3.84e+02	3.2e+03
19	13C-1,2,3,7,8-PeCDF	2.56e+06	2.76e+02	9.3e+03	1.58e+06	2.04e+02	7.7e+03
20	13C-1,2,3,4,7,8-HxCDF	3.44e+06	2.24e+02	1.5e+04	6.27e+06	3.56e+02	1.8e+04
21	13C-1,2,3,4,6,7,8-HpCDF	2.56e+06	1.80e+03	1.4e+03	6.15e+06	3.20e+03	1.9e+03
22	13C-2,3,7,8-TCDD	9.86e+05	5.68e+02	1.5e+03	1.21e+06	2.96e+02	4.1e+03
23	13C-1,2,3,7,8-PeCDD	1.77e+06	2.68e+02	6.6e+03	1.12e+06	3.28e+02	3.4e+03
24	13C-1,2,3,6,7,8-HxCDD	4.29e+06	3.24e+02	1.3e+04	3.50e+06	3.24e+02	1.1e+04
25	13C-1,2,3,4,6,7,8-HpCDD	4.11e+06	4.80e+02	8.6e+03	3.84e+06	4.72e+02	8.1e+03
26	13C-OCDD	5.91e+06	4.88e+02	1.2e+04	6.65e+06	2.20e+02	3.0e+04
27	13C-1,2,3,4-TCDD	1.07e+06	6.68e+02	1.6e+03	1.17e+06	2.96e+02	4.0e+03
28	13C-1,2,3,7,8,9-HxCDD	4.12e+06	3.24e+02	1.3e+04	3.34e+06	3.24e+02	1.0e+04
29	37Cl-2,3,7,8-TCDD	2.03e+06	2.28e+02	8.9e+03			

Columbia Analytical Services, Inc.
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Houston, TX 77042
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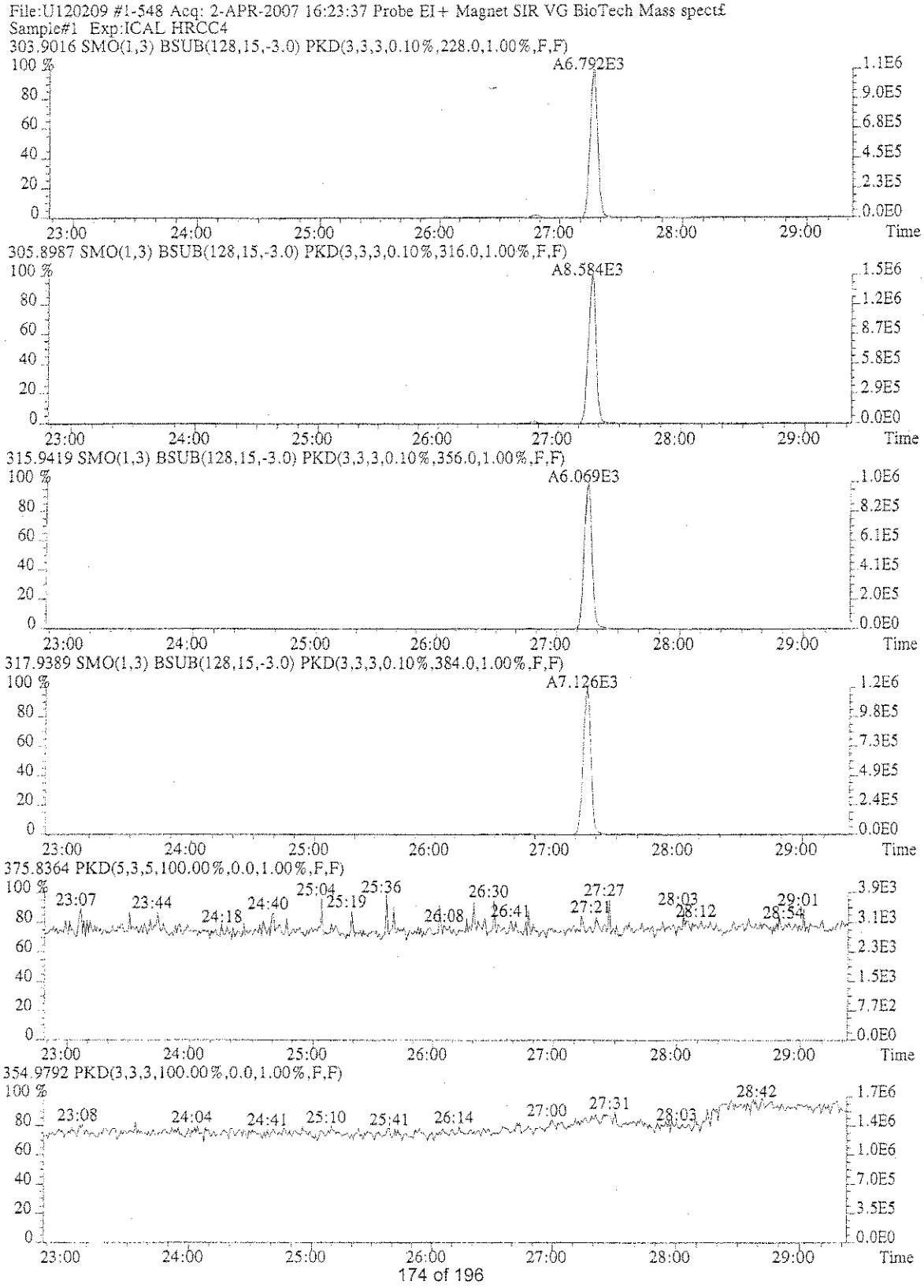
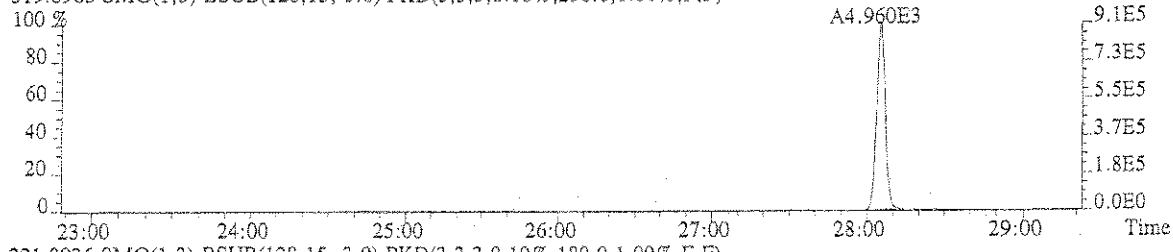
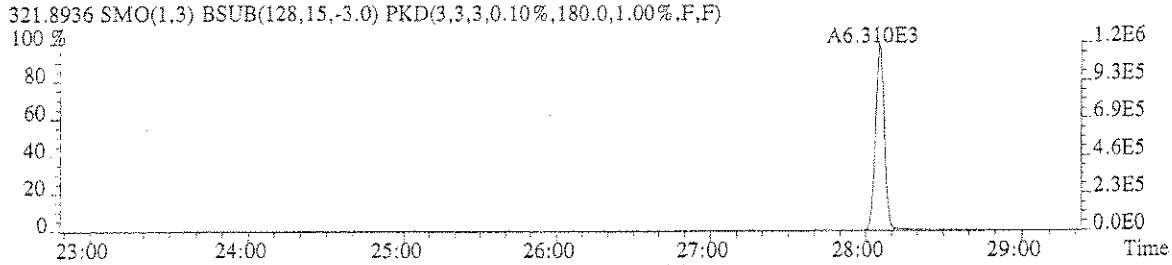

File:U120209 #1-548 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC4
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,228.0,1.00%,F,F)
A6.792E3
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,316.0,1.00%,F,F)
A8.584E3
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,356.0,1.00%,F,F)
A6.069E3
317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,384.0,1.00%,F,F)
A7.126E3
375.8364 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
Time

File:U120209 #1-548 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC4

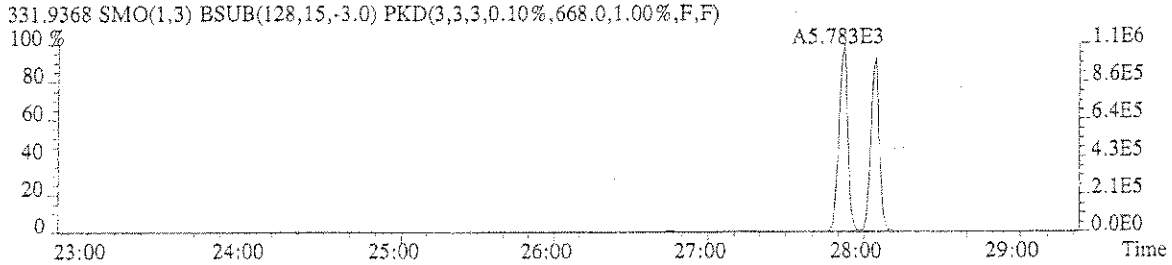
319.8965 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,296.0,1.00%,F,F)



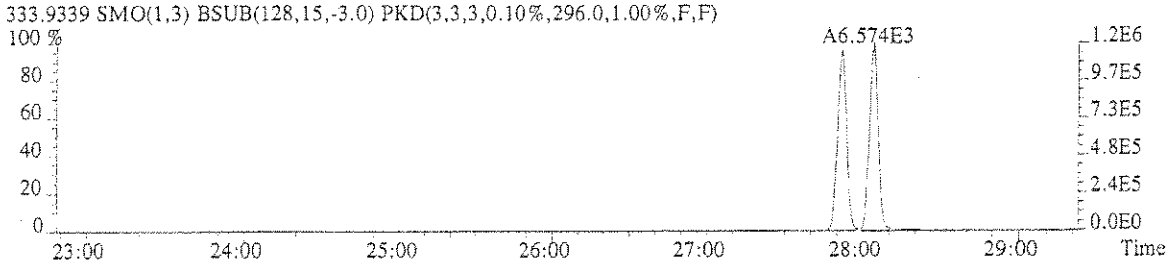
321.8936 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,180.0,1.00%,F,F)



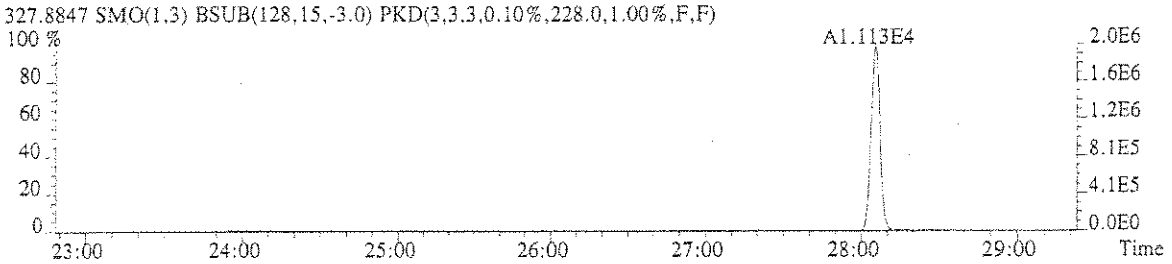
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,668.0,1.00%,F,F)



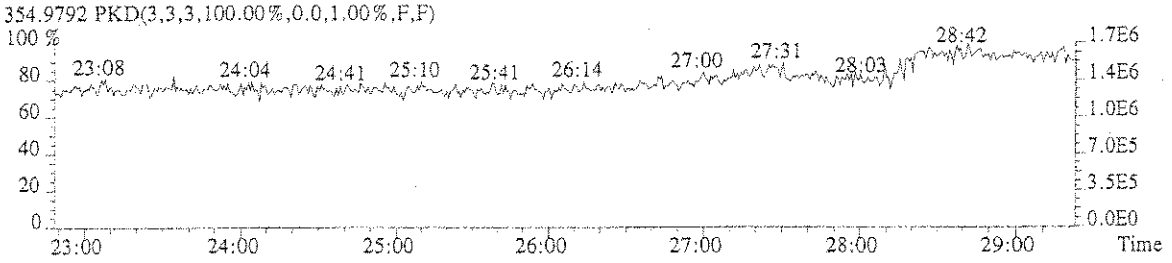
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,296.0,1.00%,F,F)



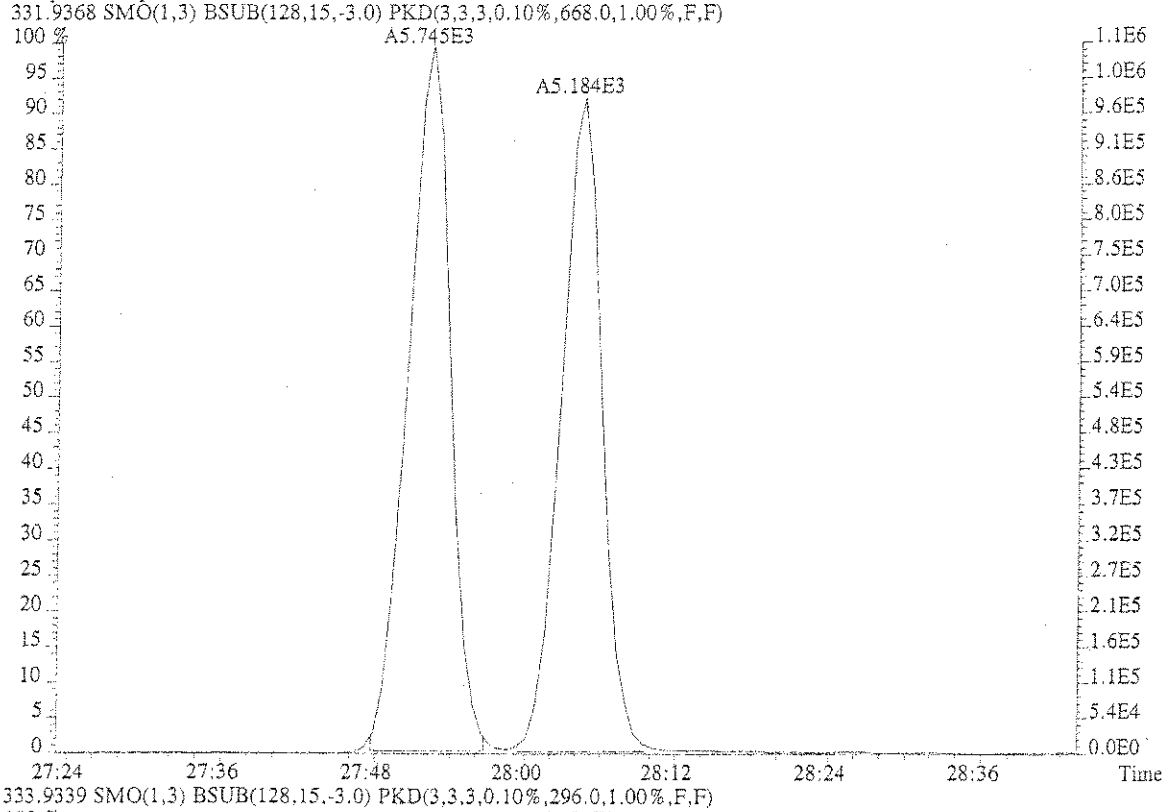
327.8847 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,228.0,1.00%,F,F)



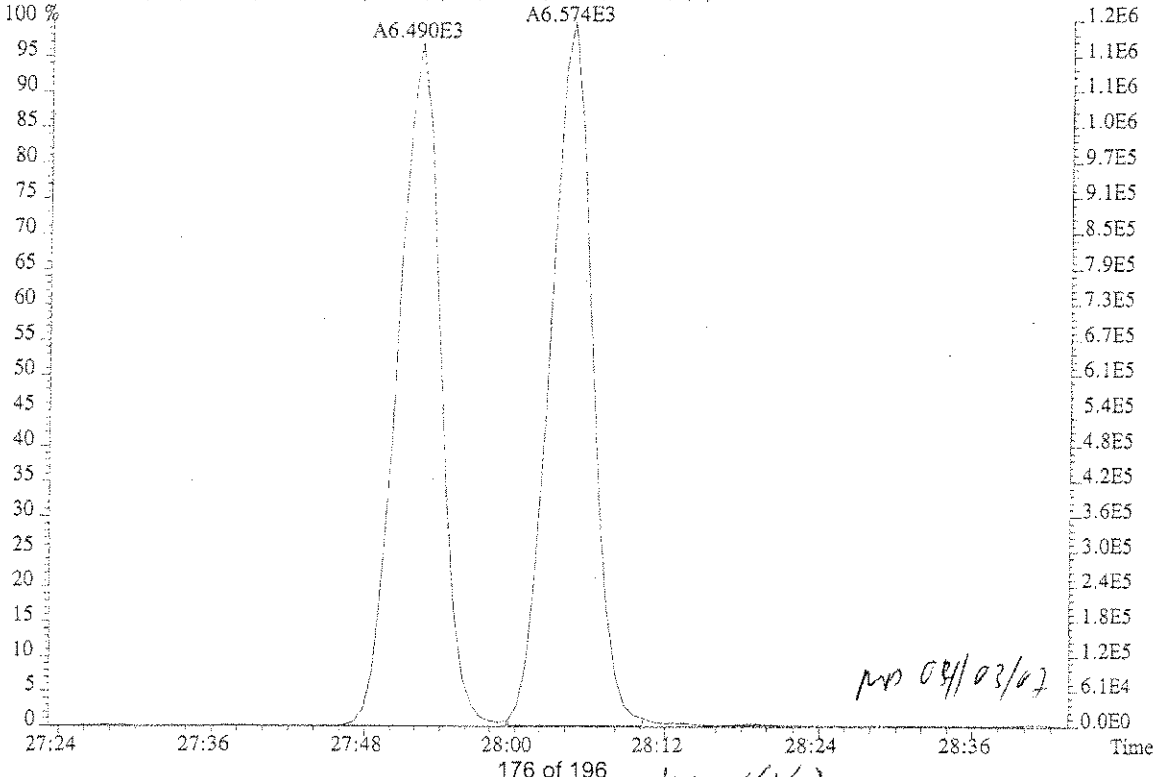
354.9792 PKD(3,3,3,100.00%,0.0,1.00%,F,F)



File:U120209 #1-548 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC4
331.9368 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,668.0,1.00%,F,F)



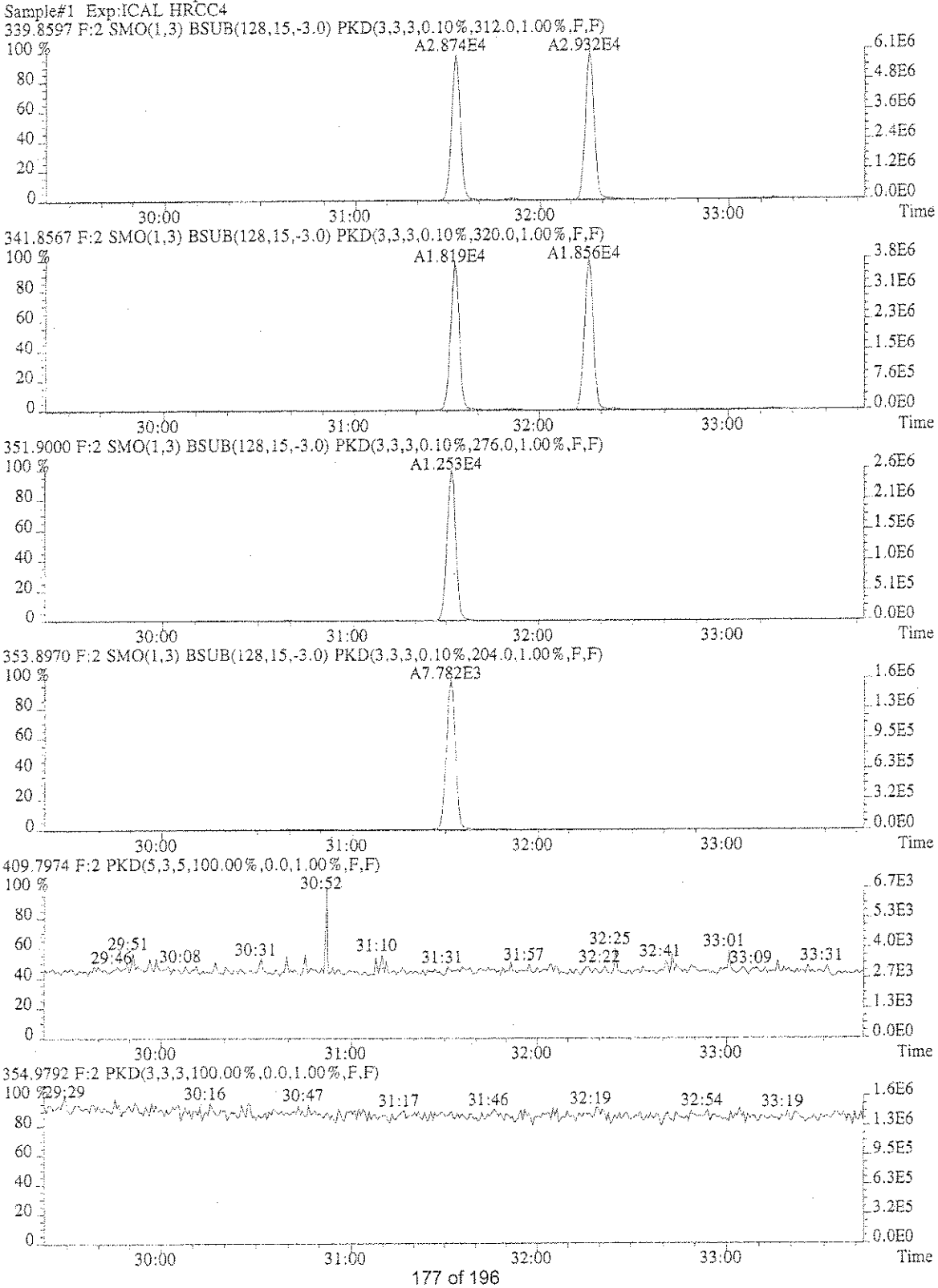
333.9339 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,296.0,1.00%,F,F)



MP 04/03/07

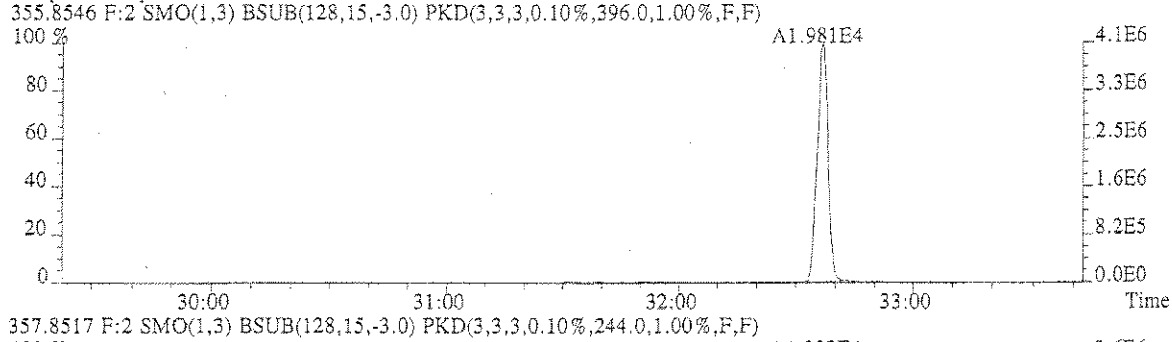
4/3/07

File:U120209 #1-394 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC4

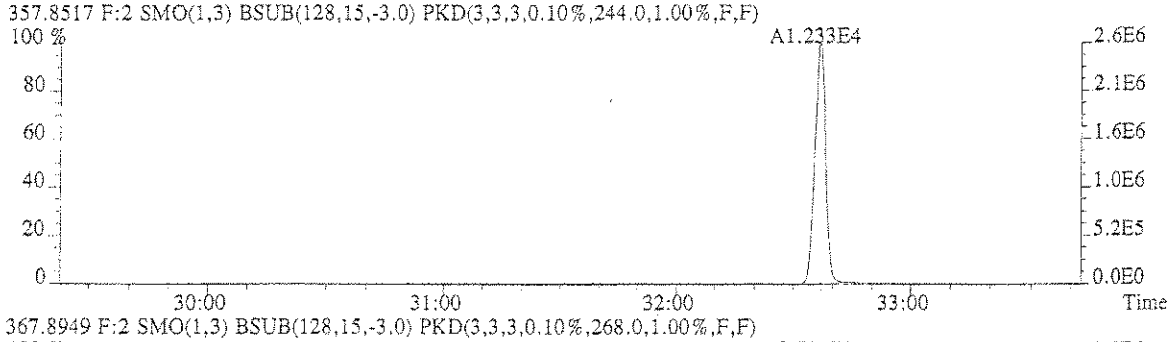


File:U120209 #1-394 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 Exp:ICAL HRCC4

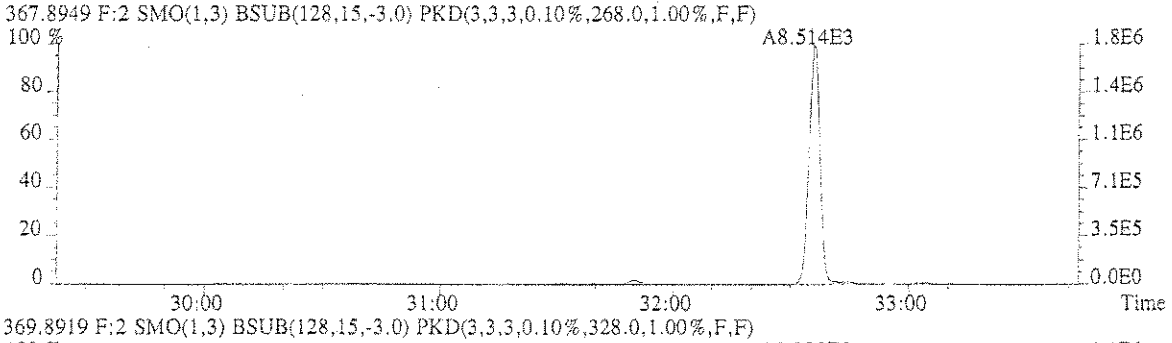
355.8546 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,396.0,1.00%,F,F)



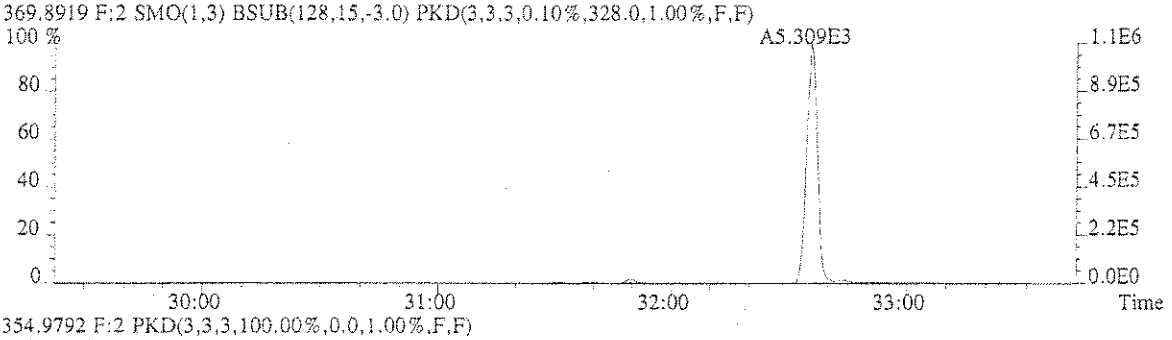
357.8517 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,244.0,1.00%,F,F)



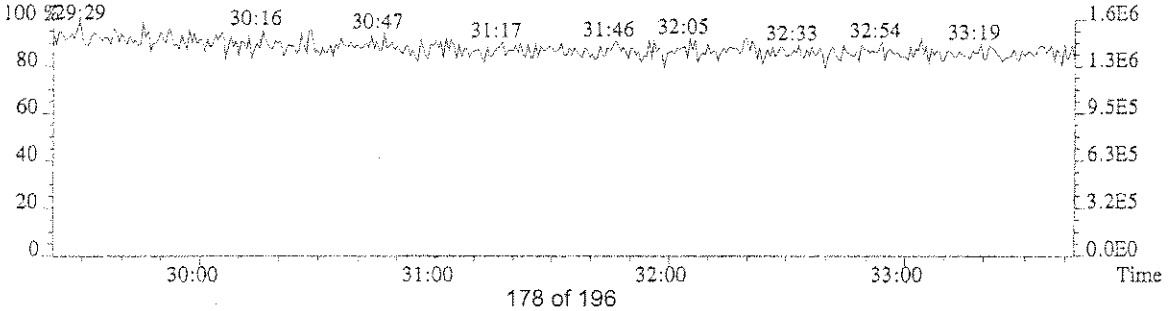
367.8949 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,268.0,1.00%,F,F)



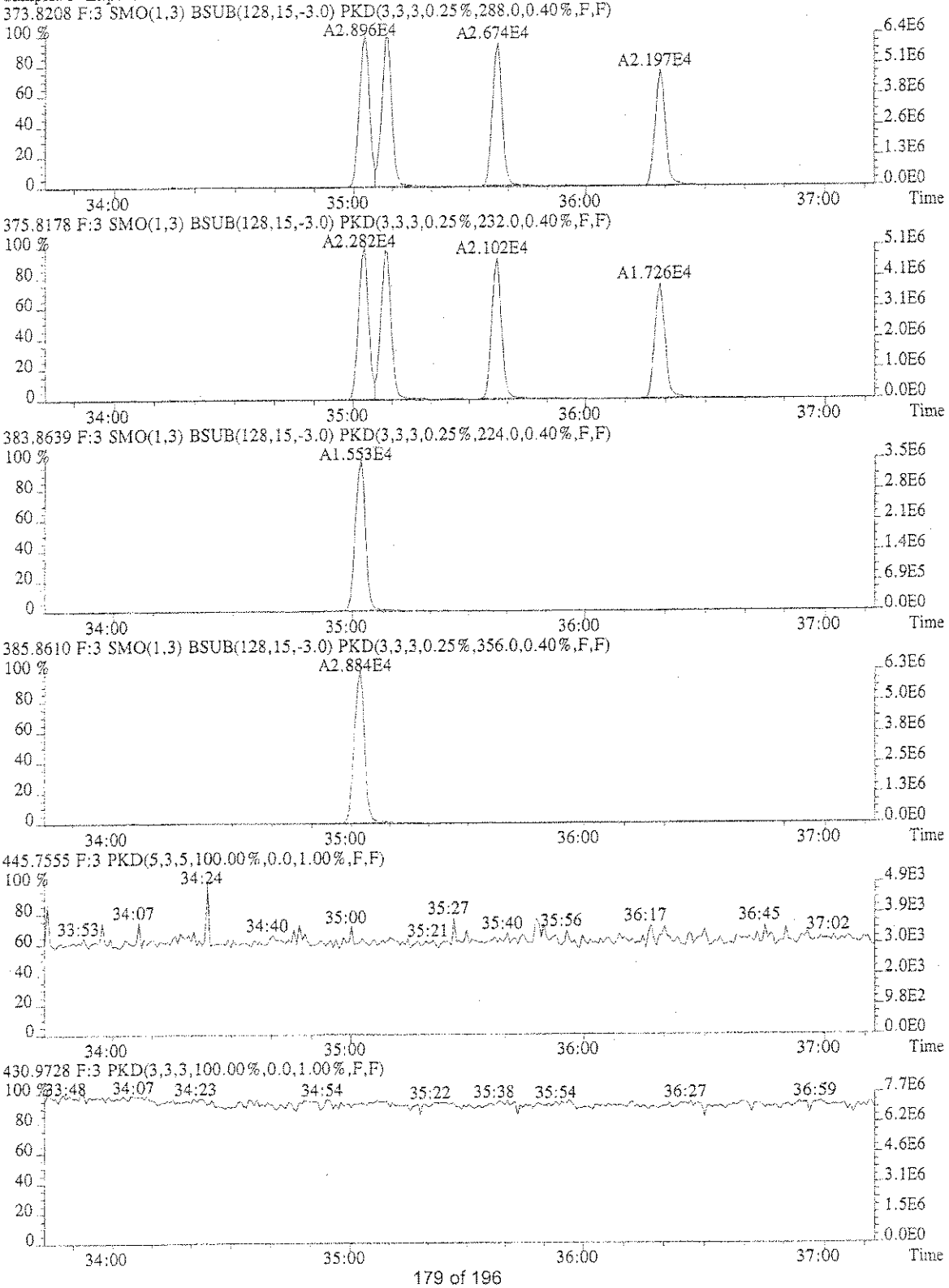
369.8919 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,328.0,1.00%,F,F)



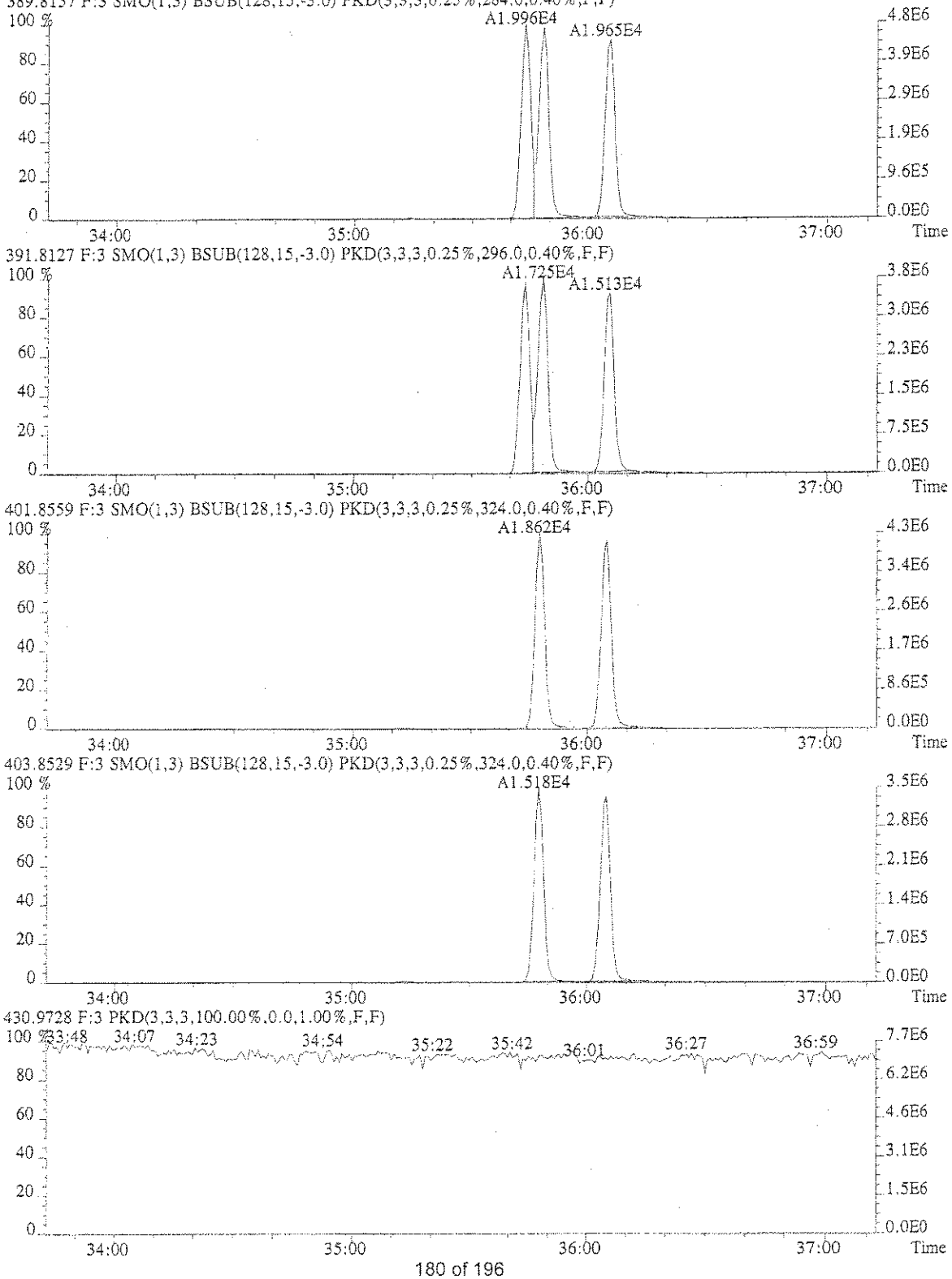
354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

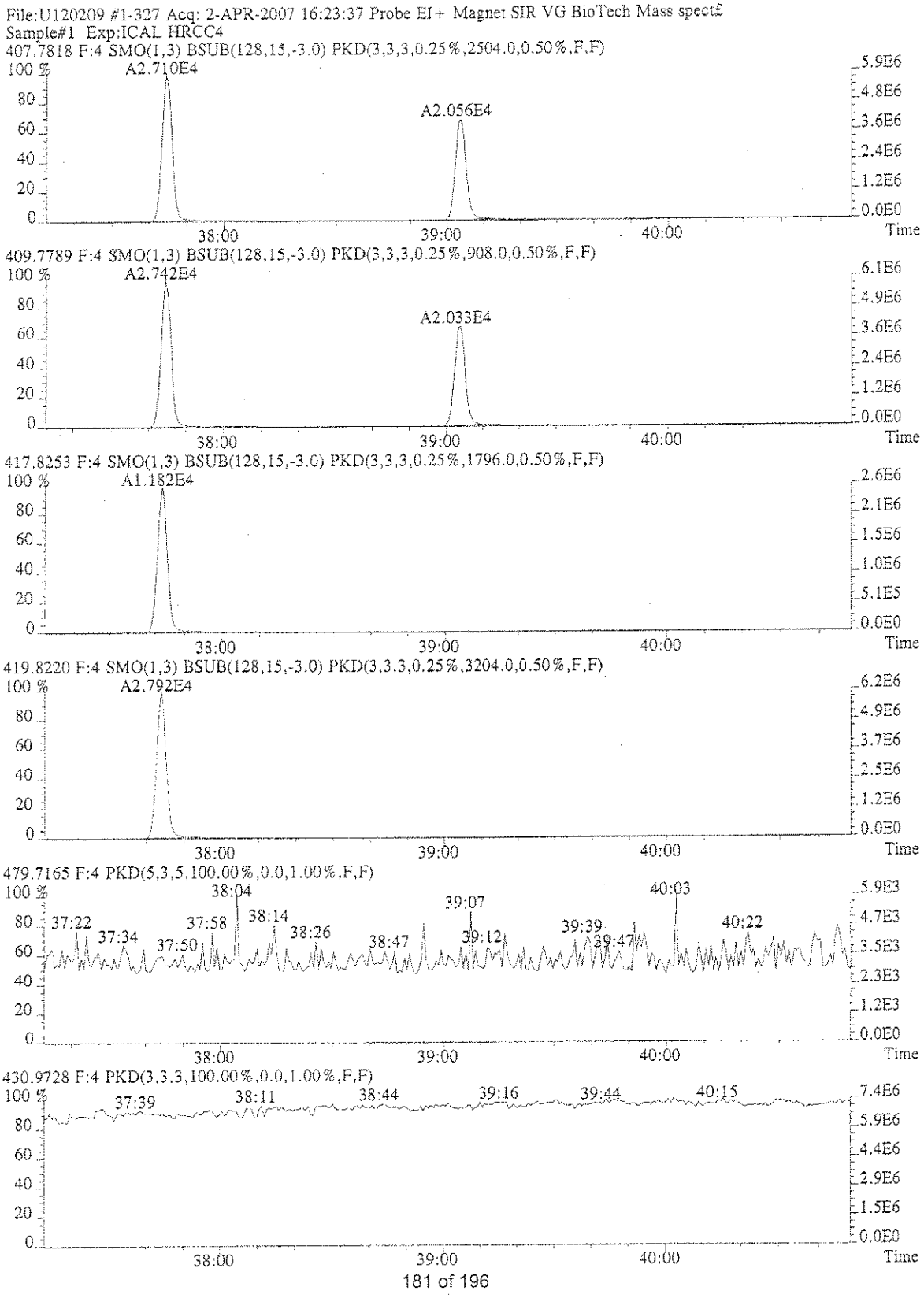


File:U120209 #1-318 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC4

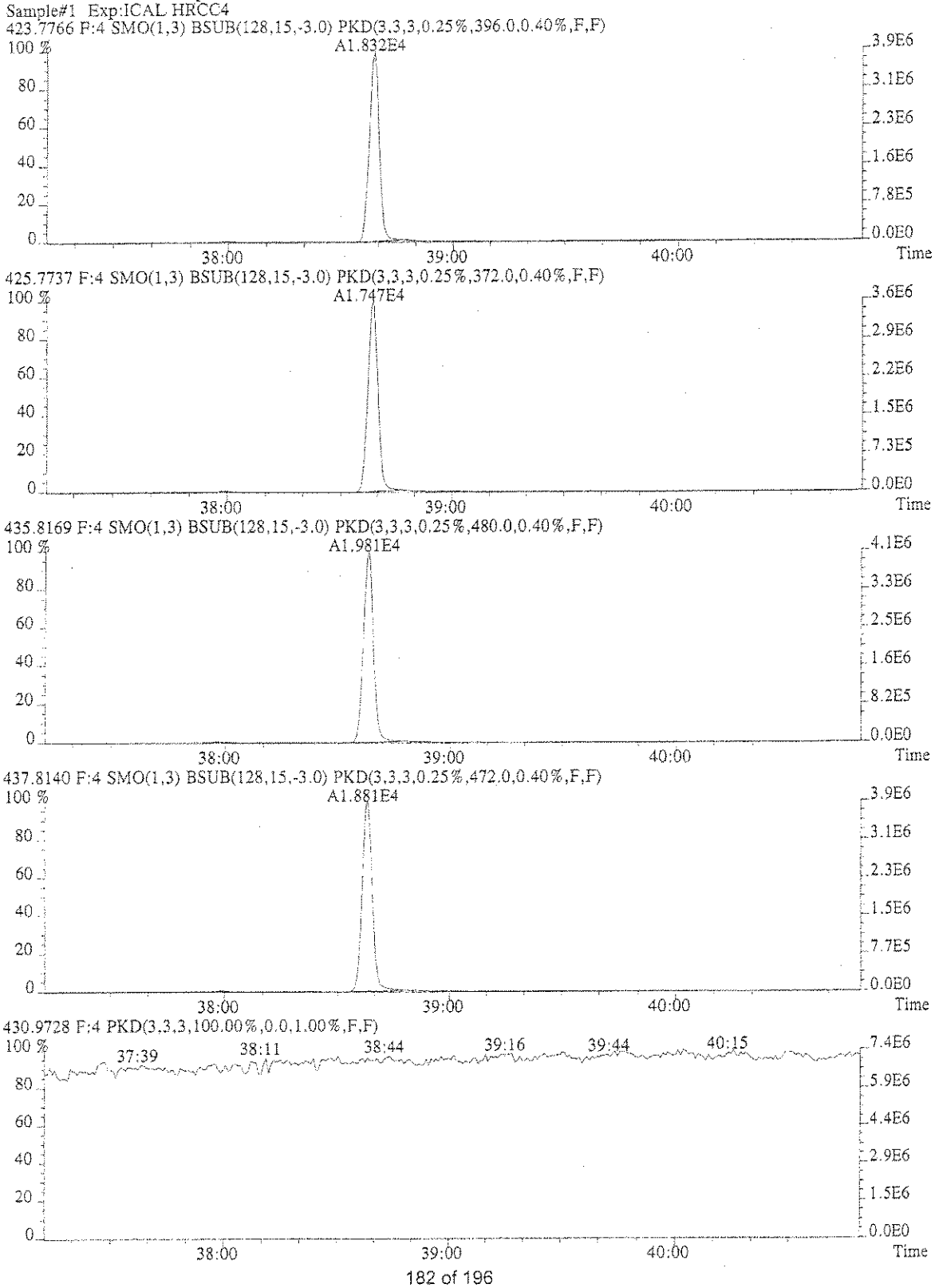


File:U120209 #1-318 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC4



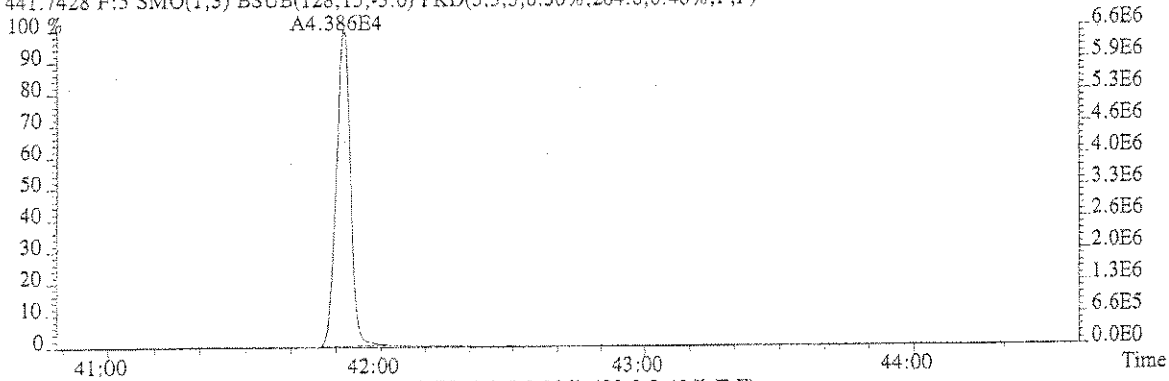

File:U120209 #1-327 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC4
407.7818 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,2504.0,0.50%,F,F)
A2.710E4
A2.056E4
409.7789 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,908.0,0.50%,F,F)
A2.742E4
A2.033E4
417.8253 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,1796.0,0.50%,F,F)
A1.182E4
419.8220 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,3204.0,0.50%,F,F)
A2.792E4
479.7165 F:4 PKD(5,3,5,100.00%,0.0,1.00%,F,F)
37:22
37:34
37:50
37:58
38:04
38:14
38:26
38:47
39:07
39:12
39:39
39:47
40:03
40:22
430.9728 F:4 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
37:39
38:11
38:44
39:16
39:44
40:15
Time

File:U120209 #1-327 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC4

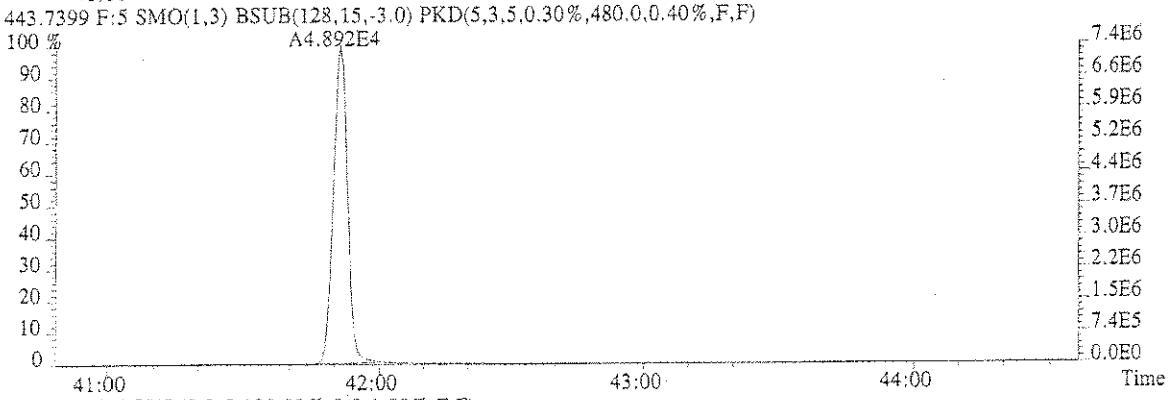


File:U120209 #1-420 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC4

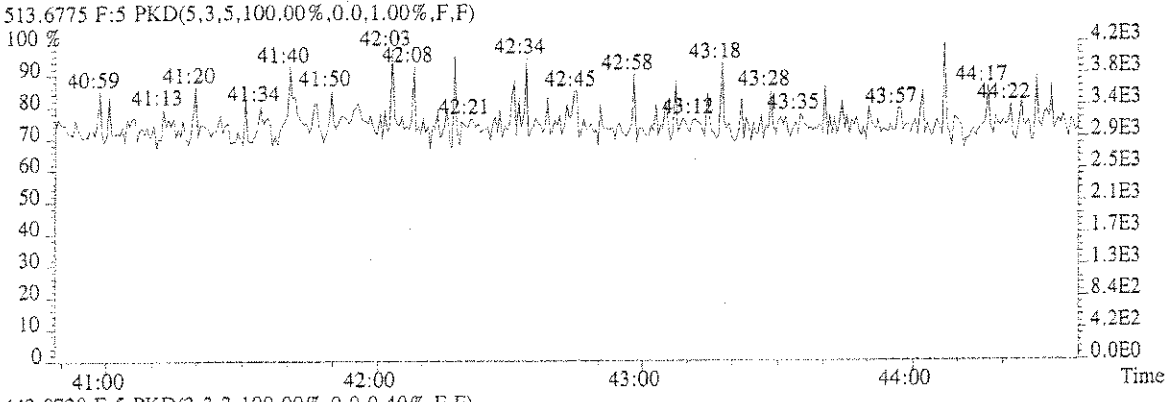
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,204.0,0.40%,F,F)



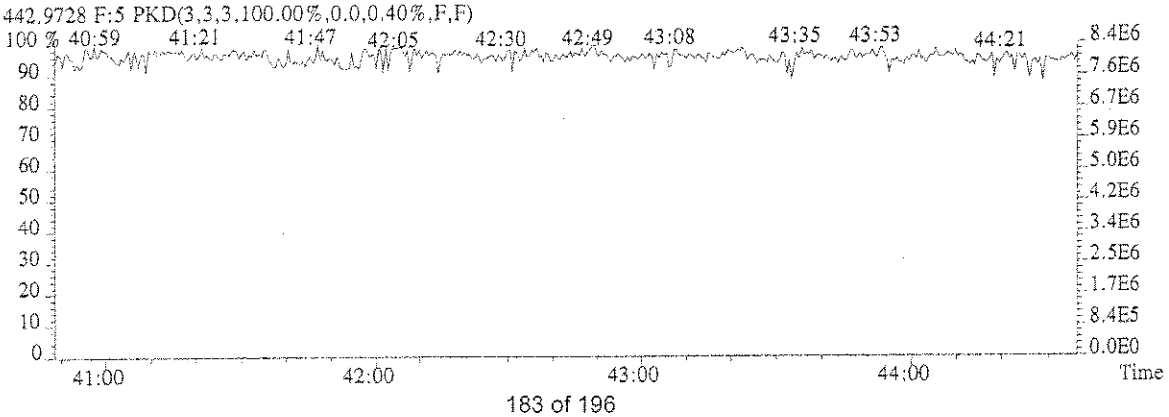
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,480.0,0.40%,F,F)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

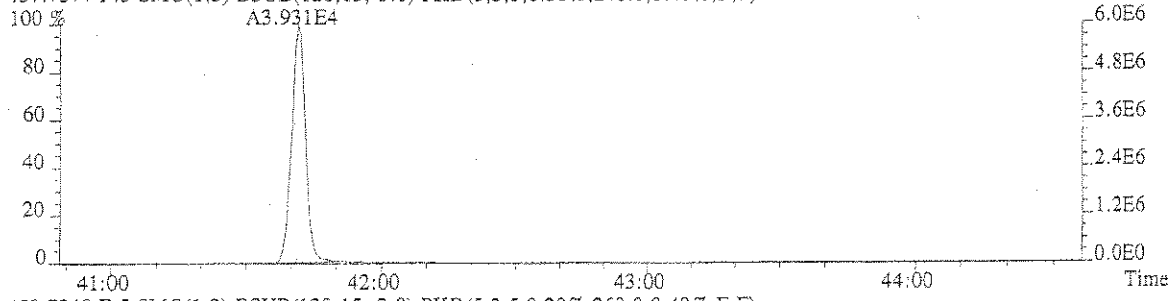


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

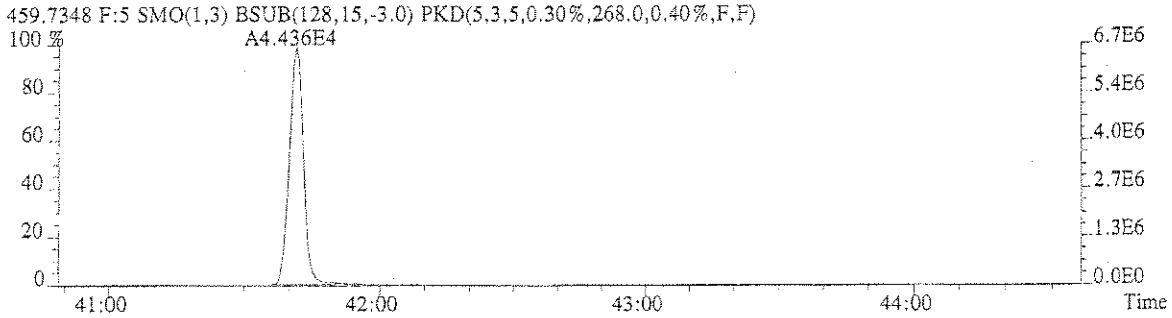


File:U120209 #1-420 Acq: 2-APR-2007 16:23:37 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC4

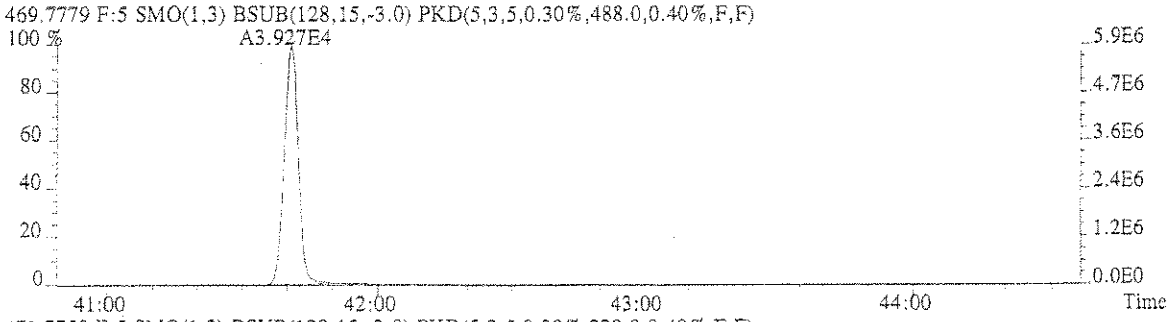
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,248.0,0.40%,F,F)



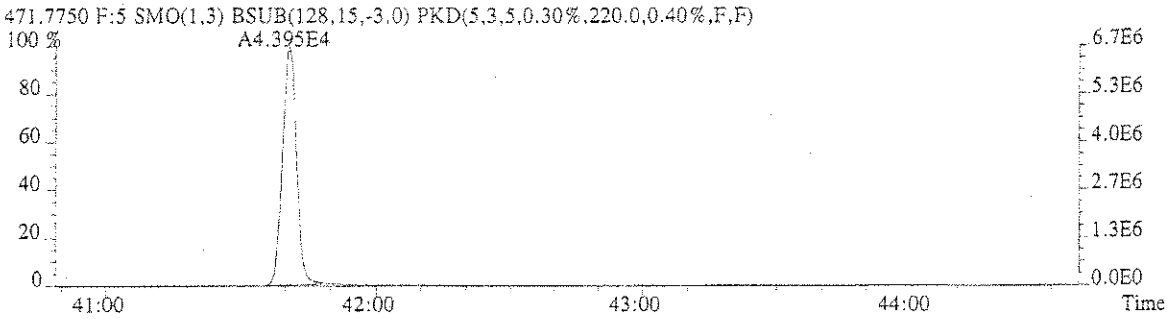
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,268.0,0.40%,F,F)



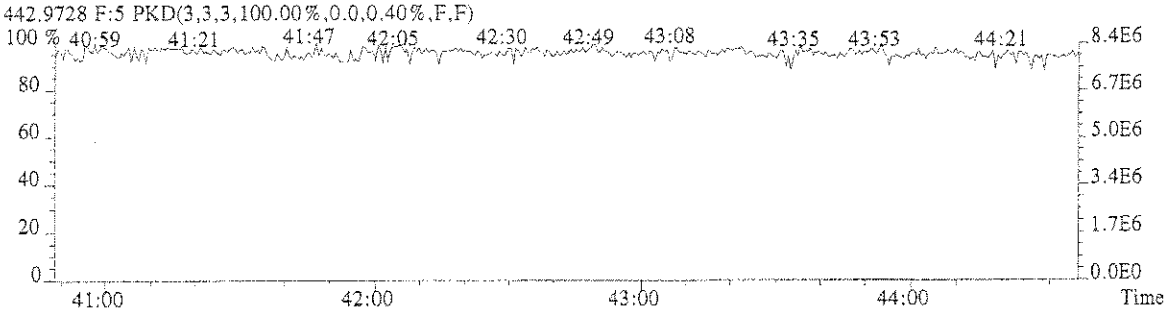
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,488.0,0.40%,F,F)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,220.0,0.40%,F,F)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



Columbia Analytical Services, Inc.
Sample Response Summary

CLIENT ID.
ICAL HRCC5

Run #5 Filename U120210 Samp: 1 Inj: 1 Acquired: 2-APR-07 17:13:27
Processed: 3-APR-07 08:06:21 Sample ID: ICAL HRCC5

	Typ	Name	RT-1	Resp 1	Resp 2	Ratio	Meet	Mod?
1	Unk	2,3,7,8-TCDF	27:16	3.073e+04	3.868e+04	0.79	yes	no
2	Unk	1,2,3,7,8-PeCDF	31:32	1.305e+05	8.373e+04	1.56	yes	no
3	Unk	2,3,4,7,8-PeCDF	32:15	1.410e+05	8.973e+04	1.57	yes	no
4	Unk	1,2,3,4,7,8-HxCDF	35:02	1.432e+05	1.188e+05	1.21	yes	no
5	Unk	1,2,3,6,7,8-HxCDF	35:08	1.340e+05	1.103e+05	1.21	yes	no
6	Unk	2,3,4,6,7,8-HxCDF	35:37	1.219e+05	1.002e+05	1.22	yes	no
7	Unk	1,2,3,7,8,9-HxCDF	36:18	1.109e+05	8.991e+04	1.23	yes	no
8	Unk	1,2,3,4,6,7,8-HpCDF	37:45	1.305e+05	1.322e+05	0.99	yes	no
9	Unk	1,2,3,4,7,8,9-HpCDF	39:03	1.055e+05	1.048e+05	1.01	yes	no
10	Unk	OCDF	41:51	2.306e+05	2.476e+05	0.93	yes	no
11	Unk	2,3,7,8-TCDD	28:04	2.217e+04	2.804e+04	0.79	yes	no
12	Unk	1,2,3,7,8-PeCDD	32:36	9.088e+04	5.795e+04	1.57	yes	no
13	Unk	1,2,3,4,7,8-HxCDD	35:43	1.032e+05	7.963e+04	1.30	yes	no
14	Unk	1,2,3,6,7,8-HxCDD	35:48	1.028e+05	7.916e+04	1.30	yes	no
15	Unk	1,2,3,7,8,9-HxCDD	36:05	9.762e+04	7.432e+04	1.31	yes	no
16	Unk	1,2,3,4,6,7,8-HpCDD	38:38	9.041e+04	8.809e+04	1.03	yes	no
17	Unk	OCDD	41:41	2.038e+05	2.246e+05	0.91	yes	no
18	IS	13C-2,3,7,8-TCDF	27:15	8.247e+03	1.033e+04	0.80	yes	no
19	IS	13C-1,2,3,7,8-PeCDF	31:31	1.377e+04	8.745e+03	1.57	yes	no
20	IS	13C-1,2,3,4,7,8-HxCDF	35:02	1.836e+04	3.563e+04	0.52	yes	no
21	IS	13C-1,2,3,4,6,7,8-HpCDF	37:44	1.415e+04	3.329e+04	0.42	yes	no
22	IS	13C-2,3,7,8-TCDD	28:04	5.637e+03	7.338e+03	0.77	yes	no
23	IS	13C-1,2,3,7,8-PeCDD	32:36	9.489e+03	6.140e+03	1.55	yes	no
24	IS	13C-1,2,3,6,7,8-HxCDD	35:47	2.287e+04	1.850e+04	1.24	yes	no
25	IS	13C-1,2,3,4,6,7,8-HpCDD	38:37	2.374e+04	2.282e+04	1.04	yes	no
26	IS	13C-OCDD	41:40	5.044e+04	5.591e+04	0.90	yes	no
27	RS/RT	13C-1,2,3,4-TCDD	27:51	6.234e+03	8.066e+03	0.77	yes	no
28	RS/RT	13C-1,2,3,7,8,9-HxCDD	36:04	2.258e+04	1.804e+04	1.25	yes	no
29	C/Up	37Cl-2,3,7,8-TCDD	28:05	5.168e+04				

Columbia Analytical Services, Inc.
10655 Richmond Ave., Suite 130A
Houston, TX 77042
Office(713)266-1599. Fax(713)266-0130

Columbia Analytical Services,Inc. CLIENT ID.
Signal/Noise Height Ratio Summary ICAL HRCC5

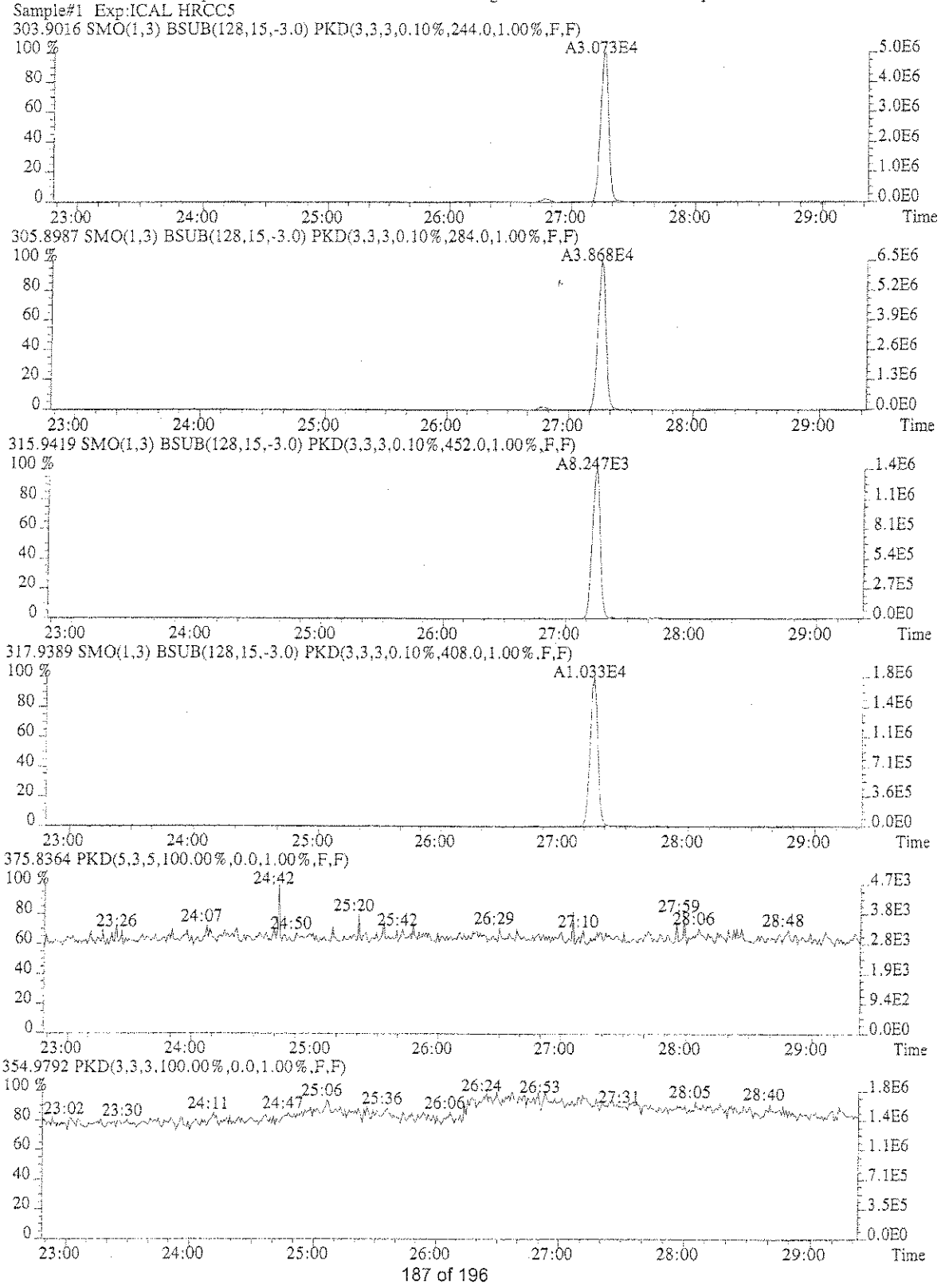
Run #5 Filename U120210 Samp: 1 Inj: 1 Acquired: 2-APR-07 17:13:27

Processed: 3-APR-07 08:06:21 LAB. ID: ICAL HRCC5

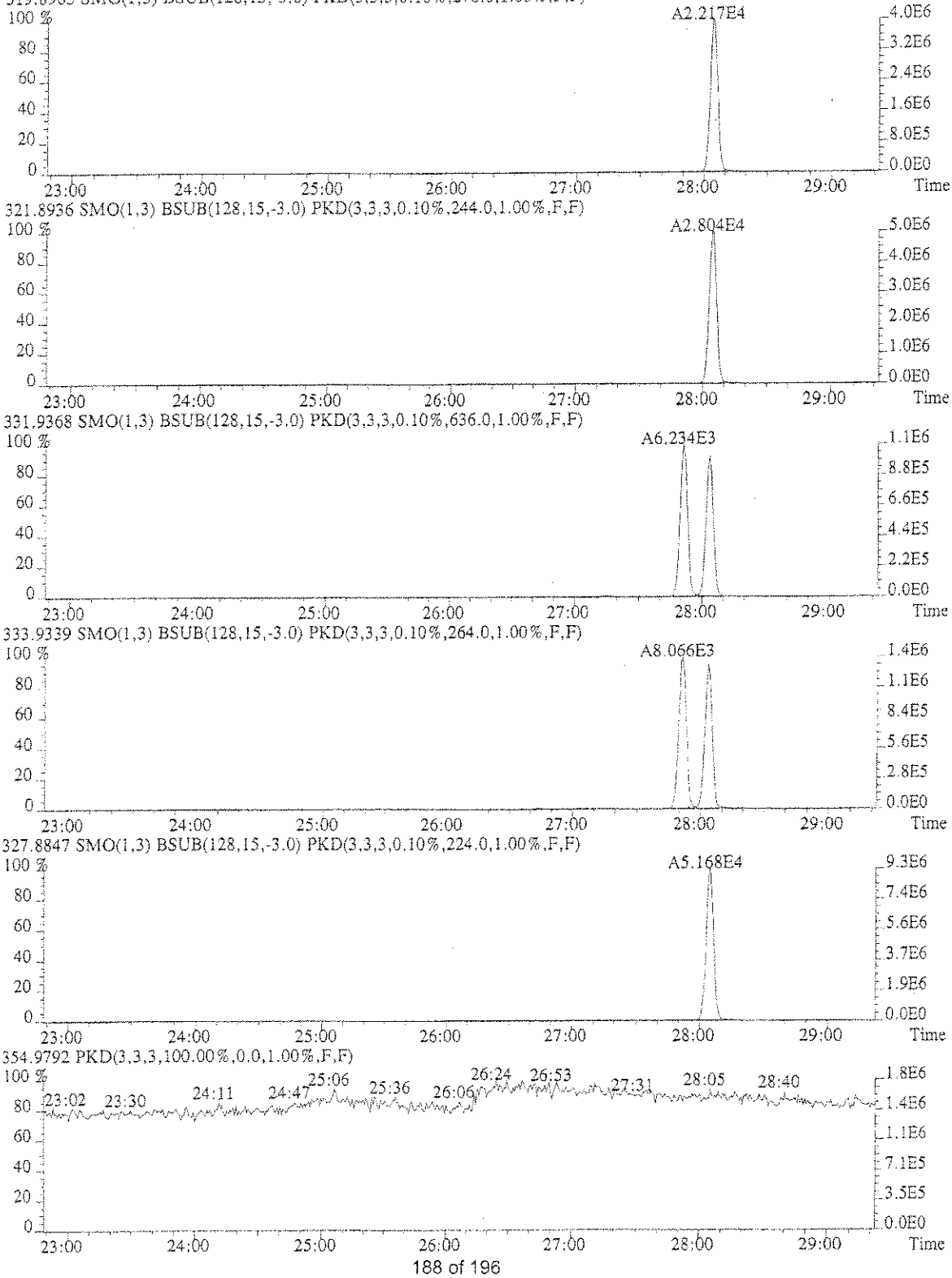
	Name	Signal 1	Noise 1	S/N Rat.1	Signal 2	Noise 2	S/N Rat.2
1	2,3,7,8-TCDF	5.01e+06	2.44e+02	2.1e+04	6.46e+06	2.84e+02	2.3e+04
2	1,2,3,7,8-PeCDF	2.56e+07	2.76e+02	9.3e+04	1.61e+07	3.44e+02	4.7e+04
3	2,3,4,7,8-PeCDF	2.84e+07	2.76e+02	1.0e+05	1.82e+07	3.44e+02	5.3e+04
4	1,2,3,4,7,8-HxCDF	3.21e+07	3.76e+02	8.5e+04	2.67e+07	3.84e+02	6.9e+04
5	1,2,3,6,7,8-HxCDF	2.93e+07	3.76e+02	7.8e+04	2.45e+07	3.84e+02	6.4e+04
6	2,3,4,6,7,8-HxCDF	2.70e+07	3.76e+02	7.2e+04	2.26e+07	3.84e+02	5.9e+04
7	1,2,3,7,8,9-HxCDF	2.42e+07	3.76e+02	6.4e+04	1.99e+07	3.84e+02	5.2e+04
8	1,2,3,4,6,7,8-HpCDF	2.77e+07	6.20e+03	4.5e+03	2.83e+07	5.89e+03	4.8e+03
9	1,2,3,4,7,8,9-HpCDF	2.17e+07	6.20e+03	3.5e+03	2.17e+07	5.89e+03	3.7e+03
10	OCDF	3.44e+07	2.96e+02	1.2e+05	3.73e+07	4.68e+02	8.0e+04
11	2,3,7,8-TCDD	4.01e+06	2.76e+02	1.5e+04	5.03e+06	2.44e+02	2.1e+04
12	1,2,3,7,8-PeCDD	1.92e+07	4.72e+02	4.1e+04	1.23e+07	3.08e+02	4.0e+04
13	1,2,3,4,7,8-HxCDD	2.28e+07	2.72e+02	8.4e+04	1.78e+07	2.68e+02	6.6e+04
14	1,2,3,6,7,8-HxCDD	2.30e+07	2.72e+02	8.5e+04	1.79e+07	2.68e+02	6.7e+04
15	1,2,3,7,8,9-HxCDD	2.22e+07	2.72e+02	8.2e+04	1.70e+07	2.68e+02	6.3e+04
16	1,2,3,4,6,7,8-HpCDD	1.89e+07	4.36e+02	4.3e+04	1.87e+07	8.52e+02	2.2e+04
17	OCDD	3.10e+07	1.28e+02	2.4e+05	3.43e+07	3.68e+02	9.3e+04
18	13C-2,3,7,8-TCDF	1.35e+06	4.52e+02	3.0e+03	1.77e+06	4.08e+02	4.3e+03
19	13C-1,2,3,7,8-PeCDF	2.68e+06	3.08e+02	8.7e+03	1.69e+06	3.20e+02	5.3e+03
20	13C-1,2,3,4,7,8-HxCDF	4.09e+06	2.88e+02	1.4e+04	7.87e+06	4.68e+02	1.7e+04
21	13C-1,2,3,4,6,7,8-HpCDF	3.05e+06	1.43e+03	2.1e+03	7.10e+06	8.80e+02	8.1e+03
22	13C-2,3,7,8-TCDD	1.02e+06	6.36e+02	1.6e+03	1.33e+06	2.64e+02	5.0e+03
23	13C-1,2,3,7,8-PeCDD	2.01e+06	2.88e+02	7.0e+03	1.28e+06	3.36e+02	3.8e+03
24	13C-1,2,3,6,7,8-HxCDD	5.11e+06	2.00e+02	2.6e+04	4.20e+06	4.72e+02	8.9e+03
25	13C-1,2,3,4,6,7,8-HpCDD	5.11e+06	5.88e+02	8.7e+03	4.85e+06	4.12e+02	1.2e+04
26	13C-OCDD	7.73e+06	2.76e+02	2.8e+04	8.47e+06	2.92e+02	2.9e+04
27	13C-1,2,3,4-TCDD	1.10e+06	6.36e+02	1.7e+03	1.40e+06	2.64e+02	5.3e+03
28	13C-1,2,3,7,8,9-HxCDD	5.02e+06	2.00e+02	2.5e+04	4.10e+06	4.72e+02	8.7e+03
29	37Cl-2,3,7,8-TCDD	9.27e+06	2.24e+02	4.1e+04			

Columbia Analytical Services, Inc.
10655 Richmond Ave., Suite 130A
Houston, TX 77042
Office:(713)266-1599. Fax:(713)266-0130

File:U120210 #1-548 Acq: 2-APR-2007 17:13:27 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC5

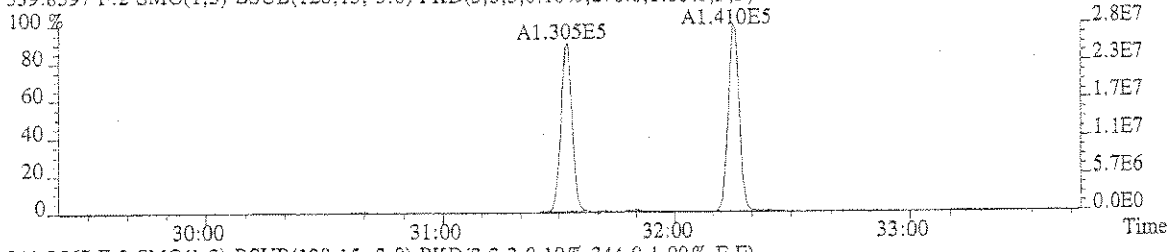


File:U120210 #1-548 Acq: 2-APR-2007 17:13:27 Probe EI+ Magnet SIR VG BioTech Mass spect£
Sample#1 Exp:ICAL HRCC5

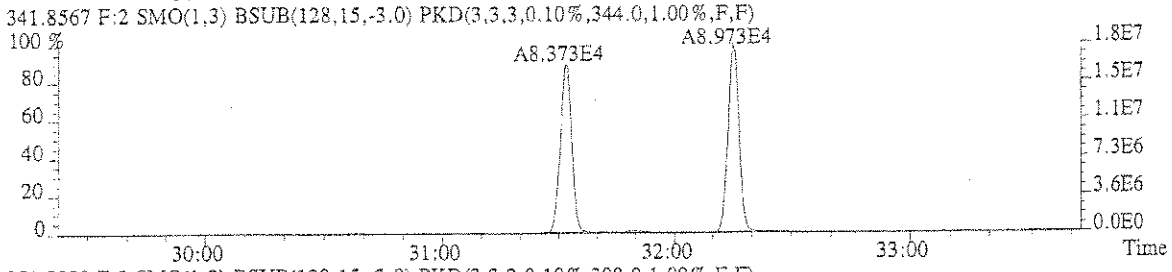


File:U120210 #1-394 Acq: 2-APR-2007 17:13:27 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC5

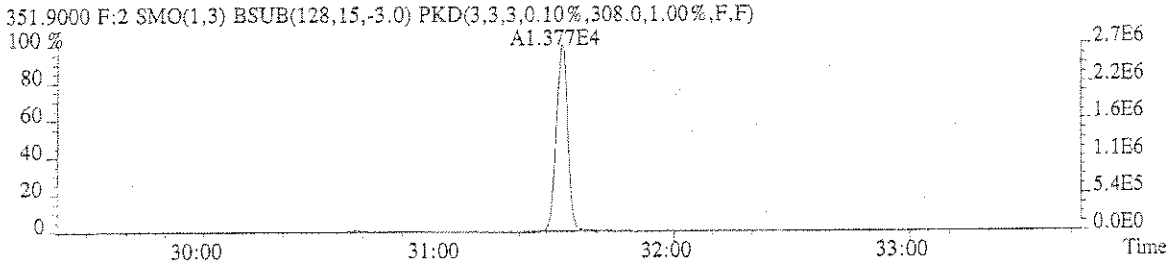
339.8597 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,276.0,1.00%,F,F)



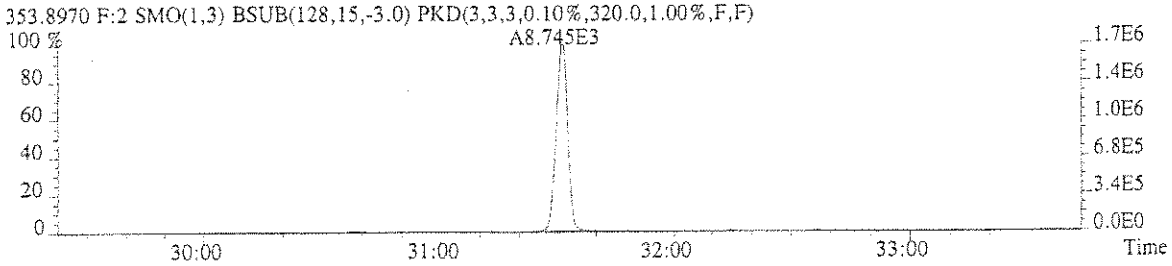
341.8567 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,344.0,1.00%,F,F)



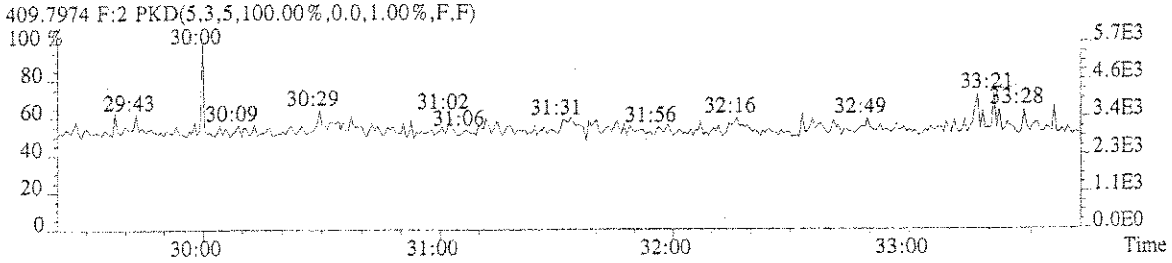
351.9000 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,308.0,1.00%,F,F)



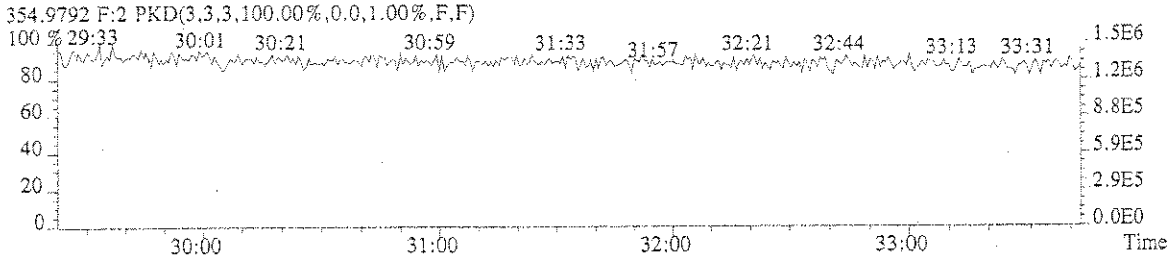
353.8970 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.10%,320.0,1.00%,F,F)



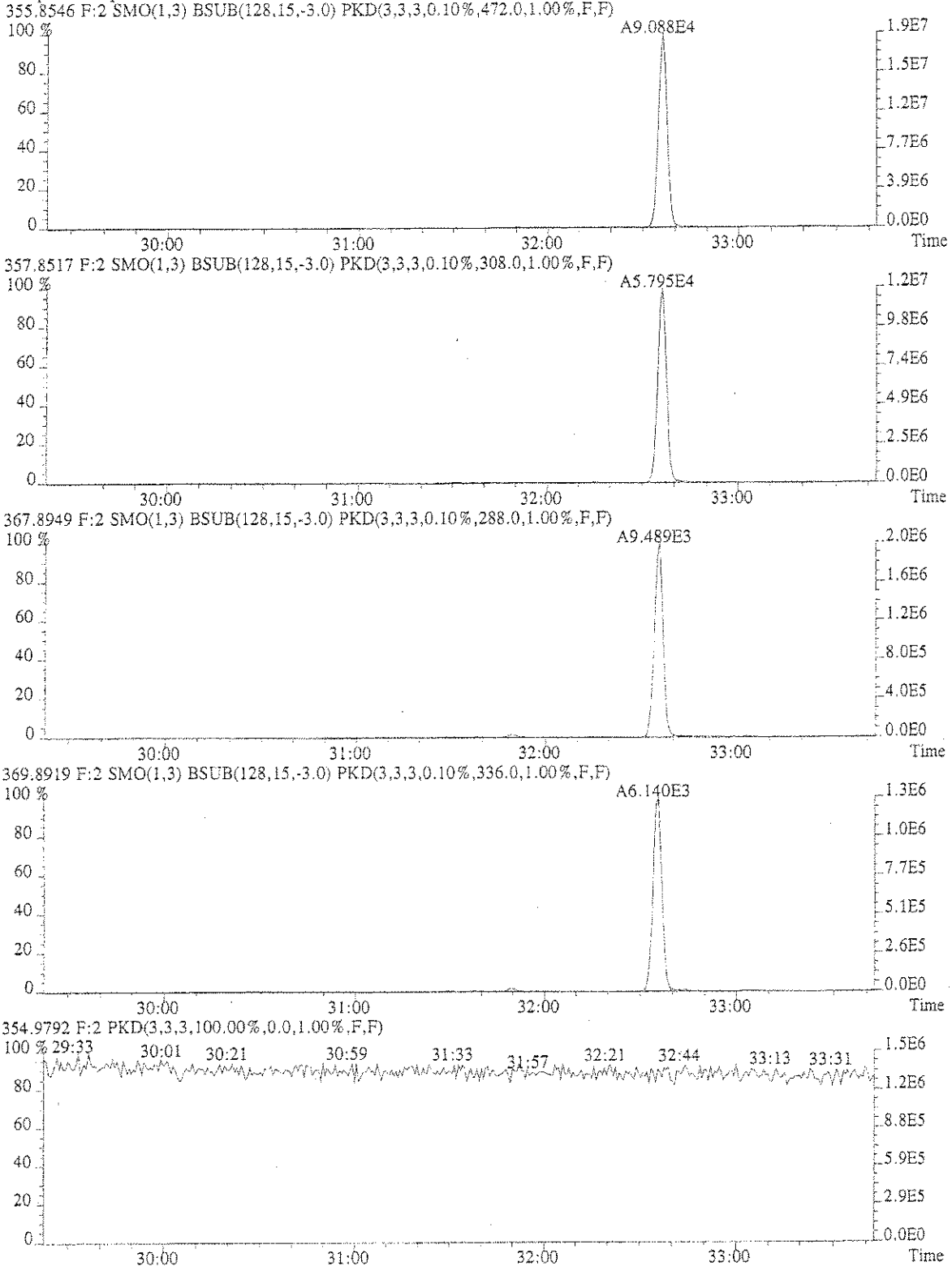
409.7974 F:2 PKD(5,3,5,100.00%,0.0,1.00%,F,F)



354.9792 F:2 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

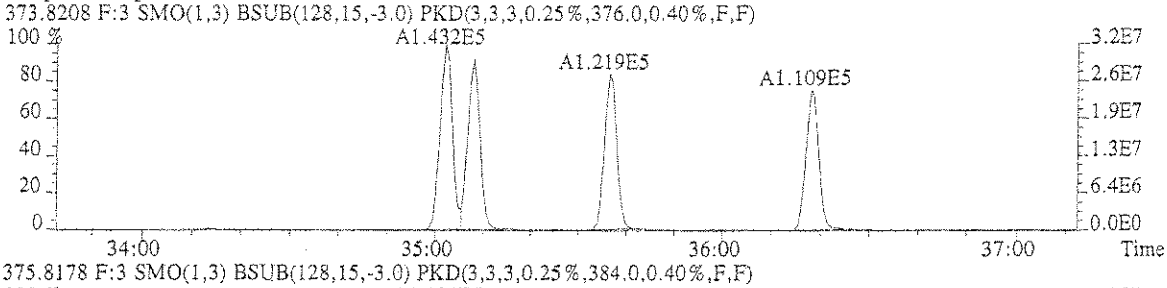


File:U120210 #1-394 Acq: 2-APR-2007 17:13:27 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC5

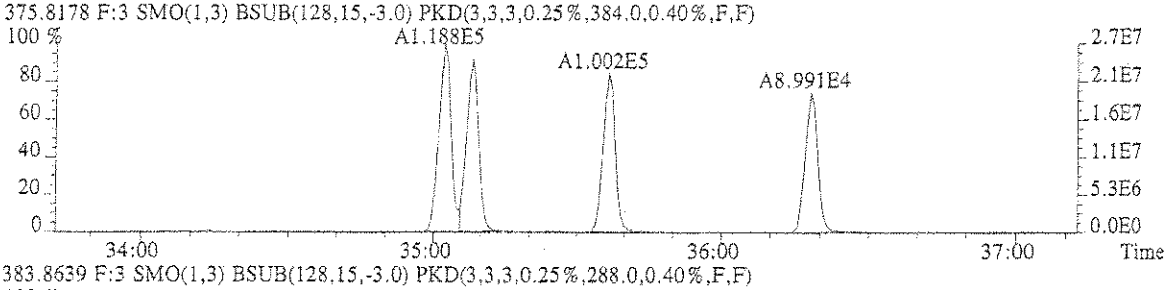


File:U120210 #1-318 Acq: 2-APR-2007 17:13:27 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC5

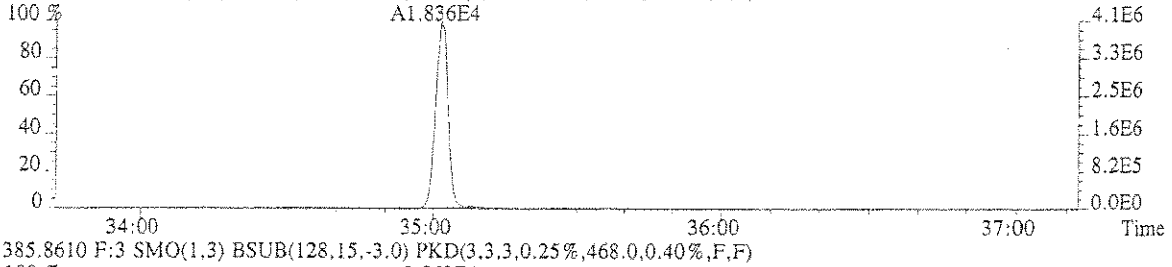
373.8208 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,376.0,0.40%,F,F)



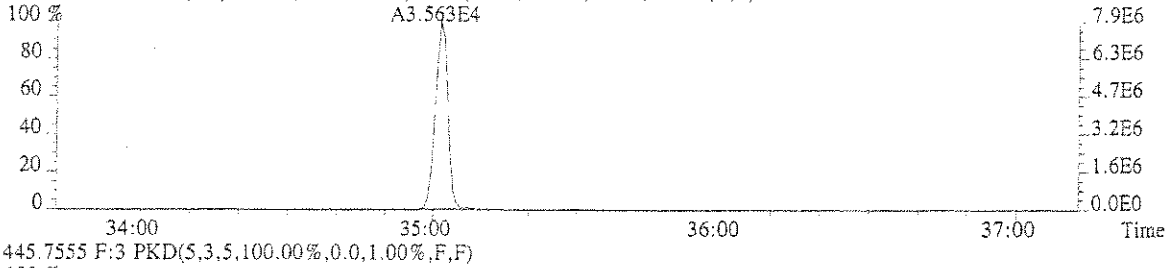
375.8178 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,384.0,0.40%,F,F)



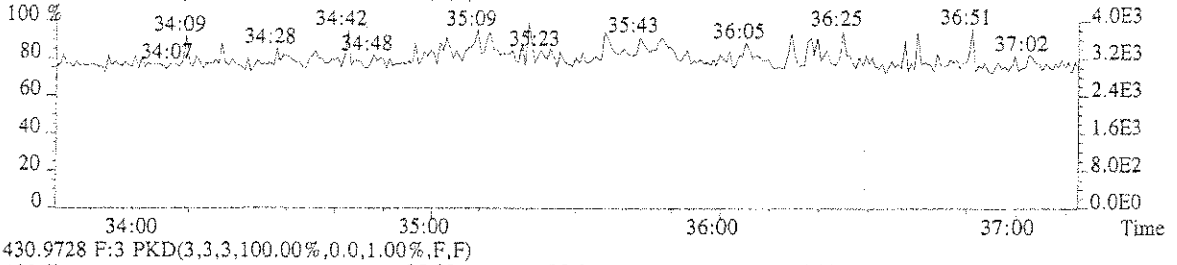
383.8639 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,288.0,0.40%,F,F)



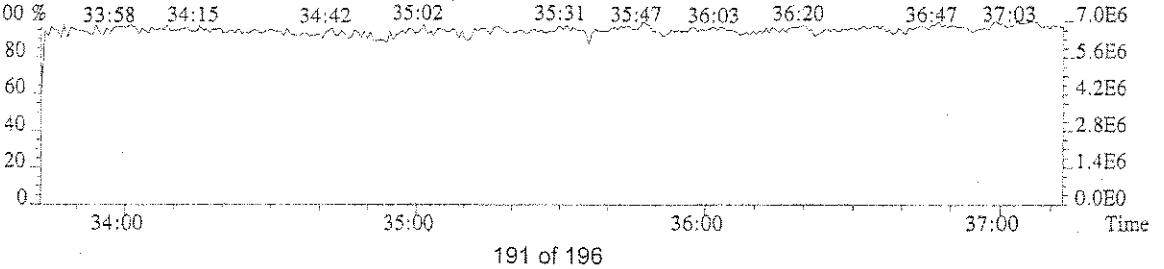
385.8610 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,468.0,0.40%,F,F)

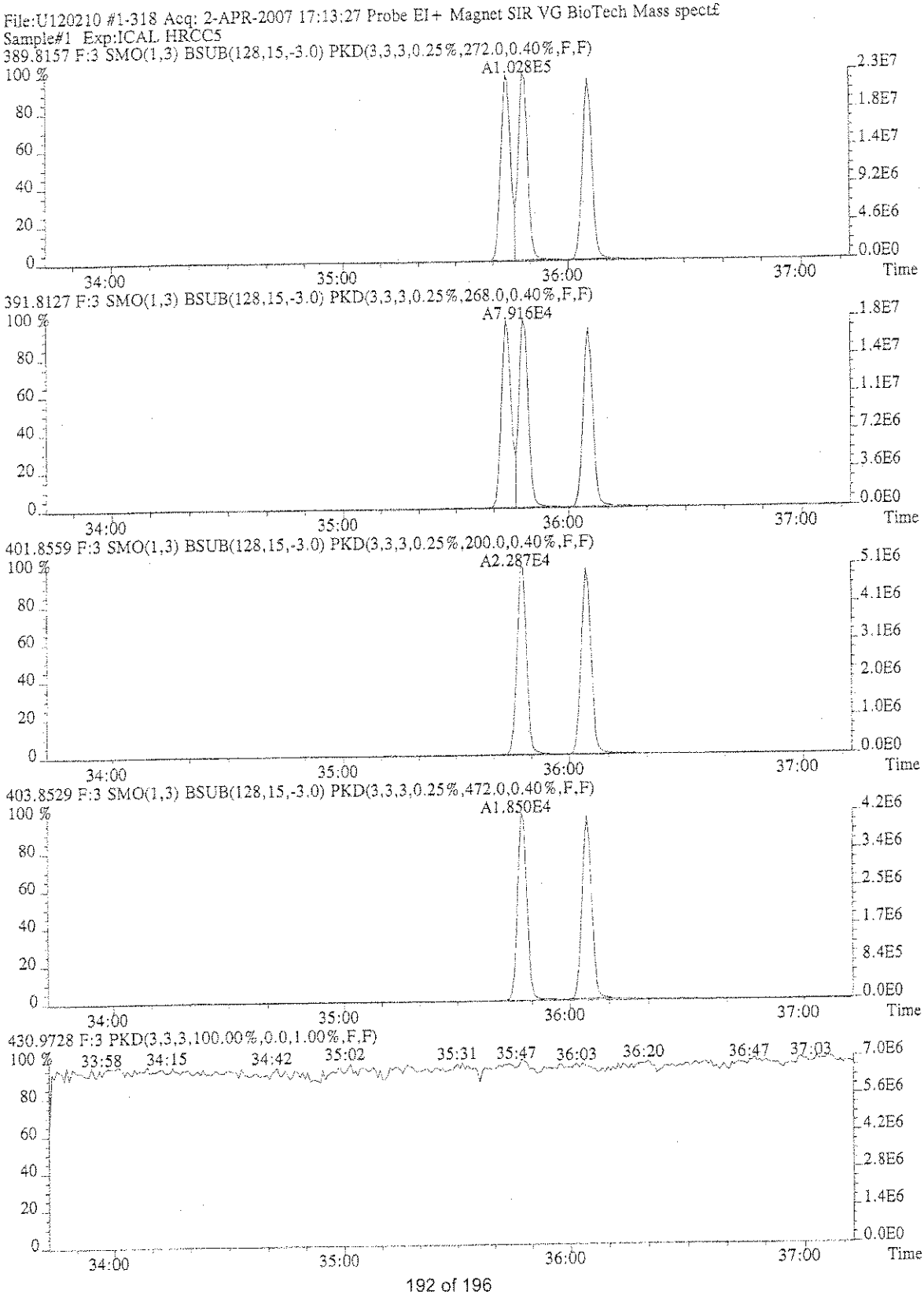


445.7555 F:3 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

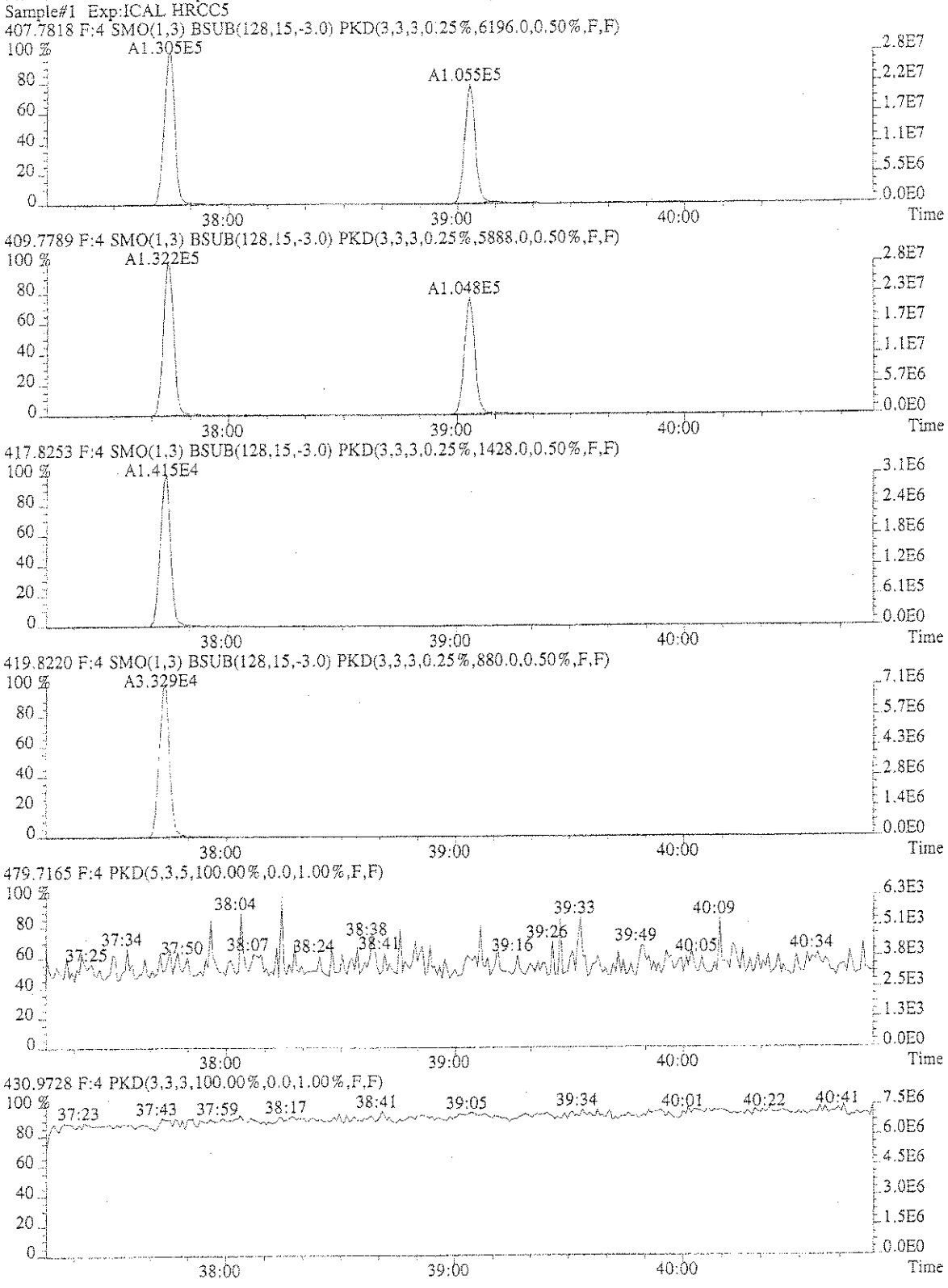


430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)

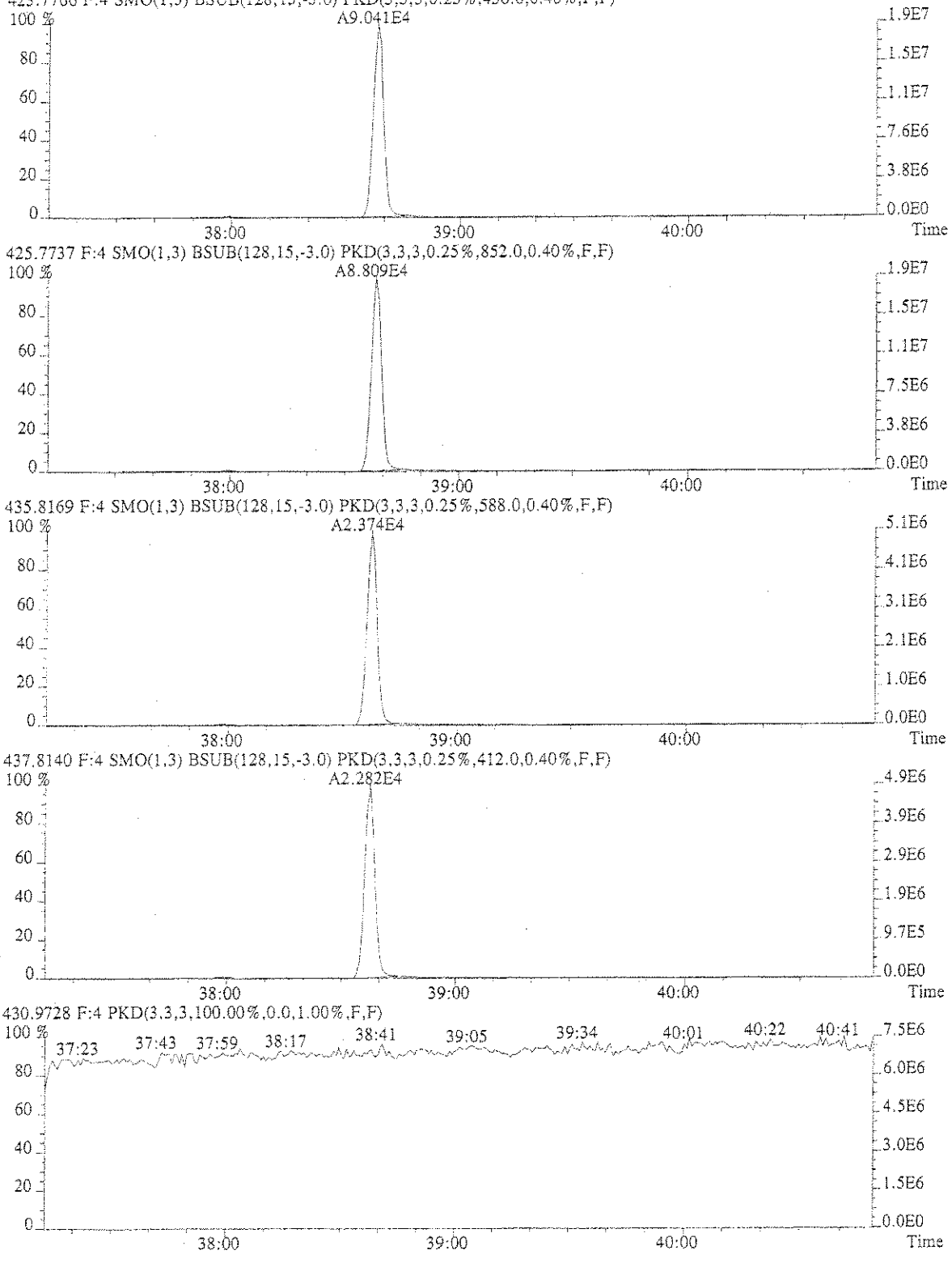



File:U120210 #1-318 Acq: 2-APR-2007 17:13:27 Probe EI+ Magnet SIR VG BioTech Mass spectE
Sample#1 Exp:ICAL HRCC5
389.8157 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,272.0,0.40%,F,F)
A1.028E5
391.8127 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,268.0,0.40%,F,F)
A7.916E4
401.8559 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,200.0,0.40%,F,F)
A2.287E4
403.8529 F:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,3,3,0.25%,472.0,0.40%,F,F)
A1.850E4
430.9728 F:3 PKD(3,3,3,100.00%,0.0,1.00%,F,F)
100 %
80
60
40
20
0
34:00
35:00
36:00
37:00
Time
2.3E7
1.8E7
1.4E7
9.2E6
4.6E6
0.0E0
1.1E7
7.2E6
3.6E6
5.1E6
4.1E6
3.1E6
2.0E6
1.0E6
4.2E6
3.4E6
2.5E6
1.7E6
8.4E5
33:58
34:15
34:42
35:02
35:31
35:47
36:03
36:20
36:47
37:03
7.0E6
5.6E6
4.2E6
2.8E6
1.4E6

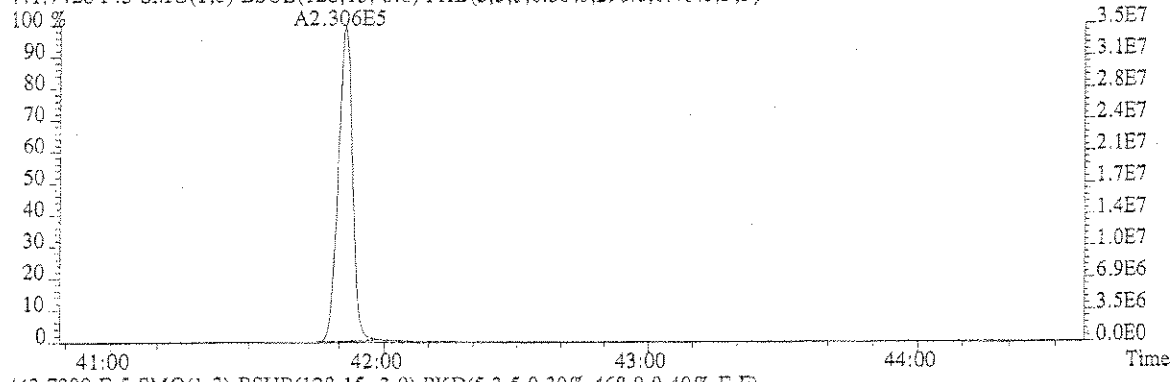
File:U120210 #1-327 Acq: 2-APR-2007 17:13:27 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 Exp:ICAL HRCC5



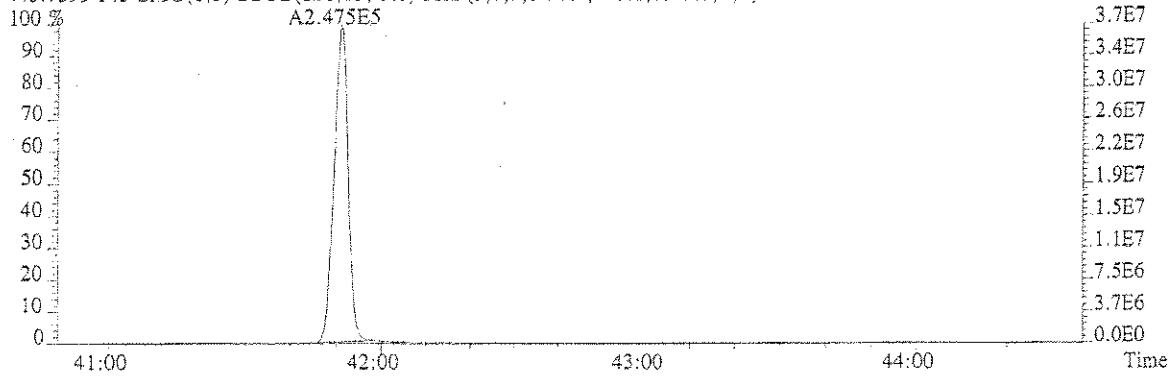
File:U120210 #1-327 Acq: 2-APR-2007 17:13:27 Probe EI+ Magnet SIR VG BioTech Mass spectr
Sample#1 Exp:ICAL HRCC5



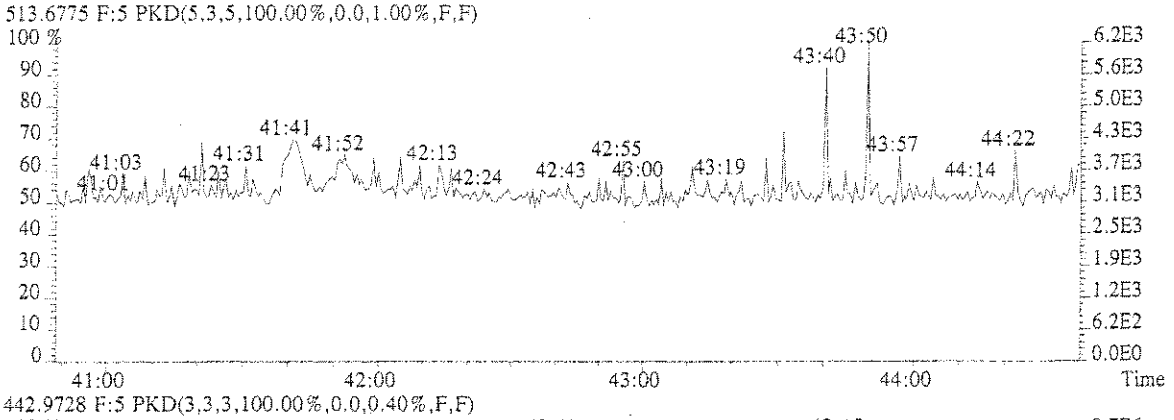
File:U120210 #1-420 Acq: 2-APR-2007 17:13:27 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC5
441.7428 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,296.0,0.40%,F,F)



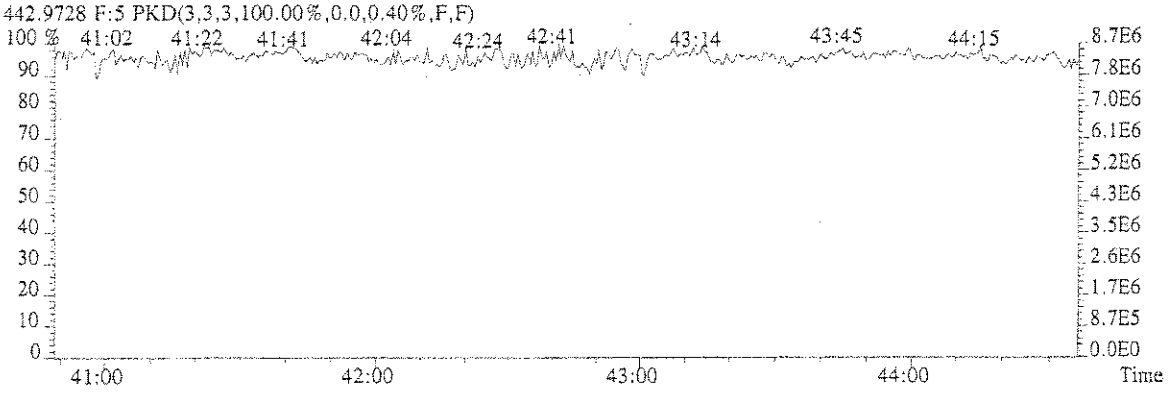
443.7399 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,468.0,0.40%,F,F)



513.6775 F:5 PKD(5,3,5,100.00%,0.0,1.00%,F,F)

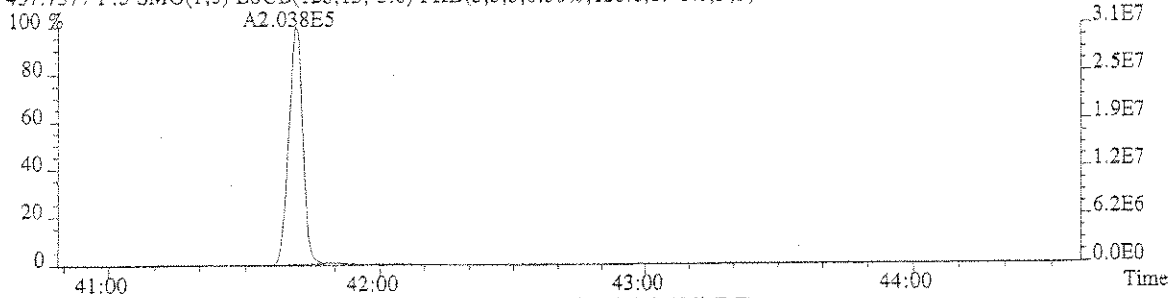


442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)

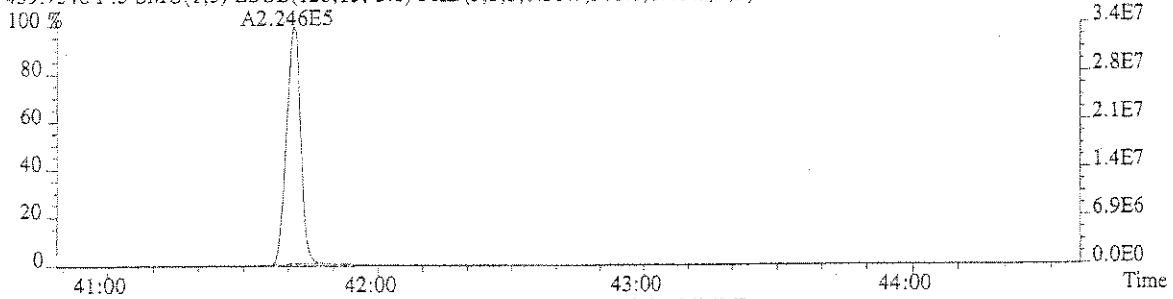


File:U120210 #1-420 Acq: 2-APR-2007 17:13:27 Probe EI+ Magnet SIR VG BioTech Mass spectf
Sample#1 Exp:ICAL HRCC5

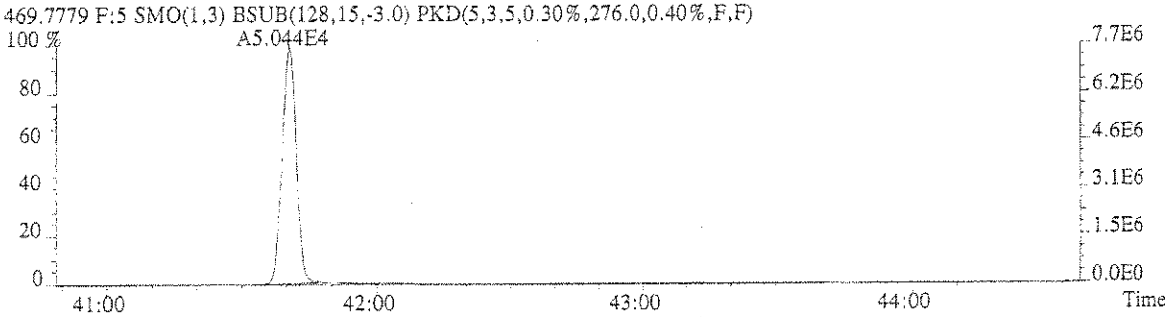
457.7377 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,128.0,0.40%,F,F)



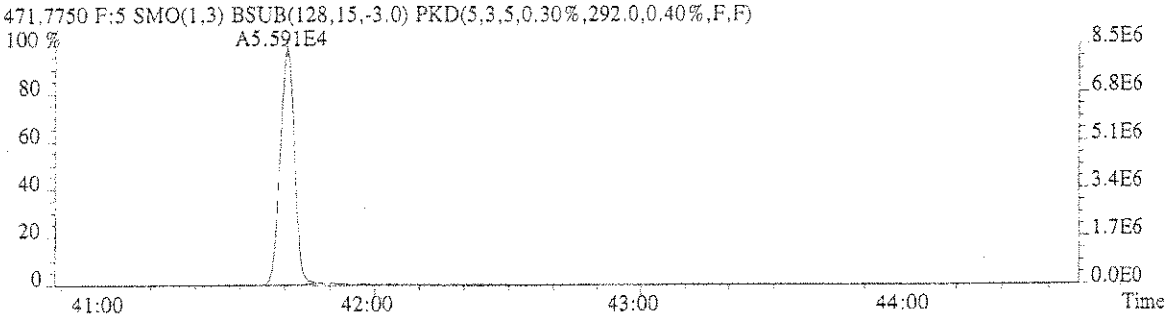
459.7348 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,368.0,0.40%,F,F)



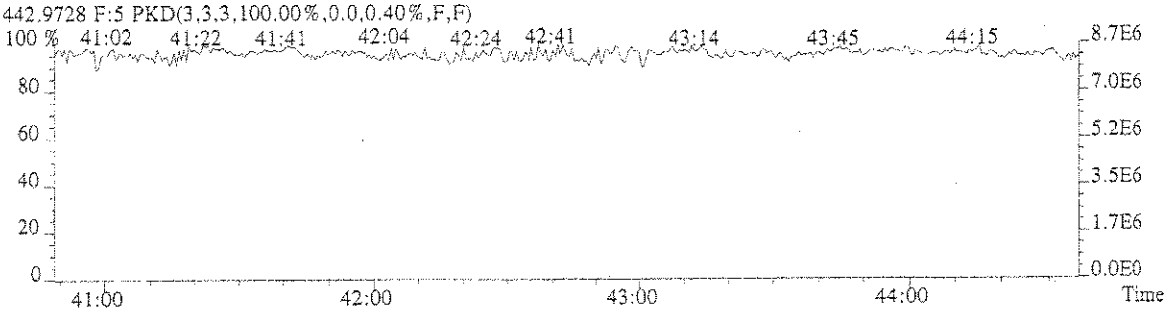
469.7779 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,276.0,0.40%,F,F)



471.7750 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(5,3,5,0.30%,292.0,0.40%,F,F)



442.9728 F:5 PKD(3,3,3,100.00%,0.0,0.40%,F,F)



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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE 1 OF 1

SR #

CAS Contact

Project Name: OLD Troy Municipal Incinerator Site	Project Number: 002699.1009.03
Project Manager: JON Nickerson	Report CC:
Company/Address: Ecology + Environment, Inc. 368 PLEASANTVIEW Drive Lancaster, NY 14086	
Phone #: 716 684 8060	FAX#: 716 684 0844
Sampler's Signature:	Sampler's Printed Name: James Mays

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐8260 ☐624 ☐CLP	GC/MS SVOA's ☐8270 ☐625 ☐CLP	GC VOA's ☐8021 ☐601/602	PESTICIDES ☐8081 ☐608 ☐CLP	PCB's ☐8082 ☐608 ☐CLP	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Dioxin	% Solids							REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE															0	0					
OTMi-SB02	1025097	8/1/07	1415	Soil	2								1	1							
OTMi-SB201	1025098	8/1/07	1420	Soil	2								1	1							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

: PLEASE Check With JON Nickerson for REPORT REQUIREMENTS :

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ **RUSH** (SURCHARGES APPLY)
_____ 24 hr _____ 48 hr _____ 5 day
X **STANDARD**
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
_____ V. Speicalized Forms / Custom Report
Edata X Yes _____ No

INVOICE INFORMATION
PO#
BILL TO: E+E
368 PLEASANTVIEW Dr.
Lancaster, NY 14086
SUBMISSION #: K2738552

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature: Rachel Jones	Signature	Signature	Signature	Signature
Printed Name: James Mays	Printed Name: Rachel Jones	Printed Name	Printed Name	Printed Name	Printed Name
Firm: E+E	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 8/2/07 1530	Date/Time: 8/3/07 1735	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1102-08

Cooler Receipt And Preservation Check Form

Project/Client E&E Submission Number_____.

Cooler received on 8/3/07 by: RG **COURIER:** CAS (UPS) FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO			
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO			
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO			
4.	Did any VOA vials have significant air bubbles?	YES	NO	(N/A)		
5.	Were **Ice** or **Ice packs** present?	(YES)	NO			
6.	Where did the bottles originate?	(CAS/ROC)	CLIENT			
7.	Temperature of cooler(s) upon receipt:	4°				
	Is the temperature within 0° - 6° C?:	(Yes)	Yes	Yes	Yes	Yes
	If No, Explain Below	No	No	No	No	No

Date/Time Temperatures Taken: 8/3/07 @ 1740

Thermometer ID: 161 or (IR GUN) Reading From: Temp Blank or (Sample Bottle)

If out of Temperature, Client Approval to Run Samples_____

PC Secondary Review: 8/6/07

Cooler Breakdown: Date : 08/06/07 by: _____

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		(N/A)

Explain any discrepancies: _____

		YES	NO	Sample I.D.	Reagent	Vol. Added	Final pH
pH	Reagent						
≥12	NaOH						
≤2	HNO_3						
≤2	H_2SO_4						
Residual Chlorine (+/-)	for TCN & Phenol						

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH_____

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments:

PC Secondary Review: 8/8/07